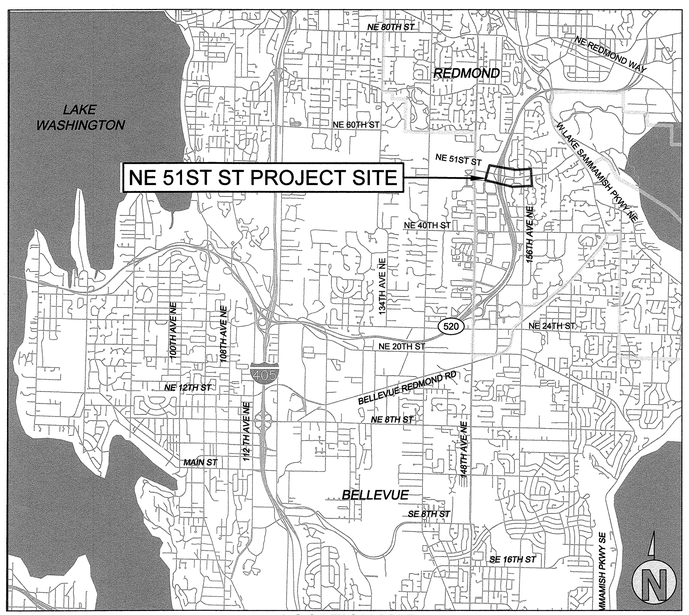
CITY OF REDMOND, WASHINGTON

BOOK I: CFD PROJECT NO. 2 - NE 51ST STREET IMPROVEMENTS

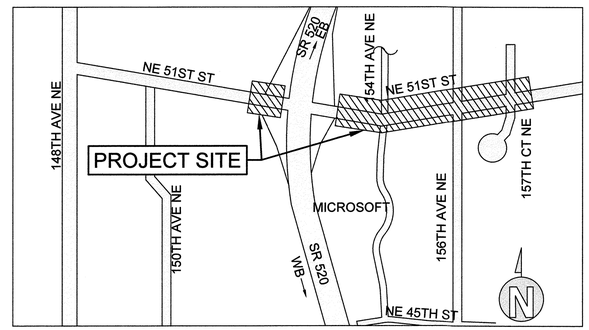
PROJECT NO.: 20021604.01.02.03

TIB 8-1-107(022)-1

BID PLANS



LOCATION MAP
NTS



NE 51ST ST VICINITY MAP
NTS

CityofRedmond
WASHINGTON

Know what's **below.**
Call before you dig.

APPROVED FOR CONSTRUCTION

Gary Schimek 5/13/19

GARY SCHIMEK, P.E.
CITY ENGINEER, CITY OF REDMOND

DATE

IFB PLANS

No.	DATE	BY	CHD	REVISION

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STATE OF WASHINGTON
40597
REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE:
J. ARREOLA	04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-IN-01.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

COVER SHEET

DRAWING No.: **51-IN-01**

SHEET No.: 1 OF 80

04/30/19 | 7:05 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-IN-01.DWG

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IFB PLANS

No.	DATE	BY	CHD	REVISION

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LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-IN-02.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

SHEET INDEX

DRAWING No.: **51-IN-02**

SHEET No.: 2 OF 80

04/30/19 | 7:13 PM | JARREOLA
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PROPOSED LEGEND

- RIGHT-OF-WAY LINE
- EASEMENT LINE
- CENTERLINE
- SAWCUT LINE
- CUT — CUT LINE
- FILL — FILL LINE
- GRIND LINE
- LIMITS OF CLEARING AND GRADING
- FILTER FABRIC FENCE
- STRAW WATTLE
- HIGH VISIBILITY FENCE
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- TRANSPORTATION EASEMENT
- INLET PROTECTION, PER WSDOT STD PLAN I-40.20-00
- EXISTING PAVEMENT AND SIDEWALK TO BE REMOVED
- PLANING BITUMINOUS PAVEMENT
- CROSSWALK CL
- BREAKLINE
- CURB REMOVAL
- TYPE A CURB AND GUTTER
- ASPHALT PAVEMENT
- PAVEMENT OVERLAY
- CONCRETE SIDEWALK
- 4" PATTERNED RED PORTLAND CEMENT CONCRETE
- DETECTABLE WARNING SURFACE
- 388 — CONTOUR
- PSE 30 JBOX
- PSE POWER VAULT
- PSE POWER TRANSFORMER

- P — POWER LINE
- FO — FIBER OPTICS
- ILLUMINATION/SIGNAL LINE
- CONNECT TO EXISTING PSE POWER
- FIXTURE ON EXISTING POLE AND ARM
- LIGHT STANDARD
- SIGNAL
- WATER LINE
- FIRE HYDRANT
- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID, PER COR STD DETAIL NO 631
- AREA DRAIN
- STORM DRAINAGE CLEANOUT (SDCO), PER COR STD DETAIL NO 623
- JUNCTION BOX TYPE 1, 2, 8
- OIL/WATER SEPARATOR
- SANITARY SEWER MANHOLE
- SIGNIFICANT TREE TO BE REMOVED
- NON-SIGNIFICANT TREE TO BE REMOVED

EXISTING LEGEND

- POWER JUNCTION BOX
- P — POWER VAULT
- STREET LIGHT
- AREA LIGHT
- SIGNAL VAULT
- POWER TRANSFORMER
- T — TELECOMMUNICATIONS MANHOLE
- TELECOMMUNICATIONS RISER
- TELECOMMUNICATIONS JUNCTION BOX
- POWER POLE W/ UNDERGROUND CONDUIT
- TRAFFIC SIGNAL POLE W/LIGHT
- TRAFFIC SIGNAL POLE
- GUY ANCHOR
- TRAFFIC SIGNAL BOX
- TRAFFIC CONTROL BOX
- SANITARY SEWER MANHOLE
- CATCH BASIN
- SD — STORM DRAIN CLEANOUT
- STORM DRAIN MANHOLE
- CULVERT
- FIRE HYDRANT
- ICV — IRRIGATION CONTROL VALVE
- WATER METER
- WATER VALVE
- GAS VALVE
- MAIL BOX
- ROCKERY
- SIGN
- PST — POST
- FGL — FOGLINE
- PA — PLANTER AREA
- WB-D — DASHED WHITE BUTTONS
- WL-D — DASHED WHITE LINE
- WLL — WHITE LANE LINE
- WWB — DOUBLE WHITE BUTTONS
- YYB — DOUBLE YELLOW BUTTONS
- YYL — DOUBLE YELLOW LANE LINE
- SET BENCHMARK

- RIGHT-OF-WAY LINE
- LOT LINE
- SS — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- OP — OVERHEAD POWER LINE
- P — POWER LINE
- T — TELECOMMUNICATIONS LINE
- FO — FIBER OPTICS LINE
- D — DITCH LINE
- W — WATER LINE
- G — GAS LINE
- X — CHAIN LINK FENCE LINE (CLFNC)
- WOOD FENCE LINE (WDFNC)
- GUY — GUY WIRE
- EASEMENT LINE
- C — COMMUNICATIONS LINE
- CONCRETE PAVING
- ASPHALT PAVING
- BUILDINGS
- GRAVEL SURFACE
- 12"C — CEDAR
- 12"F — FIR
- 12"P — PINE
- 12"D — DECIDUOUS
- 12"M — MAPLE
- 12"O — OAK

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CONTACT: RANDY FRANTZ

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CONTACT: GID PALMER

CBRE
5020 148TH AVE NE
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355 110TH AVE NE EST-11
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CONTACT: ANDY SWAYNE
(425) 457-4542
CONTACT: JOSH GRENNER

TELECOMMUNICATION:
FRONTIER COMMUNICATIONS
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CONTACT: TOM DACEY

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EVERETT, WA 98203
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ABBREVIATIONS

AC	ACRES
AP	ANGLE POINT
APPROX	APPROXIMATELY
AVE	AVENUE
BOC	BOTTOM OF CURB
BW	BOTTOM OF WALL FOUNDATION
CAVFS	COMPOST AMMENDED VEGETATED FILTER STRIP
CB	CATCH BASIN
CFD	CONTROLLED DENSITY FILL
CI	CAST IRON
CL	CENTERLINE
CH	CURB HEIGHT
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
COR	CITY OF REDMOND
CR	CROWN POINT
CY	CUBIC YARD
DBH	DIAMETER AT BREAST HEIGHT
DI	DUCTILE IRON
DIA, D	DIAMETER
DWG	DRAWING
E	EAST, EASTING
EA	EACH
EB	EASTBOUND
EG	EXISTING GROUND
EL, ELEV	ELEVATION
EXIST, EX	EXISTING
FL	FLOW LINE
FL, FLG	FLANGE
FT	FOOT
GA, GAL	GALLON
GTR	GUTTER
GV	GATE VALVE
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
HOR, HORIZ	HORIZONTAL
HP	HIGH POINT
IE	INVERT ELEVATION
IN	INCH
ICV	IRRIGATION CONTROL VALVE
L	LEFT, LENGTH
LBS	POUNDS
LF	LINEAR FEET
LL	LANE LINE POINT
LT	LEFT
LP	LOW POINT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
ME	MATCH EXISTING
MID	MIDDLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MP	MATCH PROPOSED
MPH	MILES PER HOUR
N	NORTH NORTHING
NE	NORTHEAST
NO	NUMBER
NTS	NOT TO SCALE
NW	NORTHWEST
OC	ON CENTER
OD	OUTSIDE DIAMETER
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PED	PEDESTRIAN
PERF	PERFORATED
PG	PAVING GRADE
PI	POINT OF INTERSECTION
PRC	POINT OF REVERSE CURVE
PROP	PROPOSED
PSE	PUGET SOUND ENERGY
PT	POINT, POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PV	POWER VAULT
PVMT	PAVEMENT
R	RADIUS, RIGHT
REC	RECORD
RJ	RESTRAINT JOINT
ROW	RIGHT-OF-WAY
RPM(S)	RAISED PAVEMENT MARKER(S)
S	SOUTH
SDMH	STORM DRAIN MANHOLE
SDCO	STORM DRAIN CLEANOUT
SE	SOUTHEAST
SF	SQUARE FEET
SPEC	SPECIFICATION
SSMH	SANITARY SEWER MANHOLE
ST	STREET
STA	STATION
STD	STANDARD
SW	SOUTHWEST
SY	SQUARE YARD
TBD	TO BE DETERMINED
TBM	TEMPORARY BENCHMARK
TOC	TOP OF CURB
TW	TOP OF WALL
TYP	TYPICAL
UNK	UNKNOWN
V, VER, VERT	VERTICAL
W	WEST, WATER
WB	WESTBOUND
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WSE	WATER SURFACE ELEVATION
WTR	WATER
XR	CROSSWALK POINT

IFB PLANS

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CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GENERAL NOTES & LEGEND & ABBREVIATIONS

DRAWING No.: **51-IN-03**

SHEET No.: 3 OF 80

05/08/19 | 4:05 PM | J. JARREOLA
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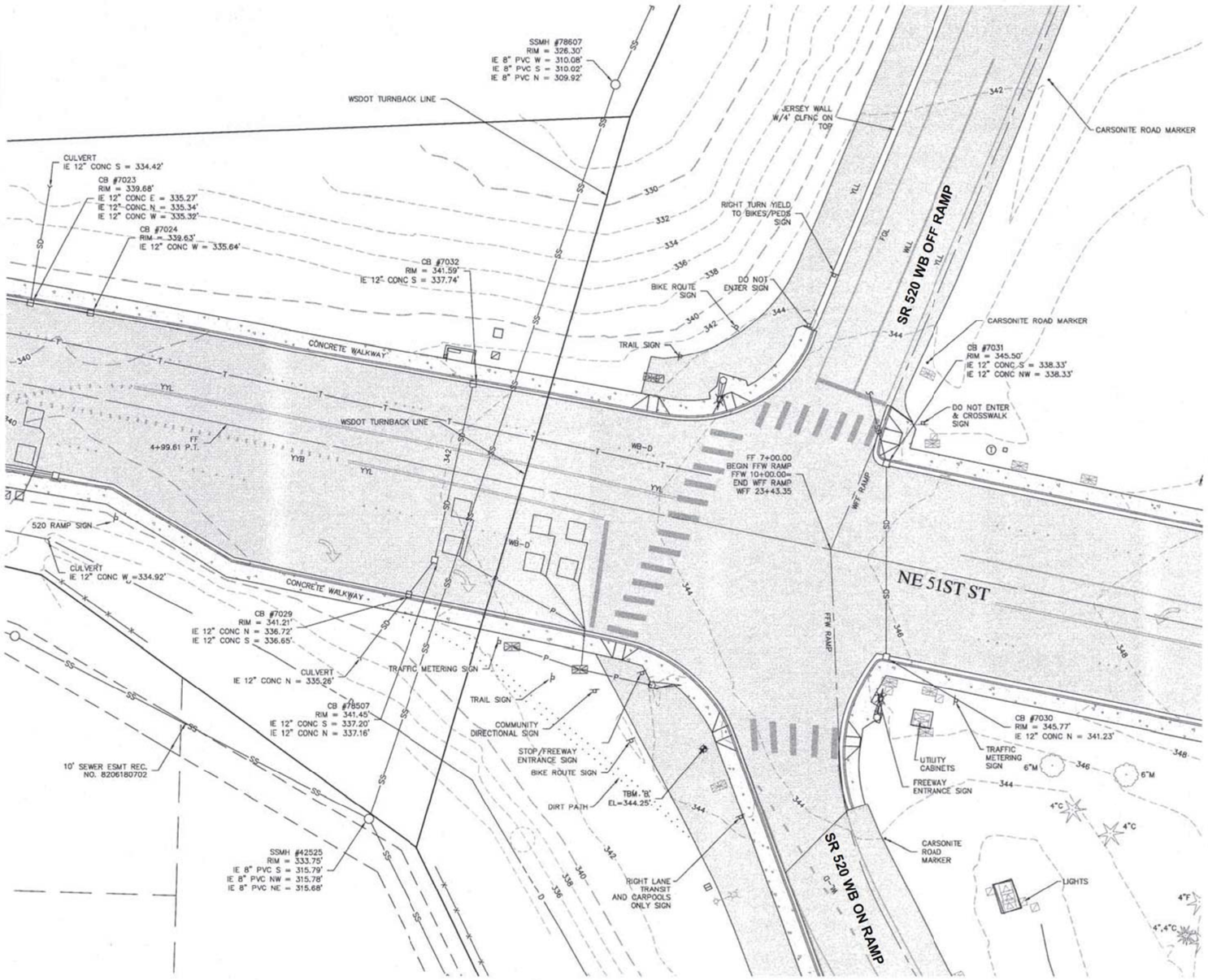

SEE SHEET 2

LEGEND

	POWER JUNCTION BOX
	POWER VAULT
	STREET LIGHT
	AREA LIGHT
	SIGNAL VAULT
	POWER TRANSFORMER
	TELECOMMUNICATIONS MANHOLE
	TELECOMMUNICATIONS RISER
	TELECOMMUNICATIONS JUNCTION BOX
	POWER POLE W/ UNDERGROUND CONDUIT
	TRAFFIC SIGNAL POLE W/LIGHT
	TRAFFIC SIGNAL POLE
	GUY ANCHOR
	TRAFFIC SIGNAL BOX
	TRAFFIC CONTROL BOX
	SANITARY SEWER MANHOLE
	CATCH BASIN
SD	STORM DRAIN CLEANOUT
	STORM DRAIN MANHOLE
	CULVERT
	FIRE HYDRANT
ICV	IRRIGATION CONTROL VALVE
	WATER METER
	WATER VALVE
	GAS VALVE
	MAIL BOX
	ROCKERY
	SIGN
PST	POST
FGL	FOGLINE
PA	PLANTER AREA
WB-D	DASHED WHITE BUTTONS
WL-D	DASHED WHITE LINE
WLL	WHITE LANE LINE
WWB	DOUBLE WHITE BUTTONS
YYB	DOUBLE YELLOW BUTTONS
YYL	DOUBLE YELLOW LANE LINE
	SET BENCHMARK
SS	SANITARY SEWER LINE
SS	SANITARY SEWER LINE(PER CITY GIS)
SD	STORM DRAIN LINE
OP	OVERHEAD POWER LINE
P	POWER LINE
P	POWER LINE(PROVIDED BY CLIENT)
T	TELECOMMUNICATIONS LINE
T	TELECOMMUNICATIONS LINE(PROVIDED BY CLIENT)
C	CABLE LINE
C	CABLE LINE(PROVIDED BY CLIENT)
FO	FIBER OPTICS LINE
FO	FIBER OPTICS LINE(PROVDED BY CLIENT)
D	DITCH LINE
W	WATER LINE
G	GAS LINE
G	GAS LINE(PROVIDED BY CLIENT)
CLFNC	CHAIN LINK FENCE LINE
WDFNC	WOOD FENCE LINE
GUY	GUY WIRE
	CONCRETE PAVING
	ASPHALT PAVING
	BUILDINGS
	GRAVEL SURFACE
	CONCRETE PAVERS
12"C	CEDAR
12"F	FIR
12"P	PINE
12"D	DECIDUOUS
12"M	MAPLE
12"O	OAK

SURVEY NOTES:

HORIZONTAL DATUM: NAD 83/91 (CITY OF REDMOND)

N 1/4 CORNER SECT. 23-25-5, GLO-3GS, N 238360.34, E 1320243.27 INTERSECTION 156TH AVE NE AND NE 40TH ST, (ALSO KNOWN AS CITY OF REDMOND GPS-90-3G2)

S 1/4 CORNER SECT, 23-25-5, GLO-3H2, N 233094.05, E 1320136.80 INTERSECTION 156TH AVE NE AND NE 24TH ST.

VERTICAL DATUM: NAVD '88 (CITY OF REDMOND)

BENCHMARK:

B.M. NO. COR 9110 – FOUND 3" DIAMETER BRASS DISC IN THE NORTHWEST CORNER OF CONCRETE PAD FOR TRAFFIC SIGNAL POLE AT THE NORTHEAST QUADRANT OF THE INTERSECTION OF 156TH AVE. NE AND NE 31ST STREET. STAMPED "CITY OF BELLEVUE BM-324".
ELEVATION: 393.59'

B.M. NO. COR 9116 – FOUND 3" DIAMETER BRASS DISC IN CONCRETE BASE FOR A TRAFFIC SIGNAL POLE IN THE NORTHEAST QUADRANT OF THE INTERSECTION OF 156TH AVE. NE AND NE 40TH STREET. STAMPED "CITY OF REDMOND BM 90".
ELEVATION: 341.82'

TEMPORARY BENCHMARKS:

- TBM 'A' SET MAG NAIL IN CONCRETE WALKWAY NORTH SIDE OF NE 51ST ST ± 38' NW OF INTERSECTION WITH 150TH AVE NE.
  ELEVATION: 344.42'
- TBM 'B' SET MAG NAIL IN ASPHALT ON SOUTH SIDE OF NE 51ST ST AT THE SW QUADRANT OF ONRAMP TO SOUTHBOUND SR 520.
  ELEVATION: 344.25'
- TBM 'C' SET MAG NAIL IN WEST SIDE OF ASPHALT ONRAMP TO NORTHBOUND SR 520 ± 12' NORTH OF END OF CONCRETE WALKWAY.
  ELEVATION: 340.79'
- TBM 'D' SET SCRIBED "X" IN CONCRETE WALKWAY SOUTH SIDE OF NE 51ST ST ± 190' EAST OF SE QUADRANT OF NORTHBOUND SR 520 OFFRAMP.
  ELEVATION: 337.96'
- TBM 'E' SET MAG NAIL IN SOUTH SIDE OF NE 51ST ST ASPHALT ROADWAY ± 164' EAST OF INTERSECTION WITH 154TH AVE NE AND ± 2' NORTH OF SOUTH CURB LINE.
  ELEVATION: 334.51'
- TBM 'F' SET REBAR AND RED AXIS CONTROL CAP ON SOUTHERLY SIDE OF ISLAND AT THE SOUTHWEST QUADRANT OF INTERSECTION OF NE 51ST ST AND 156TH AVE NE.
  ELEVATION: 313.62'

GENERAL NOTES

UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON ASBUILT FIELD LOCATION OF EXISTING STRUCTURES. FIELD LOCATION OF UTILITIES BASED ON LOCATOR PAINT MARKINGS AND LOCATIONS BASED ON UTILITY MAPS FROM CITY AND UTILITY DRAWINGS INDICATING REPORTED UTILITY INSTALLATIONS. OTHER UTILITIES MAY EXIST. NO SUB-SURFACE EXPLORATION WAS MADE TO VERIFY UTILITY ROUTINGS AND THE ROUTING OF ALL BURIED UTILITIES SHOULD BE CONFIRMED WITH THE UTILITY PURVEYOR AND EXPOSED IN AREAS CRITICAL TO DESIGN FOR VERIFICATION.

PRIMARY CONTROL POINTS AND ACCESSIBLE MONUMENT POSITIONS WERE FIELD MEASURED UTILIZING GLOBAL POSITIONING SYSTEM (GPS) SURVEY TECHNIQUES USING LEICA SYSTEM 1200 EQUIPMENT. MONUMENT POSITIONS THAT WERE NOT DIRECTLY OBSERVED USING GPS SURVEY TECHNIQUES WERE TIED INTO THE CONTROL POINTS UTILIZING LEICA ELECTRONIC 1103 TOTAL STATIONS FOR THE MEASUREMENT OF BOTH ANGLES AND DISTANCES. THIS SURVEY MEETS OR EXCEEDS THE STANDARDS SET BY WAC 332-130-090.
A 3D LASER SCANNING SYSTEM, LEICA SCANSTATION 2, MODEL NUMBER HDS 4050, MEETING OR EXCEEDING STANDARDS SET BY WAC 332-130-090 WAS USED FOR TOPOGRAPHY.

PROPERTY BOUNDARY DRAWING BASED UPON INFORMATION SUPPLIED BY THE CLIENT OR AS AVAILABLE FROM THE TAX ASSESSORS OFFICE. NOTE THAT IT IS ONLY A SCHEMATIC REPRESENTATION FOR CONVENIENCE IN INTERPRETING THE TOPOGRAPHY. IT IS NOT A BOUNDARY SURVEY AND SHOULD NOT BE RELIED ON IN ANY WAY.

EVIDENCE OF OCCUPATION OF LAND (FOR EXAMPLE: FENCES, STRUCTURES, PAVING, GRAVELED SURFACES, ETC.) MAY NOT COINCIDE WITH THE DEEDED BOUNDARY LINES AS SHOWN ON THIS DRAWING. THERE ARE AREAS ON THIS SURVEY APPEARING TO HAVE DISCREPANCIES BETWEEN THE DEEDED BOUNDARY LINES AND CERTAIN EVIDENCE OF OCCUPATION. WHERE DISCREPANCIES EXIST AXIS RECOMMENDS THAT THE OWNER OR POTENTIAL PURCHASER CONSULT WITH LEGAL COUNSEL TO DETERMINE HOW BEST TO INTERPRET THEIR PROPERTY RIGHTS AND ADDRESS ANY POTENTIAL BOUNDARY DISPUTES.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

Axis Survey & Mapping
15241 NE 90TH ST
REDMOND, WA 98052
TEL. 425.823-5700
FAX 425.823-6700

STATE OF WASHINGTON MITCH L. S. EVANS 38011 REGISTERED PROFESSIONAL LAND SURVEYOR 2/15/17

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE: 02/10/2017	CFD PROJECT NO. 2 NE 51ST ST IMPROVEMENTS
DRAWN BY: JM	JOB NO: 16-219	EXISTING CONDITIONS PLAN
CHECKED BY: MTSE	DRAWING FILE NO: 16219_C3D_51ST.DWG	

DRAWING No.: 51-EX-01

SHEET No.: 4 OF 80

02/10/17 | 2:38 PM | JMOORE
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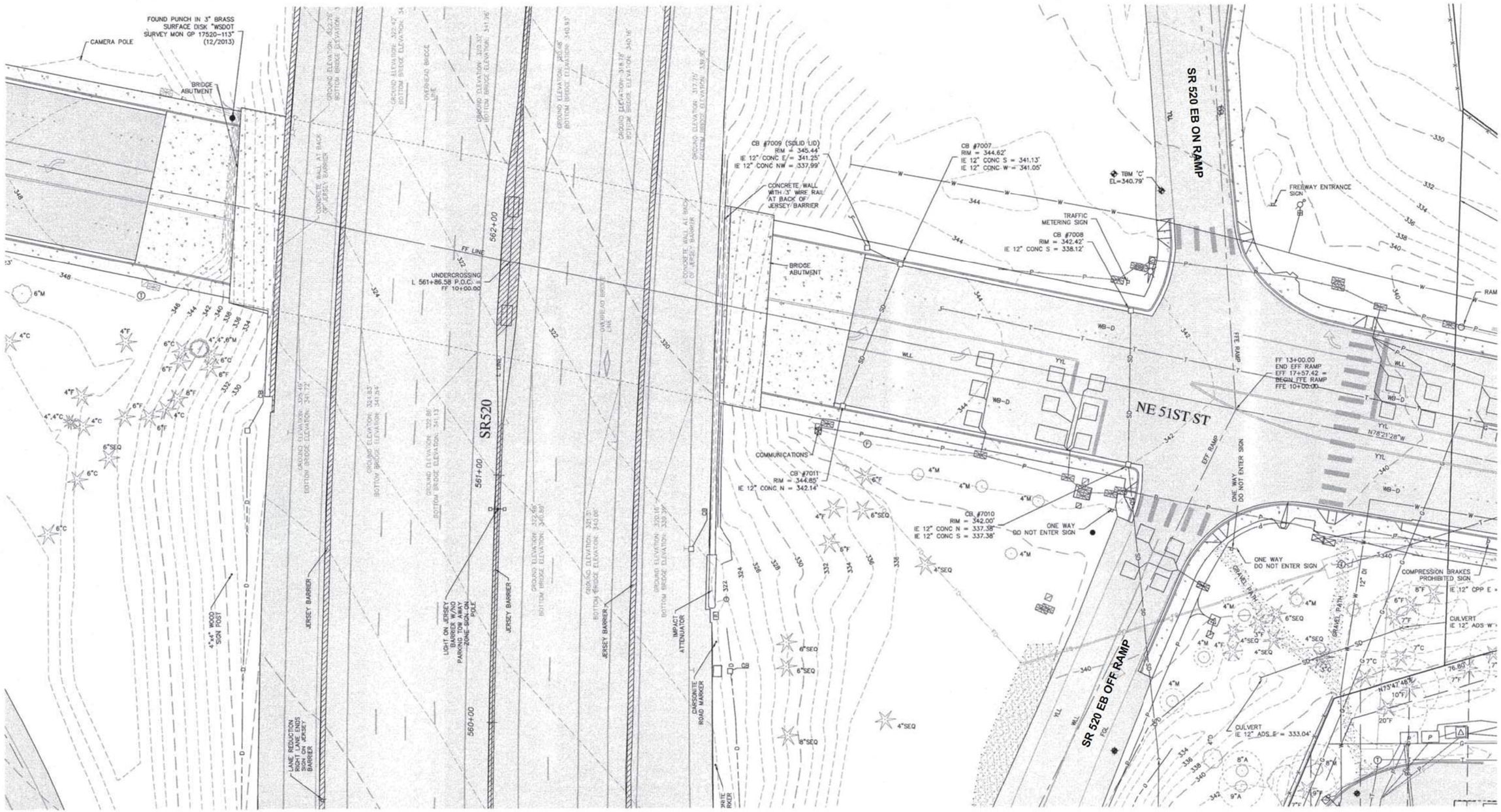

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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Axis Survey & Mapping
15241 NE 90TH ST
REDMOND, WA 98052
TEL 425.823-5700
FAX 425.823-6700

STATE OF WASHINGTON 38011 REGISTERED PROFESSIONAL LAND SURVEYOR

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE: 02/10/2017
DRAWN BY: JM	JOB NO: 16-219
CHECKED BY: MTSE	DRAWING FILE NO: 16219_C3D_51ST.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

EXISTING CONDITIONS PLAN

DRAWING No.: **51-EX-02**

SHEET No.: 5 OF 80

02/10/17 | 2:38 PM | JMOORE
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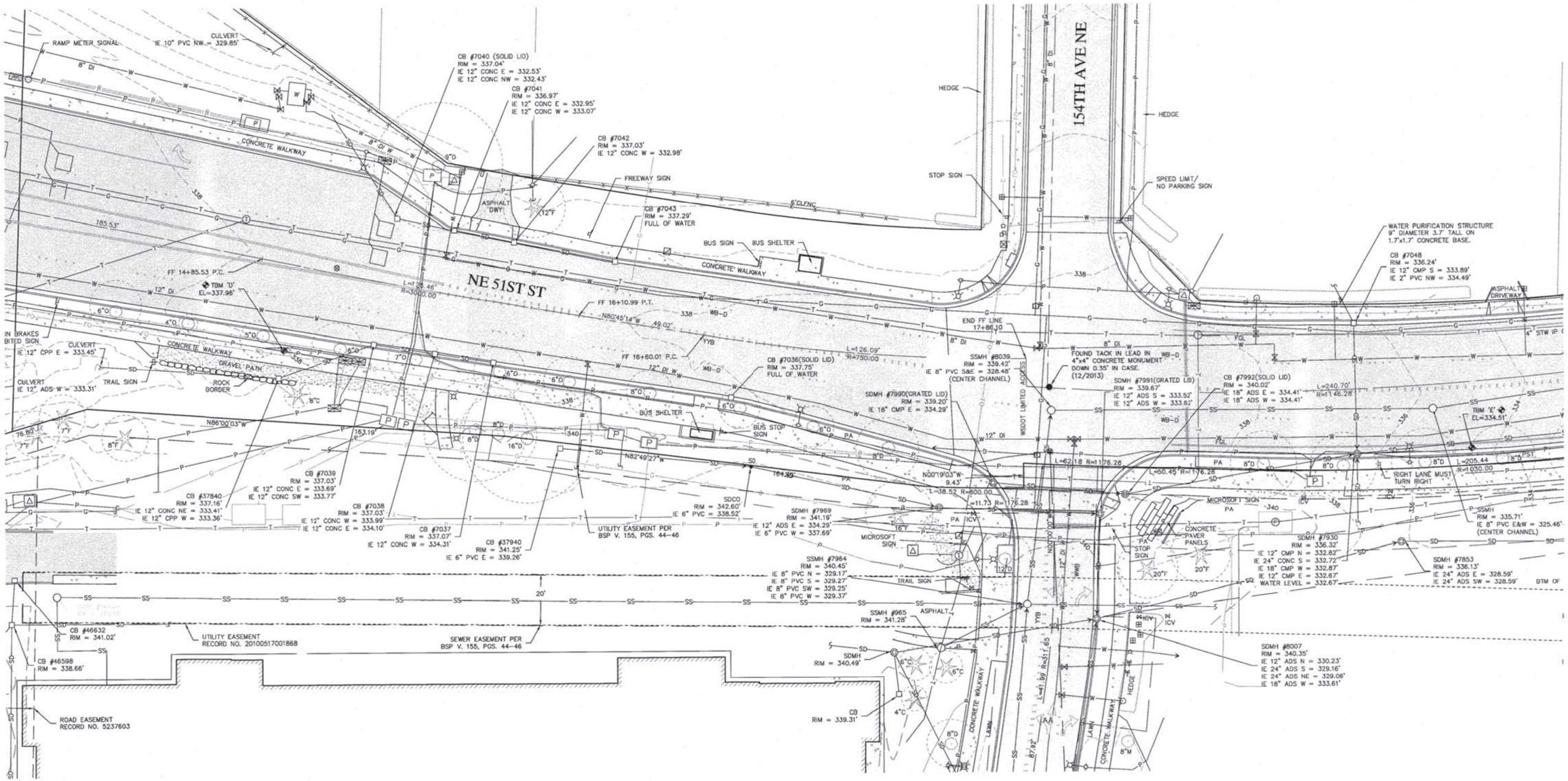

IFB PLANS

No.	DATE	BY	CHD	REVISION

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P.O. BOX 97010
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TEL. 425.823-5700
FAX 425.823-6700

HIGH T. S. EVANS — STATE OF WASHINGTON — 38011 — REGISTERED PROFESSIONAL LAND SURVEYOR — 2/10/17

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE: 02/10/2017
DRAWN BY: JM	JOB NO: 16-219
CHECKED BY: MTSE	DRAWING FILE NO: 16219_C3D_51ST.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

EXISTING CONDITIONS PLAN

DRAWING No.: **51-EX-03**

SHEET No.: 6 OF 80

02/10/17 | 2:38 PM | JMOORE
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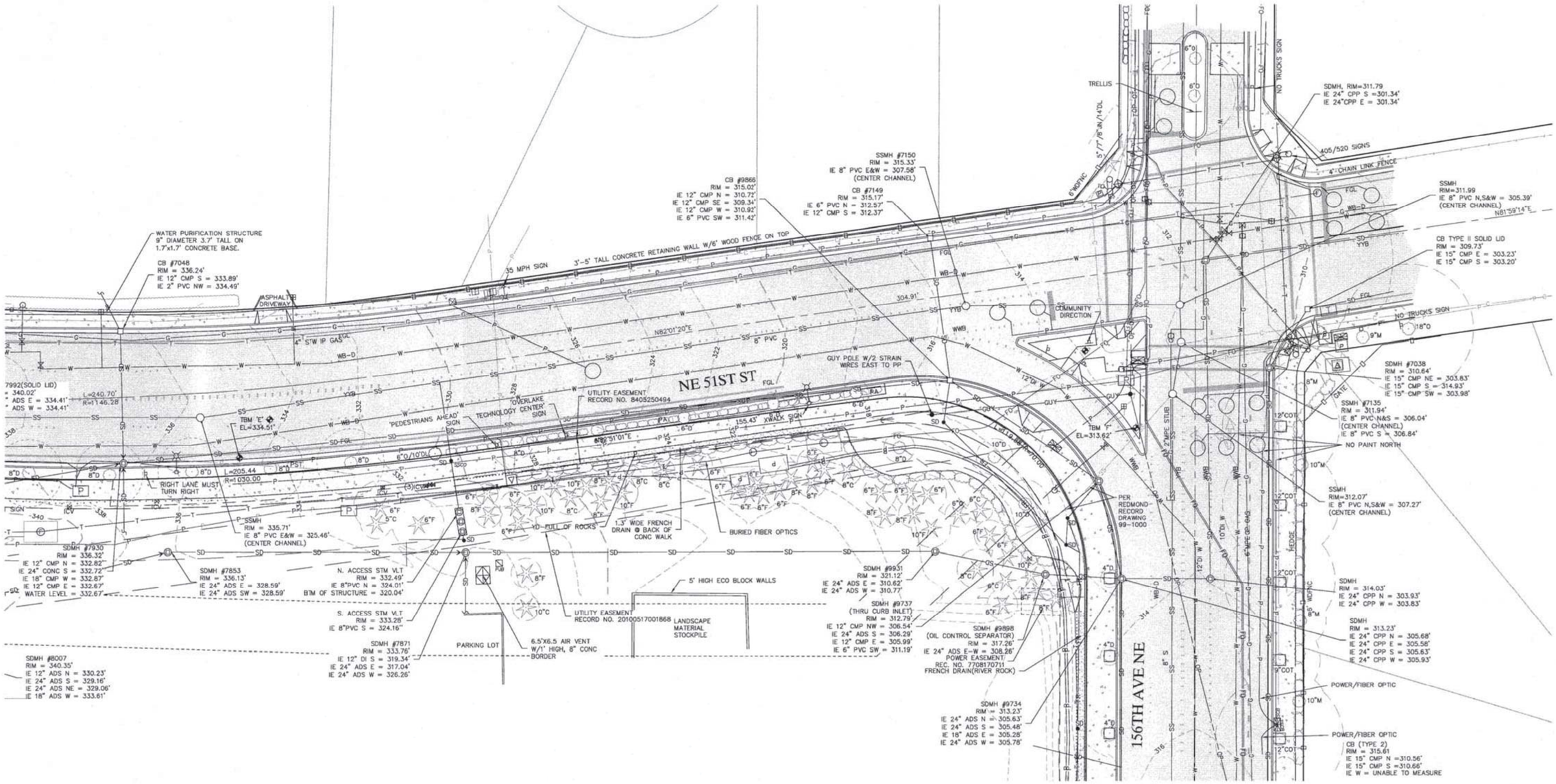

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No.	DATE	BY	CHD	REVISION

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15670 N.E. 85TH STREET
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REDMOND, WA 98052
TEL 425.823-5700
FAX 425.823-6700

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE: 02/10/2017
DRAWN BY: JM	JOB NO: 16-219
CHECKED BY: MTSE	DRAWING FILE NO: 16219_C3D_51ST.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

EXISTING CONDITIONS PLAN

DRAWING No.: **51-EX-04**

SHEET No.: 7 OF 80

02/10/17 | 2:39 PM | JMOORE
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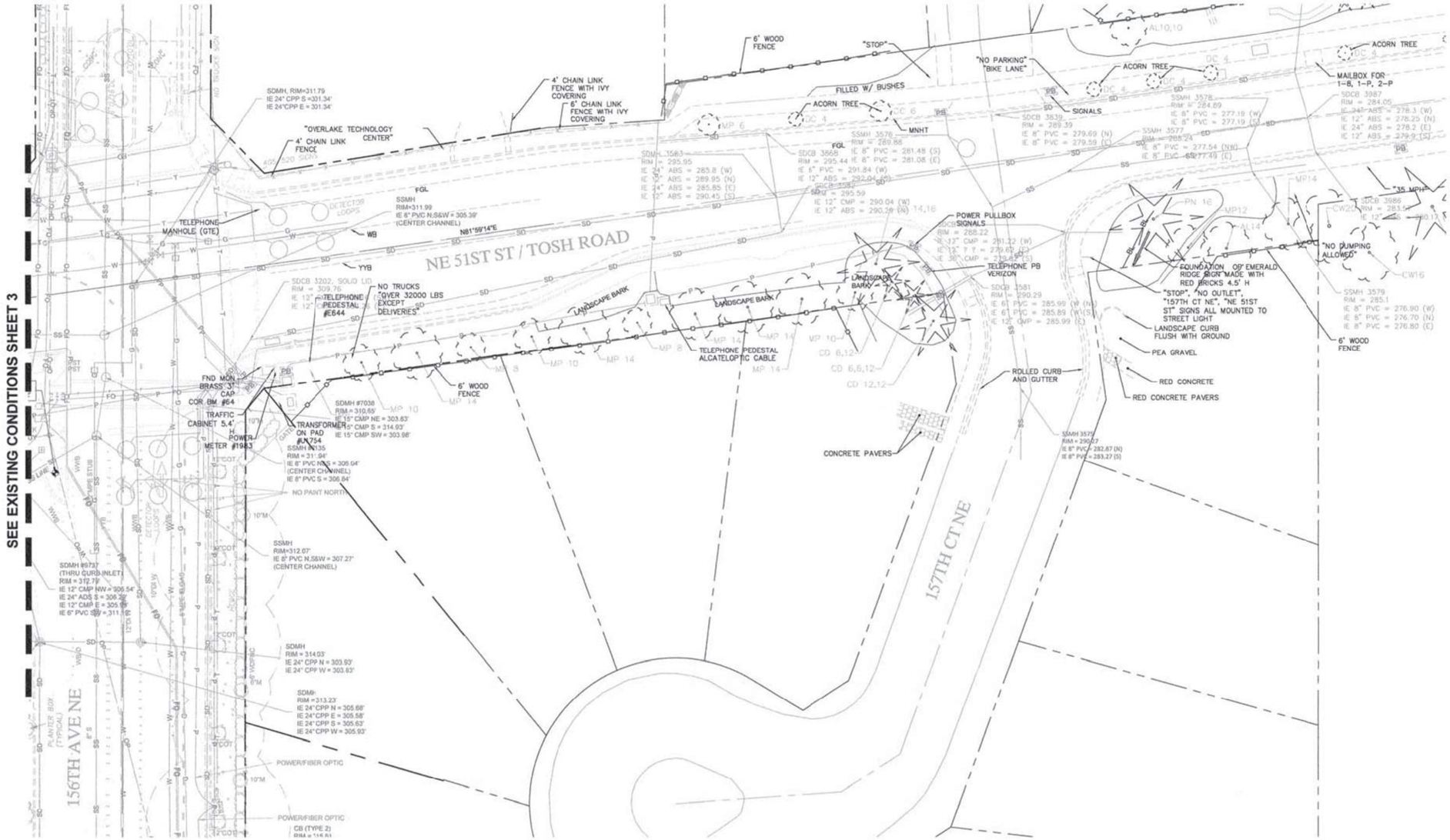

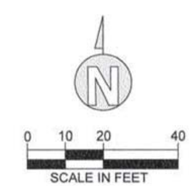

Know what's **below.** **Call** before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

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15670 N.E. 85TH STREET
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PH: (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

ERIK R. HALVORSON STATE OF WASHINGTON 14632 REGISTERED PROFESSIONAL LAND SURVEYOR
11/29/17

LINE IS 1" AT FULL SCALE

DESIGNED BY: E. HALVORSON	ISSUE DATE: 11/29/2017
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-EX-05.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

EXISTING CONDITIONS PLAN

DRAWING No.: 51-EX-05

SHEET No.: 8 OF 80

11/28/17 | 1:21 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-EX-05.DWG

TPN 2182500120
VACANT
14848 NE 51ST ST

TPN 2552900050
VACANT
5000 150TH AVE NE 98052

BP: A 34+18.29

A 34+18

A 35+00

A 36+00

A 37+00

A 38+00

FOUND PUNCH IN 3" BRASS
SURFACE DISK "WSDOT SURVEY
MON GP 17520-113"
(12/2013)

WSDOT TURNBACK LINE

TBM "B"
EL=344.25'

CONC

SEE DWG 51-RP-02 FOR CONTINUATION

LEGEND:

- EXISTING RIGHT-OF-WAY CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- WSDOT TURNBACK/LIMITED ACCESS
- PROPOSED RIGHT OF WAY LINE
- PROPOSED UTILITY EASEMENT LINE
- EXISTING BUILDING FACE
- EXISTING CURB AND GUTTER
- TEMPORARY BENCHMARK
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- RIGHT-OF-WAY DEDICATION

N

0 10 20 40
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
40911
REGISTERED
PROFESSIONAL ENGINEER
5/8/19

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RP-01.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

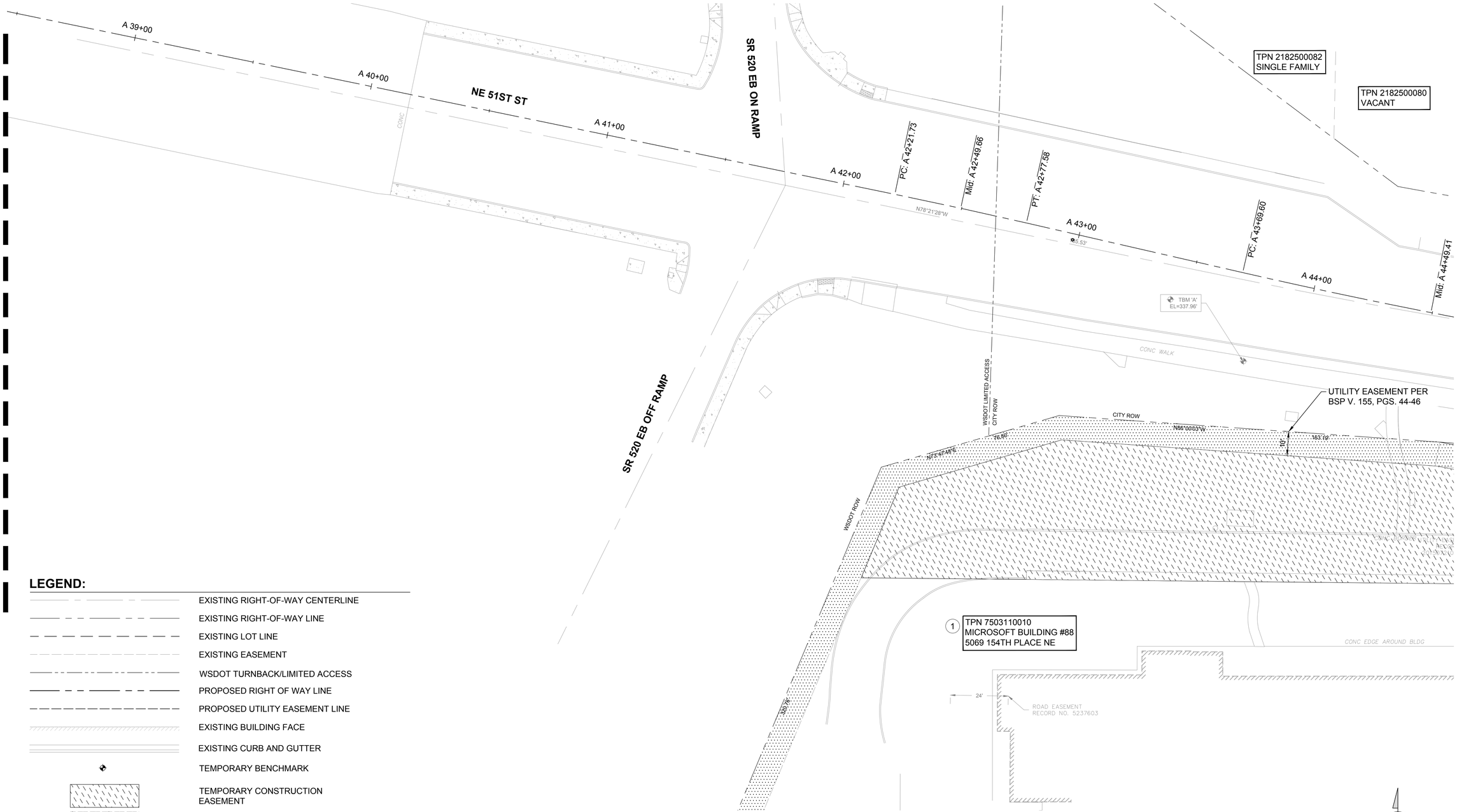
RIGHT-OF-WAY
PLAN

DRAWING No.: **51-RP-01**

SHEET No.: 9 OF 80

05/08/19 | 2:45 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RP-01.DWG

SEE DWG 51-RP-01 FOR CONTINUATION



SEE DWG 51-RP-03 FOR CONTINUATION

LEGEND:

- EXISTING RIGHT-OF-WAY CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- WSDOT TURNBACK/LIMITED ACCESS
- PROPOSED RIGHT OF WAY LINE
- PROPOSED UTILITY EASEMENT LINE
- EXISTING BUILDING FACE
- EXISTING CURB AND GUTTER
- TEMPORARY BENCHMARK
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- RIGHT-OF-WAY DEDICATION

NO.	NAME	TAX PARCEL NUMBER (TPN)	TOTAL AREA SQ. FT.	PROJECT RIGHT-OF-WAY DEDICATION	REMAINDER SQ. FT.	PROJECT SIDEWALK AND UTILITY ESMT SQ. FT.	TEMPORARY CONSTRUCTION EASEMENT SQ. FT.
1	MICROSOFT (BLDG #88)	7503110010	367,639	0	367,639	180	20,769

0 10 20 40
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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HUITT-ZOLLARS Seattle
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818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46991 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RP-02.DWG

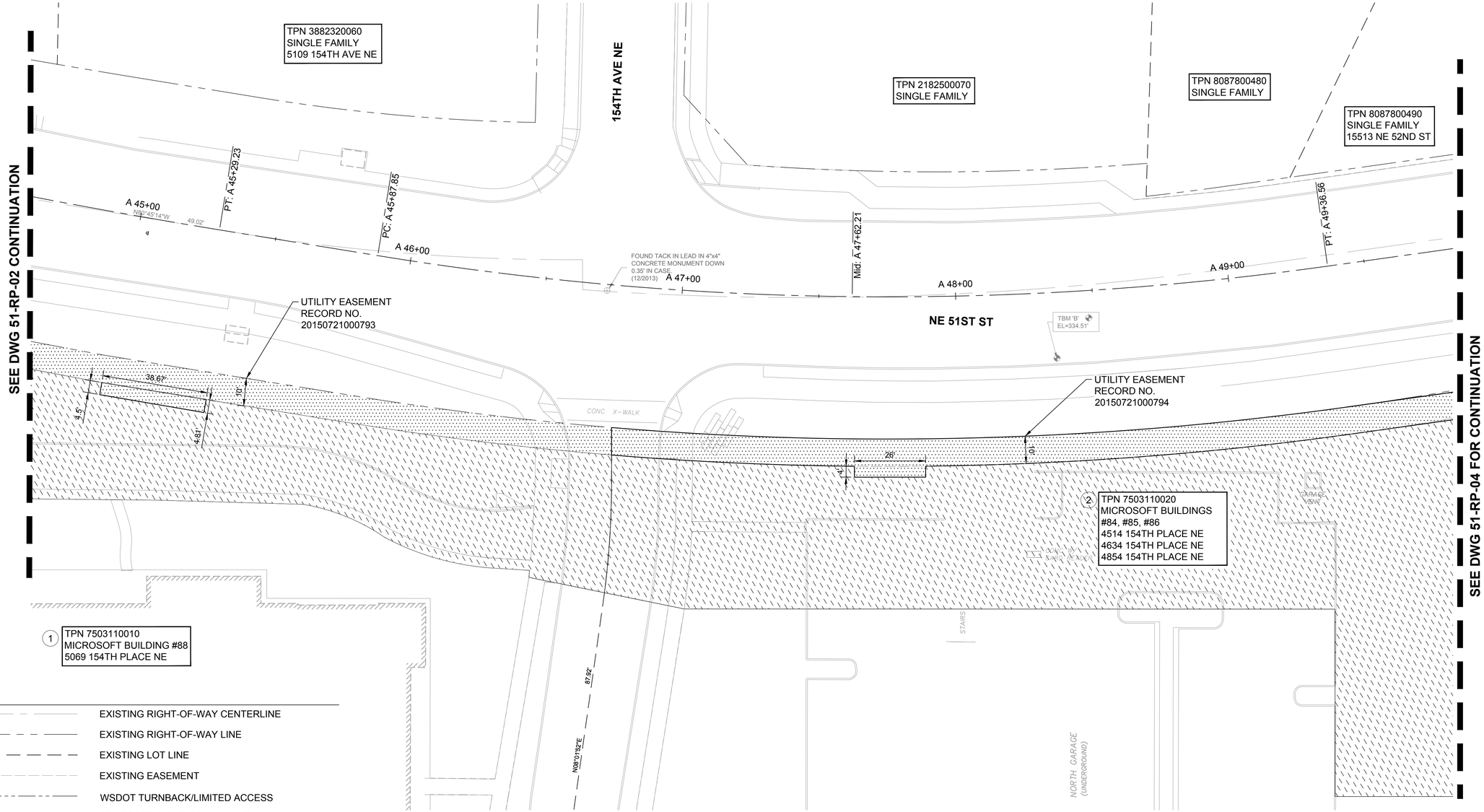
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

RIGHT-OF-WAY
PLAN

DRAWING No.: 51-RP-02

SHEET No.: 10 OF 80

05/08/19 | 2:45 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RP-02.DWG



LEGEND:

- EXISTING RIGHT-OF-WAY CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- WSDOT TURNBACK/LIMITED ACCESS
- PROPOSED RIGHT OF WAY LINE
- PROPOSED UTILITY EASEMENT LINE
- EXISTING BUILDING FACE
- EXISTING CURB AND GUTTER
- TEMPORARY BENCHMARK
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- RIGHT-OF-WAY DEDICATION

NO.	NAME	TAX PARCEL NUMBER (TPN)	TOTAL AREA SQ. FT.	PROJECT RIGHT-OF-WAY DEDICATION	REMAINDER SQ. FT.	PROJECT SIDEWALK AND UTILITY ESMT SQ. FT.	TEMPORARY CONSTRUCTION EASEMENT SQ. FT.
1	MICROSOFT (BLDG #88)	7503110010	367,639	0	367,639	180	20,769
2	MICROSOFT (BLDGS #84, #85, #86)	7503110020	855,733	672	855,096	5,286	44,974

N

0 10 20 40
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 40891 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RP-03.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

RIGHT-OF-WAY
PLAN

DRAWING No.: **51-RP-03**

SHEET No.: 11 OF 80

05/08/19 | 2:46 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RP-03.DWG

SEE DWG 51-RP-03 FOR CONTINUATION

TPN 8087800510
SINGLE FAMILY
5145 156TH AVE NE

TPN 8087800500
SINGLE FAMILY
15521 NE 52ND ST

TPN 8087800490
SINGLE FAMILY
15513 NE 52ND ST

TPN 145059091
SINGLE FAMILY
15604 NE 51ST ST

CONC

CONC

PI: A 52+08.84

PI: A 100+00.00

A 52+00

A 51+00

A 50+00

A 101+00

A 102+00

A 103+00

A 103+78.67

NE 51ST ST

TBM 'C'
EL=313.62'

UTILITY EASEMENT
RECORD NO.
20100517001868

4.87'

4.87'

CONC WALK

156TH AVE NE

TPN 2331800010
SINGLE FAMILY
5050 NE 157TH CT

TPN 2331800140
SINGLE FAMILY
5027 NE 157TH CT

TPN 2331800130
SINGLE FAMILY
5021 NE 157TH CT

UTILITY EASEMENT
RECORD NO. 8201210370

TPN 2331800120
SINGLE FAMILY
5015 NE 157TH CT

TPN 2331800110
SINGLE FAMILY
5007 NE 157TH CT

157TH CT NE

2

TPN 7503110020
MICROSOFT BUILDINGS
#84, #85, #86
4514 154TH PLACE NE
4634 154TH PLACE NE
4854 154TH PLACE NE

UTILITY EASEMENT PER
BSP V. 155, PGS. 44-46

POWER EASEMENT
REC. NO. 7708170711

10'

ANTER BOX
YPICAL)

LEGEND:

- EXISTING RIGHT-OF-WAY CENTERLINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- WSDOT TURNBACK/LIMITED ACCESS
- PROPOSED RIGHT OF WAY LINE
- PROPOSED UTILITY EASEMENT LINE
- EXISTING BUILDING FACE
- EXISTING CURB AND GUTTER
- TEMPORARY BENCHMARK
- TEMPORARY CONSTRUCTION EASEMENT
- UTILITY EASEMENT
- RIGHT-OF-WAY DEDICATION

N

0 10 20 40
SCALE IN FEET

NO.	NAME	TAX PARCEL NUMBER (TPN)	TOTAL AREA SQ. FT.	PROJECT RIGHT-OF-WAY DEDICATION	REMAINDER SQ. FT.	PROJECT SIDEWALK AND UTILITY ESMT SQ. FT.	TEMPORARY CONSTRUCTION EASEMENT SQ. FT.
2	MICROSOFT (BLDGS #84, #85, #86)	7503110020	855,733	672	855,096	5,286	44,974

IFB PLANS

No.	DATE	BY	CHD	REVISION

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WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
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Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
40894
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

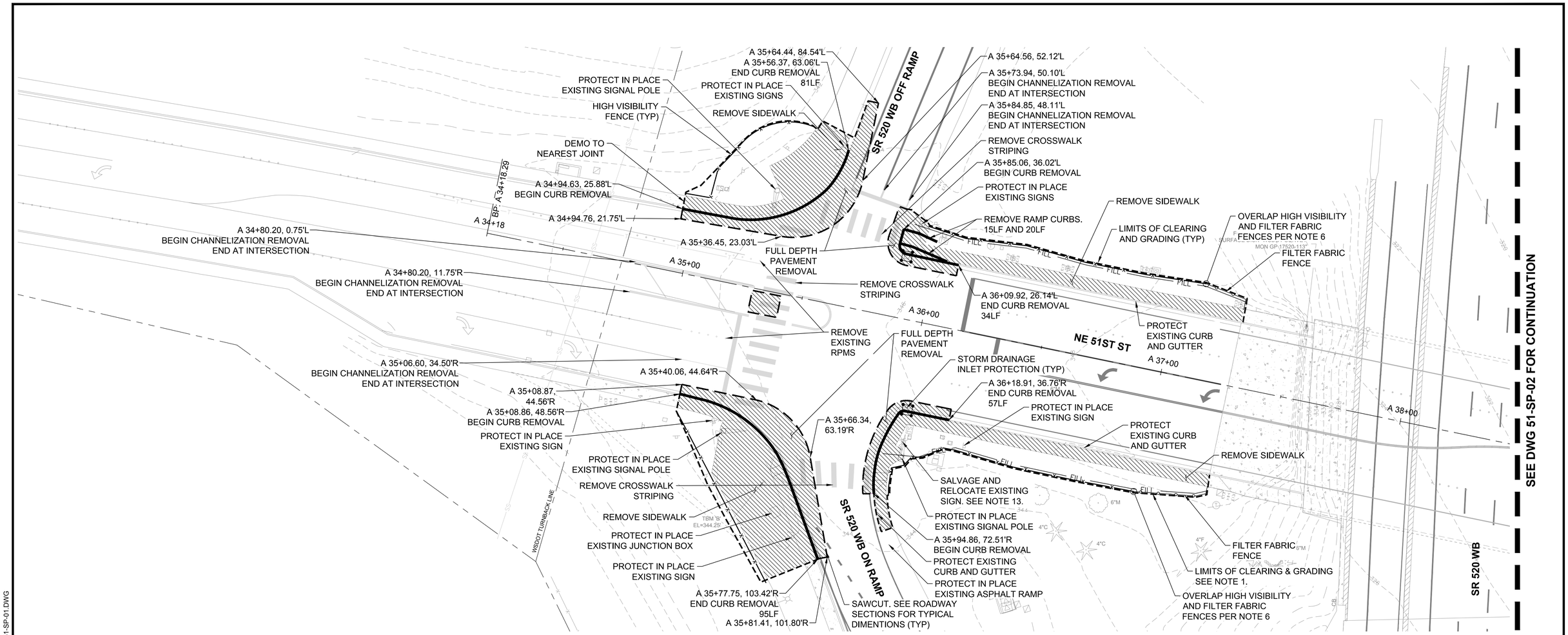
DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RP-04.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

RIGHT-OF-WAY
PLAN

DRAWING No.: 51-RP-04

05/08/19 | 2:46 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RP-04.DWG



NOTES:

1. CONSTRUCTION ACTIVITY LIMITS SHOWN ARE THE MAXIMUM ALLOWED LIMITS. CONTRACTOR SHOULD LIMIT CLEARING AND GRADING WHERE POSSIBLE TO REDUCE PROJECT IMPACTS.
2. CONTRACTOR TO PROTECT UTILITIES AND STRUCTURES TO REMAIN DURING CONSTRUCTION ACTIVITIES.
3. SAW CUTTING AND GRINDING DEBRIS SHALL BE REMOVED WITH A VACUUM DEVICE AND DISPOSED OF PROPERLY.
4. SEE DWGS 51-LS-02 THROUGH 51-LS-04 FOR LANDSCAPE INFORMATION.
5. SEE DWGS 51-LR-02 THROUGH 51-LR-04 FOR TREE RETENTION INFORMATION.
6. CONTRACTOR TO OVERLAP FILTER FABRIC AND HIGH VISIBILITY FENCE TRANSITIONS AT LEAST ONE STAKE WIDTH AT LOCATIONS NOTED ON PLANS.
7. CONTRACTOR TO AVOID IMPACT TO TREE ROOTS DURING GRADING. NO GRADING IS TO OCCUR IN THE TREE DRIP LINE. FROM DRIP LINE TO BACK OF SIDEWALK SLOPE AT 1:1 MAX FOR UP TO 10' ON EITHER SIDE OF TREE.
8. SAWCUT LINES TO BE LOCATED 3' OFF OF EXISTING GUTTER LINE UNLESS OTHERWISE NOTED.
9. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
10. SEE DWGS 51-DR-01 THROUGH 51-DR-04 FOR DRAINAGE AND ROADWAY CONTOURS.
11. CUT AND CAP EXISTING IRRIGATION WHEN IT IS IMPACTED. ENSURE ADEQUATE WATER IS PROVIDED TO AREAS THAT WILL REMAIN AND ARE DEPRIVED DURING CONSTRUCTION.
12. SEE DWGS 51-UT-01 THROUGH 51-UT-04 FOR UTILITY REMOVALS AND RELOCATIONS.
13. SEE DWGS 51-SG-01 AND 51-SG-02 FOR SIGNING INFORMATION.
14. CLEARING AND GRADING SHALL BE MINIMIZED TO THOSE AREAS REQUIRED TO ESTABLISH SLOPE GRADES AND UTILITY EXCAVATIONS AND SHALL NOT EXTEND BEYOND THE LIMITS INDICATED. SEE SPECIFICATIONS SECTION 2-01.
15. SEE DWGS 51-TS-01 THROUGH 51-TS-28 FOR SIGNAL AND ILLUMINATION REMOVALS AND RELOCATIONS.

LEGEND:

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- SAWCUT
- GRIND LINE
- CUT — CUT LINE
- FILL — FILL LINE
- FILTER FABRIC FENCE PER COR STANDARD DETAIL 502
- STRAW WATTLE PER WSDOT BMP C235
- LIMITS OF CLEARING AND GRADING
- HIGH VISIBILITY FENCE PER WSDOT STD PLAN I-10.10-01 (TYP)
- 366 — EXISTING CONTOUR
- TREE TO BE REMOVED
- TREE TO REMAIN
- INLET PROTECTION PER WSDOT STANDARD PLAN I-40.20-00 (TYP)
- EXISTING PAVEMENT AND SIDEWALK TO BE REMOVED
- PLANING BITUMINOUS PAVEMENT
- CURB REMOVAL
- PROPOSED RIGHT-OF-WAY LINE

N

0 10 20 40
SCALE IN FEET

811 Know what's **below.** **Call** before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

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15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46947 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-SP-01.DWG

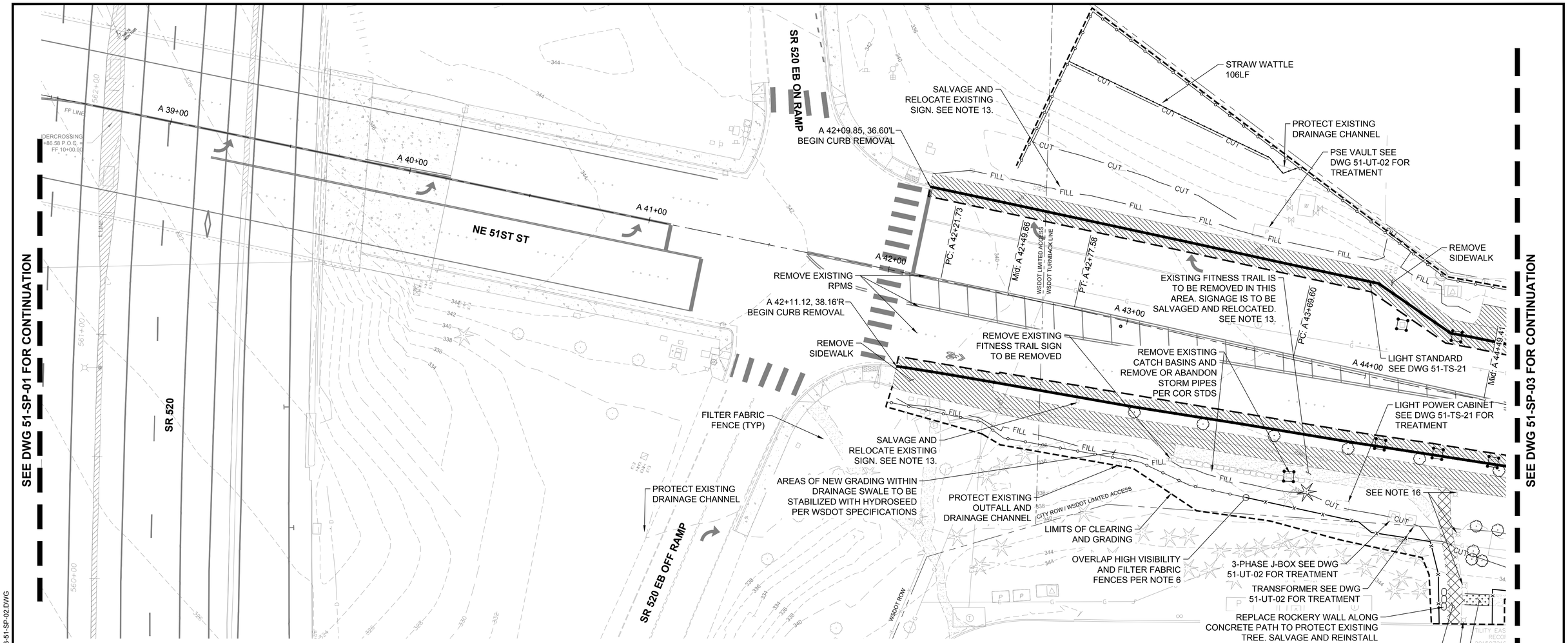
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

SITE PREPARATION &
TEMPORARY EROSION CONTROL
PLAN

DRAWING No.: **51-SP-01**

SHEET No.: 13 OF 80

04/30/19 | 7:32 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-SP-01.DWG



NOTES:

1. CONSTRUCTION ACTIVITY LIMITS SHOWN ARE THE MAXIMUM ALLOWED LIMITS. CONTRACTOR SHOULD LIMIT CLEARING AND GRADING WHERE POSSIBLE TO REDUCE PROJECT IMPACTS.
2. CONTRACTOR TO PROTECT UTILITIES AND STRUCTURES TO REMAIN DURING CONSTRUCTION ACTIVITIES.
3. SAW CUTTING AND GRINDING DEBRIS SHALL BE REMOVED WITH A VACUUM DEVICE AND DISPOSED OF PROPERLY.
4. SEE DWGS 51-LS-02 THROUGH 51-LS-04 FOR LANDSCAPE INFORMATION.
5. SEE DWGS 51-LR-02 THROUGH 51-LR-04 FOR TREE RETENTION INFORMATION.
6. CONTRACTOR TO OVERLAP FILTER FABRIC AND HIGH VISIBILITY FENCE TRANSITIONS AT LEAST ONE STAKE WIDTH AT LOCATIONS NOTED ON PLANS.
7. CONTRACTOR TO AVOID IMPACT TO TREE ROOTS DURING GRADING. NO GRADING IS TO OCCUR IN THE TREE DRIP LINE. FROM DRIP LINE TO BACK OF SIDEWALK SLOPE AT 1:1 MAX FOR UP TO 10' ON EITHER SIDE OF TREE.
8. SAWCUT LINES TO BE LOCATED 3' OFF OF EXISTING GUTTER LINE UNLESS OTHERWISE NOTED.
9. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
10. SEE DWGS 51-DR-01 THROUGH 51-DR-04 FOR DRAINAGE AND ROADWAY CONTOURS.
11. CUT AND CAP EXISTING IRRIGATION WHEN IT IS IMPACTED. ENSURE ADEQUATE WATER IS PROVIDED TO AREAS THAT WILL REMAIN AND ARE DEPRIVED DURING CONSTRUCTION.
12. SEE DWGS 51-UT-01 THROUGH 51-UT-04 FOR UTILITY REMOVALS AND RELOCATIONS.
13. SEE DWGS 51-SG-01 AND 51-SG-02 FOR SIGNING INFORMATION.
14. CLEARING AND GRADING SHALL BE MINIMIZED TO THOSE AREAS REQUIRED TO ESTABLISH SLOPE GRADES AND UTILITY EXCAVATIONS AND SHALL NOT EXTEND BEYOND THE LIMITS INDICATED. SEE SPECIFICATIONS SECTION 2-01.
15. SEE DWGS 51-TS-01 THROUGH 51-TS-28 FOR SIGNAL AND ILLUMINATION REMOVALS AND RELOCATIONS.
16. DISCONNECT POWER AND REMOVE POWER UP TO SOUTHERNMOST BOLLARD TO REMAIN. REMOVE THREE NORTHERNMOST LIGHTED BOLLARDS AND RETURN UNDAMAGED TO MICROSOFT.

