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DEPARTMENT OF ECOLOGY

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September 15, 2020

Michael Pollard
Centric Partners LLC / Seattle Land Use Company
2921 Eastlake Avenue East
Seattle, WA 98102
(michael@seattlelanduseco.com)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Property associated with a Site:

- Property Name: TD Auto Body & Repair
- Property Address: 1209 East Fir Street, Seattle, WA 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 the remedial investigation and proposed independent cleanup of a Property associated with 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 70.105D RCW.

Issues Presented and Opinion

Pursuant to completion of the work described in the April 2020 *Independent Remedial Action Plan*, April 2020 *Source Investigation Summary Report*, and 2nd Quarter 2020 *Groundwater Monitoring Report*, is additional work necessary to resolve data gaps?

YES. Ecology has determined that additional Site characterization work is necessary.

Description of the Property and the Site

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in King County, which were affected by the Site and will be addressed by the proposed cleanup:

- 8061000035
- 8061000025
- 8061000015
- 8061000005

Enclosure A includes a detailed description and diagrams that illustrate the location of the Property and the Site, as currently known to Ecology.

2. Description of the Site.

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

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

Those releases have affected more than one parcel of real property, including the parcels identified above.

Enclosure A includes a detailed description and diagrams that illustrate the location of the Property and the Site, as currently known to Ecology.

3. Identification of Other Sites that may affect the Property.

Please note that based on data submitted to Ecology, the King County Records & Elections Storage Building facility (Facility/Site ID No. 58730) may affect the Property. Limited information is available regarding the King County Records & Elections Storage Building facility since potential contamination from that facility has not yet been characterized.

Please note that the King County Records & Elections Storage Building facility was referred to as the “King County Archives Warehouse” in Ecology’s January 2020 VCP opinion letter, prior to its listing on the Confirmed and Suspected Contaminated Sites List (CSCSL). The King County Records & Elections Storage Building facility is located to the north and east of the Property and is on King County tax parcel number 8061000040.

This opinion does not apply to any contamination associated with the King County Records & Elections Storage Building 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 webpage (<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=2666>). The complete records are stored in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our Public Records Request page (<https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>) 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

Based on a review of the *2nd Quarter 2020 Groundwater Monitoring Report* and the *April 2020 Source Investigation Summary Report*, Ecology has the following comments:

1. Total arsenic was analyzed from 7 groundwater monitoring wells on the Property in December 2019, and both total and dissolved arsenic was analyzed from 8 monitoring wells in May 2020. Arsenic concentrations exceeded the MTCA Method A groundwater cleanup level of 5 micrograms per liter ($\mu\text{g/L}$) in 6 of the monitoring wells (total arsenic concentrations up to 16.5 $\mu\text{g/L}$ and dissolved arsenic concentrations up to 13.3 $\mu\text{g/L}$).

The extent of arsenic in groundwater has not yet been delineated.

However, the MTCA Method A groundwater cleanup level for arsenic is based on natural background concentrations statewide. You have the option of proposing a Site-specific natural background concentration.

2. If you choose to calculate a Site-specific natural background concentration for arsenic in groundwater, the methodology would need to be in accordance with WAC 173-340-709.

With this approach, Ecology recommends at least 11 groundwater sampling locations (preferably more) be included in the sampling set to obtain an adequate distribution. Samples should be representative of natural groundwater conditions at the Site (for example, similar sample depth, geology, and aquifer) and should not have been contaminated by releases from the Site or other sources.

You can collect samples upgradient of the Site, use publically available and applicable groundwater data, or a combination of the two. If you choose to use existing data (as opposed to collecting your own), please contact Ecology for an arsenic data set in Excel that may be used for this purpose.

After collecting or selecting applicable samples, a 90th percentile (or four times the 50th percentile) from MTCASat or a 90/90 UTL from ProUCL should be calculated. The resulting percentile may be proposed as a natural background concentration that groundwater at the Site can be compared to for compliance purposes (if the data and calculation method is acceptable to Ecology upon review).

