Post-Construction Environmental Management Plan

500 Fifth Avenue North Property
Seattle, Washington
VCP No. NW1493

for
IRIS Holdings, LLC

June 12, 2020

GeoEngineers
Earth Science + Technology

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File No. 12068-001-27

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1.0 INTRODUCTION

This Post-Construction Environmental Management Plan (EMP) presents the engineering and institutional controls established for the 500 Fifth Avenue North Property (Property) located in Seattle, Washington (Site/Facility Identification No. 2593). The Property consists of approximately 12 acres of land located between Mercer Street, Sixth Avenue North, Harrison Street and Fifth Avenue North in Seattle, Washington. IRIS Holdings, LLC (IRIS), an affiliated entity of the Bill & Melinda Gates Foundation purchased the Property from the Seattle Center in 2006 for redevelopment. Redevelopment of the Property was completed under the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP No. NW1493) to address previously identified soil and groundwater contamination at the Property during construction of a new parking facility (5th Avenue North Parking Garage) for the Seattle Center and a multi-building office campus with a visitor center for the Bill & Melinda Gates Foundation. The Property is shown relative to surrounding physical features on Figure 1. The Property layout is shown on Figure 2.

Soil remediation efforts during Property redevelopment (i.e., 5th Avenue North Parking Garage, Phase 1 Campus and Phase 2A Campus construction excavation activities) and groundwater remediation efforts (i.e., Phase I and II Groundwater Treatment Systems) have resulted in a significant reduction of the overall soil and groundwater contamination. However, residual contamination remains in-place following Property redevelopment at concentrations greater than the Model Toxics Control Act (MTCA) cleanup levels. In accordance with the Ecology-approved Property-Wide Cleanup Action Plan[1] (CAP; GeoEngineers, 2012) and the MTCA cleanup regulation (i.e., Chapter 173-340 of the Washington Administrative Code [WAC]), the EMP has been prepared to:

- Identify areas with residual soil and groundwater contamination based on the results of previous environmental investigations and construction observations;
- Identify treatment system components currently in-place at the Property to remediate groundwater contamination;
- Identify the location and types of engineering controls that have been established at the Property to isolate residual soil contamination;
- Provide guidance on the proper handling and disposal of soil and groundwater generated during future Property development, maintenance, utility work and/or soil disturbance activities; and
- Provide guidance on the Ecology notification procedures required by the environmental covenant for the Property prior to any ground disturbance activities that may expose contaminated soil and/or groundwater including requirements for documentation of these activities and of the restoration of engineering controls utilized to isolate the residual contamination at the Property.

[1]Separate Cleanup Action Plans (CAPs) were prepared for the 5th Avenue North Parking Garage (GeoEngineers 2006) and Phase 1 Campus (GeoEngineers 2008) redevelopment projects. These plans were provided to Ecology and include documentation of the historical operations and land use, subsurface conditions as well as an evaluation of cleanup alternatives considered, and the cleanup actions proposed (and implemented) for the 5th Avenue North Parking Garage and Phase 1 Campus redevelopment projects. At the request of Ecology, a Property-Wide CAP was prepared to serve as the CAP for the entire Property, which includes the 5th Avenue North Parking Garage and Phase 1 Campus project areas as well as the Phase 2 Campus project area.

1.1. Owner and Contractor Responsibilities

1.1.1. Owner and/or Authorized Agents

- **Monitoring and Maintenance** – Owner and/or autherized agents will complete monitoring and maintainence of the site controls established for the Property (see Section 3.0). Monitoring and maintenance of site controls will consist of at least one annual reconnaissance visit and performance of corrective actions, as necessary, to address conditions that may compromise the integrity of the engineering controls in place to isolate residual contamination at the Property considering the following:
    - Background information including historical operations, investigation activities and cleanup actions completed during Property development discussed in Section 2.0.
    - Engineering controls discussed in Section 3.0.
    - Monitoring and maintenance requirements discussed in Section 4.0.
- **Documentation and Record Keeping** – Owner and/or autherized agents will document the results of each annual monitoring event. Monitoring reports must be retained by IRIS or their authorized agents and made available for regulatory agency review upon request.
- **Notice of Site Work** – Owner and/or autherized agents will provide notice and request approval from Ecology at least **30 days** prior to any planned ground disturbance activity that may result in the exposure of residual contamination at the Property. See Section 4.0 for notification requirments.
- **Communicate –** Owner and/or autherized agents will provide a copy of this Post-Construction Environmental Management Plan for Contractor review prior to any ground disturbance activity. Owner and/or autherized agents will also provide copies of other available environmental and/or geotechnical reports prepared for the Property to the Contractor upon request.
- **Regulatory Reporting –** Owner and/or autherized agents will prepare a written report documenting details of the ground disturbance activity and activites completed to restore the affected engineering control(s).

1.1.2. Contractor

- **Report Review –** The Contractor shall review this document to understand the following:
    - Areas in which known or suspected residual contaminated soil and groundwater remains in-place at the Property.
    - Engineering controls established to isolate residual contamination at the Property.
    - Procedures for the proper handling, reuse and disposal of materials generated from the Property.

  Soil generated during any construction, maintenance, utility work and/or excavation activities must be considered contaminated until characterized for disposal or on-property reuse as required by the MTCA cleanup regulation, Washington State Dangerous Waste regulations and/or the requirements of the selected disposal facility.
- **Communicate –** The Contractor shall communicate with IRIS and/or their authorized agents to verify and document that they have reviewed and understand procedures and protocols presented in this plan prior to the start of construction. In addition, the Contractor shall communicate with subcontracted workers informing them of the Property conditions, known or suspected contamination present, and procedures and protocols for working at the Property.

- **Health and Safety –** The Contractor (and their subcontractors) must prepare a site Health and Safety Plan (HASP) for use by personnel working in areas of known and/or suspected contamination. Personnel working in areas of known or suspected contaminated soil and/or groundwater shall comply with provisions of WAC 173-340-810 (MTCA Cleanup Regulation, Worker Safety and Health).
    - WAC 173-340-810 states that requirements under OSHA and WISHA are applicable to the type of remedial activities that will be conducted at this property (excavation and handling of contaminated soil).
    - Personnel working in areas of known or suspected contaminated soil and/or groundwater shall be in compliance with Hazardous Waste Operations and Emergency Response (HAZWOPER) Training in accordance with WAC 296-62.
    - The HASP should include precautionary health and safety measures to address potential exposure to chemical vapors present in the subsurface at the Property.
- **Site Meetings –** Attend site meetings as necessary to discuss the planned excavation locations/depths relative to the location/depths of the Contaminated Fill Site, Gasoline UST Contamination Site, Gasoline Contamination Site and/or Stoddard Solvent Contamination Site.
- **Waste Disposal Acceptance –** The Contractor shall receive waste disposal acceptance for Owner approved disposal facilities prior to the start of work including clean soil and/or contaminated soil receiving facilities.
- **Contaminated Soil Excavation and Transport –** Excavate, handle and transport contaminated soil to an appropriate Owner approved soil disposal facility. The Contactor will record soil disposal trucking activity for contaminated soil. Trucking records should include trucking company, truck number, solo or truck and trailer loaded, driver name and name of disposal facility soil was brought. The contractor will also provide documentation of delivery of all contaminated materials to the selected disposal facility.
- **Clean Soil Excavation and Transport –** Excavate, handle and transport the clean native soil (as identified by the Consultant in the field and based on previously adopted management procedures) to an Owner approved clean soil receiving facility. The Contactor will record clean soil export trucking activity. Trucking records should include trucking company, truck number, solo or truck and trailer loaded, driver name and name of clean soil receiving site soil was brought. Soil generally will be transported to the clean soil receiving site without stockpiling or performing additional chemical testing (dig and haul approach).
- **Temporary Stockpiling –** The Contractor should be prepared to accommodate a temporary soil stockpile at the Property, if necessary. Stockpiles should be placed on and covered by durable plastic sheeting and bermed to control runoff, or in roll-off or other covered and labeled containers. Access to the temporarily stockpiled/secured soil will be restricted by a properly labeled fence or other barrier pending chemical analysis and a decision on its disposition.
- **Wastewater Discharge Permits –** The Contractor will obtain necessary permits for disposal of recovered wastewater generated during construction. Depending on the location and amount of wastewater requiring disposal, and logistical and/or construction schedule considerations, the Contractor may choose to pump and temporarily store the water in one or more temporary storage tanks prior to chemical analytical testing. If the wastewater does not meet permitted discharge criteria, the Contractor will arrange for the wastewater to be treated in tanks and allow for re-sampling prior to discharge or have wastewater removed and disposed of at a permitted disposal facility.

- **Equipment Decontamination –** Decontaminate equipment after excavation and provide associated excavation equipment decontamination facilities as necessary. Equipment decontamination shall consist of removing (by brushing or shaking) residual soil from excavation equipment which exhibits odors, staining or sheen. If free product (i.e., diesel, oil, gasoline, etc.) is encountered during excavation, equipment decontamination shall include power washing. The associated decontamination fluids shall be contained by the contractor and tested as necessary prior to disposal to the combined sewer or off-site treatment/disposal facility. Truck tires shall be cleaned prior to leaving the site to minimize tracking of contaminated soil outside of the excavation area. Off-property decontamination of trucks leaving the Property and disposal facilities are the responsibility of the contractor. Cover soil being transported to the disposal facilities if there is a potential for residual soil to be blown from the trucks during transport.
- **BMPs –** Use best management to minimize the potential for cross-contamination of contaminated and clean soil during excavation, handling, stockpiling, loading and transporting. At a minimum, these practices shall include minimizing tracking of soil between contaminated and clean soil areas by workers and equipment and minimizing contact between excavated contaminated soil and clean soil. Plastic sheeting shall be used to provide a contact/visual barrier beneath load-out piles when there is potential for cross-contamination between the piles and underlying soil. If contaminated soil comes into contact with clean underlying soil, the contractor shall over-excavate these areas in coordination with the owner and/or their authorized agent and, dispose of the soil at the permitted disposal facility.
- **Equipment Leaks and Spills –** Use BMPs to prevent and contain leaks and spills of hazardous substances from construction equipment during operation and fueling.
- **Previously Unidentified Contamination** – The Contractor must immediately report to the owner and/or authorized agents any previously undocumented contaminant sources, such as drums, USTs or batteries, when encountered during excavation. In the event that previously undocumented contamination is encountered, the Contractor shall temporarily suspend excavation until the owner and/or authorized agents have had time to evaluate the condition and make recommendations for continued site work.
- **Chemical Vapor Barrier Damage –** Immediately report to the owner and/or authorized agents, any damage to the chemical vapor barrier (Liquid Boot®).
- **Cap Restoration –** Protective soil caps (detailed in Section 3.3) affected by future construction, maintenance, utility work and/or excavation activities shall be restored/finished to their original condition.

