

**ADDITIONAL INVESTIGATION
AND
GROUNDWATER MONITORING REPORT
CENTURYLINK LONGVIEW FACILITY
LONGVIEW, WASHINGTON**

Prepared for

CenturyLink
5454 West 110th Street
Overland Park, Kansas 66211-1204

Prepared by



Tetra Tech Inc.
518 17th Street, Suite 900
Denver, Colorado, 80202

April 2013

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1.0 INTRODUCTION

Under Environmental Services Agreement No. PRA1796.0, Qwest Communications International Inc. (now part of CenturyLink) requested that Tetra Tech EM Inc. (Tetra Tech) perform the following tasks: (1) sample two existing monitoring wells, and (2) prepare a report documenting field activities and methods, sample locations, groundwater flow directions, and analytical results.

Tetra Tech conducted the field work summarized in this report on February 26, 2013. Groundwater samples were collected from two groundwater monitoring wells located on Washington Way on the northwest side of the CenturyLink facility, known as the Longview Central Office. Groundwater samples were submitted to AM Test in Kirkland, Washington, for analysis of total petroleum hydrocarbons as diesel (TPH-d) and total petroleum hydrocarbons as heavy oil (TPH-mo).

At the request of the Washington State Department of Ecology (Ecology), CenturyLink developed a groundwater monitoring plan (GMP) for the Longview facility under Ecology's Voluntary Cleanup Program. Ecology verbally approved the GMP in September 2008 (Tetra Tech 2008a). The GMP requires wells MW-04 and MW-05 on the CenturyLink Longview facility to be sampled every year and a half. This was the final scheduled sampling event under the existing GMP.

Section 2.0 of this report provides background information on the Longview facility and an account of previous soil and groundwater investigations conducted there. Section 3.0 includes a summary of the field activities Tetra Tech personnel conducted at the Longview facility. Section 4.0 presents the results and discussions of the field activities and the analytical data. Figures follow the reference section at the end of this report. Attachment A contains the City of Longview documents for the right-of-way permit and traffic plan; Attachment B contains the complete laboratory analytical report.

2.0 BACKGROUND

The CenturyLink Longview facility is located at 1305 Washington Way, west of Commerce Avenue in Longview, Washington (see Figure 1). The Cowlitz River is located approximately 1 mile east of the site, and the Columbia River is approximately 2.5 miles southwest of the site. The Longview facility is located in downtown Longview and consists of an office/industrial building with several paved parking areas located along the southern side of the property. Topography in the vicinity of the site is generally flat (see Figure 1).

The Longview facility formerly contained four diesel and heating oil underground storage tanks (UST) that were located on the southeastern portion of the property (see Figure 2). Three of the USTs were removed in 1992, and the remaining UST, located beneath the office building, was closed in place (Roy F. Weston, Inc. [Weston] 1992a, 1992b). A facility investigation was completed after the USTs were removed. The former UST locations were then backfilled with clean soil or pea gravel and paved (Weston 1992a, 1992b).

Former USTs 1 and 2 were installed in 1953 and removed in January 1992. UST 1 was a 1,600-gallon diesel fuel and heating oil tank, and UST 2 was a 300-gallon diesel fuel tank. Locations of former USTs 1 and 2 are shown on Figure 2. During removal of the USTs, approximately 130 cubic yards of soil that exceeded the Washington State Model Toxics Control Act (MTCA) cleanup level for TPH-d were excavated from the area around the USTs. At the time of the 1992 sampling event, the MTCA cleanup level for TPH-d in soil was 200 milligrams per kilogram (mg/kg) (Weston 1992a, 1992b). The current cleanup standard for soil is 2,000 mg/kg (Ecology 2007).

Former UST 3 was a 2,000-gallon diesel fuel storage tank installed in 1953 that was closed in place in January 1992. The UST is located beneath the office building at the Longview facility (see Figure 2). Soil samples were collected around the tank during closure and analyzed for TPH-d. Holes were cut in the bottom of the UST to obtain soil samples beneath the tank; however, discovery of a concrete pad beneath the UST prevented sampling. Soil samples collected from around former UST 3 did not contain concentrations of TPH-d that exceeded the MTCA cleanup level (Weston 1992a, 1992b).

Former UST 4 consisted of a 6,000-gallon bunker fuel and diesel fuel storage tank installed in 1969 and removed in January 1992; the location of former UST 4 is shown on Figure 2. During removal of the UST, approximately 100 cubic yards of petroleum-contaminated soil were removed from around the tank. Subsequent soil samples collected from the sidewalls and bottom of the excavation did not contain TPH-d at concentrations above the MTCA cleanup level (Weston 1992a, 1992b).

In July 1992, additional Longview facility investigations included installation of three borings to depths of approximately 20 feet below ground surface (bgs). The soil borings were each completed as groundwater monitoring wells (MW-01, MW-02, and MW-03), as shown on Figure 2. Soil and groundwater samples were collected and analyzed for TPH-d. Concentrations of TPH-d were not detected in any of the soil boring samples above the laboratory detection limit of 25 mg/kg. Concentrations of TPH-d were not detected in groundwater samples collected from monitoring well MW-

03. In addition, the concentrations of TPH-d detected in monitoring wells MW-01 and MW-02 were below the applicable MTCA Method A groundwater cleanup level (MTCA Method A level) of 1,000 micrograms per liter ($\mu\text{g/L}$). with no detectable benzene in groundwater, with concentrations of 82 $\mu\text{g/L}$ at MW-01 and 112 $\mu\text{g/L}$ at MW-02 (Weston 1992a, 1992b).

In 2003, groundwater samples were collected from the three groundwater monitoring wells (MW-01, MW-02, and MW-03) located at the Longview facility. Groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) constituents, gasoline, and TPH-d. These contaminants were not detected in any of the groundwater samples collected from monitoring wells MW-01, MW-02, and MW-03 (Tetra Tech 2004). Based on the analytical data for soil and groundwater collected in 1992 and 2003, Tetra Tech recommended that Qwest enter the Ecology Voluntary Cleanup Program in an effort to obtain a no further action determination for the Longview facility.

Ecology reviewed the Tetra Tech (2004) monitoring report and earlier submittals and requested additional investigation be completed at the Longview facility (Ecology 2005). Qwest agreed to the follow-on investigation, which was conducted on August 10, 2006. Tetra Tech conducted the Geoprobe soil borings and groundwater sampling on August 10, 2006, as requested by Ecology. Figure 2 shows the locations of soil borings SB-01 and SB-02, drilled north of the Longview facility, along Washington Way. Tetra Tech collected groundwater level measurements and groundwater samples from three existing groundwater monitoring wells (MW-01, MW-02, and MW-03) at the Longview facility during the 2006 monitoring event. Groundwater samples were also collected at the two Geoprobe soil boring locations. Groundwater and soil samples were analyzed for BTEX constituents, gasoline, and TPH-d. These contaminants were not detected in any of the groundwater samples, except for TPH-d at MW-02 (170 $\mu\text{g/L}$) and SB-02 (57 $\mu\text{g/L}$). These detected concentrations are significantly below the MTCA Method A groundwater cleanup level of 500 $\mu\text{g/L}$, for each diesel range organics and heavy oils. Contaminants were not detected in any of the soil samples submitted for laboratory analysis at concentrations above laboratory detection limits (Tetra Tech 2006).

