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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

March 07, 2024

Michael Pollard
Centric Partners LLC / Seattle Land Use Company
1420 Fifth Avenue, Suite 2200
Seattle, Washington 98101
(Michael@pollarddevelopment.com)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

- **Site Name:** TD Auto Body & Repair
- **Site Address:** 1209 East Fir Street, Seattle, Washington 98122
- **Facility/Site No.:** 2501
- **Cleanup Site ID No.:** 2666
- **VCP Project No.:** NW3194

Dear Michael Pollard:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your completed interim action and proposed compliance monitoring plan at the TD Auto Body & Repair facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.

Issue Presented and Opinion

Pursuant to completion of the Site cleanup work described in *Independent Remedial Action Summary Report*, dated November 5, 2022, and the proposed *Compliance Monitoring Plan Update*, dated June 21, 2023, is additional work necessary to resolve data gaps?

YES. Ecology has determined that additional groundwater sampling and groundwater monitoring wells are needed to assess the current groundwater conditions and delineate the dissolved arsenic plume.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Gasoline-range total petroleum hydrocarbons (TPH-G), diesel- and oil-range petroleum

hydrocarbons (TPH-D and TPH-O), benzene, toluene, ethylbenzene, xylenes (collectively BTEX), lead, cadmium, and tetrachloroethene (PCE) into the soil.

- TPH-G, TPH-D and TPH-O, benzene, 1,2,4-trimethylbenzene, PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and arsenic into the Groundwater.

- VC, naphthalene, bromodichloromethane, and chloroform into the Soil Vapor.

Enclosure A includes a detailed description and diagrams of the Site, as currently known to Ecology. The Site is generally located on the following tax parcels in King County:

- 8061000005
- 8061000015
- 8061000025
- 8061000035

These four parcels are collectively referred to as Property in this opinion letter (see **Enclosure A, Figure 1, Figure 2**).

Please note a parcel of real property can be affected by multiple sites. King County Records and Elections Storage Building (KCRESB) facility (facility/site No. 58730) is located east and north of the Property. The KCRESB facility may affect parcel(s) of real property associated with this Site. Limited information is available regarding the KCRESB facility, since any potential contamination at KCRESB facility has not been characterized, and the source is unknown. This opinion does not apply to any contamination associated with the KCRESB facility.

Basis for the Opinion

This opinion is based on the information contained in the documents listed in **Enclosure B**.
A number of these documents are accessible in electronic form from the Site web page[1]. The complete records are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our Public Records Request page[2] to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis and Opinion

Since Ecology issued an *Opinion Letter* on February 9, 2021 (*2021 Opinion Letter*), Ecology received the following documents:

[1] https://apps.ecology.wa.gov/cleanupsearch/site/2666
[2] https://ecology.wa.gov/footer-pages/public-records-requests

- *Independent Remedial Action Summary Report*, dated November 5, 2022;
- *Compliance Monitoring Plan Update*, dated June 21, 2023;
- *2022-2023 Groundwater and Sub-Slab Vapor Monitoring Summary*, dated July 28, 2023;
- *3rd Quarter 2023 Groundwater and Sub-Slab Vapor Monitoring Summary,* dated November 8, 2023; and
- *4th Quarter 2023 Groundwater Monitoring Summary*, dated January 30, 2024.

Based on a review of these documents, Ecology has determined:

1. Soil contamination at the Site has been sufficiently characterized and remediated to the maximum extent practicable.

a. Soil characterization:

Petroleum-contaminated soil (PCS) was present between approximately 2.5 and 20 feet below ground surface (bgs) on northwestern portion of the Property, in the vicinity of a former service station. PCS was also present between approximately 6 and 9 feet bgs along the southwestern Property boundary, in the vicinity of a former auto repair facility and floor sump.

Lead-contaminated soil was present between approximately 10 and 12 feet bgs on the central portion of the Property. PCE- and metal-contaminated soil was present at approximately 1 to 1.5 feet bgs near the north edge of the southeastern portion of the Property, just south of the KCRESB facility.

Soil samples collected from 1991 and 2021 have sufficiently delineated the lateral and vertical extents of the soil contamination at the Site.

b. Soil cleanup:

Remedial soil excavation was conducted in 2021, in conjunction with Property redevelopment. Confirmation soil samples collected from the final limits of the remedial excavation confirmed that all contaminated soil was removed from the Property, except for the following:

- Lead concentration exceeded the MTCA Method A soil cleanup level in one sidewall sample collected at approximately 12 feet bgs on the boundary of the northeastern portion of the Property and the KCRESB facility (sample S21.5-SW-12'; see **Enclosure A, Figure 7**). Further soil excavation into the KCRESB facility is not feasible.

  This soil sample is located below the seasonal high groundwater table and has been subjected to potential leaching. Groundwater samples collected from the soil borings in this area (BN-14 and BN-17, see **Enclosure A, Figure 3**) contained lead concentrations below the MTCA cleanup level. An empirical demonstration can be made that the residual lead concentration is protective of groundwater, per Ecology's 2016 *Frequently Asked Questions Regarding Empirical Demonstrations and Related Issues, Implementation*

Memorandum No. 15[3].

- TPH-G concentration was detected in one sidewall sample at 53 milligrams per kilogram (mg/kg). Benzene was detected in soil only once in 2017. Benzene was not detected in any performance or confirmation soil samples collected during soil excavation. It is Ecology's opinion that a Method A cleanup level of 100 mg/kg should be used for TPH-G. Therefore, all confirmation soil samples contained TPH-G concentrations below the MTCA cleanup level.

- TPH-D and TPH-O concentrations should be added together to compare with the MTCA Method A soil cleanup level of 2,000 mg/kg or groundwater cleanup level of 500 micrograms per liter (µg/L), in accordance with Ecology's 2004 *Determining compliance with Method A Cleanup Levels for diesel and heavy oil, Implementation Memorandum No. 4*[4].

  TPH-D + TPH-O concentration exceeded the MTCA Method A soil cleanup level in one sidewall sample at approximately 9 feet bgs on the boundary of the northeastern portion of the Property and the KCRESB facility (sample S14.5-SW-9'; see **Enclosure A, Figure 7**). Further soil excavation into the KCRESB facility is not feasible.

  This soil sample is located below the seasonal high groundwater table and has been subjected to potential leaching. Groundwater monitoring wells are present downgradient of this soil sample. Additional groundwater monitoring data can determine if this residual TPH concentration is protective of groundwater (see further discussion in Bullet #3 below).

- PCE concentrations exceeded the MTCA Method A soil cleanup level in two sidewall samples collected at 4.5 feet bgs on the boundary of the southeastern portion of the Property and the KCRESB facility (see **Enclosure A, Figure 6**). Further soil excavation into the KCRESB facility property is not feasible.

  Groundwater monitoring wells are present immediately adjacent to and downgradient of this residual soil contamination. The on-going groundwater monitoring can determine if the residual PCE concentrations are protective of groundwater (see further discussion in Bullet #5 below).

2. Further vapor intrusion evaluation is not needed at this point.

After the remedial soil excavation, soil vapor samples were collected from three sub-slab soil vapor probes in three events in 2022 and 2023 (see **Enclosure A, Figure 5**). All soil vapor samples contained concentrations of volatile organic compounds (VOCs) below the MTCA Method B soil gas screening levels. In addition, a soil vapor barrier has been installed below the new building.

It is Ecology's opinion that further vapor intrusion evaluation to the new building is not necessary. Ecology recommends keeping the three soil vapor probes in place. If VOC

[3] https://apps.ecology.wa.gov/publications/SummaryPages/1609047.html
[4] https://apps.ecology.wa.gov/publications/SummaryPages/0409086.html

concentrations in groundwater increase and vapor intrusion risk needs further evaluation, additional soil vapor or indoor air sampling may be needed.