LEGEND:

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- SAWCUT
- GRIND LINE
- CUT — CUT LINE
- FILL — FILL LINE
- FILTER FABRIC FENCE PER COR STANDARD DETAIL 502
- STRAW WATTLE PER WSDOT BMP C235
- LIMITS OF CLEARING AND GRADING
- HIGH VISIBILITY FENCE PER WSDOT STD PLAN I-10.10-01 (TYP)
- 366 — EXISTING CONTOUR
- TREE TO BE REMOVED
- TREE TO REMAIN
- INLET PROTECTION PER WSDOT STANDARD PLAN I-40.20-00 (TYP)
- EXISTING PAVEMENT AND SIDEWALK TO BE REMOVED
- PLANING BITUMINOUS PAVEMENT
- CURB REMOVAL
- PROPOSED RIGHT-OF-WAY LINE

N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-SP-02.DWG

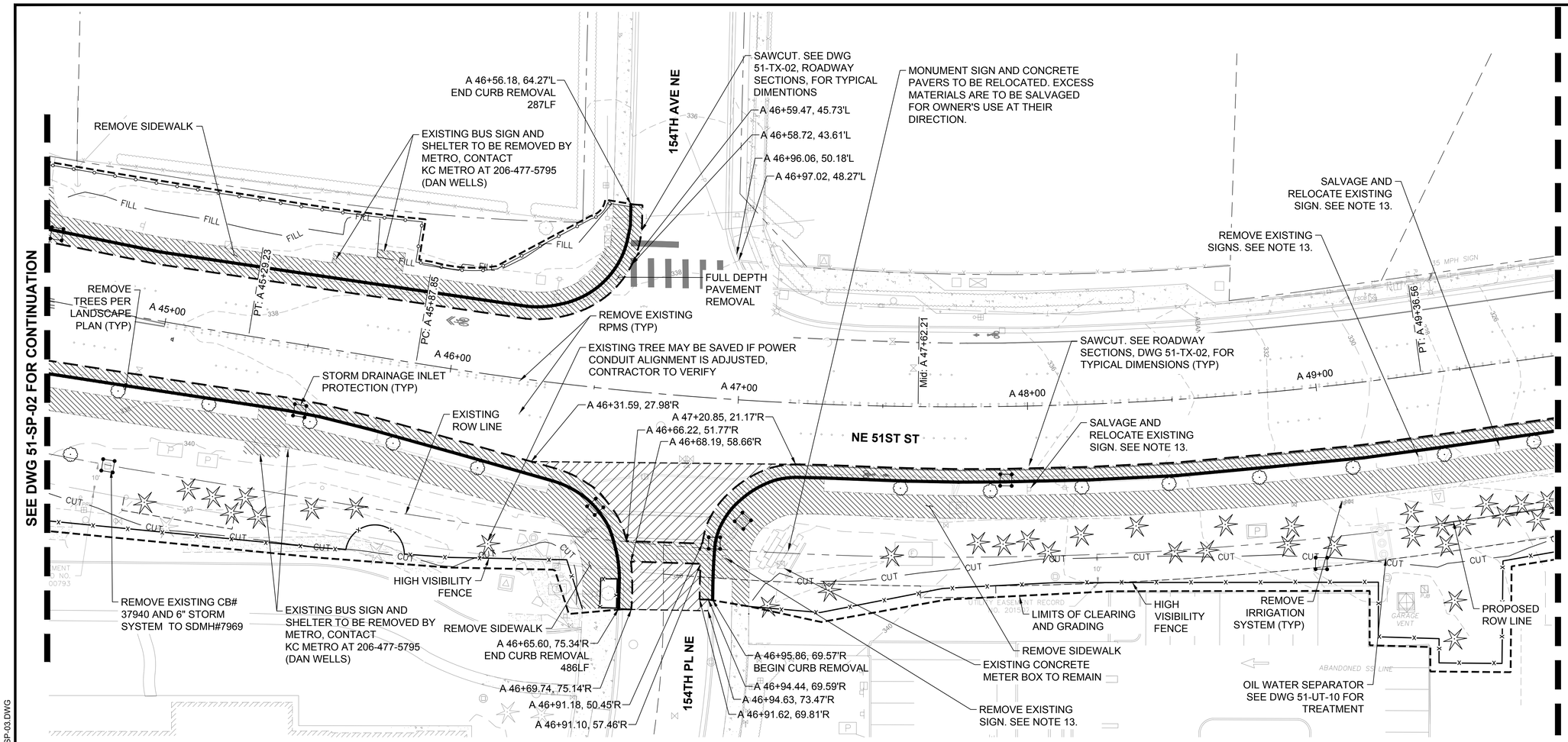
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

SITE PREPARATION & TEMPORARY EROSION CONTROL PLAN

DRAWING No.: 51-SP-02

SHEET No.: 14 OF 80

04/30/19 | 7:33 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-SP-02.DWG



NOTES:

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2. CONTRACTOR TO PROTECT UTILITIES AND STRUCTURES TO REMAIN DURING CONSTRUCTION ACTIVITIES.
3. SAW CUTTING AND GRINDING DEBRIS SHALL BE REMOVED WITH A VACUUM DEVICE AND DISPOSED OF PROPERLY.
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5. SEE DWGS 51-LR-02 THROUGH 51-LR-04 FOR TREE RETENTION INFORMATION.
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11. CUT AND CAP EXISTING IRRIGATION WHEN IT IS IMPACTED. ENSURE ADEQUATE WATER IS PROVIDED TO AREAS THAT WILL REMAIN AND ARE DEPRIVED DURING CONSTRUCTION.
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15. SEE DWGS 51-TS-01 THROUGH 51-TS-28 FOR SIGNAL AND ILLUMINATION REMOVALS AND RELOCATIONS.

LEGEND:

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
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- GRIND LINE
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- EXISTING PAVEMENT AND SIDEWALK TO BE REMOVED
- PLANING BITUMINOUS PAVEMENT
- CURB REMOVAL
- PROPOSED RIGHT-OF-WAY LINE

N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

IFB PLANS

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PH. (425) 556-2701

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Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46947 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-SP-03.DWG

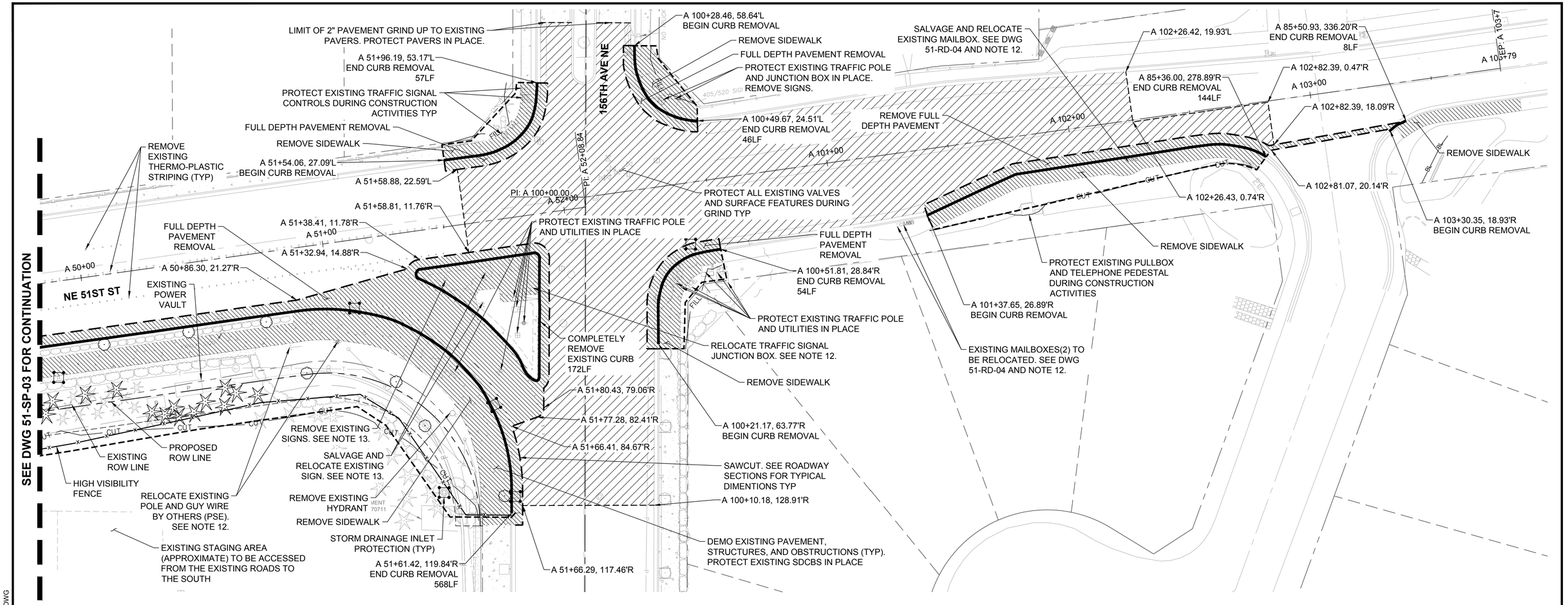
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

SITE PREPARATION & TEMPORARY EROSION CONTROL PLAN

DRAWING No.: 51-SP-03

SHEET No.: 15 OF 80

04/30/19 | 7:33 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-SP-03.DWG



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LEGEND:

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- PLANING BITUMINOUS PAVEMENT
- CURB REMOVAL
- PROPOSED RIGHT-OF-WAY LINE

0 10 20 40
SCALE IN FEET

Know what's **below.** **Call** before you dig.

IFB PLANS

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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-SP-04.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

SITE PREPARATION & TEMPORARY EROSION CONTROL PLAN

DRAWING No.: **51-SP-04**

SHEET No.: 16 OF 80

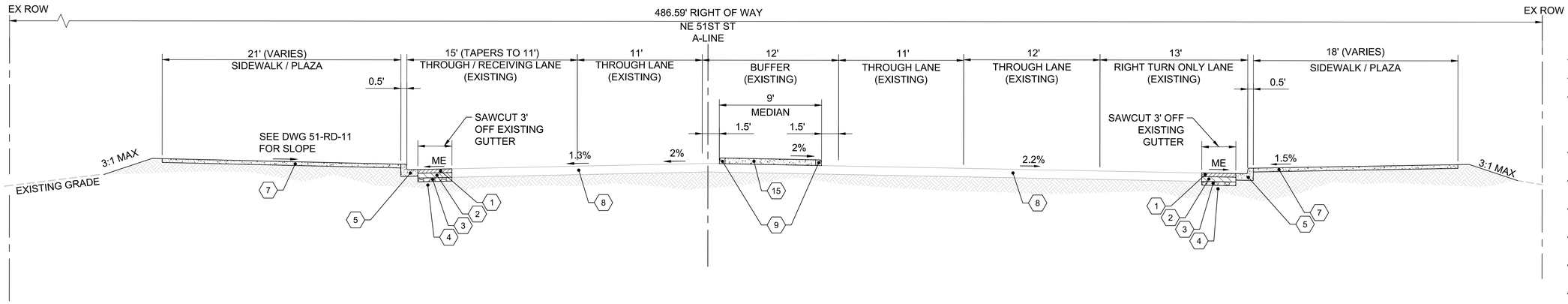
04/30/19 | 7:34 PM | J. ARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-SP-04.DWG

CLEARING, GRADING AND T.E.S.C. NOTES (C.O.R.)

1. ALL WORK AND MATERIALS TO BE PER CITY OF REDMOND STANDARDS.
2. KEEP OFF-SITE STREETS CLEAN AT ALL TIMES. FLUSHING STREETS SHALL NOT BE ALLOWED. ALL STREETS SHOULD BE SWEPT.
3. ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY CITY INSPECTOR.
4. WHEN WORK IS STOPPED/COMPLETED IN AN AREA, THE CITY INSPECTOR MAY REQUIRE POSTCONSTRUCTION EROSION CONTROL INCLUDING SEEDING OR OTHER MEASURES.
5. LOCATIONS SHOWN OF EXISTING UTILITIES ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE CORRECT LOCATIONS TO AVOID DAMAGE OR DISTURBANCE.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN STREET USE AND OTHER RELATED PERMITS PRIOR TO ANY CONSTRUCTION.
7. ALL GROUND COVER IS TO REMAIN UNDISTURBED OUTSIDE OF CLEARING AREAS.
8. THE TEMPORARY EROSION/SEDIMENT CONTROLS SHALL BE INSTALLED, INSPECTED, AND OPERATING BEFORE ANY GRADING OR EXTENSIVE LAND CLEARING. THESE CONTROLS MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING ARE COMPLETE.
9. TIE IMPERVIOUS SURFACES (ROOF, STREETS, DRIVEWAYS, ETC.) TO COMPLETED DRAINAGE SYSTEM AS SOON AS POSSIBLE.
10. A PRE-CONSTRUCTION MEETING WITH THE CONSTRUCTION DIVISION AND ALL PERMITS MUST BE COMPLETED BEFORE START OF CONSTRUCTION.
11. CLEARING LIMITS SHALL BE LOCATED BY A LICENSED CIVIL ENGINEER OR LAND SURVEYOR.
12. APPROVAL OF THIS TEMPORARY EROSION/SEDIMENTATION CONTROL (TESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN.
13. THIS APPROVAL FOR TESC IS VALID FOR CONSTRUCTION BETWEEN MAY 1 AND SEPTEMBER 30. THIS APPROVAL FOR TESC IS NOT VALID FOR THE RAINY SEASON (OCTOBER 1 THROUGH APRIL 30).
14. REMOVE ALL TESC MEASURES ONCE ALL WORK IS COMPLETED AND SITE IS PERMANENTLY STABILIZED.

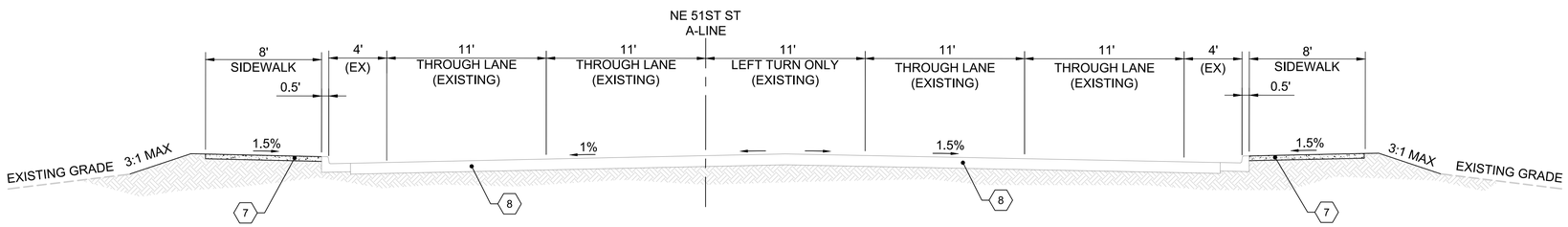
CONSTRUCTION SEQUENCE:

1. HOLD A PRE-CONSTRUCTION MEETING WITH THE CITY OF REDMOND AND OBTAIN REMAINING REQUIRED PERMITS.
2. ESTABLISH LIMITS OF CONSTRUCTION ACTIVITY AND INSTALL FILTER FABRIC OR HIGH-VISIBILITY FENCING.
3. INSTALL INLET PROTECTION ON EXISTING CATCH BASIN STRUCTURES.
4. CLEAR, GRUB, AND DISPOSE OF EXISTING LANDSCAPING.
5. LOCATE FIBER OPTIC COMMUNICATION FACILITIES AND INSTALL UTILITY PROTECTION MEASURES. POTHOLE PROPOSED LIGHTING AND SIGNAL FOUNDATION LOCATIONS AND CONFIRM THAT THEY ARE FREE OF CONFLICTING UTILITIES PRIOR TO ORDERING MATERIALS.
6. ROUGH GRADE THE SITE.
7. INSTALL UTILITIES, UNDERDRAINS, STORM DRAINAGE SYSTEM, SIDEWALK, CURBS AND GUTTERS. COORDINATE WITH FRANCHISE UTILITIES FOR OWNER-PERFORMED WORK.
8. SAWCUT, REMOVE, AND DISPOSE OF EXISTING PAVEMENT, CURB, GUTTER, AND SIDEWALK.
9. REMOVE WALLS, PADS, TRENCH DRAINS, SIGNS, PUSH BUTTONS, LIGHTS, AND OTHER STRUCTURES AND OBSTRUCTIONS AS INDICATED. SAFELY STORE ITEMS TO BE REINSTALLED, AND DISPOSE OF REMAINDER.
10. IF CLEARING AND PAVING ACTIVITIES ARE MORE THAN 14 DAYS APART, STABILIZE SITE BY HYDROSEEDING OR OTHERWISE COVERING EXPOSED SOILS.
11. INSTALL INLET PROTECTION ON ALL NEW STORM DRAINAGE STRUCTURES.
12. GRIND AND PAVE SECTION.
13. ADJUST EXISTING UTILITIES TO FINISH GRADE PER THE REQUIREMENTS OF THE CITY OF REDMOND AND THE OWNER OF THE AFFECTED UTILITY.
14. COMPLETE GRADING AND THOROUGHLY CLEAN EXISTING STORM SYSTEM.
15. UPON COMPLETION OF PAVING, INSTALL PAVEMENT MARKINGS, SIGNAGE, AND RESTORE LANDSCAPE AREAS.
16. REMOVE TEMPORARY EROSION CONTROL MEASURES UPON STABILIZATION OF ENTIRE PROJECT SITE, AS APPROVED BY CITY OF REDMOND INSPECTOR.



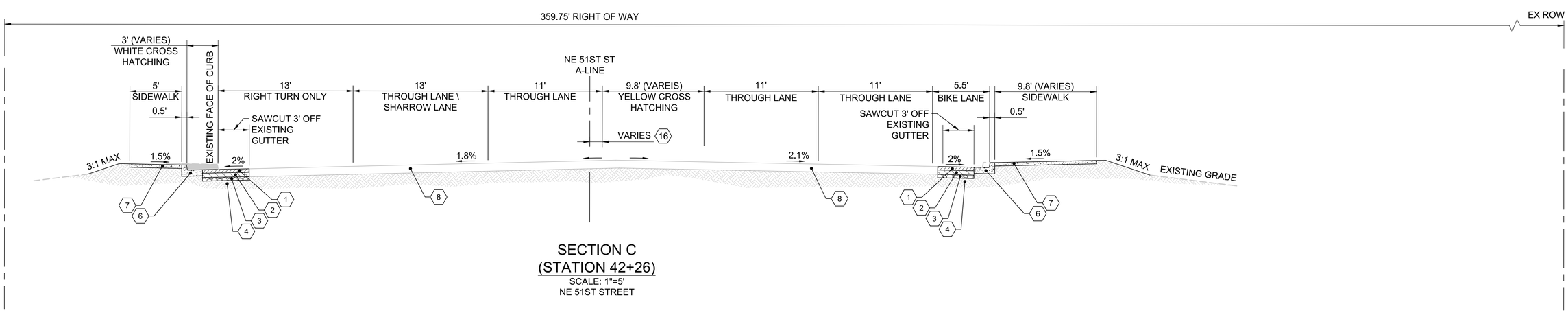
SECTION A
(STATION 35+20)

SCALE: 1"=5'
NE 51ST STREET



SECTION B
(STATION 36+50)

SCALE: 1"=5'
NE 51ST STREET



SECTION C
(STATION 42+26)

SCALE: 1"=5'
NE 51ST STREET

LEGEND

1. 4" OF 1/2" HMA PG 64-22.
2. 5" OF 1" HMA PG 64-22.
3. 4" OF 1-1/4" MINUS CRUSHED SURFACING BASE COURSE PER WSDOT STD. SPEC 9-03.9(3) PAVEMENT SECTION.
4. COMPACT SUBGRADE TO 95% COMPACTION.
5. TYPE A CURB AND GUTTER PER COR STD. DWG 304.
6. TYPE A-1 CURB AND GUTTER PER COR STD. DWG 304.
7. 4" OF CLASS 3000 CONCRETE PER COR STD. DWG 303.
8. EXISTING PAVEMENT TO REMAIN.
9. 6" CURB INTEGRAL TO MONOLITHIC ISLAND.
10. GRAVEL BORROW.
11. DUAL FACE PRECAST MOUNTABLE CURB.
12. RPM LANE EDGE.
13. 2" PLANING BITUMINOUS PAVEMENT AND OVERLAY WITH 2" OF 1/2" HMA PG 64-22 PER COR STD. DWG 302.
14. NOT USED
15. 6" MONOLITHIC ISLAND CLASS 3000 CONCRETE PER SECTION A-A, DWG 51-RD-15.
16. SEE TABLE 1 DWG 51-RD-15 FOR OFFSETS FROM A-LINE TO YELLOW LANE LINE.
17. F31 BUS SHELTER PAD. SEE DWG 51-RD-30.
18. F21 BUS SHELTER PAD. SEE DWG 51-RD-31.
19. INSTALL OIL / WATER SEPARATOR. SEE DWG 51-UT-10.

IFB PLANS

No.	DATE	BY	CHD	REVISION

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RAYMOND ERIK BERNTSEN, STATE OF WASHINGTON, 46811, REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-TX-01.DWG

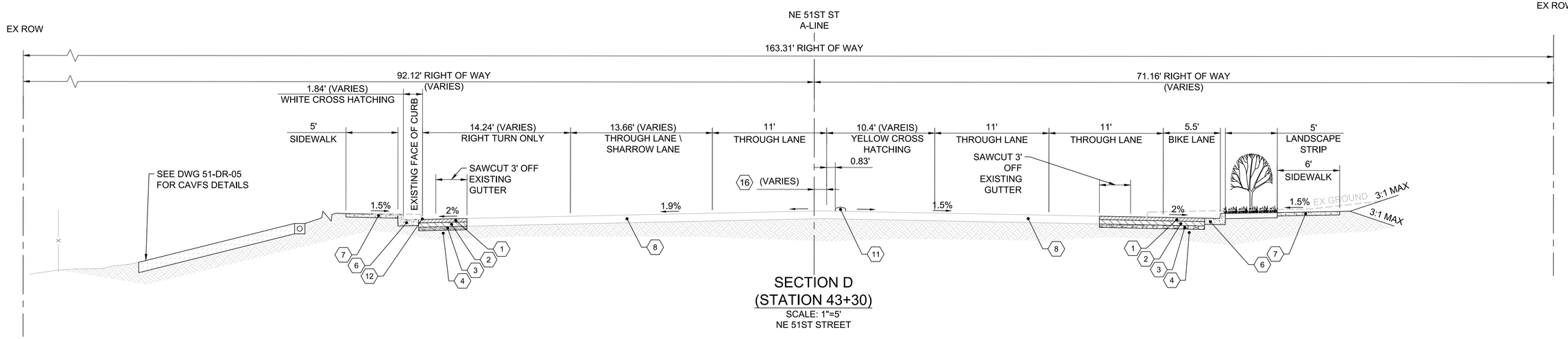
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
SECTIONS

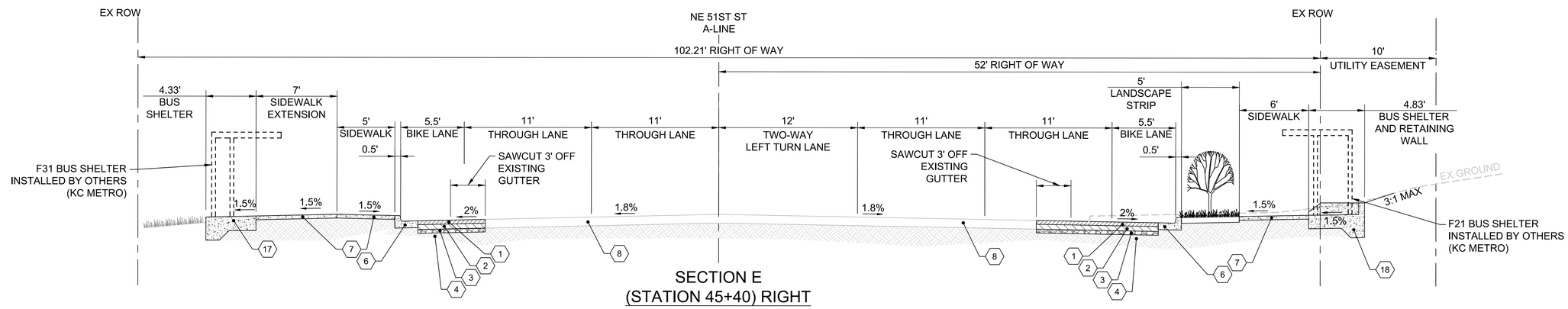
DRAWING No.: 51-TX-01

SHEET No.: 18 OF 80

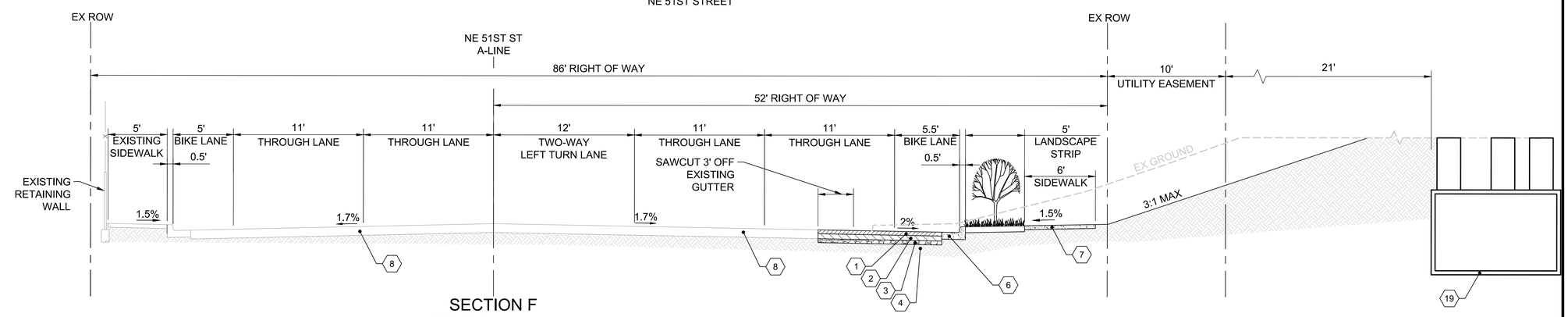
05/08/19 | 2:44 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-TX-01.DWG



SECTION D
(STATION 43+30)
SCALE: 1"=5'
NE 51ST STREET



SECTION E
(STATION 45+40) RIGHT
(STATION 45+65) LEFT
SCALE: 1"=5'
NE 51ST STREET



SECTION F
(STATION 49+50)
SCALE: 1"=5'
NE 51ST STREET

LEGEND

1. 4" OF 1/2" HMA PG 64-22.
2. 5" OF 1" HMA PG 64-22.
3. 4" OF 1-1/4" MINUS CRUSHED SURFACING BASE COURSE PER WSDOT STD. SPEC 9-03.9(3) PAVEMENT SECTION.
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IFB PLANS

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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 40917 REGISTERED PROFESSIONAL ENGINEER
05/08/19

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-TX-02.DWG

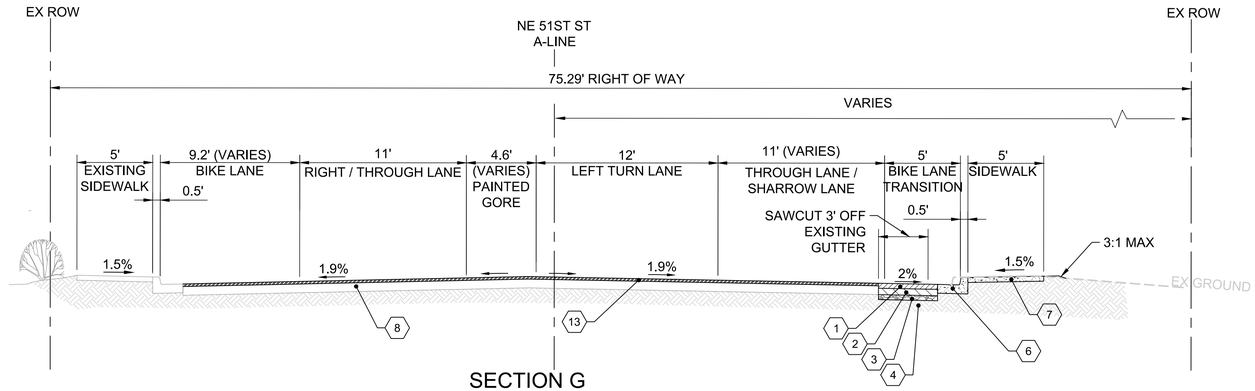
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
SECTIONS

DRAWING No.: **51-TX-02**

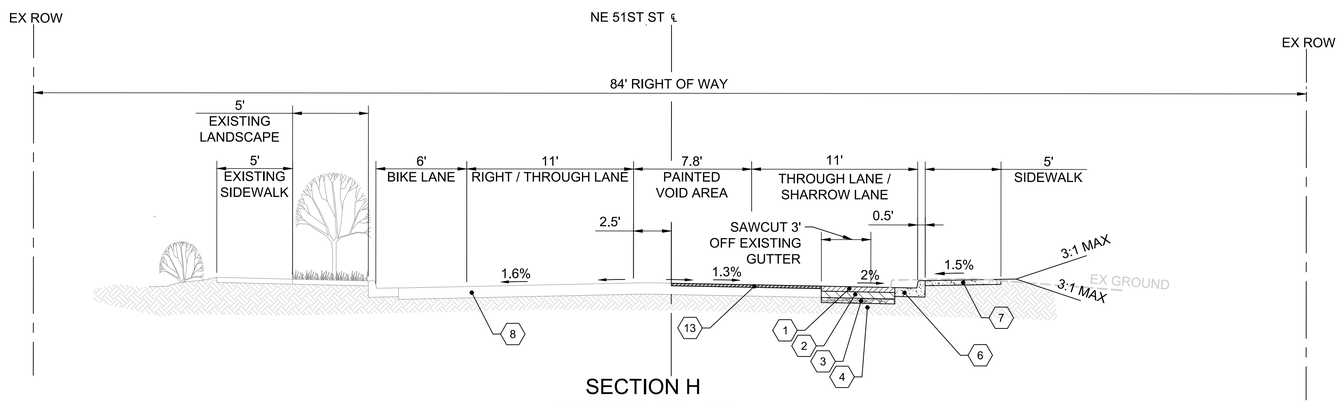
SHEET No.: 19 OF 80

05/08/19 | 2:44 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-TX-02.DWG



SECTION G
(STATION 101+40)

SCALE: 1"=5'
NE 51ST STREET



SECTION H
(STATION 102+59)

SCALE: 1"=5'
NE 51ST STREET

LEGEND

1. 4" OF 1/2" HMA PG 64-22.
2. 5" OF 1" HMA PG 64-22.
3. 4" OF 1-1/4" MINUS CRUSHED SURFACING BASE COURSE PER WSDOT STD. SPEC 9-03.9(3) PAVEMENT SECTION.
4. COMPACT SUBGRADE TO 95% COMPACTION.
5. TYPE A CURB AND GUTTER PER COR STD. DWG 304.
6. TYPE A-1 CURB AND GUTTER PER COR STD. DWG 304.
7. 4" OF CLASS 3000 CONCRETE PER COR STD. DWG 303.
8. EXISTING PAVEMENT TO REMAIN.
9. 6" CURB INTEGRAL TO MONOLITHIC ISLAND.
10. GRAVEL BORROW.
11. DUAL FACE PRECAST MOUNTABLE CURB.
12. RPM LANE EDGE.
13. 2" PLANING BITUMINOUS PAVEMENT AND OVERLAY WITH 2" OF 1/2" HMA PG 64-22 PER COR STD. DWG 302.
14. NOT USED
15. 6" MONOLITHIC ISLAND CLASS 3000 CONCRETE PER SECTION A-A, DWG 51-RD-15.
16. SEE TABLE 1 DWG 51-RD-15 FOR OFFSETS FROM A-LINE TO YELLOW LANE LINE.
17. F31 BUS SHELTER PAD. SEE DWG 51-RD-30.
18. F21 BUS SHELTER PAD. SEE DWG 51-RD-31.
19. INSTALL OIL / WATER SEPARATOR. SEE DWG 51-UT-10.

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46917
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-TX-03.DWG

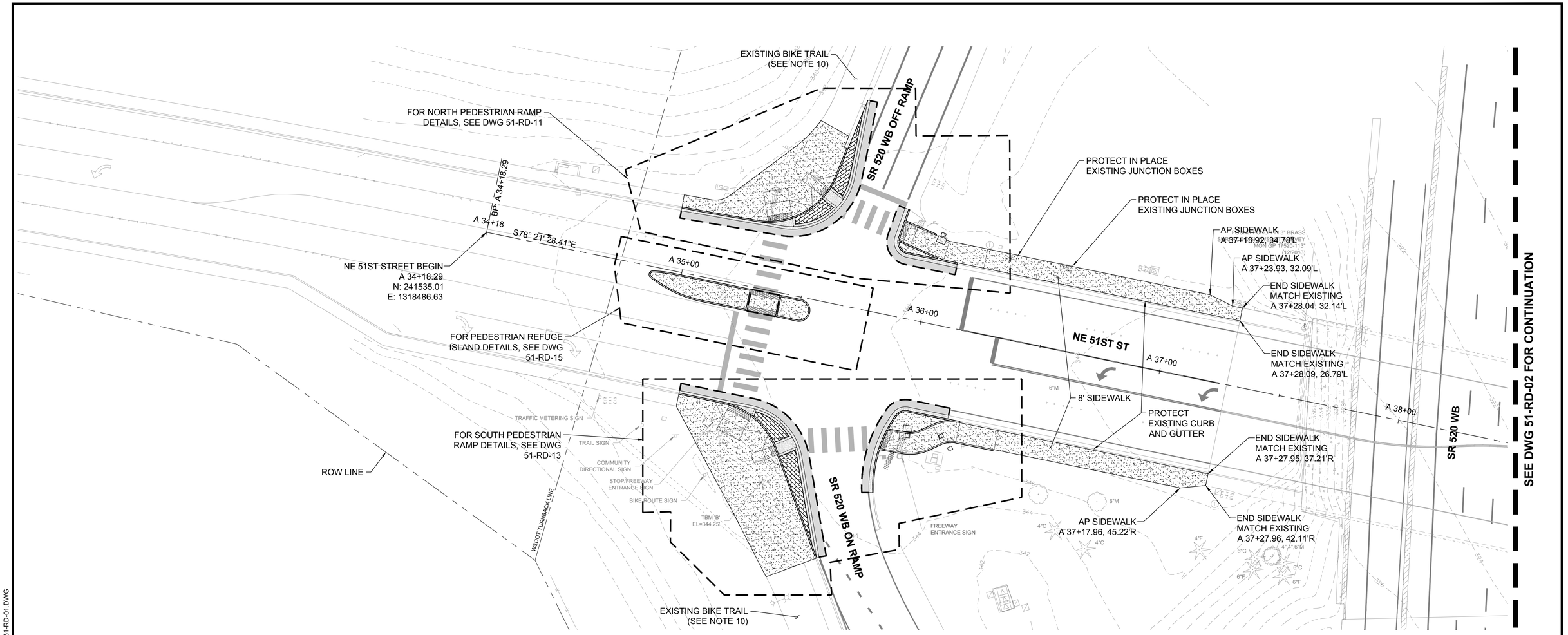
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
SECTIONS

DRAWING No.: **51-TX-03**

SHEET No.: 20 OF 80

05/08/19 | 2:44 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-TX-03.DWG



SEE DWG 51-RD-02 FOR CONTINUATION

NOTES

1. CURB RAMP AND CURB RETURN SPOT ELEVATIONS, RADII, PROFILES, AND STATIONING ARE PROVIDED ON DWGS 51-RD-11 THROUGH 51-RD-15
2. PROPOSED CURB TO FOLLOW THE SLOPE OF ADJACENT EXISTING PAVEMENT UNLESS OTHERWISE INDICATED.
3. CONTRACTOR TO ENSURE THAT NO LOW SPOTS ARE CREATED ALONG NEW CURB & ASPHALT SO THAT POSITIVE DRAINAGE TOWARDS A CATCH BASIN IS MAINTAINED.
4. ALL SIDEWALKS TO HAVE A MAXIMUM 1.5% CROSS SLOPE AND SHALL COMPLY WITH ALL DEPARTMENT OF JUSTICE ADA ACCESSIBILITY DESIGN GUIDELINES.
5. REMOVE SIDEWALK TO NEAREST PANEL JOINT AND MATCH EXISTING SIDEWALK AS SHOWN ON PLANS. EXISTING SIDEWALK MAY NEED TO BE REPLACED BEYOND CONSTRUCTION LIMITS SHOWN IN ORDER TO MEET ADA MAXIMUM SLOPE REQUIREMENTS.
6. PROVIDE 5' CLEAR FROM BACK OF SIDEWALK TO SIGNAL POLE BASE PLATE. (ALL LOCATIONS)
7. MAINTAIN ALL TRAFFIC CONTROL SIGNAGE IN CONSTRUCTION AREAS.
8. ADJUST EXISTING UTILITIES TO FINISH GRADE PER THE REQUIREMENTS OF THE CITY OF REDMOND AND THE OWNER OF THE AFFECTED UTILITY.
9. SEAL JOINTS PER WSDOT STD. SPEC. 9-04.2(1)
10. A PEDESTRIAN, BICYCLE, AND VEHICLE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY OF REDMOND PRIOR TO BEGINNING ANY WORK.
11. SEE DWGS 51-MK-01 THROUGH 51-MK-02 FOR CHANNELIZATION DESIGN.
12. REMOVE AND REINSTALL (3) MAILBOXES PER USPS POSTMASTER DIRECTION. CONTACT POSTMASTER SIMRATPAL SINGH AT SIMRATPAL.SINGH@USPS.GOV PRIOR TO CUTTING OFF ACCESS TO EXISTING MAILBOXES.

LEGEND

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED EASEMENT LINE
- SAWCUT LINE
- ALIGNMENT CENTERLINE
- CURB AND GUTTER PER COR STD DWG 304
- ASPHALT PAVEMENT PER COR STD DWG 301
- CONCRETE SIDEWALK PER COR STD DWG 303
- DETECTABLE WARNING SURFACE
- 4" PATTERNED RED PORTLAND CEMENT CONCRETE
- 2" PAVEMENT OVERLAY

N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

IFB PLANS

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HUITT-ZOLLARS Seattle
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Seattle, Washington, 98101
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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON REGISTERED 46917 PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-01.DWG

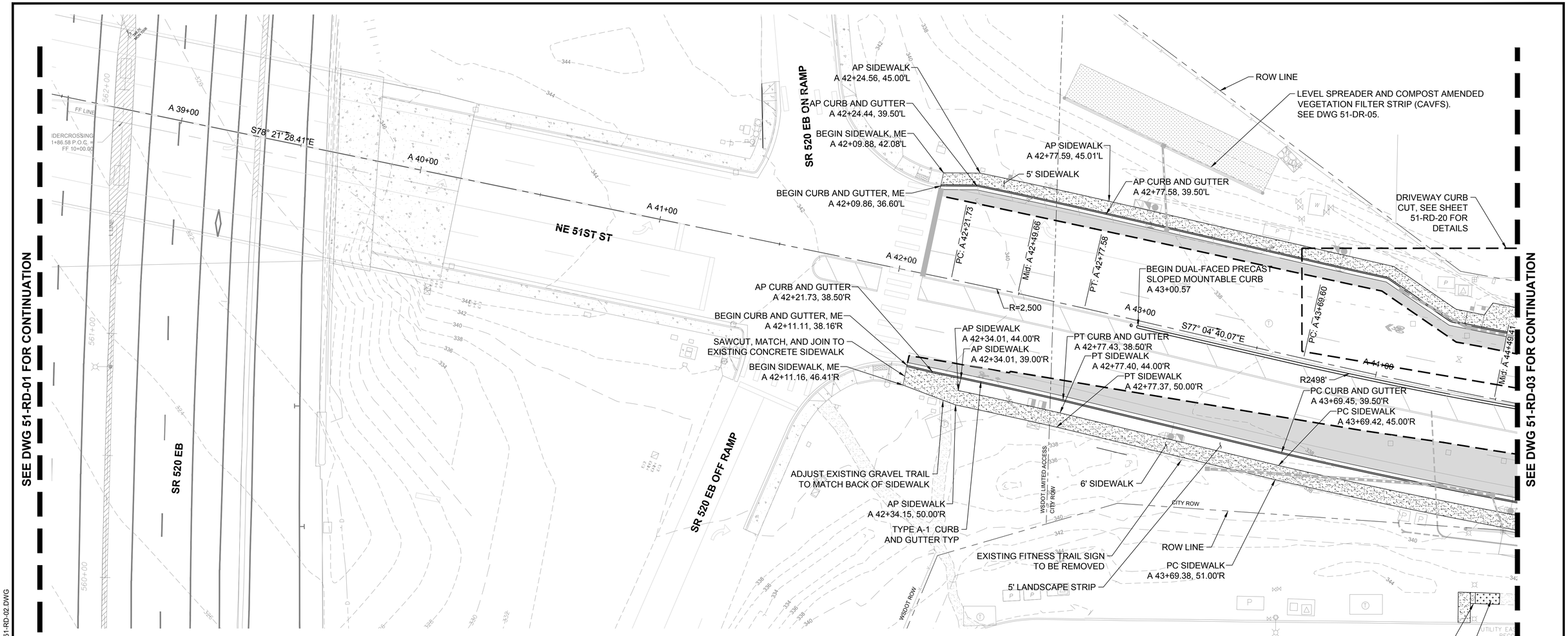
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY AND
HORIZONTAL CONTROL
PLAN

DRAWING No.: 51-RD-01

SHEET No.: 21 OF 80

04/30/19 | 7:19 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-01.DWG



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LEGEND

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED EASEMENT LINE
- SAWCUT LINE
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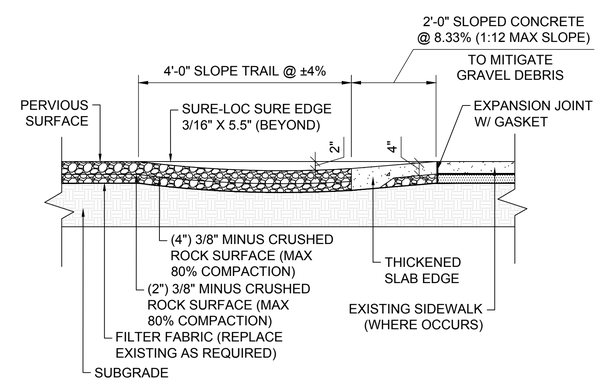
- CURB AND GUTTER PER COR STD DWG 304
- ASPHALT PAVEMENT PER COR STD DWG 301
- CONCRETE SIDEWALK PER COR STD DWG 303
- DETECTABLE WARNING SURFACE
- 4" PATTERNED RED PORTLAND CEMENT CONCRETE
- 2" PAVEMENT OVERLAY



FITNESS TRAIL CONCRETE TRANSITION DETAIL (1)

NTS

0 10 20 40

SCALE IN FEET

Know what's **below.** **Call** before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN, STATE OF WASHINGTON, 46911, REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-02.DWG

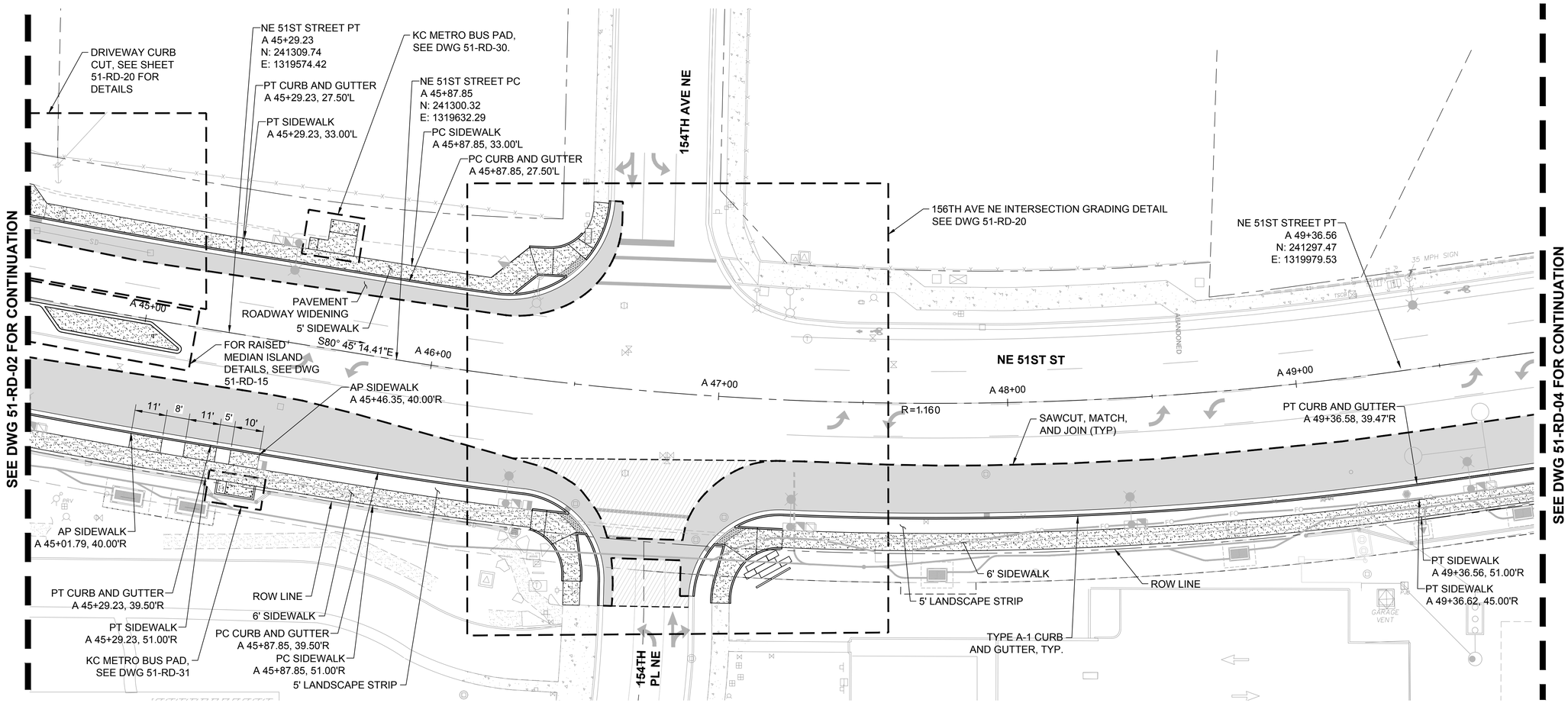
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY AND HORIZONTAL CONTROL PLAN

DRAWING No.: **51-RD-02**

SHEET No.: 22 OF 80

04/30/19 | 7:20 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-02.DWG



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10. A PEDESTRIAN, BICYCLE, AND VEHICLE TRAFFIC CONTROL PLAN SHALL BE APPROVED BY THE CITY OF REDMOND PRIOR TO BEGINNING ANY WORK.
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LEGEND

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- ALIGNMENT CENTERLINE
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- DETECTABLE WARNING SURFACE
- 4" PATTERNED RED PORTLAND CEMENT CONCRETE
- 2" PAVEMENT OVERLAY

N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
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818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46947 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-03.DWG

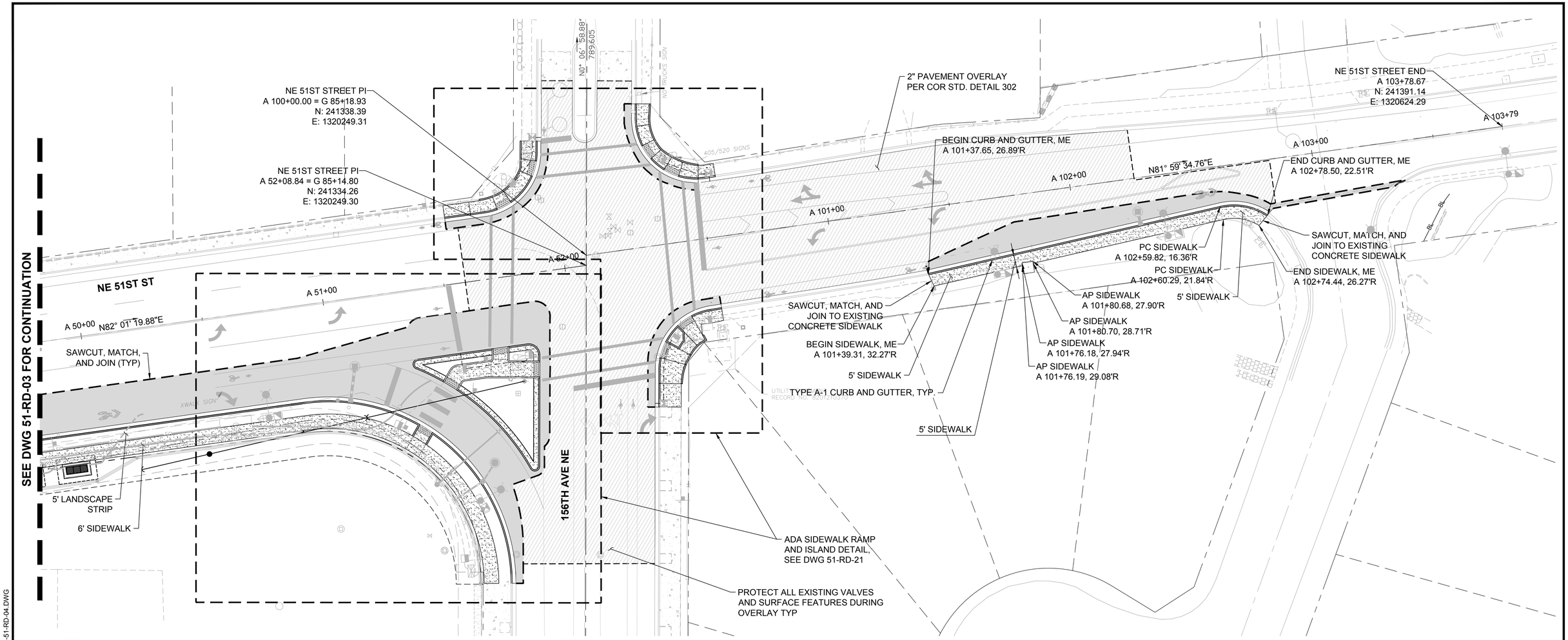
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY AND HORIZONTAL CONTROL PLAN

DRAWING No.: 51-RD-03

SHEET No.: 23 OF 80

04/30/19 | 7:21 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-03.DWG



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LEGEND

- EXISTING RIGHT-OF-WAY LINE
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED EASEMENT LINE
- SAWCUT LINE
- ALIGNMENT CENTERLINE
- CURB AND GUTTER PER COR STD DWG 304
- ASPHALT PAVEMENT PER COR STD DWG 301
- CONCRETE SIDEWALK PER COR STD DWG 303
- DETECTABLE WARNING SURFACE
- 4" PATTERNED RED PORTLAND CEMENT CONCRETE
- 2" PAVEMENT OVERLAY

N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
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REDMOND, WA 98073-9710
PH. (425) 556-2701

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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 40897 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-04.DWG

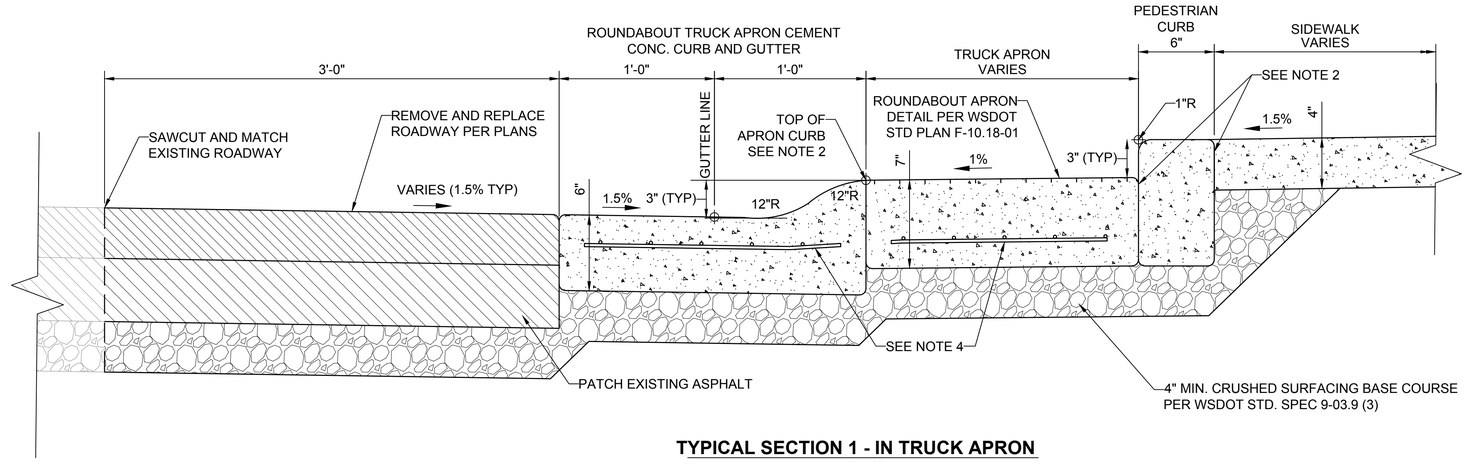
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY AND HORIZONTAL CONTROL PLAN

DRAWING No.: 51-RD-04

SHEET No.: 24 OF 80

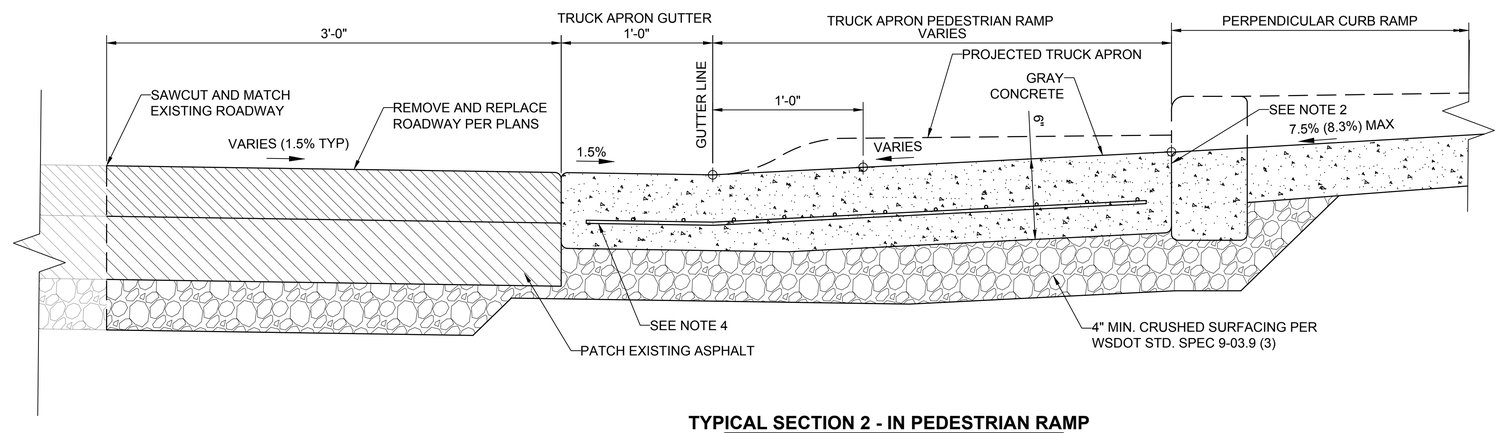
05/08/19 | 2:44 PM | J. ARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-04.DWG



TYPICAL SECTION 1 - IN TRUCK APRON
1" = 6"

TRUCK APRON PAVEMENT NOTES

1. ALL SLOPE AND VERTICAL ELEVATIONS SHOWN REPRESENT IDEALIZED DIMENSIONS. SEE 51-RD-11 THROUGH 51-RD-15 FOR DESIGN SPOT GRADES.
2. 3/8 INCH FULL DEPTH JOINT.
3. SEE 51-RD-12 AND 51-RD-14 FOR PROFILES (OR PROJECTED PROFILES) OF FEATURES INDICATED BY ⌖ .
4. TRUCK APRONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 5-05 AND 8-06 OF THE STANDARD SPECIFICATIONS. WIRE MESH SHALL BE 4 INCH X 4 INCH, NUMBER 4 GAUGE PER SECTION 9-07 OF THE STANDARD SPECIFICATIONS (AASHTO M55). MESH SHALL BE INSTALLED WITH 2 INCH MINIMUM CLEARANCE FROM ALL EDGES.
5. THE CONCRETE MIX FOR TRUCK APRONS SHALL BE AIR ENTRAINED CONCRETE CLASS 4000 IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 6-02 OF THE WSDOT STANDARD SPECIFICATIONS. THE CONCRETE FINISH REQUIREMENTS INCLUDE:
   A. JOINTS SHALL BE TOOLED WITH 1/4 INCH RADIUS EDGER.
   B. TRUCK APRON EDGES TOOLED WITH A 1/2 INCH RADIUS EDGER.
   C. AFTER TRUCK APRON PEDESTRIAN RAMPS ARE GIVEN LONGITUDINAL (TRANSVERSE TO PEDESTRIAN PATH) BRUSH FINISH, THE EDGES AND JOINTS SHALL BE LIGHTLY EDGED AGAIN WITH A 4 INCH EDGING TOOL TO GIVE A FINISHED APPEARANCE.
6. CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 8-04 OF THE WSDOT STANDARD SPECIFICATIONS.
7. AFTER THE CONCRETE HAS SET SUFFICIENTLY, THE ROADWAY FACE OF THE CURB FORMS SHALL BE REMOVED, THE TOP AND FACE OF THE CURB SHALL RECEIVE A LIGHT BRUSH FINISH, AND THE TOP OF THE GUTTER SHALL RECEIVE A BROOM FINISH.



TYPICAL SECTION 2 - IN PEDESTRIAN RAMP
1" = 6"

Know what's **below.**
Call before you dig.

04/30/19 | 7:21 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-10.DWG

IFB PLANS

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RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46911
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-10.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
TYPICAL TRUCK APRON
DETAILS

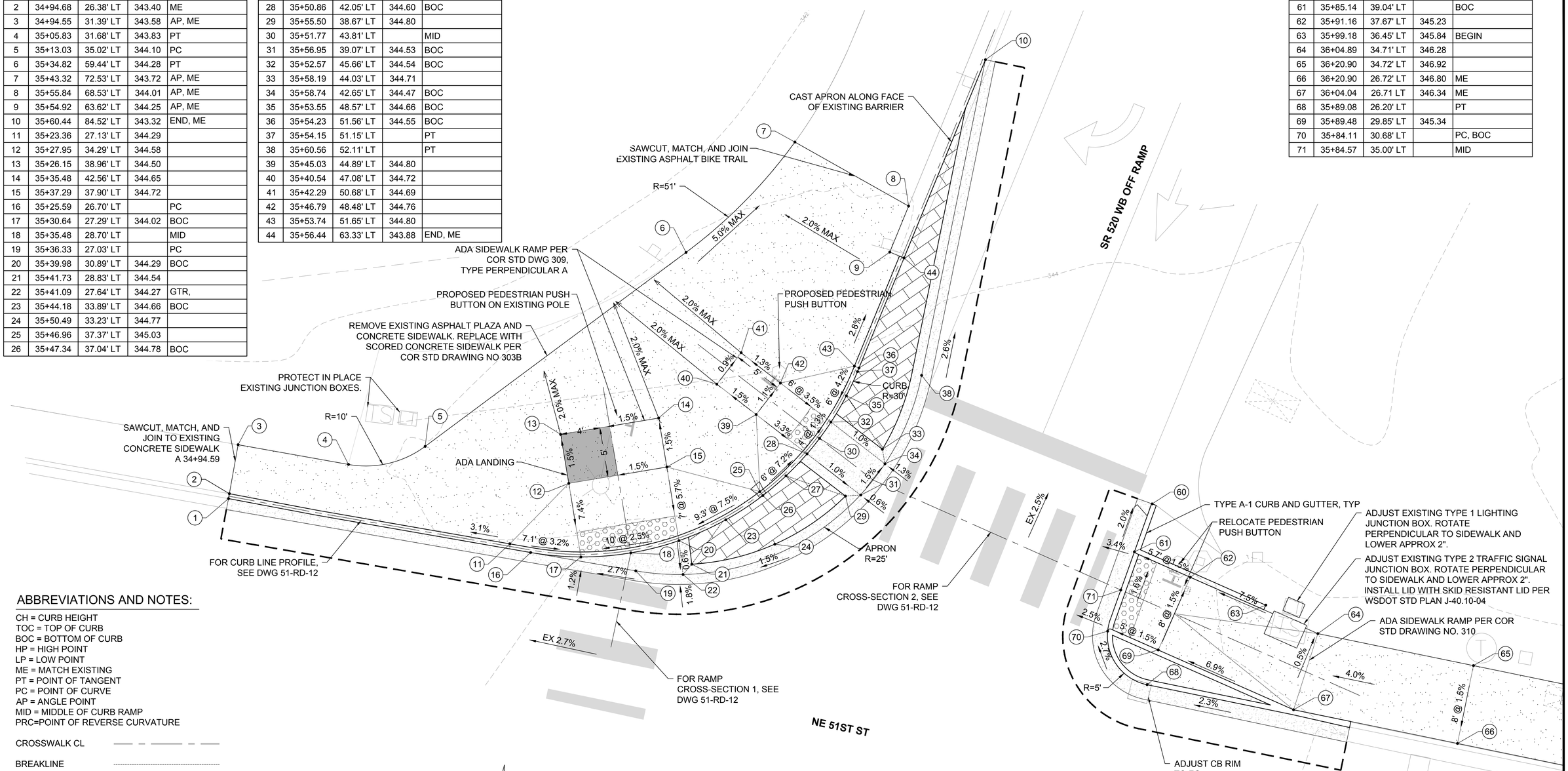
DRAWING No.: **51-RD-10**

SHEET No.: 25 OF 80

#	STATION	OFFSET	ELEV.	DESC.
1	34+94.69	25.88' LT	342.90	BEGIN, BOC, ME
2	34+94.68	26.38' LT	343.40	ME
3	34+94.55	31.39' LT	343.58	AP, ME
4	35+05.83	31.68' LT	343.83	PT
5	35+13.03	35.02' LT	344.10	PC
6	35+34.82	59.44' LT	344.28	PT
7	35+43.32	72.53' LT	343.72	AP, ME
8	35+55.84	68.53' LT	344.01	AP, ME
9	35+54.92	63.62' LT	344.25	AP, ME
10	35+60.44	84.52' LT	343.32	END, ME
11	35+23.36	27.13' LT	344.29	
12	35+27.95	34.29' LT	344.58	
13	35+26.15	38.96' LT	344.50	
14	35+35.48	42.56' LT	344.65	
15	35+37.29	37.90' LT	344.72	
16	35+25.59	26.70' LT		PC
17	35+30.64	27.29' LT	344.02	BOC
18	35+35.48	28.70' LT		MID
19	35+36.33	27.03' LT		PC
20	35+39.98	30.89' LT	344.29	BOC
21	35+41.73	28.83' LT	344.54	
22	35+41.09	27.64' LT	344.27	GTR,
23	35+44.18	33.89' LT	344.66	BOC
24	35+50.49	33.23' LT	344.77	
25	35+46.96	37.37' LT	345.03	
26	35+47.34	37.04' LT	344.78	BOC

#	STATION	OFFSET	ELEV.	DESC.
27	35+49.23	39.45' LT	344.82	BOC
28	35+50.86	42.05' LT	344.60	BOC
29	35+55.50	38.67' LT	344.80	
30	35+51.77	43.81' LT		MID
31	35+56.95	39.07' LT	344.53	BOC
32	35+52.57	45.66' LT	344.54	BOC
33	35+58.19	44.03' LT	344.71	
34	35+58.74	42.65' LT	344.47	BOC
35	35+53.55	48.57' LT	344.66	BOC
36	35+54.23	51.56' LT	344.55	BOC
37	35+54.15	51.15' LT		PT
38	35+60.56	52.11' LT		PT
39	35+45.03	44.89' LT	344.80	
40	35+40.54	47.08' LT	344.72	
41	35+42.29	50.68' LT	344.69	
42	35+46.79	48.48' LT	344.76	
43	35+53.74	51.65' LT	344.80	
44	35+56.44	63.33' LT	343.88	END, ME

#	STATION	OFFSET	ELEV.	DESC.
60	35+85.91	44.14' LT	345.35	BEGIN, ME
61	35+85.14	39.04' LT		BOC
62	35+91.16	37.67' LT	345.23	
63	35+99.18	36.45' LT	345.84	BEGIN
64	36+04.89	34.71' LT	346.28	
65	36+20.90	34.72' LT	346.92	
66	36+20.90	26.72' LT	346.80	ME
67	36+04.04	26.71 LT	346.34	ME
68	35+89.08	26.20' LT		PT
69	35+89.48	29.85' LT	345.34	
70	35+84.11	30.68' LT		PC, BOC
71	35+84.57	35.00' LT		MID



ABBREVIATIONS AND NOTES:

CH = CURB HEIGHT
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HP = HIGH POINT
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PT = POINT OF TANGENT
PC = POINT OF CURVE
AP = ANGLE POINT
MID = MIDDLE OF CURB RAMP
PRC=POINT OF REVERSE CURVATURE

CROSSWALK CL

BREAKLINE

1. SEE DWG 51-RD-01 THROUGH 51-RD-04 FOR A-LINE DEFINITION.
2. SPOT ELEVATIONS ARE PROVIDED FOR GUIDANCE ONLY AND ARE ESTIMATED BASED ON EXISTING CONDITIONS PRIOR TO ASPHALT OVERLAY. CONTRACTOR SHALL ENSURE THAT SLOPES DO NOT EXCEED CITY OF REDMOND AND ADA REQUIREMENTS.
3. ALL SPOT ELEVATIONS AND SLOPES SHOWN AT BACK OF SIDEWALK ARE DESIGN INFORMATION FOR SIDEWALK GRADES.
4. SLOPE ARROWS INDICATE DOWNSLOPE POSITIVE GRADES.