On September 23, 2008, two additional groundwater monitoring wells were installed (MW-04 and MW-05) on Washington Way on the northwest side of the CenturyLink Longview facility. Groundwater and soil samples were collected and analyzed for TPH-d and TPH-mo. TPH-d was detected in the sample collected from well MW-05 at 140 $\mu\text{g/L}$. This detected concentration is significantly below the MTCA Method A groundwater cleanup level of 500 $\mu\text{g/L}$. TPH-d and TPH-mo were not detected in the groundwater sample collected at well MW-04 (Tetra Tech 2008b).

On February 26, 2010, groundwater monitoring wells MW-04 and MW-05 were sampled and analyzed for TPH-d and TPH-mo. TPH-d was detected in the sample collected from well MW-05 at 140 µg/L. TPH-mo was detected in groundwater samples collected from wells MW-04 and MW-05 at concentrations of 140 µg/L and 200 µg/L (Tetra Tech 2010). These detected concentrations are significantly below the MTCA Method A groundwater cleanup level of 500 µg/L.

On September 2, 2011, groundwater monitoring wells MW-04 and MW-05 were sampled and analyzed for TPH-d and TPH-mo. TPH-d was detected in the samples collected from wells MW-04, MW-05, and a duplicate at well MW-05 at 73 µg/L, 120 µg/L, and 85 µg/L. TPH-mo was detected in groundwater samples collected from wells MW-04, MW-05, and the MW-05 duplicate at concentrations of 350 µg/L, 210 µg/L, and 130 µg/L (Tetra Tech 2011). These detected concentrations are below the MTCA Method A groundwater cleanup level of 500 µg/L.

3.0 FEBRUARY 2013 FIELD ACTIVITIES

The following sections summarize the groundwater sampling Tetra Tech conducted at the CenturyLink Longview facility on February 26, 2013.

3.1 TRAFFIC PLAN

CenturyLink obtained a right-of-way permit to conduct additional groundwater investigations as requested by Ecology that required a traffic plan for any work in the right-of-way along Washington Way at the Longview Facility. The right-of-way permit and traffic plan are provided in Attachment A.

3.2 GROUNDWATER SAMPLING

Groundwater level measurements were collected at the five groundwater monitoring wells (MW-01, MW-02, MW-03, MW-04, and MW-05) located at the Longview facility on February 26, 2013. The depth to groundwater was measured using an electronic water-level indicator that was lowered into each well, and depth to water was measured to the nearest hundredth of a foot. After groundwater level measurements had been collected, the field personnel purged and sampled wells MW-04 and MW-05 using a disposable Teflon bailer and bailing twine. The wells were purged of at least three casing volumes of water before a water sample was collected. A clean dedicated bailer and twine were used to sample each well.

A YSI 556 water meter was used to measure field parameters during purging and before sampling. Water quality parameters included pH, temperature, and specific conductance. Field parameters were allowed to stabilize before sampling with a dedicated disposable Teflon bailer. The groundwater samples were properly labeled in accordance with Tetra Tech standard operating procedures, placed in a cooler on ice, packaged according to laboratory requirements, and shipped to AM Test laboratories located at 13600 NE 126th Place in Kirkland, Washington. Samples were delivered following proper chain-of-custody protocol. AM Test analyzed the samples for TPH-d and TPH-mo by Method Northwest Total Petroleum Hydrocarbons-Diesel Extended Range (Ecology 1997).

Purged groundwater was containerized in a U.S. Department of Transportation-approved 55-gallon drum staged on the southern side of the Longview facility. Cowlitz Clean Sweep provided disposal services for this drum of purge water.

4.0 RESULTS AND CONCLUSIONS

Groundwater level measurement data are presented in Table 1. Groundwater elevation change is approximately 2 inches across the Longview facility (see Figure 3) and appears to flow generally to the west-northwest.

TABLE 1
GROUNDWATER ELEVATIONS

Location	Surveyed Top of Casing (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-01	15.64	12.26	3.38
MW-02	16.17	12.84	3.33
MW-03	15.02	11.60	3.42
MW-04	14.55	11.30	3.25
MW-05	14.75	11.51	3.24

Notes:

ft amsl Feet above mean sea level
ft Feet

Groundwater samples were collected from two groundwater monitoring wells (MW-04 and MW-05) at the Longview facility during the 2013 monitoring event. Groundwater samples were analyzed for TPH-d and TPH-mo. TPH-d was detected at a maximum concentration of 1,700 µg/L, and TPH-mo was detected at a maximum concentration of 11,000 µg/L, as shown in Table 2 and on Figure 4. Detected

concentrations exceed the MTCA Method A cleanup level for TPH-d and TPH-mo of 500 µg/L at MW-04.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
February 26, 2013

Location	TPH-d	TPH-mo
MW-04	1,700	11,000
MW-05	ND	220
MTCA Method A Cleanup Level	500	500

Notes:

All concentrations in microgram per liter

MTCA Model Toxics Control Act Method A for groundwater
 TPH-d Total petroleum hydrocarbons as diesel
 TPH-mo Total petroleum hydrocarbons as motor oil

The sampling results from all four groundwater sampling events are summarized in Table 3. The trend for the TPH results is generally increasing over time in well MW-04, but stable in well MW-05. The concentration of TPH-d at MW-04 has increased from non-detect in 2008 to 1,700 µg/L in 2013.

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
All dates

Analyte	Location	23-Sep-2008	26-Feb-2010	2-Sep-2011	26-Feb-2013	MTCA Method A Cleanup Level
TPH-d	MW-04	ND	ND	73*	1,700	500
	MW-05	ND	140	120*	ND	
TPH-mo	MW-04	ND	140	350	11,000	500
	MW-05	140	200	210*	220	

Notes:

All concentrations in microgram per liter

Maximum concentration taken from wells with duplicate results in a sampling event.

* Sample qualified by laboratory as not resembling a petroleum product
 MTCA Model Toxics Control Act Method A for groundwater
 ND Not detected
 TPH-d Total petroleum hydrocarbon as diesel
 TPH-mo Total petroleum hydrocarbon as motor oil

The February 26, 2013 sampling results for well MW-04 exceeded cleanup thresholds for groundwater at the Longview facility. The February event was the final scheduled sampling event for the current groundwater monitoring plan (Tetra Tech 2008a). However based on the results observed from well MW-04, Tetra Tech recommends that further action may be necessary.

The present recommendation is to collect groundwater samples in May 2013 from all five monitoring wells installed at the property. All groundwater samples should be analyzed for the following constituents:

- TPH-d
- TPH-mo
- BTEX
- Polycyclic aromatic hydrocarbons (PAH)

Tetra Tech proposes that these samples will be collected following the procedures in the present groundwater monitoring plan (Tetra Tech 2008a). Tetra Tech further recommends reviewing the results from the proposed May 2013 sampling event and discussing future action with Ecology.