2.0 BACKGROUND INFORMATION

2.1. Historical Operations and Property Uses

Historical records indicate that the Property has been owned/occupied by multiple residential, commercial, and industrial facilities since the late 1890s/early 1900s. In the northern portion of the Property, the land was occupied by a baseball stadium prior to being acquired by the City of Seattle (City) for the operation of a streetcar and later bus maintenance and fueling facility (Former Bus Barn, which was the source of the Gasoline Contaminated Site discussed later). In the southern and eastern portions of the Property, residential, commercial and light industrial facilities were in operation since the early 1900s.

In the early 1960s, the southern portion of the Property was acquired by the City and a parking lot constructed using imported backfill material from undocumented location(s). In the early 1990s, the northern portion of the Property was filled, and a surface parking lot constructed (referred to as the Seattle Center Lot No. 2). Fill material used in the northern portion of the Property was reportedly imported from the Pacific Place Site, located in downtown Seattle. The Seattle Supersonics basketball training facility, which occupied the east portion of the Property, was constructed in the 1990s and demolished in 2010 in preparation for the surface street improvements to Mercer Street and Sixth Avenue.

2.2. Previous Investigation Findings

Multiple environmental studies have been completed to evaluate subsurface conditions at the Property. Environmental studies completed prior to 2004 are summarized in Shannon & Wilson's Site Remediation and Current Conditions Report (Shannon & Wilson 2004). Environmental studies completed after 2004 are summarized in the 500 Fifth Avenue North Property Feasibility Study (GeoEngineers and Shannon & Wilson 2011). Soil and groundwater samples obtained during these studies were submitted for one or more of the following:

- Hydrocarbon identification using Ecology Method NWTPH-HCID;
- Gasoline-range petroleum hydrocarbons using Ecology Method NWTPH-G/BETX;
- Diesel-range petroleum hydrocarbons using Ecology Method NWTPH-Dx;
- Total petroleum hydrocarbons using United States Environmental Protection Agency (EPA) Method 418.1
- Volatile Organic Compounds (VOCs) using EPA Method 8021 or 8260;
- Semi-Volatile Organic Compounds (SVOCs) using EPA Method 8270/SIM;
- Halogenated Volatile Organic Compounds (HVOCs) using EPA Method 8260;
- Polychlorinated Biphenyls (PCBs) using EPA Method 8082;
- Selected metals using EPA Method 6000/7000 series; and/or,
- Selected metals using the toxicity characteristic leaching procedure (TCLP; EPA Method 6020/1311).

Subsurface conditions based on the results of these previous environmental studies are summarized in the following sections (Sections 2.2.1 through 2.2.3).

2.2.1. Fill Soil Conditions

The fill soil at the Property is characterized by loose to very dense sand with variable silt and gravel content and medium stiff to very stiff silt. The fill layer is thinnest (about 5 feet) in the southeast corner of the Property and increases in thickness to the north. Scattered debris consisting of metal, concrete, asphalt and brick are contained in the fill soil. In addition, randomly distributed contaminants at concentrations exceeding MTCA Method A cleanup levels including diesel- and heavy oil-range petroleum hydrocarbons, naphthalenes, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and metals (arsenic and lead) have been identified in the fill soil.

2.2.2. Native Soil Conditions

Native soil at the Property is characterized by lacustrine (or lake) deposits consisting of very soft to hard silt and clay with occasional interbedded sand and gravel underlain by glacially consolidated soils predominantly consisting of dense to very dense sand and gravel with variable silt content and occasional interbeds of stiff to hard silt and clay. An organic layer (peat) ranging between 1 and 3 feet thick separates the glacially consolidated soils and lacustrine deposits in the northern portion of the Property. Releases from underground storage tanks (USTs) associated with former Bus Barn fueling and maintenance operations has resulted in petroleum-related soil contamination (primarily gasoline-range petroleum hydrocarbons including benzene) in the northern portion of the Property. In the southwestern portion of the Property, Stoddard solvent-related contamination associated releases from UST from an off-property Site (Basil Lee Property; Site/Facility Identification No. 79418734) located south of Harrison Street have resulted in native soil contamination.

2.2.3. Groundwater Conditions

Perched groundwater is present at depths ranging between approximately 10 and 20 feet below the ground surface (bgs) in portions of the Property. In addition, a deeper aquifer is present within the undifferentiated interglacial or glacial deposits at depths ranging from 30 to approximately 87 feet bgs. Groundwater from the deep aquifer appears to be influenced by a 72-inch brick sewer that bisects the southern portion of the Property (see Figure 2) resulting is a local depression in the water table. Regionally, groundwater flows from Queen Anne Hill (located north of the Property) and discharges to Lake Union (located northeast of the Property.

Previous environmental study results have identified concentrations of dissolved arsenic exceeding MTCA Method A cleanup levels in the deep aquifer at the Property. However, study results indicate that there is not a distinct arsenic contamination plume in the vicinity of the Property and that the occurrences of arsenic in the deeper aquifer appear to be randomly distributed and not widespread. In addition, gasoline and benzene associated with UST releases from former Bus Barn fueling and maintenance operations are present at concentrations exceeding MTCA Method A cleanup levels in the deeper aquifer in the northern and central portions of the Property.

2.2.4. Vapor Conditions

The potential for petroleum hydrocarbon-related chemical vapor intrusion for the 5th Avenue North Parking Garage, Phase 1 Campus (North and South Buildings) and Phase 2 Campus areas was evaluated using the Johnson and Ettinger (J&E) vapor intrusion model (Version 3.1, February 2004). The results of the modeling predicted that volatile gasoline-related soil vapors could migrate into portions of the Phase 1 and Phase 2 Campus structures at concentrations of regulatory significance (i.e., above MTCA Method B Air Cleanup Levels – WAC 173-340-750(3)).

2.2.5. Contamination Sites Requiring Cleanup

Based on the previous environmental study findings, three “sites” requiring cleanup during redevelopment of the Property were identified. The term “site” refers to the areal extent of media (soil, groundwater and soil vapor) impacted by a specific hazardous substance source and not to a designated real property or area. Contamination sites identified prior to Property redevelopment included:

- **Contaminated Fill Site** – The Contaminated Fill Site is characterized by randomly distributed contaminants including metals, cPAHs and petroleum hydrocarbons in soil above the fill/native soil contact layer resulting from the historic placement of backfill material to re-grade the Property for the construction of the Seattle Center Parking Lot No. 2.
- **Gasoline Contamination Site** – The Gasoline Contamination Site is characterized by contaminants including gasoline, diesel, and heavy oil-range petroleum hydrocarbons and volatile organic compounds (VOCs) in native soil, groundwater and/or soil vapor in the northern and central portions of the Property resulting from releases during historical bus barn maintenance and fueling operations.
- **Stoddard Solvent Contamination Site** – The Stoddard Solvent Contamination Site is characterized by gasoline-related compounds in native soil and/or soil vapor in the southwestern portion of the Property resulting from off-property releases that migrated onto the Property during dye works/dry cleaning operation at the former Basil Lee Property (Site/Facility Identification No. 79418734).

No specific commercial or industrial contaminant source was identified for the arsenic detected in groundwater samples obtained from the deeper aquifer at the Property. The arsenic in groundwater may be the result of localized areas of fill with arsenic concentrations exceeding the MTCA Method A cleanup level contributing the arsenic to groundwater through soil to groundwater partitioning. However, the previous study results indicate that the arsenic concentrations detected in the deep aquifer are more likely related to the mobilization of naturally occurring arsenic in soil under reducing conditions and/or the result of sampling anomalies.

2.3. Cleanup Actions During Property Redevelopment

Property redevelopment began in January 2007 with the construction of the 5th Avenue North Parking Garage which occupies an approximately one city block area located in the southwest corner of the Property. The first phase of campus construction (Phase 1 Campus, consisting of the North and South Buildings) was completed in 2011. In addition, construction activities in the eastern portion of the Property were completed in 2012 to facilitate road surface improvements associated with the State Route 99/Alaskan Way Tunnel Project (Phase 2A) and Mercer Street Widening Project.

During development activities for the 5th Avenue North Parking Garage, Phase 1 Campus and Phase 2A Campus, portions of the Contaminated Fill Site, Gasoline Contamination, Stoddard Solvent Contamination Site as well as eight additional contamination sites discovered during construction were managed during Property redevelopment. Soil with detected contaminant concentrations exceeding Natural Background (Washington State background soil metal concentrations for arsenic, cadmium and lead [Ecology 1994] and site-specific concentrations for chromium and mercury) including native soil with residual metals, PAHs, volatile organic compounds (VOCs) and petroleum hydrocarbons, and all of the fill soil within the 5th Avenue North Parking Garage, Phase 1 Campus and Phase 2A Campus construction excavation footprints (approximately 418,700 cubic yards) were transported from the Property for permitted landfill disposal. The remaining volume of soil, excavated for construction purposes where contaminants either were not detected or detected at concentrations less than Natural Background (approximately 113,000 cubic yards), either was transported from the Property for unrestricted land use or was reused at the Property for backfill.

As a result of the redevelopment activities, a significant portion of the identified soil and/or groundwater contamination was removed and transported from the Property for permitted disposal. However, residual

contamination associated with historical operations and land use remain in-place at the Property. Residual contamination at the Property is currently isolated by protective barriers to restrict direct human contact. These protective barriers consist of:

- The subgrade building foundations and floor slabs;
- Concrete and asphalt roads/sidewalks;
- Imported topsoil overlying a visual marker (orange construction netting, geotextile or similar) within the landscaped areas adjacent to the North and South Campus Buildings;
- Imported topsoil and vegetation covering the sloped area east of the North Building (Phase 2 Campus Area); and,
- A chemical vapor barrier (Liquid Boot®) applied to all subgrade surfaces (building walls and floors) of the Phase 1 Campus (beneath, and around, the North and South Campus Buildings and adjoining underground parking garage) and portions of the 5th Avenue North Parking garage to restrict the migration of gasoline vapors into the occupied building spaces.

Cleanup Actions completed during Property redevelopment are documented in the Property-Wide Cleanup Action Report (GeoEngineers 2017). The approximate locations of the Contaminated Fill Site, Gasoline Contamination Site, Stoddard Solvent Contamination Site and the Gasoline UST Contamination Site No. 1 based on the results of previous environmental studies and confirmation samples obtained during cleanup actions completed during Property redevelopment are shown on Figures 3 and 4. Soil and groundwater sample results representing current conditions area summarized in Tables 1 and 2.

3.0 CURRENT PROPERTY CONDITIONS

3.1. Soil Conditions

During each phase of Property redevelopment, all accessible contaminated soil within the limits of the construction footprint were excavated and removed from the Property for permitted landfill disposal. Based on field screening results and visual observation during construction and the chemical analytical results of soil samples, there are four sites (as defined by MTCA) where hazardous substances still remain in-place within or adjacent to the Property; these sites are summarized in the following sections.