N

0 2.5 5 10
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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HUITT-ZOLLARS Seattle
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-11.DWG

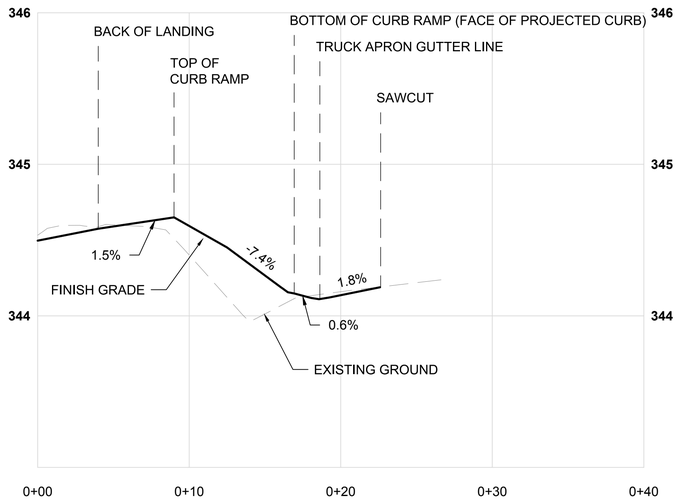
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
CURB RETURN
DETAIL PLAN

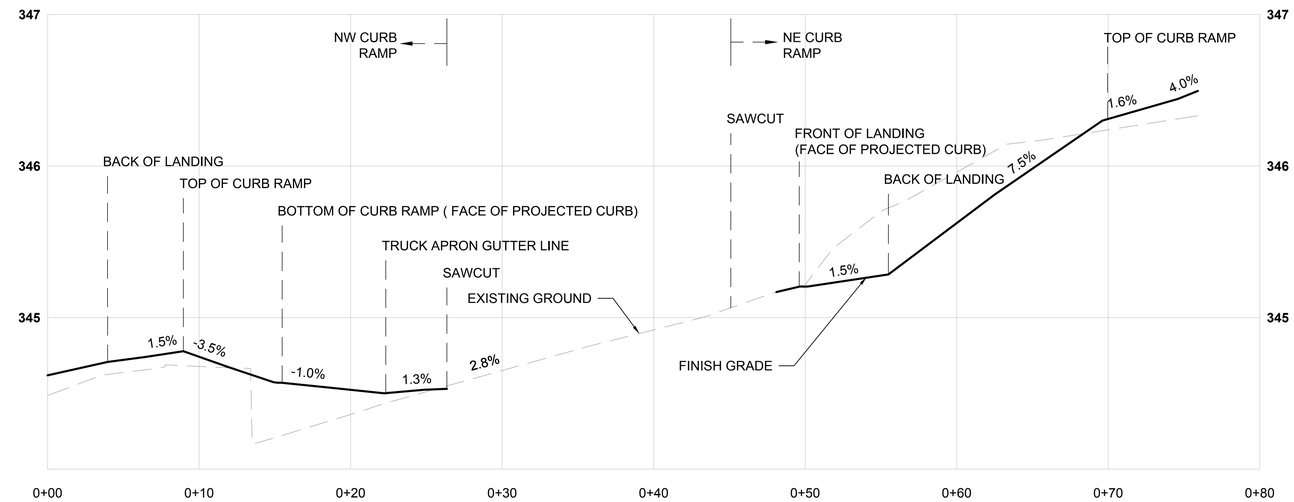
DRAWING No.: **51-RD-11**

SHEET No.: 26 OF 80

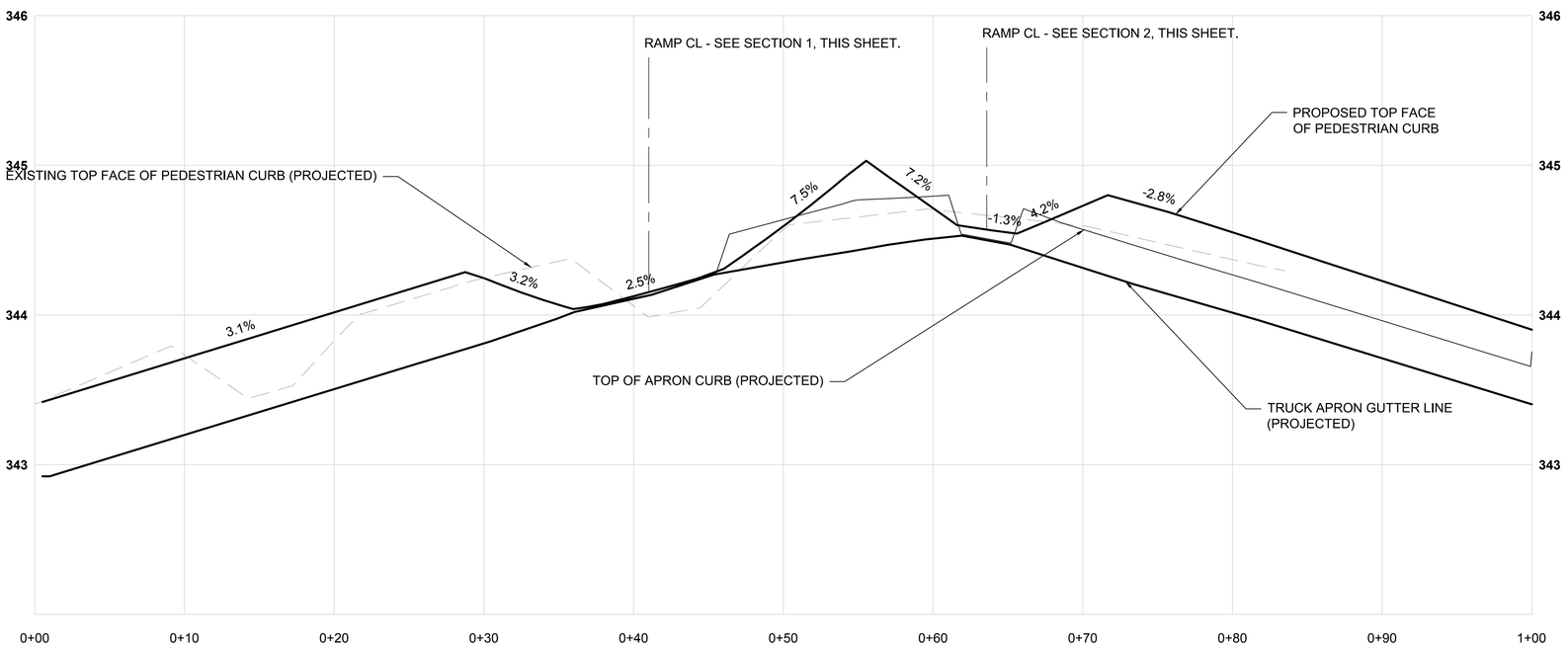
04/30/19 | 7:23 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-11.DWG



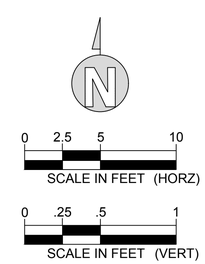
WB SR520 NW RAMP CROSS-SECTION 1



WB SR520 NW & NE RAMP CROSS-SECTION 2



WB SR520 NW CURB LINE PROFILE



IFB PLANS

No.	DATE	BY	CHD	REVISION

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15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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Seattle
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RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46947
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-12.DWG

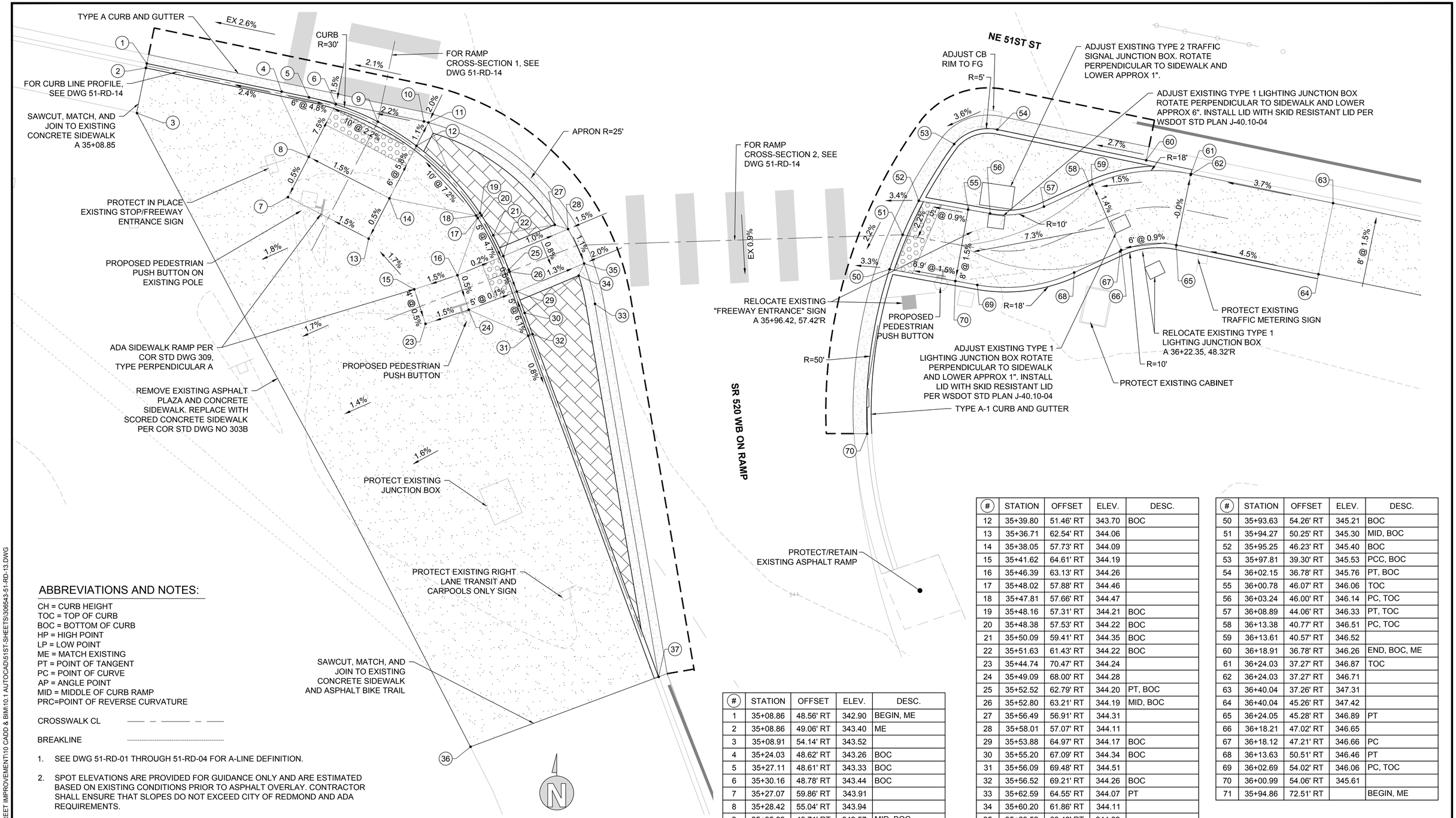
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
CURB RETURN PROFILE
AND RAMP CROSS-SECTIONS

DRAWING No.: **51-RD-12**

SHEET No.: 27 OF 80

04/30/19 | 7:24 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-12.DWG



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MID = MIDDLE OF CURB RAMP
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CROSSWALK CL

BREAKLINE

1. SEE DWG 51-RD-01 THROUGH 51-RD-04 FOR A-LINE DEFINITION.
2. SPOT ELEVATIONS ARE PROVIDED FOR GUIDANCE ONLY AND ARE ESTIMATED BASED ON EXISTING CONDITIONS PRIOR TO ASPHALT OVERLAY. CONTRACTOR SHALL ENSURE THAT SLOPES DO NOT EXCEED CITY OF REDMOND AND ADA REQUIREMENTS.
3. ALL SPOT ELEVATIONS AND SLOPES SHOWN AT BACK OF SIDEWALK ARE DESIGN INFORMATION FOR SIDEWALK GRADES.
4. SLOPE ARROWS INDICATE DOWNSLOPE POSITIVE GRADES.

#	STATION	OFFSET	ELEV.	DESC.
1	35+08.86	48.56' RT	342.90	BEGIN, ME
2	35+08.86	49.06' RT	343.40	ME
3	35+08.91	54.14' RT	343.52	
4	35+24.03	48.62' RT	343.26	BOC
5	35+27.11	48.61' RT	343.33	BOC
6	35+30.16	48.78' RT	343.44	BOC
7	35+27.07	59.86' RT	343.91	
8	35+28.42	55.04' RT	343.94	
9	35+35.09	49.71' RT	343.57	MID, BOC
10	35+40.05	48.64' RT	343.66	PC. BOC
11	35+40.57	48.67' RT	343.67	BOC

#	STATION	OFFSET	ELEV.	DESC.
12	35+39.80	51.46' RT	343.70	BOC
13	35+36.71	62.54' RT	344.06	
14	35+38.05	57.73' RT	344.09	
15	35+41.62	64.61' RT	344.19	
16	35+46.39	63.13' RT	344.26	
17	35+48.02	57.88' RT	344.46	
18	35+47.81	57.66' RT	344.47	
19	35+48.16	57.31' RT	344.21	BOC
20	35+48.38	57.53' RT	344.22	BOC
21	35+50.09	59.41' RT	344.35	BOC
22	35+51.63	61.43' RT	344.22	BOC
23	35+44.74	70.47' RT	344.24	
24	35+49.09	68.00' RT	344.28	
25	35+52.52	62.79' RT	344.20	PT, BOC
26	35+52.80	63.21' RT	344.19	MID, BOC
27	35+56.49	56.91' RT	344.31	
28	35+58.01	57.07' RT	344.11	
29	35+53.88	64.97' RT	344.17	BOC
30	35+55.20	67.09' RT	344.34	BOC
31	35+56.09	69.48' RT	344.51	
32	35+56.52	69.21' RT	344.26	BOC
33	35+62.59	64.55' RT	344.07	PT
34	35+60.20	61.86' RT	344.11	
35	35+60.52	60.43' RT	344.09	
36	35+59.00	115.16' RT	343.78	ME
37	35+77.75	103.42' RT	343.44	END, PT, ME

#	STATION	OFFSET	ELEV.	DESC.
50	35+93.63	54.26' RT	345.21	BOC
51	35+94.27	50.25' RT	345.30	MID, BOC
52	35+95.25	46.23' RT	345.40	BOC
53	35+97.81	39.30' RT	345.53	PCC, BOC
54	36+02.15	36.78' RT	345.76	PT, BOC
55	36+00.78	46.07' RT	346.06	TOC
56	36+03.24	46.00' RT	346.14	PC, TOC
57	36+08.89	44.06' RT	346.33	PT, TOC
58	36+13.38	40.77' RT	346.51	PC, TOC
59	36+13.61	40.57' RT	346.52	
60	36+18.91	36.78' RT	346.26	END, BOC, ME
61	36+24.03	37.27' RT	346.87	TOC
62	36+24.03	37.27' RT	346.71	
63	36+40.04	37.26' RT	347.31	
64	36+40.04	45.26' RT	347.42	
65	36+24.05	45.28' RT	346.89	PT
66	36+18.21	47.02' RT	346.65	
67	36+18.12	47.21' RT	346.66	PC
68	36+13.63	50.51' RT	346.46	PT
69	36+02.69	54.02' RT	346.06	PC, TOC
70	36+00.99	54.06' RT	345.61	
71	35+94.86	72.51' RT		BEGIN, ME

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
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REDMOND, WA 98073-9710
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-13.DWG

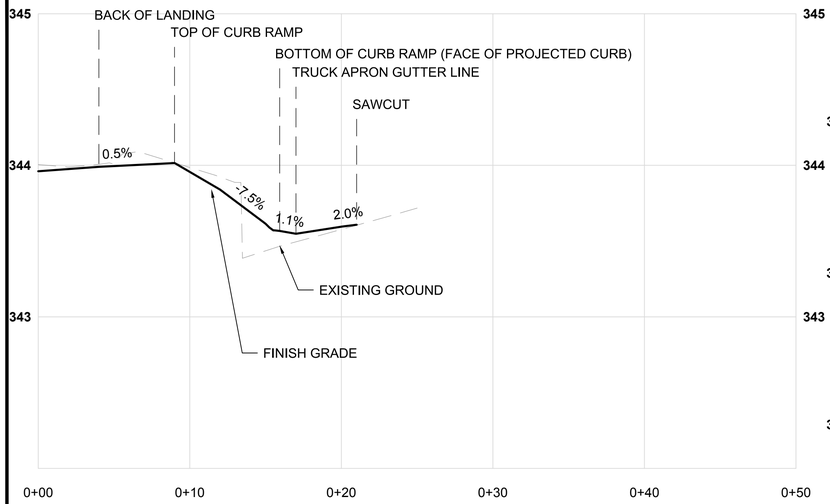
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
CURB RETURN
DETAIL PLAN

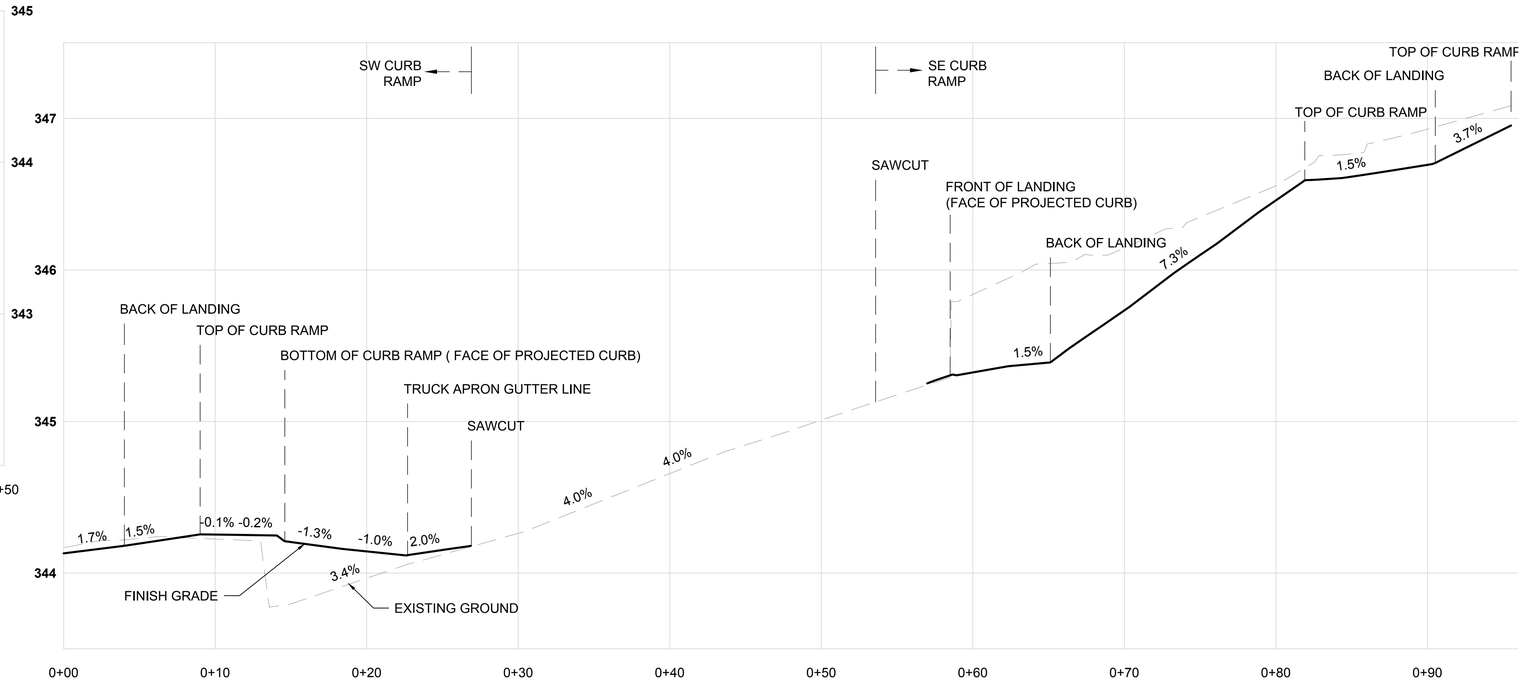
DRAWING No.: **51-RD-13**

SHEET No.: 28 OF 80

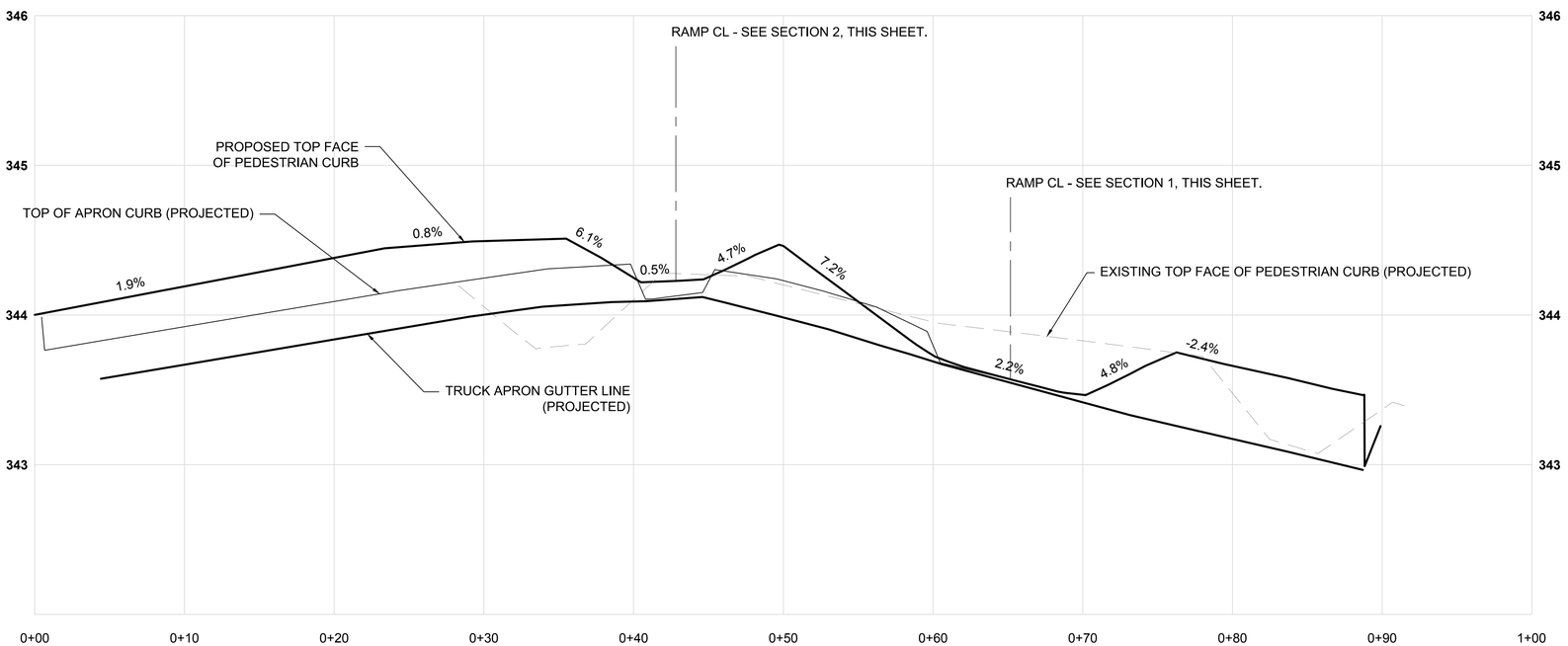
04/30/19 | 7:25 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-13.DWG



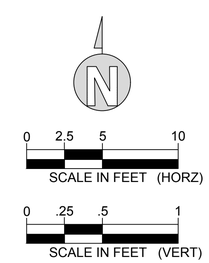
WB SR520 SW RAMP CROSS-SECTION 1



WB SR520 SW & SE RAMP CROSS-SECTION 2



WB SR520 SW CURB LINE PROFILE



IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46917
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-14.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
CURB RETURN PROFILE
AND RAMP CROSS-SECTIONS

DRAWING No.: **51-RD-14**

SHEET No.: 29 OF 80

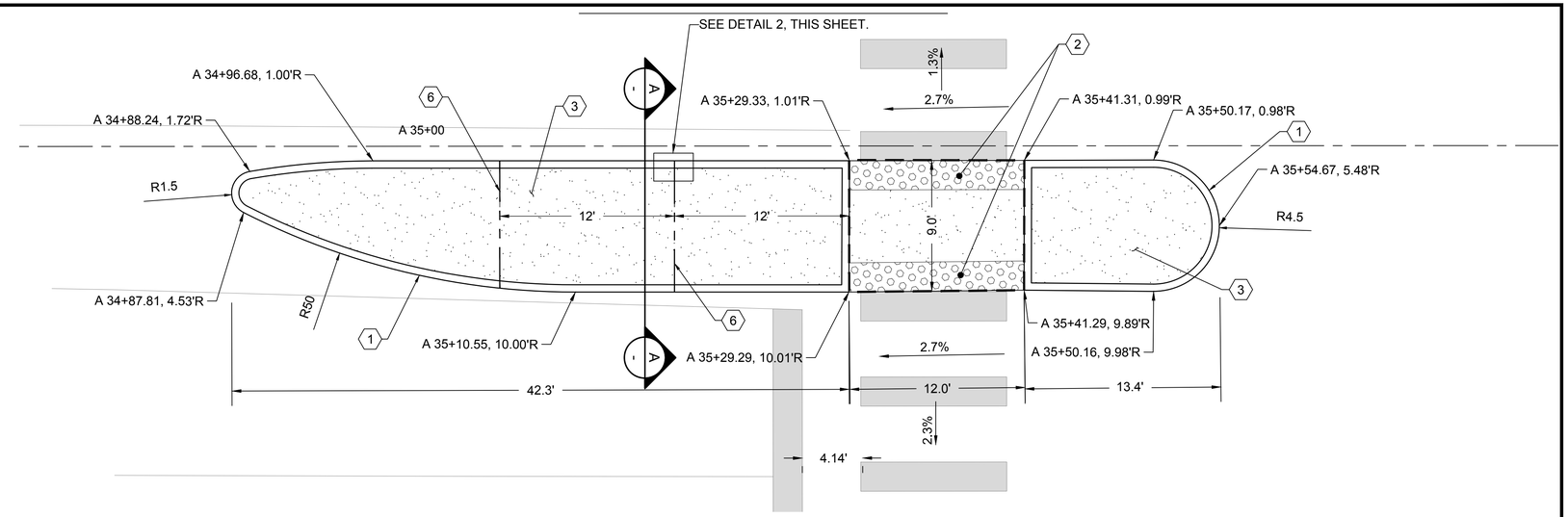
04/30/19 | 7:26 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-14.DWG

CONSTRUCTION NOTES

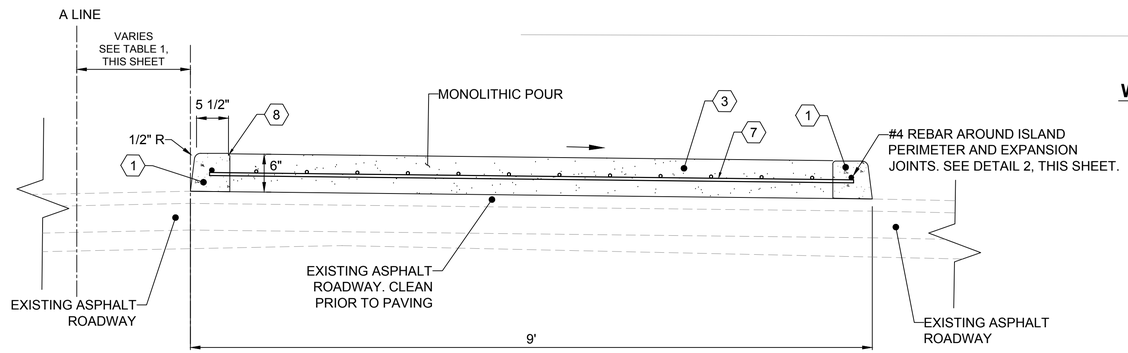
1. INSTALL 6" REINFORCED CURB. PAINT WITH 2 COATS OF YELLOW PAINT ON ISLAND CURB.
2. INSTALL DETECTABLE WARNING PATTERN PER WSDOT STD. PLAN F-45.10-02 AND DETAIL 1, THIS SHEET.
3. 6" SIDEWALK PER COR STD. DWG NO. 303. PREPARE BASE PER WSDOT STD. SPEC 8-07.3(1)
4. CRUSHED SURFACING BASE COURSE PER WSDOT STD. SPEC 9-03.9(3).
5. PRECAST SLOPED MOUNTABLE CURB PER WSDOT STD. PLAN F-10.62-02, PAINT WITH 2 COATS OF YELLOW PAINT.
6. 3/8" WIDE FULL DEPTH EXPANSION JOINT WITH JOINT FILLER PER WSDOT STD. PLAN F-30.10-03.
7. WIRE MESH SHALL BE 4 INCH X 4 INCH, NUMBER 4 GAUGE PER SECTION 9-07 OF THE STANDARD SPECIFICATIONS (AASHTO M55). MESH SHALL BE INSTALLED WITH 2 INCH MINIMUM CLEARANCE FROM ALL EDGES AND EXPANSION JOINTS.
8. 1/4" DEEP SCORED V-GROOVE.

TABLE 1

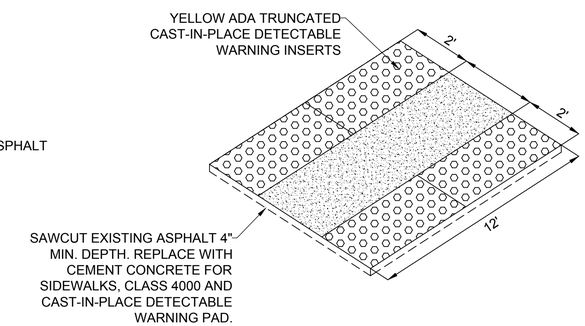
	STATION	OFFSET	DESCRIPTION
1	42+10.01	1.14' RT	BEGIN, DOUBLE YELLOW LINE
2	42+25.00	1.19' RT	DOUBLE YELLOW LINE
3	42+50.00	1.20' RT	DOUBLE YELLOW LINE
4	42+75.00	1.20' RT	DOUBLE YELLOW LINE
5	43+00.00	1.20' RT	SINGLE YELLOW LINE
6	43+25.00	1.20' RT	SINGLE YELLOW LINE
7	43+50.00	1.20' RT	SINGLE YELLOW LINE
8	43+75.00	1.17' RT	SINGLE YELLOW LINE
9	44+00.00	1.02' RT	SINGLE YELLOW LINE
10	44+25.00	0.81' RT	SINGLE YELLOW LINE
11	44+50.00	0.55' RT	SINGLE YELLOW LINE
12	44+75.00	0.24' RT	SINGLE YELLOW LINE
13	45+00.00	0.00' RT	SINGLE YELLOW LINE
14	45+25.00	0.00' RT	SINGLE YELLOW LINE
15	45+29.23	0.00' RT	PT, SINGLE YELLOW LINE



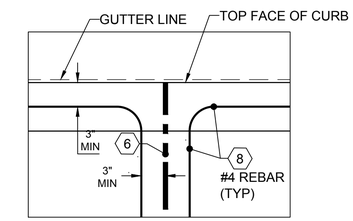
WB INTERSECTION REFUGE ISLAND DETAIL PLAN
NTS



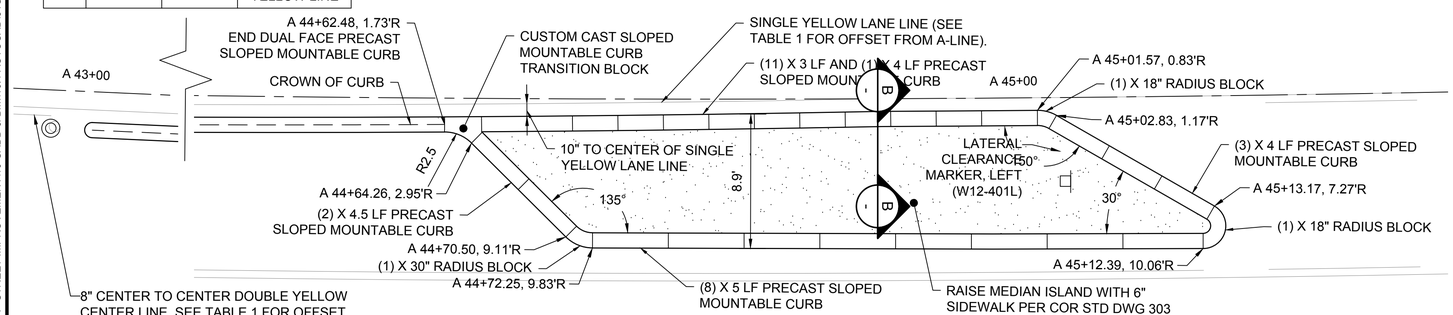
SECTION A-A
NTS



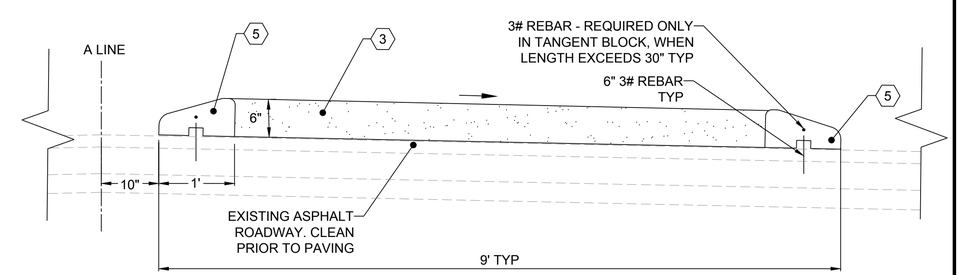
DETAIL 1: DETECTABLE WARNING PATTERN
NTS



DETAIL 2: EXPANSION JOINT DETAIL
NTS



RAISED MEDIAN ISLAND DETAIL PLAN
NTS



SECTION B-B
NTS

0 2.5 5 10
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
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REDMOND, WA 98073-9710
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RAYMOND ERIK BERNTSEN, STATE OF WASHINGTON, 46917, REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-15.DWG

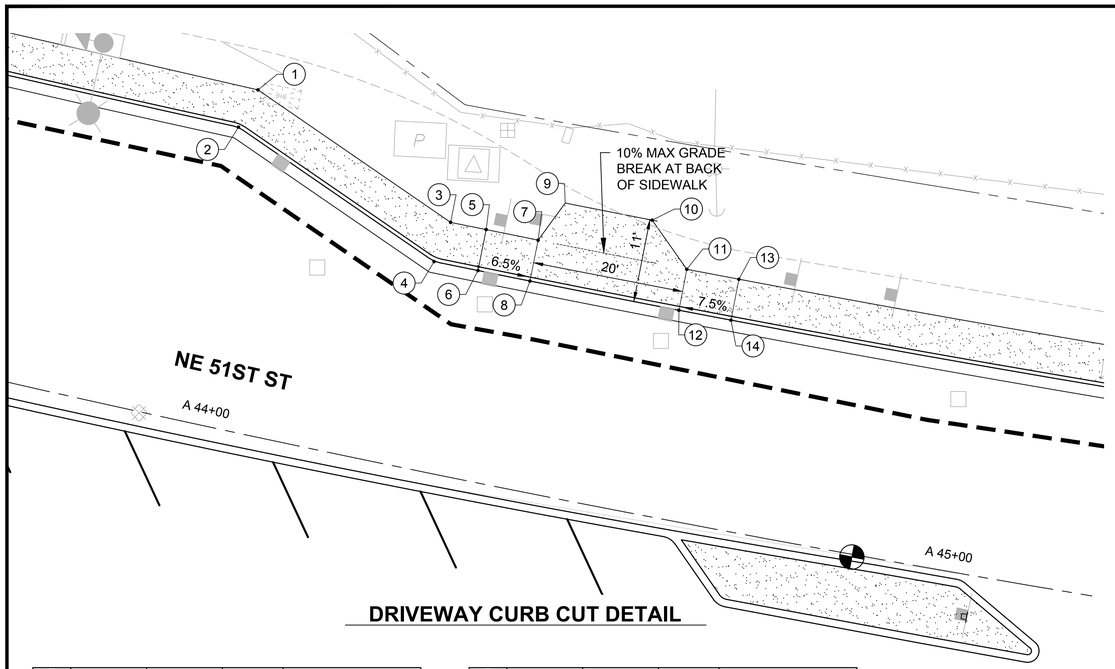
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
REFUGE ISLAND DETAIL PLAN

DRAWING No.: 51-RD-15

SHEET No.: 30 OF 80

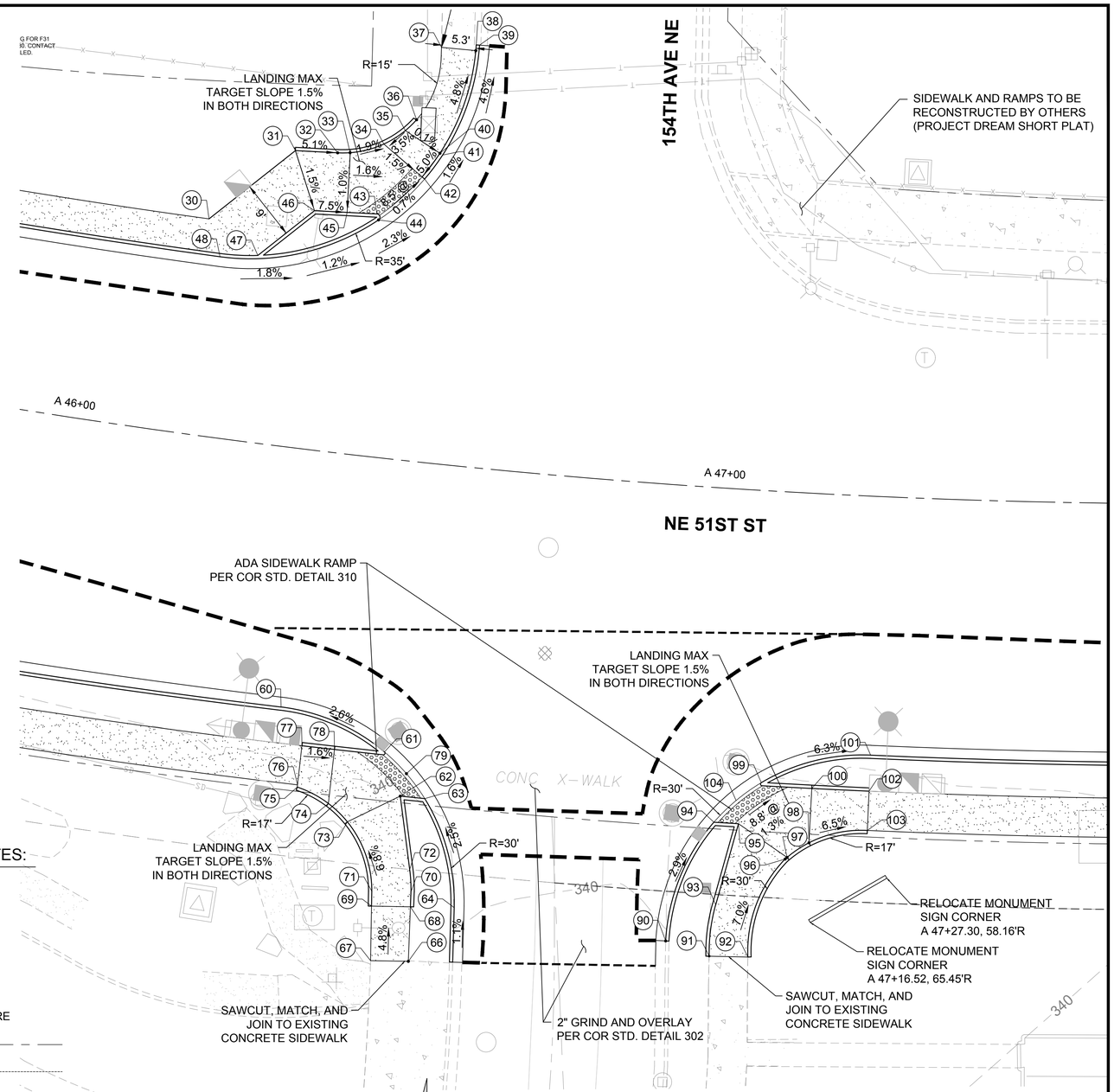
04/30/19 | 7:27 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-15.DWG



DRIVEWAY CURB CUT DETAIL

#	STATION	OFFSET	ELEV.	DESC.
1	43+97.75	44.84' LT	337.52	AP
2	43+97.75	39.50' LT	337.43	AP, BOC
3	43+97.75	33.00' LT	337.46	AP
4	43+97.75	27.50' LT	336.89	AP, BOC
5	43+97.75	33.01' LT	337.44	
6	43+97.75	27.49' LT	336.87	BOC
7	43+97.75	33.00' LT	336.98	AP
8	43+97.75	27.51' LT	336.91	BOC
9	43+97.75	38.50' LT	336.13	AP, ME
10	43+97.75	38.50' LT	336.14	AP, ME
11	44+58.91	33.00' LT	337.08	
12	44+58.90	27.50' LT	337.00	BOC
13	44+66.00	32.99' LT	337.60	
14	44+65.98	27.50' LT	337.03	BOC
30	46+16.49	33.00' LT	338.88	AP
31	46+28.60	45.06' LT	338.42	AP, BEGIN, BOC
32	46+35.33	45.52' LT	338.09	PC, BOC
33	46+37.26	45.76' LT	337.99	BOC
34	46+42.44	47.68' LT	337.93	BOC
35	46+45.59	50.08' LT	338.01	BOC
36	46+47.19	51.92' LT	337.97	END, BOC
37	46+50.02	61.81' LT	337.51	PT
38	46+49.89	63.31' LT	337.30	AP, ME
39	46+55.46	63.37' LT	337.34	END, ME
40	46+55.97	64.26' LT	336.84	END, BOC, ME
41	46+51.93	46.99' LT	337.51	BOC
42	46+49.48	43.05' LT	337.77	BOC
43	46+46.46	39.36' LT	337.81	MID
44	46+42.60	36.96' LT	337.85	PC, BOC
45	46+42.97	36.08' LT	337.89	PT, BOC
46	46+37.91	36.67' LT	337.90	BOC
47	46+32.79	36.32' LT	338.27	AP, BOC
48	46+24.84	28.46' LT	338.64	AP, BOC
49	46+19.00	27.50' LT	338.32	PC, BOC

#	STATION	OFFSET	ELEV.	DESC.
60	46+36.84	39.50' RT	339.00	PC
61	46+52.71	44.54' RT	339.34	A
62	46+55.69	51.00' RT	339.50	AP
63	46+59.29	51.00' RT	339.47	AP, BOC
64	46+65.09	67.13' RT	339.94	PT, BOC
65	46+65.61	75.43' RT	340.10	END, BOC, ME
66	46+59.27	75.96' RT	340.51	ME
67	46+53.88	76.45' RT	340.85	ME
68	46+58.79	67.66' RT	340.53	
69	46+53.21	68.15' RT	340.62	END
70	46+58.65	65.37' RT	340.42	PC
71	46+53.02	65.87' RT	340.31	PC
72	46+58.15	62.02' RT	340.22	PT
73	46+48.42	55.76' RT	339.59	
74	46+45.38	53.29' RT	339.53	
75	46+40.59	51.35' RT	339.57	BEGIN
76	46+40.59	51.00' RT	339.57	
77	46+40.57	45.00' RT	339.48	END
78	46+45.38	45.00' RT	339.40	
90	46+95.86	69.57' RT	340.41	BEGIN, PC, BOC, ME
91	47+02.24	71.46' RT	340.63	END
92	47+07.81	71.23' RT	340.66	BEGIN
93	47+02.72	63.56' RT	340.19	PT
94	47+01.71	51.00' RT	339.52	AP, BOC
95	47+05.31	51.00' RT	339.55	AP
96	47+12.40	55.97' RT	339.53	PCC
97	47+12.66	55.71' RT	339.50	
98	47+15.74	53.304' RT	339.47	
99	47+08.29	44.54' RT	339.40	AP
100	47+15.74	45.00' RT	339.40	
101	47+24.16	39.50' RT	338.22	PT
102	47+24.16	45.00' RT	338.79	END
103	47+24.16	51.00' RT	338.88	END
104	47+04.75	47.50' RT	339.46	MID



154TH AVE NE INTERSECTION GRADING DETAIL

ABBREVIATIONS AND NOTES:

CH = CURB HEIGHT
TOC = TOP OF CURB
BOC = BOTTOM OF CURB
HP = HIGH POINT
LP = LOW POINT
ME = MATCH EXISTING
PT = POINT OF TANGENT
PC = POINT OF CURVE
AP = ANGLE POINT
MID = MIDDLE OF CURB RAMP
PRC=POINT OF REVERSE CURVATURE

CROSSWALK CL

BREAKLINE

1. SEE DWG 51-RD-01 THROUGH 51-RD-04 FOR A-LINE DEFINITION.
2. SPOT ELEVATIONS ARE PROVIDED FOR GUIDANCE ONLY AND ARE ESTIMATED BASED ON EXISTING CONDITIONS PRIOR TO ASPHALT OVERLAY. CONTRACTOR SHALL ENSURE THAT SLOPES DO NOT EXCEED CITY OF REDMOND AND ADA REQUIREMENTS.
3. ALL SPOT ELEVATIONS AND SLOPES SHOWN AT BACK OF SIDEWALK ARE DESIGN INFORMATION FOR SIDEWALK GRADES.
4. SLOPE ARROWS INDICATE DOWNSLOPE POSITIVE GRADES.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-20.DWG

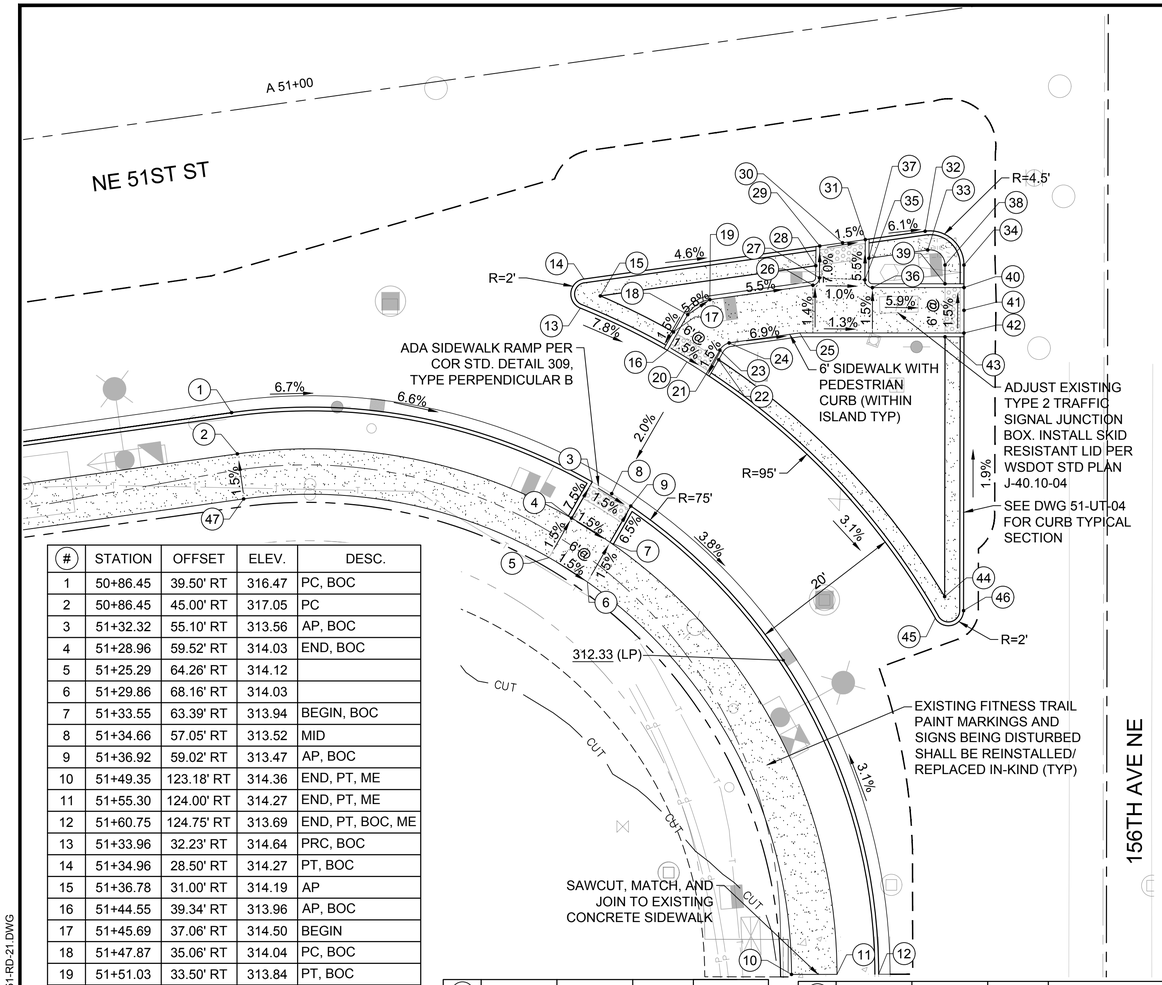
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

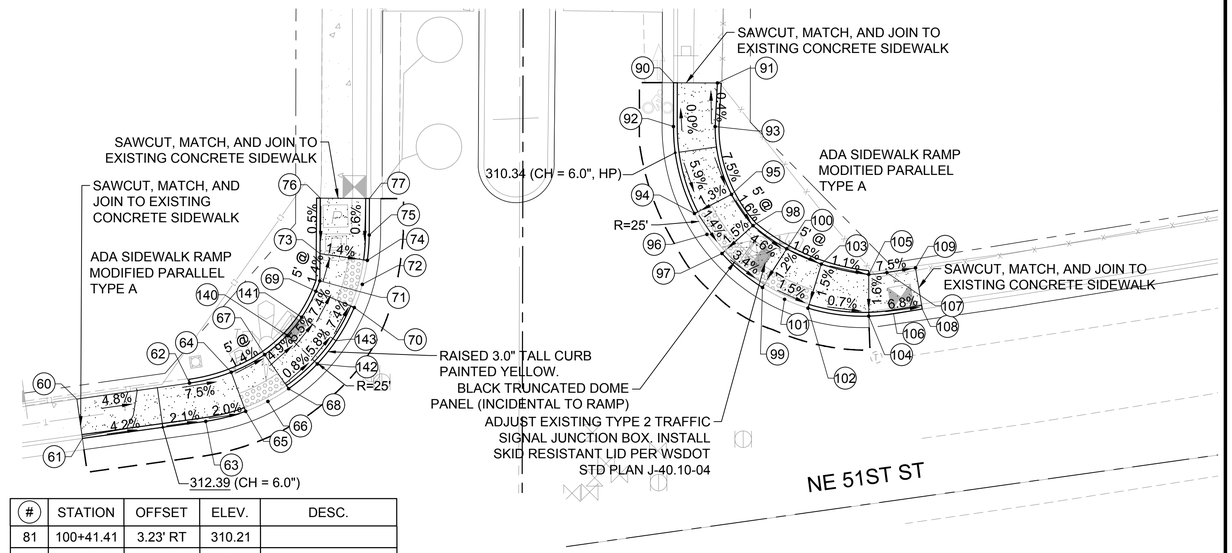
ROADWAY
CURB RETURN
DETAIL PLAN

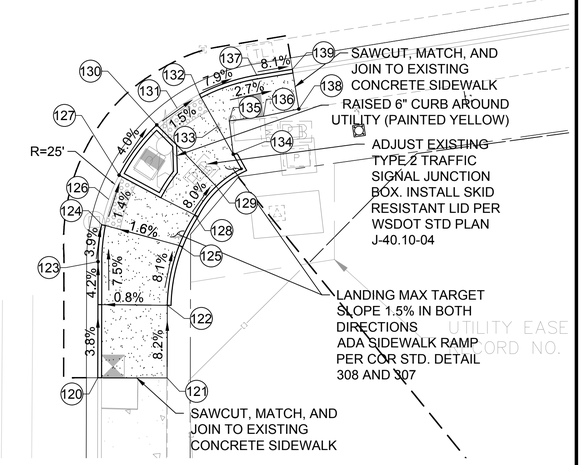
DRAWING No.: **51-RD-20**

SHEET No.: 31 OF 80

04/30/19 | 7:28 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-20.DWG







#	STATION	OFFSET	ELEV.	DESC.
1	50+86.45	39.50' RT	316.47	PC, BOC
2	50+86.45	45.00' RT	317.05	PC
3	51+32.32	55.10' RT	313.56	AP, BOC
4	51+28.96	59.52' RT	314.03	END, BOC
5	51+25.29	64.26' RT	314.12	
6	51+29.86	68.16' RT	314.03	
7	51+33.55	63.39' RT	313.94	BEGIN, BOC
8	51+34.66	57.05' RT	313.52	MID
9	51+36.92	59.02' RT	313.47	AP, BOC
10	51+49.35	123.18' RT	314.36	END, PT, ME
11	51+55.30	124.00' RT	314.27	END, PT, ME
12	51+60.75	124.75' RT	313.69	END, PT, BOC, ME
13	51+33.96	32.23' RT	314.64	PRC, BOC
14	51+34.96	28.50' RT	314.27	PT, BOC
15	51+36.78	31.00' RT	314.19	AP
16	51+44.55	39.34' RT	313.96	AP, BOC
17	51+45.69	37.06' RT	314.50	BEGIN
18	51+47.87	35.06' RT	314.04	PC, BOC
19	51+51.03	33.50' RT	313.84	PT, BOC
20	51+46.90	41.22' RT	313.92	MID
21	51+49.19	43.16' RT	313.87	AP, BOC
22	51+51.09	41.51' RT	314.41	BEGIN
23	51+51.42	40.28' RT	313.93	PC, BOC
24	51+52.76	39.50' RT	313.95	PT, BOC
25	51+62.18	39.50' RT	313.30	AP, BOC
26	51+64.77	33.50' RT	313.09	PC, BOC
27	51+65.76	32.65' RT	313.09	PT, BOC
28	51+65.50	31.00' RT	313.46	END
29	51+66.39	28.50' RT	312.82	AP, BOC
30	51+69.42	28.50' RT	312.77	MID
31	51+72.46	28.50' RT	312.73	AP, BOC
32	51+80.43	28.50' RT	312.96	PC, BOC
33	51+80.43	31.00' RT	313.46	PC
34	51+84.88	33.63' RT	312.75	PT, BOC
35	51+71.66	33.75' RT	313.00	PC, BOC
36	51+72.51	34.89' RT	313.01	PT, BOC
37	51+72.58	31.00' RT	313.34	BEGIN
38	51+82.41	33.28' RT	313.25	PT
39	51+82.06	35.73' RT	312.94	END
40	51+84.48	36.58' RT	312.30	AP, BOC

#	STATION	OFFSET	ELEV.	DESC.
41	51+84.06	39.55' RT	312.35	MID
42	51+83.64	42.52' RT	312.39	AP, BOC
43	51+81.09	42.66' RT	313.04	BEGIN
44	51+76.29	76.61' RT	313.59	AP
45	51+74.67	79.24' RT	312.97	PC, BOC
46	51+78.50	78.78' RT	313.06	PT, BOC
47	50+86.45	51.00' RT	317.14	PC
48	51+73.60	25.49' LT	312.18	
49	51+82.11	28.22' LT	311.95	
50	51+69.84	0.78' LT	312.96	
51	51+77.94	0.83' LT	312.77	
52	51+65.53	27.5' RT	312.87	
53	51+73.65	27.35' RT	312.76	
54	51+85.74	35.51' RT	312.48	
55	51+84.52	43.54' RT	312.39	
56	100+00.47	39.08' RT	311.74	
57	52+08.74	43.02' RT	311.87	
58	100+21.90	46.64' RT	310.73	
59	100+26.14	38.55' RT	310.52	
60	51+54.05	32.34' LT	313.39	BEGIN, ME

#	STATION	OFFSET	ELEV.	DESC.
61	51+54.04	27.10' LT	312.75	BEGIN, BOC, ME
62	51+69.06	32.35' LT	312.65	BEGIN, PC, BOC
63	51+70.48	27.06' LT	312.18	PC, BOC
64	51+74.71	33.01' LT	312.12	PCC ,BOC
65	51+75.89	27.64' LT	312.07	BOC
66	51+78.97	28.53' LT	312.02	MID
67	51+79.42	34.70' LT	312.05	BOC
68	51+81.92	29.81' LT	311.97	BOC
69	51+87.26	42.05' LT	311.40	BOC
70	51+91.98	39.22' LT	311.35	BOC
71	51+87.97	43.33' LT	311.38	AP, BOC
72	51+93.46	42.10' LT	311.30	MID
73	51+88.49	46.89' LT	311.34	BOC
74	51+94.56	45.15' LT	311.25	BOC
75	51+95.27	48.42' LT	311.08	PT, BOC
76	51+89.56	54.14' LT	311.30	END, BOC, ME
77	51+95.97	53.20' LT	310.82	END, BOC, ME
78	100+31.99	32.65' RT	310.19	
79	100+40.21	28.29' RT	309.95	
80	100+33.40	3.25' RT	310.44	

#	STATION	OFFSET	ELEV.	DESC.
81	100+41.41	3.23' RT	310.21	
82	100+42.73	24.41' LT	309.71	
83	100+34.97	29.43' LT	309.89	
84	100+31.12	33.59' LT	310.09	
85	100+26.70	41.72' LT	310.31	
86	100+04.90	34.35' LT	311.34	
87	100+06.04	42.32' LT	311.23	
88	51+96.68	46.95' LT	311.16	
89	51+93.61	39.04' LT	311.37	
90	100+28.44	58.65' LT	310.13	BEGIN, BOC
91	100+34.17	57.81' LT	310.75	BEGIN, BOC
92	100+27.62	52.93' LT	310.54	PC, BOC
93	100+33.07	52.16' LT	310.73	PC, BOC
94	100+28.77	41.17' LT	310.16	BOC
95	100+33.96	42.99' LT	310.23	BOC
96	100+30.02	38.22' LT	310.12	MID
97	100+31.64	35.44' LT	310.07	
98	100+36.20	38.51' LT	310.15	PCC, BOC
99	100+36.31	30.26' LT	309.83	
100	100+40.18	34.87' LT	309.90	BOC
101	100+38.97	28.31' LT	309.78	MID
102	100+41.87	26.72' LT	309.73	BOC
103	100+44.42	32.23' LT	309.82	BOC
104	100+49.67	24.56' LT	309.29	PCC, BOC
105	100+50.43	30.01' LT	309.75	END, BOC
106	100+52.95	24.42' LT	309.03	PT, BOC
107	100+52.82	29.92' LT	309.57	PT
108	100+56.79	24.50' LT	309.72	END, BOC, ME
109	100+56.66	30.01' LT	309.28	END, ME
120	100+20.71	65.68' RT	311.35	BEGIN, BOC, ME
121	100+29.77	66.97' RT	311.90	BEGIN, ME
122	100+31.13	57.48' RT	311.11	PC, BOC
123	100+22.88	50.50' RT	310.77	BEGIN, BOC, PC
124	100+24.05	45.75' RT	310.56	BOC
125	100+33.79	49.89' RT	310.46	BOC
126	100+25.42	42.56' RT	310.52	MID
127	100+27.23	39.59' RT	310.46	BOC
128	100+36.38	46.19' RT	310.39	AP, BOC
129	100+39.71	42.83' RT	310.01	BOC
130	100+33.07	33.72' RT	310.13	BOC
131	100+36.03	31.90' RT	310.08	MID

#	STATION	OFFSET	ELEV.	DESC.
132	100+39.21	30.50' RT	310.03	BOC
133	100+40.98	35.02' RT	309.85	BEGIN
134	100+42.53	38.95' RT	309.92	END, BOC
135	100+42.63	34.52' RT	309.81	AP
136	100+47.18	34.55' RT	309.71	AP, ME
137	100+47.05	29.05' RT	309.40	PT, BOC
138	100+51.94	34.25' RT	309.61	END, ME
139	100+51.81	28.94' RT	309.01	END, BOC, ME
140	51+82.73	36.78' LT	311.86	BOC
141	51+84.93	38.92' LT	311.69	BOC
142	51+86.12	32.52' LT	311.69	BOC
143	51+89.00	35.21' LT	311.47	BOC

NOTES:

1. SEE DWG 51-RD-20 FOR ABBREVIATIONS AND NOTES.

0 5 10 20
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 40917 REGISTERED PROFESSIONAL ENGINEER 5/8/19

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-21.DWG

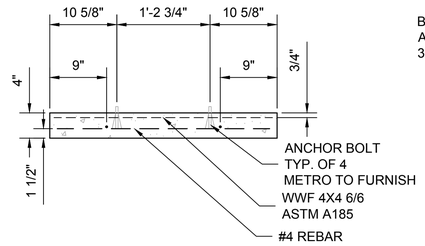
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
CURB RETURN
DETAIL PLAN

DRAWING No.: **51-RD-21**

SHEET No.: 32 OF 80

05/08/19 | 4:06 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-21.DWG

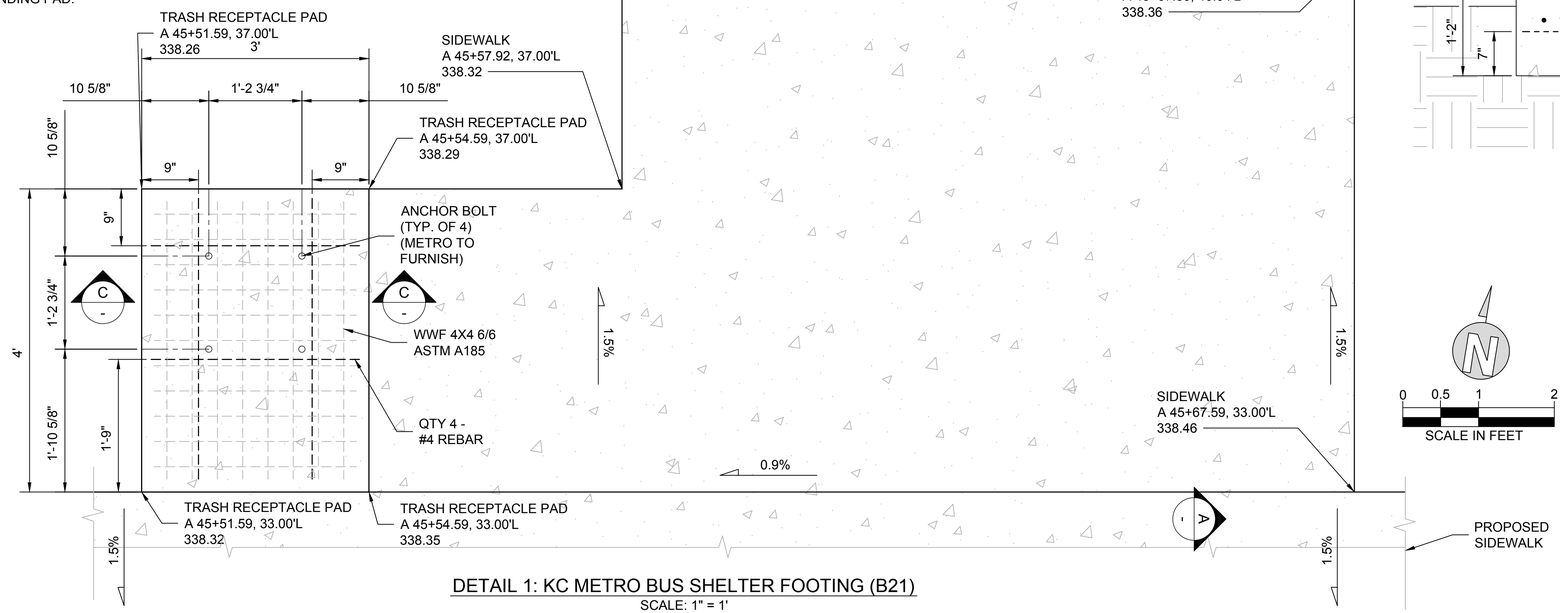


SECTION C-C: LITTER RECEPTACLE PAD SECTION

SCALE: 1" = 1'

LITTER RECEPTACLE PAD NOTES

1. SAWCUT ASPHALT PAVEMENT, AS REQUIRED, FOR THE CONCRETE PAD.
2. CONCRETE PAD TO BE CAST IN PLACE.
3. CONCRETE PAD TO BE INSTALLED LEVEL AND PARALLEL WITH THE SHELTER FOOTING OR LANDING PAD.

