Downtown Redmond Link Extension

City of Redmond
Critical Areas Report

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Prepared for

Central Puget Sound Regional Transit Authority
401 S. Jackson Street
Seattle, WA 98104

Prepared by

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104
T. 206.394.3700 F. 1.855.542.6353
www.parametrix.com

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ACRONYMS AND ABBREVIATIONS

AAHSTO	American Association of State Highway and Transportation Officials
BA	Biological Assessment
BMP	Best Management Practice
CARA	critical aquifer recharge area
cfs	cubic feet per second
City	City of Redmond
Corps	U.S. Army Corps of Engineers
CSZ	Cascadia Subduction Zone
CWA	Clean Water Act
dbh	diameter at breast height
DCM	(Sound Transit) Design Criteria Manual
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FFA	frequently flooded area
FGDC	Federal Geographic Data Committee
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FWHCA	fish and wildlife habitat conservation area
GHA	geologically hazardous area
HGM	hydrogeomorphic
IBC	International Building Code
LWD	large woody debris
m	meter
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high water mark

ACRONYMS AND ABBREVIATIONS (CONTINUED)

PGIS	pollution-generating impervious surface
PHS	Priority Habitats and Species
Project	Downtown Redmond Link Extension Project
ROD	Record of Decision
ROW	right-of-way
RZC	Redmond Zoning Code
SEPA	State Environmental Policy Act
SMA	Shoreline Management Act
SMP	Shoreline Master Program
SR	State Route
SP	sample plot
SSDP	Shoreline Substantial Development Permit
ST2	Sound Transit 2
ST3	Sound Transit 3
SWPPP	Stormwater Pollution Prevention Plan
TMDL	total maximum daily load
TPSS	traction power substation
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WRIA	Water Resource Inventory Area
WSDOT	Washington State Department of Transportation

1. INTRODUCTION

The Downtown Redmond Link Extension Project (the Project) will add 3.4 miles of light rail and two new light rail stations from the interim terminus of the Redmond Technology Station to downtown Redmond (Figure 1-1; Appendix A). The majority of the light rail facility, including both stations, will be within the Redmond city limits.

The purpose of this report is to demonstrate project compliance with the City of Redmond's (City) critical areas regulations (Redmond Zoning Code [RZC] Chapter 21.64) in support of a City Shoreline Substantial Development permit (SSDP) application. This report address all five critical areas regulated under RZC Chapter 21.64 for the entire project, including fish and wildlife habitat conservation areas (FWHCAs), wetlands, frequently flooded areas (FFAs), geologically hazardous areas (GHAs), and critical aquifer recharge areas (CARAs).

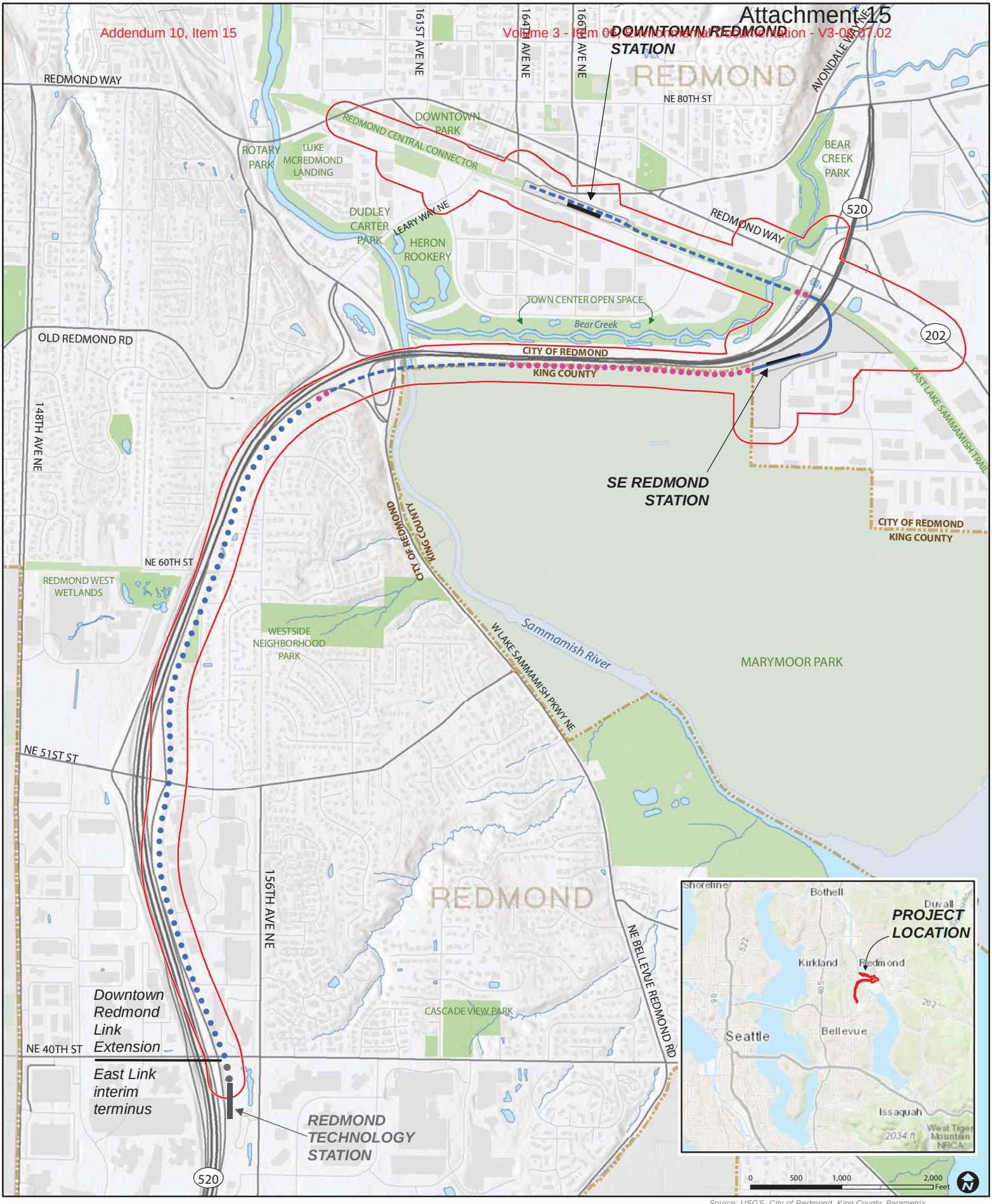
A portion of the rail alignment will be within Marymoor Park, in unincorporated King County. Critical areas and buffers that are outside of City jurisdiction are not discussed in detail in this report, but shown in the Project conceptual design drawings (Appendix A). Sound Transit has prepared a separate critical areas report to demonstrate project compliance with King County's shoreline management and critical areas regulations (Parametrix 2018a).

1.1 Background – East Link Light Rail Transit Project

The Project is a component of the larger East Link Light Rail Transit Project. Sound Transit, Washington State Department of Transportation (WSDOT), and the Federal Transit Administration (FTA) issued the East Link Project Final Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) in July 2011. The EIS evaluated approximately 18 miles of light rail, and the study area was divided into five segments. Segment E included the City of Redmond portion of the study area from Redmond Technology Station (formerly called the Overlake Transit Center Station) to downtown Redmond. Three build alternatives, in addition to the No Build Alternative, were considered in Segment E, as well as four station locations.

The Final EIS and Record of Decision (ROD) identified Marymoor Alternative E2 as the Preferred Alternative in Segment E (FTA et al. 2011; FTA 2011; Federal Highway Administration [FHWA] 2011). This alignment was selected by the Sound Transit Board in 2011 as part of the East Link Project, although at the time Segment E was not funded for construction and operation. Both the Final EIS and the ROD noted that the Sound Transit 2 (ST2) Plan does not provide sufficient funding for Segment E; therefore, the Redmond Technology Station was selected as the interim terminus. In 2011, Sound Transit deferred further work on an extension to the downtown Redmond terminus until funding became available.

Preliminary engineering to extend light rail from the Redmond Technology Station to downtown Redmond resumed in 2016, and funding for constructing this extension was approved by voters in the Sound Transit 3 (ST3) Plan. As part of ST3, the Sound Transit Board identified 2024 as the start of operation—1 year after East Link begins operating to the interim terminus at the Redmond Technology Station. The portion of the full length East Link corridor referred to as Segment E in the Final EIS has been renamed as the Downtown Redmond Link Extension Project.



Alignment
- At-Grade
- Elevated
- Retained Fill
- Retained Cut

- Station Platform
- Station Area
- Study Area

Source: USGS, City of Redmond, King County, Parametrix

Figure 1-1
Vicinity Map
Downtown Redmond Link Extension

1.2 Project Delivery Method

The Project will be constructed under a design-build delivery model. Sound Transit has prepared contract documents, including plans (see Appendix A), specifications, special conditions, and project requirements, to define the scope and extent of the Project. The contract documents identify the required project alignment, the horizontal and vertical profile track, and location of stations and other facilities. This level of project planning, documentation, and design is consistent with the common and usual level of information developed to support applications for land use permitting for linear transportation projects of this scale and complexity. The contractor who is selected to build the Project will have some flexibility to adjust some design elements, but only within the parameters specified in the contract documents.

1.3 Project Location and Description

The Project is described below in three geographic sections: Redmond Technology Station to Sammamish River (Stations EB 4995+00 to EB 5080+00), Sammamish River to Bear Creek (Stations 5080+00 to 5140+00), and Bear Creek to Downtown Redmond (Stations 5140+00 to EB 5165+00). In addition, a proposed wetland mitigation site is located within a portion of Marymoor Park within Redmond city limits. Unless stated otherwise, the project elements described below are located within City jurisdiction.

1.3.1 Redmond Technology Station to Sammamish River

In the segment between the Redmond Technology Station and the Sammamish River, the light rail alignment will run parallel to the east side of State Route (SR) 520. The alignment will generally be at-grade with SR 520 and use retained-cut sections to cut into the hillside and pass under existing overpasses at NE 40th Street, NE 51st Street, and NE 60th Street. As the alignment follows SR 520 and curves east, it will transition to an elevated structure crossing over the West Lake Sammamish Parkway NE interchange and the Sammamish River. A traction power substation (TPSS) will be located in the vicinity of SR 520 and NE 65th Street in this segment.

1.3.2 Sammamish River to Bear Creek

The elevated guideway will cross about 50 to 60 feet above the Sammamish River. The route will then transition from elevated to a retained-fill section as it crosses the north end of Marymoor Park. The majority of this retained-fill section will be located within WSDOT right-of-way (ROW), just within Redmond city limits, with portions constructed partially or entirely within Marymoor Park, outside of the city limits.

Immediately east of Marymoor Park, the alignment enters the proposed SE Redmond Station, which will be located within the city limits. Station facilities will include a parking garage as well as circulation for transit, passenger pick-up and drop-off, and a connection to the East Lake Sammamish Trail. NE 70th Street, currently a dead-end street, will be rebuilt to serve the station and surrounding land uses and to connect to the southeast Redmond street system, consistent with the City plans. The second TPSS would be located at the SE Redmond Station.

From the SE Redmond Station, the alignment will turn to the northwest, crossing at-grade underneath SR 520 and enter the former BNSF rail corridor. The Project will require reconstruction of the SR 520 eastbound off-ramp and westbound on-ramp to provide clearance for the light rail structure. SR 202 and a short section of NE 76th Street will be slightly raised to align with the reconstructed westbound on-ramp and its intersection, which would be modified.

The project alignment will then rise to cross on a new, approximately 100 foot long bridge elevated approximately 3 feet over the 100-year floodplain of Bear Creek. Portions of several guideway support structures will be installed below the ordinary high water mark (OHWM) of Bear Creek. However, no structures will be placed within the active channel of Bear Creek; the nearest structure will be more than 10 feet from the top of the bank.

The Project will also include an at-grade trail connection between the East Lake Sammamish Trail and Redmond Central Connector Trail with a bridge over Bear Creek. The new bridge will be approximately 18 feet wide and 140 feet long, located approximately 20 feet north (upstream) of the light rail crossing. This trail connection is a missing segment of the East Lake Sammamish Trail, and the raising of SR 520 ramps makes this at-grade connection possible.

Several improvements to Bear Creek in the project corridor are proposed. The existing creosote-treated wood bridge at the former BNSF Railway corridor crossing will be removed from the stream, and portions of the fill prism upon which the railroad was built will be pulled back. Excavated fill will be removed from the floodplain of Bear Creek. The channel and floodplain of Bear Creek will be widened where the existing stream channel and floodplain are currently constricted by the bridge and the fill prism. Additional habitat improvements include placing large woody debris (LWD) in the floodplain, enhancing stream substrates, and planting native trees and shrubs in riparian and floodplain areas. Adjacent areas within the floodplain will be excavated to create more floodplain storage and off-channel habitat, and to ensure no net rise of the flood elevation in the floodway.

The channel improvement work will be designed to establish a compositionally and structurally complex ecosystem with attributes important for supporting fish and wildlife. The work will also reduce the floodplain stages upstream of the existing bridge. The floodplain will be enlarged with the removal of past floodplain encroachments.

1.3.3 Bear Creek to Downtown Redmond

After crossing over Bear Creek, the alignment will continue on an elevated structure towards downtown Redmond. The Downtown Redmond Station will span 166th Avenue NE and remain in the existing rail corridor easement on the north side of NE 76th Street. Approximately 460 feet of tail tracks for train layover and turnback operations will continue west of the station and terminate just east of 164th Avenue NE. Crossover tracks will be located just west of 170th Avenue NE in downtown Redmond.

1.3.4 Wetland Mitigation Site

A proposed wetland mitigation site (Mitigation Site 3) is located west of the Sammamish River near the Lake Sammamish outlet, within a portion of Marymoor Park and within Redmond city limits (Figure 1-2). The site would be used to provide compensatory mitigation for wetland impacts occurring within unincorporated King County, outside of Redmond city limits. The site is located outside of City's shoreline jurisdiction.

With the exception of a wetland field investigation (see Chapter 3), a complete critical areas review of Mitigation Site 3 is not yet complete. Additional critical areas information for the site will be submitted to the City as part of the Clearing and Grading Permit application.

Source: USGS, City of Redmond, King County, Parametrix

0 0.125 0.25 0.5 Miles

Study Area
Parcels

Figure 1-2
Mitigation Site 3 Vicinity Map
Downtown Redmond Link Extension

1.4 Study Area

Consistent with the requirements of RZC 21.64.010(C), the study area for this critical areas assessment includes the critical area and buffer areas that have potential to be significantly impacted by regulated activities within the project footprint. The project footprint consists of the construction limits (i.e., the maximum extents within which clearing, grading, and the operation of construction machinery will occur, as shown in the conceptual design drawings in Appendix A) for the alignment and the areas within the vicinity of stations, maintenance facilities, park-and-ride lots, TPSS, and roadway widening.

The study area for wildlife habitat consists of the project footprint, plus the areas within 200 feet of either side of the project alignment. For wildlife, the study area includes areas in which project construction could affect habitat quality for wildlife species that may use habitats in the area. Habitat evaluations include the vegetation assessment data. Project biologists also reviewed documented occurrences of sensitive wildlife species within 0.25 mile of project construction areas to study wildlife potentially affected by project-related noise and human activity.

Consistent with the requirements of the City's critical areas code, the study area for wetlands and streams extends 300 feet from the limits of the project footprint. On-the-ground delineations were conducted within 200 feet of the project footprint limits, with wetland and stream resource conditions estimated beyond that area. In some areas, property access restrictions limited the extent of on-the-ground wetland surveys. This is the area in which existing information about wetlands and streams was gathered and reviewed. Field studies were conducted within a more limited area, based on the maximum width of the regulatory buffers that may be established for wetlands or streams found in the study area. In areas with limited property access, estimates of wetland extents and ratings were based on aerial photography, topographic maps, and other background sources, as well as attributes visible from publicly accessible areas.

1.5 Critical Areas in the Project Vicinity

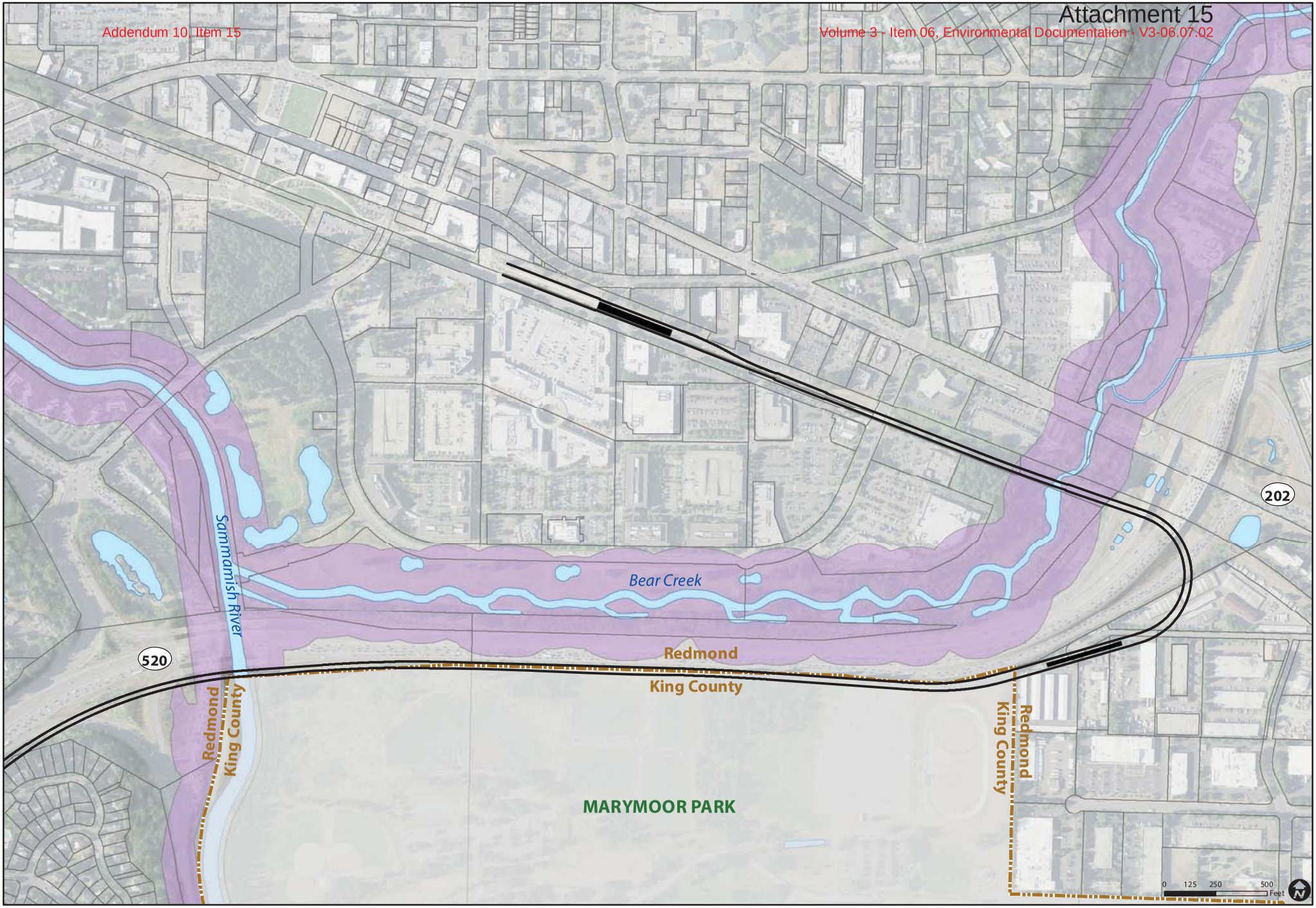
All five of the critical areas regulated under RZC Chapter 21.64 are located within the project vicinity and are described in detail in the following chapters:

- Chapter 2: Fish and Wildlife Habitat Conservation Areas
- Chapter 3: Wetlands
- Chapter 4: Frequently Flooded Areas
- Chapter 5: Geologically Hazardous Areas
- Chapter 6: Critical Aquifer Recharge Areas

These chapters include details on specific critical area features, impacts to such areas from the Project, regulatory considerations, and mitigation measures. Additionally, a stream and wetland mitigation plan is presented in Chapter 7, and references are listed in Chapter 8.

1.5.1 Relationship with Shoreline Master Program

Two portions of the Project are located within designated shorelines of the state, which are subject to the City's Shoreline Master Program (SMP) (RZC 21.68) in accordance with the Shoreline Management Act (SMA). These include the Sammamish River, Bear Creek, areas extending landward 200 feet from the water's edge, and associated wetlands (RZC 21.68.020). Figure 1-3 identifies the extent of City shoreline jurisdiction within the project study area. On the Project conceptual design drawings (Appendix A),



Guideway
Station Platform
Parcel
City Limits
Redmond Shoreline Jurisdiction

Source: King County, Parametrix, City of Redmond

Figure 1-3
Redmond Shoreline Jurisdiction
Downtown Redmond Link Extension

Redmond shoreline jurisdiction is located approximately between Stations EB 5080+00 and EB 5085+00 (Sammamish River) and Stations 5135+00 and EB 5145+00 (Bear Creek). Waterward of the OHWM, both streams are designated as "aquatic." Adjacent shorelands along both streams are designated as "urban conservancy" (City of Redmond 2009). Pursuant to RZC 21.68.030.A(2)(b), the City's critical areas regulations (RZC Chapter 21.64) apply within shoreline jurisdiction.

According to RZC 21.68.060(B)(3)(c), "Regional light rail transit structures and facility" and "trails" are both permitted uses within the urban conservancy shoreline environment. Sound Transit is seeking a City of Redmond SSDP to construct light rail structures over both the Sammamish River and Bear Creek, as well as a bridge over Bear Creek to connect the East Lake Sammamish Trail to the Redmond Central Connector Trail. See *City of Redmond Shoreline Substantial Development Permit Application* (Parametrix 2018b) for additional details.

1.6 Author Qualifications

The authors of this document and the supporting technical reports, as well as their professional qualifications, are as follows:

- Adam Merrill, scientist/ecologist, M.S. Resource Management, 14 years of experience
- Mike Hall, wildlife biologist, Senior WSDOT Certified Biological Assessment (BA) Author, B.A. Music History, 27 years of experience
- Josh Wozniak, Professional Wetlands Scientist, M.S. Molecular Biology, 25 years of experience
- Trey Parry, wetlands scientist, M.S. Environmental Horticulture, 4 years of experience
- Kaylee Moser, wetlands scientist, B.S. Wildlife Biology, 5 years of experience
- Steve Krueger, fisheries biologist, B.S. Fisheries and Wildlife Management, 27 years of experience
- Paul Fendt, PE, water resources engineer, B.S. Geological Engineering, 35 years of experience
- David Findley, LE, LEG, engineering geologist, M.S. Geology, 38 years of experience
- John Hanson, PE, engineer, B.S. Civil Engineering, 12 years of experience
- M. Birkan Bayrak, PhD, PE, geotechnical engineer, Ph.D. Civil Engineering, 17 years of experience
- Carly Schaffer, geotechnical engineer, M.S. Geosystems Engineering, 4 years of experience

1.7 Report Assumptions and Accuracy

This report describes the extent, magnitude, duration, and character of impacts on critical areas for those portions of the Project located within the Redmond city limits. Impacts are quantified where necessary (e.g., area of wetland or vegetation impacts) based on Sound Transit's conceptual design drawings (Appendix A), dated November 28, 2018.

The process of analyzing and estimating project impacts requires a series of assumptions regarding the physical extent of impacts, the duration of impacts, site restoration following construction, and measures that would be implemented to avoid or minimize potential impacts. This includes temporary construction impacts (between the permanent project ROW and the construction limits) and permanent operational impacts within the project ROW. Critical area assumptions and impact calculations will be updated during final design.

For analysis purposes, Sound Transit assumed that all lands within the construction limits would be disturbed during construction and that all vegetation would be removed.

2. FISH AND WILDLIFE HABITAT CONSERVATION AREAS

Regulated FWHCAs within the City include (RZC 21.64.020[1]) the following:

- Areas with which species of concern have a primary association
- State priority habitats and areas associated with state priority species
- Habitats and species of local importance
- Naturally occurring ponds under 20 acres
- Waters of the state
- Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity
- Land essential for preserving connections between habitat blocks and open spaces

The study area includes five of the seven FWHCAs. There are no naturally occurring ponds and waters that are planted with game fish within the study area, so those FWHCAs are not addressed in this report. In accordance with the City's critical areas reporting requirements, wildlife species and habitats are discussed separately from streams and aquatic species (Sections 2.1 and 2.2, respectively). Section 2.3 identifies management recommendations for development impacting species of concern, priority species, and species of local importance. Section 2.4 summarizes applicable regulatory requirements as specified in the RZC. Potential impacts to fish and wildlife habitat conservation areas, along with proposed conservation measures, are summarized in Section 2.5. Scientific names of species known or expected to be present in the study area are included Appendix B.

2.1 Wildlife Species and Habitats

This section describes the extent, function, and value of wildlife habitat that might be affected by construction or operation of the Project. Discussions in this section also evaluate the potential presence of species or habitats of concern in the study area.

2.1.1 Methods

Before conducting field reviews, literature and data reviews were conducted to identify and characterize potentially affected wildlife species and habitats in and near the study area. The maps and other existing documents that were an important resource for this undertaking are listed below.

- Endangered Species Act (ESA) listing information from the U.S. Fish and Wildlife Service (USFWS)
- USFWS Critical Habitat Maps for Threatened and Endangered Species (USFWS 2017b)
- National Wetlands Inventory (NWI) data (USFWS 2017)
- King County Area Washington Soil Survey (Natural Resources Conservation Service [NRCS], U.S. Department of Agriculture [USDA] 2017)
- Priority Habitats and Species (PHS) data (Washington Department of Fish and Wildlife [WDFW] 2017a)
- Washington State Department of Natural Resources (WDNR) Natural Heritage Program database (WDNR 2016)

- Aerial photography of the project corridor (including the King County aerial photography database and Google Earth database)
- Best available science review for the King County critical areas ordinance (King County 2004)
- Wetland and stream mapping by King County (King County 2017a)
- Critical area maps (City of Redmond 2005a and 2016a)
- East Link Project Ecosystems Technical Report and supporting materials (Sound Transit 2011)
- Information from websites and agency interviews about sensitive and protected species and habitat
- Environmental Assessments (EAs), EISs, and other documentation prepared for other projects in the Downtown Redmond Link Extension project area, such as Phase II of the Redmond Central Connector Multi-Use Nonmotorized Trail Project (GeoEngineers 2010) and SR 520, Medina to SR 202: Eastside Transit and HOV Project, Ecosystems Discipline Report (WSDOT 2009)
- Sound to Sage: Breeding Bird Atlas of Island, King, Kitsap, and Kittitas Counties, Washington (Opperman et al. 2006)
- eBird: An online database of bird distribution and abundance (eBird 2017)
- Recent studies of wildlife use of habitats in the study area (e.g., King County 2014; Friends of Marymoor Park 2016; Seattle Audubon Society 2017)

Using field observation, aerial photographs, and pertinent literature, project biologists delineated and classified cover types (land cover) in the study area. Cover type classifications were based on structural characteristics and dominant plant species composition. Observations of noxious or invasive species were also recorded. The biologists worked with spatial analysts to develop maps showing the delineated vegetation communities and habitat types, as well as locations of special habitat features identified during field surveys, priority habitats and species identified by WDFW, rare plant populations identified by the Natural Heritage Program, and other key ecological features needed to analyze impacts of the Project. Sensitive information regarding the locations of proposed, candidate, and listed species and habitats are described in this report but not mapped to protect the integrity of this information.

To support the analysis of effects on wildlife, project biologists identified wildlife species that are associated with the land cover types in the study area, and with specific habitat elements within each cover type. Project biologists identified the relative function of each plant community in providing habitat for wildlife, based on field observations, literature review, professional opinion, and agency consultation. Project biologists also assessed locations of known ecologically sensitive areas and important wildlife occurrences that may be sensitive to disturbance from noise or human presence. The assessment included a review of site-specific wildlife data, including bird surveys, supplemented with data gathered during field visits. The wildlife species assessed include ESA-listed species and other species with regulatory status under the RZC.

2.1.2 Results

The study area is dominated by developed lands, primarily SR 520 and neighboring commercial, industrial, and residential areas. Some patches of undeveloped land are present around Bear Creek and along the eastern side of the SR 520 ROW west of the Sammamish River. The following subsections describe vegetation cover types in the study area, summarize existing habitat functions and values,

describe wildlife use, and identify species and habitats of concern (including Core Preservation Areas and quality habitat areas) in the study area.

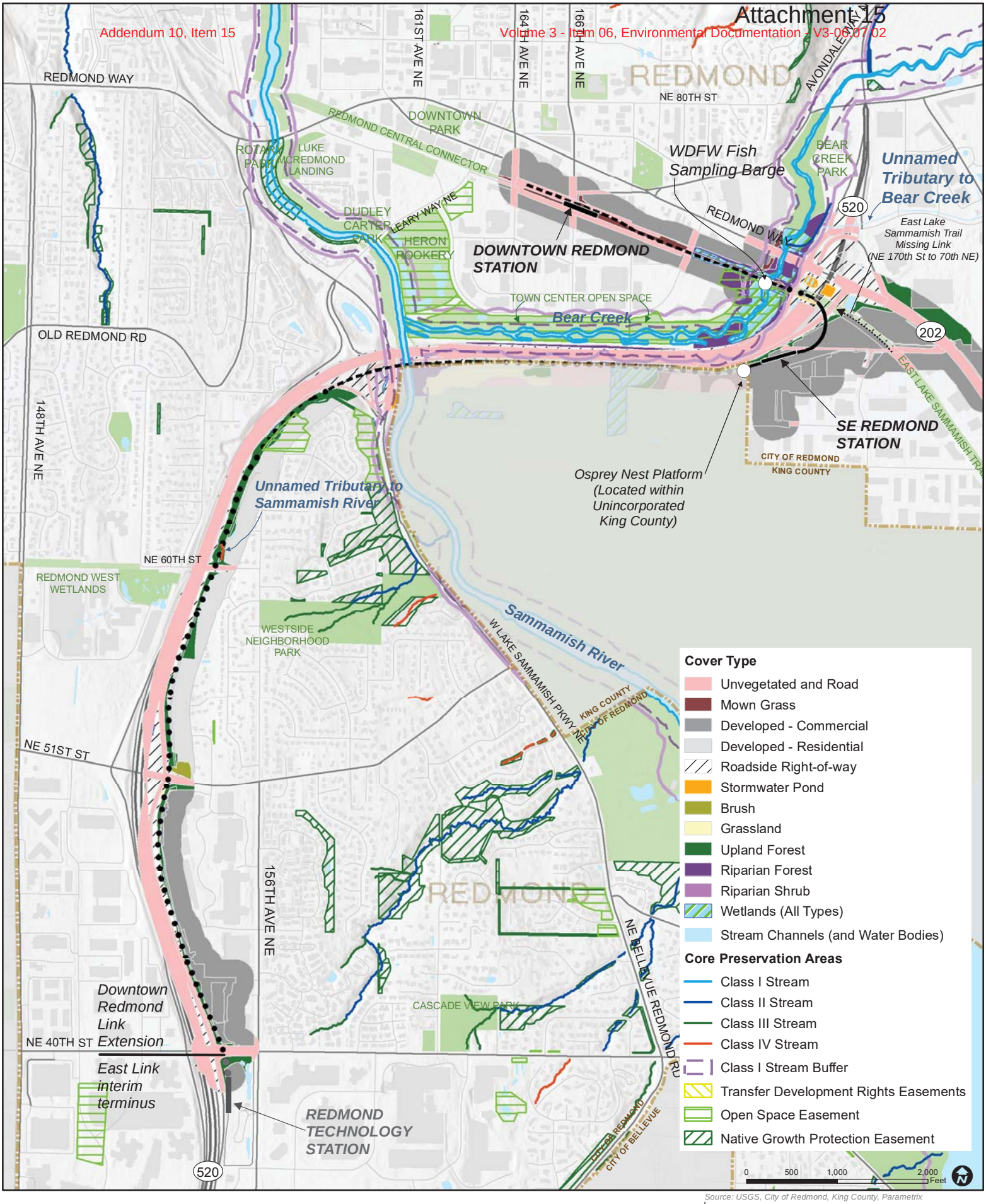
2.1.2.1 Vegetation and Wildlife Habitat

There are no documented occurrences of rare plants or priority ecosystems within several miles of the study area (WDNR 2017). No rare species or priority ecosystems (according to WDNR definitions) were observed during field surveys.

Project biologists identified 15 cover types in the study area (Figure 2-1). Table 2-1 summarizes the characteristics and relative habitat value of each cover type, based on habitat structure, disturbance types and frequency, and time required for recovery following clearing. Wildlife habitat values were not attributed to each occurrence of a cover type along the project corridor but instead were assigned to the cover type as a whole. The acreage of each cover type in the study area is also shown. Habitat value within a cover type at a specific location can vary and depends on several factors, including size of the habitat patch; presence of (or proximity to) other valuable habitat; level and type of human disturbance; diversity of plant species; presence of multiple cover layers (i.e., tree, shrub, forb, and emergent layers); presence of threatened, endangered, or sensitive species; and extent of invasive weed presence.

City Habitat Unit Assessment Forms were completed for the cover types in the study area (Appendix C). The forms identify any priority species associated with each cover type and characterize the community diversity, vegetation layers, and the presence of invasive species. Habitat value scores for the cover types ranged from 1 (Unvegetated and Road) to 22 (Forested Wetland). For this analysis, high-quality habitat was defined as cover types with a score of 13 or greater. The following cover types meet that criterion: Upland Forest, Riparian Forest, Riparian Shrub, Forested Wetland, Scrub‑shrub Wetland, and Stream Channels. The community diversity, interspersion, continuity, forest vegetation layers, forest age, and relatively low proportion of invasive plants in these cover types contribute to their potential to provide high-quality habitat for wildlife.

The study also includes several areas of edge habitat, where two cover types with distinct structural characteristics abut one another (e.g., an area of mown grass bordering a patch of forest) (Figure 2-1). Such areas may support diverse wildlife communities, with species present from both habitat types. On the other hand, species that thrive in edge habitats are typically the more common species, such as raccoons and American crows, which can prey on the nests of less common species that need contiguous habitat away from edges.



Source: USGS, City of Redmond, King County, Parametrix

Alignment
- At-Grade
- Elevated
- Retained Cut/Fill

Station Platform
Parks / Open Space

Key Habitat Feature
Redmond Shoreline Jurisdiction

Figure 2-1
Vegetation and Wildlife Habitat
Downtown Redmond Link Extension

Table 2-1. Cover Types and Associated Wildlife Habitat Value for Downtown Redmond Link Extension Project

Cover/Habitat Type (approx. acres in study area)	Description	Habitat Value
Unvegetated and Road (5 acres)	Paved roadways; these areas lack wildlife habitat features and are a risk to wildlife. Also includes parking lots and artificially surfaced playfields.	None.
Developed—Commercial (32 acres)	Business properties that are dominated by buildings and parking areas. Some trees and patches of understory occur. The understory is highly disturbed and many non-native species are present.	Low. Some tree canopy habitat is available for birds and squirrels.
Developed—Residential (15 acres)	Private homes and neighborhoods including buildings, sidewalks, streets, and yards. Tree and overall vegetation cover is greater than in commercial areas. The understory is disturbed and many non-native species are present. Risk to wildlife from domestic animals is greater than in commercial areas.	Generally low but variable. Some tree canopy habitat is available for birds and squirrels. Some yards are managed to support native wildlife habitat by retaining native vegetation. Others are highly altered and are disturbed regularly by mowing, pesticide application, and pet use.
Roadside Right-of-way (22 acres)	Areas along roadways that are maintained for vehicular safety with mowing and herbicide application. These areas are disturbed regularly with maintenance actions, roadway noise, and pollution. These areas are dominated by non-native grasses and forbs and invasive species.	Low. There is very limited habitat structure and the periodic maintenance disturbance is very high. These areas may provide some browsing habitat for herbivores such as deer, rabbits, and rodents, and some limited foraging habitat for birds.
Mown Grass (<0.5 acre)	This cover type includes regularly mown turf grass areas, including mown grass roadside areas.	Low. There is very limited habitat structure and the disturbance is very high. These areas may provide some browsing habitat for herbivores such as deer, rabbits, and rodents, and some limited foraging habitat for birds. This habitat type would be quick to re-establish to current conditions after disturbance.
Grassland (3 acres)	This habitat type is represented by stands of unmown, or infrequently mown grass habitat.	Medium. Although dominated by an invasive species, grasslands do provide habitat to support species adapted to meadows and open areas. The infrequent disturbances in these areas and structural complexity of the tall grass provide resources for a variety of mammals, reptiles, and birds. This habitat type would be quick to re-establish to current conditions after disturbance.
Brush (2 acres)	This habitat type includes patches of blackberry, as well as areas of horticultural varieties and native shrubs.	Medium. Areas include native and non-native shrubs. Native shrubs support native wildlife species throughout their life histories. However, thickets of blackberry and other invasive shrubs do provide good perching, nesting, and hiding habitat for small birds, reptiles, and mammals, including foraging habitat for some species.

Table 2-1. Cover Types and Associated Wildlife Habitat Value for Downtown Redmond Link Extension Project

Cover/Habitat Type (approx. acres in study area)	Description	Habitat Value
Upland Forest (18 acres)	All areas that are dominated by trees that are outside of riparian areas or wetlands. Trees are primarily native species, but non-native species occur in planted locations along roadways and in developed areas.	High. Diverse structural complexity; relatively long time to recover this habitat following disturbance.
Riparian Forest (10 acres)	Areas dominated by trees within approximately 200 feet of the OHWM of streams and rivers.	High. Diverse structural complexity; relatively long time to recover this habitat following disturbance. The proximity to streams further elevates the value of this habitat to wildlife and aquatic processes.
Riparian Shrub (<0.5 acre)	Areas dominated by shrubs within approximately 200 feet of the OHWM of streams and rivers.	High. Moderate structural complexity; short time to recover this habitat following disturbance. The proximity to streams further elevates the value of this habitat to wildlife and aquatic processes.
Forested Wetland (5 acres)	Wetland areas dominated by trees.	High. Diverse structural complexity; relatively long time to recover this habitat following disturbance. The wetland functions further elevate the value of this habitat to wildlife and aquatic processes.
Scrub-shrub Wetland (1 acre)	Wetland areas dominated by shrubs.	High. Diverse structural complexity. The wetland functions further elevate the value of this habitat to wildlife and aquatic processes.
Emergent Wetland (1 acre)	Wetland areas dominated by grasses and forbs.	Medium. Moderate structural complexity. The wetland functions further elevate the value of this habitat to wildlife and aquatic processes.
Stream Channels (<0.5 acre)	Relatively non-vegetated stream and river channels. Some submerged aquatic vegetation is present.	High. Many in-stream processes elevate the value of this habitat to aquatic wildlife.
Stormwater Ponds (1 acre)	Areas excavated specifically to detain and manage stormwater from impervious areas. Most areas are dominated by non-native grass species and are maintained through mowing and dredging.	Low. The limited structural diversity and periodic disturbance regime limits the value to wildlife. The ponded habitat tends to have a highly variable water table and polluted water source, severely limiting the value of the habitat to aquatic species.

2.1.2.2 Terrestrial Wildlife

Wildlife use of habitats in urban landscapes depends on the general location of the habitat, the size and type of undisturbed habitats, the degree of connectivity and extent of travel corridors between and among these habitats, and the types and levels of human activity. Much of the study area falls within commercial, industrial, and residential areas that provide habitat only for adaptable species such as house sparrows, starlings, doves, rats, mice, raccoons, opossums, and squirrels. Birds such as common pigeons and cliff swallows commonly build nests on bridges and road overpasses, and many bat species

use such structures as temporary roosting sites. Animals that use habitats in the study area are also exposed to high noise levels associated with traffic on SR 520 and major arterial roadways.

Larger habitat patches and those connected to other natural areas or heavily vegetated residential neighborhoods support a larger variety of species, such as songbirds, raptors, small mammals, coyotes, and black-tailed deer. Songbird species commonly found in habitats similar to those in the study area include American robin, song sparrow, Steller's jay, American crow, spotted towhee, black-capped chickadee, white-crowned sparrow, northern flicker, Bewick's wren, and red-breasted nuthatch. Raptors include American kestrel, sharp-shinned hawk, Cooper's hawk, red-tailed hawk, and great horned owl. Red-tailed hawks and other raptors prey on voles that are found in abundance in the grassy vegetation in the SR 520 ROW.

Most patches of forest cover in the study area are fragmented and separated from surrounding habitat areas by commercial and residential developments and roads. Despite their isolation, these areas still provide habitat for forest-associated resident and migratory songbirds, as well as for hawks, owls, woodpeckers, and small mammals.

Rivers and streams are used as travel corridors by many wildlife species, including semi-aquatic species such as muskrat, mink, otter, frogs, salamanders, turtles, and snakes (Jackson 2003). Despite the widespread urbanization of the study area, riparian areas along the streams may serve as connective corridors between pockets of wildlife habitat. In general, however, patches of forest and other native habitat types in the study area are isolated from other areas of similar habitat and do not serve as connective corridors to other areas of habitat outside of the study area.

There are habitats with less disturbance along the riparian corridors of the Sammamish River and Bear Creek. Wildlife species that use the riparian corridors include bald eagle, osprey, belted kingfisher, beavers, and deer. A restoration project has been implemented along the banks of Bear Creek upstream and downstream from the future light rail crossing of the creek. Non-native vegetation has been removed and replanted with native shrubs and tree saplings.

2.1.2.3 Habitats and Species of Concern

Habitats of concern include priority habitats identified by WDFW, along with City of Redmond Core Preservation Areas and areas of high-quality habitat. The only priority habitats identified by WDFW (2017a) in the study area are the Sammamish River, Bear Creek, and a wetland complex associated with Bear Creek downstream of NE Redmond Way. Wetlands are addressed in Section 3, Wetlands. High-quality habitats are identified in Section 2.1.2.1, above.

Some portions of the study area are considered Core Preservation Areas by the City of Redmond (Figure 2-1). Core Preservation Areas are defined as areas that protect habitat and are preserved through any of the regulatory mechanisms provided in the RZC. Such areas include Native Growth Protection Areas, Class I streams and their buffers, Class II through IV streams, and areas protected through open space easements or transfers of development rights (RZC 21.78).

As defined in RZC 21.78, species of concern are those listed as state endangered, state threatened, state sensitive, or state candidate, as well as species listed or proposed for federal listing as threatened or endangered under the ESA. No terrestrial species listed or proposed for listing under the ESA are known or expected to use habitats in the study area. The only such species whose presence in the study area has been documented by WDFW (2017a) are fish, which are discussed in Section 2.2.2 below. Appendix B identifies amphibians, reptiles, and mammals that have been observed in the study area, as well as bird species that have been observed and/or that are known or expected to breed in habitats in the vicinity. Discussions in this section address the potential for wildlife species of concern to have a primary

association with terrestrial habitats in the study area. WDFW priority species and City of Redmond species of local importance are also addressed. The only species of local importance in the City is the great blue heron (RZC 21.64.020.A.2.b).

Based on reviews of the distribution and habitat associations of state-listed and federally listed species, state priority species, and species of local importance, project biologists identified wildlife species of concern that may use habitats in the study area (i.e., non-marine habitats in lowland urban and residential settings, excluding unique habitats such as old-growth forest or sphagnum bogs). Table 2-2 presents the regulatory status of these species and summarizes each species' known or expected use of habitats in the study area. Accounts of breeding behavior are based on information provided in Appendix B.

Table 2-2. Wildlife Species of Concern[a] in the Study Area

Species	Status[b]	Habitat Use in Study Area
Amphibians		
Western toad	SC, SPS	No recent records. May breed in permanent wetlands, ponds, lakes, and off-channel habitats or rivers; adults may move up to a few miles through uplands.
Birds		
Bald eagle	SPS	Common year-round; breeds in Marymoor Park. Nests in prominent trees near large waterbodies; feeds primarily on fish. No nest territories in study area.
Band-tailed pigeon	SPS	Common during breeding season, occasionally seen at other times; breeding possible. Nests in trees, often favoring open sites bordered by tall conifers. Mineral springs provide important nutrients.
Barrow's goldeneye	SPS	Occasional visitor to Lake Sammamish during winter.
Brant	SPS	Rare winter visitor to Marymoor Park.
Common goldeneye	SPS	Common winter visitor to Lake Sammamish.
Common loon	SS, SPS	Occasional visitor to Lake Sammamish.
Great blue heron	SPS, RSLI	Common year-round; breeding confirmed. Nests in mature forests, forages in shallow, slow-moving, or calm water. There is a nesting colony in Marymoor Park, approximately 3,200 feet south of the proposed alignment.
Hooded merganser	SPS	Common year-round; breeding possible. Nests in tree cavities near small, forested, freshwater wetlands with emergent vegetation. Low-elevation freshwater lakes, ponds, sloughs, and slow-moving rivers are all used.
Peregrine falcon	SPS	Occasionally seen at all times of year. No nesting habitat (cliffs and cliff-like structures) nearby.
Pileated woodpecker	SC, SPS	Occasionally seen year-round; breeding possible. Requires forested habitats with large trees and snags.
Purple martin	SC, SPS	Uncommon during breeding season. Nests in tree cavities or artificial structures over water; feeds over open land near water. Regularly seen using nest gourds at north end of Lake Sammamish.
Trumpeter swan	SPS	Occasional winter visitor to Marymoor Park.
Tundra swan	SPS	Rare winter visitor to Marymoor Park.
Vaux's swift	SC, SPS	Common during breeding season; breeding possible. Nests and roosts in natural cavities with vertical entranceways, such as hollow trees and snags, in areas of coniferous or mixed forest.

Table 2-2. Wildlife Species of Concern[a] in the Study Area

Species	Status[b]	Habitat Use in Study Area
Western grebe	SC, SPS	Fairly common, winter; rare, summer. Generally found on open water.
Wood duck	SPS	Common in summer, uncommon during winter; breeding confirmed. Nests in tree cavities near wooded wetlands and slow-moving, tree-lined rivers.
Mammals		
Big-brown bat, *Myotis* bats	SPS	No known maternity or hibernation colonies or other concentrations in or near the study area. Summer roosts generally are in buildings, bridges, hollow trees, spaces behind exfoliating bark, rock crevices, or tunnels. Maternity colonies may form in attics, barns, rock crevices, or tree cavities. Caves, mines, and buildings are used for hibernation.
Townsend's big-eared bat	SC, SPS	No known maternity or hibernation colonies or other concentrations in or near the study area. Maternity and hibernation colonies typically are in caves, mine tunnels, and old buildings. Caves, tunnels, buildings, and tree cavities are used as night roosts.

Sources: eBird 2017; Friends of Marymoor Park 2016; Hallock and McAllister 2005, 2009; NatureServe 2017; Opperman et al. 2006; Seattle Audubon Society 2017; U.S. Army Corps of Engineers (Corps) and King County 2002; WDFW 2017a.

[a] Species of concern are those for which FWHCAs are established under the critical areas rules of the City of Redmond. Note that no terrestrial species listed or proposed for listing under the ESA are known or expected to use habitats in the study area.

[b] SC = Candidate for state listing; SPS = State priority species; RSLI = City of Redmond species of local importance.

Based on the findings presented in Table 2-2, the following species of concern have a primary association with habitats in the study area and are known or expected to be present:

- Band-tailed pigeon – May nest in forested habitats.
- Great blue heron – Forages along streams and in wetlands; no documented nesting colonies in study area.
- Hooded merganser – May nest in or near forested wetlands.
- Pileated woodpecker – May nest in patches of mature forest.
- Vaux's swift – May nest in patches of mature forest.
- Wood duck – May nest in or near forested wetlands.

WDFW (2017a) does not report any occurrences of any of these species in the study area, and no evidence of breeding by any of these species was observed during field investigations conducted for the Project. Observations of all of these species (except wood duck) in the study area have been reported via eBird (2017), but no records of nesting have been documented. For these reasons, none of these species is documented as having a primary association with habitats in the study area.

The USFWS Information, Planning, and Conservation System identified three ESA-listed wildlife species, and one species proposed for listing, as potentially occurring in areas that might be affected by the project (USFWS 2017b). None of these species is expected to occur in the study area, however, for the following reasons:

- Marbled murrelets, listed as threatened, require old-growth forest for nesting and marine habitat for foraging. No breeding or foraging habitat is present in the study area, and no observations have been documented within 10 miles (WDFW 2017a). The nearest location

where critical habitat has been designated for the marbled murrelet is more than 25 miles from the study area.

- Yellow-billed cuckoos, listed as threatened, require large blocks of riparian forest habitat for breeding and foraging. No such habitat is present in or near the study area. Currently, the species no longer breeds in western Canada and the northwestern continental United States (Washington, Oregon, and Montana) (79 FR 59992, October 3, 2014). No observations of this species have been documented within 10 miles of the study area (WDFW 2017a). No critical habitat for the yellow-billed cuckoo has been proposed in Washington.
- Streaked horned larks, listed as threatened, are known to occur in Washington only in portions of southern Puget Sound, along the Washington coast, and at lower Columbia River islands (78 FR 61452, October 3, 2013). Breeding habitat for streaked horned larks in Washington consists of grasslands and sparsely vegetated areas at airports, sandy islands, and coastal spits. The subspecies is largely absent from the Puget Trough during the non-breeding season; individuals observed in this area outside of the breeding season have been seen using habitats similar to those used for breeding. No such habitat is present in the study area, and the study area is not within the known range of the subspecies. The nearest location where critical habitat has been designated for the streaked horned lark is more than 100 miles from the study area.
- North American wolverines, proposed for listing as threatened, avoid people and developed areas and prefer cold and remote mountainous areas with persistent spring snow cover. No such habitat is present in the lowland, urban setting of the study area.

The study area does not include any parts of the official wildlife habitat network defined and mapped in the King County Comprehensive Plan.

2.2 Stream Species and Habitats

This section describes the physical and biological characteristics and functions and values of streams that may be affected by construction or operation of the Project. For each of the four streams identified in the study area, discussions in this section address the following critical areas reporting requirements:

- A stream assessment, including stream classification, gradient and flow characteristics, stream bed condition, stream bank and slope stability, presence of fish or habitat for fish, presence of obstruction to fish movement, general water quality, stream bank vegetation, and stream buffer requirements.
- A riparian corridor characterization, including the capacity of the stream buffer to provide shade and temperature regulation, flood conveyance, water quality protection and pollutant removal, nutrient cycling, sediment transport, bank stabilization, woody debris recruitment, wildlife habitat, and microclimate control.
- A summary of existing fisheries habitat value, including special consideration for anadromous fisheries.

Potential alterations to streams and stream buffers, along with measures proposed to preserve the existing riparian corridors and restore previously degraded areas, are summarized in Section 2.5, Impacts and Mitigation. In addition to meeting the City's critical areas reporting requirements, discussions in this section provide baseline information to support the stream and wetland mitigation plan (Section 7, Stream and Wetland Mitigation Plan). A stream summary sheet is provided as Appendix D.

2.2.1 Methods

Before conducting field reviews, project biologists reviewed background material, including the maps and documents listed below.

- ESA listing information from USFWS and the National Marine Fisheries Service (NMFS)
- USFWS Critical Habitat Maps for Threatened and Endangered Species (USFWS 2017b)
- NWI data (USFWS 2017)
- King County Area Washington Soil Survey (NRCS, USDA 2017)
- The most recent Water Quality Assessment and Clean Water Act (CWA) Section 303(d) list prepared by the Washington State Department of Ecology [Ecology] (Ecology 2017)
- PHS data (WDFW 2017a)
- SalmonScape fish data and maps (WDFW 2018a)
- StreamNet data and maps (StreamNet 2017)
- A catalog of Washington streams and salmon utilization (Williams et al. 1975)
- Fish passage barrier maps from WDFW (2018b) and WSDOT (2018)
- Aerial photography of the project corridor (including the King County aerial photography database and Google Earth database)
- Best available science review for the King County critical areas ordinance (King County 2004)
- Water quality monitoring data (King County 2016a)
- Wetland and stream mapping by King County (King County 2017a)
- Stream flow data from the King County Hydrologic Information Center (King County 2017b)
- Critical area maps (City of Redmond 2005a, and 2016a)
- East Link Project Ecosystems Technical Report and supporting materials (Sound Transit 2011)
- Information from websites and agency interviews about sensitive and protected species and habitat
- The salmon and steelhead habitat limiting factors report for the Cedar Sammamish Basin ([Water Resource Inventory Area] WRIA 8) (Kerwin 2001)
- The final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook salmon conservation plan (WRIA 8 Steering Committee 2005)
- EAs, EISs, and other documentation prepared for other projects in the Downtown Redmond Link Extension project area, such as Phase II of the Redmond Central Connector Multi-Use Nonmotorized Trail Project (GeoEngineers 2010) and SR 520, Medina to SR 202: Eastside Transit and HOV Project, Ecosystems Discipline Report (WSDOT 2009)
- Recent studies of aquatic species and habitats in the study area (e.g., Thomas 2008; King County 2014; Kiyohara 2017; Jeanes and Morello 2016)

In the field, project biologists conducted aquatic habitat surveys 300 feet downstream and 100 feet upstream of all points where the alignment crosses a stream. Project biologists collected information about the condition of in-stream and riparian habitats, and flagged the OHWM of streams that might be affected by project construction or operation. Professional land surveyors then surveyed the flagged points.

Project biologists classified streams according to the stream classification system specified in the RZC 21.64.020(A)(2)(d). They then identified regulatory buffers based on each stream's classification, in accordance with RZC 21.64.020(B). For each stream in the study area, project biologists identified downstream impediments to fish passage. Assessments of habitat conditions were based on the premise that anadromous fish may one day be able to access the area even if they cannot under present conditions. The project biologists worked with spatial analysts to develop maps showing streams and stream buffers, as well as known or potential barriers to fish passage.

2.2.2 Results

The Project will be constructed in an urban area where aquatic habitats have been moderately to highly modified by past development. The proposed alignment lies within areas that were disturbed by the construction of SR 520 and the former BNSF Railway. Some segments of smaller streams near SR 520 have been placed in conveyance systems consisting of pipes and ditches, which interferes with natural flow patterns and processes such as groundwater recharge. The surrounding areas, with the exception of Marymoor Park, are dominated by commercial and residential development, with extensive areas of impervious surface.

The study area drains to the Sammamish River in WRIA 8, Lake Washington/Cedar/Sammamish. The eastern portion of the study area drains to Bear Creek, a tributary to the Sammamish River (Figure 2-2). Remnants of a smaller, unnamed tributary to the Sammamish River (LLID 1221262476704) flow through pipes, ditches, and surface channels paralleling SR 520 south of the Sammamish River light rail crossing. The Sammamish River discharges to Lake Washington, which drains to Puget Sound through the Lake Washington Ship Canal, an artificial waterway constructed in 1916. Both Bear Creek and the Sammamish River are classified as shorelines of the state.

The proposed Project alignment crosses the three streams described above. A fourth stream (an unnamed tributary to Bear Creek; LLID 1221079476713) has been documented near areas that will be affected by temporary clearing for construction but that will not be crossed by the project alignment. Table 2-3 summarizes regulatory information for the streams in the study area.

Table 2-3. Summary of Streams in the Study Area

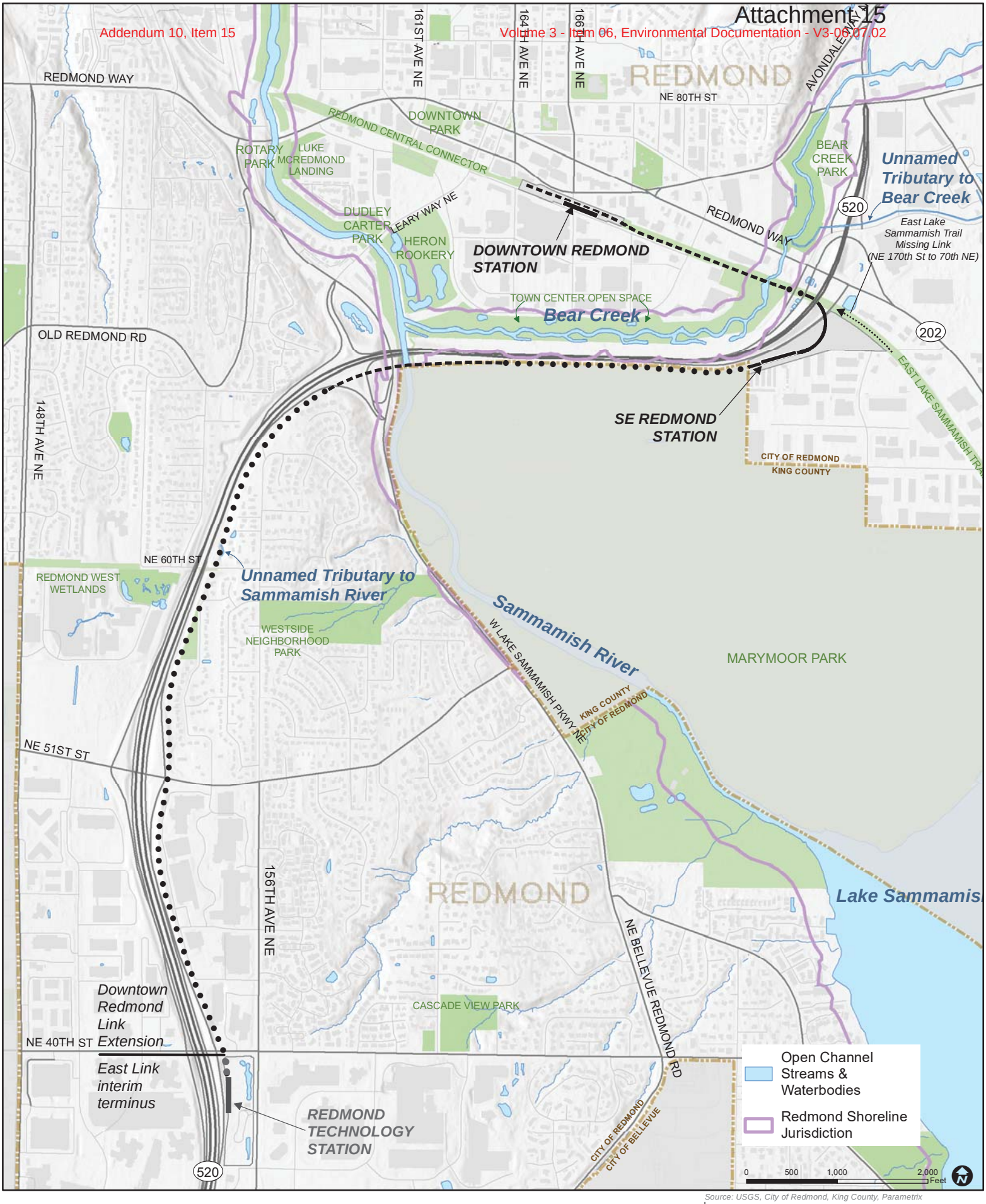
Stream Name	Stream Index No. [a]	Project Station Location (approx.) [b]	City of Redmond Stream Classification	City of Redmond Buffer Width (feet) [c]
Sammamish River	08.0057	5082+00	Class I (Shoreline of the State)	150
Bear Creek	08.0105	5139+00	Class I (Shoreline of the State)	150
Unnamed tributary to the Sammamish River (LLID 1221262476704)	N/A	5051+00	Class IV	25
Unnamed tributary to Bear Creek (LLID 1221079476713)	N/A	N/A	Class II	100 (plus 50-foot outer buffer) [d]

[a] WRIA identification numbers according to Williams et al. (1975)

[b] See conceptual design drawings (Appendix A) for station locations

[c] RZC 21.68.060.A and Table 21.64.020
N/A = not applicable

[d] According to RZC 21.64.020.B.8, clearing and grading is allowed within the 50-foot outer buffer, provided it is limited to 35 percent of the outer buffer area.



Source: USGS, City of Redmond, King County, Parametrix

Figure 2-2
Aquatic Resources
Downtown Redmond Link Extension

The following subsections describe these streams, the condition of their regulatory buffers, and their value as fish habitat. Those assessments are followed by a general discussion of fish species that are known or likely to use aquatic habitats in the study area.

2.2.2.1 Sammamish River

As a designated shoreline of the state, the Sammamish River is classified as a Class I stream by the City, thus receiving a standard buffer of 150 feet (RZC 21.68.060.A and Table 21.64.020).The following subsections describe key habitats and stream features that are directly related to ecological functions supporting stream ecosystems and that may be affected by the Project.

Stream Assessment

In general, habitat in the Sammamish River is highly degraded. Glides (one of the least desirable habitat types for salmonids) make up more than 98 percent of the river's length (Jeanes and Morello 2016). Dense aquatic vegetation, most notably Eurasian water milfoil and Brazilian elodea, is present in many areas. During a site visit in August 2017, the riverbed at and near the proposed light rail crossing site was densely vegetated with filamentous algae, common elodea, Brazilian elodea, and Eurasian water milfoil. The 1.1-mile-long reach that includes the study area provides some of the highest-quality habitat in the river, with 22 percent riffles, 3 percent pools, and 75 percent glide (Corps and King County 2002). Within the study area itself, however, only glide habitat is present, with no riffles or pools (King County 2014). The stream channel is approximately 65 to 70 feet wide. Substrates are uniformly sand and silt except directly under the SR 520 bridge, where cobble and riprap are present on the banks and in the river bed (Sound Transit 2011). LWD is essentially absent from the channel in the study area.

No Sammamish River off-channel habitat exists in the study area, and the river has very little capacity to form any such habitat due to its low gradient, deepened channel, and bank armoring. All former oxbows and sloughs have either been filled in or cut off from the river by modifications to the water level (Corps and King County 2002). Channel sinuosity is low. No physical barriers to fish passage have been identified in the Sammamish River downstream of the study area. Table 2-4 summarizes the characteristics of physical in-stream habitat in the Sammamish River in the study area.

Key restoration opportunities in this reach include temperature reduction through modification of the Lake Sammamish outflow, riparian revegetation, and creation of cool-water refuge by using groundwater sources in the reach (Corps and King County 2002).

The Sammamish River in the study area is on the current (approved July 22, 2016) 303(d) list of impaired waterbodies, based on violations of standards for dissolved oxygen, pH, and water temperature. Elevated water temperatures in the Sammamish River from July through September have been identified as a significant factor that limits production of Chinook salmon and other anadromous salmonid species during their spawning migration to Issaquah Creek, the Issaquah Creek Hatchery, Bear Creek, and other tributaries (WRIA 8 Steering Committee 2005). Daily maximum temperatures in the river near Lake Sammamish have exceeded 26.6° Celsius and are frequently greater than 20° Celsius during the summer months (Jeanes and Morello 2016). Water quality monitoring data from King County indicate an increasing trend in Sammamish River water temperatures between 1979 and 2007 (King County 2016a).

King County maintains a gauging station in the Sammamish River in Marymoor Park, approximately 0.8 mile upstream of the study area. Based on data collected from July 2001 through March 2017, the annual average discharge at that site is approximately 213 cubic feet per second (cfs) (King County 2017b). Monthly average discharges during that period ranged from 19 cfs (August 2015) to 798 cfs (January 2006). Averaged over the full data period, monthly average discharges ranged from 34 cfs (in August) to 407 cfs (in January) (King County 2017b).

Table 2-4. Characteristics of Physical In-stream Habitat in the Sammamish River in the Study Area

Parameter	Metric/Measurement	Characteristics of Sammamish River in Study Area
Channel Form and Profile	Macrohabitat—habitat type	Only glide habitat is present in the study area, with no riffles or pools.
	Macrohabitat—pool characteristics	Not applicable—no pools.
	Stream Reach Classification	Class I (Redmond), Type S (Redmond), Type 1 (Washington State)
	Stream Slope	Extremely low: < 2 feet per 10,000 feet of channel length.
	Stream Patterns	River has been extensively modified and straightened. All former oxbows and sloughs have either been filled in or cut off from the river.
	Confinement	The stream channel is confined.
	Channel Dimension/Shape	Bankfull width is 65 to 70 feet; excavated.
Streambank Condition	Stability	Banks are hardened and/or heavily vegetated; no evidence of instability.
	Bank Hardening/Revetments	Areas near and under SR 520 are armored with cobble and riprap.
Substrate/ Sediment	Particle Frequency	Predominantly silt and sand.
	Percentage of Fine Sediments/Embeddedness	Larger substrates are coated with fines but are not deeply embedded. A thick, soft layer of fine sediments is present along the stream banks.
Large Woody Debris	LWD Presence, Frequency, and Location	No LWD present. Some 2- to 4-inch-diameter, 3- to 4- foot-long logs were observed near the bank during site visits, but were mobile and not persistent.
	Debris Jams	Not applicable—no LWD.
	LWD Size	Not applicable—no LWD.
	Age and Type	Not applicable—no LWD.
Cover and Refuge	Pool Quality	No pools.
	Undercut Banks	No undercut banks, but very steep banks armored with riprap in some areas.
	Off-channel/Side-channel Habitat	Essentially absent; river has very little capacity to form any off-channel habitat due to a low gradient, deepened channel, and bank armoring. Extensive evidence of beaver activity including many felled trees and shrubs, gnaw marks, and branch-dragging trails.
	In-stream Cover/Protection	Some riprap has fallen into the river providing limited in-stream cover. Some overhanging vegetation is present. Aquatic macrophytes (primarily common elodea, Brazilian elodea, and Eurasian water milfoil) occur in patches and cover approximately 20 percent of the stream bed in the study area.

Project biologists observed several culverted discharges to the Sammamish River during site surveys. On the west bank, a 24-inch-diameter culvert discharges to the river directly under SR 520, which was assumed to be stormwater from the highway. Another larger but partially obscured culvert discharges on the same bank, immediately downstream of the SR 520 bridge. It appears to discharge water from stormwater ponds located immediately to the west, which are partially fed by piped but natural stream flow (from the unnamed tributary to the Sammamish River (LLID 1221262476704) described in Section 2.2.2.3) and road runoff. On the east bank, an 18-inch-diameter culvert occasionally

discharges water from a floodplain mitigation site and depression excavated immediately east of the river. Another 18-inch-diameter culvert discharges water collected in a stormwater swale near SR 520.

Riparian Corridor Characterization

Riparian vegetation in the reach of the Sammamish River that includes the study area is severely degraded and consists almost entirely of non-native shrubs and herbs—predominantly Himalayan blackberry and reed canarygrass (Corps and King County 2002) except for areas revegetated after the SR 520 widening project in 2009. Although the river banks in the study area are heavily armored, native and non-native shrubs (e.g., twinberry, willows, Himalayan blackberry) and young trees (primarily alder and bigleaf maple, as well as some cottonwood) have become established (Figure 2-3).

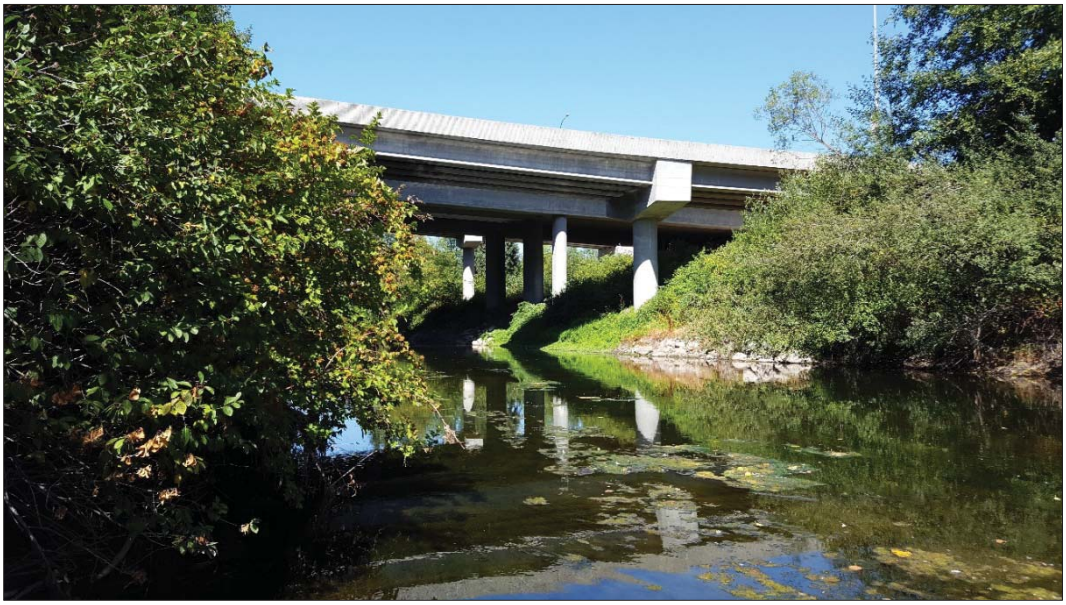


Figure 2-3. Riparian vegetation and the Sammamish River in the study area, looking north (downstream) from the left bank

The functional riparian buffer west of the river is approximately 30 feet wide and consists of a single row of deciduous trees (primarily red alder and bigleaf maple) and various native and non-native shrubs, with relatively dense cover. Beyond that distance, the buffer zone consists of (1) the 12-foot-wide paved Sammamish River Trail; (2) a 30- to 50-foot-wide vegetated area with ornamental trees, native and non-native shrubs, and mowed grasses; and (3) the 70-foot-wide roadway of West Lake Sammamish Parkway NE. The limited width and relative dearth of trees in the riparian buffer on this side of the river limits the buffer's capacity to provide shade, woody debris recruitment, wildlife habitat, and microclimate control.

Riparian vegetation on the east side of the river extends a greater distance from the river bank. Immediately south of the West Lake Sammamish Parkway on-ramp to SR 520, a 50-foot strip of riparian habitat was cleared for the highway widening project in 2009 but was subsequently replanted. The innermost 50 feet of the riparian zone in that strip is densely covered with native and non-native shrubs, along with some recently planted conifers such as shore pines. East of that area, the previously cleared strip has been planted with young coniferous trees (incense cedar). South of the previously cleared strip, the innermost portion of the riparian buffer is densely vegetated with a 40- to 60-foot-wide band of deciduous trees (red alder, cottonwood, Oregon ash, and Lombardy poplar) and shrubs. Many of the trees in this area are wrapped with fencing to protect them from beavers. Other trees have been

damaged or felled by beaver activity. The dominant shrub species are Himalayan blackberry, Scouler's willow, Sitka willow, redosier dogwood, and Pacific nine-bark. In some areas, tree and/or shrub canopy extends over the stream channel. After being interrupted by a 10-foot-wide gap for an unpaved access route, the tree canopy extends east for approximately 60 more feet. Beyond that, the riparian buffer is dominated by low-growing, primarily non-native grasses and shrubs.

Downstream (north) of the project alignment, SR 520 spans the river; riparian vegetation under the highway is very sparse. The ground surface is covered with a mixture of wood chip mulch, bare soil, and exposed riprap. Invasive species, such as hedge bindweed and Himalayan blackberry, have become established in some areas under the overpass.

The banks in the study area are densely rooted with good soil cohesion. Extensive areas of riprap have been placed along the river banks to limit erosion. Ground cover is dominated by shrubs and occupies approximately 60 percent of the riparian area. Herbaceous cover is generally sparse and dominated by non-native grasses. There are no large snags or downed logs in the study area. Small, short pieces of downed wood were observed on some site visits but appear to be mobile. The steep, hardened river banks limit the opportunity to rack woody debris or develop persistent jams.

Fish Habitat Value

The Sammamish River provides little rearing or spawning function for salmonids but serves as a migratory corridor for fish that spawn in its tributaries. Cutthroat trout spawn at the mouths of tributaries where gravel is present (Sound Transit 2011). From 1996 to 2016, volunteers from the King County Salmon Watcher Program documented Chinook, sockeye/kokanee, and coho salmon in the Sammamish River (King County 2016b). According to WDFW (2017a, 2018a), the Sammamish River in the study area provides spawning habitat for Chinook salmon. The potential for spawning in the main stem is limited, however, by high water temperatures, low water velocities, and the lack of suitable spawning substrates (Corps and King County 2002). WDFW (2017a) also reports that steelhead, sockeye, and kokanee are present in the river, and that the reach in the study area provides rearing habitat for coho salmon. Most sockeye in the river are bound for Bear Creek, and the Chinook salmon are bound for the WDFW hatchery in Issaquah (Sound Transit 2011; Jeanes and Morello 2016). The primary limiting factor for salmon in the river reach that flows through the study area is elevated temperature; other than water temperature, habitat in this reach is of moderate quality (Corps and King County 2002).

2.2.2.2 Bear Creek

As a designated shoreline of the state, Bear Creek is classified as a Class I stream by the City, thereby receiving a standard buffer of 150 feet (RZC 21.68.060.A and Table 21.64.020). The following subsections describe key habitats and stream features that are directly related to ecological functions supporting stream ecosystems and that may be affected by the Project.

Stream Assessment

The Bear Creek corridor in the study area is surrounded by developed parcels. To the west and northwest is the commercial core of downtown Redmond, which consists almost entirely of impervious surfaces. NE Redmond Way (SR 202) crosses Bear Creek approximately 250 feet north of the proposed alignment. SR 520 runs parallel to the stream south and east of the future light rail crossing. Heavily developed commercial and retail complexes are on the opposite side of SR 520 from Bear Creek to the east and southeast. A corridor of relatively undeveloped land provides some riparian habitat along Bear Creek within the study area and in adjoining reaches upstream and downstream.

A timber stringer bridge spans Bear Creek at the site of the former BNSF Railway corridor crossing. The bridge is approximately 30 feet long and 14 feet wide and was constructed on creosote-treated wood piles with abutments of horizontal wood planks resting on stone and concrete riprap. Two sets of five piles apiece support the bridge at either abutment, and a third set of six piles supports the bridge in the center of the stream (Figure 2-4). An additional 16 piles, cut off below the elevation of the OHWM, are also present in the streambed. A WDFW fish-monitoring barge is moored to this bridge. A gravel road, built on railroad bed fill, accesses the southeast side of the bridge from the westbound on-ramp to SR 520. An informal walking route occurs on the railroad fill northwest of the railroad bridge. In addition, a King County sewer line crosses the stream just upstream (north) of the railroad bridge. Sewer manholes are located on either side of the stream.

Figure 2-4. Timber bridge over Bear Creek at the location of the former BNSF Railway corridor crossing

Reaches of Bear Creek within and near the study area have been the subject of extensive habitat restoration work and contain several mitigation and restoration sites. In the late 1990s, WSDOT and the City of Redmond collaborated on habitat enhancement efforts in Bear Creek immediately adjacent to the location where the proposed alignment crosses the stream (former BNSF Railway bridge site). These efforts included riparian plantings and wetland restoration. Just upstream of the railroad bridge are two parallel culverts that carry flows to a side channel/wetland area located south of the bridge (Figure 2-5). The culverts only carry water when stream discharge is above base flow levels and may be a fish stranding hazard.

Figure 2-5. Bear Creek side channel and culverts, shown downstream of the railroad fill prism and east of the main Bear Creek channel

More recently, a major restoration effort was implemented downstream of the study area, in part as mitigation for the SR 520, I-5 to Medina Bridge Replacement and HOV Project. The restoration work, called the Lower Bear Creek Restoration Project, was designed to establish a compositionally and structurally complex ecosystem with attributes important for supporting fish and wildlife, with an emphasis on anadromous fish such as Chinook, coho, and sockeye salmon. The design included channel reconfiguration (to increase meandering), LWD placement, bank stabilization, stream gravel, native riparian plantings, and wetland creation. Adjacent uplands were excavated to create more floodplain storage and habitat associated with the new channel. Riparian and floodplain areas were planted to enhance in-stream and riparian functions such as cover, shading, LWD recruitment, bank stabilization, terrestrial insect food production, and leaf litter organic debris in support of in-stream food sources. Approximately 3,000 pieces of LWD were added to the stream channel within the bankfull width (Lawson et al. 2012). The upstream end of the recently restored reach is approximately 1,500 feet downstream of the site where the project alignment will cross Bear Creek.

Habitat in Bear Creek in the study area is a mixture of pools and runs. Substrates are predominantly gravel and cobble, with some silt and sand present. Overall spawning and rearing habitat quality in this reach is good. The stream channel was built in association with a major channel relocation and habitat enhancement project downstream of the proposed light rail crossing. More than 100 logs with rootwads have been installed in the banks of the meandering channel. This area provides both overflow channel and wetland habitat. During a site visit in August 2017, a right bank debris jam was observed approximately 100 feet upstream of the anticipated guideway crossing location. Some pieces of woody

debris were also caught on the upstream end of the timber stringer bridge at the BNSF railway corridor crossing.

When the rail corridor was constructed, fill was placed up to the bridge abutments, as shown in Figure 2-4. This constrains the flow of Bear Creek and constricts the floodplain and floodway to approximately 30 feet at the timber stringer bridge. The constriction of the bridge causes the 100-year water surface to increase by approximately 2 feet upstream of the bridge opening. No physical barriers to fish passage have been identified in Bear Creek downstream of the study area. Table 2-5 summarizes the characteristics of physical in-stream habitat in Bear Creek in the study area.

Table 2-5. Characteristics of Physical In-stream Habitat in Bear Creek in the Study Area

Parameter	Metric/Measurement	Characteristics of Bear Creek in Study Area
Channel Form and Profile	Macrohabitat—habitat type	Pools and runs.
	Macrohabitat—pool characteristics	Pools present, but scattered and generally shallow (less than 1 foot deep).
	Stream Reach Classification	Class I (Redmond), Type 1 (Washington State)
	Stream Slope	Approximately 0.2 percent.
	Stream Patterns	Stream has been restored to include meandering channel, side-channels, and backwaters.
	Confinement	The stream channel is not confined.
	Channel Dimension/Shape	Bankfull width is 20–25 feet, with a natural stream cross-section.
Streambank Condition	Stability	No evidence of instability. Minor areas of erosion and deposition are present.
	Bank Hardening/Revetments	Between SR 202 (Redmond Way) and the former BNSF Railway corridor crossing, both banks are armored with riprap.
Substrate/ Sediment	Particle Frequency	Predominantly gravel and cobble.
	Percentage of Fine Sediments/ Embeddedness	Some silt and sand are present, but embeddedness is minimal.
Large Woody Debris	LWD Presence, Frequency, and Location	LWD present as isolated pieces and in jams and, outside of the mainstem channel, in beaver dams.
	Debris Jams	Small jams occur in side channels approximately 100 feet downstream.
	LWD Size	Some pieces larger than 12 inches in diameter and more than 10 feet long are present.
	Age and Type	Mostly new, small-diameter deciduous.
Cover and Refuge	Pool Quality	Variable. Generally shallow, but some are deeper and with overhanging cover.
	Undercut Banks	Present in some areas, especially north bank, and upstream and downstream of crossing.
	Off-channel/Side-channel Habitat	Extensive off-channel habitat as a result of restoration actions.
	In-stream Cover/Protection	Extensive overhanging vegetation. Other cover is provided by the existing creosote-treated wood bridge at the former BNSF Railway corridor crossing and by the WDFW barge.

In 2008, the U.S. Environmental Protection Agency (EPA) approved total maximum daily loads (TMDLs) for fecal coliform, temperature, and dissolved oxygen for the Bear Creek watershed. Ecology has been working with tribal, federal, state, and local stakeholders to implement projects consistent with the Water Quality Improvement Plan for the watershed. Water quality improvement efforts implemented through the plan have included riparian restoration projects and educational efforts, such as encouraging people to reduce fertilizer use and pick up pet waste. Projects implemented by the City have included installing bioretention cells, pervious pavement, a stormwater trunk line, a stormwater wetpond, decant bays, and an on-site stormwater management system designed to reduce the quantity of heavy industrial runoff. Bear Creek in the study area is on the current (approved July 22, 2016) 303(d) list of impaired waterbodies, based on degradation of biological integrity.

King County maintains a gauging station in Bear Creek at Union Hill Road, approximately 0.5 mile upstream of the study area. Based on data collected from October 1987 through March 2017, the annual average discharge at that site is approximately 78 cfs (King County 2017b). Monthly average discharges during that period ranged from 14 cfs (August 2006) to 357 cfs (January 1997). Averaged over the full data period, monthly average discharges ranged from 21 cfs (in August) to 144 cfs (in January) (King County 2017b).

Despite the effects of expanding urban development and an associated shift from forest to impervious surfaces and landscaped areas, Bear Creek continues to be a major producer of salmon in WRIA 8 (Lawson et al. 2012). The Bear Creek drainage is known to support Chinook salmon, coho salmon, sockeye salmon, kokanee salmon, steelhead, and cutthroat trout. The Washington State Salmon Recovery Fund has sponsored many millions of dollars of habitat restoration in the Bear Creek watershed, including in-stream work, riparian restoration, and the future reconfiguration of the confluence of Evans Creek with Bear Creek. In recognition of its role in upstream staging and downstream migration and rearing, and as a refuge for salmonids escaping the warmer waters of the Sammamish River, King County (1995) recognized the Lower Bear Creek sub-basin as a Locally Significant Resource Area.

Riparian Corridor Characterization

The Bear Creek riparian area in the vicinity of the proposed light rail crossing is vegetated with a mixture of native and non-native species. Tree cover is extensive and dominated by native species, including red alder, Oregon ash, black cottonwood, and western red cedar, with scattered Douglas-fir at the highest elevations (Figure 2-6). Non-native deciduous trees also occur in the riparian area, along adjacent roads, trails, and other developments. A detailed tree assessment is included in the arborist's report (Urban Forestry Services 2017).

Forested areas have understory vegetation composed of a mixture of native shrubs (salmonberry, redosier dogwood, and willows), invasive Himalayan and cutleaf blackberry, and a fairly sparse herbaceous stratum containing native piggy-back plant and slough sedge, as well as invasive creeping buttercup and reed canarygrass. Scrub-shrub areas are dominated by a mixture of shrubs described above. Emergent areas are dominated by dense stands of reed canarygrass. Beaver activity is apparent from numerous downed trees, cut shrubs, and dams. Habitat values of the riparian community are high, based on the complex vegetation and stream structure, presence of snags and LWD, and the extent of the restored corridor and its connectivity to habitats upstream and downstream.

Figure 2-6. Bear Creek riparian area (at high flows), looking upstream from the former BNSF Railway corridor crossing

Fish Habitat Value

Lawson et al. (2012) determined that the reach of Bear Creek immediately downstream of the study area is used by salmonids as a migration and rearing corridor, but not for spawning, and that Chinook, coho, and sockeye salmon spawn in upstream reaches of Bear Creek. The reach downstream of the study area and north of SR 520 is identified as a migration or rearing area of considerable importance for one or more species of juvenile salmon (Lawson et al. 2012). According to WDFW (2017a, 2018a), Bear Creek in the study area provides spawning habitat for Chinook and sockeye salmon, and rearing habitat for coho salmon. WDFW (2017a) also documents the presence of kokanee salmon and steelhead in the study area. From 1996 to 2016, volunteers from the King County Salmon Watcher Program documented Chinook, sockeye/kokanee, and coho salmon in Bear Creek, as well as chum salmon (which were characterized as strays) (King County 2016b).

WDFW operates a smolt trap in Bear Creek from the fish-monitoring barge at the approximate location of the proposed light rail crossing. Based on extrapolations from capture data, Kiyohara (2017) generated the following estimates for the abundance of juvenile salmonid migrants from Bear Creek in 2016:

- Sockeye salmon: 81,125 ± 20,814 (95 percent confidence interval)
- Chinook salmon: 45,946 ± 17,473 (95 percent confidence interval)
- Coho salmon: 11,545 ± 2,828 (95 percent confidence interval)

2.2.2.3 Unnamed Tributary to the Sammamish River

The study area includes an unnamed tributary to the Sammamish River, identified by WDNR (2018) as LLID 1221262476704. This watercourse runs parallel to SR 520 southwest of the Sammamish River crossing and discharges to the Sammamish River downstream of SR 520 immediately north of the Project area. The majority of the watercourse is piped.

Historical aerial imagery and topographic contours suggest that a surface-flowing watercourse with multiple branches once flowed north from the location of NE 40th Street. One branch of this system is now called Clise Creek by the City and discharges to the Sammamish River upstream (south) of the study area. Field observations and mapping review suggest that the other branch of the stream currently discharges from a pipe to a stormwater pond north of SR 520, within the cloverleaf intersection with West Lake Sammamish Parkway NE. Flow is then piped to a confluence with the Sammamish River immediately downstream of the SR 520 bridge crossing.

Within the project vicinity, the unnamed tributary flows through an 8-foot-wide channel east of SR 520, immediately north of the NE 60th Street overpass (Figure 2-7). This is a branch or segment of LLID 1221262476704. Surface water at this location flows approximately 200 feet through a forested area before entering a culvert with an unknown discharge location.

Figure 2-7. Unnamed Tributary to the Sammamish River, photographed south of SR 520 and east of NE 60th Street

Based on its intermittent flow and lack of salmonid fish use (WDFW 2018a), paired with the findings of Washington Trout (2005), the watercourse meets the definition of a Class IV stream (RZC 21.64.020.A.2), with a stream buffer of 25 feet (RZC Table 21.64.020).

Riparian habitat near the surface-flowing segment consists of a 100-foot-wide strip of forest cover sandwiched between the SR 520 roadside ROW to the west and residential areas to the east (Figure 2-1). The forested area is dominated by bigleaf maple, with some scattered mature conifers such as Norway spruce and western redcedar. Based on its width and composition, the stream buffer likely provides adequate shade and temperature regulation, flood conveyance, water quality protection and pollutant removal, nutrient cycling, sediment transport, bank stabilization, woody debris recruitment, wildlife habitat, and microclimate control. Based on the isolation and limited extent of the surface-flowing segment, it is unlikely that riparian habitat conditions at this location contribute measurably to the quality of known fish-bearing waters downstream.

2.2.2.4 Unnamed Tributary to Bear Creek

The study area includes an unnamed tributary to Bear Creek identified by WDNR (2018) as LLID 1221079476713. This stream originates northeast of the study area and is piped under roads and parking lots and then resurfaces in the study area out of three variously sized culverts under the Univar USA parking lot (parcel number 0623100020; Figure 2-8). The stream flows approximately 750 feet through an emergent wetland (WRE-9) before being conveyed through two large culverts under an old levee. The water then discharges to Bear Creek approximately 75 feet north of the Redmond Way/SR 202 bridge. The stream is mapped by King County (2017a), WDFW (2018a), and WDNR (2018). The location of the stream on these maps does not correspond with its observed and delineated location, however. The City (2016a) does not identify a stream in this area.

Field visits occurred in April 2018 after a period of heavy rains. At that time, LLID 1221079476713 had an average channel width of approximately 15 feet. During the field visit, juvenile fish bearing parr marks (i.e., salmonids—either trout or salmon) were observed where the stream resurfaces south of parcel number 0623100020. WDNR (2018) identifies LLID 1221079476713 as a Type 2 perennial fish-bearing stream. WDFW (2018a) maps the stream as intermittent/ephemeral, with the modeled presence of Chinook, coho, steelhead, and sockeye. Based on the potential for salmonid fish use, LLID 1221079476713 meets the definition of a Class II stream (RZC 21.64.020.A.2), with a stream buffer of 100 feet, plus a 50-foot outer buffer (RZC Table 21.64.020).

Riparian vegetation in the study area is generally low-quality, although some large black cottonwood trees are present near where the stream emerges from the three culverts. For most of its length in the study area, the stream flows through an emergent wetland with reed canarygrass, bull thistle, Kentucky bluegrass, meadow foxtail, and bentgrass. Near the confluence with Bear Creek, the stream flows adjacent to a scrub-shrub plant community that consists primarily of willow and Himalayan blackberry. A sparse row of sapling conifers (Douglas-fir and western redcedar, all less than 15 feet tall) was recently planted along the edge of the WSDOT ROW at the off-ramp from westbound SR 520 to NE 76th Street. Much of the cover in the eastern portion of the stream buffer consists of roadways bordered by maintained grassy areas.

Based on its width and composition, the stream buffer likely supports some riparian functions, including flood conveyance, water quality protection and pollutant removal, nutrient cycling, sediment transport, bank stabilization, and wildlife habitat. Based on the dearth of trees, the buffer is unlikely to support functions such as shade and temperature regulation, woody debris recruitment, and microclimate control.

Figure 2-8. Unnamed Tributary to Bear Creek, emerging from culverts under Univar USA parking lot

2.2.2.5 Aquatic Fauna in the Study Area

Salmonids known to be present in the Sammamish River watershed include Chinook, coho, and sockeye/kokanee salmon, as well as rainbow trout, cutthroat trout, and possibly steelhead. The presence of bull trout has not been confirmed. Chum salmon and pink salmon occasionally enter the watershed but are not known to be a sustaining population (King County 2014). Any of these species may use habitats in Bear Creek or the Sammamish River.

Several species of native and introduced non-salmonid fish are also present in the Sammamish River and its tributaries. Reproducing populations of smallmouth bass, largemouth bass, yellow perch, northern pikeminnow, largescale sucker, three-spine stickleback, and sculpin have been documented in sections of the Sammamish River, while other species are likely residents during specific periods of the year (Corps and King County 2002). In addition to the species mentioned above, Kiyohara (2017) captured the following species in Bear Creek between January and July 2016: lamprey, green sunfish, whitefish, peamouth, dace, bluegill, pumpkinseed, and brown bullhead catfish. WDFW (2017a) does not report any observations of amphibians using stream or riparian habitats in the study area.

Table 2-6 identifies federally and state-listed endangered, threatened, sensitive, and candidate species that might occur in study area and summarizes each species' likely use of habitats in the area. The table also identifies species on the WDFW list of priority species that might use habitats in the study area.

Table 2-6. Fish Species of Concern[a] in the Study Area

Species	Status[b]	Habitat Use in Study Area
Bull trout	FT, SC	Bull trout have been observed entering Lake Washington in small numbers, but the Sammamish River and its tributaries are not known or expected to support bull trout spawning or rearing.
Chinook salmon	FT, SC	Migration to suitable spawning habitat upstream. Adults may be present from mid-September through December; juveniles may be present from January through mid-July.
Chum salmon	SC, SPS	Unknown. Individuals observed in the area are likely strays.
Coho salmon	SPS	Spawning in Bear Creek, October through December; fry emerge from redds in March to June. Juveniles may be present in Sammamish River or Bear Creek year-round.
Cutthroat trout	SPS	Spawning in gravel at the mouths of tributaries to the Sammamish River; juveniles may rear in the study area and resident adults may be present year-round.
Kokanee	SPS	Spawning in the Sammamish River or Bear Creek, September to November; fry emerge in April and May and rear in Lake Washington.
Pacific lamprey	SPS	The known current and historical distribution of Pacific lamprey does not include the Sammamish River basin; potential spawning and rearing habitat is present, however.
Pink salmon	SPS	Unknown. Individuals observed in the area are likely strays.
Rainbow trout	SPS	Occasionally observed in the Sammamish River; presumed present in Bear Creek.
River lamprey	SPS, SC	Lamprey of unknown species have been reported in the Sammamish River; potential spawning and rearing habitat in the Sammamish River and Bear Creek.
Sockeye salmon	SC, SPS	Spawning in Bear Creek, September through December; fry emerge from redds in winter and early spring, then migrate downstream to rear in Lake Washington.
Steelhead	FT, SPS	No recent records of spawning in the Sammamish River or its tributaries. Although unlikely, small numbers of steelhead could pass through the study area on their way to and from potentially suitable spawning habitat in upstream tributaries.

Sources: Berge and Higgins 2003; King County 2014; King County 2016b; NatureServe 2017; Thomas 2008; Corps and King County 2002; USFWS 2015; WDFW 2017a, b.

[a] Species of concern are those for which FWHCAs are established under the critical areas rules of the City of Redmond. See discussion in the introduction to this subsection.

[b] FT = federally listed as Threatened under the ESA; SC = candidate for state listing; SPS = state priority species

FTA submitted a BA for the Downtown Redmond Link Extension to NMFS in February 2018 to support reinitiation of the ESA Section 7 consultation process that was previously completed for the East Link Project in 2010. The BA included determinations that the Project is likely to adversely affect Puget Sound Chinook salmon and not likely to adversely affect Puget Sound steelhead. On June 15, 2018, NMFS issued a biological opinion (WCR-2018-8825), concluding that project construction and operation will not jeopardize the continued existence of Puget Sound Chinook salmon and concurring that the Project is not likely to adversely affect Puget Sound steelhead. In February 2018, FTA also asked USFWS about the need to reinitiate consultation for bull trout (which were addressed in the BA prepared for the East Link Project in 2010). USFWS responded that reinitiation was not warranted or necessary.

2.3 Management Recommendations

The only species that are known to have a primary association with habitats in the study area and for which the City has established fish and wildlife habitat conservation areas are fish. The only habitats of concern in the study area are wetlands and streams. Wetlands are discussed in Section 3 of this document. This section addresses management recommendations for fish-bearing streams and associated riparian habitats.

Management recommendations developed by WDFW for riparian areas emphasize the protection of riparian habitat areas to retain the functions necessary to maintain instream habitat for fish and aquatic wildlife. These functions include control of stream temperature, provision of LWD and other organic material to the stream system, regulation of stream flow, filtration of sediments and pollutants, and erosion control (Knutson and Naef 1997). WDFW's recommendations for riparian habitat area widths were developed by synthesizing studies that examined riparian habitat functions and the widths necessary to maintain these functions. The 150-foot stream buffers established for Class I streams in the City (RZC 21.68.060.A and Table 21.64.020) encompass the average widths reported to retain all of the functions listed above (Knutson and Naef 1997). As such, by complying with the City's critical areas regulations, the project will also comply with WDFW's management recommendations for riparian habitat.

Additional management recommendations for riparian areas include reducing urban sprawl and compensating for lost habitat. The Project will reduce urban sprawl by encouraging dense commercial and residential development along the light rail corridor and by reducing the need for expanded highway facilities. Measures for compensating for lost habitat are detailed in the mitigation plan that has been developed for this Project. The project design also implements recommendations for crossing streams with bridges instead of culverts and for establishing streams crossings perpendicular to the axis of stream flow, to minimize riparian vegetation loss and habitat fragmentation (Knutson and Naef 1997).

In addition, several statutes and regulations protect surface water quality and quantity from the adverse effects of activities conducted in or near the water. Examples include review and permitting by the Corps under Section 404 of the federal CWA, as well as hydraulic permit approvals issued by WDFW. Work near or below the OHWM of Bear Creek or the Sammamish River will be conducted in accordance with the terms of these permits. The project will also obtain a construction stormwater general permit under the National Pollutant Discharge Elimination System permit program to reduce or eliminate stormwater pollution and other impacts to surface waters. A construction stormwater pollution prevention plan (SWPPP) will be developed that implements Best Management Practices (BMPs) for identifying, reducing, eliminating, or preventing sediment and erosion problems on site. The construction SWPPP will include a temporary erosion and sediment control plan; spill prevention, control, and countermeasures plan; concrete containment and disposal plan; dewatering plan; and a fugitive dust plan.

2.4 Regulatory Implications

The City's critical areas regulations include provisions designed to (1) achieve no net loss of Core Preservation Areas within fish and wildlife habitat conservation areas, (2) minimize impact to and retain the character of quality habitat areas, and (3) protect species of concern, priority species, and species of local importance (RZC 21.64.010.A.3). Provisions and performance standards applicable to the Project are identified below.

RZC 21.64.020.B.9 states that no structures or improvements shall be permitted within stream buffers, except as otherwise permitted or required under the City's adopted SMP. The City's SMP (RZC 21.64.060.B.3) explicitly allows the following activities within buffer areas:

- Bridges that are part of a regional transit system where there is a demonstrated public need and the location has been selected through a regional transit planning process. Buffer setbacks do not apply to transportation crossings; however, buffer crossing impacts shall be minimized and mitigated.
- Trails subject to the Public Access policies and regulations of the SMP.

RZC 21.64.020.D.2 requires the use of bridges for crossing Class I streams. Per RZC 21.64.020.D.3, stream-bank stabilization to protect new structures from future channel migration must be achieved through bioengineering or soft armoring techniques.

RZC 21.64.020.G establishes performance standards that apply to sites where species protected under the City's critical areas regulations have been identified, and to sites where quality habitat has been identified (except in cases where application of a standard would result in a significant adverse economic impact). Those performance standards specify requirements for the restoration and enhancement of riparian stream corridors and wetlands; they also encourage the consideration of habitat quality and configuration in site planning and design. Compliance with those requirements is discussed in Section 7 of this document.

According to Section B.2 of RZC Appendix 1, if alteration of a stream is proposed, a stream mitigation plan must be prepared in accordance with the standards of RZC 21.64.020.D (Alteration of Riparian Stream Corridors) and 21.64.020.F (Riparian Stream Corridor Performance Standards). Applicable standards of RZC 21.64.020.D are identified above. The Project's compliance with the standards for riparian stream corridor restoration and enhancement (RZC 21.64.020.F) is addressed in Section 7 of this report.

RZC 21.72.060.A establishes a prohibition on the removal of trees from Native Growth Protection Areas, critical areas, and their associated buffers, unless authorized by the Director of Planning and Community Development. A tree preservation plan being submitted separately from this report (Parametrix 2019a).

RZC 21.64.020.E establishes a prohibition on alterations that create adverse impacts to Core Preservation Areas. If strict application of this standard would prevent construction of a public project (such as the Downtown Redmond Link Extension), the responsible agency may apply for a Critical Areas Reasonable Use Exception per RZC 21.76.070.U.4. According to RZC 21.68.030(2), the reasonable use code provision does not apply to areas within City shoreline jurisdiction.

2.5 Impacts and Mitigation

The Project is designed to comply with all federal, state, and local regulations. Project design and planning implemented the mitigation sequencing approach specified in RZC 21.64.010.I (see Section 3.5 of this report). The Project will avoid and minimize adverse impacts through careful design, implementing BMPs, and rectifying temporary impacts. Sensitive species and habitats will be protected through implementation of applicable BMPs and conservation measures specified in the following documents: (1) Appendix H3, Ecosystems Technical Report, of the 2011 East Link Project Final EIS; (2) Appendix C, Ecosystems Technical Report Addendum, of the 2018 SEPA Addendum to the East Link Project Final EIS; (3) the 2010 BA for the East Link Project; and (4) the 2018 BA for this Project. The lists of BMPs and conservation measures are provided as Appendix E to this report. These measures will be implemented to avoid and minimize temporary and permanent impacts of the Project. Terrestrial and aquatic habitats temporarily disturbed by construction activities will be restored after construction.

Even with the implementation of these measures, some impacts to ecosystem resources will be unavoidable. These are described in the following two subsections. Mitigation proposed for unavoidable impacts is described in Section 7 of this report.

2.5.1 Vegetation and Wildlife Resources

Analyses of temporary (i.e., construction-related) impacts to vegetation and wildlife resources within City shoreline jurisdiction are based on the amounts of different land cover types within the portions of the

project footprint within the temporary construction easement areas, as well as the potential for construction-related noise and human activity to disturb wildlife species of concern at breeding sites and other sensitive areas.

Sound Transit conservatively assumed for this analysis that all lands within the construction limits will be disturbed during construction and that all vegetation will be removed. Analyses of long-term permanent impacts to vegetation and wildlife resources are based on the amounts of different land cover types within the portions of the project footprint that will be subject to permanent modification.

Temporary and permanent impacts to vegetation and wildlife within the City are summarized in Table 2-7. Impact areas are shown in Appendix F.

Table 2-7. Summary of Impacts to Vegetation and Wildlife Habitats

Cover/Habitat Type	Permanent Impacts (acres)	Temporary Impacts (acres)
Unvegetated and Road	0	0.9
Developed—Commercial	0.5	0
Developed—Residential	0	0
Roadside ROW	0.3	0.5
Mown grass	0	0.1
Grassland	0	0
Brush	0	0
Upland Forest	0.1	0
Riparian Forest	0.6	1.0
Riparian Shrub	0	0
Forested Wetland	*see Section 3.4*	*see Section 3.4*
Scrub-shrub Wetland	*see Section 3.4*	*see Section 3.4*
Emergent Wetland	*see Section 3.4*	*see Section 3.4*
Stream Channels	see Section 2.5.2	see Section 2.5.2
Stormwater Ponds	0	0

Note: High-quality habitats are denoted in ***bold italics***.

2.5.1.1 Construction Impacts

Temporary (construction-related) impacts will include disturbance of wildlife at breeding sites and other sensitive areas, temporary reductions in the availability of suitable habitat (where structurally complex habitats are cleared for construction access), and an elevated risk of noxious weeds colonizing disturbed areas. The construction period is expected to last approximately 4 years (from beginning of construction in 2020 to beginning of operation in 2024). At most locations, ground-disturbing activities will likely last less than 2 years. Temporarily disturbed sites will be replanted immediately following construction, and vegetation will likely become re-established within a year or two at most sites.

Noise and Human Activity

Noise and human activity associated with construction work will exceed background noise levels, even in areas where the acoustic environment is currently dominated by traffic noise from SR 520 and other major roadways. Noise levels will be greatest where impact pile-driving is used for installation of guideway

support structures near the Sammamish River and Bear Creek. Wildlife species that are sensitive to noise disturbance may avoid sites where construction-related noise is substantially louder than ambient noise levels and then resume use of remaining suitable habitat when construction is complete.

Habitat Disturbance

Vegetation and wildlife habitat will be temporarily affected by clearing beyond the boundaries of the project footprint (e.g., for access roads or equipment storage areas), as well as clearing beneath elevated structures. Wildlife will likely be displaced when construction begins. In areas of temporary vegetation clearing, wildlife will likely return after construction is complete, provided human activity levels return to preconstruction levels. Any such return to preconstruction conditions will depend in part on the re-establishment of vegetation and will not occur immediately. Herbaceous vegetation and some fast-growing shrubs will require 2 to 5 years to return to pre-project conditions. Areas of mature forest will require several decades. Species that forage on or near the ground, including small mammals or birds such as juncos and song sparrows, will return to their preferred habitats first. Species that require mature vegetation—especially those that use large shrubs and trees (e.g., wrens, chickadees, and woodpeckers)—will recolonize their preferred habitats last.

Project construction will require clearing and removing vegetation from within the construction limits (Table 2-7). More than half of this area consists of roadways, disturbed roadside rights-of-way, developed areas, and other habitat types that do not meet the criteria for high-quality habitat. Temporary disturbance of these areas is not expected to result in substantial adverse effects on vegetation or wildlife.

Construction of the Sammamish River and Bear Creek light rail crossings will entail the clearing of some Riparian Forest, Forested Wetland, and/or Scrub-shrub Wetland habitat, all of which are classified as high quality (Figure 2-1; Appendix F). Although temporarily cleared areas will be replanted with native species following project construction, the need to maintain a 15-foot clear zone on either side of the guideway will preclude the full re-establishment of tree cover in some areas that currently support forested habitats. In addition, some trees in areas adjacent to the clear zone may need to be removed to protect light rail safety and reliability. Native shrubs and other species planted in these areas will provide some structural complexity, but the removal of trees will decrease habitat quality. These localized reductions in habitat quality will be offset by the planting of trees elsewhere in the study area.

The areas that will be affected by temporary clearing for construction also overlaps the following Core Preservation Areas:

- The public access open space easement where the project alignment crosses Bear Creek
- The Sammamish River and its regulatory buffer (affected by installation of new stormwater outfalls)
- Bear Creek and its regulatory buffer

Impacts to these areas cannot be avoided without incurring significant adverse economic and/or environmental impacts associated with the construction of the light rail alignment in a different location. The effects of temporary disturbance in these areas will be minimized through concerted efforts to maintain the smallest practicable construction footprint and by replanting disturbed areas with native species. As noted above, the need to remove hazard trees and maintain a clear zone along the guideway will preclude the full re-establishment of tree cover in some areas that currently support forested habitats. The resulting localized reductions in habitat quality will be offset through the planting of trees elsewhere in the study area. Impacts to streams and stream buffers are addressed in Section 2.5.2.

Project construction will also remove approximately 150 trees (excluding hazardous trees) within shoreline jurisdiction (Parametrix 2019a). The total number of trees to be removed outside of shoreline jurisdiction will be calculated by the design-build contractor when the final design plans are being completed, as construction staging and access areas are determined, and when the final project impact area is defined by the contractor. Estimates in this analysis are drawn from the draft Downtown Redmond Link Extension Tree Mitigation Memo (Swift Company 2018). These estimates are based on trees identified within the project impact area as of February 2, 2018.

Significant trees and landmark trees removed within the Redmond city limits (including those within the WSDOT ROW) will be replaced in accordance with the requirements of RZC 21.72.080. In addition, project scientists will develop a tree and vegetation protection plan that will clearly identify trees to be removed or protected and define measures for the protection of remaining trees.

Noxious Weeds

The risk of noxious weed infestation will be avoided or minimized through the implementation of BMPs specified in Appendix E, in addition to measures specified in Sound Transit's Integrated Pest Management Plan (Sound Transit 2012). Consistent and successful application of these measures will reduce potential habitat disturbance and improve existing already-disturbed habitats. In addition, many areas that are currently dominated by Himalayan blackberry, reed canarygrass, Japanese knotweed, and other invasive species will be restored with native vegetation when construction is complete. As such, the Project is likely to result in an overall reduction in the cover of noxious weeds in the study area.

2.5.1.2 Permanent Impacts

Permanent impacts will occur where light rail facilities replace land cover types that support vegetation or other wildlife habitat features. Impacts to these features, as well as high-quality habitats and Core Preservation Areas, cannot be avoided without incurring significant adverse economic and/or environmental impacts associated with constructing the light rail alignment in a different location. Noise and human activity associated with operation of the light rail system could also result in long-term impacts.

Habitat Loss

Effects on vegetation and wildlife habitat will depend on the current land cover type within the project footprint. In areas where vegetation is largely absent (e.g., the Unvegetated and Road and Developed—Commercial cover types) or subject to frequent disturbance (e.g., Mown Grass, Roadside ROW, and Developed—Residential cover types), the replacement of existing cover with guideways or other facilities will constitute a minimal change in the characteristics of such areas or their ability to support wildlife. No species of concern have a primary association with such habitats in the study area. Notably, in many areas, existing low-quality, weed-dominated, and disturbed vegetation will be converted to native shrubs and other woody species underneath and alongside elevated guideways, which will result in a substantial environmental improvement.

Adverse effects could occur where light rail facilities replace high-quality habitats (Table 2-7). Replacement of existing vegetation in these cover types with project features will represent a loss of structural and biotic diversity associated with the variety of plant and wildlife species currently present. This is particularly true in areas that support forested cover types, where the removal of trees, snags, and understory vegetation will also remove potential nesting sites, foraging sites, and hiding cover for many species of birds and small mammals.

Some of these high-quality habitats are within wetlands, wetland buffers, or stream buffers. Mitigation for impacts to these areas will be addressed by meeting mitigation requirements for impacts to wetlands, wetland buffers, or stream buffers, as described in Section 7, Stream and Wetland Mitigation Plan.

The permanent impact area also overlaps the following Core Preservation Areas within the City:

- The public access open space easement where the project alignment crosses Bear Creek
- Approximately 30 linear feet of the unnamed Class IV tributary to the Sammamish River, north of NE 60th Street
- The Sammamish River and its regulatory buffer (affected by installation of new stormwater outfalls)
- Bear Creek and its regulatory buffer

Impacts to these areas cannot be avoided without incurring significant adverse economic and/or environmental impacts associated with the construction of the light rail alignment in a different location. The resulting localized reductions in habitat quality will be offset by the planting of native trees and shrubs elsewhere in the study area. Impacts to streams and stream buffers are described in Section 2.5.2, and mitigation for impacts is discussed in Section 7.

The light rail alignment and associated facilities will be built alongside existing impediments to migration by terrestrial species, such as SR 520 and Redmond Way. As such, the addition of such facilities to the landscape will not affect areas that serve as connective corridors to other areas of habitat outside of the study area.

Noise and Human Activity

Noise and human activity associated with light rail operation are generally unlikely to result in substantial adverse effects on wildlife species in the study area, which is immediately adjacent to highways, high-volume roads, or commercial properties for nearly its entire length. In addition to the noise and vehicle traffic on the highway, regular human activity associated with residential and commercial development is a common feature of the landscape throughout the study area. Wildlife that use habitats adjacent to the proposed light rail facilities are accustomed to some level of human activity and noise.

Near the Bear Creek crossing, the light rail alignment is farther away from roads and other major human use areas (although the former BNSF Railway corridor at that site receives frequent pedestrian use). Noise from light rail operations could constitute a new source of disturbance in an area where wildlife species are less accustomed to noise and human activity. Animals that are sensitive to noise, light, or other human-related disturbance may be displaced from otherwise suitable habitat, thereby potentially leading to competition with animals that occupy suitable habitat at other, less-developed sites. Such competition may produce increased stress and decreased reproductive success for affected individuals. Animals displaced from areas of suitable habitat may also be exposed to an elevated risk of predation or vehicle collisions while they are seeking new areas of suitable habitat. Based on the limited amount of area that will be affected, such effects are not expected to influence the regional populations of any wildlife species.

2.5.2 Streams and Stream Buffers

Analyses of temporary (i.e., construction-related) impacts to riparian stream corridors and associated species are based on the amounts of stream channel and regulatory buffer within the temporary construction limits. Sound Transit conservatively assumed for this analysis that all lands within the

construction limits will be disturbed during construction and that all vegetation will be removed. Analyses of long-term permanent impacts to riparian stream corridors are based on the amounts of stream channel and regulatory buffer within the portions of the project footprint that will be subject to permanent modification. A stream mitigation plan is included in Section 7 of this report.

As part of the approved regional transit system, project features are allowed within the stream buffers of the Sammamish River and Bear Creek, according to the City's SMP (RZC 21.68.060.B.3). Similarly, the pedestrian bridge over Bear Creek, along with the approach segments, are also allowed under the City's SMP. The culvert on the unnamed tributary to the Sammamish River, which is located outside of City shoreline jurisdiction, is allowed under the City's Critical Areas Ordinance (RZC 21.64.020.D.3).

Tables 2-8 and 2-9 summarize temporary and permanent impacts to streams and stream buffers, based upon the conceptual design drawings (Appendix A).

Table 2-8. Summary of Stream Impacts

	Permanent Impacts			Temporary Impacts	
Stream Name	Area (acres)	Length (feet)	Vegetation Conversion (acres)	Area (acres)	Length (feet)
Sammamish River	0	20	0.034	0.089	0
Bear Creek	0.208	85	0.025	2.130	1,050
Unnamed tributary to the Sammamish River	0.015	55	0	0	0
Unnamed tributary to Bear Creek	0	0	0	0	0
TOTAL	**0.223**	**160**	**0.059**	**2.219**	**1,050**

Table 2-9. Summary of Stream Buffer Impacts

Stream Name	Permanent Impacts (acres)	Vegetation Conversion (acres)	Temporary Impacts (acres)
Sammamish River	0.296	0	0.457
Bear Creek	0.465	0	0.853
Unnamed tributary to the Sammamish River	0.128	0.007	0
Unnamed tributary to Bear Creek	0	0	0.429
TOTAL	**0.889**	**0.007**	**1.739**

2.5.2.1 Construction Impacts

Temporary (construction-related) impacts include disturbance to in-water habitats and riparian vegetation. To minimize the risk of adverse effects on fish, all ground-disturbing work within the active channel of the Sammamish River and Bear Creek, as well as dewatering and reintroducing flow to Bear Creek, will be completed during the in-water work period approved by WDFW, the Corps, and NMFS.

Project construction is not expected to result in any increases in nighttime illumination of fish-bearing waters (which could increase the risk of predation on juvenile salmonids). If any construction activity

occurs at night, temporary lights will be directed away from fish-bearing waters to prevent interference with fish behavior patterns.

In-water Work

Installation of the new stormwater outfalls in the Sammamish River will have the potential to disrupt the normal activity patterns of fish in the river. The potential for adverse effects on salmonids will be minimized or avoided altogether by conducting the work when adults and juveniles are least likely to be present in the study area. Where ground-disturbing work below the OHWM is necessary, cofferdams will be used to isolate work areas from the river. Based on the anticipated implementation of these impact avoidance and minimization measures, the potential for adverse effects on in-water habitat in the Sammamish River will be minimal.

Removal of the existing creosote-treated wood bridge at the former BNSF Railway corridor crossing and pullback of the fill prism upon which the former BNSF Railway was built will necessitate ground-disturbing work within the channel of Bear Creek. The potential for these activities to affect fish—ESA-listed fish species in particular—will be minimized or avoided altogether by excluding fish from the affected channel segment and dewatering the area before work begins. Channel dewatering will be conducted gradually to encourage volitional movement of fish out of the construction zone. Fish exclusion and flow reintroduction will occur during the period when adult and juvenile salmonids are least likely to be present in the study area. This period generally coincides with the summer low-flow period.

Based on its isolation, the portion of the unnamed tributary to the Sammamish River in the study area is extremely unlikely to support fish life. The 200-foot-long segment is separated from any fish-bearing waters by more than 1,000 feet of pipes, as well as a stormwater pond. Therefore, potential impacts to aquatic life are minimal.

Riparian Habitat Disturbance

Installation of the new stormwater outfalls in the Sammamish River will disturb river bank vegetation. The banks at both outfall sites are vegetated with reed canarygrass, blackberries, and low-growing herbaceous vegetation. The temporary disturbance areas will be approximately 10 to 20 feet wide. Areas outside the permanent project footprint will be revegetated with native and site-adapted species after construction. Temporary disturbance of narrow strips of low-growing, non-native vegetation at these sites will not affect the ecological functions of the river's riparian buffer. Removal of trees at the outfall sites is discussed below in Section 2.5.2.2.

Temporary clearing will affect forest habitat within 25 feet of the 200-foot surface-flowing segment of the unnamed tributary to the Sammamish River (Table 2-9). As discussed in Section 2.2.2.3, riparian habitat at that location is unlikely to contribute measurably to the quality of the Sammamish River. As such, modifications to that habitat are not expected to result in any short-term or long-term adverse effects on fish habitat.

Project construction in the Redmond city limits will entail the temporary clearing of vegetation within the 150-foot buffer on Bear Creek (Table 2-9). of the area of functional riparian habitat (i.e., Upland Forest, Upland Forest, Riparian Forest, Forested Wetland, or Scrub-shrub Wetland) will be affected by temporary clearing. Removal of trees and shrubs will result in temporary reductions of riparian vegetation functions such as nutrient input, LWD recruitment, and shade provision. These functions will gradually return to preconstruction levels as vegetation regrows.

Although temporarily cleared areas will be replanted with native species following project construction, the need to maintain a 15-foot clear zone on either side of the guideway will preclude the full re-establishment of tree cover in some riparian buffer areas that currently support forested habitats (Table 2-9). In addition, some trees in areas adjacent to the vegetation clear zone may need to be removed to protect light rail safety and reliability. Native shrubs and other species planted in these areas will provide some riparian functions, but these functions will be diminished by tree removal. These localized reductions in riparian function will be offset through the planting of trees in other portions of the riparian zones for these streams.

Much of the existing riparian vegetation to be temporarily cleared for construction near Bear Creek consists of invasive species, primarily Himalayan blackberry and reed canarygrass. These areas will be cleared of invasive species and replanted with native vegetation after construction, resulting in long-term improvements in riparian and wetland habitat functions.

Temporary clearing will affect some vegetation within the stream buffer for the unnamed tributary to Bear Creek (Table 2-9). The stream buffer area overlaps with the buffer of Wetland WRE-7 (see Section 3.4). Existing vegetative cover in the affected area consists of mown grasses and several sapling conifers could also be removed. The affected area is more than 500 feet from the proposed alignment, so there will be no safety-related constraints on restoring the site to preconstruction conditions. As such, modifications to riparian habitat at this site will not result in any short-term or long-term reductions in riparian habitat function.

2.5.2.2 Permanent Impacts

Permanent (or long-term temporary) impacts of the Project include those expected to persist through the design life of the Project. Such effects include those associated with the presence of structures below the OHWM of streams, shading from over-water structures, permanent loss of riparian vegetation, and stormwater runoff from new impervious area. Improvements to the Bear Creek channel and removal of hydraulic constraints at the existing railway crossing site will have long-term beneficial effects; see Section 2.5.2.3 for a discussion of project-related habitat improvements.

Structures below the OHWM

The two new stormwater outfalls into the Sammamish River will be above the OHWM; however, outfall protection (i.e., rock pads) will be placed below the OHWM at the discharge points. The outfall protection is unlikely to affect fish habitat to an appreciable degree. Riverine habitat in the study area provides little rearing or spawning function for salmonids; instead, the river serves as a migratory corridor for fish that spawn in tributaries. Substrates near the stream banks include large riprap and a thick, soft layer of fine sediments. The presence of outfall protection at the discharge points is unlikely to present a substantial barrier to the movement of fish through the area because the final grade will be the same or lower than existing conditions.

The presence of support structures below the OHWM of Bear Creek will reduce the amount of habitat available to aquatic species. Based on the location of these structures—more than 10 feet from the defined channel—combined with the fact that the stream remains within the defined channel under almost all flow conditions, the potential for adverse effects will be minimal. In addition, by increasing the amount of aquatic habitat in the stream channel (through the construction of a wider channel), the Project will result in a net increase in the amount of aquatic habitat in the study area. The reconfigured channel through the site of the existing bridge will match the width of the existing channel upstream and downstream—approximately 65 feet instead of its current width of approximately 30 feet. Pullback of

the railroad fill prism will increase the amount of stream channel area by approximately 1,000 square feet.

The unnamed tributary to the Sammamish River culvert extension is unlikely to affect fish habitat to an appreciable degree. Based on its isolation, the portion of the unnamed tributary to the Sammamish River in the study area is extremely unlikely to support fish life.

Overwater Structures and Artificial Lighting

At the Sammamish River crossing, the 31-foot-wide guideway will be approximately 55 feet over the west bank, 45 feet over the east bank, and 60 feet over the water. Narrow structures (such as the guideway) at such heights above the water's surface are unlikely to affect fish behavior.

Fish are not present in the unnamed tributary to the Sammamish River in the study area. As such, no adverse effects are expected to result from shade cast by structures installed over the Sammamish River and the unnamed tributaries.

The Project will construct two new bridges spanning Bear Creek and will remove an existing bridge. The light rail alignment will be on an elevated guideway that is approximately 4 feet above the stream's OHWM and 3 feet above the 100-year surface water elevation. The bottom of the pedestrian bridge for the East Lake Sammamish Trail Connector crossing will be a similar height above the OHWM.

By removing the existing bridge and replacing it with two new structures, the Project will increase the amount of stream habitat that is affected by overwater shading. The existing 14-foot-wide bridge will be replaced by the 31-foot-wide guideway and the 18-foot-wide pedestrian bridge. As a result, the area of overwater structure will increase from 400 square feet to approximately 3,350 square feet.

Operation of the light rail system is not expected to result in any increases in nighttime illumination of fish-bearing waters because the tracks will have no overhead lighting and the train headlights will be directed parallel to the tracks. Lighting at light rail stations is not expected to result in any adverse effects because no stations are proposed within 200 feet of any surface-flowing streams.

For pedestrian safety, lighting may also be installed on the pedestrian bridge over Bear Creek. Lighting would be designed to point upwards, away from the creek (Parametrix 2019b).

Riparian Habitat Loss

Due to the height of the future guideway near and above the Sammamish River, the presence of project features is not likely to result in substantial reductions in the function of riparian vegetation near the river. Four deciduous trees will need to be removed from the stream buffer west of the river. These are three red alders (10 to 17 inches diameter at breast height [dbh], 40 to 55 feet tall) and one black cottonwood (14 inches dbh, 60 feet tall). These trees are part of a vegetated strip between the Sammamish River Trail and the river; the trees that remain in that strip will continue to support riparian functions. Nine coniferous saplings will need to be removed from the stream buffer east of the river. All of these saplings incense cedars (4 to 5 inches dbh, 8 to 15 feet tall) that were planted after the completion of recent improvements to SR 520 in the area. These trees are all between 50 and 120 feet from the river; as such, they currently do not substantially support riparian functions.

The guideway will permanently eliminate forest habitat within 25 feet of the 200-foot surface-flowing segment of the unnamed tributary to the Sammamish River (Table 2-9). As discussed previously in Section 2.2.2.3, riparian habitat at this location is unlikely to contribute measurably to the quality of fish-bearing waters. As such, loss of that habitat is not expected to result in any short-term or long-term adverse effects on fish habitat.

Existing vegetation will be replaced by at-grade guideways and support structures for elevated guideways, and by the pedestrian bridge and associated approach trail segments near Bear Creek. Trees and other tall vegetation underneath and within 15 feet of elevated guideways will be permanently cleared for safety; trees near the pedestrian bridge and approach trail segments will be cleared as well. In addition, construction of the elevated guideway above vegetation will reduce the amount of water the vegetation receives from precipitation. Finally, guideways with low clearance (generally, less than 15 feet) will limit the amount of sunlight available to vegetation underneath. In some areas, vegetation cleared from beneath elevated guideways may not grow back. The presence of elevated guideways and trail features will preclude the development of mature forest habitat in such areas, thus reducing the potential for the recruitment of LWD to streams. Planting native trees and shrubs in riparian areas near the study area will compensate for these losses over the long term.

The light rail alignment will be at-grade up to a point approximately 10 to 35 feet from the eastern bank of Bear Creek and will be less than 15 feet above ground level for its entire length within 200 feet of the stream. Existing trees in the riparian area below and within 15 feet of the guideway will be cleared and replaced with lower-growing native plants. Also, some trees in areas beyond the 15-foot clear zone may need to be removed to protect light rail safety. Removal of such hazard trees may continue as a maintenance activity throughout the operational life of project facilities.

The 31-foot-wide guideway, combined with the clear zones, will affect approximately 0.28 acre within 200 feet on each side of Bear Creek, for a total of 0.56 acre. The pedestrian bridge is expected to be located along the outer edge of the clear zone north of the light rail alignment. Portions of the approach trail segment will fall within the clear zone and thus will not affect areas that would not have been affected anyway by guideway construction. The pedestrian bridge and approach trail segment will likely affect 0.18 acre of vegetation in the Bear Creek riparian zone. Both the light rail guideway and the pedestrian bridge will cross Bear Creek perpendicular to the axis of stream flow and use as much of the existing fill prism as possible, thus minimizing the extent of impacts along the stream bank.

East of Bear Creek, existing land cover where the proposed light rail alignment passes through the riparian area is dominated by the compacted surface of the railroad berm; low-growing, non-native vegetation; and cleared areas used for access and parking. Aerial imagery shows that riparian land cover in the proposed alignment east of Bear Creek consisted solely of bare ground and mown grasses as recently as 2005, thus indicating that no mature trees will be removed from the eastern stream buffer for project construction in that area. Four immature coniferous trees (two Douglas-firs and two Sitka spruces, all between 6 and 14 inches dbh and 20 to 35 feet tall), all more than 100 feet from the stream channel, will be removed. Construction of the pedestrian bridge and approach trail segment east of the stream will require the removal of several mature black cottonwood trees from the stream buffer.

West of Bear Creek, young trees and native shrubs are present in the proposed alignment, and this extends the breadth of the riparian area from the stream bank. The nearest mature trees (i.e., larger than 20 inches in dbh) within the proposed light rail alignment are a stand of black cottonwoods approximately 150 feet west of the stream. The riparian area north of the railroad berm, where the pedestrian bridge and approach trail segment will be built, is dominated by Himalayan blackberry, redosier dogwood, salmonberry, large-leaf avens, reed canarygrass, creeping buttercup, and slough sedge.

Beyond the limits of the old railroad berm, almost all of the area where the proposed alignment passes through the Bear Creek riparian area has been identified as wetlands. Permanent impacts to these wetlands and their regulatory buffers will be mitigated as required by the Corps, Ecology, and the City, as will impacts to the regulatory buffer of Bear Creek (see Section 7, Wetland and Stream Conceptual Mitigation Plan).

Based on (1) the predominance of young and non-native vegetation in the affected areas, (2) the narrow width of the affected areas along the axis of stream flow, (3) the abundance of riparian habitat with native vegetation in areas immediately upstream and downstream of the affected areas, and (4) anticipated compensatory mitigation, Project-related impacts to riparian and wetland areas will not likely result in a noticeable reduction in the function of riparian habitats along Bear Creek. As such, impacts to wetlands and riparian areas are not expected to result in significant effects on fish or fish habitat.

No Project features will be built within the stream buffer of the unnamed tributary to Bear Creek, so there will be no permanent effects on riparian habitat for that stream.

Stormwater Management

The Project is designed to meet City stormwater requirements. Treatment of stormwater runoff from project-created, pollution-generating impervious surfaces (e.g., parking lots and access roads) will minimize the potential for the Project to adversely affect water quality. Several stormwater facilities will be provided near the SE Redmond Station to infiltrate runoff from the station and associated parking area for flow control and water quality. Some of these facilities may be open ponds, while others may be underground infiltration galleries or other suitable methods. Because water from these facilities will be infiltrated, it will not adversely affect water quality or flows in any streams in the study area. In addition, the Project will reduce the amount of pollution-generating impervious surface (PGIS) in the study area, thereby contributing to improvements in water quality.

The light rail guideways are not considered to be pollution-generating. Stormwater runoff from the guideways will discharge to uplands, existing drainage systems, wetlands, stormwater facilities, or the Sammamish River. To minimize site-specific impacts, multiple outfalls will be used, and outfall protection will be installed at each one. Runoff from guideways will also discharge to new outfalls in the Sammamish River, which is a flow control-exempt waterbody. The addition of these new stormwater outfalls will not affect water quality in the river because all runoff will be from non-pollution-generating surfaces. No changes in flow regime, including peak flows and base flows of the Sammamish River, are anticipated because the volume of runoff from the small amount of added impervious surface will be miniscule compared to the magnitude of stream flows in the river.

2.5.2.3 Habitat Improvements

Over the long term, the proposed habitat improvements in Bear Creek will benefit aquatic species, including species of concern, in multiple ways. The channel improvement work will be designed to establish a compositionally and structurally complex ecosystem with attributes important for supporting fish and wildlife. Pullback of the railroad fill prism will increase the amount of stream channel area by approximately 1,000 square feet, thus increasing the amount of in-stream habitat available to Chinook salmon and other species. Excavation of floodplain areas and enhancement of a side channel near the stream will increase the availability of off-channel habitat. Stream substrate enhancement and LWD installation will improve habitat complexity. Planting native trees and shrubs in riparian and floodplain areas will provide long-term benefits such as water temperature maintenance, bank stabilization, input of organic matter, and provision of woody debris. The removal of the existing creosote-treated wood bridge will reduce the input of contaminants to the stream. Riprap armoring will be removed from both streambanks between the bridge and SR 202; this will improve habitat conditions along an approximately 250-foot-long area. In addition, widening the channel will remove a hydraulic constraint that may impede the upstream migration of anadromous salmonids during high flows.

3. WETLANDS

Wetlands are defined as areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (RZC 21.64). Wetlands are regulated under RZC 21.64.030.

This section identifies and describes wetland and buffer areas in the study area. Section 3.1 summarizes the methodology used to conduct wetland investigation and delineation, while Section 3.2 describes the results of the wetland investigation. Section 3.3 identifies the regulatory requirements of wetlands as specified in the RZC. Section 3.4 describes wetland impacts, and Section 3.5 discusses the mitigation that will be implemented for the Project. In addition, wetland determination forms are provided in Appendix G. Wetland rating forms and the associated figures are included in Appendix H. WSDOT Wetland Functions Characterization forms are provided in Appendix I. A list of plant species identified in this report, with the scientific names, is provided in Appendix B.

A description of wetland and buffer areas located within the proposed wetland mitigation site is provided separately, in Appendix J. As stated in Section 1.3.4, the site would be used to provide compensatory mitigation for wetland impacts occurring within unincorporated King County, outside of Redmond city limits. The site is located outside of City shoreline jurisdiction.

3.1 Methods

This wetland analysis is based on data obtained through a review of existing information and during field investigations. The goal of these efforts was to document existing information to reflect current site conditions and to collect new information necessary to assess waters of the U.S. and wetland boundaries.

3.1.1 Review of Existing Information

Prior to field investigations, project biologists reviewed public resource information including, but not limited to, the following sources:

- NRCS Web soil survey (NRCS, USDA 2017)
- NWI data (USFWS 2017)
- U.S. Geological Survey (USGS) Kirkland and Redmond Quadrangle Maps for King County, Washington (USGS 2018)
- PHS data (WDFW 2017a)
- Climate data for King County as measured at the Seattle Sand Point Station (Applied Climate Information System 2017)
- Aerial photography of the project corridor (including the King County aerial photography database and Google Earth database)
- Wetland and stream mapping by King County (King County 2017a)
- Stream flow data from the King County Hydrologic Information Center (King County 2017b)
- Critical area maps from Redmond (City of Redmond 2005a and 2005b)

3.1.2 Wetland Identification and Delineation

Parametrix biologists used the methods specified in the Corps Wetland Delineation Manual (Environmental Laboratory 1987) and the indicators described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010) to delineate on-site wetlands using the routine delineation methodology.

Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. An area must meet these three criteria or exhibit at least one positive field indicator of wetland vegetation, soils, and hydrology to be considered a wetland. Wetland determination data forms from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region were recorded for each wetland.

Following confirmation of wetland conditions, the wetland boundary was delineated by placing sequentially numbered pink wetland flagging along the wetland perimeter. Sample plot (SP) locations were also marked with sequentially numbered orange flagging or orange pin flags. The locations of wetland flags and test plots were subsequently surveyed by a professional land surveyor.

3.1.2.1 Project-specific Methods

The field investigation period was adjusted to respond to property access, weather-related issues, and project design revisions. Field work was initiated based on property access schedules. Delineations near Bear Creek began in February 2017, with follow-up hydrology assessments in March and April (due to above-average precipitation in February and March). Some private property (Microsoft campus) was also delineated during this period. City properties were delineated in April, May, and August 2017. Areas within the WSDOT ROW were delineated in May and June 2017. Follow-up delineations to cover revised project designs were conducted in March, April, May, and June 2018.

3.1.2.2 Vegetation

During the field investigations, the biologists observed the dominant plant species and recorded each on data forms for each sample plot (SP). They evaluated dominant plants and their wetland indicator status to determine whether the vegetation was hydrophytic. Hydrophytic vegetation is generally defined as vegetation adapted to prolonged saturated soil conditions. To meet the hydrophytic vegetation criterion, more than 50 percent of the dominant plants must be Facultative, Facultative Wetland, or Obligate, based on the plant indicator status category assigned to each plant species by the Corps (Lichvar et al. 2012; Lichvar et al. 2016).

Scientific and common plant names follow currently accepted nomenclature. Most names are consistent with Flora of the Pacific Northwest (Hitchcock and Cronquist 1973), Plants of the Pacific Northwest Coast (Pojar and MacKinnon 1994), and the USDA PLANTS Database (USDA 2017). However, scientific names listed in the 2016 National Plant List (Lichvar et al. 2016) were used as the final authority in preparing data forms and determining species indicator status.

3.1.2.3 Soils

Generally, an area must have hydric soils to be a wetland. Hydric soil forms when soils are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper layers. Biological activities in saturated soil result in reduced oxygen concentrations that create a preponderance of organisms using anaerobic processes for metabolism. Over time, anaerobic biological

processes produce certain color patterns in mineral soils and/or enhance accumulation of organic soils (e.g., peat), which are used as field indicators of hydric soil. Typically, low-chroma colors are formed in the soil matrix. Bright-colored redoximorphic features form within the matrix under a fluctuating water table. Other important hydric soil indicators include organic matter accumulations in the surface horizon, reduced sulfur odors, and organic matter staining in the subsurface. Soils were examined by excavating SPs to a depth of 16 inches or more, wherever feasible, to observe soil profiles, colors, and textures. Munsell® color charts (Munsell® Color 2015) were used to describe soil colors and the Field Book for Describing and Sampling Soils (Schoeneberger et al. 2012) was used to describe the soil texture class.

3.1.2.4 Hydrology

The study area was examined for evidence of hydrology. An area is considered to have wetland hydrology when soils are ponded or saturated consecutively for 12.5 percent of the growing season (Environmental Laboratory 1987). The growing season generally occurs from late February (February 27) to late November (November 21) (based on Seattle Sand Point weather station climate data). Therefore, ponding or saturation must be present for approximately 33 consecutive days within the growing season. Wetland hydrology is determined by the identification of specific indicators described in the regional supplement (Corps 2010). The observation of one primary indicator or two secondary indicators is a positive indication of wetland hydrology. The project is located in Major Land Use Area 2, within Land Resource Region A (Corps 2010; NRCS 2006). Within these regions, primary and secondary indicators of hydrology are described by the groups listed below:

- Group A (Observation of Surface Water or Saturated Soils): Surface inundation, high water table, and saturated soils
- Group B (Evidence of Recent Saturation): Water marks, sediment and drift deposits, algal mats, iron deposits, surface soil cracks, inundation visible on aerial imagery, sparsely vegetated concave surfaces, salt crusts, and aquatic invertebrates. Secondary: Water-stained leaves and drainage patterns
- Group C (Evidence of Current or Recent Soil Saturation): Hydrogen sulfide odor, oxidized rhizospheres along living roots, presence of reduced iron, and recent iron reduction in tilled soils. Secondary: Dry-season water table and saturation evident on aerial imagery.
- Group D (Evidence from Other Site Conditions or Data): Stunted or stressed plants. Secondary: geomorphic position, shallow aquitard, vegetation Facultative-neutral test, raised ant mounds, and frost-heave hummocks

3.1.2.5 Wetland Classification and Rating

Delineated wetlands were classified according to the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Federal Geographic Data Committee [FGDC] 2013; Cowardin et al. 1979) and Hydrogeomorphic (HGM) Approach (Brinson 1993). Wetlands were also classified and rated according to RZC 21.64.030(A). In addition, wetland ratings and functions were assessed by applying the Washington State Wetland Rating System for Western Washington—2014 Update (Ecology Rating System) (Hruby 2014) and the Wetland Functions Characterization Tool for Linear Projects (Null et al. 2000) in accordance with Section C.3 of RZC Appendix 1. The 2014 rating system assigns a relative wetland category based on level of functions provided by the wetland as follows:

- Category I: Unique or rare wetland type, more sensitive to disturbance than most wetlands, relatively undisturbed, and contain ecological attributes that are impossible to replace within a human lifetime, or provide a high level of functions

- Category II: High level of some functions
- Category III: Moderate level of functions
- Category IV: Lowest level of functions

The Linear Method (Null et al. 2000) qualitatively evaluates wetland functions. The assessed functions can be grouped into three types of functions and values: hydrologic, biologic, and social and were described as being present or absent.

3.2 Results

3.2.1 Summary of Existing Information

Project biologists compiled and analyzed the existing Project information. The following sections describe the historical site conditions that affect wetland determinations, previously mapped wetlands, soil survey information, and climate data (precipitation data and water level gauging on streams) in the study area.

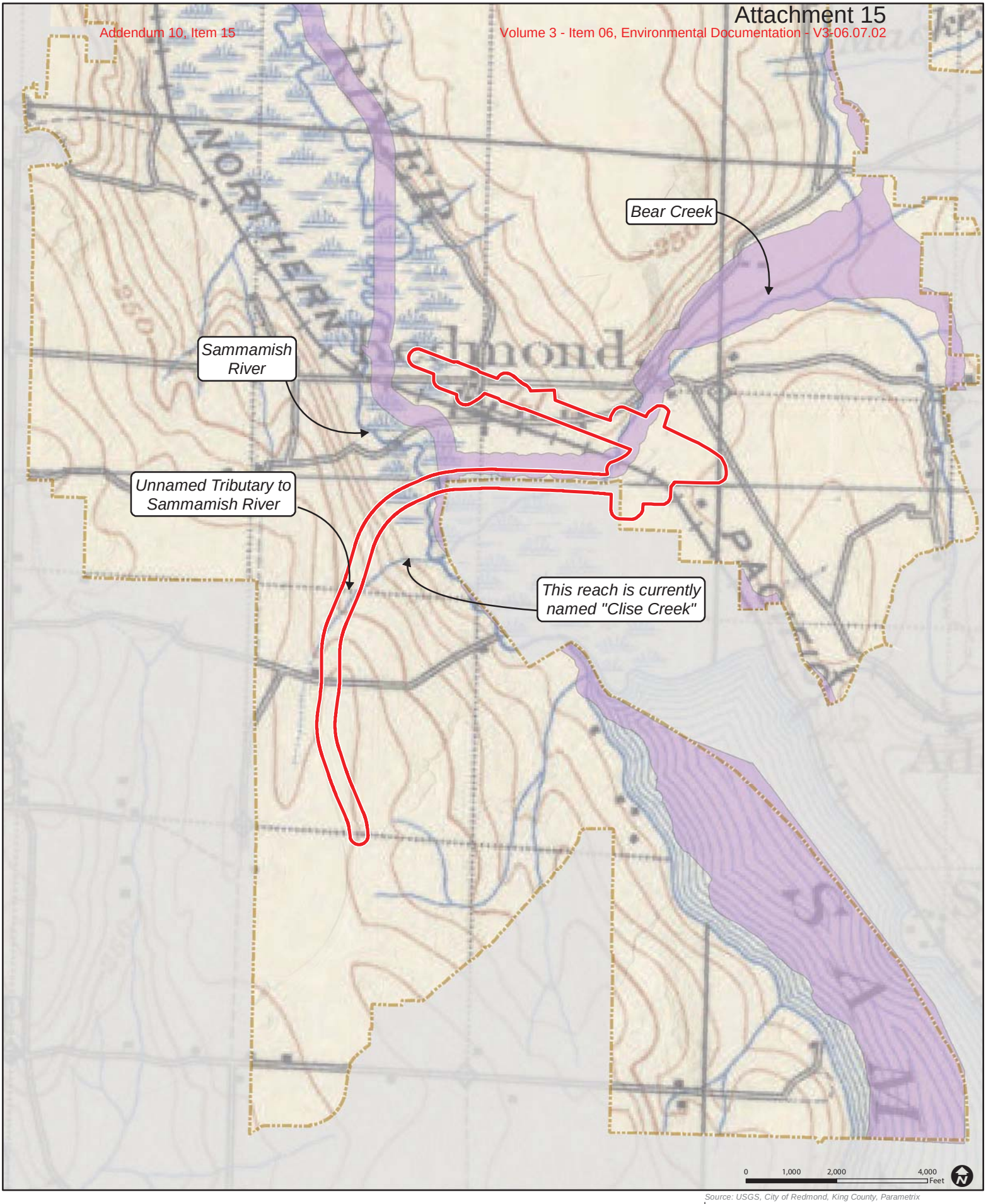
3.2.1.1 Historical Conditions

The study area has been highly modified by human development since European settlement approximately 150 years ago. Before European settlement of the region, the Sammamish River was twice as long as it is now and had a complex, highly sinuous, meandering channel with abundant associated forested wetlands. Figure 3-1 shows the landscape conditions in 1897, as represented on USGS maps. Figure 3-1 shows extensive wetlands throughout the floodplain of the Sammamish River from Lake Sammamish into Redmond, as well as the original meandering alignment of the river. It also shows the original alignment of Bear Creek and the location of a tributary to the Sammamish River that met the river directly across from the Bear Creek confluence. This is important because the original alignment of Bear Creek coincides with a series of wetlands in Marymoor Park, with a localized water table that was observed to be closer to the surface in this corridor than adjacent areas of similar elevation.

By the early 1900s, the landscape had been extensively modified to support agricultural development. The area was logged from the 1870s through the early twentieth century. Before construction of the Lake Washington Ship Canal and subsequent lowering of water levels in Lake Washington, this reach of the Sammamish River was likely part of Lake Sammamish (Corps and King County 2002).

When Lake Washington was lowered by 10 feet in 1916, the overall gradient in the Sammamish River was increased accordingly and many wetland areas were drained. The Sammamish River and Bear Creek channels were straightened and leveed, and the wetlands in the floodplain drained as part of the development of Marymoor Farm and adjacent agricultural areas. These changes are evident in aerial photography from 1935 (Figure 3-2). As agriculture expanded in the Sammamish Valley, more wetlands were drained and converted into farmed fields. Farmers began to straighten the channel around 1911 (Corps and King County 2002). In 1962, the Corps deepened and channelized the river to its present location. When the river was dredged and neighboring lands were cleared, all LWD was removed, as were riparian trees.

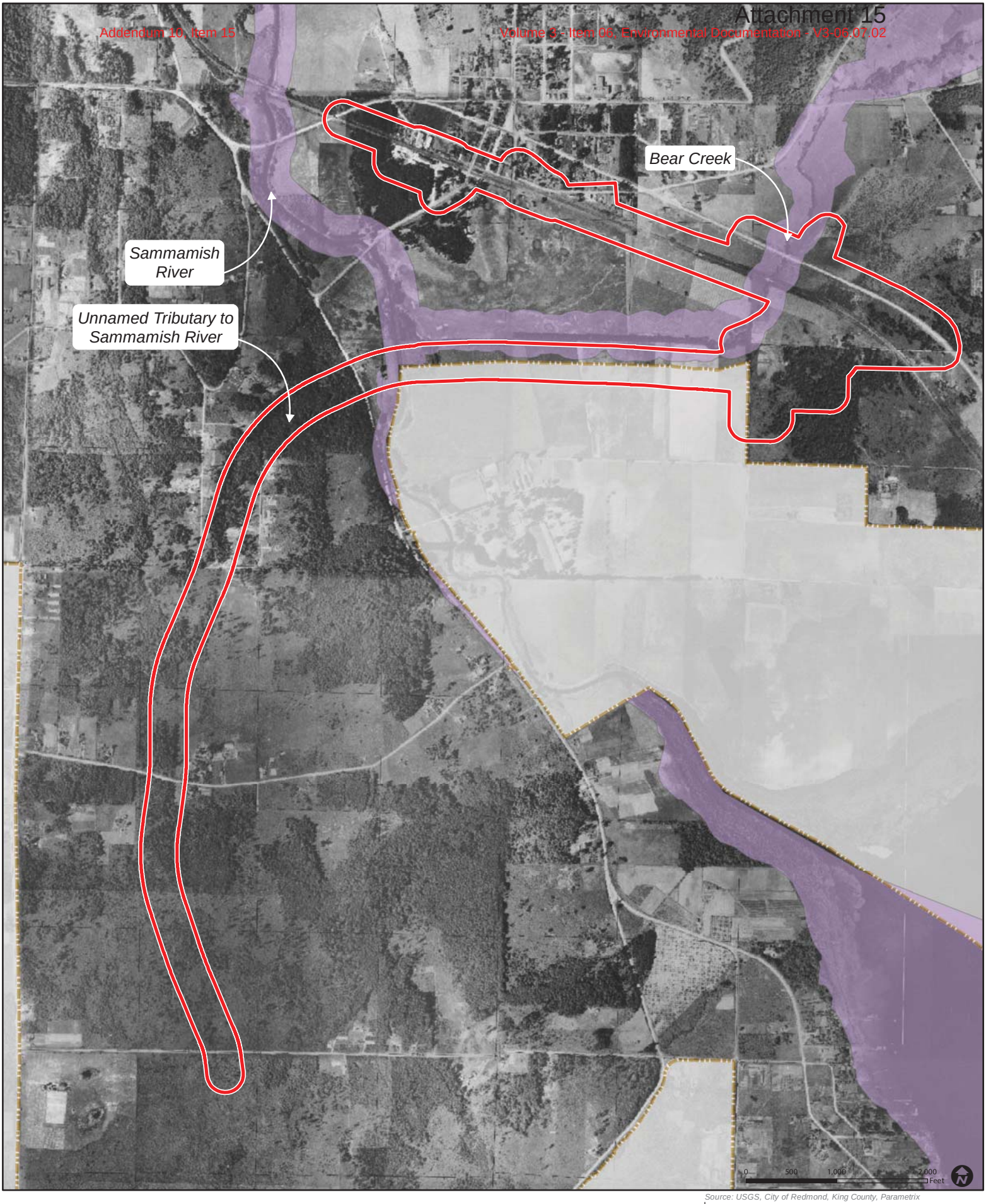
These alterations to streams and hydrology are noteworthy because the soils that occur in the floodplain have been drained and isolated from overbank river flows, thus requiring careful scrutiny of current hydrologic conditions during delineations to distinguish between active and relict hydric soils.



Source: USGS, City of Redmond, King County, Parametrix

Study Area
City Limits
Redmond Shoreline Jurisdiction

Figure 3-1
Historical USGS Topo (1895)
Downtown Redmond Link Extension



Source: USGS, City of Redmond, King County, Parametrix

Study Area
Redmond Shoreline Jurisdiction
City Limits

Figure 3-2
Historical Aerial (1936)
Downtown Redmond Link Extension

The construction of SR 520 in the 1970s, and reconstruction work in the 1990s and 2000s, extensively modified conditions in the study area. Road grading appears to have intercepted the upper reaches of an unnamed tributary to the Sammamish River (see Figure 3-1) (now called Clise Creek by the City of Redmond) that continued through a forested ravine (Figure 3-2) before flowing into the Sammamish River. The extensive cut-and-fill activities have obliterated the native soil profiles, thereby creating challenging soil assessment conditions (see discussion in Sections 3.1.3 and 3.2.1). The installation and operation of stormwater management systems that have been in place for decades (including drainage networks and stormwater infiltration areas) further complicate the evaluation of jurisdictional hydrology (see discussion in Section 3.2.1).

3.2.1.2 Previously Mapped Wetlands

USFWS (2017a) and the City (2005b) identify multiple seasonally flooded palustrine forested, scrub-shrub, or emergent wetlands within the study area. These wetland areas are mapped in Figure 3-3.

3.2.1.3 Soils

Table 3-1 lists the soil types found within the study area. The predominant soil types mapped are Indianola loamy sand (0 to 5 percent slopes), Earlmont silt loam, Alderwood gravelly sandy loam, and Everett gravelly sandy loam (see Table 3-1 and Figure 3-4).

The Indianola series consists of very deep, somewhat excessively drained soils formed in sandy glacial drift located on hills, terraces, terrace escarpments, eskers, and kames of drift or outwash plains at elevations of near sea level to 1,000 feet (NRCS, USDA 2017). This soil type typically does not have hydric soil conditions unless associated with a water body or localized depression.

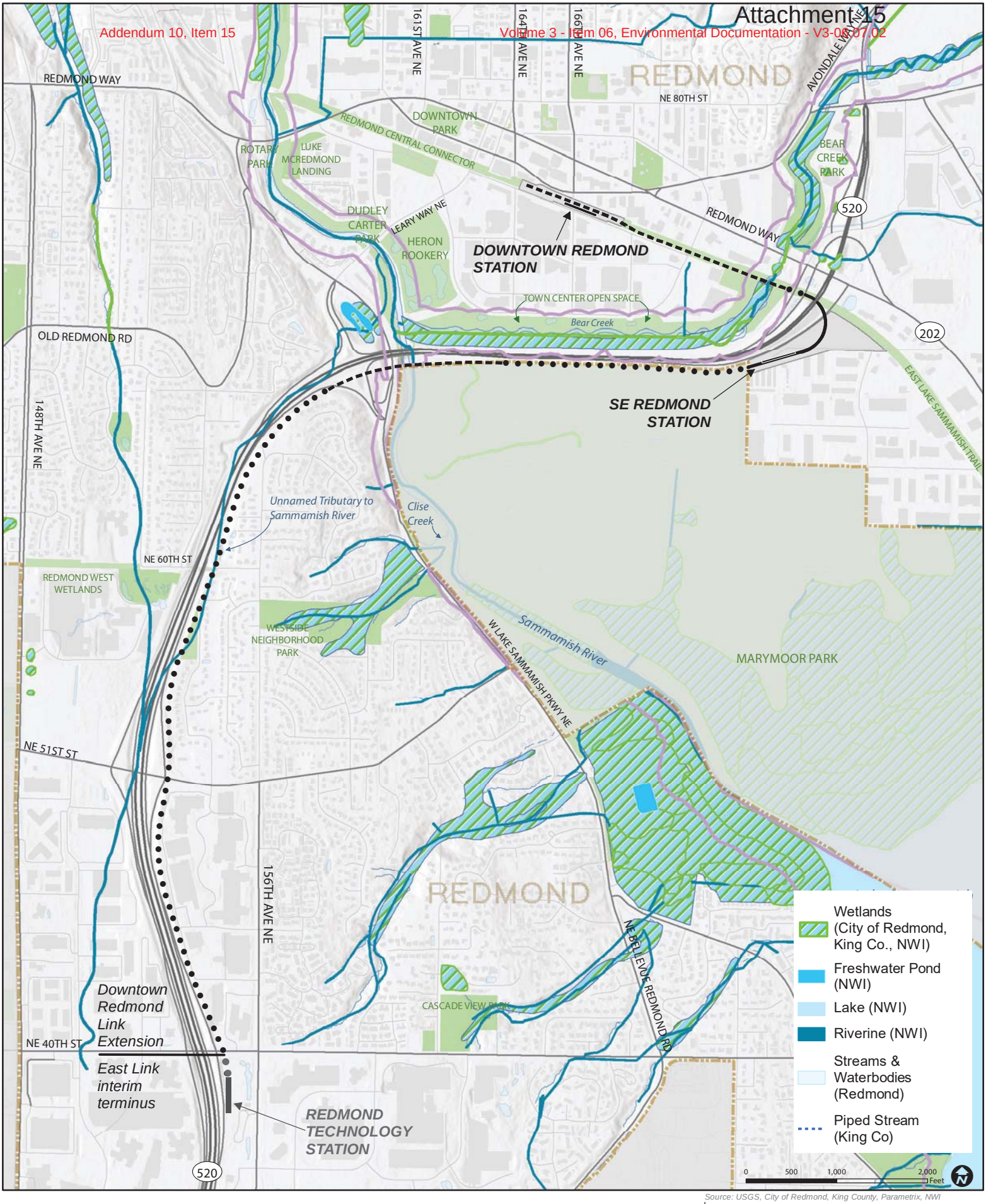
The Earlmont series consists of very deep, somewhat poorly drained soils formed in diatomaceous earth. It is listed as a soil with a high likelihood of hydric soil conditions. However, this portion of the soil series is indicated as having been drained (NRCS, USDA 2017).

The Alderwood series consists of moderately deep to a densic contact, moderately well drained soils formed in glacial drift and outwash over dense glaciomarine deposits. Alderwood soils are generally located on glacially modified hills and ridges on glacial drift plains (NRCS, USDA 2017). This soil type typically does not have hydric soil conditions.

The Everett series consists of very deep, somewhat excessively drained soils that formed in gravelly and sandy glacial outwash located on kames, moraines, and eskers on glacial outwash plains and glacial drift plains (NRCS, USDA 2017). This soil type typically does not have hydric soil conditions.

Other soil types mapped within the study area are Arents, Alderwood material (0 to 6 percent slopes), Kitsap silt loam (8 to 15 percent slopes), Pilchuck loamy fine sand, and Sultan silt loam (see Figure 3-4). Arents are modified or churred soils that lack diagnostic horizons. Alderwood material consists of moderately well-drained basal till located on till planes. The Kitsap series consists of very deep, moderately well-drained soils formed in lacustrine sediments located on terraces and terrace escarpments. The Pilchuck series consists of very deep, excessively drained, and somewhat excessively drained soils formed in gravelly and sandy alluvium located on floodplains. The Sultan series consists of very deep, moderately well-drained soils formed in recent alluvium on floodplains at elevations of near sea level to 120 feet (NRCS, USDA 2017). These soil types typically do not have hydric soil conditions.

Soils are disturbed in much of the study area. Along the southern end of the project alignment, extensive grading associated with the building of SR 520 has removed the original soil profile. The soils were affected by cut-and-fill activities.

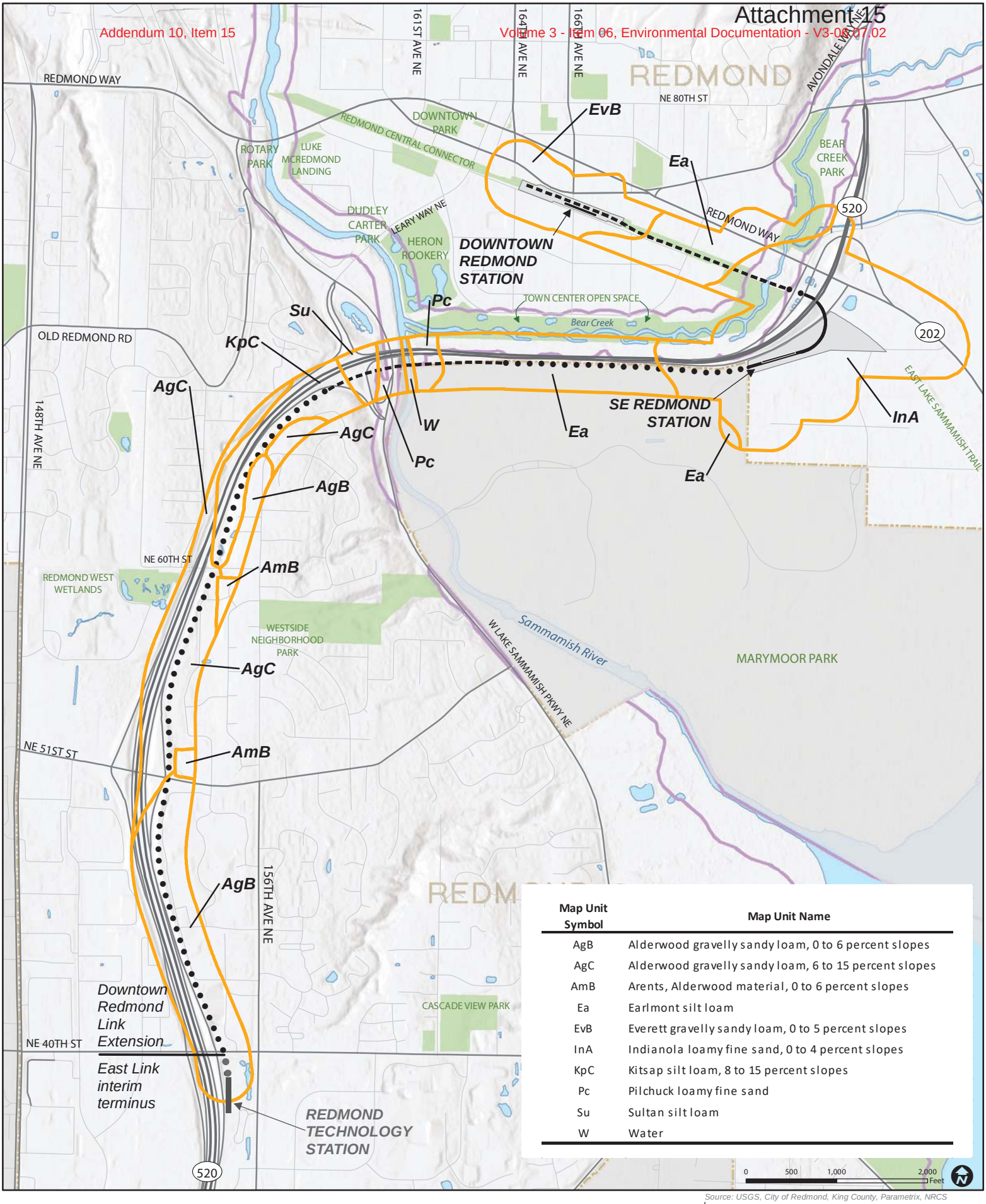


Source: USGS, City of Redmond, King County, Parametrix, NWI

Alignment
- At-Grade
- Elevated
- Retained Cut/Fill

Station Platform
Station Area
Redmond Shoreline Jurisdiction
City Limits

Figure 3-3
Previously Mapped Wetlands
Downtown Redmond Link Extension



Map Unit Symbol	Map Unit Name
AgB	Alderwood gravelly sandy loam, 0 to 6 percent slopes
AgC	Alderwood gravelly sandy loam, 6 to 15 percent slopes
AmB	Arents, Alderwood material, 0 to 6 percent slopes
Ea	Earlmont silt loam
EvB	Everett gravelly sandy loam, 0 to 5 percent slopes
InA	Indianola loamy fine sand, 0 to 4 percent slopes
KpC	Kitsap silt loam, 8 to 15 percent slopes
Pc	Pilchuck loamy fine sand
Su	Sultan silt loam
W	Water

Alignment
- At-Grade
- Elevated
- Retained Cut/Fill

- Station Platform
- Station Area
- City Limits

- Soils
- Redmond Shoreline Jurisdiction

Source: USGS, City of Redmond, King County, Parametrix, NRCS

Figure 3-4
Mapped Soils
Downtown Redmond Link Extension

Table 3-1. Soil Types within the Wetland and Stream Study Area

Map Unit Symbol	Map Unit Name	Hydric Soil Rating[a]
AgB	Alderwood gravelly sandy loam, 0 to 6 percent slopes	1–32%
AgC	Alderwood gravelly sandy loam, 6 to 15 percent slopes	1–32%
AmB	Arents, Alderwood material, 0 to 6 percent slopes	<1%
Ea	Earlmont silt loam	66–99%
EvB	Everett gravelly sandy loam, 0 to 5 percent slopes	0%
InA	Indianola loamy fine sand, 0 to 4 percent slopes	1–32%
KpC	Kitsap silt loam, 8 to 15 percent slopes	1–32%
Pc	Pilchuck loamy fine sand	1–32%
Su	Sultan silt loam	1–32%
W	Water	0%

[a] NRCS, USDA (2017)

3.2.1.4 Climate Data

Project biologists compiled and analyzed precipitation and stream gauging data to characterize conditions observed in the field. Precipitation data were used to understand the hydrologic conditions observed in wetlands in comparison to typical conditions. Wetland delineations are calibrated to identify typical conditions (Environmental Laboratory 1987). Stream gauging data were used to identify ordinary high water for streams. The results of the analysis are presented in the subsections below.

Precipitation

Precipitation during early and late 2017 was well above average (see Figure 3-5), with Redmond receiving over 200 percent of average annual rainfall during February, March, and November. In addition, snowfall in late January and early February was followed by warm rain-on-snow events that further elevated groundwater and surface water elevations well above typical conditions. As such, the evaluation of hydrology included observations later in the spring to differentiate hydrology resulting from excessive precipitation compared to typical conditions.

Precipitation in 2018 was variable, with January and April receiving over 175 percent of average annual rainfall and March and May receiving less than 75 percent of average annual rainfall. February and June, on the other hand, were close to 100 percent of the normal amount of rainfall. Overall, the hydrology observed during 2018 was considered to be normal. Figure 3-5 shows the amount of precipitation recorded prior to (November, December, and January) and throughout the wetland investigations.

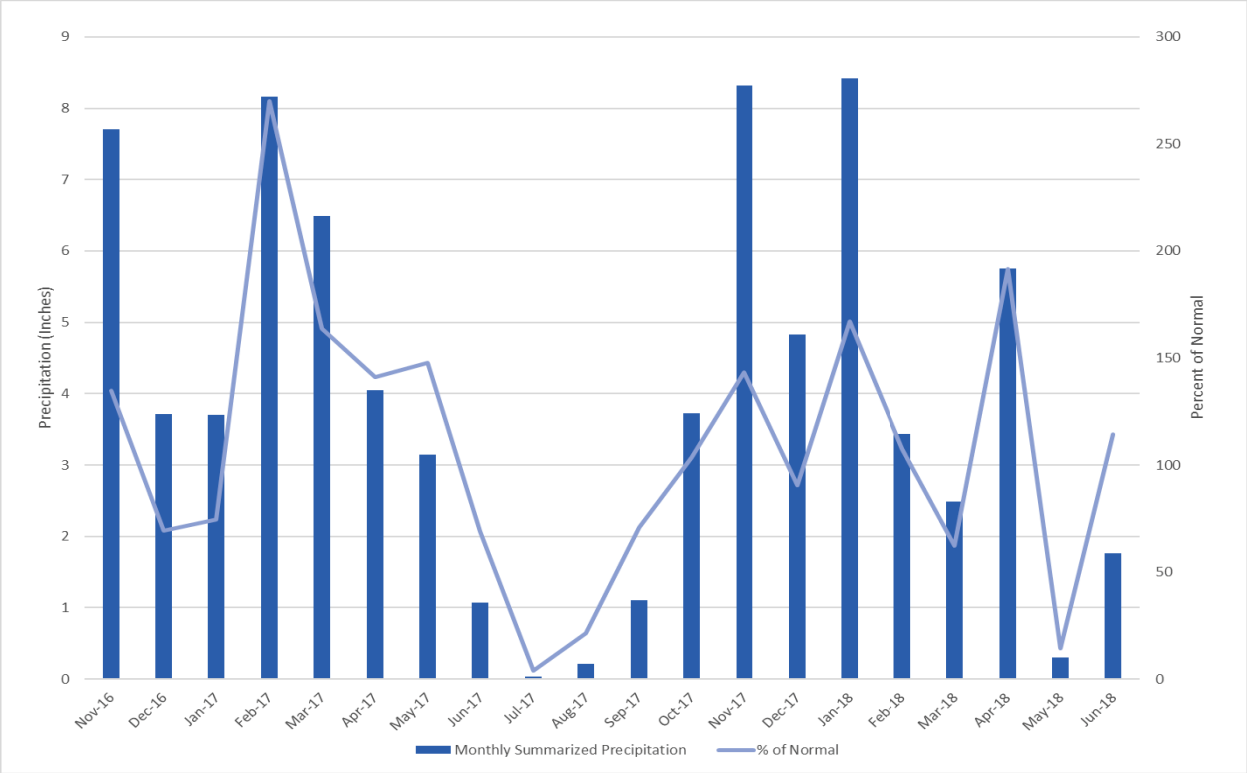


Figure 3-5. Precipitation Conditions during Wetland Surveys conducted in 2017 and 2018

3.2.2 Field Investigation

The 10 wetlands delineated and surveyed in the study area are mapped in Figure 3-6, sheets A to D. Wetland characteristics are summarized in Table 3-2. A detailed discussion of wetland conditions is presented in the sections that follow.

In comparison to previously mapped wetlands (see Figure 3-3), wetlands that were delineated are similar in the Bear Creek corridor and hydrologically similar (but altered) along SR 520 west of the Sammamish River. Along SR 520 west of the Sammamish River, hydrologic and soil conditions are complicated by the construction and reconstruction of the highway and associated stormwater systems. A network of ditches and swales occur in this area, some of which meet wetland technical criteria (e.g., WRE-4).

Table 3-2. Summary of Wetlands in the Study Area

Wetland	Total Wetland Area (acres)	Wetland Area Within Redmond (Acres)	USFWS Classification[a]	HGM Classification[b]	Ecology/ Redmond Rating [c,d]	Standard Buffer Width (feet)[e]
WRE-1	0.02	0.02	PEM	Slope	IV	50
WRE-2	0.07	0.07	PSS	Slope	IV	50
WRE-3	0.03	0.03	PFO	Depressional	IV	50
WRE-4	0.08	0.08	PEM	Depressional	III	80
WKC-3	5.05	0.25	PFO/SS/EM	Depressional	III	150
WRE-5	>10	>10	PFO/SS/EM	Riverine	I	150
WRE-6	0.43	0.43	PFO/SS	Riverine	I	150
WRE-7	>5	>5	PFO/SS/EM	Riverine	I	150
WRE-8	1.01	1.01	PFO/SS/EM	Depressional	II	150
WRE-9	0.01	0.01	PFO/SS	Depressional	III	150

a FGDC 2013; Cowardin et al. 1979

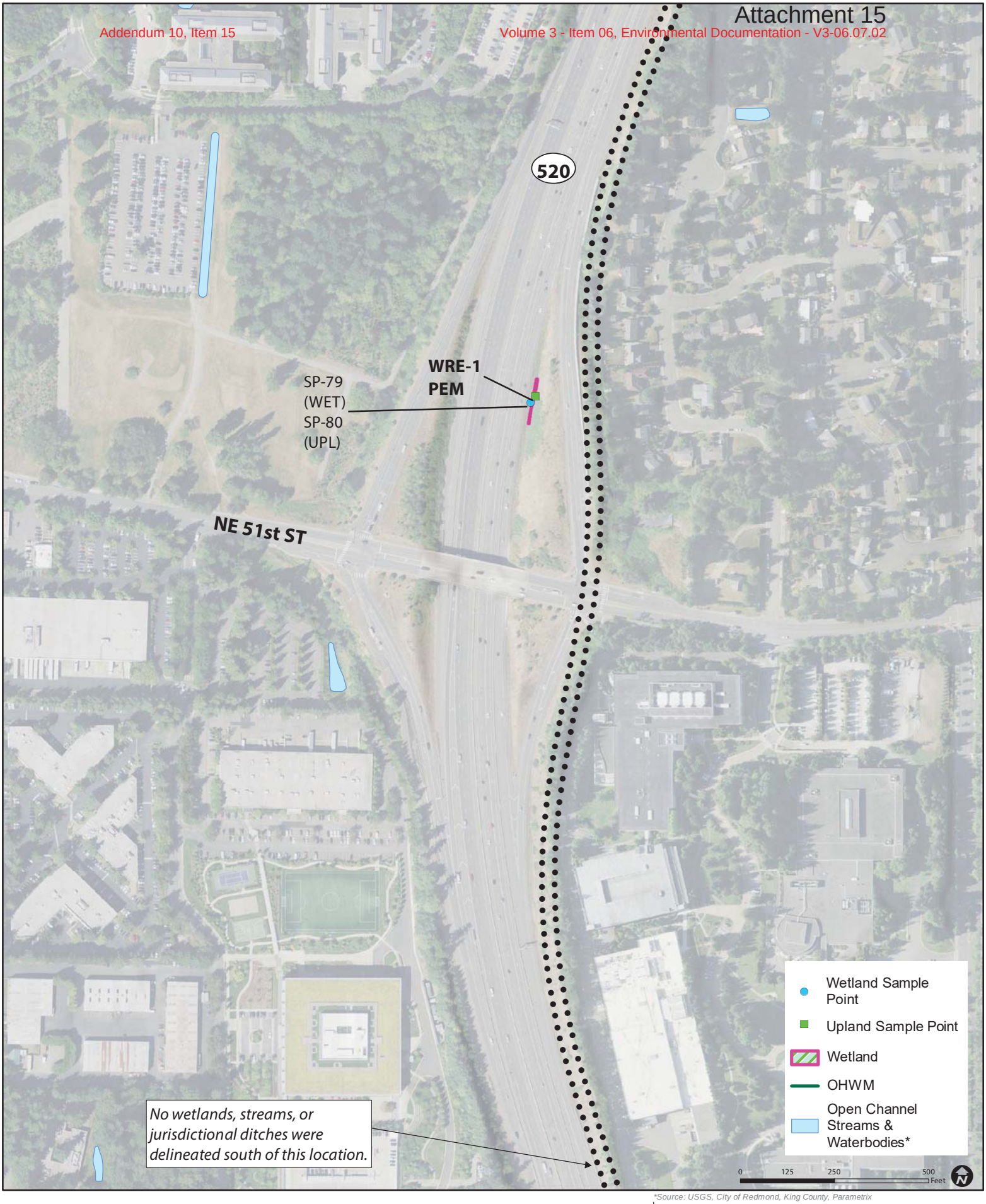
b Brinson 1993

c Hruby 2014

d RZC 21.64.030(A)

e RZC Table 21.64.030(A) assuming high impact of land use

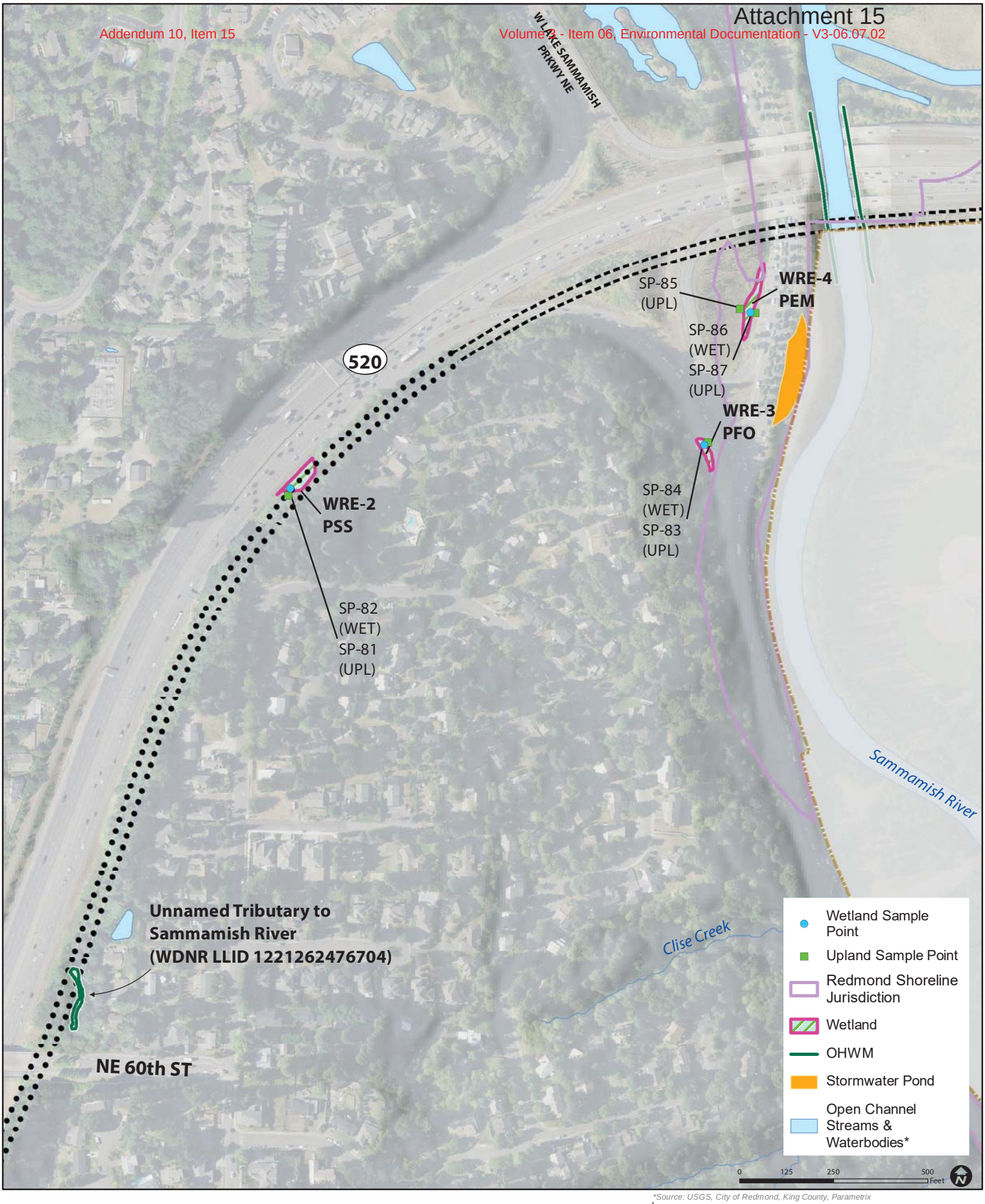
PEM = palustrine emergent; PFO = palustrine forested; PSS = palustrine scrub-shrub



*Source: USGS, City of Redmond, King County, Parametrix

Alignment
- At-Grade
- Elevated
- Retained Cut/Fill
- Station Platform

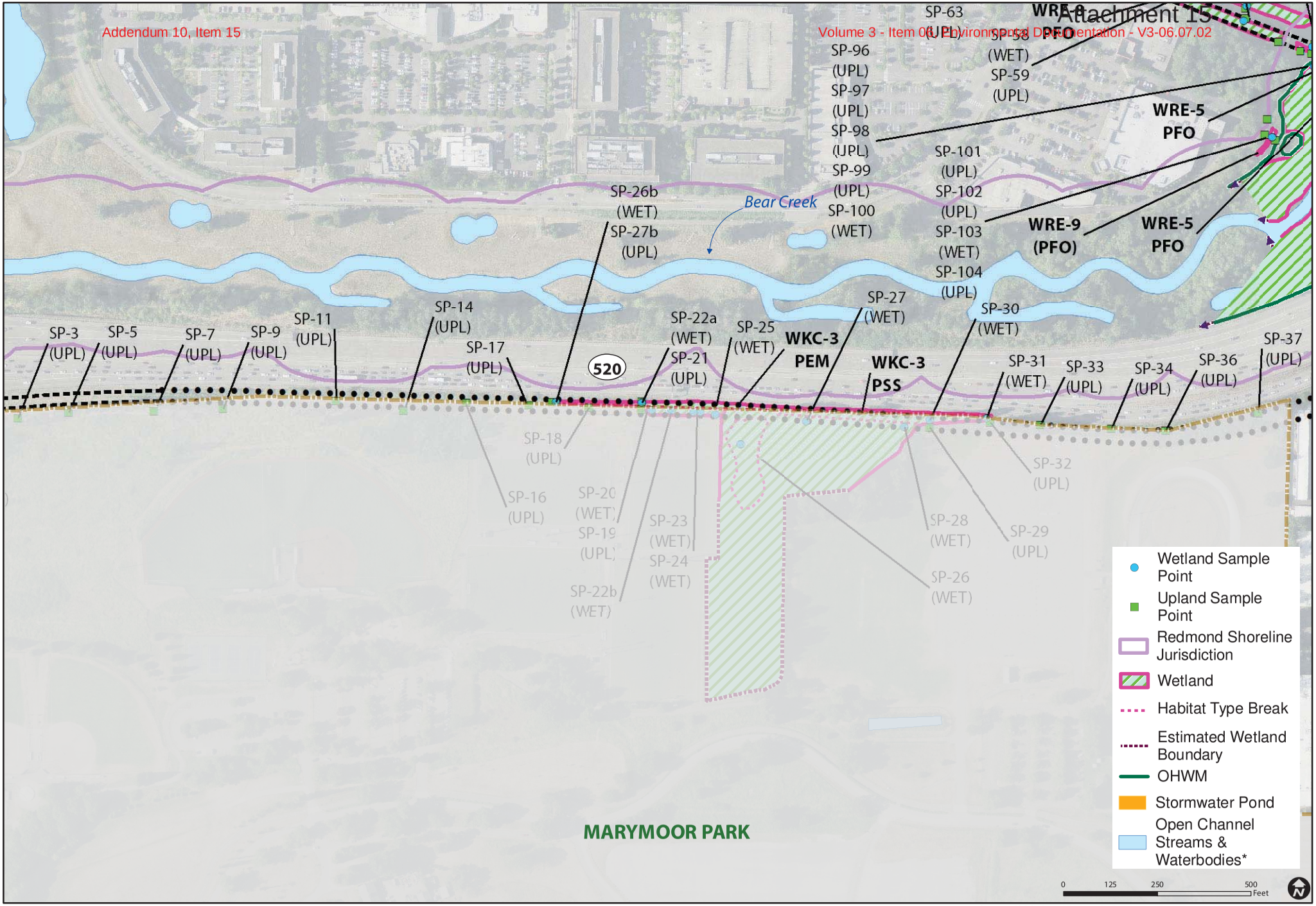
Figure 3-6A
Delineated Wetlands and Stream OHWM
Downtown Redmond Link Extension



Alignment
- At-Grade
- Elevated
- Retained Cut/Fill
- Station Platform
- City Limits

*Source: USGS, City of Redmond, King County, Parametrix

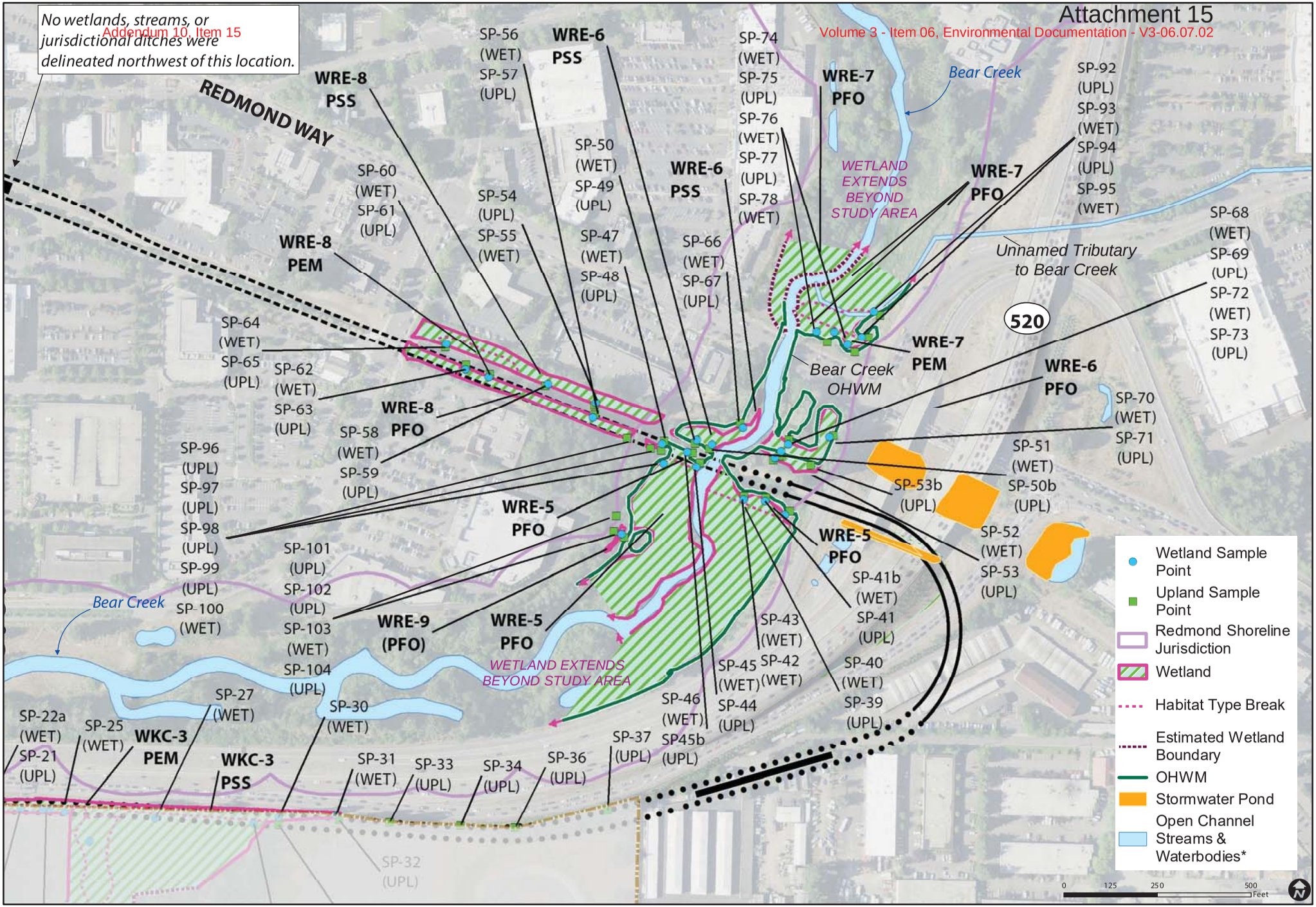
Figure 3-6B
Delineated Wetlands and Stream OHWM
Downtown Redmond Link Extension



Alignment
- At-Grade
- Elevated
- Retained Cut/Fill
- Station Platform
- City Limits

*Source: USGS, City of Redmond, King County, Parametrix

Figure 3-6C
Delineated Wetlands and Stream OHWM
Downtown Redmond Link Extension



Alignment
- At-Grade
- Elevated
- Retained Cut/Fill
- Station Platform
- City Limits

*Source: USGS, City of Redmond, King County, Parametrix

Figure 3-6D
Delineated Wetlands and Stream OHWM
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3.2.2.1 Wetlands

Attributes of the delineated wetlands are summarized in Table 3-2 and described in the subsections that follow. Wetland Determination Forms are provided in Appendix G. Wetland ratings are presented in Section 3.2.2.2 below and in Appendix H. WSDOT Wetland Functions Characterization forms are provided in Appendix I. A list of plant species identified in this report, including the scientific names, is provided in Appendix B.

Wetland WRE-1

Size: 0.02 acre
USFWS Classification: Palustrine Emergent
HGM Classification: Slope
Rating: Category IV
Sample Plots: SP-79 (WET), SP-80 (UPL)

Wetland WRE-1 is located east of eastbound SR 520 and north of NE 51st Street (see Figure 3-6A). The wetland is positioned in a roadside ditch and extends approximately 10 feet upslope to the east before transitioning to uplands. This wetland boundary is defined by the extent of seeps, an expression of groundwater, and the adjacent ditch. Water from the wetland is conveyed downslope through a section of roadside ditch without adjacent seeps and, eventually, discharges to the Sammamish River.

Wetland hydrology is supported by groundwater expression and seeps as well as overland flow. Water generally moves through the wetland from east to west before discharging to a non-wetland ditch. Soil saturation and a high water table were observed in the wetland.

Wetland WRE-1 is vegetated with an emergent plant community. Vegetation within the wetland includes cattail, soft rush, giant horsetail, colonial bentgrass, and bird's-foot trefoil (Figure 3-7).

Soil was examined to a depth of 16 inches and consists of three layers. The top layer, a very dark grayish brown (10YR 3/2) loam, extends to a depth of 3 inches. The middle layer is a 4-inch-thick dark grayish brown (2.5Y 4/2) loam with brown (7.5YR 4/4) and dark yellowish brown (10YR 4/6) redoximorphic features. Below 7 inches, the soil is gray (2.5Y 5/1) clay loam with strong brown (7.5YR 4/6) and gray (N 5/) redoximorphic features. Soils meet the *depleted matrix* hydric soil indicator. Soils in the wetland are mapped as Alderwood gravelly sandy loam by the NRCS (USDA 2017).

The vegetated component of the buffer surrounding Wetland WRE-1 is a mix of non-native vegetation, including colonial bentgrass, Himalayan blackberry, common velvetgrass, giant horsetail, Kentucky bluegrass, cut-leaf geranium, and bird's foot trefoil.

Wetland WRE-1 is classified as palustrine emergent under the USFWS system and slope under the HGM system. Wetland WRE-1 scored 14 points using Ecology's 2014 Rating System and therefore is rated a Category IV according to the City (RZC 21.64.030) and Ecology. The City requires a 50-foot buffer for Category IV wetlands with high impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are low overall, as assessed by the Ecology Rating System, with 14 total points. Wetland WRE-1 scored 6 points (medium) for water quality functions. This steeply sloping wetland has a limited ability to detain and treat water. However, the dense herbaceous plants covering over half of the wetland intercept runoff and provide some treatment. The site is in proximity to pollutant sources such as SR 520. Because Wetland WRE-1 drains into a 303(d) list water body (the Sammamish River), the site has potential to improve water quality downstream. The wetland scored 4 points (medium) for hydrologic function. Wetland WRE-1 is located near a runoff source that increases flood control potential, and the site contains insufficient rigid vegetation to reduce surface flow. Flooding downstream of Wetland WRE-1 is not

recognized as an issue, and the site is not included in a flood control plan. Wetland WRE-1 has a low habitat function score of 4 points. The site has only an emergent vegetation class and a saturation water regime; therefore, it has little habitat complexity. No special habitat features were observed at the site, and the proximity to major roads limits habitat connectivity.

Figure 3-7. Wetland WRE-1 photographed adjacent to SR 520, north of NE 51st Street

Wetland WRE-2

Size: 0.07 acre
USFWS Classification: Palustrine Scrub-Shrub
HGM Classification: Slope
Rating: Category IV
Sample Plots: SP-82 (WET), SP-81 (UPL)

Wetland WRE-2 is located at the toe of a steep slope east of SR 520, north of NE 60th Street (see Figure 3-6B). Groundwater springs emerge approximately 20 feet above the toe of slope. The wetland boundary is defined by the limits of groundwater expression and the presence of hydric soils. Uphill and laterally from the wetland, soils lack hydric characteristics and there is no wetland hydrology. Downhill of the wetland, water outlets into a non-wetland roadside ditch along SR 520 and eventually drains to the Sammamish River.

Groundwater expression supports the wetland hydrology. A high water table and soil saturation was observed in the wetland.

Wetland WRE-2 is vegetated with a scrub-shrub plant community. Vegetation within the wetland includes Nootka rose, red alder saplings, Himalayan blackberry, lady fern, giant horsetail, and creeping buttercup (Figure 3-8).

Soil was examined to a depth of 16 inches and consists of two layers. The top layer is a 5-inch-thick very dark brown (10YR 2/2) loam. The lower layer is a dark gray (2.5Y 4/1) gravelly sandy clay loam with dark grayish brown (2.5Y 4/2) and dark yellowish brown (10YR 3/6) redoximorphic features. Soils meet the *depleted matrix* hydric soil indicator. Soils in the wetland are mapped as Kitsap silt loam by NRCS (USDA 2017).

The vegetated component of the buffer surrounding Wetland WRE-2 is a mix of forest, shrubs, and herbaceous vegetation, including red alder, big-leaf maple, snowberry, vine maple, beaked hazelnut, Himalayan blackberry, Robert geranium, and periwinkle.

Wetland WRE-2 is classified as palustrine scrub-shrub under the USFWS system and slope under the HGM system. Wetland WRE-2 scored 13 points using Ecology's 2014 Rating System and, therefore, is rated a Category IV according to the City (RZC 21.64.030). The City requires a 50-foot buffer for Category IV wetlands with high impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are low overall, as assessed by Ecology's 2014 Rating System, with 13 total points. Wetland WRE-2 scored 6 points (medium) for water quality functions. This seep wetland is located near the base of a gradual slope and is adjacent to SR 520. The site intercepts surface water runoff and discharges directly into a 303(d) listed water body (the Sammamish River), thus offering potential water quality improvements downstream. Wetland WRE-2 has a low hydrologic function score of 4 points. The site contains some rigid vegetation to slow surface flow velocity, and downstream areas are not recognized as having flood problems. For habitat function, Wetland WRE-2 scored a low 3 points. The site consists of only a single scrub-shrub vegetation class and saturation water regime, with no special habitat features. Habitat connectivity is limited by adjacent residential housing and SR 520.

Figure 3-8. Wetland WRE-2 photographed adjacent to SR 520

Wetland WRE-3

Size: 0.03 acre
USFWS Classification: Palustrine Forested
HGM Classification: Depressional
Rating: Category IV
Sample Plots: SP-83 (UPL), SP-84 (WET)

Wetland WRE-3 is positioned in a depression between SR 520 road fill and a steep slope, south of the SR 520 eastbound off-ramp to West Lake Sammamish Parkway NE (see Figure 3-6B). The wetland boundary is defined to the north and northeast (uphill to roadway) by the limits of the road fill prism, and by a shift to upland soils and lack of wetland hydrology to the south and west. Vegetation also changes along these boundaries from a dominance of hydrophytes to a community dominated by upland species (e.g., big-leaf maple, Douglas-fir, and sword fern).

Wetland hydrology is supported by seeps, localized overland flow, and discharge from a roadside ditch into the wetland. The discharge from the roadside ditch has resulted in small areas of channelized flow in the wetland. The outlet is a grated, partially constricted drainage system at the southern extent of the wetland that drains to the Sammamish River under West Lake Sammamish Parkway NE. A high water table, shallow inundation, and soil saturation were observed in the wetland.

Wetland WRE-3 is vegetated with a forested plant community. Vegetation within the wetland includes western red cedar, red alder, salmonberry, Himalayan blackberry, giant horsetail, and lady fern (Figure 3-9).

Soil was examined to a depth greater than 18 inches and consists of one layer. The examined layer is a very dark brown (10YR 2/2) silty clay loam with gray (5Y 5/1), strong brown (7.5YR 4/6), and gray (N 5/) redoximorphic features. Soils meet the *redox dark surface* hydric soil indicator. Soils in the wetland are mapped as Pilchuck loamy fine sand by the NRCS (USDA 2017).

The vegetated component of the buffer surrounding Wetland WRE-3 is primarily forested with red alder, Douglas-fir, and big-leaf maple, with an understory comprising of snowberry, vine maple, Himalayan blackberry, beaked hazelnut, and sword fern.

Wetland WRE-3 is classified as palustrine forested under the USFWS system and depressional under the HGM system. Wetland WRE-3 scored 15 points using Ecology's 2014 Rating System and is rated a Category IV according to the City (RZC 21.64.030) and Ecology.

Functions provided by the wetland are moderate overall, as assessed by the Ecology Rating System, with 15 total points. Wetland WRE-3 scored 6 points (moderate) for water quality functions. Discharges of untreated stormwater from West Lake Sammamish Parkway NE and the proximity of urban development increase the potential for water quality improvement. The site intermittently ponds, but persistent ungrazed vegetation covers over half of the wetland and assists in water treatment. Wetland WRE-3 scored 5 points (moderate) for hydrologic functions. Contributions of Wetland WRE-3 to flood storage in the landscape are low; the site has low ponding capabilities and encompasses a small portion of its watershed. Wetland WRE-3 does provide some hydrologic function by intercepting stormwater discharges and potentially reducing flooding downstream. The habitat functional score for the site is 4 points (low). Wetland WRE-3 contains only a forest vegetation community and a saturation water regime with LWD habitat features. Proximity to major roads and residential housing limits habitat contiguity; however, a wide vegetated corridor connects Wetland WRE-3 to a large forested open area that provides good connectivity to diverse habitats.

Figure 3-9. WRE-3 photographed to the east and south of SR 520, and west of West Lake Sammamish Parkway NE

Wetland WRE-4

Size: 0.08 acre
USFWS Classification: Palustrine Emergent
HGM Classification: Depressional
Rating: Category III
Sample Plots: SP-85 (UPL), SP-86 (WET), SP-87 (UPL)

Wetland WRE-4 is in a linear depression positioned in the SR 520 interchange with West Lake Sammamish Parkway NE (see Figure 3-6B). The wetland extends from toe-slope seeps down to the road fill associated with West Lake Sammamish Parkway NE, where water impounds against the fill prism.

Wetland hydrology is supported by seeps and surface flow from the adjacent roadways and slope. The outlet is a catch basin that allows 1 to 2 feet of impoundment in the wetland during storms. A high water table, shallow inundation, sheet flow, and soil saturation were observed in the wetland.

Wetland WRE-4 is vegetated with an emergent community. Vegetation within the wetland is composed of meadow foxtail, reed canarygrass, Himalayan blackberry, and common rush (Figure 3-10).

Soil was examined to a depth greater than 16 inches and consists of two layers. The topsoil is a 4-inch-thick layer of black (10YR 2/1) sandy loam. This lies over a subsoil at least 12 inches thick composed of gray (2.5Y 5/1) gravelly sandy loam with dark yellowish brown (10YR 4/6) redoximorphic features. Soils meet the *depleted matrix* and *depleted below dark surface* hydric soil indicators. Soils in the wetland are mapped as Pilchuck loamy fine sand and Sultan silt loam by the NRCS (USDA 2017).

The vegetated component of the buffer surrounding Wetland WRE-4 is a mix of shrubs and herbaceous vegetation, including incense cedar, vine maple, beaked hazelnut, snowberry, Nootka rose, giant horsetail, common nipplewort, narrow-leaf plantain, common bedstraw, a variety of non-native grasses, and Robert geranium.

Wetland WRE-4 is classified as palustrine emergent under the USFWS system and depressional under the HGM system. Wetland WRE-4 scored 16 points on Ecology's 2014 Rating System; therefore, it is rated a Category III according to the City (RZC 21.64.030) and Ecology. The City requires an 80-foot buffer for Category III wetlands with high impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are low overall, as assessed by Ecology's 2014 Rating System, with 16 total points. Wetland WRE-4 scored 7 points (moderate) for water quality functions. The constricted outlet of the site contributes to seasonal ponding of a quarter of the total wetland area, thus slowing the water and allowing for treatment time. Major roads surround Wetland WRE-4 on all sides and discharge surface water runoff into the wetland, thus providing opportunities for treatment. Hydrologic functions of Wetland WRE-4 scored 5 points (moderate). The site has high potential for surface water runoff catchment and retention; however, marks of ponding were observed at less than 0.5 feet even though the wetland could store 1 to 2 feet of water. Only an emergent vegetation class with less than five species is present at the site. Low plant diversity, lack of habitat features, and lack of connectivity contribute to a low habitat score of 4 for Wetland WRE-4.

Figure 3-10. Wetland WRE-4 photographed to the west of West Lake Sammamish Parkway NE

Wetland WKC-3

Size: approximately 5 acres (extends out of study area)
USFWS Classification: Palustrine Forested, Scrub-Shrub, and Emergent
HGM Classification: Depressional
Rating: Category III
Sample Plots: SP-19 through SP-32

Wetland WKC-3 is located in a shallow depression adjacent to SR 520, within the WSDOT SR 520 ROW and along the northern perimeter of Marymoor Park. The area within the WSDOT SR 520 ROW is within the City's jurisdiction, while the area within Marymoor Park is within King County's jurisdiction. Several park-related playing fields flank the wetland—a soccer field to the west and a cricket field to the east (see Figure 3-6C). The site includes a King County mitigation area, which was constructed in 2001 as compensation for wetland impacts in Marymoor Park (King County 2017c). The wetland boundary is defined to the north by the extents of fill associated with SR 520, to the west by developed playfields, to the northwest by a loss of wetland hydrology, and to the east and southeast by a steep uphill topographic gradient and loss of wetland hydrology. The wetland boundary to the south is outside of the study area and was not delineated but is assumed to be limited by the presence of a paved bicycle trail and associated fill.

Wetland hydrology is supported by a high groundwater table and surface water runoff from adjacent areas. Areas of ponded water were observed throughout the wetland in February through April 2017. The southern half of the wetland appears to discharge to the south into adjacent wetland areas and eventually the Sammamish River, but no outlet structure was observed. A high water table, inundation, and saturated soils were observed.

Wetland WKC-3 contains forested, scrub-shrub, and emergent plant communities. The forested plant community is dominated by Oregon ash, red alder, Sitka spruce, and black cottonwood, with an understory of willow, reed canarygrass, and slough sedge. The scrub-shrub community is dominated by Douglas spirea, willow, Nootka rose, redosier dogwood, and shore pine, with an understory of reed canarygrass. The emergent community includes slough sedge, Kentucky bluegrass, and reed canarygrass (Figure 3-11).

Soil sampled at SP-28 (WET) is representative of the soils encountered in other portions of the wetland. At this location, soil was examined to a depth of 18 inches and consists of four layers. The top layer is a 4-inch-thick, very dark grayish brown (10YR 3/2) clay. The second layer is a 2-inch-thick, very dark grayish brown (10YR 3/2) clay loam. The third layer is a 2-inch-thick, dark grayish brown (10YR 4/2) silt loam with yellowish red (5YR 4/6) redoximorphic features. The fourth and lowest layer is a gray (2.5Y 5/1) silt loam with strong brown (7.5YR 4/6) redoximorphic features. Soils at SP-28 meet the *depleted matrix* and *depleted below dark surface* hydric soil indicators. Other sample points within the wetland met one or both of these indicators. Soils in the wetland are mapped as Earlmont silt loam by the NRCS (USDA 2017).

The vegetated component of the buffer surrounding Wetland WKC-3 is mostly mowed grass to the east and northwest that consists of Kentucky bluegrass and reed canarygrass. A small band of upland trees and shrubs between the mowed area and the wetland include non-native poplars, Douglas-fir, and osoberry. The buffer to the north is the vegetated shoulder of SR 520, including Himalayan blackberry and planted native species such as Pacific ninebark and redosier dogwood. There is no vegetated buffer to the west (artificially surfaced playfields).

Wetland WKC-3 is classified as palustrine forested, scrub-shrub, and emergent under the USFWS system and depressional under the HGM system. Wetland WKC-3 scored 19 points on Ecology's 2014 Rating System; therefore, it is rated a Category III according to the City (RZC 21.64.030) and Ecology. The City requires a requires a 150-foot buffer for Category III wetlands that have a habitat rating of 5 to 7 points and high-impact land uses (RZC 21.64.030 (B)). The KCC requires a wetland buffer width of 125 feet for Category III wetlands with a habitat score above 20 points (KCC 21A.24.325(A)(1)).

Functions provided by the wetland are overall moderately high, as assessed by Ecology's 2014 Rating System, with 19 total points. Water quality functions for Wetland WKC-3 scored 7 points (moderately high). Discharges of untreated stormwater to the site and proximity of urban development increase the potential for water quality improvement for Wetland WKC-3. Seasonal ponding within a quarter of the wetland allows sediments to settle out from the water column. Persistent ungrazed vegetation comprises over 95 percent of the site and improves water quality through sediment trapping.

The hydrologic functions score for the site is 6 points (moderate). The constrained outlet and ponding potential allow for greater surface water storage. Marks of ponding at the site measured between 0.5 and 2 feet. Because Wetland WKC-3 has a constrained outlet, surface water is detained, thus reducing downstream flooding. However, downstream flooding is not a significant issue; therefore, the wetland has limited opportunity to provide this function.

The habitat score for the site is 6 points (moderate). Multiple vegetation classes with high species diversity form a high interspersion of habitats at the site. Special habitat features include LWD, snags, and thin persistent vegetation. Buffers and wildlife corridors for Wetland WKC-3 are limited by roads and recreational development.

Figure 3-11. The palustrine forested and palustrine scrub-shrub component of Wetland WKC-3, positioned east of Marymoor Park Soccer Field 3

Wetland WRE-5

Size: Over 10 acres (large wetland extends off site)
USFWS Classification: Palustrine Forested, Scrub-Shrub, and Emergent
HGM Classification: Riverine
Rating: Category I
Sample Plots: SP-39 (UPL) through SP-46 (WET), SP-97 (UPL) through SP-100 (WET), SP-102 (UPL)

Wetland WRE-5 is located in a floodplain on both banks of Bear Creek in Redmond. As mapped by the City (City of Redmond 2005b), Wetland WRE-5 is part of a much larger riparian wetland complex that extends upstream and downstream of the study area. In the study area, Wetland WRE-5 is southwest (downstream) of an abandoned (railbanked) section of former BNSF Railway corridor, which separates Wetland WRE-5 from Wetland WRE-6 to the northeast (upstream) (see Figure 3-6D).

The wetland boundary to the north, east, and west is defined by the presence of fill prisms associated with SR 520, adjacent developments, and the railroad grade. The wetland continues downstream to the confluence with the Sammamish River. Outside of the project footprint, the downstream wetland contains WSDOT restoration and mitigation sites.

Wetland hydrology is supported by seasonal high flows associated with Bear Creek, a high groundwater table, and surface water runoff. Wetland hydrology indicators observed included inundation, a high water table, saturation, sediment deposits, drift deposits, water-stained leaves, and drainage patterns.

Wetland WRE-5 contains forested, scrub-shrub, and emergent plant communities. Vegetation within Wetland WRE-5 includes red alder, Oregon ash, black cottonwood, Sitka spruce, willows, snowberry, Nootka rose, redosier dogwood, Himalayan blackberry, salmonberry, slough sedge, stinging nettles, Kentucky bluegrass, creeping buttercup, and reed canarygrass (Figure 3-12).

Soil at SP-40 is representative of soils encountered in other portions of the wetland. The soil was examined to a depth of 20 inches and consists of three layers. The top layer is a 4-inch-thick, very dark gray (10YR 3/1) loam. The middle layer is 8-inch-thick very dark grayish brown (10YR 3/2) loamy sand with dark yellowish brown (10YR 4/4) redoximorphic features. The third and lowest layer below 12 inches is a dark gray (10YR 4/1) fine sand with yellowish brown (10YR 5/6) redoximorphic features. Soils meet the *depleted below dark surface* and *sandy redox* hydric soil indicators. Soils in the wetland are mapped as Indianola loamy sand by the NRCS (USDA 2017).

The vegetated buffer surrounding Wetland WRE-5 is narrow because it is limited by adjacent roadways and development. The remaining buffer is dominated by Himalayan blackberry, black cottonwood, red elderberry, and snowberry.

Wetland WRE-5 is classified as palustrine forested, scrub-shrub, and emergent under the USFWS system and riverine under the HGM system. Wetland WRE-5 was rated according to Ecology's 2014 Rating System (Hruby 2014), as specified in RZC 21.64.030(A). The wetland scored 24 points using the Ecology 2014 system, thereby qualifying as a Category I wetland. A preliminary review of the forested area indicates it also qualifies as a Category I wetland, based on the presence of mature forested components in the wetland. The City requires a wetland buffer width of 150 feet for Category I wetlands with a habitat score of 5 to 7 points and adjacent high-impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are high overall, as assessed by the Ecology Rating System, with 24 total points. With a score of 9 points, Wetland WRE-5 has very high water quality functional abilities. Bear Creek flows through Wetland WRE-5 and is on Ecology's 303(d) list. A TMDL plan for the Bear Creek-Evans Creek watershed has been established to address warm temperatures, low dissolved oxygen, and high bacteria levels. The proximity of the wetland to urban development increases the site's landscape

potential for water quality improvements. At a site level, Wetland WRE-5 has depressions and vegetation covering most of the area to slow and retain surface water, thus allowing pollutants to settle out.

Wetland WRE-5 scored 8 points (high) for hydrologic functions. The floodplain width and the large amount of trees and shrubs in the area contribute to slowing the velocity of floodwaters. Wetland WRE-5 has been identified as an important flood storage area in the City's Final Comprehensive Flood Hazard Management Plan.

Habitat functions of the site scored a moderately high 7 points. Interspersion of habitats is high, with four vegetation classes (including a diversely stratified forested class) and open water. Various habitat features are present such as large downed logs, snags, undercut banks, stable steep slopes for denning, and thin-stemmed persistent plants for amphibian egg-laying. Bear Creek provides habitat for multiple salmon species, including federally listed Chinook salmon. Wetland WRE-5 helps support these fish populations by providing refuge and rearing areas.

Figure 3-12. Wetland WRE-5 and a side channel of Bear Creek shown downstream of the railroad fill prism and east of the main Bear Creek channel

Wetland WRE-6

Size: 0.43 acre
USFWS Classification: Palustrine Forested and Scrub-Shrub
HGM Classification: Riverine
Rating: Category I
Sample Plots: SP-49 (UPL), SP-50 (WET), SP-50b (UPL), SP-51 (WET), SP-52 (WET), SP-66 (WET) through SP-71 (UPL)

Wetland WRE-6 is located in a floodplain on the right and left banks of Bear Creek within the Redmond city limits. As mapped by the City (City of Redmond 2017), Wetland WRE-6 is part of a much larger riparian wetland complex that extends upstream and downstream of the study area. In the study area, Wetland WRE-6 is positioned northeast of an abandoned (railbanked) section of former BNSF Railway corridor, which separates Wetland WRE-6 from Wetland WRE-5 to the southwest (downstream) (see Figure 3-6D).

The wetland boundary is defined by the presence of fill prisms associated with SR 520, SR 202, adjacent developments, and the railroad grade. In addition, the wetland boundary to the northeast (both sides of Bear Creek) is based on a lack of hydric soils and wetland hydrology. Bear Creek is incised in this area and is isolated from its floodplain. The wetland includes a backwater channel on the east bank and a flood bench on the west bank, both of which are located immediately upstream of the former BNSF Railway corridor bridge.

Wetland hydrology is supported by seasonal high flows associated with Bear Creek, a high groundwater table, and surface water runoff. Wetland hydrology indicators observed included a high water table, inundation, saturation, water marks, sediment deposits, drift deposits, water-stained leaves, and drainage patterns.

Wetland WRE-6 contains a forested and scrub-shrub plant community. Vegetation within Wetland WRE-6 includes black cottonwood, Himalayan blackberry, redosier dogwood, salmonberry, large-leaf avens, reed canarygrass, creeping buttercup, and slough sedge (Figure 3-13).

Soil at SP-52 is representative of soils encountered in other portions of the wetland. Soils were examined to a depth of 20 inches and consist of three layers. The top layer is a 5-inch-thick, very dark brown (10YR 2/2) loam. The middle layer is a very dark brown (7.5YR 3/2) loam with dark brown (7.5YR 3/1) and brown (10YR 5/3) redoximorphic features. The third and lowest layer is a very dark grayish brown (10YR 3/2) gravelly loam with strong brown (7.5YR 4/6) redoximorphic features. Soils meet the *redox dark surface* hydric soil indicator. Soils in the wetland are mapped as Indianola loamy sand by the NRCS (USDA 2017).

The vegetated buffer surrounding Wetland WRE-6 is narrow because it is limited by adjacent roadways and development. The remaining buffer is dominated by Himalayan blackberry, black cottonwood, and snowberry.

Wetland WRE-6 is classified as palustrine forested and scrub-shrub under the USFWS system and riverine under the HGM system. Wetland WRE-6 was rated according to Ecology's 2014 Rating System (Hruby 2014), as specified in RZC 21.64.030(A). The wetland scored 24 points using the Ecology Rating System, thereby qualifying as a Category I wetland. The City requires a standard wetland buffer width of 150 feet for Category I wetlands with a habitat score of 5 to 7 points and adjacent high-impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are high overall, as assessed by Ecology's 2014 Rating System, with 24 total points. Water quality functions of the site scored a high 9 points. Surface depressions cover

approximately half of the area, and trees and shrubs cover much of the wetland. Bear Creek flows through Wetland WRE-6 and is on Ecology's 303(d) list, with a TMDL plan for the Bear-Evans watershed to address warm temperatures, low dissolved oxygen, and high bacteria levels. Wetland WRE-6 scored a high 8 points for hydrologic functions. Its urban location increases the landscape potential for flood control. At a site level, Wetland WRE-6 has a high proportion of trees and shrubs to slow flood velocities but a low stream-to-wetland ratio for overbank storage potential.

The habitat function score for Wetland WRE-6 is 7 points (moderate). Wetland WRE-6 has a high interspersion of habitats, with two vegetation classes and three water regimes present. There are many habitat features within the site for wildlife. Wetland WRE-6 is recognized by WDFW as a priority habitat for multiple salmon species.

Figure 3-13. Wetland WRE-6 photographed upstream of the former BNSF Railway corridor crossing over Bear Creek. In photo, wetland area is inundated by high Bear Creek flows

Wetland WRE-7

Size: Over 5 acres (large wetland extends off site)
USFWS Classification: Palustrine Forested, Scrub-Shrub, and Emergent
HGM Classification: Riverine
Rating: Category I
Sample Plots: SP-74 (WET) to SP-78 (WET), SP-92 (UPL) to SP-95 (WET)

Wetland WRE-7 is located in a floodplain on both banks of Bear Creek within the Redmond city limits. As mapped by the City of Redmond (City of Redmond 2017), Wetland WRE-7 is part of a much larger riparian wetland complex that extends upstream and downstream of the study area. Within the study area, Wetland WRE-7 is positioned northeast (upstream) of the SR 202 bridge, which separates Wetland WRE-7 from Wetland WRE-6 to the southwest (downstream) (see Figure 3-6D).

Only a portion of this wetland was delineated (within WSDOT ROW from the east bank of Bear Creek, east to NE 76th Street), based on the expected project footprint. The wetland boundary is defined to the south by the extent of fill prisms associated with SR 202, to the west by the scoured Bear Creek channel, and to the east by a shift in soils and hydrology to upland conditions that coincide with a gradual gain in elevation approaching NE 76th Street.

Wetland hydrology is supported by seasonal high flows associated with Bear Creek, a high groundwater table, and surface water runoff. Wetland hydrology indicators observed included a high water table, inundation, saturation, water marks, and sediment deposits.

Wetland WRE-7 contains forested, scrub-shrub, and emergent plant communities. Vegetation within Wetland WRE-7 includes black cottonwood, Pacific willow, Himalayan blackberry, and reed canarygrass (Figure 3-14).

Soil at SP-74 is representative of other soils observed in the wetland. Soils were examined to a depth of 16 inches and consist of three layers. The top layer is a 4-inch-thick, very dark grayish brown (10YR 3/2) silt loam. The middle layer is an 8-inch-thick dark grayish brown (10YR 4/2) sandy loam with strong brown (7.5YR 4/6) redoximorphic features. The third and lowest layer (12 inches and deeper) is a gray (10YR 5/1) sand with strong brown (7.5YR 4/6) and yellowish brown (10YR 5/8) redoximorphic features. Soils meet the *depleted matrix* hydric soil indicator. Soils in the wetland are mapped as Indianola loamy sand by the NRCS (USDA 2017).

The vegetated portion of the buffer surrounding Wetland WRE-7 is forested, scrub-shrub, and herbaceous, with black cottonwood, Himalayan blackberry, and reed canarygrass as typical dominant species.

Wetland WRE-7 is classified as palustrine forested, scrub-shrub, and emergent under the USFWS system and riverine under the HGM system. Wetland WRE-7 was rated according to Ecology's 2014 Rating System (Hruby 2014), as specified in RZC 21.64.030(A). The wetland scored 23 points using the Ecology 2014 method, thereby qualifying as a Category I wetland. The City requires a standard wetland buffer width of 150 feet for Category I wetlands with a habitat score of 5 to 7 points and adjacent high-impact land uses.

Functions provided by the wetland are moderately high overall, as assessed by Ecology's 2014 Rating System, with 23 total points. Wetland WRE-7 scored 8 points (high) for water quality functions. The wetland is intersected by Bear Creek, which is on Ecology's 303(d) list and has a TMDL plan. Surface depressions important for trapping sediments are present within the site but cover less than half of the wetland. The high proportion of trees and shrubs in this wetland assist in water treatment. The hydrologic functional score for Wetland WRE-7 is moderately high, with 8 points. Wetland WRE-7 has a

high landscape potential for hydrologic function due to its urban location. Site potential is limited with a low stream-to-wetland ratio for overbank storage. The habitat functional score for Wetland WRE-7 is 7 points (moderately high). Multiple vegetation and water regimes support the high interspersion of habitats at the site. Various habitat features are present such as large downed logs, snags, undercut banks, stable steep slopes for denning, and thin-stemmed persistent plants for amphibian egg-laying. WDFW identifies the site as priority habitat for multiple salmon species.

Figure 3-14. Wetland WRE-7 photographed north of Redmond Way

Wetland WRE-8

Size: 1.01 acre
USFWS Classification: Palustrine Forested, Scrub-Shrub, and Emergent
HGM Classification: Depressional
Rating: Category II
Sample Plots: SP-54 (UPL), SP-55 (WET), SP-56 (WET), SP-57 (UPL), SP-58 (WET), SP-59 (UPL), SP-60 (WET), SP-61 (UPL), SP-62 (WET), SP-63 (UPL), SP-64 (WET), SP-65 (UPL), SP-97 (UPL)

Wetland WRE-8 is located in a depression on both sides of the paved Redmond Central Connector Trail, south of 170th Avenue NE, with the Redmond city limits (see Figure 3-6D). A hydrologic connection located under the trail bridge near 170th Avenue NE connects the northern and southern portions of this wetland. The wetland boundary is defined by the extents of fill material placed for adjacent commercial developments and the old railroad grade (currently in use as the paved Redmond Central Connector Trail).

Wetland hydrology is supported by a high groundwater table and runoff inputs from the surrounding developed areas. A 12-inch-diameter culvert was observed discharging into the wetland at its southern extent, with potential stormwater input from the nearby paved parking area, trail, and Redmond Way. The outlet, as observed within the study area, is a highly constricted 18-inch-diameter culvert that extends beneath 170th Avenue NE. It is assumed that there is another outlet outside of the study area that drains to Bear Creek. Inundation, high water table, and saturation were observed.

Wetland WRE-8 contains forested, scrub-shrub, and emergent plant communities. Vegetation within the wetland includes paper birch, Oregon ash, one-seed hawthorn, Himalayan blackberry, and reed canarygrass (Figure 3-15).

Soil at SP-64 is representative of other soils observed in the wetland. Soil was examined to a depth of 18 inches and consists of four layers. The top layer is a 2.5-inch-thick, black (10YR 2/1) silty clay loam. The first middle layer is very dark gray (10YR 3/1) silty clay loam with dark grayish brown (10YR 4/2) redoximorphic features from 2.5 to 5 inches in depth. The second middle layer (5 to 12 inches) is a gray (2.5Y 5/1) silty clay loam with yellowish brown (10YR 5/8) and dark gray (10YR 4/1) redoximorphic features. The fourth and lowest layer below 12 inches is a very dark gray (10YR 3/1) clay loam with dark yellow brown (10YR 3/6) and dark gray (10YR 4/1) redoximorphic features. Soils meet the *redox dark surface* and *depleted matrix* hydric soil indicators. Soils in the wetland are mapped as Earlmont silt loam and Indianola loamy sand by the NRCS (USDA 2017).

The buffer surrounding the western, northern, and most of the southern side of Wetland WRE-8 is mostly impervious surface from adjacent businesses, parking lots, and roadways. However, there is a narrow band of herbaceous growth and forested area, including black cottonwood, Douglas-fir, Himalayan blackberry, and reed canarygrass between the wetland and developed areas. The southeastern portion of the vegetated buffer is wider (over 100 feet) and primarily forested with big-leaf maple, black cottonwood, and western hemlock. The Bear Creek Trail crosses through this portion of the buffer. The understory in this portion of the buffer includes vine maple, red elderberry, and Himalayan blackberry.

Wetland WRE-8 is classified as palustrine forested, scrub-shrub, and emergent under the USFWS system and depressional under the HGM system. Wetland WRE-8 scored 21 points using Ecology's 2014 Rating System and therefore is rated as Category II according to the City (RZC 21.64.030) and Ecology. The City requires a 150-foot buffer for Category II wetlands that have a habitat rating of 5 to 7 points and high-impact land uses (RZC 21.64.030 (B)).

Functions provided by the wetland are moderate overall, as assessed by Ecology's 2014 Rating System, with 21 total points. Wetland WRE-8 has a moderate water quality functional score of 7 points. The site receives stormwater discharges from paved trails and roads nearby. A highly constricted outlet contributes to ponding of more than a quarter of the site. Persistent ungrazed vegetation assists in sediment trapping and comprises over 95 percent of Wetland WRE-8. High ponding marks of 0.5 to 2 feet and potential to reduce flooding downstream contribute to the high hydrologic functions score of 8 for the site.

The total habitat score for Wetland WRE-8 is a moderate 6 points. Wetland WRE-8 has moderate habitat interspersion of four vegetation classes (including a diversely stratified forested community). Habitat features present within the wetland include LWD and thin-stemmed persistent plants for amphibian breeding, as well as nearby WDFW priority habitats.

Figure 3-15. Wetland WRE-8 photographed adjacent to the Redmond Central Connector Trail

Wetland WRE-9

Size: 0.01 acre
USFWS Classification: Palustrine Forested
HGM Classification: Depressional
Rating: Category III
Sample Plots: SP-102 (UPL), SP-103 (WET), SP-104 (UPL)

Wetland WRE-9 is located in a small depression east of the Bear Creek Trail and west of Bear Creek within the Redmond city limits (Figure 3-6D). The wetland boundary is defined by a gradual change in soil and vegetation and an abrupt topographical change that coincides with banks of the depression. The area above the depression lacks hydric soils and wetland hydrology.

Wetland hydrology is supported by a high groundwater table, which fluctuates depending on the flow of Bear Creek. There is no outlet or inlet to this wetland area, where a sparsely vegetated concave surface and water-stained leaves were observed. In addition, the vegetation passed the facultative-neutral test.

Wetland WRE-9 contains a forested plant community. Vegetation within the wetland includes black cottonwood, Oregon ash, and a trace amount of Himalayan blackberry (Figure 3-16).

Soil at SP-103 is representative of other soils observed in the wetland. Soil was examined to a depth of 18 inches and consists of two layers. The top layer is an 8-inch-thick, very dark brown (10YR 2/2) loam. The bottom, 10-inch-thick layer is dark grayish brown (2.5YR 4/2) loam with strong brown (7.5YR 4/6) redoximorphic features. Soils meet the *depleted below dark surface* and *depleted matrix* hydric soil indicators. Soils in the wetland are mapped as Indianola loamy sand by the NRCS (USDA 2017).

The buffer surrounding the Wetland WRE-9 includes a forested upland area to the north and south, the Bear Creek floodplain to the east, and Bear Creek Trail to the west. The upland area includes black cottonwood, Douglas-fir, Oregon ash, Himalayan blackberry, snowberry, osoberry, stickywilly, and Robert geranium. See subsections “Wetland WRE-5” above for a description of the floodplain buffer to the east.

Wetland WRE-9 is classified as palustrine forested under the USFWS system and depressional under the HGM system. Wetland WRE-9 scored 16 points using Ecology’s 2014 Rating System and therefore is rated as Category III according to the City (RZC 21.64.030) and Ecology. The City requires a 150-foot buffer for Category III wetlands that have a habitat rating of 5 to 7 points and high-impact land uses (RZC 21.64.030 (B)).

Water quality functions for Wetland WRE-9 scored 6 points (moderately low). Since there is no outlet, there is the potential for water to pond. In addition, persistent ungrazed vegetation comprises over 50 percent of the site and improves water quality through sediment trapping and shading.

The hydrologic functions score of Wetland WRE-9 is 5 points (moderately low). The lack of outlet and ponding potential allow for greater surface water storage; however, marks of ponding at the site measured to be less than 0.5 feet high. Because Wetland WRE-9 has no outlet, surface water is detained, thus reducing downstream flooding. However, downstream flooding is not a significant issue; therefore, the wetland has limited opportunity to provide this function.

The habitat score of Wetland WRE-9 is 5 points (moderately low). Despite the multiple vegetation classes with a moderate species diversity, the small size of the wetland resulted in a low interspersion of habitats at the site. Special habitat features include LWD, snags, and the lack of invasive species. The surrounding accessible habitat and undisturbed habitat is limited by Bear Creek Trail and the surround urban development.

Figure 3-16. Wetland WRE-9 photographed to the east of the Bear Creek Trail

3.2.2.2 Wetland Rating, Functions, and Values

As described above, wetland ratings and functions were assessed by applying Ecology's 2014 Rating System (Hruby 2014). In accordance with RZC Section C.3 of RZC Appendix 1, wetland functions were also assessed using the Wetland Functions Characterization Tool for Linear Projects (Null et al., 2000). The following sections summarize the results of each method.

Ecology 2014 Rating

Wetland ratings and functional assessments are presented in Appendix H and summarized in Table 3-3.

Table 3-3. Summary of Wetland Functions in the Study Area as Assessed by the Ecology 2014 Rating System

Wetland	Water Quality Functions	Hydrologic Functions	Habitat Functions	Overall Functions
WRE-1	Medium (6)	Low (4)	Low (4)	Low (14 = Category IV)
WRE-2	Medium (6)	Low (4)	Low (3)	Low (13 = Category IV)
WRE-3	Medium (6)	Medium (5)	Low (4)	Low (15 = Category IV)
WRE-4	Medium (7)	Medium (5)	Low (4)	Medium-Low (16 = Category III)
WKC-3	High (7)	Medium (6)	Medium (6)	Medium-Low (19 = Category III)
WRE-5	High (9)	High (8)	Medium (7)	High (24 = Category I)
WRE-6	High (9)	High (8)	Medium (7)	High (24 = Category I)
WRE-7	High (8)	High (8)	Medium (7)	High (23 = Category I)
WRE-8	Medium (7)	High (8)	Medium (6)	Medium-High (21 = Category II)
WRE-9	Medium (6)	Medium (5)	Medium (5)	Medium-Low (16 = Category III)

Linear Method

In accordance with Section C of RZC Appendix 1, the Linear Method (Null et al. 2000) was used to qualitatively evaluate wetland functions. Wetland Functions and Values Forms for the delineated wetlands are provided in Appendix I and summarized in Table 3-4.

3.3 Regulatory Implications

As noted previously and summarized in Table 3-3, the City uses Ecology's 2014 Rating System (Hruby 2014) to classify wetlands (RZC 21.64.030[A]). Wetland buffers are determined based upon wetland category, habitat and water quality function scores and intensity of adjacent land use (RZC 21.64.030[B]). According to the "wetland" definition in RZC 21.78, Wetlands WRE-1 to WRE-9 and WKC-3 are all regulated as critical areas by the City and therefore receive a protective buffer. Wetland ratings and required buffer widths for wetlands within the investigation areas are presented previously in Table 3-2 in Section 3.2.2.

Table 3-4. Summary of Wetland Functions and Values in the Study Area as Assessed by the Wetland Functions Characterization Tool for Linear Projects

Function/Value[a]	Wetland									
	WRE-1	WRE-2	WRE-3	WRE-4	WKC-3	WRE-5	WRE-6	WRE-7	WRE-8	WRE-9
Hydrologic Functions										
Flood Flow Alteration	X	X	X	-	X	+	+	+	+	-
Sediment Removal	X	X	X	X	X	+	+	+	X	-
Nutrient and Toxicant Removal	X	X	X	X	+	+	+	+	X	-
Erosion Control & Shoreline Stabilization	-	-	-	-	-	X	+	X	-	-
Biological Functions										
Production & Export of Organic Matter	-	-	X	-	-	+	+	+	X	-
General Habitat Suitability	-	-	X	-	X	+	+	X	X	X
Habitat for Aquatic Invertebrates	-	-	-	-	X	+	+	+	+	-
Habitat for Amphibians	-	-	-	-	X	+	+	+	X	-
Habitat for Wetland-Associated Mammals	-	-	-	-	-	-	X	-	-	-
Habitat for Wetland Associated Birds	-	-	-	-	X	X	+	X	X	-
General Fish Habitat	-	-	-	-	-	+	+	+	-	-
Native Plant Richness	-	-	-	-	X	X	X	X	X	X
Social Values										
Educational or Scientific Value	-	-	-	-	X	+	+	-	X	-
Uniqueness and Heritage	-	-	-	-	-	+	+	+	-	-

[a] Null et al. 2000

- = No occurrence of the function/value

X = Occurrence of the function/value is likely

+ = Principal function/value

Mitigation requirements for wetland alterations are specified in RZC 21.64.030(C). Unavoidable alterations to Category I, II, III, and IV wetlands are allowed under certain conditions, provided that the proposed alteration and mitigation comply with RZC 21.64.030(C) and will result in no net loss of wetland functions and values. According to RZC 21.64.030(C)(3), impacts to Category I wetlands resulting from public projects are only allowed subject to the reasonable use provisions of RZC 21.64.010(T). However, these reasonable use provisions do not apply to Category I wetlands within City of Redmond shoreline jurisdiction (RZC 21.68.030(2)). The three Category I wetlands within the study area (Wetlands WRE-5, WRE-6, WRE-7) are located within shoreline jurisdiction along Bear Creek. Impacts to these wetlands are allowed under certain conditions (such as impacts resulting from regional light rail construction), pursuant to the provisions of the City's SMP (RZC 21.68).

As specified in RZC 21.64.030(C)(8), where permanent wetland alterations are permitted by the City, the applicant is required to restore or create areas of wetlands in accordance with the ratios listed in RZC 21.64.030(C). The RZC does not contain specific mitigation provisions relating to temporary, construction-related impacts to wetlands and buffers.

3.4 Impacts Summary

The Project was designed to avoid impacts to aquatic resources wherever practical. Through design refinements, there will be no impacts to 4 of the 10 wetlands identified and delineated within the study area. The preferred track location (along SR 520), where critical areas previously have been disturbed by construction of the highway and are routinely maintained, will result in unavoidable impacts to the other six wetlands. Unavoidable impacts to wetlands and their associated buffers are summarized in Table 3-5. Generally, these impacts are associated with filling of wetlands and subsequent construction of the structures and the track.

Table 3-5. Summary of Wetland Impacts

Wetland	Permanent Wetland Impacts (acres)	Temporary Wetland Impacts (acres)	Wetland Vegetation Conversion (acres)	Permanent Wetland Buffer Impacts (acres)	Temporary Wetland Buffer Impacts (acres)
WKC-3[a]	0.231	0	0	0.061	0
WRE-2	0.074	0	0	0	0
WRE-4	0	0.078	0	0.029	0.766
WRE-5[b]	0.075	1.178	0.023	0.259	0.224
WRE-6 [b]	0.052	0.186	0	0.206	0.205
WRE-7	0	0	0	0	0.249
WRE-8	0.506	0	0	0.269	0
Grand Total	0.938	1.442	0.023	0.824	1.444

a Listed impacts do not include areas outside of Redmond city limits.

b Impact area totals for Wetlands WRE-5 and WRE-6 include Bear Creek impact totals (see Table 2-8). Wetlands WRE-5 and WRE-6 are located waterward of the OHWM of the stream. Impacts to Bear Creek are also reported in the stream impact table (Table 2-8).

3.4.1 Wetland Function Impacts

Project impacts will result in alterations to the wetland functions. These functional changes are described for each wetland in the paragraphs below.

3.4.1.1 Wetland WKC-3

The Project will permanently affect approximately 5 percent of Wetland WKC-3 (within the City's jurisdiction). The wetland currently provides moderate levels of water quality, hydrologic, and habitat functions. All of these functions would be reduced in proportion to the impact area. Functional loss will occur where the wetland is filled and vegetation converted, thus modifying some of the attributes (water storage volume, area and vegetation for water quality treatment, habitat area, and features). The Corps and King County require additional mitigation for the portions of WKC-3 that were constructed as mitigation and are protected within a restrictive land covenant; however, none of the area protected within the boundaries of the covenant are within the City.

3.4.1.2 Wetland WRE-2

The entire area of Wetland WRE-2 will be permanently filled, thus eliminating the moderate level of water quality functions as well as the low levels of hydrology and habitat functions the wetland provides.

3.4.1.3 Wetland WRE-4

The entire area of Wetland WRE-4 will be filled for more than 1 year/growing season for construction access. This will temporarily eliminate the moderate water quality and hydrologic functions and low level of habitat functions provided by the wetland. Wetland functions will be restored after construction. A drainage pipe will be installed within the fill to maintain conveyance during construction.

3.4.1.4 Wetland WRE-5

Wetland WRE-5 (Bear Creek riparian wetland located opposite of Wetland WRE-6) will have a small area of permanent fill compared to its overall size (less than 0.1 acre of impact to wetland over 10 acres in size), as well as relatively small areas of long-term (0.3 acre) and short-term (0.7 acre) temporary impacts. As a result, the Project will minimally reduce the functions provided by this wetland when project work is completed. In addition, the functions provided by this wetland will be temporarily reduced during construction due to the removal of vegetation and alterations to ground elevations. Wetland WRE-5 provides very high water quality and hydrologic functions and moderate habitat functions. Although the wetland will be permanently and temporarily altered, this area will be part of a larger restoration effort of the Bear Creek riparian corridor following construction. The restoration plan will attempt to maintain or improve these functions compared to the current conditions by adding and enhancing features (e.g., side channels and flood bench wetlands) that provide these functions. Temporary impacts will minimally reduce wetland functions until they are restored after construction is complete.

3.4.1.5 Wetland WRE-6

Wetland WRE-6 (Bear Creek riparian wetland located opposed of Wetland WRE-5) will have approximately 10 percent of its area (0.05 acre) permanently affected by the Project. Temporary impacts to the wetland will also occur. As a result, the Project will reduce the functions provided by this wetland when completed, and a temporary reduction in wetland functions during construction will also

occur, due to the removal of vegetation and alterations to ground elevations. Wetland WRE-6 currently provides very high water quality and hydrologic functions and moderate habitat functions, although these functions are limited (as compared to Wetland WRE-5) due to the relatively small size (0.4 acre) of the wetland. Although wetland WRE-6 will be permanently and temporarily altered, this area will be part of a larger restoration effort of the Bear Creek riparian corridor following construction. The restoration plan will attempt to maintain or improve these functions compared to the current conditions by adding and enhancing features (e.g., side channels and flood bench wetlands) that provide these functions. Temporary impacts will minimally reduce wetland functions until they are restored after construction is complete.

3.4.1.6 Wetland WRE-8

Wetland WRE-8 will have 50 percent of its area permanently affected by the Project as a result of relocating the existing trail and installing guideway piers in the wetland, which will mainly eliminate areas of remnant wetland that are cut off from the larger wetland. The low clearance of the guideway (approximately 20 feet) in this area will preclude the re-establishment of forested wetland vegetation. There will be very little fill material placed in the wetland. As a result, the wetland's hydrologic functions (currently high) will be largely maintained because the storage volume and outlet of the wetland will be very similar to current conditions. Moderate water quality functions will be reduced due to the loss of wetland vegetation, although some function will remain because the outlet will be unchanged and half of the vegetation will be retained. The wetland's moderate habitat functions will be reduced due to vegetation loss.

3.5 Mitigation Sequencing

The Project has applied mitigation sequencing, as described in RZC 21.64.010.L, to reduce impacts to wetlands. The process includes these sequential steps: avoidance, minimization, rectification, and compensation.

The Project will avoid impacts to wetlands wherever practical. Through design refinements, there will be no impacts to 4 of the 10 wetlands delineated within the study area. wetland impacts from the Project have been avoided and minimized to all extents practicable by shifting the alignment as close to SR 520 as possible, with the majority of the impact occurring within the existing disturbed fill prism and SR 520 ROW.

The Project will minimize impacts to wetlands throughout the light rail alignment through design features and refinements. Impacts to the largest wetland (WKC-3) will be reduced by the addition of a retaining wall, which in turn will minimize the project footprint within the wetland. Impacts to wetlands adjacent to Bear Creek will be minimized by using existing fill prisms, building an elevated railway, and extending the bridge to fully span the active channel as well as a large portion of the floodplain wetlands. Temporary impacts to wetlands have been minimized by refining construction plans to prioritize staging areas in uplands and minimizing widths of temporary construction access routes.

The Project will rectify all temporary impacts to wetlands and streams as part of the project. These areas will be restored to their original grades and surface soil conditions. They will be replanted with native vegetation appropriate for the site. Native species present before construction will be replaced in-kind, and non-native species will be replaced with suitable native substitutes. The sites will be maintained and monitored to ensure they meet performance standards.

Mitigation is required for impacts to wetlands and their associated buffers. As a result, the Project includes compensatory environmental mitigation to meet code and regulatory requirements, permit conditions, and other commitments made by Sound Transit. Unavoidable impacts to wetlands will be compensated for, as described in Section 7.

4. FREQUENTLY FLOODED AREAS

FFAs are defined as areas and lands within the floodplain subject to a 1 percent or greater chance of flooding in any given year (RZC 21.78). In the City, FFAs are classified according to the following criteria (RZC 21.64.040[A]):

- Floodplain – The total area subject to inundation by the base flood (the flood that has a one percent chance of occurring in any given year)
- Flood fringe – The portion of the floodplain outside of the floodway that is generally covered by flood waters during the base flood and is generally associated with standing water rather than rapidly flowing water.
- Federal Emergency Management Agency (FEMA) floodway – The channel of the stream and that portion of the adjoining floodplain that is necessary to contain and discharge the FEMA base flood flow without increasing the FEMA base flood elevation more than 1 foot.
- Zero-rise floodway – The channel of the stream and that portion of the adjoining floodplain that is necessary to contain and discharge the base flood flow without increasing the base flood elevation. The zero-rise floodway contains the FEMA floodway.

4.1 Frequently Flooded Areas in the Study Area

The project alignment crosses FFAs associated with the Sammamish River and Bear Creek (Figure 4-1). FEMA maps both 100-year floodplain and floodway areas along with streams (FEMA 1989).

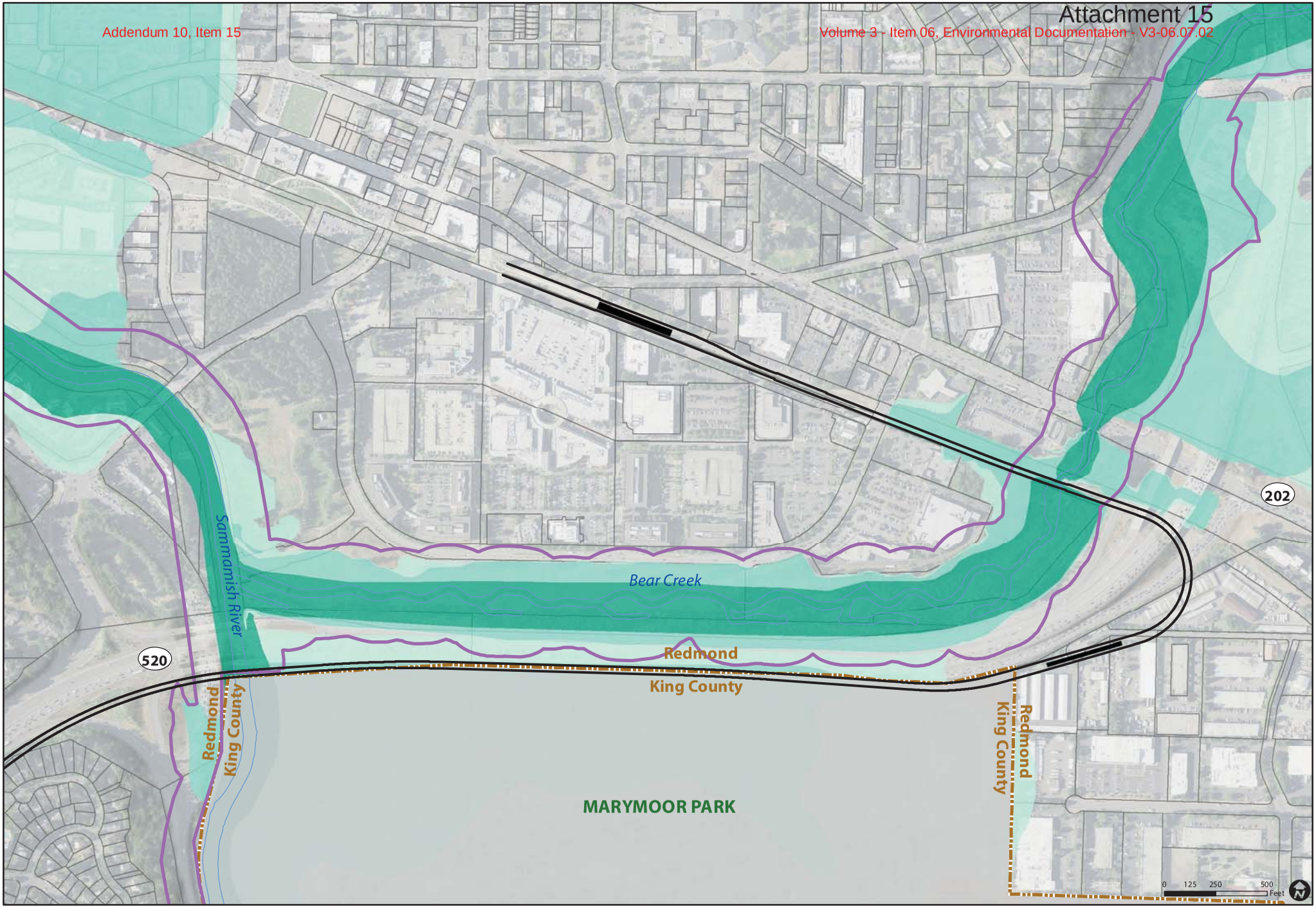
4.2 Regulatory Implications

In accordance with RZC 21.64.040(C)(2)(a), development shall not reduce the effective base flood storage volume of the floodplain; any activity that would reduce the effective storage volume must be mitigated by creating compensatory storage on the site. Additionally, structures that would be at risk due to stream bank stabilization are not allowed (RZC 21.64.040[C][2][b]). According to RZC 21.64.040(C)(3)(a), these regulations also apply within the zero-rise floodway.

RZC 21.64.040(C)(4)(a) prohibits construction or placement of new structures within the FEMA floodway, except for bridges, roads, trails, and railroads.

4.3 Floodplain and Floodway Modifications

Proposed project work within FFAs is shown in the conceptual design drawings (Appendix A), summarized below.



Guideway
Station Platform
Parcel
City Limits
Floodway
100-year Floodplain
500-year Floodplain
Redmond Shoreline Jurisdiction

Note: The FEMA floodplain base map is taken from the 1995 effective FIRM. The Bear Creek floodplain includes revisions approved by FEMA in 1998 and 2016.

Source: FEMA, King County, Parametrix, City of Redmond

Figure 4-1
Frequently Flooded Areas
Downtown Redmond Link Extension

4.3.1 Sammamish River

The light rail track will cross the Sammamish River on an elevated guideway that will completely span the channel and associated floodway. A portion of the elevated guideway east of the river will occur within the 100-year floodplain, within the City limits. If required, the surface elevation of adjoining areas will be adjusted so that there is no net decrease of flood storage volume.

Two new stormwater outfall structures to the Sammamish River will be constructed under the elevated guideway on the east and west sides of the river. Construction of the outfalls will require excavation within the floodway of the river to install the new outfall pipes and energy dissipation pads (i.e., large rocks). Following excavation of the river banks and installation of the outfall pipes and pads, the river profile will match pre-development conditions. There will be no net increase in material within the Sammamish River floodplain or floodway from installation of the outfalls.

4.3.2 Bear Creek

The light rail track will cross Bear Creek on an elevated guideway, which will be supported by six piers of between one and three columns each. The piers will be constructed on drilled shaft foundations, several or all of which will be placed within the floodplains and/or floodway of Bear Creek. The Project will construct a new pedestrian bridge to current King County trail standards to the north (upstream) of the new track alignment. The approaches to the pedestrian bridge on either side will be placed within the Bear Creek floodplain.

Sound Transit design standards require that there is a minimum of 3 feet of separation between the surface water elevation of Bear Creek during a 100-year event and the new guideway structure. Currently, a derelict timber railroad bridge and old railroad bed creates a constriction in the Bear Creek stream channel. As a result, the current surface water elevation of Bear Creek during a 100-year event does not provide the required three feet of clearance to the new guideway structure.

The Project includes the removal of the derelict timber railroad bridge and a portion of the old railroad fill prism located to the west of the crossing. The primary purpose of the removal of the bridge and fill prism is to mitigate potential project impacts from the two new elevated crossing structures. This project element, in conjunction with other minor grading along the stream channel and in the floodway upstream and downstream of the crossing associated with the proposed Bear Creek enhancement work, will offset the loss of floodplain storage volume created by the piers of the new crossing structures. It will also lower the 100-year surface water elevation to meet the 3-foot clearance requirements for the guideway and pedestrian bridge crossings. Project work and associated lowering of the 100-year surface water elevation will also result in changes to the extent of current FEMA-mapped 100-year floodplain and floodway. Overall, the Project will reduce the amount of fill in the floodplain by approximately 2,000 cubic yards, which will reduce the floodplain elevation upstream of the Bear Creek crossing.

5. GEOLOGICALLY HAZARDOUS AREAS

GHAs are defined as areas susceptible to erosion, sliding, earthquake, or other geologic events (RZC 21.78). The following sections summarize information on GHAs and geological site conditions, as described in the Project's Geotechnical Baseline Report (Appendix K), Geotechnical Data Report (Appendix L), and existing GHA mapping.

5.1 Geologically Hazardous Areas in the Study Area

City critical areas mapping (2005c, 2016b) identifies the presence of two types of GHAs in the study area: landslide and seismic hazard areas (Figures 5-1 and 5-2). City mapping (2016b) identifies landslide hazard areas in the study area bordering SR 520 to the east, between approximately 800 feet north of NE 60th Street and the SR 520/West Lake Sammamish Parkway NE interchange. However, WDNR mapping (2018) does not indicate the presence of any recent or historic landslide activity in the vicinity. King County (2016c) recently mapped landslide hazards along river corridors for several landslide types, including deep-seated landslides, shallow debris slides, depositional fans, rock fall, and rock avalanches. The mapping study area for the Sammamish River corridor includes the portion of the study area near the SR 520/West Lake Sammamish Parkway NE interchange, which includes a portion of the landslide hazard area mapped by the City. The King County mapping does not indicate the presence of landslide hazards in the area.

Nearly the entire project alignment east of the SR 520/West Lake Sammamish Parkway exit is located within a City-mapped (2005c) seismic hazard area (Figure 5-2). WDNR liquefaction susceptibility mapping (Palmer et al. 2004) categorizes this same area as having "low to moderate" liquefaction susceptibility. West of the SR 520/West Lake Sammamish Park, liquefaction susceptibility is categorized as "very low." WDNR mapping (2018) does not identify any fault zones within 3 miles of the study area.

5.2 Regulatory Implications

5.2.1 Landslide Hazard Areas

According to RZC 21.64.060(B), a minimum 50-foot buffer is required from the top, toe, and along the sides of landslide hazard areas. In determining the actual buffer width, the City will consider the recommendations contained in a technical report prepared by a qualified consultant (RZC 21.64.060[B][2]. The buffer may be reduced to a minimum of 15 feet when a qualified professional demonstrates through a technical study that the reduction will adequately protect the proposed and surrounding development from the landslide hazard (RZC 21.64.060[B][3]).

In accordance with 21.64.060(D), the City may approve or condition proposals within GHAs (including landslide hazard areas), based upon effective mitigation risks posed to property, health, and safety. Performance standards for development within landslide hazard areas are listed in RZC 21.64.060(G)(2) and include the following:

a. *Geotechnical studies shall be prepared by a qualified consultant to identify and evaluate potential hazards and to formulate mitigation measures.*

b. *Construction methods will reduce or not adversely affect geologic hazards.*

c. *Structures and improvements shall minimize alterations to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography.*

d. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.

e. Structures and improvements shall be clustered to avoid geologically hazardous areas.

f. Unless otherwise provided or as part of an approved alteration, removal of vegetation from an erosion or landslide hazard area or related buffer shall be prohibited.

g. Development shall be designed to minimize impervious surface coverage.

h. Disturbed areas should be replanted as soon as feasible pursuant to an approved landscape plan.

i. Clearing and grading regulations as set forth by the City shall be followed.

j. Use of retaining walls that allow maintenance of existing natural slope areas are preferred over graded artificial slopes.

k. Temporary erosion and sedimentation controls, pursuant to an approved plan, shall be implemented during construction.

l. A master drainage plan shall be prepared for large projects as required by the City Engineer.

m. A monitoring program shall be prepared for construction activities permitted in geologically hazardous areas.

n. Development shall not increase instability or create a hazard to the site or adjacent properties, or result in a significant increase in sedimentation or erosion.

o. Point discharges from surface water facilities and roof drains onto or upstream from an erosion or landslide hazard area shall be prohibited except as follows:

i. Conveyed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge.

ii. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predevelopment state.

iii. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed buffer demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

5.2.2 Seismic Hazard Areas

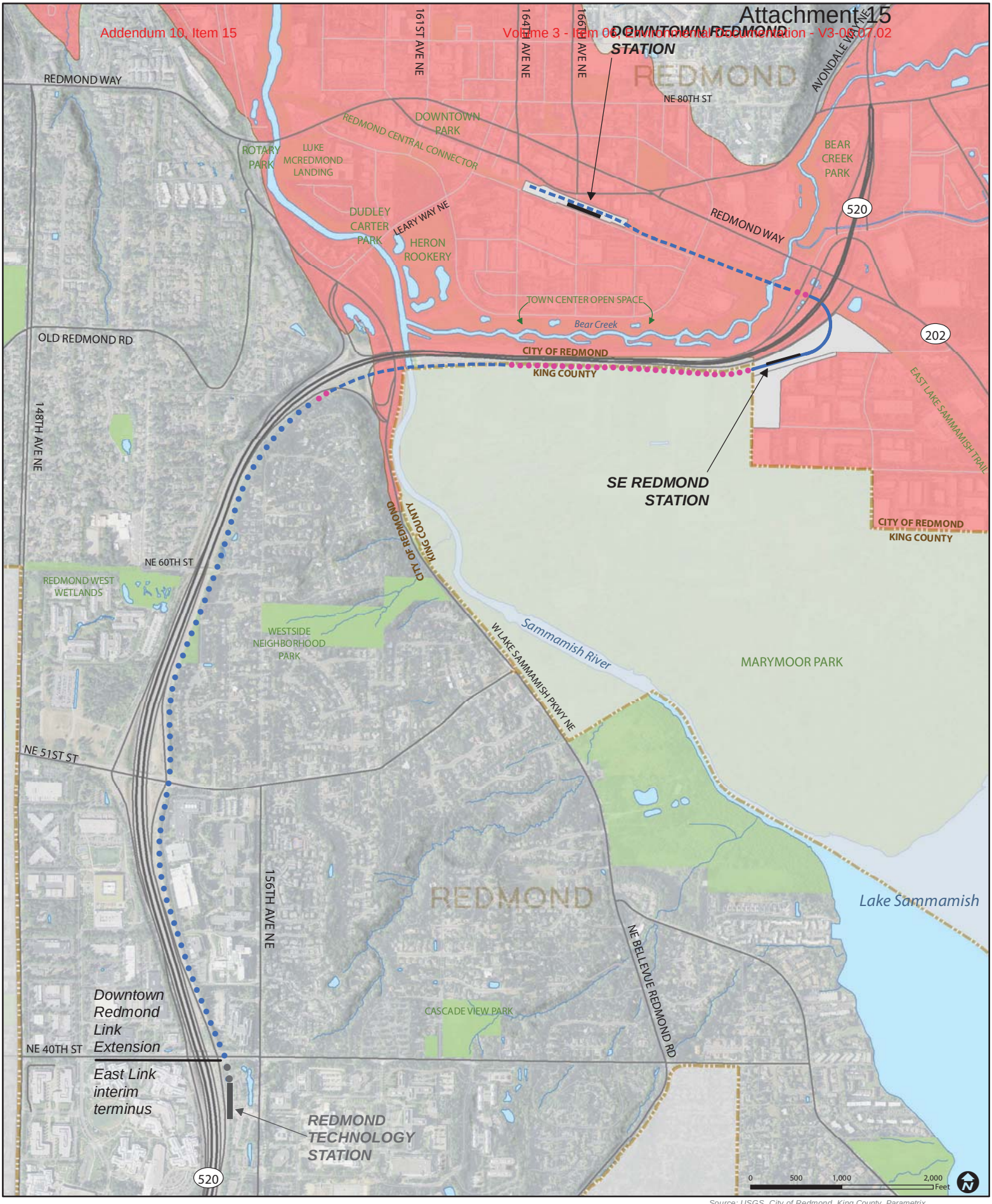
In accordance with RZC 21.64.060(D), the City may approve or condition proposals within GHAs (including landslide hazard areas), based upon effective mitigation risks posed to property, health, and safety. For development proposals within seismic hazard areas that are not single-family structures, submission of a geotechnical study that includes an evaluation of site response and liquefaction potential is required (RZC Title 21, Appendix A, Section E[3][e]).

Alignment
- At-Grade
- Elevated
- Retained Fill
- Retained Cut

- Station Platform
- Station Area
- Landslide Hazard

Source: USGS, City of Redmond, King County, Parametrix

Figure 5-1
Landslide Hazard Areas
Downtown Redmond Link Extension



Alignment
- At-Grade
- Elevated
- Retained Fill
- Retained Cut

- Station Platform
- Station Area
- Seismic Hazard

Source: USGS, City of Redmond, King County, Parametrix

Figure 5-2
Seismic Hazard Areas
Downtown Redmond Link Extension

5.3 Geological Evaluation

5.3.1 Geologic Setting

The study area is located within the Puget Lowland Basin, an area where the near-surface geology has been shaped by numerous glacial episodes during the past approximately 2 million years. Each of these glacial periods were separated by interglacial periods, where non-glacial sediment deposition occurred. The most recent glacial episode, the Vashon Stade of the Fraser Glaciation, is responsible for most of the present-day topography and near-surface geologic conditions within the proposed alignment corridor.

The project alignment traverses two distinct terrains. The south end of the proposed alignment (near NE 40th Street) is part of an upland plateau and is underlain by dense glacial deposits, thus creating a gently northward-dipping undulating ground surface. The elevation at the beginning of the project alignment at NE 40th Street is around 350 feet. The alignment follows along the east side of SR 520 and gradually descends as the alignment approaches the Sammamish Valley, with elevations around 30 to 40 feet and remains within the valley to the terminus at the Downtown Redmond Station.

5.3.2 Soil Units (Geologic Units)

As part of the Downtown Redmond Link Extension field investigation program, a total of 42 exploratory boreholes were completed along the project alignment, as detailed in Appendix L. Eight soil units (geologic units) were identified along the project alignment.

5.3.2.1 Fill and Modified Land

Fill soils are the result of human grading activities and include fill soil associated with the construction of SR 520 as the route descends from the highlands west of the Sammamish River and into the Sammamish Valley. Other areas of fill include the portion of the project alignment across the Sammamish Valley along the north side of Marymoor Park and railroad ballast along the Redmond Central Connector trail, a former BNSF Railway ROW. Fill soils may be composed of silty sand, clayey sand, gravelly sand, sand and gravel, silt, silty clay, peat, wood debris, roots, asphalt, glass, and/or plastic fragments. The fill may contain groundwater from perched groundwater conditions or when the fill was placed below the static groundwater level.

5.3.2.2 Peat and Organic Soils

Within the Sammamish Valley, pockets of peat and organic soils are present at or near the ground surface. These soils are composed of silt, sandy silt, silt with sand, sandy clay, clayey silt with trace amounts of rootlets, wood, silty sand, organic silt, clay, and/or fibrous peat. These soils were encountered primarily along the Marymoor Park segment along the south side of SR 520. Organic soils and peat will contain groundwater and are highly compressible and will compress when dewatering causes settlement of the surrounding ground surface.

5.3.2.3 Alluvium

Alluvial soils are composed of sediments deposited by flowing water. These sediments are located across the lowland trough forming the Sammamish Valley and underlie the majority of the project alignment that extends from the Sammamish River into downtown Redmond. Alluvium is composed of coarse gravel with a trace of fines, fine-medium sand with a trace of gravel, and/or silty sand. Most of this soil unit is saturated, forming a major aquifer in the study area.

5.3.2.4 Post-Glacial Lacustrine Deposits

Post-glacial lacustrine deposits are found throughout the project alignment in the Sammamish Valley, generally overlain by alluvium. Post-glacial lacustrine deposits are composed of sandy clay, clay, and/or silty sand with a trace of gravel. They are saturated, and the sandier layers will produce groundwater when below the static groundwater level.

5.3.2.5 Till

Till soils are typically very dense, having been deposited directly beneath the glacial ice. Till is found in in the south end of the project alignment, west of West Lake Sammamish Parkway NE. The soil is generally consists of a mix of silty sand and sandy silt, with varying amounts of gravel and occasional cobbles and boulders. Groundwater usually occurs in two general ways associated with till: (1) perched groundwater along the top of the till layer, and (2) saturated sandy lenses or interbeds within the till. Perched groundwater along the top of the till will saturate the overlying soil unit.

5.3.2.6 Advance Outwash Deposits

Advance outwash deposits are very dense, having been glacially overridden. These deposits underlie the till layer located west of West Lake Sammamish Parkway NE, above the Sammamish Valley. These soils are composed of sand and silty sand with varying amounts of gravel and cobbles. The soil unit is generally a confined aquifer and saturated below the static groundwater level. The unit may contain thin interbeds or lenses of fine-grained soils that impede the movement of groundwater.

5.3.2.7 Glaciolacustrine Deposits

Glaciolacustrine deposits are glacially consolidated fine-grained soils, which are typically composed of hard clay, silty clay, and very dense silt. Within the project alignment, these deposits are found from the western end of the alignment to the western boundary of Marymoor Park. These soils will typically perch groundwater in overlying granular soil units. The contact between these lower-permeability soils and overlying granular, more-permeable, soils is often the location of groundwater seepage and can produce flows when exposed in hillsides and cuts.

5.3.2.8 Till and Till-Like Deposits

Till-like glacial drift deposits were encountered in the deeper boreholes in the Sammamish River Crossing and Redmond Central Connector trail segments of the project alignment. These deposits are similar to till, described above. When encountered, till-like glacial drift deposits were composed of very dense to hard, silty sand to sandy silt, with a trace of faceted gravel, clayey gravel, and clay with gravel. Within the limits of the project, this unit serves as the lower confining layer of the Sammamish Valley aquifer.

5.3.3 Hydrogeologic Setting

Groundwater in the study area is characterized into four categories in the Geotechnical Baseline Report (Appendix K):

- Perched Groundwater (Overlying the Till) – All perched groundwater above the till varies seasonally and in response to precipitations events.
- Regional Groundwater (Underlying the Till) – This groundwater is generally confined within the advance outwash and older units underlying the till. Groundwater within the aquifer is usually confined by an overlying low permeability strata such as dense till or till-like glacial drift deposits. Groundwater varies seasonally but is usually not as sensitive to individual precipitation

events. Soils underlying the till are considered to be part of the regional groundwater system for the project segment extending from the Redmond Technology Station area to just west of the Sammamish River. Both confined and unconfined groundwater conditions are present in the regional groundwater.

- Isolated Groundwater (Within the Till) – These isolated groundwater zones are within glacial till and other geologically units. Saturated soil layers, lenses, and seams may be present in the glacial till and other geologically units. The piezometric heads within these permeable zones can be elevated, which indicates confined or overpressured conditions. Groundwater within the glacial till and other geological units (isolated groundwater zones) and below the glacial till (regional groundwater) also varies seasonally, but is not usually as sensitive to individual precipitation events.
- Continuous Groundwater – The continuous groundwater is in saturated post-glacial Holocene soils such as the alluvium and post-glacial lake deposits within the Sammamish Valley. While both of these post-glacial units are saturated, differences in permeability and transmissivity between the two results in the lower-permeability lacustrine deposits acting as an aquitard relative to the more permeable post-glacial alluvial deposits. The granular, post-glacial alluvial deposits, as well as deeper recessional deposits, provide a major source of water for the City .

5.3.4 Seismic Setting

The Pacific Northwest has three types of seismic sources due to the presence of the Cascadia Subduction (CSZ):

- The subduction zone megathrust events, which represents the interface between the subducting Juan de Fuca plate and the overriding North American Plate
- Faults located within the Juan de Fuca plate (referred to as the intraplate or intraslab region)
- Crustal faults principally in the North American plate

The subduction zone megathrust is considered capable of generating large earthquakes up to magnitude 8 or 9. It is believed that the most recent CSZ event occurred in the year 1700 (Atwater and Hemphill-Haley 1996; Satake et al. 1996). Recurrence intervals for CSZ interpolate earthquakes are thought to be on the order of 400 to 600 years.

The intraplate earthquake sources are responsible for most of the larger historic earthquakes in the Puget Sound region, including the 1949 Olympia earthquake (magnitude 7.1), the 1965 Seattle earthquake (magnitude 6.5), and the 2001 Nisqually earthquake (magnitude 6.8). The recurrence of these larger intraplate earthquakes is around 30 years.

The crustal earthquake source is capable of producing earthquakes with magnitudes up to 7.5. Large shallow crustal earthquakes are the most likely seismic events to produce near surface rupture and displacement and typically are followed by a sequence of aftershocks. Faults within the crustal earthquake zone would include the Seattle Fault zone and the South Whidbey Island Fault zone. The last event along the Seattle Fault zone is interpreted to have occurred 1,100 years ago, and the last event along the South Whidbey Island Fault zone was 3,000 years ago.

Using the USGS guidelines (2008), the Seattle Fault zone (Mw 7.2), the South Whidbey Island Fault zone (Mw 7.4), and subduction zone earthquake (Mw 9.0) were found to be the predominant seismic sources for the study area.

5.4 Construction Considerations

The Sound Transit Design Criteria Manual (DCM) Revision 4 (2016) will be the primary design standard for the overall Project (Parametrix 2017), while the WSDOT Geotechnical Design Manual (2015) will be used for project segments located within WSDOT's ROW. Other design standards to be used include American Association of State Highway and Transportation Officials (AASHTO) (2016) and the International Building Code (IBC) (ICC 2015). Sound Transit uses a two-level earthquake hazard design approach. In addition, facilities will be designed to meet the WSDOT/AASHTO criteria and IBC criteria (building structures), as appropriate. The seismic design criteria are outlined in Section 8A.2 of the DCM. Project-specific seismic hazard design criteria and guidelines are included in the Geotechnical Baseline Report (Appendix K).

As stated in Section 1.2, the Project will be constructed under a design-build delivery model. Sound Transit has prepared preliminary plans, but the contractor who is ultimately selected to build the Project will prepare the final design. Additional geologic and erosion control information will be provided to the City by the contractor as part of the permitting process; information to be provided will include, but may not be limited to:

- Detailed description of clearing, grading, and construction activities
- Construction schedule
- Slope stability analysis
- Dewatering plan
- Description of mitigation measures, including erosion and sediment control plans

6. CRITICAL AQUIFER RECHARGE AREAS

CARAs are defined as aquifers that are a source of drinking water that are both highly susceptible and vulnerable to contamination (RZC 21.78). In the City, CARAs are classified into four wellhead protection zones that are based on proximity to and travel time of groundwater to the City's public water source wells (RZC 21.64.050):

- Wellhead Protection Zone 1 represents that land area overlying the 6-month time-of-travel zone of any public water source well owned by the City.
- Wellhead Protection Zone 2 represents the land area that overlies the 1-year time-of-travel zone of any public water source well owned by the City, excluding the land area contained within Wellhead Protection Zone 1.
- Wellhead Protection Zone 3 represents the and area that overlies the 5-year and 10-year time-of-travel zones of any public water source well owned by the City, excluding the land area contained within Wellhead Protection Zones 1 or 2.
- Wellhead Protection Zone 4 represents all the remaining land area in the City not included in Wellhead Protection Zones 1, 2, or 3.

6.1 Critical Aquifer Recharge Areas in the Study Area

City mapping (2018) shows that the majority of the project alignment, from the project origin at the Redmond Technology Station to approximately 500 feet east of the Sammamish River, is located within Wellhead Protection Zone 4 (Figure 6-1). The two new outfalls that will discharge stormwater on the east and west sides of the river are also located within this zone.

Continuing east, approximately 1,500 feet of the alignment is located within Wellhead Protection Zone 3, and then within Wellhead Protection Zone 2 to near the eastern edge of Marymoor Park. The portion of the project alignment extending from the eastern edge of Marymoor Park to SR 520 is located within Wellhead Protection Zone 3. The SE Redmond Station footprint, which includes the stormwater infiltration facilities, is also located within this zone.

The portion of the project alignment that crosses over SR 520 and Bear Creek is located within Wellhead Protection Zone 2. The elevated guideway then travels over an area of Wellhead Protection Zone 1, which transitions back to Wellhead Protection Zone 2 near the Downtown Redmond Station/line terminus. Stormwater infiltration facilities will be located within the Downtown Redmond Station vicinity, within Wellhead Protection Zones 1 and/or 2.

6.2 Regulatory Implications

RZC 21.64.050(C) lists the development types and activities that are prohibited within Wellhead Protection Zones 1 and 2, which include uses such as hazardous liquid pipe lines, landfills, and mobile fleet fueling operations. The Project does not include any of the prohibited development types and activities listed in RZC 21.64.050(C). RZC 21.64.050(D)(3)(d) states that infiltration systems within Wellhead Protection Zones 1 and 2 must address site-specific risks of releases posed by all hazardous materials on-site.

RZC 21.64.050(D)(3) and (4) list standards for development within Wellhead Protection Zones 1, 2, and 3. The standards that apply to the Project include the following:

- Secondary containment is required for storage of hazardous materials and in areas where loading and unloading of hazardous materials occurs.
- Vehicle fueling, maintenance, and storage areas must have a containment system for collecting and treating all runoff from such areas.
- Appropriate BMPs shall be used where construction vehicles will be refueled on-site and/or when hazardous materials will be stored or handled on-site, such as development of detailed monitoring and construction standards; securing materials that are left unattended on-site; and developing practices and procedures and/or on-site materials adequate to ensure the immediate containment and cleanup of any release of hazardous substances stored at the construction site.

6.3 Mitigation Measures

Potential impacts to CARAs could occur during both the project construction and operations phases; applicable mitigation requirements are described below.

6.3.1 Construction

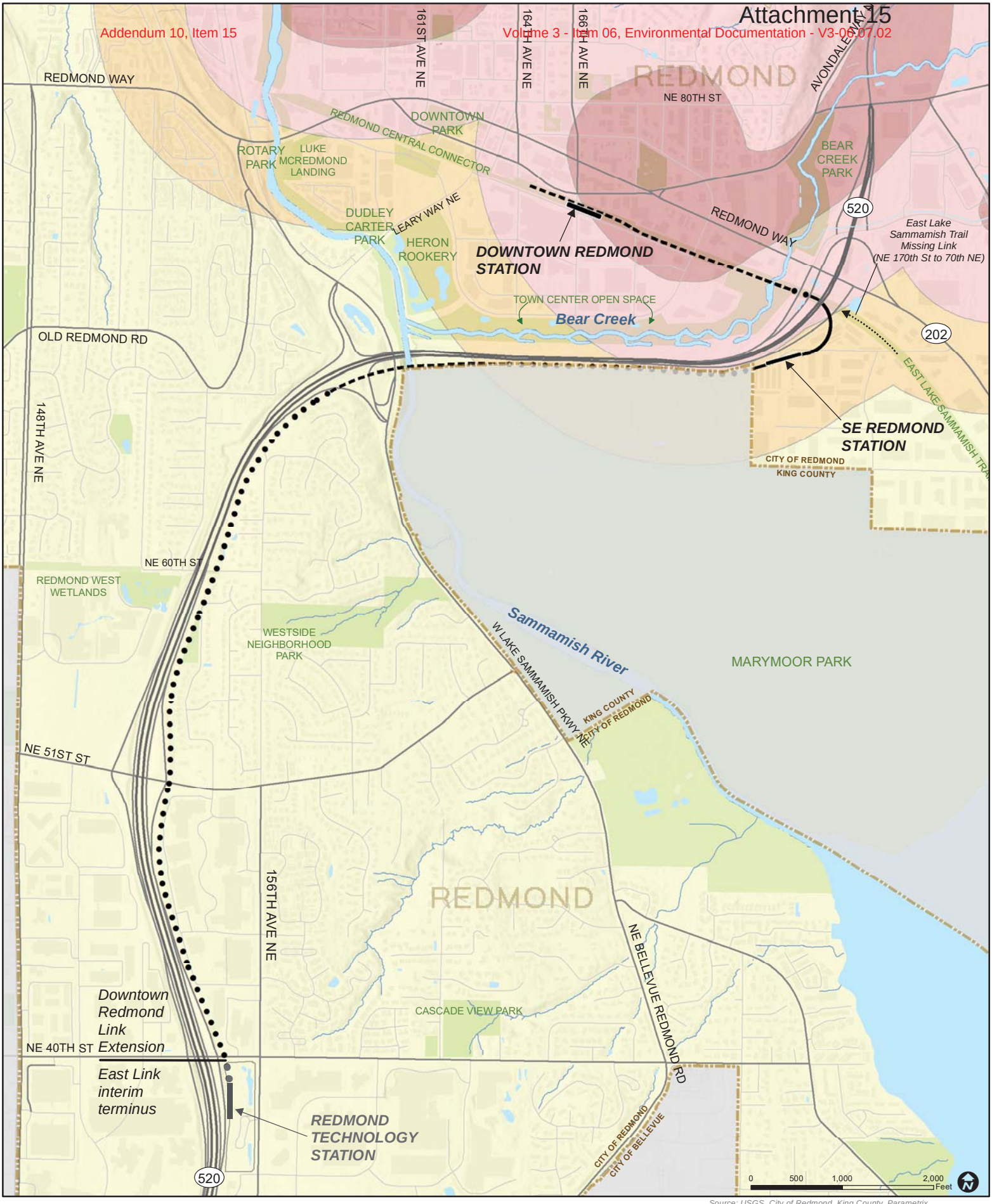
The Project will use a variety of mitigation measures to avoid and minimize the potential for groundwater contamination. These measures include, but may not be limited to:

- All applicable BMPs and other requirements specified in RZC 21.64.050.
- Development and use of a project-specific SWPPP, developed and implemented in accordance with the Sound Transit Environmental and Sustainability Management System.
- Development and use of a project-specific hazardous materials management plan.

As stated in Section 1.2, the Project will be constructed under a design-build delivery model. Sound Transit has prepared preliminary plans, but the contractor who is ultimately selected to build the Project will prepare the final design. Specific groundwater protection information will be provided to the City by the contractor and Sound Transit as part of the permitting process.

6.3.2 Operation

Post-construction, there would be no vehicle maintenance nor storage or use of hazardous materials associated with the light rail tracks and the stations. Project runoff from the guideway will be discharge to the Sammamish River and Bear Creek, and runoff from the stations will be infiltrated within the station vicinities.



Alignment
- At-Grade
- Elevated
- Retained Cut/Fill

Station Platform
Parks / Open Space

Wellhead Zone 1
Wellhead Zone 2
Wellhead Zone 3
Wellhead Zone 4

Source: USGS, City of Redmond, King County, Parametrix

Figure 6-1
Wellhead Protection Zones
Downtown Redmond Link Extension

7. WETLAND AND STREAM CONCEPTUAL MITIGATION PLAN

7.1 Mitigation Sequencing

RZC 21.64.010(I) requires all significant adverse impacts to critical areas functions and values to be mitigated, according to the following sequence:

1) Avoiding the impact altogether by not taking a certain action or parts of actions;
2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3) Rectifying the impact to the critical area by repairing, rehabilitating, or restoring the affected environment to the conditions existing at the time of the initiation of the project;
4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
5) Compensating for the impact by replacing or providing substitute resources or environments; and/or
6) Monitoring the hazard or other required mitigation and taking remedial action when necessary.

In general, the Project was designed to avoid and minimize impacts to critical areas and other natural resources, in accordance with local, state, and federal regulations. However, some permanent impacts could not be avoided and require compensatory mitigation.

Through project design, shoreline and critical areas impacts from the Project were avoided and minimized to the extent practicable by shifting the alignment as close to SR 520 as possible, with a substantial amount of the impact occurring within the existing disturbed fill prism in the SR 520 ROW. As summarized in Section 3.5, there will be no impacts to 4 of the 10 wetlands delineated within the study area. As the project alignment requires crossings of the Sammamish River, the unnamed tributary to the Sammamish River, and Bear Creek, impacts to these waterbodies are unavoidable. However, impacts will be fully mitigated through restoration activities at the Sammamish River and Bear Creek. Construction will also be limited to less than two years, thus making the contractor more strategic about when the impacts will occur.

The following conceptual mitigation plan outlines how the impacts will be compensated for and monitored into the future to ensure that the mitigation is successful and maintains or improves ecological function within the wetland and stream areas.

7.2 Mitigation Summary, Goals, and Objectives

The following sections summarize proposed mitigation actions for the Project, and list the relevant mitigation goals and objectives for wetland restoration, wetland compensatory mitigation, stream restoration, and stream compensatory mitigation.

The Project will be constructed under a design-build model, whereas Sound Transit has prepared preliminary plans, but the contractor who is ultimately selected to build the project will prepare the final design, including the final mitigation plans. The contractor has the flexibility to make adjustments to the project during final design; however, any adjustments must be consistent with the parameters of Sound Transit's application for a City Shoreline Permit and any conditions the City identifies in their permit

decision documents. Sound Transit anticipates that the range of Contractor-proposed adjustments, if any, would involve minor adjustments to the alignment and profile of the guideway, changes to planned phasing to accommodate the specific contractor's implementation schedule, and adjustments to temporary impact areas to accommodate the specific contractor's means and methods. Proposed adjustments will be identified by Sound Transit and the Contractor as part of the Contractor's application for subsequent approvals from the City necessary to construct the project.

7.2.1 Compensatory Wetland Mitigation

Permanent impacts to wetlands and wetland buffers will be compensated for through a credit purchase at the Keller Farm Wetland Mitigation Bank, which is located within Redmond city limits. A mitigation bank use plan is provided in Appendix M.

The compensatory mitigation plan for permanent wetland impacts was developed in accordance with the mitigation requirements set forth in Compensatory Mitigation for Losses of Aquatic Resources; Final Rule (33 CFR Parts 325 and 332, April 10, 2008), hereafter referred to as the Final Rule on Compensatory Mitigation. This final rule was developed by the Corps and the EPA and consolidates existing regulations and guidance to establish equivalent standards for all types of mitigation under the CWA Section 404 regulatory program (Corps and EPA 2008).

Wetland mitigation is regulated under the Final Rule on Compensatory Mitigation, which, in general, directs that mitigation will be most successful if it occurs under approved mitigation banks or in-lieu fee programs. Project impacts will occur within the service area of the Keller Farm Wetland Mitigation Bank, which is located within Redmond city limits and is expected to be certified in 2019, prior to the start of Project construction.

Redmond's current critical area regulations state that on-site mitigation is preferred, but off-site mitigation may be allowed if on-site mitigation is not scientifically feasible, and provided that the mitigation occurs within Redmond city limits (RZC 21.64.010[L]). All regulated critical areas that are temporarily impacted by the project will be restored to an in-kind or better condition, but there is not sufficient suitable mitigation area available on-site to provide the required wetland mitigation and protective buffers for the permanent impacts; therefore, Sound Transit proposes to utilize the Keller Farm Mitigation Bank. Additional details on the rationale for utilizing the bank to compensate for permanent wetland and buffer impacts is provided in the mitigation bank use plan (Appendix M).

7.2.2 Onsite Wetland and Riparian Zone/Shoreline Restoration

7.2.2.1 Wetlands

Mitigation for temporary impacts to wetlands, riparian zones/shoreline, and buffers will occur at the location of disturbance, at a 1:1 ratio (disturbance area to restoration area). Areas where temporary impacts will occur will be cleared and grubbed prior to construction. It is not practical to protect existing topsoil or salvage topsoil for replacement following construction due to the type of activity and the duration of the impact. The soils in excavated areas will be tested to determine soil type so they can be replaced with a similar soil type after construction. Natural surface or groundwater flow patterns are likely to be modified for the duration of construction.

7.2.2.2 Bear Creek

Mitigation for temporary impacts to the Bear Creek riparian zone/shoreline will occur at a 1:1 ratio (disturbance area to restoration area), following the methods described above in Section 7.2.2.1.

7.2.2.3 Sammamish River

Mitigation for temporary impacts to the Sammamish River riparian zone/shoreline will occur at a 1:1 ratio (disturbance area to restoration area), following the methods described above in Section 7.2.2.1. Additional invasive vegetation removal and native planting will occur in the vicinity, to compensate for permanent impacts (stream shading and removal of riparian vegetation) resulting from the elevated guideway crossing.

7.2.2.4 Unnamed Tributary to the Sammamish River

There are no temporary impacts associated with the unnamed tributary to the Sammamish River. No on-site restoration will occur.

7.2.2.5 Unnamed Tributary to Bear Creek

Mitigation for temporary impacts to the unnamed tributary to Bear Creek riparian zone will occur at a 1:1 ratio (disturbance area to restoration area), following the methods described above in Section 7.2.2.1.

7.2.2.6 Description of Work

Following completion of construction, the temporarily impacted areas will be restored. All temporary fill will be removed, the existing subgrade prepared, and existing surface and groundwater flow restored by recontouring the work area to pre-existing elevations. Suitable topsoil will be re-established through import or on-site amendment and tested to confirm it matches the removed soil. All disturbed areas will be revegetated to replicate pre-construction conditions and vegetative structure or better. Only plant species native to the Puget Sound lowlands will be used for revegetation. The restoration areas will be designed and constructed to meet the goals, objectives, and performance criteria identified in the project mitigation plans throughout the entire plant establishment and mitigation monitoring periods. The restoration areas will be designed and constructed to require minimal maintenance during the monitoring period.

Supplemental irrigation will be provided for at least the designated plant establishment period. Weed and pest management activities in the temporarily disturbed wetland and buffer areas will be implemented prior to the initiation of all work and continue during the duration of work. Weed and pest management will continue as required throughout the designated management period.

7.2.2.7 Mitigation Goal

The overall goal of onsite restoration is to restore all wetland, buffer, and riparian/shoreline areas temporarily impacted by the project to similar or better condition.

7.2.2.8 Mitigation Objectives

This mitigation goal will be achieved through the following objectives:

- Restore surface grade and soils within disturbed wetland, buffer, and riparian/shoreline areas.
- Re-establish and increase the cover and diversity of native vegetation within wetland, buffer, and riparian/shoreline areas (see planting list in Appendix N).
- Limit invasive species cover.

7.2.3 Compensatory Stream Mitigation

As compensatory mitigation for permanent Project-related impacts to Bear Creek, the unnamed tributary to the Sammamish River, and the Sammamish River, an approximately 525-foot-long reach of Bear Creek will be functionally restored and enhanced, for a total compensatory mitigation area of approximately 0.9-acre acre (excluding restoration of areas temporarily disturbed during construction) (see conceptual restoration design drawings in Appendix O). On-site mitigation for impacts to the unnamed tributary to the Sammamish River and the Sammamish River is not feasible because there is not sufficient suitable mitigation area available on-site or the on-site area that is available is constrained to the extent that it would not be functionally practicable.

To compensate for the construction of the new guideway and pedestrian bridge crossings, Sound Transit will correct a pre-existing restriction of Bear Creek and its floodplain by removing a derelict, creosote-treated wood railroad bridge and associated fill prisms and restore the stream corridor and floodplain to a more natural condition adjacent to the Project alignment. Enhancement includes installation of LWD and substrate enhancements throughout the 525-foot-long reach of stream.

To compensate for the loss of open stream channel habitat from the culverting of the unnamed Sammamish River tributary, overwater coverage from the Sammamish River Bridge crossing, and the temporary loss of habitat area from the dewatering and diversion of Bear Creek during construction, the Project will create new off-channel habitat off the eastern bank of Bear Creek just downstream of the new light rail crossing. The Project will enhance existing backwater channel habitat by adjusting the grading at the confluence of the backwater channel constructed within WSDOT ROW on the eastern bank immediately upstream of the alignment. In addition, the Project will remove and control invasive vegetation and plant additional trees within an approximately 1.8-acre area of Bear Creek floodplain downstream of the project alignment (Appendix O).

7.2.3.1 Mitigation Goals

The overall goals of the compensatory stream mitigation are to:

- Extensively restore an approximately 525-foot-long reach of the stream and its floodplain.
- Restore temporarily-impacted stream and buffer areas to similar or better conditions.
- Install riparian plantings downstream of the stream restoration area.

7.2.3.2 Mitigation Objectives

These mitigation goals will be achieved through the following objectives:

- Remove existing railroad corridor fill within the floodplain, remove creosote piles, and create a meandering stream channel.
- Remove existing bank armoring (e.g., riprap)
- Create an off-channel habitat area south (downstream) of the elevated guideway.
- Install LWD throughout the restored channel area and floodplain.
- Restore surface grade and soils to disturbed stream buffer areas.
- Re-establish and increase the cover and diversity of native vegetation in disturbed stream buffer and stream areas (note: these areas generally overlap the wetland restoration areas).
- Restore surface grade and soils to disturbed stream areas, above the active channel area (note: these areas generally overlap the wetland restoration areas).

7.3 Mitigation Implementation Schedule

On-site restoration of temporarily-impacted wetland, riparian/shoreline, and buffer areas and the compensatory stream restoration will occur no later than one year following the completion of the guideway and pedestrian trail construction crossing over Bear Creek, with no areas of temporary impact occurring for a duration of greater than two years from the time of initial disturbance to the completion of on-site restoration or compensatory mitigation.

A Keller Farm Mitigation Bank purchase will occur prior to the first permanent wetland or buffer impact.

7.4 Performance Standards

A set of specific performance standards has been established to correspond with the stated mitigation objectives. These standards serve as benchmarks that will be used to evaluate the success of the restoration project. By monitoring the mitigation project and comparing the results to performance standards, a determination will be made as to the need for implementing a contingency plan.

7.4.1 Onsite Wetland Restoration

7.4.1.1 Restore Surface Grade and Soils

Year 0:

1. Area is graded according to the approved mitigation plan (or approved modifications to this plan).
2. Surface soils are restored to pre-disturbance conditions.

7.4.1.2 Re-establish Native Vegetation and Limit Invasive Species

Year 0:

1. All of the planting areas shown in the plan set will be prepared per plan specifications, including invasive species control, soil preparation, planting native species and mulching.

Year 1:

1. 100 percent survival of all plants installed in Year 0.
2. Less than 20 percent cover of invasive plant species. Invasive plant species are defined as any non-native species meeting any of these criteria: species listed as regulated Class B or C on the Washington State or King County Noxious Weed lists; species identified as a control priority by King County or the City ; reed canarygrass (*Phalaris arundinacea*); English ivy (*Hedera helix*); any non-native blackberry (*Rubus*) species or hybrid of this species.
3. Class A plant species require complete eradication. This includes the complete eradication (0 percent cover) of non-native knotweed species and species hybrids (e.g., *Polygonum cuspidatum, Polygonum sachalinense, Polygonum X bohemicum*).

Year 2:

1. Native woody species (planted and volunteers) will provide at least 15 percent aerial coverage of the planted areas.
2. Invasive plant species (as defined in Year 1 performance standards) will cover less than 20 percent of the planted areas.
3. Complete eradication (0 percent cover) of Class A invasive plants species and non-native knotweed species and species hybrids (as defined in Year 1 performance standards).

Year 3:

1. Native woody species (planted and volunteers) will provide at least 20 percent aerial coverage of the planted areas.
2. Invasive plant species (as defined in Year 1 performance standards) will cover less than 20 percent of the planted areas.
3. Complete eradication (0 percent cover) of Class A invasive plants species and non-native knotweed species and species hybrids (as defined in Year 1 performance standards).

Year 5:

1. Native woody species (planted and volunteers) will provide at least 30 percent aerial coverage of the planted areas.
2. Invasive plant species (as defined in Year 1 performance standards) will cover less than 20 percent of the planted areas.
3. Complete eradication (0 percent cover) of Class A invasive plants species and non-native knotweed species and species hybrids (as defined in Year 1 performance standards).

Year 7:

1. Native woody species (planted and volunteers) will provide at least 50 percent aerial coverage of the planted areas.
2. Invasive plant species (as defined in Year 1 performance standards) will cover less than 20 percent of the planted areas.
3. Complete eradication (0 percent cover) of Class A invasive plants species and non-native knotweed species and species hybrids (as defined in Year 1 performance standards).

Year 10:

1. Native woody species (planted and volunteers) will provide at least 60 percent aerial coverage of the planted areas.
2. Native tree species (planted and volunteer) will provide at least 30 percent aerial coverage of the planted areas (area can overlap with native woody species coverage area above).
3. Invasive plant species (as defined in Year 1 performance standards) will cover less than 20 percent of the planted areas.
4. Complete eradication (0 percent cover) of Class A invasive plants species and non-native knotweed species and species hybrids (as defined in Year 1 performance standards).

7.4.2 Bear Creek Restoration

7.4.2.1 Restore Surface Grade and Soils

Year 0:

1. Areas outside of the active channel (but still waterward of the OHWM) are graded according to the approved mitigation plan (or approved modifications to this plan).
2. Surface soils are restored to pre-disturbance conditions.

7.4.2.2 Re-establish Native Vegetation and Limit Invasive Species

See Section 7.4.1.2 above.

7.4.2.3 Restore Stream Channel

Year 0:

1. Stream channel and off-channel habitat area are graded according to the approved restoration design (or approved modifications to this design).
2. All existing creosote piles in the restoration area are removed.
3. LWD placed and anchored throughout the restored channel area and floodplain according to the approved restoration design (or approved modifications to this design).

Years 1 through 10

1. Anchored LWD remains in place throughout the restored channel area and floodplain.
2. Visual observations of transported wood accumulating in the restored channel area and floodplain will be noted.

7.4.3 Sammamish River Restoration

7.4.3.1 Restore Surface Grade and Soils

Year 0:

1. Areas outside of the active channel (but still waterward of the OHWM) are graded according to the approved mitigation plan (or approved modifications to this plan).
2. Surface soils are restored to pre-disturbance conditions.

7.4.3.2 Re-establish Native Vegetation and Limit Invasive Species

See Section 7.4.1.2 above.

7.5 Reporting, Monitoring, and Maintenance

7.5.1 Baseline Conditions and As-Built Report

The baseline conditions of the restoration and mitigation areas will be established after construction is complete (including plant installation) and approved by the project construction manager or wetland and stream biologists representing Sound Transit. This date will constitute the beginning of Year 0. A post-construction site review of the completed work will be conducted between the wetland and stream biologists and the contractor to verify that the plan was properly implemented. This field meeting will identify any discrepancies between the bid documents and the field plantings, including previously approved plant substitutions and/or relocation of plantings. During this period, baseline conditions will be documented in the As-Built Report.

7.5.1.1 Installed Habitat Structures

The type, number, and location of the installed habitat structures/LWD will be documented by the contractor, surveyed, and reported in the Year 0 As-Built Report. In each monitoring year, the structures will be evaluated qualitatively for structural integrity and documented by photographs, taken from established photo points, and included in the monitoring reports. Photo points will be field-located, surveyed with GPS, and identified on the Year 0 As-Built Report

7.5.1.2 Plantings

After plant installation, the perimeter of all mitigation areas will be surveyed with GPS and photographed to document baseline conditions. Contractor records will document the total number of plants planted in each mitigation area.

7.5.1.3 As-Built Report

An As-Built report will be prepared to document the baseline conditions. It will include a narrative report, a set of landscape drawings showing changes that occurred during construction relative to the approved plans, and representative photographs. Permanent photo points will be identified with GPS and located on the As-Built plans. Photo documentation will include panoramic photos. The As-Built report will include an updated monitoring plan after site construction, which will include the locations of vegetation monitoring transects, plots, and piezometers on site and photo points. The As-Built Report will be submitted to Redmond, the Corps, and Ecology after mitigation installation is complete in order to document baseline site conditions as described above. This report will constitute the Year 0 Monitoring Report.

7.5.2 Monitoring Plan and Reporting

Effective monitoring, adaptive management, maintenance, and contingency actions are planned to evaluate and ensure performance standards are met, and to correct deficiencies if needed. Conducting monitoring work and reporting these results for agency review and concurrence will ensure that appropriate contingency actions are taken and ecological benefits are ultimately achieved.

This section describes the overall mitigation monitoring that will occur over a 10-year monitoring period to verify that the wetland and stream restoration projects are meeting established performance standards and permit conditions. The monitoring approach for the mitigation project is described here and will be performed in accordance with all conditions of the CWA Section 404 Permit, administered by the Corps, and a Section 401 Water Quality Certification, administered by Ecology. If monitoring demonstrates that performance standards are not met, then contingency actions will be evaluated and may be implemented to ensure that the desired wetland functions are ultimately provided by the proposed mitigation projects.

The mitigation/restoration areas will be monitored for a 10-year period following construction. Monitoring reports shall be prepared in accordance with City standards. The monitoring reports will document the project conditions after construction and initiate the monitoring period. Permitted mitigation will be measured by attainment of the performance standards described above. Vegetation communities in all mitigation areas will be established as described in the mitigation plan and drawings.

7.5.2.1 Vegetation Monitoring

Field monitoring will occur annually during August or September (before leaf drop) for the first 5 years and in Years 7 and 10. Quantitative monitoring will occur in Years 1, 2, 3, 5, 7, and 10. General qualitative vegetation monitoring will occur in all years.

Qualitative monitoring constitutes a general visual inspection of each mitigation area when sites are monitored to determine the condition of the plant materials, the effectiveness of the established hydrologic conditions (for wetland restoration areas), establishment of geomorphic processes, and the need to remove invasive plants. Photo points will be established within the mitigation areas to permit a visual evaluation of planting success. All permanent photo points will be marked on the mitigation plan for use in the field.

Quantitative monitoring will involve established sampling techniques and data analysis for assessing the condition of the mitigation areas against the stated performance criteria. The results will be compared to the performance standards to determine whether the mitigation areas are developing as predicted and leading to the Year 10 success standards.

The large quantity of plant materials and anticipated numbers of volunteer species make total counts in all areas impractical. Planting success in all planted mitigation areas will be determined using line intercept and\or quadrat sampling depending on size and configuration of the mitigation area, with the goal of sampling at least 1 percent of the mitigation areas.

Percent cover will be estimated using a line-intercept method in established transects for each mitigation area (see below). The biologist will walk the entire length of the 100-foot centerline. The biologist will record the aerial cover of each species that visually intercepts the centerline to the nearest 0.1 foot. It is expected that as the plants grow, a given area may contain more than one vegetative stratum. Thus, overlapping vegetation could contribute to a total vegetation cover of greater than 100 percent. The data will be used to calculate total percent cover and individual species cover. Volunteer trees and shrub cover will be recorded in the quantitative evaluation because the mitigation design anticipates substantial numbers of volunteer plants to become established. Non-native invasive plants will be recorded and reported separately. The results for each mitigation area will be averaged and the standard deviation of the mean calculated for each quantitative monitoring event. The results will be compared to the performance standards to determine the development and ultimate success of the mitigation areas. Species composition in mitigation areas will be compiled from the collected data.

First-year plant density will be estimated using a belt-transect method. Using the established transects, the biologist extends a three-foot staff on both sides of the transect and records each individual plant encountered within the six feet by 100-foot belt. This sampling method will result in an estimate of the number of individuals in a unit area.

7.5.2.2 Fish and Wildlife Monitoring

In addition to monitoring wetland vegetation, all compensatory mitigation and restoration areas will be qualitatively monitored for fish and wildlife use. Fish and wildlife species presence and observations will be recorded in monitoring reports. Monitoring will occur for all types of wildlife species including birds, mammals, amphibians, and reptiles. Fish will be observed using polarized glasses, and wildlife will be observed using binoculars or spotting scopes. Observations will be made twice yearly (spring and late fall) for each mitigation area via a periodic walkthrough of the mitigation areas.

7.5.2.3 Monitoring Schedule

Table 7-1 outlines the mitigation monitoring schedule for the 10-year monitoring period.

Table 7-1. Mitigation Monitoring Schedule

Mitigation Monitoring Element	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 7	Year 10
As-Built Report	x							
Vegetation: Quantitative	x	x	x	x		x	x	x
Vegetation: Qualitative	x	x	x	x	x	x	x	x
Invasive Species	x	x	x	x		x	x	x
Wildlife Usage	x	x	x	x	x	x	x	x
Reporting	x	x	x	x	x	x	x	x

7.5.3 Reporting Requirements

Monitoring reports shall be prepared in accordance with City requirements (RZC 21.54.010[P]). All monitoring reports must contain a methods, results, analysis, and recommendations section. Reports, at a minimum, shall include information on the following:

- Plant survival, vigor, aerial coverage from each plant community. Each transect shall detail herb, shrub, and tree aerial coverage within a radius of 1 meter (m), 5m, and 10m, respectively;
- Site hydrology, including extent of inundation, saturation, depth to groundwater, function of any hydrologic structures, inputs, outlets, etc.;
- Slope condition, site stability, any structures or special features;
- Buffer condition;
- Fish and wildlife use of the mitigation areas;
- Report on any material hauled off-site, including receipts for off-site disposal of weeds or invasive plants;
- Report on any structural repair or replacement and include receipts; and
- Color photographs taken from permanent photo-points as shown on the monitoring plan map.

7.6 Contingency Plan

If there is a significant problem with the mitigation achieving its performance standards, the bond-holder shall work with the City to develop a Contingency Plan. Contingency plans can include, but are not limited to: regrading, additional plant installation, erosion control, modifications to hydrology, and plant substitutions of type, size, quantity, and location. Such Contingency Plan shall be submitted to the City by December 31 of any year when deficiencies are discovered.

7.7 Adaptive Management Plan

Following construction of the wetland and stream mitigation, oversight will be required to ensure the long-term success of the restoration and mitigation projects. The goal of the proposed restoration and mitigation is to restore functional, self-sustaining systems that requires little or no long-term maintenance. Mitigation sites are dynamic systems that can evolve rapidly as site conditions change. Projects that require modification to soils, plant communities, topography, and/or hydrology do not always respond as predicted; therefore, the principles of adaptive management will be used to guide post-construction wetland management activities.

Adaptive management is driven by the monitoring objectives that describe the desired condition of a site. If the monitoring objectives are not met, adaptive management activities will be planned to achieve the desired condition. Management activities may include implementation of contingency actions described above, or other activities as appropriate.

7.8 Maintenance Plan

During Year 1 monitoring, every failed planting must be replaced. During Year 1 monitoring and during the first year after any replacement plantings, the plantings must receive a minimum of 1-inch of water at least once weekly between June 15 and September 15, inclusive. Other maintenance activities such as

weeding, trash removal, and structural maintenance must be done twice per year for the duration of the monitoring period. Some conditions on maintenance include the following:

- No herbicide or pesticide use is allowed for purposes of weeding and removal.
- Trees and shrubs must be weeded to the dripline and mulch maintained at 3-inch depth.
- Weed herbaceous plantings as necessary.
- All litter and invasive vegetation must be removed including Himalayan blackberry, reed canary grass evergreen blackberry, Scots broom, English ivy, morning glory, Japanese knotweed etc., and properly disposed of off-site. Receipts must be submitted to the City and included in annual monitoring reports.
- Damaged or missing structural components such as fences, signs, posts, and habitat features such as downed logs, brush piles must be repaired or replaced. Receipts must be submitted to the City and included in annual monitoring reports.

Access to the site for maintenance activities shall occur from the public ROW, or be obtained from adjacent property owners as a formalized easement for the duration of the monitoring and maintenance period.

7.9 Financial Assurances

According to RCW 35.21.470, Sound Transit is exempt from the financial guarantee requirement.

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Appendix A

Conceptual Design Drawings

SOUNDTRANSIT
CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY

DOWNTOWN REDMOND LINK EXTENSION (DRLE)

CONCEPTUAL DESIGN DRAWINGS

FINAL
OCTOBER 26, 2018

PREPARED BY:

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

BRIGHT ENGINEERING, INC
Consulting Structural & Civil Engineering

GRIJALVA ENGINEERING

HEWITT

PARSONS

WSP

VOLUME 3-01.01

SOUNDTRANSIT

CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY

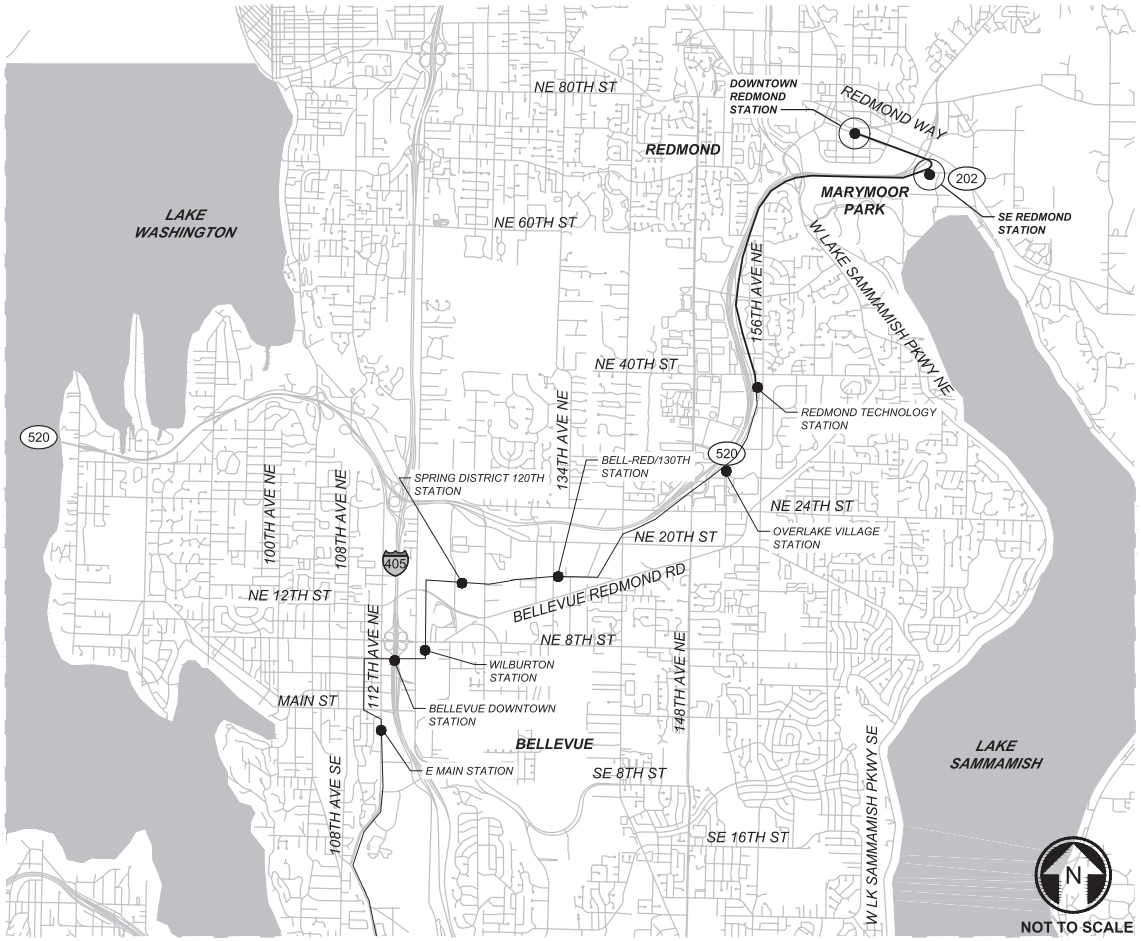
DOWNTOWN REDMOND LINK EXTENSION

RTS TO DOWNTOWN REDMOND

CN 0148-18

RTS TO DOWNTOWN REDMOND

CONCEPTUAL DESIGN
SEPTEMBER 24, 2018



CONTRACT LOCATION MAP

PREPARED BY:

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: _____ DATE: _____
NAME: BRAD PHILLIPS, PE
TITLE:

REVIEWED BY: _____ DATE: _____
NAME:
TITLE:

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL TRANSIT ADMINISTRATION UNDER THE URBAN MASS TRANSPORTATION ACT OF 1964, AS AMENDED, AND IN PART BY THE CENTRAL PUGET SOUND REGIONAL TRANSIT AUTHORITY DISTRICT OF WASHINGTON, AND THE STATE OF WASHINGTON

VOLUME 3-01.01

FINAL

DRAWING No.: L90-GZK001
LOCATION ID:
SHEET No.: 1 REV:

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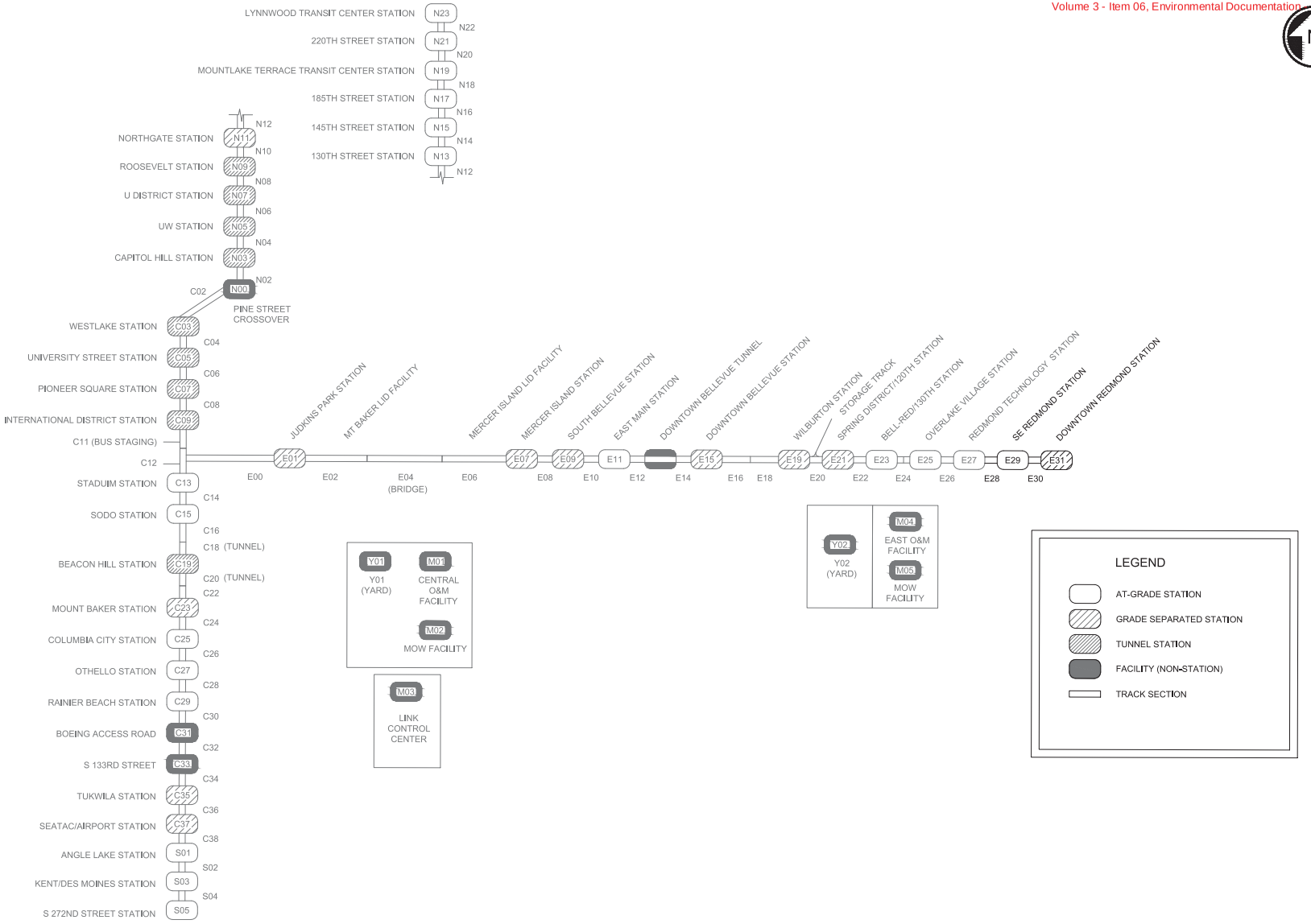

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZK002
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
PROJECT LOCATION IDENTIFICATION

DRAWING No.: L90-GZK002
LOCATION ID:
SHEET No.: 2
REV:

Xrefs:
RLE-GB-TB22x34

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INDEX OF DRAWINGS

GENERAL SHEETS

SHT. No.	DWG. No.	REV	TITLE
1	L90-GZK001		CONTRACT LOCATION MAP
2	L90-GZK002		PROJECT LOCATION IDENTIFICATION
3	L90-GZI001		GENERAL INDEX OF DRAWINGS
4	L90-GZI002		GENERAL INDEX OF DRAWINGS
5	L90-GZI003		GENERAL INDEX OF DRAWINGS
6	L90-GZN001		GENERAL GENERAL ABBREVIATIONS
7	L90-GZN002		GENERAL GENERAL ABBREVIATIONS
8	L90-GZN003		GENERAL GENERAL ABBREVIATIONS
9	L90-GZN004		GENERAL GENERAL SYMBOLS AND LEGEND
10	L90-GZN005		GENERAL GENERAL SYMBOLS AND LEGEND
11	L90-GZN006		GENERAL LEGEND
12	L90-GZK020		GENERAL KEY LAYOUT INDEX 1" = 20' PLANS
13	L90-GZK040		GENERAL KEY LAYOUT INDEX 1" = 40' PLANS
14	L90-RMP100		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN
15	L90-RMP101		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN
16	L90-RMP102		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN
17	L90-RMP103		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN
18	L90-RMP104		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN
19	L90-RMP105		GENERAL HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN

RIGHT-OF-WAY

SHT. No.	DWG. No.	REV	TITLE
20	L90-RZN001		RIGHT-OF-WAY NOTES AND LEGEND
21	L90-RPP100		RIGHT-OF-WAY PLAN EB STA 4991+00 TO EB STA 4993+00
22	L90-RPP101		RIGHT-OF-WAY PLAN EB STA 4993+00 TO EB STA 4998+00
23	L90-RPP102		RIGHT-OF-WAY PLAN EB STA 4998+00 TO EB STA 5003+00
24	L90-RPP103		RIGHT-OF-WAY PLAN EB STA 5003+00 TO EB STA 5008+00
25	L90-RPP104		RIGHT-OF-WAY PLAN EB STA 5008+00 TO EB STA 5013+00
26	L90-RPP105		RIGHT-OF-WAY PLAN EB STA 5013+00 TO EB STA 5018+00
27	L90-RPP106		RIGHT-OF-WAY PLAN EB STA 5018+00 TO EB STA 5023+00
28	L90-RPP107		RIGHT-OF-WAY PLAN EB STA 5023+00 TO EB STA 5028+00
29	L90-RPP108		RIGHT-OF-WAY PLAN EB STA 5028+00 TO EB STA 5033+00
30	L90-RPP109		RIGHT-OF-WAY PLAN EB STA 5033+00 TO EB STA 5038+00
31	L90-RPP110		RIGHT-OF-WAY PLAN EB STA 5038+00 TO EB STA 5043+00
32	L90-RPP111		RIGHT-OF-WAY PLAN EB STA 5043+00 TO EB STA 5048+00
33	L90-RPP112		RIGHT-OF-WAY PLAN EB STA 5048+00 TO EB STA 5053+00
34	L90-RPP113		RIGHT-OF-WAY PLAN EB STA 5053+00 TO EB STA 5058+00
35	L90-RPP114		RIGHT-OF-WAY PLAN EB STA 5058+00 TO EB STA 5063+00
36	L90-RPP115		RIGHT-OF-WAY PLAN EB STA 5063+00 TO EB STA 5068+00
37	L90-RPP116		RIGHT-OF-WAY PLAN EB STA 5068+00 TO EB STA 5073+00
38	L90-RPP117		RIGHT-OF-WAY PLAN EB STA 5073+00 TO EB STA 5078+00
39	L90-RPP118		RIGHT-OF-WAY PLAN EB STA 5078+00 TO EB STA 5083+00
40	L90-RPP119		RIGHT-OF-WAY PLAN EB STA 5083+00 TO EB STA 5088+00
41	L90-RPP120		RIGHT-OF-WAY PLAN EB STA 5088+00 TO EB STA 5093+00
42	L90-RPP121		RIGHT-OF-WAY PLAN EB STA 5093+00 TO EB STA 5098+00
43	L90-RPP122		RIGHT-OF-WAY PLAN EB STA 5098+00 TO EB STA 5103+00
44	L90-RPP123		RIGHT-OF-WAY PLAN EB STA 5103+00 TO EB STA 5108+00
45	L90-RPP124		RIGHT-OF-WAY PLAN EB STA 5108+00 TO EB STA 5113+00
46	L90-RPP125		RIGHT-OF-WAY PLAN EB STA 5113+00 TO EB STA 5118+00
47	L90-RPP126		RIGHT-OF-WAY PLAN EB STA 5118+00 TO EB STA 5123+00
48	L90-RPP127		RIGHT-OF-WAY PLAN EB STA 5123+00 TO EB STA 5127+50
49	L90-RPP128		RIGHT-OF-WAY PLAN EB STA 5127+50 TO EB STA 5131+00
50	L90-RPP129		RIGHT-OF-WAY PLAN EB STA 5131+00 TO EB STA 5135+50
51	L90-RPP130		RIGHT-OF-WAY PLAN EB STA 513
52	L90-RPP131		RIGHT-OF-WAY PLAN EB STA 5140+00 TO EB STA 5145+00
53	L90-RPP132		RIGHT-OF-WAY PLAN EB STA 5145+00 TO EB STA 5150+00
54	L90-RPP133		RIGHT-OF-WAY PLAN EB STA 5150+00 TO EB STA 5155+00
55	L90-RPP134		RIGHT-OF-WAY PLAN EB STA 5155+00 TO EB STA 5160+00
56	L90-RPP135		RIGHT-OF-WAY PLAN EB STA 5160+00 TO EB STA 5165+00
57	L90-RPP136		RIGHT-OF-WAY PLAN EB STA 5165+00 TO EB STA 5167+72
58	L90-RPP137		RIGHT-OF-WAY PLAN MICROSOFT BLDG 50
59	L90-RPP138		RIGHT-OF-WAY PLAN MICROSOFT BLDG 50 PARKING GARAGE
60	L90-RPP139		RIGHT-OF-WAY PLAN 156TH AVE NE
61	L90-RPP140		RIGHT-OF-WAY PLAN NE 51ST ST
62	L90-RPP141		RIGHT-OF-WAY PLAN WEST LAKE SAMMAMISH PKWY
63	L90-RPP142		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & BEAR CREEK
64	L90-RPP143		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & SR 520
65	L90-RPP144		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & SR 520 EB OFF-RAMP
66	L90-RPP145		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & SR 520 WB FLYOVER RAMP
67	L90-RPP146		RIGHT-OF-WAY PLAN SR 202/REDMOND WY
68	L90-RPP147		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & NE 70TH ST INTERSECTION
69	L90-RPP148		RIGHT-OF-WAY PLAN SR 202/REDMOND WY & 180TH AVE NE INTERSECTION
70	L90-RPP149		RIGHT-OF-WAY PLAN SR 520 EB OFF-RAMP (REDMOND INN)
71	L90-RPP150		RIGHT-OF-WAY PLAN NE 70TH ST
72	L90-RPP151		RIGHT-OF-WAY PLAN NE 70TH ST - EAST

RIGHT-OF-WAY (CONT)

SHT. No.	DWG. No.	REV	TITLE
73	L90-RPP152		RIGHT-OF-WAY PLAN NE 70TH ST & SR 202/REDMOND WY INTERSECTION
74	L90-RPP153		RIGHT-OF-WAY PLAN NE 70TH ST - WEST
75	L90-RPP154		RIGHT-OF-WAY PLAN 176TH AVE NE
76	L90-RPP155		RIGHT-OF-WAY PLAN 173RD AVE NE
77	L90-RPP156		RIGHT-OF-WAY PLAN 173RD AVE NE & NE 67TH CT
78	L90-RPP157		RIGHT-OF-WAY PLAN SR 520
79	L90-RPP158		RIGHT-OF-WAY PLAN SR 520 EB OFF-RAMP
80	L90-RPP159		RIGHT-OF-WAY PLAN SR 520 WB ON-RAMP
81	L90-RPP160		RIGHT-OF-WAY PLAN NE 45TH ST
82	L90-RPP161		RIGHT-OF-WAY PLAN NE 45TH ST & 156TH AVE NE
83	L90-RPP162		RIGHT-OF-WAY PLAN NE 76TH ST & SR 202/REDMOND WY INTERSECTION
84	L90-RPP163		RIGHT-OF-WAY PLAN NE 76TH ST
85	L90-RPP164		RIGHT-OF-WAY PLAN NE 76TH ST - NORTH
86	L90-RPP165		RIGHT-OF-WAY PLAN OFF-SITE MITIGATION AREA
87	L90-RPP166		RIGHT-OF-WAY PLAN OFF-SITE MITIGATION AREA
88	L90-RPP167		RIGHT-OF-WAY PLAN OFF-SITE MITIGATION AREA
89	L90-RPP168		RIGHT-OF-WAY PLAN OFF-SITE MITIGATION AREA

TRACKWORK

SHT. No.	DWG. No.	REV	TITLE
90	L90-KZN001		TRACKWORK ABBREVIATIONS & SYMBOLS
91	L90-KZN002		TRACKWORK CURVE SYMBOLS AND SUPERELEVATION DEVELOPMENT
92	L90-KAP010		TRACKWORK ALIGNMENT DATA EASTBOUND MAIN TRACK
93	L90-KAP011		TRACKWORK ALIGNMENT DATA WESTBOUND MAIN TRACK
94	L90-KAP100		TRACKWORK PLAN AND PROFILE EB STA 4991+00 TO EB STA 4998+00
95	L90-KAP101		TRACKWORK PLAN AND PROFILE EB STA 4998+00 TO EB STA 5007+00
96	L90-KAP102		TRACKWORK PLAN AND PROFILE EB STA 5007+00 TO EB STA 5016+00
97	L90-KAP103		TRACKWORK PLAN AND PROFILE EB STA 5016+00 TO EB STA 5025+00
98	L90-KAP104		TRACKWORK PLAN AND PROFILE EB STA 5025+00 TO EB STA 5035+00
99	L90-KAP105		TRACKWORK PLAN AND PROFILE EB STA 5035+00 TO EB STA 5044+50
100	L90-KAP106		TRACKWORK PLAN AND PROFILE EB STA 5044+50 TO EB STA 5054+50
101	L90-KAP107		TRACKWORK PLAN AND PROFILE EB STA 5054+50 TO EB STA 5064+00
102	L90-KAP108		TRACKWORK PLAN AND PROFILE EB STA 5064+00 TO EB STA 5072+00
103	L90-KAP109		TRACKWORK PLAN AND PROFILE EB STA 5072+00 TO EB STA 5081+00
104	L90-KAP110		TRACKWORK PLAN AND PROFILE EB STA 5081+00 TO EB STA 5090+00
105	L90-KAP111		TRACKWORK PLAN AND PROFILE EB STA 5090+00 TO EB STA 5100+00
106	L90-KAP112		TRACKWORK PLAN AND PROFILE EB STA 5100+00 TO EB STA 5109+00
107	L90-KAP113		TRACKWORK PLAN AND PROFILE EB STA 5109+00 TO EB STA 5118+00
108	L90-KAP114		TRACKWORK PLAN AND PROFILE EB STA 5118+00 TO EB STA 5127+00
109	L90-KAP115		TRACKWORK PLAN AND PROFILE EB STA 5127+00 TO EB STA 5135+00
110	L90-KAP116		TRACKWORK PLAN AND PROFILE EB STA 5135+00 TO EB STA 5144+50
111	L90-KAP117		TRACKWORK PLAN AND PROFILE EB STA 5144+50 TO EB STA 5154+00
112	L90-KAP118		TRACKWORK PLAN AND PROFILE EB STA 5154+00 TO EB STA 5164+00
113	L90-KAP119		TRACKWORK PLAN AND PROFILE EB STA 5164+00 TO EB STA 5167+72
114	L90-KYX101		TRACKWORK TYPICAL SECTION - BALLASTED TRACK CUT AT PROJECT START
115	L90-KYX102		TRACKWORK TYPICAL SECTION - BALLASTED TRACK CUT AT NE 40TH ST
116	L90-KYX103		TRACKWORK TYPICAL SECTION - BALLASTED TRACK RETAINED CUT
117	L90-KYX104		TRACKWORK TYPICAL SECTION - BALLASTED TRACK RETAINED FILL
118	L90-KYX105		TRACKWORK TYPICAL SECTION - BALLASTED TRACK FILL AND CUT
119	L90-KYX106		TRACKWORK TYPICAL SECTION - BALLASTED TRACK CUT AT NE 51ST ST AND NE 60TH ST
120	L90-KYX107		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT SAMMAMISH RIVER
121	L90-KYX108		TRACKWORK TYPICAL SECTION - BALLASTED TRACK RETAINED FILL AT MARYMOOR PARK
122	L90-KYX109		TRACKWORK TYPICAL SECTION - BALLASTED TRACK HIGH RAIL ACCESS
123	L90-KYX110		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK AT-GRADE AT SE REDMOND STATION
124	L90-KYX111		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK AT-GRADE AT PARKING GARAGE
125	L90-KYX112		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK AT-GRADE UNDER SR 520
126	L90-KYX113		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT BEAR CREEK
127	L90-KYX114		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT DOWNTOWN REDMOND
128	L90-KYX115		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT DOUBLE CROSSOVER
129	L90-KYX116		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT TWO SINGLE TRACKS
130	L90-KYX117		TRACKWORK TYPICAL SECTION - DIRECT FIXATION TRACK ELEVATED AT DOWNTOWN REDMOND STATION
131	L90-KTC100		TRACKWORK TRACK CHARTS SYMBOLS & GENERAL NOTES
132	L90-KTC401		TRACKWORK TRACK CHARTS EB STA 4991+00 TO EB STA 5011+00
133	L90-KTC402		TRACKWORK TRACK CHARTS EB STA 5011+00 TO EB STA 5038+50
134	L90-KTC403		TRACKWORK TRACK CHARTS EB STA 5038+50 TO EB STA 5066+00
135	L90-KTC404		TRACKWORK TRACK CHARTS EB STA 5066+00 TO EB STA 5093+50
136	L90-KTC405		TRACKWORK TRACK CHARTS EB STA 5093+50 TO EB STA 5121+00
137	L90-KTC406		TRACKWORK TRACK CHARTS EB STA 5121+00 TO EB STA 5148+50
138	L90-KTC407		TRACKWORK TRACK CHARTS EB STA 5148+50 TO EB STA 5167+72

CIVIL

SHT. No.	DWG. No.	REV	TITLE
			TRUCK HAUL ROUTES
139	L90-CHP100		CIVIL POTENTIAL TRUCK HAUL ROUTES
140	L90-CHP101		CIVIL POTENTIAL TRUCK HAUL ROUTES
141	L90-CRP100		CIVIL CORRIDOR MODIFICATION PLAN EB STA 4991+00 TO EB STA 4998+00

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: P. ITO
DRAWN BY: P. ITO
CHECKED BY: J. TYLER
APPROVED BY: Y. YANG

YUHE YANG, STATE OF WASHINGTON, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER, 29940

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZI001TO003
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
INDEX OF DRAWINGS

DRAWING No.: L90-GZI001
LOCATION ID:
SHEET No.: 3
REV:

Xrefs: RLE-GB-TB22x34 xRLE-L90-GZI100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-GZI100

INDEX OF DRAWINGS

SHT. No.	DWG. No.	REV	TITLE
			CIVIL (CONT)
142	L90-CRP101		CIVIL CORRIDOR MODIFICATION PLAN EB STA 4998+00 TO EB STA 5007+00
143	L90-CRP102		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5007+00 TO EB STA 5016+00
144	L90-CRP103		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5016+00 TO EB STA 5025+00
145	L90-CRP104		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5025+00 TO EB STA 5035+00
146	L90-CRP105		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5035+00 TO EB STA 5044+50
147	L90-CRP106		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5044+50 TO EB STA 5054+50
148	L90-CRP107		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5054+50 TO EB STA 5064+00
149	L90-CRP108		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5064+00 TO EB STA 5072+00
150	L90-CRP109		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5072+00 TO EB STA 5081+00
151	L90-CRP110		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5081+00 TO EB STA 5090+00
152	L90-CRP111		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5090+00 TO EB STA 5100+00
153	L90-CRP112		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5100+00 TO EB STA 5109+00
154	L90-CRP113		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5109+00 TO EB STA 5118+00
155	L90-CRP114		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5118+00 TO EB STA 5127+00
156	L90-CRP115		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5127+00 TO EB STA 5135+00
157	L90-CRP116		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5135+00 TO EB STA 5144+50
158	L90-CRP117		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5144+50 TO EB STA 5154+00
159	L90-CRP118		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5154+00 TO EB STA 5164+00
160	L90-CRP119		CIVIL CORRIDOR MODIFICATION PLAN EB STA 5164+00 TO EB STA 5167+72
161	L90-CRP200		CIVIL WSDOT RAMP MODIFICATION PLAN SR 520 OFF-RAMP (AR RAMP)
162	L90-CRP201		CIVIL WSDOT RAMP AND SR 202 MODIFICATION PLAN SR 520 OFF-RAMP (AR RAMP) & SR 202
163	L90-CRP202		CIVIL WSDOT RAMP MODIFICATION PLAN SR 520 ON-RAMP (ALU RAMP)
164	L90-CRP203		CIVIL WSDOT RAMP AND SR 202 MODIFICATION PLAN SR 520 ON-RAMP (ALU RAMP), NE 76TH ST, SR 202
165	L90-CRP204		CIVIL CITY OF REDMOND ROADWAY MODIFICATION PLAN NE 76TH ST
166	L90-CRP205		CIVIL TRAIL MODIFICATION PLAN EAST LAKE SAMMAMISH TRAIL
167	L90-CRP300		CIVIL CITY OF REDMOND ROADWAY MODIFICATION PLAN NE 70TH ST
168	L90-CRP301		CIVIL CITY OF REDMOND ROADWAY MODIFICATION PLAN NE 70TH ST
169	L90-CRP302		CIVIL CITY OF REDMOND ROADWAY MODIFICATION PLAN NE 70TH ST
170	L90-CRP400		CIVIL WSDOT MODIFICATION PLAN SR 202 / REDMOND WY
171	L90-CRP401		CIVIL WSDOT MODIFICATION PLAN SR 202 / REDMOND WY
172	L90-CRP402		CIVIL WSDOT MODIFICATION PLAN SR 202 / REDMOND WY
173	L90-CRP500		CIVIL TPSS & SIGNAL HOUSE SITE LAYOUT PLAN SR 520 AND NE 65TH ST TPSS
174	L90-CRP501		CIVIL TPSS & SIGNAL HOUSE SITE LAYOUT PLAN SE REDMOND STATION TPSS
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176	L90-CDP100		CIVIL DRAINAGE PLAN EB STA 4991+00 TO EB STA 4993+00
177	L90-CDP101		CIVIL DRAINAGE PLAN EB STA 4993+00 TO EB STA 4998+00
178	L90-CDP102		CIVIL DRAINAGE PLAN EB STA 4998+00 TO EB STA 5003+00
179	L90-CDP103		CIVIL DRAINAGE PLAN EB STA 5003+00 TO EB STA 5008+00
180	L90-CDP104		CIVIL DRAINAGE PLAN EB STA 5008+00 TO EB STA 5013+00
181	L90-CDP105		CIVIL DRAINAGE PLAN EB STA 5013+00 TO EB STA 5018+00
182	L90-CDP106		CIVIL DRAINAGE PLAN EB STA 5018+00 TO EB STA 5023+00
183	L90-CDP107		CIVIL DRAINAGE PLAN EB STA 5023+00 TO EB STA 5028+00
184	L90-CDP108		CIVIL DRAINAGE PLAN EB STA 5028+00 TO EB STA 5033+00
185	L90-CDP109		CIVIL DRAINAGE PLAN EB STA 5033+00 TO EB STA 5038+00
186	L90-CDP110		CIVIL DRAINAGE PLAN EB STA 5038+00 TO EB STA 5043+00
187	L90-CDP111		CIVIL DRAINAGE PLAN EB STA 5043+00 TO EB STA 5048+00
188	L90-CDP112		CIVIL DRAINAGE PLAN EB STA 5048+00 TO EB STA 5053+00
189	L90-CDP113		CIVIL DRAINAGE PLAN EB STA 5053+00 TO EB STA 5058+00
190	L90-CDP114		CIVIL DRAINAGE PLAN EB STA 5058+00 TO EB STA 5063+00
191	L90-CDP115		CIVIL DRAINAGE PLAN EB STA 5063+00 TO EB STA 5068+00
192	L90-CDP116		CIVIL DRAINAGE PLAN EB STA 5068+00 TO EB STA 5073+00
193	L90-CDP117		CIVIL DRAINAGE PLAN EB STA 5073+00 TO EB STA 5078+00
194	L90-CDP118		CIVIL DRAINAGE PLAN EB STA 5078+00 TO EB STA 5083+00
195	L90-CDP119		CIVIL DRAINAGE PLAN EB STA 5083+00 TO EB STA 5088+00
196	L90-CDP120		CIVIL DRAINAGE PLAN EB STA 5088+00 TO EB STA 5093+00
197	L90-CDP121		CIVIL DRAINAGE PLAN EB STA 5093+00 TO EB STA 5098+00
198	L90-CDP122		CIVIL DRAINAGE PLAN EB STA 5098+00 TO EB STA 5103+00
199	L90-CDP123		CIVIL DRAINAGE PLAN EB STA 5103+00 TO EB STA 5108+00
200	L90-CDP124		CIVIL DRAINAGE PLAN EB STA 5108+00 TO EB STA 5113+00
201	L90-CDP125		CIVIL DRAINAGE PLAN EB STA 5113+00 TO EB STA 5118+00
202	L90-CDP126		CIVIL DRAINAGE PLAN EB STA 5118+00 TO EB STA 5123+00
203	L90-CDP127		CIVIL DRAINAGE PLAN EB STA 5123+00 TO EB STA 5127+50
204	L90-CDP128		CIVIL DRAINAGE PLAN EB STA 5127+50 TO EB STA 5131+00
205	L90-CDP129		CIVIL DRAINAGE PLAN EB STA 5131+00 TO EB STA 5135+50
206	L90-CDP130		CIVIL DRAINAGE PLAN EB STA 5135+50 TO EB STA 5140+00
207	L90-CDP131		CIVIL DRAINAGE PLAN EB STA 5140+00 TO EB STA 5145+00
208	L90-CDP132		CIVIL DRAINAGE PLAN EB STA 5145+00 TO EB STA 5150+00
209	L90-CDP133		CIVIL DRAINAGE PLAN EB STA 5150+00 TO EB STA 5155+00
210	L90-CDP134		CIVIL DRAINAGE PLAN EB STA 5155+00 TO EB STA 5160+00
211	L90-CDP135		CIVIL DRAINAGE PLAN EB STA 5160+00 TO EB STA 5165+00
212	L90-CDP136		CIVIL DRAINAGE PLAN EB STA 5165+00 TO EB STA 5167+72
213	L90-CDP137		CIVIL DRAINAGE PLAN MICROSOFT BLDG 50
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214	L90-CDP138		CIVIL DRAINAGE PLAN MICROSOFT BLDG 50 PARKING GARAGE
215	L90-CDP139		CIVIL DRAINAGE PLAN 156TH AVE NE
216	L90-CDP140		CIVIL DRAINAGE PLAN NE 51ST ST
217	L90-CDP141		CIVIL DRAINAGE PLAN WEST LAKE SAMMAMISH PKWY
218	L90-CDP142		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & BEAR CREEK
219	L90-CDP143		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & SR 520
220	L90-CDP144		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & SR 520 EB OFF-RAMP
221	L90-CDP145		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & SR 520 WB FLYOVER RAMP
222	L90-CDP146		CIVIL DRAINAGE PLAN SR 202/REDMOND WY
223	L90-CDP147		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & NE 70TH ST INTERSECTION
224	L90-CDP148		CIVIL DRAINAGE PLAN SR 202/REDMOND WY & 180TH AVE NE INTERSECTION
225	L90-CDP149		CIVIL DRAINAGE PLAN SR 520 EB OFF-RAMP (REDMOND INN)
226	L90-CDP150		CIVIL DRAINAGE PLAN NE 70TH ST
227	L90-CDP151		CIVIL DRAINAGE PLAN NE 70TH ST - EAST
228	L90-CDP152		CIVIL DRAINAGE PLAN NE 70TH ST & SR 202/REDMOND WY INTERSECTION
229	L90-CDP153		CIVIL DRAINAGE PLAN NE 70TH ST - WEST
230	L90-CDP154		CIVIL DRAINAGE PLAN 176TH AVE NE
231	L90-CDP155		CIVIL DRAINAGE PLAN 173RD AVE NE
232	L90-CDP156		CIVIL DRAINAGE PLAN 173RD AVE NE & NE 67TH CT
233	L90-CDP157		CIVIL DRAINAGE PLAN SR 520
234	L90-CDP158		CIVIL DRAINAGE PLAN SR 520 EB OFF-RAMP
235	L90-CDP159		CIVIL DRAINAGE PLAN SR 520 WB ON-RAMP
236	L90-CDP160		CIVIL DRAINAGE PLAN NE 45TH ST
237	L90-CDP161		CIVIL DRAINAGE PLAN NE 45TH ST & 156TH AVE NE
238	L90-CDP162		CIVIL DRAINAGE PLAN NE 76TH ST & SR 202/REDMOND WY INTERSECTION
239	L90-CDD100		CIVIL DRAINAGE DETAIL SAMMAMISH RIVER OUTFALL DETAIL
240	L90-CDD101		CIVIL DRAINAGE DETAIL SAMMAMISH RIVER OUTFALLS
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241	L90-UCP100		COMPOSITE UTILITIES PLAN EB STA 4991+00 TO EB STA 4993+00
242	L90-UCP101		COMPOSITE UTILITIES PLAN EB STA 4993+00 TO EB STA 4998+00
243	L90-UCP102		COMPOSITE UTILITIES PLAN EB STA 4998+00 TO EB STA 5003+00
244	L90-UCP103		COMPOSITE UTILITIES PLAN EB STA 5003+00 TO EB STA 5008+00
245	L90-UCP104		COMPOSITE UTILITIES PLAN EB STA 5008+00 TO EB STA 5013+00
246	L90-UCP105		COMPOSITE UTILITIES PLAN EB STA 5013+00 TO EB STA 5018+00
247	L90-UCP106		COMPOSITE UTILITIES PLAN EB STA 5018+00 TO EB STA 5023+00
248	L90-UCP107		COMPOSITE UTILITIES PLAN EB STA 5023+00 TO EB STA 5028+00
249	L90-UCP108		COMPOSITE UTILITIES PLAN EB STA 5028+00 TO EB STA 5033+00
250	L90-UCP109		COMPOSITE UTILITIES PLAN EB STA 5033+00 TO EB STA 5038+00
251	L90-UCP110		COMPOSITE UTILITIES PLAN EB STA 5038+00 TO EB STA 5043+00
252	L90-UCP111		COMPOSITE UTILITIES PLAN EB STA 5043+00 TO EB STA 5048+00
253	L90-UCP112		COMPOSITE UTILITIES PLAN EB STA 5048+00 TO EB STA 5053+00
254	L90-UCP113		COMPOSITE UTILITIES PLAN EB STA 5053+00 TO EB STA 5058+00
255	L90-UCP114		COMPOSITE UTILITIES PLAN EB STA 5058+00 TO EB STA 5063+00
256	L90-UCP115		COMPOSITE UTILITIES PLAN EB STA 5063+00 TO EB STA 5068+00
257	L90-UCP116		COMPOSITE UTILITIES PLAN EB STA 5068+00 TO EB STA 5073+00
258	L90-UCP117		COMPOSITE UTILITIES PLAN EB STA 5073+00 TO EB STA 5078+00
259	L90-UCP118		COMPOSITE UTILITIES PLAN EB STA 5078+00 TO EB STA 5083+00
260	L90-UCP119		COMPOSITE UTILITIES PLAN EB STA 5083+00 TO EB STA 5088+00
261	L90-UCP120		COMPOSITE UTILITIES PLAN EB STA 5088+00 TO EB STA 5093+00
262	L90-UCP121		COMPOSITE UTILITIES PLAN EB STA 5093+00 TO EB STA 5098+00
263	L90-UCP122		COMPOSITE UTILITIES PLAN EB STA 5098+00 TO EB STA 5103+00
264	L90-UCP123		COMPOSITE UTILITIES PLAN EB STA 5103+00 TO EB STA 5108+00
265	L90-UCP124		COMPOSITE UTILITIES PLAN EB STA 5108+00 TO EB STA 5113+00
266	L90-UCP125		COMPOSITE UTILITIES PLAN EB STA 5113+00 TO EB STA 5118+00
267	L90-UCP126		COMPOSITE UTILITIES PLAN EB STA 5118+00 TO EB STA 5123+00
268	L90-UCP127		COMPOSITE UTILITIES PLAN EB STA 5123+00 TO EB STA 5127+50
269	L90-UCP128		COMPOSITE UTILITIES PLAN EB STA 5127+50 TO EB STA 5131+00
270	L90-UCP129		COMPOSITE UTILITIES PLAN EB STA 5131+00 TO EB STA 5135+50
271	L90-UCP130		COMPOSITE UTILITIES PLAN EB STA 5135+50 TO EB STA 5140+00
272	L90-UCP131		COMPOSITE UTILITIES PLAN EB STA 5140+00 TO EB STA 5145+00
273	L90-UCP132		COMPOSITE UTILITIES PLAN EB STA 5145+00 TO EB STA 5150+00
274	L90-UCP133		COMPOSITE UTILITIES PLAN EB STA 5150+00 TO EB STA 5155+00
275	L90-UCP134		COMPOSITE UTILITIES PLAN EB STA 5155+00 TO EB STA 5160+00
276	L90-UCP135		COMPOSITE UTILITIES PLAN EB STA 5160+00 TO EB STA 5165+00
277	L90-UCP136		COMPOSITE UTILITIES PLAN EB STA 5165+00 TO EB STA 5167+72
278	L90-UCP137		COMPOSITE UTILITIES PLAN MICROSOFT BLDG 50
279	L90-UCP138		COMPOSITE UTILITIES PLAN MICROSOFT BLDG 50 PARKING GARAGE
280	L90-UCP139		COMPOSITE UTILITIES PLAN 156TH AVE NE
281	L90-UCP140		COMPOSITE UTILITIES PLAN NE 51ST ST
282	L90-UCP141		COMPOSITE UTILITIES PLAN WEST LAKE SAMMAMISH PKWY
283	L90-UCP142		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY & BEAR CREEK
284	L90-UCP143		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY & NE 76TH ST
285	L90-UCP144		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY & SR 520 EB OFF-RAMP

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: P. ITO
DRAWN BY: P. ITO
CHECKED BY: J. TYLER
APPROVED BY: Y. YANG

YUNE YANG — STATE OF WASHINGTON — 22940 — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-G90-GZI001TO003
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
INDEX OF DRAWINGS

DRAWING No.: L90-GZI002
LOCATION ID:
SHEET No.: 4
REV:

09/25/18 | 1:19 PM | TYLERJ
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287	L90-UCP146		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY
288	L90-UCP147		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY & NE 70TH ST INTERSECTION
289	L90-UCP148		COMPOSITE UTILITIES PLAN SR 202/REDMOND WY & 180TH AVE NE INTERSECTION
290	L90-UCP149		COMPOSITE UTILITIES PLAN SR 520 EB OFF-RAMP (REDMOND INN)
291	L90-UCP150		COMPOSITE UTILITIES PLAN NE 70TH ST
292	L90-UCP151		COMPOSITE UTILITIES PLAN NE 70TH ST - EAST
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302	L90-UCP161		COMPOSITE UTILITIES PLAN NE 45TH ST & 156TH AVE NE
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308	L90-SEP102		STRUCTURES GENERAL LAYOUT EB STA 5007+00 TO EB STA 5016+00
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310	L90-SEP104		STRUCTURES GENERAL LAYOUT EB STA 5025+00 TO EB STA 5035+00
311	L90-SEP105		STRUCTURES GENERAL LAYOUT EB STA 5035+00 TO EB STA 5044+50
312	L90-SEP106		STRUCTURES GENERAL LAYOUT EB STA 5044+50 TO EB STA 5054+50
313	L90-SEP107		STRUCTURES GENERAL LAYOUT EB STA 5054+50 TO EB STA 5064+00
314	L90-SEP108		STRUCTURES GENERAL LAYOUT EB STA 5064+00 TO EB STA 5072+00
315	L90-SEP108A		STRUCTURES GENERAL LAYOUT EB STA 5064+00 TO EB STA 5072+00
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317	L90-SEP110		STRUCTURES GENERAL LAYOUT EB STA 5081+00 TO EB STA 5090+00
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320	L90-SEP113		STRUCTURES GENERAL LAYOUT EB STA 5109+00 TO EB STA 5118+00
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322	L90-SEP115		STRUCTURES GENERAL LAYOUT EB STA 5127+00 TO EB STA 5133+00
323	L90-SEP116		STRUCTURES GENERAL LAYOUT EB STA 5133+00 TO EB STA 5144+00
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333	L90-JEP101		SYSTEMS LAYOUT PLAN EB STA 4998+00 TO EB STA 5007+00
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335	L90-JEP103		SYSTEMS LAYOUT PLAN EB STA 5016+00 TO EB STA 5025+00
336	L90-JEP104		SYSTEMS LAYOUT PLAN EB STA 5025+00 TO EB STA 5035+00
337	L90-JEP105		SYSTEMS LAYOUT PLAN EB STA 5035+00 TO EB STA 5044+50
338	L90-JEP106		SYSTEMS LAYOUT PLAN EB STA 5044+50 TO EB STA 5054+50
339	L90-JEP107		SYSTEMS LAYOUT PLAN EB STA 5054+50 TO EB STA 5064+00
340	L90-JEP108		SYSTEMS LAYOUT PLAN EB STA 5064+00 TO EB STA 5072+00
341	L90-JEP109		SYSTEMS LAYOUT PLAN EB STA 5072+00 TO EB STA 5081+00
342	L90-JEP110		SYSTEMS LAYOUT PLAN EB STA 5081+00 TO EB STA 5090+00
343	L90-JEP111		SYSTEMS LAYOUT PLAN EB STA 5090+00 TO EB STA 5100+00
344	L90-JEP112		SYSTEMS LAYOUT PLAN EB STA 5100+00 TO EB STA 5109+00
345	L90-JEP113		SYSTEMS LAYOUT PLAN EB STA 5109+00 TO EB STA 5118+00
346	L90-JEP114		SYSTEMS LAYOUT PLAN EB STA 5118+00 TO EB STA 5127+00
347	L90-JEP115		SYSTEMS LAYOUT PLAN EB STA 5127+00 TO EB STA 5135+00
348	L90-JEP116		SYSTEMS LAYOUT PLAN EB STA 5135+00 TO EB STA 5144+50
349	L90-JEP117		SYSTEMS LAYOUT PLAN EB STA 5144+50 TO EB STA 5154+00
350	L90-JEP118		SYSTEMS LAYOUT PLAN EB STA 5154+00 TO EB STA 5164+00
351	L90-JEP119		SYSTEMS LAYOUT PLAN EB STA 5164+00 TO EB STA 5167+72
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360	E29-AZN001		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION SOUTHEAST REDMOND STATION
361	E29-AZN002		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
362	E29-AZN100		SE REDMOND STATION - ARCHITECTURAL ARCHITECTURAL CONTEXT PLAN SOUTHEAST REDMOND STATION
363	E29-ASP100		SE REDMOND STATION - ARCHITECTURAL ARCHITECTURAL SITE PLAN SOUTHEAST REDMOND STATION
364	E29-ANS100		SE REDMOND STATION - ARCHITECTURAL STATION AXON AND PERSPECTIVE VIEW SOUTHEAST REDMOND STATION
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366	E29-APP100		SE REDMOND STATION - ARCHITECTURAL OVERALL PLAN - PLAZA LEVEL SOUTHEAST REDMOND STATION
367	E29-APP101		SE REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - WEST END SOUTHEAST REDMOND STATION
368	E29-APP102		SE REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - CENTRAL SOUTHEAST REDMOND STATION
369	E29-APP103		SE REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - EAST END SOUTHEAST REDMOND STATION
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371	E29-AEE200		SE REDMOND STATION - ARCHITECTURAL CANOPY AXONS SOUTHEAST REDMOND STATION
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375	P29-AZN001		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
376	P29-AZN002		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
377	P29-AZN003		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
378	P29-AZN004		SE REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
379	P29-ANS100		SE REDMOND STATION - ARCHITECTURAL GARAGE AXON AND PERSPECTIVE SOUTHEAST REDMOND STATION
380	P29-ANS200		SE REDMOND STATION - ARCHITECTURAL GARAGE PERSPECTIVES SOUTHEAST REDMOND STATION
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388	P29-AEE100		SE REDMOND STATION - ARCHITECTURAL GARAGE EXTERIOR ELEVATIONS SOUTHEAST REDMOND STATION
389	P29-AEE200		SE REDMOND STATION - ARCHITECTURAL GARAGE EXTERIOR ELEVATIONS SOUTHEAST REDMOND STATION
390	P29-AEX100		SE REDMOND STATION - ARCHITECTURAL GARAGE EXTERIOR SECTIONS SOUTHEAST REDMOND STATION
391	P29-AEX200		SE REDMOND STATION - ARCHITECTURAL GARAGE EXTERIOR SECTIONS SOUTHEAST REDMOND STATION
392	P29-APD100		SE REDMOND STATION - ARCHITECTURAL ELEVATOR LOBBY PLANS SOUTHEAST REDMOND STATION
393	E29-LPP100		SE REDMOND STATION - LANDSCAPE STATION LANDSCAPE SITE PLAN
394	P29-SFP201		SE REDMOND STATION - STRUCTURAL GARAGE FOUNDATION / LEVEL 1 PLAN SOUTHEAST REDMOND STATION
395	P29-SGP202		SE REDMOND STATION - STRUCTURAL GARAGE LEVEL 2 PLAN SOUTHEAST REDMOND STATION
396	P29-SGP203		SE REDMOND STATION - STRUCTURAL GARAGE TYPICAL LEVEL 3 - LEVEL 5 PLAN SOUTHEAST REDMOND STATION
			DOWNTOWN REDMOND STATION
397	E31-GZK100		DOWNTOWN REDMOND STATION - ARCHITECTURAL KEY PLAN - PLAZA LEVEL DOWNTOWN REDMOND STATION
398	E31-GZK200		DOWNTOWN REDMOND STATION - ARCHITECTURAL KEY PLAN - PLATFORM LEVEL DOWNTOWN REDMOND STATION
399	E31-AZN001		DOWNTOWN REDMOND STATION - ARCHITECTURAL GENERAL NOTES & CODE INFORMATION DOWNTOWN REDMOND STATION
400	E31-AZN002		DOWNTOWN REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
401	E31-AZN003		DOWNTOWN REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS
402	E31-AZN100		DOWNTOWN REDMOND STATION - ARCHITECTURAL ARCHITECTURAL CONTEXT PLAN DOWNTOWN REDMOND STATION
403	E31-ASP100		DOWNTOWN REDMOND STATION - ARCHITECTURAL ARCHITECTURAL SITE PLAN DOWNTOWN REDMOND STATION
404	E31-ANS100		DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS DOWNTOWN REDMOND STATION
405	E31-ANS200		DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS DOWNTOWN REDMOND STATION
406	E31-ANS300		DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS DOWNTOWN REDMOND STATION
407	E31-APP100		DOWNTOWN REDMOND STATION - ARCHITECTURAL OVERALL PLAN - PLAZA LEVEL DOWNTOWN REDMOND STATION
408	E31-APP101		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - EAST END DOWNTOWN REDMOND STATION
409	E31-APP103		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - WEST END DOWNTOWN REDMOND STATION
410	E31-APP104		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLAZA LEVEL - TAIL TRACKS DOWNTOWN REDMOND STATION
411	E31-APP200		DOWNTOWN REDMOND STATION - ARCHITECTURAL OVERALL PLAN - PLATFORM LEVEL DOWNTOWN REDMOND STATION
412	E31-APP201		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLATFORM LEVEL - EAST END DOWNTOWN REDMOND STATION
413	E31-APP202		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLATFORM LEVEL - CENTRAL DOWNTOWN REDMOND STATION
414	E31-APP203		DOWNTOWN REDMOND STATION - ARCHITECTURAL PARTIAL PLAN - PLATFORM LEVEL - WEST END DOWNTOWN REDMOND STATION
415	E31-AEE100		DOWNTOWN REDMOND STATION - ARCHITECTURAL EXTERIOR ELEVATIONS DOWNTOWN REDMOND STATION
416	E31-AEE200		DOWNTOWN REDMOND STATION - ARCHITECTURAL EXTERIOR ELEVATIONS DOWNTOWN REDMOND STATION
417	E31-AEX100		DOWNTOWN REDMOND STATION - ARCHITECTURAL LONGITUDINAL AND CROSS SECTIONS DOWNTOWN REDMOND STATION
418	E31-AEX200		DOWNTOWN REDMOND STATION - ARCHITECTURAL CROSS SECTION AND AXON DOWNTOWN REDMOND STATION
419	E31-AEX300		DOWNTOWN REDMOND STATION - ARCHITECTURAL CANOPY DETAILS DOWNTOWN REDMOND STATION
420	E31-AEX400		DOWNTOWN REDMOND STATION - ARCHITECTURAL TAIL TRACKS LONGITUDINAL AND CROSS SECTIONS DOWNTOWN REDMOND STATION
421	E31-ADP100		DOWNTOWN REDMOND STATION - ARCHITECTURAL WINDSCREEN PLAN DOWNTOWN REDMOND STATION
422	E31-LPP101		DOWNTOWN REDMOND STATION - LANDSCAPE STATION LANDSCAPE SITE PLAN WEST
423	E31-LPP102		DOWNTOWN REDMOND STATION - LANDSCAPE STATION LANDSCAPE SITE PLAN EAST

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: P. ITO
DRAWN BY: P. ITO
CHECKED BY: J. TYLER
APPROVED BY: Y. YANG

YUHE YANG, STATE OF WASHINGTON, 29940, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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SOUND TRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZI001TO003
CONTRACT No.: CN 0148-18
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
INDEX OF DRAWINGS

DRAWING No.: L90-GZI003
LOCATION ID:
SHEET No.: 5
REV:

Xrefs: RLE-GB-TB22x34 xRLE-L90-GZI100

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Xrefs:
xRLE-STD-GEN ABBREV
RLE-GB-TB22x34

ABBREVIATIONS

A	AMPERE
A/G, AG	AT GRADE
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AAV	AUTOMATIC AIR VENT
AB, A BOLT	ANCHOR BOLT
ABD	ABANDON, ABANDONED
ABDV	AUTOMATIC BALL DRIP VALVE
ABUT	ABUTMENT
ABV	ABOVE
AC	ALTERNATING CURRENT, AIR CONDITIONING, ASPHALT CONCRETE
ACU	AIR CONDITIONING UNIT
ACSR	ALUMINUM CONDUCTOR, STEEL REINFORCED
AD	ACCESS DOOR / AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT, AUTOMATIC DRAIN ASSEMBLY
ADD'L	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AHD	AHEAD
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATE
ALV	ALARM VALVE
ANC	ANCHOR
AP	APPROACH, ACCESS PANEL
APPROX	APPROXIMATE
APS	CAR AUXILIARY POWER SUPPLY
ARCH	ARCHITECT, ARCHITECTURAL
AREMA	AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION
ARV	AIR RELEASE VALVE
AS	AMMETER SWITCH
ASSY	ASSEMBLY
ATM	ALONG TRACK MOVEMENT
ATP	AUTOMATIC TRAIN PROTECTION
ATR	ABOVE TOP RAIL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AV	AIR VALVE / AUTOMATIC AIR VENT
AVE	AVENUE
AVG	AVERAGE
AVV	AIR VACUUM VALVE
AWG	AMERICAN WIRE GAGE
B, BOT	BOTTOM
B/B	BACK TO BACK
B/L	BUILDING LINE
BAT	BATTERY
BC	BACK OF CURB
BDD	BACKDRAFT DAMPER
BDRN	BALL DRAIN VALVE
BF	BOTH FACES
BFA	BY-PASS FEEDER ANCHOR
BFP	BACKFLOW PREVENTER
BH	BORE HOLE, BOX HYDRANT
BHP	BRAKE HORSEPOWER
BIJ	BONDED INSULATED JOINT
BIL	BASIC IMPULSE LEVEL

BK	BACK
BKF	BACKFILL
BKR	BREAKER
BL	BASELINE
BLDG	BUILDING
BLVD	BOULEVARD
BM	BEAM
BOO	BOTTOM OF OPENING
BTM	BOTTOM
BP	BEGINNING POINT, BEARING PILE
BPD	BYPASS DAMPER
BR	BRIDGE
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BTM	BOTTOM
BTU	BRITISH THERMAL UNIT
BTW, BTWN	BETWEEN
BV	BRICK VENT / BALL VALVE
BVLV	BUTTERFLY VALVE
BW	BALANCE WEIGHT
BWA	BALANCE WEIGHT ANCHOR
C	CONDUIT, CLOSE, CELCIUS
C/C	CENTER TO CENTER
C/W	CONTACT WIRE
CAB	CABINET
CANT	CANTILEVER
CAT	CATENARY
CAG	CLEAN AGENT SYSTEM
CB	CATCH BASIN, CIRCUIT BREAKER
CD-X	CEILING DIFFUSER FOR SUPPLY AIR
CD	CLEARANCE DISTANCE, CONDENSATE DRAIN
CE	CLEARANCE ENVELOPE, CEILING EXHAUST
CEG	CEILING EXHAUST GRILLE
CER	CEILING EXHAUST REGISTER
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFW	CONTINUOUS FILLET WELD
CG	CENTER OF GRAVITY
CHGR	CHARGER
CIP	CAST-IN-PLACE
CJ	CONTRACTION JOIN, CONTROL JOINT
CKT	CIRCUIT
CL	CENTER LINE
CLR	CLEARANCE, CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
COMM	COMMUNICATIONS
CONC	CONCRETE
COND	CONDUCTOR
CONST	CONSTRUCTION
CONT	CONTINUATION, CONTINUOUS
CONTR	CONTRACTOR
COR	CITY OF REDMOND
CMP	COMPRESSOR UNIT
CR	CONDUIT RISER
CRZ	CRITICAL ROOT ZONE
CS	POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL

CSJ	CONSTRUCTION JOINT
C-SPAN	CROSS SPAN
CT	COURT, CURRENT TRANSFORMER
CTL	CONTROL LINE
CTRL	CONTROL
CU	CONDENSING UNIT, COPPER
CUH	CABINET UNIT HEATER
CVLV	CHECK VALVE
CW	COLD WATER, COMPLETE WITH, CONTACT WIRE
CWA	COUNTERWEIGHT ANCHOR
CWH	CONTACT WIRE HEIGHT
CWT	COUNTERWEIGHT
D	DEPTH
DB	DIRECT BURIED, DRY BULB
DBH	DIAMETER AT BREAST HEIGHT
DC	DIRECT CURRENT, DISTRIBUTION CABINET, DRY COOLER
DCW	DOMESTIC COLD WATER
DDV	DRUM DRIP DRAIN VALVES
DEFL	DEFLECTION
°, DEG	DEGREE
DEPT	DEPARTMENT
DFM	DRAINAGE FORCE MAIN
DG	DECOMPOSED GRANITE
DGA	DOWN GUY ANCHOR
DH	DUCT HEATER
DHW	DOMESTIC HOT WATER
DI	DUCTILE IRON, DIGITAL INPUT, DRAINAGE INLET, DROP INLET
DIA	DIAMETER
DIM	DIMENSION
DISC	DISCONNECT
DISC SW	DISCONNECT SWITCH
DL	DEAD LOAD
DN	DOWN
DO	DIGITAL OUTPUT
DPS	DRY PIPE SPRINKLER
DRN	DRAIN
DRSV	DRY SPRINKLER VALVE
DS	DOOR SWITCH, DOWN SPOUT
DSP	DRY STANDPIPE
DSV	DRY STANDPIPE VALVE
DTL	DETAIL
DWG	DRAWING
E	EAST
Ea	ACTUAL TRACK SUPERELEVATION (IN INCHES)
EA	EACH, EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EB	EASTBOUND
EF	EACH FACE
EFAN	EXHAUST FAN
EFC	EPOXY FIBERGLASS CONDUIT
EG	EXHAUST AIR GRILLE
EJ	EXPANSION JOINT
EL	ELEVATION, EXPANSION LOOP
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATION, ELEVATOR
EMERG	EMERGENCY

EMFN	EMERGENCY VENTILATION FAN
EMI	ELECTROMAGNETIC INTERFERENCE
EMP	EMERGENCY MANAGEMENT PANEL
EMSA	SOUND ATTENUATOR FOR TUNNEL EMERGENCY VENTILATION FAN
EMSD	EMERGENCY VENTILATION STATION DAMPER (MOTORIZED)
EMTD	EMERGENCY VENTILATION TUNNEL DAMPER (MOTORIZED)
EMVD	EMERGENCY VENTILATION VENT SHAFT DAMPER (MOTORIZED)
ENT	ENTERING
EP	EDGE OF PAVEMENT
EQ	EQUAL
EQPT	EQUIPMENT
ER	EXHAUST AIR REGISTER
ES	EXTRA STRENGTH
ESC	ESCALATOR
ESMT	EASEMENT
ESP	EXTERNAL STATIC PRESSURE
ETEL	EMERGENCY TELEPHONE
ETS	EMERGENCY TRIP STATION
Eu	UNBALANCED TRACK SUPERELEVATION (IN INCHES)
EVL	EMBEDDED VENT LINE
EVS	EMERGENCY VENTILATION SYSTEM DETAILS
EW	EYE WASH
EWL	EMBEDDED WASTE LINE
EX, EXIST	EXISTING
EXH	EXHAUST
EXPO	EXPOSED
EXT	EXTERIOR
°F	DEGREES FAHRENHEIT
F	LONGITUDINAL MOVEMENT RESTRICTED
F TO F	FACE TO FACE
FA	FIXER ANCHOR, FIRE ALARM
FAC	FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAV	FIRE ALARM VALVE
FB	FLAT BAR
FCC	FIRE COMMAND CENTER
FCO	FLOOR CLEAN OUT
FCU	FAN COIL UNIT
FD	FIRE DAMPER, FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDCP	FAN DAMPER CONTROL PANEL
FDEA	FIRE DEPARTMENT EMERGENCY ACCESS
FDN	FOUNDATION
FDR	FEEDER
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FHV	FIRE HOSE VALVE
FIN	FINISH, FINISHED
FIV	FIRE ISOLATION VALVES
FJ	FEEDER JUMPER
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR

FM	FORCED MAIN
FND	FOUNDATION
FO	FIBER OPTIC, POWER FAIL - DAMPER OPEN POSITION
FOC	FACE OF CURB
FOP	FACE OF POLE
FOT	FIBER OPTIC TRANSMISSION SYSTEM
FP / HT	FREEZE PROTECTION / HEAT TRACE
FPM	FEET PER MINUTE
FPP	FIBER OPTIC PATCH PANEL
FPTV	FLAT PANEL TELEVISION
FPW	FIRE PROTECTION WATER
FREQ	FREQUENCY
FS	FAR SIDE, FLOW SWITCH, FLOOR SINK
FSAC	FIRE SERVICE AIR COMPRESSOR
FSD	FIRE / SMOKE DAMPER
FT²	SQUARE FEET
FT³	CUBIC FEET
FTA	FIXED TERMINATION ASSEMBLY
FT	FOOT, FEET, FUTURE TENDON
FTG	FOOTING
FUND	FUNNEL DRAIN
FV	FLOW VELOCITY
G	GAS
G/L	GROUND/ GRADE LINE
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BREAK, GROUND BUS
GENL	GENERAL
GIR	GIRDER
GND	GROUND
GPM	GALLONS PER MINUTE
GRS	GALVANIZED RIGID STEEL
GRSC	GALVANIZED RIGID STEEL CONDUIT
GRX	GRADE CROSSING
GTO	GATE TURN-OFF THYRISTOR
GV	GAS VALVE, GATE VALVE
GVLV	GATE VALVE
H	HIGH, HEIGHT, HORIZONTAL
HB	HOSE BIB
HD	HARD DRAWN
HH	HAND HOLE
HMA	HOT MIX ASPHALT
HO	HAND OPERATED
HORIZ	HORIZONTAL
HP	HIGH PRESSURE, HORSEPOWER
HR	HOUR
HRL	HIGH RAIL LEVEL
HSB	HIGH STRENGTH BOLT
H-SPAN	HEAD SPAN
HSS	HIGH STRENGTH STEEL
HT	HEIGHT
HV	HIGH VOLTAGE
HW	HOT WATER
HYD	HYDRANT
HZ	HERTZ

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — YUNE YANG — 22640 — REGISTERED STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
GENERAL ABBREVIATIONS

DRAWING No.: L90-GZN001
LOCATION ID:
SHEET No.: 6
REV:

Xrefs:
xRLE-STD-GEN ABBREV
RLE-GB-TB22x34

ABBREVIATIONS

I	INTERLOCK
I/R	IN-RUNNING (RIDING CONTACT WIRE)
IB	IMPEDANCE BONDS
ID	INDIRECT WASTE, INSIDE DIAMETER
IE	INVERT ELEVATION
IF	INSIDE FACE
IJ	INSULATED JOINT
IK	INSULATED KNUCKLE
IM	INFORMATION MONITOR
IN	INCH(ES)
INC	INCOMING
INCL	INCLUDED, INCLUDING
INST	INSTALL, INSTANTANEOUS
INSUL	INSULATION
INT	INTERNAL
INV	INVERT
IP	INTERMEDIATE PRESSURE
IRG	IRRIGATION
ITC	INTERFACE TERMINAL CABINET
ITS	INFORMATION TECHNOLOGY SYSTEM, INTELLIGENT TRANSPORTATION SYSTEMS
IVLV	ISOLATION VALVE
J	JUMPER (POTENTIAL EQUALIZING)
JB	JUNCTION BOX
JCT	JUNCTION
JT	JOINT
K	KIP
KC	KING COUNTY
KCDOT	KING COUNTY DEPT OF TRANSPORTATION
KCMIL	THOUSAND CIRCULAR MILS
KF	KIP-FOOT
KLF	KIPS PER LINEAR FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
L/O	LAYOUT
L/T	LEFT TRACK
LA	LIGHTNING ARRESTER
LAV	LAVATORY
LAT	LEAVING AIR TEMPERATURE
LB, LBS	POUND(S)
LC	TOTAL LENGTH OF CIRCULAR CURVE
LCC	LINK CONTROL CENTER
LCP	LANDSCAPE CONTROL POINT, LOCAL CONTROL PANEL
LED	LIGHT EMITTING DIODE
LF	LINEAR FOOT/FEET
LG	LONG, LENGTH
LH	LEFT HAND
LIN	LINEAR
LL	LIVE LOAD

L-L	LINE TO LINE VOLTAGE
LOC	LOCATION
LONG	LONGITUDINAL
LRA	LOCKED ROTOR AMP.
LRV	LIGHT RAIL VEHICLE
LS	LIMIT SWITCH
LS1	LENGTH OF SPIRAL CURVE 1
LS2	LENGTH OF SPIRAL CURVE 2
LT	LEFT
LTG	LIGHTING
LV	LOW VOLTAGE
LVC	LENGTH OF VERTICAL CURVE (PVC TO PVT)
LVG	LEAVING
LVL	LEVEL
M	METER, MOVEABLE, LONGITUDINAL MOVEMENT UNRESTRICTED
M/L	MAIN LINE
M/W	MESSENGER WIRE
MAX	MAXIMUM
MBH	BRITISH THERMAL UNIT X1000 PER HOUR
MC	MOMENT CONNECTION, MC SHAPE CHANNEL
MCA	MINIMUM CURRENT AMP
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MAXIMUM CURRENT PROTECTION
MCV	MOTOR-CONTROLED VALVE
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOP	MOTOR OPERATED
MPH	MILES PER HOUR
MS	MOP SINK
MSV	MANUAL SPRINKLER VALVES
MTB	MAIN TERMINAL BOARD
MTG	MOUNTING
MV	MILLIVOLT, MEDIUM VOLTAGE
MVA	MEGAVOLT AMPERE
MW	MEGAWATT
N	NORTH, NEUTRAL
N/A	NOT APPLICABLE
NB	NORTH BOUND
NBR	NON-BRIDGING
NBT	NORTHBOUND TRACK CIRCUIT
NBTR	NORTHBOUND TRACK RECEIVER
NBTT	NORTHBOUND TRACK TRANSMITTER
NC	NORMALLY CLOSED
NE	NORTHEAST
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NF	NEAR FACE
NFH	NON-FREEZE HYDRANT
NIC	NOT IN CONTRACT

NO	NORMALLY OPEN
No	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
NW	NORTHWEST
O TO O	OUT TO OUT
O/L	OVERLAP
O/R	OUT-OF-RUNNING (NON-RIDING CONTACT WIRE)
OA	OUTSIDE AIR
OC	ON CENTER
OCC	OPERATIONS CONTROL CENTER
OCS	OVERHEAD CONTACT SYSTEM
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OVERHEAD
OHB	OVERHEAD BRIDGE
OPD	OVERCURRENT PROTECTION DEVICE
OPER	OPERATING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
ORL	OVERFLOW RAIN LEADER
OSD	OVERHEAD STORM DRAIN PIPE
OVHD	OVERHEAD
OWS	OIL / WATER SEPARATOR
P	POLE, PIPE
P/C	PRECAST
P/S	PRESTRESSED
PA	PLANTING AREA, PUBLIC ADDRESS, PIPE ANCHOR
PAN	PANTOGRAPH
PB	PULLBOX
PBX	PRIVATE BRANCH EXCHANGE
PC	PIPE CAP, POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE, PORTLAND CEMENT CONCRETE
PCF	POUNDS PER CUBIC FEET
PD	PRESSURE DROP / PUMPED DISCHARGE
PDA	PRESSURE DIFFERENTIAL ALARM
PDS	PRESSURE DIFFERENTIAL SWITCH
PED	PEDESTRIAN
PET	PASSENGER EMERGENCY TELEPHONE
PG	PIPE GUIDES
PGL	PROFILE GRADE LINE
PH	PHASE
PI	POINT OF INTERSECTION
PIP	POURED-IN-PLACE
PITO	POINT OF INTERSECTION OF TURNOUT
PL	PROPERTY LINE, PLATE
PLAT	PLATFORM
PLC	PROGRAMMABLE LOGIC CONTROLLER, PLACE
PNL	PANEL
POC	POINT OF CONNECTION
POB	POINT OF BEGINNING
POS	POSITIVE

PR	PRESSURE
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECTION
PRV	PRESSURE REDUCING VALVE
PS	POINT OF SWITCH
PSE	PUGET SOUND ENERGY
PSF	POUNDS PER SQUARE FEET
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY, P-TRAP
PTZ	PAN TILT ZOOM
PVC	POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE (PIPE)
PVC/GRS	PVC COATED GRS CONDUIT
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PWR	POWER
QTY	QUANTITY
R	RADIUS, RESISTANCE, RELAY
R/T	RIGHT TRACK
RA	RETURN AIR
RCP	REINFORCED CONCRETE PIPE
RCVR	RECEIVER
RD	ROOF DRAIN, REFRIGERANT DISCHARGE
RE	RUNNING EDGE OF RAIL
RECT	RECTIFIER, RECTANGULAR
REF	REFERENCE
REINF	REINFORCE, REINFORCING, REINFORCEMENT
REQD	REQUIRED
REV	REVISE, REVISION, REVERSE
RFAN	RETURN FAN
RG	RETURN AIR GRILLE
RH	RIGHT HAND, ROOF HOOD, RELATIVE HUMIDITY
RL	RAIN LEADER / REFRIGERANT LIQUID
RLA	RATED LOW AMP.
RM	ROOM
ROW	RIGHT OF WAY
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTION PER MINUTE
RR	RETURN AIR REGISTER
RS	REFRIGERANT SUCTION
RT	RIGHT
RTD	RESISTANCE TEMPERATURE DETECTOR (MOTOR WINDING)
RTU	REMOTE TERMINAL UNIT, ROOFTOP UNIT
RW	RETAINING WALL
RWL	RAIN WATER LEADER
S	SOUTH, STRAINER
S/W	SIDEWALK

SA	SUPPLY AIR, SURGE ARRESTER
SAFTP	STAND ALONE FARE TRANSACTION PROCESSOR
SAN	SANITARY SEWER
SB	SOUTHBOUND, SIGNAL BUNGALOW
SC	POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE
SCADA	SUPERVISORY CONTROL & DATA ACQUISITION
SCAT	SIMPLE CATENARY AUTO TENSION
SCFT	SIMPLE CATENARY FIXED TERMINATION
SCH	SCHEDULE
SCL	SEATTLE CITY LIGHT
SD	STORM DRAIN, STORM SEWER PIPE, SMOKE DETECTOR
SDR	STANDARD DIMENSION RATIO
SE	SOUTHEAST, STRUCTURAL EARTH
SEC	SECOND
SECT	SECTION
SEFD	SMOKE EXHAUST FAN DAMPER (MOTORIZED)
SEFN	SMOKE EXHAUST FAN
SESA	SOUND ATTENUATOR FOR SMOKE EXHAUST FAN
SF	SQUARE FEET, SUPPLY FAN
SFAN	SUPPLY FAN
SFBP	SURVEY FOUND BRASS PLUG
SFM	SURVEY FOUND MONUMENT (TYPICALLY BURIED)
SFMIC	SURVEY FOUND MONUMENT IN CASE
SG	SUPPLY AIR GRILLE
SGL	SINGLE
SHLD	SHOULDER, SHIELDED
SHT	SHEET
SI	SECTION INSULATOR
SIG	SIGNAL
SIM	SIMILAR
SP	SUMP PUMP, STATIC PRESSURE
SPA	SPACES, SPACING, SPACED
SPEC	SPECIFICATION
SPL	SPECIAL
SPR	WET SPRINKLER PIPE
SPST	SINGLE POLE SINGLE THROW
SSD	STOPPING SIGHT DISTANCE
SQ	SQUARE
SQ FT	SQUARE FEET
SQ IN	SQUARE INCH
SR	STATE ROUTE, SUPPLY AIR REGISTER
SS	SANITARY SEWER, STAINLESS STEEL
SSMH	SANITARY SEWER MANHOLE/MAINTENANCE HOLE
SSS	SUBSTATION SHUTDOWN STATION
SST	STAINLESS STEEL
ST	STREET, STORM DRAIN, POINT OF CHANGE FROM SPIRAL TO TANGENT
STA	STATION(ING)
STD	STANDARD
STDL	STRADDLE
STIFF	STIFFENER
STIRR	STIRRUP(S)
STL	STEEL
STR	STAIR
STRUCT	STRUCTURE, STRUCTURAL
SUSP	SUSPENDED
SW	SOUTHWEST, SWITCH, SPAN WIRE
SWA	SINGLE WIRE ANCHOR
SWFT	SINGLE WIRE FIXED TERMINATION
SWH	SWITCH HEATER

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — YIUNE YANG — 22640 — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZN001T0003
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
GENERAL ABBREVIATIONS

DRAWING No.: L90-GZN002
LOCATION ID:
SHEET No.: 7
REV:

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Xrefs:
xRLE-STD-GEN_ABBREV
RLE-GB-TB22x34

ABBREVIATIONS

SWHT	SWITCH HEATER TRANSFORMER
SYM	SYMMETRICAL
SYS	SYSTEM
T	TELECOMMUNICATIONS, TRIP
T & B	TOP AND BOTTOM
T/C	TOP OF CURB
T/F	TOP OF FOUNDATION
T/G	TOP OF GROUND LINE
T/L	TENSION LENGTH, TAX LOT
T/LR	TOP OF LOW RAIL
TAN	TANGENT
TB	TERMINAL BOX
TBD	TO BE DETERMINED
TBR	TO BE REMOVED
TC	TRACK CIRCUIT
TCC	TRAIN CONTROL AND COMMUNICATION ROOM
TD	TRENCH DRAIN
TE	TRACTION ELECTRIFICATION
TEMP	TEMPORARY, TEMPERATURE
TERM	TERMINAL, TERMINATION
TES	TRACTION ELECTRIFICATION SYSTEM
TG	TRANSFER GRILLE
THK	THICKNESS
TO	TURNOUT
TOC	TOP OF CONCRETE
TOL	TOLERANCE
TOR	TOP OF RAIL
TORW	TOP OF RETAINING WALL
TOS	TOP OF STEEL
TOW	TOP OF WALL
TP	TOTAL PRESSURE , TRAP PRIMER
TPSS	TRACTION POWER SUBSTATION
TR	TRACK RELAY
TRAC	TRACTION
TRC	TRAIN CONTROL ROOM
TRK	TRACK
TRNFR	TRANSFER
TS	POINT OF CHANGE FROM TANGENT TO SPIRAL
TSCP	TUNNEL STANDPIPE CONTROL PANEL
TT	TRANSFER TRIP, TRACK TRANSFORMER
TTC	TELEPHONE TERMINAL CABINET
TUN	TUNNEL
TVF	TUNNEL VENTILATION FAN
TVM	TICKET VENDING MACHINE
TW	TWIN
TW PR	TWISTED PAIR
TWC	TRAIN TO WAYSIDE COMMUNICATION
TYP	TYPICAL
U/S	UNDERSIDE
UG	UNDERGROUND, UNDERGRADE
UH	UNIT HEATER
UN	UNION
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY

UR	URINAL
UTIL	UTILITY
V	VELOCITY, VOLT, VOLTAGE, VENT
VA	VOLT AMPS
VAR	VARIES
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VENT	VENTILATE, VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VMS	VARIABLE MESSAGE SIGN
VOL	VOLUME
VPI	VACUUM PRESSURE IMPREGNATED
VRF	VARIABLE REFRIGERANT FLOW
VS	VIBRATION MONITORING SWITCH, VOLTMETER SWITCH
VSN	VENT SHAFT NORTH END
VSS	VENT SHAFT SOUTH END
VTR	VENT THROUGH ROOF
W	WEST, WIDE, WIDTH, WATER
W/	WITH
W/O	WITHOUT
W.C.	WATER COLUMN
WB	WESTBOUND, WET BULB
WC	WATER CLOSET
WCO	WALL CLEANOUT
WD	WALL SUPPLY AIR PANEL, DUCT CONNECTION
WG	WATER GAUGE
WH	WATER HEATER
WHA	WATER HAMMER ARRESTER
WK	WORK
WL	WIND LOAD, WORK LINE
WM	WATER METER, WATER MAIN
WP	WORK POINT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WSP	WET STANDPIPE
WT	WEIGHT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
WY	WAY
XFMR	TRANSFORMER
XMTR	TRANSMITTER
X-OVER	CROSSOVER
X-PASS	CROSS PASSAGE
X-SECT	CROSS SECTION
X-SPAN	CROSS SPAN
Y	YARD, YELLOW
YL	YARD LEAD
Z	IMPEDANCE

SYMBOLS	
@	AT
°	DEGREES
Δ	DELTA
#	NUMBER
±	PLUS MINUS
%	PERCENT

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — YIJUN YANG — 22640 — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZN001TO003
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
GENERAL ABBREVIATIONS

DRAWING No.: L90-GZN003
LOCATION ID:
SHEET No.: 8
REV:

09/25/18 | 1:49 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34

LEGEND

NORTH ARROW

SCALE IN FEET

SCALE BAR (SCALE AS NOTED ON SHEET)

NAVD '88

ALL DIMENSIONS SHOWN IN FEET UNLESS OTHERWISE DESIGNATED.