3.1.1. Contaminated Fill Site

Residual contamination in accessible portions of the Contaminated Fill Site was removed from the Property during redevelopment for the 5th Avenue North Parking Garage, Phase 1 Campus and Phase 2A Campus. However, soil with randomly distributed residual contamination remains in-place beyond the limits of these construction areas. This soil is present above the fill/native soil contact to depths ranging between approximately 5 and 20 feet bgs. The contaminants of concern exceeding MTCA Cleanup Levels contained within the Contaminated Fill Site and the range of detected concentrations are summarized in the table below[2]. The location of soil samples obtained within the Contaminated Fill Site beyond the limits of

[2] Please note that other contaminants may be contained within the Contaminated Fill Site in areas not previously characterized at concentrations exceeding MTCA Cleanup Levels.

construction are shown in plan view on Figure 3 and in cross-section on Figures 5 through 7. Chemical analytical results for the fill soil samples are summarized in Table 1. The location of the Contaminated Fill Site is generally depicted by the yellow shaded area shown on Diagram 1 below.

CONTAMINANTS OF CONCERN

Contaminant of Concern	Range of Detections (mg/kg)	MTCA Cleanup Level (mg/kg)
Diesel-Range Hydrocarbons	130 to 30,000	2,000
Heavy Oil-Range Hydrocarbons	63 to 31,000	2,000
Naphthalenes	0.75 to 22.7	5
Total cPAH TEQ	0.02 to 1.0	0.1
Arsenic	2.2 to 23	20
Lead	3.4 to 1,000	250

Note:
mg/kg = milligrams per kilogram



Diagram 1: The approximate extent of the Contaminated Fill Site (yellow shaded area) remaining in-place at the Property. See Figure 2 for additional explanation.

The Contaminated Fill Site is currently being isolated by the Phase 1 Campus and 5th Avenue North Parking Garage structures, paved roads, concrete sidewalks, imported topsoil overlying a visual marker (orange construction fencing, geotextile fabric or similar) in landscaped areas adjacent to the North and South Campus Buildings, and imported topsoil and vegetation covering the sloped area in the eastern portion of the Property. Engineering controls utilized to isolate residual contamination at the Property are further described in Section 3.3.

3.1.2. Gasoline Contamination Site

Gasoline-related contaminated soil associated with releases from the former bus maintenance and fueling facility (the Former Bus Barn Area) remains in-place in the northern portion of the Property beneath the North Campus Building (Building A) and beneath the Phase 1 Campus underground parking garage below the fill/native soil contact at depths ranging between approximately 15 and 60 feet bgs. The contaminants of concern at concentrations greater than the MTCA Cleanup Levels in the soil contained within the Gasoline Contamination Site and the range of detected concentrations are summarized in the table below. The locations of the soil samples obtained within the Gasoline Contamination Site beyond the limits of construction are shown in plan view on Figure 4 and in cross-section on Figures 5 through 7. Chemical analytical results for the native soil samples are summarized in Table 1. The general location of the Gasoline Contamination Site is depicted by the red shaded areas shown on Diagram 2 below.

CONTAMINANTS OF CONCERN

Contaminant of Concern	Range of Detections (mg/kg)	MTCA Cleanup Level (mg/kg)
Gasoline-Range Hydrocarbons	140 to 2,800	30
Diesel-Range Hydrocarbons	25 to 2,800	2,000
Heavy Oil-Range Hydrocarbons	170 to 6,400	2,000
Benzene	0.024 to 2.3	0.03
Ethylbenzene	0.0056 to 13	7
Toluene	0.078 to 18	6
Xylenes	0.0319 to 64	9

Note:
mg/kg = milligrams per kilogram

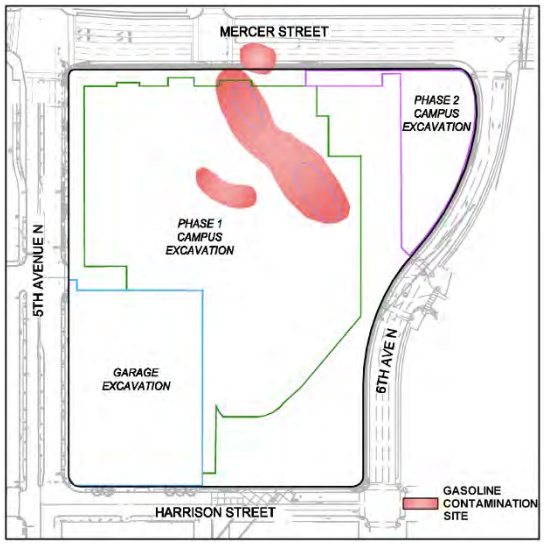


Diagram 2: The approximate extent of the Gasoline Contamination Site (soil - red shaded areas and groundwater - purple dashed line) remaining in-place at the Property. See Figure 4 for additional explanation.

The soil portion of the Gasoline Contamination Site is isolated by the Phase 1 Campus structure, paved roads and sidewalks and imported topsoil overlying a visual marker (orange construction fencing, geotextile fabric or similar) in the landscaped areas north of the North Campus Building (Building A). Groundwater contamination associated with the Gasoline Contamination Site is being addressed by the Seattle Center through monitored natural attenuation following the treatment and removal of the mobile fraction of gasoline contamination in groundwater. The potential for migration of gasoline vapors into the Phase 1 Campus structure is being managed by two components beneath and around the buildings: 1) a chemical vapor barrier encapsulating the below ground portions of the campus buildings and parking garage; and 2) drainage features installed during construction that provide passive ventilation of contaminant vapors to the atmosphere. Engineering controls utilized to isolate the residual contamination at the Property is further described in Section 3.3.

3.1.3. Gasoline UST Contamination Site No. 1

Gasoline-related contaminated soil associated with releases from fueling facilities related to the former dairy remains in-place in the southern portion of the Property beyond the 5th Avenue North Parking Garage and Phase 1 Campus construction footprints. At this location, residual gasoline-related contaminated soil remains in native soil at depths between approximately 10 feet and 25 feet bgs. The contaminants of concern at concentrations greater than the MTCA Cleanup Levels in soil within the Gasoline UST Contamination Site No. 1 and the range of detected concentrations are summarize in the table below. The locations of the soil samples obtained within the Gasoline Contamination Site beyond the limits of construction are shown in plan view on Figure 4 and in cross-section on Figure 8. Chemical analytical results for the native soil samples are summarized in Table 1. The general location of the Gasoline Contamination Site is depicted by the green shaded areas shown on Diagram 3 below.

CONTAMINANTS OF CONCERN

Contaminant of Concern	Range of Detections (mg/kg)	MTCA Cleanup Level (mg/kg)
Gasoline-Range Hydrocarbons	4.6 to 1,100	30
Benzene	0.03 to 13	0.03
Ethylbenzene	0.05 to 82	7
Toluene	0.05 to 27	6
Xylenes	0.2 to 110	9

Note:
mg/kg = milligrams per kilogram

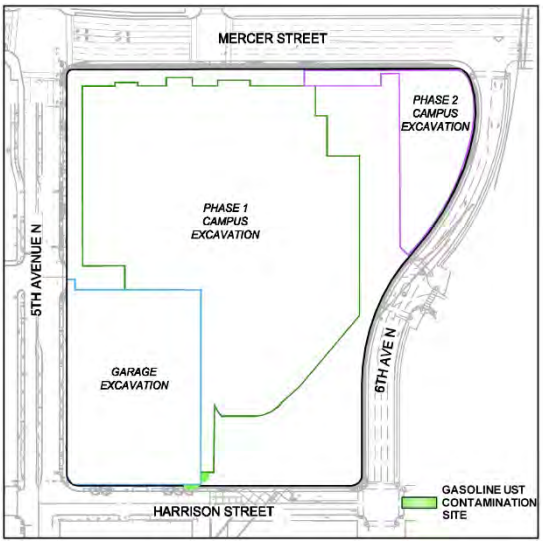


Diagram 3: The approximate extent of the Gasoline UST Contamination Site No. 1 (green shaded area) at the Property. See Figure 4 for additional explanation.

The Gasoline UST Contamination Site No. 1 is isolated by the Phase 1 Campus and 5th Avenue North Parking Garage structures, and paved roads and sidewalks. The potential for migration of gasoline vapors into Phase 1 Campus and 5th Avenue North Parking Garage structures is being managed by two components beneath and around the buildings: 1) a chemical vapor barrier on the subsurface foundation walls of the Taylor Ramp Tunnel and on the subsurface walls of the parking garage; and 2) drainage features installed during construction which provide passive ventilation of contaminant vapors to the atmosphere. Engineering controls utilized to isolate the residual contamination at the Property is further described in Section 3.3.

3.1.4. Stoddard Solvent Contamination Site

Stoddard solvent-contaminated soil associated with off-Property releases from USTs (now decommissioned) related to the former dye works/cleaning facility (Basil Lee Property; Site/Facility Identification No. 794187 34) remains in-place at the Property boundary south of the 5th Avenue North Parking Garage construction footprint at depths between 15 feet and 25 feet bgs. The contaminants of concern at concentrations greater than the MTCA Cleanup Levels in soil within the Stoddard Solvent Contamination Site and the range of detected concentrations are summarize in the table below. The locations of soil samples obtained within the Gasoline Contamination Site beyond the limits of construction are shown in plan view on Figure 4 and in cross-section on Figure 8. Chemical analytical results for the native soil samples are summarized in Table 1. The general location of the Gasoline Contamination Site is depicted by the orange shaded area shown on Diagram 4 below.

Contaminated soil is isolated by the paved roads and concrete sidewalks located within the City right-of-way. The potential for migration of contaminant vapors into the 5th Avenue North Parking Garage structure is being managed by two components: 1) a chemical vapor barrier on the subsurface foundation walls of the parking garage; and 2) drainage features installed during construction which provide passive ventilation of contaminate vapors to the atmosphere. Engineering controls utilized to isolate residual contamination at the Property is further described in Section 3.3.

CONTAMINANTS OF CONCERN

Contaminant of Concern	Range of Detections (mg/kg)	MTCA Cleanup Level (mg/kg)
Gasoline-Range Hydrocarbons	22 to 2,500	30

Note:
mg/kg = milligrams per kilogram

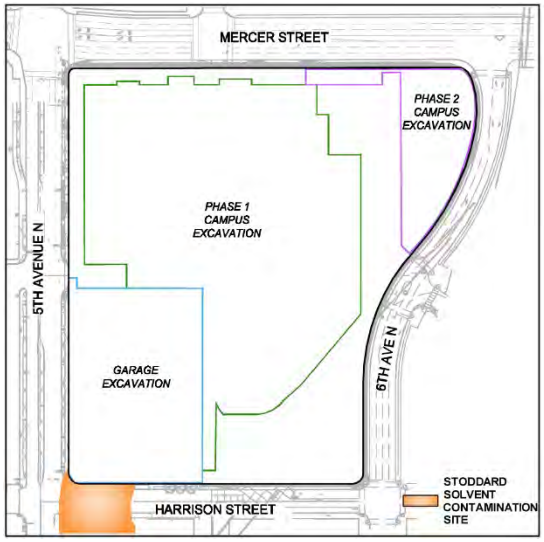


Diagram 4: The approximate extent of the Stoddard Solvent Contamination Site (orange shaded area) at the Property. See Figure 4 for additional explanation.