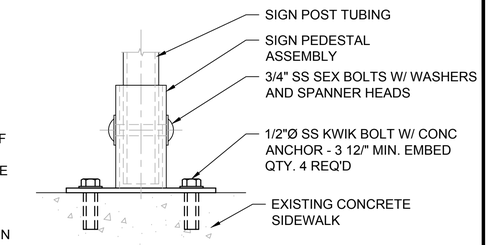


DETAIL 1: KC METRO BUS SHELTER FOOTING (B21)

SCALE: 1" = 1'

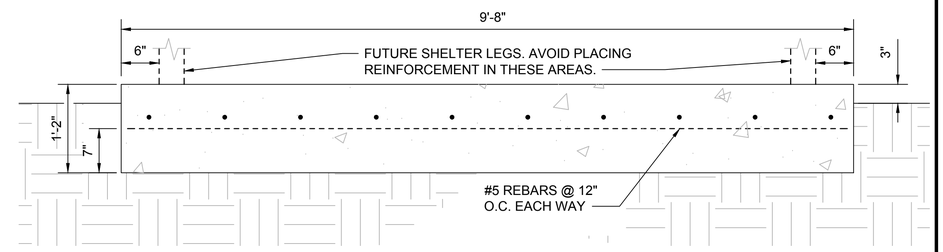
SIGN POLE NOTES

1. CONCRETE MIX TO BE CLASS C-5.
2. METRO WILL PROVIDE NEW ANCHOR TUBING AND RIVETS.
3. RESTORE AREA IN KIND.
4. INSTALLATION FOR RELOCATION OF STREET SIGNS AND SIGNS OTHER THAN BUS SIGNS SHALL MATCH THE EXISTING INSTALLATION AND JURISDICTIONAL STANDARDS.
5. CONTRACTOR TO COORDINATE WITH KC METRO FOR NEW BUS SIGN PEDESTAL MOUNT LOCATION.



DETAIL 4: BUS SIGN PEDESTAL MOUNT

SCALE: NTS

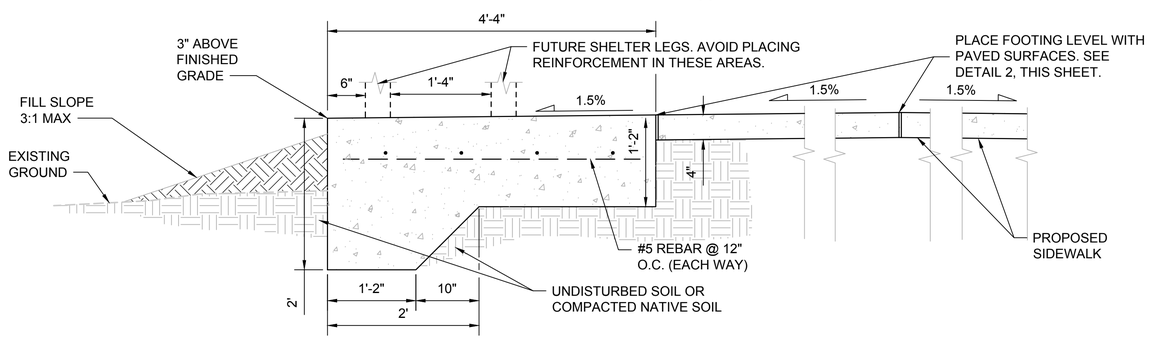


SECTION B-B: LONGITUDINAL SECTION

SCALE: 1" = 1'

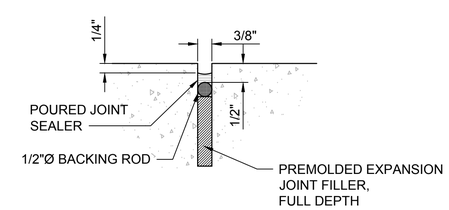
NEW SITE FURNITURE/FIXTURE NOTES

1. BENCHES, LITTER RECEPTACLES AND BIKE LOOPS: METRO TRANSIT WILL FURNISH, TRANSPORT AND INSTALL THE SITE FURNITURE AT EACH BUS ZONE.
2. PEDESTRIAN LIGHT POLES AND LUMINARIES: CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL FOUNDATIONS FOR PEDESTRIAN LIGHT POLES AND LUMINARIES. TASKS SHALL INCLUDE PROVIDING AND INSTALLING J-BOLTS, CONDUITS, GROUNDING RODS, REBARS, AND OTHER MATERIALS FOR THE FOUNDATIONS. OBTAIN LIGHT POLE BASE BOLT CIRCLE PRIOR TO SETTING FOUNDATIONS. UNLESS STATED OTHERWISE ON THE ELECTRICAL SITE PLANS, METRO TRANSIT WILL SUPPLY PEDESTRIAN LIGHT POLES AND LUMINARIES. CONTRACTOR SHALL PICK UP AND TRANSPORT THE LIGHTING HARDWARE FROM METRO SOUTH FACILITIES TO EACH PROJECT SITE. METRO'S SOUTH FACILITIES IS LOCATED AT 11911 EAST MARGINAL WAY S, BUILDING C, TUKWILA, WASHINGTON 98168. CONTACT PAUL SORENSEN AT (206) 684-2260 AT LEAST 72 HOURS IN ADVANCE. CONTRACTOR SHALL PROVIDE ALL HARDWARE AND CONDUCTORS REQUIRED TO CONNECT AND THE PEDESTRIAN LUMINARIES TO THE POWER PEDESTAL OR OTHER POWER SOURCE AS SHOWN ON ELECTRICAL PLANS AND TO MAKE THE LUMINARIES FUNCTIONAL.
3. BUS SHELTERS, RAPIDRIDE TECHNOLOGY PYLONS, AND BLADE MARKERS: METRO TRANSIT WILL PROVIDE, TRANSPORT, AND INSTALL THE FIXTURES/FURNITURE UPON COMPLETION OF THE SITE WORK, INCLUDING THE POWER CONNECTION FROM THE FOUNDATIONS TO THE FIXTURES/FURNITURE. CONTRACTOR SHALL PROVIDE CONDUITS AND PULL CONDUCTORS BETWEEN POWER SOURCE AND THE FOUNDATIONS.
4. BUS SIGNS, UNLESS OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS, METRO TRANSIT WILL FURNISH AND INSTALL BUS SIGNS AT THE ZONES.
5. OTHER FURNITURE AND HARDWARE NOT MENTIONED IN THIS LIST: FURNISH AND INSTALL OTHER FURNITURE/HARDWARE NOT LISTED BUT SHOWN ON THE DRAWINGS.



SECTION A-A: FOOTING WITH THICKENED EDGE

SCALE: 1" = 1'



DETAIL 2: ISOLATION JOINT

SCALE: 1" = 2"

KC METRO BUS CONSTRUCTION SEQUENCE AND CONTACT INFO

1. POST APPROPRIATE STOP CLOSURE NOTICES - E-MAIL CONSTRUCTION.COORD@KINGCOUNTY.GOV OR CALL 206-477-1140 WHEN YOU KNOW THE TIMEFRAME IN WHICH CONSTRUCTION WILL BEGIN SO THAT AN ALTERNATIVE STOP CAN BE LOCATED FOR THE CONSTRUCTION PERIOD OR THE STOP CAN BE CLOSED DURING CONSTRUCTION IF CONSTRUCTION PHASING PLAN WILL NOT ALLOW FOR A TEMPORARY ALTERNATE STOP LOCATION.
2. REMOVE EXISTING BUS SHELTER - CONTACT METRO TRANSPORTATION PLANNER IN ADVANCE OF CONSTRUCTION, DAN WELLS DIRECTLY AT 206-477-5795 OR VIA EMAIL AT DANIEL.WELLS@KINGCOUNTY.GOV TO SCHEDULE REMOVAL. NOTE THAT METRO REQUIRES 3 WEEKS PRIOR NOTIFICATION FOR REMOVAL.
3. CONTRACTOR TO DEMO EXISTING PAD AND FOOTINGS.
4. CONTRACTOR TO LAYOUT FORMWORK FOR NEW PAD AND FOOTINGS.
5. KCMT TO INSPECT FOOTING AND FORMWORK - ALL METRO SHELTER FOOTINGS MUST BE INSPECTED BY METRO INSPECTORS BEFORE ANY CONCRETE IS POURED. CONTACT METRO INSPECTOR PAUL MILLER DIRECTLY AT 206-263-1370 OR 206-947-1574 OR VIA EMAIL AT PAUL.MILLER@KINGCOUNTY.GOV TO SCHEDULE INSPECTION.
6. CONTRACTOR TO POUR NEW PAD AND FOOTINGS.
7. KCMT TO INSTALL BUS SHELTER, SIGN, AND GARBAGE CAN ON NEW PAD

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-30.DWG

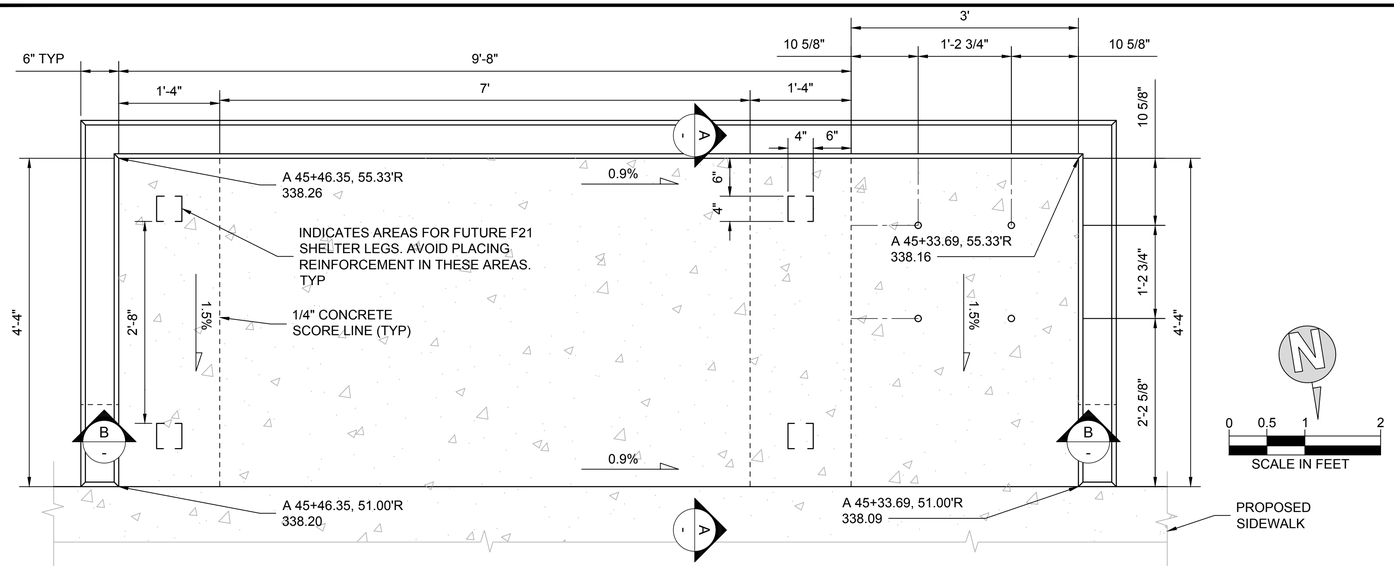
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
NORTH BUS SHELTER
NOTES & DETAILS

DRAWING No.: **51-RD-30**

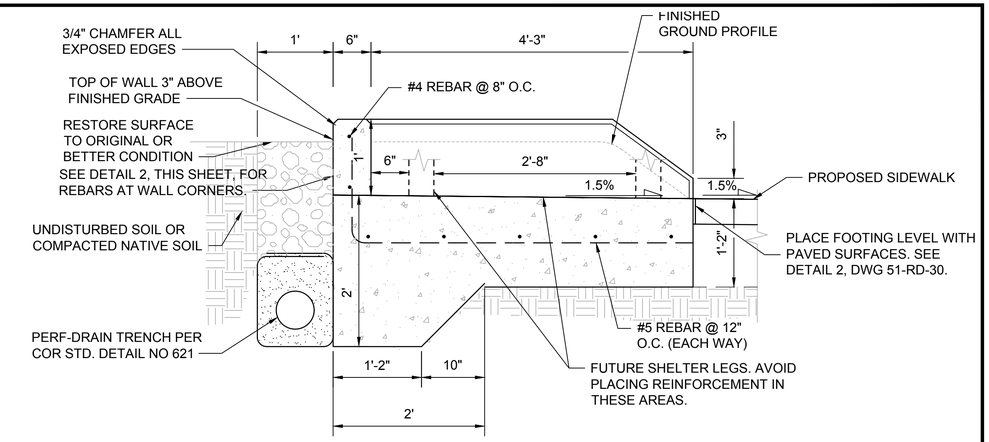
SHEET No.: 33 OF 80

04/30/19 | 7:30 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-30.DWG



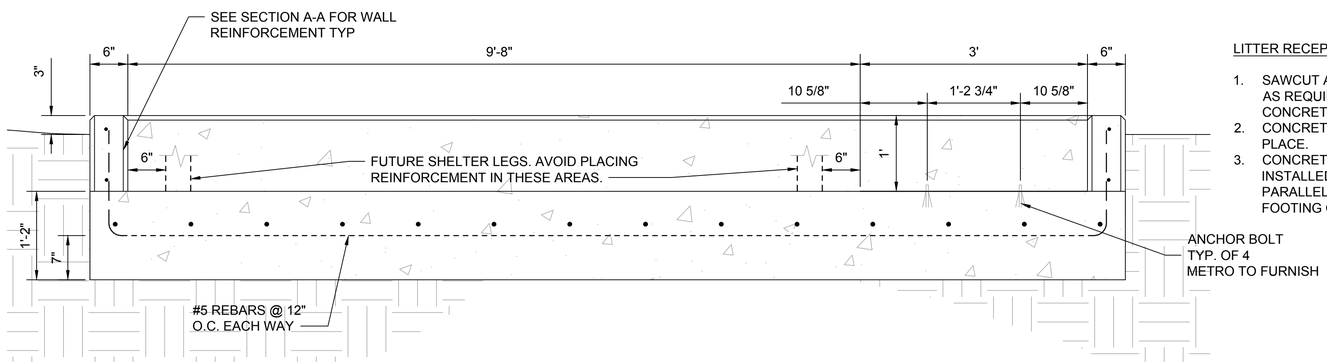
DETAIL 1: KC METRO BUS SHELTER FOOTING (B21)

SCALE: 1" = 1'



SECTION A-A: THICKENED EDGE FOOTING WALL WITH WING WALL SECTION

SCALE: 1" = 1'

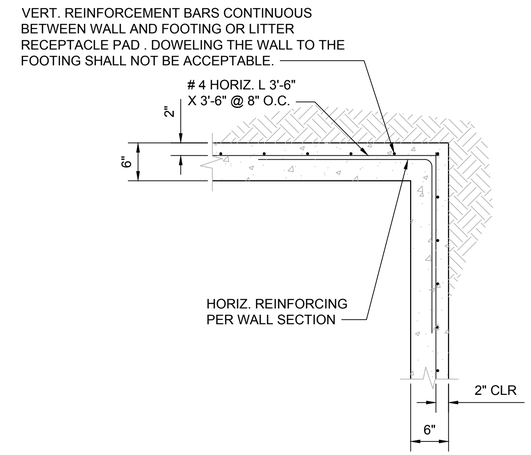


SECTION B-B: LONGITUDINAL SECTION

SCALE: 1" = 1'

LITTER RECEPTACLE PAD NOTES

1. SAWCUT ASPHALT PAVEMENT, AS REQUIRED, FOR THE CONCRETE PAD.
2. CONCRETE PAD TO BE CAST IN PLACE.
3. CONCRETE PAD TO BE INSTALLED LEVEL AND PARALLEL WITH THE SHELTER FOOTING OR LANDING PAD.



DETAIL 2: WALL CORNER REINFORCEMENT

SCALE: 1" = 1'

Know what's **below.** **Call** before you dig.

04/30/19 | 7:30 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-RD-31.DWG

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46947 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
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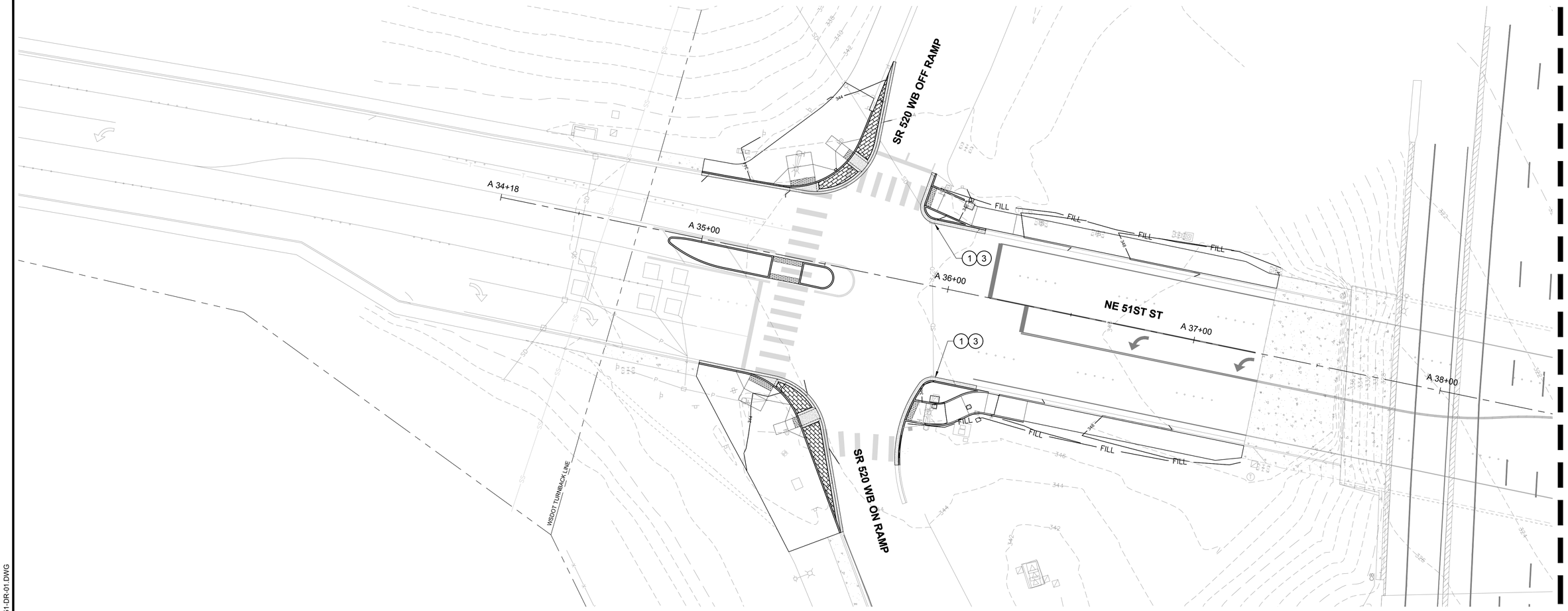
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-RD-31.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

ROADWAY
SOUTH BUS SHELTER
NOTES & DETAILS

DRAWING No.: **51-RD-31**

SHEET No.: 34 OF 80



NOTES:

1. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
2. SEE DWG 51-DR-10 FOR DRAINAGE NOTES & DETAILS.
3. THE PERF-DRAIN SHOWN WILL BE PRIVATELY OWNED AND MAINTAINED.
4. ALL STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
5. ALL CATCH BASIN GRATES WITHIN PROJECT LIMITS THAT WILL COLLECT WATER SHALL BE REPLACED WITH VANED GRATES.
6. SEE LANDSCAPE PLANTING PLANS DWGS 51-LS-02 THROUGH 51-LS-04 FOR PLANTING.
7. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND DEPTHS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
8. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING SANITARY SEWER.
9. INSTALL INLET PROTECTION IN NEW STRUCTURES.

N

0 10 20 40
SCALE IN FEET

811 Know what's **below.** **Call** before you dig.

DRAINAGE LEGEND:

- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD. DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD. PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD. PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID PER COR STD. DETAIL NO 631
- AREA DRAIN, SEE DWG 51-DR-10 FOR DETAILS
- STORM DRAINAGE CLEANOUT (SDCO) PER COR STD. DETAIL NO 623

CONSTRUCTION NOTES:

1. ADJUST RIM TO GRADE
2. NEW SOLID ROUND LID
3. NEW VANED GRATE
9. CONNECT TO EXISTING STRUCTURE
10. CONNECT TO EXISTING PIPE
11. REMOVE EXISTING STRUCTURE PER COR STD
15. ABANDON PIPE IN PLACE

IFB PLANS

No.	DATE	BY	CHD	REVISION

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REDMOND, WA 98073-9710
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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

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CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-01.DWG

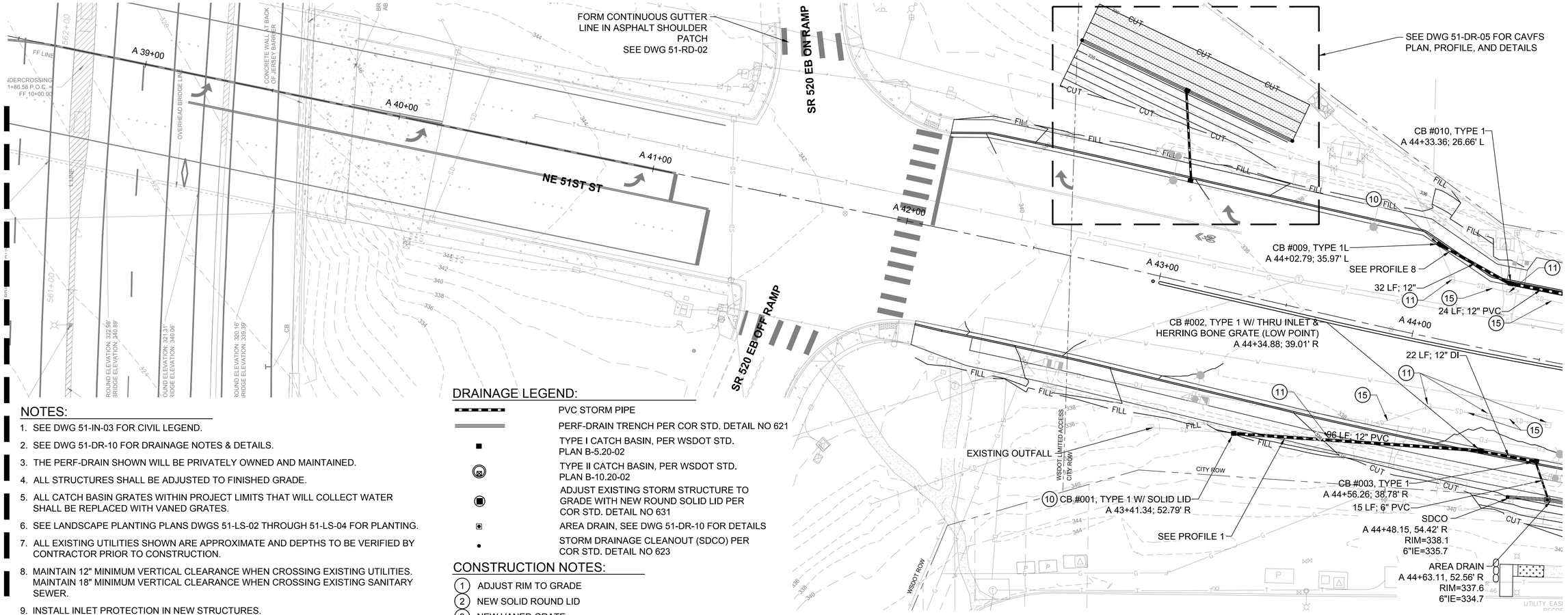
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GRADING & DRAINAGE PLAN

DRAWING No.: **51-DR-01**

SHEET No.: 35 OF 80

04/30/19 | 7:06 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-01.DWG



NOTES:

1. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
2. SEE DWG 51-DR-10 FOR DRAINAGE NOTES & DETAILS.
3. THE PERF-DRAIN SHOWN WILL BE PRIVATELY OWNED AND MAINTAINED.
4. ALL STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
5. ALL CATCH BASIN GRATES WITHIN PROJECT LIMITS THAT WILL COLLECT WATER SHALL BE REPLACED WITH VANED GRATES.
6. SEE LANDSCAPE PLANTING PLANS DWGS 51-LS-02 THROUGH 51-LS-04 FOR PLANTING.
7. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND DEPTHS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
8. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING SANITARY SEWER.
9. INSTALL INLET PROTECTION IN NEW STRUCTURES.

DRAINAGE LEGEND:

- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD. DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD. PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD. PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID PER COR STD. DETAIL NO 631
- AREA DRAIN, SEE DWG 51-DR-10 FOR DETAILS
- STORM DRAINAGE CLEANOUT (SDCO) PER COR STD. DETAIL NO 623

CONSTRUCTION NOTES:

1. ADJUST RIM TO GRADE
2. NEW SOLID ROUND LID
3. NEW VANED GRATE
9. CONNECT TO EXISTING STRUCTURE
10. CONNECT TO EXISTING PIPE
11. REMOVE EXISTING STRUCTURE PER COR STD
15. ABANDON PIPE IN PLACE

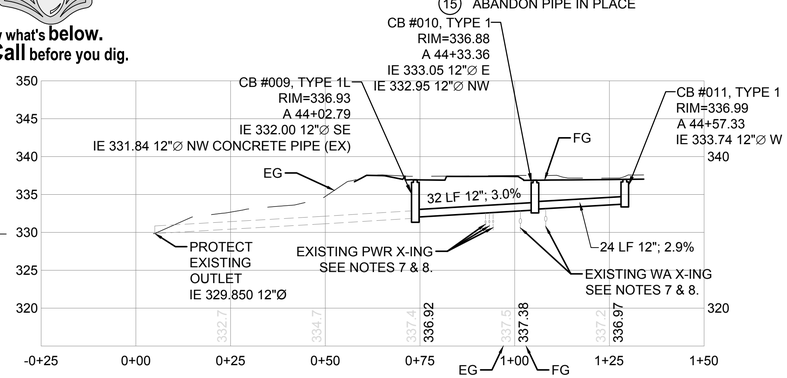
N

0 10 20 40
SCALE IN FEET

811 Know what's below. Call before you dig.

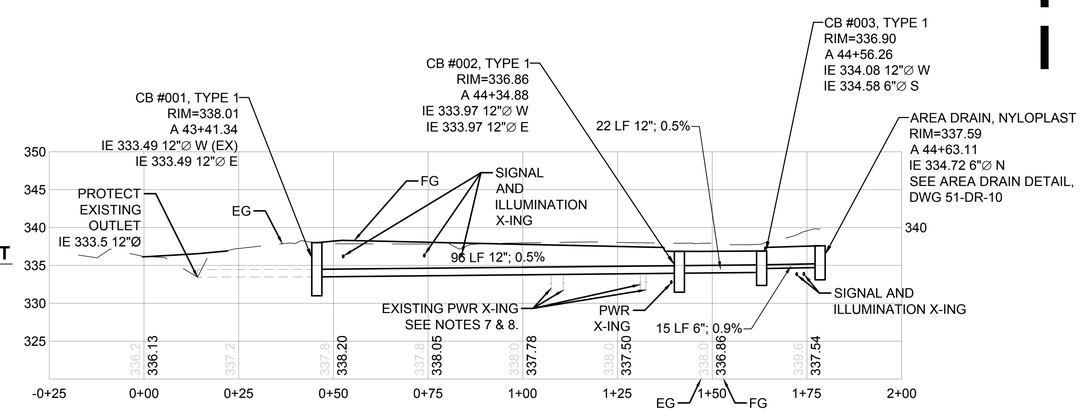
PROFILE 8
CB #011 TO EX OUTFALL

SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



PROFILE 1
AREA DRAIN TO CULVERT

SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



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REDMOND, WA 98073-9710
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DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-02.DWG

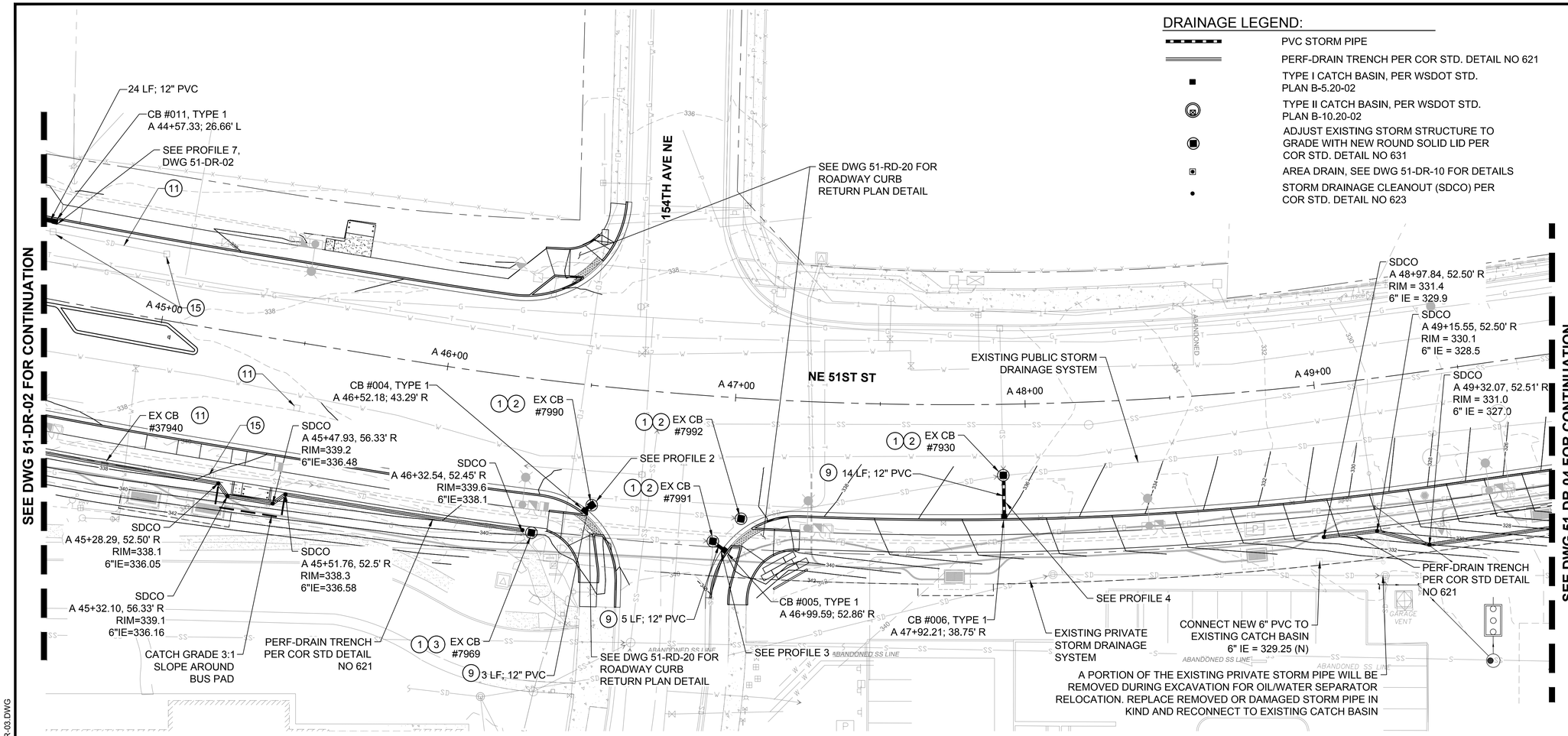
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GRADING & DRAINAGE PLAN & PROFILE

DRAWING No.: 51-DR-02

SHEET No.: 36 OF 80

04/30/19 | 7:07 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-02.DWG



DRAINAGE LEGEND:

- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD. DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD. PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD. PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID PER COR STD. DETAIL NO 631
- AREA DRAIN, SEE DWG 51-DR-10 FOR DETAILS
- STORM DRAINAGE CLEANOUT (SDCO) PER COR STD. DETAIL NO 623

NOTES:

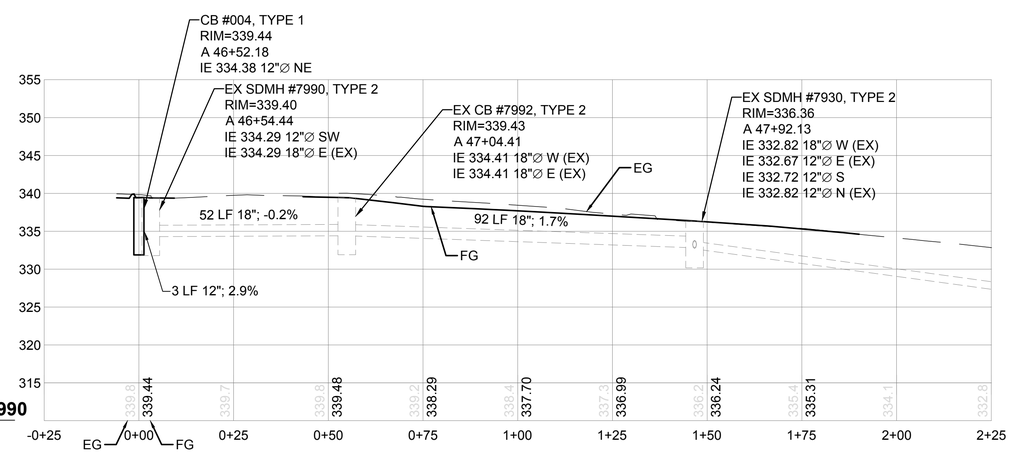
1. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
2. SEE DWG 51-DR-10 FOR DRAINAGE NOTES & DETAILS.
3. THE PERF-DRAIN SHOWN WILL BE PRIVATELY OWNED AND MAINTAINED.
4. ALL STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
5. ALL CATCH BASIN GRATES WITHIN PROJECT LIMITS THAT WILL COLLECT WATER SHALL BE REPLACED WITH VANED GRATES.
6. SEE LANDSCAPE PLANTING PLANS DWGS 51-LS-02 THROUGH 51-LS-04 FOR PLANTING.
7. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND DEPTHS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
8. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING SANITARY SEWER.
9. INSTALL INLET PROTECTION IN NEW STRUCTURES.

0 10 20 40
SCALE IN FEET

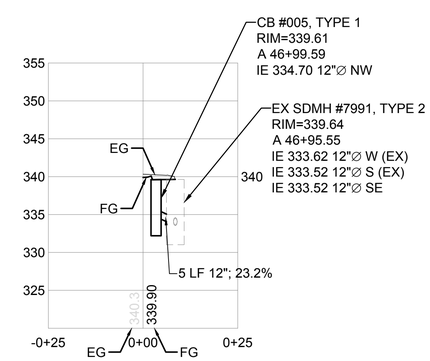
Know what's **below.** **Call** before you dig.

CONSTRUCTION NOTES:

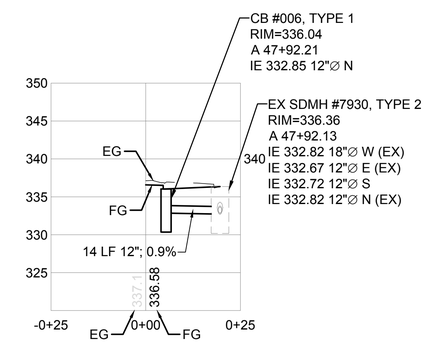
1. ADJUST RIM TO GRADE
2. NEW SOLID ROUND LID
3. NEW VANED GRATE
9. CONNECT TO EXISTING STRUCTURE
10. CONNECT TO EXISTING PIPE
11. REMOVE EXISTING STRUCTURE PER COR STD
15. ABANDON PIPE IN PLACE



PROFILE 2
LATERAL CONNECTIONS TO SDMH #7990
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



PROFILE 3
LATERAL CONNECTION TO SDMH #7991
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



PROFILE 4
LATERAL CONNECTION TO SDMH #7930
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
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RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-03.DWG

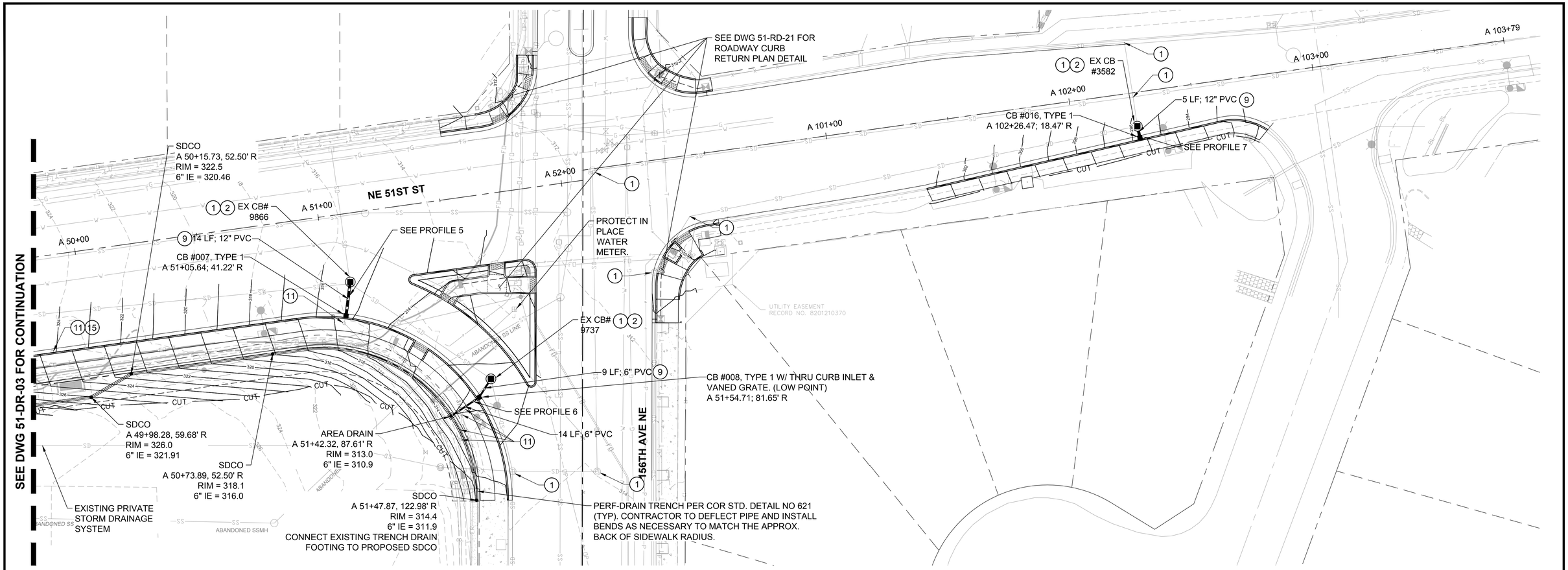
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

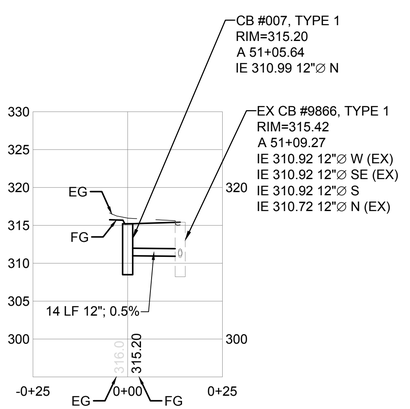
GRADING & DRAINAGE
PLAN & PROFILE

DRAWING No.: **51-DR-03**

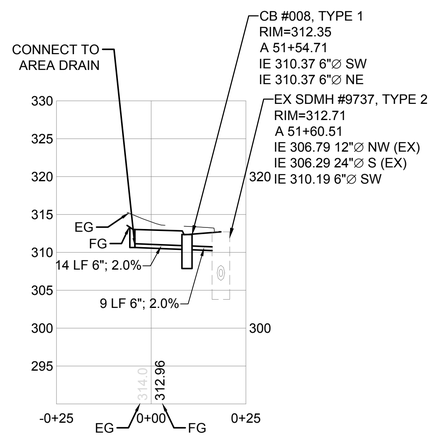
SHEET No.: 37 OF 80

04/30/19 | 7:08 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-03.DWG

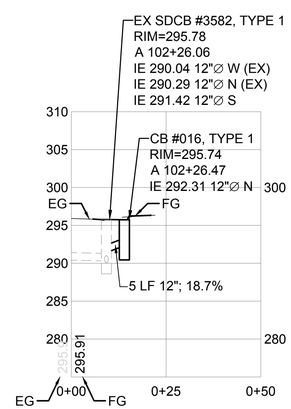




PROFILE 5
LATERAL CONNECTION TO CB #9866
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



PROFILE 6
CONNECTION TO EX
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)



PROFILE 7
LATERAL CONNECTION TO CB #3582
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)

NOTES:

1. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
2. SEE DWG 51-DR-10 FOR DRAINAGE NOTES & DETAILS.
3. THE PERF-DRAIN SHOWN WILL BE PRIVATELY OWNED AND MAINTAINED.
4. ALL STRUCTURES SHALL BE ADJUSTED TO FINISHED GRADE.
5. ALL CATCH BASIN GRATES WITHIN PROJECT LIMITS THAT WILL COLLECT WATER SHALL BE REPLACED WITH VANED GRATES.
6. SEE LANDSCAPE PLANTING PLANS DWGS 51-LS-02 THROUGH 51-LS-04 FOR PLANTING.
7. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND DEPTHS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
8. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING SANITARY SEWER.
9. INSTALL INLET PROTECTION IN NEW STRUCTURES.

DRAINAGE LEGEND:

- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD. DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD. PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD. PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID PER COR STD. DETAIL NO 631
- AREA DRAIN, SEE DWG 51-DR-10 FOR DETAILS
- STORM DRAINAGE CLEANOUT (SDCO) PER COR STD. DETAIL NO 623

CONSTRUCTION NOTES:

1. ADJUST RIM TO GRADE
2. NEW SOLID ROUND LID
3. NEW VANED GRATE
9. CONNECT TO EXISTING STRUCTURE
10. CONNECT TO EXISTING PIPE
11. REMOVE EXISTING STRUCTURE PER COR STD
15. ABANDON PIPE IN PLACE

N

0 10 20 40
SCALE IN FEET

Know what's **below.**
Call before you dig.

IFB PLANS

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RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46914
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-04.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GRADING & DRAINAGE
PLAN & PROFILE

DRAWING No.: **51-DR-04**

SHEET No.: 38 OF 80

04/30/19 | 7:10 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-04.DWG

NOTES:

1. SEE DWG 51-IN-03 FOR CIVIL LEGEND.
2. SEE DWG 51-DR-10 FOR DRAINAGE NOTES & DETAILS.
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6. SEE LANDSCAPE PLANTING PLANS DWGS 51-LS-02 THROUGH 51-LS-04 FOR PLANTING.
7. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND DEPTHS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
8. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING SANITARY SEWER.
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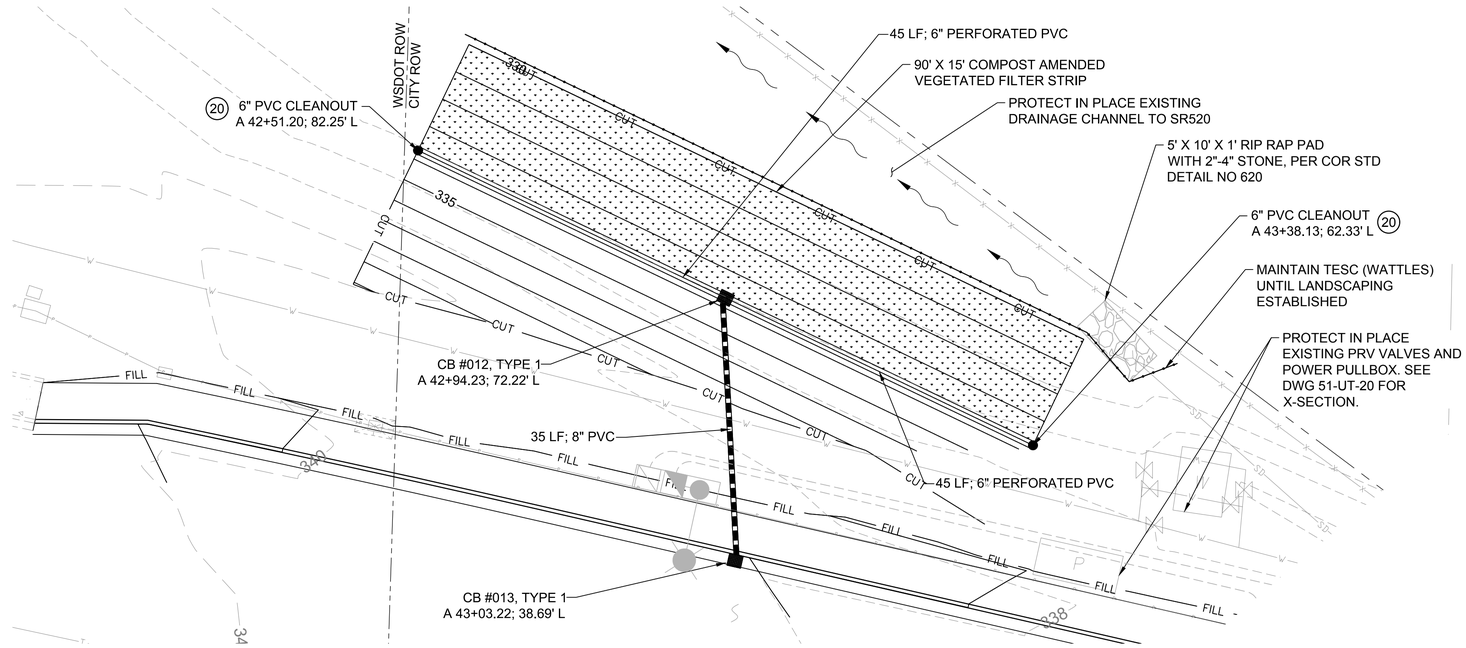
DRAINAGE LEGEND:

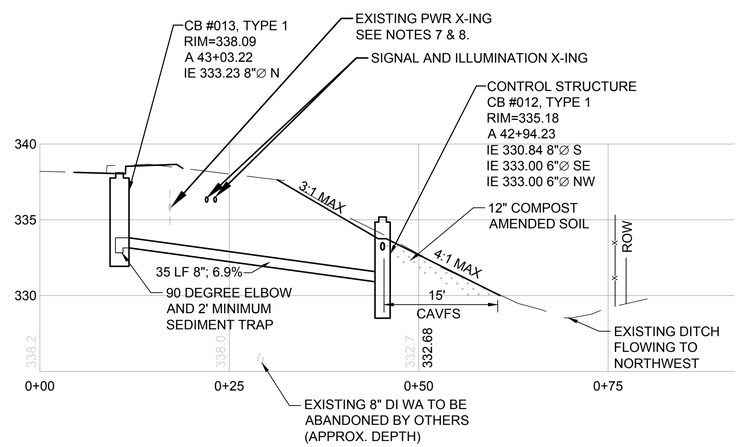
- PVC STORM PIPE
- PERF-DRAIN TRENCH PER COR STD. DETAIL NO 621
- TYPE I CATCH BASIN, PER WSDOT STD. PLAN B-5.20-02
- TYPE II CATCH BASIN, PER WSDOT STD. PLAN B-10.20-02
- ADJUST EXISTING STORM STRUCTURE TO GRADE WITH NEW ROUND SOLID LID PER COR STD. DETAIL NO 631
- AREA DRAIN, SEE DWG 51-DR-10 FOR DETAILS
- STORM DRAINAGE CLEANOUT (SDCO) PER COR STD. DETAIL NO 623

CONSTRUCTION NOTES:

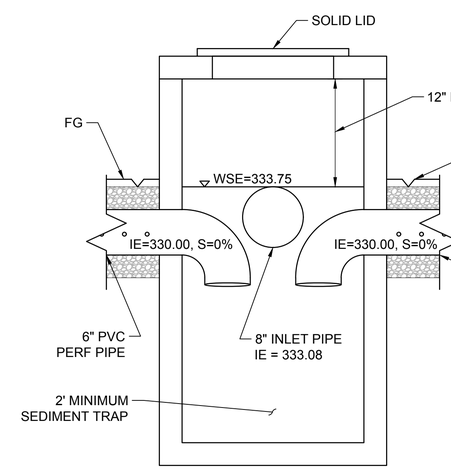
1. ADJUST RIM TO GRADE
2. NEW SOLID ROUND LID
3. NEW VANED GRATE
9. CONNECT TO EXISTING STRUCTURE
10. CONNECT TO EXISTING PIPE
11. REMOVE EXISTING STRUCTURE PER COR STD
15. ABANDON PIPE IN PLACE
20. MARK WITH 3' HIGH GREEN POST - CARSONITE OR APPROVED EQUAL



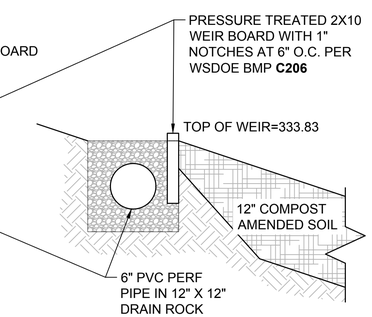
CAVFS DETAIL PLAN
SCALE: 1" = 10'



CB #013 TO CAVFS PROFILE
SCALE: 1" = 10' (H)
SCALE: 1" = 5' (V)



CB #012 CONTROL STRUCTURE DETAIL
SCALE : NTS



LEVEL SPREADER SECTION
SCALE : NTS

0 10 20 40
SCALE IN FEET

Know what's **below.** **Call** before you dig.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46947 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-05.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GRADING & DRAINAGE PLAN & PROFILE

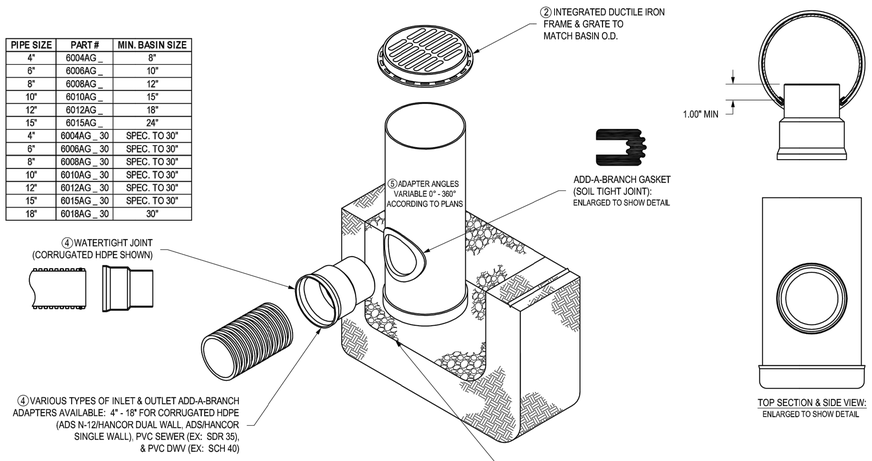
DRAWING No.: **51-DR-05**

SHEET No.: 39 OF 80

04/30/19 | 7:11 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-05.DWG

NYLOPLAST DRAIN BASIN WITH ADD-A-BRANCH

PIPE SIZE	PART #	MIN. BASIN SIZE
4"	6004AG _	8"
6"	6006AG _	10"
8"	6008AG _	12"
10"	6010AG _	15"
12"	6012AG _	18"
15"	6015AG _	24"
4"	6004AG _ 30	SPEC. TO 30"
6"	6006AG _ 30	SPEC. TO 30"
8"	6008AG _ 30	SPEC. TO 30"
10"	6010AG _ 30	SPEC. TO 30"
12"	6012AG _ 30	SPEC. TO 30"
15"	6015AG _ 30	SPEC. TO 30"
18"	6018AG _ 30	30"



1 - ADD-A-BRANCH (PATENT NO. 6349938) AVAILABLE FOR ALL 8" - 30" STRUCTURE OPTIONS (CUSTOM BASIN, ROAD & HIGHWAY, & CURB INLET)

②- FRAMES, GRATES, COVERS, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATES

3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7001-110-065

④- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL) & PVC SEWER (4" - 24")

⑤ - ADD-A-BRANCH ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADD-A-BRANCH ADAPTERS SEE DRAWING NO. 0110-110-005

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DRAWN BY	EBC	MATERIAL	
DATE	5-9-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-15-16		
DWG SIZE	A	SCALE 1:25	SHEET 1 OF 1

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE: DRAIN BASIN WITH ADD-A-BRANCH QUICK SPEC INSTALLATION DETAIL

DWG NO. 0110-110-009 REV E

AREA DRAIN DETAIL

NTS

STORMWATER SUMMARY

SEE PROJECT STORMWATER REPORT FOR ANALYSIS OF PROJECT COMPLIANCE WITH STORMWATER GUIDELINES.

TDA 1 (TO SR-520)

- IMPROVEMENT AREA = 24,906 SF (0.57 AC)
- ADDITIONAL IMPERVIOUS AREA = 6,673 SF (0.15 AC)
- OF WHICH 1,930 SF IS POLLUTION GENERATING

TDA 2 (TOSH CREEK)

- IMPROVEMENT AREA = 40,446 SF (0.93 AC)
- ADDITIONAL IMPERVIOUS AREA = 5,938 SF (0.14 AC)
- OF WHICH 2,113 SF IS POLLUTION GENERATING

Know what's **below.**
Call before you dig.

05/08/19 | 2:40 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DR-10.DWG

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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REDMOND, WA 98073-9710
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RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
40581
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

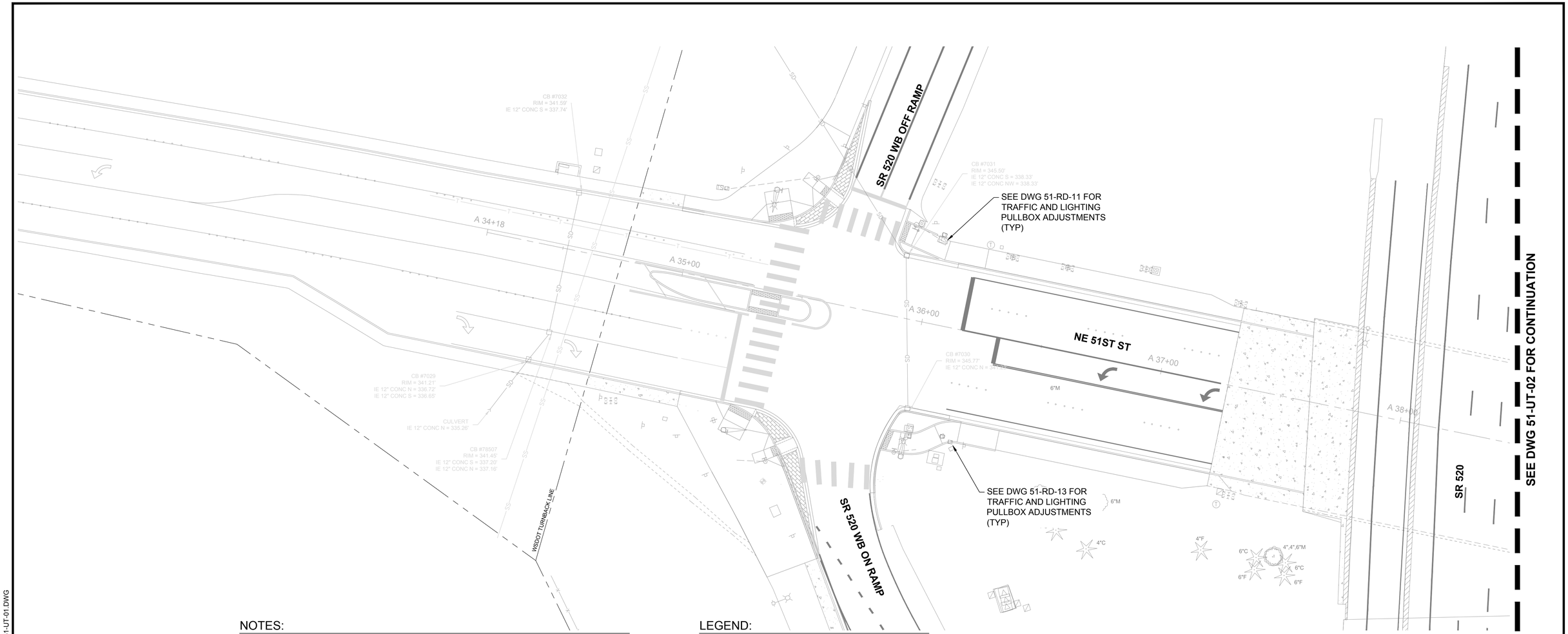
DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/08/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DR-10.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

GRADING & DRAINAGE
NOTES & DETAILS

DRAWING No.: **51-DR-10**

SHEET No.: 40 OF 80



NOTES:

1. THIS PLAN IS INTENDED ONLY TO BE A SCHEMATIC REPRESENTATION OF THE POWER UTILITY REVISIONS. SEE PLAN SHEETS BY PSE OF THE AFFECTED SYSTEMS FOR ACTUAL DESIGN AND CONSTRUCTION REQUIREMENTS AFFECTING EXISTING & PROPOSED VAULTS AND CONDUITS.
2. SEE 51-TS-01 THROUGH 51-TS-28 FOR TRAFFIC SIGNAL AND ILLUMINATION UTILITY DESIGNS
3. SEE 51-DR-01 THROUGH 51-DR-10 FOR DRAINAGE UTILITY DESIGNS
4. CONTRACTOR SHALL EXCAVATE FULL LENGTH OF EACH UTILITY RUN AND VERIFY DEPTHS OF CROSSING UTILITIES PRIOR TO INSTALLATION OF NEW UTILITIES. NOTIFY ENGINEER IF 3' MINIMUM SURFACE COVER OR 12" SEPARATION CAN NOT BE MET.
5. ADJUST ALL EXISTING UTILITY LIDS AND VALVE COVERS WITHIN PROJECT LIMITS TO FINISHED GRADE AS NECESSARY.
6. FRANCHISE UTILITIES MUST GO UNDER WATER AND SEWER LINES (MIN 1' SEPARATION).

LEGEND:

- REMOVE EXISTING STRUCTURE PER
- 338.5 / 338.1 — ADJUST EXISTING STRUCTURE (EXISTING / PROPOSED LID ELEV)
- EXISTING / PROPOSED TELECOM VAULT
- EXISTING / PROPOSED POWER TRANSFORMER
- EXISTING / PROPOSED POWER STRUCTURE
- EXISTING UNDERGROUND POWER
- EXISTING WATER LINE
- EXISTING SIDE SEWER CLEANOUT
- EXISTING FIRE HYDRANT
- REMOVE/ABANDON EXISTING POWER
- EXISTING ROW LINE
- EXISTING EASEMENT LINE
- PROPOSED UNDERGROUND POWER. SEE PSE PLANS FOR FINAL CONFIGURATION
- EXISTING FIBER OPTIC CONDUIT TO BE MODIFIED AS NOTED
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- SIGNAL/ILLUMINATION JUNCTION BOX TYPE 1, 2, 8
- PROPOSED SIDE SEWER CLEANOUT COR STD DETAIL 810
- PROPOSED FIRE HYDRANT
- CONNECT TO EXISTING PSE POWER PER PSE PLANS
- PROPOSED ROW LINE
- PROPOSED EASEMENT LINE
- PSE POWER VAULT
- PSE 30 JBOX
- PSE TRANSFORMER

N

0 10 20 40

SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
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P.O. BOX 97010
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HUITT-ZOLLARS Seattle
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN — STATE OF WASHINGTON — 46917 — REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-01.DWG

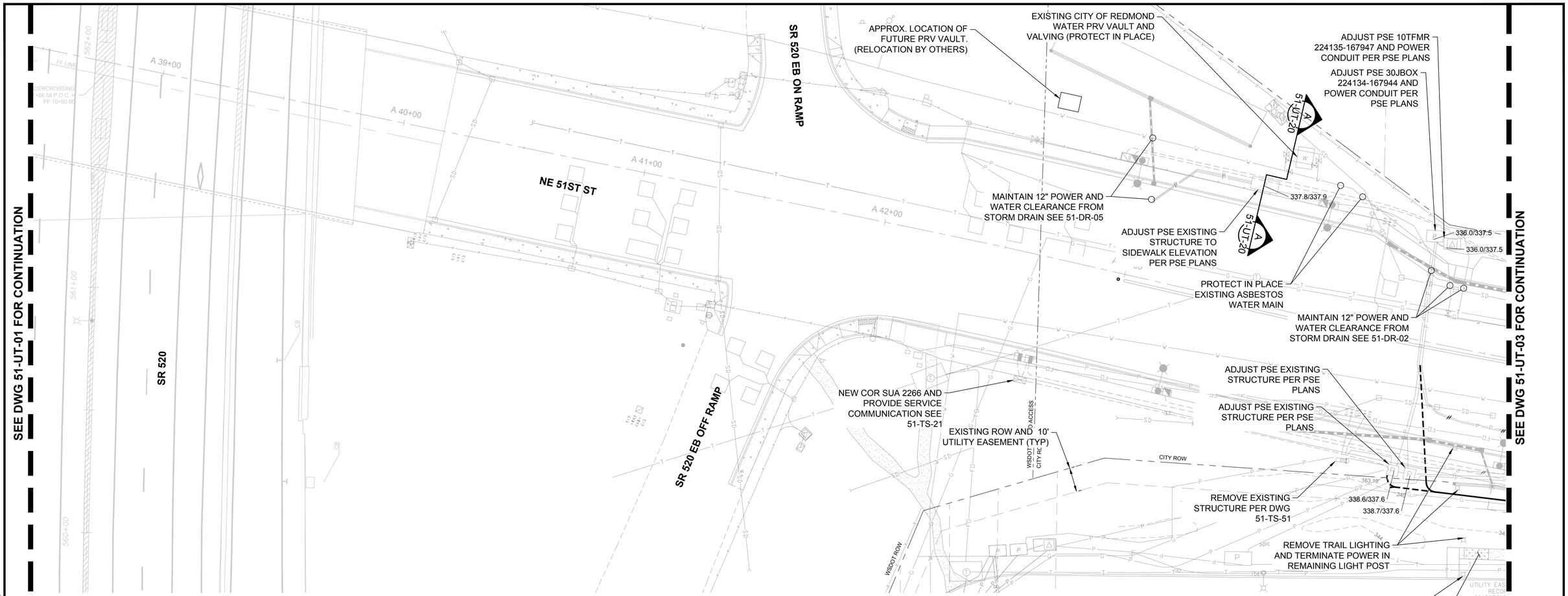
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

UTILITY PLAN

DRAWING No.: 51-UT-01

SHEET No.: 41 OF 80

04/30/19 | 7:35 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-01.DWG



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5. ADJUST ALL EXISTING UTILITY LIDS AND VALVE COVERS WITHIN PROJECT LIMITS TO FINISHED GRADE AS NECESSARY.
6. FRANCHISE UTILITIES MUST GO UNDER WATER AND SEWER LINES (MIN 1' SEPARATION).

N

0 10 20 40
SCALE IN FEET

LEGEND:

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- PSE POWER VAULT
- PSE 30 JBOX
- PSE TRANSFORMER

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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P.O. BOX 97010
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN — STATE OF WASHINGTON — 46917 — REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-02.DWG

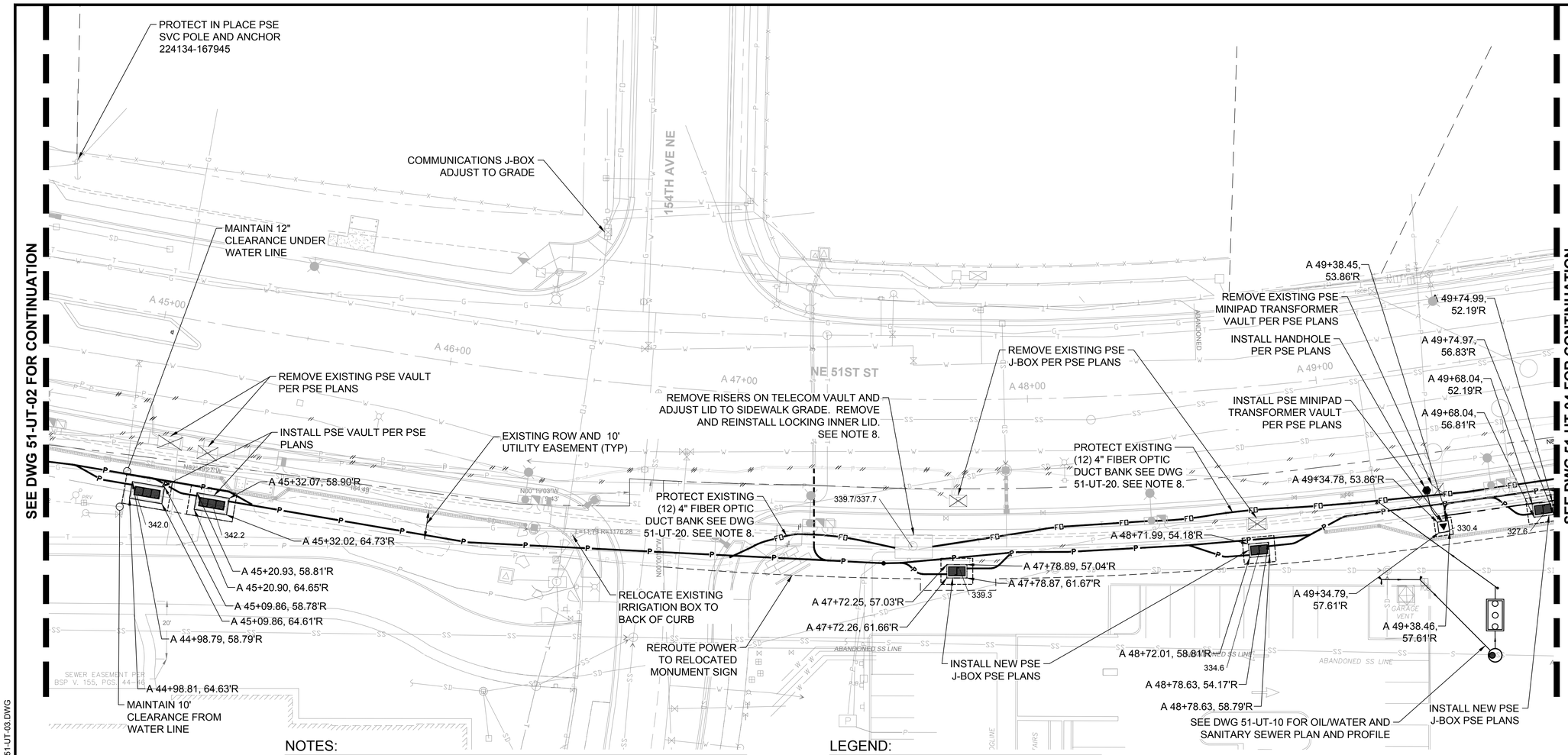
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

UTILITY PLAN

DRAWING No.: 51-UT-02

SHEET No.: 42 OF 80

04/30/19 | 7:36 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-02.DWG



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5. ADJUST ALL EXISTING UTILITY LIDS AND VALVE COVERS WITHIN PROJECT LIMITS TO FINISHED GRADE AS NECESSARY.
6. FRANCHISE UTILITIES MUST GO UNDER WATER AND SEWER LINES (MIN 1' SEPARATION).
7. NOT USED.
8. FIBER OPTIC FACILITIES, INCLUDING (12) 4" FIBER OPTIC DUCT BANKS, DIRECTIONAL BORED FIBER OPTIC CONDUIT, AND TELECOM VAULT STRUCTURES ARE LIVE. DAMAGE TO FIBER OPTIC CABLES WILL RESULT IN IMMEDIATE IMPACT TO FIBER OWNER. ALL CONDUITS SHALL BE LOCATED AND PROTECTED AS A FIRST ORDER OF BUSINESS. ALL WORK ON FIBER OPTIC COMMUNICATION FACILITIES SHALL BE PERFORMED BY A FIBER OPTIC SUBCONTRACTOR APPROVED BY FIBER OWNER. SEE SPECIFICATIONS, APPENDIX J.