NAVD 88 DATUM

TWO DAYS BEFORE YOU DIG
CALL
1-800-424-5555

ELEVATION TITLE
SCALE:

- X: ELEVATION DESIGNATION (LETTER)
- XX: DRAWING NUMBER OF SHEET WHERE THE ELEVATION IS CUT FROM
- XX: ADDITIONAL DRAWING NUMBER OF SHEET WHERE THE ELEVATION IS CUT FROM (IF NECESSARY)

ELEVATION TITLE
SCALE:

- X: ELEVATION DESIGNATION (LETTER)
- ELEVATION CUT ON THE SAME SHEET ONLY

ELEVATION DESIGNATION (LETTER)

DRAWING NUMBER OF SHEET WHERE THE ELEVATION IS SHOWN (DASH IF ON SAME SHEET ONLY)

SECTION
SCALE:

- X: SECTION DESIGNATION (LETTER)
- XX: DRAWING NUMBER OF SHEET WHERE THE SECTION IS CUT FROM
- XX: ADDITIONAL DRAWING NUMBER OF SHEET WHERE THE SECTION IS CUT FROM (IF NECESSARY)

SECTION TITLE
SCALE:

- X: SECTION DESIGNATION (LETTER)
- SECTION CUT ON THE SAME SHEET ONLY

SECTION DESIGNATION (LETTER)

DRAWING NUMBER OF SHEET WHERE THE SECTION IS SHOWN (DASH IF ON SAME SHEET ONLY)

DETAIL TITLE
SCALE:

- #: DETAIL DESIGNATION (NUMBER)
- XX: DRAWING NUMBER OF SHEET WHERE THE DETAIL IS FROM
- XX: ADDITIONAL DRAWING NUMBER OF SHEET WHERE THE DETAIL IS CUT FROM (IF NECESSARY)

DETAIL TITLE
SCALE:

- #: DETAIL DESIGNATION (NUMBER)
- DASH IF FROM SAME SHEET ONLY

DETAIL DESIGNATION (NUMBER)

DRAWING NUMBER OF SHEET WHERE THE DETAIL IS SHOWN (DASH IF ON SAME SHEET ONLY)

EQNBK= EB 000+00
EQNAHD= EB 000+00

TYPICAL STATION EQUATION INFORMATION

EXIST ELEV
PROPOSED ELEV OR PGL (T/LR)
275.2
320.12
EB 000+00

TYPICAL PROFILE ELEVATION DATA

NOTE: HATCH PATTERNS MAY BE SHOWN AT DIFFERENT ORIENTATIONS ON DRAWINGS.

BASE MAP HATCHING

- EXISTING WETLAND

RIGHT OF WAY SPECIFIC HATCHING

- PERMANENT EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- TEMPORARY ACCESS EASEMENT
- BOTH TCE & TEMPORARY ACCESS EASEMENTS
- FEE TAKE
- PERMANENT WSDOT AIRSPACE LEASE
- TIE BACK / SOIL NAIL EASEMENT

DRAINAGE SPECIFIC HATCHING

- EXISTING WATER QUALITY TREATMENT (MEDIA FILTER DRAIN)
- PROPOSED WATER QUALITY TREATMENT (MEDIA FILTER DRAIN)
- BIORETENTION AREA

TREE INVENTORY NUMBER
No.
No.
LANDSCAPE PROTECTION FENCING

339880095
PARCEL NUMBER (TAX ACCOUNT No.)

R/W NO. RL-###
SOUND TRANSIT R/W No.

MON
SURVEY MONUMENT

09/25/18 | 1:53 PM | TYLERJ
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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — YUNE YANG — 22640 — STRUCTURAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZN004TO005
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
GENERAL SYMBOLS AND LEGEND

DRAWING No.: L90-GZN004
LOCATION ID:
SHEET No.: 9
REV:

Xrefs:
RLE-GB-TB22x34

EXISTING	GENERAL SYMBOLS	PROPOSED
	TRAFFIC SIGNAL POLE	
	SIGNAL JUNCTION BOX	
	TRAFFIC SIGNAL POLE WITH LUMINAIRE	
	CAMERA	
CV ITS	CABLE VAULT/INFORMATION	
	LIGHT POLE	
	DOUBLE LUMINAIRE	
	SIGN	
	GUARD POST	
	STANDPIPE WITH HOSE VALVE	
WM OR	WATER METER	
W	WATER MANHOLE	W
	THRUST BLOCK	
OR	FIRE HYDRANT	OR
	FIRE DEPARTMENT CONNECTION	OR
	BUTTERFLY VALVE, M.J.	
	EMPTY CASING (CAPPED)	
	WATER MAIN FITTINGS	
	WATER VALVE	
	CAPPED PIPE/PLUG	
	WATER BLOWOFF VALVE	
ICV	IRRIGATION CONTROL VALVE	ICV
	GAS VALVE	
	PAD MOUNTED TRANSFORMER	
EV OR E	ELECTRIC VAULT	EV
EMH OR E	ELECTRIC MANHOLE	EMH
EM	ELECTRIC METER	EM
	UTILITY POLE	
	UTILITY POLE ANCHOR	
OR	UTILITY POLE W/ LIGHT	OR OR
	GUY POLE W/ANCHOR	
	TELEPHONE RISER	
UT	UTILITY VAULT	UT
UNK	UNKNOWN VAULT	
T	TELEPHONE MANHOLE	T
C	CABLE TV MANHOLE	C
FO	FIBER OPTIC MANHOLE	FO
T	TELEPHONE VAULT	T
FO	FIBER OPTIC VAULT	FO
C	CABLE TV VAULT	C
TS	TEST STATION	TS
TCB OR	TRAFFIC CABINET	TCB OR
	VAULT	
	SANITARY SEWER MANHOLE	
CO	SANITARY SEWER OR STORM DRAIN CLEAN OUT	
	STORM DRAIN INLET	
	STORM DRAIN CULVERT	
OR	STORM DRAIN MANHOLE (LABELED BY TYPE)	
	EMBEDDED TRACK DRAIN ASSEMBLY	
	POTHOLE	
DDCA	DOUBLE DETECTOR CHECK VALVE	DDCA

EXISTING	GENERAL SYMBOLS (CONT)	PROPOSED
	BUILDING EDGE	
	JUNCTION BOX TYPE I	
	JUNCTION BOX TYPE II	
	JUNCTION BOX TYPE VIII	
	TYPE 1, PS, OR PEDESTRIAN PUSHBUTTON POLE	
	PEDESTRIAN SIGNAL HEAD	
	RAILROAD CROSSING GATE	
	SIGNAL CONTROLLER CABINET	
	SERVICE CABINET	
	TRAFFIC LOOP	TL OR TL
	COUPLING	
	BLOW-OFF VALVE	
	OCS POLE FOUNDATION	
	OCS DOWN GUY FOUNDATION	

WSDOT SYMBOLS

	VMS/LED CABINET
	VARIABLE MESSAGE SIGN
	ADVANCED WARNING SIGN
	CONTROLLER CABINET (RAMP METER OR DATA STATION)
	CCTV CONTROLLER CABINET
	COMMUNICATIONS HUB
	ITS CABLE VAULT
	INDUCTION LOOP VEHICLE DETECTOR (TYPE R1)
	TRAFFIC CONTROLL GATE
	TYPE 1 JUNCTION BOX
	TYPE 2 JUNCTION BOX
	TYPE 3 JUNCTION BOX
	NEMA 4X JUNCTION BOX
	TYPE 6 JUNCTION BOX
	NEMA 7 JUNCTION BOX
	JUNCTION BOX TYPE A
	JUNCTION BOX TYPE B
	ELECTRIC SERVICE SERVICE CABINET (SUA)
	MOTORIST AID TELEPHONE
	LIGHT STANDARD, 2-ARM, METAL
	LIGHT STANDARD, SINGLE ARM, METAL
	HIGH MAST LIGHT STANDARD, 4 ARMS, METAL
	HIGH MAST LIGHT STANDARD, 3 ARMS, METAL
PB	ITS PULL BOX
	MODIFIED TYPE 2 INDUCTION LOOP VEHICLE DETECTOR
	ELECTRONIC SIGN
	TRANSFORMER CABINET
	UNDERDECK LUMINAIRE
	HARS CONTROLLER CABINET
	GUY POLE W/ ANCHOR
	TYPE 2 INDUCTION LOOP VEHICLE DETECTOR
	OVERHEAD CHANGEABLE MESSAGE SIGN (CMS)
	TYPE 1 SIGNAL STANDARD WITH SIGNAL HEADS
	CCTV CAMERA
	TYPE 2 SIGNAL POLE WITH 2 SIGNALS

EXISTING	TRACK & CIVIL LINETYPES	PROPOSED
	CL TRACK	X+XX
	CL ROAD	
	WALL-STRUCTURAL CUT	
	WALL-STRUCTURAL FILL	
	WALL-BALLAST	
	SOUND WALL	NW
x	FENCE	x
	MAJOR CONTOUR	XXX
	MINOR CONTOUR	
	GUARD RAIL/CONCRETE BARRIER	
	TOP OF CUT	C
	TOE OF FILL	F
	CURB	
	GRADE LINE	
	CONSTRUCTION FENCE	
	WALL RAILING	
	ASPHALT EDGE	
	WSDOT COMPATIBILITY LINE	WCL
	CRITICAL AREA DISTURBANCE LIMIT	

RIGHT-OF-WAY LINETYPES

	SECTION LINE
	1/4 SECTION LINE
	WSDOT LIMITED ACCESS
	EXISTING RIGHT-OF-WAY LINE
	EXISTING PARCEL LINE
	EXISTING EASEMENT LINE
	LIGHT RAIL TRANSIT WAY LINE
	FUTURE ROW/PROPERTY LINE
	PERMANENT EASEMENT LINE
	TEMPORARY EASEMENT LINE

EXISTING	UTILITY LINETYPES	PROPOSED
C	CABLE TV UNDERGROUND	C
OC	CABLE TV OVERHEAD	OC
E	ELECTRIC UNDERGROUND	E
EFO	ELECTRIC/FIBER OPTIC UNDERGROUND	EFO
OE	ELECTRIC OVERHEAD	OE
OEC	ELECTRIC/CABLE TV OVERHEAD	OEC
ET	ELECTRIC/TELEPHONE	ET
OET	ELECTRIC/TELEPHONE OVERHEAD	OET
OETC	ELECTRIC/TELEPHONE/CABLE OVERHEAD	OETC
OEFO	ELECTRIC/FIBER OPTIC OVERHEAD	OEFO
OECFO	ELECTRIC/CABLE/FIBER OPTIC OVERHEAD	OECFO
FO	FIBER OPTIC	FO
OFO	FIBER OPTIC OVERHEAD	OFO
CFO	FIBER OPTIC/CABLE	CFO
G	GAS	G
OP	OIL PIPELINE	OP
T	TELEPHONE	T
OT	TELEPHONE OVERHEAD	OT
TC	TELEPHONE/CABLE TV	TC
T&FO	TELEPHONE/FIBER OPTIC	T&FO
TCFO	TELEPHONE/CABLE/FIBER OPTIC	TCFO
SS	SANITARY SEWER	SS
CS	COMBINED SEWER	CS
	SANITARY SEWER FORCE MAIN	SSFM
STE	STEAM	STE
SD	STORM DRAIN	SD
	UNDERDRAIN	UD
W	WATER	W
	FACILITY TO BE ABANDONED	
	FACILITY TO BE REMOVED	

EXISTING	DRAINAGE SYMBOLS & LINETYPES	PROPOSED
OHWM	ORDINARY HIGH WATER MARK	
Axx	WETLAND BOUNDARY	
	WETLAND BUFFER	
	DITCH	
	BIOSWALE	
OR	CATCH BASIN (LABELED BY TYPE)	
	AERIAL GUIDEWAY DRAIN	
	ROCK PROTECTION OUTFALL	
	STORM DRAIN CASING	
	GUIDEWAY DRAINAGE FLOWPATH	
	UNDER/STORM DRAIN FLOWPATH	
	STORM DRAIN REMOVAL OR ABANDON IN PLACE	

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEPHEN TUNE YANG — 22640 — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-G90-GZN004TO005
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
GENERAL SYMBOLS AND LEGEND

DRAWING No.: L90-GZN005
LOCATION ID:
SHEET No.: 10
REV:

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Xrefs:
RLE-GB-TB22x34

PRESCRIPTIVE AND REFERENCE DRAWINGS

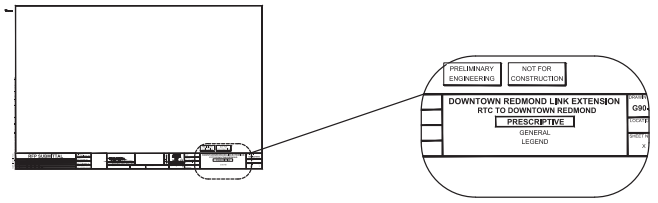
DRAWINGS ARE CATEGORIZED AS PRESCRIPTIVE, REFERENCE, OR PRESCRIPTIVE/REFERENCE WHICH ARE DEFINED AS FOLLOWS:

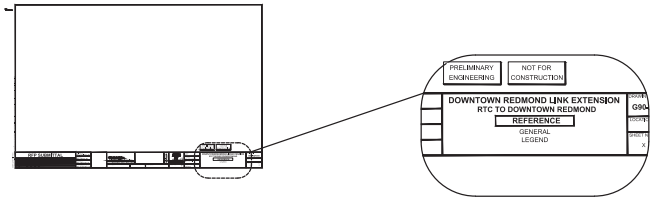
UNLESS OTHERWISE NOTED, ALL INFORMATION CONTAINED IN PRESCRIPTIVE DRAWINGS IS MANDATORY AND SHALL BE INCORPORATED AND INTEGRATED BY THE DB CONTRACTOR IN THE DEVELOPMENT OF THE PROJECT.

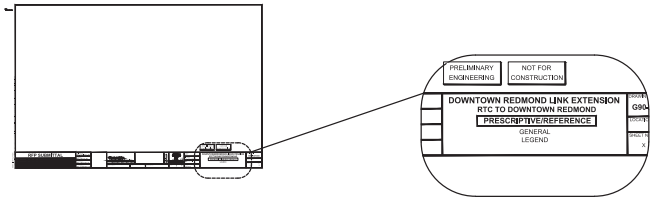
REFERENCE DRAWINGS CONTAIN INFORMATION THAT REFLECTS SOUND TRANSIT'S PREFERRED SOLUTION AT THE TIME OF SOLICITATION. THE CONTRACTOR MAY VARY FROM THE INFORMATION AND CONCEPTS PRESENTED IN REFERENCE DRAWINGS.

PRESCRIPTIVE/REFERENCE DRAWINGS INCLUDE BOTH PRESCRIPTIVE AND REFERENCE INFORMATION. UNLESS OTHERWISE NOTED ON THE DRAWINGS, ITEMS MARKED WITH A DIAMOND ◇ ARE PRESCRIPTIVE. THE REST OF THE CONTENTS OF THE DRAWING ARE REFERENCE.

SEE EXAMPLES (THIS SHEET) OF PRESCRIPTIVE, REFERENCE, AND PRESCRIPTIVE/REFERENCE DRAWINGS.







PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN						DESIGNED BY: J.TYLER	Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES		LINE IS 1" AT FULL SCALE	SOUNDTRANSIT	SCALE: NTS
FINAL						DRAWN BY: J. TYLER					FILENAME: RLE-G90-GZN006
						CHECKED BY: D. DIMOCK					CONTRACT No.: CN 0148-18
						APPROVED BY: Y. YANG	SUBMITTED BY: BRAD PHILLIPS	DATE: 09/24/2018	REVIEWED BY:	DATE:	DATE: 09/24/2018
No.	DATE	DSN	CHK	APP	REVISION						

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
LEGEND

DRAWING No.: L90-GZN006
LOCATION ID:
SHEET No.: 11
REV:

09/25/18 | 1:56 PM | TYLERJ
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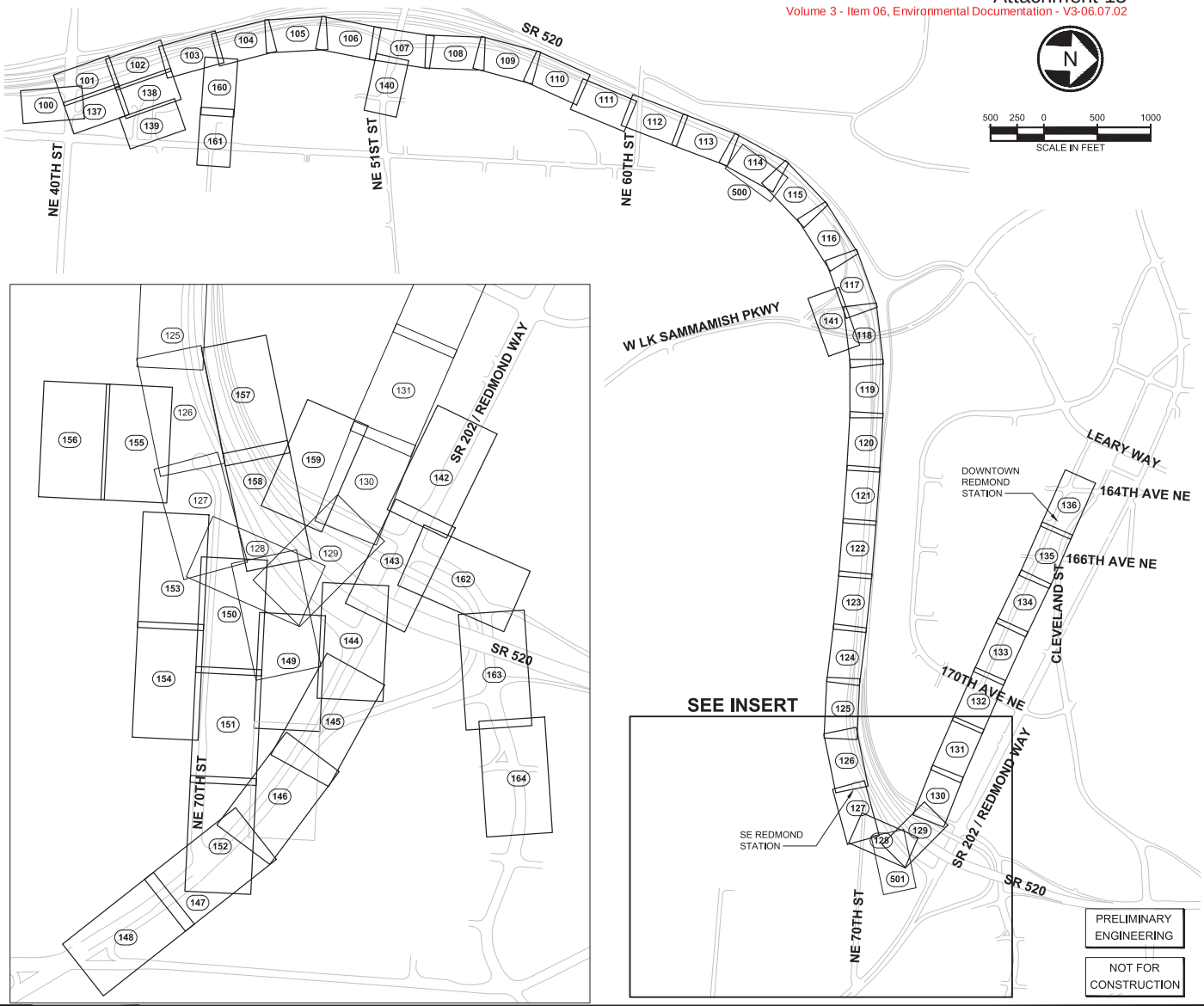
Xrefs:
RLE-GB-TB22x34
xRLE-street basemap
RLE-SLIMS

CROSS REFERENCING OF DRAWINGS						
BASE SHEET TITLE	100	101	102	103	104	105
1"=20' DRAWING SETS	L90-**P100	L90-**P101	L90-**P102	L90-**P103	L90-**P104	L90-**P105
BASE SHEET TITLE	106	107	108	109	110	111
1"=20' DRAWING SETS	L90-**P106	L90-**P107	L90-**P108	L90-**P109	L90-**P110	L90-**P111
BASE SHEET TITLE	112	113	114	115	116	117
1"=20' DRAWING SETS	L90-**P112	L90-**P113	L90-**P114	L90-**P115	L90-**P116	L90-**P117
BASE SHEET TITLE	118	119	120	121	122	123
1"=20' DRAWING SETS	L90-**P118	L90-**P119	L90-**P120	L90-**P121	L90-**P122	L90-**P123
BASE SHEET TITLE	124	125	126	127	128	129
1"=20' DRAWING SETS	L90-**P124	L90-**P125	L90-**P126	L90-**P127	L90-**P128	L90-**P129
BASE SHEET TITLE	130	131	132	133	134	135
1"=20' DRAWING SETS	L90-**P130	L90-**P131	L90-**P132	L90-**P133	L90-**P134	L90-**P135
BASE SHEET TITLE	136	137	138	139	140	141
1"=20' DRAWING SETS	L90-**P136	L90-**P137	L90-**P138	L90-**P139	L90-**P140	L90-**P141
BASE SHEET TITLE	142	143	144	145	146	147
1"=20' DRAWING SETS	L90-**P142	L90-**P143	L90-**P144	L90-**P145	L90-**P146	L90-**P147
BASE SHEET TITLE	148	149	150	151	152	153
1"=20' DRAWING SETS	L90-**P148	L90-**P149	L90-**P150	L90-**P151	L90-**P152	L90-**P153
BASE SHEET TITLE	154	155	156	157	158	159
1"=20' DRAWING SETS	L90-**P154	L90-**P155	L90-**P156	L90-**P157	L90-**P158	L90-**P159
BASE SHEET TITLE	160	161	162	163	164	
1"=20' DRAWING SETS	L90-**P160	L90-**P161	L90-**P162	L90-**P163 NO CDP SHEET	L90-**P164 NO CDP SHEET	

**P = DESIGN ELEMENT PLAN VIEW DESIGNATION

*** = DESIGN ELEMENT DESIGNATION
CDP - CIVIL DRAINAGE
RPP - RIGHT-OF-WAY
UCP - COMPOSITE UTILITY



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
DRAWN BY: J. TYLER
CHECKED BY: D. DIMOCK
APPROVED BY: Y. YANG

STATE OF WASHINGTON — JUNE YANG — 22940 — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

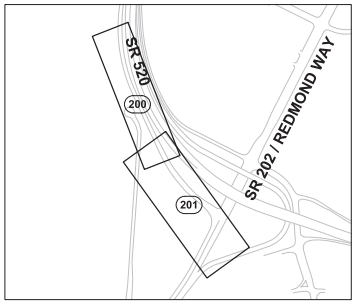
SCALE: 1" = 500'
FILENAME: RLE-G90-GZK020
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
KEY LAYOUT INDEX
1" = 20' PLANS

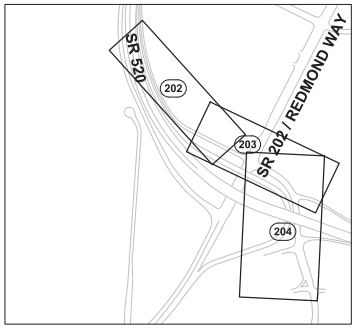
DRAWING No.: L90-GZK020
LOCATION ID:
SHEET No.: 12
REV:

09/25/18 | 1:33 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-G90-GZK020.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-street basemap
RLE-SLIMS



SR 520 OFF-RAMP (AR RAMP)



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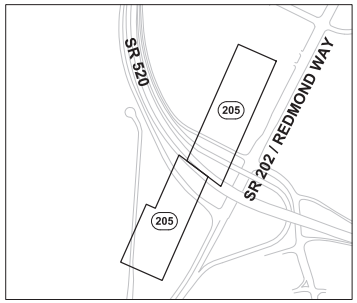
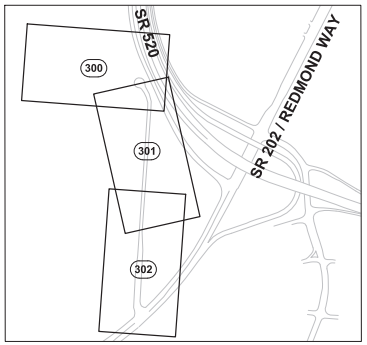
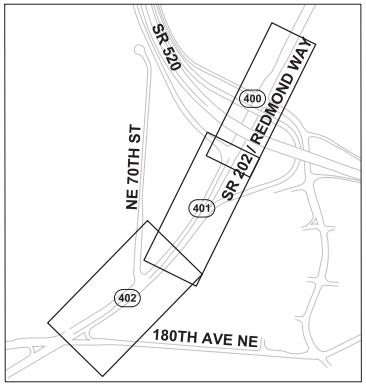


EAST LAKE SAMMAMISH TRAIL



NE 70TH ST



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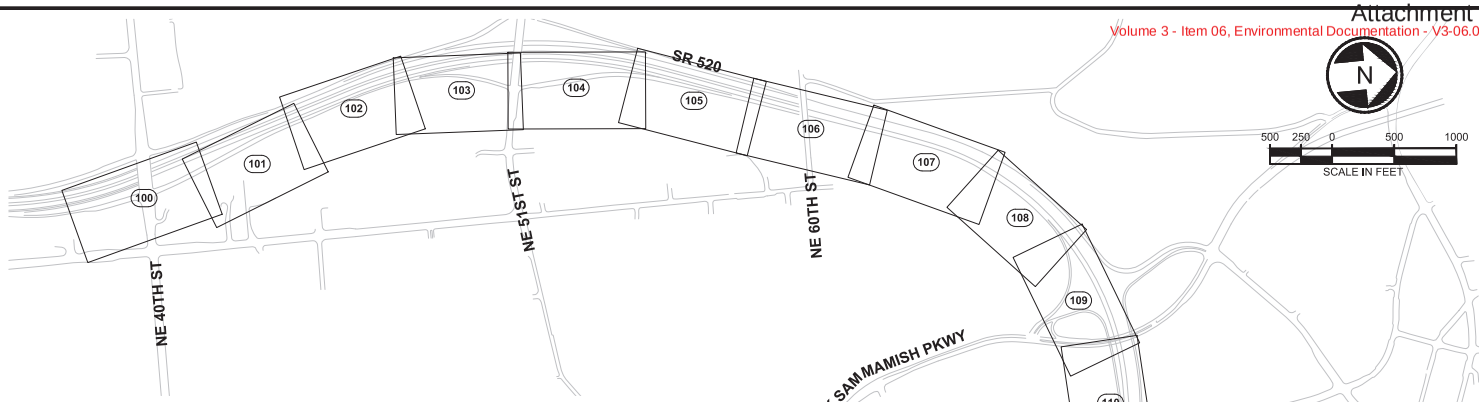
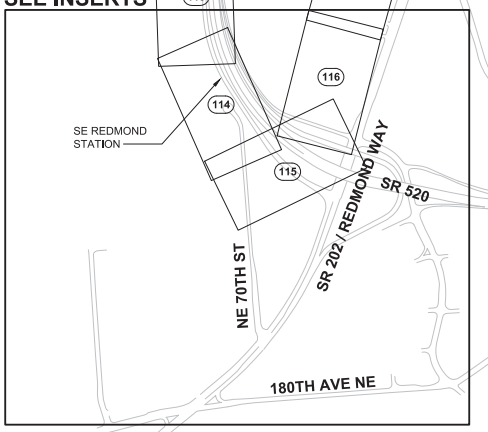


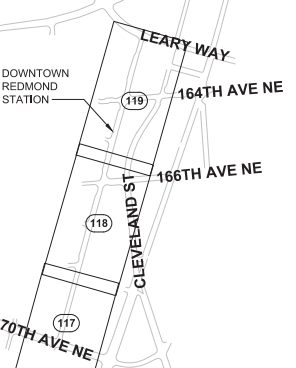
CROSS REFERENCING OF DRAWINGS							
BASE SHEET TITLE	100	101	102	103	104	105	106
1"=40' DRAWING SETS	L90-**P100	L90-**P101	L90-**P102	L90-**P103	L90-**P104	L90-**P105	L90-**P106
BASE SHEET TITLE	107	108	109	110	111	112	113
1"=40' DRAWING SETS	L90-**P107	L90-**P108	L90-**P109	L90-**P110	L90-**P111	L90-**P112	L90-**P113
BASE SHEET TITLE	114	115	116	117	118	119	
1"=40' DRAWING SETS	L90-**P114	L90-**P115	L90-**P116	L90-**P117	L90-**P118	L90-**P119	
BASE SHEET TITLE	200	201	202	203	204	205	
1"=40' DRAWING SETS	L90-CRP200	L90-CRP201	L90-CRP202	L90-CRP203	L90-CRP204	L90-CRP205	
BASE SHEET TITLE	300	301	302				
1"=40' DRAWING SETS	L90-CRP300	L90-CRP301	L90-CRP302				
BASE SHEET TITLE	400	401	402				
1"=40' DRAWING SETS	L90-CRP400	L90-CRP401	L90-CRP402				

**P = DESIGN ELEMENT PLAN VIEW DESIGNATION

*** = DESIGN ELEMENT DESIGNATION
CRP - CIVIL ROADWAY
JEP - SYSTEMS
KAP - TRACKWORK PLAN & PROFILE
SEP - STRUCTURES LAYOUT
108 - WALLS 108A - STRUCTURES
116 - WALLS 116A - STRUCTURES

SEE INSERTS





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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J.TYLER
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STATE OF WASHINGTON · TUNE YANG · 22940 · STRUCTURAL ENGINEER

Parametrix
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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 500'
FILENAME: RLE-G90-GZK040
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
GENERAL
KEY LAYOUT INDEX
1" = 40' PLANS

DRAWING No.: L90-GZK040
LOCATION ID:
SHEET No.: 13
REV:

09/25/18 | 1:35 PM | TYLERJ
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HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN

A PORTION OF THE

NW 1/4 SEC 23, T25N, R5E; W.M., AND THE NW 1/4 & THE SW 1/4 SEC 14, T25N, R5E; W.M., AND THE SW 1/4 & THE SE 1/4 SEC 11, T25N, R5E; W.M., AND THE SW 1/4, SE 1/4, NE 1/4, NW 1/4 SEC 12 T25N, R5E; W.M.

CONTROL & ROW MONUMENT POINTS NOTE

HORIZONTAL AND VERTICAL CONTROL MONUMENTS LISTED AND SHOWN ON DRAWINGS L90-RMP 100 THROUGH L90-RMP 105 ARE FOR THE PURPOSE OF ESTABLISHING A CONTROL NETWORK FOR THE CONSTRUCTION OF THE REDMOND LINK EXTENSION LIGHT RAIL PROJECT. SECONDARY SURVEY POINTS CAN BE ESTABLISHED USING THESE MONUMENTS. THESE MONUMENTS SHOULD BE PROTECTED FROM CONSTRUCTION ACTIVITIES.

PUBLIC LANDS SURVEY SYSTEM (PLSS) SECTION CONTROL MONUMENTS SHOWN HEREON WERE NOT SET IN CONJUNCTION WITH THIS PROJECT AND SHALL BE PRESERVED IN ACCORDANCE WITH RCW 58.09.130 USING THE DEPARTMENT OF NATURAL RESOURCES FORM "APPLICATION FOR PERMIT TO REMOVE OR DESTROY A SURVEY MONUMENT", PURSUANT TO RCW 58.24.040(8) AND WAC CHAPTER 332-120.

ALL CONTROL POINT COORDINATES SHOWN HEREON ARE ON THE PROJECT COORDINATE SYSTEM AS DESCRIBED BELOW.

CONTROL ESTABLISHMENT PROCEDURE & METHODOLOGY

PRIMARY CONTROL MONUMENTS WERE SET OR RECOVERED AT APPROXIMATE HALF-MILE INTERVALS ALONG THE CORRIDOR IN LOCATIONS SUITABLE FOR GNSS OCCUPATION AND TO PROVIDE AN ADEQUATE NETWORK OF POINTS OUTSIDE OF THE PROJECT CORRIDOR. THE FOLLOWING CONTROL DESCRIPTIONS PROVIDE INFORMATION ABOUT EACH PRIMARY CONTROL POINT USED. METHODOLOGY TO ESTABLISH THE INITIAL GEODETIC POSITION VALUES WAS AS FOLLOWS:

AN RTK GNSS BASE STATION WAS ESTABLISHED ON WSDOT CONTROL MONUMENT (GP17520-112), WITH PUBLISHED WASHINGTON STATE PLANE NORTH ZONE GRID NAD 83(2011) POSITION VALUES. OBSERVATIONS WERE THEN MADE ON PROJECT CONTROL POINTS THAT WERE INSTALLED BY THE CONSULTANT FOR THE PRIMARY CONTROL NETWORK. ADEQUATE OBSERVATION TIMES TO OBTAIN INITIAL POSITION VALUES WERE RECORDED, THESE SAME POINTS WERE THEN OBSERVED WITH A RE-INITIALIZED RTK SOLUTION AS THE FIRST LEVEL OF QUALITY CONTROL. ONCE INITIAL VALUES WERE ESTABLISHED FROM THE FIRST WSDOT CONTROL MONUMENT BASE STATION, PRIMARY PROJECT CONTROL POINTS WERE OBSERVED WITH A BASE STATION OCCUPYING A SECOND WSDOT CONTROL MONUMENT (GP 17520-326). THE AVERAGED POSITION VALUE OF THESE TWO OBSERVATIONS WAS HELD FOR THE POINT COORDINATE LOCATION. FIELD CHECKS TO PUBLISHED MONUMENTS INDICATED THAT THESE POSITION VALUES WERE WITHIN THE EXPECTED ACCURACY OF RTK GNSS TECHNOLOGY.

IN ADDITION TO THE CONTROL POINTS INSTALLED AND ESTABLISHED FOR THIS PROJECT, EXISTING WSDOT MONUMENTS WITHIN THE CORRIDOR WERE ADDED TO THE PRIMARY CONTROL NETWORK BY USING THE PUBLISHED NAD 83(11) POSITION VALUES AND TRANSLATING TO THE PROJECT COORDINATES SYSTEM. THESE POINTS WERE ASSIGNED PROJECT IDENTIFICATION NUMBERS.

PRIMARY CONTROL POINT COORDINATES WERE SHIFTED TO A PROJECT COORDINATE SYSTEM BY FOLLOWING THE PROCEDURE LISTED IN THE PROJECT CONVERSION DATUM STATEMENT.

AFTER PROJECT COORDINATES WERE CALCULATED, A GPS LOCALIZATION WAS PERFORMED ON THE PRIMARY CONTROL POINTS BY CONSTRAINING THE GEODETIC OBSERVATIONS TO THE CALCULATED PROJECT COORDINATES. ALL SECONDARY CONTROL POINTS USED FOR SURVEY WORK WERE ESTABLISHED BASED ON THESE PRIMARY CONTROL POINTS USING A COMBINATION OF GNSS OBSERVATIONS AND CONVENTIONAL FIELD TRAVERSE METHODS.

HORIZONTAL DATUM

THE PROJECT COORDINATE SYSTEM WAS ESTABLISH BASED ON WASHINGTON STATE PLANE (NORTH ZONE) NAD 83 (2011) GRID COORDINATES AND TRANSLATED TO A LOCAL SYSTEM KNOW AS "REDMOND LINK EXTENSION PROJECT DATUM". PROJECT COORDINATES AND DISTANCES ARE IN U.S. SURVEY FEET, GROUND DISTANCES.

THE COMBINED SCALE FACTOR FOR THIS PROJECT IS 0.99996976, IT WAS CALCULATED BASED ON AN AVERAGE OF THE PUBLISHED POSITION VALUES ON WSDOT MONUMENT DESIGNATIONS GP17520-112 AND GP17520-326 (THESE MONUMENTS WERE DETERMINED TO BE CENTRALLY LOCATED BOTH HORIZONTALLY AND VERTICALLY). A TRANSLATION INCREASE OF 100,000.00 USFT IS THEN APPLIED TO THE NORTHING AND THE EASTING.

TO CONVERT WASHINGTON STATE PLANE (NORTH ZONE) NAD 83(2011) GRID COORDINATES TO THE PROJECT COORDINATE SYSTEM, FIRST MULTIPLY THE STATE PLANE COORDINATES BY THE INVERSE PROJECT COMBINED SCALE FACTOR OF 1.000030241 THEN ADD 100,000.00 USFT TO BOTH THE NORTHING AND THE EASTING.

TO CONVERT PROJECT COORDINATES TO WASHINGTON STATE PLANE (NORTH ZONE) NAD 83 (2011) GRID COORDINATES, SUBTRACT 100,000.00 USFT FROM BOTH THE NORTHING AND THE EASTING THEN MULTIPLY THE COORDINATES BY THE PROJECT COMBINED SCALE FACTOR OF 0.99996976.

HORIZONTAL CONTROL PRECISION

THE PRECISION OF THE HORIZONTAL CONTROL POINTS SHOWN HEREON HAS MET A MINIMUM OF 1:50,000, SECOND ORDER, CLASS 1A AS DEFINED BY THE FEDERAL GEODETIC CONTROL COMMITTEE AND PUBLISHED UNDER THE TITLE "STANDARDS AND SPECIFICATIONS FOR GEODETIC CONTROL NETWORKS".

LEGEND

- SECTION LINE
- QUARTER SECTION LINES
- GUIDEWAY
- FOUND MONUMENT/CONTROL POINT
- SET CONTROL POINT

VERTICAL DATUM

ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DERIVED FROM PUBLISHED BENCHMARKS, LISTED BELOW:

1. WSDOT MONUMENT DESIGNATION GP17520-112 EL = 274.563'
2. WSDOT MONUMENT DESIGNATION GP17520-326 EL = 38.825'

VERTICAL CONTROL PRECISION

THE PRECISION OF VERTICAL CONTROL HAS MET THE A MINIMUM OF SECOND ORDER, CLASS II, AS DEFINED BY THE FEDERAL GEODETIC CONTROL COMMITTEE AND PUBLISHED UNDER THE TITLE "STANDARDS AND SPECIFICATIONS FOR GEODETIC CONTROL NETWORKS".

PRIMARY CONTROL POINT DESCRIPTIONS

PT #	DESCRIPTION
91	WSDOT MON DESIGNATION "GP17520-282", A 3" BRASS DISK IN CONCRETE BRIDGE DECK OF NE 40TH AVE OVERPASS. LOCATED IN THE NORTH PEDESTRIAN CROSSING OF THE OVERPASS AT THE NORTHWEST END OF THE STRUCTURE, STAMPED "WSDOT SURVEY MONUMENT DO NOT DISTURB 2000/GP17520-282".
92	WSDOT MON DESIGNATION "GP17520-113", A 3" BRASS DISK IN CONCRETE BRIDGE DECK OF NE 51ST AVE OVERPASS. LOCATED IN THE NORTH PEDESTRIAN CROSSING OF THE OVERPASS AT THE NORTHWEST END OF THE STRUCTURE, STAMPED "WSDOT SURVEY MONUMENT DO NOT DISTURB 1995/GP17520-113".
93	WSDOT MON DESIGNATION "GP17520-112", A 3" BRASS DISK IN CONCRETE BRIDGE DECK OF NE 60TH AVE OVERPASS. LOCATED IN THE PAVEMENT, SOUTH OF THE PEDESTRIAN BARRIER AT THE NORTHWEST END OF THE STRUCTURE, STAMPED "WSDOT SURVEY MONUMENT DO NOT DISTURB 1995/GP17520-112".
94	WSDOT MON DESIGNATION "GP17520-148", A 3" BRASS DISK IN ROUND CONCRETE MONUMENT. LOCATED IN WSDOT RIGHT OF WAY, SOUTHEAST OF THE WEST BOUND SR 520 ON RAMP, STAMPED "WSDOT SURVEY MONUMENT DO NOT DISTURB 1995/GP17520-148".
95	WSDOT MON DESIGNATION "GP17520-326", A 3" BRASS DISK IN CONCRETE. LOCATED ON THE WEST EDGE OF THE MARYMOOR PARK PAVED EVENT/PLAY AREA. STAMPED "WSDOT SURVEY MONUMENT DO NOT DISTURB 2007/GP17520-326".
97	NGS MON DESIGNATION "SY5767" , A COPPER NAIL WITH PUNCH IN A 3" SQUARE CONCRETE CASED MONUMENT. LOCATED IN THE CENTERLINE OF NE 80TH ST AND 165TH AVE NE.
101	5/8" REBAR & CAP "PMX CONTROL" IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF NE 40TH ST AND 156TH AVE NE. LOCATED BEHIND THE CURB IN LANDSCAPED AREA, APPROXIMATELY 25' SOUTHWEST OF THE TRAFFIC SIGNAL POLE.
102	5/8" REBAR & CAP "PMX CONTROL" ON THE NORTH SIDE OF NE 51ST AVE, EAST OF THE ON-OFF RAMPS OF SR 520. LOCATED AT AN ANGLE POINT OF THE SIDEWALK BETWEEN THE CURB AND CONCRETE WALK, APPROXIMATELY 6' SOUTHWEST OF A LIGHT POLE.
103	5/8" REBAR & CAP "PMX CONTROL" EAST OF THE BACK OF SIDEWALK ON THE EAST SIDE OF 156TH AVE NE AT THE SOUTHERLY EXTENSION ON NE 60TH ST, IN LINE WITH THE EAST-WEST CROSSWALK MARKING ON 156TH AVE NE.
104	5/8" REBAR & CAP "PMX CONTROL" APPROXIMATELY 3' NORTHWEST OF THE NORTH SIDE OF THE PAVED SAMMAMISH RIVER TRAIL, NORTHEAST OF THE INTERSECTION OF NE MARYMOOR PARKWAY AND WEST LAKE SAMMAMISH PKWY NE. LOCATED APPROXIMATELY 75' SOUTHWEST OF THE KIOSK AND 120' SOUTHWEST OF THE PEDESTRIAN BRIDGE CROSSING THE SAMMAMISH RIVER.
105	5/8" REBAR & CAP "PMX CONTROL" AT THE BACK OF WALK, IN THE SOUTHWEST QUADRANT OF THE INTERSECTION OF NE 74TH ST AND 170TH AVE NE.
106	5/8" REBAR & CAP "PMX CONTROL" IN A GRASS MOUND, APPROXIMATELY 10' SOUTH OF THE SOUTH SIDE OF NE 70TH ST. LOCATED APPROXIMATELY 360' WEST OF THE INTERSECTION OF NE 70TH ST AND 176TH AVE NE.
107	MAG NAIL & WASHER "PMX CONTROL" IN CONCRETE SIDEWALK AT THE SOUTHWEST QUADRANT OF THE INTERSECTION OF 164TH AVE NE AND THE ACCESS ROAD TO THE MARRIOT RESIDENCE INN PARKING LOT. LOCATED IN BETWEEN TWO CURB RAMPS.
108	5/8" REBAR & CAP "PMX CONTROL" IN A LANDSCAPED PLANTER AT THE NORTHWEST QUARDRANT OF THE INTERSECTION BETWEEN REDMOND WAY AND BEAR CREEK PKWY. LOCATED APPROXIMATELY 15' NORTH OF NORTH EDGE OF CONCRETE OF THE SIDEWALK.
300	5/8" REBAR & CAP "PMX CONTROL" IN WSDOT RIGHT OF WAY, EAST OF THE SAMMAMISH RIVER. LOCATED BETWEEN A BLOCK WALL AND THE GUARD RAIL OF THE ON-RAMP OF SR 520, APPROXIMATELY 10' EAST OF THE WALL/BRIDGE ABUTMENT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: S. THOMAS
DRAWN BY: S. THOMAS
CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP100
LOCATION ID:
SHEET No.: 14
REV:

09/25/16 | 2:23 PM | TYLERJ
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HORIZONTAL AND VERTICAL CONTROL AND ROW MONUMENTATION PLAN

A PORTION OF THE
NW 1/4 SEC 23, T25N, R5E; W.M., AND THE NW 1/4 & THE SW 1/4 SEC 14, T25N, R5E; W.M., AND
THE SW 1/4 & THE SE 1/4 SEC 11, T25N, R5E; W.M., AND THE SW 1/4, SE 1/4, NE 1/4, NW 1/4 SEC 12 T25N, R5E; W.M.

PLSS & RIGHT OF WAY MONUMENTATION

PT #	DESCRIPTION
150	CASED MONUMENT; A 3/8" BRASS PLUG IN CONCRETE. LOCATED AT THE INTERSECTION OF NE 60TH ST AND 156TH AVE NE., QUARTER CORNER, SECTIONS 11-14, TOWNSHIP 25N, RANGE 05E, W.M.
151	3" BRASS CAP SET IN CONCRETE, STAMPED SECTIONS 11-12-13-14. LOCATED BURIED IN LAWN OF MARYMOOR PARK, SECTION CORNER, SECTIONS 11-12-13-14, TOWNSHIP 25N, RANGE 05E, W.M.
152	BRASS CAP SET IN CONCRETE, STAMPED "SECTIONS 12-13". LOCATED BURIED IN GRAVEL PARKING AREA IN MARYMOOR PARK, QUARTER CORNER, SECTIONS 12-13, TOWNSHIP 25N, RANGE 05E, W.M.
153	BRASS CAP IN CONCRETE, STAMPED "SECTIONS 7-8-12-13". LOCATED IN TREE LINE OF COTTONWOODS, WEST OF EAST LAKE SAMMAMISH PKWY, SECTION CORNER 7-8-12-13,TOWNSHIP 25N, RANGE 05E, W.M.
154	CASED MONUMENT; LEAD & TACK IN 3"X3" CONCRETE. LOCATED IN THE CENTERLINE OF 180TH AVE NE. QUARTER CORNER, SECTIONS 12-13, TOWNSHIP 25N, RANGE 05E, W.M.
155	CASED MONUMENT; 3" BRASS CAP WITH PUNCH IN CONCRETE. LOCATED IN THE CENTERLINE OF NE 80THST, NORTH QUARTER CORNER, SECTION 12, TOWNSHIP 25N, RANGE 05E, W.M.
156	CASED MONUMENT; 3/8" BRASS PLUG WITH PUNCH IN CONCRETE. LOCATED AT THE INTERSECTION OF 164TH AVE NE AND NE 80TH ST, SECTION CORNER 1-2-11-12, TOWNSHIPS 25N & 26N, RANGE 05E, W.M.
157	FOUND BRASS CAP IN CONCRETE. LOCATED ON THE SOUTH SIDE OF THE OLD RAILROAD TRACK LOCATION, EAST OF THE SAMMAMISH SLOUGH, NORTH QUARTER CORNER, SECTION 11,TOWNSHIP 25N, RANGE 05E, W.M.
158	CASED MONUMENT; 3/8" BRASS PLUG WITH PUNCH IN CONCRETE. LOCATED AT THE INTERSECTION OF NE 70TH ST AND 148TH AVE NE., QUARTER CORNER, SECTIONS 10-11, TOWNSHIP 25N, RANGE 05E, W.M.
159	CASED MONUMENT; 3/8" BRASS PLUG IN CONCRETE. LOCATED ON THE CENTERLINE OF 148TH AVE NE., SECTION CORNER 10-11-14-15, TOWNSHIP 25N, RANGE 05E, W.M.
160	CASED MONUMENT; 3" BRASS DISK IN CONCRETE, STAMPED "SECTIONS 14 & 15". LOCATED ON THE CENTERLINE OF 148TH AVE NE., QUARTER CORNER, SECTIONS 14-15, TOWNSHIP 25N, RANGE 05E, W.M.
600	CASED MONUMENT; BRASS CAP, STAMPED "1940, SECTIONS 23 & 26" IN CONCRETE. LOCATED AT THE INTERSECTION OF NE 24TH ST AND 156TH AVE NE., QUARTER CORNER, SECTIONS 23-26, TOWNSHIP 25N, RANGE 05E, W.M.
601	CASED MONUMENT; 2 1/2" BRASS CAP WITH PUNCH IN CONCRETE. LOCATED AT THE INTERSECTION OF NE 31ST ST AND 148TH AVE NE., QUARTER CORNER, SECTIONS 22-23, TOWNSHIP 25N, RANGE 05E, W.M.
602	CASED MONUMENT; BRASS CAP WITH PUNCH IN CONCRETE, STAMPED "X". LOCATED AT THE INTERSECTION OF NE 40TH ST AND 148TH AVE NE., SECTION CORNER 14-15-22-23, TOWNSHIP 25N, RANGE 05E, W.M.
604	CASED MONUMENT; 3" BRASS CAP IN CONCRETE, STAMPED "SECTIONS 14 & 23". LOCATED AT THE INTERSECTION OF NE 40TH ST AND 156TH AVE NE., QUARTER CORNER, SECTIONS 14-23, TOWNSHIP 25N, RANGE 05E, W.M.
606	3/8" REBAR IN CONCRETE. LOCATED IN A TREELINE ALONG THE NORTH RIGHT OF WAY OF SR-520, QUARTER CORNER, SECTIONS 11-12, TOWNSHIP 25N, RANGE 05E, W.M.

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CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41901 — REGISTERED PROFESSIONAL LAND SURVEYOR

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SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 200'
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP101
LOCATION ID:
SHEET No.: 15
REV:

09/25/18 | 2:23 PM | TYLERJ
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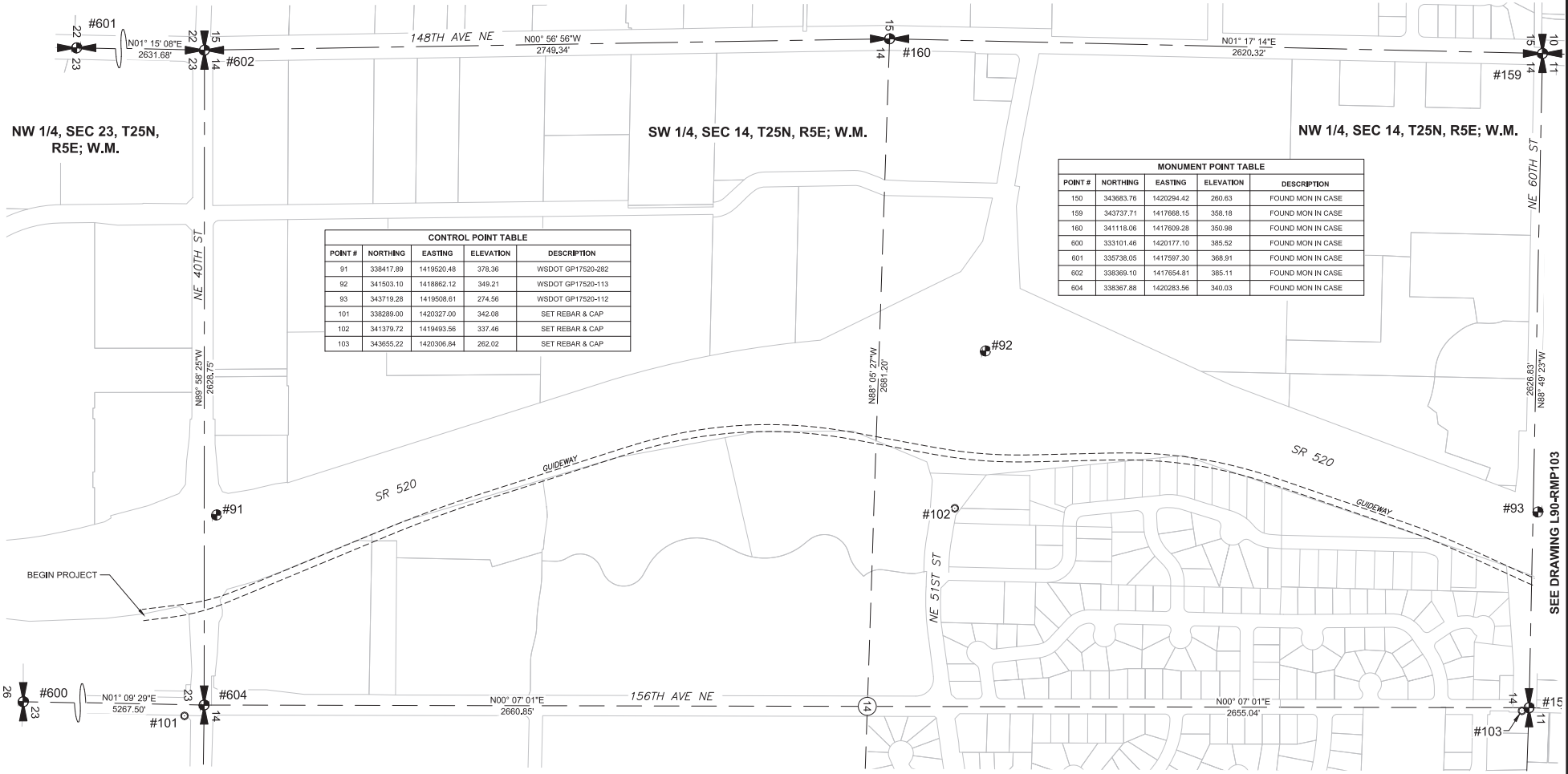

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
91	338417.89	1419520.48	378.36	WSDOT GP17520-282
92	341503.10	1418862.12	349.21	WSDOT GP17520-113
93	343719.28	1419508.61	274.56	WSDOT GP17520-112
101	338289.00	1420327.00	342.08	SET REBAR & CAP
102	341379.72	1419493.56	337.46	SET REBAR & CAP
103	343655.22	1420306.84	262.02	SET REBAR & CAP

MONUMENT POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
150	343683.76	1420294.42	260.63	FOUND MON IN CASE
159	343737.71	1417668.15	358.18	FOUND MON IN CASE
160	341118.06	1417609.28	350.98	FOUND MON IN CASE
600	333101.46	1420177.10	385.52	FOUND MON IN CASE
601	335738.05	1417597.30	368.91	FOUND MON IN CASE
602	338369.10	1417654.81	385.11	FOUND MON IN CASE
604	338367.88	1420283.56	340.03	FOUND MON IN CASE

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

200 100 0 200 400
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: S. THOMAS
DRAWN BY: S. THOMAS
CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 200'
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP102
LOCATION ID:
SHEET No.: 16
REV:

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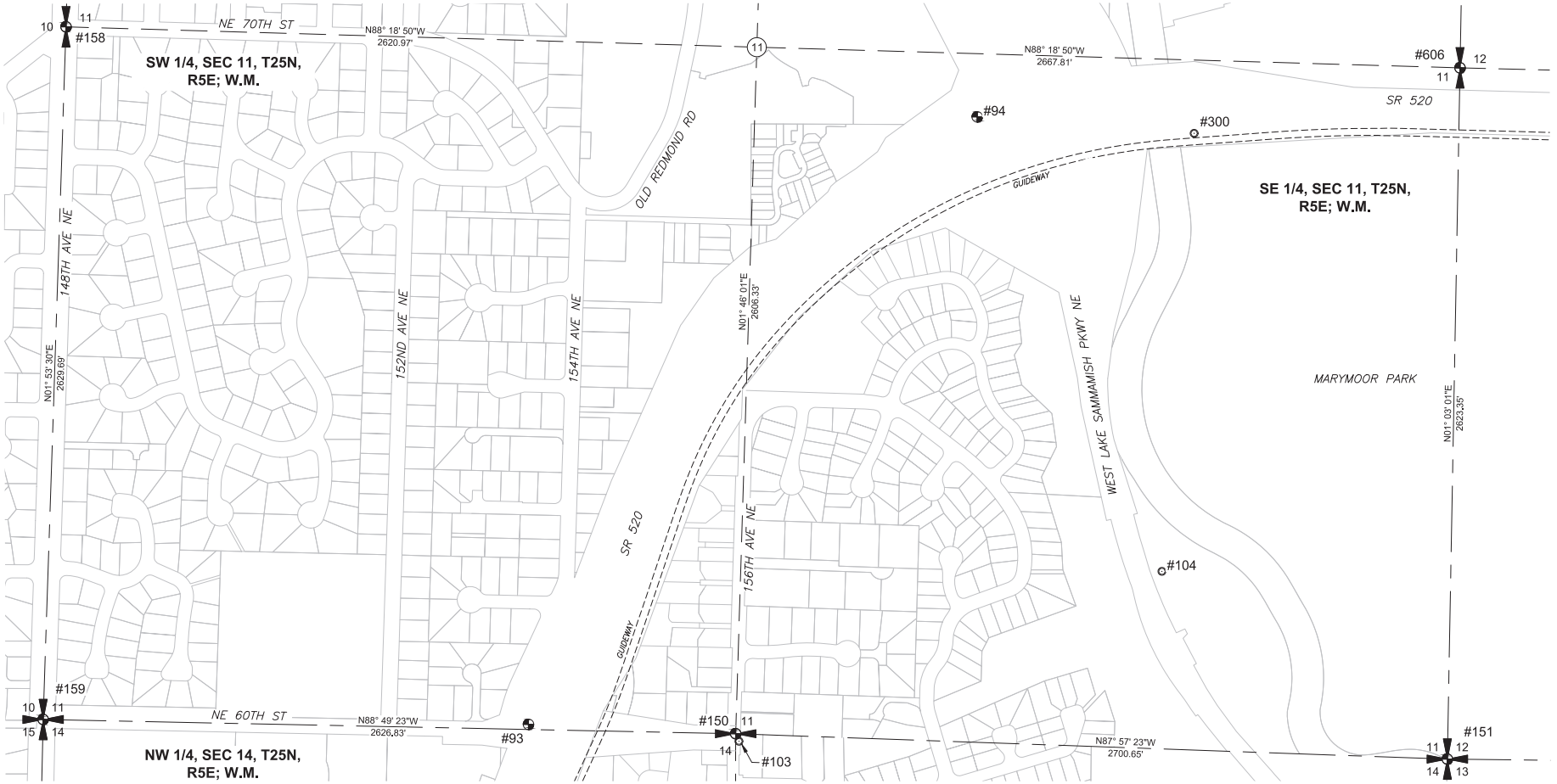

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
93	343719.28	1419508.61	274.56	WSDOT GP17520-112
94	346024.49	1421210.48	103.56	WSDOT GP17520-148
103	343655.22	1420306.84	262.02	SET REBAR & CAP
104	344299.93	1421910.87	46.35	SET REBAR & CAP
300	345961.95	1422033.03	55.52	SET REBAR & CAP

MONUMENT POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
150	343683.76	1420294.42	260.63	FOUND MON IN CASE
151	343587.45	1422993.35	37.06	FOUND BRASS CAP
158	346365.97	1417754.95	296.10	FOUND MON IN CASE
159	343737.71	1417668.15	358.18	FOUND MON IN CASE
606	346210.36	1423041.43	31.31	FOUND 3/8" REBAR

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

200 100 0 200 400
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: S. THOMAS
DRAWN BY: S. THOMAS
CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 200'
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP103
LOCATION ID:
SHEET No.: 17
REV:

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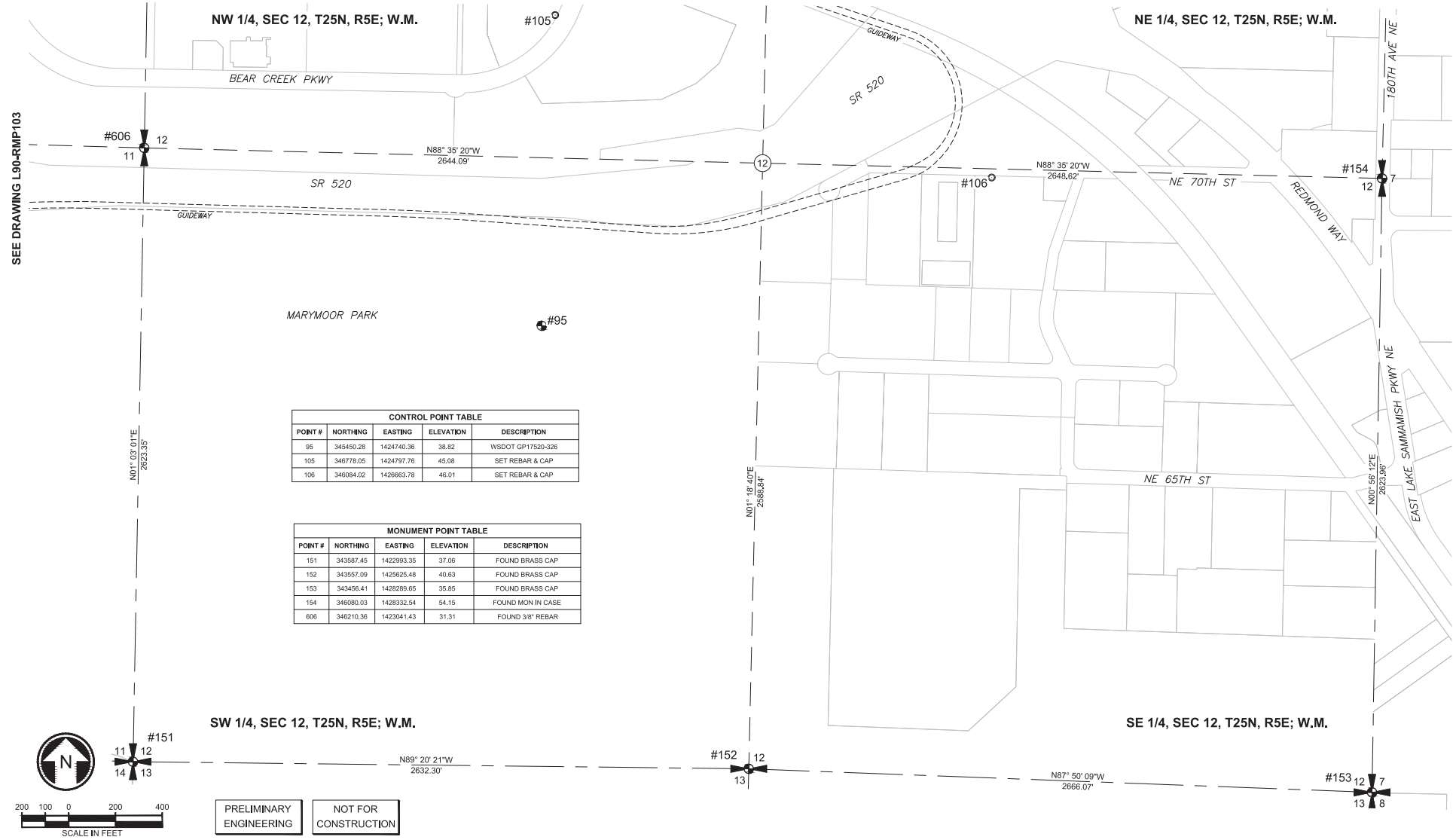

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
95	345450.28	1424740.36	38.82	WSDOT GP17520-326
105	346778.05	1424797.76	45.08	SET REBAR & CAP
106	346084.02	1426663.78	46.01	SET REBAR & CAP

MONUMENT POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
151	343587.45	1422993.35	37.06	FOUND BRASS CAP
152	343557.09	1425625.48	40.63	FOUND BRASS CAP
153	343456.41	1428289.65	35.85	FOUND BRASS CAP
154	346080.03	1428332.54	54.15	FOUND MON IN CASE
606	346210.36	1423041.43	31.31	FOUND 3/8" REBAR

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: S. THOMAS
DRAWN BY: S. THOMAS
CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

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REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 200'
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP104
LOCATION ID:
SHEET No.: 18
REV:

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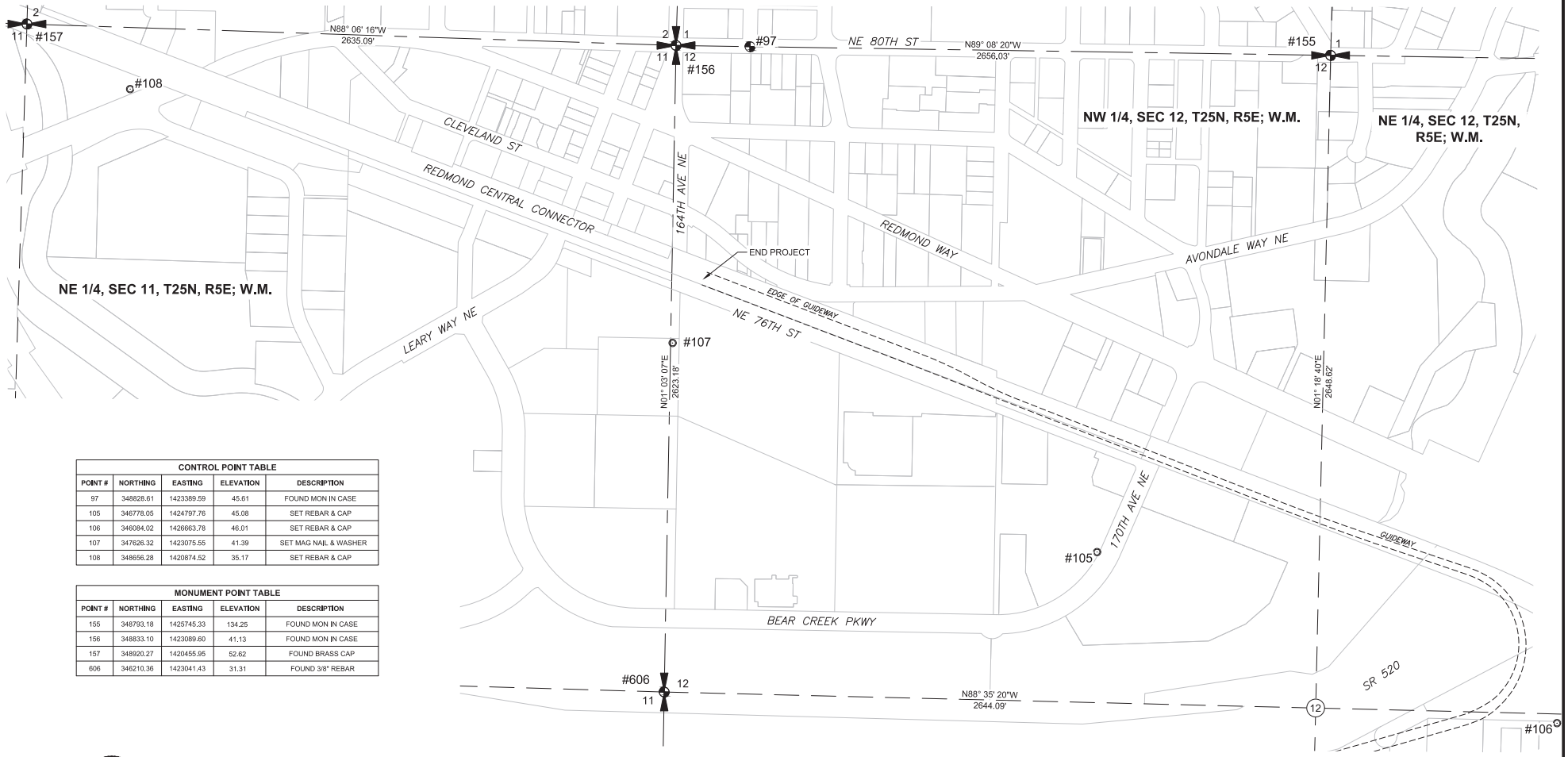

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
97	348828.61	1423389.59	45.61	FOUND MON IN CASE
105	346778.05	1424797.76	45.08	SET REBAR & CAP
106	346084.02	1426663.78	46.01	SET REBAR & CAP
107	347626.32	1423075.55	41.39	SET MAG NAIL & WASHER
108	348656.28	1420874.52	35.17	SET REBAR & CAP

MONUMENT POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
155	348793.18	1425745.33	134.25	FOUND MON IN CASE
156	348833.10	1423089.60	41.13	FOUND MON IN CASE
157	348920.27	1420455.95	52.62	FOUND BRASS CAP
606	346210.36	1423041.43	31.31	FOUND 3/8" REBAR

N

200 100 0 200 400

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: S. THOMAS
DRAWN BY: S. THOMAS
CHECKED BY: G. HARGER
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

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SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 200'
FILENAME: RLE-L90-RMP100TO105
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
GENERAL
HORIZONTAL AND VERTICAL CONTROL
AND ROW MONUMENTATION PLAN

DRAWING No.: L90-RMP105
LOCATION ID:
SHEET No.: 19 REV:

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Xrefs:
RLE-GB-TB22x34
RLE-standards

NOTES

1. ALL COORDINATES AND CALCULATIONS WHICH DEFINE THE LOCATION OF THE PROPOSED LIGHT RAIL TRANSIT RIGHT OF WAY AND ASSOCIATED EASEMENTS ARE BASED ON THE HORIZONTAL AND VERTICAL CONTROL AND MONUMENTATION PLAN (SHEETS L90-RMP 100 TO L90-RMP 104). THE HORIZONTAL AND VERTICAL CONTROL AND MONUMENTATION PLAN CONTAINS THE DIMENSIONING BETWEEN FOUND MONUMENTS IN THE PUBLIC LAND SURVEY SYSTEM WITHIN THE PROJECT AREA AND DESCRIBES THE MONUMENTS IN FURTHER DETAIL.

2. ALL COORDINATES ARE ON THE REDMOND LINK LIGHT RAIL EXTENSION PROJECT COORDINATE SYSTEM. COORDINATES ARE GROUND COORDINATES THAT HAVE BEEN ESTABLISHED BASED ON NAD 83(2011) HORIZONTAL DATUM AND NAVD 88 VERTICAL DATUM. FULL DATUM STATEMENT AND CONVERSION FACTORS CAN BE FOUND ON THE HORIZONTAL AND VERTICAL CONTROL AND MONUMENTATION PLAN (SHEET L90-RMP 100)

3. EXISTING WSDOT RIGHT OF WAY LINES SHOWN ON THIS PLAN SET WERE CALCULATED BASED ON PUBLISHED WSDOT RIGHT OF WAY PLANS, HOWEVER, NO DIMENSIONS OR TIES TO THE EXISTING RIGHT OF WAY ARE SHOWN ON THESE PLANS, THEY ARE FOR GRAPHICAL REPRESENTATION ONLY.

4. NO SURVEY MONUMENTS HAVE BEEN SET AS PART OF THIS SURVEY.

5. SEE PARCEL MAPS FOR DETAILS OF PROPERTY RIGHTS AND EASEMENTS.

LEGEND

NOTE: HATCH PATTERNS MAY BE SHOWN AT DIFFERENT ORIENTATIONS ON DRAWINGS.

- PERMANENT EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT (TCE)
- TEMPORARY ACCESS EASEMENT
- BOTH TCE & TEMPORARY ACCESS EASEMENTS
- FEE TAKE
- PERMANENT WSDOT AIRSPACE LEASE
- TIE BACK / SOIL NAIL EASEMENT

RIGHT-OF-WAY LINETYPES

- SECTION LINE
- 1/4 SECTION LINE
- WSDOT LIMITED ACCESS
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PARCEL LINE
- EXISTING EASEMENT LINE
- LIGHT RAIL TRANSIT WAY LINE
- FUTURE ROW/PROPERTY LINE
- PERMANENT EASEMENT LINE
- TEMPORARY EASEMENT LINE

PARCEL AREA TABLE EASEMENT DESCRIPTION

a	TEMPORARY ACCESS EASEMENT
c	TEMPORARY CONSTRUCTION AND ACCESS EASEMENT
d	PERMANENT GUIDEWAY EASEMENT
f	PERMANENT EMERGENCY VEHICLE ACCESS EASEMENT
g	LANDSCAPE MAINTENANCE EASEMENT
m	PERMANENT MAINTENANCE EASEMENT
r	PERMANENT ROADWAY EASEMENT
s	PERMANENT SUBSURFACE EASEMENT
t	TEMPORARY CONSTRUCTION EASEMENT
v	PERMANENT TREE AND VEGETATION TRIMMING EASEMENT
w	PERMANENT NOISE WALL AND DRAINAGE EASEMENT
z	PERMANENT WALL FOOTING SUBSURFACE EASEMENT

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. CRAWFORD
DRAWN BY: J. TYLER
CHECKED BY: M. STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-RZN001
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
NOTES AND LEGEND

DRAWING No.: L90-RZN001
LOCATION ID:
SHEET No.: 20
REV:

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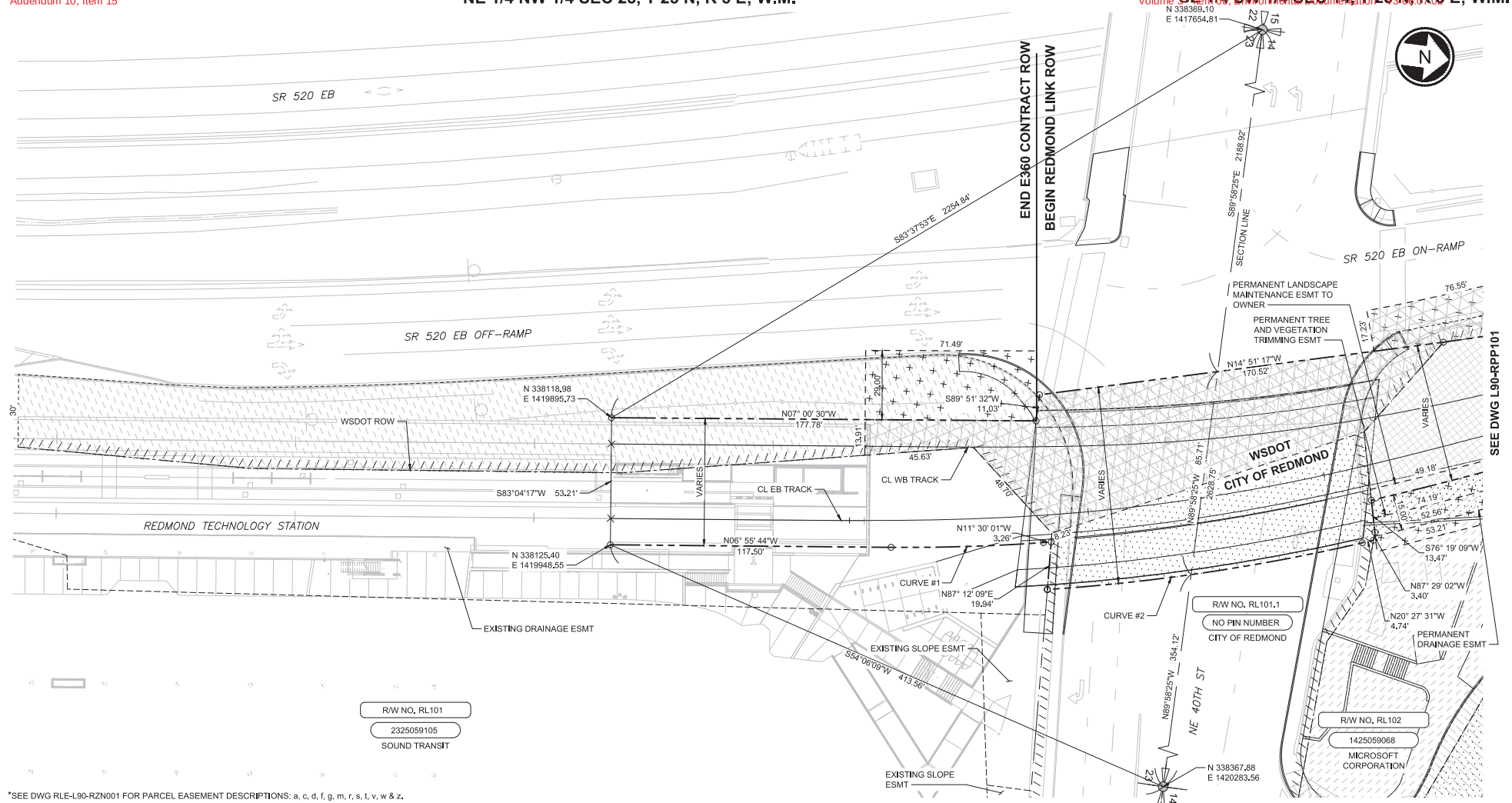

*SEE DWG RLE-L90-RZN001 FOR PARCEL EASEMENT DESCRIPTIONS: a, c, d, f, g, m, r, s, t, v, w & z.

SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL101	2325059105	SOUND TRANSIT	358,560					
2 RL101.1	NO PIN NUMBER	CITY OF REDMOND						
3 RL102	1425059068	SEE DWG L90-RPP101						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	004°34'17"	800.00'	31.93'	63.83'
2	009°09'59"	834.40'	66.89'	133.49'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 4991+00 TO EB STA 4993+00

DRAWING No.: L90-RPP100
LOCATION ID:
SHEET No.: 21
REV:

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Xrefs:
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xRLE-L90-KAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
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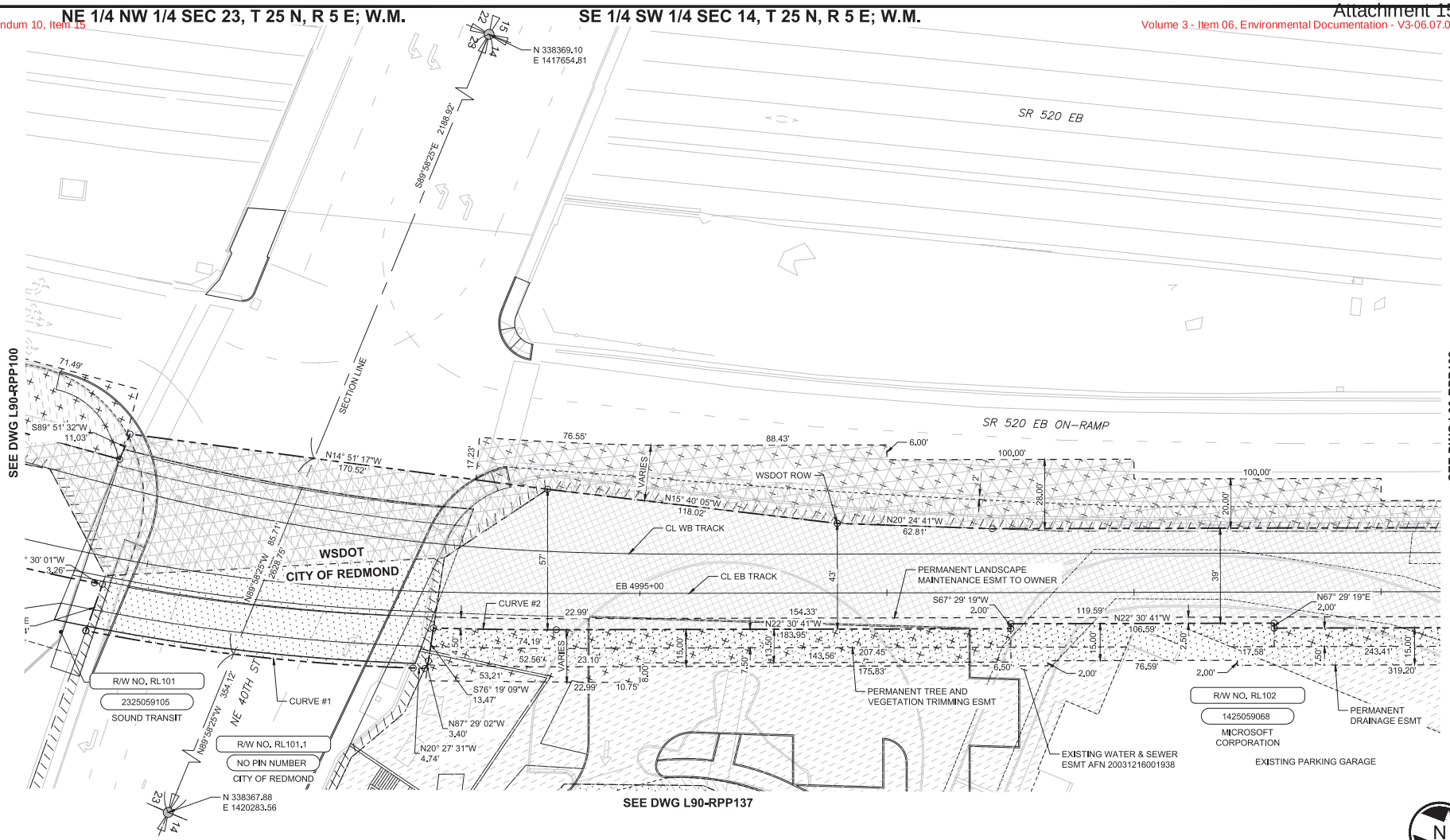
xE360-RLE-L88-KAP100
xE360-RLE-E27-ARP100
xRLE-L90-SWP100



	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL101	2325059105	SEE DWG L90 - RPP100						
2	RL101.1	NO PIN NUMBER	SEE DWG L90 - RPP100						
3	RL102	1425059068	MICROSOFT CORPORATION	311,979	26,144	285,835	s5,661 v4,917 g2,719	t49,082 a9,137 c11,356	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	009°09'59"	834.40'	66.89'	133.49'
2	001°54'22"	1495.33'	24.88'	49.75'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 4993+00 TO EB STA 4998+00

DRAWING No.: L90-RPP101
LOCATION ID:
SHEET No.: 22
REV:

09/26/18 | 3:45 PM | TYLERJ
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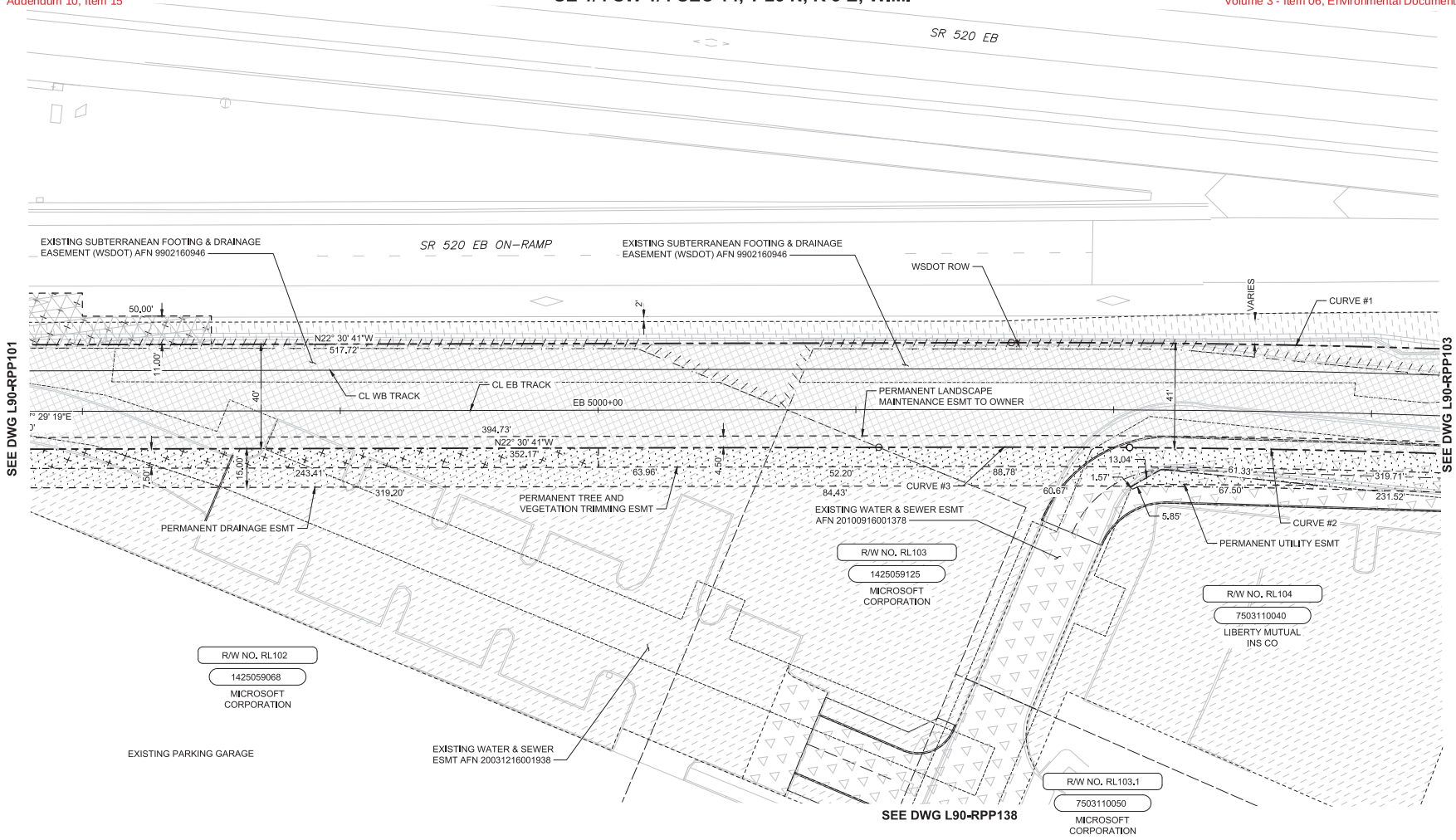
SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL102	1425059068	SEE DWG L90 - RPP101						
2	RL103	1425059125	SEE DWG L90 - RPP138						
3	RL103.1	7503110050	SEE DWG L90 - RPP138						
4	RL104	7503110040	SEE DWG L90 - RPP103						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	004°42'44"	5045.00'	207.58'	414.92'
2	003°40'51"	4984.50'	160.16'	320.21'
3	000°34'49"	9598.87'	48.62'	97.23'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 4998+00 TO EB STA 5003+00

DRAWING No.: L90-RPP102
LOCATION ID:
SHEET No.: 23
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-HRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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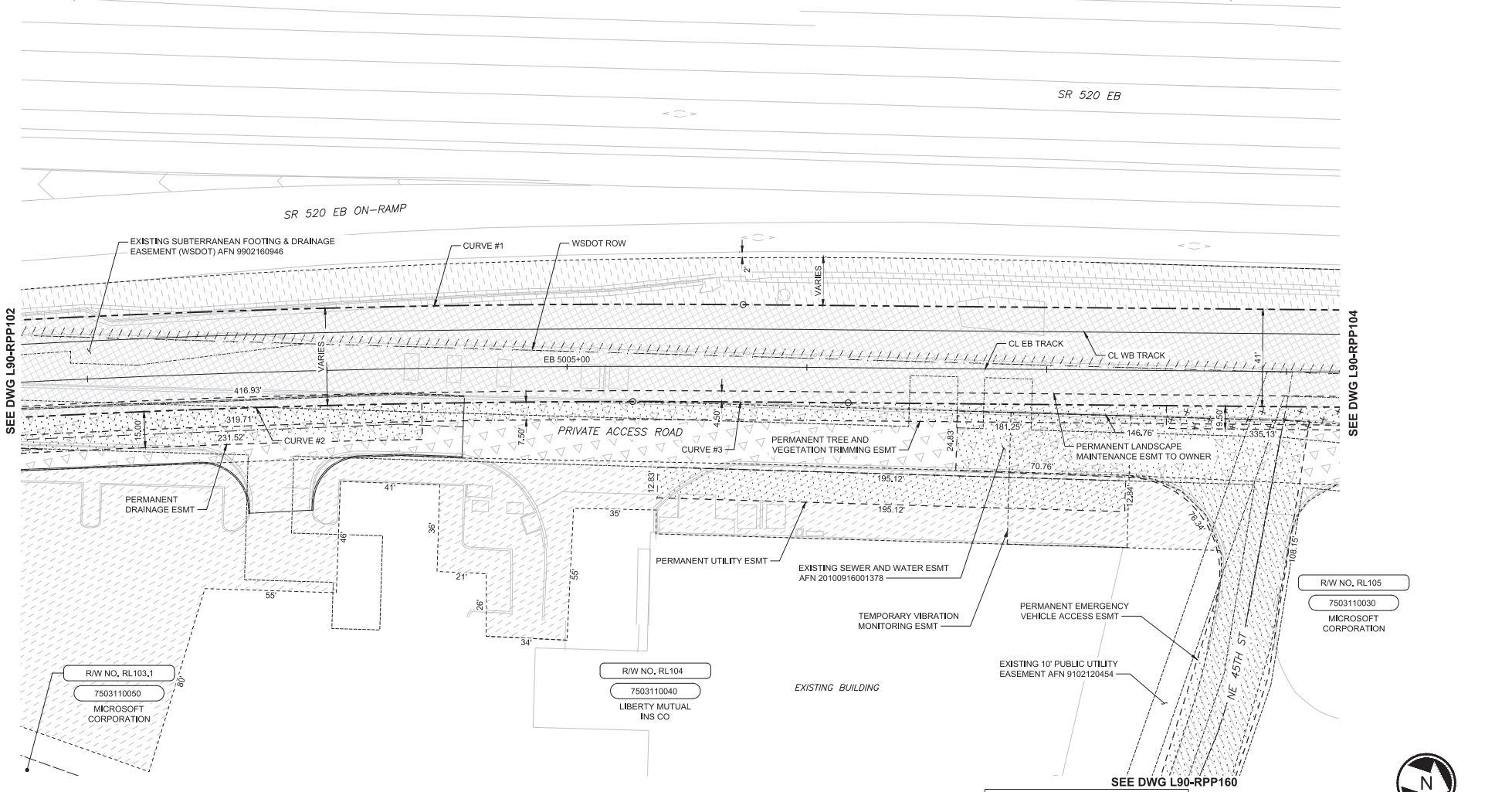
SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL103.1	7503110050	SEE DWG L90 - RPP138						
2 RL104	7503110040	LIBERTY MUTUAL INS CO	144,457	18,461	125,996	f6,944 s466 v5,097 g3,133	t32,706 a3,028 c16,398	
3 RL105	7503110030	SEE DWG L90 - RPP104						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	004°42'44"	5045.00'	207.58'	414.92'
2	003°40'51"	4984.50'	160.16'	320.21'
3	000°34'20"	8996.41'	44.93'	89.86'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5003+00 TO EB STA 5008+00

DRAWING No.: L90-RPP103
LOCATION ID:
SHEET No.: 24
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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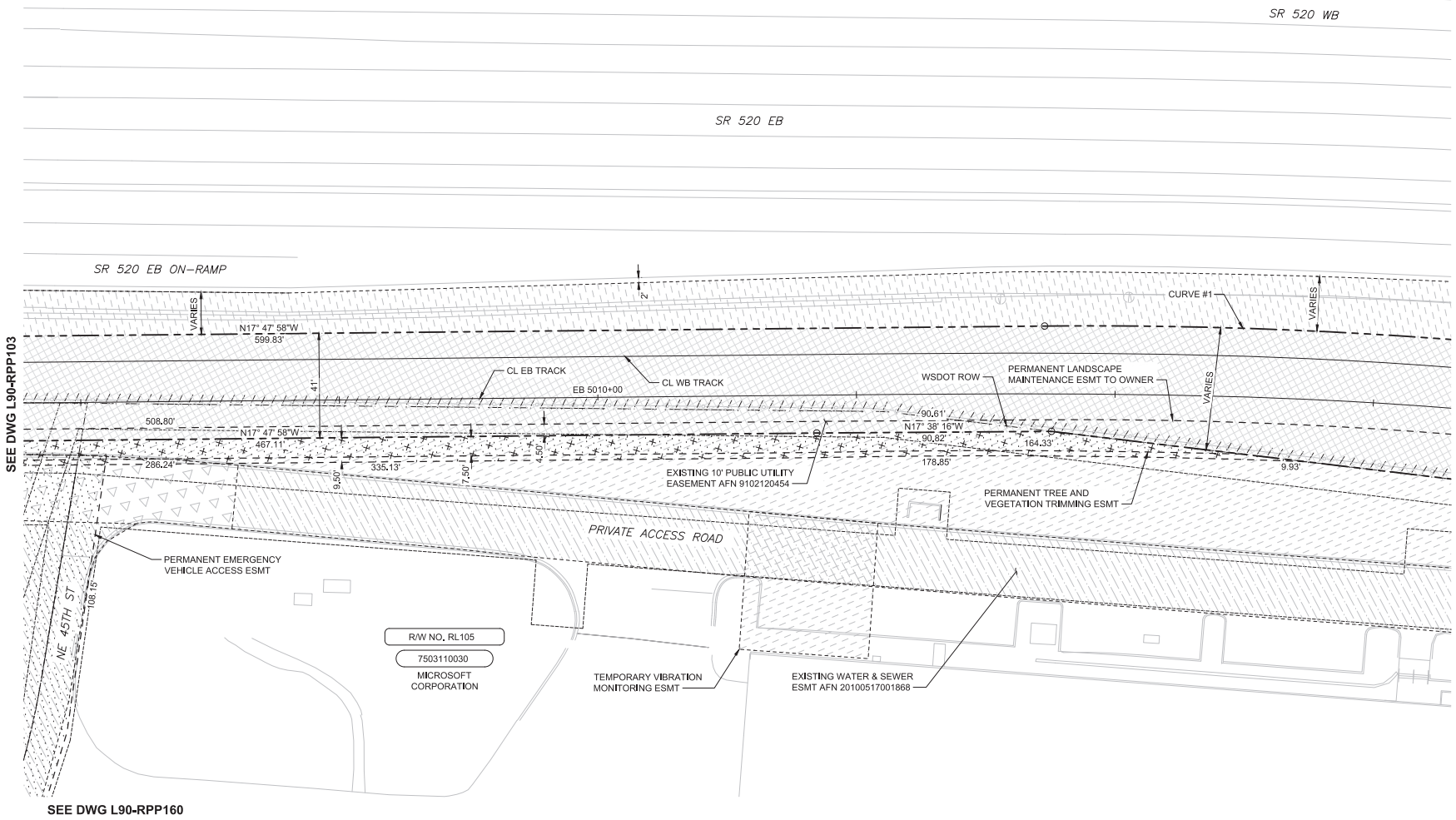
Addendum 10, Item 15

NE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL105	7503110030	MICROSOFT CORPORATION	321,956	3,721	318,235	f5,271 s4,096 v3,068 g1,608	t24,959 a21,788 c1,571	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	028°20'58"	1830.96'	462.44'	905.94'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5008+00 TO EB STA 5013+00

DRAWING No.: L90-RPP104
LOCATION ID:
SHEET No.: 25
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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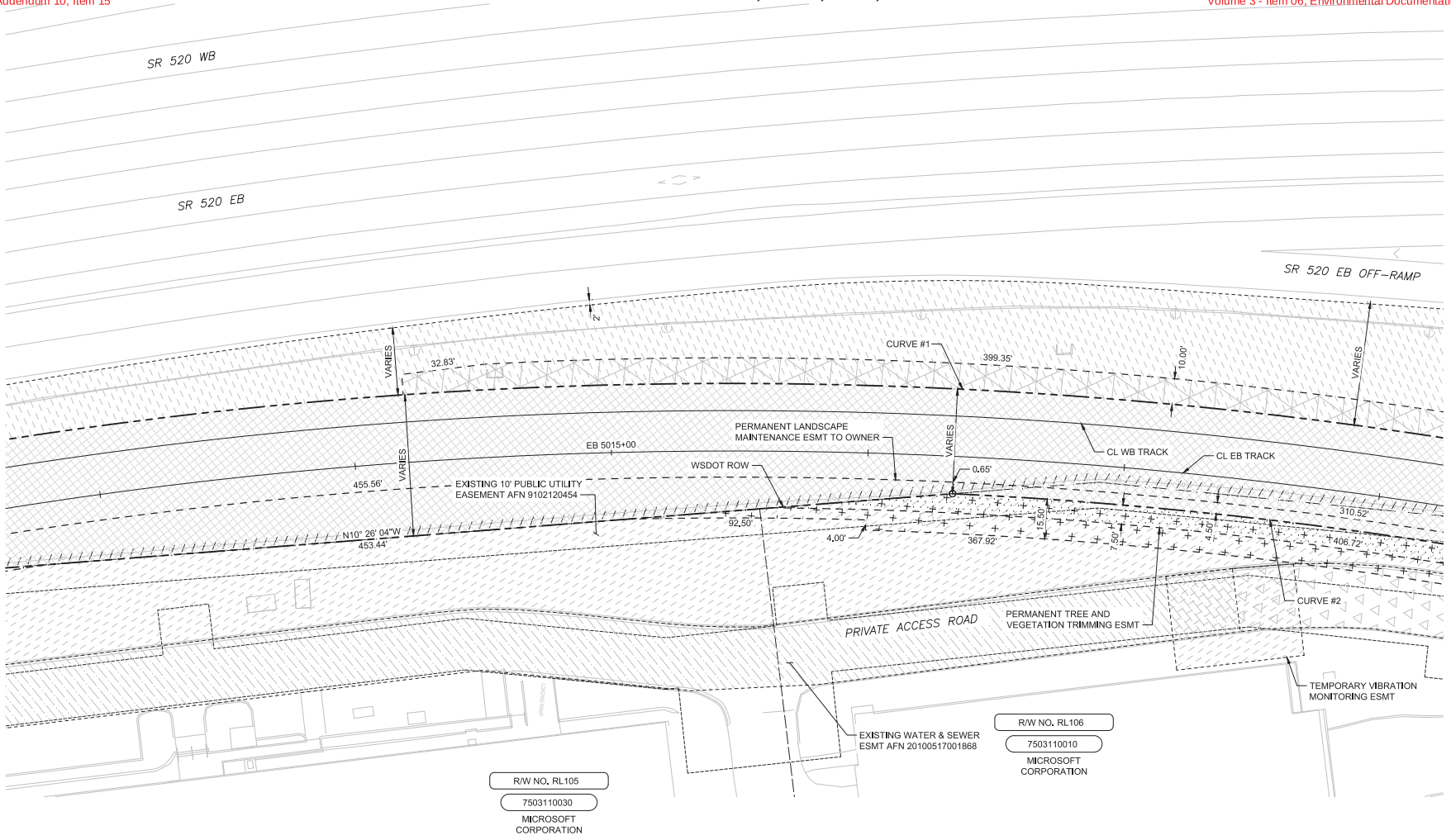
NE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL105	7503110030	SEE DWG L90 - RPP104						
2	RL106	7503110010	SEE DWG L90 - RPP106						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	028°20'58"	1830.96'	462.44'	905.94'
2	010°05'20"	1780.01'	157.12'	313.43'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5013+00 TO EB STA 5018+00

DRAWING No.: L90-RPP105
LOCATION ID:
SHEET No.: 26
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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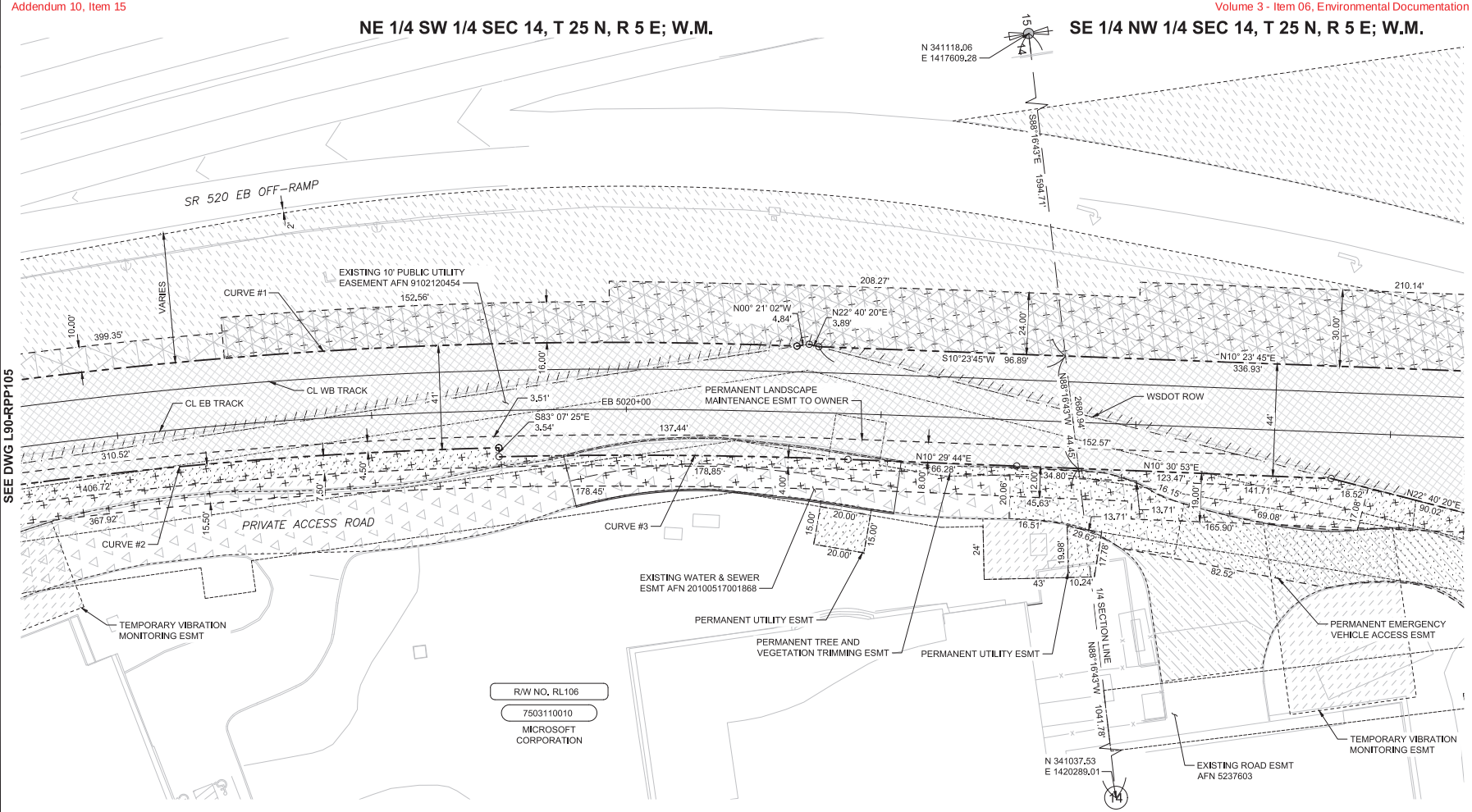

SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL106	7503110010	MICROSOFT CORPORATION	367,911	12,101	355,810	f14,811 s10,809 v3,937 g3,804	t21,626 a18,919 c10,153	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	028°20'58"	1830.96'	462.44'	905.94'
2	010°05'20"	1780.01'	157.12'	313.43'
3	003°38'51"	2150.41'	68.47'	136.90'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5018+00 TO EB STA 5023+00

DRAWING No.: L90-RPP106
LOCATION ID:
SHEET No.: 27
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100
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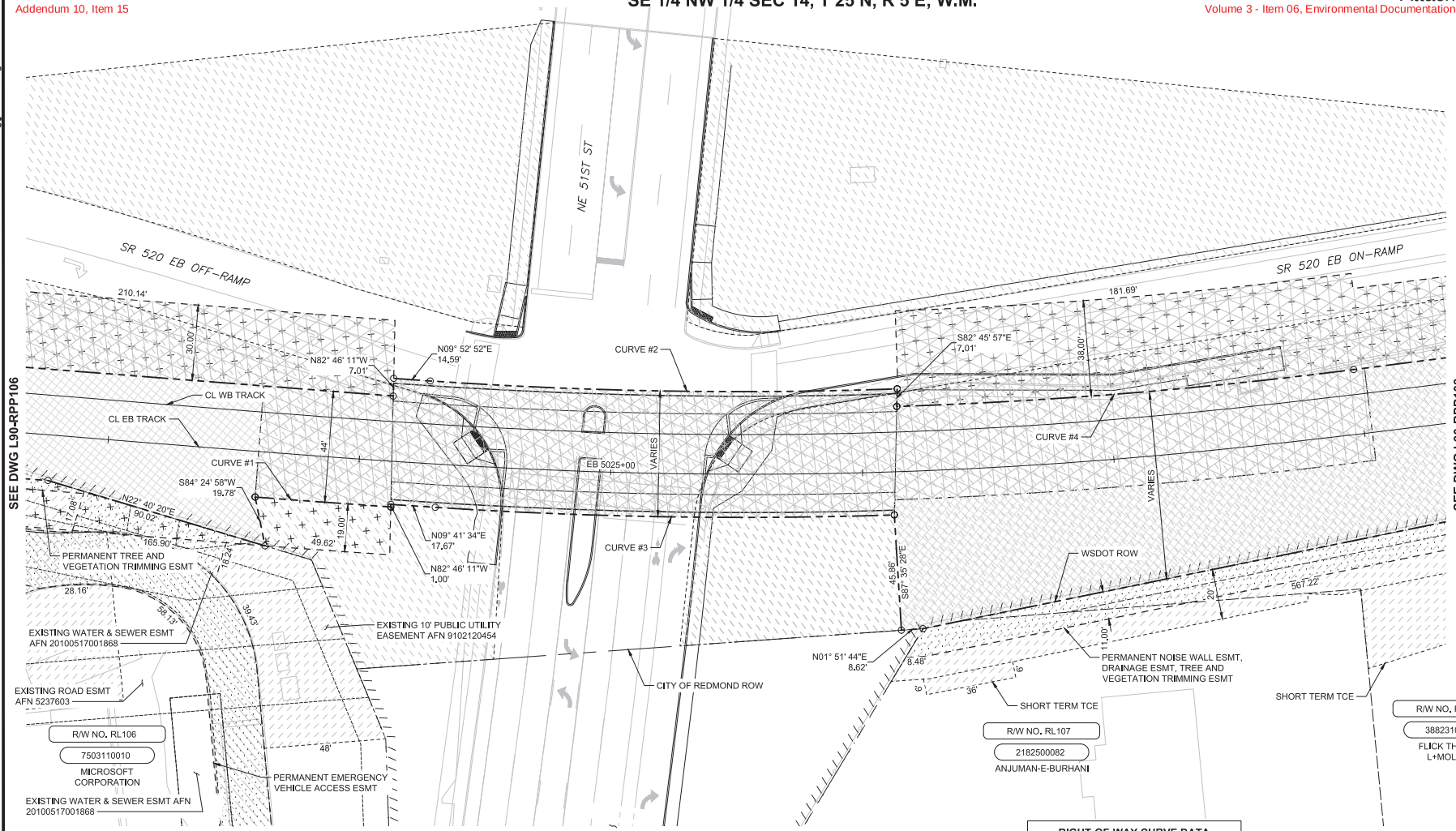
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-AHP100
xRLE-L90-SWP100

SE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL106	7503110010	SEE DWG L90 - RPP106						
2 RL107	2182500082	ANJUMAN-E-BURHANI	49,071			v718 w718	t2,313	
3 RL108	3882310140	SEE DWG L90 - RPP108						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	000°25'17"	7343.20'	27.01'	54.01'
2	005°57'28"	1784.08'	92.84'	185.52'
3	005°37'32"	1857.94'	91.28'	182.42'
4	005°21'51"	1945.37'	91.13'	182.13'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU · STATE OF WASHINGTON · 21801 · REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5023+00 TO EB STA 5028+00

DRAWING No.: L90-RPP107
LOCATION ID:
SHEET No.: 28
REV:

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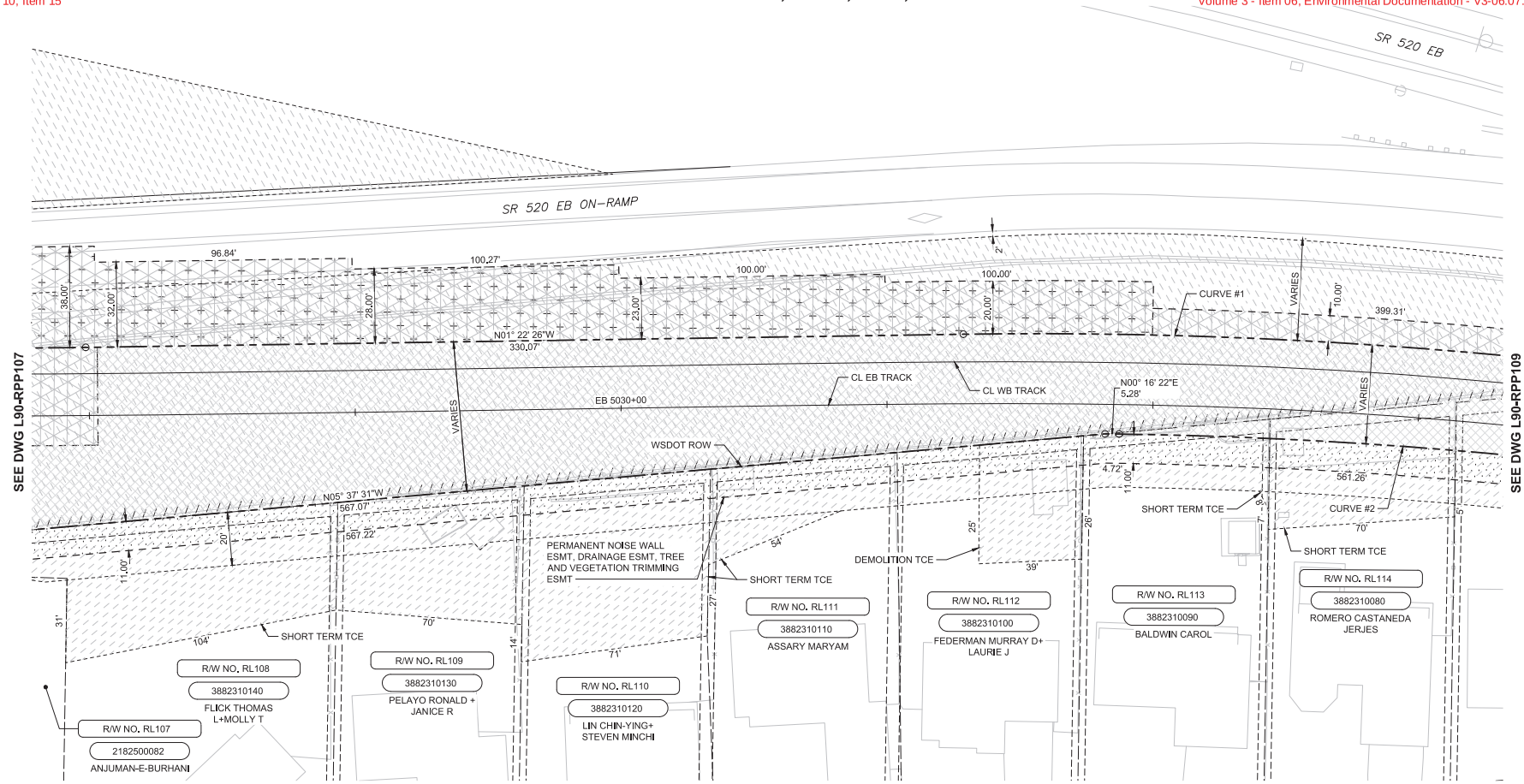
SE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.*	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL107	2182500082	SEE DWG L90 - RPP107						
2	RL108	3882310140	FLICK THOMAS L + MOLLY T	16,861			v2,377 w2,377	t6,191	
3	RL109	3882310130	PELAYO RONALD + JANICE R	10,810			v774 w774	t3,241	
4	RL110	3882310120	LIN CHIN-YING + STEVEN MINCHI	10,751			v774 w774	t5,155	
5	RL111	3882310110	ASSARY MARYAM	10,703			v776 w776	t1,804	
6	RL112	3882310100	FEDERMAN MURRAY D + LAURIE J	10,239			v773 w773	t2,388	
7	RL113	3882310090	BALDWIN CAROL	10,564	215	10,349	v771 w771	t1,413	
8	RL114	3882310080	ROMERO CASTANEDA JERJES	10,565	872	9,693	v771 w771	t2,087	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	020°25'49"	1870.00'	336.97'	666.79'
2	017°40'21"	1799.92'	279.81'	555.18'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
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DANIEL A. THIBODEAU, STATE OF WASHINGTON, 41801, REGISTERED PROFESSIONAL LAND SURVEYOR

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5028+00 TO EB STA 5033+00

DRAWING No.: L90-RPP108
LOCATION ID:
SHEET No.: 29
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GS-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-APP100
xE360-RLE-L88-KAP10
xE360-RLE-E27-APP10

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GS-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
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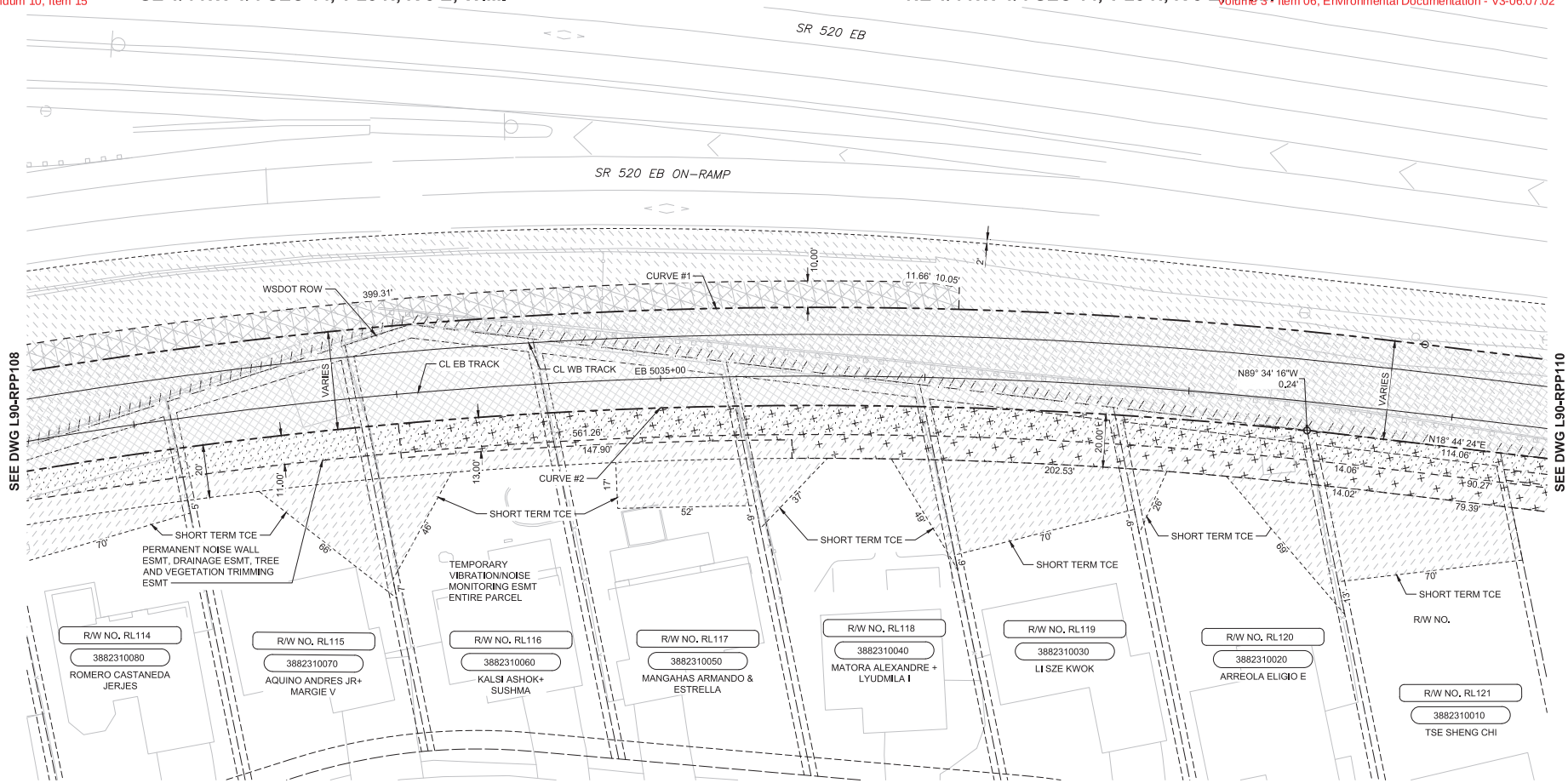
xE360-RLE-E27-APP100



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL114	3882310080	SEE DWG L90 - RPP108						
2	RL115	3882310070	AQUINO ANDRES JR + MARGIE V	10,664	1,724	8,940	v773 w773	t2,398	
3	RL116	3882310060	KALSI ASHOK + SUSHMA	11,336	2,340	8,996	s746 v776 w776	t1,993	
4	RL117	3882310050	MANGAHAS ARMANDO + ESTRELLA	11,271	1,582	9,689	s923 v781 w781	t2,317	
5	RL118	3882310040	MATORA ALEXANDRE + LYUDMILA I	11,108	880	10,228	s1,304 v787 w787	t2,181	
6	RL119	3882310030	LI SZS KWOK	11,196	381	10,815	s1,444 v794 w794	t3,302	
7	RL120	3882310020	ARREOLA ELIGIO E	13,106	91	13,015	s1,460 v803 w803	t2,484	
8	RL121	3882310010	TSE SHENG CHI	13,745			s1,475 v812 w812	t3,492	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	020°25'49"	1870.00'	336.97'	666.79'
2	017°40'21"	1799.92'	279.81'	555.18'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: CRAWFORD/MCCABE
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SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

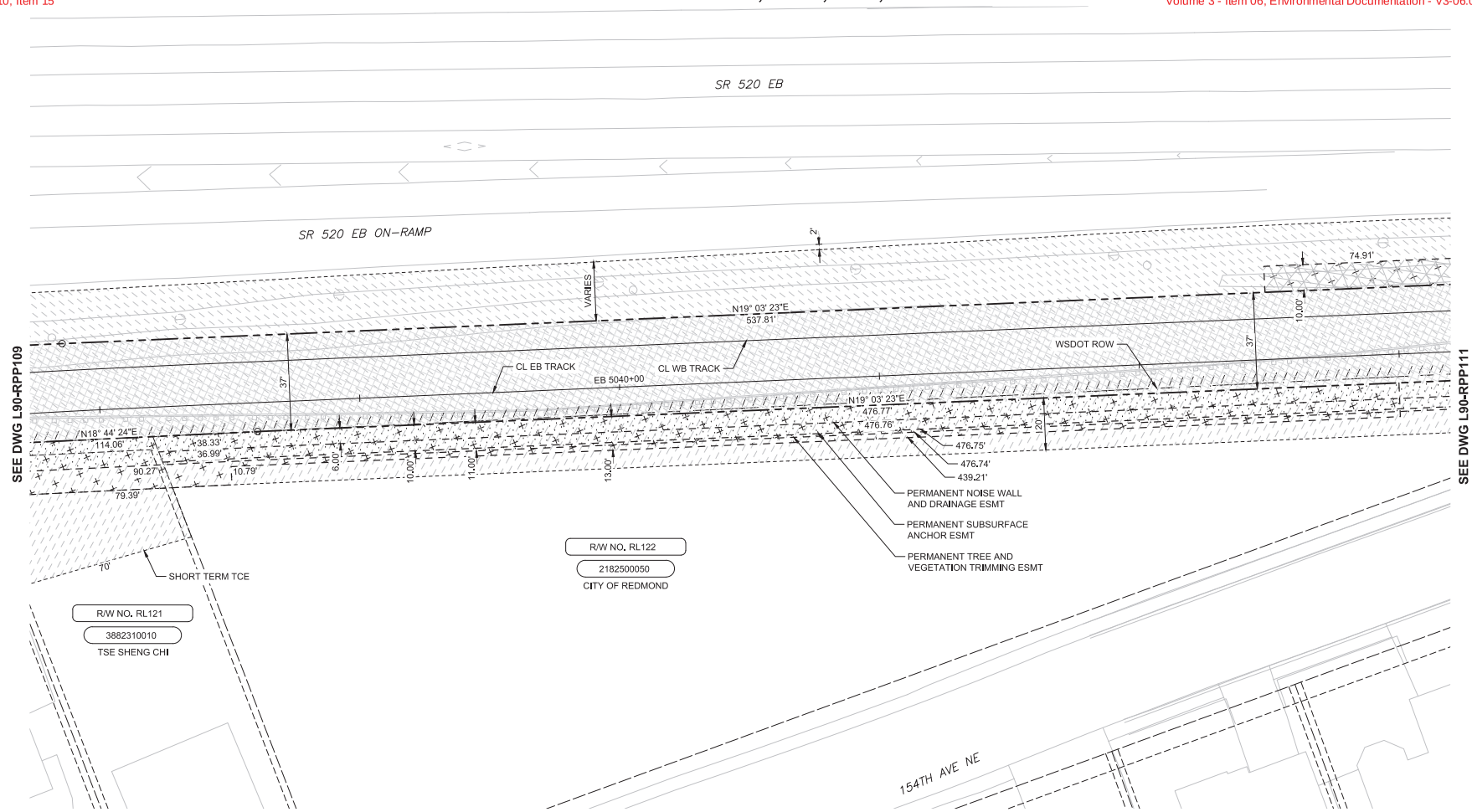
SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5033+00 TO EB STA 5038+00

DRAWING No.: L90-RPP109
LOCATION ID:
SHEET No.: 30
REV:

10/24/18 | 9:58 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%443%SITES%CAD%REDMOND LINK EXTENSION%PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

NE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL121	3882310010	SEE DWG L90-RPP109						
2	RL122	2812500050	CITY OF REDMOND	55,342	970	54,372	s6,374 v6,516 w3,602 z5,940	t11,555	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5038+00 TO EB STA 5043+00

DRAWING No.: L90-RPP110
LOCATION ID:
SHEET No.: 31
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP10
xE360-RLE-E27-APP10

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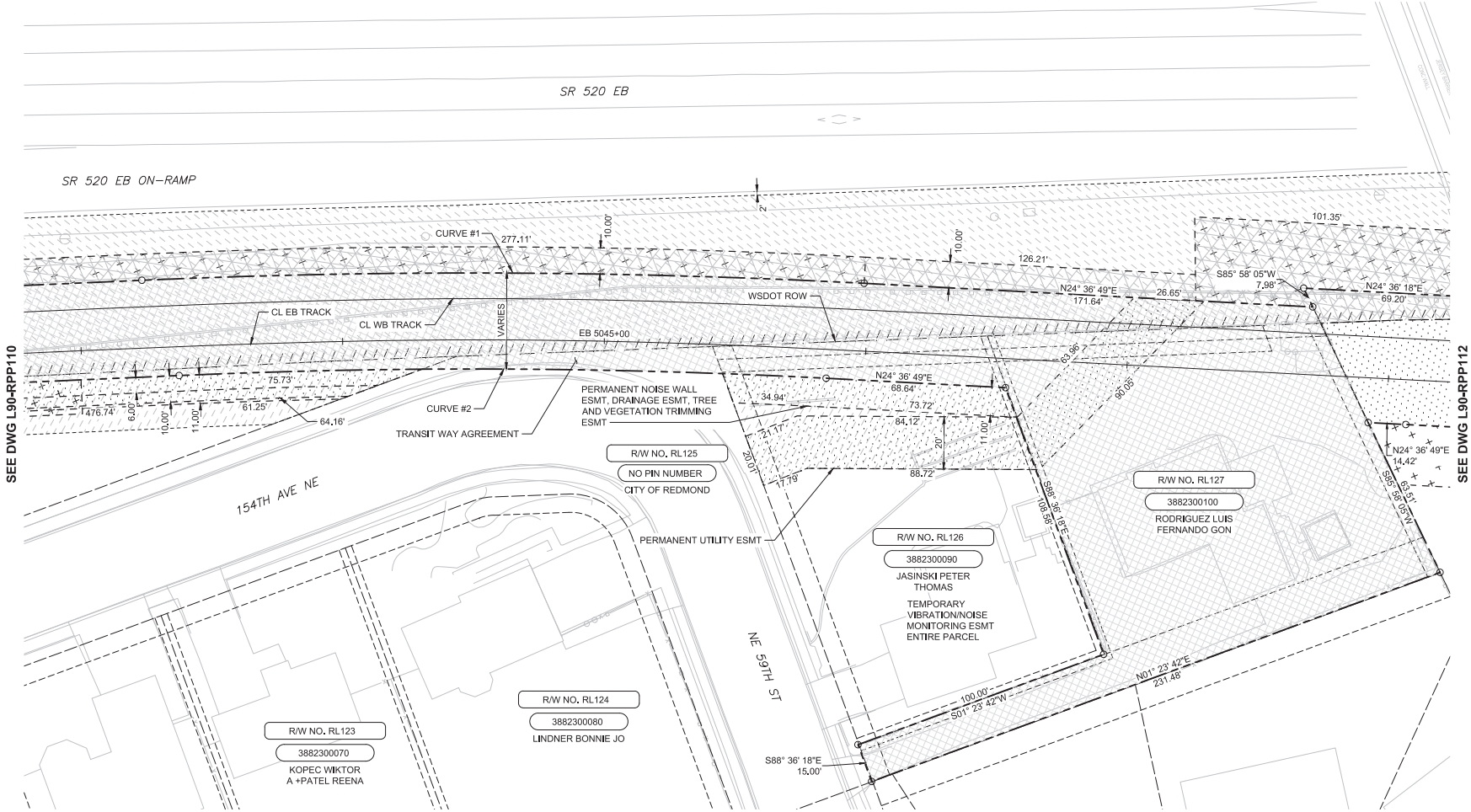
NE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL123	3882300070	KOPEC WIKTOR A + REENA J PATEL	11,498					
2	RL124	3882300080	LINDNER BONNIE JO	15,549					
3	RL125	NO PIN NUMBER	CITY OF REDMOND	-	758	-			
3	RL126	3882300090	JASINSKI PETER THOMAS	14,583	1,594	12,989	v1,195 w1,195	t3,644	
4	RL127	3882300100	RODRIGUEZ LUIS FERNANDO GON	17,201	17,201	0			

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	005°33'26"	2846.98'	138.18'	276.14'
2	005°33'26"	2550.00'	123.76'	247.33'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

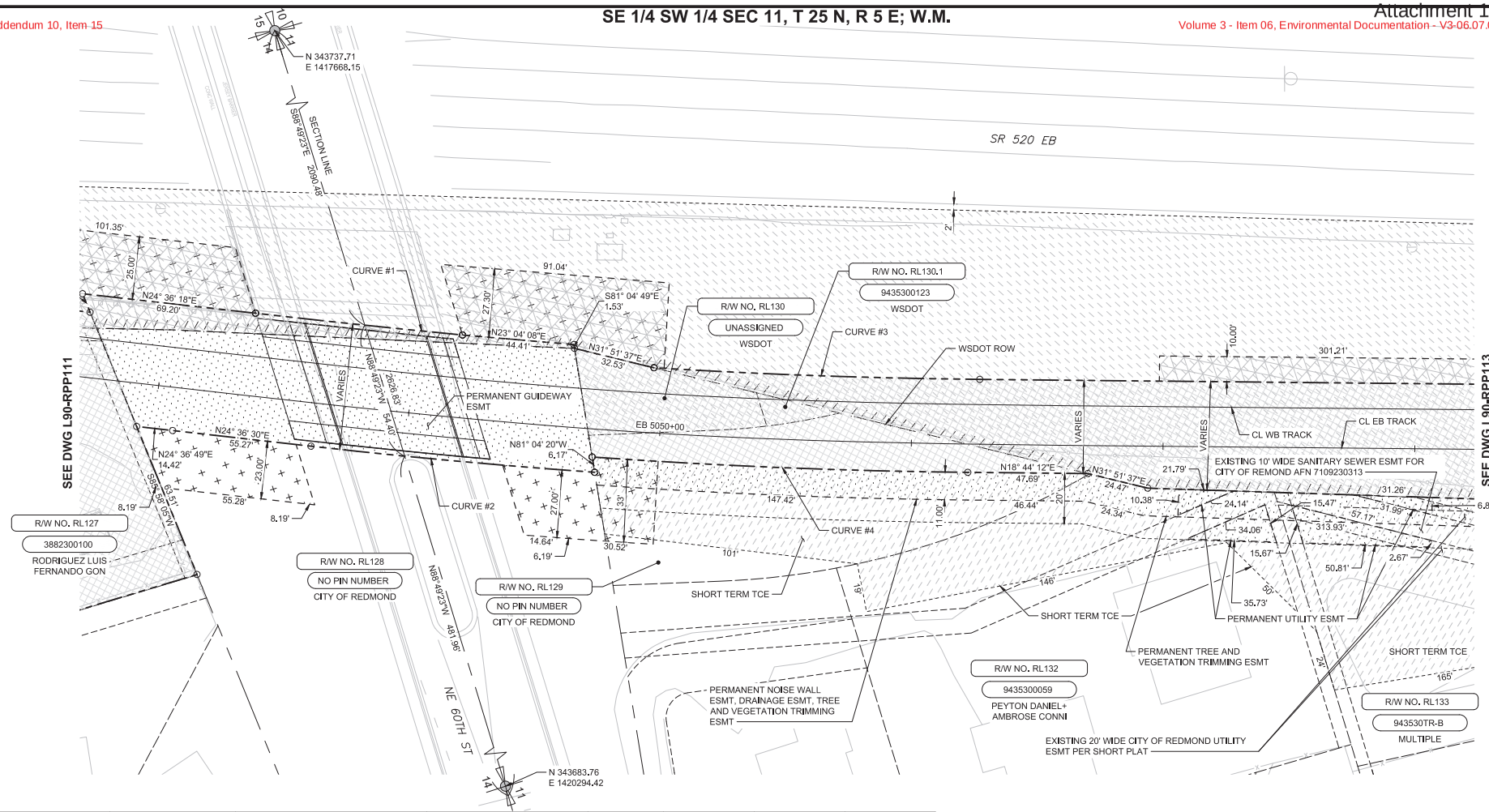
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5043+00 TO EB STA 5048+00

DRAWING No.: L90-RPP111
LOCATION ID:
SHEET No.: 32
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GE-YSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP10
xE360-RLE-E27-APP10
xRLE-L90-SWP100

09/26/18 | 3:55 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SE 1/4 SW 1/4 SEC 11, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL127	3882300100	SEE DWG L90 - RPP111						
2	RL128	NO PIN NUMBER	CITY OF REDMOND						
3	RL129	NO PIN NUMBER	CITY OF REDMOND	9,080	2,540	6,540	s744 v2,059 w2,059	t5,388	
4	RL130	943530UNKN	WSDOT	1,703	1,703	0			
5	RL130.1	9435300123	WSDOT	236	236	0			
6	RL132	9435300059	PEYTON DANIEL + AMBROSE CONNI	21,399			v940 w940	t4,754	
7	RL133	943530TR-B	SEE DWG L90 - RPP113						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	001°01'31"	4617.90'	41.32'	82.64'
2	002°23'38"	2708.28'	56.59'	113.16'
3	002°57'51"	2502.98'	64.76'	129.49'
4	003°30'51"	2435.40'	74.71'	149.37'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5048+00 TO EB STA 5053+00

DRAWING No.: L90-RPP112
LOCATION ID:
SHEET No.: 33
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP10
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP10
xE360-RLE-E27-AHP10
xRLE-L90-SWP100

09/26/18 | 3:38 PM | TYLERJ
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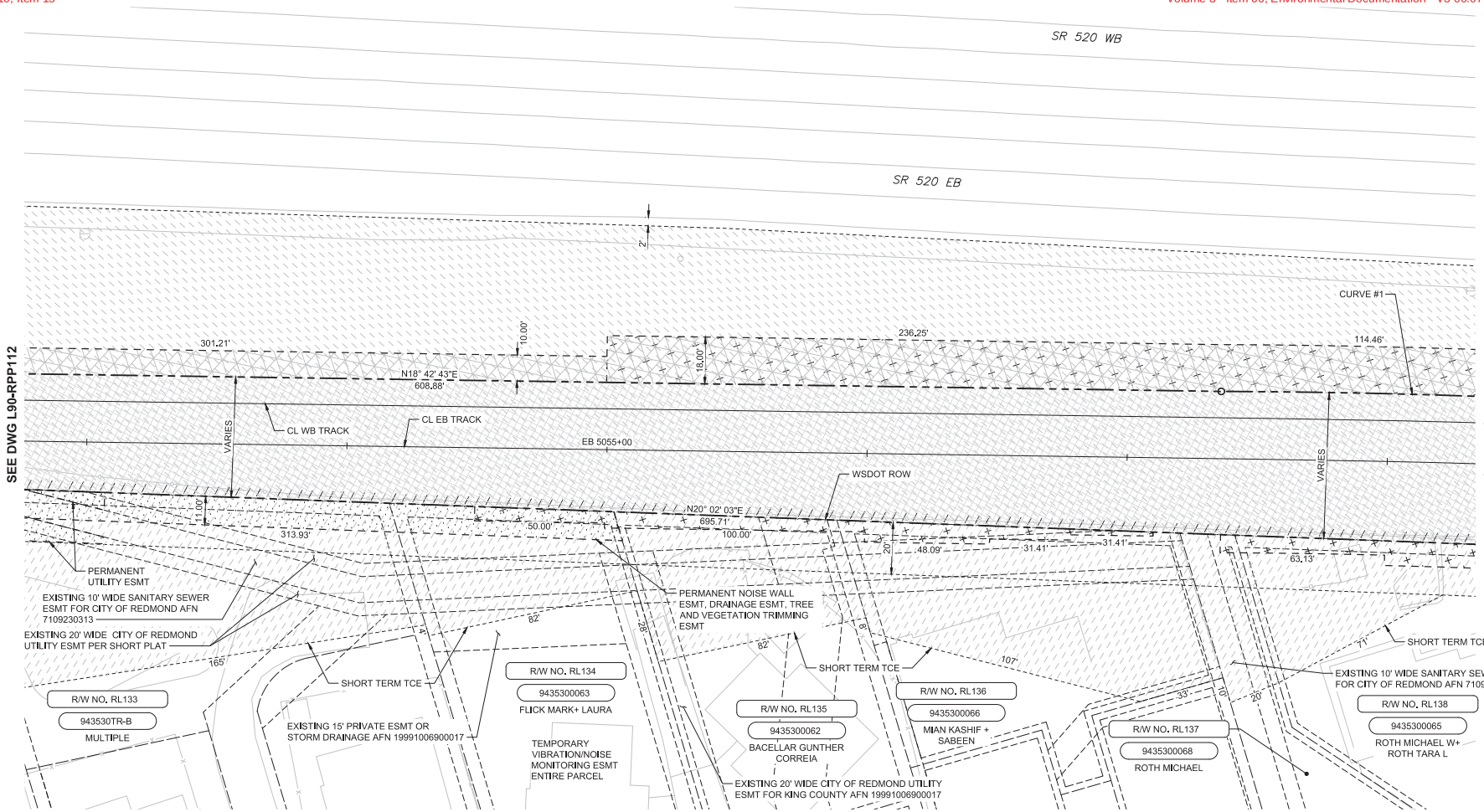
SE 1/4 SW 1/4 SEC 11, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL133	943530TR-B	MULTIPLE	15,830			v1,895 w1,895	t14,119	
2	RL134	9435300063	FLICK MARK + LAURA	12,811			s276 v950 w950	t3,471	
3	RL135	9435300062	BACELLAR GUNTHER CORREIA	10,569			s453	t4,039	
4	RL136	9435300066	MIAN KASHIF + SABEEN	10,361			s608	t10,361	
5	RL137	9435300068	SEE DWG L90 - RPP114						
6	RL138	9435300065	SEE DWG L90 - RPP114						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	003°57'57"	3097.82'	107.25'	214.42'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

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20 10 0 20 40
SCALE IN FEET

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5053+00 TO EB STA 5058+00

DRAWING No.: L90-RPP113
LOCATION ID:
SHEET No.: 34
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-L90-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 3:38 PM | TYLERJ
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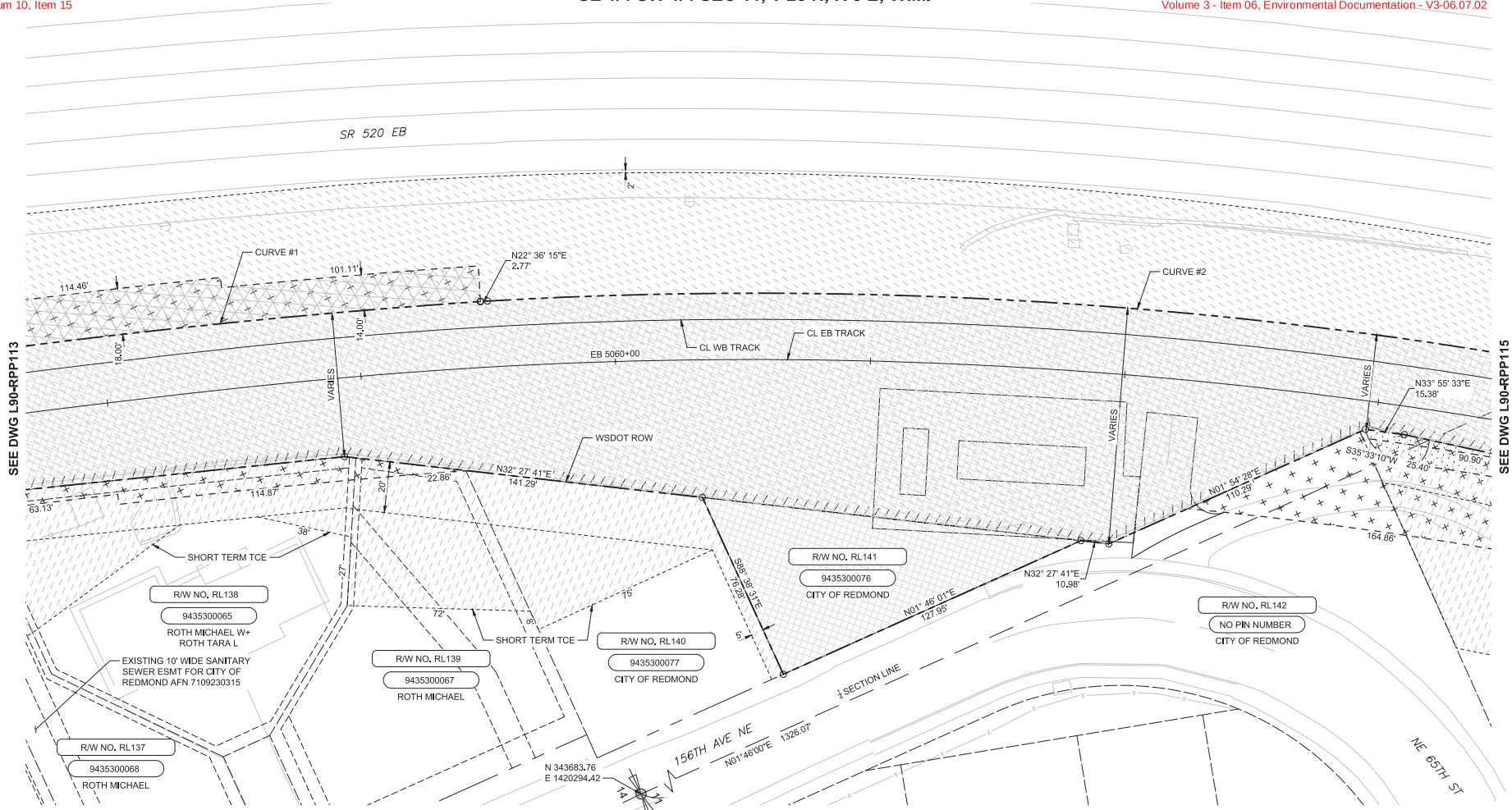

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL137	9435300068	ROTH MICHAEL	7,529			s145	t1,273	
2	RL138	9435300065	ROTH MICHAEL W + ROTH TARA L	12,047			s1,207	t4,494	
3	RL139	9435300067	ROTH MICHAEL	10,954			s185	t3,208	
4	RL140	9435300077	CITY OF REDMOND	8,011				t3,838	
5	RL141	9435300076	CITY OF REDMOND	4,880	4,880	0			
6	RL142	NO PIN NUMBER	CITY OF REDMOND				s1,616		

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	003°57'57"	3097.82'	107.25'	214.42'
2	020°36'29"	1810.72'	329.20'	651.28'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5058+00 TO EB STA 5063+00

DRAWING No.: L90-RPP114
LOCATION ID:
SHEET No.: 35
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP10
xE360-RLE-E27-XAP10
xRLE-L90-SWP100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
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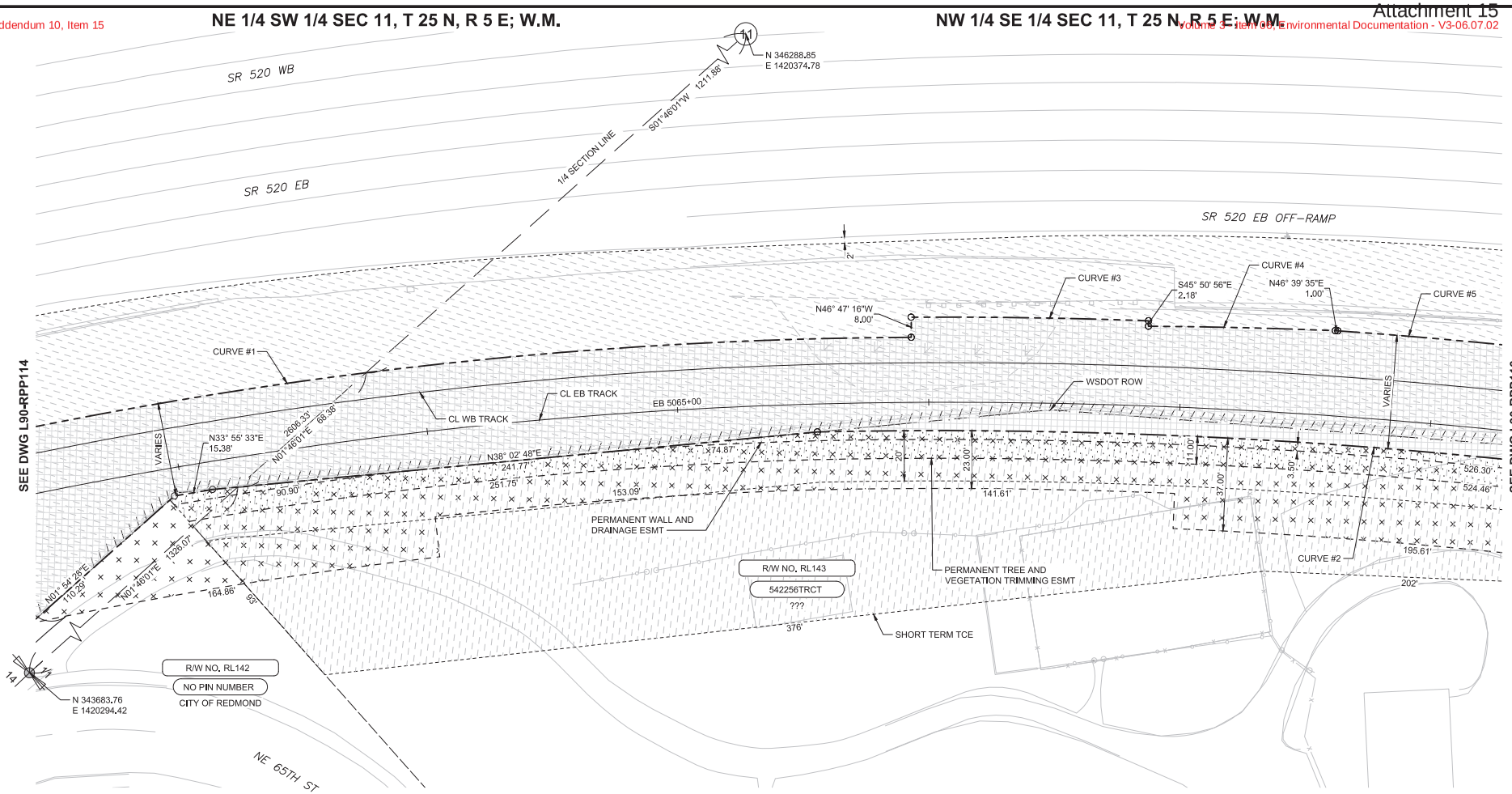
xRLE-L90-SWP100



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL142	NO PIN NUMBER	SEE DWG L90 - RPP114						
2	RL143	542256TRCT	-	134,963	1,591	132,702	s14,985 v4,827 w1,094	t34,942	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	020°36'29"	1810.72'	329.20'	651.28'
2	013°36'59"	2216.34'	264.61'	526.72'
3	002°25'43"	2228.38'	47.24'	94.46'
4	001°58'47"	2153.14'	37.20'	74.40'
5	005°50'00"	2224.03'	113.31'	226.43'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5063+00 TO EB STA 5068+00

DRAWING No.: L90-RPP115
LOCATION ID:
SHEET No.: 36
REV:

09/26/18 | 4:02 PM | TYLERJ
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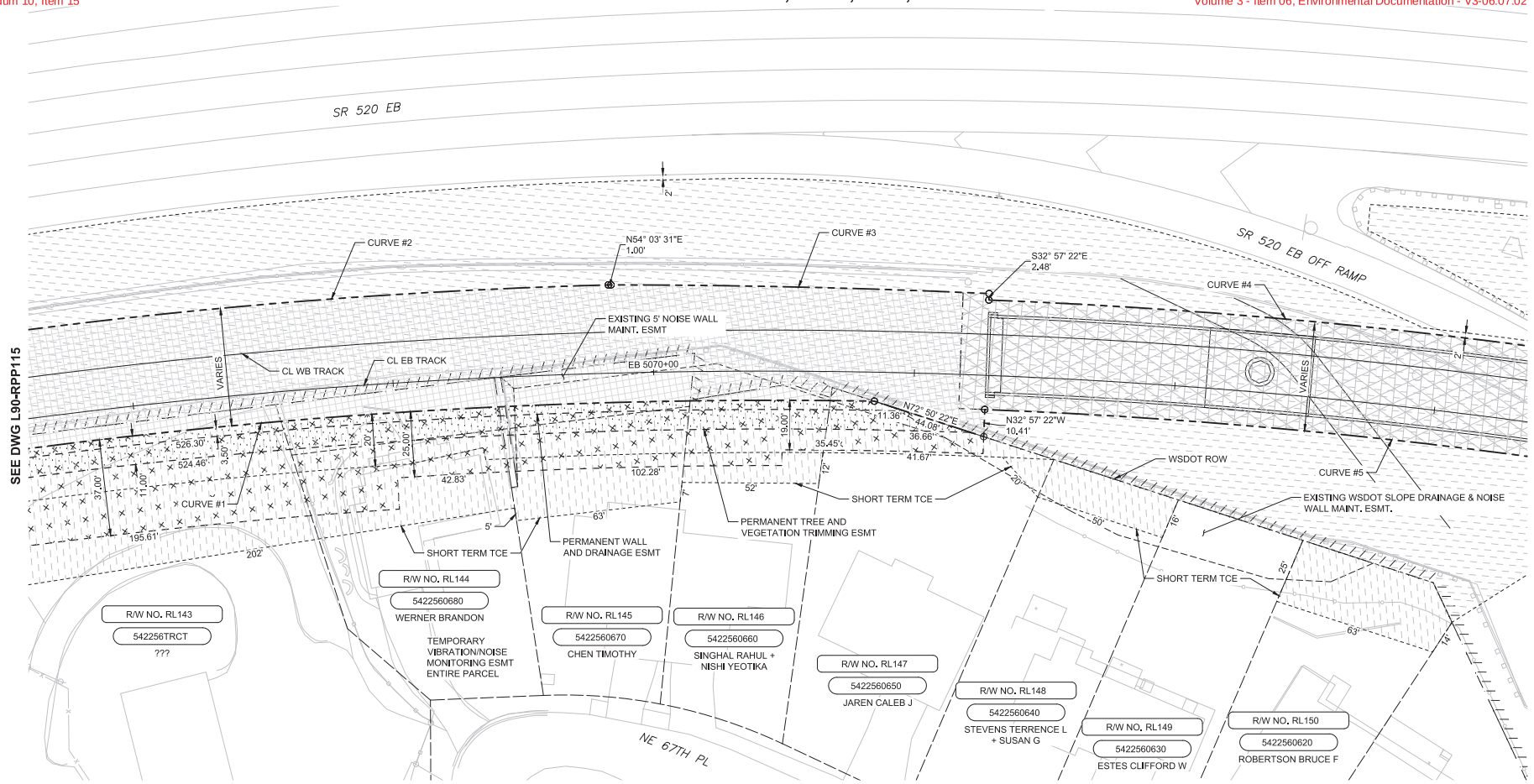
NW 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL143	542256TRCT	SEE DWG L90 - RPP115						
2	RL144	5422560680	WERNER BRANDON	8,711	730	7,981	s2,470 v912 w292	t3,443	
3	RL145	5422560670	CHEN TIMOTHY	7,659	1,062	6,597	s1,694 v765 w247	t2,747	
4	RL146	5422560660	SINGHAL RAHUL + NISHI YEOTIKA	6,487	181	6,306	s1,068 v589 w188	t1,682	
5	RL147	5422560650	JAREN CALEB J	9,837	42	9,795	s879 v396 w80	t1,188	
6	RL148	5422560640	STEVENS TERRENCE L + SUSAN G	7,312				t786	
7	RL149	5422560630	ESTES CLIFFORD W	7,628					
8	RL150	5422560620	ROBERTSON BRUCE F	8,357				t1,560	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	013°36'59"	2216.34'	264.61'	526.72'
2	005°50'00"	2224.03'	113.31'	226.43'
3	002°37'45"	3161.24'	72.55'	145.07'
4	028°55'56"	2232.05'	575.84'	1127.10'
5	028°56'30"	2189.54'	565.06'	1105.99'

PRELIMINARY ENGINEERING

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20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

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SCALE: 1" = 20'
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CONTRACT No.: CN 0148-18
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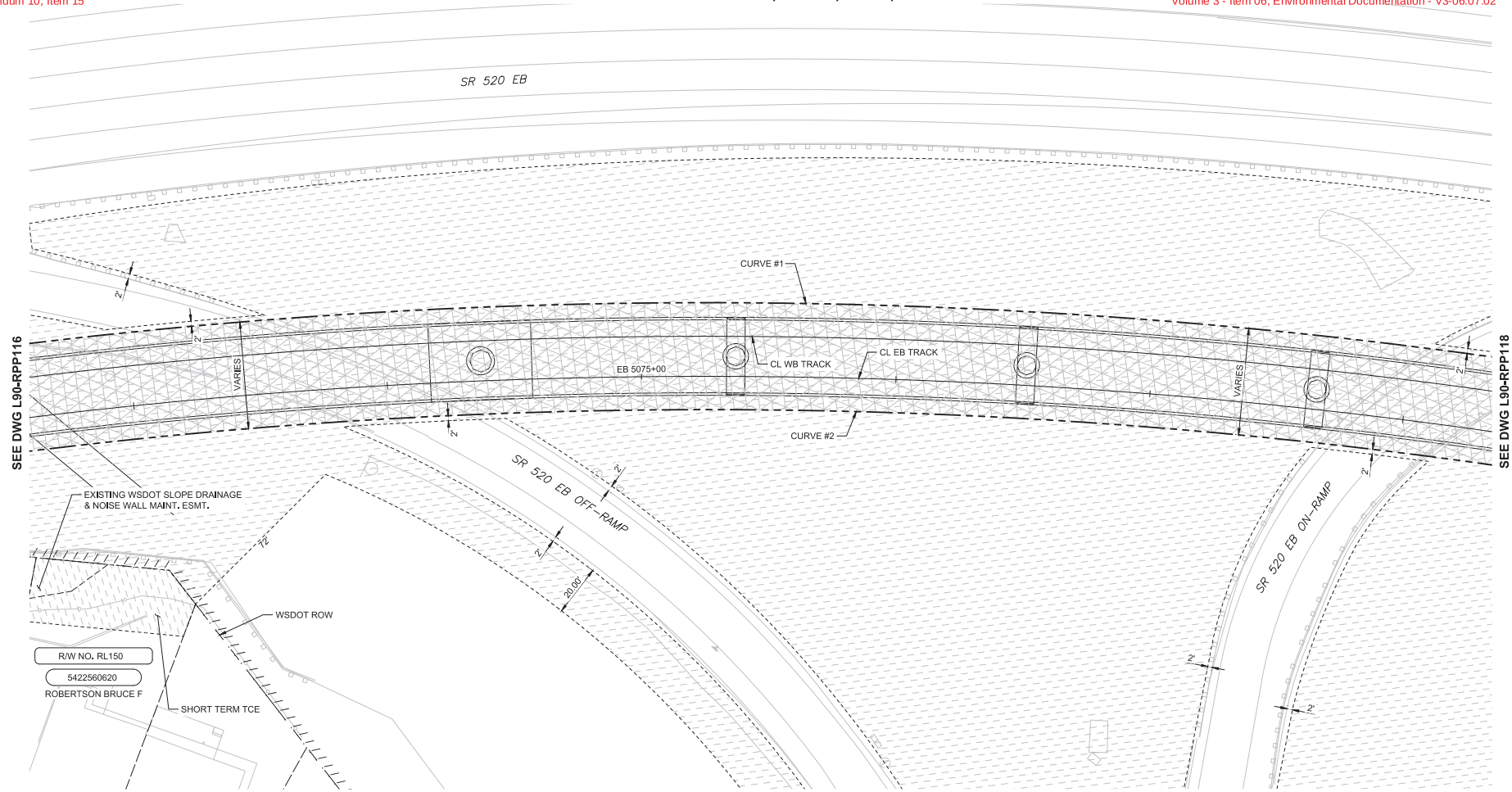
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5068+00 TO EB STA 5073+00

DRAWING No.: L90-RPP116
LOCATION ID:
SHEET No.: 37
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:03 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

NW 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.



SEE DWG L90-RPP141

SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL150	5422560620	SEE DWG L90 - RPP116						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	028°55'56"	2232.05'	575.84'	1127.10'
2	028°56'30"	2189.54'	565.06'	1105.99'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5073+00 TO EB STA 5078+00

DRAWING No.: L90-RPP117
LOCATION ID:
SHEET No.: 38
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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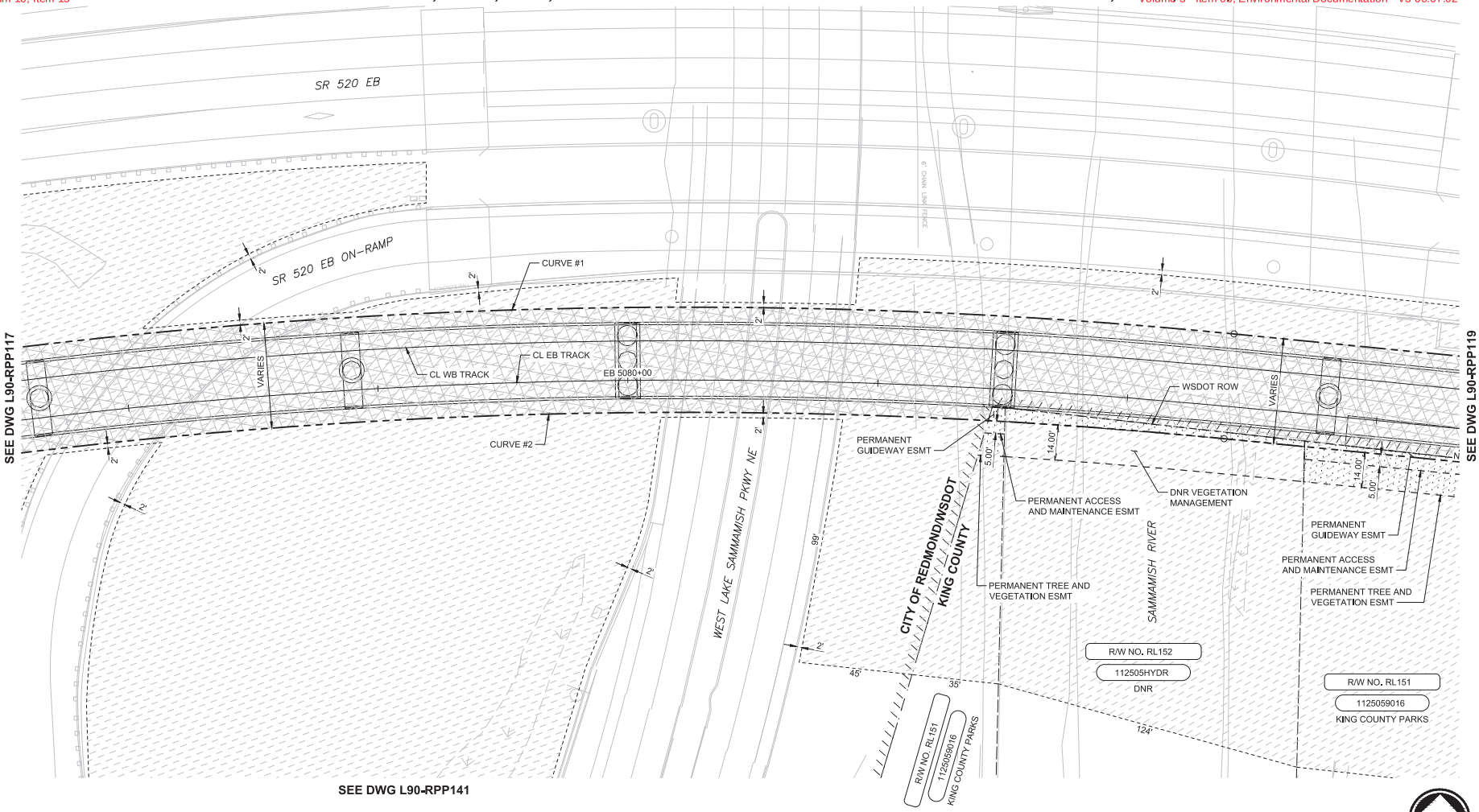
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100

NW 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.

NE 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL151	1125059016	SEE DWG L90 - RPP119						
2	RL152	112505HYDR	DNR				d413	t14,472	

RIGHT-OF-WAY CURVE DATA					
NO.	Δ	R	T	L	
1	028°55'56"	2232.05'	575.84'	1127.10'	
2	028°56'30"	2189.54'	565.06'	1105.99'	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5078+00 TO EB STA 5083+00

DRAWING No.: L90-RPP118
LOCATION ID:
SHEET No.: 39
REV:

10/24/18 | 8:55 AM | TYLERJ
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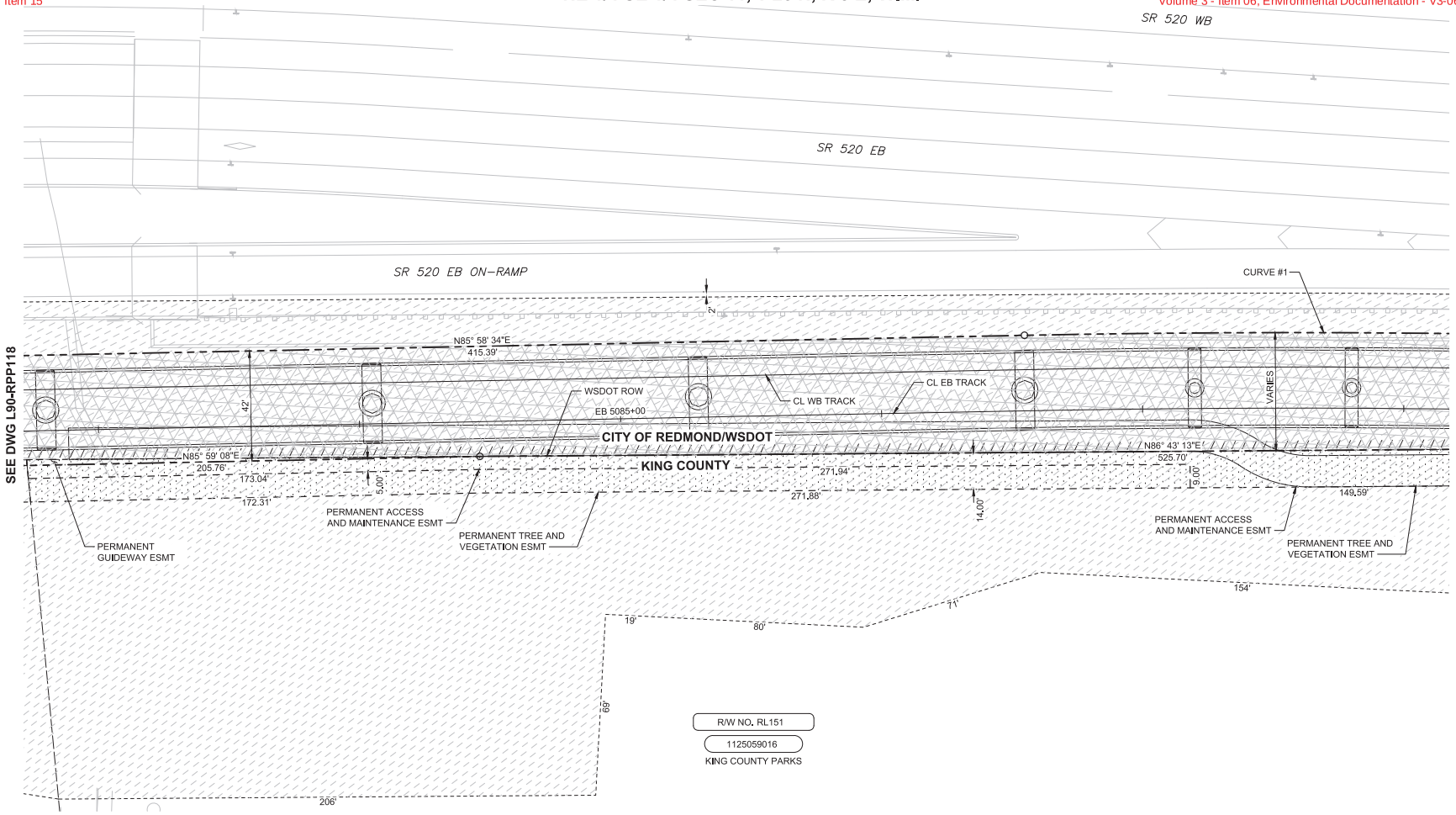
Addendum 10, Item 15

NE 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL151	1125059016	KING COUNTY PARKS	2,054,228	4,058	2,050,170	d332 v14,118 m7,520	t73,867	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	003°31'03"	5064.88'	155.52'	310.93'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

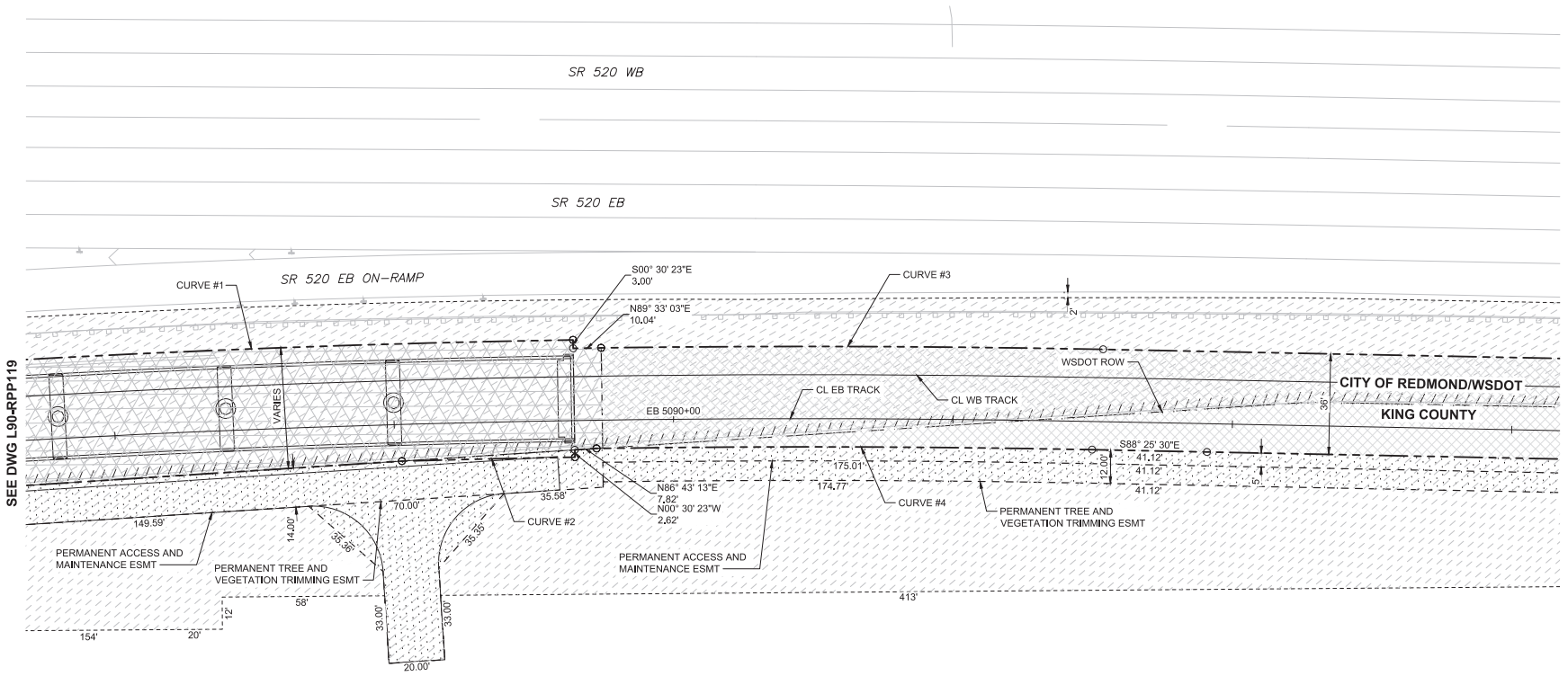
RIGHT-OF-WAY PLAN
EB STA 5083+00 TO EB STA 5088+00

DRAWING No.: L90-RPP119
LOCATION ID:
SHEET No.: 40
REV:

10/25/18 | 10:38 AM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGETALE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-APP100
xE360-RLE-L88-KAP10
xE360-RLE-E27-APP10

NE 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.



R/W NO. RL151

1125059016

KING COUNTY PARKS

SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL151	1125059016	SEE DWG L90 - RPP119						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	003°31'03"	5064.88'	155.52'	310.93'
2	000°42'42"	4986.80'	30.97'	61.94'
3	001°55'56"	5326.90'	89.83'	179.64'
4	001°59'30"	5101.56'	88.68'	177.33'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA

DRAWN BY: CRAWFORD/MCCABE

CHECKED BY: THOMAS/STUMPF

APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'

FILENAME: RLE-L90-RPP100TO159

CONTRACT No.: CN 0148-18

DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

RIGHT-OF-WAY PLAN

EB STA 5088+00 TO EB STA 5093+00

DRAWING No.: L90-RPP120

LOCATION ID:

SHEET No.: 41

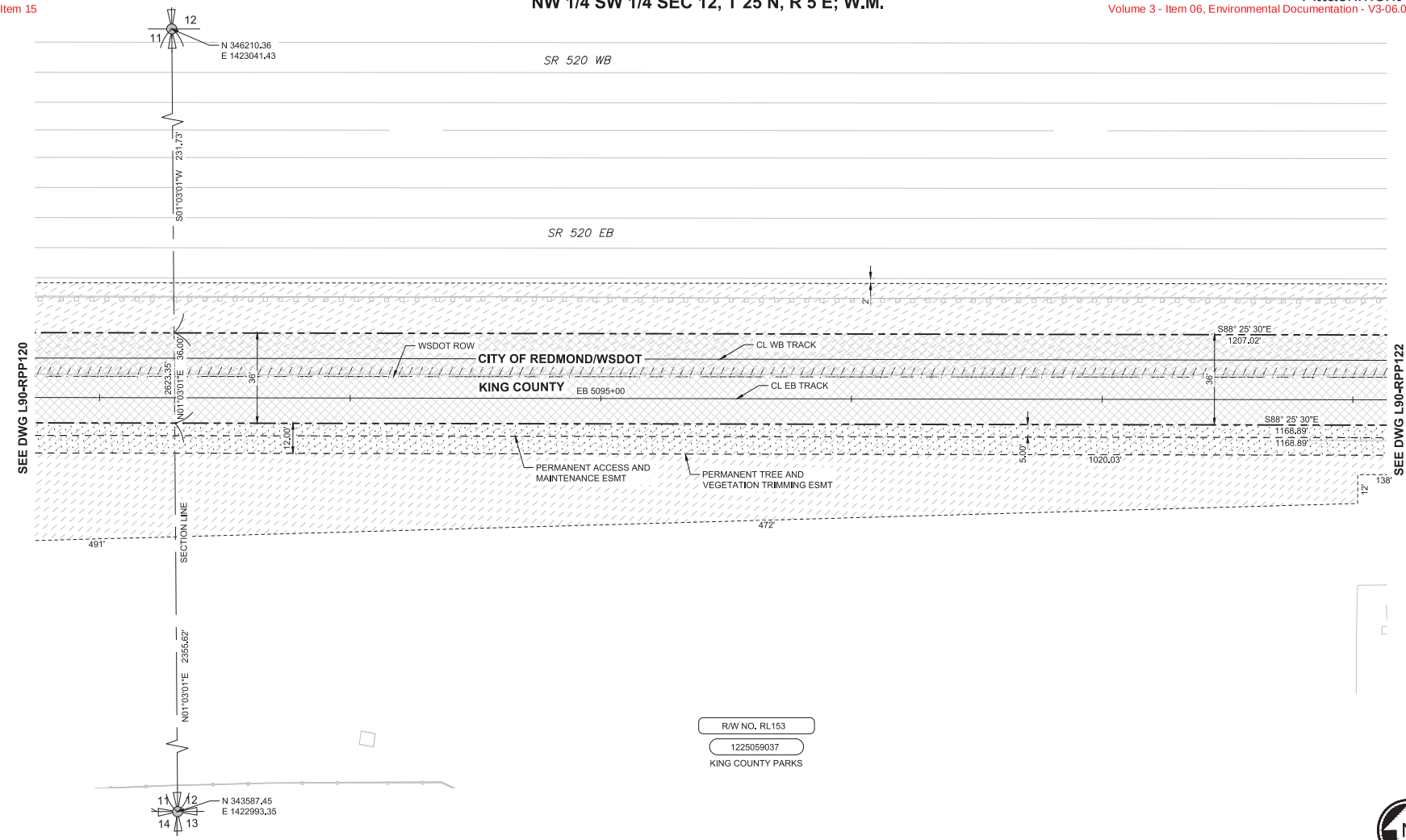
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:06 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\TTPS\SHAREPOINT SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

NW 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL153	1225059037	SEE DWG L90 - RPP122						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5093+00 TO EB STA 5098+00

DRAWING No.: L90-RPP121
LOCATION ID:
SHEET No.: 42
REV:

09/26/18 | 4:09 PM | TYLERJ
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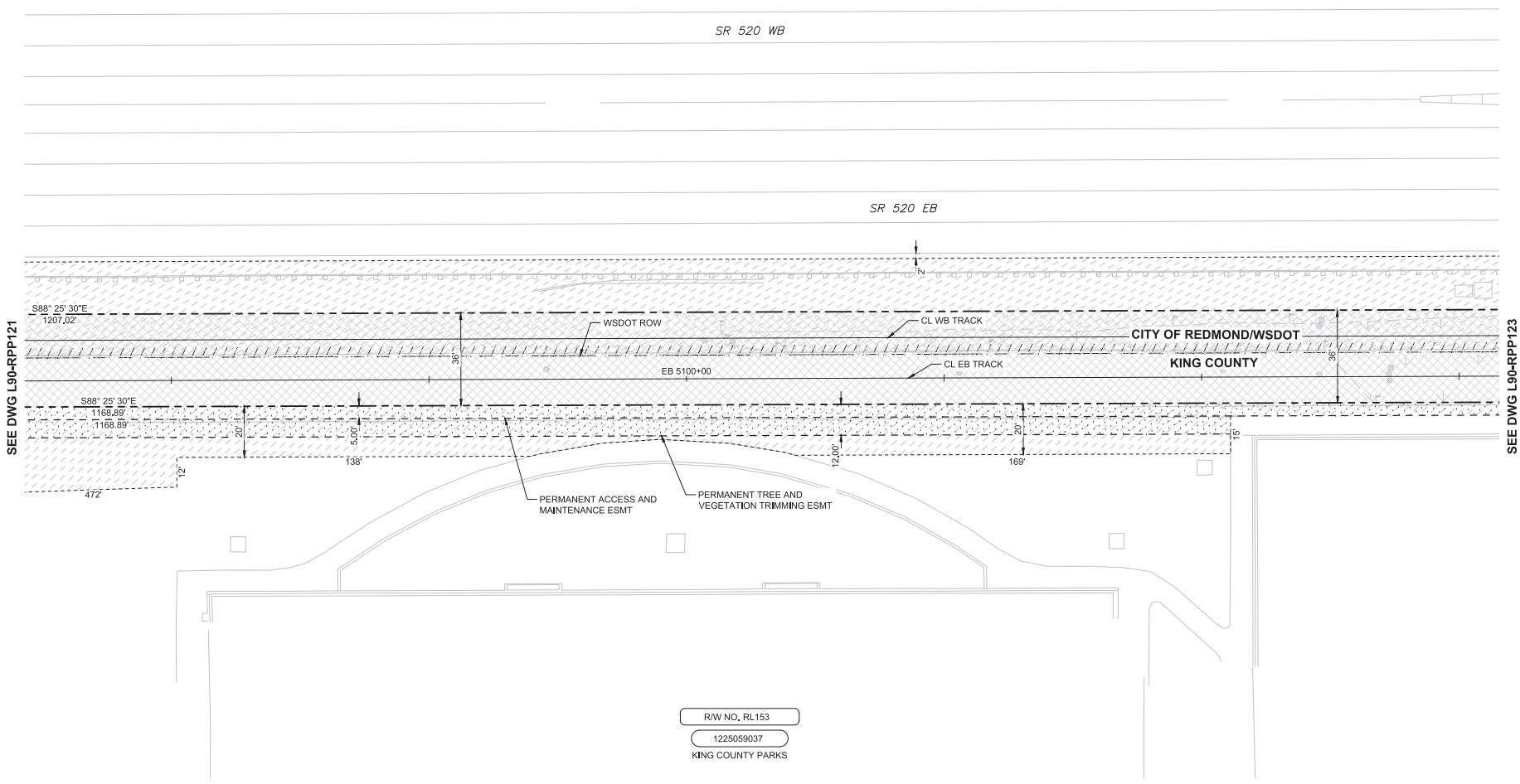
NW 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL153	1225059037	KING COUNTY PARKS	6,207,241	79,658	6,127,583	v29,994 m13,174	t61,248

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5098+00 TO EB STA 5103+00

DRAWING No.: L90-RPP122
LOCATION ID:
SHEET No.: 43
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:09 PM | TYLERJ
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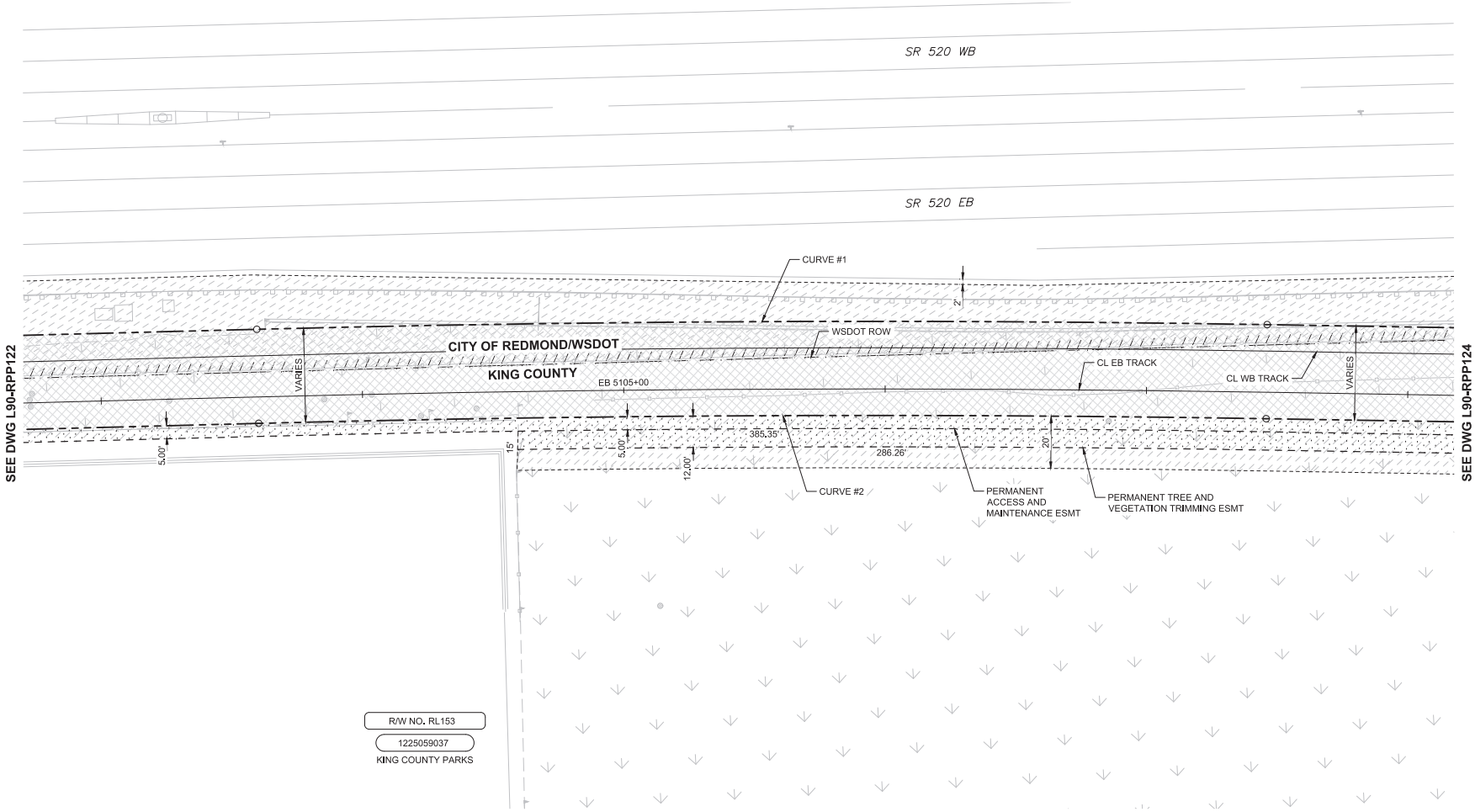
NW 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.

NE 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL153	1225059037	SEE DWG L90 - RPP122						

RIGHT-OF-WAY CURVE DATA

NO.	Δ	R	T	L
1	002°25'39"	9125.00'	193.34'	386.62'
2	002°25'39"	9100.00'	192.81'	385.56'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

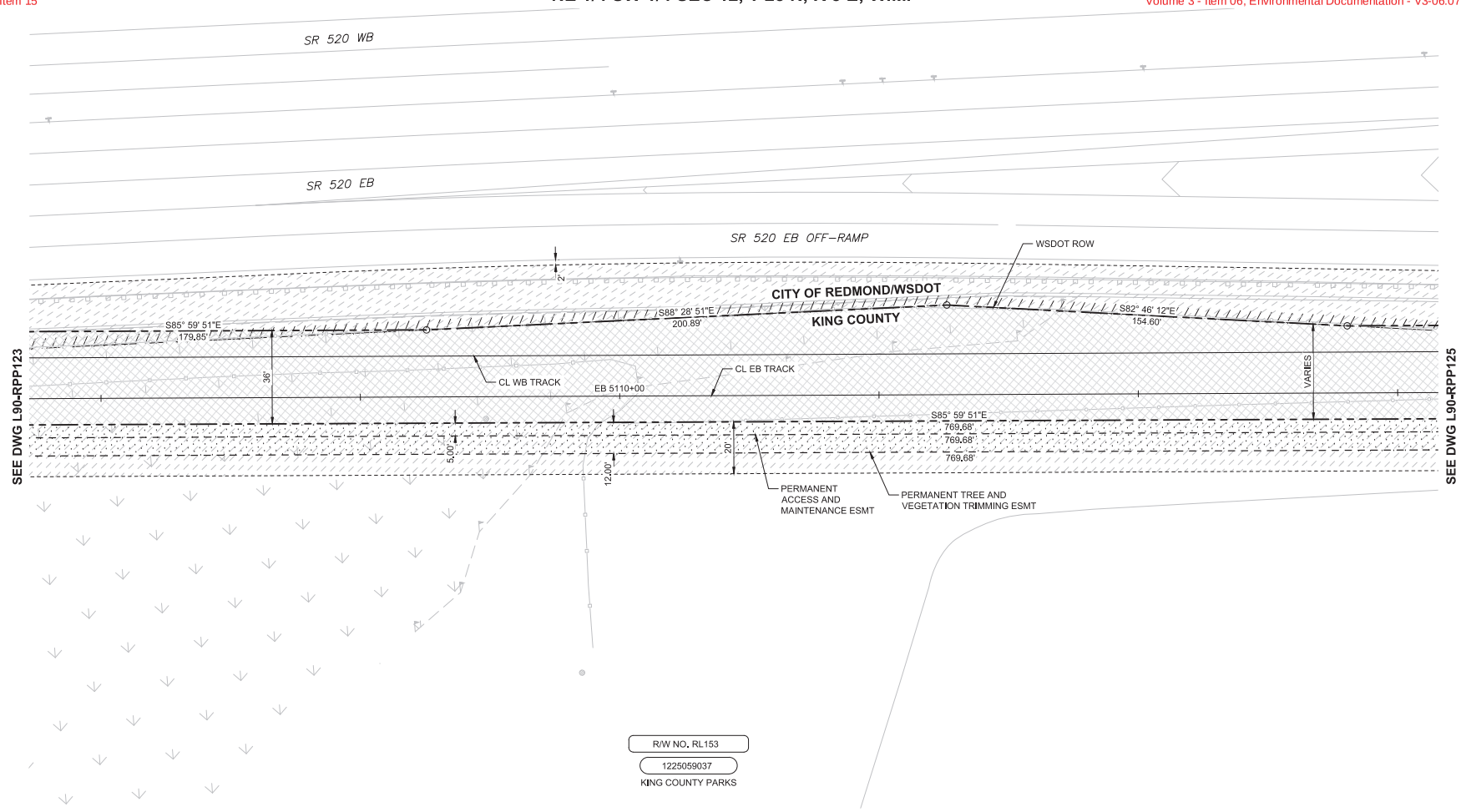
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5103+00 TO EB STA 5108+00

DRAWING No.: L90-RPP123
LOCATION ID:
SHEET No.: 44
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:10 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

NE 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL153	1225059037	SEE DWG L90 - RPP122						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
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CHECKED BY: THOMAS/STUMPF
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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5108+00 TO EB STA 5113+00

DRAWING No.: L90-RPP124
LOCATION ID:
SHEET No.: 45
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-AHP100
xRLE-L90-SWP100

09/26/18 | 4:11 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FSOUNDTRANSIT.ORG%443%SITES%2FCAD%REDMOND LINK EXTENSION%PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

NE 1/4 SW 1/4 SEC 12, T 25 N, R 5 E; W.M.

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
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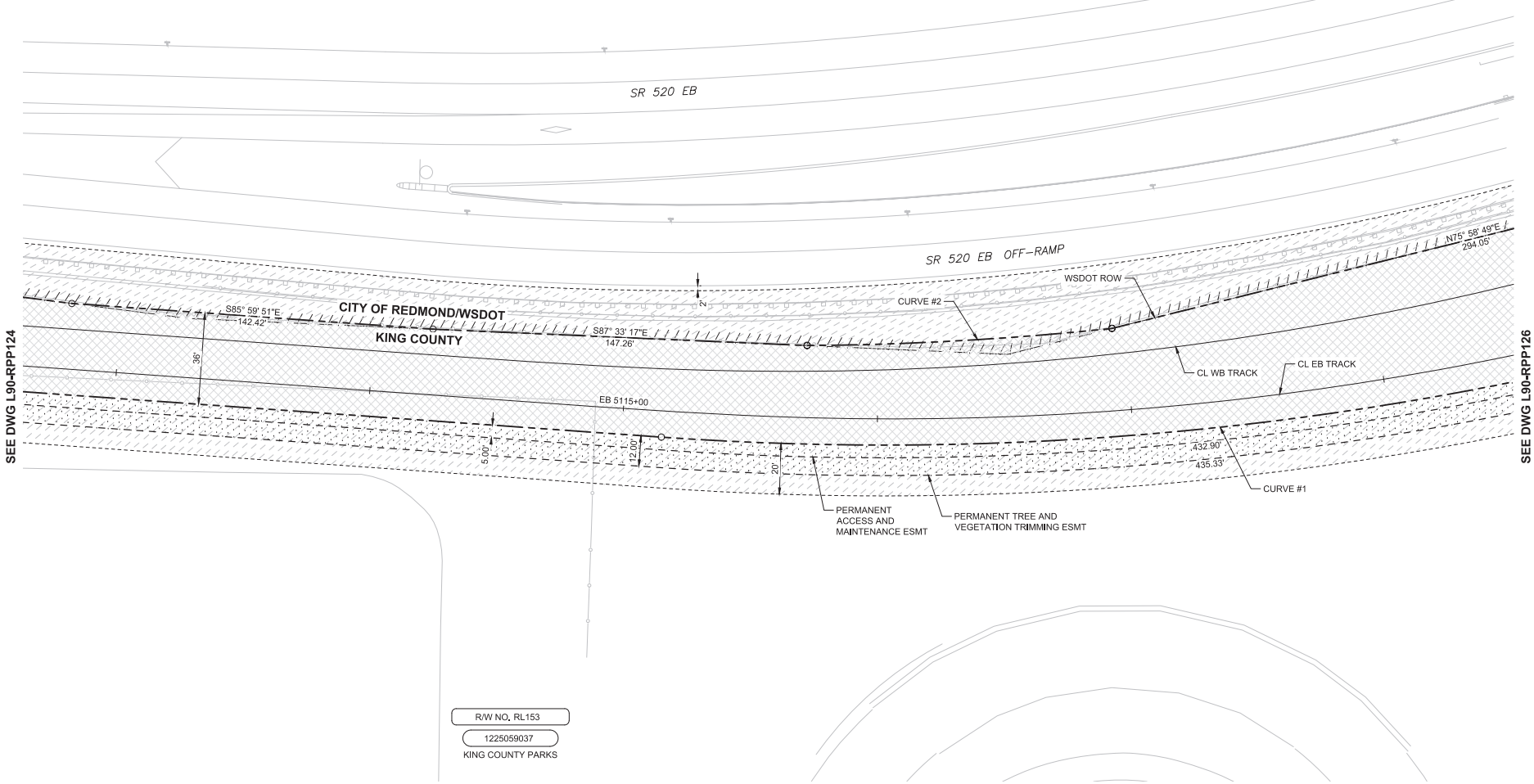
xRLE-L90-SWP100



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL153	1225059037	SEE DWG L90 - RPP122						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	019°55'20"	1240.00'	217.78'	431.16'
2	005°37'44"	1223.05'	60.13'	120.15'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

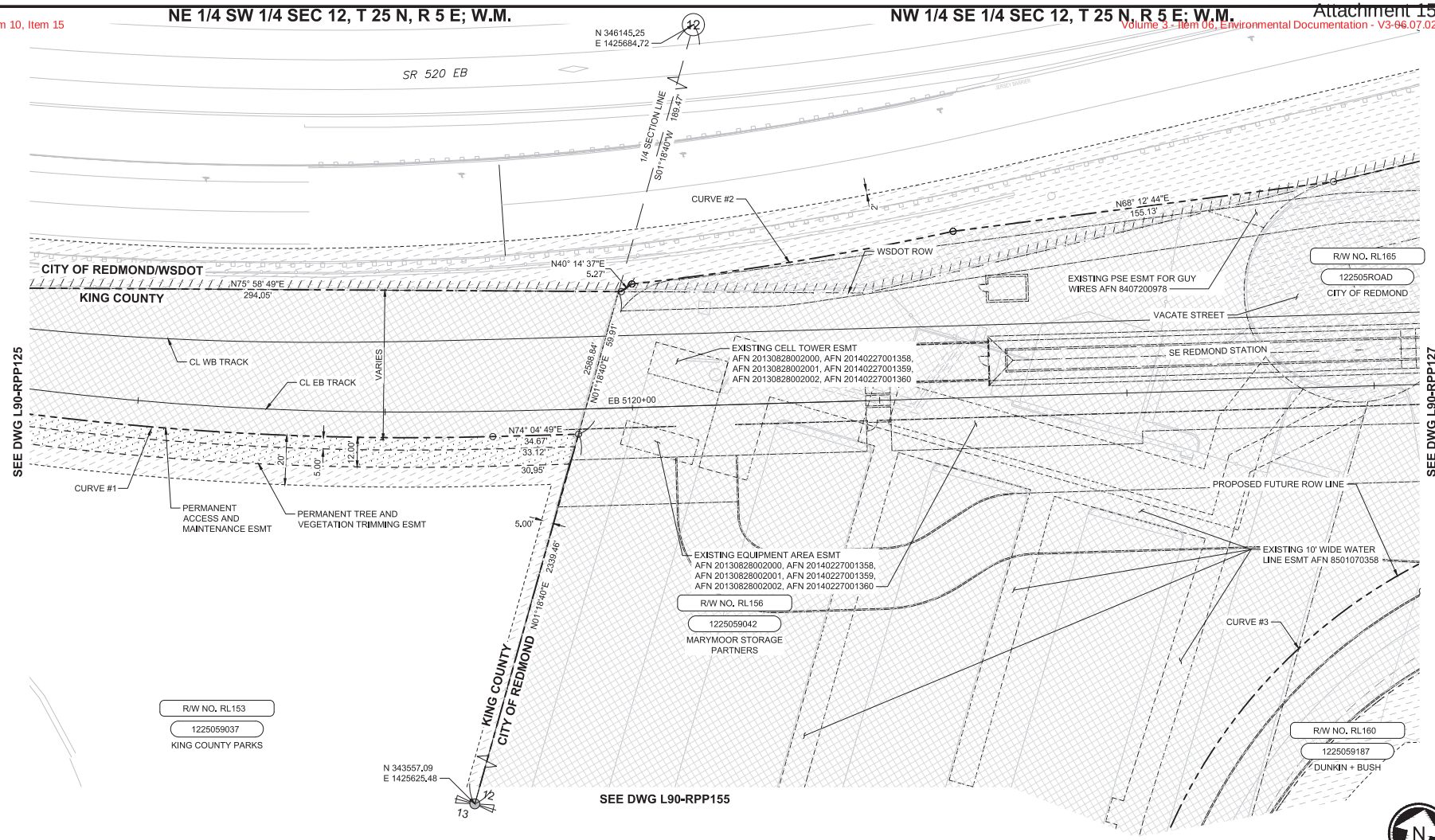
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5113+00 TO EB STA 5118+00

DRAWING No.: L90-RPP125
LOCATION ID:
SHEET No.: 46
REV:

09/26/18 | 4:12 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FSOUNDTRANSIT.ORG%443%SITES%2FCAD%REDMOND LINK EXTENSION%PE\DRAWINGS\RLE-L90-RPP100TO159.DWG



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL153	1225059037	SEE DWG L90 - RPP122						
2	RL156	1225059042	MARYMOOR STORAGE PARTNERS	109,711	109,711	0			
3	RL160	1225059187	SEE DWG L90 - RPP127						
4	RL165	122505ROAD	SEE DWG L90 - RPP127						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	019°55'20"	1240.00'	217.78'	431.16'
2	005°45'21"	1309.98'	65.86'	131.60'
3	071°43'26"	221.50'	160.11'	277.28'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5118+00 TO EB STA 5123+00

DRAWING No.: L90-RPP126
LOCATION ID:
SHEET No.: 47
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XAP100
xRLE-L90-SWP100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
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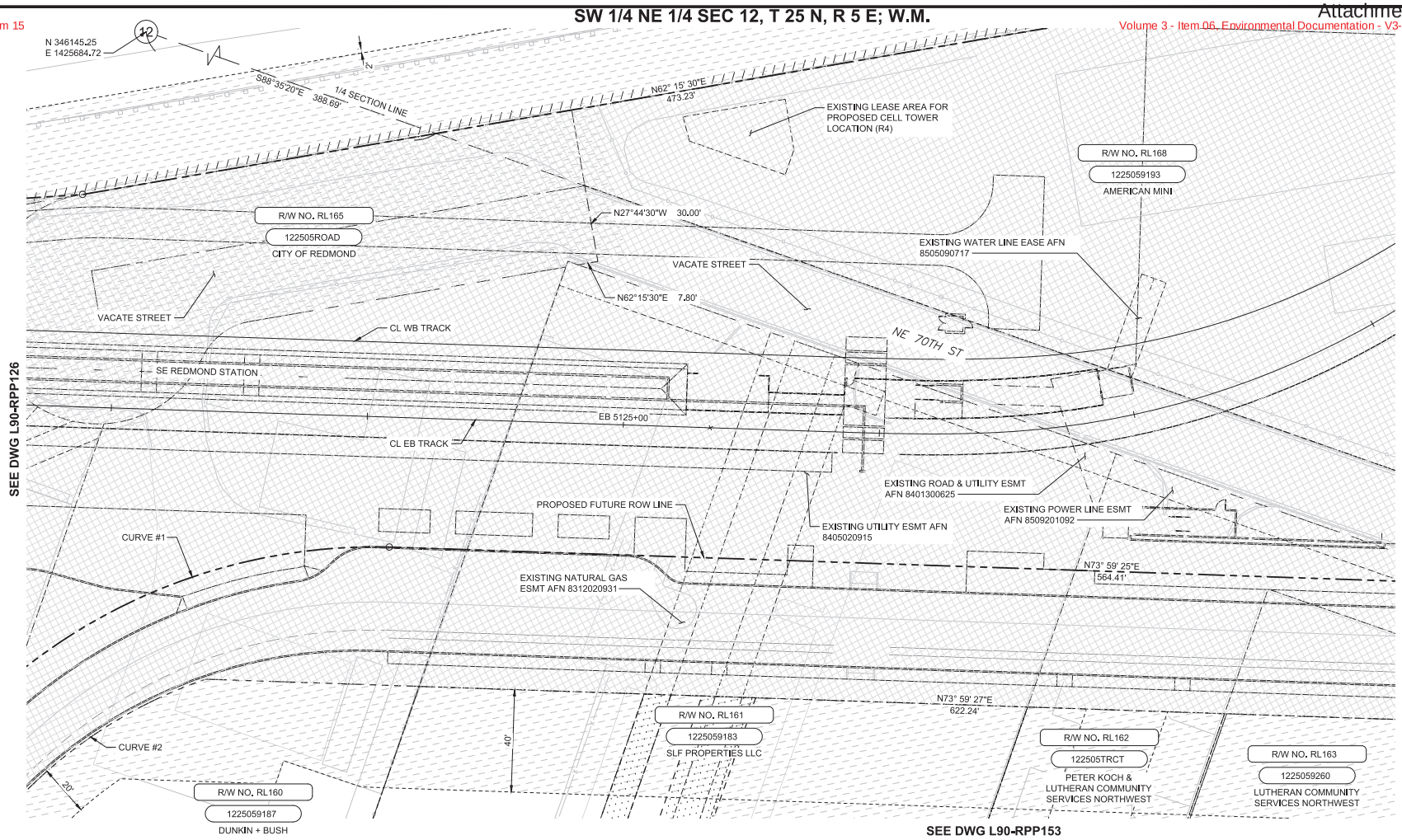


SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL160	1225059187	DUNKIN + BUSH	61,031	24,733	36,298		t9,771	
2	RL161	1225059183	SLF PROPERTIES LLC	108,484	31,834	76,650		t25,951	
3	RL162	122505TRCT	PETER KOCH & LUTHERAN COMM SVCS NW	67,168	12,564	54,604		t21,260	
4	RL163	1225059260	SEE DWG L90 - RPP128						
5	RL165	122505ROAD	CITY OF REDMOND	-	28,584	-			
6	RL168	1225059193	SEE DWG L90 - RPP128						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	071°43'26"	221.50'	160.11'	277.28'
2	051°24'40"	183.36'	88.26'	164.52'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5123+00 TO EB STA 5127+50

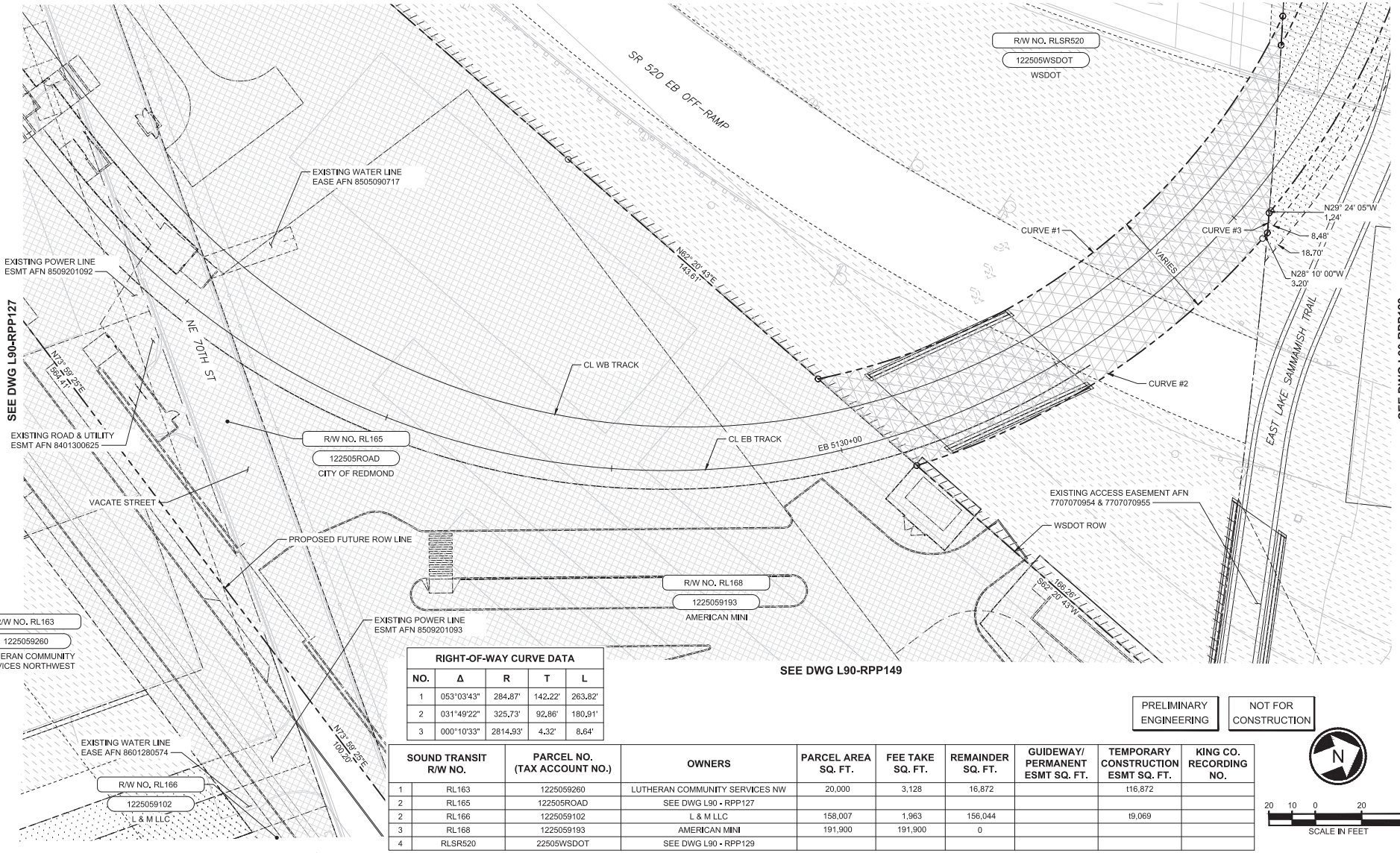
DRAWING No.: L90-RPP127
LOCATION ID:
SHEET No.: 48
REV:

09/26/18 | 4:14 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MSX
xRLE-L90-SEP100
xRLE-L90-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-AHP100
xRLE-L90-SWP100

SEE DWG L90-RPP158

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



RIGHT-OF-WAY CURVE DATA

NO.	Δ	R	T	L
1	053°03'43"	284.87'	142.22'	263.82'
2	031°49'22"	325.73'	92.86'	180.91'
3	000°10'33"	2814.93'	4.32'	8.64'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL163	1225059260	LUTHERAN COMMUNITY SERVICES NW	20,000	3,128	16,872		t16,872	
2	RL165	122505ROAD	SEE DWG L90 - RPP127						
2	RL166	1225059102	L & M LLC	158,007	1,963	156,044		t9,069	
3	RL168	1225059193	AMERICAN MINI	191,900	191,900	0			
4	RLSR520	22505WSDOT	SEE DWG L90 - RPP129						

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5127+50 TO EB STA 5131+00

DRAWING No.: L90-RPP128
LOCATION ID:
SHEET No.: 49
REV:

09/26/18 | 4:15 PM | TYLERJ
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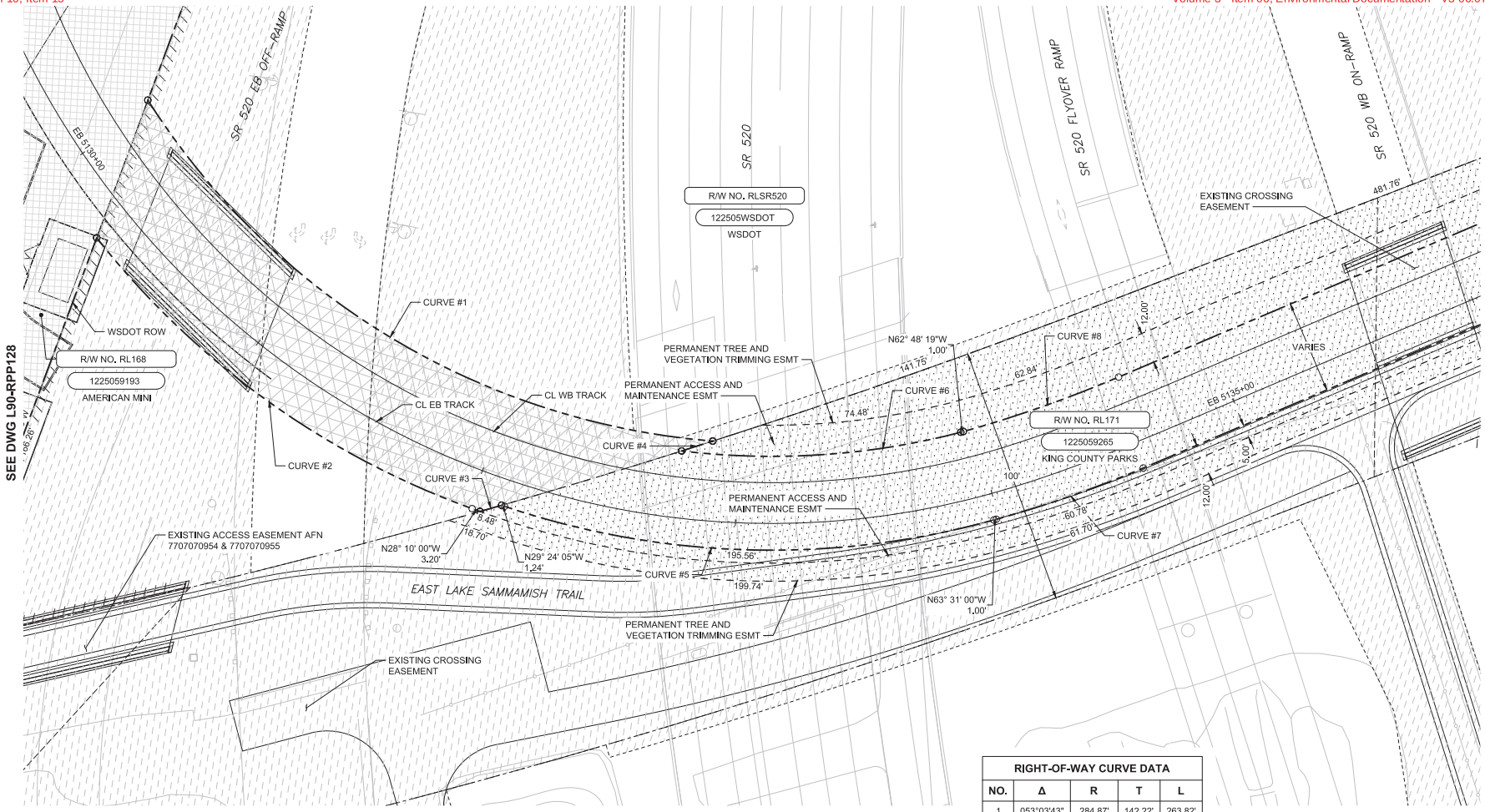
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-E25-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-KAP100
xRLE-L90-SWP100

SEE DWG L90-RPP158

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP159



RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	053°03'43"	284.87'	142.22'	263.82'
2	031°49'22"	325.73'	92.86'	180.91'
3	000°10'33"	2814.93'	4.32'	8.64'
4	000°15'35"	2775.70'	6.29'	12.59'
5	034°06'55"	321.75'	98.72'	191.58'
6	021°27'17"	289.86'	54.91'	108.54'
7	007°35'14"	454.07'	30.11'	60.13'
8	007°23'43"	492.17'	31.81'	63.53'

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL168	1225059193	SEE DWG L90 - RPP128						
2	RL171	1225059265	SEE DWG L90 - RPP130						
3	RLSR520	22505WSDOT	WSDOT	-			SEE ASL+TCAL	AGREEMENTS	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5131+00 TO EB STA 5135+50

DRAWING No.: L90-RPP129
LOCATION ID:
SHEET No.: 50
REV:

09/26/18 | 4:16 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GE-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
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xE360-RLE-E27-APP10

11/08/18 | 4:01 PM | TYLERJ
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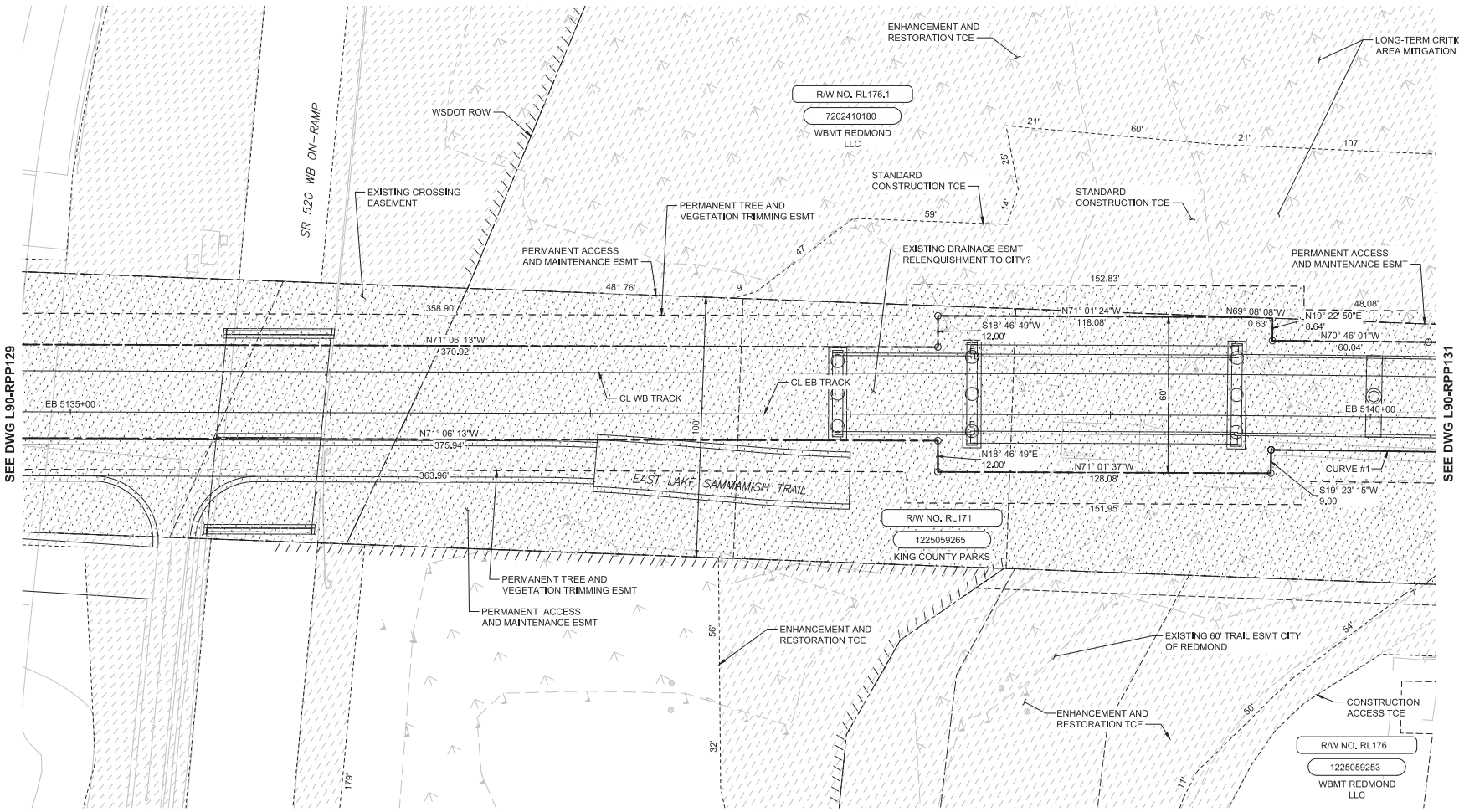
SE 1/4 NW 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP159



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL171	1225059265	KING COUNTY PARKS	346,840			d34,255 v18,582 m67,710 r15,395	t186,676	
2	RL176	1225059253	SEE DWG L90 - RPP131						
3	RL176.1	7202410180	WBMT REDMOND LLC	535,949			v2,090	t199,237	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	000°46'04"	9986.85'	66.92'	133.83'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5135+50 TO EB STA 5140+00

DRAWING No.: L90-RPP130
LOCATION ID:
SHEET No.: 51
REV:

Xrefs:
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xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-CRP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
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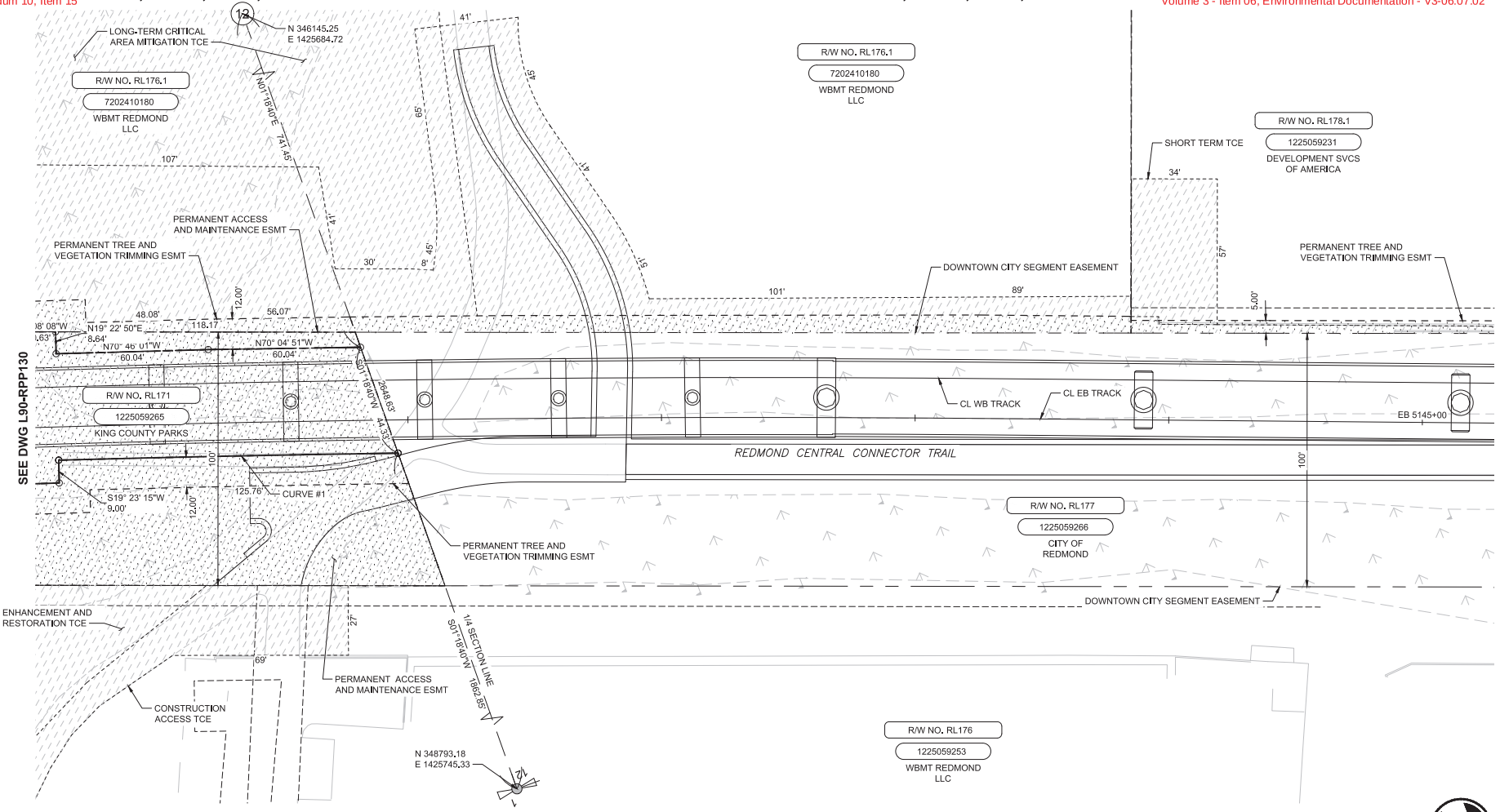
xE360-RLE-L88-XAP10
xE360-RLE-E27-APP10



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL171	1225059265	SEE DWG L90 - RPP130						
2	RL176	1225059253	WBMT REDMOND LLC	155,957				t36,107	
3	RL176.1	7202410180	SEE DWG L90 - RPP130						
4	RL177	1225059266	CITY OF REDMOND	75,586					
5	RL178.1	1225059231	DEVELOPMENT SVCS OF AMERICA	71,490				t7,671	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	000°46'04"	9986.85'	66.92'	133.83'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

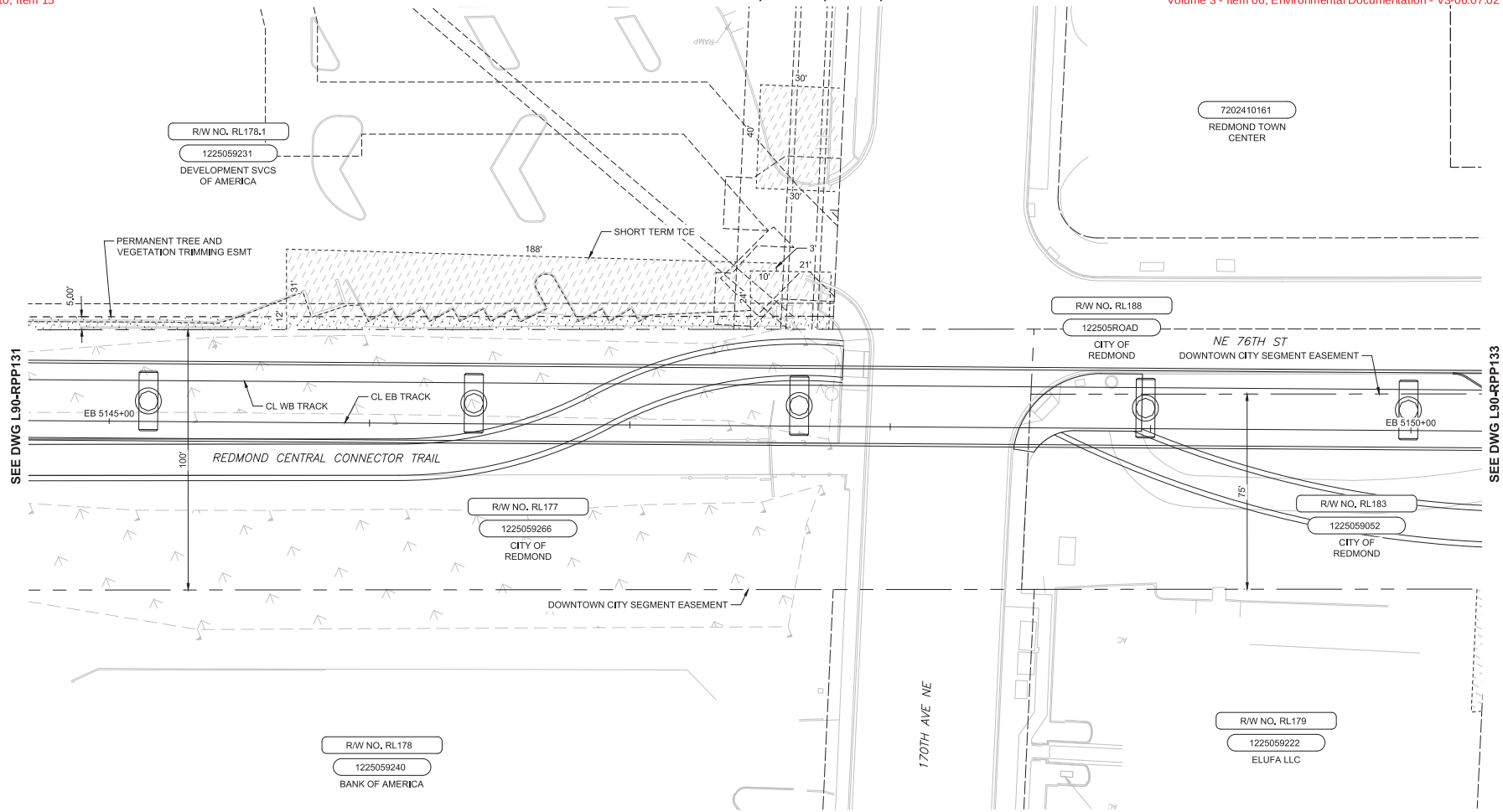
SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: L90-RPP131
LOCATION ID:
SHEET No.: 52
REV:

11/08/18 | 4:02 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SE 1/4 NW 1/4 SEC 12, T 25 N, R 5 E; W.M.



	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL177	1225059266	SEE DWG L90 - RPP131						
2	RL178	1225059240	BANK OF AMERICA	86,606					
3	RL178.1	1225059231	SEE DWG L90 - RPP131						
4	RL179	1225059222	ELUFA LLC	23,408					
5	RL183	1225059052	CITY OF REDMOND	189,967					
6	RL188	122505ROAD	SEE DWG L90 - RPP134						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5145+00 TO EB STA 5150+00

DRAWING No.: L90-RPP132
LOCATION ID:
SHEET No.: 53
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GB-YSF
xRLE-L90-ORP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100

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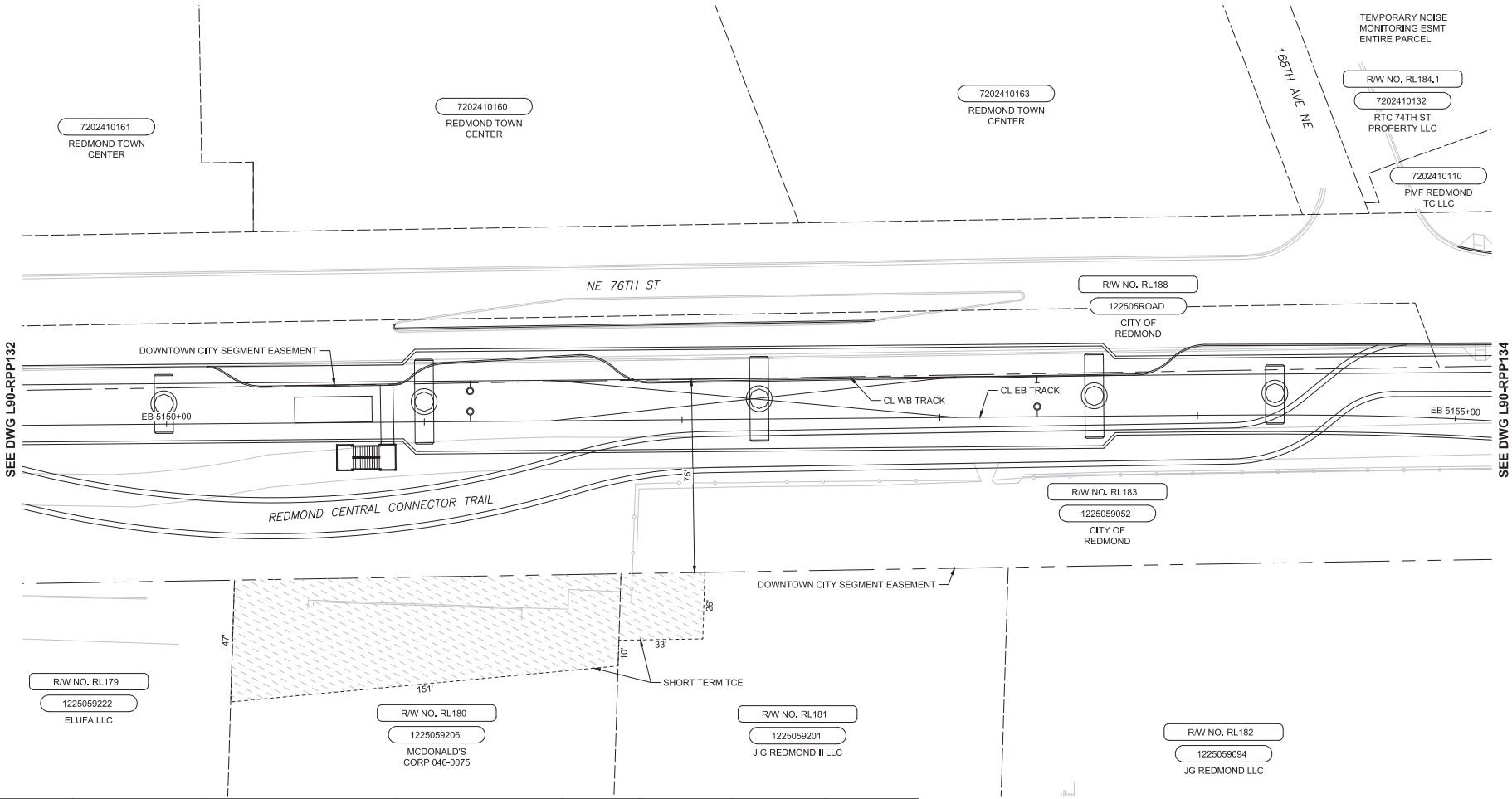
SE 1/4 NW 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL179	1225059222	SEE DWG L90 - RPP132						
2	RL180	1225059206	MCDONALDS CORP 046-0075	41,648				t6,221	
3	RL181	1225059201	J G REDMOND II LLC	31,986				t840	
4	RL182	1225059094	J G REDMOND LLC	99,321					
5	RL183	1225059052	SEE DWG L90 - RPP132						
6	RL184.1	7202410132	RTC 74TH ST PROPERTY LLC	94,735					
7	RL188	122505ROAD	SEE DWG L90 - RPP134						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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REVIEWED BY:
DATE:

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5150+00 TO EB STA 5155+00

DRAWING No.: L90-RPP133
LOCATION ID:
SHEET No.: 54
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100
09/26/18 | 4:20 PM | TYLERJ
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SW 1/4 NW 1/4 SEC 12, T 25 N, R 5 E; W.M.

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
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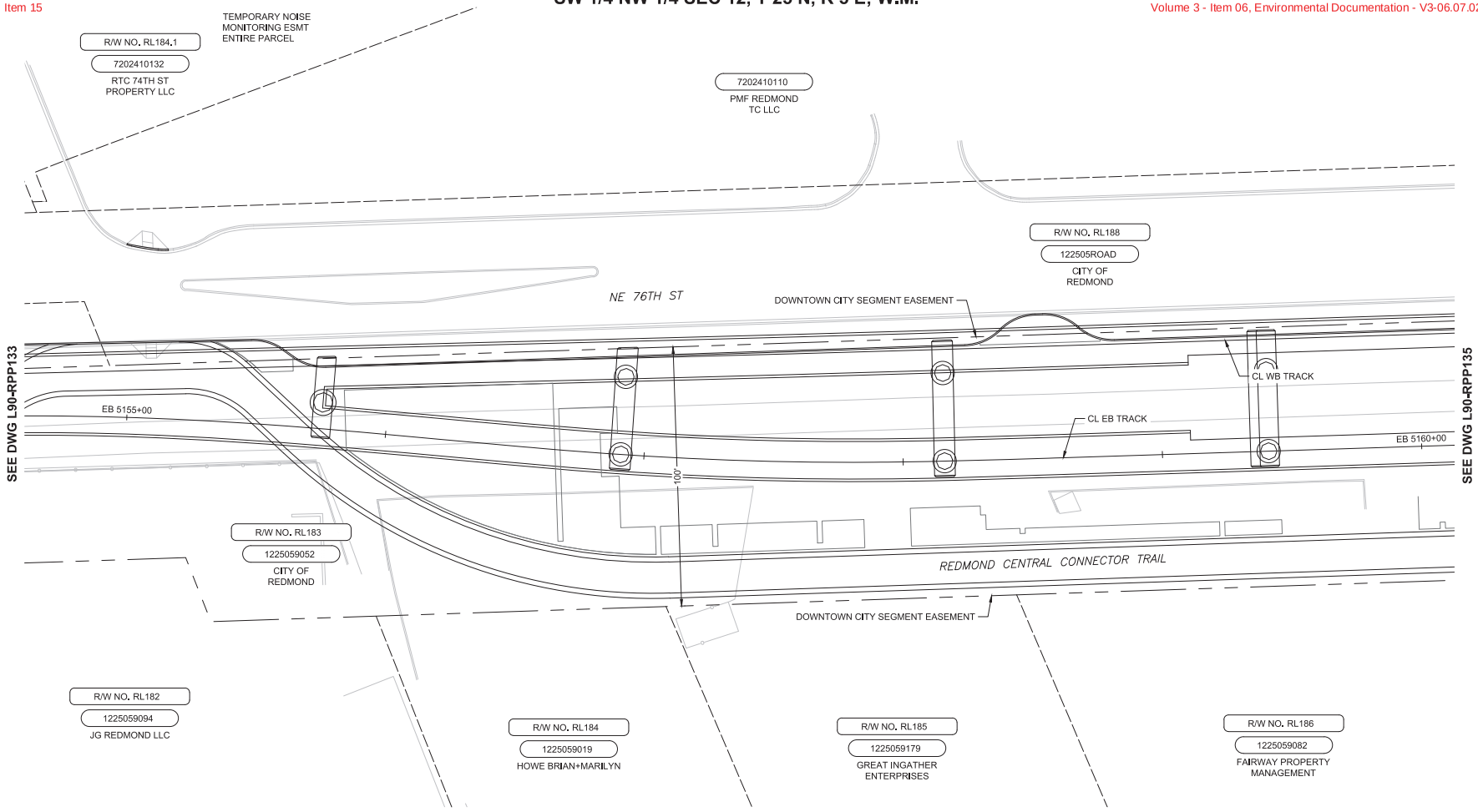

	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL182	1225059094	SEE DWG L90 - RPP133						
2	RL183	1225059052	SEE DWG L90 - RPP132						
3	RL184	1225059019	HOWE BRIAN + MARILYN	25,908					
4	RL184.1	7202410132	SEE DWG L90 - RPP133						
5	RL185	1225059179	GREAT INGATHER ENTERPRISES	24,523					
6	RL186	1225059082	SEE DWG L90 - RPP135						
7	RL188	122505ROAD	CITY OF REDMOND	-					

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
EB STA 5155+00 TO EB STA 5160+00

DRAWING No.: L90-RPP134
LOCATION ID:
SHEET No.: 55
REV:

09/26/18 | 4:21 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
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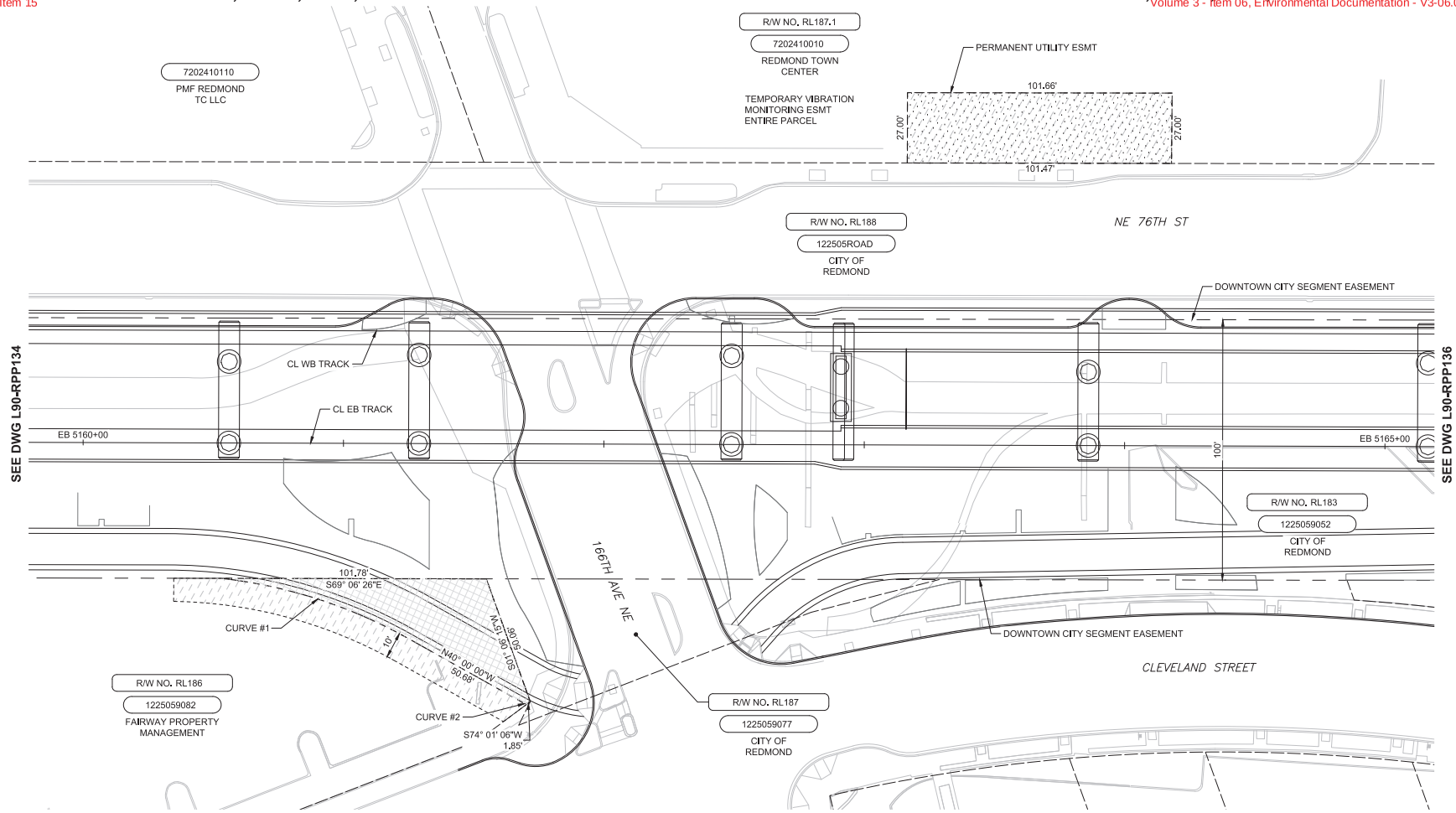

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL183	1225059052	SEE DWG L90 - RPP132						
2	RL186	1225059082	FAIRWAY PROPERTY MANAGEMENT	32,992	1,922	31,070		t1,401	
3	RL187	1225059077	CITY OF REDMOND	4,346					
4	RL187,1	7202410010	REDMOND TOWN CENTER	338,346				t4,325	
5	RL188	122505ROAD	SEE DWG L90 - RPP134						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	022°50'12"	190.00'	38.37'	75.73'
2	001°24'48"	60.00'	0.74'	1.48'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5160+00 TO EB STA 5165+00

DRAWING No.: L90-RPP135
LOCATION ID:
SHEET No.: 56
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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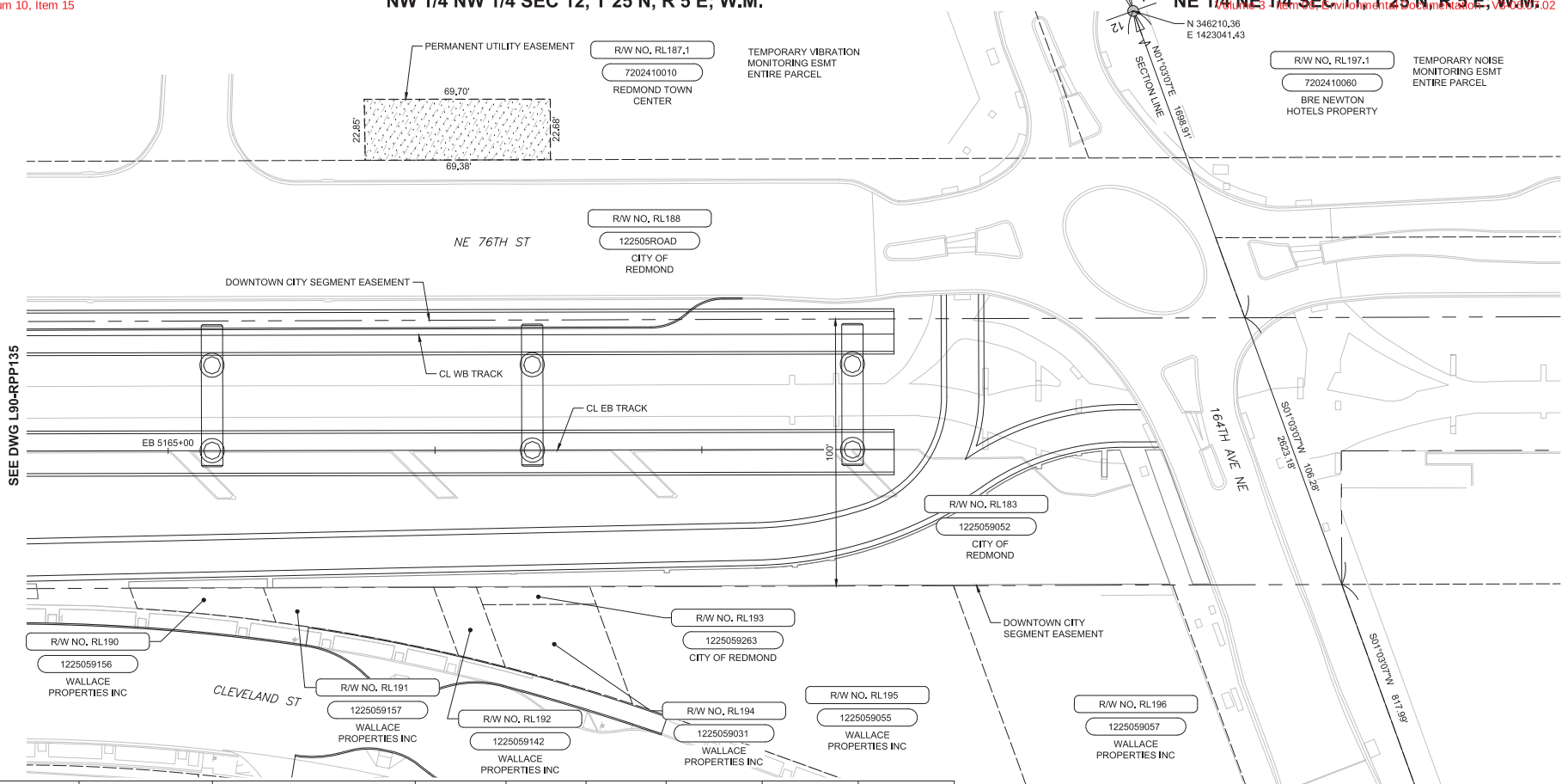
NW 1/4 NW 1/4 SEC 12, T 25 N, R 5 E; W.M.

NE 1/4 NE 1/4 SEC 11, T 25 N, R 5 E; W.M.



	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL183	1225059052	SEE DWG L90 - RPP132						
2	RL187.1	7202410010	SEE DWG L90 - RPP135						
3	RL188	122505ROAD	SEE DWG L90 - RPP134						
4	RL190	1225059156	WALLACE PROPERTIES INC	8,818					
5	RL191	1225059157	WALLACE PROPERTIES INC	9,887					
6	RL192	1225059142	WALLACE PROPERTIES INC	6,082					
7	RL193	1225059263	CITY OF REDMOND	278					
8	RL194	1225059031	WALLACE PROPERTIES INC	3,097					
9	RL195	1225059055	WALLACE PROPERTIES INC	10,265					
10	RL196	1225059057	WALLACE PROPERTIES INC	8,589					
11	RL197.1	7202410060	BRE NEWTON HOTELS PROPERTY	122,958					

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

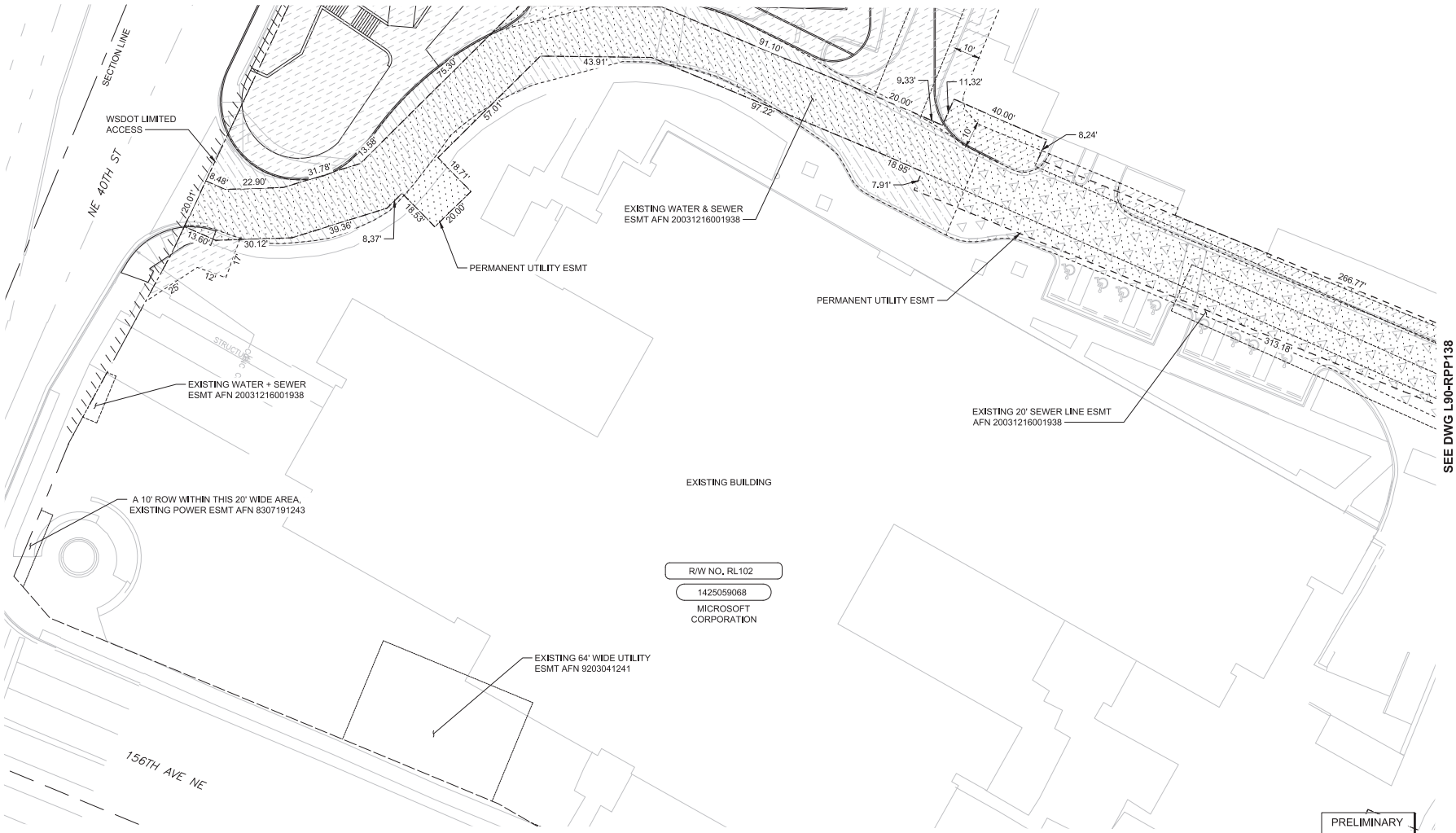
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
EB STA 5165+00 TO EB STA 5167+72

DRAWING No.: L90-RPP136
LOCATION ID:
SHEET No.: 57
REV:

SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XRP100
xRLE-L90-SWP100

SEE DWG L90-RPP101



SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL102	1425059068	SEE DWG L90 - RPP101						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

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SCALE IN FEET

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
MICROSOFT BLDG 50

DRAWING No.: L90-RPP137
LOCATION ID:
SHEET No.: 58
REV:

09/26/18 | 4:25 PM | TYLERJ
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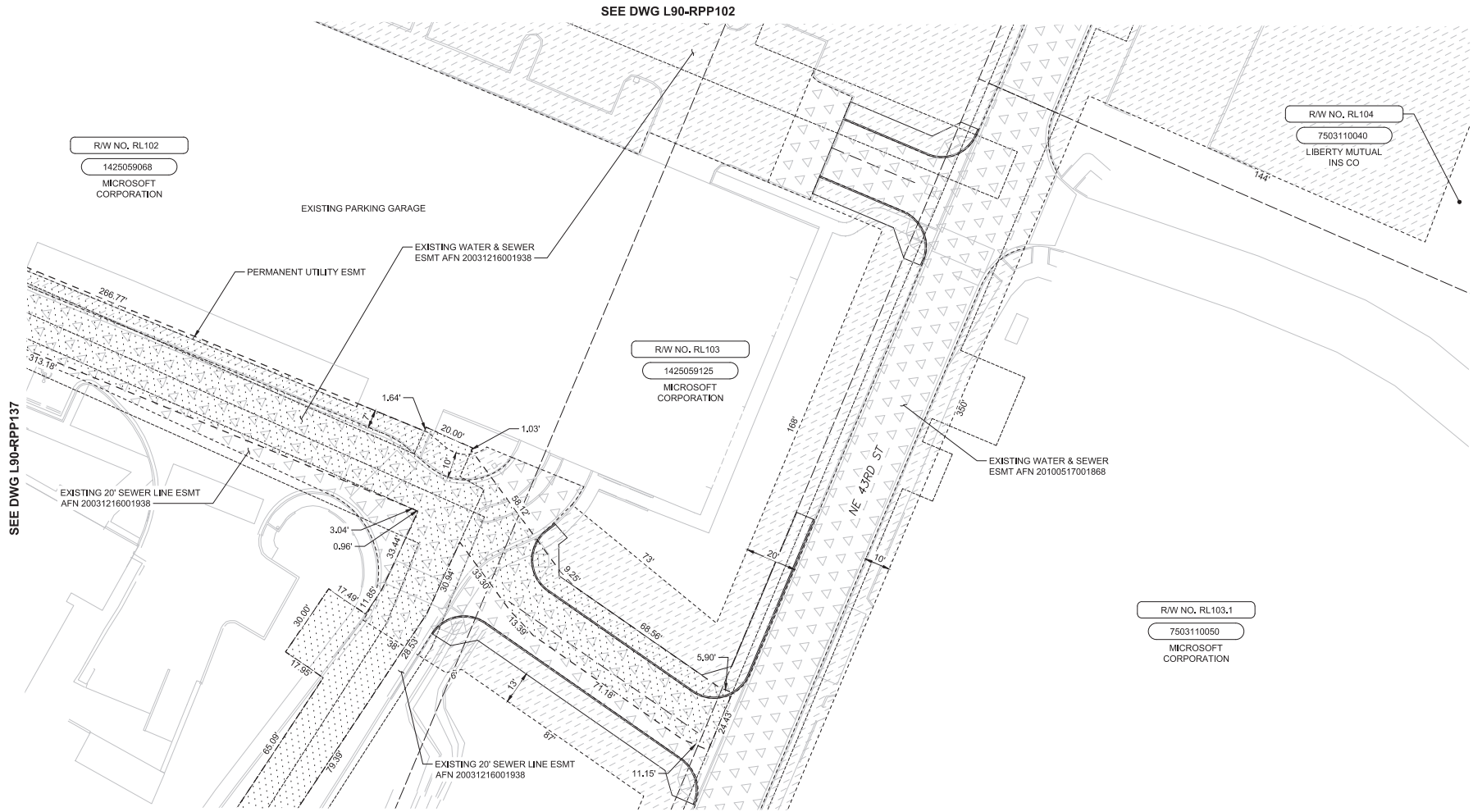
SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.



	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL102	1425059068	SEE DWG L90 - RPP101						
2	RL103	1425059125	MICROSOFT CORPORATION	61,830	303	61,527	v392 g158	t18,855 c4,864	
3	RL103.1	7503110050	MICROSOFT CORPORATION	308,137				t5,042 a217 c9,275	
4	RL104	7503110040	SEE DWG L90 - RPP103						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: CRAWFORD/MCCABE

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APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

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FILENAME: RLE-L90-RPP100TO159

CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION

RTS TO DOWNTOWN REDMOND

REFERENCE

RIGHT-OF-WAY PLAN

MICROSOFT BLDG 50 PARKING GARAGE

DRAWING No.: L90-RPP138

LOCATION ID:

SHEET No.: 59 REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-CRP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
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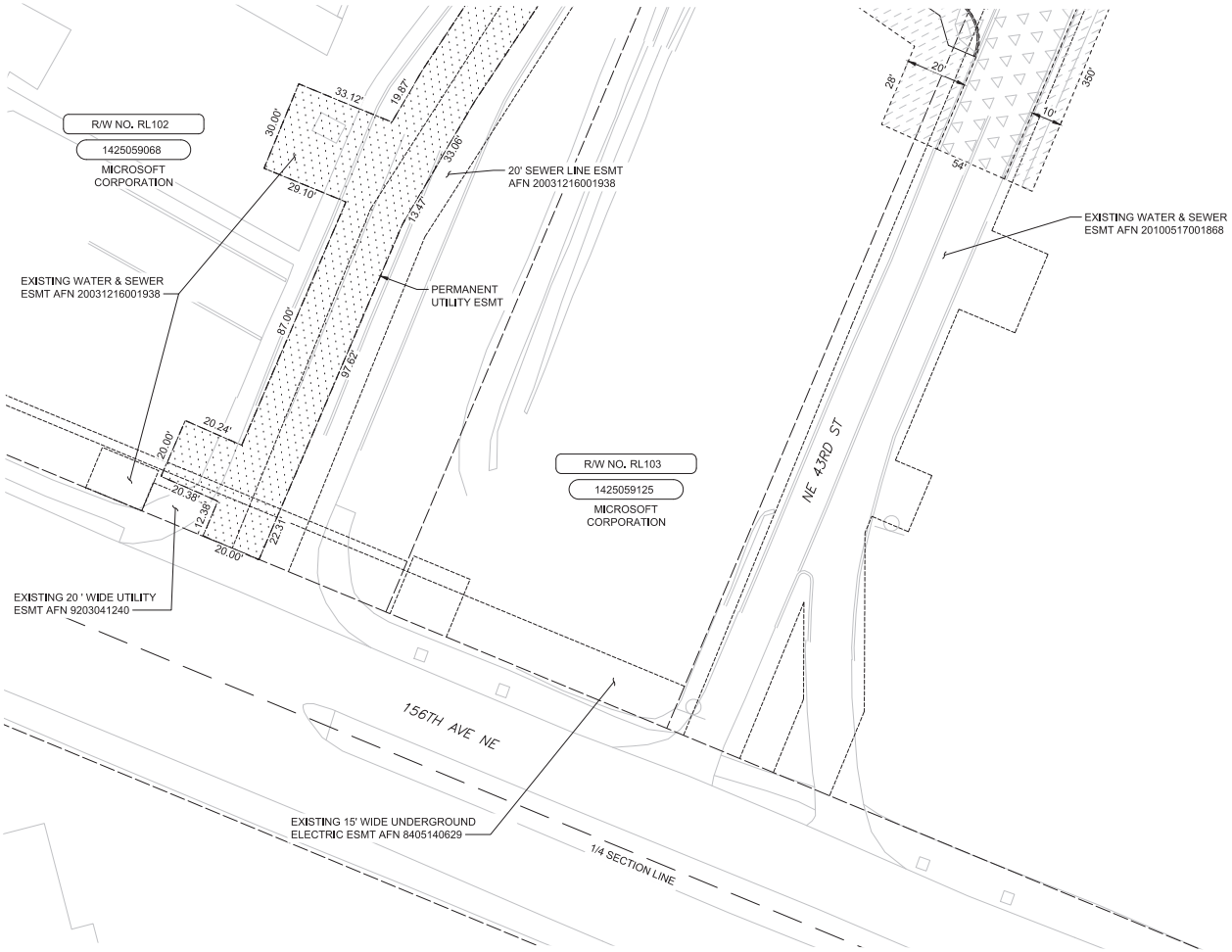
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:26 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\TTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP138



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL102	1425059068	SEE DWG L90 - RPP101						
2	RL103	1425059125	SEE DWG L90 - RPP138						
3	RL103.1	7503110050	SEE DWG L90 - RPP138						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

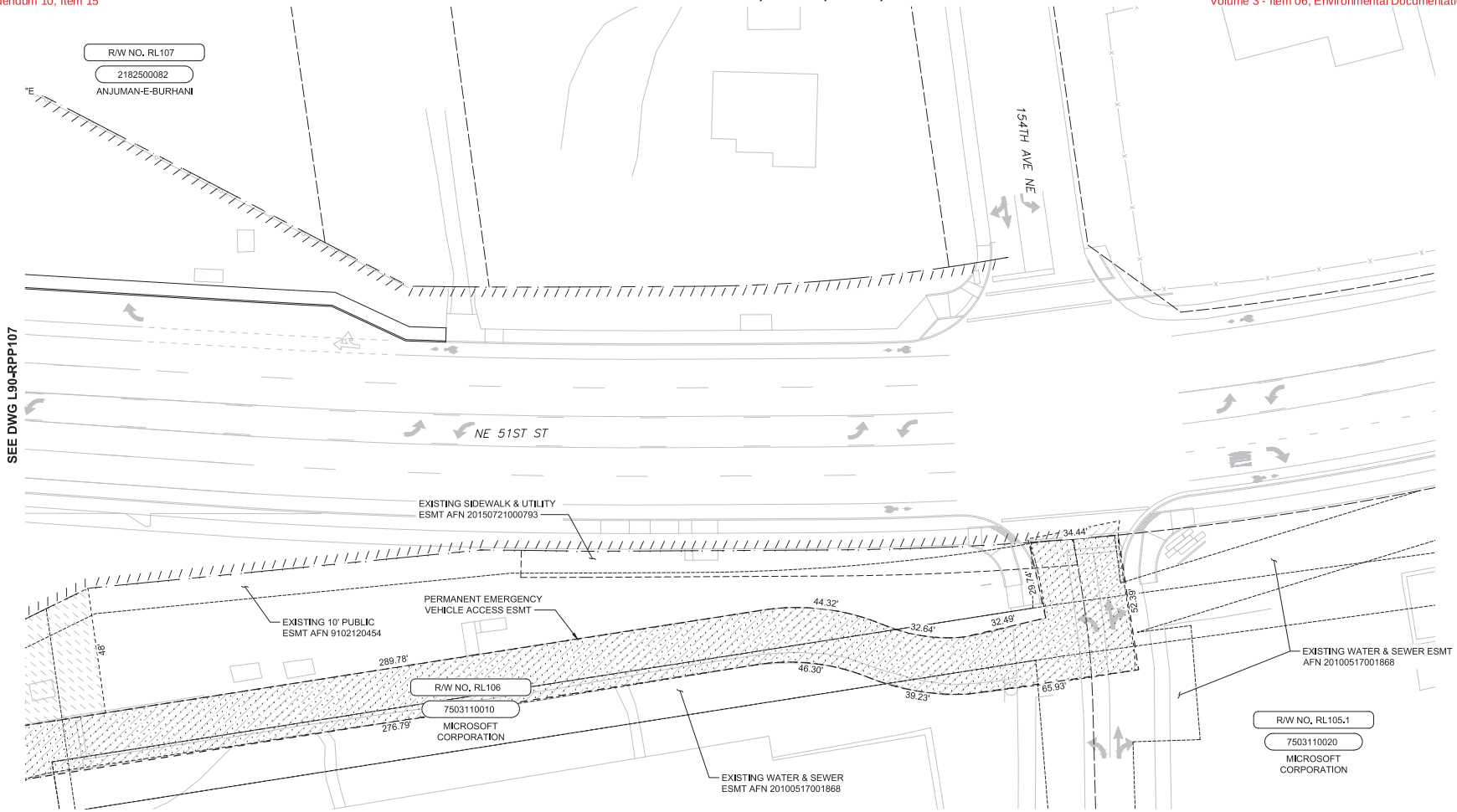
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
156TH AVE NE

DRAWING No.: L90-RPP139
LOCATION ID:
SHEET No.: 60
REV:

09/26/18 | 4:27 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

SE 1/4 NW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL105.1	7503110020	SEE DWG L90 - RPP160						
2	RL106	7503110010	SEE DWG L90 - RPP106						
3	RL107	2182500082	SEE DWG L90 - RPP107						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
NE 51ST ST

DRAWING No.: L90-RPP140
LOCATION ID:
SHEET No.: 61
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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Addendum 10, Item 15

Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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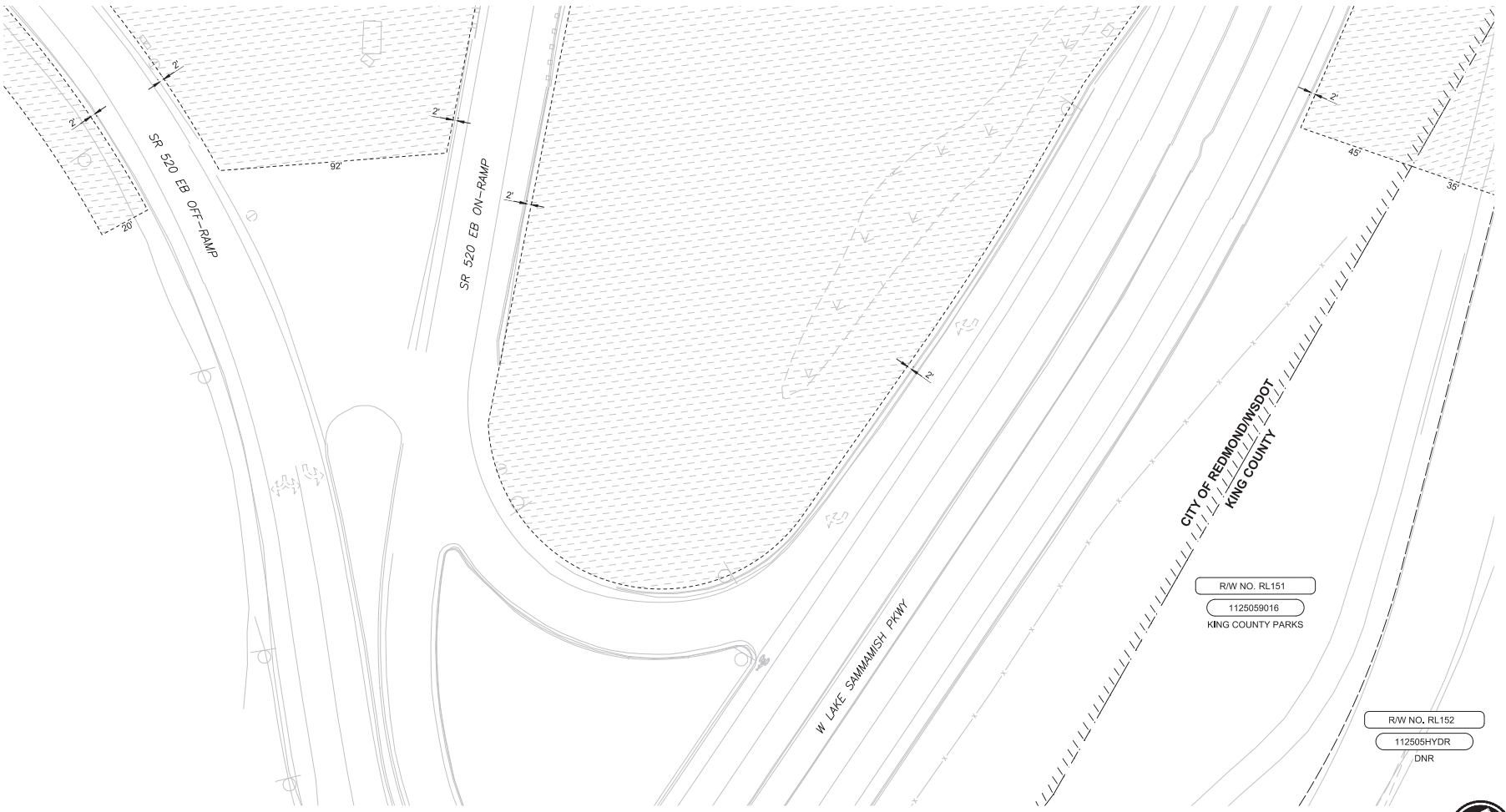
NW 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP117

NE 1/4 SE 1/4 SEC 11, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP118



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL151	1125059016	SEE DWG L90 - RPP119						
2	RL152	112505HYDR	SEE DWG L90 - RPP118						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE: | DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

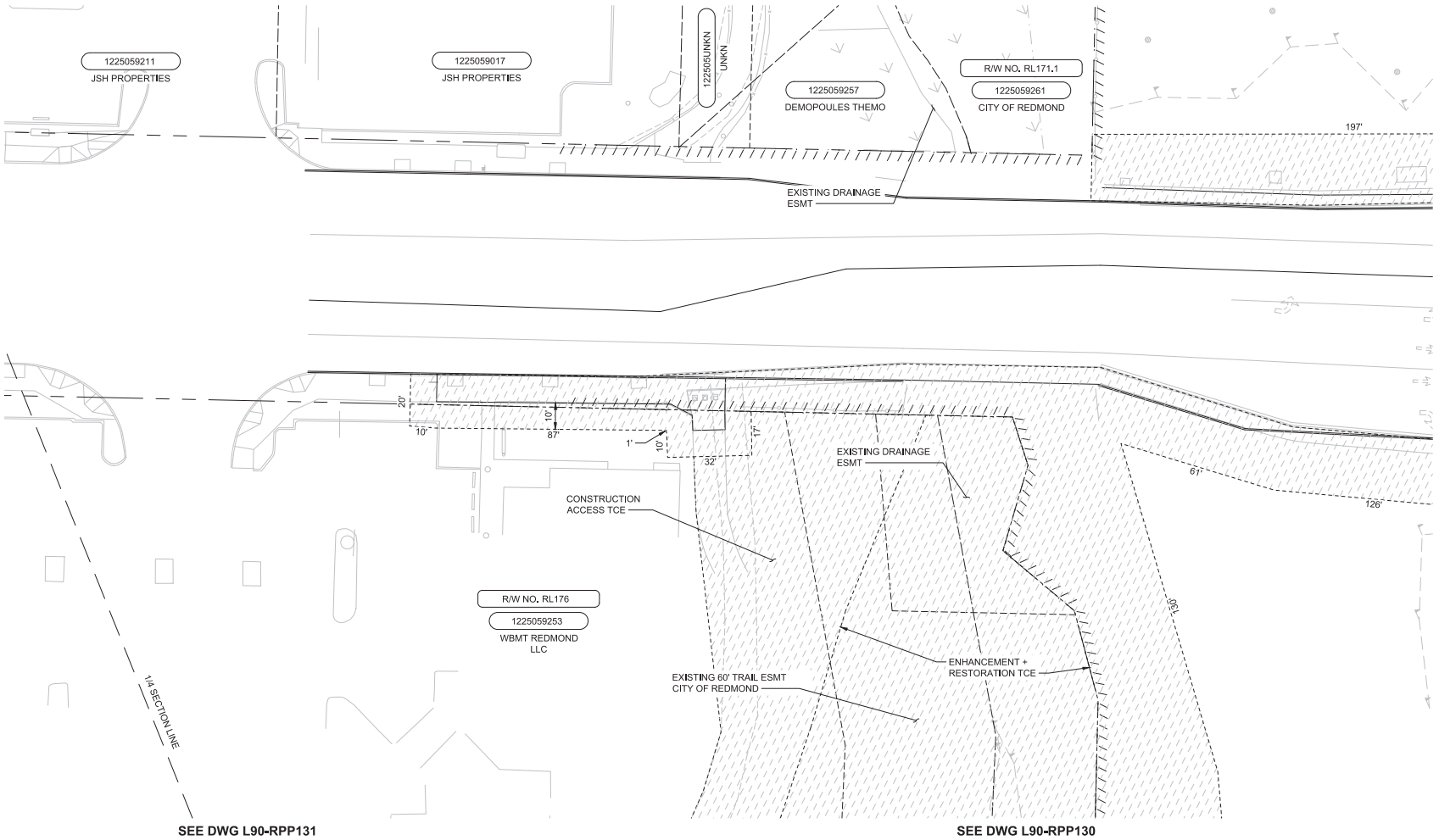
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
WEST LAKE SAMMAMISH PKWY

DRAWING No.: L90-RPP141
LOCATION ID:
SHEET No.: 62
REV:

Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL171.1	1225059261	SEE DWG L90 - RPP162						
2	RL176	1225059253	SEE DWG L90 - RPP131						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 202/REDMOND WY & BEAR CREEK

DRAWING No.: L90-RPP142
LOCATION ID:
SHEET No.: 63
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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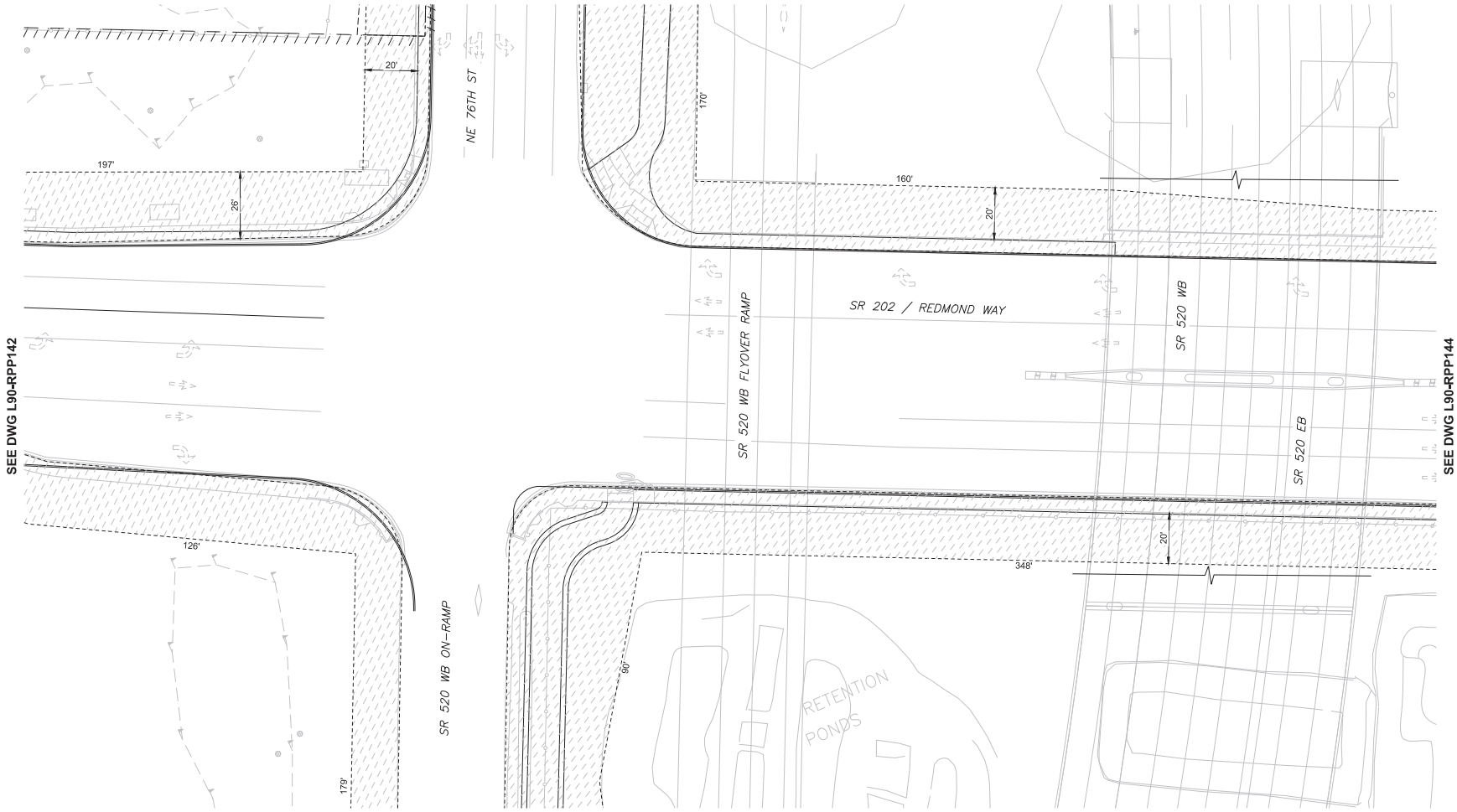
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP162



SEE DWG L90-RPP130

SEE DWG L90-RPP129

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 202/REDMOND WY & SR 520

DRAWING No.: L90-RPP143
LOCATION ID:
SHEET No.: 64
REV:

09/26/18 | 4:30 PM | TYLERJ
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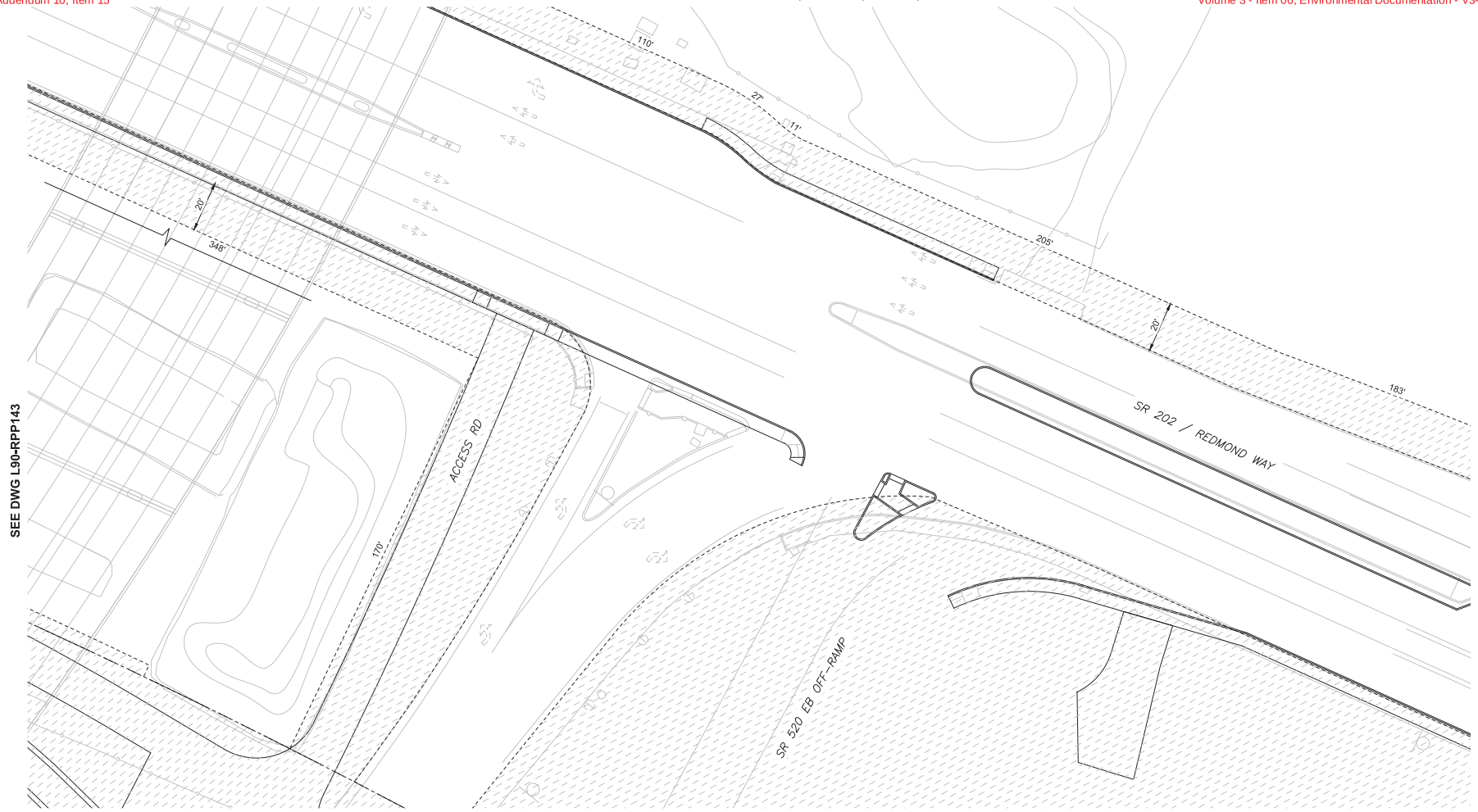
Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XRP100
xRLE-L90-SWP100



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET
20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
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CHECKED BY: THOMAS/STUMPF
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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 202/REDMOND WY & SR 520 EB OFF-RAMP

DRAWING No.: L90-RPP144
LOCATION ID:
SHEET No.: 65
REV:

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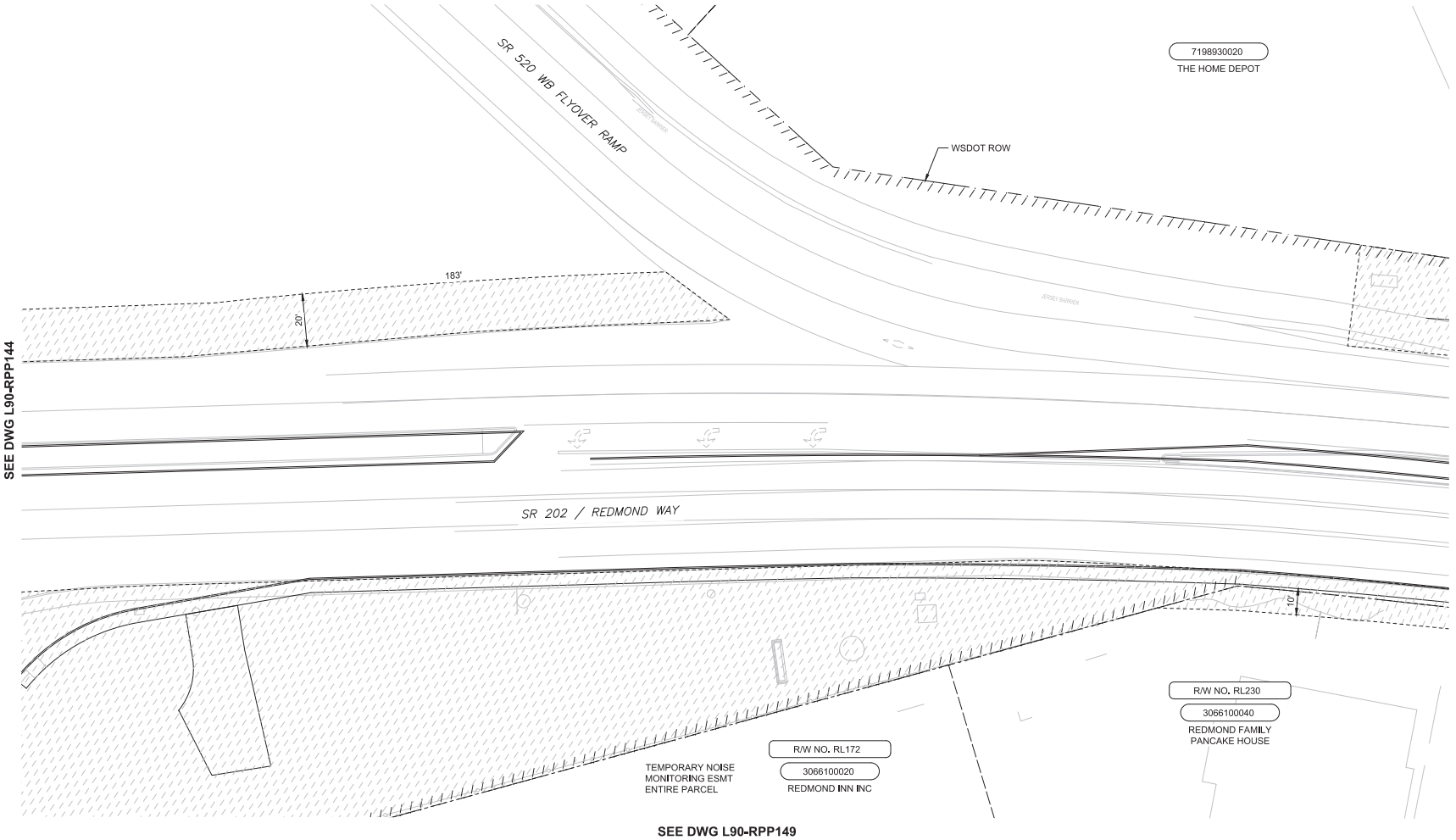
Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XAP100
xRLE-L90-SWP100

SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL172	3066100020	SEE DWG L90 - RPP151						
2	RL230	3066100040	REDMOND FAMILY PANCAKE HOUSE	30,889				t1,705	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU, STATE OF WASHINGTON, 21801, REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 202/REDMOND WY & SR 520 WB FLYOVER RAMP

DRAWING No.: L90-RPP145
LOCATION ID:
SHEET No.: 66
REV:

09/26/18 | 4:32 PM | TYLERJ
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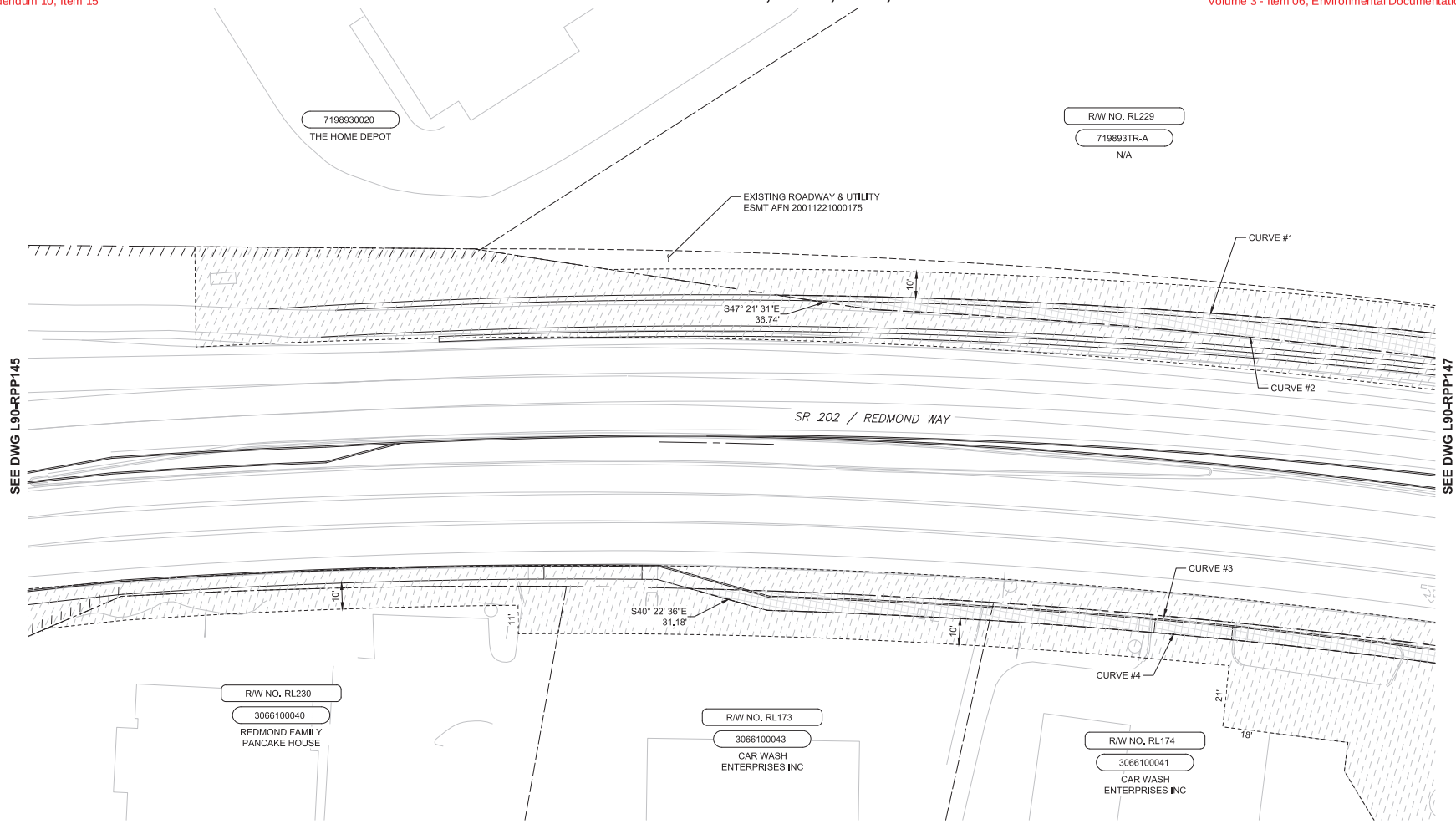
SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL173	3066100043	CAR WASH ENTERPRISES INC	38,354	2,110	36,244		t3,320	
2	RL174	3066100041	SEE DWG L90 - RPP152						
3	RL229	719893TR-A	-	132,941	3,571	129,370		t4,725	
4	RL230	3066100040	SEE DWG L90 - RPP145						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	007°10'53"	2628.00'	164.91'	329.39'
2	007°46'10"	2925.00'	198.62'	396.64'
3	006°57'28"	2815.00'	171.13'	341.84'
4	006°45'05"	2576.00'	151.95'	303.54'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21901 — REGISTERED PROFESSIONAL LAND SURVEYOR

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

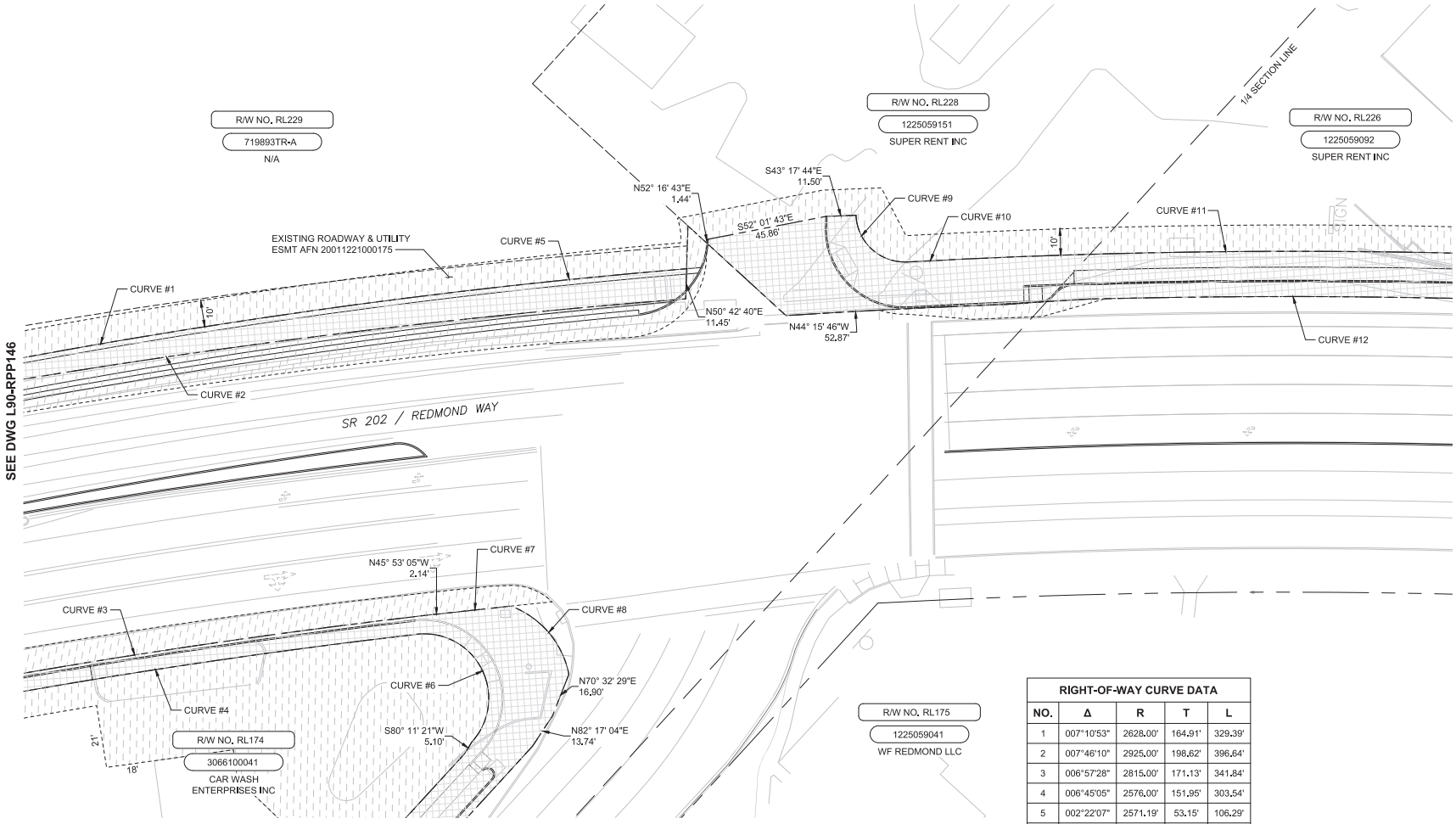
SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
SR 202/REDMOND WY

DRAWING No.: L90-RPP146
LOCATION ID:
SHEET No.: 67
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100
09/26/16 | 4:33 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL174	3066100041	SEE DWG L90 - RPP152						
2	RL175	1225059041	SEE DWG L90 - RPP151						
3	RL226	1225059092	SEE DWG L90 - RPP148						
4	RL228	1225059151	SUPER RENT INC	78,717	3,013	75,704		11,755	
5	RL229	719893TR-A	SEE DWG L90 - RPP146						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	007°10'53"	2628.00'	164.91'	329.39'
2	007°46'10"	2925.00'	198.62'	396.64'
3	006°57'28"	2815.00'	171.13'	341.84'
4	006°45'05"	2576.00'	151.95'	303.54'
5	002°22'07"	2571.19'	53.15'	106.29'
6	139°08'02"	24.50'	65.76'	59.49'
7	000°33'19"	2815.00'	13.64'	27.28'
8	058°34'50"	34.81'	19.52'	35.59'
9	090°49'45"	18.50'	18.77'	29.33'
10	000°25'53"	2680.50'	10.09'	20.18'
11	004°09'42"	2680.88'	97.40'	194.72'
12	008°41'43"	2724.95'	207.17'	413.55'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU, STATE OF WASHINGTON, 21801, REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

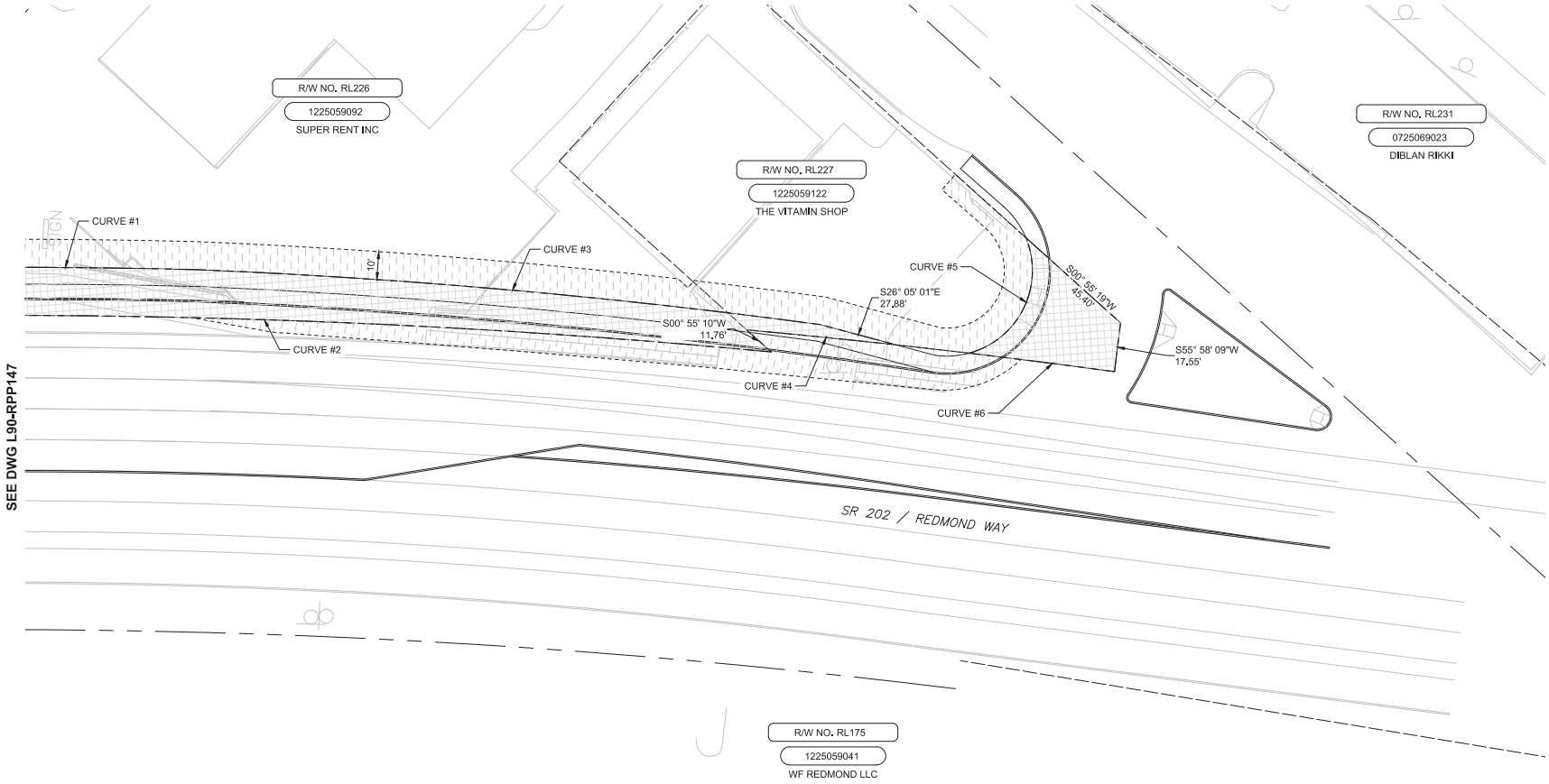
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 202/REDMOND WY & NE 70TH ST INTERSECTION

DRAWING No.: L90-RPP147
LOCATION ID:
SHEET No.: 68
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

09/26/18 | 4:33 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%43\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL175	1225059041	SEE DWG L90 - RPP151						
2	RL226	1225059092	SUPER RENT INC	48,775	5,591	43,184		13,236	
3	RL227	1225059122	THE VITAMIN SHOP	13,694	1,126	12,568		11,568	
4	RL231	725069023	DIBLAN RIKKI	501,365					

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	004°09'42"	2680.88'	97.40'	194.72'
2	008°41'43"	2724.95'	207.17'	413.55'
3	005°18'10"	2414.58'	111.82'	223.48'
4	001°02'47"	2931.26'	26.77'	53.54'
5	097°34'56"	30.50'	34.83'	51.95'
6	001°01'23"	2926.31'	26.12'	52.25'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
SR 202/REDMOND WY & 180TH AVE NE INTERSECTION

DRAWING No.: L90-RPP148
LOCATION ID:
SHEET No.: 69
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XAP100
xRLE-L90-SWP100

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SEE DWG L90-RPP144

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP146

SEE DWG L90-RPP150

SEE DWG L90-RPP151

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL168	1225059193	SEE DWG L90 - RPP128						
2	RL171	1225059265	SEE DWG L90 - RPP130						
3	RL172	3066100020	SEE DWG L90 - RPP151						
4	RL230	3066100040	SEE DWG L90 - RPP145						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	010°23'51"	2814.92'	256.12'	510.83'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
SR 520 EB OFF-RAMP (REDMOND INN)

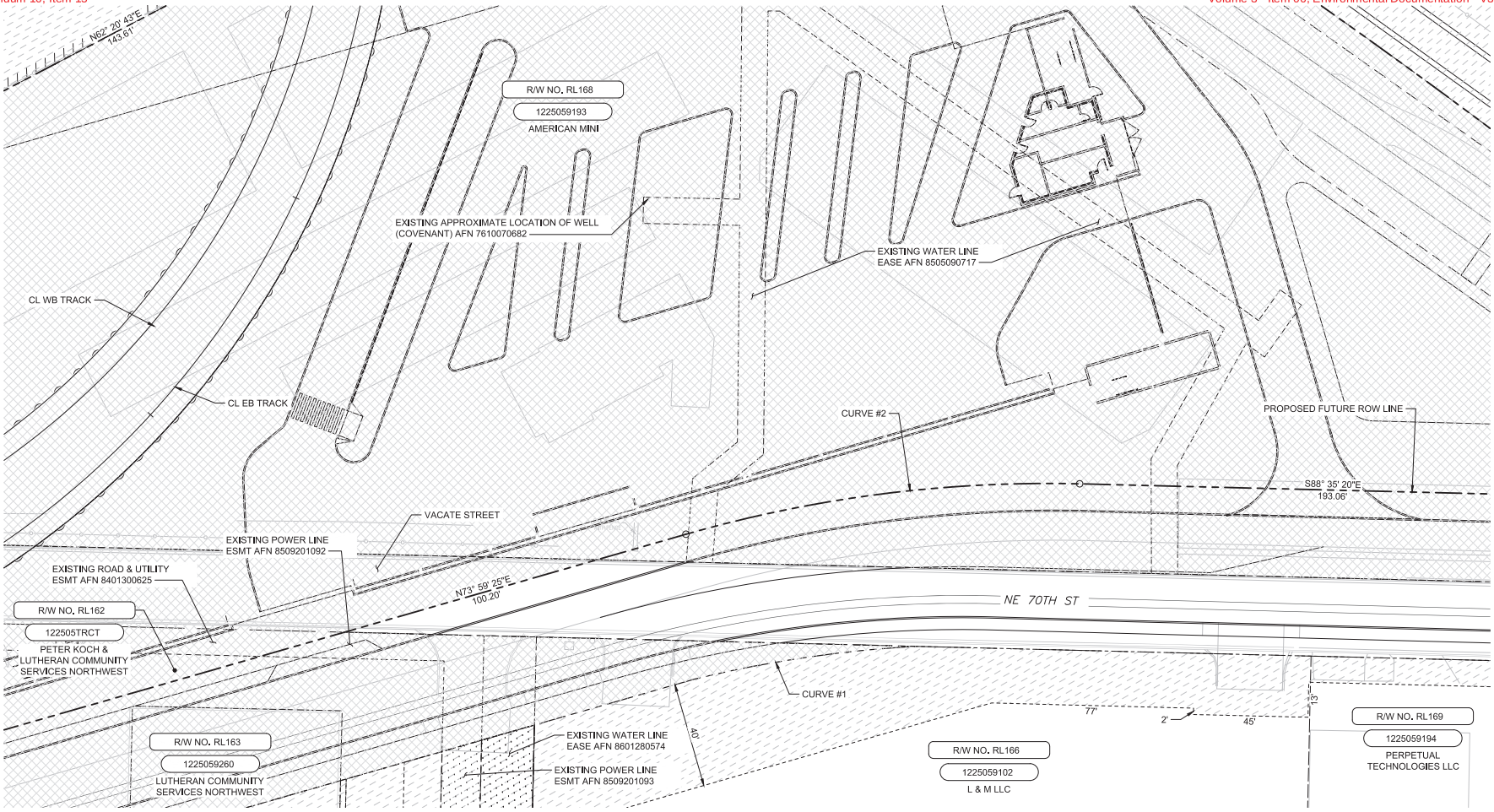
DRAWING No.: L90-RPP149
LOCATION ID:
SHEET No.: 70
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-MRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100
09/26/18 | 4:35 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-L90-VSF
xRLE-L90-CRP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XHP100
xRLE-L90-SWP100

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP149



SEE DWG L90-RPP128

SEE DWG L90-RPP151

SEE DWG L90-RPP153

SEE DWG L90-RPP154

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL162	122505TRCT	SEE DWG L90 - RPP127						
2	RL163	1225059260	SEE DWG L90 - RPP128						
3	RL166	1225059102	SEE DWG L90 - RPP128						
4	RL168	1225059193	SEE DWG L90 - RPP128						
5	RL169	1225059194	SEE DWG L90 - RPP151						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	010°30'35"	466.46'	42.90'	85.56'
2	017°25'15"	500.00'	76.60'	152.03'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41861 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
NE 70TH ST

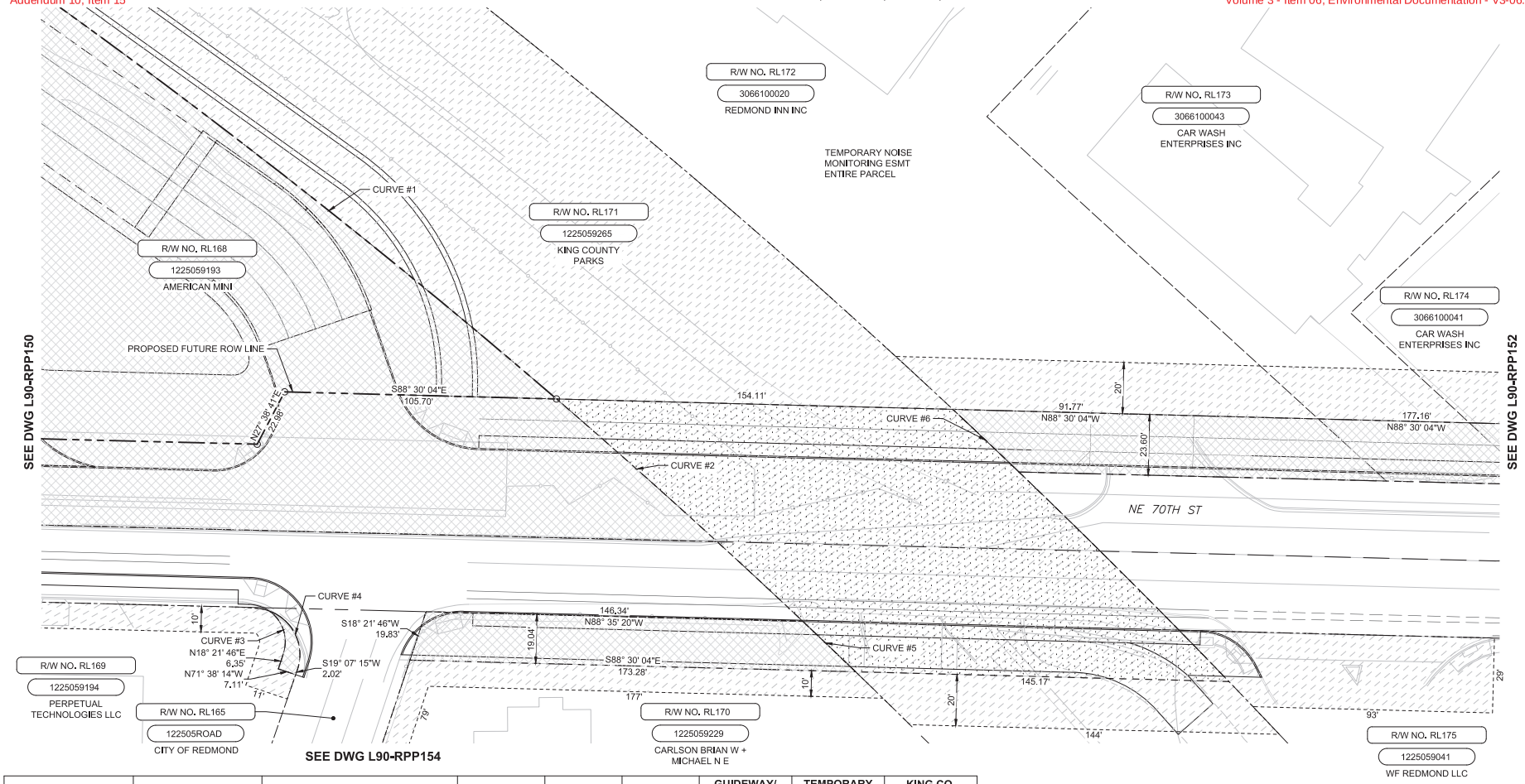
DRAWING No.: L90-RPP150
LOCATION ID:
SHEET No.: 71
REV:

09/26/18 | 4:36 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\TTPS\SHAREPOINT SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-CRP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XHP100
xRLE-L90-SWP100

SEE DWG L90-RPP149

SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL165	122505ROAD	SEE DWG L90 - RPP127						
2	RL168	1225059193	SEE DWG L90 - RPP128						
3	RL169	1225059194	PERPETUAL TECHNOLOGIES LLC	11,143	113	11,030		t1,422	
4	RL170	1225059229	CARLSON BRIAN W + MICHAEL N E	87,237	3,052	84,185		t2,556	
5	RL171	1225059265	SEE DWG L90 - RPP130						
6	RL172	3066100020	REDMOND INN INC	97,434	3,358	94,076		t2,837	
7	RL173	3066100043	SEE DWG L90 - RPP146						
8	RL174	3066100041	SEE DWG L90 - RPP152						
9	RL175	1225059041	WF REDMOND LLC	322,087				t3,129	

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	010°23'51"	2814.92'	256.12'	510.83'
2	001°42'03"	2815.05'	41.79'	83.57'
3	073°37'49"	14.50'	10.85'	18.63'
4	089°13'19"	18.02'	17.78'	28.06'
5	000°34'55"	2814.93'	14.30'	28.59'
6	000°41'45"	2914.93'	17.70'	35.40'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 70TH ST - EAST

DRAWING No.: L90-RPP151
LOCATION ID:
SHEET No.: 72
REV:

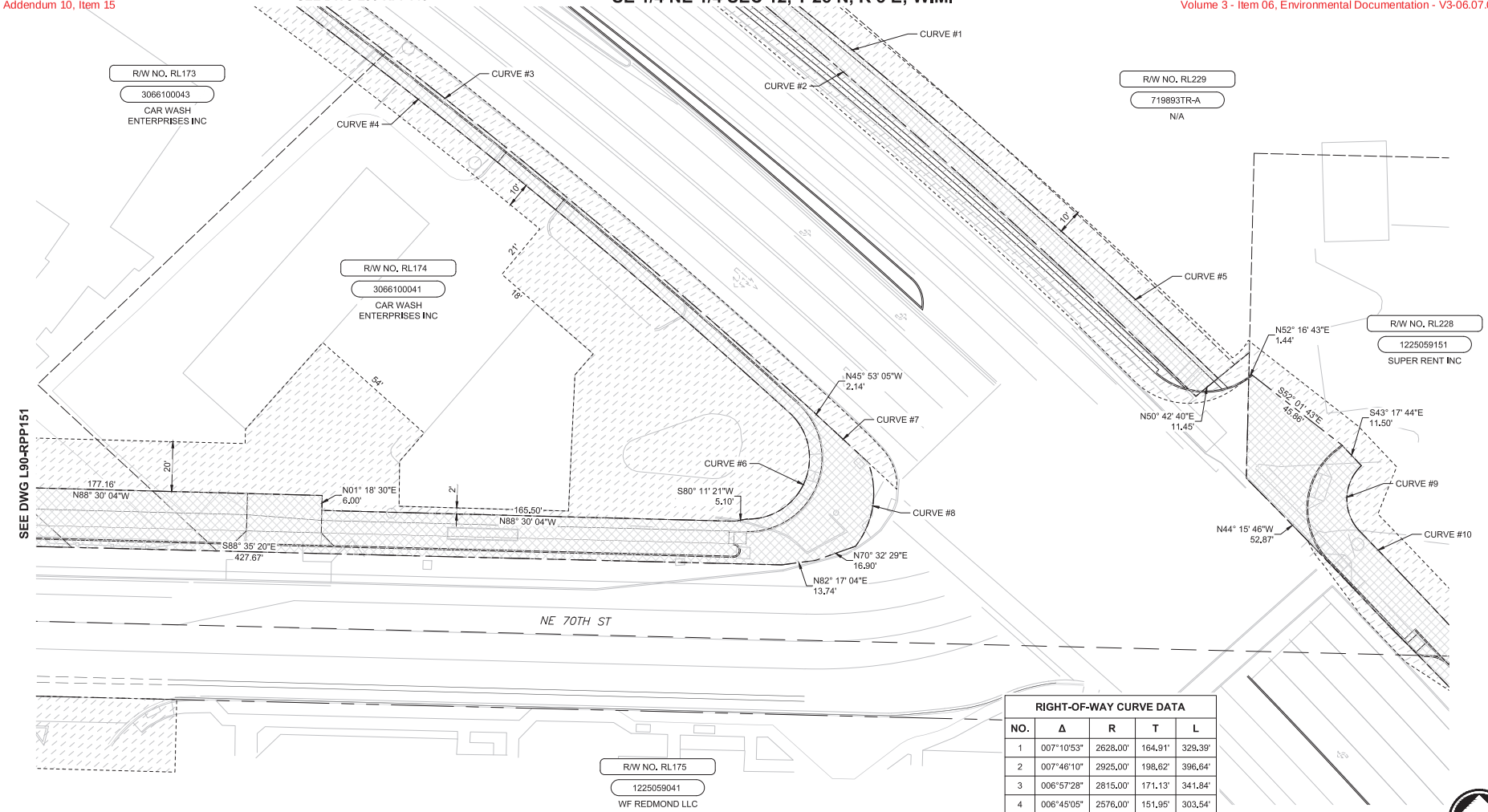
09/26/18 | 4:37 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A#EPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GE-YSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XHP100
xRLE-L90-SWP100

SEE DWG L90-RPP146

SE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP151



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL173	3066100043	SEE DWG L90 - RPP146						
2	RL174	3066100041	CAR WASH ENTERPRISES INC	40,243	8,610	31,633		t12,252	
3	RL175	1225059041	SEE DWG L90 - RPP151						
4	RL228	1225059151	SEE DWG L90 - RPP147						
5	RL229	719893TR-A	SEE DWG L90 - RPP146						

RIGHT-OF-WAY CURVE DATA

NO.	Δ	R	T	L
1	007°10'53"	2628.00'	164.91'	329.39'
2	007°46'10"	2925.00'	198.62'	396.64'
3	006°57'28"	2815.00'	171.13'	341.84'
4	006°45'05"	2576.00'	151.95'	303.54'
5	002°22'07"	2571.19'	53.15'	106.29'
6	139°08'02"	24.50'	65.76'	59.49'
7	000°33'19"	2815.00'	13.64'	27.28'
8	058°34'50"	34.81'	19.52'	35.59'
9	090°49'45"	18.50'	18.77'	29.33'
10	000°25'53"	2680.50'	10.09'	20.18'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
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APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 70TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-RPP152
LOCATION ID:
SHEET No.: 73
REV:

09/26/18 | 4:38 PM | TYLERJ
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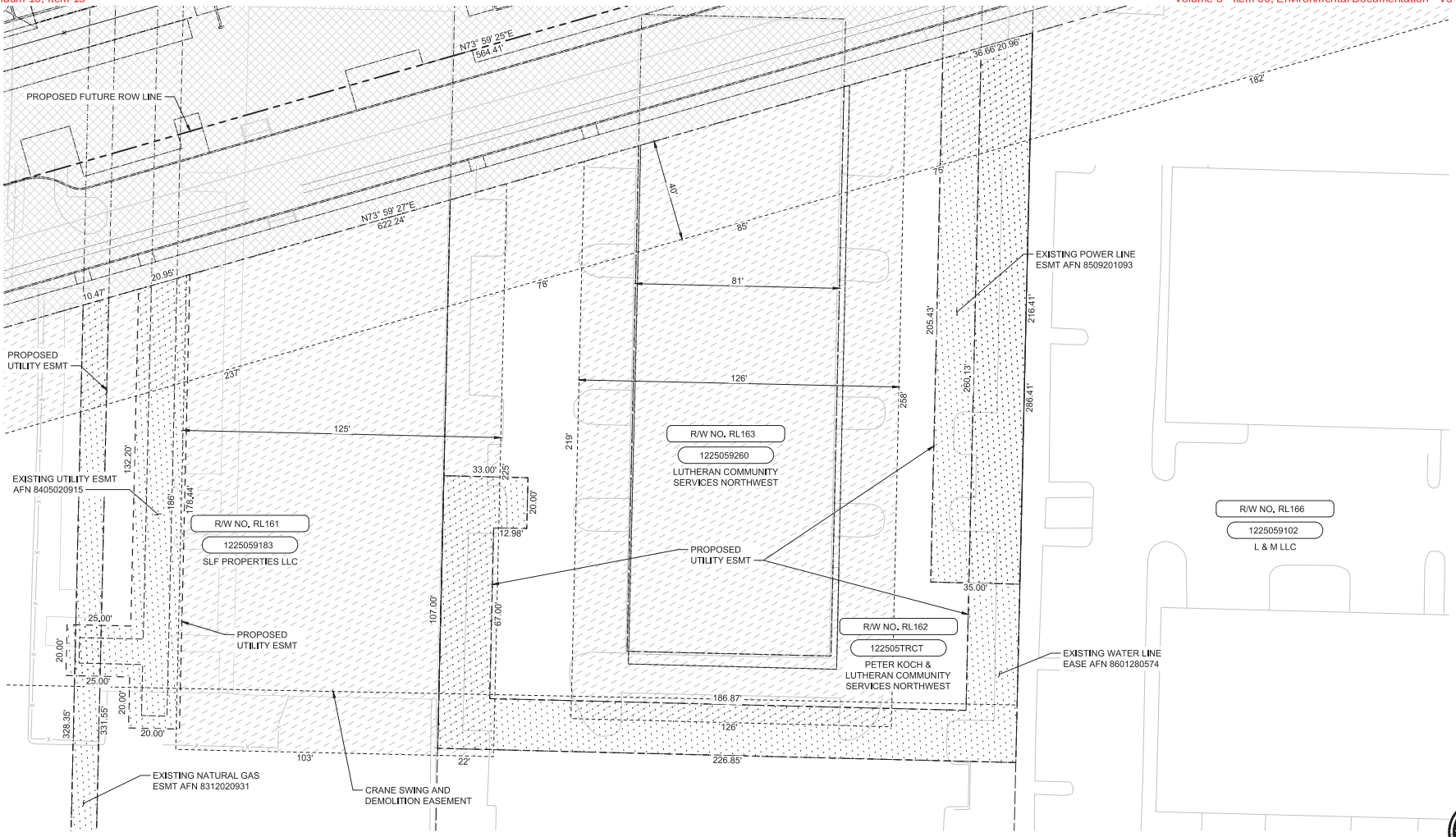
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-AHP100
xRLE-L90-SWP100

SEE DWG L90-RPP127

NW 1/4 SE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP150



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL161	1225059183	SLF PROPERTIES LLC	108,484	31,834	76,650		t25,951	
2	RL162	122505TRCT	SEE DWG L90 - RPP127						
3	RL163	1225059260	SEE DWG L90 - RPP128						
4	RL166	1225059102	SEE DWG L90 - RPP128						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41861 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE: | DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

RIGHT-OF-WAY PLAN
NE 70TH ST - WEST

DRAWING No.: L90-RPP153
LOCATION ID:
SHEET No.: 74
REV:

09/26/18 | 4:39 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Addendum 10, Item 15
Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07702

NW 1/4 SE 1/4 SEC 12, T 25 N, R 5 E; W.M. SEE DWG L90-RPP150

SEE DWG L90-RPP151 NE 1/4 SE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL165	122505ROAD	SEE DWG L90 - RPP127						
2	RL166	1225059102	SEE DWG L90 - RPP128						
3	RL169	1225059194	SEE DWG L90 - RPP151						
4	RL170	1225059229	SEE DWG L90 - RPP151						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
176TH AVE NE

DRAWING No.: L90-RPP154
LOCATION ID:
SHEET No.: 75
REV:

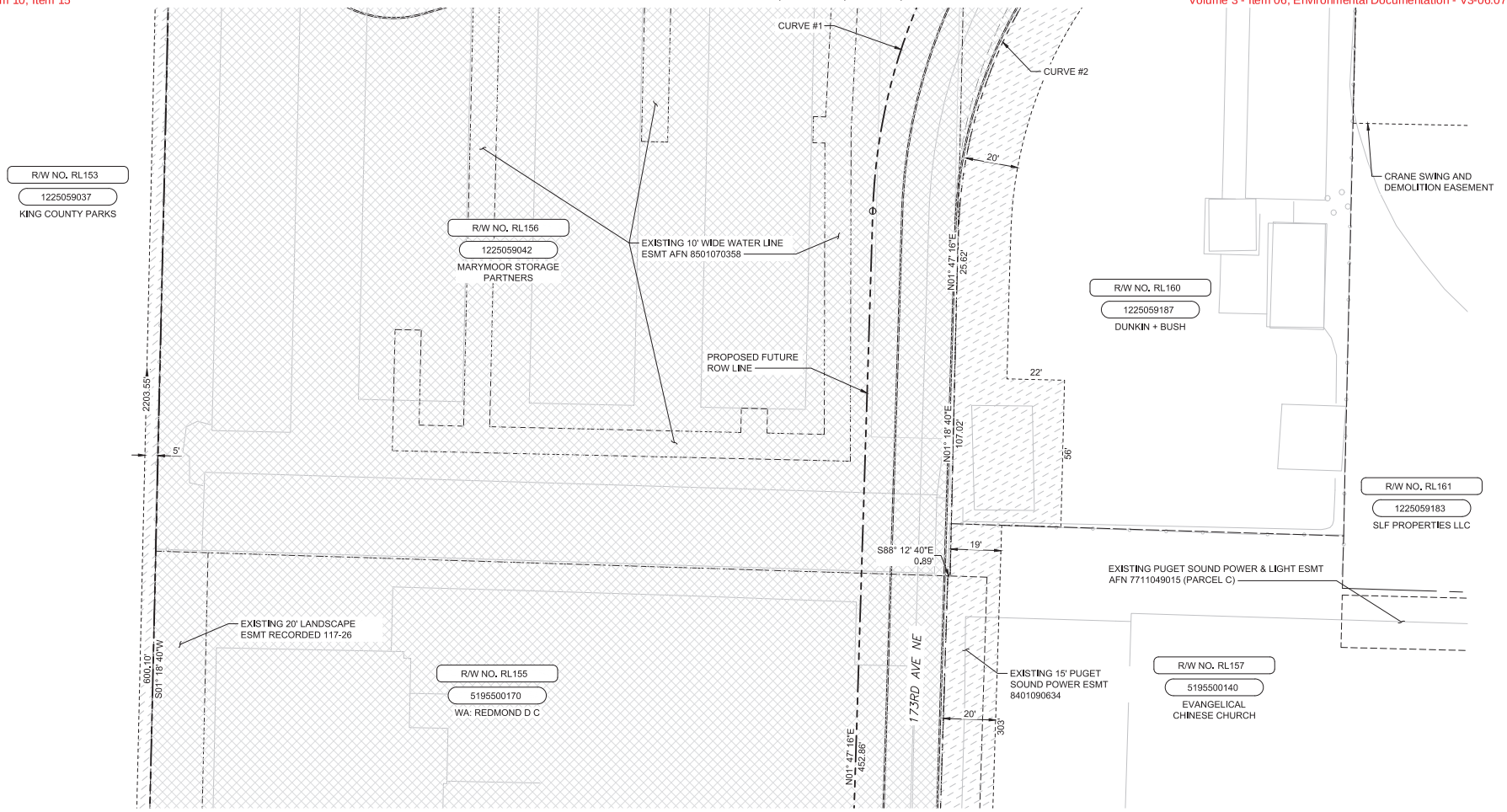
Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-E25-YSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP10
xRLE-L90-YSF
xRLE-L95-YSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP10
xE360-RLE-E27-APP10
xRLE-L90-SWP100
09/26/18 | 4:39 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

SEE DWG L90-RPP126

NW 1/4 SE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP127



SEE DWG L90-RPP156

	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL153	1225059037	SEE DWG L90 - RPP122						
2	RL155	5195500170	WA: REDMOND D C	102,424	102,424	0			
3	RL156	1225059042	SEE DWG L90 - RPP126						
4	RL157	5195500140	SEE DWG L90 - RPP156						
5	RL160	1225059187	SEE DWG L90 - RPP127						
6	RL161	1225059183	SEE DWG L90 - RPP127						

RIGHT-OF-WAY CURVE DATA				
NO.	Δ	R	T	L
1	071°43'26"	221.50'	160.11'	277.28'
2	051°24'40"	183.36'	88.26'	164.52'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

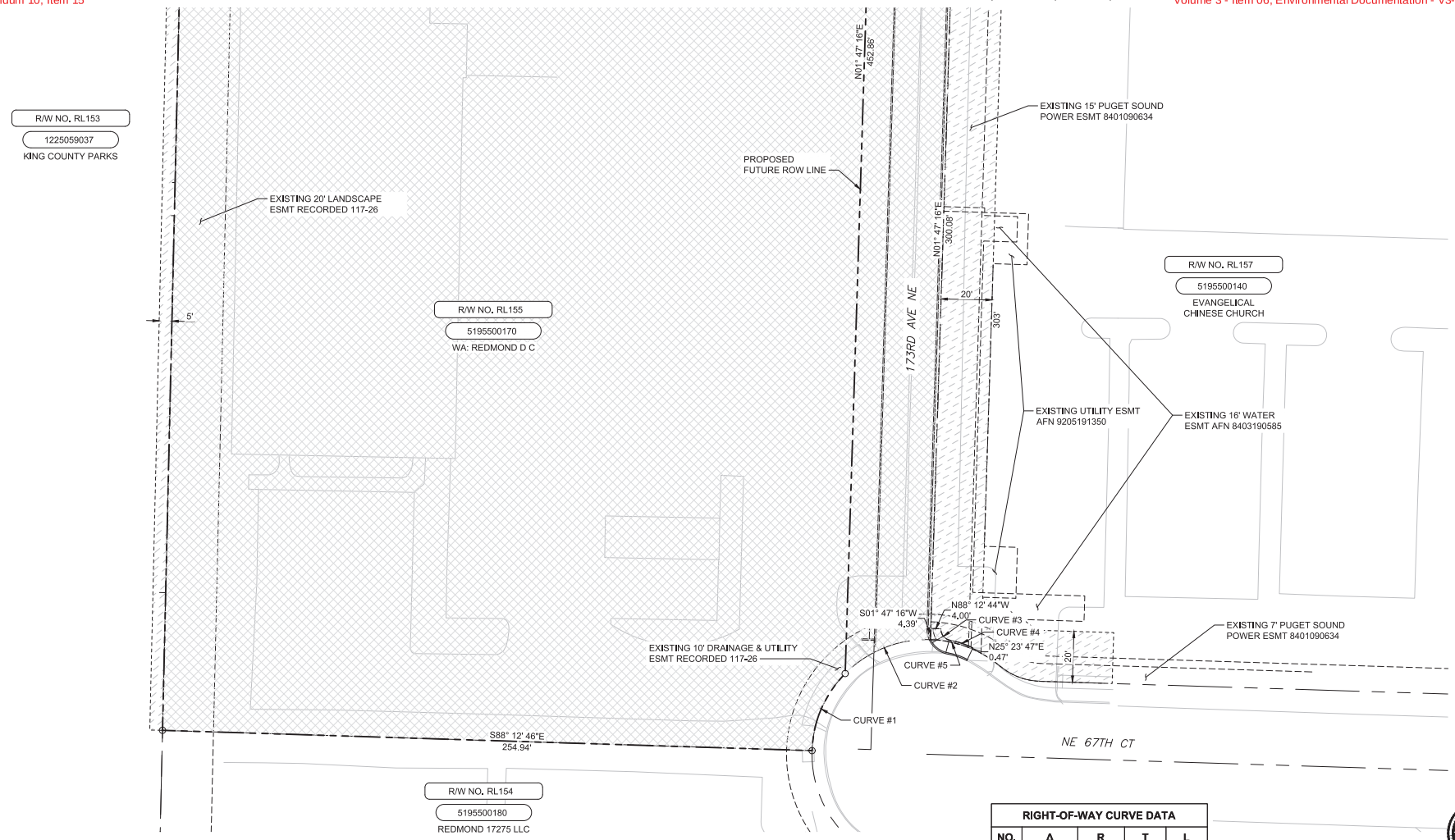
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
173RD AVE NE

DRAWING No.: L90-RPP155
LOCATION ID:
SHEET No.: 76
REV:

09/26/18 | 4:40 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

SEE DWG L90-RPP155

NW 1/4 SE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL153	1225059037	SEE DWG L90 - RPP122						
2	RL154	5195500180	REDMOND 17275 LLC	131,076					
3	RL155	5195500170	SEE DWG L90 - RPP155						
4	RL157	5195500140	EVANGELICAL CHINESE CHURCH	144,420	29	144,391		t7,481	

RIGHT-OF-WAY CURVE DATA

NO.	Δ	R	T	L
1	042°55'46"	45.00'	17.69'	33.72'
2	047°07'55"	45.00'	19.63'	37.02'
3	081°40'43"	4.50'	3.89'	6.42'
4	017°50'57"	29.93'	4.70'	9.32'
5	021°35'05"	45.00'	8.58'	16.95'

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41861 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
173RD AVE NE & NE 67TH CT

DRAWING No.: L90-RPP156
LOCATION ID:
SHEET No.: 77
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-L90-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
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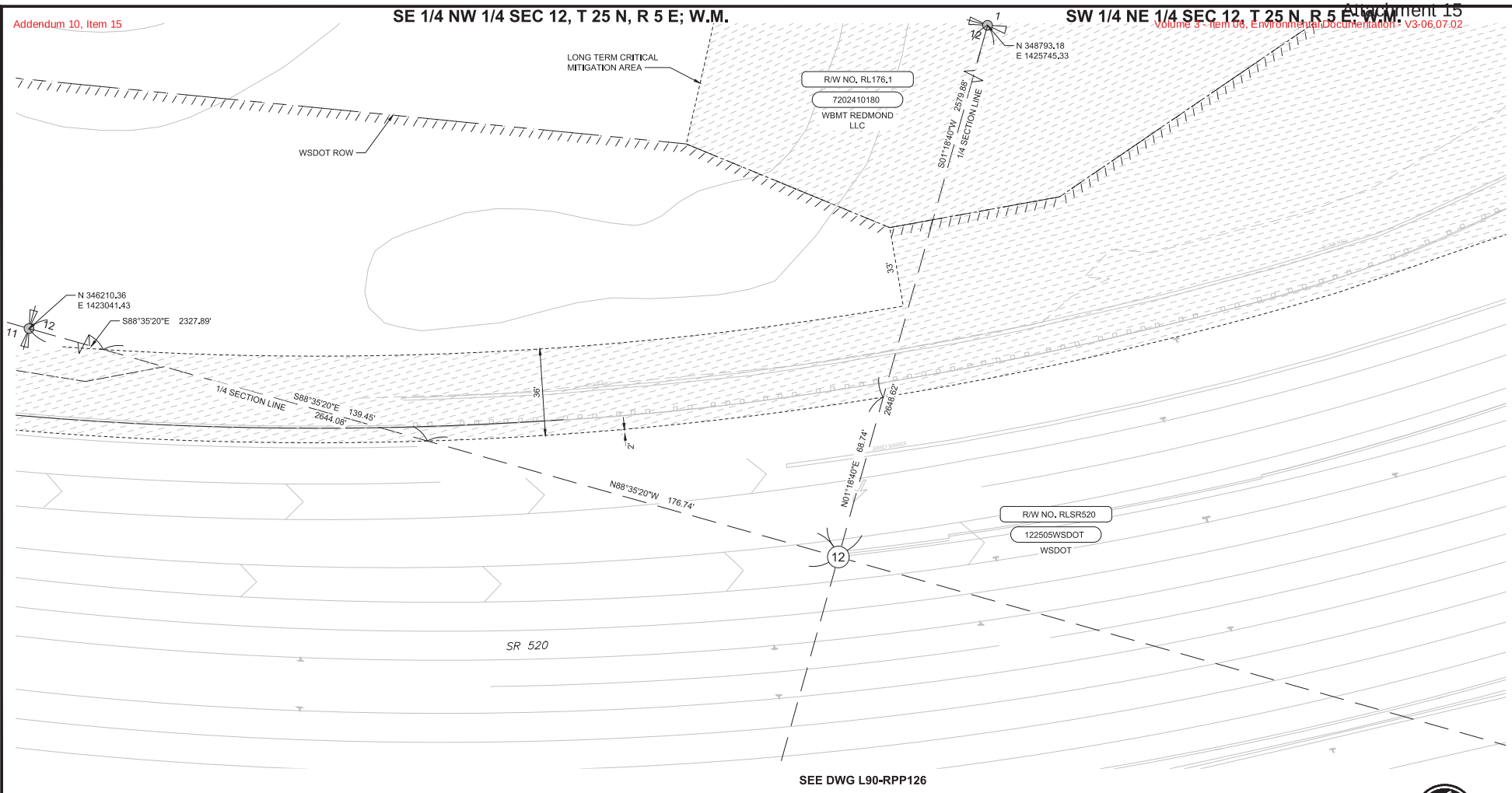
xE360-RLE-E27-APP100
xRLE-L90-SWP100



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL176.1	7202410180	SEE DWG L90 - RPP130						
2	RLSR520	122505WSDOT	SEE DWG L90 - RPP129						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
SR 520

DRAWING No.: L90-RPP157
LOCATION ID:
SHEET No.: 78
REV:

09/26/18 | 4:44 PM | TYLERJ
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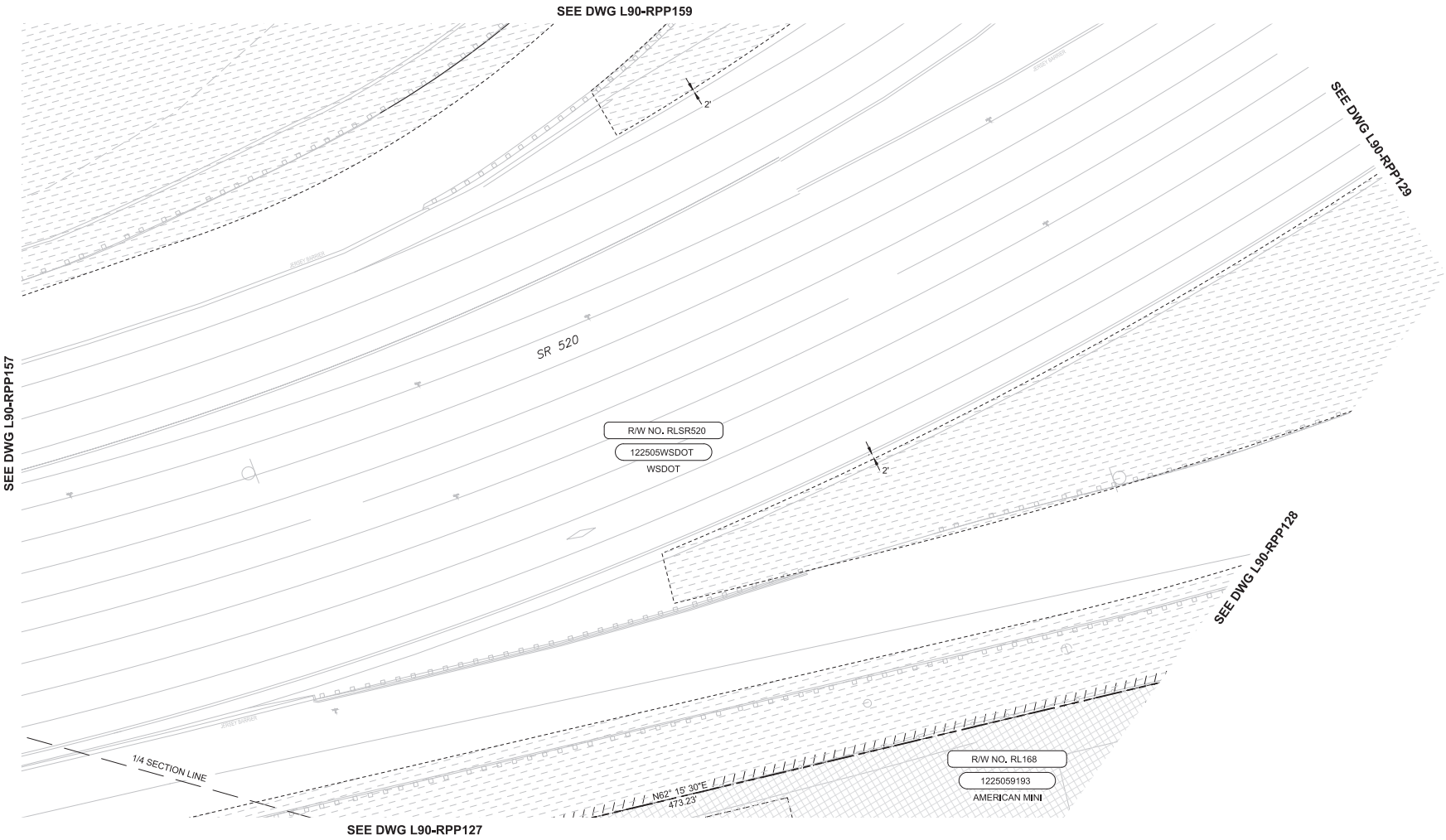
SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XHP100
xRLE-L90-SWP100



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL168	1225059193	SEE DWG L90 - RPP128						
2	RLSR520	122505WSDOT	SEE DWG L90 - RPP129						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
SR 520 EB OFF-RAMP

DRAWING No.: L90-RPP158
LOCATION ID:
SHEET No.: 79
REV:

09/26/18 | 4:44 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GIS-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XPP100
xRLE-L90-SWP100

SEE DWG L90-RPP130

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL176.1	7202410180	SEE DWG L90 - RPP130						
2	RLSR520	122505WSDOT	SEE DWG L90 - RPP129						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
SR 520 WB ON-RAMP

DRAWING No.: L90-RPP159
LOCATION ID:
SHEET No.: 80
REV:

09/26/18 | 4:45 PM | TYLERJ
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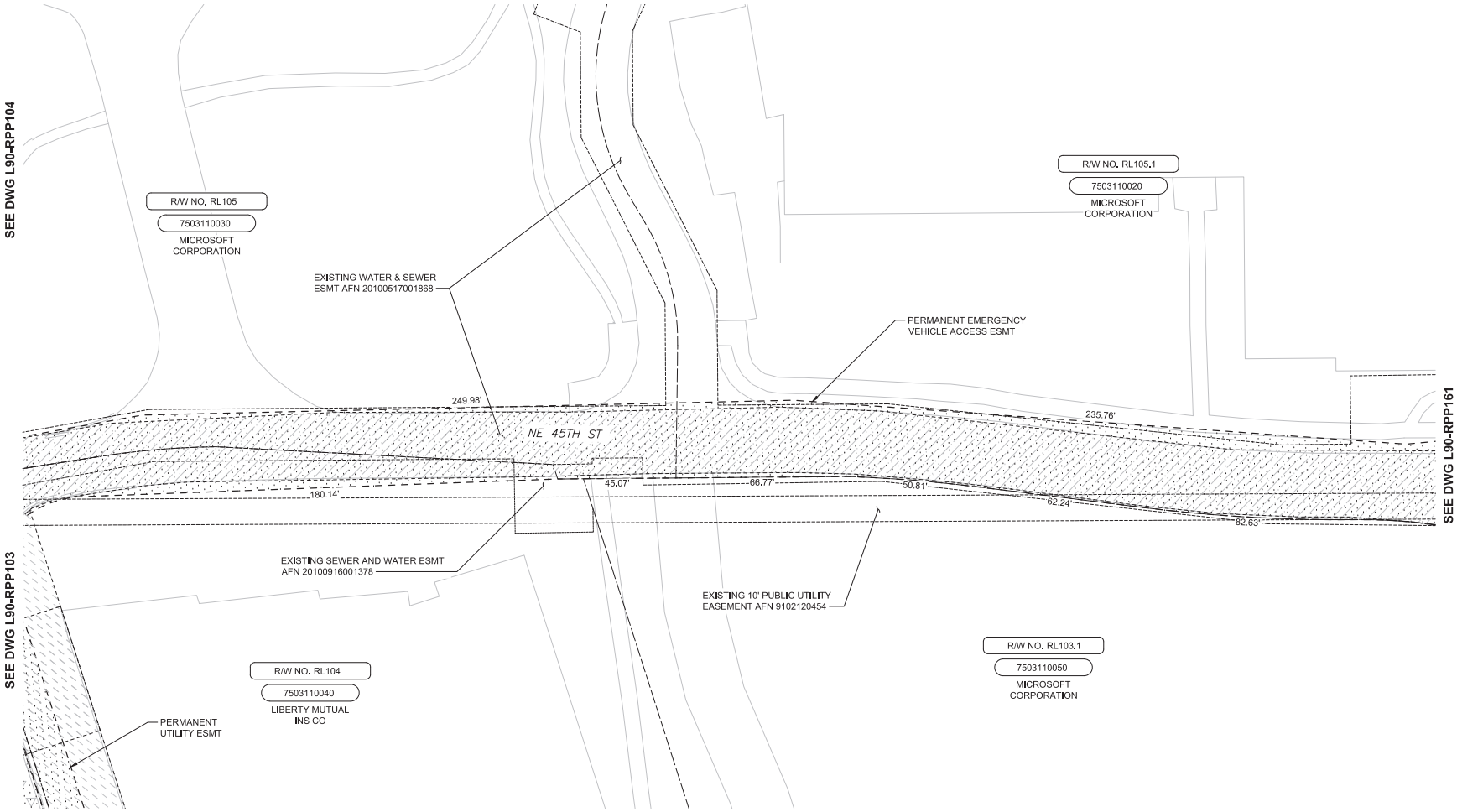
Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-CRP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL103.1	7503110050	SEE DWG L90 - RPP138						
2	RL104	7503110040	SEE DWG L90 - RPP103						
3	RL105	7503110030	SEE DWG L90 - RPP104						
4	RL105.1	7503110020	MICROSOFT CORPORATION	854,802			f23,323	a21,600	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40

SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU, STATE OF WASHINGTON, 41801, REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 45TH ST

DRAWING No.: L90-RPP160
LOCATION ID:
SHEET No.: 81
REV:

09/26/18 | 4:46 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3ASHAREPOINT.SOUNDTRANSIT.ORG%443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

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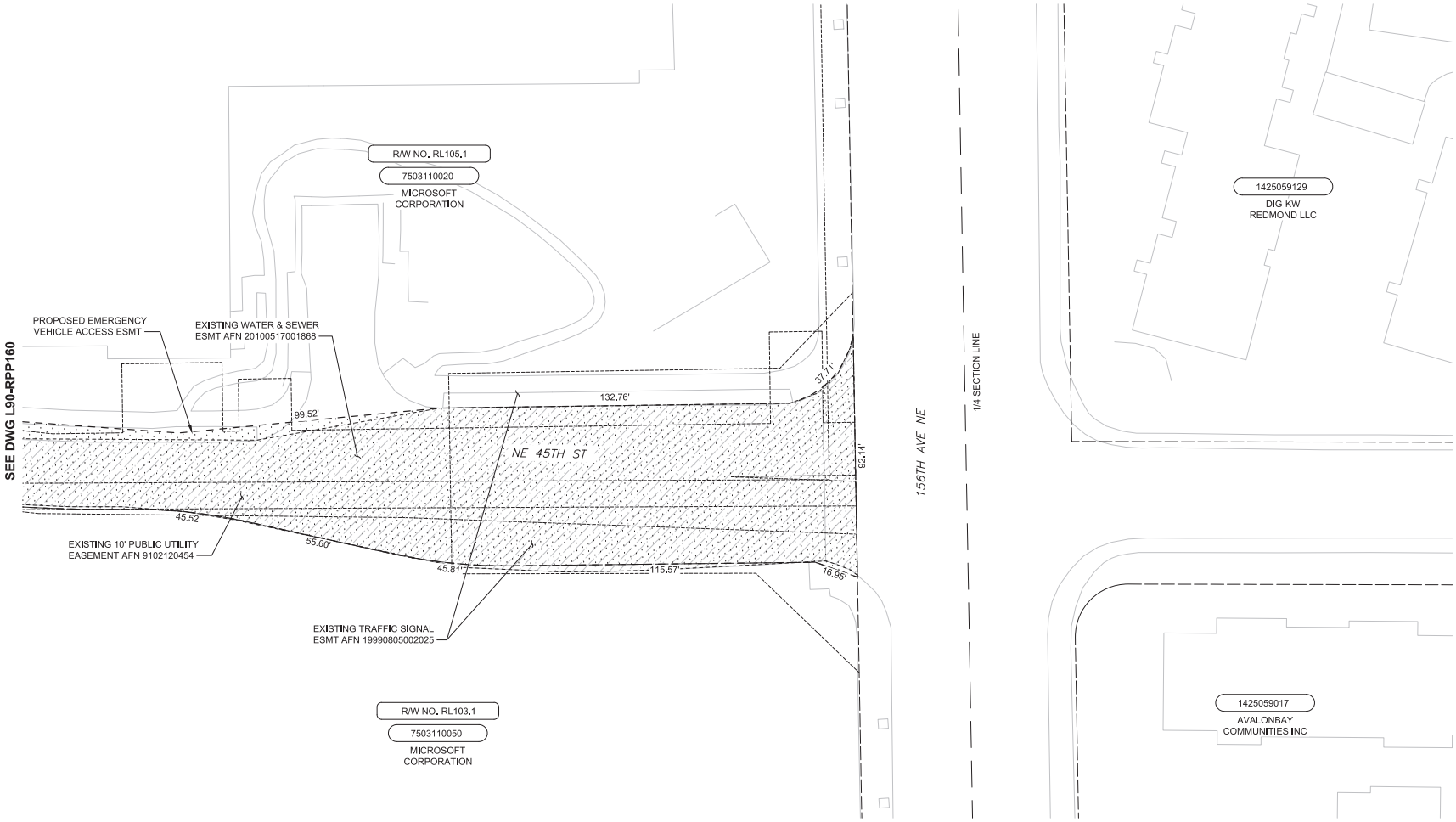
09/26/18 | 4:47 PM | TYLERJ

NE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.



SE 1/4 SW 1/4 SEC 14, T 25 N, R 5 E; W.M.

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL103.1	7503110050	SEE DWG L90 - RPP138						
2	RL105.1	7503110020	SEE DWG L90 - RPP160						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 51901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

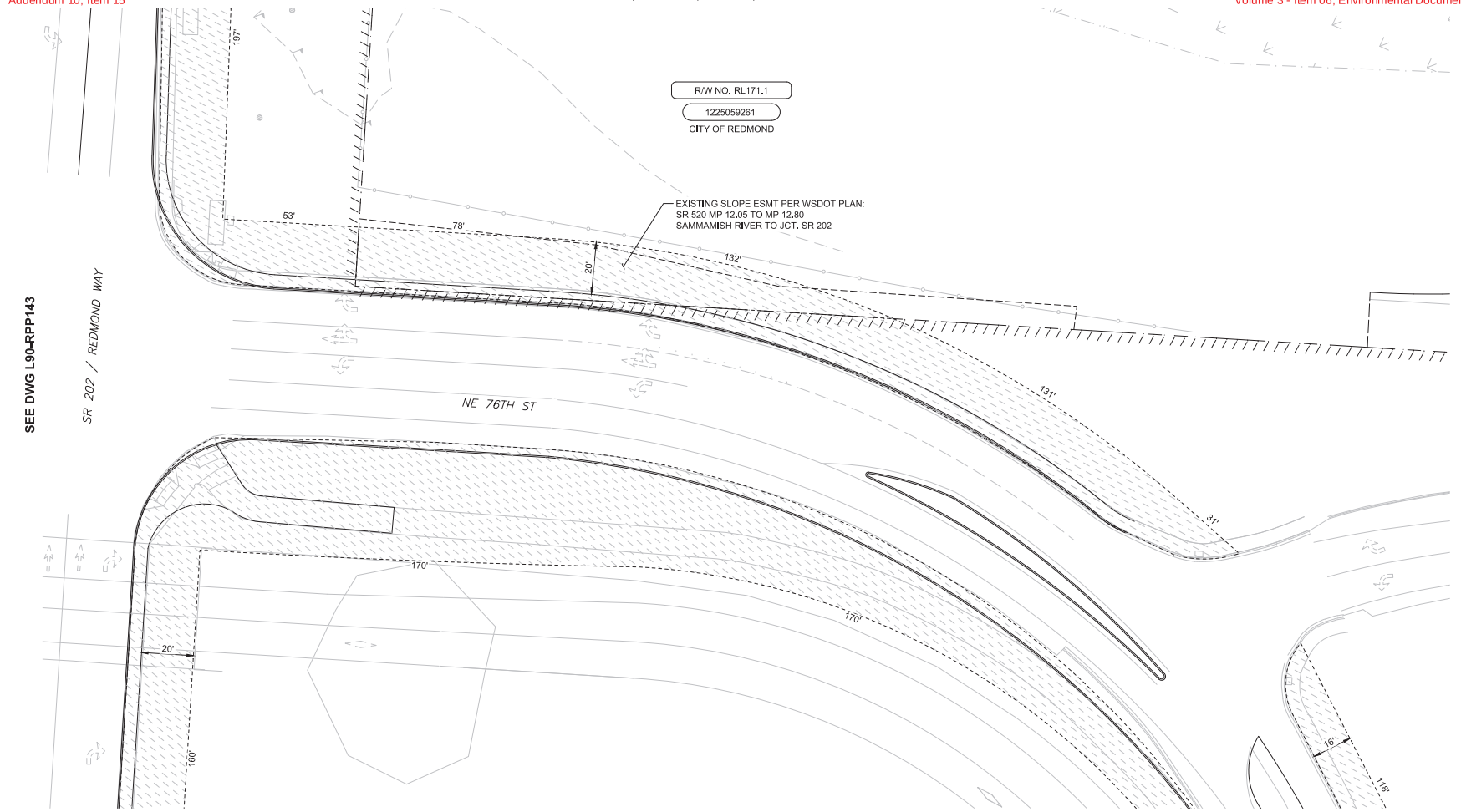
SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100T0159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
NE 45TH ST & 156TH AVE NE

DRAWING No.: L90-RPP161
LOCATION ID:
SHEET No.: 82
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GE-VSF
xRLE-L90-CRP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XPP100
xRLE-L90-SWP100

SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1 RL171.1	1225059261	CITY OF REDMOND	251,950				13,750	

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41901 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 76TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-RPP162
LOCATION ID:
SHEET No.: 83
REV:

09/26/18 | 4:48 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
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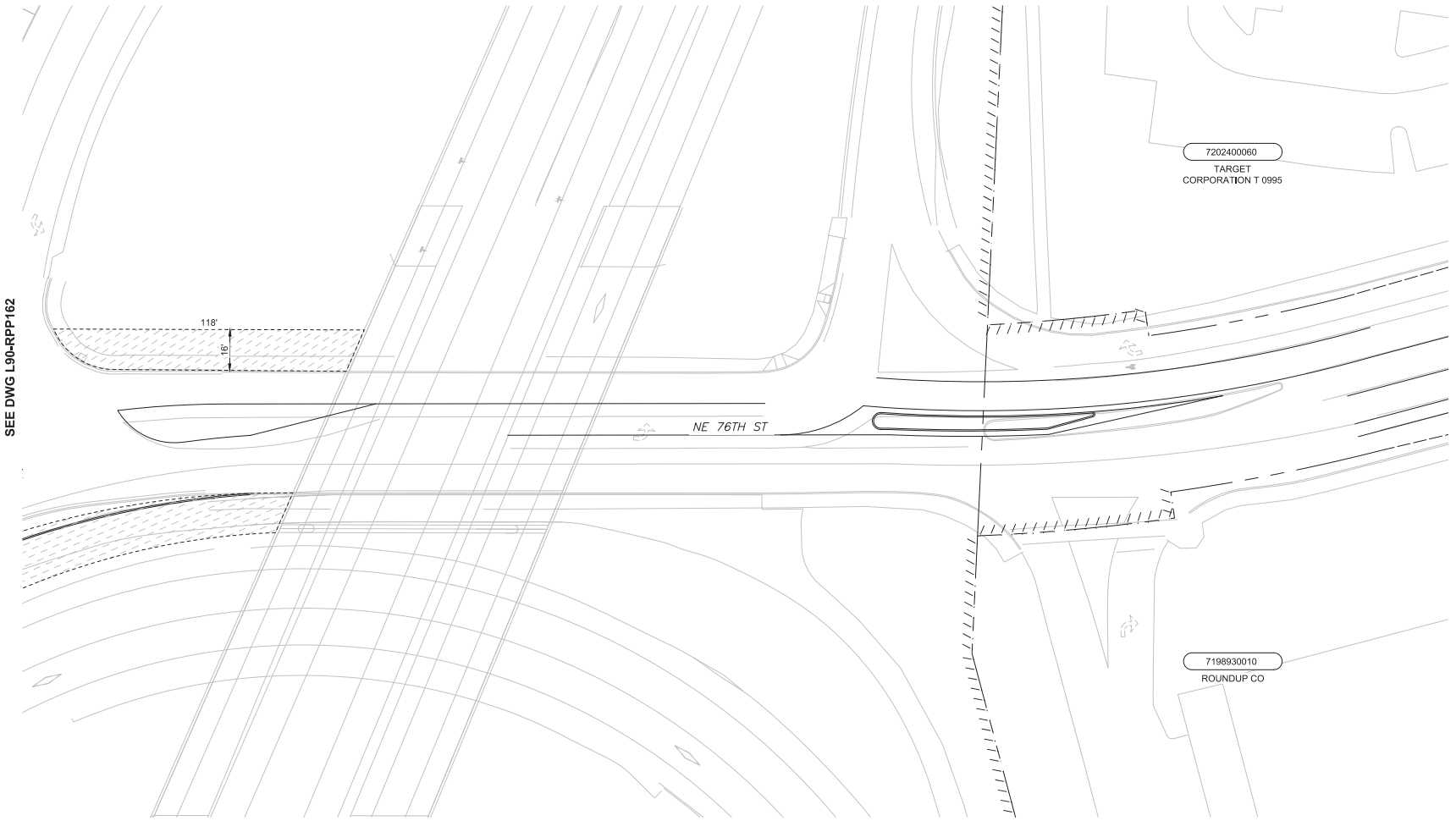
xRLE-L90-SWP100

NW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.



SW 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 76TH ST

DRAWING No.: L90-RPP163
LOCATION ID:
SHEET No.: 84
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NE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
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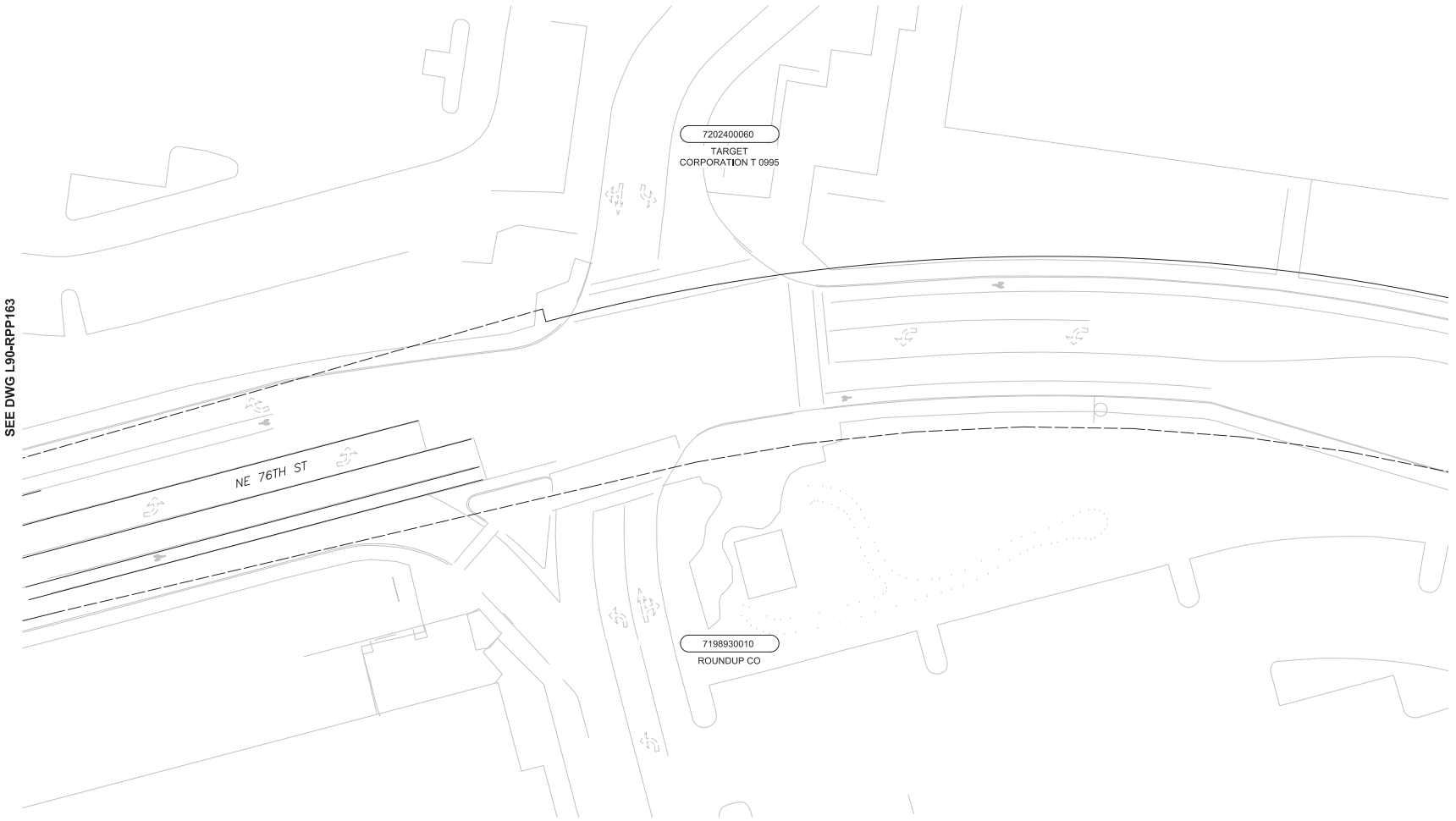

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SCALE IN FEET

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FINAL

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REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY PLAN
NE 76TH ST - NORTH

DRAWING No.: L90-RPP164
LOCATION ID:
SHEET No.: 85
REV:

09/26/18 | 4:49 PM | TYLERJ
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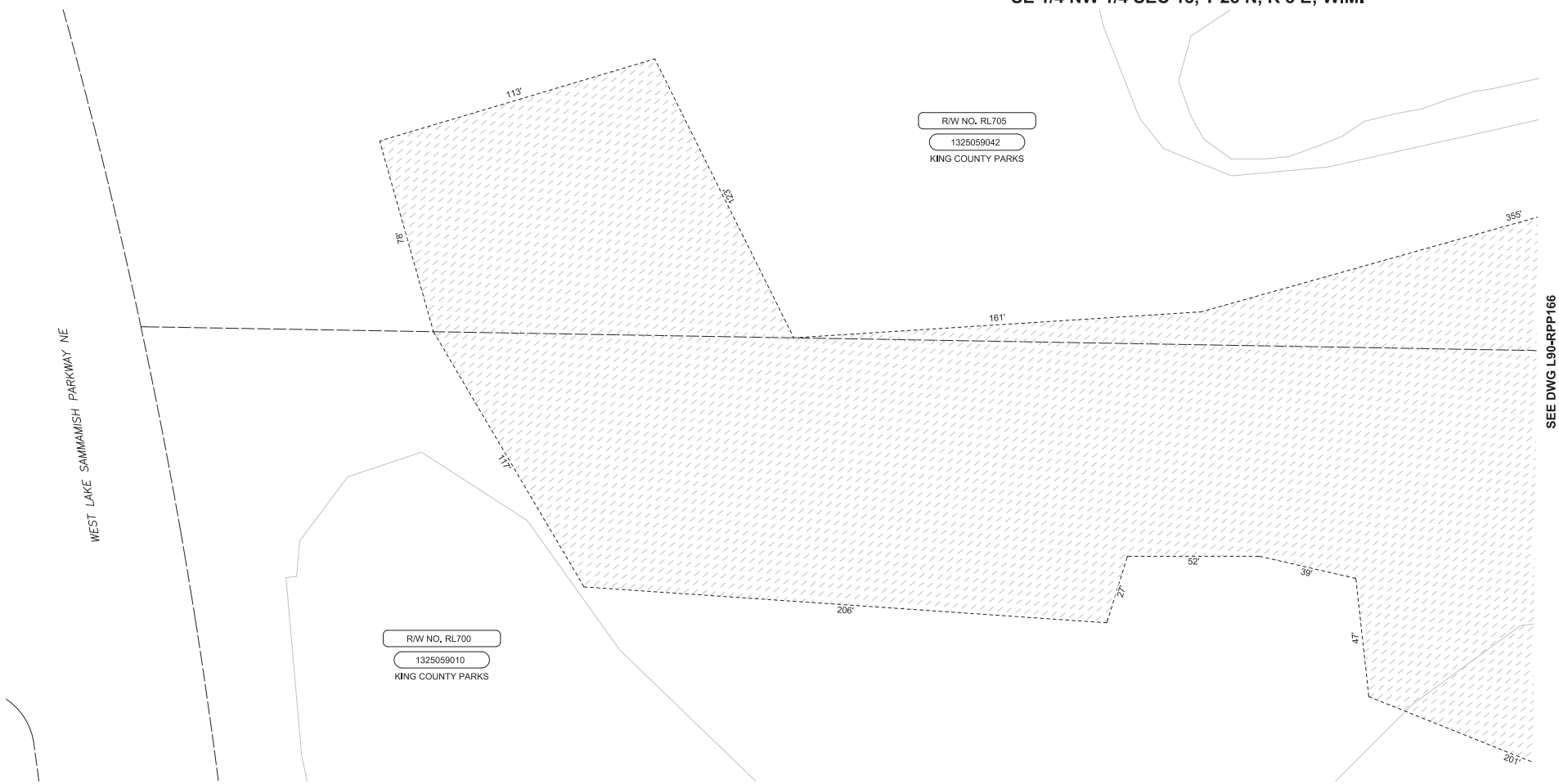
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-VFX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-AHP100
xRLE-L90-SWP100

SE 1/4 NW 1/4 SEC 13, T 25 N, R 5 E; W.M.



NE 1/4 SW 1/4 SEC 13, T 25 N, R 5 E; W.M.

	SOUND TRANSIT R/W NO.	PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL705	1325059042	KING COUNTY PARKS	820,604				t43,597	
2	RL700	1325059010	KING COUNTY PARKS	1,000,345				t217,493	

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
OFF-SITE MITIGATION AREA

DRAWING No.: L90-RPP165
LOCATION ID:
SHEET No.: 86
REV:

09/26/18 | 4:55 PM | TYLERJ
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Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

SE 1/4 NW 1/4 SEC 13, T 25 N, R 5 E; W.M.

NE 1/4 SW 1/4 SEC 13, T 25 N, R 5 E; W.M. SEE DWG L90-RPP168

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL705	1325059042	SEE DWG L90 - RPP165						
2	RL700	1325059010	SEE DWG L90 - RPP165						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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LINE IS 1" AT FULL SCALE

SOUND TRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
OFF-SITE MITIGATION AREA

DRAWING No.: L90-RPP166
LOCATION ID:
SHEET No.: 87
REV:

09/26/18 | 4:51 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-RPP100TO159.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
xRLE-L90-XRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CWP100
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xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-APP100
xRLE-L90-SWP100

NE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP165

3066200230
LINGAM JEGAN +
SHALINI SUBRAM

3066200190
NAKKIRAN RAJ
+ MEENAKSHI

3066200180
SCHONBERGER
FAMILY TRUST

3066200170
ELDER SAMUEL &
XIANG HUI

WEST LAKE SAMMAMISH PARKWAY NE

R/W NO. RL700
1325059010
KING COUNTY PARKS

5422470000
MEADOWS AT
MARYMOOR

201'
377'
139'
41'
569'

SEE DWG L90-RPP168

SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL705	1325059042	SEE DWG L90 - RPP165						
2	RL700	1325059010	SEE DWG L90 - RPP165						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

N

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDA
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 41801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
OFF-SITE MITIGATION AREA

DRAWING No.: L90-RPP167
LOCATION ID:
SHEET No.: 88
REV:

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Xrefs:
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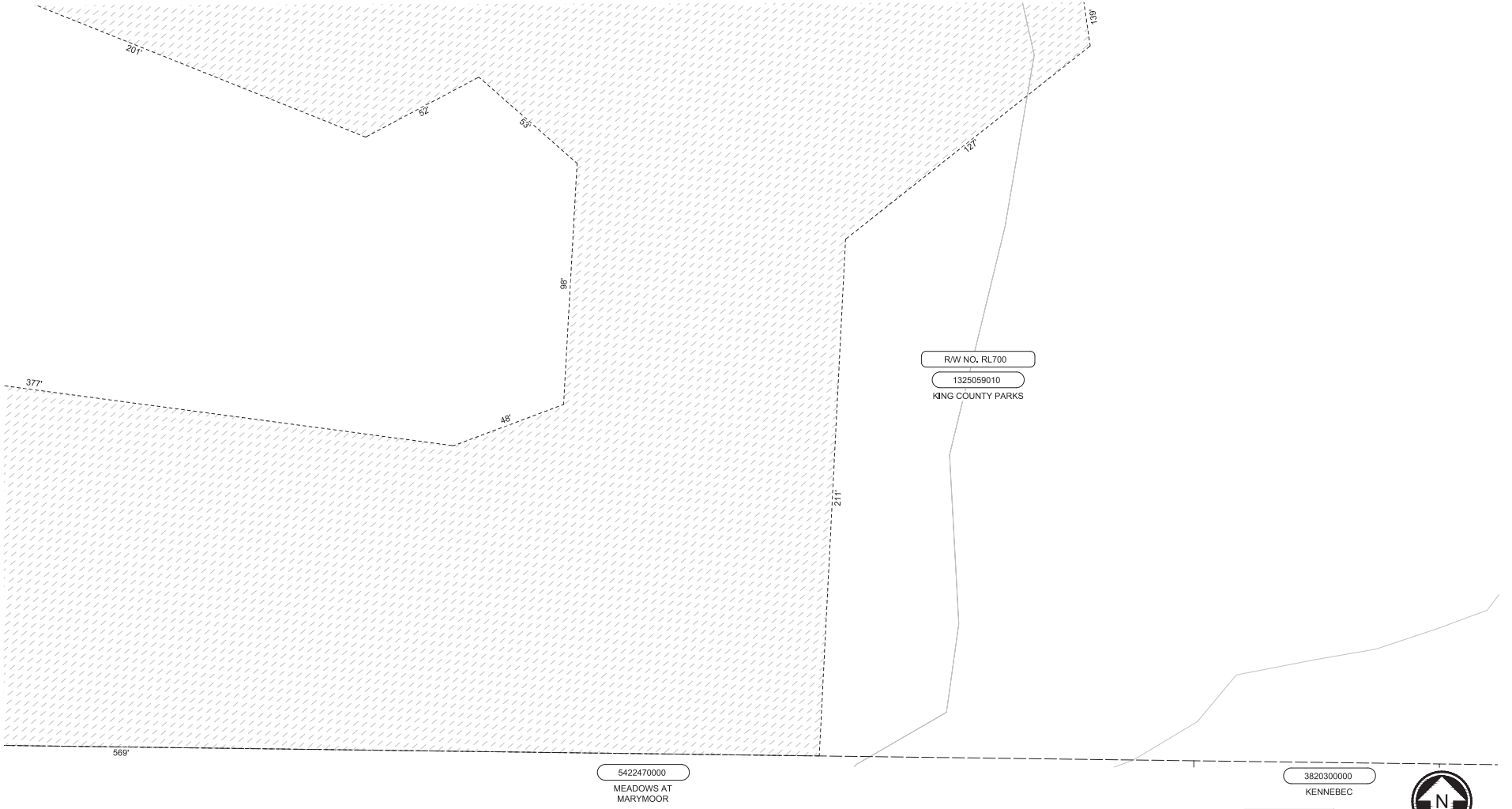
xRLE-L90-XAP100
xRLE-L90-VRX
xRLE-L90-SEP100
xRLE-GB-VSF
xRLE-L90-ORP100
xRLE-L90-CRP100
xE360-RLE-E27-LHP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-LPP100
xRLE-L90-RHP100
xRLE-L90-RPP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-XAP100
xRLE-L90-SWP100

SEE DWG L90-RPP166

NE 1/4 NE 1/4 SEC 12, T 25 N, R 5 E; W.M.