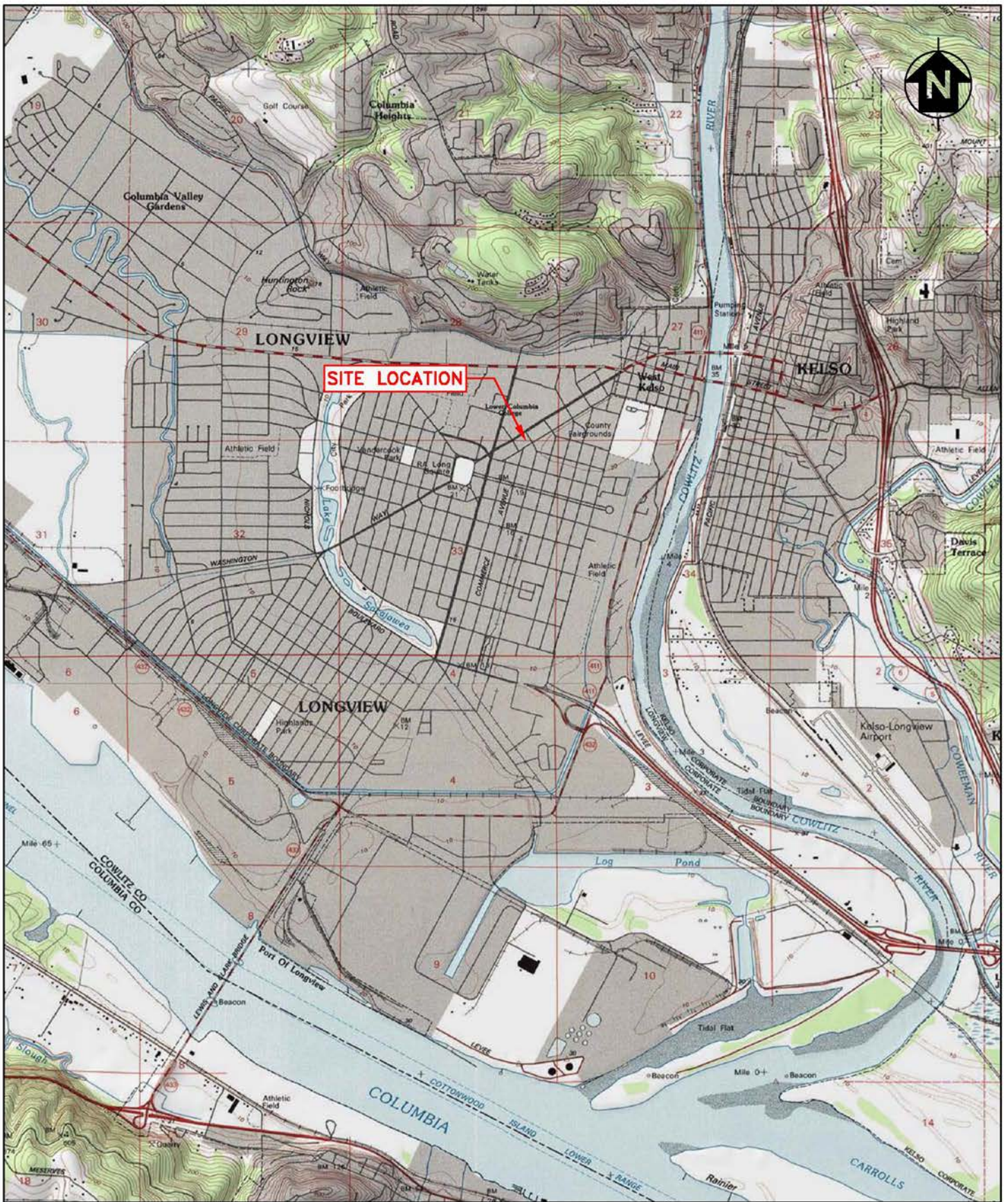


Rob Tisdale, PhD
Program Manager

5.0 REFERENCES

- Roy F. Weston, Inc. (Weston). 1992a. "Underground Storage Tank Site Characterization Status Report and Work Plan US West Facility – Longview, Washington." February.
- Weston. 1992b. "Underground Storage Tank Phase 2 Site Characterization Status Report US West Facility Longview, Washington." July.
- Tetra Tech EM Inc. (Tetra Tech). 2004. "Groundwater Monitoring Report, Longview Facility, Longview, Washington." February.
- Tetra Tech. 2006. "Supplemental Investigation and Groundwater Monitoring Report, Longview Facility, Longview, Washington." October.
- Tetra Tech. 2008a. "Groundwater Monitoring Plan, Longview Facility, Longview, Washington." August.
- Tetra Tech. 2008b. "Additional Investigation and Groundwater Monitoring Report Longview Facility, Longview, Washington." December.
- Tetra Tech. 2010. "Additional Investigation and Groundwater Monitoring Report Longview Facility, Longview, Washington." May.
- Tetra Tech. 2011. "Additional Investigation and Groundwater Monitoring Report Longview Facility, Longview, Washington." October.
- Washington State Department of Ecology (Ecology). 1997. "Analytical Methods for Petroleum Hydrocarbons." Publication No. ECY 97-602. June.
- Ecology. 2005. Letter regarding Qwest Communications Site, 1305 Washington Way, Longview, Washington-SW0570. August 11th.
- Ecology. 2007. Model Toxics Control Act Statute and Regulation. Publication No. 94-06.

