

Exhibit A - GENERAL INFORMATION

Background:

Currently there is a series of 8” and 12” HP pipelines feeding northern King County via the Duvall Gate Station #2499 (214th Ave NE & NE Woodinville Duvall Rd). Modeling shows that future demand in the area will require reinforcements to this HP system. Installation of a new gate station and 16” HP line from the intersection of 132th Ave NE and 143rd Pl NE to approximately 800’N of 216th Ave NE will alleviate the demand on station #2499 and strengthen the natural gas system in north King County. This pipeline will be installed in the portion of Woodinville known as the “Tolt Pipeline Corridor”, and is thus named the “Tolt 16-inch Natural Gas Line Project”.

Project Description:

There are three phases to this project. The attached map (Exhibit B) illustrates the proposed route and location for these facilities.

- **Phase 1:** Construct a 16” steel pipeline from 155th Ave NE to Mink Rd NE, connecting two existing 8” pipelines and reinforcing the existing system. The pipeline will be designed, constructed, and tested for an MAOP of 500 psig. This pipeline will operate at 250 psig until phase 3 is constructed.
- **Phase 2:** Construct a new gate station at 14510 216th Ave NE, and extend new 16” steel pipeline from this location to Mink Rd where it will tie in to phase 1. These segments will also be designed, constructed, and tested for an MAOP of 500 psig. This pipeline will operate at 250 psig until phase 3 is constructed.
- **Phase 3:** General Plan: Construct/extend the 16” steel pipeline westward from 155th Ave NE and tie into the 12” HP main at 132nd Ave NE. Sever the tie-ins that were made between the 16” and the 8” pipelines during phase 1. Increase the pressure in phases 1 and 2, and operate phases 1, 2, and 3 at 500 psig. Note: This route is preliminary and may be subject to change.

Scope of this Request:

The scope of this request is to operate the 16” Phase 1 pipeline at 500 psig. Phase 1 will begin by tying in to an existing 8” pipeline at the intersection of the Tolt Pipeline corridor and 155th Ave NE, and will follow the corridor approximately 2.8 miles east until Mink Rd NE, where it will tie in with another existing 8” pipeline. The scope of this request includes all pipelines associated with and constructed between the two 8” pipelines.

MAOP:

The Tolt Corridor supply main will be designed and tested for a MAOP of 500 psig.

Pipe and Fitting Specifications:

The proposed pipeline will be constructed from 16” x 0.375” API 5L-X60 steel pipe with a fusion bonded epoxy (FBE) coating. The pipe and fitting specifications with the corresponding percentage of specified minimum yield strength at MAOP and normal operating pressure for the supply main is shown in the table below.

Supply Main:

Material Specification	% SMYS @ MAOP (500 psig)	% SMYS @ Normal Operating Pressure (300 psig)
16" x 0.375" w.t. API 5L-X60 wrapped pipe	17.78	10.67
16" x 0.375" w.t. WPHY-56 fittings	19.05	11.43

All other pipeline components will have a working pressure rating of at least 500 psig.

Damage Prevention:

Pipeline markers will be installed and monitored in accordance with PSE Gas Operating Standard 2525.2500 and 2575.1100. PSE is an active member in the local One-Call System and works closely with the local municipalities and permitting agencies prior to any construction starting in the vicinity of its facilities. Additionally, it is PSE standard practice to monitor construction work taking place in the vicinity of its high pressure systems.

Construction Details:

All construction shall conform to Class 4 Standards.

Cover - All buried mains will be installed with a minimum of 3 feet of cover. Four feet of cover will be achieved wherever possible.

Backfill - All shading and bedding material will be free of sharp rocks with a maximum particle size of 1/2" unless an approved rock shield material is utilized. When rock shield material is used, the backfill material shall be free from sharp objects and large clods that could damage the pipe.

Clearance - At least 12 inches of separation will be maintained between the pipeline and other underground facilities. If 12 inches separation is not possible, the pipeline will be protected from damage caused by proximity to the other structure, by using a bare steel casing, or a fiberglass shield.