SEE DWG L90-RPP167



SOUND TRANSIT R/W NO.		PARCEL NO. (TAX ACCOUNT NO.)	OWNERS	PARCEL AREA SQ. FT.	FEE TAKE SQ. FT.	REMAINDER SQ. FT.	GUIDEWAY/ PERMANENT ESMT SQ. FT.	TEMPORARY CONSTRUCTION ESMT SQ. FT.	KING CO. RECORDING NO.
1	RL705	1325059042	SEE DWG L90 - RPP165						
2	RL700	1325059010	SEE DWG L90 - RPP165						

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: CRAWFORD/CASSEDAY
DRAWN BY: CRAWFORD/MCCABE
CHECKED BY: THOMAS/STUMPF
APPROVED BY: D. THIBODEAU

DANIEL A. THIBODEAU — STATE OF WASHINGTON — 21801 — REGISTERED PROFESSIONAL LAND SURVEYOR

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-RPP100TO159
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
RIGHT-OF-WAY
PLAN
OFF-SITE MITIGATION AREA

DRAWING No.: L90-RPP168
LOCATION ID:
SHEET No.: 89
REV:

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Addendum 10, Item 15

Xrefs:
RLE-GB-TB22x34

ABBREVIATIONS

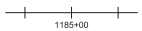
HORIZONTAL ALIGNMENT

AHD	AHEAD
BSO	BEARING OF TANGENT AT SPO
BK	BACK
CC	CENTER OF CIRCULAR CURVE
CS	POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL
CS_1	POINT OF CHANGE FROM FIRST CIRCULAR CURVE TO COMPOUND SPIRAL
CS_2	POINT OF CHANGE FROM SECOND CIRCULAR CURVE TO LAST SPIRAL
Dc	DEGREE OF CIRCULAR CURVE, ARC DEFINITION
Ea	ACTUAL TRACK SUPERELEVATION IN INCHES
Eu	UNBALANCED TRACK SUPERELEVATION IN INCHES
EB	EASTBOUND TRACK ALIGNMENT
Es	RADIAL DISTANCE FROM PI TO SPIRALIZED CURVE
Lc	TOTAL LENGTH OF CIRCULAR CURVE
Ls	TOTAL LENGTH OF SPIRAL
LSC	LENGTH OF COMPOUND SPIRAL (FROM CS1 TO SC2)
Ls_1	SUFFIX (1) AT THE SYMBOL DENOTES THE DATA FOR THE FIRST SPIRAL IN AN UNSYMMETRICAL SPIRALIZED CURVE
Ls_2	SUFFIX (2) SAME AS ABOVE - SECOND SPIRAL
L.T.	LONG TANGENT OF SPIRAL
P	OFFSET FROM THE TANGENT TO THE PC OR PT OF THE EXTENDED CIRCULAR CURVE OF A SPIRALIZED CURVE (THROW)
PC	POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE
PCC	POINT OF COMPOUND CIRCULAR CURVATURE
PF	POINT OF FROG
PI	POINT OF INTERSECTION OF TWO TANGENTS
PITO	POINT OF INTERSECTION OF TURNOUT
POB	POINT OF BEGINNING
POC	POINT ON CIRCULAR CURVE
POE	POINT OF ENDING
POS	POINT ON SPIRAL
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CIRCULAR CURVES
PRS	POINT OF REVERSE SPIRAL
PS	POINT OF SWITCH
PT	POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT
Rc	RADIUS OF CIRCULAR CURVE
SC	POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE
SC_1	POINT OF CHANGE FROM FIRST SPIRAL TO FIRST CIRCULAR CURVE
SC_2	POINT OF CHANGE FROM COMPOUND SPIRAL TO SECOND CIRCULAR CURVE
SPO	POINT OF ORIGIN OF COMPOUND SPIRAL
SS	POINT OF CHANGE FROM ONE SPIRAL TO ANOTHER
ST	POINT OF CHANGE FROM SPIRAL TO TANGENT
S.T.	SHORT TANGENT OF SPIRAL
TS	POINT OF CHANGE FROM TANGENT TO SPIRAL
Ts	TANGENT DISTANCE FROM TS OR ST TO PI
V	DESIGN VELOCITY IN MILES PER HOUR
WB	WESTBOUND TRACK ALIGNMENT
Xs	TANGENT DISTANCE FROM TS TO SC OR ST TO CS
Ys	TANGENT OFFSET AT SC OR CS
Δ	TOTAL CENTRAL ANGLE OF SPIRAL AND CIRCULAR CURVES
Δc	CENTRAL ANGLE OF CIRCULAR CURVE
$Δc_1$	SUFFIX (1) AT THE SYMBOL DENOTES DATA FOR THE FIRST CIRCULAR CURVE OF A COMPOUND CURVE
$Δc_2$	SUFFIX (2) SAME AS ABOVE - SECOND CIRCULAR CURVE

VERTICAL ALIGNMENT

EL	ELEVATION
EQ	EQUILLATERAL
HP	HIGH POINT
LVC	LENGTH OF VERTICAL CURVE (PVC TO PVT)
LP	LOW POINT
MO	MIDDLE ORDINATE
POVC	POINT ON VERTICAL CURVE
POVT	POINT ON VERTICAL TANGENT
PVC	POINT OF VERTICAL CURVE
PVCC	POINT OF VERTICAL COMPOUND CURVE
PVI	POINT OF VERTICAL INTERSECTION OF TWO VERTICAL TANGENTS
PVRC	POINT OF REVERSE VERTICAL CURVE
PVT	POINT OF VERTICAL TANGENT
T/LR	TOP OF LOW RAIL
VC	VERTICAL CURVE

SYMBOLS



TRACK CONTROL

EXPANSION JOINT

GRADE CROSSING ROAD

POINT OF SWITCH

TURNOUT SHOWING PITO

SINGLE CROSSOVER

DOUBLE CROSSOVER

PS # TURNOUT NUMBER

AUTOMATIC GATE WITH FLASHERS/ACCESS CONTROL IN JOINT USE AREAS

PROFILE GRADE LINE

STATION EQUATION

BUMPING POST

GENERAL NOTES

1. FOR SURVEY DATUM SEE DRAWING L90-RMP100.
2. ALL HORIZONTAL AND VERTICAL DISTANCES ARE IN FEET AND/OR DECIMALS OF A FOOT, EXCEPT AS NOTED.
3. STATIONS, OFFSETS AND PROFILES ARE INDICATED FROM THE CONTROL TRACK TOP OF RAIL UNLESS OTHERWISE NOTED. THE CONTROL TRACK IS THE RIGHT TRACK (EASTBOUND TRACK) WHEN VIEWED IN THE DIRECTION OF INCREASING STATIONING UNLESS OTHERWISE NOTED.
4. ALL GRADIENTS ARE IN PERCENT EXCEPT AS NOTED OTHERWISE.
5. TOP OF RAIL SHALL MEAN TOP OF LOW RAIL IN SUPERELEVATED SECTIONS, EXCEPT AS NOTED OTHERWISE
6. CONTROL SPEEDS ARE INDICATED ON HORIZONTAL CURVES AND ARE BASED ON HORIZONTAL RADIUS.
7. FOR DIRECT FIXATION TRACK INSTALLATION, SEE LINK LIGHT RAIL GUIDANCE DRAWINGS K-04-100 THROUGH K-04-200.
8. FOR NO. 10 DOUBLE CROSSOVER DIRECT FIXATION TRACK INSTALLATION, SEE LINK LIGHT RAIL GUIDANCE DRAWING K-07-455 AND K-07-565.
9. FOR TRANSITION SLAB FROM DIRECT FIXATION TRACK TO BALLASTED TRACK DETAIL, SEE LINK LIGHT RAIL GUIDANCE DRAWING K-08-200.
10. TOP OF RAIL PROFILE IS DEFINED BASED UPON THE RIGHT (EASTBOUND) TRACK. AT TANGENT TRACK TOP OF RAIL FOR BOTH TRACKS ARE EQUAL. IN AREAS OF HORIZONTAL CURVATURE THE TOP OF RAIL ELEVATION OF THE LEFT (WESTBOUND) TRACK SHALL BE ADJUSTED UNIFORMLY THROUGHOUT THE CURVE TO COMPENSATE FOR THE DIFFERENCE IN HORIZONTAL CURVE LENGTHS.

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR NEIL — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-KZN001
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
ABBREVIATIONS & SYMBOLS

DRAWING No.: L90-KZN001
LOCATION ID:
SHEET No.: 90
REV:

09/26/18 | 2:56 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ#HTTPS#SHAREPOINT.SOUNDTRANSIT.ORG#443#SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KZN001.DWG

Attachment 15

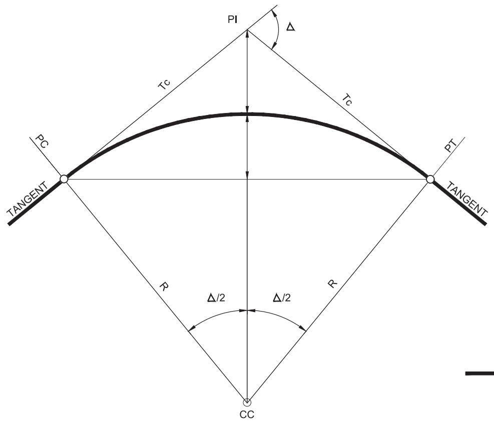
Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

Xrefs: RLE-GB-TB22x34

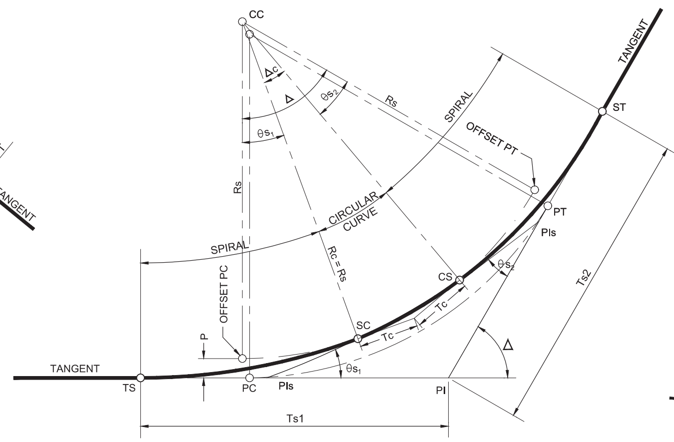
NOTES:

1. FOR ABBREVIATIONS SEE DRAWINGS L90-KZN001.
2. LENGTH OF CURVES AND STATIONING ARE DEFINED ACCORDING TO THE ARC DEFINITION.



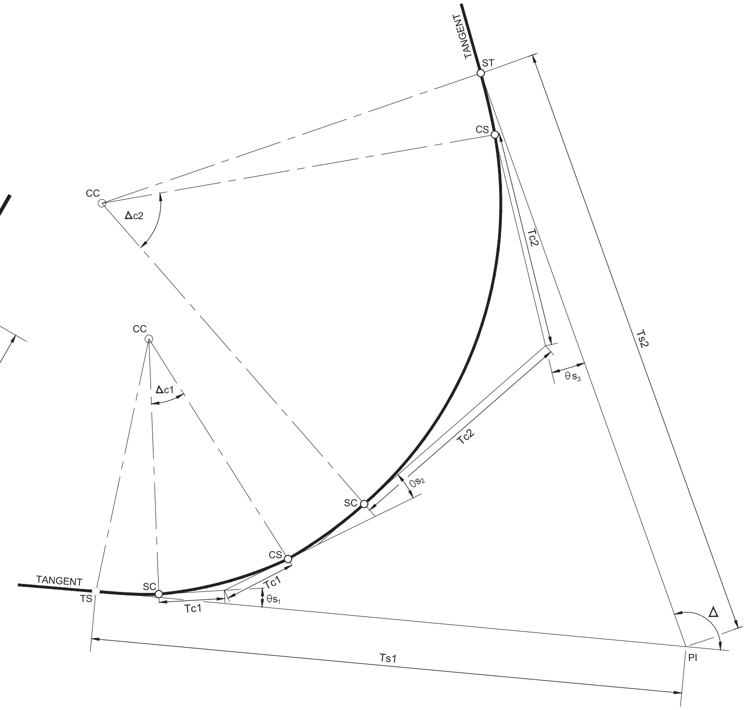
SIMPLE CIRCULAR CURVE

SCALE: NTS



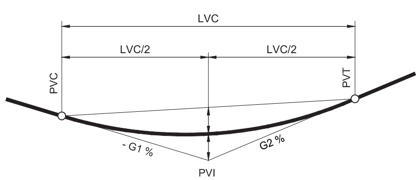
CIRCULAR CURVE WITH SPIRAL

SCALE: NTS



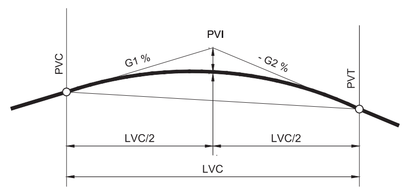
COMPOUND CURVE WITH JOINING SPIRALS

SCALE: NTS



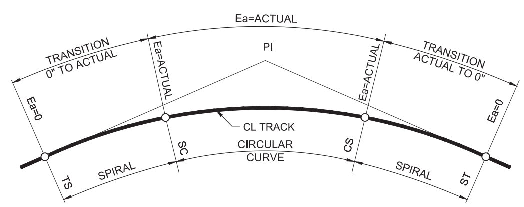
SAG VERTICAL CURVE

SCALE: NTS



CREST VERTICAL CURVE

SCALE: NTS



SUPERELEVATION DEVELOPMENT

SCALE: NTS

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STEVEN BLAIR METZ · STATE OF WASHINGTON · 43444 · REGISTERED PROFESSIONAL ENGINEER

Parametrix
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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS

REVIEWED BY:

DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KZN002
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
CURVE SYMBOLS AND
SUPERELEVATION DEVELOPMENT

DRAWING No.: L90-KZN002
LOCATION ID:
SHEET No.: 91
REV:

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Xrefs:
RLE-GB-TB22x34

TRACK ALIGNMENT DATA

CURVE NUMBER	PT.	STATION	NORTH COORDINATE	EAST COORDINATE	DATA
					Δ = 15°34'57.97"
	PI	EB 4993+28.72	338,350.1974	1,419,903.8816	Δc = 7°42'16.56"
	TS	EB 4991+64.85	338,188.4530	1,419,929.8034	Tc = 53.869
EB 301	SC	EB 4992+74.85	338,297.2941	1,419,914.0383	Ts1 = 164.541
	CS	EB 4993+82.43	338,401.2614	1,419,886.7240	θs1 = 3°56'20.71"
	ST	EB 4994+92.43	338,503.7965	1,419,846.9563	Ts2 = 164.541
					θs2 = 3°56'20.71"
					Δ = 4°42'43.84"
	PI	EB 5003+66.88	339,312.2651	1,419,513.7451	Δc = 3°40'51.07"
	TS	EB 5001+16.22	339,080.0518	1,419,608.1281	Tc = 160.663
EB 302	SC	EB 5002+06.22	339,163.2967	1,419,573.9196	Ts1 = 250.726
	CS	EB 5005+27.43	339,464.7892	1,419,463.2583	θs1 = 0°30'56.38"
	ST	EB 5006+17.43	339,550.3980	1,419,435.4899	Ts2 = 250.726
					θs2 = 0°30'56.38"
					Δ = 28°18'26.61"
	PI	EB 5016+24.20	340,514.9148	1,419,147.8414	Δc = 22°34'40.13"
	TS	EB 5010+84.89	339,995.4809	1,419,292.5953	Tc = 359.313
EB 303	SC	EB 5012+64.89	340,167.7389	1,419,240.4418	Ts1 = 544.104
	CS	EB 5019+74.19	340,871.0355	1,419,195.6320	θs1 = 2°51'53.24"
	ST	EB 5021+54.19	341,048.5196	1,419,225.5019	Ts2 = 544.104
					θs2 = 2°51'53.24"
					Δ = 11°52'55.03"
	PI	EB 5025+96.46	341,484.6364	1,419,298.4274	Δc = 6°09'08.55"
	TS	EB 5023+19.73	341,211.2776	1,419,255.6911	Tc = 96.734
EB 304	SC	EB 5024+99.73	341,388.7616	1,419,285.5611	Ts1 = 277.384
	CS	EB 5026+93.01	341,581.3379	1,419,300.9441	θs1 = 2°51'53.24"
	ST	EB 5028+73.01	341,761.3131	1,419,299.6281	Ts2 = 277.384
					θs2 = 2°51'53.24"
					Δ = 20°25'48.67"
	PI	EB 5034+59.11	342,347.2572	1,419,300.1836	Δc = 14°42'02.19"
	TS	EB 5030+46.92	341,935.1689	1,419,295.4584	Tc = 232.192
EB 305	SC	EB 5032+26.92	342,115.1440	1,419,294.1424	Ts1 = 414.488
	CS	EB 5036+88.75	342,570.2391	1,419,364.9301	θs1 = 2°51'53.24"
	ST	EB 5038+68.75	342,741.3115	1,419,420.8498	Ts2 = 414.488
					θs2 = 2°51'53.24"
					Δ = 5°33'26.40"
	PI	EB 5044+61.21	343,300.3622	1,419,616.9015	Δc = 1°37'32.82"
	TS	EB 5042+80.19	343,130.2073	1,419,555.1850	Tc = 31.016
EB 306	SC	EB 5044+30.19	343,271.4103	1,419,605.7751	Ts1 = 181.115
	CS	EB 5044+92.22	343,328.9867	1,419,628.8449	θs1 = 1°57'56.79"
	ST	EB 5046+42.22	343,466.0556	1,419,689.7526	Ts2 = 181.115
					θs2 = 1°57'56.79"
					Δ = 5°54'06.31"
	PI	EB 5049+96.60	343,789.4586	1,419,834.5943	Δc = 2°01'11.73"
	TS	EB 5048+07.57	343,616.3839	1,419,758.6216	Tc = 39.031
EB 307	SC	EB 5049+57.57	343,753.4442	1,419,819.5493	Ts1 = 189.146
	CS	EB 5050+35.63	343,825.9809	1,419,848.3605	θs1 = 1°56'27.29"
	ST	EB 5051+85.63	343,967.4928	1,419,898.0806	Ts2 = 189.146
					θs2 = 1°56'27.29"
	PI	EB 5071+39.40	345,817.9942	1,420,524.8687	Δ = 67°15'51.48"
	TS	EB 5057+36.23	344,488.9894	1,420,074.7180	Δc1 = 20°36'45.72"
EB 308A	SC	EB 5059+16.23	344,658.4704	1,420,135.2902	Δc2 = 40°05'50.32"
	CS	EB 5065+63.79	345,205.3773	1,420,475.4851	Tc1 = 327.322
	SC	EB 5066+23.79	345,249.1951	1,420,516.4696	Tc2 = 802.851
	CS	EB 5081+63.42	345,911.0426	1,421,871.9127	Ts1 = 1403.171
EB 308B	ST	EB 5083+13.42	345,923.2672	1,422,021.4059	θs1 = 2°51'53.24"
					Ts2 = 1500.235
					θs2 = 1°44'10.45"
					θs3 = 1°57'11.75"

TRACK ALIGNMENT DATA

CURVE NUMBER	PT.	STATION	NORTH COORDINATE	EAST COORDINATE	DATA
					Δ = 5°35'55.42"
	PI	EB 5089+01.95	345,962.5046	1,422,608.6169	Δc = 4°34'02.65"
	TS	EB 5086+12.55	345,944.2575	1,422,319.7980	Tc = 199.396
EB 309	SC	EB 5087+02.55	345,950.3035	1,422,409.5943	Ts1 = 289.488
	CS	EB 5091+01.13	345,958.8185	1,422,807.9790	θs1 = 0°30'56.38"
	ST	EB 5091+91.13	345,956.6148	1,422,897.9517	Ts2 = 289.488
					θs2 = 0°30'56.38"
					Δ = 2°25'39.26"
	PI	EB 5105+53.03	345,918.4885	1,424,259.3197	Δc = 1°58'54.98"
	TS	EB 5103+27.35	345,925.3868	1,424,033.7470	Tc = 155.677
EB 310	SC	EB 5103+97.35	345,923.3722	1,424,103.7179	Ts1 = 225.690
	CS	EB 5107+08.68	345,908.2263	1,424,414.6558	θs1 = 0°13'22.14"
	ST	EB 5107+78.68	345,903.4308	1,424,484.4913	Ts2 = 225.690
					θs2 = 0°13'22.14"
					Δ = 20°02'54.48"
	PI	EB 5117+31.87	345,846.4231	1,425,435.8091	Δc = 14°19'08.00"
	TS	EB 5114+61.14	345,855.7951	1,425,165.2895	Tc = 150.732
EB 311	SC	EB 5115+81.14	345,849.4160	1,425,285.1064	Ts1 = 272.199
	CS	EB 5118+81.03	345,880.7948	1,425,582.5703	θs1 = 2°51'53.24"
	ST	EB 5120+01.03	345,912.0338	1,425,698.4190	Ts2 = 272.199
					θs2 = 2°51'53.24"
	PI	EB 5136+60.20	346,370.6408	1,427,292.9407	Δ = 145°03'27.81"
	TS	EB 5125+79.08	346,071.8115	1,426,253.9472	Δc1 = 78°40'53.93"
EB 312A	SC	EB 5126+59.08	346,096.9949	1,426,329.8250	Δc2 = 40°36'46.72"
	CS	EB 5131+12.26	346,467.5470	1,426,524.1074	Tc1 = 270.495
	SC	EB 5131+72.26	346,524.8550	1,426,506.6307	Tc2 = 116.84
	CS	EB 5133+96.07	346,686.0941	1,426,358.1999	Ts1 = 1081.114
EB 312B	ST	EB 5134+86.07	346,719.2213	1,426,274.6057	θs1 = 6°56'41.79"
					Ts2 = 1076.343
					θs2 = 10°39'08.95
					θs3 = 8°09'56.41"
					Δ = -
					Δc = 2°25'03.56"
	PI	EB 5141+14.28	346,922.6723	1,425,680.2486	Tc = 211.012
EB 313	PC	EB 5139+03.27	346,854.3349	1,425,879.8880	Ts1 = -
	PT	EB 5143+25.23	346,999.3704	1,425,483.6697	θs1 = -
					Ts2 = -
					θs2 = -
	PI	EB 5155+03.87	347,429.5737	1,424,386.3731	Δ = 6°43'10.32"
	TS	EB 5153+87.63	347,385.5290	1,424,493.9362	Δc = 3°11'37.10"
	SC	EB 5154+67.63	347,415.3688	1,424,419.7133	Tc = 36.240
EB 314	CS	EB 5155+40.09	347,445.6139	1,424,353.8761	Ts1 = 116.329
	SS	EB 5156+20.09	347,482.4852	1,424,282.8834	θs1 = 1°45'46.61"
					Ts2 = 116.329
					θs2 = 1°45'46.61"
	PI	EB 5157+40.59	347,537.2810	1,424,175.5759	Δ = 7°05'40.15"
	SS	EB 5156+20.09	347,482.4852	1,424,282.8834	Δc = 3°34'06.94"
	SC	EB 5157+00.09	347,519.3564	1,424,211.8906	Tc = 40.497
EB 315	CS	EB 5157+81.06	347,552.9105	1,424,138.2160	Ts1 = 120.599
	ST	EB 5158+61.06	347,582.2640	1,424,063.7994	θs1 = 1°45'46.61"
					Ts2 = 120.599
					θs2 = 1°45'46.61"

EASTBOUND TRACK

POINT	STATION	BEARING	NORTH COORDINATE	EAST COORDINATE
POB	EB 4991+00.00	N 06° 55' 43.41" W	338,124.0722	1,419,937.6271
POE	EB 5167+57.06	N 69° 03' 39.60" W	347,902.4705	1,423,226.9709

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KATHRYN BLAIR JENETT — STATE OF WASHINGTON — 21660 — REGISTERED PROFESSIONAL ENGINEER

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PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-KAP010
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
ALIGNMENT DATA
EASTBOUND MAIN TRACK

DRAWING No.: L90-KAP010
LOCATION ID:
SHEET No.: 92
REV:

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Xrefs:
RLE-GB-TB22x34

TRACK ALIGNMENT DATA

CURVE NUMBER	PT.	STATION	NORTH COORDINATE	EAST COORDINATE	DATA
					Δ = 15°34'57.97"
	PI	WB 4993+82.00	338,399.3189	1,419,866.4741	Δ_C = 7°42'16.56"
	TS	WB 4992+18.13	338,237.5745	1,419,892.3960	Tc = 53.869
WB 301	SC	WB 4993+28.13	338,346.4156	1,419,876.6309	T_{S1} = 164.541
	CS	WB 4994+35.71	338,450.3829	1,419,849.3166	θ_{S1} = 3°56'20.71"
	ST	WB 4995+45.71	338,552.9180	1,419,809.5489	T_{S2} = 164.541
					θ_{S2} = 3°56'20.71"
					Δ = 4°42'43.84"
	PI	WB 5003+67.53	339,306.8345	1,419,498.9499	Δ_C = 3°40'56.91"
	TS	WB 5001+16.15	339,073.9561	1,419,593.6053	Tc = 161.240
WB 302	SC	WB 5002+06.29	339,157.3319	1,419,559.3426	T_{S1} = 251.445
	CS	WB 5005+28.66	339,459.9073	1,419,448.2839	θ_{S1} = 0°30'53.47"
	ST	WB 5006+17.43	339,545.6509	1,419,420.4722	T_{S2} = 251.445
					θ_{S2} = 0°30'53.47"
					Δ = 28°18'26.61"
	PI	WB 5016+28.08	340,513.8884	1,419,131.7330	Δ_C = 22°36'09.79"
	TS	WB 5010+84.43	339,990.2923	1,419,277.7193	Tc = 362.867
WB 303	SC	WB 5012+65.21	340,163.2986	1,419,225.3256	T_{S1} = 548.469
	CS	WB 5019+81.51	340,873.5215	1,419,180.0744	θ_{S1} = 2°51'08.41"
	ST	WB 5021+62.30	341,051.7782	1,419,210.0877	T_{S2} = 548.469
					θ_{S2} = 2°51'08.41"
					Δ = 11°52'55.03"
	PI	WB 5025+94.83	341,485.8940	1,419,282.6836	Δ_C = 6°07'37.71"
	TS	WB 5023+20.12	341,214.5380	1,419,240.2772	Tc = 95.494
WB 304	SC	WB 5024+99.33	341,391.2459	1,419,270.0032	T_{S1} = 275.350
	CS	WB 5026+90.14	341,581.3549	1,419,285.1892	θ_{S1} = 2°52'38.66"
	ST	WB 5028+69.35	341,760.5410	1,419,283.8920	T_{S2} = 275.350
					θ_{S2} = 2°52'38.66"
					Δ = 20°25'48.67"
	PI	WB 5034+61.93	342,349.7059	1,419,284.4411	Δ_C = 14°43'31.85"
	TS	WB 5030+46.52	341,934.3984	1,419,279.7224	Tc = 234.625
WB 305	SC	WB 5032+27.31	342,115.1593	1,419,278.3875	T_{S1} = 417.719
	CS	WB 5036+93.97	342,575.0099	1,419,349.9149	θ_{S1} = 2°51'08.41"
	ST	WB 5038+68.75	342,746.8252	1,419,406.0912	T_{S2} = 417.719
					θ_{S2} = 2°51'08.41"
					Δ = 5°33'26.40"
	PI	WB 5044+61.58	343,306.2222	1,419,602.2764	Δ_C = 1°38'23.54"
	TS	WB 5042+79.53	343,135.0947	1,419,540.2101	Tc = 31.510
WB 306	SC	WB 5044+30.07	343,276.8076	1,419,590.9763	T_{S1} = 182.149
	CS	WB 5044+93.09	343,335.3013	1,419,614.4136	θ_{S1} = 1°57'31.43"
	ST	WB 5046+43.63	343,472.8607	1,419,675.5461	T_{S2} = 182.149
					θ_{S2} = 1°57'31.43"
					Δ = 5°54'06.31"
	PI	WB 5049+95.79	343,795.2752	1,419,819.9500	Δ_C = 2°00'21.76"
	TS	WB 5048+07.84	343,623.1867	1,419,744.4140	Tc = 38.487
WB 307	SC	WB 5049+57.31	343,759.7610	1,419,805.1190	T_{S1} = 188.067
	CS	WB 5050+34.27	343,831.2868	1,419,833.5288	θ_{S1} = 1°56'52.28"
	ST	WB 5051+83.74	343,972.2924	1,419,883.0773	T_{S2} = 188.067
					θ_{S2} = 1°56'52.28"

TRACK ALIGNMENT DATA

CURVE NUMBER	PT.	STATION	NORTH COORDINATE	EAST COORDINATE	DATA
	PI	WB 5071+49.87	345,832.9701	1,420,513.3123	Δ = 67°15'51.48"
	TS	WB 5057+35.83	344,493.6701	1,420,059.6745	Δ_{C1} = 20°37'33.26"
WB 308A	SC	WB 5059+16.62	344,663.8954	1,420,120.4988	Δ_{C2} = 40°06'13.13"
	CS	WB 5065+70.27	345,215.9725	1,420,463.8315	T_{C1} = 330.402
	SC	WB 5066+30.75	345,260.1384	1,420,505.1423	T_{C2} = 808.737
	CS	WB 5081+81.64	345,926.7350	1,421,870.5401	T_{S1} = 1414.04
WB 308B	ST	WB 5083+13.69	345,938.9972	1,422,020.5681	θ_{S1} = 2°51'08.41"
					T_{S2} = 1510.98
					θ_{S2} = 1°44'09.96
					θ_{S3} = 1°56'46.72"
					Δ = 5°35'55.42"
	PI	WB 5089+02.72	345,978.2664	1,422,608.2800	Δ_C = 4°34'08.49"
	TS	WB 5086+12.48	345,959.9637	1,422,318.6221	Tc = 200.095
WB 309	SC	WB 5087+02.62	345,966.0196	1,422,408.5598	T_{S1} = 290.329
	CS	WB 5091+02.60	345,974.5645	1,422,808.3411	θ_{S1} = 0°30'53.47"
	ST	WB 5091+92.74	345,972.3569	1,422,898.4553	T_{S2} = 290.329
					θ_{S2} = 0°30'53.47"
					Δ = 2°25'39.26"
	PI	WB 5105+53.37	345,934.2227	1,424,260.0843	Δ_C = 1°58'56.38"
	TS	WB 5103+27.32	345,941.1317	1,424,034.1493	Tc = 155.980
WB 310	SC	WB 5103+97.39	345,939.1155	1,424,104.1814	T_{S1} = 226.054
	CS	WB 5107+09.31	345,923.9400	1,424,415.7246	θ_{S1} = 0°13'21.44"
	ST	WB 5107+78.71	345,919.1403	1,424,485.6212	T_{S2} = 226.054
					θ_{S2} = 0°13'21.44"
					Δ = 20°02'54.48"
	PI	WB 5116+89.83	345,865.0693	1,425,394.9687	Δ_C = 14°19'08.00"
	TS	WB 5114+19.10	345,874.4412	1,425,124.4490	Tc = 150.732
WB 311	SC	WB 5115+39.10	345,868.0621	1,425,244.2660	T_{S1} = 272.199
	CS	WB 5118+38.99	345,899.4410	1,425,541.7299	θ_{S1} = 2°51'53.24"
	ST	WB 5119+58.99	345,930.6800	1,425,657.5786	T_{S2} = 272.199
					θ_{S2} = 2°51'53.24"
					Δ = 145°03'27.81"
	PI	WB 5132+76.45	346,403.0224	1,426,872.8929	Δ_C = 125°46'54.43"
	TS	WB 5125+76.30	346,099.1115	1,426,243.1950	Tc = 586.022
WB 312	SC	WB 5126+90.42	346,137.4802	1,426,350.4862	T_{S1} = 1014.599
	CS	WB 5133+49.02	346,671.5622	1,426,352.0208	θ_{S1} = 10°53'54.61"
	ST	WB 5134+36.74	346,703.9520	1,426,270.5804	T_{S2} = 1001.668
					θ_{S2} = 8°22'38.77"
					Δ = -
					Δ_C = 2°25'03.56"
	PI	WB 5141+14.58	346,907.8788	1,425,674.8334	Tc = 211.344
WB 313	PC	WB 5139+03.27	346,839.4337	1,425,874.7872	T_{S1} = -
	PT	WB 5143+25.23	346,984.6976	1,425,477.9449	θ_{S1} = -
					T_{S2} = -
					θ_{S2} = -
					Δ = -
					Δ_C = 0°22'29.83"
	PI	WB 5157+79.52	347,513.3014	1,424,123.1211	Tc = 65.442
WB 314	PC	WB 5157+14.08	347,489.5147	1,424,184.0870	T_{S1} = -
	PT	WB 5158+44.96	347,536.6887	1,424,062.0009	θ_{S1} = -
					T_{S2} = -
					θ_{S2} = -

WESTBOUND TRACK

POINT	STATION	BEARING	NORTH COORDINATE	EAST COORDINATE
POB	WB 4991+00.00	N 06° 55' 43.41" W	338,120.3074	1,419,906.6465
POE	WB 5167+57.06	N 69° 03' 39.60" W	347,862.1156	1,423,221.5294

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KATHRYN BLAIR JANES — STATE OF WASHINGTON — 21660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-KAP011
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
ALIGNMENT DATA
WESTBOUND MAIN TRACK

DRAWING No.: L90-KAP011
LOCATION ID:
SHEET No.: 93
REV:

09/26/18 | 2:53 PM | TYLERJ
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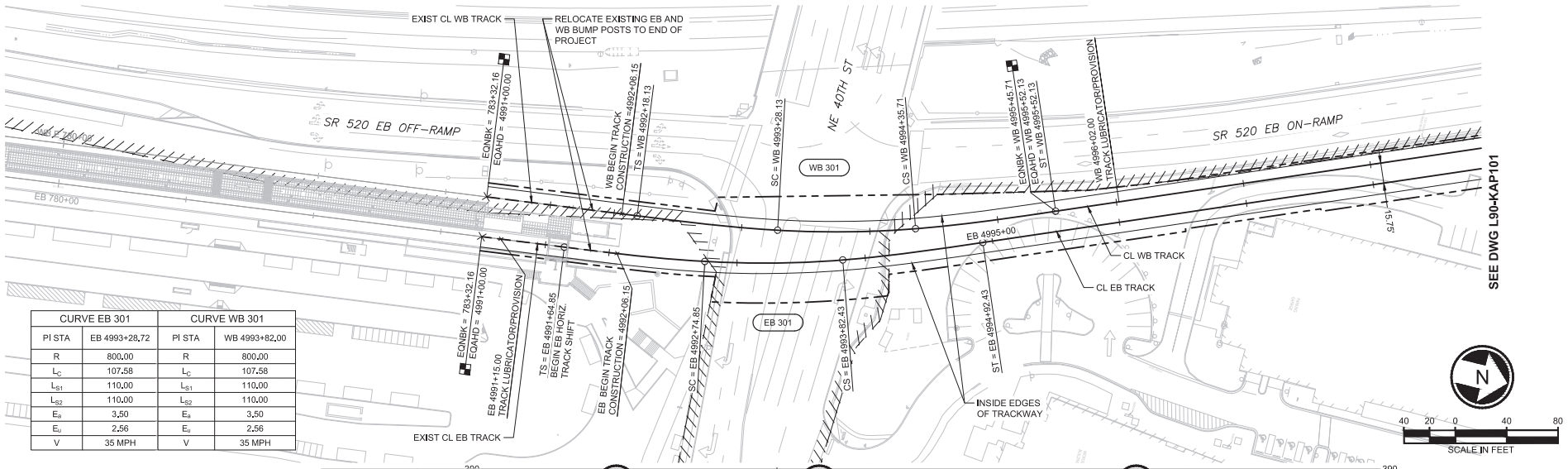
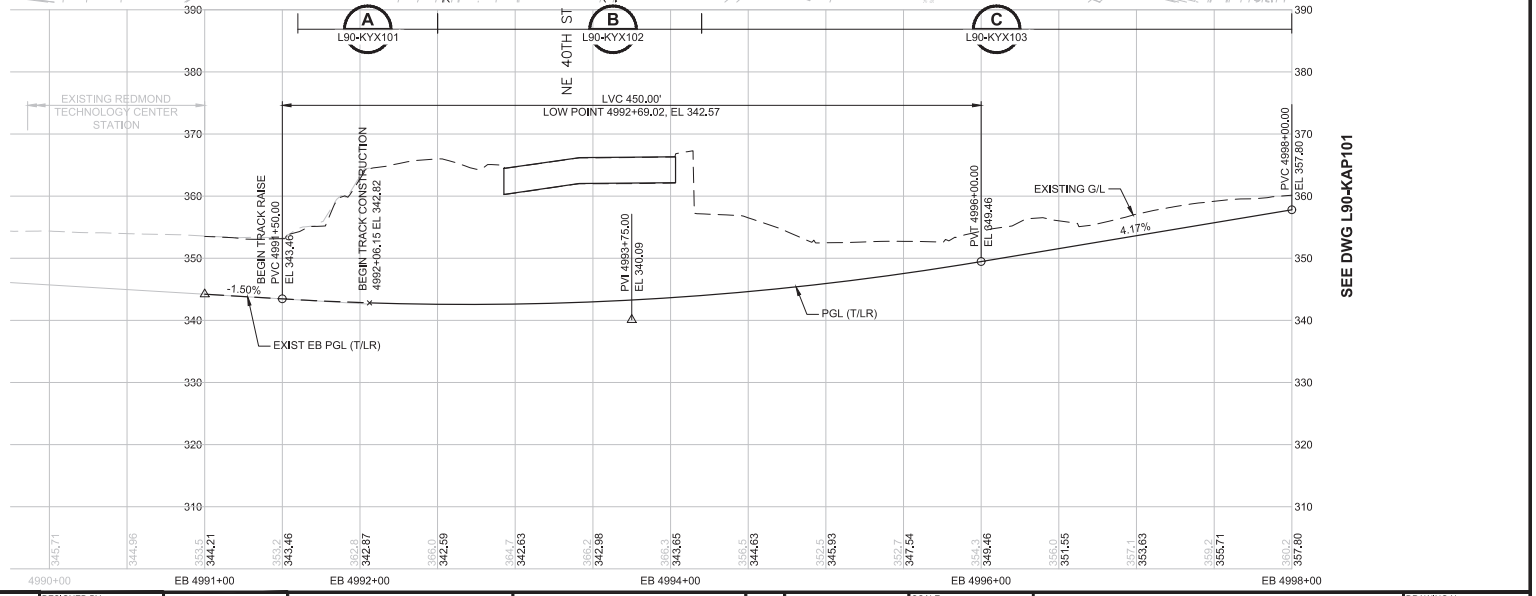


CURVE EB 301		CURVE WB 301	
PI STA	EB 4993+28.72	PI STA	WB 4993+82.00
R	800.00	R	800.00
L_C	107.58	L_C	107.58
L_{S1}	110.00	L_{S1}	110.00
L_{S2}	110.00	L_{S2}	110.00
E_a	3.50	E_a	3.50
E_u	2.56	E_u	2.56
V	35 MPH	V	35 MPH



PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 4991+00 TO EB STA 4998+00

DRAWING No.: L90-KAP100
LOCATION ID:
SHEET No.: 94
REV:

09/27/18 | 9:25 AM | TYLERJ
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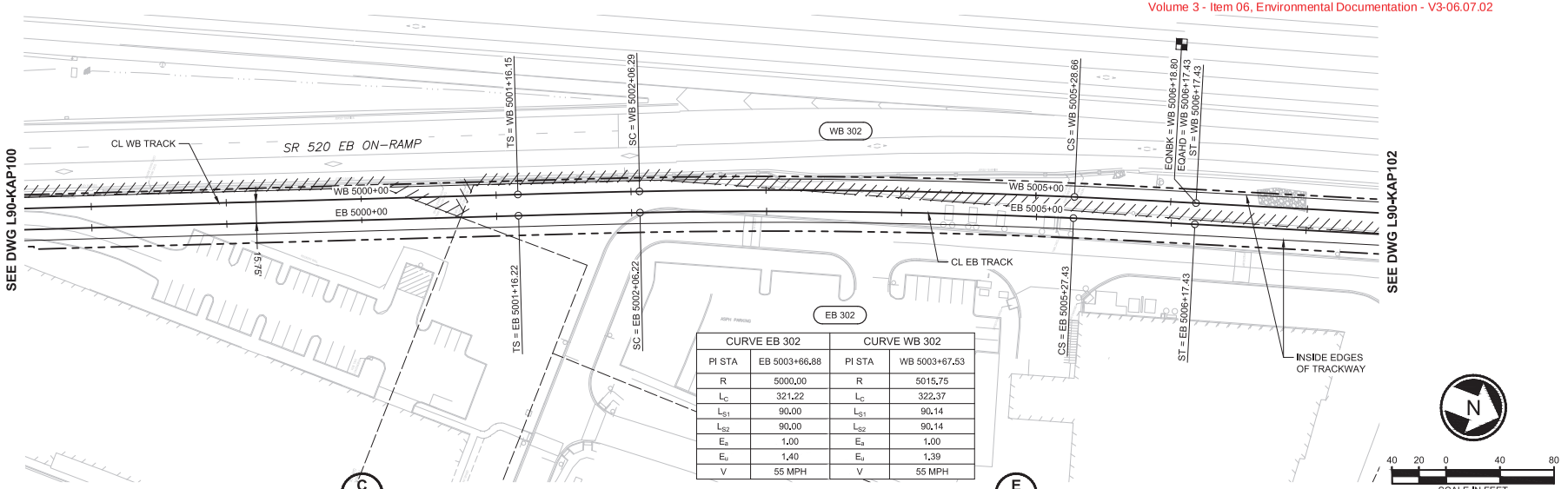
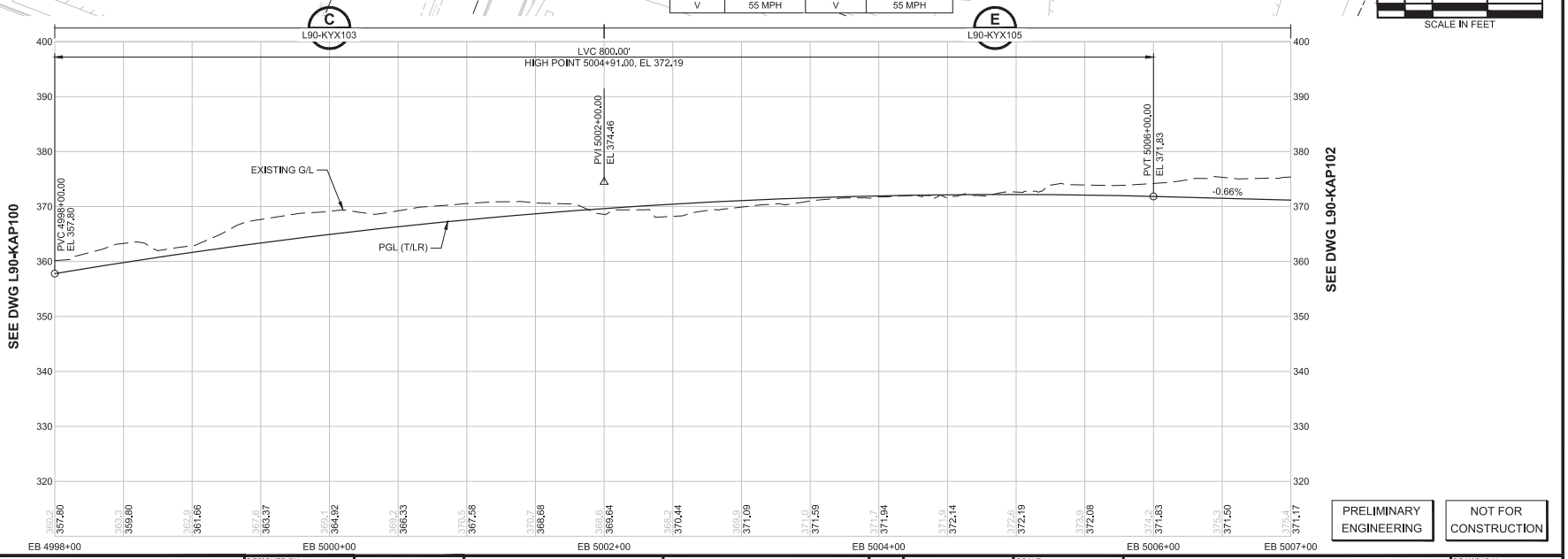


CURVE EB 302		CURVE WB 302	
PI STA	EB 5003+66.88	PI STA	WB 5003+67.53
R	5000.00	R	5015.75
L_C	321.22	L_C	322.37
L_{S1}	90.00	L_{S1}	90.14
L_{S2}	90.00	L_{S2}	90.14
E_a	1.00	E_a	1.00
E_u	1.40	E_u	1.39
V	55 MPH	V	55 MPH



PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR JONES — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 4998+00 TO EB STA 5007+00

DRAWING No.: L90-KAP101
LOCATION ID:
SHEET No.: 95
REV:

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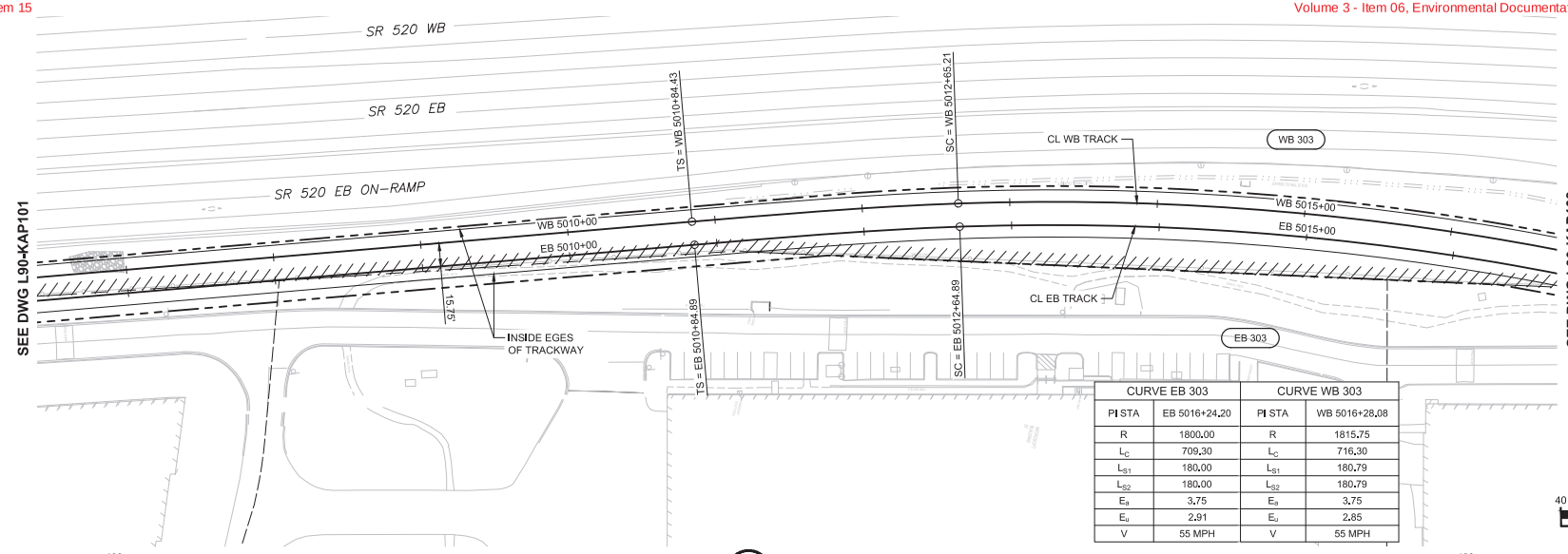
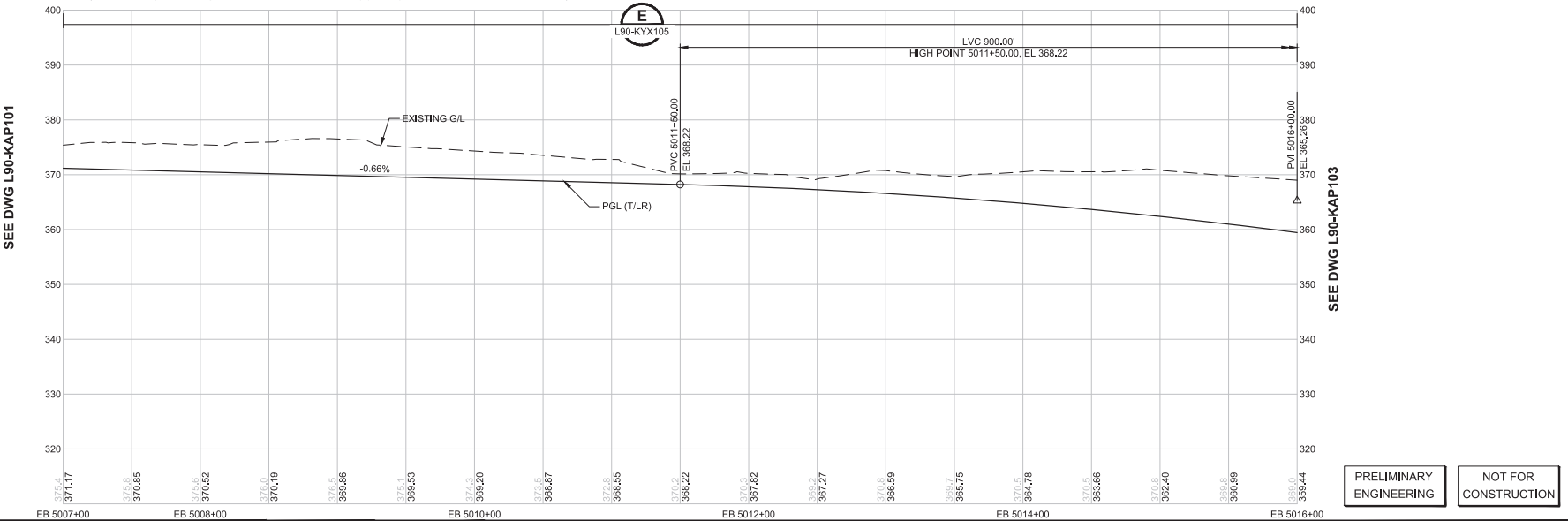
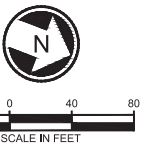


CURVE EB 303		CURVE WB 303	
PI STA	EB 5016+24.20	PI STA	WB 5016+28.08
R	1800.00	R	1815.75
L_C	709.30	L_C	716.30
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	180.00	L_{S2}	180.79
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5007+00 TO EB STA 5016+00

DRAWING No.: L90-KAP102
LOCATION ID:
SHEET No.: 96
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP10
09/27/18 | 9:27 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
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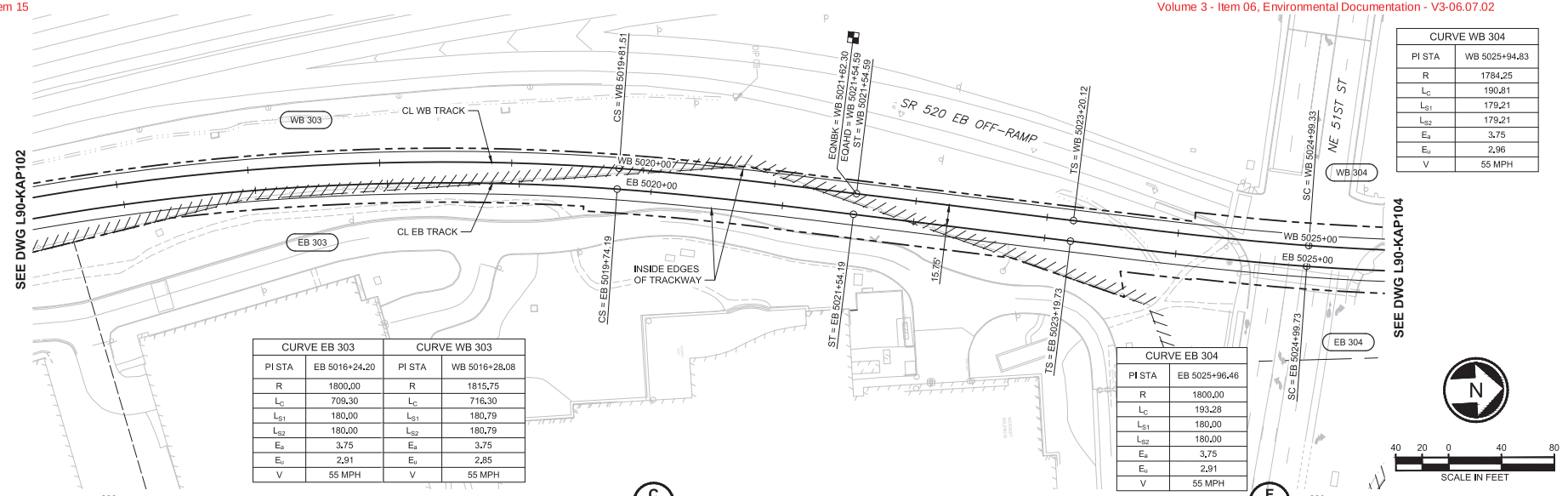
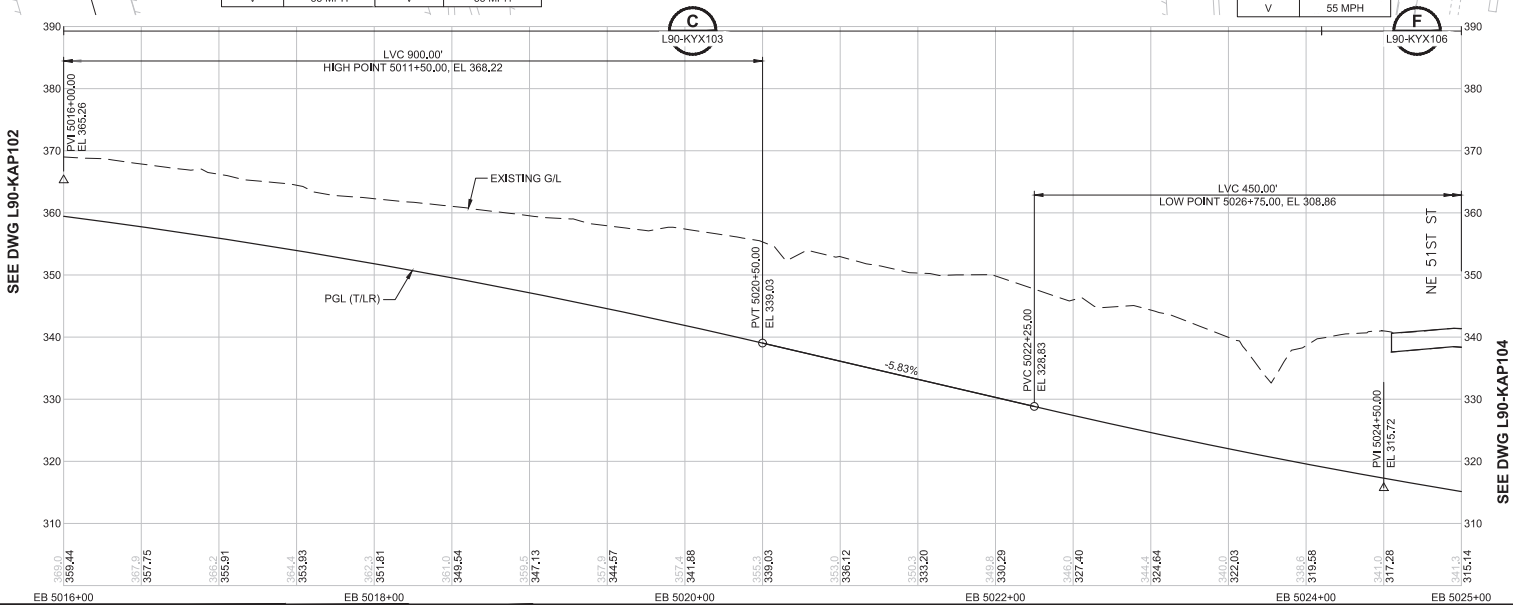


CURVE WB 304	
PI STA	WB 5025+94.83
R	1784.25
L_C	190.81
L_{S1}	179.21
L_{S2}	179.21
E_a	3.75
E_u	2.96
V	55 MPH

CURVE EB 303		CURVE WB 303	
PI STA	EB 5016+24.20	PI STA	WB 5016+28.08
R	1800.00	R	1815.75
L_C	709.30	L_C	716.30
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	180.00	L_{S2}	180.79
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH

CURVE EB 304	
PI STA	EB 5025+96.46
R	1800.00
L_C	193.28
L_{S1}	180.00
L_{S2}	180.00
E_a	3.75
E_u	2.91
V	55 MPH



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KRISTEN BLAIR JONES — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5016+00 TO EB STA 5025+00

DRAWING No.: L90-KAP103
LOCATION ID:
SHEET No.: 97
REV:

09/27/18 | 9:28 AM | TYLERJ
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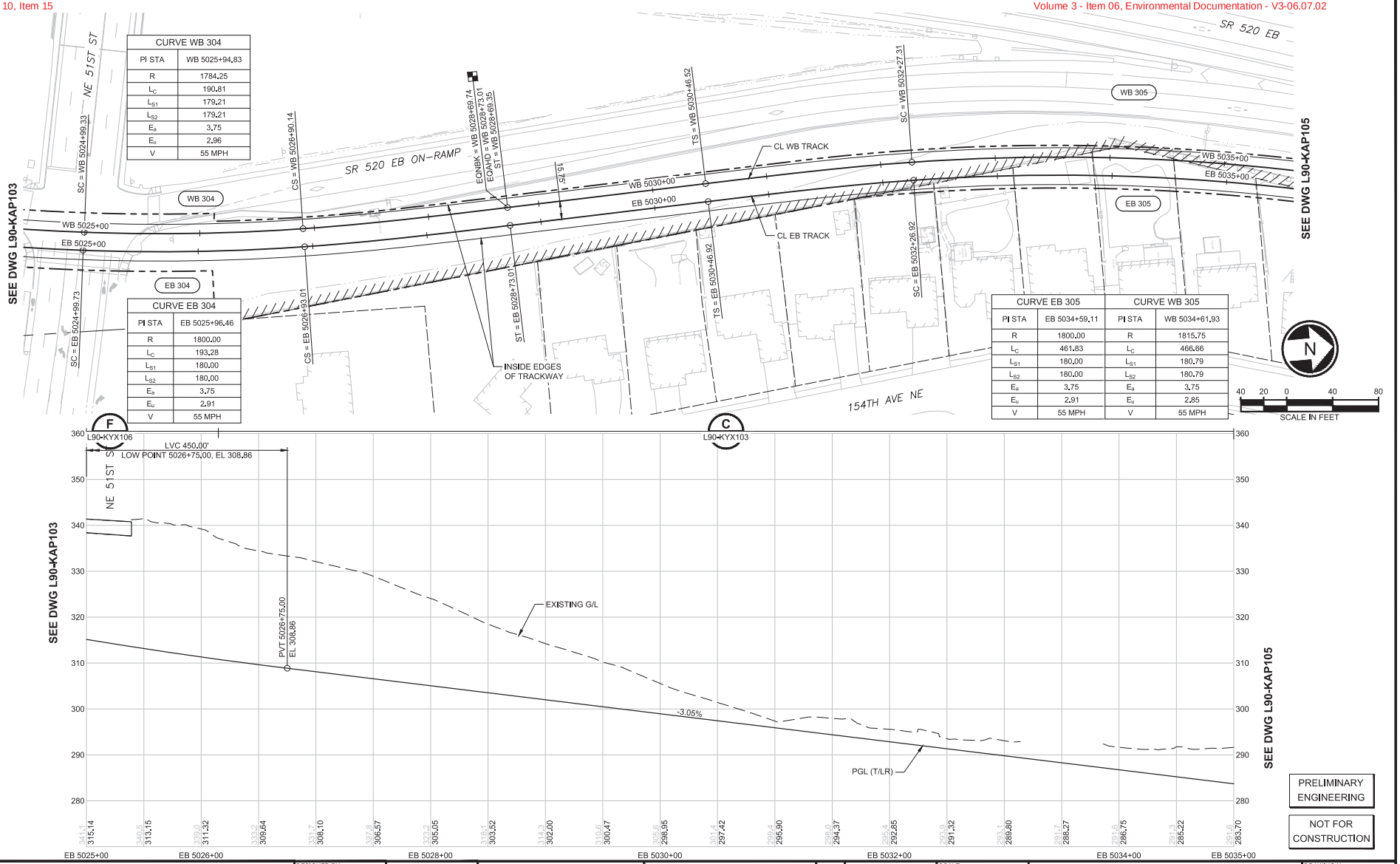

CURVE WB 304	
PI STA	WB 5025+94.83
R	1784.25
L_C	190.81
L_{S1}	179.21
L_{S2}	179.21
E_a	3.75
E_u	2.96
V	55 MPH

CURVE EB 304	
PI STA	EB 5025+96.46
R	1800.00
L_C	193.28
L_{S1}	180.00
L_{S2}	180.00
E_a	3.75
E_u	2.91
V	55 MPH

CURVE EB 305		CURVE WB 305	
PI STA	EB 5034+59.11	PI STA	WB 5034+61.93
R	1800.00	R	1815.75
L_C	461.83	L_C	466.66
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	180.00	L_{S2}	180.79
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KRISTEN BLAIR JENSEN — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5025+00 TO EB STA 5035+00

DRAWING No.: L90-KAP104
LOCATION ID:
SHEET No.: 98
REV:

09/27/18 | 9:29 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ#HTTPSSHAREPOINT.SOUNDTRANSIT.ORG@443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
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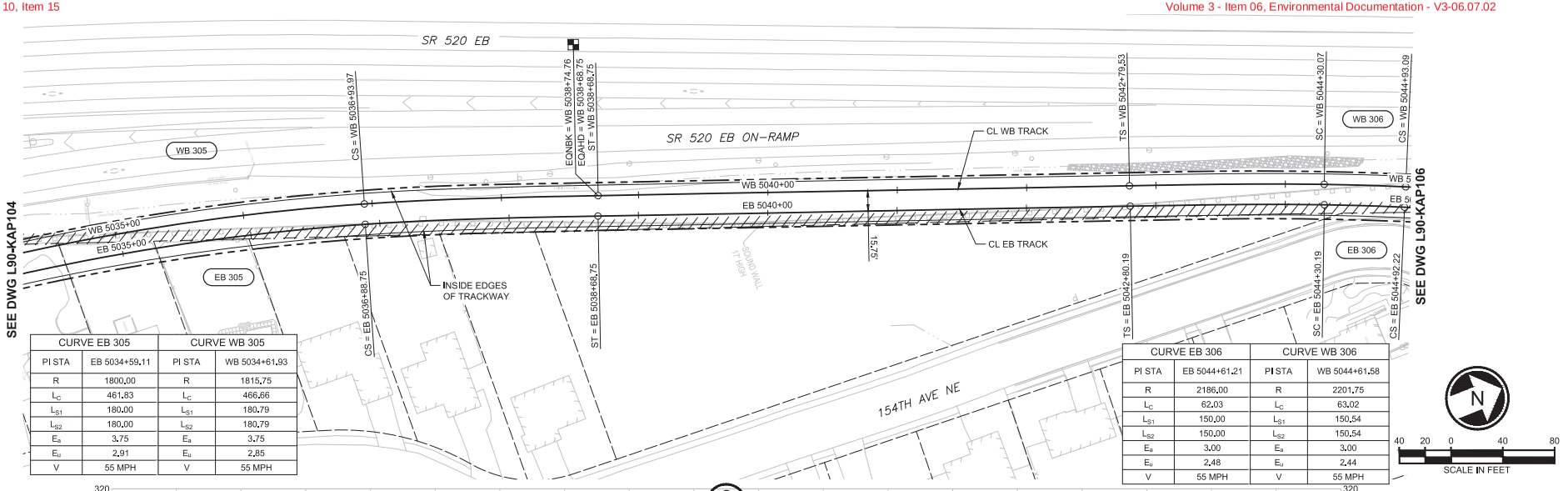
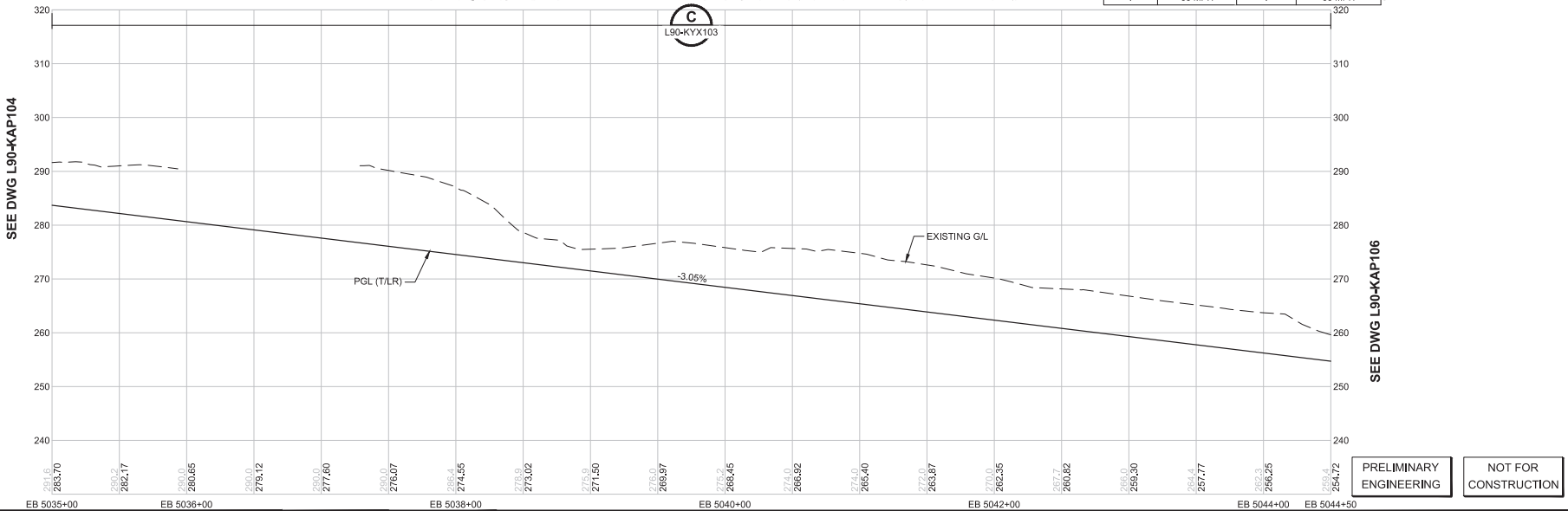


CURVE EB 305		CURVE WB 305	
PI STA	EB 5034+59.11	PI STA	WB 5034+61.93
R	1800.00	R	1815.75
L_C	461.83	L_C	466.66
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	180.00	L_{S2}	180.79
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH

CURVE EB 306		CURVE WB 306	
PI STA	EB 5044+61.21	PI STA	WB 5044+61.58
R	2186.00	R	2201.75
L_C	62.03	L_C	63.02
L_{S1}	150.00	L_{S1}	150.54
L_{S2}	150.00	L_{S2}	150.54
E_a	3.00	E_a	3.00
E_u	2.48	E_u	2.44
V	55 MPH	V	55 MPH



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5035+00 TO EB STA 5044+50

DRAWING No.: L90-KAP105
LOCATION ID:
SHEET No.: 99
REV:

09/27/18 | 9:30 AM | TYLERJ
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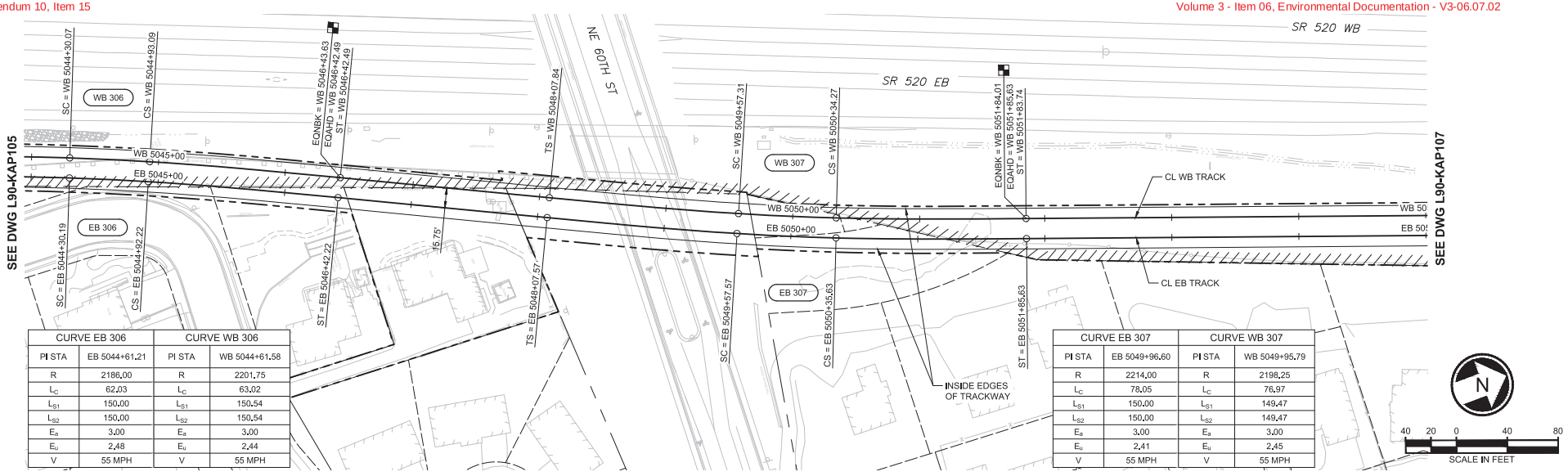
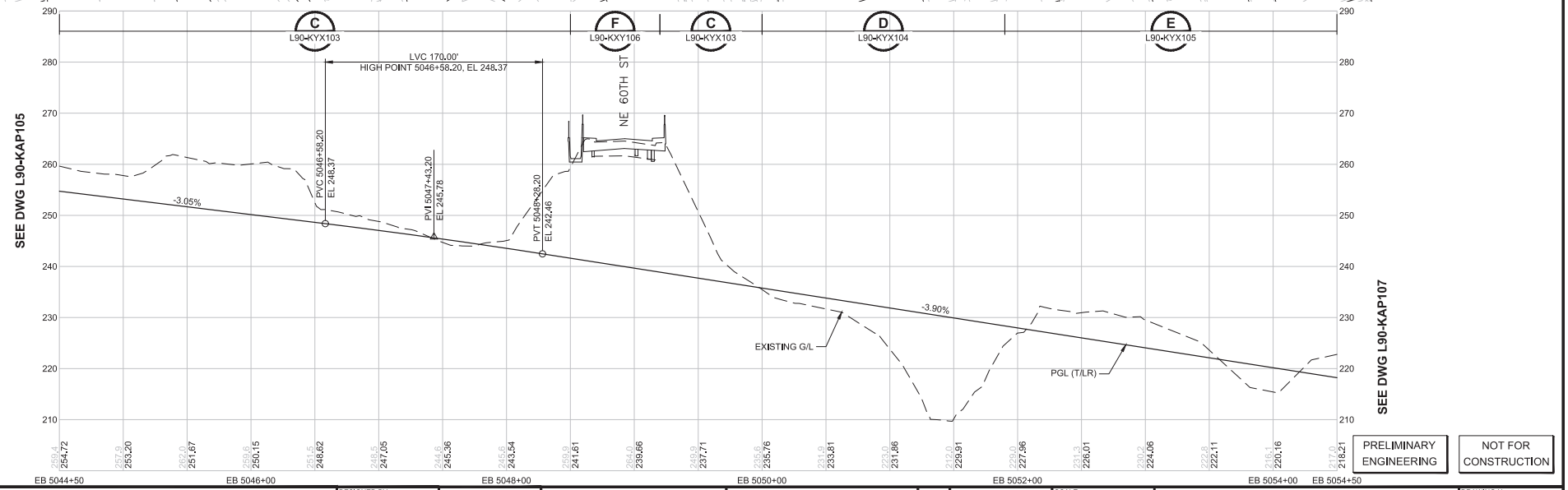


CURVE EB 306		CURVE WB 306	
PI STA	EB 5044+61.21	PI STA	WB 5044+61.58
R	2186.00	R	2201.75
L_C	62.03	L_C	63.02
L_{S1}	150.00	L_{S1}	150.54
L_{S2}	150.00	L_{S2}	150.54
E_a	3.00	E_a	3.00
E_u	2.48	E_u	2.44
V	55 MPH	V	55 MPH

CURVE EB 307		CURVE WB 307	
PI STA	EB 5049+96.60	PI STA	WB 5049+95.79
R	2214.00	R	2198.25
L_C	78.05	L_C	76.97
L_{S1}	150.00	L_{S1}	149.47
L_{S2}	150.00	L_{S2}	149.47
E_a	3.00	E_a	3.00
E_u	2.41	E_u	2.45
V	55 MPH	V	55 MPH



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

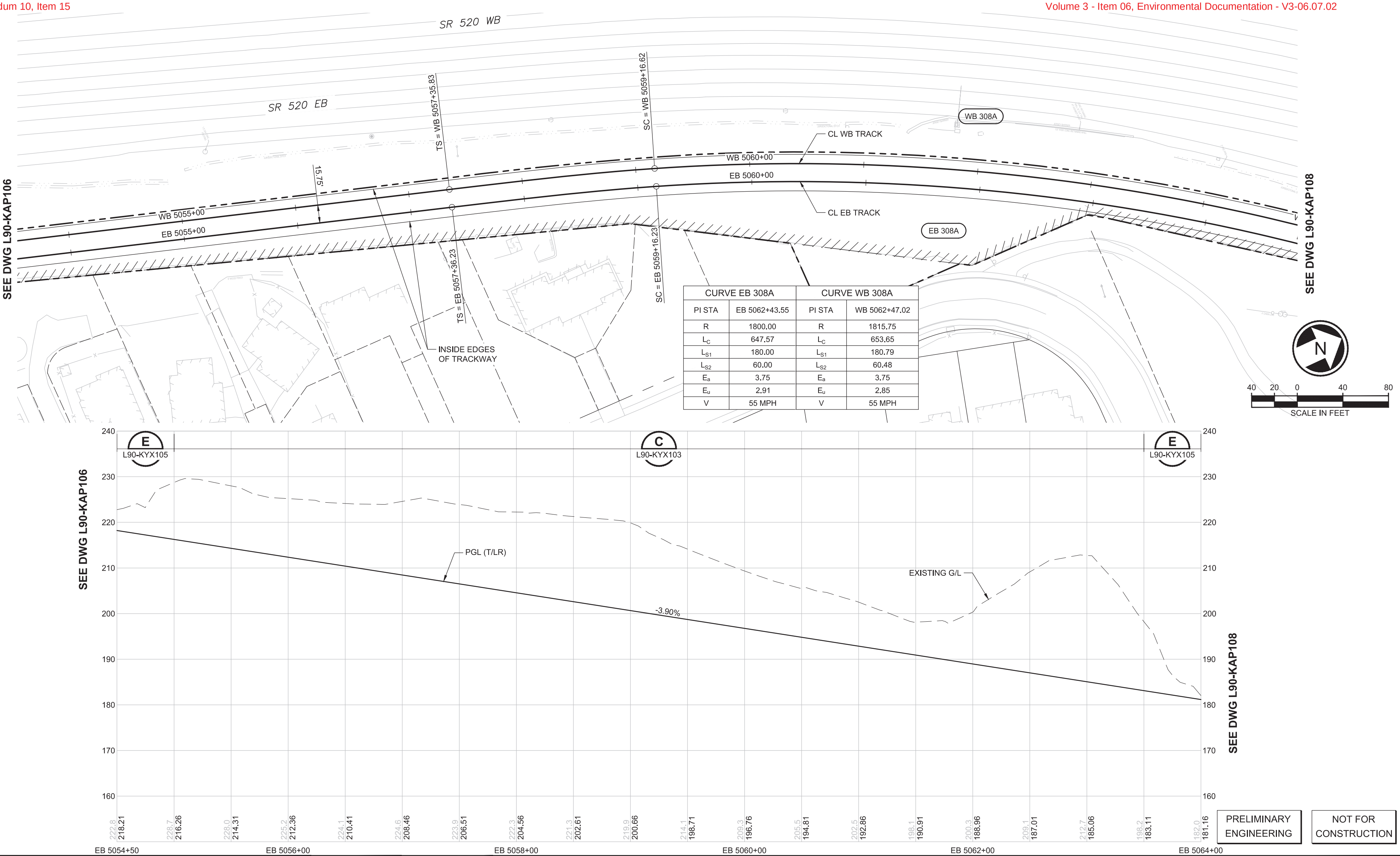
LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5044+50 TO EB STA 5054+50

DRAWING No.: L90-KAP106
LOCATION ID:
SHEET No.: 100
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GIS-VSF
xE360-RLE-E27-APP10
09/27/18 | 9:31 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ-HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG



CURVE EB 308A		CURVE WB 308A	
PI STA	EB 5062+43.55	PI STA	WB 5062+47.02
R	1800.00	R	1815.75
L_C	647.57	L_C	653.65
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	60.00	L_{S2}	60.48
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STEVEN BLAIR METZ — STATE OF WASHINGTON — 43444 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS

REVIEWED BY:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE:

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

PRESCRIPTIVE

TRACKWORK
PLAN AND PROFILE
EB STA 5054+50 TO EB STA 5064+00

DRAWING No.: L90-KAP107
LOCATION ID:
SHEET No.: 101
REV:

09/27/18 | 9:31 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GIS-VSF
xE360-RLE-E27-APP100

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
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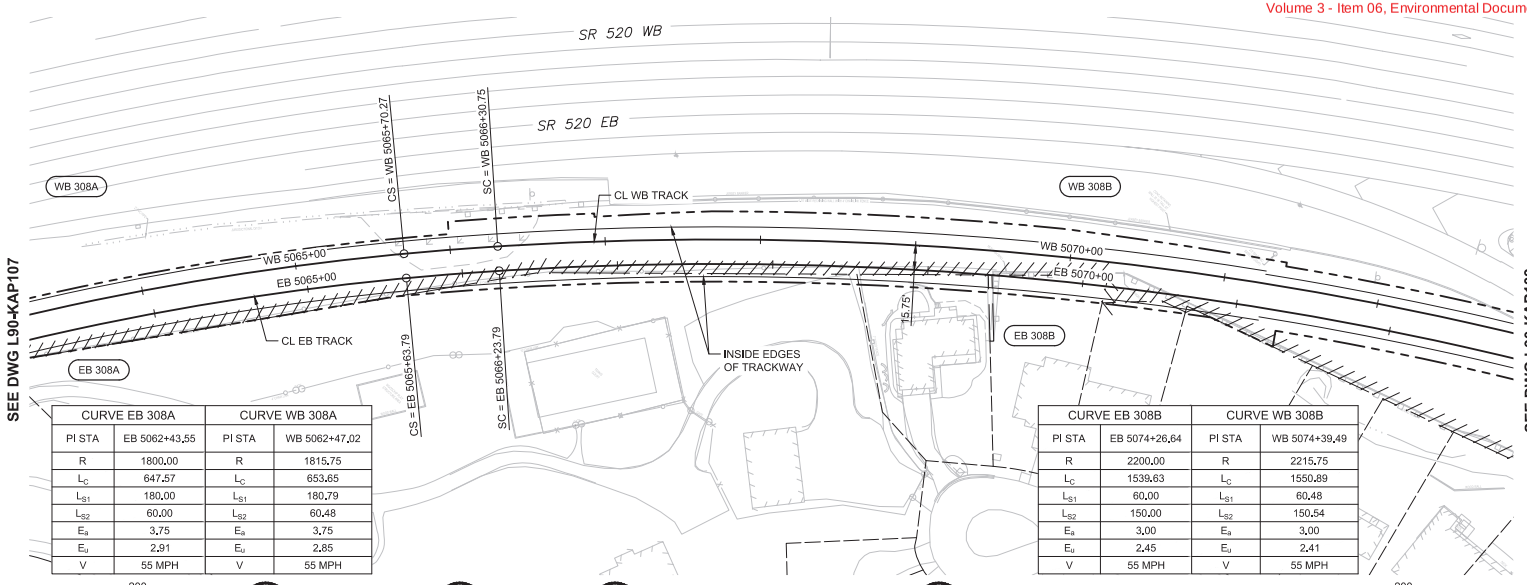
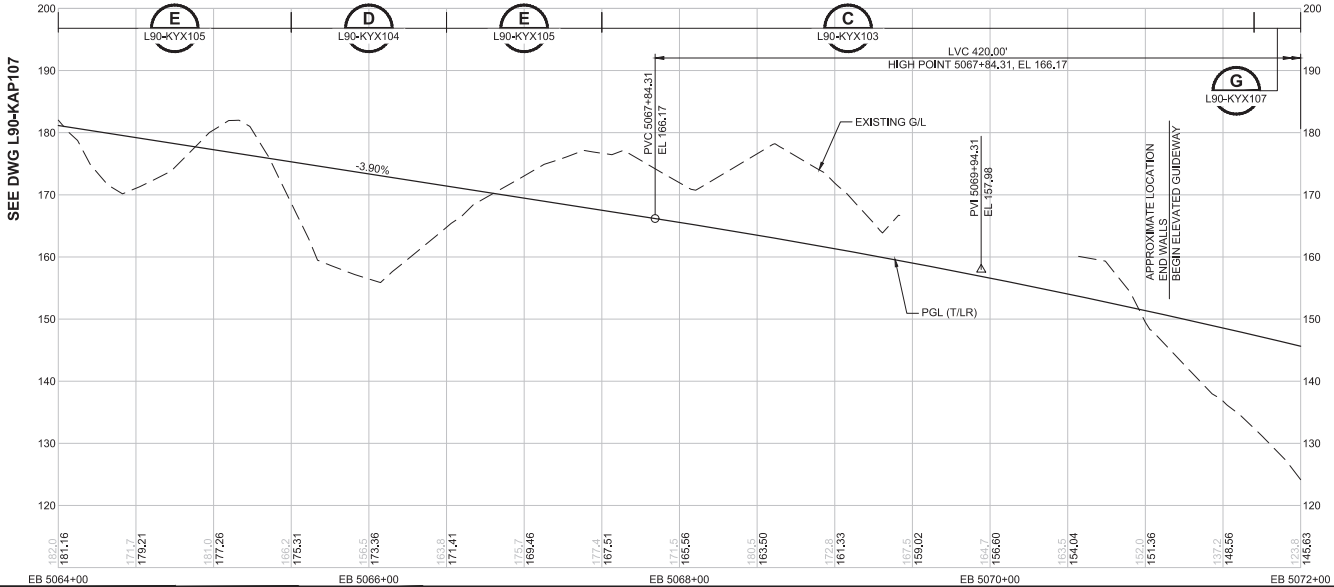
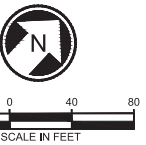
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP100



CURVE EB 308A		CURVE WB 308A	
PI STA	EB 5062+43.55	PI STA	WB 5062+47.02
R	1800.00	R	1815.75
L_C	647.57	L_C	653.65
L_{S1}	180.00	L_{S1}	180.79
L_{S2}	60.00	L_{S2}	60.48
E_a	3.75	E_a	3.75
E_u	2.91	E_u	2.85
V	55 MPH	V	55 MPH

CURVE EB 308B		CURVE WB 308B	
PI STA	EB 5074+26.64	PI STA	WB 5074+39.49
R	2200.00	R	2215.75
L_C	1539.63	L_C	1550.89
L_{S1}	60.00	L_{S1}	60.48
L_{S2}	150.00	L_{S2}	150.54
E_a	3.00	E_a	3.00
E_u	2.45	E_u	2.41
V	55 MPH	V	55 MPH





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KATHRYN BLAIR STATE OF WASHINGTON 21661 REGISTERED PROFESSIONAL ENGINEER

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

LINE IS 1" AT FULL SCALE

SoundTransit

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5064+00 TO EB STA 5072+00

DRAWING No.: L90-KAP108
LOCATION ID:
SHEET No.: 102
REV:

09/27/18 | 9:32 AM | TYLERJ
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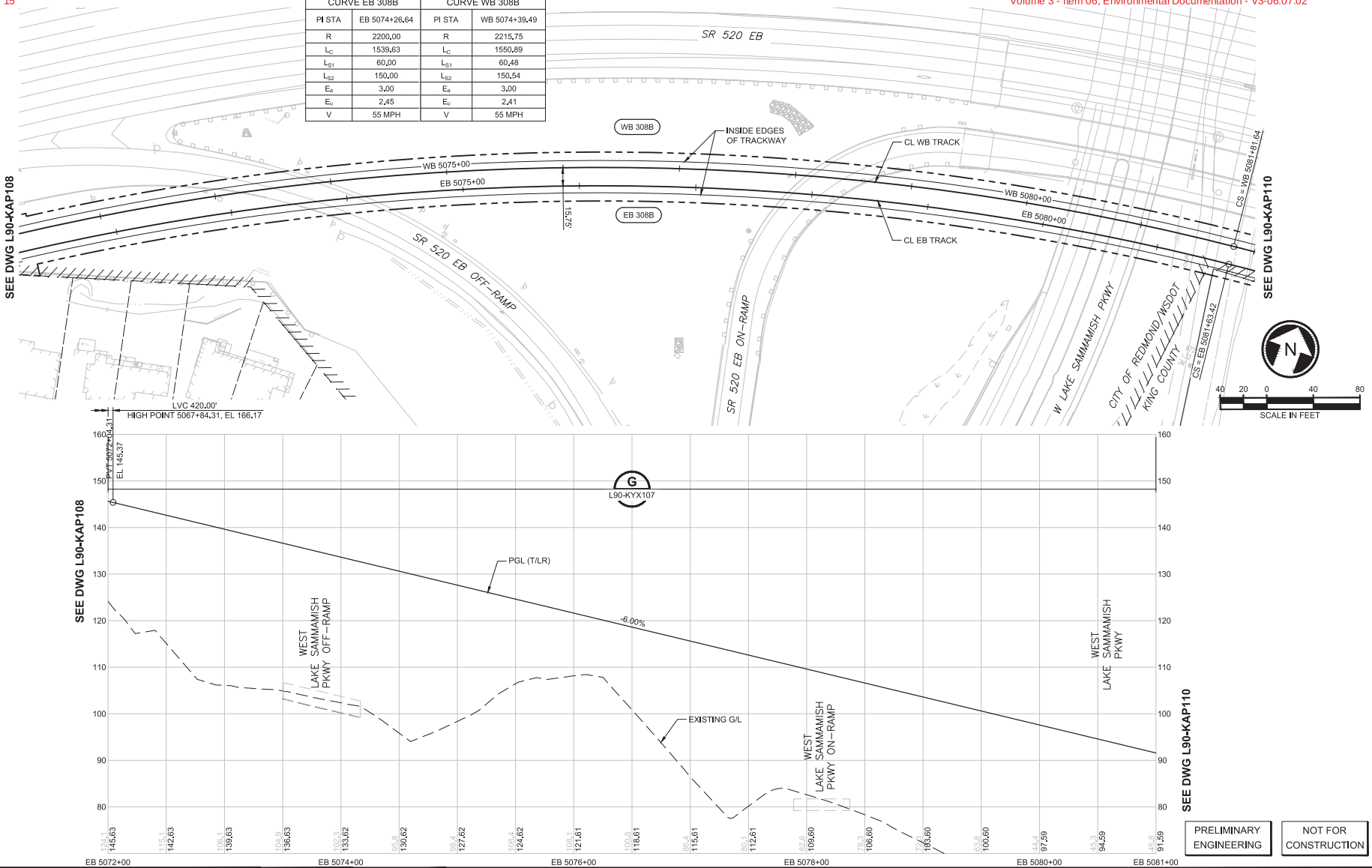
Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP100

CURVE EB 308B		CURVE WB 308B	
PI STA	EB 5074+26.64	PI STA	WB 5074+39.49
R	2200.00	R	2215.75
L_C	1539.63	L_C	1550.89
L_{S1}	60.00	L_{S1}	60.48
L_{S2}	150.00	L_{S2}	150.54
E_a	3.00	E_a	3.00
E_u	2.45	E_u	2.41
V	55 MPH	V	55 MPH



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE
SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5072+00 TO EB STA 5081+00

DRAWING No.: L90-KAP109
LOCATION ID:
SHEET No.: 103
REV:

09/27/18 | 9:33 AM | TYLERJ
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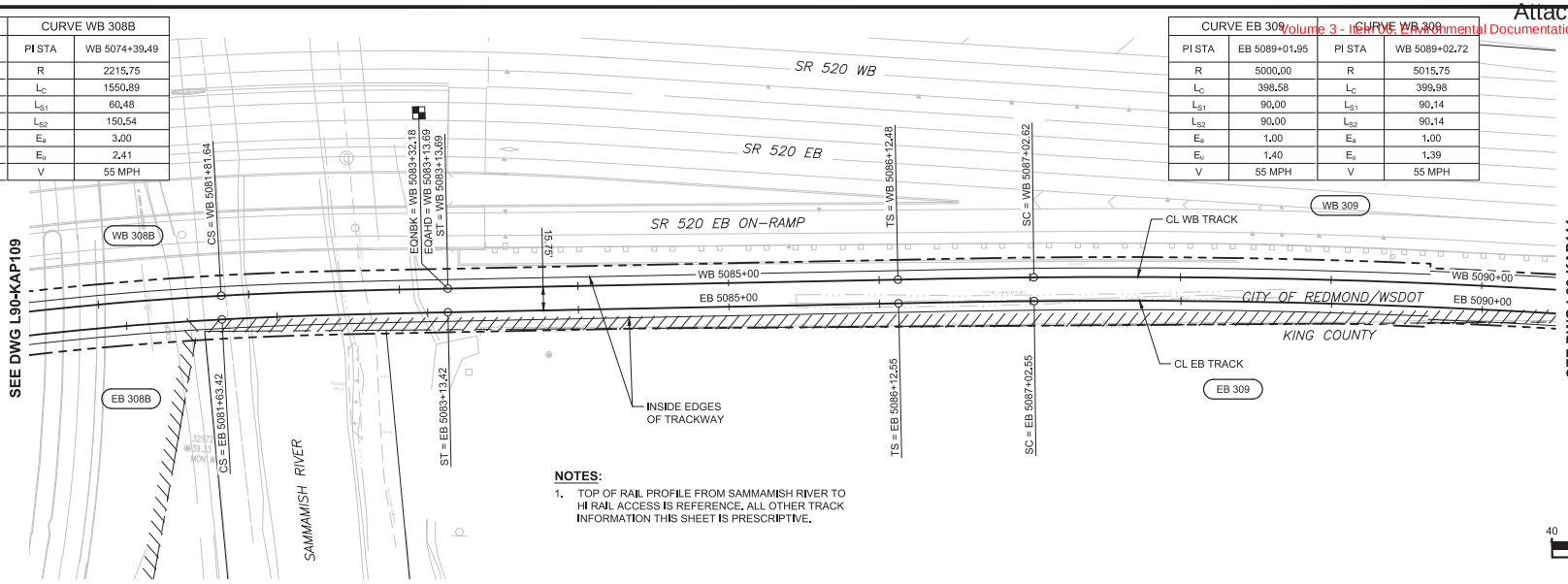
Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GIS-VSF
xE360-RLE-E27-APP100

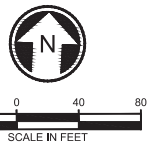
CURVE EB 308B		CURVE WB 308B	
PI STA	EB 5074+26.64	PI STA	WB 5074+39.49
R	2200.00	R	2215.75
L_C	1539.63	L_C	1550.89
L_{S1}	60.00	L_{S1}	60.48
L_{S2}	150.00	L_{S2}	150.54
E_a	3.00	E_a	3.00
E_u	2.45	E_u	2.41
V	55 MPH	V	55 MPH

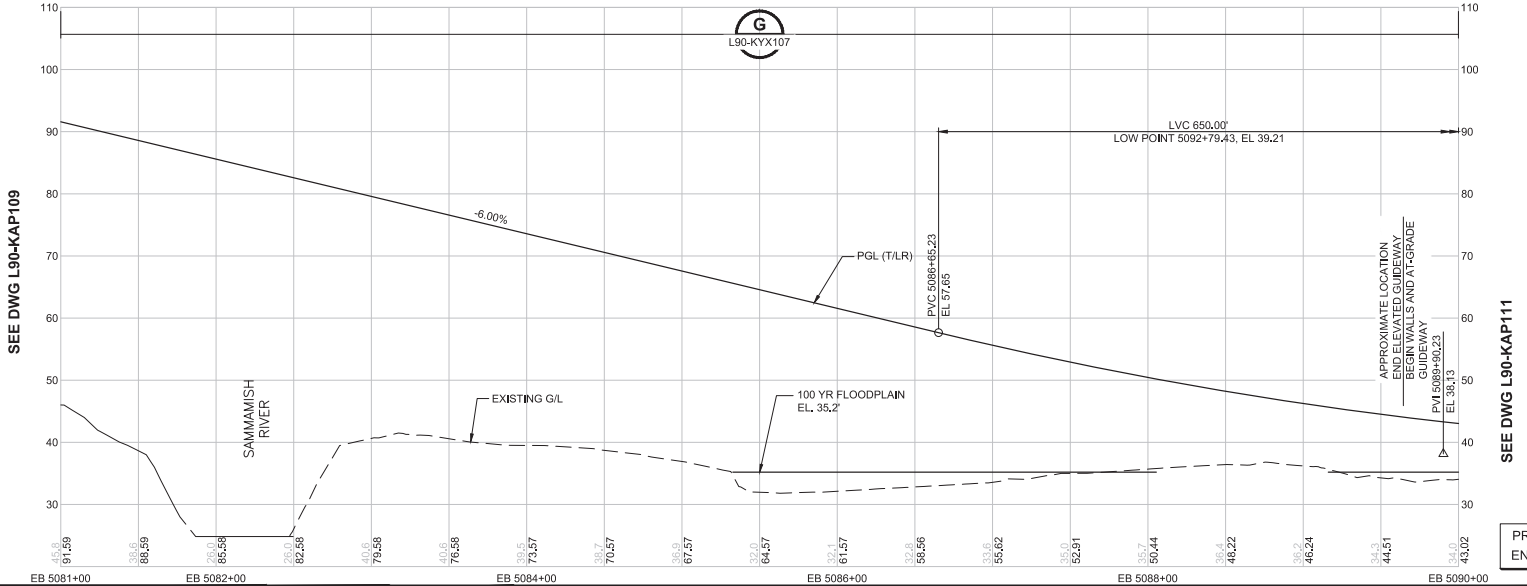
CURVE EB 309		CURVE WB 309	
PI STA	EB 5089+01.95	PI STA	WB 5089+02.72
R	5000.00	R	5015.75
L_C	398.58	L_C	399.98
L_{S1}	90.00	L_{S1}	90.14
L_{S2}	90.00	L_{S2}	90.14
E_a	1.00	E_a	1.00
E_u	1.40	E_u	1.39
V	55 MPH	V	55 MPH



NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STATE OF WASHINGTON — ALLEN BLAIR FINNEY — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
PLAN AND PROFILE
EB STA 5081+00 TO EB STA 5090+00

DRAWING No.: L90-KAP110
LOCATION ID:
SHEET No.: 104
REV:

09/27/18 | 9:34 AM | TYLERJ
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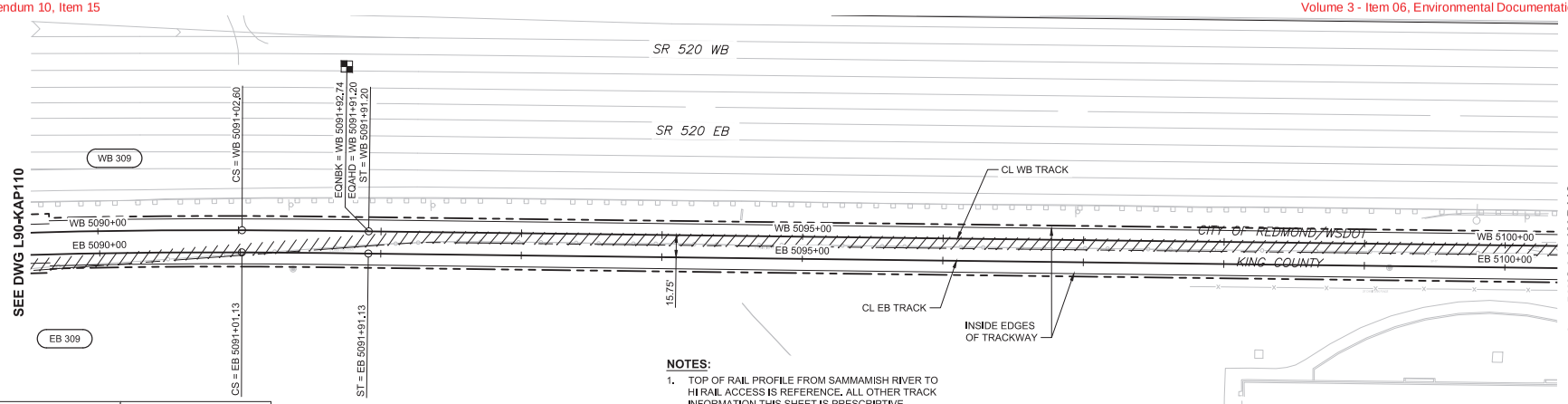
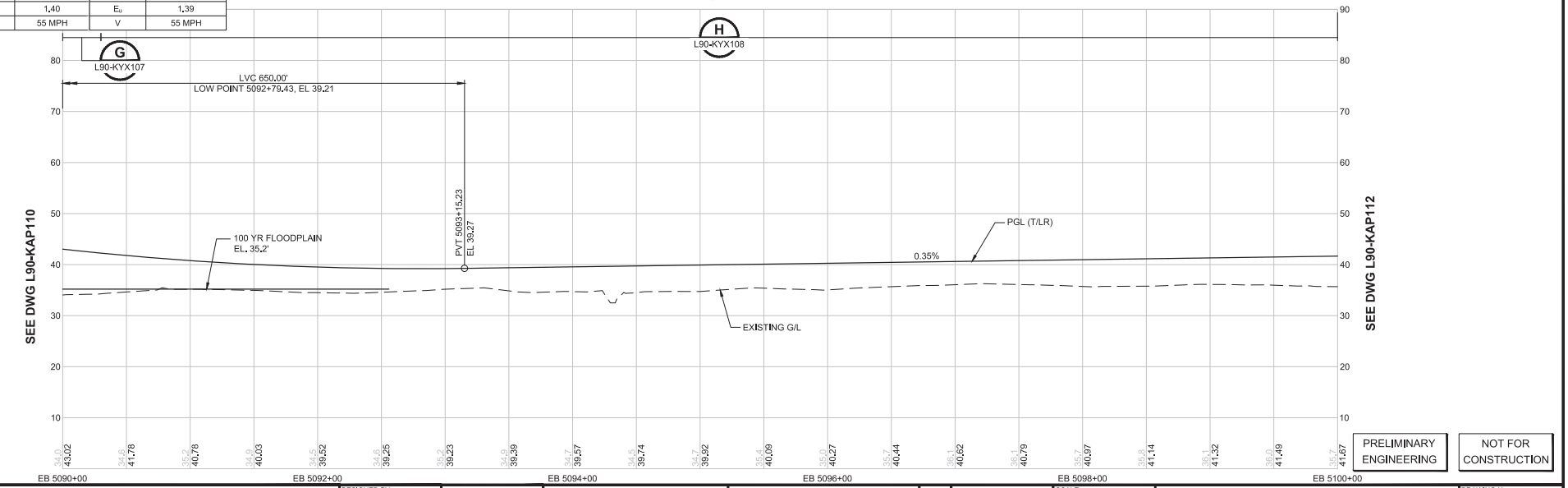
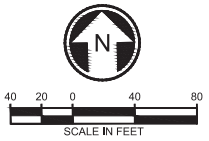


NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.

CURVE EB 309		CURVE WB 309	
PI STA	EB 5089+01.95	PI STA	WB 5089+02.72
R	5000.00	R	5015.75
L_C	398.58	L_C	399.98
L_{S1}	90.00	L_{S1}	90.14
L_{S2}	90.00	L_{S2}	90.14
E_a	1.00	E_a	1.00
E_u	1.40	E_u	1.39
V	55 MPH	V	55 MPH





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

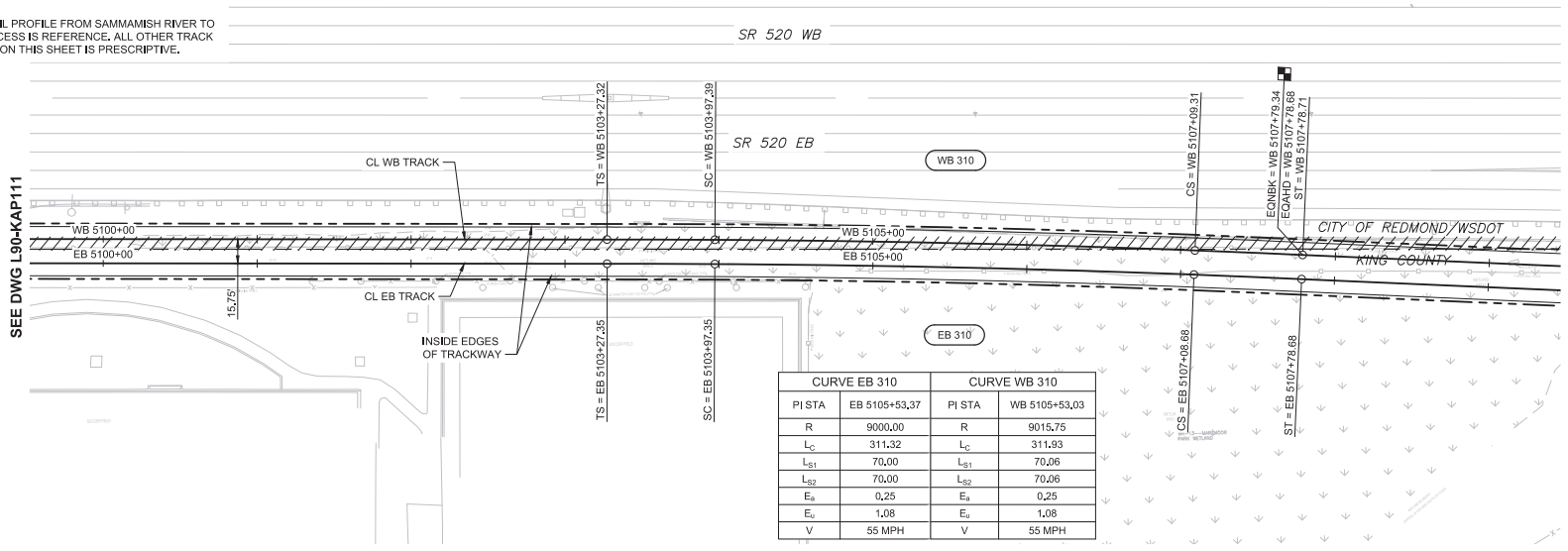
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
PLAN AND PROFILE
EB STA 5090+00 TO EB STA 5100+00

DRAWING No.: L90-KAP111
LOCATION ID:
SHEET No.: 105
REV:

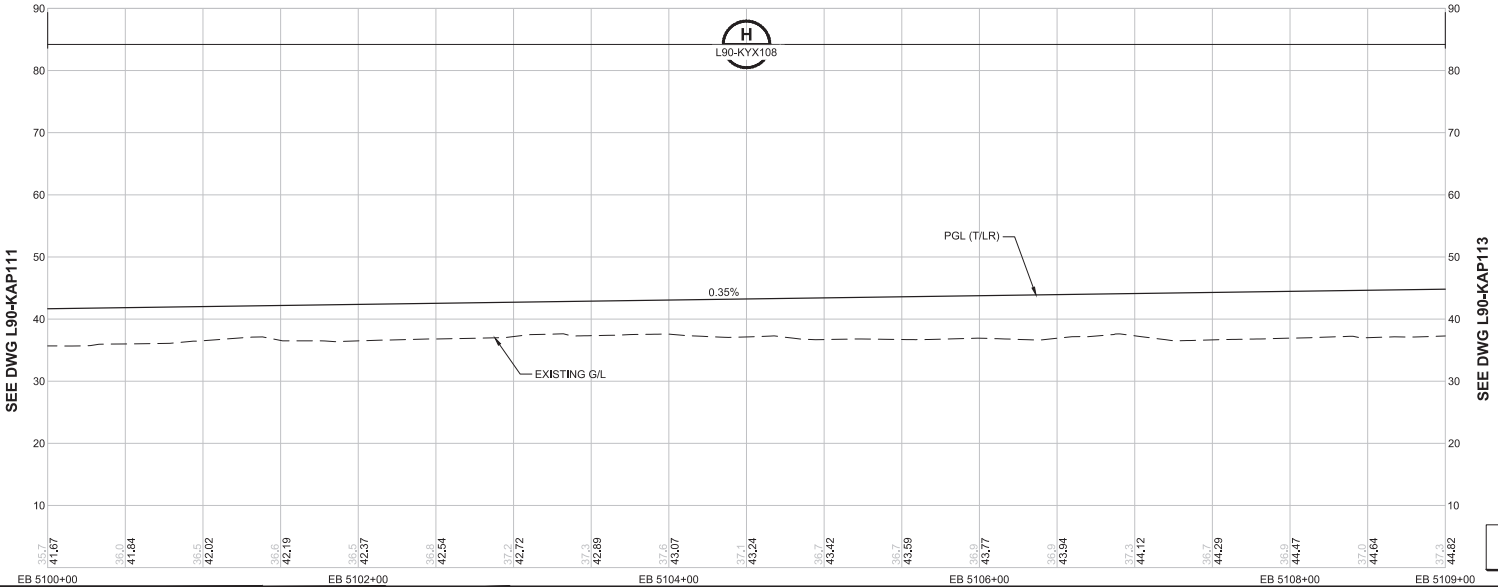
Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP10
09/27/18 | 9:35 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG

NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.



CURVE EB 310		CURVE WB 310	
PI STA	EB 5105+53.37	PI STA	WB 5105+53.03
R	9000.00	R	9015.75
L_C	311.32	L_C	311.93
L_{S1}	70.00	L_{S1}	70.06
L_{S2}	70.00	L_{S2}	70.06
E_a	0.25	E_a	0.25
E_u	1.08	E_u	1.08
V	55 MPH	V	55 MPH



SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

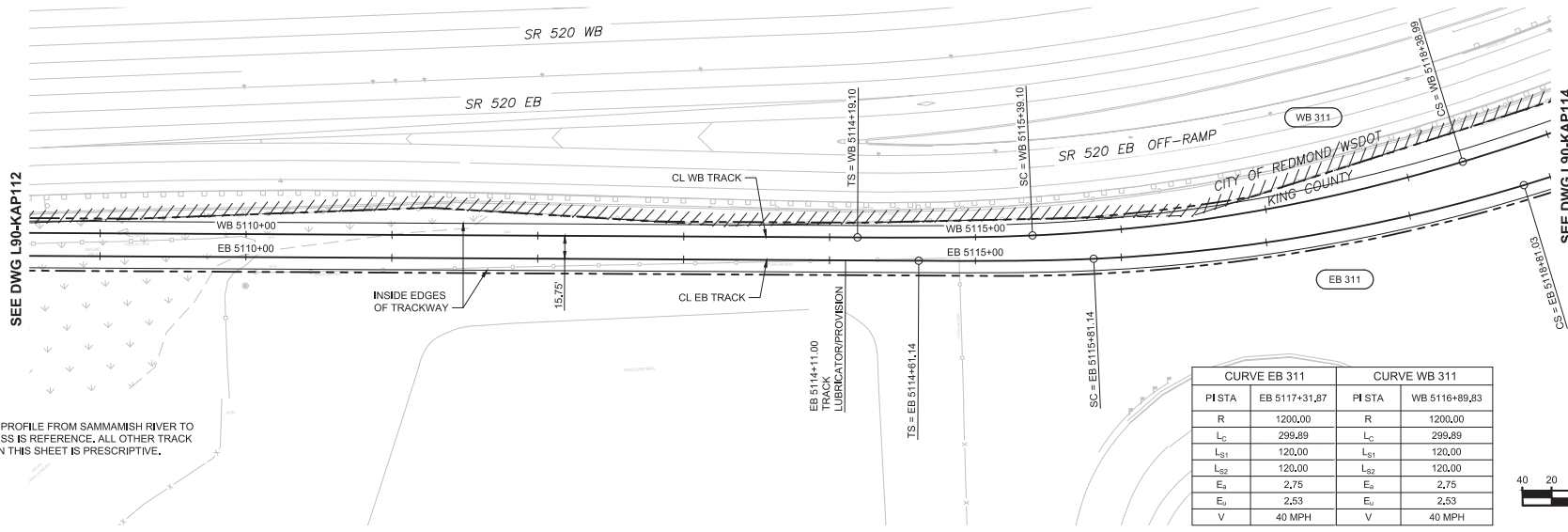
LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
PLAN AND PROFILE
EB STA 5100+00 TO EB STA 5109+00

DRAWING No.: L90-KAP112
LOCATION ID:
SHEET No.: 106
REV:

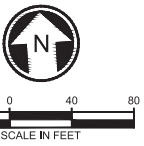
Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP10
09/27/18 | 9:36 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ.HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG

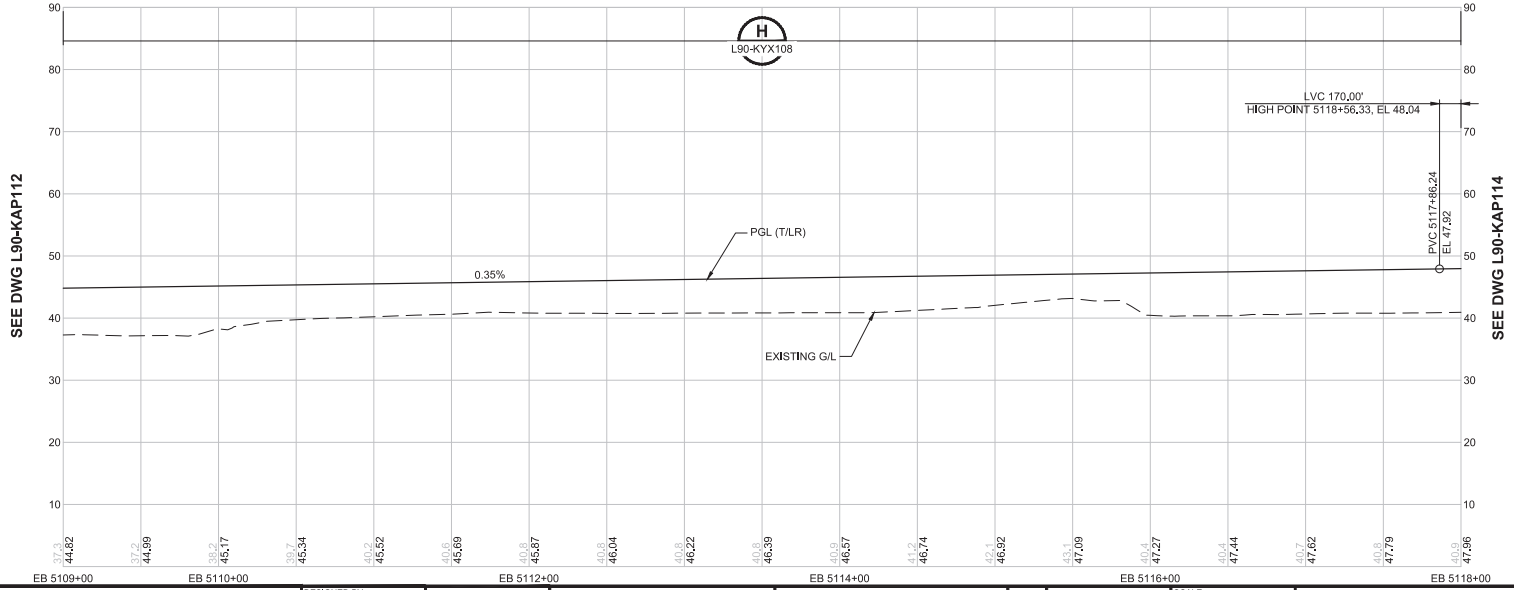


NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.

CURVE EB 311		CURVE WB 311	
PI STA	EB 5117+31.87	PI STA	WB 5116+89.83
R	1200.00	R	1200.00
L_C	299.89	L_C	299.89
L_{S1}	120.00	L_{S1}	120.00
L_{S2}	120.00	L_{S2}	120.00
E_a	2.75	E_a	2.75
E_u	2.53	E_u	2.53
V	40 MPH	V	40 MPH





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE:

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
PLAN AND PROFILE
EB STA 5109+00 TO EB STA 5118+00

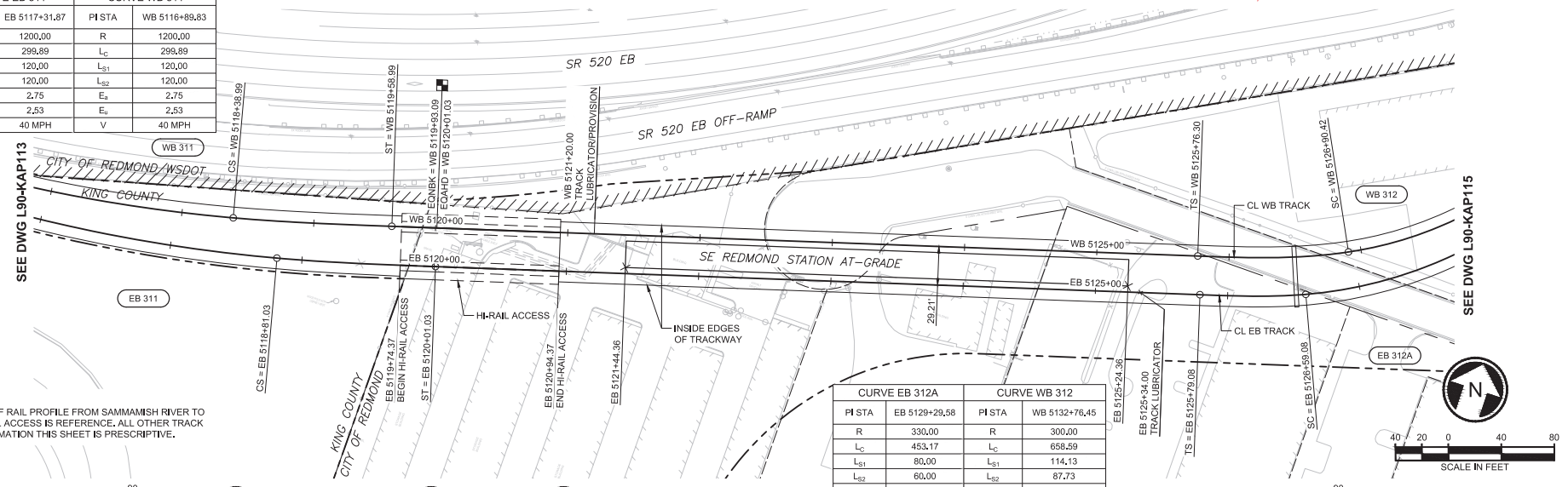
DRAWING No.: L90-KAP113
LOCATION ID:
SHEET No.: 107
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP100

09/27/18 | 9:37 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ.HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%443%SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-APP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP100

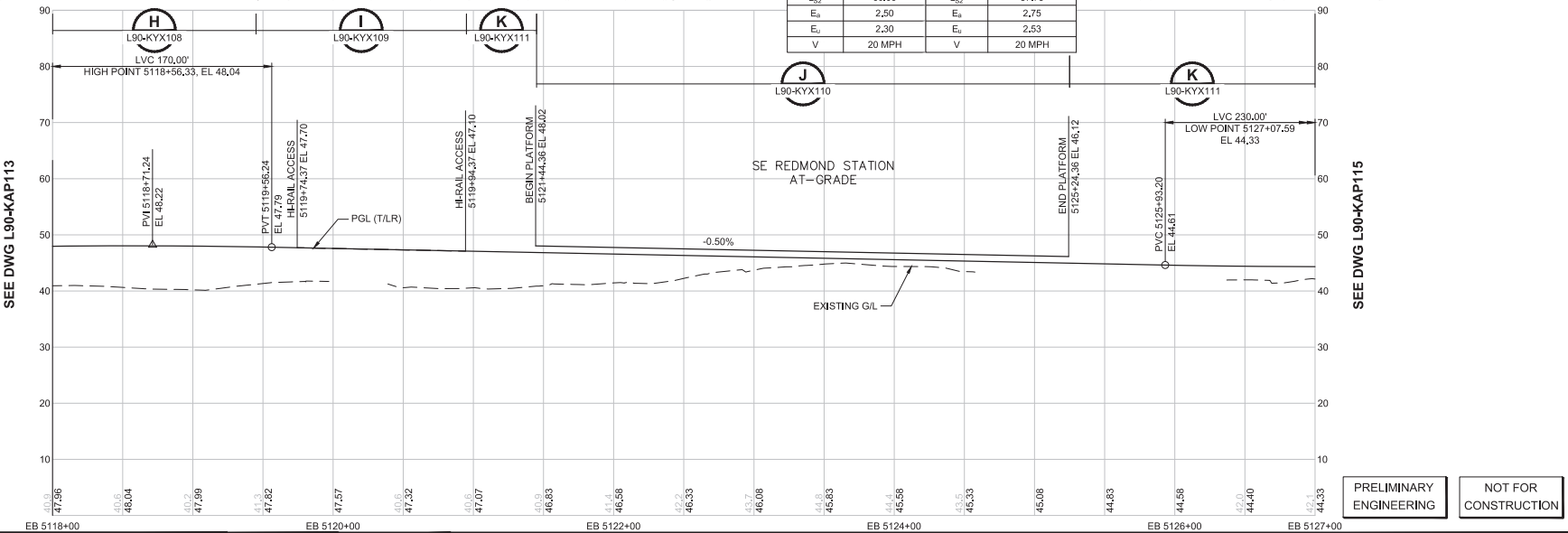
CURVE EB 311		CURVE WB 311	
PI STA	EB 5117+31.87	PI STA	WB 5116+89.83
R	1200.00	R	1200.00
L_C	299.89	L_C	299.89
L_{S1}	120.00	L_{S1}	120.00
L_{S2}	120.00	L_{S2}	120.00
E_a	2.75	E_a	2.75
E_u	2.53	E_u	2.53
V	40 MPH	V	40 MPH



NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.

CURVE EB 312A		CURVE WB 312	
PI STA	EB 5129+29.58	PI STA	WB 5132+76.45
R	330.00	R	300.00
L_C	453.17	L_C	658.59
L_{S1}	80.00	L_{S1}	114.13
L_{S2}	60.00	L_{S2}	87.73
E_a	2.50	E_a	2.75
E_u	2.30	E_u	2.53
V	20 MPH	V	20 MPH



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KRISTEN BLAIR SHEETS — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
PLAN AND PROFILE
EB STA 5118+00 TO EB STA 5127+00

DRAWING No.: L90-KAP114
LOCATION ID:
SHEET No.: 108
REV:

09/27/18 | 9:38 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
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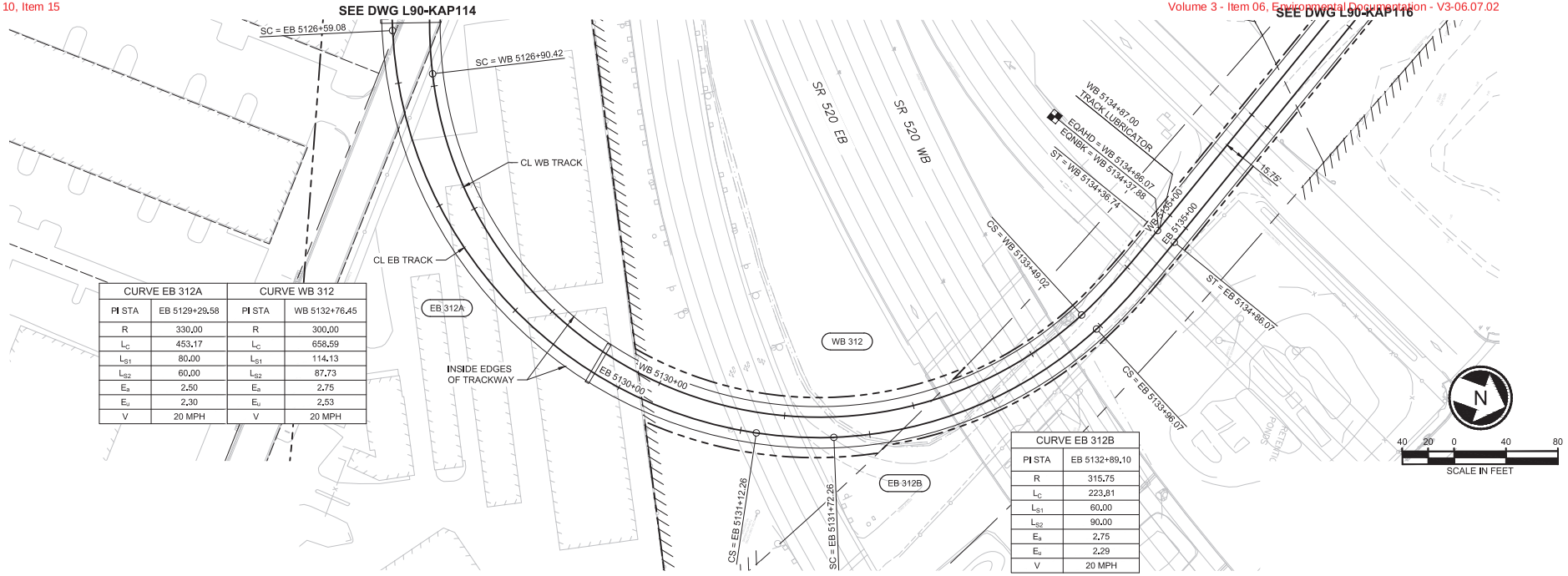
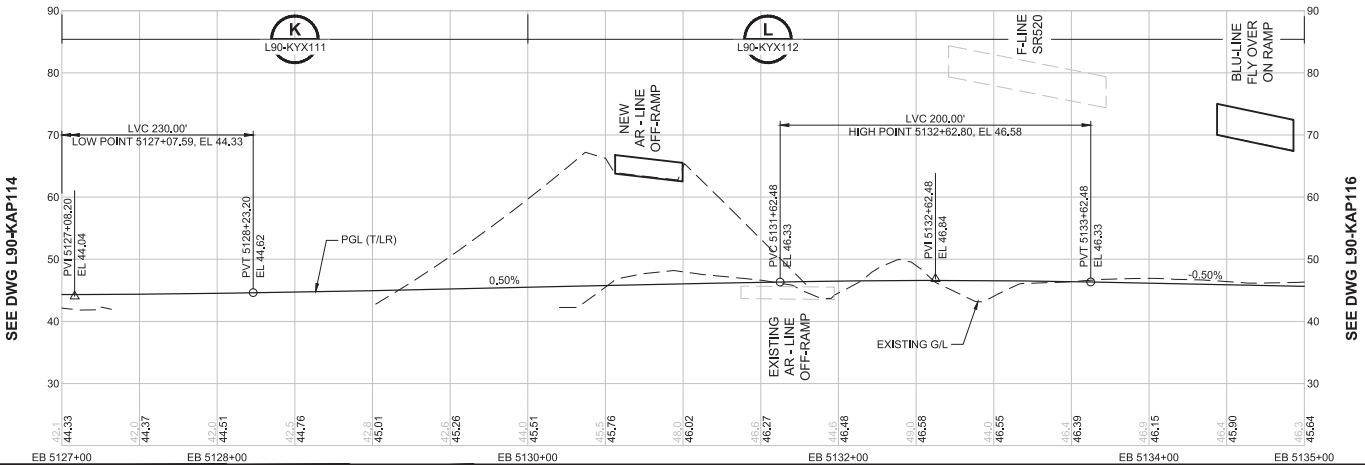
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP10



CURVE EB 312A		CURVE WB 312	
PI STA	EB 5129+29.58	PI STA	WB 5132+76.45
R	330.00	R	300.00
L_C	453.17	L_C	658.59
L_{S1}	80.00	L_{S1}	114.13
L_{S2}	60.00	L_{S2}	87.73
E_a	2.50	E_a	2.75
E_u	2.30	E_u	2.53
V	20 MPH	V	20 MPH

CURVE EB 312B	
PI STA	EB 5132+89.10
R	315.75
L_C	223.81
L_{S1}	60.00
L_{S2}	90.00
E_a	2.75
E_u	2.29
V	20 MPH



PRELIMINARY ENGINEERING

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FINAL

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KATHLEEN BLAIR JENKINS — STATE OF WASHINGTON — 21661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5127+00 TO EB STA 5135+00

DRAWING No.: L90-KAP115
LOCATION ID:
SHEET No.: 109
REV:

09/27/18 | 9:39 AM | TYLERJ
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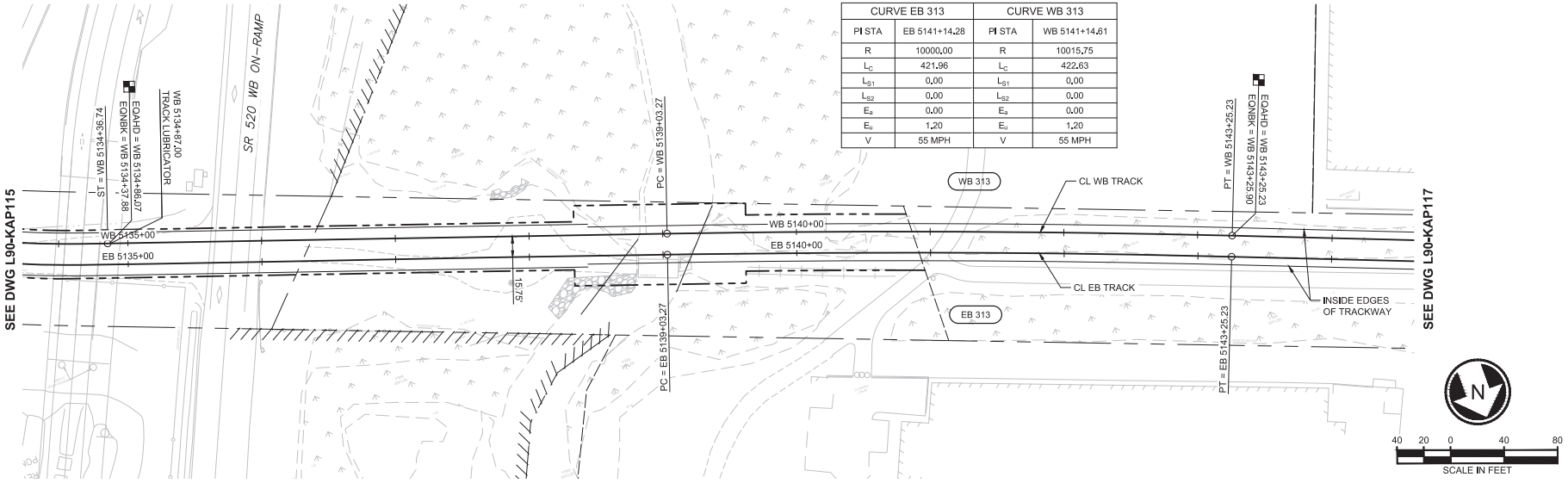
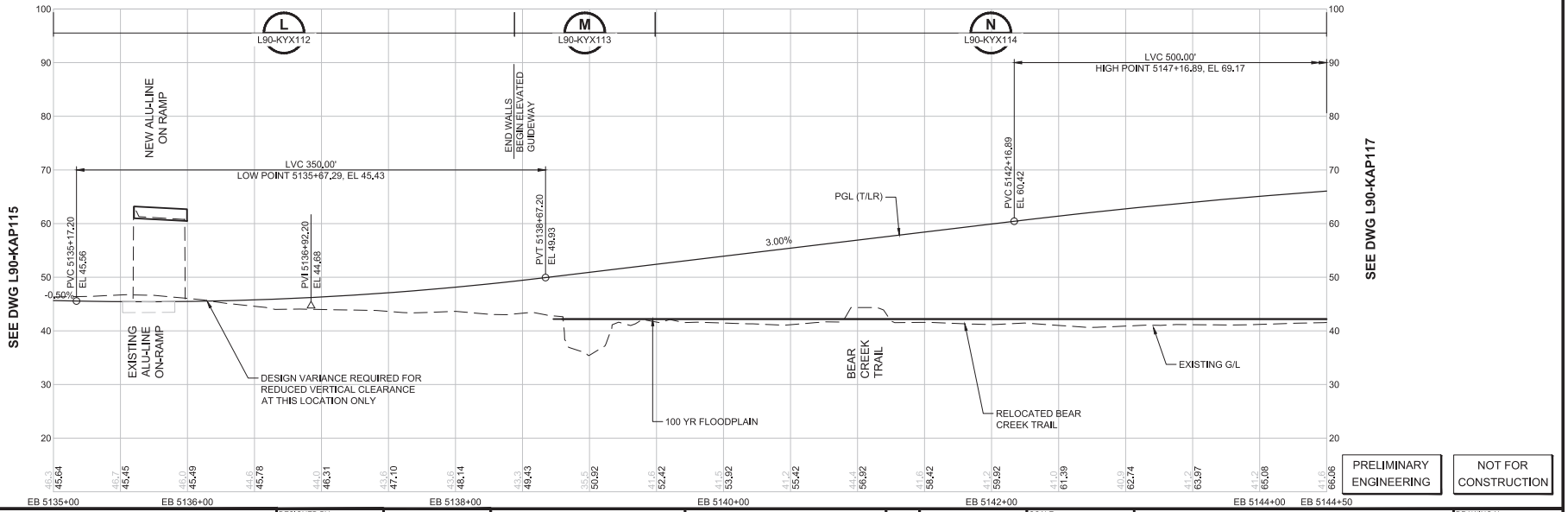
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAV100
xRLE-L90-KAP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GIS-VSF
xE360-RLE-E27-APP10

CURVE EB 313		CURVE WB 313	
PI STA	EB 5141+14.28	PI STA	WB 5141+14.61
R	10000.00	R	10015.75
L_C	421.96	L_C	422.63
L_{S1}	0.00	L_{S1}	0.00
L_{S2}	0.00	L_{S2}	0.00
E_a	0.00	E_a	0.00
E_u	1.20	E_u	1.20
V	55 MPH	V	55 MPH





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

KATHLEEN BLAIR JENKINS — STATE OF WASHINGTON — 21661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5135+00 TO EB STA 5144+50

DRAWING No.: L90-KAP116
LOCATION ID:
SHEET No.: 110
REV:

11/08/18 | 5:00 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP20
xRLE-L90-RPP100
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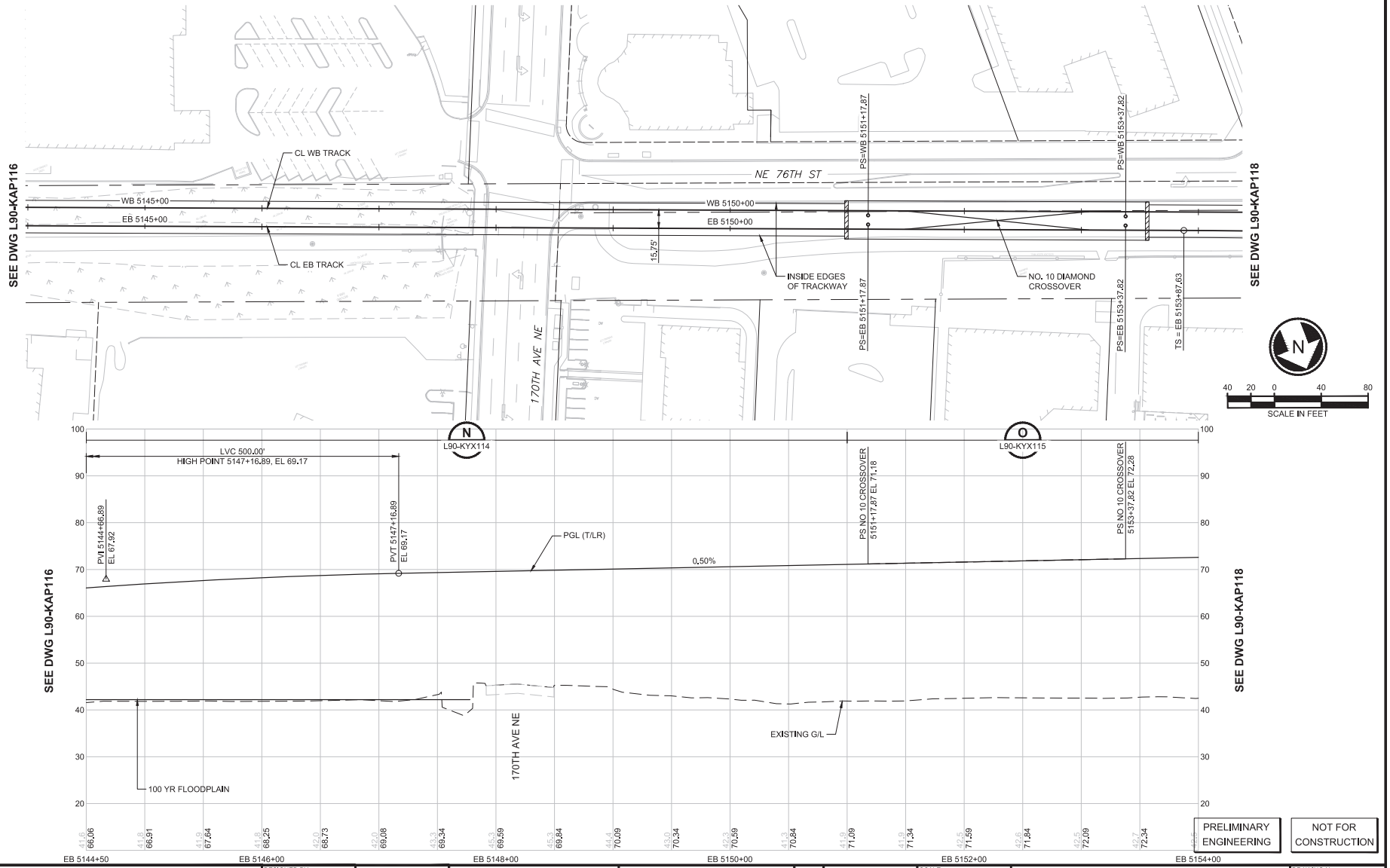
xRLE-L95-VSF
xRLE-GS-VSF
xE360-RLE-E27-APP10



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE: | DATE: 09/24/2018

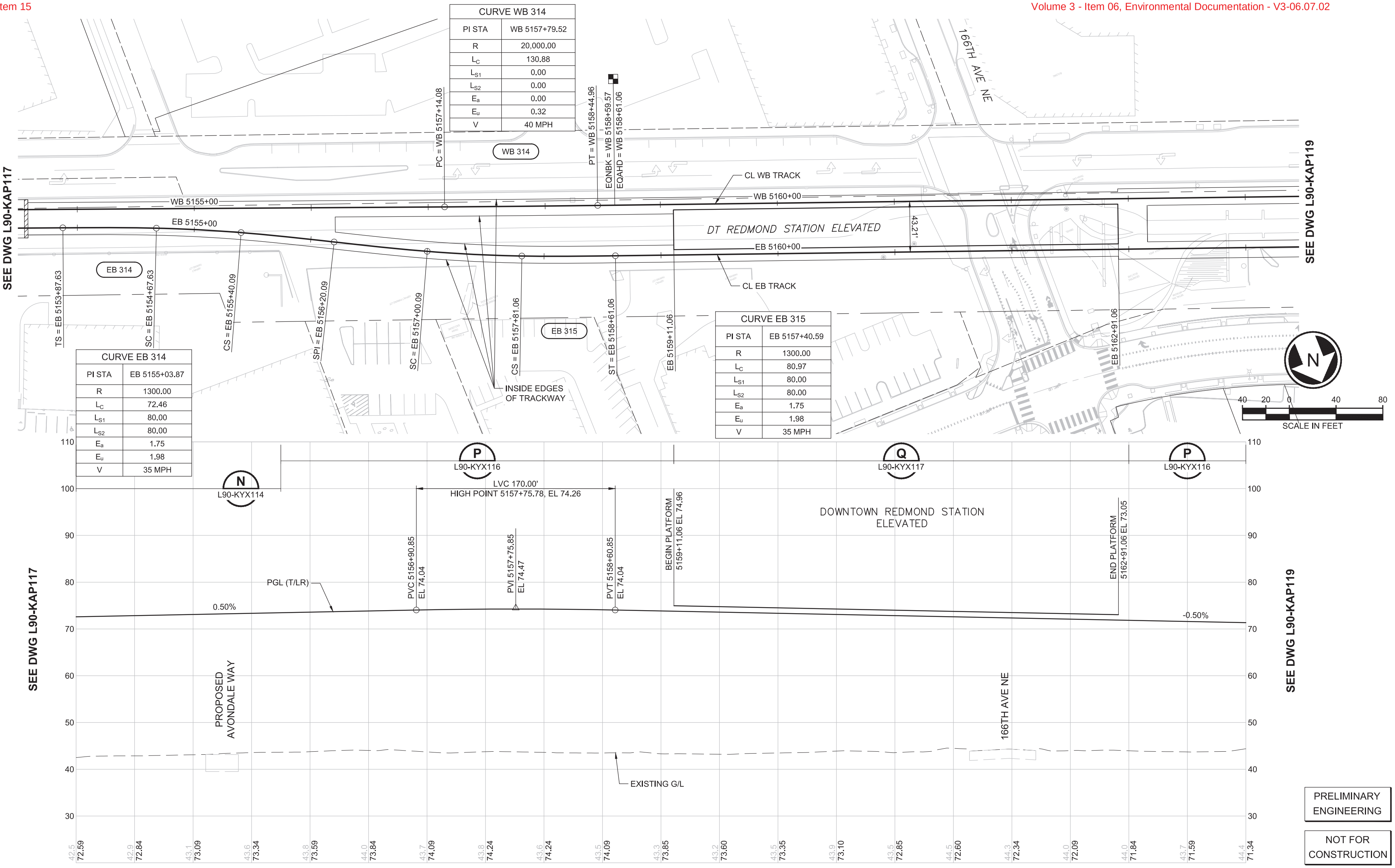
LINE IS 1" AT FULL SCALE

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5144+50 TO EB STA 5154+00

DRAWING No.: L90-KAP117
LOCATION ID:
SHEET No.: 111
REV:

09/27/18 | 9:40 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ-HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KAP100TO119.DWG



CURVE WB 314	
PI STA	WB 5157+79.52
R	20,000.00
L_C	130.88
L_{S1}	0.00
L_{S2}	0.00
E_a	0.00
E_u	0.32
V	40 MPH

CURVE EB 314	
PI STA	EB 5155+03.87
R	1300.00
L_C	72.46
L_{S1}	80.00
L_{S2}	80.00
E_a	1.75
E_u	1.98
V	35 MPH

CURVE EB 315	
PI STA	EB 5157+40.59
R	1300.00
L_C	80.97
L_{S1}	80.00
L_{S2}	80.00
E_a	1.75
E_u	1.98
V	35 MPH

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

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DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

STEVEN BLAIR METZ — STATE OF WASHINGTON — 43444 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS

REVIEWED BY:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE:

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

PRESCRIPTIVE

TRACKWORK
PLAN AND PROFILE
EB STA 5154+00 TO EB STA 5164+00

DRAWING No.: L90-KAP118
LOCATION ID:
SHEET No.: 112
REV:

09/27/18 | 9:41 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
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xRLE-L90-KAP100
xRLE-L90-KAV100_TEXT
xE360-RLE-L88-KAP100
xE360-RLE-L88-KAV100
xE360-RLE-E27-CSP200
xRLE-L90-RPP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-GIS-VSF
xE360-RLE-E27-APP100

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAV100
xRLE-L90-KAP100
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xE360-RLE-L88-KAP100
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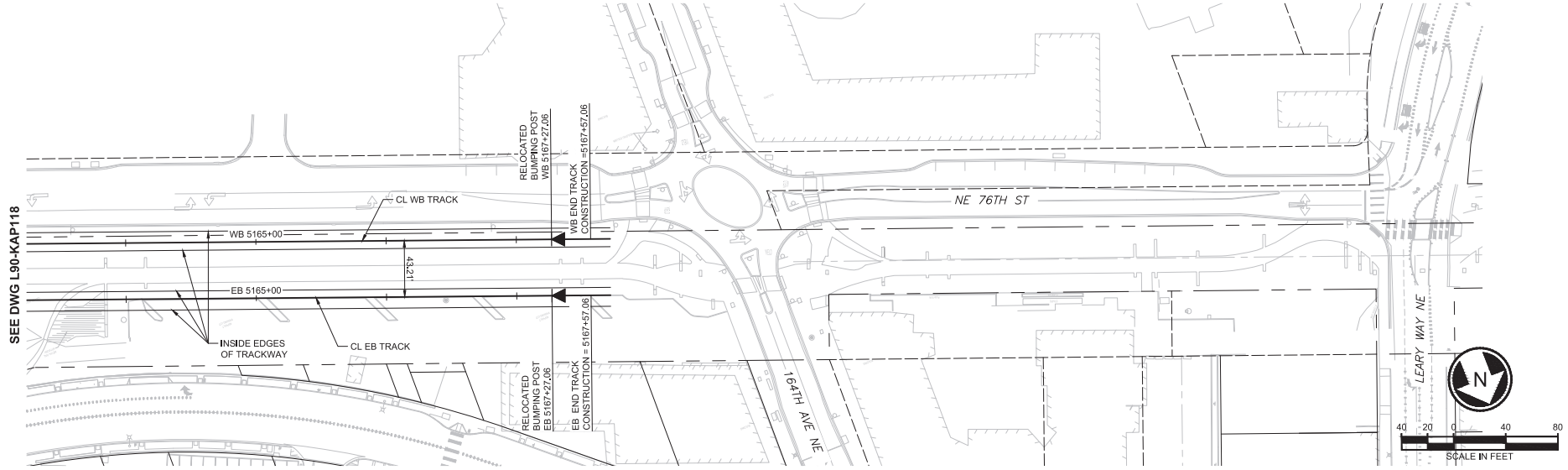
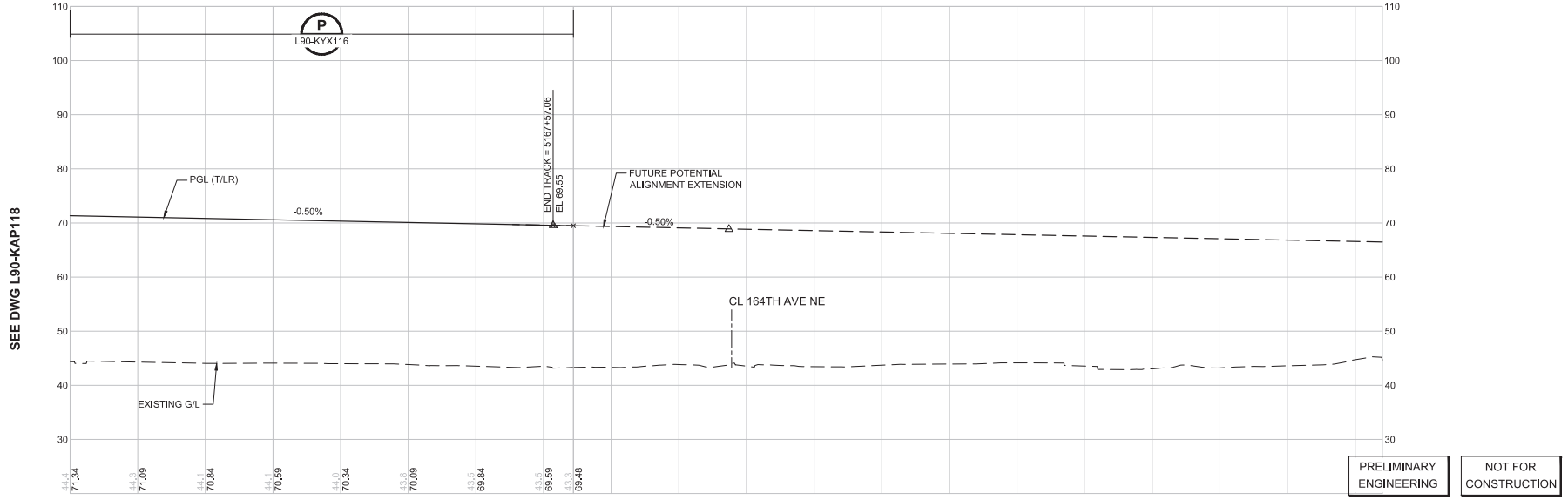
xE360-RLE-E27-APP10





PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: C. COLLINS
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1"=40' H; 1"=10' V
FILENAME: RLE-L90-KAP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
PLAN AND PROFILE
EB STA 5164+00 TO EB STA 5167+72

DRAWING No.: L90-KAP119
LOCATION ID:
SHEET No.: 113
REV:

09/27/18 | 9:42 AM | TYLERJ
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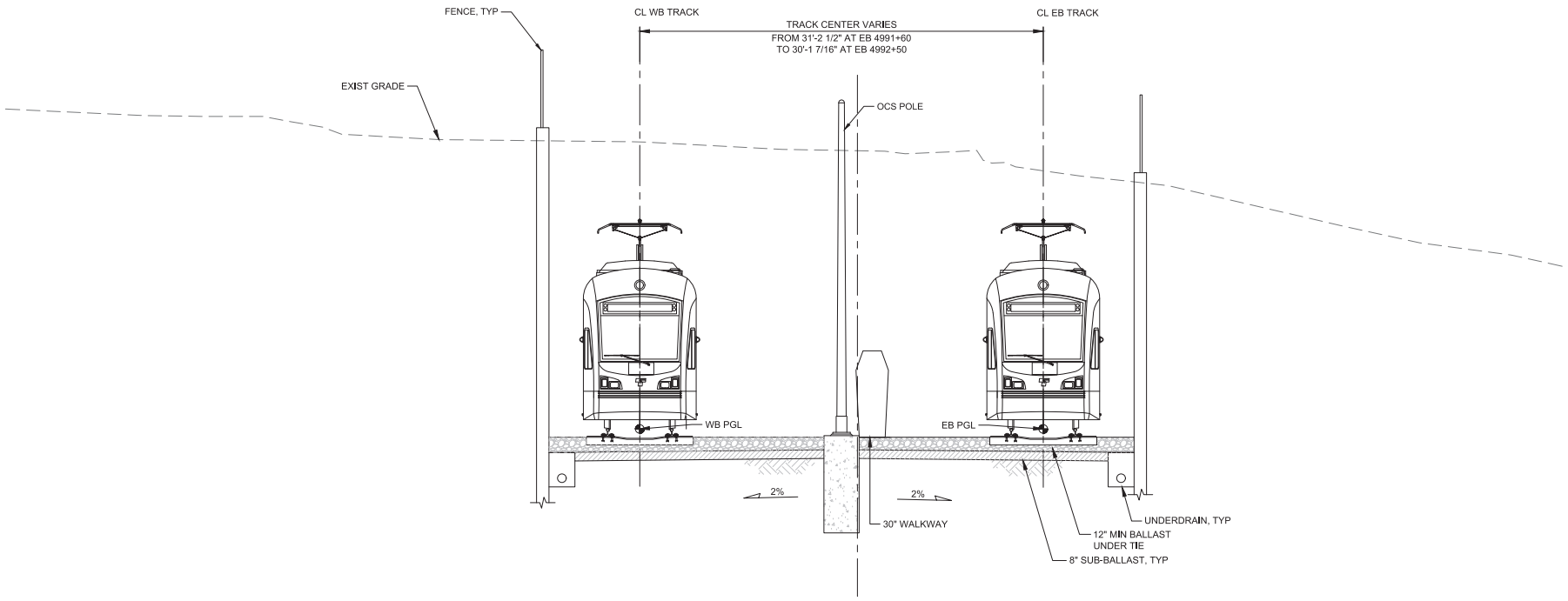
Xrefs:
RLE-GB-TB22x34



CUT AT PROJECT START A
EB 4991+60 TO EB 4992+50 L90-KAP100

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR METZ — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

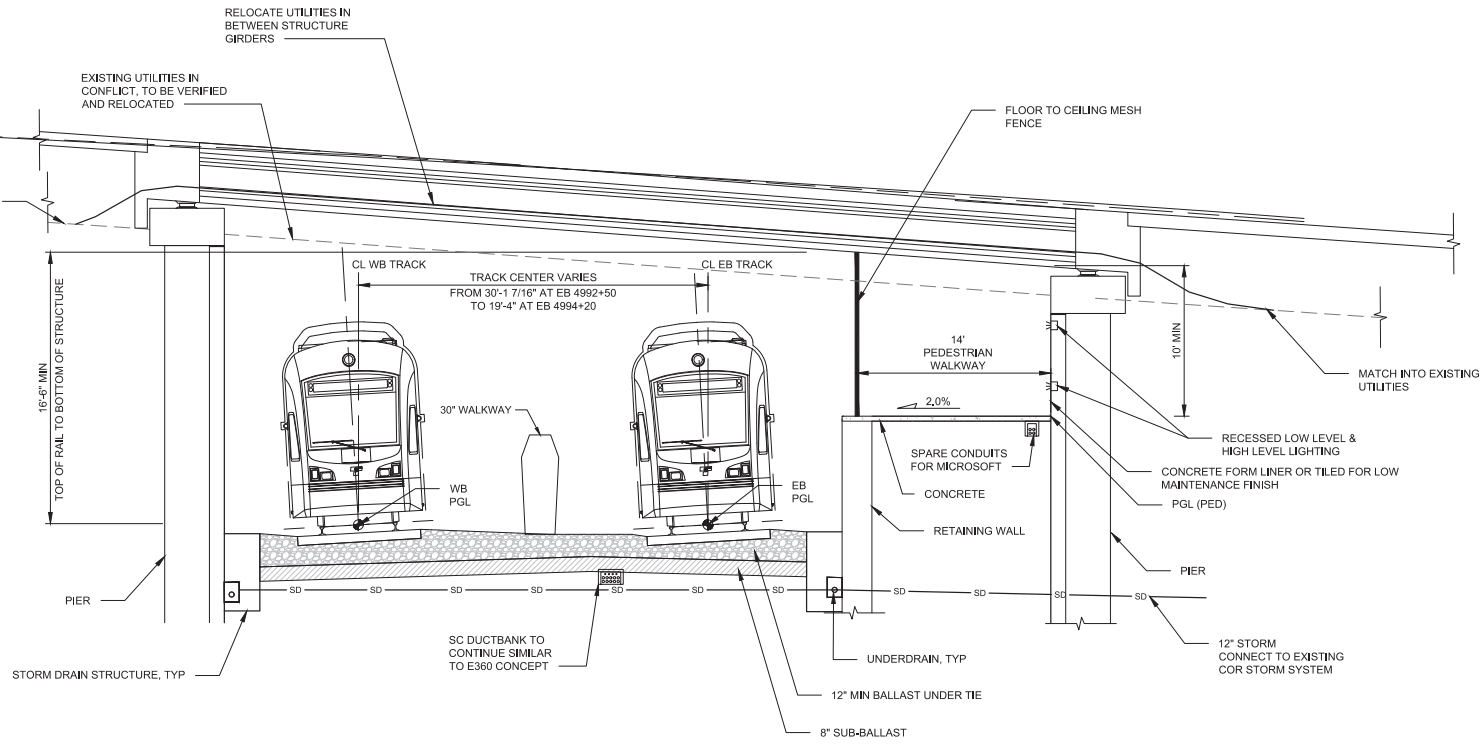
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
CUT AT PROJECT START

DRAWING No.: L90-KYX101
LOCATION ID:
SHEET No.: 114
REV:

09/27/18 | 9:57 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KYX101TO117.DWG

Xrefs:
RLE-GB-TB22x34



CUT AT N.E. 40TH STREET (B)
EB 4992+50 TO EB 4994+20 L90-KAP100

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STATE OF WASHINGTON — ALLEN BLAIR METZ — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS DATE: 09/24/2018
REVIEWED BY: DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
CUT AT NE 40TH ST

DRAWING No.: L90-KYX102
LOCATION ID:
SHEET No.: 115
REV:

10/16/18 | 1:20 PM | TYLERJ
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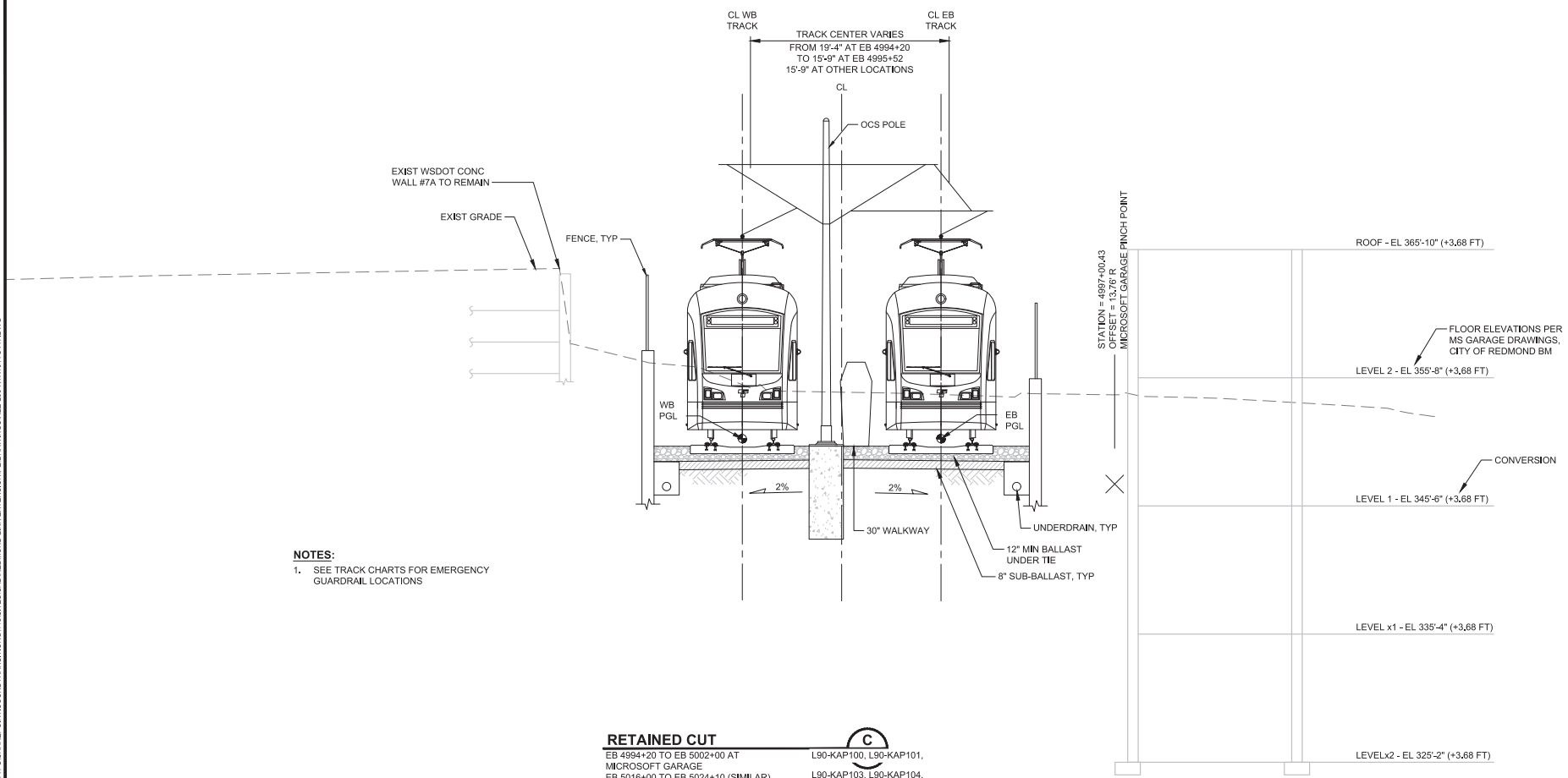
Xrefs:
RLE-GB-TB22x34



NOTES:

1. SEE TRACK CHARTS FOR EMERGENCY GUARDRAIL LOCATIONS

RETAINED CUT (C)

EB 4994+20 TO EB 5002+00 AT MICROSOFT GARAGE
EB 5016+00 TO EB 5024+10 (SIMILAR)
EB 5026+15 TO EB 5048+50 (SIMILAR)
EB 5049+30 TO EB 5050+00 (SIMILAR)
EB 5055+00 TO EB 5063+50 (SIMILAR)
EB 5067+50 TO EB 5071+20 (SIMILAR)

L90-KAP100, L90-KAP101, L90-KAP103, L90-KAP104, L90-KAP105, L90-KAP106, L90-KAP107, L90-KAP108

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHRYN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
RETAINED CUT

DRAWING No.: L90-KYX103
LOCATION ID:
SHEET No.: 116
REV:

09/27/18 | 9:57 AM | TYLERJ
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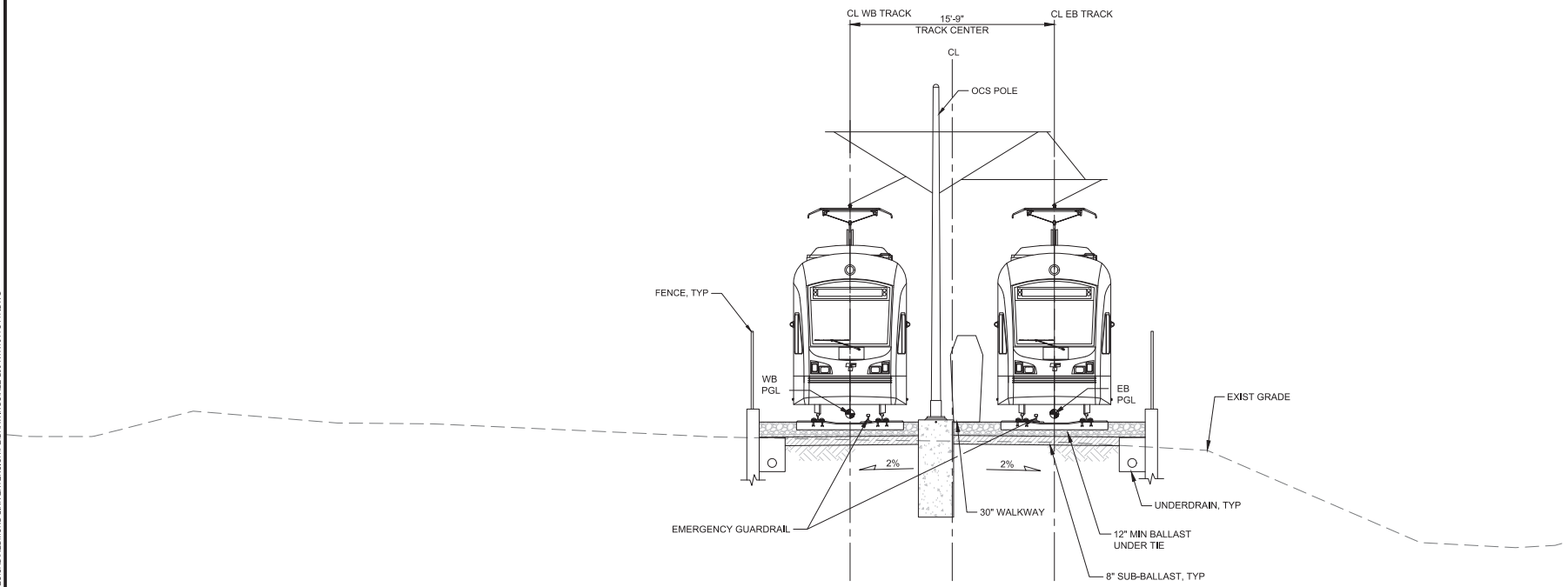
Xrefs:
RLE-GB-TB22x34



RETAINED FILL

EB 5050+10 TO EB 5051+90
EB 5065+50 TO EB 5066+50
*SEE CIVIL PLANS FOR CULVERT
LOCATION AT APPROX EB 5051+40

D
L90-KAP106
L90-KAP108

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR METZ — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
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DATE: 09/24/2018

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SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
RETAINED FILL

DRAWING No.: L90-KYX104
LOCATION ID:
SHEET No.: 117
REV:

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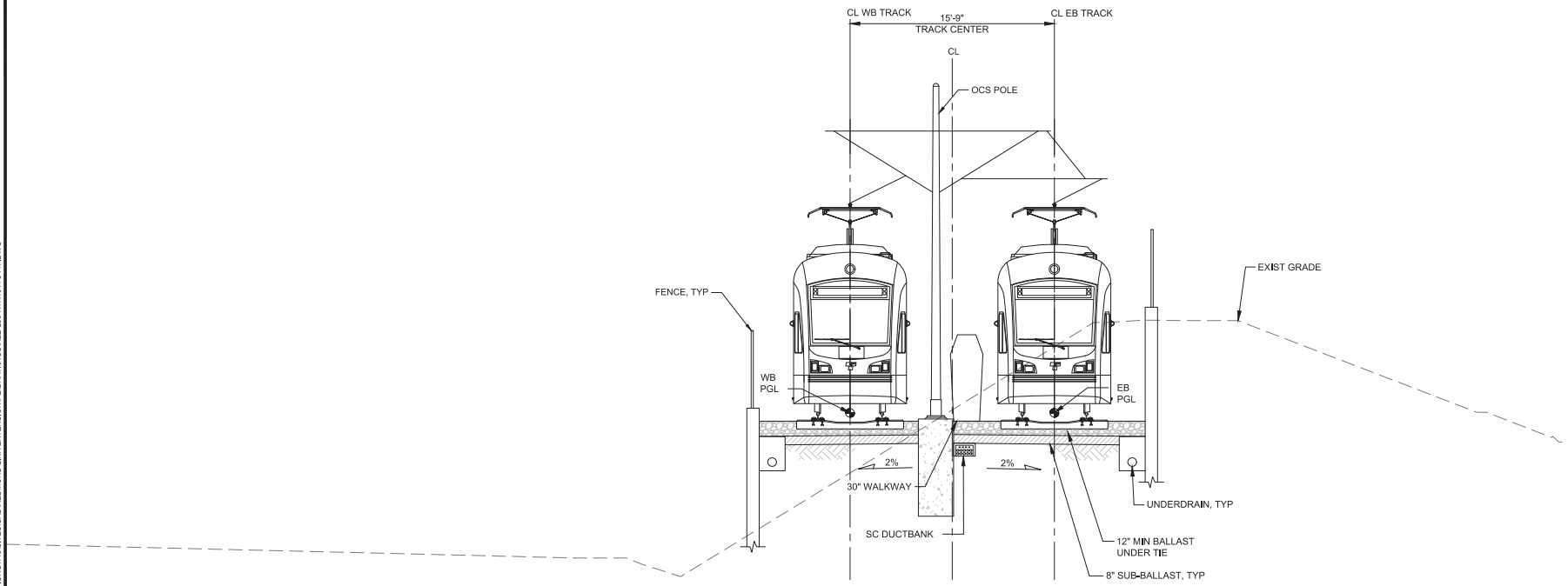
Xrefs:
RLE-GB-TB22x34



FILL AND CUT

EB 5002+00 TO EB 5016+00
EB 5051+90 TO EB 5055+00
EB 5063+50 TO EB 5065+50
EB 5066+50 TO EB 5067+50

E
L90-KAP101
L90-KAP102
L90-KAP106
L90-KAP107
L90-KAP108

PRELIMINARY ENGINEERING

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APPROVED BY: Y. YANG

KATHLEEN BLAIR METZ — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
FILL AND CUT

DRAWING No.: L90-KYX105
LOCATION ID:
SHEET No.: 118
REV:

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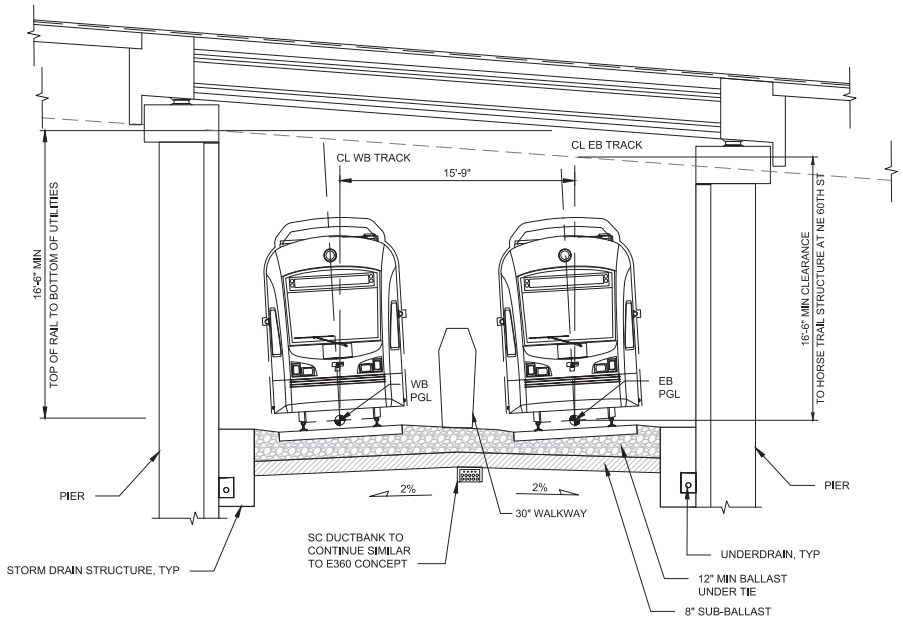
Xrefs:
RLE-GB-TB22x34



CUT AT N.E. 51ST STREET AND N.E. 60TH STREET

EB 5024+10 TO EB 5026+15
EB 5048+50 TO EB 5049+30

F
L90-KAP103
L90-KAP104
L90-KAP106

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CONCEPTUAL DESIGN

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CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHLEEN BLAIR METZ — STATE OF WASHINGTON — 21661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
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CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
CUT AT NE 51ST ST AND NE 60TH ST

DRAWING No.: L90-KYX106
LOCATION ID:
SHEET No.: 119
REV:

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Xrefs:
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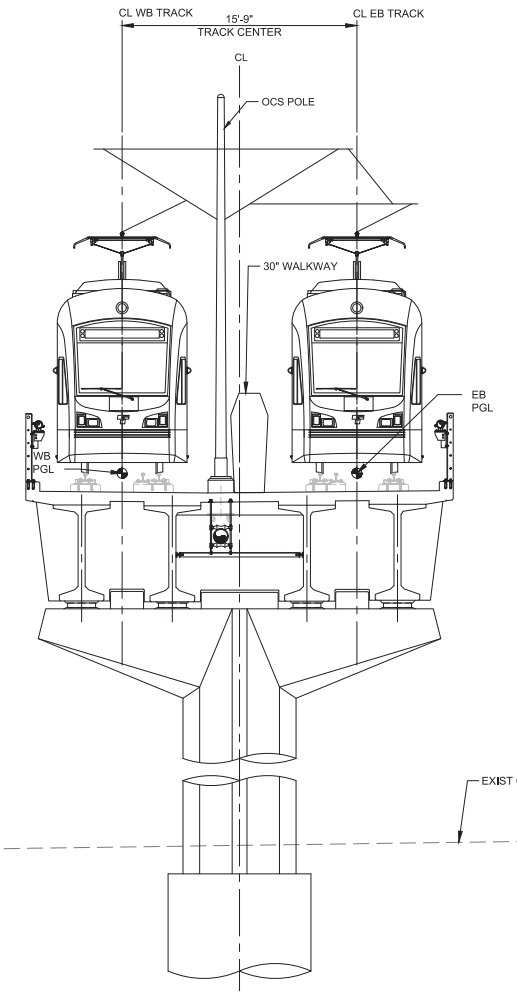

ELEVATED AT SAMAMMISH RIVER
EB 5071+20 TO EB 5090+30

G
L90-KAP108
L90-KAP109
L90-KAP110
L90-KAP111

PRELIMINARY ENGINEERING

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KATHRYN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
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PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT SAMMAMISH RIVER

DRAWING No.: L90-KYX107
LOCATION ID:
SHEET No.: 120
REV:

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Xrefs:
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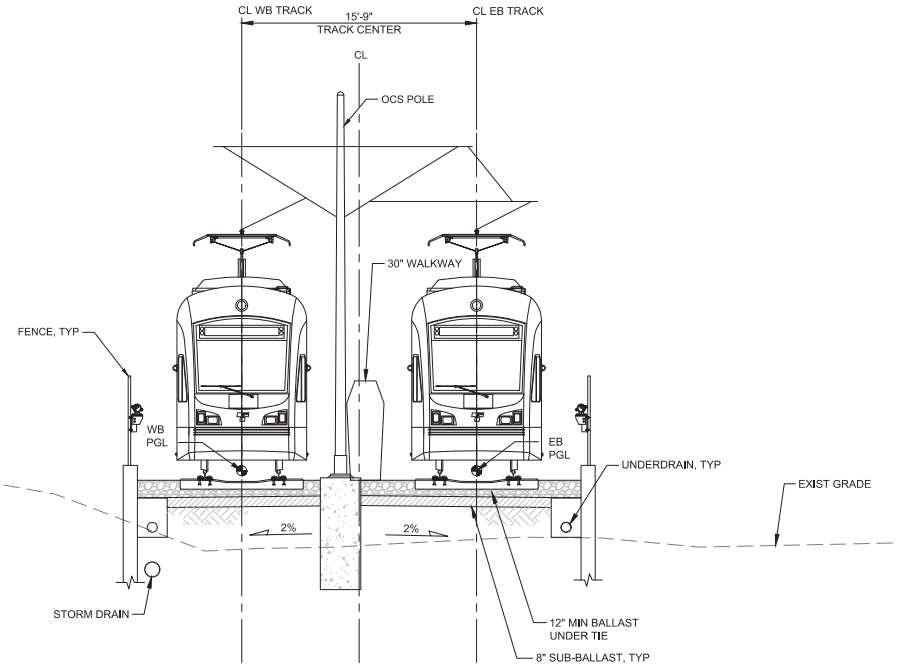

RETAINED FILL AT MARYMOOR PARK
EB 5090+30 TO EB 5119+45

H
L90-KAP111
L90-KAP112
L90-KAP113
L90-KAP114

PRELIMINARY ENGINEERING

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
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SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
RETAINED FILL AT MARYMOOR PARK

DRAWING No.: L90-KYX108
LOCATION ID:
SHEET No.: 121
REV:

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Xrefs:
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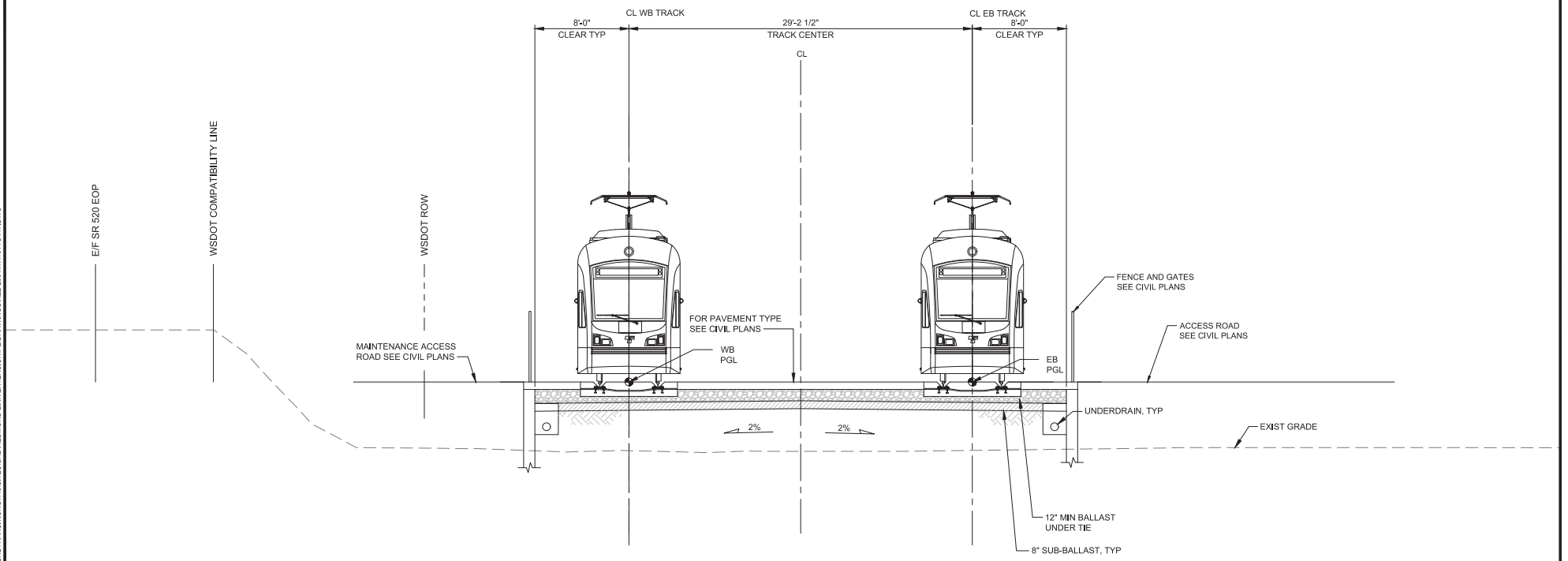

HIGH RAIL ACCESS
EB 5119+45 TO EB 5120+95
1 L90-KAP114

PRELIMINARY ENGINEERING

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KATHLEEN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
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SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - BALLASTED TRACK
HIGH RAIL ACCESS

DRAWING No.: L90-KYX109
LOCATION ID:
SHEET No.: 122
REV:

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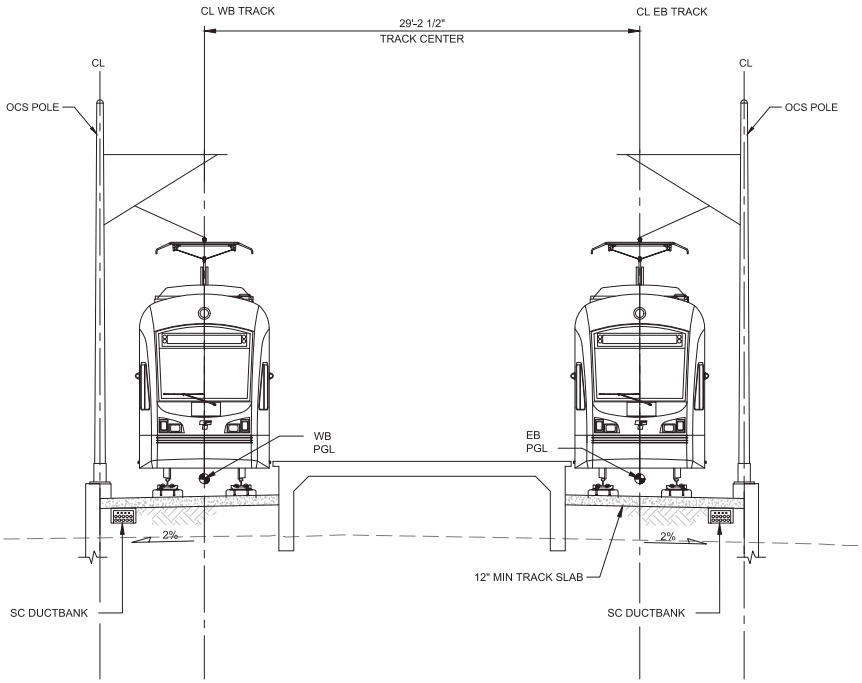

AT-GRADE SE REDMOND STATION J
EB 5121+45 TO EB 5125+25 L90-KAP114

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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PARSONS
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LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
AT-GRADE AT SE REDMOND STATION

DRAWING No.: L90-KYX110
LOCATION ID:
SHEET No.: 123
REV:

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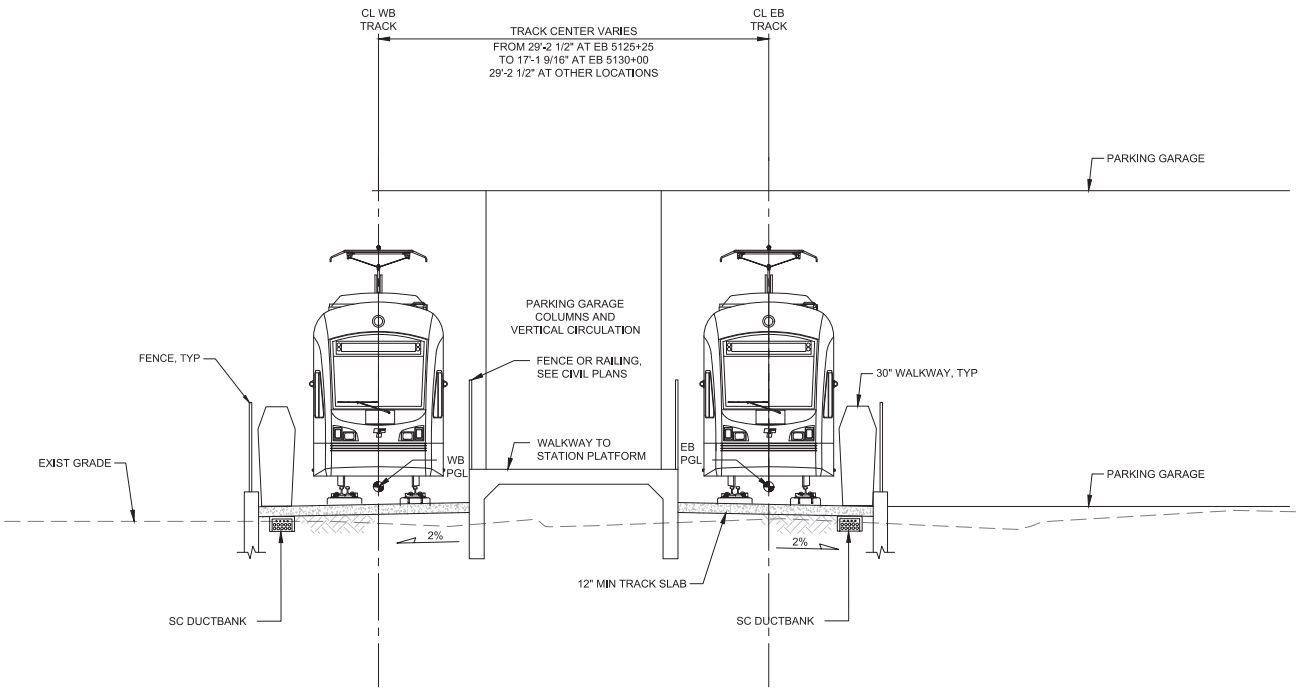

AT-GRADE AT PARKING GARAGE (K)
EB 5125+25 TO EB 5130+00
EB 5120+95 TO EB 5121+45 SIMILAR
L90-KAP114
L90-KAP115

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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PARSONS
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SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
AT-GRADE AT PARKING GARAGE

DRAWING No.: L90-KYX111
LOCATION ID:
SHEET No.: 124
REV:

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Xrefs:
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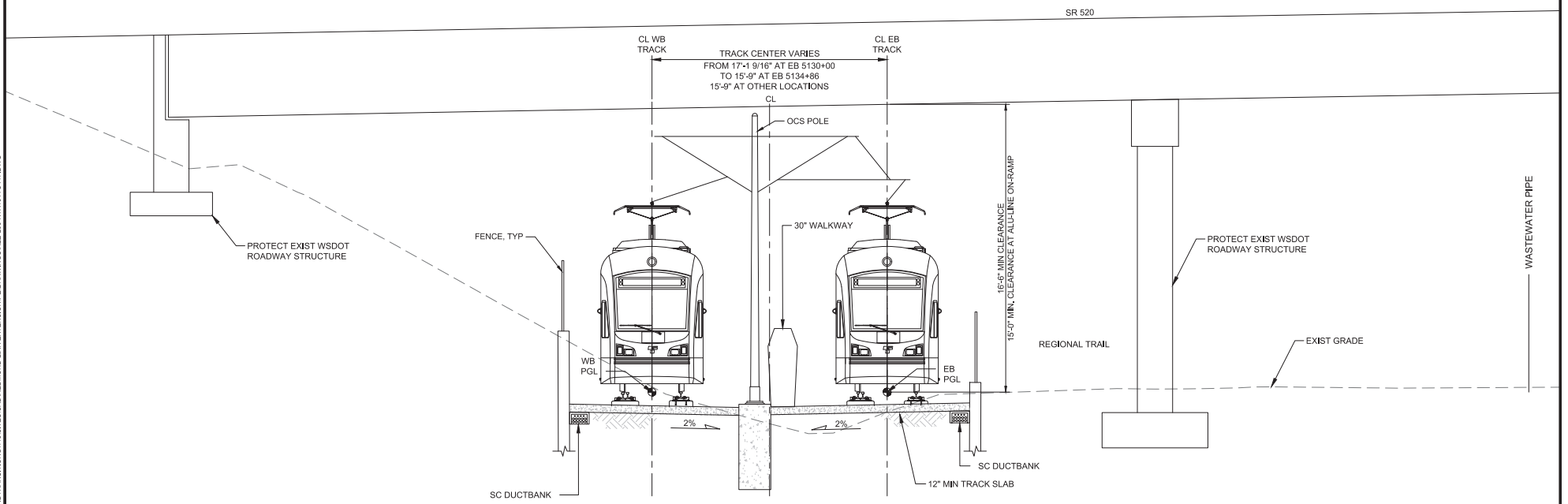

AT-GRADE UNDER SR 520
EB 5130+00 TO EB 5138+44

L
L90-KAP115
L90-KAP116

PRELIMINARY ENGINEERING

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STATE OF WASHINGTON — KATHLEEN BLAIR METZ — REGISTERED PROFESSIONAL ENGINEER

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DATE:

PARSONS
DATE: 09/24/2018

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SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
AT-GRADE UNDER SR 520

DRAWING No.: L90-KYX112
LOCATION ID:
SHEET No.: 125
REV:

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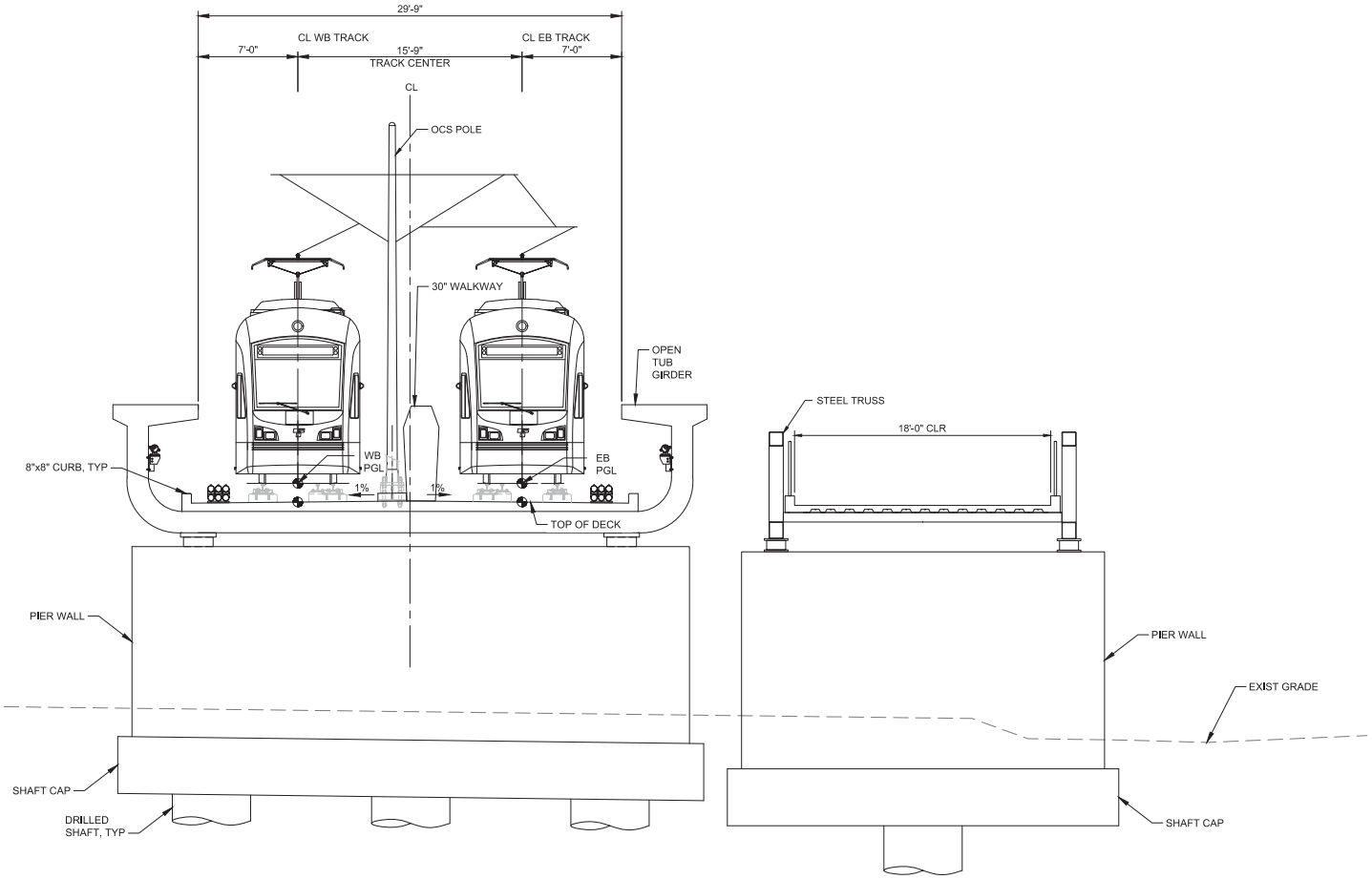

ELEVATED AT BEAR CREEK (M)
EB 5138+44 TO EB 5139+49 — L90-KAP116

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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APPROVED BY: Y. YANG

KRISTEN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

PARSONS
REVIEWED BY: — DATE:

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SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT BEAR CREEK

DRAWING No.: L90-KYX113
LOCATION ID:
SHEET No.: 126
REV:

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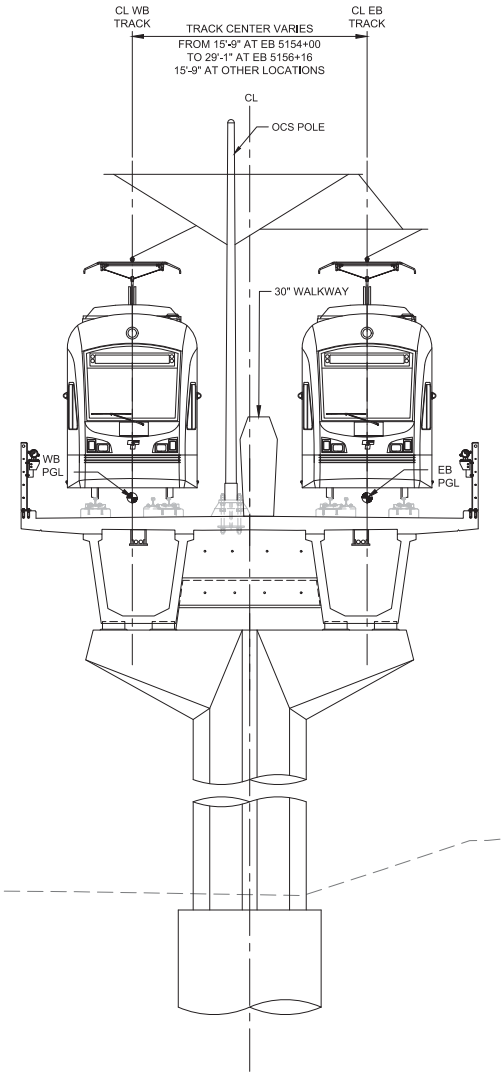

ELEVATED AT DOWNTOWN REDMOND
EB 5139+49 TO EB 5151+00
EB 5154+00 TO EB 5156+16

N
L90-KAP116
L90-KAP117
L90-KAP118

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KRISTEN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

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SCALE: NTS
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CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT DOWNTOWN REDMOND

DRAWING No.: L90-KYX114
LOCATION ID:
SHEET No.: 127
REV:

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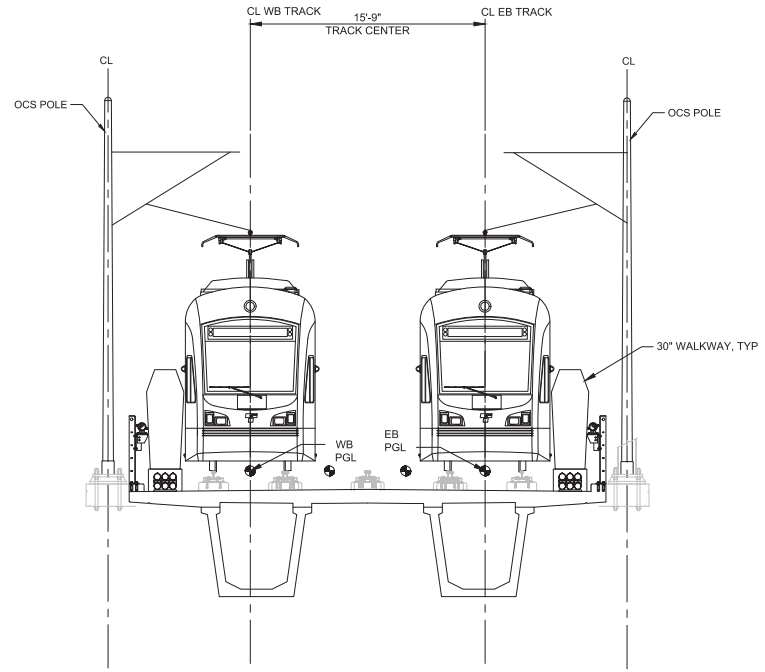

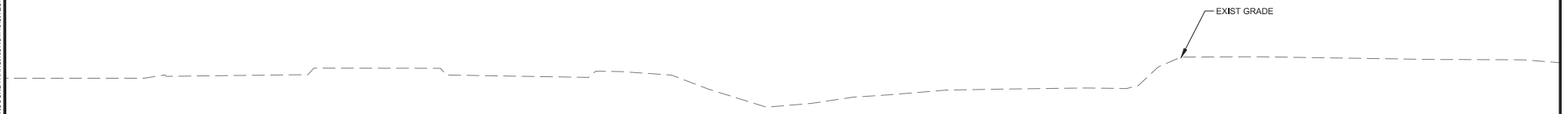

ELEVATED AT DOUBLE CROSSOVER O
EB 5151+00 TO EB 5154+00 L90-KAP117

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

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DESIGNED BY: J. GACIARZ
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CHECKED BY: S. METZ
APPROVED BY: Y. YANG

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SUBMITTED BY: BRAD PHILLIPS
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PARSONS
REVIEWED BY:
DATE:

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SOUNDTRANSIT

SCALE: NTS
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CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT DOUBLE CROSSOVER

DRAWING No.: L90-KYX115
LOCATION ID:
SHEET No.: 128
REV:

09/27/18 | 9:57 AM | TYLERJ
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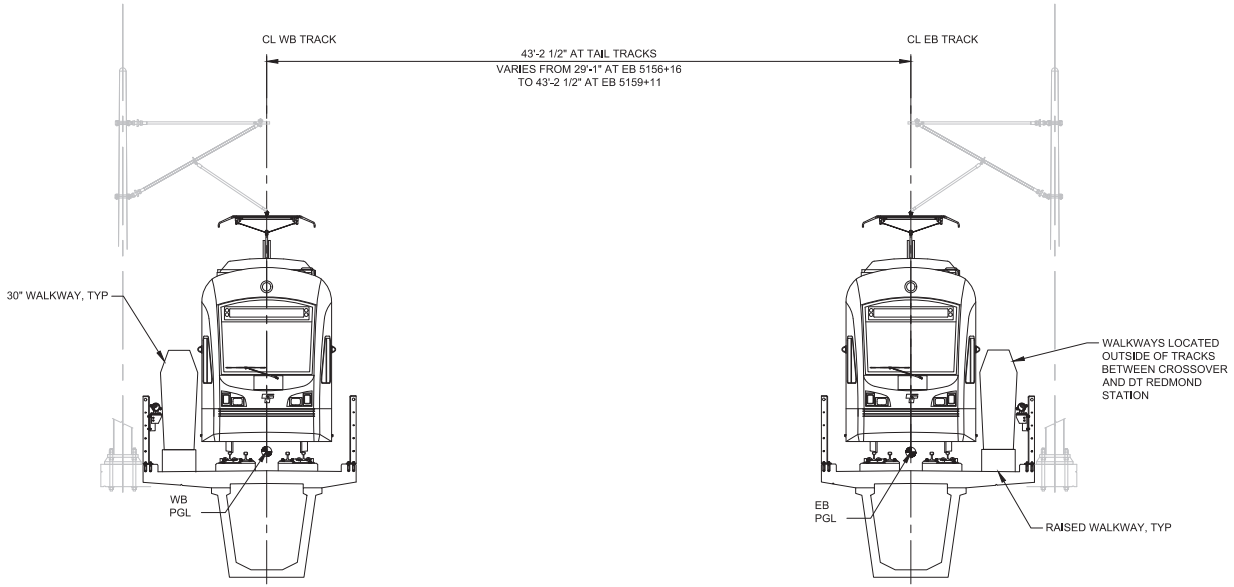
Xrefs:
RLE-GB-TB22x34



ELEVATED AT TWO SINGLE TRACKS

EB 5156+16 TO EB 5159+11
EB 5163+00 TO EB 5167+73

P
L90-KAP118
L90-KAP119

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHLEEN BLAIR METZ — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

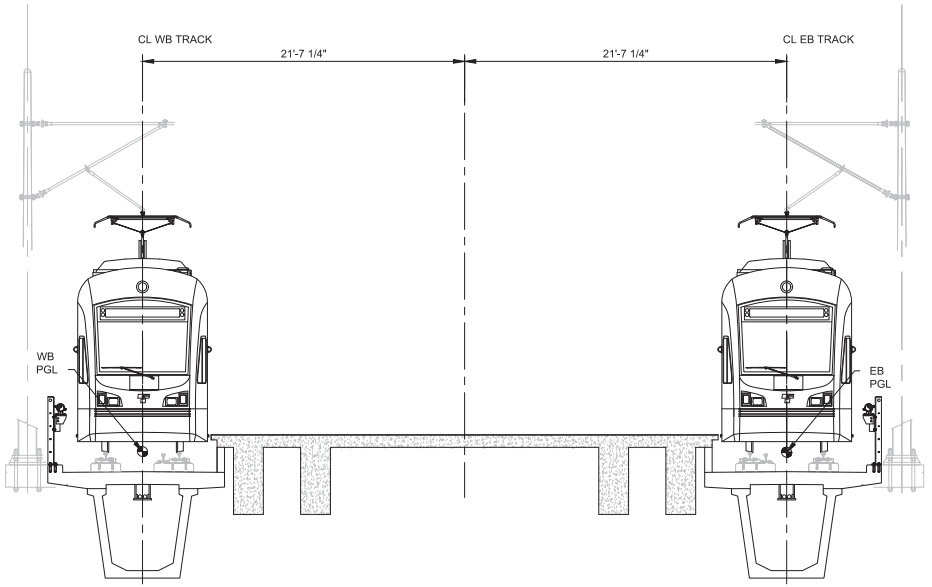
SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT TWO SINGLE TRACKS

DRAWING No.: L90-KYX116
LOCATION ID:
SHEET No.: 129
REV:

09/27/18 | 9:57 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJH\TTPSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KYX101TO117.DWG

Xrefs:
RLE-GB-TB22x34



ELEVATED AT DOWNTOWN REDMOND STATION Q
EB 5159+11 TO EB 5163+00 L90-KAP118

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: J. GACIARZ
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STEVEN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS DATE: 09/24/2018
REVIEWED BY: DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KYX101TO117
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

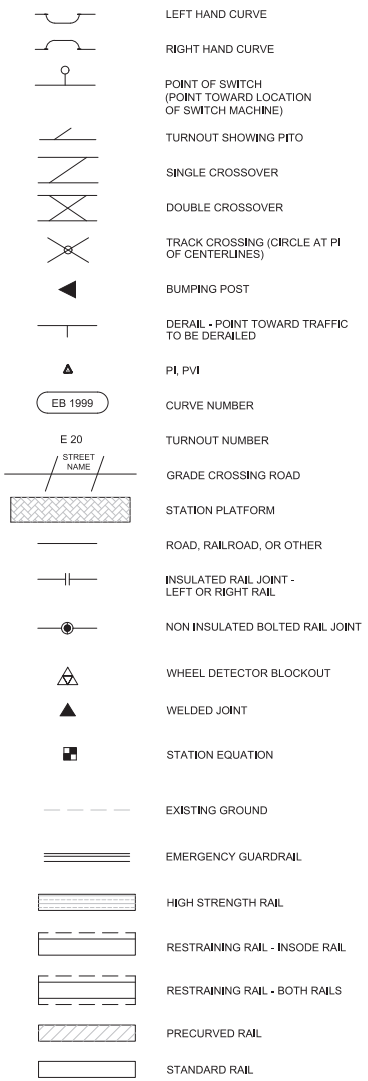
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TYPICAL SECTION - DIRECT FIXATION TRACK
ELEVATED AT DOWNTOWN REDMOND STATION

DRAWING No.: L90-KYX117
LOCATION ID:
SHEET No.: 130
REV:

09/27/18 | 9:57 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-KYX101TO117.DWG

Xrefs:
RLE-GB-TB22x34

SYMBOLS



1. FOR GENERAL NOTES, SEE DWG L90-KZN001.
2. STATIONS GIVEN FOR INSULATED JOINTS ARE TO THE CENTER OF A PAIR OF JOINTS, UNLESS NOTED OTHERWISE. SEE TRACK CHARTS FOR LOCATIONS.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHRYN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KTC100
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
TRACKWORK
TRACK CHARTS
SYMBOLS & GENERAL NOTES

DRAWING No.: L90-KTC100
LOCATION ID:
SHEET No.: 131
REV:

09/26/18 | 3:03 PM | TYLERJ
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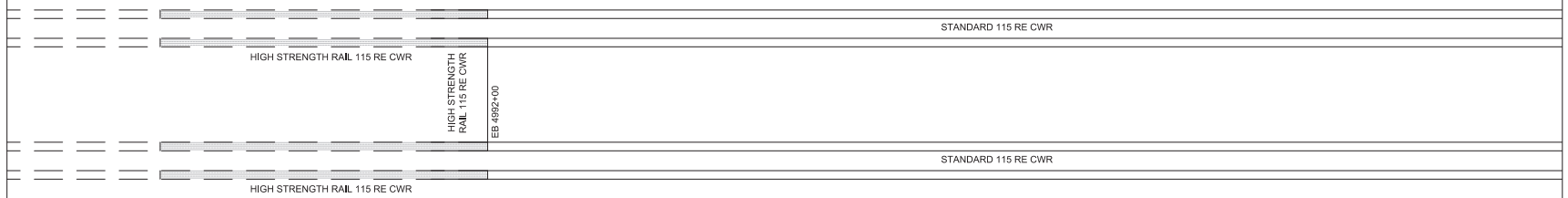
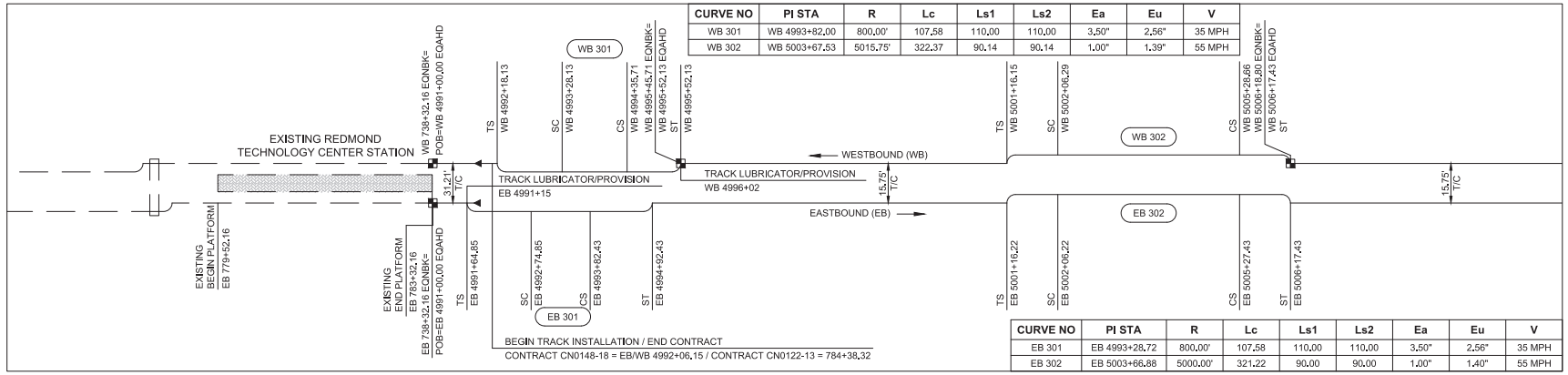
Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

TYPE OF RAIL



HORIZONTAL ALIGNMENT

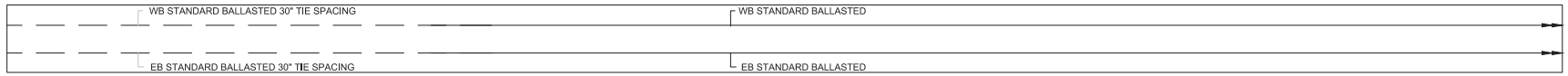
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 301	WB 4993+82.00	800.00'	107.58	110.00	110.00	3.50"	2.56"	35 MPH
WB 302	WB 5003+67.53	5015.75'	322.37	90.14	90.14	1.00"	1.39"	55 MPH



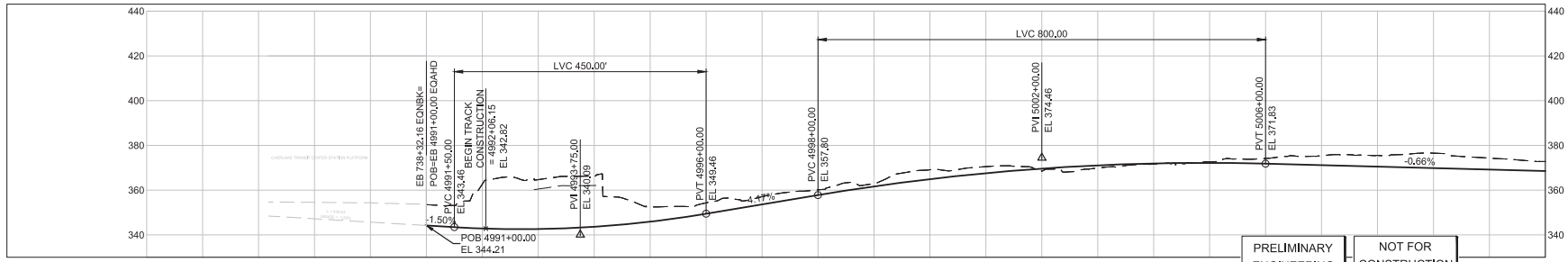
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 301	EB 4993+28.72	800.00'	107.58	110.00	110.00	3.50"	2.56"	35 MPH
EB 302	EB 5003+66.88	5000.00'	321.22	90.00	90.00	1.00"	1.40"	55 MPH

SEE DWG L90-KTC402

TRACK TYPE



VERTICAL ALIGNMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHRYN BLAIR METZ — STATE OF WASHINGTON — 22881 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

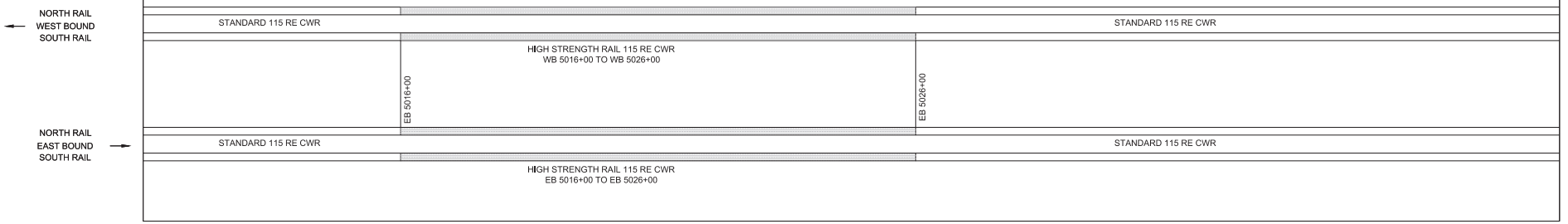
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
TRACK CHARTS
EB STA 4991+00 TO EB STA 5011+00

DRAWING No.: L90-KTC401
LOCATION ID:
SHEET No.: 132
REV:

10/04/18 | 5:37 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGETFILE\DRAWINGS\RLE-L90-KTC401TO407.DWG

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

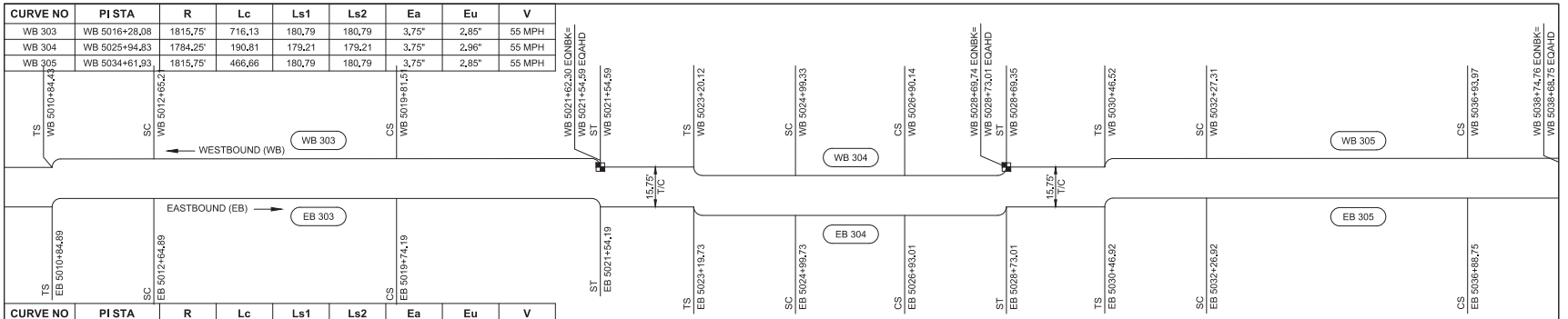
TYPE OF RAIL



HORIZONTAL ALIGNMENT

SEE DWG L90-KTC401

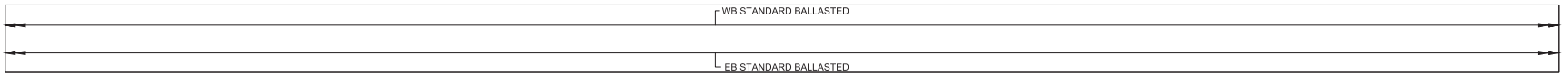
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 303	WB 5016+28.08	1815.75'	716.13	180.79	180.79	3.75"	2.85"	55 MPH
WB 304	WB 5025+94.83	1784.25'	190.81	179.21	179.21	3.75"	2.96"	55 MPH
WB 305	WB 5034+61.93	1815.75'	466.66	180.79	180.79	3.75"	2.85"	55 MPH



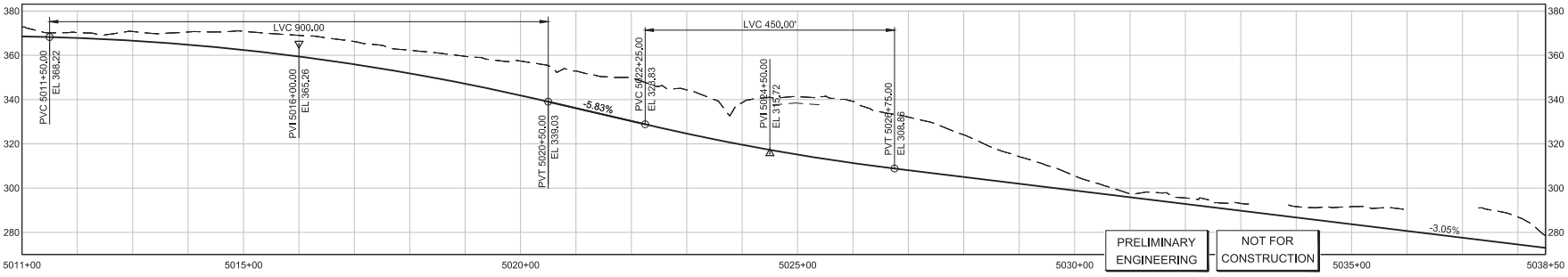
SEE DWG L90-KTC403

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 303	EB 5016+24.20	1800.00'	709.30	180.00	180.00	3.75"	2.91"	55 MPH
EB 304	EB 5025+96.46	1800.00'	193.28	180.00	180.00	3.75"	2.91"	55 MPH
EB 305	EB 5034+59.11	1800.00'	461.83	180.00	180.00	3.75"	2.91"	55 MPH

TRACK TYPE



VERTICAL ALIGNMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR METZ — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
TRACK CHARTS
EB STA 5011+00 TO EB STA 5038+50

DRAWING No.: L90-KTC402
LOCATION ID:
SHEET No.: 133
REV:

10/04/18 | 5:37 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGETFILE\DRAWINGS\RLE-L90-KTC401TO407.DWG

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

TYPE OF RAIL

NORTH RAIL
WEST BOUND
SOUTH RAIL

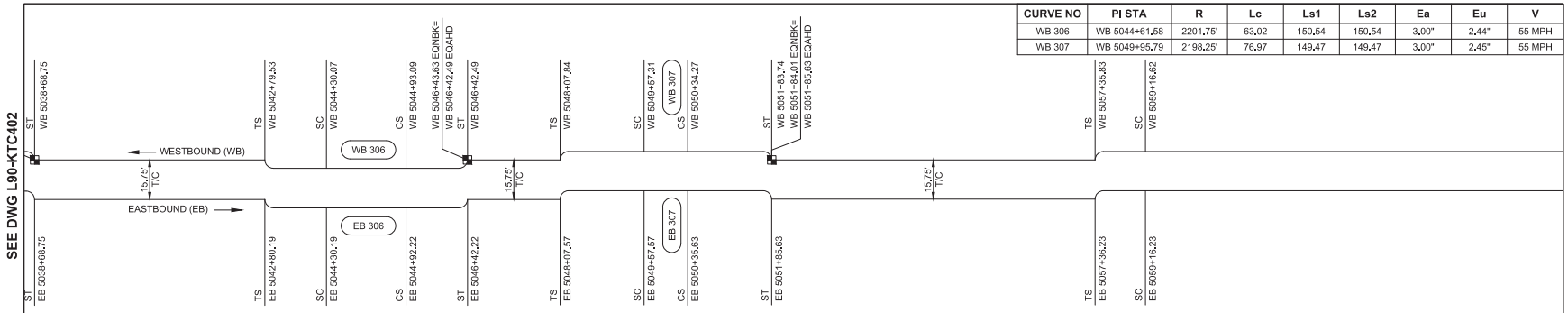
WB 5049+00 — EMERGENCY GUARD RAIL — WB 5053+00 — STANDARD 115 RE CWR — WB 5063+00 — EMERGENCY GUARD RAIL

NORTH RAIL
EAST BOUND
SOUTH RAIL

EB 5049+00 — EMERGENCY GUARD RAIL — EB 5053+00 — STANDARD 115 RE CWR — EB 5063+00 — EMERGENCY GUARD RAIL

HORIZONTAL ALIGNMENT

SEE DWG L90-KTC402



SEE DWG L90-KTC404

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 306	WB 5044+61.58	2201.75'	63.02	150.54	150.54	3.00"	2.44"	55 MPH
WB 307	WB 5049+95.79	2198.25'	76.97	149.47	149.47	3.00"	2.45"	55 MPH

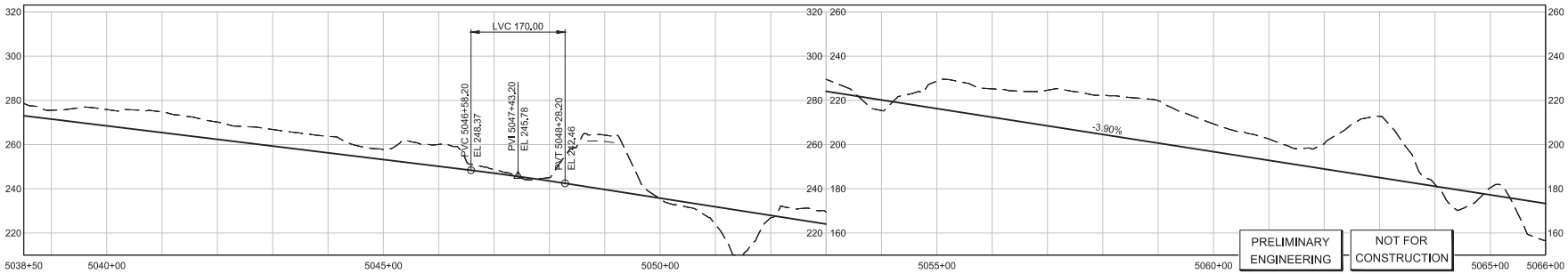
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 306	EB 5044+61.21	2186.00'	62.03	150.00	150.00	3.00"	2.48"	55 MPH
EB 307	EB 5049+96.60	2214.00'	78.05	150.00	150.00	3.00"	2.41"	55 MPH

TRACK TYPE

WB STANDARD BALLASTED

EB STANDARD BALLASTED

VERTICAL ALIGNMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHRYN BLAIR METZ — STATE OF WASHINGTON — 21661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
TRACK CHARTS
EB STA 5038+50 TO EB STA 5066+00

DRAWING No.: L90-KTC403
LOCATION ID:
SHEET No.: 134
REV:

10/04/18 | 5:37 PM | ITOP
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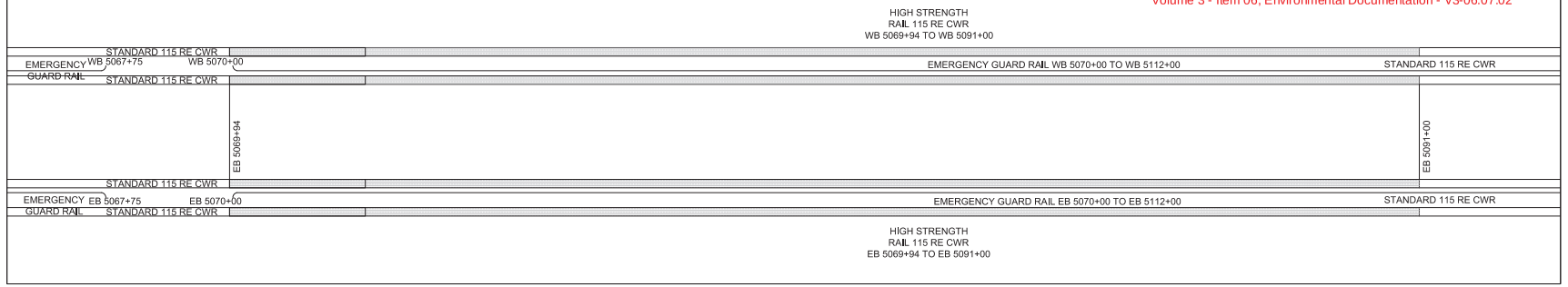
Attachment 15

Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

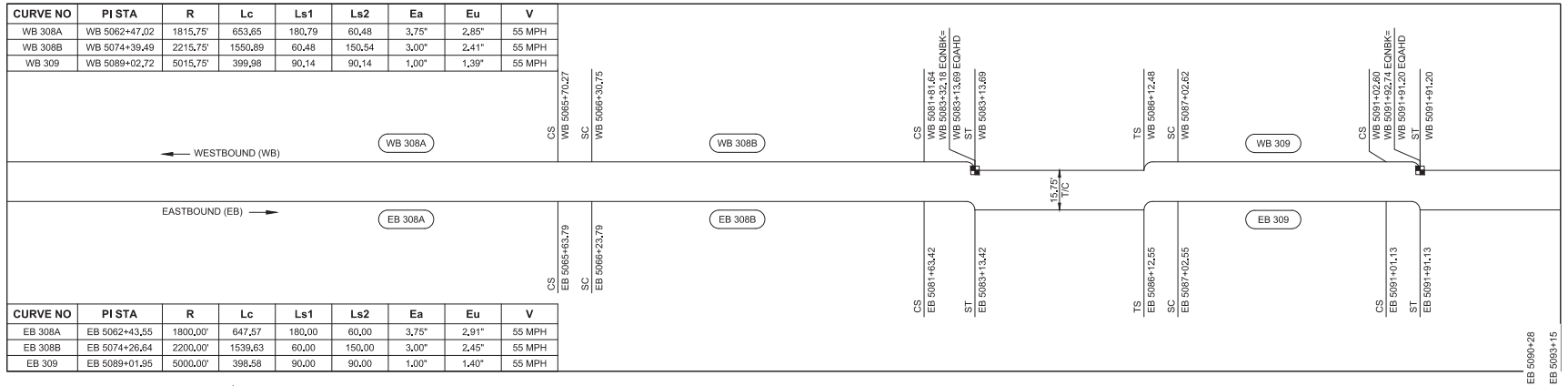
TYPE OF RAIL



HORIZONTAL ALIGNMENT

SEE DWG L90-KTC403

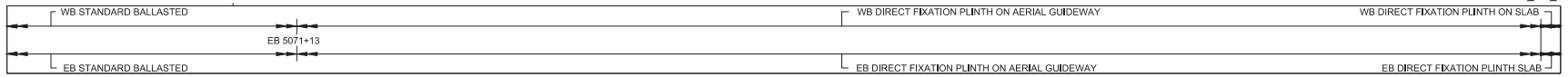
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 308A	WB 5062+47.02	1815.75'	653.65	180.79	60.48	3.75"	2.85"	55 MPH
WB 308B	WB 5074+39.49	2215.75'	1550.89	60.48	150.54	3.00"	2.41"	55 MPH
WB 309	WB 5089+02.72	5015.75'	399.98	90.14	90.14	1.00"	1.39"	55 MPH



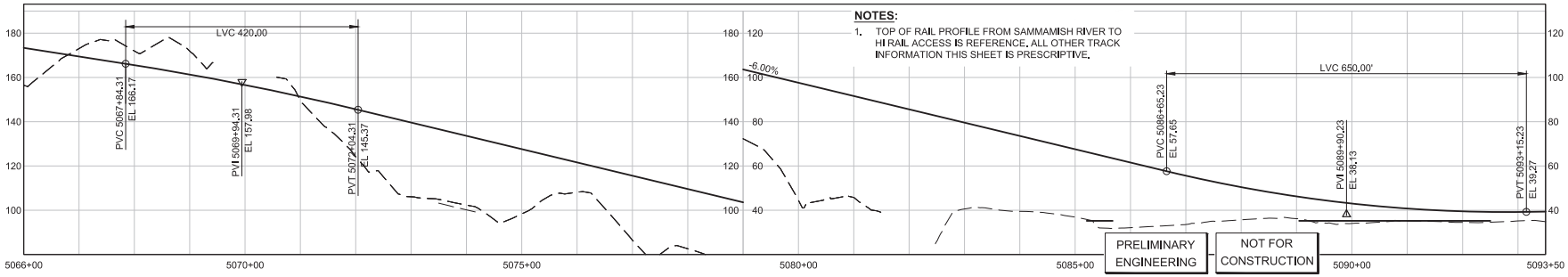
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 308A	EB 5062+43.55	1800.00'	647.57	180.00	60.00	3.75"	2.91"	55 MPH
EB 308B	EB 5074+26.64	2200.00'	1539.63	60.00	150.00	3.00"	2.45"	55 MPH
EB 309	EB 5089+01.95	5000.00'	398.58	90.00	90.00	1.00"	1.40"	55 MPH

SEE DWG L90-KTC405

TRACK TYPE



VERTICAL ALIGNMENT



NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE, ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

STATE OF WASHINGTON — STEVEN BLAIR METZ — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
TRACK CHARTS
EB STA 5066+00 TO EB STA 5093+50

DRAWING No.: L90-KTC404
LOCATION ID:
SHEET No.: 135
REV:

10/04/18 | 5:37 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGETRLE\DRAWINGS\RLE-L90-KTC401TO407.DWG

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

TYPE OF RAIL

NORTH RAIL
WEST BOUND
SOUTH RAIL

EMERGENCY GUARD RAIL WB 5070+00 TO WB 5120+00 | STANDARD 115 RE CWR | EMERGENCY GUARD RAIL WB 5070+00 TO WB 5120+00 | WB 5120+00

EB 5120+44

NORTH RAIL
EAST BOUND
SOUTH RAIL

EMERGENCY GUARD RAIL EB 5070+00 TO EB 5120+00 | STANDARD 115 RE CWR | EMERGENCY GUARD RAIL EB 5070+00 TO EB 5120+00 | EB 5120+00

HORIZONTAL ALIGNMENT

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 310	WB 5105+53.37	9015.75'	311.93	70.06	70.06	0.25"	1.08"	55 MPH
WB 311	WB 5116+89.83	1200.00'	299.89	120.00	120.00	2.75"	2.53"	40 MPH

SEE DWG L90-KTC404

WESTBOUND (WB)

TS WB 5103+27.32 | SC WB 5103+97.39 | WB 310 | CS WB 5107+09.31 WB 5107+79.34 EQNBK= WB 5107+78.68 EQAHD | ST WB 5107+78.71

15.75' T/C

TS WB 5114+19.10 | SC WB 5115+39.10 | WB 311 | CS WB 5118+38.99 | ST WB 5119+56.99 | WB 5119+93.09 EQNBK= WB 5120+01.03 EQAHD

15.75' T/C

TRACK LUBRICATOR/PROVISION EB 5114+11

TRACK LUBRICATOR/PROVISION WB 5121+20

26.21' T/C

EASTBOUND (EB)

TS EB 5103+27.35 | SC EB 5103+97.35 | EB 310 | CS EB 5107+08.68 | ST EB 5107+78.68

TS EB 5114+61.14 | SC EB 5115+81.14 | EB 311 | CS EB 5118+81.03 | ST EB 5120+01.03

EB 5119+74.37 TO EB 5120+94.37
CONCRETE PANEL HIGH RAIL ACCESS

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 310	EB 5105+53.03	9000.00'	311.32	70.00	70.00	0.25"	1.08"	55 MPH
EB 311	EB 5117+31.87	1200.00'	299.89	120.00	120.00	2.75"	2.53"	40 MPH

SEE DWG L90-KTC406

TRACK TYPE

WB STANDARD BALLASTED

EB STANDARD BALLASTED

EB 5120+94

VERTICAL ALIGNMENT

NOTES:

1. TOP OF RAIL PROFILE FROM SAMMAMISH RIVER TO HI RAIL ACCESS IS REFERENCE. ALL OTHER TRACK INFORMATION THIS SHEET IS PRESCRIPTIVE.

120 100 80 60 40

0.35%

LVC 170.00

PVC 5117+86.24 EL 47.92

PVI 5118+71.24 EL 48.22 HI-RAIL ACCESS 5119+44.37 EL 47.85

PVT 5119+56.24 EL 47.79

HI-RAIL ACCESS 5120+94.37 EL 47.10

5093+50 5095+00 5100+00 5105+00 5110+00 5115+00 5120+00 5121+00

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KATHLEEN BLAIR METZ — STATE OF WASHINGTON — 22661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
TRACKWORK
TRACK CHARTS
EB STA 5093+50 TO EB STA 5121+00

DRAWING No.: L90-KTC405
LOCATION ID:
SHEET No.: 136
REV:

10/04/18 | 5:37 PM | ITOP
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Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

TYPE OF RAIL

NORTH RAIL
WEST BOUND
SOUTH RAIL

HIGH STRENGTH
RAIL 115 RE CWR
WB 5120+44 TO WB 5135+00

WB 5125+79 — RESTRAINING RAIL WB 5125+79 TO WB 5134+86 — WB 5134+86 — WB 5137+00 — EMERGENCY GUARD RAIL WB 5137+00 TO WB 5151+18

STANDARD 115 RE CWR

EB 5135+00

NORTH RAIL
EAST BOUND
SOUTH RAIL

EB 5125+79 — RESTRAINING RAIL EB 5125+79 TO EB 5134+86 — EB 5134+86 — EB 5137+00 — EMERGENCY GUARD RAIL EB 5137+00 TO EB 5151+18

HIGH STRENGTH
RAIL 115 RE CWR
EB 5120+44 TO EB 5135+00

HORIZONTAL ALIGNMENT

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 312	WB 5132+76.45	300.00'	658.59	114.13	87.73	2.75"	2.53"	20 MPH
WB 313	WB 5141+14.62	10015.75'	422.63	0.00	0.00	0.00"	1.20"	55 MPH

SEE DWG L90-KTC405

SE REDMOND STATION
AT-GRADE

TS WB 5125+76.30
SC WB 5126+90.42
CS WB 5133+49.02
ST WB 5134+36.74 EQNBK= WB 5134+37.88 EQNBK= WB 5134+86.07 EQAHD
PC WB 5139+03.27
PT WB 5143+25.23 EQNBK= WB 5143+25.90 EQAHD WB 5143+25.23 EQAHD

WB 312
WB 313

WESTBOUND (WB)

TRACK LUBRICATOR
WB 5134+87

15.75' T/C

EASTBOUND (EB)

20 FT PED.CROSS. EB 5121+04.36
BEGIN PLATFORM EB 5121+44.36
END PLATFORM EB 5125+24.36
TRACK LUBRICATOR TS EB 5125+34
PUBLIC 20 FT PED.CROSS. EB 5125+95.79
SC=EB 5126+59.08
PED.CROSS. EB 5126+54
EB 312A
PED.CROSS. EB 5129+77.46
CS EB 5131+12.26
SC EB 5131+72.26
EB 312B
CS EB 5133+96.07
ST EB 5134+86.07
PC EB 5139+03.27
EB 313
PT EB 5143+25.23

SEE DWG L90-KTC407

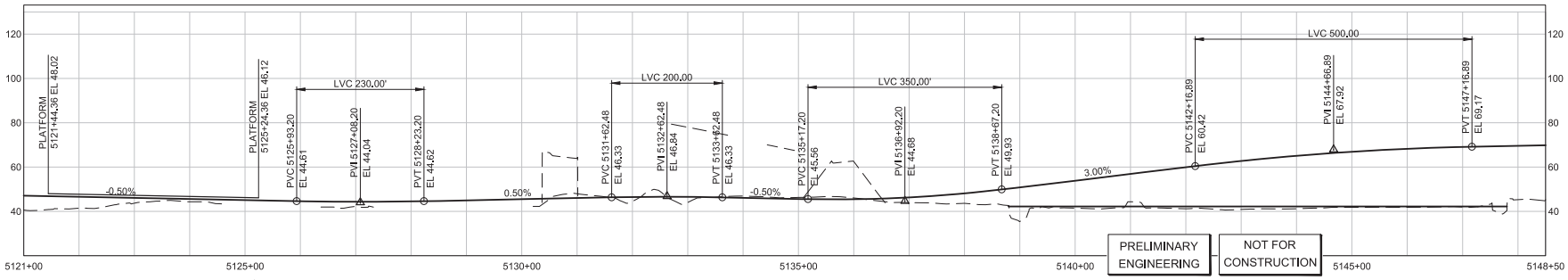
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 312A	EB 5129+29.58	330.00'	453.17	80.00	60.00	2.50"	2.30"	20 MPH
EB 312B	EB 5132+89.10	315.75'	223.81	60.00	90.00	2.75"	2.27"	20 MPH

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 313	EB 5141+14.28	10000.00'	421.96	0.00	0.00	0.00"	1.20"	55 MPH

TRACK TYPE

WB DIRECT FIXATION PLINTH ON TRACK SLAB
WB DIRECT FIXATION PLINTH ON AERIAL GUIDEWAY
EB 5138+74
EB DIRECT FIXATION PLINTH ON TRACK SLAB
EB DIRECT FIXATION PLINTH ON AERIAL GUIDEWAY

VERTICAL ALIGNMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

KRISTEN BLAIR METZ — STATE OF WASHINGTON — 21661 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

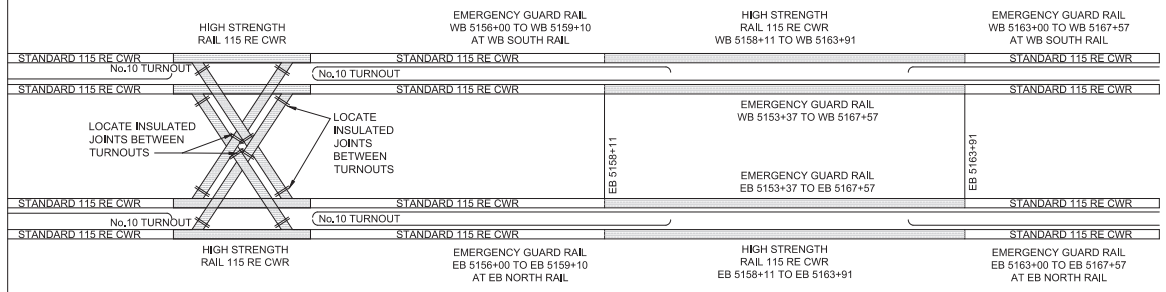
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
TRACK CHARTS
EB STA 5121+00 TO EB STA 5148+50

DRAWING No.: L90-KTC406
LOCATION ID:
SHEET No.: 137
REV:

10/04/18 | 5:37 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGET\RLE\DRAWINGS\RLE-L90-KTC401TO407.DWG

Xrefs:
xRLE-L90-KTC400
RLE-GB-TB22x34
xRLE-L90-KTCV100
xE360-RLE-L88-KAV100

TYPE OF RAIL

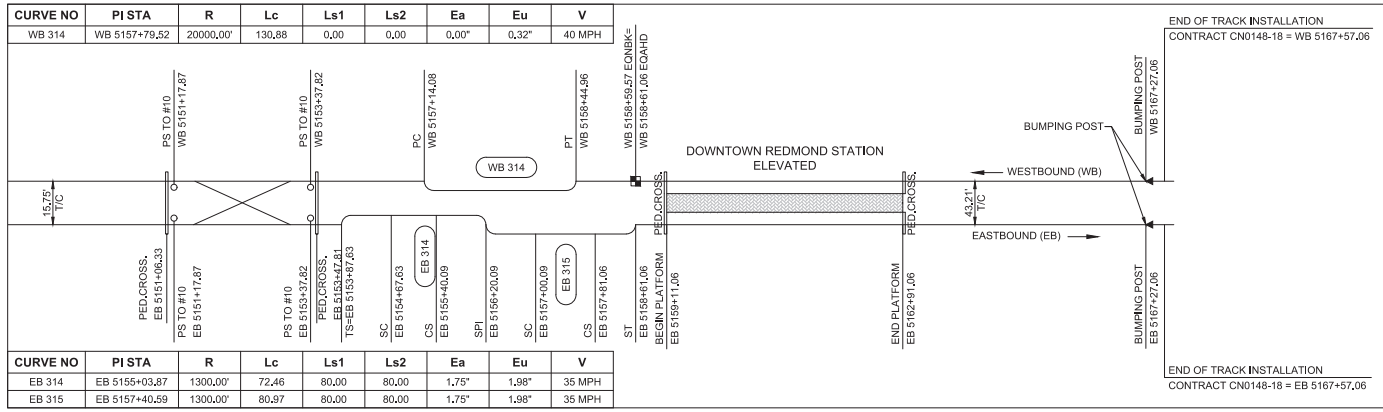


HORIZONTAL ALIGNMENT

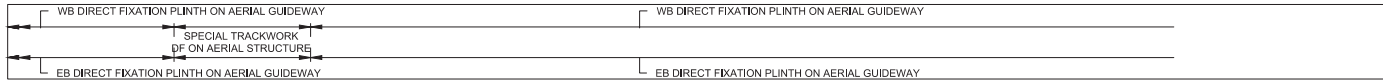
SEE DWG L90-KTC406

CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
WB 314	WB 5157+79.52	20000.00'	130.88	0.00	0.00	0.00"	0.32"	40 MPH

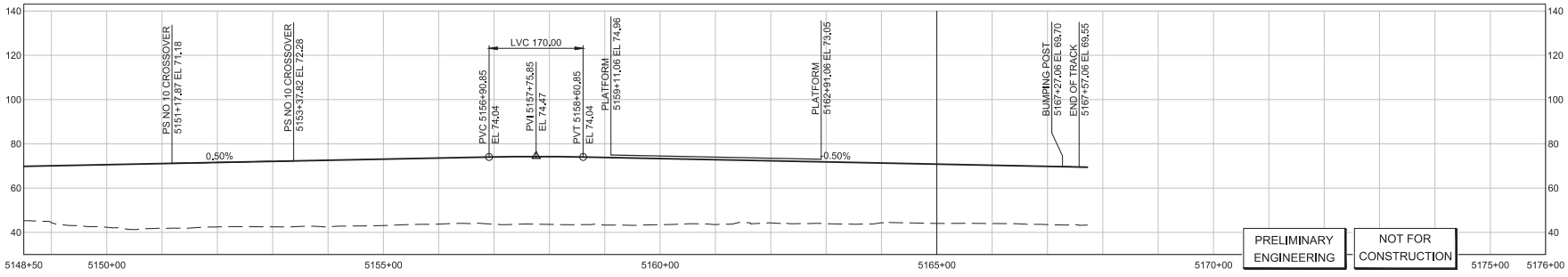
CURVE NO	PI STA	R	Lc	Ls1	Ls2	Ea	Eu	V
EB 314	EB 5155+03.87	1300.00'	72.46	80.00	80.00	1.75"	1.98"	35 MPH
EB 315	EB 5157+40.59	1300.00'	80.97	80.00	80.00	1.75"	1.98"	35 MPH



TRACK TYPE



VERTICAL ALIGNMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. GACIARZ
DRAWN BY: K. McWILLIAMS
CHECKED BY: S. METZ
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-KTC401TO407
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
TRACKWORK
TRACK CHARTS
EB STA 5148+50 TO EB STA 5167+72

DRAWING No.: L90-KTC407
LOCATION ID:
SHEET No.: 138
REV:

10/04/18 | 5:37 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGET\RLE\DRAWINGS\RLE-L90-KTC401TO407.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-street_basemap
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-L90-CRP100
xE360-L88-SWP100
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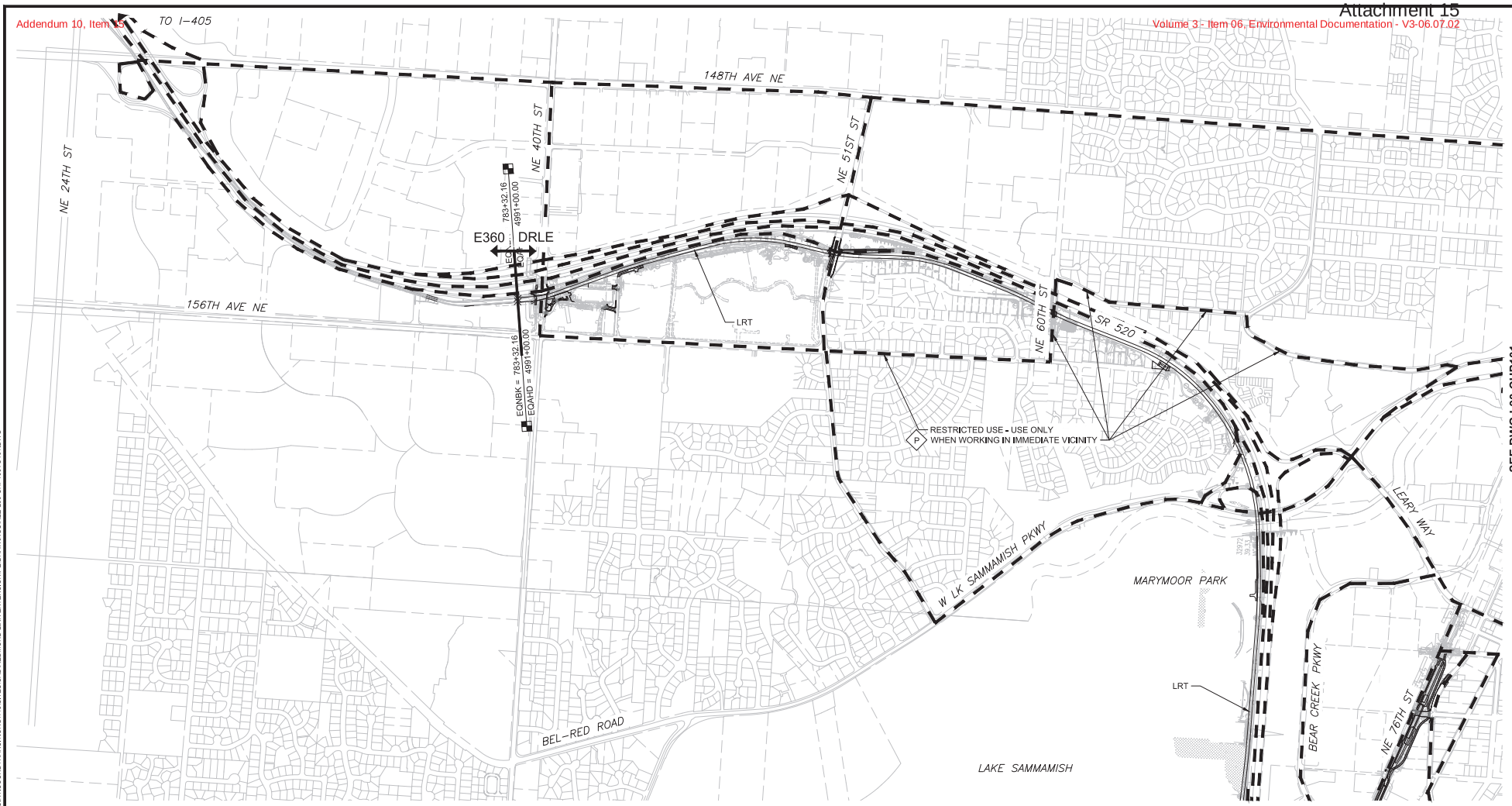
xE360-L88-KAP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-L90-CHP100



LEGEND:

PROPOSED TRUCK AND HAUL ROUTES

P PRESCRIPTIVE REQUIREMENT

NOTES:

1. SEE TRACK, CIVIL, STRUCTURAL AND STATION PLANS FOR CONSTRUCTION DETAILS.
2. TRUCK ROUTES SHALL USE WSDOT FACILITIES OR PRIMARY ARTERIALS AS APPROVED BY AHJ.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

500 250 0 500 1000
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: G. GRIJALVA
DRAWN BY: J. TYLER
CHECKED BY: K. CASSEDAY
APPROVED BY: Y. YANG

GABRIEL M. GRIJALVA — STATE OF WASHINGTON — 21880 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

GRIJALVA ENGINEERING

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 500'
FILENAME: RLE-L90-CHP100TO101
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
POTENTIAL TRUCK HAUL ROUTES

DRAWING No.: L90-CHP100
LOCATION ID:
SHEET No.: 139
REV:

09/25/16 | 2:58 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-street_basemap
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-L90-CRP100
xE360-L88-SWP100
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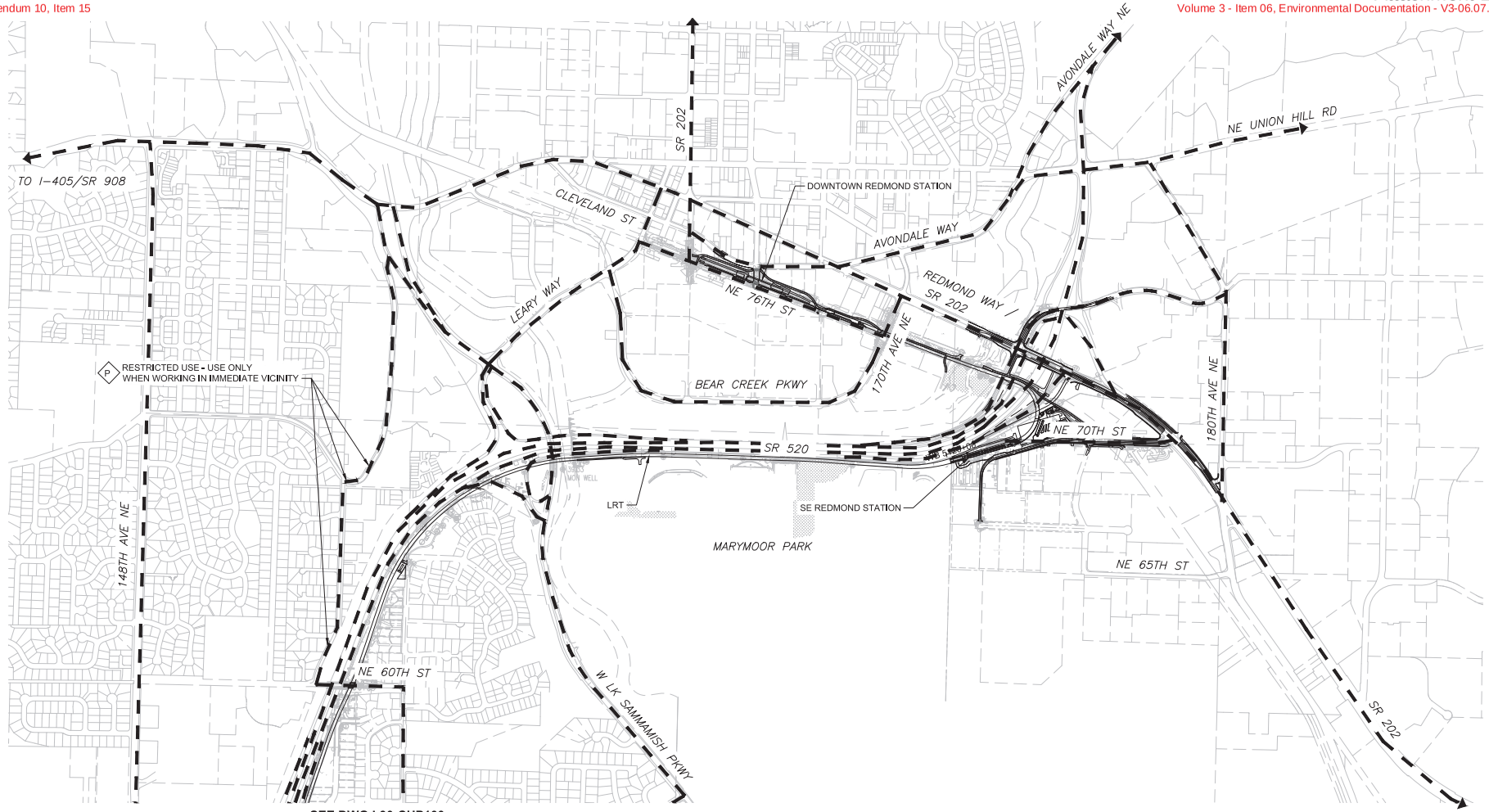
xE360-L88-KAP100
xRLE-L90-VSF
xRLE-L95-VSF
xRLE-L90-CHP100



SEE DWG L90-CHP100

LEGEND:

PROPOSED TRUCK AND HAUL ROUTES

P PRESCRIPTIVE REQUIREMENT

NOTES:

1. SEE TRACK, CIVIL, STRUCTURAL AND STATION PLANS FOR CONSTRUCTION DETAILS.
2. TRUCK ROUTES SHALL USE WSDOT FACILITIES OR PRIMARY ARTERIALS AS APPROVED BY AHJ.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

500 250 0 500 1000
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: G. GRIJALVA
DRAWN BY: J. TYLER
CHECKED BY: K. CASSEDAY
APPROVED BY: Y. YANG

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
GRIJALVA ENGINEERING
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

SCALE: 1" = 500'
FILENAME: RLE-L90-CHP100TO101
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
POTENTIAL TRUCK HAUL ROUTES

DRAWING No.: L90-CHP101
LOCATION ID:
SHEET No.: 140
REV:

09/25/18 | 2:59 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G95-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VNX
xRLE-L90-VCN
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xRLE-L90-VUT
xRLE-L90-CLP200
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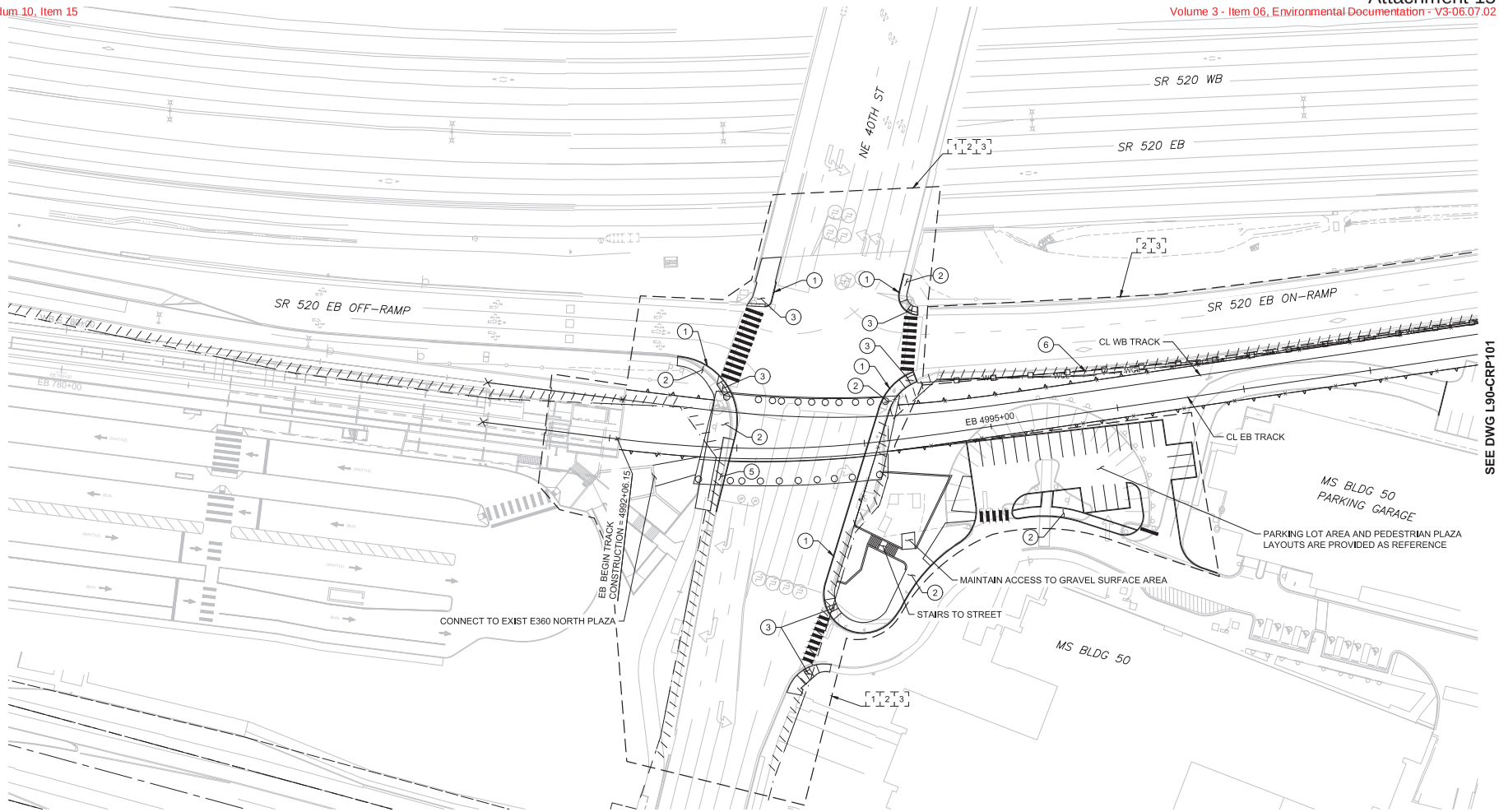

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 4991+00 TO EB STA 4998+00

DRAWING No.: L90-CRP100
LOCATION ID:
SHEET No.: 141
REV:

09/26/18 | 10:50 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-K31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-GB-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
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09/26/18 | 10:51 AM | TYLERJ
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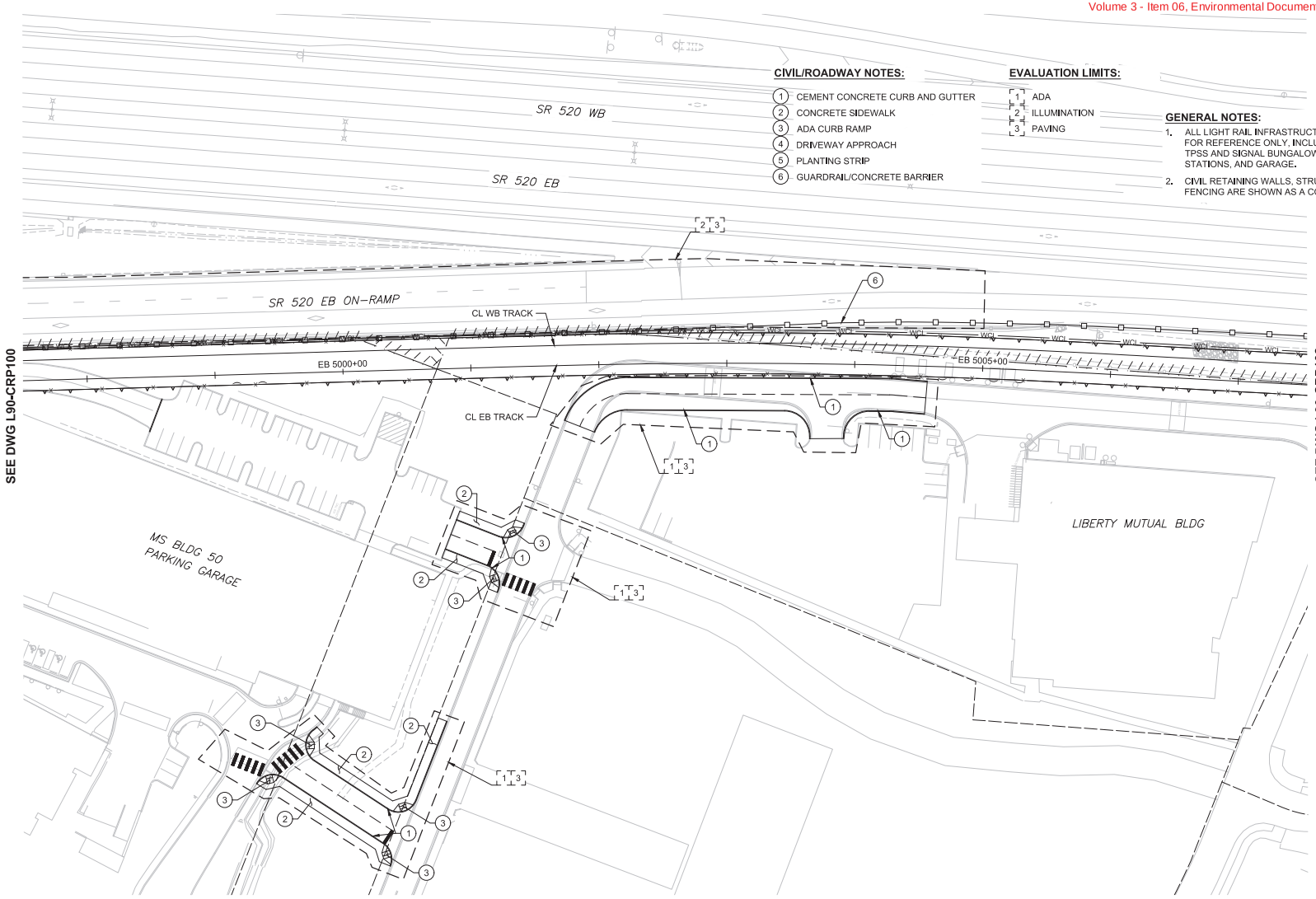

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 4998+00 TO EB STA 5007+00

DRAWING No.: L90-CRP101
LOCATION ID:
SHEET No.: 142
REV:

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
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xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
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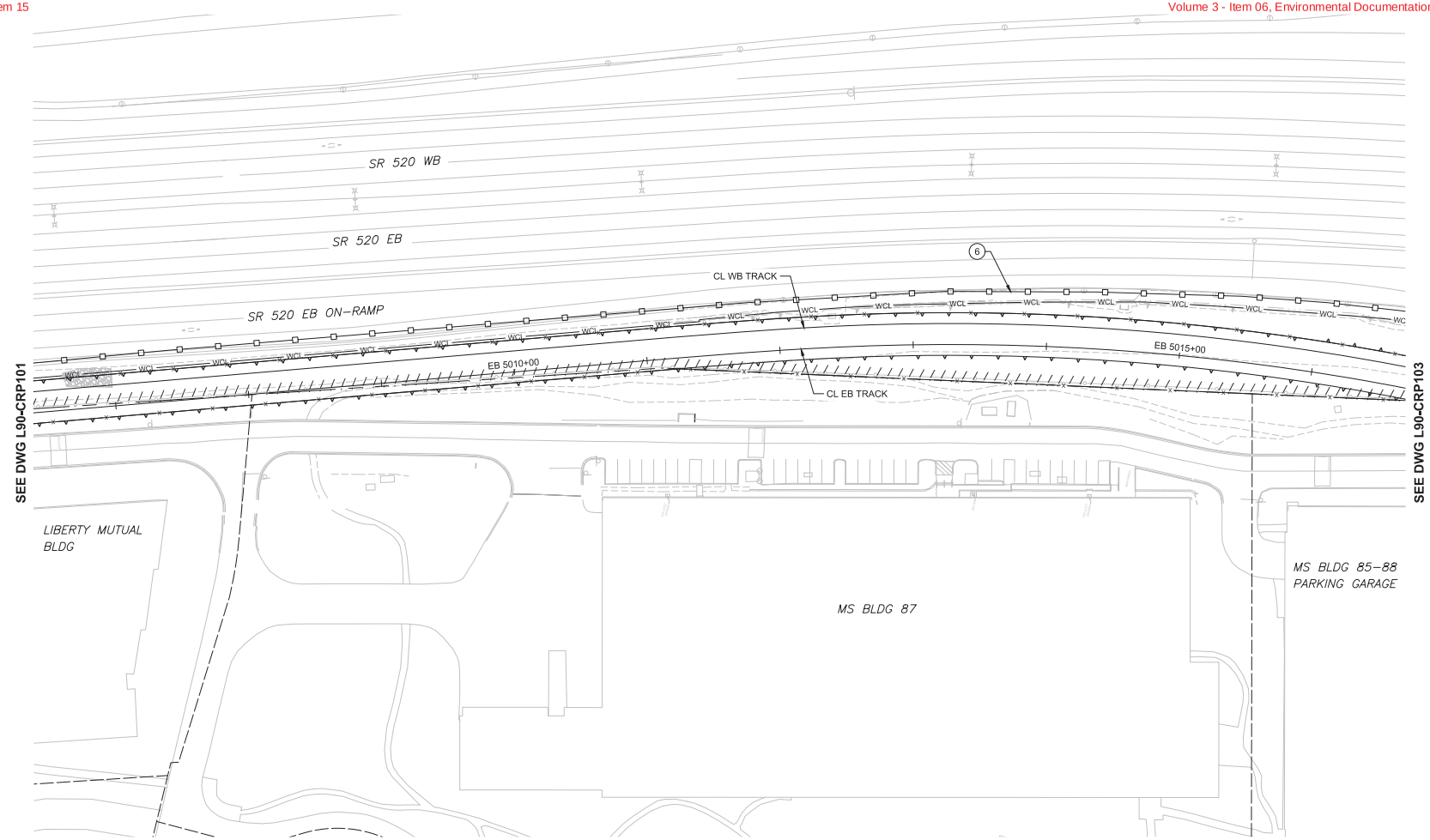
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 36570 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5007+00 TO EB STA 5016+00

DRAWING No.: L90-CRP102
LOCATION ID:
SHEET No.: 143
REV:

09/26/18 | 10:52 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443%SITES%CAD%REDMOND LINK EXTENSION%PED\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G05-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G05-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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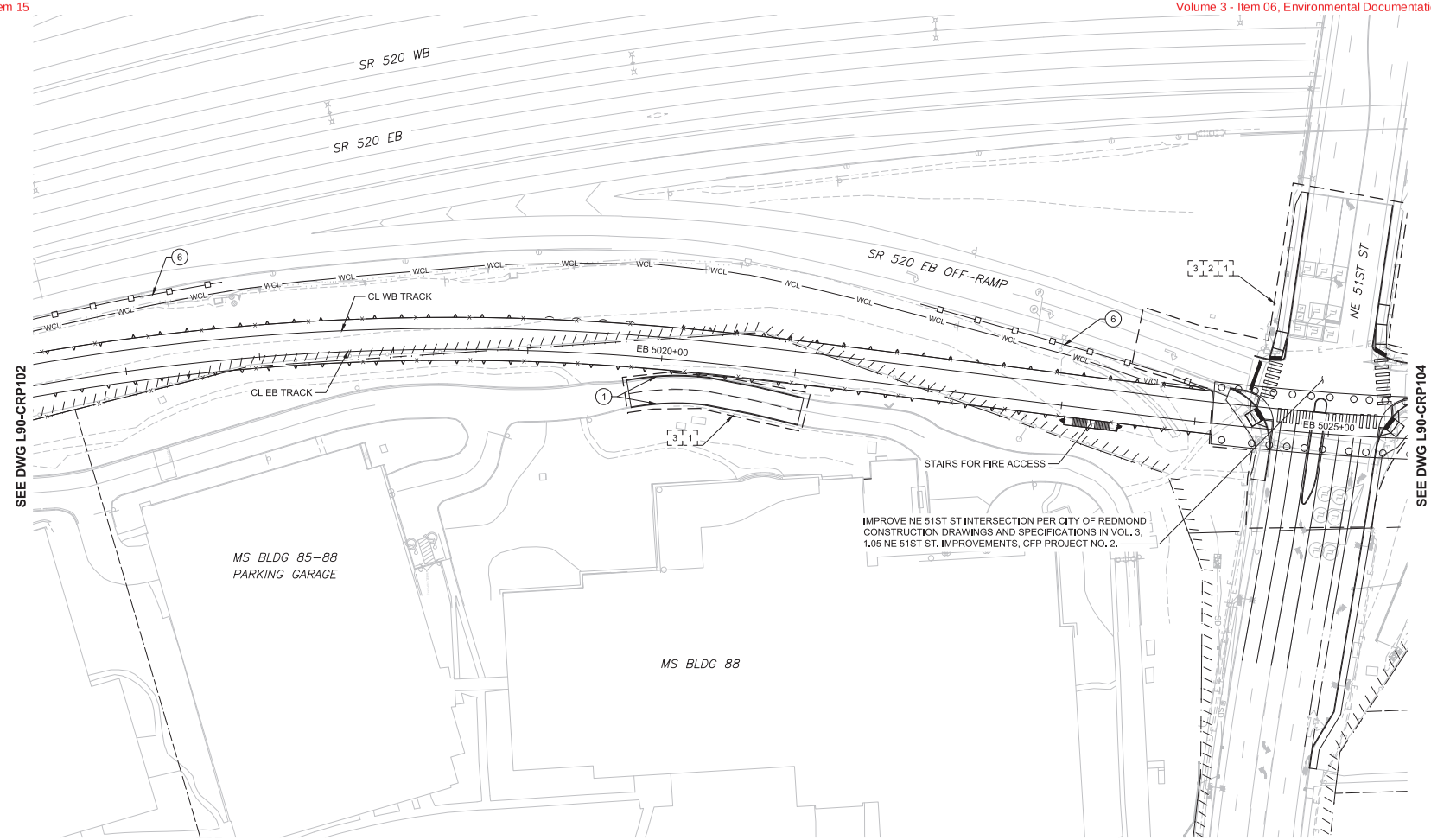
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5016+00 TO EB STA 5025+00

DRAWING No.: L90-CRP103
LOCATION ID:
SHEET No.: 144
REV:

09/26/18 | 10:53 AM | TYLERJ
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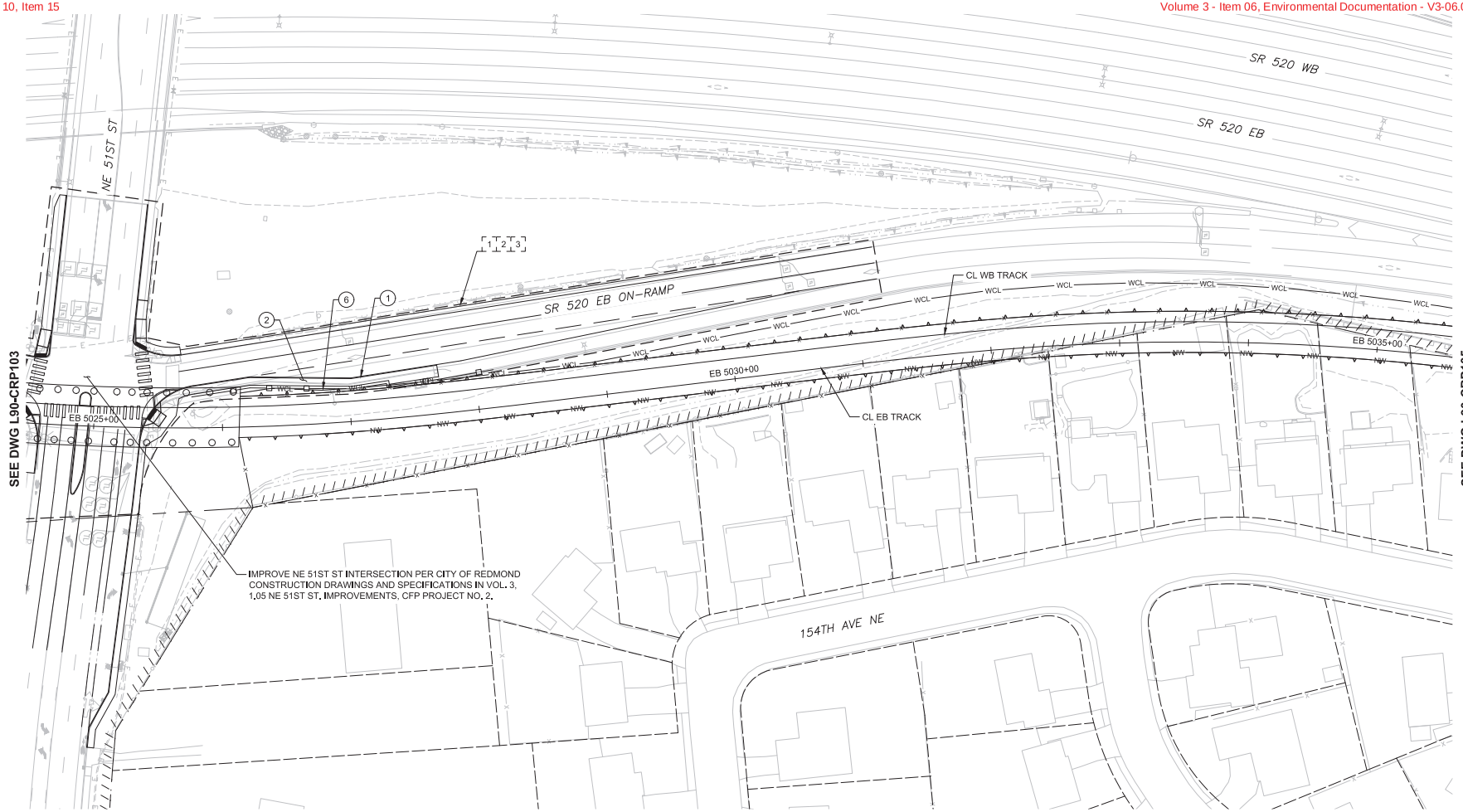
Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-GB-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
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5. PLANTING STRIP
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EVALUATION LIMITS:

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2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 20911 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5025+00 TO EB STA 5035+00

DRAWING No.: L90-CRP104
LOCATION ID:
SHEET No.: 145
REV:

09/26/18 | 10:54 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G05-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G05-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 48910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5035+00 TO EB STA 5044+50

DRAWING No.: L90-CRP105
LOCATION ID:
SHEET No.: 146
REV:

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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-K31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G95-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G95-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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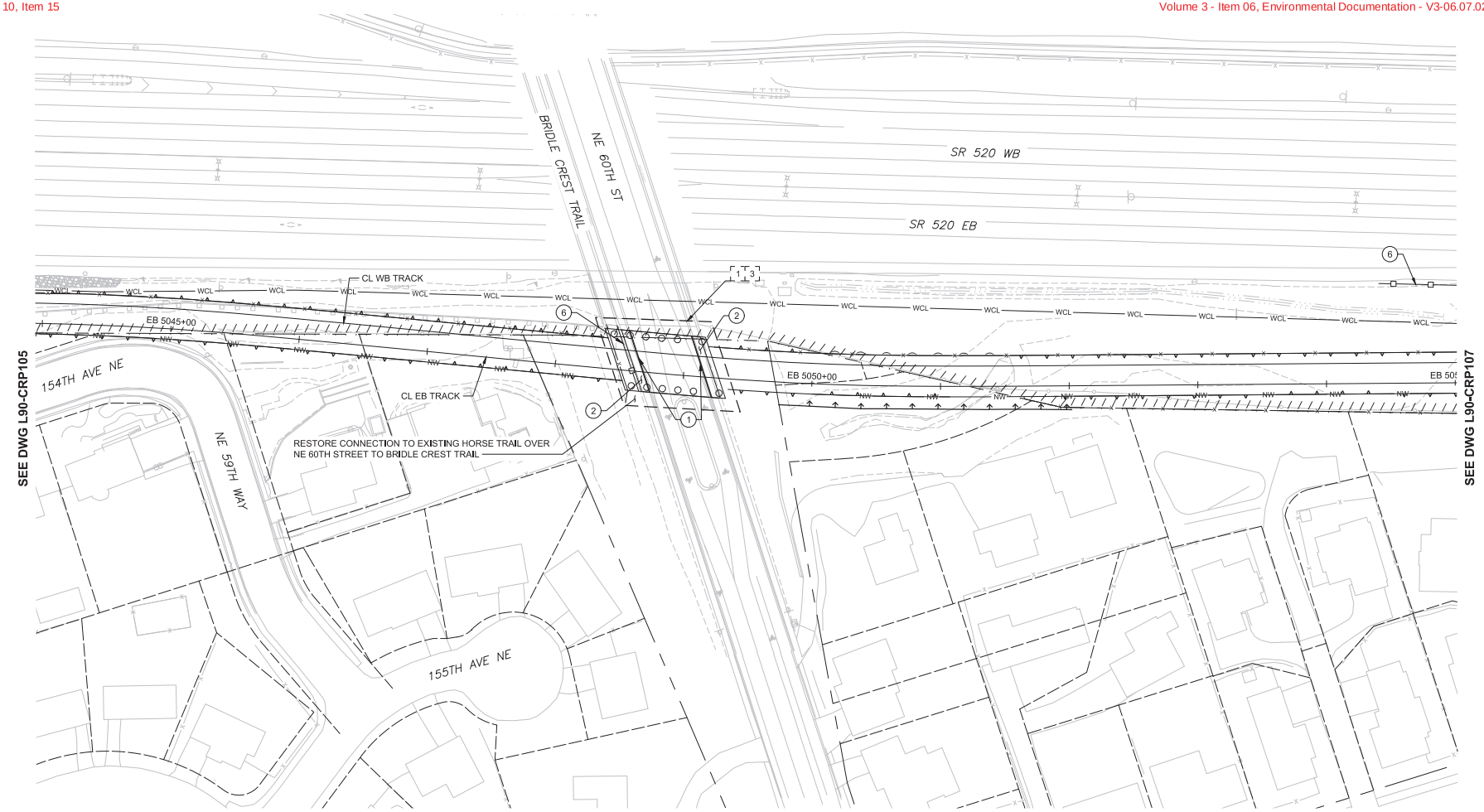

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1 ADA
2 ILLUMINATION
3 PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5044+50 TO EB STA 5054+50

DRAWING No.: L90-CRP106
LOCATION ID:
SHEET No.: 147
REV:

09/26/18 | 10:55 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
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xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-GB-VUT
xRLE-L90-VUT
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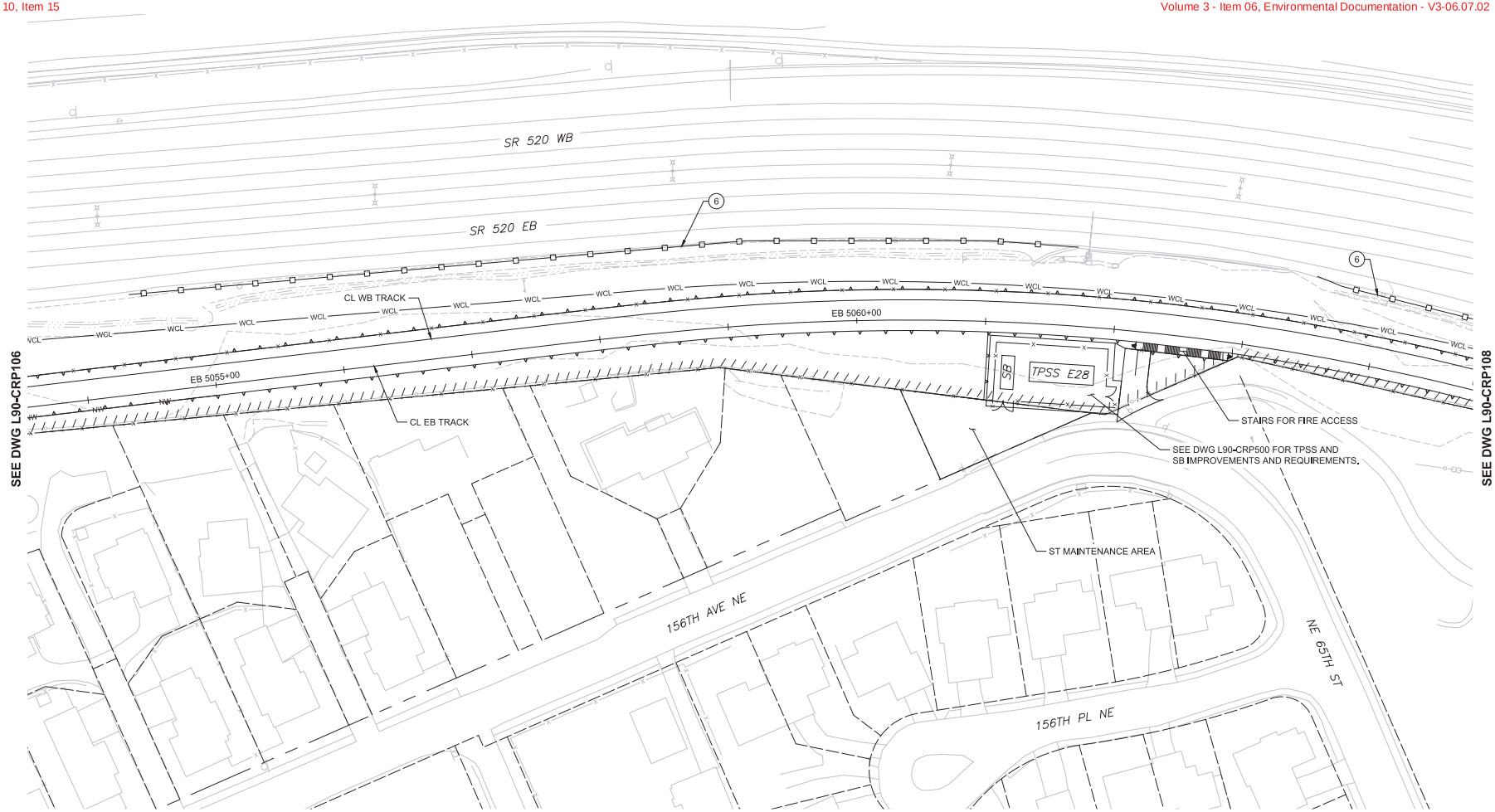

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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N

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 22852 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5054+50 TO EB STA 5064+00

DRAWING No.: L90-CRP107
LOCATION ID:
SHEET No.: 148
REV:

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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G95-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G95-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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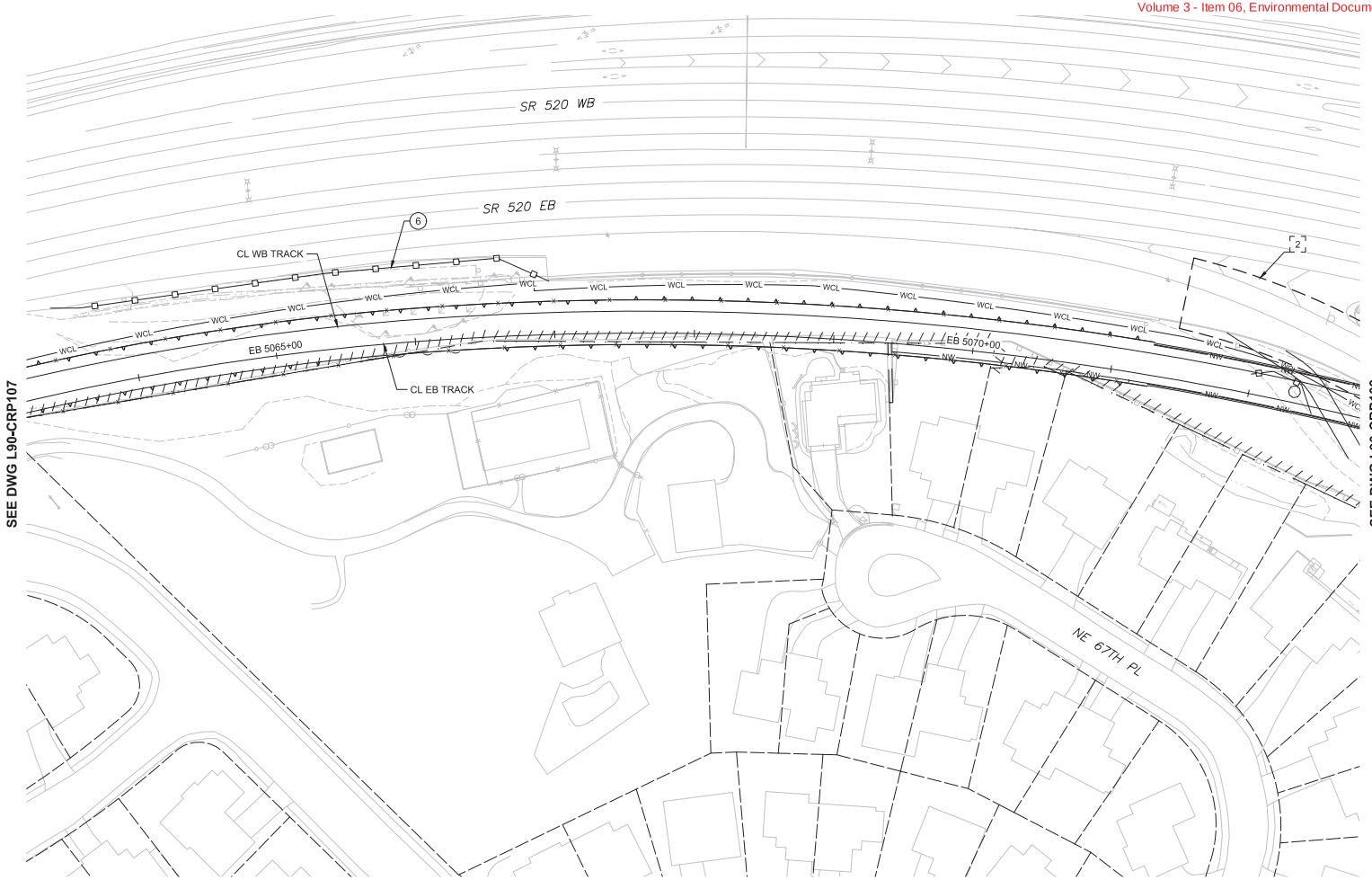
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5064+00 TO EB STA 5072+00

DRAWING No.: L90-CRP108
LOCATION ID:
SHEET No.: 149
REV:

09/26/18 | 10:57 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G95-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G95-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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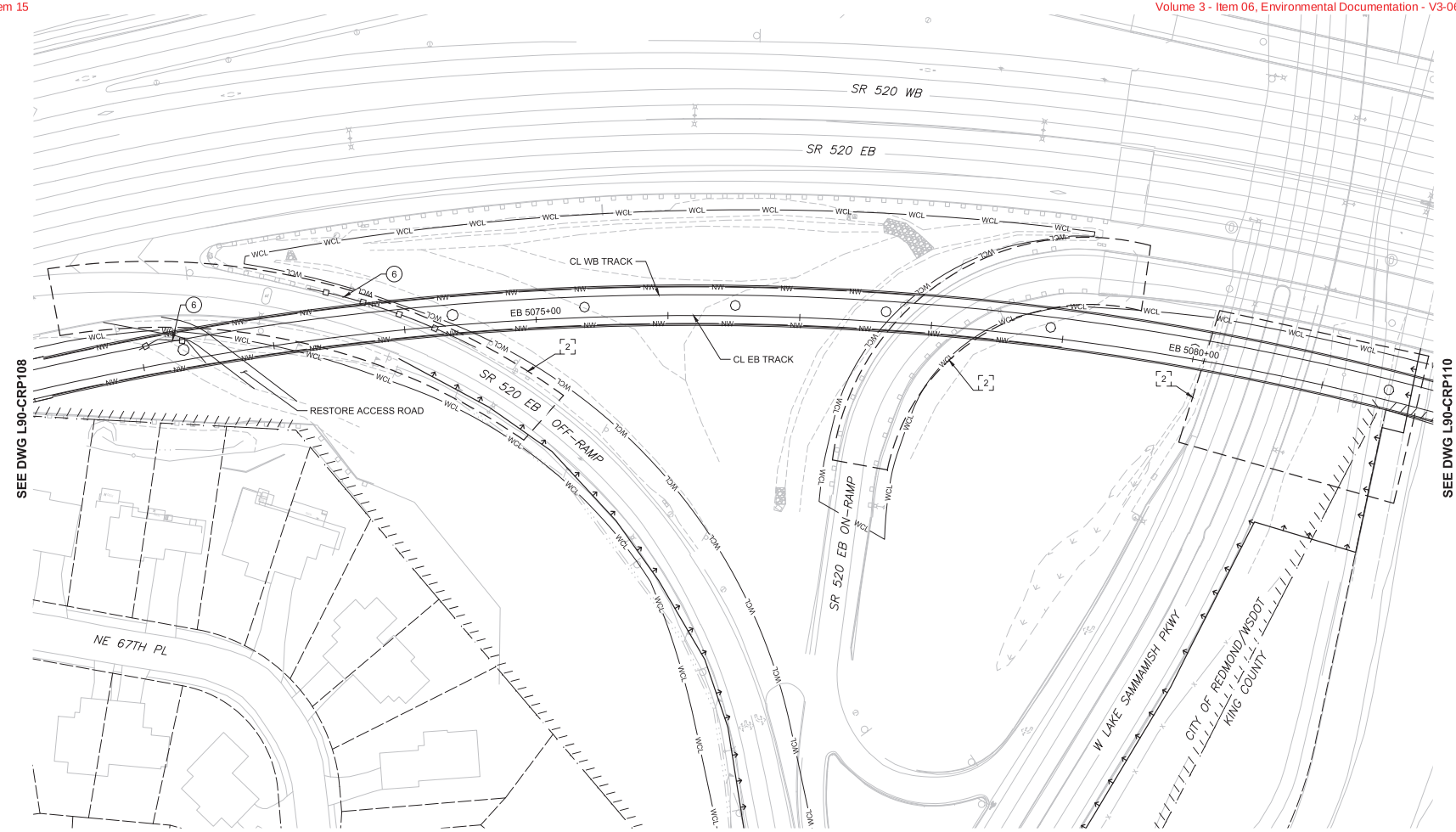
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
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EVALUATION LIMITS:

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2. ILLUMINATION
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GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5072+00 TO EB STA 5081+00

DRAWING No.: L90-CRP109
LOCATION ID:
SHEET No.: 150
REV:

09/26/18 | 10:58 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
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xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
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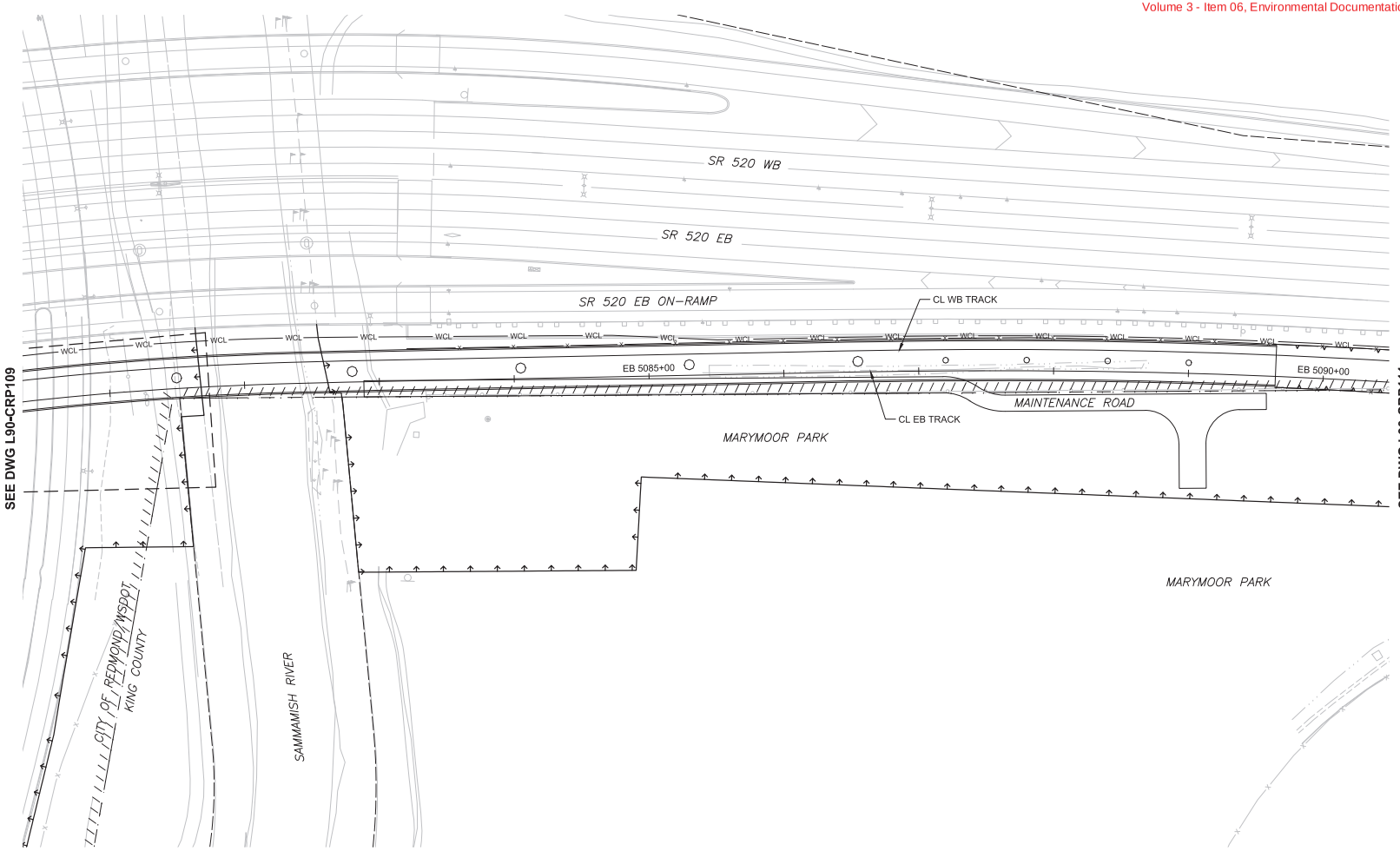
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 58910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5081+00 TO EB STA 5090+00

DRAWING No.: L90-CRP110
LOCATION ID:
SHEET No.: 151
REV:

09/26/16 | 10:59 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-GS-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-GS-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
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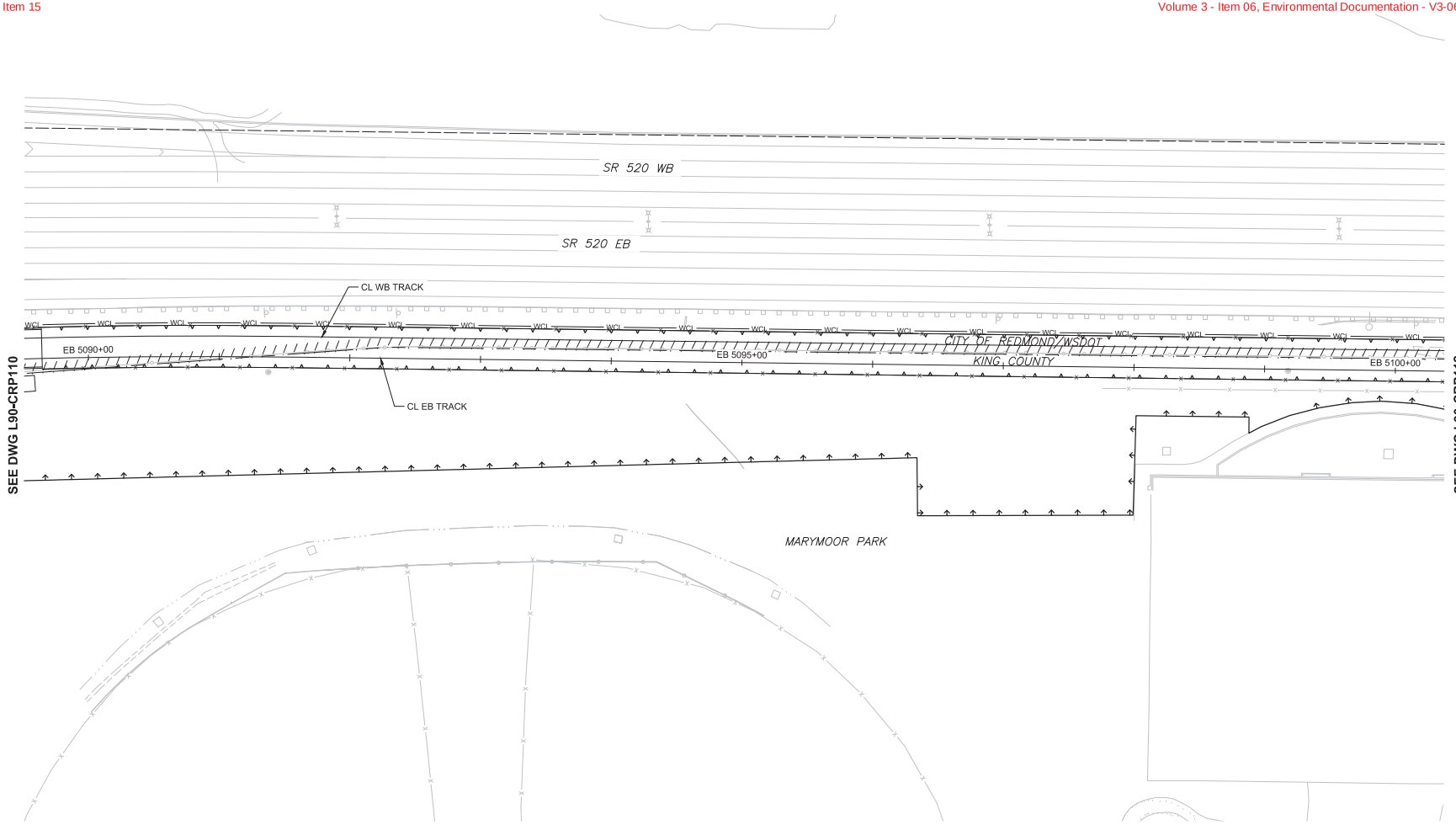
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

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3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

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2. ILLUMINATION
3. PAVING

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5090+00 TO EB STA 5100+00

DRAWING No.: L90-CRP111
LOCATION ID:
SHEET No.: 152
REV:

09/26/16 | 11:00 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G05-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G05-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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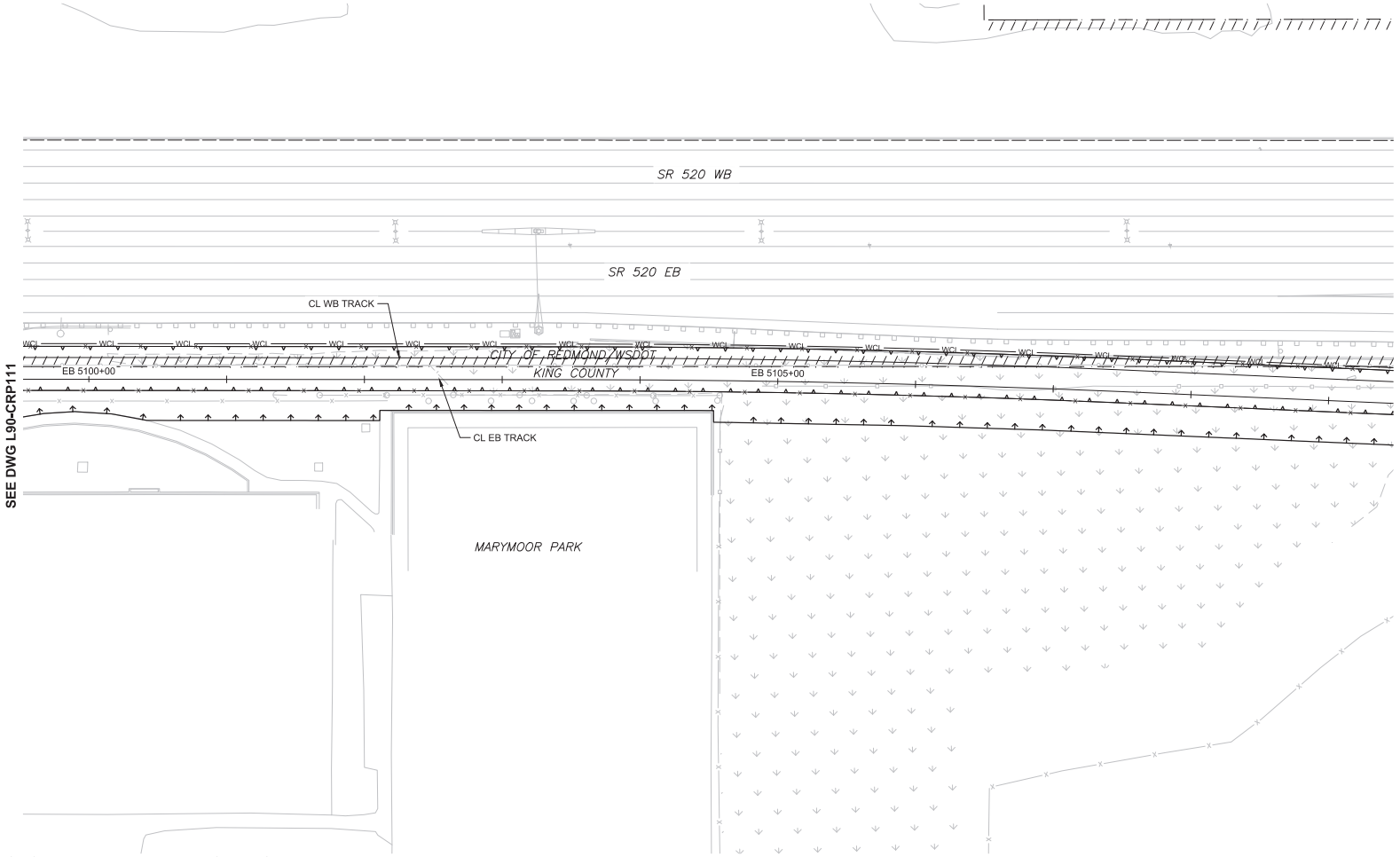
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

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2. CONCRETE SIDEWALK
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4. DRIVEWAY APPROACH
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NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
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MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5100+00 TO EB STA 5109+00

DRAWING No.: L90-CRP112
LOCATION ID:
SHEET No.: 153
REV:

09/26/18 | 11:01 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-GB-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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xRLE-E31-LPP100
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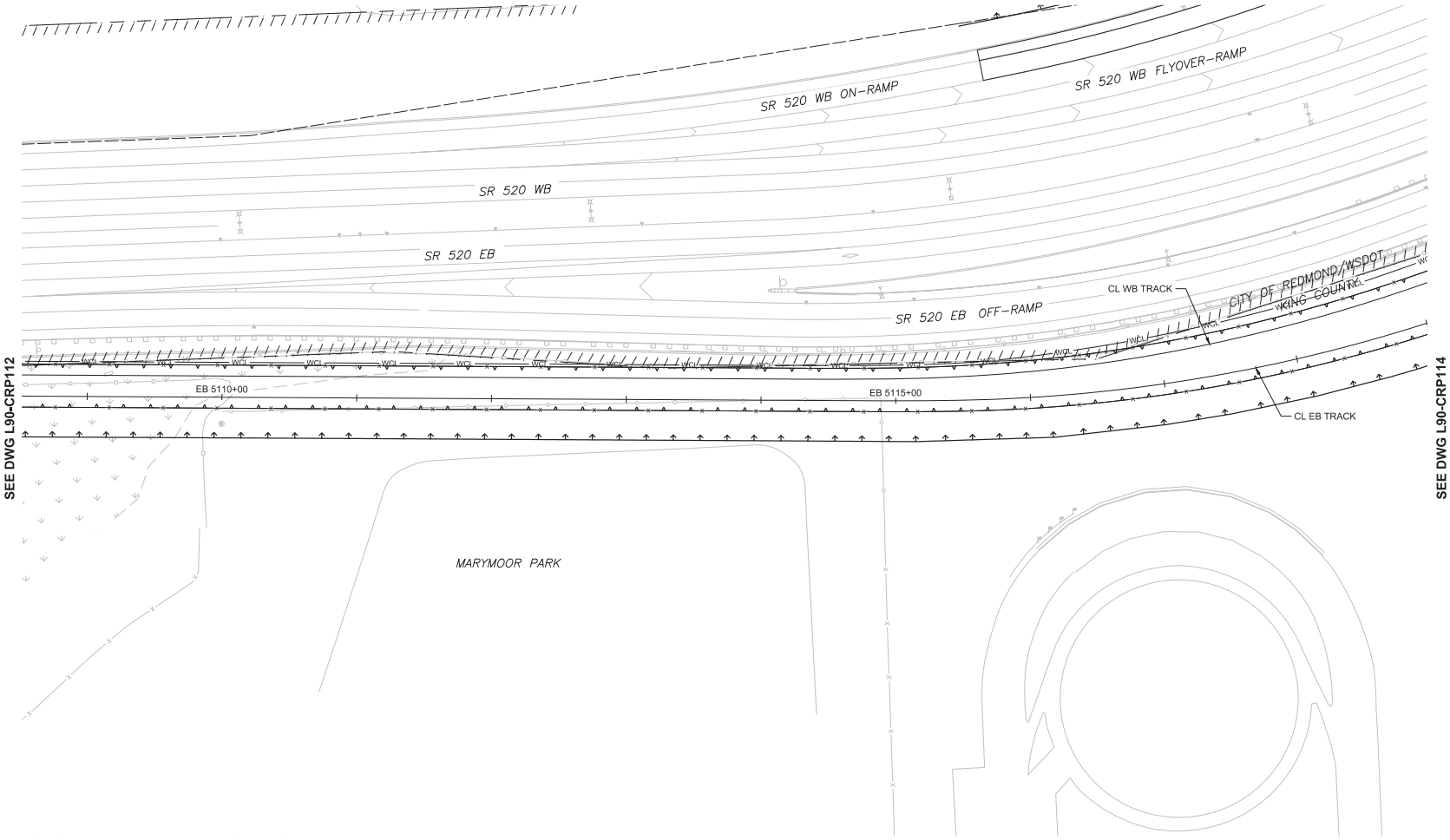

CIVIL/ROADWAY NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

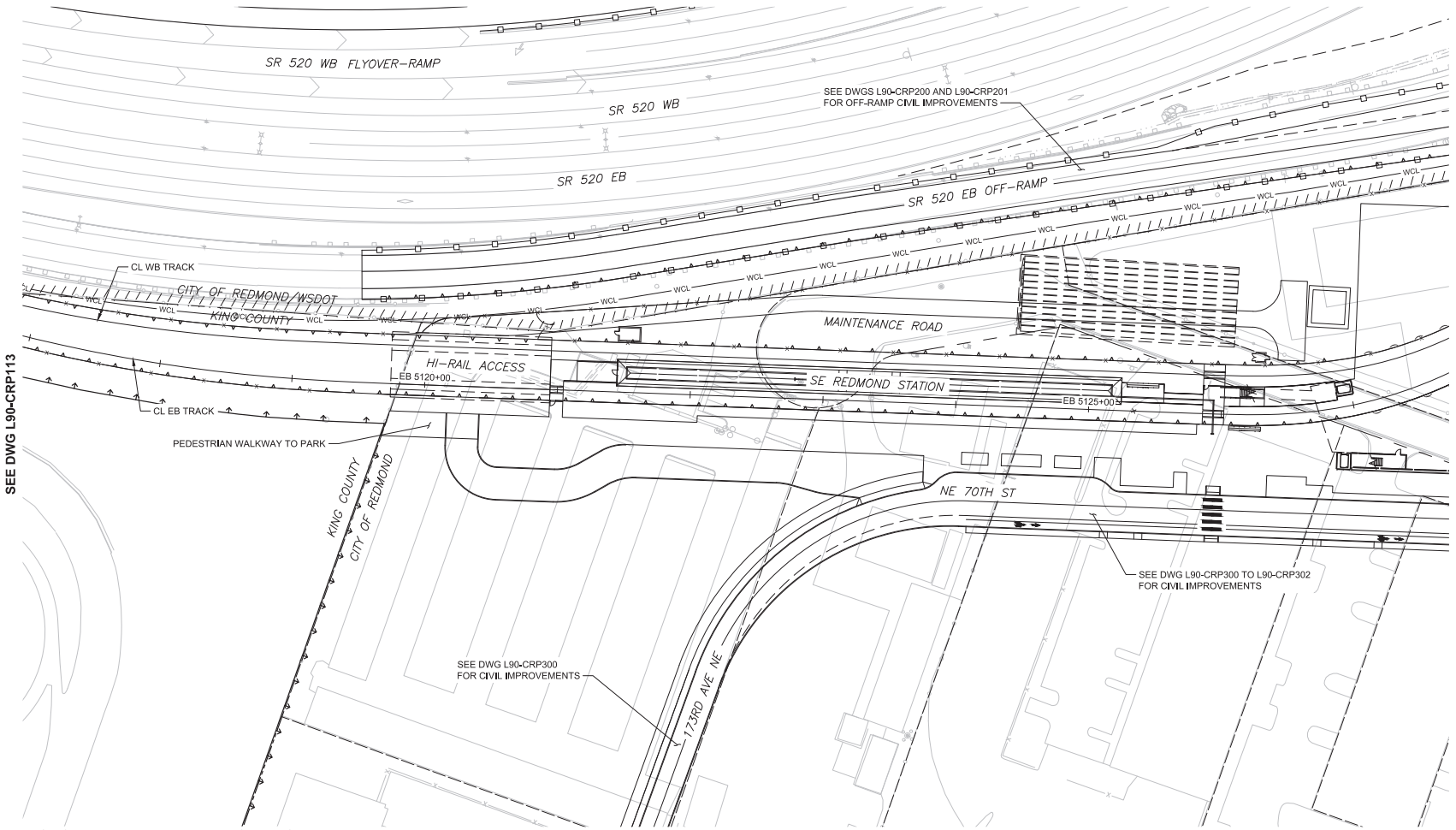
SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5109+00 TO EB STA 5118+00

DRAWING No.: L90-CRP113
LOCATION ID:
SHEET No.: 154
REV:

09/26/18 | 11:02 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP100TO119.DWG



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
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6. GUARDRAIL/CONCRETE BARRIER

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5118+00 TO EB STA 5127+00

DRAWING No.: L90-CRP114
LOCATION ID:
SHEET No.: 155
REV:

09/26/16 | 11:04 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-XAP100
xRLE-L90-CDP100
xE360-RLE-L88-XAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
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xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
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xRLE-L90-CWP100
xRLE-E31-LPP100
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xRLE-E29-ASP100
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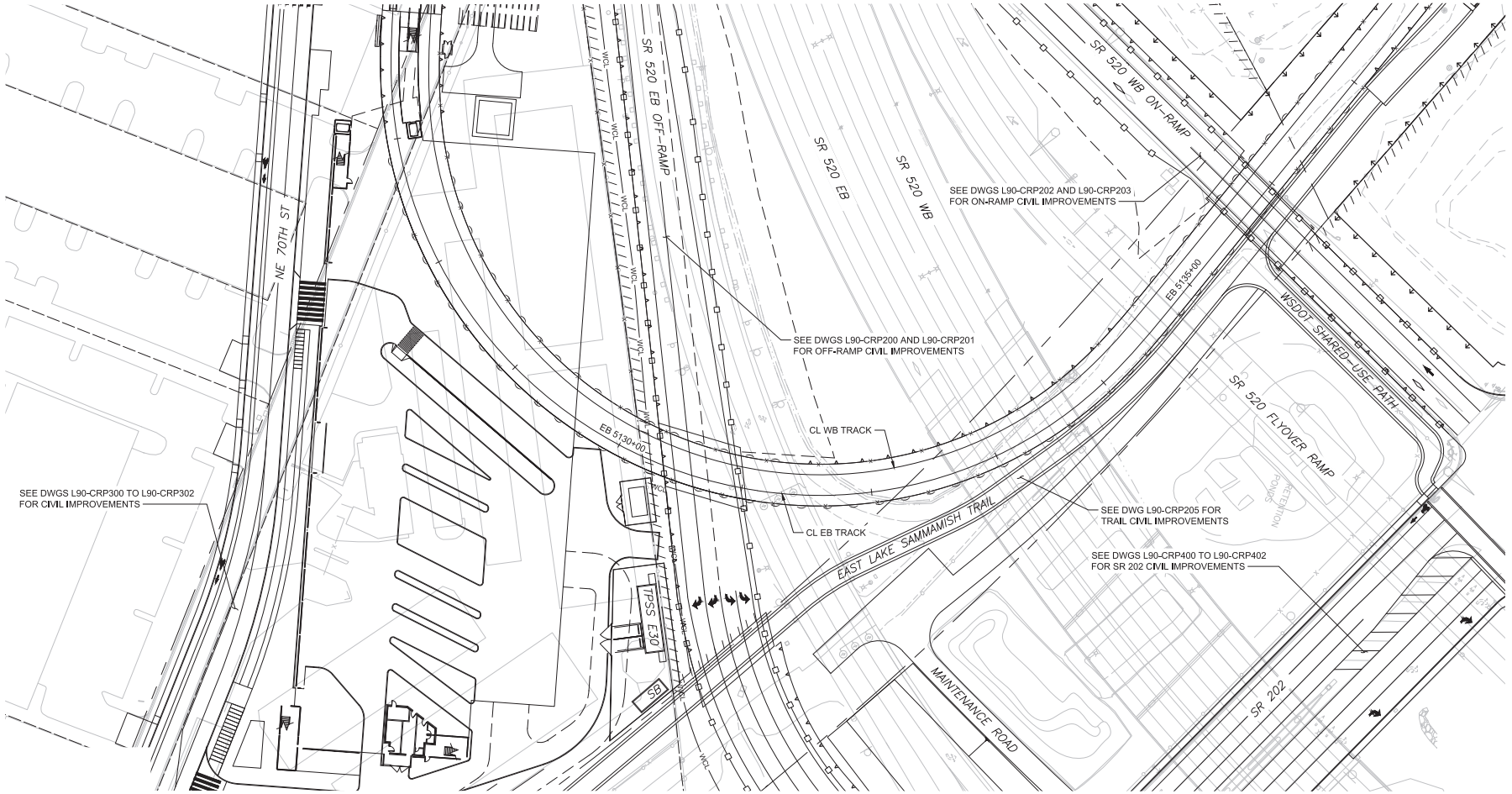
SEE DWG L90-CRP114
SEE DWG L90-CRP116



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
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EVALUATION LIMITS:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF
STATE OF WASHINGTON
22810
REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5127+00 TO EB STA 5135+00

DRAWING No.: L90-CRP115
LOCATION ID:
SHEET No.: 156
REV:

09/26/18 | 11:05 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%443%SITES%2FCAD%REDMOND LINK EXTENSION%PE\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-GB-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
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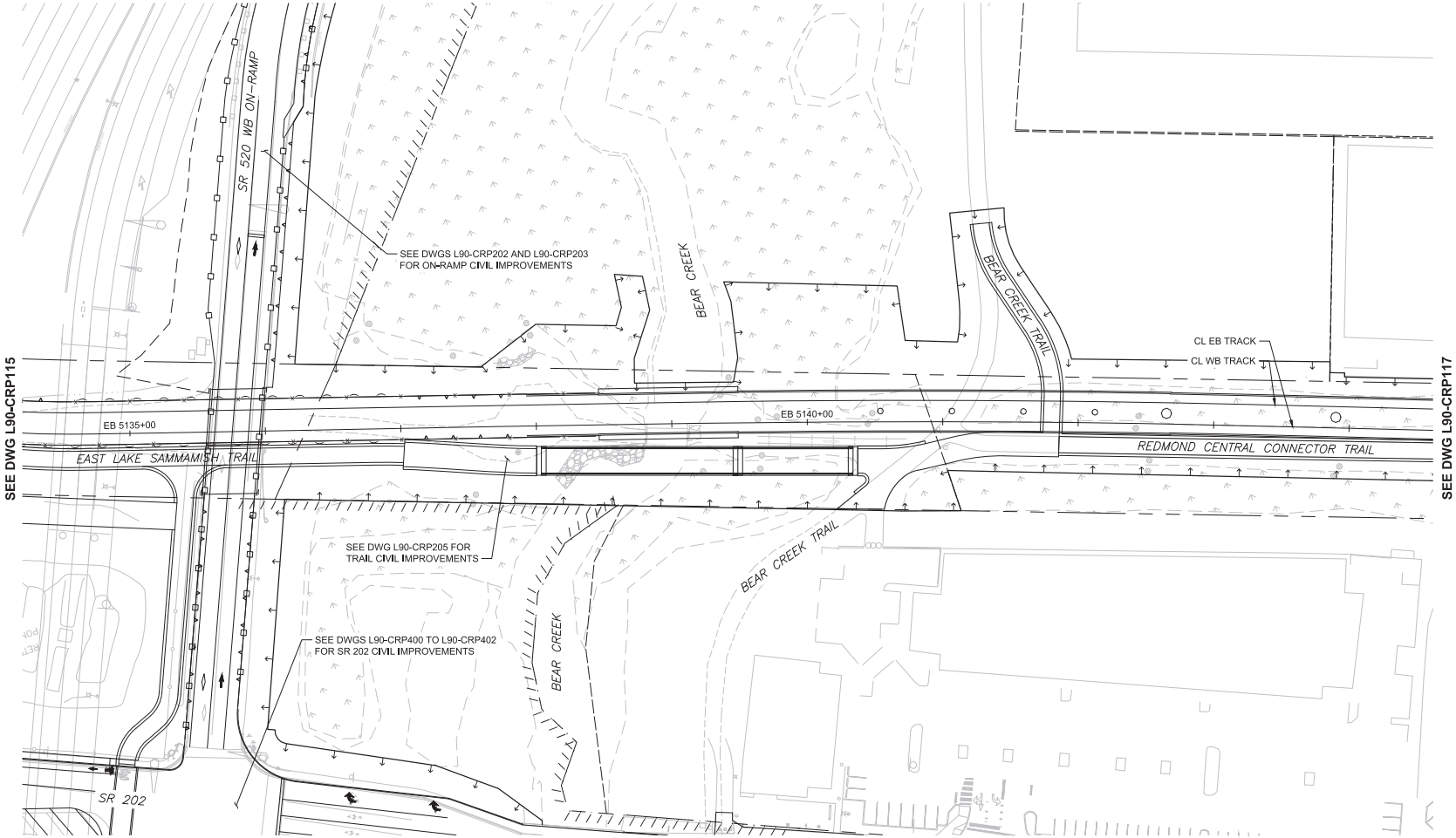

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 20910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5135+00 TO EB STA 5144+50

DRAWING No.: L90-CRP116
LOCATION ID:
SHEET No.: 157
REV:

11/08/18 | 3:09 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G0-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
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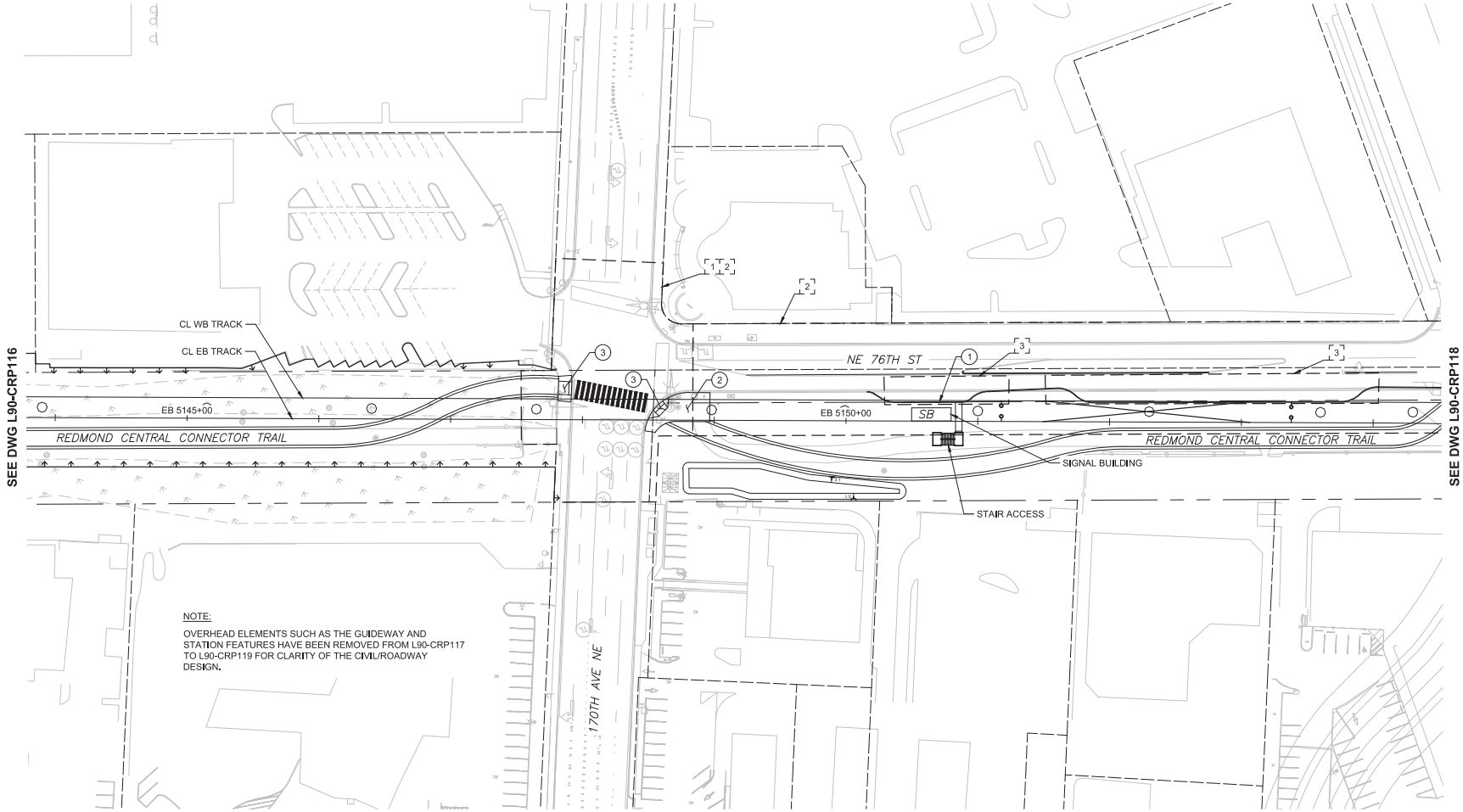

NOTE:

OVERHEAD ELEMENTS SUCH AS THE GUIDEWAY AND STATION FEATURES HAVE BEEN REMOVED FROM L90-CRP117 TO L90-CRP119 FOR CLARITY OF THE CIVIL/ROADWAY DESIGN.

CIVIL/ROADWAY NOTES:

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40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF
STATE OF WASHINGTON
21810
REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

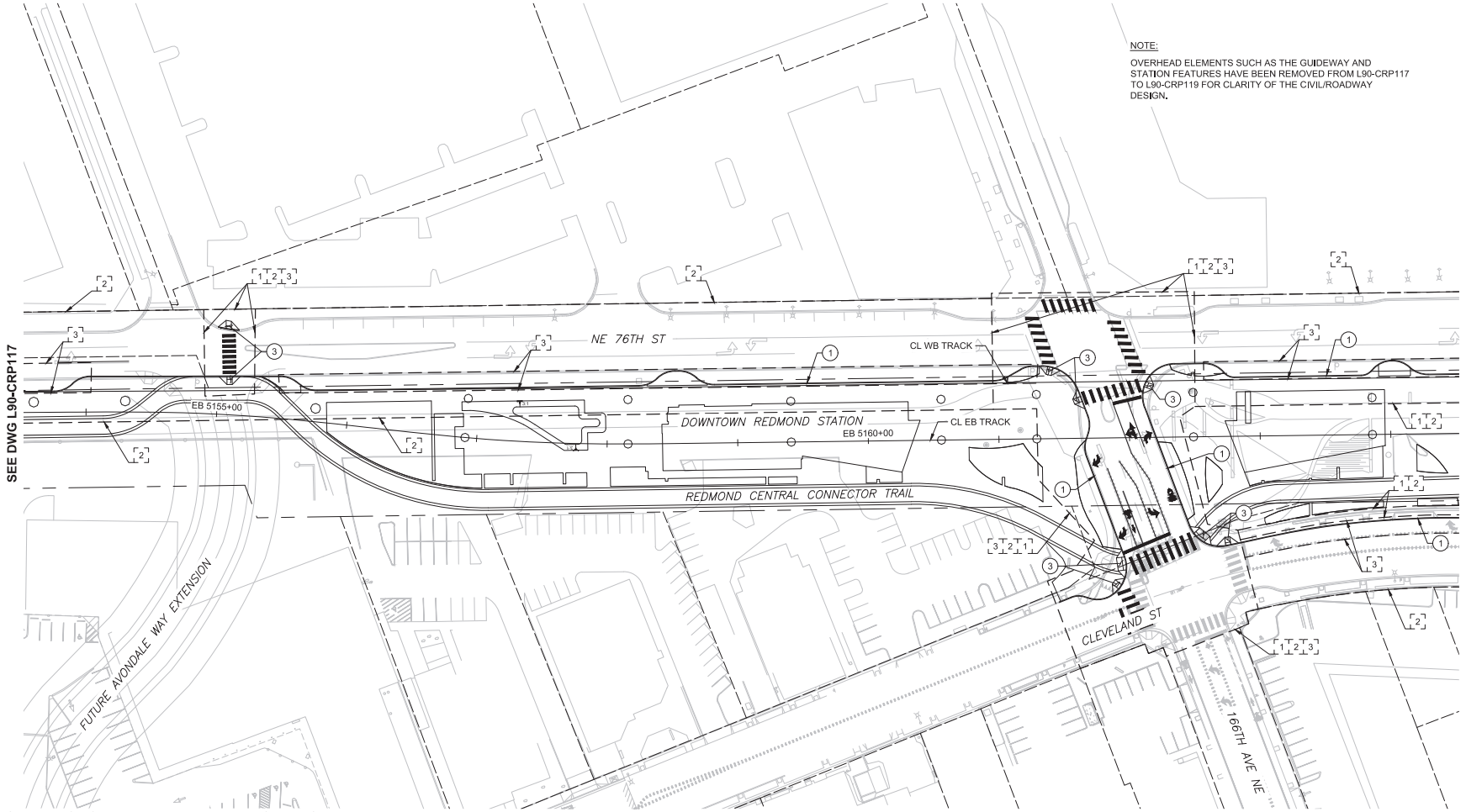
SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5144+50 TO EB STA 5154+00

DRAWING No.: L90-CRP117
LOCATION ID:
SHEET No.: 158
REV:

09/26/18 | 11:07 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-XAP100
xRLE-L90-CDP100
xE360-RLE-L88-XAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G0-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VKK
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G5-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 20910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5154+00 TO EB STA 5164+00

DRAWING No.: L90-CRP118
LOCATION ID:
SHEET No.: 159
REV:

09/26/18 | 11:08 AM | TYLERJ
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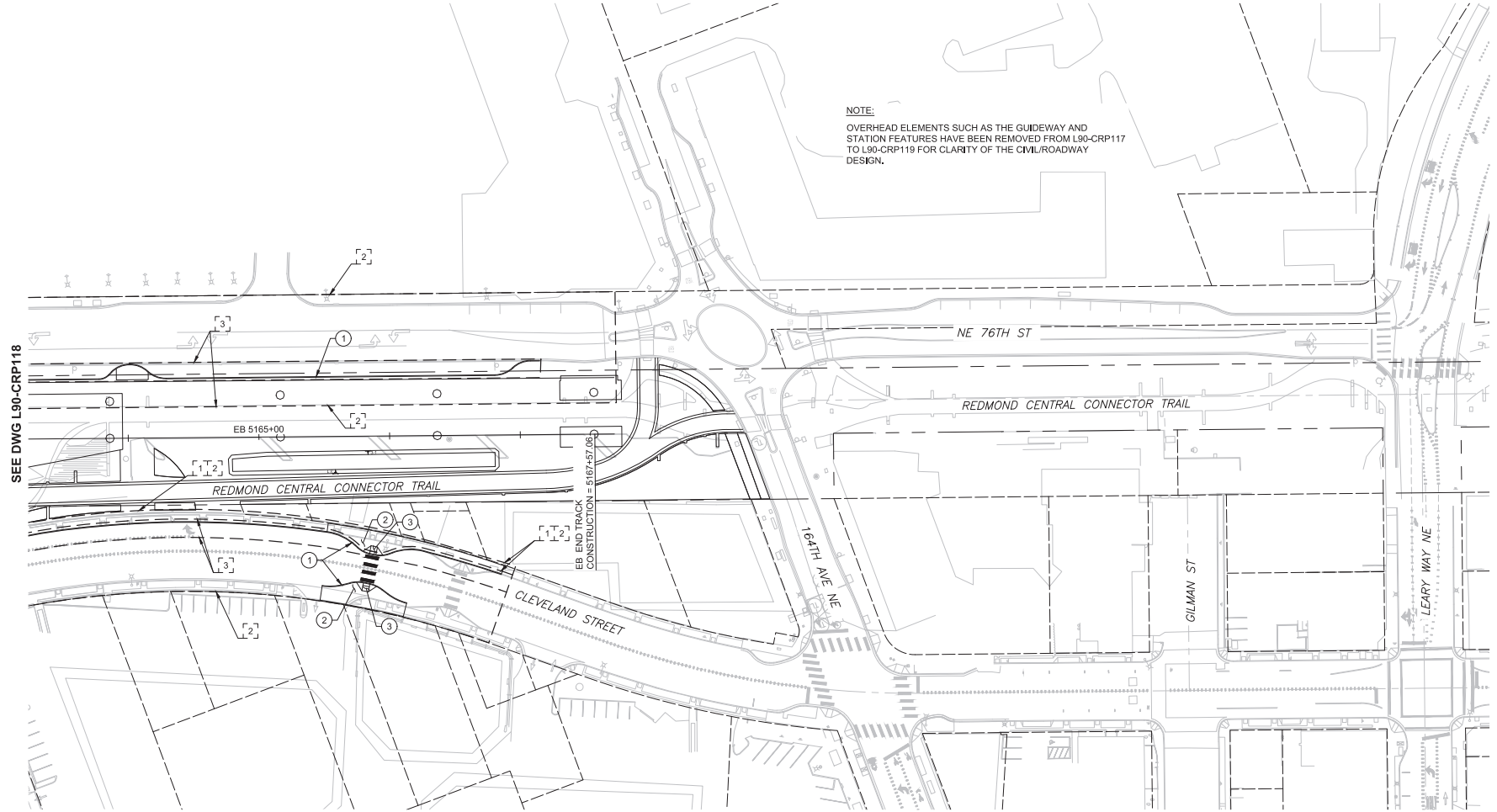
Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-KAP100
xRLE-L90-CDP100
xE360-RLE-L88-KAP100
xE360-RLE-L88-SWP100
xE360-RLE-R31-USP100
xE360-RLE-E27-CMP200
xE360-RLE-E27-CSP200
xE360-RLE-E27-LHP100
xRLE-G85-VSF
xRLE-L95-VSF
xRLE-L90-VSF
xRLE-L90-VRX
xRLE-L90-VCN
xRLE-L95-VUT
xRLE-G85-VUT
xRLE-L90-VUT
xRLE-L90-CLP200
xRLE-L90-CWP100
xRLE-E31-LPP100
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-E31-ASP100

NOTE:
OVERHEAD ELEMENTS SUCH AS THE GUIDEWAY AND STATION FEATURES HAVE BEEN REMOVED FROM L90-CRP117 TO L90-CRP119 FOR CLARITY OF THE CIVIL/ROADWAY DESIGN.



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

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SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

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MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CORRIDOR MODIFICATION PLAN
EB STA 5164+00 TO EB STA 5167+72

DRAWING No.: L90-CRP119
LOCATION ID:
SHEET No.: 160
REV:

09/26/18 | 11:09 AM | TYLERJ
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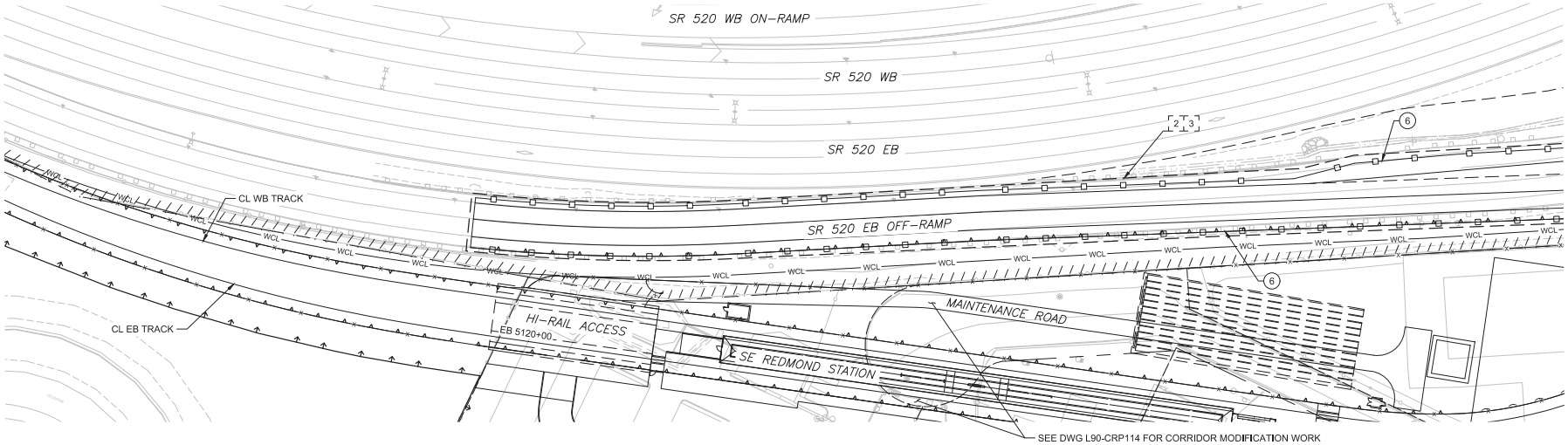
Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-GAP100
xRLE-L90-GWP100
xRLE-L90-GWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G5-VSF
xRLE-L90-CLP200
xRLE-G5-VUT
xRLE-E31-LPP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

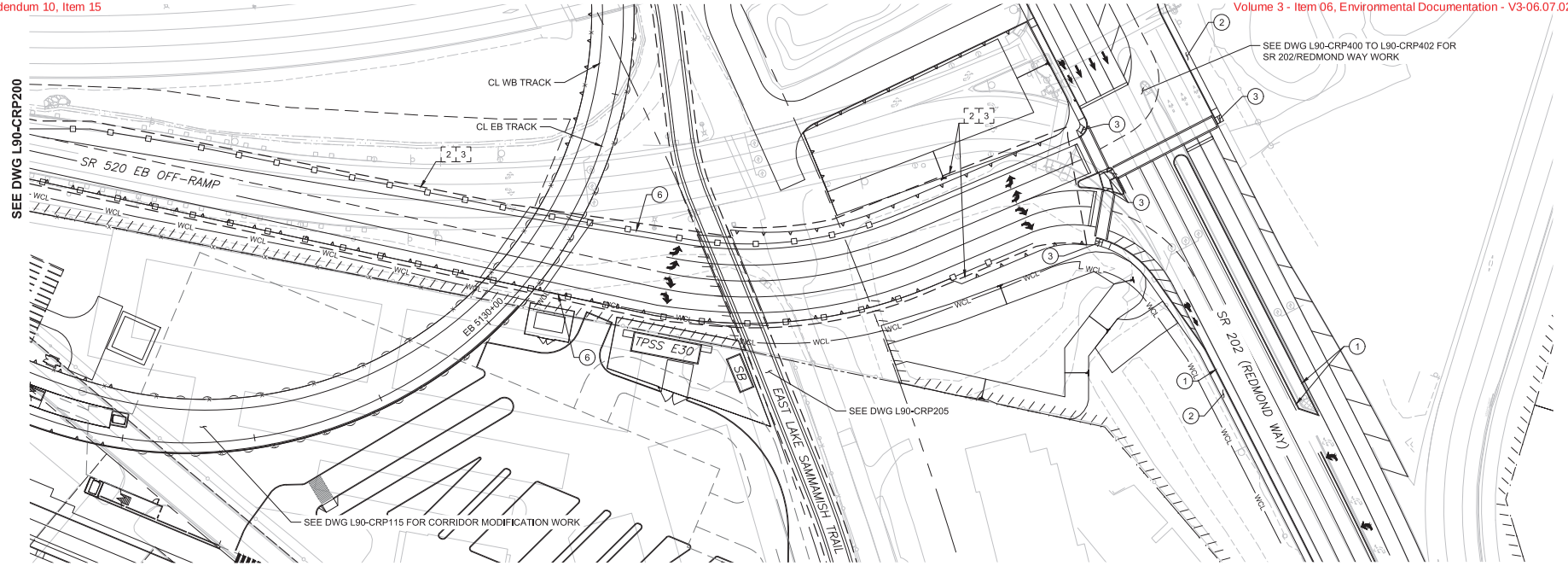
SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT RAMP MODIFICATION PLAN
SR 520 OFF-RAMP (AR RAMP)

DRAWING No.: L90-CRP200
LOCATION ID:
SHEET No.: 161
REV:

09/26/18 | 11:26 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FSOUNDTRANSIT.ORG%443%SITES%2FCAD%REDMOND LINK EXTENSION%2FDRAWINGS%RLE-L90-CRP200TO205.DWG



CIVIL/ROADWAY NOTES:

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2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
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6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

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3. PAVING

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PRELIMINARY ENGINEERING

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SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
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MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT RAMP AND SR 202 MODIFICATION PLAN
SR 520 OFF-RAMP (AR RAMP) & SR 202

DRAWING No.: L90-CRP201
LOCATION ID:
SHEET No.: 162
REV:

10/24/18 | 4:56 PM | ITOP
C:\USERS\ITOP\DOCUMENTS\SHAREPOINT TARGET\RLE\DRAWINGS\RLE-L90-CRP200TO205.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-XAP100
xRLE-L90-SWP100
xRLE-L90-CWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G5-VSF
xRLE-L90-CLP200
xRLE-G5-VUT
xRLE-E31-LPP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-ASP100

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-GAP100
xRLE-L90-SWP100
xRLE-L90-CWP100
xRLE-L90-SEP100
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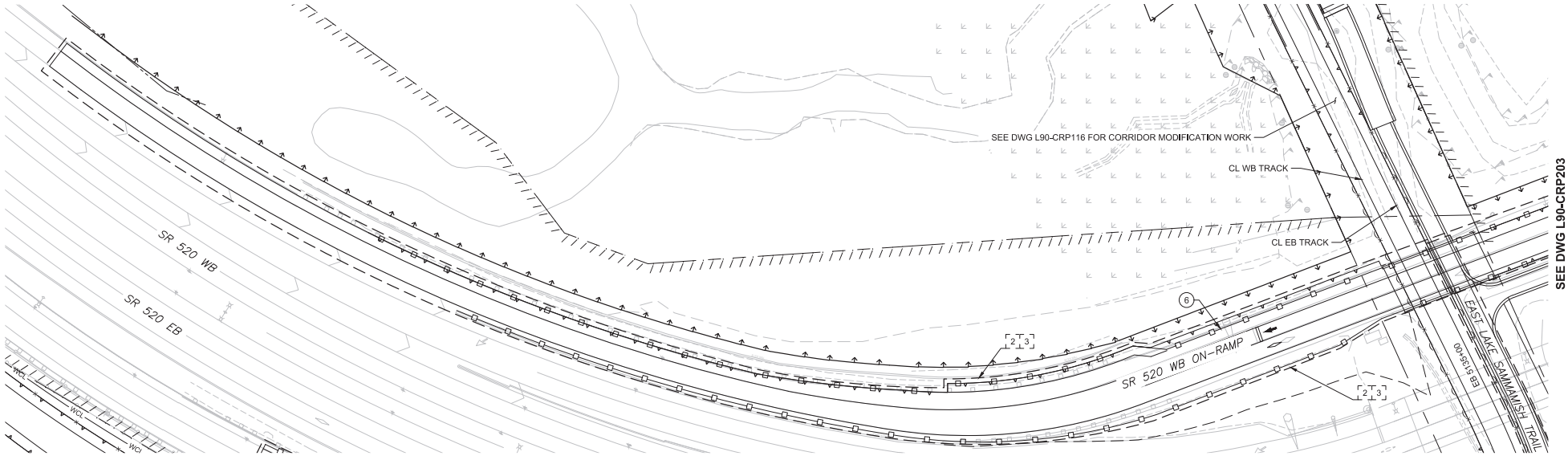

CIVIL/ROADWAY NOTES:

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PRELIMINARY ENGINEERING

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SCALE IN FEET

CONCEPTUAL DESIGN

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT RAMP MODIFICATION PLAN
SR 520 ON-RAMP (ALU RAMP)

DRAWING No.: L90-CRP202
LOCATION ID:
SHEET No.: 163
REV:

09/26/18 | 11:28 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP200TO205.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-XAP100
xRLE-L90-SWP100
xRLE-L90-CWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G5-VSF
xRLE-L90-CLP200
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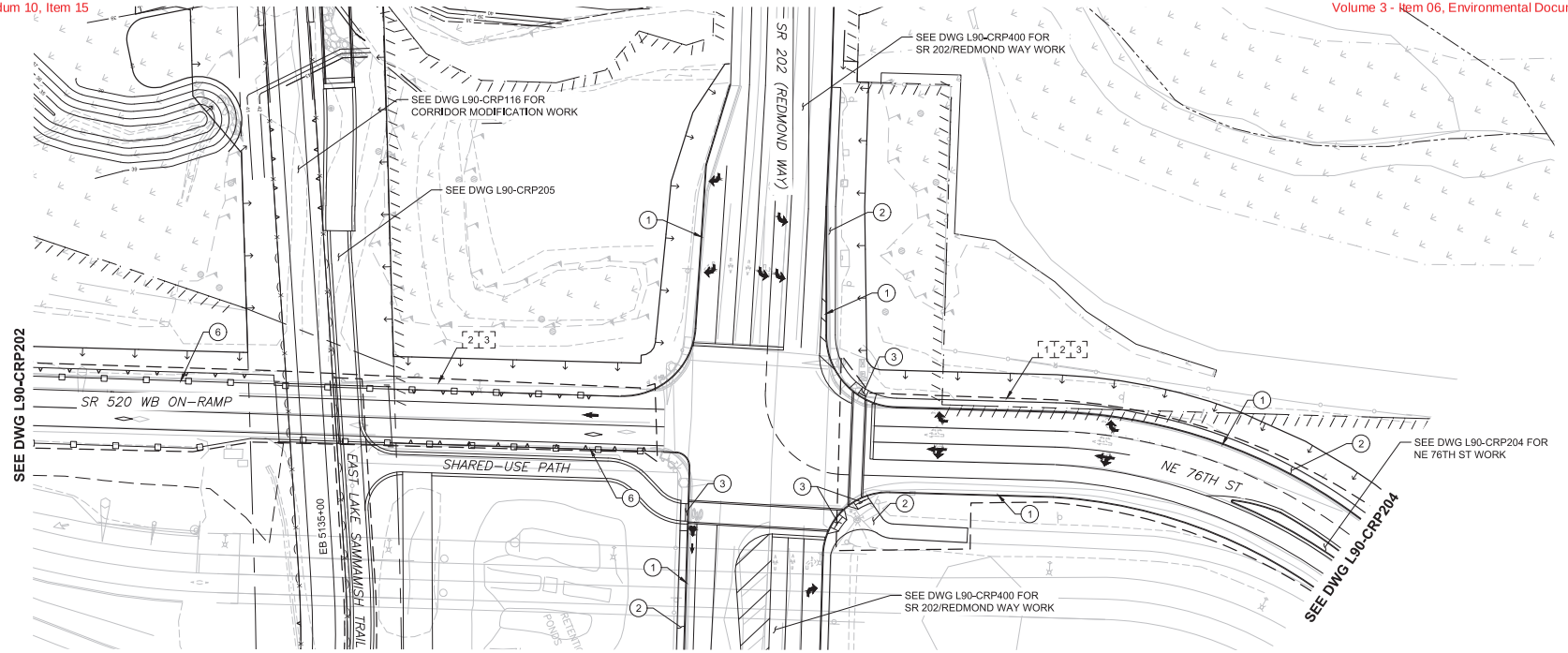

CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
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MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT RAMP AND SR 202 MODIFICATION PLAN
SR 520 ON-RAMP (ALU RAMP), NE 76TH ST, SR 202

DRAWING No.: L90-CRP203
LOCATION ID:
SHEET No.: 164
REV:

11/08/18 | 3:27 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP200TO205.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-XAP100
xRLE-L90-SWP100
xRLE-L90-CWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G5-VSF
xRLE-L90-CLP200
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xRLE-E29-ASP100
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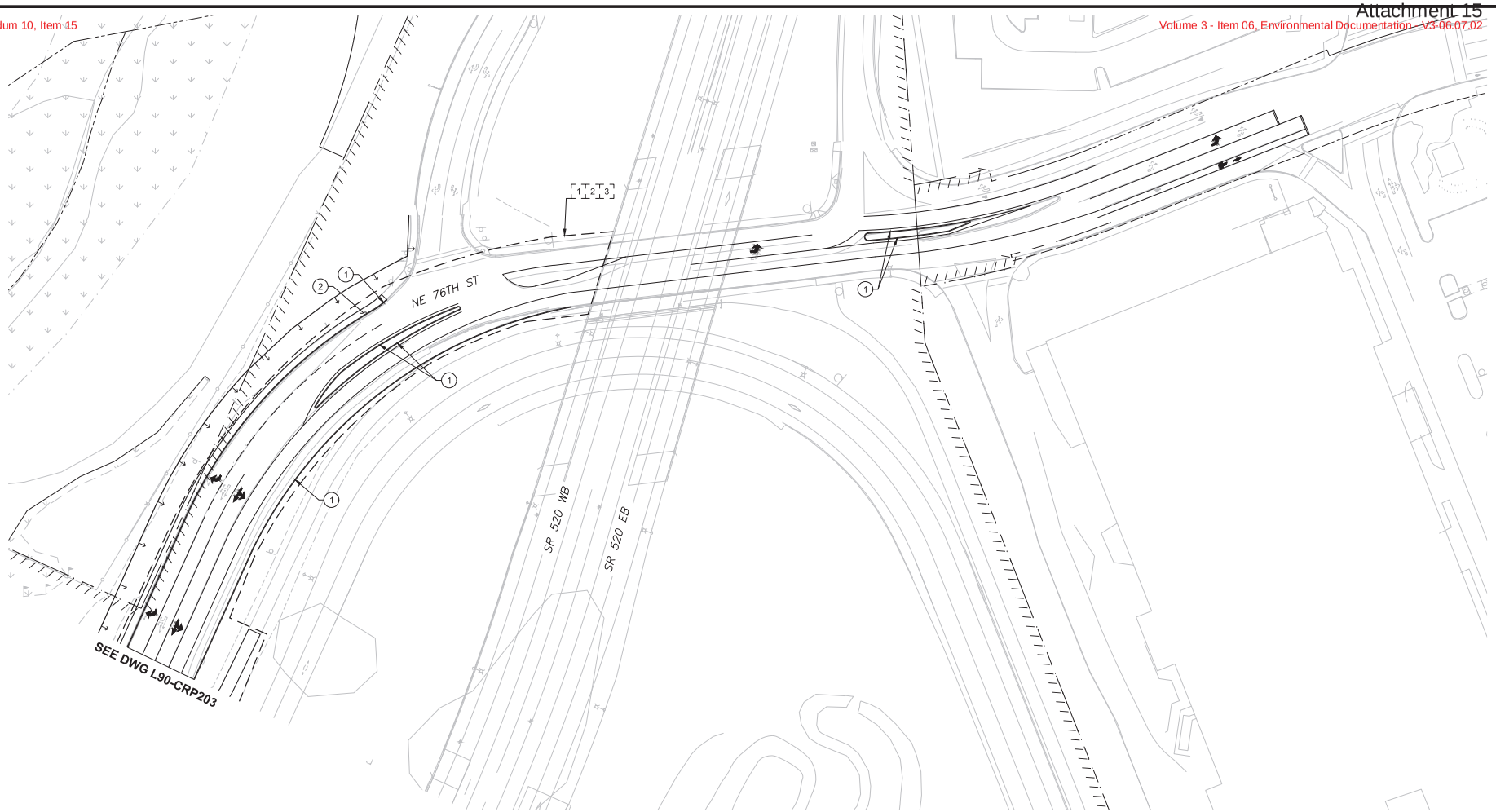
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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N

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

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MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 18810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CITY OF REDMOND ROADWAY MODIFICATION PLAN
NE 76TH ST

DRAWING No.: L90-CRP204
LOCATION ID:
SHEET No.: 165
REV:

11/08/18 | 3:28 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP200TO205.DWG

Xrefs:
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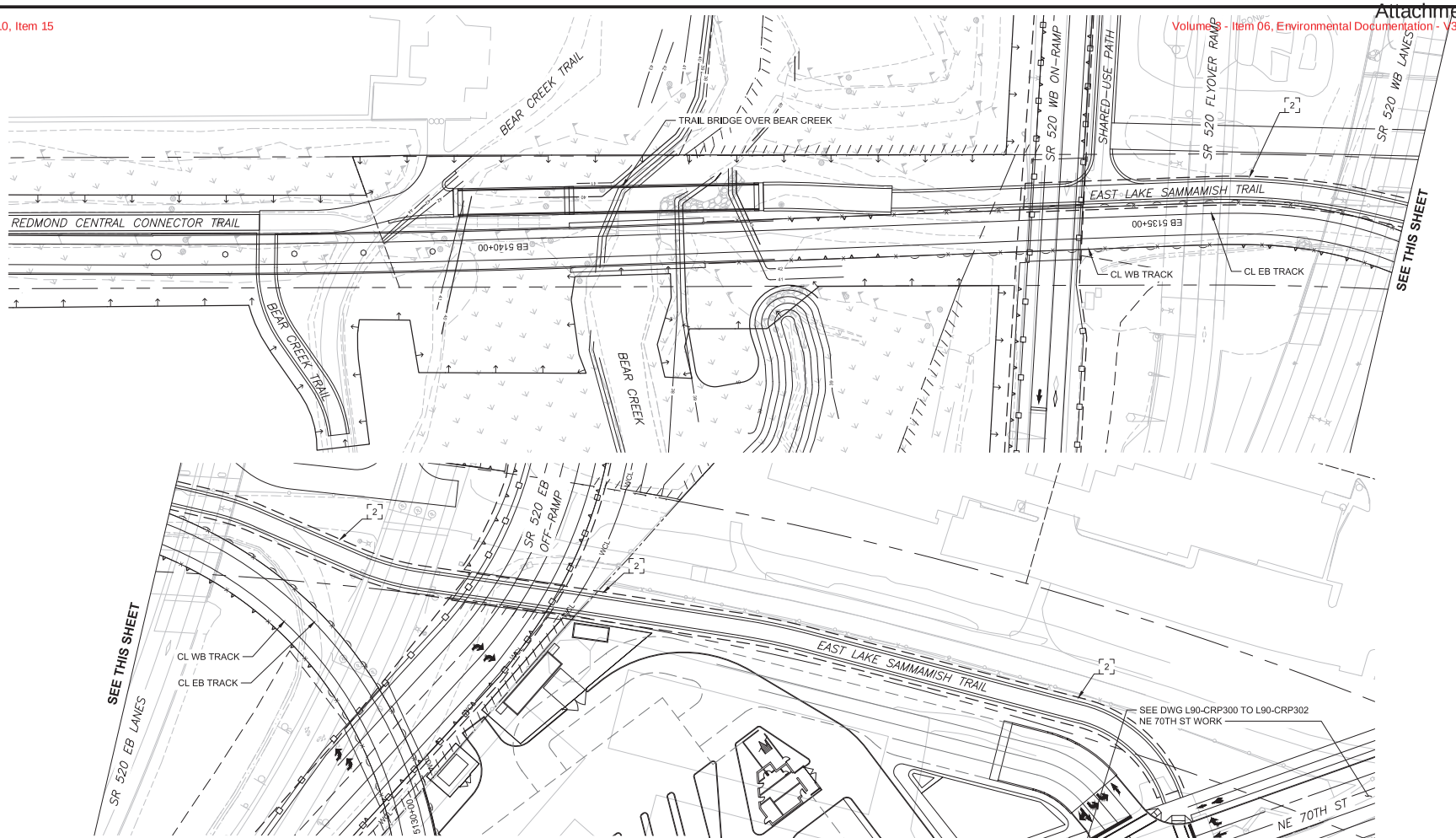
CIVIL_LEGEND
xRLE-L90-GAP100
xRLE-L90-SWP100
xRLE-L90-CWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G5-VSF
xRLE-L90-CLP200
xRLE-G5-VUT
xRLE-E31-LPP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-E31-ASP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

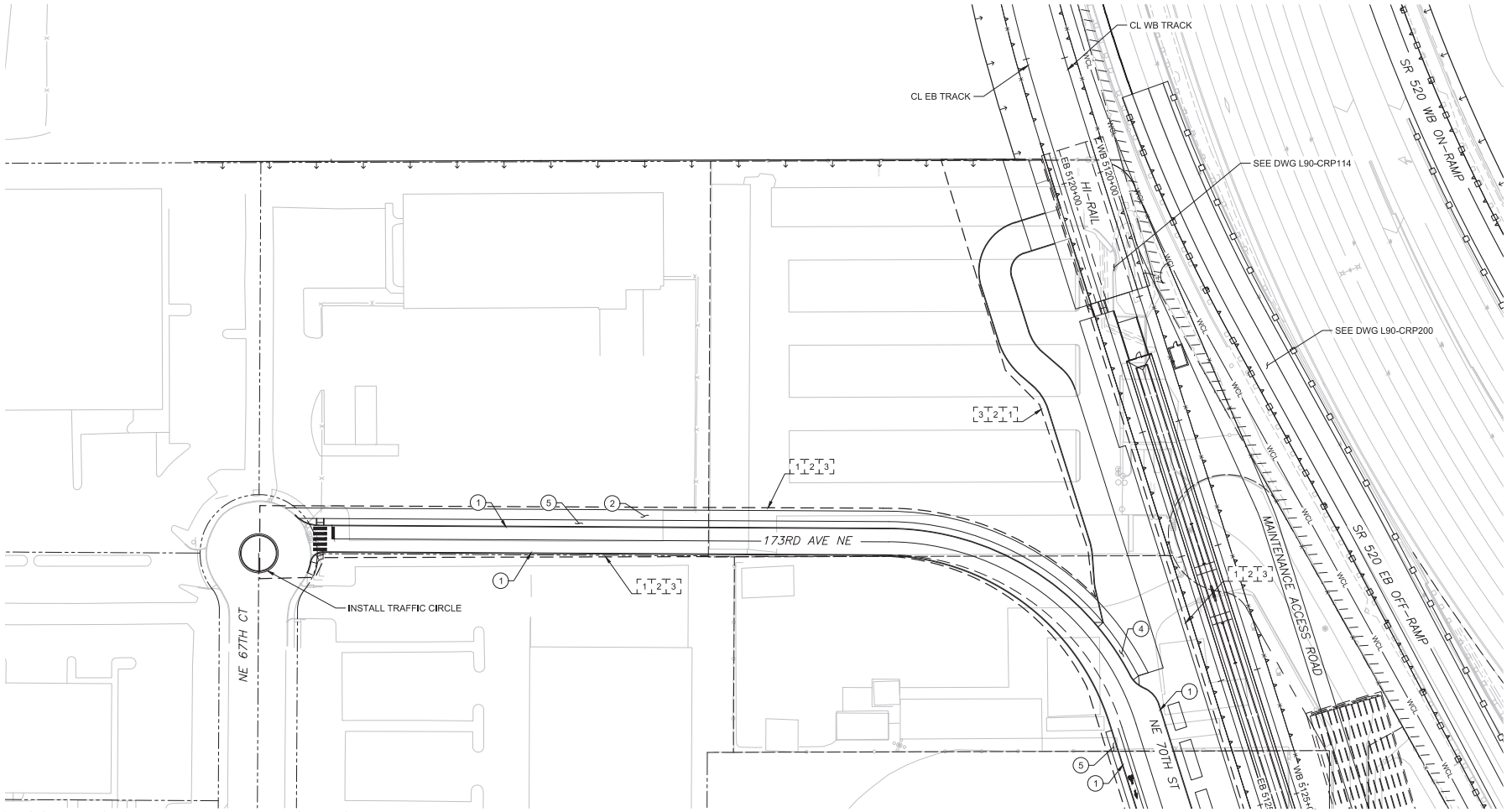
SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP200TO205
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
TRAIL MODIFICATION PLAN
EAST LAKE SAMMAMISH TRAIL

DRAWING No.: L90-CRP205
LOCATION ID:
SHEET No.: 166
REV:

11/08/18 | 3:30 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP200TO205.DWG



CIVIL/ROADWAY NOTES:

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2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

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2. ILLUMINATION
3. PAVING

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

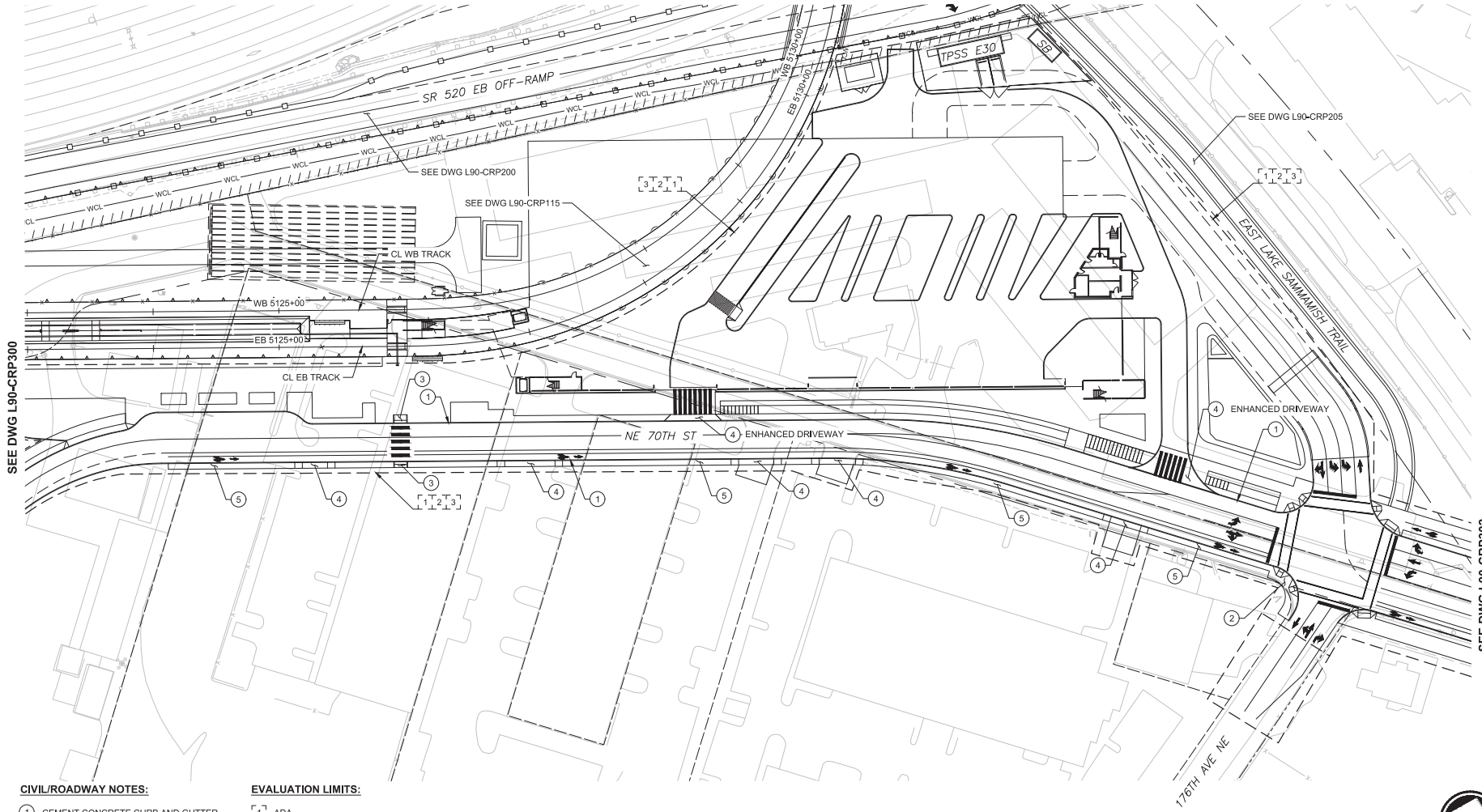
SCALE: 1" = 40'
FILENAME: RLE-L90-CRP300TO302
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CITY OF REDMOND ROADWAY MODIFICATION PLAN
NE 70TH ST

DRAWING No.: L90-CRP300
LOCATION ID:
SHEET No.: 167
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
CIVIL_LEGEND
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CBP100
xRLE-L90-CLP200
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-G25-VSF
xRLE-L90-CDP100
xRLE-G25-VUT
xRLE-L90-VRX
xRLE-E29-ASP100
xRLE-E29-LPP100

10/24/18 | 4:49 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP300TO302.DWG



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 38910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

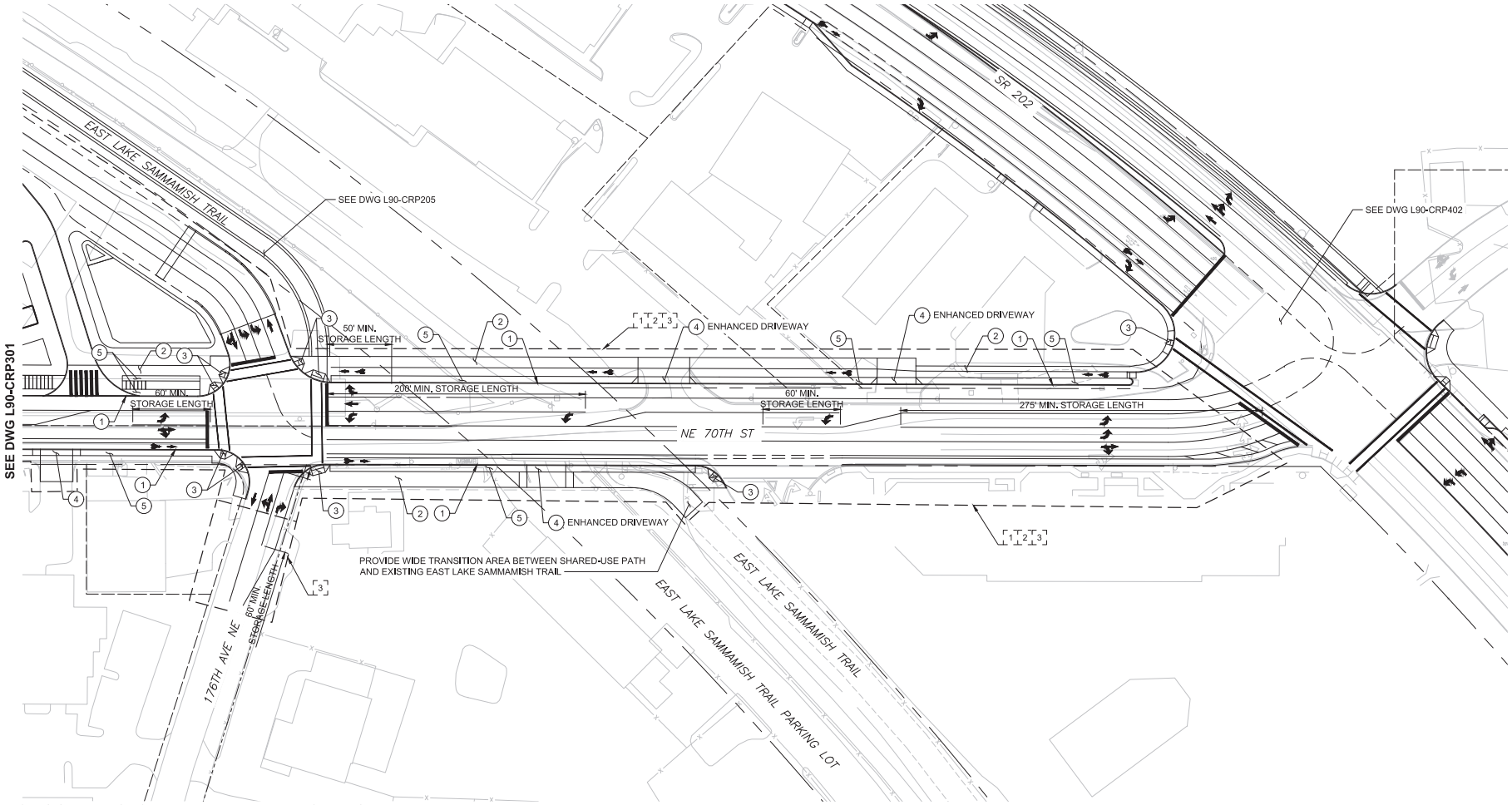
SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP300TO302
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CITY OF REDMOND ROADWAY MODIFICATION PLAN
NE 70TH ST

DRAWING No.: L90-CRP301
LOCATION ID:
SHEET No.: 168
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
CIVIL_LEGEND
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CBP100
xRLE-L90-CLP200
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-GB-VSF
xRLE-L90-CDP100
xRLE-GB-VUT
xRLE-L90-VRX
xRLE-E29-ASP100
xRLE-E29-LPR100
09/26/18 | 12:45 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3A%2F%2FSOUNDTRANSIT.ORG%443%SITES%2FREDMOND LINK EXTENSION%2FDRAWINGS%RLE-L90-CRP300TO302.DWG



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
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3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP300TO302
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
CITY OF REDMOND ROADWAY MODIFICATION PLAN
NE 70TH ST

DRAWING No.: L90-CRP302
LOCATION ID:
SHEET No.: 169
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
CIVIL_LEGEND
xRLE-L90-CRP100
xRLE-L90-DMP100
xRLE-L90-SEP100
xRLE-L90-CWP100
xRLE-L90-CLP200
xRLE-L95-VUT
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-GB-VSF
xRLE-L90-CDP100
xRLE-GB-VUT
xRLE-L90-VRX
xRLE-E29-ASP100
xRLE-E29-LPR100

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Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VCN
xRLE-L95-VGF
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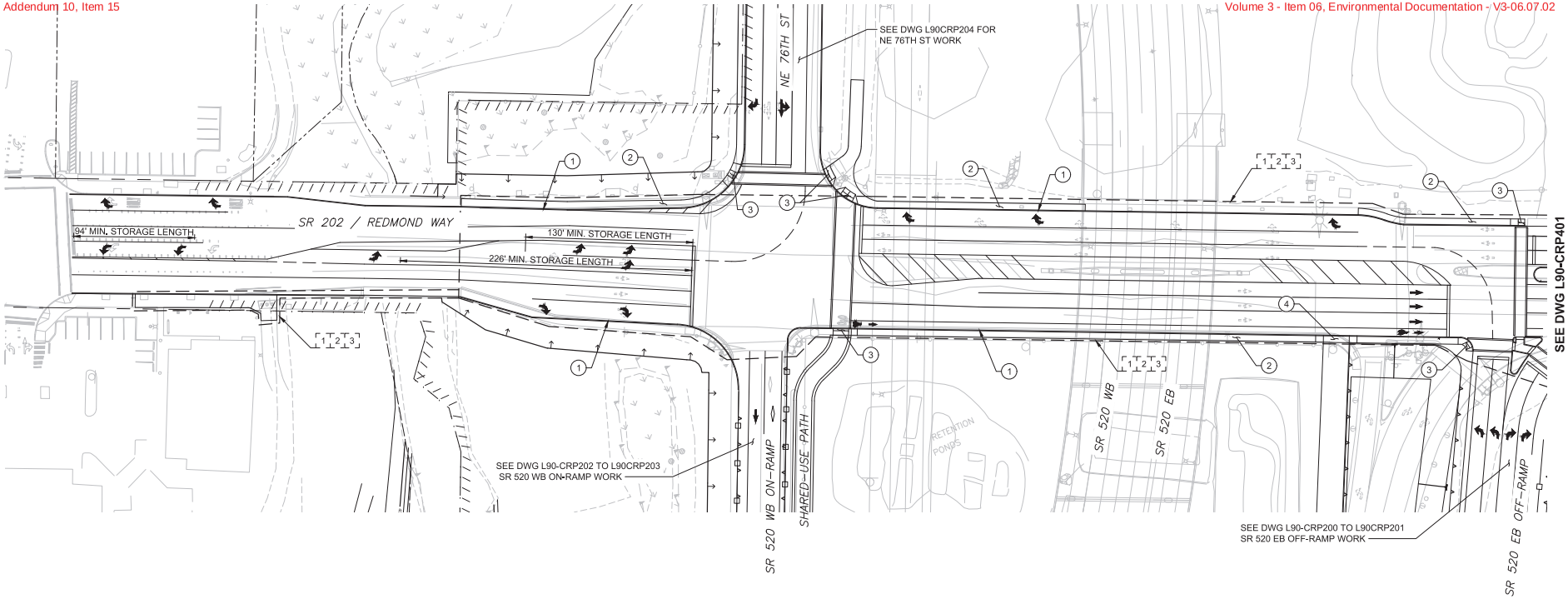
xRLE-L90-CWP100



CIVIL/ROADWAY NOTES:

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2. CONCRETE SIDEWALK
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

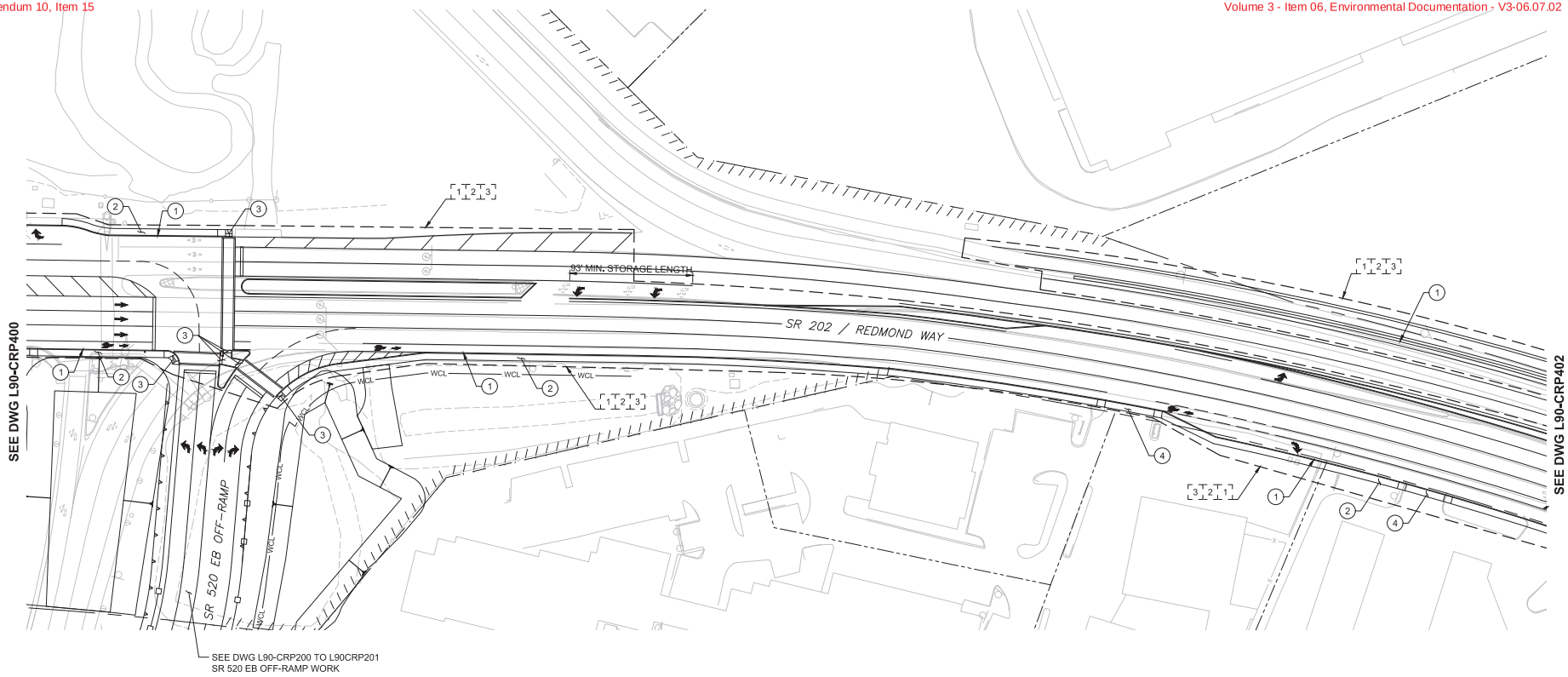
SCALE: 1" = 40'
FILENAME: RLE-L90-CRP400TO402
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT MODIFICATION PLAN
SR 202 / REDMOND WY

DRAWING No.: L90-CRP400
LOCATION ID:
SHEET No.: 170
REV:

11/08/18 | 3:45 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP400TO402.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-L90-CLP200
xRLE-L95-VUT
xRLE-L90-CWP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

1. ADA
2. ILLUMINATION
3. PAVING

GENERAL NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEY STUMPF — STATE OF WASHINGTON — 38852 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP400TO402
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT MODIFICATION PLAN
SR 202 / REDMOND WY

DRAWING No.: L90-CRP401
LOCATION ID:
SHEET No.: 171
REV:

09/26/18 | 12:54 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP400TO402.DWG

Xrefs:
RLE-GB-TB22x34
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-CDP100
xRLE-L90-VRX
xRLE-L95-VCN
xRLE-L95-VGF
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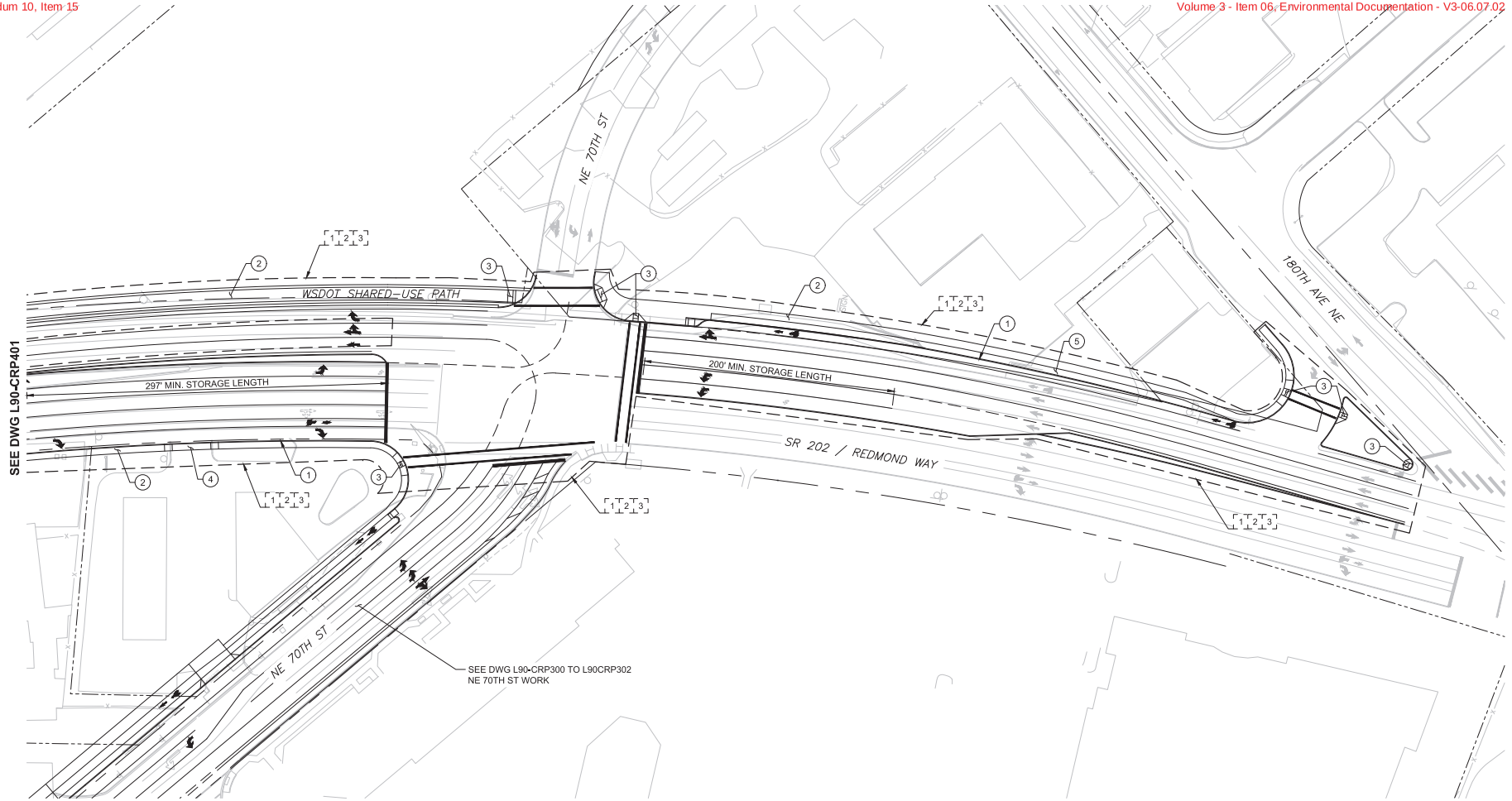
xRLE-L90-CLP200
xRLE-L95-VUT
xRLE-L90-CWP100



CIVIL/ROADWAY NOTES:

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2. CONCRETE SIDEWALK
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EVALUATION LIMITS:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

40 20 0 40 80
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

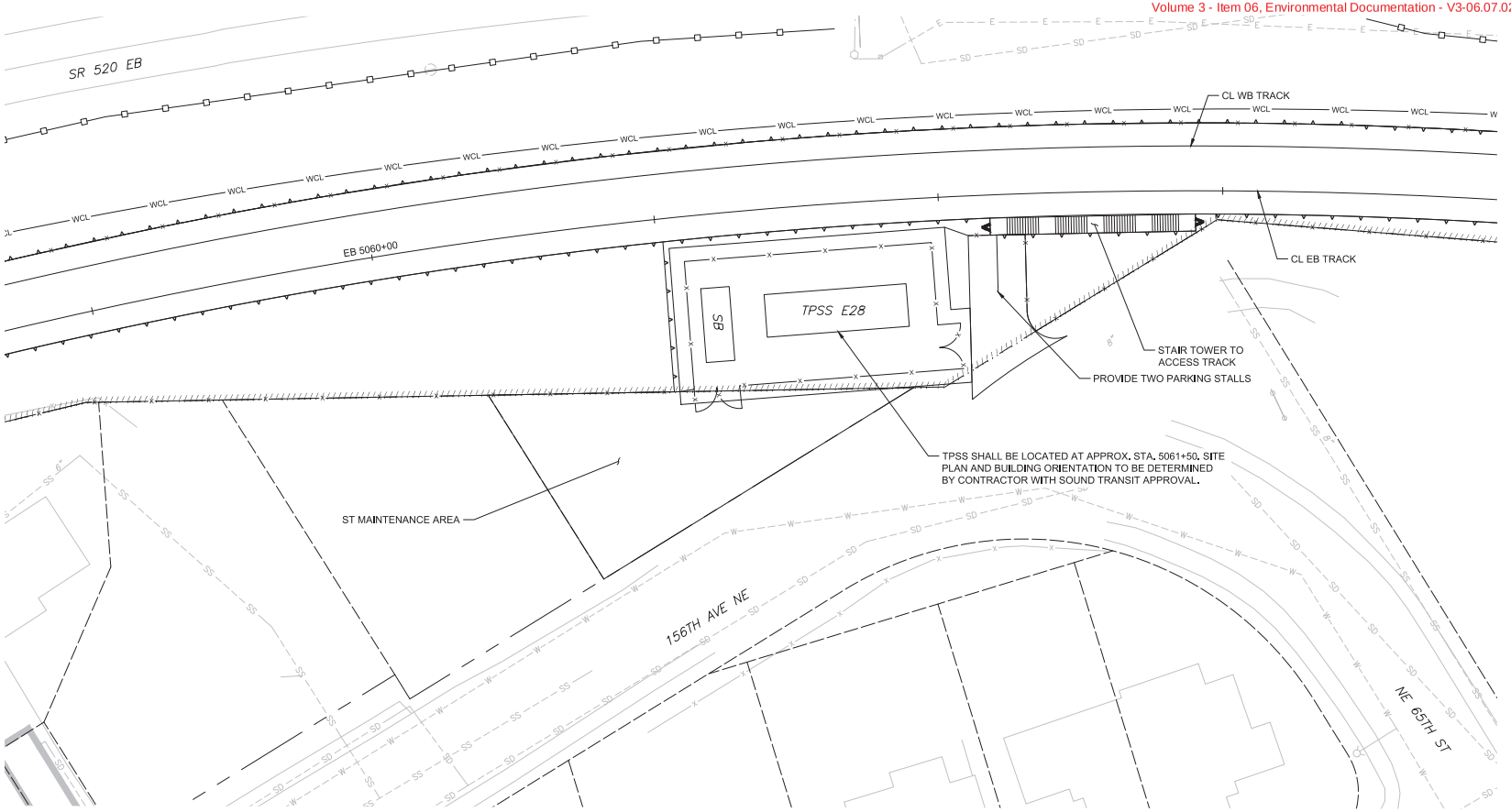
SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-CRP400TO402
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
CIVIL
WSDOT MODIFICATION PLAN
SR 202 / REDMOND WY

DRAWING No.: L90-CRP402
LOCATION ID:
SHEET No.: 172
REV:

09/26/18 | 12:55 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP400TO402.DWG



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKS STUMPF — STATE OF WASHINGTON — 18910 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-CRP500TO501
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
TPSS & SIGNAL HOUSE SITE LAYOUT PLAN
SR 520 AND NE 65TH ST TPSS

DRAWING No.: L90-CRP500
LOCATION ID:
SHEET No.: 173
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-CAP100
CIVIL_LEGEND
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-VRX
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-L95-WUT
xRLE-GIS-WUT
xRLE-GIS-VSF
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-L90-CWP100

09/26/18 | 1:04 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CRP500TO501.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-CAP100
CIVIL_LEGEND
xRLE-L90-SDP100
xRLE-L90-SWP100
xRLE-L90-CRP100
xRLE-L90-WRX
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-L95-VUT
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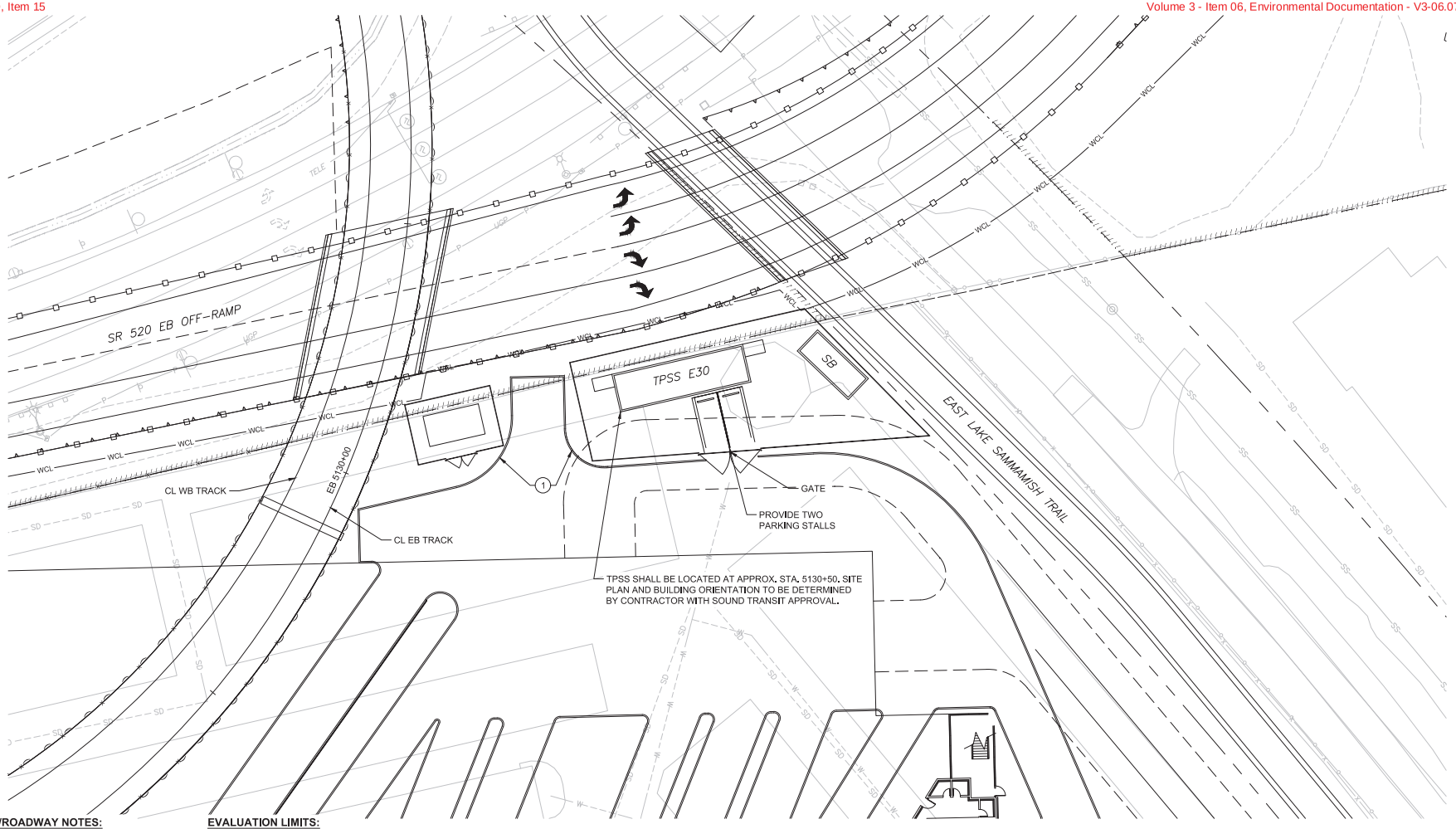
xRLE-G25-VSF
xRLE-E29-LPP100
xRLE-E29-ASP100
xRLE-L90-CWP100



CIVIL/ROADWAY NOTES:

1. CEMENT CONCRETE CURB AND GUTTER
2. CONCRETE SIDEWALK
3. ADA CURB RAMP
4. DRIVEWAY APPROACH
5. PLANTING STRIP
6. GUARDRAIL/CONCRETE BARRIER

EVALUATION LIMITS:

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2. ILLUMINATION
3. PAVING

GENERAL NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS AND SIGNAL BUNGALOW SITES, STORMWATER FACILITIES, STATIONS, AND GARAGE.
2. CIVIL RETAINING WALLS, STRUCTURES, NOISE WALLS, AND FENCING ARE SHOWN AS A CONCEPTUAL LAYOUT.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. STUMPF
DRAWN BY: D. DIMOCK
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MORGAN MARIE HICKEL STUMPF — STATE OF WASHINGTON — 22810 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CRP500TO501
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
TPSS & SIGNAL HOUSE SITE LAYOUT PLAN
SE REDMOND STATION TPSS

DRAWING No.: L90-CRP501
LOCATION ID:
SHEET No.: 174
REV:

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Addendum 10, Item 15

Xrefs:
RLE-GB-TB22x34

STORM DRAINAGE GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF REDMOND, KING COUNTY, OR WSDOT DESIGN STANDARDS APPLICABLE.
2. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREIN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IF A CONFLICT EXISTS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION.
4. PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT OR OTHER HAZARDOUS MATERIALS DO NOT ENTER THE STORM DRAINAGE SYSTEM IN ACCORDANCE WITH THE SITES APPROVED CSWPPP, FOR ALL CONSTRUCTION ACTIVITIES, DOWN GRADIENT CATCH BASINS AND INLETS MUST BE PROTECTED WITH CATCH BASIN INSERTS. PLACING FILTER FABRIC UNDER THE GRATE IS NOT ACCEPTABLE.
5. PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF STORM DRAINAGE WORK, PIPES AND STORM DRAIN STRUCTURES SHALL BE CLEANED AND FLUSHED. ANY OBSTRUCTIONS TO FLOW WITHIN THE STORM DRAIN SYSTEM, SUCH AS RUBBLE, MORTAR, AND WEDGED DEBRIS, SHALL BE REMOVED AT THE NEAREST STRUCTURE. WASH WATER SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM OR SURFACE WATERS.
6. ENDS OF EACH STORM DRAIN STUB AT THE PROPERTY LINE SHALL BE CAPPED AND LOCATED WITH AN 8' LONG, 2" X 4" BOARD, EMBEDDED TO THE STUB CAP AND EXTENDING AT LEAST 3 FEET ABOVE GRADE, AND PERMANENTLY MARKED "STORM". THE STUB DEPTH SHALL BE INDICATED ON THE MARKER. A 12 GA. LOCATE WIRE SHALL BE FIRMLY ATTACHED.
7. ALL GRATES IN ROADWAY SHALL BE DUCTILE IRON, BOLT LOCKING, VANED GRATES PER WSDOT AND/OR THE CITY OF REDMOND STANDARD DETAILS. DRAINAGE STRUCTURES IN TRAFFIC LANES OUTSIDE OF THE CURBLINE WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH BOLT-LOCKING SOLID COVERS. OFF-STREET STRUCTURES WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH BOLT-LCOKING SOLID COVERS.
8. VEGETATION/LANDSCAPING IN THE INFILTRATION PONDS, BIORETENTION FACILITIES, AND DRAINAGE SWALE(S) ARE AN INTEGRAL PART OF THE RUNOFF TREATMENT SYSTEM FOR THE PROJECT. SUCH DRAINAGE FACILITIES WILL NOT BE ACCEPTED UNTIL PLANTINGS ARE ESTABLISHED.
9. ALL NEW MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48" AND SHALL CONFORM TO THE CITY OF REDMOND STANDARD DETAILS.
10. ALL TESTING AND CONNECTIONS TO EXISTING STORM DRAIN MAINS SHALL BE DONE IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY OF REDMOND UTILITIES DEPARTMENT.
11. ALL TRENCHES SHALL BE COMPACTED, AND HOT MIX ASPHALT IN PLACE IN PAVED AREAS PRIOR TO TESTING STORM LINES FOR ACCEPTANCE.
12. ALL PUBLIC STORM DRAINS SHALL BE AIR TESTED AND HAVE A VIDEO INSPECTION PERFORMED PRIOR TO ACCEPTANCE (SEE STORM DRAINAGE GENERAL NOTE 22 BELOW). STORM MAIN CONSTRUCTED WITH FLEXIBLE PIPE SHALL BE DEFLECTION TESTED WITH A MANDREL PRIOR TO ACCEPTANCE.
13. STORM STUBS SHALL BE TESTED AT THE SAME TIME THAT THE MAIN STORM IS TESTED.
14. ALL MANHOLES/CATCH BASINS IN UNPAVED AREAS SHALL INCLUDE A CONCRETE SEAL AROUND ADJUSTMENT RINGS PER THE CITY OF REDMOND STANDARD DETAILS.
15. ALL STORM MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE STAKED BY A SURVEYOR LICENSED IN WASHINGTON STATE FOR "LINE AND GRADE" AND CUT SHEETS PROVIDED TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
16. THE CONTRACTOR SHALL USE A VACUUM STREET SWEEPER TO REMOVE DUST AND DEBRIS FROM PAVEMENT AREAS AS DIRECTED BY THE ENGINEER. FLUSHING OF STREETS SHALL NOT BE PERMITTED WITHIN THE CITY OF REDMOND.
17. STORM DRAINAGE MAINLINES, STUBS, AND FITTINGS SHALL BE CONSTRUCTED USING THE SAME PIPE MATERIAL AND MANUFACTURER. CONNECTIONS BETWEEN STUBS AND THE MAINLINE WILL BE MADE WITH A TEE FITTING. TEE FITTINGS SHALL BE FROM THE SAME MANUFACTURER AS THE PIPE. CUT-IN CONNECTIONS ARE ONLY ALLOWED WHEN CONNECTING A NEW STUB TO AN EXISTING MANHOLE.
18. MANHOLES, CATCH BASINS, AND VAULTS ARE CONSIDERED TO BE PERMIT-REQUIRED CONFINED SPACES. ENTRY INTO THESE SPACES SHALL BE IN ACCORDANCE WITH CHAPTER 296-809 WAC.
19. PLACEMENT OF SURFACE APPURTENANCES (MH LIDS, VALVE LIDS, ETC) IN TIRE TRACKS OF TRAFFIC LANES SHALL BE AVOIDED WHENEVER POSSIBLE.
20. CALL 1-800-424-5555, OR 811, 72 HOURS PRIOR TO CONSTRUCTION FOR UTILITY LOCATES.
21. THE CONTRACTOR SHALL PERFORM A VIDEO INSPECTION AND PROVIDE A DVD OF THE STORM PIPE INTERIOR FOR REVIEW BY THE CITY OF REDMOND. THE VIDEO SHALL PROVIDE A MINIMUM OF 14 LINES PER MILLIMETER RESOLUTION AND COVER THE ENTIRE LENGTH OF THE APPLICABLE PIPE. THE CAMERA SHALL BE MOVED THROUGH THE PIPE AT A UNIFORM RATE (LESS THAN OR EQUAL TO 30 FEET PER MINUTE), STOPPING WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION. THE VIDEO SHALL BE TAKEN AFTER INSTALLATION AND CLEANING TO INSURE THAT NO DEFECTS EXIST. THE PROJECT WILL NOT BE ACCEPTED UNTIL ALL DEFECTS HAVE BEEN REPAIRED.
22. ALL CONCRETE STRUCTURES (VAULTS, CATCH BASINS, MANHOLES, OIL/WATER SEPARATORS, ETC.) SHALL BE VACUUM TESTED.
23. MANHOLES, CATCH BASINS, AND INLETS IN EASEMENTS SHALL BE CONSTRUCTED TO PROVIDE A STABLE, LEVEL GRADE FOR A MINIMUM RADIUS OF 2.5 FEET AROUND THE CENTER OF THE ACCESS OPENING TO ACCOMMODATE CONFINED SPACE ENTRY EQUIPMENT
24. TOPS OF MAHOLES/CATCH BASINS WITHIN PUBLIC RIGHT-OF-WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING.
25. CONTRACTOR SHALL ADJUST ALL MANHOLE/ CATCH BASIN RIM ELEVATIONS TO FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
26. CONTRACTOR SHALL INSTALL SCREENS OR PLUGS AT ALL CONNECTIONS TO EXISTING DOWNSTREAM MANHOLES/ CATCH BASINS TO PREVENT FOREIGN MATERIALS FROM ENTERING EXISTING STORM DRAINAGE SYSTEM. SCREENS OR PLUGS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION AND SHALL BE REMOVED ALONG WITH COLLECTED DEBRIS AT THE TIME OF FINAL INSPECTION AND IN THE PRESENCE OF A REPRESENTATIVE OF THE CITY OF REDMOND UTILITIES.
27. SURFACE RESTORATION OF EXISTING ASPHALT PAVEMENT SHALL BE AS REQUIRED BY THE RIGHT-OF-WAY USE PERMIT.
28. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF FIVE FEET HORIZONTAL SEPARATION BETWEEN ALL WATER AND STORM DRAINAGE LINES. ANY CONFLICT SHALL BE REPORTED TO THE UTILITY OF THE AHJ AND THE DEVELOPER'S ENGINEER PRIOR TO CONSTRUCTION.
29. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO CONFLICTS EXIST BETWEEN STORM DRAINAGE LINES AND PROPOSED OR EXISTING UTILITIES PRIOR TO CONSTRUCTION.
30. MINIMUM COVER OVER STORM DRAINAGE PIPE SHALL BE 2 FEET, UNLESS OTHERWISE SHOWN.
31. THE SMALLEST ANGLE MEASURE BETWEEN UTILITIES SHALL BE 45 DEGREES, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
32. MINIMUM CLEARANCE BETWEEN CONCRETE THRUST BLOCKING AND OTHER BURIED UTILITIES OR STRUCTURES SHALL BE 5 FEET.
33. WHEN WORK IS TO OCCUR IN EASEMENTS, THE CONTRACTOR SHALL NOTIFY THE EASEMENT GRANTOR AND THE AHJ UTILITIES IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE OF BEGINNING WORK (NOT INCLUDING WEEKENDS OR HOLIDAYS). FAILURE TO NOTIFY GRANTOR AND THE AHJ UTILITIES WILL RESULT IN A STOP WORK ORDER BEING POSTED UNTIL THE MATTER IS RESOLVED TO THE SATISFACTION OF THE AHJ ENGINEER. A WRITTEN RELEASE FROM THE EASEMENT GRANTOR SHALL BE FURNISHED TO THE AHJ UTILITIES INSPECTOR PRIOR TO PERMIT SIGN-OFF.
34. THE CONTRACTOR SHALL RESTORE THE RIGHT-OF-WAY AND EXISTING PUBLIC STORM DRAINAGE EASEMENTS AFTER CONSTRUCTION TO A CONDITION EQUAL TO OR BETTER THAN CONDITION PRIOR TO ENTRY. THE CONTRACTOR SHALL FURNISH A SIGNED RELEASE FROM ALL AFFECTED PROPERTY OWNERS AFTER RESTORATION HAS BEEN COMPLETED.