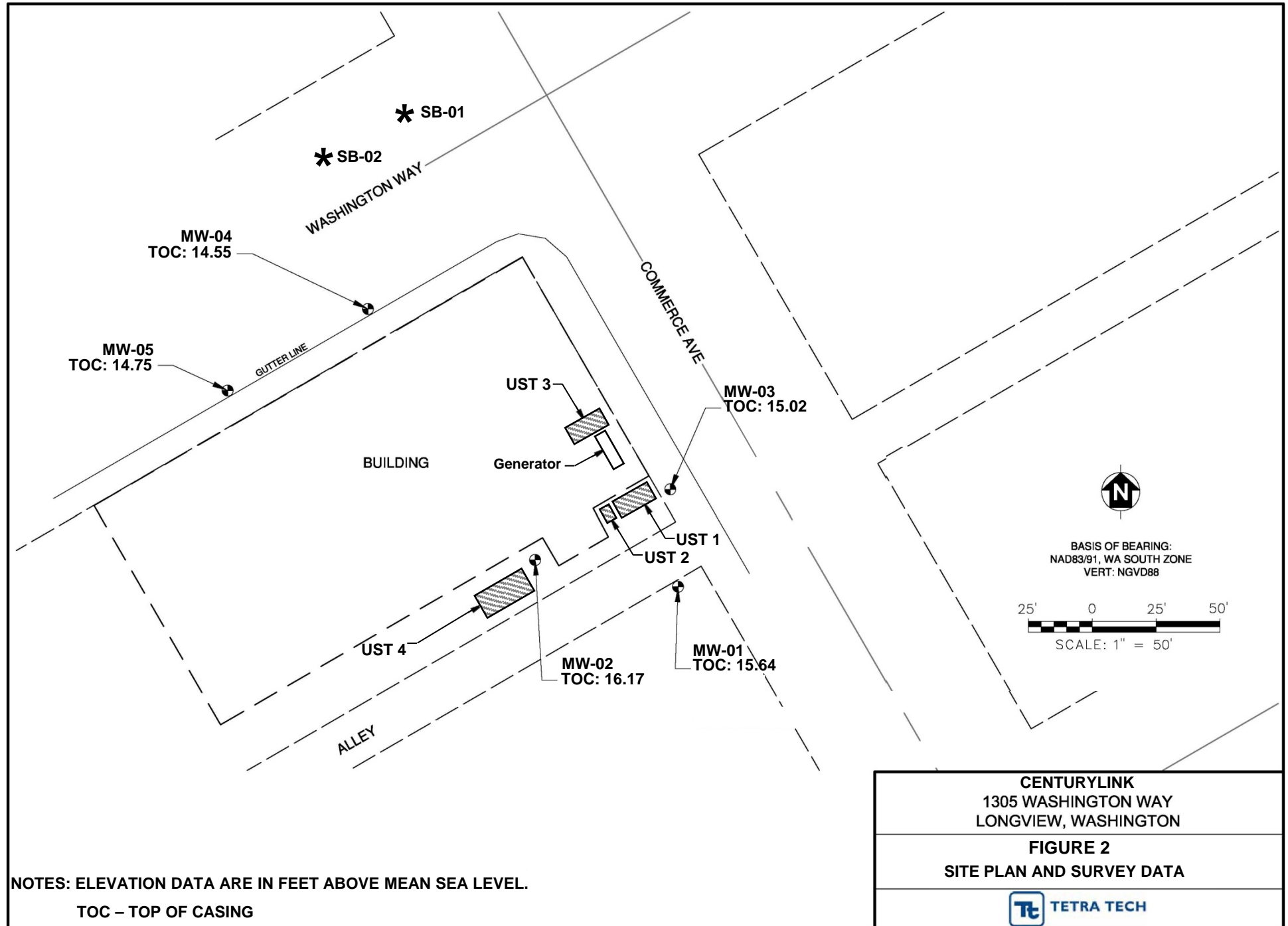
FIGURES

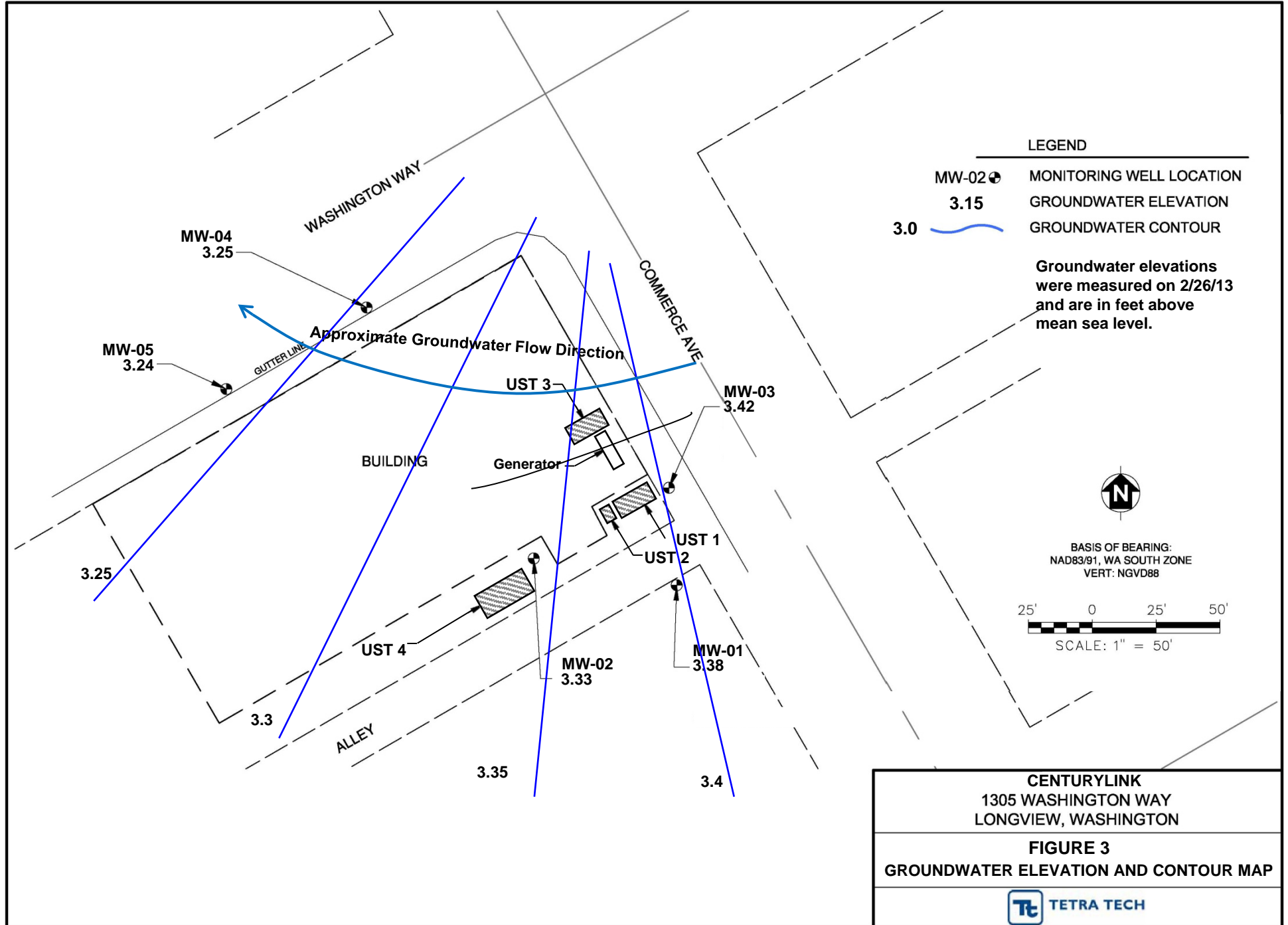


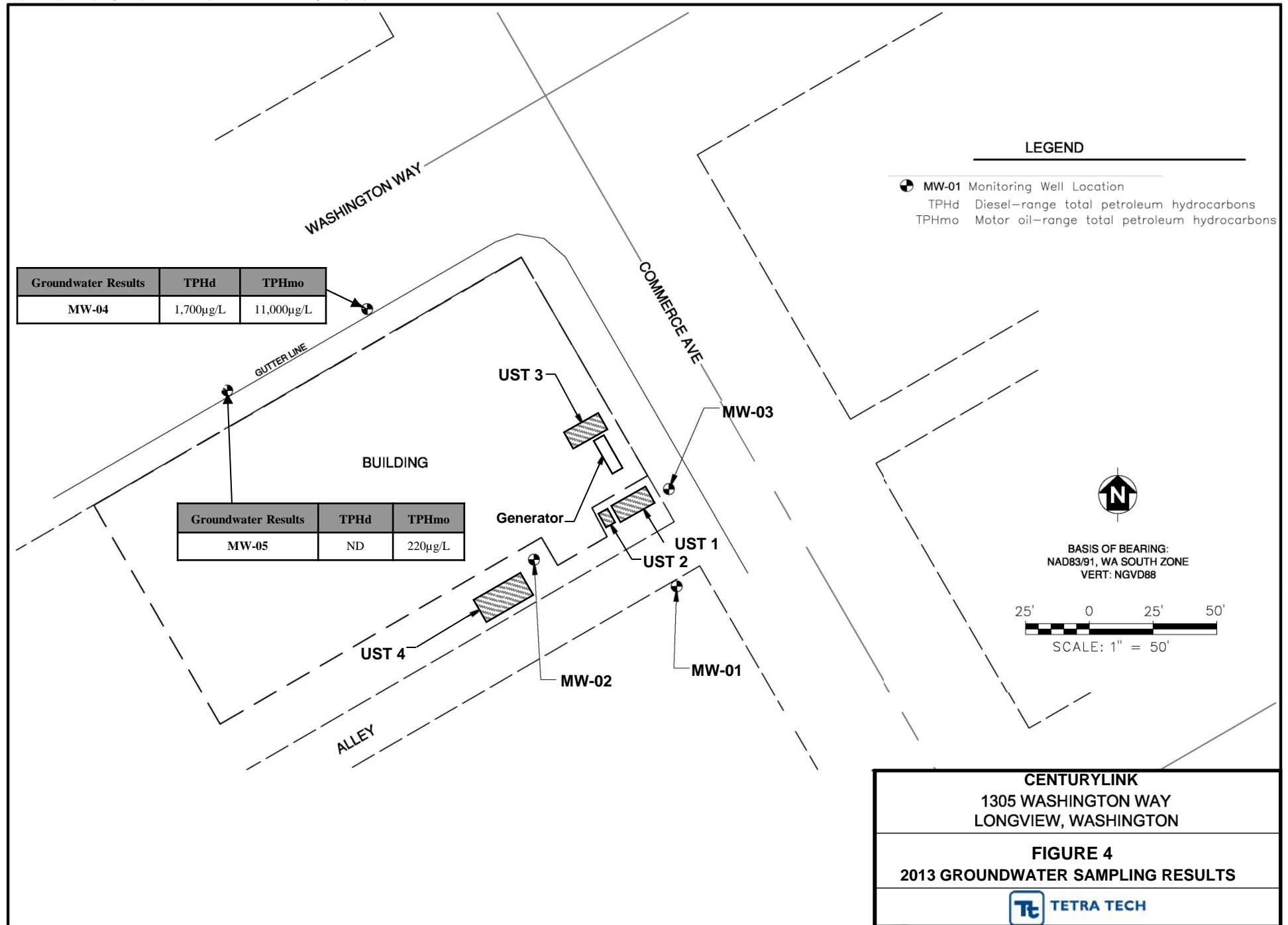
0 1/2 1 MILE

FIGURE 1
SITE LOCATION MAP
CENTURYLINK
1305 WASHINGTON WAY
LONGVIEW, WASHINGTON

TETRA TECH EM INC.







ATTACHMENT A

CITY OF LONGVIEW DOCUMENTS FOR RIGHT-OF-WAY PERMIT AND TRAFFIC PLAN

CITY ENGINEER'S OFFICE
CITY OF LONGVIEW
P.O. BOX 128, LONGVIEW
442-5200

2-25-13 ISSUED 2013-025
FEE \$ ~~425.00~~ 25.00
FEE RECEIVED \$ 25.00
RECEIPT # 5620
FIN. REF #

KEY # ☒

APPLICATION TO PERFORM WORK ON PUBLIC RIGHT OF WAY

APPLICATION

DATE PERMIT VOIDED

THE UNDERSIGNED HEREBY MAKES APPLICATION TO:

Close right lane of Washington Way adjacent to 1305 Washington Way for approximately 4 to 6 hours to conduct sampling at two existing groundwater wells. No excavation will be required.

LOCATION

1305 Washington Way - southeast lane

AND AGREES TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE PROVISIONS ENUMERATED BELOW AND STATES THAT HE/SHE HAS READ AND WILL ADHERE TO THE GENERAL PROVISIONS APPLICABLE TO PERMITS CONTAINED ON THE SECOND SHEET OF THIS FORM.

NAME Aaron Johnson - Tetra Tech Inc.

PHONE # 303.312.8826

ADDRESS 518 17th St. Suite 900
Denver CO, 80202

WORK ORDER #

SIGNATURE, PERMITTEE

SIGNATURE, CITY

PROPOSED STARTING DATE OF INSTALLATION

INSTALLATION DURATION

4 to 6 hours

PERMIT

PERMISSION IS HEREBY GRANTED TO PERFORM THE ABOVE-DESCRIBED WORK SUBJECT TO THE GENERAL PROVISIONS ON THE REVERSE SIDE OF THIS FORM, AND THE FOLLOWING SPECIAL CONDITIONS

SPECIAL CONDITIONS

No Comment - 12/24

SEE ATTACHED PLAN REVIEW & STORM WATER CONDITION

MORE SPECIAL CONDITIONS

THE CITY ENGINEER'S OFFICE (442-5200) MUST BE CONTACTED TO REQUEST AN INSPECTION 24 HOURS BEFORE BACKFILLING TRENCHES OR REPAIRING PAVEMENT.

THE UNDERGROUND UTILITIES COORDINATING COUNCIL (1-800-424-5555) MUST BE CONTACTED TWO (2) WORKING DAYS BEFORE PROCEEDING WITH ANY EXCAVATION ASSOCIATED WITH THIS PERMIT.