3. Additional groundwater sampling is needed to confirm the post-construction groundwater conditions.

Prior to remedial soil excavation, the TPH-D + TPH-O concentration in monitoring well MW-11 exceeded the MTCA Method A groundwater cleanup level in 2019. Concentrations of TPH-G, TPH-D + TPH-O, and benzene in monitoring well MW-9 (on northwestern portion of the Property) exceeded the MTCA Method A groundwater cleanup levels from 2019 to 2021. In addition, one sidewall soil sample contained TPH-D + TPH-O concentration above the MTCA cleanup level (see discussion above).

Ecology recommends analyzing current monitoring wells MW-1R, MW-10, MW-17, and MW-18 for NWTPH-Gx, NWTPH-Dx, and BTEX for at least one round to determine the current groundwater condition. These monitoring wells are located near former monitoring well MW-11 or downgradient of the Site.

Please work with Ecology after the first round of sampling and determine if further sampling for TPH and BTEX is needed.

4. Arsenic-contaminated groundwater plume has not been delineated.

Arsenic-contaminated groundwater is present on the southeastern portion of the Property and has extended off-Property to the south and east. The extent of the arsenic-contaminated groundwater plume has not been fully delineated.

Based on the current data, Ecology recommends continuing sampling the existing monitoring wells for dissolved arsenic and updating the time-series concentration plots to determine the trends. Additional monitoring wells are likely needed to the south and east to delineate the arsenic plume, as recommended by Ecology's *2021 Opinion Lette*r.

Please note a natural background level of 8 µg/L should be used for the groundwater cleanup level for arsenic, per Ecology's 2022 *Natural Background Groundwater Arsenic Concentrations in Washington State, Study Results*[5].

5. Groundwater compliance monitoring is needed.

Ecology reviewed the *2023 Compliance Monitoring Plan Update*, and has the following comments:

- Ecology recommends at least two more quarterly groundwater sampling events (1st and 2nd quarter 2024) for VOCs to determine the current groundwater conditions after the remedial soil excavation.
- Ecology concurs with switching to semi-annual groundwater sampling for VOCs if the two quarters groundwater data demonstrate compliance with MTCA cleanup levels. However, if the semi-annual groundwater sampling indicates a rebound of HVOCs in groundwater, Ecology requests sampling wells quarterly for VOCs.

[5] https://apps.ecology.wa.gov/publications/documents/1409044.pdf

- Ecology recommends continuing quarterly sampling for dissolved arsenic and geochemical parameters. Additional monitoring wells may be needed to delineate the extent of the arsenic plume (see Bullet #4).
- Ecology understands the use of passive diffusion bag samplers for VOCs due to suspended particles resulted from injection. Once the majority of particles have settled, please switch to the low-flow purging and sampling method as soon as it becomes practicable.

6. Terrestrial Ecological Evaluation is needed.

A Terrestrial Ecological Evaluation (TEE) has not been completed for the Site. The Site appears to qualify for the undeveloped land exclusion per WAC 173-340-7491(1)(c). If this is the case, please submit the completed TEE form with a map showing the 500-foot radius surrounding the Site boundary.

7. Environmental Information Management (EIM) data submittal is needed.

Electronic submittal of all sampling data collected in and post-2005 into Ecology's electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. Currently, only data from 2017-2020 are available in EIM. Please submit additional data to EIM.

Nicole Masurat (email nicole.masurat@ecy.wa.gov) is Ecology's contact and resource on entering data into EIM.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170(6).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/vcp. If you have any questions about this opinion, please contact me by phone at 425-229-2565 or e-mail at jing.song@ecy.wa.gov.

Sincerely,

Jing Song
Site Manager
Toxics Cleanup Program, NWRO

Enclosures (2): A – Description and Diagrams of the Site
B – Basis for the Opinion: List of Documents

cc: Daniel Whitman, Whitman Environmental Sciences, (whitenviro@yahoo.com)
Sonia Fernandez, VCP Coordinator (sonia.fernandez@ecy.wa.gov)

Enclosure A

Site Description and Diagrams

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinion expressed in the body of the letter.

Site

The Site is defined by the nature and extent of the following releases:

- Gasoline-range total petroleum hydrocarbons (TPH-G), diesel- and oil-range petroleum hydrocarbons (TPH-D and TPH-O), benzene, ethylbenzene, xylenes, lead, cadmium, and tetrachloroethene (PCE) into the soil.
- TPH-G, TPH-D and TPH-O, benzene, 1,2,4-trimethylbenzene, PCE, trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), vinyl chloride (VC), and arsenic into the groundwater.
- VC, naphthalene, bromodichloromethane, and chloroform into the soil vapor.

The Site is located on the east side of 12th Avenue between East Yesler Way and East Fir Street in Seattle. The Site is generally located on four King County tax parcels: 8061000005, 8061000015, 8061000025, and 8061000035, with address 104-124 12th Avenue and 1209 East Fir Street (Property, **Figure 1, Figure 2**). The total area of the Property is 1.09 acres.

According to MTCA, the Site is defined as all areas where contamination has come to be located. Based on Site investigations, the Site includes the Property, as well as properties and rights-of-way (ROWs) to the east and south. The Site boundary is not fully defined.

Area and Property Description

The area surrounding the Property consists of commercial, residential, and government properties. The Property is bounded by East Fir Street to the north, 12th Avenue to the west, and East Yesler Way to the south. Bailey Gatzert Elementary School is located to the south across East Yesler Way.

Two other cleanup facilities are located adjacent to Property (**Figure 2**):

- King County Records and Elections Storage Building (KCRESB) facility (facility/site No. 58730): KCRESB facility is located east and north of the Property. The KCRESB facility is occupied by a warehouse for records storage.
- King County Archives Warehouse (KCAW) facility (facility/site No. 64730): KCAW facility is located east of the Property and the KCRESB facility. The KCAW facility is currently owned by Seattle Housing Authority and is being redeveloped as a multifamily residential affordable housing complex. The KCAW facility is enrolled in the Voluntary Cleanup Program

(VCP) under VCP agreement #NW3300.

Property History and Current Use

From about 1907 to 1913, most of the Property was used as a baseball stadium by the Seattle Giants, with grandstands built along East Yesler Way. Subsequent Property uses included (**Figure 2**, **Figure 3**):

- 124 12th Avenue (parcel 8061000005): The western part of the parcel operated as a gasoline service station from 1941 to about 1975, then operated as auto repair until about 1989, when the station burned. Five underground storage tanks (USTs) were present during station operation. These USTs were removed in 1990, and the excavated area was left as a gravel surfaced parking lot. An auto repair building was constructed on the eastern part in 1949, with address 1209 East Fir Street. The building was used for auto repair until it was closed for Property redevelopment.
- 110-118 12th Avenue (parcel 8061000015): A multi-tenant wood-framed building was constructed on the western part of the parcel in about 1940. Multiple businesses operated in this building, including a dry cleaner at 118 12th Avenue (northern portion of the building) from about 1966 to 1972. A large sloped area east of the building was undeveloped and overgrown with weeds.
- 104 12th Avenue (parcel 8061000025): A two-story concrete building was constructed on this parcel in 1926. The building had a variety of uses, including auto repair in the lower level of the building until the mid-1950s. One 550-gallon UST was installed outside the south wall, beneath the current sidewalk in 1929, and was reportedly removed in 1933.
- Southeast Parking Lot (parcel 8061000035): This parcel was a paved parking lot for the 104 12th Avenue building.

All of the buildings on the Property were demolished in 2021. The Property has been redeveloped with a six-story mixed-use building. The western portion of the building was constructed with two levels of below-grade parking; the southeastern portion (formerly southeast parking lot) was redeveloped with slab-on-grade construction.

Sources of Contamination

The hazardous substances released at the Site include petroleum hydrocarbons, chlorinated volatile organic compounds (CVOCs), and metals. Multiple potential sources have been identified, including the following former activities: service station (including USTs), two auto repair shops, dry cleaner, potential dumping or contaminated fill on the vegetated slope in the central area of the Property, and an unknown potential contaminant source beneath the KCRESB facility.