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE REITA — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

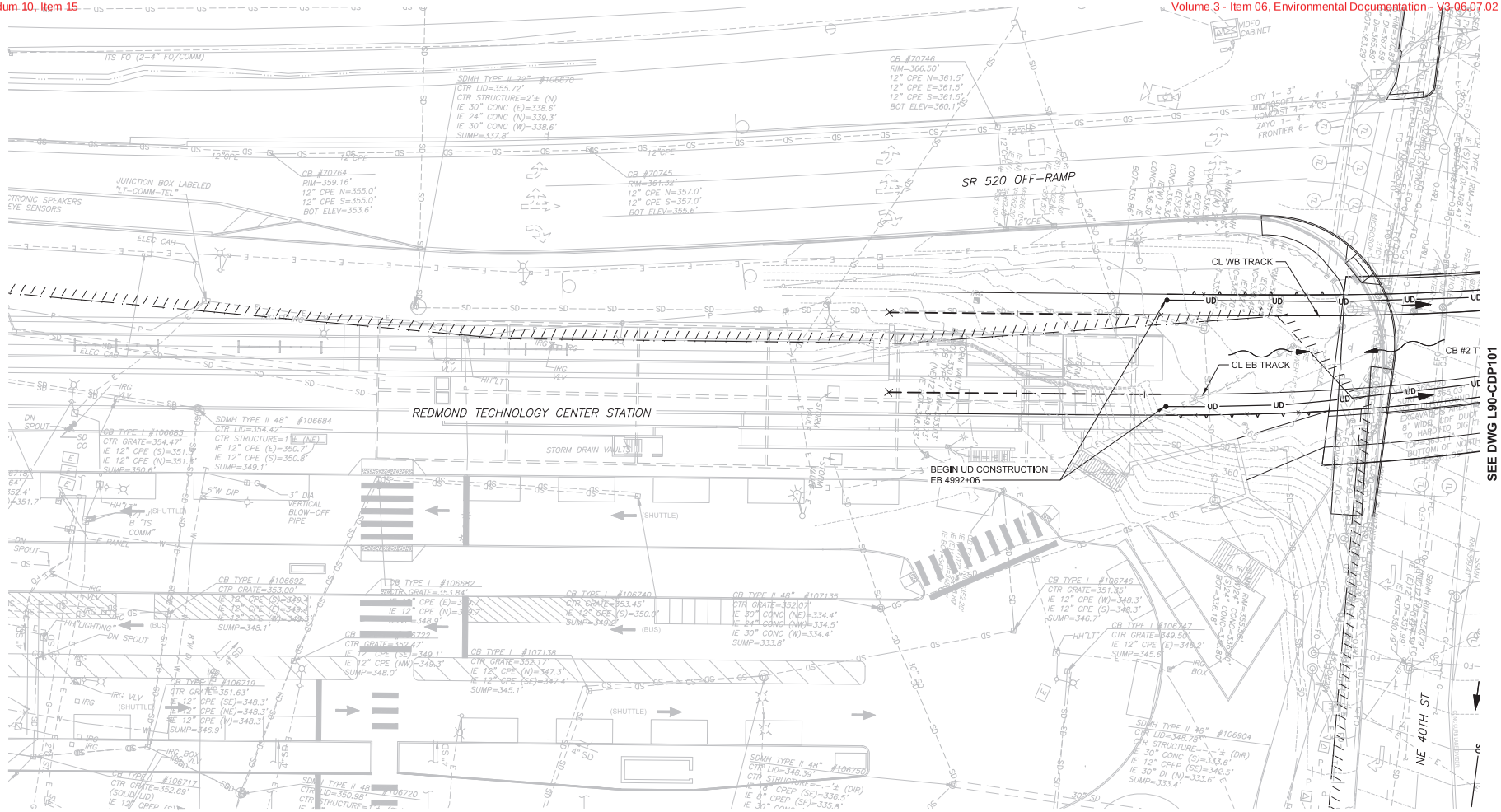
SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-CZN700
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

CIVIL
DRAINAGE
GENERAL NOTES

DRAWING No.: L90-CZN700
LOCATION ID:
SHEET No.: 175
REV:



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: J. TYLER
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APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 4991+00 TO EB STA 4993+00

DRAWING No.: L90-CDP100
LOCATION ID:
SHEET No.: 176
REV:

Xrefs:
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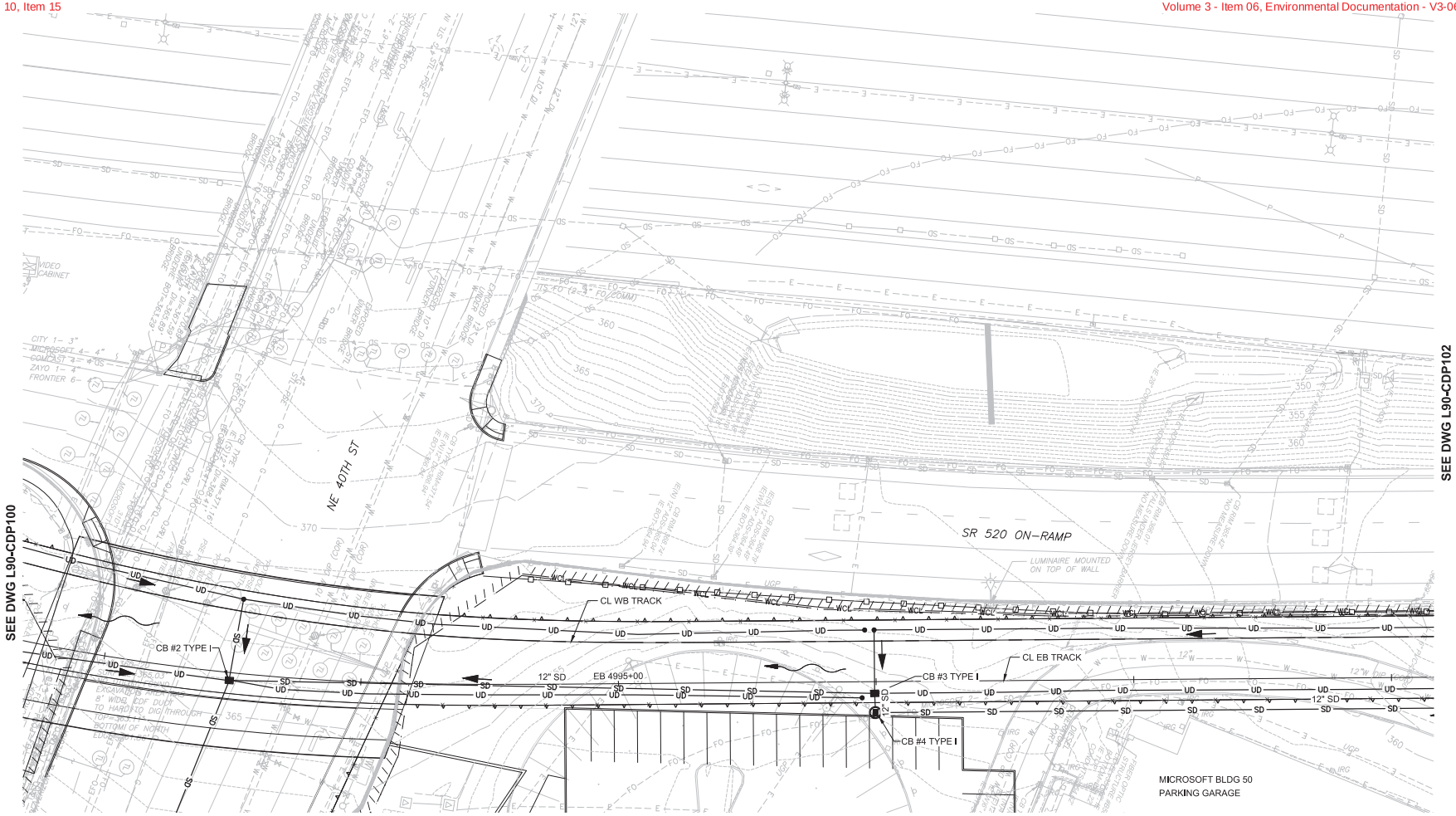

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 4993+00 TO EB STA 4998+00

DRAWING No.: L90-CDP101
LOCATION ID:
SHEET No.: 177
REV:

09/25/18 | 3:10 PM | TYLERJ
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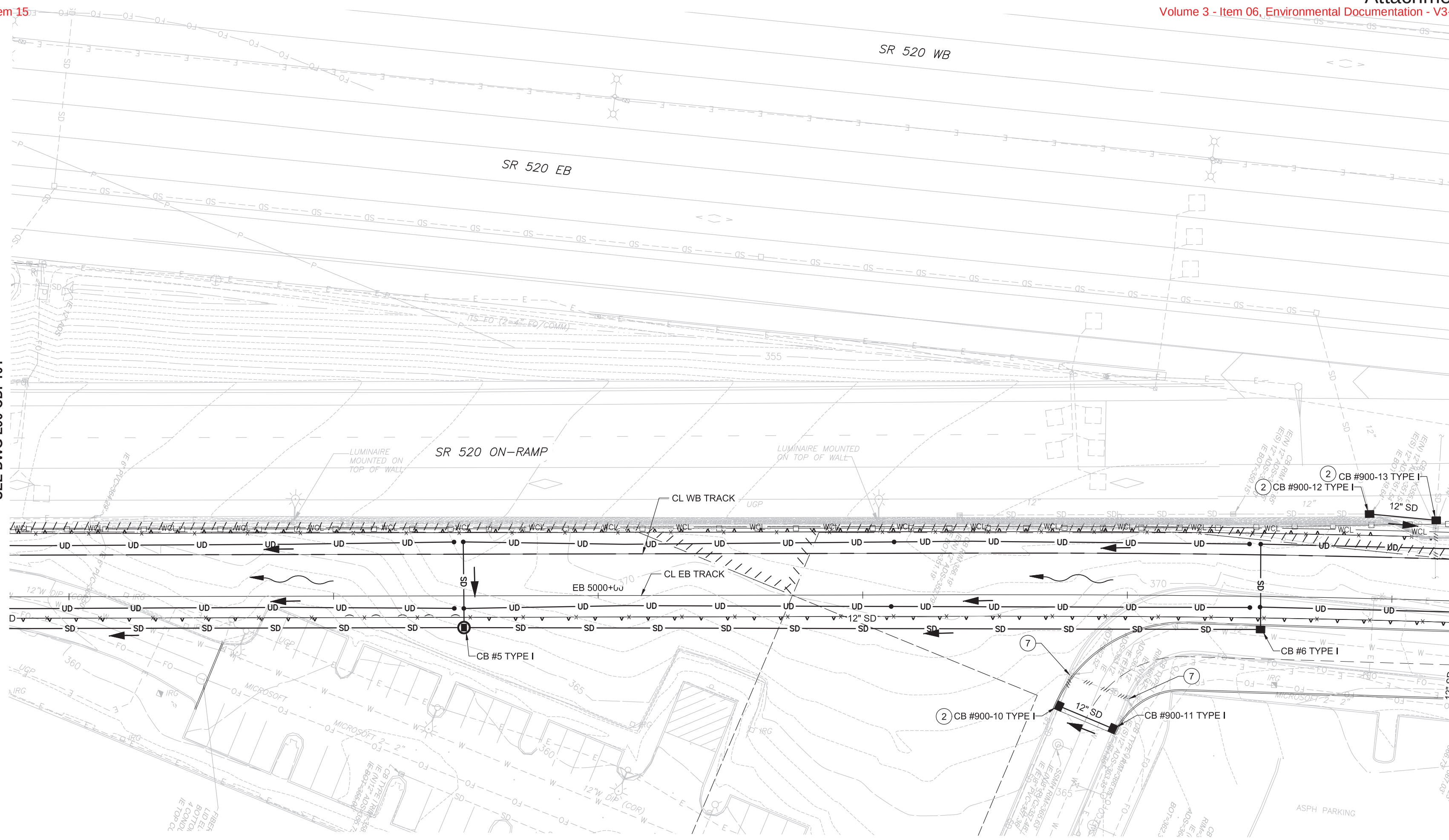

NOTES:

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CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

(7) REMOVE EXISTING CATCH BASIN

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

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DESIGNED BY:	T. NABOURS
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JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 4998+00 TO EB STA 5003+00

DRAWING No.: L90-CDP102
LOCATION ID:
SHEET No.: 178
REV:

09/25/18 | 3:11 PM | TYLERJ
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Xrefs:
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xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
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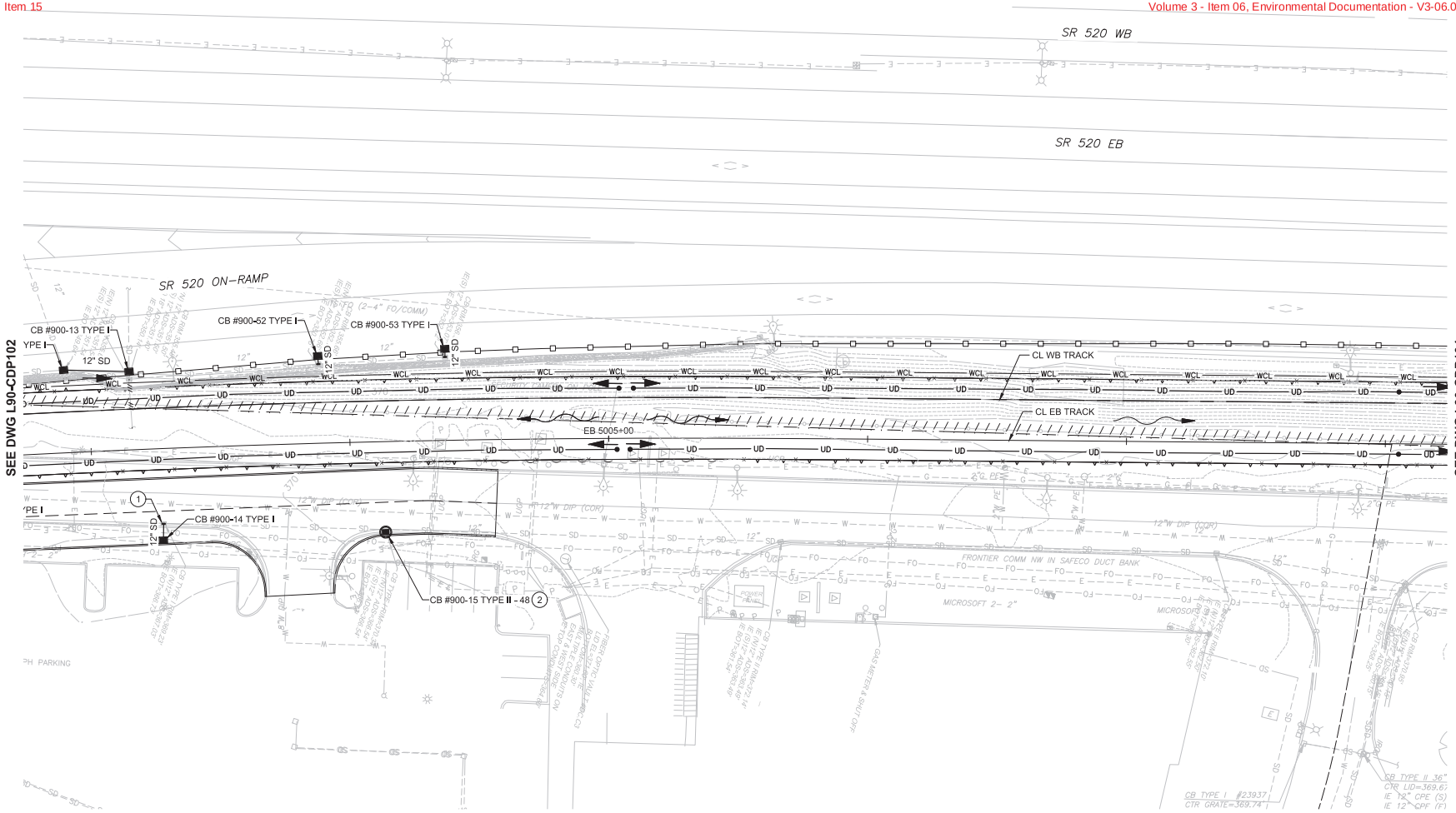

NOTES:

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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

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SCALE IN FEET 20 10 0 20 40

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MARCELO CHRISTIAN RICCI — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

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SCALE: 1" = 20'
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RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5003+00 TO EB STA 5008+00

DRAWING No.: L90-CDP103
LOCATION ID:
SHEET No.: 179
REV:

09/25/18 | 3:12 PM | TYLERJ
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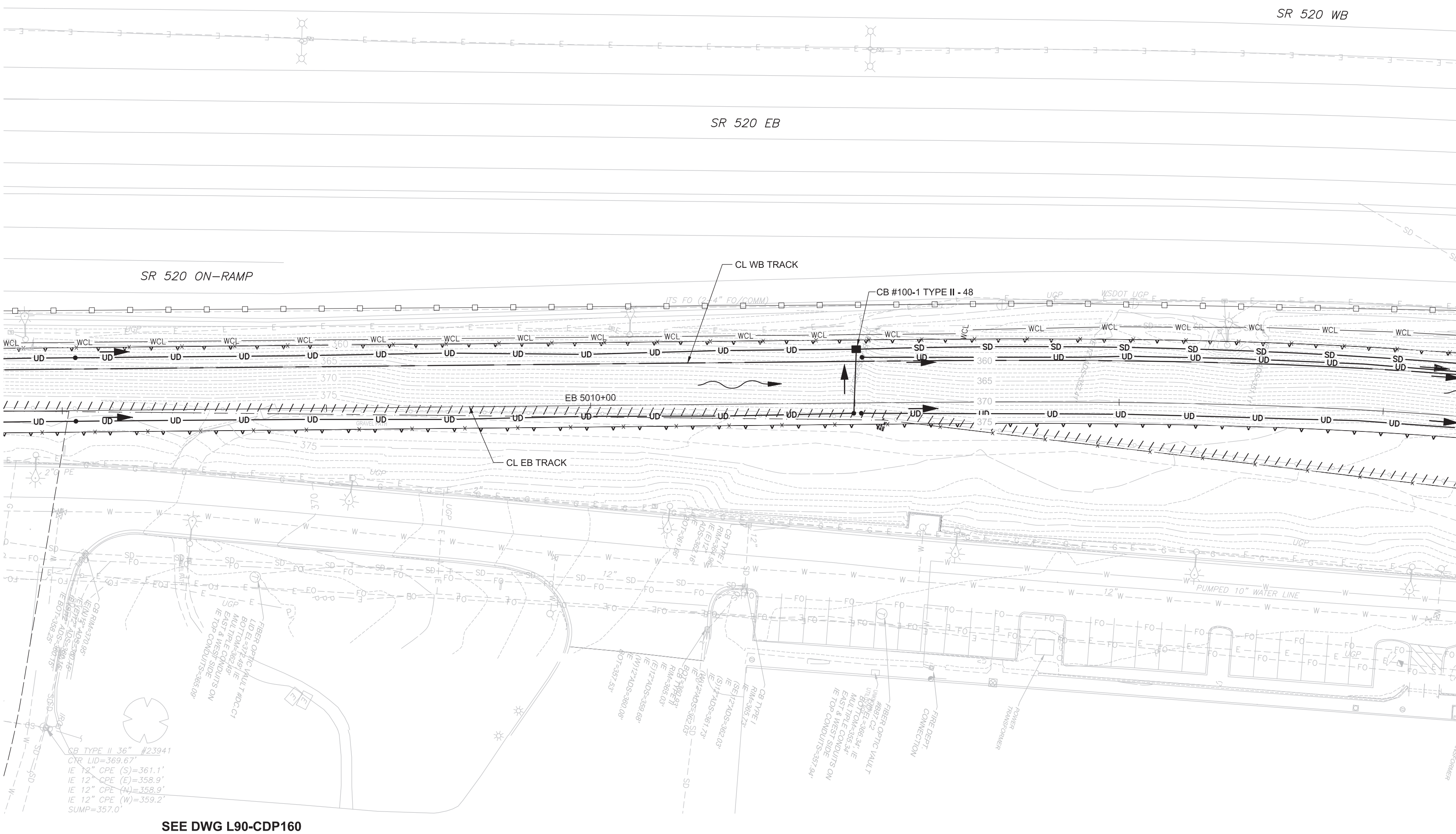

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5008+00 TO EB STA 5013+00

DRAWING No.: L90-CDP104
LOCATION ID:
SHEET No.: 180
REV:

09/25/18 | 3:14 PM | TYLERJ
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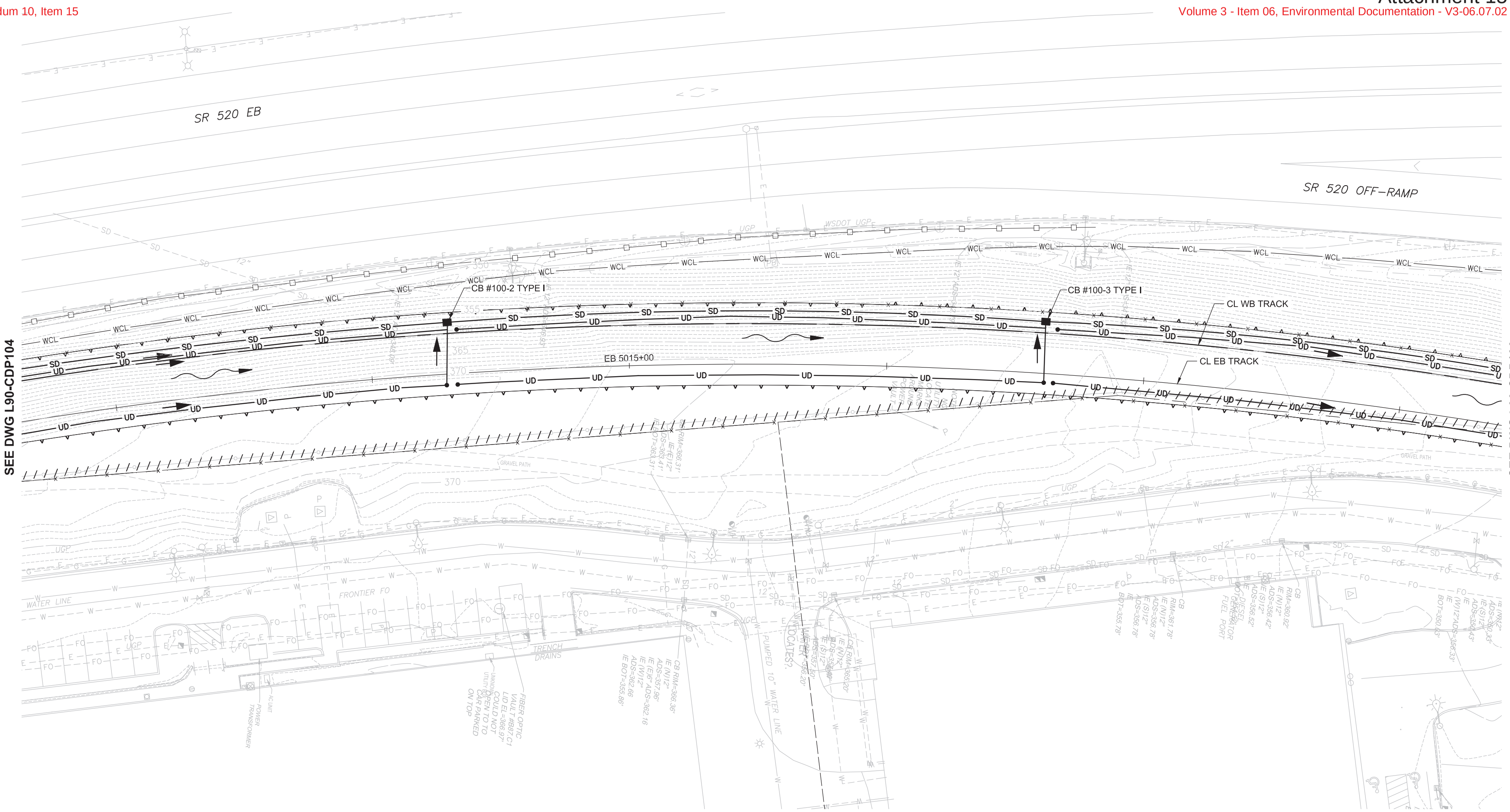
Xrefs: RLE–GB–TB22x34, xRLE–L90–SEP100, xRLE–L90–CRP100, xRLE–L90–SWP100, xRLE–L90–KAP100, xRLE–E31–ASP100, xE360–RLE–E27–CSP200, xE360–RLE–E27–CMP200, xE360–RLE–E27–USP200, xRLE–L95–VWG, xRLE–GIS–VFP, xRLE–GIS–VSF, xRLE–GIS–VUT, xRLE–GIS–VWG, xRLE–L90–VCP, xRLE–L90–VRX, xRLE–L90–VSF, xRLE–L90–VUT, xRLE–L90–VWG, xRLE–L95–VSF, xRLE–L95–VUT, xRLE–E29–LPP100, xRLE–L90–VCN, xRLE–L95–VCN, xRLE–L90–CWP100, xRLE–L90–CDP100, xRLE–E29–ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5013+00 TO EB STA 5018+00

DRAWING No.: L90-CDP105
LOCATION ID:
SHEET No.: 181
REV:

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Xrefs:
RLE–GB–TB22x34
xRLE–L90–SEP100
xRLE–L90–CRP100
xRLE–L90–SWP100
xRLE–L90–KAP100
xRLE–E31–ASP100
xE360–RLE–E27–CSP200
xE360–RLE–E27–CMP200
xE360–RLE–E27–USP200
xRLE–L95–VWG
xRLE–GIS–VFP
xRLE–GIS–VSF
xRLE–GIS–VUT
xRLE–GIS–VWG
xRLE–L90–VCP
xRLE–L90–VRX
xRLE–L90–VSF
xRLE–L90–VUT
xRLE–L90–VWG
xRLE–L95–VSF
xRLE–L95–VUT
xRLE–E29–LPP100
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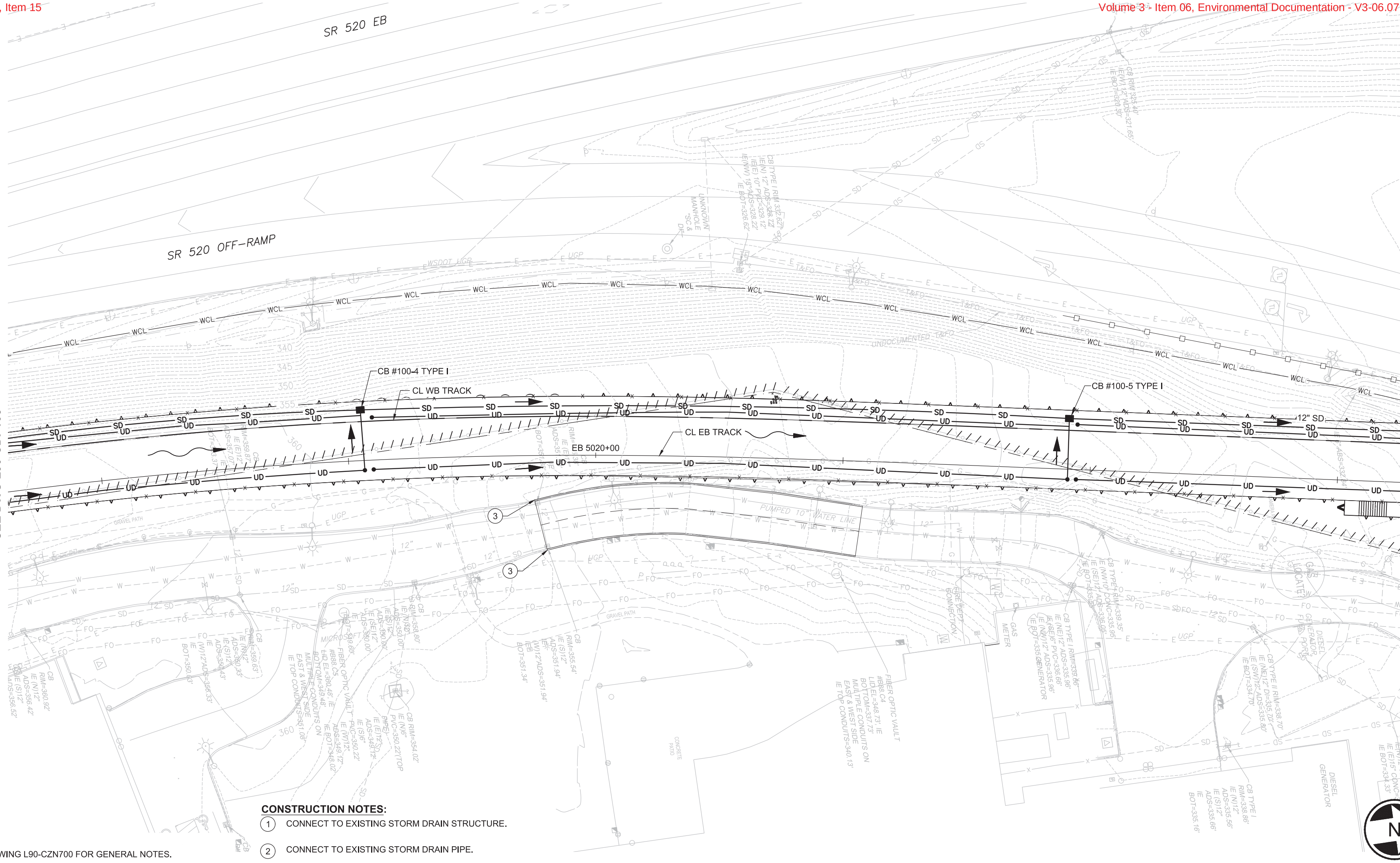
xRLE–L95–VCN
xRLE–L90–CWP100
xRLE–L90–CDP100
xRLE–E29–ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5018+00 TO EB STA 5023+00

DRAWING No.: L90-CDP106
LOCATION ID:
SHEET No.: 182
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

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NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
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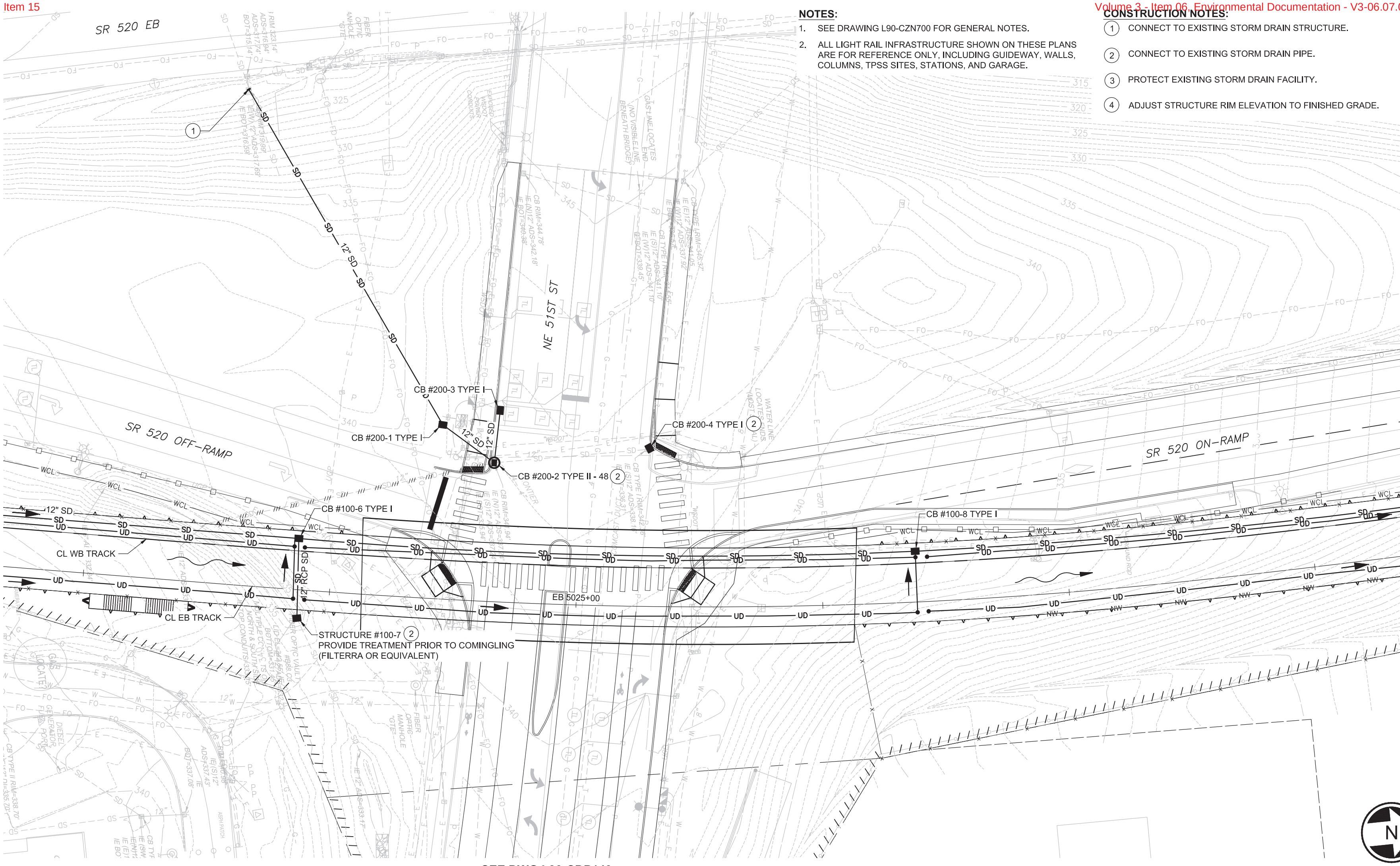
CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN	DESIGNED BY: T. NABOURS	SUBMITTED BY: BRAD PHILLIPS	DATE: 09/24/2018	REVIEWED BY:	DATE:
FINAL	DRAWN BY: J. TYLER				
No. / DATE / DSN / CHK / APP / REVISION	CHECKED BY: J. HITCH				
	APPROVED BY: Y. YANG				

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 36038 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5023+00 TO EB STA 5028+00

DRAWING No.: L90-CDP107
LOCATION ID:
SHEET No.: 183
REV:

09/25/18 | 3:18 PM | TYLERJ
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Xrefs: RLE-GB-TB22x34, xRLE-L90-SEP100, xRLE-L90-CRP100, xRLE-L90-SWP100, xRLE-L90-KAP100, xRLE-E31-ASP100, xE360-RLE-E27-CSP20, xE360-RLE-E27-CMP20, xE360-RLE-E27-USP20, xRLE-L95-VWG, xRLE-GIS-VFP, xRLE-GIS-VSF, xRLE-GIS-VUT, xRLE-GIS-VWG, xRLE-L90-VCP, xRLE-L90-VRX, xRLE-L90-VSF, xRLE-L90-VUT, xRLE-L90-VWG, xRLE-L95-VSF, xRLE-L95-VUT, xRLE-E29-LPP100, xRLE-L90-VCN, xRLE-L95-VCN, xRLE-L90-CWP100, xRLE-L90-CDP100, xRLE-E29-ASP100

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
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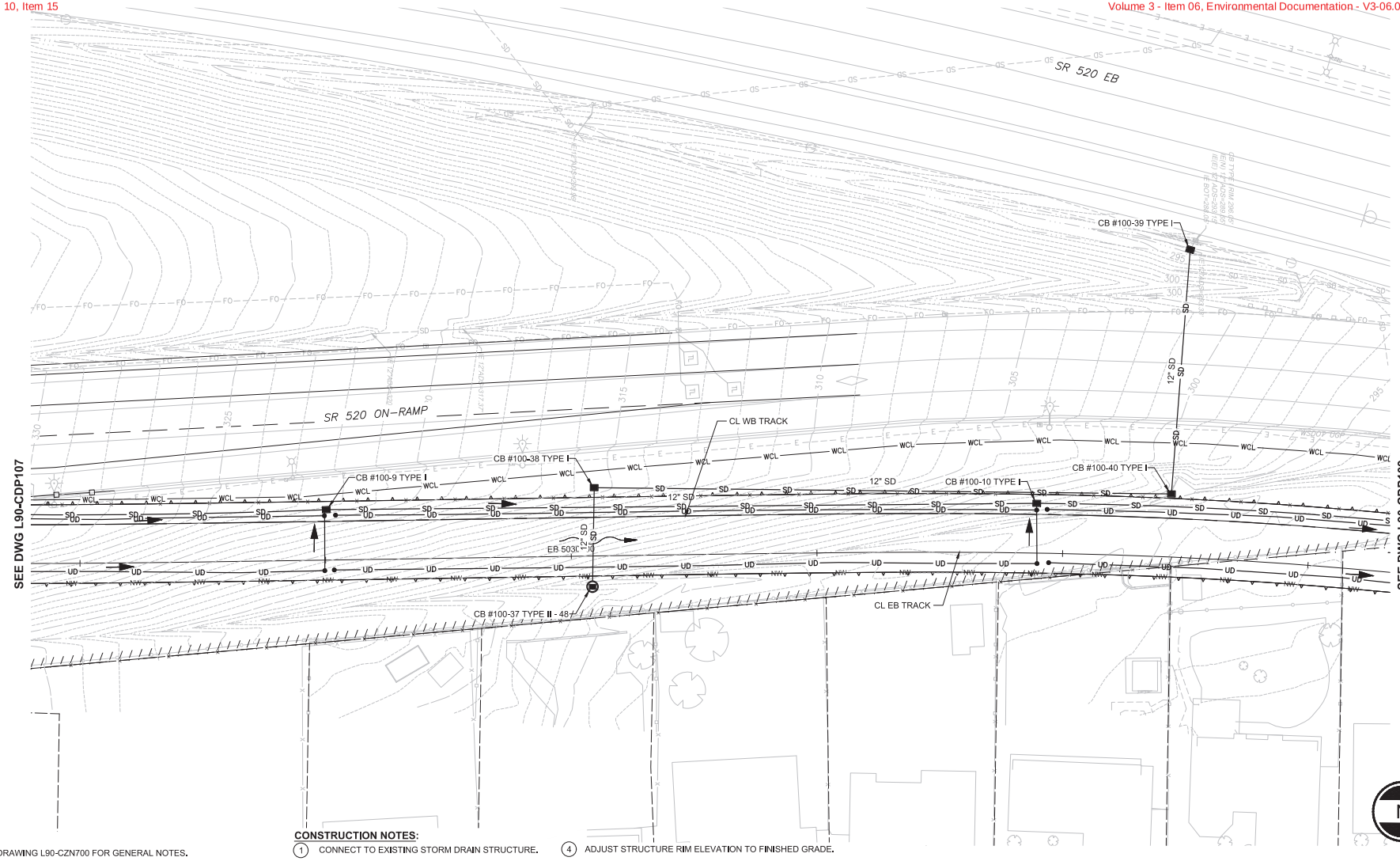

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE REED — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5028+00 TO EB STA 5033+00

DRAWING No.: L90-CDP108
LOCATION ID:
SHEET No.: 184
REV:

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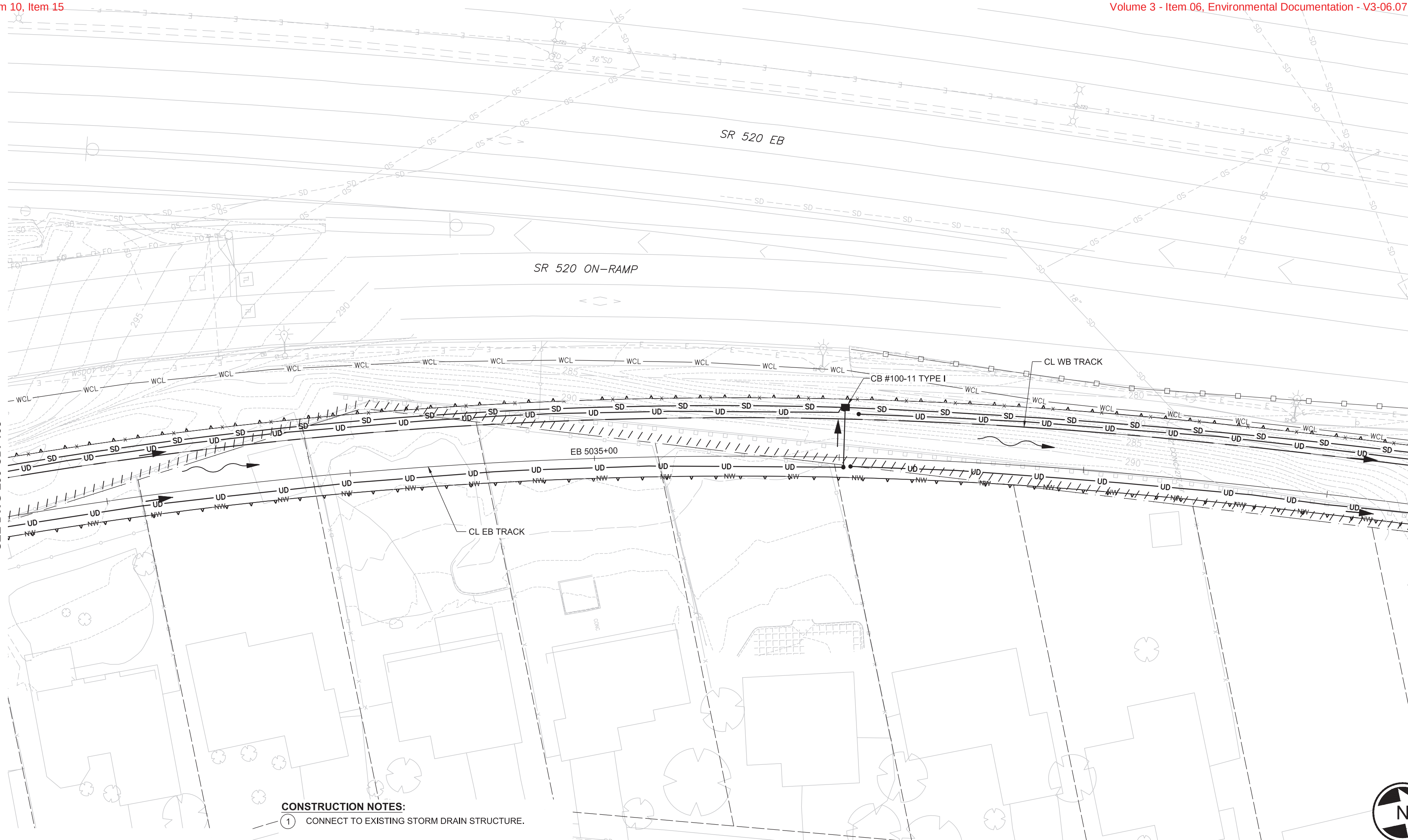

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5033+00 TO EB STA 5038+00

DRAWING No.: L90-CDP109
LOCATION ID:
SHEET No.: 185
REV:

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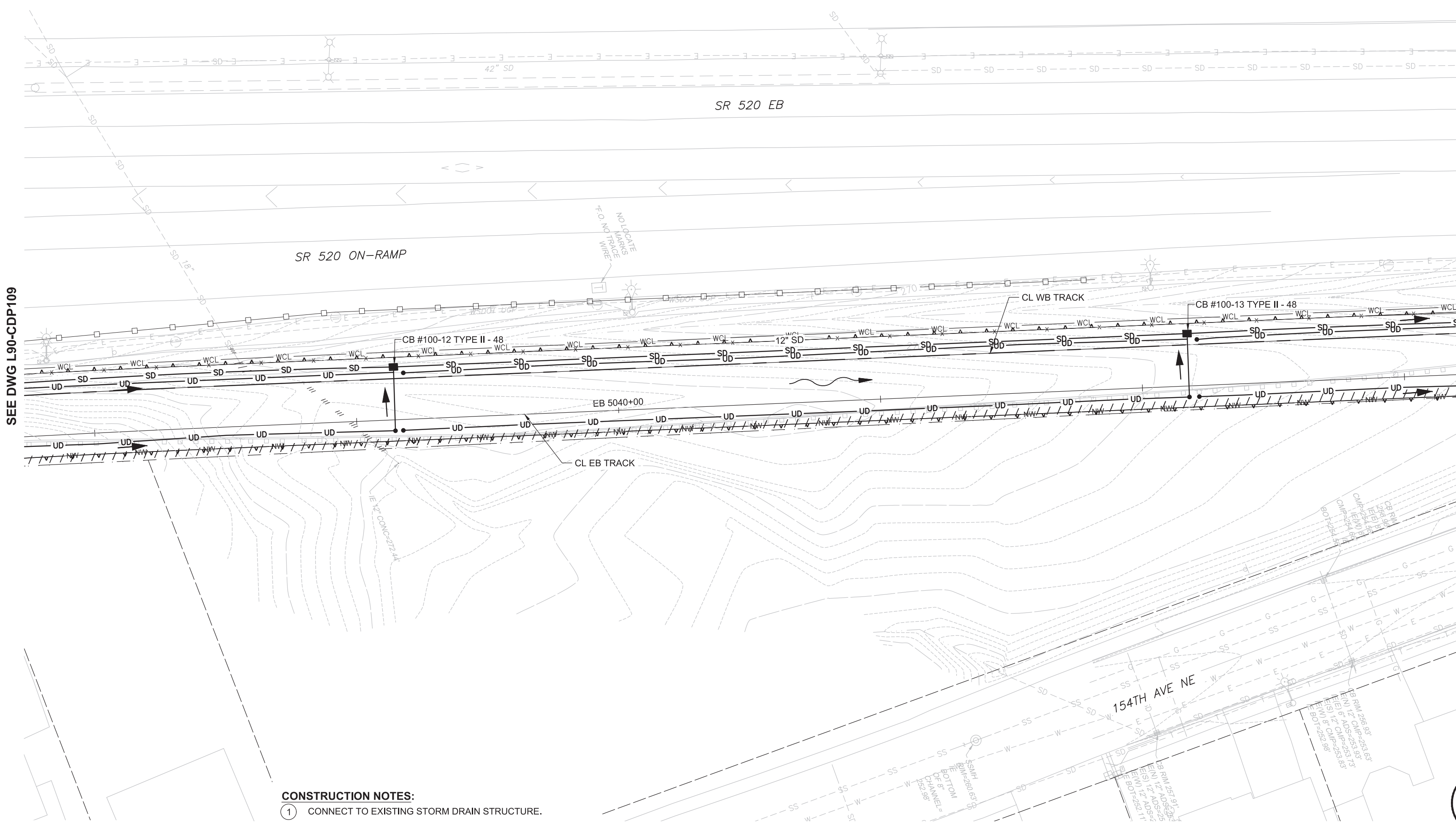

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

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PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5038+00 TO EB STA 5043+00

DRAWING No.: L90-CDP110
LOCATION ID:
SHEET No.: 186
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
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xRLE-E29-ASP100

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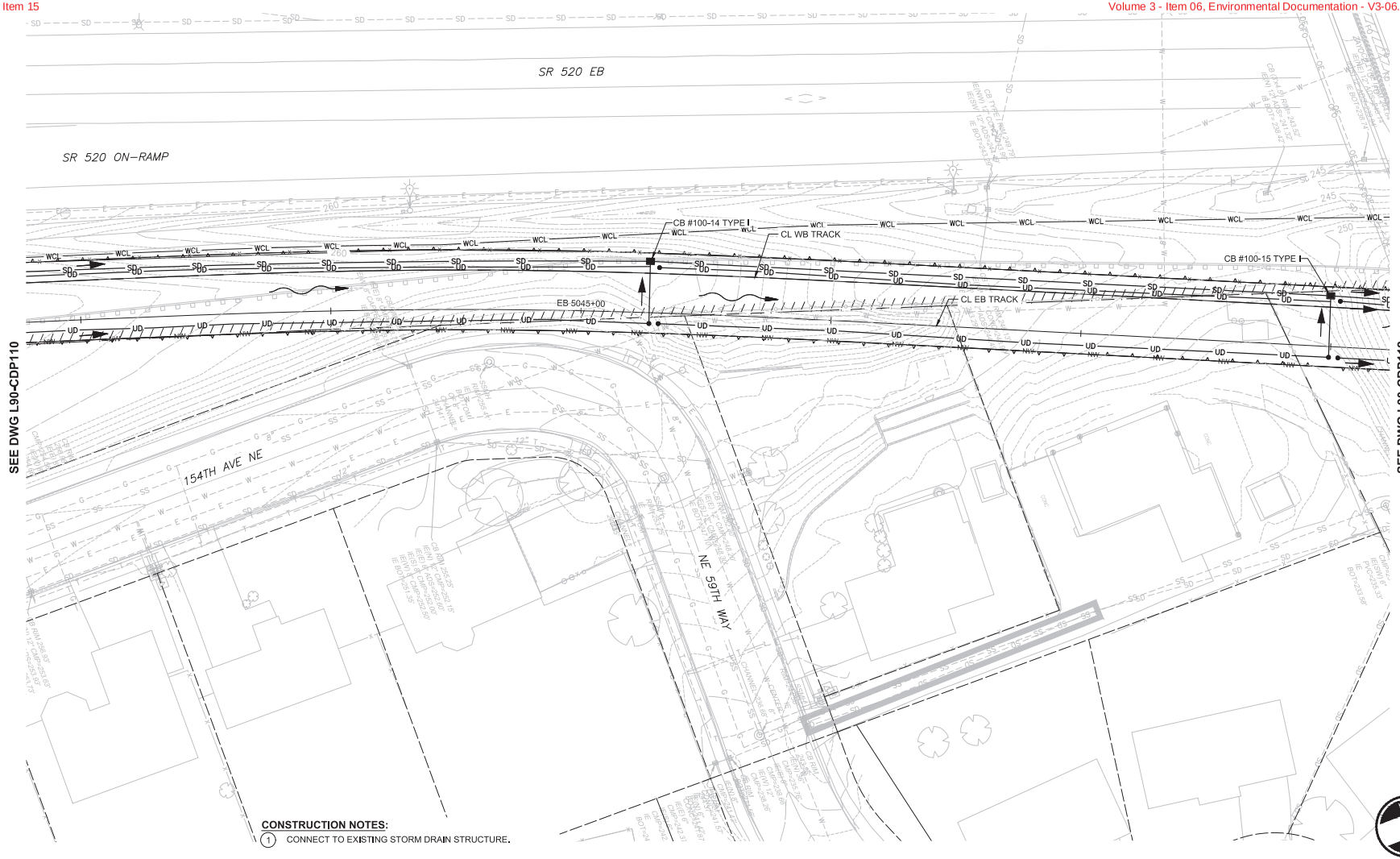

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE PETA — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

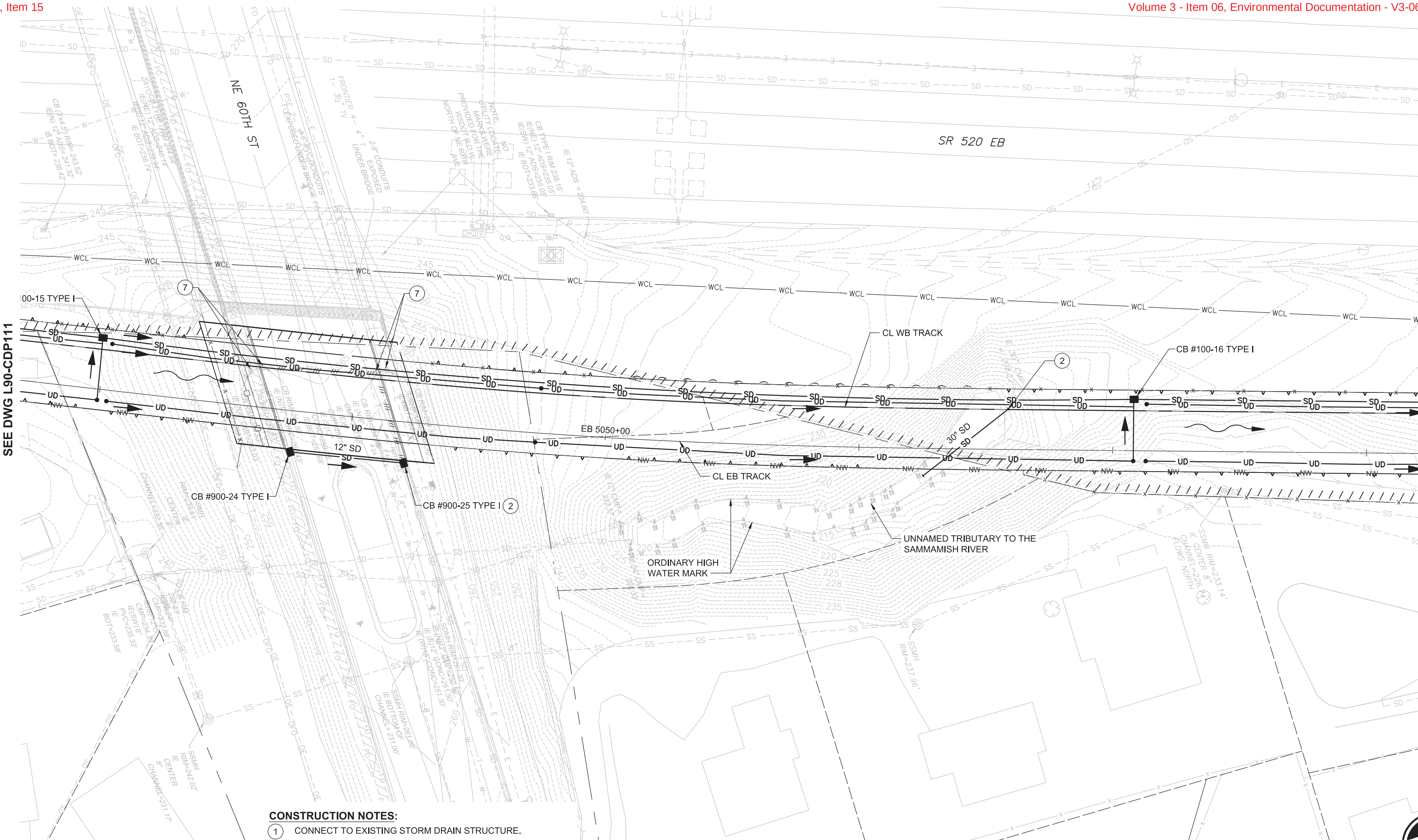
LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5043+00 TO EB STA 5048+00

DRAWING No.: L90-CDP111
LOCATION ID:
SHEET No.: 187
REV:



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

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PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

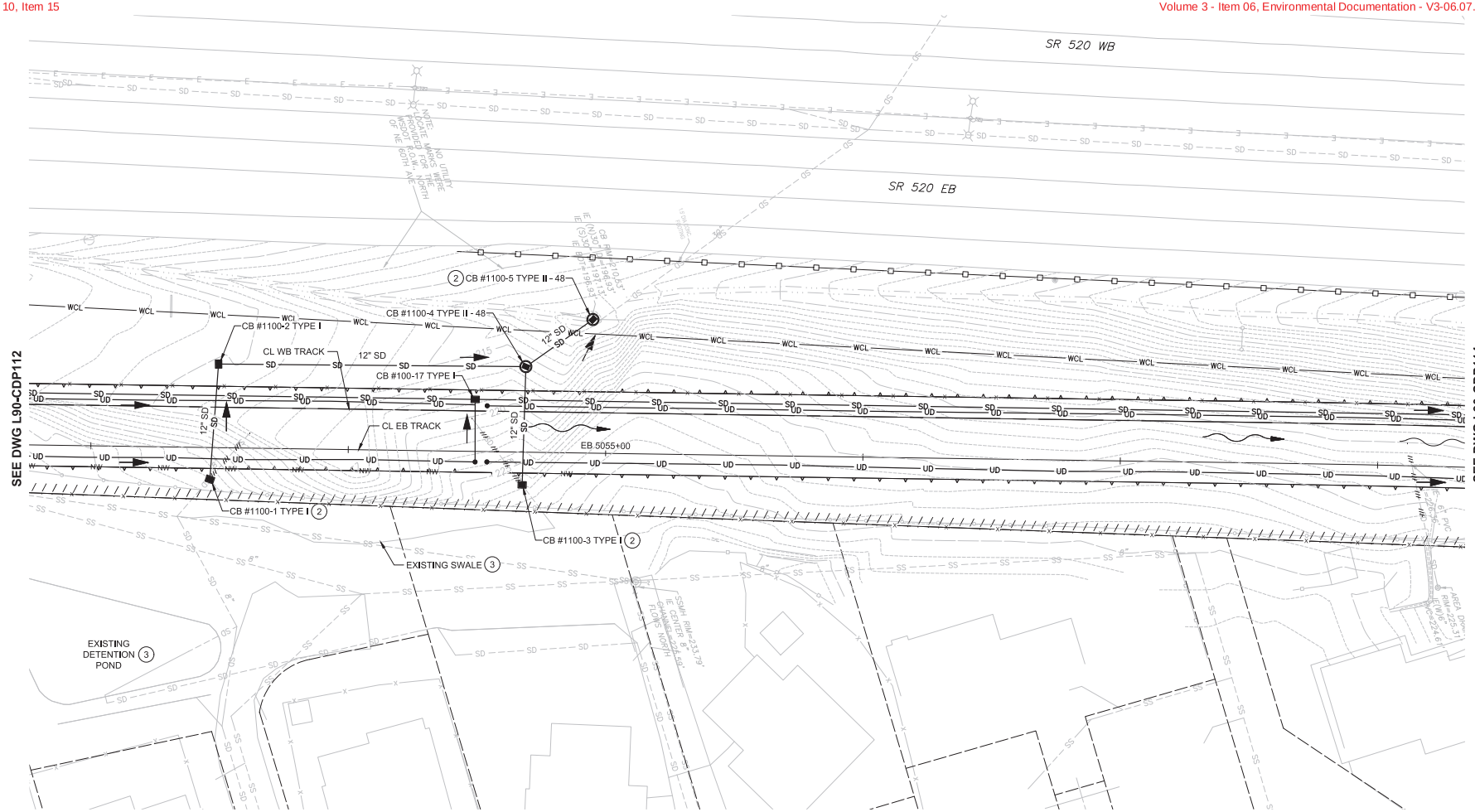
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5048+00 TO EB STA 5053+00

DRAWING No.: L90-CDP112
LOCATION ID:
SHEET No.: 188
REV:

09/25/18 | 3:24 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



NOTES:

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CONSTRUCTION NOTES:

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4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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REVIEWED BY: — DATE:

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5053+00 TO EB STA 5058+00

DRAWING No.: L90-CDP113
LOCATION ID:
SHEET No.: 189
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VAG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VAG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VAG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
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xRLE-L90-SWP100
xRLE-L90-WAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-G05-VFP
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-G05-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
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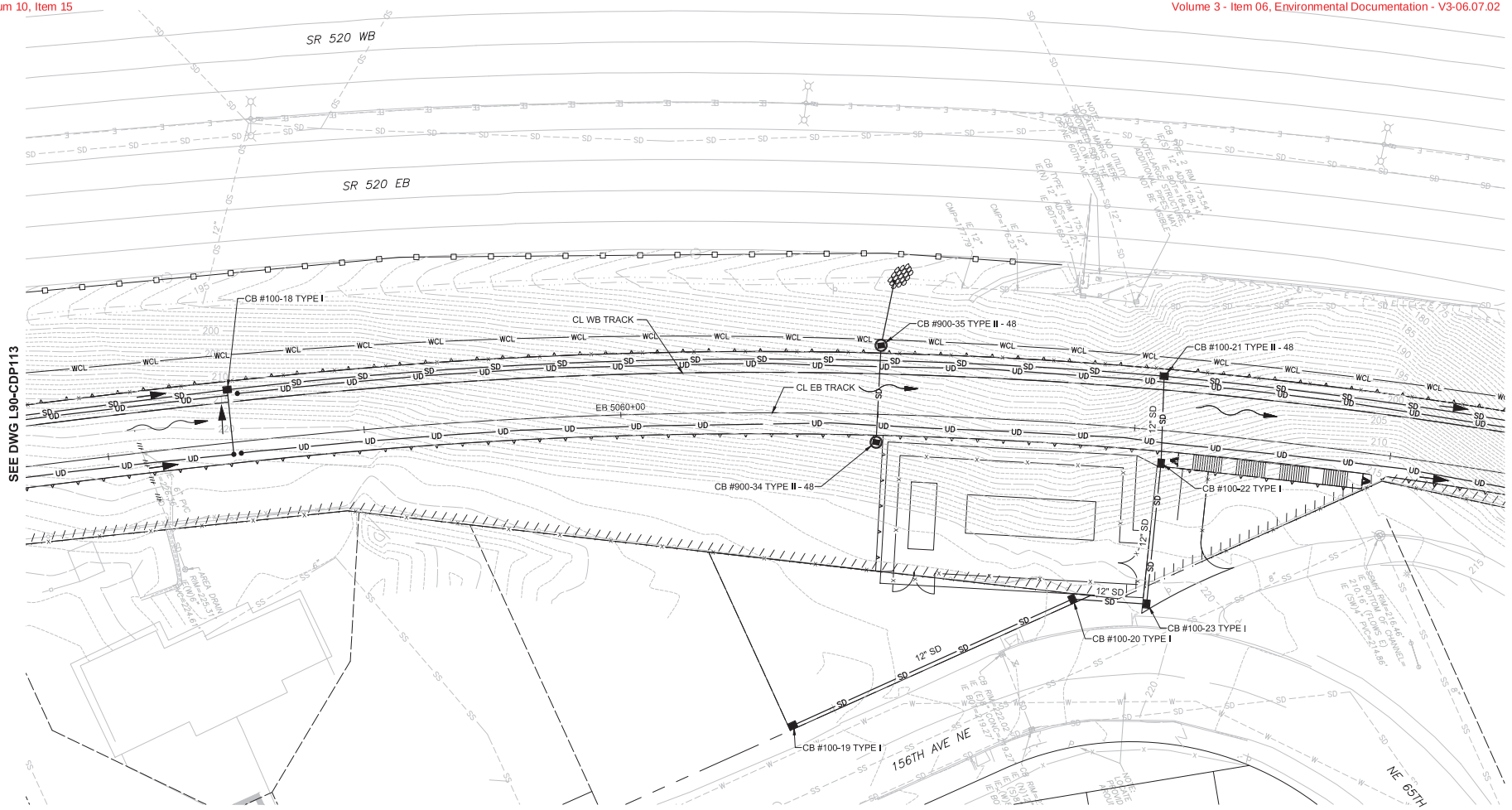
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

MARCUS CHRISTIAN RICH — STATE OF WASHINGTON — 49882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5058+00 TO EB STA 5063+00

DRAWING No.: L90-CDP114
LOCATION ID:
SHEET No.: 190
REV:

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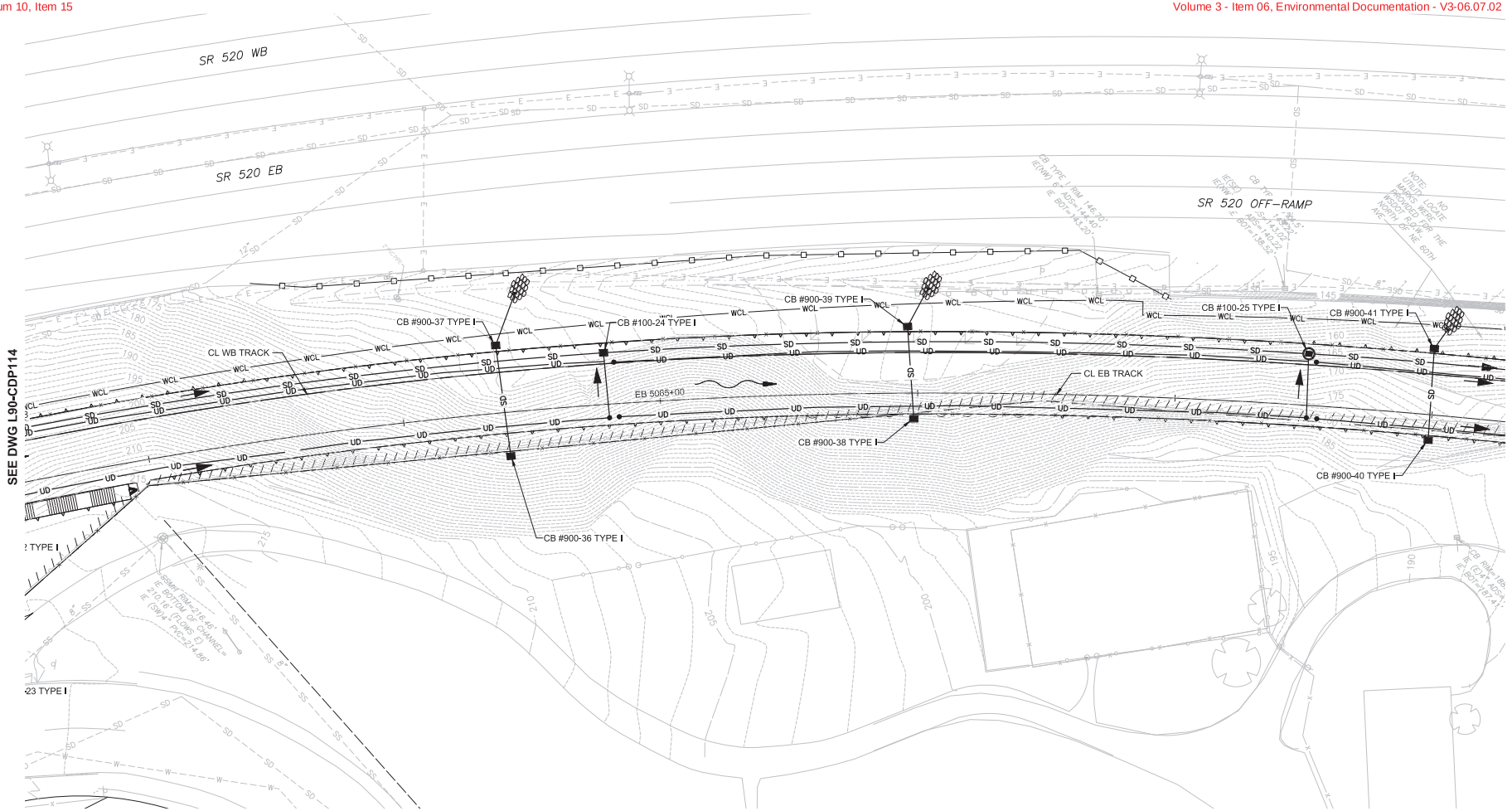
Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CWP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5063+00 TO EB STA 5068+00

DRAWING No.: L90-CDP115
LOCATION ID:
SHEET No.: 191
REV:

09/25/16 | 3:28 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CWP20
xE360-RLE-E27-USP20
xRLE-L95-VXG
xRLE-G05-VFP
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-G05-VXG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VXG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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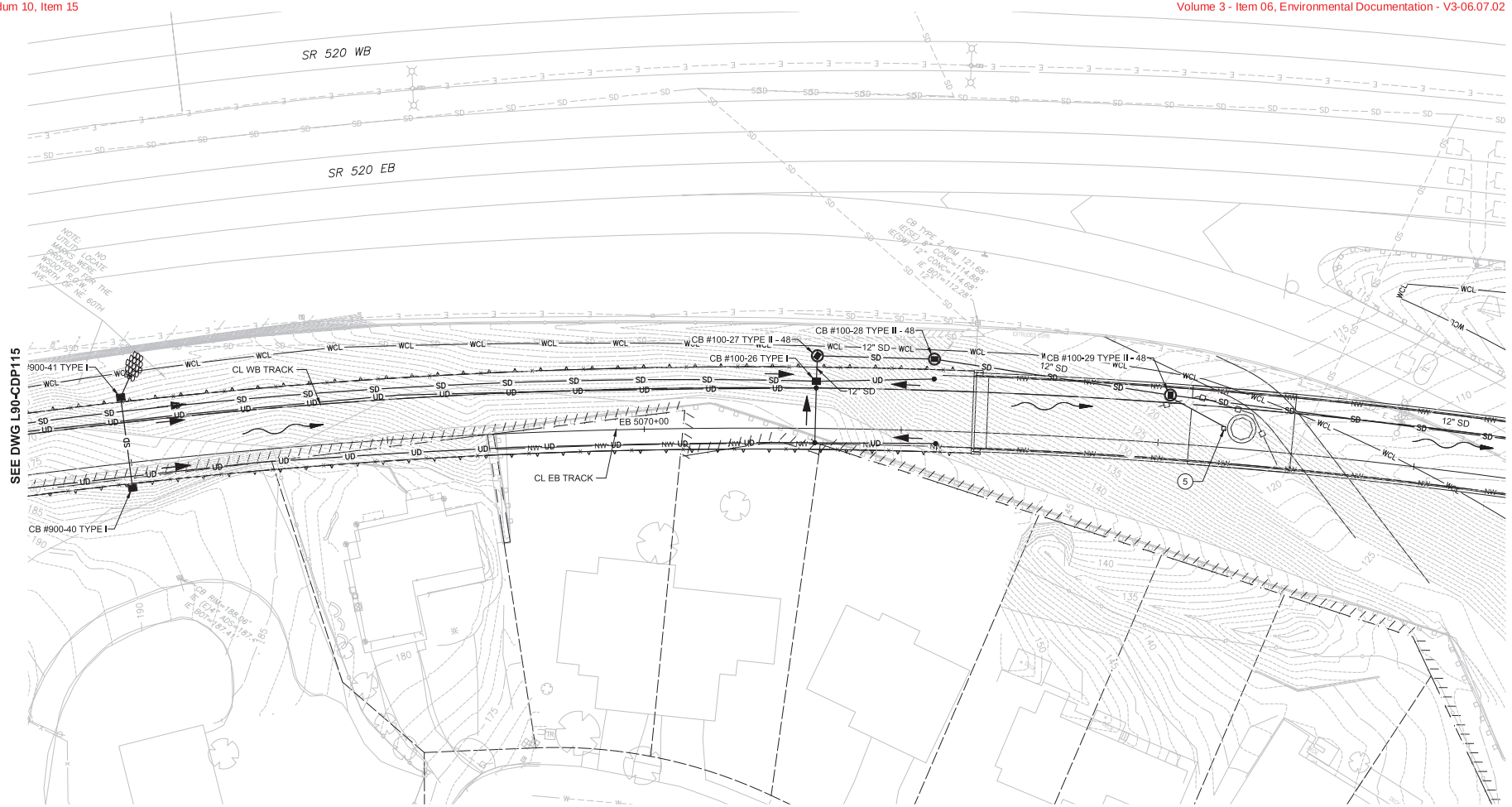
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5068+00 TO EB STA 5073+00

DRAWING No.: L90-CDP116
LOCATION ID:
SHEET No.: 192
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CWP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
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xRLE-L95-VSF
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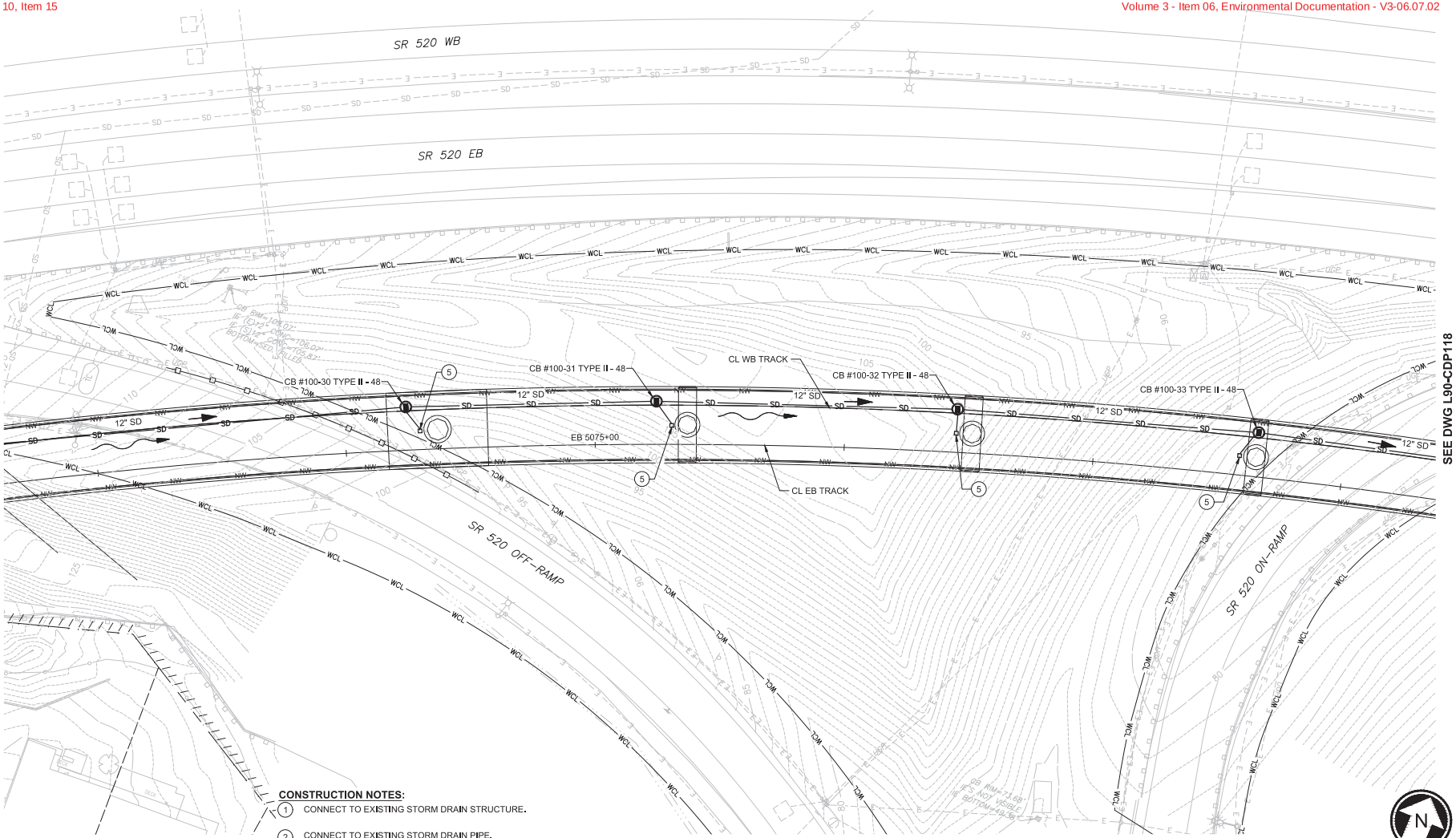

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JAMES C. CHRISTENSEN — STATE OF WASHINGTON — 36882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5073+00 TO EB STA 5078+00

DRAWING No.: L90-CDP117
LOCATION ID:
SHEET No.: 193
REV:

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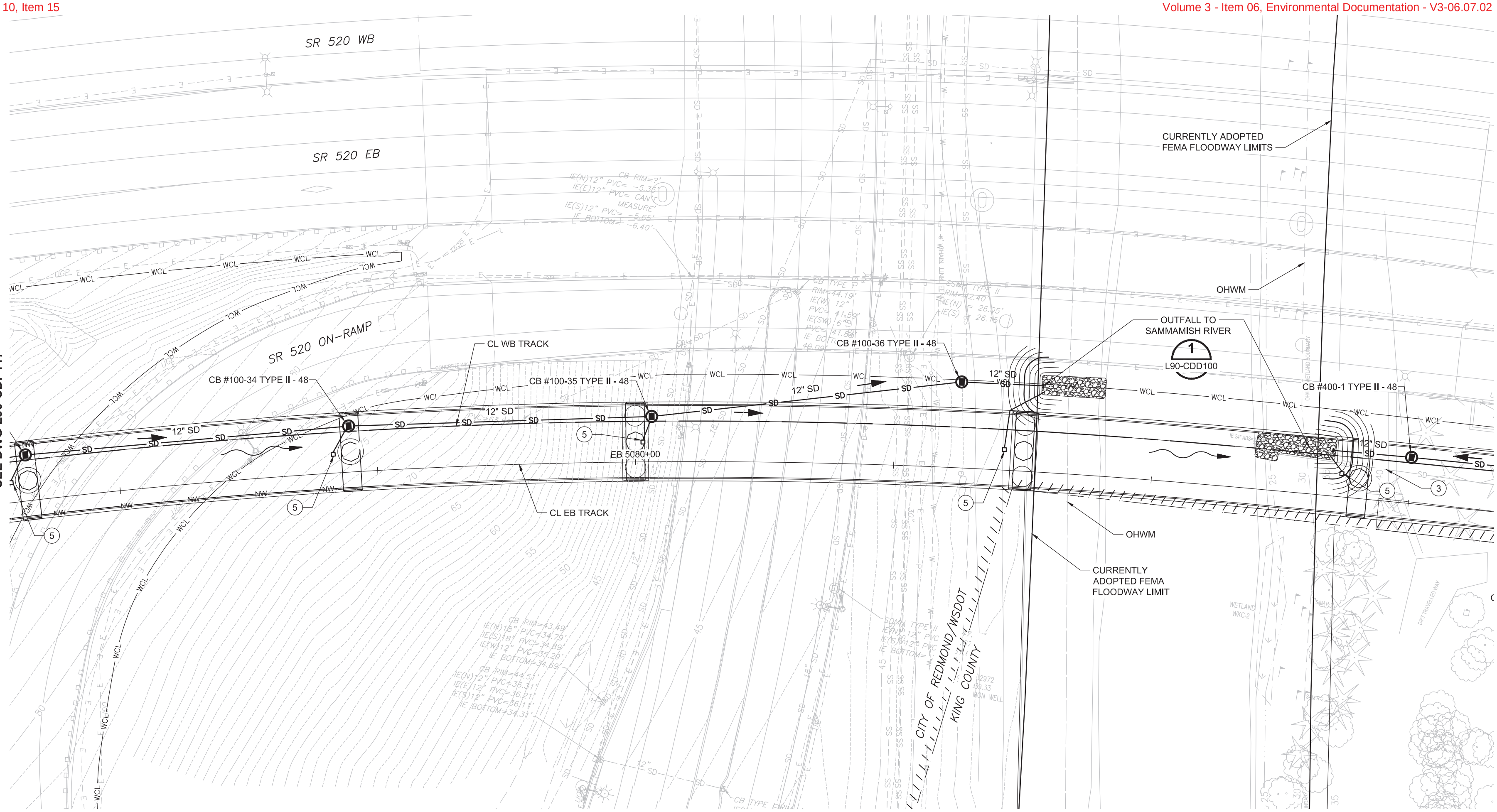

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5078+00 TO EB STA 5083+00

DRAWING No.: L90-CDP118
LOCATION ID:
SHEET No.: 194
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CWP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
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xRLE-E29-LPP100
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xRLE-L90-CWP100
xRLE-L90-CDP100
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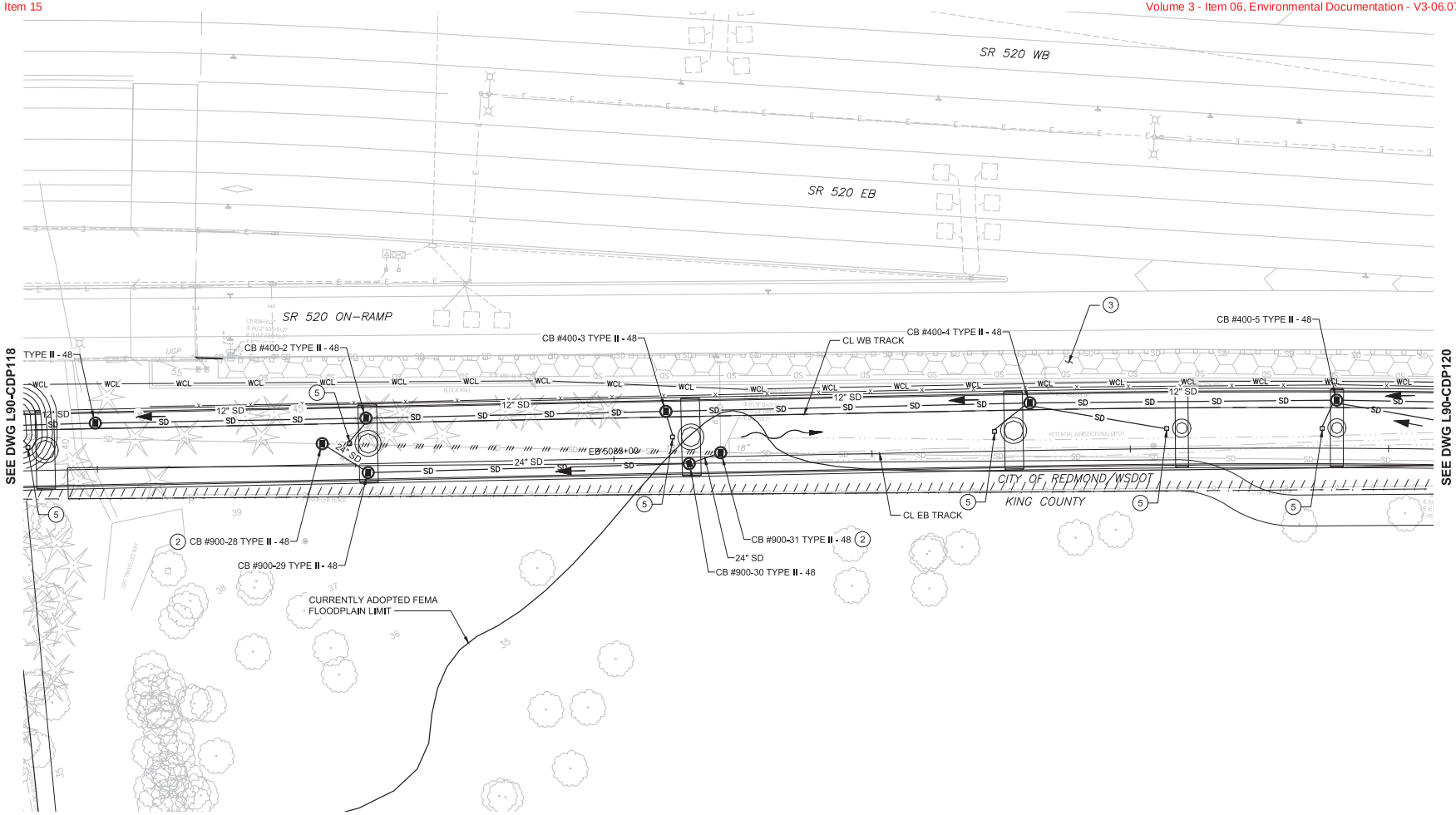

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE PETCH — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5083+00 TO EB STA 5088+00

DRAWING No.: L90-CDP119
LOCATION ID:
SHEET No.: 195
REV:

09/25/18 | 3:33 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-GS-VFP
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-GS-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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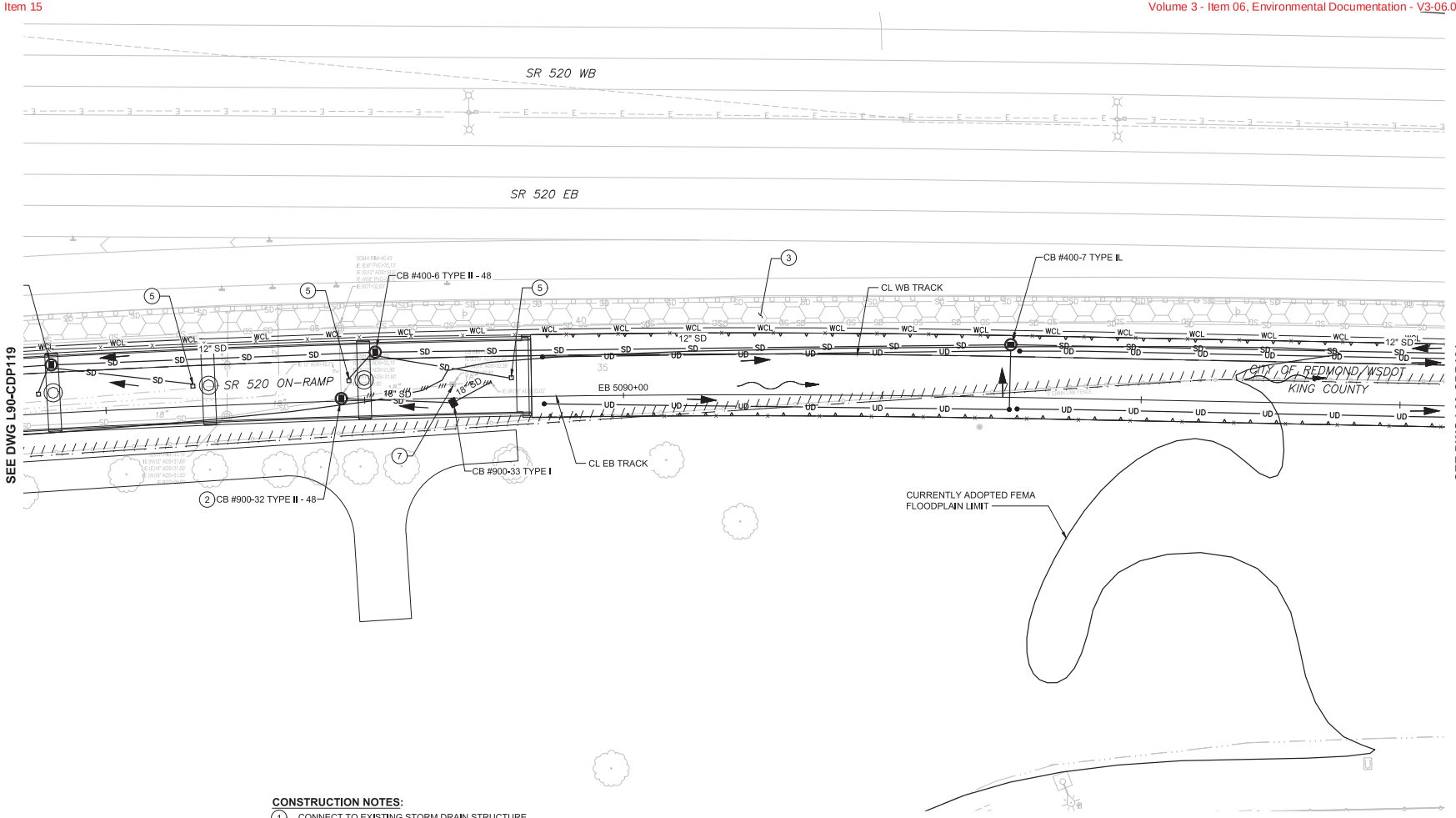
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5088+00 TO EB STA 5093+00

DRAWING No.: L90-CDP120
LOCATION ID:
SHEET No.: 196
REV:

09/25/18 | 3:35 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
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xRLE-L95-VUT
xRLE-E29-LPP100
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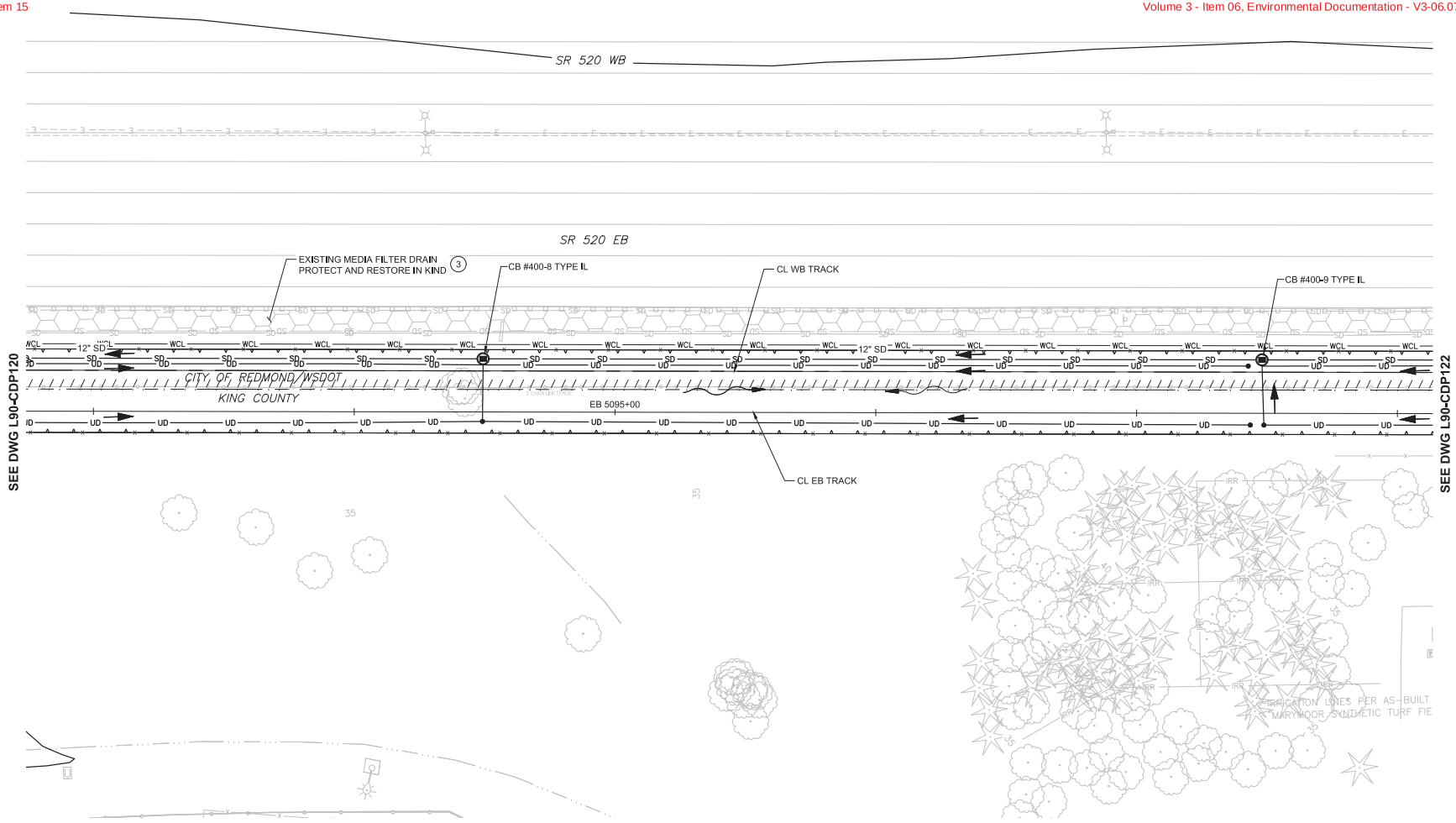
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

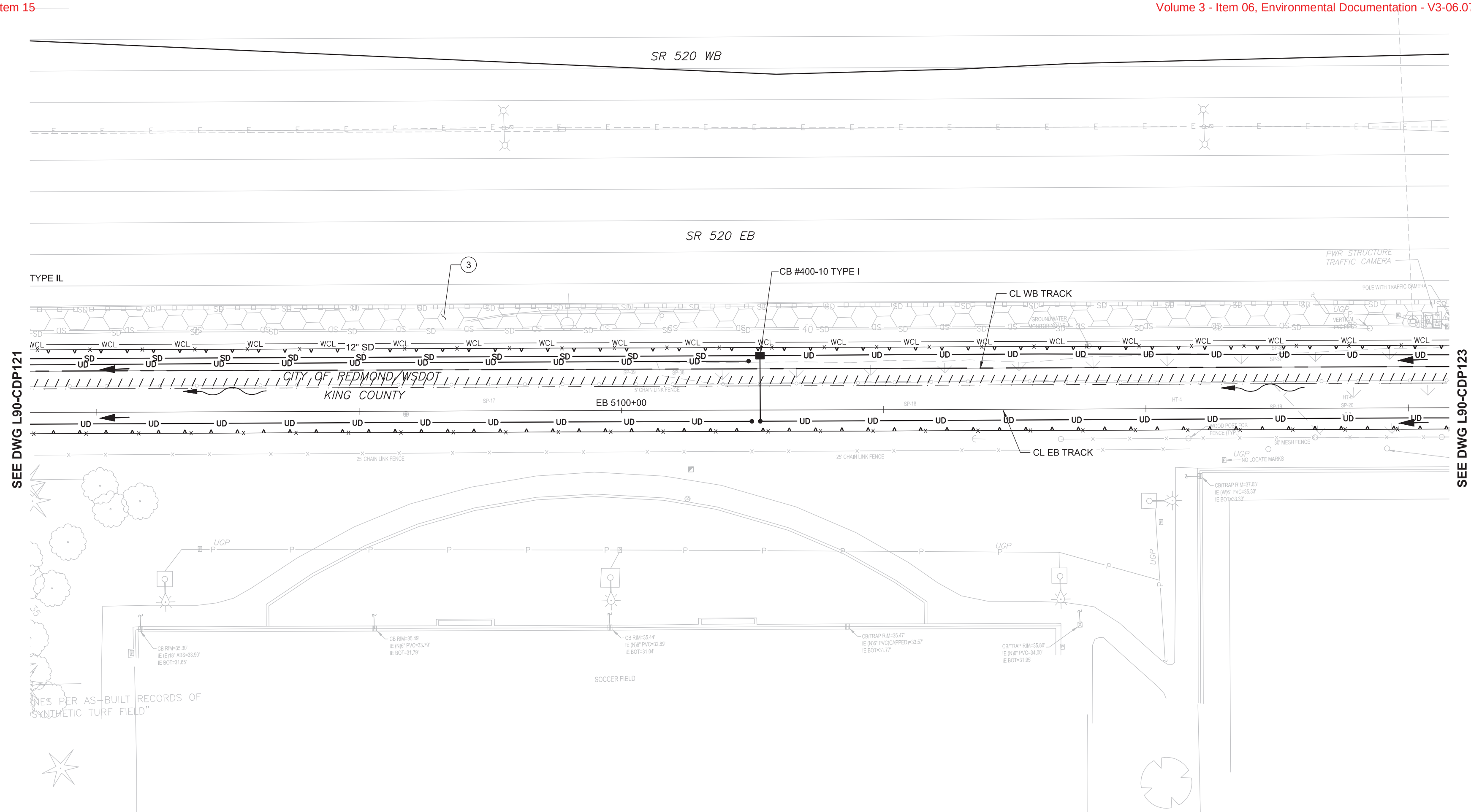
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5093+00 TO EB STA 5098+00

DRAWING No.: L90-CDP121
LOCATION ID:
SHEET No.: 197
REV:

09/25/18 | 3:36 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET (20 10 0 20 40)

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5098+00 TO EB STA 5103+00

DRAWING No.: L90-CDP122
LOCATION ID:
SHEET No.: 198
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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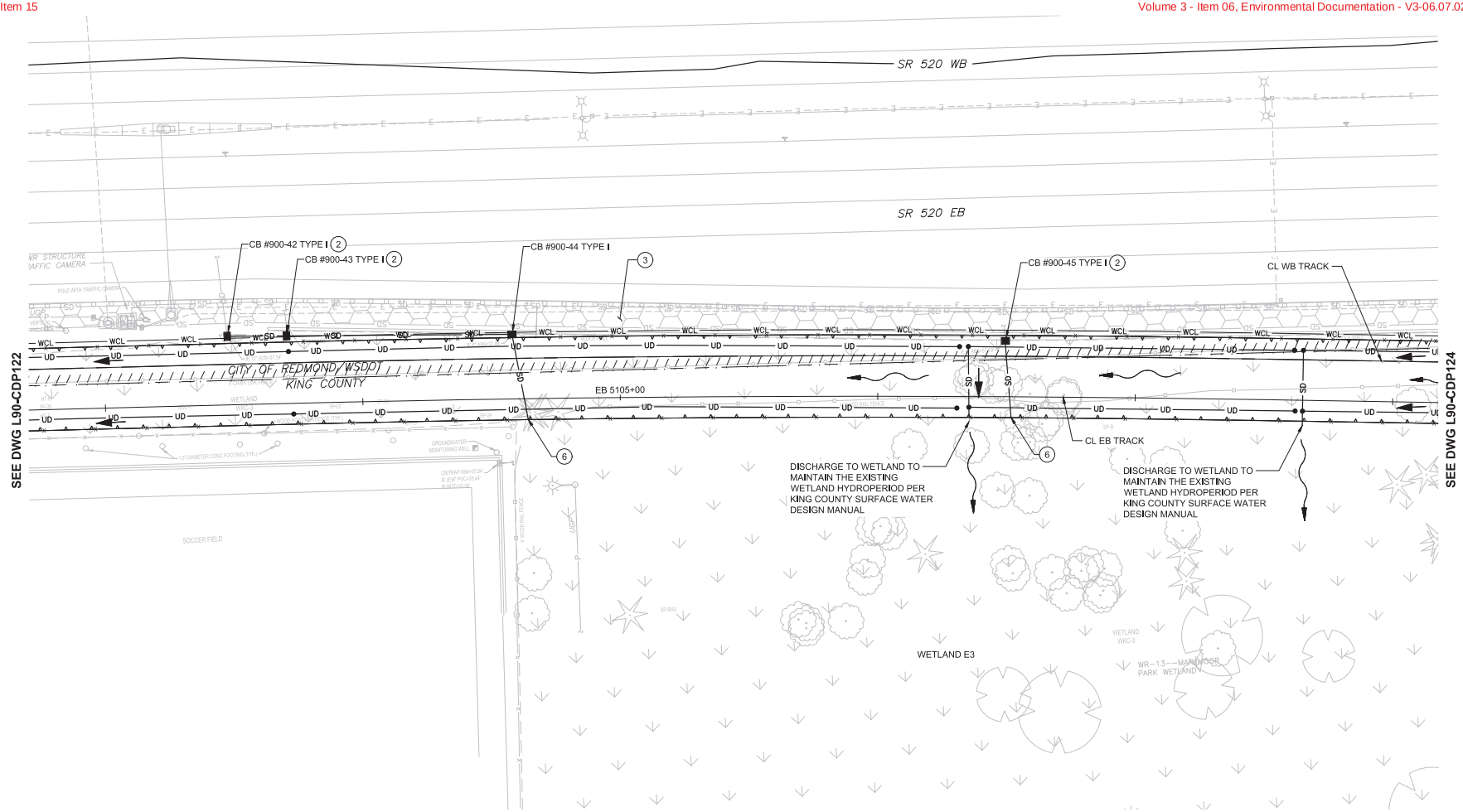
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
6. EXTEND EXISTING SR520 OUTFALL BENEATH GUIDEWAY TO WETLAND.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

MICHELLE CHRISTINE FITCH — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5103+00 TO EB STA 5108+00

DRAWING No.: L90-CDP123
LOCATION ID:
SHEET No.: 199
REV:

09/25/16 | 3:39 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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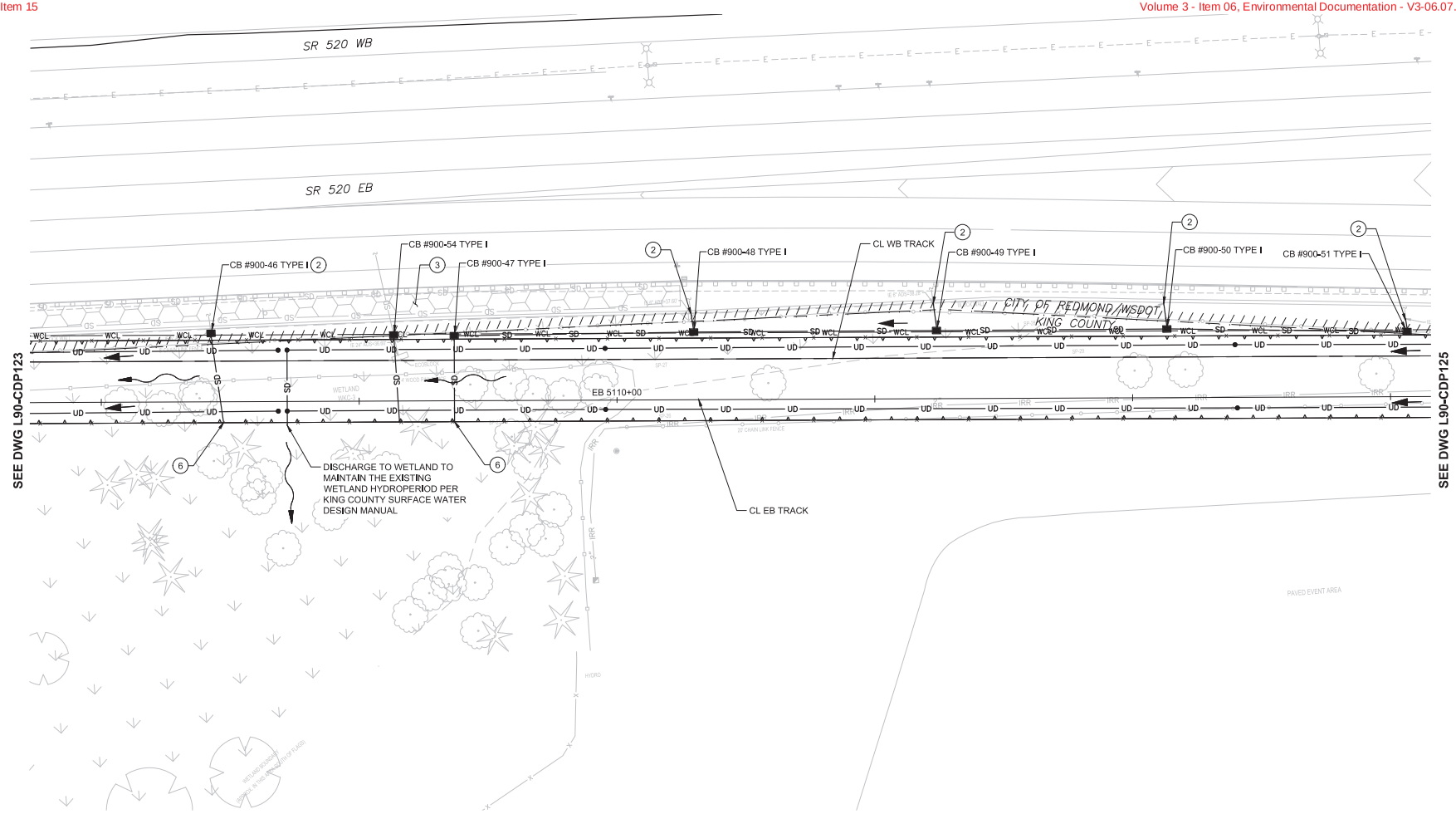
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
6. EXTEND EXISTING SR250 OUTFALL BENEATH GUIDEWAY TO WETLAND.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5108+00 TO EB STA 5113+00

DRAWING No.: L90-CDP124
LOCATION ID:
SHEET No.: 200
REV:

09/25/18 | 3:40 PM | TYLERJ
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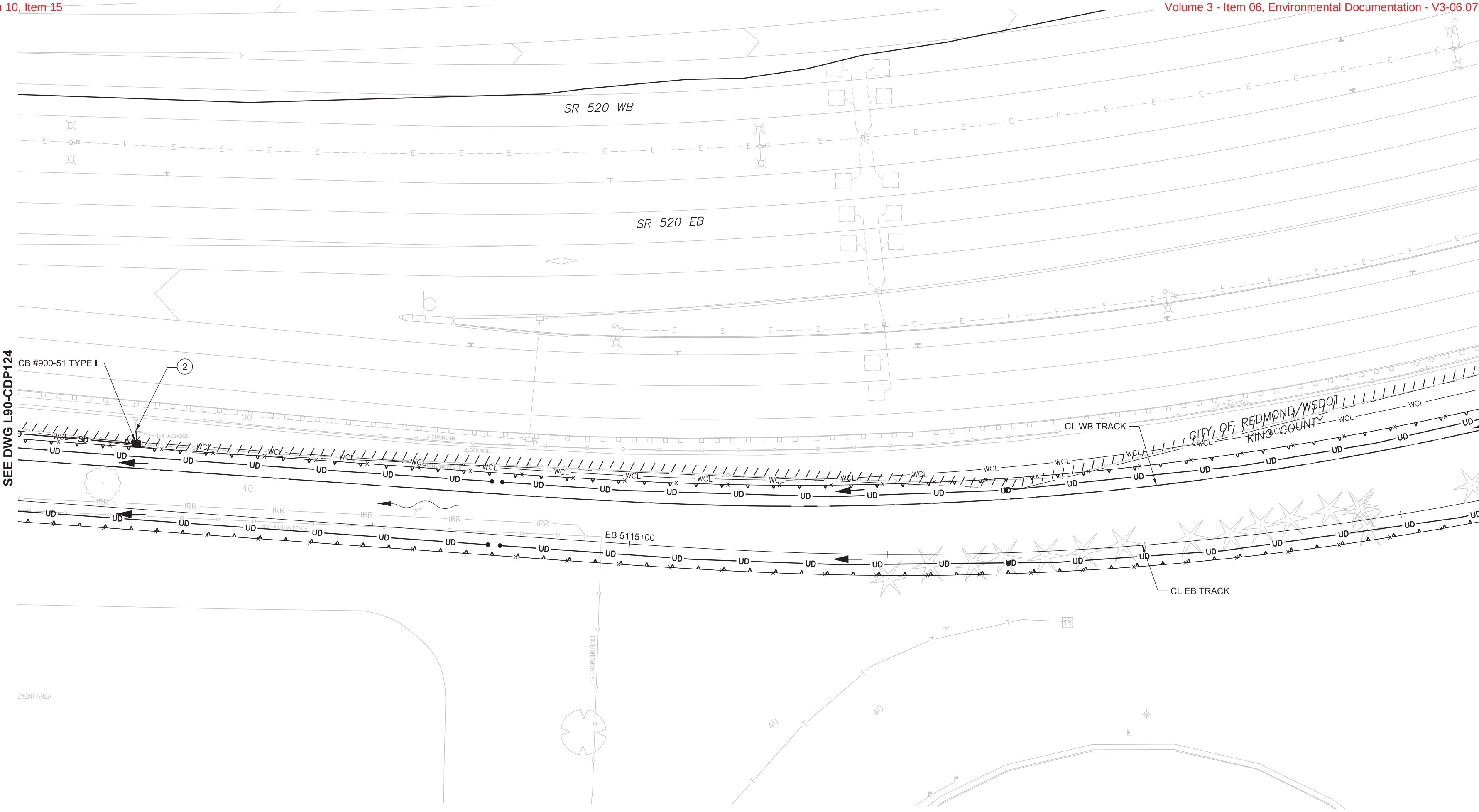

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5113+00 TO EB STA 5118+00

DRAWING No.: L90-CDP125
LOCATION ID:
SHEET No.: 201
REV:

09/25/18 | 3:41 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
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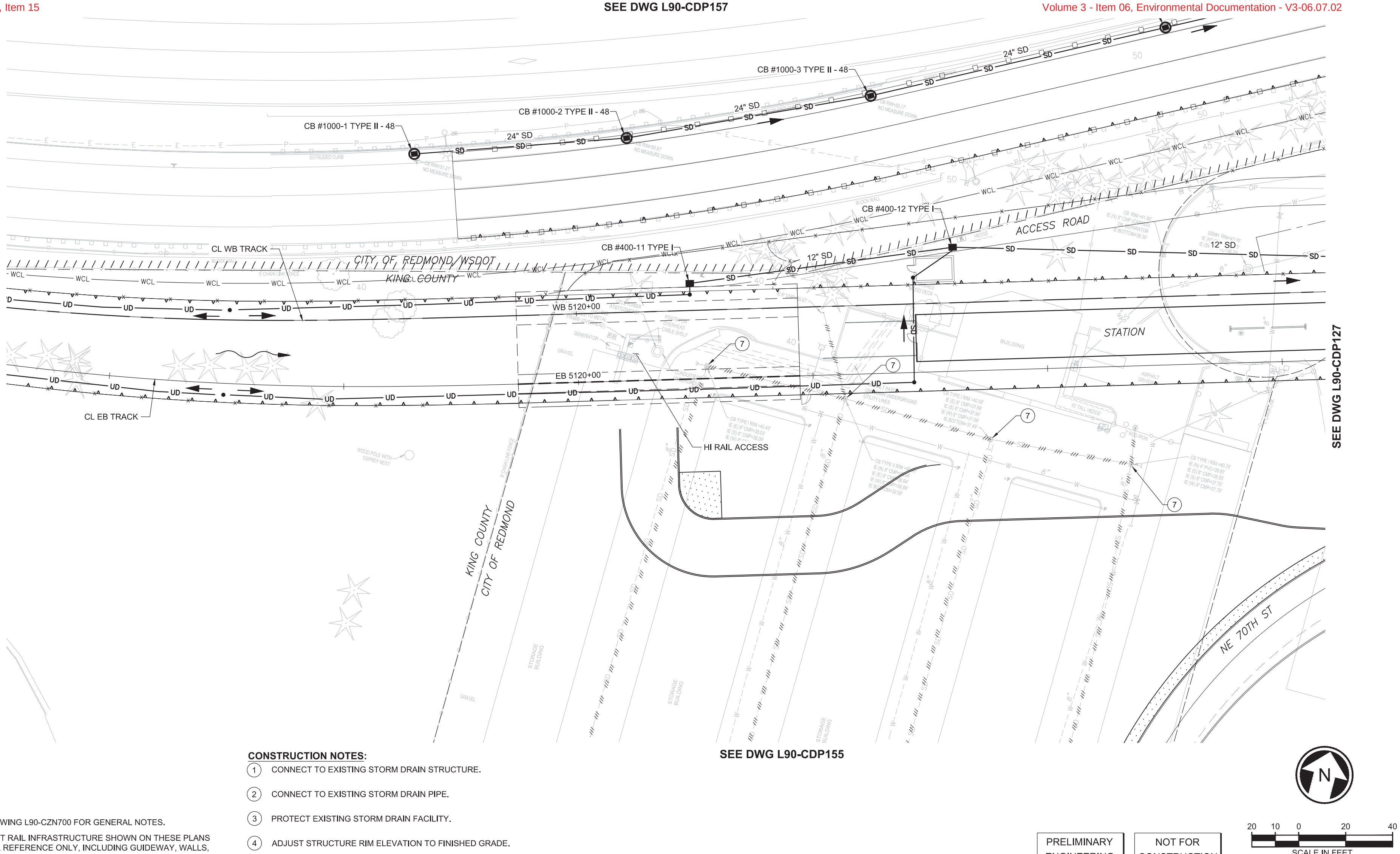
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 36038 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5118+00 TO EB STA 5123+00

DRAWING No.: L90-CDP126
LOCATION ID:
SHEET No.: 202
REV:

09/25/18 | 3:43 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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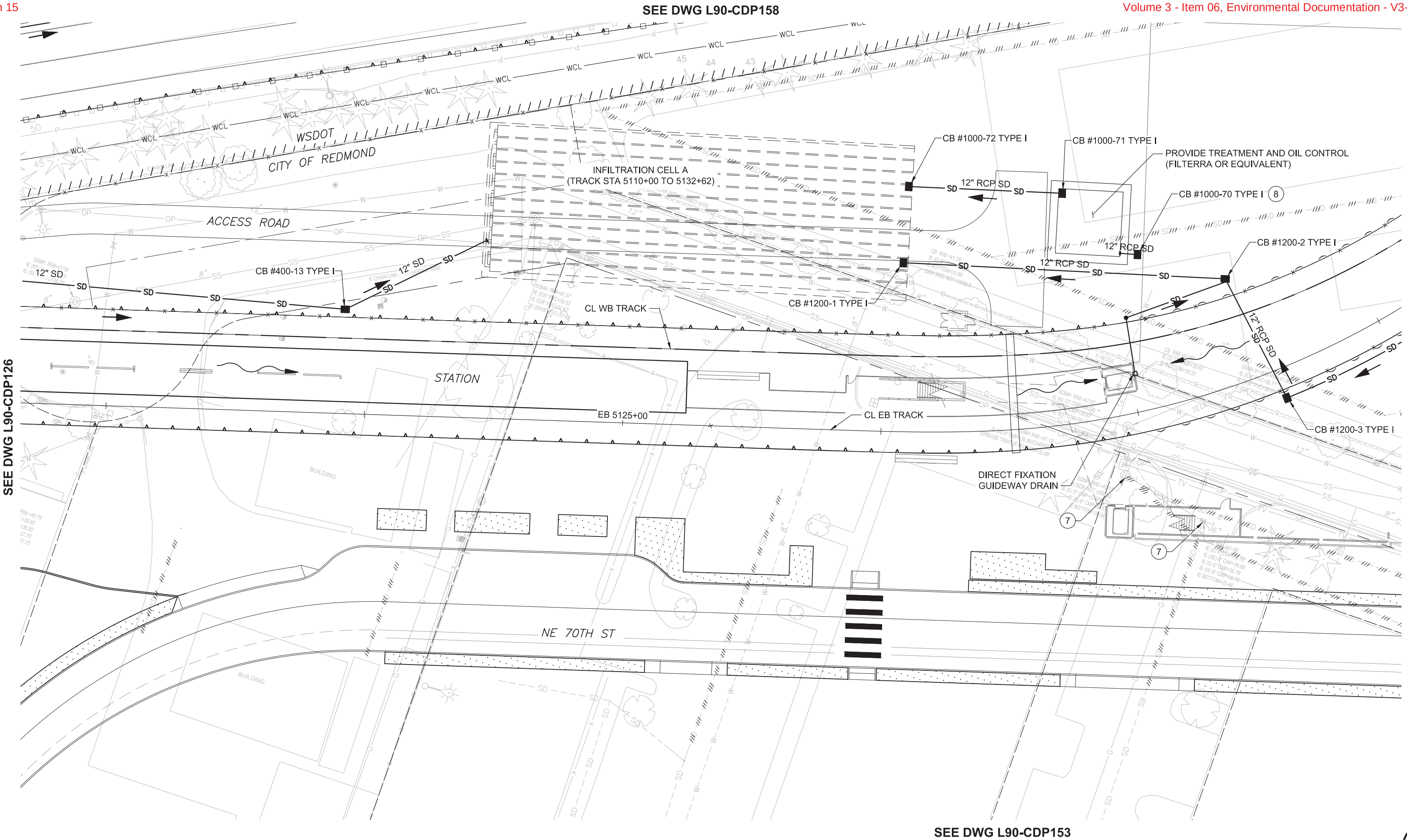
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
7. REMOVE EXISTING CATCH BASIN.
8. CONNECT TO GARAGE DRAIN

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5123+00 TO EB STA 5127+50

DRAWING No.: L90-CDP127
LOCATION ID:
SHEET No.: 203
REV:

09/25/18 | 3:44 PM | TYLERJ
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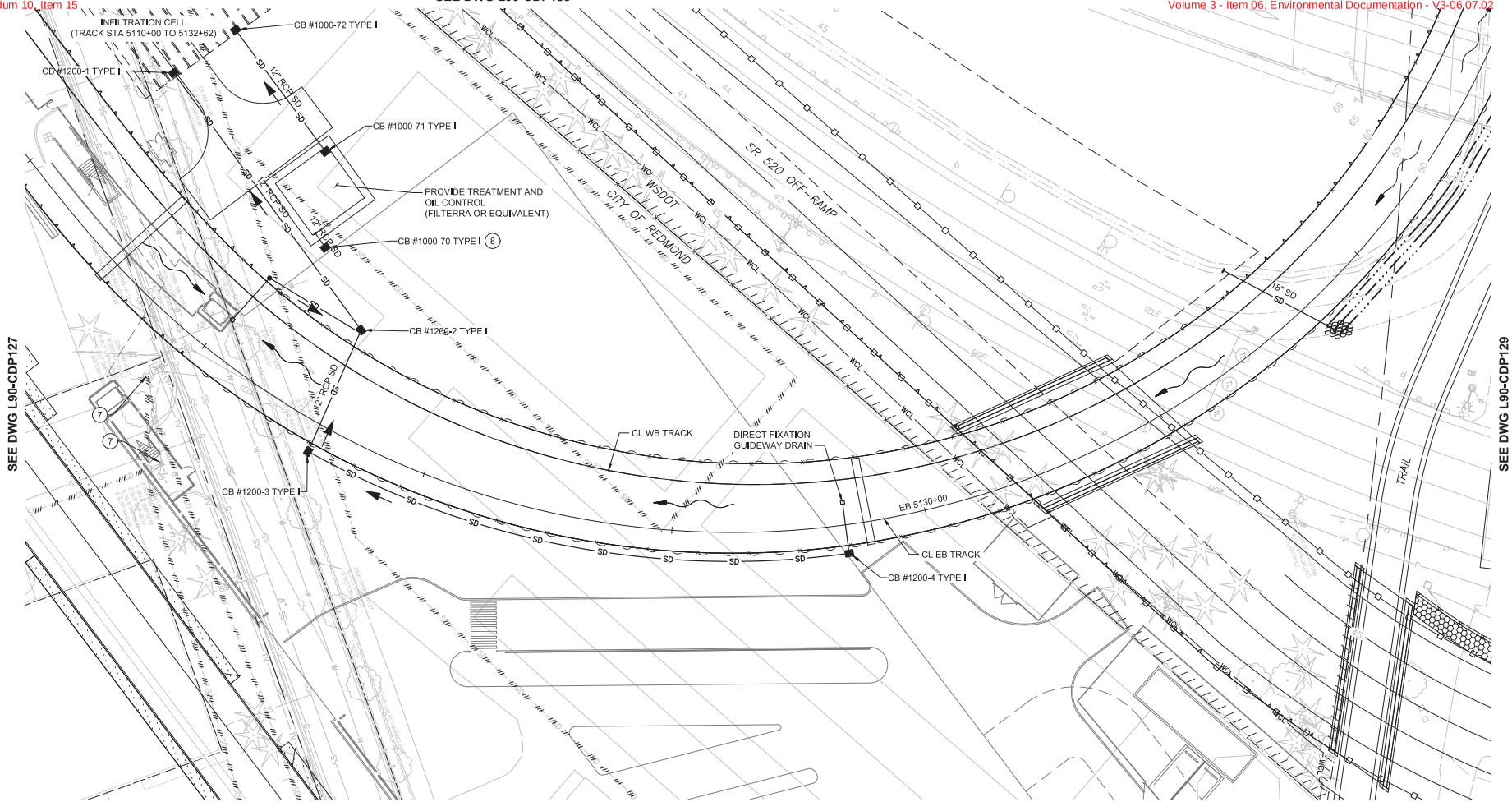
Xrefs: RLE-GB-TB22x34 xRLE-L90-SEP100 xRLE-L90-CRP100 xRLE-L90-SWP100 xRLE-L90-KAP100 xRLE-E31-ASP100 xE360-RLE-E27-CSP200 xE360-RLE-E27-CMP200 xE360-RLE-E27-USP200 xRLE-L95-VWG xRLE-GIS-VFP xRLE-GIS-VSF xRLE-GIS-VUT xRLE-GIS-VWG xRLE-L90-VCP xRLE-L90-VRX xRLE-L90-VSF xRLE-L90-VUT xRLE-L90-VWG xRLE-L95-VSF xRLE-L95-VUT xRLE-E29-LPP100 xRLE-L90-VCN xRLE-L95-VCN xRLE-L90-CWP100 xRLE-L90-CDP100 xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
7. REMOVE EXISTING CATCH BASIN.
8. CONNECT TO GARAGE DRAIN

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5127+50 TO EB STA 5131+00

DRAWING No.: L90-CDP128
LOCATION ID:
SHEET No.: 204
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
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xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100

09/25/18 | 3:45 PM | TYLERJ
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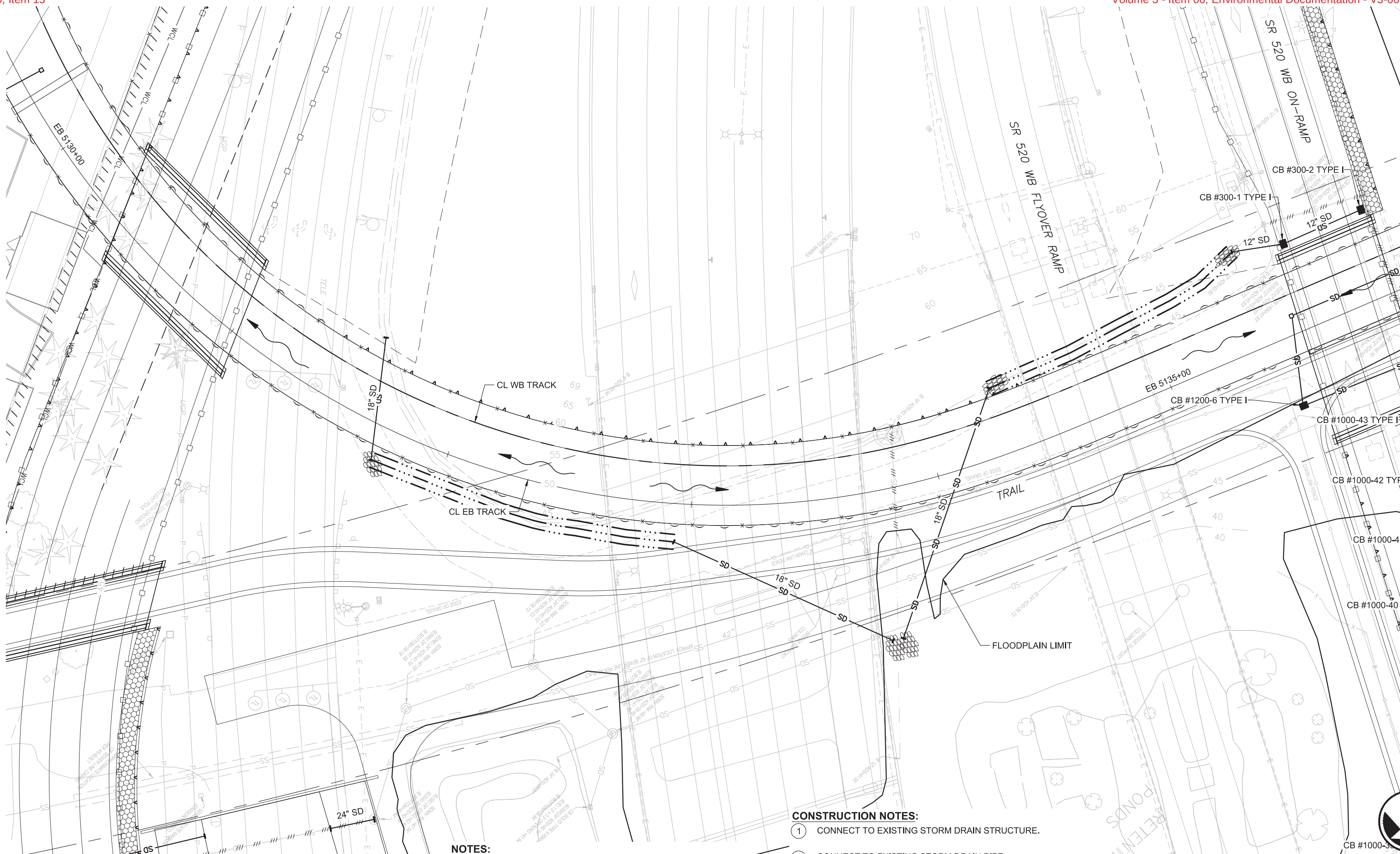

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
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DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

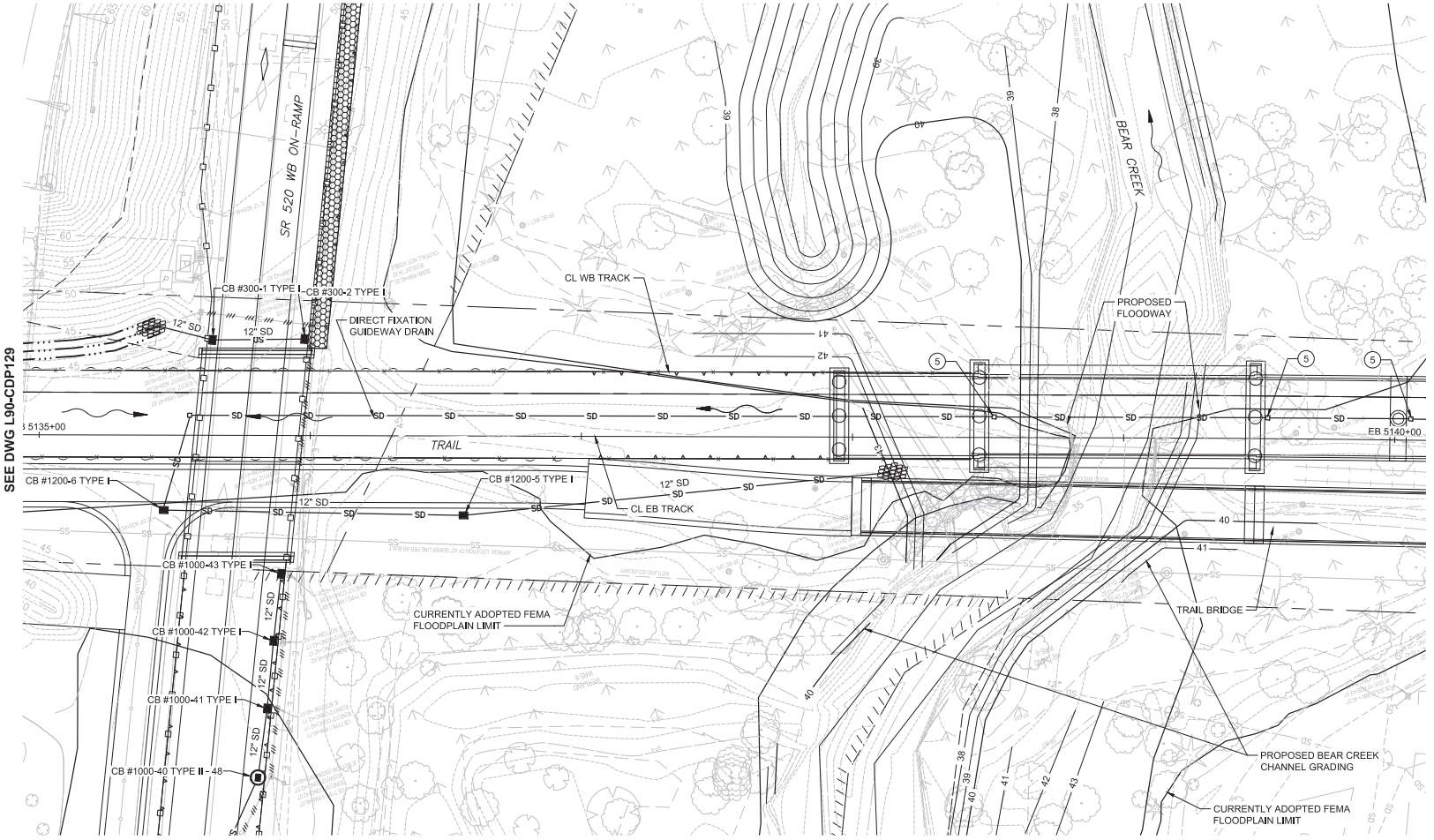
REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5131+00 TO EB STA 5135+50

DRAWING No.: L90-CDP129
LOCATION ID:
SHEET No.: 205
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100

SEE DWG L90-CDP159
SEE DWG L90-CDP129
SEE DWG L90-CDP131
SEE DWG L90-CDP143
SEE DWG L90-CDP142



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

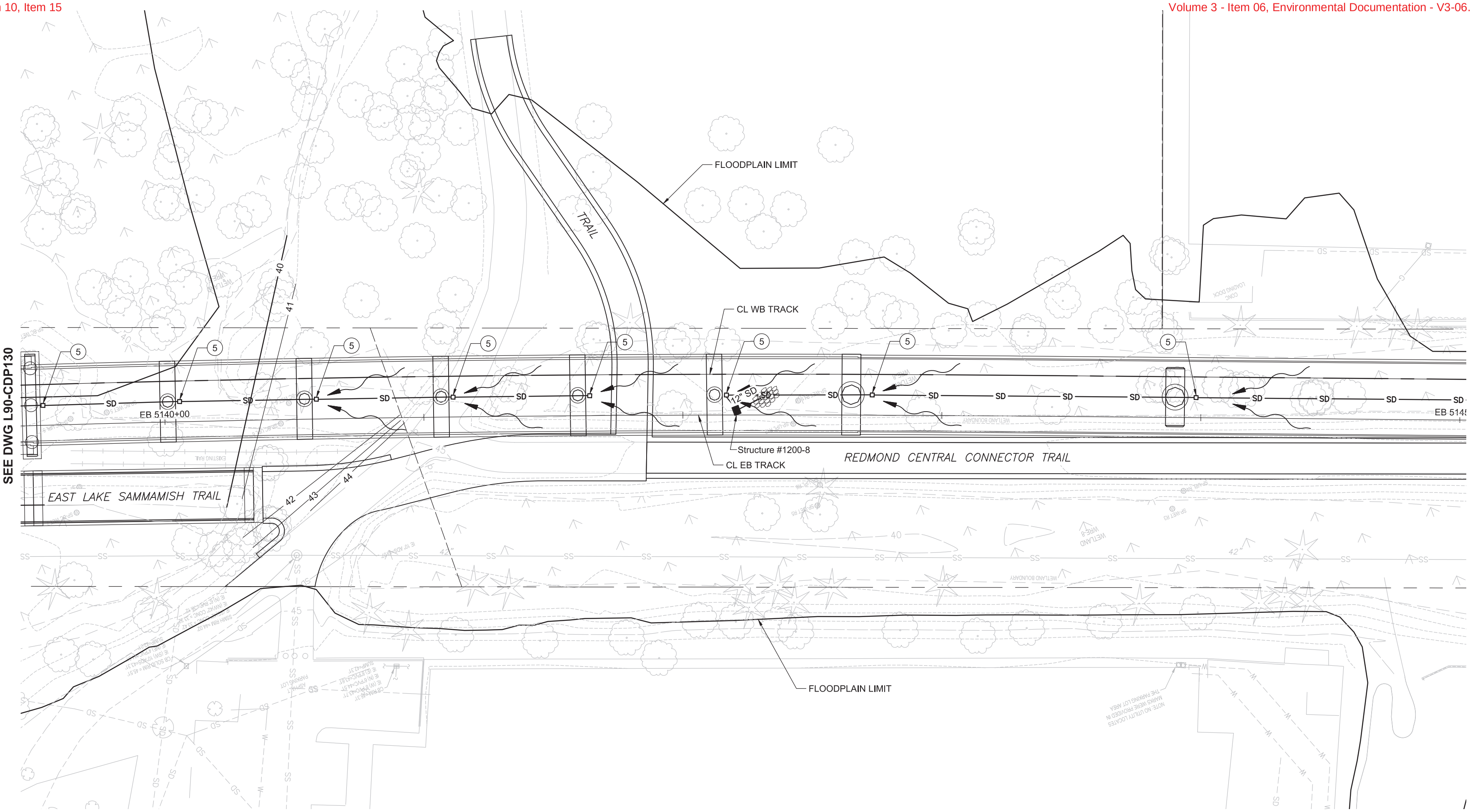
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5135+50 TO EB STA 5140+00

DRAWING No.: L90-CDP130
LOCATION ID:
SHEET No.: 206
REV:

11/08/18 | 2:55 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



NOTES:

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CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

(5) INSTALL AERIAL GUIDEWAY DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
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APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: L90-CDP131
LOCATION ID:
SHEET No.: 207
REV:

11/08/18 | 2:57 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
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xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
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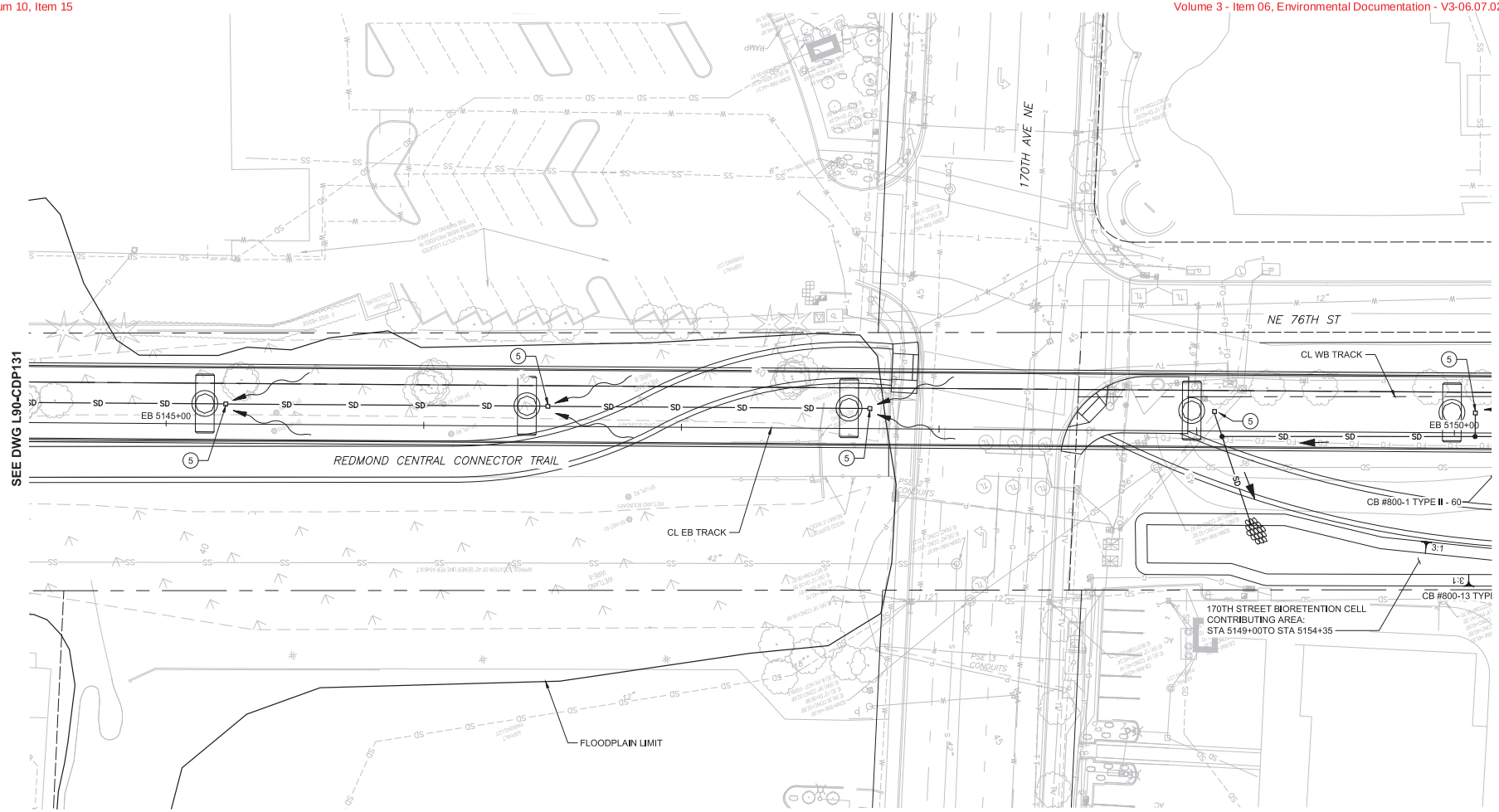

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE PETCH — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5145+00 TO EB STA 5150+00

DRAWING No.: L90-CDP132
LOCATION ID:
SHEET No.: 208
REV:

09/25/18 | 3:51 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VXG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VXG
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xRLE-L90-VRX
xRLE-L90-VSF
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xRLE-E29-LPP100
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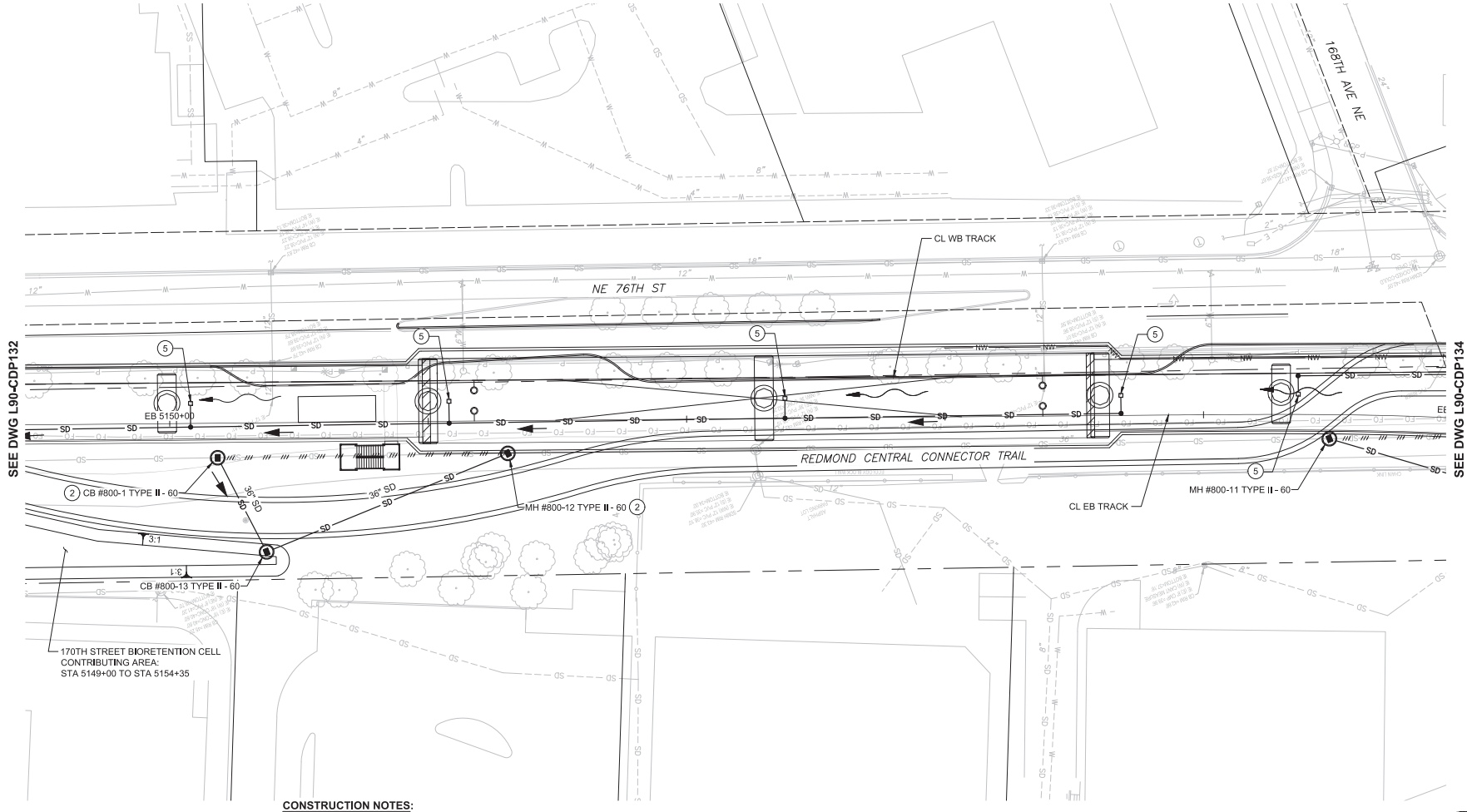
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

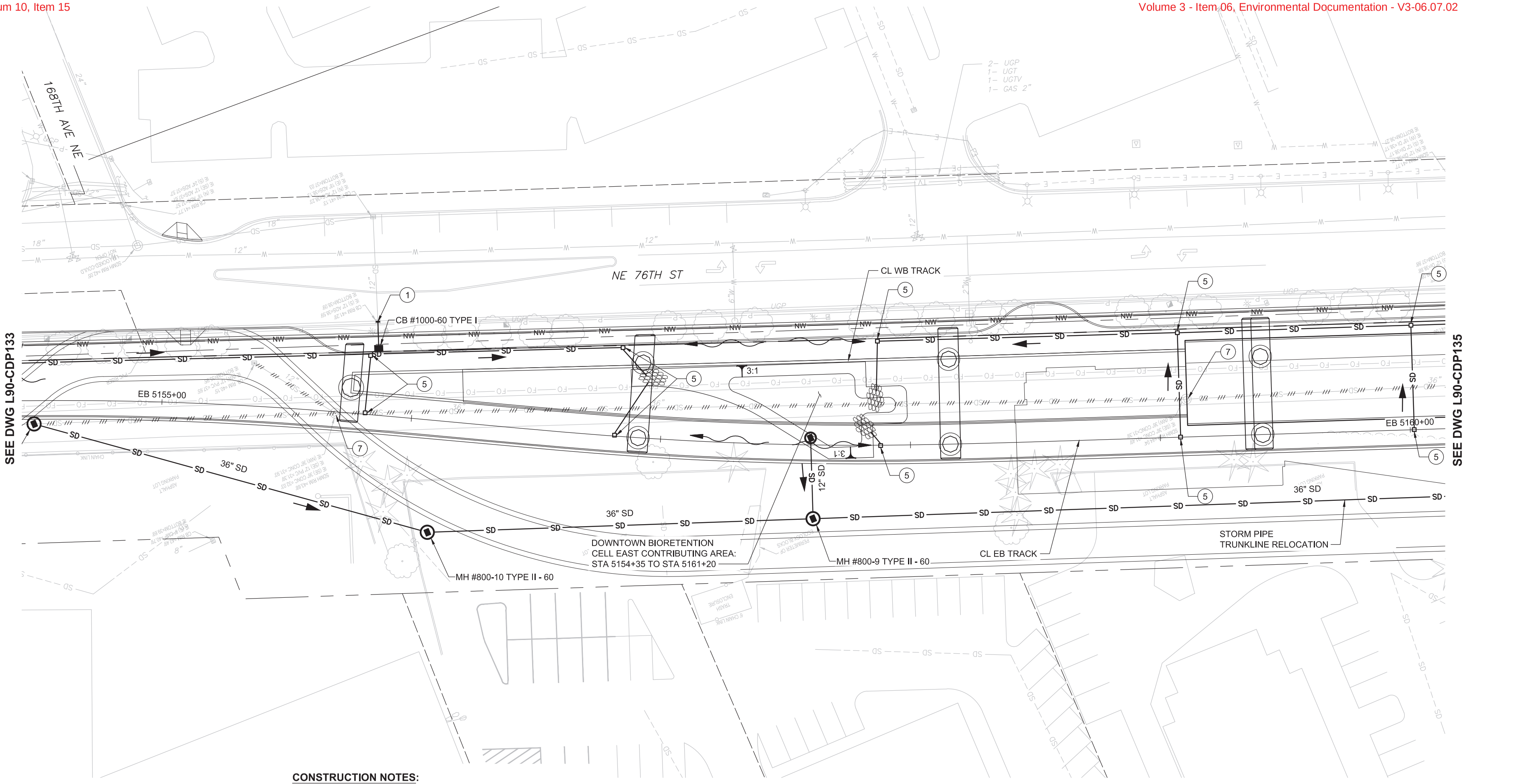
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5150+00 TO EB STA 5155+00

DRAWING No.: L90-CDP133
LOCATION ID:
SHEET No.: 209
REV:

09/25/16 | 3:52 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443%SITES%CAD%REDMOND LINK EXTENSION%PE DRAWING%RLE-L90-CDP100TO162.DWG



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

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2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

SCALE IN FEET: 20 10 0 20 40

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5155+00 TO EB STA 5160+00

DRAWING No.: L90-CDP134
LOCATION ID:
SHEET No.: 210
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G5-VFP
xRLE-G5-VSF
xRLE-G5-VUT
xRLE-G5-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
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xRLE-L90-VVG
xRLE-L95-VSF
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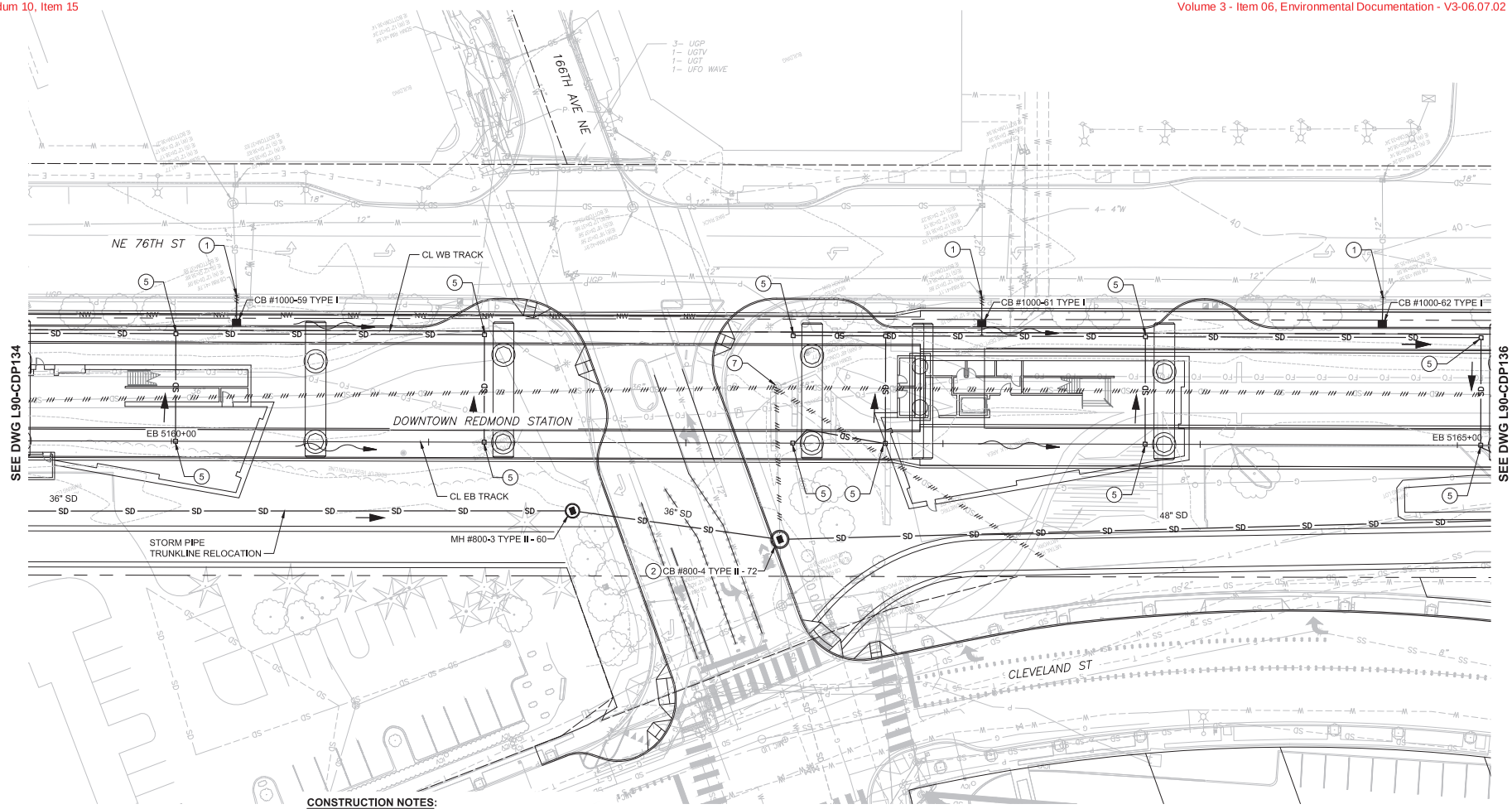

CONSTRUCTION NOTES:

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4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. INSTALL AERIAL GUIDEWAY DRAIN.
7. REMOVE EXISTING CATCH BASIN.

NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
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APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

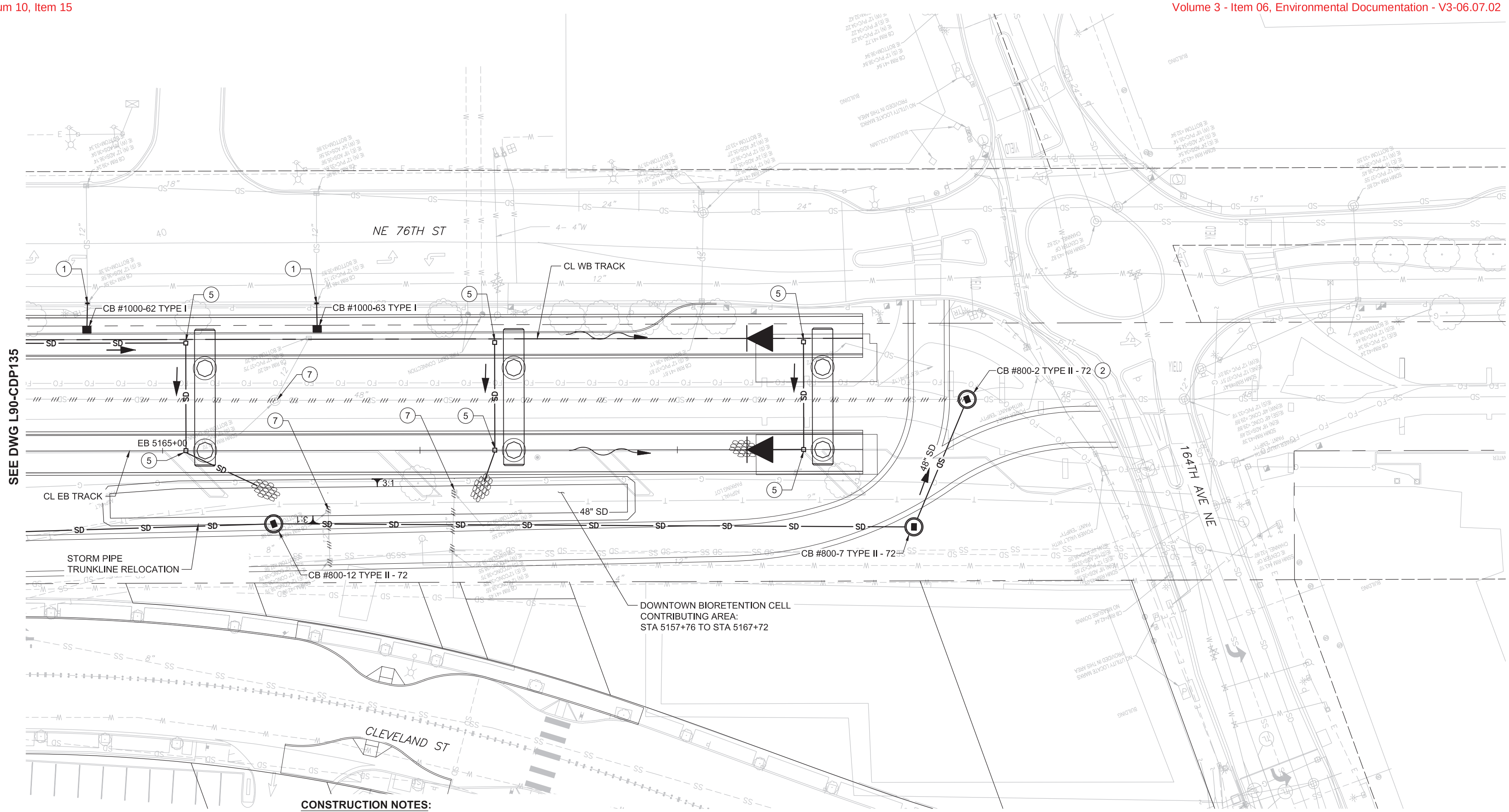
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
EB STA 5160+00 TO EB STA 5165+00

DRAWING No.: L90-CDP135
LOCATION ID:
SHEET No.: 211
REV:

10/19/18 1:30 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ-HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
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DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 36036 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
EB STA 5165+00 TO EB STA 5167+72

DRAWING No.: L90-CDP136
LOCATION ID:
SHEET No.: 212
REV:

09/25/18 | 3:56 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\43\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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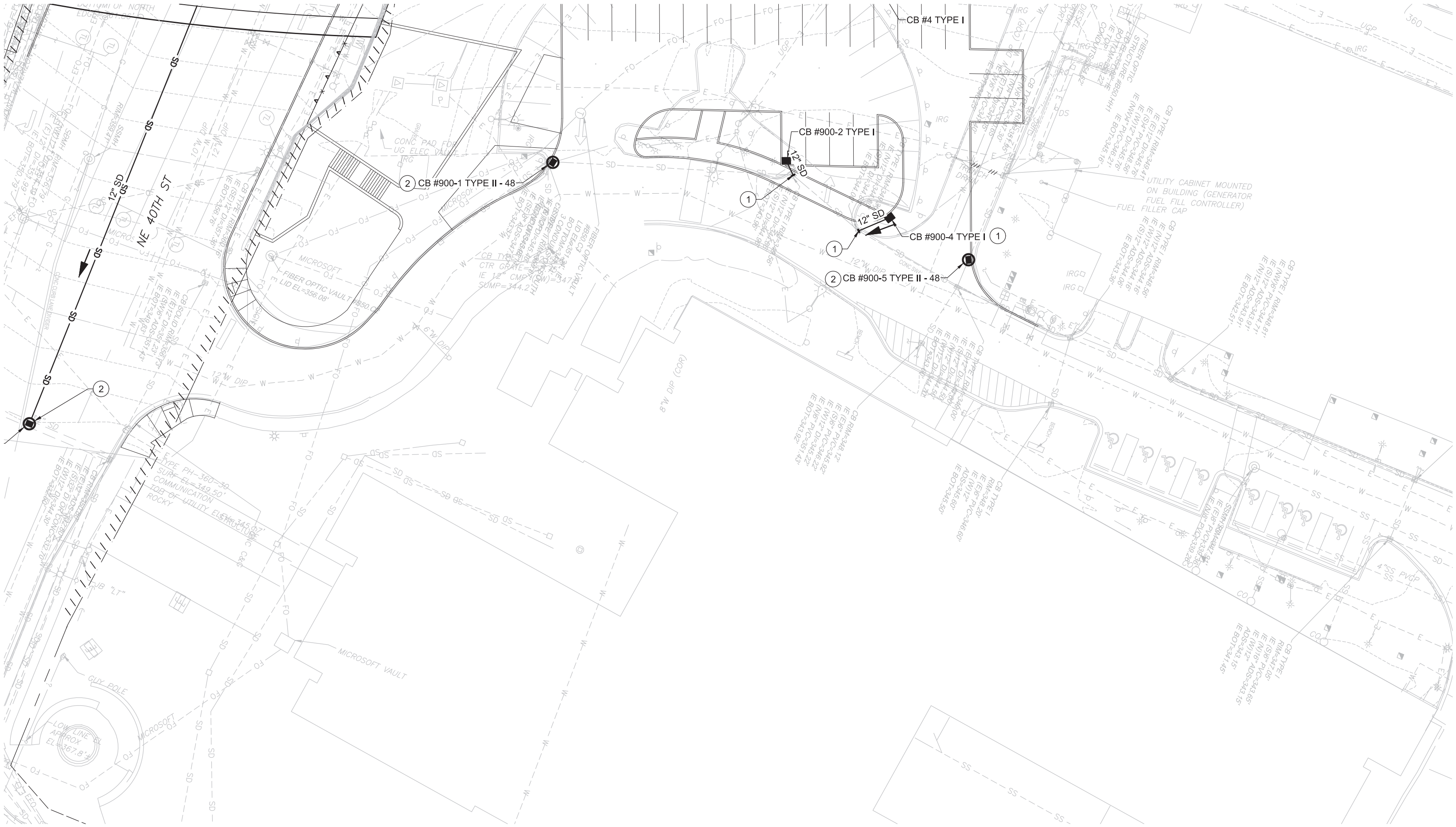
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100



CONSTRUCTION NOTES:

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FINAL

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JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
MICROSOFT BLDG 50

DRAWING No.: L90-CDP137
LOCATION ID:
SHEET No.: 213
REV:

09/25/18 | 3:58 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
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xRLE-L90-VSF
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xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

SEE DWG L90-CDP102

SEE DWG L90-CDP137

SEE DWG L90-CDP139

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
MICROSOFT BLDG 50 PARKING GARAGE

DRAWING No.: L90-CDP138
LOCATION ID:
SHEET No.: 214
REV:

09/25/18 | 3:59 PM | TYLERJ
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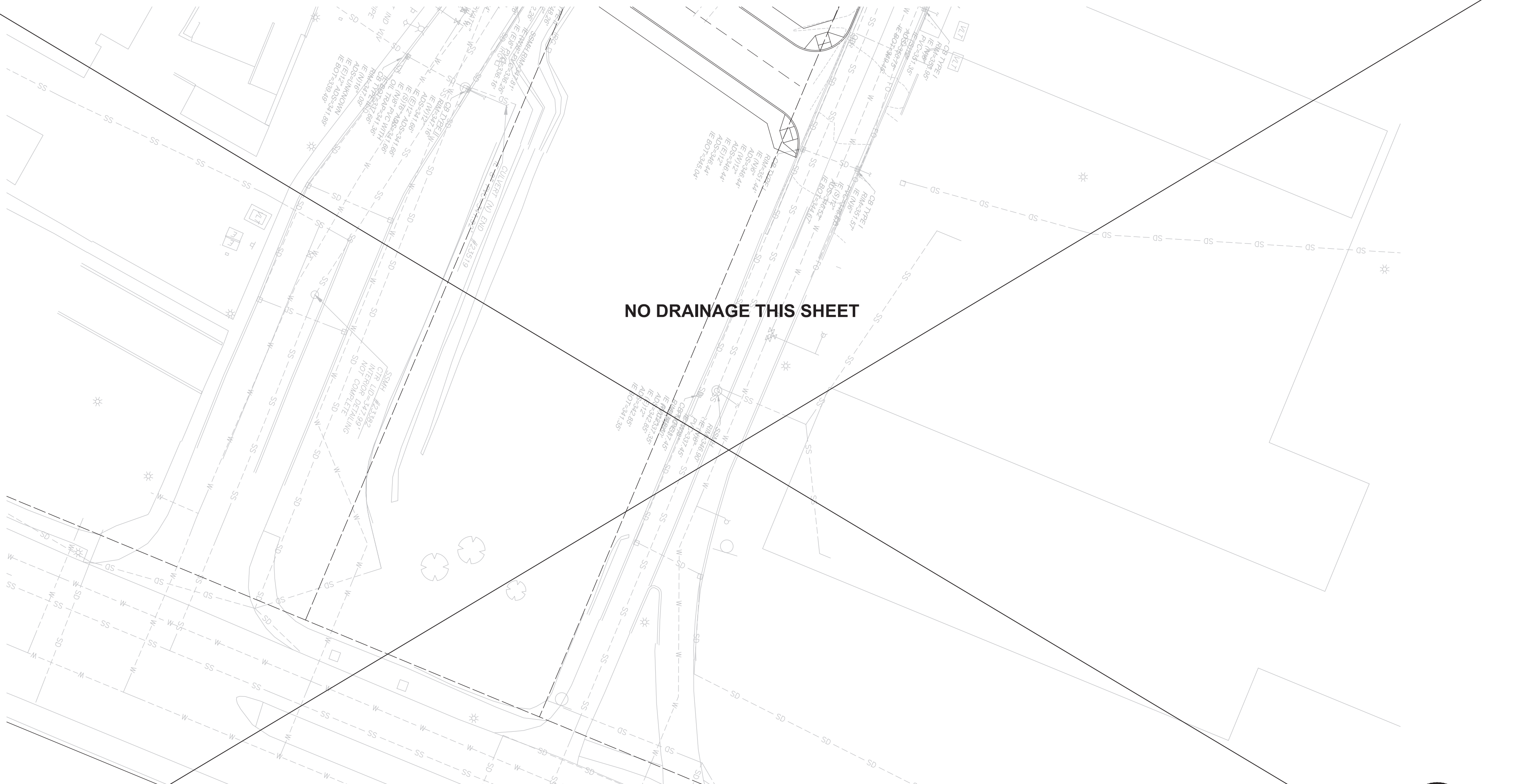
Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

SEE DWG L90-CDP138



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
156TH AVE NE

DRAWING No.: L90-CDP139
LOCATION ID:
SHEET No.: 215
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

09/25/18 | 4:00 PM | TYLERJ
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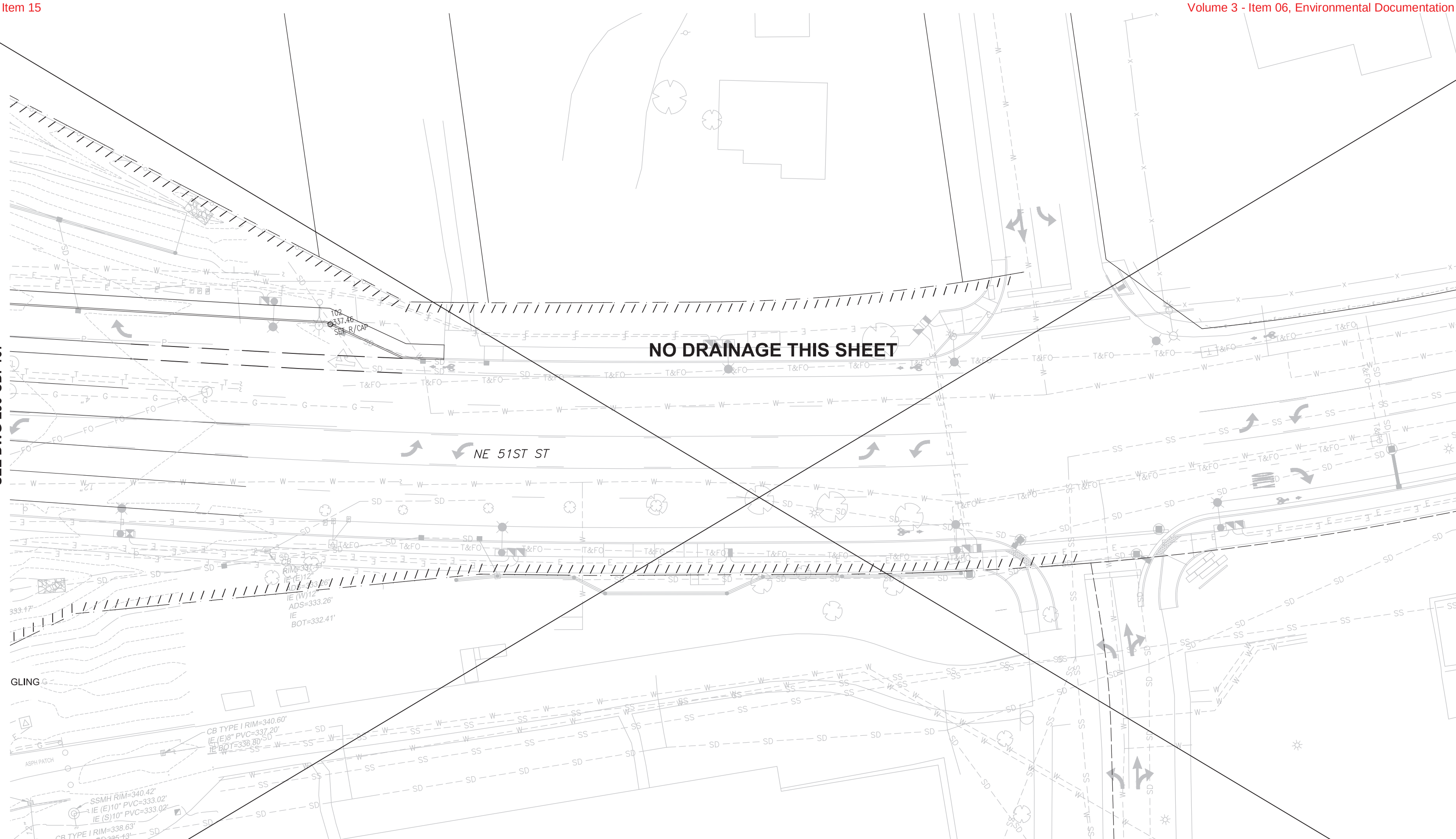

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

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2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 36038 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 51ST ST

DRAWING No.: L90-CDP140
LOCATION ID:
SHEET No.: 216
REV:

09/25/18 | 4:01 PM | TYLERJ
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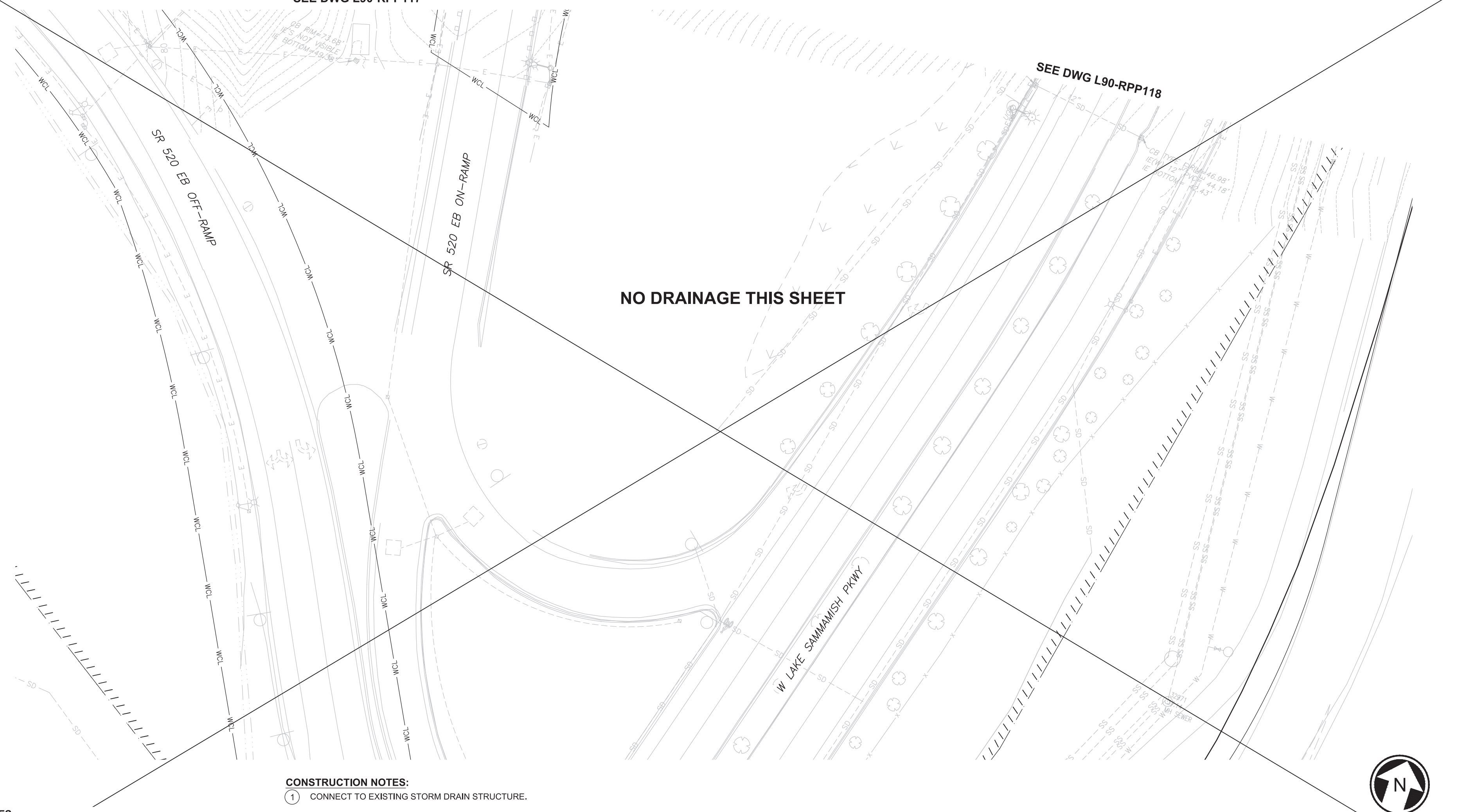

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36036, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
WEST LAKE SAMMAMISH PKWY

DRAWING No.: L90-CDP141
LOCATION ID:
SHEET No.: 217
REV:

Xrefs:
xRLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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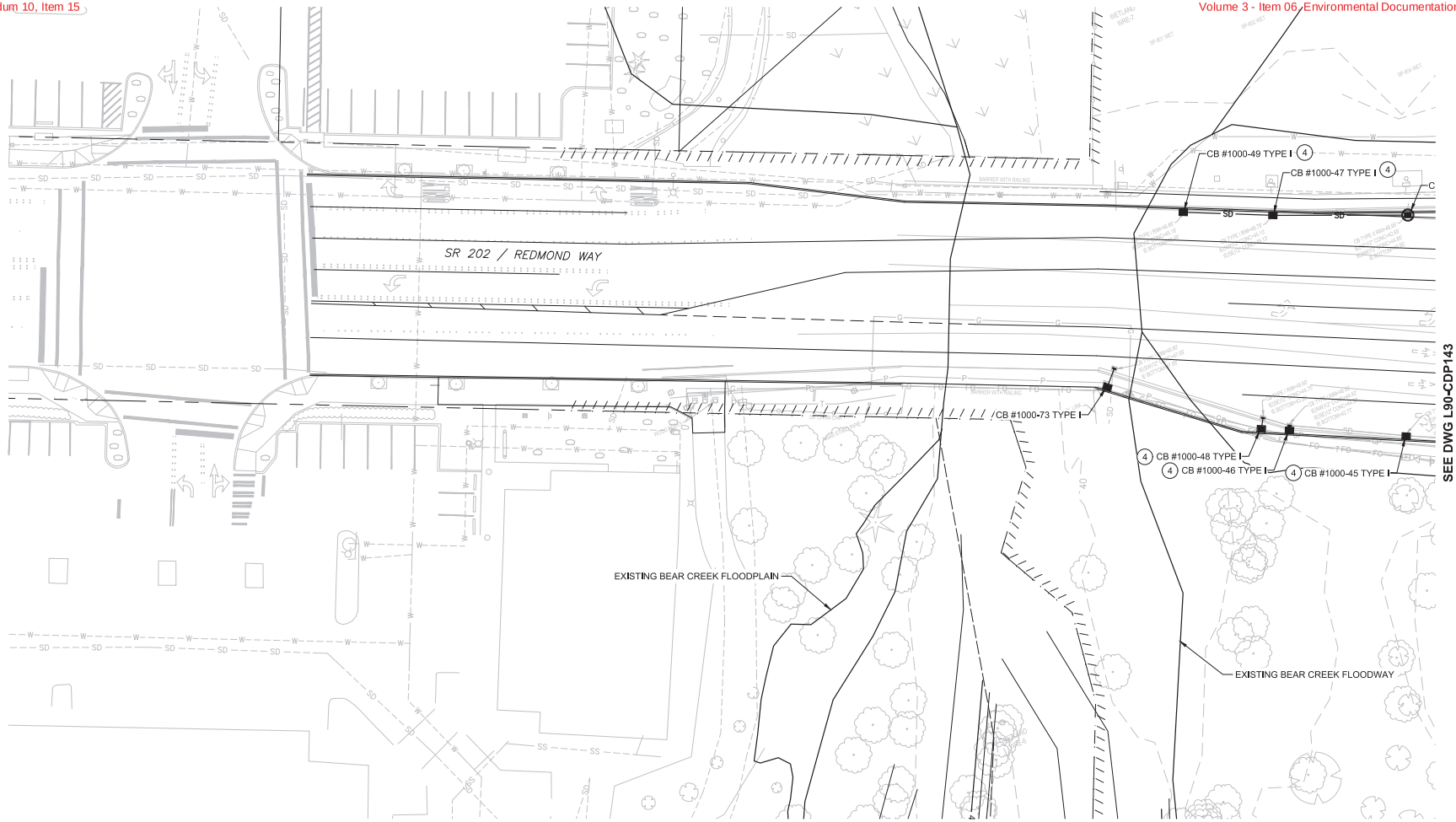
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & BEAR CREEK

DRAWING No.: L90-CDP142
LOCATION ID:
SHEET No.: 218
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
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xRLE-L95-VCN
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xRLE-E29-ASP100

09/25/18 | 4:04 PM | TYLERJ
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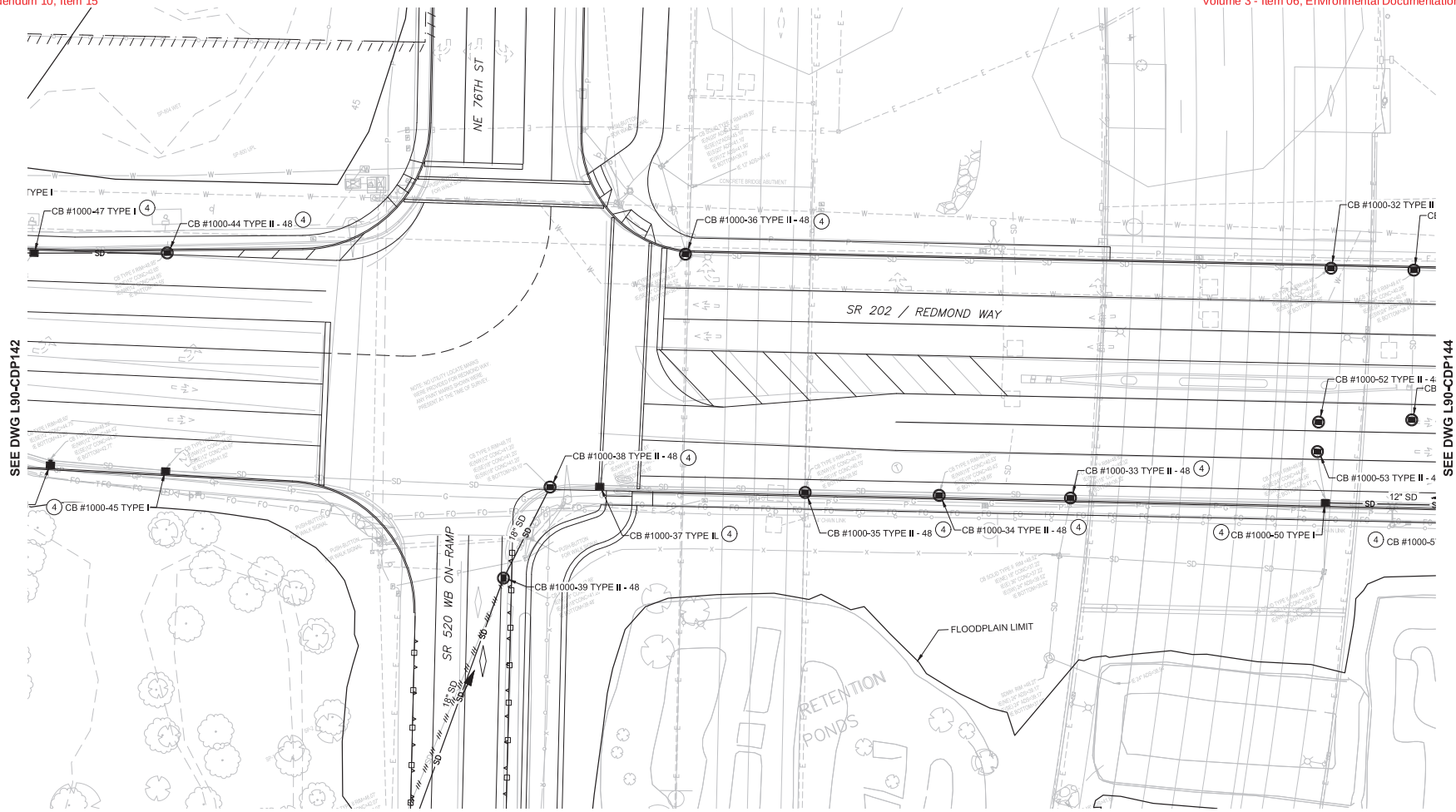

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE PETCH — STATE OF WASHINGTON — 24892 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & SR 520

DRAWING No.: L90-CDP143
LOCATION ID:
SHEET No.: 219
REV:

09/25/18 | 4:06 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G05-VFP
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-G05-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
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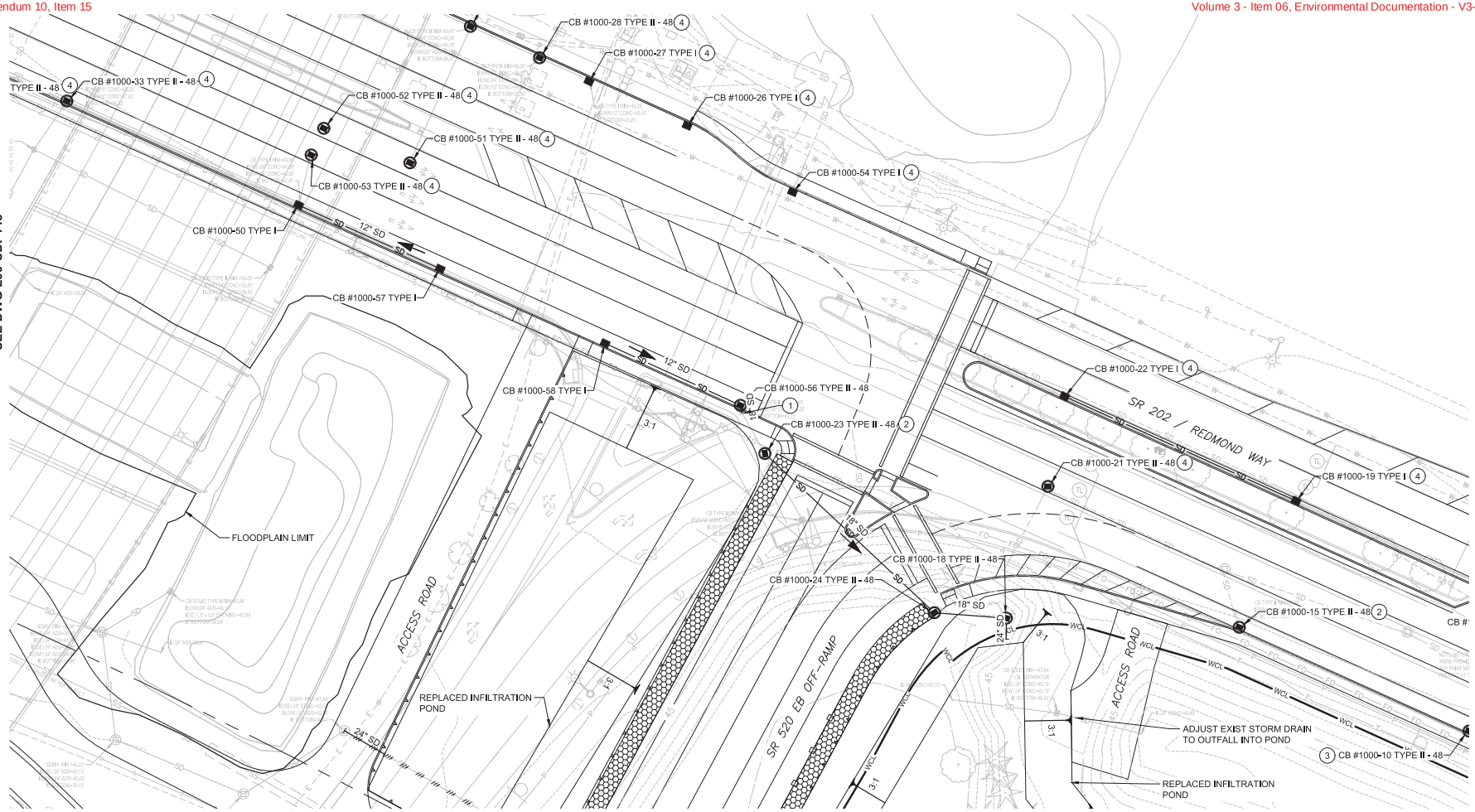


NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & SR 520 EB OFF-RAMP

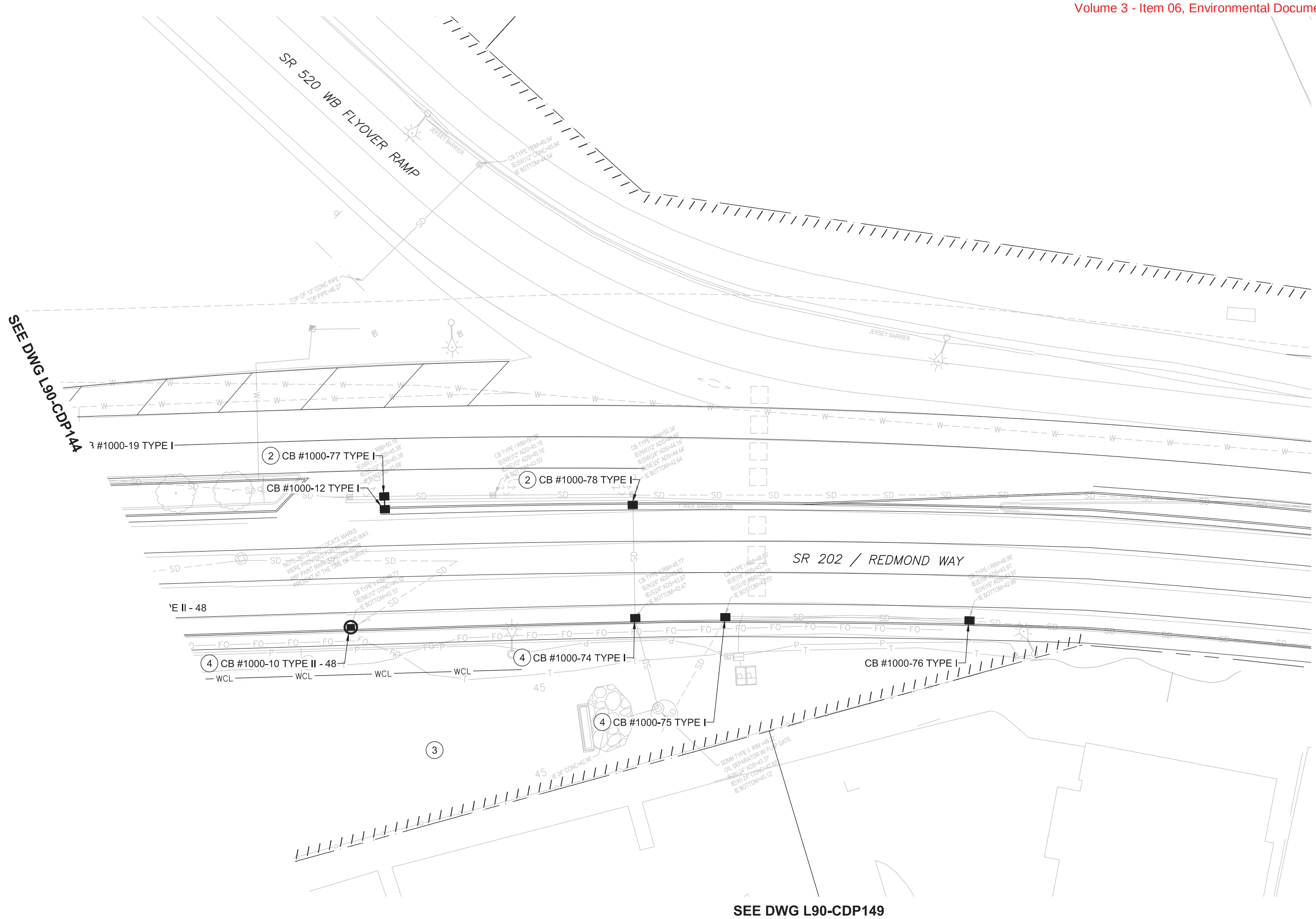
DRAWING No.: L90-CDP144
LOCATION ID:
SHEET No.: 220
REV:

10/24/18 | 4:00 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Addendum 10, Item 15

Attachment 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

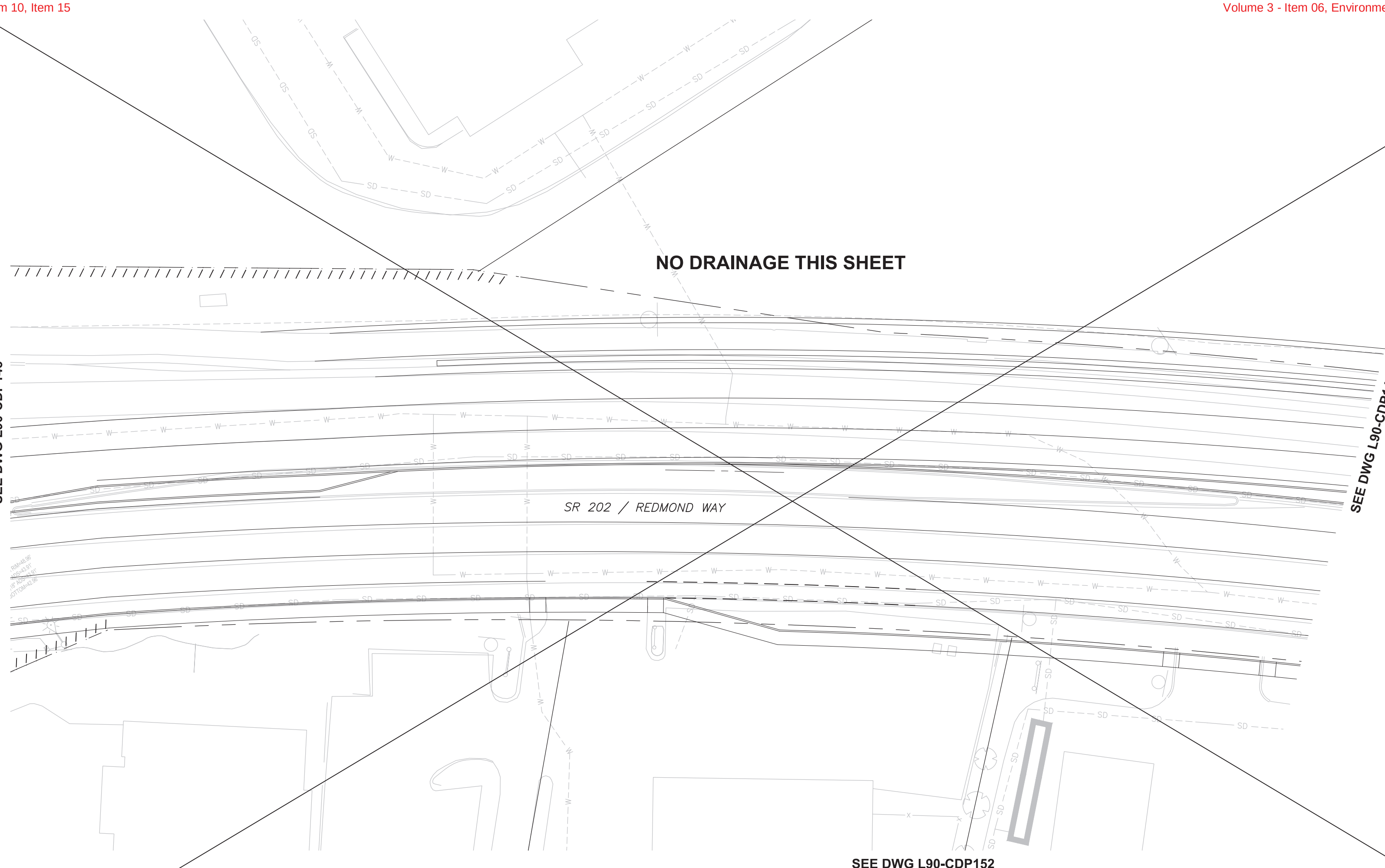
SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & SR 520 WB FLYOVER RAMP

DRAWING No.: L90-CDP145
LOCATION ID:
SHEET No.: 221
REV:

09/25/18 | 4:08 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs: RLE-GB-TB22x34, xRLE-L90-SEP100, xRLE-L90-CRP100, xRLE-L90-SWP100, xRLE-L90-KAP100, xRLE-E31-ASP100, xE360-RLE-E27-CSP200, xE360-RLE-E27-CMP200, xE360-RLE-E27-USP200, xRLE-L95-VWG, xRLE-GIS-VFP, xRLE-GIS-VSF, xRLE-GIS-VUT, xRLE-GIS-VWG, xRLE-L90-VCP, xRLE-L90-VRX, xRLE-L90-VSF, xRLE-L90-VUT, xRLE-L90-VWG, xRLE-L95-VSF, xRLE-L95-VUT, xRLE-E29-LPP100, xRLE-L90-VCN, xRLE-L95-VCN, xRLE-L90-CWP100, xRLE-L90-CDP100, xRLE-E29-ASP100



CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY:	T. NABOURS
DRAWN BY:	J. TYLER
CHECKED BY:	J. HITCH
APPROVED BY:	Y. YANG

JANELLE CHRISTINE HITCH · STATE OF WASHINGTON · 36038 · REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

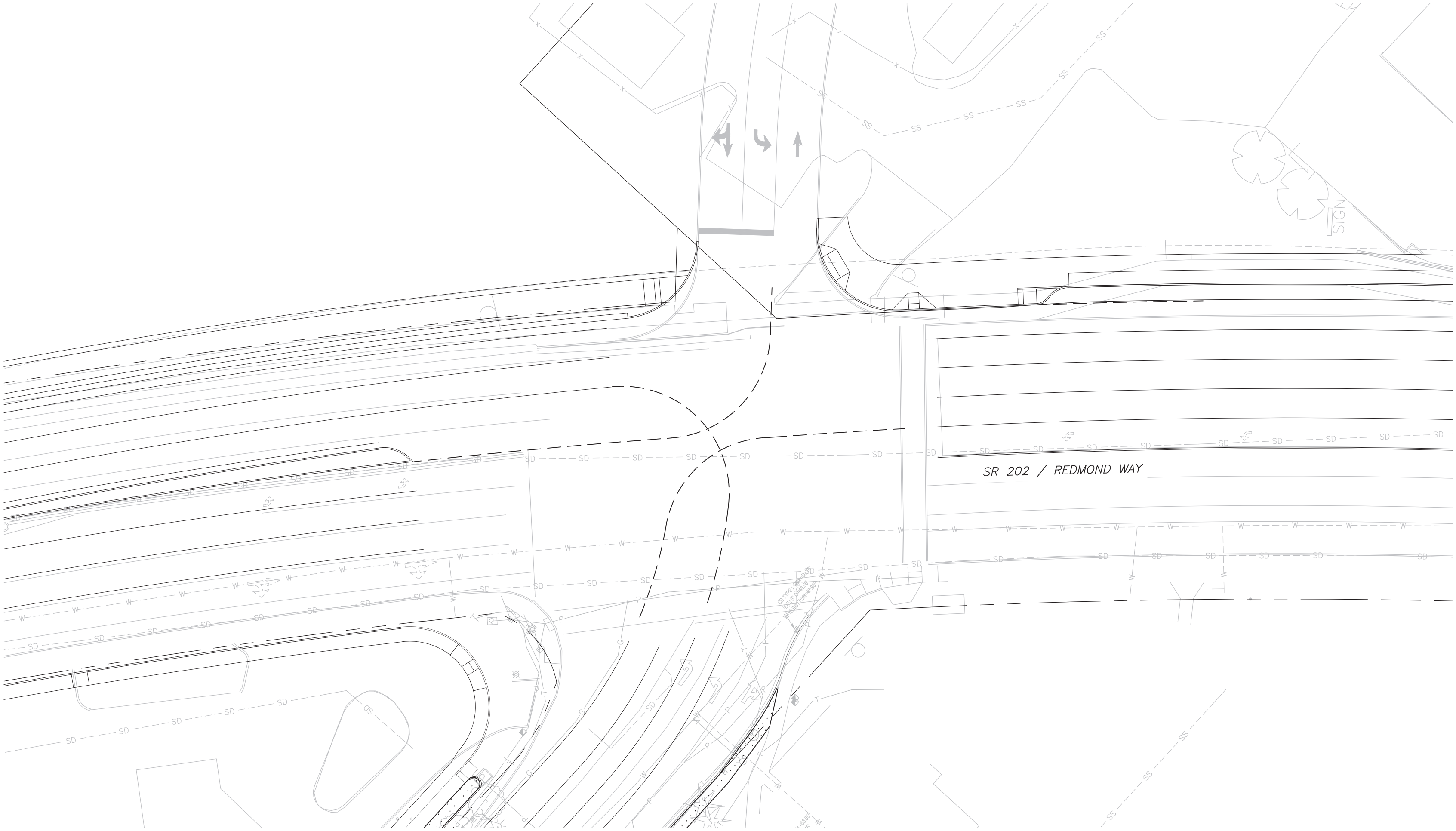
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY

DRAWING No.: L90-CDP146
LOCATION ID:
SHEET No.: 222
REV:

09/25/18 | 4:09 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



SEE DWG L90-CDP146
SEE DWG L90-CDP148
SEE DWG L90-CDP152

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.
(2) CONNECT TO EXISTING STORM DRAIN PIPE.
(3) PROTECT EXISTING STORM DRAIN FACILITY.
(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 56038 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & NE 70TH ST INTERSECTION

DRAWING No.: L90-CDP147
LOCATION ID:
SHEET No.: 223
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VAG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VAG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VAG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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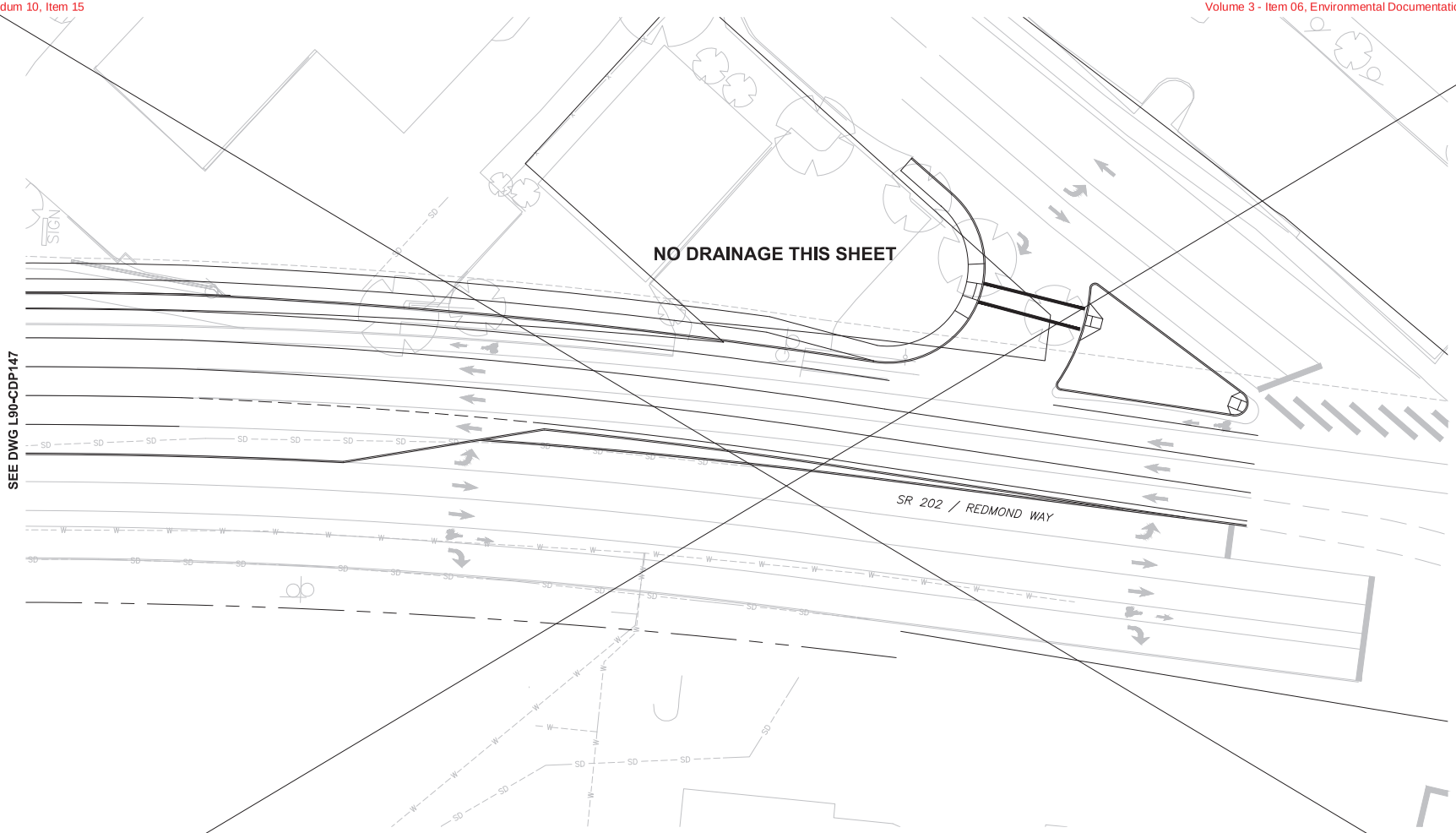
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

MARCUS CHRISTIAN RICH — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 202/REDMOND WY & 180TH AVE NE INTERSECTION

DRAWING No.: L90-CDP148
LOCATION ID:
SHEET No.: 224
REV:

09/25/18 | 4:12 PM | TYLERJ
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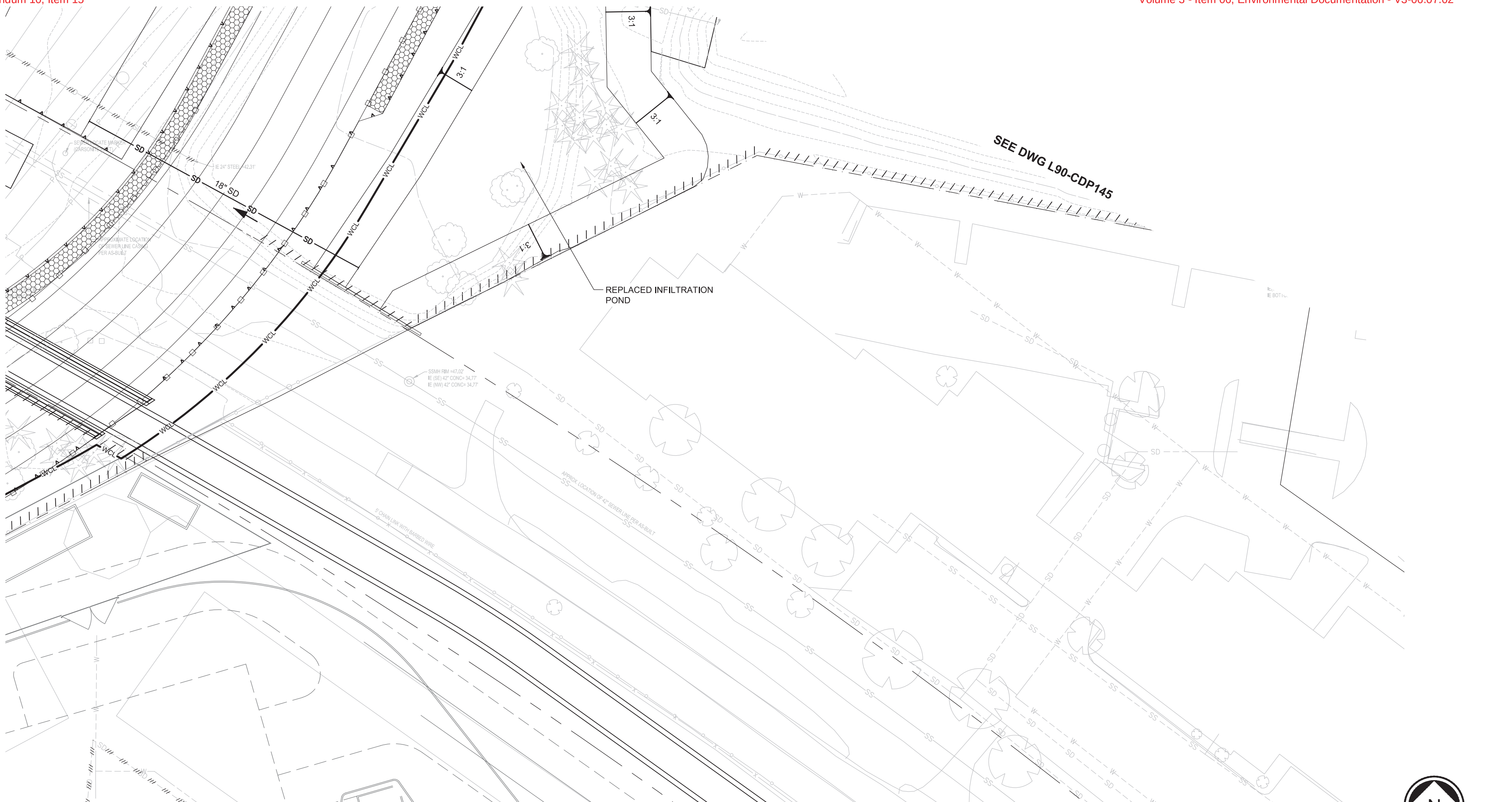
SEE DWG L90-CDP144



SEE DWG L90-CDP150
SEE DWG L90-CDP151

NOTES:

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(3) PROTECT EXISTING STORM DRAIN FACILITY.
(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH — STATE OF WASHINGTON — 56038 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 520 EB OFF-RAMP (REDMOND INN)

DRAWING No.: L90-CDP149
LOCATION ID:
SHEET No.: 225
REV:

Xrefs:
RLE–GB–TB22x34
xRLE–L90–SEP100
xRLE–L90–CRP100
xRLE–L90–SWP100
xRLE–L90–KAP100
xRLE–E31–ASP100
xE360–RLE–E27–CSP200
xE360–RLE–E27–CMP200
xE360–RLE–E27–USP200
xRLE–L95–VWG
xRLE–GIS–VFP
xRLE–GIS–VSF
xRLE–GIS–VUT
xRLE–GIS–VWG
xRLE–L90–VCP
xRLE–L90–VRX
xRLE–L90–VSF
xRLE–L90–VUT
xRLE–L90–VWG
xRLE–L95–VSF
xRLE–L95–VUT
xRLE–E29–LPP100
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xRLE–L90–CDP100
xRLE–E29–ASP100

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-HAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
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xRLE-L95-VUT
xRLE-E29-LPP100
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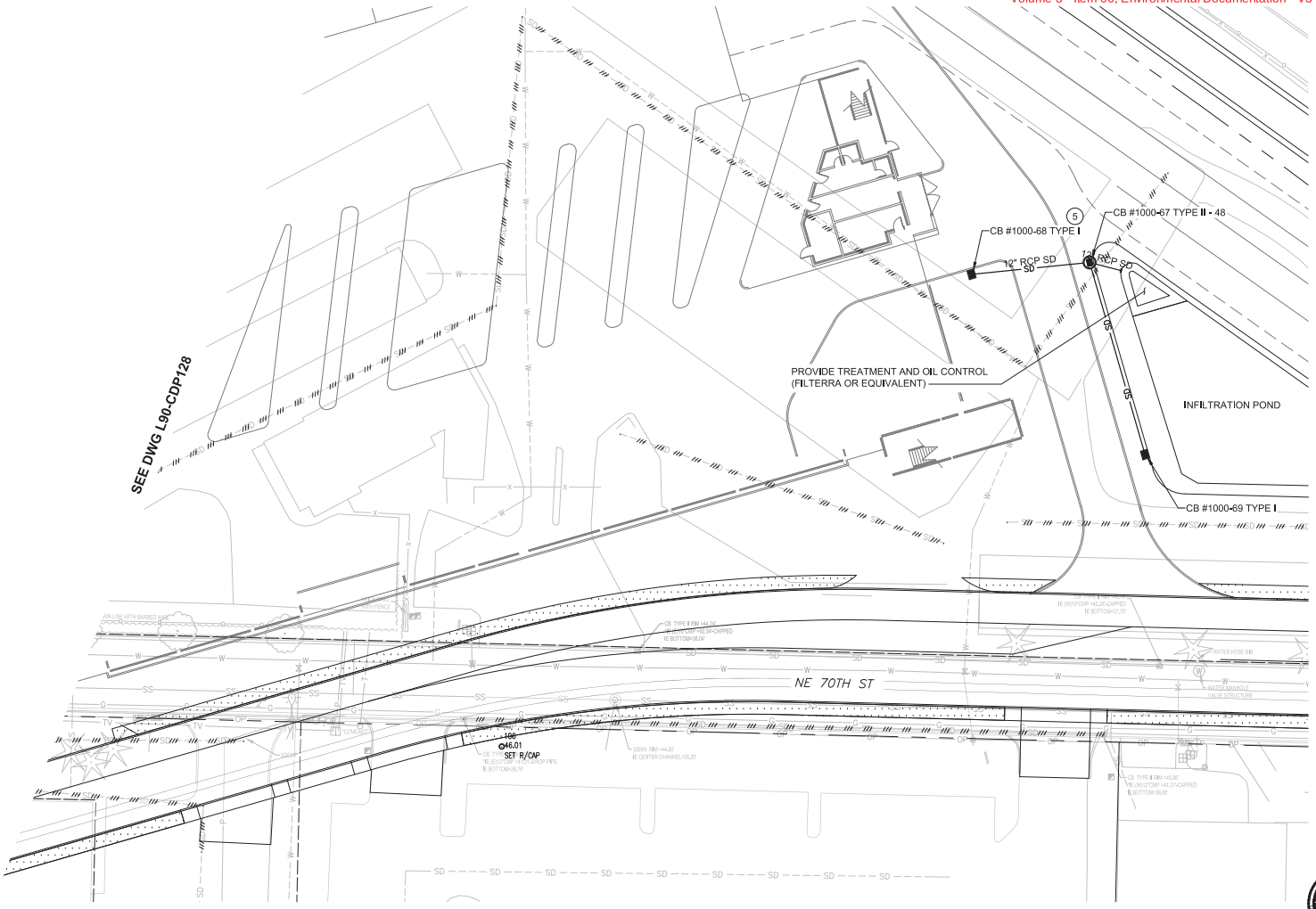

NOTES:

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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.
5. CONNECT TO PARKING GARAGE DRAIN.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

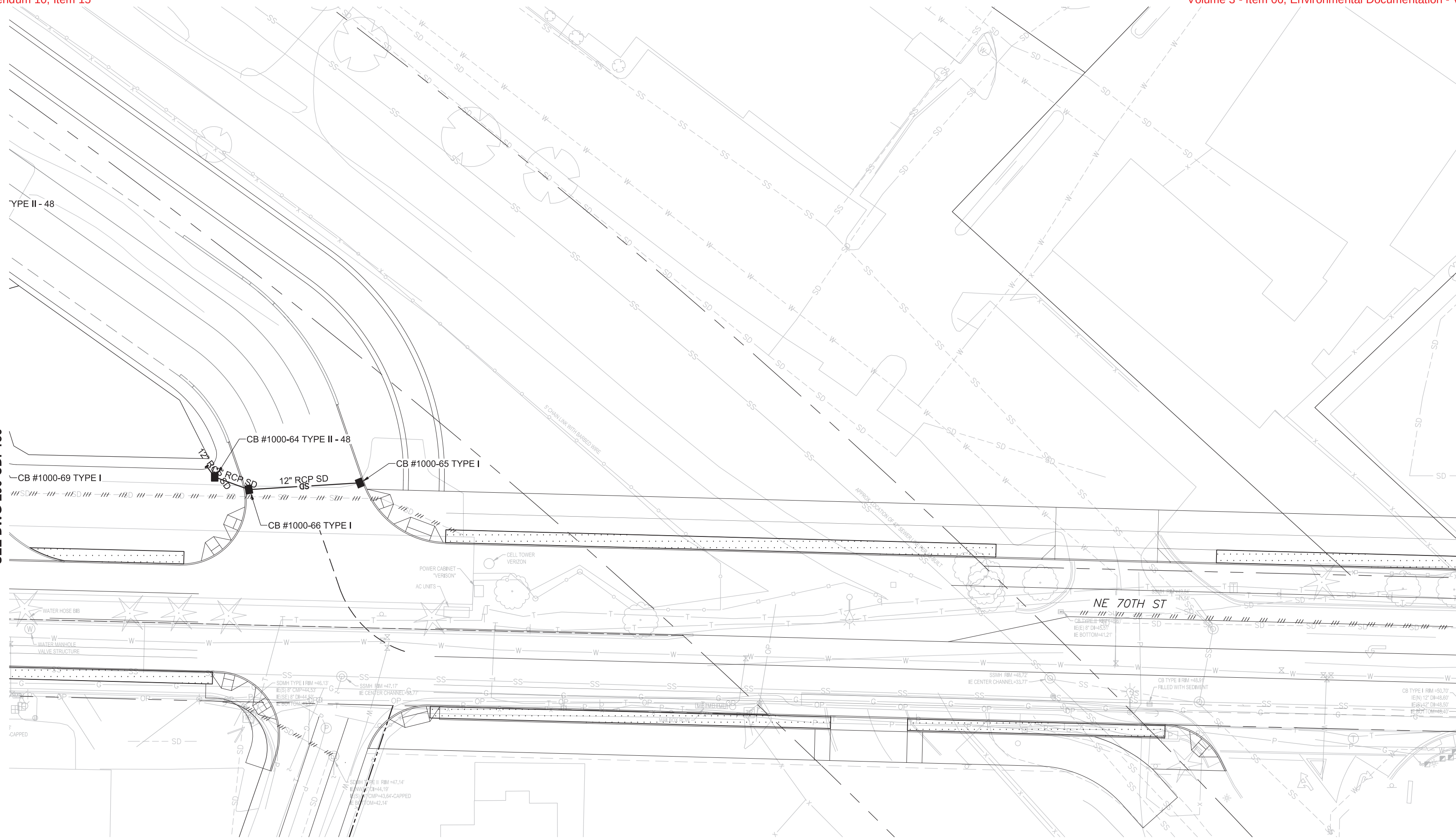
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 70TH ST

DRAWING No.: L90-CDP150
LOCATION ID:
SHEET No.: 226
REV:

09/25/18 | 4:15 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG



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CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: J. TYLER
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JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 56038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUND TRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 70TH ST - EAST

DRAWING No.: L90-CDP151
LOCATION ID:
SHEET No.: 227
REV:

09/25/18 | 4:16 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
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xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
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xRLE-E31-ASP100
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xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VXG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
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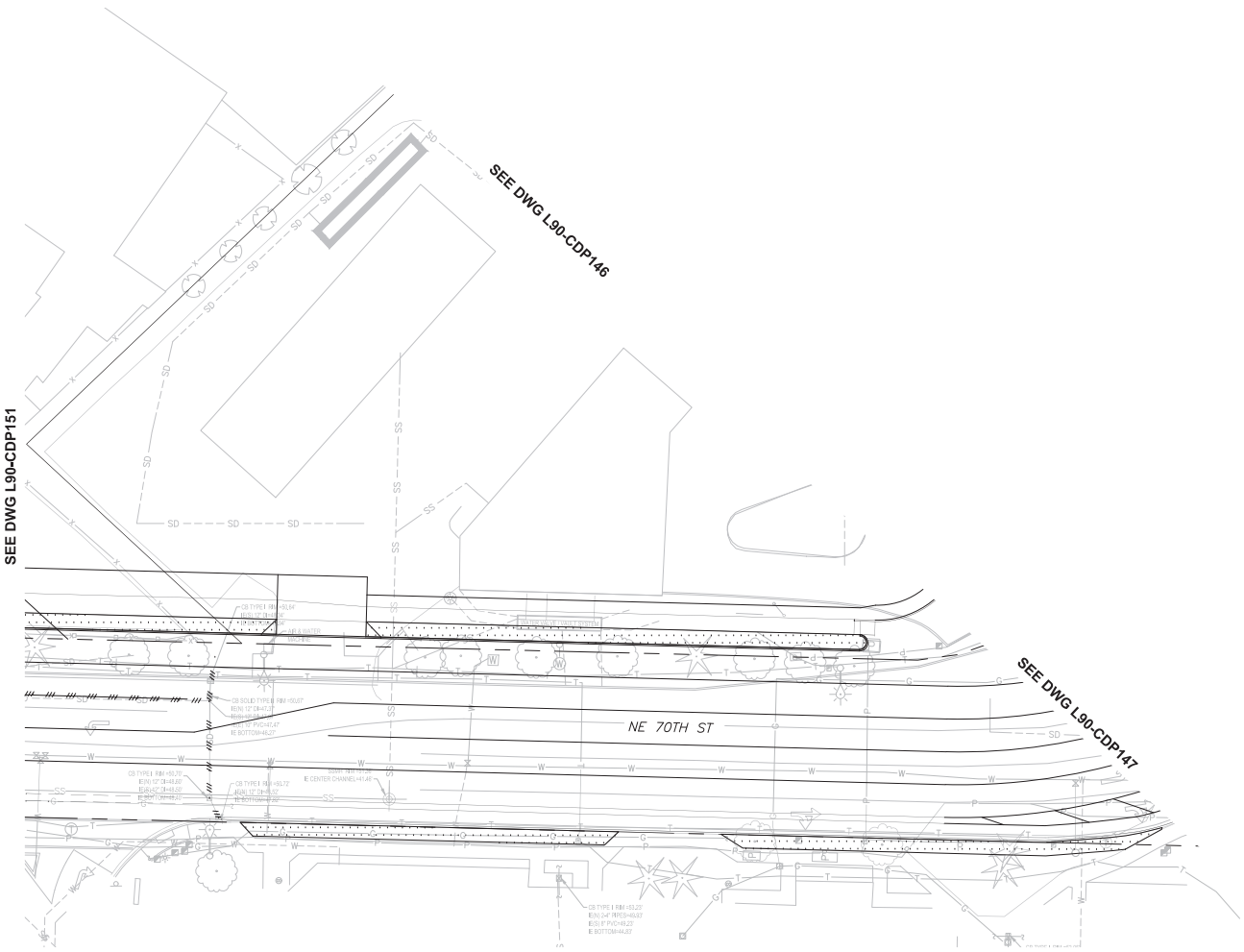

NOTES:

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CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.
(2) CONNECT TO EXISTING STORM DRAIN PIPE.
(3) PROTECT EXISTING STORM DRAIN FACILITY.
(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE FLECK — STATE OF WASHINGTON — 24892 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

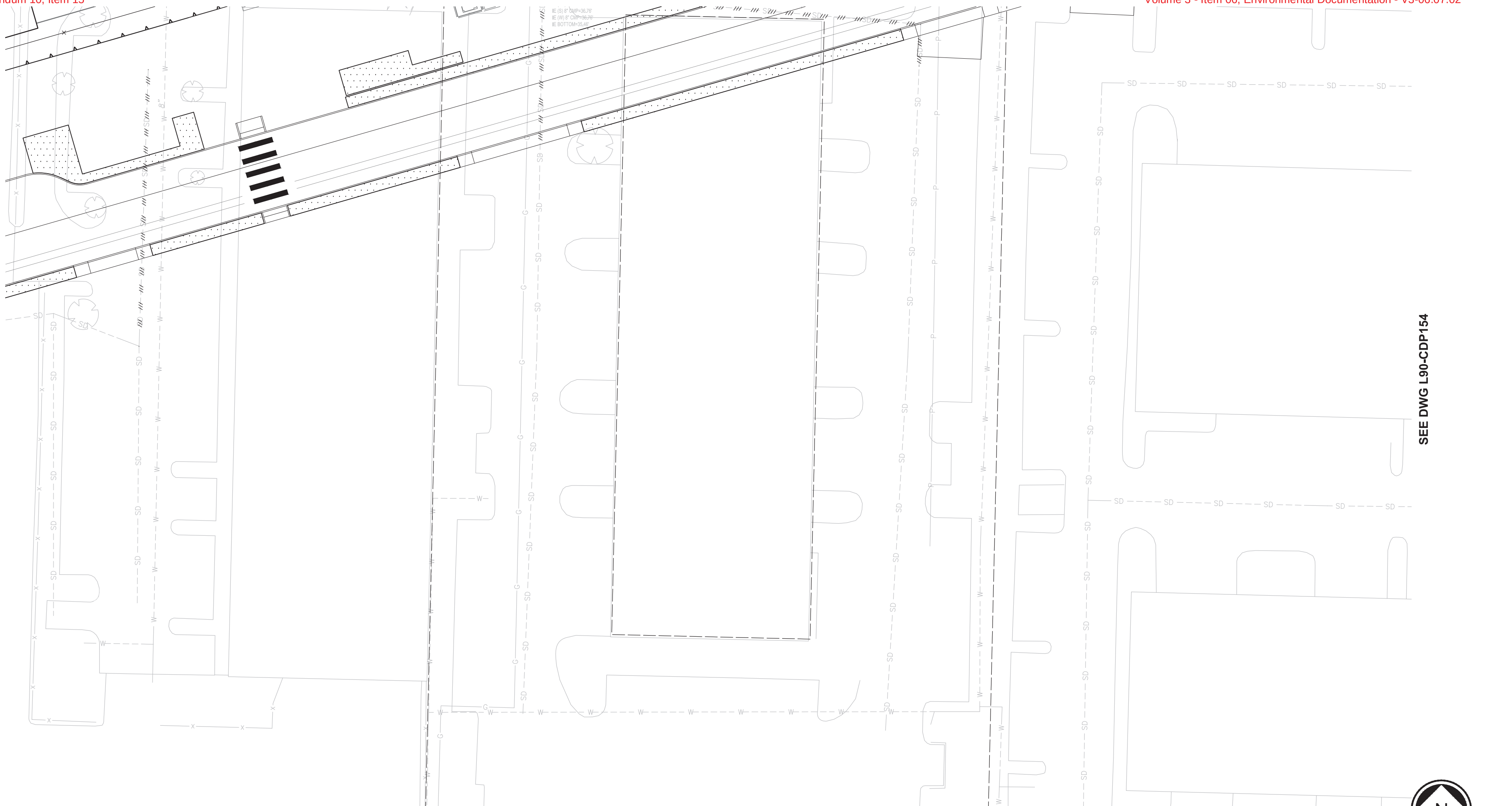
SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 70TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-CDP152
LOCATION ID:
SHEET No.: 228
REV:

09/25/18 | 4:17 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-CDP100TO162.DWG



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CONSTRUCTION NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

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Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 70TH ST - WEST

DRAWING No.: L90-CDP153
LOCATION ID:
SHEET No.: 229
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
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xRLE-E29-ASP100

09/25/18 | 4:18 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

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NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

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Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

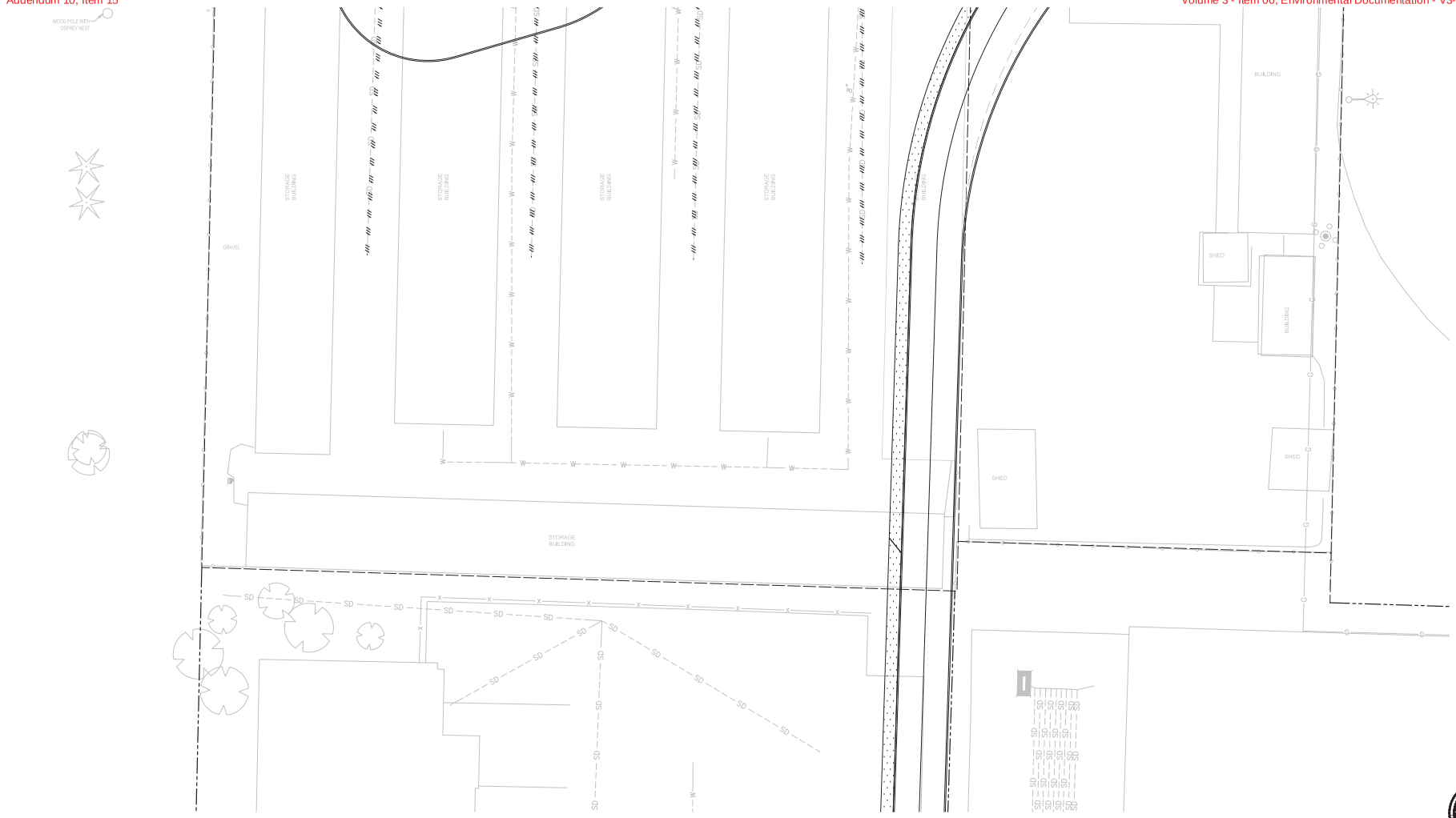
CIVIL
DRAINAGE PLAN
176TH AVE NE

DRAWING No.: L90-CDP154
LOCATION ID:
SHEET No.: 230
REV:

09/25/18 | 4:20 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VAG
xRLE-G9S-VFP
xRLE-G9S-VSF
xRLE-G9S-VUT
xRLE-G9S-VAG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VAG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CMP100
xRLE-L90-CDP100
xRLE-E29-ASP100

SEE DWG L90-CDP126



SEE DWG L90-CDP156

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

N

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE PUCH — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
173RD AVE NE

DRAWING No.: L90-CDP155
LOCATION ID:
SHEET No.: 231
REV:

09/25/18 | 4:21 PM | TYLERJ
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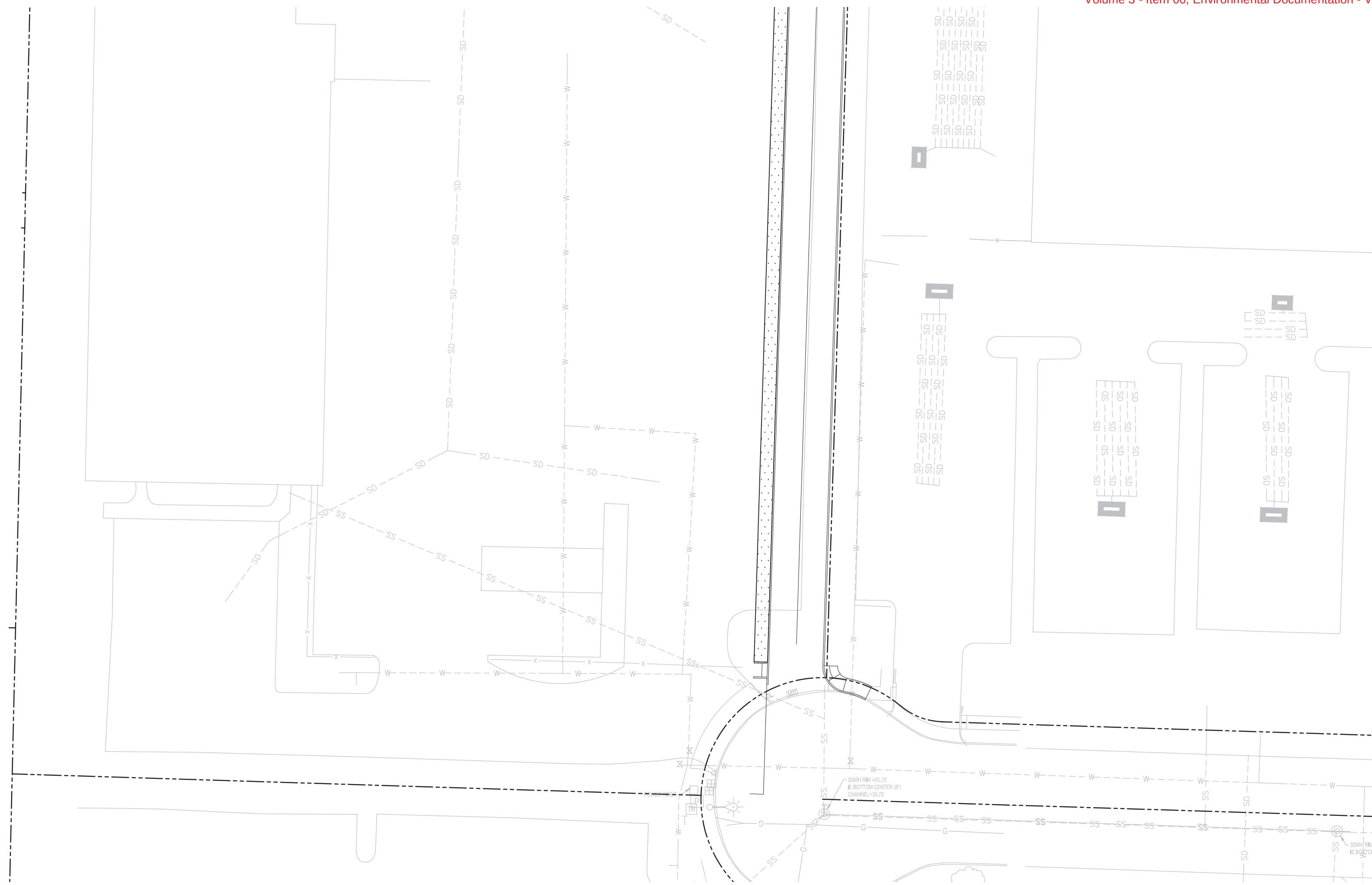
Attachment 15

Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

SEE DWG L90-CDP155



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.

(2) CONNECT TO EXISTING STORM DRAIN PIPE.

(3) PROTECT EXISTING STORM DRAIN FACILITY.

(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

SCALE IN FEET: 20 10 0 20 40

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
173RD AVE NE & NE 67TH CT

DRAWING No.: L90-CDP156
LOCATION ID:
SHEET No.: 232
REV:

09/25/18 | 4:22 PM | TYLERJ
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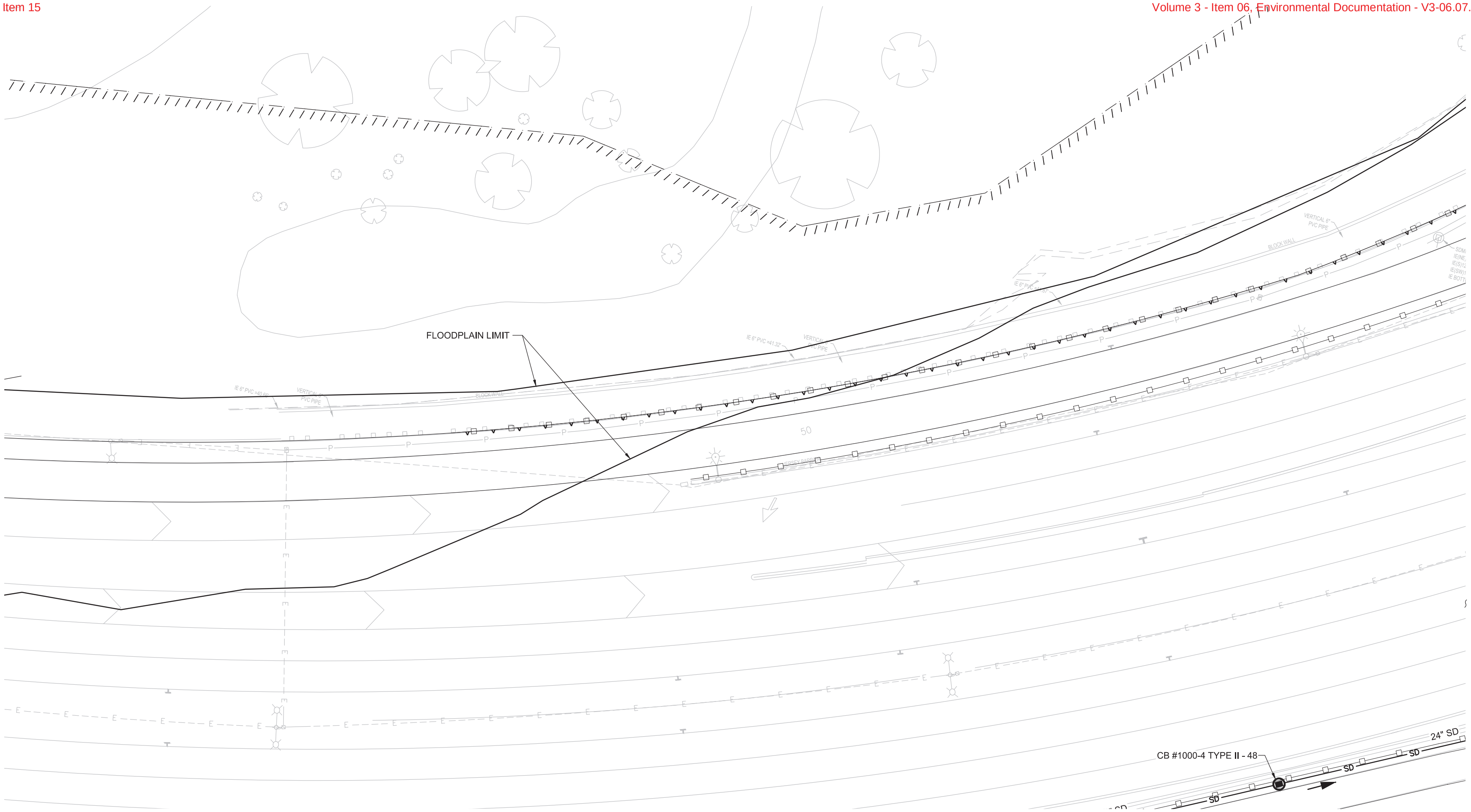

SEE DWG L90-CDP158

SEE DWG L90-CDP126

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

(1) CONNECT TO EXISTING STORM DRAIN STRUCTURE.
(2) CONNECT TO EXISTING STORM DRAIN PIPE.
(3) PROTECT EXISTING STORM DRAIN FACILITY.
(4) ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 520

DRAWING No.: L90-CDP157
LOCATION ID:
SHEET No.: 233
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

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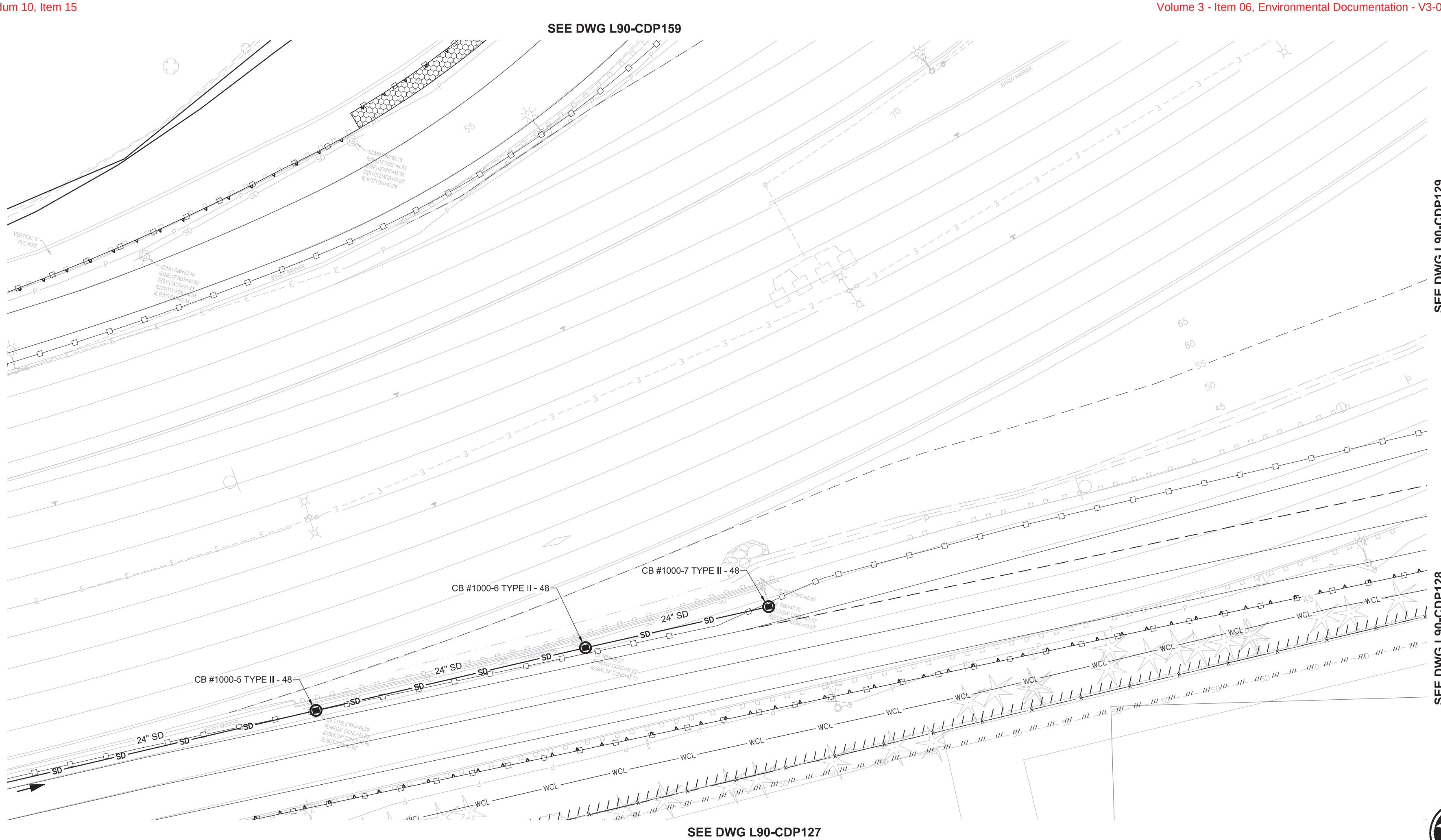

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
SR 520 EB OFF-RAMP

DRAWING No.: L90-CDP158
LOCATION ID:
SHEET No.: 234
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-XAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VVG
xRLE-G95-VFP
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-G95-VVG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VVG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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xRLE-L90-CDP100
xRLE-E29-ASP100

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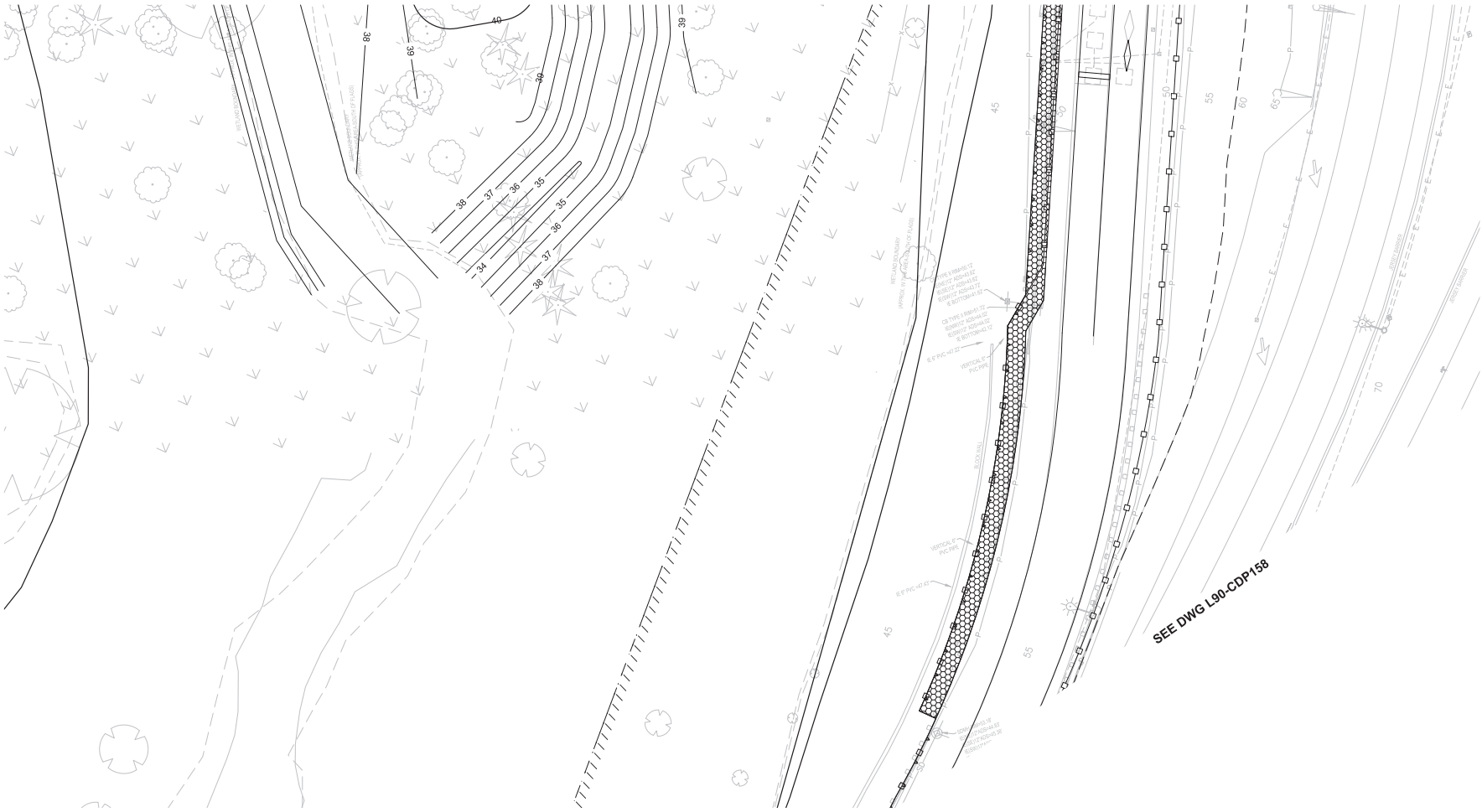
SEE DWG L90-CDP130



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

DANIELLE CHRISTINE FITCH — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

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SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
SR 520 WB ON-RAMP

DRAWING No.: L90-CDP159
LOCATION ID:
SHEET No.: 235
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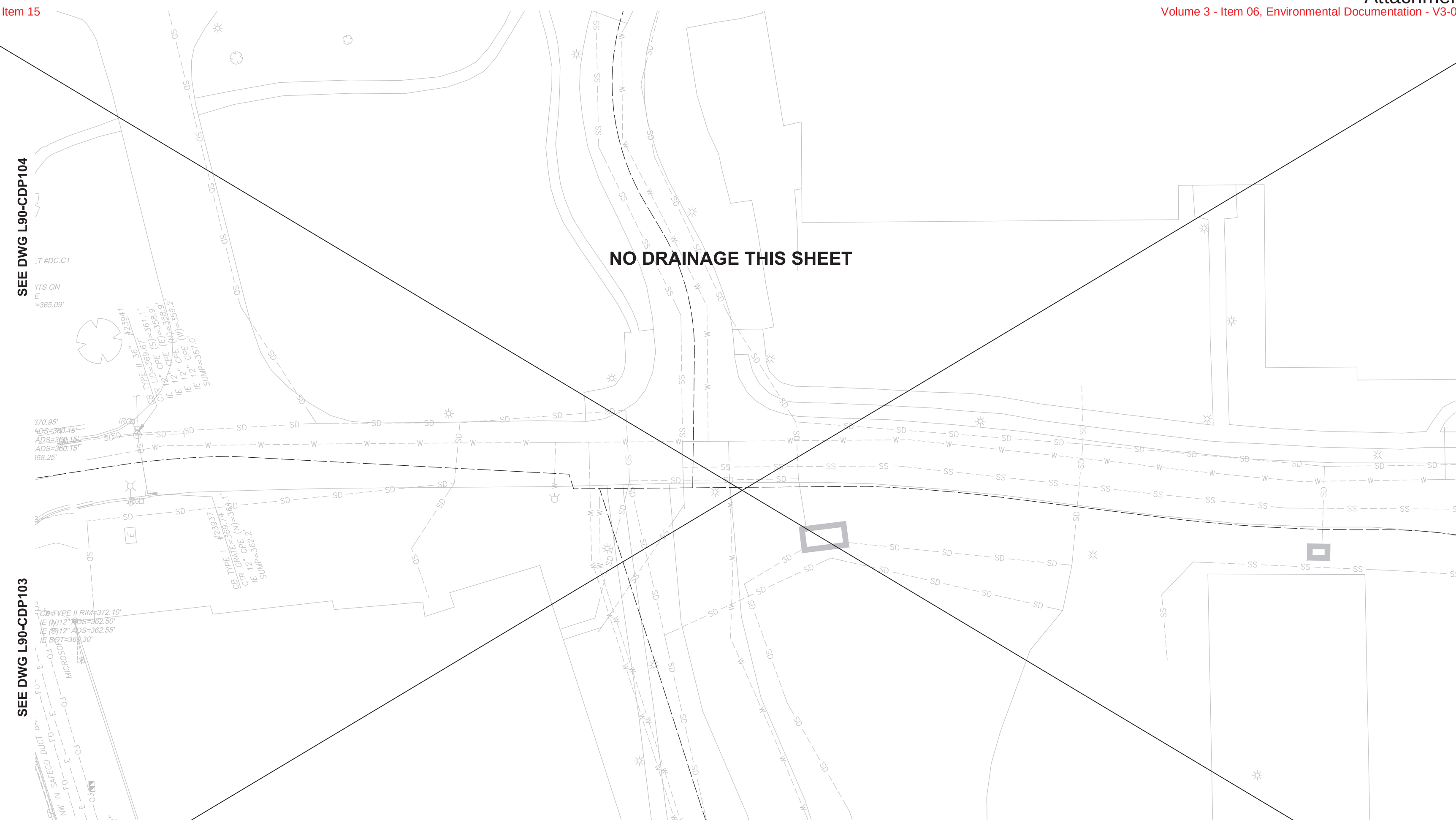

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

CONSTRUCTION NOTES:

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2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND

REFERENCE

CIVIL
DRAINAGE PLAN
NE 45TH ST

DRAWING No.: **L90-CDP160**
LOCATION ID:
SHEET No.: 236
REV:

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Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP20
xE360-RLE-E27-CMP20
xE360-RLE-E27-USP20
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
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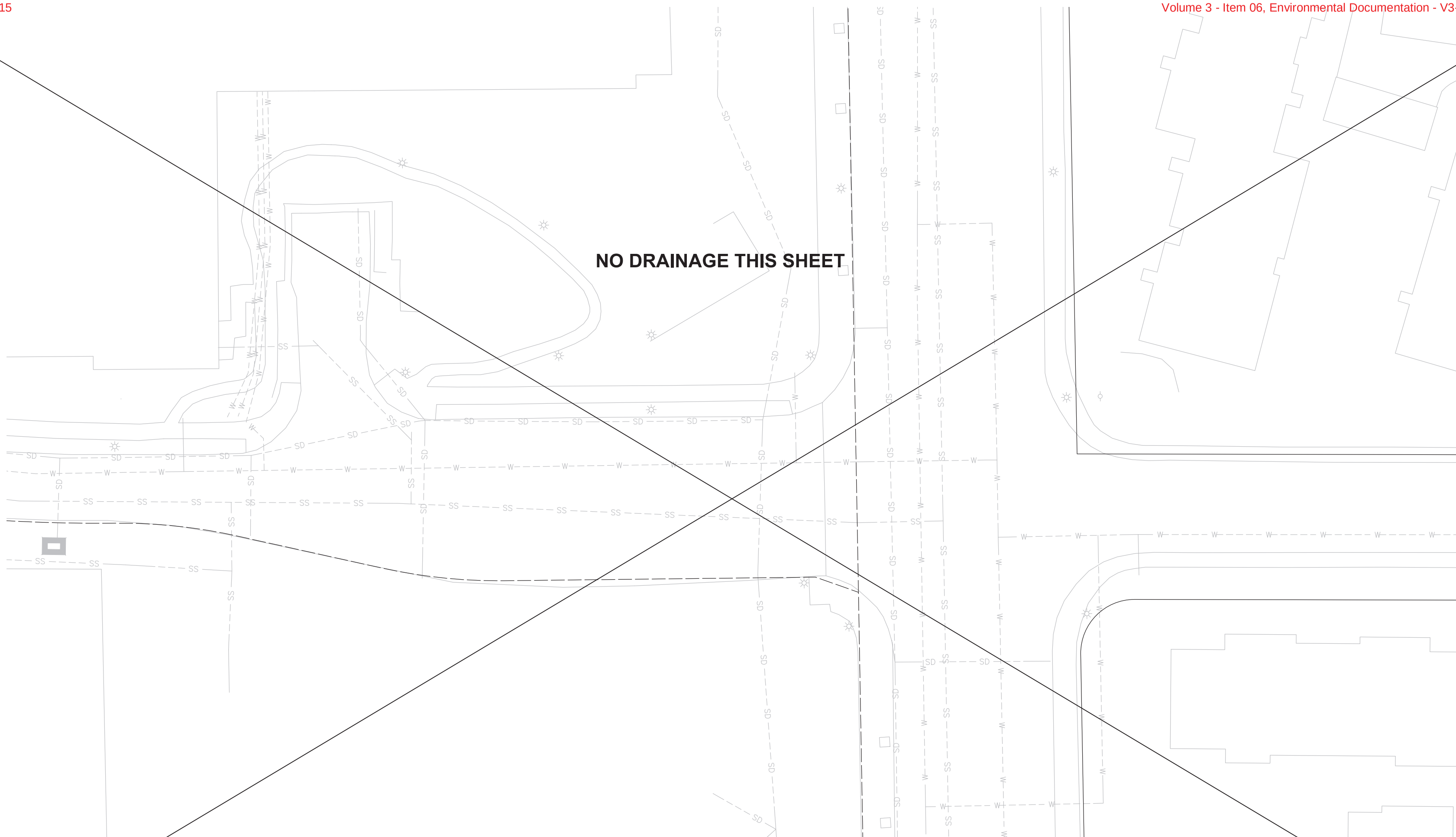
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100



NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
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CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 45TH ST & 156TH AVE NE

DRAWING No.: L90-CDP161
LOCATION ID:
SHEET No.: 237
REV:

09/25/18 | 4:29 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDP100TO162.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-KAP100
xRLE-E31-ASP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-CMP200
xE360-RLE-E27-USP200
xRLE-L95-VWG
xRLE-GIS-VFP
xRLE-GIS-VSF
xRLE-GIS-VUT
xRLE-GIS-VWG
xRLE-L90-VCP
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-VWG
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-E29-LPP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-CWP100
xRLE-L90-CDP100
xRLE-E29-ASP100

CONSTRUCTION NOTES:

1. CONNECT TO EXISTING STORM DRAIN STRUCTURE.
2. CONNECT TO EXISTING STORM DRAIN PIPE.
3. PROTECT EXISTING STORM DRAIN FACILITY. EXISTING WSDOT FACILITY SIZED FOR FUTURE ROADWAY WIDENING. CONTRACTOR TO VERIFY.
4. ADJUST STRUCTURE RIM ELEVATION TO FINISHED GRADE.

NOTES:

1. SEE DRAWING L90-CZN700 FOR GENERAL NOTES.
2. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET (20 10 0 20 40)

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

JANELLE CHRISTINE HITCH, STATE OF WASHINGTON, 36038, REGISTERED PROFESSIONAL ENGINEER

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-CDP100TO162
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE PLAN
NE 76TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-CDP162
LOCATION ID:
SHEET No.: 238
REV:

Xrefs: RLE-GB-TB22x34, xRLE-L90-SEP100, xRLE-L90-CRP100, xRLE-L90-SWP100, xRLE-L90-KAP100, xRLE-E31-ASP100, xE360-RLE-E27-CSP200, xE360-RLE-E27-CMP200, xE360-RLE-E27-USP200, xRLE-L95-VWG, xRLE-GIS-VFP, xRLE-GIS-VSF, xRLE-GIS-VUT, xRLE-GIS-VWG, xRLE-L90-VCP, xRLE-L90-VRX, xRLE-L90-VSF, xRLE-L90-VUT, xRLE-L90-VWG, xRLE-L95-VSF, xRLE-L95-VUT, xRLE-E29-LPP100, xRLE-L90-VCN, xRLE-L95-VCN, xRLE-L90-CWP100, xRLE-L90-CDP100, xRLE-E29-ASP100

09/25/18 | 4:30 PM | TYLERJ
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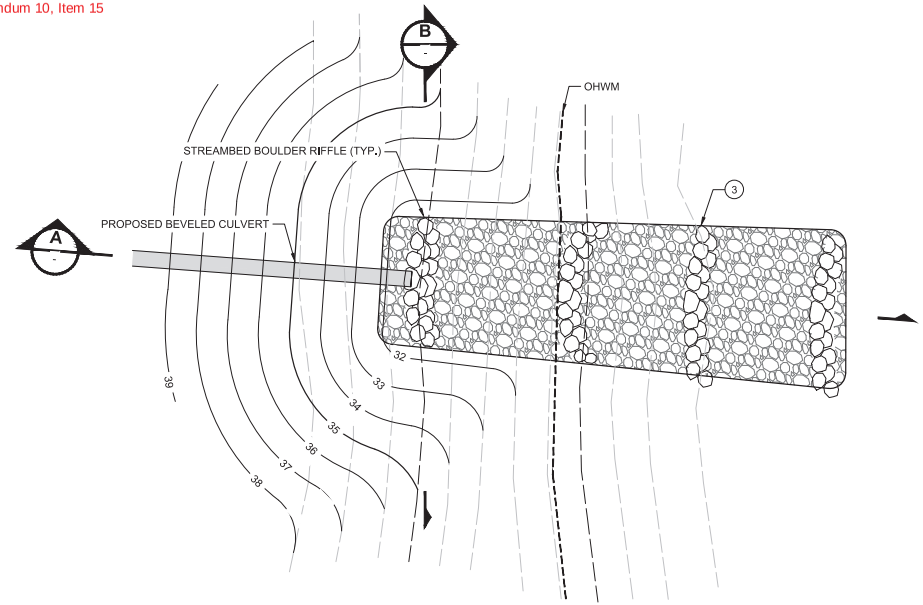
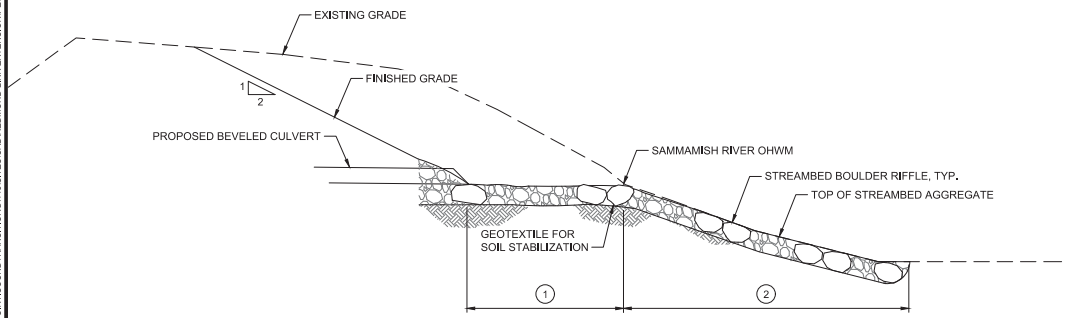
Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-SWP100
xRLE-L95-WVS
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-L90-WVS
xRLE-L90-VCN
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-CDV100
xRLE-L90-VRX
xRLE-L90-CWP100
xRLE-GIS-VFP
xRLE-L90-CDP100
xRLE-GIS-VSF



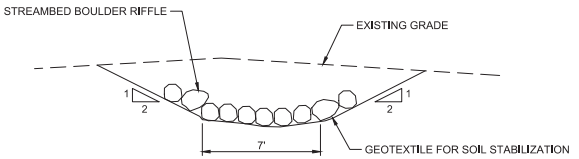
OUTFALL PLAN (1) — L90-CDP118
SCALE: NTS

CONSTRUCTION NOTES:

1. PROVIDE 10' L X 7' W ROCK LINING OUTFALL PROTECTION (12" DEPTH) TO RIVER ORDINARY HIGH WATER MARK
2. PLACE BOULDER AND STREAM AGGREGATE TO BOTTOM OF RIVER CHANNEL AND MATCH EXISTING SLOPE
3. 1 MAN (12" - 18") STREAMBED BOULDER RIFFLE



SECTION (A)
SCALE: NTS



SECTION (B)
SCALE: NTS

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: T. NABOURS
DRAWN BY: J. TYLER
CHECKED BY: J. HITCH
APPROVED BY: Y. YANG

MARIELLE CHRISTINE PITCH — STATE OF WASHINGTON — 24000 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

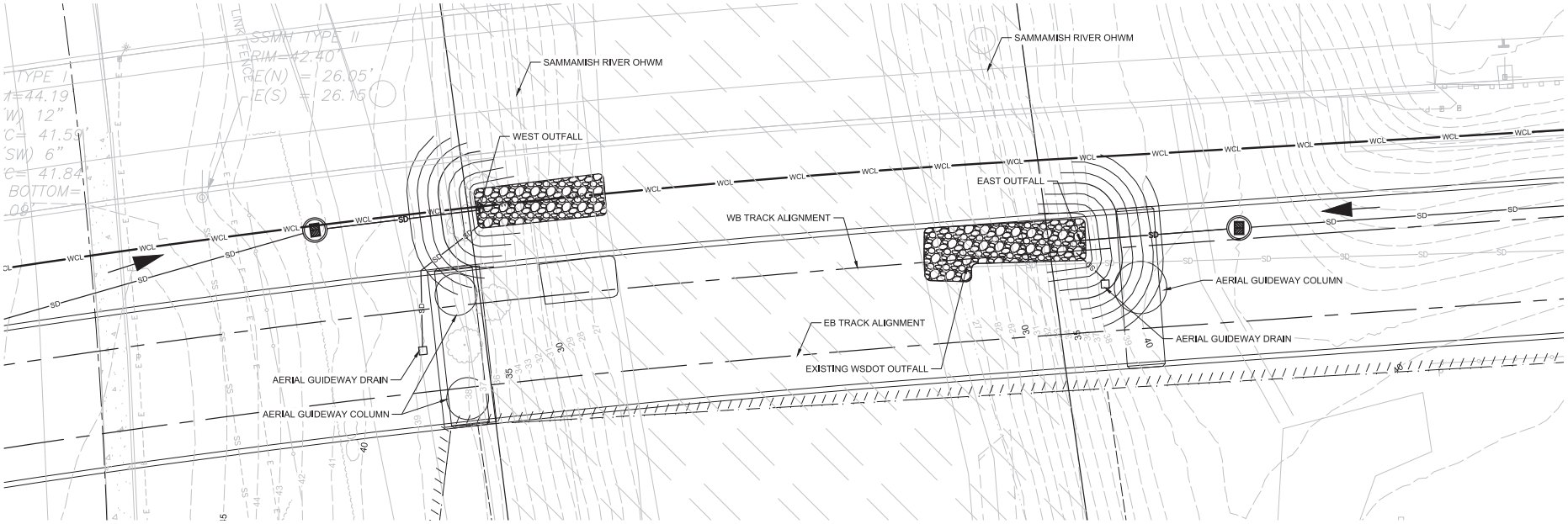
SOUNDTRANSIT

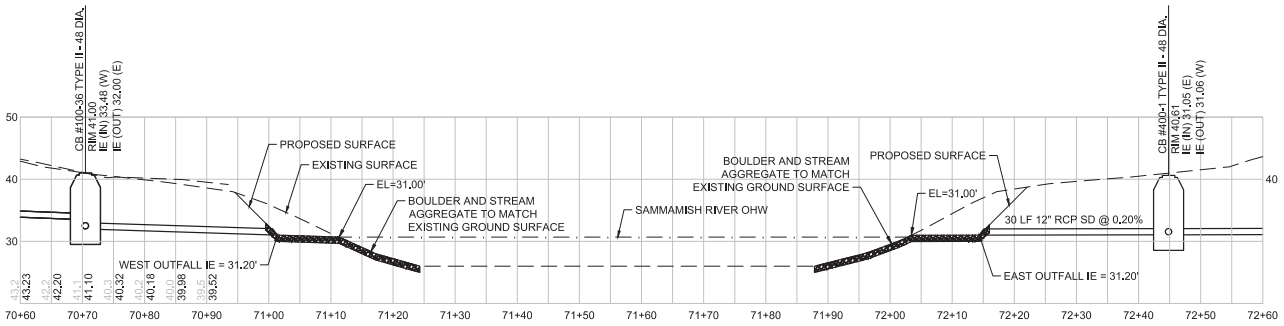
SCALE: NTS
FILENAME: RLE-L90-CDD100TO101
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE DETAIL
SAMMAMISH RIVER OUTFALL DETAIL

DRAWING No.: L90-CDD100
LOCATION ID:
SHEET No.: 239
REV:

09/25/18 | 2:47 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDD100TO101.DWG





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JAMES C. CHRISTENSEN — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-CDD100TO101
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
CIVIL
DRAINAGE DETAIL
SAMMAMISH RIVER OUTFALLS

DRAWING No.: L90-CDD101
LOCATION ID:
SHEET No.: 240
REV:

Xrefs:
RLE-GB-TB22x34
xRLE-L90-SEP100
xRLE-L90-CMP100
xRLE-L95-VWS
xRLE-L95-VCN
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-L90-VWS
xRLE-L90-VCN
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L90-CDV100
xRLE-L90-VRX
xRLE-L90-CMP100
xRLE-GIS-VFP
xRLE-L90-CDP100
xRLE-GIS-VSF

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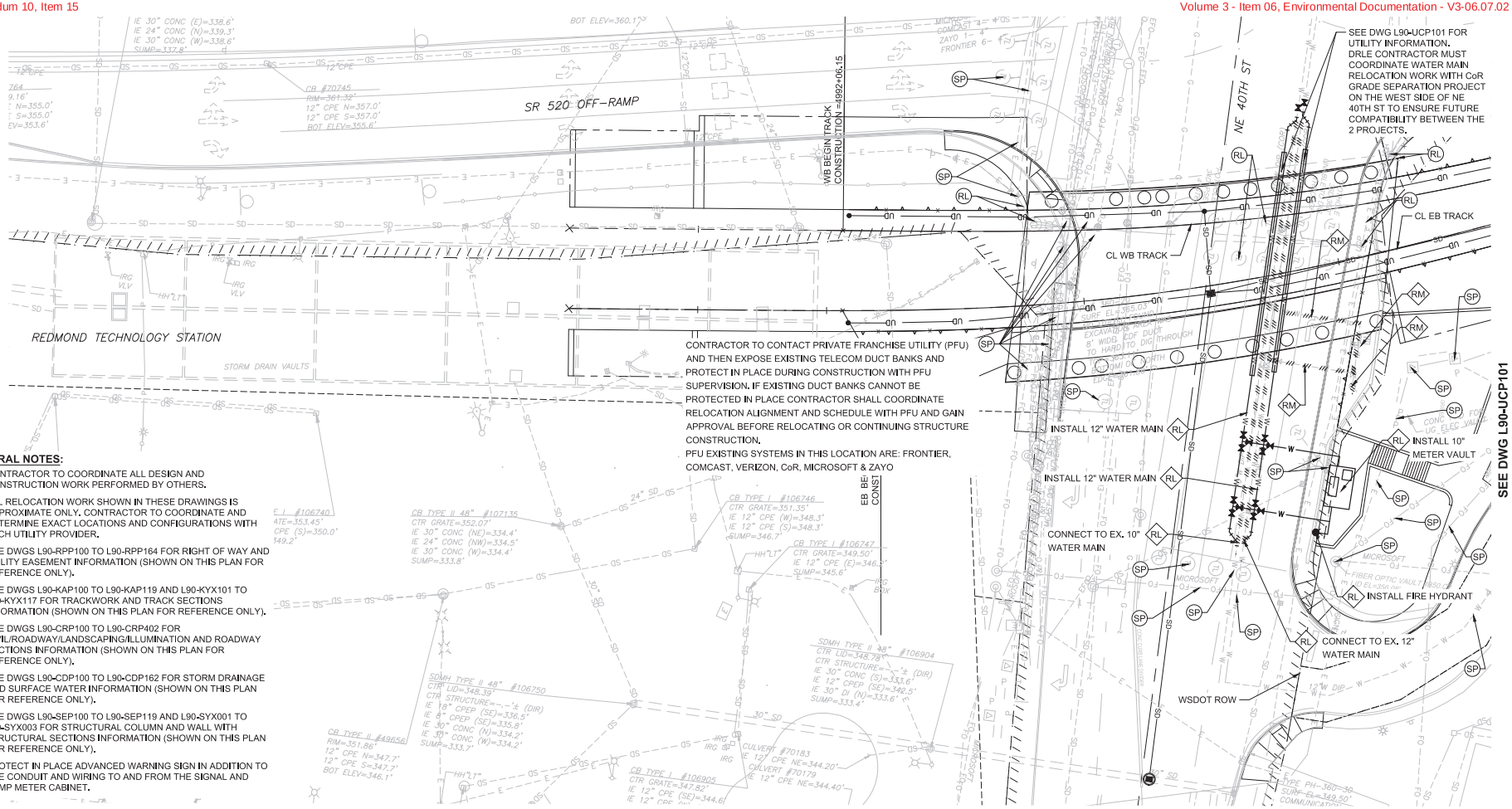
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-CDD100TO101.DWG



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7. SEE DWGS L90-SEP100 TO L90-SEP119 AND L90-SYX001 TO L90-SYX003 FOR STRUCTURAL COLUMN AND WALL WITH STRUCTURAL SECTIONS INFORMATION (SHOWN ON THIS PLAN FOR REFERENCE ONLY).
8. PROTECT IN PLACE ADVANCED WARNING SIGN IN ADDITION TO THE CONDUIT AND WIRING TO AND FROM THE SIGNAL AND RAMP METER CABINET.

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RM = REMOVE

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSAM — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 4991+00 TO EB STA 4993+00

DRAWING No.: L90-UCP100
LOCATION ID:
SHEET No.: 241
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305

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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
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xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-P29-APP305

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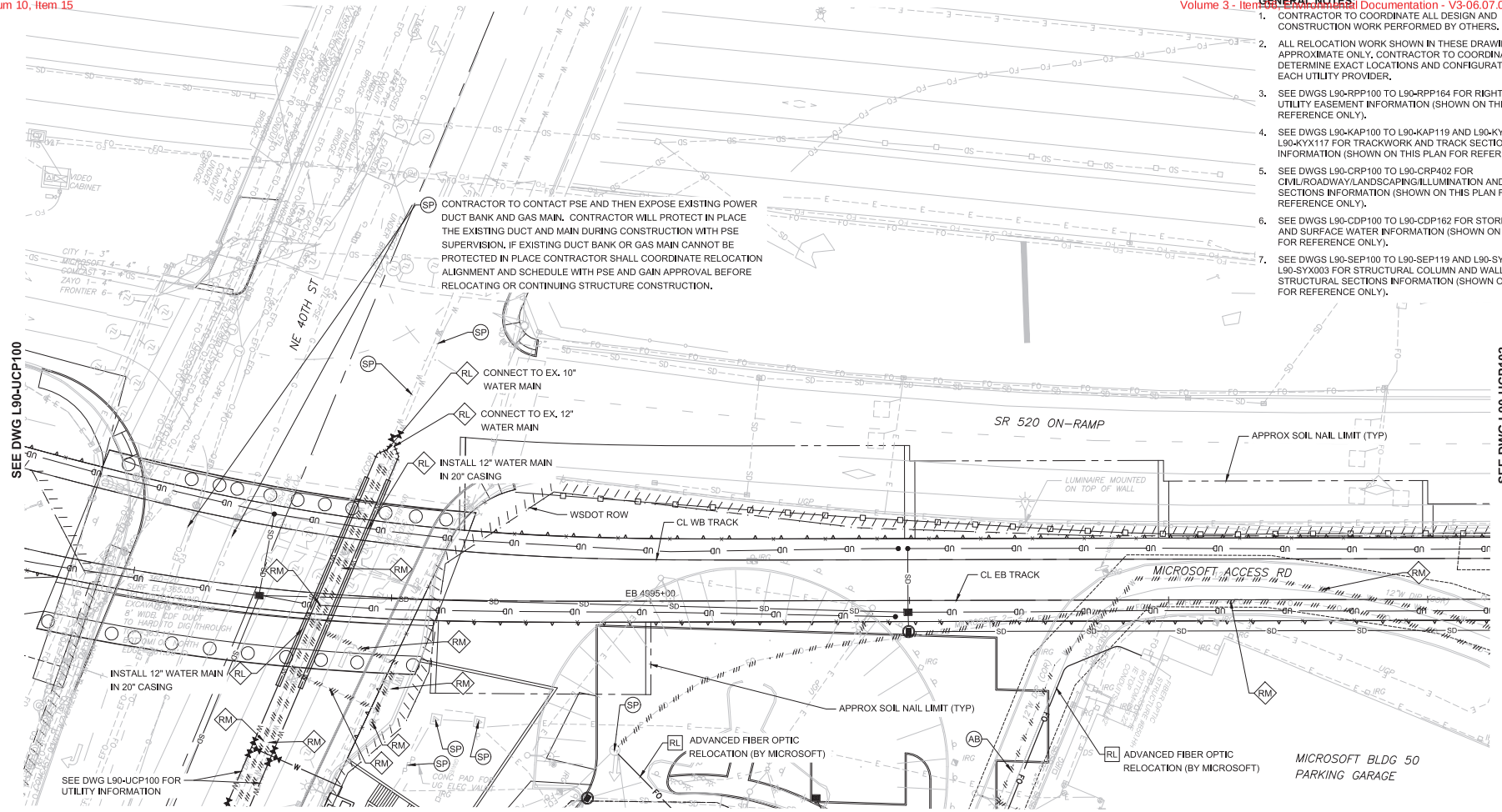

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 4993+00 TO EB STA 4998+00

DRAWING No.: L90-UCP101
LOCATION ID:
SHEET No.: 242
REV:

09/27/18 | 11:28 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-XRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
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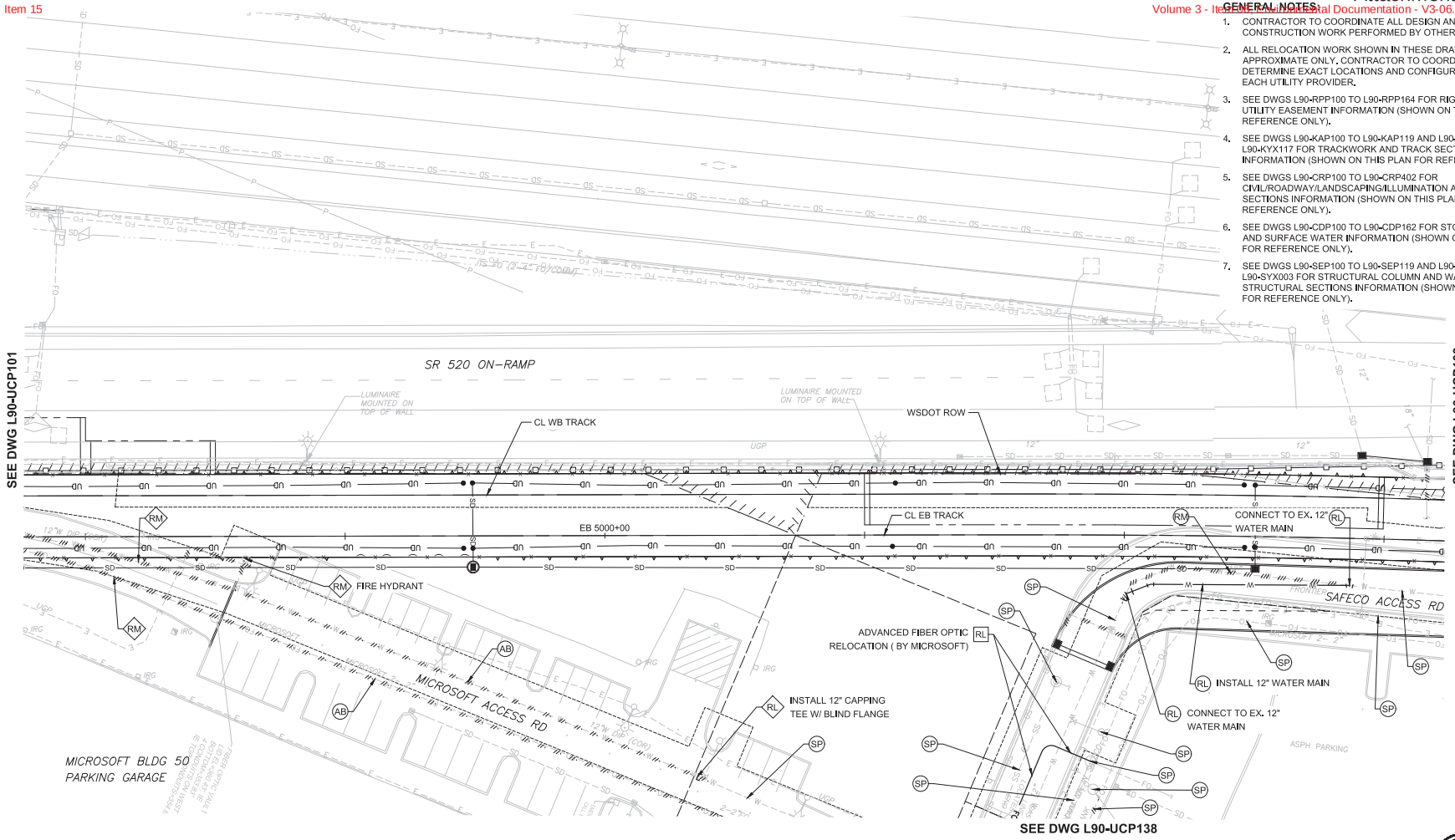

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON STATE OF WASHINGTON 24862 REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 4998+00 TO EB STA 5003+00

DRAWING No.: L90-UCP102
LOCATION ID:
SHEET No.: 243
REV:

09/27/18 | 11:29 AM | TYLERJ
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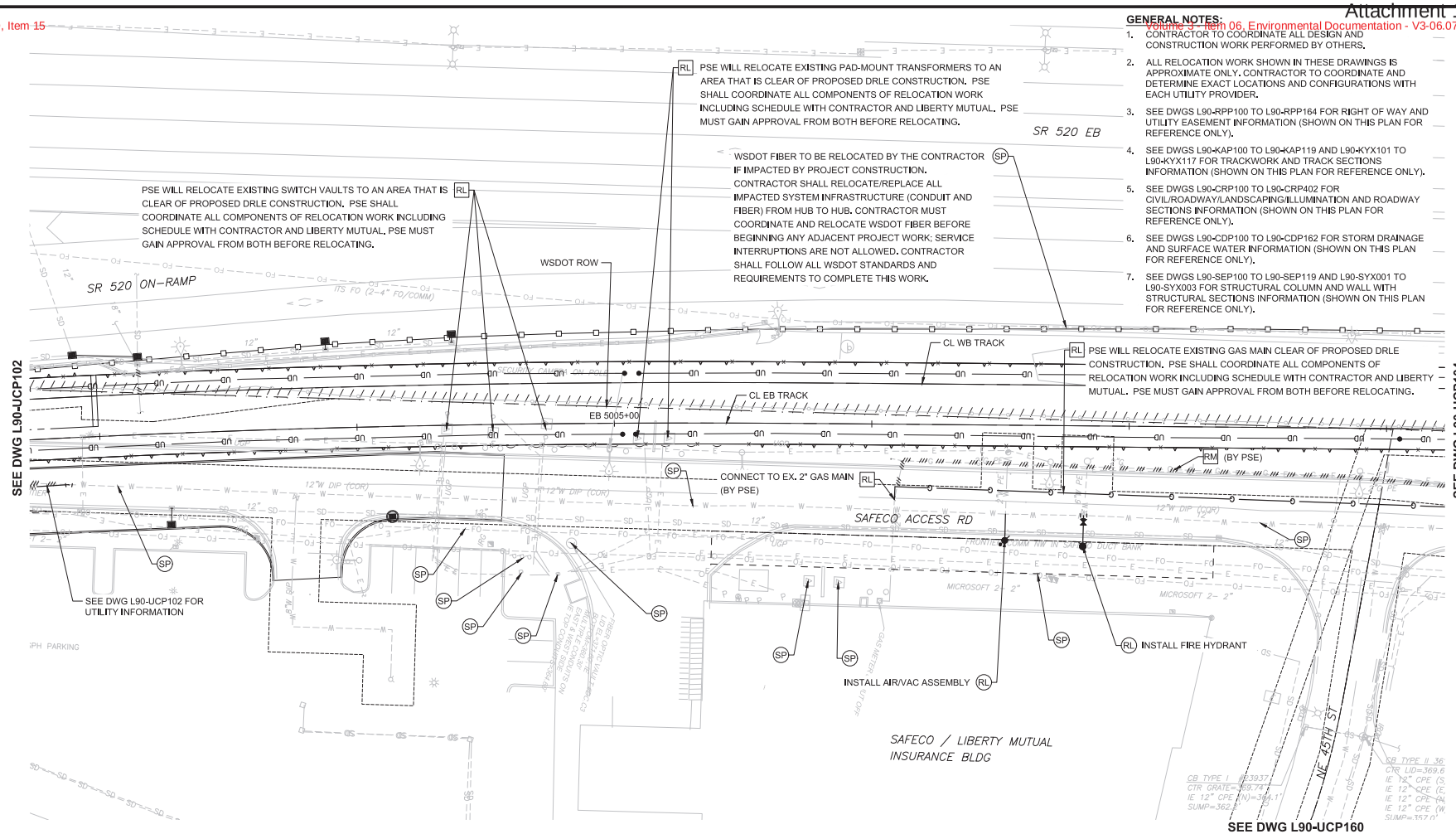

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SCALE IN FEET

CONCEPTUAL DESIGN

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MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

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RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5003+00 TO EB STA 5008+00

DRAWING No.: L90-UCP103
LOCATION ID:
SHEET No.: 244
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
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xRLE-F29-APP305

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xRLE-L90-SWP100
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xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-WUT
xRLE-L95-VSF
xRLE-L95-WUT
xRLE-Q5-VSF
xRLE-Q5-WUT
xRLE-E31-ASP100
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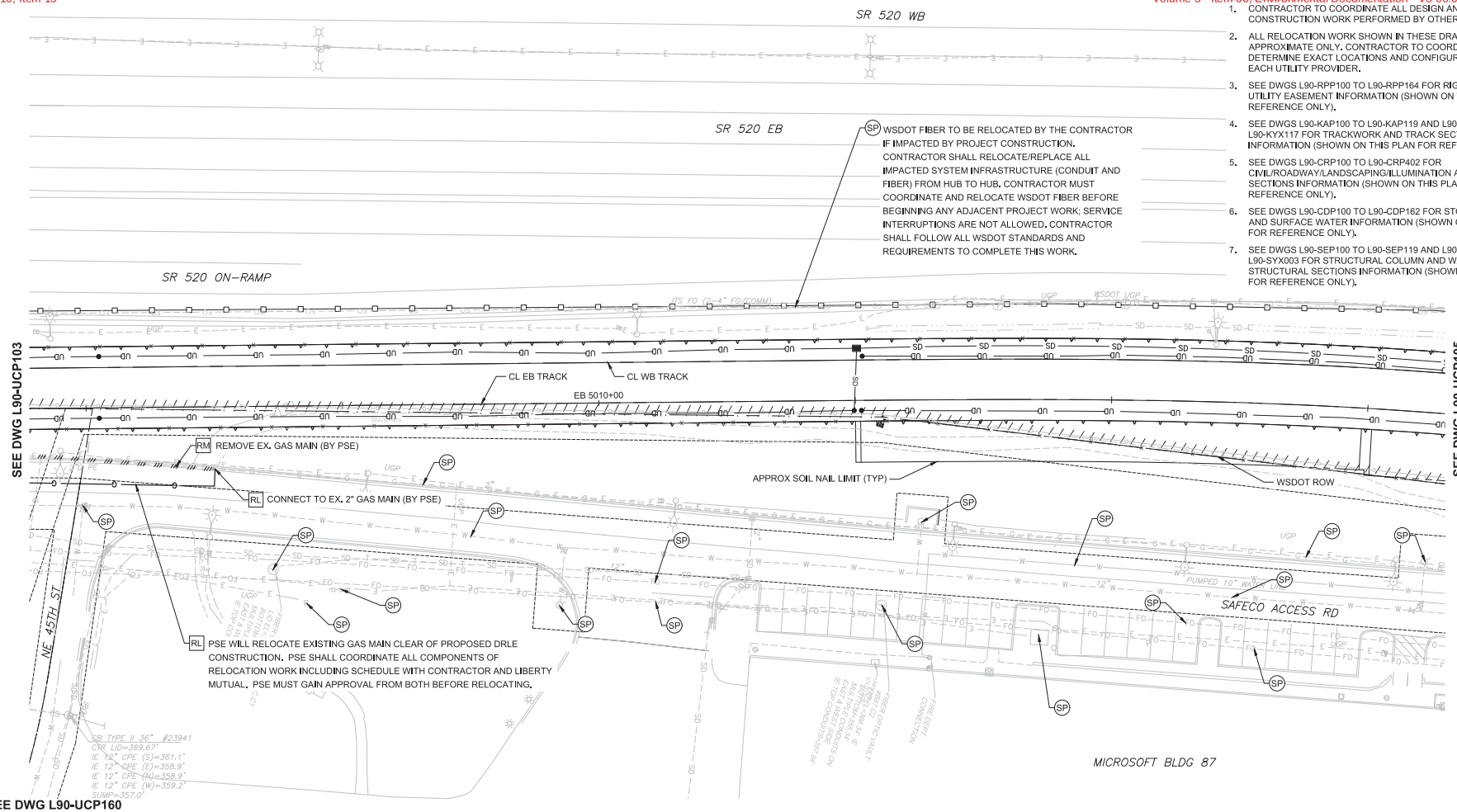
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



(SP) WSDOT FIBER TO BE RELOCATED BY THE CONTRACTOR IF IMPACTED BY PROJECT CONSTRUCTION. CONTRACTOR SHALL RELOCATE/REPLACE ALL IMPACTED SYSTEM INFRASTRUCTURE (CONDUIT AND FIBER) FROM HUB TO HUB. CONTRACTOR MUST COORDINATE AND RELOCATE WSDOT FIBER BEFORE BEGINNING ANY ADJACENT PROJECT WORK; SERVICE INTERRUPTIONS ARE NOT ALLOWED. CONTRACTOR SHALL FOLLOW ALL WSDOT STANDARDS AND REQUIREMENTS TO COMPLETE THIS WORK.

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 24862 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5008+00 TO EB STA 5013+00

DRAWING No.: L90-UCP104
LOCATION ID:
SHEET No.: 245
REV:

09/27/18 | 11:31 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
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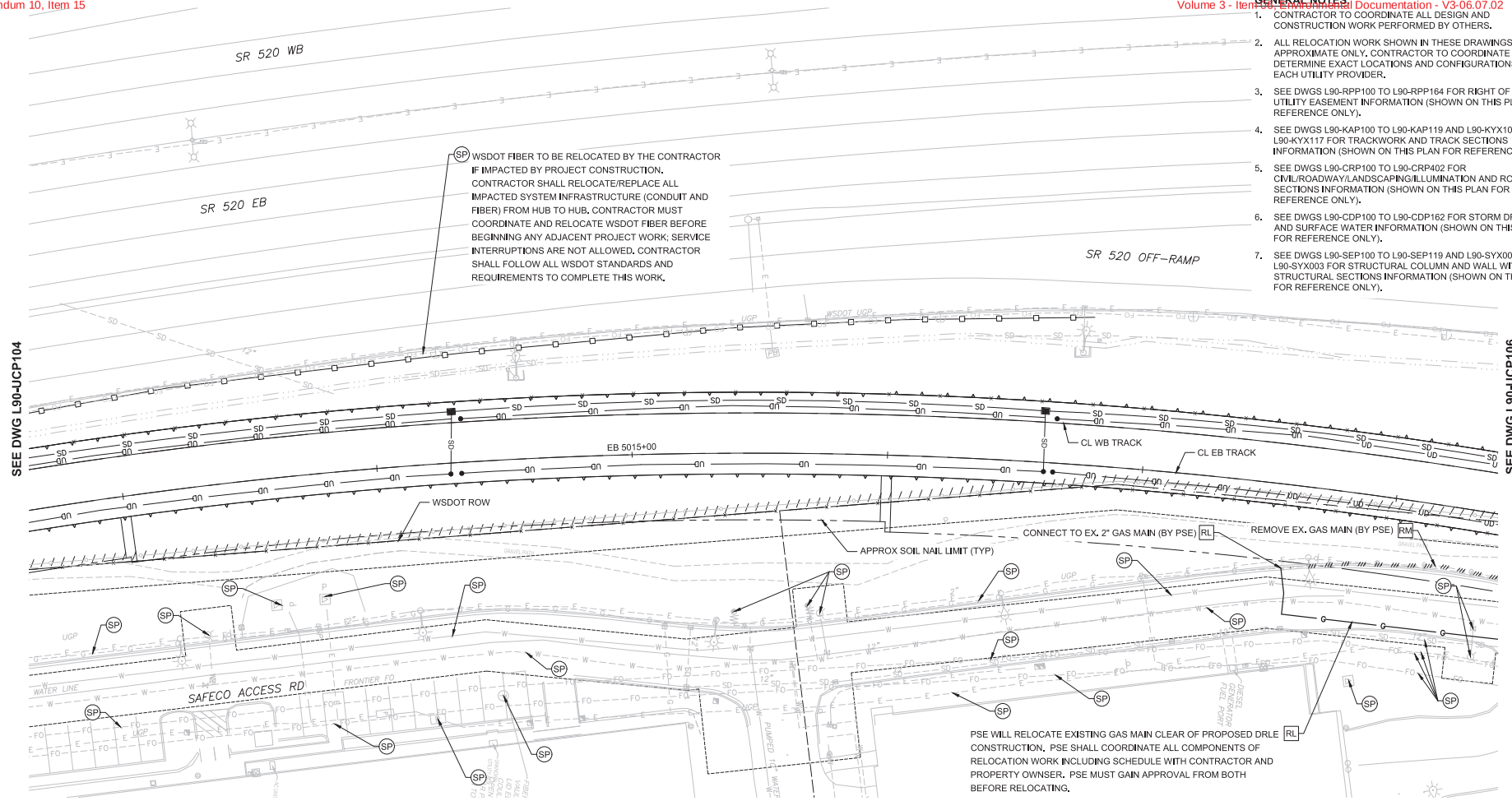
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5013+00 TO EB STA 5018+00

DRAWING No.: L90-UCP105
LOCATION ID:
SHEET No.: 246
REV:

09/27/18 | 11:32 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
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xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
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xRLE-L90-CDP100
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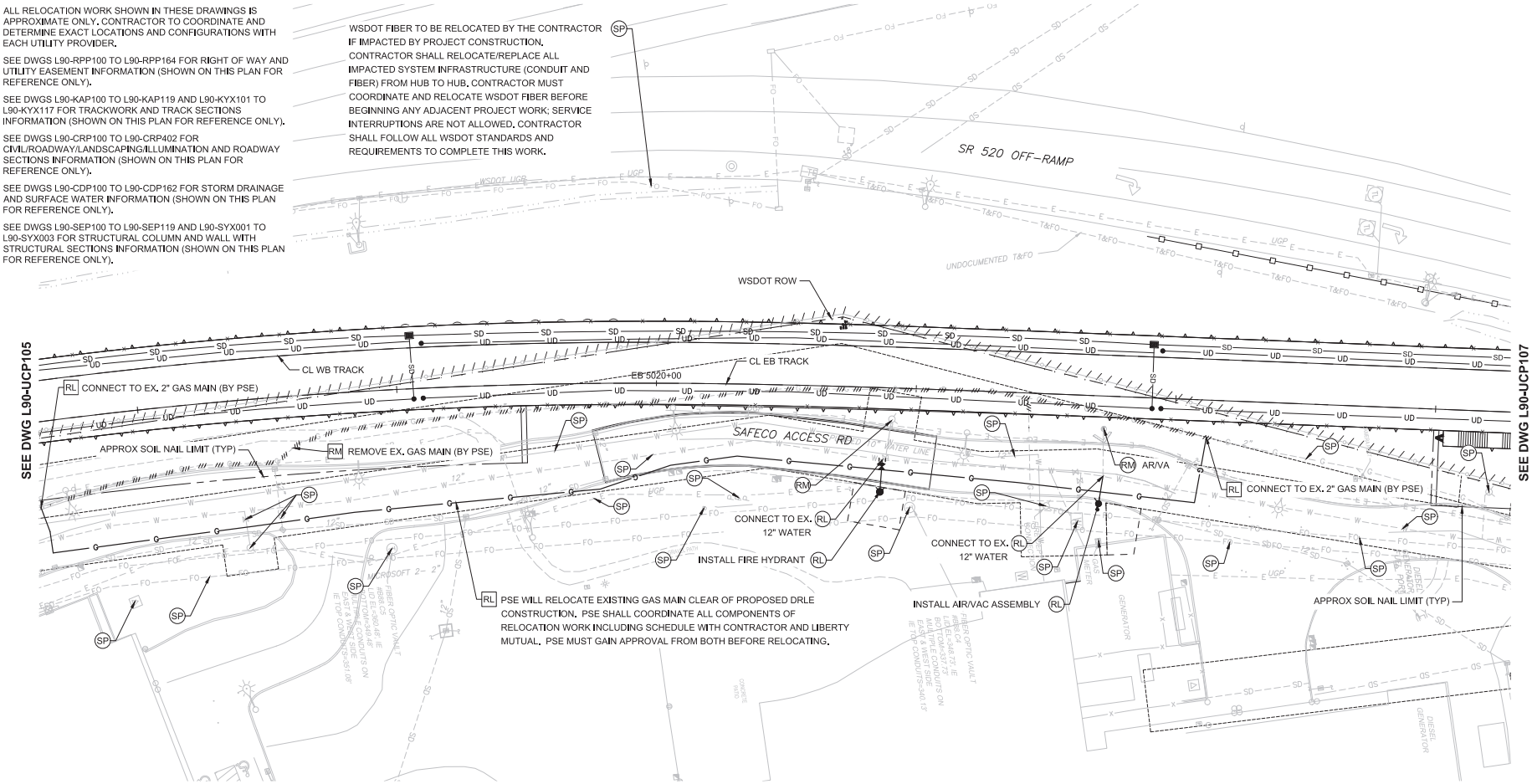

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSAM — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

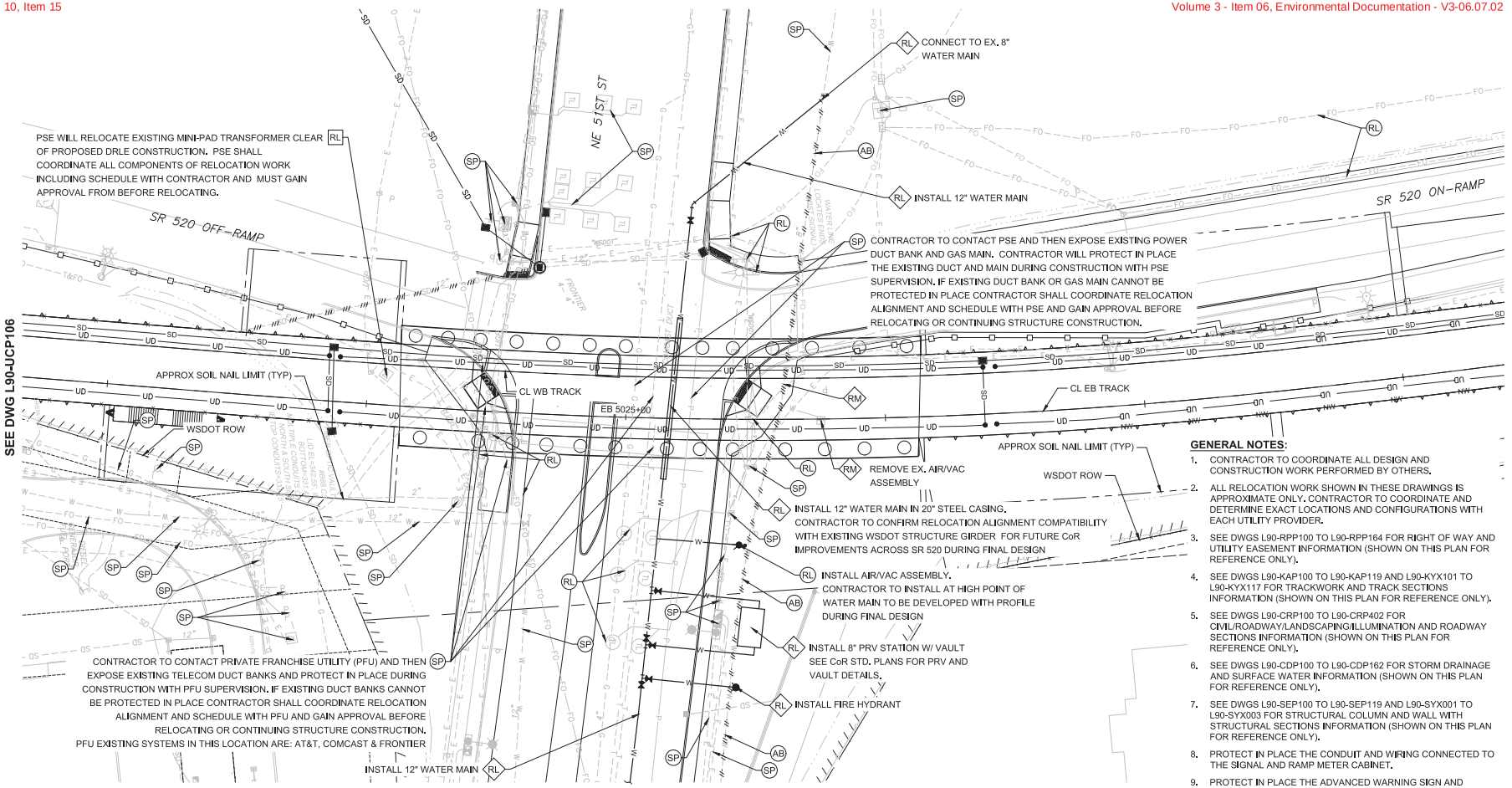
SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5018+00 TO EB STA 5023+00

DRAWING No.: L90-UCP106
LOCATION ID:
SHEET No.: 247
REV:

09/27/18 | 11:33 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG



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8. PROTECT IN PLACE THE CONDUIT AND WIRING CONNECTED TO THE SIGNAL AND RAMP METER CABINET.
9. PROTECT IN PLACE THE ADVANCED WARNING SIGN AND BEACON FOR THE RAMP METER AS WELL AS THE CONDUIT AND CABLING CONNECTED BACK TO THE RAMP METER CABINET.