The Stoddard Solvent Contamination Site should not present any long-term maintenance issues unless the vapor barrier is compromised during work on the garage wall or work within the right of way where contaminated soil could be encountered.

3.2. Groundwater Conditions

In-situ groundwater treatment has been conducted by the Seattle Center to prevent the off-property migration of gasoline-related contaminants associated with the Gasoline Contamination Site and to reduce the overall contaminant mass for this Site. Specific details of the Seattle Center's groundwater treatment and monitoring activities related to the Gasoline Contamination Site (from historic City of Seattle bus barn operations) are described in Shannon & Wilson's Post-Construction Groundwater Monitoring Plan presented in Appendix A. Components of the groundwater treatment system and the associated monitoring wells are shown on Figure 9. Chemical analytical results for the groundwater samples are summarized in Table 2.

In accordance with this plan, components of the groundwater treatment system will be decommissioned following four rounds of biannual rebound monitoring results that show the groundwater contaminant plume is stable and/or shrinking in size. After this initial milestone is reached, performance monitoring will occur on an annual basis for an additional five years followed by which four quarters of closure monitoring will occur. If the performance monitoring and closure monitoring results indicate that the cleanup standards are met in samples from both the performance and compliance wells, then groundwater monitoring of the Gasoline Contamination Site will be considered complete and the monitoring wells will be decommissioned with concurrence from Ecology.

Between May 21 and May 23, 2018, the above-ground portions of the groundwater treatment system were decommissioned and removed from the Property. In addition, collected wastewater and spent treatment media (i.e., granular activated carbon [GAC]) was removed from the Property for permitted landfill disposal. In preparation for potential future redevelopment of the Phase 2 Campus area, piping associated with the groundwater treatment system from northeast of Building A to the former above-ground treatment system

compound was also removed. Currently, a small vault housing the remaining treatment system piping is located adjacent to the maintenance stairwell east of the Mercer Street parking garage entry/exit (Figure 9).

3.3. Engineering Controls

Engineering controls have been installed at the Property to address residual soil contamination associated with the Gasoline Contamination Site, Contaminated Fill Site, Gasoline UST Contamination Site No.1 and Stoddard Solvent Contamination Site. These controls are summarized in the following sections (Section 4.1 through 4.3).

3.3.1. Soil Cap for Residual Contaminated Fill and Native Soil

Residual contamination in fill and native soil associated with the Gasoline Contamination Site, Gasoline UST Contamination Site No. 1, Stoddard Solvent Contamination Site and/or Contaminated Fill Site remaining in-place at the limits of the 5th Avenue North Parking Garage, Phase 1 Campus and Phase 2 Campus construction excavations are being isolated by protective caps. The extent of the soil cap is shown relative the Property on Figures 10 through 13. Protective caps consist of:

- Concrete building walls and floors,
- Concrete sidewalks,
- Asphalt paved roads,
- Topsoil overlying a visual marker (non-woven geotextile fabric, orange construction type plastic fence material or similar; see Diagram 5) within landscaped areas adjacent to the campus buildings. The purpose of the visual marker is to assist future workers in identifying the boundary between the topsoil cap and potentially contaminated fill which is subject to special handling and disposal requirements described in Section 5.0.



Diagram 5: Visual marker (orange construction type plastic fence material) located at the beneath imported topsoil within landscaped areas (typical construction). See Figures 10 through 13 for additional explanation.

- Vegetated soil cover isolating residual soil contamination in the eastern portion of the Property (vegetated slope west of Sixth Avenue North) and southern portion of the Property (recently acquired Triangle Property).

3.3.2. Chemical Vapor Barrier for Gasoline Vapor Migration Mitigation

Based on the existing soil and groundwater characterization data, the potential for chemical soil vapors to migrate into the occupied spaces of the 5th Avenue North Parking Garage and Phase 1 Campus was evaluated using the Johnson and Ettinger (J&E) vapor intrusion model (Version 3.1, February 2004). The he J&E vapor modeling data indicate that gasoline-related vapor concentrations from the Gasoline Contamination Site would result in indoor air concentrations greater than the MTCA indoor air cleanup

levels for the Phase 1 Campus. For the 5th Avenue North Parking Garage, the J&E vapor modeling data indicate that gasoline-related vapor concentrations from the Gasoline UST Contamination Site and Stoddard Solvent Contamination Site would result in indoor air concentrations less than MTCA indoor air cleanup levels.

To mitigate for potential for vapor intrusion for the Phase 1 Campus and 5th Avenue North Parking Garage, a spray-on chemical vapor membrane (Liquid Boot®) was installed to protect building occupants from potential exposure due to vapor intrusion related to the gasoline-related contaminants from the Gasoline Contamination Site, Gasoline UST Contamination Site and/or Stoddard Solvent Contamination Site. Liquid Boot® was applied to portions of the subsurface 5th Avenue North Parking Garage and Phase 1 Campus structures as described below:



Diagram 6: Typical Liquid Boot® application for the 5th Avenue North Parking Garage and Phase 1 Campus shoring walls. See Figure 10 for additional explanation.

- Liquid Boot® was applied to the entire south subgrade foundation wall and portions of the west and east subgrade foundation walls of the 5th Avenue North Parking Garage;
- Liquid Boot® was applied to the subgrade foundation walls of the Taylor Ramp Tunnel located at the southeast corner of the 5th Avenue North Parking Garage; and,
- Liquid Boot® was applied to all of the subgrade foundation walls and below the basement floor of the Phase 1 Campus and associated parking garage.



Diagram 7: Foundation wall and under slab drainage piping installed at the 5th Avenue North Parking Garage and Phase 1 Campus.

The Liquid Boot application for the 5th Avenue North Parking Garage and Phase 1 Campus is shown relative the Property on Figures 10 through 14. Typical details of the Liquid Boot® installation is presented in Appendix B.

3.3.3. Passive Venting System Installation

In addition to the chemical vapor barrier installed on subgrade portions of the 5th Avenue North Parking Garage, Taylor Ramp Tunnel and Phase 1 Campus structures, typical drainage features installed during construction of the campus and garage also serves as a passive vapor ventilation system. The system includes a network of 3-inch diameter perforated drainage piping connected to a permeable geotextile drain board (Diagram 7) attached to the subgrade foundation wall surfaces. The geotextile drain board extends from the base of the building foundations to the ground surface. Together, these features allow chemical vapors to migrate from the subsurface to the atmosphere.

3.4. Institutional Controls

A deed restriction (environmental covenant) compliant with the Uniform Environmental Covenants Act and with Ecology's model environmental covenant is in place for the Property to address the residual contamination remaining in-place. The environmental covenant:

- Identifies the location of remaining contaminants associated with the Stoddard Solvent Contamination Site, Contaminated Fill Site, Gasoline Contamination Site and Gasoline UST Contamination Site no. 1;
- Restricts use of groundwater for drinking and/or irrigation water; and,
- Sets forth the requirements for notification to Ecology prior to any ground disturbing activities at the Property.

Copies of the environmental covenant established for the Property and for the adjacent Rights-of-Way are included in Appendix C.

4.0 MONITORING AND MAINTENANCE OF PROPERTY SITE CONTROLS

Monitoring and maintenance of site controls will consist of at least one annual reconnaissance visit and performance of corrective actions, as necessary, to address conditions that may compromise the integrity of the engineering controls in place to isolate residual contamination at the Property. The procedures for the monitoring and maintenance of site controls for the Property including restricted activities, corrective actions and requirements for the disturbance of potentially contaminated material are summarized in Sections 4.1 through 4.4. The locations and types of engineering controls are shown on Figures 10 through 13.

4.1. Monitoring and Maintenance Program

4.1.1. Purpose

Annual monitoring will be performed to evaluate the integrity of the engineering controls shown on Figures 10 through 13 and/or the stability of the vegetated slope located in the eastern portion of the Property. Monitoring and maintenance of the engineering controls will be performed until which time the residual contaminated soil and/or groundwater is removed or is otherwise remediated. Additional monitoring activities may be required during non-routine activities such as maintenance work that disturbs subsurface soil or other activities or events that could potentially compromise the integrity of the engineering controls at the Property. Evidence of damage to the protective surfaces or instability of the vegetated slope must be reported to IRIS so that arrangements for corrective actions/repairs, as necessary,

are implemented to maintain the integrity of the engineering controls. Corrective actions are further discussed in Section 4.3.

4.1.2. Monitoring Activities to Be Performed

The monitoring program will consist of an annual review of this Plan and as-built plans and/or base maps showing the current layout of the Property, contaminated sites and barrier systems. The monitoring program will also consist of conducting an annual visual reconnaissance of the engineering controls (in this case, soil erosion and the concrete slabs and surface pavements as the vapor barrier and orange markers in landscape areas will not be accessible) to identify potential areas requiring maintenance and/or repair. During the visual reconnaissance, evidence of the following will be evaluated:

- Breaching, cracking, deformation and/or erosion within landscaped and/or paved areas.
- Signs of invasive plant species (i.e., weeds) within the paved areas causing cracks that could decrease the life span of the paved surface.
- Evidence of any other anomalies or non-routine activities that may compromise the integrity of the engineering controls or result in the release of Site contaminants.

If conditions are observed that may lead to damage of the engineering controls, IRIS will implement corrective actions within a reasonable time frame to ensure that the function of the existing caps (i.e., asphalt and concrete paved areas; including floor slabs of structures, top soil with underlying visual marker in landscaped areas and vegetated topsoil cover) and chemical vapor barriers at the Property will be maintained to prevent exposure to the underlying soil contamination to wildlife and the general public, and to prevent chemical vapor intrusion into the occupied portions of the 5th Avenue North Parking Garage and Phase 1 Campus structures. Additionally, if soil disturbance activities are planned within the Property, IRIS and their contractors will review the details of the proposed action to ensure that the elements of this EMP are followed, notify Ecology at least 30 days prior to ground disturbance activities and obtain written approval from Ecology to proceed, and submit a summary report to Ecology documenting restoration of the engineering controls.

4.1.3. Maintenance Activities to Be Performed

Activities for maintaining the existing engineering controls at the Property include but are not limited to the following:

- Repairs to the asphalt and/or concrete paved surfaces where cracks and/or breaches of the barrier that expose the underlying soil regardless of whether they are attributed to natural or man-made activities.
- Maintenance of the vegetative cover in areas where topsoil serves as a protective barrier.
- Maintenance of the established stormwater management systems to ensure that stormwater on the surface of the pavement caps drains freely.
- Engineering controls located on steep slopes (i.e., vegetated hillside within the eastern portion of the Property) will be maintained to prevent erosion.

- The Liquid Boot® vapor barrier should never be compromised. Therefore, a mitigation plan is necessary prior to utility installation or repair work that entails building penetration; or work such as drilling through parking garage walls (see additional instructions in Section 4.2).