Physiographic Setting

The Property is located within the Puget Sound Lowland physiographic province, a north-south oriented topographic depression. The land surface at the Site and vicinity slopes to the southeast. The surface elevations at the Property range from approximately 220 feet above mean sea level (amsl) on the northwest, to approximately 200 feet amsl on the southeast.

Surface/Storm Water System

Surface runoff on Property is collected by the City storm water system located along 12th Avenue, East Fir Street, and East Yesler Way. The closest surface water body to the Property is Elliott Bay, which is located approximately 1 mile west of the Property.

Ecological Setting

Land surfaces on the Property and adjacent properties are primarily covered by buildings and asphalt or concrete pavement, with small landscaped areas.

Geology

Soil conditions consist of a layer of relatively unconsolidated fill containing organic material and debris, reportedly generated by regrading of 12th Avenue. The thickness of the fill appears to be greatest in the northwestern portion of the Property, where depths of up to 20 feet have been encountered. Underneath the fill is brown to grayish clayey sand and gravel that is interpreted to be glacial till or weathered till-derived materials. The glacial till includes intermittent layers of sand and extends to the maximum explored depth of 54 feet below ground surface (bgs).

Groundwater

Groundwater has been encountered in borings and monitoring wells at depths of 0.25 to 15.76 feet bgs. The water levels in individual monitoring wells vary seasonally by as much as 3 feet over the period of record (since 2017). Based on groundwater elevation measurements, the groundwater flow direction is consistently towards the southeast (**Figure 4**).

Prior to the Property redevelopment, monitoring wells MW-1 through MW-16, MW-1S, MW-1D, and GEO B-7 through GEO B-9 were present at the Site (**Figure 4**). These monitoring wells were installed between 2015 and 2020, and were equipped with 5- to 15-foot-long screens between depths of 3 and 35 feet bgs. Except for wells MW-10 and MW-13, all original monitoring wells were decommissioned prior to or during the redevelopment.

After the Property redevelopment, replacement wells MW-1R, MW-5R, MW-12R, MW-15R, GEO B-7R, and GEO B-9R were installed in 2021 to 2023. Three new wells MW-17 through MW-19 were installed in March 2023 (**Figure 5**).

Water Supply

Drinking water for the area is provided by Seattle Public Utilities and is derived from the Cedar River and South Fork Tolt River watersheds. There are no groundwater recharge areas, wellhead protection zones, or drinking water wells within 1 mile of the Property.

Release and Extent of Contamination in Soil and Groundwater

Pre-redevelopment conditions

Site investigations and remedial actions have been conducted at the Site since 1990. Historical soil and groundwater sampling locations before the Property redevelopment are depicted on **Figure 3** and **Figure 4**.

Soil:

In 1991, approximately 760 tons of petroleum-contaminated soil (PCS) were removed from the vicinity of the USTs on northwestern portion of the Property. The excavation extended to a maximum depth of 20 feet bgs. After excavation, PCS was still present between approximately 2.5 and 20 feet bgs in this area (MW-8, MW-9, BN-8, BN-16, HA-N).

PCS has also been encountered between approximately 6 and 9 feet bgs along the southwestern Property boundary, in the vicinity of a former auto repair facility and floor sump (WES-1 and WES-2).

Lead-contaminated soil has been encountered at approximately 10 feet bgs on the vegetated slope on the central portion of the Property (BN-17). Reportedly, this is suspected to be associated with dumping from the auto repair facility formerly located on the northeastern portion of the Property.

PCE- and metal-contaminated soil has been encountered at shallow depths of 1 to 1.5 feet bgs near the north edge of the southeast parking lot, just south of the KCRESB facility (WES-16 and WES-17).

Groundwater:

Petroleum-contaminated groundwater was encountered on the northwestern portion (MW-8, MW-9, GEO B-8, BN-8, HA-S), southwestern portion (WES-1 and WES-4), and southeastern portion (MW-11) of the Property.

Small plumes of CVOC-contaminated groundwater have been encountered in the vicinity of the former dry cleaner on the western-central portion of the Property (MW-14 and HA-N), and in

the vicinity of the former auto repair facility on the southwestern portion of the Property (MW-3 and MW-6).

An extensive CVOC-contaminated groundwater plume was detected on the southeastern portion of the Property (MW-1, MW-1S, MW-5, GEO B-9, WES-11, WES-13, WES-17). This plume is presumed to extend beneath the adjacent KCRESB facility. The exact source of the plume is unknown.

Interim actions during the Property redevelopment:
During Property redevelopment in 2021, remedial soil excavation was conducted in the following areas:

- Shallow PCE- and metal-contaminated soil just south of the KCRESB facility was excavated to a depth of 2 to 2.5 feet bgs (**Figure 6**). A total of 39.80 tons of contaminated soil was removed. Soil samples collected from the excavation base and sidewalls contained PCE or metal concentrations below the MTCA cleanup levels. Additional PCE sampling was conducted in this area. PCE concentrations exceeded the MTCA cleanup levels in two sidewall samples on the Property boundary (NE6.5-SW-4.5' and NSW-46E-0S-4.5', **Figure 6**).

- Lead-contaminated soil on the central portion of the Property was excavated to depths of 18 to 25 feet bgs (**Figure 7**). A total of 630.44 tons of contaminated soil was removed. One south sidewall sample (S21.5-SW-12') contained lead concentration above the MTCA cleanup level. Other sidewall samples and all base samples did not contain lead concentrations above the MTCA cleanup level.

- PCS were removed from previously identified areas on the northwestern portion of the Property to 20 feet bgs, on the southern portion of the Property to 9-10 feet bgs, and a previously unknown area on the northeastern portion of the Property to 14 feet bgs (**Figure 7**). A total of approximately 3,729.76 tons of PCS was removed. A total of 32 base samples and 66 sidewall samples were taken at the final excavation limits. One east sidewall sample (E14.5-SW-9') contained TPH-D + TPH-O concentration above the MTCA cleanup level. All base samples and other sidewall samples contained contaminants concentrations below the MTCA cleanup levels.

- Dewatering was conducted during excavation and Property redevelopment. A total of over 1.99 million gallons of water was collected and discharged to the sanitary sewer system under a permit. The discharge water was monitored for volatile organic compounds (VOCs) and arsenic. No VOCs were detected in the de-watering discharge at any time. Arsenic concentrations ranged from 5.67 to 38.0 micrograms per liter (µg/L).

In-situ groundwater treatment was conducted on the southeastern portion of the Property (southeast parking lot). Initial injection was conducted in June 2020. The injection applied zero valent iron (ZVI) and a finely particulate activated carbon medium throughout the lateral and

vertical extent of the CVOC plume in this area (**Figure 8**). A second round of injection was conducted along the northern edge of the southeast parking lot in August 2022, using the activated carbon medium only (**Figure 9**).

Current soil and groundwater conditions:
Monitoring wells MW-1R, MW-5R, MW-10, MW-12R, MW-13, MW-15R, GEO B-7R, GEO B-9R, and MW-17 through MW-19 are currently present at the Site (**Figure 5**). In June 2022, VC exceeded the MTCA cleanup level in wells MW-5R and GEO B-7R. After the second round of injection in August 2022, all Site monitoring wells contained CVOC concentrations below the MTCA cleanup levels in quarterly sampling events until December 2023.

Arsenic-contaminated groundwater has been identified on the Property but has not yet been adequately characterized. Arsenic appears to have significantly increased on the southern portion of the Property since chemical injections in June 2020. Naturally occurring arsenic in glacial soils was mobilized in groundwater due to injections of high-pH treatment solutions that altered the groundwater geochemistry. Fourth quarter 2023 groundwater sampling results show arsenic exceeded the MTCA cleanup level in wells MW-1R, MW-12R, MW-15R, MW-18, and GEO B-9R.