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FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5023+00 TO EB STA 5028+00

DRAWING No.: L90-UCP107
LOCATION ID:
SHEET No.: 248
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-WUT
xRLE-L95-VSF
xRLE-L95-WUT
xRLE-G05-VSF
xRLE-G05-WUT
xRLE-E31-ASP100
xRLE-E29-ASP100
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xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305

09/27/18 | 11:33 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
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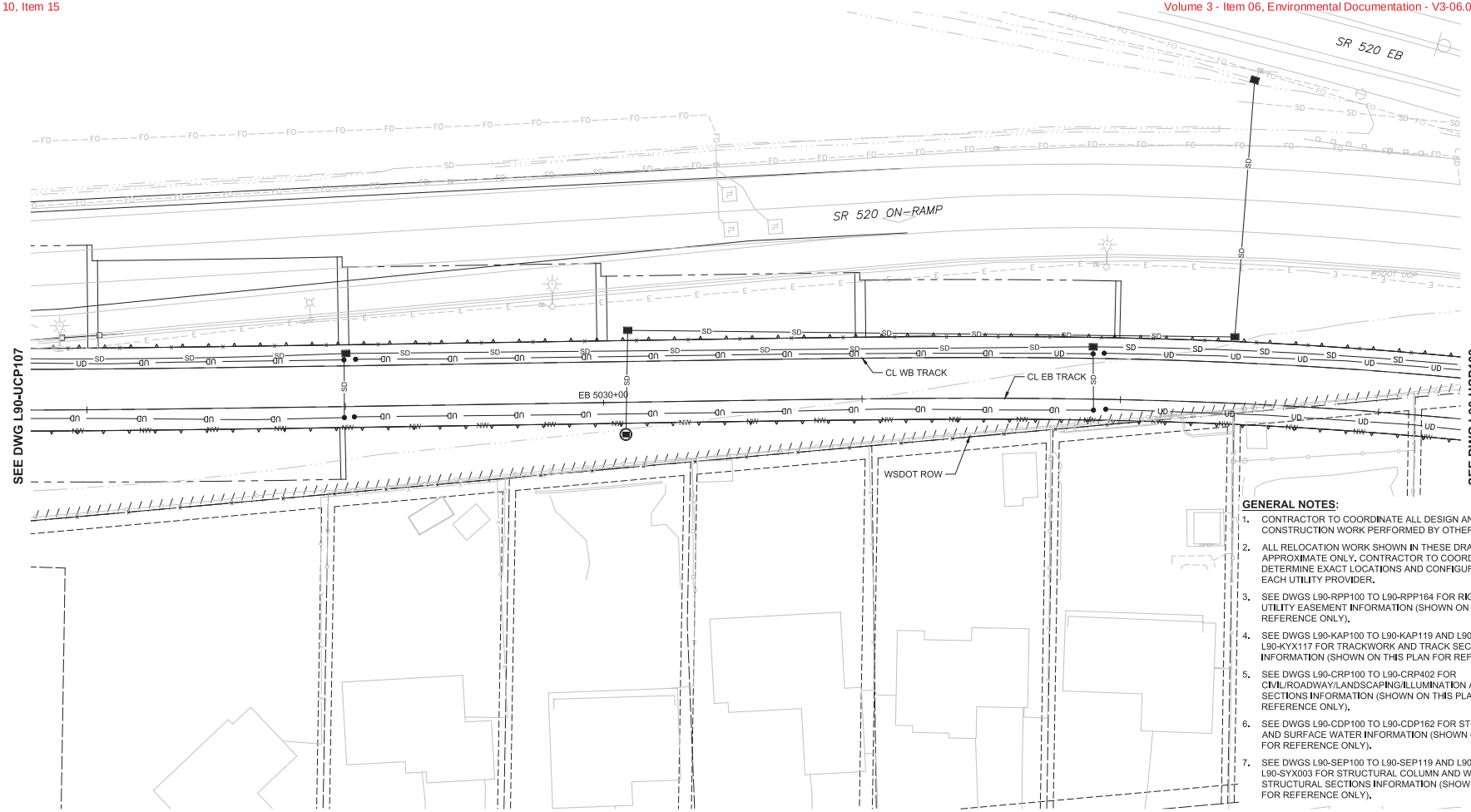

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SCALE IN FEET

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

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FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5028+00 TO EB STA 5033+00

DRAWING No.: L90-UCP108
LOCATION ID:
SHEET No.: 249
REV:

09/27/18 | 11:34 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

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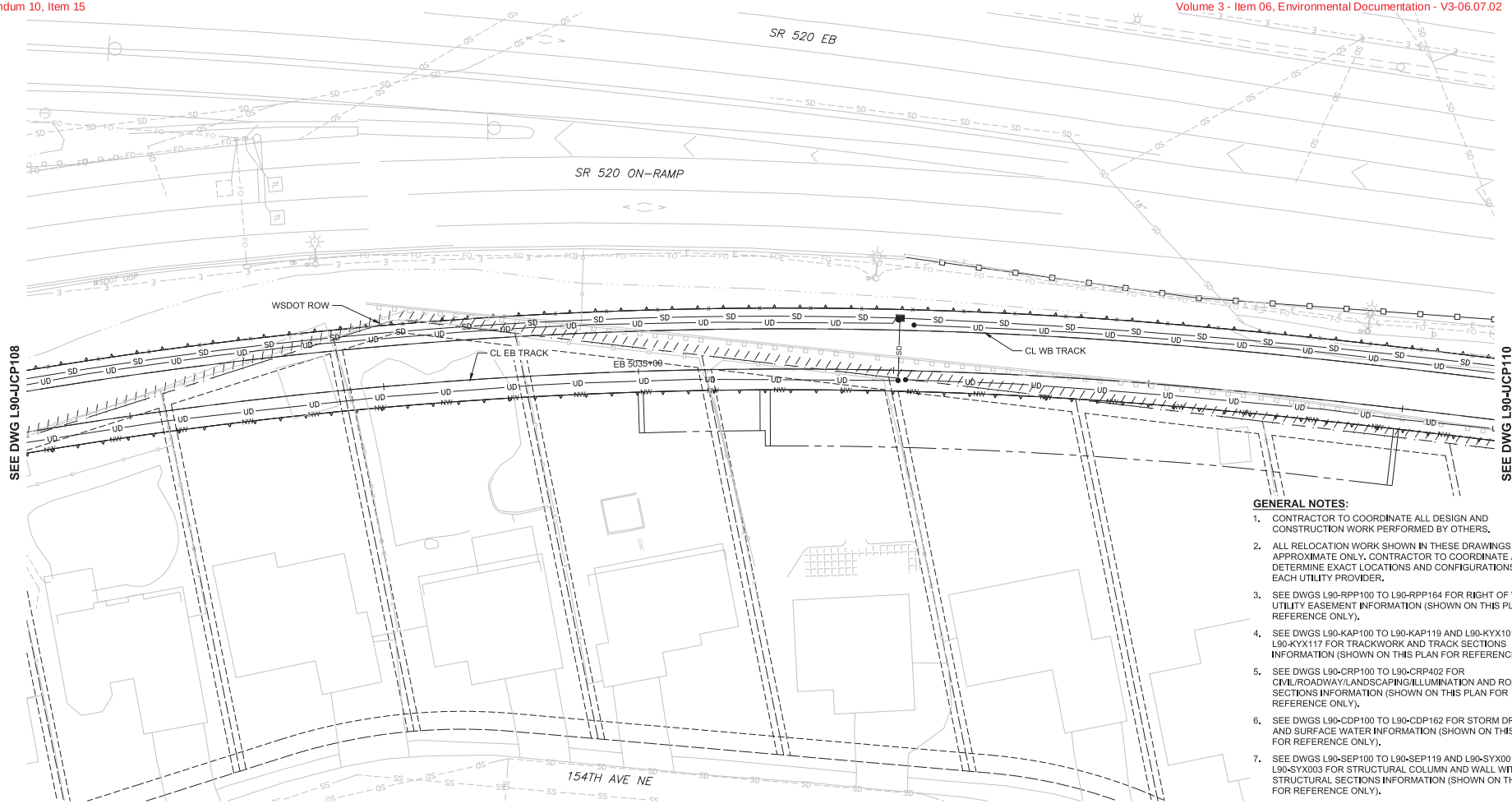
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-G95-VSF
xRLE-G95-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018
REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5033+00 TO EB STA 5038+00

DRAWING No.: L90-UCP109
LOCATION ID:
SHEET No.: 250
REV:

09/27/18 | 11:35 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
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xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
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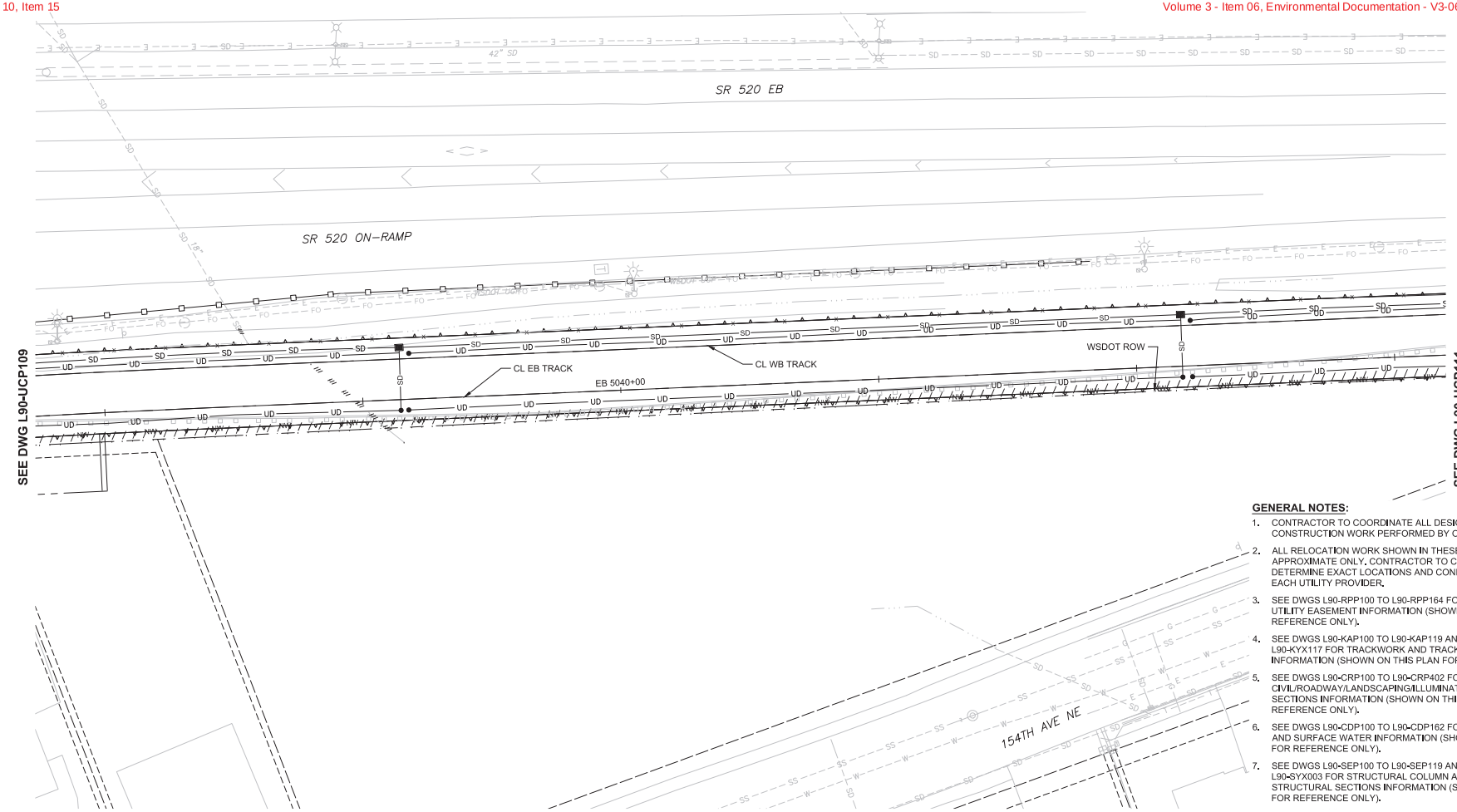

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20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5038+00 TO EB STA 5043+00

DRAWING No.: L90-UCP110
LOCATION ID:
SHEET No.: 251
REV:

09/27/18 | 11:36 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

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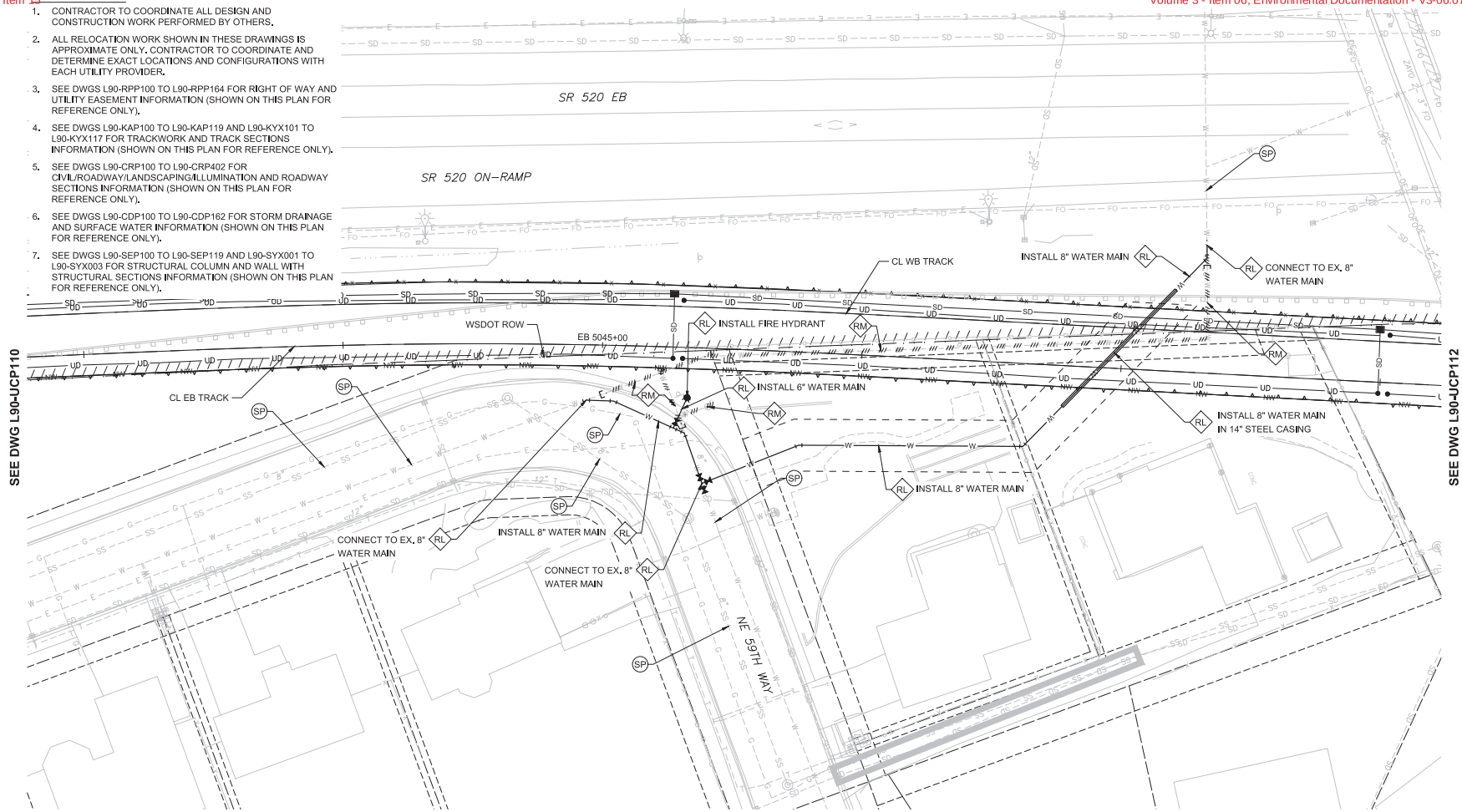

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20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5043+00 TO EB STA 5048+00

DRAWING No.: L90-UCP111
LOCATION ID:
SHEET No.: 252
REV:

09/27/18 | 11:37 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
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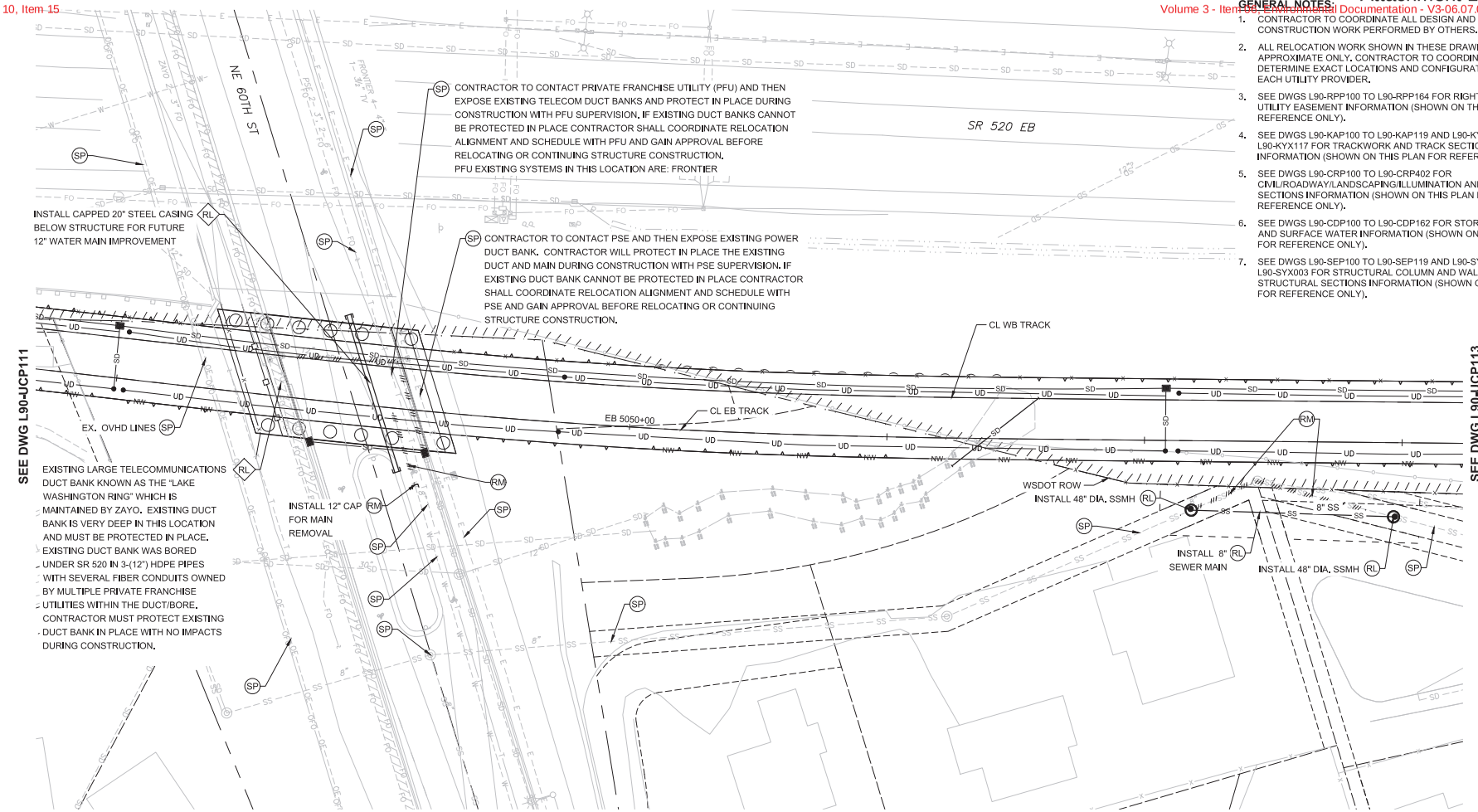

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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 24862 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5048+00 TO EB STA 5053+00

DRAWING No.: L90-UCP112
LOCATION ID:
SHEET No.: 253
REV:

09/27/18 | 11:38 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
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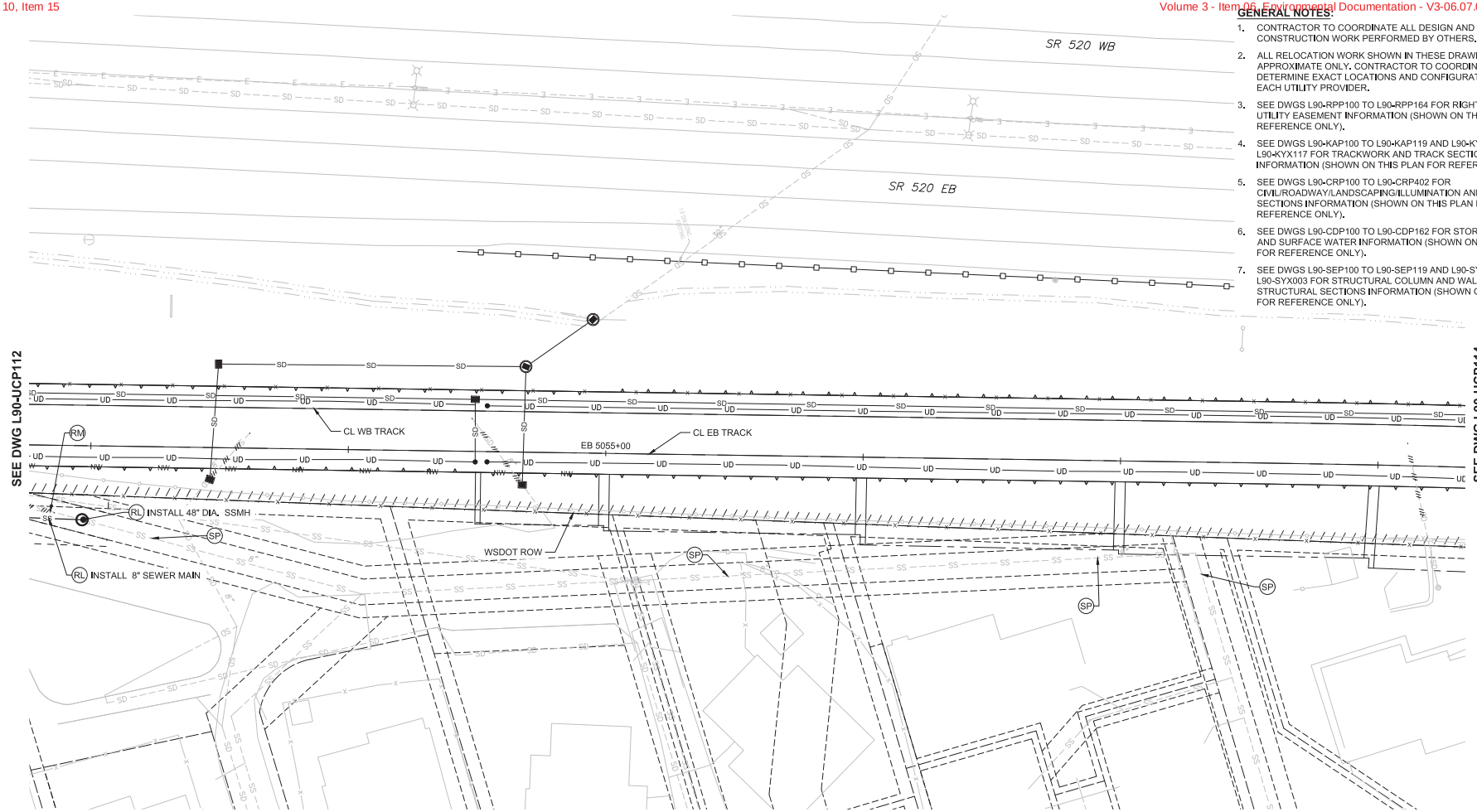

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No.	DATE	DSN	CHK	APP	REVISION

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SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5053+00 TO EB STA 5058+00

DRAWING No.: L90-UCP113
LOCATION ID:
SHEET No.: 254
REV:

09/27/18 | 11:39 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP100TO130.DWG

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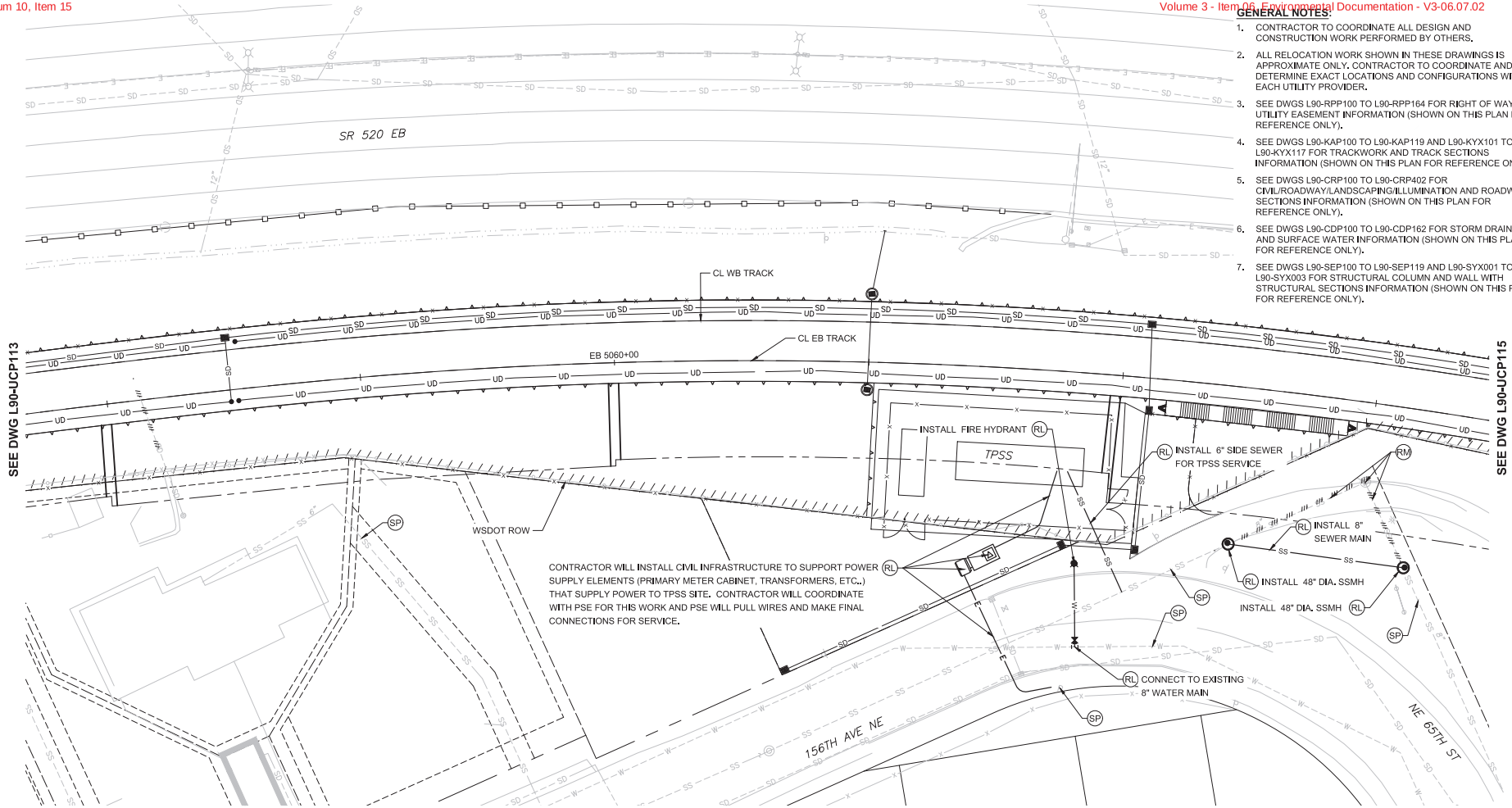

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5058+00 TO EB STA 5063+00

DRAWING No.: L90-UCP114
LOCATION ID:
SHEET No.: 255
REV:

10/23/18 | 12:54 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
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xRLE-L90-RHP100
xRLE-L90-CDP100
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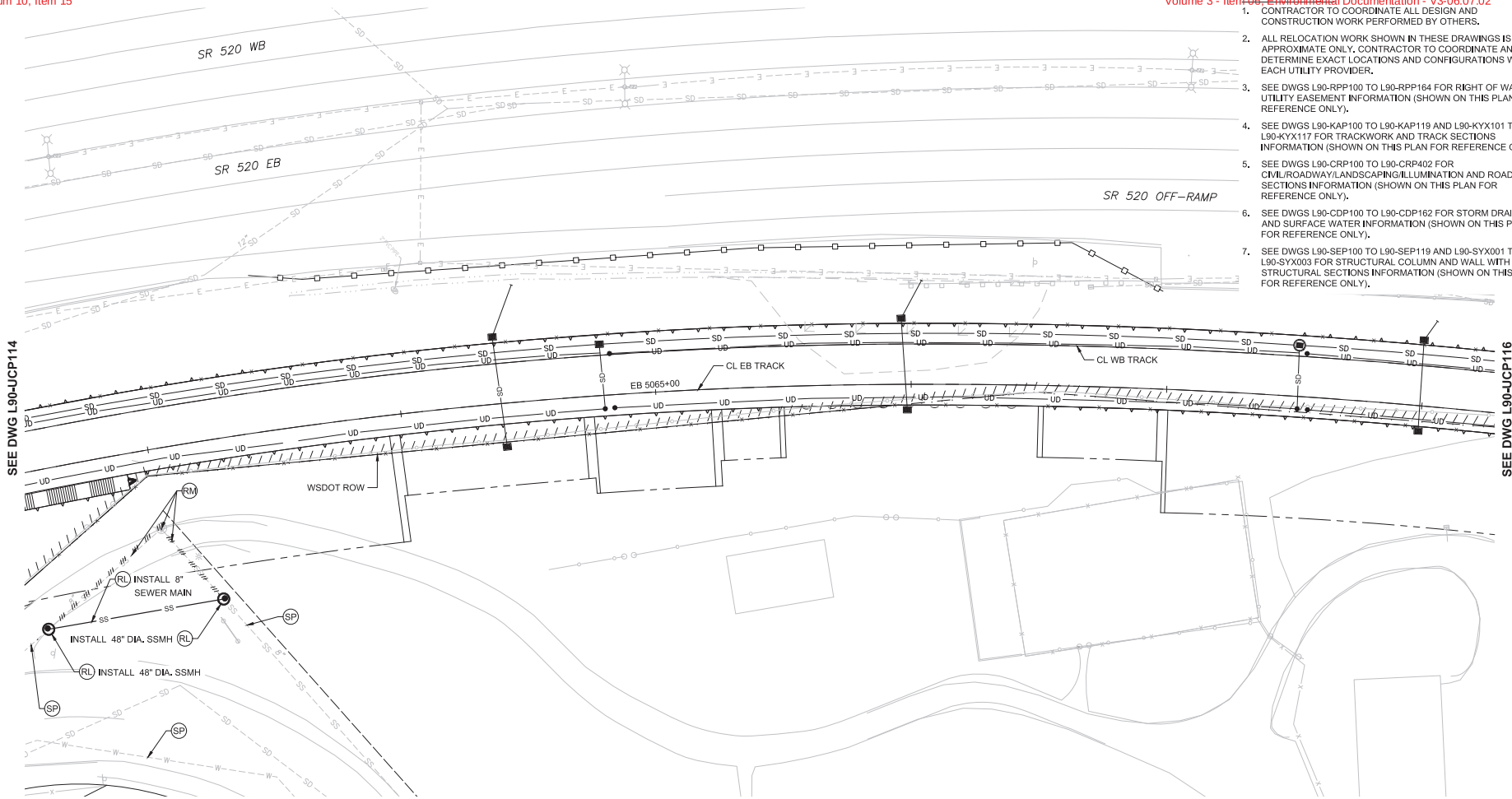

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NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

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DESIGNED BY: M. AUSTIN
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CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5063+00 TO EB STA 5068+00

DRAWING No.: L90-UCP115
LOCATION ID:
SHEET No.: 256
REV:

09/27/18 | 11:41 AM | TYLERJ
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Xrefs:
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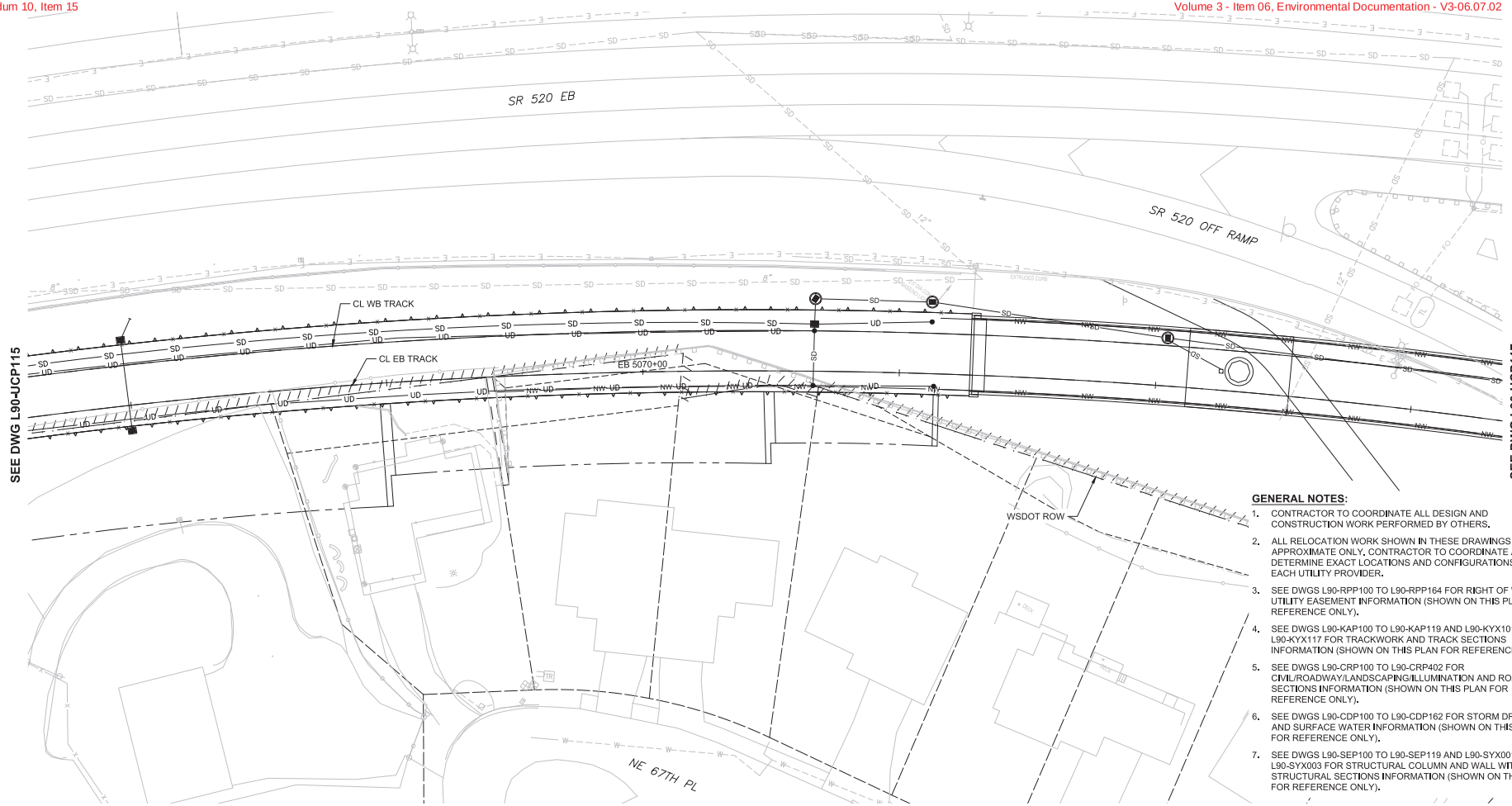
xRLE-L90-CDP100
xRLE-F29-APP305



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20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
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CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5068+00 TO EB STA 5073+00

DRAWING No.: L90-UCP116
LOCATION ID:
SHEET No.: 257
REV:

09/27/18 | 11:42 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

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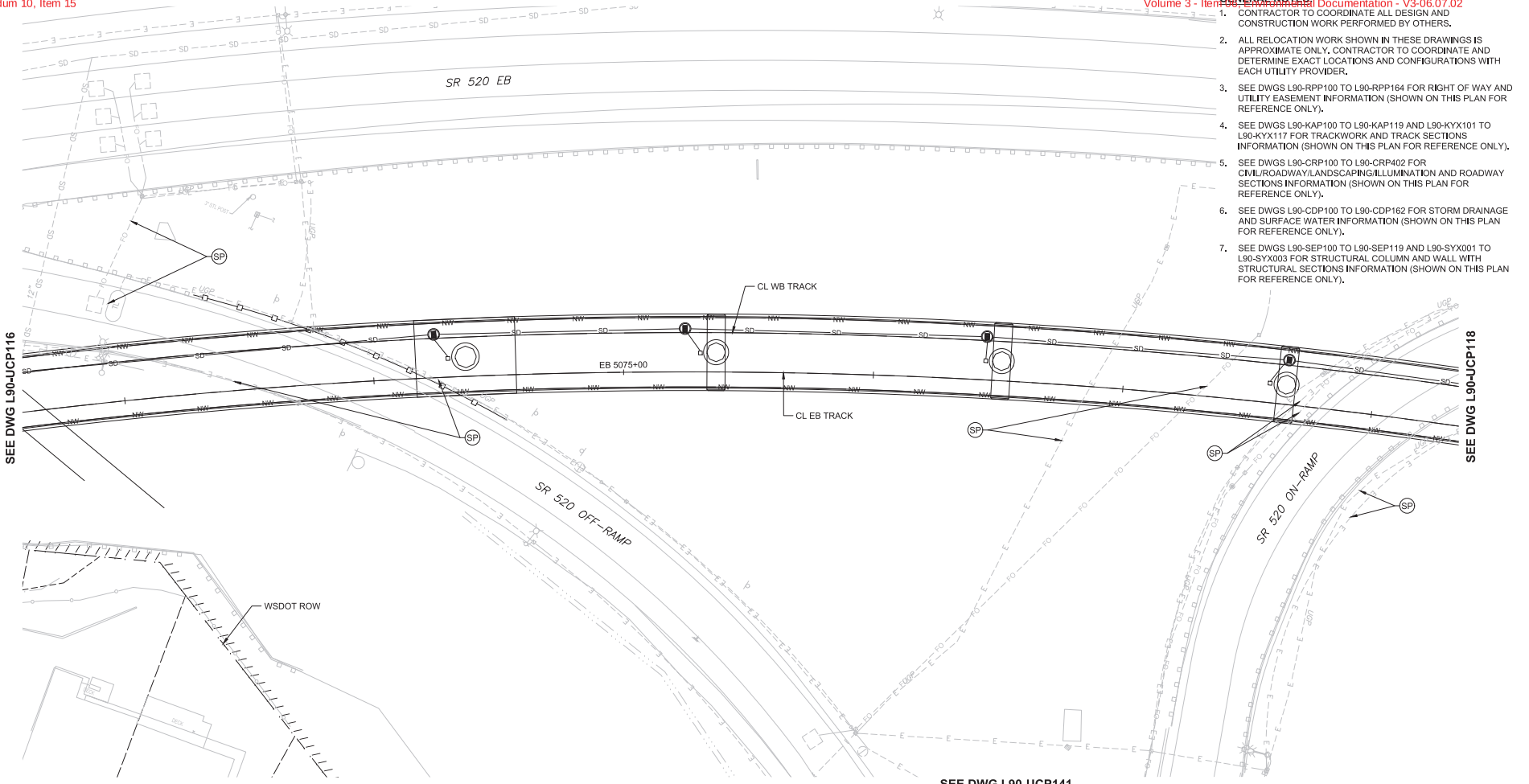

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20 10 0 20 40
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FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5073+00 TO EB STA 5078+00

DRAWING No.: L90-UCP117
LOCATION ID:
SHEET No.: 258
REV:

09/27/18 | 11:43 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
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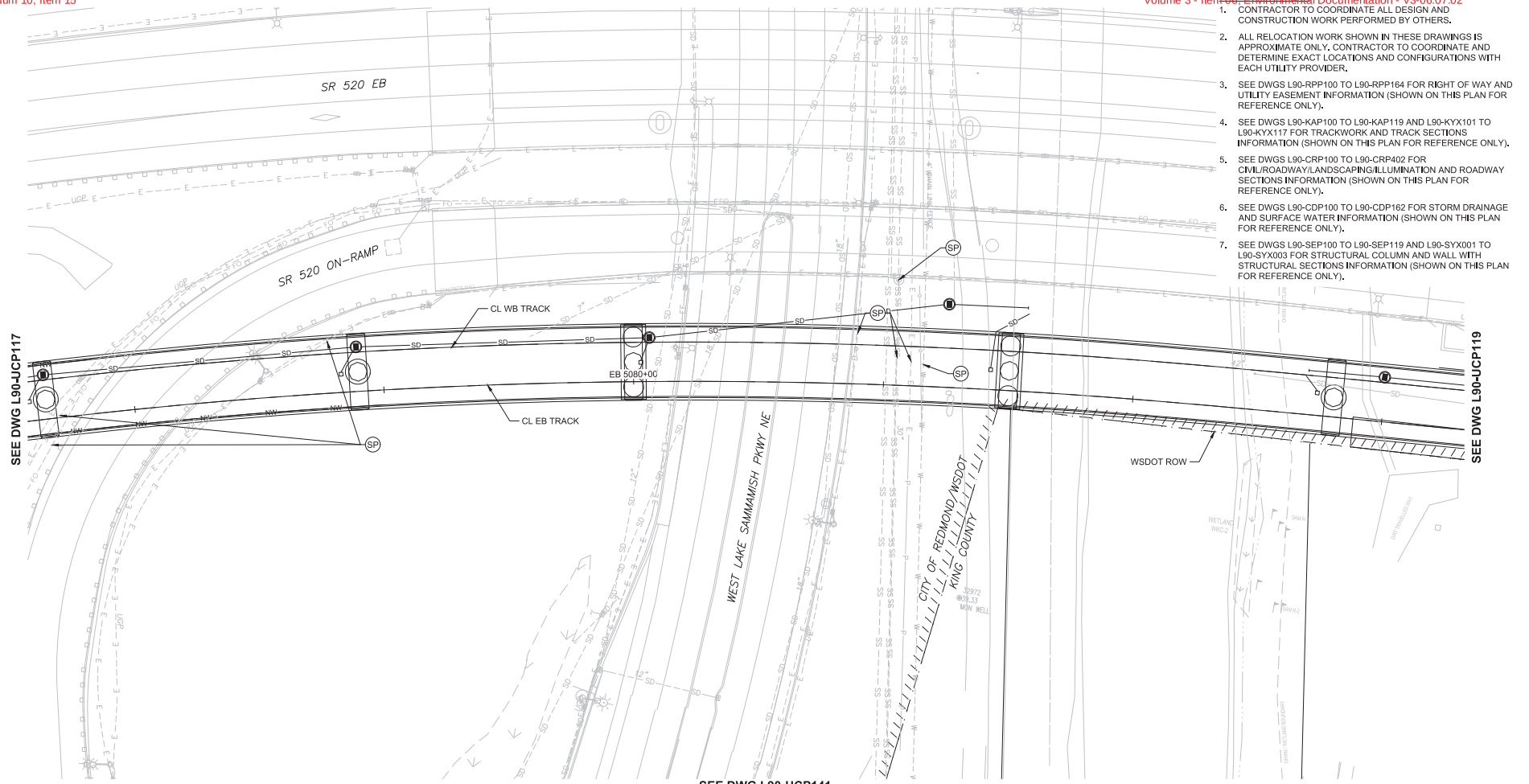

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DESIGNED BY: M. AUSTIN
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APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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LINE IS 1" AT FULL SCALE

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CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5078+00 TO EB STA 5083+00

DRAWING No.: L90-UCP118
LOCATION ID:
SHEET No.: 259
REV:

09/27/18 | 11:44 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

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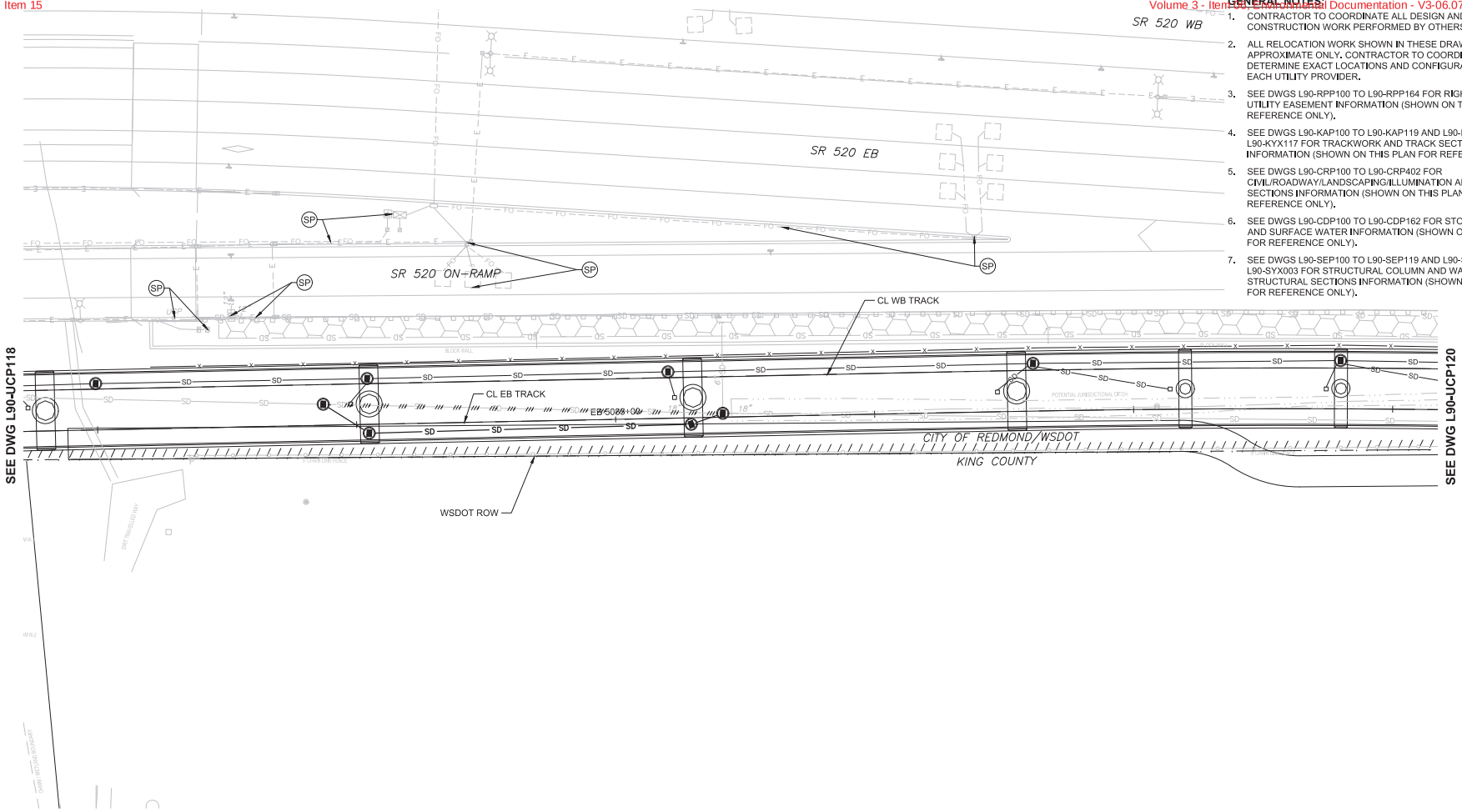

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5083+00 TO EB STA 5088+00

DRAWING No.: L90-UCP119
LOCATION ID:
SHEET No.: 260
REV:

09/27/18 | 11:45 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%3AREPOINT.SOUNDTRANSIT.ORG%443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
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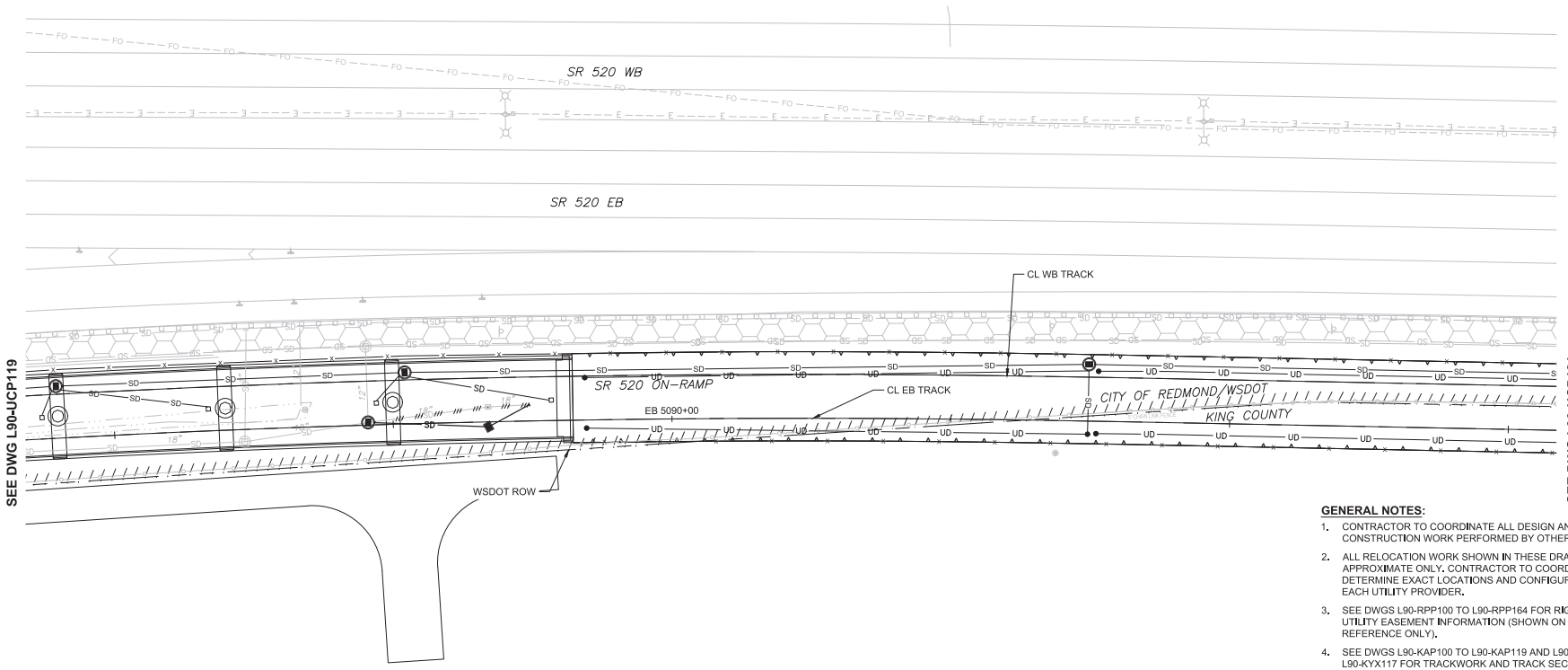

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NOT FOR CONSTRUCTION

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SCALE IN FEET

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FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
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APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 39882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

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SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5088+00 TO EB STA 5093+00

DRAWING No.: L90-UCP120
LOCATION ID:
SHEET No.: 261
REV:

09/27/18 | 11:46 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS%SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP100TO130.DWG

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xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
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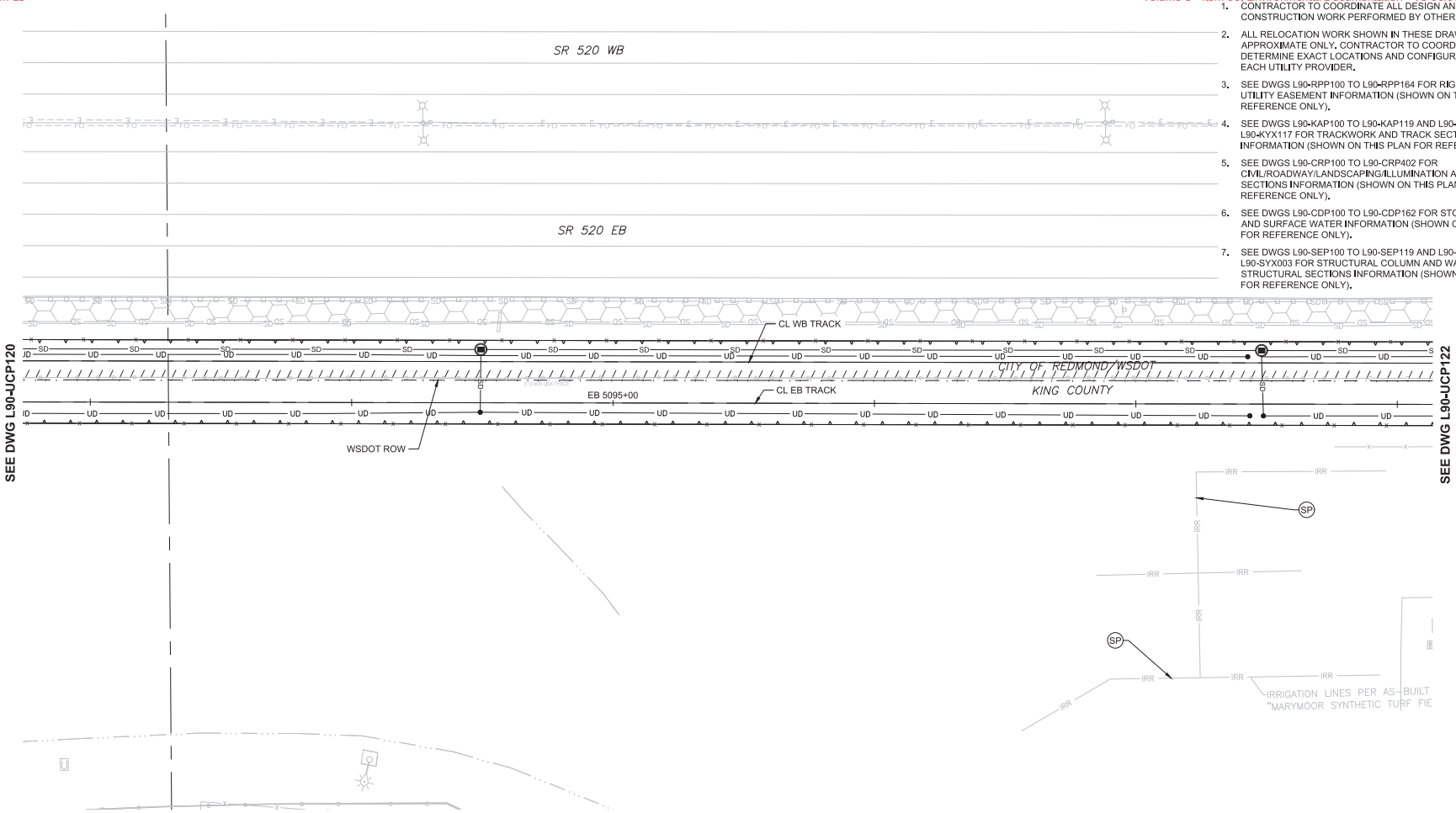

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20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASTEN — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5093+00 TO EB STA 5098+00

DRAWING No.: L90-UCP121
LOCATION ID:
SHEET No.: 262
REV:

09/27/18 | 11:47 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
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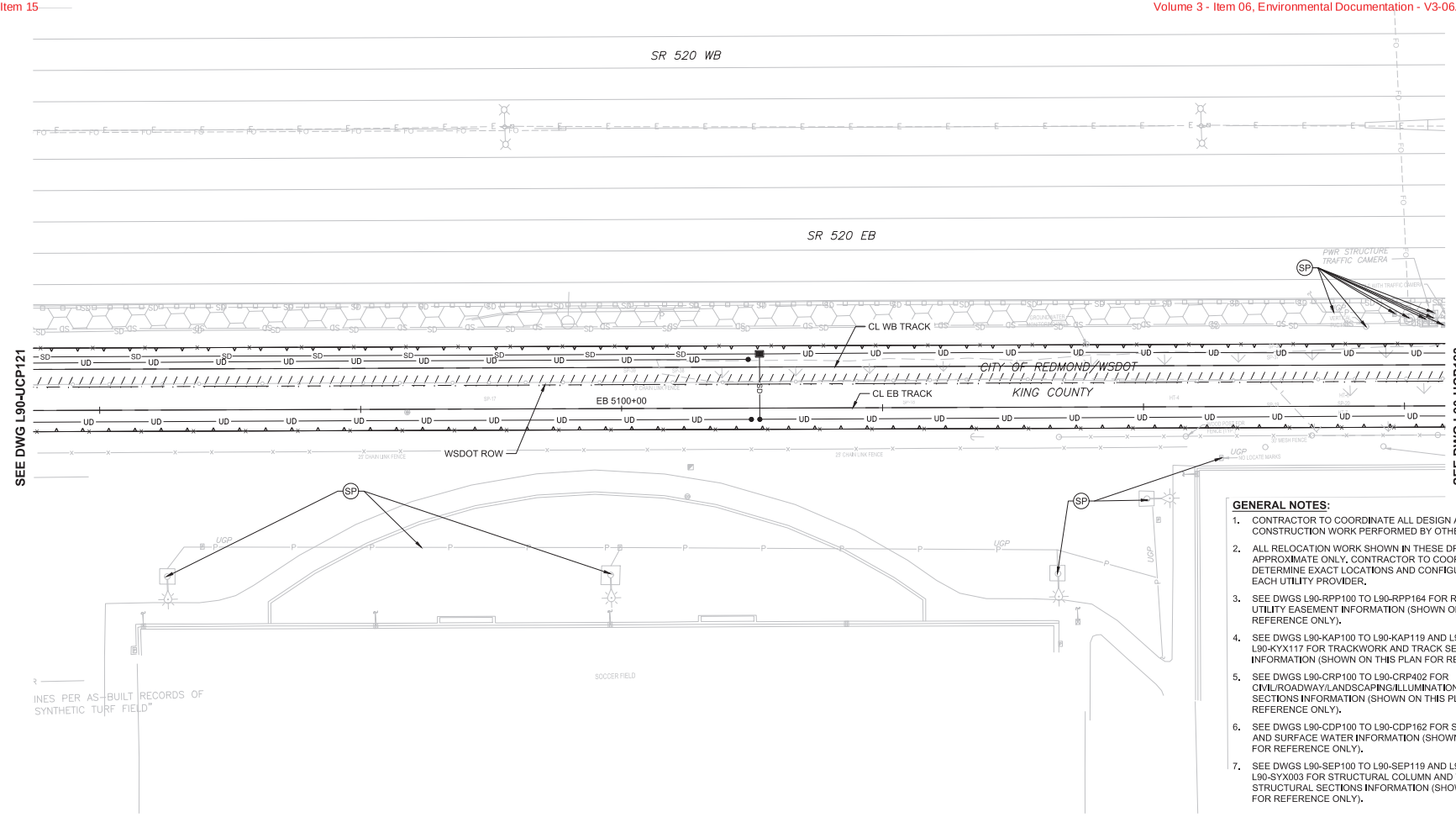

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SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22662 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5098+00 TO EB STA 5103+00

DRAWING No.: L90-UCP122
LOCATION ID:
SHEET No.: 263
REV:

11/06/18 | 1:27 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
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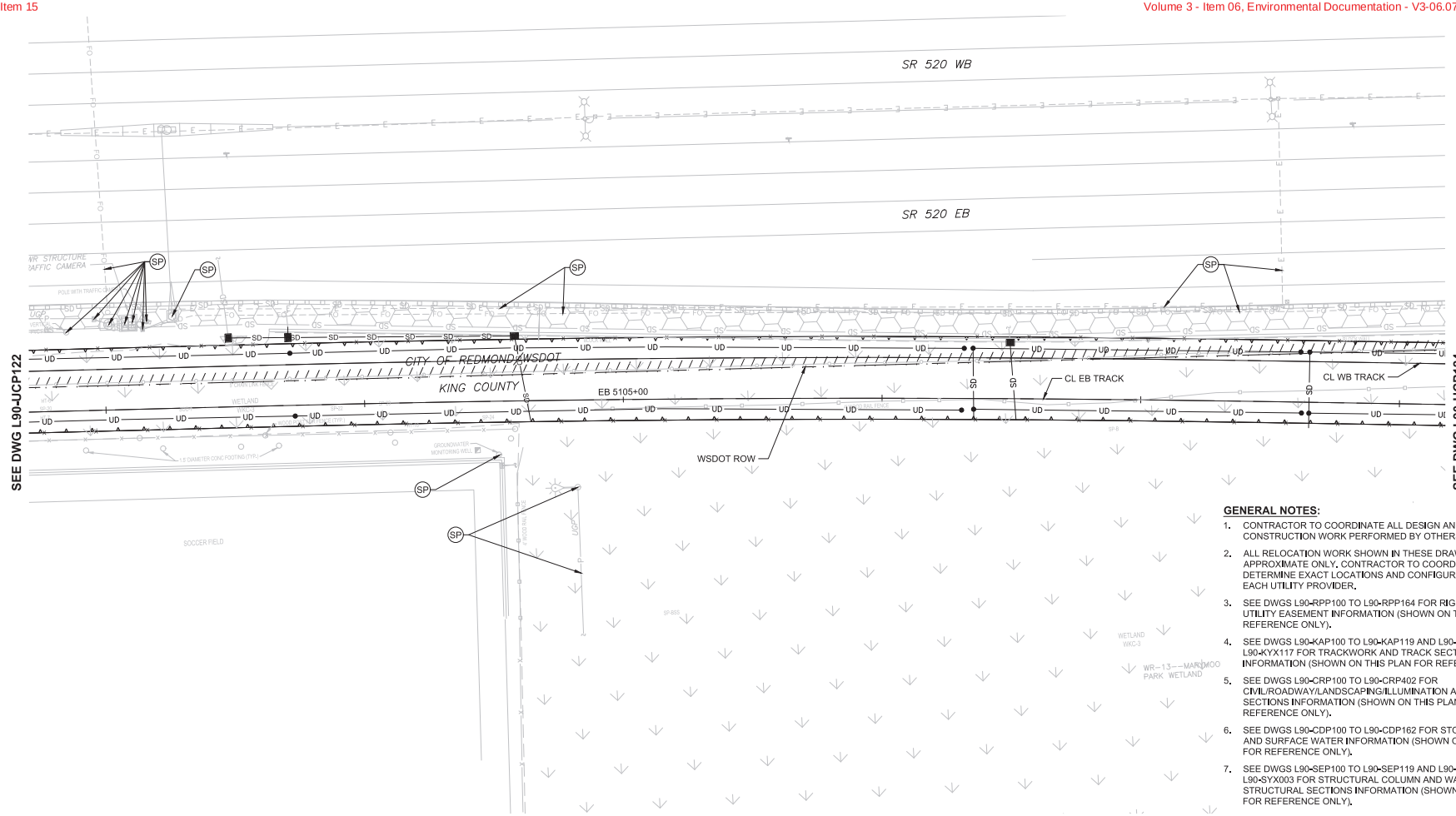

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SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

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SOUNDTRANSIT

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FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5103+00 TO EB STA 5108+00

DRAWING No.: L90-UCP123
LOCATION ID:
SHEET No.: 264
REV:

11/06/18 | 1:20 PM | TYLERJ
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Xrefs:
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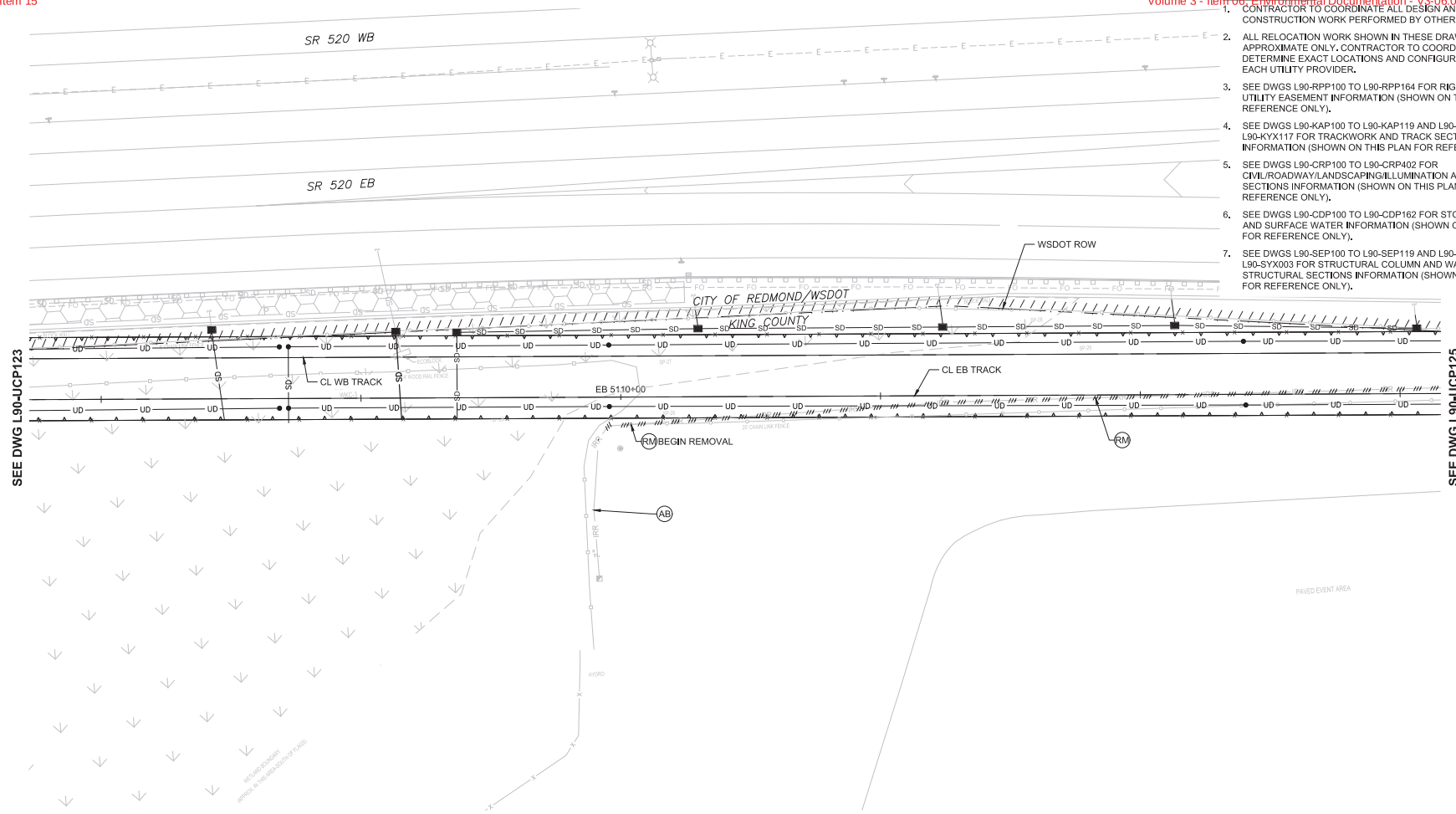

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

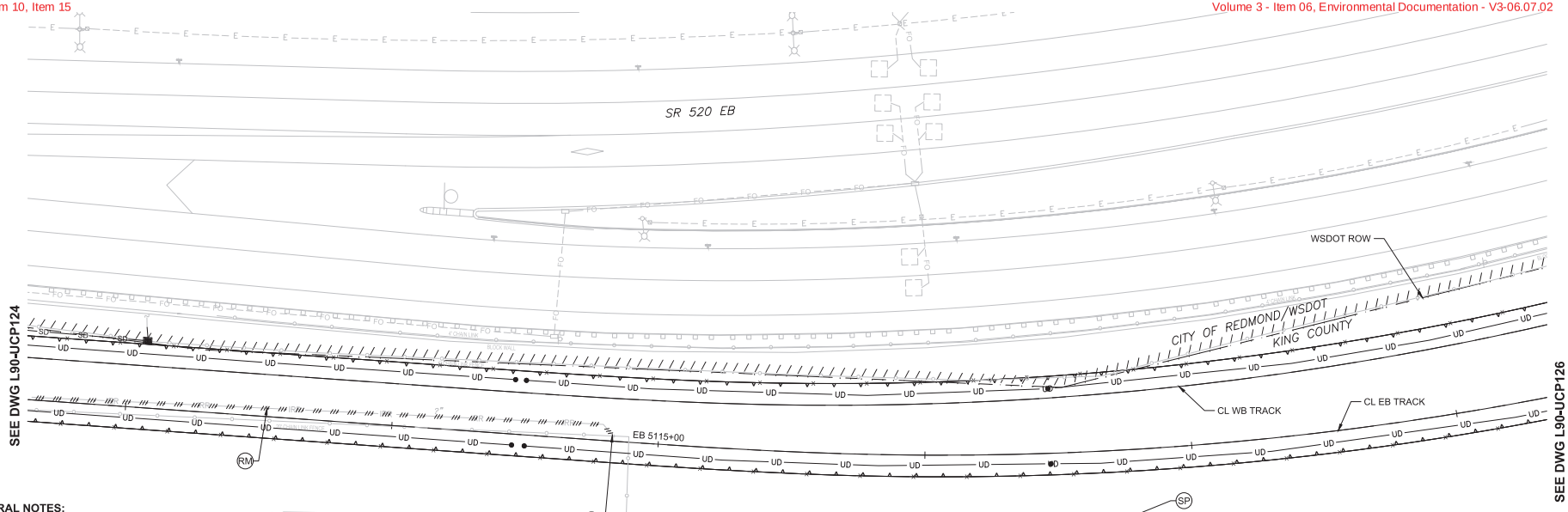
SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5108+00 TO EB STA 5113+00

DRAWING No.: L90-UCP124
LOCATION ID:
SHEET No.: 265
REV:

09/27/18 | 11:50 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP100TO130.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
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MATTHEW P. ASHTON — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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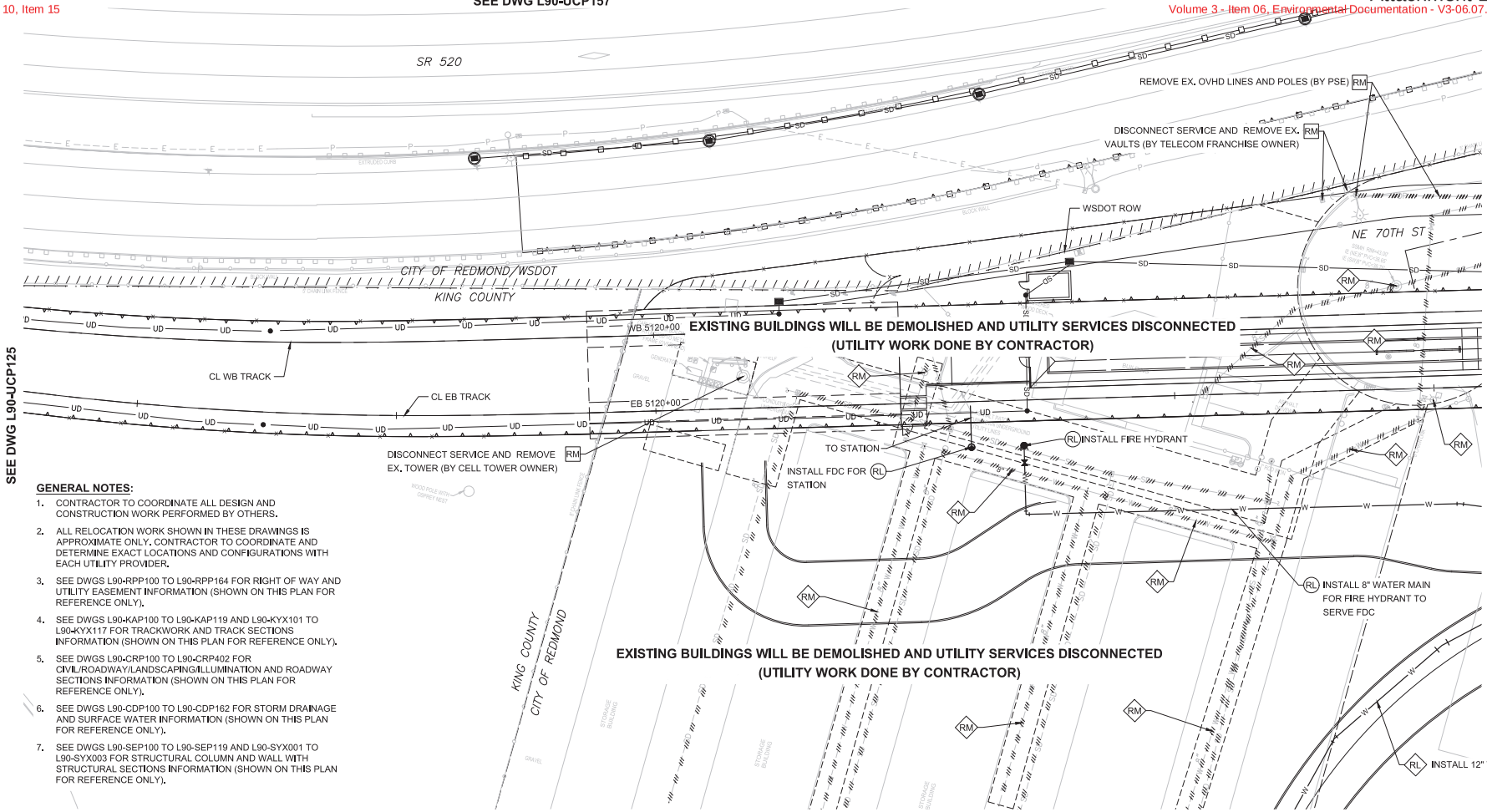
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5113+00 TO EB STA 5118+00

DRAWING No.: L90-UCP125
LOCATION ID:
SHEET No.: 266
REV:

09/27/18 | 11:51 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP100TO130.DWG

SEE DWG L90-UCP157



SEE DWG L90-UCP125

SEE DWG L90-UCP127

SEE DWG L90-UCP155

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NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

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DESIGNED BY: M. AUSTIN
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APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
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SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5118+00 TO EB STA 5123+00

DRAWING No.: L90-UCP126
LOCATION ID:
SHEET No.: 267
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
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xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-P29-APP305

09/27/18 | 11:52 AM | TYLERJ
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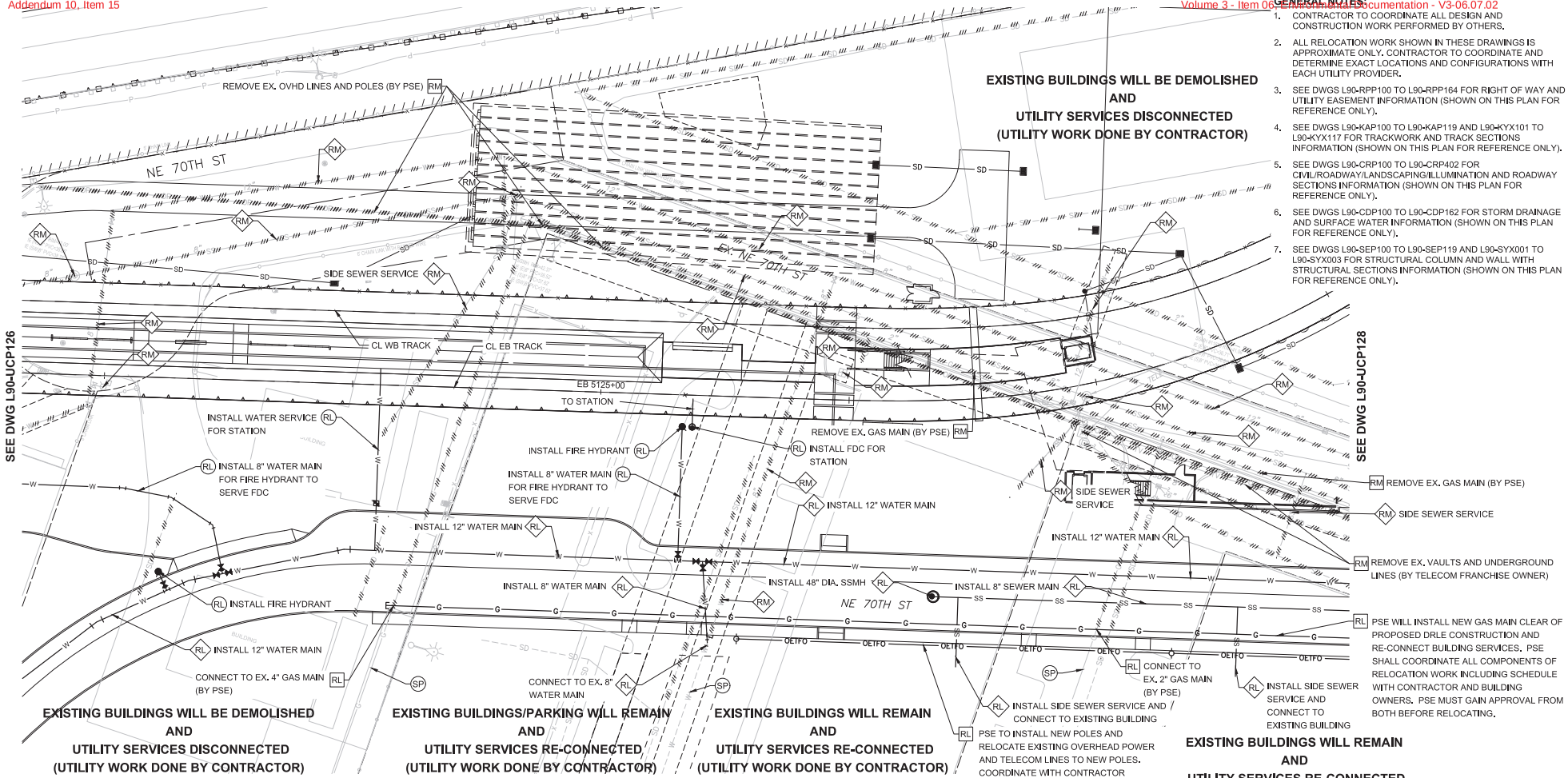

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SCALE IN FEET 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
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MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5123+00 TO EB STA 5127+50

DRAWING No.: L90-UCP127
LOCATION ID:
SHEET No.: 268
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
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xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305

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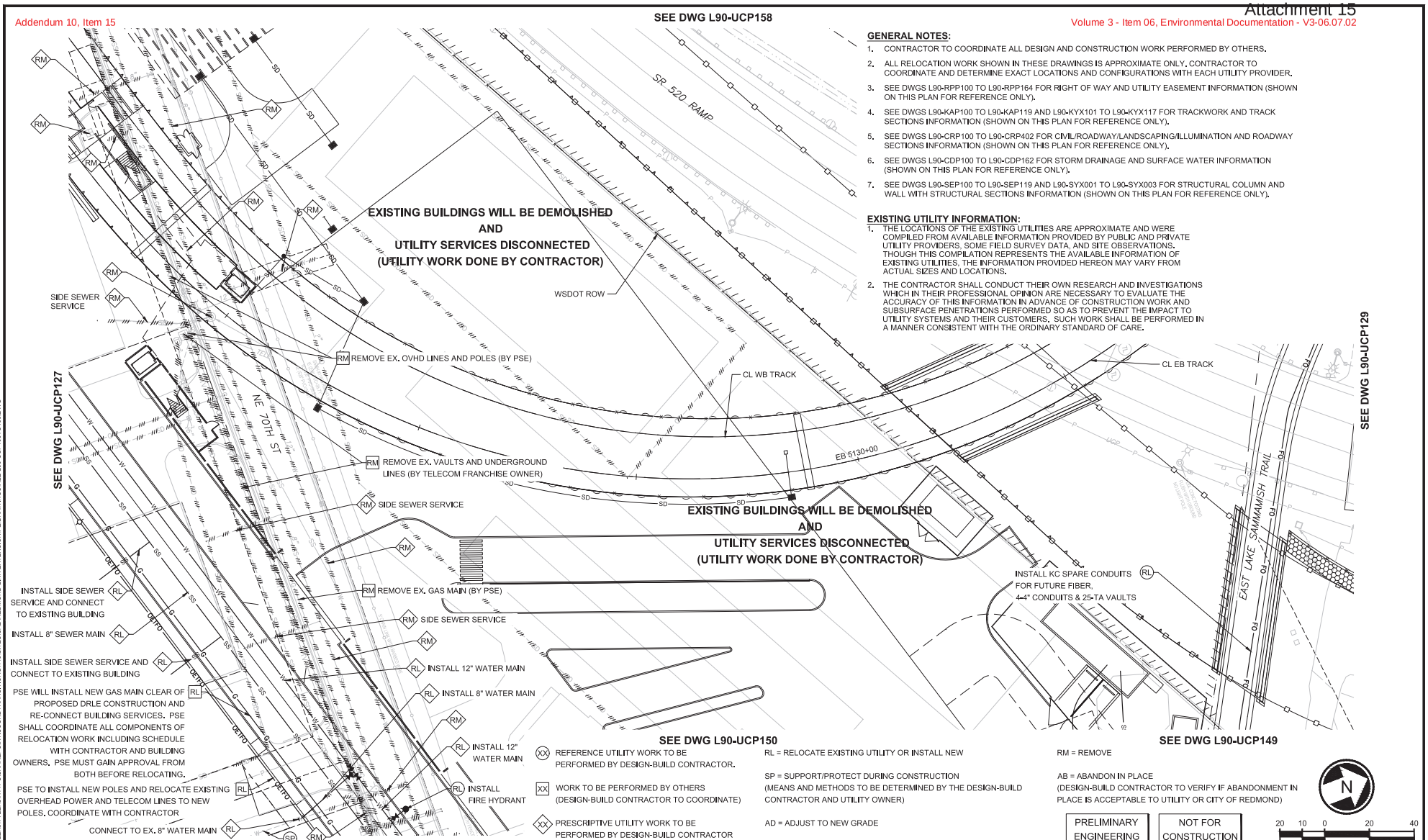

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MATTHEW P. ASHTON — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

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FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5127+50 TO EB STA 5131+00

DRAWING No.: L90-UCP128
LOCATION ID:
SHEET No.: 269
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
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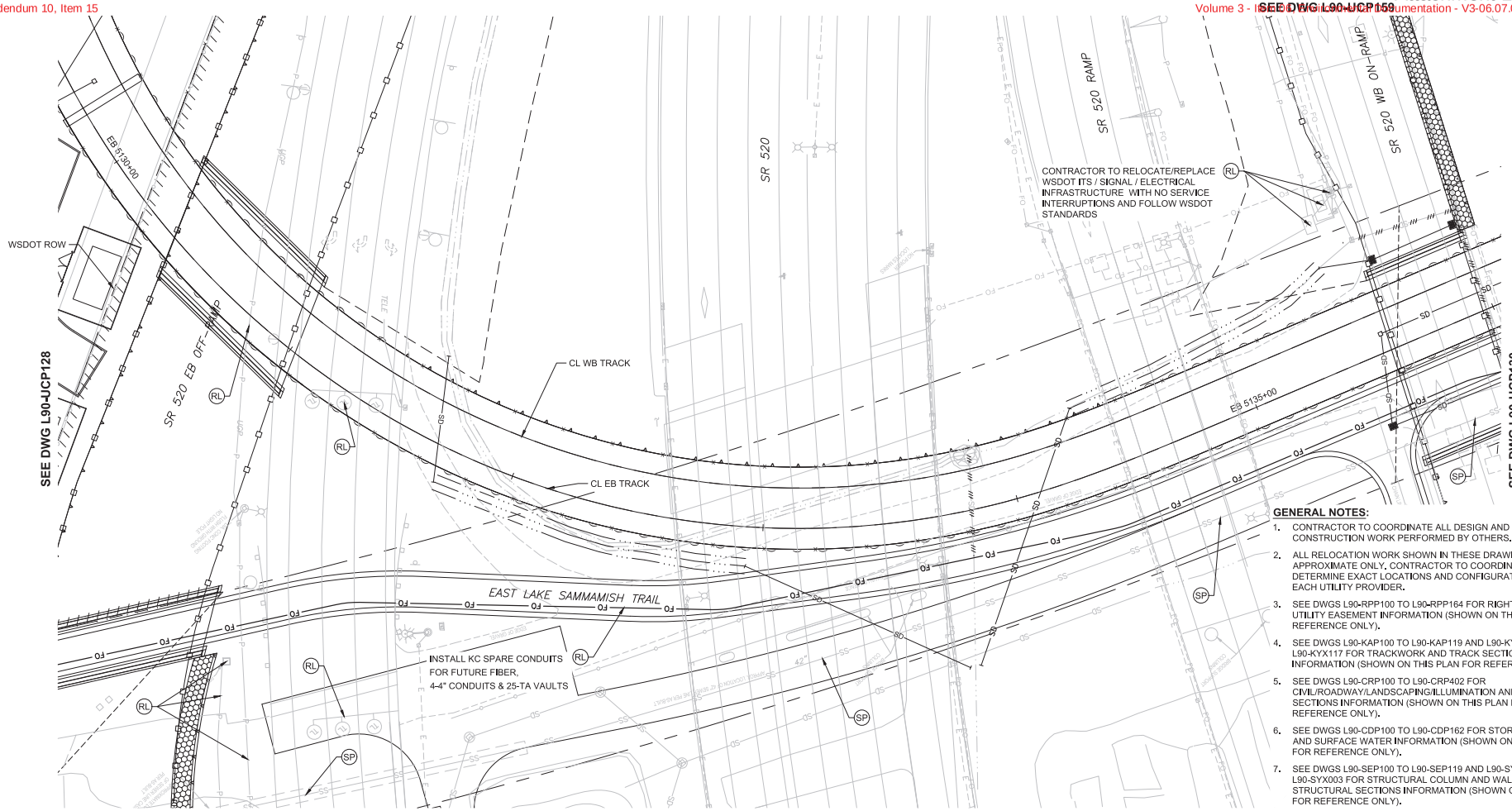

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SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP100TO130
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5131+00 TO EB STA 5135+50

DRAWING No.: L90-UCP129
LOCATION ID:
SHEET No.: 270
REV:

09/27/18 | 11:54 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP100TO130.DWG

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xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-E31-ASP100
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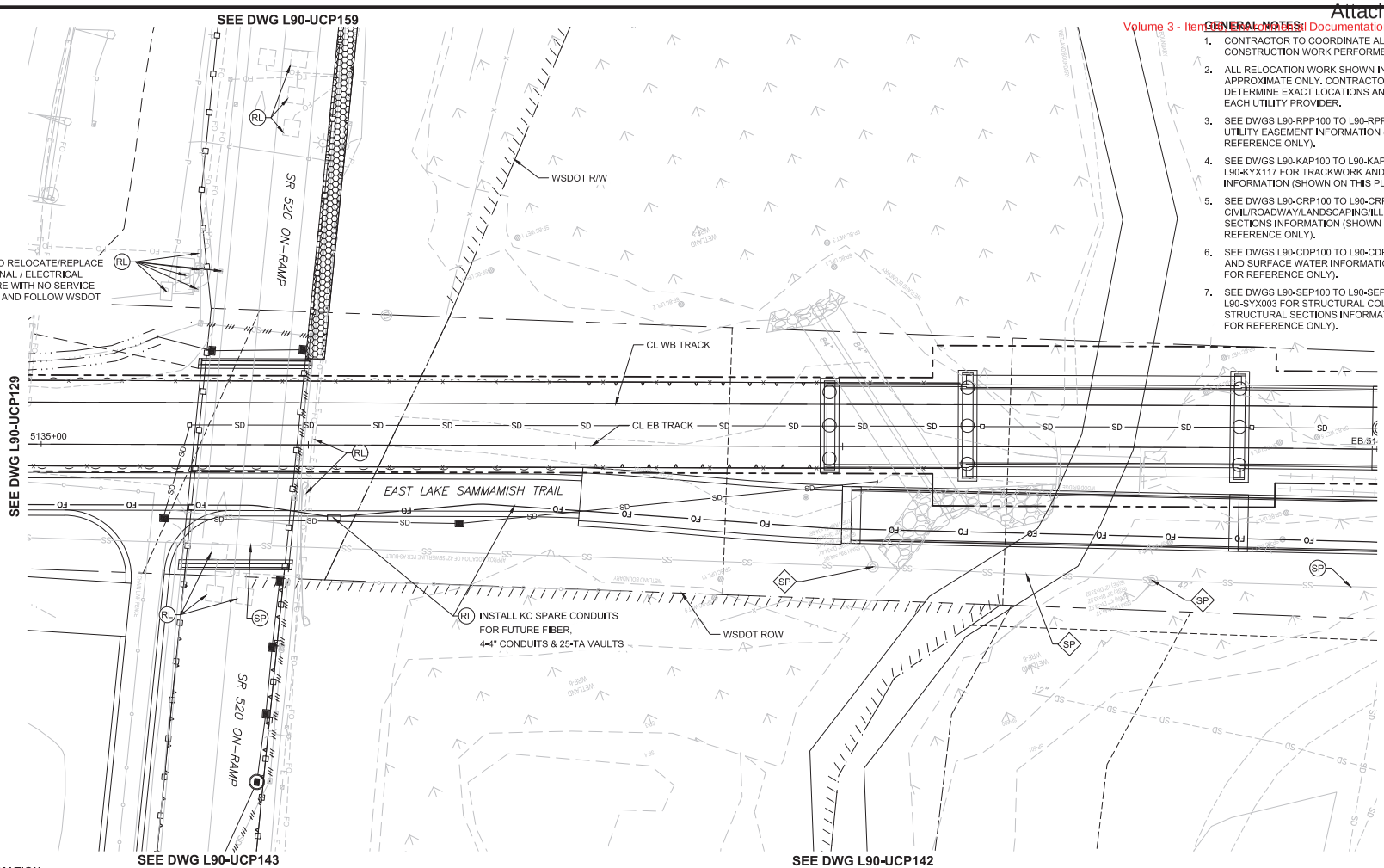
xRLE-P29-APP305



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PRESCRIPTIVE/REFERENCE
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EB STA 5135+50 TO EB STA 5140+00

DRAWING No.: L90-UCP130
LOCATION ID:
SHEET No.: 271
REV:

11/08/18 | 2:34 PM | TYLERJ
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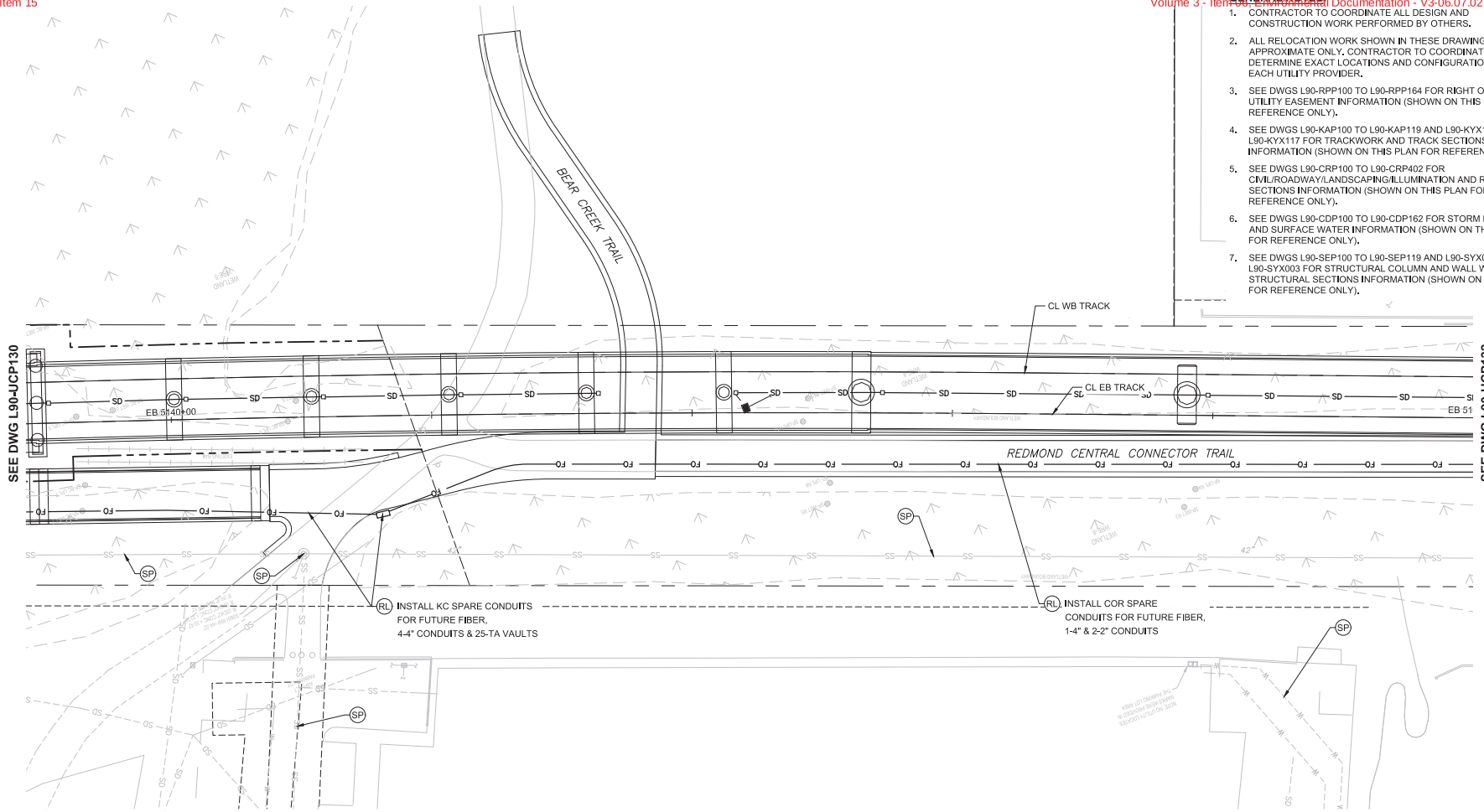

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: L90-UCP131
LOCATION ID:
SHEET No.: 272
REV:

11/08/18 | 2:36 PM | TYLERJ
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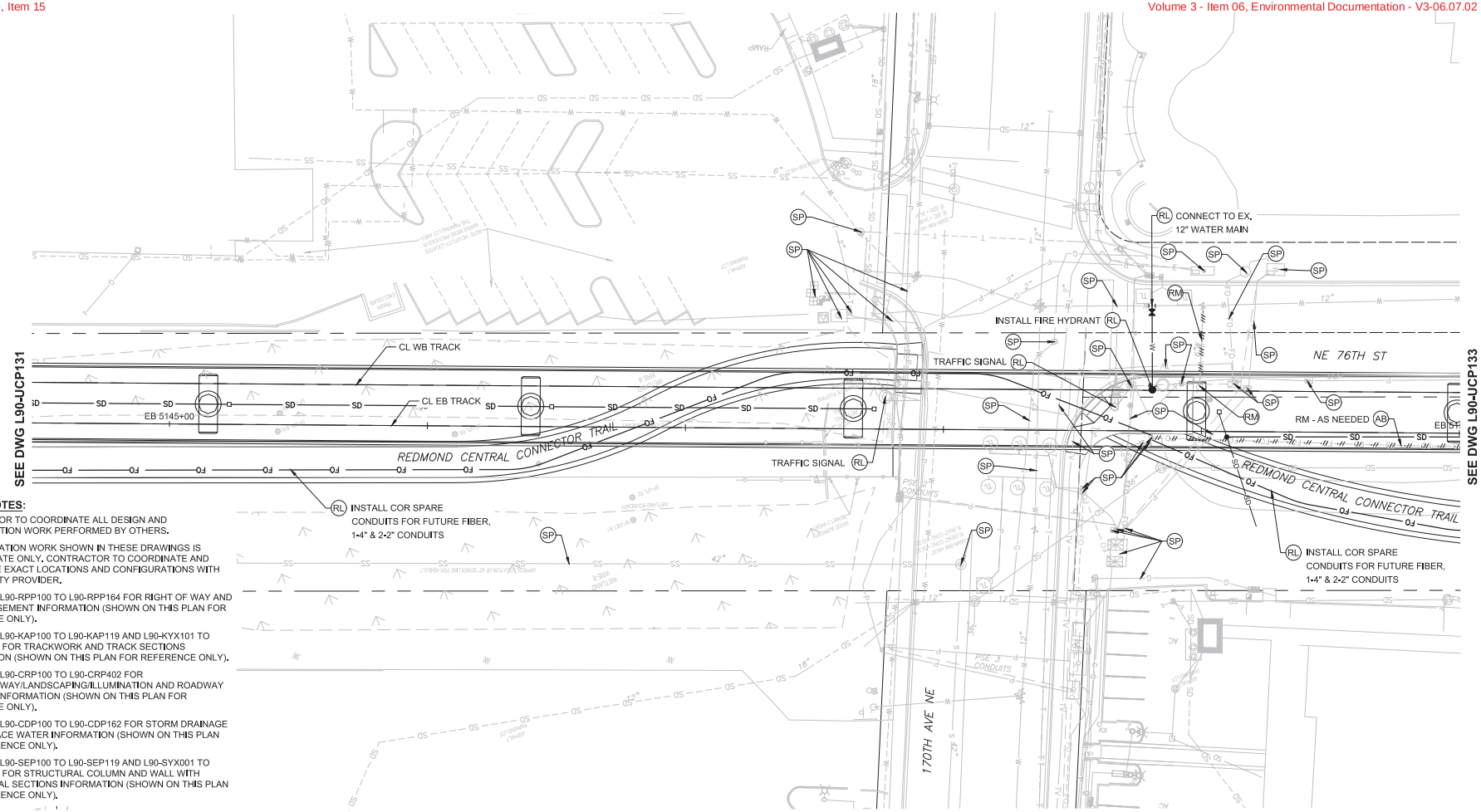

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DESIGNED BY: M. AUSTIN
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APPROVED BY: Y. YANG

MATTHEW P. ASSAM — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

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REFERENCE
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EB STA 5145+00 TO EB STA 5150+00

DRAWING No.: L90-UCP132
LOCATION ID:
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REV:

09/27/18 | 1:15 PM | TYLERJ
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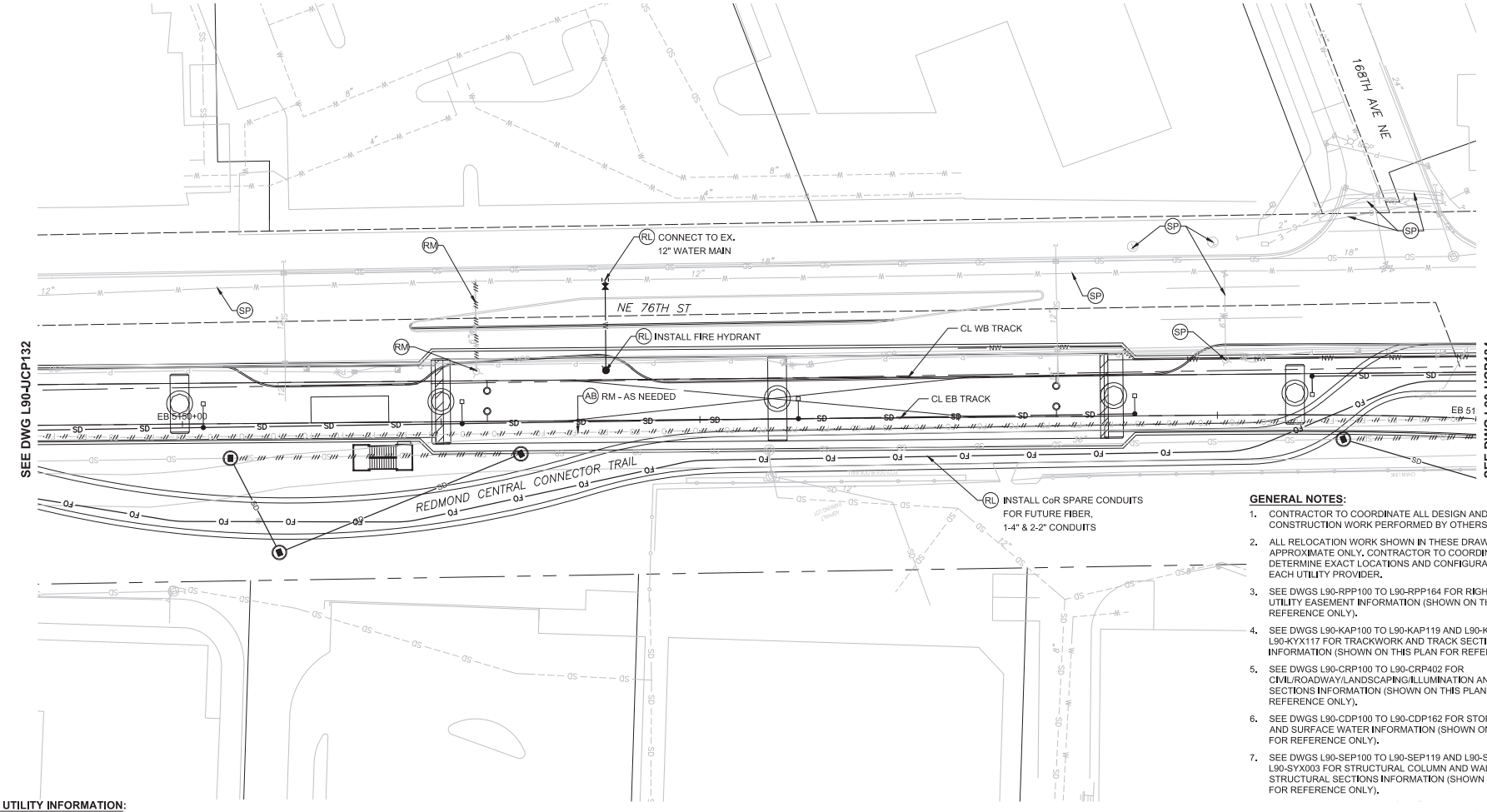

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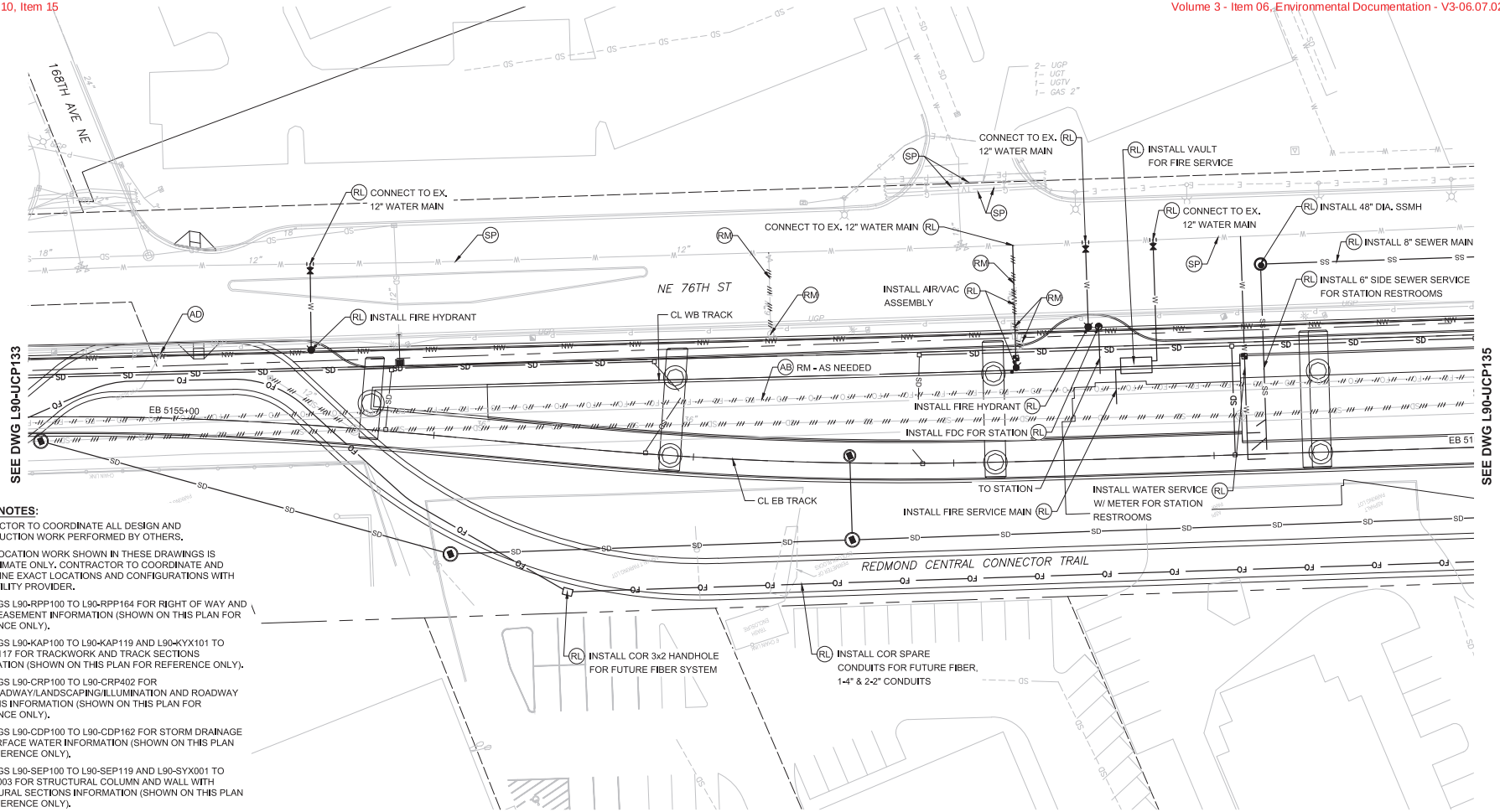

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

0 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5155+00 TO EB STA 5160+00

DRAWING No.: L90-UCP134
LOCATION ID:
SHEET No.: 275
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305
09/27/18 | 1:17 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-YSF
xRLE-L90-YUT
xRLE-L95-YSF
xRLE-L95-YUT
xRLE-G25-YSF
xRLE-G25-YUT
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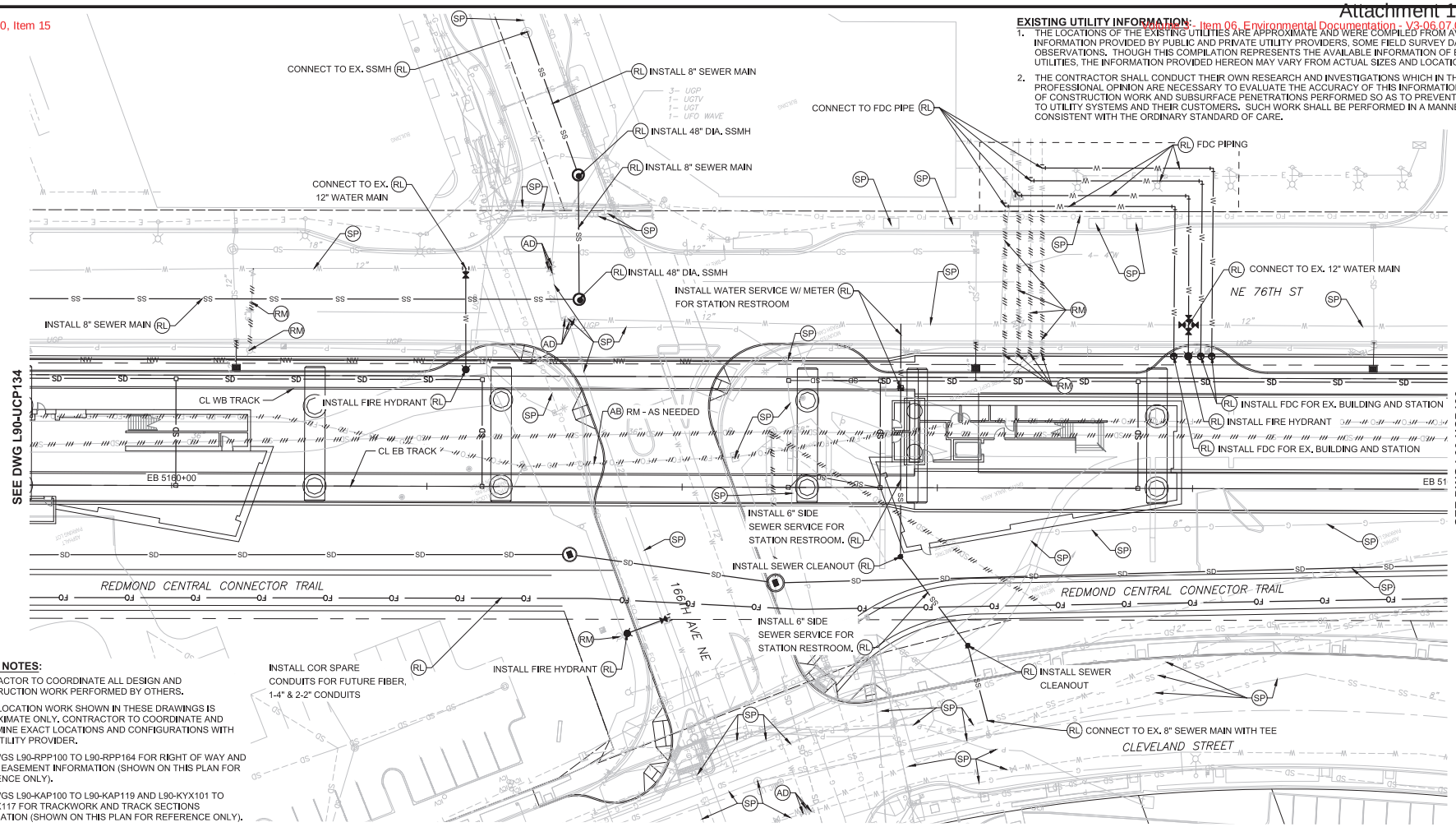
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET 20 10 0 20 40

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON STATE OF WASHINGTON 24862 REGISTERED PROFESSIONAL ENGINEER

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS DATE: 09/24/2018
REVIEWED BY: DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
EB STA 5160+00 TO EB STA 5165+00

DRAWING No.: L90-UCP135
LOCATION ID:
SHEET No.: 276
REV:

10/23/18 | 12:37 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-GIS-VSF
xRLE-GIS-VUT
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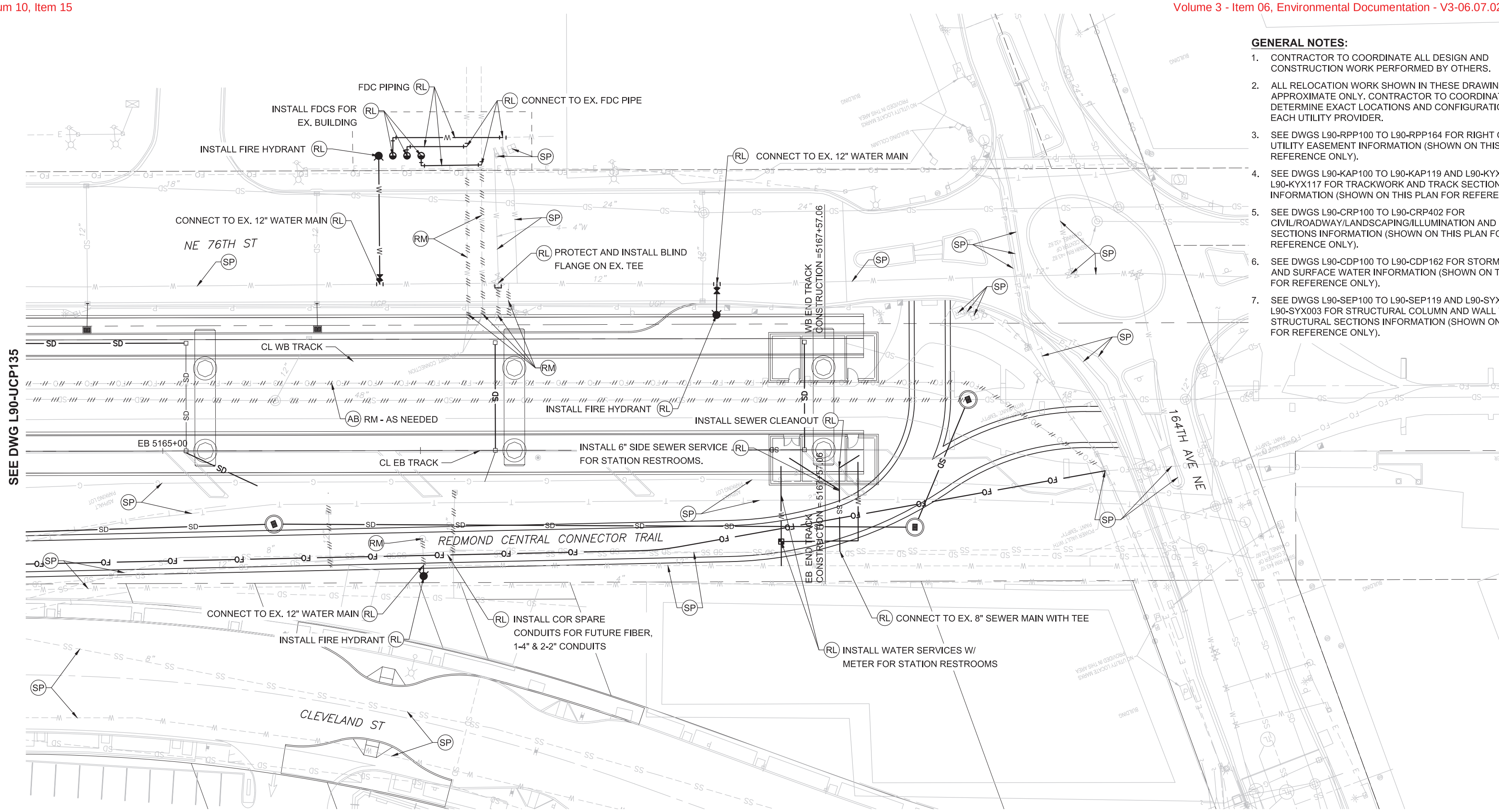
xRLE-L90-RHP100
xRLE-L90-CDP100



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

SCALE IN FEET: 20 10 0 20 40

CONCEPTUAL DESIGN	DESIGNED BY: M. AUSTIN	SUBMITTED BY: BRAD PHILLIPS	DATE: 09/24/2018	REVIEWED BY:	DATE:	SCALE: 1" = 20'	DOWNTOWN REDMOND LINK EXTENSION RTS TO DOWNTOWN REDMOND	DRAWING No.: L90-UCP136
FINAL	DRAWN BY: J. BETZVOG					FILENAME: RLE-L90-UCP131TO164	REFERENCE	LOCATION ID:
	CHECKED BY: D. PROCTOR					CONTRACT No.: CN 0148-18	COMPOSITE UTILITIES PLAN	SHEET No.: 277
No. DATE DSN CHK APP REVISION	APPROVED BY: Y. YANG					DATE: 09/24/2018	EB STA 5165+00 TO EB STA 5167+72	REV:

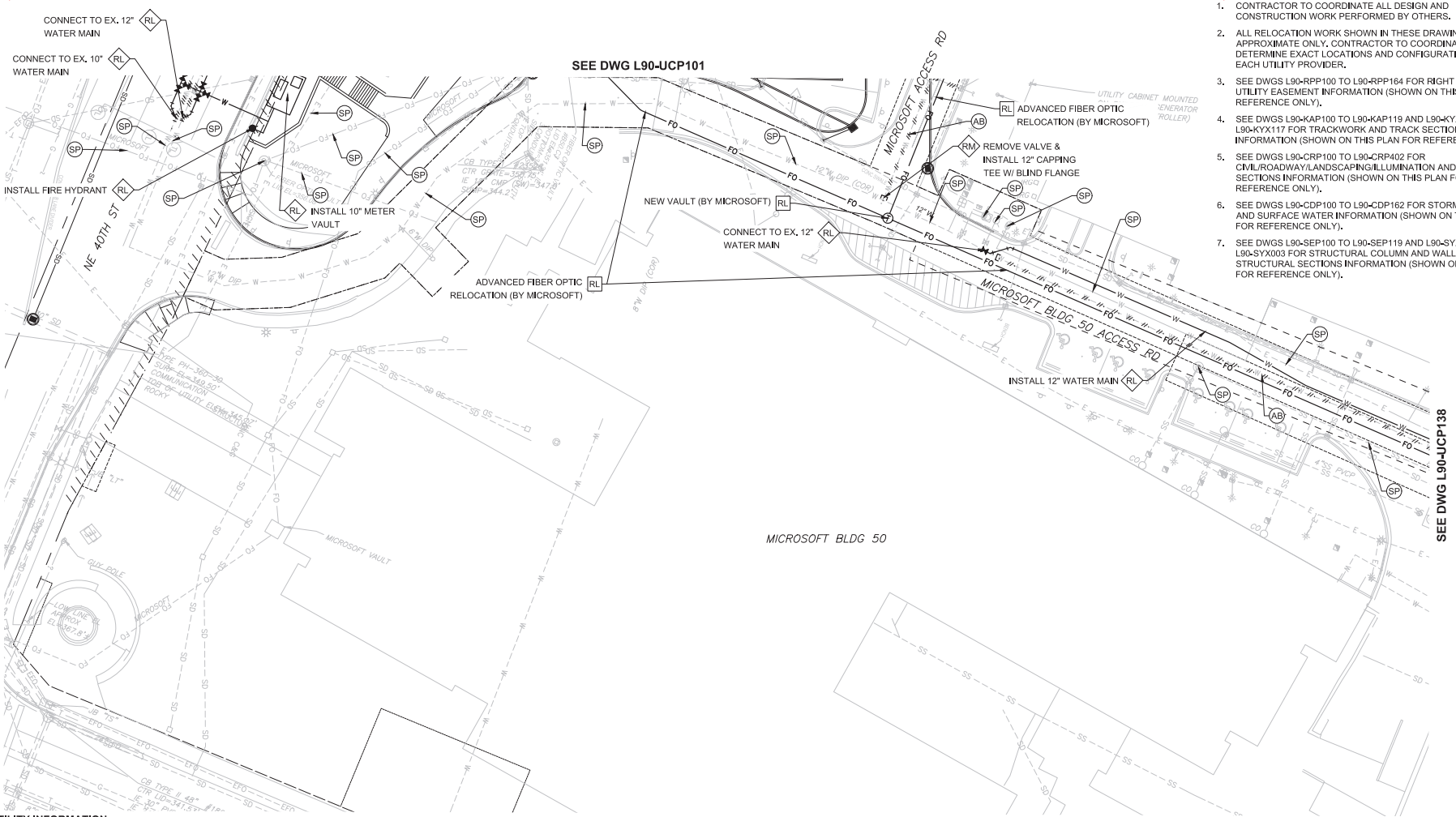
MATTHEW P. AUSTIN, STATE OF WASHINGTON, 52823, REGISTERED PROFESSIONAL ENGINEER

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SOUND TRANSIT

LINE IS 1" AT FULL SCALE

10/24/18 | 9:08 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPS\SHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
MICROSOFT BLDG 50

DRAWING No.: L90-UCP137
LOCATION ID:
SHEET No.: 278
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
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xRLE-L90-VRX
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xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-P29-APP305

09/27/18 I 1:20 PM I TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\TTPS\SHAREPOINT SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-WUT
xRLE-L95-VSF
xRLE-L95-WUT
xRLE-G5-VSF
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xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
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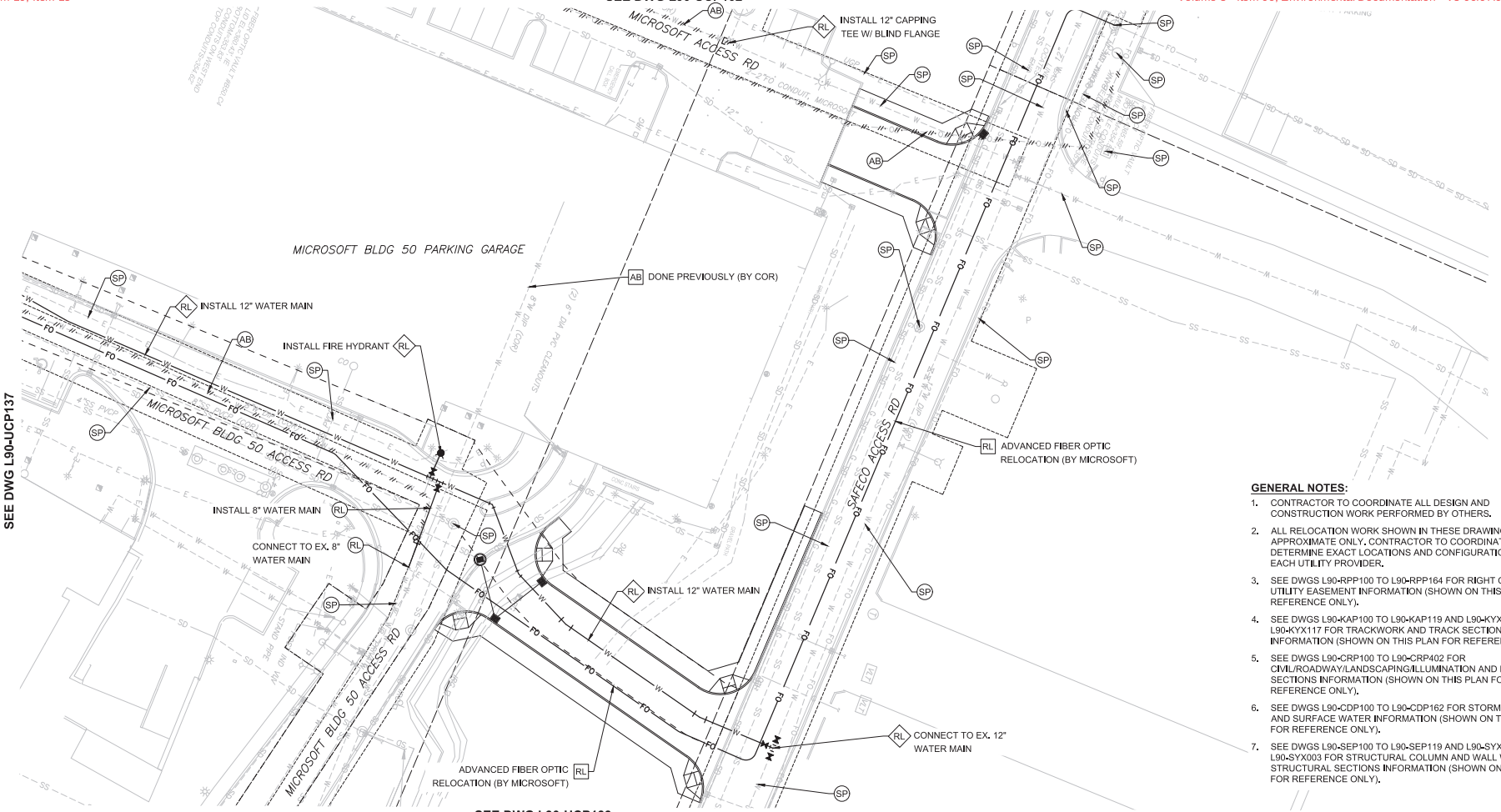
xRLE-F29-APP305



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N

20 10 0 20 40
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSAM — STATE OF WASHINGTON — 24862 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
MICROSOFT BLDG 50 PARKING GARAGE

DRAWING No.: L90-UCP138
LOCATION ID:
SHEET No.: 279
REV:

09/27/18 I 1:20 PM I TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
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xRLE-L90-CRP100
xRLE-L90-SWP100
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SEE DWG L90-UCP138

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FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

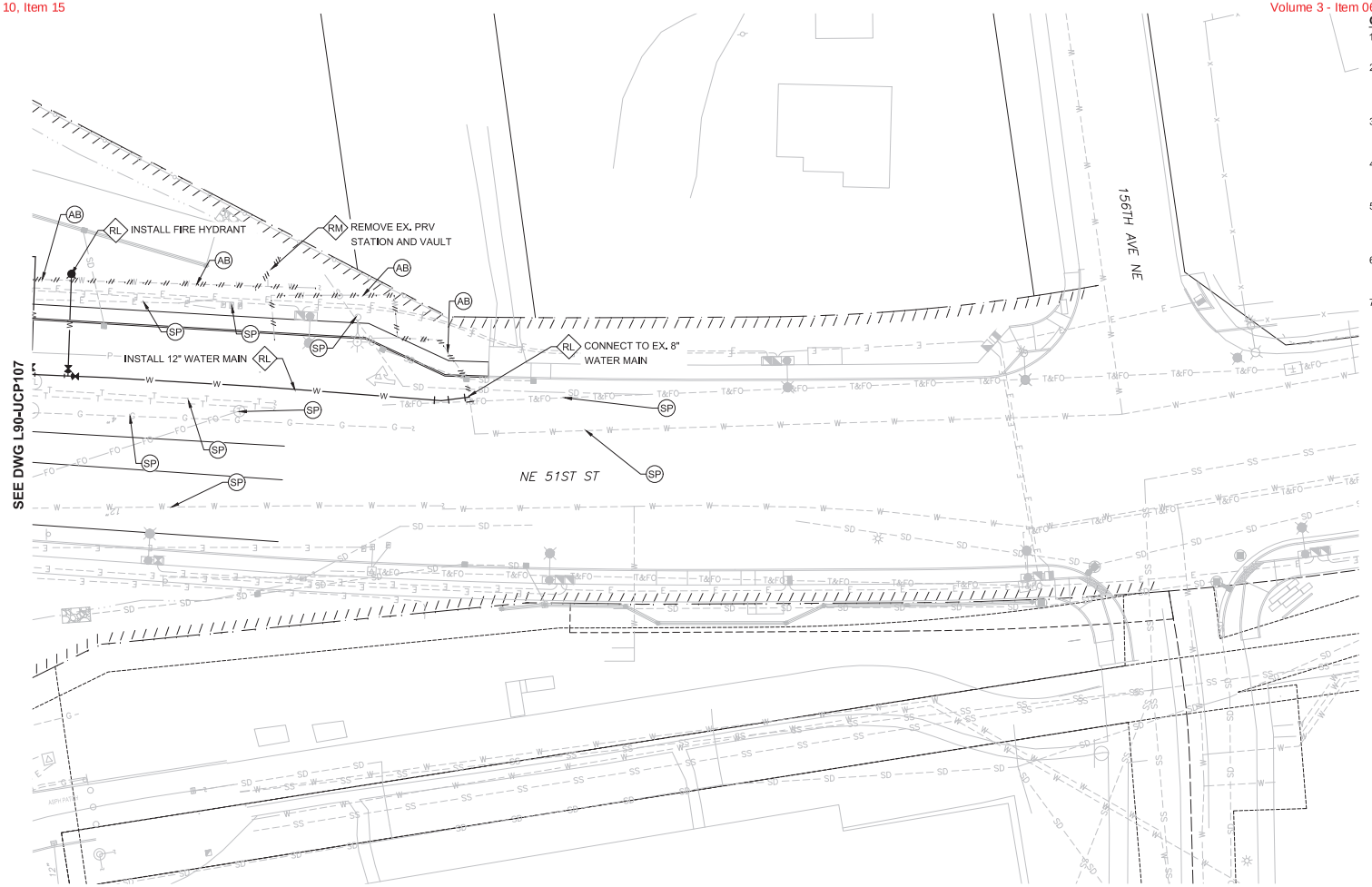
SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
156TH AVE NE

DRAWING No.: L90-UCP139
LOCATION ID:
SHEET No.: 280
REV:

09/27/18 I 1:21 PM I TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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REVIEWED BY: — DATE:

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SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
NE 51ST ST

DRAWING No.: L90-UCP140
LOCATION ID:
SHEET No.: 281
REV:

09/27/18 | 1:22 PM | TYLERJ
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xRLE-L90-WRX
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xRLE-L95-VSF
xRLE-L95-WUT
xRLE-Q25-VSF
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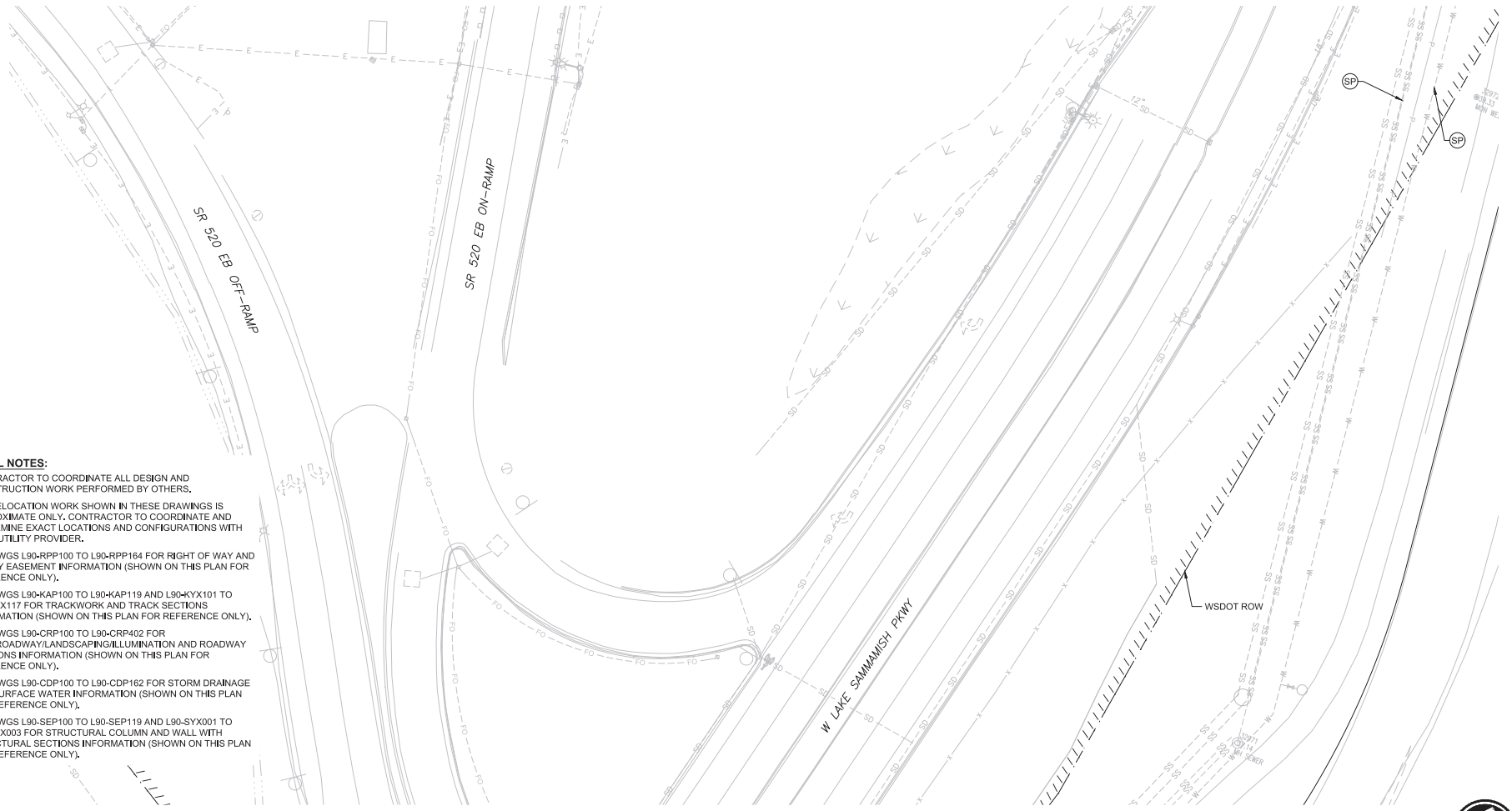
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305

SEE DWG L90-UCP117

SEE DWG L90-UCP118



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DRAWN BY: J. BETZVOG
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MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
WEST LAKE SAMMAMISH PKWY

DRAWING No.: L90-UCP141
LOCATION ID:
SHEET No.: 282
REV:

09/27/18 | 1:23 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP131TO164.DWG

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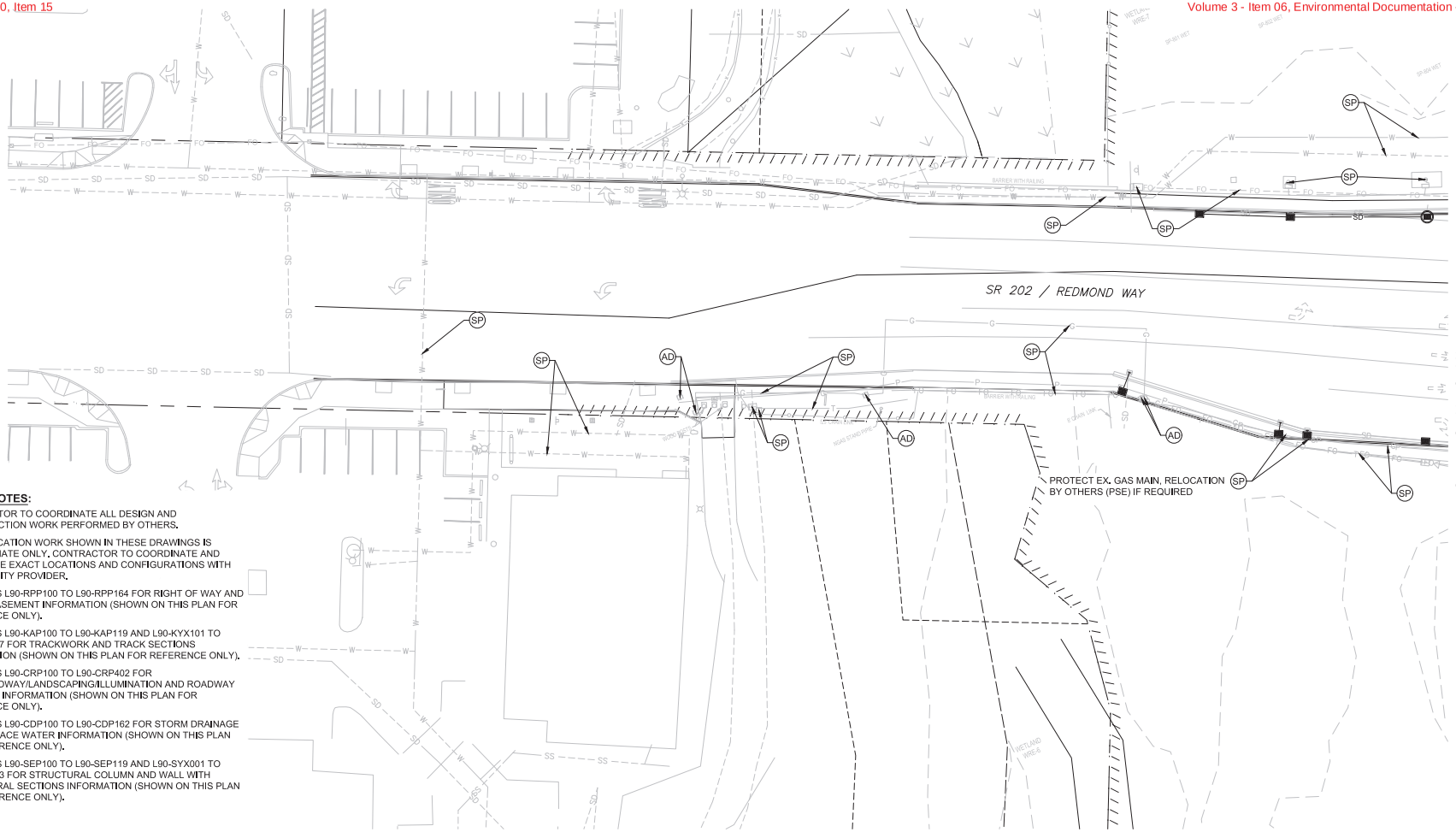

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSAM — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

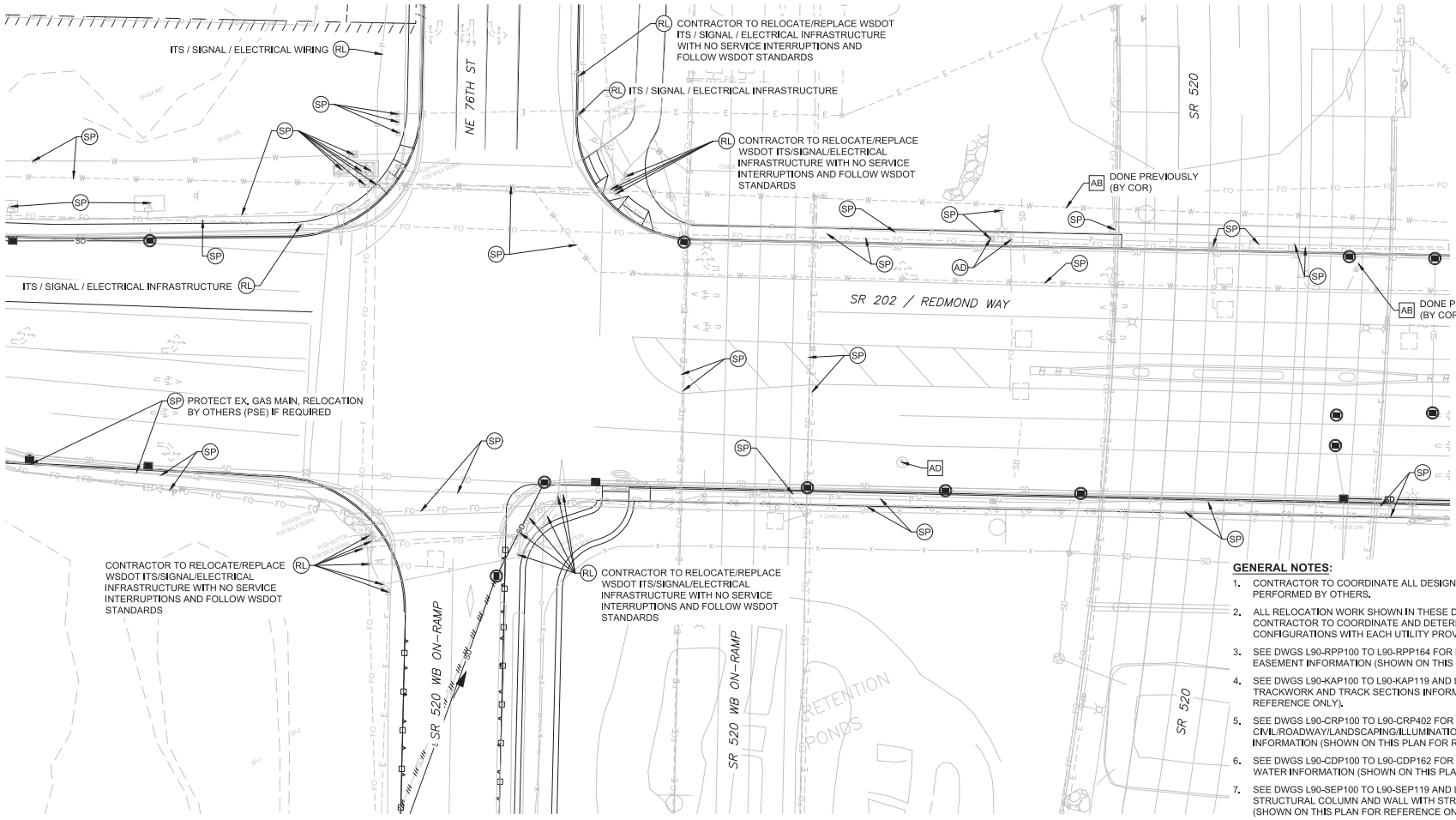
SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & BEAR CREEK

DRAWING No.: L90-UCP142
LOCATION ID:
SHEET No.: 283
REV:

09/27/18 | 1:24 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG



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CONCEPTUAL DESIGN

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RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & NE 76TH ST

DRAWING No.: L90-UCP143
LOCATION ID:
SHEET No.: 284
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
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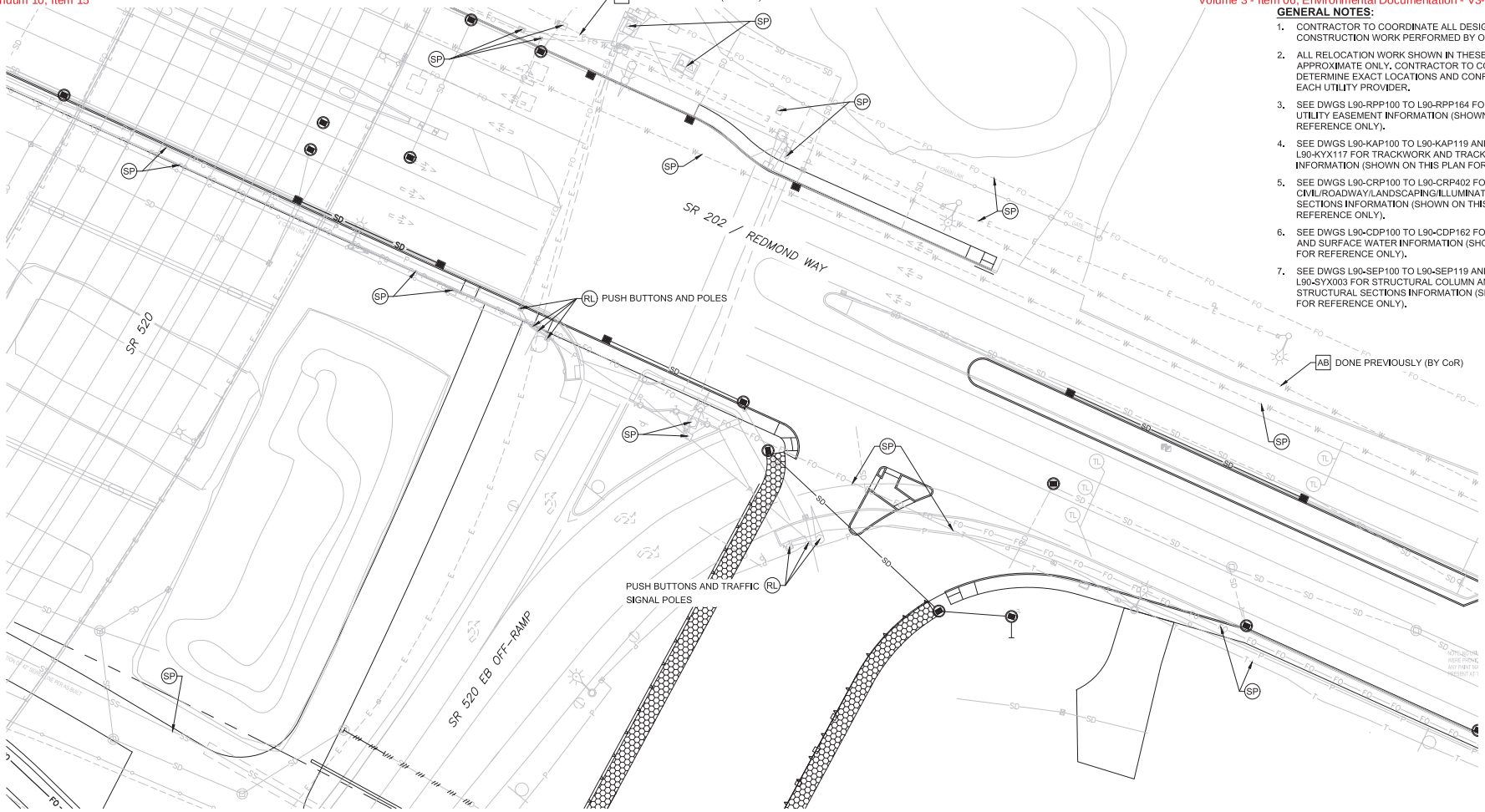

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & SR 520 EB OFF-RAMP

DRAWING No.: L90-UCP144
LOCATION ID:
SHEET No.: 285
REV:

09/27/18 | 1:26 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
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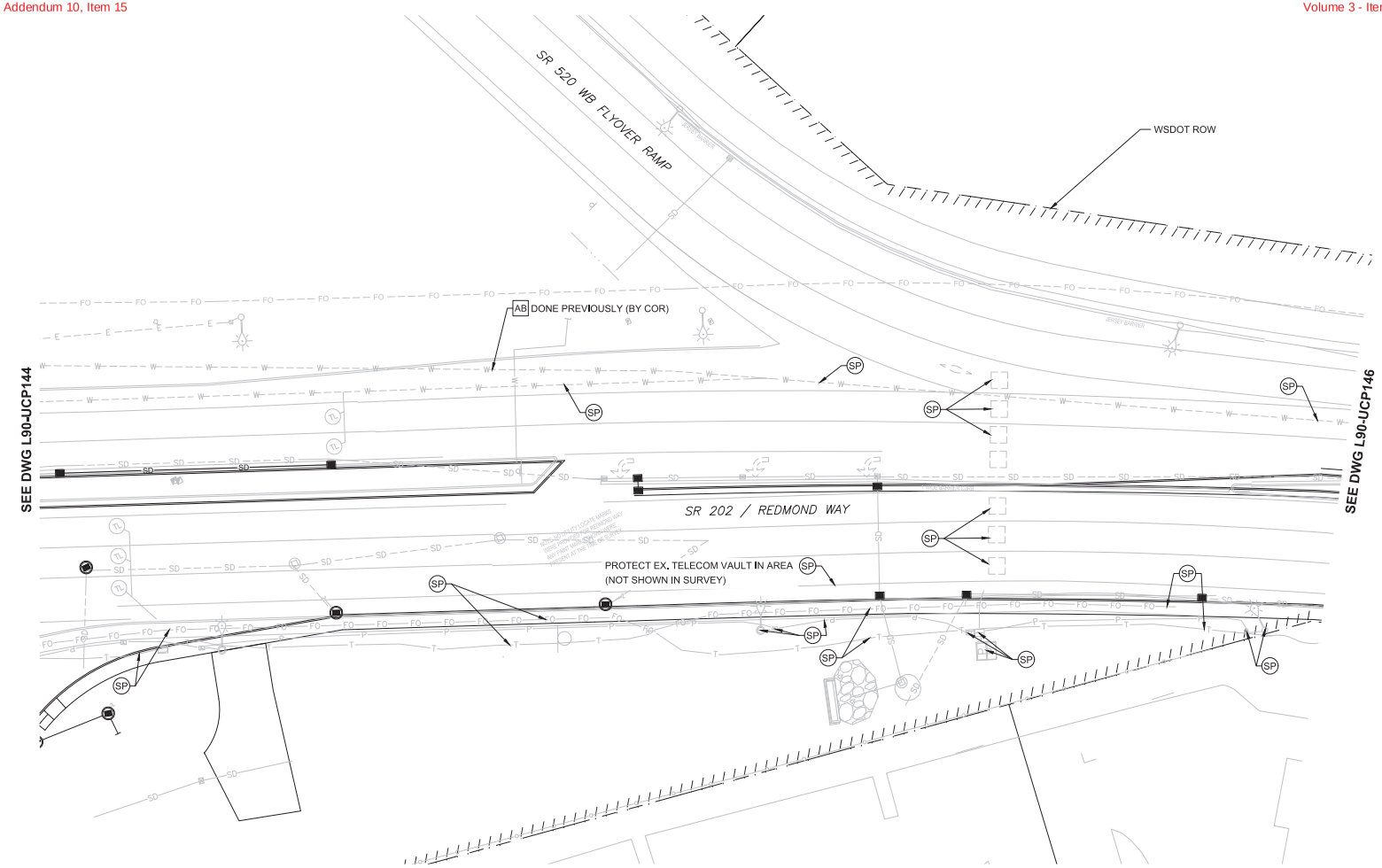
xRLE-L90-CDP100
xRLE-F29-APP305



GENERAL NOTES:

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4. SEE DWGS L90-KAP100 TO L90-KAP119 AND L90-KYX101 TO L90-KYX117 FOR TRACKWORK AND TRACK SECTIONS INFORMATION (SHOWN ON THIS PLAN FOR REFERENCE ONLY).
5. SEE DWGS L90-CRP100 TO L90-CRP402 FOR CIVIL/ROADWAY/LANDSCAPING/ILLUMINATION AND ROADWAY SECTIONS INFORMATION (SHOWN ON THIS PLAN FOR REFERENCE ONLY).
6. SEE DWGS L90-CDP100 TO L90-CDP162 FOR STORM DRAINAGE AND SURFACE WATER INFORMATION (SHOWN ON THIS PLAN FOR REFERENCE ONLY).
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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & SR 520 WB FLYOVER RAMP

DRAWING No.: L90-UCP145
LOCATION ID:
SHEET No.: 286
REV:

09/27/18 | 1:27 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

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xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
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xRLE-L95-VUT
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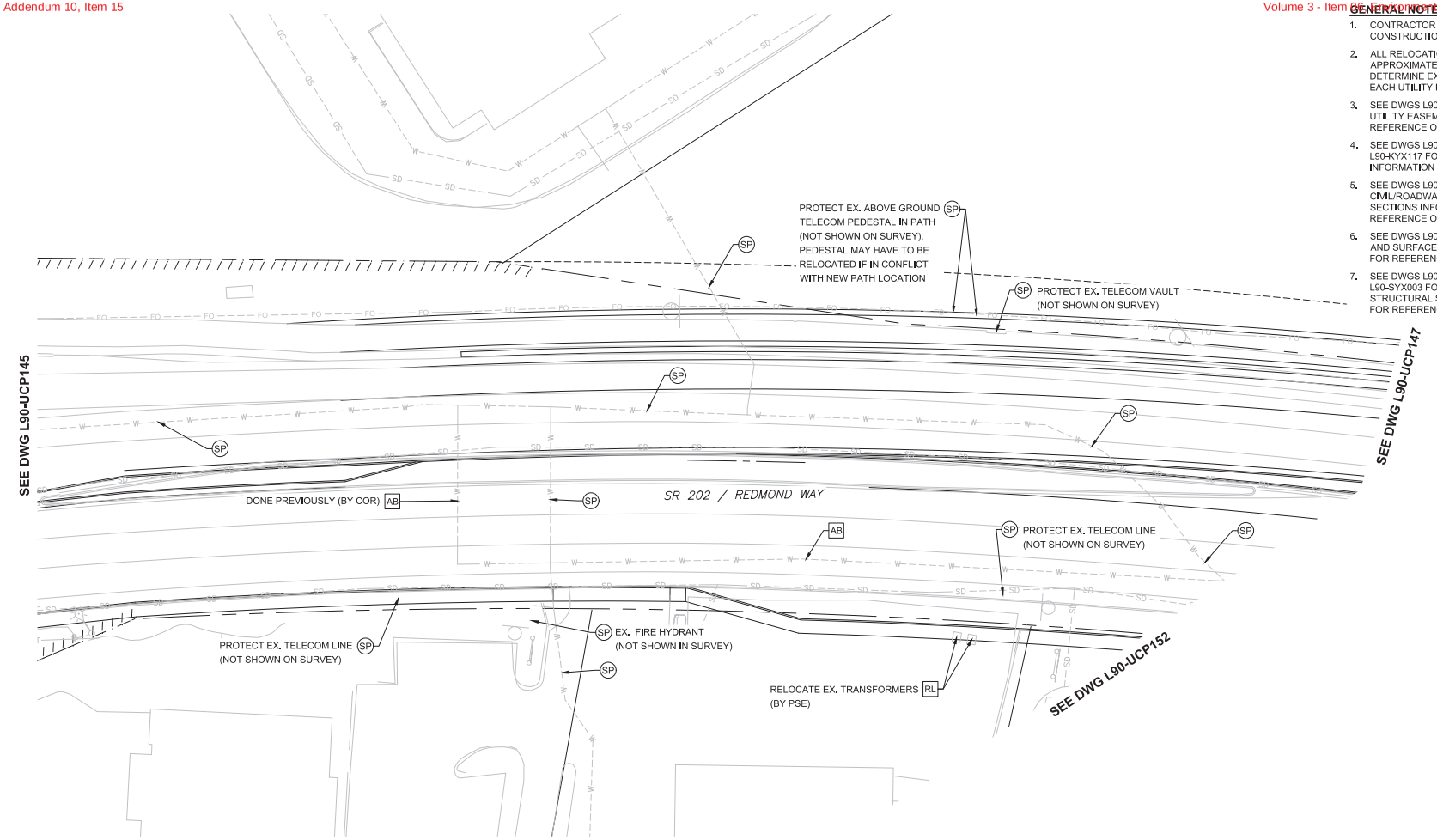
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY

DRAWING No.: L90-UCP146
LOCATION ID:
SHEET No.: 287
REV:

09/27/18 | 1:28 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
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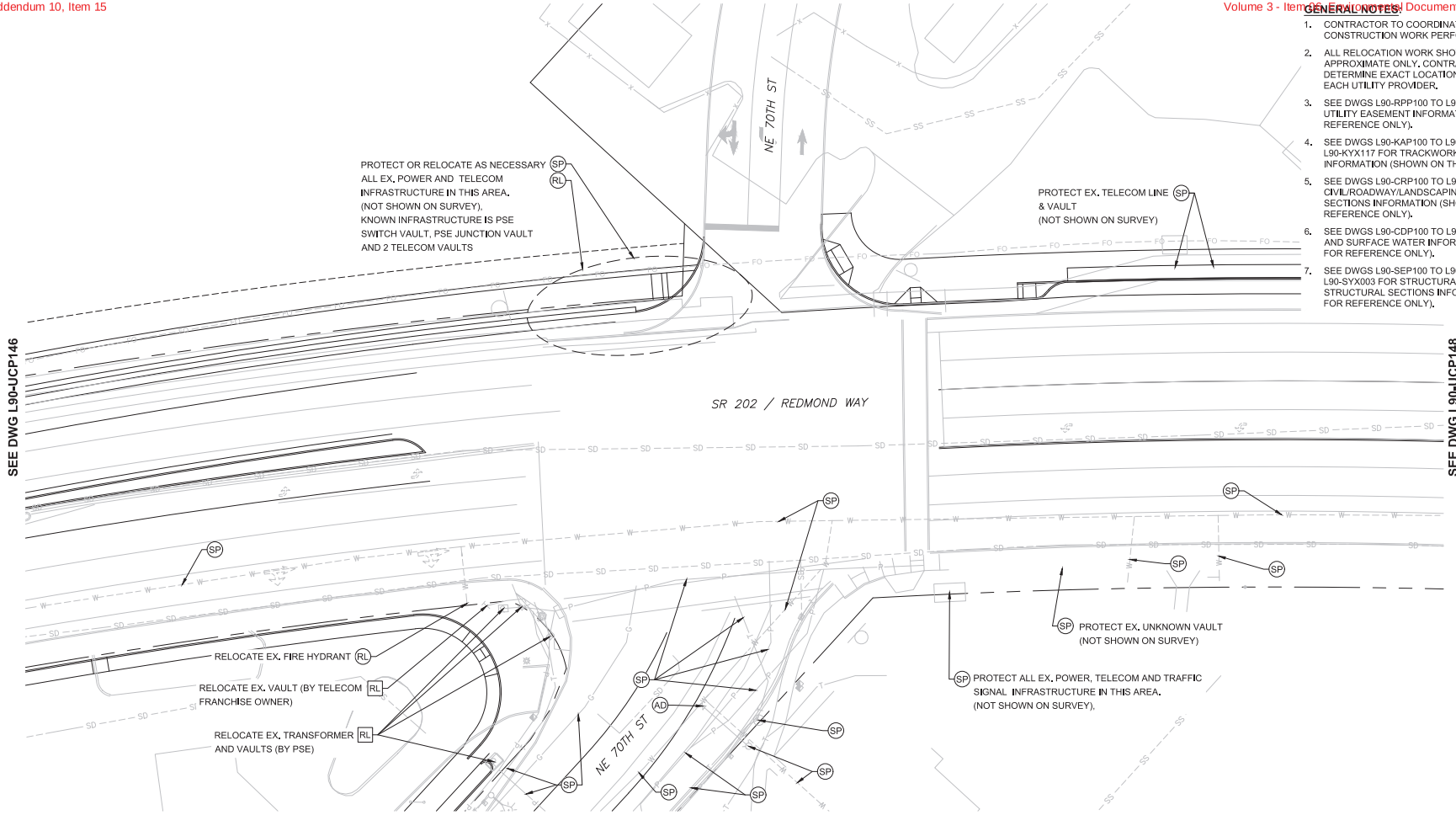

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & NE 70TH ST INTERSECTION

DRAWING No.: L90-UCP147
LOCATION ID:
SHEET No.: 288
REV:

09/27/18 | 1:23 PM | TYLERJ
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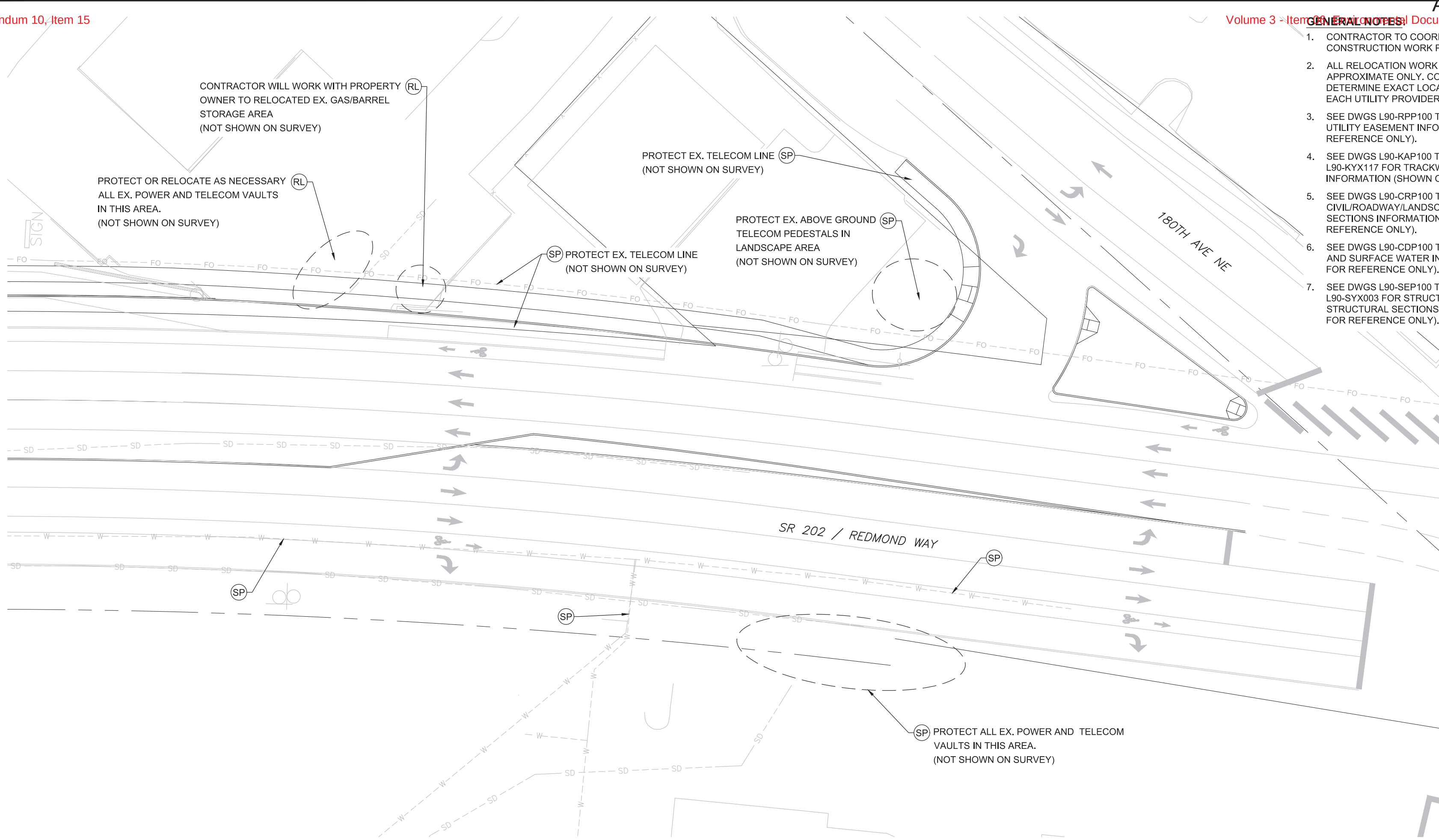

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N

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SCALE IN FEET

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 52623 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 202/REDMOND WY & 180TH AVE NE INTERSECTION

DRAWING No.: L90-UCP148
LOCATION ID:
SHEET No.: 289
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
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xRLE-L90-SWP100
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Xrefs:
RLE-GB-TB22x34
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SEE DWG L90-UCP144

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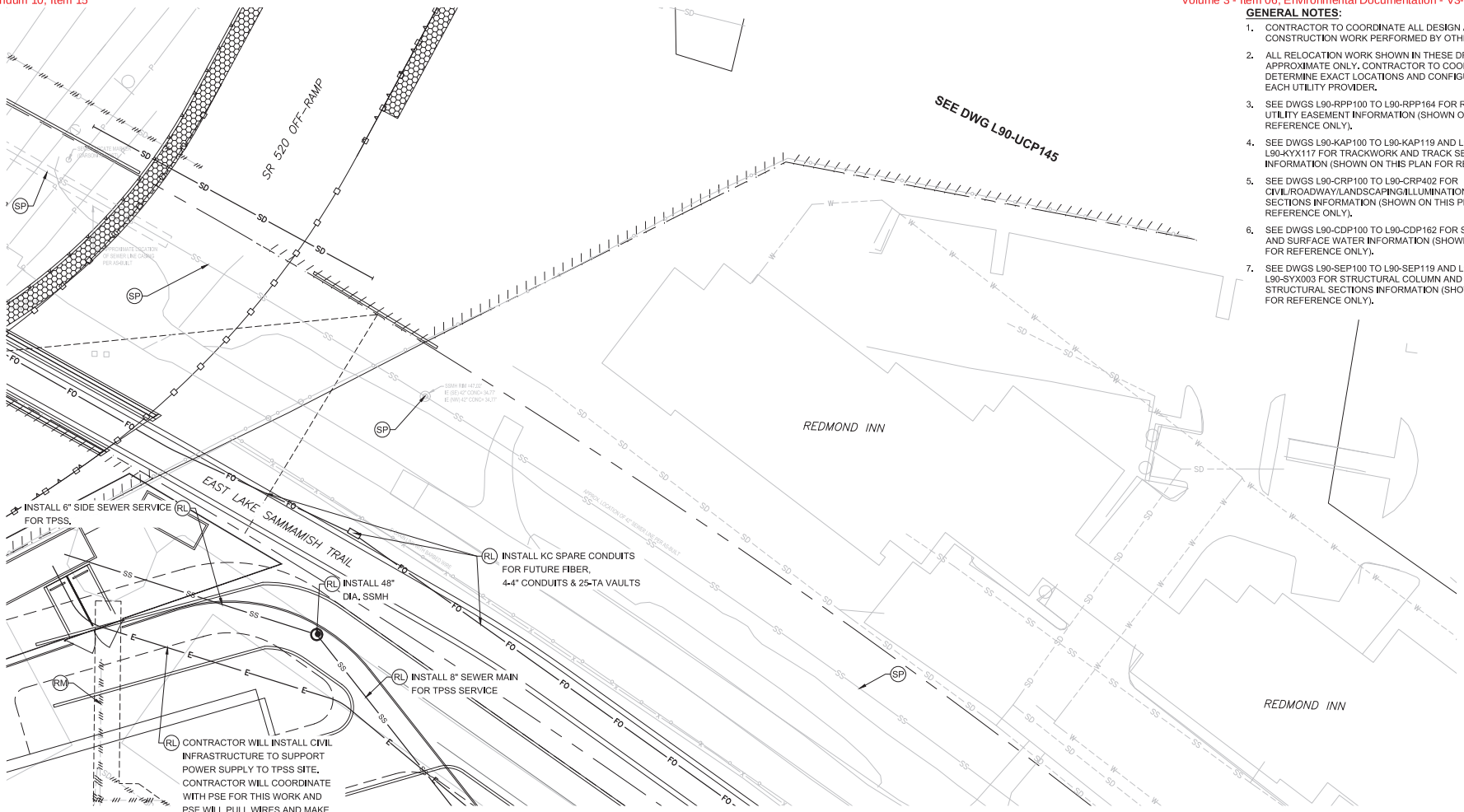

SEE DWG L90-UCP150

SEE DWG L90-UCP151

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CONCEPTUAL DESIGN

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LOCATION ID:
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C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Attachment 15
Volume 3 - Item 06 Environmental Documentation - V3 06.07.02

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305

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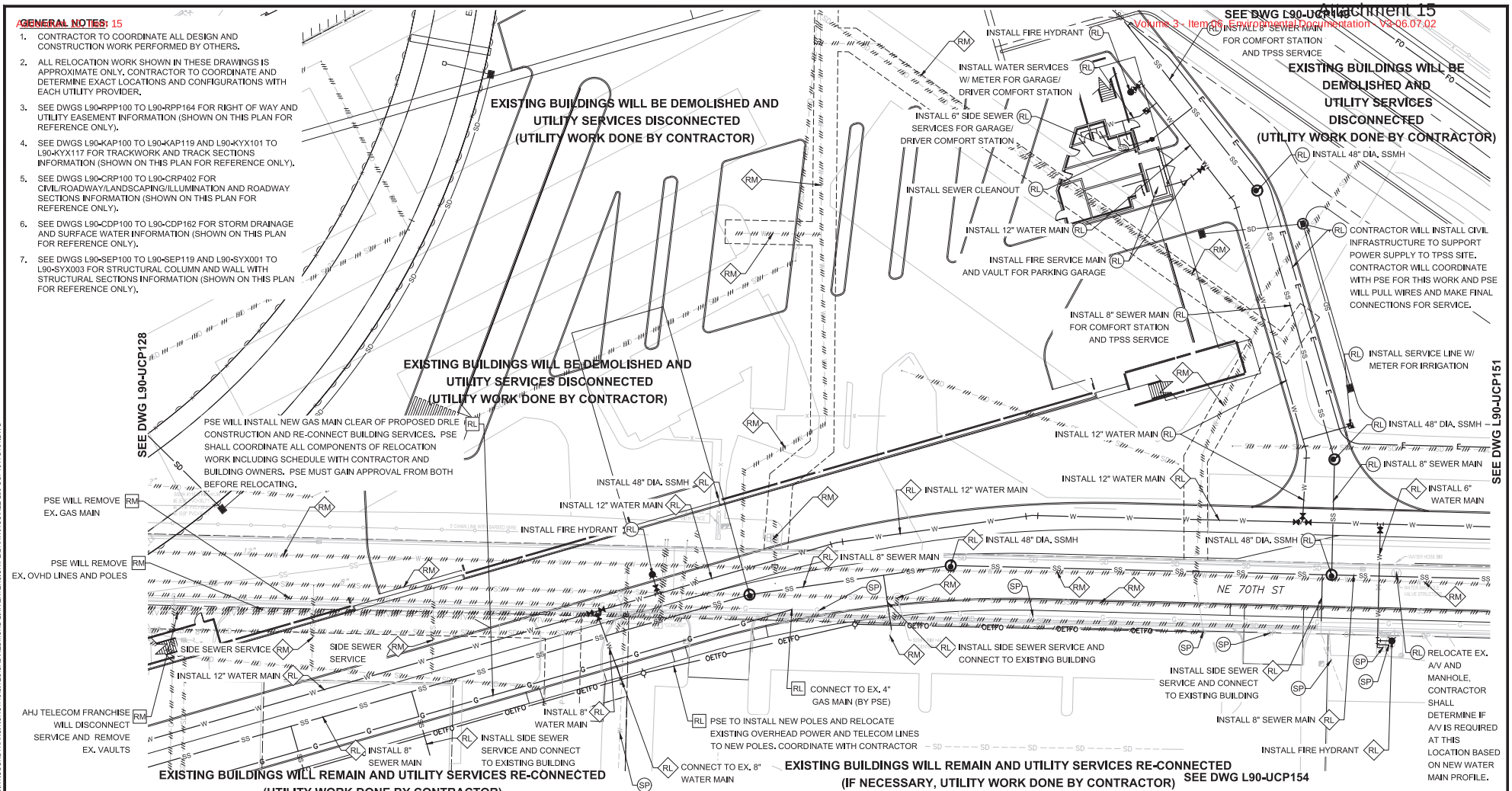

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
NE 70TH ST

DRAWING No.: L90-UCP150
LOCATION ID:
SHEET No.: 291
REV:

09/27/18 | 1:32 PM | TYLERJ
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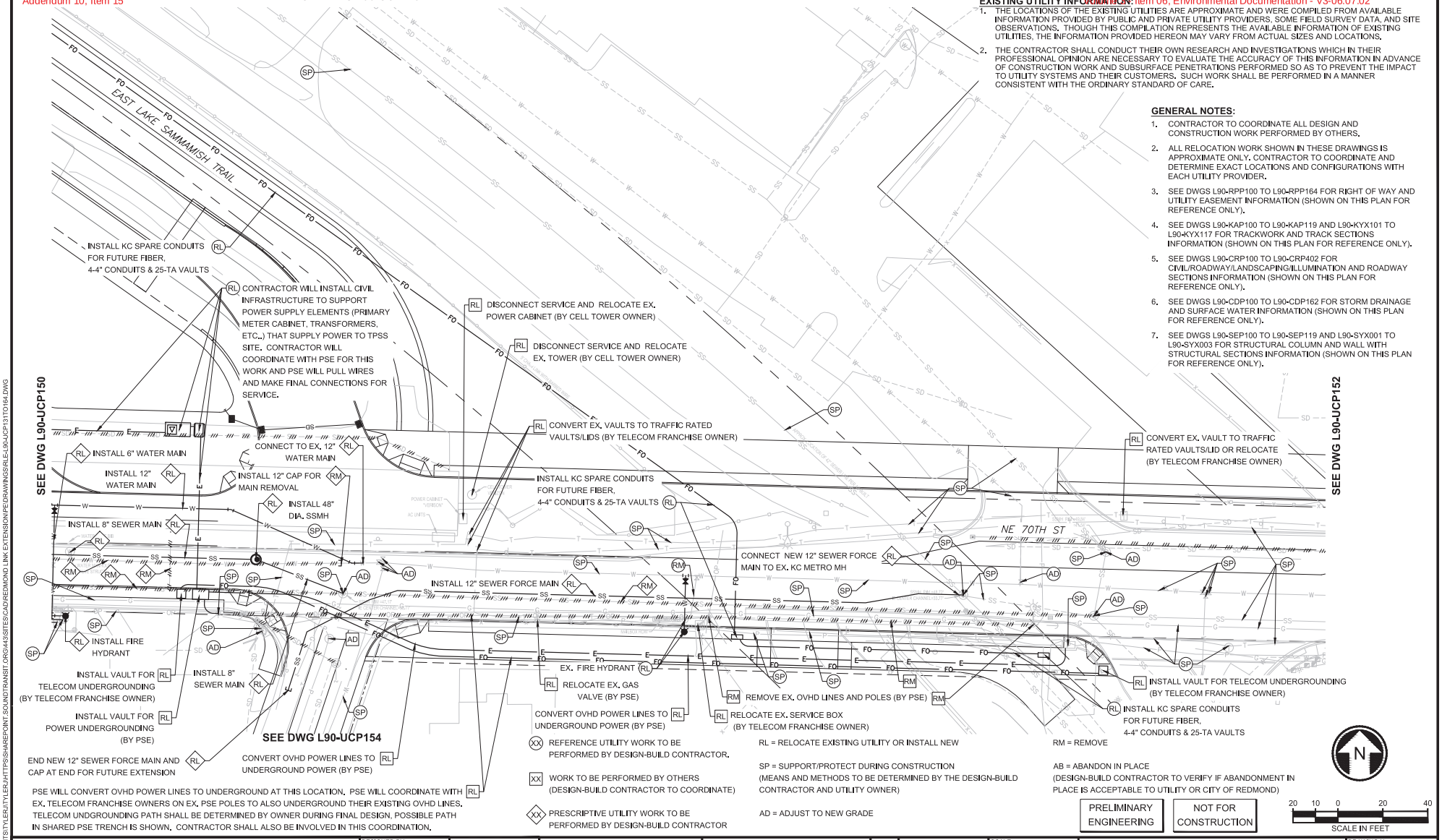

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SCALE IN FEET 20 10 0 20 40

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CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN STATE OF WASHINGTON 24862 REGISTERED PROFESSIONAL ENGINEER

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
NE 70TH ST - EAST

DRAWING No.: L90-UCP151
LOCATION ID:
SHEET No.: 292
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
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xRLE-L95-VUT
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xRLE-L90-CDP100
xRLE-F29-APP305

09/27/18 | 1:33 PM | TYLERJ
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Addendum 10, Item 15

Attachment 15
Volume 3 - Item 6.A - Technical Documentation - V3-06.07.02

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xRLE-L90-CDP100
xRLE-F29-APP305

SEE DWG L90-UCP146

SEE DWG L90-UCP151

SEE DWG L90-UCP147

DONE PREVIOUSLY (BY CoR) AB

RELOCATE EX. TRANSFORMERS (BY PSE) RL

SR 202 / REDMOND WAY

RL RELOCATE EX. FIRE HYDRANT

RL RELOCATE PRIVATE WATER AND VAULT SYSTEM FOR CAR WASH (BY PROPERTY OWNER)

RL RELOCATE EX. VAULT (BY TELECOM FRANCHISE OWNER)

RL RELOCATE EX. TRANSFORMER AND VAULTS (BY PSE)

SP PROTECT OR RELOCATE AS NECESSARY
RL ALL EX. POWER AND TELECOM INFRASTRUCTURE IN THIS AREA. (NOT SHOWN ON SURVEY), KNOWN INFRASTRUCTURE IS PSE SWITCH VAULT, PSE JUNCTION VAULT AND 2 TELECOM VAULTS

RL CONTRACTOR WILL WORK WITH PROPERTY OWNER TO DETERMINE CONNECTION TO PRIVATE WATER AND VAULT SYSTEM FOR CAR WASH AND RELOCATE. WATER SERVICE AND ALL APPURTENANCES SHALL BE INSTALLED AS NEW WITH NO SPLICING TO EXISTING SERVICE ALLOWED.

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NE 70TH ST

SP PROTECT ALL EX. POWER, TELECOM AND TRAFFIC SIGNAL INFRASTRUCTURE IN THIS AREA. (NOT SHOWN ON SURVEY),

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 70TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-UCP152
LOCATION ID:
SHEET No.: 293
REV:

09/27/18 | 1:34 PM | TYLERJ
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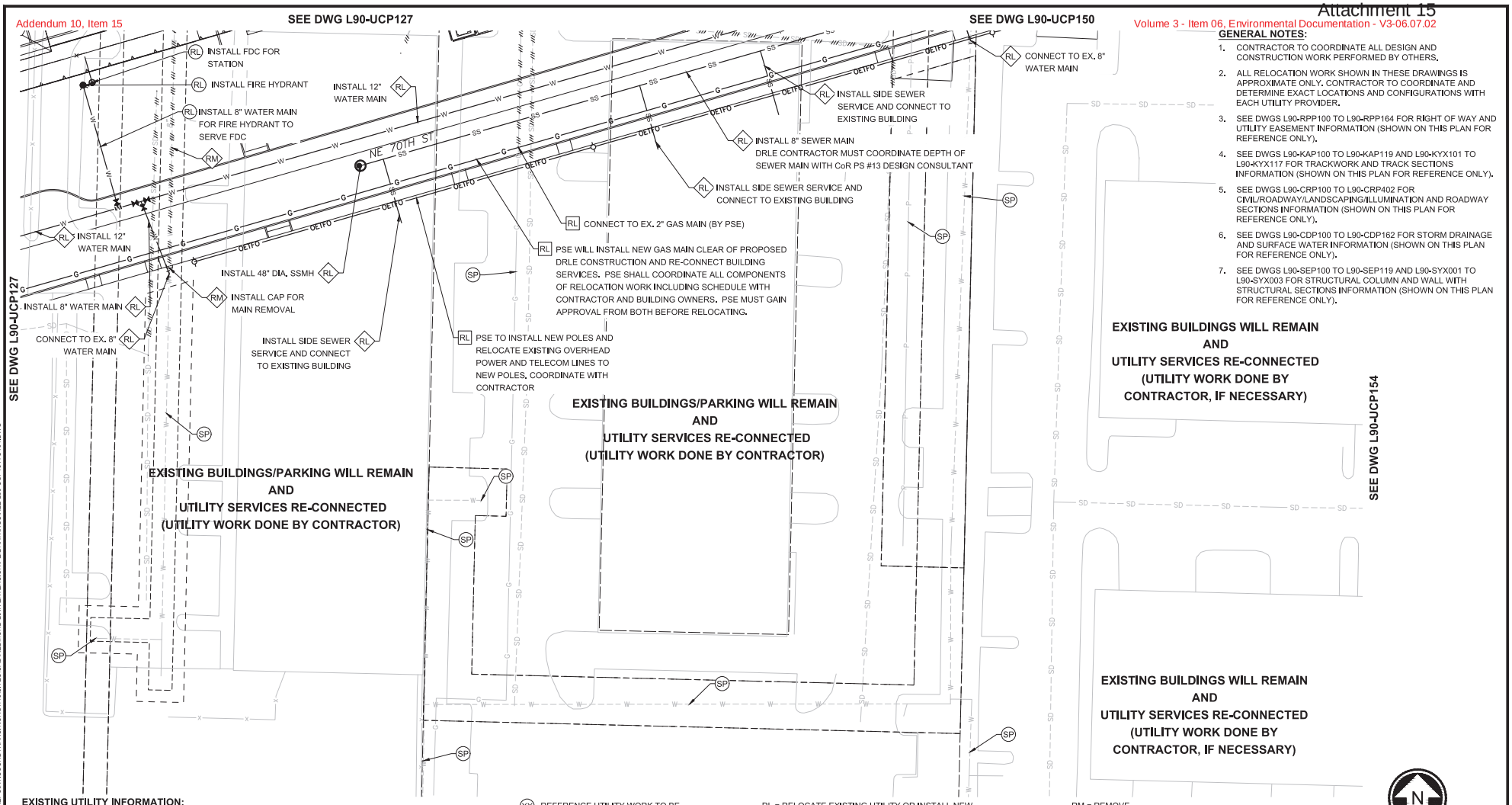
Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

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DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
NE 70TH ST - WEST

DRAWING No.: L90-UCP153
LOCATION ID:
SHEET No.: 294
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
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SEE DWG L90-UCP150

SEE DWG L90-UCP151

SEE DWG L90-UCP153

INSTALL 12" SEWER FORCE MAIN

END NEW 12" SEWER FORCE MAIN AND CAP AT END FOR FUTURE EXTENSION

176TH AVE NE

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FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
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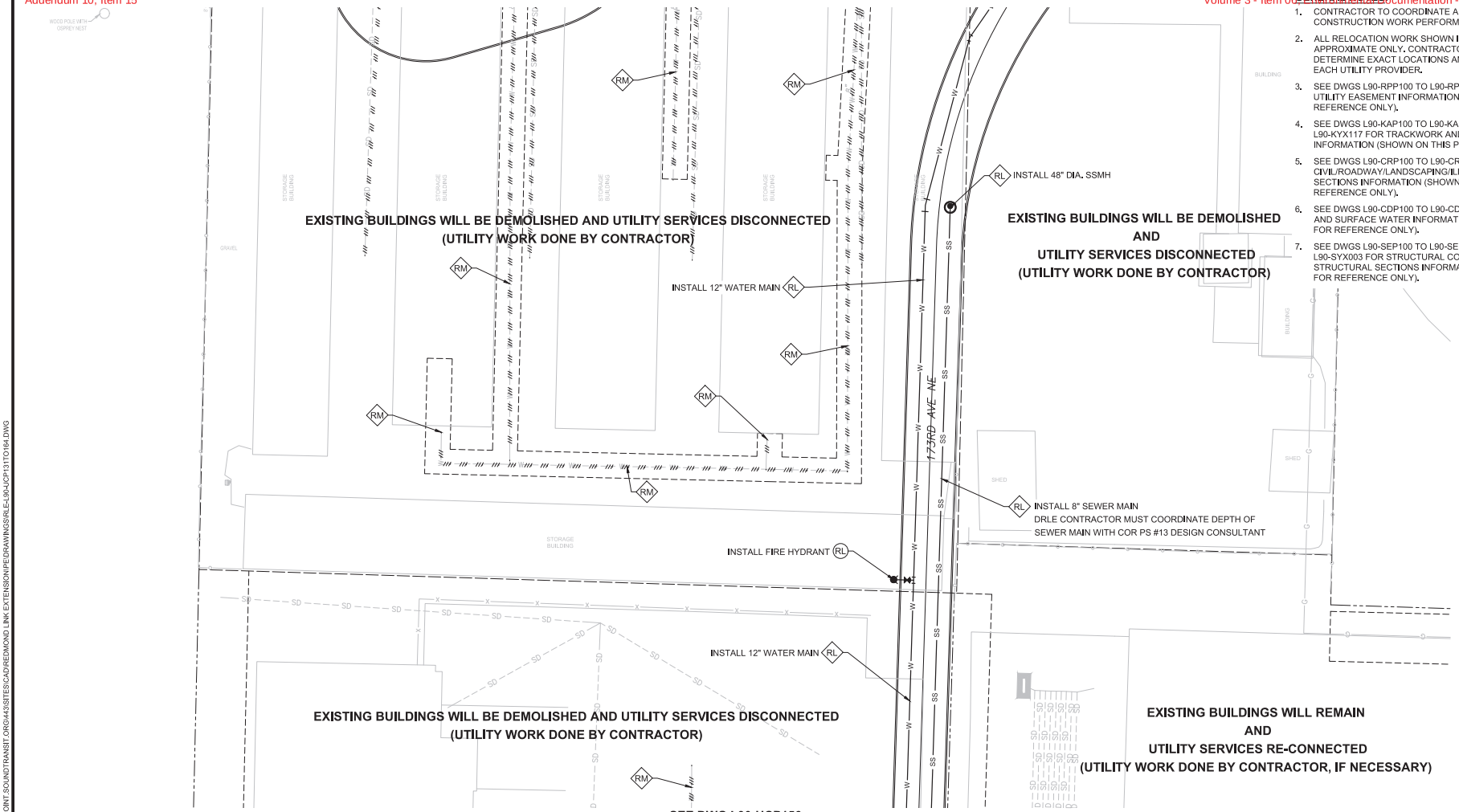
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
176TH AVE NE

DRAWING No.: L90-UCP154
LOCATION ID:
SHEET No.: 295
REV:

09/27/18 | 1:36 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-WUT
xRLE-L95-VSF
xRLE-L95-WUT
xRLE-G95-VSF
xRLE-G95-WUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. TYLER
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 24882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
173RD AVE NE

DRAWING No.: L90-UCP155
LOCATION ID:
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REV:

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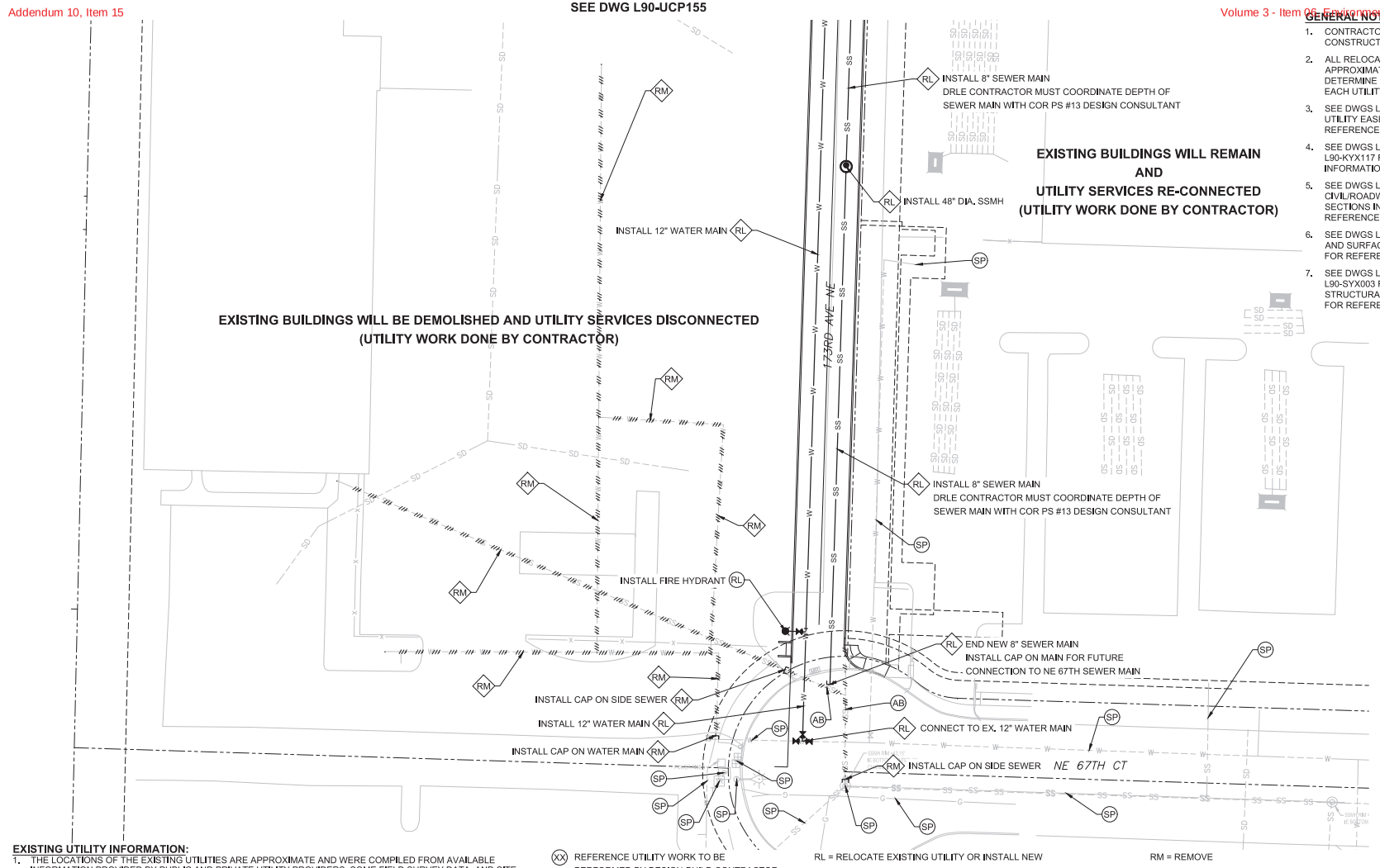

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APPROVED BY: Y. YANG

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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
COMPOSITE UTILITIES PLAN
173RD AVE NE & NE 67TH CT

DRAWING No.: L90-UCP156
LOCATION ID:
SHEET No.: 297
REV:

09/27/18 | 1:38 PM | TYLERJ
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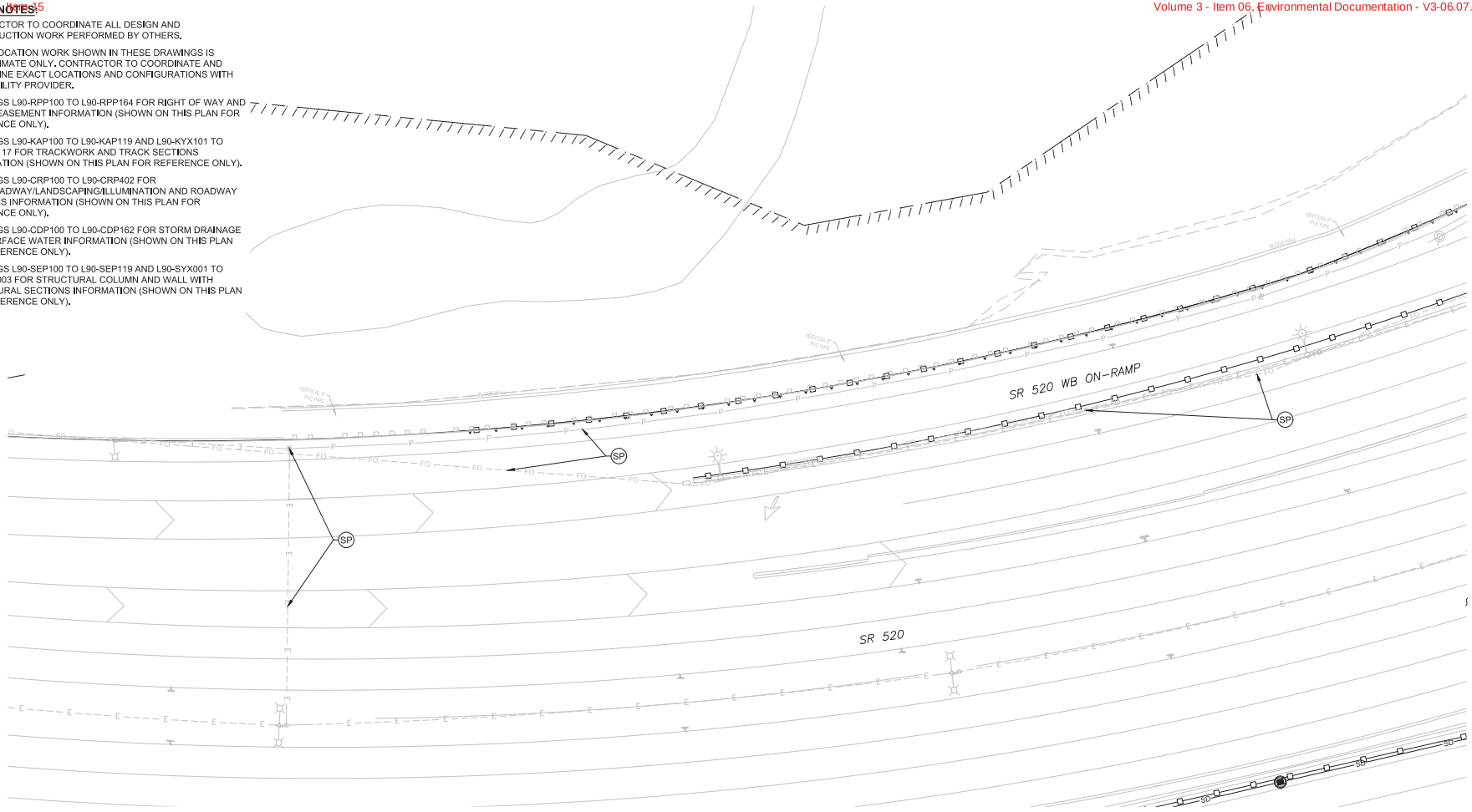

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CONCEPTUAL DESIGN

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DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. AUSTIN — STATE OF WASHINGTON — 24862 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
SR 520

DRAWING No.: L90-UCP157
LOCATION ID:
SHEET No.: 298
REV:

09/27/18 | 1:39 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

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SEE DWG L90-UCP159

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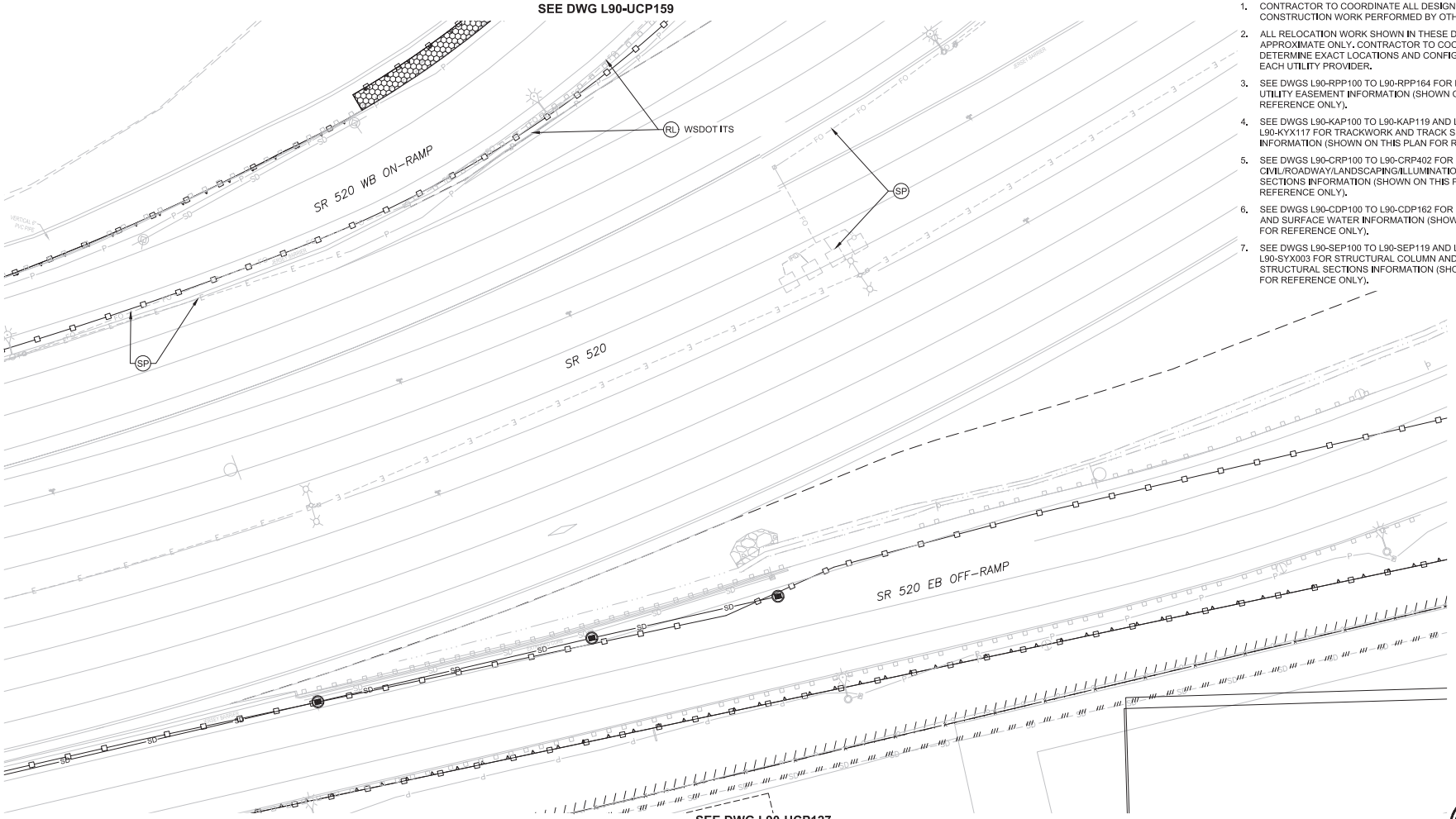
SEE DWG L90-UCP127



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DESIGNED BY: M. AUSTIN
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SR 520 EB OFF-RAMP

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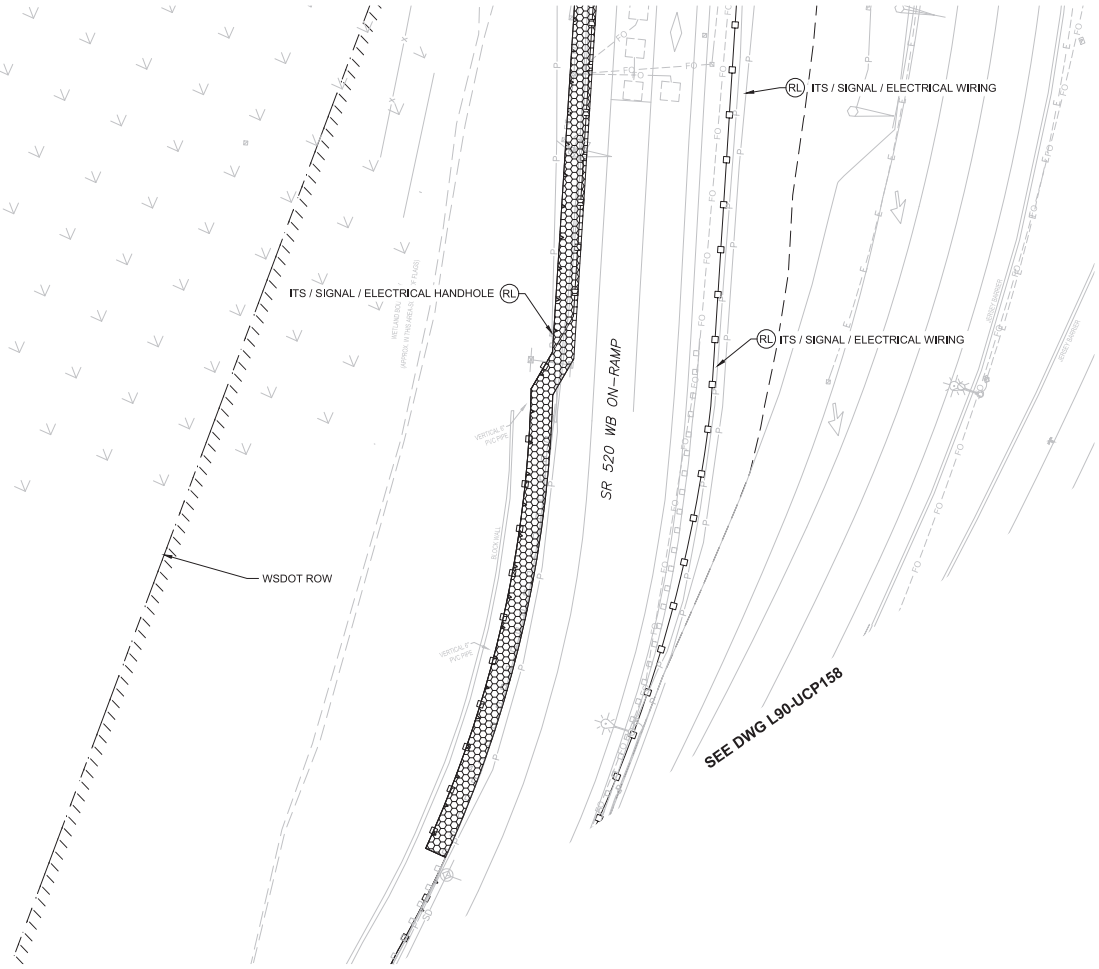

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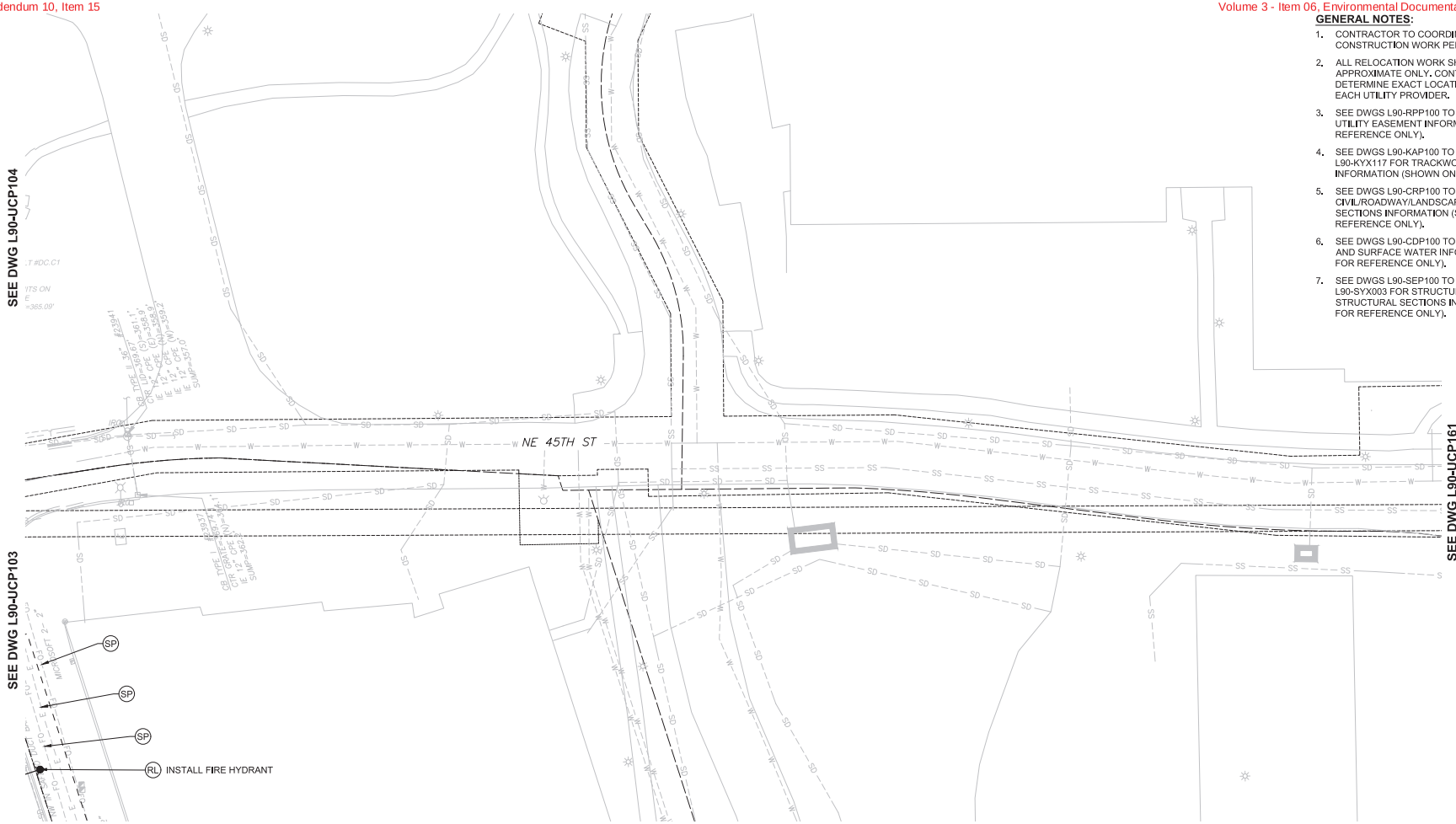
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305



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N

20 10 0 20 40
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 45TH ST

DRAWING No.: L90-UCP160
LOCATION ID:
SHEET No.: 301
REV:

09/27/18 | 1:42 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
xRLE-L90-UCP100
xRLE-L90-VRX
xRLE-L90-VSF
xRLE-L90-VUT
xRLE-L95-VSF
xRLE-L95-VUT
xRLE-Q5-VSF
xRLE-Q5-VUT
xRLE-E31-ASP100
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xRLE-E29-LPP100
xRLE-L90-RHP100
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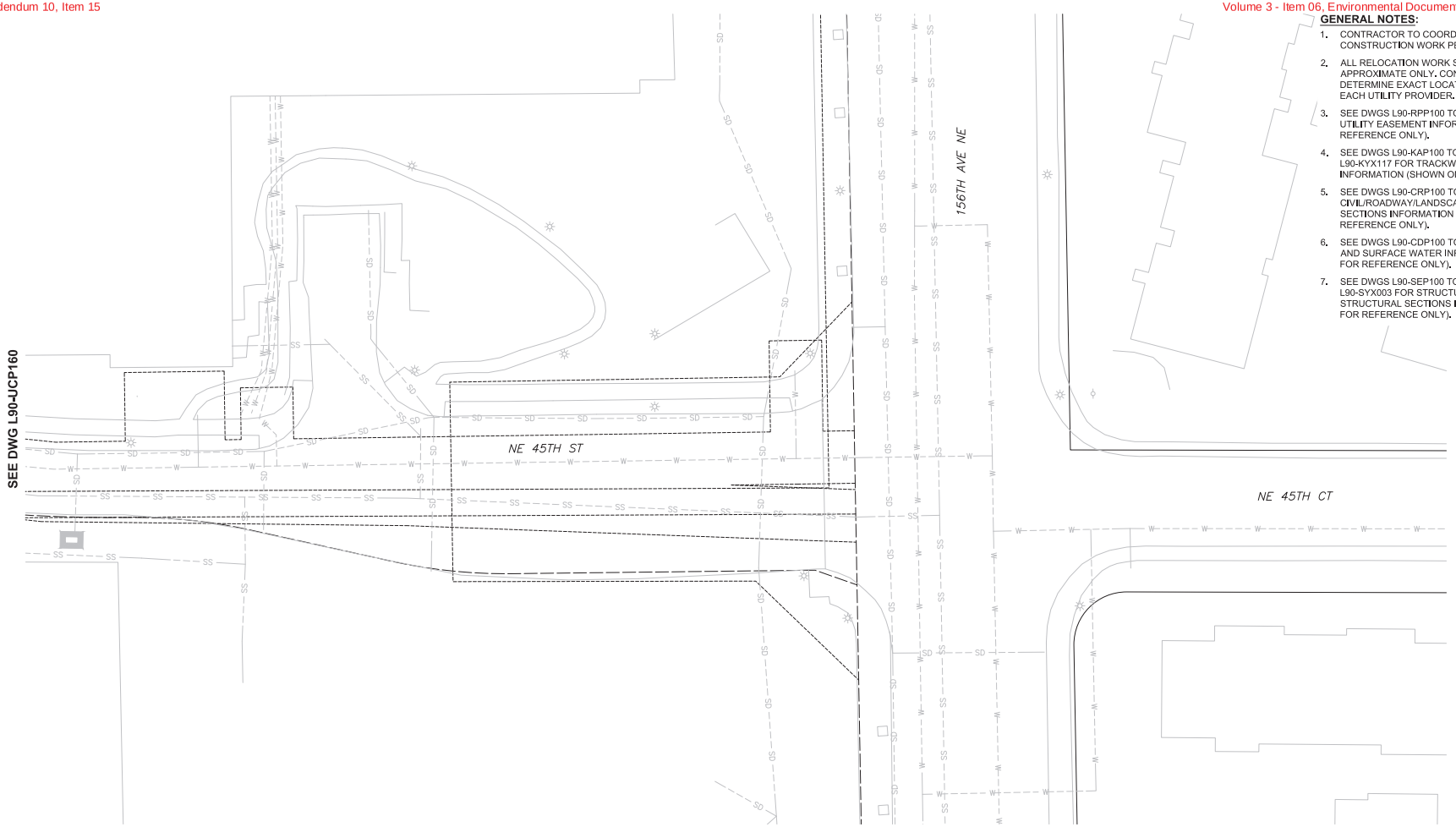

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PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

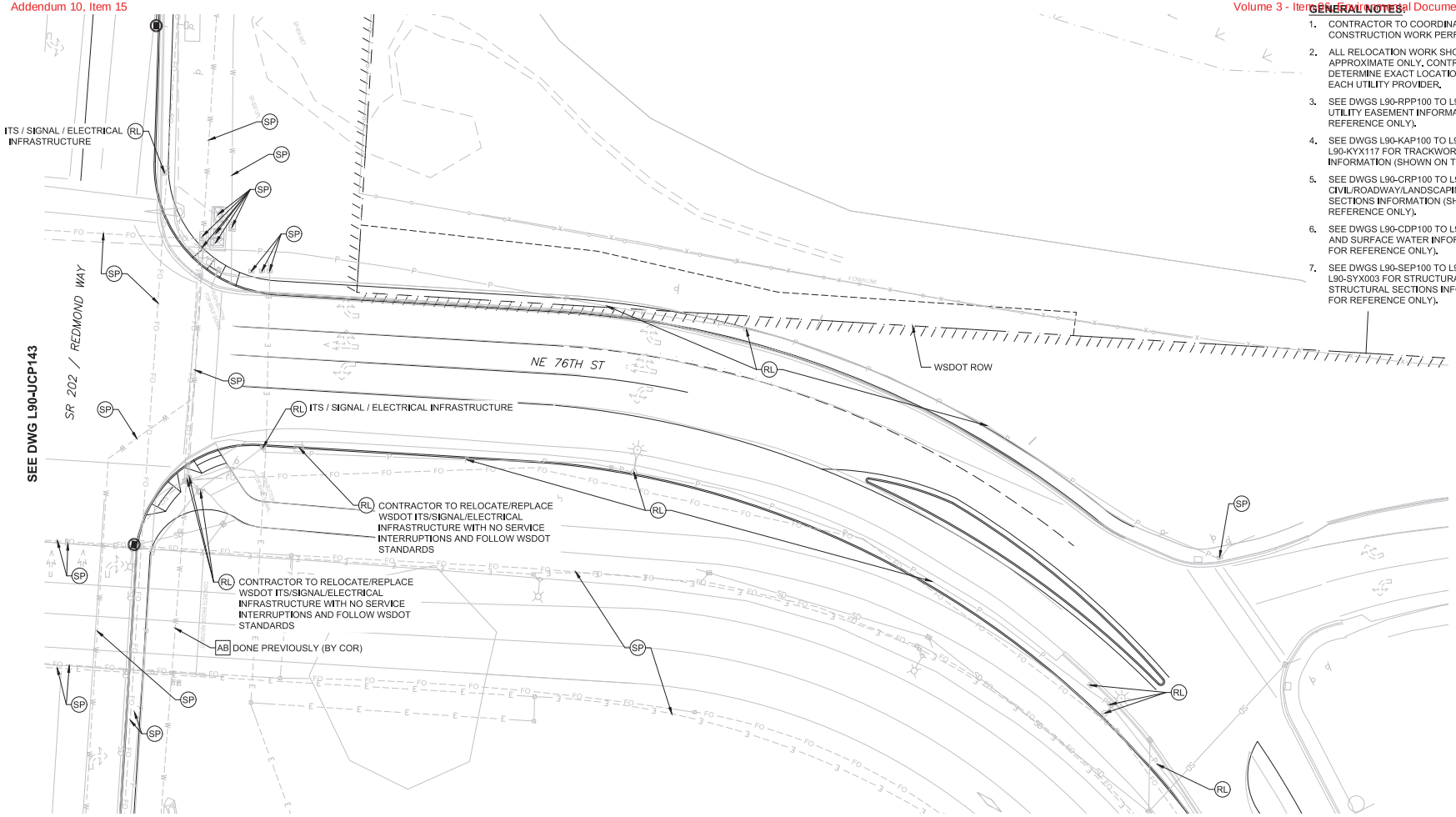
SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 45TH ST & 156TH AVE NE

DRAWING No.: L90-UCP161
LOCATION ID:
SHEET No.: 302
REV:

09/27/18 | 1:43 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG



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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASSTIN — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 76TH ST & SR 202/REDMOND WY INTERSECTION

DRAWING No.: L90-UCP162
LOCATION ID:
SHEET No.: 303
REV:

Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
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xRLE-L90-UCP100
xRLE-L90-WRX
xRLE-L90-VSF
xRLE-L90-WJT
xRLE-L95-VSF
xRLE-L95-WJT
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xRLE-G95-WJT
xRLE-E31-ASP100
xRLE-E29-ASP100
xRLE-E29-LPP100
xRLE-L90-RHP100
xRLE-L90-CDP100
xRLE-F29-APP305
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Xrefs:
RLE-GB-TB22x34
RLE-standards
xRLE-L90-KAP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xRLE-L90-SWP100
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xRLE-L90-VRX
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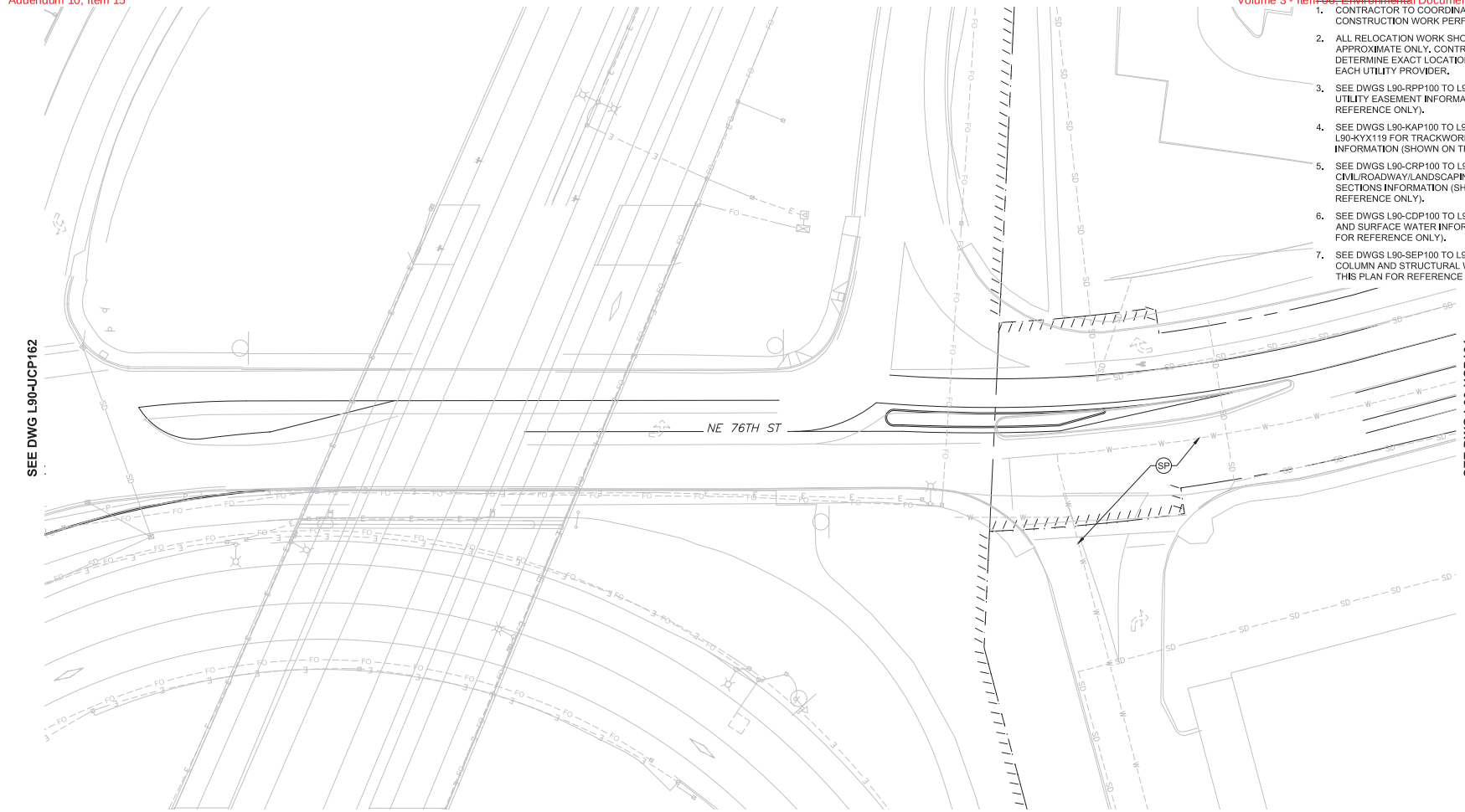

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. AUSTIN
DRAWN BY: J. BETZVOG
CHECKED BY: D. PROCTOR
APPROVED BY: Y. YANG

MATTHEW P. ASHTON — STATE OF WASHINGTON — 24862 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-L90-UCP131TO164
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 76TH ST

DRAWING No.: L90-UCP163
LOCATION ID:
SHEET No.: 304
REV:

09/27/18 | 1:45 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PED\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
RLE-GB-TB22x34
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CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
COMPOSITE UTILITIES PLAN
NE 76TH ST - NORTH

DRAWING No.: L90-UCP164
LOCATION ID:
SHEET No.: 305
REV:

09/27/18 | 1:46 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-UCP131TO164.DWG

Xrefs:
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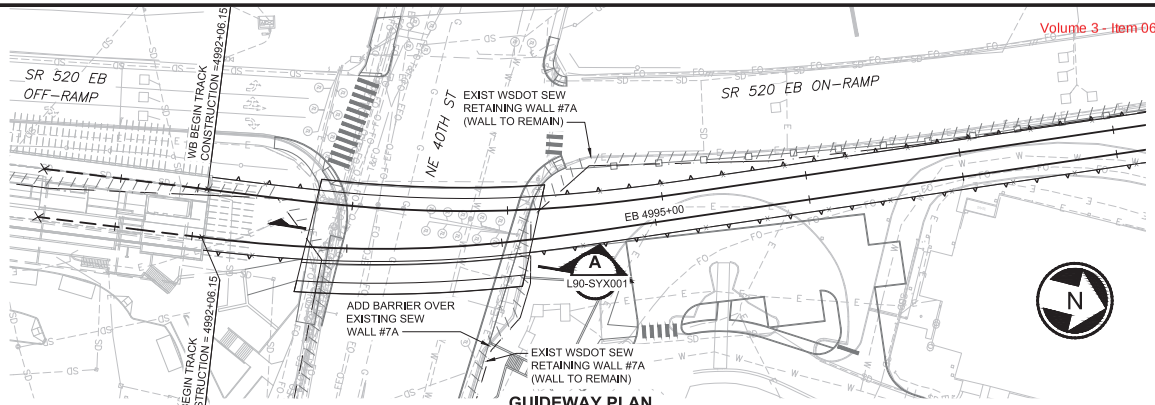
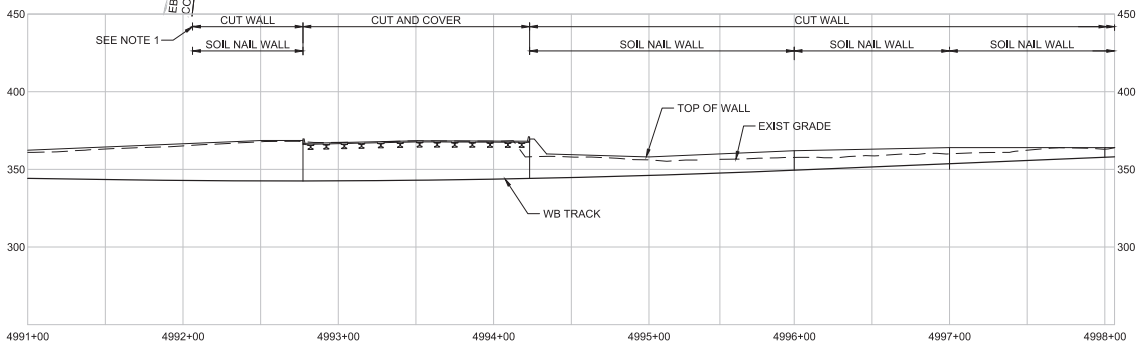
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
xE360-RLE-L88-SWV100
xE360-RLE-E27-CSP20
xRLE-L90-VRX
xRLE-L90-CDP100

NOTES:

1. FOR WALL INTERFACE, COORDINATE WITH E360 CONTRACT

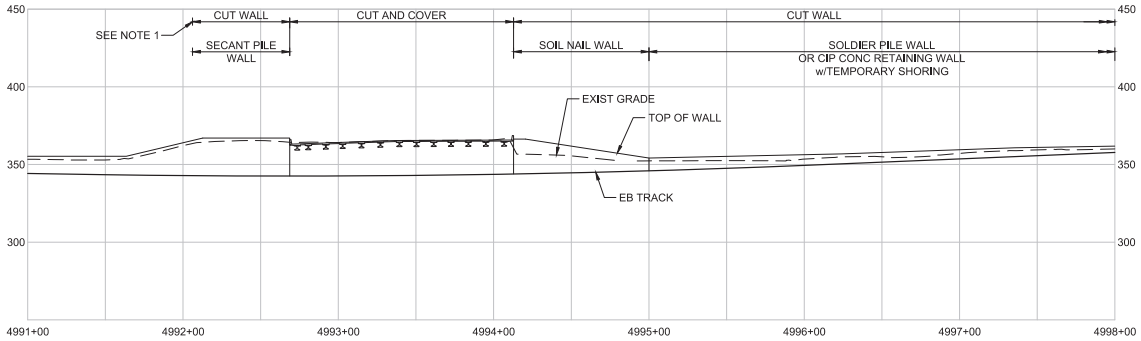


GUIDEWAY PLAN



DEVELOPED ELEVATION - LT OF WB CL

SEE DWG L90-SEP101



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS/I. IKEDA
DRAWN BY: K. FLEMING/J. TYLER
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — JEFF J. BRIGHT — 19870 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 4991+00 TO EB STA 4998+00

DRAWING No.: L90-SEP100
LOCATION ID:
SHEET No.: 306
REV:

09/27/18 | 10:43 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
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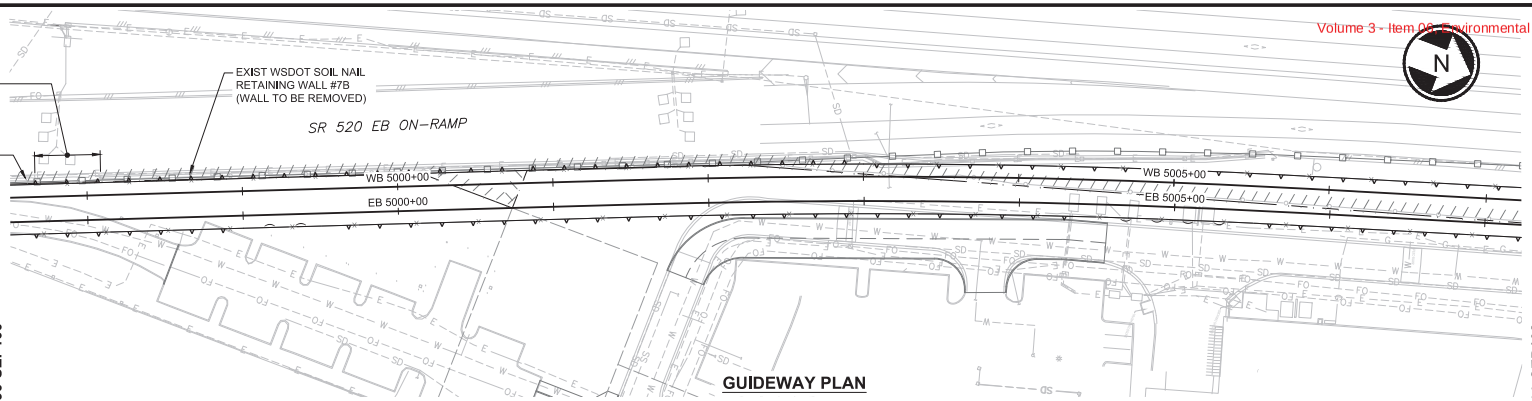
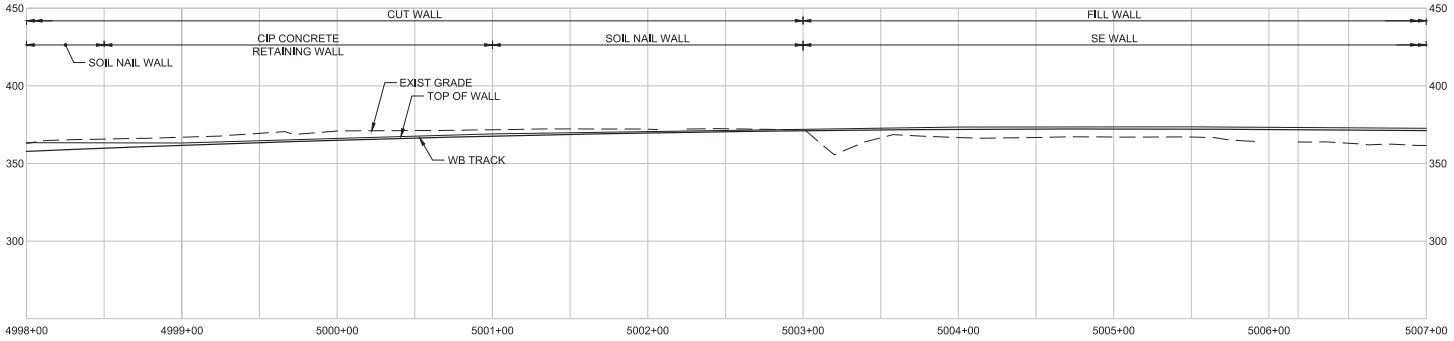


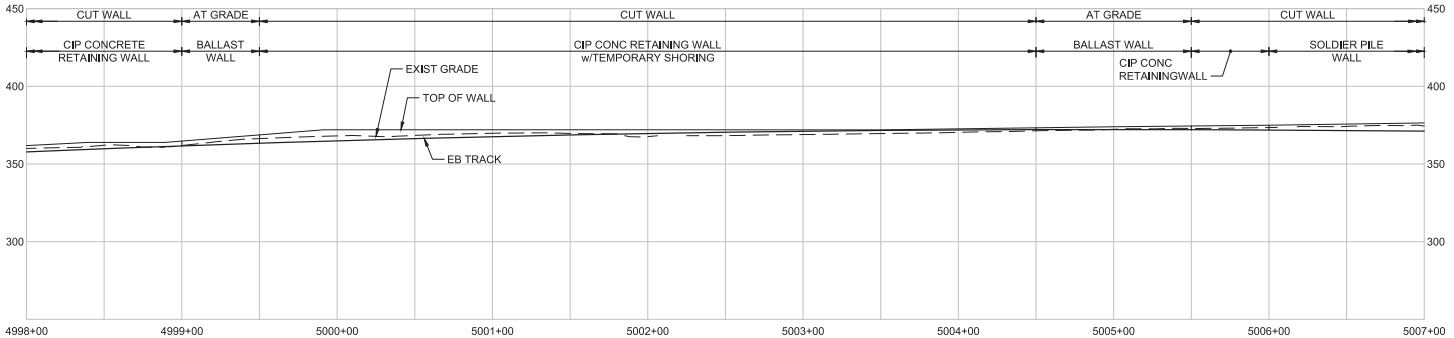
SEE DWG L90-SEP100

SEE DWG L90-SEP102

GUIDEWAY PLAN



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 19870 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

6 BRIGHT ENGINEERING, INC. — STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE:

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 4998+00 TO EB STA 5007+00

DRAWING No.: L90-SEP101
LOCATION ID:
SHEET No.: 307
REV:

09/27/18 | 10:44 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-L90-SDV100
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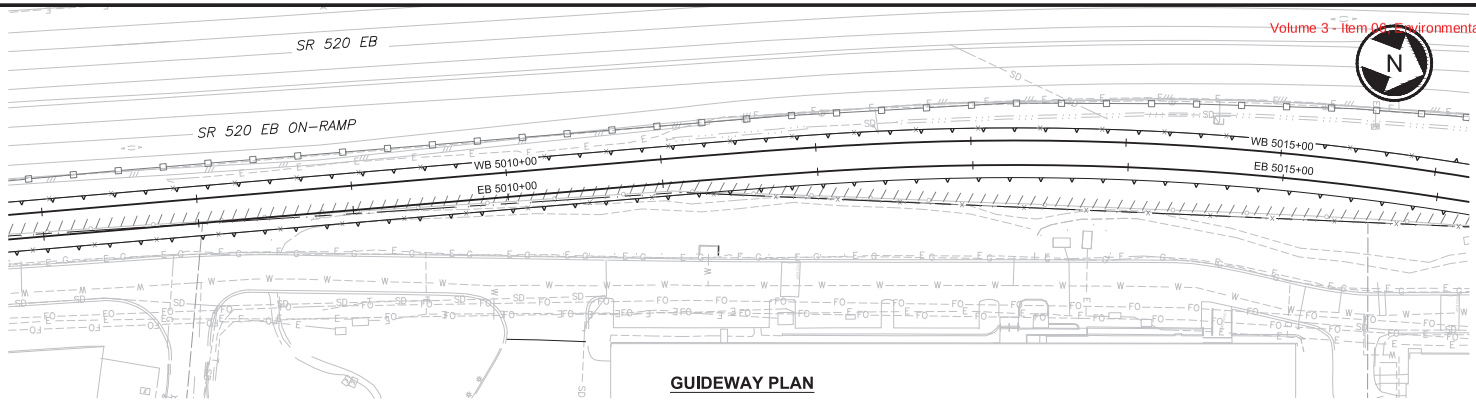
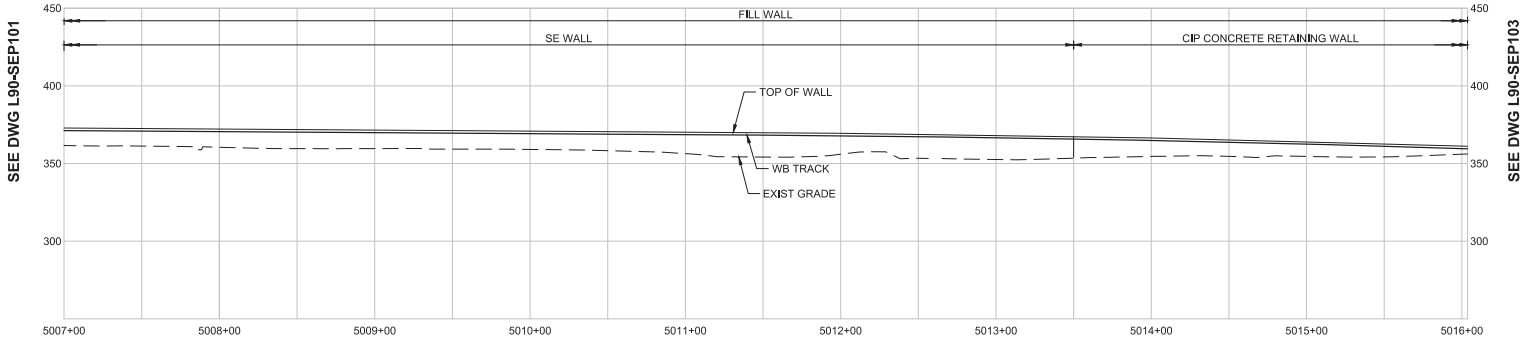
xRLE-L90-CDP100



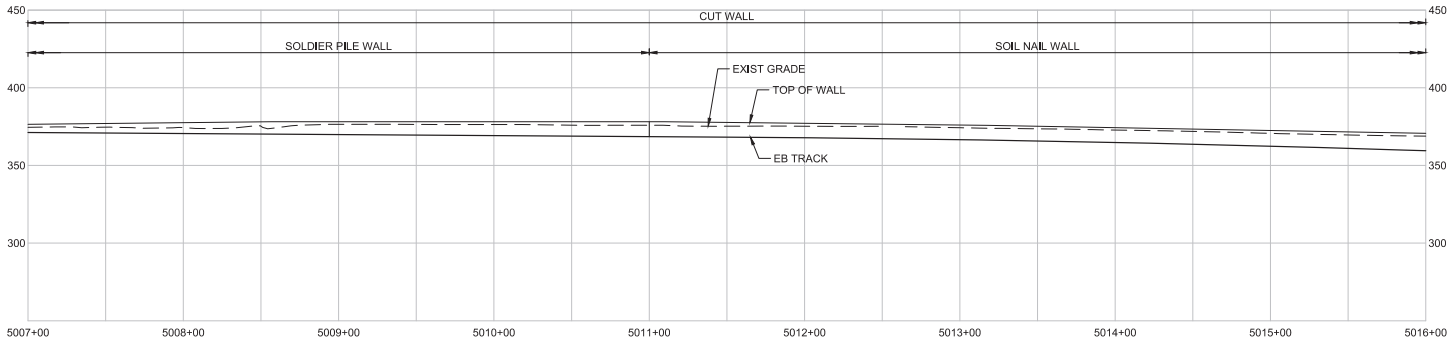
GUIDEWAY PLAN



SEE DWG L90-SEP101

SEE DWG L90-SEP103

DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

KYLE J. BRIGHT — STATE OF WASHINGTON — 21811 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5007+00 TO EB STA 5016+00

DRAWING No.: L90-SEP102
LOCATION ID:
SHEET No.: 308
REV:

09/27/18 | 10:45 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-L90-SDV100
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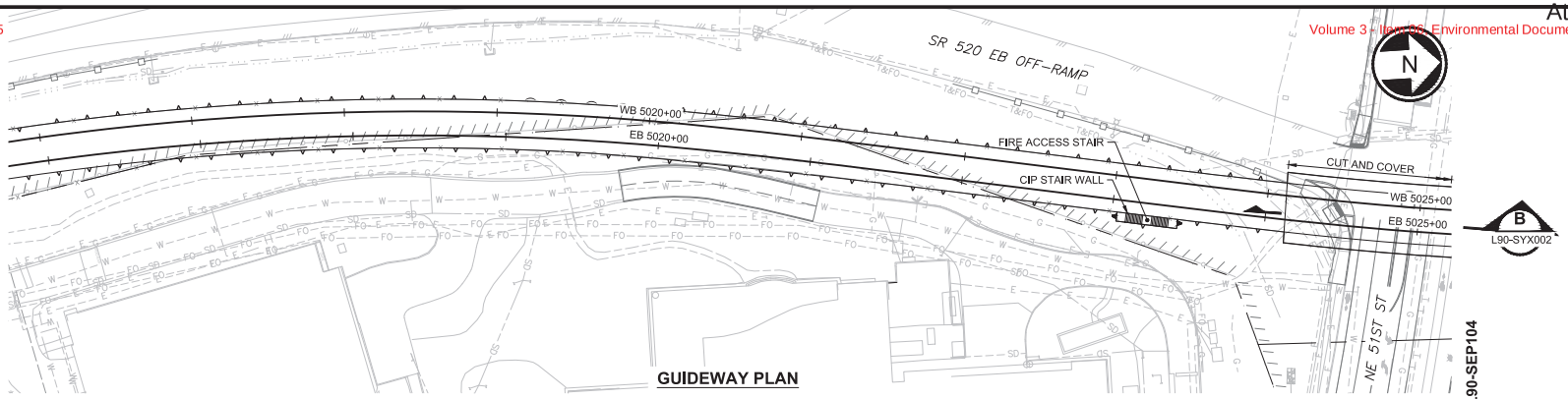
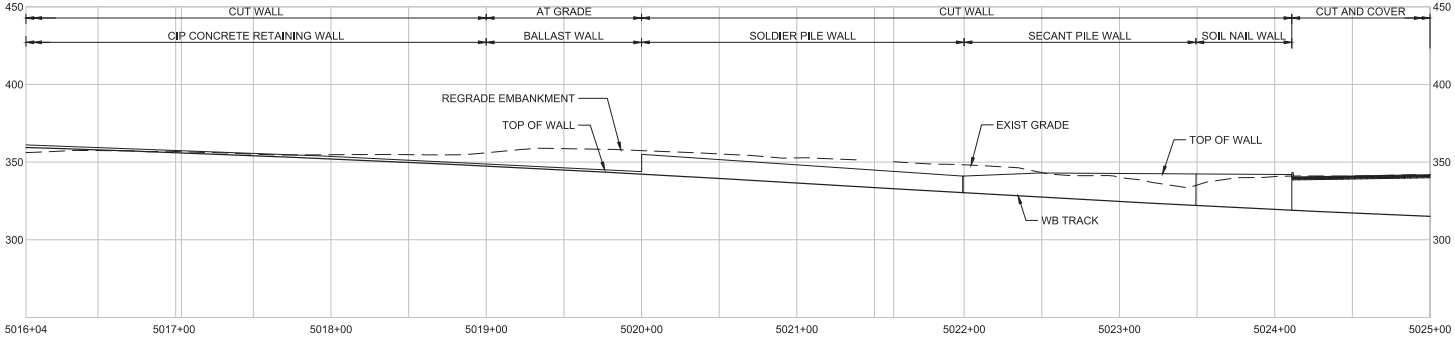
xE360-RLE-E27-CSP20
xRLE-L90-VRX
xRLE-L90-CDP100



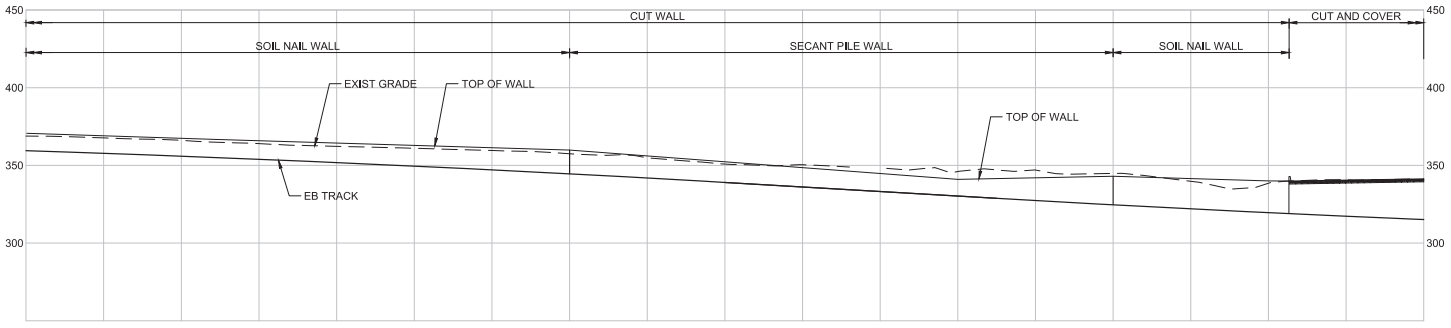
GUIDEWAY PLAN

SEE DWG L90-SEP102

SEE DWG L90-SEP104



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — ANNE J. BRIGHT — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

Bright Engineering, Inc. — Structural & Civil Engineering
1809 7th Avenue, Suite 1100, Seattle, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5016+00 TO EB STA 5025+00

DRAWING No.: L90-SEP103
LOCATION ID:
SHEET No.: 309
REV:

09/27/18 | 10:46 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
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xRLE-L90-SWV100
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xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
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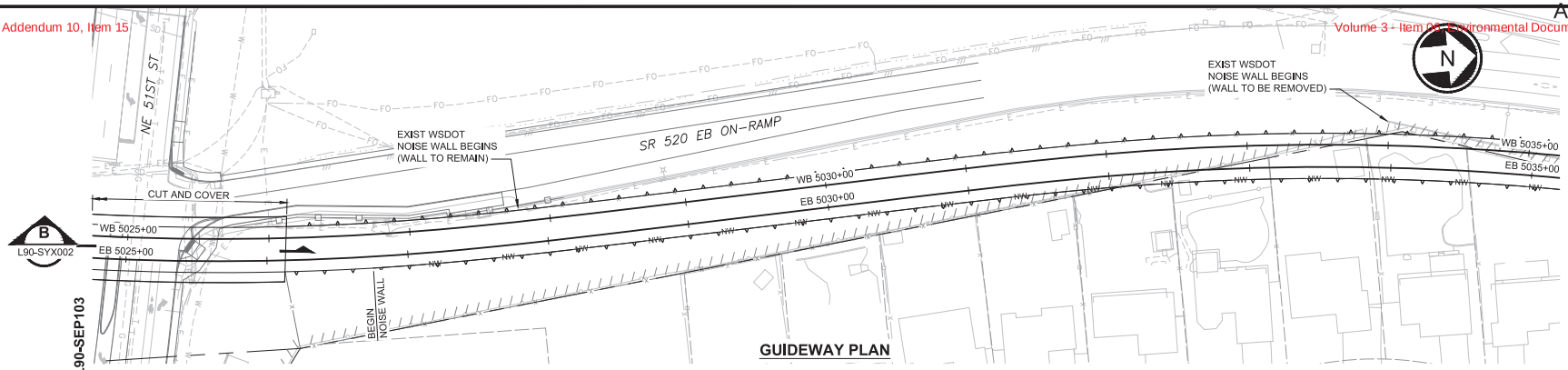
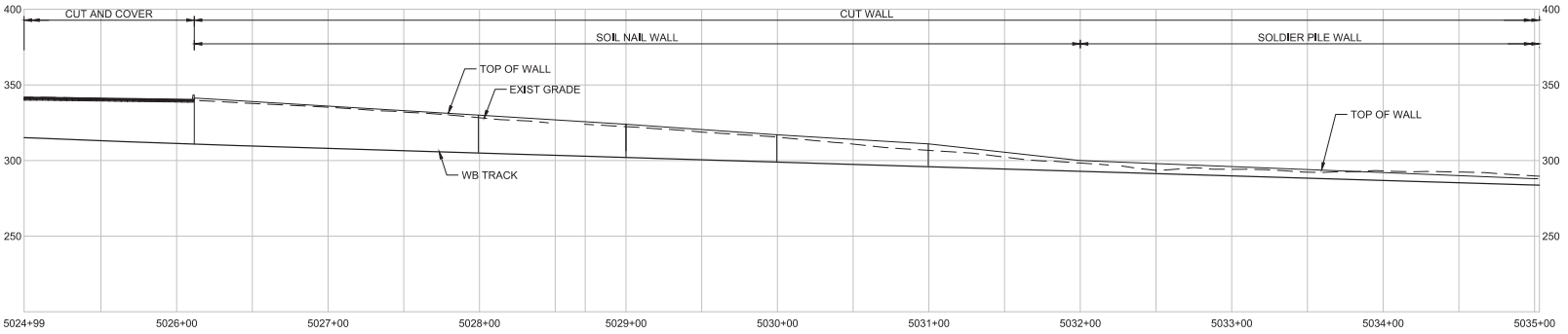
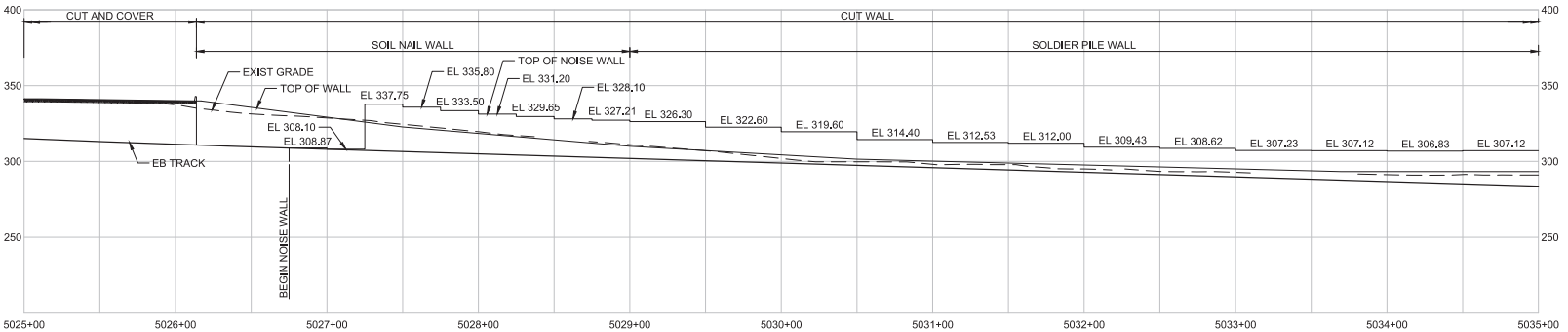


GUIDEWAY PLAN



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS/I. IKEDA
DRAWN BY: K. FLEMING/J. TYLER
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

6 BRIGHT ENGINEERING, INC. — STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5025+00 TO EB STA 5035+00

DRAWING No.: L90-SEP104
LOCATION ID:
SHEET No.: 310
REV:

09/27/16 | 10:47 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
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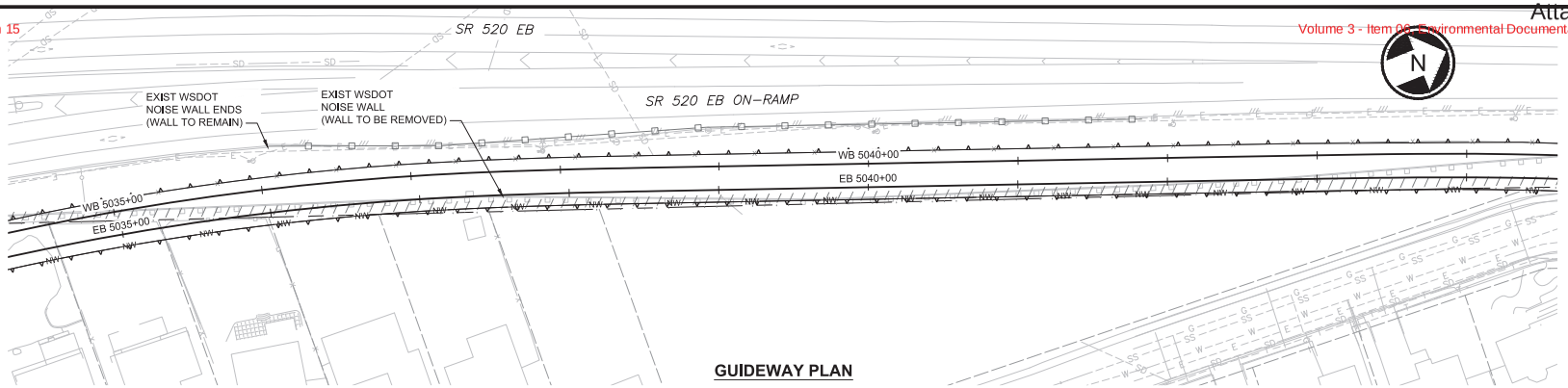
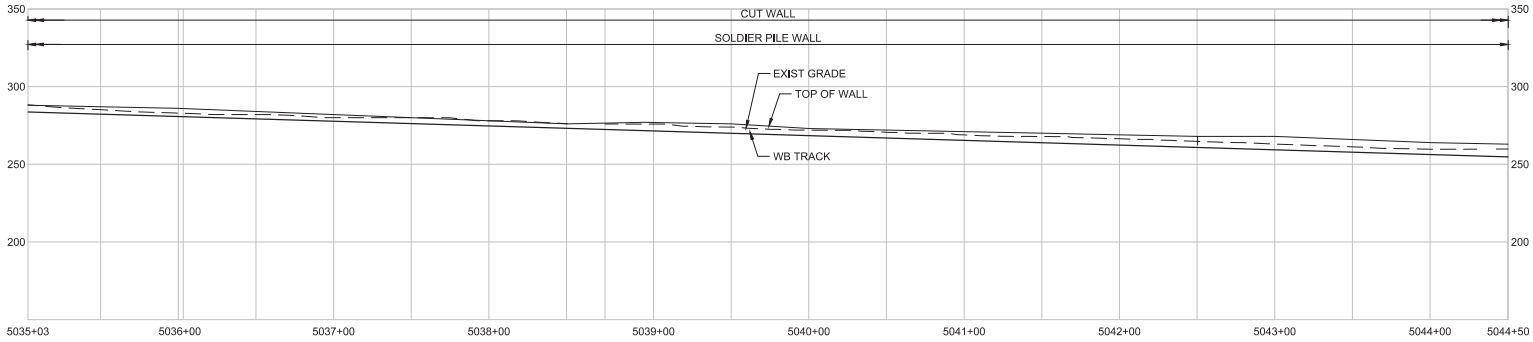


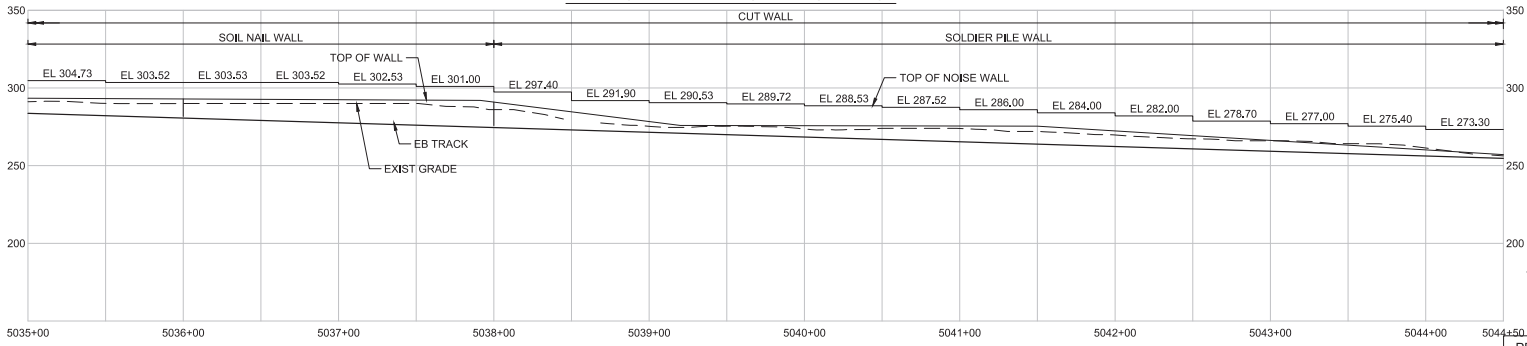
GUIDEWAY PLAN

SEE DWG L90-SEP104

SEE DWG L90-SEP106



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5035+00 TO EB STA 5044+50

DRAWING No.: L90-SEP105
LOCATION ID:
SHEET No.: 311
REV:

09/27/18 | 10:48 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
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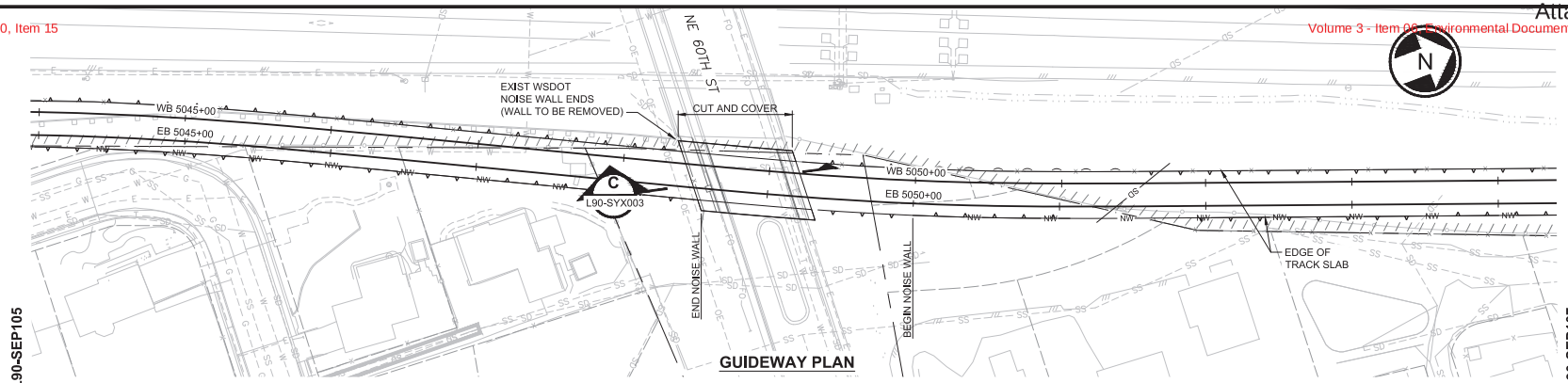
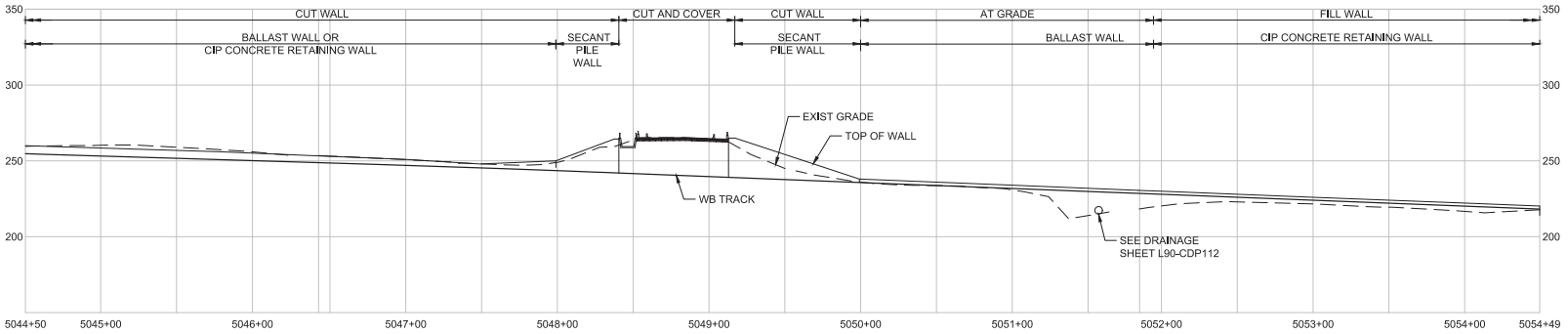
xE360-RLE-E27-CSP20
xRLE-L90-VRX
xRLE-L90-CDP100



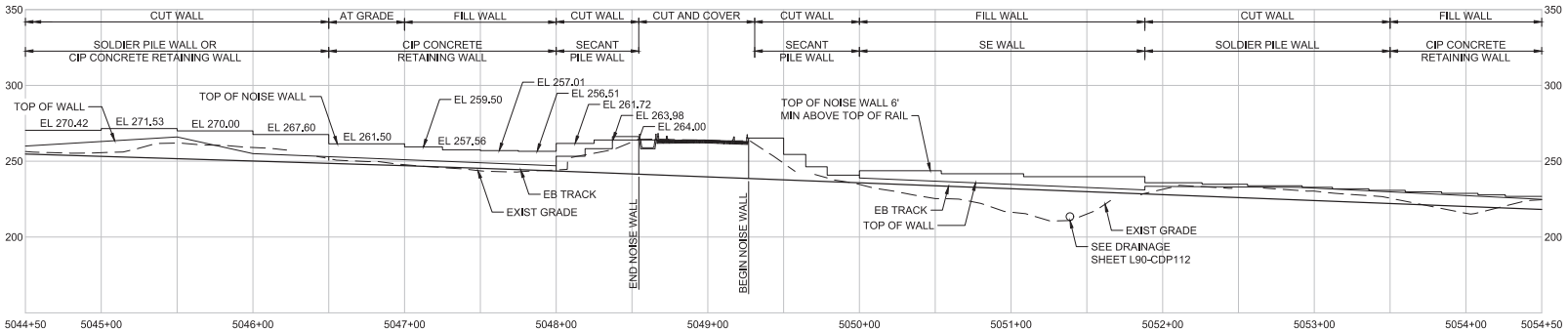
GUIDEWAY PLAN

SEE DWG L90-SEP105

SEE DWG L90-SEP107



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS/I. IKEDA
DRAWN BY: K. FLEMING/J. TYLER
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

Bright Engineering, Inc.
Structural & Civil Engineering
1809 7th Avenue
Suite 1100
Seattle, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

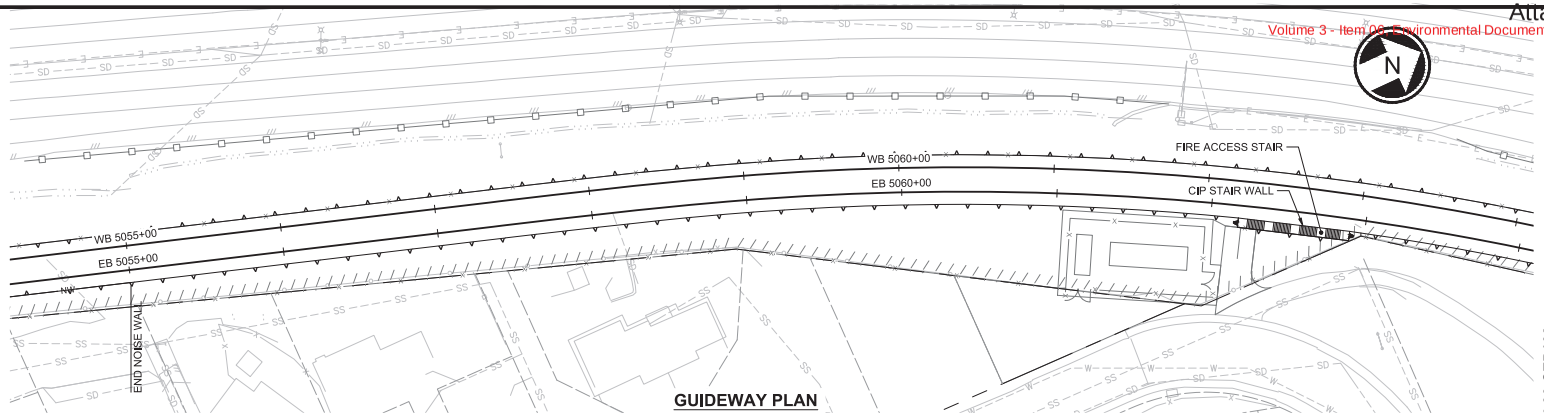
SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5044+50 TO EB STA 5054+50

DRAWING No.: L90-SEP106
LOCATION ID:
SHEET No.: 312
REV:

09/27/18 | 10:49 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

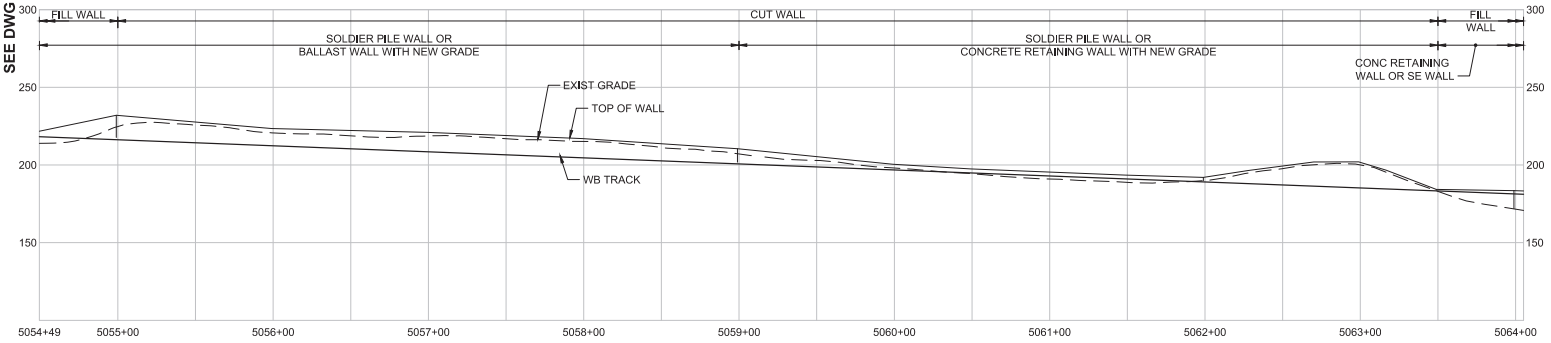
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-L90-SDV100
xE360-RLE-L88-SWV100
xE360-RLE-E27-CSP20
xRLE-L90-VRX
xRLE-L90-CDP100



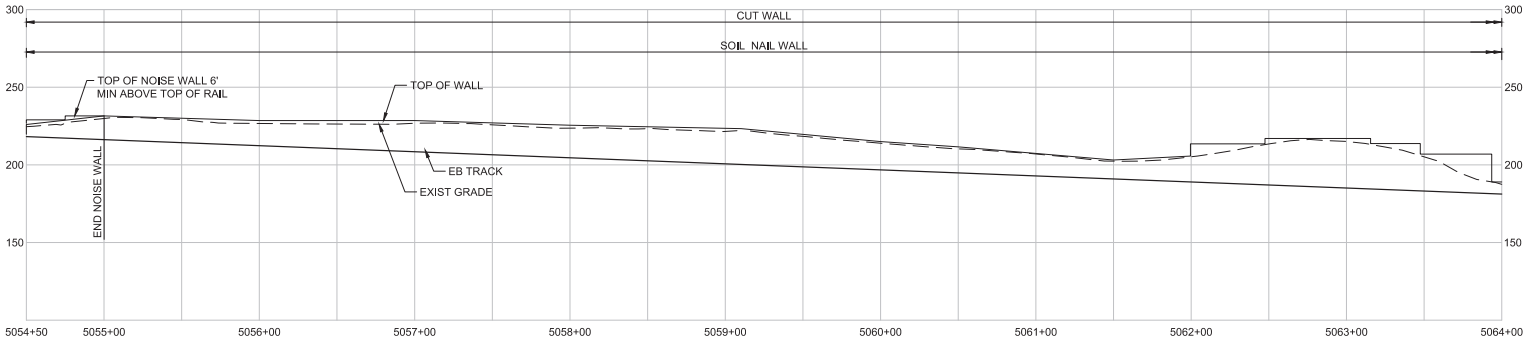
GUIDEWAY PLAN

SEE DWG L90-SEP106

SEE DWG L90-SEP108



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

6 BRIGHT ENGINEERING, INC. — STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5054+50 TO EB STA 5064+00

DRAWING No.: L90-SEP107
LOCATION ID:
SHEET No.: 313
REV:

09/27/18 | 10:50 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ.HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-L90-SDV100
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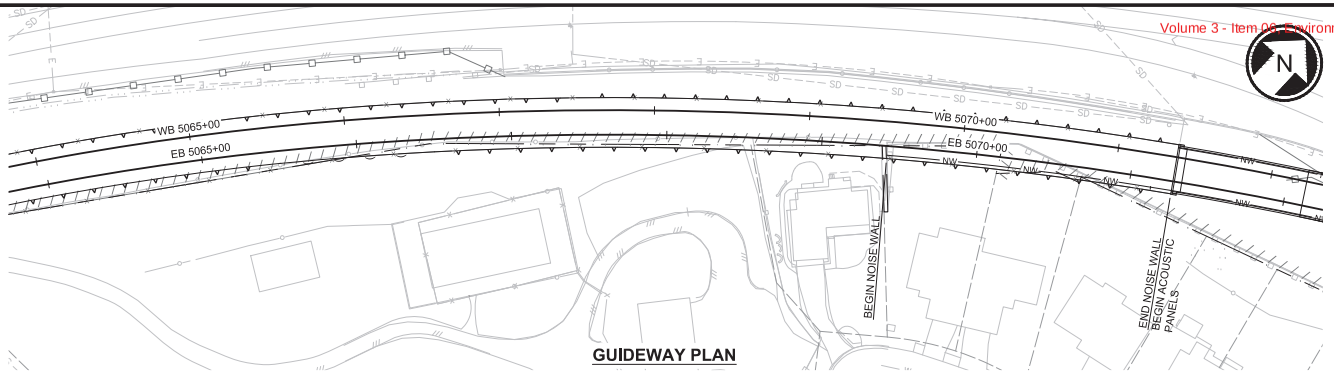
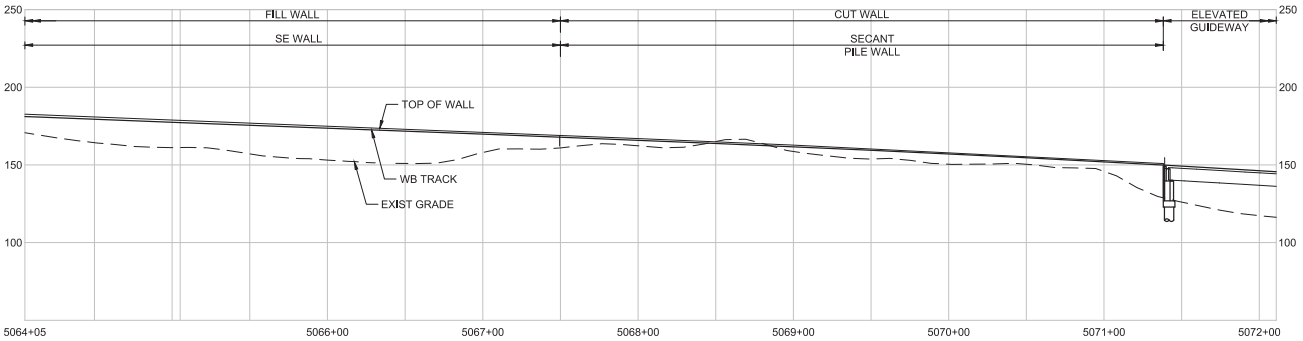


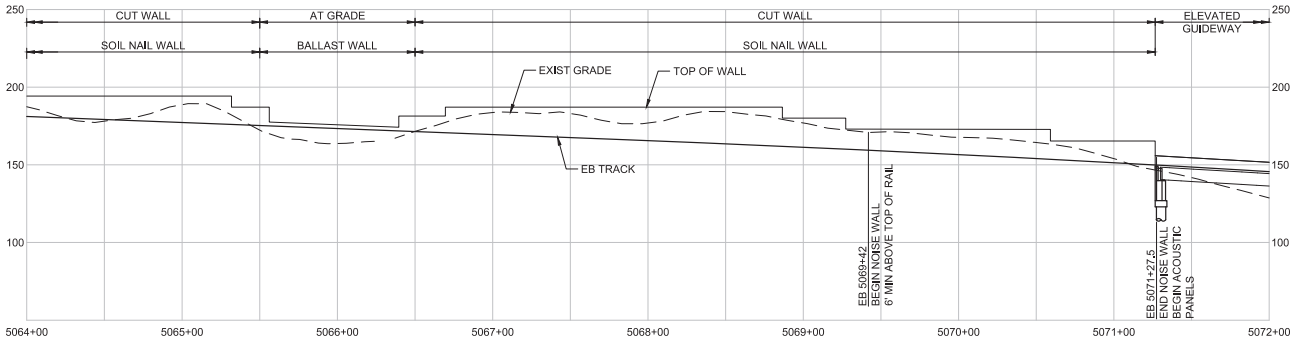
GUIDEWAY PLAN

SEE DWG L90-SEP107

SEE DWG L90-SEP109



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

NOTES:

1. SEE L90-SEP108A FOR ELEVATED GUIDEWAY DETAILS

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

KYLE J. BRIGHT — STATE OF WASHINGTON — 19870 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5064+00 TO EB STA 5072+00

DRAWING No.: L90-SEP108
LOCATION ID:
SHEET No.: 314
REV:

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Xrefs:
RLE-GB-TB22x34
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xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-L90-SDV100
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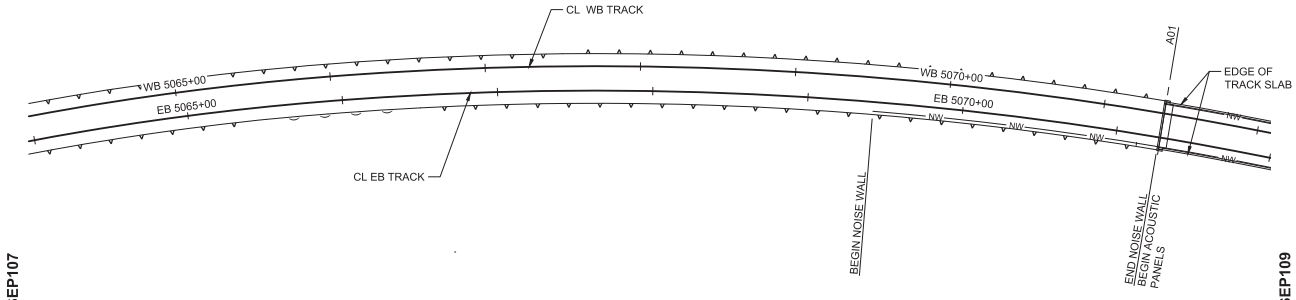
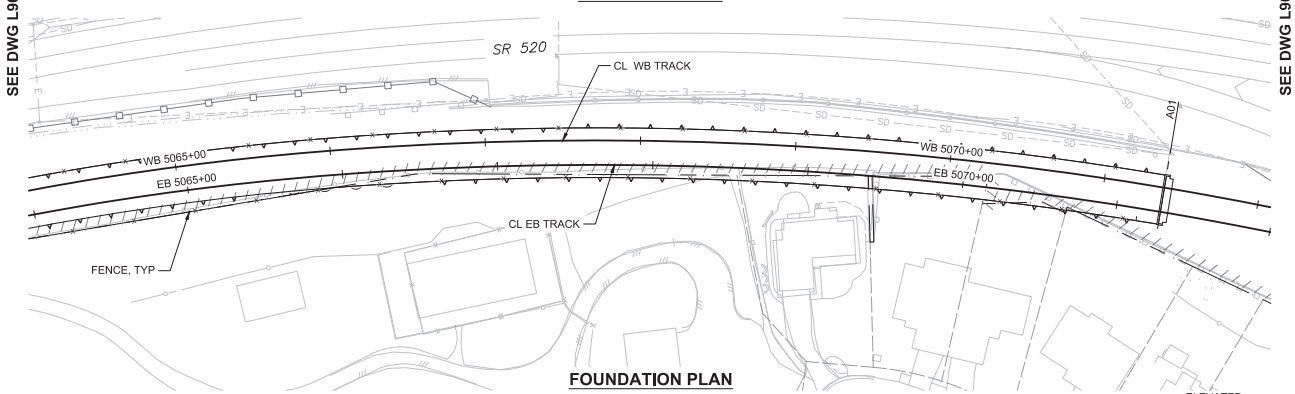


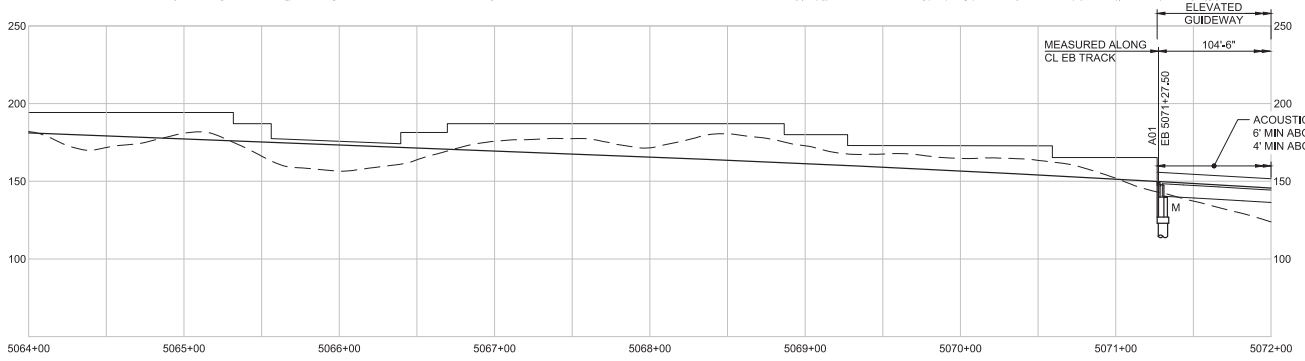
GUIDEWAY PLAN

SEE DWG L90-SEP107

SEE DWG L90-SEP109



FOUNDATION PLAN



DEVELOPED ELEVATION

NOTES:

1. SEE L90-SEP108 FOR WALL DETAILS

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 19870 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

BRIGHT ENGINEERING, INC. — STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE:

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5064+00 TO EB STA 5072+00

DRAWING No.: L90-SEP108A
LOCATION ID:
SHEET No.: 315
REV:

09/27/18 | 10:53 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
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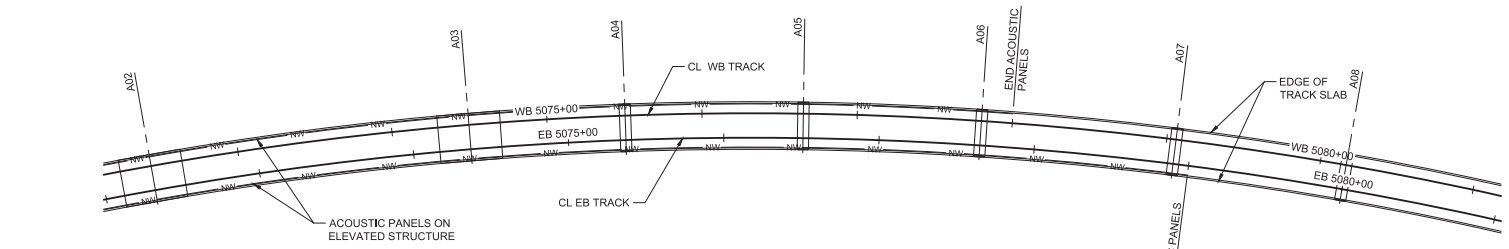
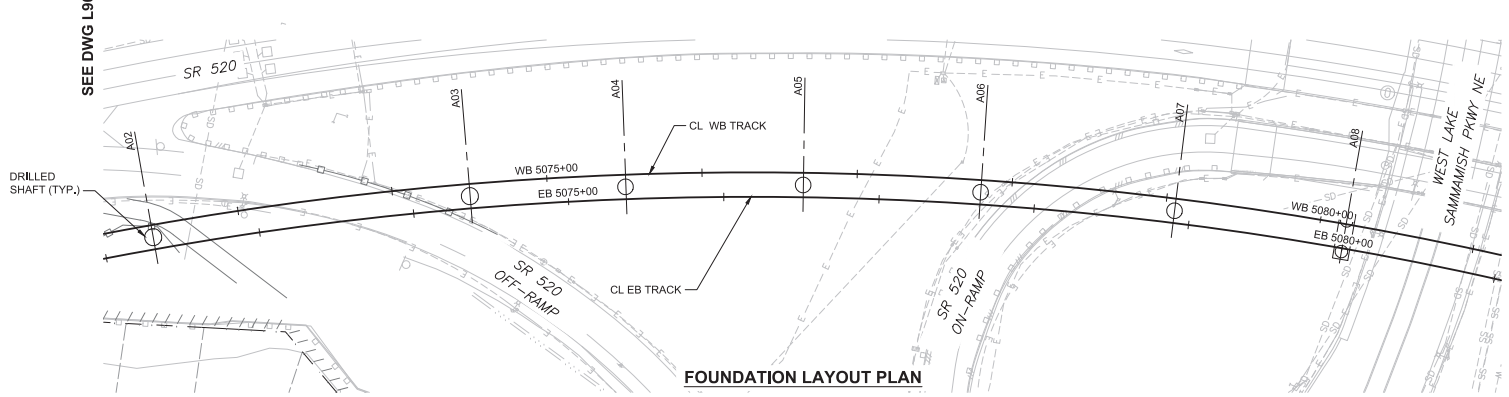


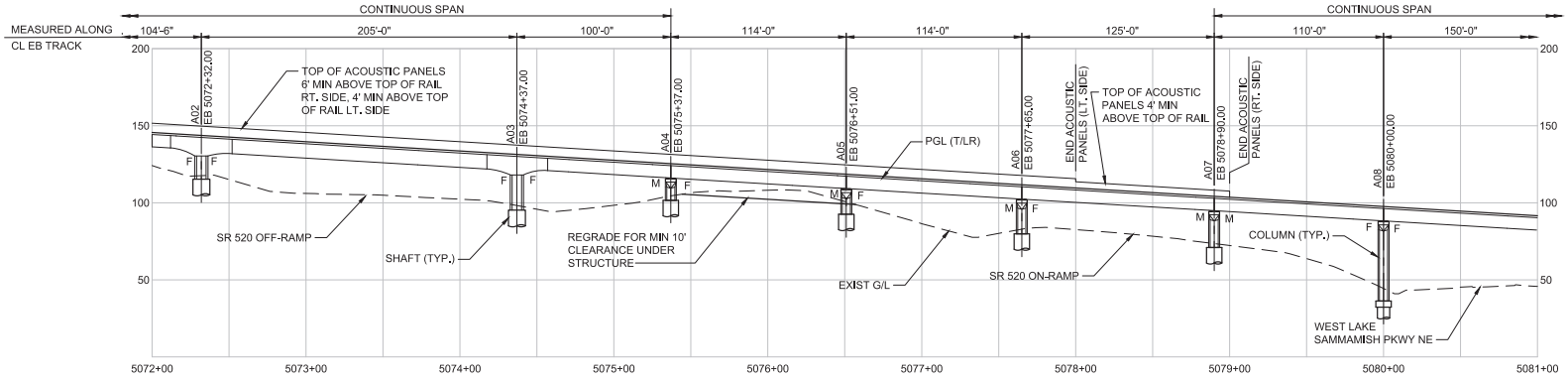
GUIDEWAY PLAN

SEE DWG L90-SEP108A

SEE DWG L90-SEP110



FOUNDATION LAYOUT PLAN



DEVELOPED ELEVATION

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

KYLE J. BRIGHT — STATE OF WASHINGTON — 21810 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5072+00 TO EB STA 5081+00

DRAWING No.: L90-SEP109
LOCATION ID:
SHEET No.: 316
REV:

09/27/18 | 10:55 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
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xRLE-L95-YDF
xRLE-L90-SWV100
xRLE-L90-YDF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP10
xRLE-L90-YUT
xRLE-L95-YUT
xRLE-G25-YDF
xRLE-G25-YUT
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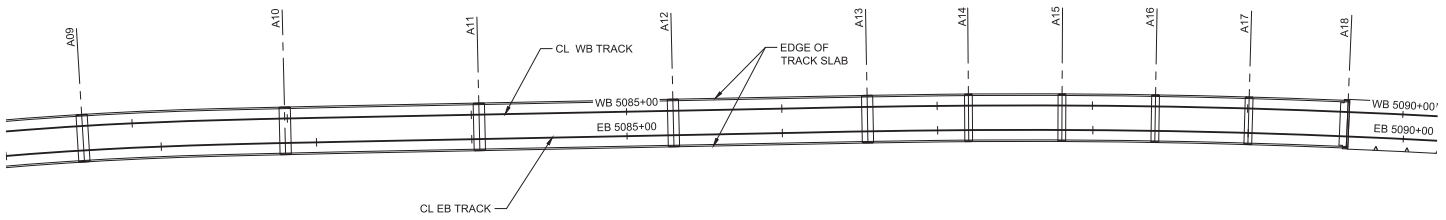
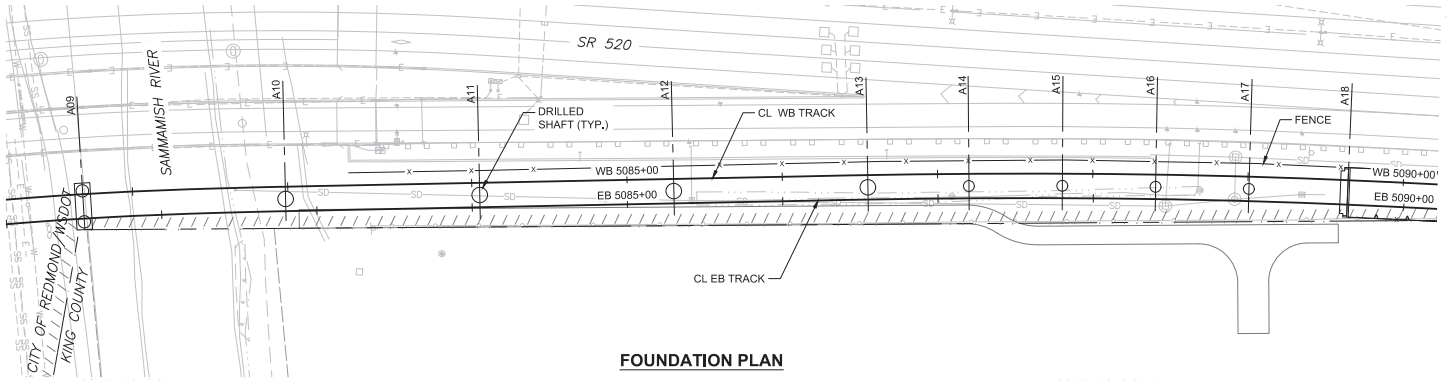


SEE DWG L90-SEP109

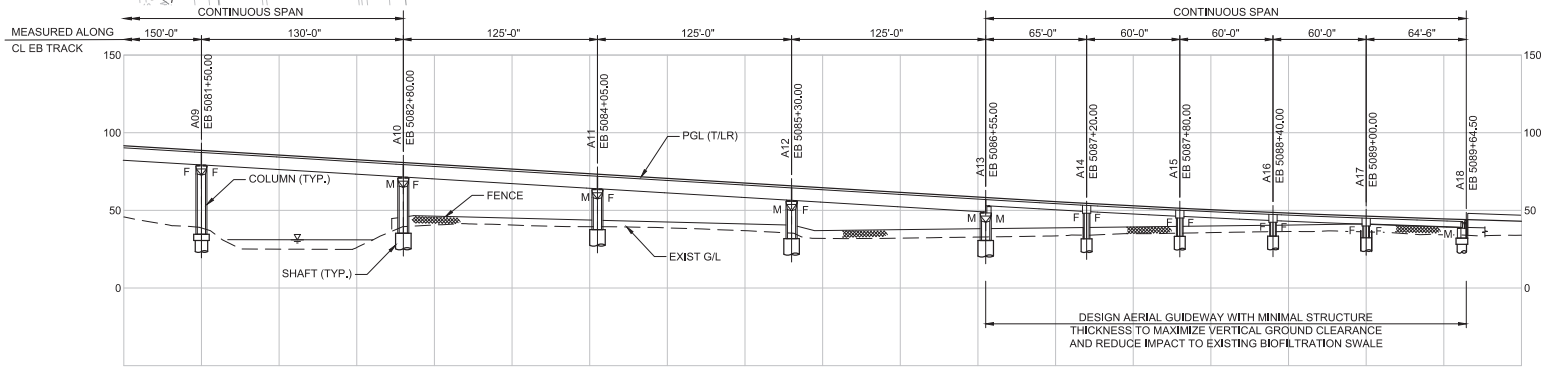
SEE DWG L90-SEP111

NOTES:
GUIDEWAY FOUNDATIONS ARE CENTERED ON CL GUIDEWAY U.N.O.

GUIDEWAY PLAN



FOUNDATION PLAN



DEVELOPED ELEVATION

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 21611 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

Bright Engineering, Inc. — Structural & Civil Engineering — 1809 7th Avenue Suite 1100 Seattle, WA 98101 P: (206) 625-3777 F: (206) 625-1851

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5081+00 TO EB STA 5090+00

DRAWING No.: L90-SEP110
LOCATION ID:
SHEET No.: 317
REV:

09/27/18 | 10:57 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
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xRLE-L90-SWV100
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xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
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xRLE-G05-VSF
xRLE-G05-VUT
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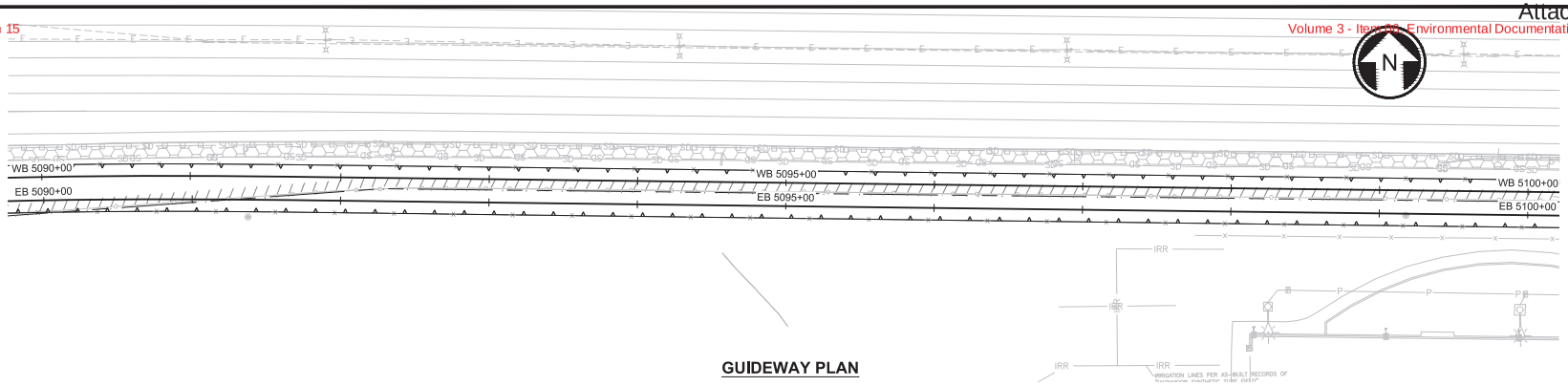
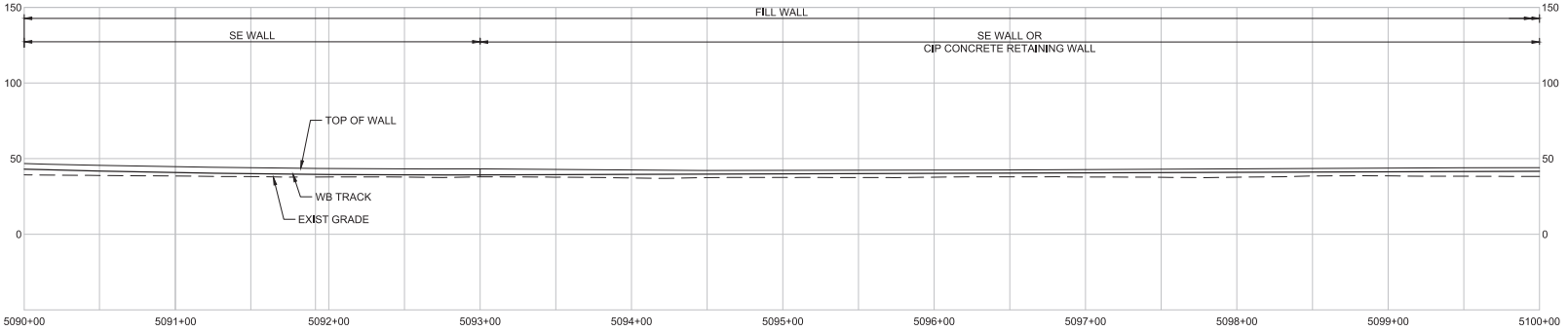


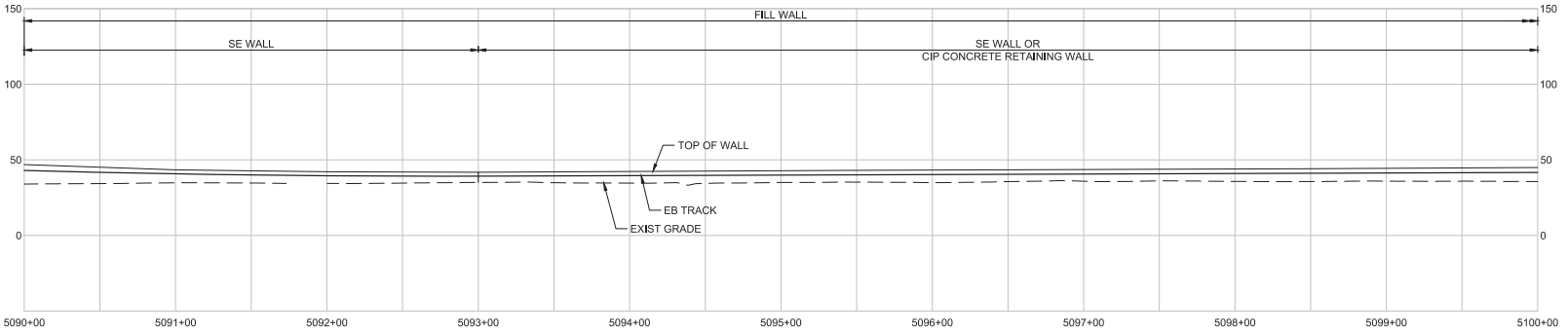
GUIDEWAY PLAN

SEE DWG L90-SEP110

SEE DWG L90-SEP112



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

40 20 0 40 80
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGHT, STATE OF WASHINGTON, 21810, PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

Bright Engineering, Inc.
Structural & Civil Engineering
1809 7th Avenue
Suite 1100
Seattle, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5090+00 TO EB STA 5100+00

DRAWING No.: L90-SEP111
LOCATION ID:
SHEET No.: 318
REV:

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Xrefs:
RLE-GB-TB22x34
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xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G05-VSF
xRLE-G05-VUT
xRLE-L90-SDV100
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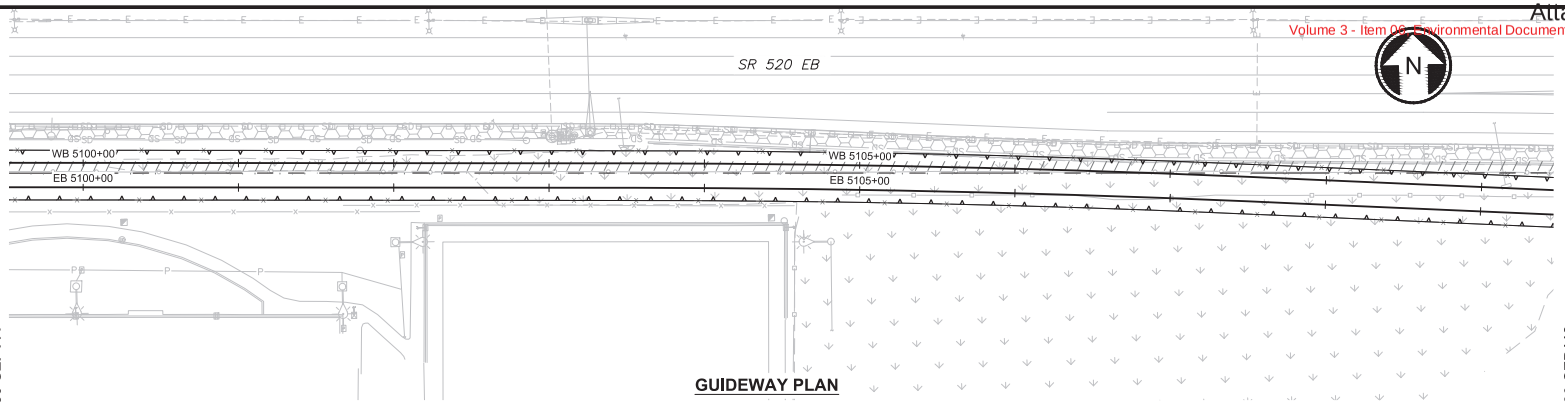
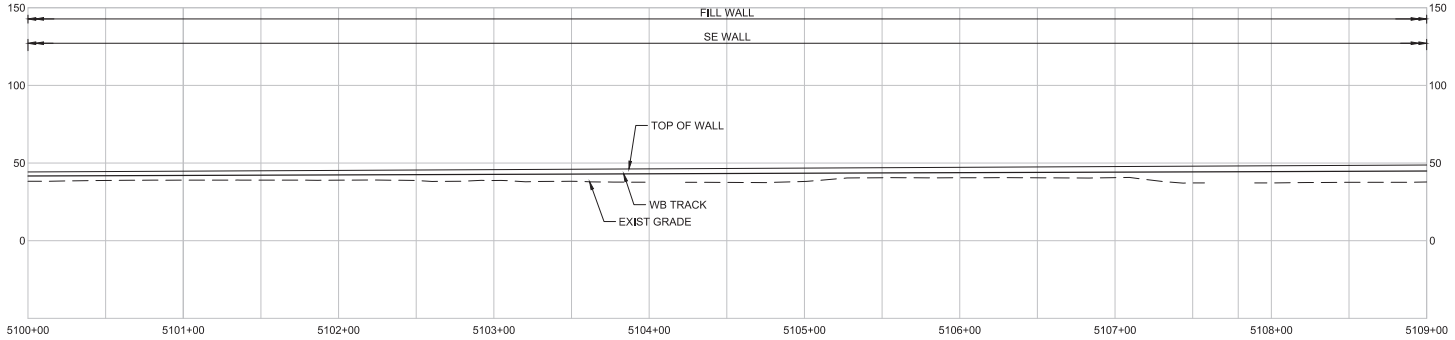


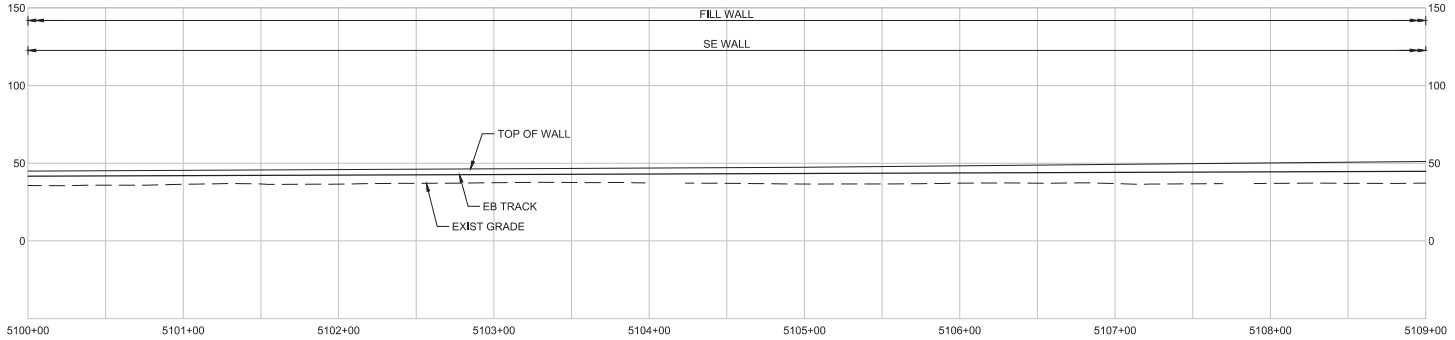
GUIDEWAY PLAN

SEE DWG L90-SEP111

SEE DWG L90-SEP113



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

KYLE J. BRIGHT — STATE OF WASHINGTON — 21810 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5100+00 TO EB STA 5109+00

DRAWING No.: L90-SEP112
LOCATION ID:
SHEET No.: 319
REV:

09/27/18 | 10:59 AM | TYLERJ
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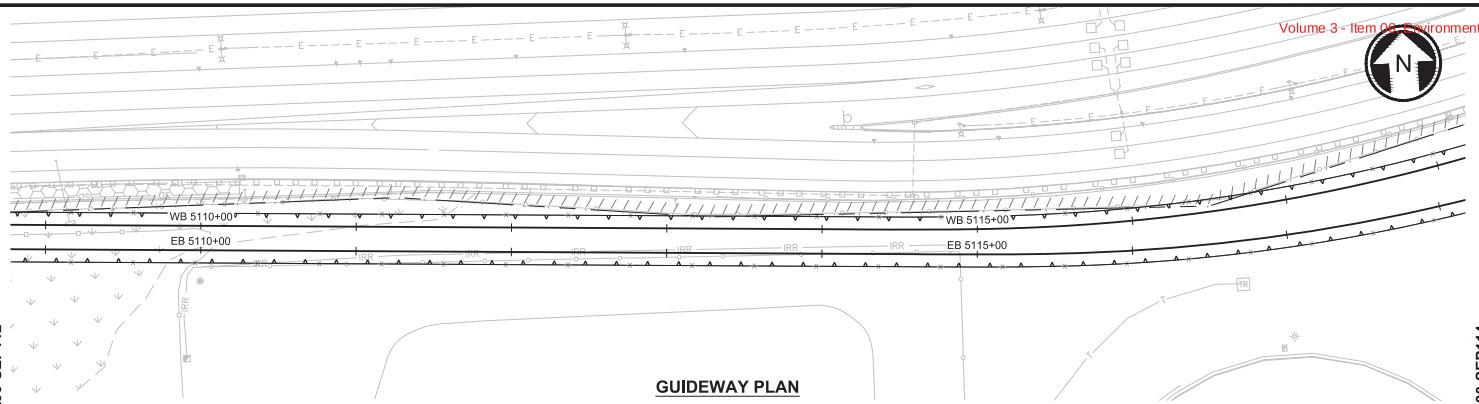
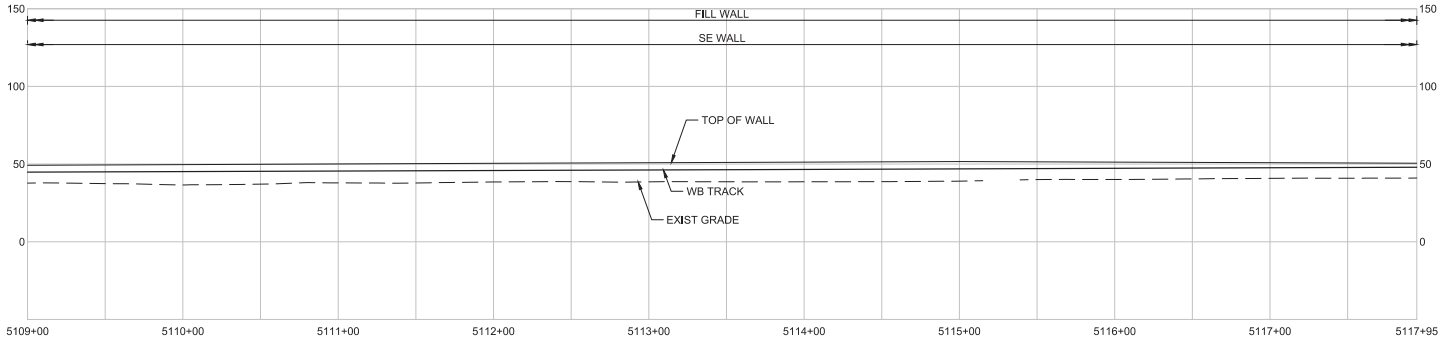
Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-L90-SDV100
xE360-RLE-L88-SWV100
xE360-RLE-E27-CSP20
xRLE-L90-VRX
xRLE-L90-CDP100



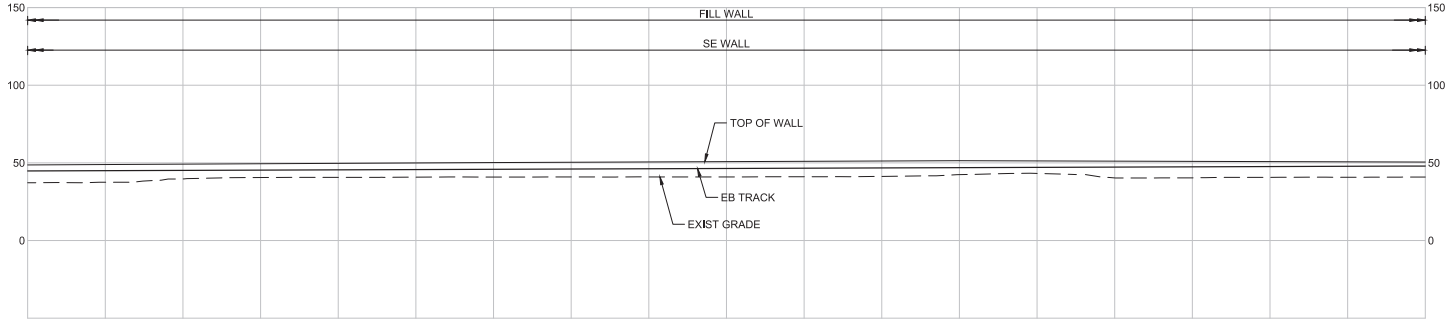
GUIDEWAY PLAN

SEE DWG L90-SEP112

SEE DWG L90-SEP114



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

KYLE J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

Bright Engineering, Inc. — Structural & Civil Engineering — 1809 7th Avenue, Suite 1100, Seattle, WA 98101 — P: (206) 625-3777 — F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5109+00 TO EB STA 5118+00

DRAWING No.: L90-SEP113
LOCATION ID:
SHEET No.: 320
REV:

09/27/18 | 11:00 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ.HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%43\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
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xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP10
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-L90-SDV100
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xE360-RLE-E27-CSP20
xRLE-L90-VRX
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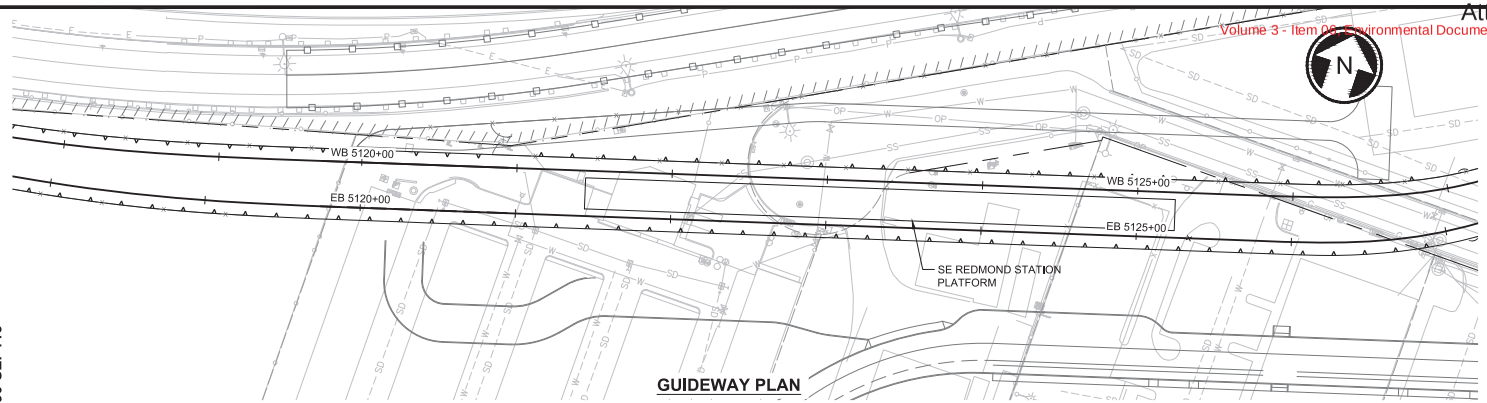
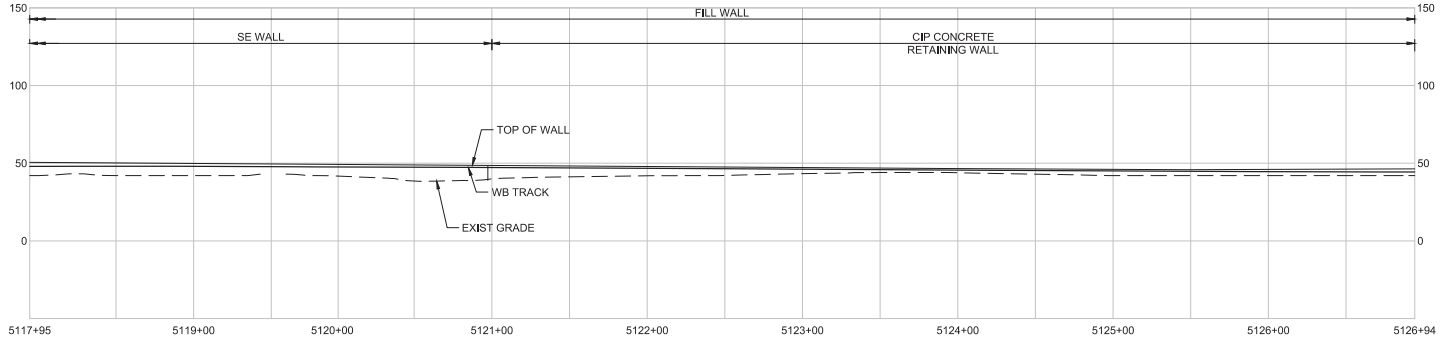


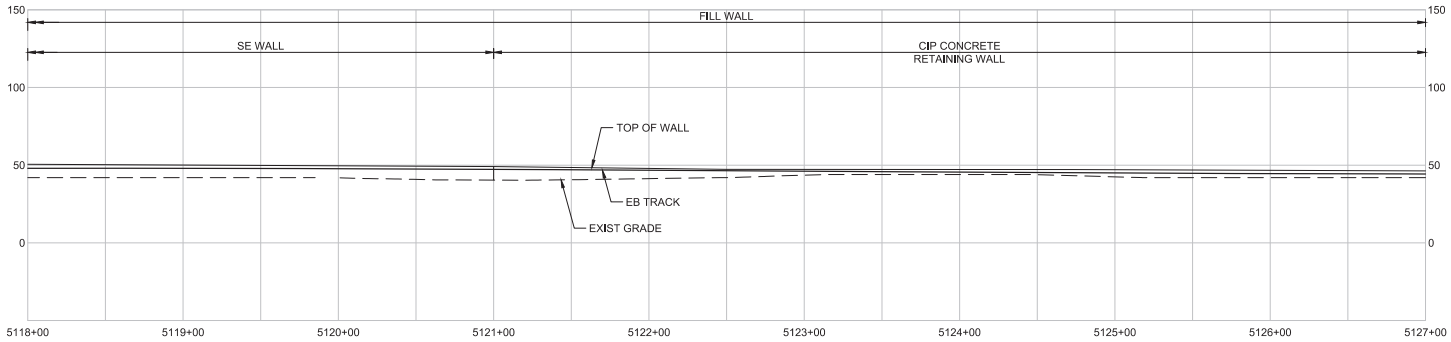
GUIDEWAY PLAN

SEE DWG L90-SEP113

SEE DWG L90-SEP115



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018 — REVIEWED BY: — DATE:

BRIGHT ENGINEERING, INC. — STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE, SUITE 1100, SEATTLE, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5118+00 TO EB STA 5127+00

DRAWING No.: L90-SEP114
LOCATION ID:
SHEET No.: 321
REV:

09/27/18 | 11:01 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ.HTTPS%3A%2F%2FPOINT.SOUNDTRANSIT.ORG%443%SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
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xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP10
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
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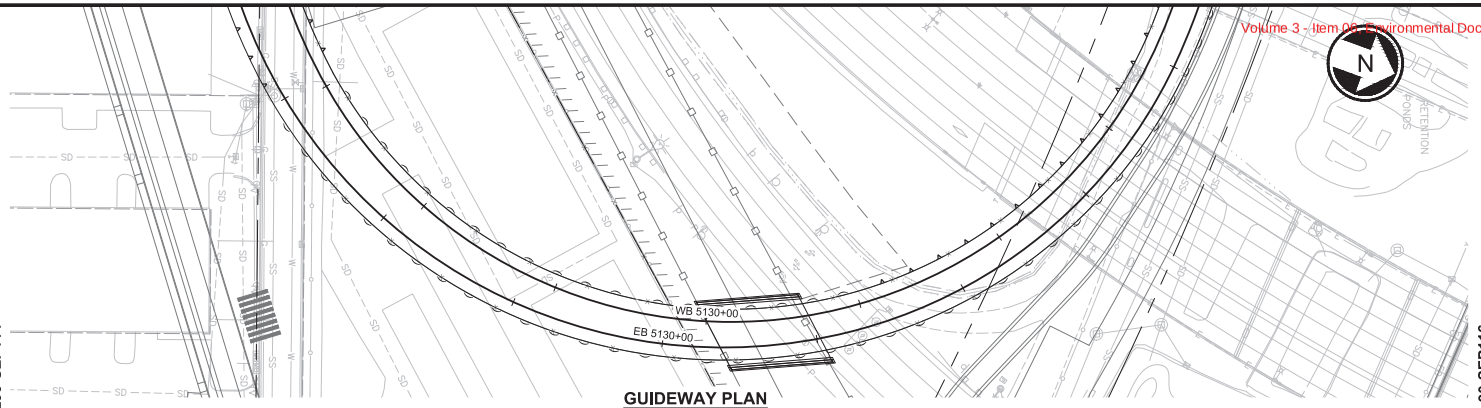
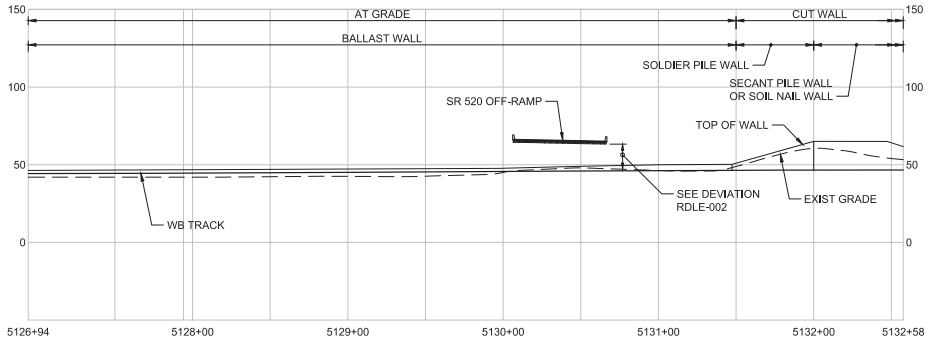
xRLE-L90-CDP100



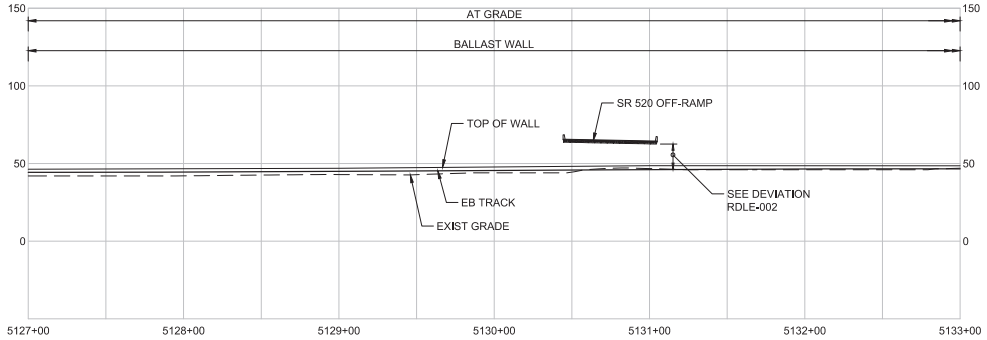
SEE DWG L90-SEP114

SEE DWG L90-SEP116

GUIDEWAY PLAN



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

Bright Engineering, Inc. — Structural & Civil Engineering
1809 7th Avenue, Suite 1100, Seattle, WA 98101
P: (206) 625-3777 F: (206) 625-1851

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

Sound Transit — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5127+00 TO EB STA 5133+00

DRAWING No.: L90-SEP115
LOCATION ID:
SHEET No.: 322
REV:

09/27/16 | 11:02 AM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
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xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
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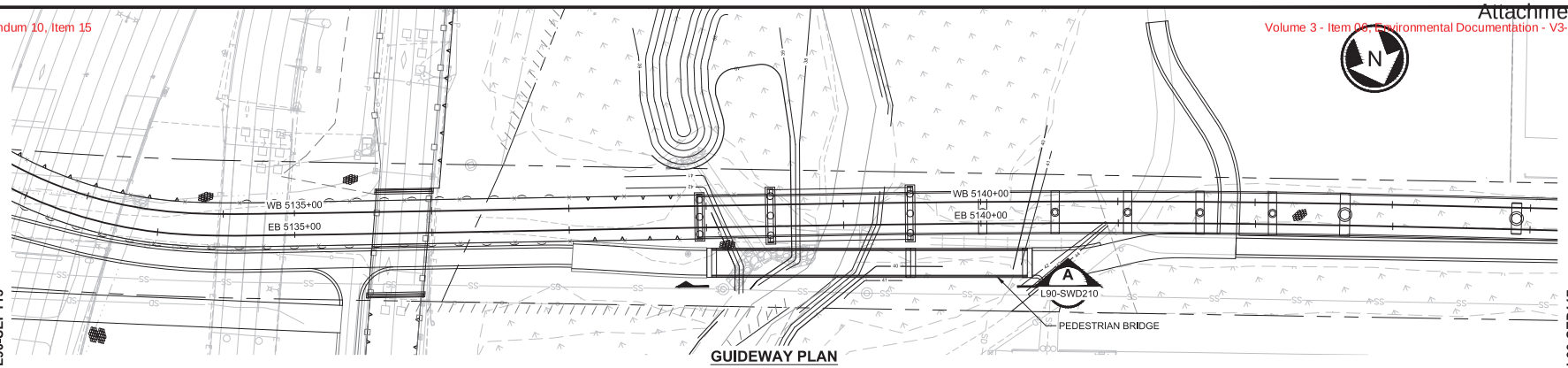
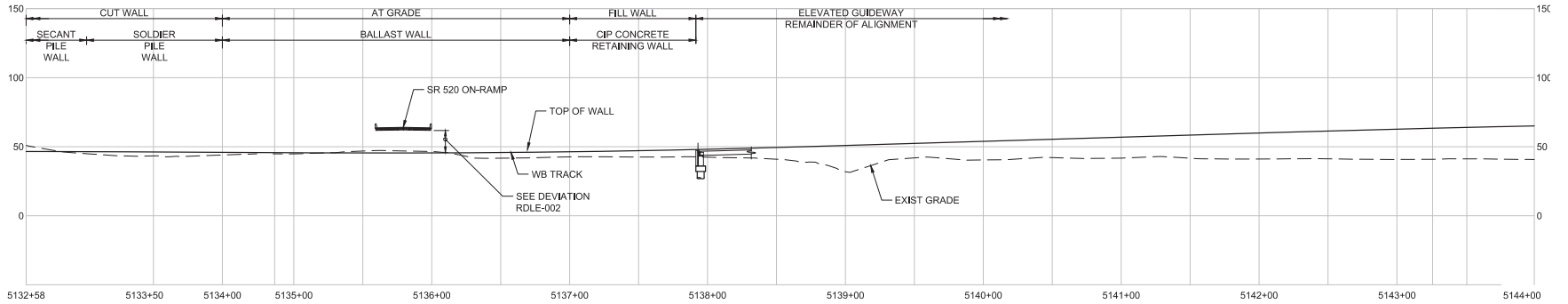


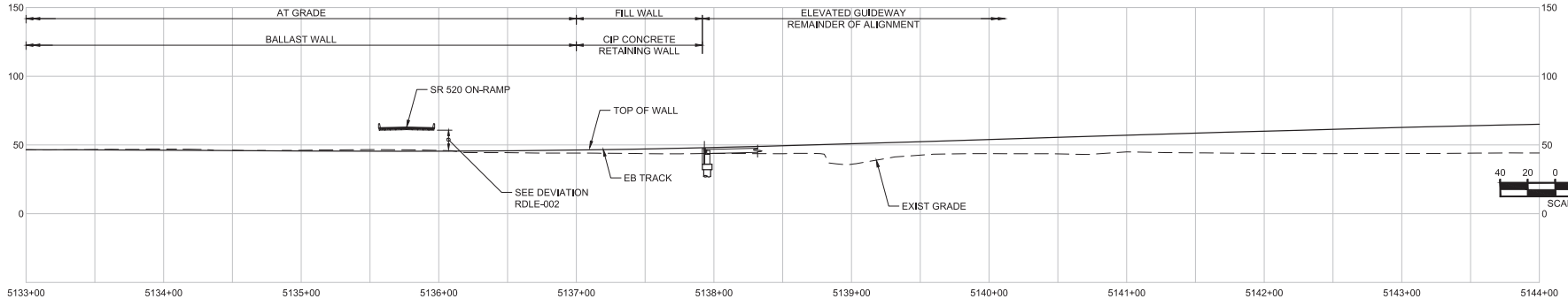
GUIDEWAY PLAN

SEE DWG L90-SEP115

SEE DWG L90-SEP117



DEVELOPED ELEVATION - LT OF WB CL



DEVELOPED ELEVATION - RT OF EB CL (REFLECTED VIEW)

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — BRIGHT — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777 F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5133+00 TO EB STA 5144+00

DRAWING No.: L90-SEP116
LOCATION ID:
SHEET No.: 323
REV:

11/08/18 | 4:34 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
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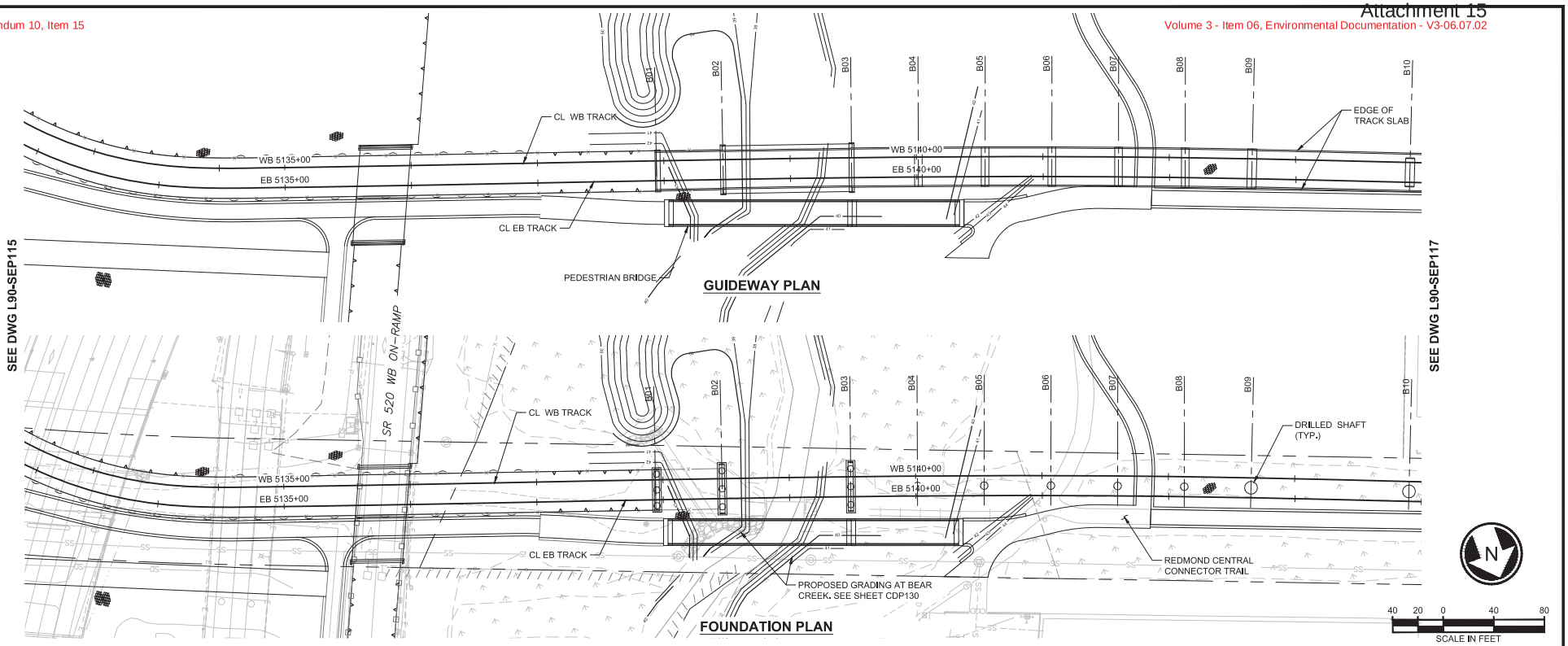

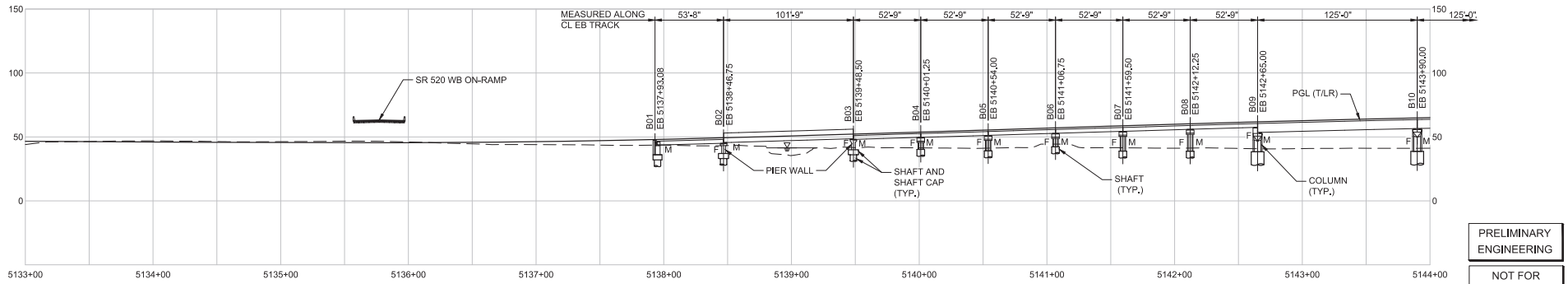

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — JEFF J. BRIGHT — 19870 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

BRIGHT ENGINEERING, INC.
STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE
SUITE 1100
SEATTLE, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5133+00 TO EB STA 5144+00

DRAWING No.: L90-SEP116A
LOCATION ID:
SHEET No.: 324
REV:

11/08/18 | 4:36 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-KAP100
xRLE-L95-VSF
xRLE-L90-SWV100
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xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-G25-VSF
xRLE-G25-VUT
xRLE-L90-SDV100
xE360-RLE-L88-SWV100
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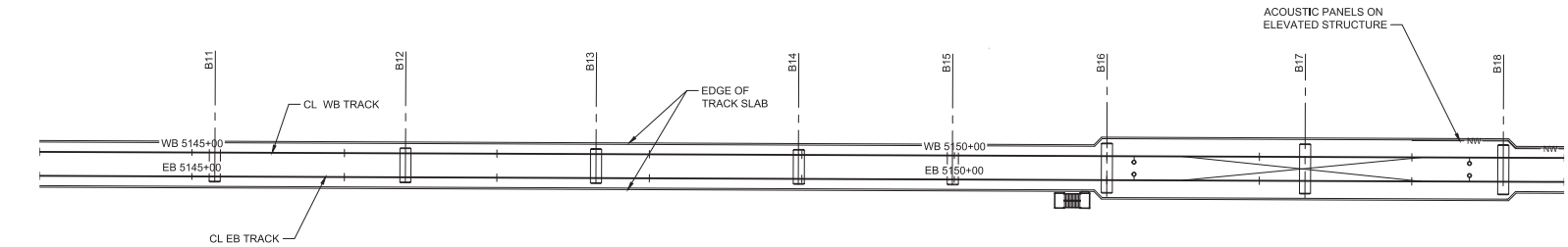
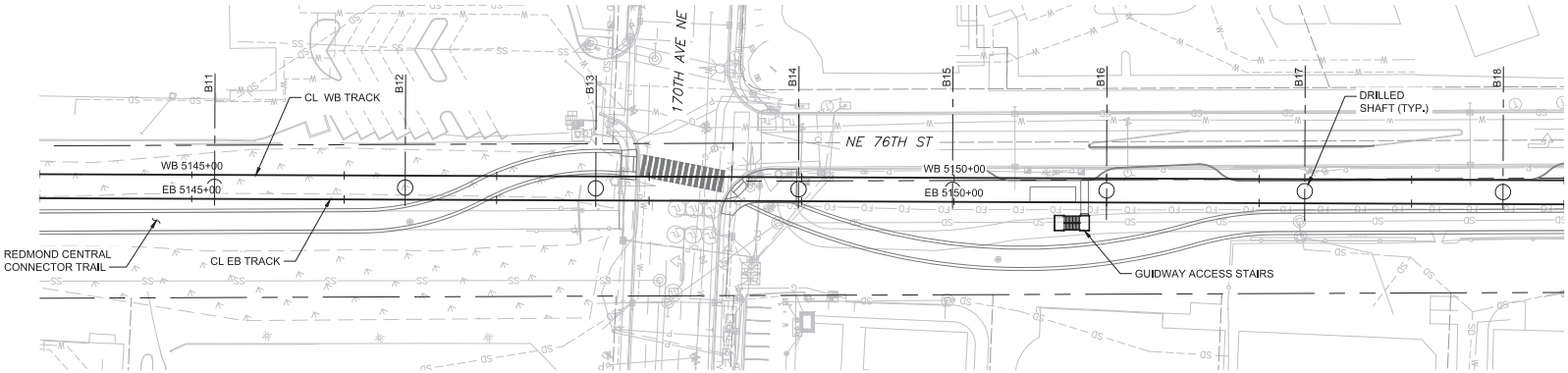
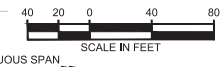
SEE DWG L90-SEP116A

SEE DWG L90-SEP118

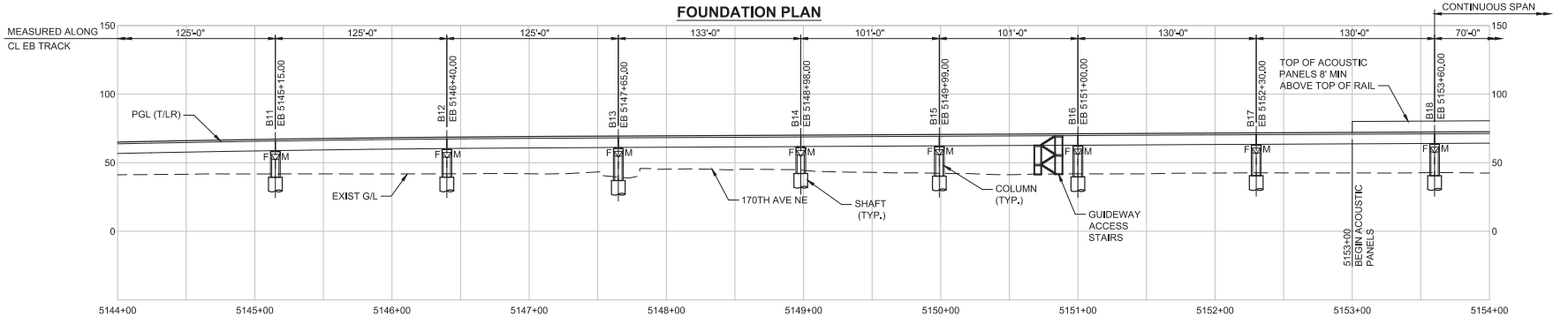


GUIDEWAY PLAN





FOUNDATION PLAN



DEVELOPED ELEVATION

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGGS — STATE OF WASHINGTON — 19870 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

BRIGHT ENGINEERING, INC.
STRUCTURAL & CIVIL ENGINEERING
1809 7TH AVENUE
SUITE 1100
SEATTLE, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

DATE:

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5144+00 TO EB STA 5154+00

DRAWING No.: L90-SEP117
LOCATION ID:
SHEET No.: 325
REV:

09/27/18 | 11:07 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
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xRLE-L90-VSF
xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
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xRLE-G5-VSF
xRLE-G5-VUT
xRLE-L90-SDV100
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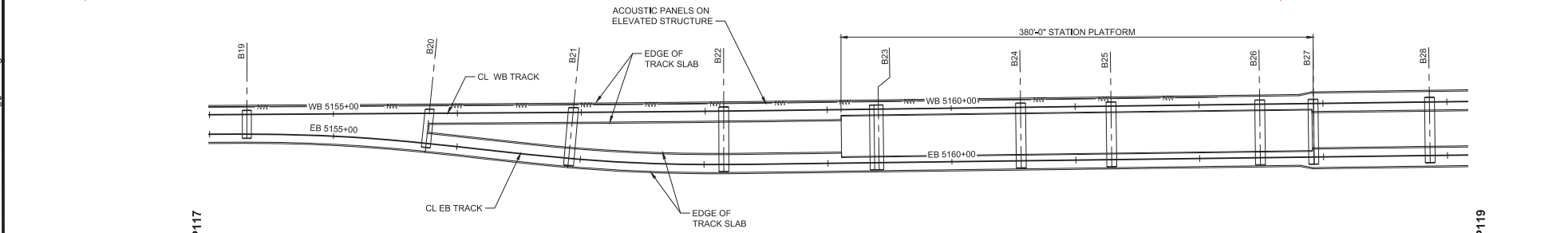
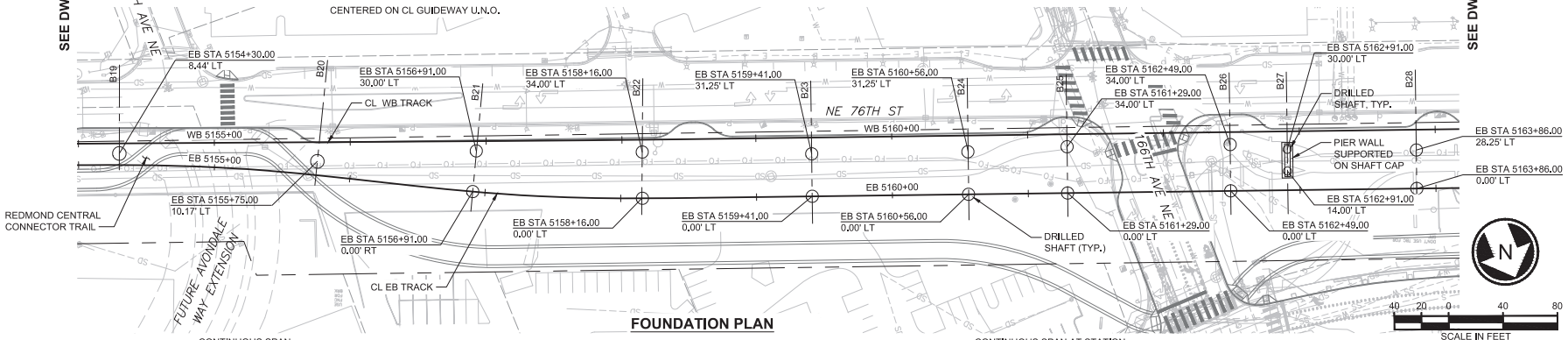


GUIDEWAY PLAN

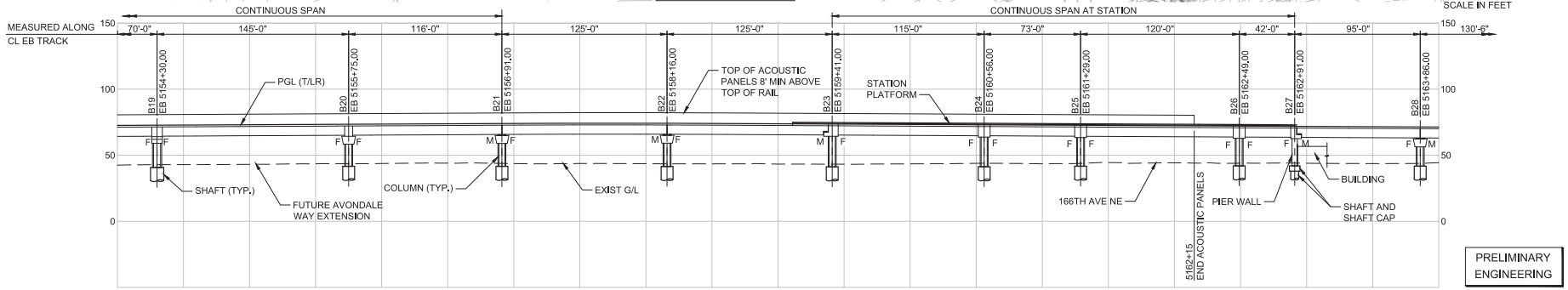
SEE DWG L90-SEP117

SEE DWG L90-SEP119

NOTES:
GUIDEWAY FOUNDATIONS ARE CENTERED ON CL GUIDEWAY U.N.O.



FOUNDATION PLAN



DEVELOPED ELEVATION

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEX J. BRIGHT, STATE OF WASHINGTON, 19810, PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Bright Engineering, Inc. — Structural & Civil Engineering
1809 7th Avenue, Suite 1100, Seattle, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

SoundTransit

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5154+00 TO EB STA 5164+00

DRAWING No.: L90-SEP118
LOCATION ID:
SHEET No.: 326
REV:

09/27/18 | 11:09 AM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-SEP100TO119.DWG

Xrefs:
RLE-GB-TB22x34
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xRLE-L90-SWP100
xRLE-L90-SEP100
xRLE-L90-CRP100
xE360-RLE-L88-SWP100
xRLE-L90-VUT
xRLE-L95-VUT
xRLE-GS-VSF
xRLE-GS-VUT
xRLE-L90-SDV100
xE360-RLE-L88-SWV100
xE360-RLE-E27-CSP20
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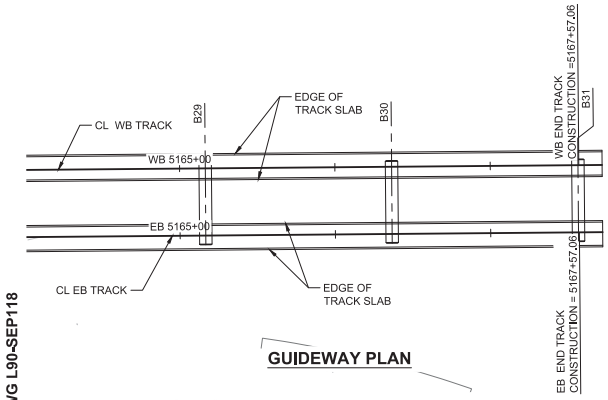

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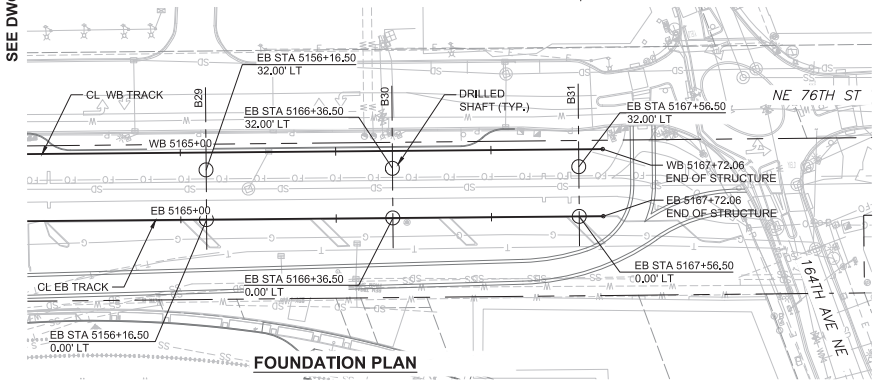
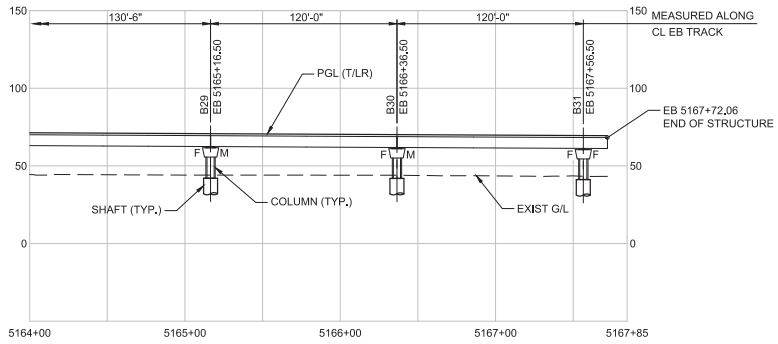
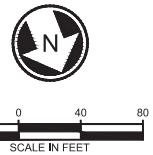


FOUNDATION PLAN



DEVELOPED ELEVATION



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

ALEE J. BRIGHT — STATE OF WASHINGTON — 19870 — PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

6 BRIGHT ENGINEERING, INC. STRUCTURAL & CML ENGINEERING
1809 7TH AVENUE SUITE 1100 SEATTLE, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-SEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
GENERAL LAYOUT
EB STA 5164+00 TO EB STA 5167+72

DRAWING No.: L90-SEP119
LOCATION ID:
SHEET No.: 327
REV:

09/27/18 | 11:11 AM | TYLERJ
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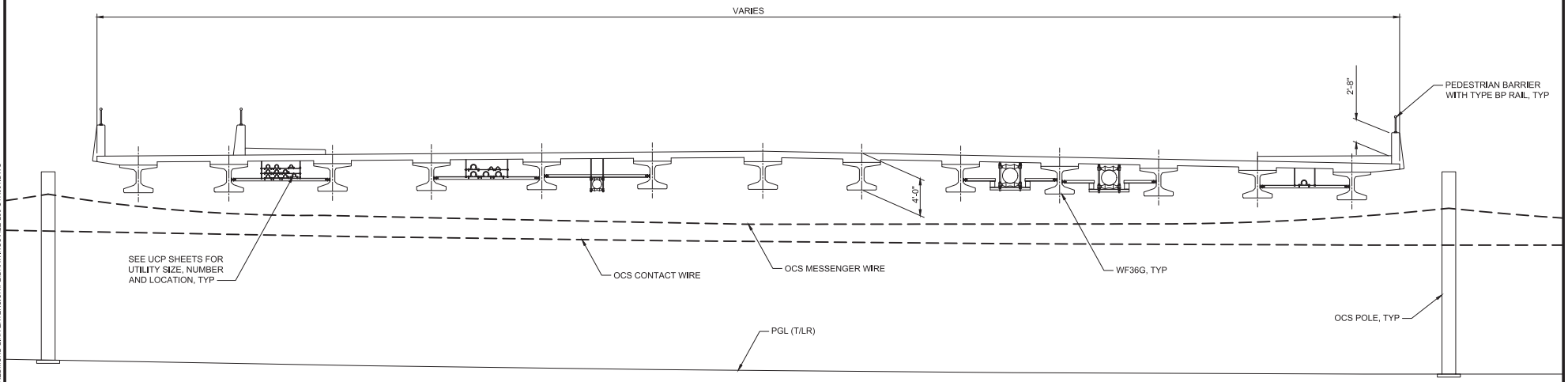
Xrefs:
RLE-GB-TB22x34



NE 40TH STREET - TYPICAL SECTION (A)
SCALE: 3/16" = 1'-0"
L90-SEP100

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON · YUNE YANG · 25940 · REGISTERED STRUCTURAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: AS NOTED
FILENAME: RLE-L90-SYX001
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
TYPICAL SECTION
NE 40TH ST UNDERCROSSING

DRAWING No.: L90-SYX001
LOCATION ID:
SHEET No.: 328
REV:

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Xrefs:
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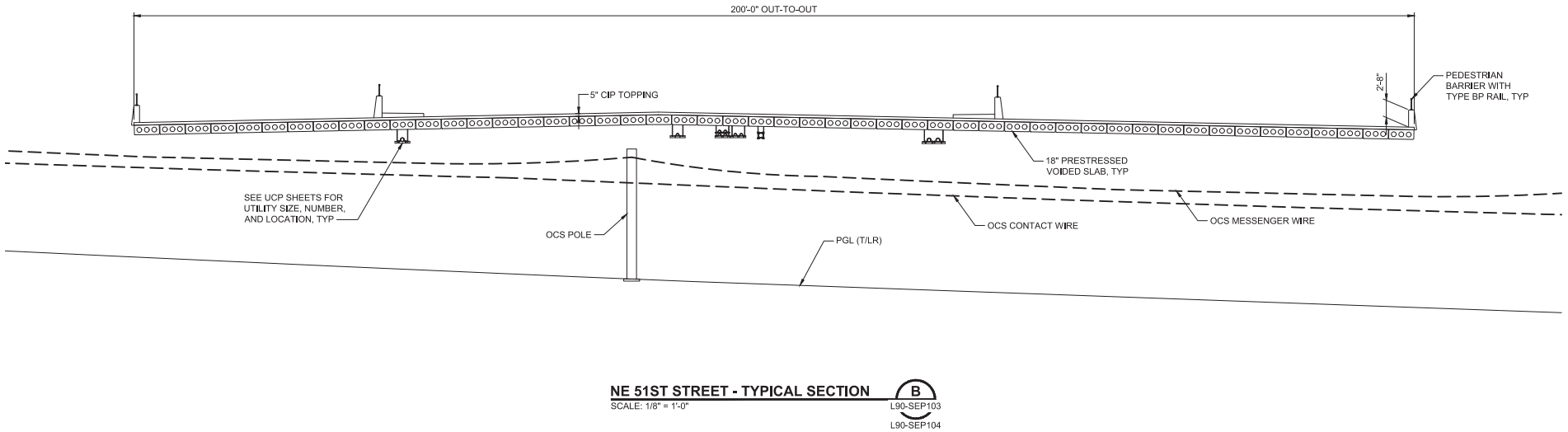

NE 51ST STREET - TYPICAL SECTION B
SCALE: 1/8" = 1'-0"
L90-SEP103
L90-SEP104

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — TIUNE YANG — 28940 — STRUCTURAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: AS NOTED
FILENAME: RLE-L90-SYX002
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
TYPICAL SECTION
NE 51ST ST UNDERCROSSING

DRAWING No.: L90-SYX002
LOCATION ID:
SHEET No.: 329
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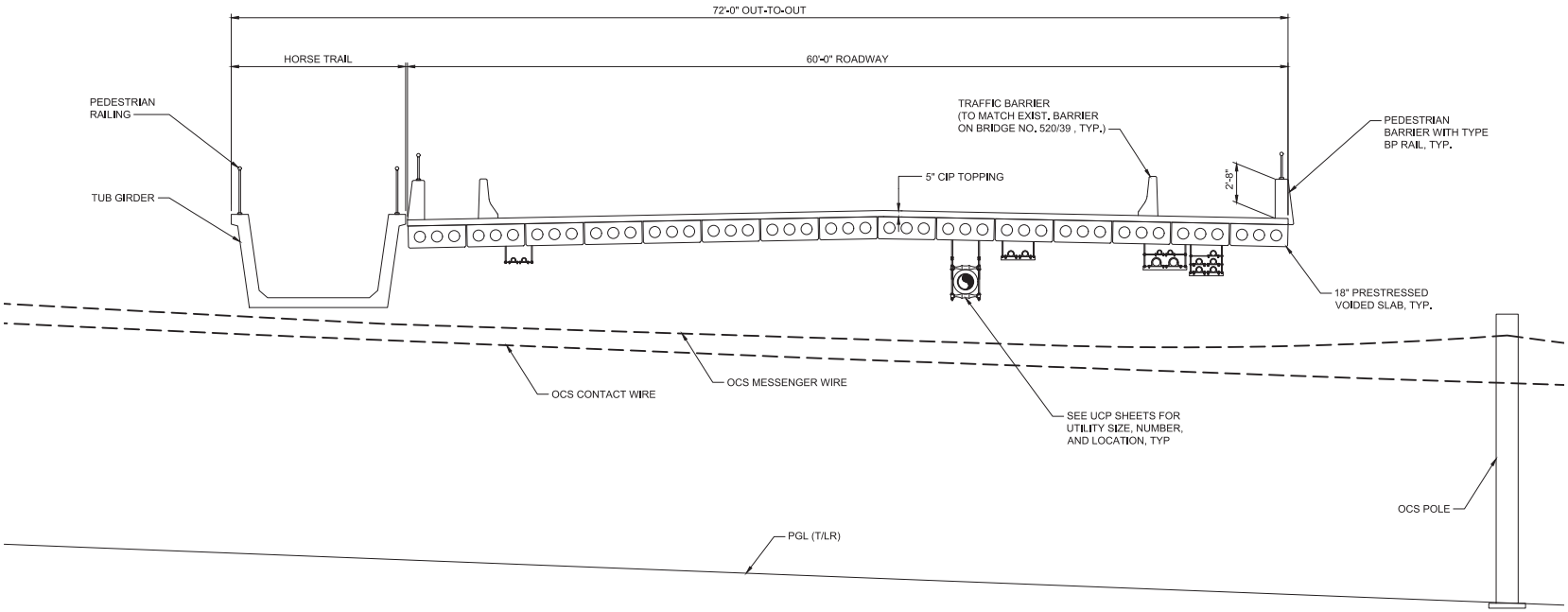

NE 60TH STREET - TYPICAL SECTION (C)
SCALE: 1/4" = 1'-0"
L90-SEP106

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. ROGERS
DRAWN BY: A. VALENCIA
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

STATE OF WASHINGTON — TIUNE YANG — 22640 — STRUCTURAL ENGINEER

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SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: AS NOTED
FILENAME: RLE-L90-SYX003
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
TYPICAL SECTION
NE 60TH ST UNDERCROSSING

DRAWING No.: L90-SYX003
LOCATION ID:
SHEET No.: 330
REV:

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xRLE-L90-SEP100
xRLE-L90-VCN
xRLE-L95-VCN
xRLE-L90-VSF
xRLE-L95-VSF
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xRLE-L95-VUT
xRLE-GS-VFP
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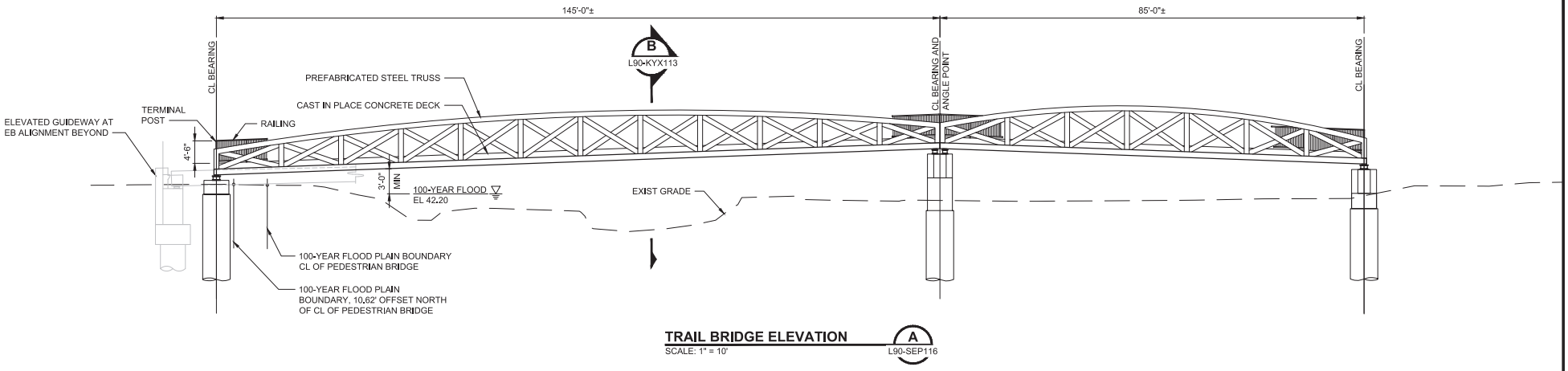

TRAIL BRIDGE ELEVATION (A, L90-SEP116)
SCALE: 1" = 10'

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: I. IKEDA
DRAWN BY: K. FLEMING
CHECKED BY: J. MERTH
APPROVED BY: Y. YANG

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Bright Engineering, Inc. — Structural & Civil Engineering
1809 7th Avenue, Suite 1100, Seattle, WA 98101
P: (206) 625-3777
F: (206) 625-1851

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

SCALE: AS NOTED
FILENAME: RLE-L90-SWD210
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
STRUCTURES
TRAIL BRIDGE
ELEVATION

DRAWING No.: L90-SWD210
LOCATION ID:
SHEET No.: 331
REV:

Xrefs:
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xRLE-L90-KAP100
XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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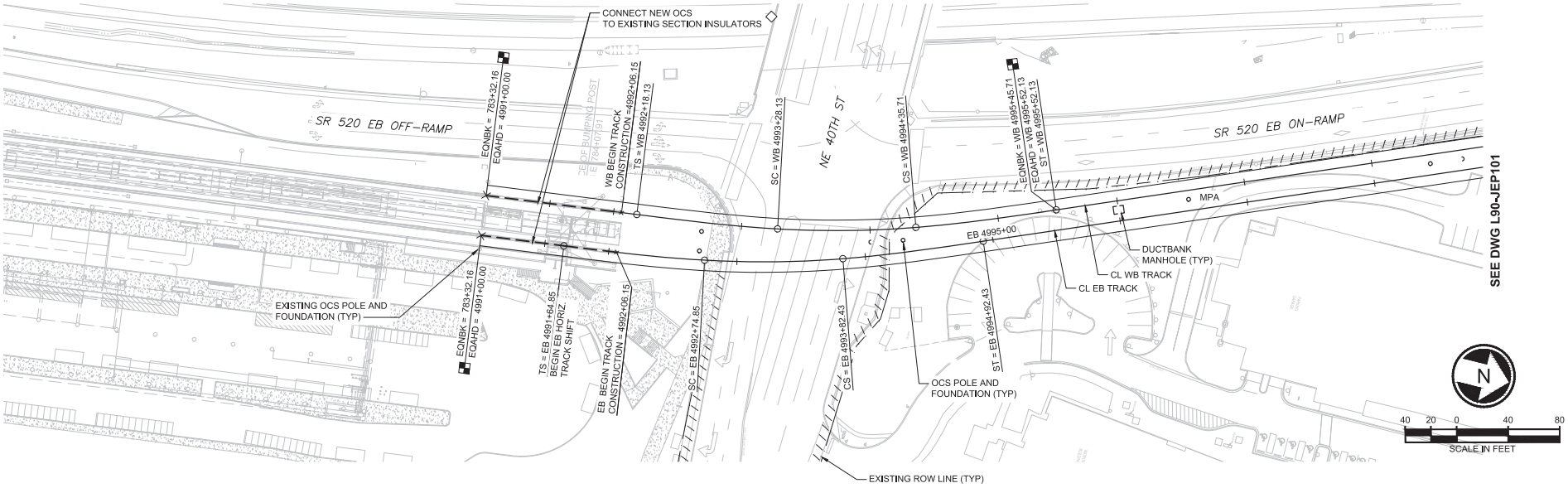

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINICKE — STATE OF WASHINGTON — 19861 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 4991+00 TO EB STA 4998+00

DRAWING No.: L90-JEP100
LOCATION ID:
SHEET No.: 332
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xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-APP100
xRLE-L90-VRX
xRLE-GS-VSF
xRLE-L90-VSF
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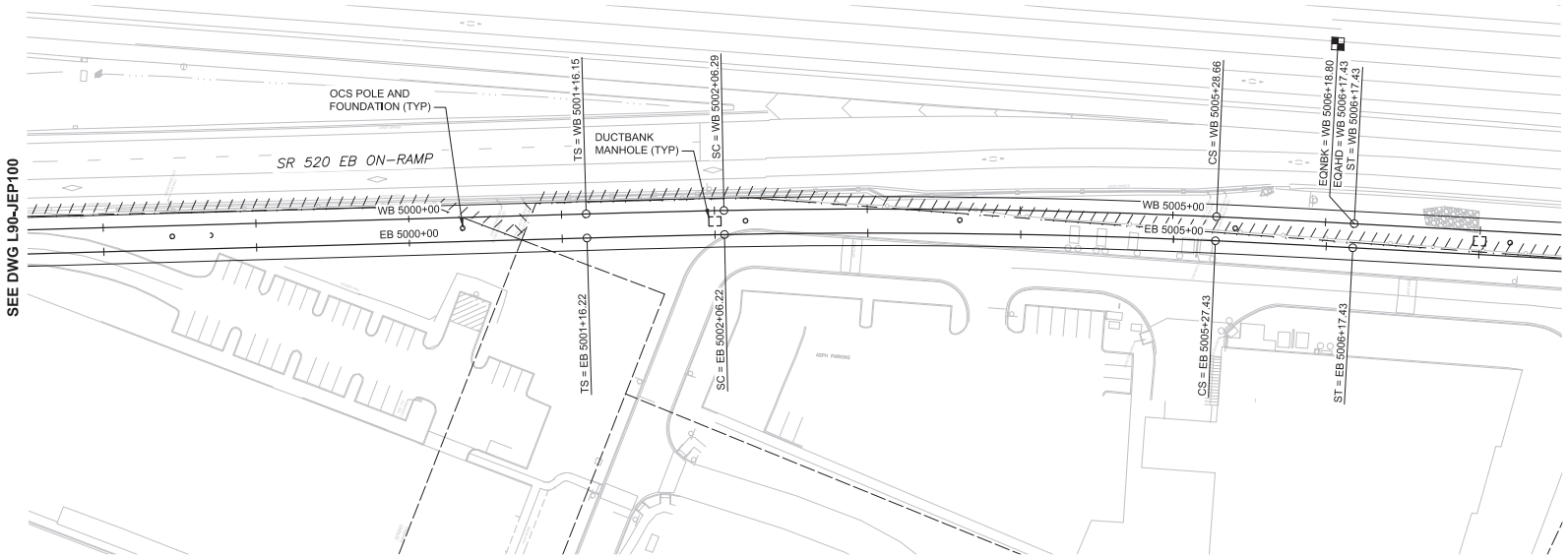

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINER — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 4998+00 TO EB STA 5007+00

DRAWING No.: L90-JEP101
LOCATION ID:
SHEET No.: 333
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xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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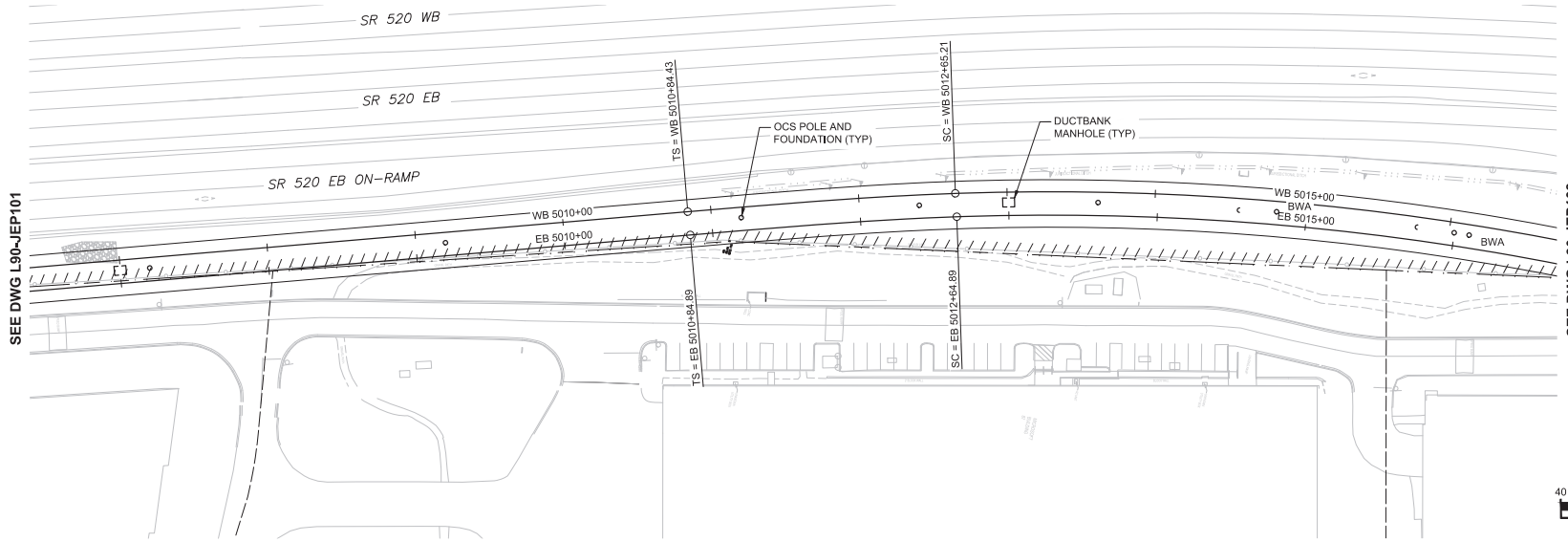

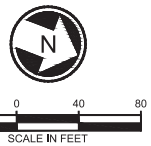

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5007+00 TO EB STA 5016+00

DRAWING No.: L90-JEP102
LOCATION ID:
SHEET No.: 334
REV:

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Xrefs:
RLE-GB-TB22x34
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XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP20
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xRLE-L90-VRX
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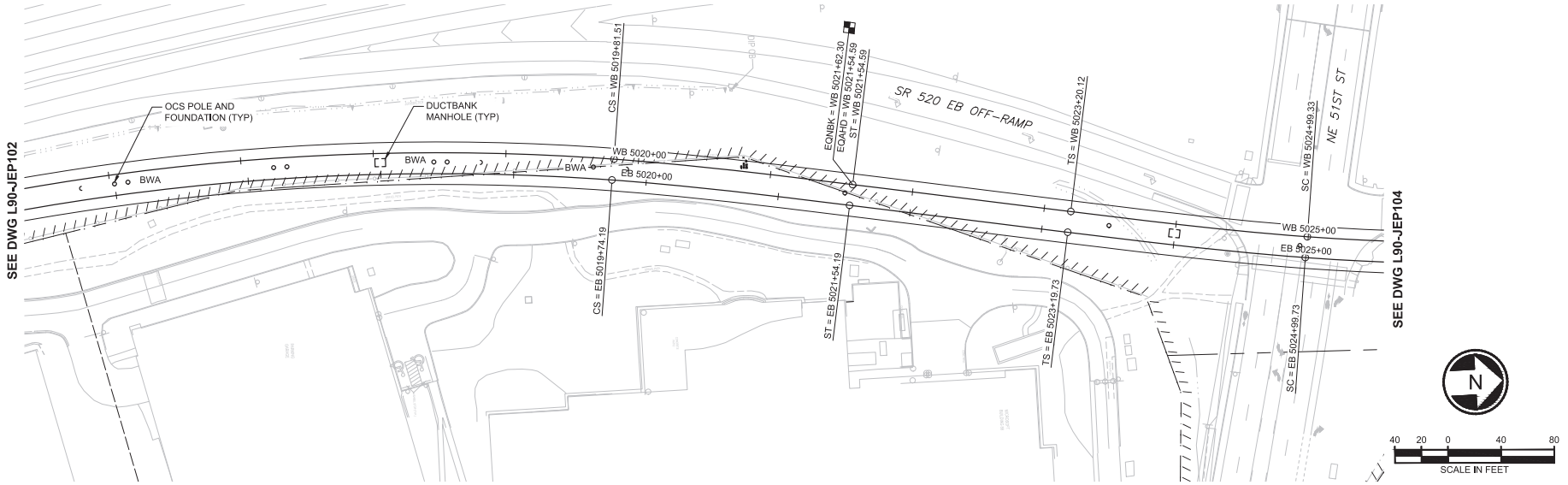

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5016+00 TO EB STA 5025+00

DRAWING No.: L90-JEP103
LOCATION ID:
SHEET No.: 335
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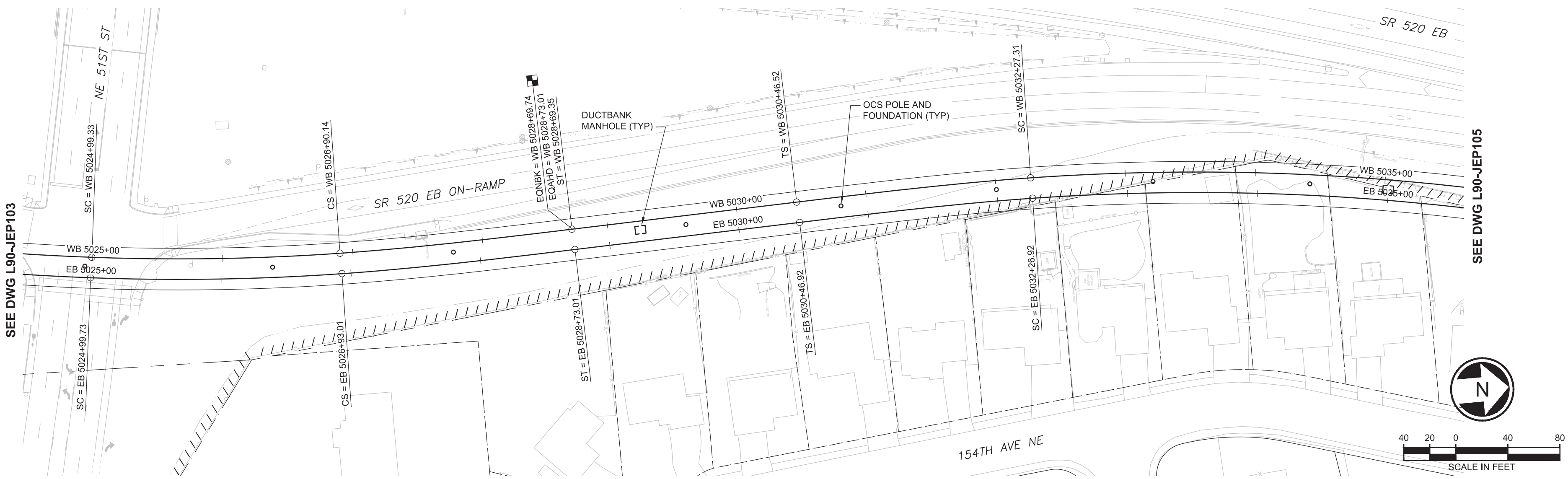

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD SCHLICK — STATE OF WASHINGTON — 49860 — REGISTERED PROFESSIONAL ENGINEER

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5025+00 TO EB STA 5035+00

DRAWING No.: L90-JEP104
LOCATION ID:
SHEET No.: 336
REV:

Xrefs:
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xE360-RLE-L88-JOP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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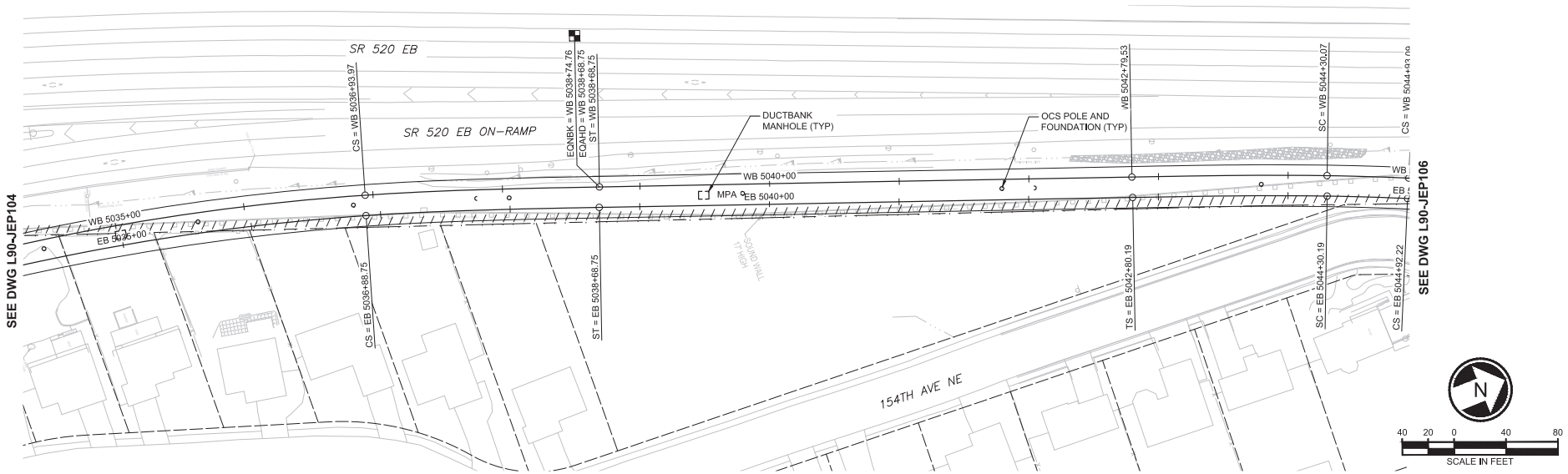

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINICKE — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5035+00 TO EB STA 5044+50

DRAWING No.: L90-JEP105
LOCATION ID:
SHEET No.: 337
REV:

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Xrefs:
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XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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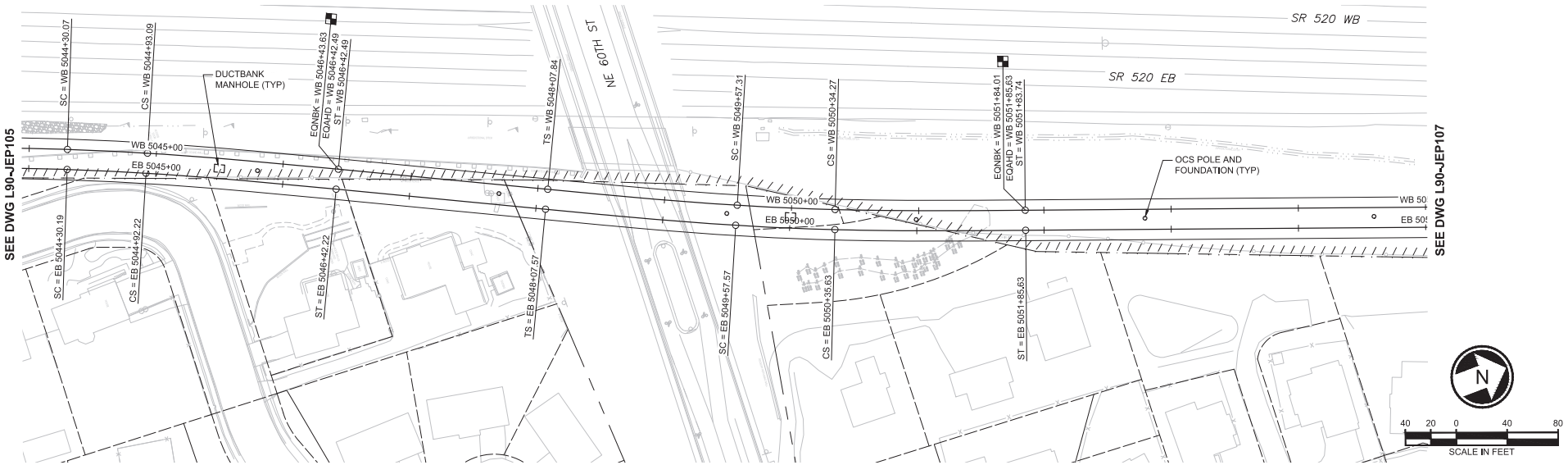

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS
DATE:

SOUNDTRANSIT
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5044+50 TO EB STA 5054+50

DRAWING No.: L90-JEP106
LOCATION ID:
SHEET No.: 338
REV:

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xE360-RLE-E27-JEP100
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xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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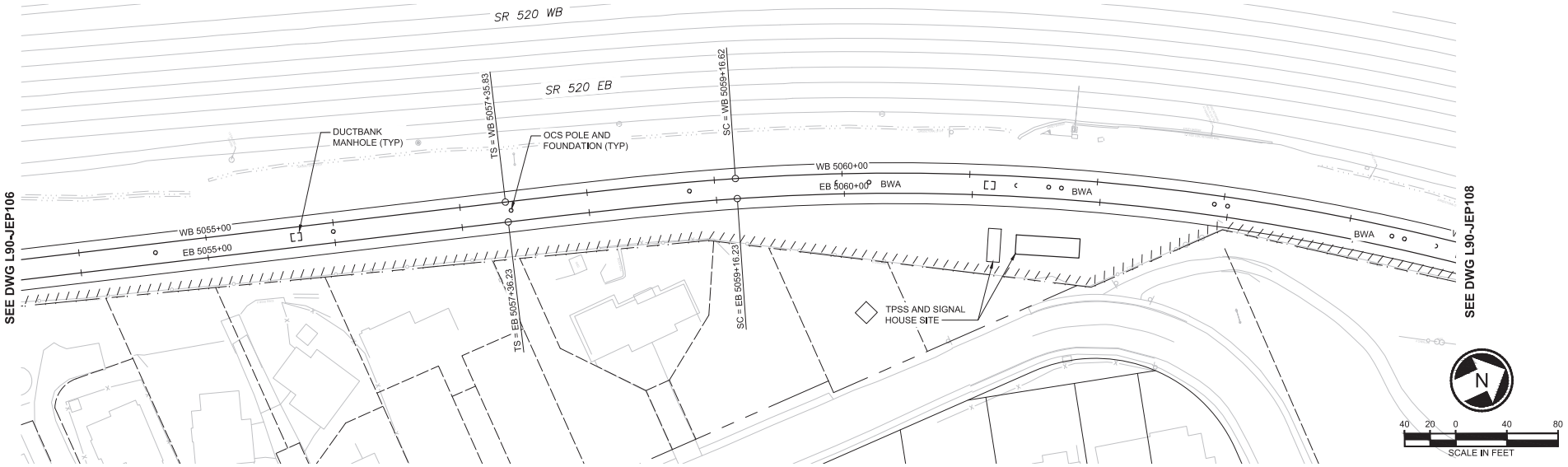

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JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 19660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
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PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5054+50 TO EB STA 5064+00

DRAWING No.: L90-JEP107
LOCATION ID:
SHEET No.: 339
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xE360-RLE-E27-JEP100
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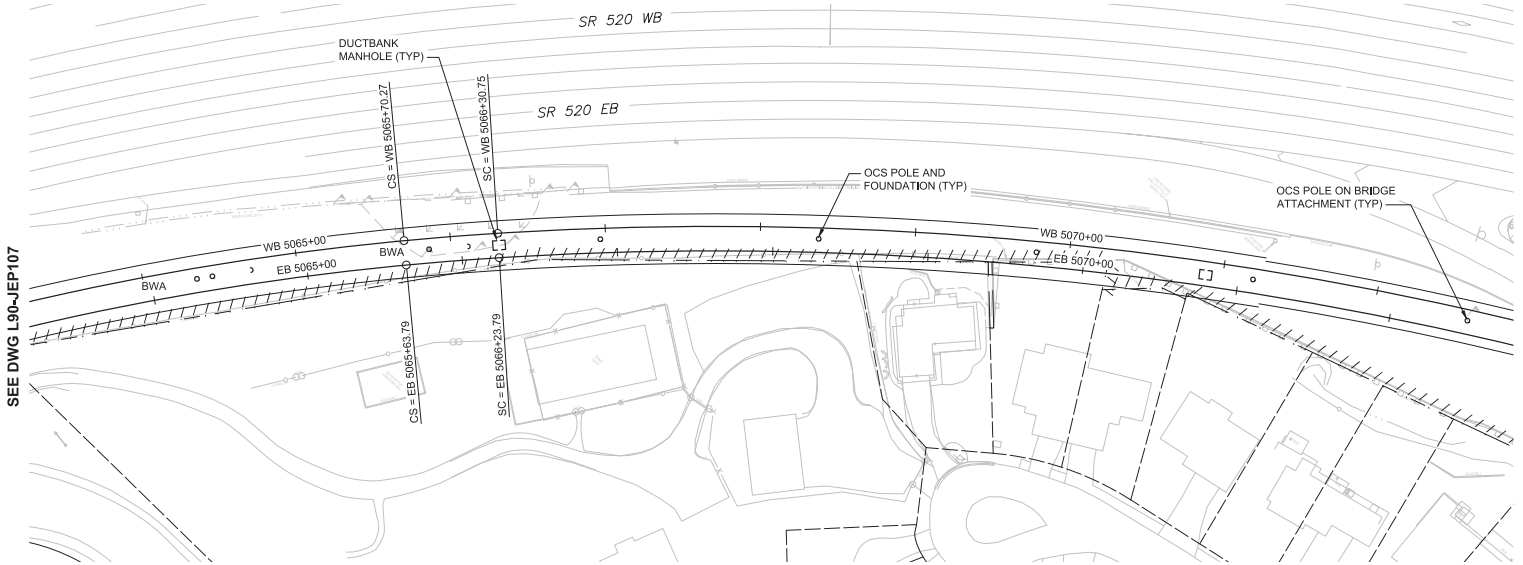
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-APP100
xRLE-L90-VRX
xRLE-GS-VSF
xRLE-L90-VSF
xRLE-L95-VSF



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JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

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PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5064+00 TO EB STA 5072+00

DRAWING No.: L90-JEP108
LOCATION ID:
SHEET No.: 340
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xE360-RLE-L88-JDP100
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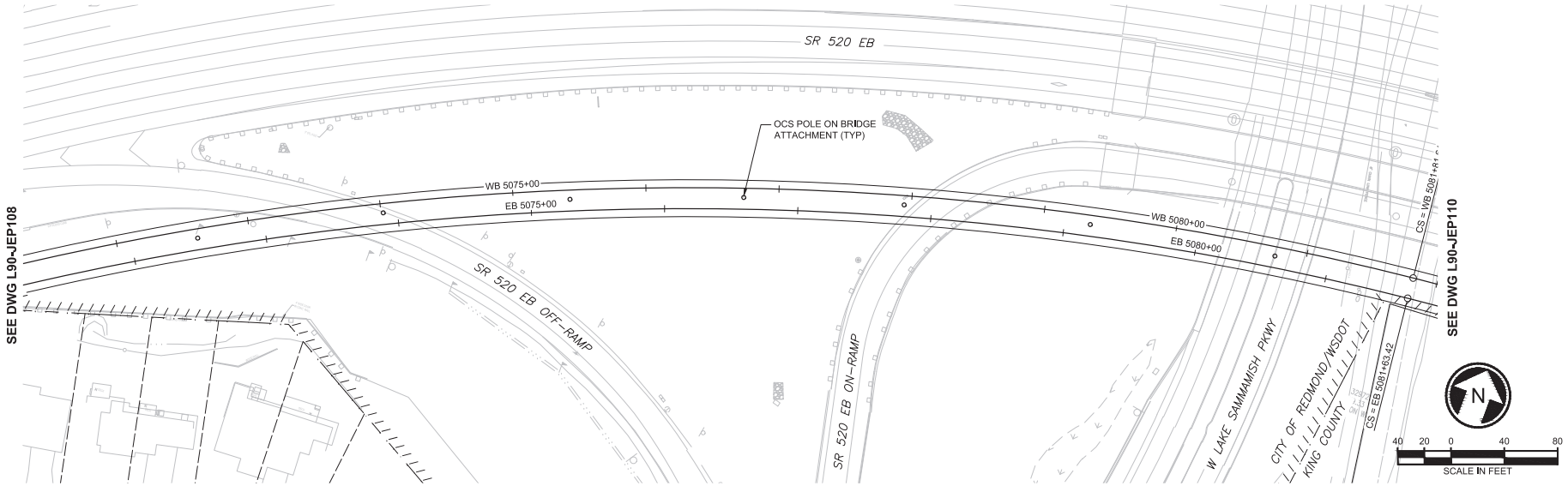

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CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD SWENSEN — STATE OF WASHINGTON — 19660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5072+00 TO EB STA 5081+00

DRAWING No.: L90-JEP109
LOCATION ID:
SHEET No.: 341
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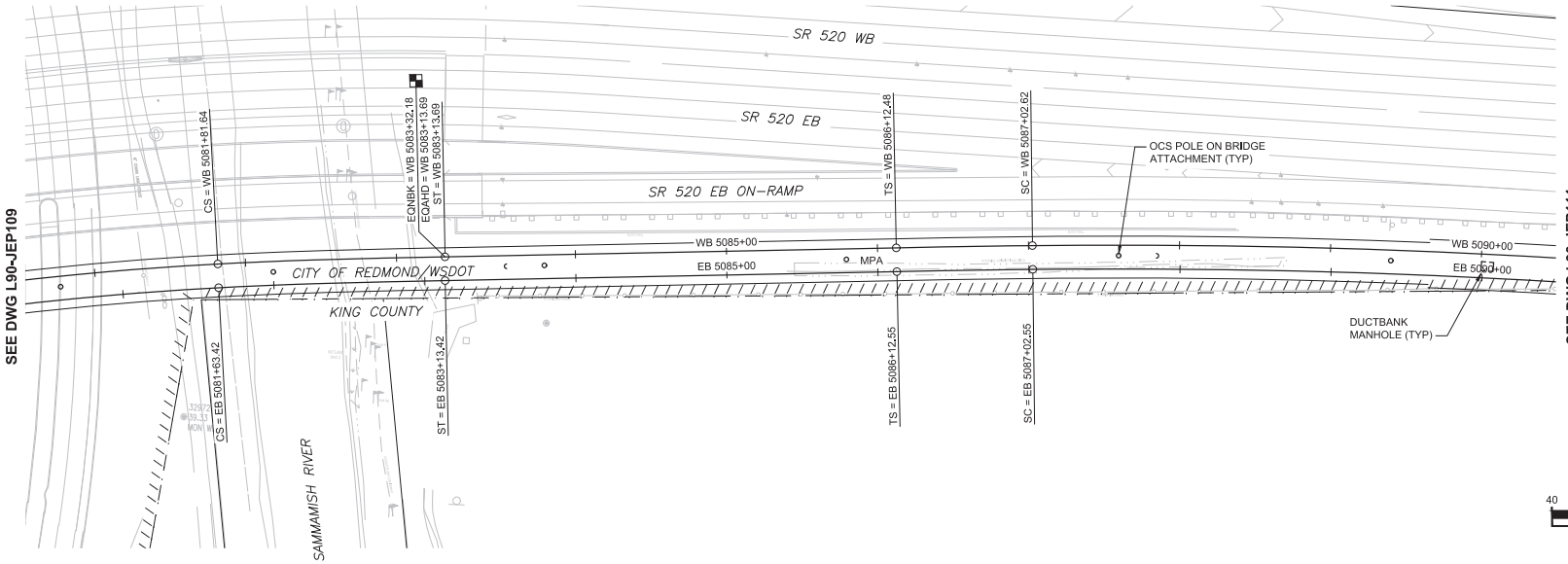

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINER — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

PARSONS

REVIEWED BY: — DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5081+00 TO EB STA 5090+00

DRAWING No.: L90-JEP110
LOCATION ID:
SHEET No.: 342
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xE360-RLE-L88-KAP100
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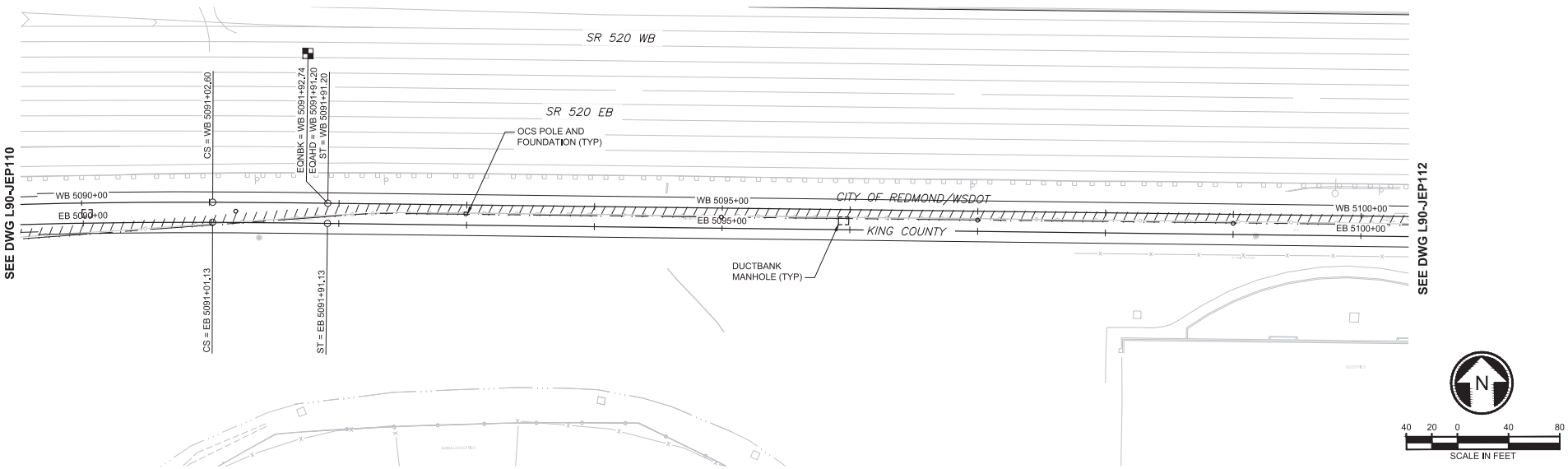

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DESIGNED BY: J. SCHLICK
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CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS
LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5090+00 TO EB STA 5100+00

DRAWING No.: L90-JEP111
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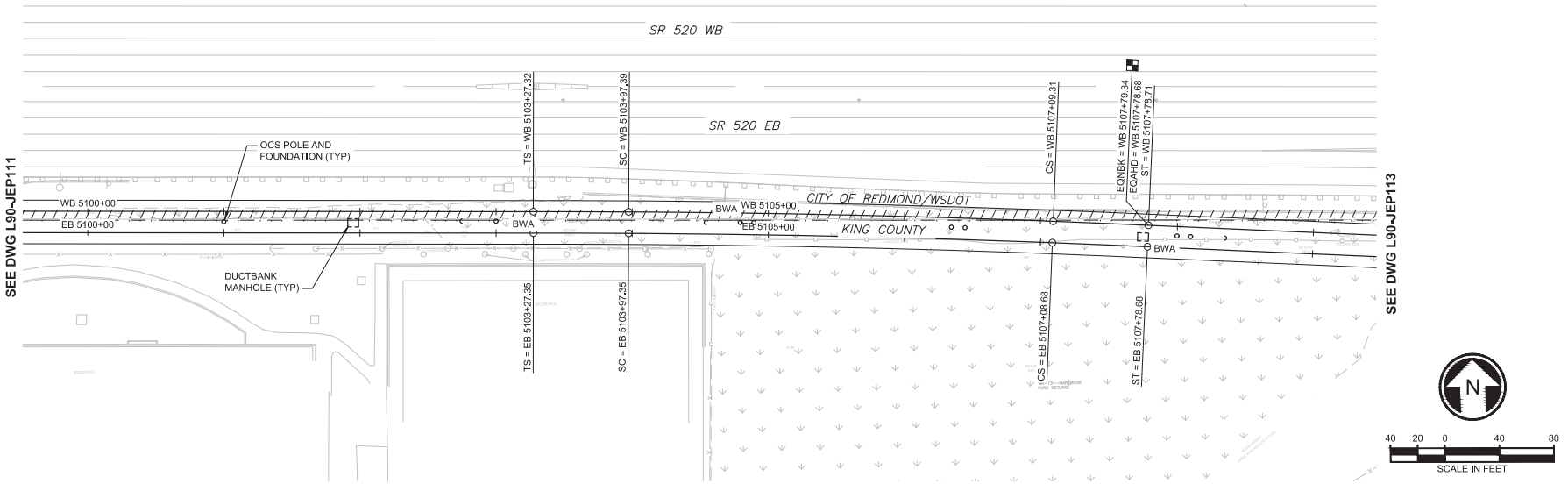

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

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DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
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JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018

PARSONS
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5100+00 TO EB STA 5109+00

DRAWING No.: L90-JEP112
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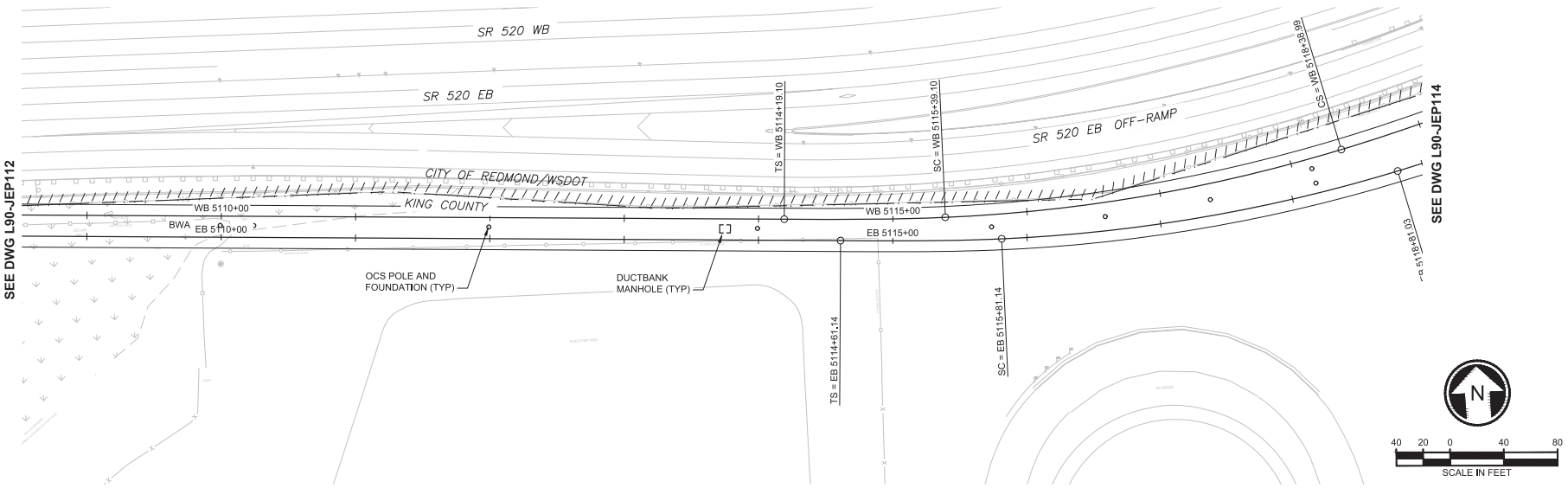

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5109+00 TO EB STA 5118+00

DRAWING No.: L90-JEP113
LOCATION ID:
SHEET No.: 345
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xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
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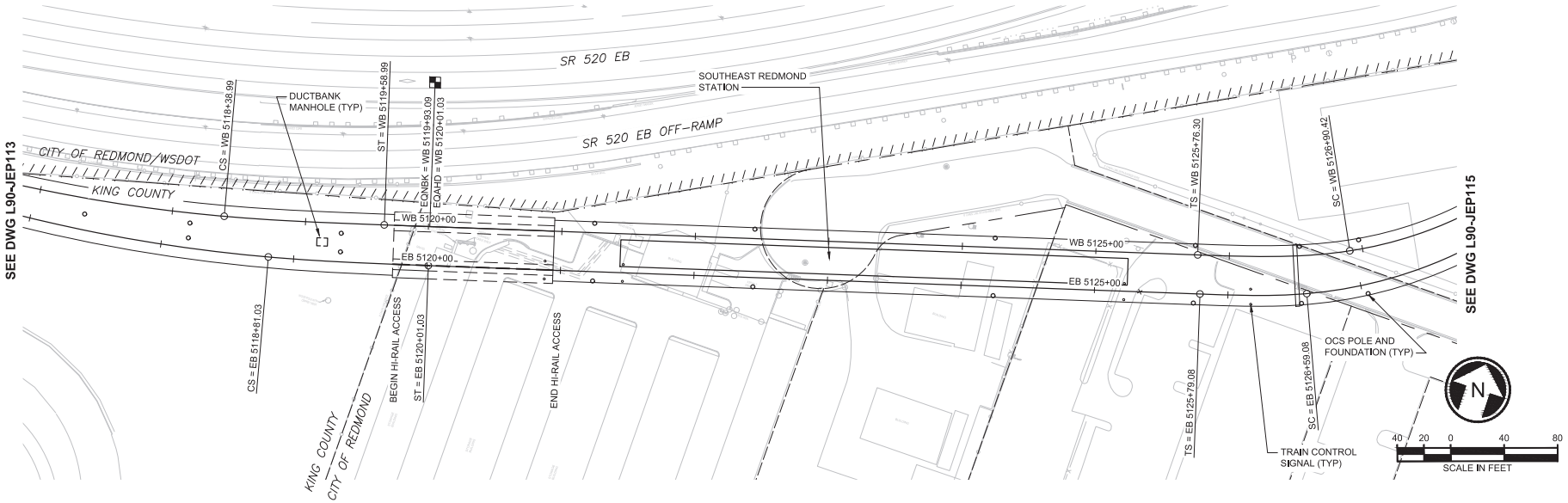

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SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5118+00 TO EB STA 5127+00

DRAWING No.: L90-JEP114
LOCATION ID:
SHEET No.: 346
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xE360-RLE-E27-CSP200
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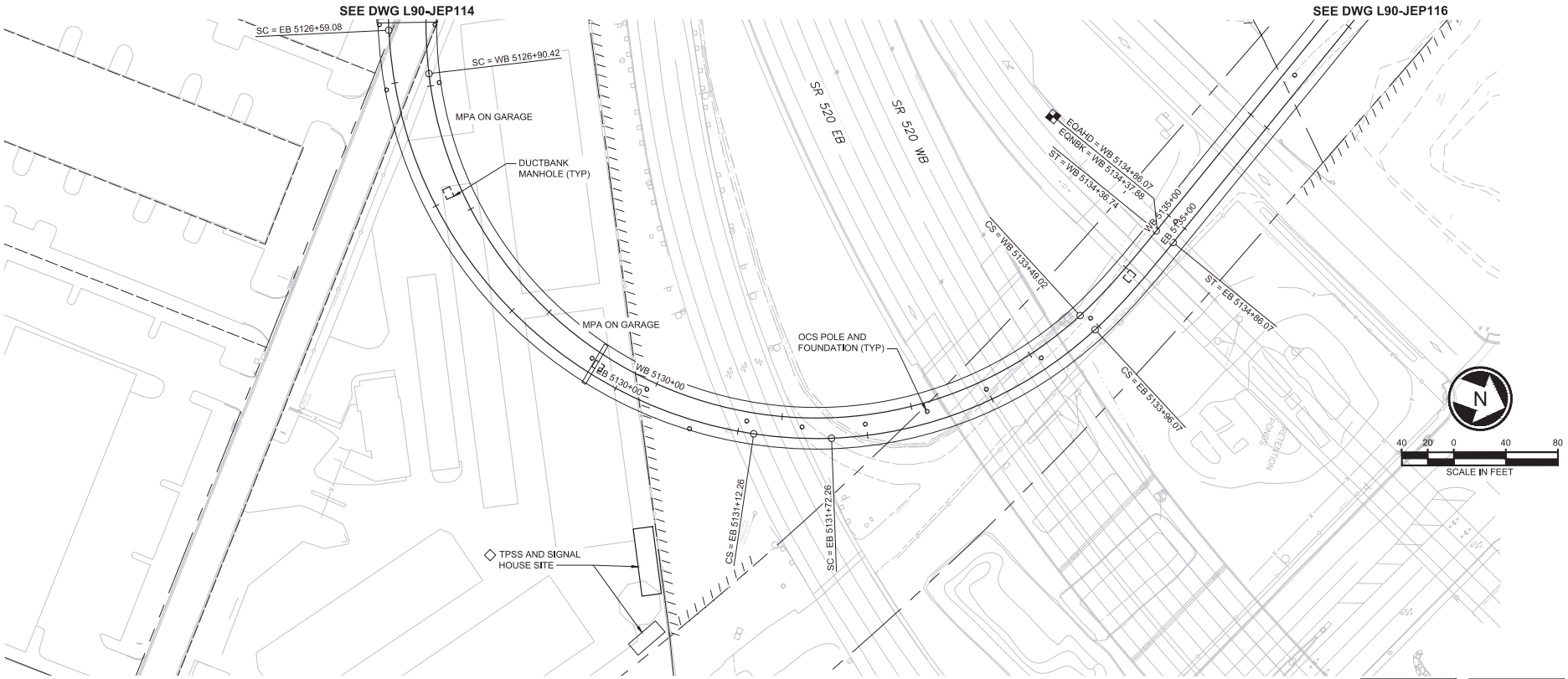

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JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 19882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE:

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5127+00 TO EB STA 5135+00

DRAWING No.: L90-JEP115
LOCATION ID:
SHEET No.: 347
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xE360-RLE-E27-CSP200
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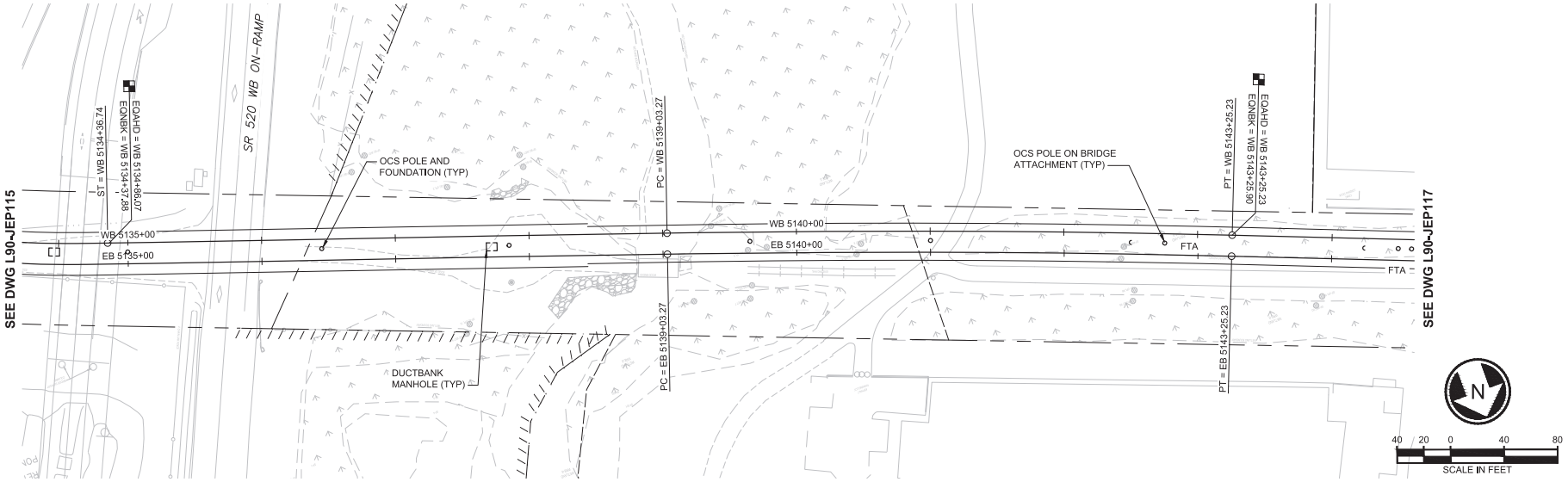

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CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5135+00 TO EB STA 5144+50

DRAWING No.: L90-JEP116
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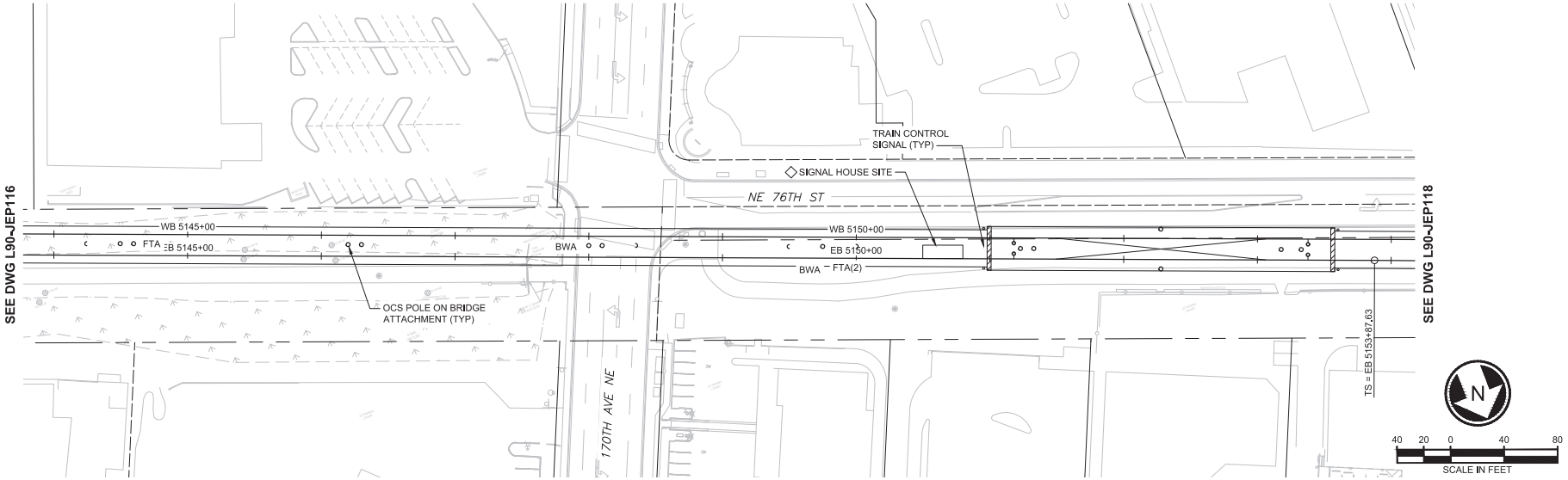
XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JCP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSF20
xE360-RLE-E27-APP10
xRLE-L90-VRX
xRLE-GS-VSF
xRLE-L90-VSF
xRLE-L95-VSF



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINER — STATE OF WASHINGTON — 19660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5144+50 TO EB STA 5154+00

DRAWING No.: L90-JEP117
LOCATION ID:
SHEET No.: 349
REV:

09/26/18 | 1:52 PM | TYLERJ
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Xrefs:
RLE-GB-TB22x34
xRLE-L90-XAP100
XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-XAP100
xE360-RLE-E27-CSP20
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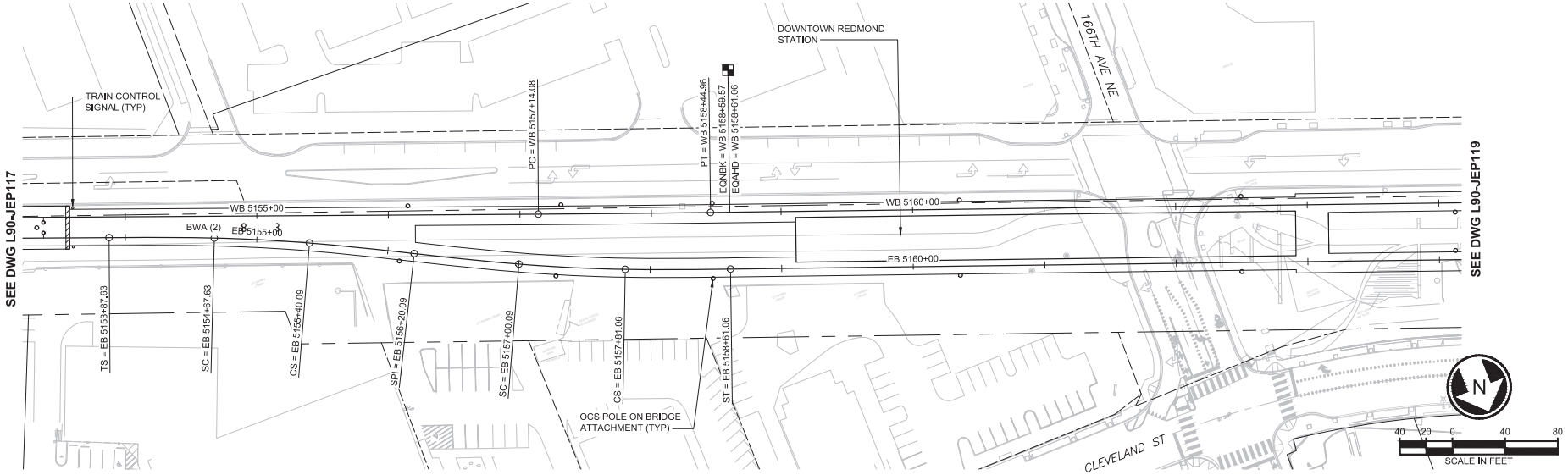
xRLE-L90-VRX
xRLE-GS-VSF
xRLE-L90-VSF
xRLE-L95-VSF



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE:

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5154+00 TO EB STA 5164+00

DRAWING No.: L90-JEP118
LOCATION ID:
SHEET No.: 350
REV:

09/26/18 | 1:53 PM | TYLERJ
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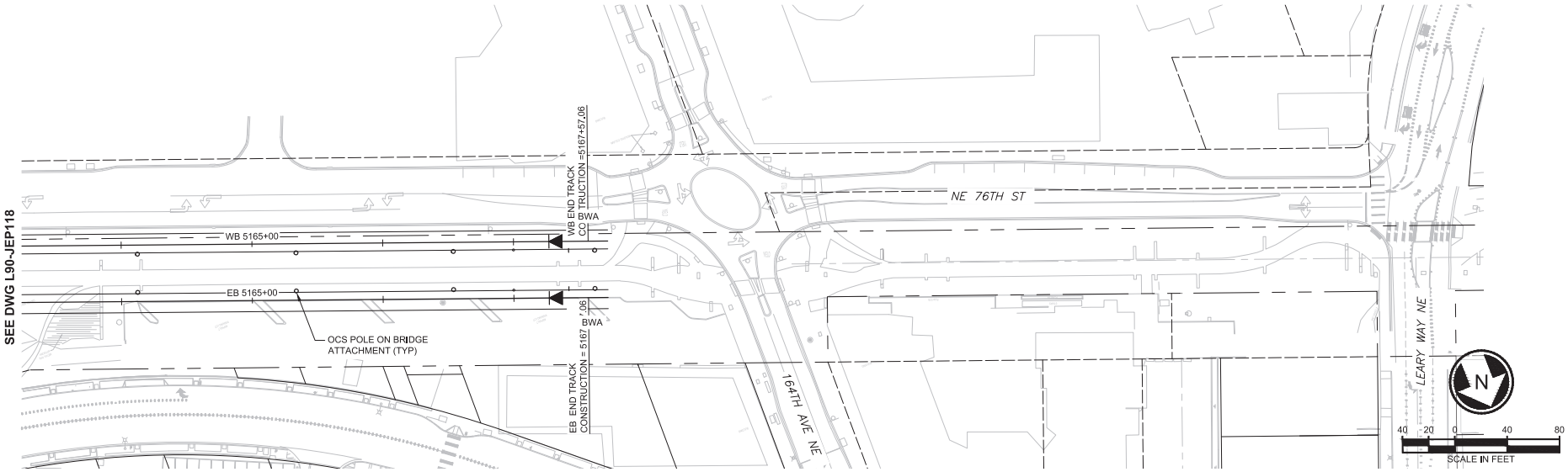
XRLE-L90-JEP100
xRLE-L90-SWP100
xRLE-L90-SEP100
xE360-RLE-E27-JEP100
xE360-RLE-L88-JDP100
xE360-RLE-L88-KAP100
xE360-RLE-E27-CSP200
xE360-RLE-E27-MPP100
xRLE-L90-VRX
xRLE-GS-VSF
xRLE-L90-VSF
xRLE-L95-VSF



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD STEINBACH — STATE OF WASHINGTON — 22660 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 09/24/2018

SCALE: 1" = 40'
FILENAME: RLE-L90-JEP100TO119
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
LAYOUT PLAN
EB STA 5164+00 TO EB STA 5167+72

DRAWING No.: L90-JEP119
LOCATION ID:
SHEET No.: 351
REV:

09/26/18 | 1:54 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\ITYLERJ#ITTPSSHAREPOINT.SOUNDTRANSIT.ORG#443#SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-JEP100TO119.DWG

Xrefs:
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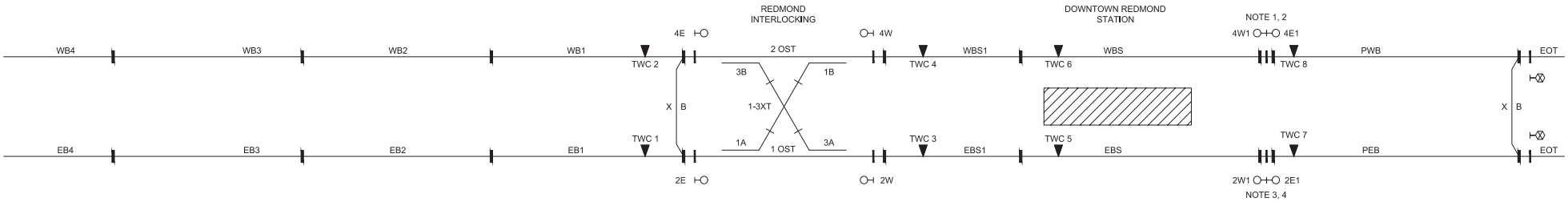

NOTES:

1. SIGNAL 4W1 IS FOR MOVEMENT INTO STATION FROM TRACK PWB. TWC 8 WILL REQUEST 4W1 SIGNAL. SIGNAL 4W1 WILL ONLY PROVIDE PROCEED ASPECT IF ALL CIRCUITS ARE CLEAR BETWEEN 4W1 AND 4W AND THERE ARE NO SIGNALS INTO WBS.
2. 4E1 SIGNAL WILL DISPLAY A PROCEED ASPECT WHEN PWB TRACK IS CLEAR.
3. SIGNAL 2W1 IS FOR MOVEMENT INTO STATION FROM TRACK PEB. TWC 7 WILL REQUEST 2W1 SIGNAL. SIGNAL 2W1 WILL ONLY PROVIDE PROCEED ASPECT IF ALL CIRCUITS ARE CLEAR BETWEEN 2W1 AND SIGNAL 2W, AND THERE ARE NO SIGNALS INTO EBS.
4. 2E1 SIGNAL WILL DISPLAY A PROCEED SIGNAL WHEN TRACK PEB IS CLEAR.
5. PROVIDE TERMINAL ROUTING. SEE SPECIFICATION 34 42 03 2.03 B FOR REQUIREMENTS.