Both total and dissolved arsenic fractions should be analyzed.

3. Figure 3 of the *2nd Quarter 2020 Groundwater Monitoring Report* contains multiple data entry errors for contaminant concentrations. The laboratory analytical reports should be compared to all report tables and figures to confirm accuracy.

Figure 2 of the *2nd Quarter 2020 Groundwater Monitoring Report* indicates that the groundwater elevation contours are inferred (that is, based on an interpretation of topographic contours). If the depicted groundwater flow direction is based on groundwater elevation measurements as opposed to inferred, it should be clarified on the figure.

Please provide a revised copy of the report to Ecology, and please include the original and revised dates on the report.

Based on a review of the April 2020 *Independent Remedial Action Plan*, Ecology has the following comments:

1. Engineered controls and institutional controls (including an environmental covenant) will be required to prevent the recontamination of the Property by the upgradient portion of the chlorinated solvent plume that is off-Property (suspected to be beneath the adjacent King County Records & Elections Storage Building facility on the Site). See *Guidelines for Property Cleanups Under the Voluntary Cleanup Program*, Ecology Publication No. 08-09-044, Revised July 2015.
2. Long-term confirmational monitoring will need to continue in order to ensure the Property isn't recontaminated, given contamination will remain upgradient of the Property. The monitoring results will be evaluated during each 5-year periodic review, which will continue for as long as engineered and institutional controls are required.

If the contamination was completely cleaned up throughout the Site, a request can be submitted to Ecology to eliminate or reduce the confirmational monitoring at the Property and to terminate the environmental covenant (if appropriate). This would involve re-enrolling in the VCP in order for Ecology to evaluate the completeness of the Site cleanup.

3. In addition to the proposed groundwater compliance monitoring plan for VOCs (Appendix C of the *Independent Remedial Action Plan*), TPH compliance monitoring should also be performed in the perched zone located downgradient of the TPH impacted areas.
4. In addition to the groundwater monitoring wells discussed in the proposed compliance monitoring plan, existing wells MW-12 and MW-15, and the proposed new well in the groundwater cleanup area, should also be included in the compliance monitoring plan. The installation of groundwater monitoring wells in the floor of the new building (in the groundwater cleanup area), and/or replacement of wells that are decommissioned due to construction of the new building, will likely be necessary in order to evaluate the groundwater plume and the effectiveness of the cleanup actions.

If post-cleanup monitoring results warrant a reduction in the number of wells or contaminants included in the long-term confirmational monitoring plan, a request can be submitted to Ecology for concurrence with the proposed reduction.

5. Two indoor air sampling locations were proposed for compliance monitoring in the new building (which has not yet been constructed) in order to evaluate the potential of vapor intrusion from the chlorinated solvent plume in the groundwater cleanup area.

Prior to performing indoor air sampling, Ecology recommends first using soil gas and

groundwater data (after the groundwater cleanup) to evaluate the potential of vapor intrusion into the new building. Groundwater monitoring wells and deep soil gas probes are recommended in the exterior area between the new building on the Property and the adjoining King County Records & Elections Storage Building.

More than two sampling locations will likely be necessary to evaluate the potential of vapor intrusion in the groundwater cleanup area (regardless of which media is sampled).

6. An option to consider is installing a venting system below the vapor barrier during building construction. The benefit is that if an indoor air issue is discovered post-construction, it could be mitigated by connecting a blower to vent soil gas.

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**:

- Change the boundaries of the Site.
- 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 70.105D.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 proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Property upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

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4. State is immune from liability.

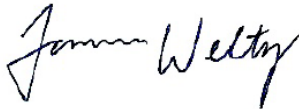
The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.180.

Contact Information

Thank you for choosing to clean up your Property 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 [VCP webpage](#)¹. If you have any questions about this opinion, please contact me by phone at 425-649-7023 or e-mail at tamara.welty@ecy.wa.gov.