LEGEND:

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- PROPOSED EASEMENT LINE
- PSE POWER VAULT
- PSE 30 JBOX
- PSE TRANSFORMER

N

0 10 20 40
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

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Phone (206) 324-5500 Fax (206) 328-1880

RICHARD ERIK BERNTSEN STATE OF WASHINGTON 46941 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/13/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-03.DWG

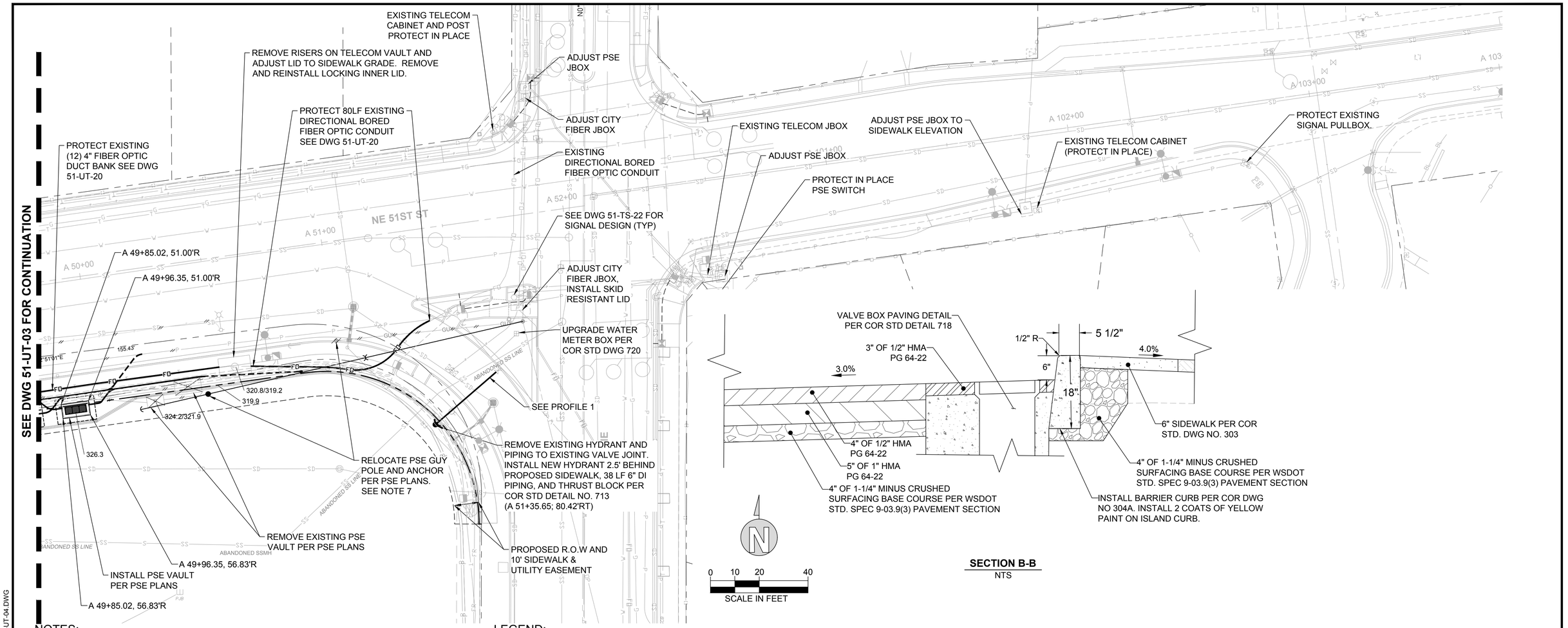
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

UTILITY PLAN

DRAWING No.: 51-UT-03

SHEET No.: 43 OF 80

05/13/19 | 4:41 PM | J. ARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-03.DWG



SECTION B-B
NTS

NOTES:

1. THIS PLAN IS INTENDED ONLY TO BE A SCHEMATIC REPRESENTATION OF THE POWER UTILITY REVISIONS. SEE PLAN SHEETS BY PSE OF THE AFFECTED SYSTEMS FOR ACTUAL DESIGN AND CONSTRUCTION REQUIREMENTS AFFECTING EXISTING & PROPOSED VAULTS AND CONDUITS.
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3. SEE 51-DR-01 THROUGH 51-DR-10 FOR DRAINAGE UTILITY DESIGNS
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5. ADJUST ALL EXISTING UTILITY LIDS AND VALVE COVERS WITHIN PROJECT LIMITS TO FINISHED GRADE AS NECESSARY.
6. FRANCHISE UTILITIES MUST GO UNDER WATER AND SEWER LINES (MIN 1' SEPARATION).
7. POTHOLE PSE GUY AND ANCHOR LOCATIONS TO CONFIRM NO CONFLICT WITH UNDERGROUND UTILITIES PRIOR TO INSTALLATION.
8. FIBER OPTIC FACILITIES, INCLUDING (12) 4" FIBER OPTIC DUCT BANKS, DIRECTIONAL BORED FIBER OPTIC CONDUIT, AND TELECOM VAULT STRUCTURES ARE LIVE. DAMAGE TO FIBER OPTIC CABLES WILL RESULT IN IMMEDIATE IMPACT TO FIBER OWNER. ALL CONDUITS SHALL BE LOCATED AND PROTECTED AS A FIRST ORDER OF BUSINESS. ALL WORK ON FIBER OPTIC COMMUNICATION FACILITIES SHALL BE PERFORMED BY A FIBER OPTIC SUBCONTRACTOR APPROVED BY FIBER OWNER. SEE SPECIFICATIONS, APPENDIX J.

LEGEND:

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- EXISTING / PROPOSED TELECOM VAULT
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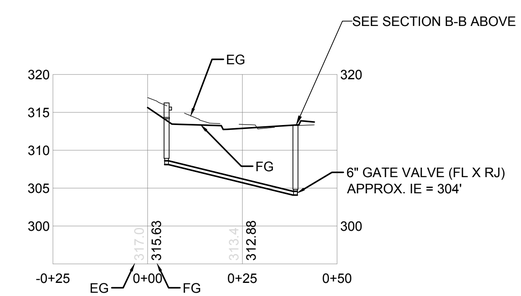

PROFILE 1
HYDRANT TO EX GV
SCALE: 1" = 20' (H)
SCALE: 1" = 10' (V)

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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HUITT-ZOLLARS Seattle
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818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/13/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-04.DWG

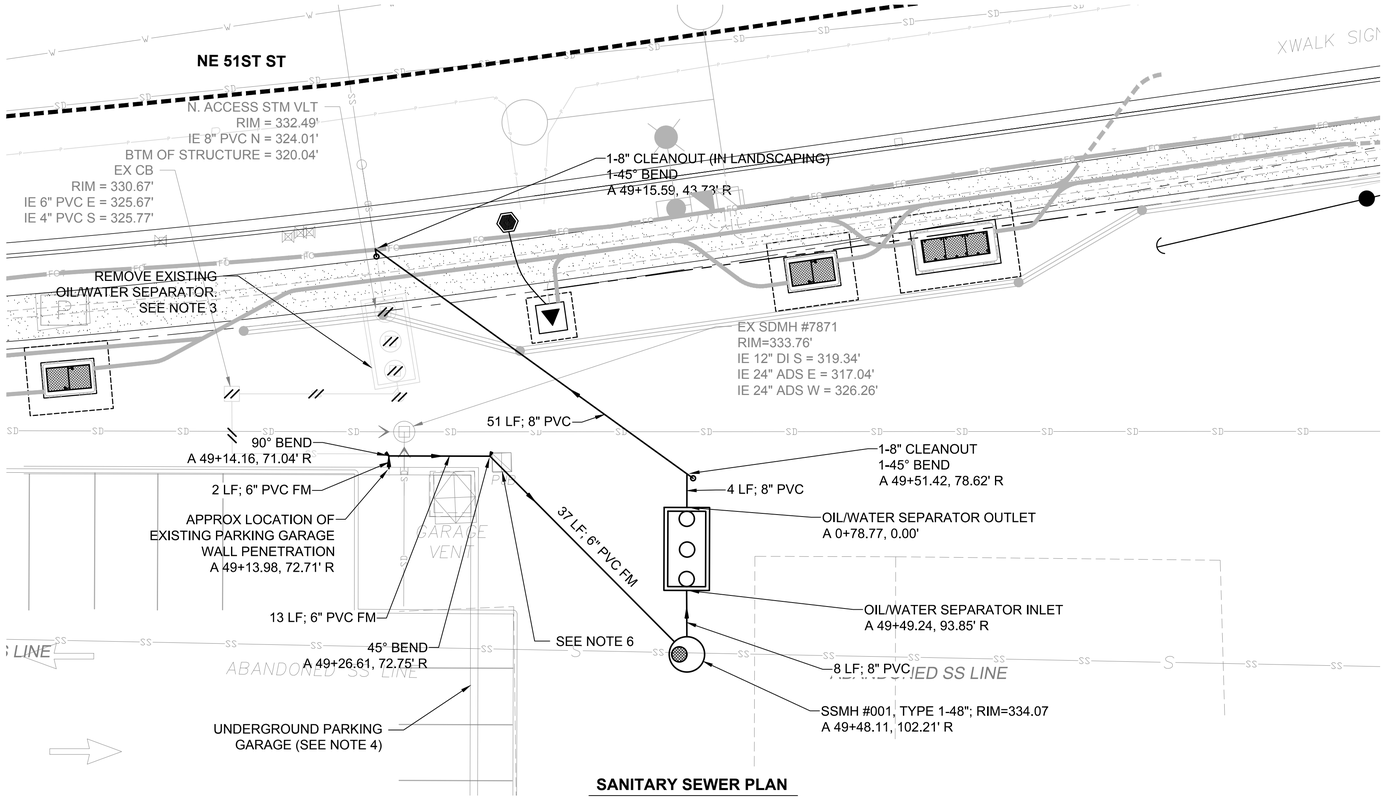
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

UTILITY PLAN

DRAWING No.: 51-UT-04

SHEET No.: 44 OF 80

05/13/19 | 4:42 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-04.DWG



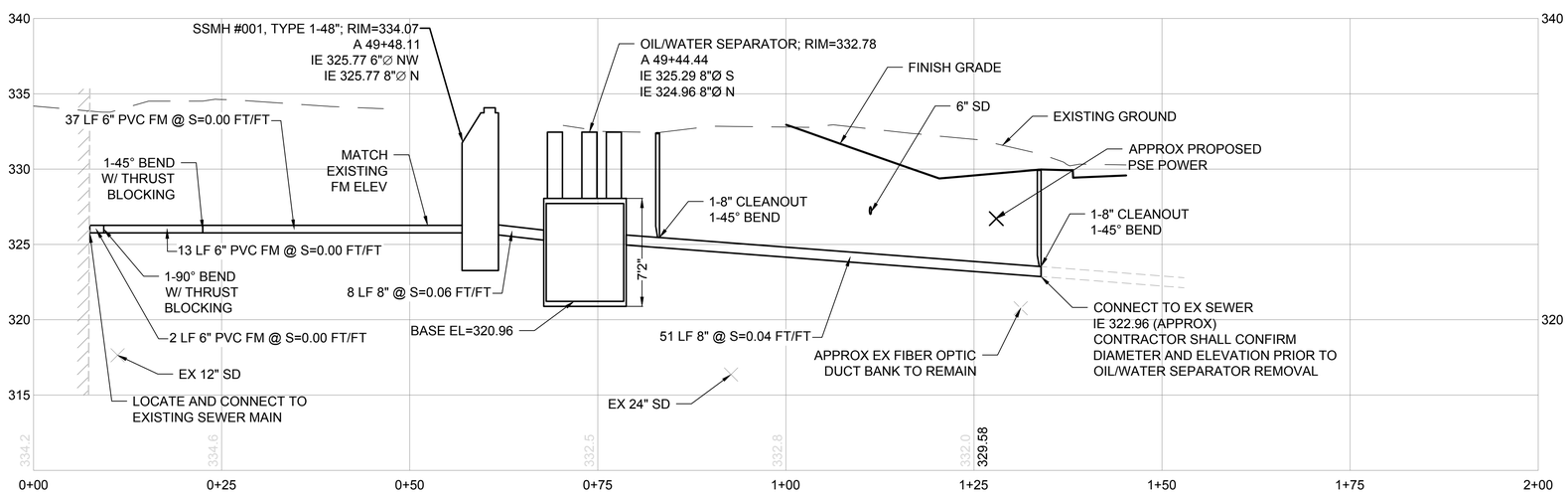
SANITARY SEWER PLAN

LEGEND:

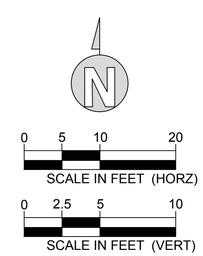
- OIL/WATER SEPARATOR PER OLDCASTLE PRECAST MODEL: OW 5106-SA
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- SANITARY SEWER FLOW ARROW
- FM — FORCE MAIN
- REMOVE EXISTING PIPE OR STRUCTURE
- APPROXIMATE PIPE / CONDUIT CROSSING
- EXISTING OIL/WATER SEPARATOR
- SS — EXISTING SANITARY SEWER LINE

NOTES:

1. ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY DEPTHS MATERIAL AND DIAMETER OF SANITARY SEWER CONNECTION POINTS AND CROSSING UTILITIES PRIOR TO START OF CONSTRUCTION. NOTIFY ENGINEER IF CONDITIONS VARY FROM THESE PLANS.
2. MAINTAIN 12" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING UTILITIES OR STRUCTURES. MAINTAIN 18" MINIMUM VERTICAL CLEARANCE WHEN CROSSING EXISTING STORM DRAINAGE SYSTEM. MAINTAIN 12" HORIZONTAL CLEARANCE FROM ADJACENT STRUCTURES.
3. INSTALL NEW OIL/WATER SEPARATOR, MANHOLE, AND PIPING TO THE GREATEST EXTENTS POSSIBLE PRIOR TO REMOVING EXISTING OIL/WATER SEPARATOR FROM SERVICE.
4. COORDINATE WITH COLDWELL BANKER REAL ESTATE (CBRE) AARON DUNSDON, OR THEO LIM FOR ACCESS TO PARKING GARAGE AND FOR TEMPORARY DEACTIVATION OF PARKING GARAGE SANITARY SEWER PUMP STATION AND FORCE MAIN. MINIMIZE TIME OUT OF SERVICE TO LESS THAN ONE WORKING DAY AND PERFORM WORK ONLY IN DRY WEATHER.
5. REMOVE FLUID WITHIN OIL/WATER SEPARATOR AND DISPOSE PROPERLY. FLUID SHALL NOT BE PUMPED TO STORM OR SANITARY SEWER . FILL NEW OIL/WATER SEPARATOR WITH CLEAN WATER TO DESIGN WATER SURFACE ELEVATION PRIOR TO REACTIVATING SUMP PUMP.
6. MINOR SEWER ALIGNMENT SHIFT TO AVOID POWER JUNCTION BOX IS ALLOWABLE. ALTERNATELY, TEMPORARILY SUPPORT POWER JUNCTION BOX WHILE INSTALLING SEWER. BACKFILL UNDER JUNCTION BOX WITH CRUSHED ROCK.
7. COORDINATE WITH MICROSOFT FOR MAINTENANCE ACCESS TO OIL/WATER SEPARATOR.



SANITARY SEWER PROFILE



IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN — STATE OF WASHINGTON — 46917 — REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-10.DWG

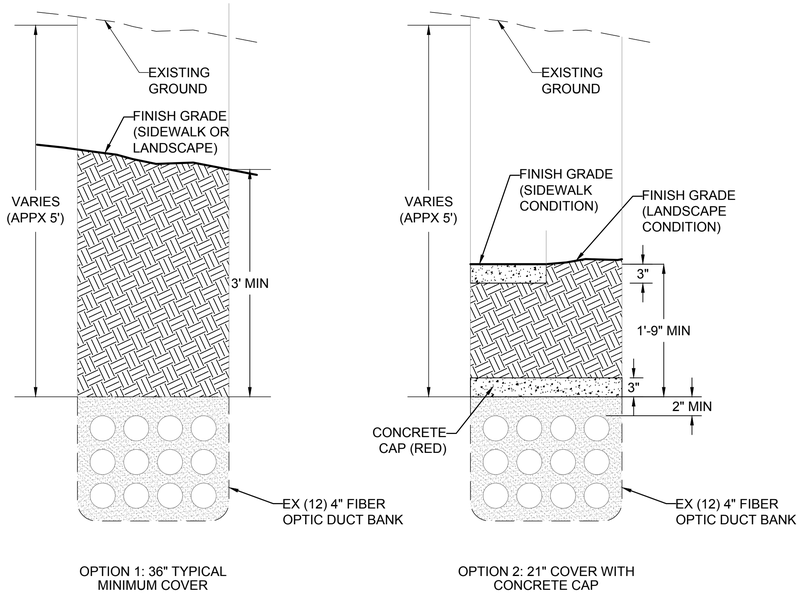
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

OIL/WATER SEPARATOR
PLAN & PROFILE

DRAWING No.: **51-UT-10**

SHEET No.: 45 OF 80

04/30/19 | 7:38 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-10.DWG

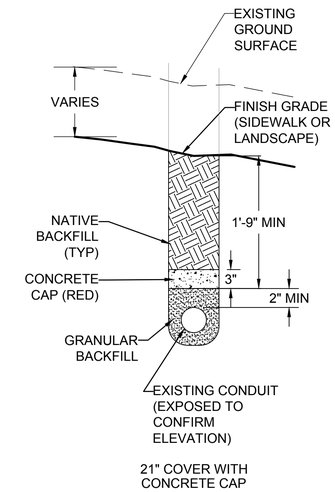


(12) 4" FIBER OPTIC DUCT BANK PROTECTION OPTIONS

1" = 6"

NOTES:

1. WITHIN LIMITS IDENTIFIED ON DWGS 51-UT-03 AND 51-UT-04 VACUUM EXCAVATE OR HAND POTHOLE 50' ON CENTER TO CONFIRM 3' MINIMUM COVER TO TOP OF DUCT BANK. WHERE 3' COVER IS NOT ACHIEVED, CONFIRM 21" COVER IS ACHIEVED AND INSTALL 3"-THICK RED-TINTED CONCRETE CAP OVER DUCTBANK.
2. CONDUITS CONTAIN LIVE FIBER OPTIC CABLE. ALL LOCATING AND PROTECTION WORK SHALL BE PERFORMED BY A FIBER SUBCONTRACTOR APPROVED BY FIBER OWNER. SEE SPECIFICATIONS, APPENDIX J.
3. NOTIFY FIBER OWNER REPRESENTATIVE AT LEAST 3 DAYS PRIOR TO ANY ACTIVITY EXPOSING (12) 4" FIBER OPTIC DUCT BANKS.
4. TRENCH SHALL BE COVERED AND SECURED AT THE END OF EACH WORKING DAY.

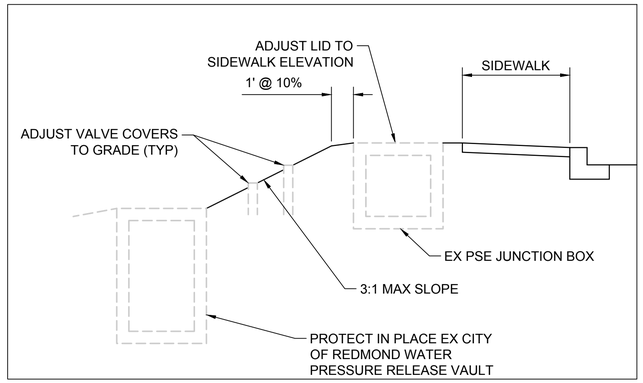


DIRECTIONAL BORED FIBER OPTIC CONDUIT PROTECTION

1" = 6"

NOTES:

1. WITHIN LIMITS IDENTIFIED ON DWG 51-UT-04 VACUUM OR HAND EXCAVATE FULL LENGTH OF CONDUIT.
2. CONDUITS CONTAIN LIVE FIBER OPTIC CABLE. ALL LOCATING AND PROTECTION WORK SHALL BE PERFORMED BY A FIBER SUBCONTRACTOR APPROVED BY FIBER OWNER. SEE SPECIFICATIONS, APPENDIX J.
3. NOTIFY FIBER OWNER REPRESENTATIVE AT LEAST 3 DAYS IN ADVANCE OF EXPOSING CONDUIT.
4. TRENCH SHALL BE COVERED AND SECURED AT THE END OF EACH WORKING DAY.
5. IF INADEQUATE COVER, CONTRACTOR SHALL NOTIFY FIBER OWNER REPRESENTATIVE AND DEVELOP AN ALTERNATE PROTECTION PLAN.



UTILITY CROSS-SECTION

NTS

A
51-UT-02

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RICHARD ERIK BERNTSEN
STATE OF WASHINGTON
46041
REGISTERED PROFESSIONAL ENGINEER

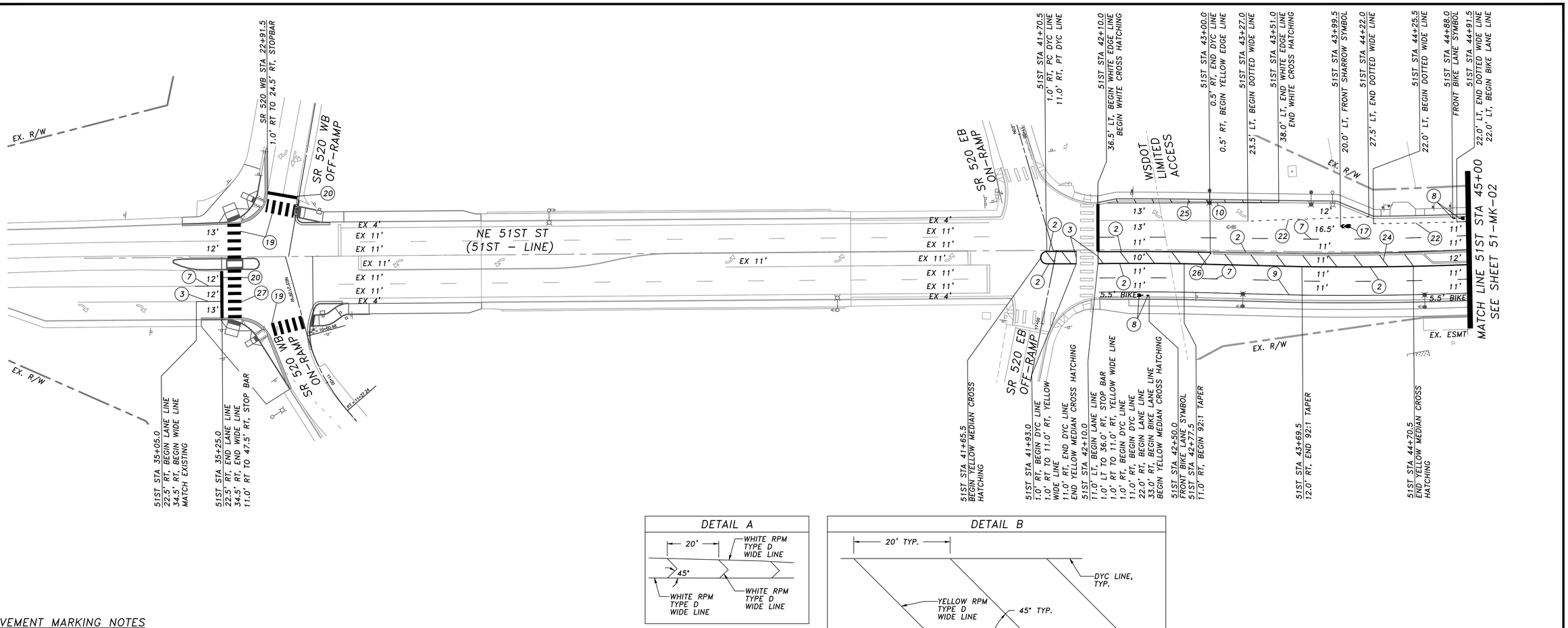
LINE IS 1" AT FULL SCALE

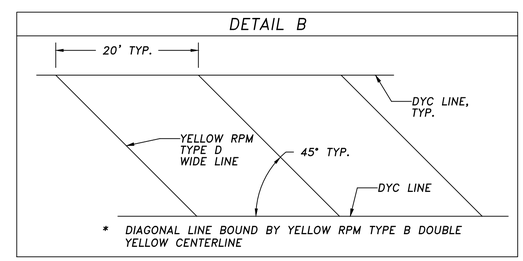
DESIGNED BY: J. ARREOLA	ISSUE DATE: 05/13/2019	CFD PROJECT NO. 2 NE 51ST ST IMPROVEMENTS
DRAWN BY: J. ARREOLA	JOB NO: R306543.01	UTILITY DETAILS
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-UT-20.DWG	

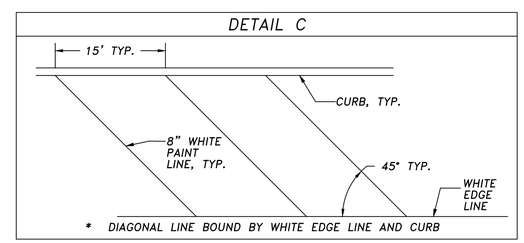
DRAWING No.: **51-UT-20**

SHEET No.: 46 OF 80

05/13/19 | 4:41 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-UT-20.DWG







PAVEMENT MARKING NOTES

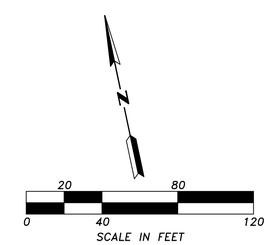
1. INSTALL WHITE THERMOPLASTIC LANE-USE PAVEMENT MARKING PER CITY OF REDMOND STANDARD DETAIL 419. CENTER IN LANE AT STATION SHOWN.
2. INSTALL RPM TYPE B DOUBLE YELLOW CENTER (DYC) LINE PER CITY OF REDMOND STANDARD DETAIL 312.
3. INSTALL RPM TYPE D WIDE LINE PER CITY OF REDMOND STANDARD DETAIL 312.
4. INSTALL 24" WHITE THERMOPLASTIC STOP BAR PER CITY OF REDMOND STANDARD DETAIL 311A.
5. INSTALL WHITE THERMOPLASTIC CROSSWALK PER CITY OF REDMOND STANDARD DETAIL 311A.
6. INSTALL RPM TYPE F DROP LANE LINE PER CITY OF REDMOND STANDARD DETAIL 312.
7. INSTALL RPM TYPE A LANE LINE PER CITY OF REDMOND STANDARD DETAIL 312.
8. INSTALL WHITE THERMOPLASTIC BICYCLE LANE SYMBOL PER CITY OF REDMOND STANDARD DETAIL 319. CENTER IN BIKE LANE AT STATION SHOWN.
9. INSTALL 8" WHITE PAINT BIKE LANE LINE PER CITY OF REDMOND STANDARD DETAIL 312 AND 319.
10. INSTALL 4" WHITE PAINT EDGE LINE PER CITY OF REDMOND STANDARD DETAIL 312.
11. INSTALL WHITE THERMOPLASTIC DOTTED EXTENSION LINE PER CITY OF REDMOND STANDARD DETAIL 312.
12. REFRESH EXISTING 8" WHITE PAINT BIKE LANE LINE PER CITY OF REDMOND STANDARD DETAIL 319.
13. INSTALL WHITE THERMOPLASTIC BICYCLE DETECTOR PAVEMENT MARKING PER CITY OF REDMOND STANDARD DETAILS 319 AND 320A.
14. INSTALL RPM TYPE C TWO-WAY LEFT TURN LANE (TWLT) PER CITY OF REDMOND STANDARD DETAIL 312.
15. NOT USED
16. REFRESH EXISTING WHITE THERMOPLASTIC LANE-USE PAVEMENT MARKING PER CITY OF REDMOND STANDARD DETAIL 419.
17. INSTALL SHARROW SYMBOL PER CITY OF REDMOND STANDARD DETAIL 319B AND MUTCD FIGURE 9C-9.
18. NOT USED
19. INSTALL WHITE THERMOPLASTIC CROSSWALK PER CITY OF REDMOND STANDARD DETAIL 311B.
20. INSTALL 24" WHITE THERMOPLASTIC STOP BAR PER CITY OF REDMOND STANDARD DETAIL 311B.
21. NOT USED
22. INSTALL 8" WHITE TYPE G PAINT DOTTED WIDE LINE PER CITY OF REDMOND STANDARD DETAILS 319B AND 312.
23. INSTALL RPM TYPE D WIDE LINE PER CITY OF REDMOND STANDARD DETAIL 312 AND DETAIL A, THIS SHEET.
24. INSTALL RPM TYPE D WIDE LINE PER CITY OF REDMOND STANDARD DETAIL 312 AND DETAIL B, THIS SHEET.
25. INSTALL 8" WHITE CHEVRON PER WSDOT STANDARD PLAN M-24.60 AND DETAIL C, THIS SHEET.
26. INSTALL YELLOW REFLECTIVE PLASTIC DELINEATOR (IMPACT RECOVERY SYSTEM 3" TUFF POST OR APPROVED EQUAL).
27. INSTALL WHITE THERMOPLASTIC CROSSWALK PER CITY OF REDMOND STANDARD DETAIL 311B, MODIFIED TO 12' WIDTH.

PAVEMENT GENERAL NOTES

1. REMOVE EXISTING CONFLICTING STRIPING AS NECESSARY TO ACCOMMODATE NEW STRIPING. CONTRACTOR TO COORDINATE STRIPING REMOVAL WITH ASPHALT RESTORATION WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PAVEMENT MARKINGS PER CITY OF REDMOND STANDARDS. CONTRACTOR SHALL LAYOUT OUT ALL PAVEMENT MARKINGS AND THEN CONTACT ALLYSON THOMPSON, SENIOR TRANSPORTATION TECHNICIAN, AT (425) 556-2752, 48-HOURS IN ADVANCE OF INSTALLATION TO VERIFY LAYOUT.

LEGEND	
◯	PAVEMENT MARKING NOTE

ROADWAY DESIGN DATA			
ROADWAY	POSTED SPEED	DESIGN SPEED	CLASSIFICATION
NE 51ST ST	35 MPH	35 MPH	MINOR ARTERIAL



IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

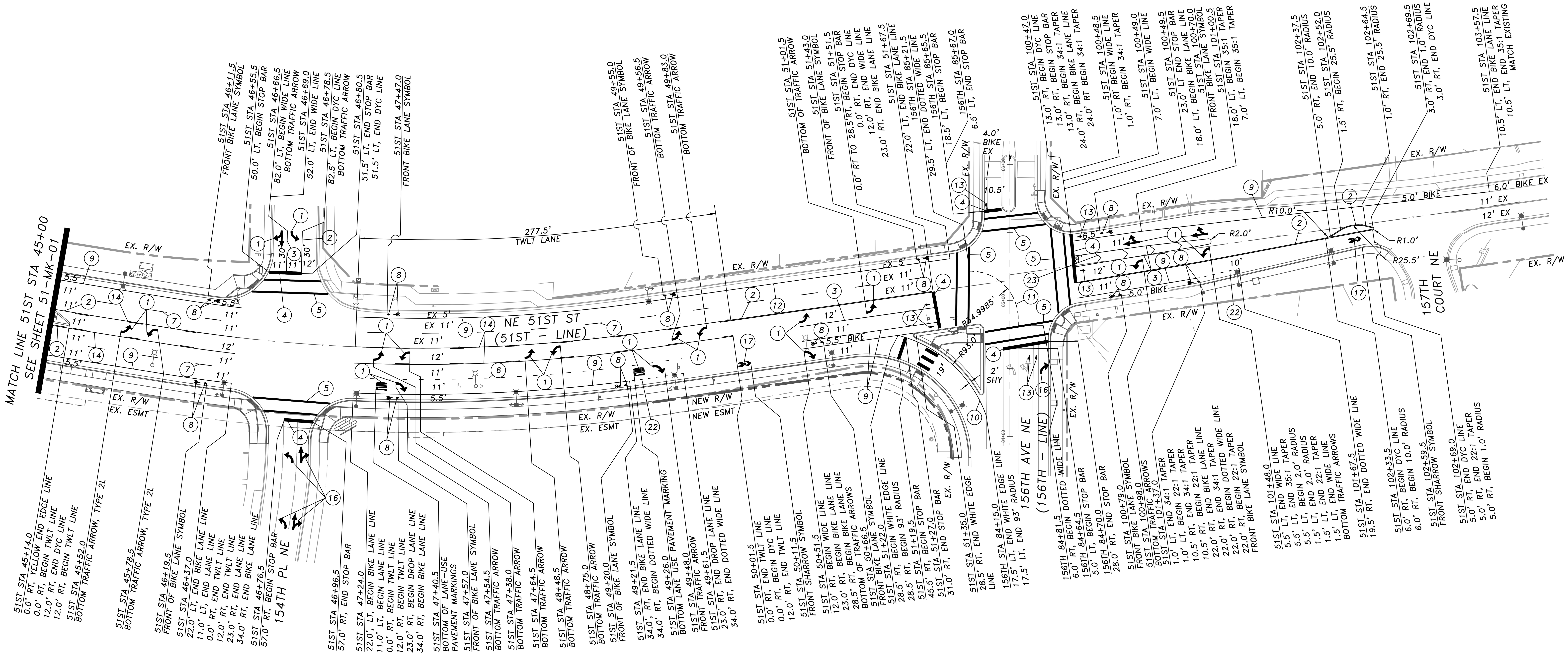
DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

PAVEMENT MARKING PLAN

DRAWING No.: **51-MK-01**

SHEET No.: 47 OF 80



PAVEMENT MARKING NOTES

1. INSTALL WHITE THERMOPLASTIC LANE-USE PAVEMENT MARKING PER CITY OF REDMOND STANDARD DETAIL 419. CENTER IN LANE AT STATION SHOWN.
2. INSTALL RPM TYPE B DOUBLE YELLOW CENTER (DYC) LINE PER CITY OF REDMOND STANDARD DETAIL 312.
3. INSTALL RPM TYPE D WIDE LINE PER CITY OF REDMOND STANDARD DETAIL 312.
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22. INSTALL 8" WHITE TYPE G PAINT DOTTED WIDE LINE PER CITY OF REDMOND STANDARD DETAILS 319B AND 312.
23. INSTALL 8" WHITE CHEVRON PER WSDOT STANDARD PLAN M-24.60 AND DETAIL A, SHEET 51-MK-01.
24. INSTALL 8" YELLOW DIAGONAL PER WSDOT STANDARD PLAN M-24.60 AND DETAIL B, SHEET 51-MK-01.

PAVEMENT GENERAL NOTES

1. REMOVE EXISTING CONFLICTING STRIPING AS NECESSARY TO ACCOMMODATE NEW STRIPING. CONTRACTOR TO COORDINATE STRIPING REMOVAL WITH ASPHALT RESTORATION WORK.
2. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PAVEMENT MARKINGS PER CITY OF REDMOND STANDARDS. CONTRACTOR SHALL LAYOUT OUT ALL PAVEMENT MARKINGS AND THEN CONTACT ALLYSON THOMPSON, SENIOR TRANSPORTATION TECHNICIAN, AT (425) 556-2752, 48-HOURS IN ADVANCE OF INSTALLATION TO VERIFY LAYOUT.

LEGEND	
◯	PAVEMENT MARKING NOTE

ROADWAY DESIGN DATA

ROADWAY	POSTED SPEED	DESIGN SPEED	CLASSIFICATION
NE 51ST ST	35 MPH	35 MPH	MINOR ARTERIAL

N

SCALE IN FEET: 0, 20, 40, 80, 120

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
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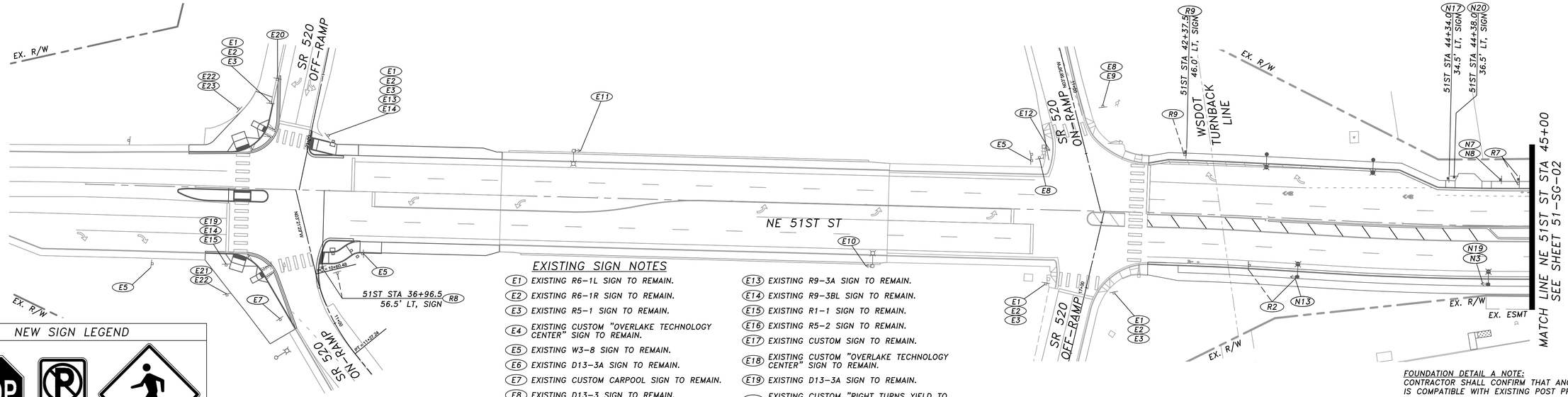
TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BICKET, STATE OF WASHINGTON, 35635, REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019	NE 51ST ST IMPROVEMENTS	DRAWING No.: 51-MK-02
DRAWN BY: TTT	JOB NO: 5288	PAVEMENT MARKING PLAN	SHEET No.: 48 OF 80
CHECKED BY: CTB	DRAWING FILE NO:		

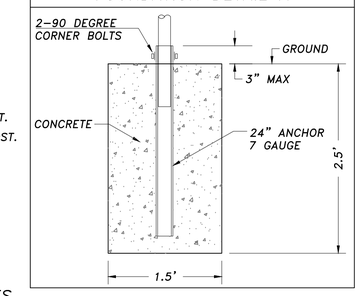


EXISTING SIGN NOTES

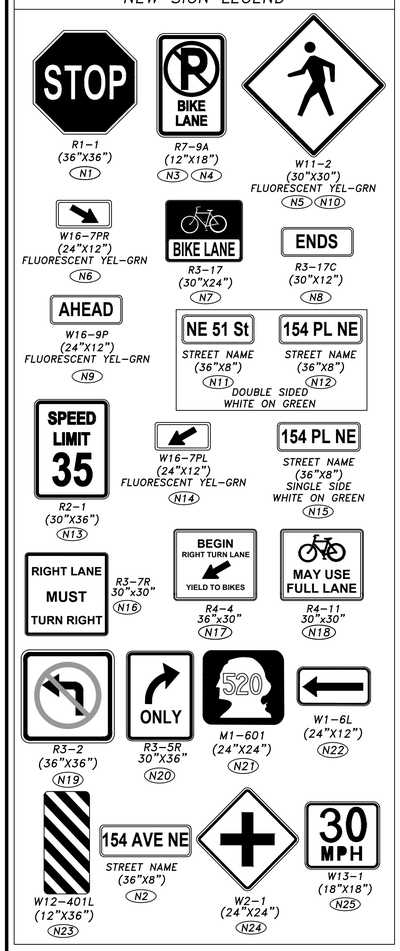
- (E1) EXISTING R6-1L SIGN TO REMAIN.
- (E2) EXISTING R6-1R SIGN TO REMAIN.
- (E3) EXISTING R5-1 SIGN TO REMAIN.
- (E4) EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO REMAIN.
- (E5) EXISTING W3-8 SIGN TO REMAIN.
- (E6) EXISTING D13-3A SIGN TO REMAIN.
- (E7) EXISTING CUSTOM CARPOOL SIGN TO REMAIN.
- (E8) EXISTING D13-3 SIGN TO REMAIN.
- (E9) EXISTING R9-4 SIGN TO REMAIN.
- (E10) EXISTING M8-101 SIGN TO REMAIN.
- (E11) EXISTING M8-101 SIGN TO REMAIN.
- (E12) EXISTING M8-101 SIGN TO REMAIN.
- (E13) EXISTING R9-3A SIGN TO REMAIN.
- (E14) EXISTING R9-3BL SIGN TO REMAIN.
- (E15) EXISTING R1-1 SIGN TO REMAIN.
- (E16) EXISTING R5-2 SIGN TO REMAIN.
- (E17) EXISTING CUSTOM SIGN TO REMAIN.
- (E18) EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO REMAIN.
- (E19) EXISTING D13-3A SIGN TO REMAIN.
- (E20) EXISTING CUSTOM "RIGHT TURNS YIELD TO BIKES & PEDS SIGN" TO REMAIN.
- (E21) EXISTING R5-3 SIGN TO REMAIN.
- (E22) EXISTING D11-1 SIGN TO REMAIN.
- (E23) EXISTING M7-5 SIGN TO REMAIN.

FOUNDATION DETAIL A NOTE:
CONTRACTOR SHALL CONFIRM THAT ANCHOR IS COMPATIBLE WITH EXISTING POST PRIOR TO POURING NEW FOUNDATION OR CITY SPEC. FOUNDATION.

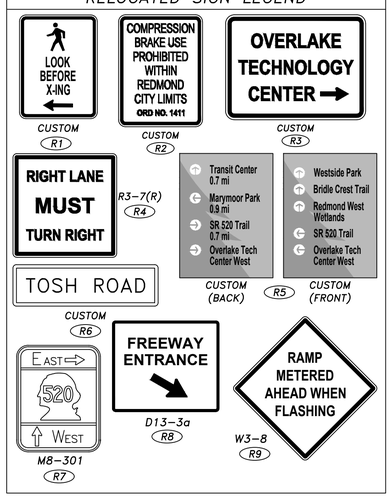
FOUNDATION DETAIL A



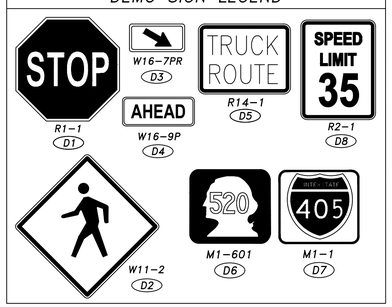
NEW SIGN LEGEND



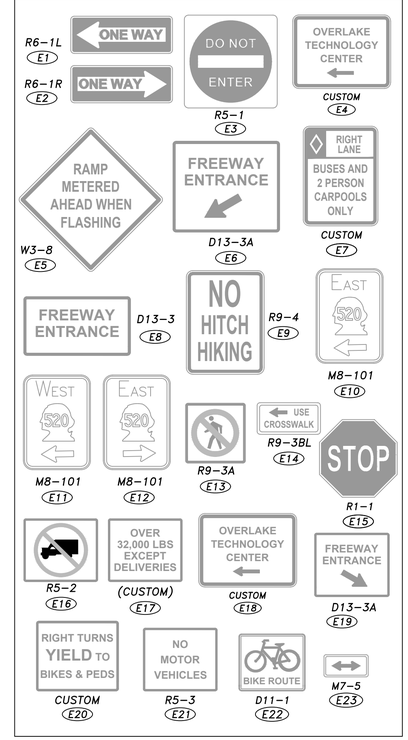
RELOCATED SIGN LEGEND



DEMO SIGN LEGEND



EXISTING SIGN LEGEND



RELOCATED SIGN NOTES

- (R1) RELOCATE EXISTING CUSTOM "LOOK BEFORE X-ING" SIGN TO NEW POST AT LOCATION SHOWN. MOUNT BELOW W16-7PR SIGN. SIGN SHALL FACE SOUTHWEST SO AS TO FACE PEDESTRIANS. REMOVE EXISTING POST.
- (R2) RELOCATE EXISTING CUSTOM "COMPRESSION BRAKE" SIGN TO NEW LUMINAIRE POLE. MOUNT BELOW R2-1 SIGN. REMOVE EXISTING POST.
- (R3) RELOCATE EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO NEW POST AT LOCATION SHOWN. REMOVE EXISTING POST.
- (R4) RELOCATE EXISTING R3-7(R) SIGN TO NEW LUMINAIRE POLE.
- (R5) RELOCATE EXISTING CUSTOM "WAYFINDING" SIGNS TO NEW POST AT LOCATION SHOWN. FOUNDATION PER DETAIL A, THIS SHEET.
- (R6) RELOCATE EXISTING CUSTOM "TOSH ROAD" SIGN TO NEW LUMINAIRE POLE.
- (R7) RELOCATE EXISTING M8-301 SIGN TO NEW POST AT LOCATION SHOWN.
- (R8) RELOCATE EXISTING D13-3A SIGN TO NEW POST AT LOCATION SHOWN.
- (R9) RELOCATE EXISTING W3-8 SIGN TO NEW POST AT LOCATION SHOWN.

NEW SIGN NOTES

- (N1) INSTALL NEW R1-1 SIGN ON NEW POST AT LOCATION SHOWN.
- (N2) INSTALL NEW STREET NAME SIGN ON EXISTING LUMINAIRE POLE PER SIGN LAYOUT, THIS SHEET.
- (N3) INSTALL NEW R7-9A SIGN ON NEW LUMINAIRE POLE. MOUNT BELOW R3-2 SIGN.
- (N4) INSTALL NEW R7-9A SIGN ON NEW POST AT LOCATION SHOWN.
- (N5) INSTALL NEW W11-2 SIGN ON NEW POST AT LOCATION SHOWN. SIGN SHALL FACE WEST SO AS TO FACE EASTBOUND VEHICLES.
- (N6) INSTALL NEW W16-7PR SIGN. MOUNT BELOW W11-2 SIGN. SIGN SHALL FACE WEST SO AS TO FACE EASTBOUND VEHICLES.
- (N7) INSTALL NEW R3-17 SIGN AND NEW POST AT LOCATION SHOWN.
- (N8) INSTALL NEW R3-17C SIGN TO NEW POST. MOUNT BELOW R3-17 SIGN.
- (N9) INSTALL NEW W16-9P SIGN ON NEW LUMINAIRE POLE. MOUNT BELOW W11-2 SIGN.
- (N10) INSTALL NEW W11-2 SIGN ON NEW LUMINAIRE POLE AT LOCATION SHOWN.
- (N11) INSTALL NEW STREET NAME SIGN ON NEW POST. MOUNT ABOVE R1-1 SIGN.
- (N12) INSTALL NEW STREET NAME SIGN ON NEW POST. MOUNT ABOVE STREET NAME SIGN.
- (N13) INSTALL NEW R2-1 SIGN ON NEW LUMINAIRE POLE.
- (N14) INSTALL NEW W16-7PL SIGN. MOUNT BELOW W11-2 SIGN.
- (N15) INSTALL NEW STREET NAME SIGN ON NEW LUMINAIRE POLE.
- (N16) INSTALL NEW R3-7R SIGN ON NEW LUMINAIRE POLE AT LOCATION SHOWN.
- (N17) INSTALL NEW R4-4 SIGN ON NEW LIGHT POLE AT LOCATION SHOWN.
- (N18) INSTALL NEW R4-11 SIGN ON NEW POST AT LOCATION SHOWN.
- (N19) INSTALL NEW R3-2 SIGN ON NEW LUMINAIRE POLE.
- (N20) INSTALL NEW R3-5R SIGN ON NEW POST AT LOCATION SHOWN.

DEMO SIGN NOTES

- (D1) REMOVE EXISTING R1-1 SIGN AND POST.
- (D2) REMOVE EXISTING W11-2 SIGN AND POST.
- (D3) REMOVE EXISTING W16-7PR SIGN.
- (D4) REMOVE EXISTING W16-9P SIGN.
- (D5) REMOVE EXISTING R14-1 SIGN.
- (D6) REMOVE EXISTING M1-601 SIGN.
- (D7) REMOVE EXISTING M1-1 SIGN.
- (D8) REMOVE EXISTING R2-1 SIGN.

SIGNING GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SIGNS PER CITY OF REDMOND STANDARDS. CONTRACTOR SHALL LAYOUT OUT ALL SIGNS, AND THEN CONTACT GINA SCHROEDER, SENIOR TRANSPORTATION TECHNICIAN, AT (425) 556-2752, 48-HOURS IN ADVANCE OF INSTALLATION TO VERIFY LAYOUT.
2. ALL QWIK PUNCH POST MOUNTED SIGNS SHALL BE INSTALLED PER CITY OF REDMOND DETAIL NO.'S 426C OR 426D, UNLESS OTHERWISE NOTED.
3. ALL LUMINAIRE POLE MOUNTED SIGNS SHALL BE INSTALL PER CITY OF REDMOND DETAIL 426B, UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, INSTALL ALL SIGNS AT 7' ABOVE FINISHED GRADE AS MEASURED TO THE BOTTOM OF SIGN. WHEN TWO OR MORE SIGNS ARE INSTALLED ON THE SAME POST, THE LOWEST SIGN SHALL BE 7' ABOVE FINISHED GRADE AS MEASURED TO THE BOTTOM OF THE SIGN.
5. ALL SIGNS SHALL USE 3M DG3 SHEETING.
6. ALL W11-2, W16-7P, AND W16-9P SIGNS SHALL BE FLUORESCENT YELLOW-GREEN WITH BLACK SYMBOLS/TEXT AND BORDER.

NEW SIGN NOTES

- (N21) INSTALL NEW M1-601 SIGN ON TOP OF SIGN N22 AT LOCATION SHOWN.
- (N22) INSTALL NEW W1-6L SIGN ON NEW POST AT LOCATION SHOWN.
- (N23) INSTALL NEW W12-401L SIGN ON NEW POST AT THE LOCATION SHOWN.
- (N24) INSTALL NEW W2-1 SIGN PER SIGN LAYOUT, THIS SHEET.
- (N25) INSTALL NEW W13-1 SIGN BELOW SIGN N24 PER SIGN LAYOUT, THIS SHEET.

LEGEND

- SIGNING NOTE
- STREET LIGHT POLE MOUNTED SIGN EXISTING/PROPOSED
- POST MOUNTED SIGN EXISTING/PROPOSED

N

20 80
0 40 120
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIONDI STATE OF WASHINGTON 35833 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

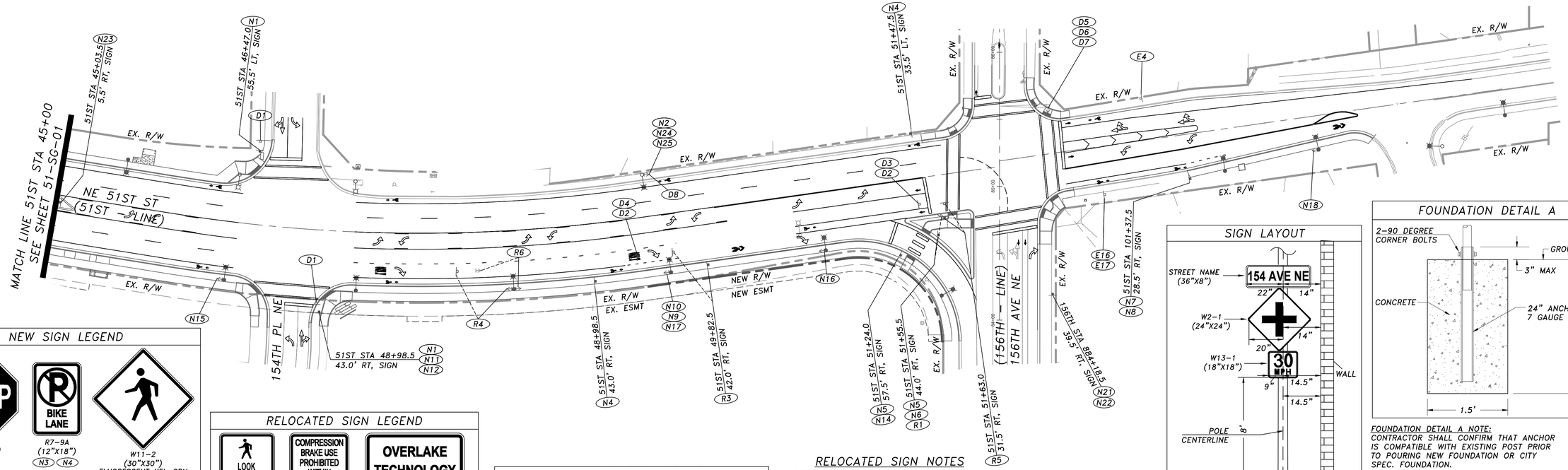
DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

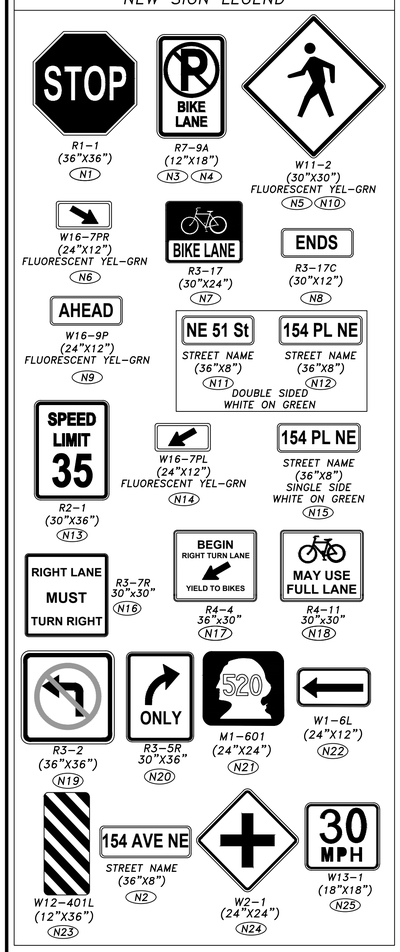
SIGNING PLAN

DRAWING No.: 51-SG-01

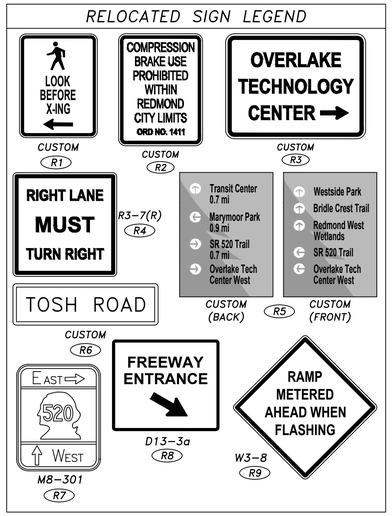
SHEET No.: 49 OF 80



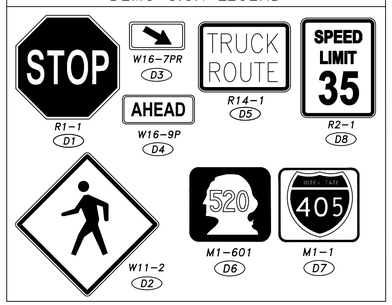
NEW SIGN LEGEND



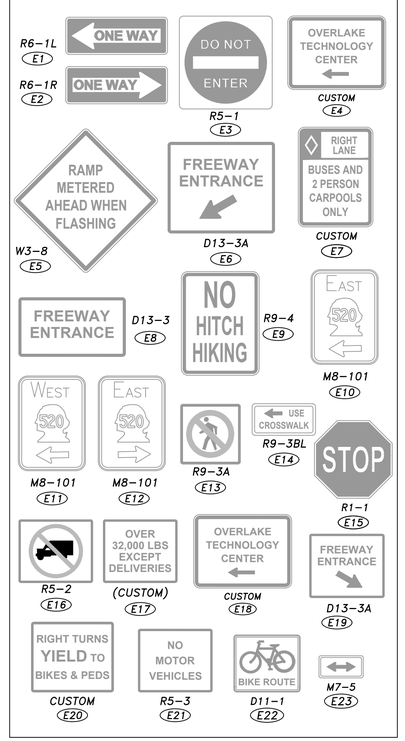
RELOCATED SIGN LEGEND



DEMO SIGN LEGEND



EXISTING SIGN LEGEND



RELOCATED SIGN NOTES

(R1) RELOCATE EXISTING CUSTOM "LOOK BEFORE X-ING" SIGN TO NEW POST AT LOCATION SHOWN. MOUNT BELOW W16-7PR SIGN. SIGN SHALL FACE SOUTHWEST SO AS TO FACE PEDESTRIANS. REMOVE EXISTING POST.

(R2) RELOCATE EXISTING CUSTOM "COMPRESSION BRAKE" SIGN TO NEW LUMINAIRE POLE. MOUNT BELOW R2-1 SIGN. REMOVE EXISTING POST.

(R3) RELOCATE EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO NEW POST AT LOCATION SHOWN. REMOVE EXISTING POST.

(R4) RELOCATE EXISTING R3-7(R) SIGN TO NEW LUMINAIRE POLE.

(R5) RELOCATE EXISTING CUSTOM "WAYFINDING" SIGNS TO NEW POST AT LOCATION SHOWN. FOUNDATION PER DETAIL A, THIS SHEET.

(R6) RELOCATE EXISTING CUSTOM "TOSH ROAD" SIGN TO NEW LUMINAIRE POLE.

(R7) RELOCATE EXISTING M8-301 SIGN TO NEW POST AT LOCATION SHOWN.

(R8) RELOCATE EXISTING D13-3A SIGN TO NEW POST AT LOCATION SHOWN.

(R9) RELOCATE EXISTING W3-8 SIGN TO NEW POST AT LOCATION SHOWN.

NEW SIGN NOTES

(N1) INSTALL NEW R1-1 SIGN ON NEW POST AT LOCATION SHOWN.

(N2) INSTALL NEW STREET NAME SIGN ON EXISTING LUMINAIRE POLE PER SIGN LAYOUT, THIS SHEET.

(N3) INSTALL NEW R7-9A SIGN ON NEW LUMINAIRE POLE. MOUNT BELOW R3-2 SIGN.

(N4) INSTALL NEW R7-9A SIGN ON NEW POST AT LOCATION SHOWN.

(N5) INSTALL NEW W11-2 SIGN ON NEW POST AT LOCATION SHOWN. SIGN SHALL FACE WEST SO AS TO FACE EASTBOUND VEHICLES.

(N6) INSTALL NEW W16-7PR SIGN. MOUNT BELOW W11-2 SIGN. SIGN SHALL FACE WEST SO AS TO FACE EASTBOUND VEHICLES.

(N7) INSTALL NEW R3-17 SIGN AND NEW POST AT LOCATION SHOWN.

(N8) INSTALL NEW R3-17C SIGN TO NEW POST. MOUNT BELOW R3-17 SIGN.

(N9) INSTALL NEW W16-9P SIGN ON NEW LUMINAIRE POLE. MOUNT BELOW W11-2 SIGN.

(N10) INSTALL NEW W11-2 SIGN ON NEW LUMINAIRE POLE AT LOCATION SHOWN.

(N11) INSTALL NEW STREET NAME SIGN ON NEW POST. MOUNT ABOVE R1-1 SIGN.

(N12) INSTALL NEW STREET NAME SIGN ON NEW POST. MOUNT ABOVE STREET NAME SIGN.

(N13) INSTALL NEW R2-1 SIGN ON NEW LUMINAIRE POLE.

(N14) INSTALL NEW W16-7PL SIGN. MOUNT BELOW W11-2 SIGN.

(N15) INSTALL NEW STREET NAME SIGN ON NEW LUMINAIRE POLE.

(N16) INSTALL NEW R3-7R SIGN ON NEW LUMINAIRE POLE AT LOCATION SHOWN.

(N17) INSTALL NEW R4-4 SIGN ON NEW LIGHT POLE AT LOCATION SHOWN.

(N18) INSTALL NEW R4-11 SIGN ON NEW POST AT LOCATION SHOWN.

(N19) INSTALL NEW R3-2 SIGN ON NEW LUMINAIRE POLE.

(N20) INSTALL NEW R3-5R SIGN ON NEW POST AT LOCATION SHOWN.

(N21) INSTALL NEW M1-601 SIGN ON TOP OF SIGN N22 AT LOCATION SHOWN.

(N22) INSTALL NEW W1-6L SIGN ON NEW POST AT LOCATION SHOWN.

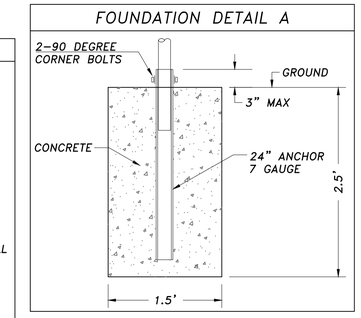
(N23) INSTALL NEW W12-401L SIGN ON NEW POST AT THE LOCATION SHOWN.

(N24) INSTALL NEW W2-1 SIGN PER SIGN LAYOUT, THIS SHEET.

(N25) INSTALL NEW W13-1 SIGN BELOW SIGN N24 PER SIGN LAYOUT, THIS SHEET.

SIGN LAYOUT

FOUNDATION DETAIL A



FOUNDATION DETAIL A NOTE:
CONTRACTOR SHALL CONFIRM THAT ANCHOR IS COMPATIBLE WITH EXISTING POST PRIOR TO POURING NEW FOUNDATION OR CITY SPEC. FOUNDATION.

EXISTING SIGN NOTES

(E1) EXISTING R6-1L SIGN TO REMAIN.

(E2) EXISTING R6-1R SIGN TO REMAIN.

(E3) EXISTING R5-1 SIGN TO REMAIN.

(E4) EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO REMAIN.

(E5) EXISTING W3-8 SIGN TO REMAIN.

(E6) EXISTING D13-3A SIGN TO REMAIN.

(E7) EXISTING CUSTOM CARPOOL SIGN TO REMAIN.

(E8) EXISTING D13-3 SIGN TO REMAIN.

(E9) EXISTING R9-4 SIGN TO REMAIN.

(E10) EXISTING M8-101 SIGN TO REMAIN.

(E11) EXISTING M8-101 SIGN TO REMAIN.

(E12) EXISTING M8-101 SIGN TO REMAIN.

(E13) EXISTING R9-3A SIGN TO REMAIN.

(E14) EXISTING R9-3BL SIGN TO REMAIN.

(E15) EXISTING R1-1 SIGN TO REMAIN.

(E16) EXISTING R5-2 SIGN TO REMAIN.

(E17) EXISTING CUSTOM SIGN TO REMAIN.

(E18) EXISTING CUSTOM "OVERLAKE TECHNOLOGY CENTER" SIGN TO REMAIN.

(E19) EXISTING D13-3A SIGN TO REMAIN.

(E20) EXISTING CUSTOM "RIGHT TURNS YIELD TO BIKES & PEDS SIGN" TO REMAIN.

(E21) EXISTING R5-3 SIGN TO REMAIN.

(E22) EXISTING D11-1 SIGN TO REMAIN.

(E23) EXISTING M7-5 SIGN TO REMAIN.

SIGNING GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SIGNS PER CITY OF REDMOND STANDARDS. CONTRACTOR SHALL LAYOUT OUT ALL SIGNS, AND THEN CONTACT GINA SCHROEDER, SENIOR TRANSPORTATION TECHNICIAN, AT (425) 556-2752, 48-HOURS IN ADVANCE OF INSTALLATION TO VERIFY LAYOUT.
2. ALL QWIK PUNCH POST MOUNTED SIGNS SHALL BE INSTALLED PER CITY OF REDMOND DETAIL NO.'S 426C OR 426D, UNLESS OTHERWISE NOTED.
3. ALL LUMINAIRE POLE MOUNTED SIGNS SHALL BE INSTALL PER CITY OF REDMOND DETAIL 426B, UNLESS OTHERWISE NOTED.
4. UNLESS OTHERWISE NOTED, INSTALL ALL SIGNS AT 7' ABOVE FINISHED GRADE AS MEASURED TO THE BOTTOM OF SIGN. WHEN TWO OR MORE SIGNS ARE INSTALLED ON THE SAME POST, THE LOWEST SIGN SHALL BE 7' ABOVE FINISHED GRADE AS MEASURED TO THE BOTTOM OF THE SIGN.
5. ALL SIGNS SHALL USE 3M DG3 SHEETING.
6. ALL W11-2, W16-7P, AND W16-9P SIGNS SHALL BE FLUORESCENT YELLOW-GREEN WITH BLACK SYMBOLS/TEXT AND BORDER.

DEMO SIGN NOTES

(D1) REMOVE EXISTING R1-1 SIGN AND POST.

(D2) REMOVE EXISTING W11-2 SIGN AND POST.

(D3) REMOVE EXISTING W16-7PR SIGN.

(D4) REMOVE EXISTING W16-9P SIGN.

(D5) REMOVE EXISTING R14-1 SIGN.

(D6) REMOVE EXISTING M1-601 SIGN.

(D7) REMOVE EXISTING M1-1 SIGN.

(D8) REMOVE EXISTING R2-1 SIGN.