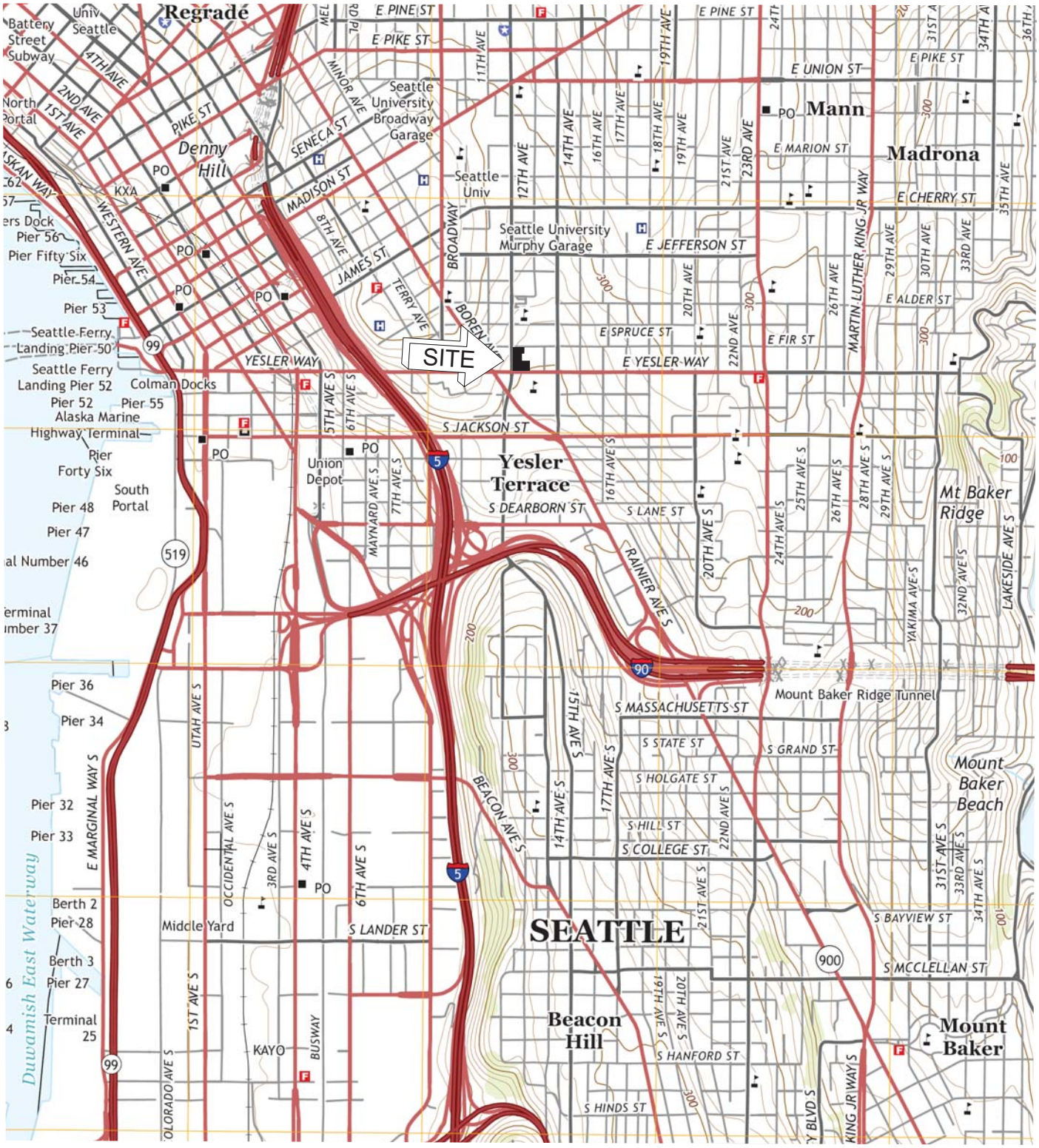
Vapor Intrusion Evaluation

In 2017 through 2020, seven soil vapor probes (SSVP-1 through SSVP-3, DVSP-1 through DSVP-4) were installed on the southern and central portions of the Property (**Figure 3, Figure 4, Figure 5**). All soil vapor samples contained at least one of the following VOCs above the MTCA Method B soil gas screening levels: VC, naphthalene, bromodichloromethane, and chloroform.

After the Property redevelopment, three sub-slab soil vapor probes (VP-1 through VP-3) were installed on the southeast parking lot (**Figure 5**). Soil vapor samples were collected from these vapor probes for three events in August and December 2022, and September 2023. The soil vapor samples contained VOC concentrations below the MTCA Method B soil gas screening levels. A vapor barrier system was also installed beneath the new building.

Site Diagrams

Enclosure A: Figure 1



North

0 2000'

Scale 1 : 24,000

From USGS

Figure 1 - Site Map

104-124 12th Avenue & 1209 E. Fir Street
Seattle, Washington 98122

Project No.	WES - 1591
Date	June 11, 2017
File ID.	1591F1

WHITMAN
Environmental Sciences

Enclosure A: Figure 2

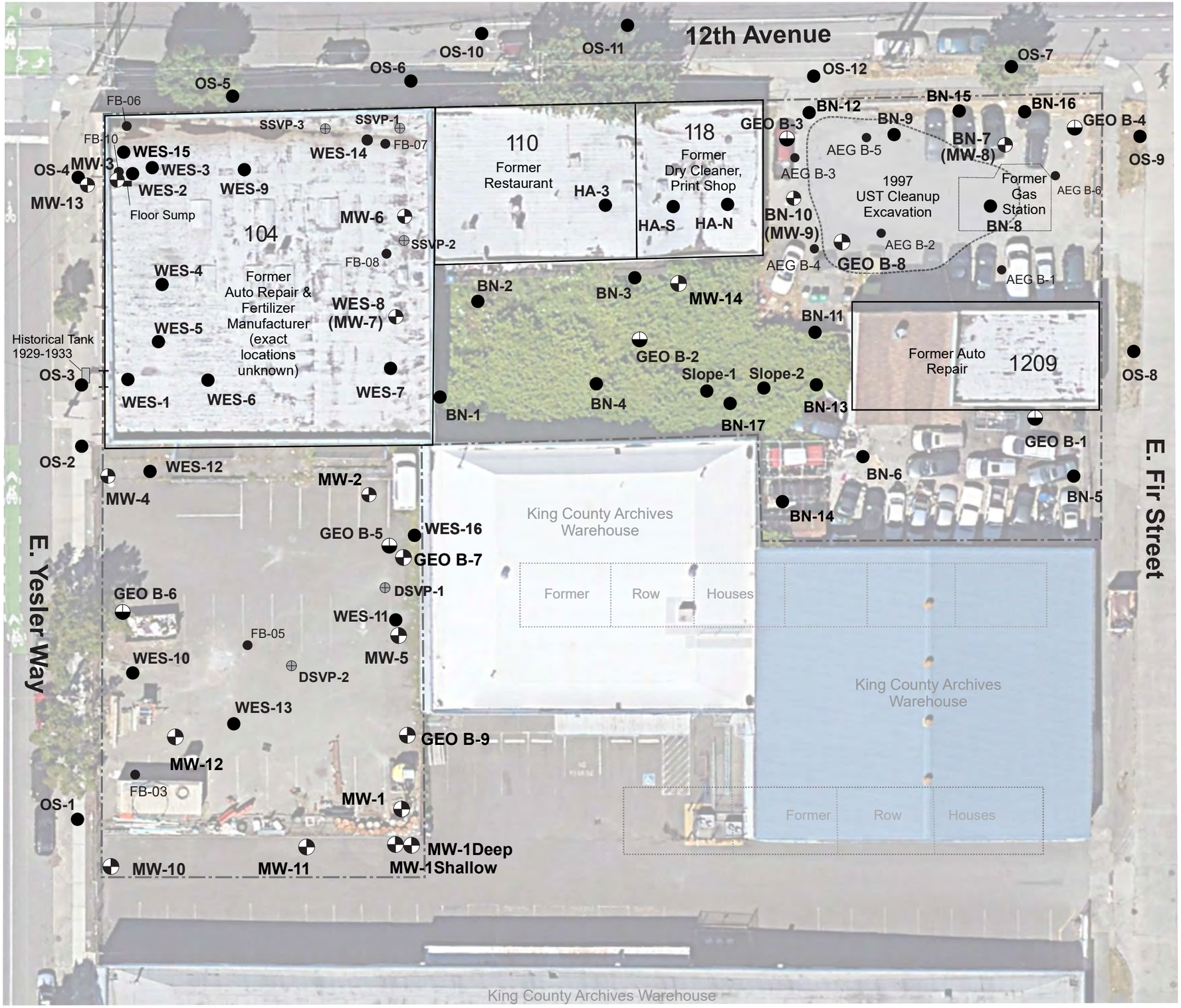
Base Map is from King County iMAP

By Department of Ecology, February 2024

Site and Property Vicinity Map

N

Enclosure A: Figure 3



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Environmental Boring
- Approximate Location of Geotechnical Soil Boring (Limited Data)
- Prior Soil Boring (2014-2016, Limited or No Data)
- Approximate Location of Sub-Slab or Deep Soil Vapor Sample