REDMOND INTERLOCKING ROUTE AND ASPECT CHART

ENTRANCE SIGNAL	EXIT SIGNAL	SIGNAL ASPECT	APPROACH CLEAR	TWC LOOP OPERATION	TWC CALL	SIGNAL SLOTTING TRACK	TRACK CIRCUITS IN ROUTE							SWITCHES LOCKED	TRAFFIC	PREVENTS CLEARING OF SIGNALS	APPROACH LOCKING TRACK CIRCUITS						NOTES
2E	2W	VERTICAL WHITE	X (NOTE 5)	TWC1	CALL RIGHT	1 OST	1 OST	EBS1						1(N), 3(N)	EB EAST	2W1, 2W	EB1	EB2	EB3				
2E	4W	SLANT LEFT WHITE	X (NOTE 5)	TWC1	CALL LEFT	1 OST	1 OST	1-3XT	2 OST	WBS1				1(R), 3(N)	WB EAST	2W, 4E, 4W, 4W1	EB1	EB2	EB3				
2W	2E	VERTICAL WHITE				1 OST	1 OST	EB1						1(N), 3(N)	EB WEST	2E	EBS1	EBS					
2W	4E	SLANT RIGHT WHITE		TWC5, TWC3	CALL RIGHT	1 OST	1 OST	1-3XT	2 OST	WB1				1(N), 3(R)	WB WEST	2E, 4E, 4W	EBS1	EBS					
4W	4E	VERTICAL WHITE		TWC4, TWC6	CALL RIGHT	2 OST	2 OST	WB1						1(N), 3(N)	WB WEST	4E	WBS1	WBS					
4W	2E	SLANT LEFT WHITE				2 OST	2 OST	1-3XT	1 OST	EB1				1(R), 3(N)	EB WEST	4E, 2E, 2W	WBS1	WBS					
4E	4W	VERTICAL WHITE		TWC2	CALL LEFT	2 OST	2 OST	WBS1						1(N), 3(N)	WB EAST	4W, 4W1	WB1	WB2	WB3				
4E	2W	SLANT RIGHT WHITE		TWC2	CALL RIGHT	2 OST	2 OST	1-3XT	1 OST	EBS1				1(N), 3(R)	EB EAST	2W1, 4W, 2W, 2E	WB1	WB2	WB3				

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. BOROCZ
DRAWN BY: G. GOINS
CHECKED BY: K. HUANG
APPROVED BY: Y. YANG

CLINTON C. HOFBAUER — STATE OF WASHINGTON — 20860 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-JSS101
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
SIGNALS
ROUTE AND ASPECT CHARTS

DRAWING No.: L90-JSS101
LOCATION ID:
SHEET No.: 352
REV:

09/26/18 | 2:06 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\TYLERJ\HTTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWINGS\RLE-L90-JSS101.DWG

Xrefs:
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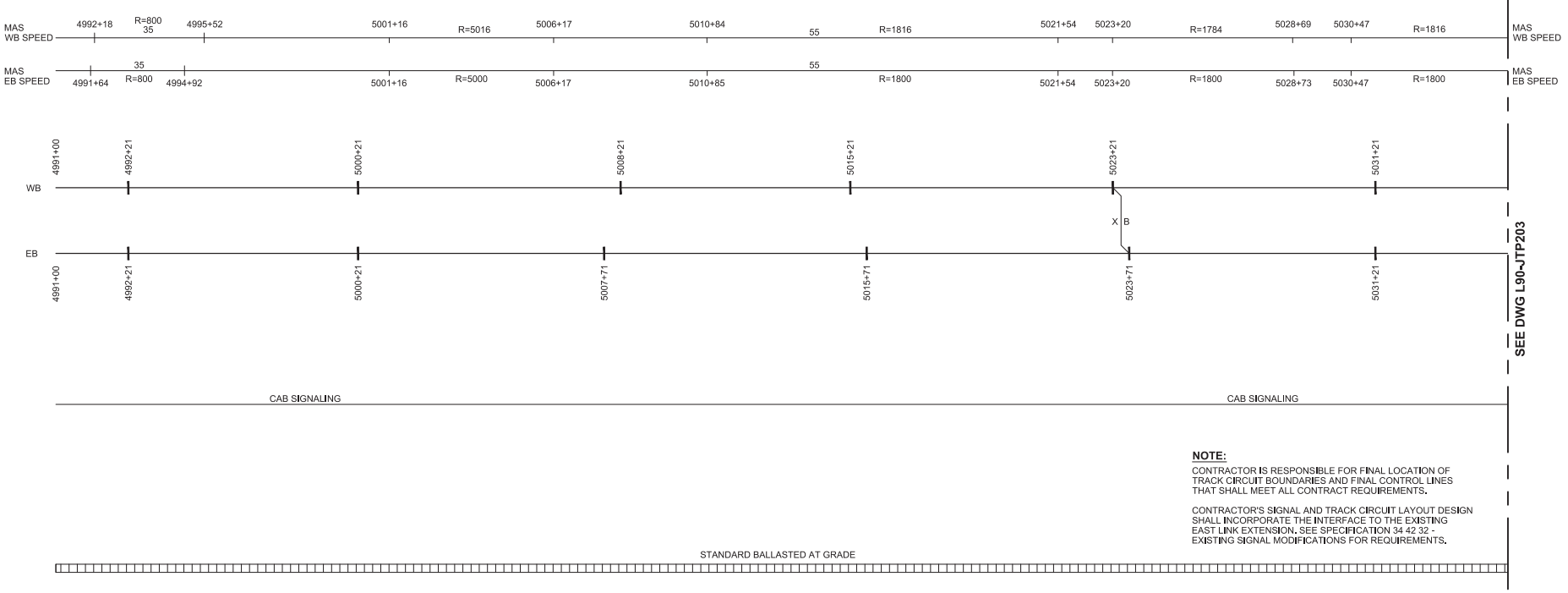

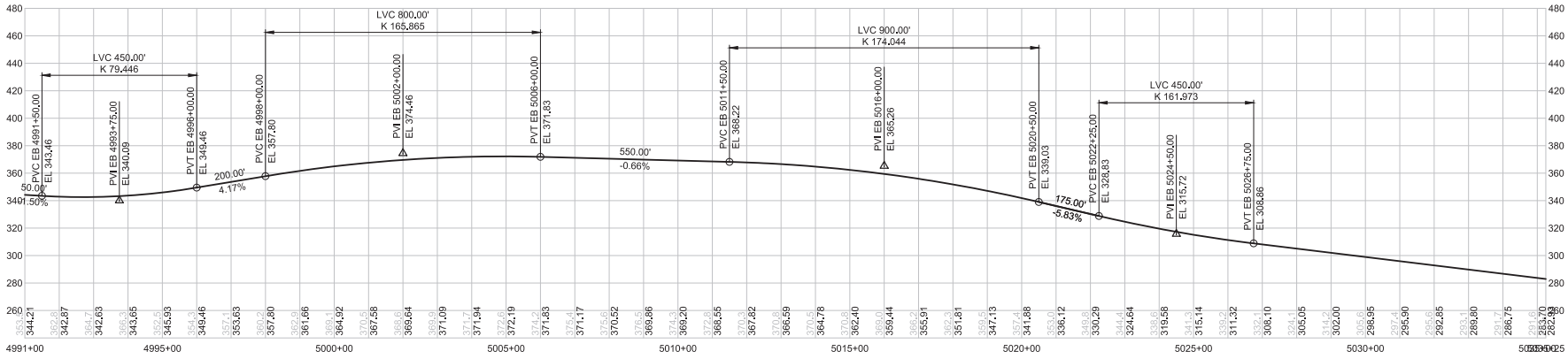

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. BOROCZ
DRAWN BY: G. GOINS
CHECKED BY: K. HUANG
APPROVED BY: Y. YANG

JOHN C. HOFBAUER — STATE OF WASHINGTON — 20892 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-JTP202
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
SIGNALS
CONCEPTUAL SIGNAL LAYOUT (SINGLE LINES) 1 OF 4

DRAWING No.: L90-JTP202
LOCATION ID:
SHEET No.: 353
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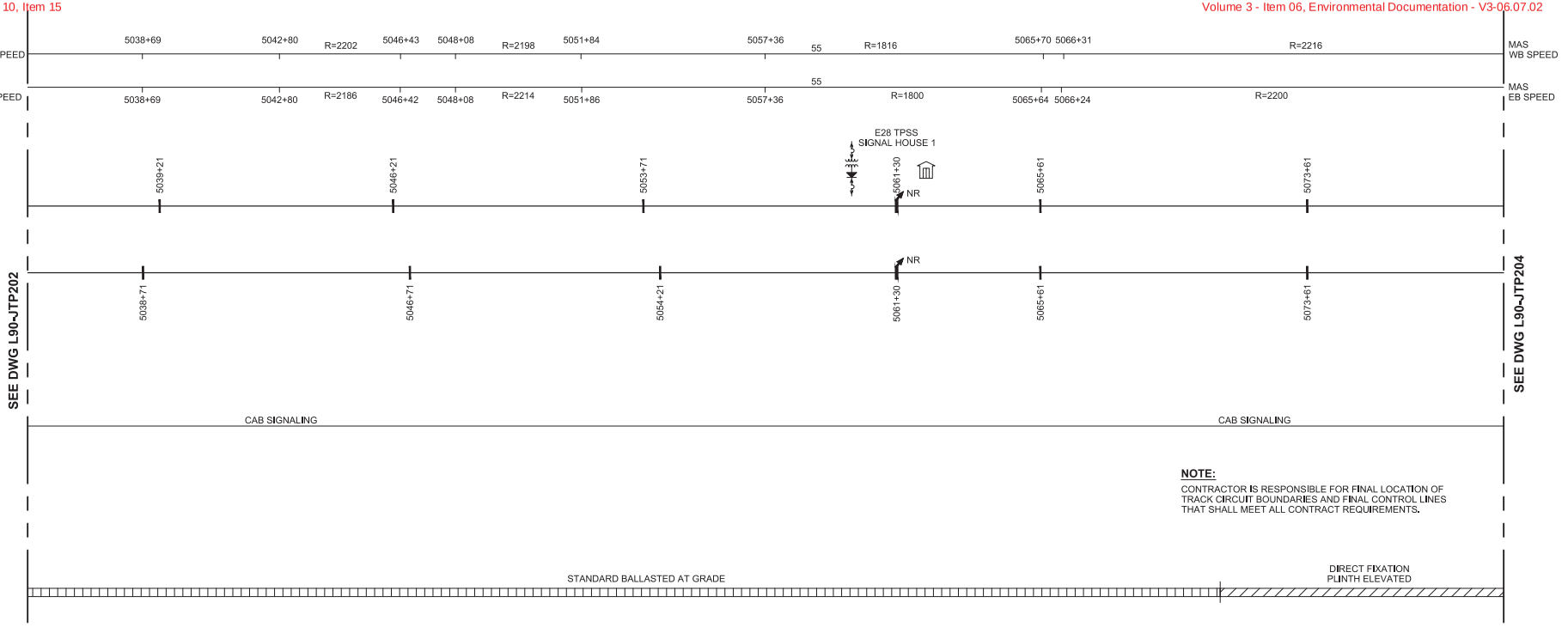

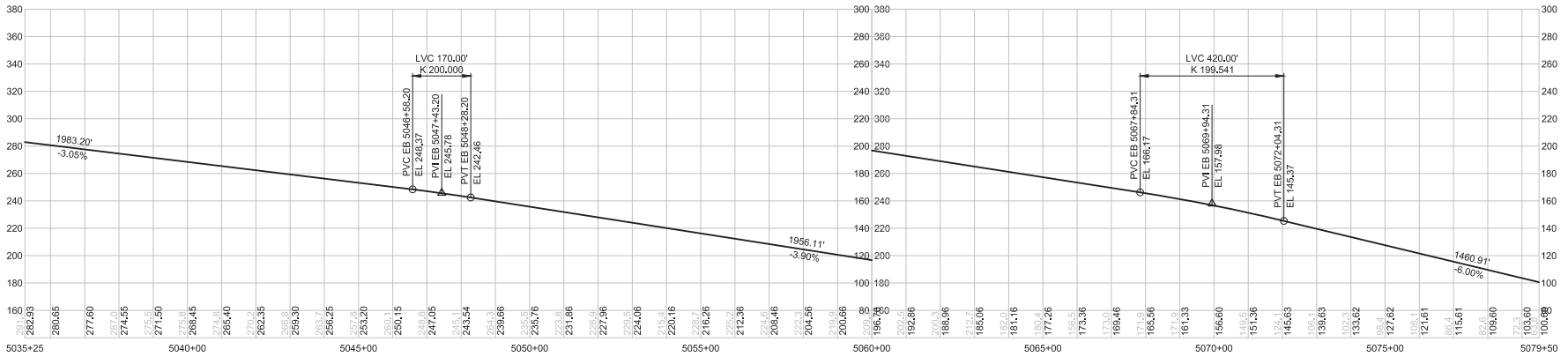

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. BOROCZ
DRAWN BY: G. GOINS
CHECKED BY: K. HUANG
APPROVED BY: Y. YANG

JOHN C. HOFBAUER — STATE OF WASHINGTON — 39880 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-JTP203
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
SIGNALS
CONCEPTUAL SIGNAL LAYOUT (SINGLE LINES) 2 OF 4

DRAWING No.: L90-JTP203
LOCATION ID:
SHEET No.: 354
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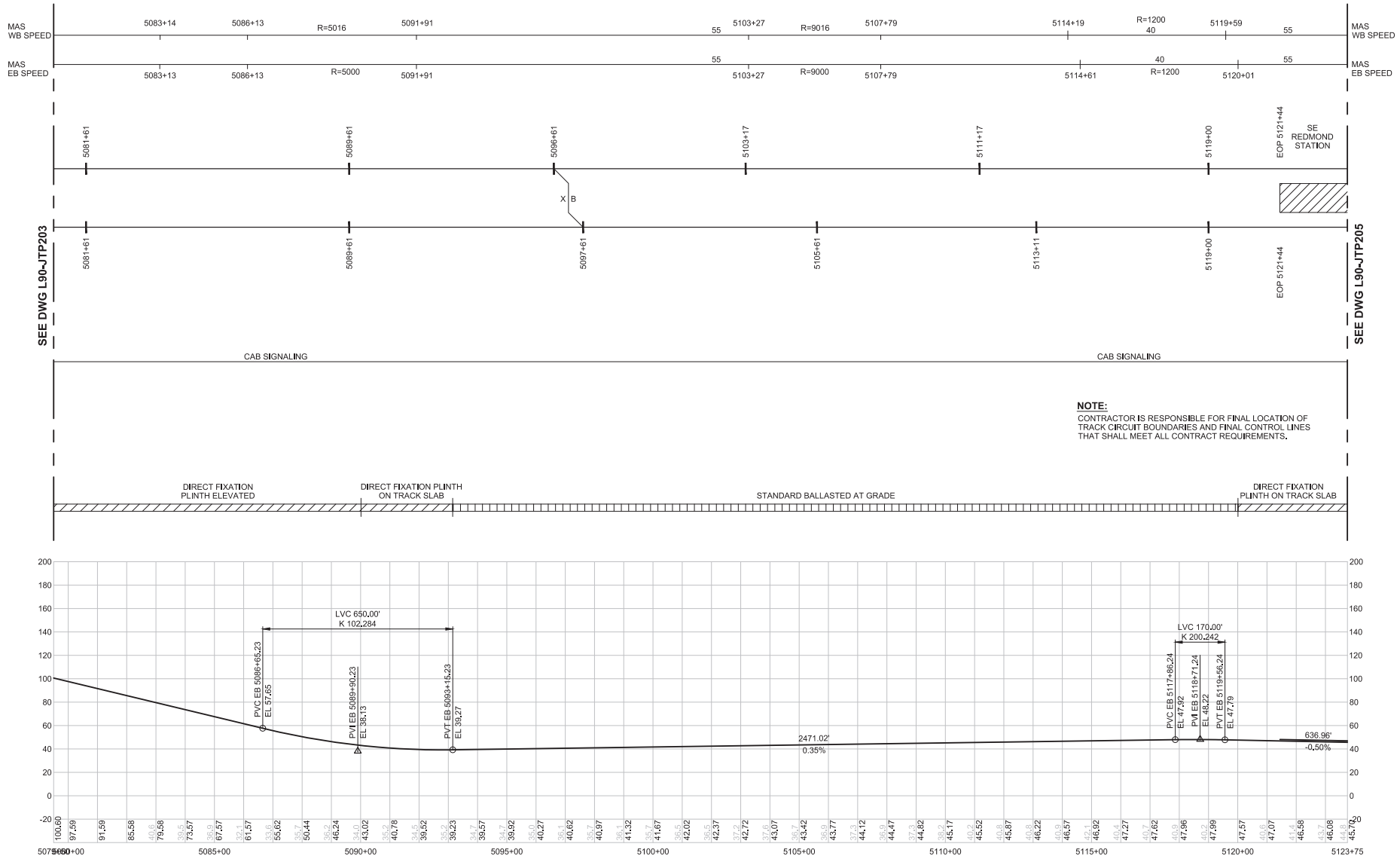
xRLE-L90-JTP200



CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. BOROCZ
DRAWN BY: G. GOINS
CHECKED BY: K. HUANG
APPROVED BY: Y. YANG

JOHN C. HOFBAUER — STATE OF WASHINGTON — 39882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-JTP204
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
SIGNALS
CONCEPTUAL SIGNAL LAYOUT (SINGLE LINES) 3 OF 4

DRAWING No.: L90-JTP204
LOCATION ID:
SHEET No.: 355
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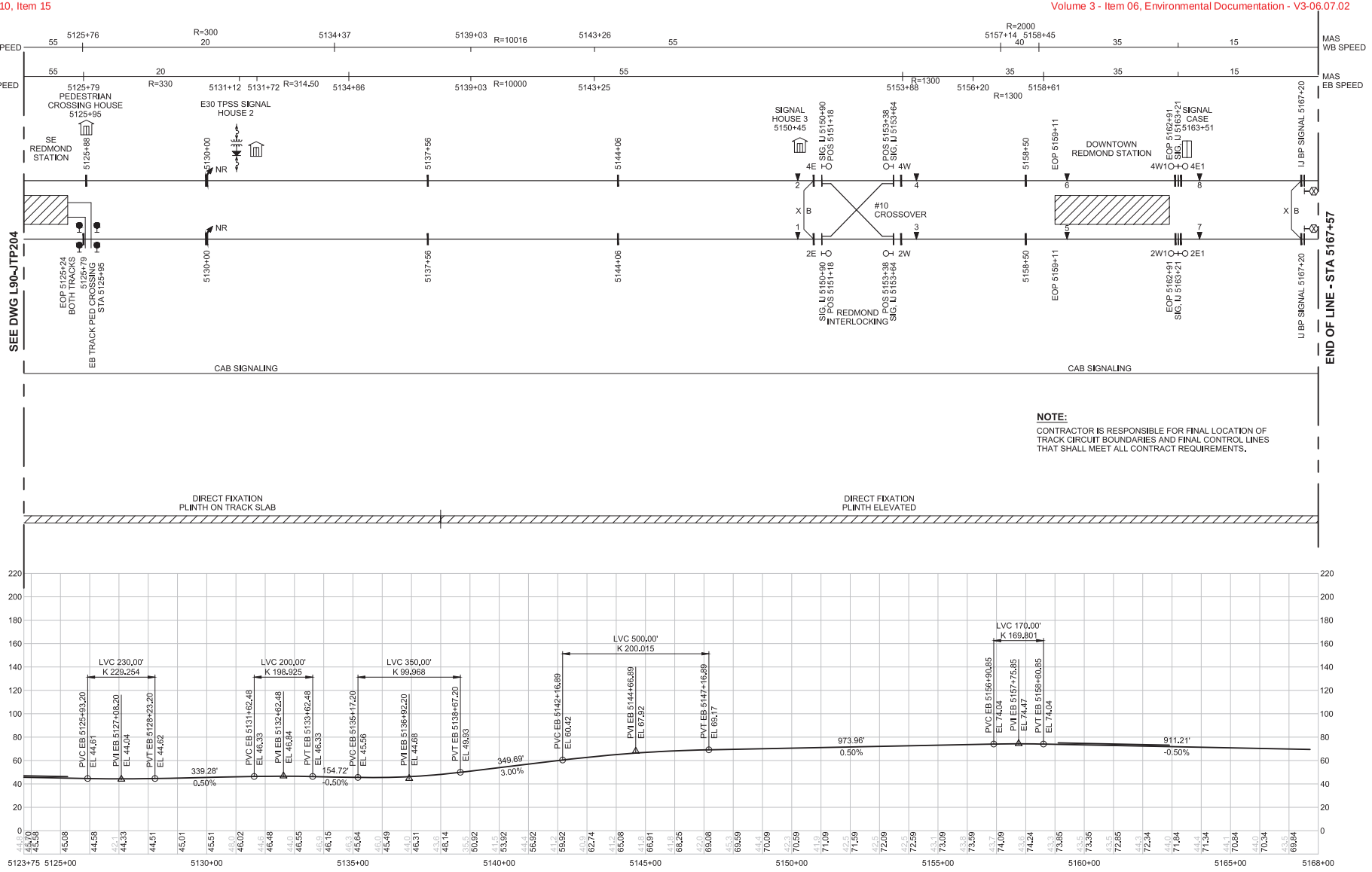

NOTE:

CONTRACTOR IS RESPONSIBLE FOR FINAL LOCATION OF TRACK CIRCUIT BOUNDARIES AND FINAL CONTROL LINES THAT SHALL MEET ALL CONTRACT REQUIREMENTS.

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. BOROCZ
DRAWN BY: G. GOINS
CHECKED BY: K. HUANG
APPROVED BY: Y. YANG

JOHN C. HOFBAUER — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

SCALE: NTS
FILENAME: RLE-L90-JTP205
CONTRACT No.: CN 0148-18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
SIGNALS
CONCEPTUAL SIGNAL LAYOUT (SINGLE LINES) 4 OF 4

DRAWING No.: L90-JTP205
LOCATION ID:
SHEET No.: 356
REV:

09/28/18 | 11:05 AM | ITOP
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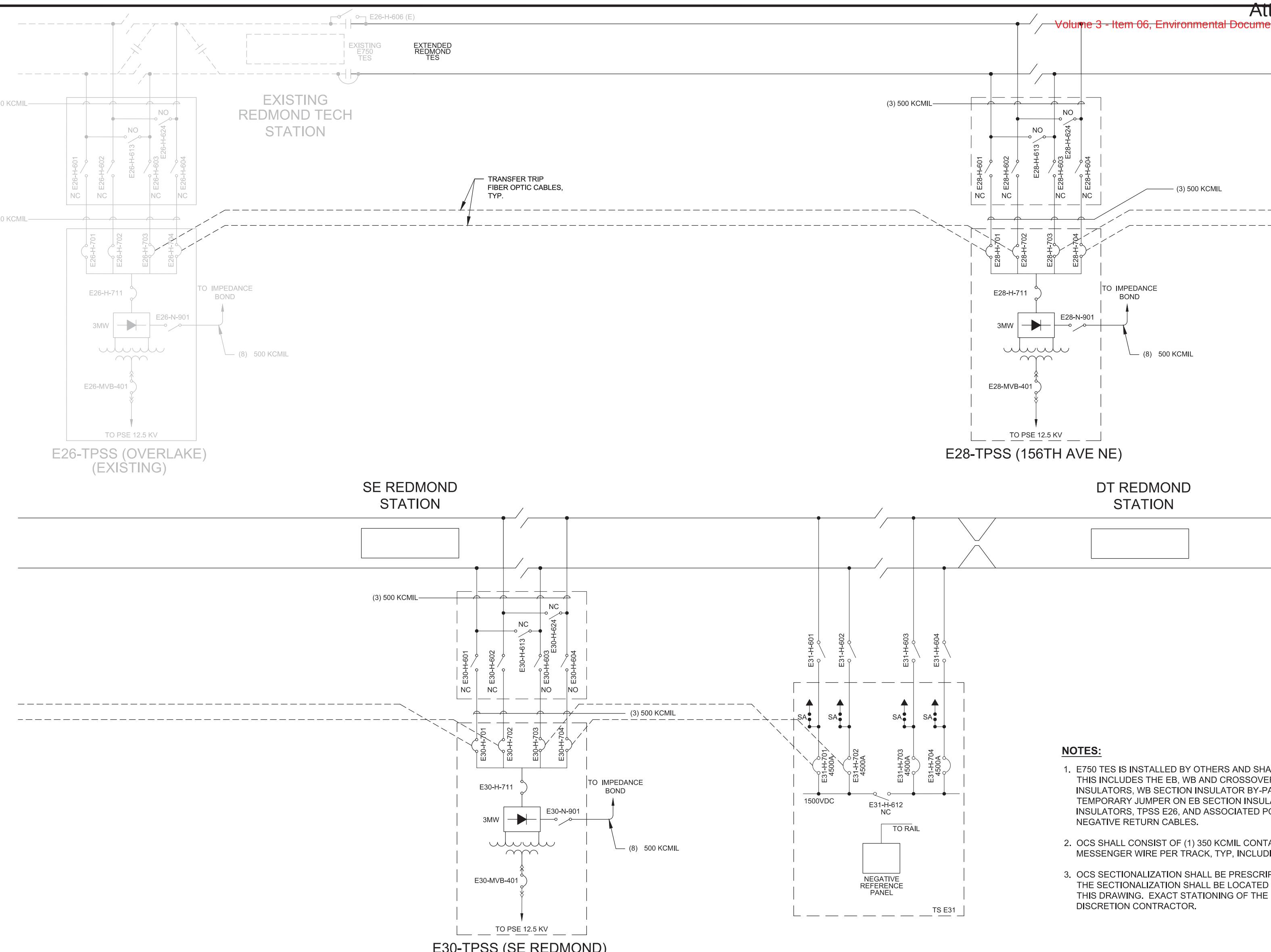
Addendum 10, Item 15

Attachment 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



NOTES:

1. E750 TES IS INSTALLED BY OTHERS AND SHALL BE CONSIDERED EXISTING. THIS INCLUDES THE EB, WB AND CROSSOVER OCS, EB AND WB SECTION INSULATORS, WB SECTION INSULATOR BY-PASS SWITCH E26-H-606, EB TEMPORARY JUMPER ON EB SECTION INSULATOR, CROSSOVER SECTION INSULATORS, TPSS E26, AND ASSOCIATED POSITIVE FEEDER AND NEGATIVE RETURN CABLES.
2. OCS SHALL CONSIST OF (1) 350 KCMIL CONTACT WIRE AND (1) 500 KCMIL MESSENGER WIRE PER TRACK, TYP, INCLUDING THE CROSSOVER.
3. OCS SECTIONALIZATION SHALL BE PRESCRIPTIVE IN THE SENSE THAT THE SECTIONALIZATION SHALL BE LOCATED IN THE VICINITY SHOWN ON THIS DRAWING. EXACT STATIONING OF THE SECTIONALIZATION IS AT THE DISCRETION CONTRACTOR.

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. PENROSE
APPROVED BY: Y. YANG

JOHN CONRAD SCHLICK — STATE OF WASHINGTON — 49860 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

PARSONS

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE-L90-JPP101
CONTRACT No.: CN 0148-18
DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SYSTEMS
TRACTION ELECTRIFICATION
SECTIONALIZING DIAGRAM

DRAWING No.: L90-JPP101
LOCATION ID:
SHEET No.: 357
REV:

Xrefs: RLE-GB-TB22x34

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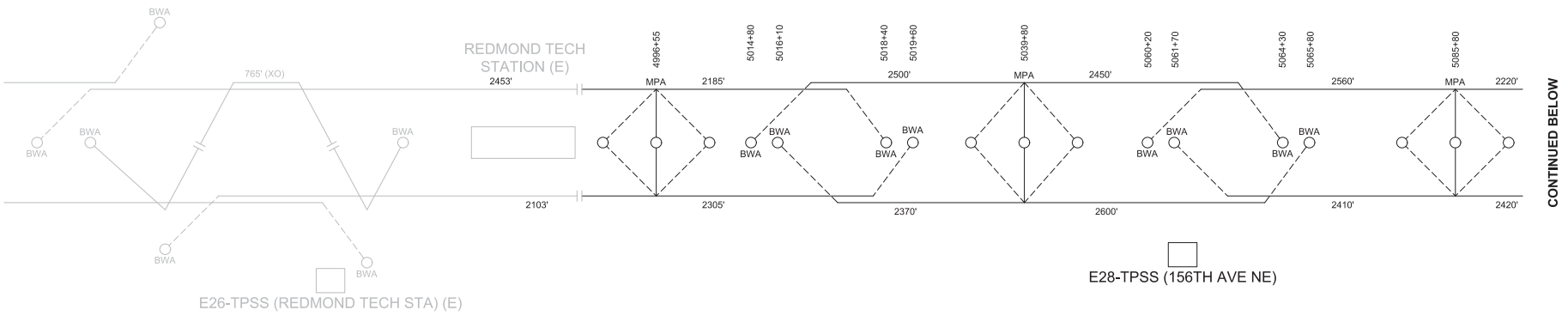
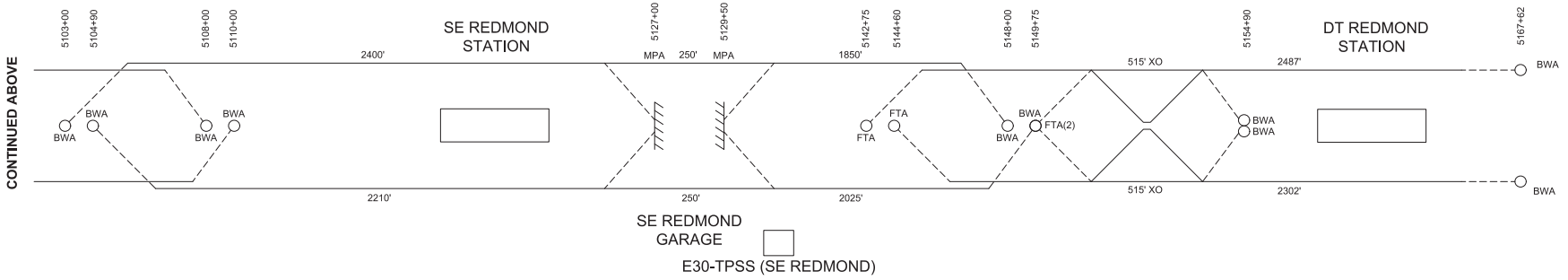




CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. SCHLICK
DRAWN BY: K. McWILLIAMS
CHECKED BY: D. CROW
APPROVED BY: Y. YANG

JOHN CONRAD SCHLICK — STATE OF WASHINGTON — 22882 — REGISTERED PROFESSIONAL ENGINEER

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
PARSONS
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018
REVIEWED BY: — DATE: 09/24/2018
DATE: 09/24/2018

LINE IS 1" AT FULL SCALE

SCALE: NTS
FILENAME: RLE-L90-JOP102
CONTRACT No.: CN 0148-18

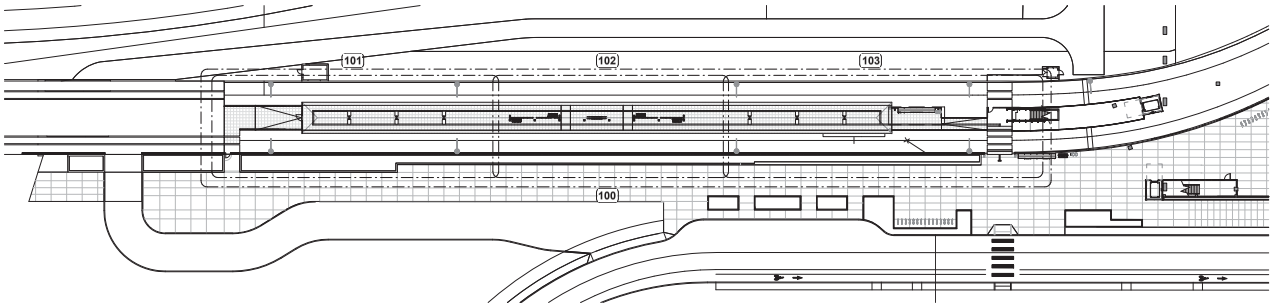
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SYSTEMS
MASTER OVERLAP CHART

DRAWING No.: L90-JOP102
LOCATION ID:
SHEET No.: 358
REV:

09/26/18 | 2:00 PM | TYLERJ
C:\USERS\PUBLIC\DOCUMENTS\TYLERJ\ITYLERJH\ITTPSSHAREPOINT.SOUNDTRANSIT.ORG\443\SITES\CAD\REDMOND LINK EXTENSION\PE\DRAWING\SRLE-L90-JOP102.DWG

CROSS REFERENCING OF DRAWINGS				
BASE SHEET TITLE	100			
1" = 20'-0" OVERALL FLOOR PLAN	E29-**100			
BASE SHEET TITLE	101	102	103	
1/8" = 1'-0" STATION DRAWING SETS	E29-**101	E29-**102	E29-**103	SURFACE LEVEL PLAN

** = ARCHITECTURAL DESIGN ELEMENT DESIGNATION
APP - ARCHITECTURAL FLOOR PLAN



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: M. WYLLIE
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SoundTransit

SCALE: 1" = 40'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
KEY PLAN - PLATFORM
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-GZK100
FACILITY ID:
SHEET No.: 359
REV:

10/14/2018 10:05:18 AM
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MUNICIPAL CODE SUMMARY

PROJECT DESCRIPTION:	APPLICABLE CODES (CURRENT EDITION AT TIME OF PERMITTING):
THE PROJECT IS LOCATED IN THE SOUTHEAST REDMOND NEIGHBORHOOD ADJACENT TO STATE ROUTE 520, BETWEEN MARYMOOR PARK AND STATE ROUTE 202. THE PROJECT WILL CONSIST OF AN OPEN AT-GRADE LIGHT RAIL STATION, ASSOCIATED ANCILLARY FACILITIES, A PARKING GARAGE, A BUS TRANSIT STATION, A SURFACE PARKING LOT, A NEW NE 70TH STREET, A BICYCLE LANE AND ASSOCIATED FINISH SITE WORK. THE STATION'S CENTER PLATFORM IS ACCESSED VIA EAST AT-GRADE CROSSING OVER THE EASTBOUND TRACK. PRIMARY ACCESS FROM THE UPPER LEVELS OF THE PARKING GARAGE IS BY ELEVATOR OR OPEN STAIR DOWN TO WALKWAY BETWEEN TRACKS.	• INTERNATIONAL BUILDING CODE AS AMENDED BY WAC 51-50 AND RMC TITLE 15 • NFPA 130, STANDARD FOR FIXED GUIDEWAY TRANSIT AND PASSENGER RAIL SYSTEMS • WASHINGTON STATE ENERGY CODE, WITH WAC 51-11C & 51-11R STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE INTERNATIONAL ENERGY CONSERVATION CODE • INTERNATIONAL FIRE CODE AS AMENDED BY WAC 51-50 AND RMC TITLE 15 • REDMOND ZONING CODE (RMC TITLE 21) • BICYCLE FACILITIES DESIGN MANUAL GUIDELINES FOR THE CITY OF REDMOND, MARCH 2012 COMPREHENSIVE PLAN - REDMOND 2030 • ADA STANDARDS FOR TRANSPORTATION FACILITIES • ICC ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES • DEPARTMENT OF JUSTICE ADA STANDARDS - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES • NFPA LIFE SAFETY CODE
	ZONING: MDD1 WITH TOD OVERLAY **PERMITTED USE:** #9 ROAD, GROUND PASSENGER, AND TRANSIT TRANSPORTATION #24 AUTOMOBILE PARKING FACILITIES **BASE HEIGHT:** 3 STORIES (6 STORIES WITH INCENTIVES) **BASE FAR:** MIN: 0.76; MAX WITH INCENTIVES: 1.66 **MAX LOT COVERAGE:** 70% **MAX IMPERVIOUS:** 75% **MIN LANDSCAPING:** 25% **MIN STORMWATER:** 7% **SETBACKS:** REAR: 0 FT SIDE: 0 FT NE 70TH ST: BUILD-TO LINE: 0 FT (MIN 50% BUILD TO LINE (BTL) DEFINED BY FACADE) PARK: 5 FT **SPRINKLERS:** THROUGHOUT GARAGE PER IBC 903.2.10 NONE AT PLATFORM PER COR ORD 2774

NOTE: PROJECT IS PURSUING A LETTER OF CONCURRENCE FROM CITY OF REDMOND TO USE NFPA 130 FOR PLATFORMS FOR THE PROPOSED DOWNTOWN REDMOND LINK EXTENSION LIGHT RAIL STATIONS.

ADJACENT BUILDINGS, SUCH AS THE PROPOSED PARKING STRUCTURE ARE NOT CONSIDERED AS PART OF THE STATION AND ARE REQUIRED TO COMPLY WITH THE CURRENT ADOPTED BUILDING CODES AT THE TIME OF APPLICATION.

IBC BUILDING AREA CALCULATION - GARAGE

BASE BUILDING INFORMATION:

CONSTRUCTION TYPE:	IIA
OCCUPANCY:	MIXED USE, S-2 OPEN GARAGE OVER S-2 ENCLOSED GARAGE (IBC 510.3)
SPRINKLERS:	YES, THROUGHOUT PER IBC 903.2.10

IBC 504 ALLOWABLE BUILDING HEIGHT

IBC 504.3 DETERMINE MAXIMUM BUILDING HEIGHT:

TABULAR BASE HEIGHT:	85' SPRINKLERED
PROVIDED:	79' - 0" SPRINKLERED

IBC 504.4 DETERMINE MAXIMUM NUMBER OF STORIES FOR ENCLOSED GARAGE:

TABULAR BASE NUMBER OF STORIES:	5 STORIES
ADDITIONAL STORIES DUE TO SPRINKLERS:	1 STORY
MAXIMUM ALLOWABLE STORIES:	6 STORIES
PROVIDED:	1 STORY ENCLOSED GARAGE

IBC 504.4 DETERMINE MAXIMUM NUMBER OF STORIES FOR OPEN GARAGE:

TABULAR BASE NO OF STORIES:	5 STORIES
ADDITIONAL STORIES DUE TO SPRINKLERS:	1 STORY
MAXIMUM ALLOWABLE STORIES:	6 STORIES
PROVIDED:	5 STORIES OPEN GARAGE

IBC 506 ALLOWABLE FLOOR AREA PER STORY FOR S-2 ENCLOSED GARAGE

TABULAR FLOOR AREA:	117,000 SF (IBC TABLE 506.2)
SPRINKLER INCREASE:	INCLUDED ABOVE
FRONTAGE INCREASE:	39,000 SF X 0.75 = 29,250 SF
MAX ALLOWABLE AREA PER FLOOR:	146,250 SF

IBC 506 ALLOWABLE FLOOR AREA PER STORY FOR S-2 OPEN GARAGE

TABULAR FLOOR AREA:	117,000 SF (IBC TABLE 506.2)
SPRINKLER INCREASE:	INCLUDED ABOVE
FRONTAGE INCREASE:	39,000 SF X 0.75 = 29,250 SF
MAX ALLOWABLE AREA PER FLOOR:	146,250 SF

SUMMARY OF PROPOSED BUILDING AREA

S-2 ENCLOSED GARAGE:	82,459 SF
S-2 OPEN GARAGE:	501,685 SF
TOTAL:	584,144 SF

IBC 510.3 DETERMINE FLOOR AREA RATIO

MAXIMUM SUM OF RATIO FOR BUILDING:	1.0 (IBC 510.3 (1))
EQUATION FOR DETERMINING RATIO:	PROPOSED AREA / ALLOWABLE AREA
S-2 ENCLOSED GARAGE:	82,459 / (146,250 X 7) = 0.08
S-2 OPEN GARAGE:	501,685 / (146,250 X 7) = 0.49
TOTAL RATIO:	0.08 + 0.49 = 0.57

IBC BUILDING AREA CALCULATION - PLATFORM

BASE BUILDING INFORMATION:

CONSTRUCTION TYPE:	IIB
OCCUPANCY:	A-3 PER IBC 302.1
SPRINKLERS:	NONE REQUIRED PER COR ORD 2774

IBC 506 ALLOWABLE FLOOR AREA PER STORY FOR A-3 OCCUPANCY

TABULAR FLOOR AREA:	9,500 SF (IBC TABLE 506.2)
SPRINKLER INCREASE:	NONE
FRONTAGE INCREASE:	((F/P-0.25)W/30) X 9,500 SF = ((1/1-0.25)30/30) X 9,500 SF = 7,125 SF
MAX ALLOWABLE AREA PER FLOOR:	9,500 SF + 7,125 SF = 16,625 SF

SUMMARY OF PROPOSED BUILDING AREA

A-3	2,280 SF

IBC 504 ALLOWABLE BUILDING HEIGHT

IBC 504.4 DETERMINE MAXIMUM NUMBER OF STORIES:

TABULAR BASE NO OF STORIES:	2 STORIES (IBC TABLE 504.4)
ADDITIONAL STORIES DUE TO SPRINKLERS:	NA
MAXIMUM ALLOWABLE NO OF STORIES:	2 STORIES
PROVIDED:	1 STORY

IBC 504.3 DETERMINE MAXIMUM HEIGHT ABOVE AVERAGE GRADE PLANE:

TABULAR BASE BUILDING HEIGHT:	55 FT (IBC TABLE 504.3)
ADDITIONAL HEIGHT DUE TO SPRINKLERS:	NA
MAXIMUM ALLOWABLE BUILDING HEIGHT:	55 FT
PROVIDED:	17' - 0"

Patronage Calculations

SE Redmond Station

DATE: 5/29/2018

Type: Center Platform
Downtown Redmond Link
System: Extension

DESIGN YEAR: 2035

Patronage Report Date: Jul-17

Design Year 2035 - Daily Boardings: 3,000

Design Year 2035 - PM Peak Period (3 hour) 1

	Train Load	Boarding	Alighting				
			Walk Egress	Bus Transfer	Auto	Bicycle	Total Alighting
Westbound	420	341	71	296	1,400		0
Eastbound	3,130						1,767

Design Year 2035 - PM Peak Period (1 hr) 2

	Train Load	Boarding	Alighting	Total Boarding & Alighting
Westbound	168	137	0	137
Eastbound	1,252	0	707	707

Design Year 2035 - PM Peak Period (15 min) 3

	Boarding	Alighting	Total Boarding & Alighting
Westbound	39	0	39
Eastbound	0	198	198
Total	39	198	237

Notes:

1. Year 2035 forecast based on …
   1 hr = .4 x 3 hr (DY 2035)
   15 min = .28 x 1 hr, all = Factor of 0.112 (DY 2035)
2. Green text indicates confirmed ridership numbers from the July 2017 ridership forecast
3. Where applicable, patronage numbers are rounded up to the nearest whole person

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: NTS
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AZN001
FACILITY ID:
SHEET No: 360
REV:

10/14/2018 10:04:43 AM
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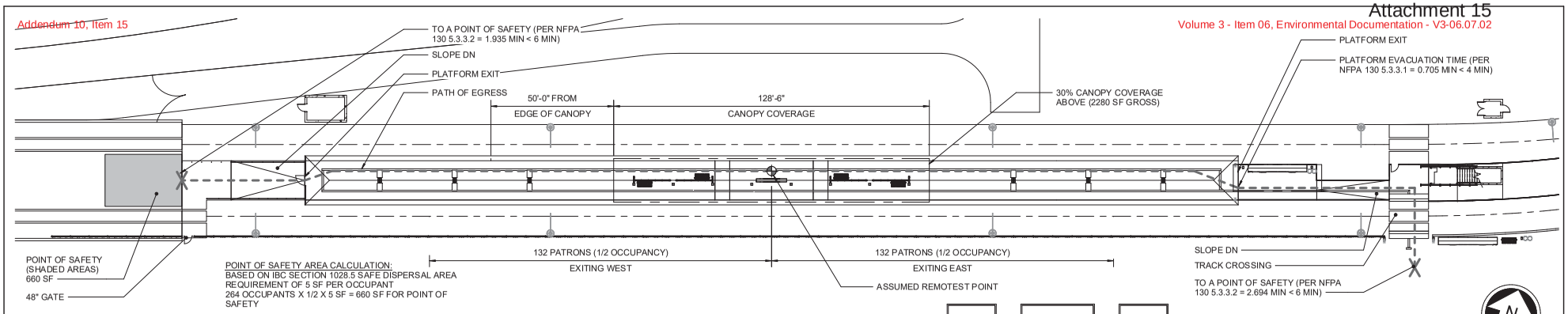

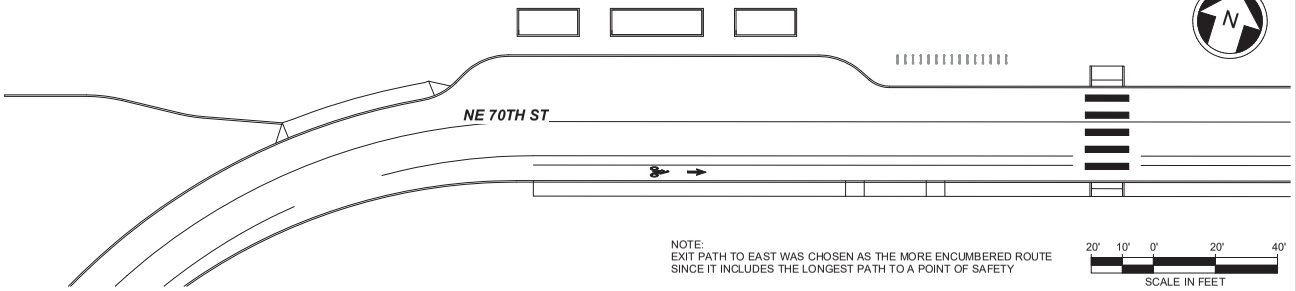

NOTE:
EXIT PATH TO EAST WAS CHOSEN AS THE MORE ENCUMBERED ROUTE SINCE IT INCLUDES THE LONGEST PATH TO A POINT OF SAFETY

20' 10' 0' 20' 40'
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

EMERGENCY EXITING CALCULATIONS

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

SE Redmond Station | Type: Center Platform | System: Downtown Redmond Link Extension | DATE: 5/14/2018 | DESIGN YEAR: 2035

OCCUPANT LOAD CALCULATION

		A.M.	P.M.
PEAK ONE-HOUR LINE LOADS	WBOUND	1252	168
	EBOUND	168	1,252
LINE LOADS (Train Load):	TOTAL	1420	1420
	WBOUND	0	137
	EBOUND	137	0
BOARDING LOADS (Entraining Load):	TOTAL	137	137
	WBOUND	707	0
	EBOUND	0	707
ALIGHTING LOADS (Not Used for load calculations):	TOTAL	707	707

PEAK 15 MINUTE LOADS = [PEAK HR. LOAD X Surge Factor / 4]
PEAK LINE LOADS (Train Load) adjusted for surge factor of: 1.25

		A.M.	P.M.
	WBOUND	391	53
	EBOUND	53	391
	TOTAL	444	444

PEAK BOARDING LOADS (Entraining) adjusted, surge factor of: 1.50

	WBOUND	0	52
	EBOUND	52	0
	TOTAL	52	52

ALIGHTING LOADS adjusted for surge factor of: 1.50

ALIGHTING LOADS:	WBOUND	266	0
	EBOUND	0	266
(Alighting loads not included for occupant load calculations:	TOTAL	266	266

TEMPLATE A IF HEADWAY ≤ 6 MINUTES TEMPLATE B IF HEADWAY > 6 MINUTES	WBOUND	4.00	4.00
PEAK HEADWAYS (in minutes):	EBOUND	4.00	4.00

PLATFORMS WHERE TRAINS ARRIVE FROM **ONE DIRECTION**
CALCULATED TRAIN LOAD = [PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) x 2]

PLATFORMS WHERE TRAINS ARRIVE FROM **TWO DIRECTIONS**
CALCULATED TRAIN LOAD= (PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY)) x 2
+ PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY)

		PEAK DIRECTION A.M.	OFF-PEAK DIRECTION P.M.
Preliminary Line (Train) Load Calculations:	WBOUND	209	14
	EBOUND	14	209
Adjusted for maximum train capacity of: 800	WBOUND	209	14
	EBOUND	14	209
CALCULATED TRAIN LOAD TOTALS	**TOTAL**	223	223

ENTRAINING LOAD (Peak) = (PEAK 15 MIN. LOAD/15 MINUTES) x 12 MINUTE DEFAULT
ENTRAINING LOAD (Non-Peak) = PEAK 15 MIN. LOAD/(15 MINUTES/HEADWAY)

		A.M.	P.M.
	WBOUND	0	42
	EBOUND	42	0
PEAK BOARDING (ENTRAINING) LOAD	**TOTAL**	42	42

TOTAL OCCUPANT LOAD = [CALCULATED TRAIN LOAD + PEAK ENTRAINING LOAD]
Use greater of AM or PM Totals for Calculated Train Load

		A.M.	P.M.
	TOTAL	264	264

TOTAL OCCUPANT LOAD FOR CALCULATIONS 264

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

SE Redmond Station | Type: Center Platform | System: Downtown Redmond Link Extension | DATE: 5/14/2018 | DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Platform in less than 4 minutes) — CAPACITY CALCULATIONS
(EXIT LANES AND CAPACITY PROVIDED)

ELEMENT	NUMBER	X INCHES	x pim	= CAPACITY
PLATFORMS, CORRIDORS AND RAMPS				
clear width of path on platform	2	72	2.08	= 300
Doors and Gates				
Gate to trackway	1	36	2.08	= 75
STAIRS AND ESCALATORS				
Public Stair	0	72	1.41	= 0
Exit Stairs	0	66	1.41	= 0
Escalator	0	40	1.41	= 0
			Platform Exit Capacity	375
			(Fractional values are rounded)	

NOTES:
1. In calculating escalator capacity, one escalator per level shall be considered as being out of service.

EMERGENCY EXIT CAPACITY — TEST 1
(EVACUATE PLATFORM IN 4 MINUTES OR LESS)

Fp = (platform exits flow time) = Platform occupancy load / Platform exit capacity
264 / 375 = 0.705 Minutes

PASS

EMERGENCY EXITING CALCULATIONS

Continued

Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

SE Redmond Station | Type: Center Platform | System: Downtown Redmond Link Extension | DATE: 5/14/2018 | DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Station to Point of Safety in less than 6 minutes) — East — TEST 2A
(EVACUATE THE TOTAL OCCUPANT LOAD FROM THE MOST REMOTE POINT ON PLATFORM TO A POINT OF SAFETY IN 6 MINUTES OR LESS)

Walking Time for longest exit route: T= Tp + T1 + T2 + T3 ...
Use 124 FPM for platform, corridors and ramp travel speeds
Use 48 FPM for stairs and escalator travel speeds, use vertical distance
Use 200 FPM for concourse and other areas with lesser pedestrian density

	Feet	FPM	= Minutes
Tp (Walking time on platform)	190	124	= 1.532
T1 (End of platform to ramp)	26	124	= 0.210
T2 (ramp)	30	124	= 0.242
T3 (End of ramp to crossing)	10	124	= 0.081
T4 (at-grade track crossing)	26	124	= 0.210
T5 (Crossing to point of safety)	84	200	= 0.420
T (walking time for longest exit route to point of safety)			2.694

Waiting time at platform exits: Wp = Fp - Tp
Fp = Platform exits flow time
Tp = Walking time on platform

Platform exits flow time		Walking time on platform		Maximum wait time
Wp = 0.705	-	1.532	=	0.000 Minutes

Total Exit Time = T+W$_p$
to Point of Safety
T = walking time for longest exit route
Wp = Waiting time at platform exits

Walking time for longest exit route		Waiting time at platform exits		Total exit time
= 2.694	+	0.000	=	2.694 Minutes

Total Exit Time to Point of Safety — EVACUATION TIME LESS THAN 6 MINUTES- PASS

No.	DATE	DSN	CHK	APP	REVISION		

CONCEPTUAL DESIGN

FINAL

DESIGNED BY:	M. WYLLIE
DRAWN BY:	A. KHWAJA
CHECKED BY:	M. WIND
APPROVED BY:	L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY:	DATE:	REVIEWED BY:	DATE:
BRAD PHILLIPS	09/24/2018		

SCALE:	1" = 20'-0"
FILENAME:	RLE_E29_A.rvt
CONTRACT No.:	CN 0148-18
SUBMITTAL DATE:	09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

DRAWING NO.:	E29-AZN002
FACILITY ID:	
SHEET No:	361
REV:	

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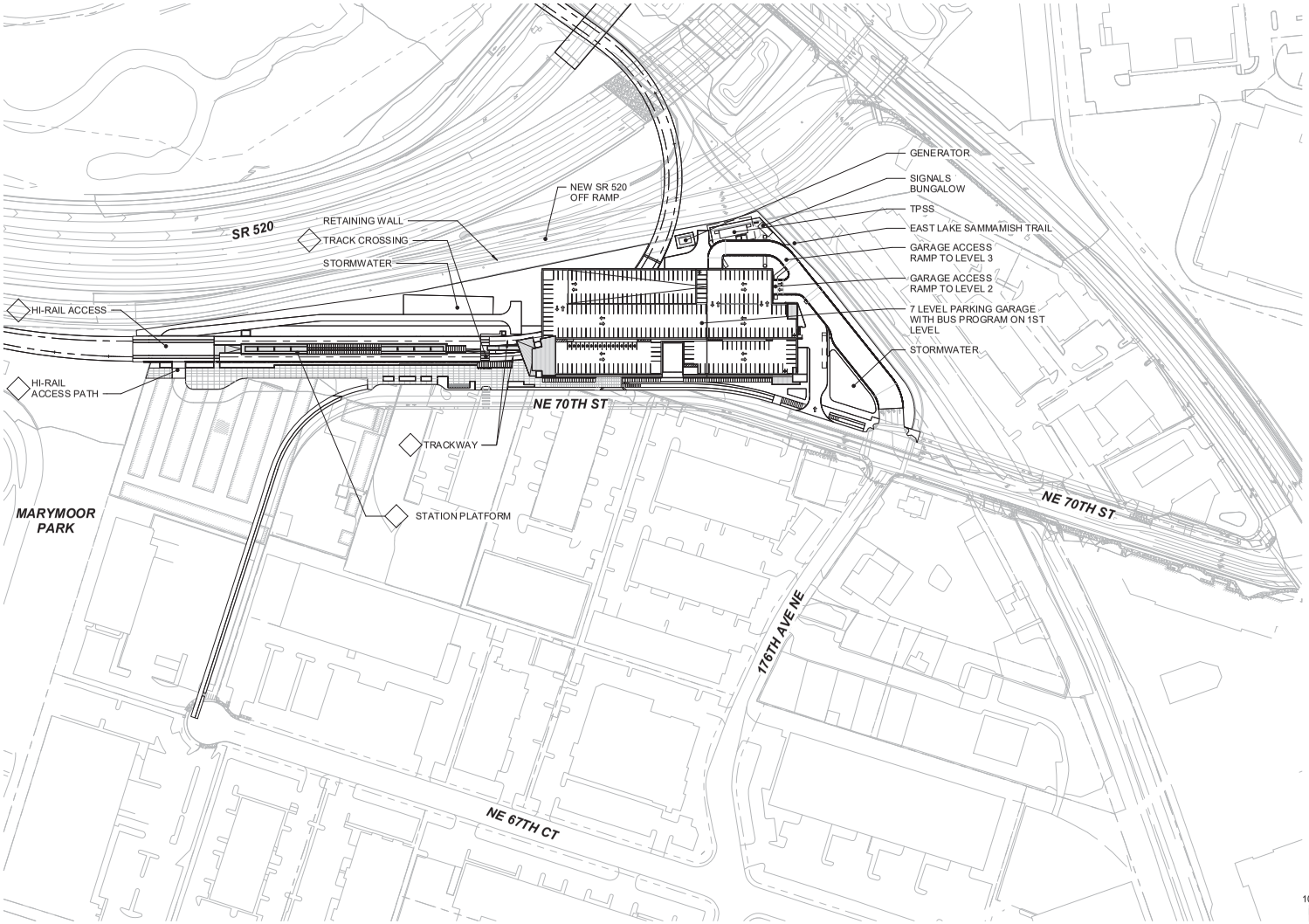

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

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APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

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DATE:

SOUNDTRANSIT

SCALE: 1" = 100'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
ARCHITECTURAL CONTEXT PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AZN100
FACILITY ID:
SHEET No.: 362
REV:

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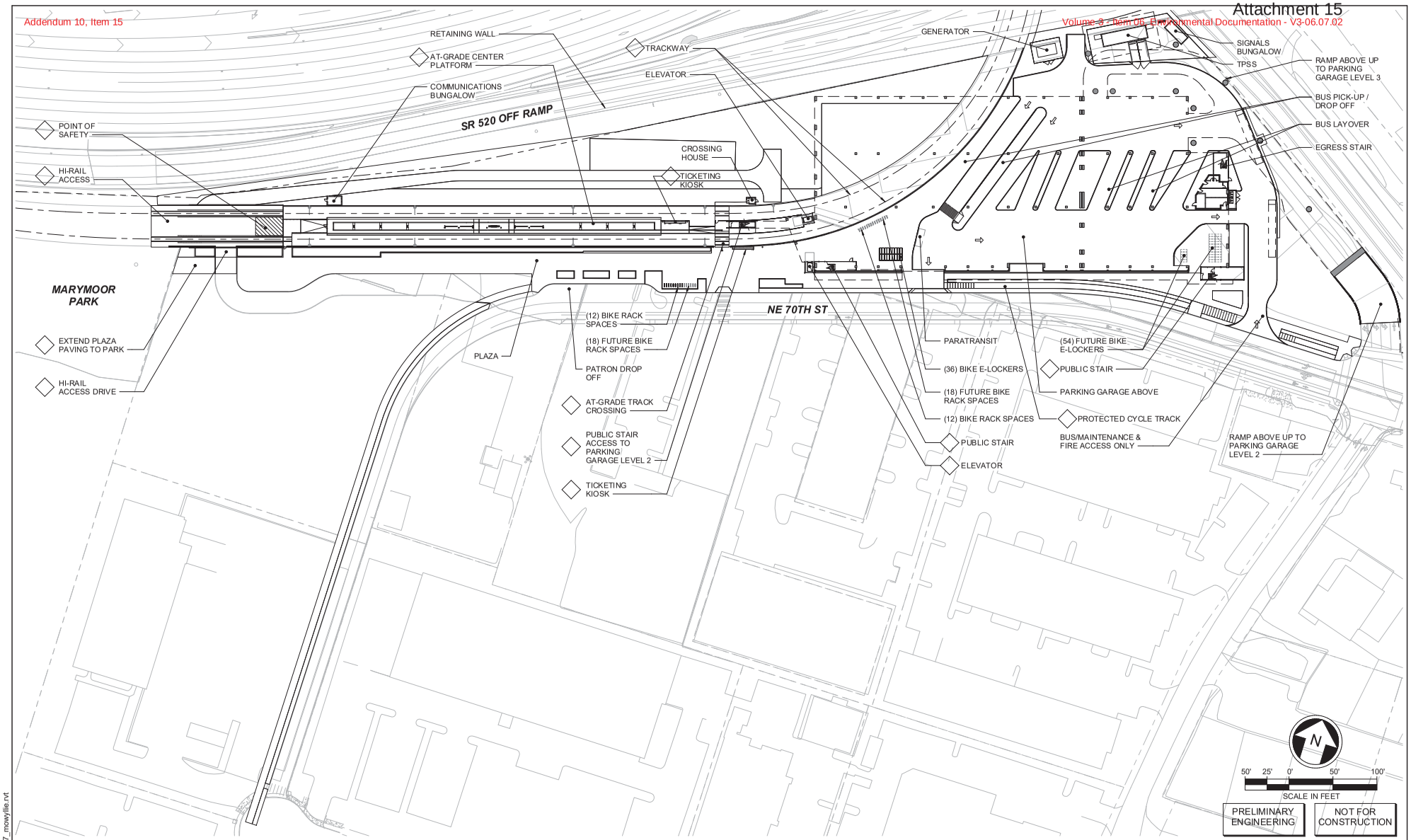

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

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DATE: 09/24/2018
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DATE:

SCALE: 1" = 50'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SE REDMOND STATION - ARCHITECTURAL
ARCHITECTURAL SITE PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-ASP100
FACILITY ID:
SHEET No.: 363
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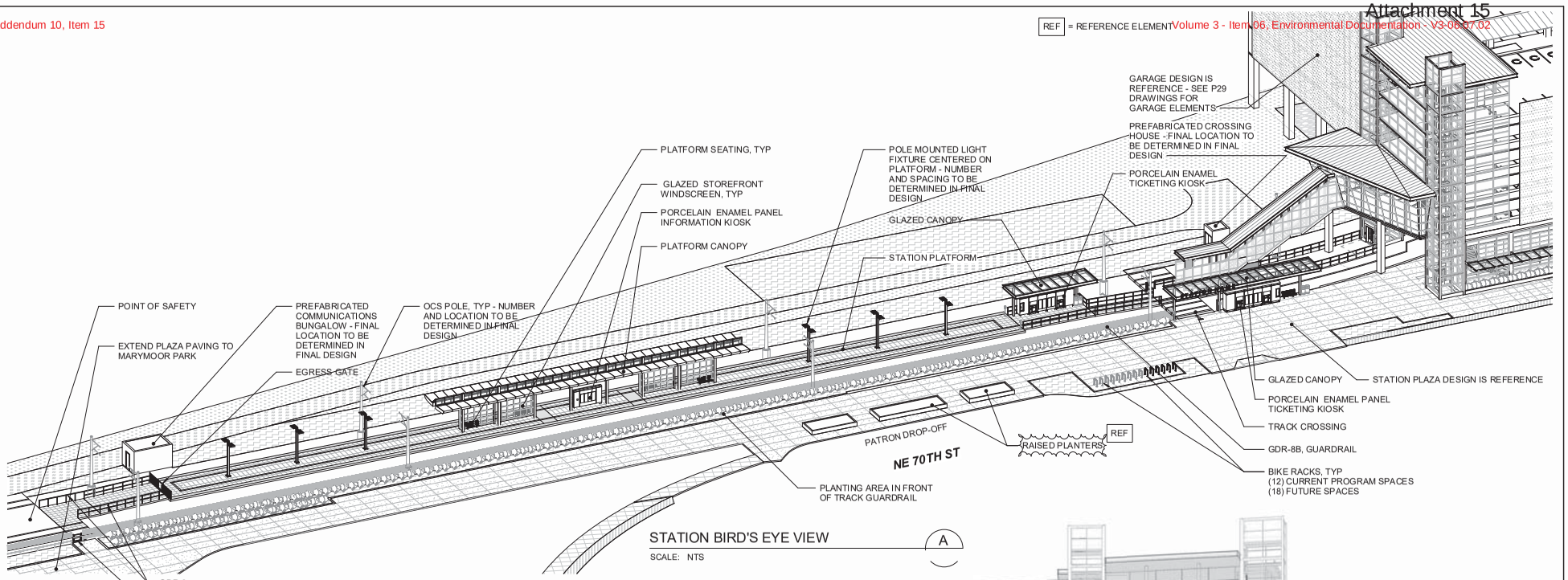
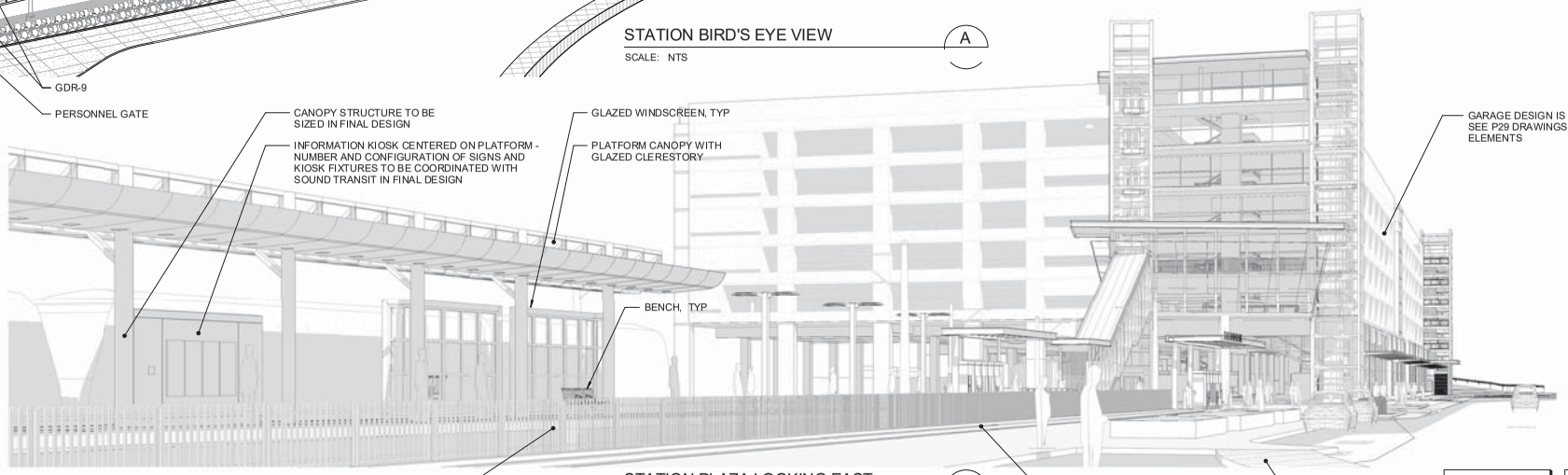


STATION BIRD'S EYE VIEW A

SCALE: NTS



STATION PLAZA LOOKING EAST B

SCALE: NTS

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CONCEPTUAL DESIGN

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APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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DATE:

SCALE: NTS
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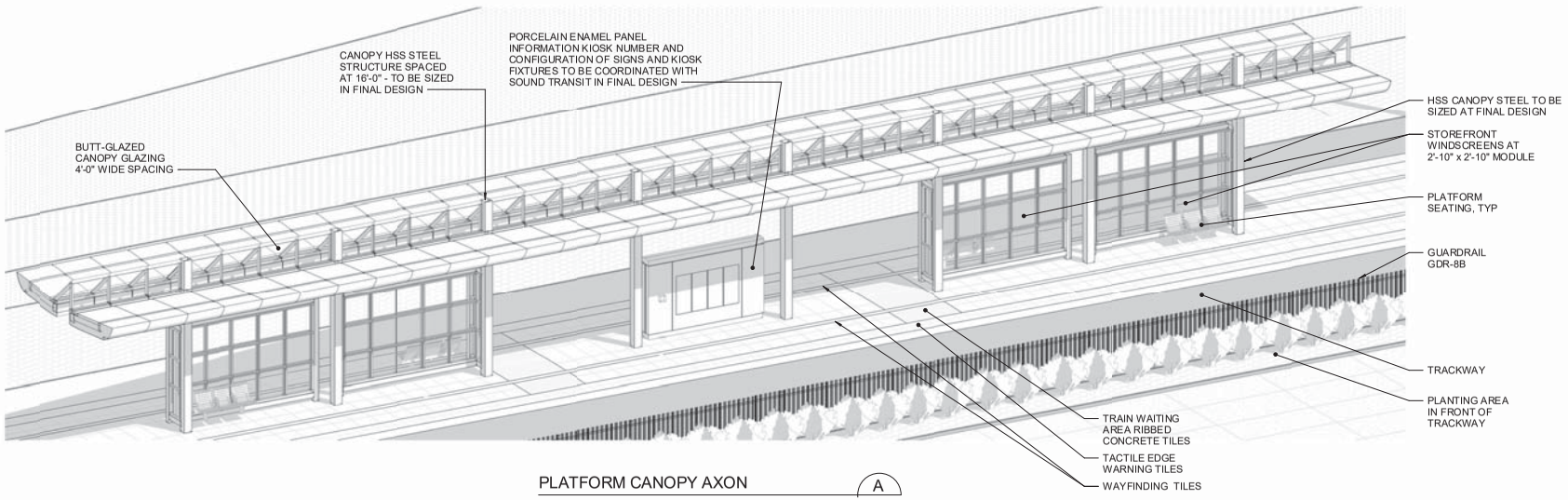
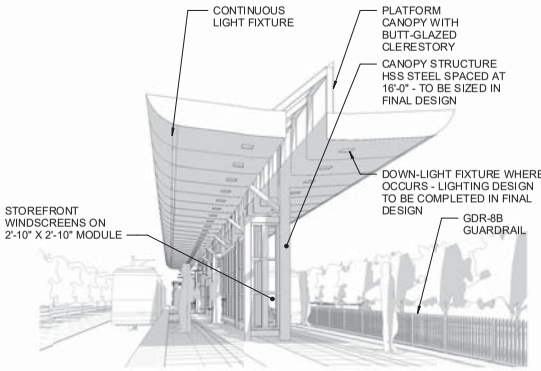
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
STATION AXON AND PERSPECTIVE VIEW
SOUTHEAST REDMOND STATION

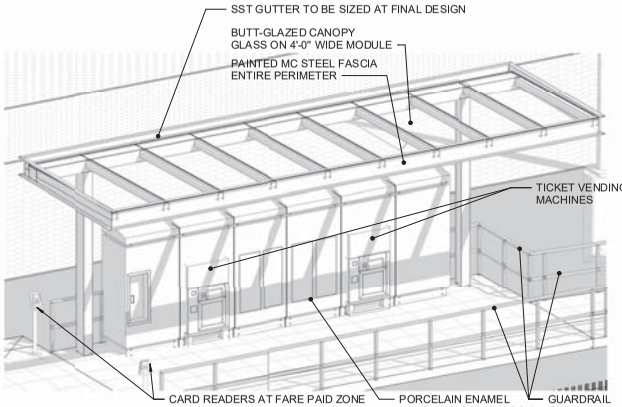
DRAWING NO.: E29-ANS100
FACILITY ID:
SHEET No.: 364
REV:



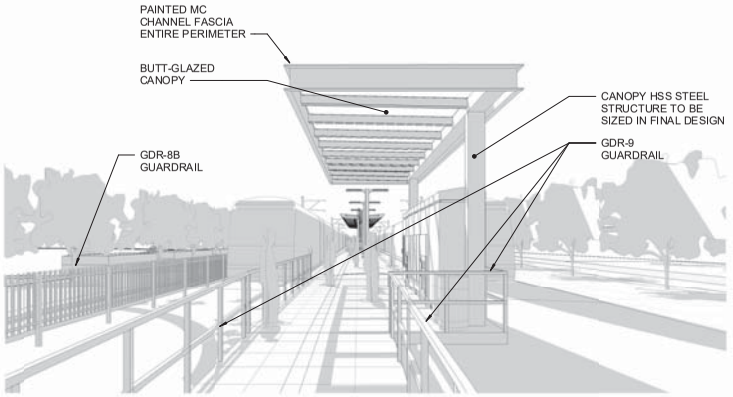
PLATFORM CANOPY AXON (A)
SCALE: NTS



PLATFORM LOOKING WEST (B)
SCALE: NTS



TICKETING KIOSK CANOPY AXON (C)
SCALE: NTS



CROSSING LOOKING WEST AT TICKETING KIOSK (D)
SCALE: NTS

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

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CONCEPTUAL DESIGN

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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

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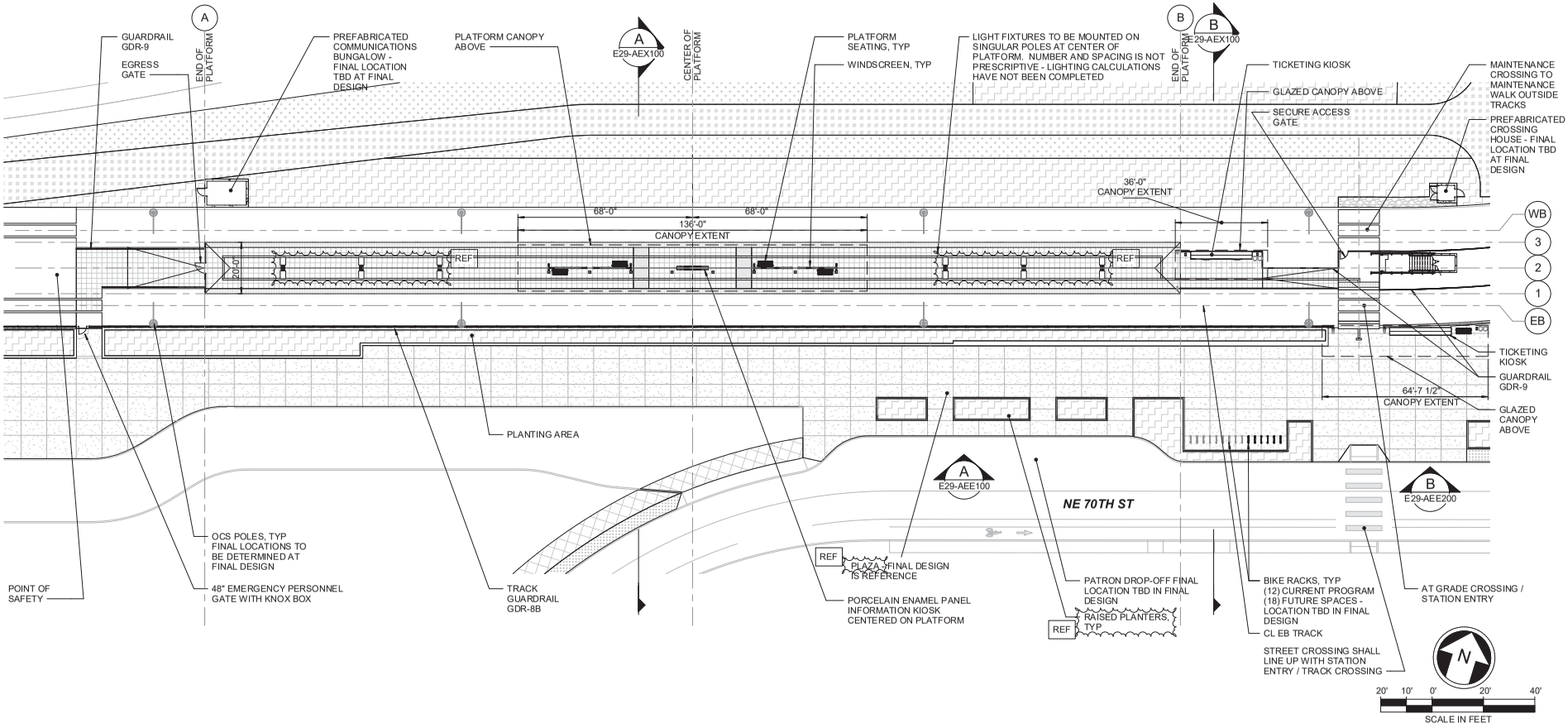
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
CANOPY AXONS
SOUTHEAST REDMOND STATION

DRAWING NO.: **E29-ANS200**
FACILITY ID:
SHEET No: 365
REV:

REF = REFERENCE ELEMENT



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
OVERALL PLAN-PLAZA LEVEL
SOUTHEAST REDMOND STATION

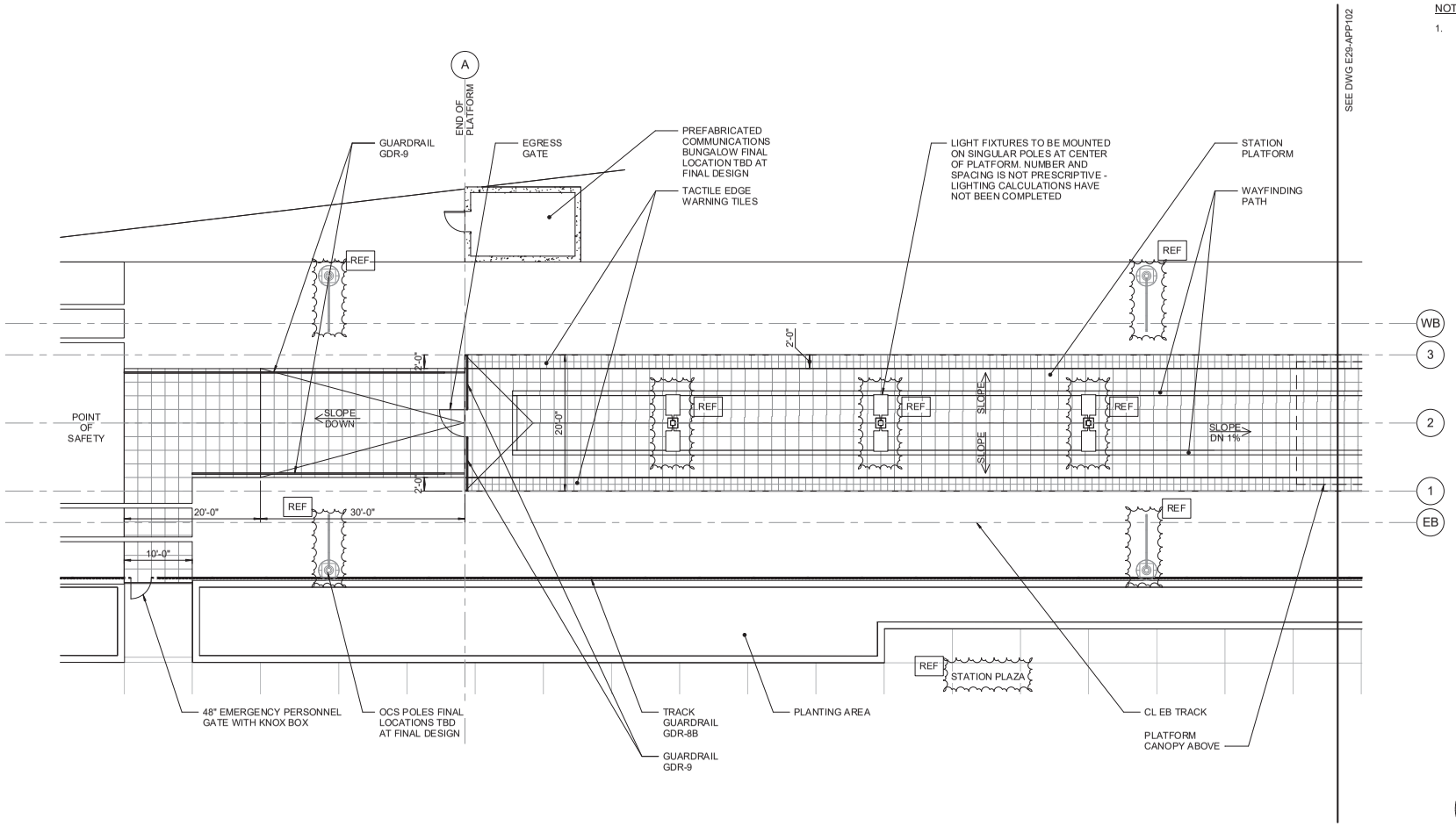
DRAWING NO.: E29-APP100
FACILITY ID:
SHEET No.: 366
REV:

10/14/2018 10:04:13 AM
C:\Temp\RLE_E29_A-R17_mowyllie.rvt

REF = REFERENCE ELEMENT

NOTES:

1. STATION PLAZA FINAL DESIGN IS REFERENCE.



10' 5' 0' 10' 20'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-WEST END
SOUTHEAST REDMOND STATION

DRAWING NO.: **E29-APP101**
FACILITY ID:
SHEET No: 367
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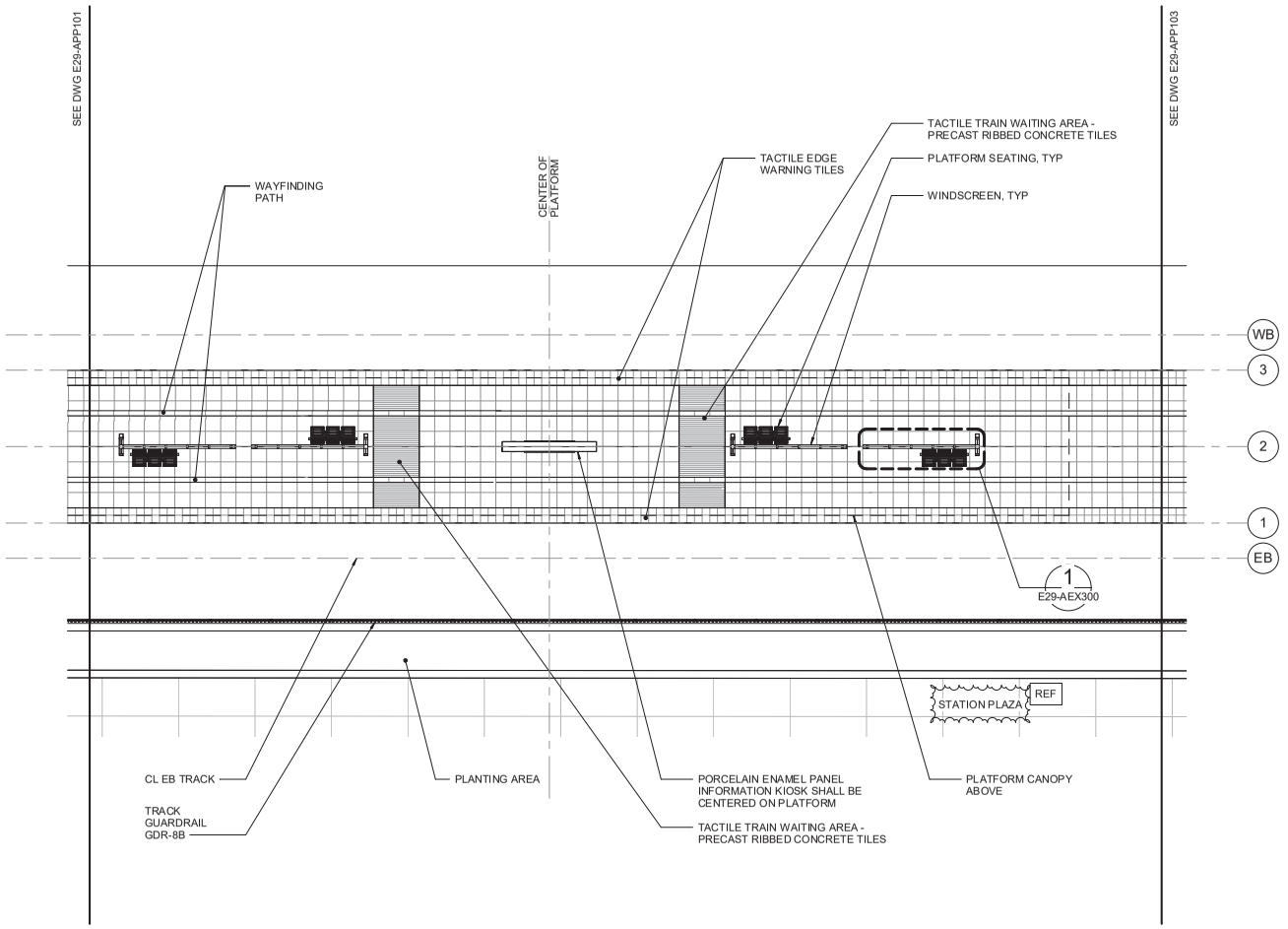

NOTES:

1. STATION PLAZA FINAL DESIGN IS REFERENCE.

N

10' 5' 0' 10' 20'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-CENTRAL
SOUTHEAST REDMOND STATION

DRAWING NO.: **E29-APP102**
FACILITY ID:
SHEET No.: 368
REV:

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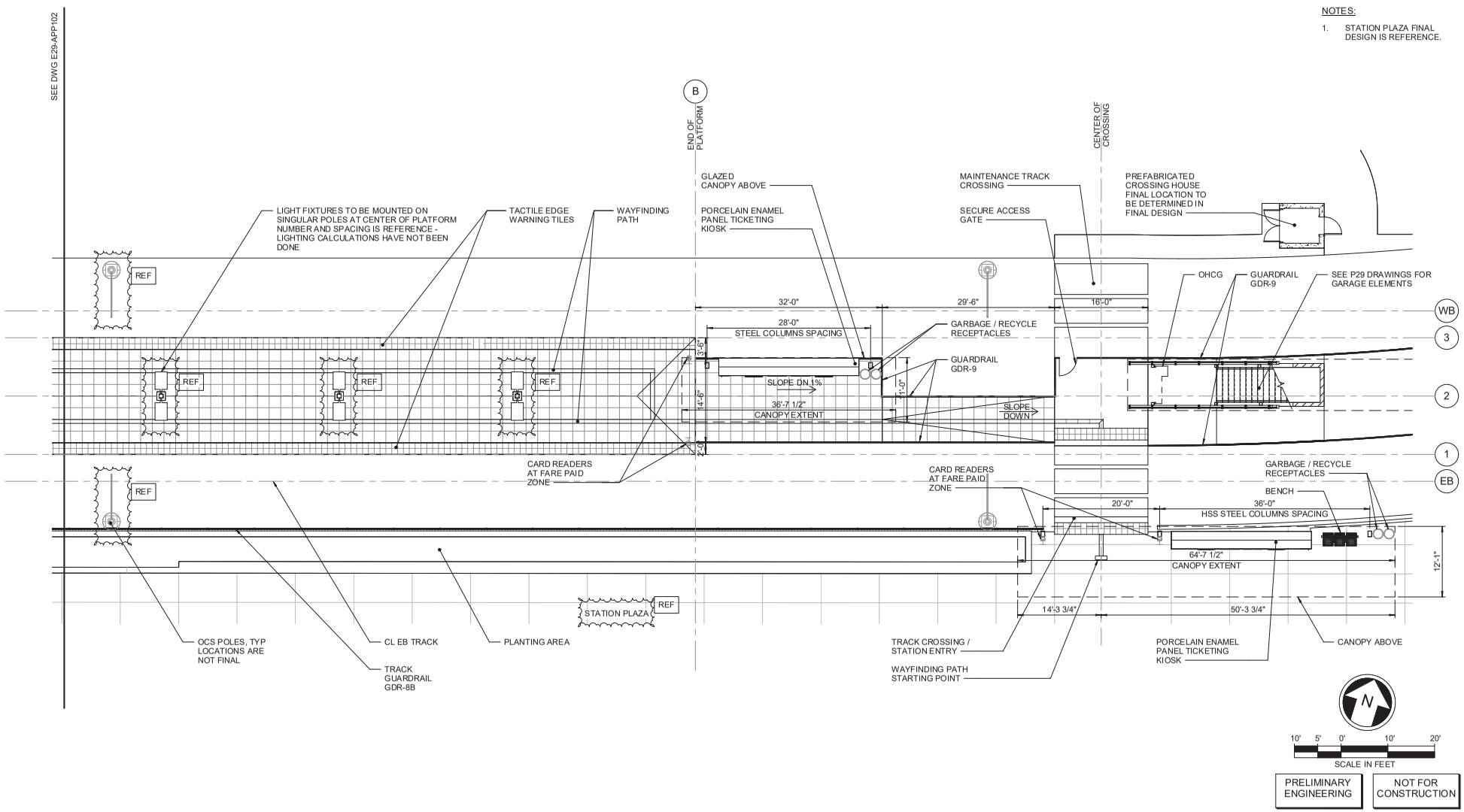

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-EAST END
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-APP103
FACILITY ID:
SHEET No.: 369
REV:

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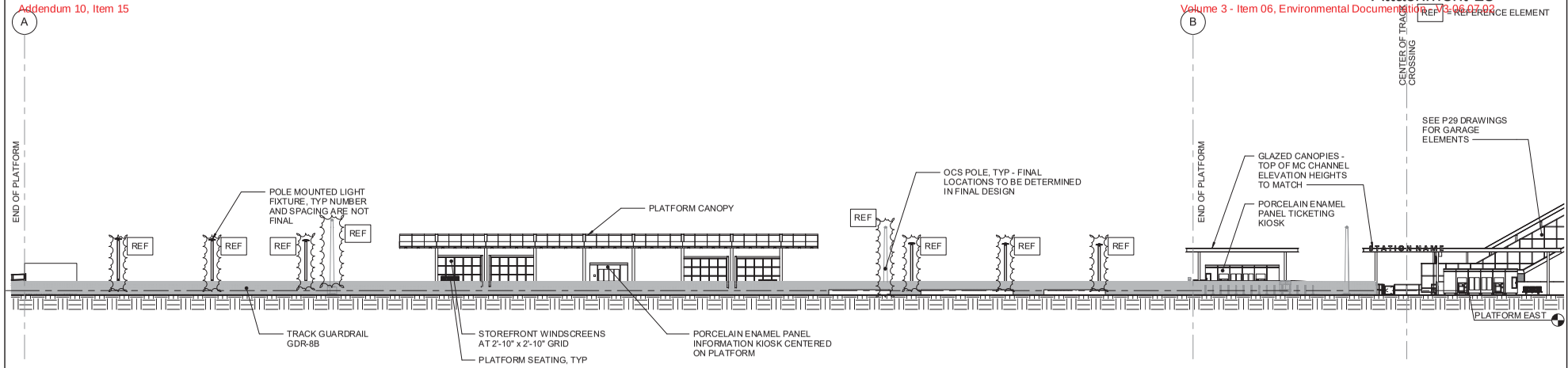
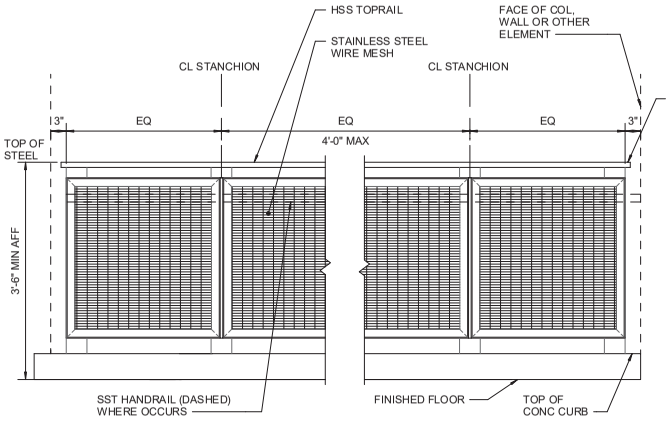
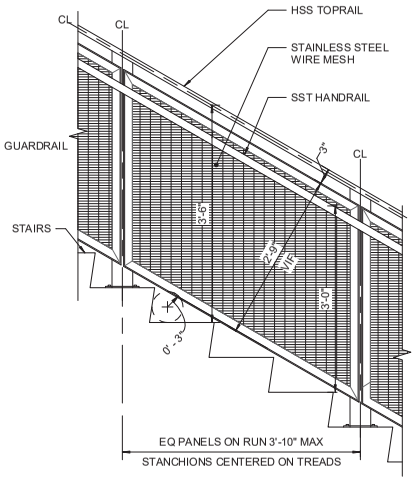


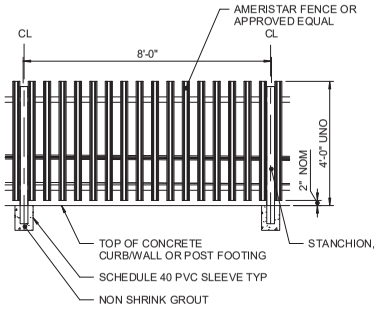
PLATFORM ELEVATION — A — E29-APP100
SCALE: 1/16" = 1'-0"



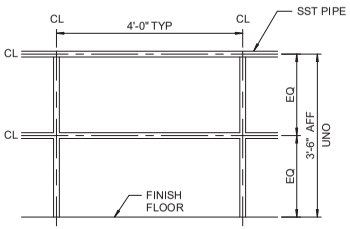
GDR-3 — 11
SCALE: 1" = 1'-0"



GDR-3 ANGLED RUN — 12
SCALE: 1" = 1'-0"



GDR-8B — 13
SCALE: 1/2" = 1'-0"



GDR-9 — 15
SCALE: 3/4" = 1'-0"

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: AS NOTED
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
STATION EXTERIOR ELEVATIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AEE100
FACILITY ID:
SHEET No.: 370
REV:

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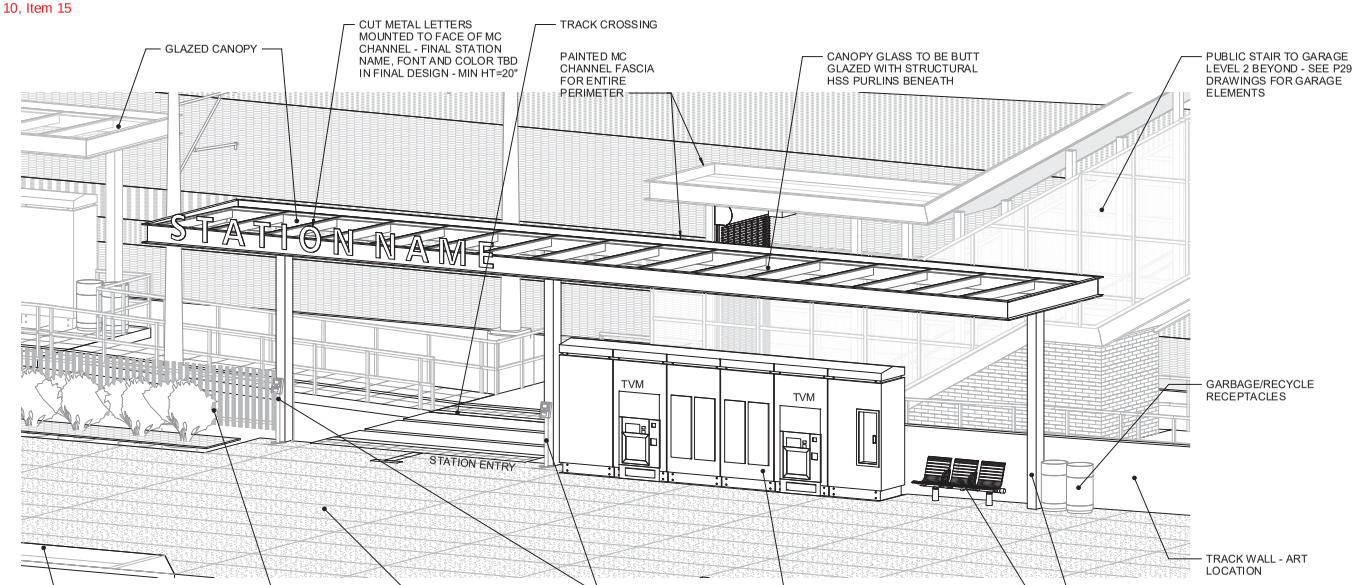
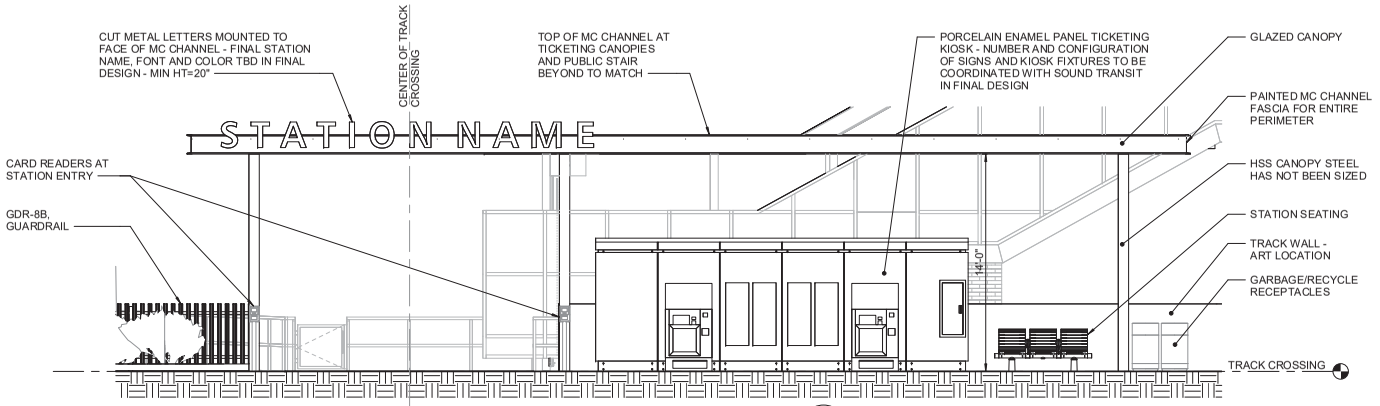


STATION BIRD'S EYE VIEW A
SCALE: NTS



STATION ENTRY ELEVATION B
SCALE: 1/4" = 1'-0"
E29-APP100

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/4" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
CANOPY AXONS
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AEE200
FACILITY ID:
SHEET No: 371
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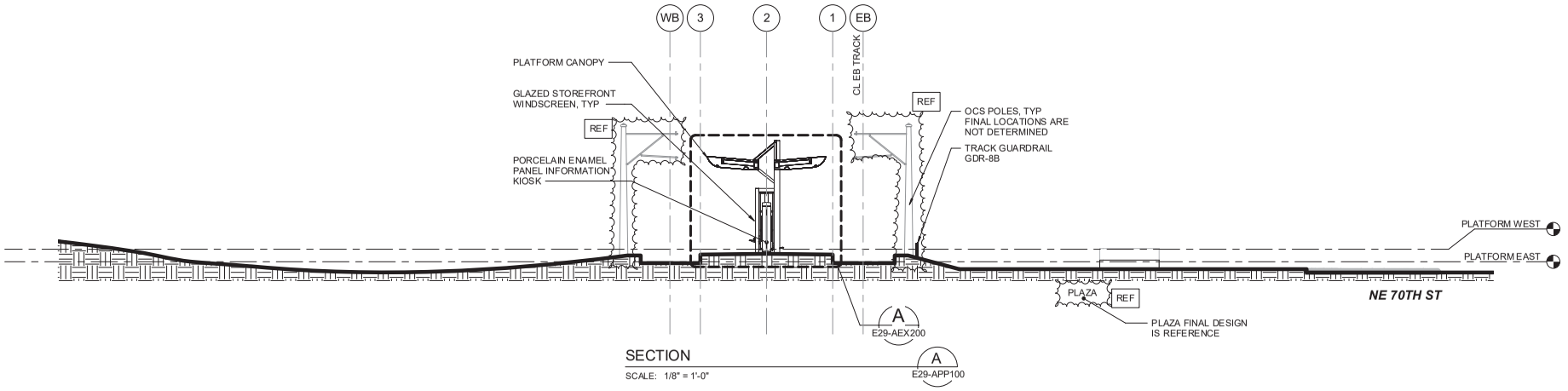

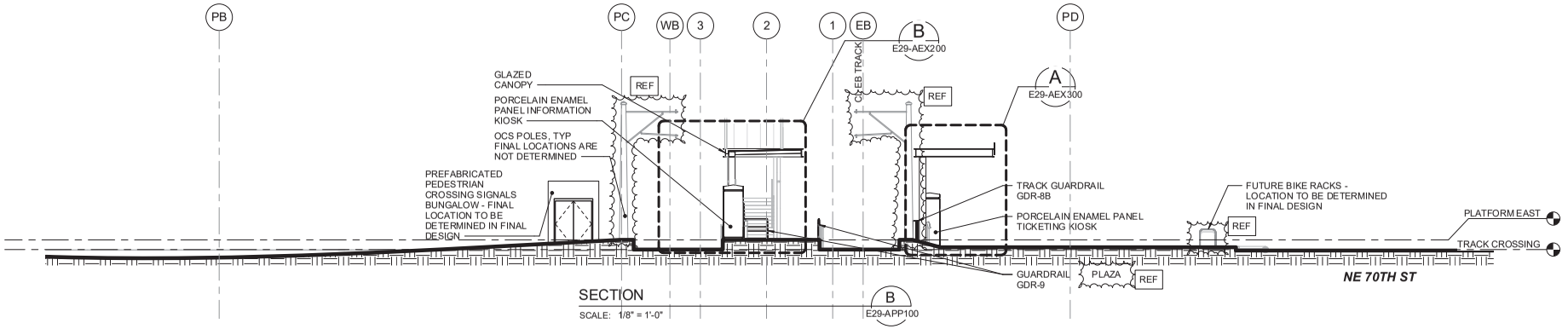

10' 5' 0' 10' 20'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SoundTransit

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
STATION SECTIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AEX100
FACILITY ID:
SHEET No.: 372
REV:

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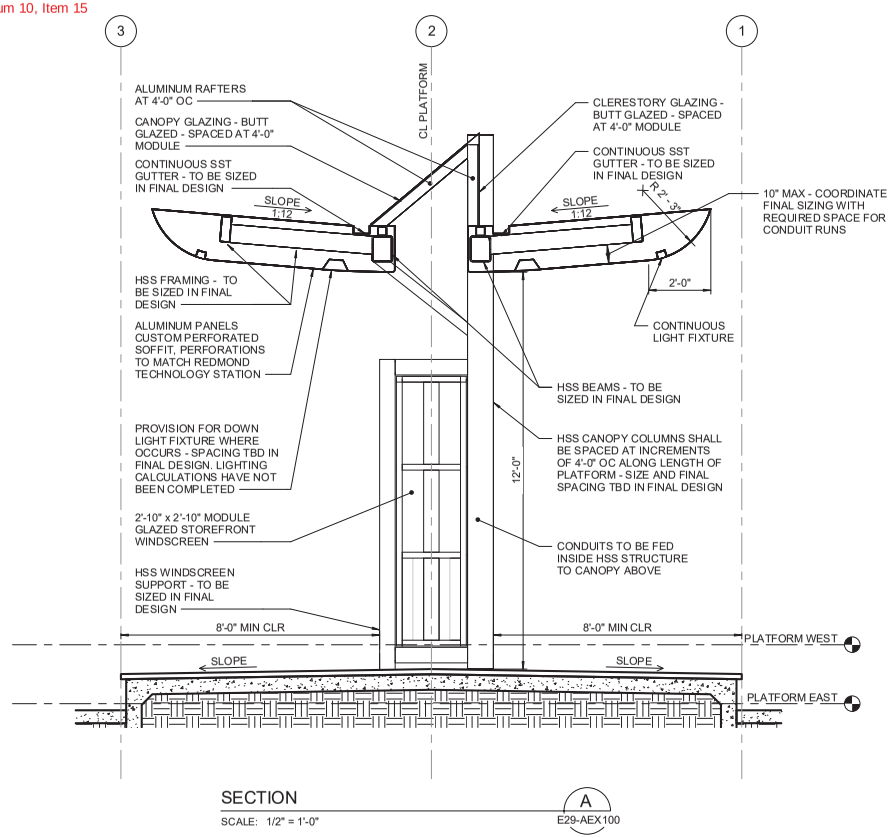
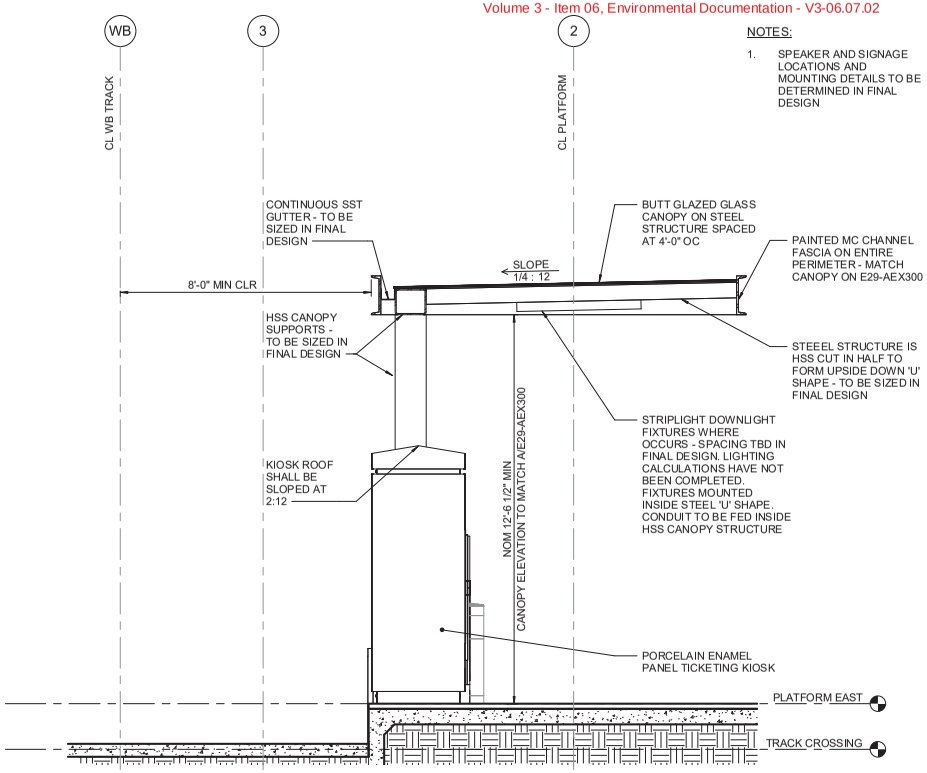


SECTION
SCALE: 1/2" = 1'-0"
A
E29-AEX100



SECTION
SCALE: 1/2" = 1'-0"
B
E29-AEX100

10' 5' 0' 10' 20'
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

10/14/2018 10:01:48 AM
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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

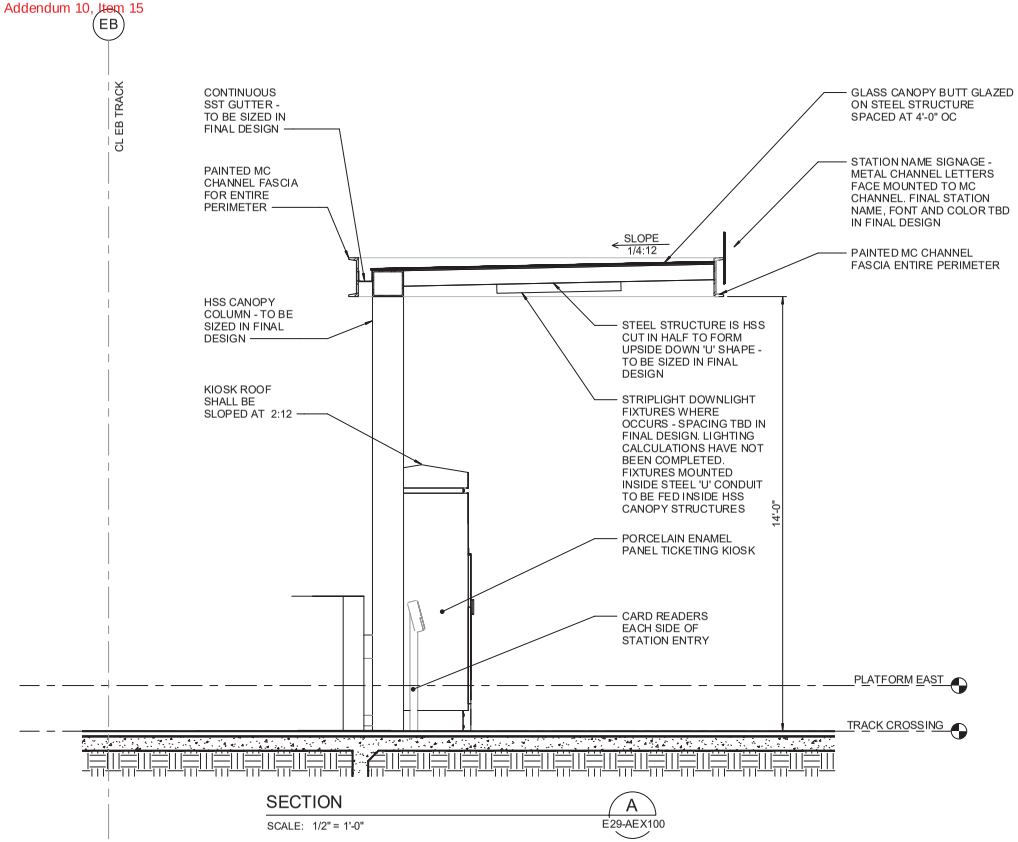
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/2" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
CANOPY SECTIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AEX200
FACILITY ID:
SHEET No.: 373
REV:

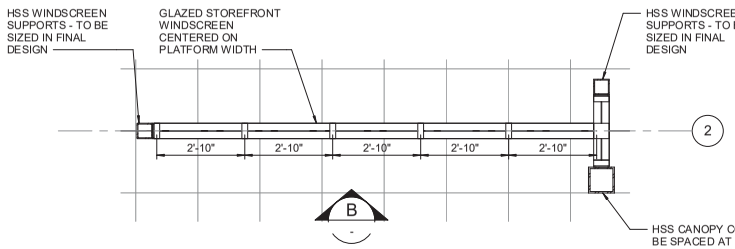


SECTION A E29-AEX100

SCALE: 1/2" = 1'-0"

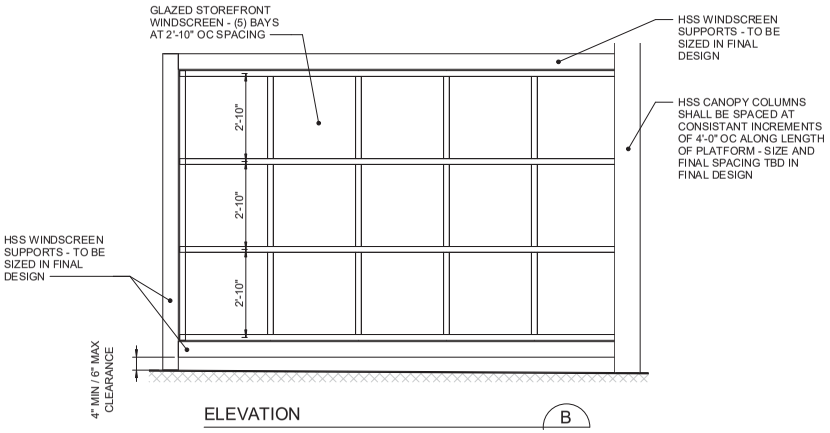
NOTES:

1. SPEAKER AND SIGNAGE LOCATIONS AND MOUNTING DETAILS TO BE DETERMINED IN FINAL DESIGN



PLAN 1 E29-APP102

SCALE: 1/2" = 1'-0"



ELEVATION B -

SCALE: 1/2" = 1'-0"

10' 5' 0' 10' 20'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SoundTransit

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1/2" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CANOPY SECTIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: E29-AEX300
FACILITY ID:
SHEET No: 374
REV:

10/14/2018 10:01:50 AM
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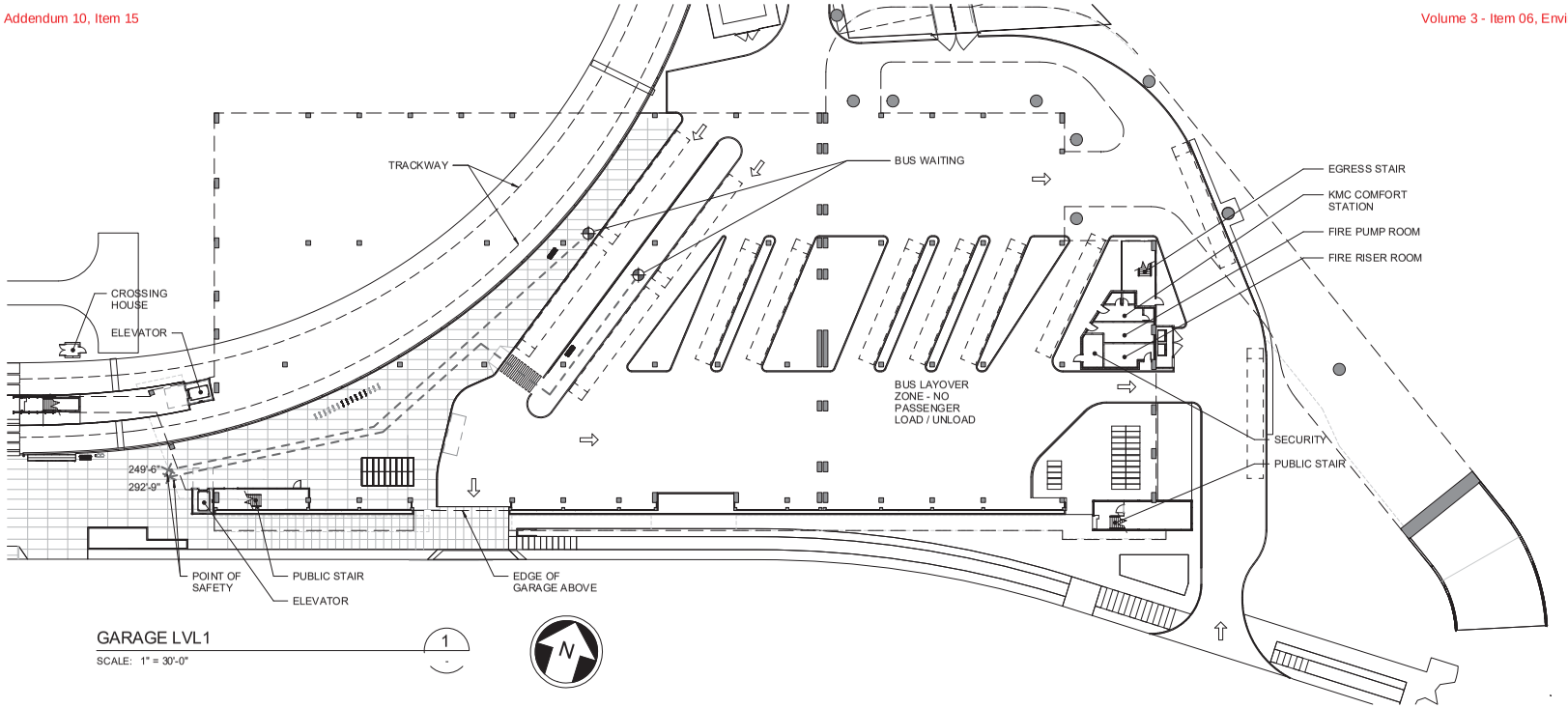

GARAGE LVL1

SCALE: 1" = 30'-0"

GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
BUS PARKING	53,627 SF	PARKING GARAGE	200 SF	269
BUS WAITING	12,575 SF	ASSEMBLY - WAITING	15 SF	839
FIRE PUMP	331 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
FIRE RISER ROOM	326 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
KCM COMFORT STATION	359 SF	BUSINESS AREA	100 SF	4
SECURITY	204 SF	BUSINESS AREA	100 SF	3

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
FIRE PUMP	2	0.30"	42" Door
FIRE RISER ROOM	2	0.30"	42" Door
KCM COMFORT STATION	4	0.60"	36" Door
SECURITY	3	0.15"	36" Door

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 30'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

DRAWING NO.: P29-AZN001
FACILITY ID:
SHEET No.: 375
REV:

10/14/2018 10:09:16 AM
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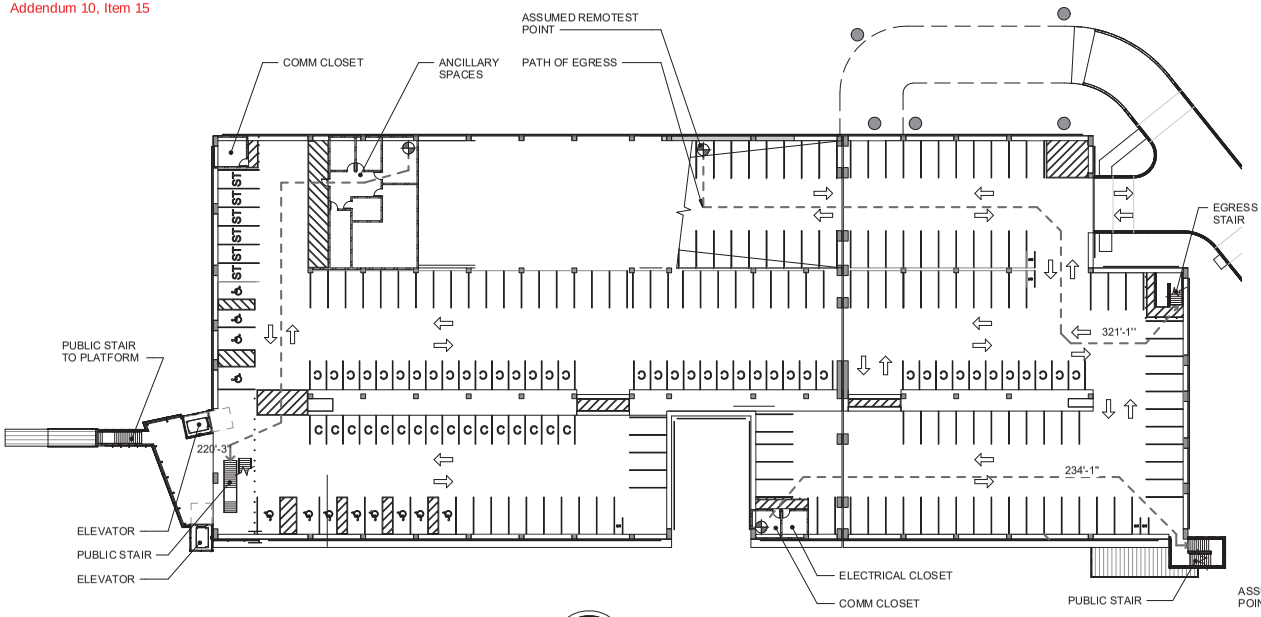


GARAGE LVL2

SCALE: 1" = 30'-0"

LEVEL 2 EGRESS CALCULATIONS
GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

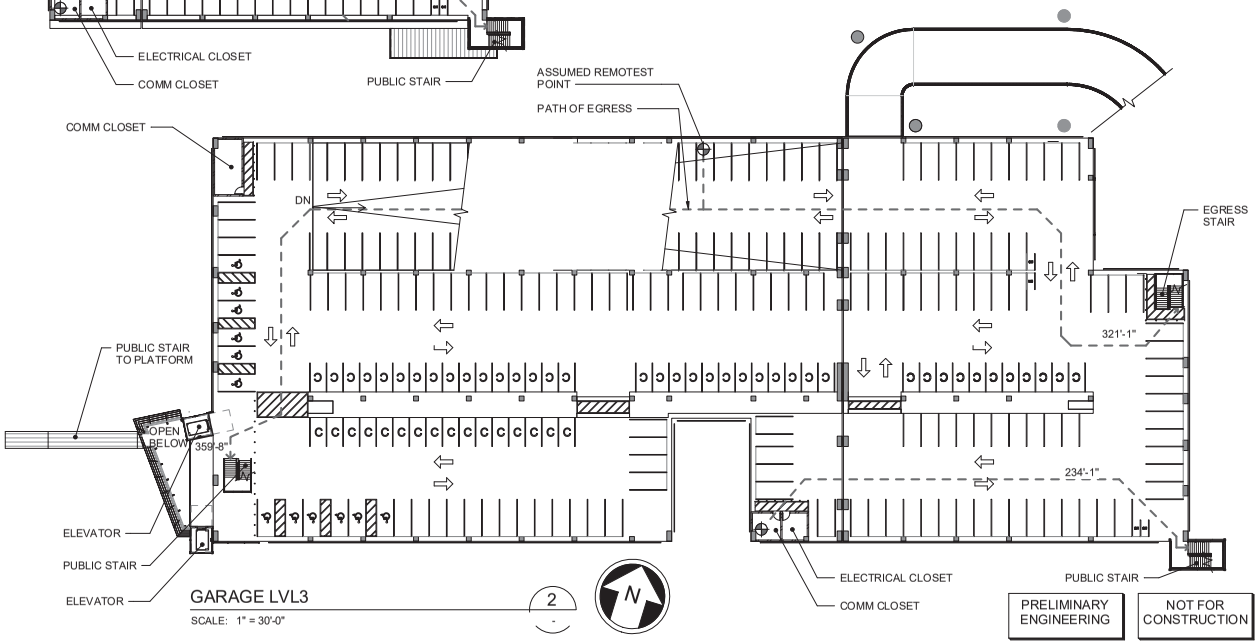
Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
L2 ANCILLARY	2,781 SF	MECHANICAL EQUIPMENT ROOM	300 SF	10
L2 COMM CLOSET 01	260 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L2 COMM CLOSET 02	210 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L2 ELECT CLOSET	189 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L2 PARKING	83,706 SF	PARKING GARAGE	200 SF	419

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
L2 ANCILLARY	10	1.50"	48" Door
L2 COMM CLOSET 01	1	0.15"	42" Door
L2 COMM CLOSET 02	1	0.15"	42" Door
L2 ELECT CLOSET	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 432 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 86.4 IN
PROVIDED: 204 IN



GARAGE LVL3

SCALE: 1" = 30'-0"

LEVEL 3 EGRESS CALCULATIONS
GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
L3 COMM CLOSET 01	408 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
L3 COMM CLOSET 02	210 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L3 ELECT CLOSET	189 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L3 PARKING	85,705 SF	PARKING GARAGE	200 SF	429

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
L3 COMM CLOSET 01	2	0.30"	42" Door
L3 COMM CLOSET 02	1	0.15"	42" Door
L3 ELECT CLOSET	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 433 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 86.6 IN
PROVIDED: 204 IN

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 30'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

DRAWING NO.: P29-AZN002
FACILITY ID:
SHEET No: 376
REV:

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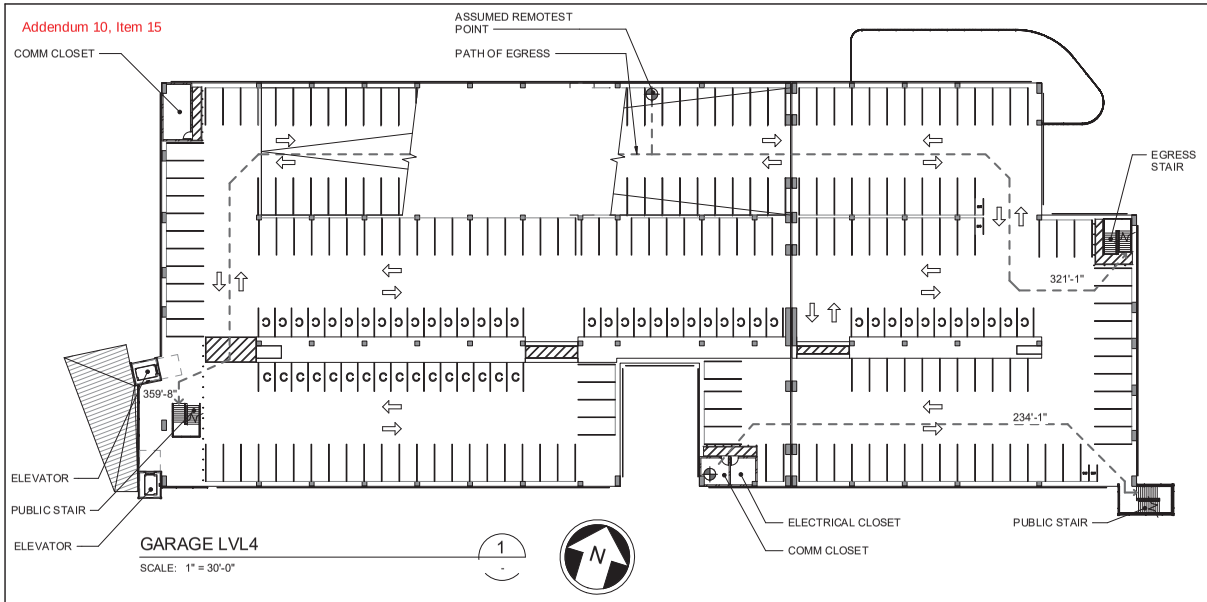
Addendum 10, Item 15



GARAGE LVL4

SCALE: 1" = 30'-0"

LEVEL 4 EGRESS CALCULATIONS
GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

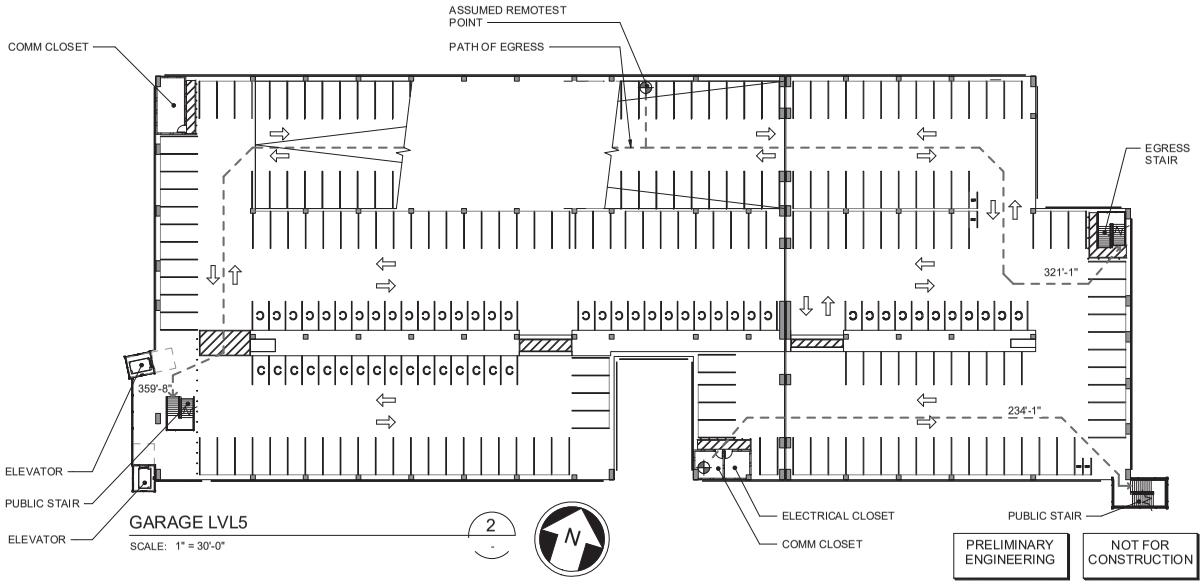
Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
L4 COMM CLOSET 01	408 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
L4 COMM CLOSET 02	210 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L4 ELECT CLOSET	189 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L4 PARKING	85,705 SF	PARKING GARAGE	200 SF	429

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
L4 COMM CLOSET 01	2	0.30"	42" Door
L4 COMM CLOSET 02	1	0.15"	42" Door
L4 ELECT CLOSET	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 433 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 86.6 IN
PROVIDED: 204 IN



GARAGE LVL5

SCALE: 1" = 30'-0"

LEVEL 5 EGRESS CALCULATIONS
GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
L5 COMM CLOSET 01	408 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
L5 COMM CLOSET 02	210 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L5 ELECT CLOSET	189 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L5 PARKING	85,705 SF	PARKING GARAGE	200 SF	429

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
L5 COMM CLOSET 01	2	0.30"	42" Door
L5 COMM CLOSET 02	1	0.15"	42" Door
L5 ELECT CLOSET	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 433 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 86.6 IN
PROVIDED: 204 IN

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SoundTransit

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 30'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

DRAWING NO.: P29-AZN003
FACILITY ID:
SHEET No: 377
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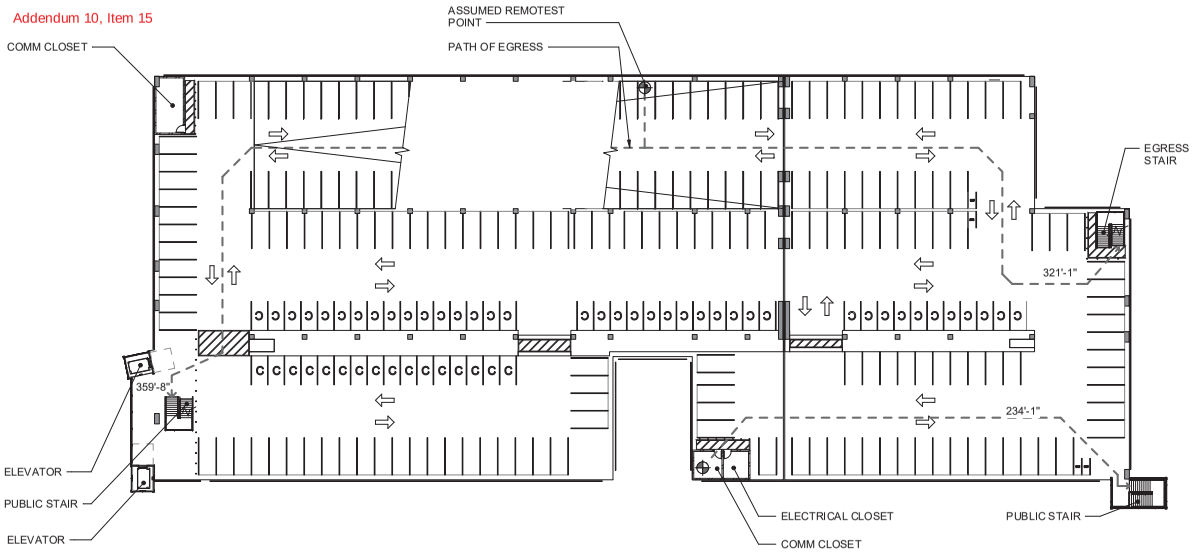
Addendum 10, Item 15



GARAGE L6

SCALE: 1" = 30'-0"

LEVEL 6 EGRESS CALCULATIONS

GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

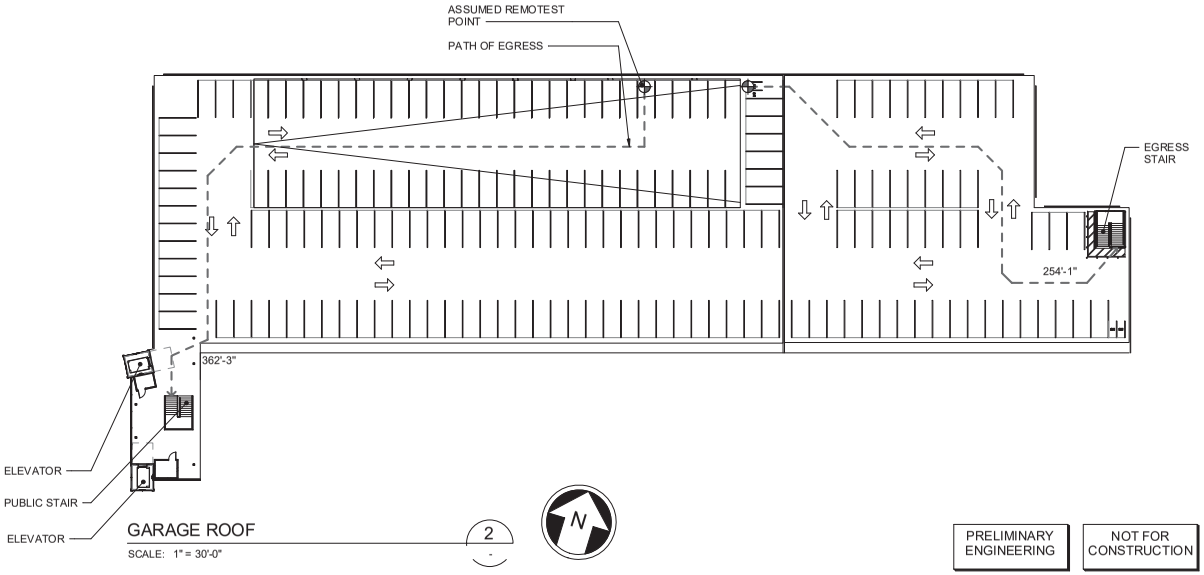
Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
L6 COMM CLOSET 01	408 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
L6 COMM CLOSET 02	210 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L6 ELECT CLOSET	189 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
L6 PARKING	85,705 SF	PARKING GARAGE	200 SF	429

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
L6 COMM CLOSET 01	2	0.30"	42" Door
L6 COMM CLOSET 02	1	0.15"	42" Door
L6 ELECT CLOSET	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 433 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 86.6 IN
PROVIDED: 204 IN



GARAGE ROOF

SCALE: 1" = 30'-0"

GARAGE ROOF EGRESS CALCULATIONS

GARAGE SPACES: THE GARAGE ROOM'S FUNCTION OF SPACE SHALL BE AS LISTED PER TABLE 1004.1.2

Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
ELEVATOR CONTROL RM 01	68 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
ELEVATOR CONTROL RM 02	107 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
PARKING ROOF	61,359 SF	PARKING GARAGE	200 SF	307

IBC 1005 MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
ELEVATOR CONTROL RM 01	1	0.15"	42" Door
ELEVATOR CONTROL RM 02	1	0.15"	42" Door

MEANS OF EGRESS STAIRWAY WIDTH (UTILIZING EXCEPTION 1): OCCUPANT LOAD x EGRESS CAPACITY (FACTOR OF 0.2 IN PER OCCUPANT)

GARAGE STAIRS 309 OCCUPANTS / FLOOR x 0.2 IN PER OCCUPANT = 61.8 IN
PROVIDED: 132 IN

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 30'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

DRAWING NO.: P29-AZN004
FACILITY ID:
SHEET No.: 378
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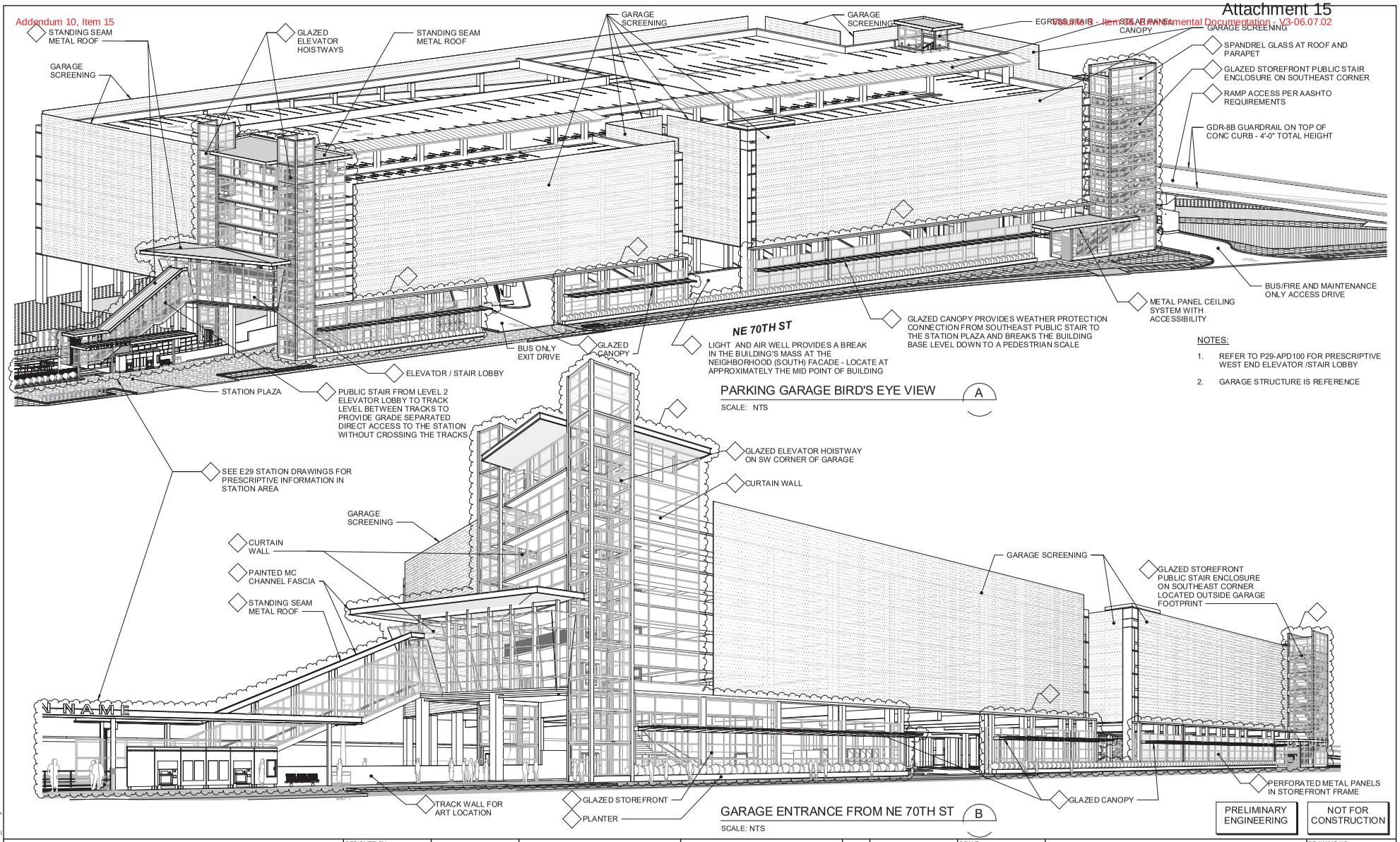

PARKING GARAGE BIRD'S EYE VIEW A
SCALE: NTS

GARAGE ENTRANCE FROM NE 70TH ST B
SCALE: NTS

NOTES:

1. REFER TO P29-APD100 FOR PRESCRIPTIVE WEST END ELEVATOR /STAIR LOBBY
2. GARAGE STRUCTURE IS REFERENCE

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE/REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE AXON AND PERSPECTIVE
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-ANS100
FACILITY ID:
SHEET No.: 379
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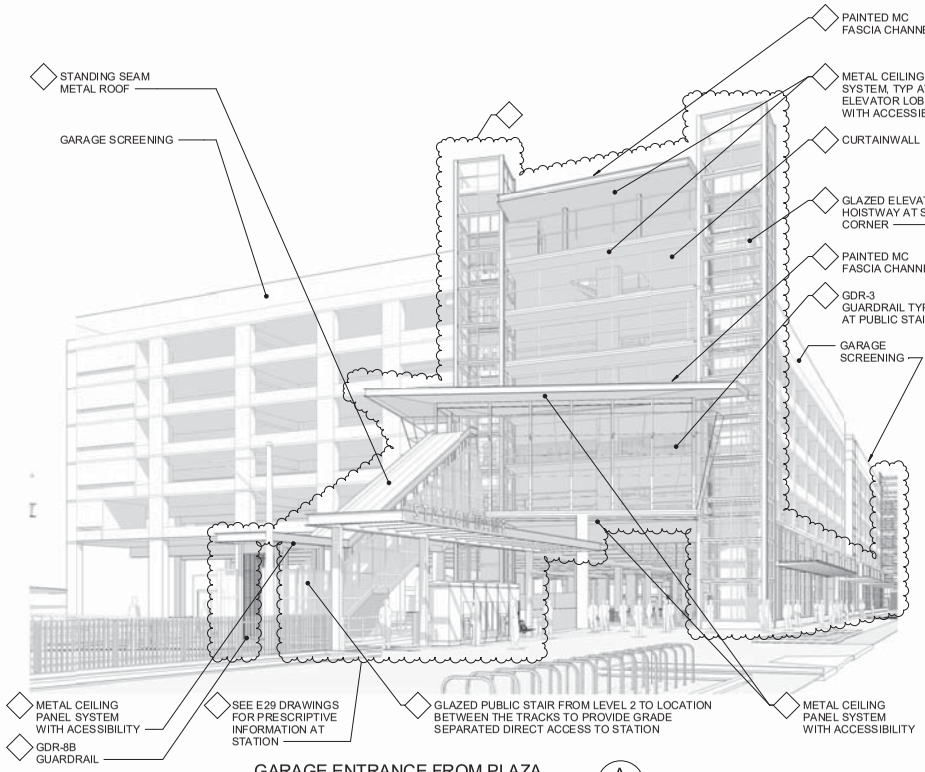
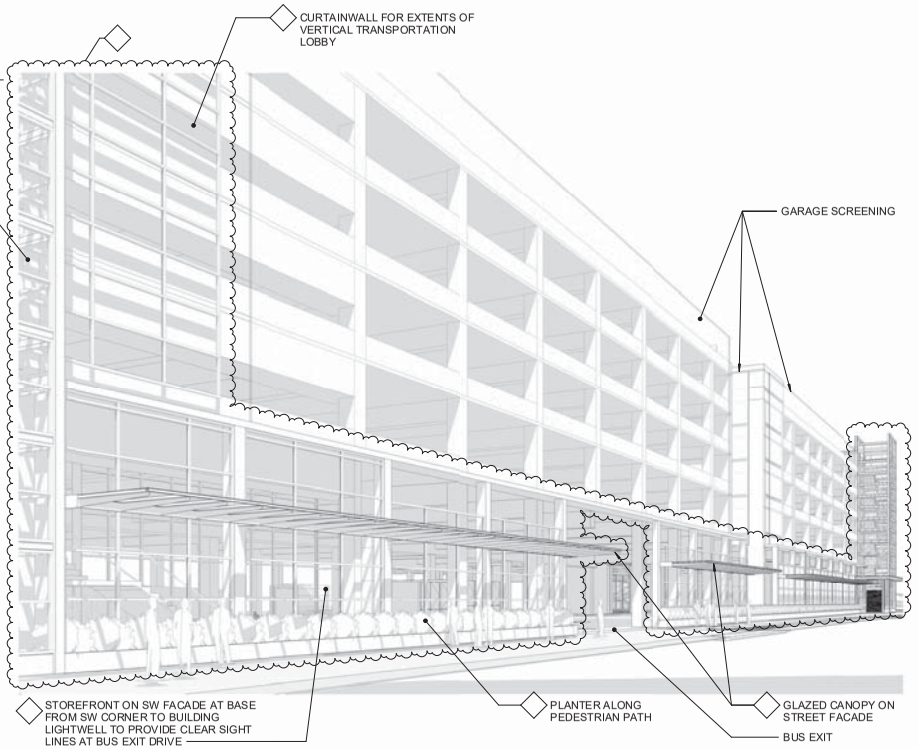
NOTES:

1. REFER TO P29-APD100 FOR PRESCRIPTIVE WEST END ELEVATOR/STAIR LOBBY
2. GARAGE STRUCTURE IS REFERENCE



GARAGE ENTRANCE FROM PLAZA — A

SCALE: NTS



SIDE WALK LOOKING EAST — B

SCALE: NTS

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: NTS
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE PERSPECTIVES
SOUTHEAST REDMOND STATION

DRAWING NO.: **P29-ANS200**
FACILITY ID:
SHEET No.: 380
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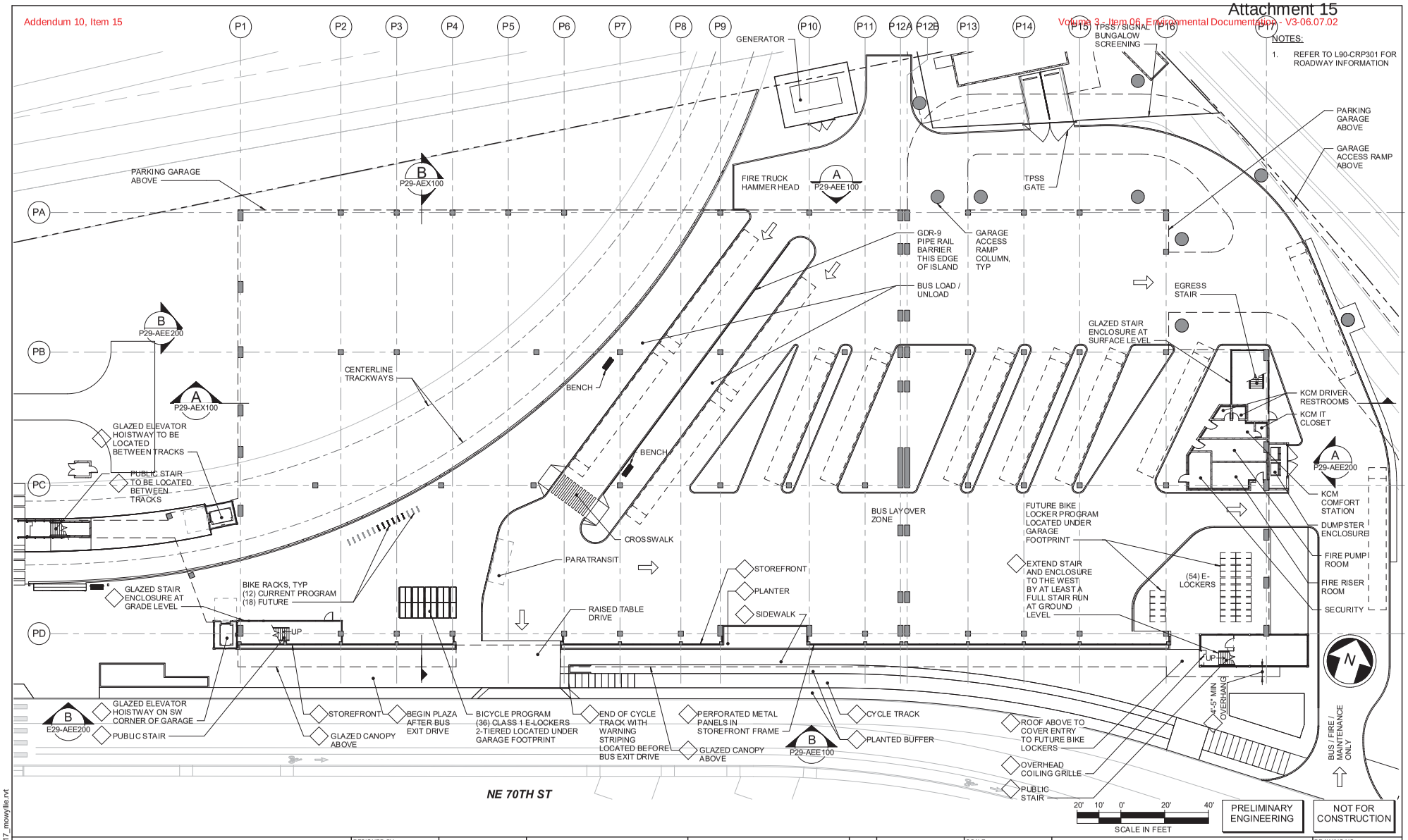

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON
4130

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GRADE LEVEL PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APP101
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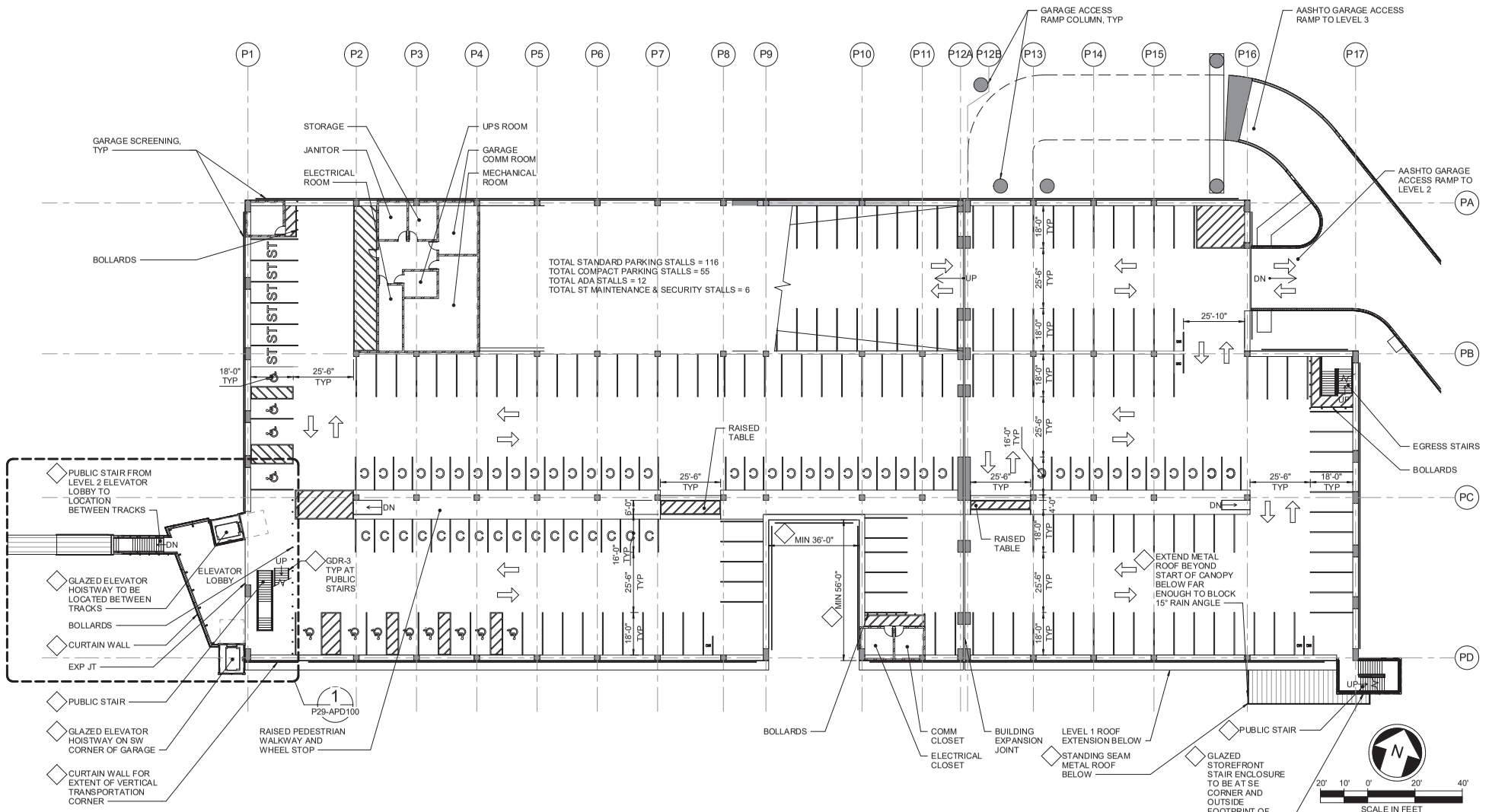

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SoundTransit

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE LEVEL 2 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APP201
FACILITY ID:
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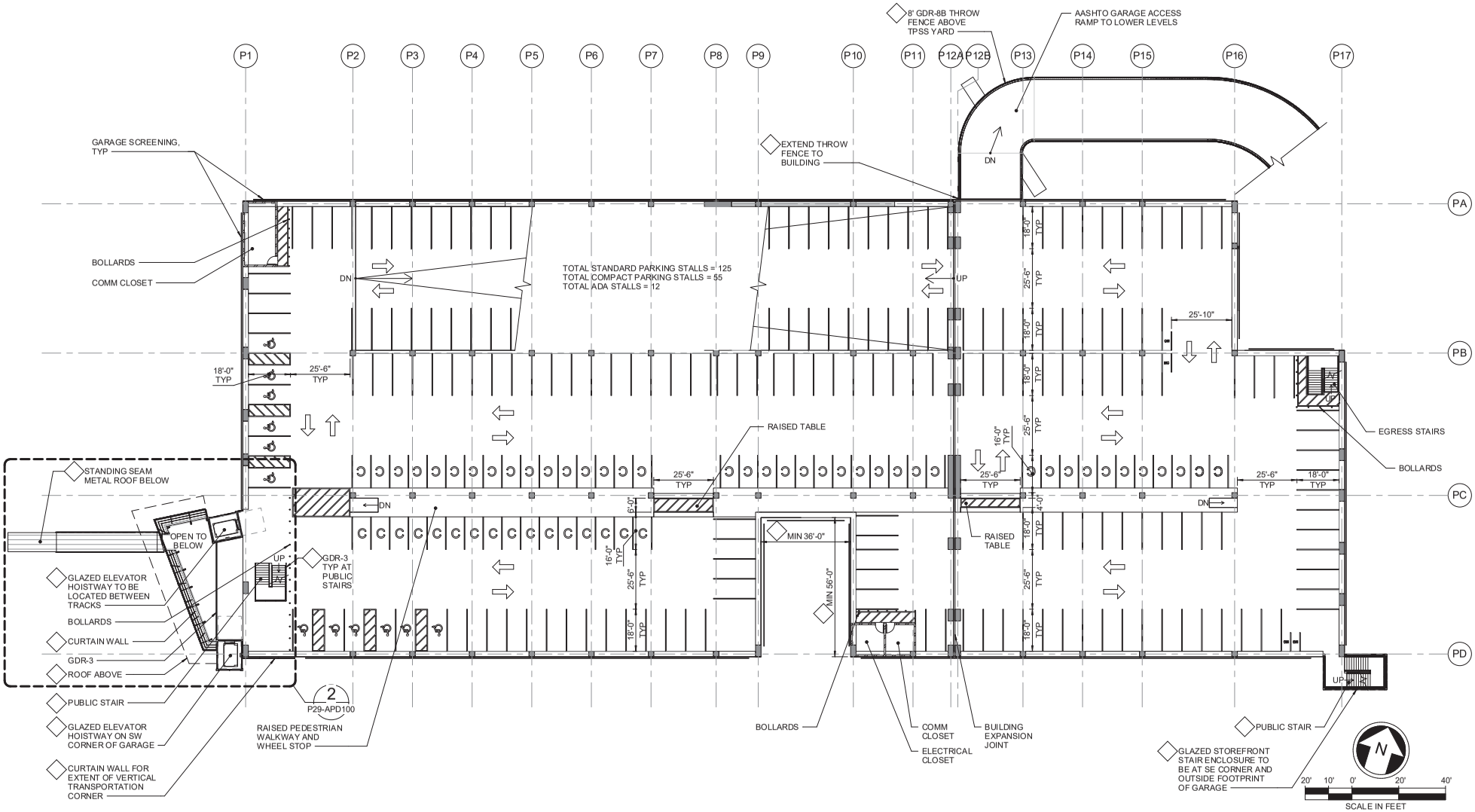

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE LEVEL 3 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APP301
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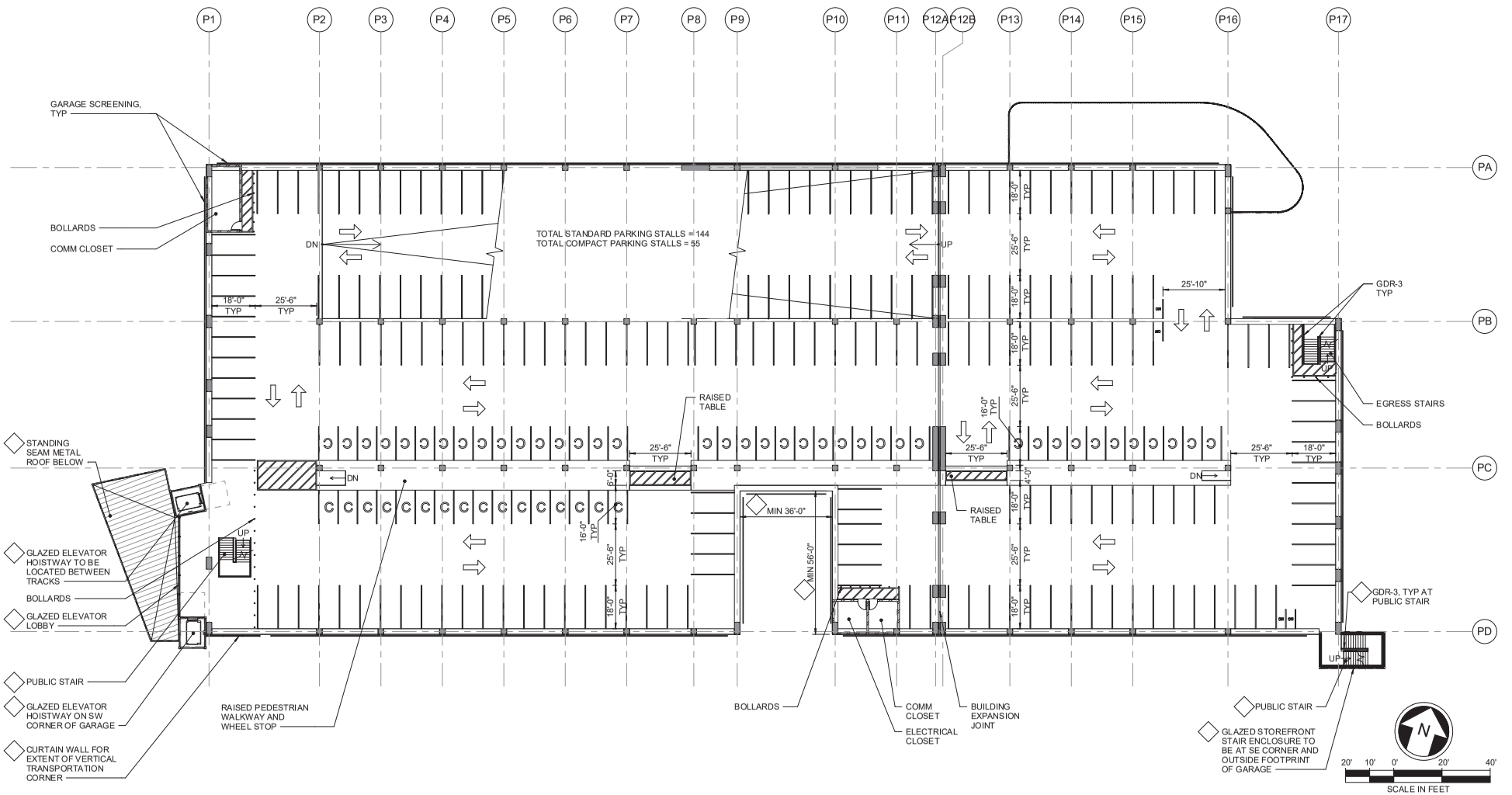

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE LEVEL 4 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: **P29-APP401**
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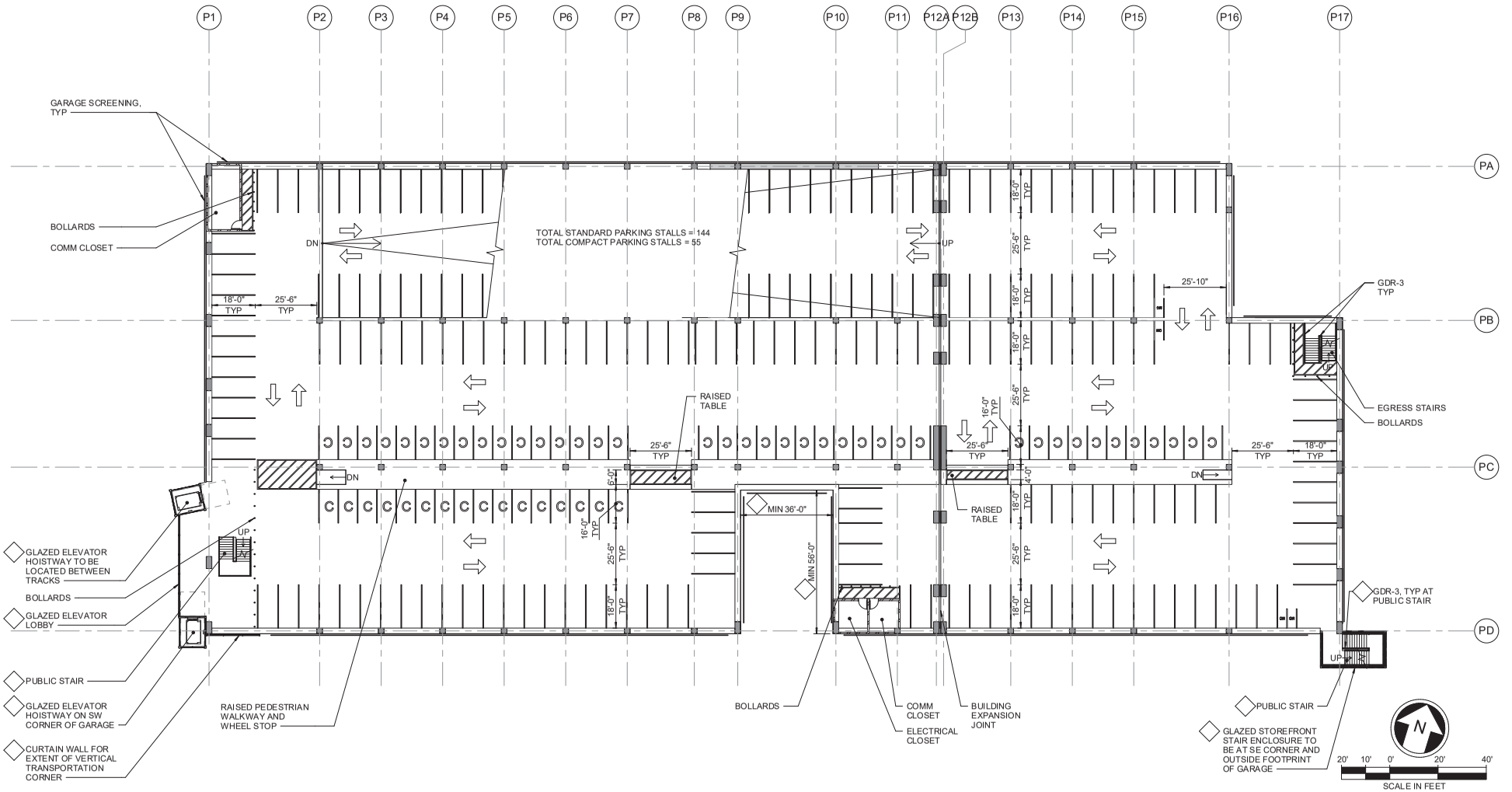

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE LEVEL 5 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APP501
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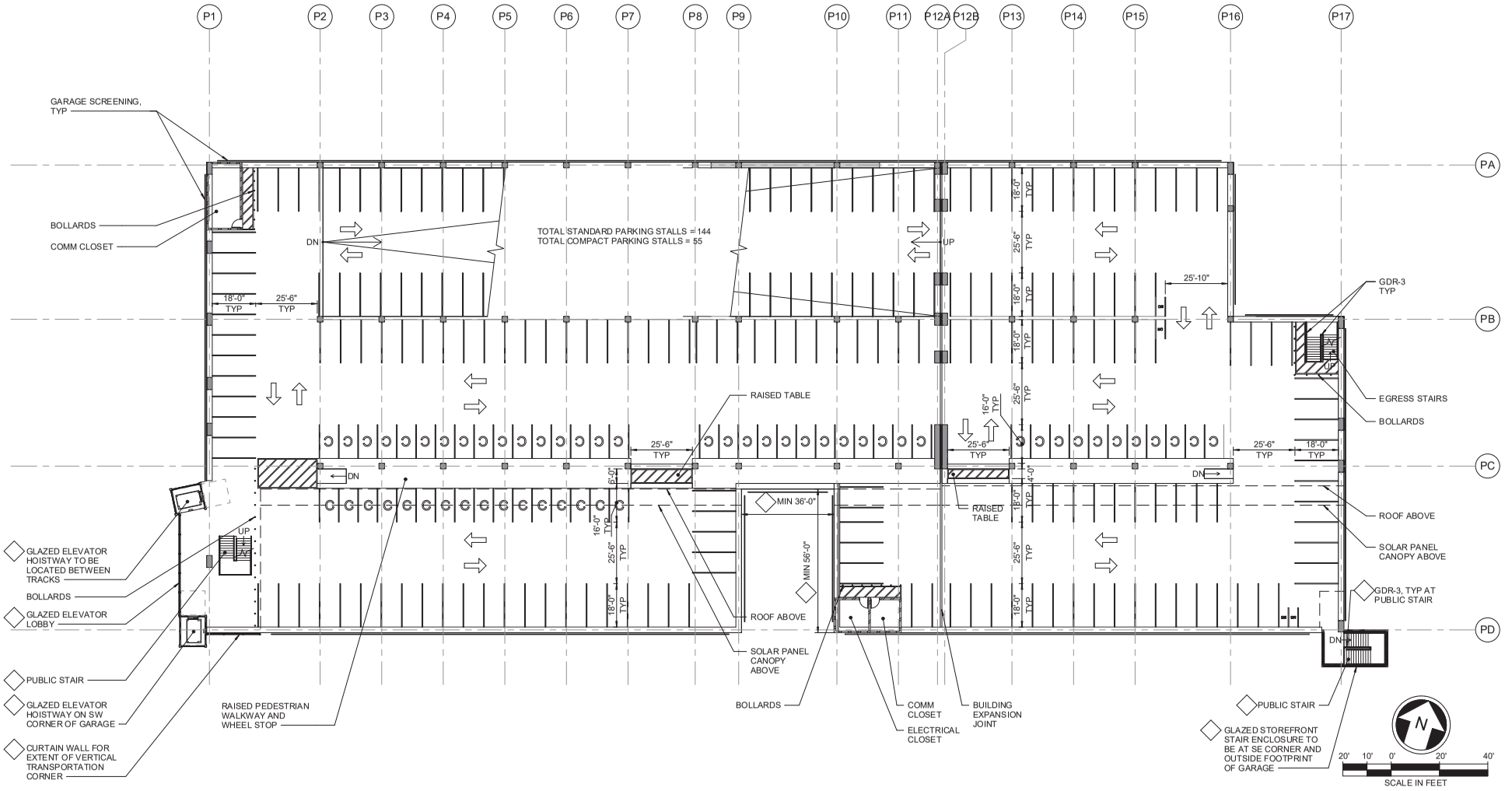

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

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DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE LEVEL 6 PLAN
SOUTHEAST REDMOND STATION

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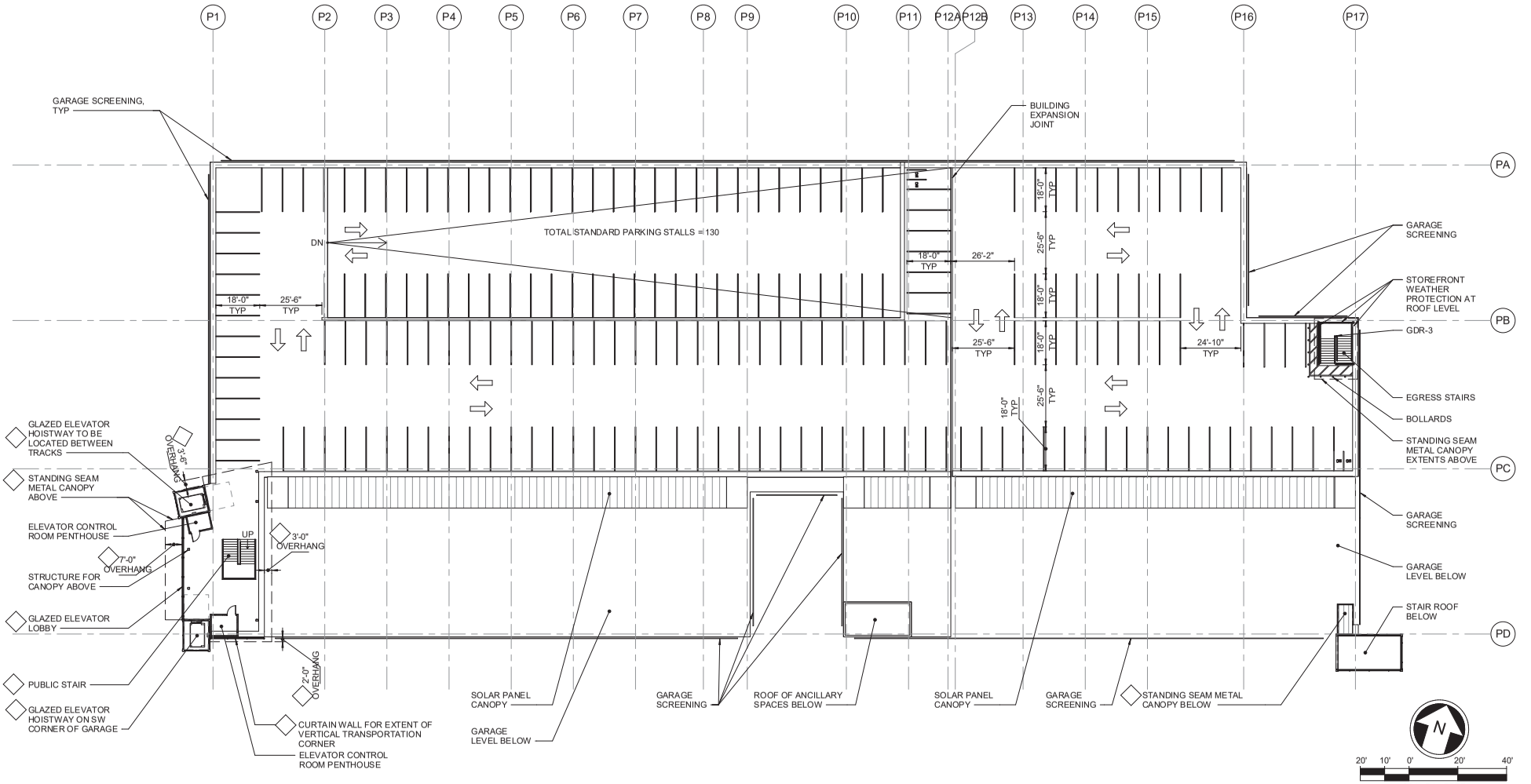

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE ROOF PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APP701
FACILITY ID:
SHEET No: 387
REV:

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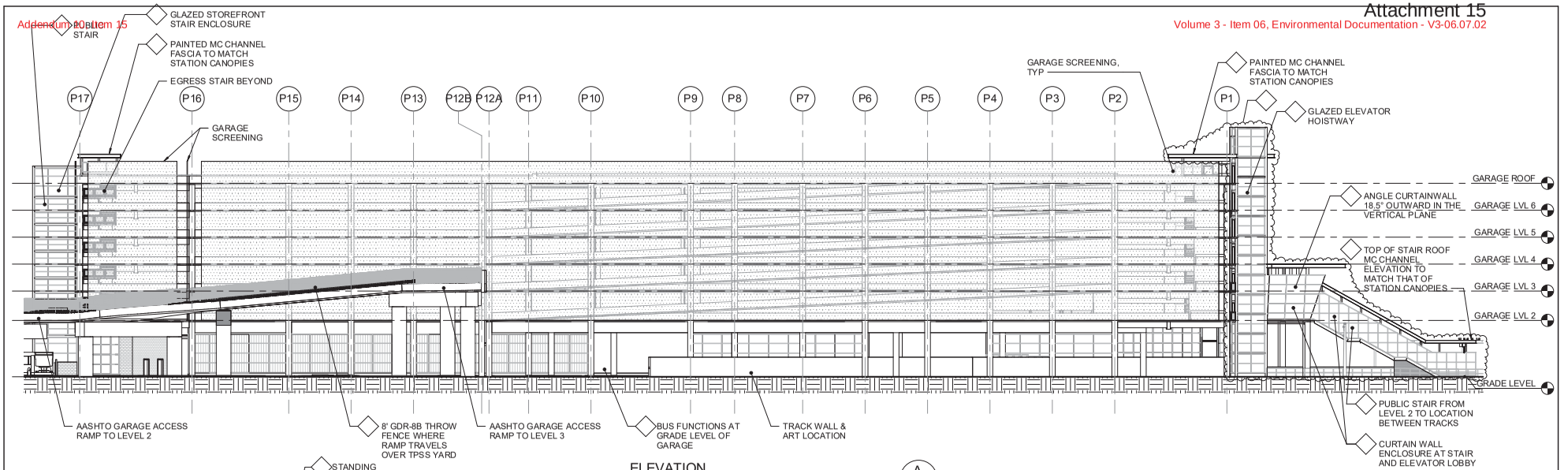

ELEVATION A
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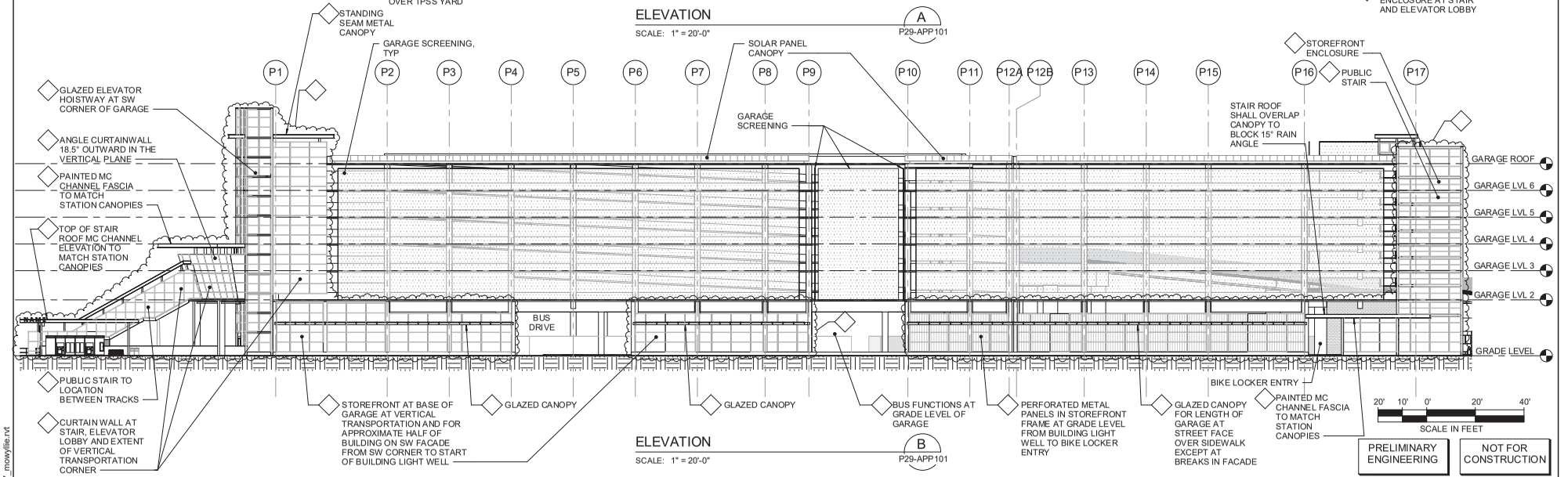
P29-APP101



ELEVATION B
SCALE: 1" = 20'-0"
P29-APP101

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NOT FOR CONSTRUCTION

10/14/2018 11:39:00 AM
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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SoundTransit

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE EXTERIOR ELEVATIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-AEE100
FACILITY ID:
SHEET No: 388
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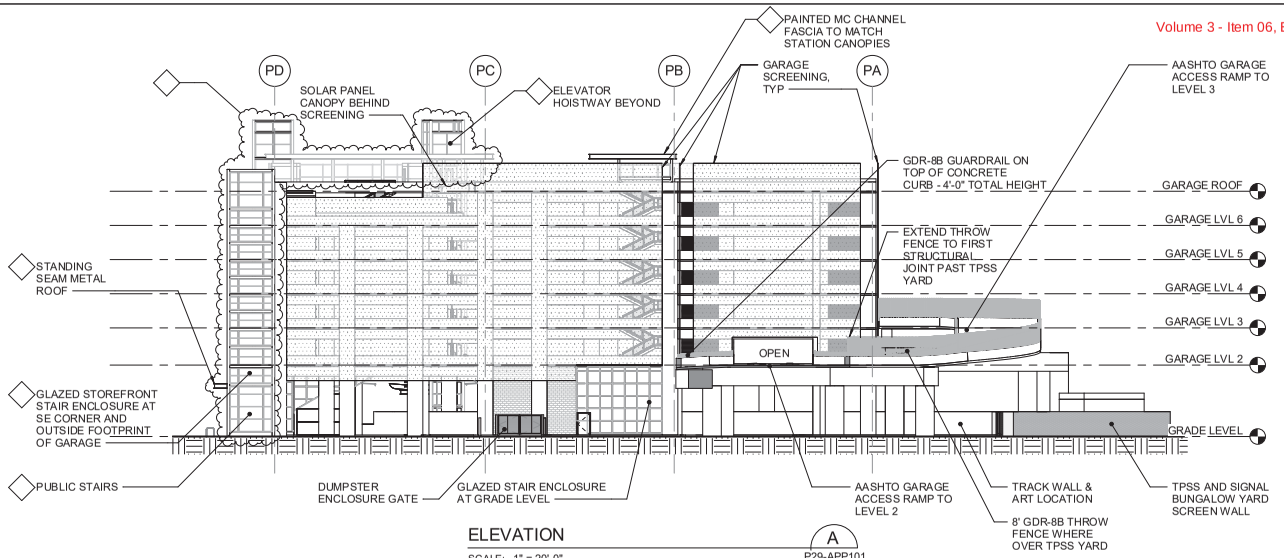

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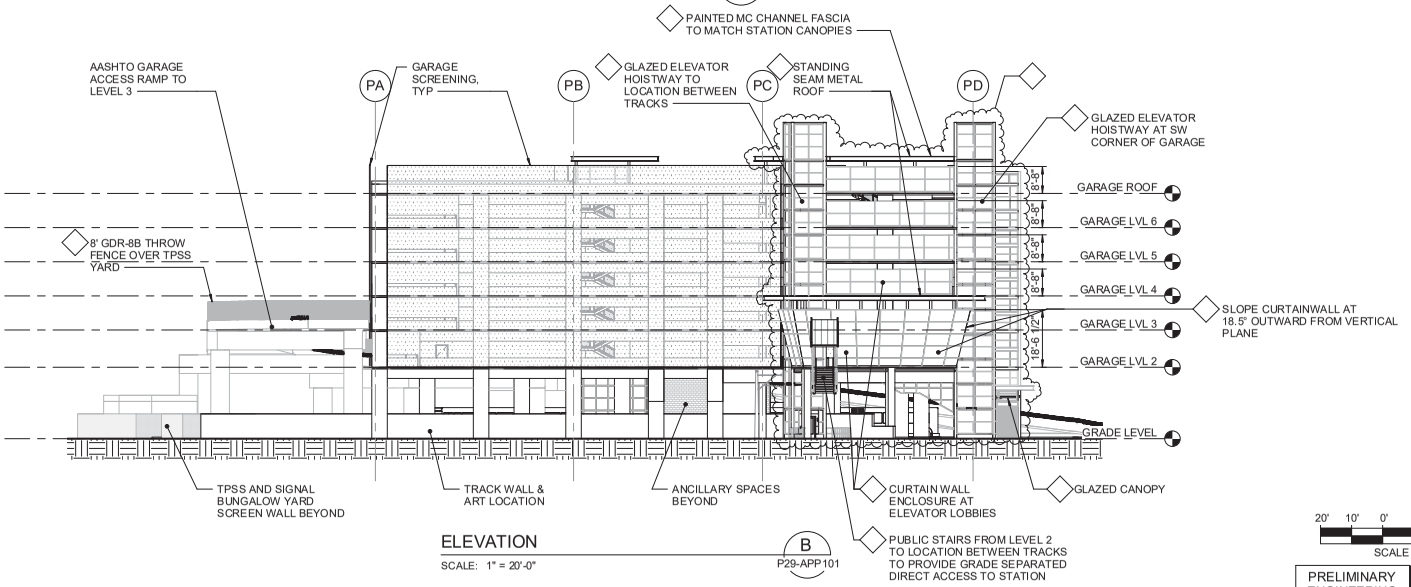
SCALE: 1" = 20'-0"



ELEVATION B — P29-APP101

SCALE: 1" = 20'-0"

20' 10' 0' 20' 40'

SCALE IN FEET

PRELIMINARY ENGINEERING

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10/14/2018 11:35:58 AM
C:\temp\RLE_E29_ARI7_mowyllie.rvt

CONCEPTUAL DESIGN

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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

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HEWITT

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SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE EXTERIOR ELEVATIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-AEE200
FACILITY ID:
SHEET No.: 389
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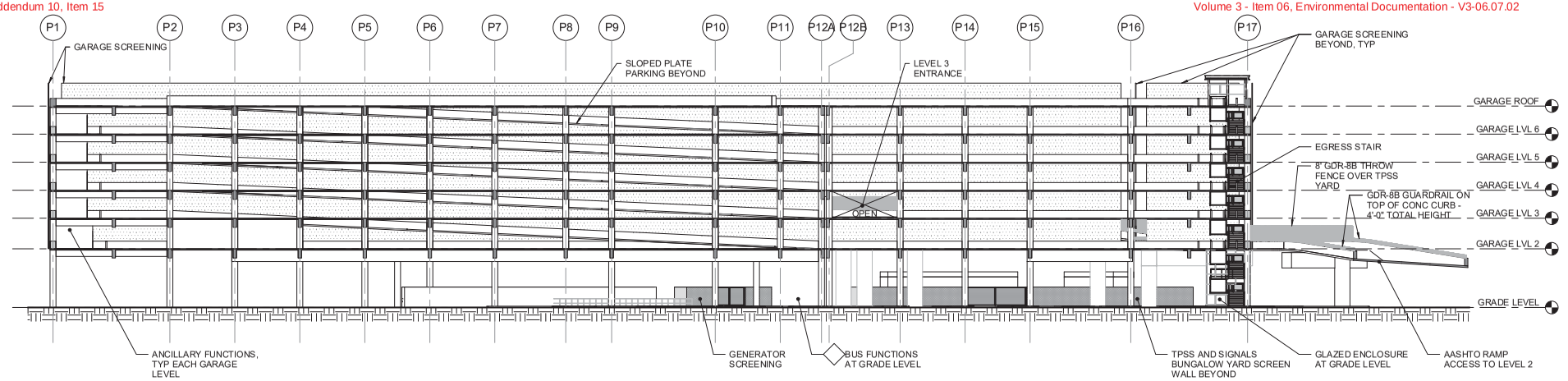
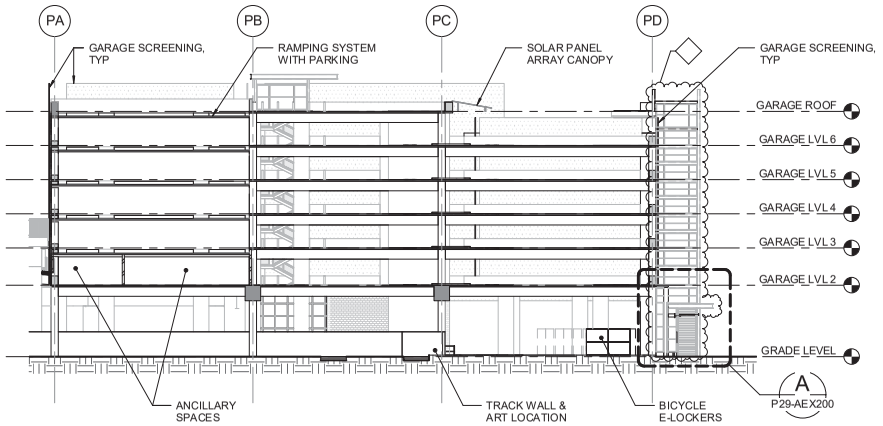


SECTION
SCALE: 1" = 20'-0"
A
P29-APP101



SECTION
SCALE: 1" = 20'-0"
B
P29-APP101

20' 10' 0' 20' 40'
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

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HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 20'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE / REFERENCE
SE REDMOND STATION - ARCHITECTURAL
GARAGE EXTERIOR SECTIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-AEX100
FACILITY ID:
SHEET No.: 390
REV:

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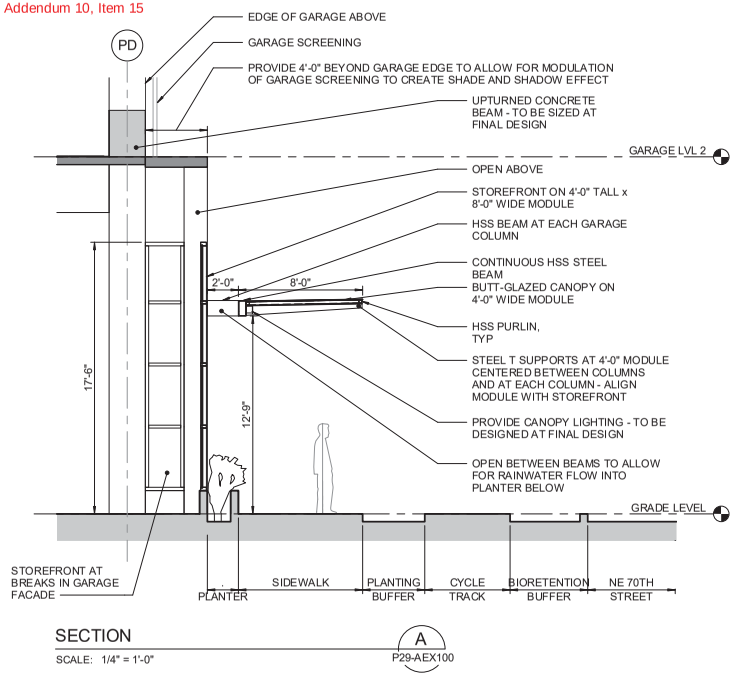
Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02



SECTION

SCALE: 1/4" = 1'-0"

A P29-AEX100

NOTES:

1. SEE V2-01 PROJECT REQUIREMENTS SECTION 5.3 ROADWORK FOR CROSS SECTION REQUIREMENTS OF SIDEWALKS, CYCLE TRACK, STREET, PLANTING BUFFER AND BIORETENTION BUFFER

10' 5' 0' 10' 20'

SCALE IN FEET

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
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HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1/4" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
GARAGE EXTERIOR SECTIONS
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-AEX200
FACILITY ID:
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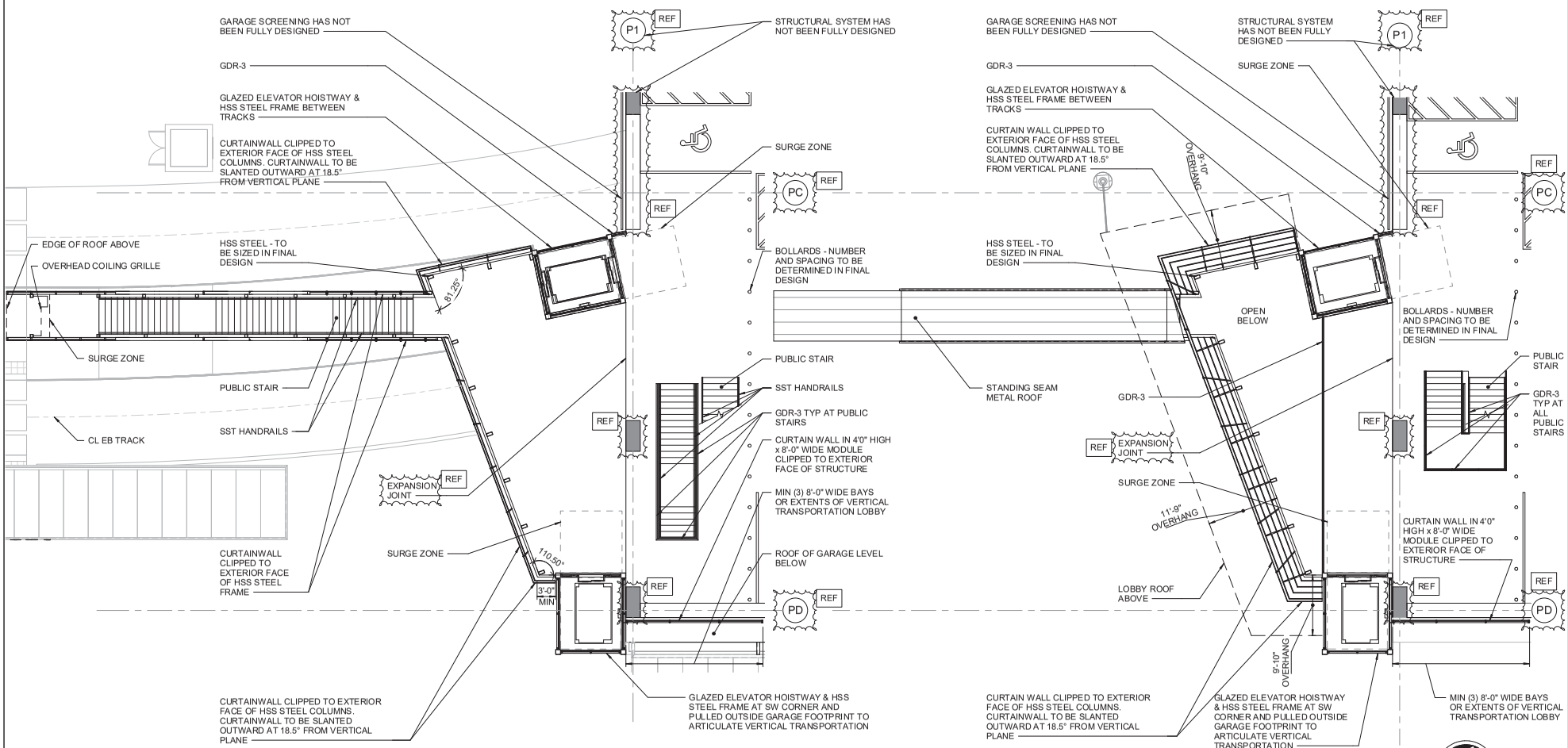

PLAN
SCALE: 1/8" = 1'-0"
1 P29-APP201

PLAN
SCALE: 1/8" = 1'-0"
2 P29-APP301

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

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HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
SE REDMOND STATION - ARCHITECTURAL
ELEVATOR LOBBY PLANS
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-APD100
FACILITY ID:
SHEET No.: 392
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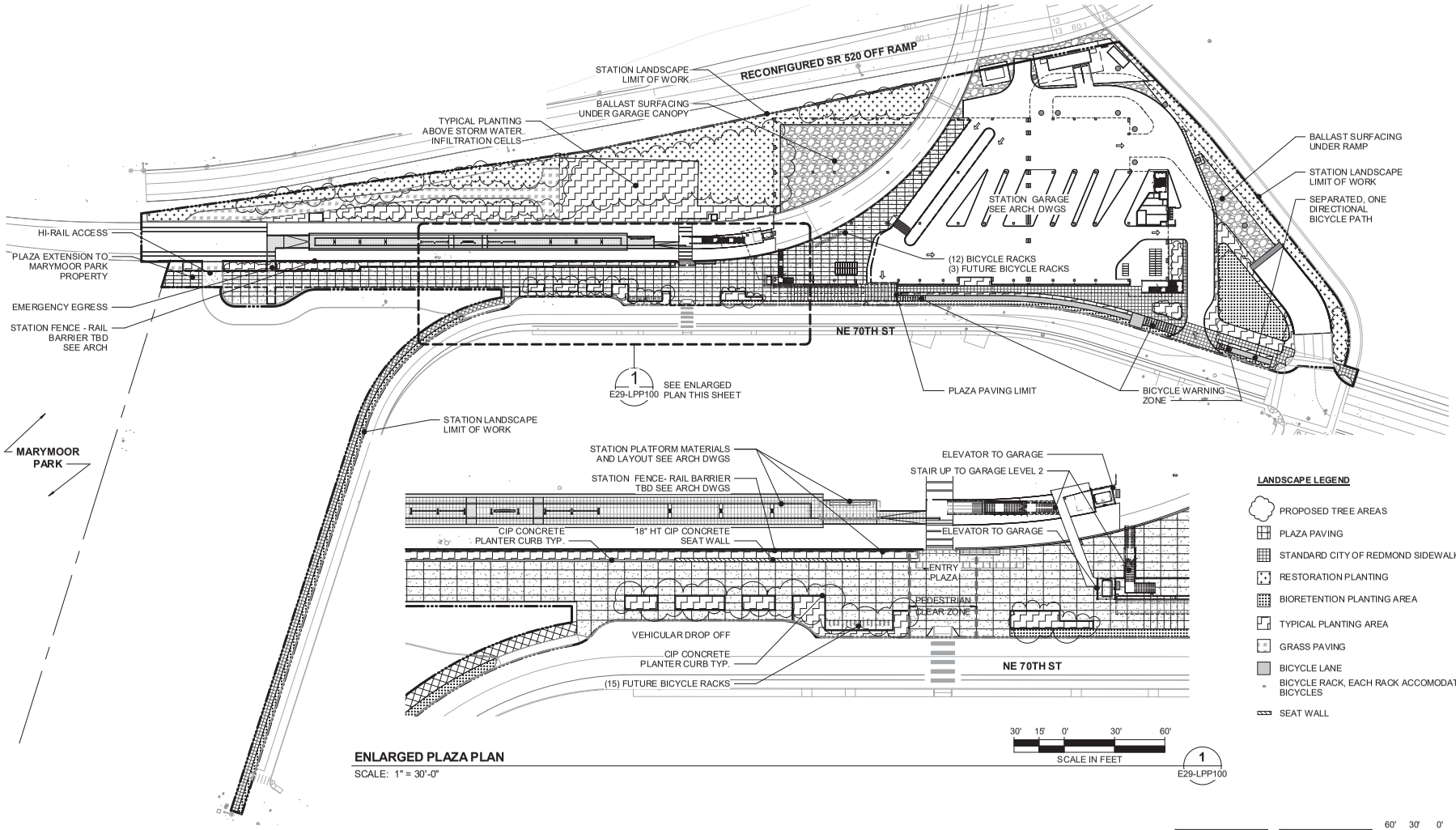

ENLARGED PLAZA PLAN
SCALE: 1" = 30'-0"

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. WOLAND
DRAWN BY: D. BRAMER
CHECKED BY: R. KISH
APPROVED BY: M. PORTEOUS

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HEWITT
SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/18
REVIEWED BY:
DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: As indicated
FILENAME: RLE_E29_L-R17.rvt
CONTRACT No.: CN 0148-18
DATE: 09/24/18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - LANDSCAPE
STATION LANDSCAPE SITE PLAN

DRAWING NO.: E29-LPP100
FACILITY ID:
SHEET No.: 393
REV:

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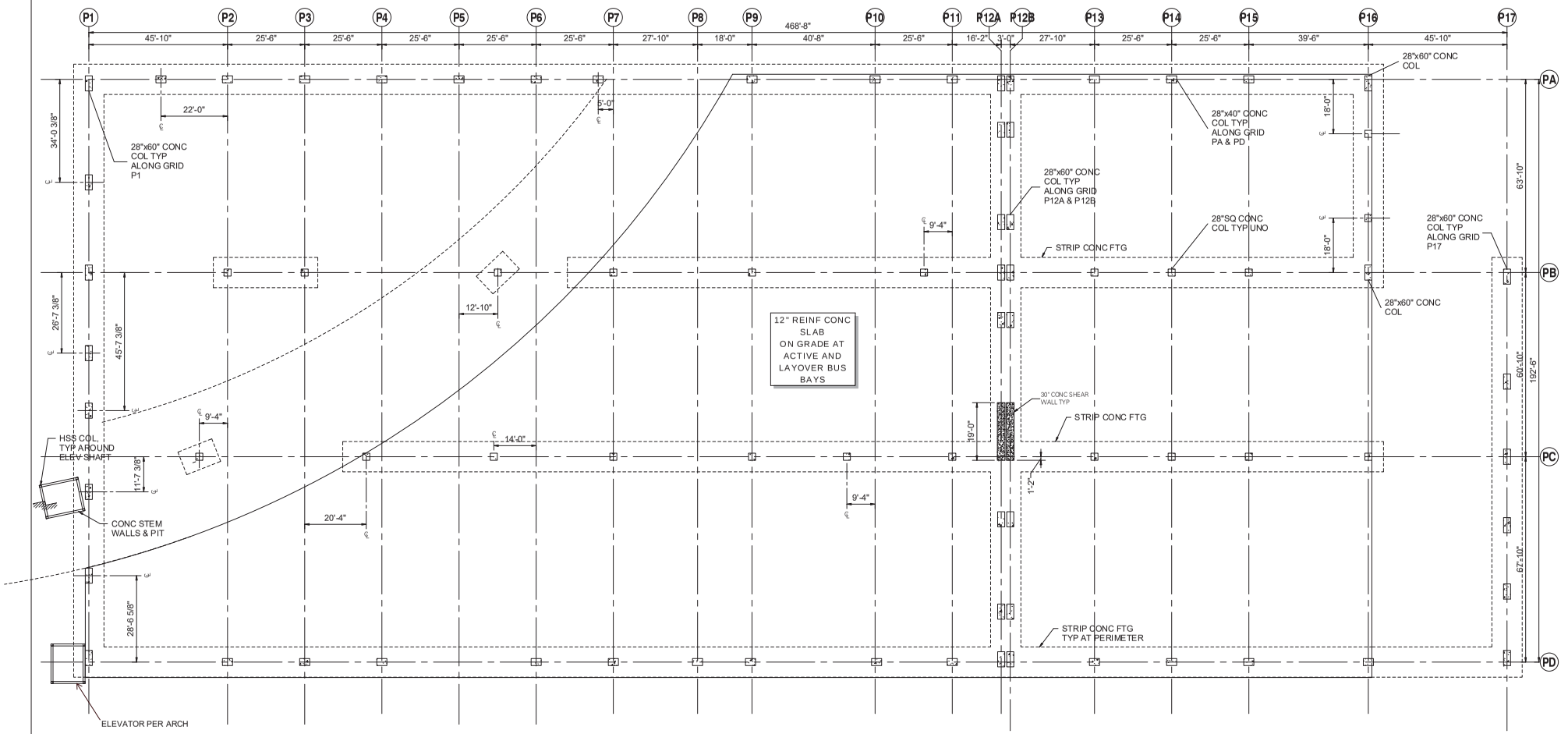

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. MAIER
DRAWN BY: G. RACOLTA
CHECKED BY: E. PEARSON
APPROVED BY: S. ERICKSON

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DCI engineers
818 Stewart Street, Suite 1000
Seattle, Washington 98101
P: (206) 332-1900 www.dci-engineers.com
CIVIL / STRUCTURAL

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1/16" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTC TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - STRUCTURAL
GARAGE FOUNDATION/LEVEL 1 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-SFP201
FACILITY ID:
SHEET No.: 394
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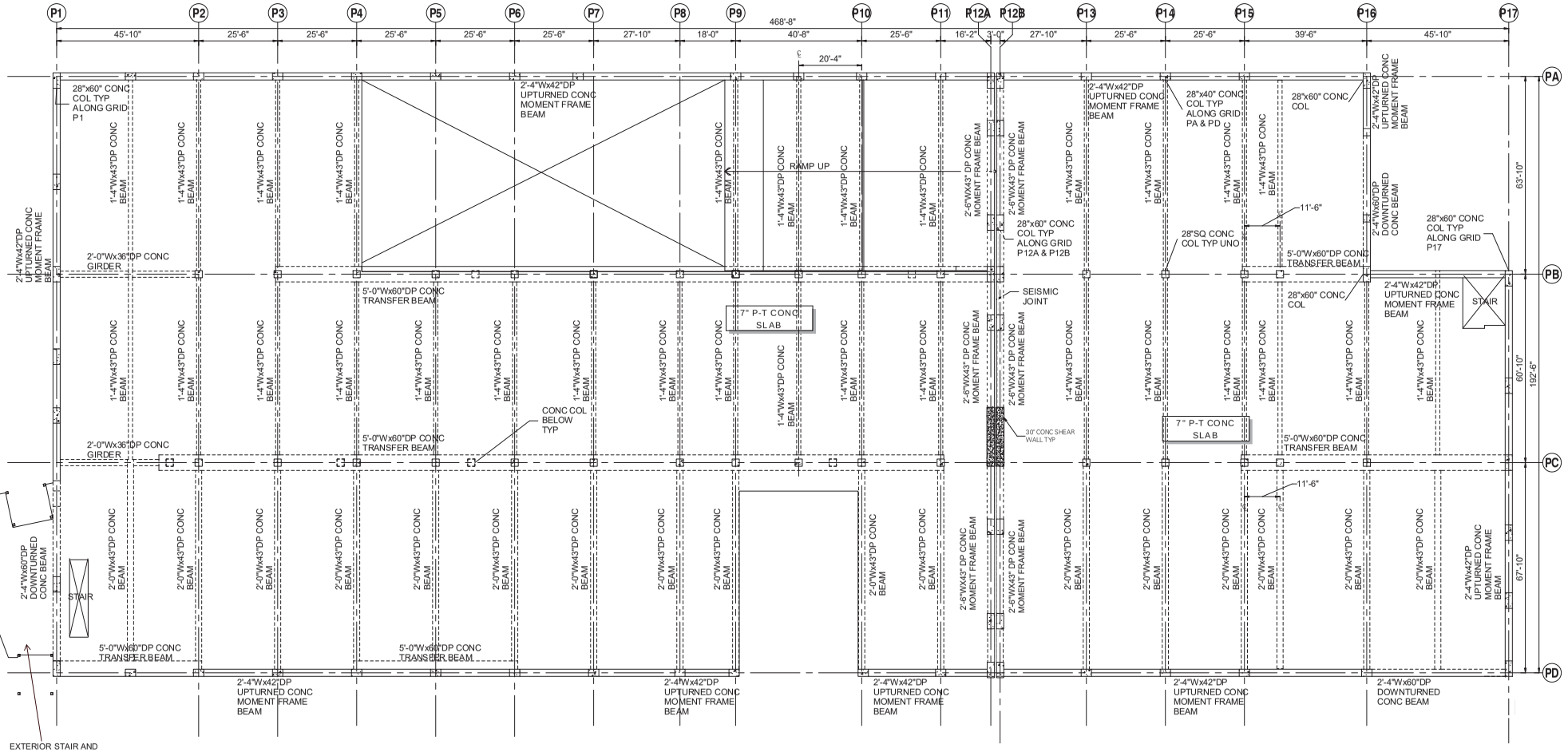

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CONCEPTUAL DESIGN

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No.	DATE	DSN	CHK	APP	REVISION

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DRAWN BY: G. RACOLTA
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1/16" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTC TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - STRUCTURAL
GARAGE LEVEL 2 PLAN
SOUTHEAST REDMOND STATION

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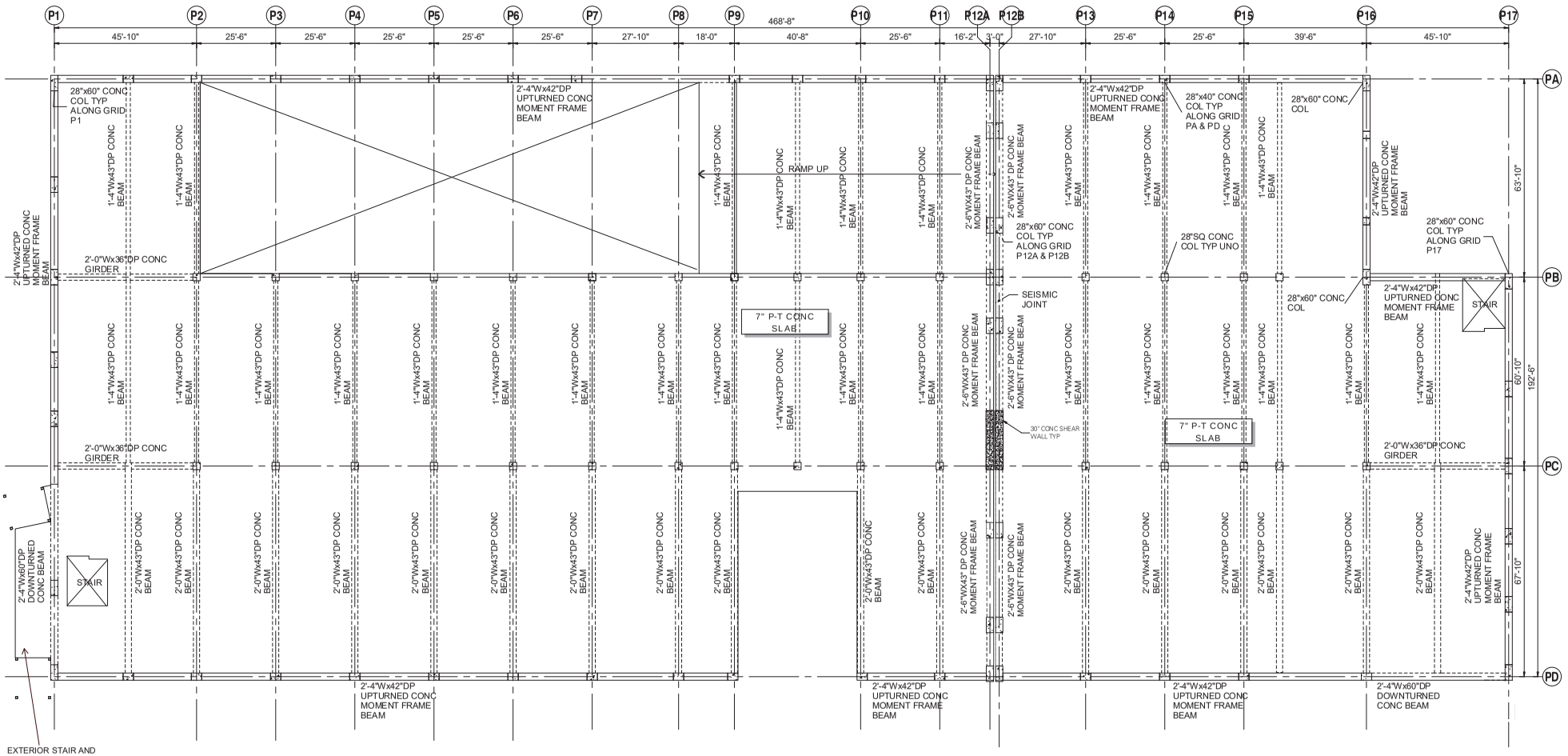

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: B. MAIER
DRAWN BY: G. RACOLTA
CHECKED BY: E. PEARSON
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DATE: 09/24/2018
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DATE:

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P: (206) 332-1900 www.dci-engineers.com
CIVIL / STRUCTURAL

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1/16" = 1'-0"
FILENAME: RLE_E29_A.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTC TO DOWNTOWN REDMOND
REFERENCE
SE REDMOND STATION - STRUCTURAL
GARAGE TYPICAL LEVEL 3 - LEVEL 5 PLAN
SOUTHEAST REDMOND STATION

DRAWING NO.: P29-SGP203
FACILITY ID:
SHEET No.: 396
REV:

9/13/2018 11:59:52 AM
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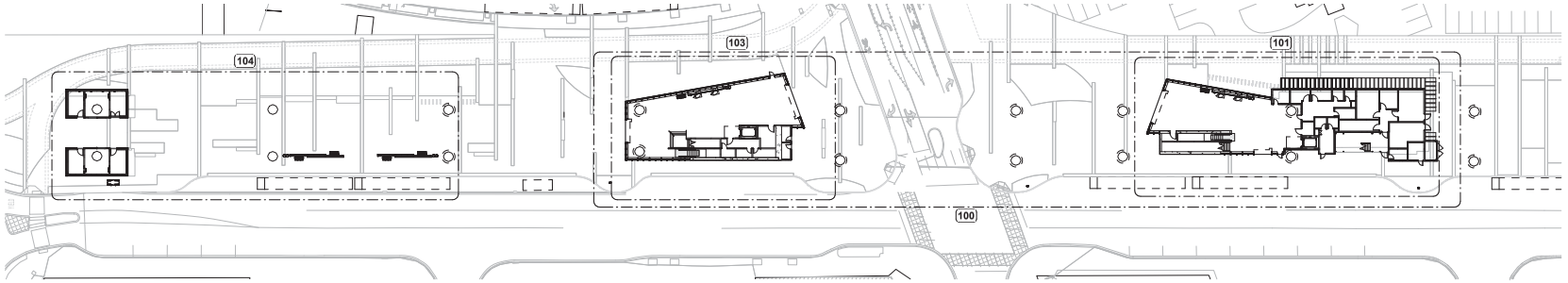
CROSS REFERENCING OF DRAWINGS				
BASE SHEET TITLE	100			
1" = 20'-0" OVERALL FLOOR PLAN	E31-**100			
BASE SHEET TITLE	101	103	104	
1/8" = 1'-0" STATION DRAWING SETS	E31-**101	E31-**103	E31-**104	SURFACE LEVEL PLAN

** = ARCHITECTURAL DESIGN ELEMENT DESIGNATION
APP - ARCHITECTURAL FLOOR PLAN



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No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: M. WYLLIE
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

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HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 40'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

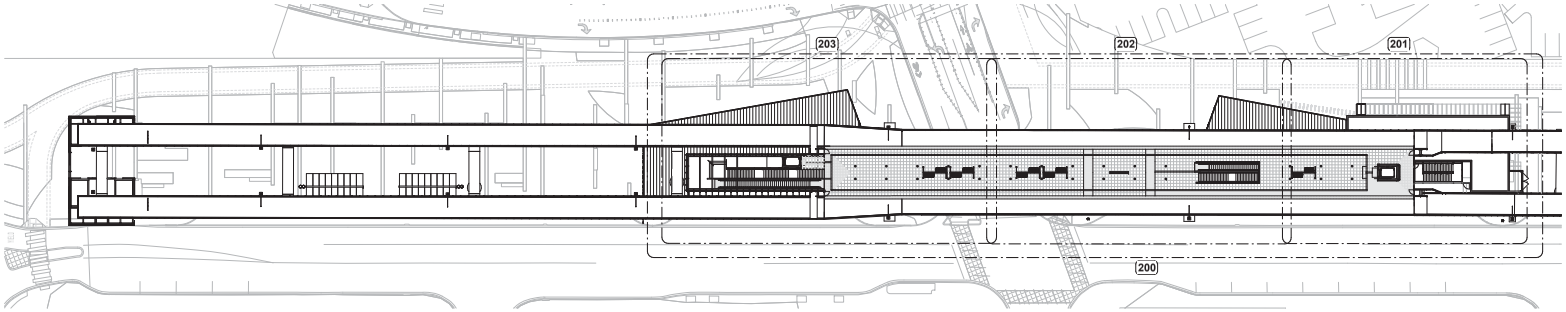
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
KEY PLAN - PLAZA LEVEL
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-GZK100
FACILITY ID:
SHEET No.: 397
REV:

10/14/2018 12:18:58 PM
C:\Temp\RLE_E31_A-R17_mowyllie.rvt

CROSS REFERENCING OF DRAWINGS				
BASE SHEET TITLE	200			
1" = 20'-0" OVERALL FLOOR PLAN	E31-**200			
BASE SHEET TITLE	201	202	203	
1/8" = 1'-0" STATION DRAWING SETS	E31-**201	E31-**202	E31-**203	PLATFORM LEVEL PLAN

** = ARCHITECTURAL DESIGN ELEMENT DESIGNATION
APP - ARCHITECTURAL FLOOR PLAN



PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: M. WYLLIE
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/2018 | REVIEWED BY: | DATE:

SoundTransit

SCALE: 1" = 40'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
KEY PLAN - PLATFORM LEVEL
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-GZK200**
FACILITY ID:
SHEET No.: 398
REV:

10/14/2018 12:19:06 PM
C:\Temp\RLE_E31_A-R17_mowyllie.rvt

MUNICIPAL CODE SUMMARY

PROJECT DESCRIPTION:

THE PROJECT IS LOCATED IN DOWNTOWN REDMOND ADJACENT TO REDMOND CENTRAL CONNECTOR TRAIL, BETWEEN CLEVELAND ST AND NE 76TH ST, STRADDLING 166TH AVE NE.

THE PROJECT WILL CONSIST OF AN OPEN ELEVATED LIGHT RAIL STATION, ASSOCIATED ANCILLARY FACILITIES, ON STREET BUS TRANSIT FUNCTIONS, A RELOCATED CONNECTOR TRAIL AND ASSOCIATED FINISH SITE WORK.

THE STATION'S CENTER PLATFORM IS ACCESSED VIA STAIR, ESCALATOR AND ELEVATOR ON EAST AND WEST SIDES OF 166TH AVE NE.

APPLICABLE CODES:

- INTERNATIONAL BUILDING CODE AS AMENDED BY WAC 51-50 AND RMC TITLE 15
- NFPA 130, STANDARD FOR FIXED GUIDEWAY TRANSIT AND PASSENGER RAIL SYSTEMS
- WASHINGTON STATE ENERGY CODE, WITH WAC 51-11C & 51-11R STATE BUILDING CODE ADOPTION AND AMENDMENT OF THE INTERNATIONAL ENERGY CONSERVATION CODE
- INTERNATIONAL FIRE CODE AS AMENDED BY WAC 51-50 AND RMC TITLE 15
- REDMOND ZONING CODE (RMC TITLE 21)
- BICYCLE FACILITIES DESIGN MANUAL GUIDELINES FOR THE CITY OF REDMOND, MARCH 2012 COMPREHENSIVE PLAN - REDMOND 2030
- ADA STANDARDS FOR TRANSPORTATION FACILITIES
- ICC ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
- DEPARTMENT OF JUSTICE ADA STANDARDS - ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES
- NFPA 101 LIFE SAFETY CODE

ZONING: ANDERSON PARK
PERMITTED USE: #9 ROAD, GROUND PASSENGER, AND TRANSIT TRANSPORTATION
BASE HEIGHT: 5 STORIES
BASE FAR: 1.25
SETBACKS:
REAR: 0 FT
SIDE: 0 FT
YARD ADJOINING BNSF ROW OR PARK: 14 FT
MAX LOT COVERAGE: 100%
SPRINKLERS: PROVIDED PER IBC 903.2.10

NOTE: PROJECT IS PURSUING A LETTER OF CONCURRENCE FROM CITY OF REDMOND TO USE NFPA 130 FOR OCCUPANT LOADS AND EXITING REQUIREMENTS FOR THE PROPOSED DOWNTOWN REDMOND LINK EXTENSION LIGHT RAIL STATIONS.

ADJACENT BUILDINGS WOULD NOT BE CONSIDERED AS PART OF THE STATION AND WOULD BE REQUIRED TO COMPLY WITH THE CURRENT ADOPTED BUILDING CODES AT THE TIME OF APPLICATION.

Patronage Calculations

Downtown Redmond Station — DATE: 5/29/2018

Type: Center Platform — DESIGN YEAR: 2035
System: Downtown Redmond Link — Patronage Report Date: Jul-17

Design Year 2035 - Daily Boardings: 2,900

Design Year 2035 - PM Peak Period (3 hour) 1

	Train Load	Boarding	Alighting				
			Walk Egress	Bus Transfer	Auto	Bicycle	Total Alighting
Westbound	0	417	188	843	400		1,431
Eastbound	1,040						0

Design Year 2035 - PM Peak Period (1 hr) 2

	Train Load	Boarding	Alighting	Total Boarding & Alighting
Westbound	0	167	573	740
Eastbound	416	0	0	0

Design Year 2035 - PM Peak Period (15 min) 3

	Boarding	Alighting	Total Boarding & Alighting
Westbound	47	161	208
Eastbound	0	0	0
Total	47	161	208

Notes:
1. Year 2035 forecast based on …
   1 hr = .4 x 3 hr (DY 2035)
   15 min = .28 x 1 hr, all = Factor of 0.112 (DY 2035)
2. Green text indicates confirmed ridership numbers from the July 2017 ridership forecast
3. Where applicable, patronage numbers are rounded up to the nearest whole person

IBC BUILDING AREA CALCULATION

BASE BUILDING INFORMATION:

CONSTRUCTION TYPE: IIB
OCCUPANCY: MIXED USE, A-3 AND B
SPRINKLERS: PROVIDED THROUGHOUT PER IBC 903.2.10

IBC 506.2 ALLOWABLE FLOOR AREA PER STORY FOR A-3 OCCUPANCY

TABULAR FLOOR AREA: 28,500 SF (IBC TABLE 506.2)
FRONTAGE INCREASE: ((F/P-0.25)W/30) X 9,500 SF = ((1/1-0.25)30/30) X 9,500 SF = 7,125 SF
MAX ALLOWABLE AREA PER FLOOR: 28,500 SF + 7,125 SF = 35,625 SF

IBC 506.2 ALLOWABLE FLOOR AREA PER STORY FOR B OCCUPANCY

TABULAR FLOOR AREA: 69,000 SF (IBC TABLE 506.2)
FRONTAGE INCREASE: ((F/P-0.25)W/30) X 23,000 SF = ((1/1-0.25)30/30) X 23,000 SF = 17,250 SF
MAX ALLOWABLE AREA PER FLOOR: 69,000 SF + 17,250 SF = 86,250 SF

SUMMARY OF PROPOSED BUILDING AREA

A-3 18,612 SF
B 4,267 SF
TOTAL 22,879 SF

DETERMINE FLOOR AREA RATIO

MAXIMUM SUM OF RATIO PER STORY: 1.0 (IBC 506.2.4)
MAXIMUM SUM OF RATIO FOR BUILDING: 3.0 (IBC 506.2.4)
EQUATION FOR DETERMINING RATIO: PROPOSED AREA / ALLOWABLE AREA
SURFACE LEVEL:
A-3 7,775 SF
B 4,246 SF
TOTAL RATIO: 7,775 / 35,625 + 4,246 / 86,250 = 0.22 + 0.05 = 0.27<1
PLATFORM LEVEL:
A-3 10,863 SF

IBC 504 IBC ALLOWABLE BUILDING HEIGHT

IBC 504.4 DETERMINE MAXIMUM NUMBER OF STORIES:

TABULAR BASE NO OF STORIES: 2 STORIES (IBC TABLE 504.4)
ADDITIONAL STORIES DUE TO SPRINKLERS: 1 STORY
MAXIMUM ALLOWABLE NO OF STORIES: 3 STORIES
PROVIDED: 2 STORIES

IBC 504.3 DETERMINE MAXIMUM HEIGHT ABOVE AVERAGE GRADE PLANE:

TABULAR BASE BUILDING HEIGHT: 55 FT (IBC TABLE 504.3)
ADDITIONAL HEIGHT DUE TO SPRINKLERS: 20 FT
MAXIMUM ALLOWABLE BUILDING HEIGHT: 75 FT
PROVIDED: 63' - 3"

PRELIMINARY ENGINEERING

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: NTS
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
GENERAL NOTES & CODE INFORMATION
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AZN001
FACILITY ID:
SHEET No: 399
REV:

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IBC OCCUPANCY LOADS

Station Concourse Areas: The station concourse areas at grade level entries - function of space is assumed to most closely resemble airport terminal concourse per Table 1004.1.2

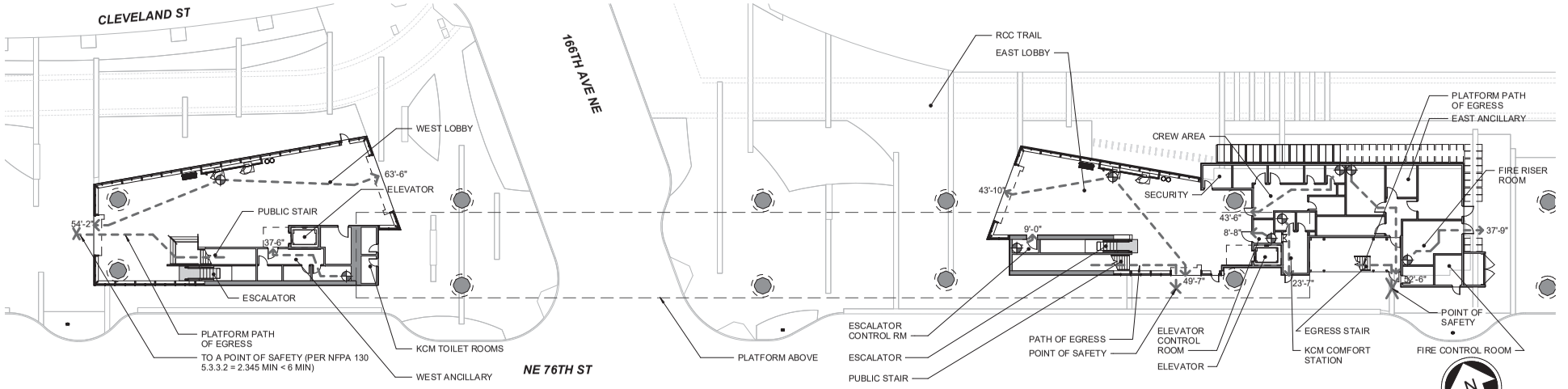
Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
EAST LOBBY	3,434 SF	ASSEMBLY - CONCOURSE	100 SF	35
WEST LOBBY	4,184 SF	ASSEMBLY - CONCOURSE	100 SF	42

Station Ancillary Spaces: The station ancillary room's function of space shall be as listed per Table 1004.1.2

Area Name	Square Footage	Occupancy Function	Load Factor	Occupants
KCM TOILET RM 1	105 SF	ACCESSORY	300 SF	1
KCM TOILET RM 2	107 SF	ACCESSORY	300 SF	1
CREW AREA	840 SF	BUSINESS AREA	100 SF	9
SECURITY	128 SF	BUSINESS AREA	100 SF	2
FIRE CONTROL ROOM	153 SF	BUSINESS AREA	100 SF	2
KCM COMFORT STATION	347 SF	BUSINESS AREA	100 SF	4
ESCALATOR CONTROL ROOM	90 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
ELEVATOR CONTROL ROOM	85 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1
FIRE RISER ROOM	403 SF	MECHANICAL EQUIPMENT ROOM	300 SF	2
EAST ANCILLARY	1,319 SF	MECHANICAL EQUIPMENT ROOM	300 SF	5
WEST ANCILLARY	706 SF	MECHANICAL EQUIPMENT ROOM	300 SF	3
EMER EQ RM	114 SF	MECHANICAL EQUIPMENT ROOM	300 SF	1

IBC MEANS OF EGRESS SIZING

Room Name	Occupants	Required	Provided
KCM TOILET RM 1	1	0.15"	36" Door
KCM TOILET RM 2	1	0.15"	36" Door
EAST LOBBY	35	5.55"	427"
WEST LOBBY	42	6.30"	475"
CREW AREA	9	1.50"	36" Door
SECURITY	2	0.15"	36" Door
FIRE CONTROL ROOM	2	0.15"	36" Door
KCM COMFORT STATION	4	0.60"	36" Door
ESCALATOR CONTROL ROOM	1	0.30"	42" Door
ELEVATOR CONTROL ROOM	1	0.15"	42" Door
FIRE RISER ROOM	2	0.15"	42" Door
EAST ANCILLARY	5	0.60"	42" Door
WEST ANCILLARY	3	0.30"	42" Door
EMER EQ RM	1	0.15"	36" Door



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DATE:

SCALE: 1" = 20'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
CODE INFORMATION
EXITING DIAGRAMS

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FACILITY ID:
SHEET No.: 400
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Attachment 15

Addendum 10, Item 15

Volume 3 - Item 06, Environmental Documentation - V3-06.07.02

EMERGENCY EXITING CALCULATIONS
Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

Downtown Redmond Station — Type: Center Platform — System: Downtown Redmond Link — DATE: 5/14/2018 — DESIGN YEAR: 2035

OCCUPANT LOAD CALCULATION

			A.M.	P.M.
PEAK ONE-HOUR LINE LOADS	WBOUND		416	0
	EBOUND		0	416
LINE LOADS (Train Load):		TOTAL	416	416
	WBOUND		0	167
	EBOUND		167	0
BOARDING LOADS (Entraining Load):		TOTAL	167	167
	WBOUND		0	573
	EBOUND		573	0
ALIGHTING LOADS (Not Used for load calculations):		TOTAL	573	573

PEAK 15 MINUTE LOADS = [PEAK HR. LOAD X Surge Factor / 4]

			A.M.	P.M.
PEAK LINE LOADS (Train Load) adjusted for surge factor of: 1.25	WBOUND		130	0
	EBOUND		0	130
		TOTAL	130	130
PEAK BOARDING LOADS (Entraining) adjusted, surge factor of: 1.50	WBOUND		0	63
	EBOUND		63	0
		TOTAL	63	63
ALIGHTING LOADS adjusted for surge factor of: 1.50 — ALIGHTING LOADS:	WBOUND		0	215
	EBOUND		215	0
(Alighting loads not included for occupant load calculations)		TOTAL	215	215
TEMPLATE A IF HEADWAY ≤ 6 MINUTES / TEMPLATE B IF HEADWAY > 6 MINUTES — PEAK HEADWAYS (in minutes):	WBOUND		4.00	4.00
	EBOUND		4.00	4.00

PLATFORMS WHERE TRAINS ARRIVE FROM **ONE DIRECTION**
CALCULATED TRAIN LOAD = [PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) x 2]

PLATFORMS WHERE TRAINS ARRIVE FROM **TWO DIRECTIONS**
CALCULATED TRAIN LOAD= (PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY)) x 2 — PEAK DIRECTION
\+ PEAK 15 MIN. LINK LOAD /(15 MINUTES/HEADWAY) — OFF-PEAK DIRECTION

			A.M.	P.M.
Preliminary Line (Train) Load Calculations:	WBOUND		69	0
	EBOUND		0	69
Adjusted for maximum train capacity of: 800	WBOUND		69	0
	EBOUND		0	69
CALCULATED TRAIN LOAD TOTALS		TOTAL	69	69

ENTRAINING LOAD (Peak) = (PEAK 15 MIN. LOAD/15 MINUTES) x 12 MINUTE DEFAULT
ENTRAINING LOAD (Non-Peak) = PEAK 15 MIN. LOAD/(15 MINUTES/HEADWAY)

			A.M.	P.M.
	WBOUND		0	50
	EBOUND		50	0
PEAK BOARDING (ENTRAINING) LOAD		TOTAL	50	50

TOTAL OCCUPANT LOAD = [CALCULATED TRAIN LOAD + PEAK ENTRAINING LOAD]
Use greater of AM or PM Totals for Calculated Train Load — TOTAL: A.M. 120, P.M. 120

TOTAL OCCUPANT LOAD FOR CALCULATIONS: 120

EMERGENCY EXITING CALCULATIONS (Continued)
Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

Downtown Redmond Station — Type: Center Platform — System: Downtown Redmond Link — DATE: 7/19/2018 — DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Platform in less than 4 minutes) — CAPACITY CALCULATIONS
(EXIT LANES AND CAPACITY PROVIDED)

ELEMENT	NUMBER	X INCHES	x pim	=	CAPACITY
PLATFORMS, CORRIDORS AND RAMPS					
Ramps	0	0	2.08	=	0
Other	0	0	2.08	=	0
STAIRS AND ESCALATORS					
Public Stair - Platform to East Entry Exit	1	72	1.41	=	102
Public Stair - Platform to West Entry Exit	1	72	1.41	=	102
Egress Stair - Platform to East Grade Exit	1	66	1.41	=	93
Escalator	0	40	1.41		0
				Platform Exit Capacity	297

(Fractional values are rounded)

NOTES:
1. In calculating escalator capacity, one escalator per level shall be considered as being out of service.
2. Up escalators are not assumed to be reversable for this exercise.

EMERGENCY EXIT CAPACITY — TEST 1
(EVACUATE PLATFORM IN 4 MINUTES OR LESS)

Fp = (platform exits flow time) = Platform occupancy load / Platform exit capacity
120 / 297 = 0.403 Minutes — PASS

EMERGENCY EXITING CALCULATIONS (Continued)
Center Platform-Template A (Headway ≤ 6 Minutes)

NFPA 130: 2017 Edition

Downtown Redmond Station — Type: Center Platform — System: Downtown Redmond Link — DATE: 5/14/2018 — DESIGN YEAR: 2035

EMERGENCY EXIT CAPACITY (Exit Station to Point of Safety in less than 6 minutes) — East — TEST 2A
(EVACUATE THE TOTAL OCCUPANT LOAD FROM THE MOST REMOTE POINT ON PLATFORM TO A POINT OF SAFETY IN 6 MINUTES OR LESS)

Walking Time for longest exit route: T= Tp + T1 + T2 + T3 ...
Use 124 FPM for platform, corridors and ramp travel speeds
Use 48 FPM for stairs and escalator travel speeds, use vertical distance
Use 200 FPM for concourse and other areas with lesser pedestrian density

	Feet	FPM	=	Minutes
Tp (Walking time on platform)	190	124	=	1.532
T1 (West Public Stair)	31	48	=	0.646
T2 (End of Stair to Point of Safety)	33.33	200	=	0.167
T (walking time for longest exit route to point of safety)				2.345

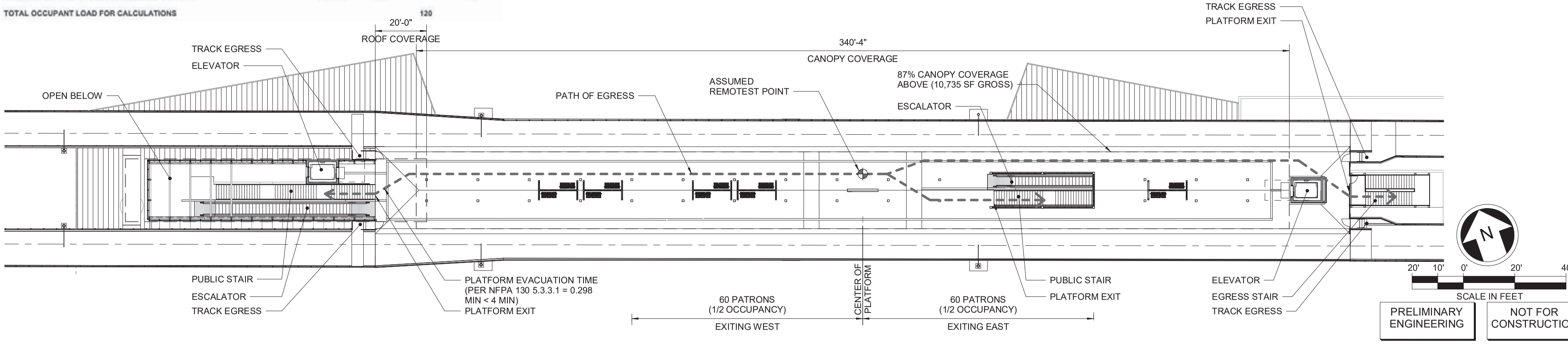
Waiting time at platform exits: Wp = Fp - Tp
Fp = Platform exits flow time
Tp = Walking time on platform

	Platform exits flow time		Walking time on platform		Maximum wait time
Wp =	0.298	-	1.532	=	0.000 Minutes

Total Exit Time = T+W_p to Point of Safety
T = walking time for longest exit route
Wp = Waiting time at platform exits =

	Walking time for longest exit route		Waiting time at platform exits		Total exit time
Total Exit Time to Point of Safety =	2.345	+	0.000	=	2.345 Minutes

EVACUATION TIME LESS THAN 6 MINUTES- PASS



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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT — PAUL A. SHEMA — STATE OF WASHINGTON

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: BRAD PHILLIPS — DATE: 09/24/2018

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REVIEWED BY:

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SOUNDTRANSIT

DATE:

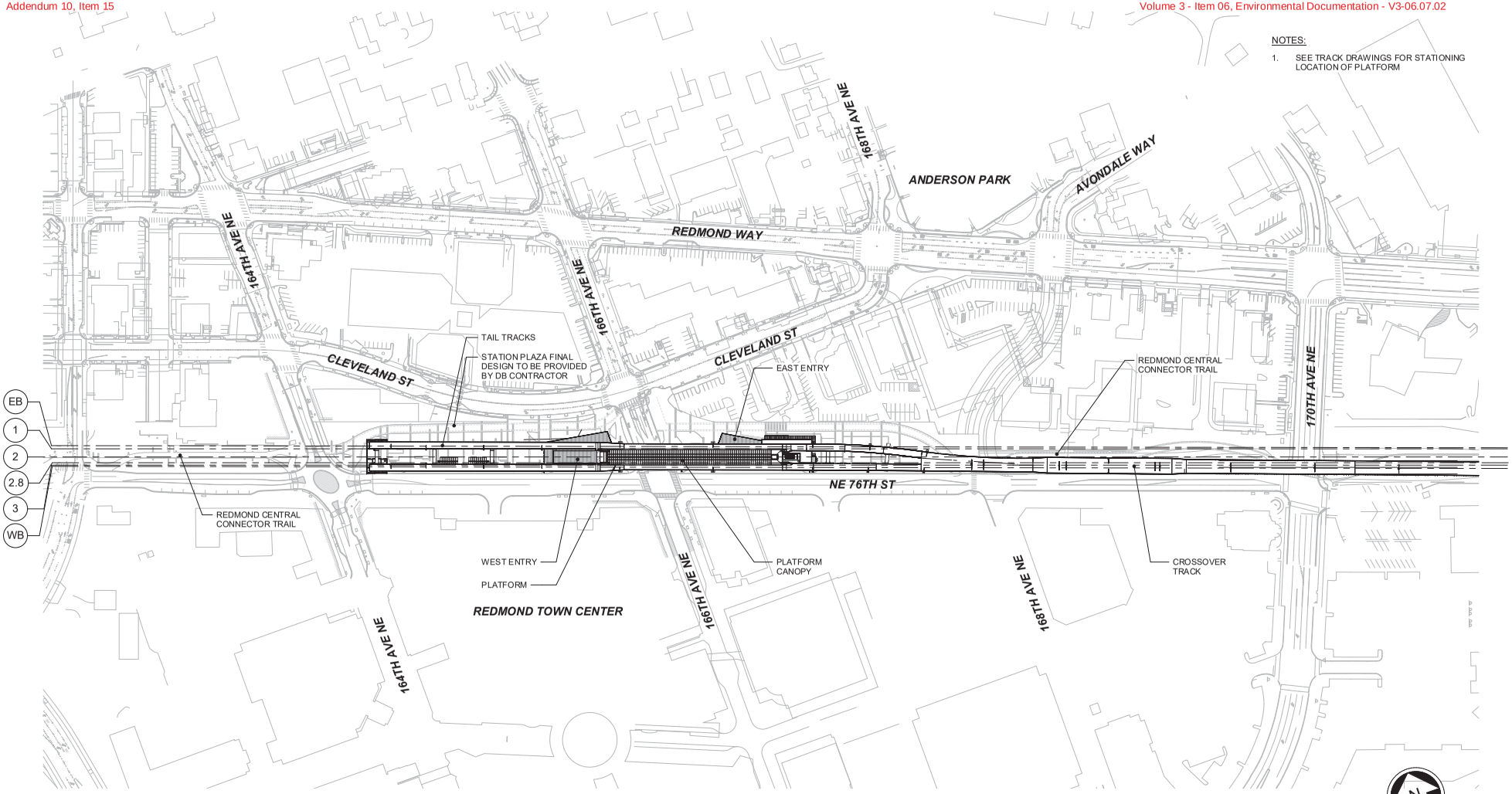
SCALE: 1" = 20'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL CODE INFORMATION EXITING DIAGRAMS

DRAWING NO.: E31-AZN003
FACILITY ID:
SHEET No: 401
REV:

NOTES:

1. SEE TRACK DRAWINGS FOR STATIONING LOCATION OF PLATFORM



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DATE:

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SCALE: 1" = 100'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
ARCHITECTURAL CONTEXT PLAN
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AZN100
FACILITY ID:
SHEET No.: 402
REV:

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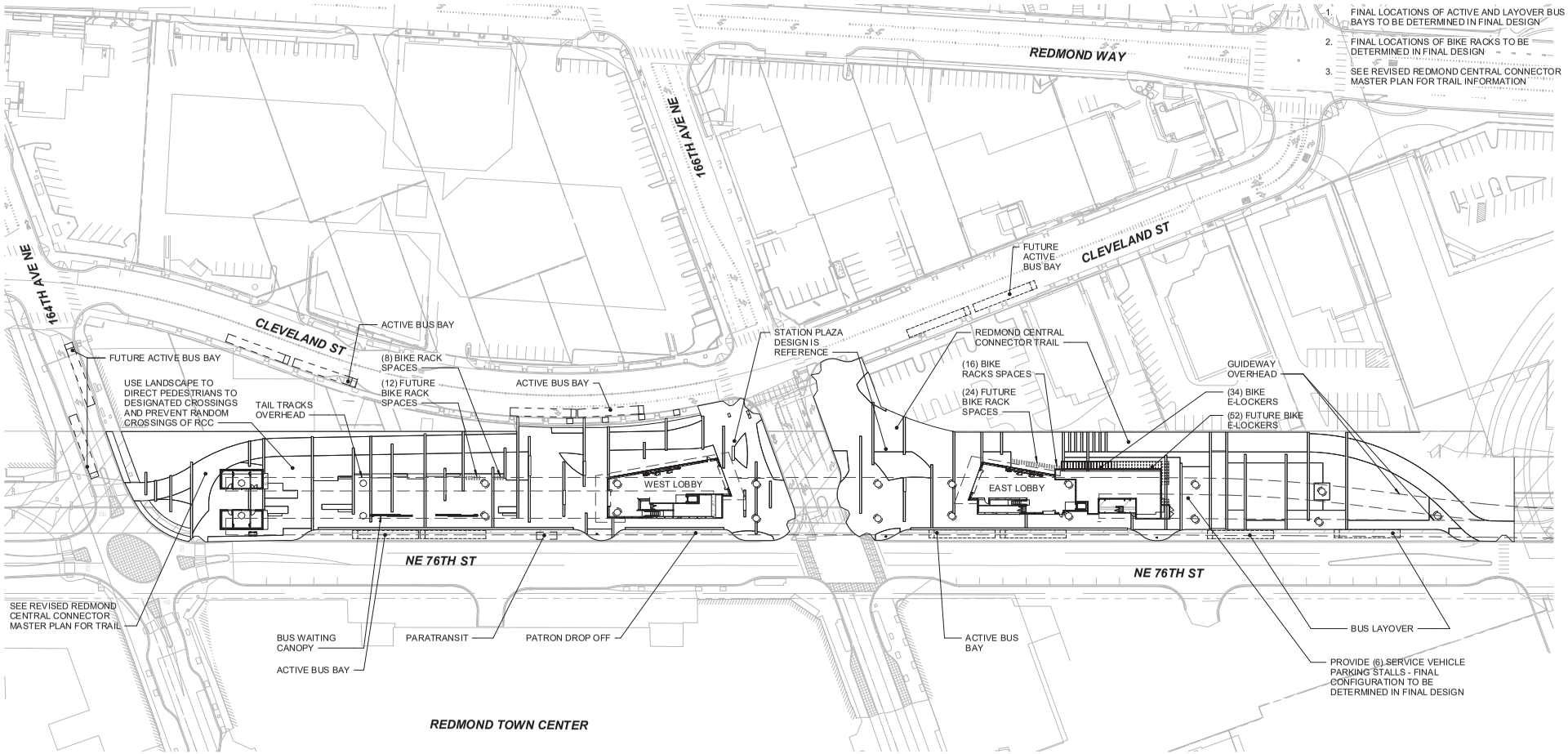
NOTES:
1. FINAL LOCATIONS OF ACTIVE AND LAYOVER BUS BAYS TO BE DETERMINED IN FINAL DESIGN
2. FINAL LOCATIONS OF BIKE RACKS TO BE DETERMINED IN FINAL DESIGN
3. SEE REVISED REDMOND CENTRAL CONNECTOR MASTER PLAN FOR TRAIL INFORMATION



N

50' 25' 0' 50' 100'
SCALE IN FEET

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No.	DATE	DSN	CHK	APP	REVISION

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LINE IS 1" AT FULL SCALE

SCALE: 1" = 50'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
ARCHITECTURAL SITE PLAN
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-ASP100
FACILITY ID:
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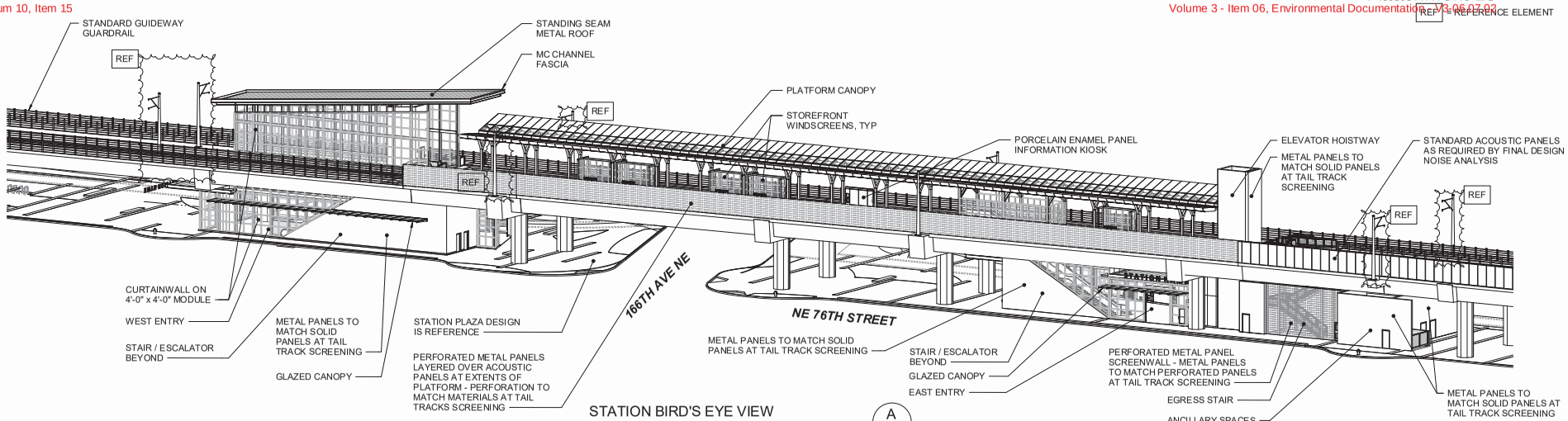
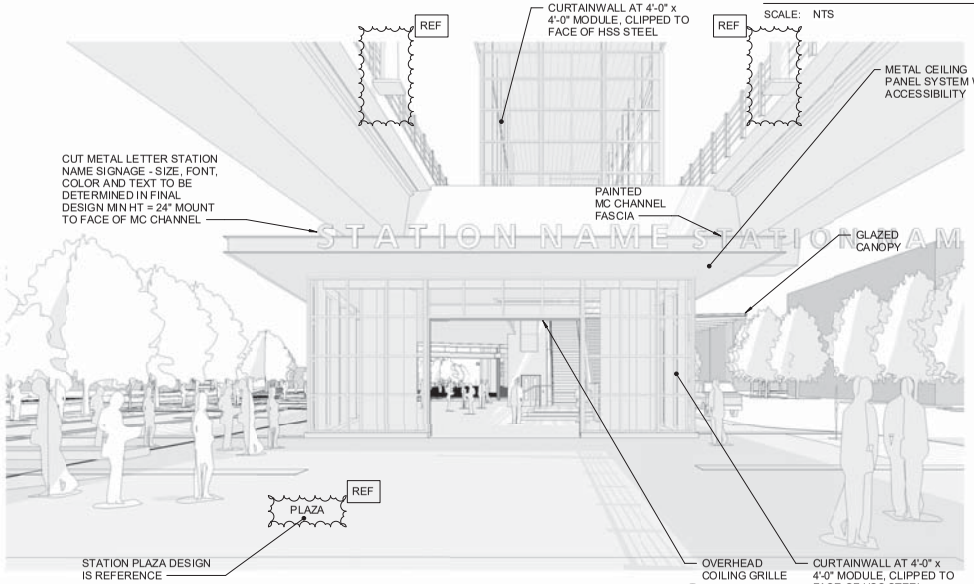


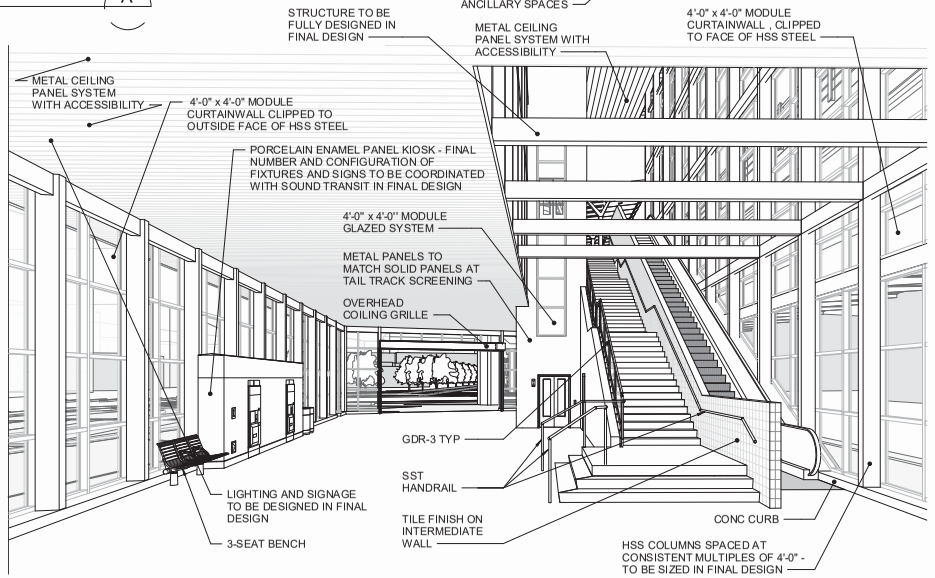
STATION BIRD'S EYE VIEW A

SCALE: NTS



WEST HEAD HOUSE WEST ENTRANCE B

SCALE: NTS



WEST HEAD HOUSE LOOKING EAST C

SCALE: NTS

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DOWNTOWN REDMOND LINK EXTENSION
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DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-ANS100
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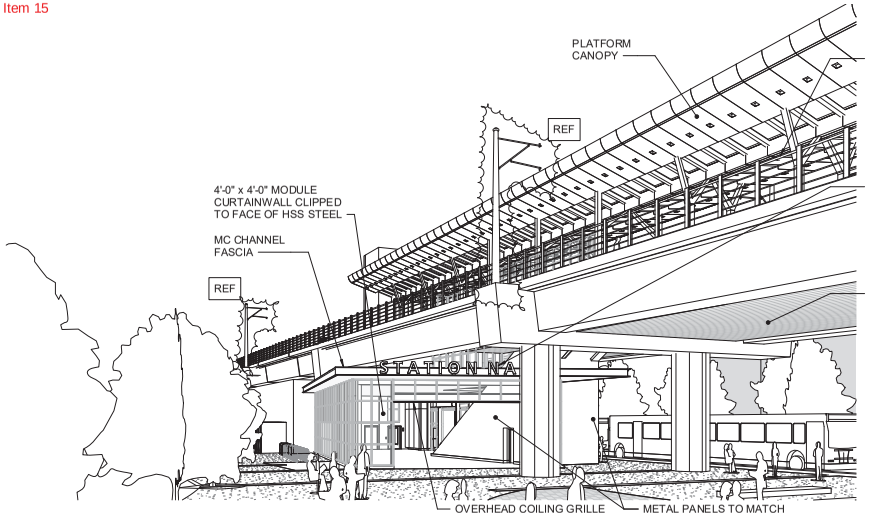
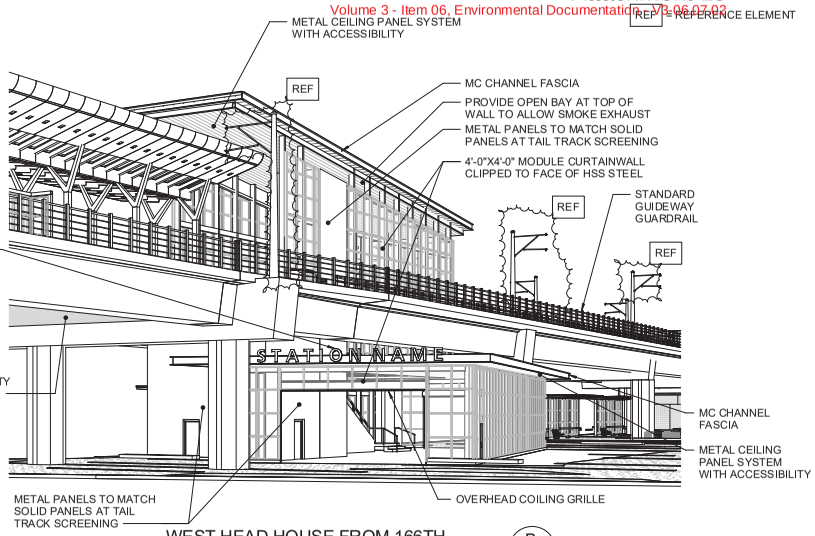


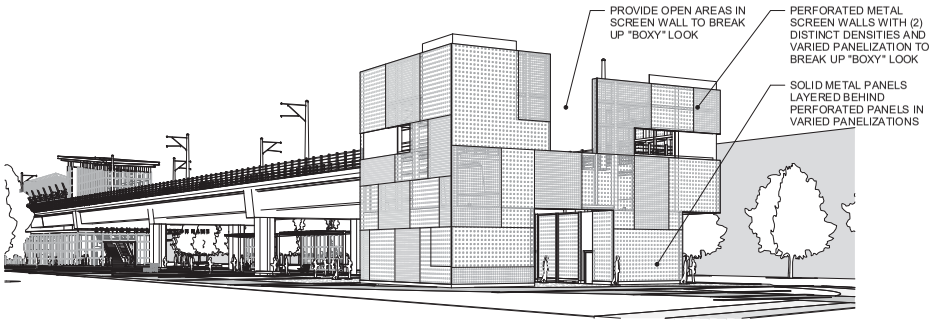
EAST HEAD HOUSE FROM 166TH (A)

SCALE: NTS



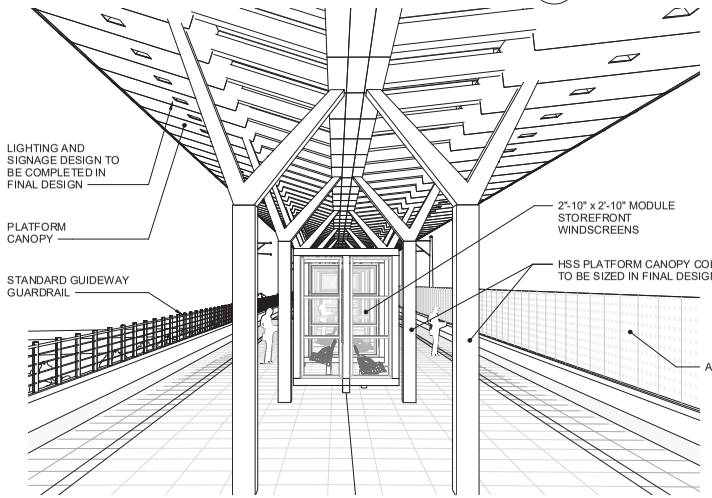
WEST HEAD HOUSE FROM 166TH (B)

SCALE: NTS



VIEW OF TAILTRACK FROM 164TH (C)

SCALE: NTS



VIEW OF PLATFORM CANOPY AND WINDSCREEN (D)

SCALE: NTS

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CONCEPTUAL DESIGN

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CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

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SCALE: NTS
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CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
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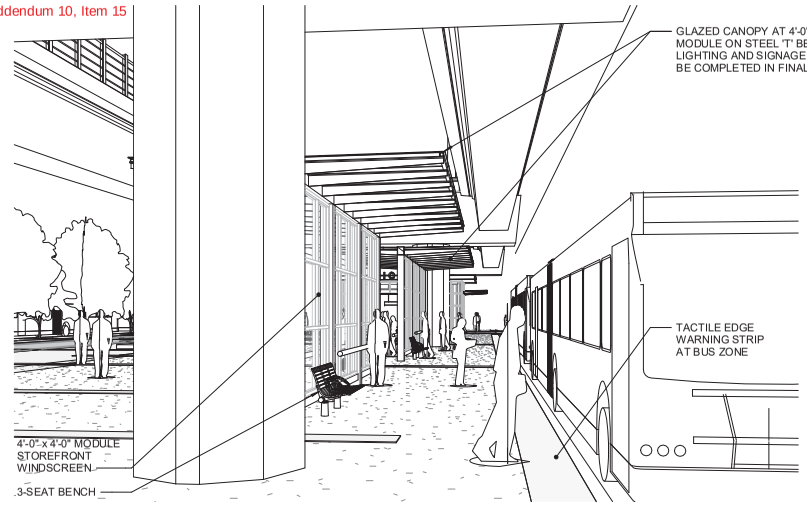
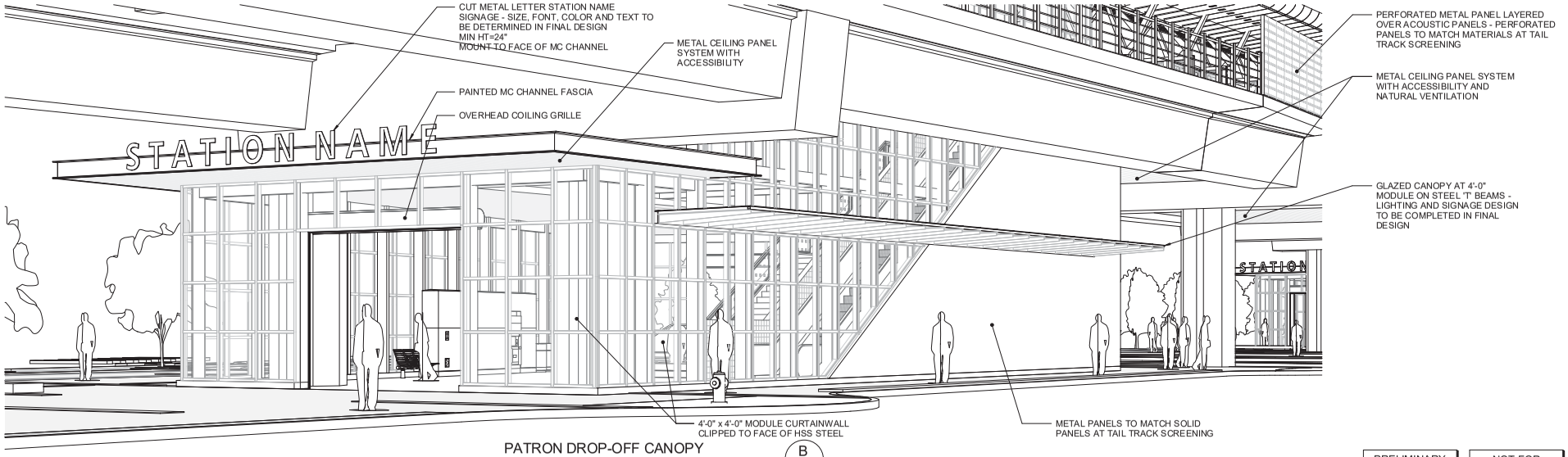
DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-ANS200**
FACILITY ID:
SHEET No: 405
REV:



3D AT BUS CANOPY (A)
SCALE: NTS



PATRON DROP-OFF CANOPY (B)
SCALE: NTS

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HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: NTS
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL AXONOMETRICS
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-ANS300
FACILITY ID:
SHEET No: 406
REV:

10/14/2018 12:17:28 PM
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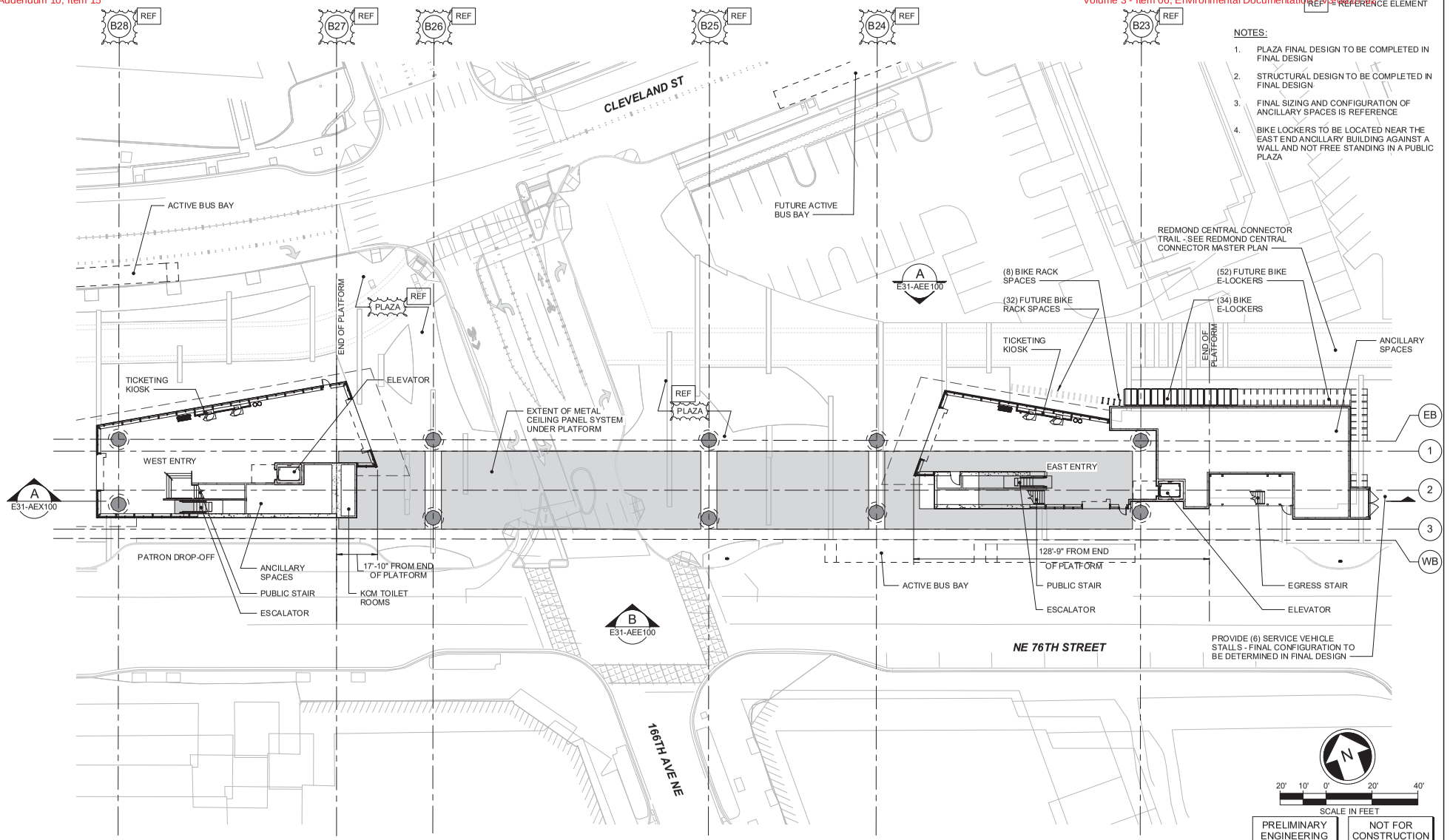

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
OVERALL PLAN-PLAZA LEVEL
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APP100
FACILITY ID:
SHEET No: 407
REV:

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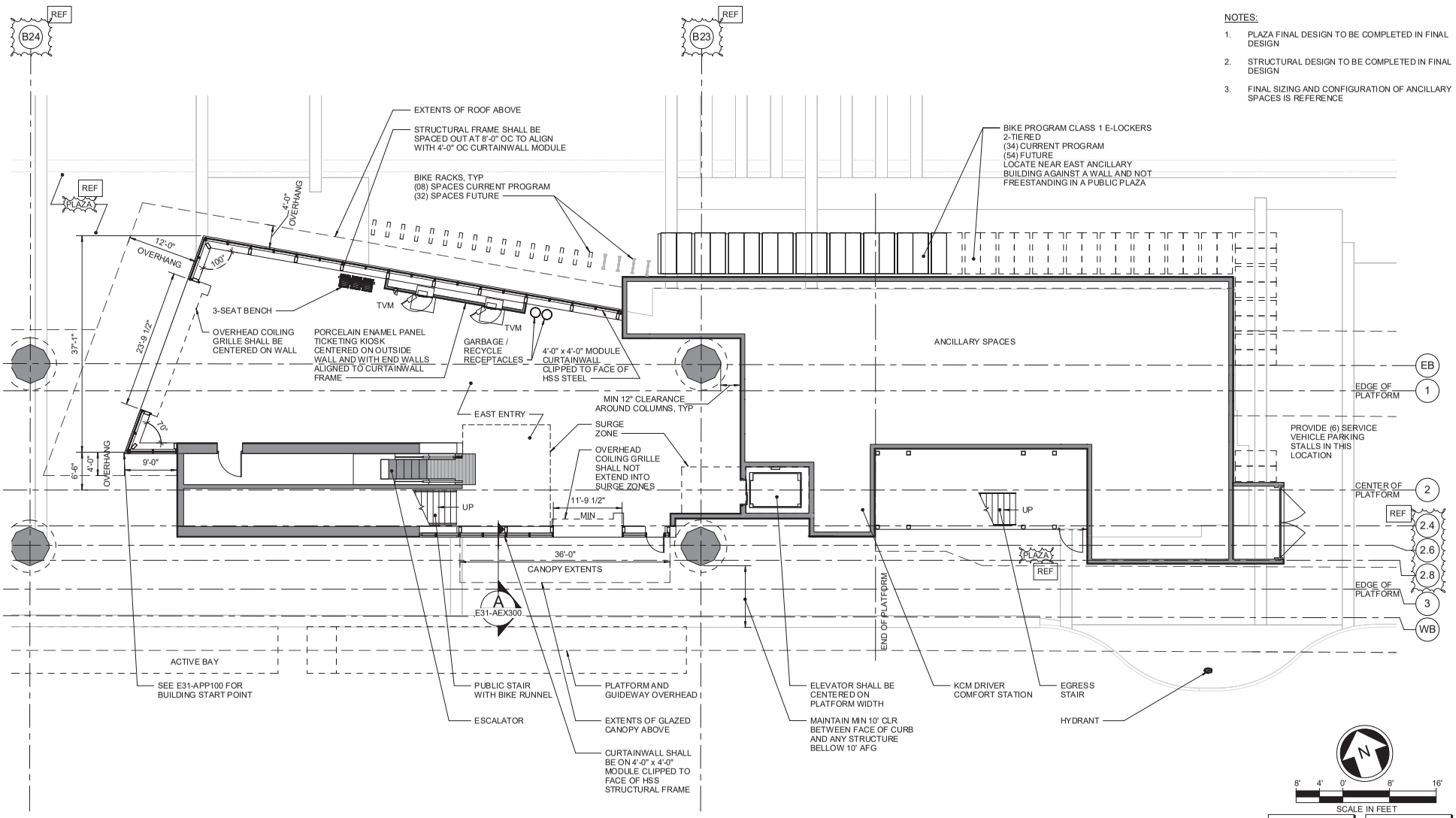

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-EAST END
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APP101
FACILITY ID:
SHEET No: 408
REV:

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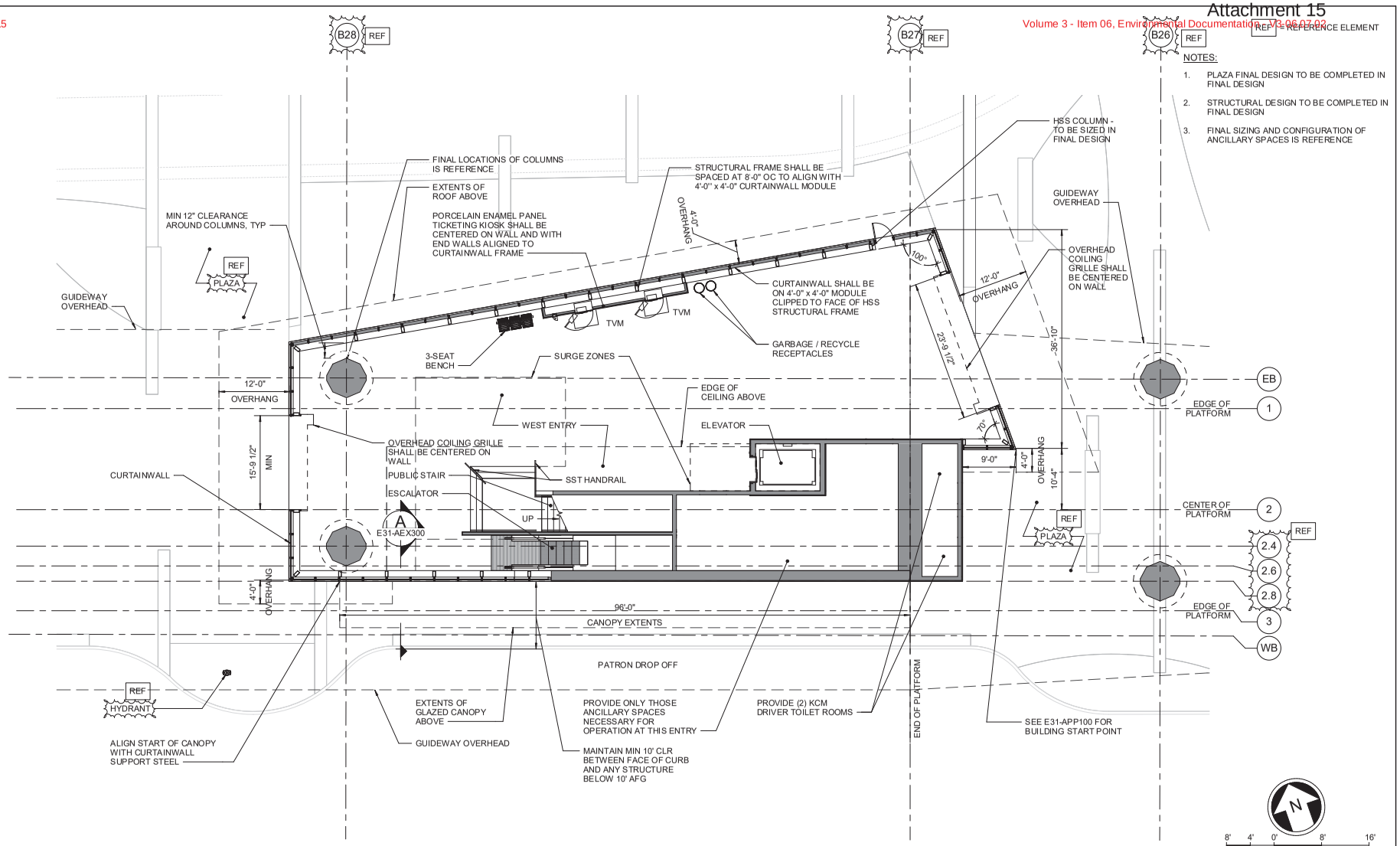

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

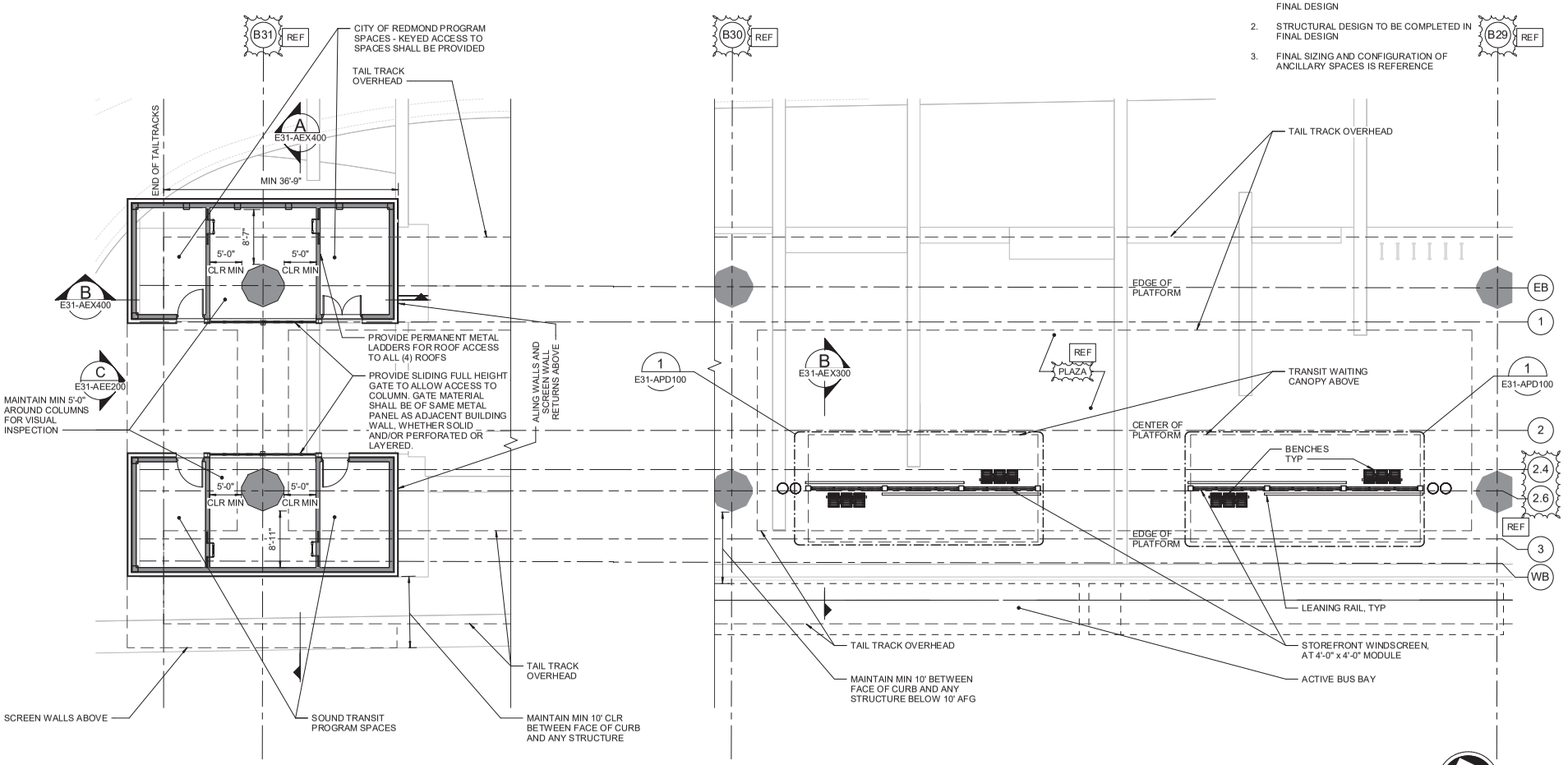
DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-WEST END
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-APP103**
FACILITY ID:
SHEET No: 409
REV:

REF = REFERENCE ELEMENT

NOTES:

1. PLAZA FINAL DESIGN TO BE COMPLETED IN FINAL DESIGN
2. STRUCTURAL DESIGN TO BE COMPLETED IN FINAL DESIGN
3. FINAL SIZING AND CONFIGURATION OF ANCILLARY SPACES IS REFERENCE



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLAZA LEVEL-TAIL TRACKS
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-APP104**
FACILITY ID:
SHEET No: 410
REV:

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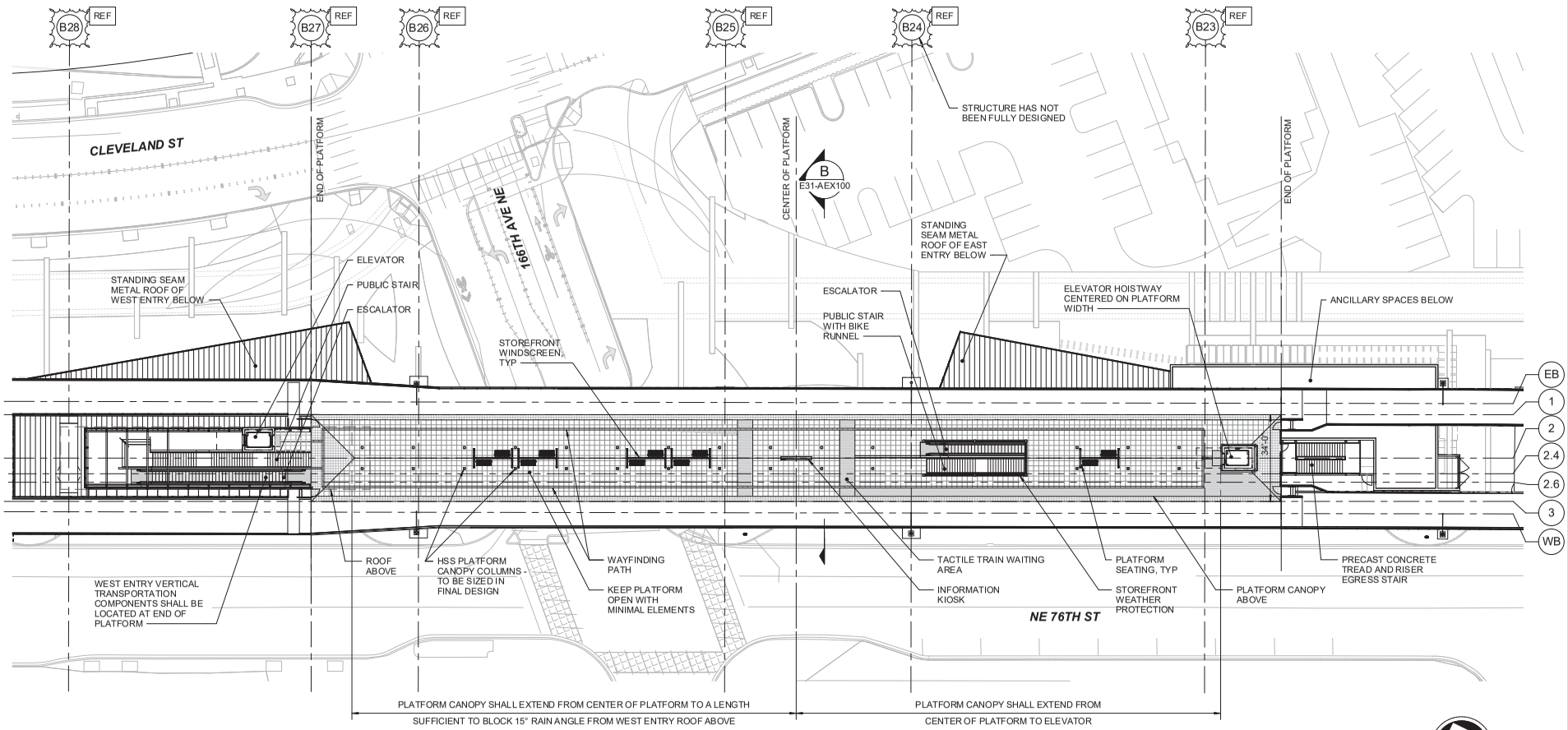
C:\Temp\RLE_E31_A-R17_mowyllie.rvt

REF = REFERENCE ELEMENT

NOTES:

1. PLAZA FINAL DESIGN IS REFERENCE
2. STRUCTURAL DESIGN TO BE SIZED IN FINAL DESIGN



N

20' 10' 0' 20' 40'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1" = 20'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
OVERALL PLAN-PLATFORM LEVEL
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APP200
FACILITY ID:
SHEET No.: 411
REV:

10/14/2018 12:18:03 PM
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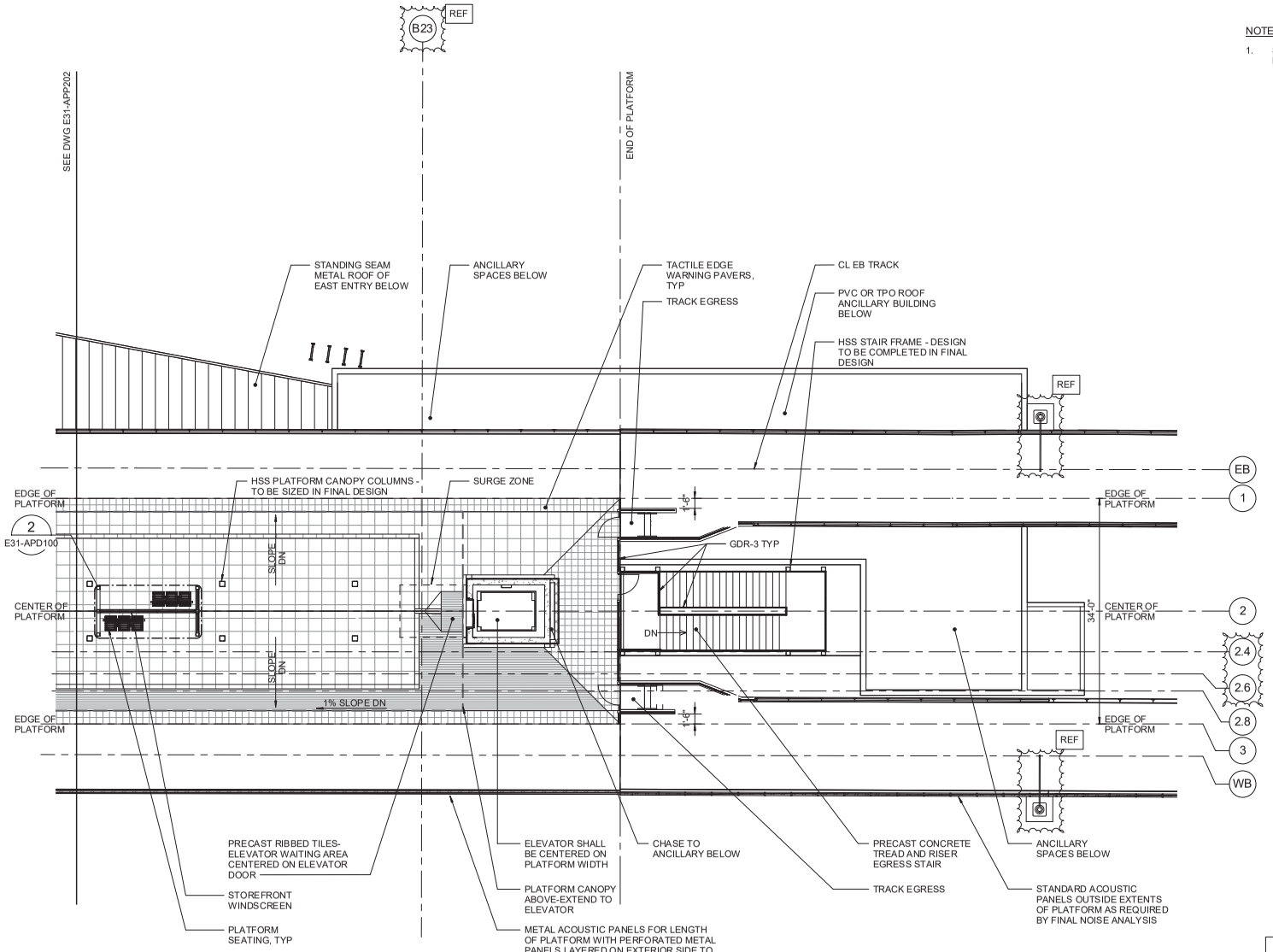
REF = REFERENCE ELEMENT

NOTES:

1. STRUCTURAL DESIGN TO BE SIZED IN FINAL DESIGN



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLATFORM LEVEL-EAST END
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APP201
FACILITY ID:
SHEET No: 412
REV:

10/14/2018 12:18:09 PM
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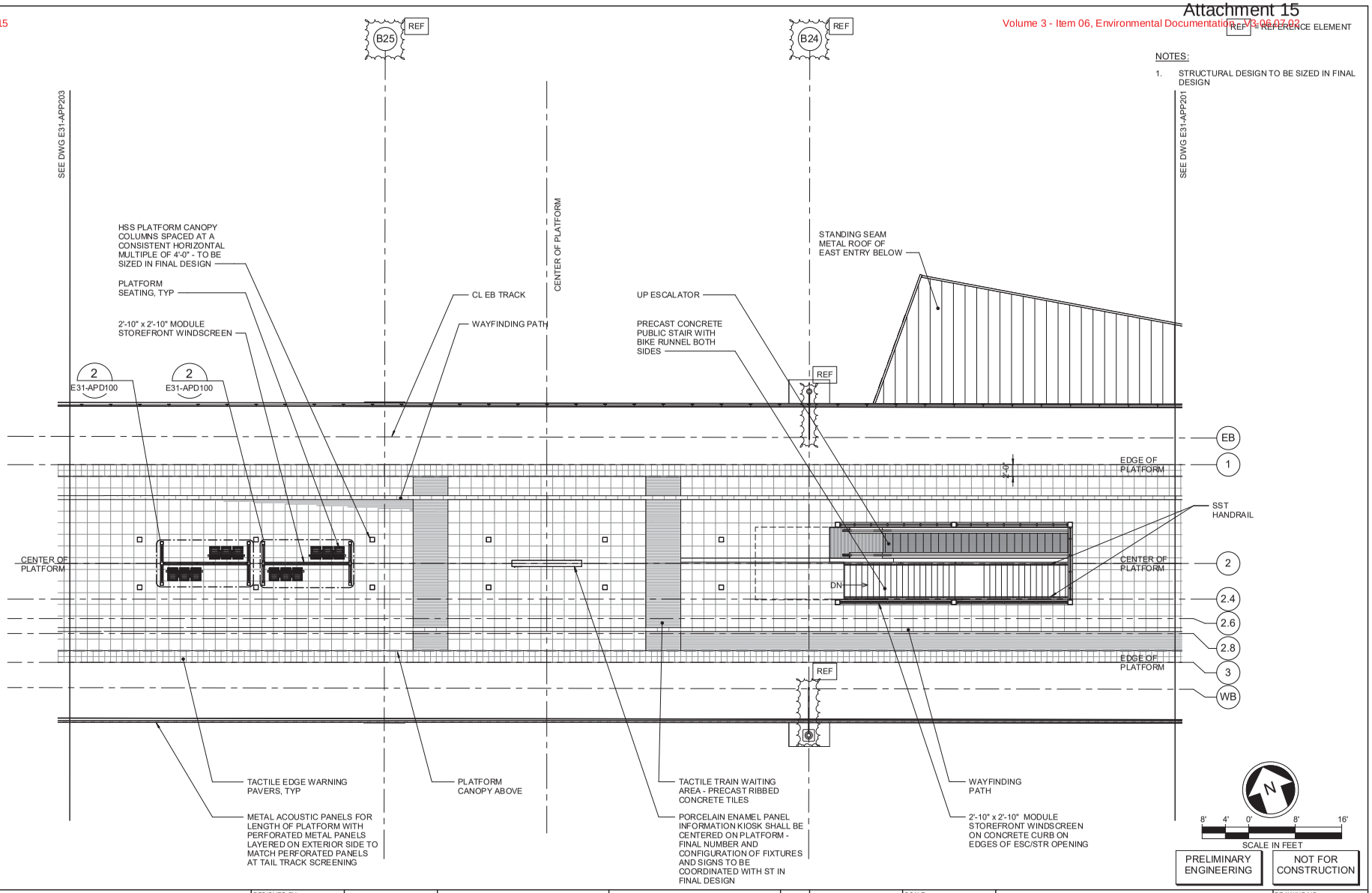

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SoundTransit

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLATFORM LEVEL-CENTRAL
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APP202
FACILITY ID:
SHEET No.: 413
REV:

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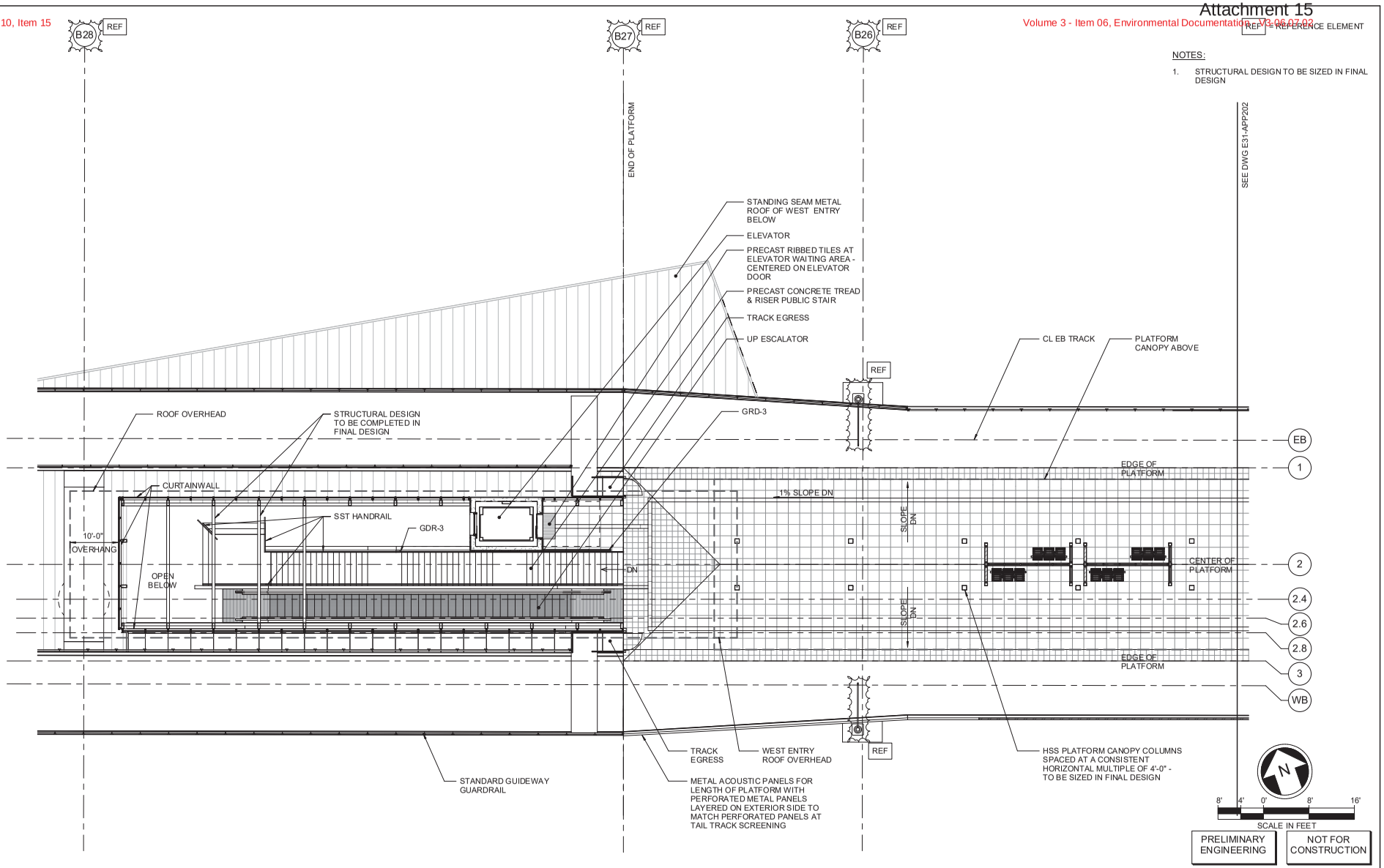

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/8" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
PARTIAL PLAN-PLATFORM LEVEL-WEST END
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-APP203**
FACILITY ID:
SHEET No.: 414
REV:

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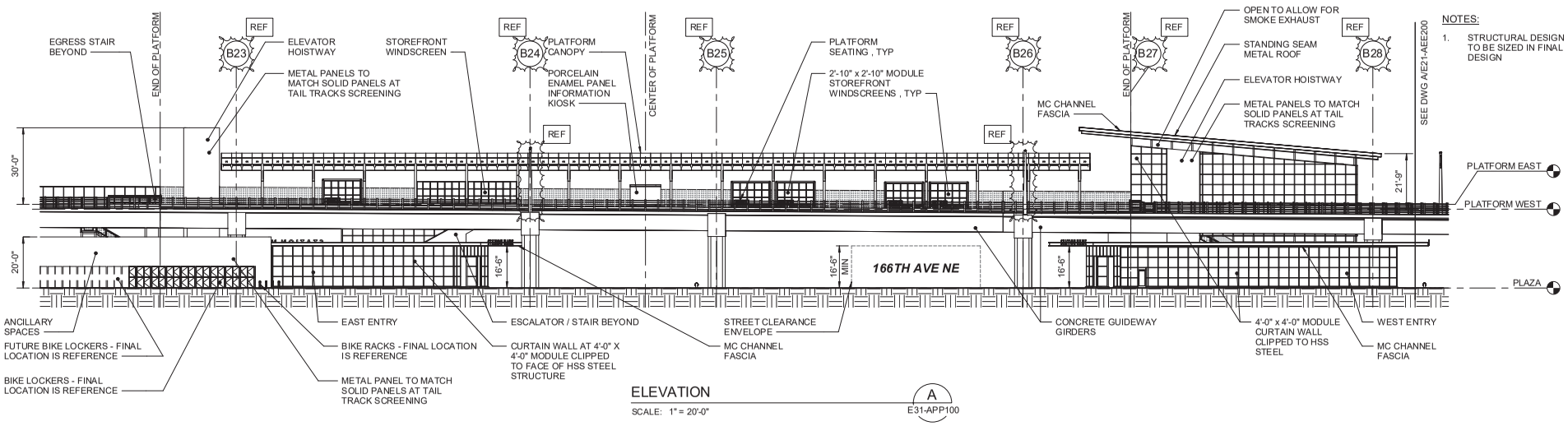
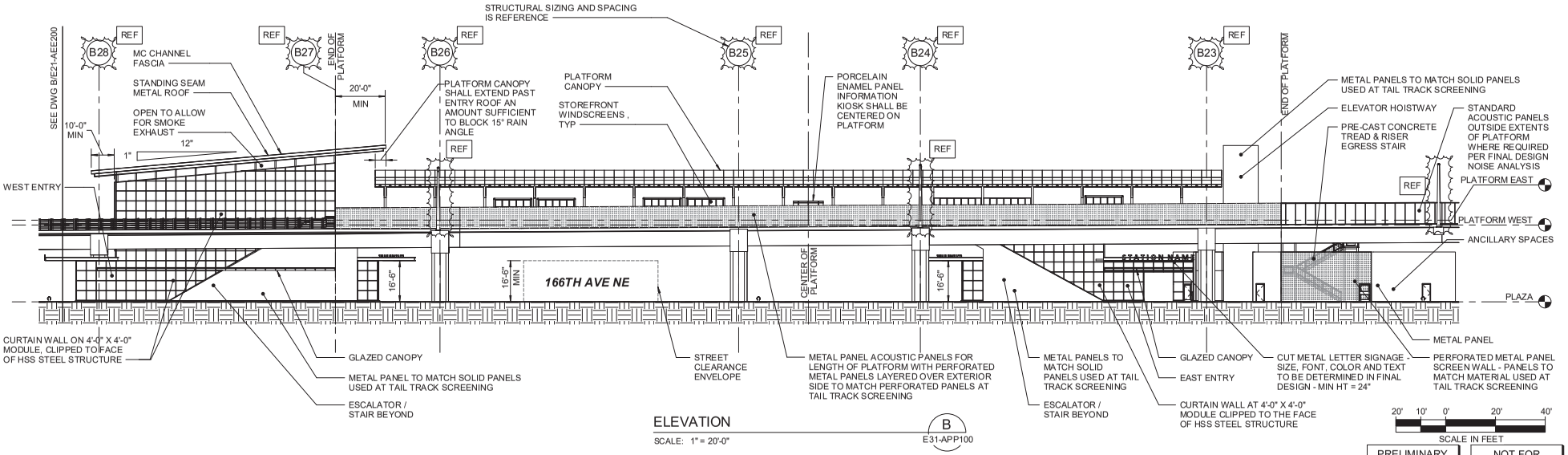
REF = REFERENCE ELEMENT



ELEVATION A
SCALE: 1" = 20'-0"
E31-APP100



ELEVATION B
SCALE: 1" = 20'-0"
E31-APP100

20' 10' 0' 20' 40'
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

10/14/2018 12:16:04 PM
C:\temp\RLE_E31_A-R17_mowylie.rvt

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

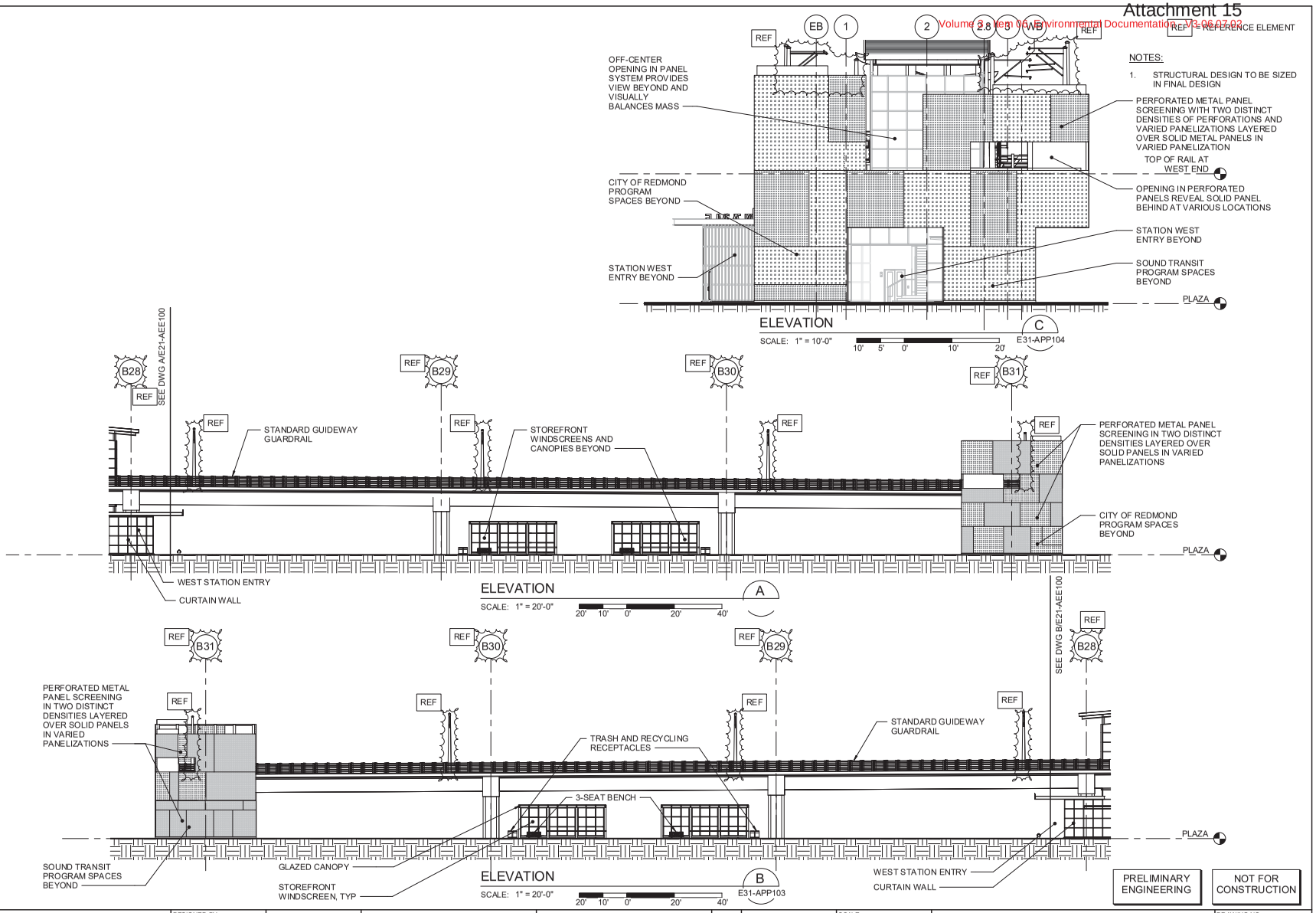
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1" = 20'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL EXTERIOR ELEVATIONS
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AEE100
FACILITY ID:
SHEET No.: 415
REV:



PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: As indicated
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL EXTERIOR ELEVATIONS
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AEE200
FACILITY ID:
SHEET No: 416
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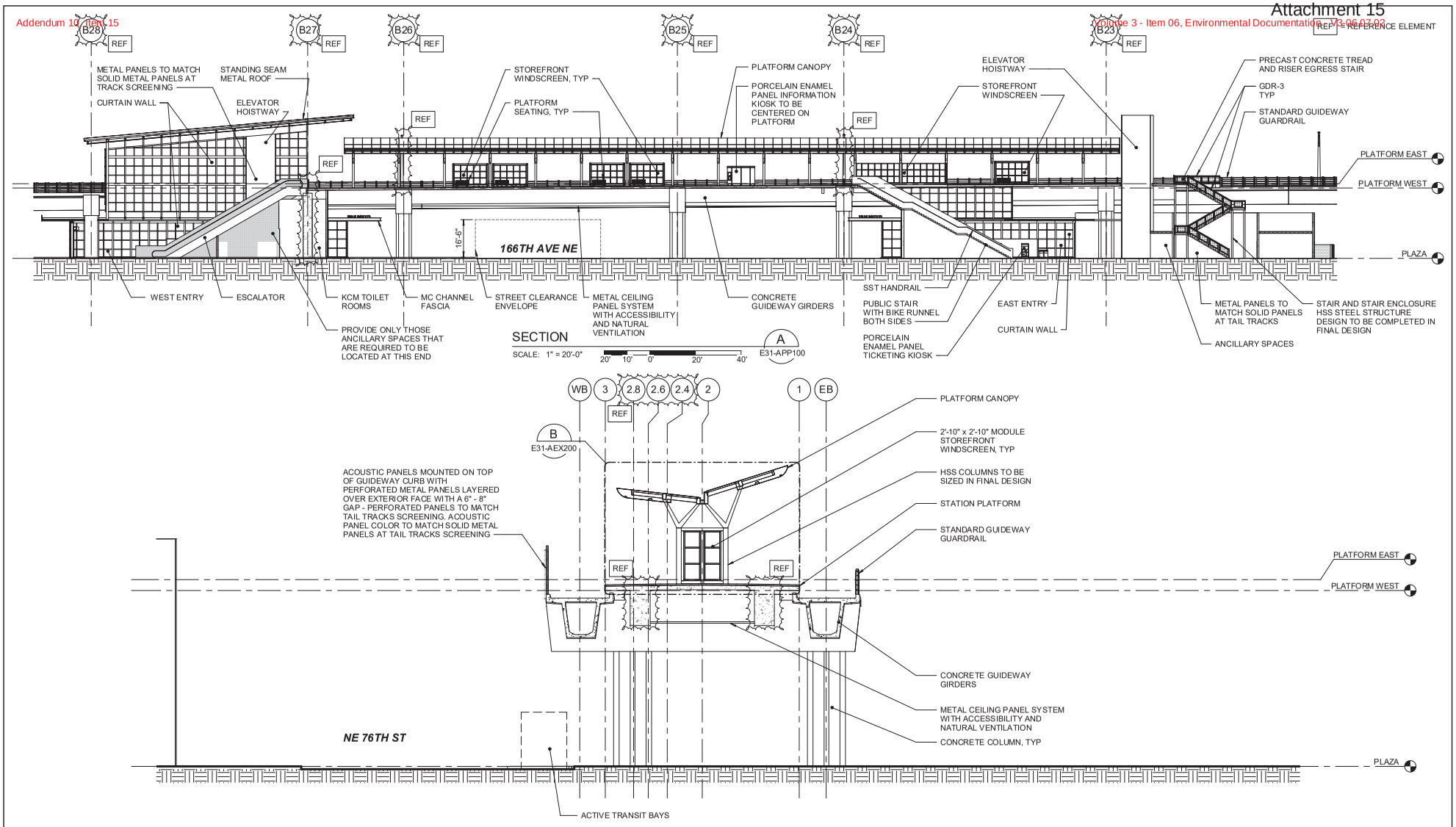

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4130 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: As indicated
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
LONGITUDINAL AND CROSS SECTIONS
DOWNTOWN REDMOND STATION

DRAWING NO.: **E31-AEX100**
FACILITY ID:
SHEET No: 417
REV:

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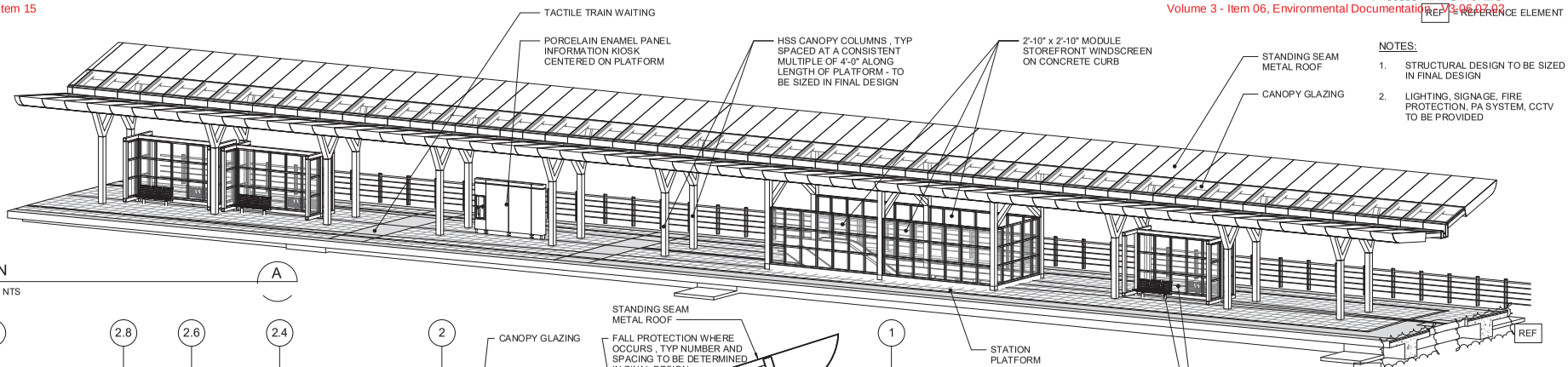
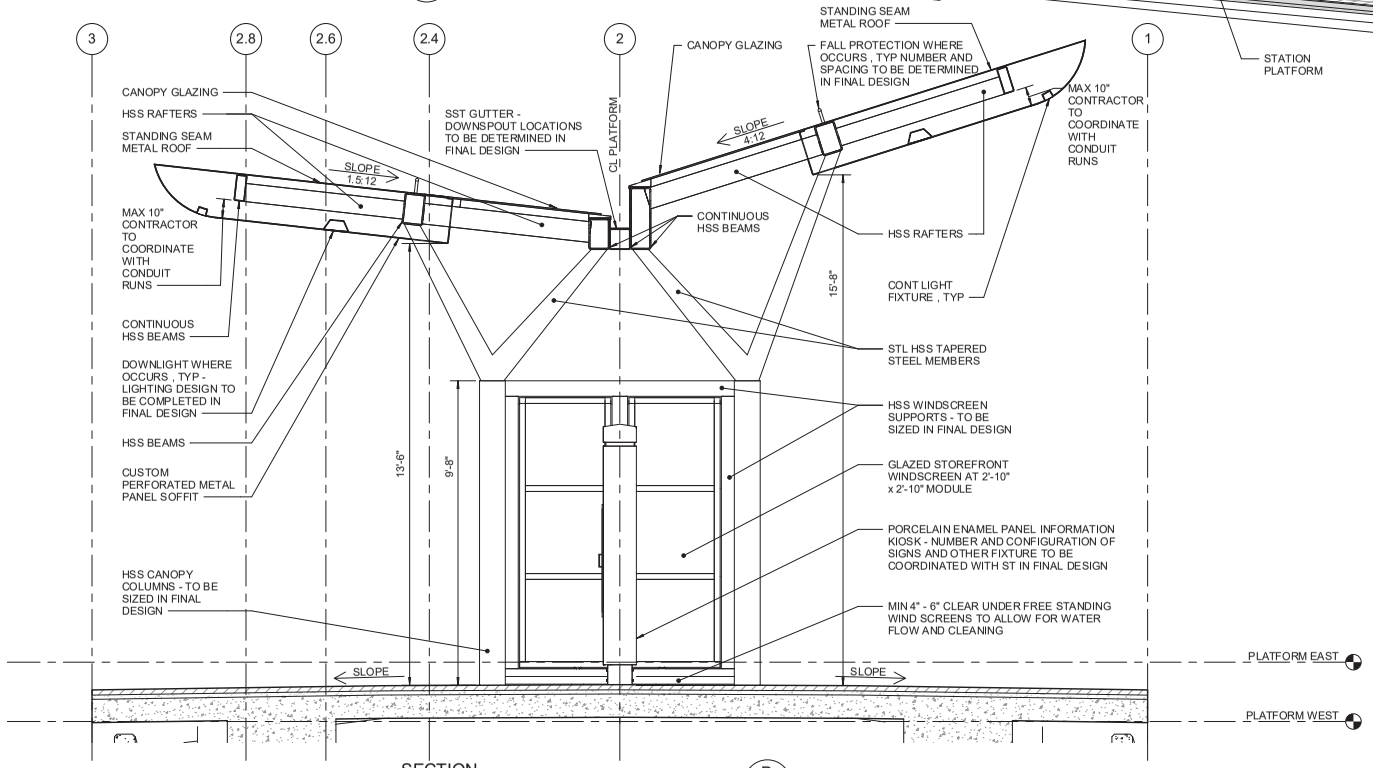


AXON

SCALE: NTS

A



SECTION

SCALE: 1/2" = 1'-0"

B

E31-AEX100

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT
PAUL A. SHEMA
STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: AS INDICATED
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
CROSS SECTION AND AXON
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AEX200
FACILITY ID:
SHEET No.: 418
REV:

10/14/2018 12:16:27 PM
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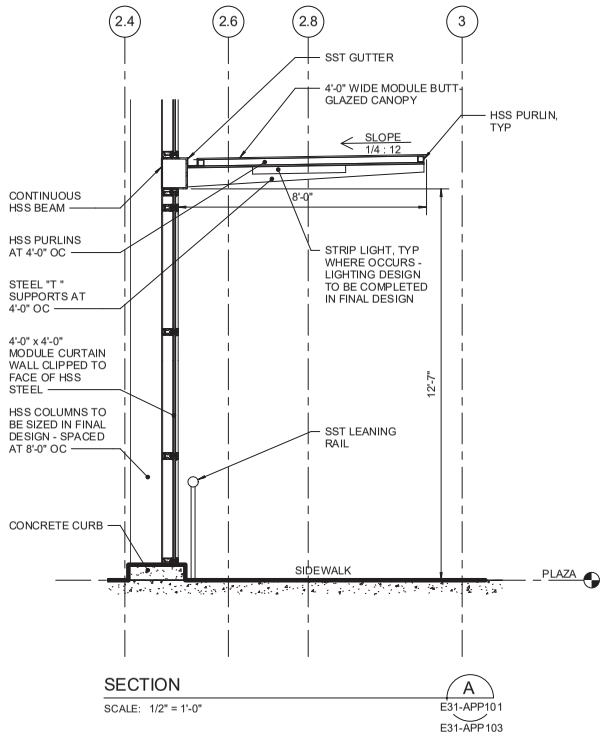
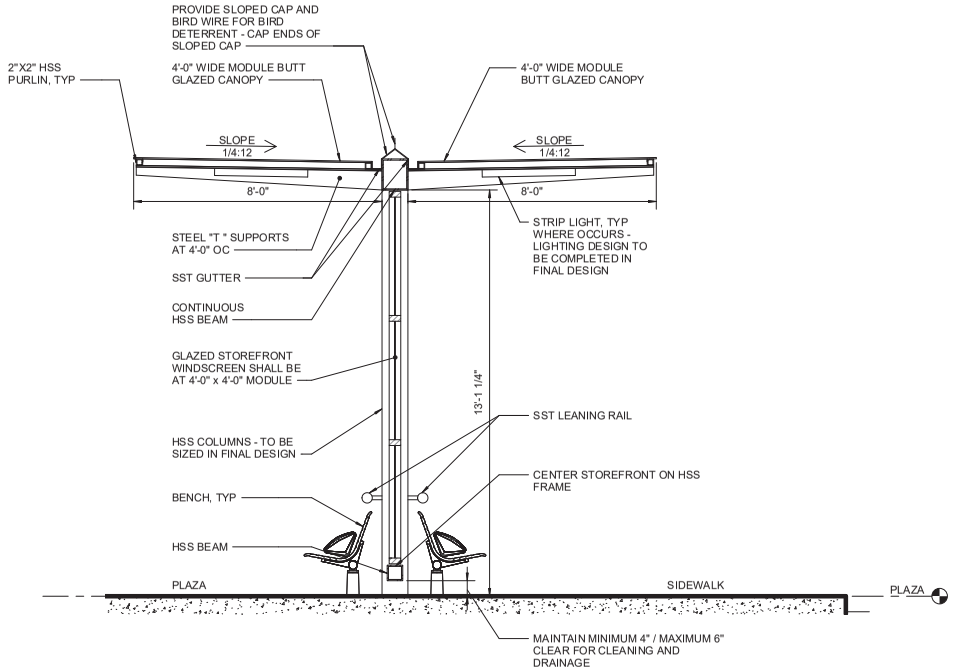
NOTES:

1. STRUCTURAL DESIGN TO BE SIZED IN FINAL DESIGN



SECTION A
SCALE: 1/2" = 1'-0"
E31-APP101
E31-APP103



SECTION B
SCALE: 1/2" = 1'-0"
E31-APP104

2' 1' 0' 2' 4'
SCALE IN FEET

PRELIMINARY ENGINEERING | NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN
FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
HEWITT
LINE IS 1" AT FULL SCALE
SOUNDTRANSIT

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SCALE: 1/2" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
CANOPY DETAILS
DOWNTOWN REDMOND STATION

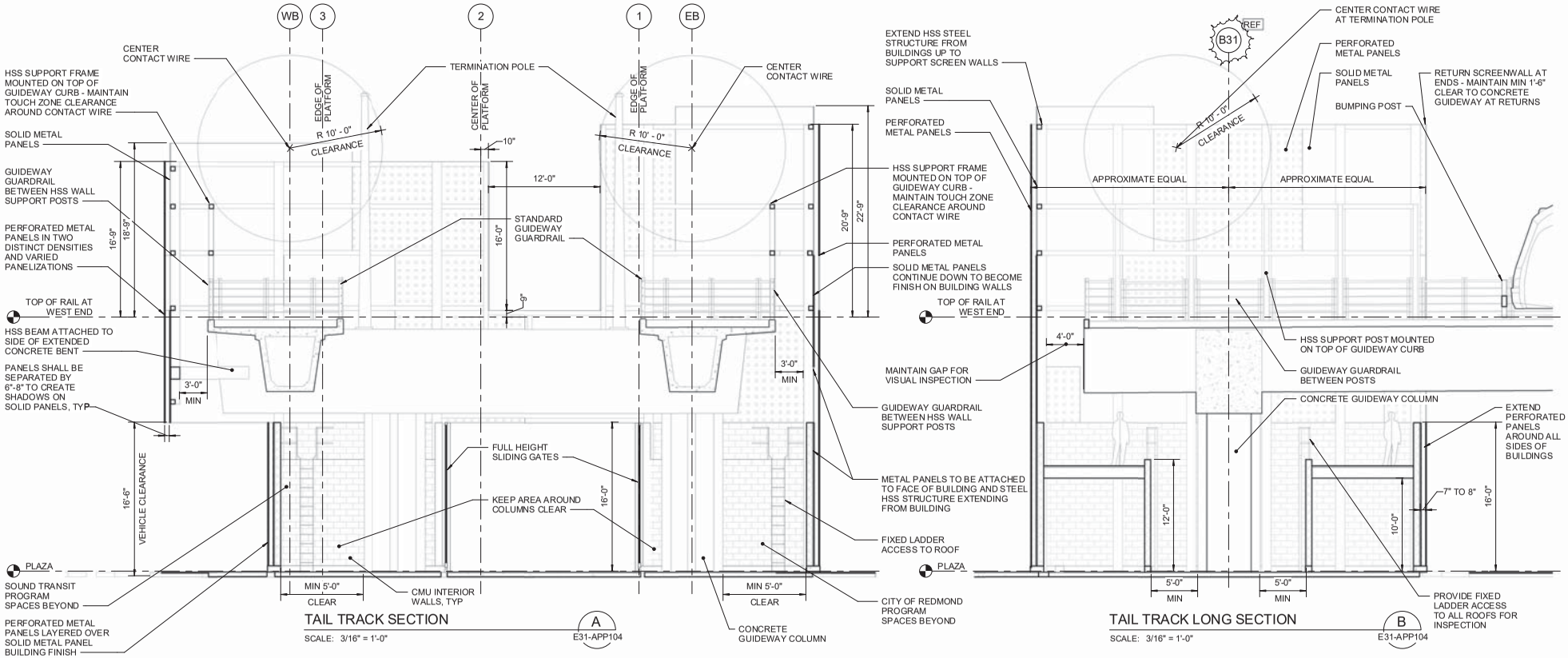
DRAWING NO.: E31-AEX300
FACILITY ID:
SHEET No: 419
REV:

10/14/2018 12:16:29 PM
C:\Temp\RLE_E31_A-R17_mowyllie.rvt

REF = REFERENCE ELEMENT

NOTES:

1. STRUCTURAL DESIGN TO BE COMPLETED IN FINAL DESIGN.
2. FALL PROTECTION TO BE DESIGNED IN FINAL DESIGN.
3. BIRD DETERRENT TO BE PROVIDED.



8' 4' 0' 8' 16'

SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 3/16" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
TAIL TRACKS LONGITUDINAL AND CROSS SECTIONS
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-AEX400
FACILITY ID:
SHEET No.: 420
REV:

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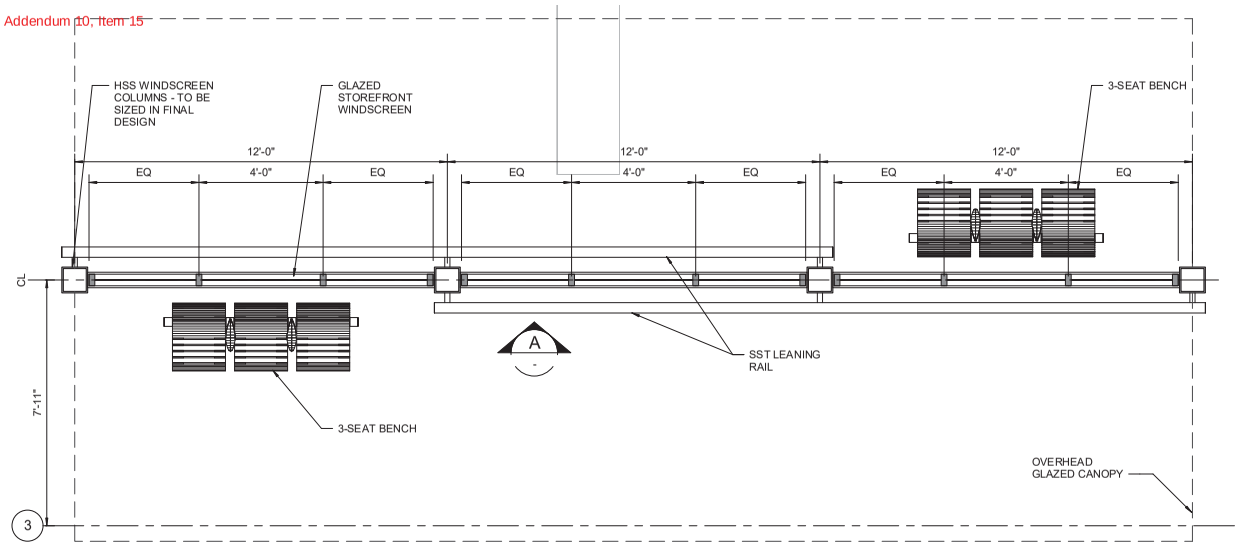
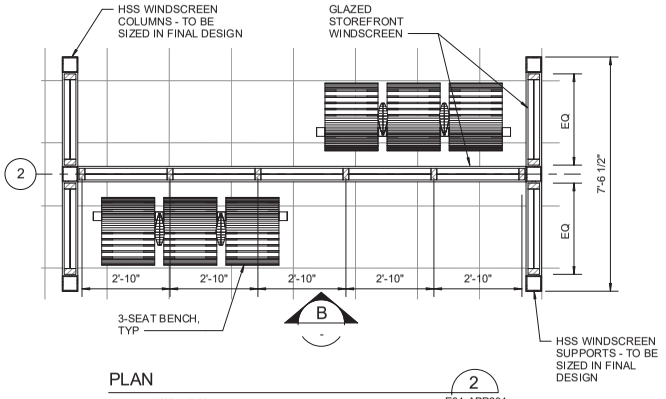
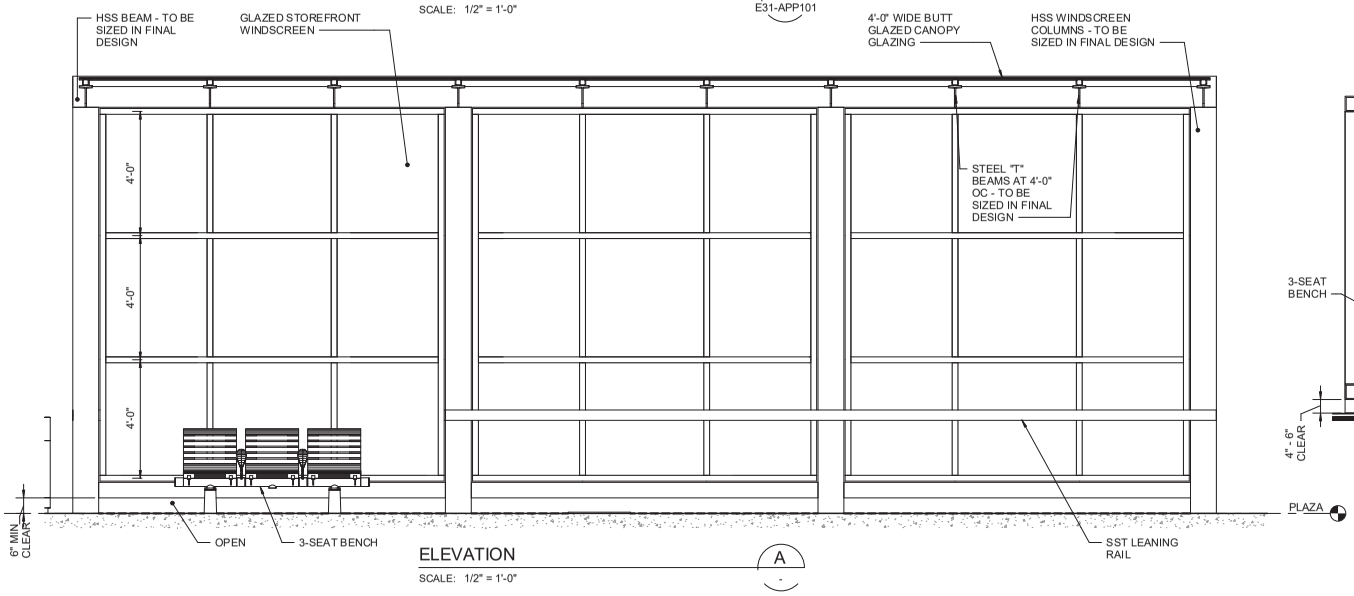


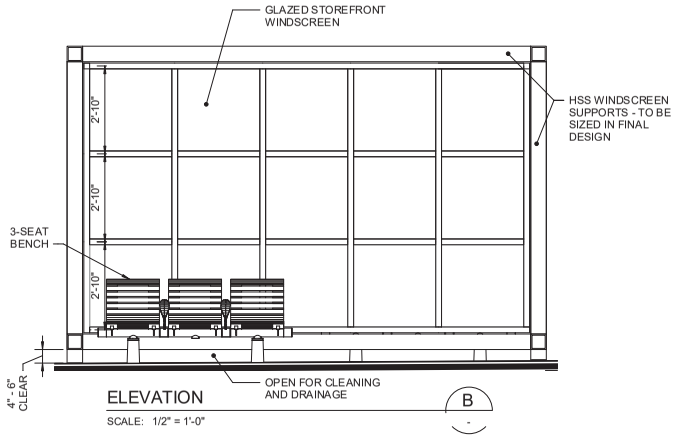
PLAN
SCALE: 1/2" = 1'-0"
1 E31-APP101



PLAN
SCALE: 1/2" = 1'-0"
2 E31-APP201



ELEVATION
SCALE: 1/2" = 1'-0"
A



ELEVATION
SCALE: 1/2" = 1'-0"
B

2' 1' 0' 2' 4'
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

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CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: M. WYLLIE
DRAWN BY: A. KHWAJA
CHECKED BY: M. WIND
APPROVED BY: L. EPHREM

4120 REGISTERED ARCHITECT PAUL A. SHEMA STATE OF WASHINGTON

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/2018
REVIEWED BY:
DATE:

SOUNDTRANSIT

SCALE: 1/2" = 1'-0"
FILENAME: RLE_E31_A-R17.rvt
CONTRACT No.: CN 0148-18
SUBMITTAL DATE: 09/24/2018

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
PRESCRIPTIVE
DOWNTOWN REDMOND STATION - ARCHITECTURAL
WINDSCREEN PLAN
DOWNTOWN REDMOND STATION

DRAWING NO.: E31-APD100
FACILITY ID:
SHEET No.: 421
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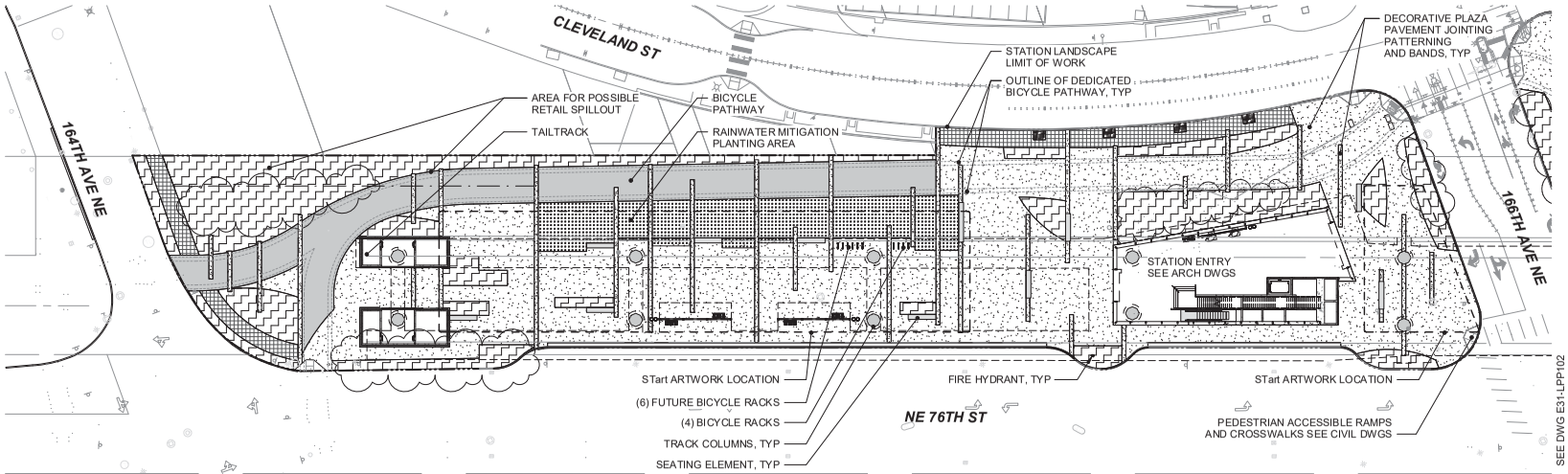

REDMOND TOWN CENTER

LANDSCAPE LEGEND

- PROPOSED TREE AREAS
- PLAZA PAVING
- STANDARD CONCRETE SIDEWALK - CITY OF REDMOND
- CIP CONCRETE PATHWAY
- FLEXIBLE POROUS PAVING
- RESTORATION PLANTING
- TYPICAL PLANTING AREA
- BIORETENTION PLANTING AREA
- SEATING ELEMENT
- BICYCLE RACKS, EACH RACK ACCOMODATES (2) BICYCLES

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

30' 15' 0' 30' 60'
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. WOLAND
DRAWN BY: D. BRAMER
CHECKED BY: R. KISH
APPROVED BY: M. PORTEOUS

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
HEWITT
SUBMITTED BY: BRAD PHILLIPS | DATE: 09/24/18 | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 30'-0"
FILENAME: RLE_E31_L-R17.rvt
CONTRACT No.: CN 0148-18
DATE: 09/24/18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - LANDSCAPE
STATION LANDSCAPE SITE PLAN WEST

DRAWING NO.: E31-LPP101
FACILITY ID:
SHEET No.: 422
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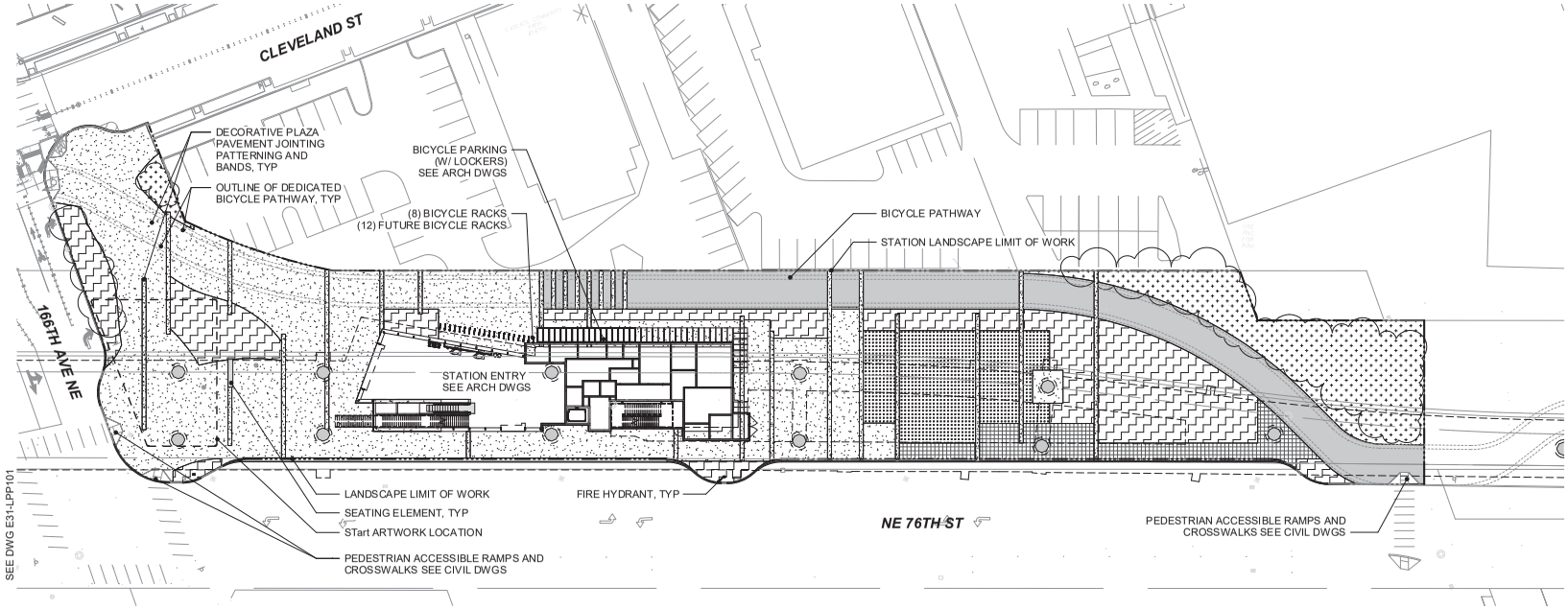

LANDSCAPE LEGEND

- PROPOSED TREE AREAS
- PLAZA PAVING
- STANDARD CONCRETE SIDEWALK - CITY OF REDMOND
- CIP CONCRETE PATHWAY
- FLEXIBLE POROUS PAVING
- RESTORATION PLANTING
- TYPICAL PLANTING AREA
- BIORETENTION PLANTING AREA
- SEATING ELEMENT
- BICYCLE RACKS, EACH RACK ACCOMODATES (2) BICYCLES

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

30' 15' 0' 30' 60'
SCALE IN FEET

CONCEPTUAL DESIGN

FINAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. WOLAND
DRAWN BY: D. BRAMER
CHECKED BY: R. KISH
APPROVED BY: M. PORTEOUS

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

HEWITT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: BRAD PHILLIPS
DATE: 09/24/18
REVIEWED BY:
DATE:

SCALE: 1" = 30'-0"
FILENAME: RLE_E31_L-R17.rvt
CONTRACT No.: CN 0148-18
DATE: 09/24/18

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
DOWNTOWN REDMOND STATION - LANDSCAPE
STATION LANDSCAPE SITE PLAN EAST

DRAWING NO.: E31-LPP102
FACILITY ID:
SHEET No.: 423
REV:

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Appendix B

Scientific Names of Species Known or Expected to be Present in the Study Area

Common Name	Scientific Name
Amphibians	
American Bullfrog	*Lithobates catesbeianus*
Long-toed Salamander	*Ambystoma macrodactylum*
Northern Red-legged Frog	*Rana aurora*
Northwestern Salamander	*Ambystoma gracile*
Pacific Treefrog	*Pseudacris regilla*
Western Toad	*Anaxyrus boreas*
Aquatic Invertebrates	
Oregon floater (mussel)	*Anodonta oregonensis*
Western floater (mussel)	*Anodonta kennerlyi*
Western pearlshell mussel	*Margaritifera falcatata*
Western ridged mussel	*Gonidea angulata*
Birds	
American Bittern	*Botaurus lentiginosus*
American Coot	*Fulica americana*
American Crow	*Corvus brachyrhynchos*
American Dipper	*Cinclus mexicanus*
American Goldfinch	*Carduelis tristis*
American Kestrel	*Falco sparverius*
American Pipit	*Anthus rubescens*
American Redstart	*Setophaga ruticilla*
American Robin	*Turdus migratorius*
American Tree Sparrow	*Spizella arborea*
American White Pelican	*Pelecanus erythrorhynchos*
American Wigeon	*Anas americana*
Anna's Hummingbird	*Calypte anna*
Ash-throated Flycatcher	*Myiarchus cinerascens*
Baird's Sandpiper	*Calidris bairdii*
Bald Eagle	*Haliaeetus leucocephalus*
Baltimore Oriole	*Icterus galbula*
Band-tailed Pigeon	*Patagioenas fasciata*
Bank Swallow	*Riparia riparia*
Barn Owl	*Tyto alba*
Barn Swallow	*Hirundo rustica*
Barred Owl	*Strix varia*
Barrow's Goldeneye	*Bucephala islandica*
Belted Kingfisher	*Megaceryle alcyon*
Bewick's Wren	*Thryomanes bewickii*
Black Scoter	*Melanitta nigra*
Black Swift	*Cypseloides niger*
Black Tern	*Chlidonias niger*
Black-capped Chickadee	*Poecile atricapillus*
Black-headed Grosbeak	*Pheucticus melanocephalus*
Black-throated Gray Warbler	*Dendroica nigrescens*
Blue-gray Gnatcatcher	*Polioptila caerulea*
Blue-winged Teal	*Anas discors*
Bohemian Waxwing	*Bombycilla garrulus*
Bonaparte's Gull	*Chroicocephalus philadelphia*
Brant	*Branta bernicla*
Brewer's Blackbird	*Euphagus cyanocephalus*
Brewer's Sparrow	*Spizella breweri*
Brown Creeper	*Certhia americana*
Brown Pelican	*Pelecanus occidentalis*
Brown-headed Cowbird	*Molothrus ater*
Buff-breasted Sandpiper	*Tryngites subruficollis*
Bufflehead	*Bucephala albeola*
Bullock's Oriole	*Icterus bullockii*
Burrowing Owl	*Athene cunicularia*
Bushtit	*Psaltriparus minimus*
Cackling Goose	*Branta hutchinsii*
California Gull	*Larus californicus*
California Quail	*Callipepla californica*
Canada Goose	*Branta canadensis*
Canvasback	*Aythya valisineria*
Caspian Tern	*Hydroprogne caspia*
Cassin's Finch	*Carpodacus cassinii*
Cassin's Vireo	*Vireo cassinii*
Cattle Egret	*Bubulcus ibis*
Cedar Waxwing	*Bombycilla cedrorum*
Chestnut-backed Chickadee	*Poecile rufescens*
Chipping Sparrow	*Spizella passerina*
Cinnamon Teal	*Anas cyanoptera*
Clay-colored Sparrow	*Spizella pallida*
Cliff Swallow	*Petrochelidon pyrrhonota*
Common Goldeneye	*Bucephala clangula*
Common Loon	*Gavia immer*
Common Merganser	*Mergus merganser*
Common Nighthawk	*Chordeiles minor*
Common Poorwill	*Phalaenoptilus nuttallii*
Common Raven	*Corvus corax*

Common Name	Scientific Name
Common Redpoll	*Carduelis flammea*
Common Tern	*Sterna hirundo*
Common Yellowthroat	*Geothlypis trichas*
Cooper's Hawk	*Accipiter cooperii*
Dark-eyed Junco	*Junco hyemalis*
Double-crested Cormorant	*Phalacrocorax auritus*
Downy Woodpecker	*Picoides pubescens*
Dunlin	*Calidris alpina*
Eared Grebe	*Podiceps nigricollis*
Eastern Kingbird	*Tyrannus tyrannus*
Eurasian Collared-dove	*Streptopelia decaocto*
Eurasian Wigeon	*Anas penelope*
European Starling	*Sturnus vulgaris*
Evening Grosbeak	*Coccothraustes vespertinus*
Fox Sparrow	*Passerella iliaca*
Franklin's Gull	*Leucophaeus pipixcan*
Gadwall	*Anas strepera*
Glaucous Gull	*Larus hyperboreus*
Glaucous-winged Gull	*Larus glaucescens*
Golden-crowned Kinglet	*Regulus satrapa*
Golden-crowned Sparrow	*Zonotrichia atricapilla*
Gray Catbird	*Dumetella carolinensis*
Gray-crowned Rosy-finch	*Leucosticte tephrocotis*
Great Blue Heron	*Ardea herodias*
Great Egret	*Ardea alba*
Great Horned Owl	*Bubo virginianus*
Greater Scaup	*Aythya marila*
Greater White-fronted Goose	*Anser albifrons*
Greater Yellowlegs	*Tringa melanoleuca*
Green Heron	*Butorides virescens*
Green-winged Teal	*Anas crecca*
Hairy Woodpecker	*Picoides villosus*
Hammond's Flycatcher	*Empidonax hammondii*
Harlequin Duck	*Histrionicus histrionicus*
Hermit Thrush	*Catharus guttatus*
Herring Gull	*Larus argentatus*
Hooded Merganser	*Lophodytes cucullatus*
Horned Grebe	*Podiceps auritus*
House Finch	*Carpodacus mexicanus*
House Sparrow	*Passer domesticus*
House Wren	*Troglodytes aedon*
Hutton's Vireo	*Vireo huttoni*
Killdeer	*Charadrius vociferus*
Lapland Longspur	*Calcarius lapponicus*
Lark Sparrow	*Chondestes grammacus*
Lazuli Bunting	*Passerina amoena*
Least Flycatcher	*Empidonax minimus*
Least Sandpiper	*Calidris minutilla*
Lesser Goldfinch	*Carduelis psaltria*
Lesser Scaup	*Aythya affinis*
Lesser Yellowlegs	*Tringa flavipes*
Lewis's Woodpecker	*Melanerpes lewis*
Lincoln's Sparrow	*Melospiza lincolnii*
Loggerhead Shrike	*Lanius ludovicianus*
Long-billed Dowitcher	*Limnodromus scolopaceus*
Long-eared Owl	*Asio otus*
Long-tailed Jaeger	*Stercorarius longicaudus*
MacGillivray's Warbler	*Oporornis tolmiei*
Mallard	*Anas platyrhynchos*
Marbled Murrelet	*Brachyramphus marmoratus*
Marsh Wren	*Cistothorus palustris*
Merlin	*Falco columbarius*
Mew Gull	*Larus canus*
Mountain Bluebird	*Sialia currucoides*
Mountain Chickadee	*Poecile gambeli*
Mourning Dove	*Zenaida macroura*
Nashville Warbler	*Vermivora ruficapilla*
Northern Flicker	*Colaptes auratus*
Northern Goshawk	*Accipiter gentiliis*
Northern Harrier	*Circus cyaneus*
Northern Mockingbird	*Mimus polyglottos*
Northern Pintail	*Anas acuta*
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*
Northern Saw-whet Owl	*Aegolius acadicus*
Northern Shoveler	*Anas clypeata*
Northern Shrike	*Lanius excubitor*
Northern Waterthrush	*Seiurus noveboracensis*
Olive-sided Flycatcher	*Contopus cooperi*
Orange-crowned Warbler	*Vermivora celata*
Osprey	*Pandion haliaetus*
Pacific Loon	*Gavia pacifica*
Pacific wren	*Troglodytes troglodytes*

Common Name	Scientific Name
Pacific-slope Flycatcher	*Empidonax difficilis*
Parasitic Jaeger	*Stercorarius parasiticus*
Pectoral Sandpiper	*Calidris melanotos*
Peregrine Falcon	*Falco peregrinus*
Pied-billed Grebe	*Podilymbus podiceps*
Pileated Woodpecker	*Dryocopus pileatus*
Pine Siskin	*Carduelis pinus*
Purple Finch	*Carpodacus purpureus*
Purple Martin	*Progne subis*
Red Crossbill	*Loxia curvirostra*
Red-breasted Nuthatch	*Sitta canadensis*
Red-breasted Sapsucker	*Sphyrapicus ruber*
Red-eyed Vireo	*Vireo olivaceus*
Redhead	*Aythya americana*
Red-naped Sapsucker	*Sphyrapicus nuchalis*
Red-necked Grebe	*Podiceps grisegena*
Red-shouldered Hawk	*Buteo lineatus*
Red-tailed Hawk	*Buteo jamaicensis*
Red-winged Blackbird	*Agelaius phoeniceus*
Ring-billed Gull	*Larus delawarensis*
Ring-necked Duck	*Aythya collaris*
Ring-necked Pheasant	*Phasianus colchicus*
Rock Pigeon	*Columba livia*
Rock Wren	*Salpinctes obsoletus*
Rough-legged Hawk	*Buteo lagopus*
Ruby-crowned Kinglet	*Regulus calendula*
Ruddy Duck	*Oxyura jamaicensis*
Ruffed Grouse	*Bonasa umbellus*
Rufous Hummingbird	*Selasphorus rufus*
Sage Thrasher	*Oreoscoptes montanus*
Sagebrush Sparrow	*Amphispiza belli*
Sandhill Crane	*Grus canadensis*
Savannah Sparrow	*Passerculus sandwichensis*
Say's Phoebe	*Sayornis saya*
Scissor-tailed Flycatcher	*Tyrannus forficatus*
Semipalmated Plover	*Charadrius semipalmatus*
Semipalmated Sandpiper	*Calidris pusilla*
Sharp-shinned Hawk	*Accipiter striatus*
Short-eared Owl	*Asio flammeus*
Smith's Longspur	*Calcarius pictus*
Snow Bunting	*Plectrophenax nivalis*
Snow Goose	*Chen caerulescens*
Snowy Owl	*Bubo scandiacus*
Solitary Sandpiper	*Tringa solitaria*
Song Sparrow	*Melospiza melodia*
Sora	*Porzana carolina*
Spotted Owl	*Strix occidentalis*
Spotted Sandpiper	*Actitis macularius*
Spotted Towhee	*Pipilo maculatus*
Steller's Jay	*Cyanocitta stelleri*
Streaked Horned Lark	*Eremophila alpestris strigata*
Surf Scoter	*Melanitta perspicillata*
Swainson's Hawk	*Buteo swainsoni*
Swainson's Thrush	*Catharus ustulatus*
Swamp Sparrow	*Melospiza georgiana*
Thayer's Gull	*Larus thayeri*
Townsend's Solitaire	*Myadestes townsendi*
Townsend's Warbler	*Dendroica townsendi*
Tree Swallow	*Tachycineta bicolor*
Tropical Kingbird	*Tyrannus melancholicus*
Trumpeter Swan	*Cygnus buccinator*
Tundra Swan	*Cygnus columbianus*
Turkey Vulture	*Cathartes aura*
Varied Thrush	*Ixoreus naevius*
Vaux's Swift	*Chaetura vauxi*
Vesper Sparrow	*Pooecetes gramineus*
Violet-green Swallow	*Tachycineta thalassina*
Virginia Rail	*Rallus limicola*
Warbling Vireo	*Vireo gilvus*
Western Grebe	*Aechmophorus occidentalis*
Western Gull	*Larus occidentalis*
Western Kingbird	*Tyrannus verticalis*
Western Meadowlark	*Sturnella neglecta*
Western Sandpiper	*Calidris mauri*
Western Screech-owl	*Megascops kennicottii*
Western Scrub-jay	*Aphelocoma californica*
Western Tanager	*Piranga ludoviciana*
Western Wood-pewee	*Contopus sordidulus*
Whimbrel	*Numenius phaeopus*
White-crowned Sparrow	*Zonotrichia leucophrys*
White-throated Sparrow	*Zonotrichia albicollis*
White-winged Scoter	*Melanitta fusca*
Willow Flycatcher	*Empidonax traillii*
Wilson's Snipe	*Gallinago delicata*

Common Name	Scientific Name
Wilson's Warbler	*Wilsonia pusilla*
Wood Duck	*Aix sponsa*
Yellow Warbler	*Dendroica petechia*
Yellow-billed Cuckoo	*Coccyzus americanus*
Yellow-breasted Chat	*Icteria virens*
Yellow-headed Blackbird	*Xanthocephalus xanthocephalus*
Yellow-rumped Warbler	*Dendroica coronata*

Fish

Bluegill	*Lepomis macrochirus*
Brown Bullhead Catfish	*Ameriurus nebulosus*
Bull Trout	*Salvelinus confluentus*
Chinook Salmon	*Oncorhynchus tshawytscha*
Chum Salmon	*Oncorhynchus keta*
Coho Salmon	*Oncorhynchus kisutch*
Cutthroat Trout	*Oncorhynchus clarkii*
Dace	*Rhinichthys* spp.
Green Sunfish	*Lepomis cyanellus*
Kokanee Salmon	*Oncorhynchus nerka*
Largemouth Bass	*Micropterus salmoides*
Largescale Sucker	*Catostomus macrocheilus*
Northern Pikeminnow	*Ptychocheilus oregonensis*
Pacific Lamprey	*Entosphenus tridentata*
Peamouth	*Mylocheilus caurinus*
Pink Salmon	*Oncorhynchus gorbuscha*
Pumpkinseed	*Lepomis gibbosus*
Rainbow Trout	*Oncorhynchus mykiss*
River Lamprey	*Lampetra ayresi*
Sculpin	*Cottus* spp.
Smallmouth Bass	*Micropterus dolomieui*
Sockeye Salmon	*Oncorhynchus nerka*
Steelhead	*Oncorhynchus mykiss*
Threespine Stickleback	*Gaterosteus aculeatus*
Whitefish	*Prosopium* spp.
Yellow Perch	*Perca flavescens*

Mammals

American Beaver	*Castor canadensis*
American Black Bear	*Ursus americanus*
American Mink	*Neovison vison*
American Shrew-mole	*Neurotrichus gibbsii*
Big Brown Bat	*Eptesicus fuscus*
Black-tailed Deer	*Odocoileus hemionus columbianus*
Bobcat	*Lynx rufus*
Coyote	*Canis latrans*
Deermouse	*Peromyscus maniculatus*
Douglas' Squirrel	*Tamiasciurus douglasii*
Eastern Cottontail	*Sylvilagus floridanus*
Eastern Gray Squirrel	*Sciurus carolinensis*
Elk	*Cervus elaphus*
Long-tailed Vole	*Microtus longicaudus*
Long-tailed Weasel	*Mustela frenata*
Marten	*Martes americana*
Mountain Beaver	*Aplodontia rufa*
Mountain Goat	*Oreamnos americanus*
Muskrat	*Ondatra zibethicus*
Myotis (Mouse-eared) Bats	*Myotis* spp.
North American Wolverine	*Gulo gulo luscus*
Northern Flying Squirrel	*Glaucomys sabrinus*
Northern Raccoon	*Procyon lotor*
Northern River Otter	*Lontra canadensis*
Northwestern Deermouse	*Peromyscus keeni*
Nutria	*Myocastor coypus*
Pika	*Ochotona princeps*
Townsend's Big-eared Bat	*Corynorhinus townsendii*
Townsend's Chipmunk	*Tamias townsendii*
Townsend's Mole	*Scapanus townsendii*
Townsend's Vole	*Microtus townsendii*
Virginia Opossum	*Didelphis virginiana*
Water Vole	*Microtus richardsoni*

Plants

American Vetch	*Vicia americana*
Bentgrass	*Agrostis* sp.
Bigleaf Maple	*Acer macrophyllum*
Bird's-foot Trefoil	*Lotus corniculatus*
Black Cottonwood	*Populus trichocarpa* (also, *Populus balsamifera* ssp. *trichocarpa*)
Bluegrass	*Poa* sp.
Bull Thistle	*Cirsium vulgare*
Cattail	*Typha latifolia*
Colonial Bentgrass	*Agrostis capillaris*
Common Rush	*Juncus effusus*

Common Name	Scientific Name
Common Snowberry	*Symphoricarpos albus*
Common Spikerush	*Eleocharis palustris*
Common Velvetgrass	*Holcus lanatus*
Creeping Buttercup	*Ranunculus repens*
Cutleaf Blackberry	*Rubus laciniatus*
Douglas-fir	*Pseudotsuga menziesii*
English Ivy	*Hedera helix*
Eurasian Water Milfoil	*Myriophyllum spicatum*
Giant Horsetail	*Equisetum telmateia*
Grand Fir	*Abies grandis*
Himalayan Blackberry	*Rubus armeniacus*
Incense Cedar	*Calocedrus decurrens*
Kentucky Bluegrass	*Poa pratensis*
Large-leaf Avens	*Geum macrophyllum*
Nootka Rose	*Rosa nutkana*
Norway Maple	*Acer platanoides*
Oneseed Hawthorn	*Crataegus monogyna*
Oregon Ash	*Fraxinus latifolia*
Pacific Ninebark	*Physocarpus capitatus*
Pacific Willow	*Salix lasiandra* (also, *Salix lucida* ssp. *lasiandra*)
Paper Birch	*Betula papyrifera*
Piggy-back Plant	*Tolmiea menziesii*
Red Alder	*Alnus rubra*
Redosier Dogwood	*Cornus sericea*
Reed Canarygrass	*Phalaris arundinacea*
Rose Spirea	*Spiraea douglasii*
Salmonberry	*Rubus spectabilis*
Scouler's Willow	*Salix scouleriana*
Sitka Spruce	*Picea sitchensis*
Sitka Willow	*Salix sitchensis*
Slough Sedge	*Carex obnupta*
Soft-stem Bulrush	*Schoenoplectus tabernaemontani*
Western Redcedar	*Thuja plicata*
Willow	*Salix* sp.

Reptiles

Common Gartersnake	*Thamnophis sirtalis*
Northern Painted Turtle	*Chrysemys picta*
Slider	*Trachemys scripta*
Western Fence Lizard	*Sceloporus occidentalis*

Appendix C

Habitat Unit Assessment Forms

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Brush
LOCATION: Multiple locations along SR 520 corridor
TOTAL SCORE: 5

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	2
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	1

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Two vegetation communities (herbaceous and shrub) exist within this habitat unit. Vegetation present is primarily unmown or infrequently mown grasses with native and non-native shrubs.

INVASIVE PLANTS:

This habitat is composed largely of invasive Himalayan blackberry.

HABITAT FEATURES (snags, perches, downed logs, etc):

Native shrubs and thickets of blackberry and other invasive shrubs provide good perching, nesting, and hiding habitat. These habitats also provide berries and seeds for birds and mammals.

WILDLIFE OBSERVATIONS (direct or indirect):

Passerine birds such as robins, chickadees, wrens, sparrows, and juncos use shrub habitats for perching and nesting. These birds, as well as mammals such as squirrels, opossums, and raccoons, eat berries and seeds provided by shrubs.

THREATS TO HABITAT INTEGRITY:

This habitat is common near roadsides; therefore, trash, pollution, and high noise levels from cars are threats.

OTHER NOTES:

This habitat unit provides medium habitat value and if disturbed by project construction, could re-establish in a few years.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Developed-Commercial
LOCATION: Multiple locations along the SR 520 corridor
TOTAL SCORE: 4

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	0
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Vegetation present is primarily mowed grasses with landscaped trees and scrubs. Trees and shrubs are generally too few and far between to warrant categorization as vegetation communities.

INVASIVE PLANTS:

This habitat is landscaped and maintained with many non-native species. There are likely traces of Himalayan blackberry in hedges and planted shrubs.

HABITAT FEATURES (snags, perches, downed logs, etc):

Mature trees may provide perches for nesting or roosting and vantage points for foraging.

WILDLIFE OBSERVATIONS (direct or indirect):

Squirrels, rabbits, raccoons, and other urban wildlife species are present. Red-tailed hawks and other raptors are also likely in this habitat due to adequate prey.

THREATS TO HABITAT INTEGRITY:

This habitat is highly disturbed. Regular disturbances include human presence, pesticide use, landscaping, and pets.

OTHER NOTES:

Low habitat value with high disturbance.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Developed-Residential
LOCATION: Multiple locations along the SR 520 corridor
TOTAL SCORE: 12

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	0
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	2
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	3
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Vegetation consists primarily of mowed grasses with landscaped trees and scrubs. Trees and shrubs are generally too few and far between to warrant categorization as vegetation communities.

INVASIVE PLANTS:

This habitat is landscaped and maintained with many non-native species. There are likely traces of Himalayan blackberry in hedges and planted shrubs.

HABITAT FEATURES (snags, perches, downed logs, etc):

Mature trees may provide perches for nesting or roosting and vantage points for foraging. Additional habitat features may be present where provided by property owners (e.g., backyard wildlife sanctuaries).

WILDLIFE OBSERVATIONS (direct or indirect):

Squirrels, rabbits, raccoons, and other urban wildlife species are present. Red-tailed hawks and other raptors are also likely in this habitat due to adequate prey. Songbirds may use feeders and water sources maintained by property owners.

THREATS TO HABITAT INTEGRITY:

Generally highly disturbed, although some residential parcels retain native vegetation to support native wildlife. Regular disturbances include human presence, pesticide use, landscaping, and pets.

OTHER NOTES:

Low habitat value with high disturbance.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Emergent Wetland
LOCATION: Multiple locations along SR 520 corridor
TOTAL SCORE: 10

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	0

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

One vegetation community (herbaceous) exists within this habitat unit. Vegetation is primarily open reed canarygrass fields.

INVASIVE PLANTS:

This habitat is rarely disturbed and is composed primarily invasive reed canarygrass.

HABITAT FEATURES (snags, perches, downed logs, etc):

The structural complexity of tall grasses provides hiding habitat and conceals burrow holes. Unmown grasses have opportunity to go to seed and provide food sources for birds and rodents.

WILDLIFE OBSERVATIONS (direct or indirect):

Grassland habitat provides resources for a variety of rodents and reptiles thus providing a prey source for raptors and larger mammals. Amphibians utilize the rigid stems of reed canarygrass to attach egg masses during breeding. Juvenile rainbow trout were observed in a side channel of Bear Creek that flows though an emergent wetland. According to WDFW, federally threatened Puget Sound Chinook, Puget Sound steelhead, and bull trout are present in the Sammamish River and/or Bear Creek and may use hyrdologically connected wetlands. Coho and sockeye (State priority species) may also be present.

THREATS TO HABITAT INTEGRITY:

This habitat unit is rarely disturbed with the exception of occasional human foot traffic. This unit also receives high noise disturbance from nearby roads.

OTHER NOTES:

This unit is of high habitat value and provides moderate structural complexity.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Forested Wetland
LOCATION:
TOTAL SCORE: 22

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	3
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	3
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	3
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	3
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Four vegetation communities exist within this habitat unit: canopy, sub-canopy, shrub, and herbaceous. Canopy species consist of western redcedar, black cottonwood, and red alder. Sub-canopy species consist of English hawthorn, Pacific willow, Sitka willow, and Oregon ash. Shrub species include Pacific ninebark, redtwig dogwood, and black twinberry. The herbaceous stratum commonly includes lady fern, stinging nettle, and giant horsetail.

INVASIVE PLANTS:

Himalayan blackberry is the primary invasive species present in this habitat unit.

HABITAT FEATURES (snags, perches, downed logs, etc):

Many snags with nest cavities and large downed logs were observed at the site. Mature trees present in this unit provide perching and nesting opportunities.

WILDLIFE OBSERVATIONS (direct or indirect):

Avian detections include Northern flickers, American crows, black-capped chickadees, American robins, tree swallows, and mallard ducks. Mammalian species detections include squirrels and rabbits. Three deer were were directly observed and came within 30 feet of biologists. According to WDFW, federally threatened Puget Sound Chinook, Puget Sound steelhead, and bull trout are present in the Sammamish River and/or Bear Creek and may use hyrdologically connected wetlands. Coho and sockeye (State priority species) may also be present.

THREATS TO HABITAT INTEGRITY:

This habitat unit is surrounded by commercial and residential development and is highly fragmented. Human dwellings/footpaths and trash are common. Major roads nearby generate high noise levels.

OTHER NOTES:

The habitat has diverse structural complexity and would require a relatively long time to recover this habitat following disturbance.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Grassland
LOCATION: Redmond Central Connector Trail vicinity
TOTAL SCORE: 3

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	0

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

One vegetation community (herbaceous) exists within this habitat unit. Vegetation present is primarily unmown or infrequently mown grass habitat along the Redmond Central Connector trail.

INVASIVE PLANTS:

This habitat is infrequently disturbed and is composed primarily of invasive reed canarygrass.

HABITAT FEATURES (snags, perches, downed logs, etc):

Tall grasses provide hiding habitat and conceals burrow holes. Unmown grasses have the opportunity to go to seed and provide food sources for birds and rodents.

WILDLIFE OBSERVATIONS (direct or indirect):

Grassland habitat provides resources for a variety of rodents and reptiles that are a prey source for raptors and larger mammals.

THREATS TO HABITAT INTEGRITY:

Grasslands in Marymoor Park are infrequently mowed. This habitat unit receives high noise disturbance as it is in close proximity to roads and humans walking the trails of the park.

OTHER NOTES:

This habitat type would be quick to re-establish to current conditions after disturbance.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Mown Grass
LOCATION: SR 520, north of Marymoor Park
TOTAL SCORE: 3

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	0

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

One vegetation community (herbaceous) exists within this habitat unit.

INVASIVE PLANTS:

This unit is frequently mowed, which limits invasive plant colonization.

HABITAT FEATURES (snags, perches, downed logs, etc):

None.

WILDLIFE OBSERVATIONS (direct or indirect):

Wildlife usage is limited due to frequent disturbance (mowing)

THREATS TO HABITAT INTEGRITY:

Ongoing disturbance (mowing) limits habitat integrity.

OTHER NOTES:

None.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Riparian Forest
LOCATION: Sammamish River and Bear Creek corridors
TOTAL SCORE: 22

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	3
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	3
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	3
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	3
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Four vegetation communities exist within this habitat unit: canopy, sub-canopy, shrubs, and herbs. Canopy species consist of western redcedar, black cottonwood and red alder. Sub-canopy species consist of English hawthorn, Pacific willow, Sitka willow, and Oregon ash. Shrub species include Pacific ninebark, redtwig dogwood, and black twinberry. The herbaceous stratum commonly includes lady fern, stinging nettle, and giant horsetail.

INVASIVE PLANTS:

Himalayan blackberry, Japanese rose (Rosa multiflora), reed canarygrass are the primary invasive species present in this habitat unit.

HABITAT FEATURES (snags, perches, downed logs, etc):

Many downed logs were observed at the site. Some trees formally along the stream bank have fallen into the stream and contribute to habitat complexity and provide hiding opportunities for fish. Trees near the bank also provide shading for the stream and cool water temperatures.

WILDLIFE OBSERVATIONS (direct or indirect):

Avian detections include northern flickers, American crows, black-capped chickadees, American robins, wood ducks, and mallard ducks. Mammalian species detections include squirrels. No deer scat was observed but deer are predicted to marginally use this habitat unit. According to WDFW, federally threatened Puget Sound Chinook and Puget Sound steelhead are present within Bear Creek and/or the Sammamish River and could be affected by modifications to riparian forest habitat. Coho and sockeye salmon (State priority species) are also present.

THREATS TO HABITAT INTEGRITY:

This habitat unit is surrounded by commercial and residential development and is highly fragmented. Human dwellings/footpaths and trash are common. Major roads nearby generate high noise levels.

OTHER NOTES:

The habitat has diverse structural complexity and would require a relatively long time to recover following disturbance. The proximity to streams further elevates the value of this habitat to wildlife and aquatic processes.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Riparian Shrub
LOCATION:
TOTAL SCORE: 14

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	2
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	2
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Two vegetation communities (shrub and herbaceous) exist within this habitat unit. The shrub community consists of willow species, black twinberry, Pacific ninebark, and red-osier dogwood. The herbaceous community includes giant horsetail, stinging nettle, and lady fern.

INVASIVE PLANTS:

This habitat is moderately disturbed and has populations of Himalayan blackberry and reed canarygrass.

HABITAT FEATURES (snags, perches, downed logs, etc):

Native shrubs and thickets of blackberry and other invasive shrubs provide good perching, nesting, and hiding habitat. These habitats also provide berries and seeds for birds and mammals.

WILDLIFE OBSERVATIONS (direct or indirect):

Passerine birds such as robins, chickadees, wrens, sparrows, and juncos utilize shrub habitats for perching and nesting. These birds, as well as mammals such as squirrels, opossums, and raccoons, eat berries and seeds provided by shrubs. According to WDFW, federally threatened Puget Sound Chinook, Puget Sound steelhead, and bull trout are present within the Sammamish River and benefit from the overhanging vegetation this habitat provides. Coho and sockeye (State priority species) may also be present.

THREATS TO HABITAT INTEGRITY:

This habitat is near a bridge and trash may be thrown over into the vegetation. This habitat is also near the bike trail and West Lake Sammamish Pkwy NE off ramp so noise pollution and trash may impact the habitat. There are also many footpaths through this habitat for access to the Sammamish River.

OTHER NOTES:

This unit has high habitat value, diverse structural complexity, and provides shading for the Sammamish River, thus reducing stream temperatures.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: _____
LOCATION: _____
TOTAL SCORE: 3

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	0
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	1

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Vegetation of this habitat is primarily a herbaceous community of grasses and forbs, maintained by mowing and herbicides.

INVASIVE PLANTS:

This habitat is dominated by non-native grasses and forbs such as tansy ragwort and curly dock.

HABITAT FEATURES (snags, perches, downed logs, etc):

No habitat features are present.

WILDLIFE OBSERVATIONS (direct or indirect):

Rodents are common in roadside ditches and may provide foraging potential for birds of prey such as red-tailed hawks.

THREATS TO HABITAT INTEGRITY:

This habitat is surrounded by roads and residential housing. Trash and other pollution sources are present in this habitat and cars nearby produce high levels of noise disturbance.

OTHER NOTES:

This habitat is dominated by non-native species and provides little wildlife habitat.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Scrub-Shrub Wetland
LOCATION: Multiple locations along SR 520 corridor
TOTAL SCORE: 14

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	2
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	2
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Two vegetation communities (shrub and herbaceous) exist within this habitat unit. Vegetation present is unmown grasses and native or invasive shrubs species.

INVASIVE PLANTS:

This habitat is infrequently disturbed and is largely composed of Himalayan blackberry and Japanese rose (Rosa multiflora).

HABITAT FEATURES (snags, perches, downed logs, etc):

Native shrubs and thickets of blackberry and other invasive shrubs provide good perching, nesting, and hiding habitat. These habitats also provide berries and seeds for birds and mammals.

WILDLIFE OBSERVATIONS (direct or indirect):

Passerine birds such as robins, chickadees, wrens, sparrows, and juncos utilize shrub habitats for perching and nesting. These birds, as well as mammals such as squirrels, opossums, and raccoons, eat berries and seeds provided by shrubs. According to WDFW, federally threatened Puget Sound Chinook, Puget Sound steelhead, and bull trout are present within the Sammamish River and/or Bear Creek and may use hydrologically connected wetlands. Coho and sockeye (State priority species) may also be present.

THREATS TO HABITAT INTEGRITY:

This habitat is common near roadsides; therefore, trash, pollution, and high noise levels from cars are threats.

OTHER NOTES:

This unit has high habitat value and diverse structural complexity. The wetland functions further elevate the value of this habitat for wildlife and aquatic processes.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Stormwater ponds
LOCATION: Multiple locations along SR 520 corridor
TOTAL SCORE: 4

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	0
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

One vegetation community (herbaceous) exists within this habitat unit. Vegetation present is primarily unmown or infrequently mown grasses, sedges, and rushes.

INVASIVE PLANTS:

This habitat is moderately disturbed and is composed of invasive species such as reed canarygrass and other non-native grasses and forbs such as tansy ragwort and curly dock.

HABITAT FEATURES (snags, perches, downed logs, etc):

Tall grasses provides hiding habitat and conceals burrow holes. Unmown grasses have opportunity to go to seed and provide food sources for birds and rodents. Amphibians can use rigid vegetation at the the edges of stormwater ponds for breeding.

WILDLIFE OBSERVATIONS (direct or indirect):

Stormwater ponds can provide a breeding ground for insects such as flies and mosquitoes, thus attracting bats, larger insects, and birds such as swallows.

THREATS TO HABITAT INTEGRITY:

Stormwater ponds are maintained to store excess water; therefore, these ponds are routinely mowed or dredged to allow more storage potential. High water variability during peak flows can destroy wildlife shelters or breeding attempts within the ponds.

OTHER NOTES:

This habitat unit has low value. The limited structural diversity and periodic disturbance regime limits the value to wildlife. The ponded habitat tends to have a highly variable water table and polluted water source, severely limiting the value of the habitat to aquatic species.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Stream Channels
LOCATION: Sammamish River and Bear Creek
TOTAL SCORE: 13

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	1
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	1
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	3
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	3
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	3
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	1

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

One vegetation community exists within this habitat unit. Vegetation present within Sammamish River and Bear Creek stream channels are aquatic herbaceous species, many being noxious weeds.

INVASIVE PLANTS:

The Sammamish River contains a high amount of noxious weeds including but not limited to garden loosestrife (Lysimachia vulgaris), purple loosestrife (Lythrum salicaria), common reed (Phragmites australis) and most significantly Brazilian elodea (Egeria densa). Noxious weeds are present in Bear Creek but not as much of a concern.

HABITAT FEATURES (snags, perches, downed logs, etc):

Sammamish River has historically been channelized and dredged. Presently the stream has a heavily sedimented bottom with very little large woody debris. A stretch of Bear Creek along SR 520 (just east of West Sammamish Parkway NE) was recently restored by adding sinuosity and large woody debris thus increasing habitat complexity and water quality potential.

WILDLIFE OBSERVATIONS (direct or indirect):

According to WDFW, federally threatened Puget Sound Chinook, Puget Sound steelhead, and bull trout migrate and breed within the Sammamish River and/or Bear Creek. Coho and sockeye (State priority species) are also present. Birds such as great blue herons and cormorants were observed perching on large logs within the stream channel to forage for fish.

THREATS TO HABITAT INTEGRITY:

Sammamish River has many issues including noxious weeds, high temperatures, heavy sedimentation, and water pollution. To address noxious weeds, the river is occasionally dredged. The river is currently managed and monitored by multiple agencies with the goal of increasing habitat functions and water quality.