LEGEND

- SIGNING NOTE
- STREET LIGHT/SIGNAL POLE MOUNTED SIGN EXISTING/PROPOSED
- POST MOUNTED SIGN EXISTING/PROPOSED

N

20 80
0 40 120
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIGGS STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

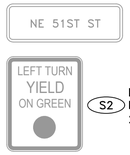
NE 51ST ST IMPROVEMENTS

SIGNING PLAN

DRAWING No.: 51-SG-02

SHEET No.: 50 OF 80

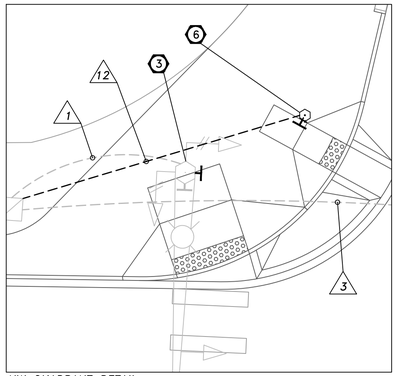
MASTARM MOUNTED SIGNS



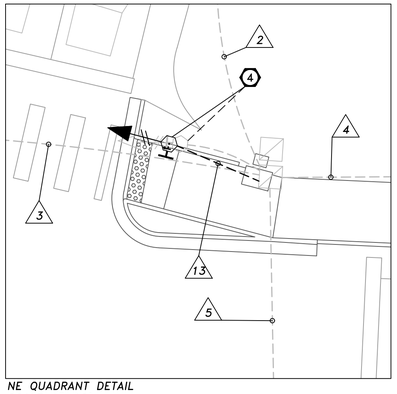
S1 EXISTING D3-1 – 12D TEXT (24" X APROX. 103") BACKGROUND: GREEN (REFL)

S2 EXISTING R10-12 24"X30"

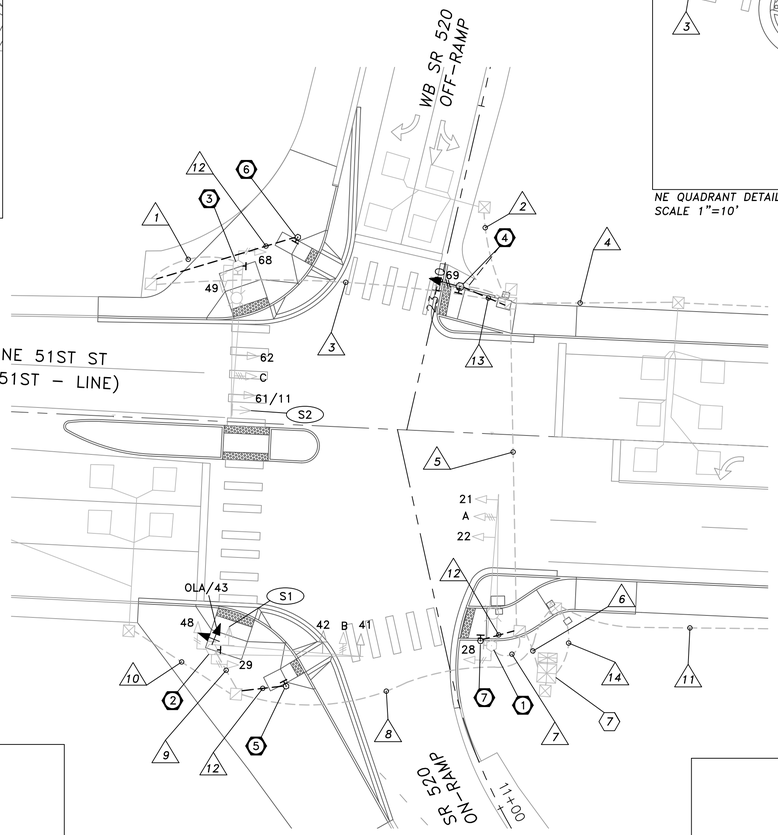
S3 NEW R10-27 MOD. 30"X36"



NW QUADRANT DETAIL
SCALE 1"=10'



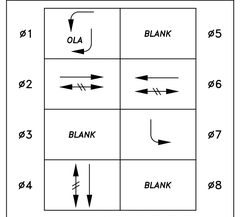
NE QUADRANT DETAIL
SCALE 1"=10'



WIRE SCHEDULE (THIS SHEET ONLY)

NO.	RACEWAY CONDUIT SIZE	PED/VEH DETECT. 2C(SH)		EVPE. DETECT. 3C(SH)		PED/VEH HEAD 5C		PED/VEH HEAD 7C		FLASHING BEACON 3C(SH)		PPB 2C(SH)		ILLUM. #8		SIGNAL POWER #6		SVC POWER 3/0		INTC. FIBER 1-24CT		COMM. 6PR		EQUIP. GRND.		PULL WIRE	CONDUIT FILL	ALLOW. FILL (NEW)
		NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX	NEW	EX			
1	2" SCH40 EX	–	–	–	1	–	2	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.252	–
2	1.25" SCH40 EX	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.168	–
3	3" SCH40 EX	–	–	–	1	–	2	–	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.084	–
4	2.5" SCH40 EX	–	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.236	–
5	3" SCH40 EX	–	13	–	–	1	2	–	1	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.416	–
	2" SCH40 EX	–	–	–	2	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	1	–	0.416	–
6	2" SCH40 EX	–	–	–	1	–	3	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.486	–
	3" SCH40 EX	–	9	–	2	1	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	0.486	–
	3" SCH40 EX	–	13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	0.486	–
7	2" SCH40 EX	–	–	–	1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.756	–
8	3" SCH40 EX	–	7	–	1	–	1	1	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.646	–
	2" SCH40 EX	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.486	–
9	2" SCH40 EX	–	–	–	1	–	2	1	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.126	–
10	2" SCH40 EX	–	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.286	–
11	2" SCH40 EX	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	0.636	–
12	2" SCH40	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	0.636	0.856
13	2" SCH40	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	0.406	0.856
14	3" SCH40 EX	–	7	–	1	–	1	2	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	1	–	0.646	–
	2" SCH40 EX	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	1	–	0.486	–

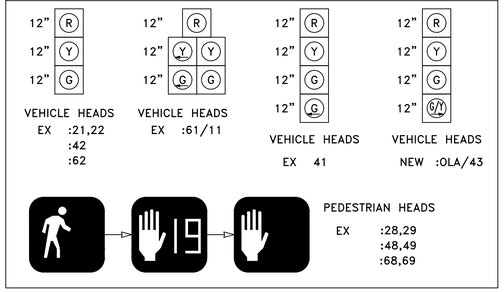
PHASE DIAGRAM
(EX. PHASING TO REMAIN)

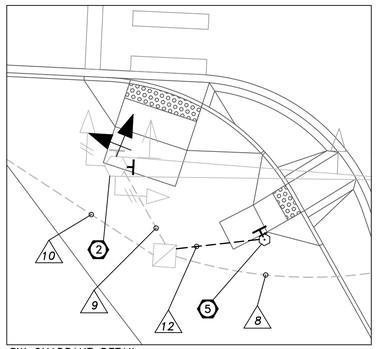


VEHICLE MOVEMENT
PROTECTED MOVEMENT
PEDESTRIAN MOVEMENT

PRE-EMPT
A = ø2
B = ø4
C = ø1 & ø6

SIGNAL DISPLAYS





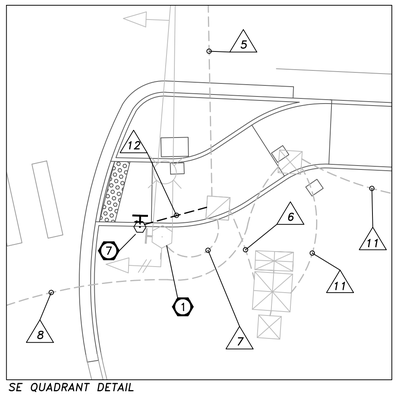
SW QUADRANT DETAIL
SCALE 1"=10'

SEE SHEET 51-TS-02 FOR:
- SIGNAL & ILLUMINATION POLE NOTES AND CONSTRUCTION NOTES
- GENERAL NOTES

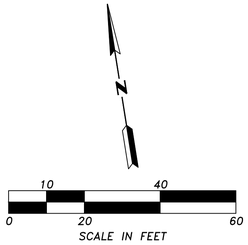
SEE SHEET 51-TS-03 FOR:
- WIRING DIAGRAM

SEE SHEET 51-TS-04 FOR:
- TRAFFIC SIGNAL POLE CHART

SEE SHEET 51-TS-05 FOR:
- APS POLE PLACEMENT



SE QUADRANT DETAIL
SCALE 1"=10'



SIGNAL LEGEND

EXIST.	NEW/RELOCATED	DESCRIPTION
		JUNCTION BOX TYPE 1,2,8
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		SIGNAL POLE TYPE II
		SIGNAL POLE TYPE III
		SIGNAL POLE TYPE PS OR TYPE PPB
		PUSHBOTTON
		LOOP DETECTOR
		MAST ARM MOUNTED SIGN
		EMERGENCY PRE-EMPTION DETECTOR
		LIGHT STANDARD
		CONDUIT/CONDUCTOR
		CONTROLLER CABINET
		SERVICE CABINET
		CCTV CAMERA
		CONSTRUCTION NOTE
		SIGNAL POLE NUMBER
		WIRE NOTE

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE:
TTT	04/30/2019
DRAWN BY:	JOB NO:
TTT	5288
CHECKED BY:	DRAWING FILE NO:
CTB	

SR520 WB ON RAMP
PEDESTRIAN SAFETY IMPROVEMENTS

NE 51ST ST & WB SR-520 ON/OFF RAMP
TRAFFIC SIGNAL & ILLUMINATION
PLAN

DRAWING No.: 51-TS-01

SHEET No.: 51 OF 80

GENERAL NOTES

1. UTILITY LOCATION (DIAL-A-DIG) PRIOR TO CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONFLICTS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE PROJECT INSPECTOR IMMEDIATELY UPON DAMAGE.
2. ALL WIRES SHALL BE LABELED PER WSDOT STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.
3. ALL JUNCTION BOXES AND CONDUIT RUNS SHALL BE INSTALLED AS SHOWN IN THE PLANS. LOCATIONS SHOWN ARE SCHEMATIC AND THE ENGINEER WILL PROVIDE EXACT LOCATIONS. SEE WSDOT STANDARD PLANS J-40.10 AND J-40.30.
4. EQUIPMENT GROUNDS SHALL BE PROVIDED IN ALL CONDUIT RUNS. EQUIPMENT GROUNDS SHALL BE EQUAL TO OR GREATER THAN THE LARGEST CONDUCTOR SIZE IN THE CONDUIT.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS, AND WSDOT STANDARDS AND SPECIFICATIONS.
6. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS BEFORE COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
7. CONTRACTOR SHALL CHECK FOR MINIMUM OVERHEAD CLEARANCE OF 16'6" FOR ALL SIGNAL HEADS ABOVE THE STREET PRIOR TO POURING OF FOUNDATION.
8. CONTRACTOR SHALL STAKE AND POTHOLE ALL SIGNAL POLE AND LUMINAIRE POLE LOCATIONS AS THE FIRST ORDER OF BUSINESS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY CONFLICTS ARE DISCOVERED.
9. JUNCTION BOX SHALL BE PLACED BEHIND SIDEWALKS WHENEVER POSSIBLE. IN THE EVENT A JUNCTION BOX MUST BE INSTALLED IN A SIDEWALK, THEN A SKID RESISTANT LID MUST BE INSTALLED.
10. ALL SIGNS NOT CALLED OUT AS BEING REMOVED OR RELOCATE TO REMAIN.
11. INSTALL FOUNDATION TAG PER WSDOT STANDARD PLAN J-26.15 ON THE TYPE II & TYPE III SIGNAL POLE FOUNDATIONS.
12. ALL PEDESTRIAN PUSHBUTTONS SHALL BE MOUNTED PER WSDOT STANDARD PLAN J-20.26.
13. CONTRACTOR SHALL CONFIRM THAT MINIMUM 10' CLEARANCE IS PROVIDED BETWEEN SIGNAL POLES/LUMINAIRE POLES PRIOR TO POURING FOUNDATIONS. IF A CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

SIGNAL & ILLUMINATION CONSTRUCTION NOTES

(1) EXISTING SIGNAL POLE TO REMAIN. REMOVE EXISTING PUSHBUTTON FROM SIGNAL POLE. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. CAP HOLES WITH WSDOT APPROVED METHOD.

(2) EXISTING SIGNAL POLE TO REMAIN. REMOVE EXISTING PUSHBUTTONS FROM SIGNAL POLE. INSTALL ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON FOR NORTH/SOUTH CROSSWALK. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. CAP HOLES WITH CITY APPROVED METHOD.

(3) EXISTING SIGNAL POLE TO REMAIN. REMOVE EXISTING PUSHBUTTONS FROM SIGNAL POLE. INSTALL ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON FOR NORTH/SOUTH CROSSWALK. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. PEDESTRIAN PUSHBUTTON SHALL FACE EAST AND BE PARALLEL TO CROSSWALK DIRECTION. CAP HOLES WITH CITY APPROVED METHOD.

(4) CONSTRUCT FOUNDATION PER POLE SCHEDULE, SHEET 51-TS-04. RELOCATE EXISTING PS SIGNAL STANDARD WITH EXISTING PEDESTRIAN SIGNAL HEAD AND ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON ON THE POLE. PUSHBUTTON SHALL FACE SOUTH AND BE PARALLEL TO CROSSWALK. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND.

(5) CONSTRUCT FOUNDATION PER POLE SCHEDULE, SHEET 51-TS-04. FURNISH AND INSTALL TYPE PPB POST WITH ONE POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE NORTH AND BE PARALLEL TO CROSSWALK DIRECTION.

(6) CONSTRUCT FOUNDATION PER POLE SCHEDULE, SHEET 51-TS-04. FURNISH AND INSTALL TYPE PPB POST WITH ONE POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE SOUTH AND BE PARALLEL TO CROSSWALK DIRECTION.

(7) CONSTRUCT FOUNDATION PER POLE SCHEDULE, SHEET 51-TS-04. FURNISH AND INSTALL TYPE PPB POST WITH ONE POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE NORTH AND BE PARALLEL TO CROSSWALK DIRECTION.

(8) WORK WITHIN THE CONTROLLER CABINET SHALL BE AS FOLLOWS:

CONTRACTOR SHALL:
A. FURNISH ONE POLARA ENGINEERING EZCOM NAVIGATOR CENTRAL CONTROL UNIT (PART NO. CCU2EN). PROVIDE THIS UNIT TO THE CITY INSPECTOR.
B. FURNISH ONE POLARA ENGINEERING EZCOMMUNICATOR NAVIGATOR CONFIGURATOR (PART NO. ECONFIG). PROVIDE THIS UNIT TO THE CITY INSPECTOR.
C. INSTALL PED WIRE EXTENSIONS WITHIN THE CONTROLLER CABINET (FROM EXISTING TERMINAL TO NEW CONTROL UNIT TERMINAL) AS DIRECTED BY THE CITY SIGNAL TECHNICIAN, APPROX. 4-FT IN LENGTH.
D. COORDINATE WITH THE CITY OF REDMOND INSPECTOR TO SCHEDULE CITY SIGNAL TECHNICIAN WORK.

WSDOT SIGNAL TECHNICIAN SHALL:
A. INSTALL CONTRACTOR SUPPLIED EZCOM NAVIGATOR CENTRAL CONTROL UNIT.
B. INSTALL CONTRACTOR SUPPLIED EZCOMMUNICATOR NAVIGATOR CONFIGURATOR.
C. TERMINATE PED BUTTON WIRES IN THE CONTROL UNIT.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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Transportation Engineering NorthWest
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Project Contact: Glen DuBreuil
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CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

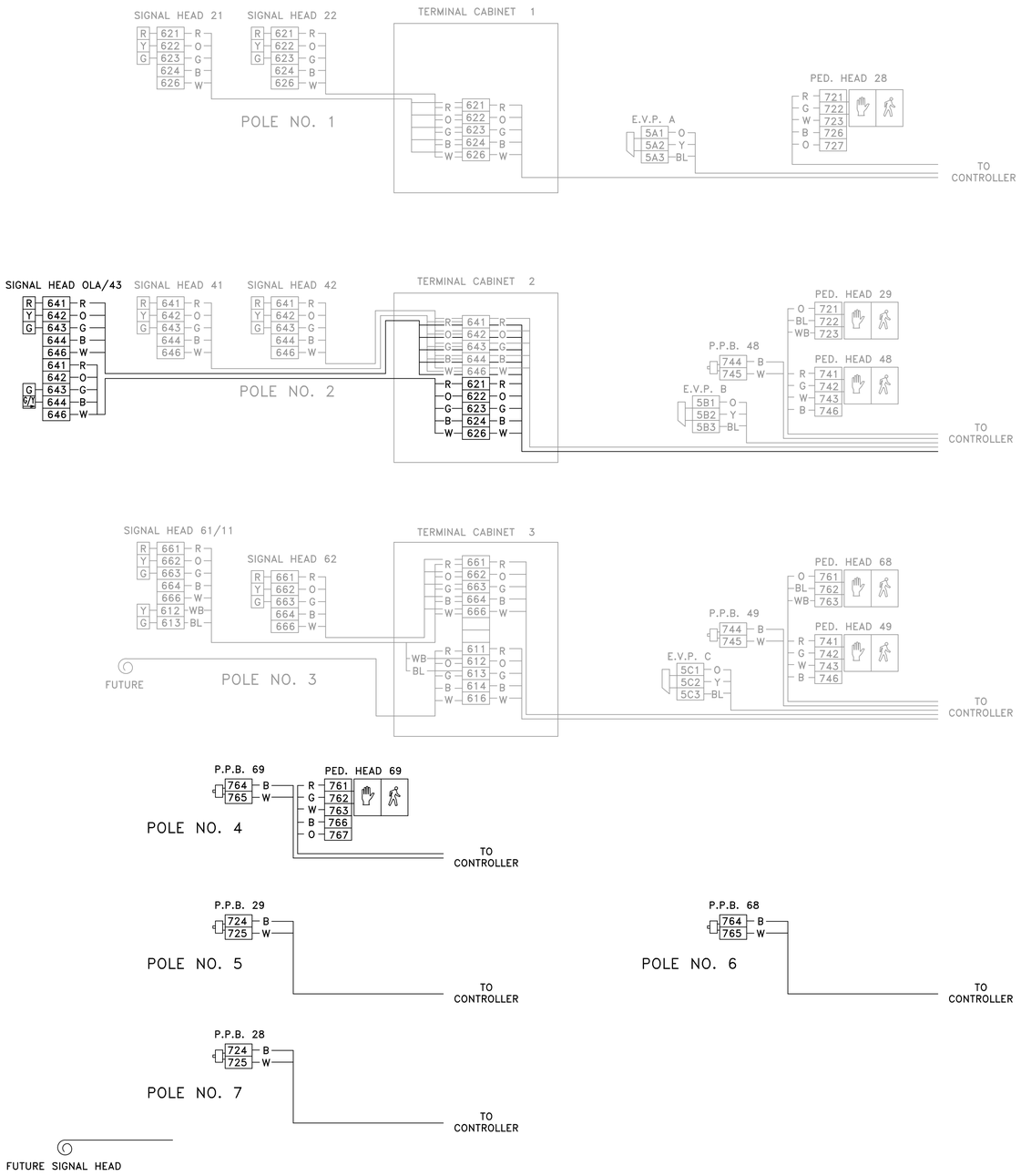
SR520 WB ON RAMP
PEDESTRIAN SAFETY IMPROVEMENTS

NE 51ST ST & WB SR-520 ON/OFF RAMP
TRAFFIC SIGNAL & ILLUMINATION
NOTES & DETAILS

DRAWING No.: **51-TS-02**

SHEET No.: 52 OF 80

FIELD WIRE TERMINATIONS
SYSTEM 1



CABINET WIRE TERMINATIONS

DETECTION INPUT TERMINALS

TB 2

L111,L112,L113	B>	816	1	I1D
	W>	817	2	I1E
		818	3	I1J
		819	4	I1K
L215	B	921	5	I2D
	W	922	6	I2E
L214,L224	B	923	7	I2J
	W	924	8	I2K
L225	B	925	9	I3D
	W	926	10	I3E
		927	11	I3J
		928	12	I3K

I1D, I1E	ϕ1U
I1J, I1K	ϕ1L
I2D, I2E	ϕ2U
I2J, I2K	ϕ2L
I3D, I3E	ϕ2U
I3J, I3K	ϕ2L

TB 3

ϕ5U	J1D	1	856	
	J1E	2	857	
ϕ5L	J1J	3	858	
	J1K	4	859	
ϕ6U	J2D	5	961	B L615
	J2E	6	962	W
ϕ6L	J2J	7	963	B L614,L624
	J2K	8	964	W
ϕ6U	J3D	9	965	B L625
	J3E	10	966	W
ϕ6L	J3J	11	967	
	J3K	12	968	

TB 4

L211,L212,L213	B>	826	1	I4D
	W>	827	2	I4E
L221,L222,L223	B>	828	3	I4J
	W>	829	4	I4K
		836	5	I5D
		837	6	I5E
		838	7	I5J
		839	8	I5K
L413	B	941	9	I6D
	W	942	10	I6E
		943	11	I6J
		944	12	I6K

I4D, I4E	ϕ2U
I4J, I4K	ϕ2L
I5D, I5E	ϕ3U
I5J, I5K	ϕ3L
I6D, I6E	ϕ4U
I6J, I6K	ϕ4L

TB 5

ϕ6U	J4D	1	866	<B L611,L612,L613
	J4E	2	867	<W
ϕ6L	J4J	3	868	<B L621,L622,L623
	J4K	4	869	<W
ϕ7U	J5D	5	876	
	J5E	6	877	
ϕ7L	J5J	7	878	
	J5K	8	879	
ϕ8U	J6D	9	981	
	J6E	10	982	
ϕ8L	J6J	11	983	
	J6K	12	984	

TB 6

L423	B	945	1	I7D
	W	946	2	I7E
		947	3	I7J
		948	4	I7K
L411,L412	B	846	5	I8D
	W	847	6	I8E
L421,L422	B	848	7	I8J
	W	849	8	I8K
		911	9	I9D
		912	10	I9E
		931	11	I9J
		932	12	I9K

I7D, I7E	ϕ4U
I7J, I7K	ϕ4L
I8D, I8E	ϕ4U
I8J, I8K	ϕ4L

TB 7

ϕ8U	J7D	1	985
	J7E	2	986
ϕ8L	J7J	3	987
	J7K	4	988
ϕ8U	J8D	5	886
	J8E	6	887
ϕ8L	J8J	7	888
	J8K	8	889
	J9D	9	951
	J9E	10	952
	J9J	11	971
	J9K	12	972

TB 8

			1	
			2	
			3	
PPB 28,29	B>	724	4	I12D
PPB 48,49	B>	744	5	I12J
PPB 28,29,48,49	W>	725/745	6	I12K
PPB 68,69	B>	764	7	I13D
		784	8	I13J
PPB 68,69	W>	765/785	9	I13K
			10	
			11	
			12	

I12D	ϕ2P
I12J	ϕ4P
I12K	COM
I13D	ϕ6P
I13J	ϕ8P
I13K	COM

TB 9

			1		
DC−	J13K	DC−	2	5AC3	< BL A&C
			3	5BD3	BL B
EVA	J12D	EVA	4	5A2	Y A
EVC	J12J	EVC	5	5C2	Y C
DC+	J12E	DC+	6	5AC1	< O A&C
EVB	J13D	EVB	7	5B2	Y B
EVD	J13J	EVD	8	5D2	
DC+	J13E	DC+	9	5BD1	O B
RR1	J14D	RR1	10	516	
RR2	J14J	RR2	11	517	
COM	J14E	COM	12	518	

COORDINATION

TB0

BL	541	
W	542	
OR	543	
W	544	
GN	545	
W	546	
BR	547	
W	548	
GR	549	
W	550	
BL	551	
R	552	

TO EASTBOUND ON/OFF RAMP SIGNAL

SERVICE PANEL

TBS

B	501	1	AC+
GRD		2	CG
W	502	3	AC−
		4	
		5	

NOTE: TERMINATE ALL WIRING IDENTIFIED AS AC− (6*6 AND 7*3) AT THE AC− BUSS.

SEAL AND COIL SPARE CONDUCTORS AND CABLES AND STORE NEATLY ON THE CABINET FLOOR.

AFTER FIELD WIRES ARE INSTALLED, INSTALL 2C(SH) JUMPER WIRES BETWEEN THE FOLLOWING INPUT TERMINAL PAIRS:

DISPLAY OUTPUT TERMINALS

41	R	641	101	ϕ 4R
42	O	642	102	ϕ 4Y
43	G	643	103	ϕ 4G
48	R >	741	104	ϕ4DW
		5B4	105	EVIB
49	G >	742	106	ϕ 4W
		681	107	ϕ 8R
		682	108	ϕ 8Y
		683	109	ϕ 8G
		781	110	ϕ8DW
		5D4	111	EVID
		782	112	ϕ 8W

28	O >	721	113	ϕ 2DW
		5A4	114	EVIA
29	BL>	722	115	ϕ 2W
		631	116	ϕ 3R
		632	117	ϕ 3Y
		633	118	ϕ 3G
68	O >	761	119	ϕ 6DW
		5C4	120	EVIC
69	BL>	762	121	ϕ 6W
		671	122	ϕ 7R
		672	123	ϕ 7Y
		673	124	ϕ 7G

11	R	611	125	ϕ 1R
	O	612	126	ϕ 1Y
	G	613	127	ϕ 1G
21	R	621	128	ϕ 2R
22	O	622	129	ϕ 2Y
	G	623	130	ϕ 2G
		651	131	ϕ 5R
OLA	O	652	132	ϕ 5Y
	G	653	133	ϕ 5G
61	R	661	134	ϕ 6R
62	O	662	135	ϕ 6Y
	G	663	136	ϕ 6G

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CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35845 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
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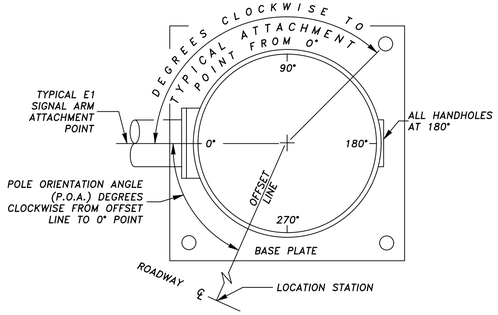
SR520 WB ON RAMP
PEDESTRIAN SAFETY IMPROVEMENTS

NE 51ST ST & WB SR-520 ON/OFF RAMP
TRAFFIC SIGNAL & ILLUMINATION
WIRING DIAGRAM

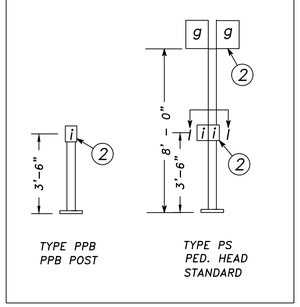
DRAWING No.: 51-TS-03

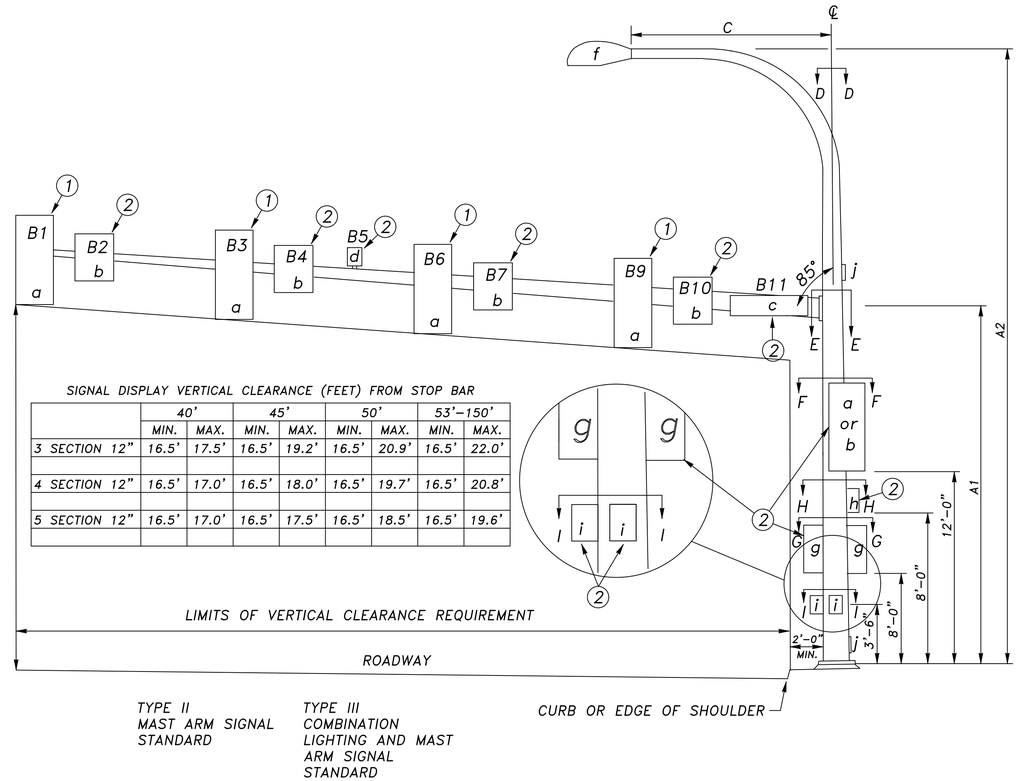
SHEET No.: 53 OF 80

POLE ORIENTATION AND ATTACHMENT POINT DETAIL



SIGNAL STANDARD DETAILS





TYPE II
MAST ARM SIGNAL
STANDARD

TYPE III
COMBINATION
LIGHTING AND MAST
ARM SIGNAL
STANDARD

SIGNAL DISPLAY VERTICAL CLEARANCE (FEET) FROM STOP BAR

	40'		45'		50'		53'–150'	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
3 SECTION 12"	16.5'	17.5'	16.5'	19.2'	16.5'	20.9'	16.5'	22.0'
4 SECTION 12"	16.5'	17.0'	16.5'	18.0'	16.5'	19.7'	16.5'	20.8'
5 SECTION 12"	16.5'	17.0'	16.5'	17.5'	16.5'	18.5'	16.5'	19.6'

LEGEND

a. VEHICLE SIGNAL HEAD
b. SIGN
c. STREET NAME SIGN
d. PRE–EMPT DETECTOR
e. DELETED (10/22/90)
f. LUMINAIRE
g. PEDESTRIAN SIGNAL HEAD
h. TERMINAL CABINET –OR– FLASHER CONTROLLER CABINET
i. PEDESTRIAN PUSHBUTTON ASSEMBLY
j. HANDHOLE

NOTES

1. MOUNTING COUPLING INSTALLED AT OFFSET DISTANCE INDICATED IN CHART.

ALTERNATE NOTE 1
FOR TYPE N MOUNT ONLY
DRILL 1" HOLE IN MAST ARM AND INSTALL PLASTIC SPLIT BUSHING FOR CABLE ENTRANCE.

2. FIELD INSTALLED.

SIGNAL STANDARD DETAIL CHART

FIELD LOCATION (1)					TYPE	MAST ARM LENGTH (FT)	MOUNTING HEIGHT(FT)		SIGNAL MAST ARM DATA: OFFSET DISTANCES (FT) (Z)² (POLE CENTERLINE TO ATTACHMENT POINT)											WINDLOAD AREAS (FT)² (X)(Y)									(X)(Y)(Z)³ TOTAL(FT)³	LUMINAIRE ARM(FT)	POLE ATTACHMENT POINT ANGLES (deg)							FOUNDATION DEPTHS(FT)			REMARKS
	STATION	OFFSET	LT.	RT.	P.O.A.				A1	A2	B1	B2	B3	B4	B5	B6	B7	B9	B10	B11	B1	B2	B3	B4	B6	B7	B9	B10	B11		C	D	F	G1	G2	H	I1	I2	3' RD.	3' SQ.	4' RD.	
1	51ST EX	EX		X	EX	EX III	EX	EX	EX	EX	EX	–	–	–	EX	EX	–	–	–	–	EX	–	–	–	EX	–	–	–	–	EX	EX	EX	–	EX	–	EX	EX	–	10	7	7	EXISTING SIGNAL POLE TO REMAIN.
2	51ST EX	EX		X	EX	EX II	EX	EX	–	EX	–	–	–	EX	EX	–	–	–	EX	EX	–	–	–	EX	–	–	–	EX	EX	–	–	–	EX	EX	EX	270	–	10	7	7	EXISTING SIGNAL POLE TO REMAIN.
3	51ST EX	EX	X		EX	EX III	EX	EX	EX	–	EX	EX	–	EX	EX	–	–	–	–	–	EX	EX	–	EX	–	–	–	–	EX	EX	EX	–	EX	EX	EX	270	–	10	7	7	EXISTING SIGNAL POLE TO REMAIN.
4	51ST 35+90.0	38.5'	X		–	PS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	90	–	–	0	–	–	–	–	FND PER WSDOT STD. PLAN J–20.11 & J–21.10.
5	51ST 35+49.0	67.5'		X	–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	FND PER WSDOT STD. PLAN J–20.10.
6	51ST 35+46.5	49.5'	X		–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	FND PER WSDOT STD. PLAN J–20.10.
7	51ST 35+99.5	54.5'		X	–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	FND PER WSDOT STD. PLAN J–20.10 & J–20.11.

(1) STATION AND OFFSETS ARE APPROXIMATE. CONFIRM POLE PLACEMENT WITH ADA RAMP LAYOUT PER DETAILS, THIS SHEET.
(2) NOT APPLICABLE; PEDESTRIAN SIGNAL HEAD SHALL USE TYPE "D" MOUNT.

IFB PLANS

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Project Contact: Glen DuBreuil
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CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35653 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
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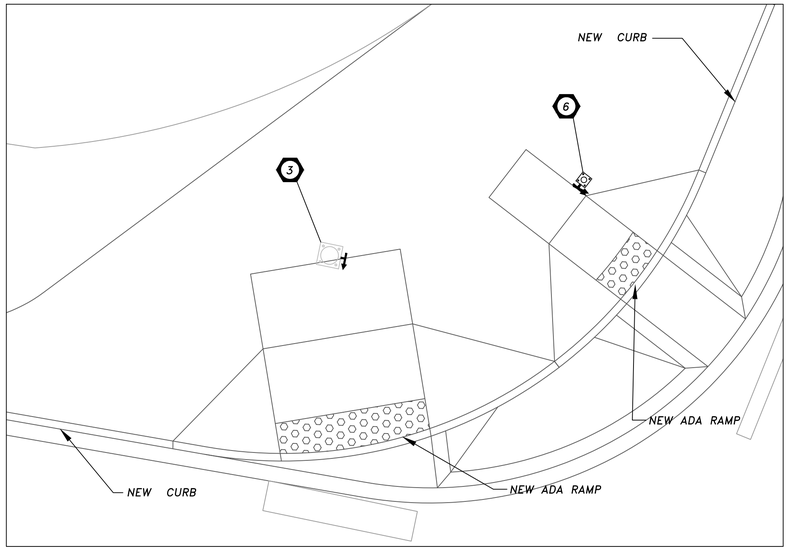
SR520 WB ON RAMP
PEDESTRIAN SAFETY IMPROVEMENTS

NE 51ST ST & WB SR-520 ON/OFF RAMP
TRAFFIC SIGNAL & ILLUMINATION
POLE CHART

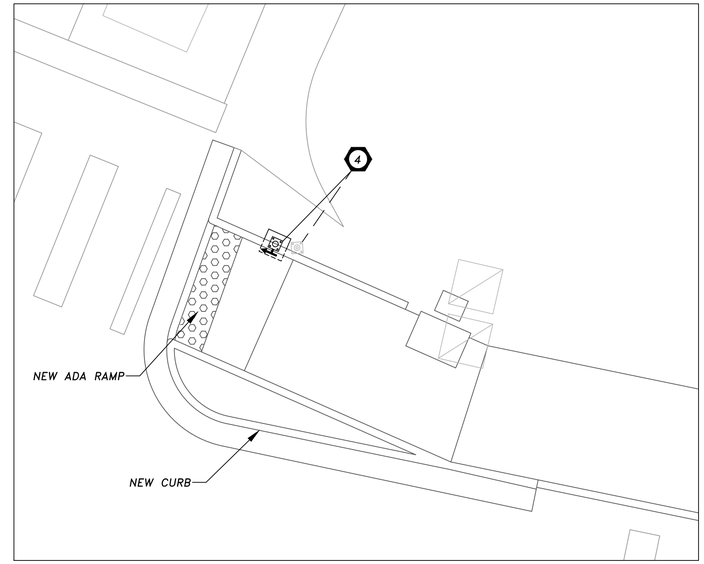
DRAWING No.: 51-TS-04

SHEET No.: 54 OF 80



NW QUADRANT DETAIL

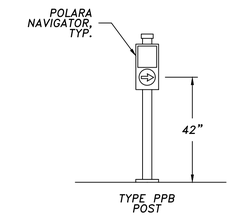
0 5
SCALE IN FEET



NE QUADRANT DETAIL

0 5
SCALE IN FEET

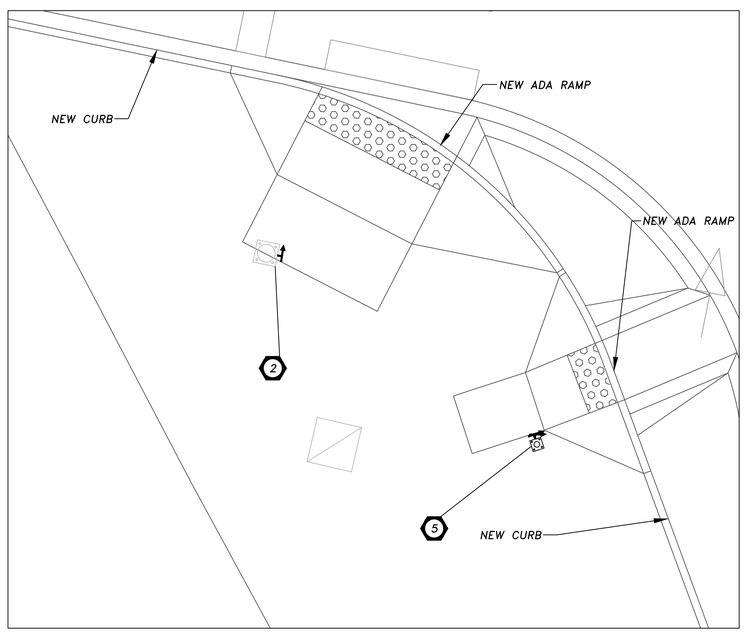
PUSHBUTTON MOUNTING DETAIL



NOT TO SCALE

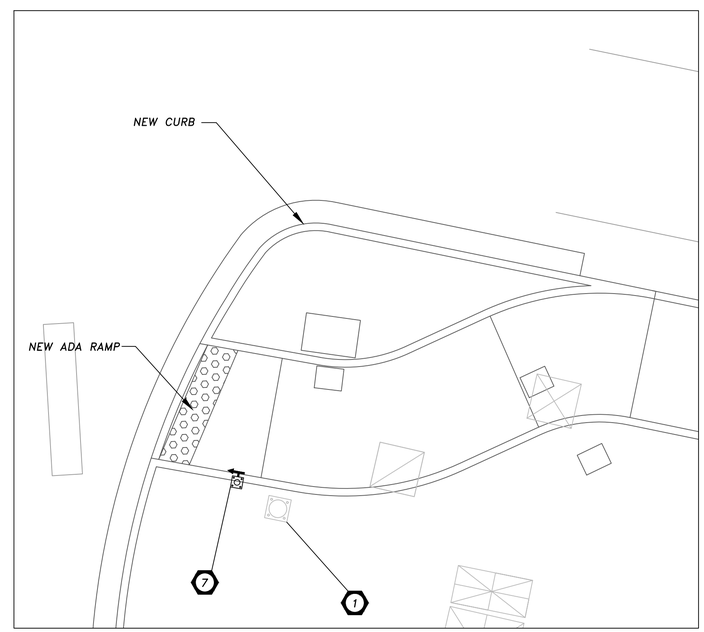
APS POLE PLACEMENT NOTE

1. POLE LOCATIONS SHOWN ARE APPROXIMATE. FINAL POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD BY WSDOT INSPECTOR.



SW QUADRANT DETAIL

0 5
SCALE IN FEET



SE QUADRANT DETAIL

0 5
SCALE IN FEET

N

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIDGOOD STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

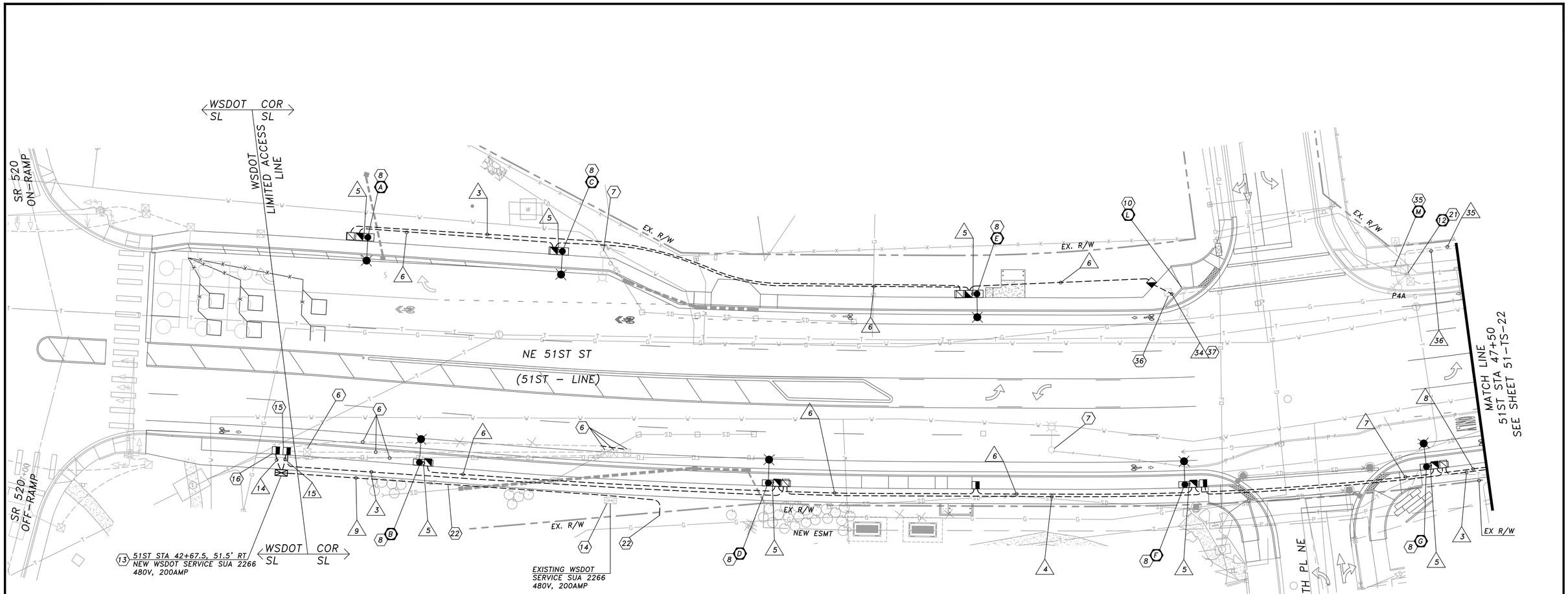
DESIGNED BY:	ISSUE DATE:
TTT	04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

SR520 WB ON RAMP
PEDESTRIAN SAFETY IMPROVEMENTS

NE 51ST ST & WB SR-520 ON/OFF RAMP
TRAFFIC SIGNAL & ILLUMINATION
APS POLE PLACEMENT

DRAWING No.: 51-TS-05

SHEET No.: 55 OF 80



SIGNAL LEGEND

EXIST.	NEW/RELOCATED	DESCRIPTION
		JUNCTION BOX TYPE 1,2,8
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		SIGNAL POLE TYPE II
		SIGNAL POLE TYPE III
		SIGNAL POLE TYPE PS OR TYPE PPB
		PUSHBOTTON
		LOOP DETECTOR
		MAST ARM MOUNTED SIGN
		EMERGENCY PRE-EMPTION DETECTOR
		LIGHT STANDARD
		CONDUIT/CONDUCTOR
		CONTROLLER CABINET
		SERVICE CABINET
		CCTV CAMERA
		CONSTRUCTION NOTE
		SIGNAL POLE NUMBER
		WIRE NOTE

SEE SHEET 51-TS-23 FOR:
- SIGNAL & ILLUMINATION GENERAL NOTES

SEE SHEET 51-TS-24 FOR:
- SIGNAL & ILLUMINATION CONSTRUCTION NOTES
- ILLUMINATION POLE SCHEDULE
- LUMINAIRE PAD DETAILS
- ILLUMINATION WIRING DIAGRAM

SEE SHEET 51-TS-25 FOR:
- SIGNAL & ILLUMINATION WIRING SCHEDULE
- BREAKER SCHEDULE

SEE SHEET 51-TS-26 FOR:
- TRAFFIC SIGNAL POLE CHART

SEE SHEET 51-TS-27 FOR:
- TRAFFIC SIGNAL WIRING DIAGRAM

N

0 10 20 40 60
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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CHRISTOPHER T. BIGELOW STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY:	ISSUE DATE:
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TTT	5288
CHECKED BY:	DRAWING FILE NO:
CTB	

NE 51ST ST IMPROVEMENTS

NE 51ST ST
TRAFFIC SIGNAL & ILLUMINATION
PLAN

DRAWING No.: **51-TS-21**

SHEET No.: 56 OF 80

SIGNAL DISPLAYS

VEHICLE HEADS	VEHICLE HEADS	VEHICLE HEADS	VEHICLE HEADS	PEDESTRIAN HEADS
12" R	12" R	12" R	12" R	
12" Y	12" Y	12" Y	12" Y FYA	
12" G	12" G	12" G	12" G	
EX :21	EX :12,23	EX :11,22	NEW :31,32 :71,72	EX :18,28,49,89
NEW :A1,A2	NEW :41,42,81,82			REL :19,29,48,88

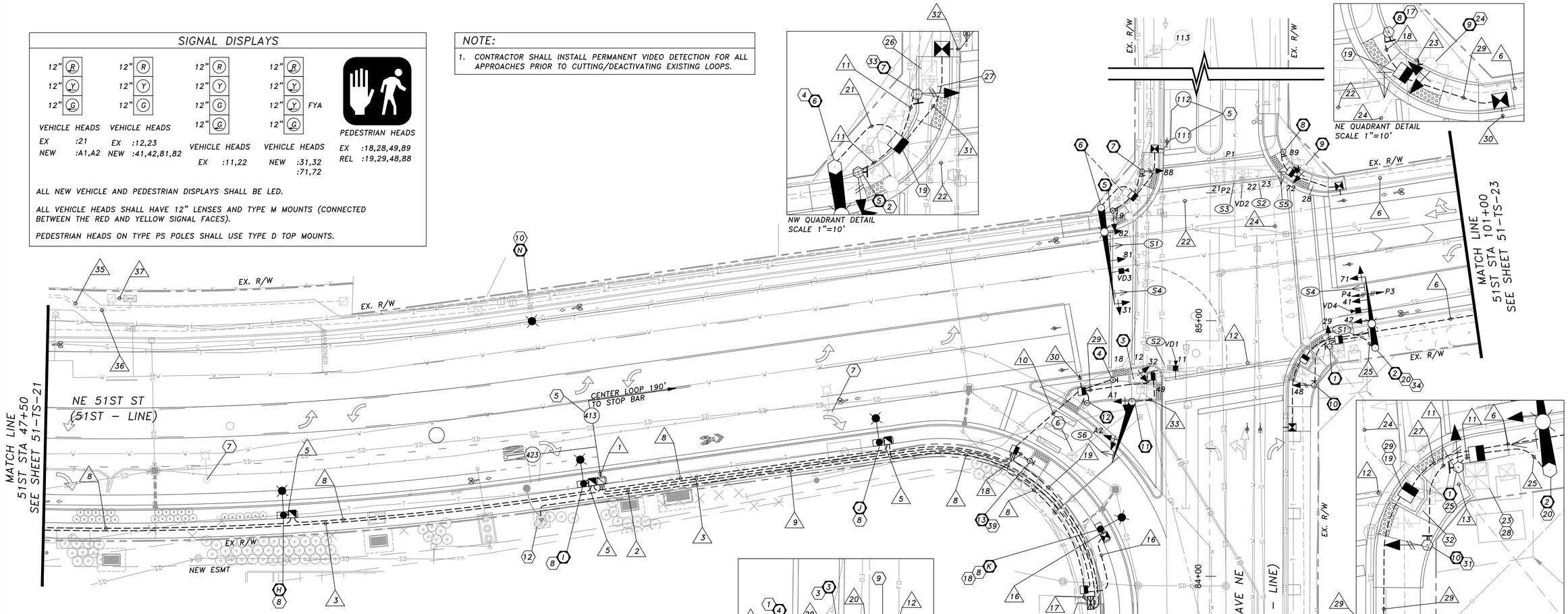
ALL NEW VEHICLE AND PEDESTRIAN DISPLAYS SHALL BE LED.

ALL VEHICLE HEADS SHALL HAVE 12" LENSES AND TYPE M MOUNTS (CONNECTED BETWEEN THE RED AND YELLOW SIGNAL FACES).

PEDESTRIAN HEADS ON TYPE PS POLES SHALL USE TYPE D TOP MOUNTS.

NOTE:

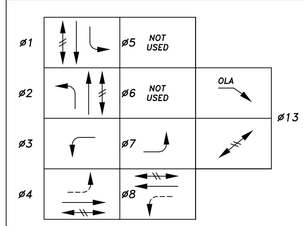
1. CONTRACTOR SHALL INSTALL PERMANENT VIDEO DETECTION FOR ALL APPROACHES PRIOR TO CUTTING/DEACTIVATING EXISTING LOOPS.



SIGNAL LEGEND

EXIST.	NEW/RELOCATED	DESCRIPTION
		JUNCTION BOX TYPE 1,2,8
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		SIGNAL POLE TYPE II
		SIGNAL POLE TYPE III
		SIGNAL POLE TYPE PS OR TYPE PPB
		PUSHBOTTON
		LOOP DETECTOR
		MAST ARM MOUNTED SIGN
		EMERGENCY PRE-EMPTION DETECTOR
		LIGHT STANDARD
		CONDUIT/CONDUCTOR
		CONTROLLER CABINET
		SERVICE CABINET
		CCTV CAMERA
		CONSTRUCTION NOTE
		SIGNAL POLE NUMBER
		WIRE NOTE

PHASE DIAGRAM



VEHICLE MOVEMENT
PROTECTED MOVEMENT
PERMISSIVE MOVEMENT
PEDESTRIAN MOVEMENT

PRE-EMPT
P1 = ø1
P2 = ø2
P3 = ø3 & ø8
P4 = ø4 & ø7

SIGN LEGEND

156 Ave NE
(S1) (MAXIMUM 102W"X22H") 12" D MIXED CASE

NE 51 St
(S2) (EXIST.)

LEFT TURN YIELD ON FLASHING YELLOW

BACKGROUND:	WHITE
BORDER:	BLACK
OUTER BORDER:	WHITE
LETTERS/SYMBOLS:	BLACK
ARROW:	YELLOW

TEXT STYLE SHALL MATCH MUTCD SIGN R10-12

CUSTOM (30"x42") (S4)*

ONLY
R3-8 (EXIST.) (S3)

520
CUSTOM (48"x24") (S5)

NO TURN ON RED
R10-11B 36"X36" (S6)

*SIGNS SHALL BE REMOVED AFTER 90 DAYS

N

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SCALE IN FEET

SEE SHEET 51-TS-23 FOR:
- SIGNAL & ILLUMINATION GENERAL NOTES

SEE SHEET 51-TS-24 FOR:
- SIGNAL & ILLUMINATION CONSTRUCTION NOTES
- ILLUMINATION POLE SCHEDULE
- LUMINAIRE PAD DETAILS
- ILLUMINATION WIRING DIAGRAM

SEE SHEET 51-TS-25 FOR:
- SIGNAL & ILLUMINATION WIRING SCHEDULE
- BREAKER SCHEDULE

SEE SHEET 51-TS-26 FOR:
- TRAFFIC SIGNAL POLE CHART

SEE SHEET 51-TS-27 FOR:
- TRAFFIC SIGNAL WIRING DIAGRAM

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
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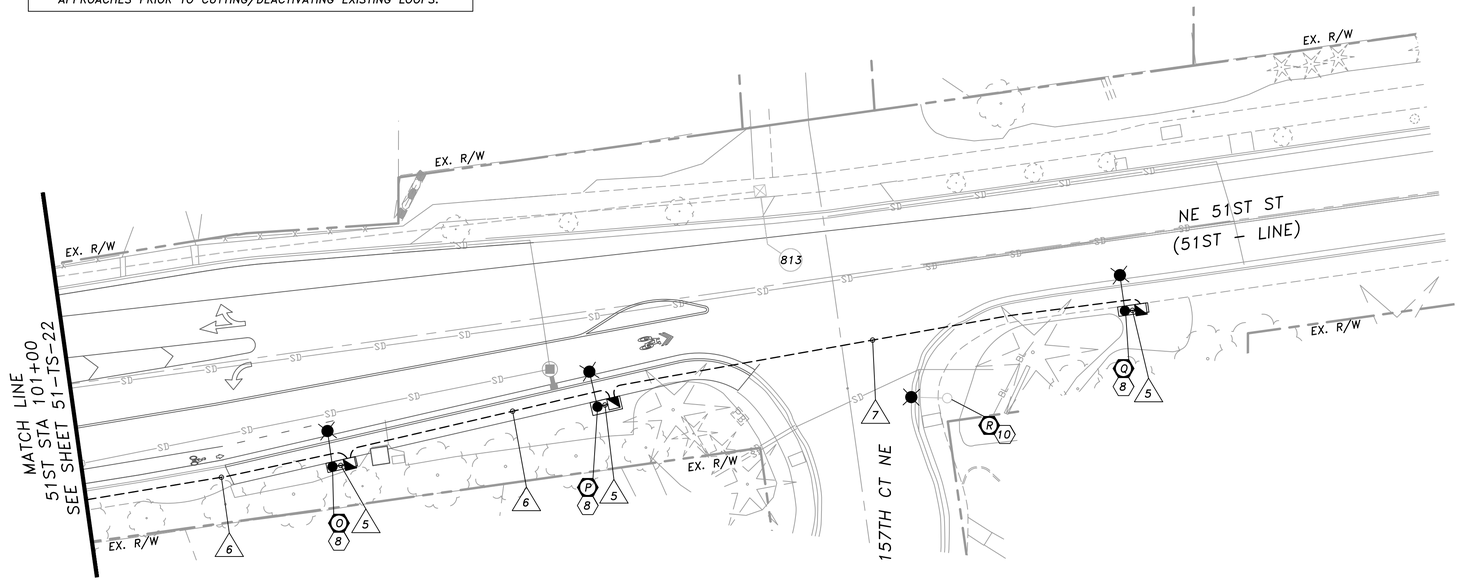
CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019	NE 51ST ST IMPROVEMENTS
DRAWN BY: TTT	JOB NO: 5288	DRAWING No.: 51-TS-22
CHECKED BY: CTB	DRAWING FILE NO:	NE 51ST ST & 156TH AVE NE TRAFFIC SIGNAL & ILLUMINATION PLAN
		SHEET No.: 57 OF 80

NOTE:

1. CONTRACTOR SHALL INSTALL PERMANENT VIDEO DETECTION FOR ALL APPROACHES PRIOR TO CUTTING/DEACTIVATING EXISTING LOOPS.



SIGNAL & ILLUMINATION GENERAL NOTES

1. THE LOCATION OF ALL CONDUIT, JUNCTION BOXES, AND CABINETS SHOWN ON THIS PLAN ARE FOR GRAPHIC REPRESENTATION ONLY AND FINAL LOCATIONS SHALL BE CONFIRMED IN THE FIELD WITH THE ENGINEER OR CITY INSPECTOR.
2. ALL TRAFFIC SIGNAL AND PEDESTRIAN HEADS AND PUSH BUTTONS SHALL BE SECURELY AND COMPLETELY COVERED WHILE NOT IN OPERATION.
3. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF REDMOND STANDARDS AND SPECIFICATIONS, CURRENT EDITION, UNLESS OTHERWISE SPECIFIED. THE CURRENT EDITION OF THE CITY OF REDMOND STANDARD SPECIFICATIONS AND DETAILS SHALL BE CONSIDERED PART OF THIS CONTRACT. THIS DOCUMENT CAN BE FOUND AT: HTTP://WWW.REDMOND.GOV/INSIDECITYHALL/PUBLICWORKS/STANDARDDETAILS
4. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AS NECESSARY.
5. THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE INSPECTOR FOR MATERIALS APPROVAL MINIMUM THREE WEEKS PRIOR TO THE REQUESTED APPROVAL DATE.
6. ALL WORK SHALL BE CONSISTENT WITH UTILITY AGENCY REQUIREMENTS. THE CONTRACTOR SHALL CONTACT ALL PERTINENT UTILITY AGENCIES 48 HOURS BEFORE COMMENCING WORK, AND SHALL COORDINATE WITH AFFECTED UTILITY AGENCIES THROUGHOUT THE PROJECT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL NOTIFY THE AFFECTED UTILITY COMPANY AND THE CITY OF REDMOND IMMEDIATELY UPON DAMAGE.
8. EXISTING FEATURES TO REMAIN UNLESS OTHERWISE NOTED.
9. ALL CONDUCTORS FOR SIGNAL HEADS, LOOPS, PEDESTRIAN HEADS, PUSHBUTTONS, AND STREET LIGHTS SHALL BE LABELED IN EACH JUNCTION BOX.
10. PRESERVE AND PROTECT EXISTING TRAFFIC LOOPS UNLESS OTHERWISE INDICATED.
11. CONTRACTOR SHALL PROVIDE AND INSTALL A PERMANENT OR TEMPORARY VIDEO DETECTION SYSTEM AT ANY TIME THAT LOOP DETECTORS ARE NOT FUNCTIONAL.
12. INSTALL A DETECTABLE PULL TAPE IN ALL NEW SPARE CONDUIT
13. ALL NEW ILLUMINATION POLE FOUNDATION LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION.
14. THE EXISTING ILLUMINATION SYSTEM SHALL REMAIN OPERATIONAL UNTIL NEW ILLUMINATION CONFIGURATION IS FULLY FUNCTIONAL.
15. ALL SIGNALIZED CROSSWALKS SHALL BE OPERATIONAL AT ALL TIMES UNLESS FLAGGERS/POLICE ARE PRESENT TO ASSIST PEDESTRIANS.
16. SALVAGE REMOVED SIGNAL EQUIPMENT TO THE CITY AS REQUESTED, INCLUDING TRAFFIC SIGNAL HEADS, TRAFFIC SIGNAL CONTROLLER CABINET, MAST ARM STREET NAME SIGNS, AND OTHER ITEMS AS REQUESTED. CONTRACTOR SHALL DISPOSE OF ITEMS NOT DESIRED BY THE CITY.
17. CONTRACTOR SHALL PROVIDE TENW WITH REDLINE MARKUPS SHOWING ANY AND ALL CHANGES FROM THESE APPROVED PLANS FOLLOWING CONSTRUCTION.
18. NEW SIGNAL POLE BASE PLATES AND FACE OF PUSHBUTTONS SHALL ALIGN WITH THE BEARING OF THE CROSSWALK IT SERVES. FAILURE TO ORIENT POLES/BASE PLATES WITH THE CROSSWALK WILL REQUIRE THE FOUNDATION TO BE REMOVED AND RE-POURED BY THE CONTRACTOR. SEE SIGNAL POLE PLACEMENT DETAIL SHEET 51-TS-08.
19. CONTRACTOR SHALL CONFIRM PREFERRED TRENCHING/BORING METHOD WITH CITY OF REDMOND PRIOR TO BEGINNING CONSTRUCTION.
20. AS PART OF THE DESIGN PROCESS, THE ENGINEER HAS ATTEMPTED TO CONFIRM THAT THERE ARE NOT CONFLICTS WITH OVERHEAD POWER LINES OR SUBSURFACE UTILITIES. HOWEVER, IT IS POSSIBLE FOR THE EXISTING OR PROPOSED CONDITIONS TO CHANGE PRIOR TO IMPLEMENTATION OF THE SCOPE OF WORK IDENTIFIED ON THESE DOCUMENTS. AS THE FIRST ORDER OF BUSINESS, THE CONTRACTOR SHALL POTHOLE EACH POLE LOCATION TO CONFIRM THAT THERE ARE NOT CONFLICTS WITH SUBSURFACE UTILITIES. ADDITIONALLY, THE CONTRACTOR SHALL CONFIRM THAT THERE IS A 10-FT MINIMUM CIRCUMFERENTIAL CLEARANCE PROVIDED BETWEEN OVERHEAD POWER LINES AND THE PROPOSED LUMINAIRE POLES PRIOR TO CONSTRUCTION. ADDITIONAL CLEARANCE MAY BE REQUIRED AS DIRECTED BY THE UTILITY. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED.

SIGNAL LEGEND

EXIST.	NEW/RELOCATED	DESCRIPTION
		JUNCTION BOX TYPE 1,2,8
		VEHICLE SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		SIGNAL POLE TYPE II
		SIGNAL POLE TYPE III
		SIGNAL POLE TYPE PS OR TYPE PPB
		PUSHBOTTON
		LOOP DETECTOR
		MAST ARM MOUNTED SIGN
		EMERGENCY PRE-EMPTION DETECTOR
		LIGHT STANDARD
		CONDUIT/CONDUCTOR
		CONTROLLER CABINET
		SERVICE CABINET
		CCTV CAMERA
		CONSTRUCTION NOTE
		SIGNAL POLE NUMBER
		WIRE NOTE

SEE SHEET 51-TS-24 FOR:
- SIGNAL & ILLUMINATION CONSTRUCTION NOTES
- ILLUMINATION POLE SCHEDULE
- LUMINAIRE PAD DETAILS
- ILLUMINATION WIRING DIAGRAM

SEE SHEET 51-TS-25 FOR:
- SIGNAL & ILLUMINATION WIRING SCHEDULE
- BREAKER SCHEDULE

SEE SHEET 51-TS-26 FOR:
- TRAFFIC SIGNAL POLE CHART

SEE SHEET 51-TS-27 FOR:
- TRAFFIC SIGNAL WIRING DIAGRAM

N

10 40
0 20 60
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

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CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35655 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
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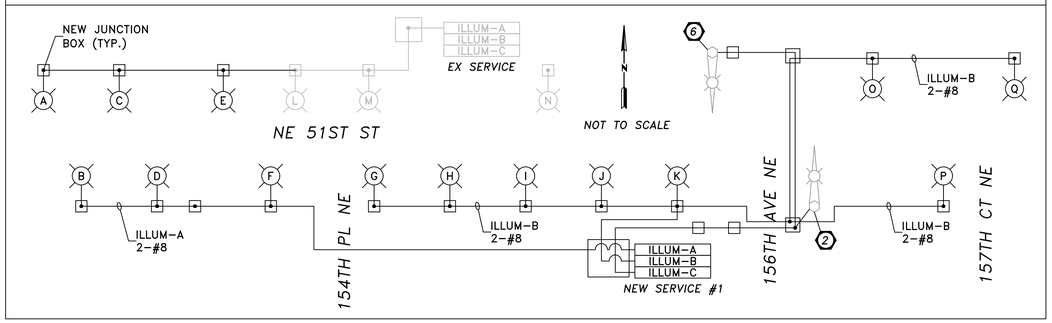
NE 51ST ST IMPROVEMENTS

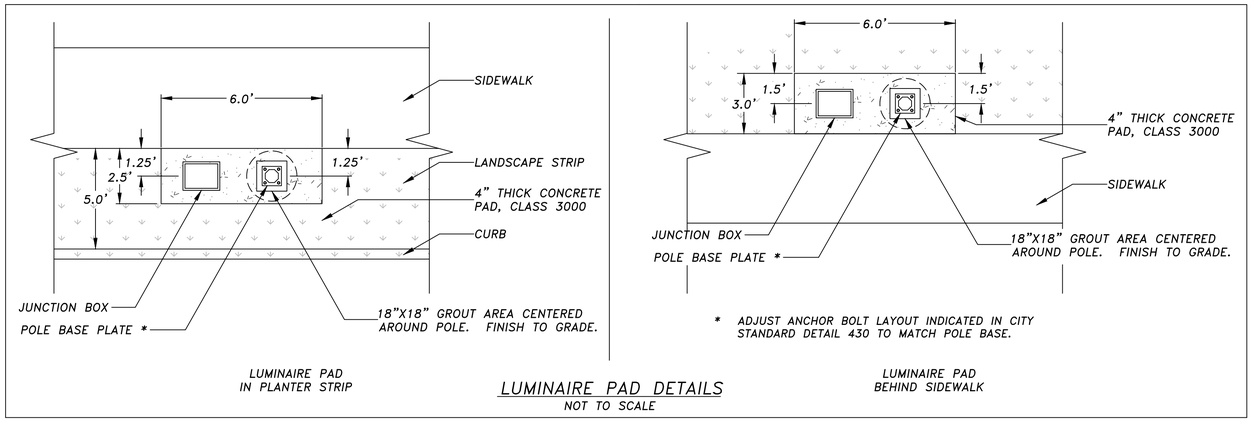
NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
PLAN

DRAWING No.: **51-TS-23**

SHEET No.: 58 OF 80

ILLUMINATION WIRING DIAGRAM





LUMINAIRE PAD DETAILS

NOT TO SCALE

ILLUMINATION POLE SCHEDULE

LUM. POLE NO.	STREET	STATION	OFFSET	MOUNT. HEIGHT	VOLTAGE	ARM LENGTH	SERVICE/ CIRCUIT	WATTAGE /TYPE	INITIAL LUMENS	LUMINAIRE TYPE – DISTRIBUTION	POLE TYPE	BASE	COMMENT
A	NE 51ST ST	42+96.5	46.5' LT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
B	NE 51ST ST	43+24.0	43.5' RT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
C	NE 51ST ST	43+76.0	46.5' LT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
D	NE 51ST ST	44+64.5	44.0' RT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
E	NE 51ST ST	45+48.0	34.5' LT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
F	NE 51ST ST	46+31.5	43.5' RT	40'	240	8'	1/A	102 LED	10,591	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
G	NE 51ST ST	47+26.5	43.5' RT	40'	240	8'	1/B	133 LED	14,262	LEOTEK GC1-80F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
H	NE 51ST ST	48+40.5	43.5' RT	40'	240	8'	1/B	133 LED	14,262	LEOTEK GC1-80F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
I	NE 51ST ST	49+55.0	43.5' RT	40'	240	8'	1/B	133 LED	14,262	LEOTEK GC1-80F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
J	NE 51ST ST	50+72.0	44.0' RT	40'	240	8'	1/B	133 LED	14,262	LEOTEK GC1-80F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
K	156TH AVE NE	84+18.5	46.5' LT	40'	240	8'	1/B	133 LED	14,262	LEOTEK GC1-80F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
L	NE 51ST ST	EX	EX	EX	EX	EX	PSE	71 LED	8,000	GE_ERL1_08C340-120-277V	EX	EX	EXISTING POLE TO REMAIN. NEW LUMINAIRE FURNISHED AND INSTALLED BY PSE.
M	NE 51ST ST	EX	EX	EX	EX	EX	COR	103 LED	EX	LEOTEK GC1-60F-MV-NW-3-GY-530-SC	EX	EX	EXISTING POLE AND LUMINAIRE TO REMAIN.
N	NE 51ST ST	EX	EX	EX	EX	EX	PSE	71 LED	8,000	GE_ERL1_08C340-120-277V	EX	EX	EXISTING POLE TO REMAIN. NEW LUMINAIRE FURNISHED AND INSTALLED BY PSE.
O	NE 51ST ST	101+65.5	31.0' LT	35'	240	8'	1/B	53 LED	5,413	LEOTEK GC1-30F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
P	NE 51ST ST	102+37.0	25.5' RT	35'	240	8'	1/B	53 LED	5,413	LEOTEK GC1-30F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
Q	NE 51ST ST	103+78.5	19.5' LT	35'	240	8'	1/B	53 LED	5,413	LEOTEK GC1-30F-MV-NW-3-GY-530-SC	CONCRETE OCTAGONAL	FIXED	POLE/FDN PER REDMOND STD. DET. 430. AND LUMINAIRE PAD DETAILS, THIS SHEET.
R	157TH CT NE	EX	EX	EX	EX	EX	PSE	31 LED	4,000	GE_ERL1_04C340-120-277V	EX	EX	EXISTING POLE TO REMAIN. NEW LUMINAIRE FURNISHED AND INSTALLED BY PSE.

