



July 24, 2020
Kleinfelder Project No.: 20172026.002A

Ryan Weider, PE
Puget Sound Energy
355 110th Ave
Bellevue, WA 98004

**SUBJECT: Response to Review Comments
Proposed Sammamish-Juanita Transmission Line
King County, Washington**

Dear Mr. Weider:

The purpose of this letter is to address comments received by the City of Redmond regarding pavement recommendations for the post construction replacement of the existing pedestrian trail. It is our understanding that during construction of the transmission line the existing pedestrian trail will be demolished as part of construction and that Puget Sound Energy (PSE) will construct a replacement for the trail after construction is complete. This letter provides preliminary asphalt pavement section recommendations for the replacement pavement section for the pedestrian trail.

Kleinfelder designed an asphaltic concrete pavement section, also referred to as Hot Mix Asphalt (HMA), for the trail in accordance with the 1993 AASHTO Guide of Design of Pavement Structures. We developed the pavement design recommendations based on infrequent heavy vehicle traffic (less than 10 heavy vehicles per year) and the following parameters:

- A 20-year pavement design life;
- An initial design serviceability index of 4.2;
- A terminal serviceability index of 2.5;
- A level of reliability of 80 percent, and
- A design CBR-value of 5.

We recommend a minimum pavement section that is constructed using at least 3 inches of HMA using PG 64-22 binder, over at least 6 inches of compacted aggregate base material. The HMA should conform to the 2019 City of Redmond Standard Specifications and pavement lifts should not exceed 3 inches. This pavement section is designed for infrequent utility maintenance equipment and is not designed for heavy cranes or similar heavy / point loading.

The aggregate base material should conform to the 2020 Washington Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction M41-10 Section 9-03.9(3) Aggregate for Gravel Base. Prior to placement of aggregate base, pavement subbase should be prepared in accordance with recommendations found in our geotechnical report and should be in a reasonably moist, firm, and unyielding condition.

If excessively soft or yielding soils are encountered prior to placement of the base material the subgrade should be over-excavated until it becomes firm and unyielding as determined by the geotechnical engineer. Once firm and unyielding subgrade is encountered the excavation should be backfilled with structural fill placed in loose lifts, no more than one foot thick, and be compacted to at least 95 percent of its theoretical maximum density as determined by ASTM D1557 using the appropriate equipment. Structural fill should conform to Aggregate for Gravel Base requirements of Section 9-03.14(1) Gravel Borrow or Section 9-03.14(2) Select Borrow of the 2020 WSDOT Standard Specifications.

If during the course of over excavation the subgrade is not observed to be firm and unyielding at a practical depth the subgrade should be covered with at least one foot of 2 to 4 inch quarry spalls followed by a geotextile fabric, and backfilled with structural fill as described above. Geotextile fabric should conform to the requirements of Section 9-33 Geotextile for Soil Stabilization of the WSDOT 2020 Standard Specifications.

CLOSURE

We appreciate the opportunity to provide geotechnical services to you on this project. Please contact Marcus Byers at (425) 301-0106 if you have any questions regarding this letter, or if we can provide further assistance with other aspects of the project.

Respectfully submitted,

KLEINFELDER, INC.



William R. Rosso, EIT
Professional



07/24/2020

Samuel R. Christie, PE, GE
Principal Geotechnical Engineer