Cathodic Protection:

The corrosion control program will be designed and installed in accordance with the requirements of section 2600 of the PSE Gas Operating Standards. The following standards are applicable to the supply main:

2600.1000	Cathodic Protection Requirements
2600.1100	Field Coatings for Pipe and Fittings
2600.1200	Test Stations Requirements
2600.1300	Designing and Installing Cathodic Protection Systems
2600.1400	Electrical Isolation and Grounding Requirements
2600.1500	Monitoring Cathodic Protection
2600.1700	Monitoring and Remedial Measures for Internal Corrosion
2600.1900	Remedial Measures for Corrosion Control
2600.2000	Galvanic Anode Installation Requirements

Coating:

As outlined in Operating Standard 2600.1100 an external protective coating shall be applied to the pipeline. Any field joints and fittings not supplied with protective coatings will have field applied coating. All above-ground piping will be painted in accordance with written specifications. Field applied coatings will meet the requirements of Operating Standard 2600.1100, Field Coatings for Pipe and Fittings.

Several sections of the proposed pipe will be installed via directional drill. That pipe will have an abrasion resistant overlay (ARO) coating applied per Operating Standard 2600.1100.

All coating specifications will be included in the notice of proposed construction.

Testing:

The test medium will be water and the test pressure will be at least 750 psig. Elevation changes approximately 270 feet over the route of the supply main. Therefore, the test pressure at the lowest elevation will be at least 870 psig to ensure 750 psig is obtained at the highest point on the pipeline. All testing will be done in accordance with PSE Gas Operating Standard 2525.3300 and in accordance with an approved procedure.

Welding:

All welding and welding inspection will conform to the following PSE Gas Operating Standards:

2525.2700	Installation Requirements for Steel Pipe and Fittings
2700.1100	Welder Qualification Requirements
2700.1200	Weld Inspection and Repair
2700.1300	Weld Inspector Qualification Requirements
2700.1400	Welder Qualification Test Requirements

In addition, PSE has a comprehensive set of welding procedures that are included in the Gas Standards Procedures Manual. All welding to be done on this project will be governed by these procedures. If any new procedures are required for the welding on this project, they will be qualified in accordance with PSE Operating Standards and added to the Gas Field Procedures Manual. The 16" supply main welds will be performed using Gas Field Procedure 4900.1330 which is attached for reference.

A minimum of 90 percent of the welds will be x-rayed.