SIGNAL & ILLUMINATION CONSTRUCTION NOTES

1. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PPB POST WITH ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON ON THE POLE. PUSHBUTTON SHALL FACE EAST AND BE PARALLEL TO CROSSWALK DIRECTION.
2. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PS SIGNAL STANDARD WITH ONE RELOCATED PEDESTRIAN HEAD FROM POLE 6 AND ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE EAST AND BE PARALLEL TO CROSSWALK DIRECTION.
3. EXISTING SIGNAL POLE TO REMAIN. REMOVE EXISTING PUSHBUTTONS FROM SIGNAL POLE. CAP HOLES WITH CITY APPROVED METHOD. INSTALL ONE NEW PERMANENT VIDEO DETECTION CAMERA ON EXISTING MAST ARM. REMOVE EXISTING VEHICULAR SIGNAL HEAD FROM SIGNAL POLE. REINSTALL EXISTING VEHICULAR SIGNAL HEAD AND ONE NEW VEHICULAR SIGNAL HEAD ON SIGNAL POLE PER POLE CHART, SHEET 51-TS-26.
4. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE III SIGNAL STANDARD WITH ONE NEW VEHICULAR SIGNAL HEAD. RELOCATE EXISTING VEHICULAR SIGNAL HEADS AND STREET NAME SIGN FROM EXISTING MAST ARM POLE. INSTALL ONE NEW PERMANENT VIDEO DETECTION CAMERA ON NEW MAST ARM. INSTALL ONE NEW LEOTEK LED LUMINAIRE PER POLE SCHEDULE, THIS SHEET.
5. INSTALL 6' ROUND LOOP DETECTOR PER CITY OF REDMOND DRAWINGS NUMBER 454A, 455, 456, 457, TYP. INTERMEDIATE AND ADVANCE LOOP PLACEMENT AS SHOWN ON PLANS.
6. REMOVE EXISTING JUNCTION BOX. FILL AND COMPACT VOID. REMOVE ALL WIRING FROM ALL CONDUITS ENTERING AND EXITING THE JUNCTION BOX. REMOVE EXISTING CONDUIT WITHIN NEW PAVEMENT LIMITS. EXISTING CONDUIT BENEATH SIDEWALK OR LANDSCAPING MAY BE ABANDONED IN PLACE.
7. EXISTING PSE/INTOLIGHT POLE AND LUMINAIRE TO BE REMOVED BY PSE/INTOLIGHT. CONTRACTOR TO COORDINATE REMOVAL WITH PSE/INTOLIGHT. FILL AND COMPACT VOID. EXISTING FIXTURE SHALL REMAIN OPERATIONAL UNTIL NEW SYSTEM IS FUNCTIONAL.
8. INSTALL NEW CITY OF REDMOND LUMINAIRE POLE AND FOUNDATION PER ILLUMINATION POLE SCHEDULE, THIS SHEET. INSTALL LUMINAIRE PAD PER DETAIL, THIS SHEET. CONTRACTOR SHALL CONFIRM THERE IS NO CONFLICT WITH UNDERGROUND UTILITIES.
9. REMOVE EXISTING JUNCTION BOX AND INSTALL NEW TYPE 8 JUNCTION BOX WITH LID WITH SKID RESISTANT COATING. CONDUIT MAY NEED TO BE LOWERED PRIOR TO INSTALLATION OF NEW JUNCTION BOX. LOWER CONDUIT WHILE EXCAVATION FOR TRAFFIC ISLAND IS BEING COMPLETED.
10. EXISTING PSE POLE TO REMAIN. PSE SHALL REMOVE EXISTING LUMINAIRE FIXTURE AND REPLACE WITH NEW LED FIXTURE PER ILLUMINATION POLE SCHEDULE, THIS SHEET. CONTRACTOR SHALL COORDINATE WITH PSE TO SCHEDULE FIXTURE REPLACEMENT, INCLUDING COMPLETING ALL FORMS, PAYING ANY FEES, ETC. ASSOCIATED WITH THE FIXTURE REPLACEMENT.
11. INSTALL 5.5' WIDE SERVICE CABINET FOUNDATION PER CITY OF REDMOND STANDARD DETAIL 459A. FOUNDATION SHALL PROVIDE SPACE FOR NEW SERVICE CABINET AND FUTURE UPS CABINET ONLY. NO CONTROLLER CABINET WILL BE INSTALLED. INSTALL NEW SKYLINE ELECTRICAL SERVICE CABINET (DRAWING NO. 47995-R4) PER CITY OF REDMOND STANDARD DRAWING NO. 461.
12. CONTRACTOR SHALL FURNISH AND INSTALL CONDUIT AND CONDUCTORS TO THE POWER SOURCE. POWER SOURCE IS RELOCATED PSE TRANSFORMER LOCATED AT APPROXIMATELY NE 51ST ST STATION 49+36.5, 56.0' RT. CONTRACTOR SHALL LEAVE SUFFICIENT SLACK IN CONDUCTORS FOR FINAL CONNECTION. THE CONTRACTOR SHALL COORDINATE WITH PSE TO MAKE FINAL CONNECTION TO POWER SOURCE INCLUDING COMPLETING ALL FORMS AND PROVIDING ALL FEES. CONTRACTOR SHALL NOTIFY PSE A MINIMUM OF 16 WEEKS PRIOR TO NEEDING POWER TO THE SERVICE CABINET.
13. INSTALL 200 AMP TYPE E SERVICE CABINET AND FOUNDATION PER WSDOT STANDARD PLANS J-10.10 AND J-10.22. WSDOT SIDE OF SERVICE CABINET SHALL FACE NE 51ST STREET. DISCONNECT EXISTING CONDUCTORS FROM EXISTING WSDOT SERVICE SUA 2266, AND RE-TERMINATE IN THE NEW SERVICE CABINET. WORK ASSOCIATED WITH THIS CONSTRUCTION NOTE SHALL BE PERFORMED IN ACCORDANCE WITH WSDOT STANDARD PLANS AND SPECIFICATIONS. CONTRACTOR SHALL CONFIRM EXISTING BREAKER SIZE/QUANTITIES IN EXISTING SERVICE CABINET AND REPLACE IN-KIND WITH NEW SERVICE CABINET. SWITCHOVER TO NEW SERVICE SHALL OCCUR WITHIN 12 HOURS OF EXISTING SERVICE SUA 2266 DECOMMISSIONING. SWITCHOVER SHALL OCCUR WITHIN DAYLIGHT HOURS SO AS TO MAINTAIN SR520 MAINLINE ILLUMINATION FUNCTION DURING NIGHTTIME HOURS. CONTRACTOR SHALL PROVIDE POLICE OFFICER AT OFFRAMP INTERSECTIONS WHILE EXISTING SIGNALS ARE NOT FUNCTIONAL.
14. UPON COMPLETION OF WORK IDENTIFIED IN CONSTRUCTION NOTE #13, EXISTING WSDOT SERVICE SUA 2266 SHALL BE REMOVED AND RETURNED TO WSDOT. REMOVE EXISTING FOUNDATION. REMOVE ALL WIRING FROM ALL CONDUITS ENTERING AND EXITING THE SERVICE CABINET. WORK ASSOCIATED WITH THIS CONSTRUCTION NOTE SHALL BE PERFORMED IN ACCORDANCE WITH WSDOT STANDARD PLANS AND SPECIFICATIONS. FILL AND COMPACT VOID.
15. REMOVE EXISTING TYPE 2 JUNCTION BOX AND REPLACE WITH NEW TYPE 8 JUNCTION BOX. ADJUST LID TO PROPOSED SIDEWALK GRADE.
16. REMOVE EXISTING TYPE 1 JUNCTION BOX AND REPLACE WITH A NEW TYPE 8 JUNCTION BOX. ADJUST LID TO PROPOSED SIDEWALK GRADE.
17. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PPB POST WITH ONE POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PUSHBOTTON SHALL BE INSTALLED WITH A SPEECH INFORMATION MESSAGE AS DIRECTED BY CITY OF REDMOND TRAFFIC OPERATIONS. PEDESTRIAN PUSHBUTTON SHALL FACE SOUTH AND BE PARALLEL TO CROSSWALK DIRECTION.
18. INSTALL PHOTOCELL ON LUMINAIRE POLE.
19. REMOVE EXISTING JUNCTION BOX AND INSTALL NEW TYPE 8 JUNCTION BOX WITH LID WITH SKID RESISTANT COATING. ADJUST LID TO PROPOSED SIDEWALK GRADE.
20. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE III SIGNAL STANDARD WITH ONE NEW VEHICULAR SIGNAL HEAD. RELOCATE EXISTING VEHICULAR SIGNAL HEADS, EMERGENCY PRE-EMPT, AND STREET NAME SIGN FROM EXISTING MAST ARM POLE. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. INSTALL ONE NEW PERMANENT VIDEO DETECTION CAMERA ON NEW MAST ARM. INSTALL ONE NEW LEOTEK LED LUMINAIRE PER POLE SCHEDULE, THIS SHEET.
21. EXISTING SIGNAL POLE TO REMAIN. (CONTAINS EMERGENCY PRE-EMPT). PROTECT DURING CONSTRUCTION.
22. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT AND CONDUCTORS TO THE POWER SOURCE. POWER SOURCE FOR NEW WSDOT SERVICE CABINET SHALL BE FROM THE SAME SOURCE THE EXISTING/REMOVED SERVICE CABINET DRAWS POWER FROM. CONTRACTOR SHALL LEAVE SUFFICIENT SLACK IN CONDUCTOR FOR FINAL CONNECTION. THE CONTRACTOR SHALL COORDINATE WITH PSE TO MAKE FINAL CONNECTION TO POWER SOURCE INCLUDING COMPLETING ALL FORMS AND PROVIDING ALL FEES. CONTRACTOR SHALL NOTIFY PSE A MINIMUM OF 16 WEEKS PRIOR TO NEEDING POWER TO THE SERVICE CABINET.
23. EXISTING CONTROLLER CABINET TO REMAIN. PROJECT DURING CONSTRUCTION. CONNECT CONTROLLER POWER TO NEW SERVICE CABINET PER WIRE SCHEDULE, SHEET 51-TS-25. UPON COMPLETION OF NEW POWER CONNECTION, REMOVE EXISTING CABINET MOUNTED SERVICE EQUIPMENT. PATCH ANY REMAINING HOLES ON THE CABINET BY CITY APPROVED METHOD. RETURN SALVAGED EQUIPMENT TO CITY OF REDMOND.
24. EXISTING SIGNAL POLE TO REMAIN. REMOVE EXISTING PUSHBUTTONS FROM SIGNAL POLE. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. INSTALL NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PUSHBUTTON SHALL FACE WEST. PUSHBOTTON SHALL BE INSTALLED WITH A SPEECH INFORMATION MESSAGE AS DIRECTED BY CITY OF REDMOND TRAFFIC OPERATIONS. CAP HOLES WITH CITY APPROVED METHOD. EXISTING VIDEO DETECTION CAMERA TO REMAIN. REMOVE EXISTING SIGNS FROM SIGNAL POLE. INSTALL NEW VEHICULAR SIGNAL HEAD ON SIGNAL POLE PER POLE CHART, SHEET 51-TS-26. INSTALL NEW SIGN ON MAST ARM PER SIGN LEGEND, SHEET 51-TS-22.
25. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PS SIGNAL STANDARD WITH ONE RELOCATED PEDESTRIAN HEAD FROM EXISTING SIGNAL POLE AND ONE POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE WEST AND BE PARALLEL TO CROSSWALK DIRECTION.
26. EXISTING VAULT TO BE ADJUSTED TO MATCH FINISH GRADE OF NEW SIDEWALK. INSTALL LID WITH SKID RESISTANT COATING.
27. EXISTING JUNCTION BOX TO BE ADJUSTED TO MATCH FINISH GRADE OF NEW SIDEWALK. INSTALL LID WITH SKID RESISTANT COATING.
28. WORK WITHIN THE CONTROLLER CABINET SHALL BE AS FOLLOWS:

    CONTRACTOR SHALL:
    A. FURNISH ONE POLARA ENGINEERING EZCOM NAVIGATOR CENTRAL CONTROL UNIT (PART NO. CCU2EN). PROVIDE THIS UNIT TO THE CITY INSPECTOR.
    B. FURNISH ONE POLARA ENGINEERING EZCOMMUNICATOR NAVIGATOR CONFIGURATOR (PART NO. ECONFIG). PROVIDE THIS UNIT TO THE CITY INSPECTOR.
    C. INSTALL PED WIRE EXTENSIONS WITHIN THE CONTROLLER CABINET (FROM EXISTING TERMINAL TO NEW CONTROL UNIT TERMINAL) AS DIRECTED BY THE CITY SIGNAL TECHNICIAN, APPROX. 4-FT IN LENGTH.
    D. COORDINATE WITH THE CITY OF REDMOND INSPECTOR TO SCHEDULE CITY SIGNAL TECHNICIAN WORK.

    CITY SIGNAL TECHNICIAN SHALL:
    A. INSTALL CONTRACTOR SUPPLIED EZCOM NAVIGATOR CENTRAL CONTROL UNIT.
    B. INSTALL CONTRACTOR SUPPLIED EZCOMMUNICATOR NAVIGATOR CONFIGURATOR.
    C. TERMINATE PED BUTTON WIRES IN THE CONTROL UNIT.
29. SPLICE NEW ILLUMINATION CONDUCTORS TO EXISTING IN EXISTING JUNCTION BOX.
30. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE II SIGNAL POLE WITH THREE NEW VEHICULAR SIGNAL HEADS AND ONE NEW NO TURN ON RED SIGN.
31. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PS SIGNAL STANDARD WITH ONE RELOCATED PEDESTRIAN HEAD FROM EXISTING SIGNAL POLE AND ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE NORTH AND BE PARALLEL TO CROSSWALK DIRECTION.
32. REMOVE EXISTING SIGNAL POLE. RELOCATE EXISTING SIGNAL DISPLAYS AND SIGNS TO NEW SIGNAL POLES. RETURN SALVAGED EQUIPMENT TO THE CITY OF REDMOND. REMOVE EXISTING FOUNDATION TO MIN 24" BELOW GRADE.
33. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PS SIGNAL STANDARD WITH ONE RELOCATED PEDESTRIAN HEAD FROM EXISTING SIGNAL POLE AND ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON. PEDESTRIAN PUSHBUTTON SHALL FACE SOUTH AND BE PARALLEL TO CROSSWALK DIRECTION.
34. AS A FIRST ORDER OF BUSINESS AND PRIOR TO ORDERING POLE AND MAST ARM CONTRACTOR SHALL REMOVE EXISTING TREE AND THEN SHALL POTHOLE POLE LOCATION TO CONFIRM THAT THERE ARE NOT CONFLICTS WITH SUBSURFACE UTILITIES. CONTACT THE ENGINEER IMMEDIATELY IF A CONFLICT IS DISCOVERED.
35. EXISTING CITY OF REDMOND POLE AND LUMINAIRE TO REMAIN.
36. REMOVE EXISTING JUNCTION BOX FOLLOWING THE INSTALLATION OF NEW JUNCTION BOX. FILL AND COMPACT VOID.
37. INTERCEPT AND EXTEND EXISTING CONDUIT AND EXTEND TO NEW JUNCTION BOX.
38. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PPB POST WITH ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON ON THE POLE. PUSHBUTTON SHALL FACE NORTHWEST AND BE PARALLEL TO CROSSWALK DIRECTION.
39. CONSTRUCT FOUNDATION PER POLE SCHEDULE SHEET 51-TS-26. FURNISH AND INSTALL TYPE PPB POST WITH ONE NEW POLARA NAVIGATOR PEDESTRIAN PUSHBUTTON ON THE POLE. PUSHBUTTON SHALL FACE SOUTHEAST AND BE PARALLEL TO CROSSWALK DIRECTION.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-230-0582

CHRISTOPHER T. BIOCH STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
NOTES & DETAILS

DRAWING No.: **51-TS-24**

SHEET No.: 59 OF 80

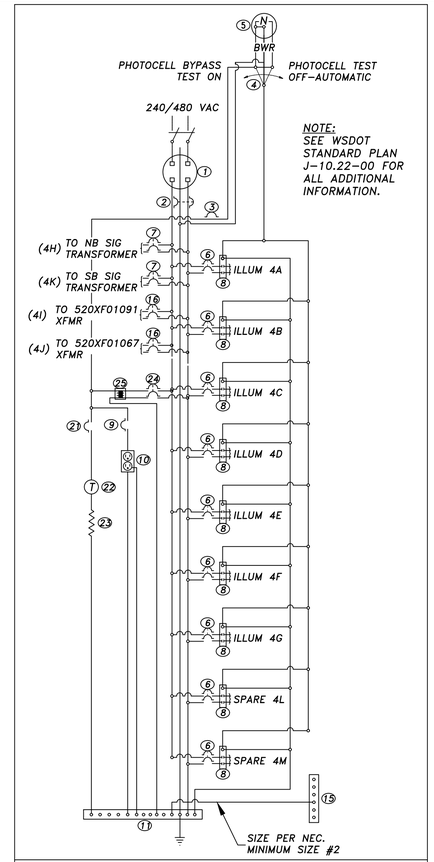
SIGNAL & ILLUMINATION WIRING SCHEDULE (AFFECTED RUNS ONLY)

NO.	RACEWAY CONDUIT SIZE	TW PR LOOP #14		VEH./BIKE DETECT. 2C(SH)		E.V. DETECT. 3C(SH)		VEH. HEAD 5C		#2		#6		ILLUM #8		PED. HEAD/PPB 5C		PPB 2C(SH)		CAMERA		SVC PWR 3/0		PHOTO-CELL #12		SVC PWR 4/0		PHOTO-CELL #14		INTER-CONNECT		PHONE		CONT. PWR #6		EQUIP. GRND. **		DETECTABLE PULL TAPE		CONDUIT FILL	ALLOW. FILL (NEW)	ALLOW. FILL (EXIST.)
		EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW	EX.	NEW				
1	2" SCH80 PVC		2																																								
2	2" SCH40 PVC				1																																1					0.04	0.89	---
3	3" SCH40 PVC (SPARE)																																						1			0.18	0.89	---
4	3" SCH80 PVC (SPARE)																																						1			---	1.95	---
5	2" SCH40 PVC														2																						1					0.17	0.89	---
6	2" SCH40 PVC														2																						1					0.17	0.89	---
	3" SCH40 PVC (SPARE)																																						1			---	1.95	---
7	2" SCH80 PVC														2																						1					0.17	0.89	---
	3" SCH80 PVC (SPARE)																																						1			---	1.95	---
8	2" SCH40 PVC														4																						1					0.28	0.89	---
	3" SCH40 PVC (SPARE)																																						1			---	1.95	---
9	3" SCH40 PVC																						3																			1.23	1.95	---
10	2" SCH80 PVC				1										2				1																		1					0.38	0.89	---
	3" SCH80 PVC																																			3						0.22	1.95	---
	3" SCH80 PVC (SPARE)																																						1			---	1.95	---
11	2" SCH40 PVC																1																				1					0.28	0.89	---
12	2" EXISTING *				1			1	2							2			3																		1					1.06	---	1.34
	3" EXISTING *																															1		1				1				0.75	---	2.95
	2" EXISTING *														2					1	1																1					0.71	---	1.34
	2" EXISTING *																																			3						0.22	---	1.34
13	EXISTING *			2	3	3	2	3	6						6	4	4		4	2	3											1		1			1					5.63	---	---
	EXISTING *																																			3						0.22	---	---
14	3" RGS									8																																1.06	---	3.00
	3" RGS (SPARE)																																						1			---	---	3.00
	2" RGS									2																																0.27	---	1.36
15	2" RGS									2		4		2																												0.67	---	1.36
	2" RGS									6																																0.80	---	1.36
	2" RGS (SPARE)																																						1			---	---	1.36
	2" RGS (SPARE)																																						1			---	---	1.36
16	2" SCH40 PVC														2									3												1					0.25	0.89	---
17	3" SCH40 PVC														4									3												1					0.36	1.95	---
	3" SCH40 PVC (SPARE)																																						1			---	1.95	---
18	1" SCH40 PVC																		1																		1					0.18	0.23	---
19	2" SCH40 PVC																																			3						0.22	0.89	---
20	2" EXISTING *							1	1							2				1	1																1					1.16	---	1.36
21	2" SCH40 PVC								2												1																1					0.68	---	1.36
	2" SCH40 PVC																																									0.17	---	1.36
22	2.5" EXISTING *			1	2	1			2								2				1																					1.30	---	1.95
	2" EXISTING *														1																							1					0.17	---	1.36
23	2" EXISTING *					2		2	1							2			1	1																		1	1				1.33	---	1.36
24	3" EXISTING *			2	2	3		2	3							2	2		2	1	1																	1					2.71	---	3.00
	2" EXISTING *														2																							1					0.17	---	1.36
25	3" SCH40 PVC						2		2						2						1																		1				0.93	---	1.36
26	2" SCH40 PVC														2									3																		0.25	0.89	---
	3" SCH40 PVC (SPARE)																																						1			---	1.95	---
27	3" SCH40 PVC						2		2								2				1																					1.10	1.95	---
	2" SCH40 PVC														4																											0.23	0.89	---
	3" SCH40 PVC (SPARE)																																									---	1.95	---
28	NOT USED																																									---	---	---
	NOT USED																																									---	---	---
29	2" SCH80 PVC				1										2				3																		1					0.56	0.89	---
	3" SCH80 PVC																																			3						0.22	1.95	---
	3" SCH80 PVC (SPARE)																																						1			---	1.95	---
30	2" SCH80 PVC ***																																						1			---	0.89	1.36
31	2" SCH40 PVC				2																																1					0.27	0.89	1.36
32	2" SCH80 PVC		2																																							---	0.89	1.36
33	2" SCH40 PVC								1																												1					0.28	0.89	---
34	2" SCH80 PVC														2																						1					0.17	0.89	---
	2" SCH80 PVC (SPARE)																																						1			---	0.89	---
	3" SCH80 PVC (SPARE)																																						1			---	0.89	---
35	2" SCH40 PVC													2	2														3								1					0.58	0.89	---
36	3" SCH40 PVC																									3																0.29	1.95	---
37	3" SCH40 PVC													2	2														3								1					0.58	1.95	---

* OTHER CONDUIT AND CONDUCTORS MAY BE PRESENT
** EQUIPMENT GROUND SIZE SHALL BE EQUAL TO OR LARGER THAN THE LARGEST WIRE SIZE IN THE CONDUIT.
*** CAP END OF STUB-OUT.

CITY SERVICE 1 BREAKER SCHEDULE

CIRCUIT	VOLTAGE	BREAKER	CONTACTOR
MAIN	120/240	2P-200 AMP	---
ILLUM A	240	2P-20 AMP	30 AMP
ILLUM B	240	2P-20 AMP	30 AMP
ILLUM C	240	2P-20 AMP	30 AMP
ILLUM D (SPARE)	240	2P-20 AMP	30 AMP
SIGNAL	120	1P-50 AMP	---



SUA 2266 WIRING SCHEMATIC

SUA 2266 (NEW) BREAKER SCHEDULE * TYPE E SERVICE 240V/480V

CIRCUIT	BREAKER	CONTACTOR	VOLTAGE	CIRCUIT LABEL	TRANSFORMER ID #	LOAD (KVA)
MAIN	2P-200 AMP	---	480V	---	---	---
4A	2P-30 AMP	30 AMP	480V	ILLUM	---	3.360
4B	2P-30 AMP	30 AMP	480V	ILLUM	---	4.176
4C	2P-30 AMP	30 AMP	480V	ILLUM	---	8.736
4D	2P-30 AMP	30 AMP	480V	ILLUM	---	4.752
4E	2P-30 AMP	30 AMP	480V	ILLUM	---	4.944
4F	2P-30 AMP	30 AMP	480V	ILLUM	---	5.136
4G	2P-30 AMP	30 AMP	480V	ILLUM	---	5.760
4H	2P-30 AMP	---	480V	NB SIGNAL XFMR	---	0.096
4I	2P-30 AMP	---	480V	ITS - 520ES01091	520XF01091	0.624
4J	2P-30 AMP	---	480V	ITS - 520ES01067/520VC01074	520XF01067	0.528
4K	2P-30 AMP	---	480V	SB SIGNAL XFMR	---	1.152
4L	2P-30 AMP	30 AMP	480V	SPARE	---	---
4M	2P-30 AMP	30 AMP	480V	SPARE	---	---
INTERNAL	2P-15 AMP	---	480V	NOTE #24 **	INTERNAL XFMR	0.288
TRANSFORMER SECONDARY		---	120V	---	---	---
HEATER	1P-15 AMP	---	120V	NOTE #21 **	---	1.800
PHOTOCELL CONTROL	1P-15 AMP	---	120V	NOTE #3 **	---	0.001
GFCI	1P-20 AMP	---	120V	NOTE #9 **	---	1.800
					TOTAL KVA LOAD = 43.153	

* PANEL SHALL MATCH EXISTING SERVICE SUA 2266. CONTRACTOR SHALL CONFIRM PANEL AND CONTENTS PRIOR TO SUBMITTING SHOP DRAWINGS.

** SEE WSDOT STANDARD PLAN J-10.22-00 FOR NOTE KEY AND ALL ADDITIONAL INFORMATION.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT	ISSUE DATE: 04/26/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

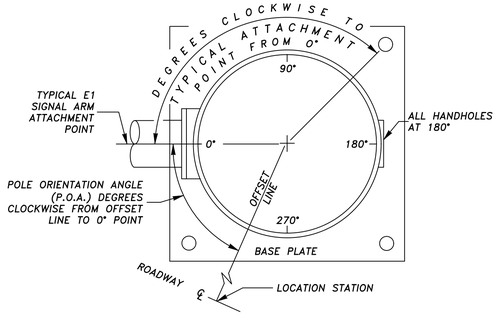
NE 51ST ST IMPROVEMENTS

NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
NOTES & DETAILS

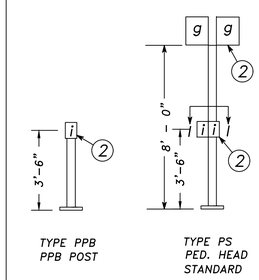
DRAWING No.: 51-TS-25

SHEET No.: 60 OF 80

POLE ORIENTATION AND ATTACHMENT POINT DETAIL



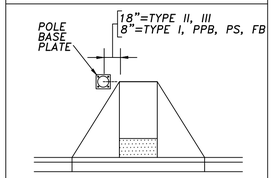
SIGNAL STANDARD DETAILS



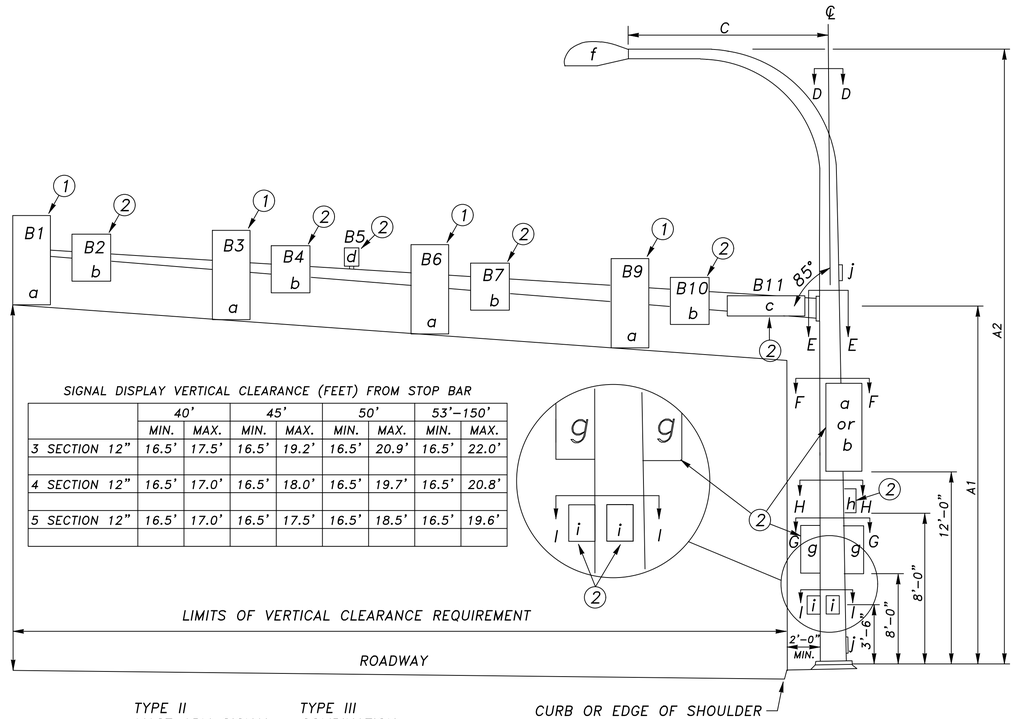
TYPE PPB
PPB POST

TYPE PS
PED. HEAD
STANDARD

POLE PLACEMENT DETAIL



NOTE: SIGNAL CONTRACTOR SHALL COORDINATE WITH THE CONCRETE CONTRACTOR TO ENSURE PROPER RELATIONSHIP BETWEEN THE SIGNAL POLE AND ADA RAMP.



TYPE II
MAST ARM SIGNAL
STANDARD

TYPE III
COMBINATION
LIGHTING AND MAST
ARM SIGNAL
STANDARD

SIGNAL DISPLAY VERTICAL CLEARANCE (FEET) FROM STOP BAR

	40'		45'		50'		53'-150'	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
3 SECTION 12"	16.5'	17.5'	16.5'	19.2'	16.5'	20.9'	16.5'	22.0'
4 SECTION 12"	16.5'	17.0'	16.5'	18.0'	16.5'	19.7'	16.5'	20.8'
5 SECTION 12"	16.5'	17.0'	16.5'	17.5'	16.5'	18.5'	16.5'	19.6'

LEGEND

a. VEHICLE SIGNAL HEAD
b. SIGN
c. STREET NAME SIGN
d. PRE-EMPT DETECTOR
e. DELETED (10/22/90)
f. LUMINAIRE
g. PEDESTRIAN SIGNAL HEAD
h. TERMINAL CABINET -OR- FLASHER CONTROLLER CABINET
i. PEDESTRIAN PUSHBUTTON ASSEMBLY
j. HANDHOLE

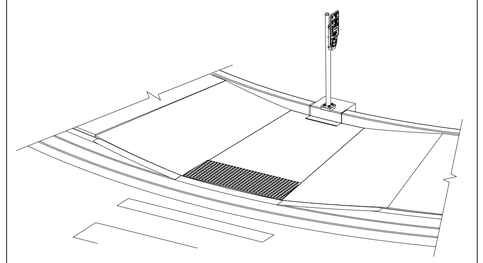
NOTES

(1) MOUNTING COUPLING INSTALLED AT OFFSET DISTANCE INDICATED IN CHART.

ALTERNATE NOTE 1
FOR TYPE N MOUNT ONLY
DRILL 1" HOLE IN MAST ARM AND INSTALL PLASTIC SPLIT BUSHING FOR CABLE ENTRANCE.

(2) FIELD INSTALLED.

POLE WITH CURB PLACEMENT DETAIL



NOTE: SEE WSDOT STANDARD PLAN J-20.11-02 FOR CURB BASE DETAIL. EDGE OF PLATE SHALL BE FLUSH WITH FACE OF CURB.

SIGNAL STANDARD DETAIL CHART

FIELD LOCATION (1)					TYPE	MAST ARM LENGTH	MOUNTING HEIGHT(FT)		SIGNAL MAST ARM DATA: OFFSET DISTANCES (FT) $(Z)^2$ (POLE CENTERLINE TO ATTACHMENT POINT)										SIGNAL MAST ARM DATA: WINDLOAD AREAS $(FT)^2$ (X)(Y)										(X)(Y)(Z) TOTAL$(FT)^3$	LUMINAIRE ARM(FT)	POLE ATTACHMENT POINT ANGLES (deg)							FOUNDATION DEPTHS(FT) (4)			REMARKS
STATION	OFFSET	LT.	RT.	P.O.A.		(FT)	A1	A2	B1	B2	B3	B4	B5	B6	B7	B9	B10	B11	B1	B2	B3	B4	B6	B7	B9	B10	B11		C	D	F	G1	G2	H	I1	I2	3' RD.	3' SQ.	4' RD.	
(1) 51ST 100+42.0	35.0'		X	–	PS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	(2)	–	–	270	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.
(2) 51ST 100+59.5	38.0'		X	0	III	28	18	35	28	24	19	–	21/21	11	–	–	–	6	11.6	9.0	9.2	–	9.2	–	–	–	15.6	910	8	0	–	–	–	135	–	–	11	9	9	FND PER WSDOT STD. PLAN J-26.10.
(3) 156TH EX	EX	X		EX	EX II	EX	EX	–	EX	–	–	–	–	–	–	–	–	EX	EX	–	–	–	–	–	–	–	EX	EX	–	–	270/(3) 315	EX	EX	EX	–	–	–	–	–	EXISTING SIGNAL POLE TO REMAIN.
(4) 51ST 51+65.5	32.0'		X	–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	90	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.
(5) 51ST 51+74.5	33.5'	X		–	PS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	(2)	–	–	270	–	–	–	–	FND PER WSDOT STD. PLAN J-21.10.
(6) 51ST 51+70.5	35.0'	X		0	III	38	18	35	38	34	21	–	–	10	–	–	–	15.5	11.6	9.0	9.2	–	9.2	–	–	–	15.6	1,274	8	0	–	–	–	225	–	–	11	9	9	FND PER WSDOT STD. PLAN J-26.10.
(7) 156TH 85+58.5	27.0'	X		–	PS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	(2)	–	–	90	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.
(8) 156TH 85+66.0	28.0'		X	–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	(2)	–	–	270	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.
(9) 156TH EX	EX		X	EX	EX II	EX	EX	–	EX	EX	EX	–	EX/EX	EX	–	–	–	EX	EX	EX	EX	–	EX	–	–	–	EX	EX	–	EX/EX	315 (3)	EX	EX	EX	90	–	–	–	–	EXISTING SIGNAL POLE TO REMAIN.
(10) 156TH 84+75.0	40.5'		X	–	PS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	(2)	–	–	90	–	–	–	–	FND PER WSDOT STD. PLAN J-21.10.
(11) 156TH 84+68.0	31.0'	X		108	II	25	16	–	0	22	16	–	–	–	–	–	–	–	9.2	9.0	9.2	–	–	–	–	–	–	346	–	–	–	–	–	243	–	–	10	8	8	FND PER WSDOT STD. PLAN J-26.10.
(12) 51ST 51+54.0	40.0'		X	–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	307	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.
(13) 156TH 84+45.0	71.0'	X		–	PPB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	30	–	–	–	–	FND PER WSDOT STD. PLAN J-20.10 & J-20.11.

(1) STATION AND OFFSETS ARE APPROXIMATE. CONFIRM POLE PLACEMENT WITH ADA RAMP LAYOUT PER DETAILS, THIS SHEET.
(2) NOT APPLICABLE; PEDESTRIAN SIGNAL HEAD SHALL USE TYPE "D" MOUNT.
(3) VEHICLE SIGNAL HEADS SHALL USE TYPE "H" MOUNT.
(4) ALLOWABLE LATERAL BEARING PRESSURE WAS NOT KNOW AT THE TIME OF PLAN PREPARATION. FOUNDATION DEPTHS ARE BASED ON A 1000 PSF ALLOWABLE LATERAL BEARING PRESSURE.

EXISTING FOUNDATION DEPTHS SHOWN ARE BASED ON CITY RECORD DRAWINGS 86120100036 AND 86120100038. NOT CONFIRMED.

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIGELOW STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

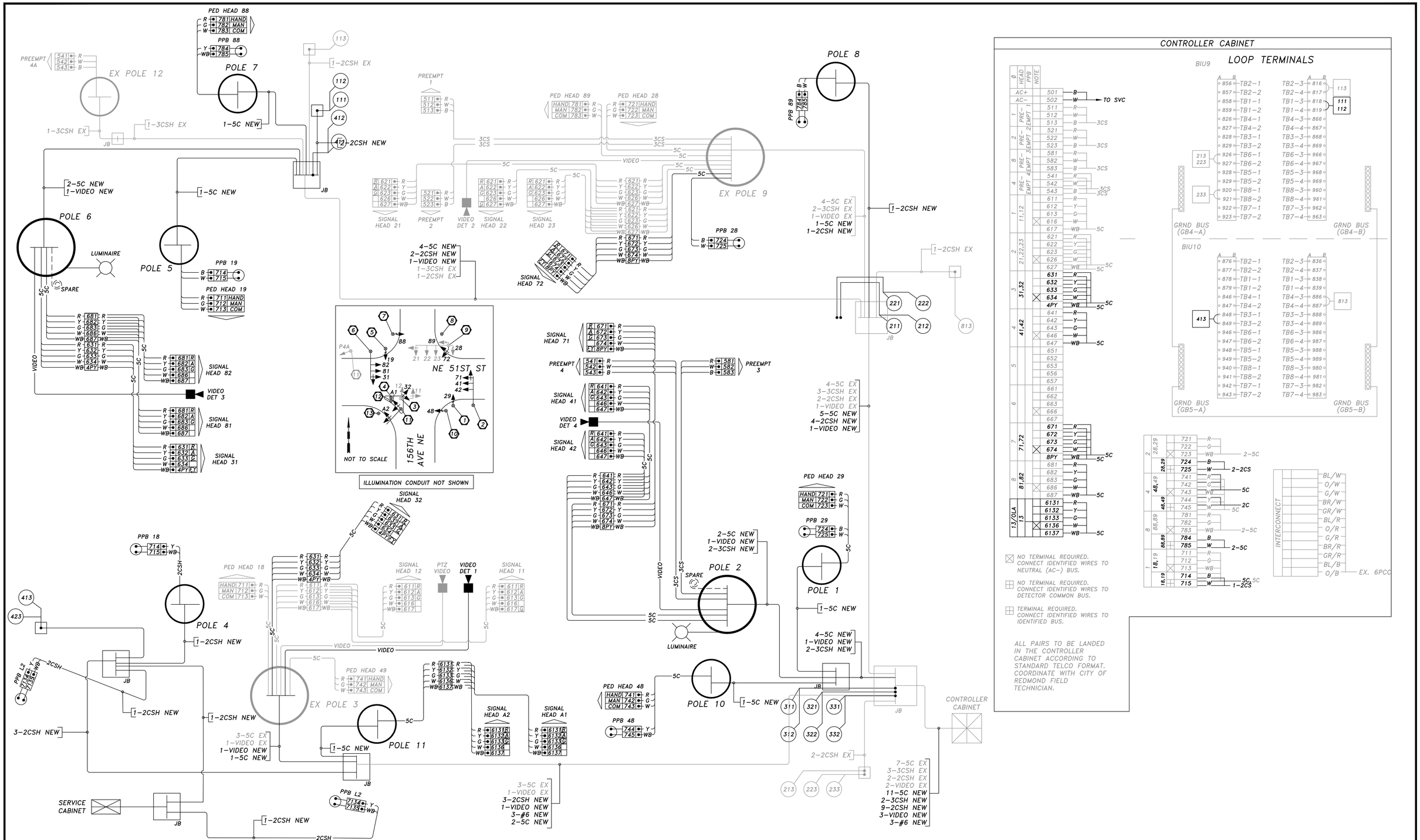
DESIGNED BY: TTT	ISSUE DATE: 04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
POLE CHART

DRAWING No.: **51-TS-26**

SHEET No.: 61 OF 80



IFB PLANS

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CHRISTOPHER T. BIOCK STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

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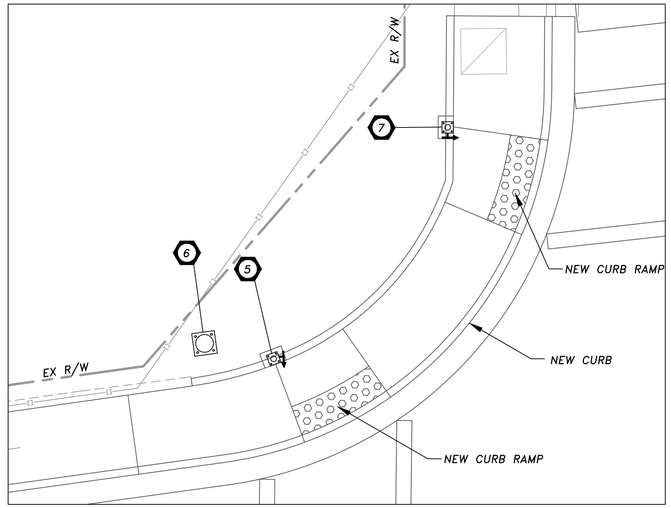
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
WIRING DIAGRAM

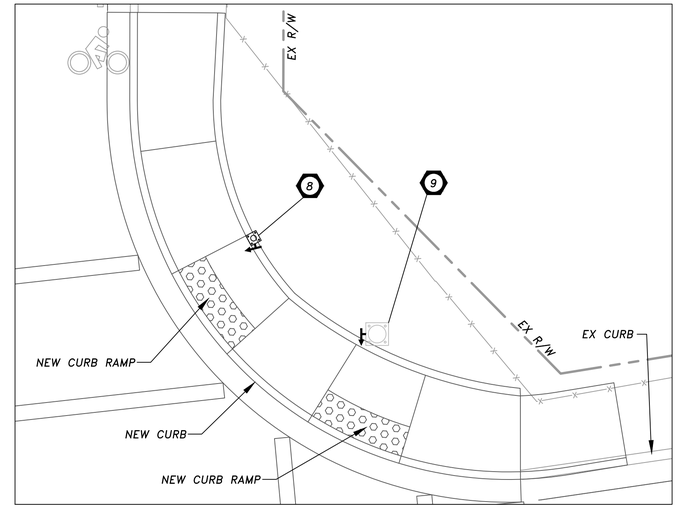
DRAWING No.: **51-TS-27**

SHEET No.: 62 OF 80



NW QUADRANT DETAIL

0 5
SCALE IN FEET

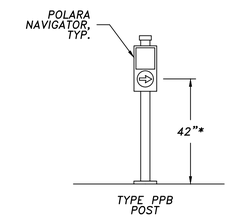


NE QUADRANT DETAIL

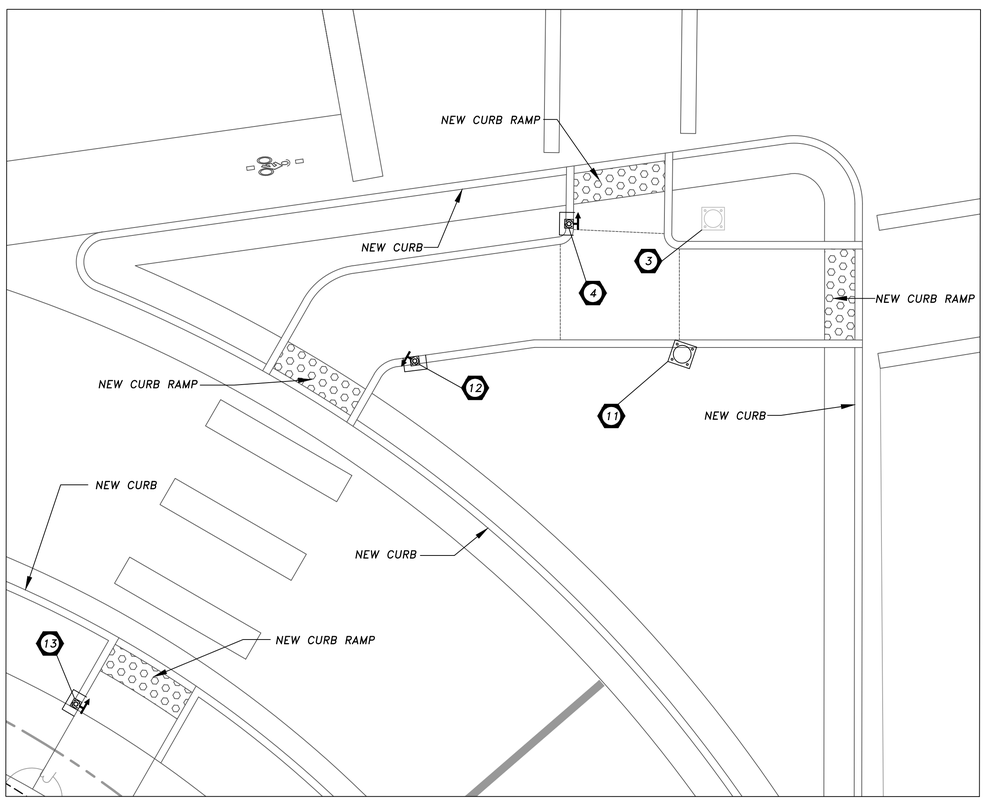
0 5
SCALE IN FEET

PUSHBUTTON MOUNTING DETAIL

NOT TO SCALE



*DIMENSION MEASURED FROM CENTER OF PUSHBUTTON TO SURFACE OF WALKING PATH

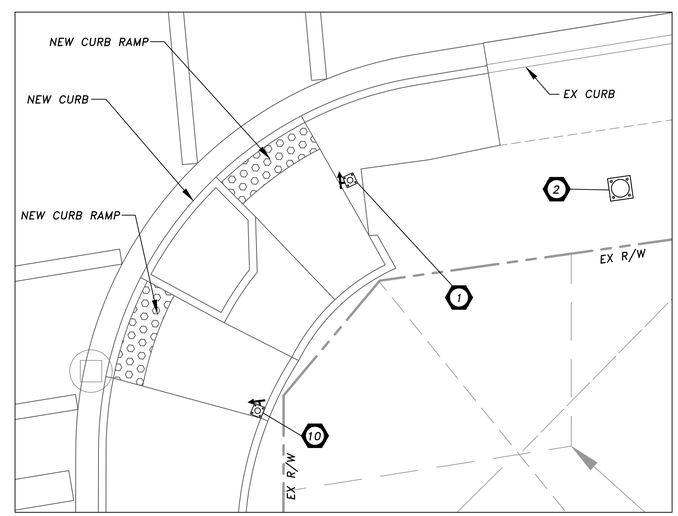


SW QUADRANT DETAIL

0 5
SCALE IN FEET

APS POLE PLACEMENT NOTE

1. POLE LOCATIONS SHOWN ARE APPROXIMATE. FINAL POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CITY OF REDMOND TRAFFIC OPERATIONS. CONTACT BRUCE NEWMAN AT 425-556-2856 MIN. ONE WEEK PRIOR TO FOUNDATION INSTALLATION TO FIELD CONFIRM POLE LOCATIONS.



SE QUADRANT DETAIL

0 5
SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 970110
REDMOND, WA 98073-9710
PH. (425) 556-2701

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818 Stewart Street, Suite 1120
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Transportation Planning | Design | Traffic Impact & Operations
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Project Contact: Glen DuBreuil
Phone: 425-230-0382

CHRISTOPHER T. BICKEL STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

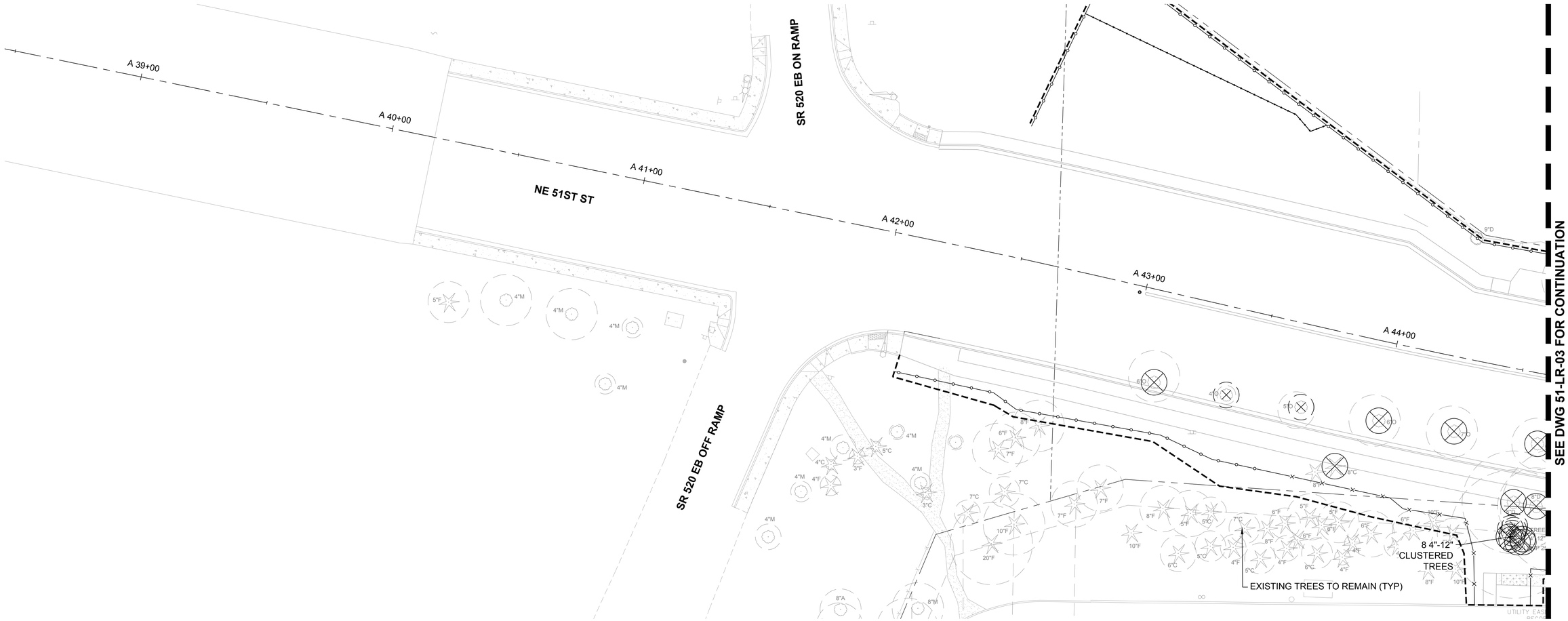
DESIGNED BY:	ISSUE DATE:
TTT	04/30/2019
DRAWN BY: TTT	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

NE 51ST ST & 156TH AVE NE
TRAFFIC SIGNAL & ILLUMINATION
APS POLE PLACEMENT

DRAWING No.: **51-TS-28**

SHEET No.: 63 OF 80



NOTES:

1. SILT FENCE AND CONSTRUCTION FENCING DELINEATE LIMITS OF DISTURBANCE. FENCING TO BE LOCATED OUTSIDE OF DRIPLINES OF TREES TO REMAIN.
2. SEE DWG 51-LS-10 FOR TREE REPLACEMENT CALCULATIONS.

LEGEND

SIGNIFICANT TREE TO BE REMOVED

NON-SIGNIFICANT TREE TO BE REMOVED

N

0 10 20 40

SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
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Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON PENELOPE ST. JOHN NO. 846 EXP. 10-11-20 LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LR-02.DWG

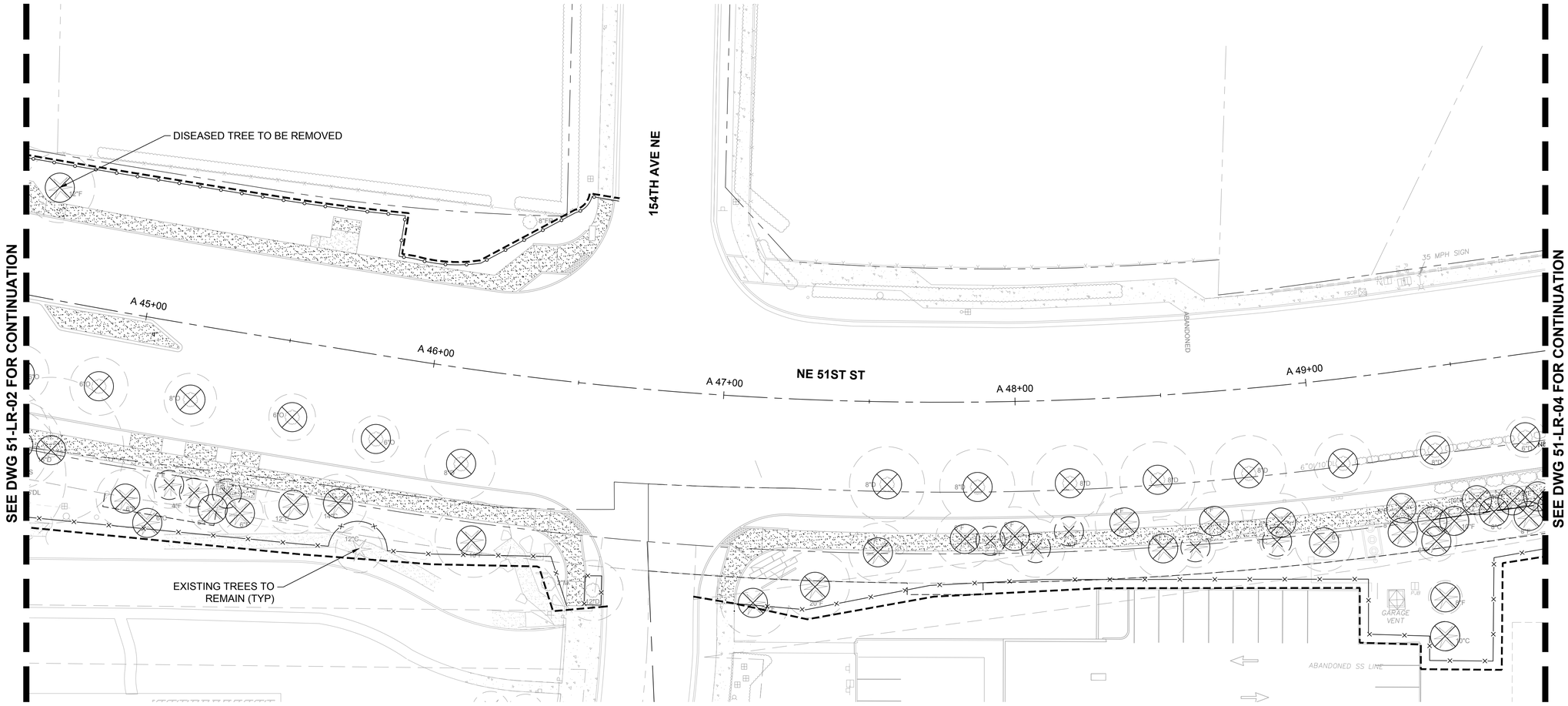
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

TREE PRESERVATION PLAN

DRAWING No.: 51-LR-02

SHEET No.: 64 OF 80

04/30/19 | 7:14 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LR-02.DWG



NOTES:

1. SILT FENCE AND CONSTRUCTION FENCING DELINEATE LIMITS OF DISTURBANCE. FENCING TO BE LOCATED OUTSIDE OF DRIPLINES OF TREES TO REMAIN.
2. SEE DWG 51-LS-10 FOR TREE REPLACEMENT CALCULATIONS.

LEGEND

SIGNIFICANT TREE TO BE REMOVED

NON-SIGNIFICANT TREE TO BE REMOVED

N

0 10 20 40

SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON
PENELOPE ST JOHN
NO. 846 EXP
LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LR-03.DWG

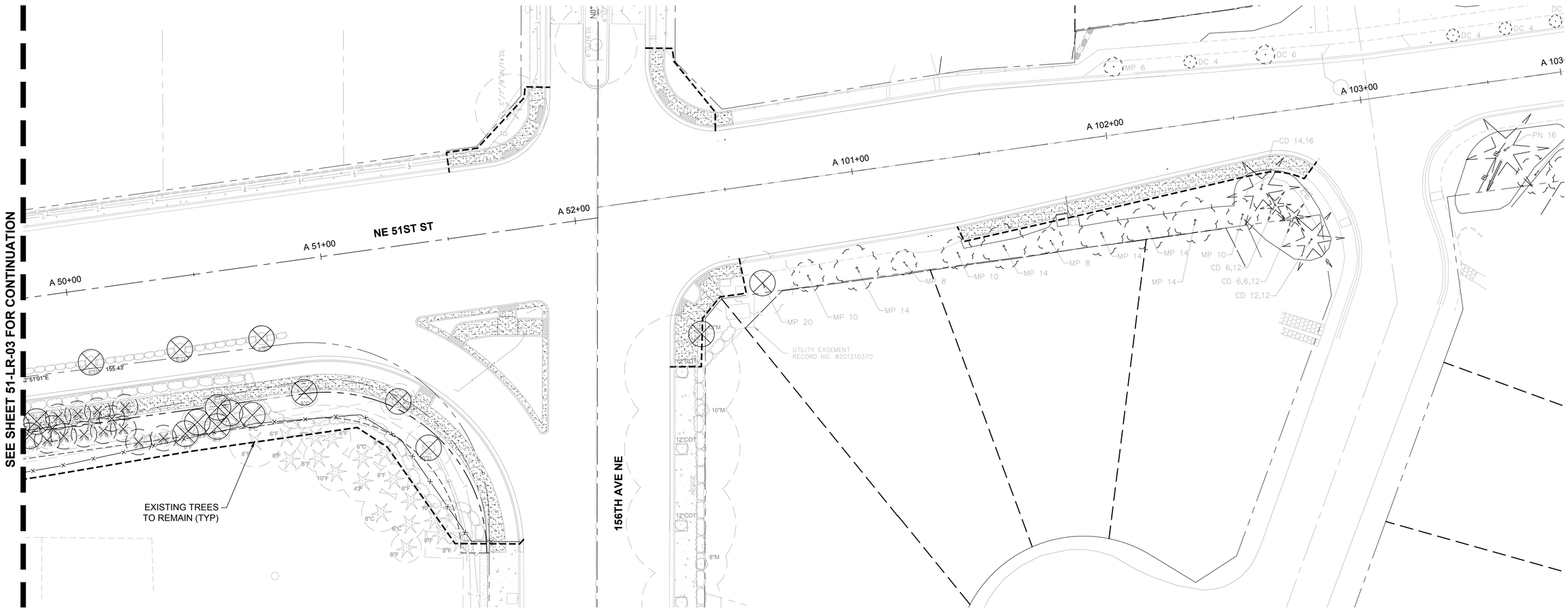
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

TREE PRESERVATION PLAN

DRAWING No.: **51-LR-03**

SHEET No.: 65 OF 80

04/30/19 | 7:14 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LR-03.DWG



NOTES:

1. SILT FENCE AND CONSTRUCTION FENCING DELINEATE LIMITS OF DISTURBANCE. FENCING TO BE LOCATED OUTSIDE OF DRIPLINES OF TREES TO REMAIN.
2. SEE DWG 51-LS-10 FOR TREE REPLACEMENT CALCULATIONS.

LEGEND

SIGNIFICANT TREE TO BE REMOVED

NON-SIGNIFICANT TREE TO BE REMOVED

N

0 10 20 40

SCALE IN FEET

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON
PENELOPE ST JOHN
NO. 846 EXP
LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LR-04.DWG

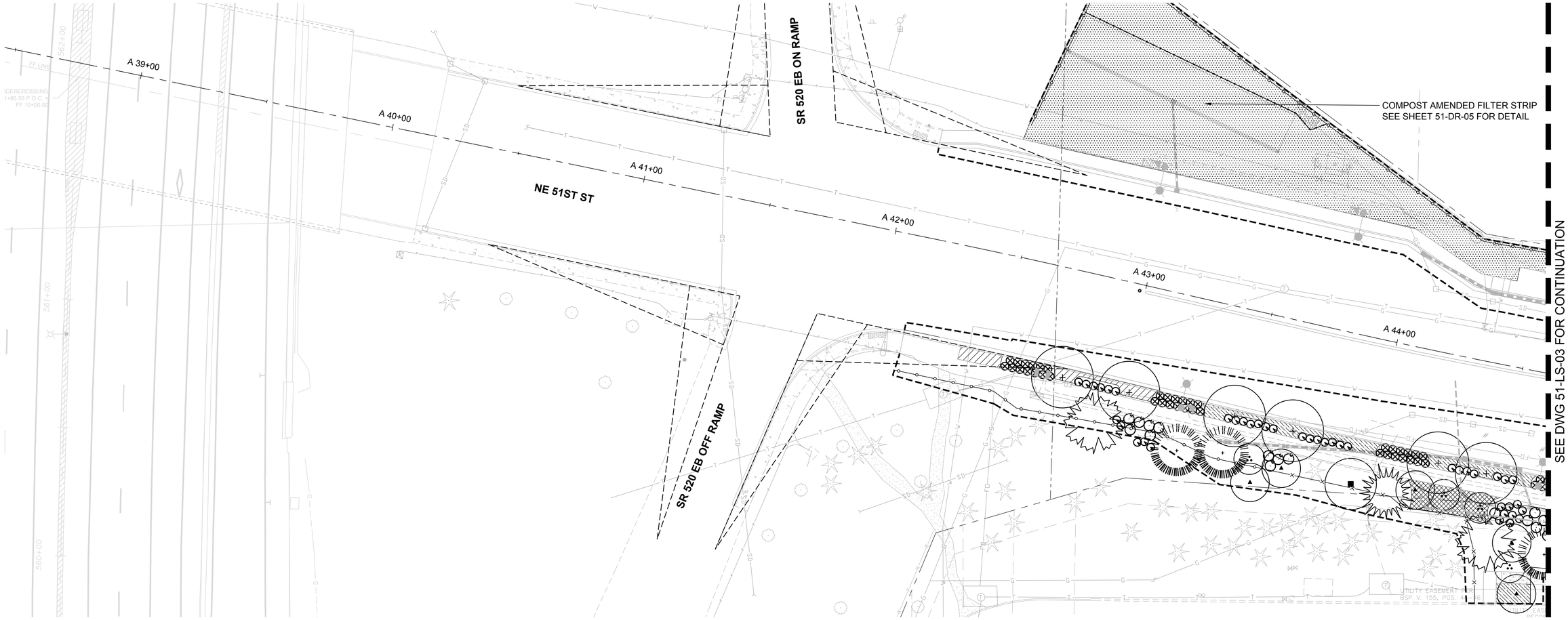
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

TREE PRESERVATION PLAN

DRAWING No.: **51-LR-04**

SHEET No.: 66 OF 80

04/30/19 | 7:15 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LR-04.DWG



NOTES:

1. HYDRDOSEED DISTURBED AREAS UNLESS OTHERWISE NOTED.
2. IRRIGATE NEW LANDSCAPE BUFFER AND CONNECT TO EXISTING MICROSOFT SYSTEM.
3. IRRIGATE NEW STREETSCAPE LANDSCAPING, INCLUDING ISLAND, AND CONNECT TO EXISTING STREETSCAPE SYSTEM.
4. COORDINATE PLANT LOCATIONS TO AVOID UTILITIES AND STREET LIGHTS.