Sincerely,



Tamara Welty, LG, LHG
NWRO Toxics Cleanup Program

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

cc: Daniel Whitman, Whitman Environmental Sciences, (whitenviro@yahoo.com)

¹ www.ecy.wa.gov/vcp

Enclosure A

Description and Diagrams of the Site (including the Property)

Site and Property 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 TD Auto Body & Repair facility is located at 1209 East Fir Street and 104, 110, and 124 12th Avenue (Property) (**Figure 1**). The Site includes the Property, which consists of four King County tax parcels: 8061000035, 8061000025, 8061000015, and 8061000005. The Property's total size is approximately 1.09 acres. The Site may also include the adjacent tax parcel 8061000040 (1215 East Fir Street) that is occupied by the King County Records & Elections Storage Building facility (Facility/Site ID No. 58730).

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. The King County Records & Elections Storage Building facility is located to the north and east of the Property. A former King County warehouse, currently owned by Seattle Housing Authority, is located further east. Bailey Gatzert Elementary School is located to the south across East Yesler Way.

Property History and Current Use: All of the buildings on the Property were previously used for commercial purposes but are currently vacant. They were most recently occupied by an auto repair shop, restaurant, and curtain manufacturer. The Property is planned for redevelopment as a six-story, mixed-use building with 2 floors of underground parking. The remedial action will be coordinated with the redevelopment.

Sources of Contamination: The hazardous substances released at the Site include petroleum hydrocarbons, chlorinated solvents, and metals (**Figure 3**). The media affected include soil, groundwater, and air (potentially via soil vapor migration). Multiple potential sources have been identified, including the following former activities: service station (including underground tanks), two auto repairs, dry cleaner, and potential dumping or impacted fill on the vegetated slope in the central area of the Property, and an unknown potential source beneath the King County Records & Elections Storage Building facility.

Physiographic Setting: The Property is located within the Puget Sound Lowland physiographic province, a north-south oriented topographic depression. The land surface in the Site area slopes towards the southeast. The surface elevation at the Property ranges from approximately 200 to 220 feet above mean sea level (amsl).

Surface/Storm Water: The Property and surrounding area is largely covered by asphalt and buildings. Surface runoff is collected by the City storm water system. The closest surface water body to the Property is Elliott Bay, which is located approximately 1 mile west of the Property.

Geology: Soil conditions consist of a layer of relatively unconsolidated fill containing organic material and debris, overlying brown to grayish clayey sand and gravel that is interpreted to be

glacial till or weathered till-derived sediments. The thickness of the fill appears to be greatest in the northwestern part of the Property, where depths of up to 20 feet have been encountered. The glacial till includes intermittent layers of sand and extends to the maximum depth explored of 49 feet bgs.

Groundwater: Groundwater was encountered in borings and monitoring wells at depths of 5 to 16 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 Site groundwater flow direction is consistently towards the southeast (**Figure 2**).

Water Supply: Drinking water for the area is provided by Seattle Public Utilities and is derived from the Cedar 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 Soil and Groundwater Contamination:

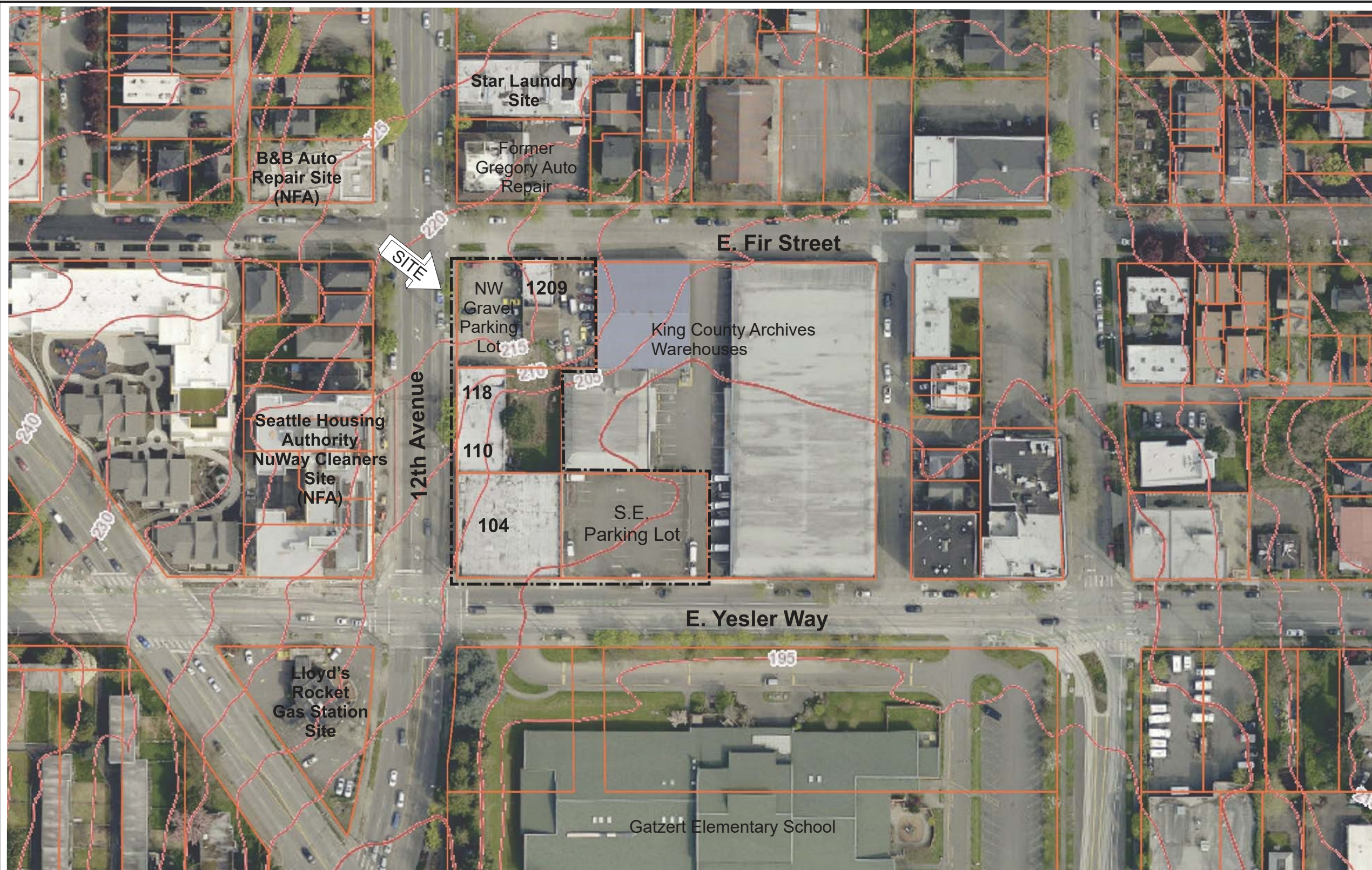
Petroleum-contaminated soil and groundwater has been encountered in the northwestern portion of the Property in the vicinity of a former service station. A limited remedial action was conducted in 1991 after petroleum-contaminated soil was discovered in the vicinity of the former gas station's underground tanks.

Petroleum-contaminated soil and groundwater has also been encountered intermittently in the southwestern portion of the Property in the vicinity of a former auto repair facility and floor sump.



Lead-contaminated soil has been encountered on the vegetated slope in the central portion of the Property. Reportedly, this is suspected to be associated with dumping from a second auto repair facility, formerly located in the northeastern corner of the Property.

The most extensive area of groundwater contaminated with chlorinated solvents (PCE, TCE, and vinyl chloride) was detected in the southeast portion of the Property. This contaminant plume is presumed to extend beneath the adjacent King County Records & Elections Storage Building facility. Potential sources of the plume investigated in 2020 include the former dry cleaner located on the Property or an unknown potential source beneath the King County Records & Elections Storage Building facility (**Figure 4**), but the exact source is still unknown. Chlorinated solvent contaminated groundwater (primarily vinyl chloride) has also been encountered in the vicinity of the former dry cleaner in the western portion of the Property and in the vicinity of the former auto repair facility in the southwestern portion of the Property.