A BOND IN THE AMOUNT OF IS REQUIRED TO INSURE COMPLIANCE WITH THE ABOVE CONDITIONS, REFUNDABLE UPON SATISFACTORY COMPLETION OF WORK.

NO WORK SHALL BE DONE UNDER THIS PERMIT UNTIL THE PARTY OR PARTIES TO WHOM IT IS GRANTED SHALL HAVE COMMUNICATED WITH AND RECEIVED INSTRUCTION FROM

LONGVIEW CITY ENGINEER

REMARKS

FIRST INSPECTION DATE

INSPECTOR

CITY ENGINEER'S OFFICE
CITY OF LONGVIEW
P.O. BOX 128, LONGVIEW
442-5200

PERMIT NO. 2013-025

ISSUED 2/25/2013

FEE \$ 25.00

FEE RECEIVED \$ 25.00

RECEIPT # 5620

FIN. REF #

KEY # 1 APPLICATION TO PERFORM WORK ON PUBLIC RIGHT OF WAY

APPLICATION

DATE PERMIT VOIDED

THE UNDERSIGNED HEREBY MAKES APPLICATION TO:

Close right lane of Washington Way adjacent to 1305 Washington Way for approximately 4 to 6 hours to conduct sampling of two existing groundwater wells - no excavation will be required.

LOCATION

1305 Washington Way - southeast lane.

AND AGREES TO PERFORM THE WORK IN STRICT COMPLIANCE WITH THE PROVISIONS ENUMERATED BELOW AND STATES THAT HE/SHE HAS READ AND WILL ADHERE TO THE GENERAL PROVISIONS APPLICABLE TO PERMITS CONTAINED ON THE SECOND SHEET OF THIS FORM.

NAME Tetra Tech Inc. - Aaron Johnson

PHONE # 303.312.8826

ADDRESS 518 17th Street Suite 900 Denver Co. 80202

WORK ORDER #

SIGNATURE, PERMITTEE

PROPOSED STARTING DATE OF INSTALLATION 2-26-13

SIGNATURE, CITY

INSTALLATION DURATION 4 to 6 hours

PERMIT

PERMISSION IS HEREBY GRANTED TO PERFORM THE ABOVE-DESCRIBED WORK SUBJECT TO THE GENERAL PROVISIONS ON THE REVERSE SIDE OF THIS FORM, AND THE FOLLOWING SPECIAL CONDITION

SPECIAL CONDITIONS

See attached plan review and storm water conditions.

MORE SPECIAL CONDITIONS

THE CITY ENGINEER'S OFFICE (442-5200) MUST BE CONTACTED TO REQUEST AN INSPECTION 24 HOURS BEFORE BACKFILLING TRENCHES OR REPAIRING PAVEMENT.

THE UNDERGROUND UTILITIES COORDINATING COUNCIL (1-800-424-5555) MUST BE CONTACTED TWO(2) WORKING DAYS BEFORE PROCEEDING WITH ANY EXCAVATION ASSOCIATED WITH THIS PERMIT.