North

0 30'

Scale 1" = Approx. 30 feet

Figure 3 - Site and Soil Boring Location Plan

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	Oct 1, 2019
File ID.	1591AF3

WHITMAN
Environmental Sciences

Enclosure A: Figure 4

Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- Approximate Location of Soil Vapor Probe
- Approximate Location of Geotechnical Soil Borings (Soil Descriptions Only)
- Approximate Location of 2016 Farallon Soil Borings (No Data or Soil Descriptions, Locations Estimated)

MW-X
195.77 Well I.D. and Groundwater Elevation

Interpolated Groundwater Contours Based on Water Level Measurements Taken 3/16 to 3/26/2021

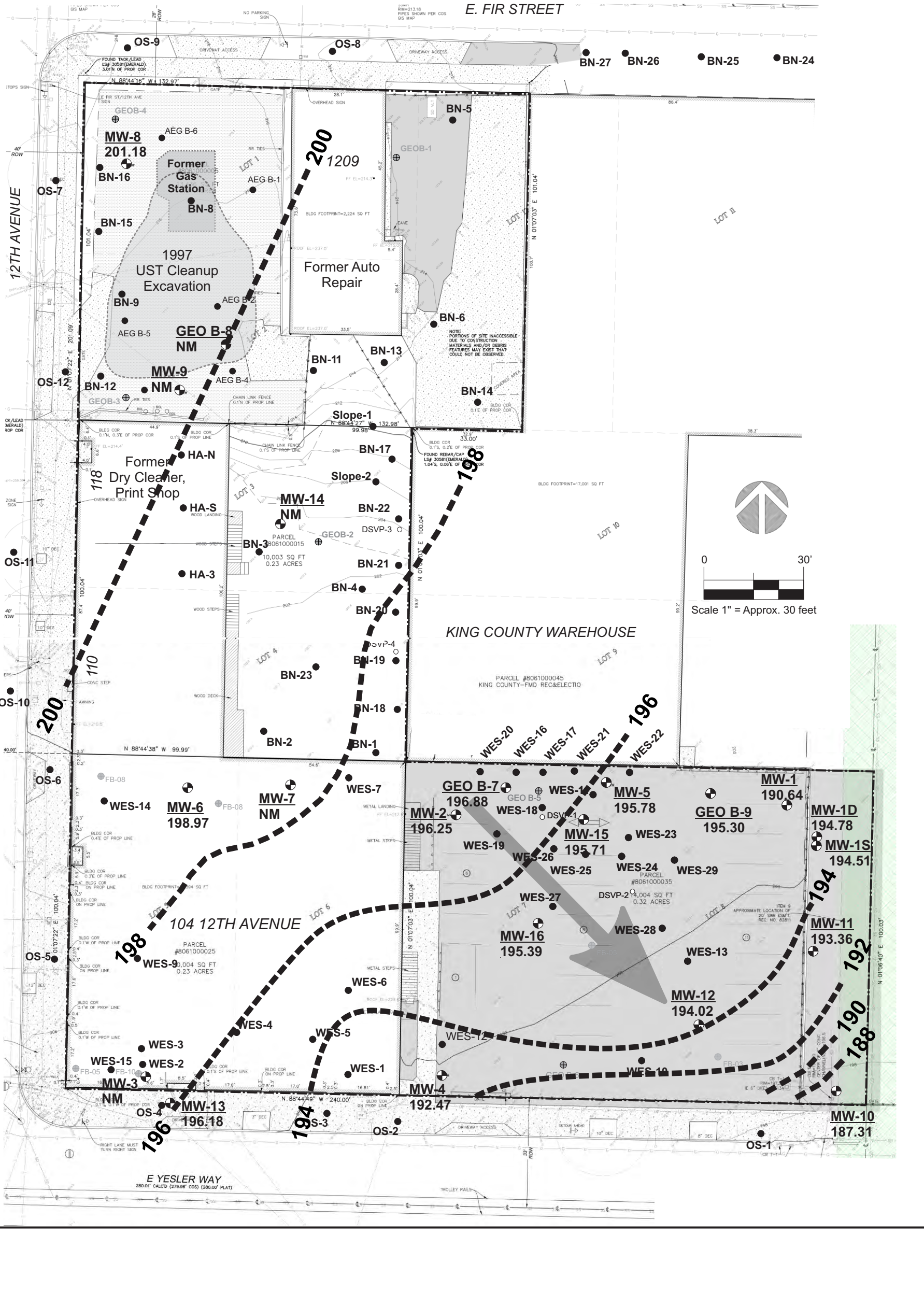
General Direction of Groundwater Migration

Figure 2A - Monitoring Well Location Plan and Inferred Groundwater Contours - 1st Quarter 2021

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	Jan 18, 2021
File ID.	1591Q4F2

WHITMAN Environmental Sciences



Enclosure A: Figure 5

Legend

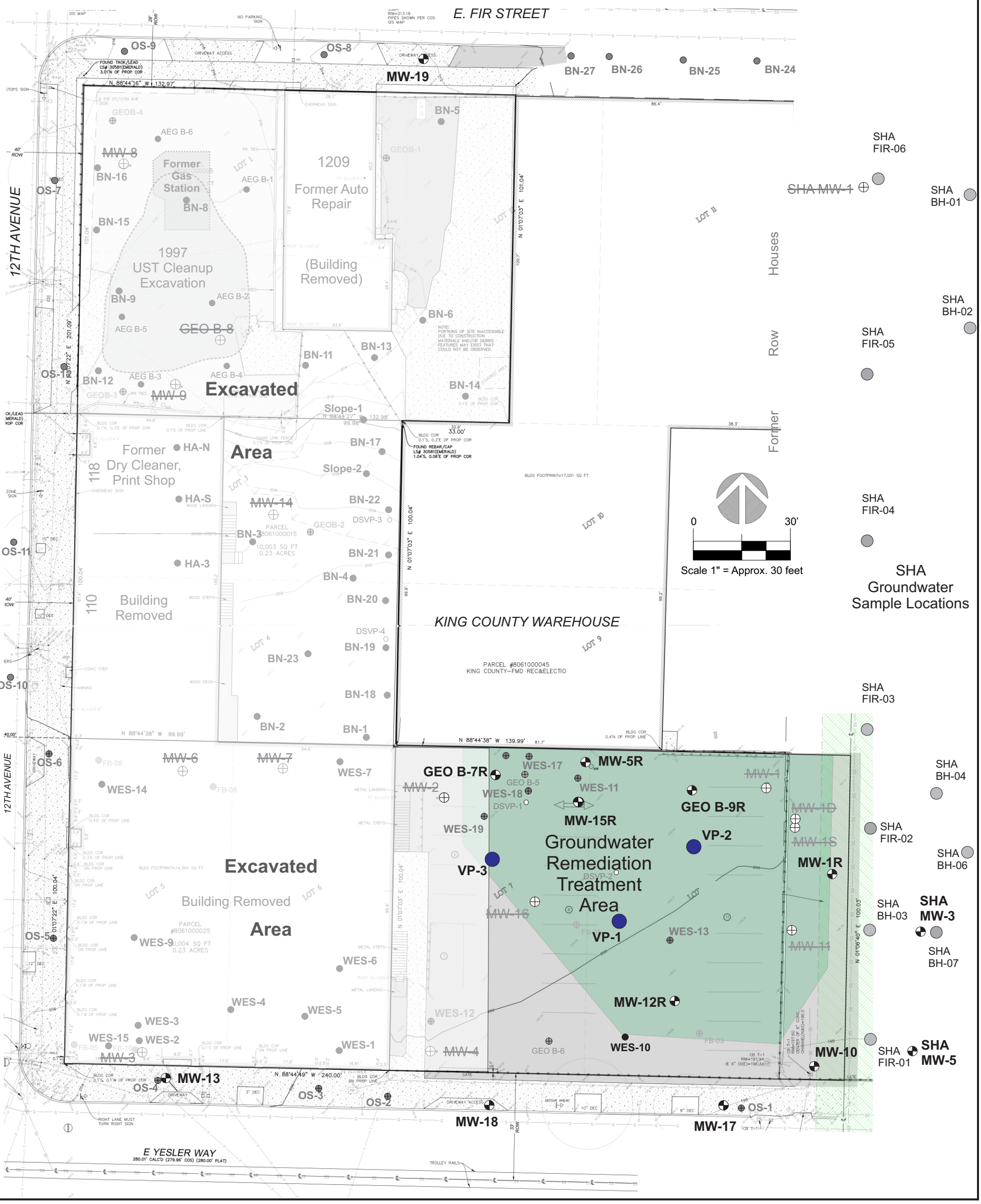
- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well
- Approximate Location of Sub-Slab Vapor Monitoring Point Under New Construction