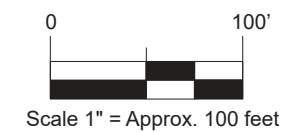
Arsenic-contaminated groundwater was encountered in the southeast and northwest areas of the Property in 2019 and 2020, but has not yet been adequately characterized. The lateral and vertical extent of arsenic should be delineated.



Legend

-  Approximate Property Line
-  Ground Surface Contours (Elevations Noted)

Base Photo from King County IMap



North



Figure 2 - Site and Vicinity Plan

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

Project No.	WES - 1591
Date	June 17, 2017
File ID.	1591F2

WHITMAN
Environmental Sciences

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 Well I.D. and Groundwater Elevation

--- Inferred Groundwater Elevation Contour

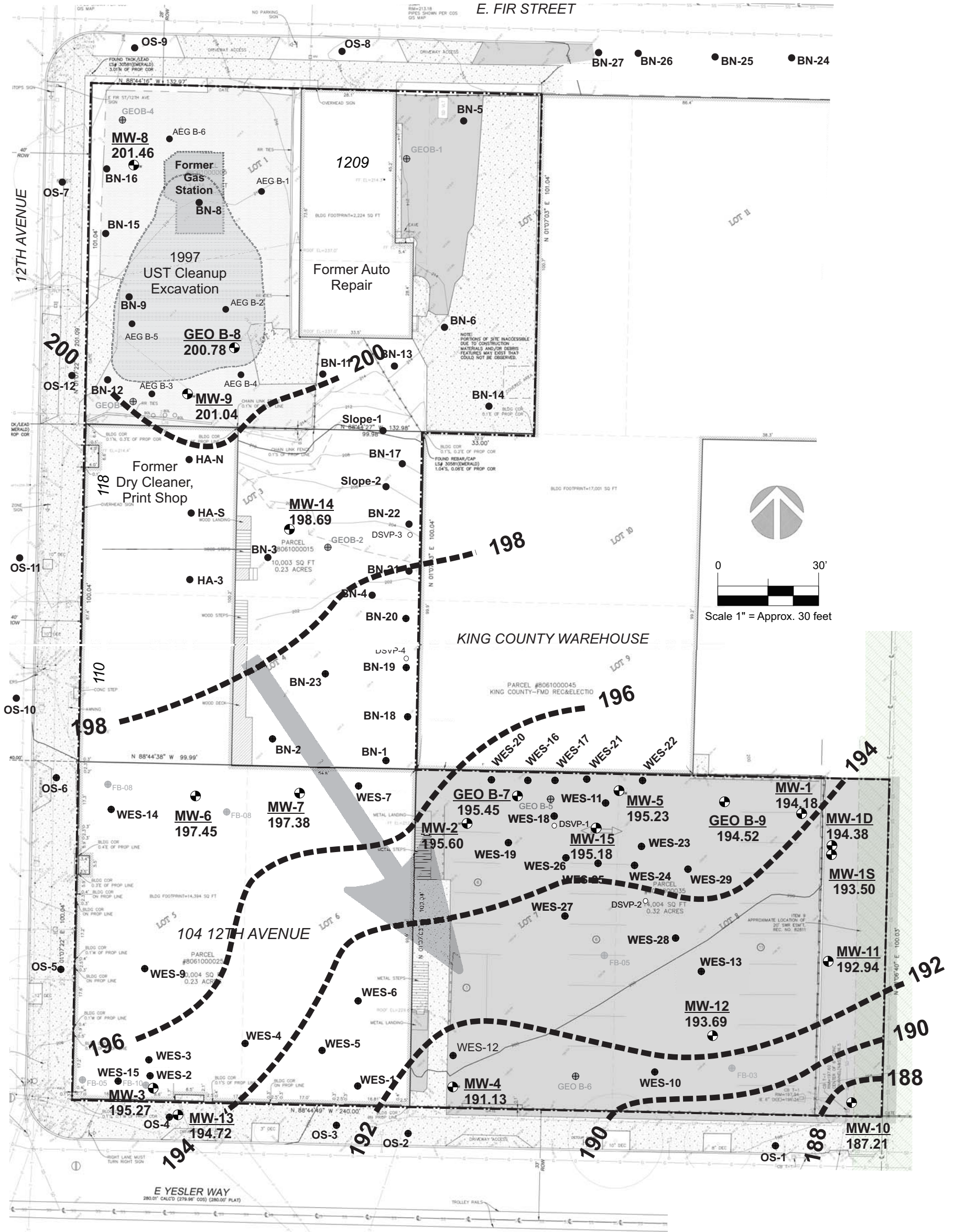
General Direction of Groundwater Migration