OTHER NOTES:

This habitat unit is of high value. Many in-stream processes elevate the value of this habitat to aquatic wildlife.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Unvegetated and Road
LOCATION:
TOTAL SCORE: 1

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	0
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	0
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	0
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	0
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	0
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	0

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

There are no vegetation communities present for this habitat type.

INVASIVE PLANTS:

This habitat type is unvegetated and does not have invasive species present.

HABITAT FEATURES (snags, perches, downed logs, etc):

No habitat features are present.

WILDLIFE OBSERVATIONS (direct or indirect):

This habitat is unsuited and dangerous for wildlife. Wildlife such as rabbits, mallard ducks, opossums and raccoons may try to cross roads or turf fields to access other habitats.

THREATS TO HABITAT INTEGRITY:

Habitat is already disturbed.

OTHER NOTES:

This habitat does not provide any value to wildlife.

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

HABITAT UNIT: Upland Forest
LOCATION: Multiple locations along 520 corridor
TOTAL SCORE: 16

Habitat Parameter	Scoring Criteria	Habitat Unit Score
Size	• >50 acres = 3 points • 10-50 acres = 2 points • 0-10 acres = 1 point	1
Vegetation Community Types	• ≥ 4 types = 3 points • 2-3 types = 2 points • 1 type = 1 point • None = 0 points	3
Community Interspersion	• High = 3 points • Medium = 2 points • Low = 1 point • None = 0 points	3
Priority Species Presence	• Threatened & Endangered Species = 3 points • Candidate Species = 2 points • Monitor Species = 1 point • None = 0 points	0
Priority Species Habitat Use	• Breeding = 3 points • Roosting = 2 points • Foraging = 1 point • None = 0 points	0
Habitat Continuity	• Links protected habitats = 3 points • Links unprotected habitats = 2 points • Extends habitat corridor = 1 point • None = 0 points	1
Forest Vegetation Layers	• 3 layers = 3 points • 2 layers = 2 points • 1 layers = 1 point • None = 0 points	3
Forest Age	• Mature = 3 points • Pole = 2 points • Seedling/Shrub = 1 point • None = 0 points	3
Invasive Species Presence	• 0-25% = 3 points • 26-50% = 2 points • 51-75% = 1 point • 75-100% = 0 points	2

CITY OF REDMOND
HABITAT UNIT ASSESSMENT FORM

VEGETATION COMMUNITY TYPES:

Four vegetation communities exist within this habitat unit- canopy, sub-canopy, shrubs and herbaceous. Canopy species consist of Douglas fir, Western Red cedar, Black cottonwood, Red alder, and Big-leaf maple. Sub-canopy species consist of English hawthorn, Scouler's willow, vine maple, and Oregon ash. Shrub species include Indian plum, Red elderberry, oceanspray, snowberry, Oregon grape, and salal. The herbaceous stratum commonly includes sword fern, bracken fern, and stinging nettle.

INVASIVE PLANTS:

Invasive species present in this habitat unit include Himalayan blackberry, cutleaf blackberry, English holly, and English ivy.

HABITAT FEATURES (snags, perches, downed logs, etc):

Snags and downed logs were observed in this habitat unit. Mature trees present in this unit provide perching and nesting opportunities.

WILDLIFE OBSERVATIONS (direct or indirect):

Avian detections include American robin, Pacific wren, dark-eyed junco, Northern flickers, American crows, and black-capped chickadees. Mammalian species detections include squirrels and rabbits. No deer scat was observed but deer are predicted to marginally use this habitat unit.

THREATS TO HABITAT INTEGRITY:

This habitat unit is surrounded by commercial and residential development and is highly fragmented. A high amount of human dwellings/footpaths and trash are present. Major roads are in close proximity and create high noise disturbance.

OTHER NOTES:

This unit has a high habitat value with diverse structural complexity. This habitat would require a relatively long time to recover following disturbance.

Appendix D

Stream Summary Sheet

CityofRedmond
WASHINGTON

STREAM SUMMARY SHEET

Stream Summary			Buffer Summary			Riparian Corridor Summary		
Label[1]	Type[2]	Linear Feet[3]	Required[4]	Proposed[5]	Averaging[6]	Disturbed Area[7]	Filled Area[8]	Mitigation Area[9]
Sammamish River	I	~50	150	150	No	19,900 SF	12,900 SF	Site of disturbance: 19,900 SF Add'l restoration @ Bear Creek: 12,900 SF (minimum)
Bear Creek	I	~525	150	150	No	37,150 SF	20,250 SF	Site of disturbance: 37,150 SF Add'l restoration @ Bear Creek: 20,250 SF (minimum)
Unnamed tributary to the Sammamish River	IV	~20	25	25	No	0 SF	5,690 SF	Restoration @ Bear Creek: 5,690 SF (minimum)
Unnamed tributary to Bear Creek	II	0	100 (+ 50 outer)	100 (+ 50 outer)	No	18,700 SF	0 SF	Site of disturbance: 18,700 SF

[1] Stream A, B, C, etc.
[2] Stream type per City stream classification system.
[3] Length of stream on the property.
[4] Required buffer width in feet per RCDG.
[5] Proposed buffer width in feet.
[6] Note if buffer averaging is used. If so, identify minimum and maximum buffer widths in feet as well as area in square feet contained within the buffer prior to and after averaging.
[7] Area of buffer that is disturbed in square feet.
[8] Area of buffer to be filled in square feet, such as for a road crossing.
[9] Location and size in square feet of riparian corridor mitigation.

Appendix E

Habitat Conservation BMPs and Conservation Measures

3. BEST MANAGEMENT PRACTICES AND MINIMIZATION MEASURES

The 2010 East Link BA specified BMPs and conservation measures for the protection of water quality and sensitive areas, mitigation of impacts to wetlands and streams and their buffers, control of weeds, and protection of Bear Creek and the Sammamish River during over-water work. These measures, along with conservation measures for project design and operation, will be implemented during construction and operation of the Downtown Redmond Link Extension (Attachment D). Additional measures for the protection of aquatic habitats during work below the OHWM of Bear Creek and the Sammamish River are specified below.

- All work within the channel of Bear Creek or the Sammamish River, including dewatering and reintroducing flow to work areas, will be completed during the approved in-water work window and will fully comply with the HPAs issued for the project by WDFW and with the Section 401 Individual Water Quality Certification issued by Ecology. Work within or over the OHWM outside of the in-water work window will be allowed only as approved by WDFW.
- In-water work areas will be isolated with cofferdams and dewatered. The final selection of methods will be determined by the construction contractor and design team based on flow conditions during the in-water work window and practical limitations dictated by site conditions.
- The contractor will submit a complete detailed plan for review and approval by a State of Washington Registered Professional Engineer at least 60 days before work below the OHWM of Bear Creek or the Sammamish River begins. The plan will specify measures for minimizing adverse effects on aquatic resources, including debris catchment structures (for removal of the bridge in Bear Creek) and cofferdam installation.
- Channel dewatering will be conducted gradually to encourage volitional movement of fish out of the construction zone.
- Cofferdams will be configured to allow unimpeded upstream and downstream migration outside of the work zone.
- Before, during, and immediately after isolation and dewatering of in-water work areas, any fish that remain in the isolated area will be captured and released using methods that minimize the risk of fish injury, in accordance with current WSDOT standards and protocols for such activities (WSDOT 2016). A fish exclusion plan will be submitted for review and approval by NMFS before fish exclusion work begins.
- Any Chinook salmon encountered during work area isolation will be documented by submitting an In-Water Construction Monitoring Report or equivalent to NMFS within 30 days of work area isolation.
- Debris from demolition of the existing bridge will be contained and removed from the site for disposal at an approved and permitted facility. Demolition debris will not be allowed to enter Bear Creek.
- Existing piles will either be fully extracted or (for piles that are too severely deteriorated to be removed without breaking) cut at or below the substrate, as required by project permits.

- Vibratory removal or direct pulling is the preferred method for pile removal. Alternative methods will be implemented only if authorized by the Services and WDFW. If a treated wood pile breaks during extraction, the broken portion will be removed from the channel, and the remaining portion will be cut at or below the substrate, as required by project permits.
- Unless it can be demonstrated that the surrounding substrate will fill the hole within 1 day, the holes left when pulling piles will be filled with appropriate material (such as clean sand). Buried piles will be capped with the same streambed gravel that will be used to line the modified channel.
- All treated wood will be contained during and after removal to prevent associated sediments and any contaminated materials from re-entering the aquatic environment. All contaminated materials will be disposed of at an approved and permitted disposal facility. No reuse of treated wood will occur.
- Debris from bridge demolition will be staged in contained storage areas on land. Bridge demolition will include sectioning the structure to the extent possible to provide for safer disposal and to minimize debris falling into surface waters. Debris containment netting and blankets or sheeting will be installed under the bridge during demolition to catch and contain debris.
- Sediment-laden water or water contained within an isolation barrier will not be discharged directly into any waters of the state unless the water has been satisfactorily treated (e.g., by bioswale, filter, bio-bag, settlement pond, or pumping to vegetated upland locations). Contaminated water will be pumped to water tanks for storage and proper disposal.
- Water recovered during the process of dewatering drilled shafts or drilling spoils will be treated to meet the appropriate permit requirements before being discharged to receiving waters.
- Equipment use within the wetted perimeter of wetlands and streams will comply with the following provisions:
  - Equipment will be thoroughly cleaned of mud, petroleum products, or other deleterious material before entering the work site.
  - Turning and spinning within the streambed will be avoided.
  - The amount and duration of in-stream work with machinery will be limited to the minimum necessary to complete the work.
  - Environmentally acceptable hydraulic fluids that meet requirements for biodegradability, aquatic toxicity, and bioaccumulation will be used for in-water and over-water construction where practicable.
  - Project activities will not result in any visible sheen from petroleum products in the receiving waters.
- Equipment fueling and maintenance areas will not be placed within 200 feet of wetlands or streams unless site-specific review completed by the project biologist indicates that no impacts to the sensitive resource areas will occur due to topography or other factors. Exceptions to this requirement may be allowed for large cranes, pile drivers, and drill rigs that cannot be easily moved.
- Temporary material storage piles consisting of erosive materials will be placed outside the 100-year floodplain during the rainy season (October 1 through June 1), and will be covered, hydroseeded, or otherwise treated as necessary to comply with the NPDES permit.

- Disturbance to riparian vegetation from the operation of heavy equipment will be minimized as much as practicable by straddling it with heavy equipment or by pruning it without damaging the roots. Existing riparian vegetation outside of the work area will not be removed or disturbed.
- Temporary lights for night work will be directed away from waters with listed fish species to the greatest extent possible, with the intent to prevent light from shining on surface waters.
- Water quality will be monitored downstream of work areas within or near the OHWM, as required in the TESC plan.

Chapter 2

Best Management Practices and Minimization Measures

To avoid and/or minimize potential impacts from construction and operation of the East Link Project, the following conservation measures will be implemented.

2.1 Water Quality Protection During Construction

- A temporary erosion and sediment control (TESC) plan will be developed and implemented for all projects requiring clearing, vegetation removal, grading, ditching, filling, embankment compaction, demolition, and/or excavation. BMPs defined in the TESC plan will be used to control sediments from all vegetation removal or ground-disturbing activities.
- A spill prevention control and countermeasures (SPCC) plan will be developed prior to beginning construction. The SPCC plan will identify the appropriate spill containment measures to be employed during construction.
- The contractor will adhere to water quality standards as stated in the 401 Water Quality Certificate and NPDES permit issued for the project.
- Erosion control devices (e.g., silt fences) will be installed, as needed, to protect surface waters and other critical areas.
- Erosion control blankets or an equally effective BMP will be installed on steep slopes that are susceptible to erosion and where ground-disturbing activities have occurred. This will prevent erosion and assist with establishment of native vegetation.
- Material that may be temporarily stored for use in project activities will be covered with plastic or other impervious material during rain events to prevent sediments from being washed from the storage area to surface waters.
- All temporary and permanent erosion and sedimentation control measures will be inspected on a regular basis, maintained, and repaired to ensure continued performance of their intended function.
- Silt fences will be inspected after each rainfall, and at least daily during prolonged rainfall.
- Turbid water will be prevented from discharging to streams and wetlands. Turbid wastewater may be routed to temporary or permanent detention facilities, or to upland areas that provide adequate infiltration.
- All equipment to be used for construction activities will be cleaned and inspected prior to arriving at the project site to ensure no potentially hazardous materials are exposed, no leaks are present, and the equipment is functioning properly. Should a leak be detected on heavy equipment used for the project, the equipment will be repaired before use.
- Construction equipment and vehicles will be maintained to prevent them from leaking fuel or lubricants.
- Uncured concrete and/or concrete byproducts will be prevented from coming in contact with streams or water conveyed directly to streams during construction in accordance with (WAC 220-110-270(3).
- A concrete truck chute cleanout area or equally effective BMP shall be established to properly contain wet concrete.

2.2 General Best Management Practices for Construction Near All Sensitive Areas

- Sound Transit will ensure compliance with all local, state, and federal permits received for the project.

- Revegetation of construction easements and other areas will occur either during or immediately after the project is completed. All disturbed riparian vegetation will be replanted. Trees will be planted when consistent with light rail safety standards. Riparian areas will be replanted with native species.
- The project will delineate the construction limits for vegetated and habitat areas to prevent unintended effects to riparian vegetation, wetlands, woodlands, and other sensitive sites outside of the construction limits. The construction limits will be clearly marked with high-visibility construction fencing prior to any ground-disturbing or construction-related activities, and no work in these sensitive areas will occur.
- Heavy equipment will operate from above the OHWM wherever possible.
- Soil or rock stockpiles, excavated materials, and excess soil materials will be prevented from eroding into sensitive habitats, including water channels, wetlands, and riparian areas outside of the construction limits by high water or storm runoff.
- During construction, there may be a need for nighttime work over water. If there is, and if it occurs during a period when listed species may be present, BMPs such as shielding will be used to minimize light spillage.

2.3 Specific Conservation Measures for Work in Lake Washington (Segment A)

(Not Applicable to Downtown Redmond Link Extension)

- For the east channel, in-water v work windows, which are currently between July 16 and 3 1, to avoid potential impacts on salmonids. In-water work west n the regulatory work window, which is currently from July 16 to December 31.
- Barges and other in-water equipment will have spill response equipment available in the event of an accidental spill during in-water work.
- BMPs will be employed to ensure that no construction debris is allowed to enter the water.

2.4 Specific Conservation Measures for Work Adjacent to Mercer Slough

(Not Applicable to Downtown Redmond Link Extension)

- For the culvert extension, drair area and back into the channel downstream in a manner that p ed.
- Armoring will be placed at anc fall to prevent erosion.
- The retaining wall on both sides of the shoreline alcove will be constructed in the dry, using erosion control measures to keep disturbed soil from entering into the channel.

2.5 Specific Conservation Measures for Work Over Bear Creek and the Sammamish River (Segment E)

- Over-water work will comply with the provisions of the Hydraulic Project Approval.
- ~~Support columns will be placed outside the OHWM.~~
- ~~No in-water work is anticipated to be necessary to complete this section of guideway~~.
- BMPs will be employed to ensure that no construction debris is allowed to enter the water.
- Native riparian trees or shrubs will be replanted after construction. Monitoring and adaptive management of revegetated areas will ensure survival of revegetated areas.

2.6 Mitigation for Wetland, Wetland Buffer, and Stream Impacts

- Sound Transit is coordinating with resource agencies on identifying compensatory mitigation sites for wetland and wetland buffer impacts. These sites will not include in-water work where listed species are present.
- A monitoring plan and adaptive management plan will be implemented for revegetated sensitive areas or buffers. The plans will verify 100 percent survival of all installed native trees and shrubs 1 year after installation. The performance criteria will be met if all dead plants are replaced at the end of the first year. Native woody species (planted and volunteer) will maintain a density of four plants per 100 square feet in each plant community by the end of the 3-year period. Plant communities will be identified in the mitigation plan.
- Mitigation for impacts on the Unnamed Tributary to Kelsey Creek will be approved by the appropriate permitting agencies and jurisdictions prior to construction.

2.7 Design and Operation Best Management Practices

- Permanent stormwater runoff treatment and flow control facilities will be installed to meet the requirements of the Stormwater Management Manual for Western Washington (Ecology 2005).
- Stormwater conveyance and management facilities that promote infiltration will be incorporated where applicable and permittable.
- Runoff treatment BMPs that are best suited to the site conditions and best capable of achieving the required levels of treatment will be selected, designed, and installed. These may include natural or engineered dispersion BMPs; biofiltration BMPs such as vegetated filter strips, rain gardens, biofiltration swales, or media filters; wet-pool BMPs; and infiltration BMPs.
- Existing drainage configurations will not be rerouted to the extent that stormwater from one basin or subbasins is conveyed and discharged to another unless no other practical option is available.
- Operations will not cause impacts from overwater lighting, because the tracks will have no overhead lighting and the train headlights will point parallel to the tracks.

Examples of design measures on light rail vehicles to prevent pollution resulting from mechanical lubricants include the following:

- Sealed housing roller bearings for all axle bearings
- Enclosed and sealed motor bearings
- Enclosed truck bearings designed to exclude dirt
- Sealed door mechanisms
- Enclosed, sealed electrical conduits
- On-board batteries contained within sealed enclosures
- Air conditioners with refrigerant enclosed in sealed system and motors with sealed bearings

2.8 Weed Control

- If herbicide use is required during the monitoring period, the type and application of the pesticide should be chosen based upon City of Seattle Tier Tables (http://www.seattle.gov/environment/Pesticides.htm) or other locally accepted methodology. Additionally, Sound Transit's integrated Pest Management Plan (IPM) will provide guidance regarding pesticide use and IPM practices.

Appendix A

Best Management Practices for Sensitive Ecosystem Resources

Appendix A

Best Management Practices for Sensitive Ecosystem Resources

The following list of measures is a compilation of best management practices (BMPs) that can be used to avoid and minimize temporary construction and permanent operational impacts of the East Link project on sensitive ecosystem resources. These BMPs are either required by state or federal agencies to obtain permits required for the project or may be required to comply with typical permit conditions. They are based on Sound Transit's knowledge of permit requirements and experience with conducting environmental compliance and permitting for numerous other projects in the Puget Sound area.

Construction-Related BMPs

General BMPs for All Sensitive Areas

The project would delineate construction limits for vegetated and habitat areas that may be disturbed during construction. The intent is to prevent unintended impacts on riparian vegetation, wetlands, woodlands, and other sensitive sites outside of the construction limits. The construction limits would be clearly marked with high-visibility construction fencing prior to any ground-disturbing or construction-related activities. There would be no direct site disturbance outside of the construction limits.

Soil or rock stockpiles, excavated materials, or excess soil materials would be prevented from eroding into sensitive habitats, including stream channels, wetlands, and riparian areas outside of the construction limits by high water or storm runoff. Sound Transit or its construction contractor would develop a Temporary Erosion and Sediment Control plan that would be implemented during construction. This TESC plan would address potential erosion during construction. The contractor would implement the plan before discharging or allowing runoff from the site. Monitoring requirements specified in the TESC would provide feedback to make sure that the erosion control practices are operating properly and effectively. BMPs would be implemented to limit soil compaction in sensitive areas.

Fish and Aquatic Habitat Protection

All work would comply with the terms and conditions set forth in the Hydraulic Project Approval (HPA) issued for the project by the Washington Department of Fish and Wildlife (WDFW). The HPA program is the vehicle through which WDFW regulates activities that affect the bed or flow of waters of the state for the protection of fish life. An HPA is required for construction or structural work associated with any bridge structure or culvert construction within or below the ordinary high water mark (OHWM) of waters of the state.

Seasonal restrictions (i.e., work windows) applied to work conducted below the OHWM would be as required by an HPA issued by WDFW and by the Section 404 permit issued by the U.S. Army Corps of Engineers (USACE).

In accordance with typical requirements of an HPA, when large woody debris must be moved to allow the reasonable use of an over-water or in-water facility, the large woody debris would be returned to the water downstream, where it would continue to provide aquatic habitat function.

All newly installed culverts would be in compliance with Washington Administrative Code (WAC) 220-110-070 (http://wdfw.wa.gov/hab/engineer/w2201170.htm) regarding fish passage requirements. Any affected streambeds, stream banks adjacent to culverts, and at the stream relocation reach, would be permanently restored after in-water work with plantings of native or approved woody and herbaceous species within one year of completion of each phase of construction. Bank protection would follow the guidelines set forth in WDFW's *Integrated Streambank Protection Guidelines* (http://wdfw.wa.gov/hab/ahg/ispgdoc.htm).

Water Quality

The federal Clean Water Act (CWA) (1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES) permit program, which is administered by the U.S. Environmental Protection Agency (EPA). EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 of the Revised Code of Washington (RCW), which defines the Washington State Department of Ecology (Ecology) authority and obligations in administering the wastewater discharge permit program.

Ecology's construction stormwater general permit is required for certain construction activities. The goal of the permit is to reduce or eliminate stormwater pollution and other impacts on surface waters from construction sites.

The project must complete a Notice of Intent (NOI) for coverage under the permit. The project must also develop a Stormwater Pollution Prevention Plan that implements BMPs for identifying, reducing, eliminating, or preventing sediment and erosion problems on site.

Any materials placed below the OHWM (e.g., cobble or boulders for energy dissipation at culvert ends, streambed gravel or other substrates) would be relatively clean and handled in a way to minimize turbidity. Methods would be used such that it is not expected the project would exceed state water quality standards at the point of compliance (WAC chapter 173-201A) when flow is restored to the work site. To the fullest extent practicable, culverts would be installed, modified, and/or replaced in isolation from stream flow (if there is flow during the work window) by means of a temporary bypass flume, diversion culvert, or by temporarily pumping flow around the in-water work zone. Any temporary dewatering of the in-water work zone would be preceded by work area isolation and fish removal/relocation (as necessary). Fish handling would be conducted by a trained and qualified biologist. Turbid water produced during the course of in-water work would be prevented from discharging to fish-bearing waters or wetlands. Turbid wastewater may be routed to temporary or permanent detention facilities, or to upland areas that provide adequate rates of infiltration.

In accordance with conditions of a typical HPA, heavy equipment used during the course of in-water work would operate from above the OHWM wherever possible. Use of equipment below the OHWM would be limited to that necessary to gain position for work. Drive mechanisms would not enter or operate below the OHWM, except under the terms of the HPA issued by WDFW.

Uncured concrete and/or concrete byproducts would be prevented from coming in contact with streams or water conveyed directly to streams during construction. Any water having direct contact with uncured concrete would be contained and treated or removed from the site (as appropriate) to prevent discharge to streams or wetlands.

Installation of permanent footings and all drilled or pile-driven shafts (and excavated spread footings) below the OHWM (e.g., for culvert endwalls) would be conducted in a manner consistent with Section 404 and other permits issued for the project by the USACE and other parties (as applicable). When constructing drilled shafts, the contractor would ensure that all drilling equipment, drill recovery and recycling pits, and any waste or spoil produced are properly contained to prevent discharge of drill wastes or fluids to any surface water or wetlands.

In accordance with typical Section 401 permit requirements, turbidity would be monitored if in-water work occurs when water is flowing in the streams. Equipment (excluding track-mounted equipment, large cranes, and other relatively immobile equipment) would be refueled and maintenance activities conducted at a distance from the nearest wetlands, ditches, and flowing or standing water approved by regulatory permits. Appropriate spill prevention measures and fuel containment systems would be designed and implemented to completely contain a potential spill as specified in the Spill Prevention and Control Countermeasure plan. If flooding of the work area is expected to occur within 24 hours, all equipment and material would be evacuated from near-stream construction sites. An exception would be for efforts to avoid or minimize resource damage. All equipment that is used for in-stream or in-wetland work would be cleaned prior to operations below the OHWM. Wash-water would not be discharged directly into any water body without pretreatment.

Weed Control

If herbicide use is required during the monitoring period, the type and application of the pesticide should be chosen based upon City of Seattle Tier Tables (http://www.seattle.gov/environment/Pesticides.htm) or other locally accepted methodology. Additionally, Sound Transit's Integrated Pest management Plan (IPM) would provide guidance regarding pesticide use and IPM practices.

Design and Operation BMPs

The project would install permanent storm water runoff treatment and flow control facilities where needed according to the requirements of the 2004 Ecology *Stormwater Management Manual for Western Washington* or the most recently adopted manual.

The project would incorporate stormwater conveyance and management facilities that promote infiltration where applicable.

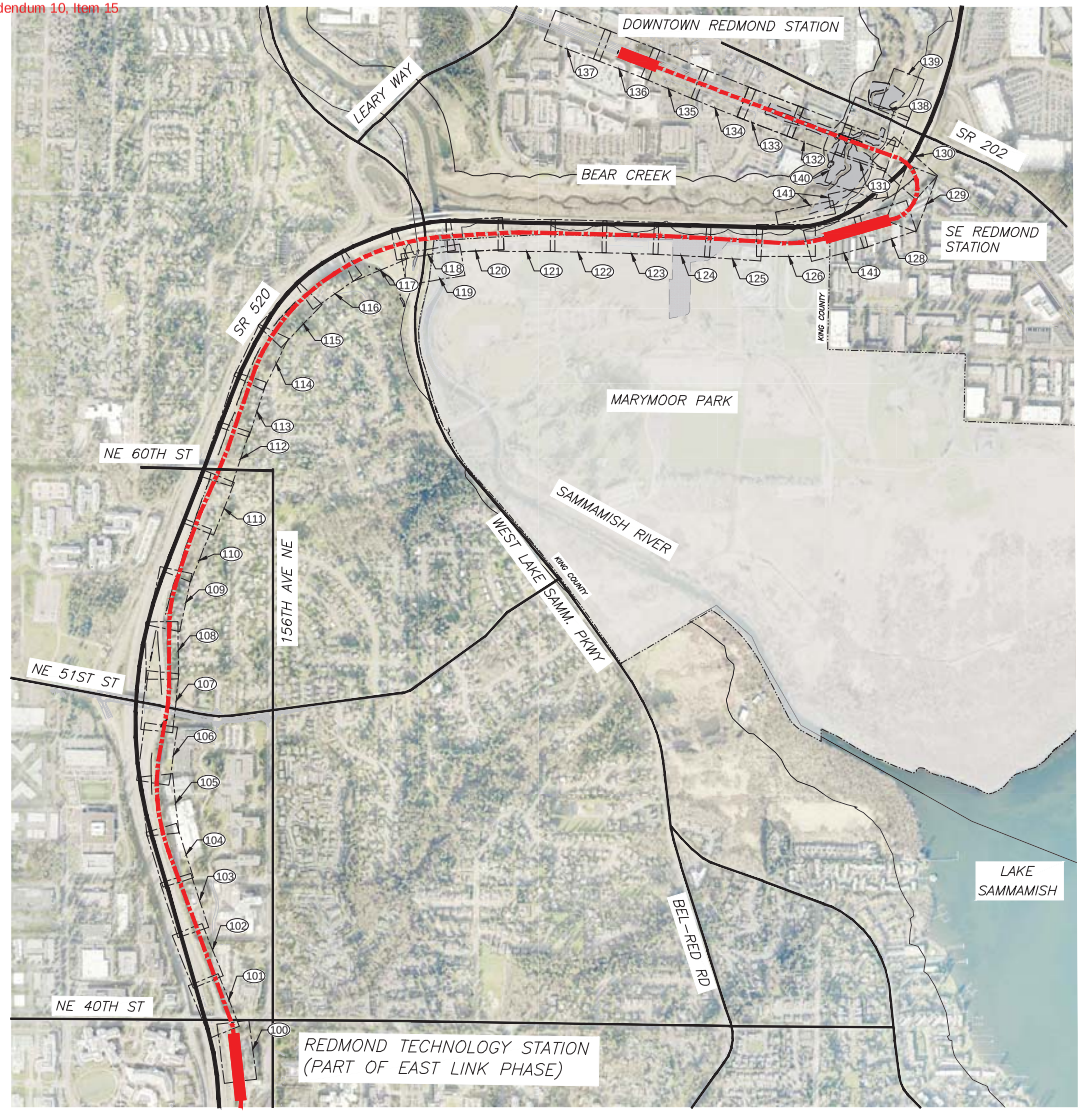
The project would select, design, and install runoff treatment BMPs that are best suited to the site conditions and best capable of achieving the required levels of treatment (subject to negotiation with the local jurisdiction and/or Ecology). These would or may include natural or engineered dispersion BMPs; biofiltration BMPs such as vegetated filter strips, biofiltration swales, or ecology embankments; wet-pool BMPs; and infiltration BMPs.

The project would not reroute existing drainage configurations to the extent that stormwater from one basin or subbasins is conveyed and discharged to another.

The project would implement IPM techniques, in accordance with current Ecology water quality agreements, to minimize the impact on aquatic and terrestrial environments.

Appendix F

Vegetation, Habitat, and Wetland Impact Areas



LEGEND

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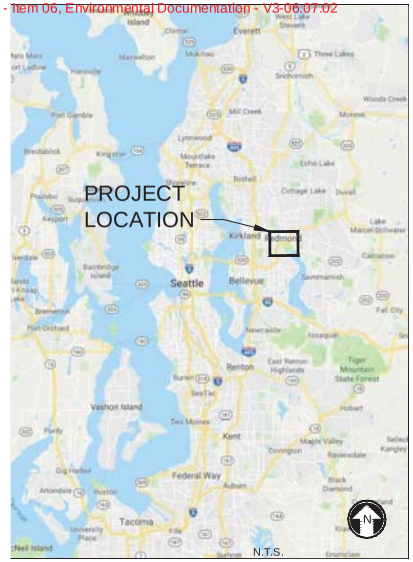
- DRLE RETAINED CUT-FILL / AT GRADE GUIDEWAY
- STATION



VICINITY MAP
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SCALE IN FEET

KEY PLAN
SCALE: 1"=600'

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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS											
							DESIGNED BY:				
							DRAWN BY: R. VAN BEMMEL				
							CHECKED BY: A. MERRILL				
							APPROVED BY: B. BURKE				
No.	DATE	DSN	CHK	APP	REVISION						

Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE:
FILENAME: RLE-LS COR-COVER
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE
EB STA 4991+00 TO EB STA 4993+00

DRAWING No.: COVER
LOCATION ID:
SHEET No.: REV:

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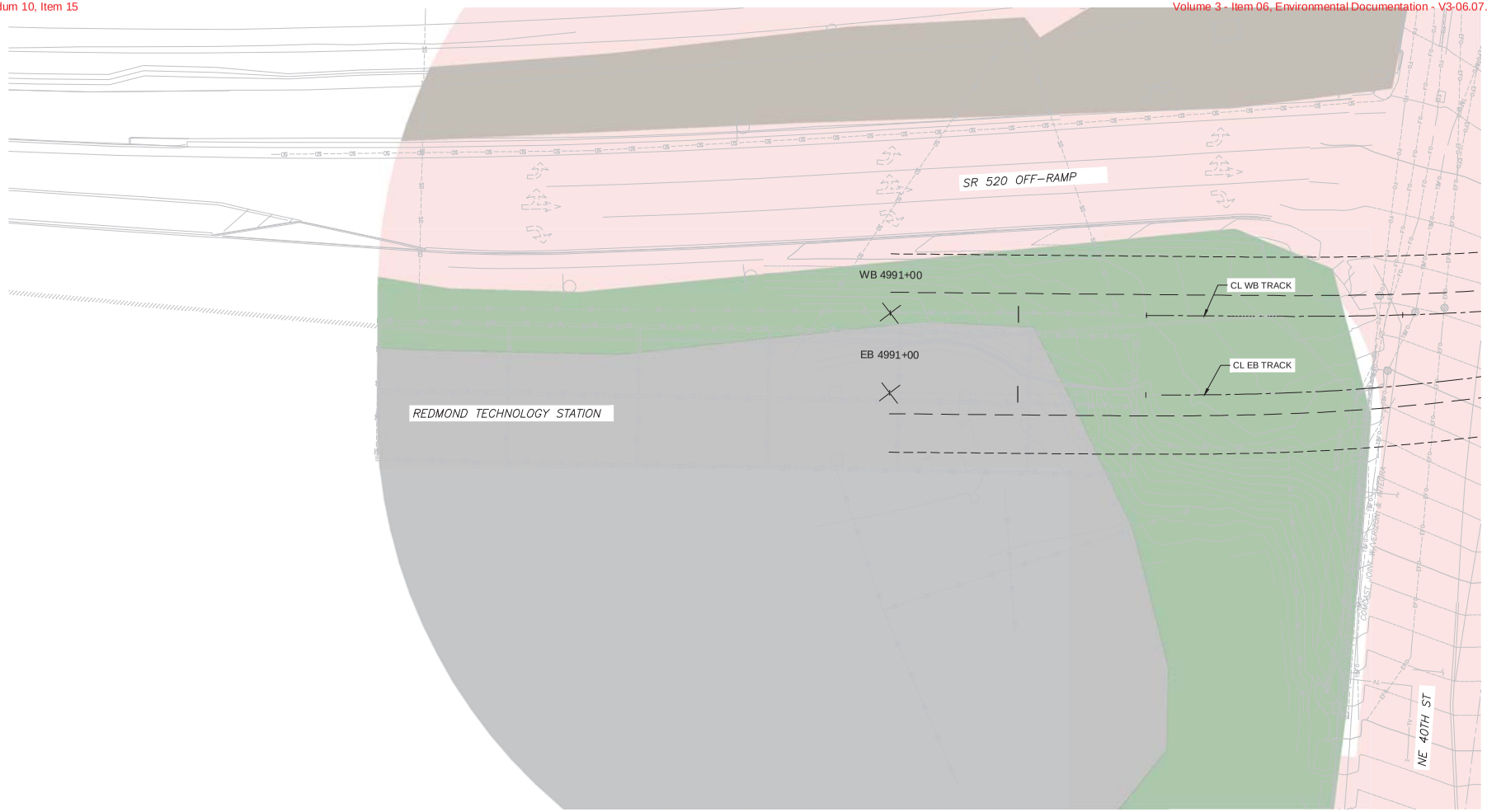

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
- ROADSIDE ROW
- VEGETATED ROW
- STREAM CHANNELS

NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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CHECKED BY: A. MERRILL
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 4991+00 TO EB STA 4993+00

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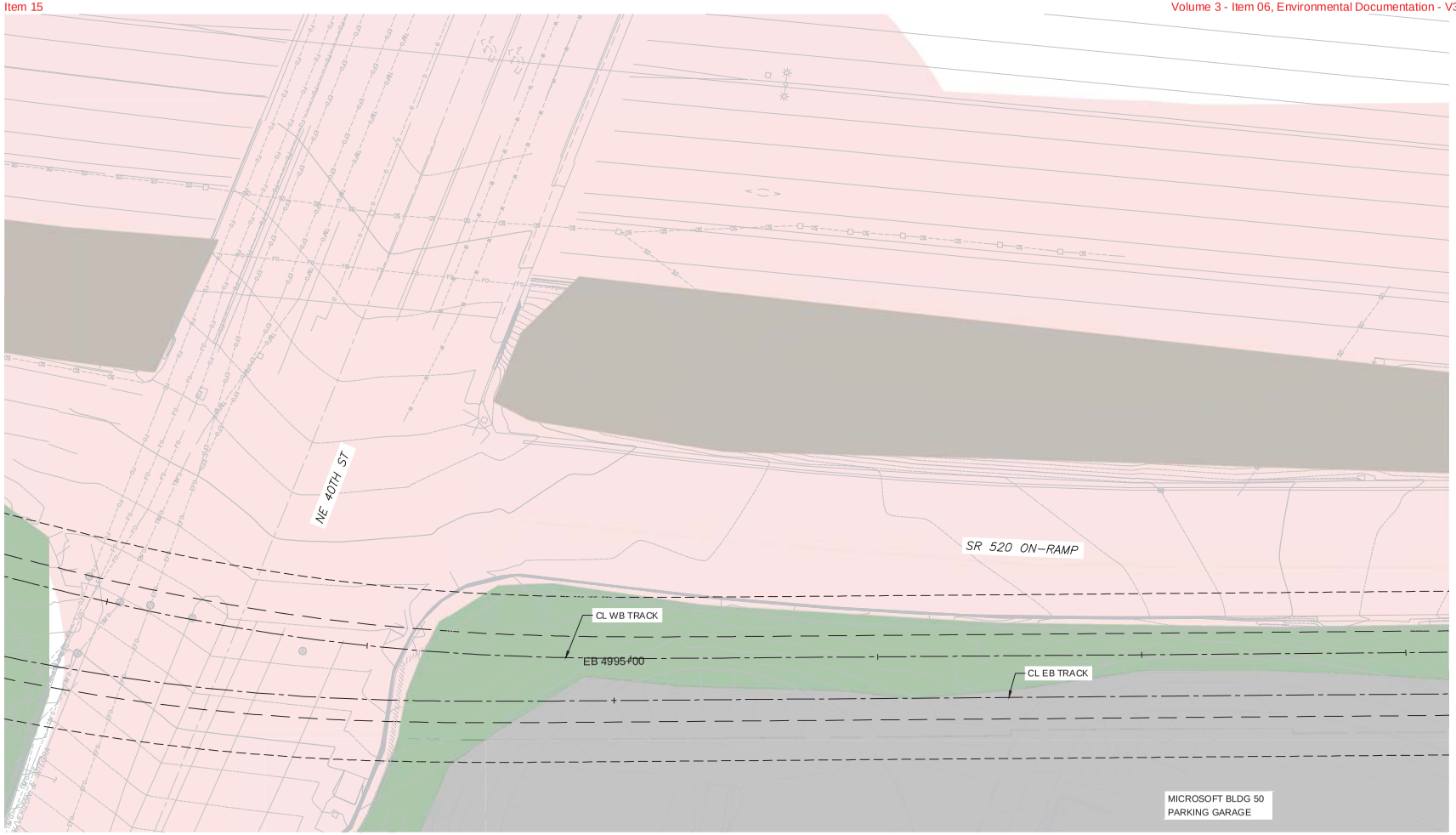

LEGEND

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 4993+00 TO EB STA 4998+00

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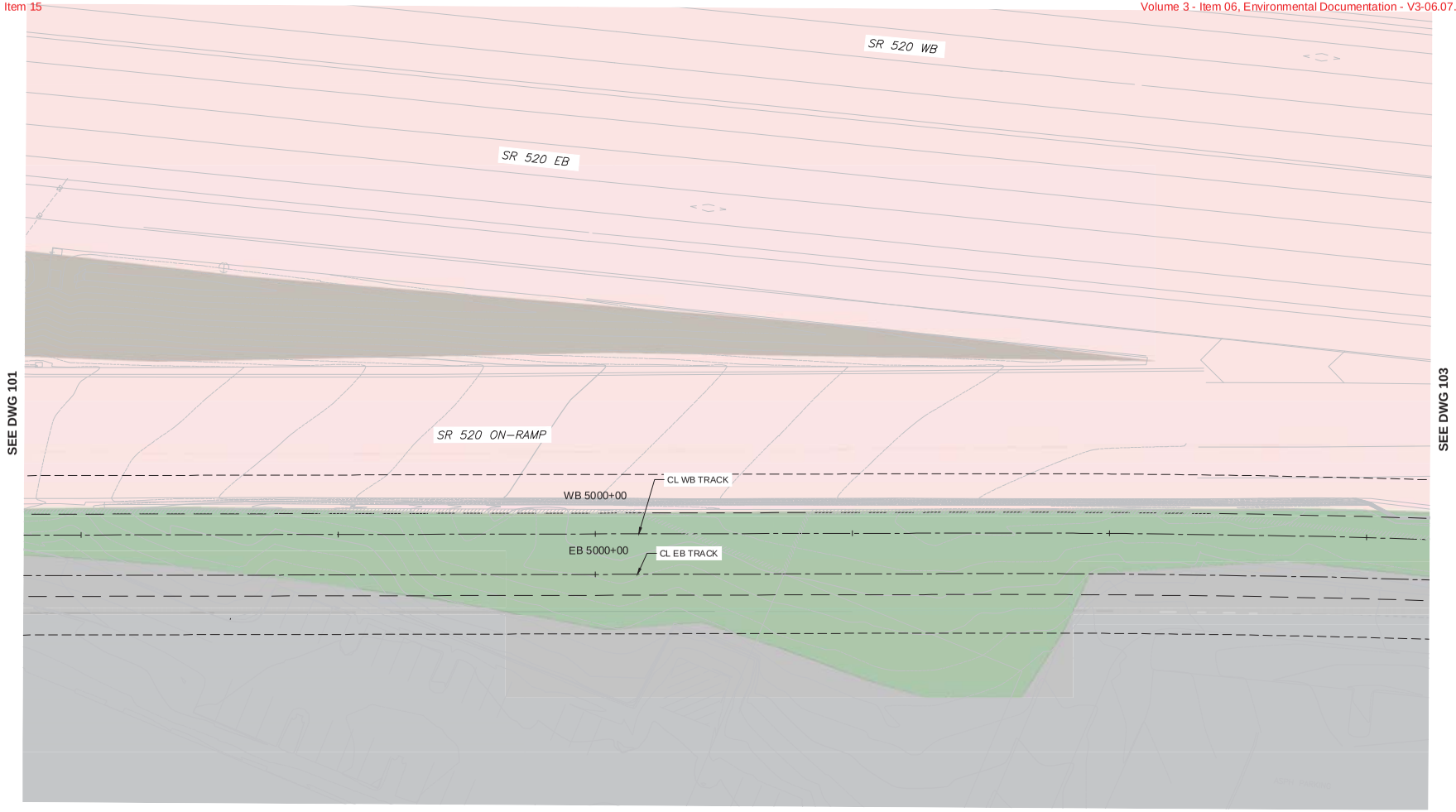

LEGEND

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

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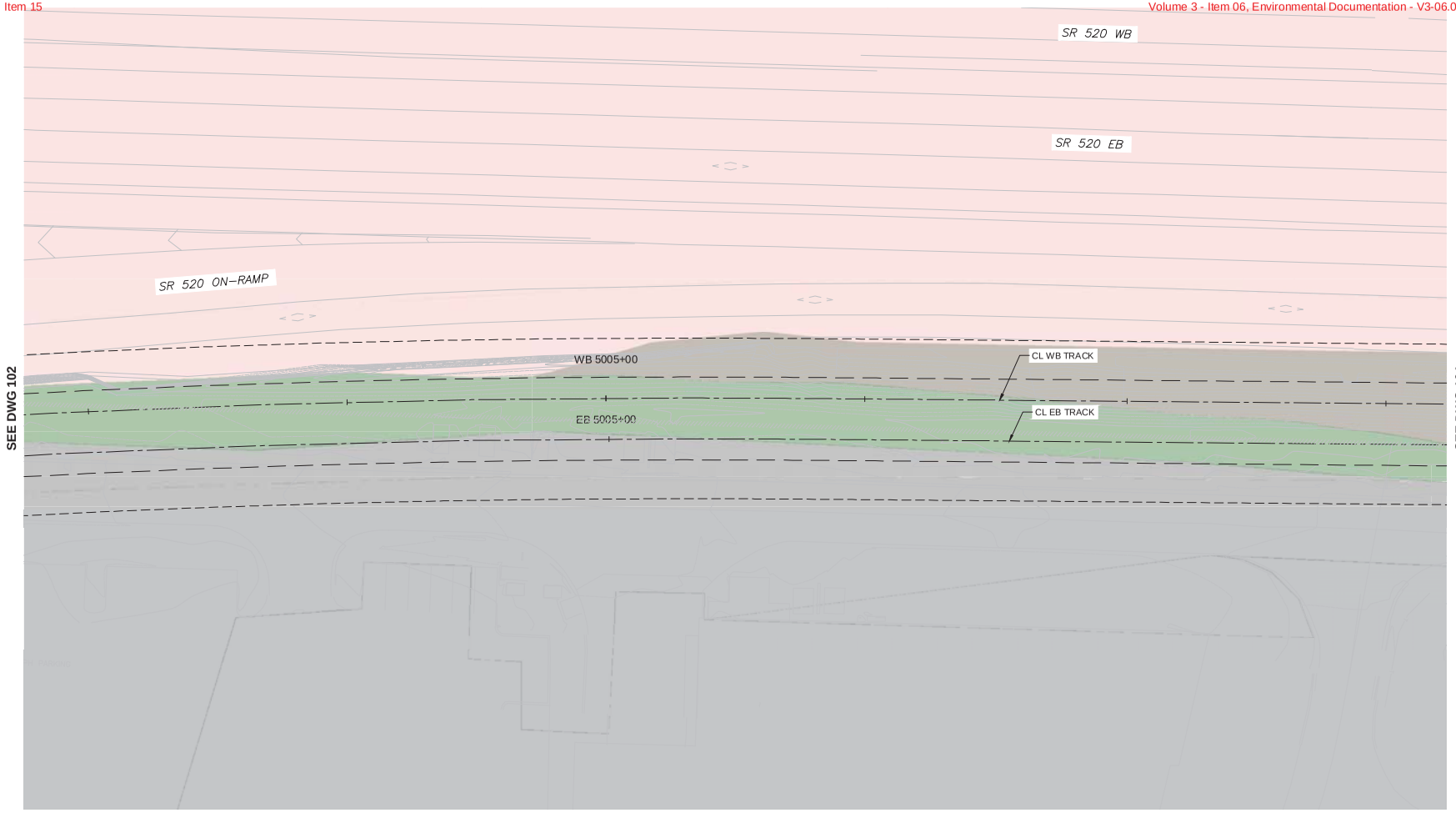

LEGEND

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CONTRACT No.: CN 0148-18
DATE: 02/13/2019

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RTS TO DOWNTOWN REDMOND
REFERENCE

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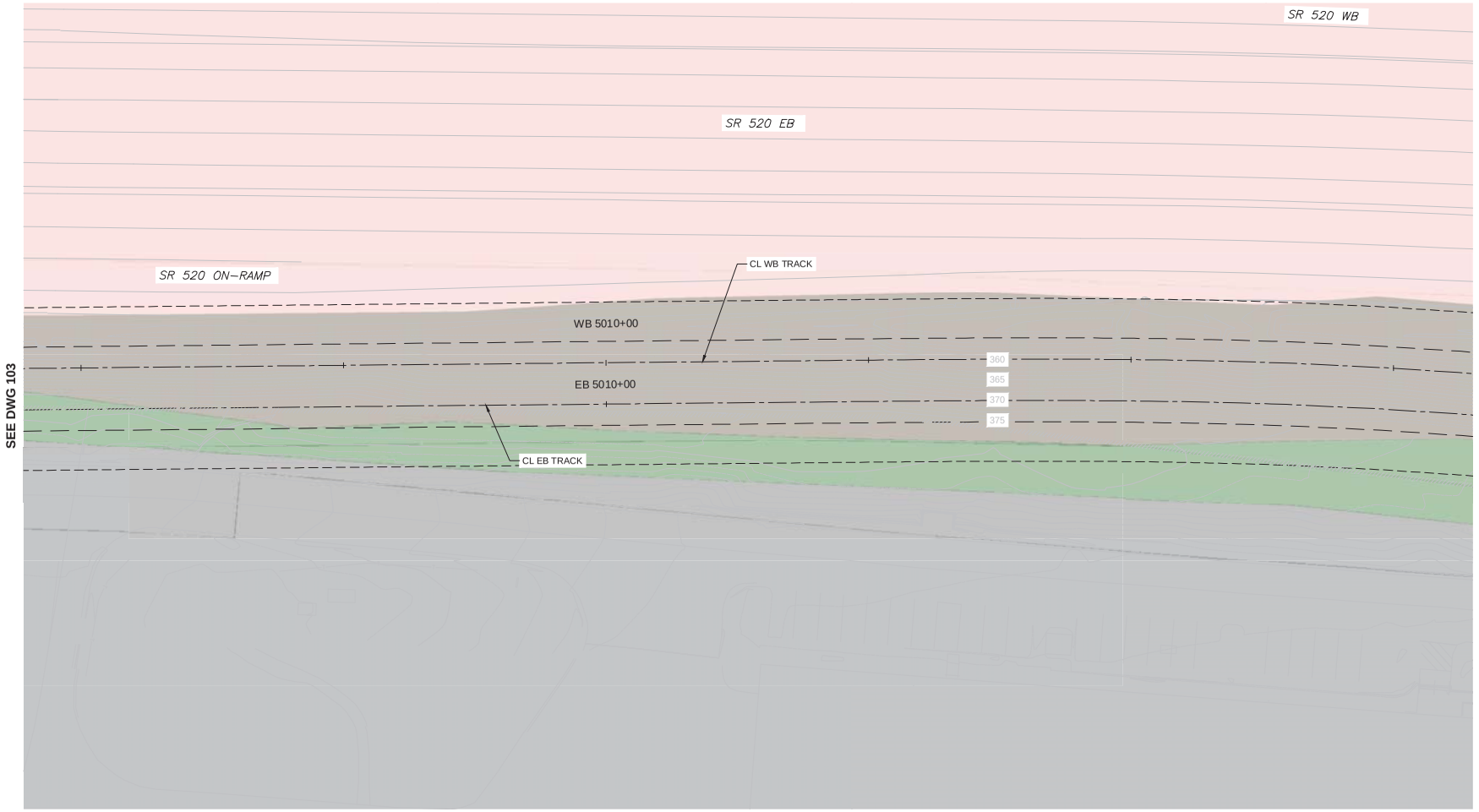

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CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

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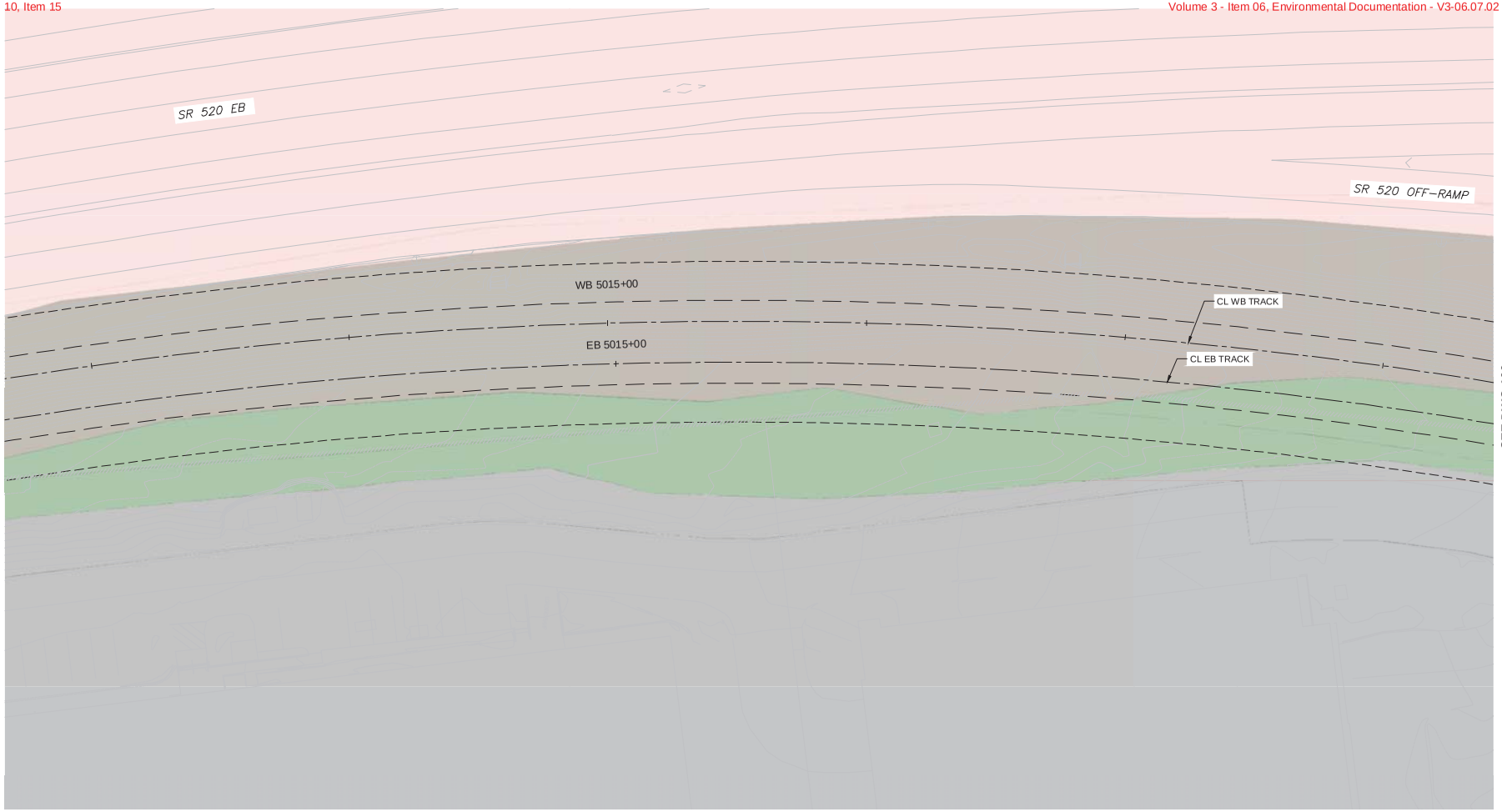

LEGEND

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SOUNDTRANSIT

SCALE: 1" = 20'
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CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

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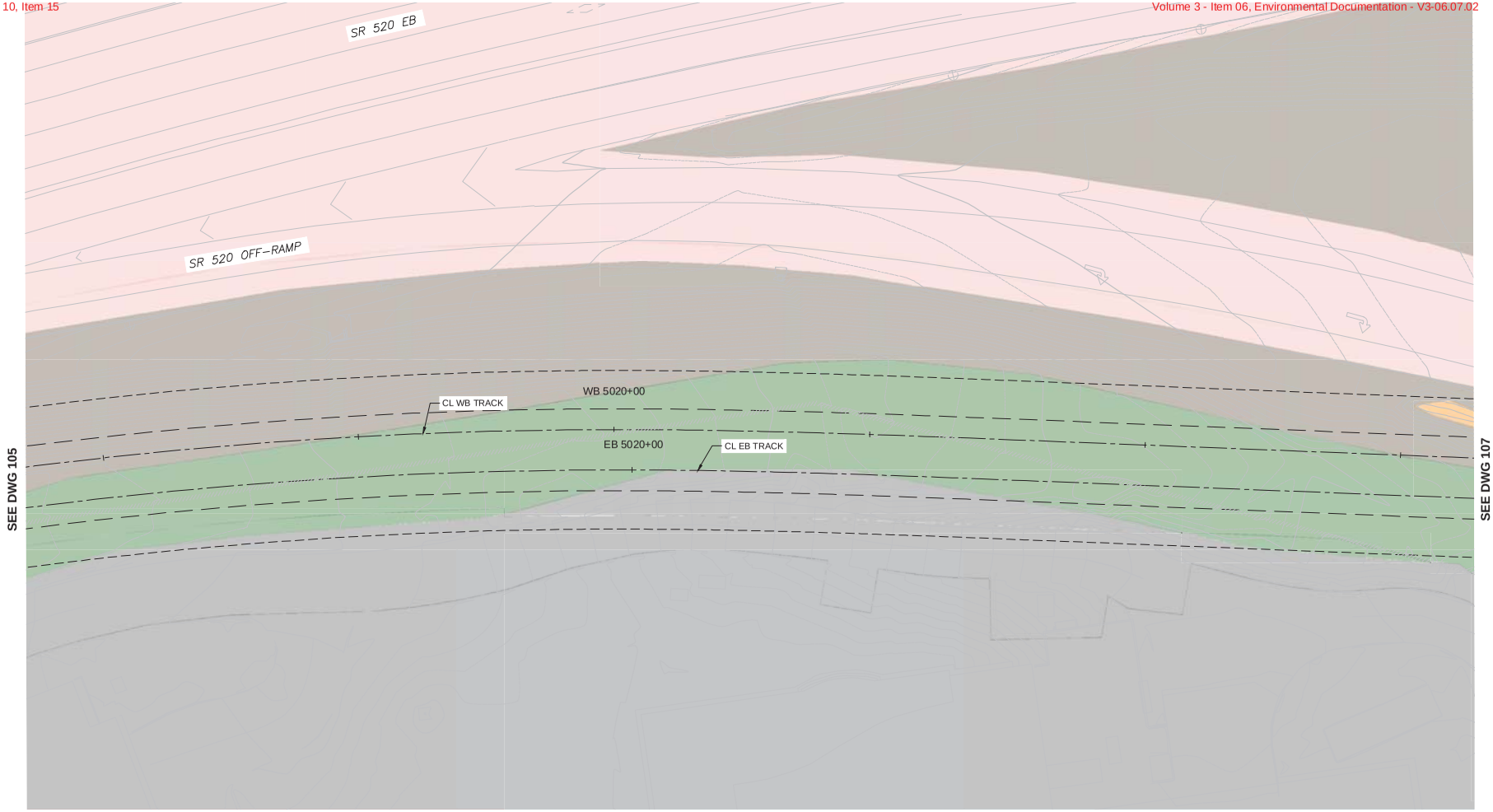

LEGEND

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RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5018+00 TO EB STA 5023+00

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SHEET No.: REV:

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LEGEND

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

No.	DATE	DSN	CHK	APP	REVISION

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
APPROVED BY: B. BURKE

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

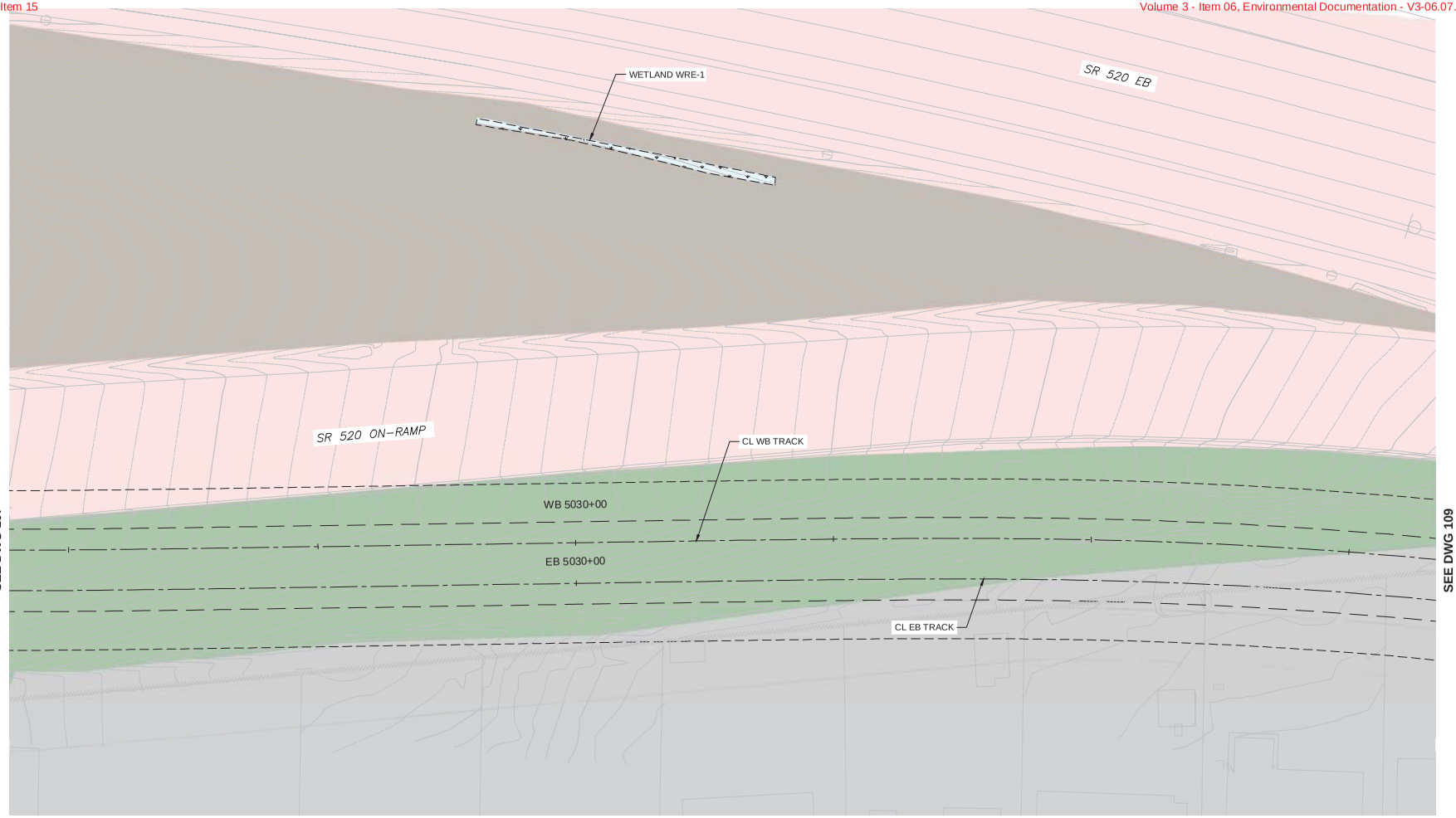
SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5023+00 TO EB STA 5028+00

DRAWING No.: 107
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:15 PM | RHYS
E:\CAD\ST REDMOND LE PE - 2018\01-DRAFT PED\DRAWINGS\RLE-LS COR.DWG



LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
- ROADSIDE ROW
- VEGETATED ROW
- STREAM CHANNELS

NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

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DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5028+00 TO EB STA 5033+00

DRAWING No.: 108
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:15 PM | RHYS
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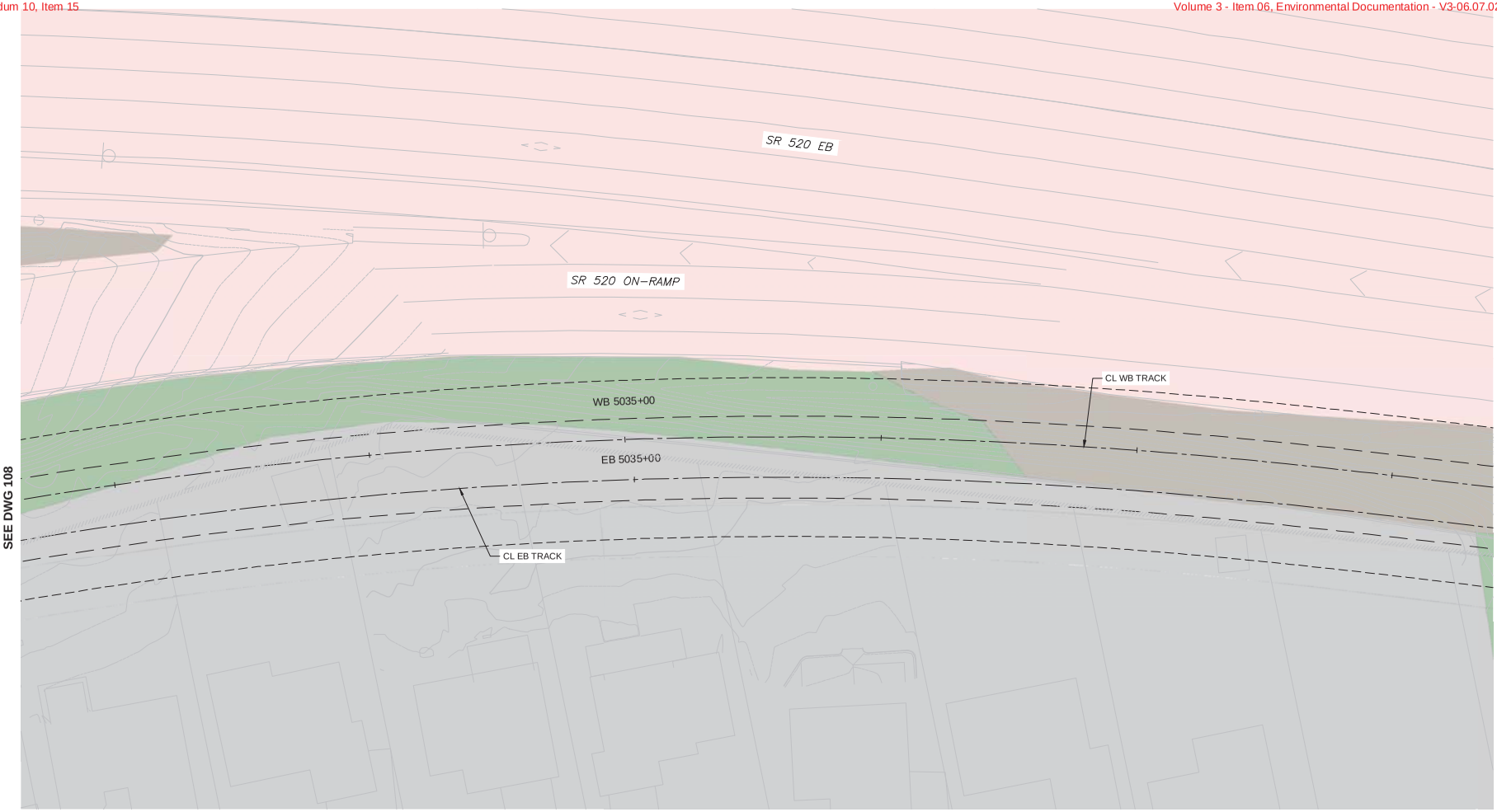

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
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- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
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FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5033+00 TO EB STA 5038+00

DRAWING No.: 109
LOCATION ID:
SHEET No.: REV:

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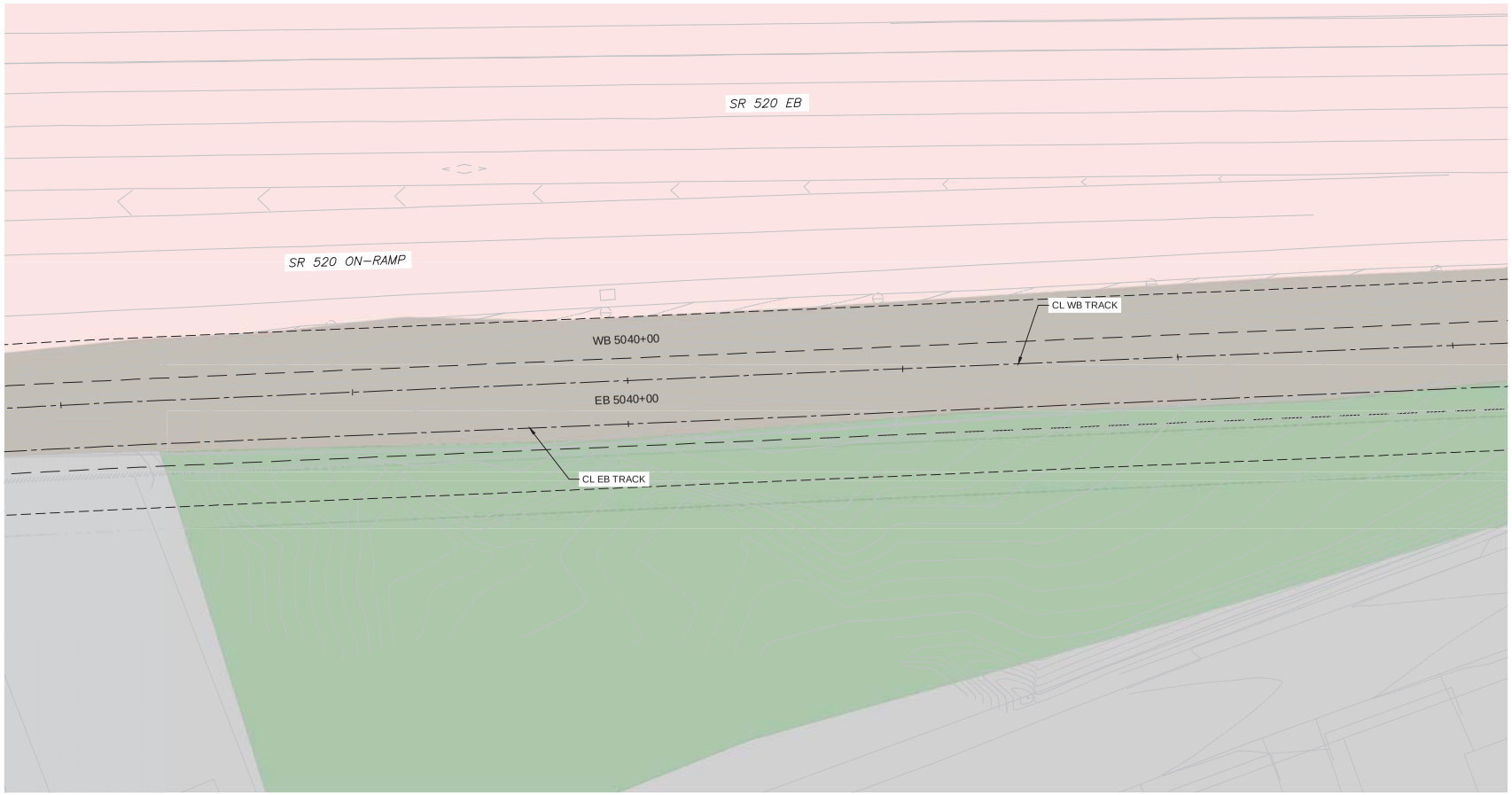

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- FEMA FLOODWAY
- GUIDEWAY
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- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
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- DEVELOPED COMMERCIAL
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5038+00 TO EB STA 5043+00

DRAWING No.: 110
LOCATION ID:
SHEET No.: REV:

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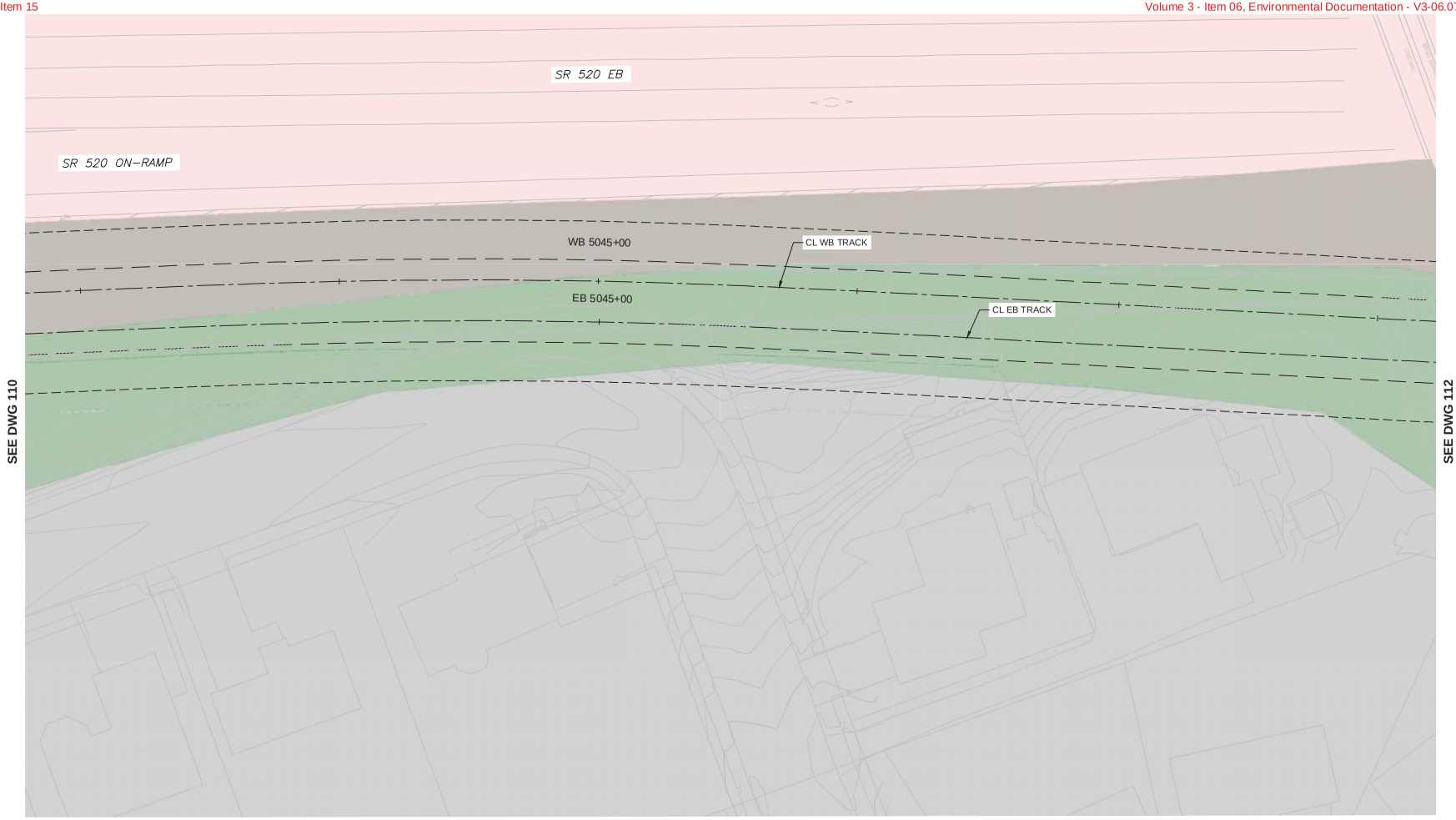

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
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- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

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DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5043+00 TO EB STA 5048+00

DRAWING No.: 111
LOCATION ID:
SHEET No.: REV:

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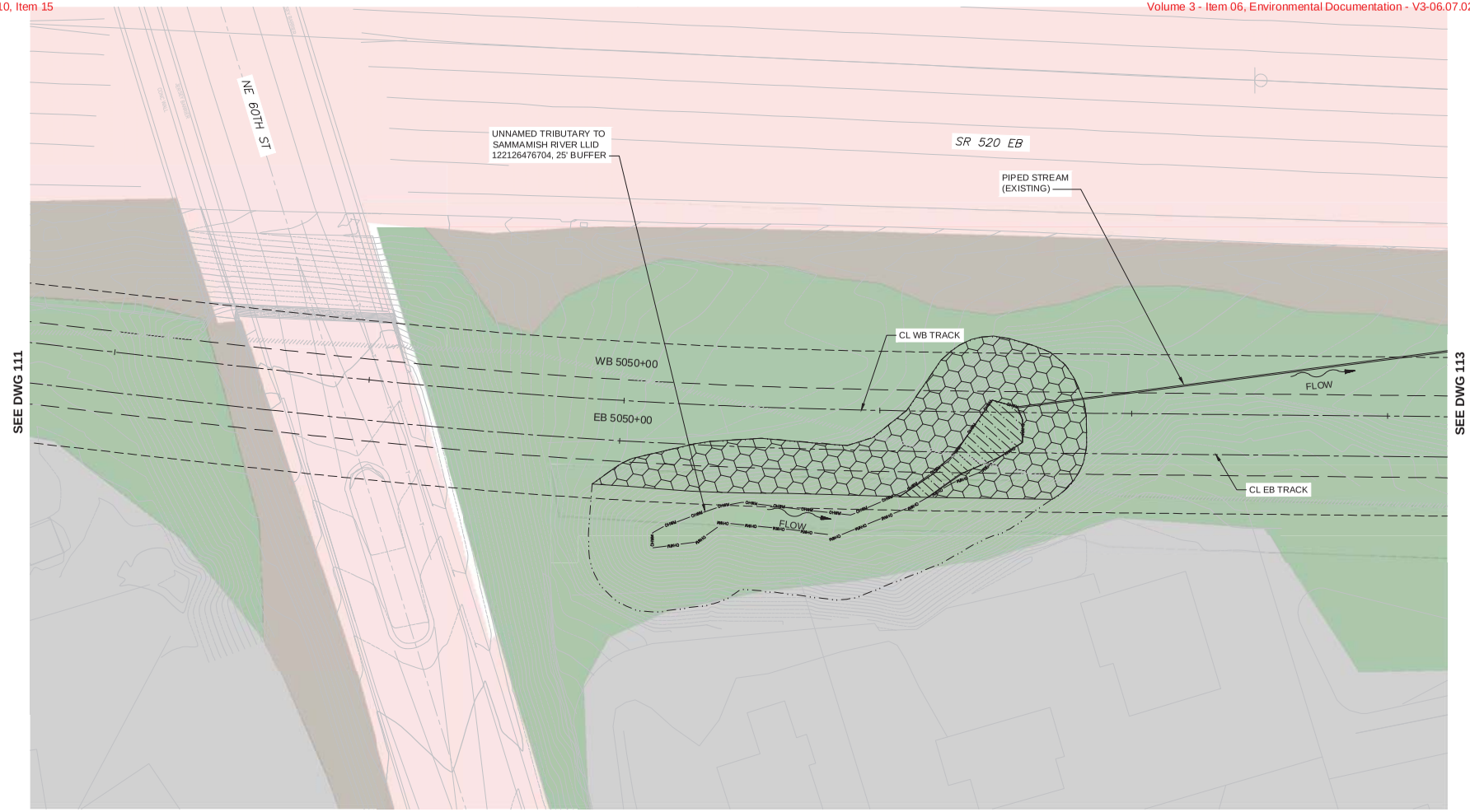

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5048+00 TO EB STA 5053+00

DRAWING No.: 112
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:16 PM | RHYS
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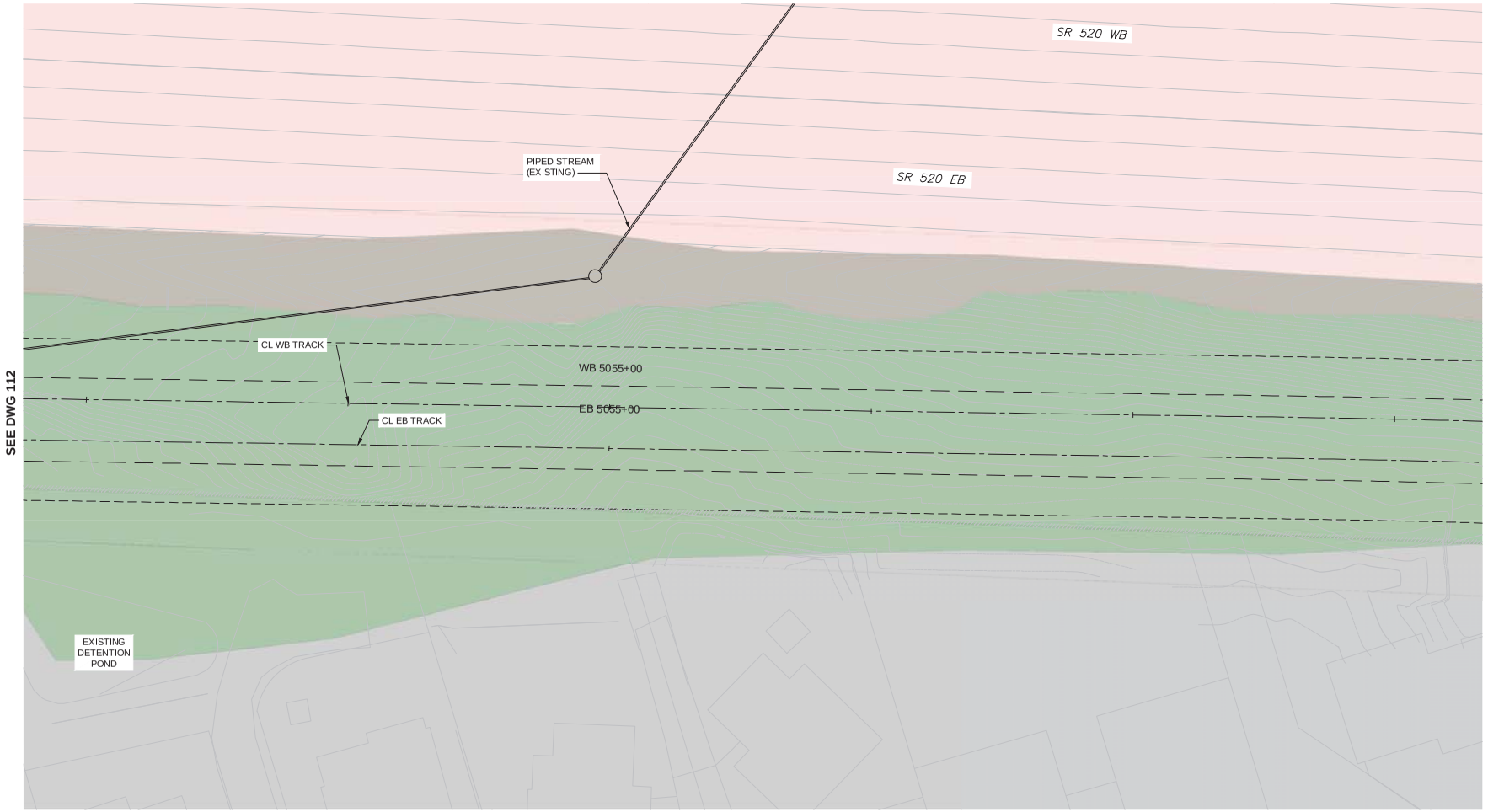

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
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VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5053+00 TO EB STA 5058+00

DRAWING No.: 113
LOCATION ID:
SHEET No.: REV:

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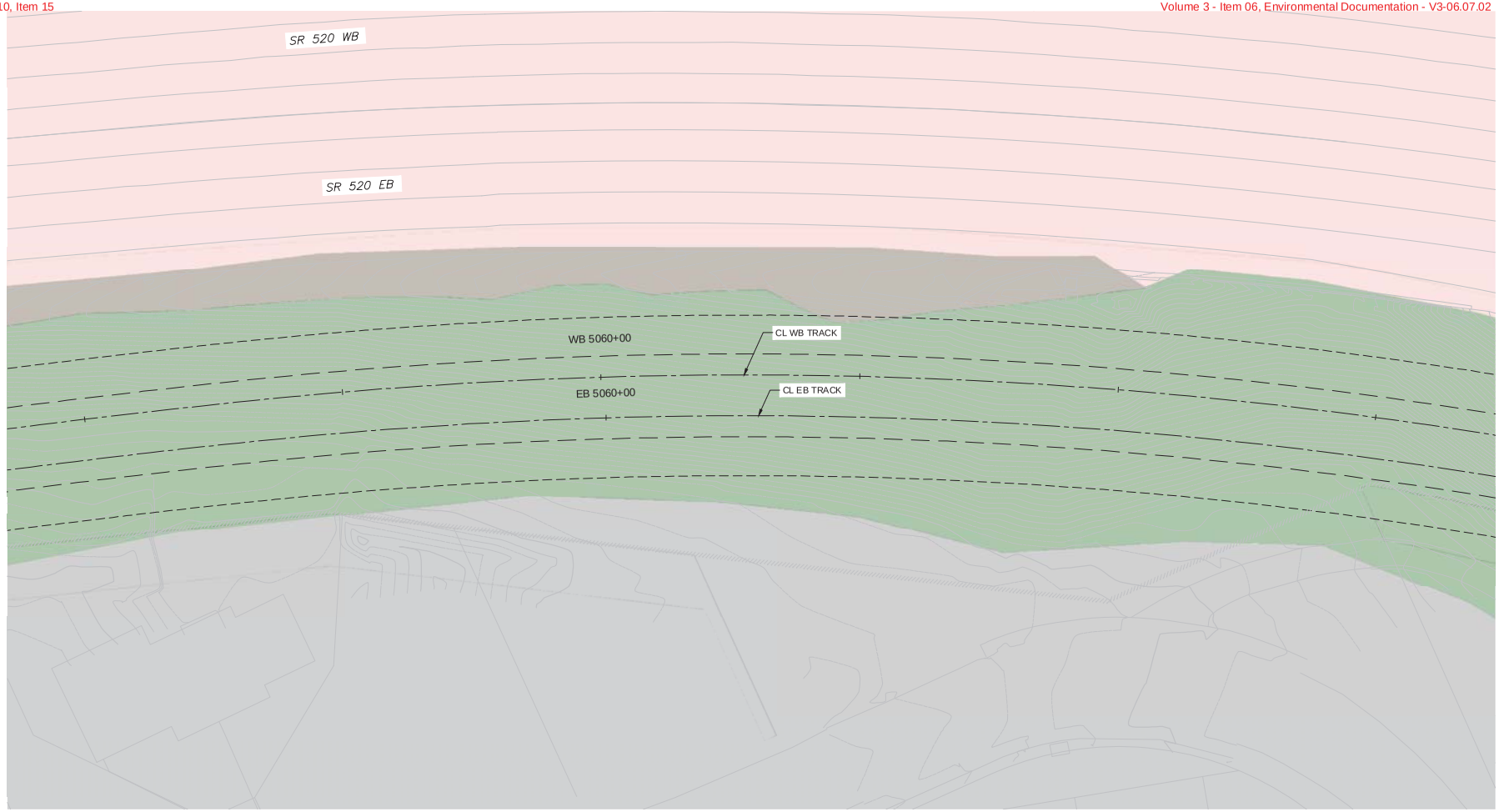

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- PERMANENT BUFFER IMPACT
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- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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VEGETATIVE COVER TYPES LEGEND

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FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5058+00 TO EB STA 5063+00

DRAWING No.: 114
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:17 PM | RHYS
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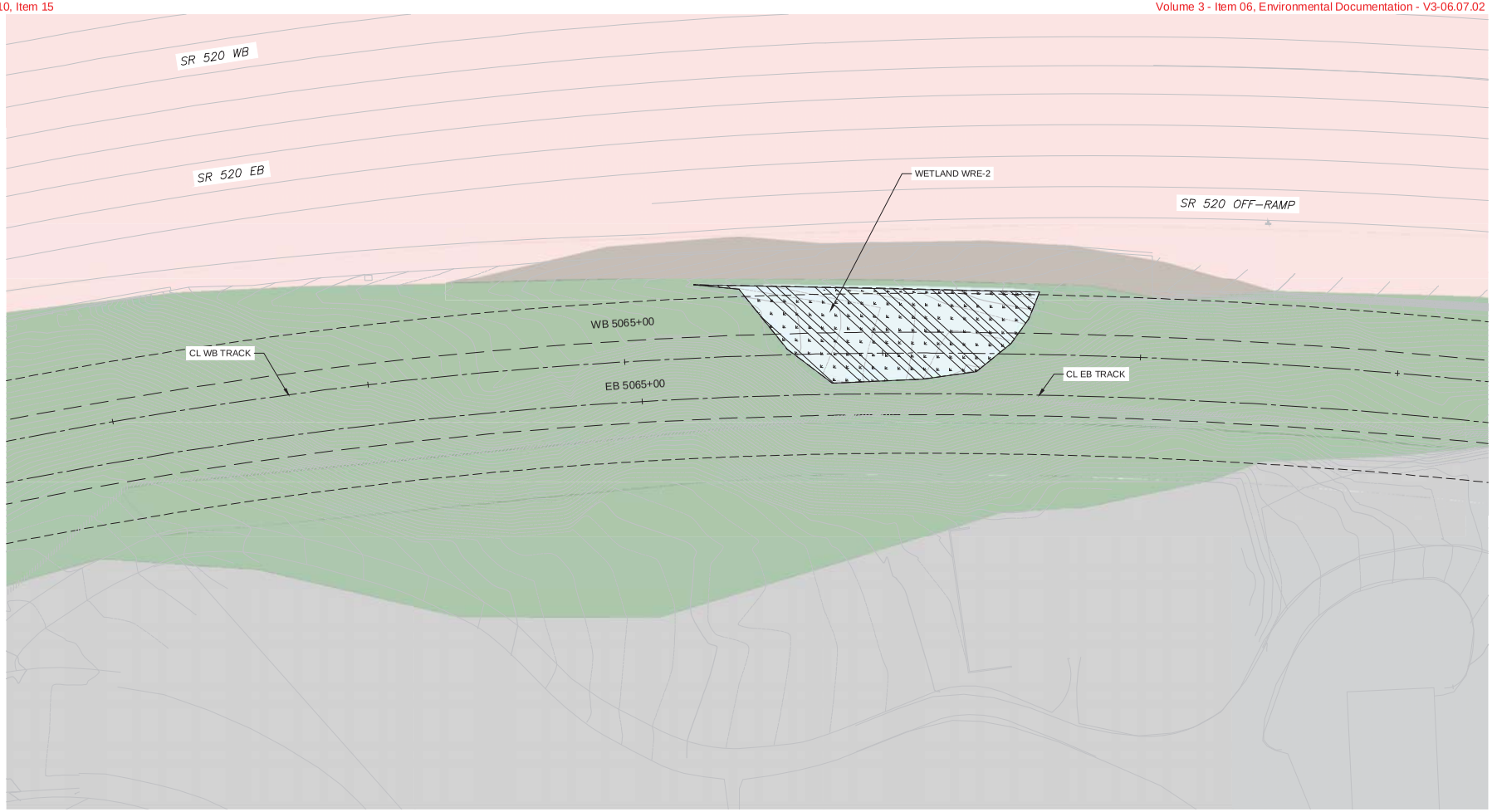

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
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VEGETATIVE COVER TYPES LEGEND

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CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5063+00 TO EB STA 5068+00

DRAWING No.: 115
LOCATION ID:
SHEET No.: REV:

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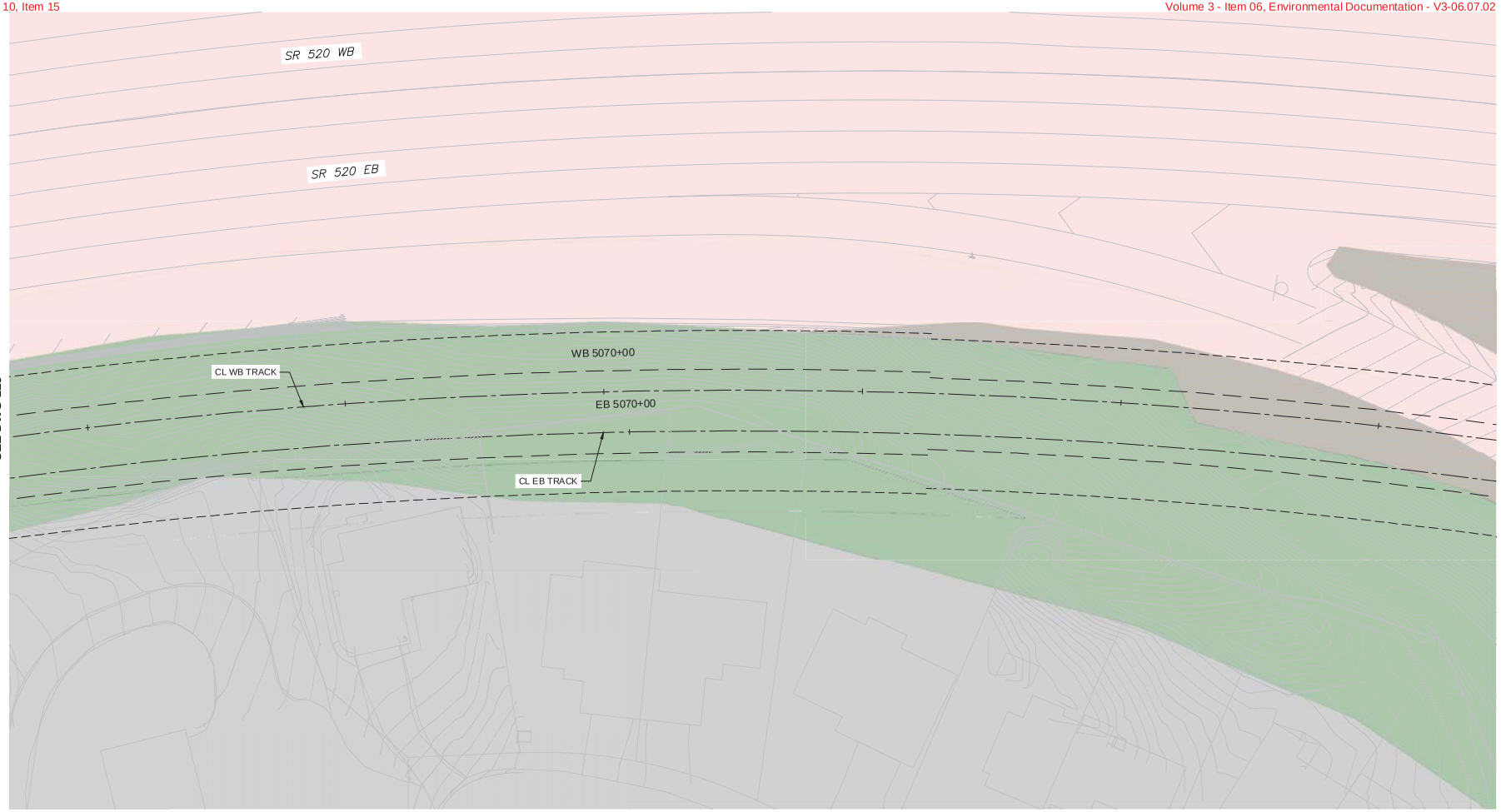

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
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VEGETATIVE COVER TYPES LEGEND

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
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DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5068+00 TO EB STA 5073+00

DRAWING No.: 116
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:18 PM | RHYS
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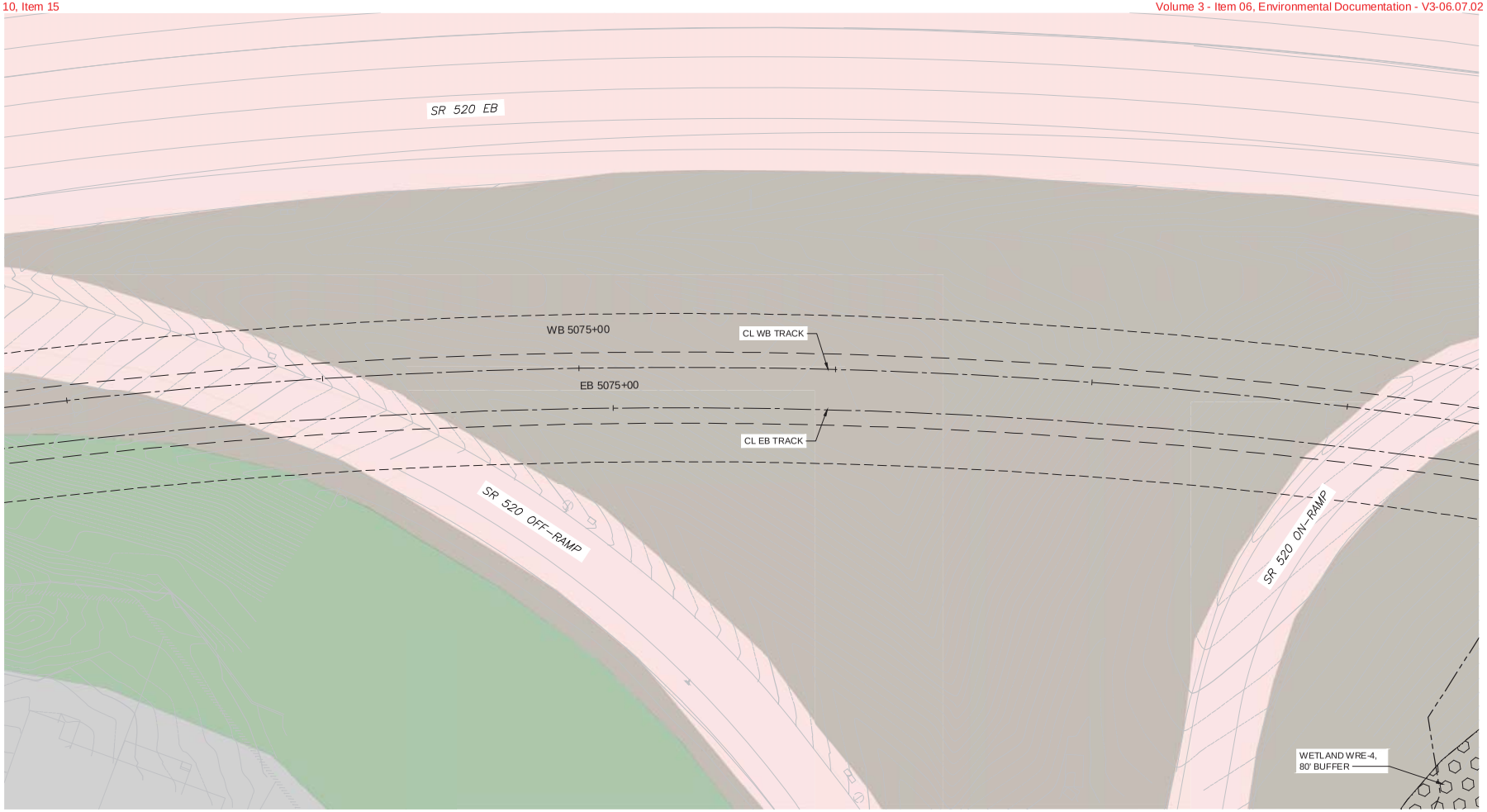

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
- ROADSIDE ROW
- VEGETATED ROW
- STREAM CHANNELS

NOTES:

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PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
APPROVED BY: B. BURKE

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

LINE IS 1" AT FULL SCALE

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5073+00 TO EB STA 5078+00

DRAWING No.: 117
LOCATION ID:
SHEET No.: REV:

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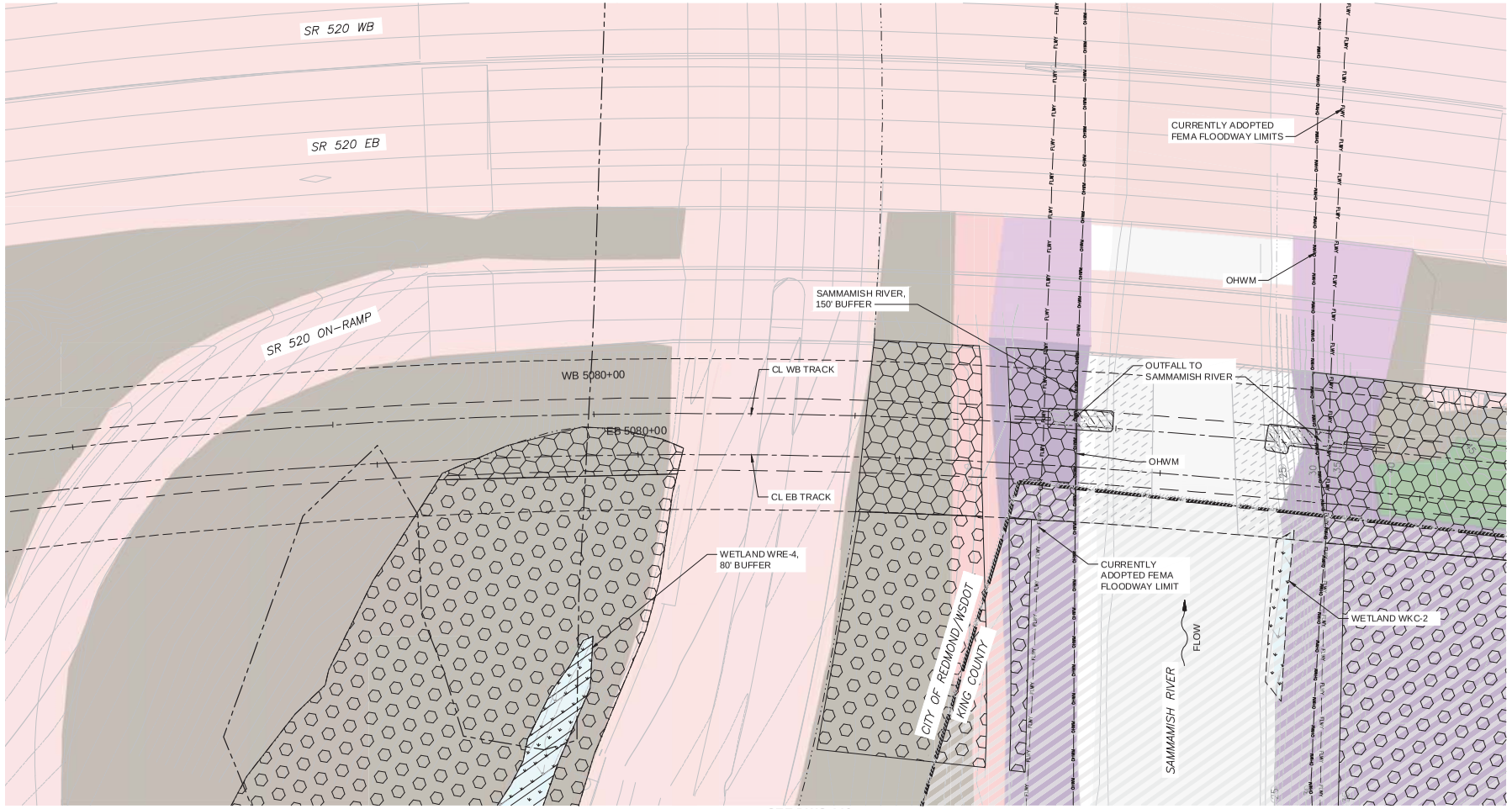

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5078+00 TO EB STA 5083+00

DRAWING No.: 118
LOCATION ID:
SHEET No.: REV:

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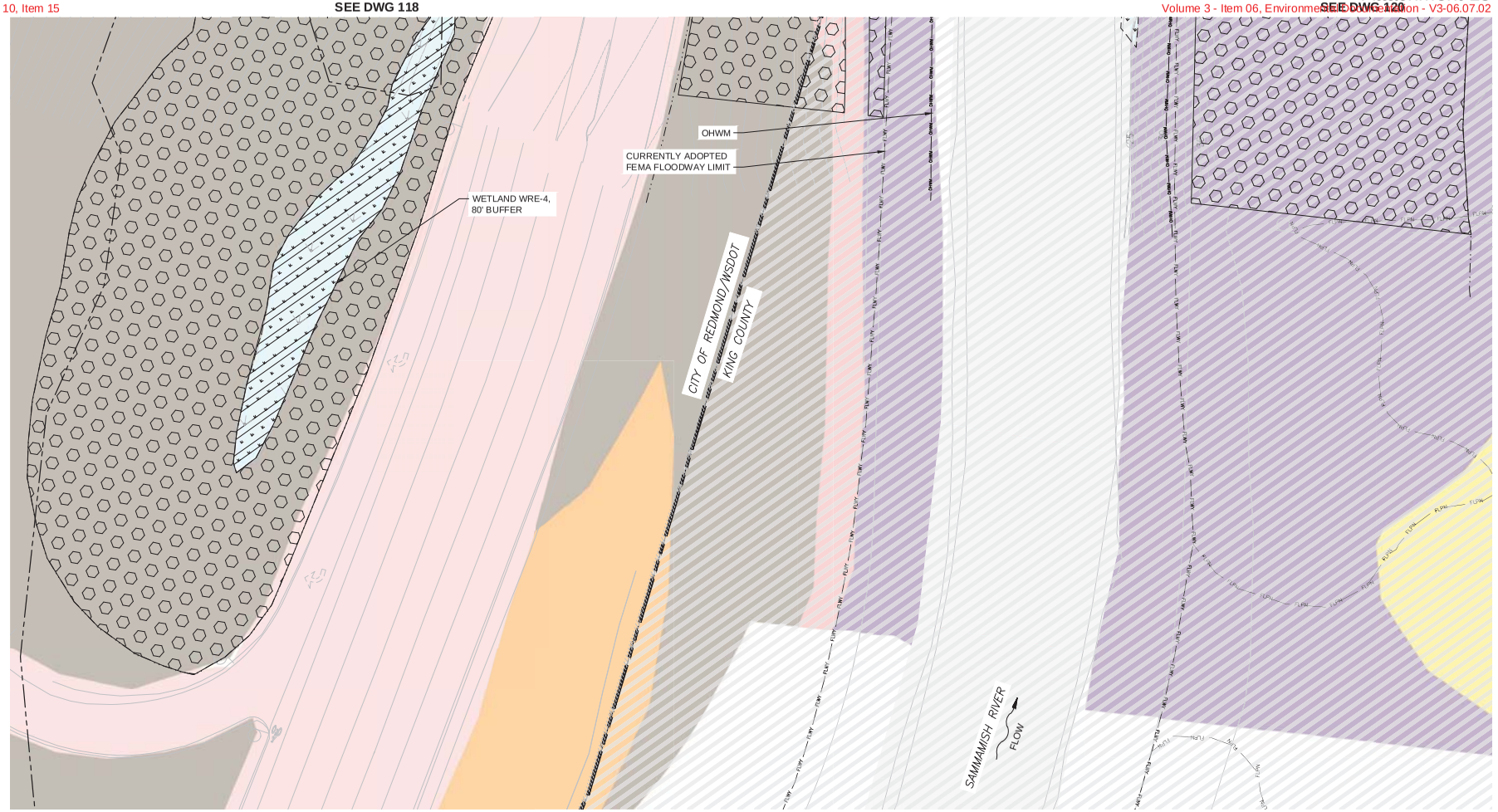

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
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FILENAME: RLE-LS COR
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DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5078+00 TO EB STA 5083+00

DRAWING No.: 119
LOCATION ID:
SHEET No.: REV:

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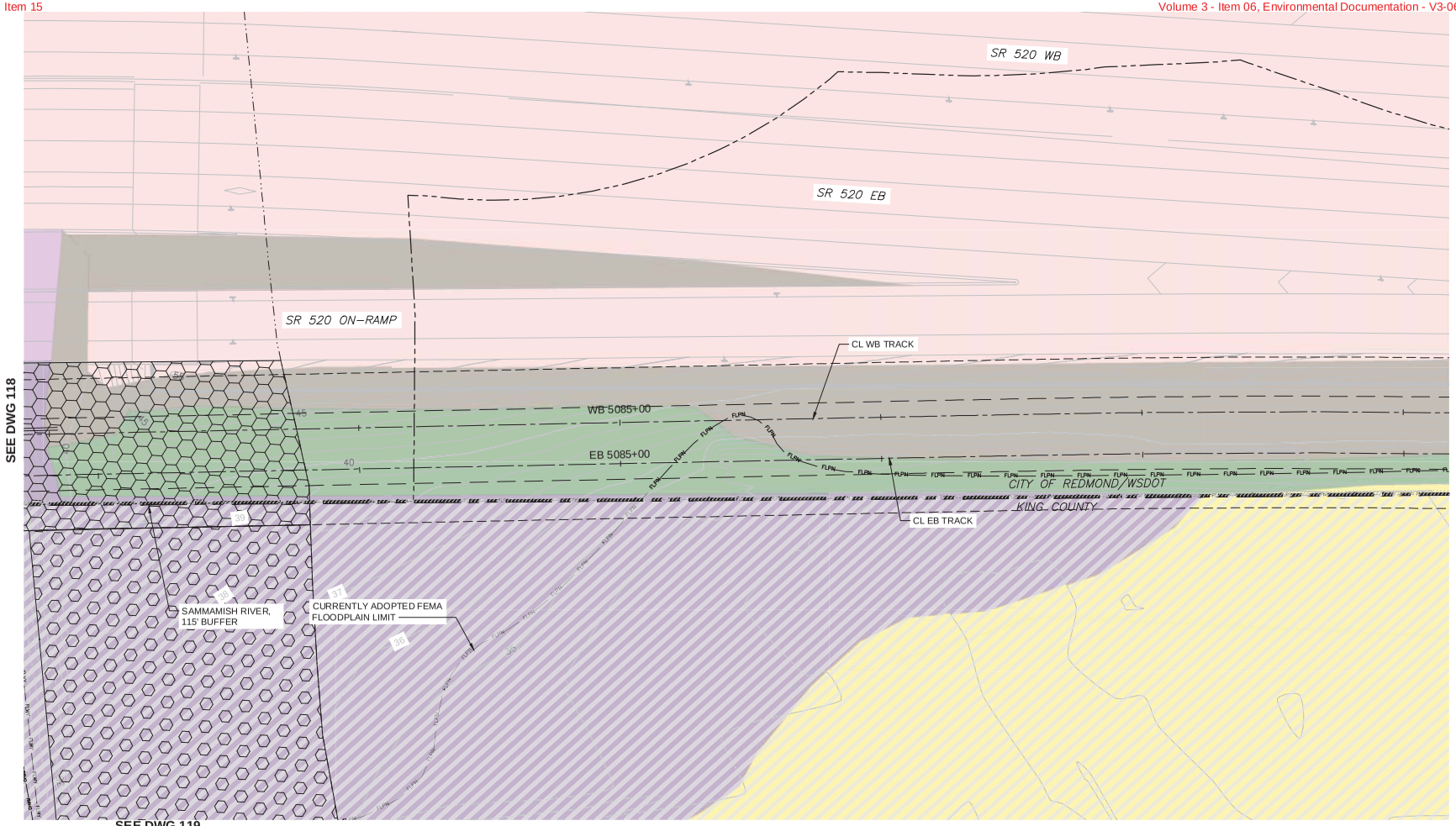

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
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- TEMP OHWM IMPACTS
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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5083+00 TO EB STA 5088+00

DRAWING No.: 120
LOCATION ID:
SHEET No.: REV:

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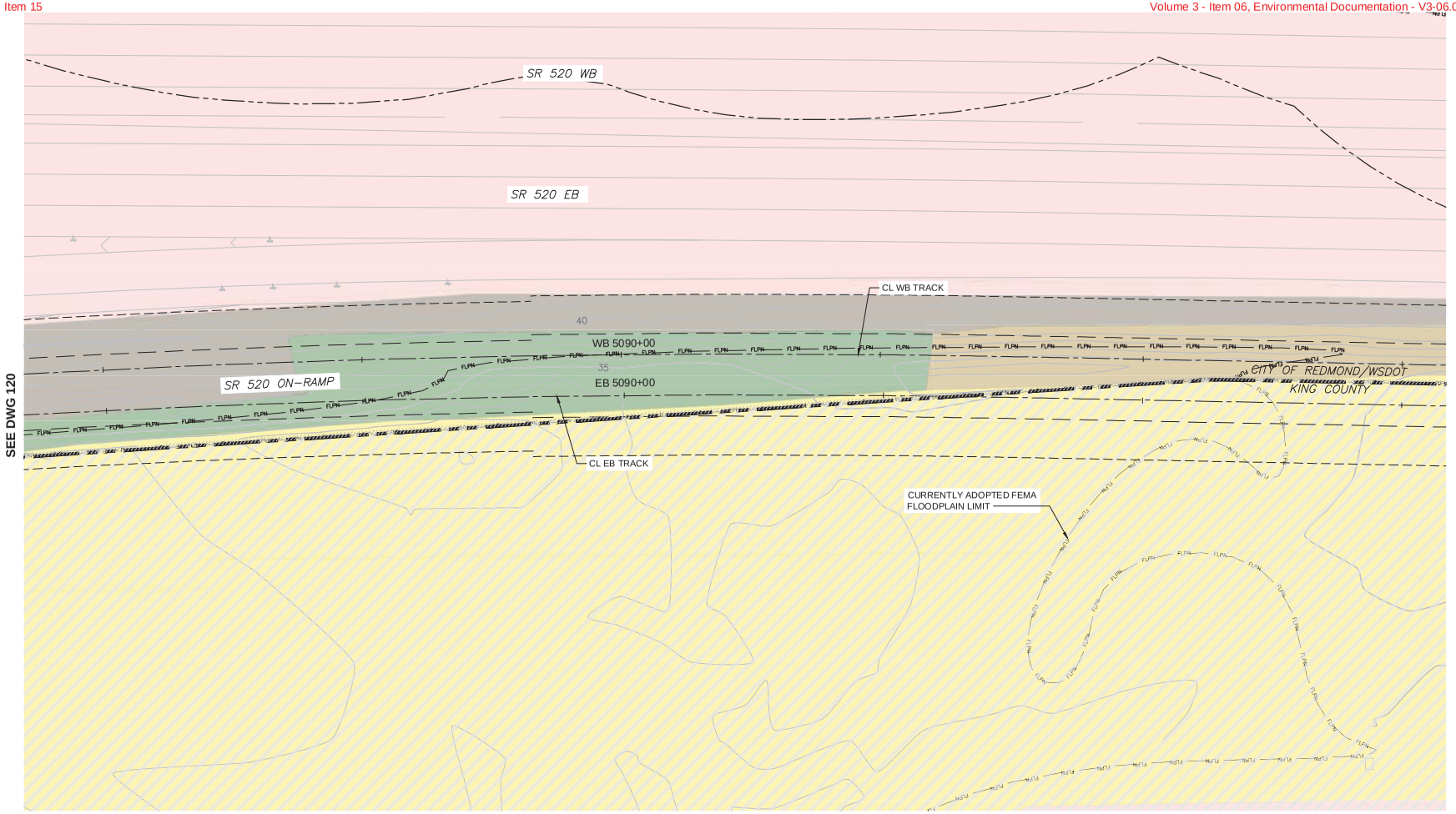

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5088+00 TO EB STA 5093+00

DRAWING No.: 121
LOCATION ID:
SHEET No.: REV:

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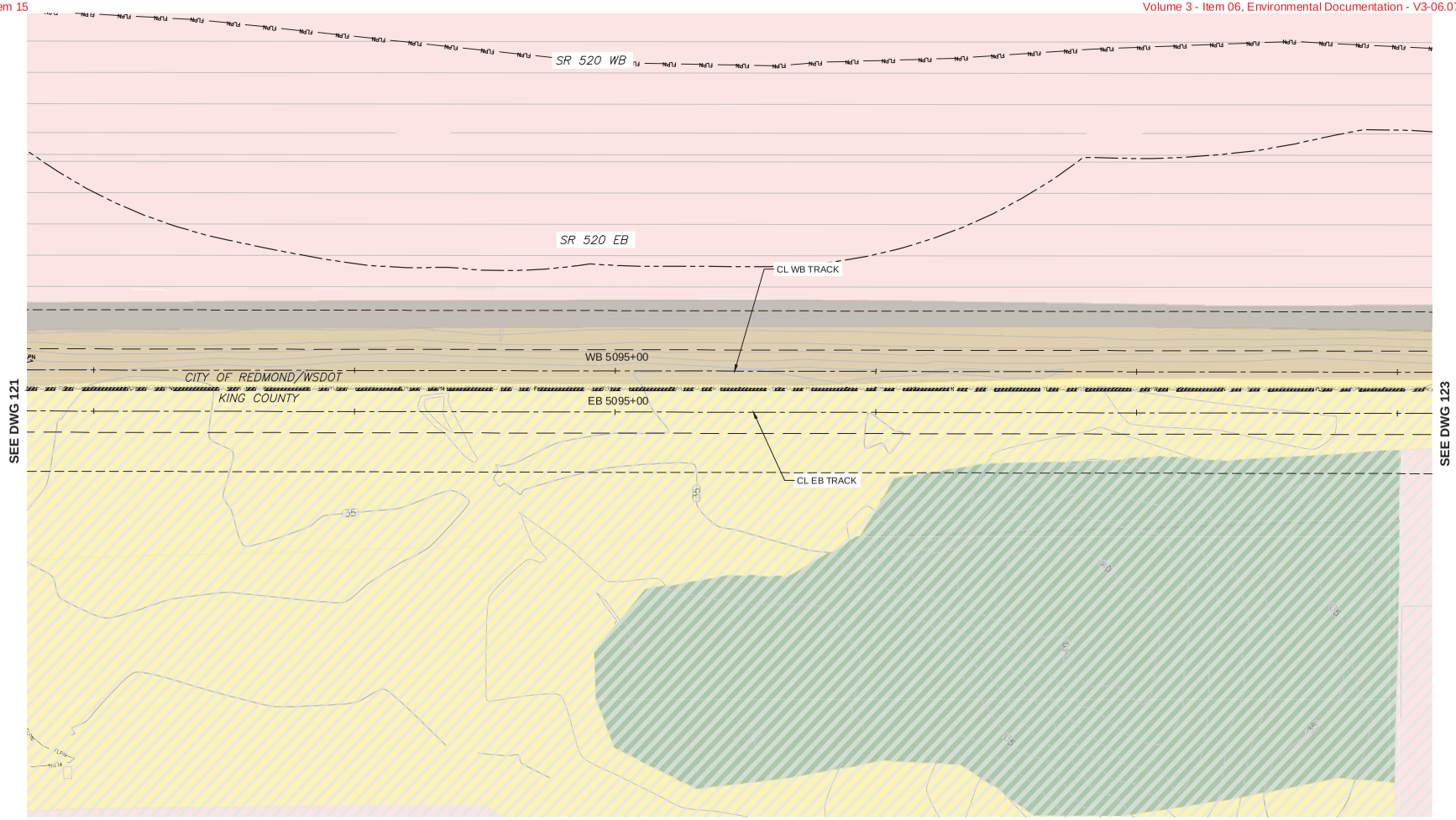

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
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PRELIMINARY ENGINEERING

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No.	DATE	DSN	CHK	APP	REVISION

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5093+00 TO EB STA 5098+00

DRAWING No.: 122
LOCATION ID:
SHEET No.: REV:

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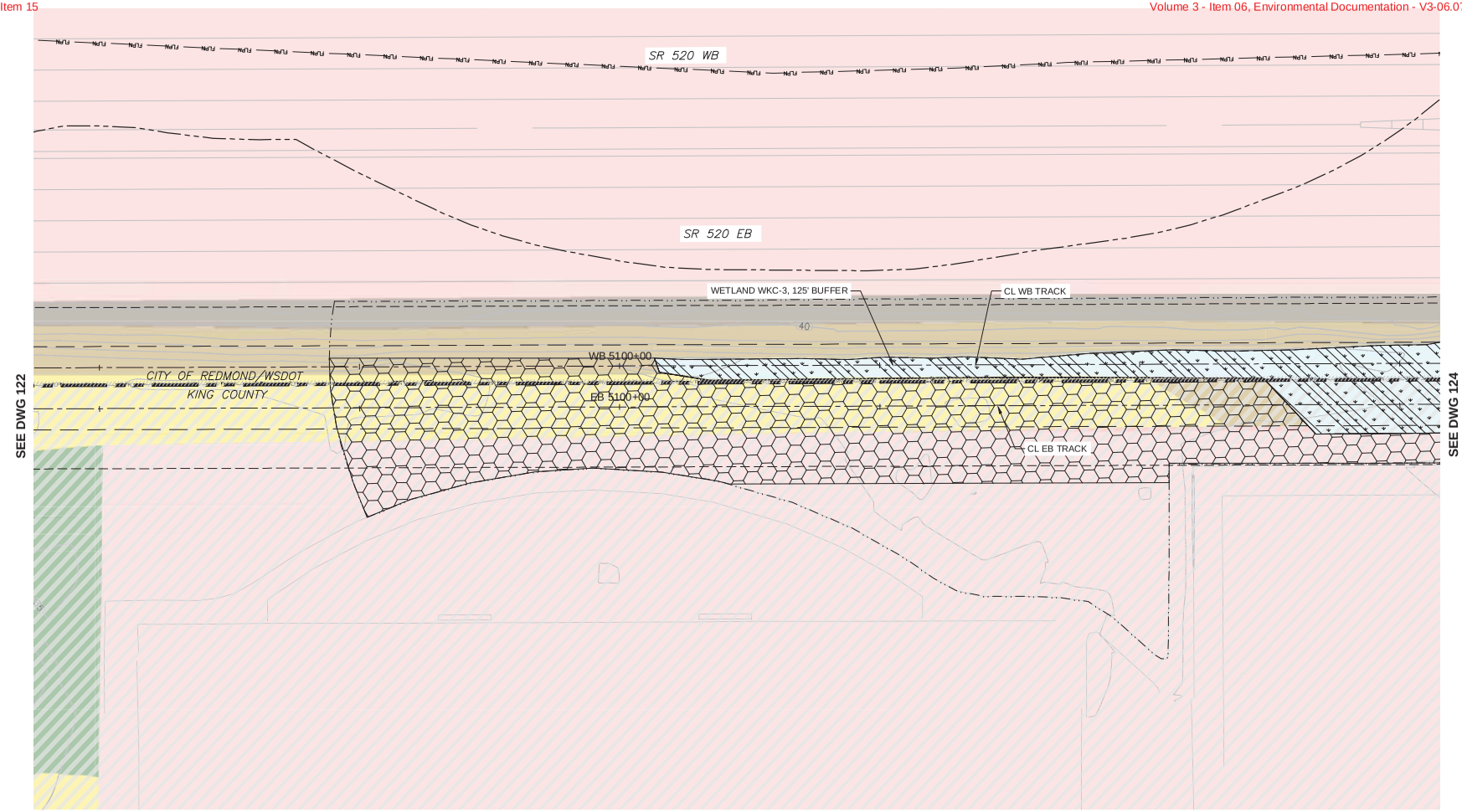

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- WETLAND
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- WSDOT ROW
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- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
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- BRUSH
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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5098+00 TO EB STA 5103+00

DRAWING No.: 123
LOCATION ID:
SHEET No.: REV:

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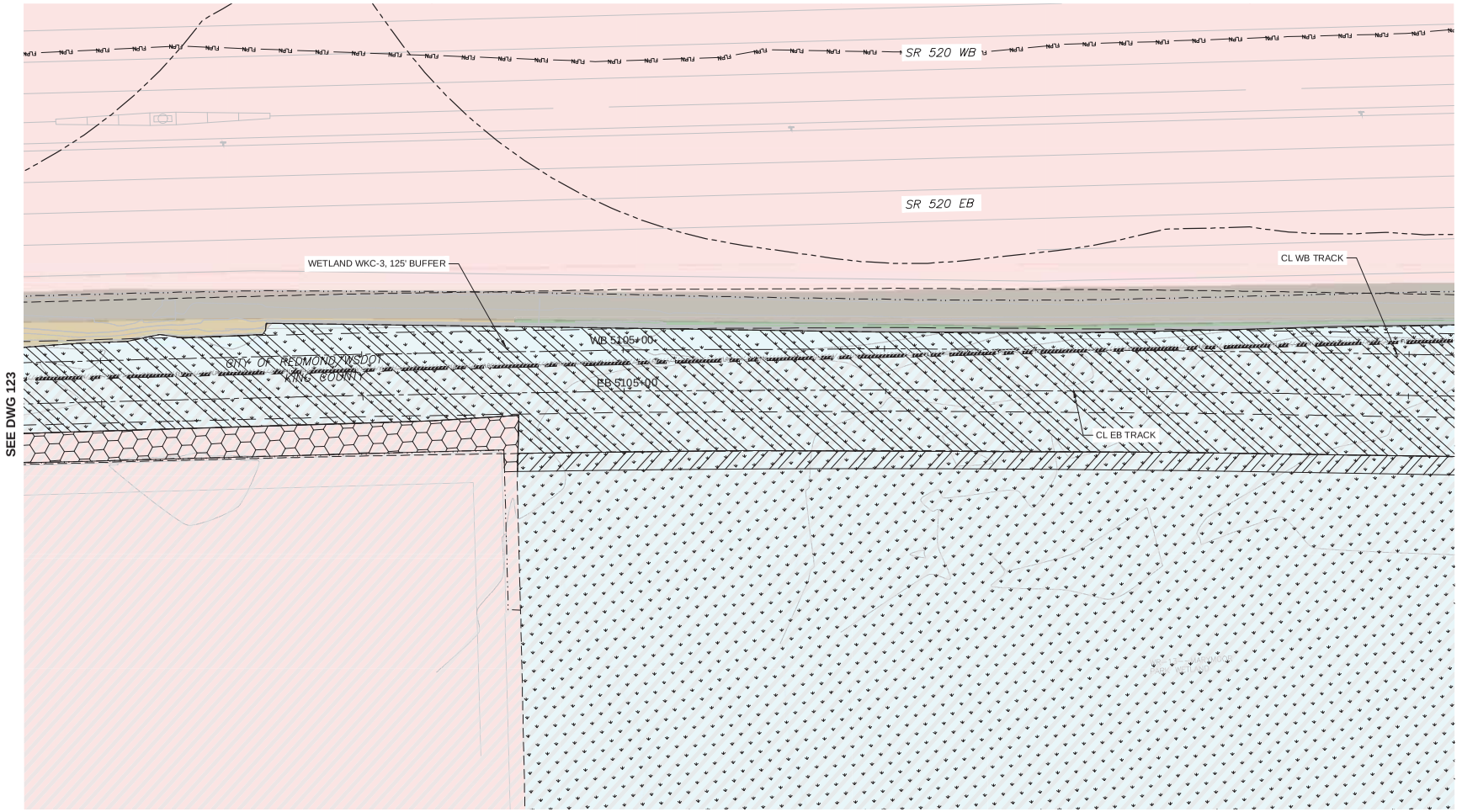

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
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SCALE IN FEET

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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5103+00 TO EB STA 5108+00

DRAWING No.: 124
LOCATION ID:
SHEET No.: REV:

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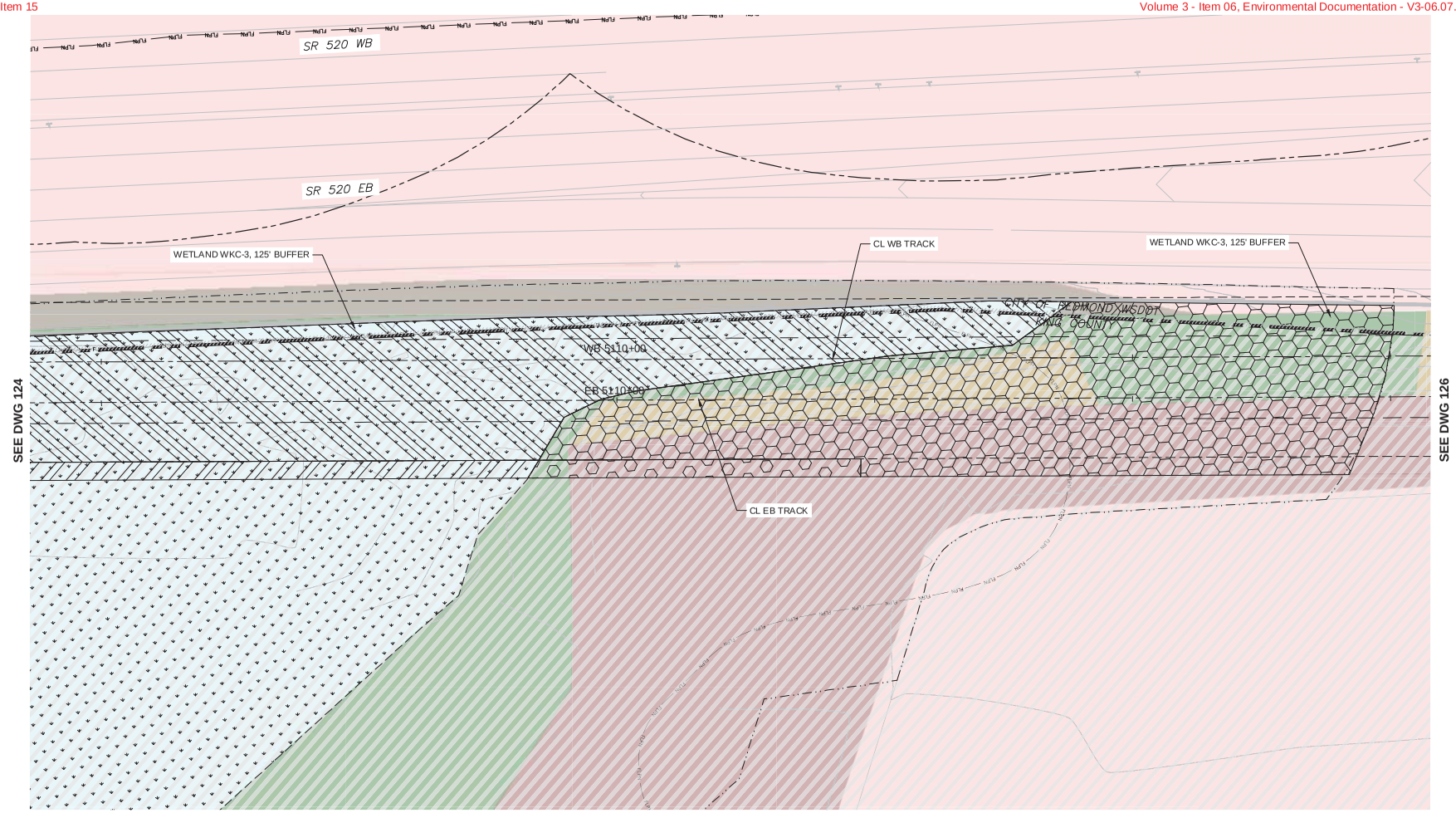

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- VEGETATION CLEAR ZONE
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VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5108+00 TO EB STA 5113+00

DRAWING No.: 125
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:21 PM | RHYS
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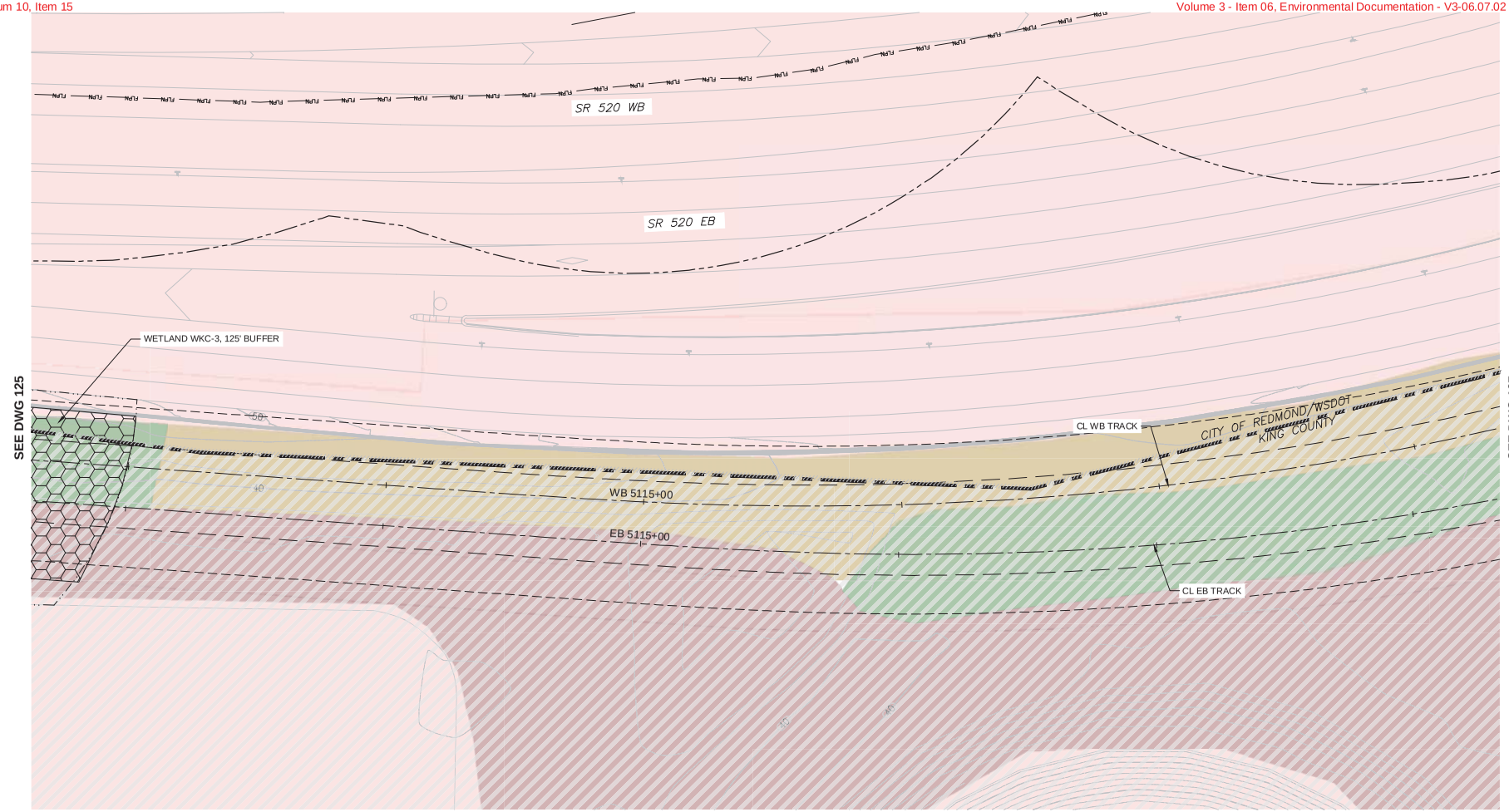

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- PERMANENT BUFFER IMPACT
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- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
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- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
- ROADSIDE ROW
- VEGETATED ROW
- STREAM CHANNELS

NOTES:

1. ALL LIGHT RAIL INFRASTRUCTURE SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY, INCLUDING GUIDEWAY, WALLS, COLUMNS, TPSS SITES, STATIONS, AND GARAGE.

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

20 10 0 20 40
SCALE IN FEET

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
APPROVED BY: B. BURKE

Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5113+00 TO EB STA 5118+00

DRAWING No.: 126
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:21 PM | RHYS
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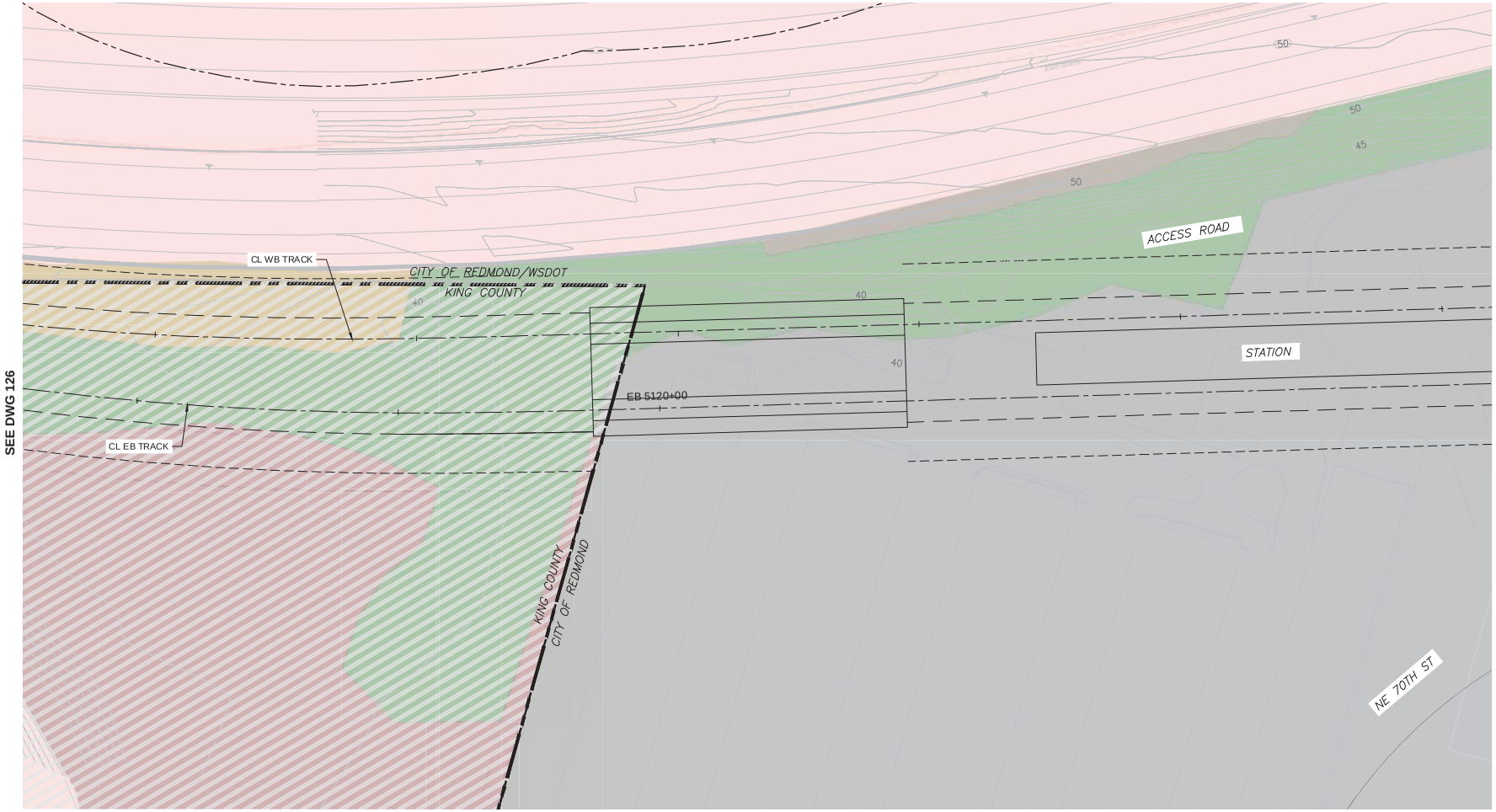

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
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- GRASSLAND
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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5118+00 TO EB STA 5123+00

DRAWING No.: 127
LOCATION ID:
SHEET No.: REV:

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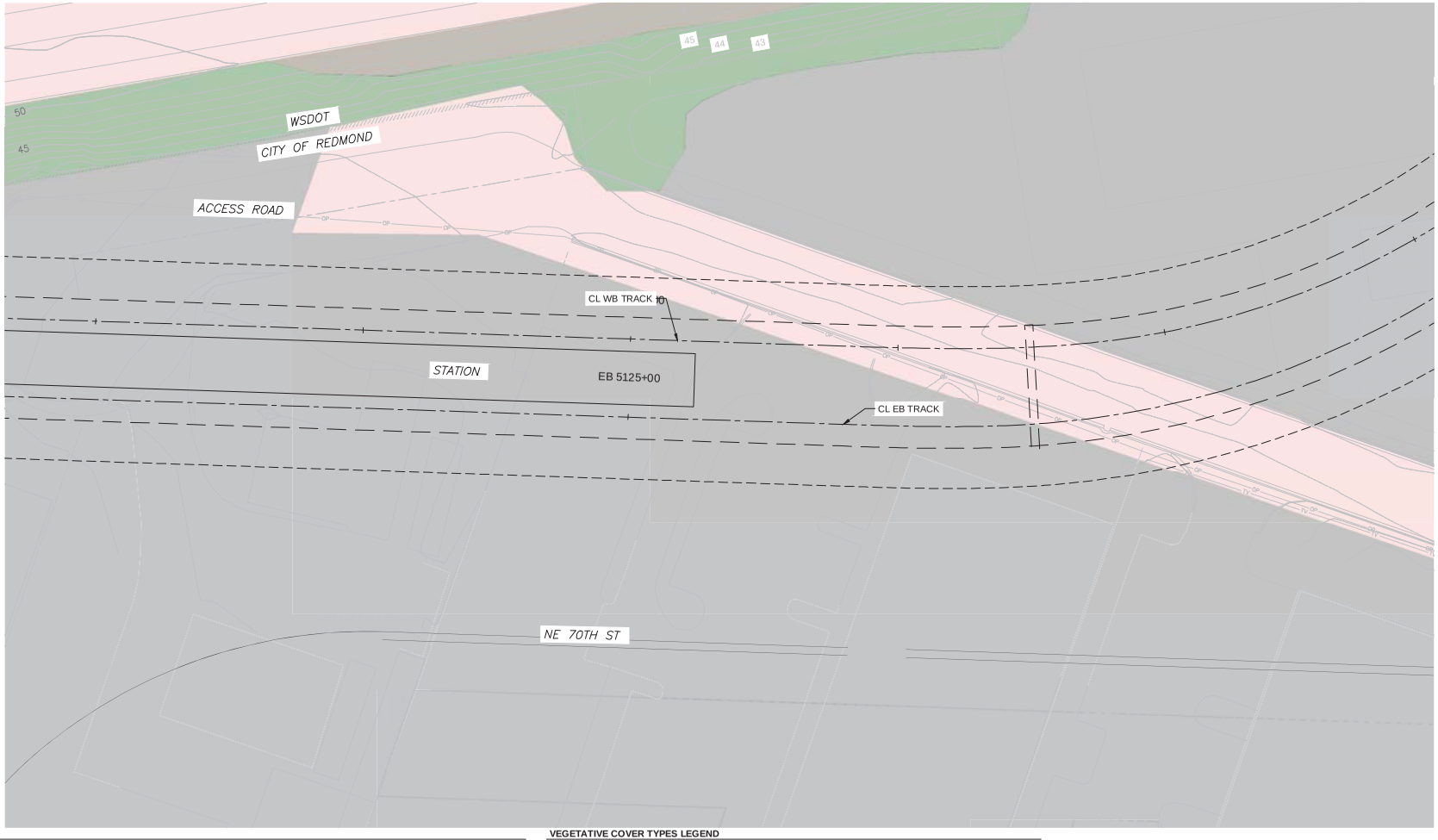

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
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- STREAM CHANNELS

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5123+00 TO EB STA 5127+50

DRAWING No.: 128
LOCATION ID:
SHEET No.: REV:

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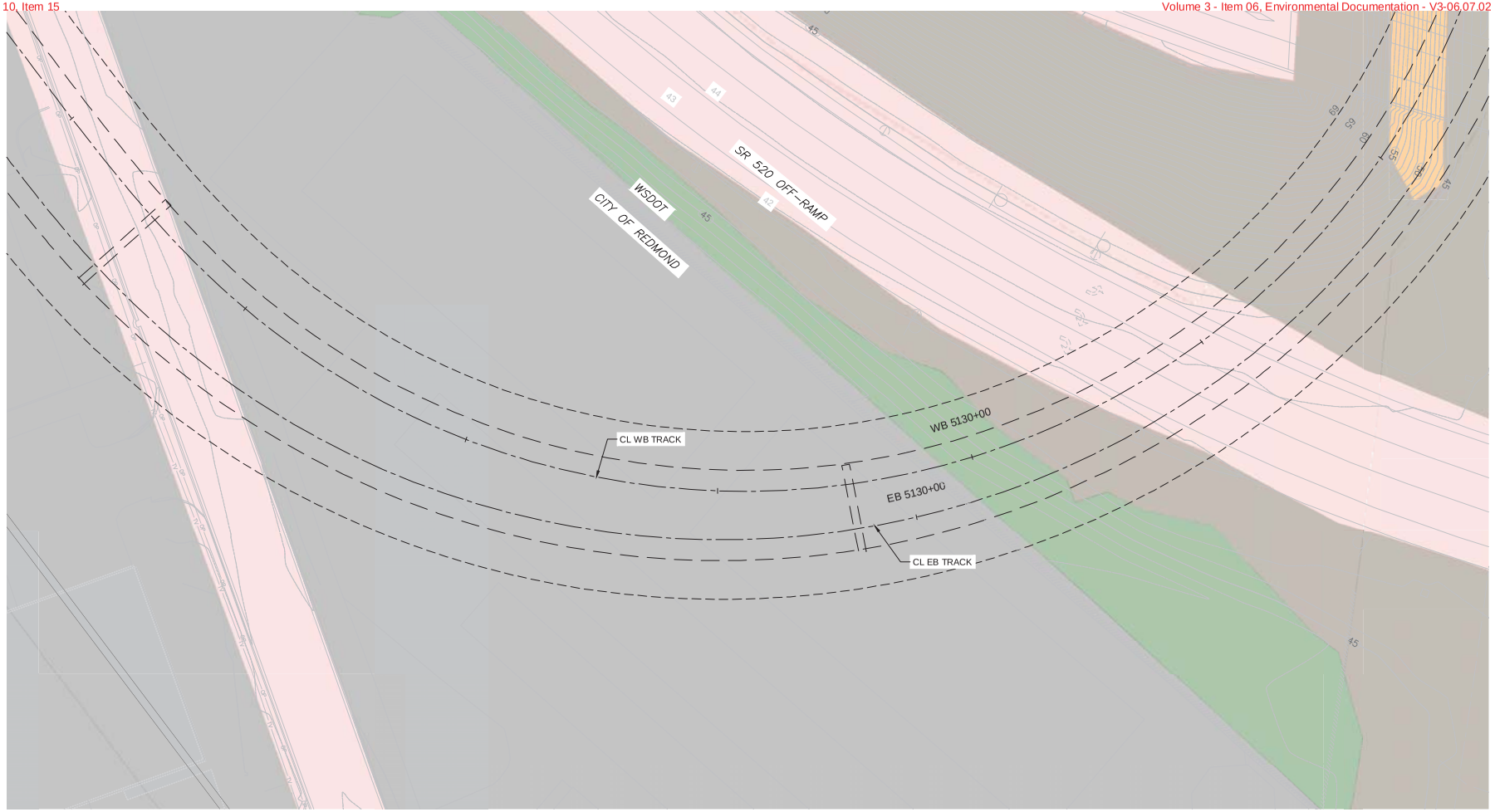

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
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- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

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- BRUSH
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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5127+50 TO EB STA 5131+00

DRAWING No.: 129
LOCATION ID:
SHEET No.: REV:

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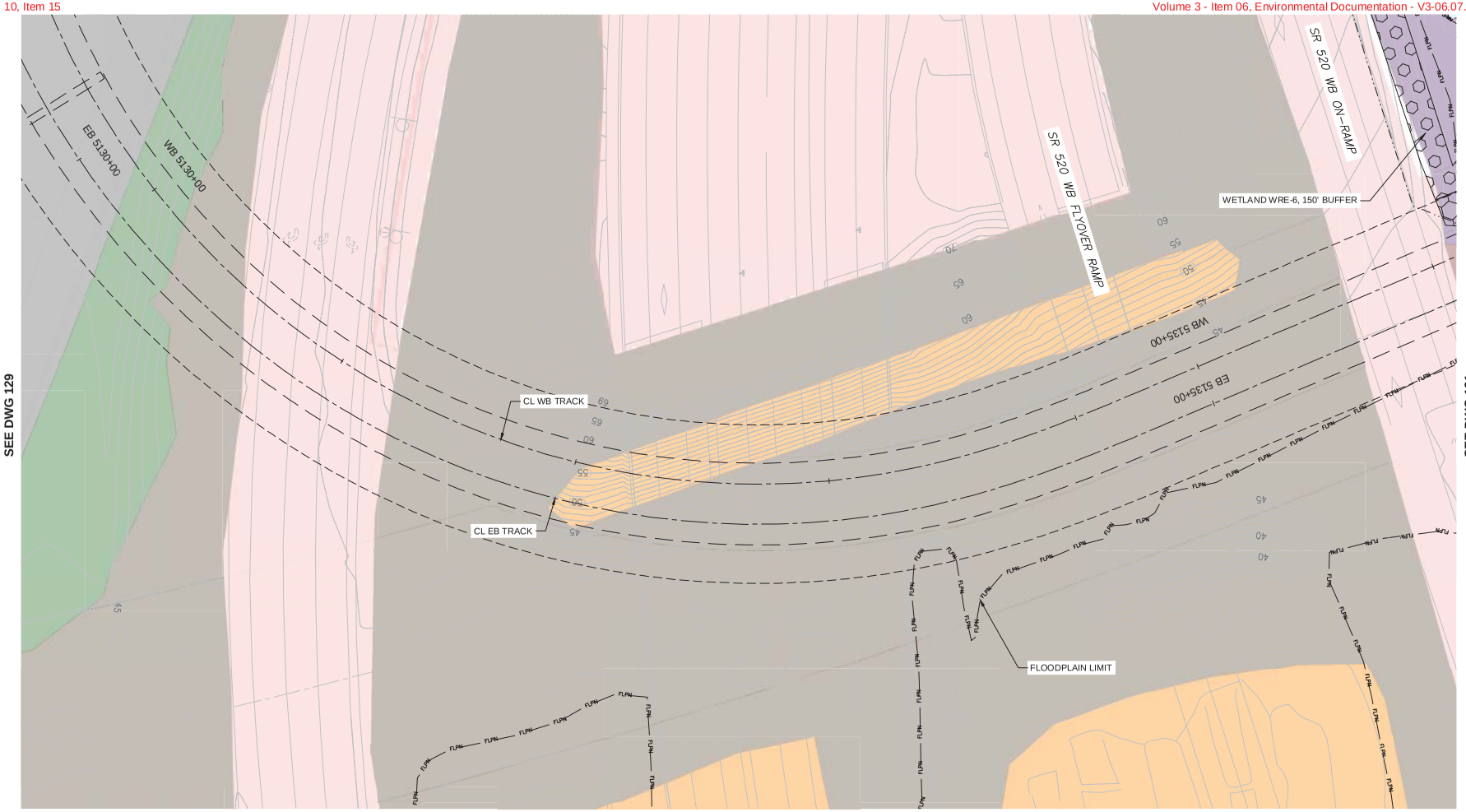

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
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- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

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SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5131+00 TO EB STA 5135+50

DRAWING No.: 130
LOCATION ID:
SHEET No.: REV:

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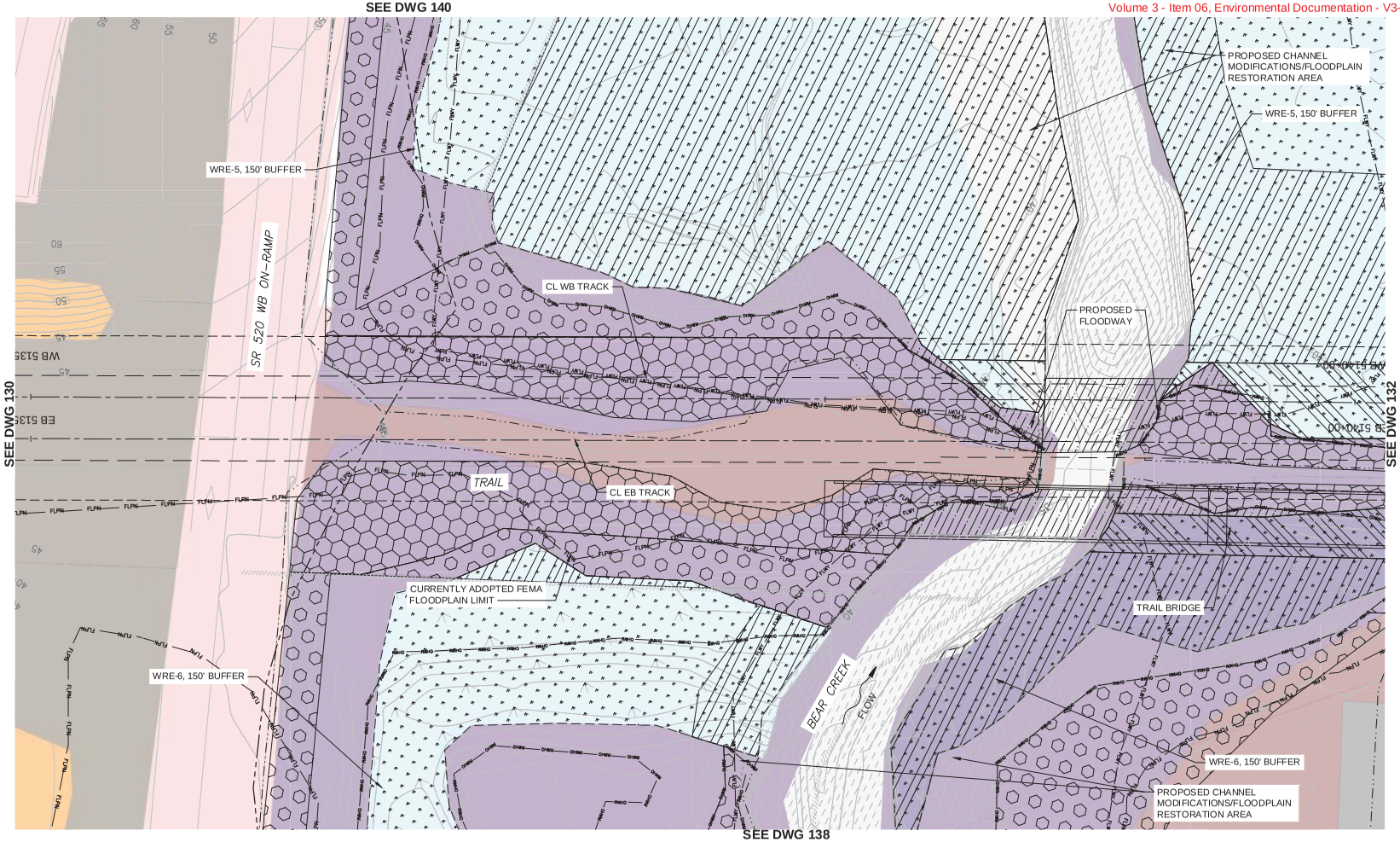

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 — WESTBOUND STATIONING
- EB 5015+00 — EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5135+50 TO EB STA 5140+00

DRAWING No.: 131
LOCATION ID:
SHEET No.: REV:

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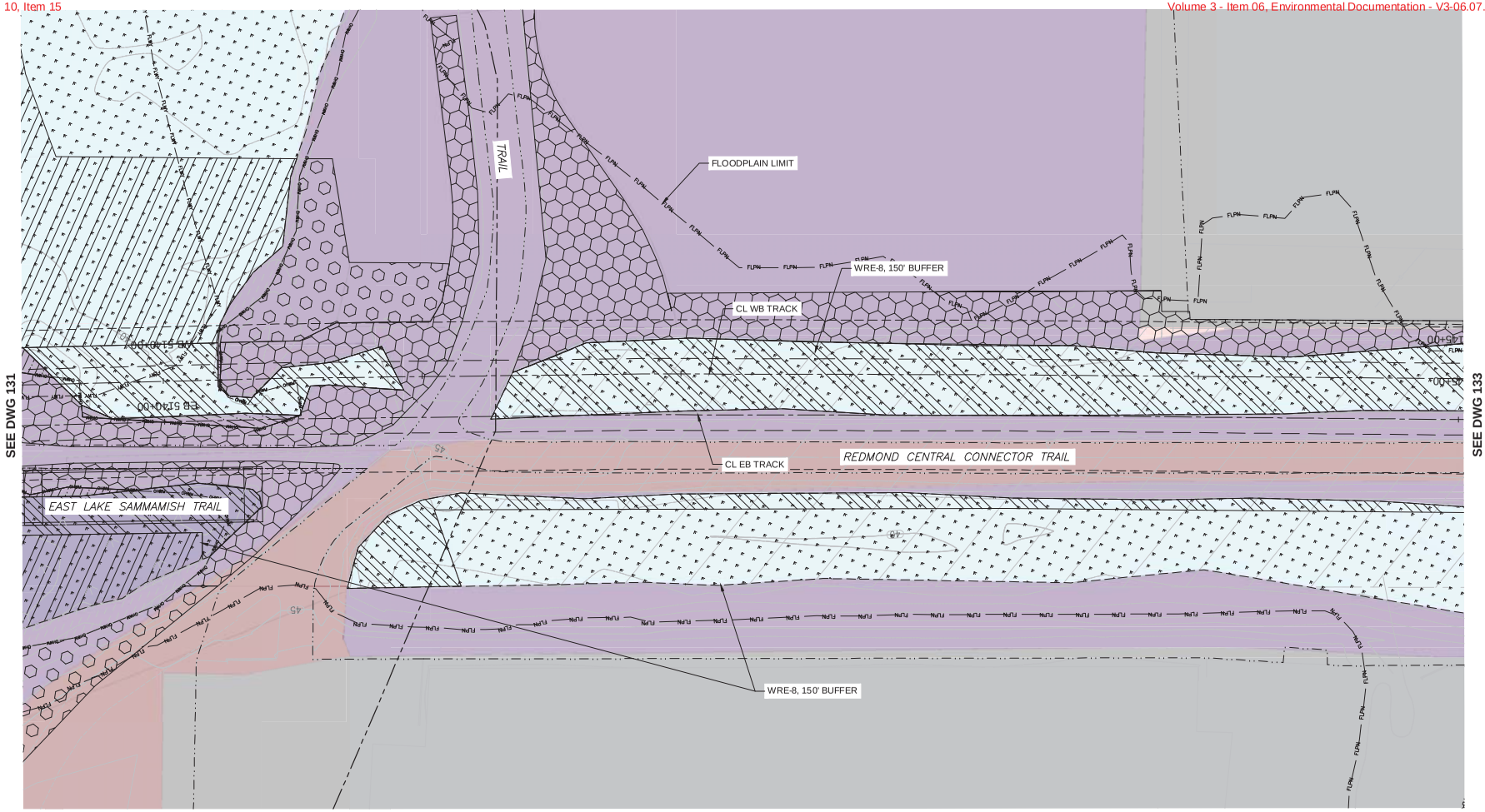

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
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- GRASSLAND
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ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

LINE IS 1" AT FULL SCALE

SUBMITTED BY: DATE:
REVIEWED BY: DATE:

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: 132
LOCATION ID:
SHEET No.: REV:

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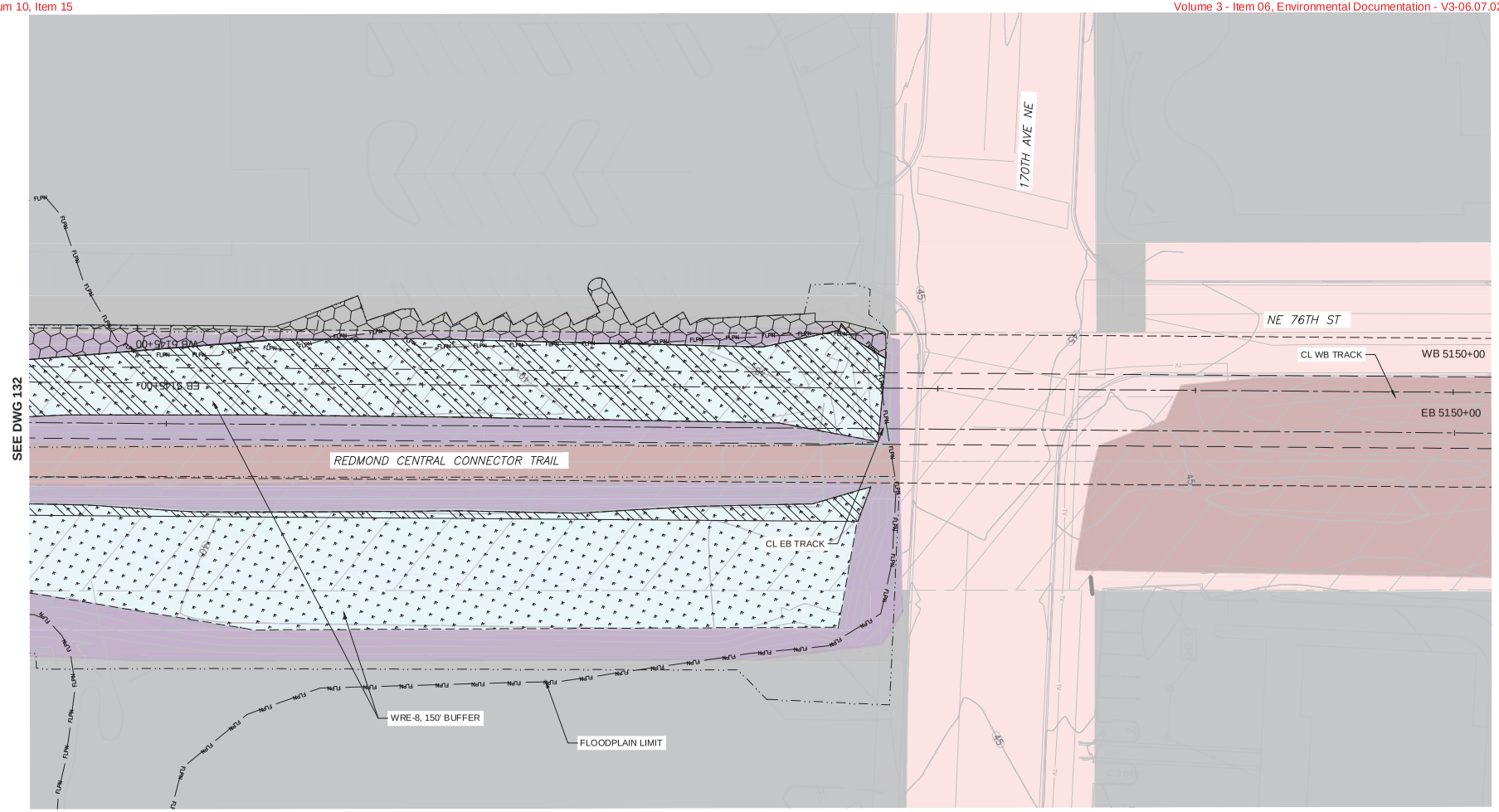

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

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- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
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- STREAM CHANNELS

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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: DATE: REVIEWED BY: DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5145+00 TO EB STA 5150+00

DRAWING No.: 133
LOCATION ID:
SHEET No.: REV:

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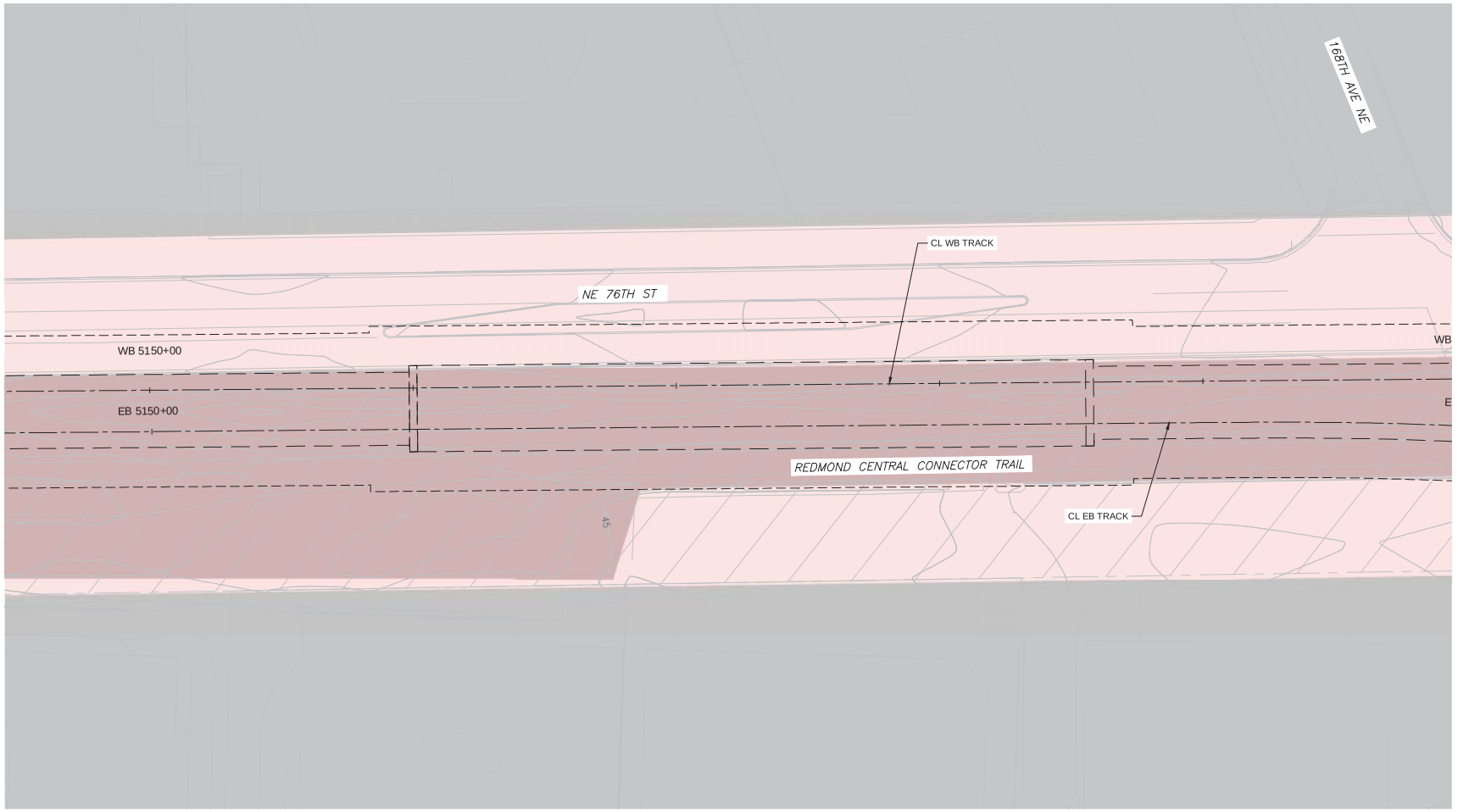

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- CRITICAL AREA BUFFER
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- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 / EB 5015+00 WESTBOUND / EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

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SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5150+00 TO EB STA 5155+00

DRAWING No.: 134
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:29 PM | RHYS
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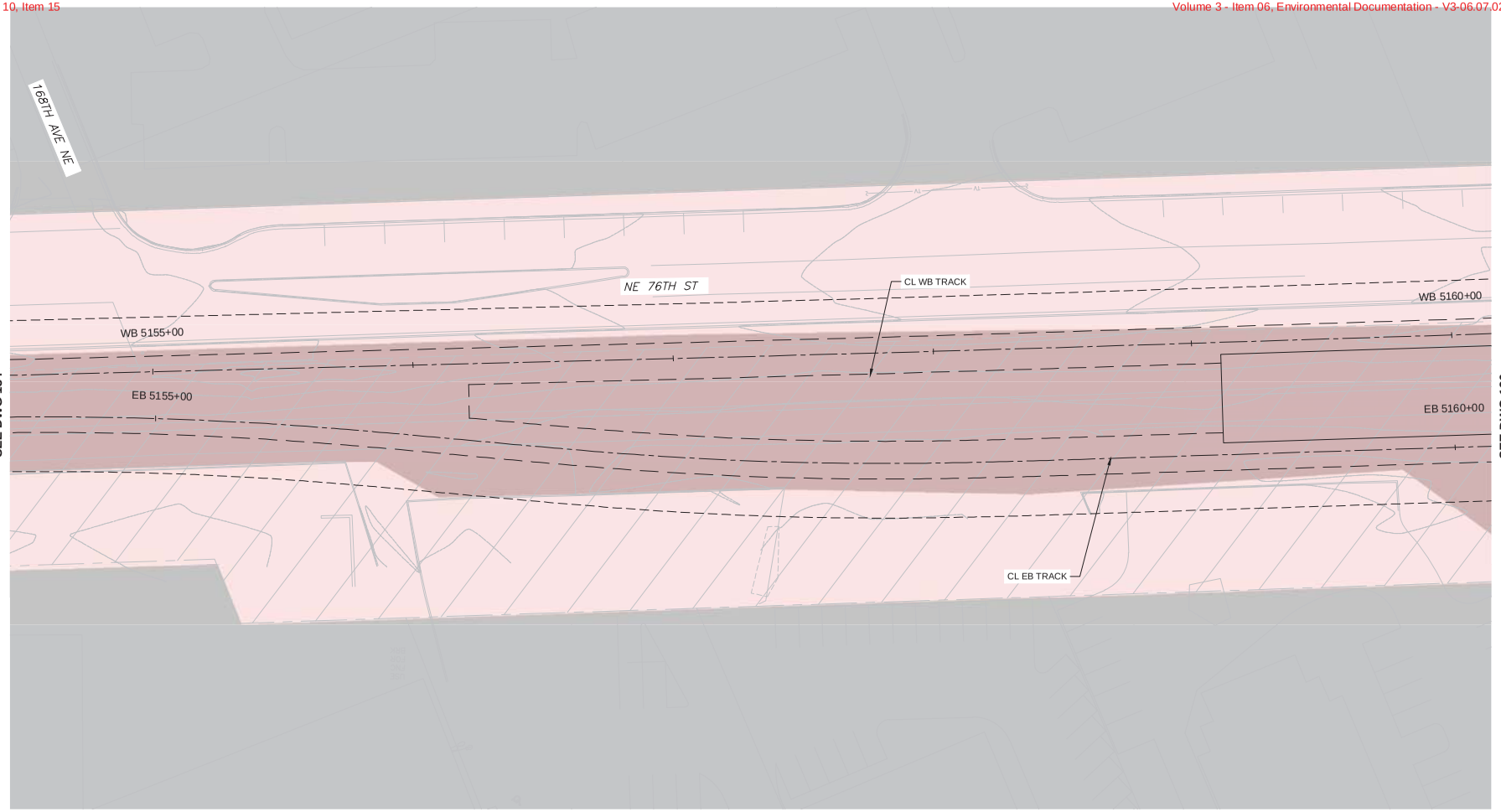

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- WB 5015+00 WESTBOUND STATIONING
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VEGETATIVE COVER TYPES LEGEND

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5155+00 TO EB STA 5160+00

DRAWING No.: 135
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:30 PM | RHYS
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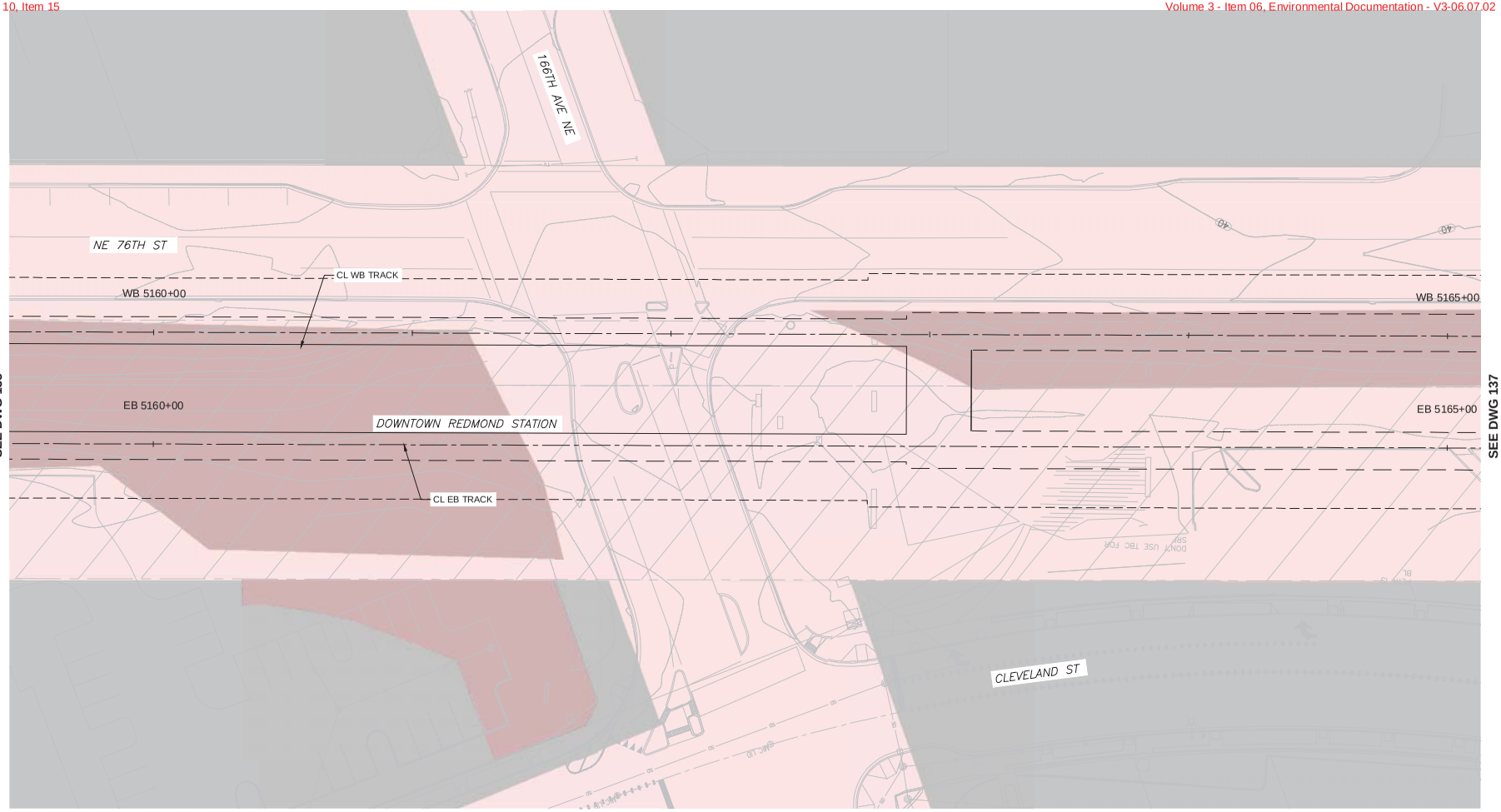

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
- TEMP WATERCOURSE IMPACT
- WETLAND
- KING COUNTY JURISDCITION
- ORDINARY HIGH WATER MARK
- CRITICAL AREA BUFFER
- COR SHORELINE JURISDICTION LINE
- WSDOT ROW
- FEMA FLOODPLAIN
- FEMA FLOODWAY
- GUIDEWAY
- VEGETATION CLEAR ZONE
- WB 5015+00 WESTBOUND STATIONING
- EB 5015+00 EASTBOUND STATIONING

VEGETATIVE COVER TYPES LEGEND

- RIPARIAN FOREST
- RIPARIAN SHRUB
- UPLAND FOREST
- BRUSH
- DEVELOPED COMMERCIAL
- DEVELOPED RESIDENTIAL
- WETLANDS (ALL TYPES)
- GRASSLAND
- MOWN GRASS
- STORMWATER PONDS
- ROADSIDE ROW
- VEGETATED ROW
- STREAM CHANNELS

NOTES:

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N

20 10 0 20 40
SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

No.	DATE	DSN	CHK	APP	REVISION	

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
APPROVED BY: B. BURKE

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ENGINEERING. PLANNING. ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5160+00 TO EB STA 5165+00

DRAWING No.: 136
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:33 PM | RHYS
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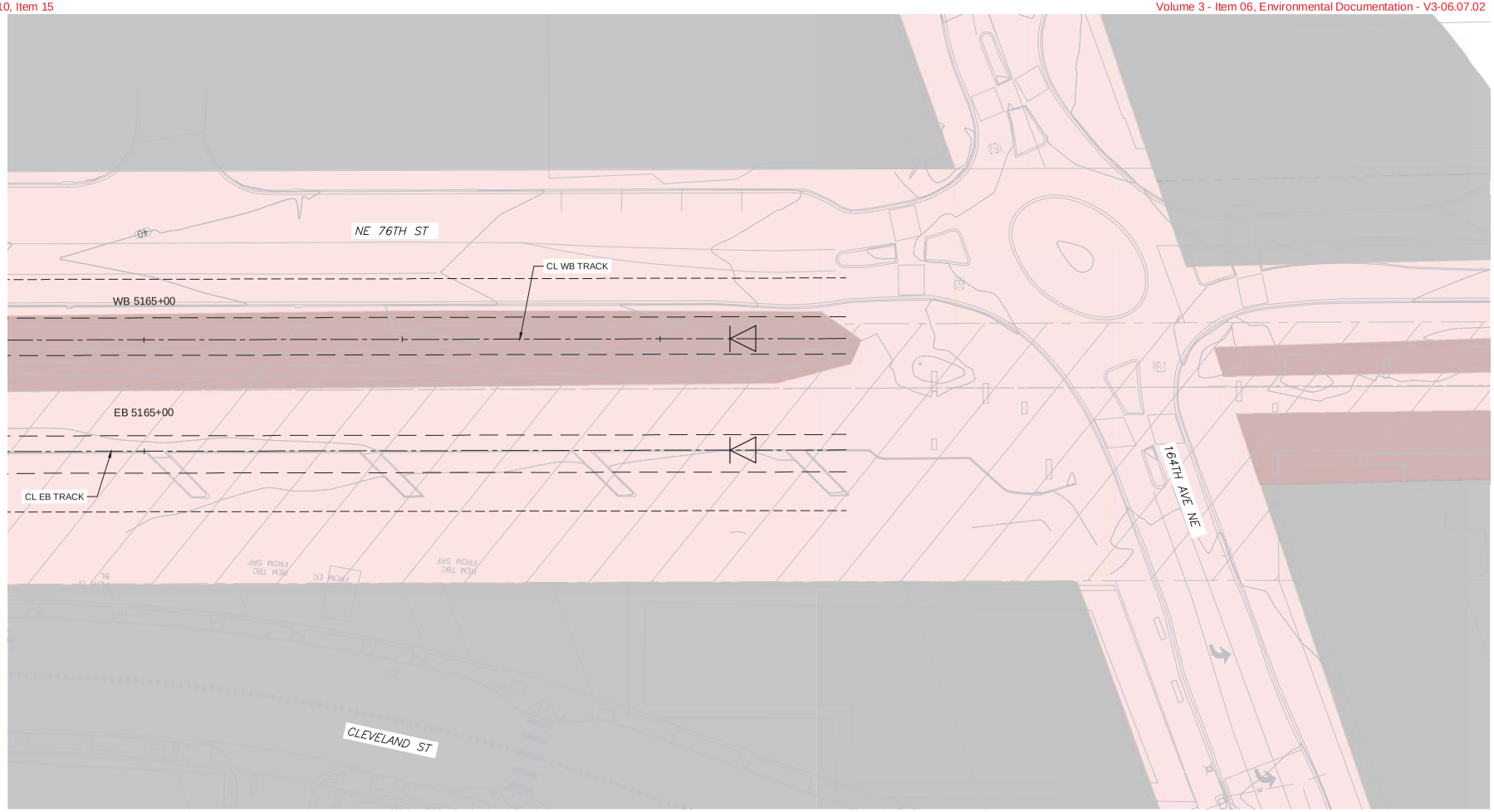

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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VEGETATIVE COVER TYPES LEGEND

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LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5165+00 TO EB STA 5167+72

DRAWING No.: 137
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:35 PM | RHYS
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SEE DWG 131

SEE DWG 139

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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Parametrix — ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: 138
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:35 PM | RHYS
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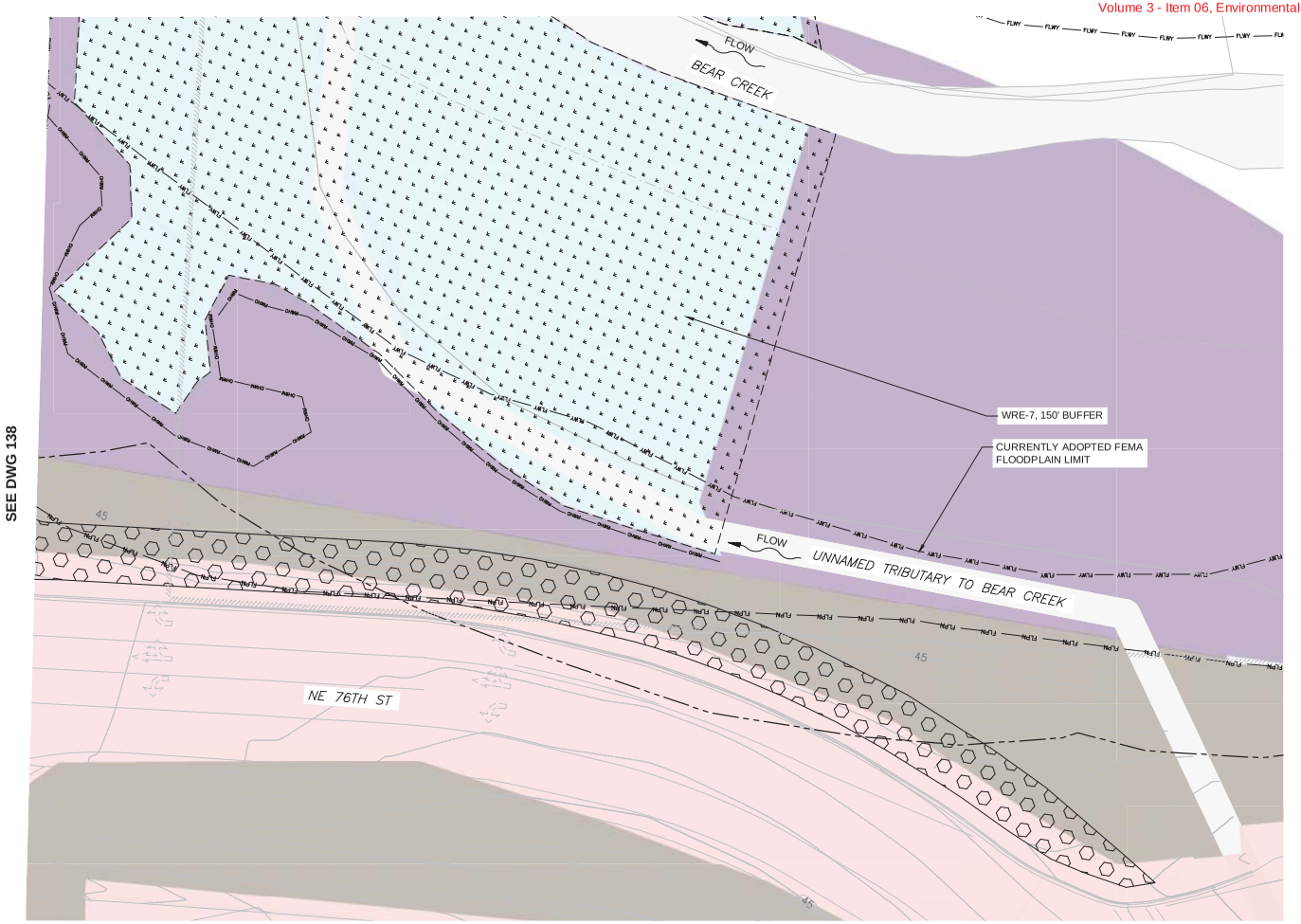

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
- TEMP WETLAND IMPACT
- TEMP OHWM IMPACTS
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- GUIDEWAY
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SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5140+00 TO EB STA 5145+00

DRAWING No.: 139
LOCATION ID:
SHEET No.: REV:

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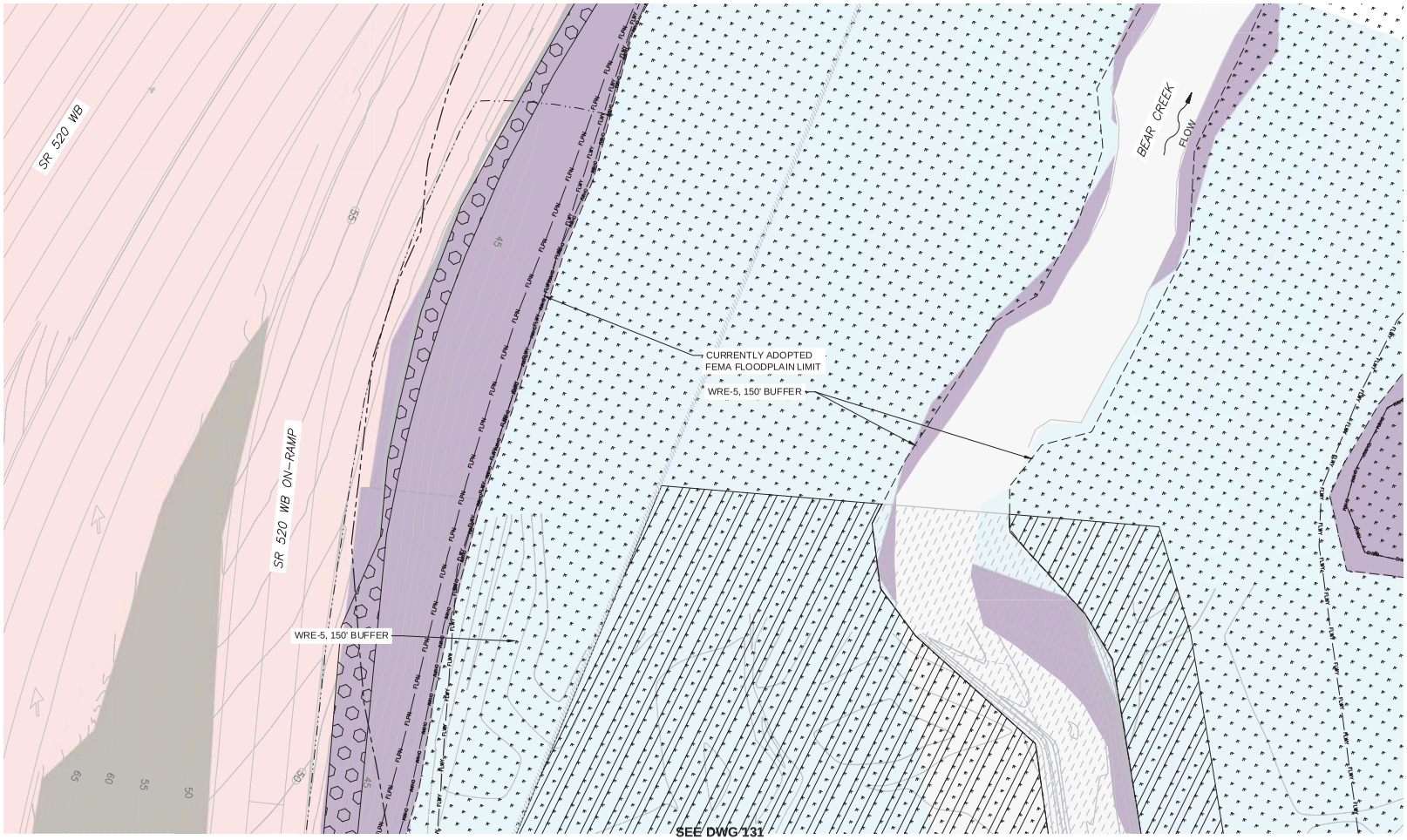
SEE DWG 141



SEE DWG 131

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
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WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

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ENGINEERING. PLANNING. ENVIRONMENTAL SCIENCES

SUBMITTED BY: DATE:
REVIEWED BY: DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5135+50 TO EB STA 5140+00

DRAWING No.: 140
LOCATION ID:
SHEET No.: REV:

02/13/19 | 1:36 PM | RHYS
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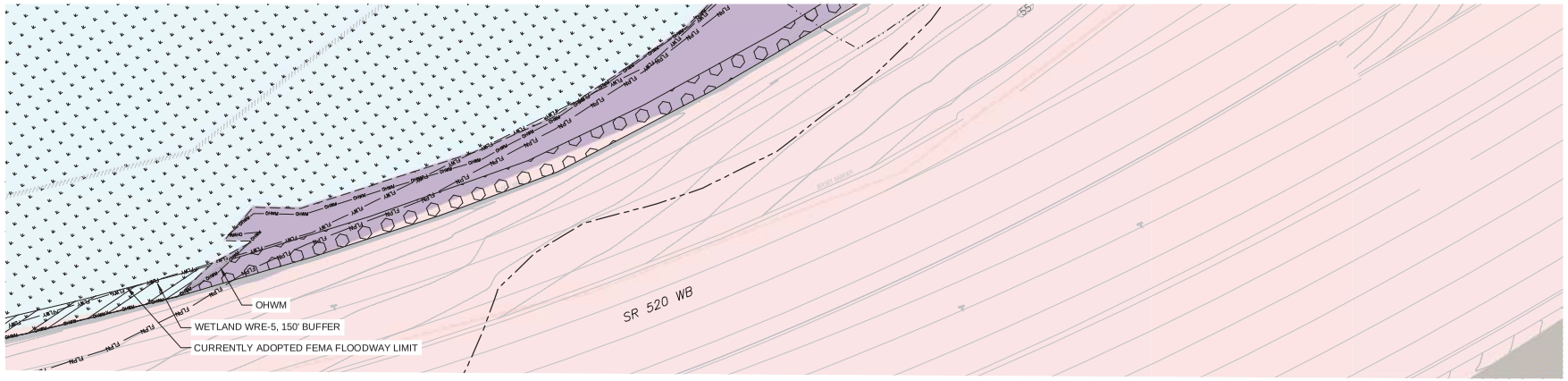
SEE VIEW 2 THIS SHEET

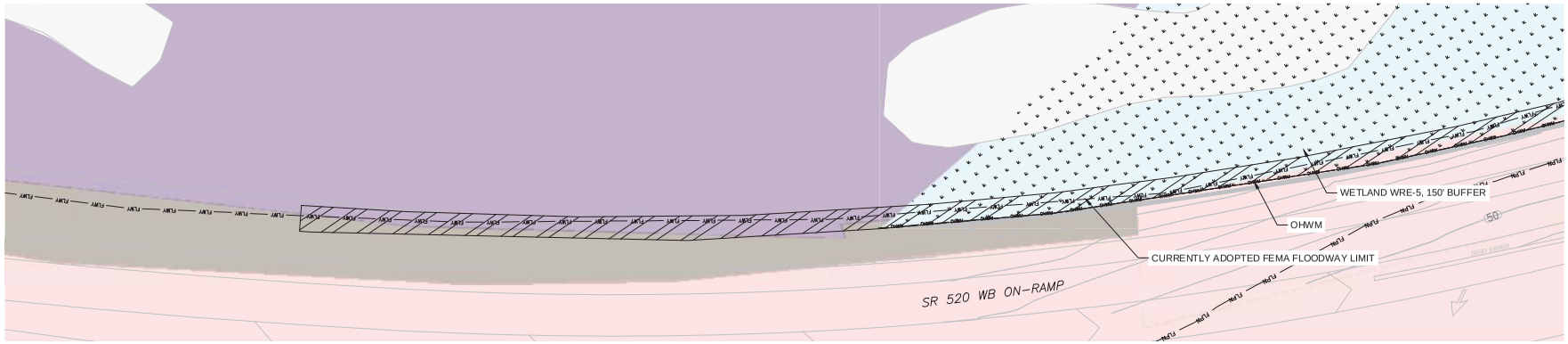


VIEW
SCALE: 1"=20'-0"

1

N

20 10 0 20 40
SCALE IN FEET



SEE VIEW 1 THIS SHEET

VIEW
SCALE: 1"=20'-0"

2

LEGEND

- PERMANENT BUFFER IMPACT
- PERMANENT WETLAND IMPACT
- PERMANENT OHWM IMPACT
- TEMP BUFFER IMPACT
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VEGETATIVE COVER TYPES LEGEND

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- DEVELOPED COMMERCIAL
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SCALE IN FEET

PRELIMINARY ENGINEERING

NOT FOR CONSTRUCTION

WETLAND, AQUATIC AREA, & VEGETATIVE IMPACTS

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY:
DRAWN BY: R. VAN BEMMEL
CHECKED BY: A. MERRILL
APPROVED BY: B. BURKE

Parametrix
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SUBMITTED BY: | DATE: | REVIEWED BY: | DATE:

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SCALE: 1" = 20'
FILENAME: RLE-LS COR
CONTRACT No.: CN 0148-18
DATE: 02/13/2019

DOWNTOWN REDMOND LINK EXTENSION
RTS TO DOWNTOWN REDMOND
REFERENCE

EB STA 5118+00 TO EB STA 5123+00

DRAWING No.: 141
LOCATION ID:
SHEET No.: REV:

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Appendix G

Wetland Determination Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 3 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S11, T25N, R05E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.666783 Long: -122.124669 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation has been over 200% of normal for the year, per WETS table. Wetland hydrology criterion was not met; thus, this sample point is not located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	15	Yes	FAC
2. Rubus laciniatus	10	Yes	FACU
3.			
4.			
5.			
	25	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 3 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	98	10YR 4/6	2	C	M	CL	
11-20	10YR 3/2	80	5Y 6/1	20	D	M	CL	
20-22+	5GY 7/1	85	7.5YR 5/6	10	C	M	SiCL	
			7.5YR 4/3	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 20

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table was observed within the excavated depth of 22 inches. Saturation was observed at 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 5 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S11, T25N, R05E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.666832 Long: -122.124087 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation has been over 200% of normal for the year, per the WETS table. Wetland hydrology and hydric soil criteria were not met; thus, this sample point is not located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 5 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					SiCL	
12-22	10YR 4/1	97	7.5YR 4/6	3	C	M	SiCL	Prominent Contrast

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Depleted layer does not occur in upper 12 inches, minimally not meeting criteria for indicator A11

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No saturation or water table was observed within the excavated depth of 22 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 7 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S11, T25N, R05E

Landform (hillslope, terrace, etc.): shallow swale Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.666787 Long: -122.123596 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation has been over 200% of normal for the year, per WETS table. Wetland hydrology criterion was not met; thus, this sample point is not located in a wetland. The sample point is located in a topographic swale, presumably the feature mapped as PEM1C by NWI. However, the site lacks wetland hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Poa pratensis	100	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 7 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	100					SiCL	
11-20	10YR 5/1	85	10YR 6/1	10	D	M	SiCL	Faint Contrast
			7.5YR 4/6	5	C	PL		Prominent Contrast
20-24+	10YR 2/2	100					SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 20

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table was observed within the excavated depth of 24 inches. Saturation was observed at 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 9 (UPL)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S11, T25N, R5E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666895 Long: -122.122344 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: 1) SP is located north of baseball field, south of 520. 2)The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	3	No	FAC
2.			
3.			
4.			
5.			
	3	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	95	Yes	FACW
2. Poa pratensis	10	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	105	= Total Cover	
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: Shrub layer too sparse to assign a dominant species. The sampling point meets the dominance test for hydrophytic vegetation.

SOIL

Sampling Point: 9 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 3/2	100					SiL	
7-9	10 YR 3/2	85	10 YR 4/2	15	C	M	SiL	
9-18	10 YR 4/2	85	10 YR 5/2	10	D	M	SiCL	
			10 YR 5/8	5	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 10 (UPL)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S11, T25N, R5E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666701 Long: -122.122362 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches. The SP lacks wetland hydrology and therefore is not located in a wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=1 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: The sampling point meets dominance test for the hydrophytic vegetation indicator.

SOIL

Sampling Point: 11 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 4/2	95	10 YR 7/2	5	D	M	SiC	
5-13	10 YR 5/1	70	10 YR 4/2	20	D	M	SiC	
			10 YR 6/8	10	D	M	SiCL	
13-18+	10 YR 2/1	65	10 YR 2/2	30	D	M	SiCL	
			10 YR 6/1	5	D	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.Test plot was revisited after a one-day break in rain (Feb 17) and showed a lack of wetland hydrology. Test pit is positioned in an excavated depression. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 14 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): A Lat: 47.666881 Long: -122.120660 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: 1) Populus balsamifera positioned ~5m to the south of the test pit. 2) The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 14 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10 YR 3/2	100					SiC	
14-18	10 YR 3/3	97	10 YR 3/2	2	C	M	SiCL	
			7.5 YR 4/6	1	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Hydric soil indicators are not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 16 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): flat Slope (%): 2-4

Subregion (LRR): A Lat: 47.666967 Long: -122.119683 Datum: WGS-83

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: 1) Edge of ditch (in ROW). 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches. Site lacks wetland hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 16 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 3/2	100					SiCL	
6-7	10 YR 3/3	100					SiCL	
7-20	10 YR 4/2	85	7.5 YR 4/6	15	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 17 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666949 Long: -122.119137 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: 1) SP is located north of soccer field at edge of ditch (in ROW). 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 17 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11.5	10 YR 3/2	100					SiCL	
11.5-15	10 YR 3/2	88	7.5 YR 4/4	10	C	M	SiCL	
			5 YR 3/4	2	C	M		
15-18	10 YR 5/1	73	10 YR 4/2	20	C	M	SiCL	
			10 YR 4/6	5	C	M		
			7.5 YR 4/6	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 18 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666928 Long: -122.118307 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 18 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10 YR 3/2	100					SiCL	
7-11	10 YR 4/2	85	10 YR 5/8	15	C	M	SiCL	
11-15	10 YR 4/2	80	10 YR 5/8	20	C	M	SiCL	
15-18	10 YR 5/1	75	5 YR 5/8	20	C	M	SiCL	
			10 YR 5/2	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicators A11 and F3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 19 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): flat Slope (%): <1

Subregion (LRR): A Lat: 47.666927 Long: -122.117934 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	85	Yes	FACW
2. Poa pratensis	15	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 19 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 3/2						SiCL	
6-8	10 YR 4/2	90	7.5 YR 4/6	10	C	M	SiCL	
8-16	10 YR 5/1	60	10 YR 4/2	30	C	M	SiCL	
			7.5 YR 4/6	10	C	M		
16-20	10 YR 5/1	75	7.5 YR 5/8	25	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicators for A11 and F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Minimum wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 20 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): <1

Subregion (LRR): A Lat: 47.666933 Long: -122.117553 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 20 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 3/2	100					SiCL	
6-8	10 YR 3/2	98	10 YR 3/6	2	C	M	SiCL	
8-10	10 YR 3/2	85	10 YR 3/6	15	C	M	SiCL	
10-18	10 YR 5/1	80	7.5 YR 4/6	20	C	M/PL	SiCL	
18-24+	10 YR 5/1	60	5 YR 4/6	35	C	M/PL	SiCL	
			10 YR 7/1	5	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 7

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Local WT=10" and Saturation=7", as measured 2/9/2017. The sampling point meets the hydrology indicator for water table and saturation. Hydrology confirmed on 2/17/2017 and 4/1/2017.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 21 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): flat Slope (%): <1

Subregion (LRR): A Lat: 47.666933 Long: -122.117553 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 21 (UPL))

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 3/2	100					SiCL	
6-8	10 YR 3/2	98	10 YR 3/6	2	C	M	SiCL	
8-10	10 YR 3/2	90	10 YR 3/6	10	C	M	SiCL	
10-18	10 YR 5/1	85	7.5 YR 4/6	15	C	M/PL	SiCL	
18-24+	10 YR 5/1	80	5 YR 4/6	15	C	M/PL	SiCL	
			10 YR 7/1	5	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 20

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 16

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Local WT=20" and Saturation=16", as measured 2/9/2017. The sampling point does not meets the hydrology indicator for water table and saturation. Hydrology confirmed on 2/17/2017 and 4/1/2017.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 22a (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None Slope (%): 0-2

Subregion (LRR): A Lat: 47.666913 Long: -122.117600 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 22a (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					SiCL	
6-10	10YR 3/2	98	7.5YR 4/4	2	C	M	SiL	
10-22	10YR 6/1	80	7.5YR 4/6	20	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): Surface (0")

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): Surface (0")

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 22b (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None Slope (%): 0-2

Subregion (LRR): A Lat: 47.666913 Long: -122.117600 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 22b (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					SiCL	
6-10	10YR 3/2	98	7.5YR 4/4	2	C	M	SiL	
10-14	10YR 6/1	90	7.5YR 4/6	10	C	M	SiL	
14-20	10YR 6/1	75	7.5YR 4/6	25	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches):
Water Table Present?	Yes ☒	No ☐	Depth (inches): Surface (0")
Saturation Present? (includes capillary fringe)	Yes ☒	No ☐	Depth (inches): Surface (0")

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 23 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.666914 Long: -122.117362 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=1 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: Meets dominance test.

SOIL

Sampling Point: 23 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4.5	10 YR 3/2	80	2.5 Y 5/2	20	D	M	SiCL	
4.5-10	10 YR 4/2	85	5 YR 3/4	15	C	M	SiL	
10-22	10 YR 5/1	90	10 YR 4/6	10	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Sand observed at approximately 22", with rapid influx of groundwater.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 11"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 6"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Meets hydrology indicators A2 and A3.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 24 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.666904 Long: -122.117143 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: 1) SP is located north of soccer field #3. 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=1 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 24 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4.5	10 YR 3/2	80	2.5 YR 5/2	20	D	M	SiCL	
4.5-10	10 YR 4/2	85	5 YR 3/4	15	C	M	SiL	
10-18+	10 YR 5/1	90	10 YR 4/6	10	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface, F3 Depleted Matrix and F7, and Depleted Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 6

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology verified on March 7, 2017.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 25 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666904 Long: -122.117143 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: 1) SP is north of soccer field #3, south of HWY 520 ditch. 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Poa pratensis	50	Yes	FAC
2. Phalaris arundinacea	45	Yes	FACW
3. Ranunculus repens	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 25 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6.5	10 YR 3/2						SiC	
6.5-8	10 YR 3/2	90	10 YR 5/1	10	D	M	SiCL	
8-15	10 YR 5/1	85	7.5 YR 4/6	15	C	M+PL	SiL	
15-20	10 YR 5/1	80	7.5 YR 4/6	20	C	M+PL	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 (Depleted Below Dark Surface) and F3 (depeted matrix). Oxidized rhizospheres are present at a depth of 8 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 5

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The sampling point meets the hydrology indicators for saturation, high water table and oxidized rhizospheres are present on living roots. Oxidized rhizospheres were observed at a depth of 8 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/27/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 26 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R5E WM

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 0-2

Subregion (LRR): A Lat: 47.666757 Long: -122.116959 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of March. The scrub-shrub habitat is positioned in wetland WKC-3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus contorta	15	Yes	FAC
2.			
3.			
4.			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Spiraea douglasii	35	Yes	FACW
2.			
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	95	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 26 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	98	7.5YR 4/4	2	C	M	SiCL	
6-14	2.5Y 5/1	95	10YR 5/6	5	C	M	SiL	
14+	10YR 4/1	95	10YR 4/6	5	C	M	LS	small inclusions of black charcoal

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: meets indicators A11 and F3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7.5

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0 (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of March. Standing water approximately 15 feet to the north.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 26b (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): A Lat: 47.666913 Long: -122.117611 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 26b (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					SiCL	
4-11	10YR 3/2	95	7.5YR 4/6	5	C	M	SiL	
11-18	10YR 6/1	85	7.5YR 4/6	15	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): Surface (0")

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): Surface (0")

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 27 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): Gentle hillslope Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.666841 Long: -122.116234 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation has been over 200% of normal for the year. This SP samples the forested component of WKC-3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	35	Yes	FAC
2.			
3.			
4.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rosa pisocarpa	20	Yes	FAC
2. Physocarpus capitatus	15	Yes	FACW
3. Rubus armeniacus	5	No	FAC
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	35	Yes	FACW
2. Carex obnupta	25	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 1

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 27 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	100					CL	
4-12	10YR 4/2	70	10YR 5/1	20	D	M	CL	
			10YR 4/6	10	C	M		
12-18	N 5/	75	7.5YR 4/6	15	C	M	SCL	
			10YR 4/6	10	C	M		
18-22	10YR 5/1	80	5YR 4/6	20	C	M	SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets F3

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/13/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 27b (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 1

Subregion (LRR): A Lat: 47.666928 Long: -122.118311 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 27b (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 3/2	100					SiCL	
6-16	10 YR 4/2	85	10 YR 5/8	15	C	M	SiCL	
16-18	10 YR 5/1	90	10 YR 5/6	10	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets hydric soil indicators A11 Depleted Below Dark Surface and F3 (Depleted Matrix).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 28 (WET)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): A Lat: 47.666845 Long: -122.115059 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: 1) Sp is located in a depression near HWY 520. 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	20	Yes	FACW
2. Populus nigra	10	Yes	NL
3.			
4.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Cytisus scoparius	5	No	NL
2. Rubus armeniacus	5	No	FAC
3. Abies grandis	10	Yes	FACU
4. Crataegus monogyna	10	Yes	FAC
5.			
	30	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=3 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 28 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/2	100					C	
4-6	10 YR 3/2	100					CL	
6-8	10 YR 4/2	75	5 YR 4/6	25	C	M	SL	
8-18+	2.5 Y 5/1	90	7.5 YR 4/6	10	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 8.5

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 7

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The sampling point meets the hydrology indicator for saturation and water table.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 29 (UPL)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2-5

Subregion (LRR): A Lat: 47.666862 Long: -122.114809 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	15	Yes	FAC
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Poa pratensis	70	Yes	FAC
2. Phalaris arundinacea	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: R=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: 1) Moss cover and leaf cover accounts for difference between vegetation and % bare ground. 2) Site is mowed/maintained. 3) The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 29 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10 YR 3/2	100					LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Hydric soil indicators are not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: 1) North of mowed cricket field. Very well drained. 2) Minimum wetland hydrology indicators are not met. 3) No water table or saturation was observed within the excavated depth of 18 inches..

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 30 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 4

Subregion (LRR): A Lat: 47.666899 Long: -122.114905 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: 1) SP is positioned in a swale along SR-520. 2) The closest National Weather Service Station (Seattle Sand Point) recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	40	Yes	FAC
2.			
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Populus nigra is positioned approximately 5m from plot center and 10-12" higher in elevation than sample plot stratum.

SOIL

Sampling Point: 30 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/2						CL	
4-8	10 YR 3/2	90	10 YR 5/4	10	C	M	CL	
8-20	10 YR 4/1	60	10 YR 4/6	40	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface, F3 Depleted Matrix, and F6 Redox dark surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface (0)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The sampling point meets the hydrology indicator for saturation and water table.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 31 (WET)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): A Lat: 47.666904 Long: -122.114106 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: 1)SP is next to 520 right-of-way fence north of cricket field. 2) The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches..

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	75	Yes	FAC
2.			
3.			
4.			
5.			
	75	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Ranunculus repens	10	Yes	FAC
2. Phalaris arundinacea	20	Yes	FACW
3. Poa pratensis	10	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 31 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 3/2	100					CL	
8-14	10 YR 4/1	85	7.5 YR 4/4	15	C	M/PL	CL	
14-20+	2.5 Y 5/1	90	7.5 YR 4/6	10	C	M/PL	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The sampling point meets the hydric soil indicator for A11 Depleted Below Dark Surface and F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 7

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The sampling point meets the primary hydrology indicator for saturation and water table.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/14/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 32 (UPL)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20

Subregion (LRR): A Lat: 47.666859 Long: -122.114131 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: The closest National Weather Service Station (Seattle Sand Point) indicates record precipitation for the month of February. The weather station recorded 8.16 inches of precipitation, which is 4.85 inches greater than the normal average rainfall of 3.31 inches.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	75	Yes	FAC
2.			
3.			
4.			
5.			
	75 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The sampling point meets the hydrophytic vegetation indicator dominance test.

SOIL

Sampling Point: 32 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 3/2	100					GR CL	
3-15	10 YR 4/2	100					GR CL	
15-18	10 YR 3/2	90	10 YR 3/4	10	C	M	GR SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Hydric soil indicators are not met.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology indicators are not met. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/24/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 33 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S12, T 25N, R5E WM

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-3

Subregion (LRR): A Lat: 47.666864 Long: -122.113623 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Annual rainfall is over 200% of average for this time of year. This sample point is positioned in a ditch-like depression positioned south of SR 520 and north of the cricket field. The sample point did not meet hydric soil and wetland hydrology criterion; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	90	Yes	FAC
2.			
3.			
4.			
5.			
	90	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Ranunculus repens	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: r=3m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 33 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9.5	10YR 2/2	100					CL	
9.5-11	10YR 3/2	95	7.5YR 4/6	5	C	M	CL	
11-13	10YR 3/2	70	5Y 5/2	20	D	M	SCL	
			5Y 4/6	10	C	M		
13-18+	2.5Y 5/1	65	5Y 5/8	35	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Depleted layer is to deep to meet A11 Depleted Below Dark Surface or F3 Depleted Matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☐ Depth (inches):

Water Table Present? Yes ☐ No ☐ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☐ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/24/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 34 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S12, T25N, R5E WM

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.666847 Long: -122.112548 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This sample point is positioned in a ditch-like depression positioned south of SR 520. The sample point did not meet wetland hydrology criterion; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	90	Yes	FAC
2.			
3.			
4.			
5.			
	90	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	2	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	2	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 34 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/2	96	10YR 3/6	2	C	M	CL	Prominent Contrast
			10YR 5/2	2	D	M		
4-18+	10YR 3/2	70	10YR 3/6	15	C	M	L	Prominent Contrast
			10YR 4/2	15	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets F3 Depleted Matrix and F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. Positioned at the bottom of a ditch-like landform. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/24/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 36 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S12, T25N, R5E WM

Landform (hillslope, terrace, etc.): Flats Local relief (concave, convex, none): None Slope (%): 0-1

Subregion (LRR): A Lat: 47.666855 Long: -122.112195 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Rainfall is over 200% of normal. This sample point is positioned south of SR 520 and north of the velodrome. The sample point did not meet hydric soils and wetland hydrology criterion; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	25	Yes	FAC
2. Sambucus racemosa	20	Yes	FACU
3. Cytisus scoparius	5	No	FACU
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Ranunculus repens	25	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 36 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6.5	10YR 2/2	100					CL	
6.5-11	10YR 3/3	93	2.5Y 5/2	7	D	M	L	Sandy depletions
11-18	2.5Y 5/2	60	7.5YR 4/6	35	C	M	SL	Prominent Contrast
			10YR 3/3	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 2/24/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 37 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S12, T25N, R5E WM

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-3

Subregion (LRR): A Lat: 47.666990 Long: -122.111269 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Rainfall is over 200% of normal. This sample point is positioned in the northeastern most corner of Marymoor Park in a depression landform. The sample point did not meet wetland hydrology criterion; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	50	Yes	FAC
2.			
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Lots of leaf litter. No trees rooted within the tree stratum; however, POBA and Malus Spp. are rooted approximately 6-8 meters away and provide an overhead canopy.

SOIL

Sampling Point: 37 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4.5	10YR 2/2	100					L	
4.5-9	2.5Y 4/2	95	2.5Y 3/2	5	C	M	SL	Faint Contrast
9-19+	2.5Y 5/2	75	10YR 4/6	25	C	M	SL	Prominent Contrast

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets A11 and F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 19 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 39 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-5

Subregion (LRR): A Lat: 47.669258 Long: -122.109172 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Rainfall is over 200% of normal. SP is positioned west of SR 520 on-ramp and south of the railroad ROW. It does not meet wetland criteria for hydrology and is not positioned in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	90	Yes	FAC
2. Symphoricarpos albus	8	No	FACU
3. Sambucus racemosa	2	No	FACU
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 39 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/2	100					LS	
5-20	2.5 Y 5/2	80	2.5 Y 5/4	20	C	M	S	fine sand

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: WETS table indiciates conditions are wetter than normal for previous 3 months. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 40 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion (LRR): A Lat: 47.669230 Long: -122.109344 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Rainfall is over 200% of normal. This sample plot is positioned approximately 1' from the water edge and below the OHWM of Bear Creek

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Picea sitchensis	20	Yes	FAC
2.			
3.			
4.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Symphoricarpos albus	40	Yes	FACU
2. Rosa nutkana	10	Yes	FAC
3. Rubus armeniacus	trace	No	FAC
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 40 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1	100					L	
4-12	10 YR 3/2	95	10 YR 4/4	5	C	M	LS	
12-20	2.5 Y 4/1	85	10 YR 5/6	15	C	M/PL	S	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets A11 and S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0" (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Positioned approximately 1 foot from ponded water.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 41 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion (LRR): A Lat: 47.669288 Long: -122.109542 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Rainfall is over 200% of normal. SP is positioned just above OHWM. Site does not meet hydrologic criterion.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Salix alba	40	Yes	FACW
2. Symphoricarpos albus	15	Yes	FACU
3. Rosa nutkana	5	No	FAC
4. Rubus armeniacus	5	No	FAC
5.			
	65	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Calytegia sepium	8	Yes	FAC
2. Agrostis capillaris	2	No	FAC
3. Poa pratensis	trace	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: R=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 80

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: 80% bare ground is mostly bare sand (fresh alluivum) following a very large flood event (above OHWM).

SOIL

Sampling Point: 41 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 5/1	100					S	fresh alluvium
2-20	10 YR 2/2	90	2.5 Y 4/3	10			LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Although fresh alluvium is present, it followed an extrememly high flow event, presumed to be above the OHWM. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 41b (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion (LRR): A Lat: 47.669309 Long: -122.109576 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Rainfall is over 200% of normal. SP is located approximately 1 meter west of the side channel of Bear Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	25	Yes	FAC
2.			
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	30	Yes	FACW
2. Urtica dioica	20	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 41b (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	5Y 4/1	100					LS	
1-10	10 YR 3/1	96	2.5 Y 5/1	2	D	M	LS	
			10 YR 4/4	2	C	M		
10-18	10 YR 2/2	96	2.5 Y 5/1	2	D	M	LS	
			10 YR 4/4	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets S5 Sandy Redox.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 11"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 9.5"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Located below OHWM approximately 1 meter west of flowing channel.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 42 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): A Lat: 47.669363 Long: -122.109848 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: R3UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This site lacks hydrophytic vegetation, soils, and wetland hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Symphoricarpos albus	40	Yes	FACU
2. Rubus armeniacus	5	No	FAC
3. Rosa nutkana	5	No	FAC
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	25	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species 25	x 2 = 50
FAC species 10	x 3 = 30
FACU species 40	x 4 = 160
UPL species	x 5 =
Column Totals: 75 (A)	240 (B)

Prevalence Index = B/A = 3.20

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 42 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5 Y 4/1	100					S	fresh alluvium
4-14	10 YR 3/1	70	2.5 Y 3/1	30	C/D	M	LS	
14-20+	10 YR 3/1						LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soils do not meet hydric soil indicator Sandy Redox (S5), as the redox features are too faint.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Upland SP positioned above OHWM and lacks hydrology to support wetland criteria. Sediment deposits are the result of very high flows (above OHWM) in early March. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/29/16

Applicant/Owner: Sound Transit State: WA Sampling Point: 43 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3

Subregion (LRR): A Lat: 47.669292 Long: -122.109864 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: R3UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Recent depositional event (sand in SP).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix alba	70	Yes	FACW
2.			
3.			
4.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Symphoricarpos albus	3	No	FACU
2.			
3.			
4.			
5.			
	3	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	60	Yes	FACW
2. Urtica dioica	2	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	62	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 45

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks: Shrub stratum too sparse to assign a dominant.

SOIL

Sampling Point: 43 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 5/1	100					S	fresh alluvium
2-20	10 YR 3/1	95	10 YR 5/1	3	D	M	LS	
			10 YR 4/4	2	C	M, PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☒ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets S5.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 9"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 7"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. SP is located approximately 1 meter north of flowing channel.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 44 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR): A Lat: 47.669563 Long: -122.110291 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This sample plot is positioned outside of OHWM within floodplain in a scrub-shrub setting.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	80	Yes	FAC
2. Rubus spectabilis	20	Yes	FAC
3.			
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	trace	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	trace	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 44 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 2/1	100					GR LS	
3-12	10 YR 2/2	100					VGR S	
12-20	7.5 YR 2.5/2	88	10 YR 4/2	10	D	M	SL	
			7.5 YR 4/6	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Positioned in/near railroad fill.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Outside of OHWM. No water table or saturation was observed within the excavated depth of 20 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 45 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 0-2

Subregion (LRR): A Lat: 47.669531 Long: -122.110355 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: R3UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This sampling point is positioned in the Bear Creek floodplain below OHWM.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	10	Yes	FAC
2. Rubus spectabilis	5	Yes	FAC
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Ranunculus repens	65	Yes	FAC
2. Poa pratensis	25	Yes	FAC
3. Phalaris arundinacea	10	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 45 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	2.5 Y 4/1	100					S	fresh alluvium
1-9	7.5 YR 3/2	96	10 YR 4/6	2	C	M	L	
			10 YR 5/1	2	D	M		
9-18+	10 YR 4/2	93	5 YR 4/6	7	C	M	LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Oxidized rhizospheres are present at a depth of 9 inches. The soil meets F6 Redox Dark Surface.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 14

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 10

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Bear Creek channel is positioned approximately 6 feet to the SE. Oxidized rhizospheres were observed at a depth of 9 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 45b (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 4-6

Subregion (LRR): A Lat: 47.669599 Long: -122.110321 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. SP located near railroad fill prism. Scrub shrub upland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	15	Yes	FACW
2.			
3.			
4.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	95	Yes	FAC
2. Rubus spectabilis	5	No	FAC
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Near edge of railroad fill.

SOIL

Sampling Point: 45b (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	10 YR 2/2	100					LS	
1-5	10 YR 3/1	100					SL	
5-7	10 YR 2/1	100					GR SL	
7-18+	10 YR 2/2	100					LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 46 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10-15

Subregion (LRR): A Lat: 47.669599 Long: -122.110388 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This SP is positioned approximately 4 m west of railroad ROW. Creosote encountered in soil pit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	90	Yes	FAC
2.			
3.			
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 46 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 2/2	100					CL	
3-10	10 YR 3/2	88	10 YR 4/2	7	D	M	SL	
			10 YR 4/4	5	C	M		
10-18	10YR 2/2	90	2.5 Y 5/2	7	D	M	L	
			7.5 YR 4/4	3	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 8"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 47 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): floodplain and depression Local relief (concave, convex, none): concave Slope (%): 0-1

Subregion (LRR): A Lat: 47.669706 Long: -122.110787 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This SP is positioned in Bear Creek floodplain and below OHWM in forested habitat setting.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	40	Yes	FACW
2.			
3.			
4.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	65	Yes	FAC
2. Rubus spectabilis	20	Yes	FAC
3.			
4.			
5.			
	85	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Leaf litter within plot. Betula pendula is rooted outside of the test plot.

SOIL

Sampling Point: 47 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10 YR 3/1	93	10 YR 5/1	5	D	M	CL	
			10 YR 4/6	2	C	M		
3-11	10 YR 3/2	93	10 YR 4/6	5	C	M	CL	
			10 YR 5/1	2	D	M		
11-20	10 YR 4/2	85	10 YR 4/1	10	D	M	SL	
			10 YR 3/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets A11 and F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 2"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 48 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 10-15

Subregion (LRR): A Lat: 47.669718 Long: -122.110749 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This test plot is positioned approximately 4 meters west of railroad ROW. Creosote encountered in soil pit.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	90	Yes	FAC
2.			
3.			
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 100

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 48 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1	100					LS	
10-18+	10 YR 2/2	100					GR SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Edge of railroad fill prism.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. Precipitation is over 200% of annual average to date, with heavy rain in late February and March. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 49 (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10-15

Subregion (LRR): A Lat: 47.669705 Long: -122.110501 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Located at edge of RR grade fill prism

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 49 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 2/2	100					LS	
8-16+	10 YR 3/2	80	10 YR 2/2	20	C	M	GR LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Edge of railroad fill prism and is soil is mixed with creosote.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound, -122.110258 Transit State: WA Sampling Point: 50 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-5

Subregion (LRR): A Lat: 47.669723 Long: -122.110438 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Approximately 6 meters east of railroad ROW.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	20	Yes	FAC
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 50 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 3/2	100					SL	
5-8	10 YR 3/2	97	10 YR 3/4	3	C	M	SL	
8-13	10 YR 3/2	80	7.5 YR 4/4	15	C	M	SL	
			10 YR 5/1	5	D	M		
13-18	10 YR 4/1	80	7.5 YR 3/4	20	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1

Water Table Present? Yes ☒ No ☐ Depth (inches): 0 (surface)

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0 (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Shallow water table at surface with 1" of ponding at SP.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 50b (UPL)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10-15

Subregion (LRR): A Lat: 47.669631 Long: -122.110230 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Located at edge of RR grade fill prism

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: R=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 50b (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 2/2	100					LS	
8-16+	10 YR 3/2	80	10 YR 2/2	20	C	M	GR LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Edge of railroad fill prism.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 51 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): A Lat: 47.669677 Long: -122.110248 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Located adjacent to and approximately 1 foot above Bear Creek channel and 1 foot below the OHWM.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 51 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 2/2	70	10 YR 5/1	30	D	M	SL	fresh alluvium
2-7	10 YR 4/2	93	10 YR 4/6	5	C	M	SL	
			10 YR 4/3	2	C	M		
7-20	10 YR 4/2	65	5 YR 5/1	30	D	M	L	
			5 YR 4/6	5	C	PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets A11 and F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 18"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 11"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Site was observed inundated for over a week about 2 weeks prior to SP data collection.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 03/30/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 52 (WET)

Investigator(s): J. Wozniak, T. Parry, C. Sanderson Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 1-3

Subregion (LRR): A Lat: 47.669544 Long: -122.109596 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Site is slightly near the OHWM, on east bank of Bear Creek

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	25	Yes	FAC
2. Populus balsamifera (sapling)	10	Yes	FAC
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Geum macrophyllum	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 30

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 52 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/2	100					L	
5-16	7.5 YR 3/2	85	7.5 YR 3/1	10	D	M	L	
			10 YR 5/3	5	C	M		
16-20	10 YR 3/2	93	7.5 YR 4/6	7	C	M	GR L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 16

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 12

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Drift, sediment deposits, watermarks and two secondary indicators reinforce saturation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 53 (UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3
Subregion (LRR): A Lat: 47.669513 Long: -122.109535 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present?	Yes	☒	No	☐	
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: Precipitation is over 200% of annual average, with heavy rain in late February and March. Site is above Bear Creek OHWM and near old RR grade.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	50	yes	FAC
2.			
3.			
4.			
50% = 25, 20% = 10	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Populus balsamifera*	30	yes	FAC
2. *Rubus armeniacus*	20	yes	FAC
3.			
4.			
5.			
50% = 25, 20% = 10	50	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *none*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = _____, 20% = _____	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = _____, 20% = _____	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

☐ 1 – Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 53 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/1	100					SL	
4-14	10 YR 4/2	98	10 YR 4/6	2	C	M	L	
14-17+	2.5 Y 6/1	80	7.5 YR 5/8	20	C	M	L	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Meets A11 and F3. Soils color variation in upper profile may be an artifact of rail bed fill, or excavation spoils related to riparian enhancements to Bear Creek (side channel excavated from adjacent area).

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☐	No	☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This location lacks the sediment deposits and drift found below the OHWM. No water table or saturation was observed within the excavated depth of 17 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 53b (UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3
Subregion (LRR): A Lat: 47.669511 Long: -122.109530 Datum: WGS-84
Soil Map Unit Name: Indianola loamy sand NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?** **Yes** ☐ **No** ☒
Hydric Soil Present?	Yes	☒	No	☐	
Wetland Hydrology Present?	Yes	☐	No	☒	

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Site is located between Bear Creek OHWM and the old RR grade.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = , 20% =	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	20	yes	FAC
2.			
3.			
4.			
5.			
50% = 10, 20% = 4	20	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *Phalaris arundinacea*	100	yes	FACW
2. *Urtica dioica*	10	no	FAC
3. *Galium aparine*	5	no	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 58, 20% = 23	115	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = , 20% =	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 53b (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 2/2	100					SL	
8-18+	2.5 Y 5/1	75	10 YR 5/8	25	C	M	LS	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ____

Depth (inches): ____

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Meets A11. Soils color variation in upper profile may be an artifact of rail bed fill, or excavation spoils related to riparian enhancments to Bear Creek (side channel excavated from adjacent area.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	____
Water Table Present?	Yes	☐	No	☒	Depth (inches):	____
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	____

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This location lacks the sediment deposits and drift found below the OHWM. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 54 (UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20
Subregion (LRR): A Lat: 47.669984 Long: -122.111669 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☐ No ☒**
Hydric Soil Present?	Yes ☐	No ☒		
Wetland Hydrology Present?	Yes ☐	No ☒		

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. Site is on slope next to pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus balsamifera*	50	yes	FAC
2.			
3.			
4.			
50% = 25, 20% = 10	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	15	yes	FAC
2.			
3.			
4.			
5.			
50% = 8, 20% = 3	15	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. *Equisetum telmateia*	15	no	FACW
2. *Agrostis capillaris*	70	yes	FAC
3. *Phalaris arundinacea*	15	no	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 50, 20% = 20	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = ____, 20% = ____	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 54 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1	100					LS	
10-16+	10 YR 3/4	100					LS	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☐	No	☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/Wetland R City/County: King County Sampling Date: 4/10/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 55 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12 T25N R05E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): None Slope (%): 3-5

Subregion (LRR): A Lat: 47.669984 Long: -122.111669 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This site does meet wetland criterion; thus, the test plot is positioned in a wetland. Specifically, the SP is positioned in a depression adjacent to the rail road fill prism. This site is characterized as a palustrine forested class.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	100	Yes	FAC
2.			
3.			
4.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	15	Yes	FAC
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 55 (WET))

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/2	100					GR SL	
7-16+	10YR 3/2	88	10YR 3/6	10	C	M	SL	
			5YR 3/6	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 2

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0 (Surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. Standing water 2 linear feet from SP.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 56 (WET)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1
Subregion (LRR): A Lat: 47.401226 Long: -122.64236 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?** **Yes** ☒ **No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐	

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is in a depression next to pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = ____, 20% = ____	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	60	yes	FAC
2. *Rubus spectabilis*	20	yes	FAC
3.			
4.			
5.			
50% = 40, 20% = 16	80	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *none*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = ____, 20% = ____	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = ____, 20% = ____	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 56 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 3/1	98	10 YR 4/6	2	C	M	CL	
8-12	10 YR 4/1	95	10 YR 5/8	5	C	M	CL	
12-18+	10 YR 3/2	80	7.5 YR 4/6	5	C	M	CL	
			2.5 Y 4/1	15	D	M	CL	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):
Water Table Present?	Yes	☒	No	☐	Depth (inches): 1
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches): 0 (surface)

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 57 (UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20
Subregion (LRR): A Lat: 47.401226 Long: -122.64236 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☐ No ☒**
Hydric Soil Present?	Yes ☐	No ☒		
Wetland Hydrology Present?	Yes ☐	No ☒		

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is located next to a pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = , 20% =	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	100	yes	FAC
2.			
3.			
4.			
5.			
50% = 50, 20% = 20	100	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *none*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = , 20% =	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = , 20% =	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 57 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10 YR 2/1	100					LS	
6-18+	10 YR 3/3	100					LS	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☐	No	☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/Wetland R City/County: King County Sampling Date: 4/10/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 58 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12 T25N R05E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): None Slope (%): 3-5

Subregion (LRR): A Lat: 47.67017 Long: -122.112045 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March.This site does meet wetland criteria; thus, the sample plot is positioned in a wetland. Specifically, the SP is positioned in a depression adjacent to the railroad fill prism. This site is characterized as a palustrine scrub shrub class.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Fraxinus latifolia	35	Yes	FACW
2. Rubus armeniacus	15	Yes	FAC
3. Sambuca racemosa	5	No	FACU
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	45	Yes	FACW
2. Cardamine pensylvanica	10	No	FACW
3. Galium aparine	Trace	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	55	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 58 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5.5	10YR 2/2	100					SL	
5.5-9	10YR 2/2	100					SL	
9-18+	2.5Y 4/1	65	10YR 4/6	20	C	M	SCL	
			2.5Y 4/2	10	C	M		
			2.5Y 3/2	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Meets A11 and F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/Wetland R City/County: King County Sampling Date: 4/10/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 59 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12 T25N R05E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 30

Subregion (LRR): A Lat: 47.670107 Long: -122.112045 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This site does not meet wetland criterion; thus, the sample plot is not positioned in a wetland. Specifically, the SP is positioned in on the side of a fill prism perched above the depressional wetland below.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	20	Yes	FAC
2. Sambucas racemosa	20	Yes	FACU
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Agrostis capillaris	35	Yes	FAC
2. Phalaris arundinacea	10	No	FACW
3. Equisetum telmateia	10	No	FACW
4. Myosotis sp.	5	No	
5. Cardamine pensylvanica	5	No	FACW
6. Geranium sp.	5	No	
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 59 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					SL	
3-22+	10YR 2/2	100					GR SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Some inclusions from the RR fill prism.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 22 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 60 (WET)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1
Subregion (LRR): A Lat: 47.670092 Long: -122.112416 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	
Hydric Soil Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?** **Yes** ☒ **No** ☐
Wetland Hydrology Present?	Yes	☒	No	☐	

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is located in a depression next to pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = , 20% =	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *none*			
2.			
3.			
4.			
5.			
50% = , 20% =	0	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *Phalaris arundinacea*	100	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 50, 20% = 20	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = , 20% =	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 60 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10 YR 4/2	70	10 YR 5/8	30	C	M	SCL	
2-15	10 YR 3/1	98	7.5 YR 4/4	2	C	M, PL	CL	
15-18+	10 YR 4/2	85	7.5 YR 4/6	15	C	M, PL	CL	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks: Meets F3 and F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches):		
Water Table Present?	Yes ☒	No ☐	Depth (inches):	1	
Saturation Present? (includes capillary fringe)	Yes ☒	No ☐	Depth (inches):	0 (surface)	

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 61(UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 30
Subregion (LRR): A Lat: 47.670092 Long: -122.112416 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☒ No ☐**
Hydric Soil Present?	Yes ☐	No ☒		
Wetland Hydrology Present?	Yes ☐	No ☒		

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is located next to a pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = ____, 20% = ____	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	15	yes	FAC
2.			
3.			
4.			
5.			
50% = 8, 20% = 3	15	= Total Cover	
Herb Stratum (Plot size: r= 1m)			
1. *Phalaris arundinacea*	70	yes	FACW
2. *Equisetum telmateia*	15	no	FACW
3. *Conium maculatum*	10	no	FAC
4. *Cardamine pratensis*	5	no	NL (UPL)
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 50, 20% = 20	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = ____, 20% = ____	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
Total Number of Dominant Species Across All Strata: 2 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

☐ 1 – Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 61 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10 YR 2/1	100					SL	
10-18+	2.5 Y 5/4	100					SL	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☐	No	☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 62 (WET)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1
Subregion (LRR): A Lat: 47.670085 Long: -122.112562 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	☒	No	☐	**Is the Sampled Area within a Wetland?**	**Yes** ☒	**No** ☐
Hydric Soil Present?	Yes	☒	No	☐			
Wetland Hydrology Present?	Yes	☒	No	☐			

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is located in a depression next to pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus latifolia*	65	yes	FACW
2. *Crataegus monogyna*	25	yes	FAC
3.			
4.			
50% = 45, 20% = 18	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	40	yes	FAC
2. *Rubus laciniatus*	40	yes	FACU
3.			
4.			
5.			
50% = 40, 20% = 16	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. *Phalaris arundinacea*	35	yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 17.5, 20% = 7	35	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. *none*			
2.			
50% = 0, 20% = 0	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 5 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ 1 – Rapid Test for Hydrophytic Vegetation
☒ 2 - Dominance Test is >50%
☐ 3 - Prevalence Index is ≤3.0[1]
☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ 5 - Wetland Non-Vascular Plants[1]
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 62 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-5	10 YR 3/1						SL	
5-9	2.5 Y 3/1	95	10 YR 4/4	5	C	M+PL	SL	
9-10	2.5 Y 4/1	85	2.5 Y 5/1	10	D	M	SL	
			2.5 Y 4/4	5	C	M	SL	
10-18+	2.5 Y 5/1	75	10 YR 4/6	15	C	M	SL	
			10 YR 4/1	10	C	M	SL	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soils Present? **Yes** ☒ **No** ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☒	No	☐	Depth (inches):	2
Saturation Present? (includes capillary fringe)	Yes	☒	No	☐	Depth (inches):	0 (surface)

Wetland Hydrology Present? **Yes** ☒ **No** ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site: Redmond Link City/County: Redmond/King Sampling Date: 4/10/2017
Applicant/Owner: Sound Transit State: WA Sampling Point: 63(UPL)
Investigator(s): J Wozniak, T Parry Section, Township, Range: S12, T25N, R05E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20
Subregion (LRR): A Lat: 47.670085 Long: -122.112562 Datum: WGS-84
Soil Map Unit Name: Earlmont Silt loam NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☐, Soil ☐, or Hydrology ☐, significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
Are Vegetation ☐, Soil ☐, or Hydrology ☐, naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒	No ☐	**Is the Sampled Area within a Wetland?**	**Yes ☐ No ☒**
Hydric Soil Present?	Yes ☐	No ☒		
Wetland Hydrology Present?	Yes ☐	No ☒		

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. The SP is located on a slope next to the pedestrian trail (old RR grade).

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: r= 3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. *none*			
2.			
3.			
4.			
50% = ____, 20% = ____	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. *Rubus armeniacus*	35	yes	FAC
2.			
3.			
4.			
5.			
50% = 17.5, 20% = 7	35	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. *Equisetum telmateia*	15	yes	FACW
2. *Phalaris arundinacea*	25	yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
50% = 20, 20% = 8	40	= Total Cover	
Woody Vine Stratum (Plot size: r = 2m)			
1. *none*			
2.			
50% = 0, 20% = 0	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test Worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ☐ 1 – Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0[1]
- ☐ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ 5 - Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

Project Site: Redmond Link

SOIL

Sampling Point: 63 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 2/1	100					GR LS	
4-18+	10 YR 3/2	100					GR LS	

[1]Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soils Present? **Yes** ☐ **No** ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stresses Plants (D1) **(LRR A)**
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) **(LRR A)**
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes	☐	No	☒	Depth (inches):	
Water Table Present?	Yes	☐	No	☒	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	☐	No	☒	Depth (inches):	

Wetland Hydrology Present? **Yes** ☐ **No** ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/Wetland R City/County: King County Sampling Date: 4/10/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 64 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: R12 T25N R05E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.670284 Long: -122.112787 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Precipitation is over 200% of annual average to date, with heavy rain in late February and March. This site does meet wetland criteria; thus, the SP is positioned in a wetland. Specifically, the SP is positioned in a depression adjacent to the rail road fill prism. This site is characterized as a palustrine emergent class.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Betula papyrifera (s)	5	Yes	FAC
2. Fraxinus latifolia (s)	5	Yes	FACW
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 64 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2.5	10YR 2/1	100					SiCL	
2.5-5	10YR 3/1	90	10YR 4/2	10	D	M	SiCL	
5-12	2.5Y 5/1	65	10YR 5/8	30	C	M	SiCL	
			10YR 4/1	5	D	M		
12-18	10YR 3/1	85	10YR 3/6	10	C	M	CL	
			10YR 4/1	5	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 10"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 9"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/Wetland R City/County: King County Sampling Date: 4/10/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 65 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Seckel Section, Township, Range: S12 T25N R05E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 30

Subregion (LRR): A Lat: 47.670284 Long: -122.112787 Datum: WGS-84

Soil Map Unit Name: Earlmont silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: This site does not meet wetland criteria; thus, the SP is not positioned in a wetland. Specifically, the SP is positioned in on the side of a fill prism perched above the depressional wetland below.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2. Conium maculatum	15	No	FAC
3. Equisetum telmateia	Trace	No	FACW
4. Galium aparine	Trace	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 65 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/1	100					GR SL	
3-7	10YR 3/1	100					GR SL	
7-12	10YR 2/2	100					GR LS	
12-16+	5Y 4/3	90	10YR 5/8	10	C	M	GR SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Some inclusions from the RR fill prism.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 66 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): A Lat: 47.669827 Long: -122.109937 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: PFOC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP located within the Bear Creek floodplain. The WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	25	Yes	FACW
2.			
3.			
4.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Cornus alba	40	Yes	FACW
2. Rubus armeniacus	15	Yes	FAC
3.			
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	75	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 66 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					SiL	
6-16+	10YR 4/2	85	10YR 4/1	10	D	M	SiL	
			7.5YR 4/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Stream gage

Remarks: Hydrology is presumed to be present earlier in the growing season. The sampling point meets the wetland hydrology primary indicators for B1 and B2 and secondary indicators for B10, D2, and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 67 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): hillsope Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.669850 Long: -122.110048 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP located upslope of SP-66 (WET). WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Crataegus monogyna	30	Yes	FAC
2.			
3.			
4.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	65	Yes	FAC
2.			
3.			
4.			
5.			
	65	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 67 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16+	10YR 4/2+	100					SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 08/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 68 (WET)

Investigator(s): J. Wozniak Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): A Lat: 47.670 Long: -122.110 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: Site is near the OHWM on the east bank of Bear Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	40	Yes	FAC
2.			
3.			
4.			
	40 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	35	Yes	FAC
2.			
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Ranunculus repens	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 30

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 68 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10 YR 2/2	100					L	
5-16	10 YR 3/2	85	7.5 YR 2.5/1	10	C	M	GR SiL	
			10 YR 5/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 14

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology is presumed to be present earlier in the growing season. The sampling point meets the wetland hydrology primary indicators for B1, B2, and B3 and secondary indicators for B10 and D2. No water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 08/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 69 (UPL)

Investigator(s): J. Wozniak Section, Township, Range: S12, T25N, R05E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR): A Lat: 47.670 Long: -122.110 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	35	Yes	FAC
2.			
3.			
4.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. Rubus armeniacus	50	Yes	FAC
2.			
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Phalaris arundinacea	5	Yes	FACW
2. Geum macrophyllum	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 69 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10 YR 2/2	100					LS	
8-16+	10 YR 3/2	80	10 YR 2/2	20	C	M	GR LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Redox concentrations are too faint to meet hydric soil criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet season. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King Sampling Date: 8/15/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 70 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%): 1

Subregion (LRR): A Lat: 47.669595 Long: -122.108961 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-70 is positioned in a side channel/floodplain of Bear Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	15	Yes	FAC
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Carex obnupta	25	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 70

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 70 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					SL	
7-16+	10YR 3/1	88	2.5YR 4/2	10	D	M	CL	
	10YR 3/1	88	7.5YR 4/6	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☒ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Positioned in a side channel of Bear Creek that was observed to be inudated for >2 months. Hydrology is presumed to be present earlier in the growing season. The sampling point meets the wetland hydrology primary indicators for B1, B2, B3, B4, and B8 and secondary indicators for B9, B10, D2 and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King Sampling Date: 8/15/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 71 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 40-45

Subregion (LRR): A Lat: 47.669655 Long: -122.108882 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Paired upland plot to SP-70 (WET) that is located within channel/floodplain of Bear Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Symphoricarpos albus	70	Yes	FACU
2. Rubus armenicaus	15	No	FAC
3. Cornus alba	2	No	FACW
4.			
5.			
	87 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Urtica dioica	2	No	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1.			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☐ **No** ☒

Remarks: Herbaceous strata is too sparse to assign dominance.

SOIL

Sampling Point: 71 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Positioned on a hillslope above the floodplain/side channel of Bear Creek. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King Sampling Date: 8/15/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 72 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 2-3

Subregion (LRR): A Lat: 47.669633 Long: -122.109454 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: PFOC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP is located in the floodplain of Bear Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	85	Yes	FACW
2. Carex obnupta	10	No	OBL
3. Solanum dulcamara	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 72 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 3/2	97	7.5YR 4/6	3	C	M	CL	
10-16+	2.5Y 5/1	65	2.5Y 3/2	20	D	M	SCL	
			7.5YR 5/8	10	C	M		
			7.5YR 3/4	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☒ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☒ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Positioned in the floodplain/side channel of Bear Creek. Hydrology is presumed to be present earlier in the growing season. The sampling point meets the wetland hydrology primary indicators for B1. B3, B4, and B6 and secondary indicators for B9, D2, and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King Sampling Date: 8/15/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 73 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 15-20

Subregion (LRR): A Lat: 47.669713 Long: -122.109424 Datum: WGS-84

Soil Map Unit Name: Indianola loamy sand NWI classification: PFOC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Positioned on a terrace within the Bear Creek floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	20	Yes	FAC
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2. Solanum dulcamara	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 73 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	93	10 YR 4/2	5	D	M	SCL	
			10 YR 3/3	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Redox concentrations and depletions are too faint to meet F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 74 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): A Lat: 47.670614 Long: -122.109128 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP located within Bear Creek floodplain. WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix sitchensis	30	Yes	FACW
2.			
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 74 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					SiL	
4-12	10YR 4/2	80	7.5YR 4/6	20	C	M	SL	
12-16	10YR 5/1	70	7.5YR 4/6	10	C	CS	S	
			10YR 5/8	20	C	CS		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☒ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Positive alpha alpha dypyridol test; Wetland hydrology is presumed to be present earlier in the growing season. The sampling point meets the primary indicators B2, B3, and C4 and secondary indicators D2 and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 75 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2

Subregion (LRR): A Lat: 47.670476 Long: -122.109056 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP is located upslope of SP-74 (WET). WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 75 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	100					GR SiL	
6-16+	10YR 4/2	100					GR SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 76 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): A Lat: 47.670607 Long: -122.109168 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP is located within floodplain of Bear Creek. WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 76 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	100					SiL	
6-16+	10YR 4/2	90	10YR 6/1	5	D	M	GR SiL	
			7.5YR 4/6	5	C	M+PL		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☒ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: stream gage and early season observations

Remarks: Hydrology is presumed to be present earlier in the growing season. The sampling point meets the wetland hydrology primary indicators for B1 and B2 and secondary indicators for D2, and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 77 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.670418 Long: -122.108770 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP is located within a grass field near corner of Redmond Way and NR 76th St. WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer platanoides	20	yes	FACU
2.			
3.			
4.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	95	Yes	FACW
2. Cirsium arvense	20	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	115	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 77 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/3	100					GR SiL	
14-17+	10YR 4/3	100					GR SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 17 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Downtown Redmond Link Extension City/County: Redmond/King Sampling Date: 8/25/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 78 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S12 T25N R5E

Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): A Lat: 47.670552 Long: -122.108941 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP is located within the Bear Creek floodplain, downslope of SP-77 (UPL). WETS table indicates normal conditions for three months prior.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	25	Yes	FACW
2.			
3.			
4.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix scouleriana	25	Yes	FAC
2.			
3.			
4.			
5.			
	25	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 78 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					L	
6-10	10YR 4/2	95	7.5YR 4/6	5	C	M	SiCL	
10-16	10YR 4/1	85	7.5YR 5/6	15	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wetland hydrology is presumed to be present earlier in the growing season. The sampling point meets the primary indicators B2 and B3 and secondary indicators D2 and D5. No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond Sampling Date: 05/31/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 79 (WET)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S14, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 35

Subregion (LRR): A Lat: 47.656008 Long: -122.137160 Datum: WGS-84

Soil Map Unit Name: Alderwood gravelly sandy loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1 m)			
1. Typha latifolia	55	Yes	OBL
2. Lotus corniculatus	10	No	FAC
3. Poa pratensis	10	No	FAC
4. Equisetum telmateia	15	No	FACW
5. Juncus effusus	10	No	FACW
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=1 m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 79 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2						L	
3-7	2.5Y 4/2	92	7.5 YR 4/4	5	C	M	L	
			10 YR 4/6	3	C	M+PL		
7-16	2.5Y 5/1	60	7.5YR 4/6	20	C	M	CL	
			N 5/	20	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface (0)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond Sampling Date: 05/31/17

Applicant/Owner: Sound Transit State: WA Sampling Point: 80 (UPL)

Investigator(s): J. Wozniak, K. Seckel, T. Parry Section, Township, Range: S14, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 40

Subregion (LRR): A Lat: 47.656008 Long: -122.137160 Datum: WGS-84

Soil Map Unit Name: Alderwood gravelly sandy loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3 m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2 m)			
1. none			
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1 m)			
1. Agrostis capilaris	25	Y	FAC
2. Holcus lanatus	25	Y	FAC
3. Poa pratensis	20	Y	FAC
4. Lotus corniculatus	20	Y	FAC
5. Geranium dissectum	5	N	NL
6. Equisetum telmateia	5	N	FACW
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2 m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 80 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					L	
3-16	10YR 3/2	97	10YR 4/2	3	D	M	GR L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Redox is too faint to meet F6.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 5/4/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 81 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S14 T25N R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 90

Subregion (LRR): A Lat: 47.662731 Long: -122.133764 Datum: WGS 84

Soil Map Unit Name: Alderwood gravelly sandy loam (AgC) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: Postioned on the side of a steep slope adjacent to SR 520. The sample point did not meet wetland wetland criterion; thus, this sample point is determined to not be located in a wetland. According to the NRCS WETS tables, the period (February, March, and April) prior to the May field investigation was wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer macrophyllum	80	Yes	FACU
2.			
3.			
4.			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Oemleria cerasiformis	25	Yes	FACU
2. Rubus armeniacus	10	Yes	FAC
3. Acer circinatum	5	No	FAC
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Polystichum munitum	50	Yes	FACU
2. Hedera helix	30	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 81 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					L	GR
5-10	10YR 3/2	100					SL	GR
10-14	10YR 4/3	80	10YR 4/6	20	C	M	SL	GR
14-18	2.5Y 4/3	90	10YR 4/4	10	C	M	SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table or saturation was observed within the excavated depth of 18 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 5/4/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 82 (WET)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S11 T25N R5E

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): None Slope (%): 2

Subregion (LRR): A Lat: 47.662460 Long: -122.133318 Datum: WGS 84

Soil Map Unit Name: Kitsap silt loam (KpC) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This sample point is positioned adjacent to SR 520 in a bench-like cutout from the nearby steep hillside. The sample point is located on a convex surface at toe of slope where groundwater seeps emerge. According to the NRCS WETS tables, the period (February, March, and April) prior to the May field investigation was wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	10	Yes	FAC
2. Alnus rubra (s)	10	Yes	FAC
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Athyrium cyclosorum	60	Yes	FAC
2. Equisetum telmateia	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 82 (WET))

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					L	
5-16+	2.5Y 4/1	87	2.5Y 4/2	10	D	M	GR SCL	
			10YR 3/6	3	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 4

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 5/4/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 83 (UPL)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S11 T25N R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 10

Subregion (LRR): A Lat: 47.666574 Long: -122.127460 Datum: WGS 84

Soil Map Unit Name: Pilchuck loamy fine sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This sample point is positioned adjacent to the SR 520 highway interchange with West Lake Sammamish Pkwy NE on the slope above a depression. According to the NRCS WETS tables, the period (February, March, and April) prior to the May field investigation was wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	20	yes	FAC
2.			
3.			
4.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	80	Yes	FAC
2.			
3.			
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Polystichum munitum	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 83 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	90	7.5YR 4/6	10	C	M	SiCL	
6-16+	10YR 5/2	85	10YR 5/1	10	D	M	SiCL	
			10YR 4/4	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Soils are disturbed road fill material. Color inclusions appear to be chunks of soil that have been mixed. Boundaries between colors were very sharp, and therefore assumed to be relict, or an artifact of fill placement, and not due to soil saturation, flooding, or ponding.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 14

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. No water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 5/4/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 84 (WET)

Investigator(s): J. Wozniak, T. Parry Section, Township, Range: S11 T25N R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 25

Subregion (LRR): A Lat: 47.666574 Long: -122.127460 Datum: WGS 84

Soil Map Unit Name: Pilchuck loamy fine sand (PC) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This sample point is positioned in the SR 520 highway interchange with West Lake Sammamish Pkwy NE. The sample point met wetland wetland criterion; thus, this sample point is determined to be located in a wetland. According to the NRCS WETS tables, the period (February, March, and April) prior to the May field investigation was wetter than normal.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	40	Yes	FAC
2. Thuja plicata	10	Yes	FAC
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	70	Yes	FAC
2.			
3.			
4.			
5.			
	70	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Equisetum telmateia	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 30

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 84 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18+	10YR 2/2	60	5Y 5/1	25	D	M	SiCL	
			7.5YR 4/6	10	C	M		
			N 5/	5	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☒ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☒ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 5"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0" (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 05/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 85 (UPL)

Investigator(s): Wozniak, Parry Section, Township, Range: S11, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10

Subregion (LRR): A Lat: 47.666382 Long: -122.127774 Datum: WGS-84

Soil Map Unit Name: Sultan Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: WETS table (as recorded at the Seattle-Tacoma Airport weather station) indicates higher than normal precipitation for three months prior to field sampling. SP positioned near toe of the slope.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	15	Yes	FAC
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Plantago lanceolata	40	Yes	FACU
2. Holcus lanatus	25	Yes	FAC
3. Galium aparine	15	No	FACU
4. Phalaris arundinacea	15	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 85 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR 2/2	100					L	
1-16+	2.5Y 4/2	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 05/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 86 (WET)

Investigator(s): Wozniak, Parry Section, Township, Range: S11, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10

Subregion (LRR): A Lat: 47.666382 Long: -122.127774 Datum: WGS-84

Soil Map Unit Name: Sultan Silt Loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: WETS table (as recorded at the Seattle-Tacoma Airport weather station) indicates higher than normal precipitation for three months prior to field sampling. SP positioned near toe of the slope.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	70	Yes	FACW
2. Holcus lanatus	25	Yes	FAC
3. Vicia americana	5	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 86 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					SL	
4-16+	2.5Y 5/1	95	10YR 4/6	5	C	M	GR SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes ☐	No ☒	Depth (inches):
Water Table Present?	Yes ☒	No ☐	Depth (inches): 6
Saturation Present? (includes capillary fringe)	Yes ☒	No ☐	Depth (inches): 0 (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: King County Sampling Date: 05/3/2017

Applicant/Owner: Sound Transit State: WA Sampling Point: 87 (UPL)

Investigator(s): Wozniak, Parry Section, Township, Range: S11, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10

Subregion (LRR): A Lat: 47.666382 Long: -122.127774 Datum: WGS-84

Soil Map Unit Name: Pilchuck Loamy Fine Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: WETS table (as recorded at the Seattle-Tacoma Airport weather station) indicates higher than normal precipitation for three months prior to field sampling. SP positioned near toe of the highway interchange on a fill prism. This SP is the paired upland plot for SP-86 (WET).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Plantago lanceolata	40	Yes	FACU
2. Holcus lanatus	25	Yes	FAC
3. Galium aparine	15	No	FACU
4. Phalaris arundinacea	15	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 87 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					L	
2-16+	10YR 4/2	100					GR SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No water table or saturation was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/17/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 92 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): A Lat: 47.6706 Long: -122.1084 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned adjacent to, but above the OHWM, of the Bear Creek tributary (LLID No. 1221079476713). Wetland criteria was not met; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. None			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Poa pratensis	45	Yes	FAC
2. Alopecurus pratensis	45	Yes	FAC
3. Galium aparine	7	No	FACU
4. Cirsium arvense	3	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 92 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					SL	
5-10	10YR 3/2	95	10YR 3/3	5	C	M	SL	Faintly contrasted
10-16	10YR 3/2	87	10YR 4/2	10	D	M	SL	
			10YR 3/6	3	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, The period prior to April 2018 has been normal. Bear Creek and the associated tributary were determined to be near the OHWM stage level a couple of days before the wetland investigation. No saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/17/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 93 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 2-3

Subregion (LRR): A Lat: 47.6706 Long: -122.1084 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This SP is positioned adjacent to, and below the OHWM, of the Bear Creek tributary (LLID No. 1221079476713). Wetland criteria was met; thus, this sample point is determined to be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. None			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	40	Yes	FACW
2. Poa pratensis	35	Yes	FAC
3. Alopecurus pratensis	20	Yes	FAC
4. Cirsium arvense	5	No	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 93 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					L	
5-11	10YR 4/2	70	10YR 3/2	25	C	M	L	Faintly contrasted
			10YR 4/4	5	C	M		Distintly contrasted
11-16	10YR 4/2	85	10YR 4/6	15	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☒ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☒ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 5"

Water Table Present? Yes ☒ No ☐ Depth (inches): 0" (surface)

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0" (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, The period prior to April 2018 has been normal. Bear Creek and the associated tributary were determined to be near the OHWM stage level a couple of days before the wetland investigation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/17/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 94 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.6704 Long: -122.1085 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned above the OHWM of the Bear Creek. The site was reviewed during near peak hydrology and lacked wetland hydrology. The hydric soils are assumed to be the result of the many prior disturbances at this site. The hydrophytic vegetation is dominated by the invasive, rhizomous species PHAR, which can span the upland/wetland boundary.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	93	Yes	FACW
2. Galium aparine	7	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes ☒ No ☐**

Remarks:

SOIL

Sampling Point: 94 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/2	100					L	
9-22	10YR 4/2	90	7.5YR 4/6	10	C	M	S	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The hydric soils are assumed to be the result of the many prior disturbances at this site.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, The period prior to April 2018 has been normal. Bear Creek was determined to be near the OHWM stage level a couple of days before the wetland investigation; however, no saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/17/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 95 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.6706 Long: -122.1085 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This SP is positioned adjacent to, and below the OHWM, of the Bear Creek. Wetland criteria was met; thus, this sample point is determined to be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	20	Yes	FAC
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 95 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					L	
6-9	10YR 3/2	95	10YR 4/4	5	C	M	L	
9-16	10YR 4/2	75	10YR 3/2	15	C	M	LS	
			7.5YR 4/6	10	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 3"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0" (surface)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, The period prior to April 2018 has been normal. Bear Creek was determined to be near the OHWM stage level a couple of days before the wetland investigation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 3/26/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 96 (UPL)

Investigator(s): J. Wozniak, A Merrill, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): A Lat: 47.669685 Long: -122.110851 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned to the west of Bear Creek Trail and south of the Redmond Central Connector. Wetland criteria was not met; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pseudotsuga menziesii	25	Yes	FACU
2. Alnus rubra	15	Yes	FAC
3.			
4.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	45	Yes	FAC
2. Oemleria cerasiformis	35	Yes	FACU
3.			
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Geranium robertianum	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 96 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					SL	
4-16	2.5Y 4/3	100					Cb LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): >16

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. No saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 3/26/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 97 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): A Lat: 47.669685 Long: -122.110851 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned to the east of Bear Creek Trail and south of the railroad prism. Hydric soils and wetland hydrology criteria was not met; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus spectabilis	15	Yes	FAC
2. Rubus armeniacus	10	Yes	FAC
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Ranunculus repens	30	Yes	FAC
2. Geranium robertianum	5	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: The SP is located beneath a overhead canopy dominated by POBA, which is rooted outside of the tree stratum plot.

SOIL

Sampling Point: 97 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/1`	100					SL	
5-16	2.5Y 4/3+	99	7.5YR 4/4	1	C	M	Cb LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 80 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 3/26/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 98 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 1-3

Subregion (LRR): A Lat: 47.669619 Long: -122.110617 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned to the east of Bear Creek Trail and south of the railroad (Redmond Central Connector) prism and SP 47 (WET). Wetland hydrology criterion was not met; thus, this sample point is determined to not be located in a wetland.The site was reviewed during near peak hydrology and lacked wetland hydrology. The hydric soils are assumed to be the result of the many prior disturbances at this site. The hydrophytic vegetation is dominated by the invasive, rhizomous species RUAR, which can span the upland/wetland boundary.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	60	Yes	FAC
2. Sambucus racemosa	5	No	FACU
3.			
4.			
5.			
	65 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: The SP is located beneath a overhead canopy dominated by POBA, BEPA, and ALRU, all of which were rooted outside of the tree sample plot

SOIL

Sampling Point: 98 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					L	
2-8	10YR 3+/2	95	10YR 6/1	3	D	M	L	
			5YR 4/6	2	C	M		
8-16	10YR 4/2	91	10YR 6/2	7	D	M	L	
			10YR 4/6	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: The hydric soils are assumed to be the result of the many prior disturbances at this site.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 80 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches. This site was revisted during higher flows and was confirmed to lack wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 3/26/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 99 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5-7

Subregion (LRR): A Lat: 47.669521 Long: -122.110980 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is positioned to the east of Bear Creek Trail and south of the railroad (Redmond Central Connector) prism on the upper half of a sharp contour break. Wetland criteria was not met; thus, this sample point is determined to not be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lucida	45	Yes	FACW
2.			
3.			
4.			
	45	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Sambucus racemosa	25	Yes	FACU
2. Rosa multiflora	20	Yes	FACU
3. Rubus armeniacus	5	No	FAC
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 99 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					LS	
2-4	10YR 2/2	100					LS	
4-6	10YR 3/2	100					LS	
6-16	10YR 3/3	100					LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 80 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches. This site was revisted during higher flows and was confirmed to lack wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 3/26/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 100 (WET)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 5

Subregion (LRR): A Lat: 47.669521 Long: -122.110980 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This SP is positioned to the east of Bear Creek Trail and south of the railroad (Redmond Central Connector) prism within the Bear Creek floddplain. Wetland criteria was met; thus, this sample point is determined to be located in a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lucida	10	Yes	FACW
2.			
3.			
4.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Crataegus monogyna	45	Yes	FAC
2. Rosa multiflora	30	Yes	FACU
3. Sambucus racemosa	5	No	FACU
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 100 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2/2	100					SL	
3-16	10YR 3/1	97	7.5YR 4/6	3	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☒ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☒ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 3"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 80 CFS during the field investigation. This site was revisted during higher flows and was observed to be inundated by Bear Creek overbank flow.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/6/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 101 (UPL)

Investigator(s): J. Wozniak, K. Seckel, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.668198 Long: -122.111132 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is located approximately 25 feet east of Bear Creek Trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	50	Yes	FACW
2.			
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Fraxinus latifolia	45	Yes	FACW
2. Crataegus monogyna	10	No	FAC
3.			
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Galium aparine	20	Yes	FACU
2. Geranium robertianum	15	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	35	= Total Cover	
Woody Vine Stratum (Plot size: r=3m)			
1. Hedera helix	40	Yes	FACU
2.			
	40	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks:

SOIL

Sampling Point: 101 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/1	100					LS	
2-8	10YR 4/1	100					LS	
8-14	10YR 3/1+	100					LS	
14-16+	10YR 5/1	88	10YR 5/4	12	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 100 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/6/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 102 (UPL)

Investigator(s): J. Wozniak, K.Seckel, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.669028 Long: -122.110836 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is located approximately 100 feet east of the Bear Creek Trail. SP does not meet wetland indicators; thus, is not located within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	10	Yes	FAC
2.			
3.			
4.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Symphoricarpos albus	20	Yes	FAC
2. Rosa nutkana	10	Yes	FAC
3. Rosa multiflora	5	No	FACU
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: Salix alba located just outside of sample plot.

SOIL

Sampling Point: 102 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2	100					SL	
5-14	2.5Y 3/2	100					LS	
14-20	2.5Y 2.5/1	95	10YR 5/2	5	D	M	LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): >16

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 100 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 4/6/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 103 (WET)

Investigator(s): J. Wozniak, K.Seckel, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.669066 Long: -122.111064 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: This SP is located approximately 40 feet east of Bear Creek Trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	20	Yes	FAC
2.			
3.			
4.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Fraxinus latifolia	60	Yes	FACW
2. Populus balsamifera	5	No	FAC
3.			
4.			
5.			
	65	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	0	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 103 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/2	100					Cb L	
8-18	2.5Y 4/2	70	7.5YR 4/6	30	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☒ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. The Bear Creek discharge was approximately 100 CFS during the field investigation. No saturation or water table was observed within the excavated depth of 16 inches; however, while no water was observed during the field work, one primary and two secondary indicators were observed.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link City/County: Redmond/King County Sampling Date: 5/2/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 104 (UPL)

Investigator(s): J. Wozniak, T. Parry, K. Moser Section, Township, Range: S12, T25N, R5E

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): None Slope (%): 1-2

Subregion (LRR): A Lat: 47.669066 Long: -122.111064 Datum: WGS-84

Soil Map Unit Name: Indianola Loamy Sand NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: This SP is located approximately 25 feet east of Bear Creek Trail. The SP does not meet wetland indicators; thus, is not located within a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	40	Yes	FAC
2.			
3.			
4.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Crataegus monogyna	40	Yes	FAC
2. Fraxinus latifolia	30	Yes	FACW
3. Oemleria cerasiformis	5	No	FACU
4.			
5.			
	75	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Geranium robertianum	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 90

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 104 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	100					L	
7-16	2.5Y 3/3	95	10YR 4/6	5	C	M	Cb SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. No saturation or water table was observed within the excavated depth of 16 inches.

Appendix H

Wetland Rating Forms

Wetland name or number WKC-3

WETLAND RATING FORM – WESTERN WASHINGTON

Version 2 - Updated July 2006 to increase accuracy and reproducibility among users
Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland (if known): WKC-3 Date of site visit: 3/7, 4/12 4/17 5/2 2013

Rated by J. Wozniak Trained by Ecology? Yes X No___ Date of training 2005

SEC: 12 TWNSHP: 25N RNGE: 05E Is S/T/R in Appendix D? Yes___ No X

Map of wetland unit: Figure 3-B Estimated size 5 ac.

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland

I___ II___ III X IV___

Category I = Score >=70 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score < 30		
	Score for Water Quality Functions	18
	Score for Hydrologic Functions	10
	Score for Habitat Functions	22
	TOTAL score for Functions	50

Category based on SPECIAL CHARACTERISTICS of wetland

I___ II___ Does not Apply X

Final Category (choose the "highest" category from above) III

Summary of basic information about the wetland unit

Wetland Unit has Special Characteristics		Wetland HGM Class used for Rating	
Estuarine		Depressional	X
Natural Heritage Wetland		Riverine	
Bog		Lake-fringe	
Mature Forest		Slope	
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above	X	Check if unit has multiple HGM classes present	

Wetland name or number WKC-3

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. *Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered **animal or plant** species (T/E species)?* For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X
SP2. *Has the wetland unit been documented as habitat for any State listed Threatened or Endangered **animal** species?* For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X
SP3. *Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?*		X
SP4. *Does the wetland unit have a local significance in addition to its functions*? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. This simplifies the questions needed to answer how well the wetland functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Wetland name or number WKC-3

Classification of Wetland Units in Western Washington

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides (i.e. except during floods)?
NO – go to 2 **YES** – the wetland class is **Tidal Fringe**

If yes, is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? **YES – Freshwater Tidal Fringe NO – Saltwater Tidal Fringe (Estuarine)**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is rated as an **Estuarine** wetland.* Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.
NO – go to 3 **YES** – The wetland class is **Flats**

If your wetland can be classified as a "Flats" wetland, use the form for **Depressional** wetlands.

3. Does the entire wetland unit **meet both** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any vegetation on the surface) at least 20 acres (8 ha) in size;
___At least 30% of the open water area is deeper than 6.6 ft (2 m)?
NO – go to 4 **YES** – The wetland class is **Lake-fringe (Lacustrine Fringe)**

4. Does the entire wetland unit **meet all** of the following criteria?
____The wetland is on a slope (*slope can be very gradual*),
____The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks.
____The water leaves the wetland **without being impounded**?
NOTE: *Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than 1 foot deep).*
NO – go to 5 **YES** – The wetland class is **Slope**

Wetland name or number WKC-3

5. Does the entire wetland unit **meet all** of the following criteria?

____ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river

____ The overbank flooding occurs at least once every two years.

NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.

NO – go to 6 **YES** – The wetland class is **Riverine**

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year. *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding. The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM clases. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within your wetland. NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM Classes within the wetland unit being rated	*HGM Class to Use in Rating*
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

If you are unable still to determine which of the above criteria apply to your wetland, or if you have more than 2 HGM classes within a wetland boundary, classify the wetland as **Depressional** for the rating.

Wetland name or number WKC-3

D	Depressional and Flats Wetlands WATER QUALITY FUNCTIONS - Indicators that the wetland unit functions to improve water quality	Points (only 1 score per box)
D	**D 1. Does the wetland unit have the potential to improve water quality?**	*(see p.38)*
D	D 1.1 Characteristics of surface water flows out of the wetland: Unit is a depression with no surface water leaving it (no outlet) points = 3 Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2 (circled) Unit has an unconstricted, or slightly constricted, surface outlet (*permanently flowing*) points = 1 Unit is a "flat" depression (Q. 7 on key), or in the Flats class, with permanent surface outflow **and no obvious natural outlet** and/or outlet is a man-made ditch points = 1 (*If ditch is not permanently flowing treat unit as "intermittently flowing"*) Provide photo or drawing	Figure ___ 2
D	S 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic *(use NRCS definitions)* YES points = 4 NO points = 0 (circled)	0
D	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class) Wetland has persistent, ungrazed, vegetation > = 95% of area points = 5 (circled) Wetland has persistent, ungrazed, vegetation > = 1/2 of area points = 3 Wetland has persistent, ungrazed vegetation > = 1/10 of area points = 1 Wetland has persistent, ungrazed vegetation <1/10 of area points = 0 Map of Cowardin vegetation classes	Figure ___ 5
D	D1.4 Characteristics of seasonal ponding or inundation. *This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 (circled) Area seasonally ponded is < ¼ total area of wetland points = 0 Map of Hydroperiods	Figure ___ 2
D	**Total for D 1** *Add the points in the boxes above*	9
D	**D 2. Does the wetland unit have the opportunity to improve water quality?** Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland. *Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.* — Grazing in the wetland or within 150 ft X Untreated stormwater discharges to wetland — Tilled fields or orchards within 150 ft of wetland — A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging X Residential, urban areas, golf courses are within 150 ft of wetland — Wetland is fed by groundwater high in phosphorus or nitrogen — Other_____ **YES** multiplier is **2** **NO** multiplier is **1**	*(see p. 44)* multiplier 2
D	**TOTAL - Water Quality Functions** Multiply the score from D1 by D2 ***Add score to table on p. 1***	18

Wetland name or number WKC-3

	Depressional and Flats Wetlands HYDROLOGIC FUNCTIONS - Indicators that the wetland unit functions to reduce flooding and stream degradation	**Points** (only 1 score per box)
	D 3. Does the wetland unit have the potential to reduce flooding and erosion?	*(see p.46)*
D	D 3.1 Characteristics of surface water flows out of the wetland unit Unit is a depression with no surface water leaving it (no outlet) points = 4 Unit has an intermittently flowing, OR highly constricted permanently flowing outlet points = 2 Unit is a "flat" depression (Q. 7 on key), or in the Flats class, with permanent surface outflow **and no obvious natural outlet** and/or outlet is a man-made ditch points = 1 *(If ditch is not permanently flowing treat unit as "intermittently flowing")* Unit has an unconstricted, or slightly constricted, surface outlet (*permanently flowing*) points = 0	2
D	D 3.2 Depth of storage during wet periods *Estimate the height of ponding above the bottom of the outlet. For units with no outlet measure from the surface of permanent water or deepest part (if dry).* Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 The wetland is a "headwater" wetland" points = 5 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 Unit is flat (yes to Q. 2 or Q. 7 on key) but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft points = 0	3
D	D 3.3 Contribution of wetland unit to storage in the watershed *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* The area of the basin is less than 10 times the area of unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire unit is in the FLATS class points = 5	5
D	**Total for D 3** *Add the points in the boxes above*	10
D	**D 4. Does the wetland unit have the opportunity to reduce flooding and erosion?** Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than 90% of the water in the wetland is from groundwater in areas where damaging groundwater flooding does not occur. *Note which of the following indicators of opportunity apply.* — Wetland is in a headwater of a river or stream that has flooding problems — Wetland drains to a river or stream that has flooding problems — Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems — Other_____ **YES** multiplier is **2** **NO** multiplier is **1**	*(see p. 49)* multiplier 1
D	**TOTAL - Hydrologic Functions** Multiply the score from D 3 by D 4 *Add score to table on p. 1*	10

Wetland name or number WKC-3

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that unit functions to provide important habitat	**Points** (only 1 score per box)
H 1. Does the wetland unit have the <u>potential</u> to provide habitat for many species?	
H 1.1 <u>Vegetation structure</u> ***(see p. 72)***	**Figure ___**
Check the types of vegetation classes present (as defined by Cowardin)- Size threshold for each class is ¼ acre or more than 10% of the area if unit is smaller than 2.5 acres.	
___Aquatic bed	
X Emergent plants	
X Scrub/shrub (areas where shrubs have >30% cover)	
X Forested (areas where trees have >30% cover)	
If the unit has a forested class check if:	
X The forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the forested polygon	
Add the number of vegetation structures that qualify. If you have:	
4 structures or more points = 4 3 structures points = 2 2 structures points = 1 1 structure points = 0 Map of Cowardin vegetation classes	4
H 1.2. <u>Hydroperiods</u> ***(see p. 73)***	**Figure ___**
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ acre to count. (see text for descriptions of hydroperiods)	
___Permanently flooded or inundated — 4 or more types present points = 3	
X Seasonally flooded or inundated — 3 types present points = 2	
___Occasionally flooded or inundated — 2 types present point = 1	1
X Saturated only — 1 type present points = 0	
___ Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ ***Lake-fringe wetland* = 2 points**	
___***Freshwater tidal wetland* = 2 points** Map of hydroperiods	
H 1.3. <u>Richness of Plant Species</u> ***(see p. 75)***	
Count the number of plant species in the wetland that cover at least 10 ft^2. (*different patches of the same species can be combined to meet the size threshold)*	
You do not have to name the species.	
Do not include Eurasian Milfoil, reed canarygrass, purple loosestrife, Canadian Thistle	
If you counted: > 19 species points = 2 *List species below if you want to:* 5 - 19 species points = 1 < 5 species points = 0	2

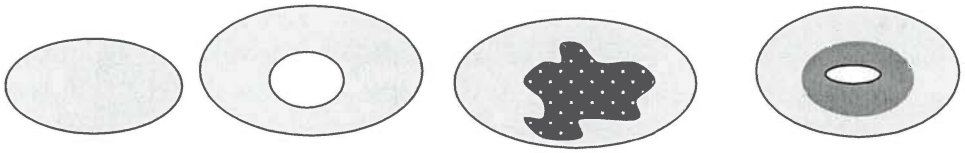
Total for page 7

Wetland name or number WKC-3

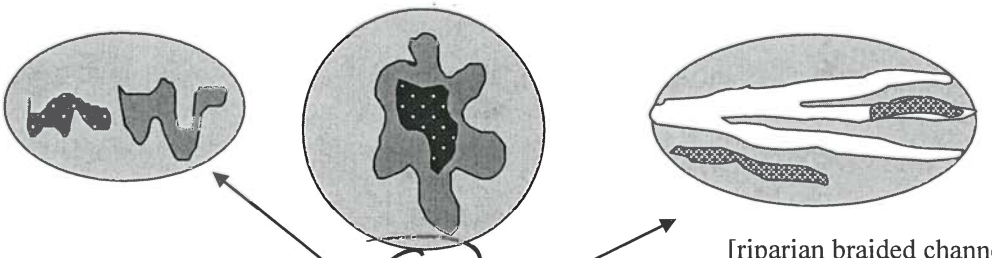
H 1.4. Interspersion of habitats *(see p. 76)*

Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.

Figure ___



None = 0 points Low = 1 point Moderate = 2 points



High = 3 points [riparian braided channels]

NOTE: If you have four or more classes or three vegetation classes and open water the rating is always "high". Use map of Cowardin vegetation classes

3

H 1.5. Special Habitat Features: *(see p. 77)*

Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column.

X Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long).

X Standing snags (diameter at the bottom > 4 inches) in the wetland

___ Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream (or ditch) in, or contiguous with the unit, for at least 33 ft (10m)

___ Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet turned grey/brown)*

X At least ¼ acre of thin-stemmed persistent vegetation or woody branches are present in areas that are permanently or seasonally inundated. *(structures for egg-laying by amphibians)*

___ Invasive plants cover less than 25% of the wetland area in each stratum of plants

NOTE: The 20% stated in early printings of the manual on page 78 is an error.

3

H 1. TOTAL Score - potential for providing habitat
Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5

13

Comments

Wetland name or number WKC-3

H 2. Does the wetland unit have the opportunity to provide habitat for many species?	
H 2.1 Buffers ***(see p. 80)*** *Choose the description that best represents condition of buffer of wetland unit. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed."* — 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No structures are within the undisturbed part of buffer. (relatively undisturbed also means no-grazing, no landscaping, no daily human use) **Points = 5** — 100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. **Points = 4** — 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% circumference. **Points = 4** — 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference, . **Points = 3** — 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference. **Points = 3** **If buffer does not meet any of the criteria above** — No paved areas (except paved trails) or buildings within 25 m (80ft) of wetland > 95% circumference. Light to moderate grazing, or lawns are OK. **Points = 2** — No paved areas or buildings within 50m of wetland for >50% circumference. Light to moderate grazing, or lawns are OK. **Points = 2** — Heavy grazing in buffer. **Points = 1** — Vegetated buffers are <2m wide (6.6ft) for more than 95% of the circumference (e.g. tilled fields, paving, basalt bedrock extend to edge of wetland **Points = 0.** X — Buffer does not meet any of the criteria above. **Points = 1** Aerial photo showing buffers	**Figure ___** 1
H 2.2 Corridors and Connections ***(see p. 81)*** H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (*dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor*). YES = **4 points** (*go to H 2.3*) NO = go to H 2.2.2 H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? **OR** a **Lake-fringe** wetland, if it does not have an undisturbed corridor as in the question above? YES = **2 points** (*go to H 2.3*) NO = H 2.2.3 H 2.2.3 Is the wetland: within 5 mi (8km) of a brackish or salt water estuary OR within 3 mi of a large field or pasture (>40 acres) OR within 1 mi of a lake greater than 20 acres? YES = **1 point** NO = **0 points**	1

Total for page 2

Wetland name or number WKC-3

H 2.3 Near or adjacent to other priority habitats listed by WDFW ***(see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)***

Which of the following priority habitats are within 330ft (100m) of the wetland unit? *NOTE: the connections do not have to be relatively undisturbed.*

____**Aspen Stands:** Pure or mixed stands of aspen greater than 0.4 ha (1 acre).

____**Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report p. 152*).

____**Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

____**Old-growth/Mature forests:** (Old-growth west of Cascade crest) Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west of the Cascade crest.

____**Oregon white Oak:** Woodlands Stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

____**Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

____ **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report: pp. 167-169 and glossary in Appendix A).*

____**Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

____**Cliffs:** Greater than 7.6 m (25 ft) high and occurring below 5000 ft.

____**Talus:** Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30 cm (12 in) in diameter at the largest end, and > 6 m (20 ft) long.

If wetland has **3 or more** priority habitats = **4 points**
If wetland has **2** priority habitats = **3 points**
If wetland has **1** priority habitat = **1 point** No habitats = 0 points

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H 2.4)

4

(Bear Cr. Corridor is w/in 100m

Wetland name or number WKC-3

H 2.4 Wetland Landscape *(choose the **one** description of the landscape around the wetland that best fits)* ***(see p. 84)*** There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development. points = 5 The wetland is Lake-fringe on a lake with little disturbance and there are 3 other lake-fringe wetlands within ½ mile points = 5 There are at least 3 other wetlands within ½ mile, BUT the connections between them are disturbed points = 3 The wetland is Lake-fringe on a lake **with** disturbance and there are 3 other lake-fringe wetland within ½ mile points = 3 There is at least 1 wetland within ½ mile. points = 2 There are no wetlands within ½ mile. points = 0	3
H 2. TOTAL Score - opportunity for providing habitat *Add the scores from H2.1,H2.2, H2.3, H2.4*	9
TOTAL for H 1 from page 14	13
Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1	22

Wetland name or number WKC-3

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate answers and Category.

Wetland Type *Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.*	**Category**
SC 1.0 Estuarine wetlands ***(see p. 86)*** Does the wetland unit meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt. YES = Go to SC 1.1 NO X	
SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? YES = Category I NO go to SC 1.2	**Cat. I**
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions? YES = Category I NO = Category II — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native *Spartina* spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II). The area of Spartina would be rated a Category II while the relatively undisturbed upper marsh with native species would be a Category I. Do not, however, exclude the area of Spartina in determining the size threshold of 1 acre. — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least 2 of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.	**Cat. I** **Cat. II** **Dual rating I/II**

Wetland name or number WKC-3

SC 2.0 Natural Heritage Wetlands *(see p. 87)* Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species. SC 2.1 Is the wetland unit being rated in a Section/Township/Range that contains a Natural Heritage wetland? *(this question is used to screen out most sites before you need to contact WNHP/DNR)* S/T/R information from Appendix D ~~X~~ or accessed from WNHP/DNR web site X YES____ – contact WNHP/DNR (see p. 79) and go to SC 2.2 NO ~~X~~ SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species? YES = Category I NO ____not a Heritage Wetland	**Cat. I**
SC 3.0 Bogs *(see p. 87)* Does the wetland unit (**or any part of the unit**) meet both the criteria for soils and vegetation in bogs? *Use the key below to identify if the wetland is a bog.* ***If you answer yes you will still need to rate the wetland based on its functions.*** 1. Does the unit have organic soil horizons (i.e. layers of organic soil), either peats or mucks, that compose 16 inches or more of the first 32 inches of the soil profile? (See Appendix B for a field key to identify organic soils)? Yes - go to Q. 3 (No) - go to Q. 2 2. Does the unit have organic soils, either peats or mucks that are less than 16 inches deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on a lake or pond? Yes - go to Q. 3 (No) - Is not a bog for purpose of rating 3. Does the unit have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists of species in Table 3)? Yes – Is a bog for purpose of rating No - go to Q. 4 NOTE: If you are uncertain about the extent of mosses in the understory you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog. *1.* Is the unit forested (> 30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover *(> 30% coverage of the total shrub/herbaceous cover)?* 2. YES = Category I No___ Is not a bog for purpose of rating	**Cat. I**

Wetland name or number WKC-3

SC 4.0 Forested Wetlands *(see p. 90)* Does the wetland unit have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? *If you answer yes you will still need to rate the wetland based on its functions.* — **Old-growth forests**: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more. NOTE: The criterion for dbh is based on measurements for upland forests. Two-hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter. — **Mature forests**: (west of the Cascade Crest) Stands where the largest trees are 80 – 200 years old OR have average diameters (dbh) exceeding 21 inches (53cm); crown cover may be less that 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth. YES = Category I NO X not a forested wetland with special characteristics	**Cat. I**
SC 5.0 Wetlands in Coastal Lagoons *(see p. 91)* Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains surface water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* YES = Go to SC 5.1 NO X not a wetland in a coastal lagoon SC 5.1 Does the wetland meets all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of invasive plant species (see list of invasive species on p. 74). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than 1/10 acre (4350 square feet) YES = Category I NO = Category II	**Cat. I** **Cat. II**

Wetland name or number WKC-3

SC 6.0 Interdunal Wetlands *(see p. 93)* Is the wetland unit west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? YES - go to SC 6.1 NO X not an interdunal wetland for rating ***If you answer yes you will still need to rate the wetland based on its functions.*** In practical terms that means the following geographic areas: • Long Beach Peninsula- lands west of SR 103 • Grayland-Westport- lands west of SR 105 • Ocean Shores-Copalis- lands west of SR 115 and SR 109 SC 6.1 Is the wetland one acre or larger, or is it in a mosaic of wetlands that is once acre or larger? YES = Category II NO – go to SC 6.2 SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre? YES = Category III	**Cat. II** **Cat. III**
Category of wetland based on Special Characteristics *Choose the "highest" rating if wetland falls into several categories, and record on p. 1.* If you answered NO for all types enter "Not Applicable" on p.1	

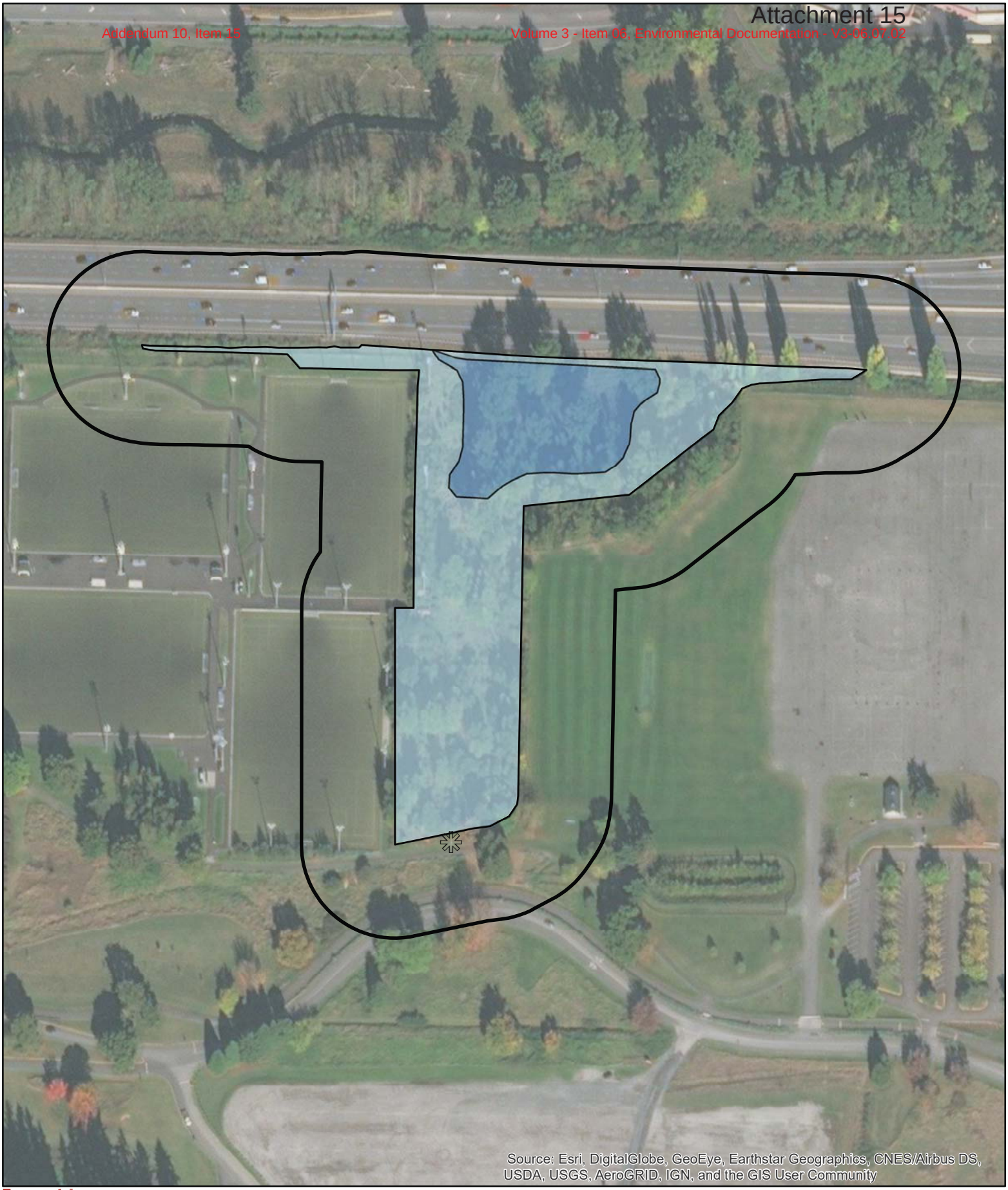
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

Wetland WKC-3
Palustrine Emergent
Palustrine Scrub Shrub
Palustrine Forested
Outlet
150 ft buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

Wetland WKC-3
Saturated Only
Seasonally Flooded or Inundated
Outlet
150 ft buffer

HYDROPERIODS

Redmond Link
554-3164-060

Parametrix
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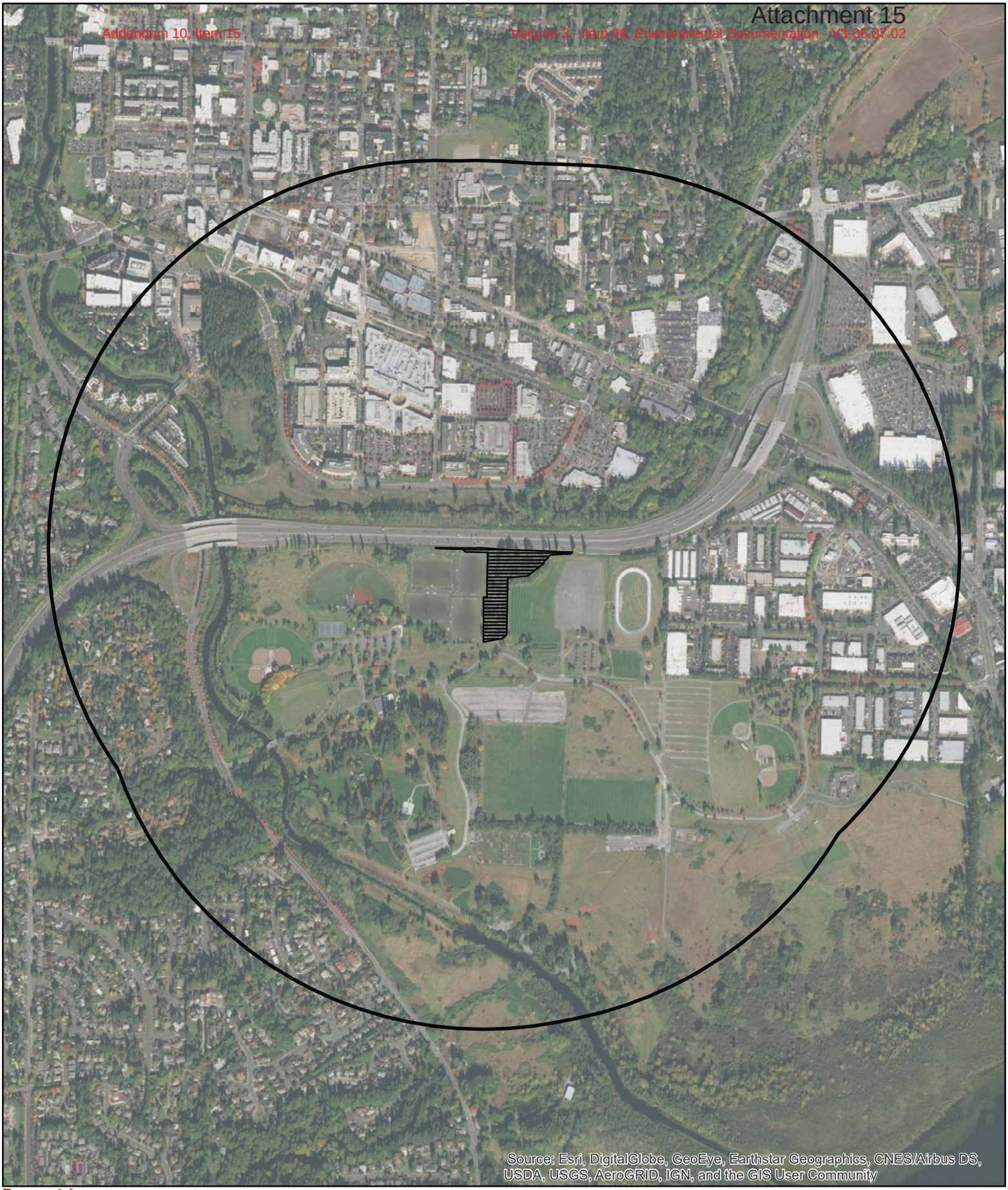
Kilometers
0 0.075 0.15

Wetland WKC-3
Contributing Basin
Outlet

CONTRIBUTING BASIN

Redmond Link
554-3164-060



Parametrix
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Kilometers
0 0.275 0.55

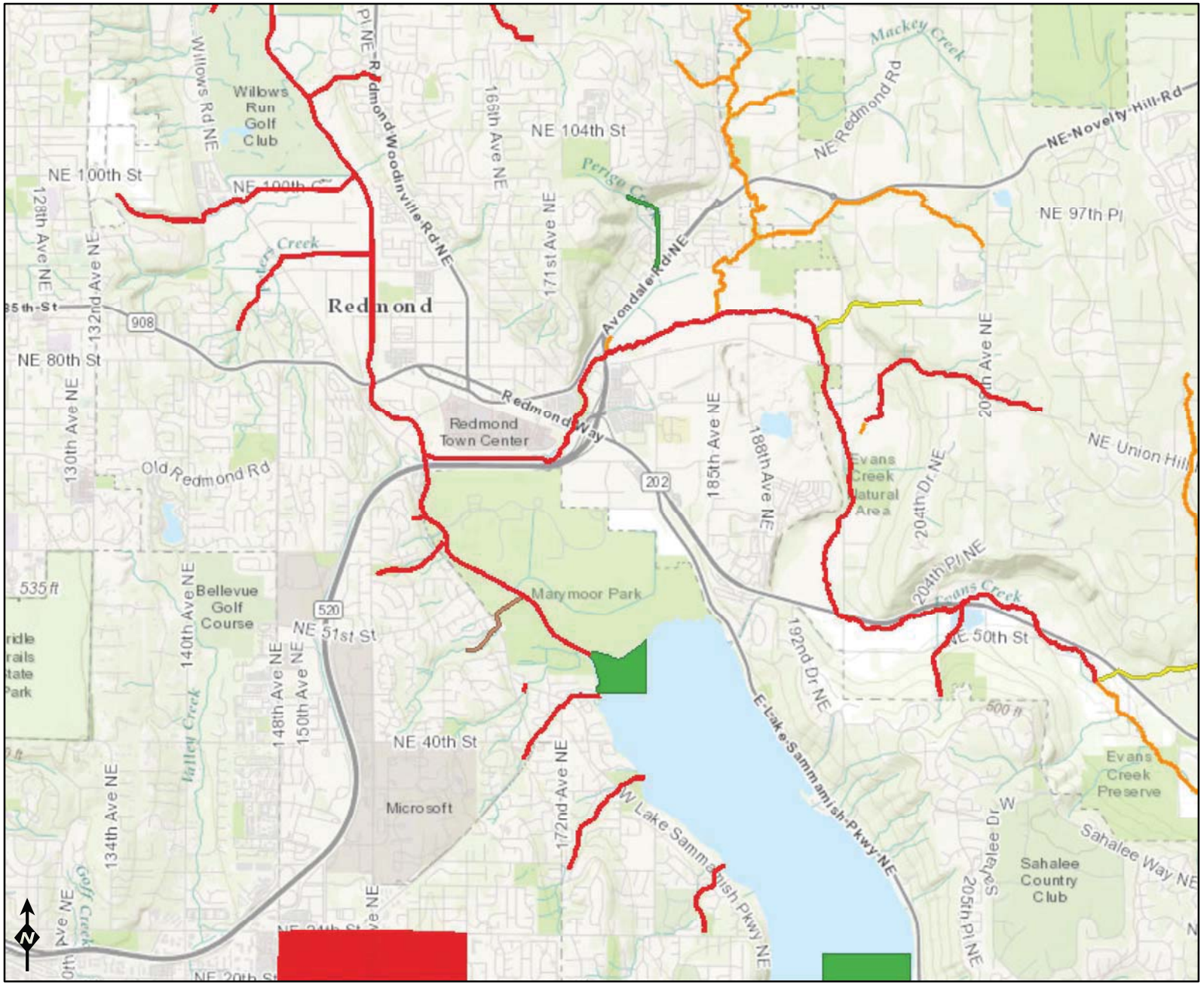
1 km Polygon

Wetland WKC-3

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WKC-3

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WKC-3 Date of site visit: 3/7, 4/12, 4/17 5/2/2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating Depressional Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map Bing / KC / ESRI

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 - 27

_____**Category II** – Total score = 20 - 22

X **Category III** – Total score = 16 - 19

_____**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the appropriate ratings		
Site Potential	H (M) L	H (M) L	H (M) L	
Landscape Potential	H (M) L	(H) M L	H M (L)	
Value	(H) M L	H M (L)	(H) M L	TOTAL
Score Based on Ratings	7	6	6	19

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WKE-3

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WKC-3

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?

___The wetland is on a slope (*slope can be very gradual*),

___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

___The overbank flooding occurs at least once every 2 years.

Wetland name or number WKC-3

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WKC-3

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?

D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	points = 2	2
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*.	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > $^1/_{10}$ of area	points = 1	5
Wetland has persistent, ungrazed plants < $^1/_{10}$ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in manual.		
Area seasonally ponded is > ½ total area of wetland	points = 4	
Area seasonally ponded is > ¼ total area of wetland	points = 2	2
Area seasonally ponded is < ¼ total area of wetland	points = 0	
Total for D 1	Add the points in the boxes above	9

Rating of Site Potential If score is: ___**12-16 = H** X **6-11 = M** ___**0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?

D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___**3 or 4 = H** X **1 or 2 = M** ___**0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WKC-3

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.* Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	3
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.* The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	5
Total for D 4 Add the points in the boxes above	10

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5 Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.* The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): • Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 • Surface flooding problems are in a sub-basin farther down-gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____ points = 0 There are no problems with flooding downstream of the wetland. points = 0	0
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for D 6 Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WKC-3

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___ Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___ Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
___ Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ **Lake Fringe wetland**	**2 points**
___ **Freshwater tidal wetland**	**2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

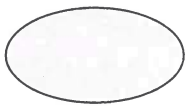
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

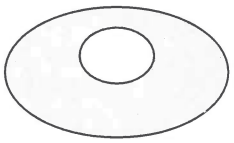
2

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



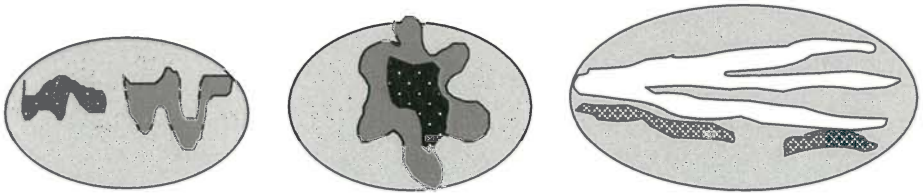
None = 0 points



Low = 1 point

Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



3

Wetland name or number WKC-3

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland ___ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ___ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	3
Total for H 1 Add the points in the boxes above	13

Rating of Site Potential If score is:___**15-18 = H** X **7-14 = M** ___**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 9 + [(% moderate and low intensity land uses)/2] 2 = 11 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	1
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 13 + [(% moderate and low intensity land uses)/2] 12.5 = 25.5 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 X It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is:X **2 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WKC-3

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X — **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WKC-3

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? (Yes – Go to **SC 2.2**) No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No = **Not a WHCV**) SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No – Go to **SC 3.2**) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No = **Is not a bog**) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WKC-3

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

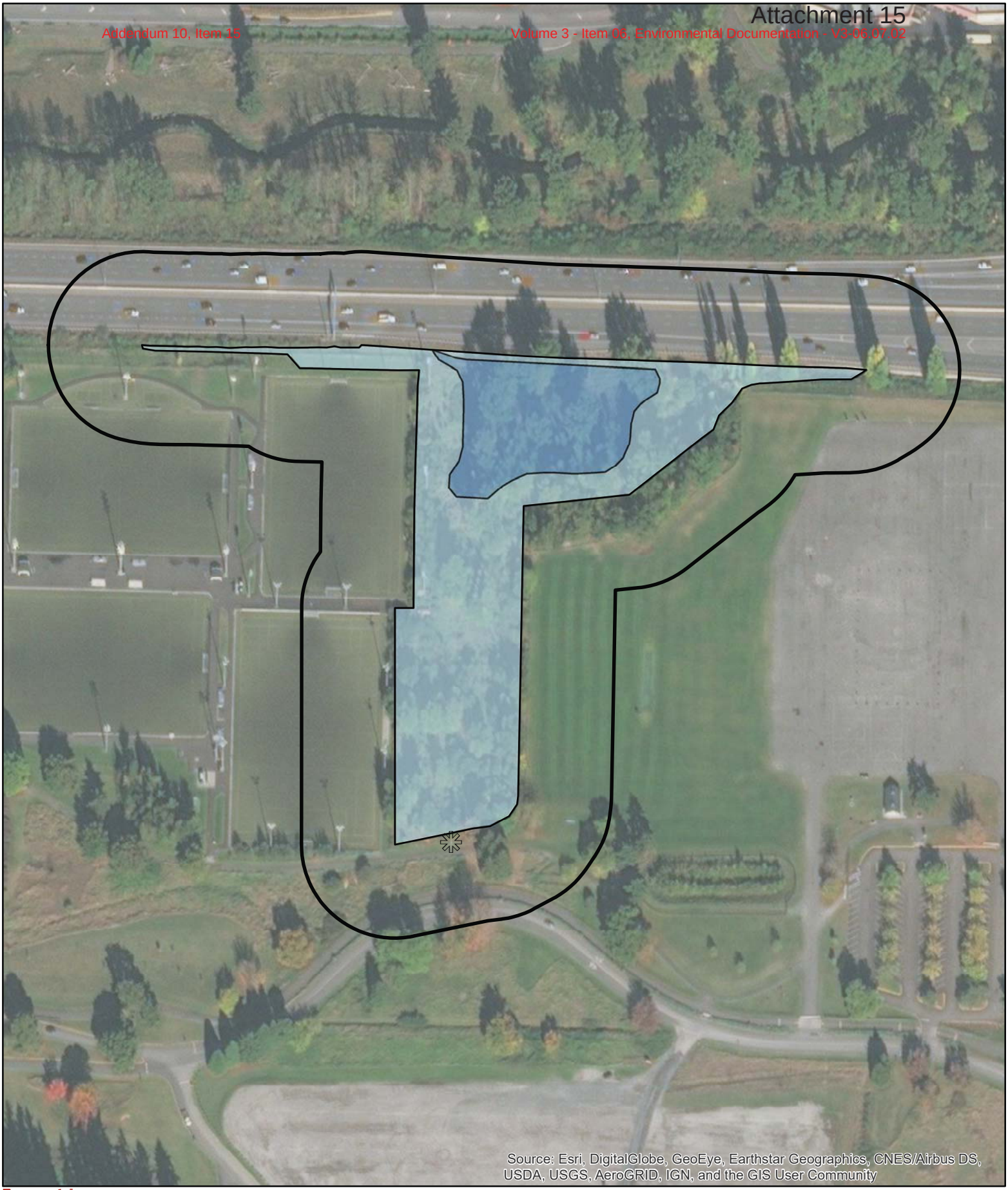
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

Wetland WKC-3
Palustrine Emergent
Palustrine Scrub Shrub
Palustrine Forested
Outlet
150 ft buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

Wetland WKC-3
Saturated Only
Seasonally Flooded or Inundated
Outlet
150 ft buffer

HYDROPERIODS

Redmond Link
554-3164-060

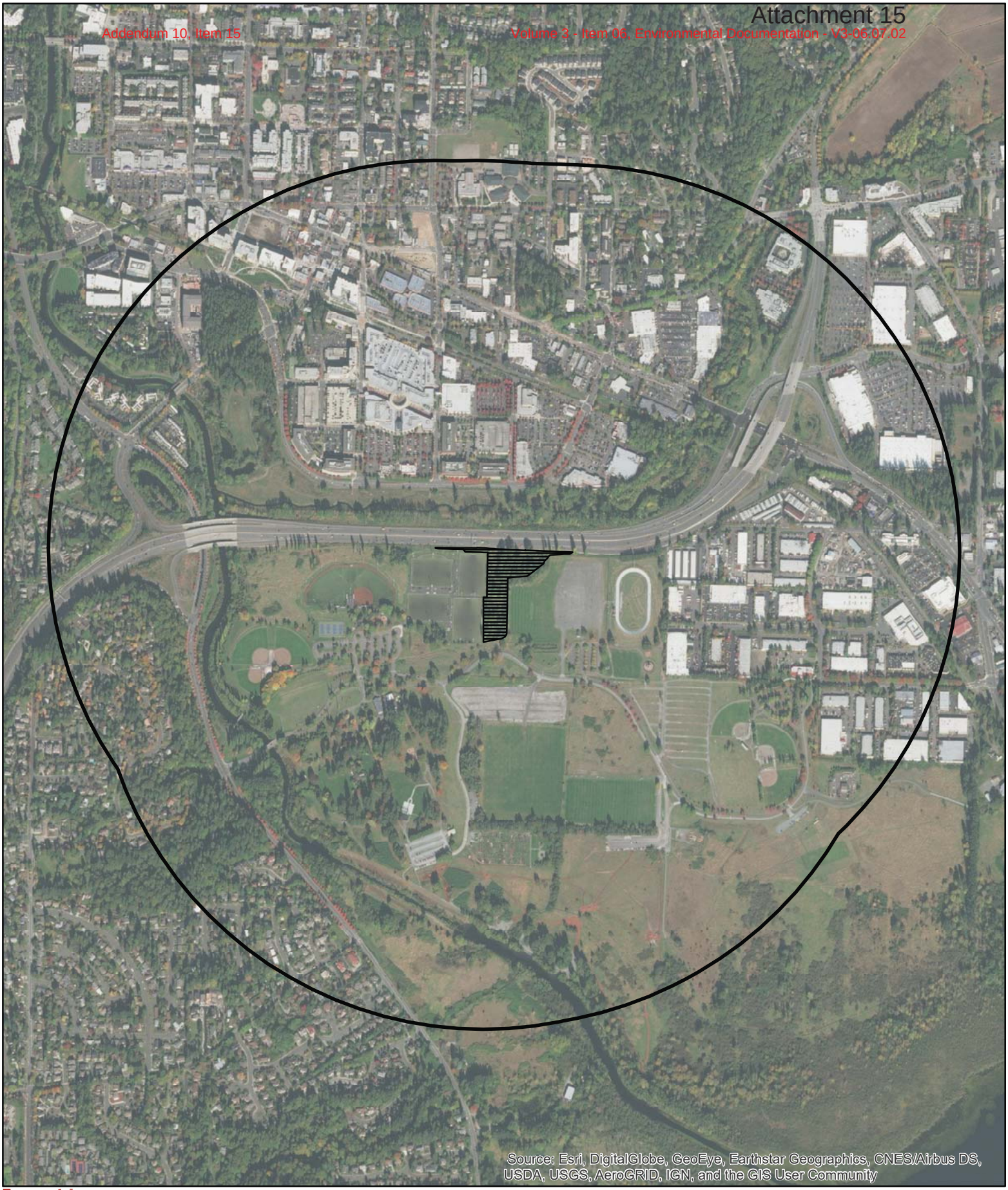
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.075 0.15

Wetland WKC-3
Contributing Basin
Outlet

CONTRIBUTING BASIN

Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.275 0.55

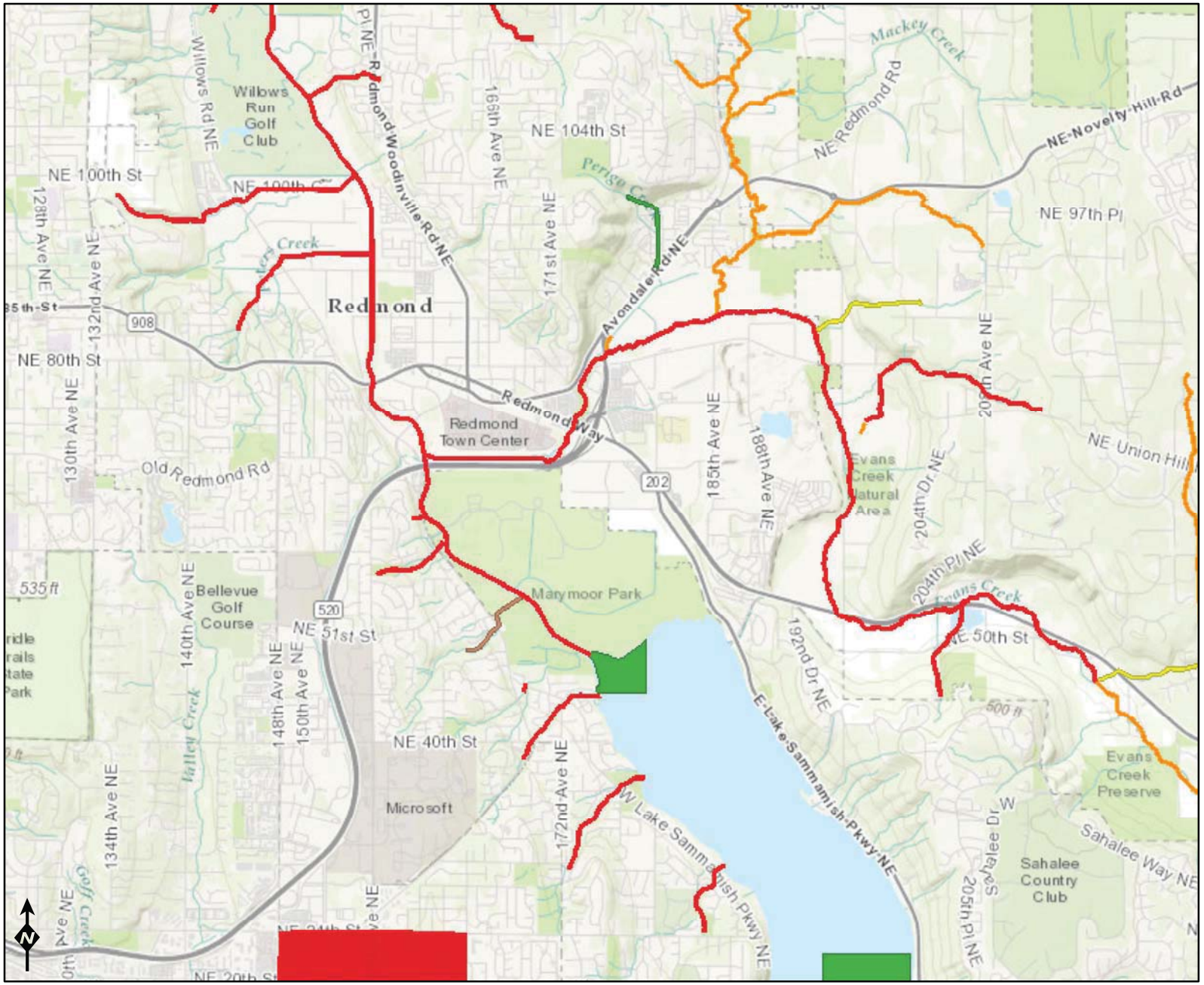
1 km Polygon

Wetland WKC-3

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-1

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-1 Date of site visit: 5/30/17

Rated by J. WOZNIAK Trained by Ecology? X Yes ___ No Date of training 2015

HGM Class used for rating Slope Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map BING / KING COUNTY

OVERALL WETLAND CATEGORY IV (based on functions X or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27

___ **Category II** – Total score = 20 - 22

___ **Category III** – Total score = 16 - 19

X **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H M (L)	H M (L)	H M (L)	
Landscape Potential	H (M) L	H (M) L	H M (L)	
Value	(H) M L	H M (L)	H (M) L	TOTAL
Score Based on Ratings	6	4	4	14

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-1

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-1

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

   NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

   1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

   NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
   *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

   NO – go to 3 **YES** – The wetland class is **Flats**
   *If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

   NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ✓ The wetland is on a slope (*slope can be very gradual*),
   ✓ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ✓ The water leaves the wetland **without being impounded**.

   NO – go to 5 **YES** – The wetland class is **Slope**

   NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-1

NO – go to 6 **YES** – The wetland class is **Riverine**
NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-1

SLOPE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: *(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)* Slope is 1% or less — points = 3 Slope is > 1%-2% — points = 2 Slope is > 2%-5% — points = 1 Slope is greater than 5% — points = 0	0
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*: Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. *Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.* Dense, uncut, herbaceous plants > 90% of the wetland area — points = 6 Dense, uncut, herbaceous plants > ½ of area — points = 3 Dense, woody, plants > ½ of area — points = 2 Dense, uncut, herbaceous plants > ¼ of area — points = 1 Does not meet any of the criteria above for plants — points = 0	3
Total for S 1 — Add the points in the boxes above	3

Rating of Site Potential If score is: ___12 = H ___6-11 = M X 0-5 = L *Record the rating on the first page*

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources ROADWAY DEBRIS Yes = 1 No = 0	1
Total for S 2 — Add the points in the boxes above	2

Rating of Landscape Potential If score is: X 1-2 = M ___0 = L *Record the rating on the first page*

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? *At least one aquatic resource in the basin is on the 303(d) list.* Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? *Answer YES if there is a TMDL for the basin in which unit is found.* Yes = 2 No = 0	2
Total for S 3 — Add the points in the boxes above	4

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number W2E-1

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. *Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.* Dense, uncut, **rigid** plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	0

Rating of Site Potential If score is: ___ **1 = M** X **0 = L** *Record the rating on the first page*

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? Yes = 1 No = 0	1

Rating of Landscape Potential If score is: X **1 = M** ___ **0 = L** *Record the rating on the first page*

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems: The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2 Surface flooding problems are in a sub-basin farther down-gradient points = 1 No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0
Total for S 6 Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

Wetland name or number WRE-1

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___Aquatic bed	4 structures or more: points = 4
_X_Emergent	3 structures: points = 2
___Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
___Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

___The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___Permanently flooded or inundated	4 or more types present: points = 3
___Seasonally flooded or inundated	3 types present: points = 2
___Occasionally flooded or inundated	2 types present: points = 1
_X_Saturated only	1 type present: points = 0
___Permanently flowing stream or river in, or adjacent to, the wetland	
___Seasonally flowing stream in, or adjacent to, the wetland	
___**Lake Fringe wetland**	**2 points**
___**Freshwater tidal wetland**	**2 points**

0

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

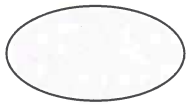
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

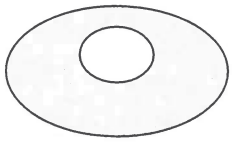
0

H 1.4. Interspersion of habitats

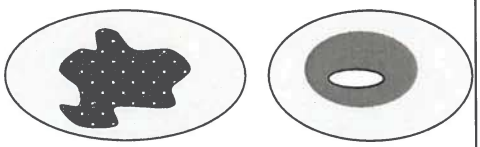
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

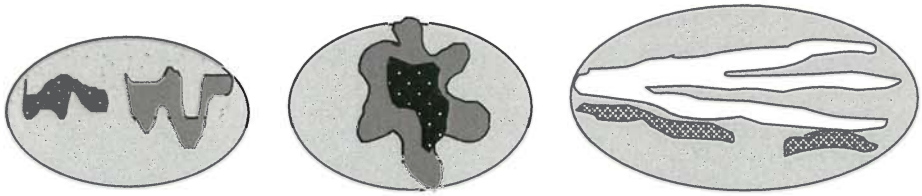


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



0

Wetland name or number WRE-1

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ____Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ____Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	0

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 0 + [(% moderate and low intensity land uses)/2] 1 = 0.5 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 3 + [(% moderate and low intensity land uses)/2] 2.5 = 5.5 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	0
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-2

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m Talus (Riprap) points = 1 Site does not meet any of the criteria above points = 0	1

Rating of Value If score is:___**2 = H** X **1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-1

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

X **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

→ 5th Overpass

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

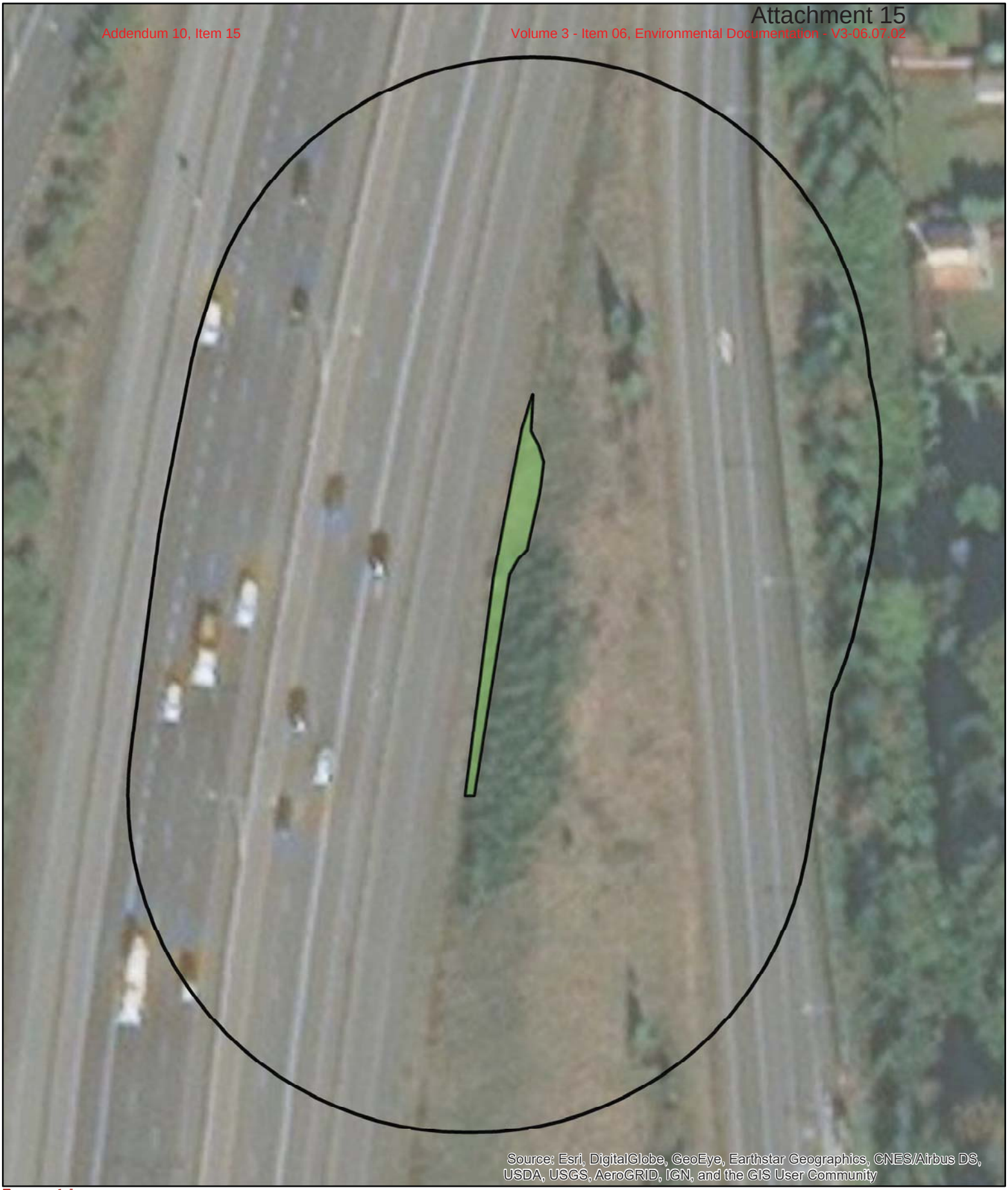
Wetland name or number WRE-1

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (circled) No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** (circled) No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** (circled) SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** (circled) SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV** (circled)	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** (circled) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** (circled) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-1

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	



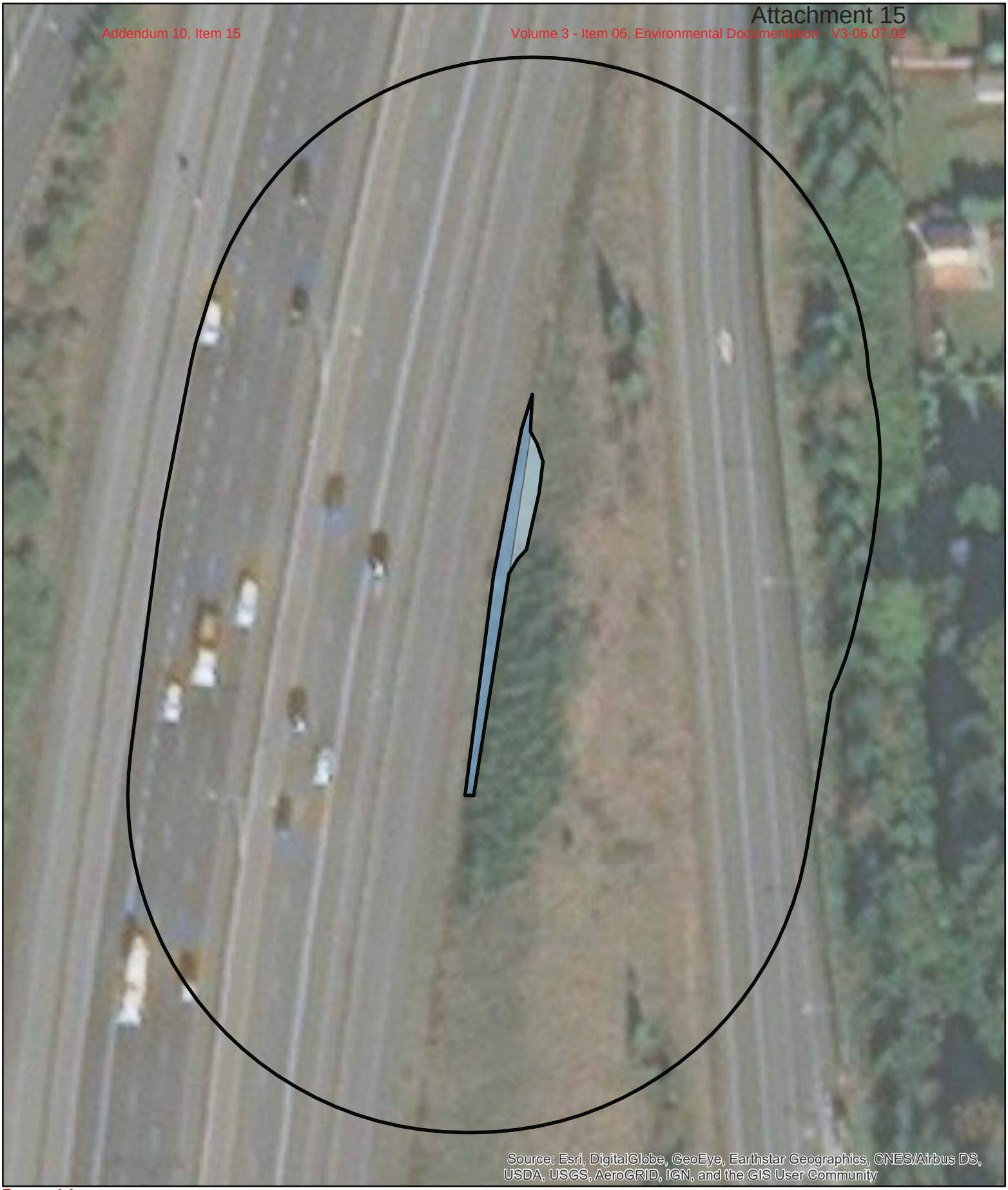
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.015 0.03

Palustrine Emergent
Wetland WRE-1
150 ft Buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060

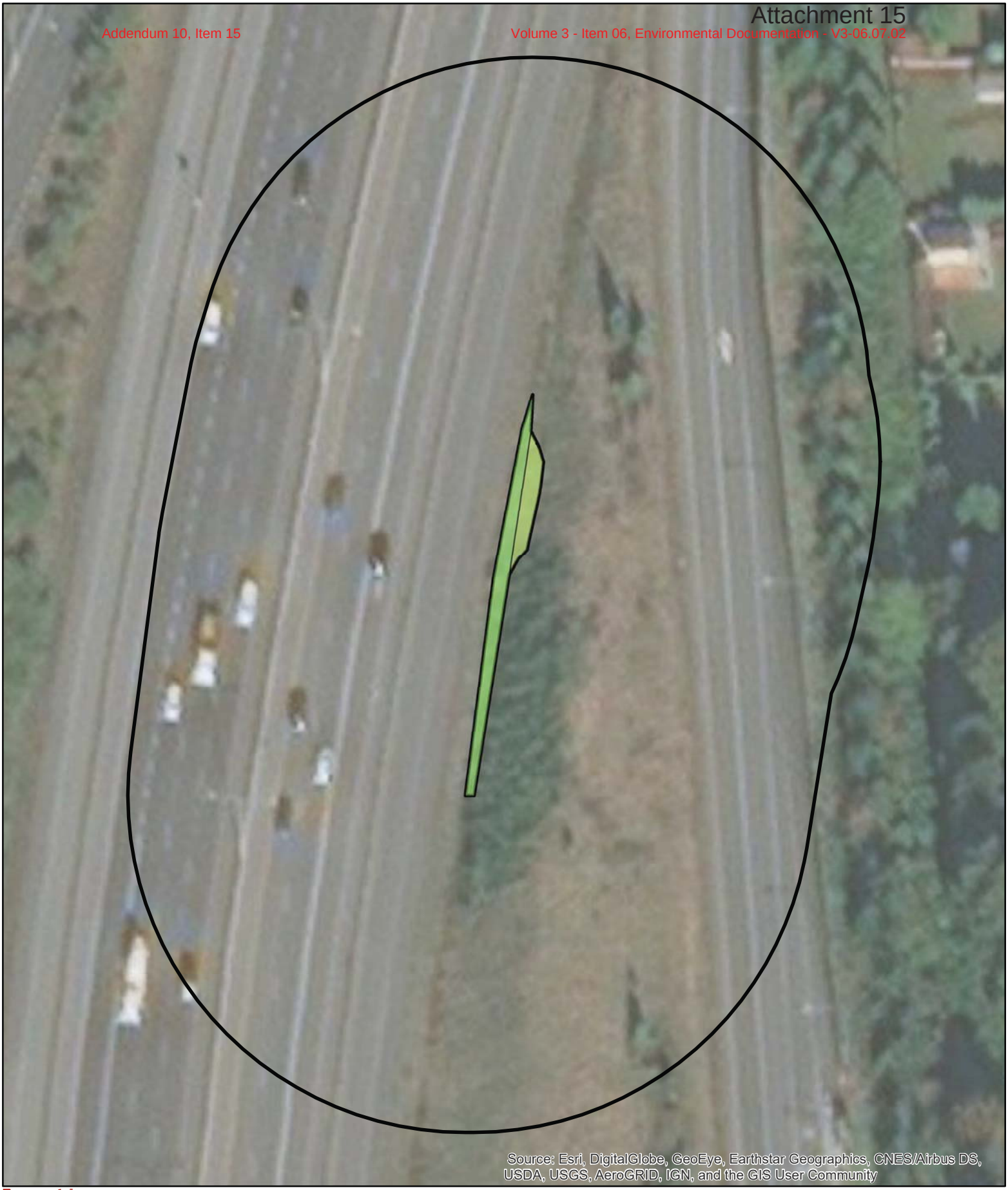


Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.015 0.03

Wetland WRE-1
Saturated
Seasonally Flooded or Inundated
150 ft Buffer

HYDROPERIODS
Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.015 0.03

Dense Herbaceous Plants
Dense Rigid Herbaceous Plants
150 ft Buffer
Wetland WRE-1

PLANT COVER
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

0 0.25 0.5 Kilometers

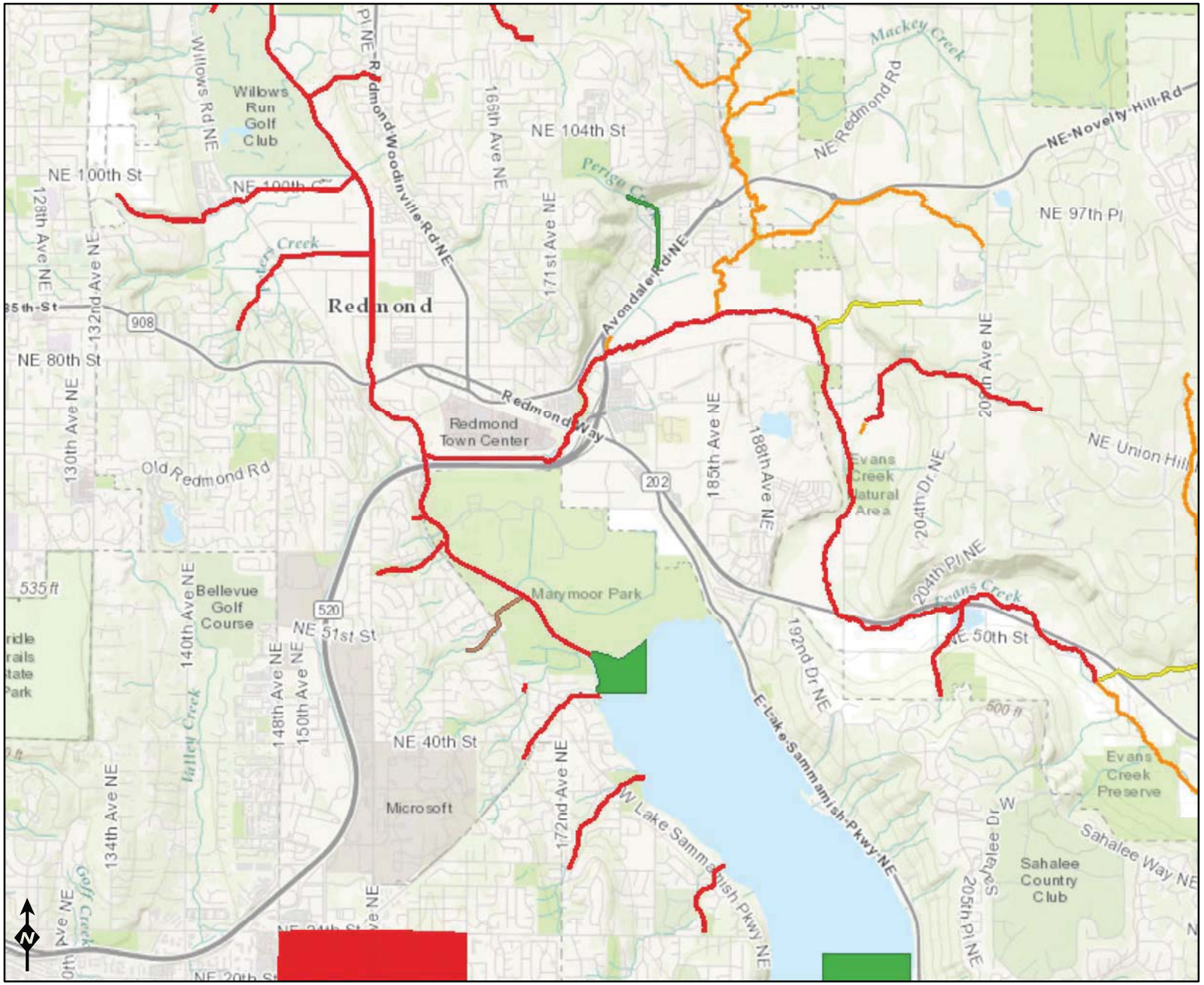
1 km Polygon

Wetland WRE-1

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-2

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-2 Date of site visit: 5/30/17

Rated by J. WOZNIAK Trained by Ecology? X Yes ___ No Date of training 2015

HGM Class used for rating Slope Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map Bing/KC

OVERALL WETLAND CATEGORY IV (based on functions X or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27

___ **Category II** – Total score = 20 - 22

___ **Category III** – Total score = 16 - 19

X **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H M (L)	H M (L)	H M (L)	
Landscape Potential	H (M) L	H (M) L	H M (L)	
Value	(H) M L	H M (L)	H M (L)	TOTAL
Score Based on Ratings	6	4	3	13

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-2

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-2

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?

___The wetland is on a slope (*slope can be very gradual*),

___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES** – The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-2

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

   NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-2

SLOPE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: *(a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)*		
Slope is 1% or less	points = 3	
Slope is > 1%-2%	points = 2	2
Slope is > 2%-5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*: Yes = 3 No = 0		0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. *Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.*		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	3
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > ¼ of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1	Add the points in the boxes above	5

Rating of Site Potential If score is: ___12 = H ___6-11 = M X 0-5 = L *Record the rating on the first page*

S 2.0. Does the landscape have the potential to support the water quality function of the site?		
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources _____	Yes = 1 No = 0	0
Total for S 2	Add the points in the boxes above	1

Rating of Landscape Potential If score is: X 1-2 = M ___0 = L *Record the rating on the first page*

S 3.0. Is the water quality improvement provided by the site valuable to society?		
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? *At least one aquatic resource in the basin is on the 303(d) list.*	Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? *Answer YES if there is a TMDL for the basin in which unit is found.*	Yes = 2 No = 0	2
Total for S 3	Add the points in the boxes above	4

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number WRE-2

SLOPE WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion

S 4.0. Does the site have the potential to reduce flooding and stream erosion?

S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. *Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows.*		
Dense, uncut, **rigid** plants cover > 90% of the area of the wetland	points = 1	0
All other conditions	points = 0	

Rating of Site Potential If score is: ___ **1 = M** X **0 = L** *Record the rating on the first page*

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff?	Yes = 1 No = 0	1

Rating of Landscape Potential If score is: X **1 = M** ___ **0 = L** *Record the rating on the first page*

S 6.0. Are the hydrologic functions provided by the site valuable to society?

S 6.1. Distance to the nearest areas downstream that have flooding problems:		
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	0
No flooding problems anywhere downstream	points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6	Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

Wetland name or number WRE-2

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed	4 structures or more: points = 4
____Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
____Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

____Permanently flooded or inundated	4 or more types present: points = 3
____Seasonally flooded or inundated	3 types present: points = 2
____Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
____Permanently flowing stream or river in, or adjacent to, the wetland	
____Seasonally flowing stream in, or adjacent to, the wetland	
____**Lake Fringe wetland**	**2 points**
____**Freshwater tidal wetland**	**2 points**

0

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

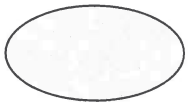
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

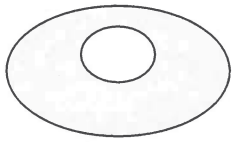
0

H 1.4. Interspersion of habitats

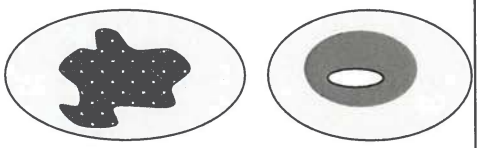
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

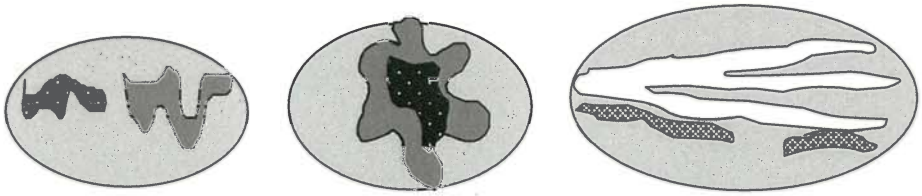


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



0

Wetland name or number WRE-2

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ____Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ____Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	0

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1 + [(% moderate and low intensity land uses)/2] 0.5 = 3.5 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 3 + [(% moderate and low intensity land uses)/2] 2.5 = 5.5 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	0
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-2

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	0

Rating of Value If score is:___**2 = H** ___**1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WLE-2

WDFW Priority Habitats None

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WKE-2

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? (Yes) – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No = **Not a WHCV**) SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes **– Contact WNHP/WDNR and go to SC 2.4** (No = **Not a WHCV**) SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No = **Not a WHCV**)	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No – Go to **SC 3.2**) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No = **Is not a bog**) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-2

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0125 0.025

Wetland WRE-2
Palustrine Emergent
Palustrine Scrub Shrub
150 ft buffer

COWARDIN PLANT CLASS

Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0125 0.025

- Wetland WRE-2
- Seasonally Flooded or Inundated
- Saturated Only
- 150 ft buffer

HYDROPERIODS
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0125 0.025

Wetland WRE-2
Dense Herbaceous Plants
Dense Rigid Shrubs
150 ft buffer

PLANT COVER
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

0 0.25 0.5 Kilometers

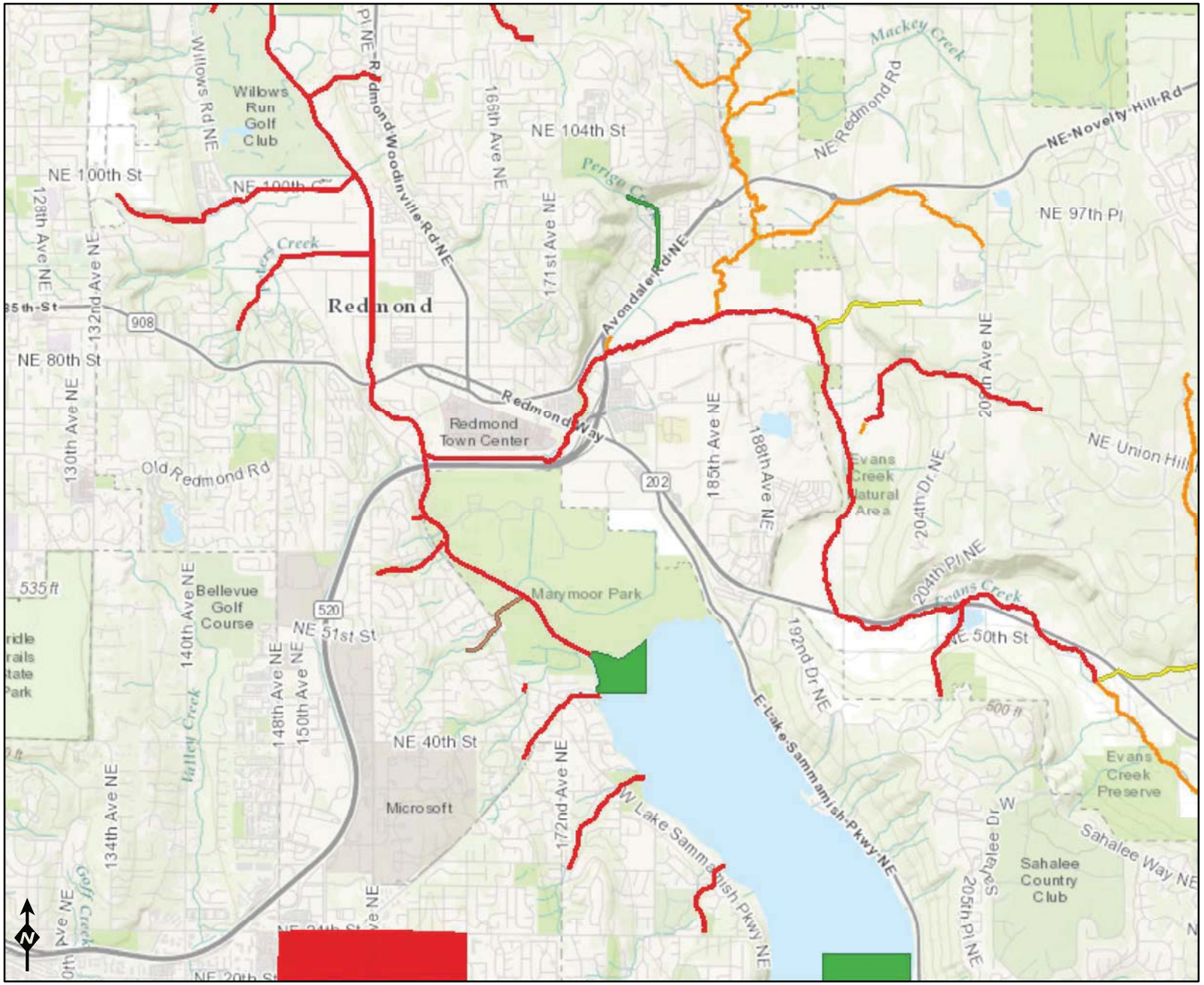
1 km Polygon

Wetland WRE-2

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-3

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-3 Date of site visit: 5/30/2013
Rated by J. Wozniak Trained by Ecology? ✓ Yes ___ No Date of training 2015
HGM Class used for rating Depressional Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map Bing/KC/ESA

OVERALL WETLAND CATEGORY IV (based on functions X or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27
___ **Category II** – Total score = 20 - 22
___ **Category III** – Total score = 16 - 19
X **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H M (L)	H M (L)	H M (L)	
Landscape Potential	H (M) L	(H) M L	H M (L)	
Value	(H) M L	H M (L)	H (M) L	TOTAL
Score Based on Ratings	6	5	4	15

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-3

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-3

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?

_✓_The wetland is on a slope (*slope can be very gradual*),

_✓_The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-3

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-3

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?

D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*.	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > $^1/_{10}$ of area	points = 1	3
Wetland has persistent, ungrazed plants < $^1/_{10}$ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in manual.		
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > ¼ total area of wetland	points = 2	
Area seasonally ponded is < ¼ total area of wetland	points = 0	
Total for D 1	Add the points in the boxes above	5

Rating of Site Potential If score is: ___ **12-16 = H** ___ **6-11 = M** X **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?

D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality *(answer YES if there is a TMDL for the basin in which the unit is found)*?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-3

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	

D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*

Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	0
Marks of ponding less than 0.5 ft (6 in)	points = 0	

D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland **unit** itself.*

The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	0
Entire wetland is in the Flats class	points = 5	

Total for D 4	Add the points in the boxes above	2

Rating of Site Potential If score is: ___**12-16 = H** ___**6-11 = M** X **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___**1 or 2 = M** ___**0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*

The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____	points = 0	0
There are no problems with flooding downstream of the wetland.	points = 0	

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 — 0

Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___**2-4 = H** ___**1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WRE-3

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed	4 structures or more: points = 4
____Emergent	3 structures: points = 2
____Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

____Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
____Occasionally flooded or inundated	2 types present: points = 1
____Saturated only	1 type present: points = 0
____Permanently flowing stream or river in, or adjacent to, the wetland	
____Seasonally flowing stream in, or adjacent to, the wetland	
____**Lake Fringe wetland**	**2 points**
____**Freshwater tidal wetland**	**2 points**

H 1.3. Richness of plant species

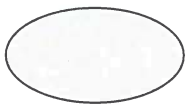
Count the number of plant species in the wetland that cover at least 10 ft^2.

Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

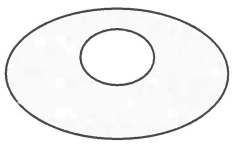
If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



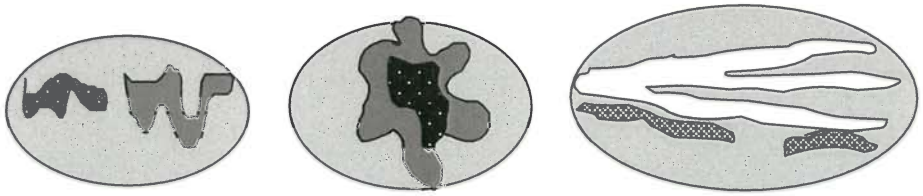
None = 0 points



Low = 1 point

Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



Wetland name or number WRE-3

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ____Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	1
Total for H 1 Add the points in the boxes above	1

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1 + [(% moderate and low intensity land uses)/2] 1.9 = 2.7 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon 6.8 points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 22 = 40 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	1

Rating of Value If score is:___**2 = H** X **1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WK-3

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

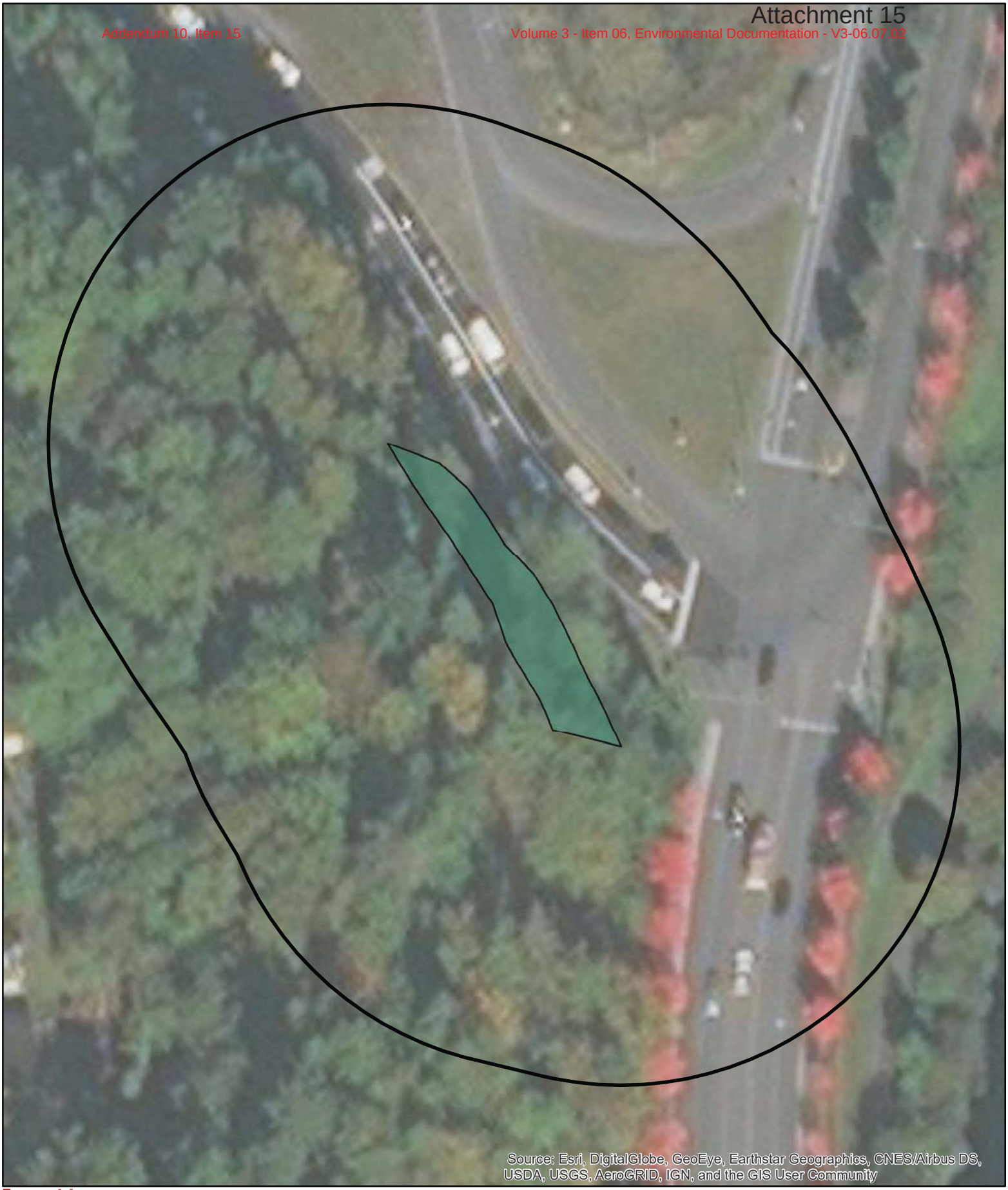
Wetland name or number WRE-3

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-3

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	



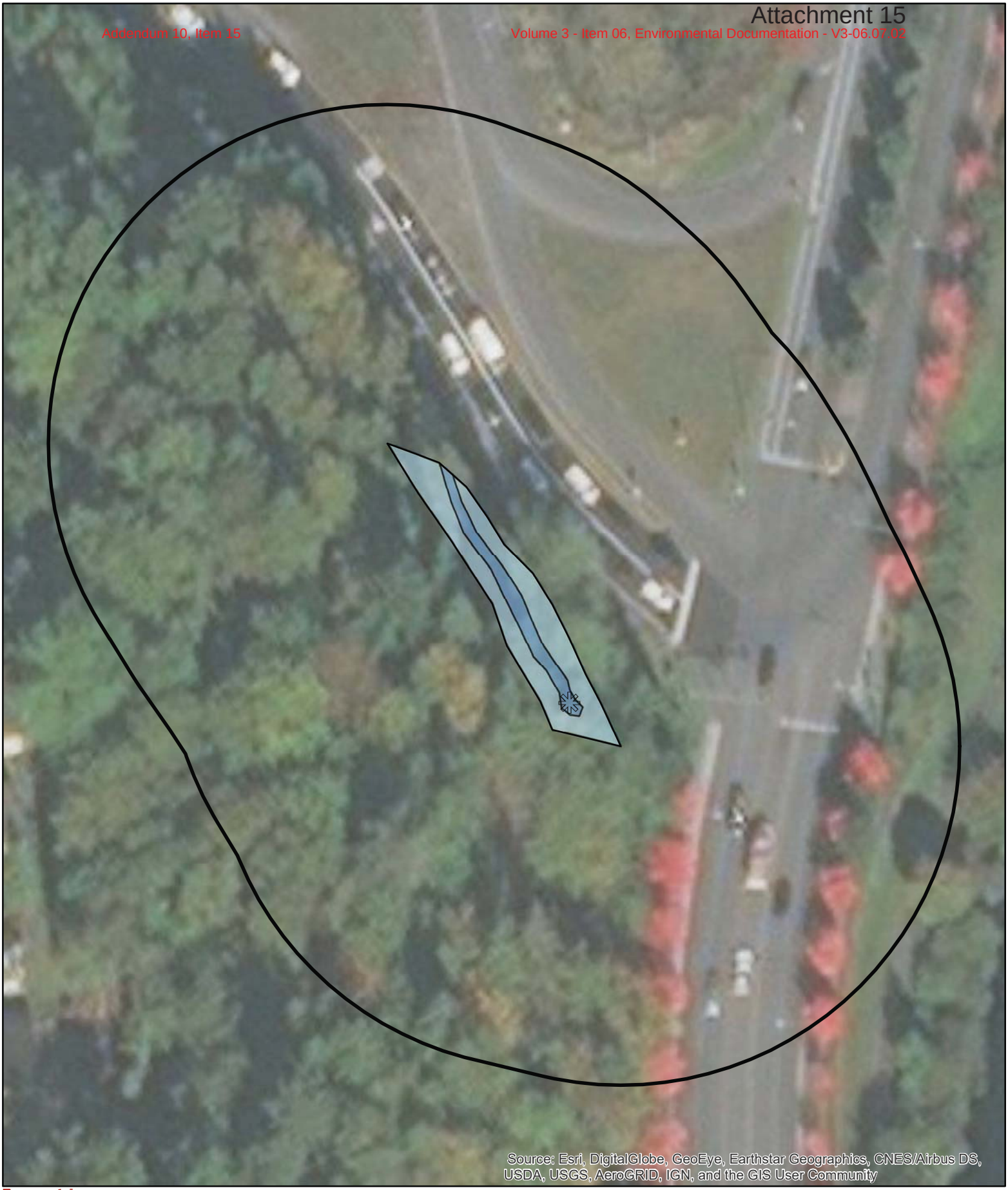
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.015 0.03

Wetland WRE-3
Palustrine Forested
150 ft Buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060



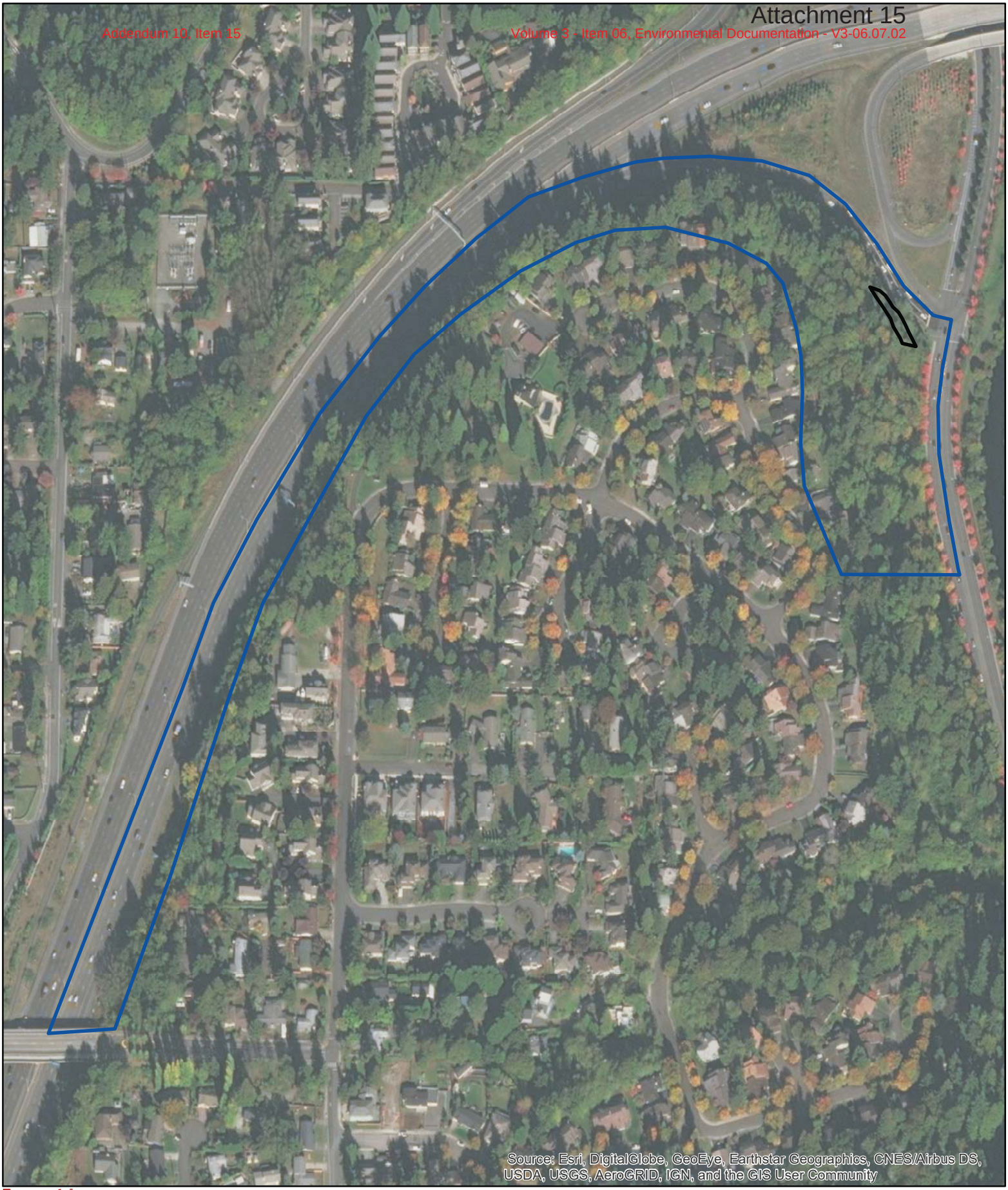
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.015 0.03

Wetland WRE-3
Seasonally Flooded or Inundated
Saturated Only
150 ft Buffer
Outlet

HYDROPERIODS

Redmond Link
554-3164-060



Parametrix
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Kilometers
0 0.075 0.15

Contributing Basin
Wetland WRE-3

CONTRIBUTING BASIN

Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.25 0.5

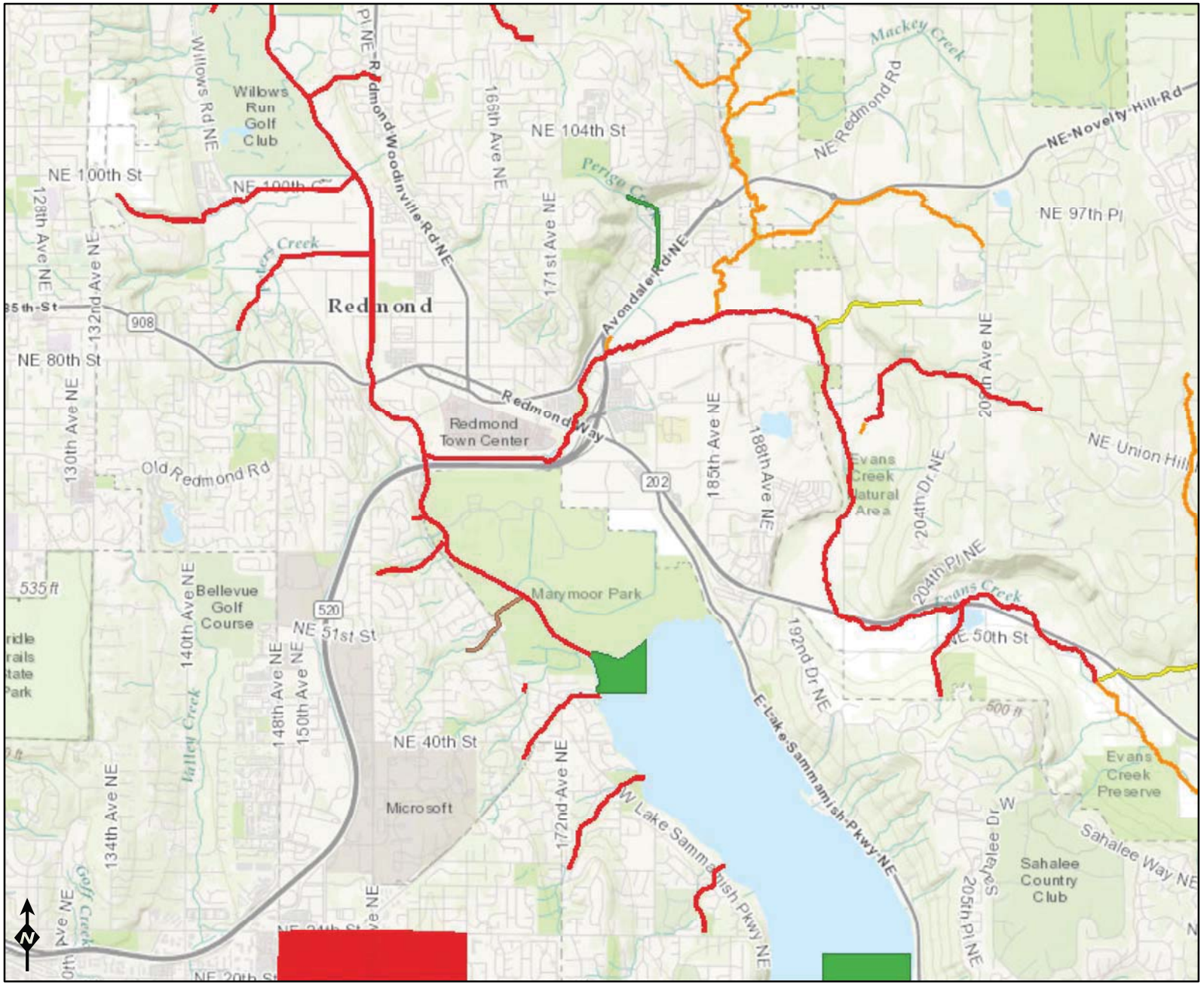
1 km Polygon

Wetland WRE-3

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-4

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-4 Date of site visit: 5/4/2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating Depressional Wetland has multiple HGM classes? X Y ___N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map Bing / King Co.

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

___**Category I** – Total score = 23 - 27

___**Category II** – Total score = 20 - 22

X **Category III** – Total score = 16 - 19

___**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H (M) L	H M (L)	H M (L)	
Landscape Potential	H (M) L	(H) M L	H M (L)	
Value	(H) M L	H M (L)	H (M) L	TOTAL
Score Based on Ratings	7	5	4	16

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-4

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-4

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   - ___ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   - ___ At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   - ✓ The wetland is on a slope (*slope can be very gradual*),
   - ✓ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   - ___ The water leaves the wetland **without being impounded**.

NO – go to 5 **YES** – The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   - ___ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   - ___ The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-4

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

   NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

   NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

   NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-4

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?

D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1		2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*.	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0		5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0		0
Total for D 1	Add the points in the boxes above	7

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?

D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality *(answer YES if there is a TMDL for the basin in which the unit is found)*?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-4

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	

D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*

Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	0
Marks of ponding less than 0.5 ft (6 in)	points = 0	

D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*

The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	3
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	

Total for D 4	Add the points in the boxes above	5

Rating of Site Potential If score is: ___ **12-16 = H** ___ **6-11 = M** X **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*

The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

- Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2
- Surface flooding problems are in a sub-basin farther down-gradient. points = 1

Flooding from groundwater is an issue in the sub-basin. points = 1

The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____ points = 0

There are no problems with flooding downstream of the wetland. points = 0

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0

		0
Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WRE-4

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
___Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
___Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

___The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
___Permanently flowing stream or river in, or adjacent to, the wetland	
___Seasonally flowing stream in, or adjacent to, the wetland	
___**Lake Fringe wetland**	**2 points**
___**Freshwater tidal wetland**	**2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

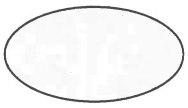
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
(< 5 species)	points = 0

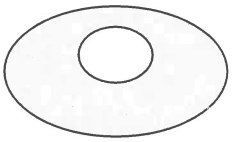
0

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



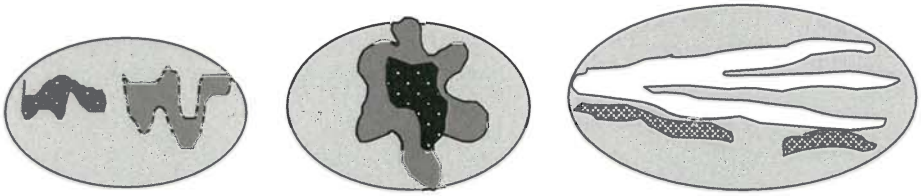
None = 0 points



Low = 1 point

Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



0

Wetland name or number _____

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ____Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ____Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	1

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1 + [(% moderate and low intensity land uses)/2] 0 = 0.4 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon 0.4 points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 22 = 40 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = (1) Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = (1) Site does not meet any of the criteria above points = 0	1

Rating of Value If score is:___**2 = H** X **1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRA-C1

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-4

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? (Yes – Go to **SC 2.2**) No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No = **Not a WHCV**) SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** (No = **Not a WHCV**) SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No = **Not a WHCV**)	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No – Go to **SC 3.2**) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No = **Is not a bog**) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number _____

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

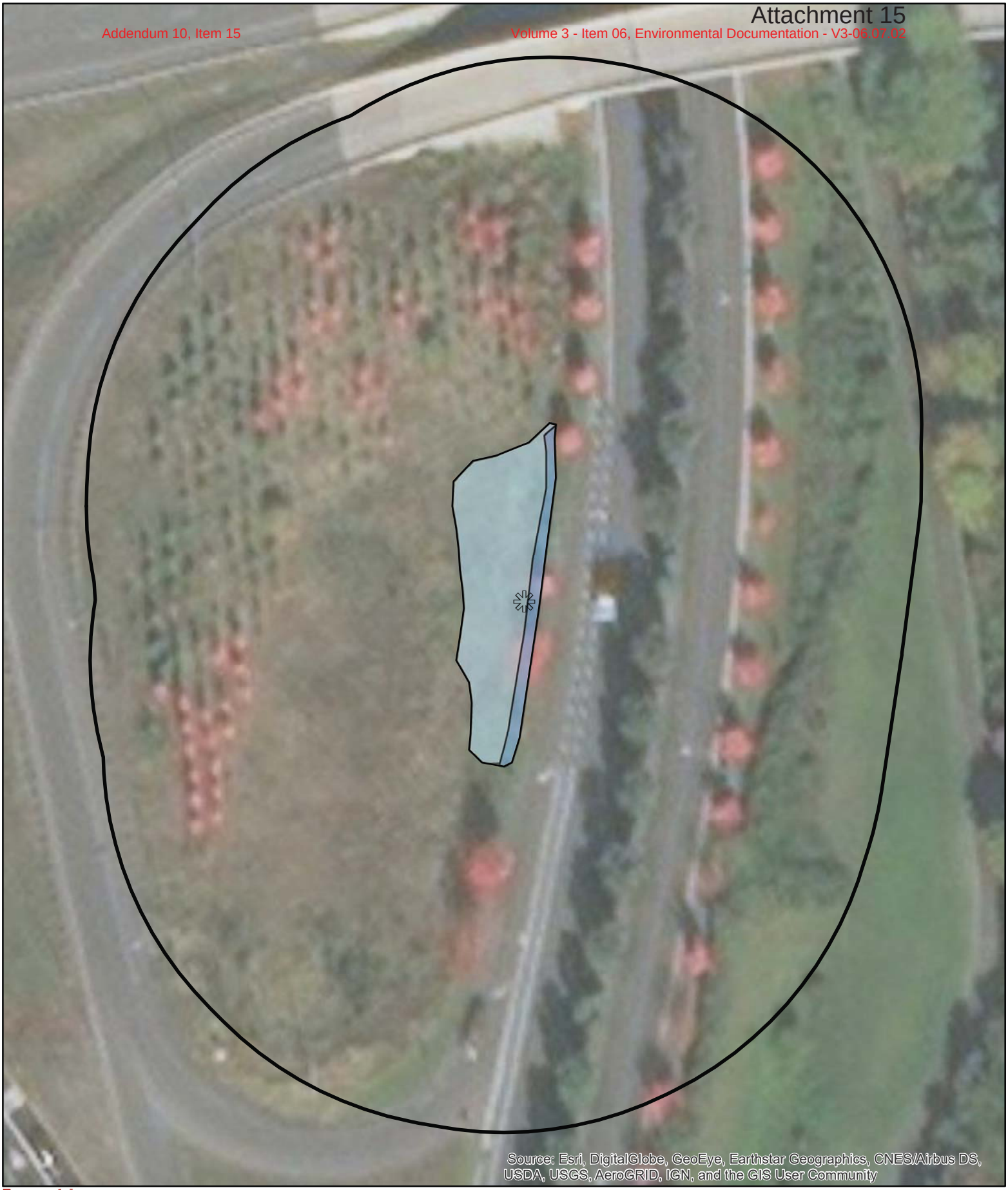
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0125 0.025

Wetland WRE-4
Palustrine Emergent
Palustrine Scrub Shrub
150 ft Buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060

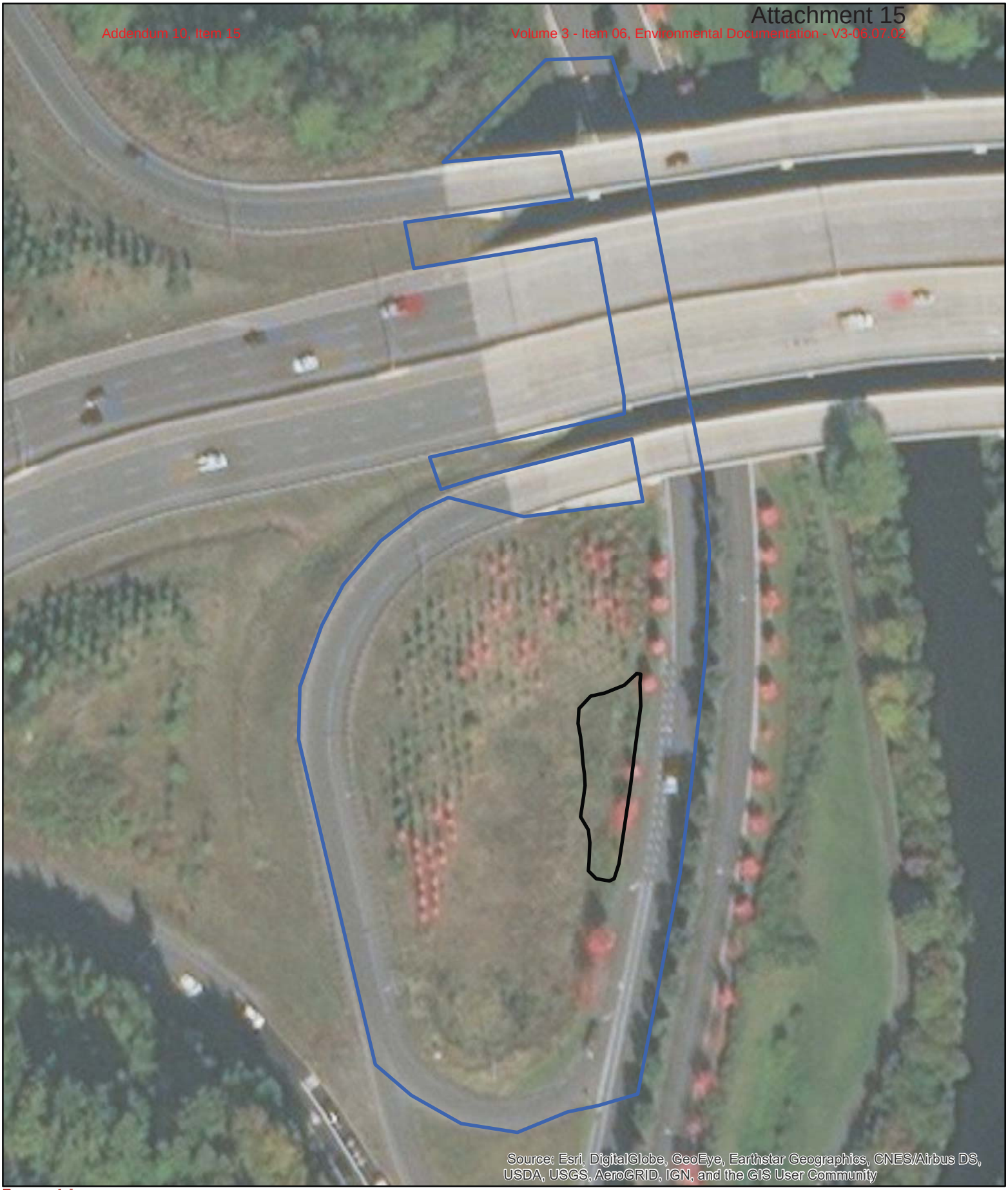


Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0125 0.025

Wetland WRE-4
Seasonally Flooded or Inundated
Saturated Only
150 ft Buffer
Outlet

HYDROPERIODS
Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0225 0.045

Contributing Basin
WRE-4

CONTRIBUTING BASIN

Redmond Link
554-3164-060

Parametrix
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Kilometers
0 0.25 0.5

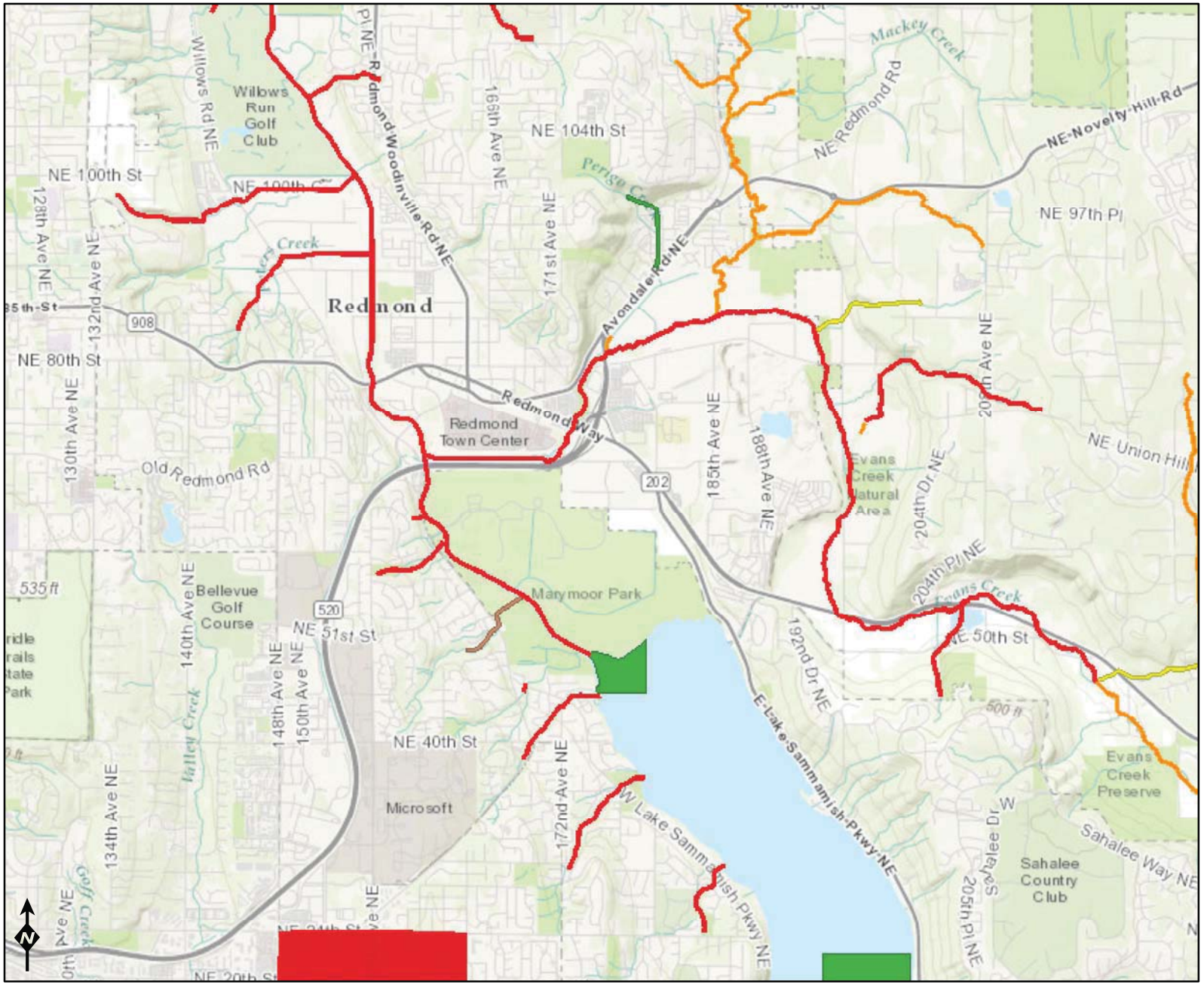
1 km Polygon

Wetland WRE-4

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-5

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-5 Date of site visit: 2/10, 4/6, 5/30 2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating RIVERINE Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map BING / KING Co.