Figure 2 - Site and Sample Location Plan

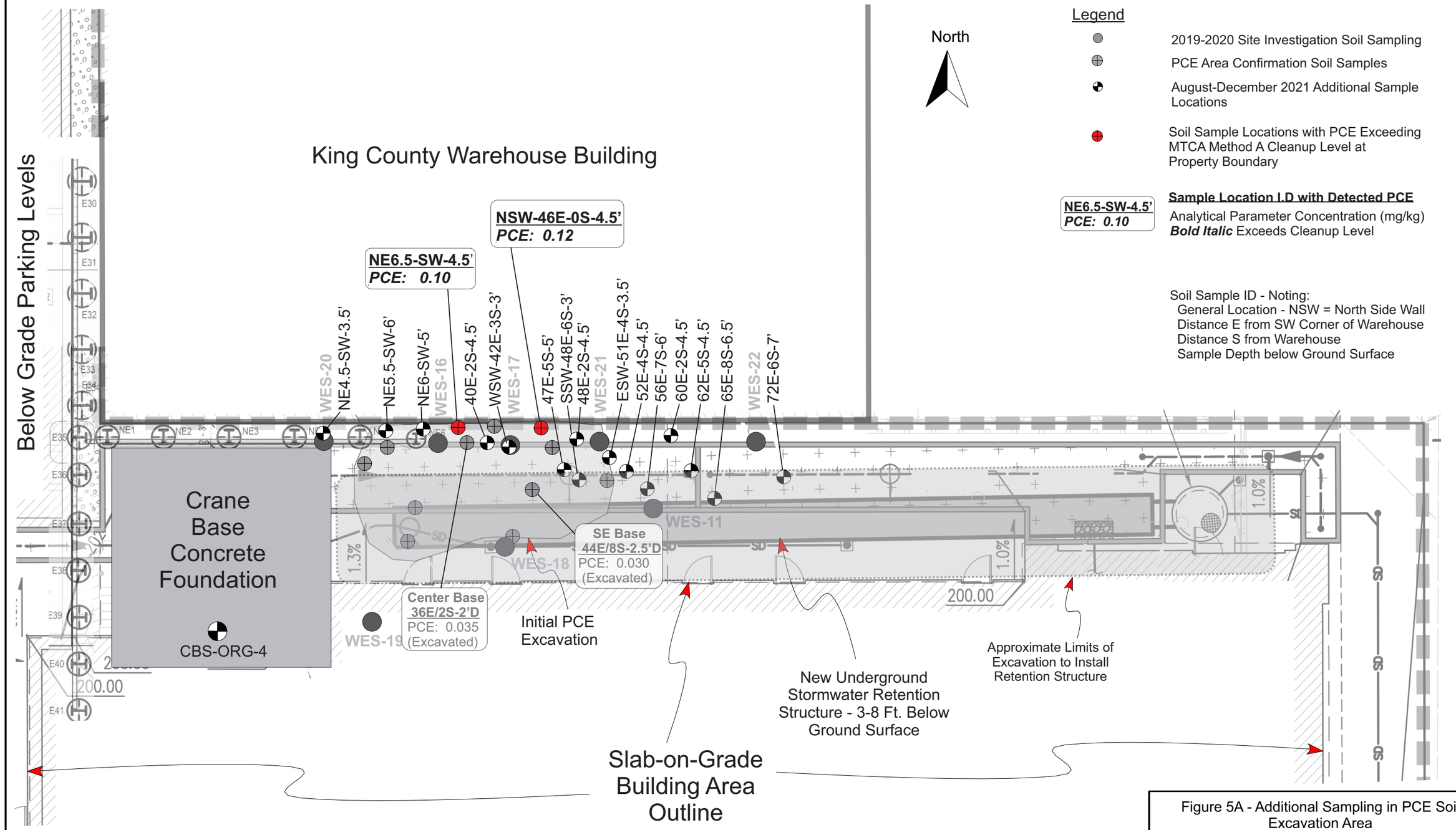
12th & Yesler Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 5, 2023
File ID.	1591F2

WHITMAN Environmental Sciences



Enclosure A: Figure 6



Development Plan from Clark Barnes, 2020

Figure 5A - Additional Sampling in PCE Soil Excavation Area

12th & Yesler Development
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591
Date	Aug 6, 2021
File ID.	1591CARF5A