A BOND IN THE AMOUNT OF IS REQUIRED TO INSURE COMPLIANCE WITH THE

ABOVE CONDITIONS, REFUNDABLE UPON SATISFACTORY COMPLETION OF WORK.

NO WORK SHALL BE DONE UNDER THIS PERMIT UNTIL THE PARTY OR PARTIES TO WHOM IT IS GRANTED SHALL HAVE COMMUNICATED WITH AND RECEIVED INSTRUCTION FROM

REMARKS

LONGVIEW CITY ENGINEER

FIRST INSPECTION DATE

INSPECTOR

Right of Way Permit Plan Review

1. Include general permit conditions with permit.
2. Call 360-442-5200 to schedule pre-construction meeting prior to work within right of way and after locates are complete.
3. Maintain City standard minimum utility clearances (4' horizontal & 12" vertical) (10 feet between water/sewer). Crossing shall be perpendicular to the roadway. Pothole to verify clearances. Contact the City Engineering Department @ 360.442.5200 after locates if clearance can't be maintained.
4. All work shall be in accordance with the latest edition of the City Standards (these can be found on the City of Longview web site).
5. All work shall be in accordance with the included general permit conditions.
6. Restore all work within R-O-W to original conditions or better per City standards.
7. Traffic control shall be in accordance with the MUTCD.

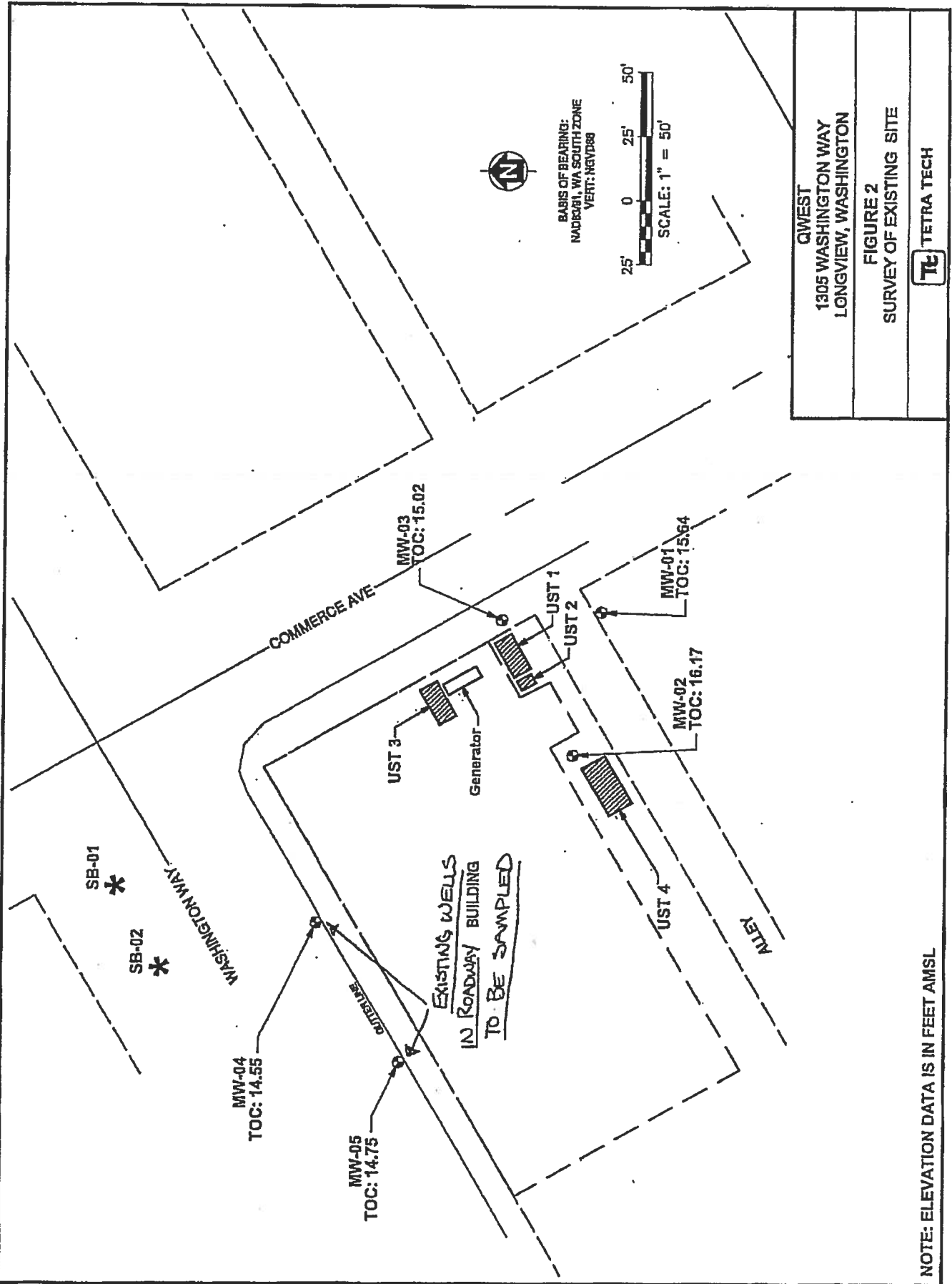
1305 Washington Way
(Tetra Tech Inc.)
Stormwater Attachment

Please advise if any soil or groundwater contamination is encountered (by visual, odor, or testing) in the R.O.W area in conjunction this work.

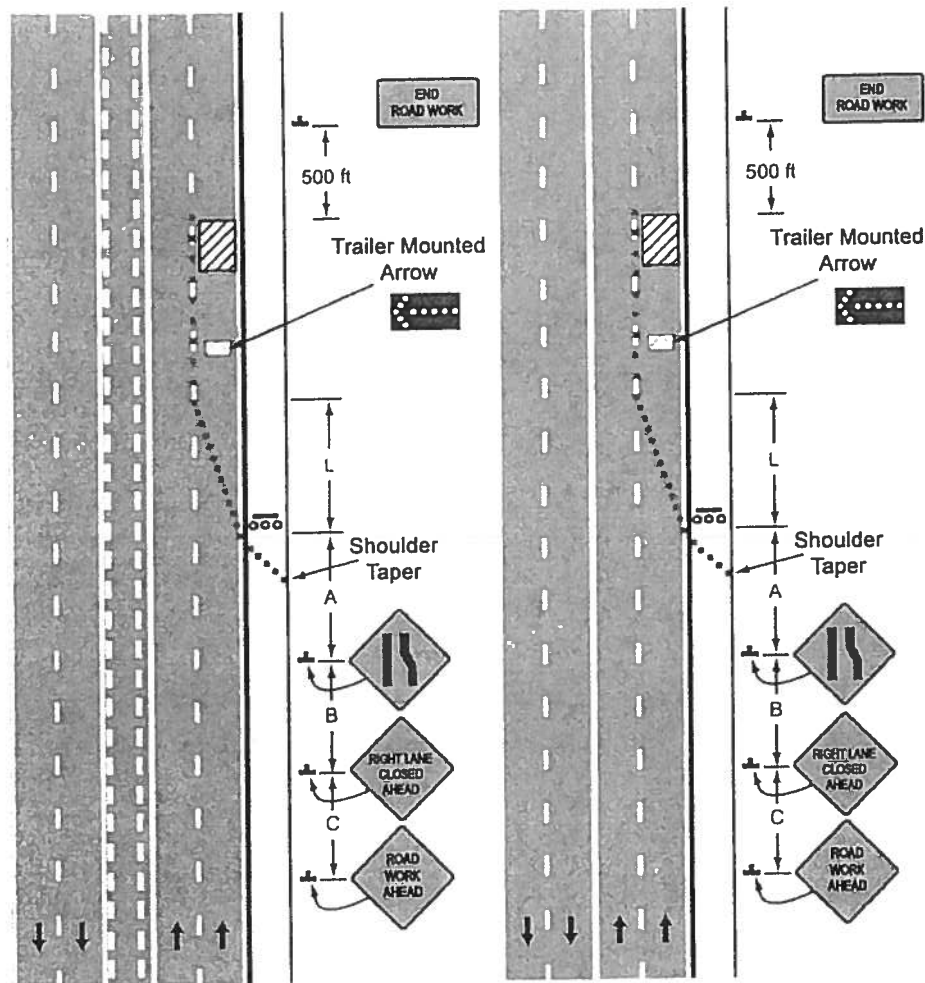
All projects must control erosion, pollutants, and satisfy the general standards for drainage as outlined in the Longview Stormwater Manual (www.cleanstormwater.org). In general this means:

1. Prevent erosion and control sediment,
2. Protect the public right-of-way, storm drain inlets, roadside ditches, receiving waters, and adjoining properties from the discharge of sediments and other pollutants, from material deposition, and from increased flow rates caused by the project.
3. Keep affected street and or sidewalk clean on a daily basis and upon completion.
4. Do not allow concrete wash out to occur on the street or enter the storm drain system.
5. Stabilize disturbed soils (Ex. Mulch, Seeding to match existing).
6. Remove temporary erosion controls (e.g. inlet protectors) upon completion or until the need ceases whichever comes first.

R:\Clients\Qwest\Longview\REFERENCES\ EXISTING SURVEY.dwg 10/14/2008 deborah.ford DN



Lane Closure on Multi-Lane Street



Formulas for L

Speed	Formula
40 mph or less	$L = WS^2 / 60$
45 mph or greater	$L = W \times S$

L = Taper Length in feet.

W = width of offset in feet

S = Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

Road Type	Distance between signs		
	A	B	C
Urban (low speed*)	200	200	200
Urban (high speed*)	350	350	350

*Speed category to be determined by State highway agency in cooperation with local jurisdiction.

Street Name: Washington Way (1305 Washington Way)

Dates of Closure: From: 1/21/13 To: 1/21/13

Time of Closure: From: 10:00 To: 14:00

Contractor's Signature

Date

City Employee

Date

2-25-13

General Provisions Applicable To City of Longview Right-of-Way Permits

In accepting this permit, the petitioner, his successors and assigns, agree to protect the CITY OF LONGVIEW, WASHINGTON, and save it harmless from all claims, actions or damages of every kind and description which may accrue to or be suffered by any person, or persons, corporation or property by reason of the performance of any such work, character of materials used or manner of installation, maintenance and operation or by the improper occupancy or rights of way or public structure and in case of any suit or action is brought against said City for damages arising out of or by reason of any commencement of such action, defend the same at his or their own sole cost and expense and will satisfy any judgment after the said suit or action shall have finally been determined if adverse to the said City.

All work under this permit shall be performed in accordance with the latest edition of the Washington State Department of Transportation Standard Specifications for Road, Bridge, and Municipal Construction and in accordance with the latest, current edition of the City of Longview Standard Plans and Specifications and these General Provisions.

Upon approval of this permit the Grantee shall diligently proceed with the work and comply with all the provisions herein.

A bond in the amount of \$ _____ is required to insure compliance with the conditions herein, refundable upon completion and acceptance of the work.

The City Engineers office must be contacted (360.442.5205 24 hours in advance, prior to any work under this permit and for all required inspections. An outside pre-construction meeting is required prior to commencement of work and after underground locates have been completed. Call 360-442-5200 to schedule the meeting.

The project permits and all approved drawings including approved shop drawing and approved traffic control plans shall be available at the project site at all time.

All work shall be conducted in accordance with the latest, current edition of WISHA/OSHA regulations. Particular attention shall be paid to the requirements as they pertain to work in trenches, electrical, work in high places, confined spaces and to safety apparel such as hard hats and safety vests.

If the work done under this permit interferes in any way with the drainage of the area, the grantee shall wholly and at his own expense make such provisions as the City may direct to alleviate the problem.

The party or parties to whom this permit is issued shall maintain at his or their sole expense the structure or object for which this permit is granted in a condition satisfactory to the CITY OF LONGVIEW.

The CITY OF LONGVIEW may revoke, annul, change, amend, amplify, or terminate this permit or any of the conditions herein enumerated if grantee fails to comply with any or all of its provisions, requirements or regulations as herein set forth or thru willful or unreasonable neglect, fails to heed or comply with notices given or if the utility herein granted is not installed or operated and maintained in conformity herewith or at all or for any cause of reason whatsoever.

The LONGVIEW POLICE DEPARTMENT, FIRE DEPARTMENT, COMM CENTER and ENGINEERING DIVISION shall be notified 24 hours in advance of closing any street or alley to traffic. A traffic control plan is required to be submitted to the ENGINEERING DIVISION for review and approval prior to scheduling any street or pedestrian way closure. All Traffic control shall be in

ADDITIONAL UTILITY REQUIREMENTS:

Maintain five-foot horizontal separation and 18-inches vertical separation between all facilities installed around City utilities. Above ground utilities such as street lights, fire hydrants, Air vac stations, control panels etc. require a five-foot separation from new construction, relocations, driveways, etc. The permittee shall pothole all known utilities to determine depth and location prior to installation of new facilities. ACP pipe and all non-locatable pipes will need to be potholed by hand digging.

Arterial and collector streets require CDF backfill unless otherwise approved by the ENGINEERING DIVISION.

All striping or channelization disturbed by construction shall be replaced in kind.

All roadway crossings must be at 90 degrees to the centerline.

All erosion control and inlet protection shall be in accordance with the CITY OF LONGVIEW Stormwater Ordinance and maintained daily.

All required saw cuts shall be full depth and parallel to the trench or panel as directed by the ENGINEERING DIVISION. No rough edges will be allowed.

All work to be completed to the satisfaction of the City of Longview and any costs incurred by the City to correct non-compliant work shall be reimbursable to the City of Longview upon request.

ATTACHMENT B
LABORATORY ANALYTICAL REPORT

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



**Professional
Analytical
Services**

ANALYSIS REPORT

Tetra Tech, Inc.
518 17th St. Suite 900
Denver, Co 80202
Attention: Aaron Johnson
Project Name: Qwest Longview
Project #: 103P3080149
PO Number: 103P3080149
All results reported on an as received basis.

Date Received: 02/27/13
Date Reported: 3/12/13

AMTEST Identification Number 13-A002232
Client Identification MW-04-022613
Sampling Date 02/26/13, 02:30

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	1700	ug/l	H	50.	NWTPH-Dx	JH	03/08/13
Heavy Oil	11000	ug/l	F	100	NWTPH-Dx	JH	03/08/13

Surrogates

ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	0.0 %	50.0 - 150.
2-Fluorobiphenyl	0.0 %	50.0 - 150.