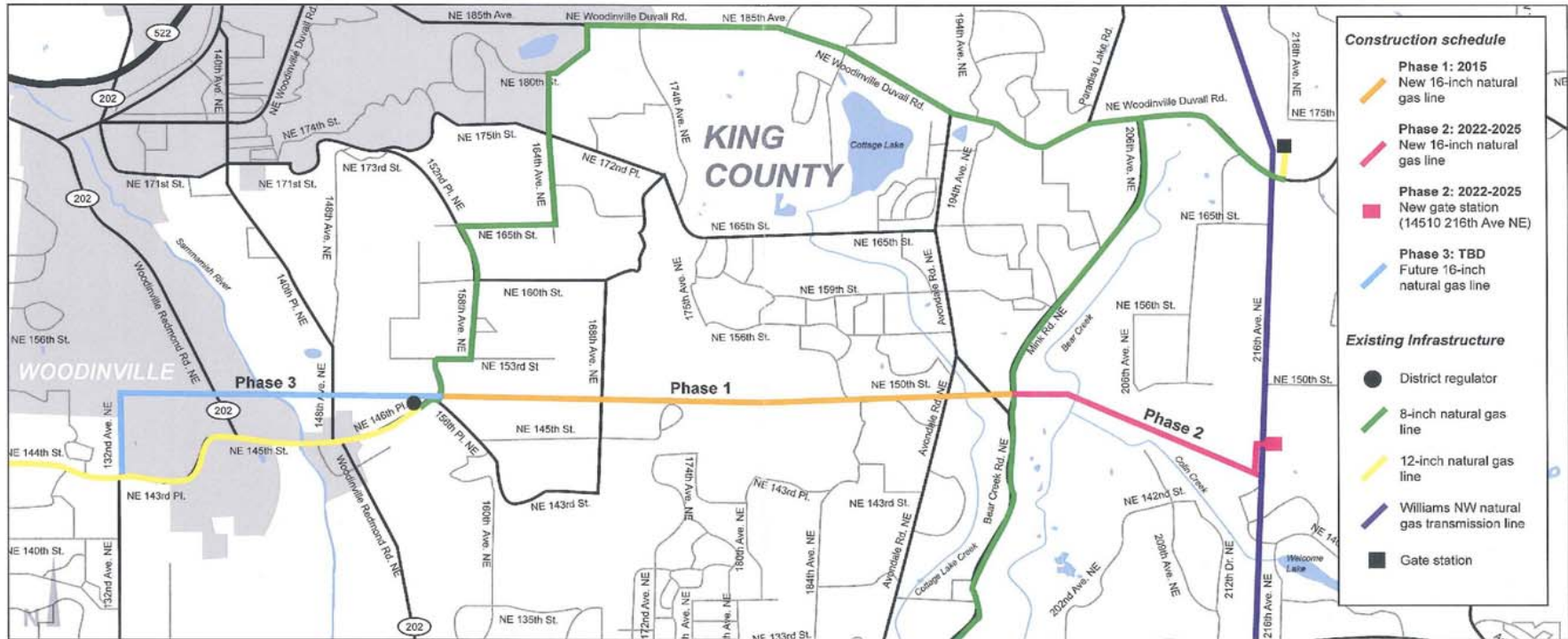
Pressure Monitoring:

The pressure in this system will be monitored by remote telemetry units (RTUs). The RTUs will poll system pressure every 3 seconds. These pressures will be monitored 24 hours a day in PSE's 24 Hour Operations Center.

Leakage Surveys:

Leakage surveys will be conducted in accordance with PSE Gas Operating Standard 2625.1100 (Leakage Survey Program). This Operating Standard requires leak surveys to be conducted every year for supply mains (supply mains are all high pressure mains other than transmission mains). This provides more frequent surveying than required by state and federal regulations.