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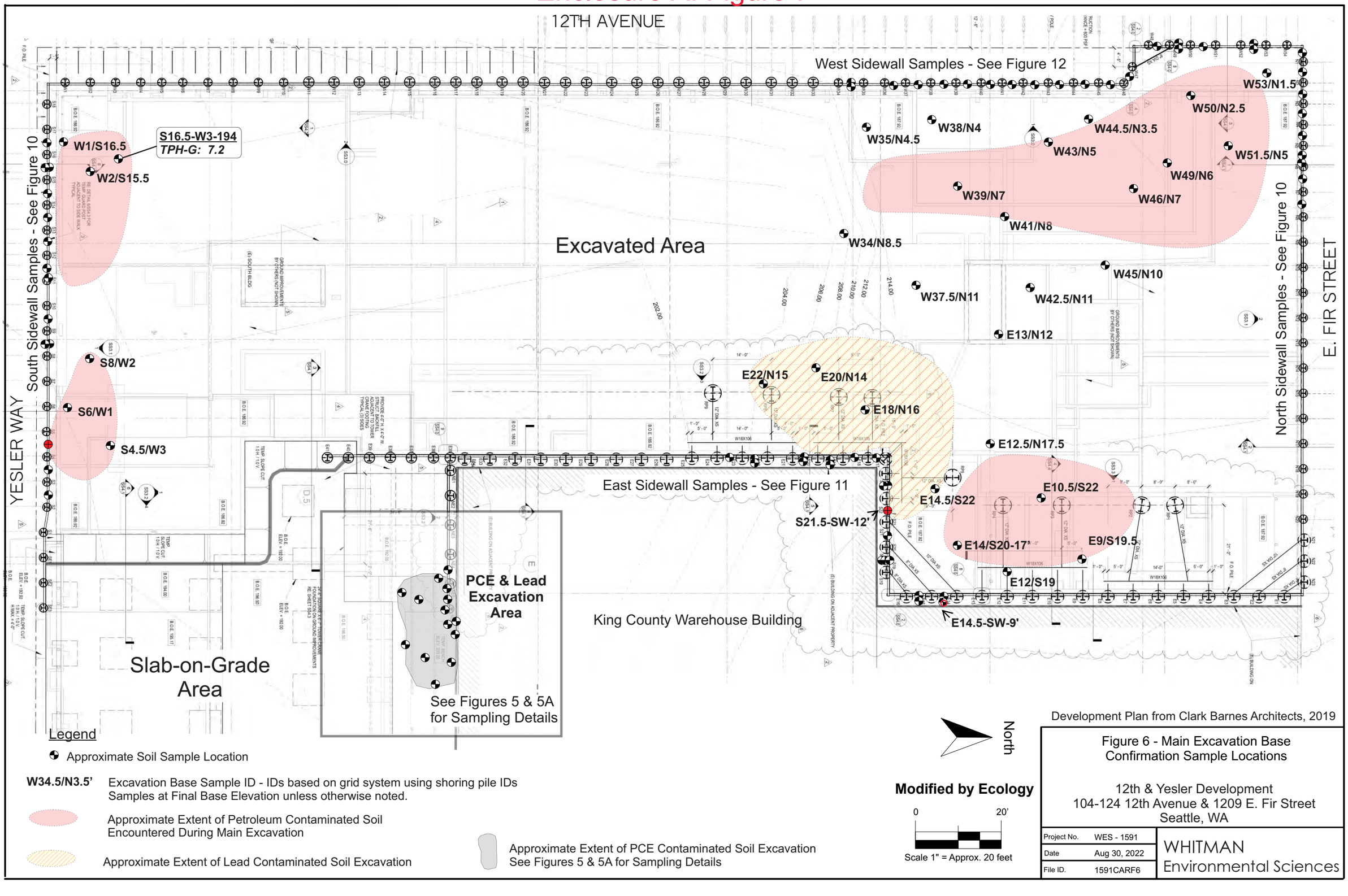
Enclosure A: Figure 7



Development Plan from Clark Barnes Architects, 2019

Legend

- Approximate Soil Sample Location

W34.5/N3.5' Excavation Base Sample ID - IDs based on grid system using shoring pile IDs
Samples at Final Base Elevation unless otherwise noted.

Approximate Extent of Petroleum Contaminated Soil Encountered During Main Excavation

Approximate Extent of Lead Contaminated Soil Excavation

Approximate Extent of PCE Contaminated Soil Excavation
See Figures 5 & 5A for Sampling Details

North

Modified by Ecology

0 20'

Scale 1" = Approx. 20 feet

Figure 6 - Main Excavation Base Confirmation Sample Locations

12th & Yesler Development
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591
Date	Aug 30, 2022
File ID.	1591CARF6

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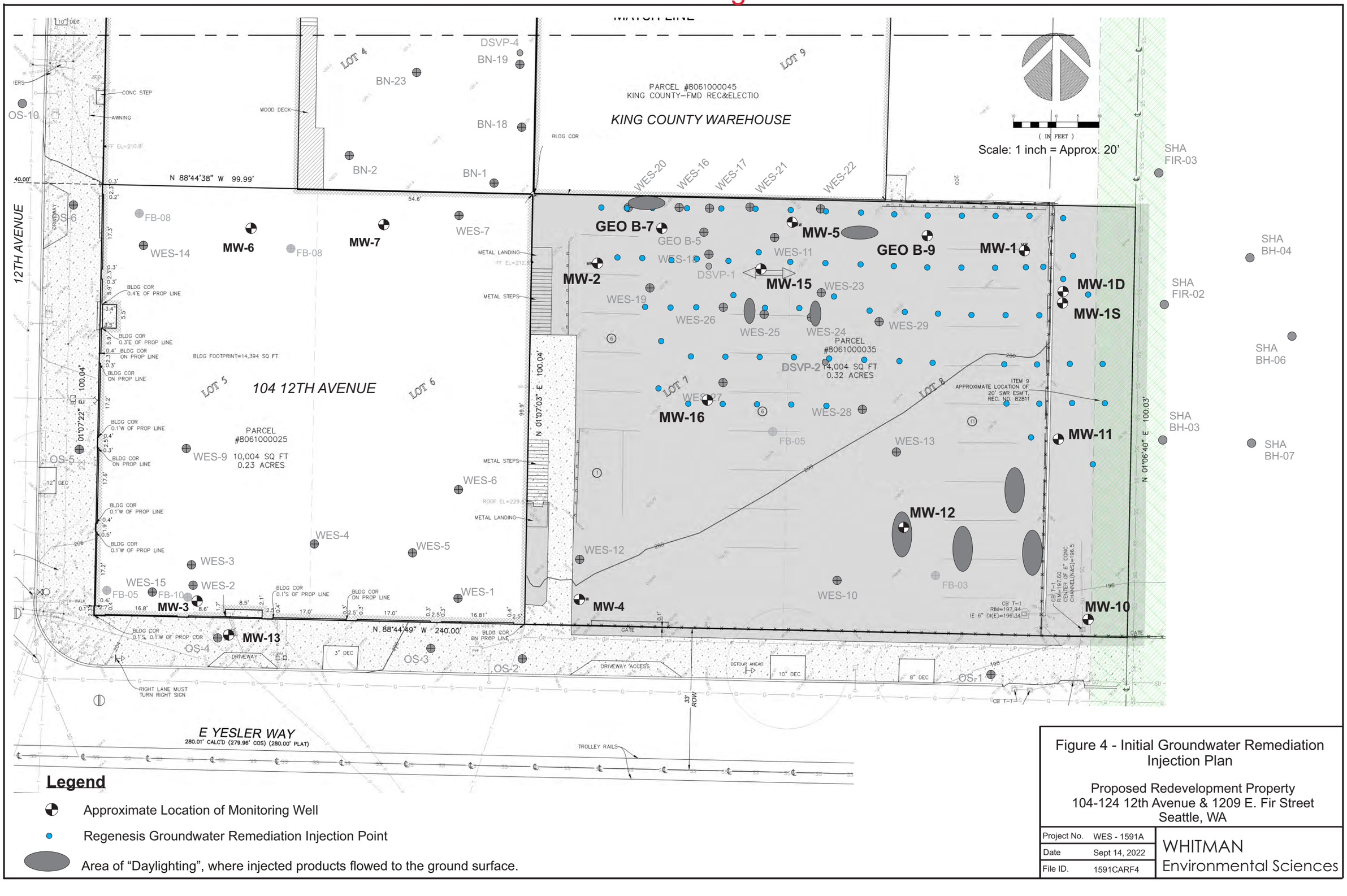
Enclosure A: Figure 8



Legend

- Approximate Location of Monitoring Well
- Regenesis Groundwater Remediation Injection Point
- Area of "Daylighting", where injected products flowed to the ground surface.