Figure 2 - Monitoring Well Location Plan and Inferred Groundwater Contours - 5/19/2020

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

Project No.	WES - 1591A
Date	Mar 20, 2020
File ID.	1591Q2F2

WHITMAN
Environmental Sciences



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)

- Estimated Areas of Petroleum Contaminated Soil Cleanup
- Estimated Area of Lead Contaminated Soil Cleanup
- Estimated Area of PCE and Lead Contaminated Soil Cleanup
- Estimated Area of VOC Plume in Groundwater

- - - Property Line
- Outline of Shored Excavation
Base Elevation ranging from 186.92 to 187.92'

Expected Maximum Depth XX'

Expected Maximum Depth of Contaminated Soil Based on Remedial Investigation Sampling

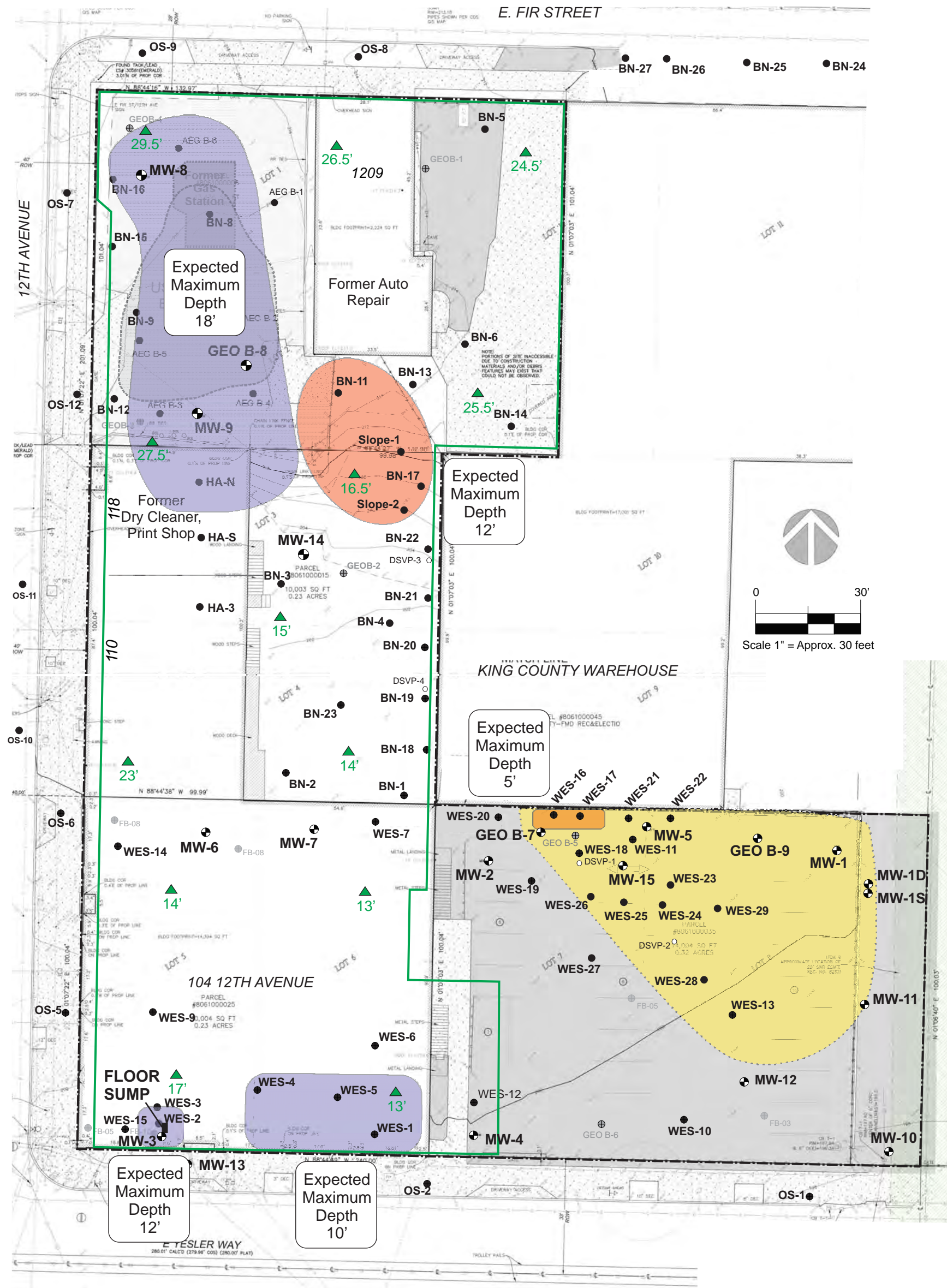
▲ XX' Approximate Depth of Excavation

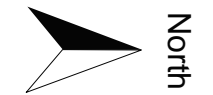
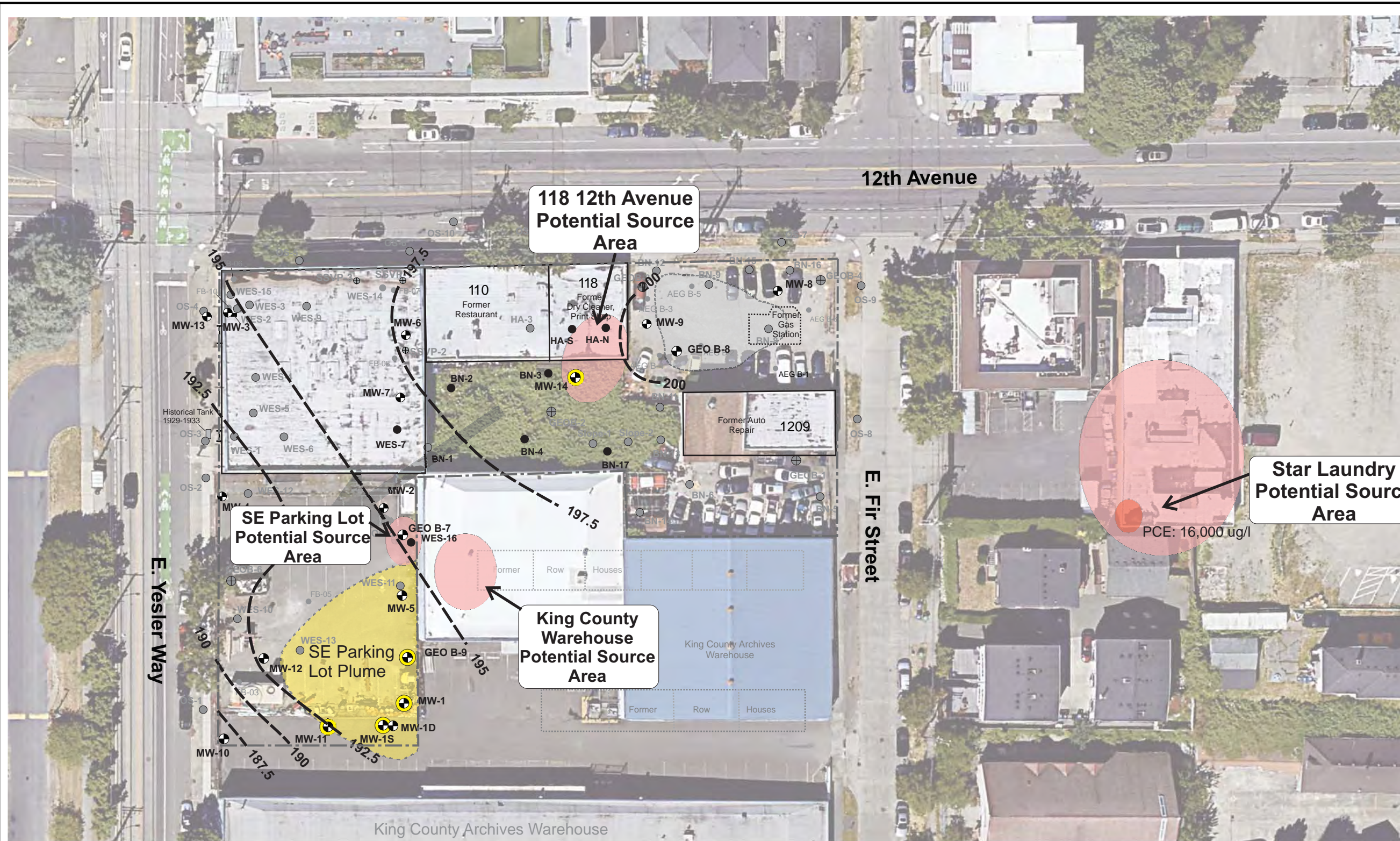
Figure 3 - Anticipated Cleanup Areas