AMTEST Identification Number 13-A002233
Client Identification MW-05-022613
Sampling Date 02/26/13, 01:40

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	< 51	ug/l		50.	NWTPH-Dx	JH	03/08/13
Heavy Oil	220	ug/l	Y	100	NWTPH-Dx	JH	03/08/13

Surrogates

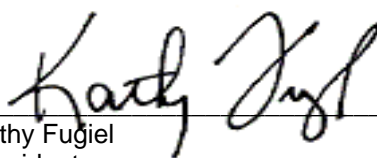
ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	82.3 %	50.0 - 150.
2-Fluorobiphenyl	75.9 %	50.0 - 150.

H = The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than that of the calibration standard.

F = The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.

Y = The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.

The surrogate for AmTest #13A-002233 was diluted out due to high TPH concentration.


Kathy Fugiel
President

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QC Summary for sample numbers: 13-A002232 to 13-A002233

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Diesel	ug/l	400	430	108. %
Diesel	ug/l	400	440	110. %
Diesel	ug/l	400	460	115. %
Heavy Oil	ug/l	400	420	105. %
Heavy Oil	ug/l	400	430	108. %
Heavy Oil	ug/l	400	450	112. %

BLANKS

ANALYTE	UNITS	RESULT
Diesel	ug/l	< 50
Diesel	ug/l	< 50
Heavy Oil	ug/l	< 100
Heavy Oil	ug/l	< 100
Bromofluorobenzene	%	74.8
Bromofluorobenzene	%	63.1
2-Fluorobiphenyl	%	74.8
2-Fluorobiphenyl	%	78.7

AmTest Chain of Custody Record

 13600 NE 126th PL, Suite C, Kirkland, WA 98034

Ph (425) 885-1664 Fx (425) 820-0245

www.amtestlab.com

 Chain of Custody No. **18692**

Client Name & Address: Aaron Johnson - Tetra Tech, Inc. 518 17 th St. Suite 900 Denver, CO 80202	Invoice To: Aaron Johnson - Tetra Tech, Inc. 518 17 th St. Suite 900 Denver, CO 80202
Contact Person: Aaron Johnson	Invoice Contact: Aaron Johnson
Phone No: 303-312-8826	PO Number: 103P3080149
Fax No: 303-295-2818	Invoice Ph/Fax: 303-312-8826
E-mail: aaron.johnson@tetrattech.com	Invoice E-mail: aaron.johnson@tetrattech.com
Report Delivery: (Choose all that apply) <input checked="" type="checkbox"/> Mail / <input type="checkbox"/> Fax / <input checked="" type="checkbox"/> Email / <input type="checkbox"/> Posted Online	Data posted to online account: YES / NO Web Login ID:
Special Instructions:	

Requested TAT: (Rush must be pre-approved by lab) <input checked="" type="radio"/> Standard RUSH (5 Day / 3 Day / 48 HR / 24 HR)						Temperature upon Receipt: 5.1 ^{0c}					
Project Name: Qwest Longview						Analysis Requested					
Project Number: 103P3080149						No. of containers					
AmTest ID	Client ID (35 characters max)	Date Sampled	Time Sampled	Matrix	No. of containers	NW-PPH-DX					QA/QC
MW-04-022613	2232	2/26/13	2:30	W		X					
MW-05-022613	2233	2/26/13	1:40	W		X					

Collected/Relinquished By:	Date	Time	Received By:	Date	Time
Denlene Saigel	2/26	3:30pm		2/27/13	
Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received By:	Date	Time

COMMENTS:

ATTACHMENT C

HISTORICAL LABORATORY ANALYTICAL REPORT

Am Test Inc.
13600 NE 126TH PL
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ANALYSIS REPORT

Tetra Tech, Inc
518 17th St, Suite 900
Denver, CO 80202
Attention: Aaron Johnson
Project Name: QWest Longview
Project #: 103P3080093
PO Number: 103P3080093
All results reported on an as received basis.

Date Received: 09/03/11
Date Reported: 9/29/11

AMTEST Identification Number	11-A012789
Client Identification	MW-04-090211
Sampling Date	09/02/11, 12:30

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	73.	ug/l	z	50.	NWTPH-Dx	MO	09/16/11
Heavy Oil	350	ug/l	y	100	NWTPH-Dx	MO	09/16/11

Surrogates

ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	60.1 %	50.0 - 150.
2-Fluorobiphenyl	66.1 %	50.0 - 150.

AMTEST Identification Number 11-A012790
Client Identification MW-05-090211
Sampling Date 09/02/11, 11:05

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	120	ug/l	z	50.	NWTPH-Dx	MO	09/16/11
Heavy Oil	210	ug/l	z	100	NWTPH-Dx	MO	09/16/11

Surrogates

ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	64.7 %	50.0 - 150.
2-Fluorobiphenyl	71.1 %	50.0 - 150.

AMTEST Identification Number 11-A012791
Client Identification MW-05-090211R
Sampling Date 09/02/11, 11:15

NWTPH-Dx (Water)

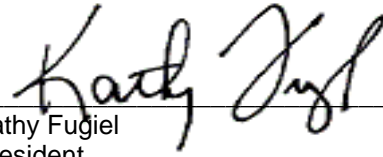
PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	85.	ug/l	z	50.	NWTPH-Dx	MO	09/16/11
Heavy Oil	130	ug/l	z	100	NWTPH-Dx	MO	09/16/11

Surrogates

ANALYTE	% RECOVERY	LIMITS
Bromofluorobenzene	60.5 %	50.0 - 150.
2-Fluorobiphenyl	69.8 %	50.0 - 150.

Z = The chromatographic fingerprint does not resemble a petroleum product.

Y = The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.

A handwritten signature in black ink, appearing to read "Kathy Fugiel", written over a horizontal line.

Kathy Fugiel
President

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www.amtestlab.com



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QC Summary for sample numbers: 11-A012789 to 11-A012791

BLANKS

ANALYTE	UNITS	RESULT
Diesel	ug/l	< 50
Heavy Oil	ug/l	< 100
Bromofluorobenzene	%	67.7
2-Fluorobiphenyl	%	74.9

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ANALYSIS REPORT

Tetra Team
C/o Logan Hackett
Boulder, CO 80304
Attention: Logan Hackett
Project Name: Longview
Project #: 103-00-3080093.
All results reported on an as received basis.

Date Received: 02/26/10
Date Reported: 4/13/10

AMTEST Identification Number 10-A003503
Client Identification MW-05-022610
Sampling Date 02/26/10, 10:48

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	100	ug/l		50.	WDOE NWTPH-D	MO	03/11/10
Heavy Oil	200	ug/l		100	WDOE WTPH-D	MO	03/11/10

Surrogates

ANALYTE	% RECOVERY
Bromofluorobenzene	85.4 %
2-Fluorobiphenyl	124. %

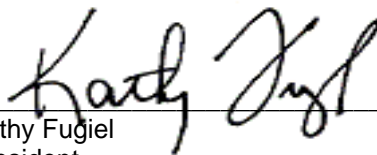
AMTEST Identification Number 10-A003504
Client Identification MW-04-022610
Sampling Date 02/26/10, 10:48

NWTPH-Dx (Water)

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Diesel	< 25	ug/l		50.	WDOE NWTPH-D	MO	03/11/10
Heavy Oil	140	ug/l		100	WDOE WTPH-D	MO	03/11/10

Surrogates

ANALYTE	% RECOVERY
Bromofluorobenzene	80.2 %
2-Fluorobiphenyl	133. %


Kathy Fugiel
President