Exhibit B – ROUTE AND FACILITIES MAP



Tolt 16-inch natural gas line project
Construction schedule

Exhibit C – STRUCTURE LIST

Tolt Pipeline Corridor Addresses, Land Use, and Distance of Structures from the Proposed Pipeline							
Route / Street	Parcel Number	Address	City	Zip Code	Side of Route	Distance in feet of Structure from Pipeline	Land Use
TOLT PIPELINE CORRIDOR	3401700086	15032 152ND AVE NE	WOODINVILLE	98072	SOUTH	88*	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700087	15406 NE 152ND PL	WOODINVILLE	98072	NORTH	70*	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1426059091	14826 156TH PL NE	WOODINVILLE	98072	SOUTH	80	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700092	15015 159TH AVE NE	WOODINVILLE	98072	NORTH	83	SPORT COURT
TOLT PIPELINE CORRIDOR	3401700092	15015 159TH AVE NE	WOODINVILLE	98072	NORTH	63	SHED
TOLT PIPELINE CORRIDOR	3401700102	14907 159TH AVE NE	WOODINVILLE	98072	SOUTH	68	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700102	14907 159TH AVE NE	WOODINVILLE	98072	SOUTH	49	GARAGE
TOLT PIPELINE CORRIDOR	3401700110	15006 159TH AVE NE	WOODINVILLE	98072	NORTH	95	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700104	14904 159TH AVE NE	WOODINVILLE	98072	SOUTH	89	SHED
TOLT PIPELINE CORRIDOR	3401700108	16025 NE 153RD ST	WOODINVILLE	98072	NORTH	86	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700108	16025 NE 153RD ST	WOODINVILLE	98072	NORTH	72	GARAGE
TOLT PIPELINE CORRIDOR	3401700108	16025 NE 153RD ST	WOODINVILLE	98072	NORTH	79	SHED
TOLT PIPELINE CORRIDOR	3401700129	15200 163RD PL NE	WOODINVILLE	98072	NORTH	87	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1426059045	14837 164TH PL NE	WOODINVILLE	98072	SOUTH	86	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700146	14838 164TH PL NE	WOODINVILLE	98072	SOUTH	51	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700146	14838 164TH PL NE	WOODINVILLE	98072	SOUTH	55	SHED
TOLT PIPELINE CORRIDOR	2050000130	16422 NE 148TH PL	WOODINVILLE	98072	SOUTH	66	RESIDENTIAL
TOLT PIPELINE CORRIDOR	2050000130	16422 NE 148TH PL	WOODINVILLE	98072	SOUTH	58	GARAGE
TOLT PIPELINE CORRIDOR	3401700135	15116 164TH AVE NE	WOODINVILLE	98072	NORTH	98	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059021	15019 166TH PL NE	WOODINVILLE	98072	NORTH	104	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3612000050	15030 167TH CT NE	WOODINVILLE	98072	NORTH	70	RESIDENTIAL
TOLT PIPELINE CORRIDOR	3401700138	14949 168TH AVE NE	WOODINVILLE	98072	SOUTH	44	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059080	15010 168TH AVE NE	WOODINVILLE	98072	NORTH	89	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059080	15010 168TH AVE NE	WOODINVILLE	98072	NORTH	72	GARAGE
TOLT PIPELINE CORRIDOR	1326059077	16848 150TH AVE NE	WOODINVILLE	98072	NORTH	78	GARAGE
TOLT PIPELINE CORRIDOR	1326059073	16860 NE 150TH ST	WOODINVILLE	98072	NORTH	76	RESIDENTIAL