4.1.4. Documentation and Record Keeping

Each monitoring event must be documented in a written report that includes a description of the observed conditions noting areas of interest on a log or map. Additionally, photographs will be taken to document the current condition and any areas that may require corrective action. Monitoring reports must be retained by IRIS or their authorized agents and made available for regulatory agency review upon request.

- If conditions are observed that may lead to damage of the engineering controls, IRIS or their authorized agents will implement corrective actions (see Section 4.3) to prevent damage to the engineering control(s).
- If damage is observed to the engineering controls, IRIS or their authorized agents will promptly implement repairs to restore the function of the engineering control and document the repair by completing a written report that includes a description of the observed damage and restoration/repair actions implemented.
- If soil disturbance activities are performed within the restricted portions of the Property, IRIS or their authorized agents will review the details of the proposed action to ensure that the elements of this EMP are followed, provide a 30-day advance notice to Ecology of the proposed action, and prepare a written report documenting restoration of the effected engineering control(s).

4.2. Restricted Activities

To maintain the integrity and function of the engineering controls, any activity that results in exposing residual contaminated soil and/or groundwater including drilling, digging, piercing the Liquid Boot®, concrete or soil cap with a sampling device (i.e., post, stake or similar device), or grading, excavation, installation of underground utilities, that may result in uncontrolled soil erosion or disruption of an engineering control is not permitted without prior written approval from Ecology with the following exceptions:

- Maintenance activities within the landscape areas including the removal and replacement of dead or dying vegetation, replacement of healthy vegetation by a different species, weeding, installation or removal of existing irrigation lines, soil grading, etc. that do not extend below the visual contamination marker (orange construction fencing, geotextile or similar) are permitted. Please note that the use of vegetation with a deep root (i.e., tap root) system that would penetrate into potentially contaminated soil is not acceptable unless special design precautions are used.
- Maintenance activities within the vegetated soil cover areas (i.e., vegetated slope within the eastern portion of the Property and vegetated area in the southern portion of the Property) including mowing, weeding, and general housekeeping activities that do not expose the underlying residual contaminated soil are permitted.
- Gravel access paths and/or roads overlying contaminated soil may be maintained by grading and/or adding aggregate material. However, any grading activities must be surficial (less than a few inches) in depth.

- Maintenance activities within asphalt or concrete paved areas to fix and/or restore broken, damaged and/or worn pavement.

4.3. Corrective Actions

4.3.1. Purpose

If a monitoring event identifies existing or potential conditions or activities that may threaten the integrity of the engineering controls at the Property, corrective actions may be required. The need for and type of corrective action(s) will be evaluated and determined on a case-by-case basis. These actions may involve providing reminders to on-site workers and/or maintenance crews of the activities that are prohibited in the protected areas. Corrective actions regarding the physical condition of the chemical vapor barrier and landscaped or paved areas will be managed by IRIS. Any corrective action that results in the exposure of contaminated media (i.e., soil, water and/or chemical vapor) or permanent modification to the current engineering controls is not permitted without prior written approval from Ecology.

4.3.2. Corrective Actions to Be Conducted

Correcting physical problems with the engineering controls may involve but is not limited to the following:

- Placing and compacting new fill or subgrade materials;
- Re-grading, reseeding, or replanting activities;
- Modifying drainage patterns or repairing the stormwater drainage system; and,
- Replacing, patching or sealcoating paved surfaces.

4.4. Emergency Maintenance Activities

4.4.1. Purpose

Soil excavation may be required at the Property for emergency maintenance activities, such as for the repair of a broken water line or other existing infrastructure.

4.4.2. Emergency Maintenance Notification Actions to Be Performed

In the event that emergency activities within the restricted areas penetrate one or more of the engineering controls exposing contaminated soil and/or groundwater, Ecology will be notified as soon as possible following the incident and corrective actions/repairs will be taken (as necessary) to ensure that the engineering control (if disturbed) is restored to its original function. Materials generated by these activities will be managed following the guidelines presented below (Section 5.0).

5.0 PROCEDURES FOR SOIL AND GROUNDWATER MANAGMENT – FOR FUTURE CONSTRUCTION, MAINTENANCE, UTILITY WORK OR EXCAVATION ACTIVITIES

As discussed in Section 4.0, residual contamination associated with the Contaminated Fill Site, Gasoline Contamination Site, Gasoline UST Contamination Site No. 1 and Stoddard Solvent Contamination Site remains in-place on the Property and may be encountered during future construction, maintenance, utility work and/or excavation activities. The following sections (Sections 5.1 through 5.6) describe the handling and disposal of soil and groundwater generated during future Property work. As previously indicated, any activity that results in exposing residual contaminated soil and/or groundwater including drilling, digging,

piercing the cap with a sampling device (i.e., post, stake or similar device), grading, excavation, installation of underground utilities, resulting in uncontrolled soil erosion or removal of a protective barrier or institutional control is not permitted without prior written approval from Ecology with the exception of general maintenance activities described in Section 4.2.

5.1. Soil Excavation and Stockpile Management Procedure

Before any excavation work is conducted IRIS and/or their authorized agents must be notified, the associated health and safety plan and procedures must be verified, and approval issued. IRIS and/or their authorized agents should also be consulted to facilitate communication of existing chemical analytical data and the status of on-going remedial actions for the Property.

With the exception of topsoil contained within the landscape areas, fill soil and native soil generated from the 5th Avenue North Parking Garage and/or Phase 1 and 2 Campus construction footprints and/or below the engineering controls must be considered contaminated until characterized for off-property disposal or on-property reuse in accordance with the MTCA cleanup regulation, Washington State Dangerous Waste regulations and/or the requirement of the selected disposal facility. Details regarding stockpile sampling for chemical characterization are further discussed in Section 5.3.

Best management practices (BMPs) will be used to minimize the potential for cross-contamination of soil during excavation, handling, stockpiling, loading and transporting. At a minimum, these practices shall include minimizing tracking of soil between contaminated and clean soil areas by workers of equipment and minimizing contact between excavated contaminated soil and clean soil. If contaminated soil comes in contact or mixed with clean soil (i.e., vegetated topsoil cap and/or clean native soil), the contractor shall remove this material by over-excavation in coordination with IRIS or their authorized representative.

Segregation and stockpiling of excavated soil will be conducted on-site and as close as practicable to the excavation areas**.** Stockpiles should be placed on and covered by durable plastic sheeting and bermed to control runoff, or in roll-off or other covered and labeled containers. Access to the stockpiled/secured soil will be restricted by a properly labeled fence or other barrier pending chemical analysis and a decision on appropriate soil disposition. Handling procedures and testing requirements for landscaping topsoil, fill soil, native soil, and construction demolition debris are described in the following table.

MATERIAL MANAGEMENT AND TESTING REQUIREMENTS

Media	Handling Procedure/Analytical Testing Requirements
Landscape Soil/Topsoil	Soil excavated in landscaped areas (i.e., topsoil cap) located above the visual marker (non-woven geotextile fabric, orange construction type plastic fence material or similar) does not require special provisions for worker contact and/or handling and shall be segregated for cap reuse/restoration to the extent practicable. Additional analytical testing is not required for reuse of this material at the Property.

Media	Handling Procedure/Analytical Testing Requirements
Fill Soil	Excavated fill soil which is geotechnically suitable for reuse shall be segregated, temporarily stockpiled and sampled to confirm that contaminant concentrations are less than the MTCA cleanup levels listed in Table 3. • If contaminant concentrations are greater than the MTCA cleanup levels, soil shall be transported from the Property for permitted disposal. • If contaminants are not detected or detected at concentrations less than the MTCA cleanup levels, soil shall be reused as backfill to the extent possible. • If unused/excess soil remains following backfill activities, soil shall be transported from the Property for Permitted disposal.
	Excavated soil which is not geotechnically suitable for reuse on the Property as backfill shall be segregated for characterization and/or loaded directly into trucks and transported from the Property for permitted disposal.
Native Soil	Native soil excavated in areas in where contaminants either were not detected or detected at concentrations less than the MTCA cleanup levels listed in Table 3 (based on previous sampling data), has no physical evidence of contamination (staining, sheen, odor, USTs, etc.) and is geotechnically suitable for reuse shall be segregated and temporarily stockpiled for reuse. No additional analytical testing required. If unusable/excess soil remains following backfill activities, soil shall be transported from the Property to an appropriate soil receiving facility at the discretion of IRIS.
	Native soil excavated in areas known to contain contaminant concentrations greater than the MTCA cleanup levels (based on previous sampling data), has physical evidence of contamination (staining, sheen, odor, USTs, etc.) or is not geotechnically suitable for reuse shall be segregated for characterization. • If contaminant concentrations are greater than the MTCA cleanup levels, soil shall be transported from the Property for permitted disposal. • If contaminants are not detected or detected at concentrations less than the MTCA cleanup levels, soil shall be reused (if geotechnically suitable) as backfill to the extent possible. • If unused/excess soil remains following backfill activities, soil shall be transported from the Property for Permitted disposal.
Construction Demolition Debris	Construction debris (concrete or other building materials) shall be transported to an appropriate construction debris landfill at the discretion of IRIS.

Notes:

Excavated soil must be characterized for disposal or on-site reuse as required by the MTCA cleanup regulation, Washington State Dangerous Waste regulations and/or the selected disposal facility (see Section 5.3.2 for additional explanation).

As indicated above, soil generated from areas beyond the limits of the Gasoline Contamination Site, Gasoline UST Contamination Site No. 1 and/or Stoddard Solvent Contamination Site where physical evidence of contamination is not observed and the soil is geotechnically suitable for reuse will be segregated and stockpiled for use as backfill to the extent practical. Soil generated within the limits of the Gasoline Contamination Site, Gasoline UST Contamination Site No. 1 and/or Stoddard Solvent Contamination Site where physical evidence of contamination is observed or the soil is not geotechnically suitable for reuse will be segregated and stockpiled for off-property disposal to a receiving facility permitted to receive such material (i.e., Subtitle C or D landfill). The approximate extent of the Gasoline Contamination Site, Contaminated Fill Site, Stoddard Solvent Contamination Site and Gasoline UST Contamination Site are shown on Figure 2. Soil sample locations representing current fill and native soil conditions are shown on Figures 3 and 4. The Contaminated Fill Site, Gasoline Contamination Site, Stoddard Solvent Contamination

Site and Gasoline UST Contamination Site No. 1 are depicted in geologic cross-section on Figures 5 through 8. Chemical analytical results for soil and groundwater samples representing current Property conditions are summarized in Tables 1 and 2, respectively.

5.2. Dewatering and Wastewater Management

Any contractor conducting future construction, maintenance, utility work or excavation activities shall establish contingency measures to address stormwater and/or other excavation water that accumulates in an excavation and comes into contact with contaminated soil (i.e., within the Contaminated Fill Site, Gasoline Contamination Site, Stoddard Solvent Contamination Site and/or Gasoline UST Contamination Site No. 1) during future work. Based on existing subsurface information, it is unlikely that excavation will encounter groundwater from the deep aquifer.