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

Project No. WES - 1591A
Date Apr 5, 2020
File ID. 1591F3

WHITMAN
Environmental Sciences





Legend







-  Approximate Location of Monitoring Well
-  Inferred Groundwater Elevation Contour 12/4/2019
-  General Direction of Groundwater Migration
-  Approximate Location of Soil Borings (2014-19)
-  Approximate Property Boundary
-  Dec. 2019 Groundwater Sample Exceeding MTCA Method A CUL for Vinyl Chloride

Figure 2 - Potential Source Areas of SE Parking Lot Plume

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

Project No.	WES - 1591A	WHITMAN Environmental Sciences
Date	Feb 9, 2020	
File ID.	1591F2C	

Enclosure B

Basis for the Opinion: List of Documents

1. Whitman Environmental Sciences. 2nd Quarter 2020 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. June 15, 2020.
2. 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.
3. Whitman Environmental Sciences. Source Investigation Summary Report, SE Parking Lot Plume, 12th & Yesler Redevelopment Property, Seattle, Washington. April 6, 2020.
4. Department of Ecology. Opinion on Remedial Action, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194. January 9, 2020.
5. Whitman Environmental Sciences. Remedial Investigation Summary Report, Potential Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. October 26, 2019.
6. Department of Ecology. Opinion on Proposed Cleanup, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194. June 6, 2019.
7. Whitman Environmental Sciences. Independent Remedial Action Plan, Proposed Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. April 2, 2019.
8. 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).
9. 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.
10. Whitman Environmental Sciences. Additional Off-Site Environmental Site Investigation, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. September 6, 2017.
11. Whitman Environmental Sciences. Phase I & II Environmental Site Assessment, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. September 1, 2017.
12. Geotech Consultants, Inc. Transmittal Letter – Preliminary Geotechnical Engineering Study, Proposed Mixed-Use Building, 104, 110, and 124 – 12th Avenue, Seattle, Washington. August 2, 2017.
13. Amec Foster Wheeler Environment & Infrastructure, Inc. Phase II Environmental Site Assessment, 1215 East First Street, Seattle, Washington. July 2017.

14. 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.
15. Associated Environmental Group, LLC. Phase II Environmental Site Assessment, 12th Avenue Parking Lot, 110 & 124 12th Ave, Seattle, Washington. November 14, 2014.
16. RZA-AGRA (Rittenhouse-Zeman & Associates, Inc.) Engineering & Environmental Services. Level III Site Remediation Report, Sturves Addition, Lots 1 and 2, 12th Avenue and Fir Street, Seattle, Washington. November 6, 1991.