TOLT PIPELINE CORRIDOR	1326059053	16869 NE 150TH ST	WOODINVILLE	98072	SOUTH	96	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059053	16869 NE 150TH ST	WOODINVILLE	98072	SOUTH	80	GARAGE
TOLT PIPELINE CORRIDOR	1326059145	14707 172ND AVE NE	WOODINVILLE	98072	SOUTH	71	SHED
TOLT PIPELINE CORRIDOR	1326059106	17115 NE 152ND ST	WOODINVILLE	98072	NORTH	90	SHED
TOLT PIPELINE CORRIDOR	1326059146	14733 172ND AVE NE	WOODINVILLE	98072	SOUTH	88	SHED
TOLT PIPELINE CORRIDOR	1326059147	14724 173RD AVE NE	WOODINVILLE	98072	SOUTH	75	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059147	14724 173RD AVE NE	WOODINVILLE	98072	SOUTH	90	SHED
TOLT PIPELINE CORRIDOR	1326059194	15105 176TH AVE NE	WOODINVILLE	98072	NORTH	108	RESIDENTIAL
TOLT PIPELINE CORRIDOR	2195700130	15100 176TH AVE NE	WOODINVILLE	98072	NORTH	89	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1326059059	14900 176TH AVE NE	WOODINVILLE	98072	SOUTH	94	SHED
TOLT PIPELINE CORRIDOR	2195700200	15110 177TH PL NE	WOODINVILLE	98072	NORTH	91	SPORT COURT
TOLT PIPELINE CORRIDOR	2195700210	15114 177TH PL NE	WOODINVILLE	98072	NORTH	53	SHED
TOLT PIPELINE CORRIDOR	2195700300	15304 179TH AVE NE	WOODINVILLE	98073	NORTH	60	SHED
TOLT PIPELINE CORRIDOR	2195700310	15300 179TH AVE NE	WOODINVILLE	98072	NORTH	96	SHED
TOLT PIPELINE CORRIDOR	2195700310	15300 179TH AVE NE	WOODINVILLE	98072	NORTH	75	SHED
TOLT PIPELINE CORRIDOR	1137300970	14630 181ST PL NE	WOODINVILLE	98072	SOUTH	99	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137300620	15302 182ND PL NE	WOODINVILLE	98072	NORTH	57	SHED
TOLT PIPELINE CORRIDOR	1137300610	15306 182ND PL NE	WOODINVILLE	98072	NORTH	75	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137300860	18318 NE 146TH WAY	WOODINVILLE	98072	SOUTH	81	SHED
TOLT PIPELINE CORRIDOR	1137300850	18334 NE 146TH WAY	WOODINVILLE	98072	SOUTH	85	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137300850	18334 NE 146TH WAY	WOODINVILLE	98072	SOUTH	50	GARAGE
TOLT PIPELINE CORRIDOR	1137310060	15102 184TH PL NE	WOODINVILLE	98072	NORTH	83	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137310060	15102 184TH PL NE	WOODINVILLE	98072	NORTH	98	SPORT COURT
TOLT PIPELINE CORRIDOR	1137310010	15207 186TH AVE NE	WOODINVILLE	98072	NORTH	106	SHED
TOLT PIPELINE CORRIDOR	1137300270	15206 186TH AVE NE	WOODINVILLE	98072	NORTH	109	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137301340	18450 NE 146TH WAY	WOODINVILLE	98072	SOUTH	54	SHED
TOLT PIPELINE CORRIDOR	1137301350	18600 NE 146TH WAY	WOODINVILLE	98072	SOUTH	49	SHED
TOLT PIPELINE CORRIDOR	1137301370	18628 NE 146TH WAY	WOODINVILLE	98072	SOUTH	105	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1137301390	18656 NE 146TH WAY	WOODINVILLE	98072	SOUTH	72	PLAYGROUND
TOLT PIPELINE CORRIDOR	1152600470	18907 NE 150TH ST	WOODINVILLE	98072	NORTH	104	SPORT COURT
TOLT PIPELINE CORRIDOR	1152600490	18923 NE 150TH ST	WOODINVILLE	98072	NORTH	90	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1152600490	18923 NE 150TH ST	WOODINVILLE	98072	NORTH	55	SHED
TOLT PIPELINE CORRIDOR	1137301440	14623 189TH AVE NE	WOODINVILLE	98072	SOUTH	81	SHED
TOLT PIPELINE CORRIDOR	1137301440	14623 189TH AVE NE	WOODINVILLE	98072	SOUTH	80	SHED
TOLT PIPELINE CORRIDOR	1152600520	18951 NE 150TH ST	WOODINVILLE	98072	NORTH	72	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1152600530	18955 NE 150TH ST	WOODINVILLE	98072	NORTH	91	RESIDENTIAL