N

0 10 20 40

SCALE IN FEET

LEGEND:

BOTANICAL NAME	COMMON NAME
QUERCUS RUBRA	RED OAK
ACER TRUNCATUMXPLANTANOIDES 'WARRENRED'	PACIFIC SUNSET MAPLE
AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY
ACER CIRCINATUM	VINE MAPLE

BOTANICAL NAME	COMMON NAME
PINUS CONTORTA	SHORE PINE
THUJA PLICATA	WESTERN RED CEDAR
PSEUDOTSUGA MENZISII	DOUGLAS FIR

SIGHT DISTANCE TRIANGLE PER CITY OF REDMOND DETAIL DG03

BOTANICAL NAME	COMMON NAME
LONICERA PILEATA	BOX LEAF HONEYSUCKLE
OXALIS OREGANA	WOOD SORREL
LINNAEA BOREALIS	TWINFLOWER
MAHONIA REPENS	CREEPING MAHONIA
EPIMEDIUM PERRALCHICUM	EPIMEDIUM
TURF	

BOTANICAL NAME	COMMON NAME
RIBES SANGUINEUM	FLOWERING CURRANT
SPIREA BETULIFOLIA VAR. LUCIDA	SPIREA BETULIFOLIA VAR. LUCIDA
SYMPHORICARPOS ALBUS	SNOWBERRY
PRUNUS LAUROCERASUS 'MOUNT VERNON'	DWARF ENGLISH LAUREL
BLECHNUM SPICANT	DEER FERN
HOLODISCUS DUMOSUS	BUSH OCEANSPRAY

PRE- SUBMITTAL EXHIBIT

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
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HUITT-ZOLLARS
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818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON PENELOPE ST. JOHN NO. 846 EXP. LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LS-02.DWG

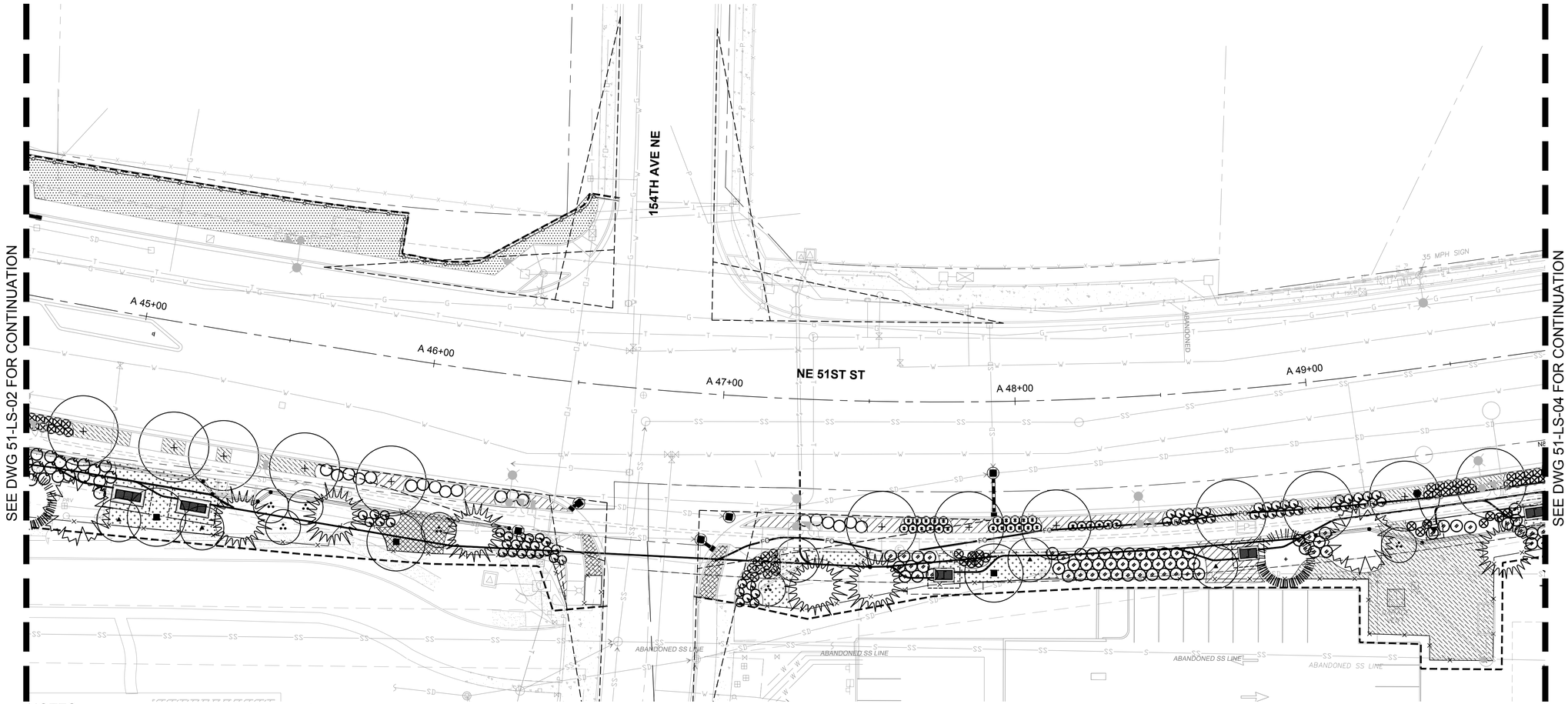
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

LANDSCAPE PLAN

DRAWING No.: 51-LS-02

SHEET No.: 67 OF 80

04/30/19 | 7:16 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LS-02.DWG



NOTES:

1. HYDRDOSEED DISTURBED AREAS UNLESS OTHERWISE NOTED.
2. IRRIGATE NEW LANDSCAPE BUFFER AND CONNECT TO EXISTING MICROSOFT SYSTEM.
3. IRRIGATE NEW STREETSCAPE LANDSCAPING, INCLUDING ISLAND, AND CONNECT TO EXISTING STREETSCAPE SYSTEM.
4. COORDINATE PLANT LOCATIONS TO AVOID UTILITIES AND STREET LIGHTS.

N

0 10 20 40

SCALE IN FEET

LEGEND:

BOTANICAL NAME	COMMON NAME
QUERCUS RUBRA	RED OAK
ACER TRUNCATUMXPLANTANOIDES 'WARRENRED'	PACIFIC SUNSET MAPLE
AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY
ACER CIRCINATUM	VINE MAPLE

BOTANICAL NAME	COMMON NAME
PINUS CONTORTA	SHORE PINE
THUJA PLICATA	WESTERN RED CEDAR
PSEUDOTSUGA MENZISII	DOUGLAS FIR

SIGHT DISTANCE TRIANGLE PER CITY OF REDMOND DETAIL DG03

BOTANICAL NAME	COMMON NAME
LONICERA PILEATA	BOX LEAF HONEYSUCKLE
OXALIS OREGANA	WOOD SORREL
LINNAEA BOREALIS	TWINFLOWER
MAHONIA REPENS	CREEPING MAHONIA
EPIMEDIUM PERRALCHICUM	EPIMEDIUM
TURF	

BOTANICAL NAME	COMMON NAME
RIBES SANGUINEUM	FLOWERING CURRANT
SPIREA BETULIFOLIA VAR. LUCIDA	SPIREA BETULIFOLIA VAR. LUCID
SYMPHORICARPOS ALBUS	SNOWBERRY
PRUNUS LAUROCERASUS 'MOUNT VERNON'	DWARF ENGLISH LAUREL
BLECHNUM SPICANT	DEER FERN
HOLODISCUS DUMOSUS	BUSH OCEANSPRAY

IFB PLANS

No.	DATE	BY	CHD	REVISION

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STATE OF WASHINGTON
PENELOPE ST JOHN
NO. 848 EXP. 09/26/19
LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LS-03.DWG

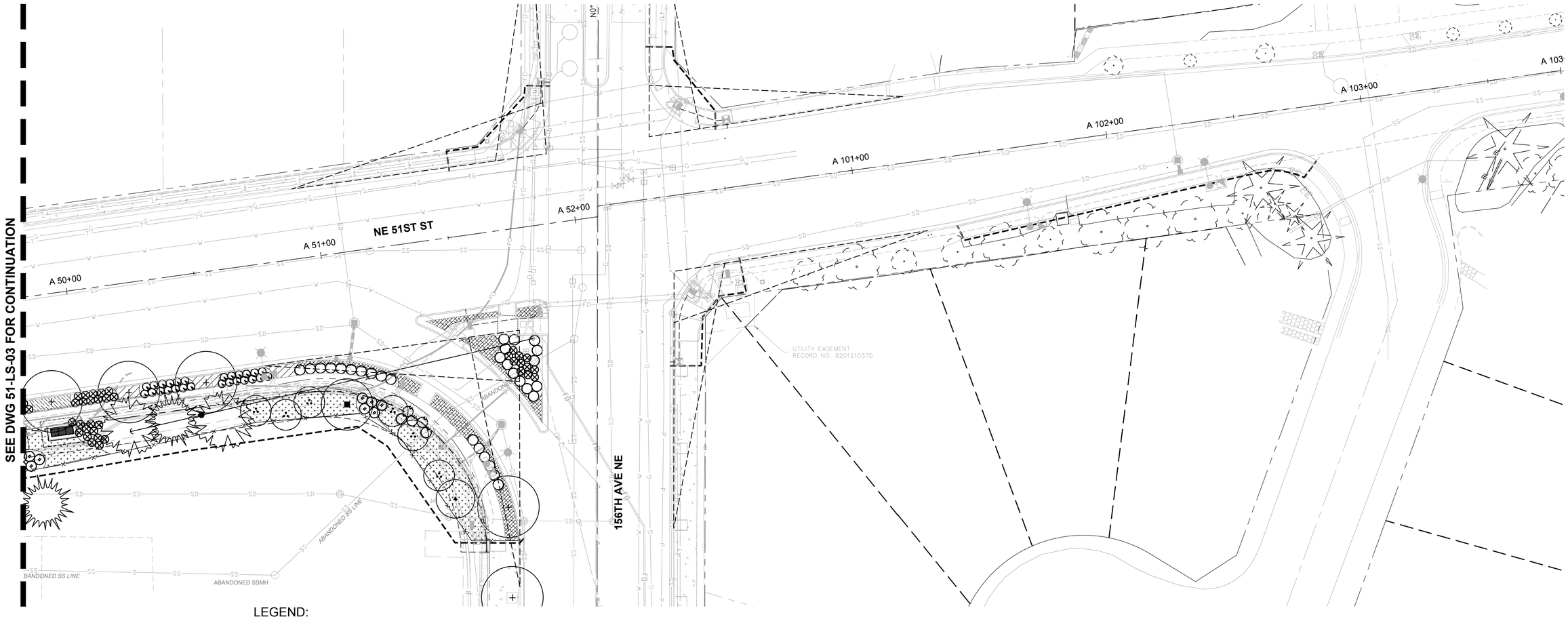
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

LANDSCAPE PLAN

DRAWING No.: **51-LS-03**

SHEET No.: 68 OF 80

04/30/19 | 7:17 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LS-03.DWG



NOTES:

1. HYDRDOSEED DISTURBED AREAS UNLESS OTHERWISE NOTED.
2. IRRIGATE NEW LANDSCAPE BUFFER AND CONNECT TO EXISTING MICROSOFT SYSTEM.
3. IRRIGATE NEW STREETSCAPE LANDSCAPING, INCLUDING ISLAND, AND CONNECT TO EXISTING STREETSCAPE SYSTEM.
4. COORDINATE PLANT LOCATIONS TO AVOID UTILITIES AND STREET LIGHTS.

N

0 10 20 40

SCALE IN FEET

LEGEND:

BOTANICAL NAME	COMMON NAME
QUERCUS RUBRA	RED OAK
ACER TRUNCATUMXPLANTANOIDES 'WARRENRED'	PACIFIC SUNSET MAPLE
AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY
ACER CIRCINATUM	VINE MAPLE

BOTANICAL NAME	COMMON NAME
PINUS CONTORTA	SHORE PINE
THUJA PLICATA	WESTERN RED CEDAR
PSEUDOTSUGA MENZISII	DOUGLAS FIR

SIGHT DISTANCE TRIANGLE PER CITY OF REDMOND DETAIL DG03

BOTANICAL NAME	COMMON NAME
LONICERA PILEATA	BOX LEAF HONEYSUCKLE
OXALIS OREGANA	WOOD SORREL
LINNAEA BOREALIS	TWINFLOWER
MAHONIA REPENS	CREEPING MAHONIA
EPIMEDIUM PERRALCHICUM	EPIMEDIUM
TURF	

BOTANICAL NAME	COMMON NAME
RIBES SANGUINEUM	FLOWERING CURRANT
SPIREA BETULIFOLIA VAR. LUCIDA	SPIREA BETULIFOLIA VAR. LUCID
SYMPHORICARPOS ALBUS	SNOWBERRY
PRUNUS LAUROCERASUS 'MOUNT VERNON'	DWARF ENGLISH LAUREL
BLECHNUM SPICANT	DEER FERN
HOLODISCUS DUMOSUS	BUSH OCEANSPRAY

IFB PLANS

No.	DATE	BY	CHD	REVISION

CityofRedmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON PENELOPE ST JOHN NO. 846 EXP. 02-21-20 LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LS-04.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

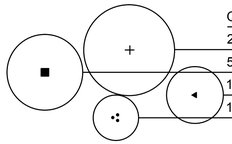
LANDSCAPE PLAN

DRAWING No.: 51-LS-04

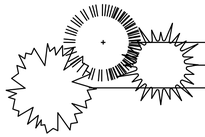
SHEET No.: 69 OF 80

04/30/19 | 7:17 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LS-04.DWG

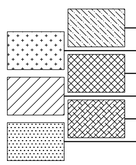
PLANT SCHEDULE



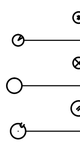
QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
23	QUERCUS RUBRA	RED OAK	2.5" CAL	PER PLAN .	
5	ACER TRUNCATUMXPLANTANOIDES 'WARRENRED'	PACIFIC SUNSET MAPLE	2.5" CAL	PER PLAN .	
11	AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY	15 GAL	PER PLAN .	
16	ACER CIRCINATUM	VINE MAPLE	15 GAL	PER PLAN .	



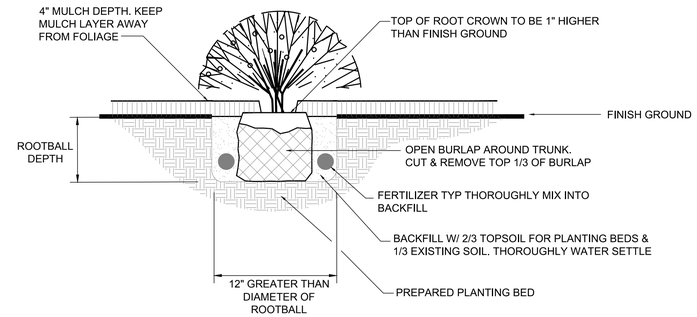
4	PINUS CONTORTA	SHORE PINE	6'-8'	PER PLAN .
8	THUJA PLICATA	WESTERN RED CEDAR	6'-8'	PER PLAN .
6	PSEUDOTSUGA MENZISII	DOUGLAS FIR	6'-8'	PER PLAN .



	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
251	LONICERA PILEATA	BOXLEAF HONEYSUCKLE	1 GAL	36" OC	.
1195	OXALIS OREGANA	WOOD SORREL	4" POT	18" OC	.
243	LINNAEA BOREALIS	TWINFLOWER	1 GAL	18" OC	.
258	MAHONIA REPENS	CREEPING MAHONIA	1 GAL	24" OC	.
165	EPIMEDIUM PERRALCHICUM	EPIMEDIUM	1 GAL	24" OC	.
	TURF				



	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
28	RIBES SANGUINEUM	FLOWERING CURRANT	5 GAL	3' OC	.
132	SPIREA BETULIFOLIA VAR. LUCIDA	SHINYLEAF SPIRAEA	5 GAL	2' OC	.
133	SYMPHORICARPOS ALBUS	SNOWBERRY	5 GAL	4' OC	.
48	PRUNUS LAUROCERASUS 'MOUNT VERNON'	DWARF ENGLISH LAUREL	5 GAL	4' OC	.
73	BLECHNUM SPICANT	DEER FERN	5 GAL	2' OC	.
37	HOLODISCUS DUMOSUS	BUSH OCEANSPRAY	5 GAL	5' OC	.



SECTION - SHRUB/GROUNDCOVER PLANTING

SCALE: NTS

1
51-LS-10

TREE REPLACEMENT CALCULATIONS

1 DISEASED TREE REMOVED
28 NON-SIGNIFICANT (<6" DBH) TREES REMOVED
74 SIGNIFICANT (6"-24" DBH) TREES REMOVED
74 REPLACEMENT TREES REQUIRED
74 REPLACEMENT TREES PROPOSED

04/30/19 | 7:18 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-LS-10.DWG

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

STATE OF WASHINGTON
PENELOPE ST JOHN
NO. 946 EXP 10-10-19
LICENSED LANDSCAPE ARCHITECT

LINE IS 1" AT FULL SCALE

DESIGNED BY: P. ST.JOHN	ISSUE DATE: 04/30/2019
DRAWN BY: P. ST.JOHN	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-LS-10.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

LANDSCAPE
SCHEDULE & DETAILS

DRAWING No.: **51-LS-10**

SHEET No.: 70 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS (MAX. WEIGHT SHALL BE IN ACCORDANCE WITH MANUF. RECOMMENDATION)	30' MIN

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT

* A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRANSPORTABLE ATTENUATOR IS AVAILABLE. IF NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED IN THE FIELD TO SHIELD WORKERS AND NO ROLL AHEAD DISTANCE IS SPECIFIED.

SIGN SPACING = X (FEET)

Rural Highways	60/65 MPH	800'+-
Rural Roads	45/55 MPH	500'+-
Rural Roads & Urban Arterials	35/40 MPH	350'+-
Rural Roads, Urban Streets Residential & Business Districts	25/30 MPH	200'+-
Urban Streets	25 mph or less	100'+-

All signs are 48" X 48" black on orange unless otherwise designated

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	Posted Speed (mph) 25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

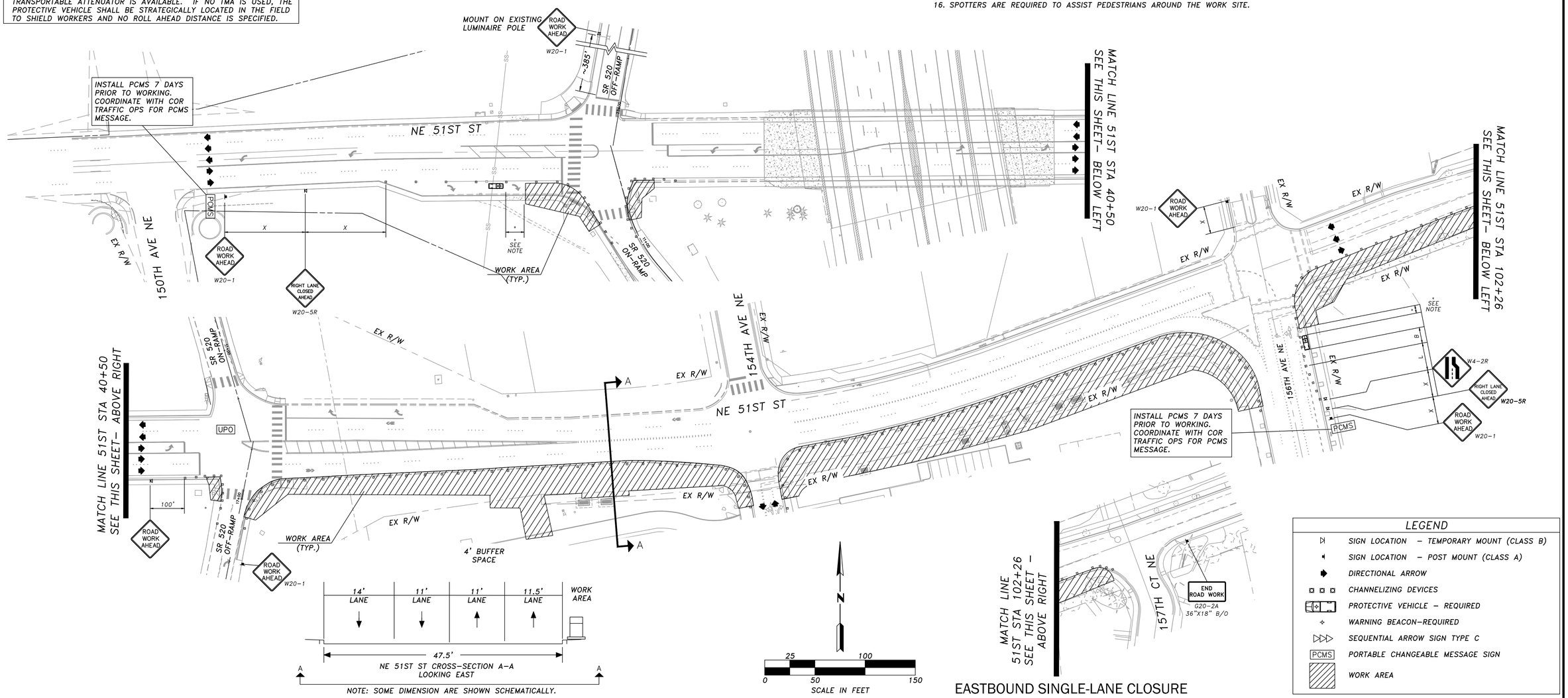
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
2. THIS PLAN MAY NEED TO BE ADJUSTED TO FIT SITE CONDITIONS AS APPROVED BY THE ENGINEER.
3. MAINTAIN ACCESS FOR PRIVATE DRIVEWAY WITHIN WORK AREA LIMITS.
4. ALL SIGNS AND SPACING SHALL CONFORM TO THE CURRENT MUTCD AND WSDOT SPECIFICATIONS.
5. PRIORITY PASSAGE THROUGH WORK AREA FOR EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES.
6. PROTECTIVE VEHICLE RECOMMENDED – MAY BE A WORK VEHICLE.
7. ALL SIGNS 48"X48" BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
8. CHANNELIZATION DEVICES ARE STANDARD RETROREFLECTIVE TRAFFIC CONES. MINIMUM HEIGHT 28".
9. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT GRADE INTERSECTIONS AND/OR DRIVEWAYS.
10. CONTRACTOR SHALL ALERT AFFECTED RESIDENTS AND BUSINESSES 7 CALENDAR DAYS IN ADVANCED OF START OF WORK.
11. RECOMMEND EXTENDING DEVICE TAPER ACROSS SHOULDER. (L/3 TAPER)
12. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IS REQUIRED FOR ALL TRAFFIC CONTROL REQUIRING LANE CLOSURES. CONTRACTOR TO PROVIDE PCMS, BUT CITY ENGINEER WILL HAVE FINAL APPROVAL IN SIGN PLACEMENT.
13. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' RECOMMENDED.
14. TEMPORARY PAVEMENT MARKINGS ON THIS PROJECT SHALL CONSIST OF YELLOW TEMPORARY CENTER LINE AND WHITE TEMPORARY EDGE LINE, BETWEEN THE PROJECT LIMITS ON 152ND AVE NE.
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BICKO STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-01

SHEET No.: 71 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS (MAX. WEIGHT SHALL BE IN ACCORDANCE WITH MANUF. RECOMMENDATION)	30' MIN

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT

* A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRANSPORTABLE ATTENUATOR IS AVAILABLE. IF NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED IN THE FIELD TO SHIELD WORKERS AND NO ROLL AHEAD DISTANCE IS SPECIFIED.

SIGN SPACING = X (FEET)

Rural Highways	60/65 MPH	800'+-
Rural Roads	45/55 MPH	500'+-
Rural Roads & Urban Arterials	35/40 MPH	350'+-
Rural Roads, Urban Streets Residential & Business Districts	25/30 MPH	200'+-
Urban Streets	25 mph or less	100'+-

All signs are 48" X 48" black on orange unless otherwise designated

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	Posted Speed (mph) 25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
2. THIS PLAN MAY NEED TO BE ADJUSTED TO FIT SITE CONDITIONS AS APPROVED BY THE ENGINEER.
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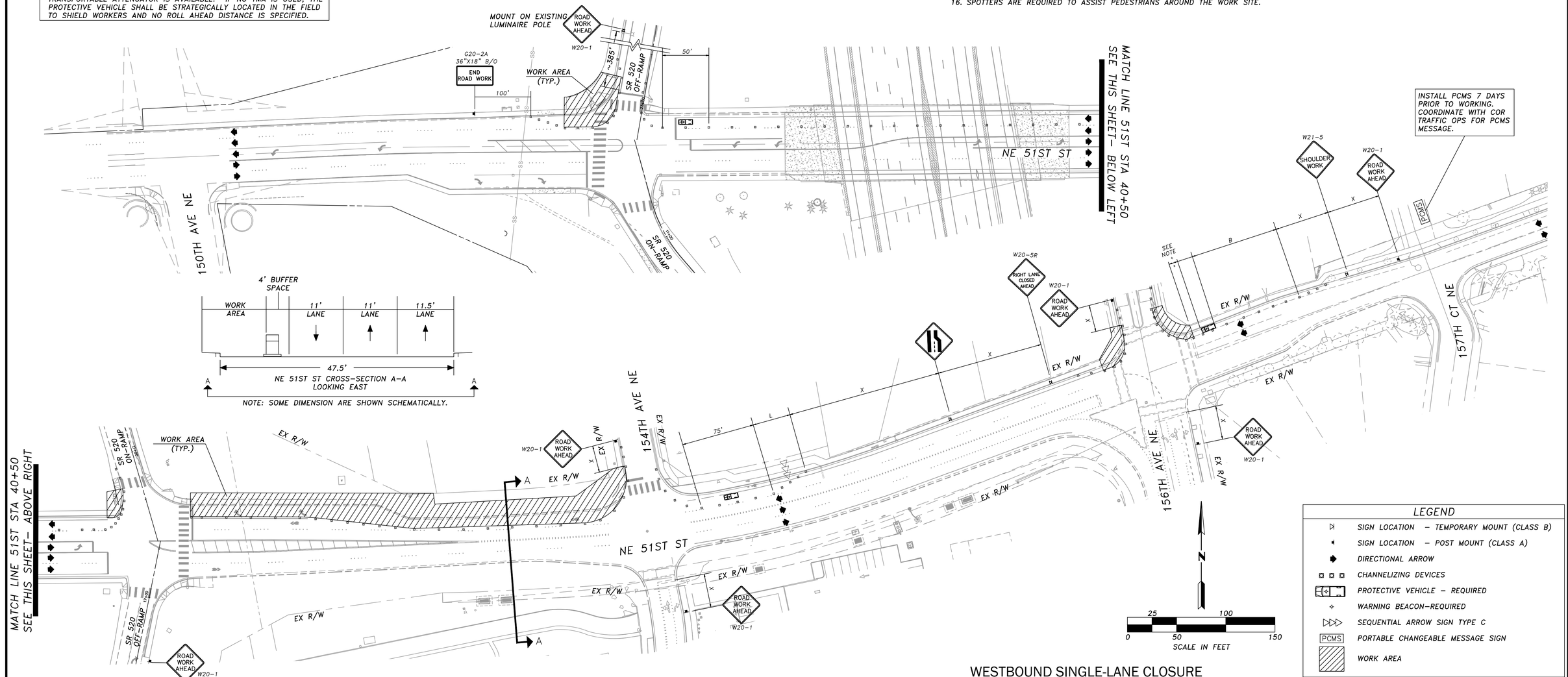
7. ALL SIGNS 48"X48" BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
8. CHANNELIZATION DEVICES ARE STANDARD RETROREFLECTIVE TRAFFIC CONES. MINIMUM HEIGHT 28".
9. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT GRADE INTERSECTIONS AND/OR DRIVEWAYS.
10. CONTRACTOR SHALL ALERT AFFECTED RESIDENTS AND BUSINESSES 7 CALENDAR DAYS IN ADVANCED OF START OF WORK.
11. RECOMMEND EXTENDING DEVICE TAPER ACROSS SHOULDER. (L/3 TAPER)
12. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IS REQUIRED FOR ALL TRAFFIC CONTROL REQUIRING LANE CLOSURES. CONTRACTOR TO PROVIDE PCMS, BUT CITY ENGINEER WILL HAVE FINAL APPROVAL IN SIGN PLACEMENT.
13. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' RECOMMENDED.
14. TEMPORARY PAVEMENT MARKINGS ON THIS PROJECT SHALL CONSIST OF YELLOW TEMPORARY CENTER LINE AND WHITE TEMPORARY EDGE LINE, BETWEEN THE PROJECT LIMITS ON 152ND AVE NE.
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



WESTBOUND SINGLE-LANE CLOSURE

LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
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Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-230-0582

CHRISTOPHER T. BICKET STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-02

SHEET No.: 72 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS (MAX. WEIGHT SHALL BE IN ACCORDANCE WITH MANUF. RECOMMENDATION)	30' MIN

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10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
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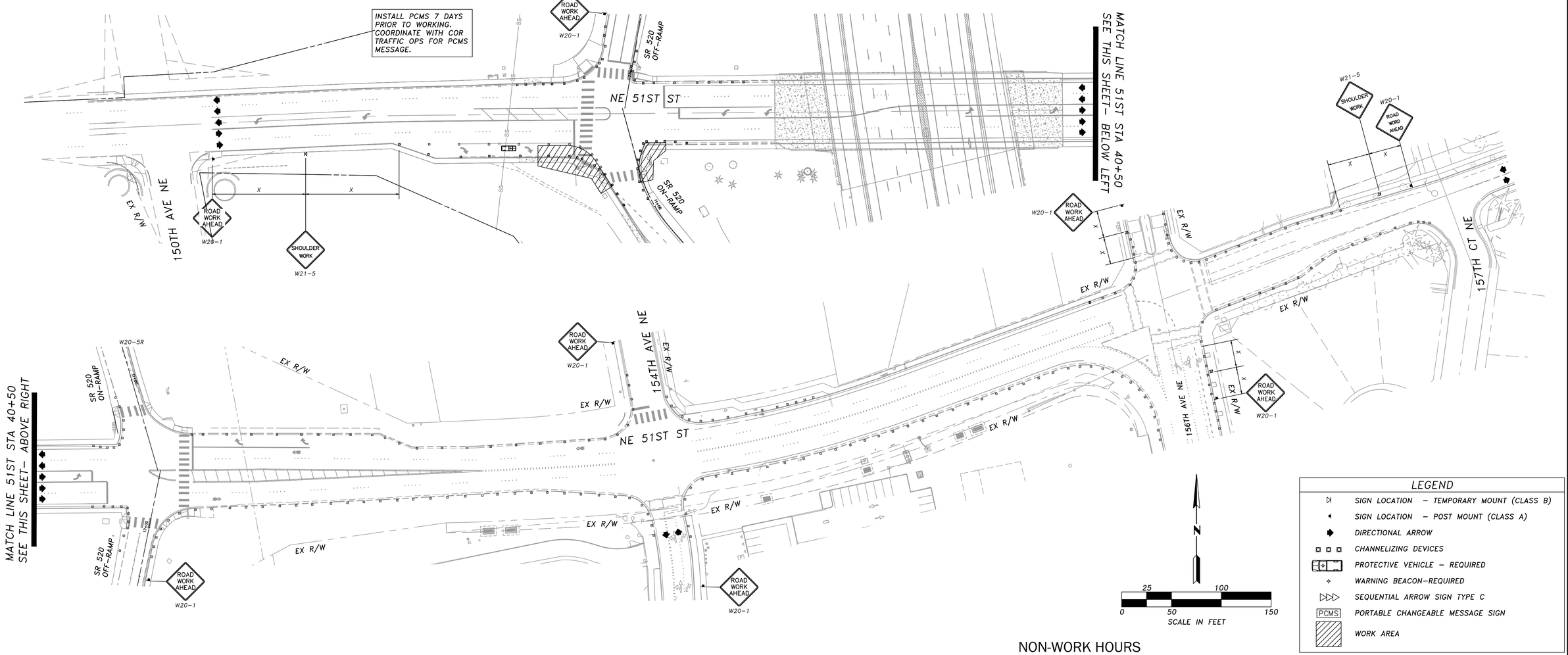
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



NON-WORK HOURS

LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIOCK STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-03

SHEET No.: 73 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS (MAX. WEIGHT SHALL BE IN ACCORDANCE WITH MANUF. RECOMMENDATION)	30' MIN

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT

* A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRANSPORTABLE ATTENUATOR IS AVAILABLE. IF NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED IN THE FIELD TO SHIELD WORKERS AND NO ROLL AHEAD DISTANCE IS SPECIFIED.

SIGN SPACING = X (FEET)

Rural Highways	60/65 MPH	800'+-
Rural Roads	45/55 MPH	500'+-
Rural Roads & Urban Arterials	35/40 MPH	350'+-
Rural Roads, Urban Streets Residential & Business Districts	25/30 MPH	200'+-
Urban Streets	25 mph or less	100'+-

All signs are 48" X 48" black on orange unless otherwise designated

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	Posted Speed (mph) 25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

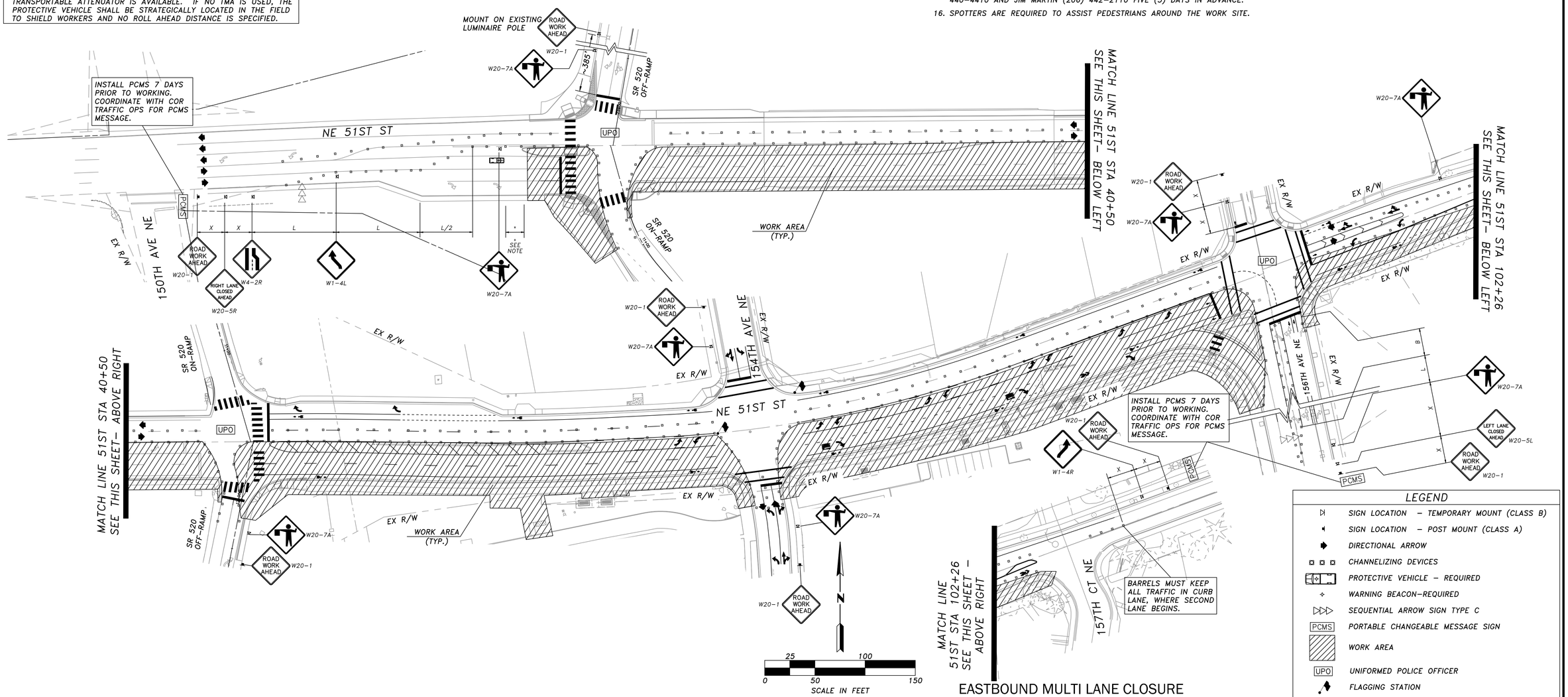
PCMS

1	2
LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
2. THIS PLAN MAY NEED TO BE ADJUSTED TO FIT SITE CONDITIONS AS APPROVED BY THE ENGINEER.
3. MAINTAIN ACCESS FOR PRIVATE DRIVEWAY WITHIN WORK AREA LIMITS.
4. ALL SIGNS AND SPACING SHALL CONFORM TO THE CURRENT MUTCD AND WSDOT SPECIFICATIONS.
5. PRIORITY PASSAGE THROUGH WORK AREA FOR EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES.
6. PROTECTIVE VEHICLE RECOMMENDED – MAY BE A WORK VEHICLE.
7. ALL SIGNS 48"X48" BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
8. CHANNELIZATION DEVICES ARE STANDARD RETROREFLECTIVE TRAFFIC CONES. MINIMUM HEIGHT 28".
9. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT GRADE INTERSECTIONS AND/OR DRIVEWAYS.
10. CONTRACTOR SHALL ALERT AFFECTED RESIDENTS AND BUSINESSES 7 CALENDAR DAYS IN ADVANCED OF START OF WORK.
11. RECOMMEND EXTENDING DEVICE TAPER ACROSS SHOULDER. (L/3 TAPER)
12. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IS REQUIRED FOR ALL TRAFFIC CONTROL REQUIRING LANE CLOSURES. CONTRACTOR TO PROVIDE PCMS, BUT CITY ENGINEER WILL HAVE FINAL APPROVAL IN SIGN PLACEMENT.
13. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' RECOMMENDED.
14. TEMPORARY PAVEMENT MARKINGS ON THIS PROJECT SHALL CONSIST OF YELLOW TEMPORARY CENTER LINE AND WHITE TEMPORARY EDGE LINE, BETWEEN THE PROJECT LIMITS ON 152ND AVE NE.
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS. CITY INSPECTOR TO CONTACT PASKO KESOVIJA (206) 440-4410 AND JIM MARTIN (206) 442-2110 FIVE (5) DAYS IN ADVANCE.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



EASTBOUND MULTI LANE CLOSURE

LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS – PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA
- UPO – UNIFORMED POLICE OFFICER
- FLAGGING STATION

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIOCH STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT/TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TTT/TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-04

SHEET No.: 74 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC.	MINIMUM WEIGHT 15,000 LBS (MAX. WEIGHT SHALL BE IN ACCORDANCE WITH MANUF. RECOMMENDATION)	30' MIN

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT

* A PROTECTIVE VEHICLE IS REQUIRED REGARDLESS IF A TRANSPORTABLE ATTENUATOR IS AVAILABLE. IF NO TMA IS USED, THE PROTECTIVE VEHICLE SHALL BE STRATEGICALLY LOCATED IN THE FIELD TO SHIELD WORKERS AND NO ROLL AHEAD DISTANCE IS SPECIFIED.

SIGN SPACING = X (FEET)

Rural Highways	60/65 MPH	800'+-
Rural Roads	45/55 MPH	500'+-
Rural Roads & Urban Arterials	35/40 MPH	350'+-
Rural Roads, Urban Streets Residential & Business Districts	25/30 MPH	200'+-
Urban Streets	25 mph or less	100'+-

All signs are 48" X 48" black on orange unless otherwise designated

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	Posted Speed (mph) 25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

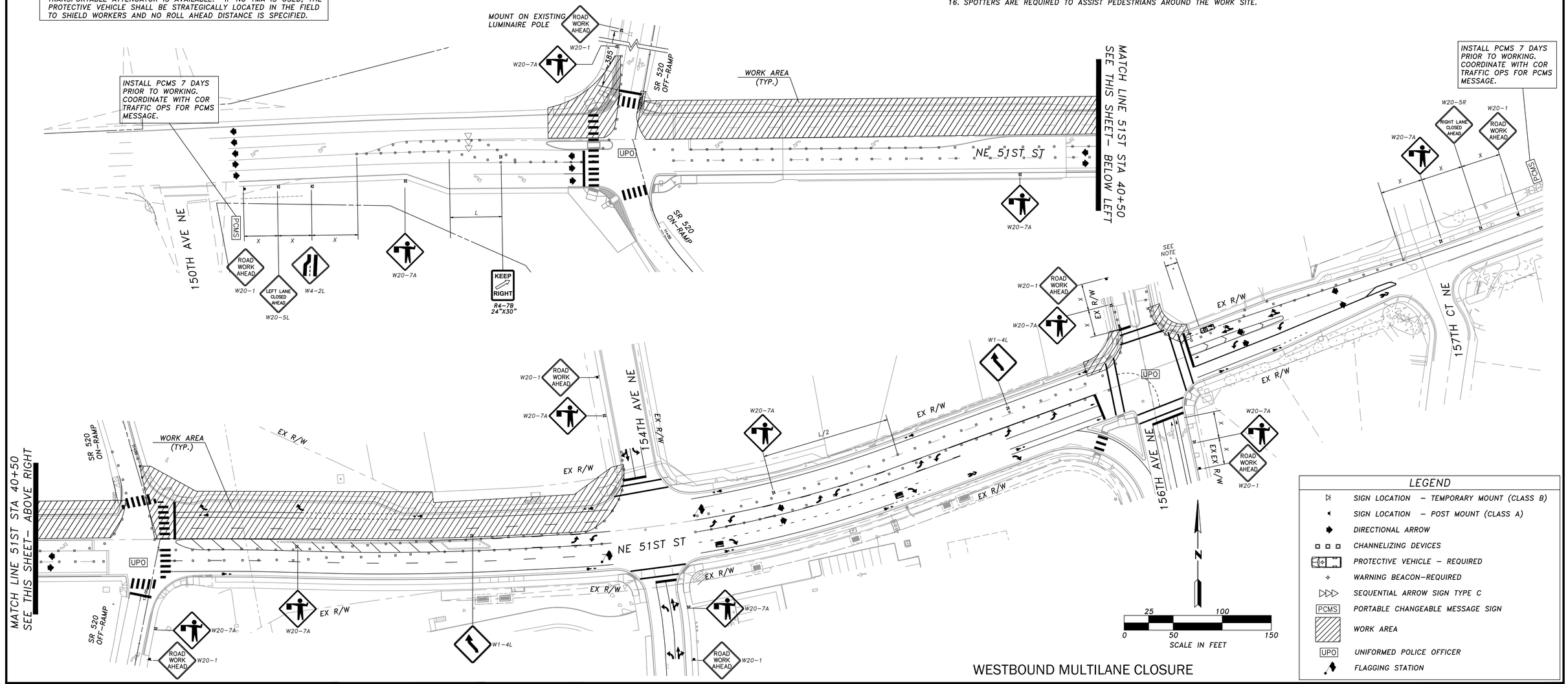
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
2. THIS PLAN MAY NEED TO BE ADJUSTED TO FIT SITE CONDITIONS AS APPROVED BY THE ENGINEER.
3. MAINTAIN ACCESS FOR PRIVATE DRIVEWAY WITHIN WORK AREA LIMITS.
4. ALL SIGNS AND SPACING SHALL CONFORM TO THE CURRENT MUTCD AND WSDOT SPECIFICATIONS.
5. PRIORITY PASSAGE THROUGH WORK AREA FOR EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES.
6. PROTECTIVE VEHICLE RECOMMENDED – MAY BE A WORK VEHICLE.
7. ALL SIGNS 48"X48" BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
8. CHANNELIZATION DEVICES ARE STANDARD RETROREFLECTIVE TRAFFIC CONES. MINIMUM HEIGHT 28".
9. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT GRADE INTERSECTIONS AND/OR DRIVEWAYS.
10. CONTRACTOR SHALL ALERT AFFECTED RESIDENTS AND BUSINESSES 7 CALENDAR DAYS IN ADVANCED OF START OF WORK.
11. RECOMMEND EXTENDING DEVICE TAPER ACROSS SHOULDER. (L/3 TAPER)
12. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) IS REQUIRED FOR ALL TRAFFIC CONTROL REQUIRING LANE CLOSURES. CONTRACTOR TO PROVIDE PCMS, BUT CITY ENGINEER WILL HAVE FINAL APPROVAL IN SIGN PLACEMENT.
13. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' RECOMMENDED.
14. TEMPORARY PAVEMENT MARKINGS ON THIS PROJECT SHALL CONSIST OF YELLOW TEMPORARY CENTER LINE AND WHITE TEMPORARY EDGE LINE, BETWEEN THE PROJECT LIMITS ON 152ND AVE NE.
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



WESTBOUND MULTILANE CLOSURE

LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA
- UPO UNIFORMED POLICE OFFICER
- FLAGGING STATION

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
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TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIGGS STATE OF WASHINGTON 35835 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

DESIGNED BY: TTT/TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TTT/TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-05

SHEET No.: 75 OF 80

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	--

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE

TYPICAL PROTECTIVE VEHICLE TYPE WITH TRANSPORTABLE ATTENUATOR	TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS)	STATIONARY OPERATION (FEET)
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MINIMUM TAPER LENGTH = L (FEET)

LANE WIDTH (FEET)	Posted Speed (mph) 25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	--	--	--
11	115	165	225	295	495	550	605	660	--	--
12	125	180	245	320	540	600	660	720	--	--

CHANNELIZING DEVICE SPACING (FEET)

MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SECONDS	2.0 SECONDS

FIELD LOCATE 1 MILE± IN ADVANCE OF LANE CLOSURE

GENERAL NOTES

1. ALL TRAFFIC CONTROL SHALL COMPLY WITH THE CITY OF REDMOND WORK ZONE MANUAL, AND MUTCD CURRENT EDITION.
2. THIS PLAN MAY NEED TO BE ADJUSTED TO FIT SITE CONDITIONS AS APPROVED BY THE ENGINEER.
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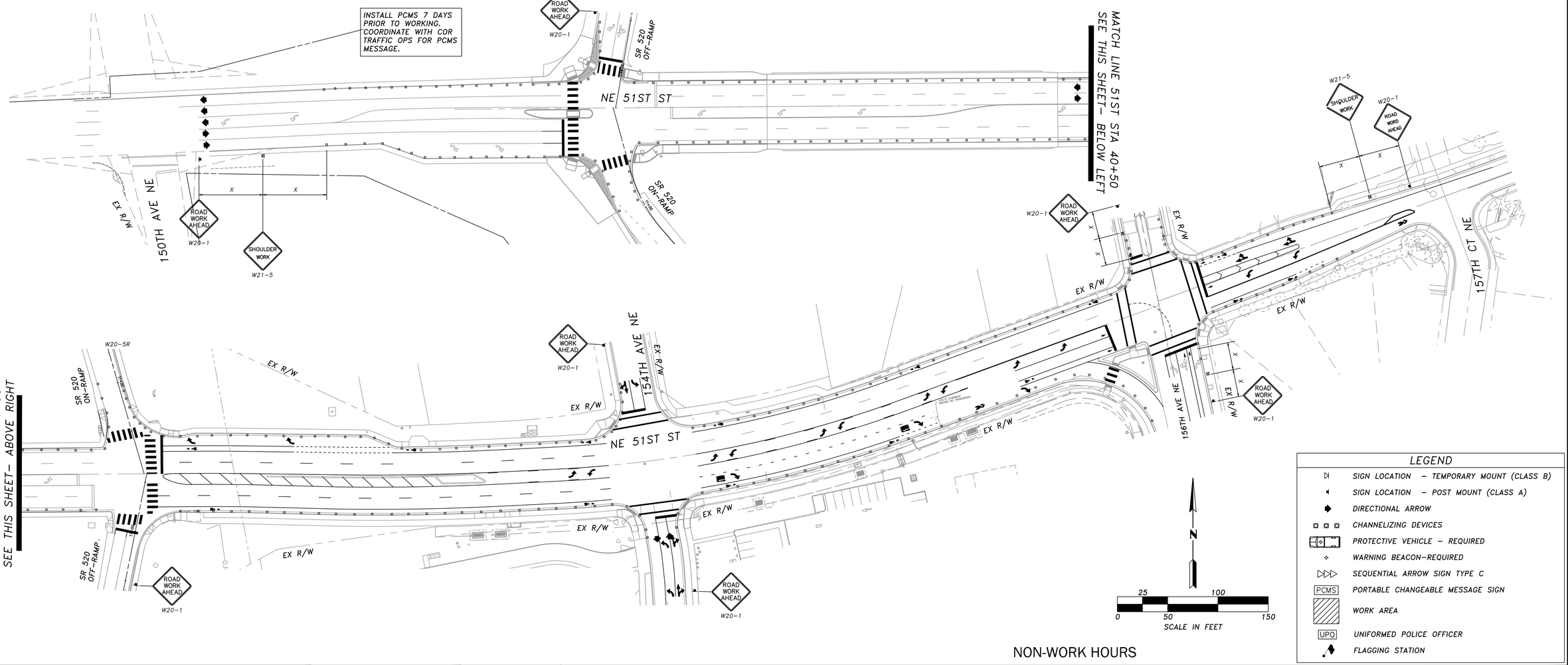
13. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' RECOMMENDED.
14. TEMPORARY PAVEMENT MARKINGS ON THIS PROJECT SHALL CONSIST OF YELLOW TEMPORARY CENTER LINE AND WHITE TEMPORARY EDGE LINE, BETWEEN THE PROJECT LIMITS ON 152ND AVE NE.
15. UNIFORMED POLICE OFFICER REQUIRED TO CONTROL SIGNALIZED INTERSECTIONS WITH THE SIGNAL IN FLASH. CALL CITY INSPECTORS AT 425-556-2728 48 HOURS PRIOR TO WORKING TO SCHEDULE FLASH OPERATIONS.
16. SPOTTERS ARE REQUIRED TO ASSIST PEDESTRIANS AROUND THE WORK SITE.



NON-WORK HOURS

LEGEND

- SIGN LOCATION – TEMPORARY MOUNT (CLASS B)
- SIGN LOCATION – POST MOUNT (CLASS A)
- DIRECTIONAL ARROW
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE – REQUIRED
- WARNING BEACON–REQUIRED
- SEQUENTIAL ARROW SIGN TYPE C
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA
- UPO UNIFORMED POLICE OFFICER
- FLAGGING STATION

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

TENW
Transportation Engineering NorthWest
Transportation Planning | Design | Traffic Impact & Operations
11400 SE 8th Street, Suite 200, Bellevue, WA 98004 | Office (425) 889-6747
Project Contact: Glen DuBreuil
Phone: 425-250-0582

CHRISTOPHER T. BIOCK STATE OF WASHINGTON 35635 REGISTERED PROFESSIONAL ENGINEER
04-30-2019

LINE IS 1" AT FULL SCALE

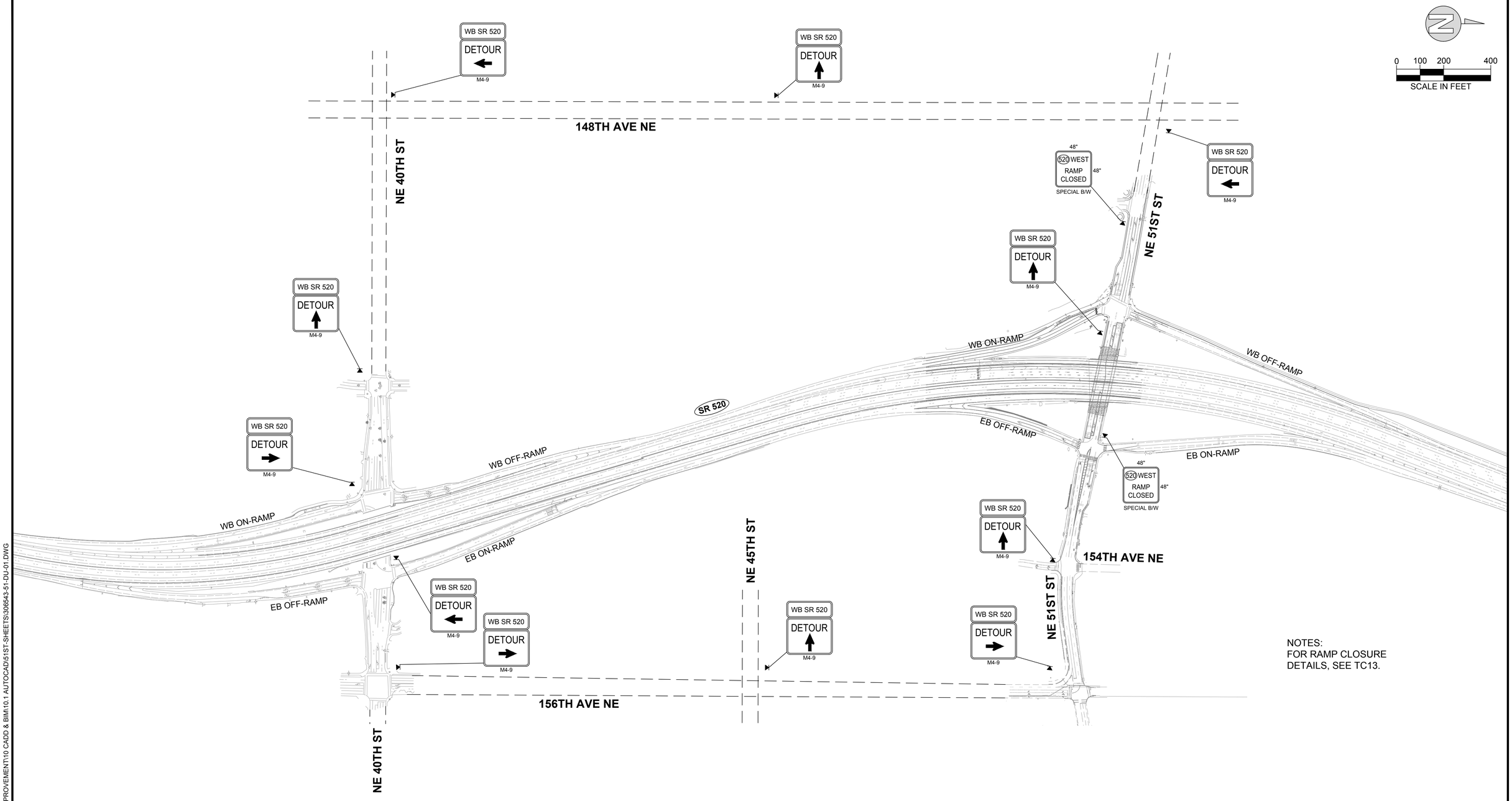
DESIGNED BY: TTT/TDR	ISSUE DATE: 04/30/2019
DRAWN BY: TTT/TDR	JOB NO: 5288
CHECKED BY: CTB	DRAWING FILE NO:

NE 51ST ST IMPROVEMENTS

TRAFFIC CONTROL PLAN

DRAWING No.: 51-TC-06

SHEET No.: 76 OF 80



NOTES:
FOR RAMP CLOSURE DETAILS, SEE TC13.

DETOUR PLAN

NE 51ST STREET ON-RAMP TO WB SR520 CLOSURE

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46911
REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DU-01.DWG

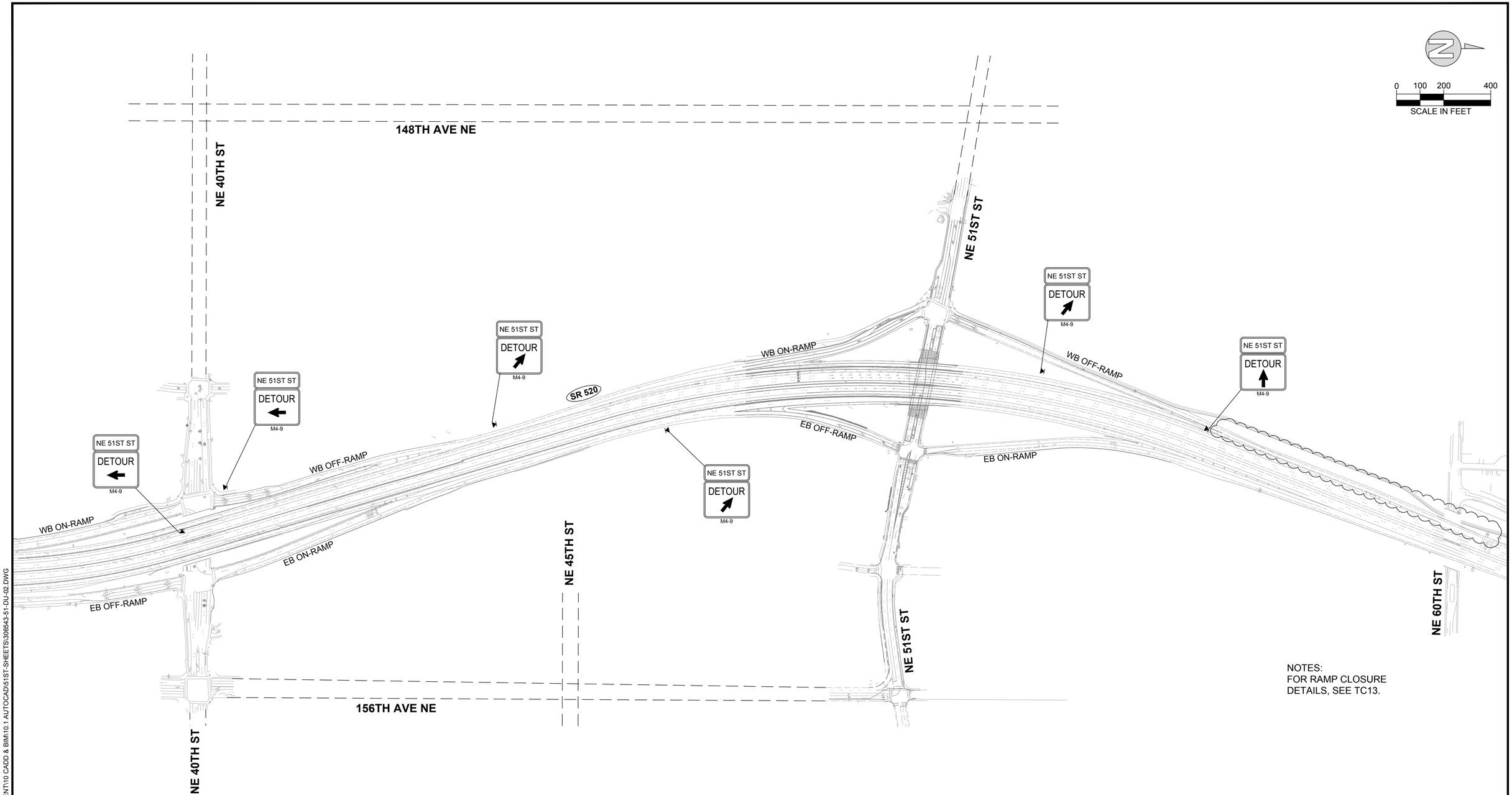
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

DETOUR PLAN

DRAWING No.: 51-DU-01

SHEET No.: 77 OF 80

04/30/19 | 7:12 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DU-01.DWG



NOTES:
FOR RAMP CLOSURE DETAILS, SEE TC13.

DETOUR PLAN

WB SR 520 OFF-RAMP TO NE 51ST STREET CLOSURE

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS Seattle
Huitt-Zollars, Inc.
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN STATE OF WASHINGTON 46917 REGISTERED PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DU-02.DWG

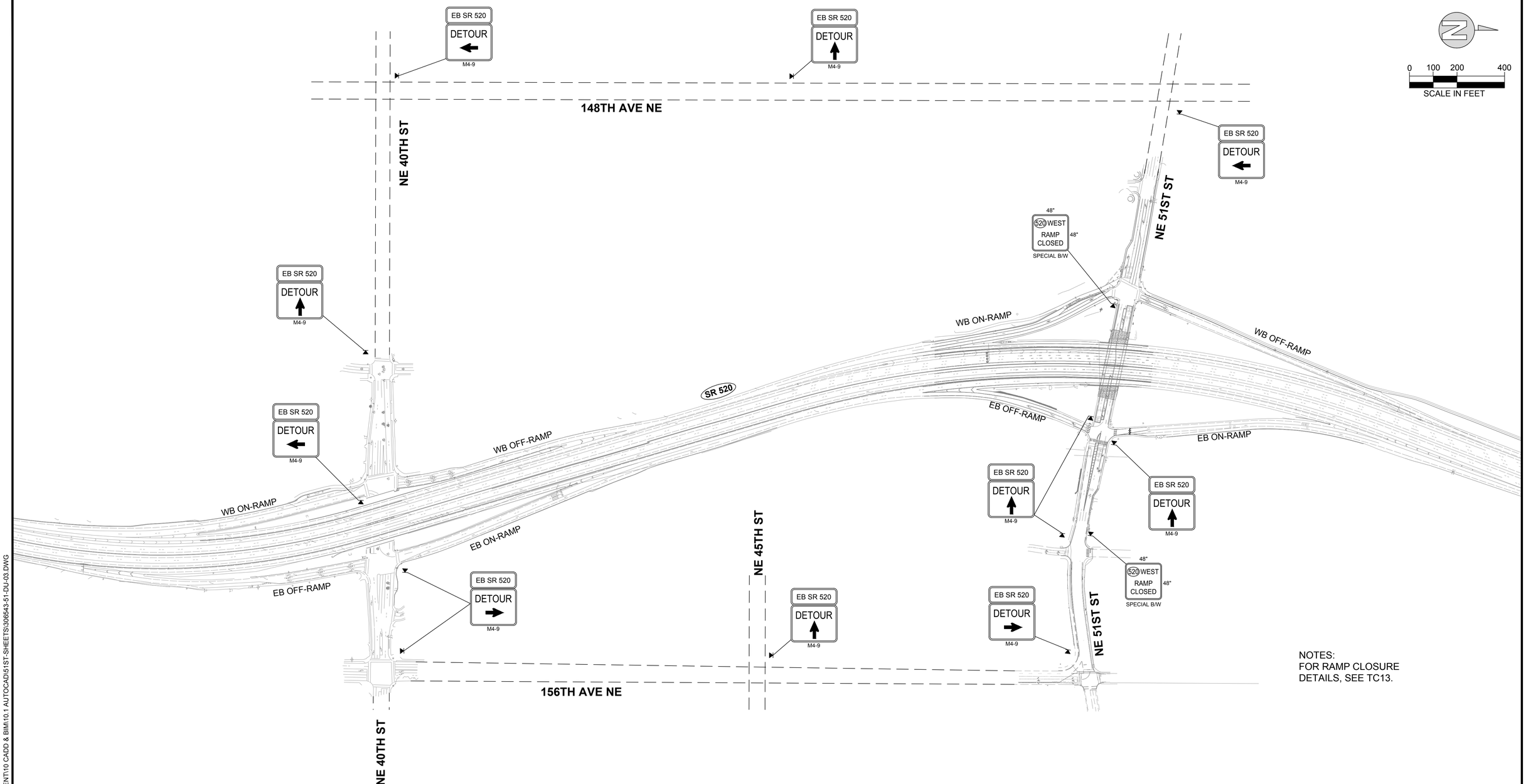
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

DETOUR PLAN

DRAWING No.: 51-DU-02

SHEET No.: 78 OF 80

04/30/19 | 7:12 PM | JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT - STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DU-02.DWG



NOTES:
FOR RAMP CLOSURE
DETAILS, SEE TC13.

DETOUR PLAN

NE 51ST STREET ON-RAMP TO EB SR520 CLOSURE

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond
WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
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HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
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Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46911
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DU-03.DWG

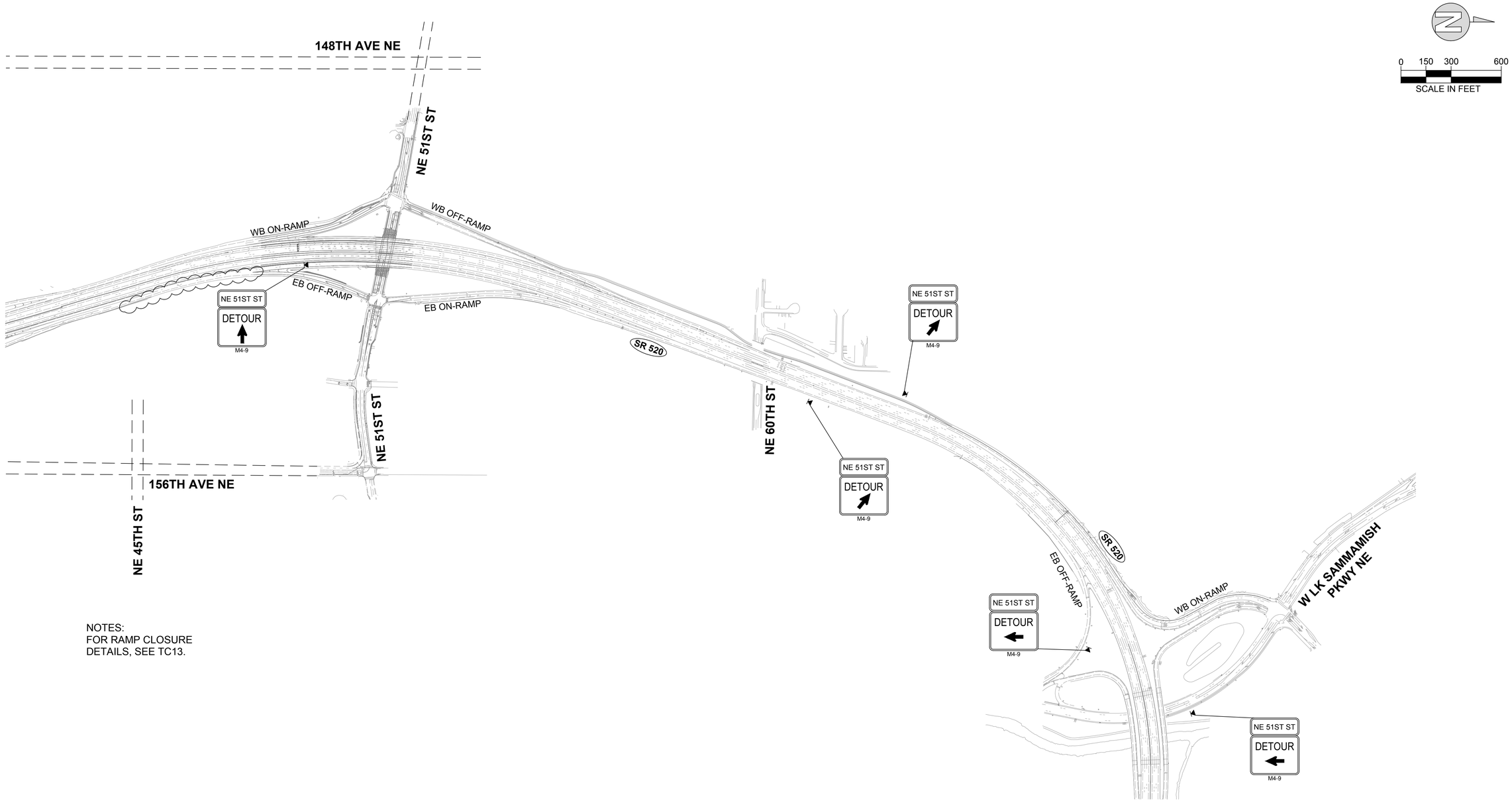
CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

DETOUR PLAN

DRAWING No.: 51-DU-03

SHEET No.: 79 OF 80

04/30/19 | 7:12 PM | J. JARREOLA
J:\R306543.01 - CITY CFD NO2 PROJECT- STREET IMPROVEMENT\10 CADD & BIM\10.1 AUTOCAD\51ST-SHEETS\306543-51-DU-03.DWG



NOTES:
FOR RAMP CLOSURE
DETAILS, SEE TC13.

DETOUR PLAN
EB SR 520 OFF-RAMP TO NE 51ST STREET CLOSURE

IFB PLANS

No.	DATE	BY	CHD	REVISION

City of Redmond WASHINGTON
15670 N.E. 85TH STREET
P.O. BOX 97010
REDMOND, WA 98073-9710
PH. (425) 556-2701

HUITT-ZOLLARS
Huitt-Zollars, Inc. Seattle
818 Stewart Street, Suite 1120
Seattle, Washington, 98101
Phone (206) 324-5500 Fax (206) 328-1880

RAYMOND ERIK BERNTSEN
STATE OF WASHINGTON
46917
REGISTERED
PROFESSIONAL ENGINEER

LINE IS 1" AT FULL SCALE

DESIGNED BY: J. ARREOLA	ISSUE DATE: 04/30/2019
DRAWN BY: J. ARREOLA	JOB NO: R306543.01
CHECKED BY: R. BERNTSEN	DRAWING FILE NO: 306543-51-DU-04.DWG

CFD PROJECT NO. 2
NE 51ST ST IMPROVEMENTS

DETOUR PLAN

DRAWING No.: 51-DU-04

SHEET No.: 80 OF 80

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