If dewatering is necessary, any recovered stormwater and/or excavation water will be collected by the contractor for permitted disposal (i.e., King County sanitary sewer and/or liquid waste receiving facility [Emerald Services, Marine Vacuum Services, Lafarge, Philips Services or similar]). BMPs shall be employed to prevent leaks, spills or releases of the recovered water.

5.3. Chemical Characterization of Excavated Soil for Disposal or Reuse

Excavated soil must be characterized for disposal or on-site reuse as required by the MTCA cleanup regulation, Washington State Dangerous Waste regulations and/or the requirements of the selected disposal facility. Sampling and data evaluation must be completed by a qualified environmental consultant or individual with appropriate sampling credentials per Ecology and Occupational Safety and Health Administration (OSHA) guidelines. Procedures for stockpile soil characterization and dangerous waste evaluation are summarized in the following sections (Sections 5.3.1 and 5.3.2).

5.3.1. Stockpile Characterization Sampling

Where stockpile characterization sampling is necessary, stockpile sampling must be performed at a frequency consistent with Table 1 of Ecology's Guidance for Remediation of Petroleum Contaminated Soils (Ecology 1995 or equivalent revision), as follows:

SOIL STOCKPILE SAMPLING REQUIREMENTS

Cubic Yards of Soil	Minimum Number of Samples
0-100	3
101-500	5
501-1000	7
1001-2000	10
>2000	10 + 1 for each additional 500 cubic yards

Discrete soil grab samples should be collected from various zones and/or depth horizons within the stockpiles as the stockpiles are being constructed to obtain spatially representative samples of the

stockpiled material. The stockpile samples should be collected from locations that are generally representative of the soils and where physical evidence of contamination (sheen, odor, staining, etc.) may be present. If physical evidence of contamination is not observed, the stockpile should be divided into relatively equal sections and each section sampled. To evaluate whether stockpiled soil can be reused at the Property as backfill, the stockpile samples should be analyzed for the indicator hazardous substances presented in Table 3 and the results compared to the listed reuse criteria. Please note that an off-site waste disposal facility may require additional analysis to receive waste disposal approval.

5.3.2. Dangerous Waste Evaluation

The Dangerous Waste Regulations also require that material be evaluated for the toxicity "characteristic" if the contaminants are included on the toxicity characteristic list (WAC 173-303-090[8]). A contaminated material has the potential to designate as a dangerous waste if its concentration in soil is greater than 20 times[3] the associated toxicity characteristic threshold listed in WAC 173-303-090(8). In this case, representative samples of the soil need to be tested by the toxicity characteristic leaching procedure (TCLP). The results from the TCLP test are then compared directly to the toxicity characteristic threshold.

Excavated soil determined to include contaminant concentrations greater than the MTCA cleanup levels will fall into one of two categories: 1) non-hazardous waste suitable for disposal at a Subtitle D facility; or 2) Washington-defined dangerous/hazardous waste requiring either disposal at a Subtitle C facility, or treatment followed by disposal at a Subtitle D facility. Before any stockpiled soil is transported off-property for disposal, chemical characterization data for the soil shall be reviewed to evaluate potential dangerous or non-dangerous waste status, and follow-up TCLP analyses shall be performed if the detected metals concentration(s) indicate the potential for the material to designate as a dangerous waste based on toxicity.

All dangerous waste soil must be handled, transported and disposed of in accordance with state (WAC 173-303) and federal regulations (40 CFR 261).

5.4. Approved Waste Disposal Facilities

Facilities approved by IRIS for the disposal of hazardous and non-hazardous materials include the following. However, verification of a current disposal permit is necessary before transporting soil to any of these facilities.

- Waste Management's Columbia Ridge Landfill located in Arlington, Oregon (Non-Hazardous Subtitle D facility). Non-hazardous contaminated soil from the Property has been transported to this facility by rail from Waste Management's transfer facility located at 70 South Alaska Street in Seattle, Washington.
- Republic Services' (formerly Allied Waste's) Roosevelt Landfill located in Klickitat County, Washington (Non-hazardous Subtitle D facility). Non-hazardous contaminated soil from the Property has been transported to this facility by rail from Allied Waste's transfer facility located at 2722 Third Avenue South in Seattle, Washington.

[3] This is referred to as the "20-times rule" and is described in a September 21, 1992 EPA letter titled "Calculation of TCLP Concentrations from Total Concentrations". This reference is available at:
http://yosemite.epa.gov/osw/rcra.nsf/ea6e50dc6214725285256bf00063269d/95e9e57b91ea2e9f8525670f006c0acd!OpenDocument

- Waste Management's Chemical Waste Landfill located in Arlington, Oregon (Hazardous Waste Subtitle C facility). Hazardous contaminated soil from the Property has been transported directly to this facility by truck and trailer.

Soil in which contaminants of concern (COCs) either are not detected or are detected at concentrations less than Natural Background[4] may be transported from the Property for unrestricted end use as approved by IRIS.

5.5. Possible Underground Storage Tanks

Undocumented USTs could be encountered during future construction, maintenance, utility work and/or excavation activities. If USTs are encountered, the contents of the tank should be emptied and disposed appropriately, and the tank should be removed in accordance with state and local regulations by a certified tank removal contractor. Additionally, at the time of the tank closure, a site assessment must be completed by a qualified environmental professional registered with Ecology to investigate for evidence of a release of a regulated substance as required under WAC 173-360.

5.6. Chemical Vapors

Chemical vapors associated with the Gasoline Contamination Site, Stoddard Solvent Contamination and/or Gasoline UST Contamination Site No.1 may be encountered during excavation activities in the vicinity of the petroleum-contaminated native soil located in the north portion of the Phase 1 Campus and southeast and southwest portions of the 5th Avenue North Parking Garage. Soil disturbance activities within these areas area must be conducted in accordance with the requirements of the Washington Industrial Safety and Health Act (WISHA; RCW 49.17) and the federal Occupational Safety and Health Act (OSHA; 29 CFR 1910, 1926). Regulations include requirements that workers are to be protected from exposure to chemical vapors and/or contaminants in soil.

6.0 RESTRICTIONS AND MAINTENANCE OF ADJACENT RIGHTS-OF WAY

6.1. Adjacent Property Land Use Restrictions

As previously discussed, an environmental covenant compliant with the Uniform Environmental Covenants Act is being implemented for the Property to address residual contamination remaining in-place. In addition, environmental covenants have also been established with the Seattle Department of Transportation (SDOT) to address residual contamination remaining in-place in native soil beneath portions of Mercer Way and Harrison Street north and south of the Property boundary. Residual contamination within portions of Mercer Way and Harrison Street are shown on Figure 4. Copies of the Mercer Way and Harrison Street environmental covenants are presented in Appendix C.

Similar to the environmental convent established for the Property, the purpose of the Mercer Way and Harrison Street environmental covenants is to identify the location of residual contamination associated with the Gasoline Contamination Site and Gasoline UST Contamination Site No. 1, and to set forth the

[4] Natural Background for the Property is defined as not detected, except for metals at concentrations at or less than natural background concentrations per Ecology publication 94-115 "Natural Background Soil Metals Concentrations in Washington State," dated October 1994.

requirements for notification to Ecology prior to any ground disturbing activities in these areas. Currently, residual contamination in these areas is located approximately 20 feet bgs and is isolated by asphalt and/or concrete pavement.

In accordance with the environmental covenants established for these areas, any work performed by IRIS in these areas should follow the same notification, health and safety, soil management and disposal procedures outlined in this plan. In addition, SDOT should be notified of any planned work in these areas prior to construction.

6.2. Maintenance of Adjacent Property Rights-of Way

Under agreements with the SDOT as part of the development of the Property, portions of the 5th Avenue, 6th Avenue and Harrison Street rights-of-way (ROW) adjacent to the Bill & Melinda Gates Foundation Campus are being maintained by IRIS. Activities include the maintenance of the landscape planter strips and sidewalks in the areas shown on Figure 14 for irrigation and general esthetics. Although not required by SDOT, IRIS is also maintaining the landscape planter strips and sidewalks in the ROW adjacent to the Seattle Center 5th Avenue North Parking Garage.

Because the restrictions set forth by the environmental covenant established for the Property (Appendix C) do not extend beyond the Property boundary, except for the portion of the Gasoline UST Contamination Site No. 1 contained within Harrison Street and Gasoline Contamination Site contained within Mercer Way described above, there are no specific environmental restrictions in place that would require Ecology notification for ground disturbance activities to the adjacent ROW. In addition, other than the asphalt and/or concrete pavement, there are no specific engineering controls established for these areas. Given the nature of the Contaminated Fill Site (i.e., regional contamination in fill soil) and lack of environmental data for these areas, the soil within the ROW may contain previously unidentified contamination at concentrations of regulatory significance. Therefore, soil disturbance activities performed by the foundation in these areas should follow procedures consistent with this plan for worker protection, soil and water management and disposal, and surface restoration. Within the planter strips, approximately 16 to 18 inches of topsoil is present over fill soil[5]. Similar to landscape areas within the limits of the Property, topsoil in these areas is considered to be clean and does not require special worker protection or handling. The fill and native soil generated beyond the limits of the 5th Avenue North Parking Garage and/or Phase 1 and 2 Campus construction footprints should be considered contaminated until characterized for reuse or off-property disposal following the procedures outlined in Section 5.0.

7.0 LIMITATIONS

We have prepared this report for the exclusive use of the IRIS Holdings, LLC and the Bill & Melinda Gates Foundation, their authorized agents and regulatory agencies in their evaluation of environmental conditions at the 500 Fifth Avenue North Property located in Seattle, Washington. No other party may rely on the product of our services unless we agree in advance and in writing to such reliance.

[5] Please note that the visual marker (orange construction fencing, geotextile or similar) used to separate imported topsoil and the underlying fill soil is not present in areas beyond the limit of the Bill & Melinda Gates Foundation property boundary.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix D titled "Report Limitations and Guidelines for Use" for important additional information pertaining to use of this document.

8.0 REFERENCES

GeoEngineers, Inc. (GeoEngineers) 2006, "Cleanup Action Plan, Stoddard Solvent and Contaminated Fill Sites, Seattle Center Lot No. 2, Parking Garage Location, Seattle, Washington," prepared for the Washington State Department of Ecology on behalf of IRIS Holdings, LLC., dated August 11, 2006.

GeoEngineers, Inc. (GeoEngineers) 2008, "Cleanup Action Plan, Seattle Center Lot No. 2, Phase I Campus Location, Seattle, Washington," dated April 18, 2008.

GeoEngineers, Inc. (GeoEngineers) 2012, "Cleanup Action Plan, 500 Fifth Avenue North Property, Seattle, Washington, VCP No. NW1493," prepared for IRIS Holdings, LLC., dated February 20, 2012.