TOLT PIPELINE CORRIDOR	1137301520	14645 191ST AVE NE	WOODINVILLE	98072	SOUTH	98	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1826069018	15020 BEAR CREEK RD NE	WOODINVILLE	98077	NORTH	102	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1826069018	15020 BEAR CREEK RD NE	WOODINVILLE	98077	NORTH	103	RESIDENTIAL
TOLT PIPELINE CORRIDOR	6838800170	19204 NE 149TH ST	WOODINVILLE	98077	SOUTH	99	RESIDENTIAL
TOLT PIPELINE CORRIDOR	6838800170	19204 NE 149TH ST	WOODINVILLE	98077	SOUTH	79	GAZEBO
TOLT PIPELINE CORRIDOR	3443500010	14917 BEAR CREEK RD NE	WOODINVILLE	98077	SOUTH	90	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1826069016	14910 BEAR CREEK RD NE	WOODINVILLE	98077	SOUTH	68	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1826069016	14910 BEAR CREEK RD NE	WOODINVILLE	98077	SOUTH	53	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1726069215	14738 BEAR CREEK RD NE	WOODINVILLE	98077	SOUTH	49	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1726069198	15014 MINK RD NE	WOODINVILLE	98077	NORTH	61	SHED
TOLT PIPELINE CORRIDOR	1726069199	19723 NE 150TH PL	WOODINVILLE	98077	NORTH	80	GAZEBO
TOLT PIPELINE CORRIDOR	1726069010	19809 NE 150TH PL	WOODINVILLE	98077	NORTH	83	GARAGE
TOLT PIPELINE CORRIDOR	1726069010	19809 NE 150TH PL	WOODINVILLE	98077	NORTH	65	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	43	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	42	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	55	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	54	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	57	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	49	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	61	PADDOCK
TOLT PIPELINE CORRIDOR	1726069043	19802 NE 148TH ST	WOODINVILLE	98077	SOUTH	60	PADDOCK
TOLT PIPELINE CORRIDOR	1726069021	20207 NE 148TH ST	WOODINVILLE	98077	SOUTH	36	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1726069227	20519 NE 150TH ST	WOODINVILLE	98077	NORTH	63	SPORT COURT
TOLT PIPELINE CORRIDOR	1726069227	20519 NE 150TH ST	WOODINVILLE	98077	NORTH	76	PLAYGROUND
TOLT PIPELINE CORRIDOR	1726069159	14712 204TH PL NE	WOODINVILLE	98077	SOUTH	110	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685800110	14321 214TH WAY NE	WOODINVILLE	98077	SOUTH	58	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685810030	21458 NE 143RD ST	WOODINVILLE	98077	NORTH	105	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685810020	21454 NE 143RD ST	WOODINVILLE	98077	NORTH	60	SHED
TOLT PIPELINE CORRIDOR	1685810010	21450 NE 143RD ST	WOODINVILLE	98077	NORTH	71	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685810070	21447 NE 143RD ST	WOODINVILLE	98077	NORTH	71	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685810070	21447 NE 143RD ST	WOODINVILLE	98077	NORTH	60	SPORT COURT
TOLT PIPELINE CORRIDOR	1685800120	14314 214TH WAY NE	WOODINVILLE	98077	SOUTH	105	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685800150	21432 NE 143RD ST	WOODINVILLE	98077	SOUTH	44	RESIDENTIAL
TOLT PIPELINE CORRIDOR	1685800150	21432 NE 143RD ST	WOODINVILLE	98077	SOUTH	45	SHED
TOLT PIPELINE CORRIDOR	1685800160	21433 NE 143RD ST	WOODINVILLE	98077	SOUTH	66	RESIDENTIAL
216TH AVENUE NE	4054520110	21531 NE 144TH PL	WOODINVILLE	98077	WEST	78	RESIDENTIAL

216TH AVENUE NE	2126069088	21637 NE 144TH PL	WOODINVILLE	98077	EAST	101	RESIDENTIAL
216TH AVENUE NE	2126069088	21637 NE 144TH PL	WOODINVILLE	98077	EAST	98	SPORT COURT
216TH AVENUE NE	4054520070	21530 NE 144TH PL	WOODINVILLE	98077	WEST	70	RESIDENTIAL
216TH AVENUE NE	1626069011	14509 216TH AVE NE	WOODINVILLE	98077	WEST	85***	RESIDENTIAL
216TH AVENUE NE	1626069131	14510 216TH AVE NE	WOODINVILLE	98077	EAST	7	SPORT COURT
216TH AVENUE NE	1041200010	21550 NE 146TH PL	WOODINVILLE	98077	WEST	72***	RESIDENTIAL

Distances are from proposed pipeline as shown on design plans provided. Where no plans have been developed, distances shown are based on the following assumptions:

*** Distance from Pipeline at an assumed 5 feet south of center-line ROW**

**** Distance from Pipeline at an assumed center-line ROW**

***** Distance from Pipeline at an assumed 10 feet west of center-line ROW**