Figure 4 - Initial Groundwater Remediation Injection Plan

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	Sept 14, 2022
File ID.	1591CARF4

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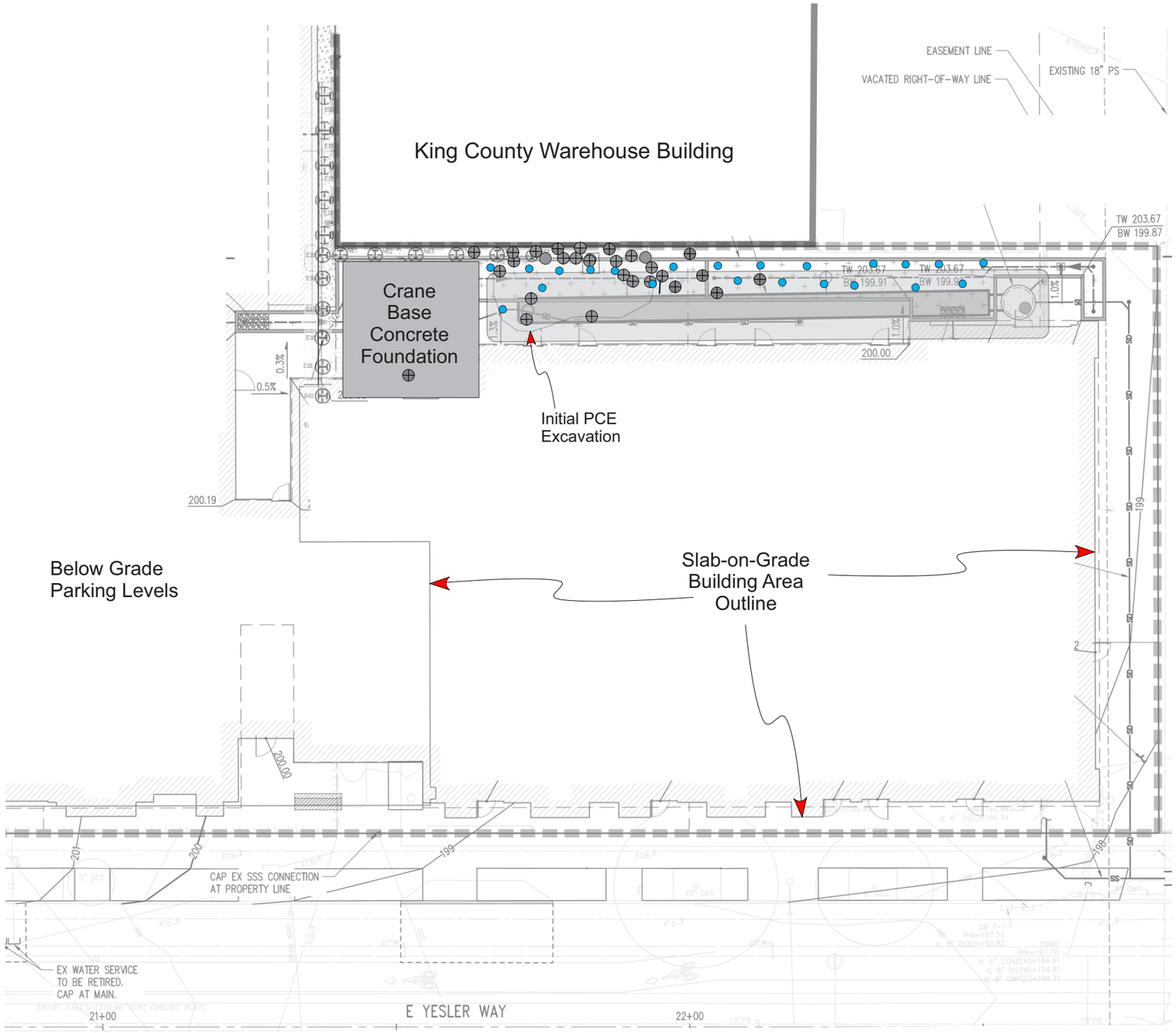
Enclosure A: Figure 9



Legend

- Regenesis Groundwater Remediation Injection Point
- 2019-2020 Site Investigation Soil Sampling
- PCE Area Confirmation Soil Samples

North

0 20’

Scale 1” = Approx 20 ft

Development Plan from Clark Barnes, 2020

Figure 13 - 2022 Additional Groundwater Remediation Injection Layout

12th & Yesler Development
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591
Date	Sept 6, 2022
File ID.	1591CAP13

WHITMAN Environmental Sciences

Enclosure B

Basis for the Opinion: List of Documents

1. Whitman Environmental Sciences. *4th Quarter 2023 Groundwater Monitoring Summary, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. January 30, 2024.

2. Whitman Environmental Sciences. *3rd Quarter 2023 Groundwater and Sub-Slab Vapor Monitoring Summary, 104-124 12th Avenue & 1209 E. Fir Street Seattle, Washington*. November 8, 2023.

3. Whitman Environmental Sciences. *2022-2023 Groundwater and Sub-Slab Vapor Monitoring Summary, 12th & Yesler Redevelopment Project, 104-124 12th Avenue & 1209 E. Fir Street Seattle, Washington*. July 28, 2023.

4. Whitman Environmental Sciences. *Compliance Monitoring Plan Update, 12th & Yesler Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington, 98122*. June 21, 2023.

5. Whitman Environmental Sciences. *Independent Remedial Action Summary Report, 12th & Yesler Redevelopment Project, 104-124 12th Avenue & 1209 E. Fir Street Seattle, Washington, 98122*. November 5, 2022.

6. Whitman Environmental Sciences. *2020-2022 Groundwater Monitoring Summary, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. May 10, 2022.

7. Whitman Environmental Sciences. *Independent Remedial Action, TD Auto Body & Repair and Adjacent Properties Seattle, Washington*. March 12, 2021.

8. Department of Ecology. *Opinion on Remedial Action, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194*. February 9, 2021.

9. Whitman Environmental Sciences. *Groundwater Monitoring and Response to Opinion Letter Comments, 12th & Yesler Redevelopment Property, Seattle, Washington*. November 30, 2020.

10. Whitman Environmental Sciences. 3*rd Quarter 2020 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. November 19, 2020.

11. Department of Ecology. *Opinion on Remedial Action, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194*. September 15, 2020.

12. Whitman Environmental Sciences. *2nd Quarter 2020 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. June 15, 2020. Revised October 28, 2020.

13. Whitman Environmental Sciences. *Independent Remedial Action Plan, 12th & Yesler Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington 98122*. April 8, 2020.

14. Whitman Environmental Sciences. *Source Investigation Summary Report, SE Parking Lot Plume, 12th & Yesler Redevelopment Property, Seattle, Washington*. April 6, 2020.

15. Department of Ecology. *Initial Investigation Field Report, King County Records & Elections Storage Building facility (Facility/Site ID No. 58730)*. April 2, 2020.

16. Department of Ecology. *Opinion on Remedial Action, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194*. January 9, 2020.

17. Whitman Environmental Sciences. *Remedial Investigation Summary Report, Potential Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. October 26, 2019.

18. Department of Ecology. *Opinion on Proposed Cleanup, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194*. June 6, 2019.

19. Whitman Environmental Sciences. *Independent Remedial Action Plan, Proposed Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. April 2, 2019.

20. Whitman Environmental Sciences. *June-July 2018 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. August 22, 2018 (Amended February 20, 2019).

21. Department of Ecology. *Request for Additional Information to Provide Opinion on the Investigation and Cleanup under the VCP for the following Contaminated Site: TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA 98122*. July 24, 2018.

22. Whitman Environmental Sciences. *Additional Off-Site Environmental Site Investigation, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. September 6, 2017.

23. Whitman Environmental Sciences. *Phase I & II Environmental Site Assessment, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington*. September 1, 2017.

24. Geotech Consultants, Inc. *Transmittal Letter – Preliminary Geotechnical Engineering Study, Proposed Mixed-Use Building, 104, 110, and 124 – 12th Avenue, Seattle, Washington*. August 2, 2017.

25. Amec Foster Wheeler Environment & Infrastructure, Inc. *Phase II Environmental Site Assessment, 1215 East First Street, Seattle, Washington*. July 2017.

26. Farallon Consulting. *Phase I Environmental Site Assessment, 12th and Yesler Property, 104 through 10812th Avenue and 1206 East Yesler Way, Seattle, Washington*. January 4, 2016.

27. Associated Environmental Group, LLC. *Phase II Environmental Site Assessment, 12th Avenue Parking Lot, 110 & 124 12th Ave, Seattle, Washington*. November 14, 2014.

28. Public Health-Seattle & King County. *Site Hazard Assessment, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA 98122*. February 26, 2002.

29. RZA-AGRA (Rittenhouse-Zeman & Associates, Inc.) Engineering & Environmental Services. *Level III Site Remediation Report, Struves Addition, Lots 1 and 2, 12th Avenue and Fir Street, Seattle, Washington*. November 6, 1991.