GeoEngineers, Inc. (GeoEngineers) 2017, "Final Property-Wide Cleanup Action Report, 500 Fifth Avenue North Property, Seattle, Washington, VCP No. NW1493," prepared for the Washington State Department of Ecology on behalf of IRIS Holdings, LLC., dated June 15, 2017.

GeoEngineers, Inc and Shannon & Wilson (GeoEngineers and Shannon & Wilson), 2011, "Cleanup Action Report, Phase I Campus, 500 5th Avenue North Property, Seattle, Washington," dated June 7, 2011.

Shannon & Wilson, Inc. (Shannon & Wilson) 2004, "Site Remediation and Current Conditions Report, Former Metro Bus Barn Site," dated September 21, 2004.

Washington State Department of Ecology (Ecology) 1994, "Natural Background Soil Metals Concentrations in Washington State," Publication 91-115 dated October 1994.

Washington State Department of Ecology (Ecology) 1995, "Guidance for Remediation of Petroleum Contaminated Soils," Publication 91-30 dated November 1995.

Table 1

Summary of Soil Chemical Analytical Data

500 Fifth Avenue North Property

Seattle, Washington

Sample Identification[1]	BH-2-55.5	BH-2-45.5	BH-3-55	BH-3-45	BH-7-55	GP-21-1	MW-1-50	MW-2-55.5	MW-2-40.5	MW-3-55	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**Hong West**	**Hong West**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**		
Sample Date	**9/28/1989**	**9/28/1989**	**9/28/1989**	**9/28/1989**	**9/28/1989**	**10/6/1994**	**12/13/1994**	**12/14/1994**	**12/14/1994**	**12/14/1994**		
Sample Depth (feet bgs)	**5**	**15**	**5**	**15**	**5**	**3**	**50**	**5.0**	**20.0**	**5.0**		
Sample Elevation (feet)[2]	**55.5**	**45.5**	**55**	**45**	**55**	**69.0**	**11.4**	**55.5**	**40.5**	**55**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	--	--	--	--	--	--	--	--	--	--	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	**5,200[5]**	**14,000[5]**	**1,500[5]**	**400[5]**	**710[5]**	--	3 U	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range						25 U	25 U	25 U	25 U	25 U	2,000	NE
Heavy Oil-Range						25 U	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	ND	ND	ND	ND	--	--	--	--	--	0.03	NE
Toluene	ND	ND	ND	ND	ND	--	--	--	--	--	6	NE
Ethylbenzene	ND	ND	ND	ND	ND	--	--	--	--	--	7	NE
Total Xylenes	ND	ND	ND	ND	ND	--	--	--	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	`	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	MW-3-40	MW-4-55	MW-4-30	1014-1-97-72	1014-2-97-72	1015-2-70	1017-1-71	1020-1-72	1020-3-72	1020-5-63.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**SCS Engineers**	**SCS Engineers**	**SCS Engineers**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**		
Sample Date	**12/14/1994**	**12/14/1994**	**12/14/1994**	**9/1/1997**	**9/1/1997**	**9/1/1997**	**9/1/1997**	**9/1/1997**	**9/1/1997**	**9/1/1997**		
Sample Depth (feet bgs)	**20.0**	**5.0**	**30.0**	**3**	**2.0**	**5.0**	**2.0**	**2.0**	**2.0**	**10.5**		
Sample Elevation (feet)[2]	**40**	**55**	**30**	**72**	**72**	**70**	**71**	**72**	**72**	**63.5**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	--	--	--	--	--	--	--	--	--	--	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	3 U	3 U	**1,000**	3 U	3 U	3 U	3 U	**13**	30/100[5]	NE
Diesel-Range	25 U	25 U	25 U	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	25 U	**6,400**	25 U	25 U	25 U	25 U	25 U	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	--	--	0.02 U	0.02 U	--	--	--	--	0.02 U	0.03	NE
Toluene	--	--	--	0.05 U	0.05 U	--	--	--	--	0.05 U	6	NE
Ethylbenzene	--	--	--	0.05 U	**0.36**	--	--	--	--	0.05 U	7	NE
Total Xylenes	--	--	--	0.05 U	**1.75**	--	--	--	--	0.05 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	1020-6-72	1020-7-69	1020-8-67	SW-3 S9-39.7	SW-7 S14-14.6	SW-8 S16-10.4	SW-9 S15-12.4	GEI-6-73.5	GEI-7-49.5	GEI-8-73.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**N/A**	**N/A**	**N/A**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Geo Engineers**	**Geo Engineers**	**Geo Engineers**		
Sample Date	**9/1/1997**	**9/1/1997**	**9/1/1997**	**8/13/2004**	**10/6/2004**	**10/5/2004**	**10/4/2004**	**3/14/2005**	**3/23/2005**	**3/24/2005**		
Sample Depth (feet bgs)	**4.0**	**3.0**	**7.0**	**45.0**	**69.0**	**79.0**	**75.0**	**7.5**	**42.5**	**22.5**		
Sample Elevation (feet)[2]	**72**	**69**	**67**	**39.7**	**14.6**	**10.4**	**12.4**	**73.5**	**49.5**	**73.5**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Fill**	**Native**	**Native**		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	SS	NS	NS	NE	NE
Headspace Vapors (ppm)	--	--	--	0	--	0	0	6.2	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	ND	ND	--	NE	NE
Gasoline-Range	3 U	3 U	**770**	5.4 U	6 U	6 U	5.8 U	--	--	--	30/100[5]	NE
Diesel-Range	--	--	--	27 U	30 U	30 U	29 U	--	--	--	2,000	NE
Heavy Oil-Range	25 U	**66**	**4,900**	**290**	60 U	60 U	58 U	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	--	0.02 U	--	--	--	--	--	--	--	0.03	NE
Toluene	--	--	0.05 U	--	--	--	--	--	--	--	6	NE
Ethylbenzene	--	--	**0.31**	--	--	--	--	--	--	--	7	NE
Total Xylenes	--	--	**0.66**	--	--	--	--	--	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	0.02 U	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	0.02 U	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	0.02 U	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	0.02 U	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	0.02 U	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	0.02 U	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	0.02 U	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	0.02 U	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	0.02 U	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	0.02 U	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	0.02 U	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	0.1 U	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	**9.3**	--	**9.6**	20	7
Cadmium	--	--	--	--	--	--	--	0.5 U	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	21	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	4 U	--	--	250	24
Mercury	--	--	--	--	--	--	--	0.02 U	--	--	2	0.13[14]

Sample Identification[1]	GEI-8-68.5	GEI-9-93.5	GEI-9-88.5	GEI-9-83.5	GEI-9-78.5	GEI-11-66	SE-1-S5-65.1	SE-1-S8-54.1	SE-3-S7-54.3	SE-3-S8-48.8	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**Geo Engineers**	**Geo Engineers**	**Geo Engineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**		
Sample Date	**3/24/2005**	**3/14/2005**	**3/17/2005**	**3/17/2005**	**3/17/2005**	**3/15/2005**	**8/8/2005**	**8/8/2005**	**8/8/2005**	**8/8/2005**		
Sample Depth (feet bgs)	**27.5**	**5.0**	**10.0**	**15.0**	**20.0**	**10.0**	**18.5**	**29.5**	**25.5**	**31.0**		
Sample Elevation (feet)[2]	**68.5**	**93.5**	**88.5**	**83.5**	**78.5**	**66**	**65.1**	**54.1**	**54.3**	**48.8**		
Soil Type	**Native**	**Fill**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	NS	NS	NS	NS	NS	NS	–	–	–	–	NE	NE
Headspace Vapors (ppm)	<1	<1	5.5	4.6	3.9	5.9	–	0	0	0	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	ND	ND	ND	–	ND	ND	–	–	–	–	NE	NE
Gasoline-Range	–	–	–	–	–	–	3 U	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range	–	–	–	–	–	–	–	–	–	–	2,000	NE
Heavy Oil-Range	–	–	–	–	–	–	–	–	–	–	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	–	–	–	–	–	–	ND	ND	ND	ND	0.03	NE
Toluene	–	–	–	–	–	–	ND	ND	ND	ND	6	NE
Ethylbenzene	–	–	–	–	–	–	ND	ND	ND	ND	7	NE
Total Xylenes	–	–	–	–	–	–	ND	ND	ND	ND	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	–	0.02 U	–	–	–	0.02 U	–	–	–	–	5	NE
Acenaphthylene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	NE	NE
Acenaphthene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	4,800[9]	NE
Fluorene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	3,200[9]	NE
Phenanthrene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	NE	NE
Anthracene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	24,000[9]	NE
Fluoranthene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	3,200[9]	NE
Pyrene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	2,4009[9]	NE
Benzo[a]anthracene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Chrysene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Benzo[b]fluoranthene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Benzo[k]fluoranthene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Benzo[a]pyrene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Dibenz[a,h]anthracene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.137[9]	NE
Benzo[g,h,i]perylene	–	0.02 U	–	–	–	0.02 U	–	–	–	–	NE	NE
Total cPAH - TEQ[10]	–	0.02 U	–	–	–	0.02 U	–	–	–	–	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	–	0.1 U	–	–	–	–	–	–	–	–	1	NE
Metals (mg/kg)[12]												
Arsenic	–	**23**	–	**16**	–	–	–	–	–	–	20	7
Cadmium	–	0.54	–	–	–	0.52 U	–	–	–	–	2	1
Total Chromium	–	17	–	–	–	–	–	–	–	–	2,000[13]	110[14]
Lead	–	5.1	–	–	–	11	–	–	–	–	250	24
Mercury	–	0.02 U	–	–	–	–	–	–	–	–	2	0.13[14]