OVERALL WETLAND CATEGORY I (based on functions ✓ or special characteristics ✓)

1. Category of wetland based on FUNCTIONS

- X **Category I** – Total score = 23 - 27
- _____ **Category II** – Total score = 20 - 22
- _____ **Category III** – Total score = 16 - 19
- _____ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			TOTAL
	Circle the appropriate ratings									
Site Potential	(H)	M	L	H	(M)	L	(H)	M	L	
Landscape Potential	(H)	M	L	(H)	M	L	H	M	(L)	
Value	(H)	M	L	(H)	M	L	(H)	M	L	
Score Based on Ratings	9			8			7			24

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	(I)
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	

Wetland name or number WRE-5

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-5

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ___The wetland is on a slope (*slope can be very gradual*),
   ___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ✓ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ✓ The overbank flooding occurs at least once every 2 years.

Wetland name or number WRL-5

NO – go to 6 **YES** – The wetland class is **Riverine**
NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-5

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		4
Depressions cover > 3/4 area of wetland	points = 8	
Depressions cover > ½ area of wetland	points = 4 (circled)	
Depressions present but cover < ½ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		8
Trees or shrubs > 2/3 area of the wetland	points = 8 (circled)	
Trees or shrubs > 1/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 2/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 1/3 area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous < 1/3 area of the wetland	points = 0	
Total for R 1 — Add the points in the boxes above		12

Rating of Site Potential If score is: X **12-16 = H** ___**6-11 = M** ___**0-5 = L** *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 (circled) No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 (circled) No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0 (circled)	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 (circled) No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources GARBAGE, CAMPING, HUMAN WASTE	Yes = 1 (circled) No = 0	1
Total for R 2 — Add the points in the boxes above		5

Rating of Landscape Potential If score is: X **3-6 = H** ___**1 or 2 = M** ___**0 = L** *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 (circled) No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 (circled) No = 0	1
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*answer YES if there is a TMDL for the drainage in which the unit is found*)	Yes = 2 (circled) No = 0	2
Total for R 3 — Add the points in the boxes above		4

Rating of Value If score is: X **2-4 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-5

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion

R 4.0. Does the site have the potential to reduce flooding and erosion?

R 4.1. Characteristics of the overbank storage the wetland provides:

Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).

~4.6:1

If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = (2)	2
If the ratio is < 1	points = 1	

R 4.2. Characteristics of plants that slow down water velocities during floods: *Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes).*

Forest or shrub for > $^1/_3$ area OR emergent plants > $^2/_3$ area	points = (7)	7
Forest or shrub for > $^1/_{10}$ area OR emergent plants > $^1/_3$ area	points = 4	
Plants do not meet above criteria	points = 0	

Total for R 4	Add the points in the boxes above	9

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 (No = 1)	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area?	(Yes = 1) No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams?	Yes = 0 (No = 1)	1
Total for R 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

R 6.0. Are the hydrologic functions provided by the site valuable to society?

R 6.1. Distance to the nearest areas downstream that have flooding problems?

Choose the description that best fits the site.

The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	0
No flooding problems anywhere downstream	points = 0	

R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Redmond Flood Haz. Man. Plan

	Yes = (2) No = 0	2
Total for R 6	Add the points in the boxes above	2

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-5

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___ Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___ Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
X Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ **Lake Fringe wetland**	**2 points**
___ **Freshwater tidal wetland**	**2 points**

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

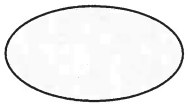
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

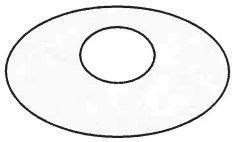
2

H 1.4. Interspersion of habitats

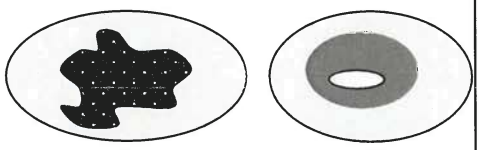
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

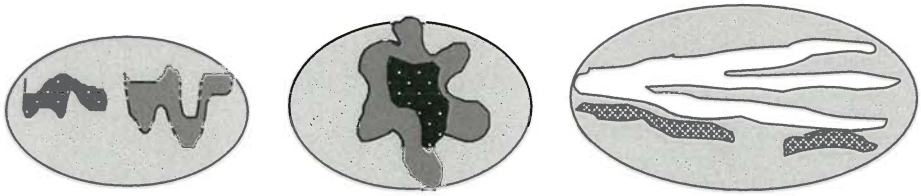


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



3

Wetland name or number WRE-5

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ___ Standing snags (dbh > 4 in) within the wetland X Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	5
Total for H 1 Add the points in the boxes above	16

Rating of Site Potential If score is: X **15-18 = H** ___**7-14 = M** ___**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 5 + [(% moderate and low intensity land uses)/2] 0 = 5 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 14 + [(% moderate and low intensity land uses)/2] 5.15 = 19.15 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = (1) Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is: ___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 X It has 3 or more priority habitats within 100 m (see next page) ___ It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) ___ It is mapped as a location for an individual WDFW priority species ___ It is a Wetland of High Conservation Value as determined by the Department of Natural Resources X It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is: X **2 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-5

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

X **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-5

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? (Yes) – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No) = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** (No) = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No) = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No) – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No) = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-5

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. X **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

Parametrix
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Kilometers
0 0.15 0.3

Wetland WRE-5
Palustrine Forested
Palustrine Scrub Shrub
Palustrine Emergent

COWARDIN PLANT CLASSES AND COVER

Redmond Link
554-3164-060

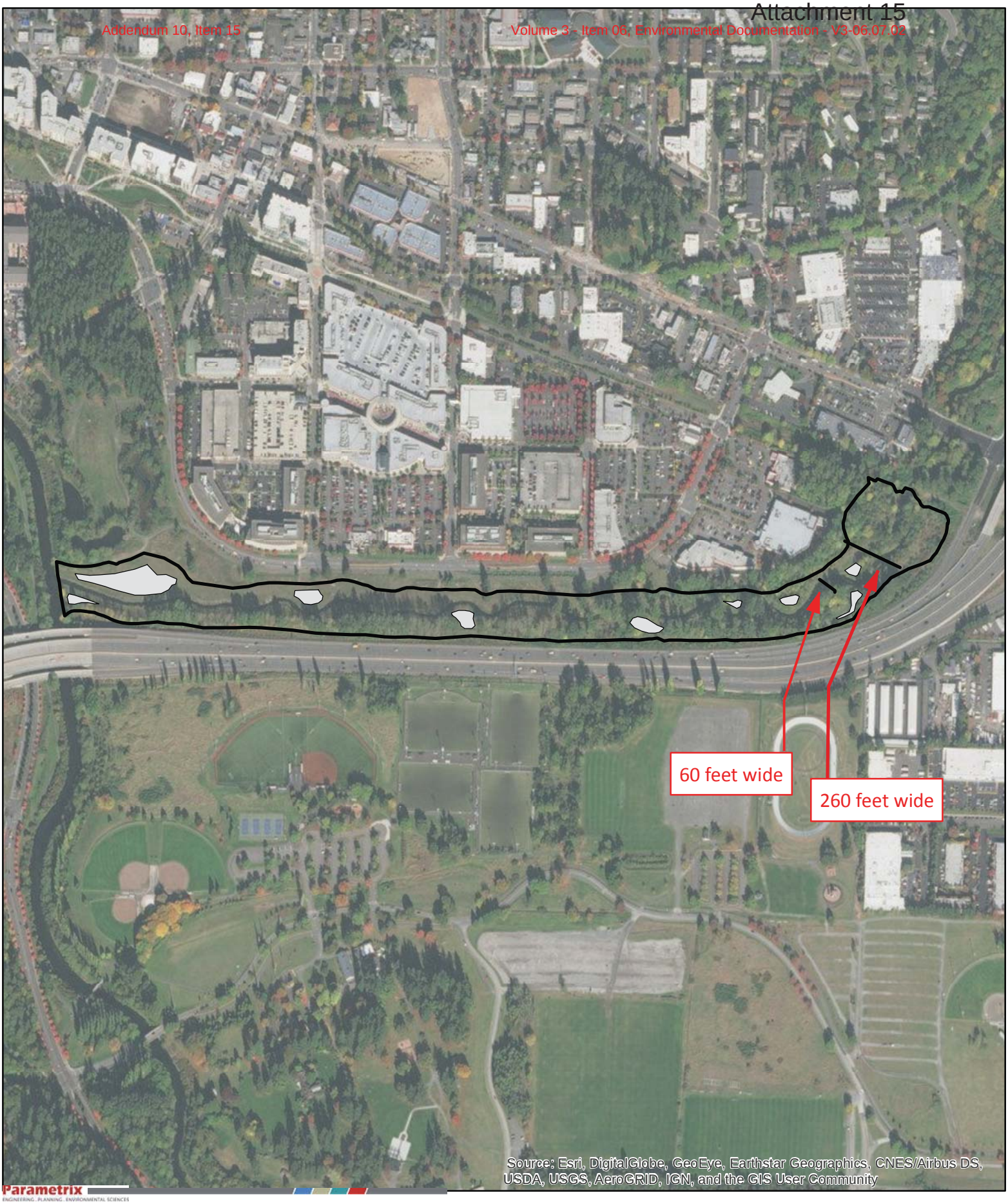
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.15 0.3

- Wetland WRE-5
- 150 ft Buffer
- Permanently Flowing Stream
- Seasonally Flooded or Inundated
- Saturated Only

HYDROPERIODS

Redmond Link
554-3164-060



Parametrix
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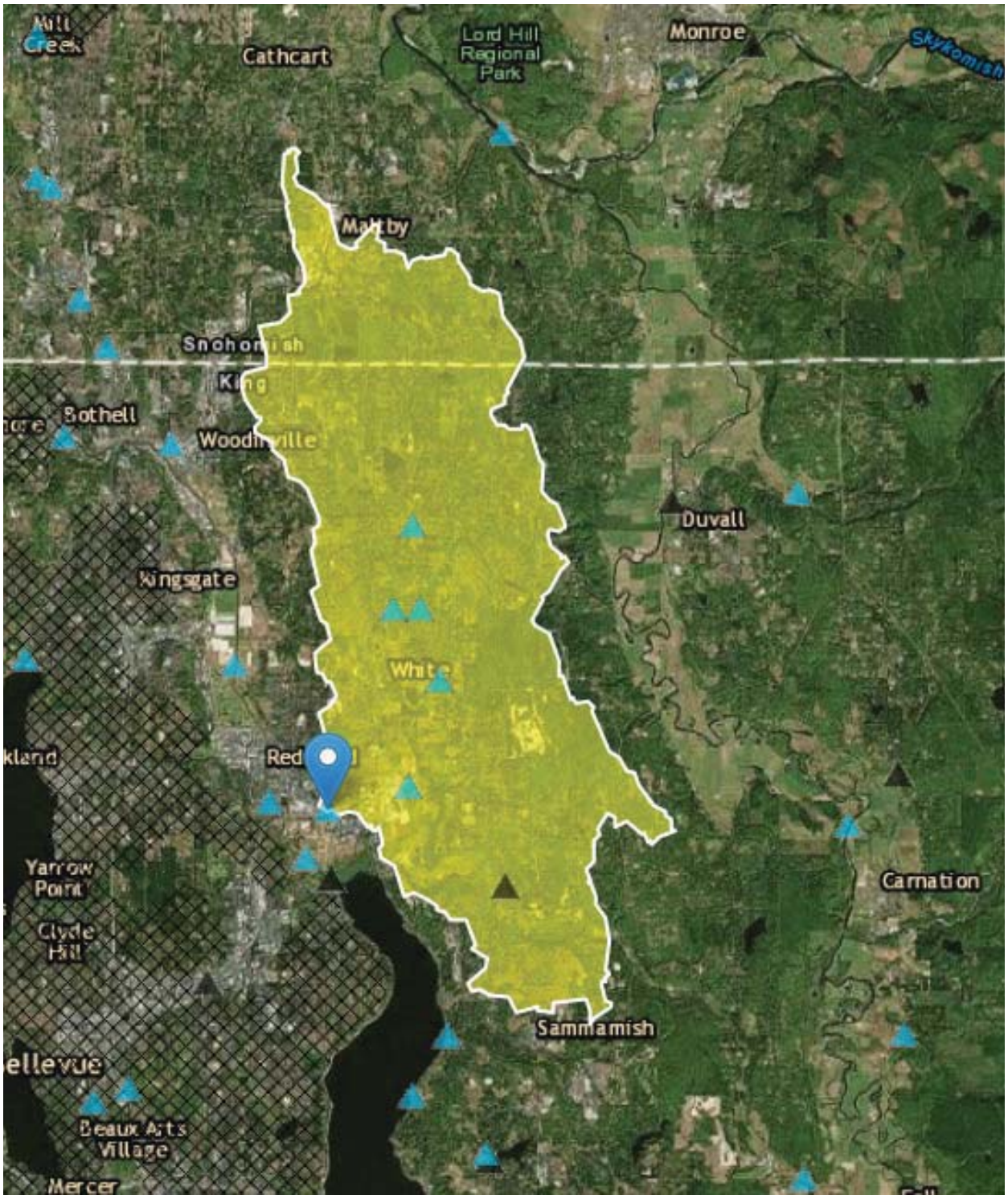
Kilometers
0 0.15 0.3

Wetland WRE-5
Ponded Depressions

PONDED DEPRESSIONS

Redmond Link
554-3164-060

Wetland WRE-5 Contributing Basin



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.4 0.8

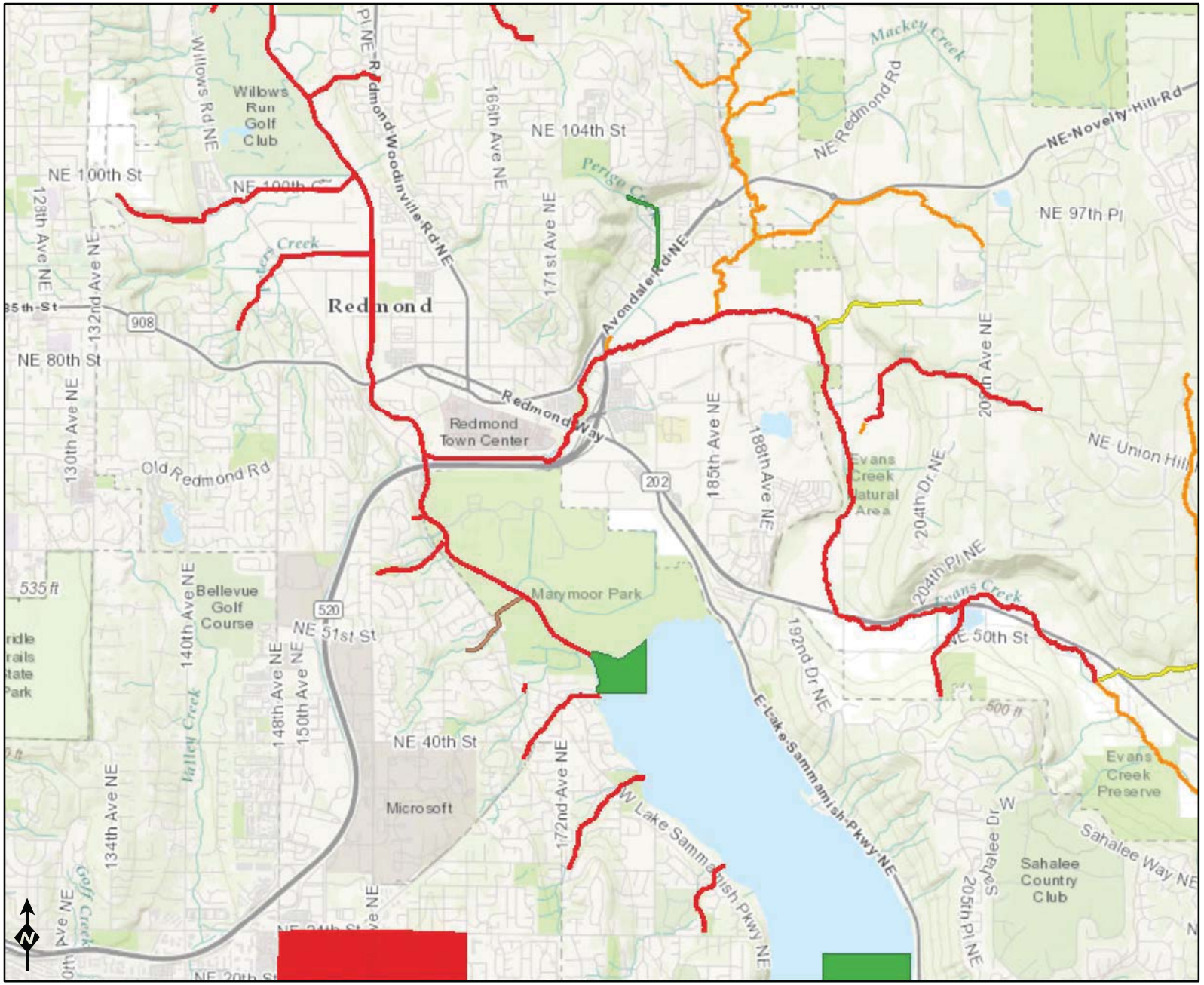
1 km Polygon

Wetland WRE-5

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-6

RATING SUMMARY – Western Washington

2/10, 4/6

Name of wetland (or ID #): WRE-6 Date of site visit: 5/30/2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating RIVERINE Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map BING / King Co.

OVERALL WETLAND CATEGORY I (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

X **Category I** – Total score = 23 - 27

_____ **Category II** – Total score = 20 - 22

_____ **Category III** – Total score = 16 - 19

_____ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
	Circle the appropriate ratings									
Site Potential	(H)	M	L	H	(M)	L	(H)	M	L	
Landscape Potential	(H)	M	L	(H)	M	L	H	M	(L)	
Value	(H)	M	L	(H)	M	L	(H)	M	L	**TOTAL**
Score Based on Ratings	9			8			7			24

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-6

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-6

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
___The wetland is on a slope (*slope can be very gradual*),
___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
✓ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
✓ The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-6

NO – go to 6 **YES** – The wetland class is **Riverine**
NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-6

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover > 3/4 area of wetland	points = 8	
Depressions cover > ½ area of wetland	points = 4	4
Depressions present but cover < ½ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		
Trees or shrubs > 2/3 area of the wetland	points = 8	
Trees or shrubs > 1/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 2/3 area of the wetland	points = 6	8
Herbaceous plants (> 6 in high) > 1/3 area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous < 1/3 area of the wetland	points = 0	
Total for R 1	Add the points in the boxes above	12

Rating of Site Potential If score is: X **12-16 = H** ___**6-11 = M** ___**0-5 = L** *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources TRASH, HUMAN WASTE	Yes = 1 No = 0	1
Total for R 2	Add the points in the boxes above	5

Rating of Landscape Potential If score is: X **3-6 = H** ___**1 or 2 = M** ___**0 = L** *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	1
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*answer YES if there is a TMDL for the drainage in which the unit is found*)	Yes = 2 No = 0	2
Total for R 3	Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-6

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion

R 4.0. Does the site have the potential to reduce flooding and erosion?

R 4.1. Characteristics of the overbank storage the wetland provides: *Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).* ~3.5:1		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2	2
If the ratio is < 1	points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: *Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes).*		
Forest or shrub for > 1/3 area OR emergent plants > 2/3 area	points = 7	7
Forest or shrub for > 1/10 area OR emergent plants > 1/3 area	points = 4	
Plants do not meet above criteria	points = 0	
Total for R 4	Add the points in the boxes above	9

Rating of Site Potential If score is: ___12-16 = H X 6-11 = M ___0-5 = L *Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams?	Yes = 0 No = 1	1
Total for R 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X 3 = H ___1 or 2 = M ___0 = L *Record the rating on the first page*

R 6.0. Are the hydrologic functions provided by the site valuable to society?

R 6.1. Distance to the nearest areas downstream that have flooding problems? *Choose the description that best fits the site.* The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	0
No flooding problems anywhere downstream	points = 0	
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	2
Total for R 6	Add the points in the boxes above	2

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number WRE-6

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___ Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___ Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
X Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ **Lake Fringe wetland**	**2 points**
___ **Freshwater tidal wetland**	**2 points**

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

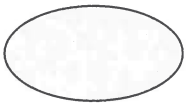
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

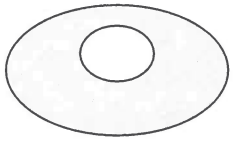
1

H 1.4. Interspersion of habitats

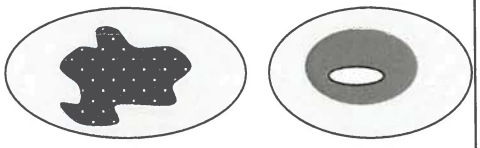
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

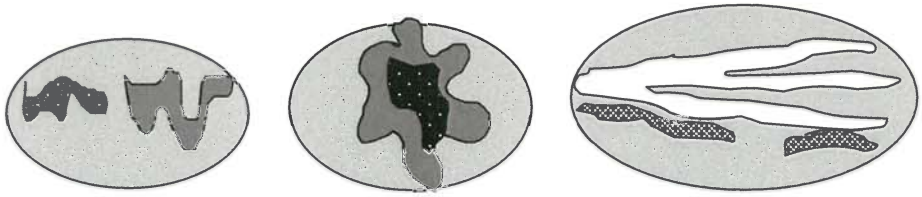


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



3

Wetland name or number WRE-6

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland X Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	5
Total for H 1 Add the points in the boxes above	15

Rating of Site Potential If score is: X **15-18 = H** ___ **7-14 = M** ___ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 0 + [(% moderate and low intensity land uses)/2] 5.6 = 5.6 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 17.2 + [(% moderate and low intensity land uses)/2] 5.4 = 17.6 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is: ___ **4-6 = H** ___ **1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 X It has 3 or more priority habitats within 100 m (see next page) X It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is: X **2 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-6

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

X **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WR6-6

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-6

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

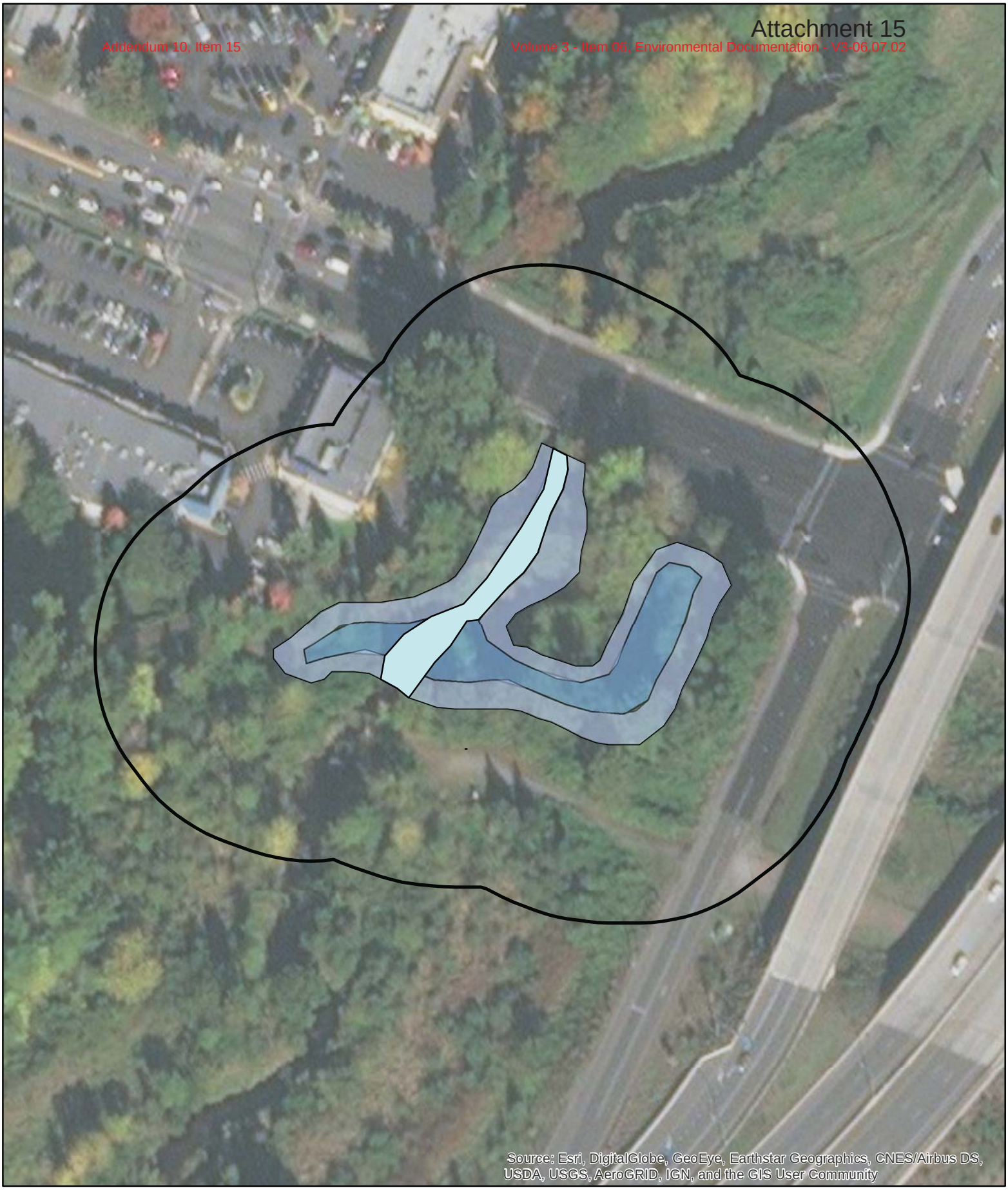
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.025 0.05

- Wetland WRE-6
- Palustrine Emergent
- Palustrine Scrub Shrub
- Palustrine Forested
- 150 ft Buffer

COWARDIN PLANT CLASSES AND COVER

Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.0275 0.055

150 ft Buffer
Wetland WRE-6
Permanently Flowing Stream
Saturated
Seasonally Flooded or Inundated

HYDROPERIODS
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

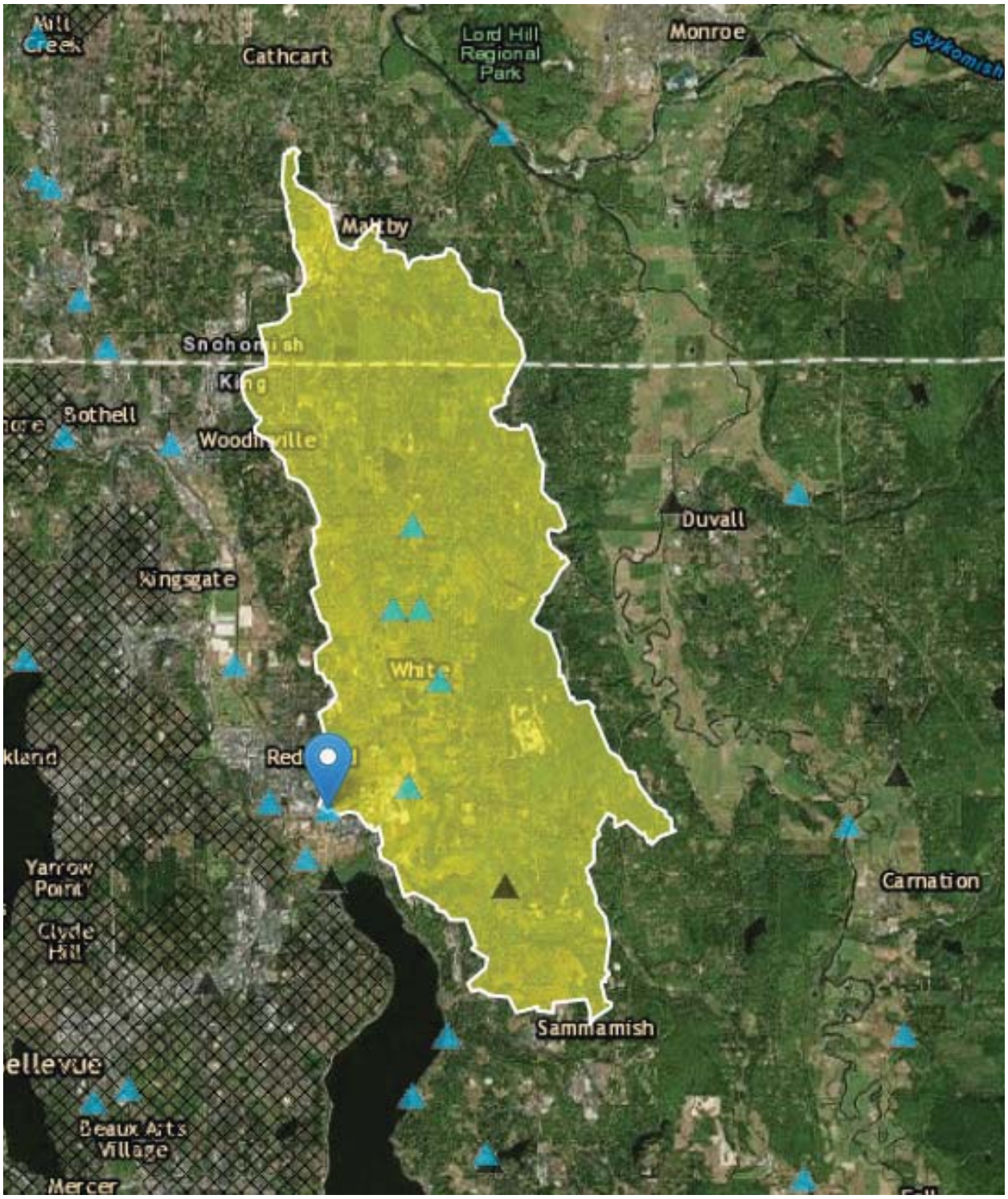
Kilometers
0 0.025 0.05

Wetland WRE-6
Ponded Depressions
150 ft Buffer

PONDED DEPRESSIONS

Redmond Link
554-3164-060

Wetland WRE-6 Contributing Basin



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.25 0.5

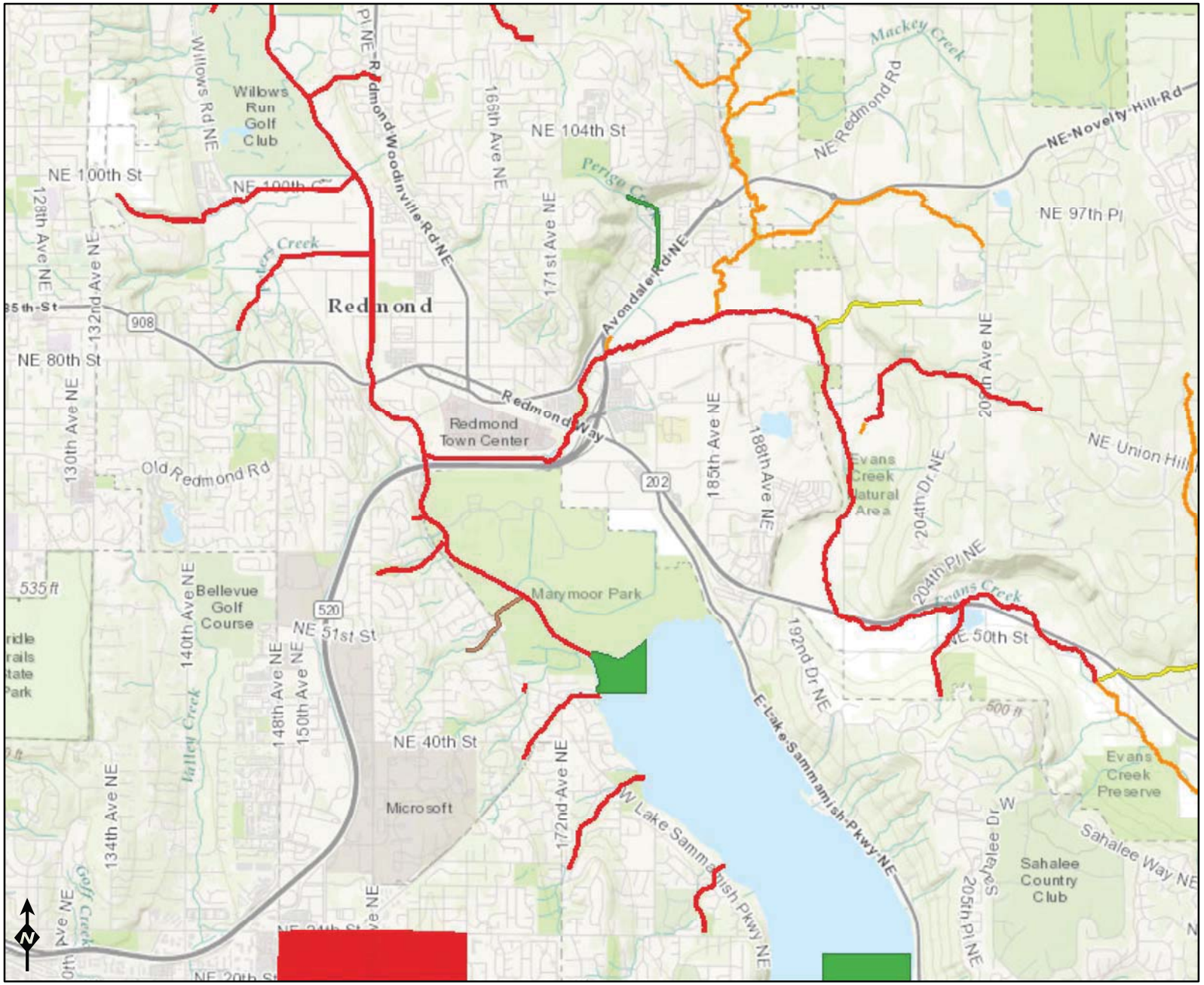
1 km Polygon

Wetland WRE-6

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-7

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-7 Date of site visit: 5/30, 6/4/2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating RIVERINE Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map BING / KING CO

OVERALL WETLAND CATEGORY I (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

X **Category I** – Total score = 23 - 27

_____ **Category II** – Total score = 20 - 22

_____ **Category III** – Total score = 16 - 19

_____ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
	Circle the appropriate ratings									
Site Potential	H	(M)	L	H	(M)	L	(H)	M	L	
Landscape Potential	(H)	M	L	(H)	M	L	H	M	(L)	
Value	(H)	M	L	(H)	M	L	(H)	M	L	TOTAL
Score Based on Ratings	8			8			7			23

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-7

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-7

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES – The wetland class is Lake Fringe (Lacustrine Fringe)**

4. Does the entire wetland unit **meet all** of the following criteria?

___The wetland is on a slope (*slope can be very gradual*),

___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES – The wetland class is Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

✓ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

✓ The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-7

NO – go to 6 **YES** – The wetland class is **Riverine**
NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-7

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover > 3/4 area of wetland	points = 8	
Depressions cover > ½ area of wetland	points = 4	
Depressions present but cover < ½ area of wetland	points = 2	2
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		
Trees or shrubs > 2/3 area of the wetland	points = 8	
Trees or shrubs > 1/3 area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > 2/3 area of the wetland	points = 6	8
Herbaceous plants (> 6 in high) > 1/3 area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous < 1/3 area of the wetland	points = 0	
Total for R 1	Add the points in the boxes above	10

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources TRASH, HUMAN WASTE	Yes = 1 No = 0	1
Total for R 2	Add the points in the boxes above	5

Rating of Landscape Potential If score is: X **3-6 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	1
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*answer YES if there is a TMDL for the drainage in which the unit is found*)	Yes = 2 No = 0	2
Total for R 3	Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-7

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion

R 4.0. Does the site have the potential to reduce flooding and erosion?

R 4.1. Characteristics of the overbank storage the wetland provides: *Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).* ~3.8:1		
If the ratio is more than 20	points = 9	
If the ratio is 10-20	points = 6	
If the ratio is 5-<10	points = 4	
If the ratio is 1-<5	points = 2 (circled)	2
If the ratio is < 1	points = 1	
R 4.2. Characteristics of plants that slow down water velocities during floods: *Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes).*		
Forest or shrub for > 1/3 area OR emergent plants > 2/3 area	points = 7 (circled)	7
Forest or shrub for > 1/10 area OR emergent plants > 1/3 area	points = 4	
Plants do not meet above criteria	points = 0	
Total for R 4	Add the points in the boxes above	9

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?

R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1 (circled)	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area?	Yes = 1 (circled) No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams?	Yes = 0 No = 1 (circled)	1
Total for R 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

R 6.0. Are the hydrologic functions provided by the site valuable to society?

R 6.1. Distance to the nearest areas downstream that have flooding problems? *Choose the description that best fits the site.*		
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0 (circled)	0
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 (circled) No = 0	2
Total for R 6	Add the points in the boxes above	

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-7

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___ Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___ Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
X Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ **Lake Fringe wetland**	**2 points**
___ **Freshwater tidal wetland**	**2 points**

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

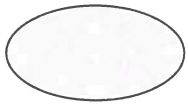
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = (1)
< 5 species	points = 0

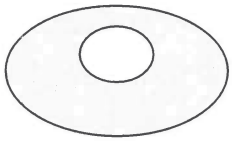
1

H 1.4. Interspersion of habitats

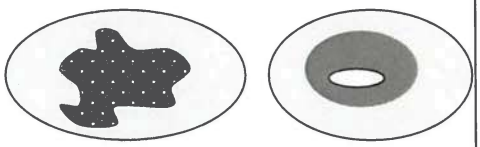
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

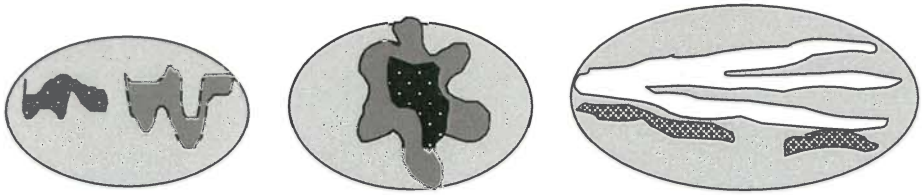


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



3

Wetland name or number WRE-7

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland X Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	5
Total for H 1 Add the points in the boxes above	15

Rating of Site Potential If score is: X **15-18 = H** ___**7-14 = M** ___**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 3.75 + [(% moderate and low intensity land uses)/2] 0 = 3.75 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 9.6 + [(% moderate and low intensity land uses)/2] 3.25 = 12.85 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is: ___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 X It has 3 or more priority habitats within 100 m (see next page) X It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is: X **2 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-7

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

1 **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

1 **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

1 **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

1 **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-7

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? (Yes) – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No) = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes **– Contact WNHP/WDNR and go to SC 2.4** (No) = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No) = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No) – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No) = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-7

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

- 150 ft buffer
- Wetland WRE-7
- Palustrine Forested
- Palustrine Scrub Shrub
- Palustrine Emergent

COWARDIN CLASSES AND PLANT COVER

Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.05 0.1

- Wetland WRE-7
- Seasonally Flooded or Inundated
- Saturated
- Permanently Flowing Stream

HYDROPERIODS
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

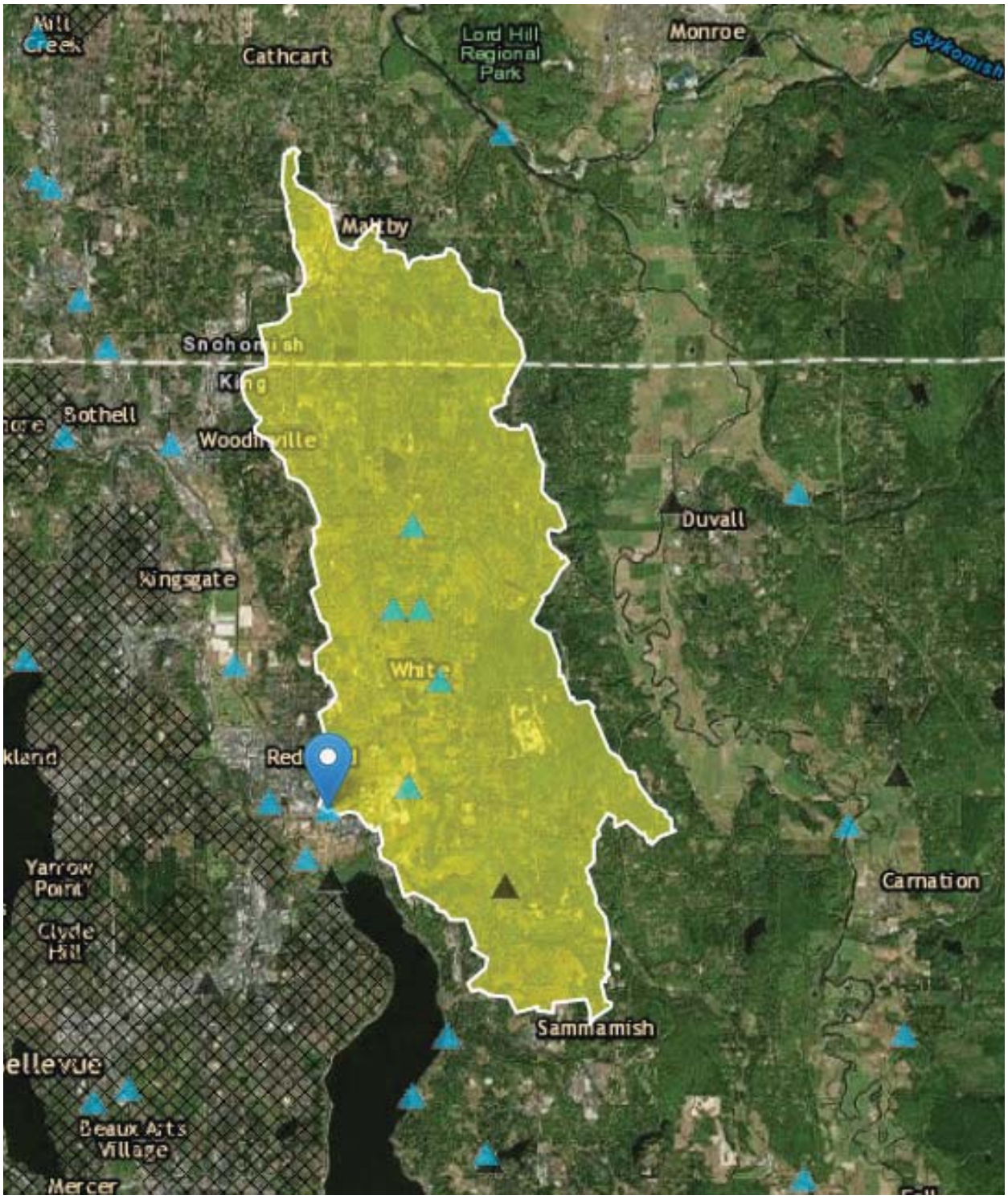
Kilometers
0 0.05 0.1

Wetland WRE-7
Ponded Depressions

PONDED DEPRESSIONS

Redmond Link
554-3164-060

Wetland WRE-7 Contributing Basin



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

0 0.25 0.5 Kilometers

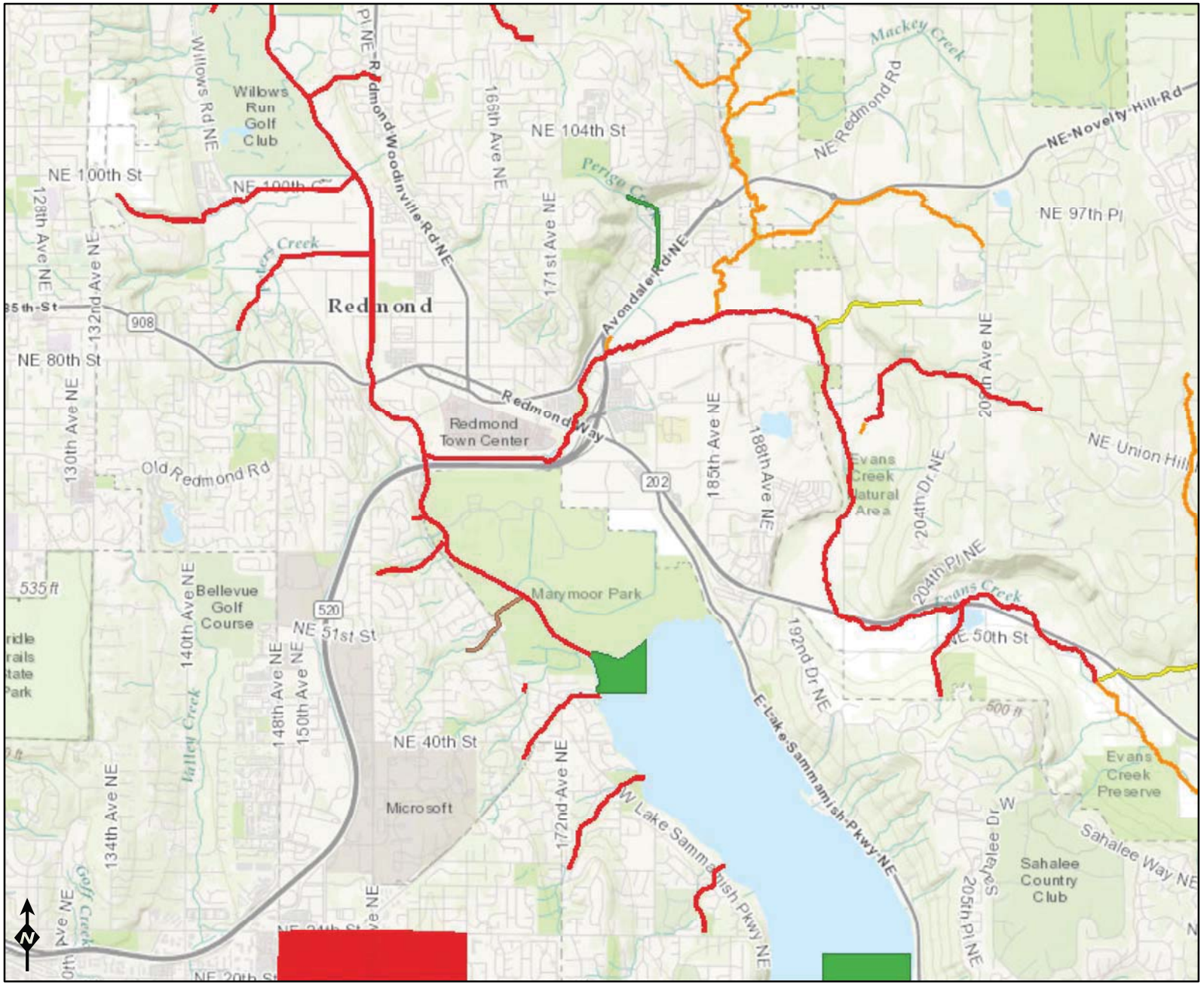
1 km Polygon

Wetland WRE7

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-8

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-8 Date of site visit: 4/10/2017

Rated by J. WOZNIAK Trained by Ecology? X Yes ___No Date of training 2015

HGM Class used for rating DEPRESSIONAL Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map BING / KING CO

OVERALL WETLAND CATEGORY II (based on functions X or special characteristics___)

1. Category of wetland based on FUNCTIONS

___**Category I** – Total score = 23 - 27

X **Category II** – Total score = 20 - 22

___**Category III** – Total score = 16 - 19

___**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H (M) L	H (M) L	H (M) L	
Landscape Potential	H (M) L	(H) M L	H M (L)	
Value	(H) M L	(H) M L	(H) M L	TOTAL
Score Based on Ratings	7	8	6	21

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-8

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-8

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
___The wetland is on a slope (*slope can be very gradual*),
___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-B

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-B

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*. Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	2
Total for D 1 Add the points in the boxes above	9

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____ Yes = 1 No = 0	0
Total for D 2 Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality *(answer YES if there is a TMDL for the basin in which the unit is found)*? Yes = 2 No = 0	2
Total for D 3 Add the points in the boxes above	4

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-8

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	

D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*

Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	3
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	

D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*

The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	3
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	

Total for D 4	Add the points in the boxes above	8

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*

The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

- Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2
- Surface flooding problems are in a sub-basin farther down-gradient. points = 1

Flooding from groundwater is an issue in the sub-basin. points = 1

The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____ points = 0

There are no problems with flooding downstream of the wetland. points = 0 — 0

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 — 2

Total for D 6	Add the points in the boxes above	2

Rating of Value If score is: X **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-8

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed	4 structures or more: points = 4
X Emergent	3 structures: points = 2
X Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
X Forested (areas where trees have > 30% cover)	1 structure: points = 0

If the unit has a Forested class, check if:

X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

___ Permanently flooded or inundated	4 or more types present: points = 3
X Seasonally flooded or inundated	3 types present: points = 2
___ Occasionally flooded or inundated	2 types present: points = 1
X Saturated only	1 type present: points = 0
___ Permanently flowing stream or river in, or adjacent to, the wetland	
___ Seasonally flowing stream in, or adjacent to, the wetland	
___ **Lake Fringe wetland**	**2 points**
___ **Freshwater tidal wetland**	**2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

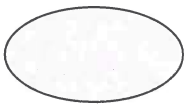
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	points = 0

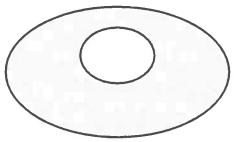
1

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



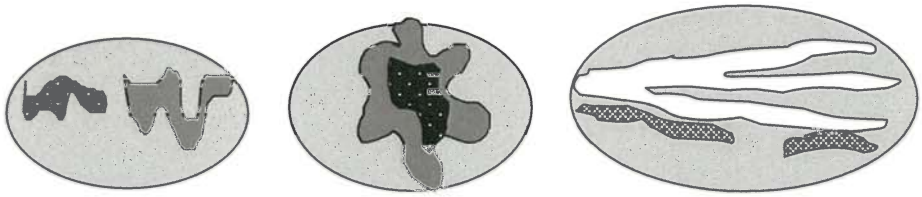
None = 0 points



Low = 1 point

Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



2

Wetland name or number WRE-8

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ___Standing snags (dbh > 4 in) within the wetland ___Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ___Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	2
Total for H 1 Add the points in the boxes above	10

Rating of Site Potential If score is:___**15-18 = H** X **7-14 = M** ___**0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 1 + [(% moderate and low intensity land uses)/2] 0 = 1 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 10 + [(% moderate and low intensity land uses)/2] 5 = 15 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	-1

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 X It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is: X **2 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-8

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

✓ **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

✓ **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

✓ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

✓ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

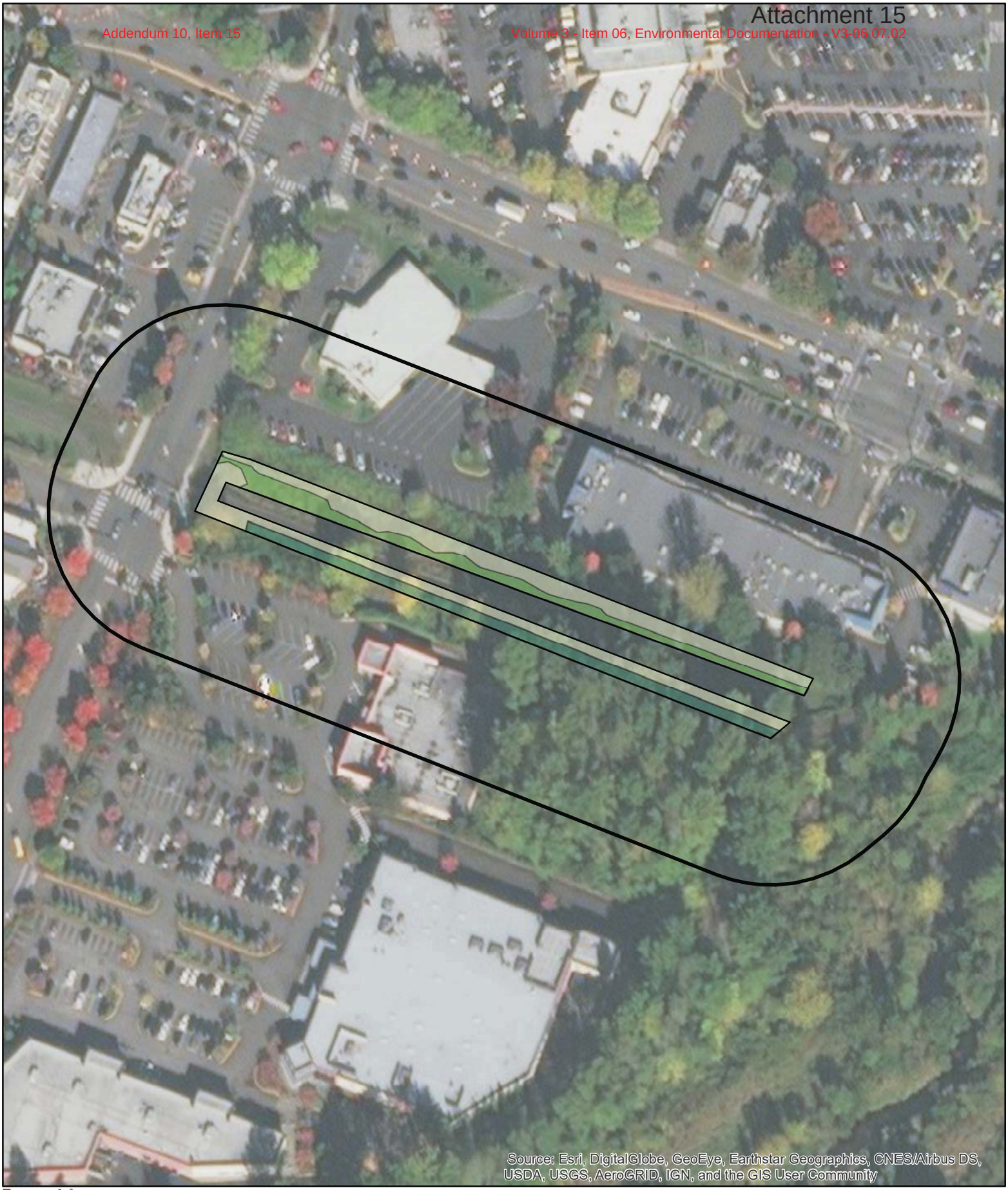
Wetland name or number WRE-8

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRG-8

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	



Parametrix
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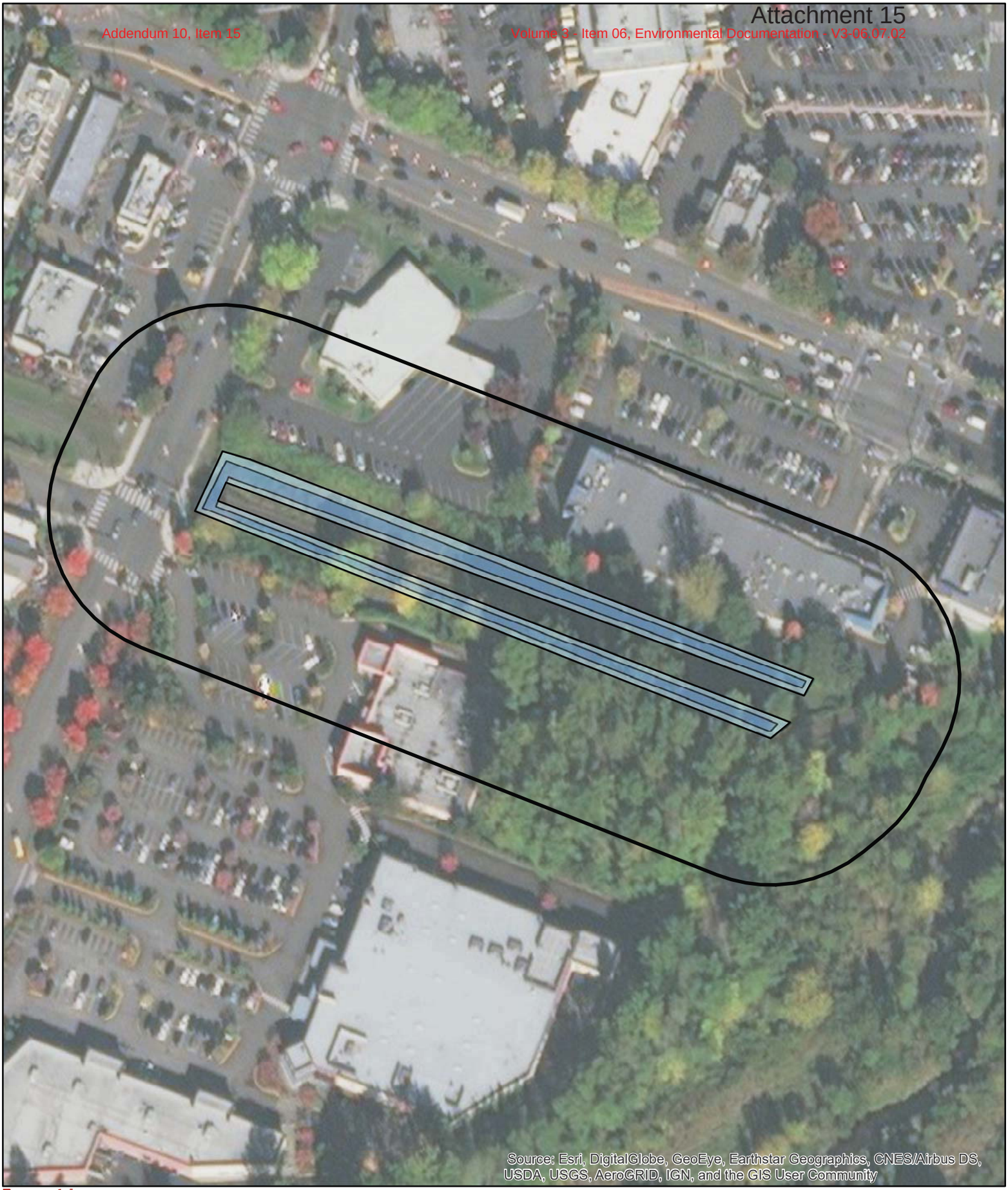
Kilometers
0 0.035 0.07

- Wetland WRE-8
- Palustrine Emergent
- Palustrine Scrub Shrub
- Palustrine Forested
- 150 ft Buffer

COWARDIN PLANT CLASSES

Redmond Link
554-3164-060



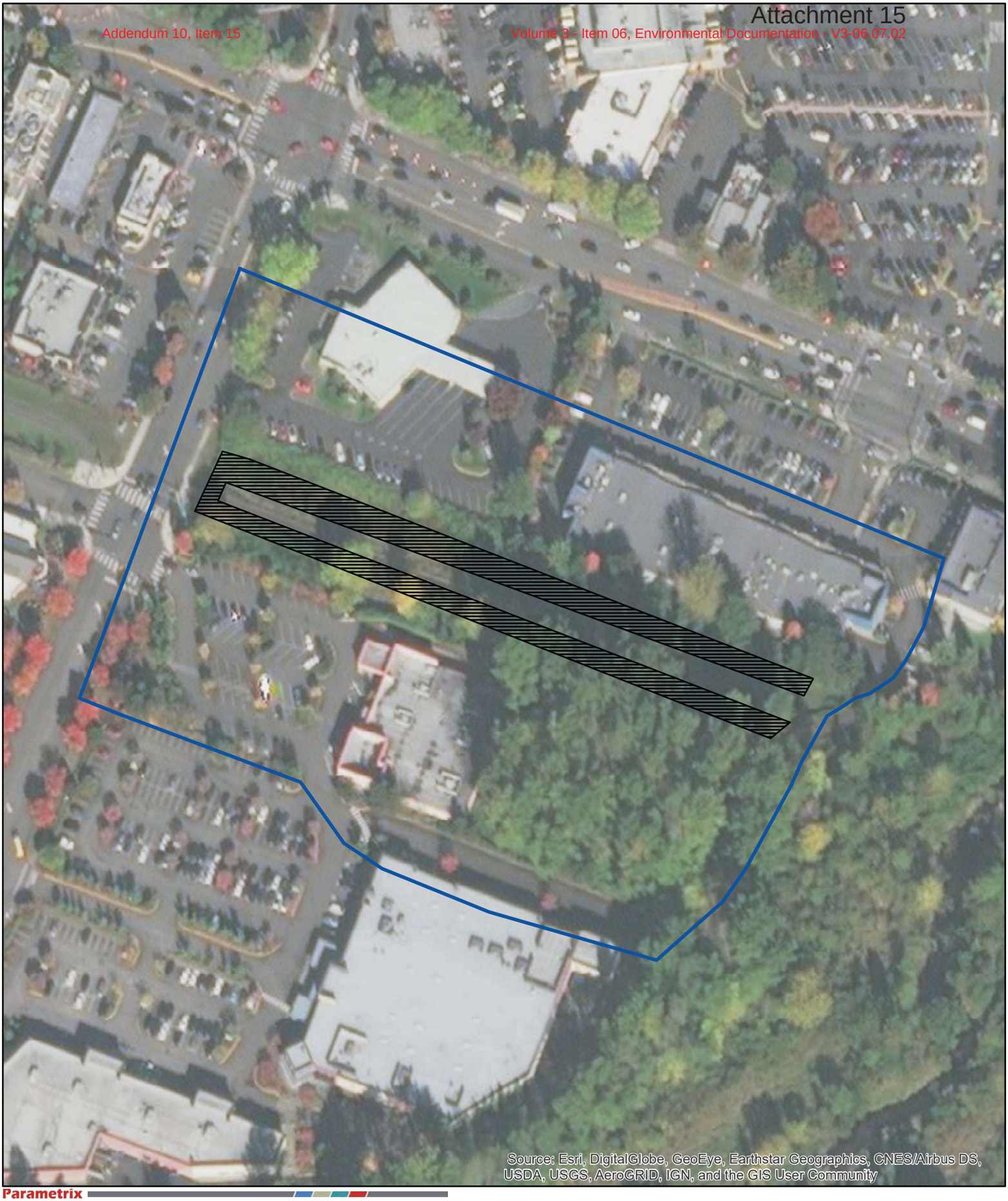
Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.035 0.07

- Wetland WRE-8
- Saturated Only
- Seasonally Flooded or Inundated
- 150 ft Buffer

HYDROPERIODS

Redmond Link
554-3164-060



Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.035 0.07

Wetland WRE-8

Contributing Basin

CONTRIBUTING BASIN

Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Kilometers
0 0.25 0.5

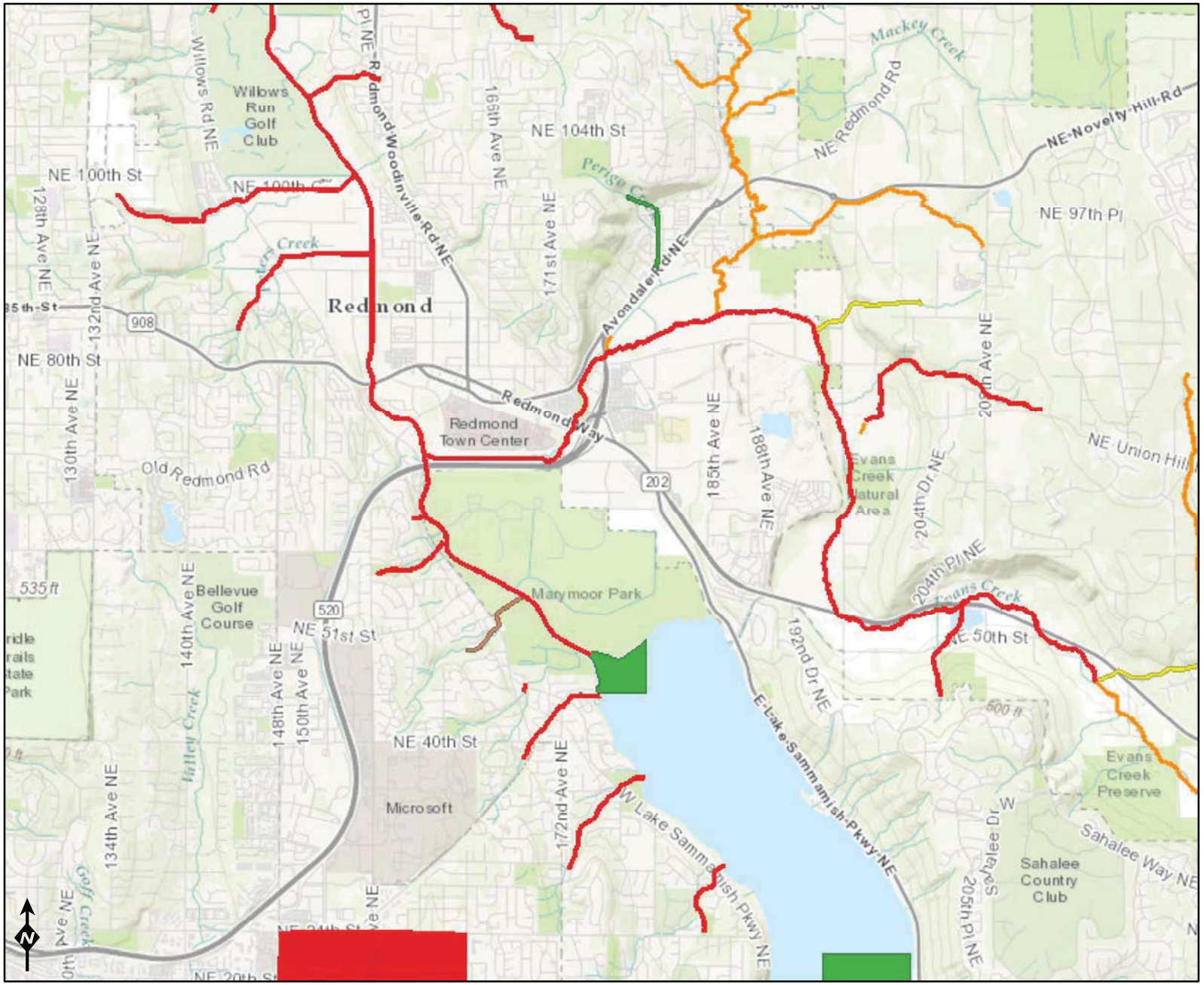
Wetland WRE-8

1 km Polygon

1 KM POLYGON

Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Wetland name or number WRE-9

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-9 Date of site visit: 5/2/18

Rated by J. Wozniak + T. Parry Trained by Ecology? X Yes ___ No Date of training 09/2016

HGM Class used for rating Depressional Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map ESRI 2014

OVERALL WETLAND CATEGORY III (based on functions X or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27

___ **Category II** – Total score = 20 - 22

X **Category III** – Total score = 16 - 19

___ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H (M) L	H (M) L	H M (L)	
Landscape Potential	H (M) L	H (M) L	H M (L)	
Value	H (M) L	H M (L)	(H) M L	TOTAL
Score Based on Ratings	6	5	5	16

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	X

Wetland name or number WRE-9

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (*can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number WRE-9

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**
*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES –** The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
X The wetland is on a slope (*slope can be very gradual*),
___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES –** The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-9

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-9

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = (3) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	3
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*. Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area points = 5 Wetland has persistent, ungrazed, plants > ½ of area points = (3) Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland points = 4 Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = (0)	0
Total for D 1 Add the points in the boxes above	6

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source encampments Yes = 1 No = 0	1
Total for D 2 Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 (No = 0)	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? (Yes = 1) No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)? Yes = 2 (No = 0)	0
Total for D 3 Add the points in the boxes above	1

Rating of Value If score is: ___ **2-4 = H** X **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-9

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:		4
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4 (circled)	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*		0
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0 (circled)	
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*		3
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3 (circled)	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	7

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0 (circled)	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 (circled) No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0 (circled)	0
Total for D 5	Add the points in the boxes above	1

Rating of Landscape Potential If score is: ___ **3 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*		0
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0 (circled)	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WRE-9

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed	4 structures or more: points = 4
____Emergent	3 structures: points = 2
____Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
_X_Forested (areas where trees have > 30% cover)	(1 structure: points = 0)

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

____Permanently flooded or inundated	4 or more types present: points = 3
____Seasonally flooded or inundated	3 types present: points = 2
____Occasionally flooded or inundated	2 types present: points = 1
_X_Saturated only	(1 type present: points = 0)
____Permanently flowing stream or river in, or adjacent to, the wetland	
____Seasonally flowing stream in, or adjacent to, the wetland	
____**Lake Fringe wetland**	**2 points**
____**Freshwater tidal wetland**	**2 points**

0

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

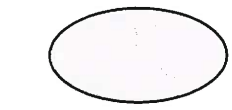
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	(points = 1)
< 5 species	points = 0

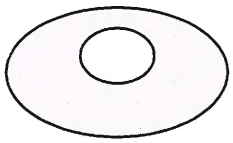
1

H 1.4. Interspersion of habitats

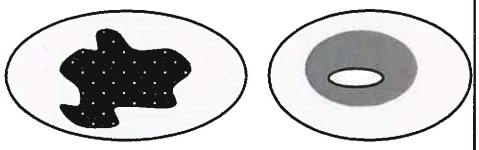
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



(**None** = 0 points)

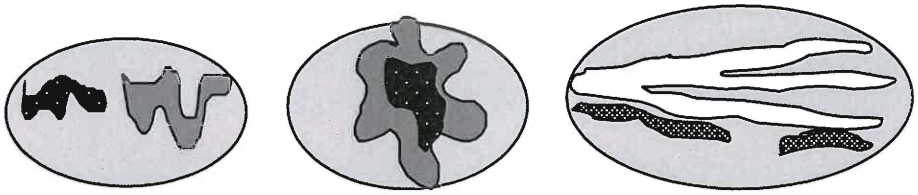


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



0

Wetland name or number WRE-9

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* X Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	3
Total for H 1 — Add the points in the boxes above	4

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 10 + [(% moderate and low intensity land uses)/2] 1 = 11 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon — points = 3 20-33% of 1 km Polygon — points = 2 10-19% of 1 km Polygon — (points = 1) < 10% of 1 km Polygon — points = 0	1
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 10 + [(% moderate and low intensity land uses)/2] 10 = 20 % Undisturbed habitat > 50% of Polygon — points = 3 Undisturbed habitat 10-50% and in 1-3 patches — points = 2 Undisturbed habitat 10-50% and > 3 patches — (points = 1) Undisturbed habitat < 10% of 1 km Polygon — points = 0	1
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use — (points = (- 2)) ≤ 50% of 1 km Polygon is high intensity — points = 0	-2
Total for H 2 — Add the points in the boxes above	0

Rating of Landscape Potential If score is:___**4-6 = H** ___**1-3 = M** X **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: — (points = 2) X It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m — points = 1 Site does not meet any of the criteria above — points = 0	2

Rating of Value If score is:_X_**2 = H** ___**1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-9

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-9

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	**Category**
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** (No – Go to **SC 2.3**) SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** (No = **Not a WHCV**) SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** (No – Go to **SC 3.2**) SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** (No = **Is not a bog**) SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number WRE-9

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Feet
0 45 90

150 ft Buffer
Wetland WRE-9
Palustrine Forested

COWARDIN PLANT CLASSES AND PLANT COVER

Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

Feet
0 40 80

150 ft Buffer
Wetland WRE-9
Saturated

HYDROPERIODS
Redmond Link
554-3164-060

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

0 40 80 Feet

Wetland WRE-9

Contributing Basin

CONTRIBUTING BASIN

Redmond Link
554-3164-060

Parametrix
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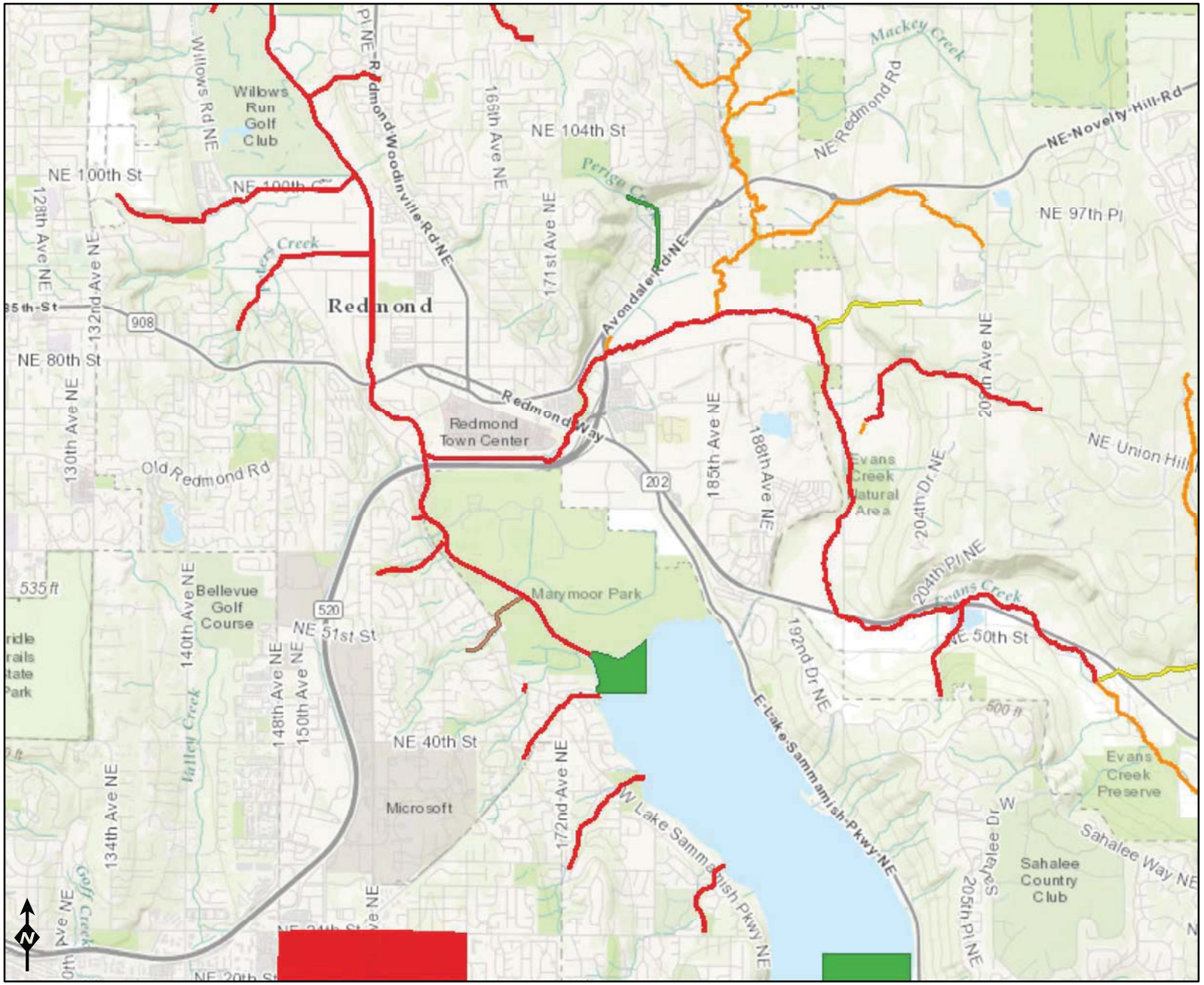
Kilometers
0 0.25 0.5

1 km Polygon
Wetland WRE-9

1 KM POLYGON
Redmond Link
554-3164-060

Map of 303(d) Listed Waters in Basin



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Miles
0 0.5 1 2

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, ©

DEPARTMENT OF ECOLOGY
State of Washington

Addendum 10, Item 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Attachment 15

WRIA 8 Cedar-Sammamish River Water Quality Improvement Projects (TMDLs)

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7165
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Project is under development	Ralph Svrjcek 425-649-7165
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7165

Appendix I

WSDOT Wetland Functions Characterization Forms

Wetland Functions & Values Form

Wetland I.D. WKC-3 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, T. Parry

Cowardin Class: PEM **Ecology Category:** III **Local Rating:** III **Wetland size:** 5.05 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Wetland WKC-3 is a depressional wetland with a constricted outlet that holds a significant amount of water during wet periods.		The wetland is not located high up in the watershed, within a riparian area, etc.
Sediment Removal	Y		The northern portion of WKC-3 receives (and filters) sediment-laden runoff from SR 520.		
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is upgradient. The wetland has >30% dense herbaceous vegetation to assist in water treatment.	Y	The wetland is adjacent to SR 520 and water is detained for long durations.
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export		N	Wetland WKC-3 is a depressional wetland with a constricted outlet and plant material cannot be transported downstream.		
General Habitat Suitability	Y		The wetland has multiple Cowardin classes. Variable ponding adds structural complexity to the wetland, too.		Connectivity to other habitats is disrupted by the surround highly disturbed areas.
Habitat for Aquatic Invertebrates	Y		The seasonal ponding of Wetland WKC-3 allows for the production aquatic invertebrates.		The types of water features within WKC-3 are limited and the aquatic invertebrate functionality is considered to be insignificant.
Habitat for Amphibians	Y		Long duration seasonal ponding within Wetland WKC-3 provides optimal habitat for diverse assemblages.		
Habitat for Wetland-Associated Mammals		N	There is no permanent water present within the wetland.		
Habitat for Wetland-Associated Birds	Y		Standing water and snags are available for use by wetland-associated birds.		
General Fish Habitat		N	No connection to a fish-bearing stream.		
Native Plant Richness	Y		Wetland WKC-3 has multiple Cowardin classes with a variety of strata, plant assemblages, plant species, and large trees.		There are some non-native species present within Wetland WKC-3.
Educational or Scientific Value	Y		The wetland is located within Marymoor Park and has the potential to provide educational values.		

Uniqueness and Heritage		N	Not documented as critical or rare habitat.		

Wetland Functions & Values Form

Wetland I.D. WRE-1 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PEM **Ecology Category:** IV **Local Rating:** IV **Wetland size:** 0.002 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		The vegetated wetland is positioned in a roadside ditch in close proximity to SR 520, which contributes significant ephemeral flow.		The wetland is small and does not hold much water.
Sediment Removal	Y		The wetland receives (and filters) sediment-laden runoff from SR 520.		
Nutrient & Toxicant Removal	Y		Roadway runoff from SR 520 upgradient is a source of pollution. Wetland has >30% dense herbaceous vegetation to assist in trapping of pollutants.		The wetland is directly adjacent to SR 520 and intercepts pollutants, however water does not remain in the wetland for a long duration, therefore there is not much time for pollutants to drop out of the water column.
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export		N	Wetland WRE-1 has a low degree of plant community structure.		
General Habitat Suitability		N	The surrounding habitat is fragmented and there is little connectivity to other habitats.		
Habitat for Aquatic Invertebrates		N	Only a “saturated” hydroperiod is present within the wetland. There is no standing water for aquatic invertebrate use.		
Habitat for Amphibians		N	There is no seasonal ponding to provide breeding grounds for amphibians.		
Habitat for Wetland-Associated Mammals		N	There is no permanent water present within the wetland.		
Habitat for Wetland-Associated Birds		N	No standing water or snags for use of wetland-associated birds.		
General Fish Habitat		N	No connection to a fish-bearing stream.		
Native Plant Richness		N	Wetland WRE-1 only has one Cowardin class and contains non-native grasses.		
Educational or Scientific Value		N	No suitable parking present and the site is not safe, as it is right next to the highway.		

Uniqueness and Heritage		N	Not documented as critical habitat or rare habitat.		

Wetland Functions & Values Form

Wetland I.D. WRE-2 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PSS **Ecology Category:** IV **Local Rating:** IV **Wetland size:** 0.001 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Parts of the vegetated wetland is positioned in a roadside ditch in close proximity to SR 520, which contributes significant ephemeral flow.		The wetland is small and does not hold much water.
Sediment Removal	Y		The wetland receives (and filters) sediment-laden runoff from SR 520.		
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is upgradient. The wetland has >30% dense herbaceous vegetation to assist in water treatment.		The wetland is directly adjacent to SR 520 and intercepts pollutants, however water does not remain in the wetland for a long duration, therefore there is not much time for pollutants to drop out of the water column.
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export		N	Wetland WRE-2 has a low degree of plant community structure.		
General Habitat Suitability		N	The surrounding habitat is fragmented and there is little connectivity to other habitats.		
Habitat for Aquatic Invertebrates		N	Only a “saturated” hydroperiod is present within the wetland. There is no standing water for aquatic invertebrate use.		
Habitat for Amphibians		N	There is no seasonal ponding to provide breeding grounds for amphibians.		
Habitat for Wetland-Associated Mammals		N	There is no permanent water present within the wetland.		
Habitat for Wetland-Associated Birds		N	No standing water or snags for use of wetland-associated birds.		
General Fish Habitat		N	No connection to a fish-bearing stream.		
Native Plant Richness		N	Wetland WRE-2 only has one Cowardin class and is composed largely of Himalayan blackberry.		
Educational or Scientific Value		N	No suitable parking present and the site is not safe, as it is right next to the highway.		

Uniqueness and Heritage		N	Not documented as critical habitat or rare habitat.		

Wetland Functions & Values Form

Wetland I.D. WRE-3 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PFO **Ecology Category:** IV **Local Rating:** IV **Wetland size:** 0.003 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Wetland WRE-3 is a depressional wetland with a partially constricted outlet.	Y	The wetland's partially constricted outlet allows for greater storage of floodwaters.
Sediment Removal	Y		There is a sediment source upgradient and minimal ponding occurs.	Y	Water from the confined channel of JD 7 fans out within Wetland WRE-3 and allows for the fallout of sediment.
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is upgradient. The wetland has seasonal flooding to assist in water treatment.		The wetland has some ponding capabilities but does not hold a lot of water for long durations.
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export	Y		The wetland >30% areal cover of dense herbaceous vegetation and seasonal flooding with intermittent flowing water.		The wetland drains into a partially constricted drainage system, so organic matter may not be effectively transported.
General Habitat Suitability	Y		The wetland is part of a vegetated corridor linking other wetland habitats.		The wetland has low species richness but is part of a vegetated corridor.
Habitat for Aquatic Invertebrates		N	The wetland has insufficient ponding and lacks aquatic bed vegetation.		
Habitat for Amphibians		N	The wetland has insufficient ponding and lacks thin-stemmed emergent vegetation.		
Habitat for Wetland-Associated Mammals		N	There is no permanent water present.		
Habitat for Wetland-Associated Birds		N	No standing water or snags for use of wetland-associated birds.		
General Fish Habitat		N	No connection to a fish-bearing stream.		
Native Plant Richness		N	The wetland is only one vegetation class and has low species richness.		
Educational or Scientific Value		N	No suitable parking is present and there has been no documented scientific or educational use.		
Uniqueness and Heritage		N	Not documented as critical habitat or rare habitat.		

Wetland Functions & Values Form

Wetland I.D. WRE-4 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PEM **Ecology Category:** III **Local Rating:** III **Wetland size:** 0.008 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration		N	Wetland WRE-4 is a slope wetland with an unconstricted outlet.		
Sediment Removal	Y		The wetland receives (and filters) sediment-laden runoff from West Lake Sammamish Parkway.		
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is upgradient. The wetland has >30% dense herbaceous vegetation to assist in water treatment.		The wetland is adjacent to SR 520 but does not detain water for long durations.
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export		N	Wetland WRE-4 has a low degree of plant community structure.		
General Habitat Suitability		N	The surrounding habitat is fragmented and there is little connectivity to other habitats.		
Habitat for Aquatic Invertebrates		N	Only a “saturated” hydroperiod is present within the wetland. There is no standing water for aquatic invertebrate use.		
Habitat for Amphibians		N	There is no seasonal ponding to provide breeding grounds for amphibians.		
Habitat for Wetland-Associated Mammals		N	There is no permanent water present within the wetland.		
Habitat for Wetland-Associated Birds		N	No standing water or snags for use of wetland-associated birds.		
General Fish Habitat		N	No connection to a fish-bearing stream.		
Native Plant Richness		N	Wetland WRE-4 only has one Cowardin class and is composed largely of reed canarygrass.		
Educational or Scientific Value		N	No suitable parking present and the site is not safe, as it is right next to the highway.		
Uniqueness and Heritage		N	Not documented as critical habitat or rare habitat.		

Wetland Functions & Values Form

Wetland I.D. WRE-5 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PFO,SS,EM **Ecology Category:** I **Local Rating:** I **Wetland size:** >10 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Riverine wetland with depressions that cover >1/2 the area of the wetland.	Y	The wetland is relatively large, can hold water, and is situated within the floodplain of Bear Creek and contains dense woody vegetation and erect herbaceous species.
Sediment Removal	Y		Riparian vegetation traps sediments during overbank flooding events.	Y	The sediment load being delivered by Bear Creek is high. The dense woody vegetation and erect herbaceous species within the wetland is effective at filtering out some of the sediment.
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is present upgradient. The wetland has >30% dense herbaceous vegetation to trap excess nutrients and heavy metals.	Y	See the comment above.
Erosion Control & Shoreline Stabilization	Y		Trees and shrubs present within the wetland can withstand erosive flood events.		This mitigation site is well vegetated and has large woody debris installments to stabilize the banks; however, some of the stream banks were observed to be slumping into the river.
Production of Organic Matter and its Export	Y		Wetland WRE-5 has a high degree of plant community structure, vegetation density, and species richness present.	Y	Bear Creek provides the outlet for organic material to be flushed.
General Habitat Suitability	Y		The wetland contains multiple Cowardin classes with high interspersion and has connectivity with other habitat types.	Y	Extensive signs of animal usage were observed.
Habitat for Aquatic Invertebrates	Y		The wetland has seasonal flooding at various water depths with emergent vegetation present.	Y	Varied structures within the wetland and Bear Creek provide habitat for aquatic invertebrates.
Habitat for Amphibians	Y		The wetland has seasonal flooding at various water depths with thin-stemmed emergent vegetation present.	Y	Varied structures within the wetland and Bear Creek provide habitat for amphibians.
Habitat for Wetland-Associated Mammals	N		The wetland is not permanently inundated.		
Habitat for Wetland-Associated Birds	Y		Snags and mud flats are present within the wetland and provide habitat features of use to wetland-associated birds.		
General Fish Habitat	Y		The wetland has a connection to bear Creek, a fish-bearing stream.	Y	Bear Creek has salmonid populations, including federally threatened Puget Sound Chinook. This wetland provide refuge for fish during periods of high flows.

Native Plant Richness	Y		The wetland has multiple Cowardin classes with primarily native species present.		
Educational or Scientific Value	Y		The wetland is partially a mitigation site located in an urban area and is in public ownership.	Y	The site provides an example of a wetland and stream mitigation site for the public to observe. A school field trip was observed here while in the field.
Uniqueness and Heritage	Y		The wetland is mapped as habitat for Chinook, coho, steelhead, sockeye, and kokanee.	Y	The wetland is mapped as habitat for Chinook, coho, steelhead, sockeye, and kokanee.

Wetland Functions & Values Form

Wetland I.D. WRE-6 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PFO,SS **Ecology Category:** I **Local Rating:** I **Wetland size:** >0.43 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Riverine wetland with depressions that cover >1/2 the area of the wetland. There is also a large backflow which provides floodwater storage.	Y	The wetland is relatively large, can hold water, and is situated within the floodplain of Bear Creek and contains dense woody vegetation and erect herbaceous species.
Sediment Removal	Y		Riparian vegetation traps sediments during overbank flooding events.	Y	The sediment load being delivered by Bear Creek is high. The dense woody vegetation and erect herbaceous species within the wetland is effective at filtering out some of the sediment.
Nutrient & Toxicant Removal	Y		Petrochemical pollution from SR 520 is present upgradient. The wetland has >30% dense herbaceous vegetation and slow moving water to trap excess nutrients and heavy metals.	Y	See comment above
Erosion Control & Shoreline Stabilization	Y		Trees and shrubs present within the wetland and can withstand erosive flood events.	Y	Riparian vegetation and large woody debris help stabilize banks and reduce erosion.
Production of Organic Matter and its Export	Y		Wetland WRE-6 has high vegetation density and species richness along with an outlet to flush organic material.	Y	Bear Creek provides the outlet for organic material to be flushed.
General Habitat Suitability	Y		The wetland contains multiple Cowardin classes with high interspersion and has connectivity with other habitat types.	Y	Extensive signs of animal usage were observed.
Habitat for Aquatic Invertebrates	Y		The wetland has seasonal flooding at various water depths with emergent vegetation present.	Y	Varied structures within the wetland and Bear Creek provide habitat for aquatic invertebrates.
Habitat for Amphibians	Y		The wetland has seasonal flooding at various water depths with thin-stemmed emergent vegetation present.	Y	The backflow area of Bear Creek provide slow water and emergent vegetation for egg laying.
Habitat for Wetland-Associated Mammals	Y		There are areas of permanent inundation and the banks of the wetland may provide denning habitat for wetland-associated mammals.		
Habitat for Wetland-Associated Birds	Y		Snags, large woody debris, and mud flats are present within the wetland and provide habitat features of use to wetland-associated birds.	Y	Great blue herons, wood ducks, and mallard ducks have been observed within the wetland.
General Fish Habitat	Y		The wetland has a connection to bear Creek, a fish-bearing stream.	Y	Bear Creek has salmonid populations, including federally threatened Puget Sound Chinook.

Native Plant Richness	Y		The wetland has multiple Cowardin classes and mature trees.		
Educational or Scientific Value	Y		The wetland is in an urban area with trails and parking in close proximity.	Y	The site provides an example of a wetland and stream mitigation site for the public to observe. A school field trip was observed here while in the field.
Uniqueness and Heritage	Y		The wetland is mapped as habitat for Chinook, coho, steelhead, sockeye, and kokanee.	Y	The wetland is mapped as habitat for Chinook, coho, steelhead, sockeye, and kokanee.

Wetland Functions & Values Form

Wetland I.D. WRE-7 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PFO, SS, EM **Ecology Category:** I **Local Rating:** I **Wetland size:** >5 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		Riverine wetland with depressions present. The wetland has dense woody vegetation which can slow the velocity of floodwaters.	Y	Side channels and depressions near Bear Creek provide flood storage potential.
Sediment Removal	Y		Riparian vegetation traps sediments during overbank flooding events.	Y	The sediment load being delivered by Bear Creek is high. The dense woody vegetation and erect herbaceous species within the wetland is effective at filtering out some of the sediment.
Nutrient & Toxicant Removal	Y		There is development and agricultural activities located a short distance upstream of the wetland.	Y	See comment above.
Erosion Control & Shoreline Stabilization	Y		Trees and shrubs present within the wetland and can withstand erosive flood events.		
Production of Organic Matter and its Export	Y		Wetland WRE-7 has high vegetation density and species richness along with an outlet to flush organic material.	Y	Bear Creek provides the outlet for organic material to be flushed.
General Habitat Suitability	Y		The wetland contains multiple Cowardin classes with high interspersion and has connectivity with other habitat types.		
Habitat for Aquatic Invertebrates	Y		The wetland has seasonal flooding at various water depths with emergent vegetation present.	Y	Varied structures within the wetland and Bear Creek provide habitat for aquatic invertebrates.
Habitat for Amphibians	Y		The wetland has seasonal flooding at various water depths with thin-stemmed emergent vegetation present.	Y	The abundant emergent vegetation present in the wetland provides potential habitat for amphibians.
Habitat for Wetland-Associated Mammals		N	The wetland is not permanently inundated.		
Habitat for Wetland-Associated Birds	Y		Snags, large woody debris, and mud flats are present within the wetland and provide habitat features of use to wetland-associated birds.		
General Fish Habitat	Y		The wetland has a connection to Bear Creek, a fish-bearing stream.	Y	Bear Creek has salmonid populations, including federally threatened Puget Sound Chinook.
Native Plant Richness	Y		Wetland WRE-7 has multiple Cowardin classes.		

Educational or Scientific Value		N	The wetland is in close proximity to parking and sidewalks, however it is surrounded by a chain linked fence and doesn't have safe accessibility.		
Uniqueness and Heritage	Y		The wetland is mapped as habitat for Chinook, coho, steelhead, sockeye, and kokanee.	Y	Bear Creek has salmonid populations, including federally threatened Puget Sound Chinook.

Wetland Functions & Values Form

Wetland I.D. WRE-8 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K Moser, T. Parry

Cowardin Class: PFO, SS, EM **Ecology Category:** II **Local Rating:** II **Wetland size:** 1.01 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration	Y		A culvert was observed discharging stormwater into Wetland WRE-8. The outlet of the wetland is constricted and ponded water has been observed.	Y	The wetland's constricted outlet allows for greater storage of floodwaters.
Sediment Removal	Y		Ponding of water in the wetland may assist in sediment removal.		
Nutrient & Toxicant Removal	Y		The wetland is downgradient of a parking lot and likely receives petrochemical pollution.		
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export	Y		Wetland WRE-8 has high vegetation density and interspersion along with an outlet to flush organic material.		
General Habitat Suitability	Y		The wetland contains multiple Cowardin classes with high interspersion and is located near the Bear Creek wetland complex (Wetland WRE-5 and 6).		
Habitat for Aquatic Invertebrates	Y		The wetland has seasonal flooding at various water depths with emergent vegetation present.	Y	Various water depths and habitat structures within the wetland provide habitat for aquatic invertebrates.
Habitat for Amphibians	Y		The wetland has seasonal flooding at various water depths with thin-stemmed emergent vegetation present.		
Habitat for Wetland-Associated Mammals		N	The banks of the wetland may provide denning habitat for wetland-associated mammals.		
Habitat for Wetland-Associated Birds	Y		The wetland has emergent, shrub-scrub, and forest vegetation classes that wetland-associated birds may utilize.		
General Fish Habitat		N	The wetland has no connection to a fish-bearing stream.		
Native Plant Richness	Y		Wetland WRE-8 has multiple Cowardin classes.		

Educational or Scientific Value	Y		The wetland is in close proximity to parking and walking trails and is in public ownership.		
Uniqueness and Heritage		N	Wetland has no documented occurrence of state or federally listed species, critical habitat, special plant communities, etc.		

Wetland Functions & Values Form

Wetland I.D. WRE-9 **Project:** Downtown Redmond Link Extension **Assessed by:** J. Wozniak, K. Moser, T. Parry

Cowardin Class: PFO **Ecology Category:** III **Local Rating:** III **Wetland size:** 0.01 ac **Date:** 7/2/2018

Function/Value	Occurrence Y	Occurrence N	Rationale	Principal Function(s)	Comments
Flood Flow Alteration		N	This wetland is supported by a high water table and saturation. Little to no water is ponded within this wetland.		
Sediment Removal		N	No ponding occurs within the wetland.		
Nutrient & Toxicant Removal		N	The wetland is not in close proximity to any pollution-producing sources.		
Erosion Control & Shoreline Stabilization		N	The wetland is not associated with a water course or shoreline.		
Production of Organic Matter and its Export		N	The wetland has no outlet to export organic matter.		
General Habitat Suitability	Y		Wetland WRE-9 is located near the Bear Creek wetland complex.		
Habitat for Aquatic Invertebrates		N	The wetland has inadequate ponding and lacks emergent/aquatic bed vegetation.		
Habitat for Amphibians		N	The wetland has insufficient ponding durations to sustain amphibians and lacks thin-stemmed emergent vegetation.		
Habitat for Wetland-Associated Mammals		N	The wetland does not have permanently ponded water.		
Habitat for Wetland-Associated Birds		N	The wetland has only a forest vegetation class and does not provide any particular benefits for wetland-associated birds.		
General Fish Habitat		N	The wetland has no connection to a fish-bearing stream.		
Native Plant Richness	Y		The wetland contains mature trees and is dominated by native species yet there is little structural diversity of vegetation present with the wetland.		
Educational or Scientific Value		N	The wetland is very small and simple and isn't very beneficial as an education site.		

Uniqueness and Heritage		N	Wetland has no documented occurrence of state or federally listed species, critical habitat, special plant communities, etc.		

Appendix J

Mitigation Site 3 - Wetland Descriptions

Downtown Redmond Link Extension Mitigation Site 3 Wetland Delineation Report

February 2019

Prepared for

Central Puget Sound Regional Transit Authority
401 S. Jackson Street
Seattle WA, 98104

Prepared by

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104
T. 206.394.3700 F. 1.855.542.6353
www.parametrix.com

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ACRONYMS AND ABBREVIATIONS

ACIS	Applied Climate Information System
cfs	cubic feet per second
Corps	U.S. Army Corps of Engineers
Ecology	Washington State Department of Ecology
FGDC	Federal Geographic Data Committee
HGM	hydrogeomorphic
MTCA	Model Toxics Control Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHW	ordinary high water
PAB	palustrine aquatic bed
PCB	polychlorinated biphenyls
PEM	palustrine emergent
PFO	palustrine forested
PHS	Priority Habitats and Species
PSS	palustrine scrub-shrub
RZC	Redmond Zoning Code
Sound Transit	Central Puget Sound Regional Transit Authority
UPL	upland
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Area

1. INTRODUCTION

This wetland delineation report has been prepared to document wetlands within the Mitigation Site 3 study area in Redmond, Washington. This site is being evaluated as a potential mitigation area to compensate for the Downtown Redmond Link Extension Project (Project) wetland impacts. Methods and results of the wetland investigation for Mitigation Site 3 are discussed below.

1.1 Purpose of Study

The Project will add 3.4 miles of light rail and two new light rail stations from the Redmond Technology Station (formerly called the Overlake Transit Center Station) to downtown Redmond. Mitigation Site 3 was identified as a potential mitigation site by the Central Puget Sound Regional Transit Authority (Sound Transit) in collaboration with stakeholders from King County and the City of Redmond. The study area is within King County-owned Marymoor Park but is under City of Redmond jurisdiction.

Existing wetlands within Mitigation Site 3 were delineated to accurately provide information on potential mitigation opportunities. The purpose of this report is to provide a thorough inventory of wetlands in the study area that can be used for: (1) assessing mitigation options, (2) quantifying potential mitigation areas, and (3) providing mitigation site design concepts.

1.2 Study Area

Mitigation Site 3 is located west of the Sammamish River near the Lake Sammamish outlet within Section 13, Township 25N, Range 05E, Willamette Meridian. The study area consists of two parcels: 132505-9042 and 132505-9010. The study area on the northern parcel (132505-9042) only includes the area south of the gravel access road. Mitigation actions would primarily occur in the southern parcel (132505-9010). Wetlands were delineated in the northern parcel to determine regulated buffer widths and other constraints. Figure 1-1 shows the location of the study area.

West Lake Sammamish Parkway NE borders the western extent of the study area and residential housing borders the southern end. The northern limit of the study area is the gravel parking lot and access road for the Sammamish Rowing Association Hod Fowler Boathouse (boathouse). There are two ponds on either side of the access road; the southernmost pond is within the study area. Southwest of the ponded area is a cleared powerline right of way that discontinues halfway through the study area (where the power lines connect to the rowing club buildings). The study area drains east to the Sammamish River and is within Water Resource Inventory Area (WRIA) 8, Lake Washington/Cedar/Sammamish Watershed.

Source: USGS, City of Redmond, King County, Parametrix

0 0.125 0.25 0.5 Miles

Study Area
Parcels

Figure 1-1
Mitigation Site 3 Vicinity Map
Downtown Redmond Link Extension

2. METHODS

Parametrix biologists reviewed existing information, coordinated with agencies, and conducted on-site field investigations, during which wetland boundaries were mapped on site. The methods for these assessment steps are described in the sections below.

2.1 Review of Existing Information

The following existing information was used in this wetland and streams assessment to supplement the field investigations:

- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) online interactive mapper (USFWS 2018)
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2018)
- Climate data for King County measured from Seattle Sand Point WFO Station (Applied Climate Information System [ACIS] 2018)
- Priority Habitats and Species (PHS) data from the Washington Department of Fish and Wildlife (WDFW) (WDFW 2018a)
- King County iMap database (King County 2018a)
- King County Hydrologic Information Center, stream flow data for station 51m (Sammamish River at Marymoor Weir) (King County 2018b)
- King County Parcel Viewer (King County 2018c)
- City of Redmond Critical Areas Map (City of Redmond 2005)
- Aerial imagery of the study area (Google Earth 2018)
- Historic aerial imagery of the study area (NETROnline 2018)

2.2 Wetland Identification and Delineation

Field investigations at Mitigation Site 3 occurred in March, April, May, and June 2018 to identify and map wetlands in accordance with Redmond Zoning Code (RZC) 21.64.010. Project biologists used the methods specified in the U.S. Army Corps of Engineers (Corps) Wetland Delineation Manual (Environmental Laboratory 1987) and the indicators described in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010) to delineate on-site wetlands.

Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. An area must meet these three criteria or exhibit at least one positive field indicator of wetland vegetation, soils, and hydrology to be considered a wetland. Wetland determination data forms from the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Corps 2010) were recorded for each wetland.

The wetland field assessment evaluated vegetation, soils, and hydrologic conditions. Each of these parameters is described in the following subsections.

2.2.1 Vegetation

During the field investigations by project biologists, dominant plant species were observed and recorded on data forms for each sample plot. The dominant plants and their wetland indicator status were evaluated to determine whether the vegetation was hydrophytic, which is generally defined as vegetation adapted to prolonged saturated soil conditions. To meet the hydrophytic vegetation criterion, typically more than 50 percent of the dominant plants must be Facultative, Facultative Wetland, or Obligate, based on the plant indicator status category assigned to each plant species by the USFWS (Lichvar et al. 2016).

Scientific and common plant names follow currently accepted nomenclature. Most names are consistent with Flora of the Pacific Northwest (Hitchcock and Cronquist 1973), Plants of the Pacific Northwest Coast (Pojar and MacKinnon 1994), and the PLANTS Database (USDA 2018).

2.2.2 Soils

Generally, an area must have hydric soils to be regulated as a wetland. Hydric soil forms when soils are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper layer. Biological activities in saturated soil result in reduced oxygen concentrations that cause a preponderance of organisms using anaerobic processes for metabolism. Over time, anaerobic biological processes result in accumulation of organic soil (e.g., peat) and/or certain mineral soil color patterns, which are used as field indicators of hydric soils. Soils were examined by excavating sample plots to a depth of at least 16 inches, where feasible, to observe soil profiles, colors, and textures. Munsell® color charts (Munsell® Color 2010) were used to describe soil colors.

2.2.3 Hydrology

The study area was examined for evidence of hydrology. An area is considered to have wetland hydrology when soils are ponded or saturated consecutively for 12.5 percent of the growing season. The growing season (based on data gathered from the Seattle Sand Point WFO station) generally occurs from early February (February 3) to early December (December 8) (Snyder et al. 1973). Therefore, ponding or saturation must be present for approximately 38 consecutive days. Primary indicators of hydrology include surface water inundation, sediment deposits, high water table, saturated soils, water marks, drift deposits, algal mat or crust, iron deposits, surface soil cracks, inundation visible on aerial imagery, sparsely vegetated concave surface, salt crust, aquatic invertebrates, hydrogen sulfide odor, oxidized rhizospheres along living roots, presence of reduced iron, recent iron reduction in tilled soils, and stunted or stressed plants. Secondary indicators of hydrology include drainage patterns, watermarks on vegetation, dry-season water table, saturation visible on aerial imagery, geomorphic position, shallow aquitard, FAC-neutral test, frost-heave hummocks, and water-stained leaves.

2.3 Wetland Classification and Rating

Wetlands were classified according to the USFWS Classification of Wetlands and Deepwater Habitats of the United States (FGDC 2013; Cowardin et al. 1979). The Hydrogeomorphic (HGM) classification was assigned to each wetland using methods developed in a Hydrogeomorphic Classification System for Wetlands (Brinson 1993). The City of Redmond has adopted the Washington State Wetland Rating System Update (Ecology 2014 rating system) (Hruby 2014) to assess wetland functions (RZC 21.64.030). Wetlands are rated as Category I, II, III, or IV based on functions provided, including water quality improvement, surface water storage, and wildlife habitat.

3. RESULTS

The results of the background information review and field assessments are presented in the following sections. Documents and maps related to the existing information review are presented in Appendix A. Photographs of the study area are included in Appendix B.

3.1 Summary of Existing Information

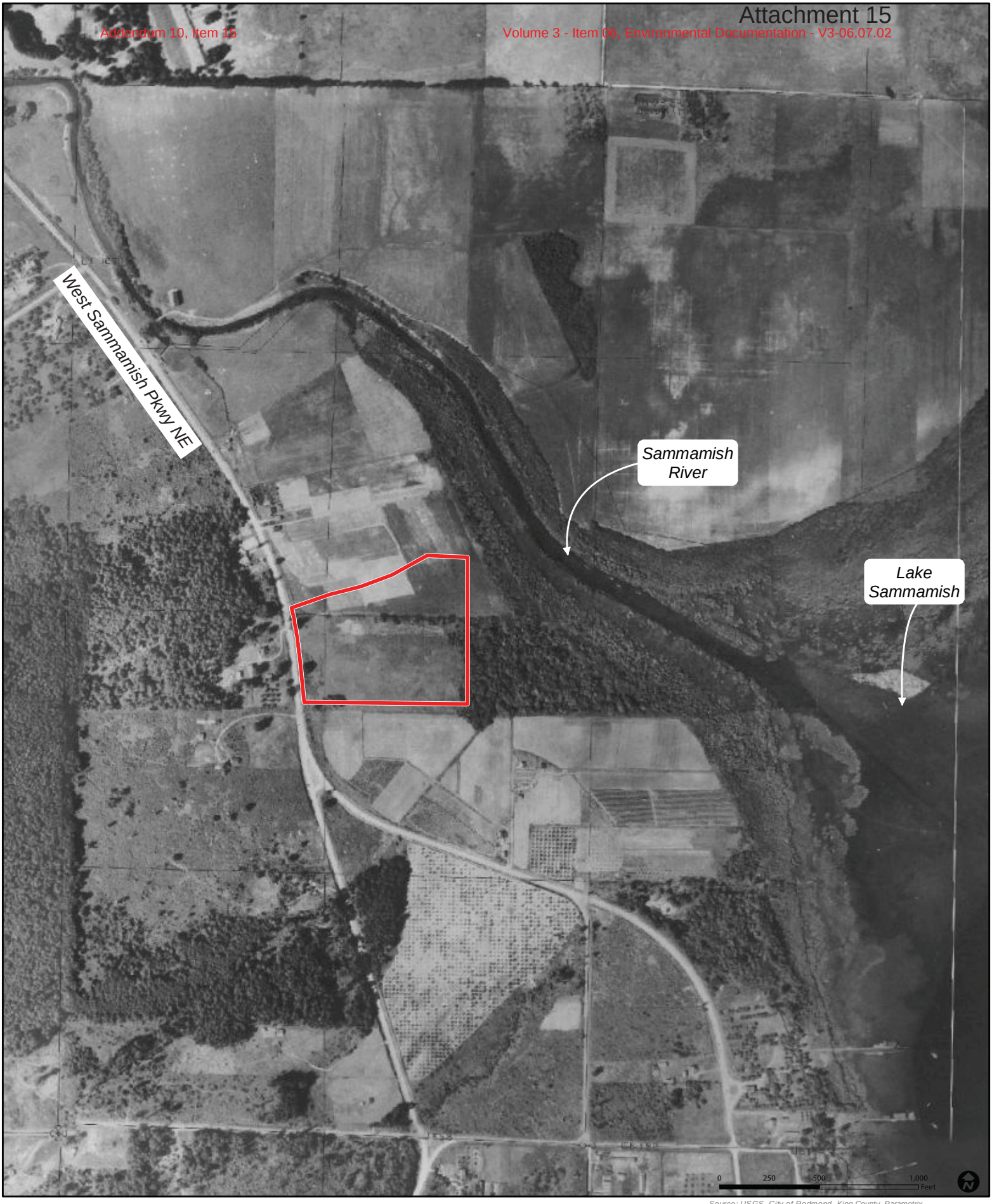
3.1.1 Historical Land Use

The general landscape of the study area has been highly modified by human development since European settlement in the 1800s. The land was extensively logged, and the Sammamish River was channelized for log transportation. The river was also leveed and wetlands were drained and converted to farmland. When Lake Washington was lowered 10 feet in 1916 after the construction of the Lake Washington Ship Canal, Lake Sammamish subsequently lowered in elevation, and associated wetlands were further drained. In 1962, the Corps dredged the Sammamish River and removed large woody debris and riparian trees to manage flooding. A weir was constructed in 1964 to control outflow from Lake Sammamish and maintain minimum summer lake levels. A "Transition Zone" was also constructed directly downstream of the weir to increase surface water storage capabilities of the river during high flow events (King County 2013) (see Figure 1-1 for weir and Transition Zone locations in relation to the study area).

At a site-specific level, the study area has been occupied by a variety of historic land uses. Aerial imagery from 1936 shows the study area used as pasture or crop land, with drainage ditches (see Figure 3-1). In 1958, the Lake Hills Sewage Disposal plant was constructed north of the study area. Two sewage lagoons were excavated in 1965 and used for sludge disposal until 1967. One of those sewage lagoons is located in the study area (see Figure 3-2 for location). The City of Seattle operated the disposal plant until it closed in 1973 (Ecology 1996).

In 1991, an investigation to identify possible harmful chemicals and metals present at the disposal plant began. The findings concluded that the treatment structures were impacted with arsenic, cadmium, chromium, mercury, and lead, as well as polychlorinated biphenyls (PCBs) with concentrations greater than the Model Toxics Control Act (MTCA) sediment and shallow soil standards. Cleanup began in 1994 and the Washington State Department of Ecology (Ecology) issued a No Further Action letter in 2006 for the cleanup and wetland restoration of the site. A Notice of Completion letter was issued in 2015 (Ecology 2015). King County bought this parcel in 1996 with plans to add it to Marymoor Park.

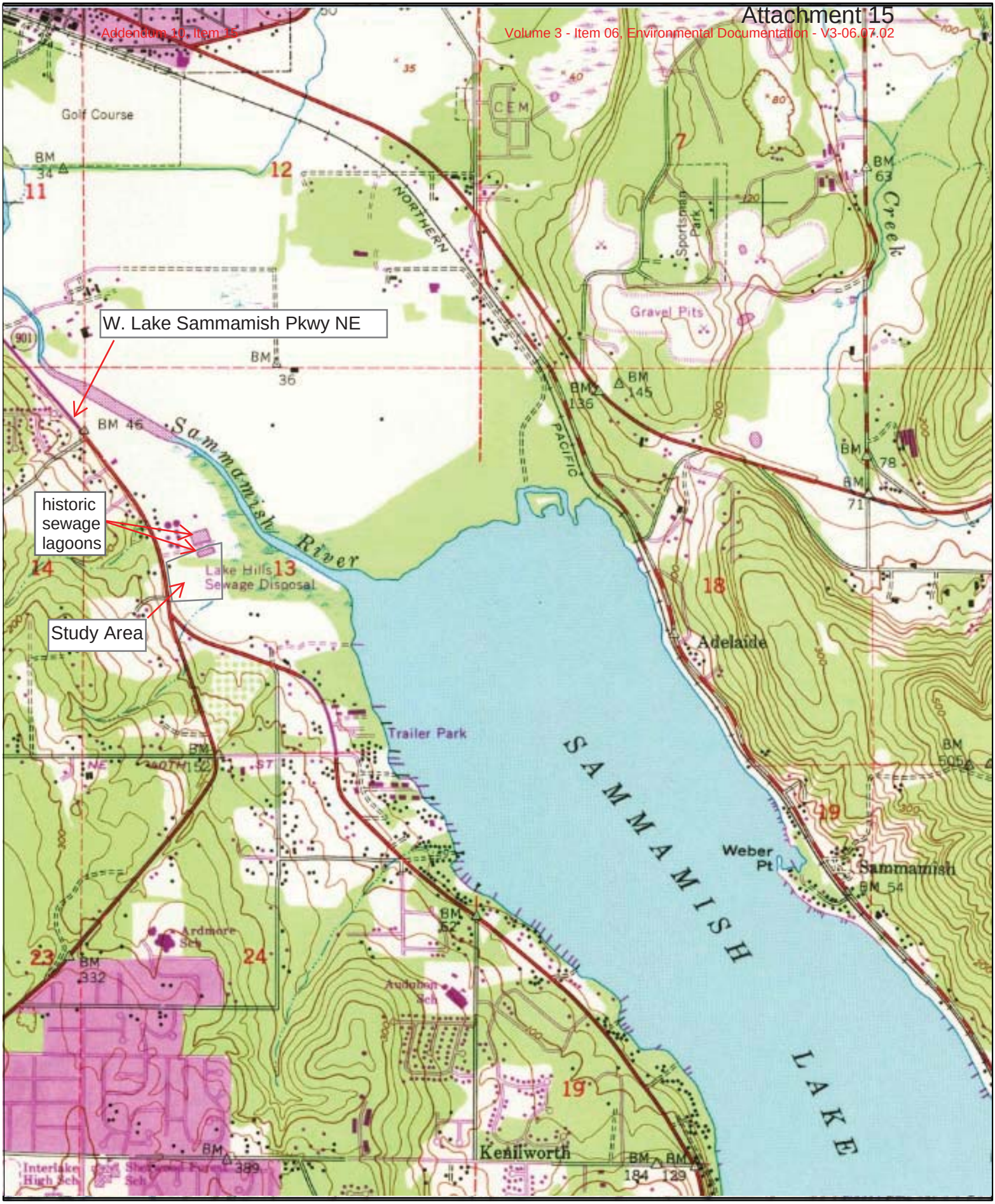
Until the early 2000s, pasture land remained on the parcel south of the treatment plant and was actively used for farming, and drainage ditches were maintained. A single-family residence was constructed on the parcel sometime between 1969 and 1980 (NETROnline 2018). According to the property details documented on King County's Parcel Viewer (2018c), this parcel was bought by King County in 1996 for Marymoor Park and the residence on site was demolished in 1998. Currently some of the site is maintained by King County Parks as a willow propagation site, with the majority of the site managed as undeveloped open space.



Source: USGS, City of Redmond, King County, Parametrix

Study Area

Figure 3-1
Historical Aerial (1936)
Downtown Redmond Link Extension



Source: USGS, City of Redmond, King County, Parametrix

Figure 3-2
Historical USGS Topo (1968)
Downtown Redmond Link Extension

3.1.2 Mapped Wetlands and Streams

The USFWS (2018) identifies multiple wetlands and a stream in the study area (see Figure 1 in Appendix A). An excavated palustrine unconsolidated bottom wetland is mapped in the northern portion of the site near the gravel access road to the boathouse in the location of the sewage ponds. Palustrine emergent wetland with a temporary flooded water regime is mapped directly south of the boathouse and transitions into a large palustrine forested wetland. Palustrine emergent wetland with a seasonally flooded water regime extends west to the tree line along West Lake Sammamish Parkway NE. A horseshoe-shaped area displayed as non-wetland is mapped directly north of this palustrine emergent wetland. The City of Redmond (2005) maps the entire study area as wetland (See Figure 2 in Appendix A). King County iMAP (2018a) maps what appears to be channelized streams within the study area that drain east towards the Sammamish River (see Figure 3 in Appendix A). USFWS (2018) maps an intermittent unnamed stream flowing under West Lake Sammamish Parkway NE and into the northwest corner of the study area (see Figure 1 in Appendix A).

3.1.3 Mapped Soils

Soil types mapped by NRCS within the study area include Kitsap silt loam, Sultan silt loam, Earlmont silt loam, and Tukwila Muck (see Figure 4 in Appendix A). The Kitsap series is composed of very deep, moderately well-drained soils formed in lacustrine sediments. This soil type can be found on terraces with slopes of 0 to 70 percent and have a low likelihood of hydric soil conditions. The Sultan series are very deep, moderately well-drained, and formed in recent alluvium. These soils can be found in floodplains with a 0 to 3 percent slope and have a moderately low likelihood for hydric soil conditions. The Earlmont series features soils that are very deep, poorly drained, and formed in diatomaceous earth. This soil type is listed as high likelihood of hydric soil conditions. The Tukwila series are deep, very poorly drained, formed in organic soils, and are stratified with diatomaceous earth and volcano ash. These soils can be found in depressions and on stream terraces and have a high likelihood of hydric soil conditions (NRCS 2018).

3.1.4 Hydrologic Conditions

Project biologists compiled and analyzed precipitation and stream gauging data to characterize conditions observed in the field. Precipitation and stream gauging data were used to understand the hydrologic conditions observed in wetlands in comparison to typical conditions. Wetland delineations are calibrated to identify typical conditions (Environmental Laboratory 1987). The results of the analysis are presented in the subsections below.

3.1.4.1 Precipitation

Precipitation data were compiled for a weekly view of rainfall amounts versus “normal” rainfall amounts. March 2018 was fairly dry, with 0.31 inch of rainfall the week of March 26. April had wetter conditions, and during the week of April 9 rainfall was 3.4 inches, which was 500 percent more than the normal rainfall amount as recorded at the Seattle Sand Point WFO weather station. All of the weeks within May had precipitation much drier than the normal weekly precipitation values (see Table 3-1; ACIS 2018).

Additionally, climate data collected at the Seattle Sand Point WFO weather station were used to perform an NRCS Climate Analysis for Wetlands Tables (WETS tables) (ACIS 2018). According to NRCS WETS tables, the three months prior to the March field investigation (December, January, February) and the April field investigation (January February, March) were determined to be normal. The three months

prior to the May and June field investigations were also determined as normal after data formulation in the WETS tables (see Figures 5a–5d in Appendix A; ACIS 2018). Additional precipitation data for the year prior to the field investigation are provided in Figure 3-3.

Table 3-1. Weekly Precipitation Summary from Seattle Sand Point WFO, Washington (GHCN: USW00094290) in King County

Week (2018)	Rainfall (inches)	Normal Rainfall
March 5, 2018 - March 11, 2018	0.54	1.00
March 12, 2018 - March 18, 2018	0.23	0.93
March 19, 2018 - March 25, 2018	1.3	0.80
March 26, 2018 - April 1, 2018	0.31	0.77
April 2, 2018 - April 8, 2018	1.51	0.73
April 9, 2018 - April 15, 2018	3.4	0.68
April 16, 2018 - April 22, 2018	0.24	0.63
April 23, 2018 - April 29, 2018	0.4	0.62
April 30 2018 - May 6, 2018	0.02	0.47
May 7 2018 - May 13, 2018	0.01	0.46
May 14 2018 - May 20,2018	0.2	0.48
May 21 2018 - May 27, 2018	0.01	0.51
May 28 2018 - June 3, 2018	0.07	0.52

3.1.4.2 Stream Gauging:

Sammamish River stream gauging data collected by King County are presented in Figures 3-3 and 3-4. Due to the proximity to the study area and the hydrologic impact on the local water table, these data were used in conjunction with observations of surface water, high water table, saturation, and other wetland hydrology indicators in the study area to support the hydrologic assessments at each sampling point. The stream gauge data suggest that the field investigation was conducted under representative flow conditions (Figures 3-3 and 3-4).

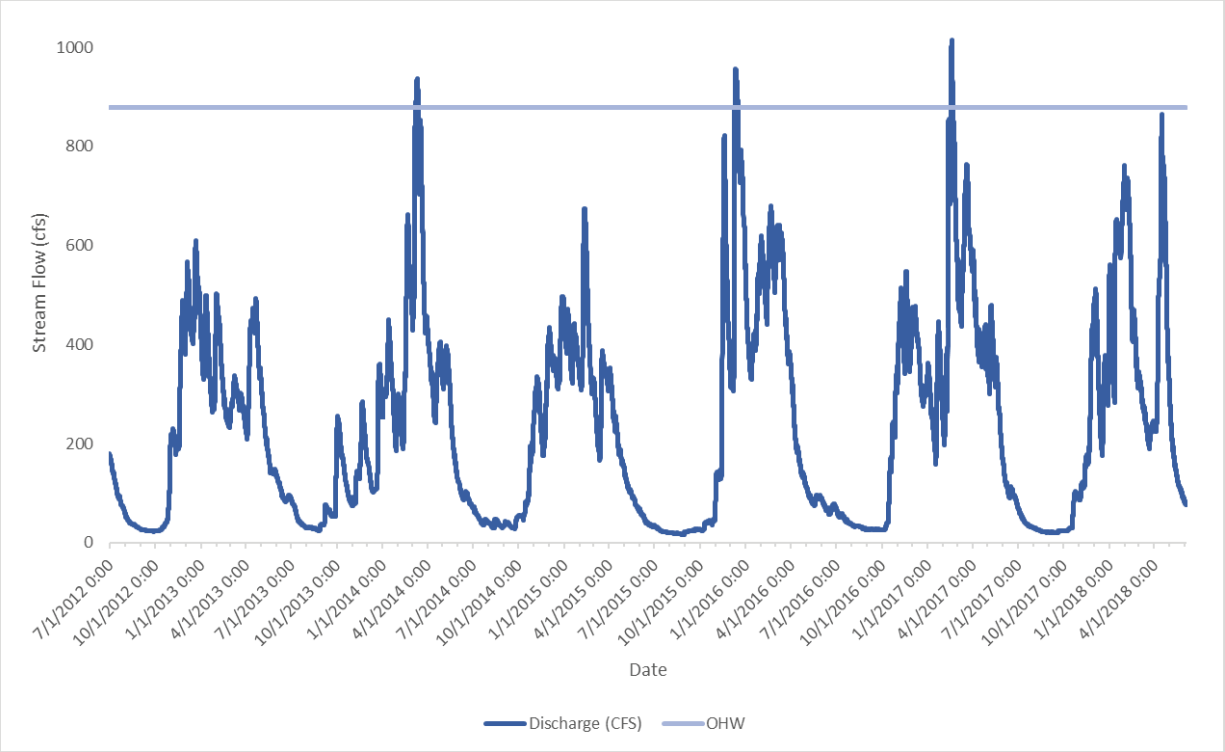


Figure 3-3. Sammamish River Stream Flow, July 1, 2012, to June 4, 2018
(as recorded at the King County 51m station and reported using hourly intervals)

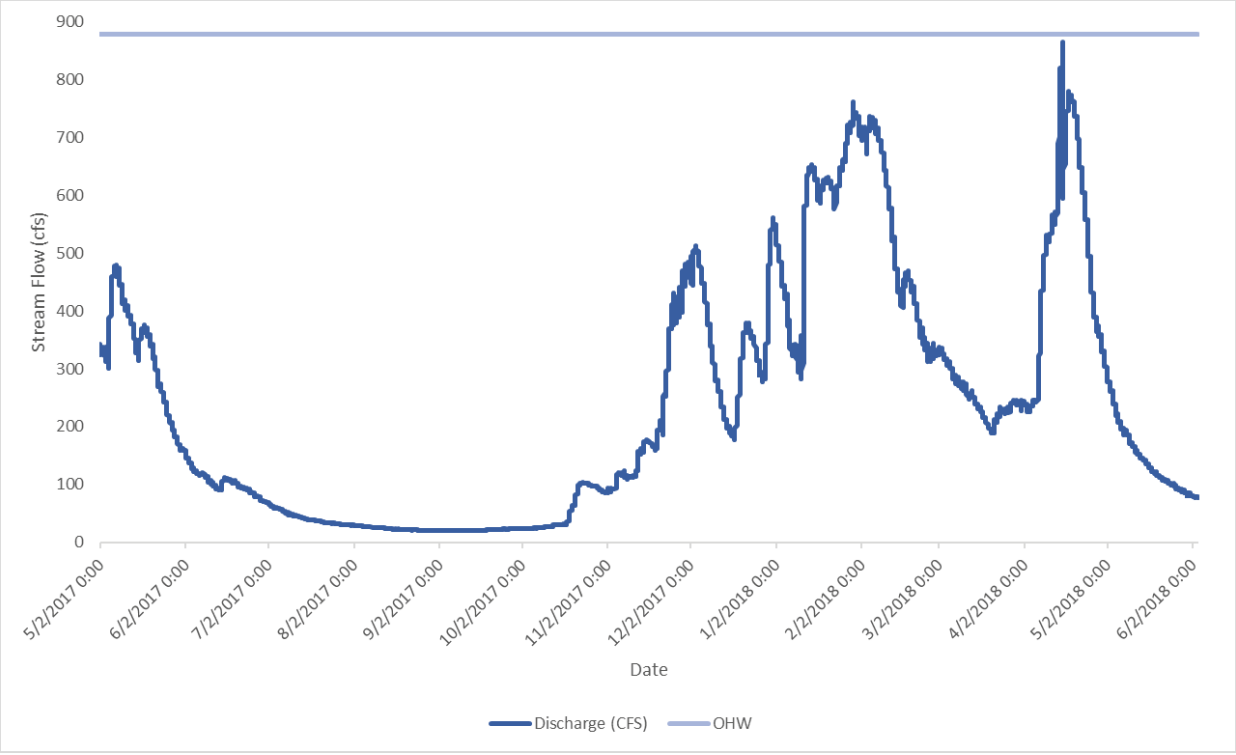


Figure 3-4. Sammamish River Stream Flow, May 2, 2017, to June 4, 2018
(as recorded at the King County 51m station and reported using hourly intervals)

3.2 Results of Field Investigation

Parametrix biologists conducted a reconnaissance field assessment on March 23, 2018, and additional field visits on April 11, 12, and 18, May 30, and June 4, 2018. During the initial reconnaissance in March, the study area appeared to be fairly dry in the western portion. The average rainfall the week of March 23, 2018, was 0.31 inch, which is less than half the normal rainfall for that week (0.77 inch) (see Table 3-1).

Field visits conducted on April 11, 12, and 18, 2018, had much wetter conditions than the March visit. Sample points lacking hydrology in March showed an increase in water table elevation of over 18 inches. Precipitation data the week up to April 11 had rainfall totaling 3.4 inches (compared to the normal 0.68 inch). This is a 500 percent difference in rainfall compared to normal rainfall amounts. The following two weeks in April had drier than normal precipitation with 0.24 inch for the week of April 16 and 0.4 inch the week of April 23. Normal precipitation for these weeks is 0.63 and 0.62 inch, respectively (Table 3-1) (ACIS 2018).

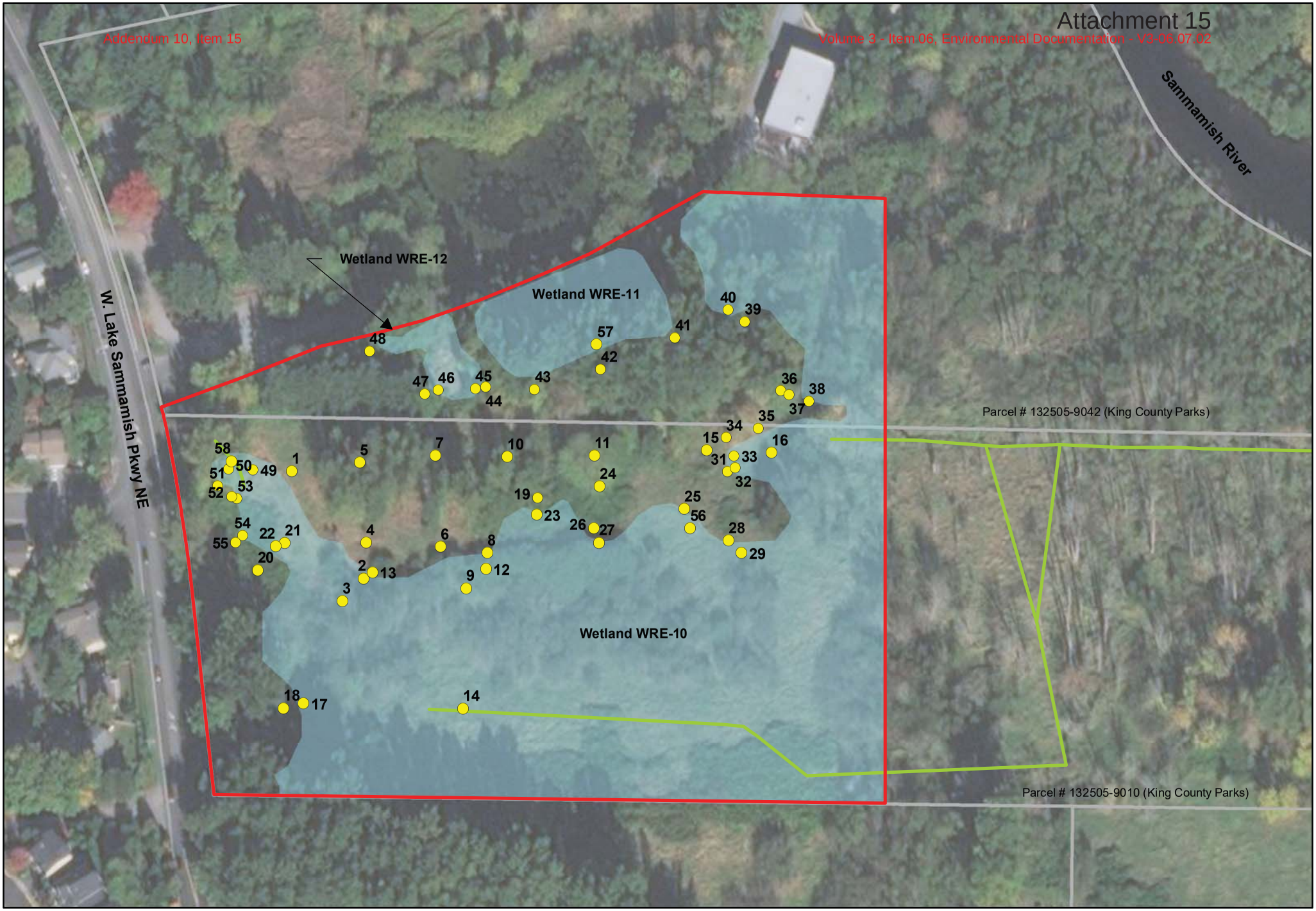
Site visits conducted in May and early June to re-examine hydrology showed a return to conditions observed in March. It was assumed that hydrologic conditions observed during the April field investigation were at or above the typical maximum for the growing season. This was considered when determining the wetland boundaries on a site with extensive prior ground disturbance and wetland draining. Heavy precipitation inundated/saturated the site, which then drained quickly rather than being present for consecutive days during the growing season. The maximum extent of this inundation and saturation in April was used as the conservative basis for the wetland delineation.

Soils that met technical color criteria for hydric soils were observed to be more widespread than areas with wetland hydrology. Previous land use activities altered and tilled original soil layers, resulting in inclusions of deeper soil layers in surface profiles. The previous draining of wetlands and persistence of drainage ditches may have reduced the size of the area with wetland hydrology, resulting in an area of drained hydric soils along the perimeter of the wetlands.

Three wetlands were identified and delineated within the study area: Wetlands WRE-10, WRE-11, and WRE-12 (see Figure 3-5) (Wetlands WRE-1 through -9 are associated with the Downtown Redmond Link Extension Project study area).

Project biologists did not observe any streams in the study area. The location of the unnamed stream mapped by NWI in the northwest corner of Mitigation Site 3 was near a culvert that drained into Wetland WRE-10. The outlet flowed into an excavated ditch that runs north to south within the site, approximately 70 feet east of West Lake Sammamish Parkway NE (see Figure 3-5). During site reconnaissance, the ditch was fully vegetated with wetland vegetation, and there was no bed or bank to define a stream area. The ditch appeared to also intercept groundwater seepage from the slope below West Lake Sammamish Parkway NE, which then drains towards the central portion of the parcel. There was no observed connection of this ditch to the ditches of the site that flow east to west (Figure 3-5). King County iMAP (2018a) maps stream features where these ditches were observed in the field. The entire mitigation study area (including wetlands WRE-10, -11, and -12 and existing drainage ditches) drains to Country Creek, a tributary to the Sammamish River (Figure 3-6).

Hydrology, plant communities, soil characteristics, and wetland functional abilities are described below for each wetland. Wetland determination data forms and wetland rating forms are included in Appendices C and D, respectively. Table 3-2 summarizes the characteristics, ratings, and associated buffers for each wetland in the study area.



Source: USGS, City of Redmond, King County, Parametrix

0 75 150 300 Feet

Parcel Lines
Study Area
Sample Plots
Wetland
Ditch

Figure 3-5
Delineated Wetlands
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

Mitigation Site Boundary
Mitigation Site Drainage Subbasin
Streams

Figure 3-6
Mitigation Site Drainage Basin
Downtown Redmond Link Extension

Table 3-2. Wetlands within the Project Area

Wetland ID	USFWS Class[a]	HGM Class[b]	Redmond/ Ecology Rating[c]	Ecology Rating Habitat Score	Standard Buffer (Feet)[d,e]
Wetland WRE-10	PFO/PSS/PEM	Depressional	II	8	150
Wetland WRE-11	PFO	Depressional	II	7	100
Wetland WRE-12	PFO	Depressional	III	6	75

PFO = palustrine forested, PSS = palustrine scrub-shrub, PEM = palustrine emergent

a FGDC 2013; Cowardin et al. 1979
b Brinson 1993
c Hruby 2014
d RZC 21.64.030(B)
e Buffers assuming low land use impact

3.2.1 Wetland WRE-10

Size: approximately 27 acres
Redmond and Ecology Rating: Category II
Buffer: 150 feet
USFWS Classification: Palustrine forested, scrub-shrub, emergent
HGM Classification: Depressional
Sample plots: SP-1 (UPL) to SP-40 (WET); SP-49 (UPL) to SP-56 (WET); SP-58 (UPL), SP-59 (UPL)

Wetland WRE-10 is located in Marymoor Park directly south of the boathouse. The majority of Wetland WRE-10 is within the Sammamish River 100-year floodplain (King County 2018) (see Figure 6 in Appendix A). As mapped by the City of Redmond and USFWS (City of Redmond 2005, USFWS 2018), Wetland WRE- 10 is part of a larger wetland complex associated with the Sammamish River and Lake Sammamish that extends off-site to the east (see Figures 1 and 2 in Appendix A). The western boundary of the study area is defined by road fill supporting West Lake Sammamish Parkway NE. USFWS (2018) NWI maps an intermittent stream in this area that originates upslope from the west and flows under West Lake Sammamish Parkway NE. Another feature within Wetland WRE-10 is a small ponded area near the boathouse. This ponded area appears to accept discharge from Wetland WRE-11 via a small culvert under an old road on top of the eastern berm containing the pond. This appears to be an old access road for the Lake Hills Sewage Treatment facility based on aerial photography from 1968 (NETROnline 2018).

The Sammamish River is a highly modified and maintained system in response to flooding and historical land uses. The weir downstream from the wetland controls the outflow from Lake Sammamish, and the "Transition Zone" downstream of the weir can support high flows; therefore, this system provides minimal overbank flooding hydrology to Wetland WRE-10 (King County 2013). The hydrology of Wetland WRE-10 is supported by a high groundwater table and precipitation. Field biologists sampled 47 pits throughout the wetland to determine extent of wetland hydrology in the study area.

Soils sampled throughout the study area displayed a variety of characteristics. Sample pits with hydric soils commonly consist of a silty loam texture with a very dark grayish brown (10YR 3/2) surface layer overlaying a dark grayish brown (10YR 4/2) and/or dark gray (10YR 4/1) depleted layer, frequently with dark yellowish brown (10YR 4/6) redoximorphic features. Soils observed within Wetland WRE-10 meet hydric soil indicators for *depleted matrix* (F3), *depleted below dark surface* (A11), *Redox dark surface* (F6), and *hydrogen sulfide* (A4). Soils in the wetland were mapped as Kitsap silt loam, Earlmont silt loam, Sultan silt loam, and Tukwila muck (NRCS 2018). Many relict redox concentrations (evidenced to be not

active based on sharp edges to color features and lack of hydrology) were observed in addition to disturbed soil profiles that resulted from historic tilling of the land, and site grading. Anthropogenic features such as debris and brick were observed in several sample pits.

Wetland WRE-10 is vegetated with forest, scrub-shrub, and emergent plant communities. The forest community is primarily located in the north and east portions of the wetland and is composed of red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera*), and mature Sitka (*Salix sitchensis*) and Pacific willows (*S. lucida*). The center of the study area consists of shrub-sized Sitka and Pacific willows. Other shrubs present within the wetland include red-twig dogwood (*Cornus alba = C. sericea*) and patches of Himalayan blackberry (*Rubus armeniacus*). The majority of the emergent vegetation community is reed canarygrass (*Phalaris arundinacea*). Other emergent plant species within the wetland include stinging nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), soft rush (*Juncus effusus*), giant horsetail (*Equisetum telmateia*), and Kentucky bluegrass (*Poa pratensis*).

Wetland WRE-10 is classified as palustrine forested, scrub-shrub, and emergent under the USFWS system and depressional under the HGM system (due to very limited and infrequent flooding of the site by the river). Wetland WRE-10 scored 20 points using Ecology's 2014 rating system and is rated a Category II according to the City of Redmond (RZC 21.64.030(A)) and Ecology. The City of Redmond requires a 150-foot buffer for Category II wetlands with low impact land uses and a high level of function for habitat (RZC 21.64.030(B)).

Functions provided by the wetland are moderate overall, as assessed by the Ecology 2014 rating system, with 20 total points. Wetland WRE-10 scored 7 points (moderately high) for water quality functions. Discharges of untreated stormwater from West Lake Sammamish Parkway NE and the proximity of urban development increases the potential for water quality improvement. Over half of the wetland is seasonally ponded and contains persistent ungrazed vegetation, which assists in water treatment. Wetland WRE-10 scored 5 points (moderate) for hydrologic functions. Hydrologic functions of Wetland WRE-10 in the landscape are low because this wetland is in a flat depression with a ditched outlet and ponding capabilities. The habitat functional score for the site is 8 points (high). Multiple vegetation and water regimes support the high interspersion of habitats at the site. Various habitat features are present, such as large downed logs, snags, and thin-stemmed persistent plants for amphibian egg-laying. Wetland WRE-10 provides a connectivity to diverse habitats and is identified by WDFW as a Biodiversity Area/Corridor (2018a).

3.2.2 Wetland WRE-11

Size: 0.5 acre
Redmond and Ecology Rating: Category II
Buffer: 100 Feet
USFWS Classification: Palustrine forested
HGM Classification: Depressional
Sample plots: SP-41 (UPL) to SP-43 (UPL); SP-57 (WET)

Wetland WRE-11 is located directly south of the gravel access road to the boathouse. This wetland occurs on the banks of the southern sewage lagoon excavated in 1965 as part of the Lake Hills Sewage Disposal plant. Both sewage ponds (north and south of the boathouse access road) were involved in cleanup and wetland restoration efforts and are presently unmaintained. Aerial imagery from 1968 shows access roads surrounding the perimeter or the sewage lagoons, and aerial imagery from 1998 shows a single-family residence with an access road south of Wetland WRE-11 (NETROnline 2018). Soils pits sampled upslope south of the wetland reinforce the historic presence of these access roads, as compacted gravel was observed 10 inches below the surface.

The hydrology of Wetland WRE-11 is supported by a high groundwater table and surface runoff from the boathouse access road and other adjacent areas. The wetland was observed discharging into Wetland WRE-10 through a small culvert. The culvert is also perched above the normal ponding level of Wetland WRE-11 and only discharges when water levels in the ponds are high. The majority of the wetland is ponded with seasonally saturated steeply sloped banks.

SP-41 is representative of hydric soils present along the southern boundary of Wetland WRE-11. The soil was examined to a depth of 16 inches and consists of three layers. The top layer is a very dark grayish brown (10YR 3/2) silty loam. The middle layer is very dark grayish brown (10YR 3/2) loam with dark grayish brown (10YR 4/2) and dark yellowish brown (10YR 4/4) redoximorphic features. The highly compacted lower layer is dark grayish brown (10YR 4/2) sandy loam with yellowish brown (10YR 5/6) and strong brown (7.5YR 5/8) redoximorphic features. Soils at SP-41 meet the *depleted below dark surface* (A11) and *depleted matrix* (F3) hydric soil indicators. Soils in the wetland are mapped as Earlmont silt loam (NRCS 2018).

Wetland WRE-11 consists of forest plant community. Vegetation within the wetland includes Scouler's willow (*Salix scouleriana*), Pacific willow, Oregon ash (*Fraxinus latifolia*), and reed canarygrass. Snowberry (*Symphoricarpos albus*) is present along the wetland perimeter and black cottonwood trees are present further upslope.

Wetland WRE-11 is classified as palustrine forested under the USFWS system and depressional under the HGM system. Wetland WRE-11 scored 20 points using Ecology's 2014 rating system and is rated a Category II according to the City of Redmond (RZC 21.64.030(A)) and Ecology. The City of Redmond requires a 100-foot buffer for Category II wetlands with low impact land uses and a moderately high level of function for habitat (RZC 21.64.030(B)).

Functions provided by the wetland are moderate overall, as assessed by the Ecology 2014 rating system, with 20 total points. Wetland WRE-11 scored 7 points (moderately high) for water quality functions. Discharges of untreated stormwater from the boathouse access road and the proximity of urban development increases the potential for water quality improvement. Wetland WRE-11 scored 5 points (moderately low) for hydrologic functions. Because of the constricted nature of the culvert outlet, Wetland WRE-11 has moderately high ponding and flood storage capabilities. The habitat functional score for the site is 7 points (moderately high). A forested plant community surrounding open water

forms a moderate interspersion of habitats. Wetland WRE-11 ranks high for special habitat features including large woody debris, snags, beaver activity, and low invasive species cover. Wetland WRE-11 is also identified as a wildlife biodiversity area/corridor by WDFW (2018a).

3.2.3 Wetland WRE-12

Size: 0.1 acre
Redmond and Ecology Rating: Category III
Buffer: 75 feet
USFWS Classification: Palustrine forested
HGM Classification: Depressional
Sample plots: SP-44 (UPL), SP-45 (WET), SP-46 (WET), SP-47 (UPL), SP-48 (UPL)

Wetland WRE-12 is located south of the access road to the boathouse near the main parking area. This wetland is confined by fill prism for the boathouse access road to the north, fill prism for the old access road to the sewage lagoon (Wetland WRE-11) to the east, and fill prism for the old access road to the historic single-family residence to the south. Wetland hydrology is maintained by a high groundwater table and precipitation.

SP-45 is representative of hydric soils present in Wetland WRE-12. The top layer is very dark grayish brown (10YR 3/2) silt loam with black (10YR 3/1) redoximorphic features. The lower layer is very dark grayish brown (10YR 3/2) silt loam with dark yellowish brown (10YR 4/6) redoximorphic features. Soils at SP-45 meet the *redox dark surface* (F6) hydric soil indicator. Soils present in Wetland WRE-12 are mapped as Sultan silt loam (NRCS 2018).

Wetland WRE-12 consists of a forest vegetation community composed of red alder, black cottonwood, and Oregon ash which provide overhead canopy to over 30 percent of the wetland. A patch of reed canarygrass is also present within the wetland.

Wetland WRE-12 is classified as palustrine forested under the USFWS system and depressional under the HGM system. Wetland WRE-12 scored 18 points using Ecology's 2014 rating system and is rated a Category III according to the City of Redmond (RZC 21.64.030(A)) and Ecology. The City of Redmond requires a 75-foot buffer for Category III wetlands with low impact land uses and a moderate level of function for habitat (RZC 21.64.030(B)).

Functions provided by the wetland are overall moderately low, as assessed by the Ecology 2014 rating system, with 18 total points. Water quality functions for Wetland WRE-12 scored 18 points (moderately high). Discharges of untreated stormwater to the site and proximity of urban development increase the potential for water quality improvement and persistent ungrazed vegetation comprising over 95 percent of the site assists in water treatment. The hydrologic functions score for the site is low with 5 points. The site potential for flood control is low because the outlet is slightly constricted and ponding marks are less than 0.5 feet. The habitat score for the site is 6 points (moderate). Wetland WRE-12 has only one vegetation class and therefore low interspersion of habitats, but the site does provide some connectivity to other habitats and is considered as a Biodiversity Area/Corridor by WDFW (2018a).

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Appendix A

Background Information

U.S. Fish and Wildlife Service
National Wetlands Inventory

Figure 1 Mitigation Site 3 NWI

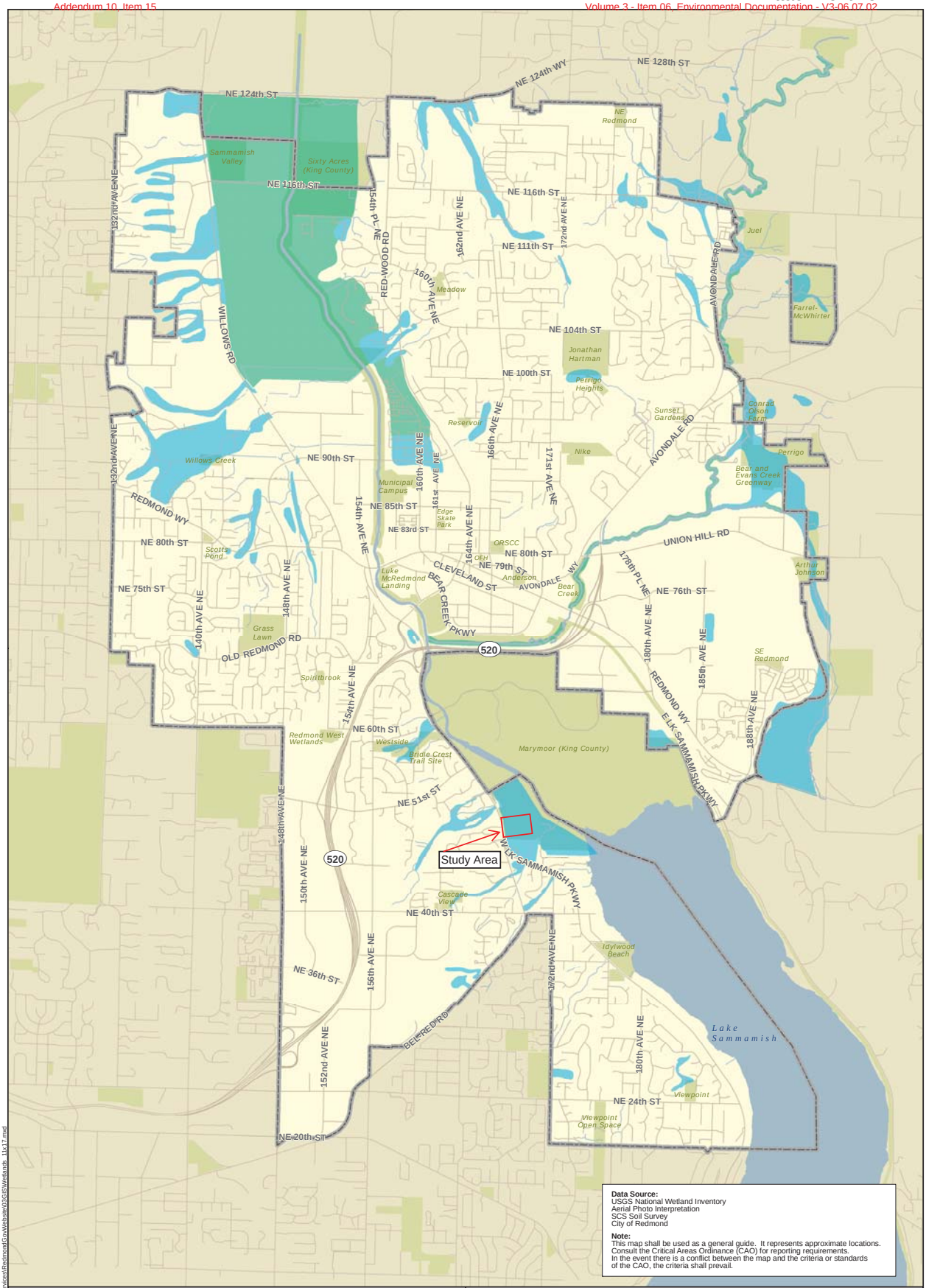
June 11, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



Wetlands

Critical Areas Map

City of Redmond, Washington

Effective: 05/28/2005

0 0.5 1 Miles

N

Mixed Wetland/Upland
Wetland
City Limit
Park and Open Space
Water

Figure 2

Disclaimer: This map is created and maintained by GIS Services Group,Finance and Information Services, City of Redmond, Washington, for reference purposes only.

The City makes no guarantee as to the accuracy of the features shown on this map.

File Name:\\redmond.man\fs\GIS\Users\GIS\GISServices\Projects\GIS\Services\RedmondGovWebsite\V3\GIS\Wetlands_11x17.mxd

King County iMAP Mapped Streams

Figure 3

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 6/8/2018 Notes:

N

King County GIS Center

Hydric Rating by Map Unit—King County Area, Washington
(Site 3)

Hydric Rating by Map Unit—King County Area, Washington
(Site 3)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: King County Area, Washington
Survey Area Data: Version 13, Sep 7, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 31, 2013—Oct 6, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ea	Earlmont silt loam	99	10.1	19.9%
KpB	Kitsap silt loam, 2 to 8 percent slopes	5	5.6	10.9%
Pc	Pilchuck loamy fine sand	10	0.3	0.6%
Sk	Seattle muck	100	2.2	4.2%
Su	Sultan silt loam	30	2.7	5.3%
Tu	Tukwila muck	100	28.8	56.5%
W	Water	0	1.4	2.7%
Totals for Area of Interest			**51.0**	**100.0%**

Figure 5a

Rainfall Documentation

Date: 3/13/2018

Weather station: SEATTLE SAND POINT WFO, WA

Landowner: King County

Period of Record.: 1971-2018

County: King (53033)

State: WA

		Long-term rainfall records							
	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Feb	2.15	3.20	3.83	3.44	Normal	2	3	6
2nd prior month*	Jan	3.89	5.04	5.84	8.42	Wet	3	2	6
3rd prior month*	Dec	3.81	5.33	6.30	4.83	Normal	2	1	2
								Sum	**14**

* Compared to photo date

Note: If sum is
- 6 - 9 then prior period has been drier than normal
- 10 - 14 then prior period has been normal
- 15 - 18 then prior period has been wetter than normal

Condition value:
- Dry =1
- Normal =2
- Wet =3

Conclusions: The period prior to March 2018 has been normal.

Figure 5b

Rainfall Documentation

Date: 4/06/2018

Weather station: SEATTLE SAND POINT WFO, WA

Landowner: King County

Period of Record.: 1971-2018

County: King (53033)

State: WA

		Long-term rainfall records							
	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Mar	2.98	4.00	4.68	2.49	dry	1	3	3
2nd prior month*	Feb	2.15	3.20	3.83	3.44	normal	2	2	4
3rd prior month*	Jan	3.89	5.04	5.84	8.42	wet	3	1	3
								Sum	**10**

Note: If sum is

6 - 9	then prior period has been drier than normal
10 - 14	then prior period has been normal
15 - 18	then prior period has been wetter than normal

Condition value:

Dry	=1
Normal	=2
Wet	=3

Conclusions: The period prior to April 2018 has been normal.

Figure 5c

Rainfall Documentation

Date: 6/11/2018

Weather station: SEATTLE SAND POINT WFO, WA

Landowner: King County

Period of Record.: 1971-2018

County: King (53033)

State: WA

		Long-term rainfall records							
	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	Apr	2.12	3.00	3.56	5.75	Wet	3	3	9
2nd prior month*	Mar	2.98	4.00	4.68	2.49	Dry	1	2	2
3rd prior month*	Feb	2.15	3.20	3.83	3.44	Normal	2	1	2
								Sum	**13**

Note: If sum is

6 - 9	then prior period has been drier than normal
10 - 14	then prior period has been normal
15 - 18	then prior period has been wetter than normal

Condition value:

Dry	=1
Normal	=2
Wet	=3

Conclusions: The period prior to May 2018 has been normal.

Figure 5d

Rainfall Documentation

Date: 6/11/2018

Weather station: SEATTLE SAND POINT WFO, WA

Landowner: King County

Period of Record.: 1971-2018

County: King (53033)

State: WA

		Long-term rainfall records							
	Month	3 yrs. in 10 less than	Normal	3 yrs. in 10 more than	Rain fall	Condition dry, wet, normal	Condition value	Month weight value	Product of previous two columns
1st prior month*	May	1.42	2.11	2.52	0.30	Dry	1	3	3
2nd prior month*	Apr	2.12	3.00	3.56	5.75	Wet	3	2	6
3rd prior month*	Mar	2.98	4.00	4.68	2.49	Dry	1	1	1
								Sum	**10**

Note: If sum is

6 - 9	then prior period has been drier than normal
10 - 14	then prior period has been normal
15 - 18	then prior period has been wetter than normal

Condition value:

Dry	=1
Normal	=2
Wet	=3

Conclusions: The period prior to June 2018 has been normal.

King County iMap 100-Year Floodplain

Figure 6

The information included on this map has been compiled by King County staff from a variety of sources and is subject to change without notice. King County makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. King County shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of King County.

Date: 5/23/2018 Notes:

N

King County GIS Center

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

Figure 7

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 05/15/2018 1.34

Query ID: P180515133337

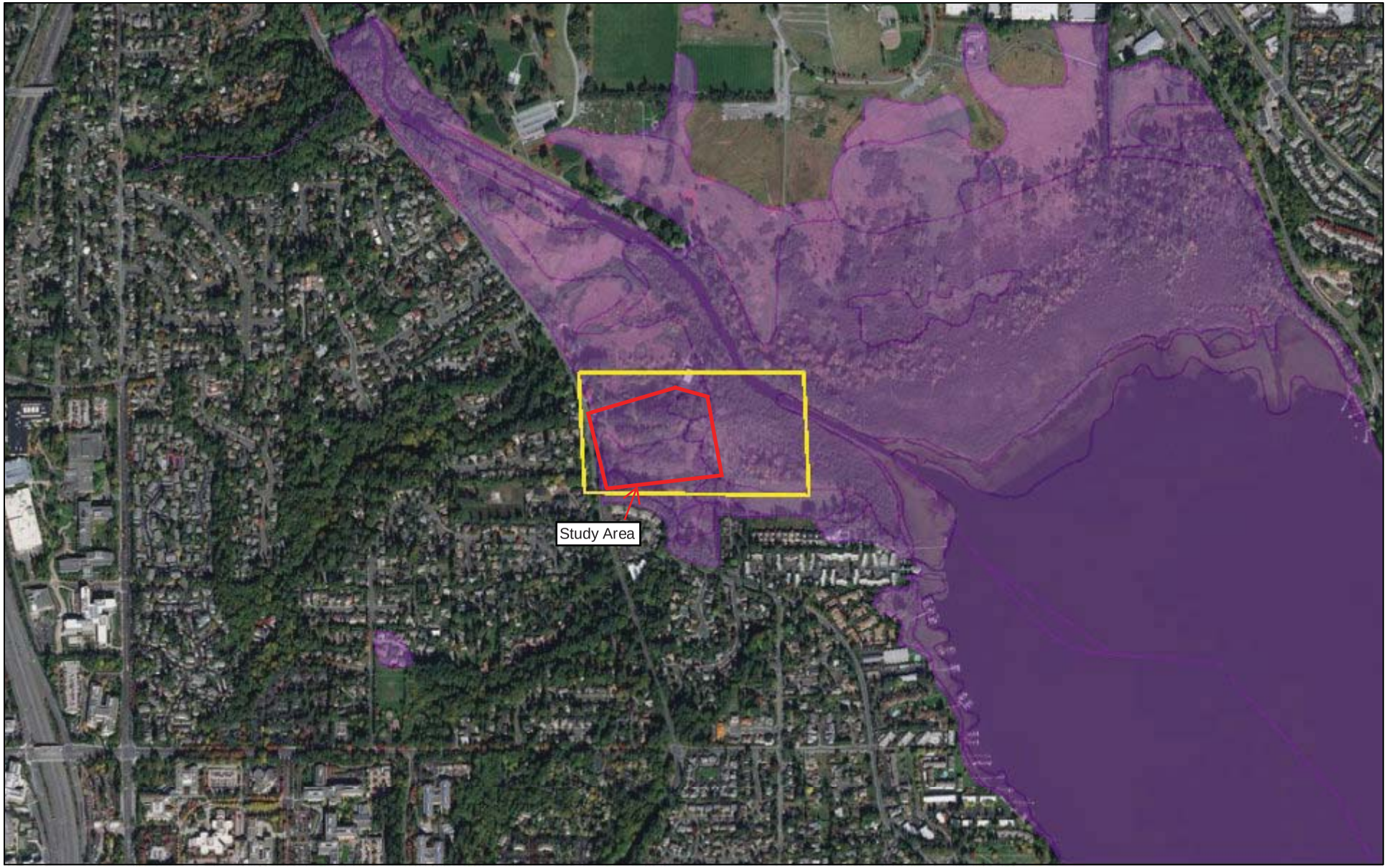
Common Name / Scientific Name / Notes	Site Name / Source Dataset / Source Record / Source Date	Priority Area / Occurrence Type / More Information (URL) / Mgmt Recommendations	Accuracy	Federal Status / State Status / PHS Listing Status	Sensitive Data / Resolution	Source Entity / Geometry Type
Biodiversity Areas And	MARYMOOR PARK. PHSREGION 902684	Terrestrial Habitat N/A http://wdfw.wa.gov/publications/pub.php?	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Coho Oncorhynchus kisutch	Sammamish River SWIFD 39959	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Coho Oncorhynchus kisutch	Sammamish River SASI 3120	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Dolly Varden/ Bull Trout Salvelinus malma	Sammamish River SWIFD 39961	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Fall Chinook Oncorhynchus tshawytscha	Sammamish River SWIFD 39956	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	 Lines
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Freshwater Emergent	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Freshwater Forested/Shrub	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Kokanee Oncorhynchus nerka	Sammamish River SWIFD 39964	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Lake	N/A NWIWetlands	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Rainbow Trout Oncorhynchus mykiss	Sammamish River SWIFD 39966	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines

Common Name / Scientific Name / Notes	Site Name / Source Dataset / Source Record / Source Date	Priority Area / Occurrence Type / More Information (URL) / Mgmt Recommendations	Accuracy	Federal Status / State Status / PHS Listing Status	Sensitive Data / Resolution	Source Entity / Geometry Type
Resident Coastal Cutthroat Oncorhynchus clarki	Sammamish River SWIFD 39955	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Sockeye Oncorhynchus nerka	Sammamish River SWIFD 39967	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines
Sockeye Oncorhynchus nerka	Sammamish River SASI 5200	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Sammamish River SASI 6154	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Wetlands	SAMMAMISH RIVER PHSREGION 902534	Aquatic Habitat N/A http://www.ecy.wa.	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Winter Steelhead Oncorhynchus mykiss	Sammamish River SWIFD 39968	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm	NA	N/A N/A PHS LISTED	N AS MAPPED	Lines

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necesssary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to vraition caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

WDFW Test Map



May 15, 2018

PHS Report Clip Area
PT
LN

POLY
AS MAPPED
SECTION

QTR-TWP
TOWNSHIP

1:19,842

0 0.15 0.3 0.6 mi
0 0.275 0.55 1.1 km

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Appendix B

Site Photographs

Photograph 1: The western portion of Wetland WRE-10, looking towards W. Lake Sammamish Pkwy NE.

Photograph 2: Wetland WRE-10 looking east.

Photograph 3: The culvert discharging into Wetland WRE-10.

Photograph 4: Seasonally ponded area of Wetland WRE-10.

Photograph 5: Wetland WRE-11.

Photograph 6: Wetland WRE-12 looking north towards gravel access road.

Appendix C

Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 2 (WET)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.653092 Long: -122.116458 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-2(WET) is located within a reed canarygrass field 13 feet southwest of SP-13(UPL). This SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	110	Yes	FACW
2. Cirsium arvense	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	115	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: .

SOIL

Sampling Point: 2 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100					L	
2-9	10YR 2/2	96	2.5Y 4/2	4	D	M	L	
9-11	10YR 4/2	60	10YR 2/2	20	C	M	L	
			7.5YR 4/6	20	C	M		
11-16	2.5Y 4/1	80	10YR 4/6	10	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☒ No ☐

Remarks: The 9-11 inch and 11-16 inch layers were combined to meet indicator F3. Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☒ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: During 5/30/18 sampling hydrology was not present in areas where water table and saturation were observed during April sampling events. May 2018 total precipitation was 0.30 inches and significantly lower than the 2.11-inch average (Seattle Sand Point Station). If precipitation levels were normal for May, it is assumed that hydrology would be present for this sample pit or earlier in the growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 3 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): A Lat: 47.652661 Long: -122.116200 Datum: WGS-84

Soil Map Unit Name: Earlmount Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-3 (WET) is located 80 ft south of SP-2, where the reed canarygrass field meets the willows thicket.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix sitichensis	15	Yes	FACW
2.			
3.			
4.			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix sitchensis (s)	45	Yes	FACW
2. Rubus armeniacus	10	No	FAC
3.			
4.			
5.			
	55	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	95	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 3 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					SiL	
7-13	2.5Y 4/1	75	10YR 4/6	25	C	M	SiL	
13-17	10YR 2/1	100					SiL	mucky organics included

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 8"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.Groundwater seeping in from one side of pit at 6 inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 11 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.653161 Long: -122.114965 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP-11 (UPL) is located approximately 100 feet east of SP-10 (UPL) and just east of the powerline.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus rubra	25	Yes	FAC
2.			
3.			
4.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	20	Yes	FAC
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	70	Yes	FACW
2. Urtica dioica	trace	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 30

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 11 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	90	10YR 4/6	5	C	M	SiL	
			10YR 5/3	5	D	M/RF		
5-12	10YR 3/2	85	10YR 4/6	5	C	M	SiL	
			10YR 5/3	10	D	M		
12-17	10YR 4/1	65	7.5YR 4/6	20	C	M	SiL	
			10YR 5/6	15	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Surrounding area has an agricultural land use history; soils likely tilled. Relict feaures with sharp color boundaries were observed in all layers. Due to this, the determination is "no" for presence of hydric soils. .

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 12 (WET)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): A Lat: 47.65277 Long: -122.11549 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-12(WET) is located within a willow thicket and is 20 feet south of SP-8(UPL). This SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lucida	25	Yes	FACW
2.			
3.			
4.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida (s)	75	Yes	FACW
2. Rubus armeniacus	5	No	FAC
3.			
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	95	Yes	FACW
2. Cardamine flexuosa	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: .

SOIL

Sampling Point: 12 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					SiL	
8-13	10YR 3/2	85	10YR 5/3	10	C	M	SiL	
			10YR 4/6	5	C	M		
13-18	10YR 4/2	90	7.5YR 4/6	10	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☒ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: During 5/30/18 sampling hydrology was not present in areas where water table and saturation were observed during April sampling events. May 2018 total precipitation was 0.30 inches and significantly lower than the 2.11-inch average (Seattle Sand Point Station). If precipitation levels were normal for May, it is assumed that hydrology would be present for this sample pit or or earlier in the growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 13 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.652758 Long: -122.116053 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP-13 (UPL) is located in a reed canarygrass field near a willow thicket approximately 50 feet north of SP-3 (WET).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida	15	Yes	FACW
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 13 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	100					SiL	
10-16	10YR 4/2	90	10YR 4/4	5	C	M	SiL	chunky inclusions (relicts)
			10YR 5/1	5	D	M		
16-24	10YR 5/2	90	5YR 4/6	10	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled. Oxidized rhizospheres at were observed at 18+ inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 18-20

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. Oxidized rhizospheres at 18+ inches.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 17 (WET)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): A Lat: 47.65231 Long: -122.116383 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-17 (WET) is located within a reed canarygrass field in the southwest corner of the site. This SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 17 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	100					SiCL	
4-10	10YR 2/2	93	7.5YR 4/6	7	C	M	SiCL	relict inclusions
10-14	10YR 2/2	60	10YR 3/2	20	C	M	SiCL	
			10YR 4/2	10	D	M		
14-16	10YR 3/2	75	10YR 5/2	20	D	M	SiCL	inclusions
			10YR 3/6	5	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☒ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: During 5/30/18 sampling hydrology was not present in areas where water table and saturation were observed during April sampling events. May 2018 total precipitation was 0.30 inches and significantly lower than the 2.11-inch average (Seattle Sand Point Station). If precipitation levels were normal for May, it is assumed that hydrology would be present for this sample pit or earlier in the growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 18 (UPL)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-4

Subregion (LRR): A Lat: 47.652299 Long: -122.116482 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP-18(UPL) is located on a hillslope above SP-17 (WET). This SP does not meet wetland indicators for soils or hydrology and is considered to be upland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	60	Yes	FAC
2.			
3.			
4.			
	60 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	90	Yes	FAC
2.			
3.			
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	15	Yes	FACW
2. Equisetum telmateia	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: .

SOIL

Sampling Point: 18 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/2	100					SL	
12-16	10YR 2/2	60	2.5Y 4/2	25	D	M	L	large relict chunky inclusions
			10YR 4/6	15	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No saturation or water table was observed within the excavated depth of 16 inches. Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 19 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.65301 Long: -122.11524 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP-19 (UPL) is located within a reed canarygrass field in the southwestern portion of the site. This pit does not meet wetland indicators for soils or hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	65	Yes	FAC
2.			
3.			
4.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida (s)	15	Yes	FACW
2. Rubus armeniacus	10	Yes	FAC
3. Populus balsamifera (s)	5	No	FAC
4.			
5.			
	30	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 19 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/3	100					L	
7-13	10YR 3/2	100					L	
13-18	10YR 5/2	90	7.5YR 4/6	10			SL	
18-24	10YR 5/1	90	5YR 4/6	10			SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Surrounding area has an agricultural land use history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 22

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Saturation was observed at 22 inches during what was estimated to be the wettest period of the early growing season. Therefore, it is highly unlikely for saturation/groundwater levels to be within 12 inches of the soil surface and meet those indicators needed for wetland hydrology. Only one secondary indicator, the FAC-neutral test, is met. No other primary or secondary indicators are met.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 20 (UPL)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 7-10

Subregion (LRR): A Lat: 47.65275 Long: -122.116621 Datum: WGS-84

Soil Map Unit Name: Kitsap Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-20 (UPL) is located on a hillslope above SP-21 (WET). This SP does not meet wetland indicators for soils or hydrology and is considered to be upland,

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Equisetum telmateia	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks: .

SOIL

Sampling Point: 20 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/2	98	10YR 5/4	1	C	M	SiL	
			10YR 4/6	1	C	M		
12-14	10YR 2/2	96	7.5YR 3/4	2	C	M	SiL	
			10YR 4/6	2	C	M		
14-16	10YR 2/2	60	2.5Y 4/2	25	D	M	L	
			10YR 4/6	15	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☐ No ☒

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No saturation or water table was observed within the excavated depth of 16 inches.Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 21 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 4-5

Subregion (LRR): A Lat: 47.652851 Long: -122.116490 Datum: WGS-84

Soil Map Unit Name: Sultan Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-21 (WET) is located within a reed canarygrass field along the border of a Himalayan blackberry patch in the western portion of the site.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	35	Yes	FAC
2.			
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	70	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 21 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					SiL	
7-13	2.5Y 4/1	75	10YR 3/6	25	C	M	SiL	charcoal layer around 7-8"
13-16	2.5Y 3/1	90	10YR 3/6	10	C	M	LS	
16+	10YR 2/1	98	10YR 4/6	2	C	M	SiL	dark organic layer

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 7

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 5

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitgation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 22 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.652840 Long: -122.116533 Datum: WGS-84

Soil Map Unit Name: Sultan Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-22 (WET) is located within a Himalayan blackberry patch near West Sammamish Parkway NE.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	trace	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	trace = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	100 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 22 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					SiL	
7-11	10YR 3/2	90	10YR 4/6	5	C	M	SiL	
			2.5Y 5/3	5	D	M		
11-13	10YR 4/1	60	10YR 4/4	10	C	M	SiL	
			2.5Y 4/3	30	C	M		
13-16	10YR 2/1	100					SiL	charcoal present

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled. Disturbed soil profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 14

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 13

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. Hydrology expected to be within 12 inches earlier in growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitgation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 23 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.652960 Long: -122.115246 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-23 (WET) is located within a willow thicket near the center of the site.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lucida	65	Yes	FACW
2. Populus balsamifera	20	Yes	FAC
3.			
4.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida (s)	60	Yes	FACW
2. Rubus spectablis	trace	No	FAC
3. Rubus armeniacus	trace	No	FAC
4.			
5.			
	60	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 23 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	95	7.5YR 4/4	5	C	M	L	
8-16+	10YR 5/1	90	5YR 4/6	10	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled. Disturbed soil profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 11

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 6

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 26 (UPL)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.65291 Long: -122.11496 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: SP-26 (UPL) is located within a blackberry patch and is upslope of SP-27 (WET). This SP does not meet wetland indicators for soils or hydrology and is considered to be upland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	65	yes	FAC
2.			
3.			
4.			
5.			
	65	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	80	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: .

SOIL

Sampling Point: 26 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/2	100					SL	
14-16	10YR 3/2	94	10YR 4/2	3	D	M	SL	
			10YR 4/6	3	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☐ No ☒

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No saturation or water table was observed within the excavated depth of 16 inches. Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 5/30/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 27 (WET)

Investigator(s): J. Wozniak, K. Moser, T. Parry Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2

Subregion (LRR): A Lat: 47.65286 Long: -122.114937 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-27 (WET) is located in a reed canarygrass field along the boundary of a willow thicket. This SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Salix lucida	15	Yes	FACW
2. Rubus armeniacus	5	Yes	FAC
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	95	Yes	FACW
2. Urtica dioica	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: .

SOIL

Sampling Point: 27 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					CL	
7-14	10YR 3/2	95	10YR 3/6	3	C	M	SiL	
14-16	10YR 4/2	90	7.5YR 4/6	7	C	M	SL	
			10YR 5/1	3	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☒ No ☐

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☒ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: During 5/30/18 sampling hydrology was not present in areas where water table and saturation were observed during April sampling events. May 2018 total precipitation was 0.30 inches and significantly lower than the 2.11-inch average (Seattle Sand Point Station). If precipitation levels were normal for May, it is assumed that hydrology would be present for this sample pit or earlier in the growing season.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/18/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 39 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2-3

Subregion (LRR): A Lat: 47.6533616 Long: -122.112329 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: SP-39 (UPL) is upslope of SP- 40 (WET). This sample pit appears to have historically disturbed soils with relict concentrations. The hydrology did not meet wetland indicators during the field visit, which occurred during the wet season under normal hydrologic conditions.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	55	Yes	FAC
2. Alnus rubra	45	Yes	FAC
3.			
4.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	85	Yes	FACW
2. Ranunculus repens	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks:

SOIL

Sampling Point: 39 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					SiL	
7-16	10YR 4/2	60	2.5Y 5/2	20	D	M	SiL	
			7.5YR 4/6	20	C	M		
16-18	2.5Y 5/2	70	7.5YR 4/6	30	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Relict concentrations with defined edges.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☐ No ☒ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches):

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation. Within the sample pit one root channel leaked groundwater into the pit at 14 inches and one small pocket of saturation was present at 13 inches. The remainder of the pit was fairly dry. Hydrology observed within the sample pit is not indicative of a water table or associated saturation but is a result of recent precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/18/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 40 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2-3

Subregion (LRR): A Lat: 47.653655 Long: -122.1143153 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PEM1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-40 (WET) is near a small ponded area located approximately 15 feet downslope of SP-39 (UPL).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus balsamifera	50	Yes	FAC
2. Alnus rubra	50	Yes	FAC
3.			
4.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	40	Yes	FACW
2. Ranunculus repens	trace	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 40 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					SiL	
6-11	10YR 3/2	75	10YR 4/1	15	D	M	SiL	
			7.5YR 5/8	10	C	M		
11-16	10YR 3/2	60	10YR 5/1	15	D	M	SiL	
			7.5YR 5/8	25	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Surrounding area has an agricultural land use history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 6

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0; surface

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/18/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 44 (UPL)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.653833 Long: -122.115510 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	**Is the Sampled Area within a Wetland?** Yes ☐ No ☒

Remarks: SP-44 (UPL) is located upslope east of Wetland WRE-12. The sample pit did not have any hydrology during normal precipitation conditions during the wet season and is considered to be upland. Soils did not meet any hydric soil indicators. Depleted matrix layer does not meet 6 inch thickness requirement starting at a depth ≤ 10 inches below soil surface for indicator F3.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	80	Yes	FAC
2.			
3.			
4.			
5.			
	80	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	20	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 30

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: leaf/stick debris

SOIL

Sampling Point: 44 (UPL)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/2	100					L	
8-11	2.5Y 4/2	93	10YR 3/6	7	C	M	SL	
11-16+	2.5Y 4/3	60	2.5Y 5/1	20	D	M	SL	
			10YR 3/4	20	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:_____

Depth (inches):_____

Hydric Soil Present? Yes ☐ No ☒

Remarks: Surrounding area has an agricultural land use history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitgation Site 3 City/County: Redmond/King County Sampling Date: 4/18/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 54 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 2

Subregion (LRR): A Lat: 47.652873 Long: -122.116698 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: SP-54 (WET) is located on a Himalayan blackberry patch adjacent to West Lake Sammamish Parkway NE. SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Rubus armeniacus	100	Yes	FAC
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: r=1m)			
1. Equisetum telmateia	2	No	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: leaf litter and moss on ground

SOIL

Sampling Point: 54 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	97	7.5YR 3/4	3	C	M	L	
7-11	10YR 2/2	97	7.5YR 3/4	3	C	M	L	
11-16	10YR 2/2	90	10YR 3/4	5	C	M	L	
			5YR 4/6	3	C	M		
			5YR 3/4	2	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 11

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 10

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Wet Season. According to WETS tables, the prior period has received normal precipitation.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: DRLE Mitigation Site 3 City/County: Redmond/King County Sampling Date: 4/11/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 56 (WET)

Investigator(s): J. Wozniak Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1-2

Subregion (LRR): A Lat: 47.652923 Long: -122.114489 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PFOC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐

Remarks: All three parameters are present. Sample plot is wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: r=2m)			
1. none	0		
2.			
3.			
4.			
5.			
	0 = Total Cover		
Herb Stratum (Plot size: r=1M)			
1. Phlaris arundinacea	80	yes	FACW
2. Urtica dioica	20	yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ☒ **No** ☐

Remarks:

SOIL

Sampling Point: 56 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	95	10YR 4/6	5	C	M	SiL	
8-18	10YR 4/1	95	7.5YR 4/6	5	C	M	SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Soils meet indicator F3.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 4

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Site meets indicators A2, A3 and D5.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Redmond Link/ Mitigation Site 3 City/County: Redmond/King County Sampling Date: 6/4/2018

Applicant/Owner: Sound Transit State: WA Sampling Point: 57 (WET)

Investigator(s): J. Wozniak, K. Moser Section, Township, Range: S13, T25N, R5E

Landform (hillslope, terrace, etc.): deression Local relief (concave, convex, none): none Slope (%): 0

Subregion (LRR): A Lat: 47.65353 Long: -122.11496 Datum: WGS-84

Soil Map Unit Name: Earlmont Silt Loam NWI classification: PUBHx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☒ No ☐	**Is the Sampled Area within a Wetland?** Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks: SP-57 (WET) is located near the edge of a ponded depression (Wetland WRE-11). This SP meets all three parameters and is considered to be wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: r=3m)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix scouleriana	40	Yes	FAC
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: r=2m)			
1. Symphoricarpus albus	55	Yes	FACU
2. Ilex aquifolium	2	No	FACU
3.			
4.			
5.			
	57	= Total Cover	
Herb Stratum (Plot size: r=1m)			
1. Phalaris arundinacea	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: r=2m)			
1. none			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ☐ Wetland Non-Vascular Plants[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: .

SOIL

Sampling Point: 57 (WET)

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	90	10YR 4/6	10	C	M	SL	
12-16	10YR 5/1	98	10YR 4/6	2	C	M	SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☒ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes ☒ No ☐

Remarks: Site has an agriculture history; soils likely tilled.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ☐ Salt Crust (B11)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Stunted or Stressed Plants (D1) (**LRR A**)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):

Water Table Present? Yes ☒ No ☐ Depth (inches): 4"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): surface; 0"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix D

Rating Forms

Wetland name or number WRE-10

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Site 3- WRE-10 Date of site visit: 3/22/18

Rated by Josh Wozniak Trained by Ecology? X Yes ___ No Date of training 09/2016

HGM Class used for rating Depressional Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map _____

OVERALL WETLAND CATEGORY II (based on functions___ or special characteristics___)

1. Category of wetland based on FUNCTIONS

_____ **Category I** – Total score = 23 - 27

X **Category II** – Total score = 20 - 22

_____ **Category III** – Total score = 16 - 19

_____ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the appropriate ratings		
Site Potential	H (M) L	H M (L)	H (M) L	
Landscape Potential	H (M) L	(H) M L	(H) M L	
Value	(H) M L	H M (L)	(H) M L	TOTAL
Score Based on Ratings	7	5	8	20

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	

Wetland name or number WE6-10

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?

___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;

___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?

___The wetland is on a slope (*slope can be very gradual*),

___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,

___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES** – The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?

___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,

___The overbank flooding occurs at least once every 2 years.

Wetland name or number _____

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-10

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3 Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. (points = 1)	1
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*. Yes = 4 (No = 0)	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area (points = 5) Wetland has persistent, ungrazed, plants > ½ of area points = 3 Wetland has persistent, ungrazed plants > $^1/_{10}$ of area points = 1 Wetland has persistent, ungrazed plants < $^1/_{10}$ of area points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation: *This is the area that is ponded for at least 2 months. See description in manual.* Area seasonally ponded is > ½ total area of wetland (points = 4) Area seasonally ponded is > ¼ total area of wetland points = 2 Area seasonally ponded is < ¼ total area of wetland points = 0	4
Total for D 1 — Add the points in the boxes above	10

Rating of Site Potential If score is: ___12-16 = H (X 6-11 = M) ___0-5 = L *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? (Yes = 1) No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? (Yes = 1) No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 (No = 0)	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____ Yes = 1 (No = 0)	0
Total for D 2 — Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___3 or 4 = H (X 1 or 2 = M) ___0 = L *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? (Yes = 1) No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? (Yes = 1) No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality *(answer YES if there is a TMDL for the basin in which the unit is found)*? (Yes = 2) No = 0	2
Total for D 3 — Add the points in the boxes above	4

Rating of Value If score is: (X 2-4 = H) ___1 = M ___0 = L *Record the rating on the first page*

Wetland name or number WRE-10

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:		1
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*		0
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*		3
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	4

Rating of Site Potential If score is: ___ **12-16 = H** ___ **6-11 = M** X **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*		0
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___ **2-4 = H** ___ **1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WRE-10

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

___ Aquatic bed
__X__ Emergent
__X__ Scrub-shrub (areas where shrubs have > 30% cover)
__X__ Forested (areas where trees have > 30% cover)

If the unit has a Forested class, check if:

__X__ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

4 structures or more: points = 4
3 structures: points = 2
2 structures: points = 1
1 structure: points = 0

4

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

__X__ Permanently flooded or inundated
__X__ Seasonally flooded or inundated
___ Occasionally flooded or inundated
__X__ Saturated only
__X__ Permanently flowing stream or river in, or adjacent to, the wetland
___ Seasonally flowing stream in, or adjacent to, the wetland
___ **Lake Fringe wetland** **2 points**
___ **Freshwater tidal wetland** **2 points**

4 or more types present: points = 3
3 types present: points = 2
2 types present: points = 1
1 type present: points = 0

3

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

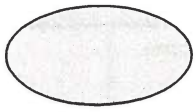
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species — points = 2
5 - 19 species — points = 1
< 5 species — points = 0

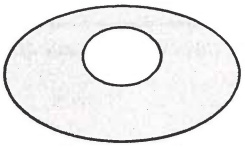
1

H 1.4. Interspersion of habitats

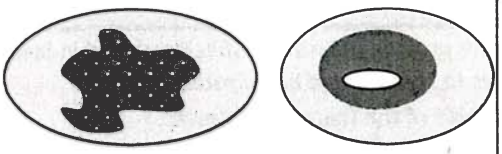
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



None = 0 points

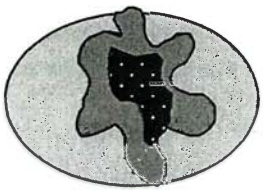


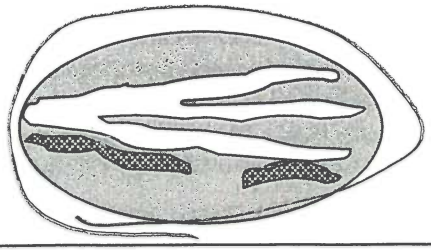
Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points





3

Wetland name or number WPE-10

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland ___ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ___ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ___ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	4
Total for H 1 Add the points in the boxes above	14

Rating of Site Potential If score is: ___ **15-18 = H** X **7-14 = M** ___ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 15 + [(% moderate and low intensity land uses)/2] 14 = 29 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon (points = 2) 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 15 + [(% moderate and low intensity land uses)/2] 17 = 32 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches (points = 2) Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	2
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity (points = 0)	0
Total for H 2 Add the points in the boxes above	4

Rating of Landscape Potential If score is: X **4-6 = H** ___ **1-3 = M** ___ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: (points = 2) X It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	2

Rating of Value If score is: (X **2 = H**) ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-10

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

X **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-10

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** (No) Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** (No) = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** (No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No) = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes **– Contact WNHP/WDNR and go to SC 2.4** No **= Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No) = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** (No) = **Is not a bog**	**Cat. I**

Wetland name or number UPE-10

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** (No) = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** (No) = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** (No = not) **an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

0 0.25 0.5 km

1km Polygon

Wetland Rating Figures- 1km Polygon
Mitigation Site 3 Delineated Wetlands
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

0 145 290 580 Feet

Aquatic Bed
Emergent
Scrub-Shrub
Forested
Parcel Lines

Wetland WRE-10
Cowardin Classes
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

0 150 300 600 Feet

Saturated Only
Seasonally Flooded
Permanently Flooded
Parcel Lines

Wetland WRE-10
Hydroperiods
Downtown Redmond Link Extension

Wetland name or number WRE-11

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Site 3- WRE-11 Date of site visit: 4/18/18

Rated by Josh Wozniak Trained by Ecology? X Yes ___ No Date of training 09/2016

HGM Class used for rating Depressional Wetland has multiple HGM classes? ___ Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map ESRI 2014

OVERALL WETLAND CATEGORY II (based on functions___ or special characteristics___)

1. Category of wetland based on FUNCTIONS

_____**Category I** – Total score = 23 - 27

__X__**Category II** – Total score = 20 - 22

_____**Category III** – Total score = 16 - 19

_____**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the appropriate ratings		
Site Potential	H (M) L	H (M) L	H (M) L	
Landscape Potential	H (M) L	(H) M L	(H) M L	
Value	(H) M L	H M (L)	H (M) L	TOTAL
Score Based on Ratings	7	6	7	20

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	

Wetland name or number WRE-11

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ___The wetland is on a slope (*slope can be very gradual*),
   ___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES** – The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-11

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WSE-11

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?

D 1.1. Characteristics of surface water outflows from the wetland:		2
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet)	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	**points = 2**	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*.	Yes = 4 **No = 0**	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):		3
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	**points = 3**	
Wetland has persistent, ungrazed plants > $^1/_{10}$ of area	points = 1	
Wetland has persistent, ungrazed plants < $^1/_{10}$ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		4
This is the area that is ponded for at least 2 months. See description in manual.		
Area seasonally ponded is > ½ total area of wetland	**points = 4**	
Area seasonally ponded is > ¼ total area of wetland	points = 2	
Area seasonally ponded is < ¼ total area of wetland	points = 0	
Total for D 1	Add the points in the boxes above	9

Rating of Site Potential If score is: ___ **12-16 = H** X **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?

D 2.1. Does the wetland unit receive stormwater discharges?	**Yes = 1** No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	**Yes = 1** No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 **No = 0**	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____	Yes = 1 **No = 0**	0
Total for D 2	Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** X **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 **No = 0**	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	**Yes = 1** No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality *(answer YES if there is a TMDL for the basin in which the unit is found)*?	**Yes = 2** No = 0	2
Total for D 3	Add the points in the boxes above	3

Rating of Value If score is: X **2-4 = M** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-11

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*		
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	5
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	3
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
Total for D 4	Add the points in the boxes above	10

Rating of Site Potential If score is: ___**12-16 = H** X **6-11 = M** ___**0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: X **3 = H** ___**1 or 2 = M** ___**0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*		
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		
• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____	points = 0	6
There are no problems with flooding downstream of the wetland.	points = 0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___**2-4 = H** ___**1 = M** X **0 = L** *Record the rating on the first page*

Wetland name or number WRE-11

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed	4 structures or more: points = 4
____Emergent	3 structures: points = 2
____Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
_X_Forested (areas where trees have > 30% cover)	(1 structure: points = 0)

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

_Y_Permanently flooded or inundated	4 or more types present: points = 3
_Y_Seasonally flooded or inundated	(3 types present: points = 2)
____Occasionally flooded or inundated	2 types present: points = 1
_Y_Saturated only	1 type present: points = 0
____Permanently flowing stream or river in, or adjacent to, the wetland	
____Seasonally flowing stream in, or adjacent to, the wetland	
____**Lake Fringe wetland**	**2 points**
____**Freshwater tidal wetland**	**2 points**

2

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

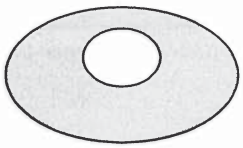
If you counted: > 19 species	points = 2
5 - 19 species	(points = 1)
< 5 species	points = 0

1

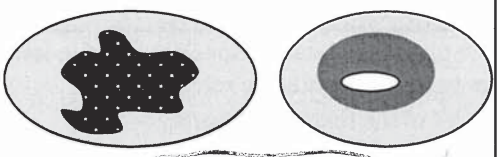
H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*

None = 0 points



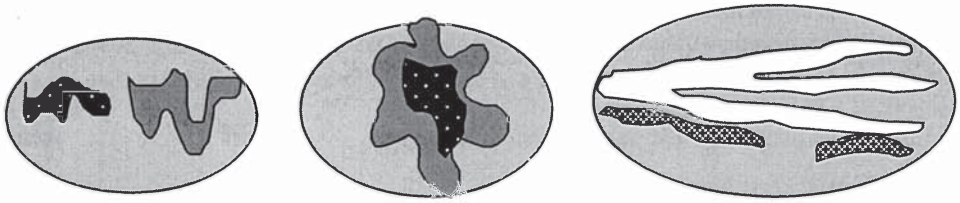
Low = 1 point



(**Moderate** = 2 points)

2

All three diagrams in this row are **HIGH** = 3points



Wetland name or number WRE-11

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). X Standing snags (dbh > 4 in) within the wetland ___ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) X Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ___ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* X Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	4
Total for H 1 — Add the points in the boxes above	9

Rating of Site Potential If score is: ___ **15-18 = H** X **7-14 = M** ___ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?

H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 11 = 29 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon — points = 3 20-33% of 1 km Polygon — points = 2 10-19% of 1 km Polygon — points = 1 < 10% of 1 km Polygon — points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 14 = 32 % Undisturbed habitat > 50% of Polygon — points = 3 Undisturbed habitat 10-50% and in 1-3 patches — points = 2 Undisturbed habitat 10-50% and > 3 patches — points = 1 Undisturbed habitat < 10% of 1 km Polygon — points = 0	2
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use — points = (- 2) ≤ 50% of 1 km Polygon is high intensity — points = 0	0
Total for H 2 — Add the points in the boxes above	4

Rating of Landscape Potential If score is: X **4-6 = H** ___ **1-3 = M** ___ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?

H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: — points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m — points = 1 Site does not meet any of the criteria above — points = 0	1

Rating of Value If score is: ___ **2 = H** X **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WRE-11

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

≠ **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

X **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-11

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No= **Not an estuarine wetland**)	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? King County Park Yes = **Category I** (No - Go to **SC 1.2**)	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) X At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** (No = **Category II**)	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** (No – Go to **SC 2.3**) SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No = **Not a WHCV**) SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** (No = **Not a WHCV**) SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No = **Not a WHCV**)	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** (No = **Is not a bog**)	**Cat. I**

Wetland name or number WRE-11

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** (No = **Not a forested wetland for this section**)	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** (No = **Not a wetland in a coastal lagoon**) SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** (No = **not an interdunal wetland for rating**) SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

0 0.225 0.45 km

Wetland WRE-11
1km Polygon

Wetland Rating Figures- 1km Polygon
Mitigation Site 3 Delineated Wetlands
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

0 50 100 200 Feet

Palustrine Forested
Open Water

Wetland WRE-11
Cowardin Classes
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

0 45 90 180 Feet

- Saturated Only
- Permanently Flooded
- Seasonally Flooded

Wetland WRE-11
Hydroperiods
Downtown Redmond Link Extension

Wetland name or number WRE-12

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WRE-12 Date of site visit: 4/18/18

Rated by Josh Woznick Trained by Ecology? X Yes ___No Date of training 09/2016

HGM Class used for rating Depressional Wetland has multiple HGM classes? ___Y X N

NOTE: Form is not complete without the figures requested *(figures can be combined).*

Source of base aerial photo/map ERS 2014

OVERALL WETLAND CATEGORY II (based on functions___ or special characteristics___)

1. Category of wetland based on FUNCTIONS

___**Category I** – Total score = 23 - 27

___**Category II** – Total score = 20 - 22

X **Category III** – Total score = 16 - 19

___**Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
		Circle the appropriate ratings		
Site Potential	H (M) L	H M (L)	H M (L)	
Landscape Potential	H (M) L	(H) M L	(H) M L	
Value	(H) M L	H M (L)	H (M) L	TOTAL
Score Based on Ratings	7	5	6	18

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**

*If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot be used to score functions for estuarine wetlands.***

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3 **YES** – The wetland class is **Flats**

*If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ___The wetland is on a slope (*slope can be very gradual*),
   ___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ___The water leaves the wetland **without being impounded**.

NO – go to 5 **YES** – The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ___The overbank flooding occurs at least once every 2 years.

Wetland name or number WRE-12

NO – go to 6 **YES** – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

*If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number WRE-12

DEPRESSIONAL AND FLATS WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

D 1.0. Does the site have the potential to improve water quality?

D 1.1. Characteristics of surface water outflows from the wetland:		1
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet.	points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic *(use NRCS definitions)*.	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):		5
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > $^1/_{10}$ of area	points = 1	
Wetland has persistent, ungrazed plants < $^1/_{10}$ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		4
This is the area that is ponded for at least 2 months. See description in manual.		
Area seasonally ponded is > ½ total area of wetland	points = 4	
Area seasonally ponded is > ¼ total area of wetland	points = 2	
Area seasonally ponded is < ¼ total area of wetland	points = 0	
Total for D 1	Add the points in the boxes above	10

Rating of Site Potential If score is: ___ **12-16 = H** **6-11 = M** ___ **0-5 = L** *Record the rating on the first page*

D 2.0. Does the landscape have the potential to support the water quality function of the site?

D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source_____	Yes = 1 No = 0	0
Total for D 2	Add the points in the boxes above	2

Rating of Landscape Potential If score is: ___ **3 or 4 = H** **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

D 3.0. Is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (*answer YES if there is a TMDL for the basin in which the unit is found*)?	Yes = 2 No = 0	2
Total for D 3	Add the points in the boxes above	3

Rating of Value If score is: **2-4 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number WSE-12

DEPRESSIONAL AND FLATS WETLANDS

Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation

D 4.0. Does the site have the potential to reduce flooding and erosion?

D 4.1. Characteristics of surface water outflows from the wetland:

Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	0
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	

D 4.2. Depth of storage during wet periods: *Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.*

Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	0
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	

D 4.3. Contribution of the wetland to storage in the watershed: *Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself.*

The area of the basin is less than 10 times the area of the unit	points = 5	3
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	

Total for D 4	Add the points in the boxes above	3

Rating of Site Potential If score is: ___**12-16 = H** ___**6-11 = M** **0-5 = L** *Record the rating on the first page*

D 5.0. Does the landscape have the potential to support hydrologic functions of the site?

D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	1
Total for D 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: **3 = H** ___**1 or 2 = M** ___**0 = L** *Record the rating on the first page*

D 6.0. Are the hydrologic functions provided by the site valuable to society?

D 6.1. The unit is in a landscape that has flooding problems. *Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met.*

The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):

• Flooding occurs in a sub-basin that is immediately down-gradient of unit.	points = 2	0
• Surface flooding problems are in a sub-basin farther down-gradient.	points = 1	
Flooding from groundwater is an issue in the sub-basin.	points = 1	
The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. *Explain why* _____	points = 0	
There are no problems with flooding downstream of the wetland.	points = 0	

D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0 — 0

Total for D 6	Add the points in the boxes above	0

Rating of Value If score is: ___**2-4 = H** ___**1 = M** **0 = L** *Record the rating on the first page*

Wetland name or number WRE-12

These questions apply to wetlands of all HGM classes.

HABITAT FUNCTIONS - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.*

____Aquatic bed	4 structures or more: points = 4
__/__Emergent	3 structures: points = 2
____Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1
____Forested (areas where trees have > 30% cover)	(1 structure: points = 0)

If the unit has a Forested class, check if:

____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon

0

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*).

____Permanently flooded or inundated	4 or more types present: points = 3
__/__Seasonally flooded or inundated	3 types present: points = 2
____Occasionally flooded or inundated	(2 types present: points = 1)
__/__Saturated only	1 type present: points = 0
____Permanently flowing stream or river in, or adjacent to, the wetland	
____Seasonally flowing stream in, or adjacent to, the wetland	
____**Lake Fringe wetland**	**2 points**
____**Freshwater tidal wetland**	**2 points**

1

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft^2.

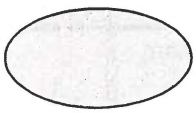
Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle***

If you counted: > 19 species	points = 2
5 - 19 species	points = 1
< 5 species	(points = 0)

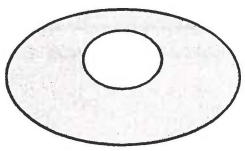
0

H 1.4. Interspersion of habitats

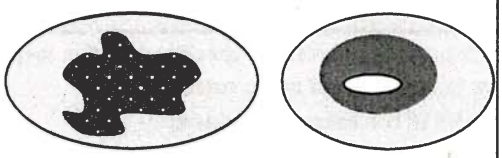
Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.*



(None = 0 points)

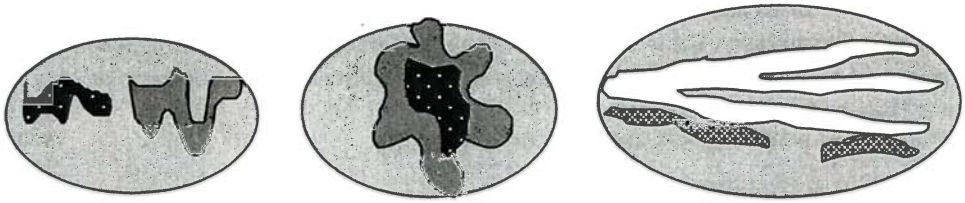


Low = 1 point



Moderate = 2 points

All three diagrams in this row are **HIGH** = 3points



0

Wetland name or number WRE-12

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ____Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ____Standing snags (dbh > 4 in) within the wetland ____Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ____Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ____At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ____Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	0
Total for H 1 Add the points in the boxes above	1

Rating of Site Potential If score is:___**15-18 = H** ___**7-14 = M** X **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 19 + [(% moderate and low intensity land uses)/2] 10 = 29 % If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 < 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 19 + [(% moderate and low intensity land uses)/2] 13 = 32 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0	2
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (- 2) ≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	4

Rating of Landscape Potential If score is: X **4-6 = H** ___**1-3 = M** ___**< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1 Site does not meet any of the criteria above points = 0	1

Rating of Value If score is:___**2 = H** X **1 = M** ___**0 = L** *Record the rating on the first page*

Wetland name or number WRE-12

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

X **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

— **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

— **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number WRE-12

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** (No=) **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** (No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** (No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** (No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** (No) = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes **– Contact WNHP/WDNR and go to SC 2.4** (No) = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** (No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** (No = **Is not a bog**	**Cat. I**

Wetland name or number UJRE-12

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** (No) = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** (No) = **Not a wetland in a coastal lagoon** SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** (No) = **not an interdunal wetland for rating** SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2** SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3** SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat I** **Cat. II** **Cat. III** **Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	

0 0.25 0.5 km

Wetland WRE-12
1km Polygon

Wetland Rating Figures- 1km Polygon
Mitigation Site 3 Delineated Wetlands
Downtown Redmond Link Extension

Source: USGS, City of Redmond, King County, Parametrix

0 45 90 180 Feet

Palustrine Forested

Wetland WRE-12
Cowardin Classes
Downtown Redmond Link Extension

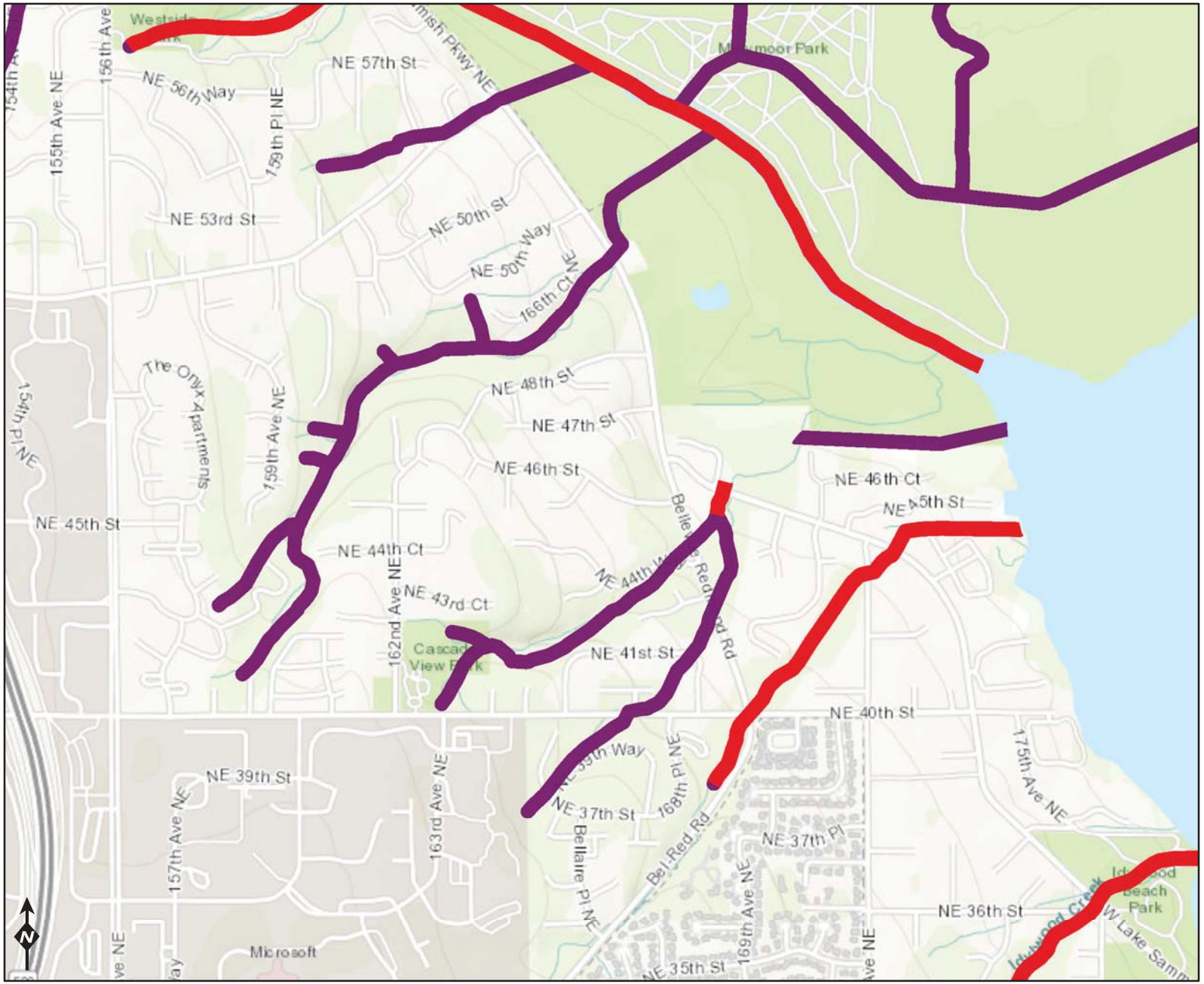
Source: USGS, City of Redmond, King County, Parametrix

0 45 90 180 Feet

Seasonally Flooded
Saturated Only

Wetland WRE-12
Hydroperiods
Downtown Redmond Link Extension

Water Quality Atlas Map



Assessed Waters/Sediment

Water
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

Sediment
- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

WQ Standards

Miles
0 0.125 0.25 0.5

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap

DEPARTMENT OF ECOLOGY
State of Washington

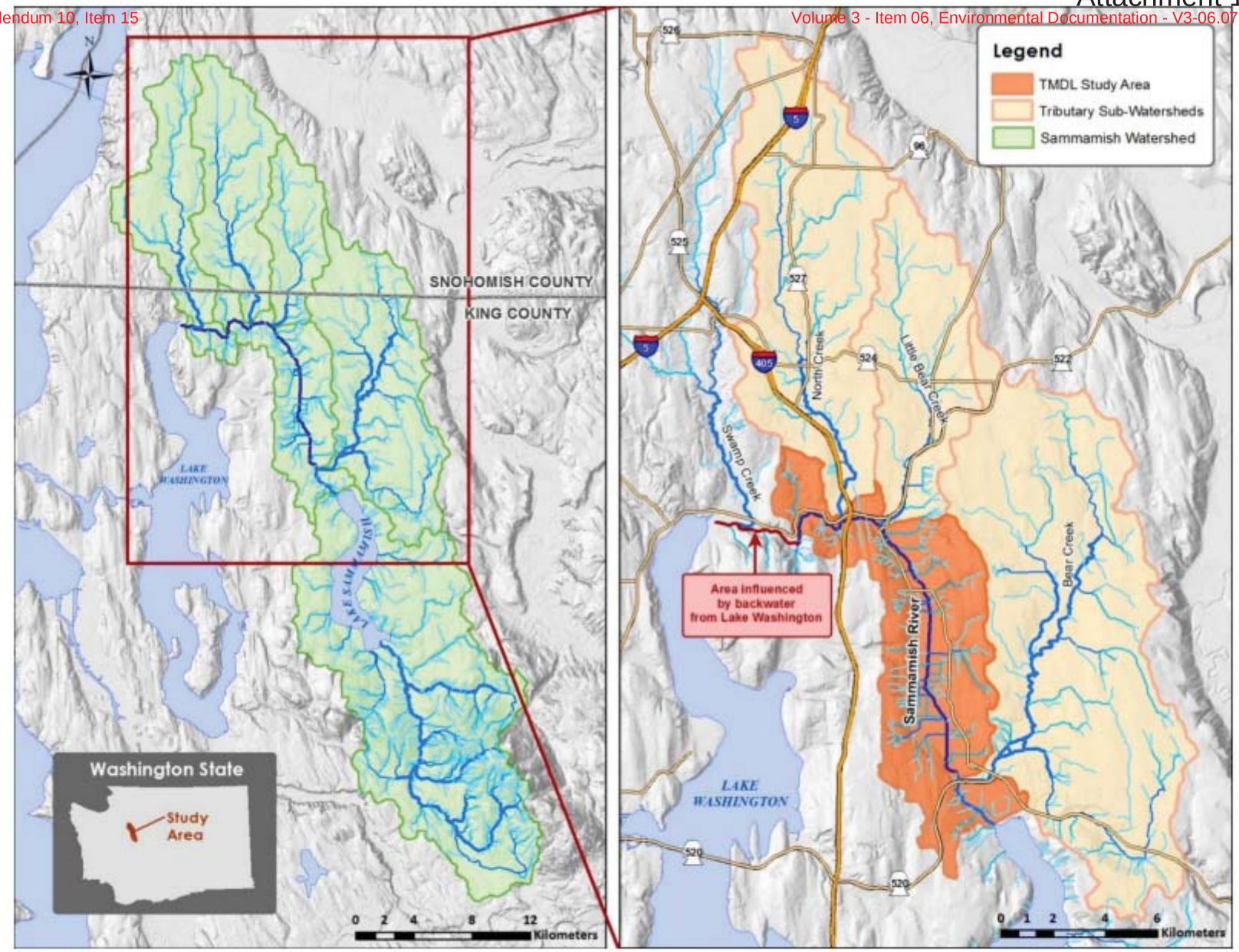


Figure 1. Map of the entire Sammamish Watershed (left) and the TMDL study area and periphery sub-watersheds (right).

Appendix K

Geotechnical Baseline Report

GOLDER

Downtown Redmond Link Extension
Geotechnical Baseline Report

Submitted to:

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104

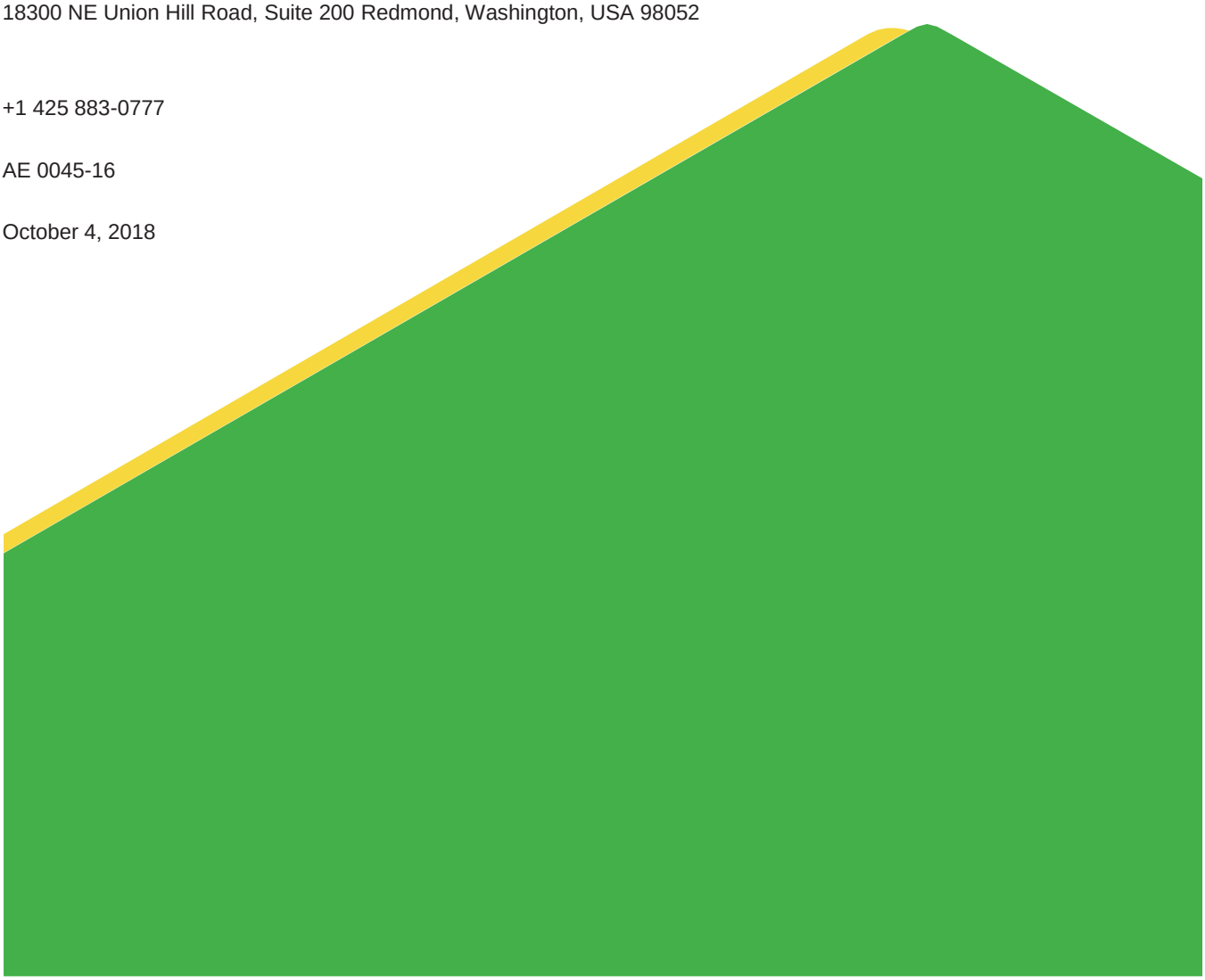
Submitted by:

Golder Associates Inc.
18300 NE Union Hill Road, Suite 200 Redmond, Washington, USA 98052

+1 425 883-0777

AE 0045-16

October 4, 2018



October 4, 2018 AE 0045-16

Distribution List

Electronic Copy - Parametrix

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1.0 INTRODUCTION

1.1 Project Description

The Sound Transit's Downtown Redmond Link Extension (DRLE) project is an approximately 3.4-mile extension of Sound Transit's regional light rail system. The DRLE project extends light rail from the East Link interim terminus at the Redmond Technology Center Station (formerly called the Overlake Transit Center Station) to downtown Redmond. Figure 1 shows the approximate vicinity of the project.

The alignment begins near NE 40th Street in Redmond, Washington and extends north and east along the eastside of the State Route (SR) 520 freeway. The alignment then turns east with the freeway, crossing the Sammamish River and descending into Marymoor Park, until reaching the Redmond Way Exit. At the Redmond Way Exit, the light rail alignment turns to the northwest, crosses under SR 520 and over Bear Creek, and then follows the Redmond Central Connector (RCC) alignment into downtown Redmond. The light rail alignment terminates just east of 164th Avenue NE at the north side of Redmond Town Center.

The current project adds two stations: the Southeast Redmond Station and the Downtown Redmond Station. The current design concept for the DRLE segment consists of a mix of at-grade and elevated track as well as several areas of cuts and fills.

This Geotechnical Baseline Report (GBR) documents and defines baseline conditions for the DRLE Contract.

1.2 Relationships with General Conditions and Order of Precedence

In the event of apparent conflicts, discrepancies, or inconsistencies in the reference documents or any other geotechnical data available in any way to the Contractor, the GBR takes precedence in reconciliation of the conflict. The Order of Precedence is set forth in the General Conditions of the Contract.

1.3 Purpose and Scope

The purpose of this GBR is to provide geotechnical and construction considerations as a basis for preparation of the price proposal and define anticipated baseline ground conditions for the DRLE alignment; provide a common basis for pricing; and to provide a baseline for evaluation and resolution of differing site condition claims. This report, however, is not a design document and is not intended to predict ground behavior during construction.

1.4 Warranty Statement

This GBR contains baseline statements ("baselines") with respect to certain conditions that are expected to be confronted during the performance of the design and construction. These baselines are founded on the data collected from subsurface investigations and laboratory testing, interpretation of the data, local geology and construction experience and other data collected in the Geotechnical Data Report (GDR); evaluations, analyses, and professional opinions; and risk allocation preferences of Sound Transit. The judgment applied in the interpolations and extrapolations of this information reflects the view of Sound Transit in establishing the baselines. The GBR establishes a contractual basis for the allocation of geotechnical risk during the performance of the work; it does not define a single correct interpretation of geotechnical conditions or present an absolute representation of fact. The geotechnical contract documents include, but are not limited to, this GBR and the GDR (Golder 2018a). This GBR needs to be read in conjunction with the GDR for DRLE Contract.

The baseline conditions presented in this GBR are based on explorations at discrete locations; therefore there is not a warranty that these conditions will be encountered elsewhere along the alignment. The baseline report is a representation of existing conditions to be assumed for pricing purposes.

The GBR is not the geotechnical basis of design for the DRLE Contract. The Contractor is responsible for the geotechnical basis of design in accordance with the project contract documents.

1.5 Report Contents

This GBR contains both baselines and additional discussion that are not to be considered as baseline statements. Where sections are titled without the word “Baseline”, the accompanying text is provided as an explanation or clarification that is not intended to be understood as a baseline condition. The entirety of Sections 5.0, 6.0, 7.0 and 8.0 are to be considered baseline statements.

2.0 SITE DESCRIPTION

This section is not a baseline. Prescriptive drawings in the Conceptual Design Drawings define the actual alignment site description. This site description is provided only to facilitate use of the geotechnical data presented in this document.

2.1 Alignment Configuration and Structures

An overall view of the alignment is shown in Figure 2. The prescriptive alignment of Contract DRLE begins at about Station (STA) 4991+00 on the north side of the Redmond Technology Center at NE 40th Street and terminates at about STA 5168+00 just east of 164th Avenue NE in Downtown Redmond. The proposed light rail track will include elevated guideways and at-grade sections with several areas of cuts and fills. More detailed descriptions of the prescriptive configuration are presented below:

2.1.1 Redmond Technology Center to Sammamish River Crossing

In the segment between the Redmond Technology Center Station and west side of the Sammamish River crossing, the light rail route runs parallel to the east side of SR 520. The alignment would generally be at-grade and use retained-cut sections to cut into the hillside and pass under existing overpasses at NE 40th Street, NE 51st Street, and NE 60th Street. As the alignment follows SR 520 and curves east, it transitions to an elevated structure crossing over the West Lake Sammamish Parkway NE interchange and the Sammamish River.

2.1.2 Elevated Guideway (between approximately STA 5071+00 and STA 5090+00)

The proposed DRLE alignment includes an elevated structure between the SR 520 eastbound off-ramp in the vicinity of West Lake Sammamish Parkway NE interchange and Marymoor Park crossing over the Sammamish River.

2.1.3 Retained-Fill and At-Grade Sections

The proposed alignment would transition from elevated structure to a retained-fill section as it crosses Marymoor Park and to an at-grade section in the vicinity of the SR 520 eastbound off-ramp at the Redmond Way exit. At the Redmond Way exit, the light rail alignment turns to the northwest and crosses under the SR 520 until reaching Bear Creek.

2.1.4 Elevated Guideway (between approximately STA 5138+50 and STA 5168+00)

The proposed DRLE alignment includes another elevated structure between the Bear Creek crossing and end of the alignment just east of the 164th Avenue NE along the RCC trail (former BNSF rail corridor).

2.1.5 Southeast Redmond Station

The at-grade Southeast Redmond Station is located in the vicinity of the SR 520 eastbound off-ramp at Redmond Way exit. The proposed facilities includes parking spaces as well as circulation for transit, passenger pick-up and drop-off, and a connection to the East Lake Sammamish Trail.

2.1.6 Downtown Redmond Station

The elevated Downtown Redmond Station would span 166th Avenue NE and remain in the existing rail corridor easement on the north side of NE 76th Street. Approximately 460 feet of tail tracks for train layover and turnback operations would continue west of the station, terminating just east of 164th Avenue NE.

3.0 SOURCES OF GEOLOGIC AND GEOTECHNICAL INFORMATION

A field investigation program was completed to obtain geologic and geotechnical information for this project between July 2017 and April 2018 (Golder 2018a). Investigation locations are shown in the project GDR. The records of the historical boreholes are provided in a separate reference document (Historical Geotechnical Borehole Records, Golder 2018b). Four historical boreholes (by others) used in the geologic profiles in this GBR are for delineation of the geologic units only. Sound Transit does not guarantee the accuracy of those historical boreholes.

4.0 GEOLOGIC SETTING

This section is not a baseline.

4.1 Site Conditions and Topographic Information

The general topography in the Puget Sound Lowland is characterized by upland plateaus and ridges with intervening valley troughs that are generally oriented in a north-south direction. This north-south topographic grain is the result of the most recent glacial advance that originated in British Columbia, Canada and moved southward into the Puget Sound Lowland. The glacier's movement across the landscape resulted in the sculpted landscape that is currently present.

The DRLE alignment traverses two distinct terrains. The south end of the proposed alignment (near 40th Street) is part of an upland plateau and is underlain by dense glacial deposits creating a gently northward-dipping undulating ground surface. The elevation at the beginning of the project at NE 40th Street is around 350 feet. The alignment follows along the east side of SR 520 and gradually descends as the alignment approaches the Sammamish Valley, (one of the intervening troughs) with elevations around 30 to 40 feet and remains within the valley to the terminus at the Downtown Redmond Station in downtown Redmond.

4.2 Geologic Setting

The DRLE project is located within the Puget Lowland Basin, an area where the near-surface geology has been shaped by numerous glacial episodes during the approximate past 2 million years. Each of these glacial periods were separated by interglacial periods, where non-glacial sediment deposition occurred. The most recent glacial episode, the Vashon Stade of the Fraser Glaciation, is responsible for most of the present-day topography and near-surface geologic conditions within the proposed alignment corridor.

Geologists generally agree that the Puget Sound area was subjected to six or more major glacial events. The ice for these glaciations originated in the Coast Range and Rocky Mountains of British Columbia, Canada, and generally advanced southward into the Puget Lowland. Each glaciation deposited new sediment and partially eroded previous sediments. During the intervening periods when glacial ice was not present, normal stream processes, wave action, weathering, and landsliding eroded and reworked some of the glacially derived sediment, further complicating the geologic setting.

During the most recent glaciation that covered the central Puget Lowland, approximately 18,000 to 13,000 years before present (termed Fraser glaciation) (Porter and Swanson 1998), the glacial ice is estimated to have been about 3,000 feet thick in the project area (Thorson 1989). The weight of the glacial ice resulted in compaction (overconsolidation) of the glacial and non-glacial soils beneath the ice. As the last ice to reach the central Puget Lowland retreated to the north, deposits of sand, gravel, silt, and clay, commonly containing cobbles and boulders, were laid down by meltwater streams issuing from the glacial ice front and ice-marginal streams. These deposits are termed glacial recessional soils and are not glacially consolidated.

Glacially consolidated soils in the Redmond areas are exceptionally thick. Boreholes and geophysical surveys indicate that approximately 1,300 to 3,500 feet of sediment overlie the bedrock in this area (Yount et al. 1985).

The glacial and interglacial deposits are overlain by younger (Holocene epoch) (last 11,700 years) sediments. The Holocene sediments have not been glacially overridden and therefore are relatively loose and soft and include, but are not limited to, alluvial, lake, peat, and wetland deposits. Included with these deposits are fills placed for various grading activities such as SR 520 and the old railroad grade underlying the RCC Trail through downtown Redmond.

4.3 Major Geologic Units

Eight geologic units were encountered during the subsurface investigations along the project alignment. The geologic units fall into three groups based on age; Holocene Units, Quaternary Vashon Units, and Quaternary Pre-Vashon Units. The symbols in parenthesis following the sediment type (e.g. Hl, Qvt, Qva, etc.) are the map symbols used on the Plan and Profile drawings on Figure 3. Detailed descriptions of the geologic units are presented under Baseline Ground Conditions in Section 5.2.

4.3.1 Holocene Units

Holocene units consist of sediments deposited since the last glaciation, within the last 11,700 years. These units include engineered and non-engineered human placed fill and soil deposits resulting from natural processes. These units have not been overridden by glacial ice. Holocene units encountered on along the alignment include:

- Fill/Modified Land (af)
- Peat and Organic Soils (Hp)
- Alluvium (Ha)
- Post-Glacial Lacustrine Deposits (Hl)

4.3.2 Quaternary Vashon Units

Quaternary Vashon units consist of soils deposited during the last glaciation between 13,000 and 18,000 years ago. These units include soil deposits resulting from glacial processes. Quaternary Vashon units encountered along the alignment include:

- Till (Qvt)
- Advance Outwash Deposits (Qva)
- Glaciolacustrine Deposits (Qvgl)

4.3.3 Quaternary Pre-Vashon Units

These soils are interpreted as glacially deposited, ranging in compostion from a mix of till-like diamicton, granular outwash deposits and glaciolacustrine deposits. These deposits were encountered in the deeper boreholes underlying the Holocene Deposits in the Sammamish Valley.

- Till/Till-Like Deposits (Qvd)

4.4 Hydrogeologic Setting

Groundwater in the proposed DRLE segment can be characterized as occurring in four ways:

- Perched Groundwater (overlying the till): Generally, perched groundwater is unconfined groundwater separated from the regional groundwater table by an unsaturated soil or an aquitard that restricts flow from a confined aquifer and varies seasonally and in response to precipitation events. Perched groundwater can occur where a fine- or coarse-grained soil unit is located above a saturated or unsaturated fine-grained unit. This fine-grained unit provides a barrier between the saturated perched zones above and the regional groundwater table. Occasionally, the till or other aquitard sediments may be missing because of non-deposition or erosion, and the perched aquifer may be in direct communication with the regional aquifer. Other features in the subsurface soil layers have the potential to pond and trap water as well.
- Regional Groundwater (underlying the till): Groundwater, generally confined within the advance outwash and older units underlying the till. Groundwater within the aquifer is usually confined by an overlying low-permeability stratum such as dense till or till-like glacial drift deposits. Regional groundwater level varies seasonally, but is not usually as sensitive to individual precipitation events. Soils underlying the till are considered to be part of the regional groundwater system for the segment extending from the Redmond Technology Center area to just west of the Sammamish River. The saturated soils beneath the glacial till can be expected to include primarily sand and gravel with varying amounts of silt. Both confined and unconfined groundwater conditions are present in the regional groundwater system.
- Isolated Groundwater (within the till): Isolated groundwater zones within glacial till and other geological units. Saturated soil layers, lenses, and seams may be present in the glacial till and other geological units. These saturated layers, lenses, and seams typically contain less silt than the surrounding soils. The piezometric heads within these permeable zones can be elevated, indicating confined or overpressured conditions. Groundwater within the glacial till and other geological units (isolated groundwater zones) and below the glacial till (regional groundwater) also varies seasonally to varying amounts, but is not usually as sensitive to individual precipitation events.
- Continuous Groundwater: Continuous groundwater in saturated post-glacial Holocene soils such as the alluvium and post-glacial lake deposits located within the Sammamish Valley. While both of these post-glacial units are saturated, differences in permeability and transmissivity between the two results in the lower-permeability lacustrine deposits acting as an aquitard relative to the more permeable post-glacial alluvial deposits. The granular post-glacial alluvial deposits as well as deeper recessional deposits provide a major source of water for the City of Redmond.

4.5 Seismic Setting

The Pacific Northwest has three types of seismic sources due to the presence of the Cascadia Subduction Zone (CSZ). These sources include 1) the subduction zone megathrust events which represents the interface between the subducting Juan de Fuca plate and the overriding North American Plate, 2) faults located within the Juan de Fuca plate (referred to as the intraplate or intraslab region), and 3) crustal faults principally in the North American plate.

The subduction zone megathrust is considered capable of generating large earthquakes up to magnitude 8 or 9. It is believed that the most recent CSZ event occurred in the year 1700 (Atwater 1996; Satake et al. 1996). Recurrence intervals for CSZ interplate earthquakes are thought to be on the order of 400 to 600 years.

The intraplate earthquake source is responsible for most of the larger historic earthquakes in the Puget Sound region. These would include the 1949 Olympia earthquake (magnitude 7.1), 1965 Seattle earthquake (magnitude 6.5), and the 2001 Nisqually earthquake (magnitude 6.8). The recurrence of these larger intraplate earthquakes is around 30 years.

The crustal earthquake source is capable of producing earthquakes with magnitudes up to 7.5. Large shallow crustal earthquakes are the most likely seismic events to produce near surface rupture and displacement and typically are followed by a sequence of aftershocks. Faults within the crustal earthquake zone would include the Seattle Fault zone and the South Whidbey Island Fault zone. The last event along the Seattle Fault zone is interpreted to have occurred 1,100 years ago and the South Whidbey Island Fault zone 3,000 years ago.

Using the US Geological Survey (USGS) guidelines (https://geohazards.usgs.gov/deaggint/2008/; (USGS 2008), the Seattle Fault zone (magnitude 7.2), the South Whidbey Island Fault zone (magnitude 7.4), and subduction zone earthquake (magnitude 9.0) were found to be the predominant seismic sources for the site.

5.0 BASELINE GROUND CONDITIONS

5.1 Precision of Baseline Statements

Where elevations of soil unit contacts are given between geologic units, the baseline condition shall be the given elevation, plus or minus 5 feet. For baseline groundwater levels, refer to Figure 3 (baseline condition shall be the given elevation, plus or minus 5 feet). Where piezometric levels are shown, the shown elevation shall be assumed to be within plus or minus 5 feet except at the location of borehole DRLE-G018. For the DRLE-G018 location, piezometric levels from borehole DRLE-G044 shall be used. Although not explicitly stated in the soil unit descriptions below, within each soil unit, thin layers and lenses of other sediments, including but not limited to sands with high permeability, each up to 2 feet thick, should be anticipated.

5.2 Soils Units (Geologic Units)

The eight soil units (geologic units) encountered were identified based on similar stratigraphic and geologic characteristics within each unit. Each soil or stratigraphic unit has characteristic engineering properties.

Baseline profiles indicating depth and extent of the geologic units relative to existing ground surface are shown in Figure 3. The following sections provide a description of each geologic unit, which are used in conjunction with the baseline profiles.

5.2.1 Fill and Modified Land (af)

Fill soils are the result of human grading activities and include fill soil associated with the construction of SR 520 as the route descends from the highlands west of the Sammamish River and into the Sammamish Valley. Other areas of fill include the portion of the DRLE alignment across the Sammamish Valley along the north side of Marymoor Park and railroad ballast along the RCC, a former railroad right-of-way. The composition of the fill is variable. Fill composition includes loose to dense; non-stratified; silty sand, clayey sand, gravelly sand, sand and gravel, silt, silty clay, peat, wood debris, roots, asphalt, glass, and plastic fragments. The fills encountered along SR 520 included dense to very dense, silty fine to coarse sand, some gravel with a trace of wood fragments; fine to medium sand with some fines, and trace gravel. The Marymoor Park fills typically reflect the nature of the underlying in-place stratigraphy and are generally fine grained, ranging from silt, clay and clayey silt with trace amounts of wood, roots, and peat fragments. Fill may contain groundwater from perched groundwater conditions or when fill was placed below the static groundwater level.

5.2.2 Peat and Organic Soils (Hp)

These sediments were encountered along the Sammamish Valley, particularly along the Marymoor Park segment along the south side of SR 520. Composition of this soil unit commonly ranges from loose to medium dense and very soft to very stiff; non-stratified; silt, sandy silt, silt with sand, sandy clay, clayey silt with trace amounts of rootlets, wood; silty sand; organic silt; clay; fibrous peat; local iron oxide staining is common. Organic soils and peat will contain groundwater and are highly compressible. This soil unit will compress when dewatered causing settlement of the surrounding ground surface.

5.2.3 Alluvium (Ha)

The alluvial soils are post-glacial sediments deposited by flowing water and thus have not been glacially overridden. The soils were encountered underlying the Sammamish River valley extending from just west of the Sammamish River into downtown Redmond along the RCC. These deposits underlie the majority of the DRLE alignment extending from the Sammamish River into downtown Redmond. These soils are typically very loose to medium dense; poorly graded fine – coarse gravel with a trace of fines, fine-medium sand with a trace gravel; silty sand. Most of this soil unit is saturated, forming a major aquifer in the project area. Heaving sand, caving gravels, and mud loss were a common occurrence during exploration, particularly along the RCC segment of the alignment.

5.2.4 Post-Glacial Lacustrine Deposits (Hl)

These lacustrine (lake) deposits are post-glacial, not glacially overridden, and were encountered in the subsurface underlying the alluvium sediment (Ha). The soils are generally locally laminated or thinly bedded; cohesive; very soft to stiff soils consisting of sandy clay, clay, and silty sand with a trace of gravel. These deposits will be saturated. The sandier layers or lenses will produce groundwater when below the static groundwater level.

5.2.5 Till (Qvt)

These soils are typically dense to very dense, having been deposited directly beneath the glacial ice. The soils generally consist of a dense to very dense, non-stratified, mix of silty sand and sandy silt with varying amounts of gravel and occasional cobbles and boulders. Groundwater usually occurs in two general ways associated with till: 1) perched groundwater along the top of the till layer, and 2) saturated sandy lenses or interbeds within the till. Perched groundwater along the top of the till will saturate the overlying soil unit. Till deposits are expected to be moisture sensitive.

5.2.6 Advance Outwash Deposits (Qva)

Advance outwash soils are typically dense to very dense because they have been glacially overridden. These soils are typically composed of dense to very dense; locally stratified; sand and silty sand with varying amounts of gravel and cobbles. The soil unit is generally a confined aquifer and saturated below the static groundwater level. The unit may contain thin interbeds or lenses of fine grained soils that impede the movement of groundwater within the Advance Outwash.

5.2.7 Glaciolacustrine Deposits (Qvgl)

These soils consist of glacially consolidated fine-grained soils and a trace of dropstones. Soils are typically composed of hard clay, silty clay, and very dense silt. These soils will typically perch groundwater in overlying granular soil units. The contact between these lower-permeability soils and overlying granular, more-permeable, soils is often the location of groundwater seepage and can produce flows when exposed in hillsides and cuts.

5.2.8 Till and Till-Like Deposits (Qvd)

Till-like glacial drift deposits (Qvd) were encountered in the deeper boreholes in the Sammamish River Crossing and RCC segments of the alignment. These sediments underlie the Holocene, post-glacial deposits. The Qvd deposits are similar to till (Qvt). Where encountered, the till-like glacial drift deposits were composed of non-stratified; very dense to hard; silty sand to sandy silt with a trace of faceted gravel, clayey gravel, clay with gravel. Within the limits of the project, this unit serves as the lower confining layer of the Sammamish Valley aquifer. Similar to the till (Qvt), the till-like glacial drift deposits are expected to be moisture sensitive. The relationship between the Qvd and overlying fine-grained Qvgl is not certain and may be transitional in nature.

5.3 Cobbles and Boulders

Cobbles and boulders are expected to be encountered in the glacial deposits (Qvt, Qva, Qvgl, Qvd) along the length of the alignment. Generally, boulders will be on the order of 1 to 5 feet in diameter, but larger boulders will occur infrequently. Because of the limitations resulting from explorations that were drilled at discrete locations and the diameter of the drill hole, boulders were not generally encountered in the exploration program. Two boreholes encountered suspected boulders. Boring DRLE-G037 encountered refusal on rock at a depth of about 246 feet within the Qvd. Borehole DRLE-G020 encountered rock–like drill chatter at a depth of about 201 feet, again in the Qvd.

- As a baseline condition for the DRLE project, cobbles and boulders will be encountered in excavations, during installations of drilled deep foundations elements, and during installation of soldier piles. Cobbles are defined as rocks that will pass through a 12-inch square opening but will be retained on a 3-inch square opening. Cobbles and nests or clusters of cobbles are incidental to the work and entirely the contractor's responsibility. Boulders are defined as rocks retained on a 12-inch square opening. The baseline quantity of boulders that will be encountered for this project are stated in Table 1. Boulders will consist of igneous and metamorphic rock. The baseline unconfined compressive strength of the boulders is 45,000 pounds per square inch (psi).
- As a baseline condition for the DRLE project, logs and construction debris such as old foundations, will not be encountered along the alignment. A log is defined as a piece of naturally occurring wood/driftwood greater than 6 inches in diameter and 3 feet in length. Construction debris includes, but is not limited to, materials such as concrete debris and reinforcing bar (rebar), and asphalt. Wood/driftwood and construction

debris smaller than 6 inches in diameter and / or shorter than 3 feet in length are incidental to the work and entirely the contractor's responsibility.

Table 1: Baseline Boulder Quantities

Drilled Shafts[3]	**1 – 2 foot[1]**	**2 – 5 foot**	**>5-foot**
(Boulders per 10,000 cubic yards)	Incidental[2]	50	3
General Excavation	**1 – 3 foot**	**3 – 5 foot**	**>5-foot**
(Boulders per 100,000 cubic yards)	Incidental	65	15

Notes:
1. Largest boulder dimension.
2. For the purpose of Table 1, "incidental" shall mean too many boulders to count and entirely the contractor's responsibility.
3. Drilled Shafts for deep foundations and soldier pile shoring.

5.4 Groundwater

The baseline static groundwater levels are shown in Figure 3. Perched groundwater zones are not depicted in these figures.

Perched groundwater will flow into excavations. Dewatering perched zones will reduce groundwater inflow into excavations; however, full dewatering of perched groundwater zones is not considered feasible.

Multiple zones of perched groundwater, occurring at different elevations, will be encountered along the length of the alignment.

Confined aquifers should be anticipated between STA 5071+00 to STA 5085+00. As a result of disturbance to the overlying aquitard (full penetration of the aquitard layer is not required), the hydraulic head on the groundwater in a confined aquifer can result in groundwater flow to an elevation above the aquifer.

The contractor is entirely responsible for groundwater conditions encountered during any ground disturbing activity including, but not limited to excavations, installation of drilled deep foundation elements, installation of soldier piles, temporary cuts, and shoring and retaining wall installation. The contractor is also entirely responsible to provide appropriate permanent design features to address groundwater conditions encountered.

6.0 BASELINE CONSTRUCTION CONSIDERATIONS

6.1 Grading

6.1.1 Subgrade Preparation Baseline

All geologic units are sensitive to moisture and will degrade as a result of construction-related activities. The Contractor will be responsible for mitigation of degraded subgrade resulting from construction-related activities, including but not limited to over-excavation and replacement of degraded soils.

6.1.2 Suitability of On-site Soils as Borrow Baselines

- Re-use of on-site soils will require the Contractor to demonstrate that the soils meet the project specifications.
- The on-site soils cannot be used as backfill material under ballasted track if it does not meet the project specifications.

- af, Hp, Hl, and Qvgl soil units are not reusable as fill material.
- Qvt and Qvd soil units meeting the project specifications will require moisture-conditioning (wetting and/or drying) to be reusable as fill material, but shall not be used as free-draining fill for cast-in-place and/or mechanically stabilized earth (MSE) walls.
- Ha and Qva soil units meeting the project specifications are reusable as fill material, but shall not be used as free-draining fill for cast-in-place and/or MSE walls.

6.2 Construction Considerations

6.2.1 Elevated Guideway – Project Wide

The conceptual design for the project is based on drilled shafts supporting the columns for the elevated guideway over the Sammamish River and along the RCC. Excavations for the drilled shafts will encounter varying thicknesses of most or all the soil units described in Section 5.0. The drilled shaft excavations will have the potential to slough, cave, heave, and encounter obstructions, including boulders. The following baseline statements apply to all drilled shaft excavations for this project:

- Caving of the shaft side wall should be anticipated in af, Hp, and Ha soil units if temporary casing is not used.
- Caving of the shaft side wall should be anticipated in Hl, Qvgl, and Qvd soil units if appropriate means of support are not used.
- Heaving conditions should be anticipated in af, Hp, Ha, Hl, Qvgl, and Qvd soil units, unless appropriate means are used to counteract the heave.
- All drilled shaft locations will encounter groundwater and require wet construction methods including, but not limited to, maintaining a fluid head inside the shaft excavation and placing concrete by tremie pipe.
- Clean gravel should be anticipated in Ha soil unit and increase the rate of loss of water or drilling fluid from the shaft excavation or from within temporary casing. The contractor will need to be prepared with appropriate means to counteract the increased rate of fluid loss.
- Boulders should be anticipated and the appropriate means and methods will be required to complete the drilled shaft excavations. The baseline quantity of boulders is included in Section 5.3.
- Coarse gravel and nested cobbles and/or boulders should be anticipated in Ha and Qvd soil units and the appropriate means and methods will be required to complete the drilled shaft excavations.

6.2.1.1 Elevated Guideway – Sammamish River Crossing

In addition to the baseline statements that apply to all drilled shafts, the following baseline statement also applies to the drilled shaft construction in the vicinity of the Sammamish River Crossing (STA 5071+00 to STA 5085+00).

- Confined aquifer conditions should be anticipated and appropriate means and methods will be required to complete the drilled shaft excavations in Qvgl and Qvd soil units.

In addition to the baseline statements that apply to all drilled shafts, the following baseline statement also applies to the drilled shaft construction for the Sammamish River Crossing (STA 5080+00 to STA 5090+00).

- The near surface soils (within 5 to 20 feet of the existing ground surface) are soft and wet and will require appropriate site preparation and working surfaces to access with typical drilled shaft construction equipment.

6.2.1.2 Elevated Guideway – Redmond Central Connector

In addition to the baseline statements that apply to all drilled shafts, the following baseline statement also applies to the drilled shaft construction along the RCC (STA 5138+50 to STA 5168+00).

- Soil excavated from the upper 10 feet (0 to 10 feet below existing ground surface) along the RCC will contain contamination requiring offsite disposal in a Subtitle D landfill.

6.2.2 Retained-Fill and At-Grade – Project Wide

6.2.2.1 Retained-Fill and At-Grade

Fill and Peat and Organic soils will be encountered at or near the existing ground surface from the Sammamish River (STA 5090+00) to the end of the project. Peat and organic soils will be sensitive to disturbance. Construction of retained fills or embankments on these soils will result in excessive settlement. The following baseline statement applies to this area:

- The near surface soils (within 5 to 20 feet of the existing ground surface) are low strength and highly compressible and will require ground improvement and/or other methods, such as, but not limited to, lightweight fill, to support grade changes and the light rail vehicle loading.

6.2.2.2 At Grade – Redmond Central Connector

The following baseline statement applies to the entire extent of the project (i.e. including areas adjacent to the track alignment) from STA 5133+00 to the end of the project:

- Soil excavated from the upper 10 feet (0 to 10 feet below existing ground surface) along the RCC will contain contamination requiring offsite disposal in a Subtitle D landfill.

6.2.3 Temporary Construction Dewatering

The following baseline statement applies from STA 5133+00 to the end of the project alignment:

- Construction dewatering along the RCC will produce contaminated water requiring offsite disposal at an approved wastewater treatment facility, on-site treatment, and/or discharge to a sanitary sewer or other appropriate facility under an approved discharge permit.

6.2.4 Excavations and Temporary Cuts – Project Wide

The conceptual design for the project includes soil nail walls, soldier pile walls, and other features that will require excavation and/or temporary cuts below the existing ground surface during construction. The following statements apply to all excavations and temporary cuts project wide:

- The Contractor is responsible for the appropriate means and methods to maintain stable excavations and temporary cuts.
- Perched groundwater should be anticipated and the appropriate means and methods used to maintain stable excavations and temporary cuts.
- Temporary cut face excavation for soil nail walls will require appropriate means and methods, including but not limited to vertical elements, to maintain stability during construction.

- Lenses and seams of sandier soil and/or other discontinuities within the glacial till should be anticipated and appropriate means and methods used to maintain stable excavations and temporary cuts.
- Excavations and temporary cuts below groundwater will be unstable and the appropriate means and methods will be required to maintain stability.

6.2.4.1 Excavations and Temporary Cuts –STA 5066+50 to STA 5070+00

The following baseline statement applies from STA 5066+50 to STA 5070+00:

- A layer of gravelly soil, up to 5 feet thick, should be anticipated within the fine-grained soils (Qvgl/Qvd). The top of the gravelly layer should be anticipated at an elevation of approximately 140 feet (+/- 5 feet). The gravelly layer should be anticipated to produce water.

7.0 BASELINE LIQUEFACTION CONSIDERATIONS

- The alluvial cohesive soils identified in the geologic profiles as Hl will not liquefy under Operating Design level (ODE) seismic loading. Isolated zones within this unit may experience liquefaction under the Maximum Design Level (MDE) level.
- For tracks at grade and on the embankment along Marymoor Park, the vertical and horizontal maximum permissible permanent track deformation after the ODE shall be in accordance with Section 8B.4.2 of DCM 5.0 (dated June 2018). However, based on geotechnical evaluation, Sound Transit will allow the Contractor to disregard liquefaction-induced settlement of soils located below 50 feet below existing ground surface.
- At the conceptual location of the SE Redmond Parking garage, there is potential for liquefaction that extends to about 100 feet or deeper under the 2,500-year design earthquake (Maximum Considered Earthquake [MCE]). Sound Transit will allow the Contractor to disregard settlement induced by liquefaction of soils below 50 feet provided: 1) the upper 50 feet of soils does not liquefy under the design earthquake or ground improvement will be installed to mitigate liquefaction, and 2) the vertical distance between the foundation subgrade (or the tip of deep foundations) and the top of the liquefiable soils below 50 feet is at least 40 feet.

8.0 BASELINE INFILTRATION RATES

- Baseline infiltration rate at proposed storm water infiltration facilities in Area 1 (Figure 4) shall be assumed to be 0.2 inch/hour.
- Baseline infiltration rate at proposed storm water infiltration facilities in Area 2 (Figure 4) shall be assumed to be 3 inches/hour.
- Baseline infiltration rates do not consider groundwater mounding. If groundwater mounding occurs the Contractor shall consider the groundwater conditions in infiltration calculations.
- Perched groundwater, or seams of cleaner soils transporting groundwater, shall be anticipated in low-lying topography.
- The Contractor shall perform site-specific Pilot Infiltration Tests for final design of storm water facilities. The baseline infiltration rates are for bidding purposes only.

Signature Page

Golder Associates Inc.

10/4/18

David P. Findley

David P. Findley, LE, LEG
Associate Senior Consultant

10/4/18

M. Birkan Bayrak, PhD, PE
Senior Geotechnical Engineer

10/4/18

Josh L. Hanson, PE
Associate Senior Engineer

DPF/MBB/JLH/JEH/RAM/tp

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9.0 REFERENCES

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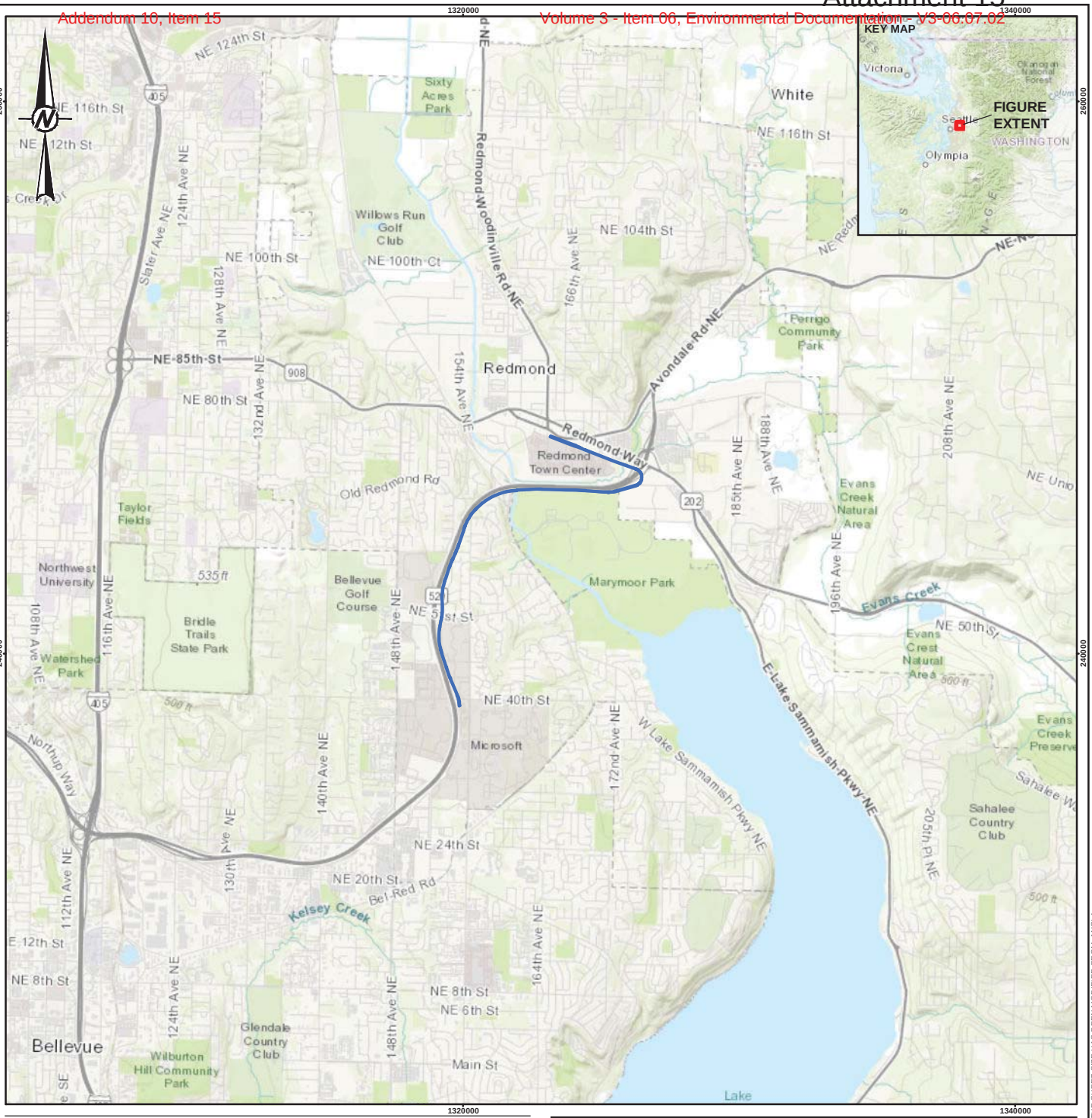
10.0 GLOSSARY

- **aquifer** — A geologic formation with high permeability layers of underground rock or sand that holds or transmits groundwater below the water table.
- **aquitard** — A layer of low permeability sediments that inhibits the flow of water underground.
- **boulder** — A naturally occurring particle of rock that will not pass a 12-inch-square opening.
- **coarse-grained soil** — Sands and gravels; soil material remaining on a U.S. #200 sieve with grain size (particle size) of 3 to 0.003 inches.
- **cobble** — A particle of rock that will remains on a 3-inch-square opening and passes through a 12-inch-square.
- **deposit** — Material settling out of the water onto the streambed through deposition (when the energy of the flowing water is unable to support the load of suspended sediment). A soil layer formed following a process of dropping or getting rid of sediments by an erosional agent such as a river or glacier.
- **fill** — Material used to raise the level of a low area or to make an embankment. Earth fill is rock and soil material generally placed and compacted under controlled conditions. Fill is referred to as engineered fill, non-engineered fill, and uncontrolled fill. Engineered fill consists of a fill material placed in layers and compacted with specialized equipment in a controlled manner to achieve design engineering properties. Non-engineered or uncontrolled fill is typically loosely placed or dumped and can contain unsuitable materials such as organics, wood, construction debris.
- **fine-grained soil** — Clays and silts; soil material passing a U.S. #200 sieve with grain size less than 0.003 inches.
- **glacial** — Relating to glacier (a large thick mass of ice formed on land by the compacting and recrystallization of old snow and move under the influence of gravity. Glaciers survive from year to year, and creep downslope or outward due to the stress of their own weight).
- **glacially consolidated soil** — Soil that is well compacted by the weight of glacial ice.
- **groundwater** — Water within the earth that supplies wells and springs; water in the zone of saturation where all openings in rocks and soil are filled, the upper surface of which forms the water table.
- **head** — The potential energy of water. Head may be measured in either height (feet or meters) or pressure (pounds per square inch, kilograms per square centimeter, or bars).
- **lens** — A deposit bounded by converging surfaces, thick in the middle and thinning toward the edges, resembling a convex lens.

liquefaction	A process by which water-saturated newly deposited loose to medium dense, granular soils and soft normally consolidated, fine grained soils with low plasticity, temporarily lose strength and act as a fluid.
log	A piece of naturally occurring wood greater than 6 inches in diameter and greater than 3 feet in length.
MDE	Maximum Design Level earthquake with a 2,500 year return period.
MCE	Maximum Considered Earthquake with a 2,500 year return period, per IBC.
nested cobbles and/or boulders	A collection of cobbles and/or boulders in a more or less random arrangement and surrounded by little soil matrix. Cobbles and/or boulders may be stacked in multiple layers within a nested mass.
non-glacial soils	Alluvium, colluvium, lacustrine, and other soils that were deposited between periods of glacial formation, advance, and retreat.
normally consolidated soil	The soil whose present vertical overburden effective stress is the maximum pressure that the soil has experienced.
ODE	Operating Design Level earthquake with a 150 year return period.
overconsolidation	A process in which a soil deposit has been consolidated under a vertical overburden effective stress greater than the current effective stress.
piezometric level (or elevation)	The level (or elevation) to which the water from a given measurement point will rise under its full head.
seam	A thin layer or stratum
subgrade	The layer of soil underlying a foundation, pavement section, or track section.
till	Glacial drift, consisting of a poorly sorted (heterogeneous) mixture of clay, silt, sand, gravel, cobbles, and boulders ranging widely in size and shape.

FIGURES



LEGEND

PROPOSED DRLE ALIGNMENT

0 1 2

1 " = 1 MI MILES

NOTE(S)

1. THE LOCATION OF ALL FEATURES SHOWN ARE APPROXIMATE.
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2. COORDINATE SYSTEM: NAD 1983 STATE PLANE WASHINGTON NORTH (FT)
3. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, TOMTOM, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPO, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
VICINITY MAP

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-03-16
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
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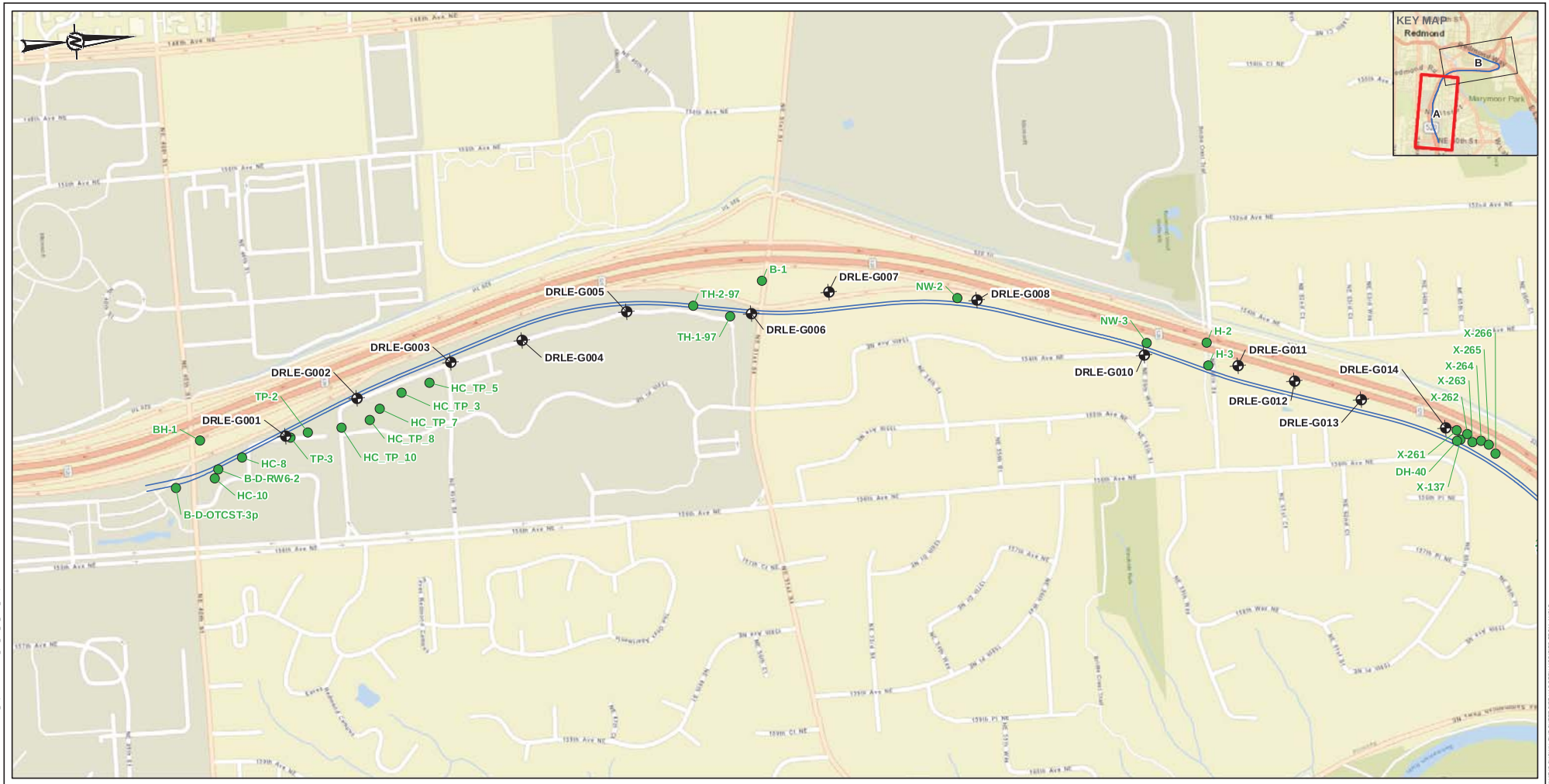

LEGEND

- DRILLED BOREHOLE/TEST PIT (CURRENT PHASE)
- HISTORICAL BOREHOLE/TEST PIT
- PROPOSED DRLE ALIGNMENT FIGURE
- PAGE INDEX

0 250 500 1,000
1 INCH = 500 FEET FEET

NOTE(S)
1. CURRENT BOREHOLES AND TEST PITS BY GOLDER. HISTORICAL INVESTIGATIONS BY OTHERS.
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3. WASHINGTON DEPARTMENT OF NATURAL RESOURCES (HISTORICAL BOREHOLES)
4. WASHINGTON DEPARTMENT OF TRANSPORTATION (HISTORICAL BOREHOLES)
5. CITY OF REDMOND (HISTORICAL BOREHOLES)
6. MICROSOFT (HISTORICAL BOREHOLES)
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8. SERVICE LAYER CREDITS: SOURCES: ESRI, DELORME, NAVTEQ, USGS, INTERMAP, IPC, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), TOMTOM, 2013

CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
SITE AND EXPLORATION PLAN

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-05-31
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
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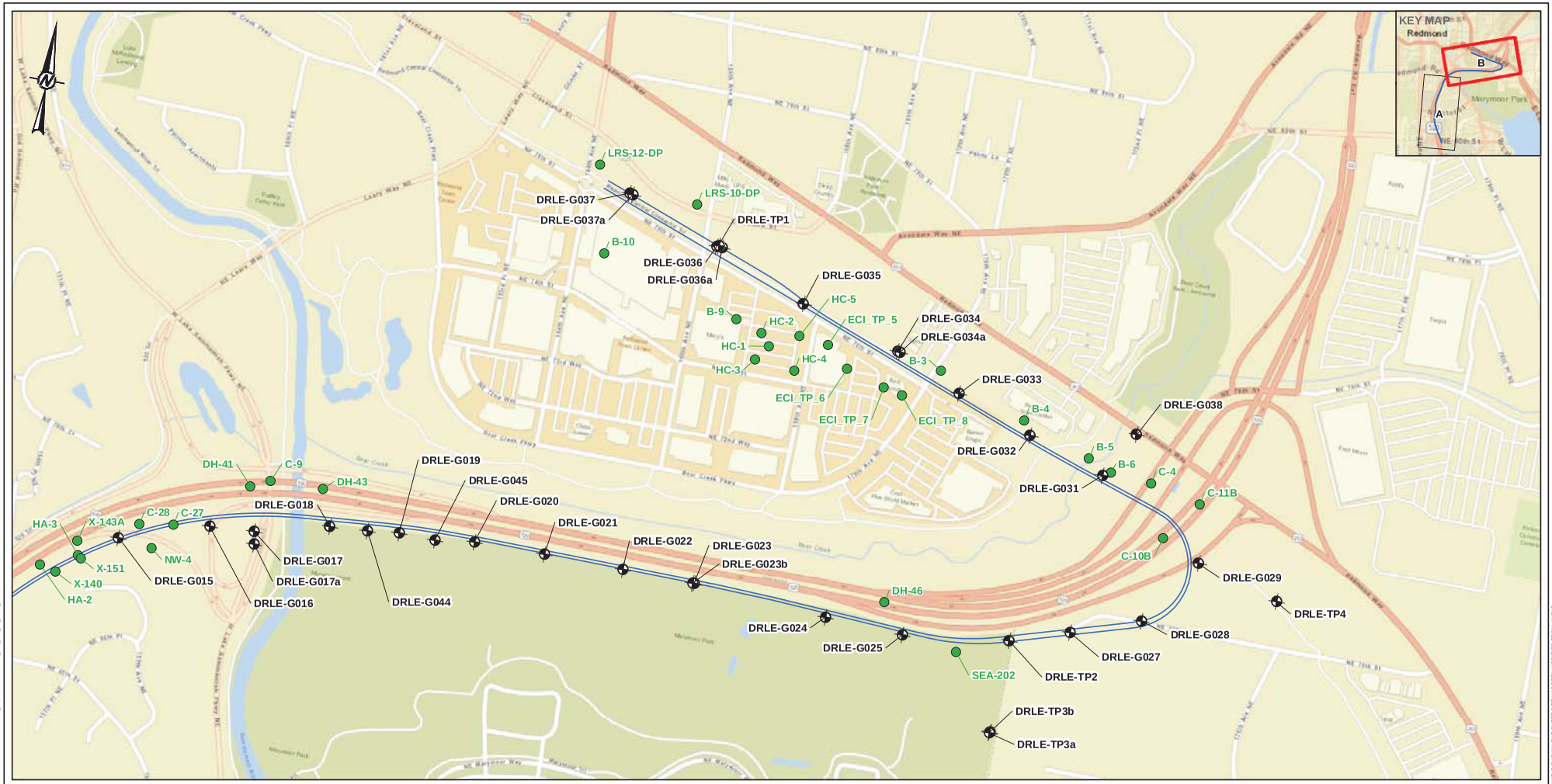

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- DRILLED BOREHOLE/TEST PIT (CURRENT PHASE)
- HISTORICAL BOREHOLE/TEST PIT
- PROPOSED DRLE ALIGNMENT FIGURE
- PAGE INDEX

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CLIENT
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PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
SITE AND EXPLORATION PLAN

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-05-31
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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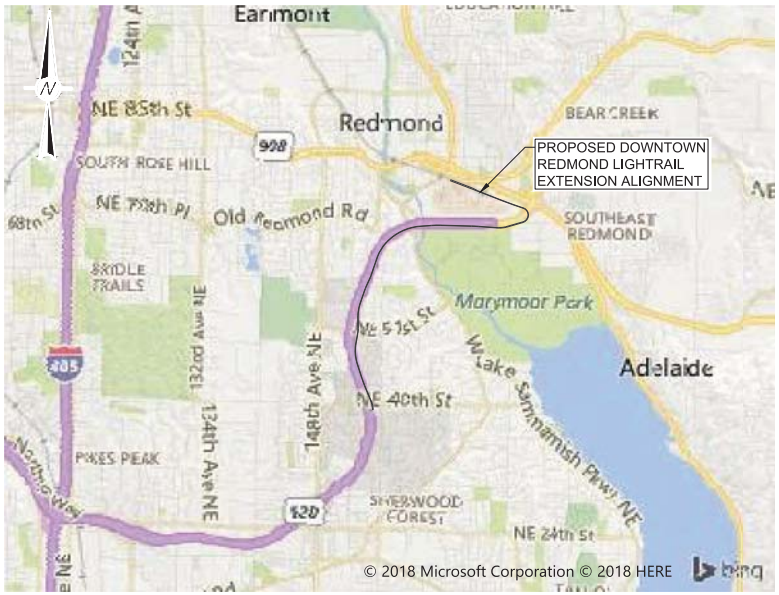
Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.02
Addendum 10, Item 15



VICINITY MAP
SCALE 1" = 1/2 mile

DRAWING LIST	
Figure Number	Figure Title
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3B	PLAN AND PROFILE - STA 4991+00 - 5035+00
3C	PLAN AND PROFILE - STA 5035+00 - 5071+00
3D	PLAN AND PROFILE - STA 5071+00 - 5125+00
3E	PLAN AND PROFILE - STA 5125+00 - 5167+72

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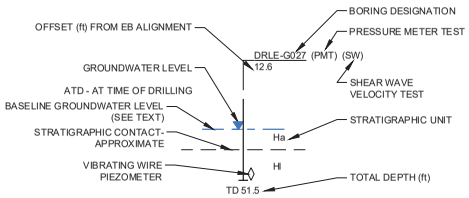

GEOLOGIC LEGEND

HOLOCENE DEPOSITS

af — **FILL/MODIFIED LAND**: LOOSE TO DENSE SILTY SAND, CLAYEY SAND, GRAVELLY SAND, SAND AND GRAVEL, SILT, SILTY CLAY, PEAT, WOOD DEBRIS, ROOTS, ASPHALT, GLASS, AND PLASTIC FRAGMENTS. ALONG SR 520, DENSE TO VERY DENSE, SILTY FINE TO COARSE SAND, SOME GRAVEL WITH A TRACE OF WOOD FRAGMENTS, FINE TO MEDIUM SAND WITH SOME FINES, AND TRACE GRAVEL. IN MARYMOOR PARK, REFLECTS UNDERLYING IN-PLACE STRATIGRAPHY; SILT, CLAY AND CLAYEY SILT WITH TRACE AMOUNTS OF WOOD, ROOTS, AND PEAT FRAGMENTS.

af/Hp — AREAS UNDERLAIN BY NON-STRATIFIED; MIXED FILL DEPOSITS AND ORGANIC SOILS AND PEAT. LOCATED PRIMARILY ALONG NORTH EDGE OF MARYMOOR PARK.

Hp — **PEAT / ORGANIC SOIL DEPOSITS**: LOOSE TO SOFT TO VERY STIFF SILT, SANDY SILT, SILT WITH SAND, SANDY CLAY, CLAYEY SILT WITH TRACE AMOUNTS OF ROOTLETS, WOOD; SILTY SAND; ORGANIC SILT; CLAY; FIBROUS PEAT; LOCAL IRON OXIDE STAINING COMMON.

Ha — **ALLUVIUM**: VERY LOOSE TO MEDIUM DENSE, POORLY GRADED FINE TO COARSE GRAVEL WITH TRACE FINES AND FINE TO MEDIUM SAND WITH TRACE GRAVEL AND SILTY SAND.

Hl — **POST GLACIAL LACUSTRINE DEPOSITS**: VERY SOFT TO STIFF SANDY CLAY, CLAY AND SILTY SAND WITH TRACE GRAVEL. LOCALLY LAMINATED OR THINLY BEDDED.

QUATERNARY DEPOSITS

Qvt — **TILL**: DENSE TO VERY DENSE SILTY SAND AND SANDY SILT WITH VARYING AMOUNTS OF GRAVEL. OCCASIONAL COBBLES AND BOULDERS.

Qva — **ADVANCE OUTWASH**: DENSE TO VERY DENSE, LOCALLY STRATIFIED, SAND AND SILTY SAND WITH VARYING AMOUNTS OF GRAVEL AND COBBLES.

Qvgl — **GLACIOLACUSTRINE DEPOSITS**: HARD CLAY, SILTY CLAY, AND VERY DENSE SILT.

QUATERNARY PRE-VASHON DEPOSITS

Qvd — **TILL/TILL LIKE DEPOSITS**: VERY DENSE TO HARD, NONSTRATIFIED, SILTY SAND TO SANDY SILT WITH A TRACE OF FACETED GRAVEL, CLAYEY GRAVEL, CLAY WITH GRAVEL.

OTHER

Qvgl/Qvd — MIXED CONDITIONS BETWEEN GLACIOLACUSTRINE DEPOSITS (Qvgl) AND TILL/TILL LIKE DEPOSITS (Qvd).

DISCLAIMERS:

- DATA CONCERNING THE VARIOUS STRATA HAVE BEEN OBTAINED AT EXPLORATION LOCATIONS ONLY. THE SOIL STRATIGRAPHY BETWEEN THESE LOCATIONS HAS BEEN INFERRED FROM GEOLOGICAL EVIDENCE AND SO MAY VARY FROM THAT SHOWN.
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No.	DATE	DSN	CHK	APP	REVISION
0	2018-09-05	DF	BB	RAM	FINAL

DESIGNED BY: DF
DRAWN BY: THR
CHECKED BY: BB
APPROVED BY: RAM

GOLDER
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SOUND TRANSIT

SUBMITTED BY: GOLDER
DATE: 2018-09-07
REVIEWED BY:
DATE:
DATE: 2018-09-07

LINE IS 1" AT FULL SCALE

SCALE: 1" = 1/2 MILE
FILENAME: 1657705_200_GDR_006
CONTRACT No.: 1657705/200

PROJECT: SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE: PLAN AND PROFILE - COVER SHEET

DRAWING No.: 1657705_200_GDR_006
LOCATION ID: REDMOND
FIGURE: 3A
REV: 0

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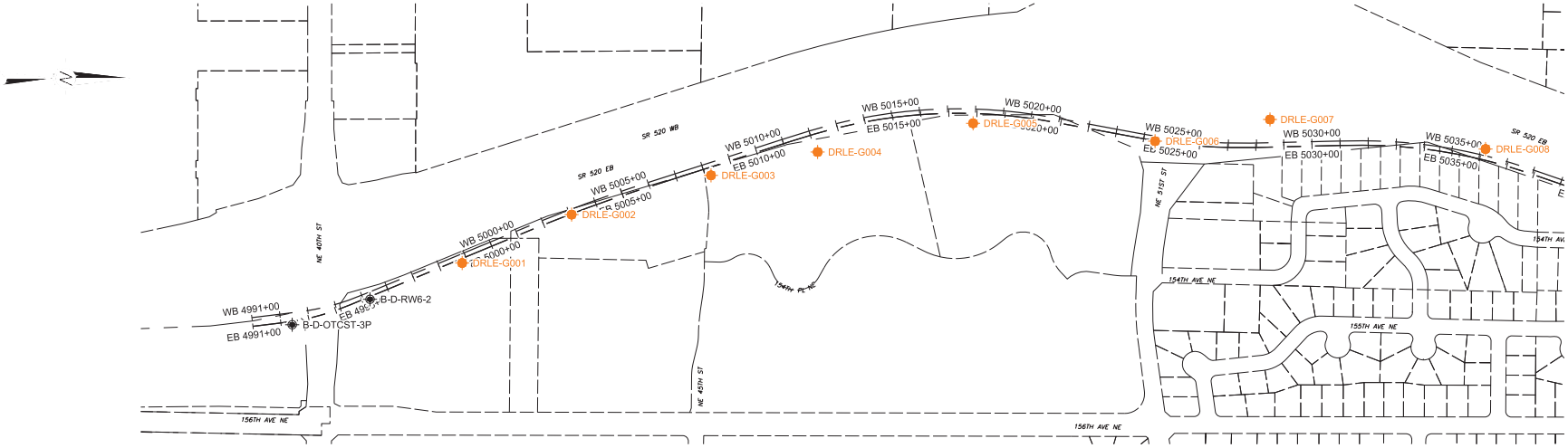
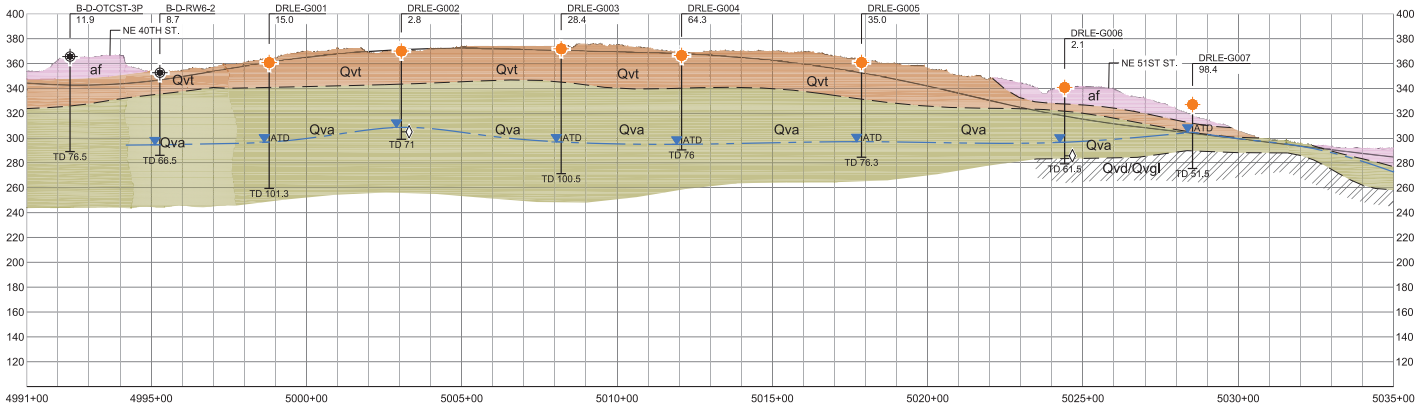
Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3.06.07 (2018-09-07)
Addendum 10, Item 15





LEGEND

- GOLDER BOREHOLE LOCATION AND ID
- PROPOSED EASTBOUND TRACK ALIGNMENT
- BORING LOCATION AND ID (BY OTHERS)

NOTE(S)

- SEE RECORDS OF BOREHOLES IN GEOTECHNICAL DATA REPORT FOR SUBSURFACE INFORMATION AND DATA AT INDIVIDUAL LOCATIONS.
- CONTACTS BETWEEN SOIL UNITS ARE BASED ON BOREHOLE INFORMATION AND REPRESENT THE INTERPRETATION OF SUBSURFACE CONDITIONS. THE BASELINE ELEVATION OF SOIL UNIT CONTACTS IS PLUS OR MINUS 5 FEET OF THE ELEVATION SHOWN ON THE SOIL PROFILES.
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REFERENCE(S)

BASE DRAWINGS, PROVIDED BY SOUND TRANSIT, IN DWG FORMAT.

0 50 100
1" = 50' VERT. FEET
0 200 400
1" = 200' HORIZ. FEET

No.	DATE	DSN	CHK	APP	REVISION
0	2018-09-05	DF	BB	RAM	FINAL

DESIGNED BY: DF
DRAWN BY: THR
CHECKED BY: BB
APPROVED BY: RAM

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SUBMITTED BY: GOLDER — DATE: 2018-09-07
REVIEWED BY: — DATE:

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SCALE: 1" = 200'
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CONTRACT No.: 1657705/200
DATE: 2018-09-07

PROJECT: SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON
TITLE: PLAN AND PROFILE - STA 4991+00 - 5035+00

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REV: 0

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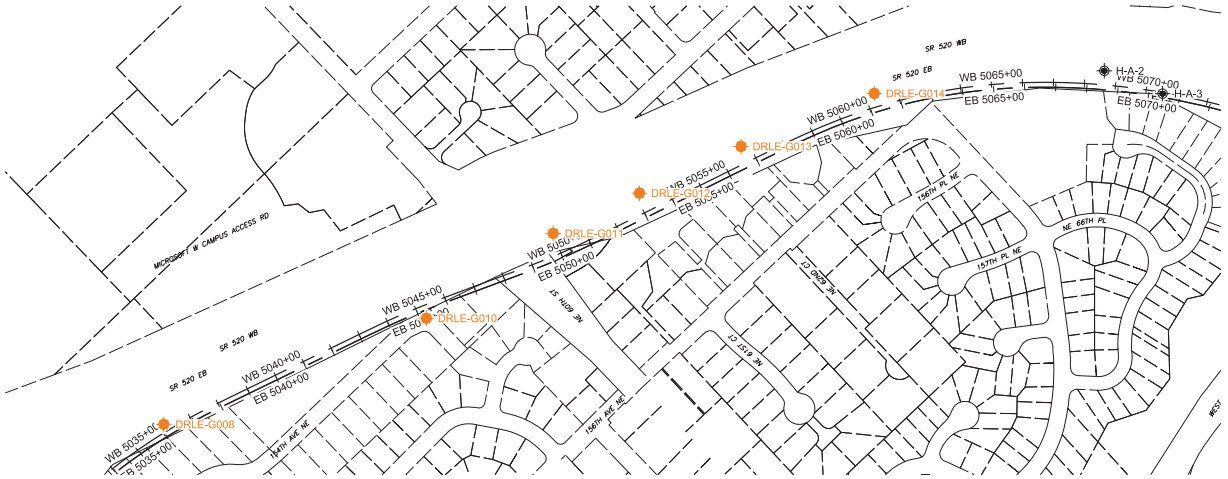

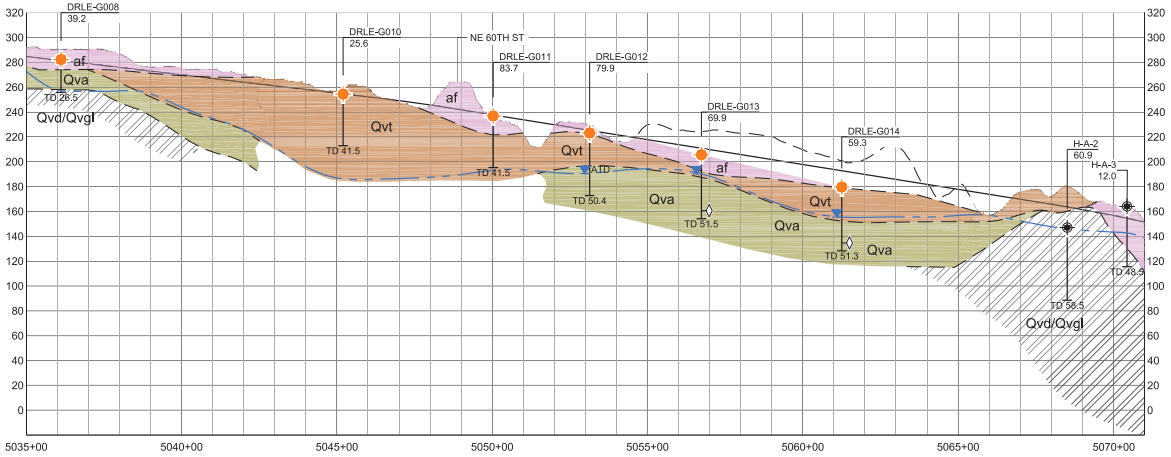

LEGEND

- GOLDER BOREHOLE LOCATION AND ID
- PROPOSED EASTBOUND TRACK ALIGNMENT
- BORING LOCATION AND ID (BY OTHERS)

NOTE(S)

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Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SOUNDTRANSIT

SUBMITTED BY: GOLDER
DATE: 2018-09-07
REVIEWED BY:
DATE:
DATE: 2018-09-07

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SCALE: 1" = 200'
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CONTRACT No.: 1657705/200

PROJECT: SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE: PLAN AND PROFILE - STA 5035+00 - 5071+00

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LOCATION ID: REDMOND
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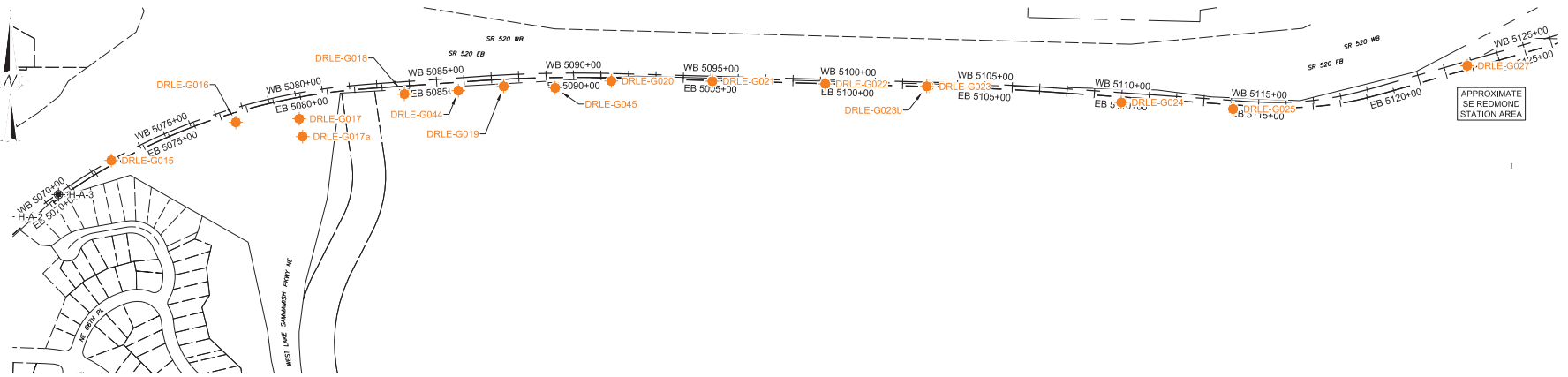
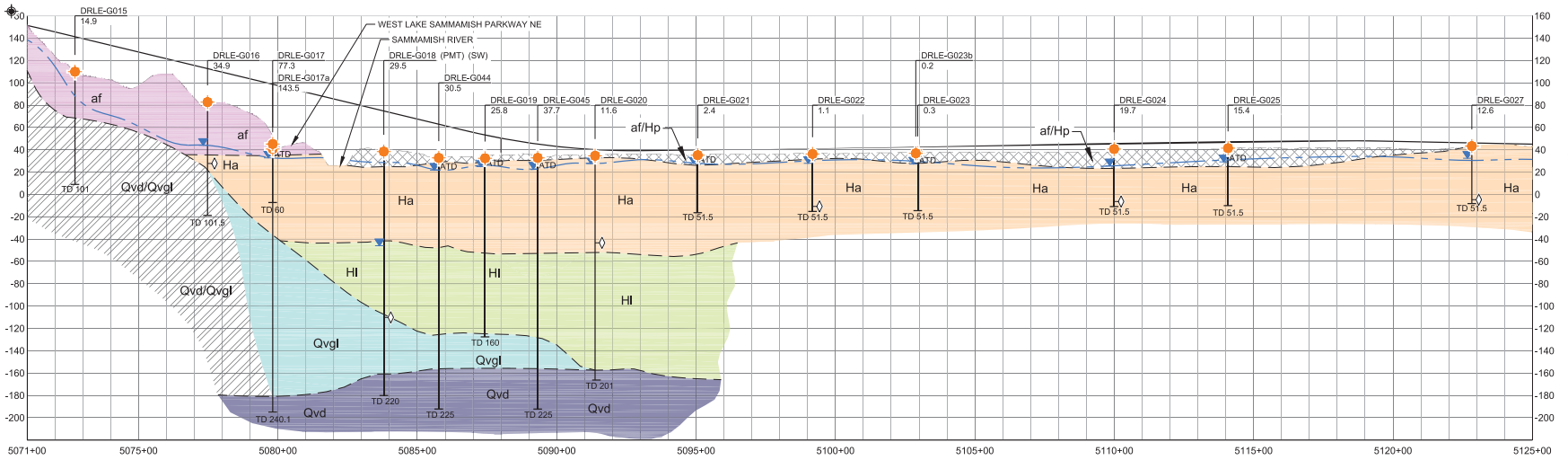
Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3-06.07.0
Addendum 10, Item 15





LEGEND

- GOLDER BOREHOLE LOCATION AND ID
- PROPOSED EASTBOUND TRACK ALIGNMENT

NOTE(S)

- SEE RECORDS OF BOREHOLES IN GEOTECHNICAL DATA REPORT FOR SUBSURFACE INFORMATION AND DATA AT INDIVIDUAL LOCATIONS.
- CONTACTS BETWEEN SOIL UNITS ARE BASED ON BOREHOLE INFORMATION AND REPRESENT THE INTERPRETATION OF SUBSURFACE CONDITIONS. THE BASELINE ELEVATION OF SOIL UNIT CONTACTS IS PLUS OR MINUS 5 FEET OF THE ELEVATION SHOWN ON THE SOIL PROFILES.
- COMPLETE SOIL UNIT DESCRIPTIONS ARE PROVIDED IN SECTION 5.0 OF THE GEOTECHNICAL BASELINE REPORT (GBR).
- FOR THE PURPOSE OF THIS GBR IN ESTABLISHING SOIL CONDITIONS, THE CONTRACTOR IS RESPONSIBLE FOR SOIL CONDITIONS BEYOND THE DEPTH SHOWN ON THE SOIL PROFILES.

REFERENCE(S)

BASE DRAWINGS, PROVIDED BY SOUND TRANSIT, IN DWG FORMAT.

0 50 100
1" = 50' VERT. FEET
0 200 400
1" = 200' HORIZ. FEET

No.	DATE	DSN	CHK	APP	REVISION
0	2018-09-05	DF	BB	RAM	FINAL

DESIGNED BY: DF
DRAWN BY: THR
CHECKED BY: BB
APPROVED BY: RAM

GOLDER
Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
SOUND TRANSIT

SUBMITTED BY: GOLDER
DATE: 2018-09-07
REVIEWED BY:
DATE:
DATE: 2018-09-07

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CONTRACT No.: 1657705/200

PROJECT: SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON
TITLE: PLAN AND PLOT - STA 5071+00 - 5125+00

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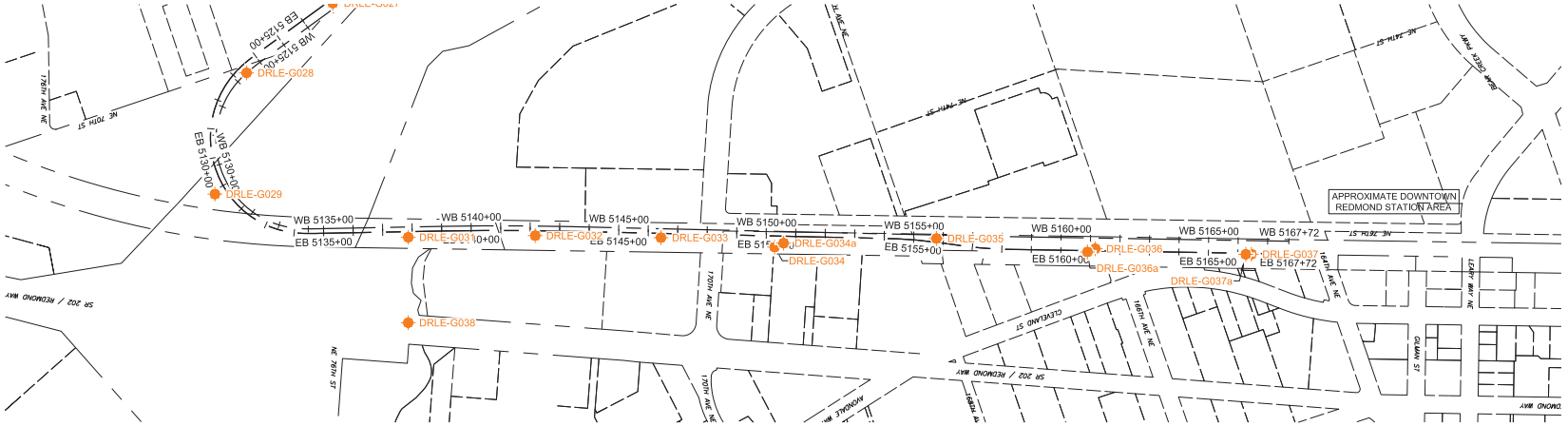
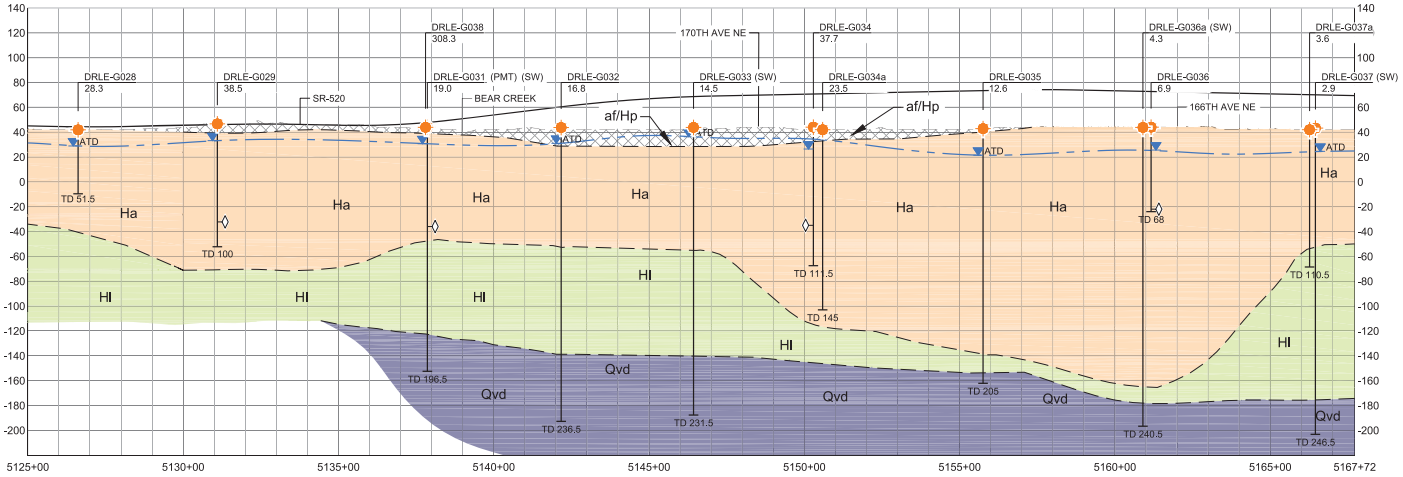
Attachment 15
Volume 3 - Item 06, Environmental Documentation - V3 06.07.2018
Addendum 10, Item 15





LEGEND

- GOLDER BOREHOLE LOCATION AND ID
- PROPOSED EASTBOUND TRACK ALIGNMENT

NOTE(S)

- SEE RECORDS OF BOREHOLES IN GEOTECHNICAL DATA REPORT FOR SUBSURFACE INFORMATION AND DATA AT INDIVIDUAL LOCATIONS.
- CONTACTS BETWEEN SOIL UNITS ARE BASED ON BOREHOLE INFORMATION AND REPRESENT THE INTERPRETATION OF SUBSURFACE CONDITIONS. THE BASELINE ELEVATION OF SOIL UNIT CONTACTS IS PLUS OR MINUS 5 FEET OF THE ELEVATION SHOWN ON THE SOIL PROFILES.
- COMPLETE SOIL UNIT DESCRIPTIONS ARE PROVIDED IN SECTION 5.0 OF THE GEOTECHNICAL BASELINE REPORT (GBR).
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REFERENCE(S)

BASE DRAWINGS, PROVIDED BY SOUND TRANSIT, IN DWG FORMAT.

0 50 100
1" = 50' VERT. FEET
0 200 400
1" = 200' HORIZ. FEET

No.	DATE	DSN	CHK	APP	REVISION
0	2018-09-05	DF	BB	RAM	FINAL

DESIGNED BY: DF
DRAWN BY: THR
CHECKED BY: BB
APPROVED BY: RAM

GOLDER | Parametrix ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES | SOUNDTRANSIT

LINE IS 1" AT FULL SCALE

SUBMITTED BY: GOLDER
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REVIEWED BY:
DATE:
DATE: 2018-09-07

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CONTRACT No.: 1657705/200

PROJECT: SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE: PLAN AND PROFILE - STA 5125+00 - 5167+72

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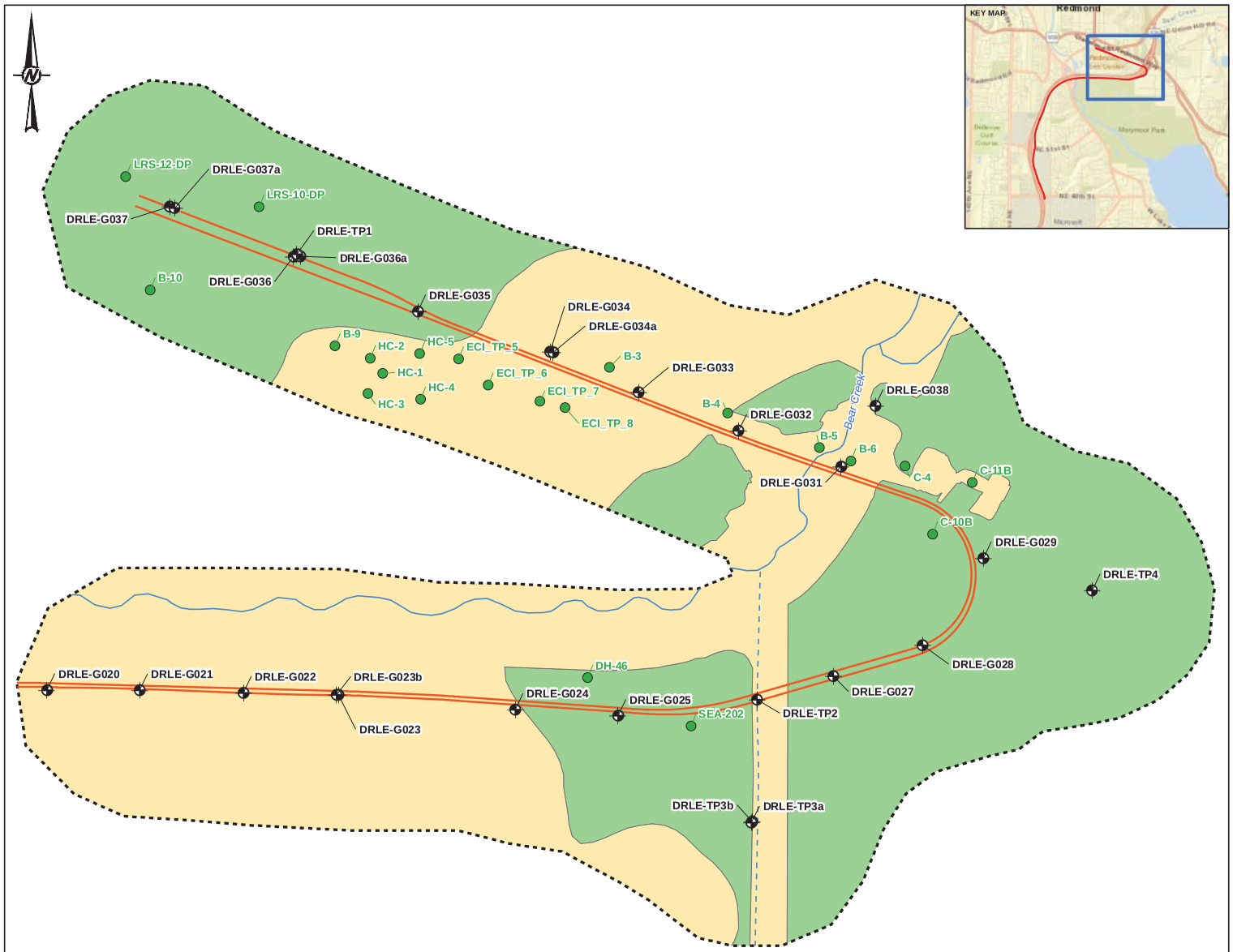

LEGEND

- DRILLED BOREHOLE/TEST PIT (CURRENT PHASE)
- HISTORICAL BOREHOLE
- PROPOSED DRLE ALIGNMENT
- WATERBODY
- HISTORICAL BEAR CREEK CHANNEL (APPROXIMATE)
- STREAM/RIVER

BASELINE INFILTRATION ZONES

- AREA 1
- AREA 2

0 400 800
1 IN = 400 FT
FEET

NOTE(S)

1. CURRENT BOREHOLES AND TEST PITS BY GOLDER. HISTORICAL BOREHOLES BY OTHERS.
2. HISTORICAL BOREHOLE RECORDS ARE PROVIDED IN A SEPARATE DOCUMENT.
3. THE LOCATION OF ALL FEATURES SHOWN ARE APPROXIMATE.
4. GOLDER DIGITIZED THE HISTORICAL BEAR CREEK CHANNEL BASED ON 1936 ORTHOPHOTOS.
5. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT. GOLDER ASSOCIATES INC., PARAMETRIX, AND SOUND TRANSIT CANNOT GUARANTEE THE ACCURACY AND CONTENT OF ELECTRONIC FILES. THE MASTER FILE IS STORED BY GOLDER ASSOCIATES INC. AND WILL SERVE AS THE OFFICIAL RECORD OF THIS COMMUNICATION.

REFERENCE(S)

1. GOLDER (CURRENT-PHASE DRILLED BOREHOLES, INFILTRATION ZONES)
2. SOUND TRANSIT (DRLE ALIGNMENT, VIA PARAMETRIX)
3. WASHINGTON DEPARTMENT OF NATURAL RESOURCES (HISTORICAL BOREHOLES)
4. WASHINGTON DEPARTMENT OF TRANSPORTATION (HISTORICAL BOREHOLES)
5. CITY OF REDMOND (HISTORICAL BOREHOLES)
6. MICROSOFT (HISTORICAL BOREHOLES)
7. KING COUNTY (WATER FEATURES)
8. COORDINATE SYSTEM: NAD 1983 STATE PLANE WASHINGTON NORTH (FT)
9. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
BASELINE INFILTRATION AREAS

CONSULTANT
GOLDER

YYYY-MM-DD	2018-06-28
DESIGNED	BVJ/ND
PREPARED	BVJ
REVIEWED	ND
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
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golder.com

Appendix L

Geotechnical Data Report

GOLDER

REPORT

Downtown Redmond Link Extension Geotechnical Data Report

Submitted to:

Parametrix
719 2nd Avenue, Suite 200
Seattle, WA 98104

Submitted by:

Golder Associates Inc.
18300 NE Union Hill Road, Suite 200 Redmond, Washington, USA 98052

+1 425 883-0777

AE 0045-16

July 24, 2018

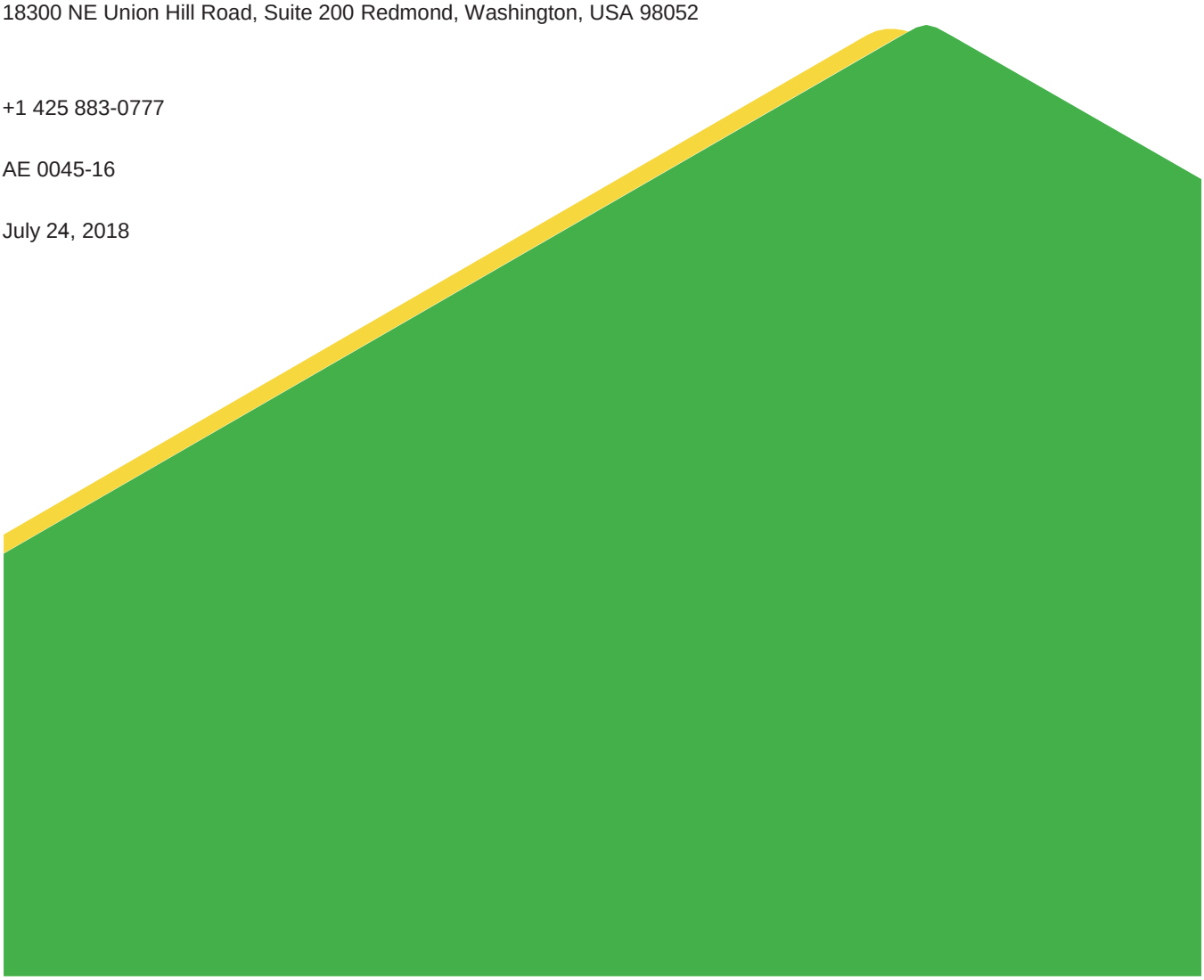

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Table 2-2: Groundwater Data Summary

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Figure 2: Site and Exploration Plan

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Appendix B: Record of Test Pits

Appendix C: In Situ Tests – Pilot Infiltration Testing (PIT)

Appendix D: In Situ Tests – Suspension Logging Data

Appendix E: In Situ Tests - Pressuremeter Testing Data

Appendix F: In Situ Tests - Slug Well Data

Appendix G: Laboratory Tests – Soil Testing (Hayre McElroy and Associates, LLC)

Appendix H: Laboratory Tests – Soil Testing (HWA Geosciences Inc.)

Appendix I: Laboratory Tests – Soil Testing (Golder Associates Ltd)

Appendix J: Laboratory Tests - Radiographic Examination (Acuren Group Inc.)

Appendix K: Laboratory Tests – Soil Resistivity and Corrosivity Testing (HMA and OnSite Environmental Inc.)

Appendix L: Laboratory Tests – Analytical Data (OnSite Environmental Inc.)

Appendix M: Supplementary Data – VWP Calibration Sheets

Appendix N: Supplementary Data – Drill Rig Hammer Efficiencies

1.0 INTRODUCTION

Golder Associates Inc. (Golder) prepared this Geotechnical Data Report (GDR) to summarize the geotechnical exploration program performed for the Sound Transit's Downtown Redmond Link Extension (DRLE) project. This GDR includes records of boreholes, results of in-situ and laboratory testing performed, and other supplementary information gathered to date.

1.1 Project Summary

The DRLE segment is a proposed 3.4 mile extension of Sound Transit's regional light rail system. Figure 1 shows the approximate vicinity of the project. The alignment begins near NE 40th Street in Redmond, Washington and extends north and east along the eastside of the State Route (SR) - 520 freeway. The alignment then turns east with the freeway, crossing the Sammamish River and descending into Marymoor Park, until reaching the Redmond Way Exit. At the Redmond Way Exit, the light rail alignment turns to the northwest, crosses under SR-520 and over Bear Creek, and then follows the Redmond Central Connector (RCC) alignment into downtown Redmond. The light rail alignment terminates at the proposed Downtown Redmond Station located at the north side of Redmond Town Center.

The current project adds two stations: the Southeast Redmond Station and the Downtown Redmond Station. The current design concept for the DRLE segment consists of a mix of at-grade and elevated track as well as several areas of cuts and fills.

1.2 Use of Report

This GDR presents the data from field explorations and in situ and laboratory testing of subsurface conditions at the specific locations and depths indicated using the means and methods described in this report. No other representation is made. This exploration plan was performed in general accordance with locally accepted geotechnical engineering practice to provide information for the area explored.

Subsurface conditions, such as those that may be interpreted from exploration records and test results included in this report, should not be construed as a guarantee or warranty of any subsurface conditions. Stratigraphic contacts depicted in the exploration records represent approximate boundaries between geologic deposits. There are possible variations in the subsurface conditions between the exploration areas and in groundwater conditions with time.

This report should be made available to prospective contractors for information or factual data only. No implications or recommendations are made in this report. It is the responsibility of the contractor to interpret the data presented in this report. The data are technical in nature and the contractor may wish to seek qualified help to interpret the data.

The scope of our services included limited review of regulatory records and environmental screening of soil samples for the purpose of protecting field personnel and the environment from potential contamination during drilling and for the disposal of investigation-derived waste (IDW). We did not perform detailed environmental assessments or evaluations regarding the presence or absence of hazardous or toxic materials in the soil, surface water, groundwater, or air, on or below the site.

2.0 GEOTECHNICAL EXPLORATION PROGRAM

2.1 Datums

All elevation values presented in this report are provided based on vertical datum NAVD88. Horizontal northing and easting values are presented in the DRLE project datum.

2.2 Existing Information

The records of historical boreholes and test pits shown on Figure 2 were provided in a separate document (Golder 2018).

2.3 Borehole Explorations

Golder boreholes were advanced with either hollow stem auger, mud rotary, or sonic drilling methods, depending on ground conditions. Drilling methods are indicated on the records of boreholes. Explorations in areas with a high density of buried utilities were generally air vacuumed to about 7½ feet below ground surface (bgs) to avoid unmarked utilities before continuing with planned drilling.

Standard penetration testing was conducted in accordance the Standard Penetration Test Method American Society for Testing and Materials (ASTM) D1586-11 using a 140-pound automatic hammer falling freely 30 inches, driving a 2-inch diameter split spoon. Standard penetration tests and sample collections were conducted as appropriate for ground conditions encountered, generally at 2.5-foot intervals until a depth of 15 bgs, then every 5 feet until depths explored. Modified California (3-inch O.D.) samplers were used when no sample recovery was obtained utilizing the standard split spoon sampler or when a larger samples were required (i.e. for archaeological screening). Thin-walled sampling tubes (Shelby tubes) were used selectively when soft-to-firm, fine-grained sediments were encountered. Soil samples were logged on site by either a Golder geotechnical engineer or geologist, then placed in plastic jars for transport to Golder's soil laboratory located in Redmond, Washington for additional review and third-party testing. Boreholes were backfilled with bentonite chips or bentonite grout and capped to match surface conditions in general accordance with Washington State Department of Ecology regulations. Piezometers were installed in selected boreholes. Waste and auger cuttings were drummed and sealed for offsite disposal by Golder's drilling subcontractors.

As part of the DRLE field investigation program from July 2017 to March 2018, a total of 42 exploratory boreholes were completed along the proposed alignment, as shown on Figure 2 and tabulated in Table 2-1. Golder's records of borehole explorations are presented in Appendix A.

2.4 Test Pit Explorations

Golder test pits were excavated in March 2018 with a rubber tracked mini excavator. Soil samples were logged on site by a Golder geologist and placed in plastic bags for transport to Golder's soil laboratory located in Redmond, Washington for additional review and third-party testing. Upon completion, test pits were backfilled with the excavated material and the backfilled material was tamped using the excavation equipment to minimize surface settlement to the extent possible.

As part of the DRLE field investigation program, a total of 5 test pits were completed along the proposed alignment, as shown on Figure 2 and tabulated in Table 2-1. Golder's records of test pits are presented in Appendix B.

2.5 Soil Classification

Soil classification for this project was based on ASTM D 2487-17, Standard Practice for Classification of Soils for Engineering Purposes, Unified Soil Classification System (USCS), and ASTM D 2488-17, Standard Practice for Description and Identification of Soils (Visual-Manual Procedures).

2.6 Test Pits Infiltration Testing

As part of the DRLE field investigation program, four small pilot infiltration tests (PIT) were completed at selected test pit locations. The records of the test pits are presented in Appendix B and PIT data are presented in Appendix C.

2.7 Suspension Logging

Global Geophysics, LLC conducted suspension logging in six boreholes: DRLE-G018, DRLE-G031, DRLE-G033, DRLE-G036, DRLE-G037, and DRLE-G037A along the DRLE alignment. The proposed objective of the geophysical investigation was to determine the shear wave velocity of the soil column below the ground surface. The suspension logging report is presented in Appendix D.

2.8 Pressuremeter Testing

In Situ Engineering conducted pressuremeter tests (PMT) during the advancement of two boreholes: DRLE-G018 and DRLE-G031. The purpose of the PMTs was to evaluate the in situ engineering properties (shear strength, limit pressure, and shear modulus) of materials encountered downhole. The pressuremeter testing report is presented in Appendix E.

2.9 Groundwater Monitoring

Thirteen (13) vibrating wire piezometers (VWP) and 1 standpipe piezometer were installed in selected boreholes and test pits as presented in Table 2-1. Piezometers were installed to monitor variations in groundwater levels during different times of the year along the proposed alignment. Groundwater data summary is presented in Table 2-2.

2.10 Slug Well Monitoring

Three slug wells were installed in selected boreholes (DRLE-G027, DRLE-G034, DRLE-G036) to monitor groundwater levels and to estimate the hydraulic conductivity of the soils near or below the groundwater table. Results from the slug testing are presented in Appendix F.

3.0 LABORATORY TESTING

Various laboratory tests were performed on selected soil samples collected during the DRLE field investigation program were tested at four different laboratories and are described in the following sections.

3.1 Soil Testing (Hayre McElroy and Associates, LLC)

Selected soil samples collected during the field investigation program were sent to Hayre McElroy and Associates, LLC (HMA) for soil testing including moisture content, grain size distribution, Atterberg limit, and organic content tests. Results of the soil testing completed by HMA are presented in Appendix G.

3.2 Soil Testing (HWA Geosciences Inc.)

Selected relatively undisturbed Shelby tube samples collected during the field investigation program were sent to HWA Geosciences Inc. (HWA) for soil testing including unconsolidated undrained triaxial and consolidation tests. Supplementary Atterberg limit tests were also performed. Results of the soil testing completed by HWA are presented in Appendix H.

3.3 Soil Testing (Golder Associates Ltd.)

Selected relatively undisturbed Shelby tube samples collected during the field investigation program were transported to Golder's laboratory in Burnaby, British Columbia for advanced soil testing. Cyclic direct simple

shear (CycDSS), undrained triaxial, consolidation, and other supplementary testing completed at Golder's laboratory are presented in Appendix I.

Prior to CycDSS testing, all Shelby tubes were x-rayed (radiographic examination) by a third party (Acuren Group Inc.) to evaluate the quality of the samples obtained. Results from the X-Rays are presented in Appendix J.

3.4 Soil Testing – Resistivity and Corrosivity (HMA and Onsite Environmental Inc.)

Samples collected during the field investigation program were selected for resistivity and corrosion testing based on the locations of the proposed substations. The tests were conducted by HMA and Onsite Environmental Inc. and included soil resistivity, pH, concentration of chlorides, and redox potential tests. Results are presented in Appendix K.

3.5 Analytical Data (OnSite Environmental Inc.)

Soil cuttings from the upper 5 feet at borehole DRLE-G034 were drummed due to the results of photoionization detector (PID) readings conducted during the field investigation that indicated the potential presence of volatile organic compounds (VOCs). Samples were sent to OnSite Environmental Inc. for analytical testing. Results of the analytical data are presented in Appendix L.

4.0 SUPPLEMENTARY DATA

4.1 VWP Calibration Sheets

VWP calibrations sheets are presented in Appendix M.

4.2 Drill Rig Hammer Efficiencies

Energy calibration reports for the drill rigs used in the DRLE field investigation program are presented in Appendix N. Table N-1 in Appendix N summarizes the borehole, drill rig, hammer efficiency, and corresponding calibration report for reference.

5.0 CLOSING

This Geotechnical Data Report has been prepared for the exclusive use of Sound Transit and Parametrix. Use of this report by others or for another project is at the user's sole risk.

This report should not be construed as a warranty of subsurface conditions. Additional explorations should be completed in support of final design. Within the limitations of scope, schedule, and budget, these services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at this time this report was prepared. No warranty or other conditions, express or implied, should be understood.

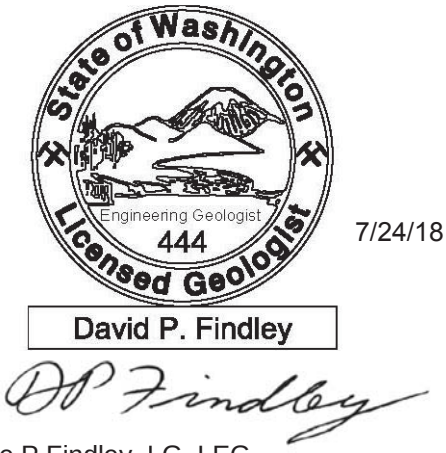
Signature Page

Golder Associates Inc.

7/24/18

Carly Schaeffer
Staff Geotechnical Engineer

M. Birkan Bayrak, PhD, PE
Senior Geotechnical Engineer



7/24/18

Dave P Findley, LG, LEG
Associate Senior Consultant

CS/MBB/DPF/sb

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6.0 REFERENCES

American Society for Testing and Materials. 2011. Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils, ASTM D1586-11.

American Society for Testing and Materials. 2017. Standard Practice for Description and Identification of Soils (Visual-Manual Procedures), ASTM D2488-17.

American Society for Testing and Materials. 2017. Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), ASTM D2487-17.

Golder Associates, Inc. (Golder). 2018. Draft Report. Historical Geotechnical Borehole Records. Submitted to Parametrix. May 25.

TABLES

Table 2-1: Summary of Boreholes and Test Pits

Borehole	Investigation Completion Date	Total Investigation Depth (ft)	Ground Surface Elevation (ft) NAVD88	Northing (ft) Project Datum	Easting (ft) Project Datum	Piezometer Installed?	Piezometer Depth (ft)	Well Installed?	Top of Screen (ft, bgs)	Bottom of screen (ft, bgs)	Seismic Casing Installed?	Pressuremeter Test?	Ecology Tag
DRLE-G001	8/29/2017	100.3	360.8	338867.7	1419712.4	x	-	x	-	-	x	x	-
DRLE-G002	2/13/2018	71.0	369.0	339256.7	1419540.2	VWP	65.0	x	-	-	x	x	BKL443
DRLE-G003	8/30/2017	100.3	371.9	339752.2	1419400.6	x	-	x	-	-	x	x	-
DRLE-G004	8/31/2017	76	366.5	340131.1	1419317.6	x	-	x	-	-	x	x	-
DRLE-G005	9/1/2017	76.3	360.9	340683.8	1419215.4	x	-	x	-	-	x	x	-
DRLE-G006	10/27/2017	61.5	370.7	341330.6	1419279.0	VWP	55.0	x	-	-	x	x	BKY360
DRLE-G007	10/30/2017	51.5	327.0	341739.0	1419201.8	x	-	x	-	-	x	x	-
DRLE-G008	10/31/2017	26.5	282.3	342505.2	1419307.0	x	-	x	-	-	x	x	-
DRLE-G010	9/8/2017	41.0	254.4	343344.5	1419663.2	x	-	x	-	-	x	x	-
DRLE-G011	11/1/2017	41.5	236.8	343826.5	1419758.9	x	-	x	-	-	x	x	-
DRLE-G012	11/2/2017	50.4	223.2	344114.5	1419863.5	x	-	x	-	-	x	x	-
DRLE-G013	11/3/2017	51.5	205.6	344452.1	1419988.4	VWP	45.0	x	-	-	x	x	BKY361
DRLE-G014	11/6/2017	51.3	179.6	344876.2	1420171.1	x	-	x	-	-	x	x	-
DRLE-G015	11/8/2017	101	110.0	345656.6	1421020.7	x	-	x	-	-	x	x	-
DRLE-G016	10/31/2017	101.5	82.7	345795.6	1421474.9	VWP	55.0	x	-	-	x	x	BKL754
DRLE-G017	11/3/2017	60.0	40.7	345808.6	1421706.1	x	-	x	-	-	x	x	-
DRLE-G017A	12/11/2017	240.1	45.2	345743.6	1421718.6	x	-	x	-	-	x	x	-
DRLE-G018	10/30/2017	220.0	40.7	345898.5	1422089.8	VWP	150.0	x	-	-	2.5" PVC	Yes	BKL759
DRLE-G019	7/25/2017	160.3	32.4	345926.9	1422451.4	x	-	x	-	-	x	x	-
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DRLE-G021	7/20/2017	51.5	35.2	345945.6	1423212.7	x	-	x	-	-	x	x	-
DRLE-G022	7/27/2017	51.5	36.3	345935.5	1423624.4	VWP	47.0	x	-	-	x	x	No ID
DRLE-G023	7/19/2017	51.5	37.0	345926.5	1424001.7	x	-	x	-	-	x	x	-
DRLE-G023b	7/27/2017	6.5	36.9	345926.7	1423994.7	x	-	x	-	-	x	x	-
DRLE-G024	8/11/2017	51.5	40.7	345868.3	1424703.6	VWP	47.0	x	-	-	x	x	BKP465
DRLE-G025	8/9/2017	51.5	41.5	345844.1	1425111.6	x	-	x	-	-	x	x	-
DRLE-G027	9/5/2017	51.5	43.3	346002.0	1425965.7	VWP	48.0	2" PVC	15	25	x	x	BKX314
DRLE-G028	9/7/2017	51.5	41.9	346124.0	1426321.0	x	-	x	-	-	x	x	-
DRLE-G029	1/9/2017	101.5	47.8	346473.1	1426562.2	VWP	80.0	x	-	-	x	x	BKC322
DRLE-G031	9/24/2017	196.5	44.0	346834.4	1425996.7	VWP	80.0	x	-	-	2.5" PVC	Yes	BKP453
DRLE-G032	10/13/2017	236.3	43.8	346976.3	1425590.5	x	-	x	-	-	x	x	-
DRLE-G033	11/16/2017	231.5	43.9	347128.5	1425192.6	x	-	x	-	-	2.5" PVC	x	-
DRLE-G034	8/22/2017	111.5	44.1	347290.3	1424841.6	VWP	80.0	2" PVC	15	25	x	x	BKP464
DRLE-G034A	2/8/2018	145.0	44.2	347288.0	1424808.6	x	-	x	-	-	x	x	-
DRLE-G035	10/9/2017	205.0	42.9	347450.4	1424316.5	x	-	x	-	-	x	x	-
DRLE-G036	8/24/2017	68.0	44.1	347667.2	1423822.7	VWP	66.0	2" PVC	10	15	2.5" PVC	x	BKP463
DRLE-G036A	10/17/2017	240.5	43.8	347668.2	1423851.3	x	-	x	-	-	x	x	-
DRLE-G037	9/22/2017	246.8	43.3	347865.3	1423332.0	x	-	x	-	-	2.5" PVC	x	-
DRLE-G037A	2/13/2018	110.5	43.4	347859.3	1423350.0	x	-	x	-	-	2.5" PVC	x	-
DRLE-G038	1/11/2018	106.5	48.9	347106.2	1426095.9	x	-	x	-	-	x	x	-
DRLE-G044	10/11/2017	225.1	32.8	345911.3	1422286.5	x	-	x	-	-	x	x	-
DRLE-G045	10/5/2017	225	32.8	345921.4	1422639.3	x	-	x	-	-	x	x	-
DRLE-TP1	3/20/2018	10.0	43.8	347676.2	1423837.0	x	-	x	-	-	x	x	-
DRLE-TP2	3/22/2018	10.0	41.6	345908.3	1425663.0	x	-	x	-	-	x	x	-
DRLE-TP3A	3/21/2018	10.0	43.1	345420.4	1425641.3	x	-	x	-	-	x	x	-
DRLE-TP3B	3/23/2018	10.5	43.2	345425.1	1425643.9	SP	-	2" PVC	4	9.25	x	x	BKC148
DRLE-TP4	3/23/2018	10.5	46.8	346342.5	1426994.1	x	-	x	-	-	x	x	-

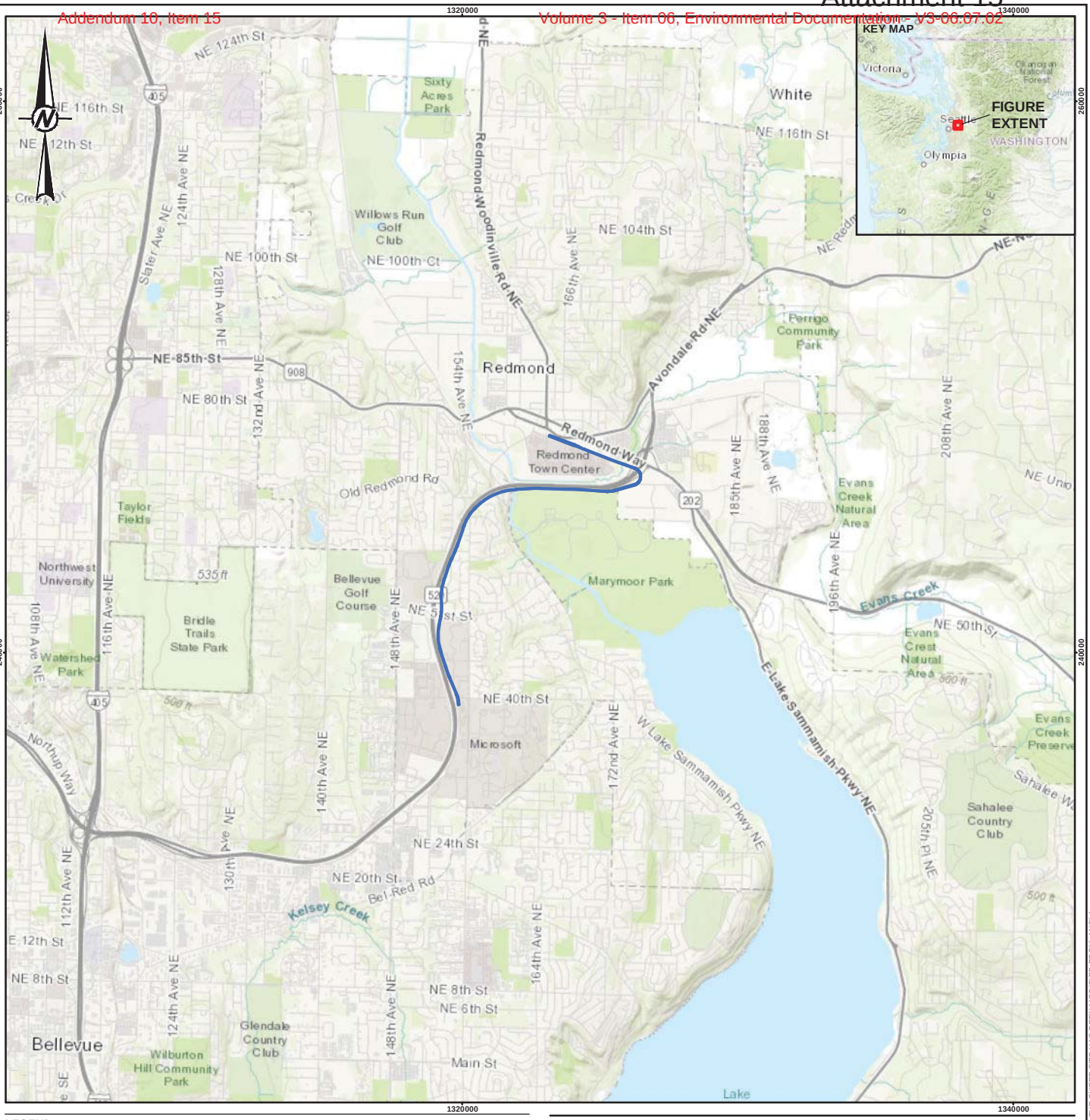
Notes:
1) x indicates "No"
2) VWP indicates Vibrating Wire Piezometer
3) SP indicates Standpipe Piezometer

Table 2-2: Groundwater Data Summary

	Piezometer		Well		At Time of Drilling (ATD)	
Borehole	Date of Reading	Measured/Calculated Ground Water Table (ft bgs)	Date of Reading	Measured Ground Water Table (ft bgs)	Date of Reading	Measured Ground Water Table (ft bgs)
DRLE-G001					8/29/2017	64.0
DRLE-G002	3/4/2018	61.4			2/15/2018	24.4
	6/2/2018	57.5				
DRLE-G003					8/30/2017	75.0
DRLE-G004					8/31/2017	71.5
DRLE-G005					9/1/2017	63.8
DRLE-G006	3/4/2018	43.8				
	6/2/2018	43.3				
DRLE-G007					10/30/2017	22.3
DRLE-G008					Not observed	
DRLE-G010					Not observed	
DRLE-G011					Not observed	
DRLE-G012					11/2/2017	32.7
DRLE-G013	3/4/2018	15.4				
	6/2/2018	15.5				
DRLE-G014	11/6/2017	24.2				
DRLE-G015					Not observed	
DRLE-G016	11/16/2017	41.1				
	3/4/2018	38.7				
	6/2/2018	41.4				
DRLE-G017					Not observed	
DRLE-G017A					Not observed	
DRLE-G018	11/17/2017	86.6				
	3/4/2018	85.8 See Note 1				
	6/2/2018	89.1				
DRLE-G019					7/24/2017	8.8
					7/25/2017	7.4
					7/26/2017	7.5
DRLE-G020	9/28/2017	9.7			7/31/2017	8.2
	11/4/2017	11.7			8/1/2017	8.0
	11/17/2017	9.2			8/2/2017	7.1
	3/4/2018	6.9			8/3/2017	9.0
	6/2/2018	7.7				
DRLE-G021					7/21/2017	7.3
DRLE-G022	9/28/2017	9.7			7/27/2017	9.3
	11/4/2017	11.7				
	11/17/2017	11.1				
	3/4/2018	8.4				
	6/2/2018	8.6				
DRLE-G023					7/20/2017	9.8
DRLE-G023b					Not observed	
DRLE-G024	10/3/2017	17.7				
	11/4/2017	18.7				
	11/17/2017	18.1				
	3/4/2018	15.0				
	6/2/2018	15.2				
DRLE-G025					8/9/2017	12.3
DRLE-G027	9/28/2017	14.9	10/3/2017	14.4	9/5/2017	14.2
	11/17/2017	15.6	11/17/2017	14.3		
	3/4/2018	12.1	3/4/2018	10.9		
	6/2/2018	13.1	6/2/2018	12.1		
DRLE-G028					9/7/2017	13.0
DRLE-G029	3/4/2018	14.6				
	6/2/2018	16.2				
DRLE-G031	9/28/2017	15.4			9/20/2017	5.0
	11/16/2017	16.8				
	3/4/2018	13.2				
	6/2/2018	14.4				
DRLE-G032					10/10/2017	12.7
DRLE-G033					Not observed	
DRLE-G034	9/28/2017	17.2	10/3/2017	20.5	8/18/2017	9.0
	11/16/2017	20.6	11/16/2017	21.2	8/21/2017	17.7
	3/4/2018	17.0	3/4/2018	17.6		
	6/2/2018	15.9	6/2/2018	17.8		
DRLE-G034A					Not observed	
DRLE-G035					10/4/2017	21.4
DRLE-G036	9/28/2017	18.4	10/3/2017	Dry	8/24/2017	10.0
	11/16/2017	21.5	11/16/2017	Dry		
	3/4/2018	18.3	3/4/2018	11.2		
	6/2/2018	17.5	6/2/2018	Dry		
DRLE-G036A					10/11/2017	5.9
					10/13/2017	4.0
					10/16/2017	31.7
DRLE-G037					9/13/2017	18.7
DRLE-G037A					Not observed	
DRLE-G038					1/10/2018	10.0
DRLE-G044					10/11/2017	11.0
DRLE-G045					10/3/2017	10.0
DRLE-TP1					Not observed	
DRLE-TP2					Not observed	
DRLE-TP3A					Not observed	
DRLE-TP3B			6/2/2018	Dry	Not observed	
DRLE-TP4					Not observed	

Notes:
1) VWP reading may be representing a different deep aquifer. For shallow groundwater conditions, refer to nearby boreholes
2) Refer to borehole records for drilling techniques

FIGURES



LEGEND

PROPOSED DRLE ALIGNMENT

0 1 2

1 " = 1 MI MILES

NOTE(S)

1. THE LOCATION OF ALL FEATURES SHOWN ARE APPROXIMATE.
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT. GOLDER ASSOCIATES INC., PARAMETRIX, AND SOUND TRANSIT CANNOT GUARANTEE THE ACCURACY AND CONTENT OF ELECTRONIC FILES. THE MASTER FILE IS STORED BY GOLDER ASSOCIATES INC. AND WILL SERVE AS THE OFFICIAL RECORD OF THIS COMMUNICATION.

REFERENCE(S)

1. SOUND TRANSIT (DRLE ALIGNMENT, VIA PARAMETRIX)
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3. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, TOMTOM, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPO, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
VICINITY MAP

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-03-16
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
1657705	200	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

1 in
0

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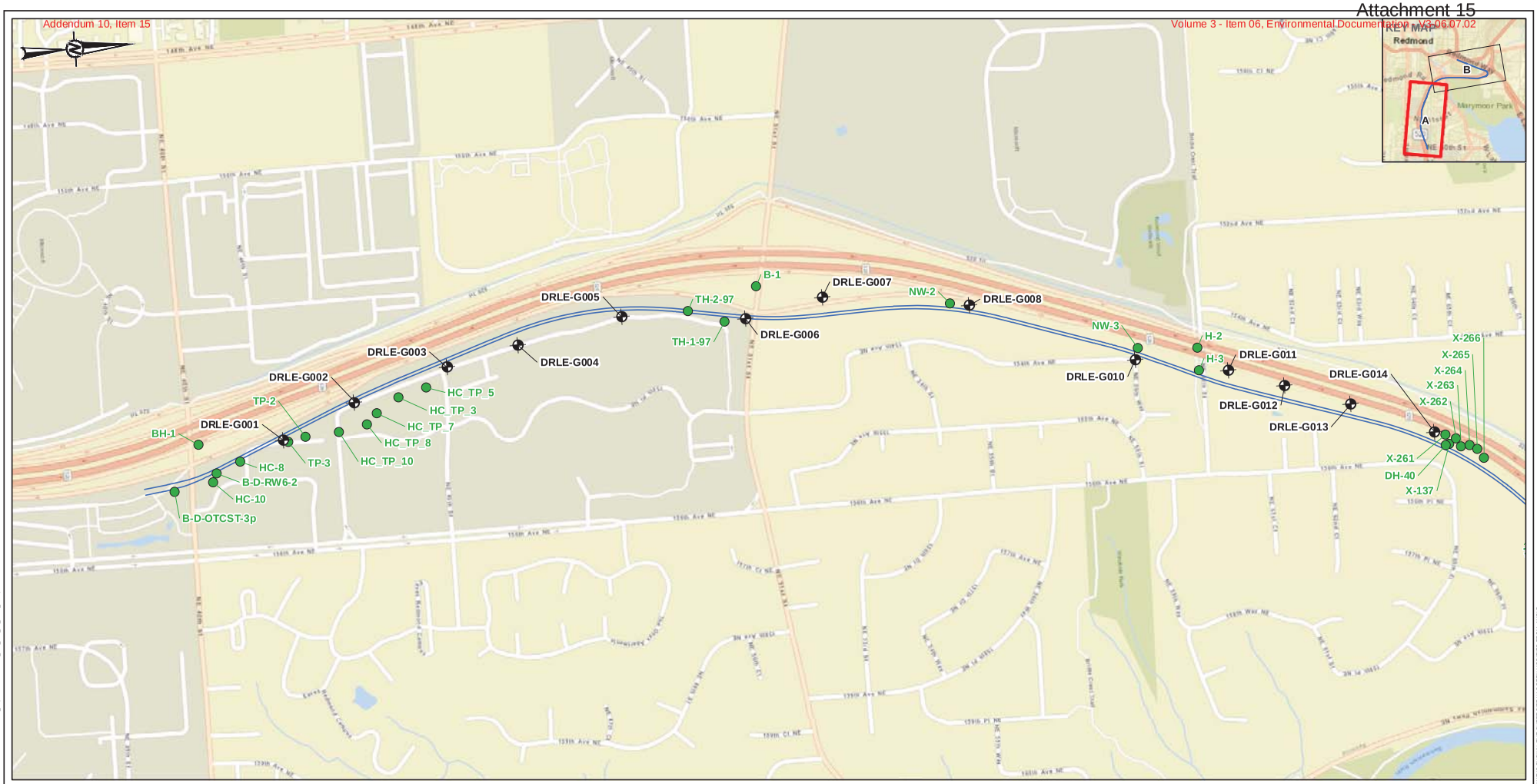

LEGEND

- DRILLED BOREHOLE/TEST PIT (CURRENT PHASE)
- HISTORICAL BOREHOLE/TEST PIT
- PROPOSED DRLE ALIGNMENT FIGURE
- PAGE INDEX

0 250 500 1,000
1 INCH = 500 FEET FEET

NOTE(S)
1. CURRENT BOREHOLES AND TEST PITS BY GOLDER. HISTORICAL BOREHOLES BY OTHERS.
2. HISTORICAL BOREHOLE/TEST PIT RECORDS ARE PROVIDED IN A SEPARATE DOCUMENT.
3. THE LOCATION OF ALL FEATURES SHOWN ARE APPROXIMATE.
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2. SOUND TRANSIT (DRLE ALIGNMENT, VIA PARAMETRIX)
3. WASHINGTON DEPARTMENT OF NATURAL RESOURCES (HISTORICAL BOREHOLES)
4. WASHINGTON DEPARTMENT OF TRANSPORTATION (HISTORICAL BOREHOLES)
5. CITY OF REDMOND (HISTORICAL BOREHOLES)
6. MICROSOFT (HISTORICAL BOREHOLES)
7. COORDINATE SYSTEM: NAD 1983 STATE PLANE WASHINGTON NORTH (FT)
8. SERVICE LAYER CREDITS: SOURCES: ESRI, DELORME, NAVTEQ, USGS, INTERMAP, IPC, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), TOMTOM, 2013

CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
SITE AND EXPLORATION PLAN

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-05-31
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
1657705	200	0	**2A**

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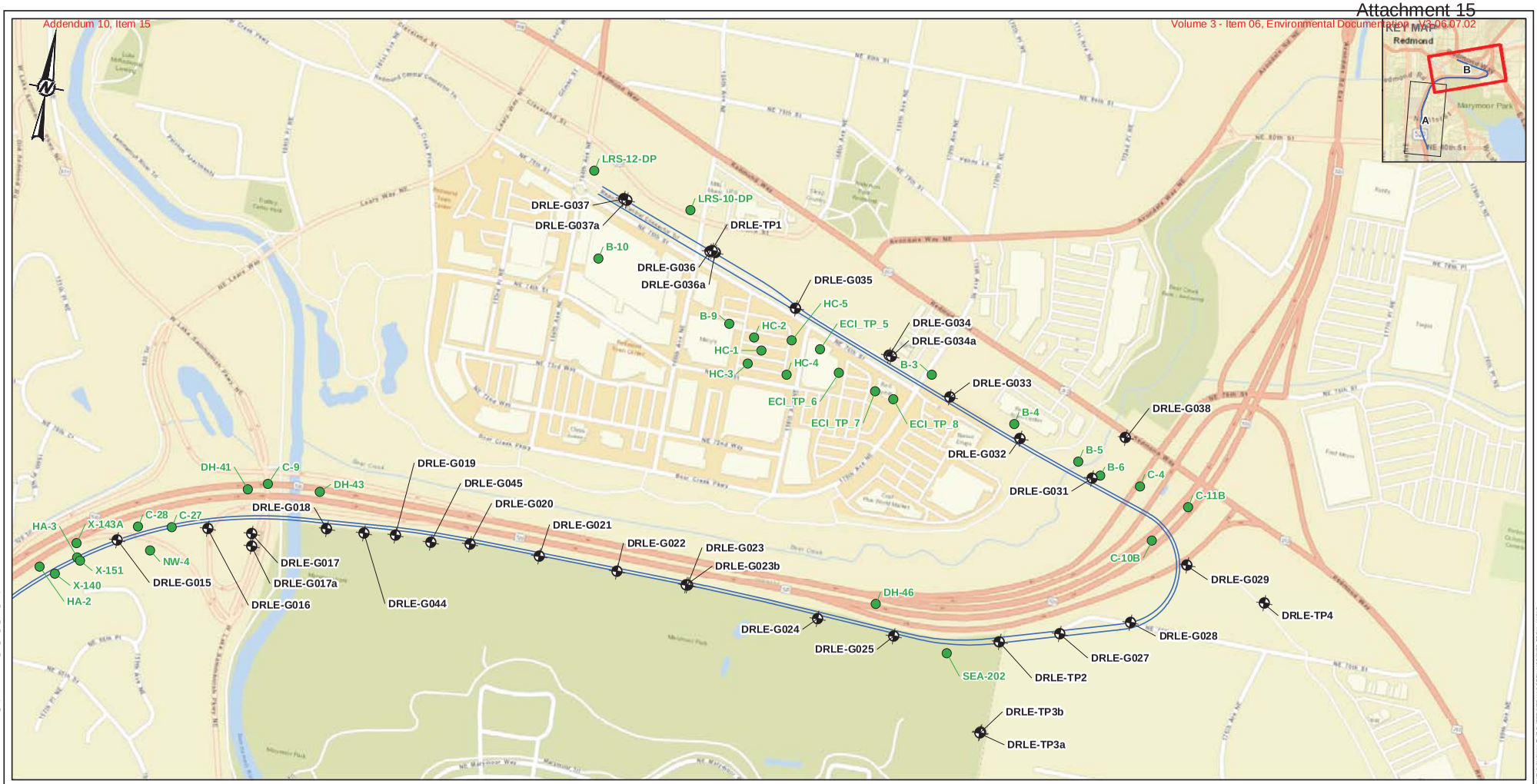

LEGEND

- DRILLED BOREHOLE/TEST PIT (CURRENT PHASE)
- HISTORICAL BOREHOLE/TEST PIT
- PROPOSED DRLE ALIGNMENT FIGURE
- PAGE INDEX

0 250 500 1,000
1 INCH = 500 FEET FEET

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CLIENT
SOUND TRANSIT

PROJECT
SOUND TRANSIT DOWNTOWN REDMOND LINK EXTENSION
KING COUNTY, WASHINGTON

TITLE
SITE AND EXPLORATION PLAN

CONSULTANT
GOLDER
Parametrix
SOUNDTRANSIT

YYYY-MM-DD	2018-05-31
DESIGNED	BVJ
PREPARED	BVJ
REVIEWED	CS
APPROVED	BB

PROJECT NO.	PHASE	REV.	FIGURE
1657705	200	0	**2B**

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APPENDIX A

RECORD OF BOREHOLES

STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (ASTM D 2487)

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND NAMES			SOIL CLASSIFICATION GENERALIZED GROUP DESCRIPTIONS	
COARSE-GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE	GRAVELS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS LESS THAN 5% FINES	GW	WELL-GRADED GRAVELS
			GP	POORLY-GRADED GRAVELS
		GRAVELS WITH FINES MORE THAN 12% FINES	GM	GRAVEL AND SILT MIXTURES
			GC	GRAVEL AND CLAY MIXTURES
	SANDS 50% OR MORE OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS LESS THAN 5% FINES	SW	WELL-GRADED SANDS
			SP	NON- AND LOW-POORLY-GRADED SANDS
		SANDS WITH FINES MORE THAN 12% FINES	SM	SAND AND SILT MIXTURES
			SC	SAND AND CLAY MIXTURES
FINE-GRAINED SOILS 50% OR MORE PASSES THE NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	INORGANIC	CL	LEAN CLAYS
			ML	SILTS AND ELASTIC SILTS
		ORGANIC	OL	LEAN ORGANIC CLAYS ORGANIC SILTS AND ELASTIC ORGANIC SILTS
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	INORGANIC	CH	FAT CLAYS
			MH	ELASTIC SILTS
		ORGANIC	OH/OL	ORGANIC CLAYS AND SILTS
HIGHLY ORGANIC SOILS	PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

BASED ON: ASTM D2487-06

SOIL CONSISTENCY

COHESIONLESS SOILS[a]	
DENSITY	N, blows/ft.[c]
VERY LOOSE	0 to 4
LOOSE	4 to 10
MEDIUM DENSE	10 to 30
DENSE	30 to 50
VERY DENSE	over 50

COHESIVE SOILS[b]	
CONSISTENCY	N, blows/ft.[c]
VERY SOFT	0 to 2
SOFT	2 to 4
FIRM	4 to 8
STIFF	8 to 15
VERY STIFF	15 to 30
HARD	over 30

(a) SOILS CONSISTING OF GRAVEL, SAND, AND SILT, EITHER SEPARATELY OR IN COMBINATION, POSSESSING NO CHARACTERISTICS OF PLASTICITY, AND EXHIBITING DRAINED BEHAVIOR.
(b) SOILS POSSESSING THE CHARACTERISTICS OF PLASTICITY, AND EXHIBITING UNDRAINED BEHAVIOR.
(c) REFER TO TEXT OF ASTM D 1586-84 FOR A DEFINITION OF N; IN NORMALLY CONSOLIDATED COHESIONLESS SOILS. RELATIVE DENSITY TERMS ARE BASED ON N VALUES CORRECTED FOR OVERBURDEN PRESSURES.
(d) UNDRAINED SHEAR STRENGTH = 1/2 UNCONFINED COMPRESSION STRENGTH.

COMPONENT DEFINITIONS BY GRADATION

COMPONENT	SIZE RANGE
BOULDERS	ABOVE 300 mm (12 in)
COBBLES	75 mm (3 in) to 300 mm (12 in)
GRAVEL	4.75 mm (No. 4) to 75 mm (3 in)
COARSE GRAVEL	19 mm (3/4 in) to 75 mm (3 in)
FINE GRAVEL	4.75 mm (No. 4) to 19 mm (3/4 in)
SAND	0.075mm (No. 200) to 4.75mm (No. 4)
COARSE SAND	2.0 mm (No. 10) to 4.75 mm (No. 4)
MEDIUM SAND	0.42 mm (No. 40) to 2.0 mm (No. 10)
FINE SAND	0.075 mm (No. 200) to 0.42 mm (No. 40)
SILT AND CLAY	SMALLER THAN 0.075mm (No. 200)

QUALITATIVE DESCRIPTIVE TERMINOLOGY FOR MOISTURE CONTENT

DRY	NO DISCERNIBLE MOISTURE PRESENT
MOIST	WILL MOISTEN THE HAND
WET	VISIBLE WATER PRESENT ON MATERIALS

DESCRIPTIVE TERMINOLOGY DENOTING COMPONENT PROPORTIONS

DESCRIPTIVE TERMS	RANGE OF PROPORTION
TRACE	0-5%
FEW	5-10%
LITTLE	15-25%
SOME	30-45%

SILT AND CLAY DESCRIPTIONS

DESCRIPTION	TYPICAL UNIFIED DESIGNATION
SILT	ML (NON-PLASTIC)
CLAYEY SILT	CL-ML (LOW PLASTICITY)
CLAY	CL
FAT CLAY	CH
ELASTIC SILT	MH
ORGANIC SOILS	OL, OH, Pt

SAMPLE TYPES

SYMBOL	DESCRIPTION
SS	2" O.D. SPLIT SPOON
BK	BULK
GB	GRAB SAMPLE
ST	SHELBY TUBE
MC	2 1/2" I.D. CAL. MOD. SAMPLER
HQ	DIAMOND ROCK CORE SAMPLE

MISCELLANEOUS LOG SYMBOLS

SYMBOL	DESCRIPTION
VWP	VIBRATING WIRE PIEZOMETER
ATD	AT TIME OF DRILLING
PI	PLASTICITY INDEX
▽	APPROX. GWT OBSERVED DURING DRILLING
▼	APPROX. GWT MEASURED AFTER WELL INSTALLATION

LOG AND SOIL CLASSIFICATION LEGEND

GOLDER

RECORD OF BOREHOLE DRLE-G001

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus
DRILLING START: August 28, 2017 20:47
DRILLING END: August 29, 2017 02:17
COORDINATES: N: 338,868 E: 1,419,712
SHEET: 1 of 3
GS ELEV.: 360.8 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	Depth	DESCRIPTION	Elev	USCS	GRAPHIC LOG	SAMPLE TYPE & NUMBER	BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
0	Hollow Stem Auger	0.0		360.8								
		0.5	ASPHALT	360.3								
		2.0	(SM), SILTY SAND, fine to medium sand, little nonplastic fines, trace fine subrounded gravel, brown; dense, moist	358.8	SM		SS S-1	11-12-22 **(34)**	18/18	34		
			(SM), SILTY SAND, fine sand, some nonplastic fines, trace fine subrounded gravel, brown-gray; very dense, moist				SS S-2	9-44-50/5" **(94/11")**	17/17		2.5: S-2: % Fines = 49	
5							SS S-3	22-50 **(50/6")**	12/12			
							SS S-4	32-50/5" **(50/5")**	11/11			
10							SS S-5	34-50/5" **(50/5")**	11/11		10: S-5: % Fines = 49	
					SM		SS S-6	50/5" **(50/5")**	5/5			
15							SS S-7	45-50/5" **(50/5")**	11/11			
20							SS S-8	40-50/5" **(50/5")**	11/11			
		22.5	(SP), POORLY GRADED SAND, fine to coarse sand, trace gravel, trace nonplastic fines, gray and tan; very dense, moist to wet	338.3								
25							SS S-9	19-21-50 **(71)**	18/18			
30					SP		SS S-10	21-38-50 **(88)**	18/18			
35			Increased silt content				SS S-11	23-30-37 **(67)**	18/18			
40												

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount
LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:39
C:\USERS\CSCHAEFFER\DESKTOP\DRLE LOGS.GPJ

RECORD OF BOREHOLE DRLE-G001

SHEET: 2 of 3

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus

DRILLING START: August 28, 2017 20:47
DRILLING END: August 29, 2017 02:17
COORDINATES: N: 338,868 E: 1,419,712

GS ELEV.: 360.8 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	SAMPLES: REC ATT (in)	PENETRATION RESISTANCE BLOWS / ft (10 20 30 40) / WATER CONTENT (%) (W_p W W_l) (20 40 60 80)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
40		40.0		320.8								
	Hollow Stem Auger		(SP), POORLY GRADED SAND, fine to coarse sand, trace gravel, trace nonplastic fines, gray and tan; very dense, moist to wet *(continued)*		SP		SS S-12	28-40-47 **(87)**	18/18	>>		
45							SS S-13	32-44-50 **(94)**	18/18	>>		
50							SS S-14	21-30-43 **(73)**	18/18	>>		
55							SS S-15	44-50/5" **(50/5")**	11/11	>>		
60							SS S-16	28-42-44 **(86)**	18/18	>>	▽ 62.5 ft, ATD	
65							SS S-17	29-39-50 **(89)**	18/18	>>		
70							SS S-18	25-44-50/4" **(94/10")**	18/16	>>		
75							SS S-19	29-47-50/5" **(97/11")**	18/17	>>		
80												

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount

LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:39
C:\USERS\CSCHAEFFER\DESKTOP\DRLE LOGS.GPJ

RECORD OF BOREHOLE DRLE-G001

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus
DRILLING START: August 28, 2017 20:47
DRILLING END: August 29, 2017 02:17
COORDINATES: N: 338,868 E: 1,419,712
SHEET: 3 of 3
GS ELEV.: 360.8 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	SAMPLES: REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft (10 20 30 40) / WATER CONTENT (%) (W_p W W_l) (20 40 60 80)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
80		80.0		280.8								
	Hollow Stem Auger		(SP), POORLY GRADED SAND, fine to coarse sand, trace gravel, trace nonplastic fines, gray and tan; very dense, moist to wet *(continued)*		SP		SS S-20	41-50/5" **(50/5")**	10 / 11	>>		
85							SS S-21	35-50/5" **(50/5")**	11 / 11	>>		
90							SS S-22	50/4" **(50/4")**	4 / 4	>>	90 - 100.3: heave	
95			Increased gravel content				SS S-23	50 **(50/6")**	5 / 11	>>		
100		100.3		260.5			SS S-24	50/4" **(50/4")**	4 / 4	>>		
			Bottom of borehole at 100.3 ft. Backfilled with bentonite grout.									
105												
110												
115												
120												

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount
LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

DRLE-G001
3 of 3

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:39
C:\USERS\CSCHAEFFER\DESKTOP\DRLE LOGS.GPJ

RECORD OF BOREHOLE DRLE-G002

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Liberty Mutual Building
DRILLING START: February 13, 2018 10:17
DRILLING END: February 13, 2018 15:13
COORDINATES: N: 339,253 E: 1,419,546
SHEET: 1 of 2
GS ELEV.: 369.0 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	DESCRIPTION	Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	BLOWS per 6 in (Automatic hammer 140 lb Hammer, 30 inch drop)	REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
0	Air Knife & Vac Truck	0.0		369.0								
		0.3	ASPHALT	368.7								
			(SM), SILTY SAND WITH GRAVEL, fine to coarse sand, some nonplastic fines, little fine to coarse subrounded to subangular gravel, light gray; very dense, moist				GB S1					
5							GB S2					
							SS S3	38-27-32 **(59)**	18/18		7.5: S-3: % Fines = 43	
10					SM		SS S4	32-50/5" **(50/5")**	11/11			
							SS S5	18-38-50/5" **(88/11")**	17/17			
15							SS S6	24-50/5" **(50/5")**	11/11			
	Hollow Stem Auger	19.0		350.0								
20			(SM), SILTY SAND, fine to coarse sand, some nonplastic fines, trace subrounded to subangular gravel, light gray; very dense, moist to wet				SS S7	41-50/5" **(50/5")**	11/11			
					SM							
25											▽ 24.4 ft, ATD	
		26.0		343.0			SS S8	28-42-50/5" **(92/11")**	17/17			
			(SP), POORLY GRADED SAND, fine to medium sand, trace fine to coarse subrounded gravel, trace nonplastic fines, pale tan-gray; very dense, wet		SP							
		29.0		340.0								
30			(SM), SILTY SAND, fine sand, some nonplastic fines, pale tan-gray; very dense, wet				SS S9	22-40-50/4" **(90/10")**	16/16		30 - 71: Drilling chatter	
					SM							
		34.0		335.0								
35			(SP), POORLY GRADED SAND, fine to medium sand, trace fine to coarse subrounded gravel, trace nonplastic fines, pale tan-gray; very dense, wet				SS S10	45-50/4" **(50/4")**	10/10			
					SP							
40												

Log continued on next page

DRILLING CO.: Holt Services
DRILLER: Rayon Darling
DRILL RIG: Mobile B-58 Truck
LOGGED: Daniel Bida
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

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RECORD OF BOREHOLE DRLE-G002

SHEET: 2 of 2

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Liberty Mutual Building

DRILLING START: February 13, 2018 10:17
DRILLING END: February 13, 2018 15:13
COORDINATES: N: 339,253 E: 1,419,546

GS ELEV.: 369.0 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic hammer 140 lb Hammer, 30 inch drop)	SAMPLES: REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft (10 20 30 40) / WATER CONTENT (%) (W_p W W_l) (20 40 60 80)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
40	Hollow Stem Auger	40.0	(SP), POORLY GRADED SAND, fine to medium sand, trace fine to coarse subrounded gravel, trace nonplastic fines, pale tan-gray; very dense, wet *(continued)*	329.0	SP		SS S11	32-48-42 **(90)**	18/18	>>		
45							SS S12	29-41-50/5" **(91/11")**	17/17	>>		
50							SS S13	25-33-50 **(83)**	18/18	>>		
55											▼ 57.5 ft, VWP reading	
60							SS S14	36-32-46 **(78)**	18/18	>>	▼ 61.4 ft, VWP reading	
65											65: VWP installed	
70		71.0		298.0			SS S15	32-50/5" **(50/5")**	11/11	>>		
75			Bottom of borehole at 71.0 ft. Installed vibrating wire piezometer.									
80												

DRILLING CO.: Holt Services
DRILLER: Rayon Darling
DRILL RIG: Mobile B-58 Truck

LOGGED: Daniel Bida
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

DRLE-G002
2 of 2

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:39
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RECORD OF BOREHOLE DRLE-G003

SHEET: 1 of 3

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus

DRILLING START: August 29, 2017 20:32
DRILLING END: August 30, 2017 21:22
COORDINATES: N: 339,257 E: 1,419,540

GS ELEV.: 371.9 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	DESCRIPTION	Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
0	Hollow Stem Auger	0.0	ASPHALT	371.9								
		0.7	(SM), SILTY SAND, fine to medium sand, little nonplastic fines, trace fine to coarse subrounded to subangular gravel, gray-brown; very dense, moist	371.2			SS GS S-1GS-1	1-26-50/5" **(76/11")**	12/17	>>		
5							SS S-2	25-50/5" **(50/5")**	11/11	>>	5 - 23: Drilling chatter	
							SS S-3	50 **(50/6")**	5/11	>>		
10			Increased sand and gravel content		SM		SS S-4	50/5" **(50/5")**	5/5	>>	10: S-4: % Fines = 21	
							SS S-5	50/5" **(50/5")**	5/5	>>		
15							SS S-6	45-50/3" **(50/3")**	9/9	>>		
20							SS S-7	50/5" **(50/5")**	5/5	>>		
		23.0	(SP-SM), POORLY GRADED SAND WITH SILT, fine to medium sand, few nonplastic fines, trace subrounded to subangular gravel, gray and brown; very dense, moist to wet	348.9								
25							SS S-8	24-50/5" **(50/5")**	11/11	>>		
30					SP-SM		SS S-9	36-48-50/4" **(98/10")**	16/16	>>		
35							SS S-10	25-37-50 **(87)**	18/18	>>		
40												

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount

LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:40
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RECORD OF BOREHOLE DRLE-G003

SHEET: 2 of 3

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus

DRILLING START: August 29, 2017 20:32
DRILLING END: August 30, 2017 21:22
COORDINATES: N: 339,257 E: 1,419,540

GS ELEV.: 371.9 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth / DESCRIPTION / Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
40		40.0 / 331.9								
	Hollow Stem Auger	(SP-SM), POORLY GRADED SAND WITH SILT, fine to medium sand, few nonplastic fines, trace subrounded to subangular gravel, gray and brown; very dense, moist to wet *(continued)*	SP-SM		SS S-11	31-50/5" **(50/5")**	11/11		>>	
45					SS S-12	39-50/5" **(50/5")**	11/11		>>	
50					SS S-13	31-40-44 **(84)**	18/18	○	>>	
55					SS S-14	29-47-50 **(97)**	18/18		>>	
60					SS S-15	21-28-40 **(68)**	15/18		>>	
65					SS S-16	34-46-50/5" **(96/11")**	17/17		>>	
70					SS S-17	39-41-50 **(91)**	18/18		>>	
75					SS S-18	32-33-50/5" **(83/11")**	15/17		▽ 75.0 ft, ATD >>	
80										

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount

LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

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RECORD OF BOREHOLE DRLE-G003

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus
DRILLING START: August 29, 2017 20:32
DRILLING END: August 30, 2017 21:22
COORDINATES: N: 339,257 E: 1,419,540
SHEET: 3 of 3
GS ELEV.: 371.9 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	SAMPLES: REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
80		80.0		291.9								
	Hollow Stem Auger		(SP-SM), POORLY GRADED SAND WITH SILT, fine to medium sand, few nonplastic fines, trace subrounded to subangular gravel, gray and brown; very dense, moist to wet *(continued)*				SS S-19	30-29-50 **(79)**	18/18			
85												
90					SP-SM		SS S-20	40-50/4" **(50/4")**	10/10		90: Heave - water added	
95												
100		100.3		271.6			SS S-21	50/4" **(50/4")**	4/4			
			Bottom of borehole at 100.3 ft. Backfilled with bentonite grout.									
105												
110												
115												
120												

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount
LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

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RECORD OF BOREHOLE DRLE-G004

SHEET: 1 of 2

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus

DRILLING START: August 31, 2017 00:59
DRILLING END: August 31, 2017 21:01
COORDINATES: N: 339,752 E: 1,419,401

GS ELEV.: 366.5 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	SAMPLES: REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
0	Hollow Stem Auger	0.0		366.5								
		0.7	ASPHALT	365.8								
			(SM), SILTY SAND, fine to medium sand, little to some low plasticity fines, trace fine subrounded to subangular gravel, gray-brown; medium dense to very dense, moist		SM		SS S-1	19-27-30 **(57)**	12/18			
							SS S-2	10-13-13 **(26)**	14/18	26		
5							SS S-3	50/5" **(50/5")**	5/5			
							SS S-4	50/5" **(50/5")**	5/5			
10							SS S-5	50/5" **(50/5")**	5/5		10: Possible cobbles	
							SS S-6	50/5" **(50/5")**	5/5		12.5: S-6: % Fines = 30	
15							SS S-7	50/4" **(50/4")**	4/4		14: Drilling chatter	
20							SS S-8	50/5" **(50/5")**	5/5			
25							SS S-9	40-50/5" **(50/5")**	11/11			
		27.5		339.0								
			(SP-SM), POORLY GRADED SAND WITH SILT, fine to medium sand, few nonplastic fines, brown-gray; very dense, moist to wet		SP-SM		SS S-10	26-38-50/5" **(88/11")**	17/17			
35							SS S-11	15-28-37 **(65)**	18/18			
40												

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount

LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:40
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RECORD OF BOREHOLE DRLE-G004

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus
DRILLING START: August 31, 2017 00:59
DRILLING END: August 31, 2017 21:01
COORDINATES: N: 339,752 E: 1,419,401
SHEET: 2 of 2
GS ELEV.: 366.5 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	SAMPLES: BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	SAMPLES: REC ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
40	Hollow Stem Auger	40.0	(SP-SM), POORLY GRADED SAND WITH SILT, fine to medium sand, few nonplastic fines, brown-gray; very dense, moist to wet *(continued)*	326.5	SP-SM		SS S-12	19-43-50/5" **(93/11")**	17/17	>>		
45							SS S-13	23-35-49 **(84)**	18/18	>>		
50							SS S-14	16-25-31 **(56)**	18/18	○ >>		
55							SS S-15	26-36-43 **(79)**	18/18	>>		
60												
65							SS S-16	26-46-50/3" **(96/9")**	15/15	>>		
70											▽ 71.5 ft, ATD	
75		76.0		290.5			SS S-17	27-50/5" **(50/5")**	11/11	>>		
80			Bottom of borehole at 76.0 ft. Backfilled with bentonite grout.									

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount
LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

DRLE-G004
2 of 2

01 - GOLDER - BOREHOLE RECORD - DF STD US LAB E-M.GDT - 6/28/18 08:40
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RECORD OF BOREHOLE DRLE-G005

SHEET: 1 of 2

PROJECT: Downtown Redmond Link Extension
PROJECT NO.: 1657705
LOCATION: Microsoft campus

DRILLING START: August 31, 2017 23:06
DRILLING END: September 1, 2017 03:44
COORDINATES: N: 340,131 E: 1,419,318

GS ELEV.: 360.9 feet
TOC ELEV.: na
DATUM: NAVD88/Project Datum

DEPTH (ft)	BORING METHOD	SOIL PROFILE: Depth	DESCRIPTION	Elev	USCS	GRAPHIC LOG	SAMPLES: SAMPLE TYPE & NUMBER	BLOWS per 6 in (Automatic 140 lb Hammer, 30 inch drop)	REC / ATT (in)	PENETRATION RESISTANCE BLOWS / ft; WATER CONTENT (%)	NOTES WATER LEVELS	ADDITIONAL LAB TESTING
0	Hollow Stem Auger	0.0		360.9								
		0.4	ASPHALT	360.4								
			(SM), SILTY SAND, fine sand, little nonplastic fines, few fine to coarse subrounded to subangular gravel, gray-brown; medium dense to very dense, moist				SS S-1	4-10-17 **(27)**	18/18	27		
							SS S-2	7-23-43 **(66)**	18/18	>>		
5							SS S-3	31-39-50/5" **(89/11")**	18/17	>>		
							SS S-4	36-50/5" **(50/5")**	12/11	>>		
10							SS S-5	38-50/5" **(50/5")**	11/11	>>		
							SS S-6	42-50/5" **(50/5")**	11/11	>>		
					SM							
15							SS S-7	34-50/5" **(50/5")**	11/11	>>	15: S-7: % Fines = 25 16 - 20: Difficult drilling	
20							SS S-8	28-50/5" **(50/5")**	11/11	>>		
25							SS S-9	50/3" **(50/3")**	3/3	>>		
		27.5		333.4								
			(SM), SILTY SAND, fine to medium sand, little nonplastic fines, little fine to coarse subrounded to subangular trace gravel, gray-brown; very dense, moist				SS S-10	21-37-50 **(87)**	18/18	>>		
30					SM							
35							SS S-11	50/5" **(50/5")**	2/5	>>	36: Drilling chatter	
40												

Log continued on next page

DRILLING CO.: Holt Services Inc
DRILLER: John Bennet
DRILL RIG: CME-85, Truck Mount

LOGGED: Carly Schaeffer
CHECKED: Margaret Pryor
REVIEWED: Dave Findley

Golder Associates

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