Sample Identification[1]	SE-4-S4-66.1	SE-4-S8-50.	SE-6-S6-60.1	SE-7-S5-62.7	SE-7-S7-51.7	SE-8-S5-61.3	SE-8-S7-53.3	SE-9-S8-53.4	SE-10-S9-47.1	SE-11-S9-45.4	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	8/8/2005	8/8/2005	8/8/2005	8/8/2005	8/8/2005	8/8/2005	8/8/2005	8/9/2005	8/9/2005	8/9/2005		
Sample Depth (feet bgs)	13.5	29.5	21.5	17.5	28.5	17.5	25.5	29.5	34.5	35.0		
Sample Elevation (feet)[2]	66.1	50.1	60.1	62.7	51.7	61.3	53.3	53.4	47.1	45.4		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	0	69.5	0	0	0	0	74.3	0.1	0	0	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	3 U	3 U	**1,100**	3 U	**140**	3 U	**1,300**	3 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	ND	ND	ND	**0.5**	ND	**0.059**	ND	**0.21**	ND	0.03	NE
Toluene	ND	ND	ND	ND	**0.83**	ND	**0.069**	ND	**0.27**	ND	6	NE
Ethylbenzene	ND	ND	ND	ND	**1.8**	ND	**0.28**	ND	**3.2**	ND	7	NE
Total Xylenes	ND	**0.24**	ND	ND	**2.6**	ND	**0.68**	ND	**8.7**	ND	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SE-12-S4-46.1	SE-12-S7-33.1	SE-13-S6-34.6	SE-14-S6-36.1	SE-15-S6-38.1	SE-16-S3-46.1	SE-16-S5-36.1	SE-16-S6-31.1	SE-17-S6-32.6	SE-18-S4-45	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	9/21/2005	9/21/2005	9/21/2005	9/21/2005	9/22/2005	9/22/2005	9/22/2005	9/22/2005	9/22/2005	9/22/2005		
Sample Depth (feet bgs)	36.0	49.0	49.0	49.0	49.0	34.0	44.0	49.0	49.0	39.0		
Sample Elevation (feet)[2]	46.1	33.1	34.6	36.1	38.1	46.1	36.1	31.1	32.6	45		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	0	0	0	--	--	0	370	260	--	54	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	3 U	3 U	3 U	3 U	**500**	**660**	3 U	3 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	ND	**0.024**	ND	ND	ND	**0.45**	**0.95**	ND	**0.92**	0.03	NE
Toluene	ND	ND	ND	ND	ND	ND	**2.4**	**6**	ND	ND	6	NE
Ethylbenzene	ND	ND	ND	ND	ND	ND	**1.9**	**2.8**	ND	ND	7	NE
Total Xylenes	ND	ND	ND	ND	ND	ND	**9.2**	**14.2**	ND	ND	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SE-19-S3-47.7	SE-19-S5-36.7	SE-19-S6-31.7	SE-20-S3-49	SE-20-S5-39	SE-21-S3-47	SE-21-S6-32	SE-22-S4-43.4	SW-12-12.4	SW-13-40.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	9/24/2005	9/24/2005	9/24/2005	9/24/2005	9/24/2005	9/24/2005	9/24/2005	9/24/2005	10/18/2005	10/19/2005		
Sample Depth (feet bgs)	34.0	44.0	49.0	34.0	44.0	34.0	49.0	39.0	75.0	40.0		
Sample Elevation (feet)[2]	46.7	36.7	31.7	49	39	47	32	43.4	12.4	40.5		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	110	303	--	10	8.3	7	99	0	--	--	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	**850**	3 U	3 U	3 U	3 U	**1,900**	3 U	3 U	**17**	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	**0.74**	**0.024**	ND	ND	ND	**1.1**	ND	ND	ND	0.03	NE
Toluene	ND	**5.4**	**0.07**	ND	ND	ND	**7.1**	ND	ND	**0.058**	6	NE
Ethylbenzene	ND	**3.3**	**0.69**	ND	ND	ND	**5**	ND	ND	ND	7	NE
Total Xylenes	ND	**17.3**	**0.37**	ND	ND	ND	**25.9**	ND	ND	**0.245**	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SW-13-33	SW-13-28	SW-14-42	SW-14-39.5	SW-15-55	SW-15-50	SW-15-37.5	SW-16-35.6	SW-16-28.1	SW-17-40.9	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	10/19/2005	10/19/2005	10/20/2005	10/20/2005	10/21/2005	10/21/2005	10/21/2005	10/27/2005	10/27/2005	10/28/2005		
Sample Depth (feet bgs)	47.5	52.5	40.0	42.5	25.0	30.0	42.5	44.0	51.5	41.0		
Sample Elevation (feet)[2]	33	28	42	39.5	55	50	37.5	35.6	28.1	40.9		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	--	--	--	--	--	--	--	19.6	0	556	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	3 U	3 U	**56**	**42**	3 U	**1,300**	3 U	**560**	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	ND	ND	ND	ND	ND	**0.0055**	**1.5**	ND	**0.16**	0.03	NE
Toluene	ND	ND	**0.0027**	**0.0012**	ND	**0.56**	ND	**2.2**	ND	**1.3**	6	NE
Ethylbenzene	**0.051**	ND	**0.014**	**0.0056**	**0.084**	**0.34**	ND	**4.3**	ND	**1.2**	7	NE
Total Xylenes	**0.297**	ND	**0.081**	**0.0319**	**0.36**	**2.01**	ND	**22.7**	ND	**7**	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	5 U	5 U	5 U	5 U	5 U	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SW-17-34.9	SW-18-40.8	SW-18-33.3	SW-19-43.7	SW-19-41.2	SW-19-43.7	SW-19-41.2	SW-20-41.2	SW-20-38.7	SW-21-31.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	10/28/2005	10/28/2005	10/28/2005	11/1/2005	11/1/2005	11/1/2005	11/1/2005	11/3/2005	11/3/2005	11/4/2005		
Sample Depth (feet bgs)	46.0	40.0	47.5	37.5	40.0	37.5	40.0	36.0	38.5	56.0		
Sample Elevation (feet)[2]	34.9	40.8	33.3	43.7	41.2	43.7	41.2	41.2	38.7	31.5		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	1.9	11.3	8.6	217	101	217	101	0.8	8.5	11.2	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	**2,100**	3 U	**5**	**760**	**1,900**	**760**	**1,900**	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	**2.3**	ND	**0.09**	**0.073**	**1.4**	**0.073**	**1.4**	--	--	ND	0.03	NE
Toluene	**13**	**0.05**	**0.26**	**1.3**	**8.7**	**1.3**	**8.7**	--	--	ND	6	NE
Ethylbenzene	**7.3**	ND	**0.89**	**1.7**	**6.4**	**1.7**	**6.4**	--	--	ND	7	NE
Total Xylenes	**40**	**0.061**	**0.52**	**10.3**	**40.3**	**10.3**	**40.3**	--	--	ND	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SW-21-26.5	SW-22-40.3	SW-23-41.1	SW-24-37	SW-24-29.5	GEI-19-84.5	GEI-19-72	GEI-20-84.5	GEI-20-77	GEI-20-72	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	11/4/2005	11/8/2005	11/9/2005	11/10/2005	11/10/2005	4/4/2006	4/4/2006	4/4/2006	4/4/2006	4/4/2006		
Sample Depth (feet bgs)	61.0	38.5	41.0	46.0	53.5	6.0	18.5	6.0	13.5	18.5		
Sample Elevation (feet)[2]	26.5	40.3	41.1	37	29.5	84.5	72	84.5	77	72		
Soil Type	Native	Native	Native	Native	Native	Fill	Fill	Fill	Fill	Fill		
Field Screening Results												
Sheen	--	--	--	--	--	NS	HS	NS	NS	SS	NE	NE
Headspace Vapors (ppm)	7.1	--	--	--	--	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	ND	**D, HO**	ND	--	ND	NE	NE
Gasoline-Range	3 U	3 U	**720**	3 U	3 U	--	--	--	--	--	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	**30,000**	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	**31,000**	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	ND	ND	**0.093**	ND	ND	--	--	--	--	--	0.03	NE
Toluene	ND	ND	**0.45**	ND	ND	--	--	--	--	--	6	NE
Ethylbenzene	ND	**0.053**	**2.4**	ND	ND	--	--	--	--	--	7	NE
Total Xylenes	ND	**0.225**	**10.8**	ND	ND	--	--	--	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	0.06 U	**0.06**	0.06 U	--	**0.17**	5	NE
Acenaphthylene	--	--	--	--	--	0.02 U	**0.03**	0.02 U	--	**0.02**	NE	NE
Acenaphthene	--	--	--	--	--	0.02 U	**0.04**	0.02 U	--	**0.09**	4,800[9]	NE
Fluorene	--	--	--	--	--	0.02 U	**0.03**	0.02 U	--	**0.06**	3,200[9]	NE
Phenanthrene	--	--	--	--	--	0.02 U	**0.07**	0.02 U	--	**0.87**	NE	NE
Anthracene	--	--	--	--	--	0.02 U	**0.05**	0.02 U	--	**0.17**	24,000[9]	NE
Fluoranthene	--	--	--	--	--	0.02 U	**0.17**	0.02 U	--	**1.4**	3,200[9]	NE
Pyrene	--	--	--	--	--	0.02 U	**1.0**	0.02 U	--	**1.5**	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	0.02 U	**0.08**	0.02 U	--	**0.62**	0.137[9]	NE
Chrysene	--	--	--	--	--	0.02 U	**0.08**	0.02 U	--	**0.68**	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	0.02 U	**0.95**	0.02 U	--	**0.75**	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	0.02 U	**0.29**	0.02 U	--	**0.58**	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	0.02 U	**0.11**	0.02 U	--	**0.50**	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	0.02 U	**0.10**	0.02 U	--	**0.75**	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	0.02 U	**0.05**	0.02 U	--	**0.50**	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	0.02 U	**0.05**	0.02 U	--	**0.20**	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	**0.02**	**0.17**	0.02 U	--	**1.0**	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	0.1 U	0.1 U	0.1 U	0.1 U	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	6 U	6	6 U	--	6	20	7
Cadmium	--	--	--	--	--	0.26 U	0.31 U	0.26 U	--	0.27 U	2	1
Total Chromium	--	--	--	--	--	44	23	34	--	23	2,000[13]	110[14]
Lead	--	--	--	--	--	7.4	**1,000**	3.4	--	**180**	250	24
Mercury	--	--	--	--	--	0.06	**0.24**	0.03	--	**0.44**	2	0.13[14]

Sample Identification[1]	GEI-21-82	GEI-21-77	GEI-23-71	AS-1-47.5	AS-2-46	AS-3-47.5	AS-4-54.5	AS-5-47.5	AS-6-48.5	AS-7-44.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	4/5/2006	4/5/2006	4/6/2006	9/7/2006	9/6/2006	9/13/2006	9/13/2006	9/13/2006	9/13/2006	9/13/2006		
Sample Depth (feet bgs)	6.0	11.0	5.0	33.5	33.5	33.5	28.5	33.5	33.5	38.5		
Sample Elevation (feet)[2]	82	77	71	47.5	46	47.5	54.5	47.5	48.5	44.5		
Soil Type	Fill	Fill	Fill	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	NS	NS	NS	–	–	–	–	–	–	–	NE	NE
Headspace Vapors (ppm)	<1	<1	<1	1.8	320	21	58	317	532	0	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	ND	ND	**HO**	–	–	–	–	–	–	–	NE	NE
Gasoline-Range	–	–	–	4.2 U	**7**	3.9 U	**720**	**860**	**3,300**	3.9 U	30/100[5]	NE
Diesel-Range	–	–	**36**	–	–	–	–	–	**2,800**	–	2,000	NE
Heavy Oil-Range	–	–	**200**	–	–	–	–	–	170	–	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	–	–	–	–	0.02 U	0.02 U	**0.28**	**0.25**	**0.97**	–	0.03	NE
Toluene	–	–	–	–	0.072 U	0.039 U	**0.74**	**0.97**	**0.89**	–	6	NE
Ethylbenzene	–	–	–	–	**0.19**	**0.047**	**0.73**	**2.2**	**5.6**	–	7	NE
Total Xylenes	–	–	–	–	**0.42**	**0.11**	**2.64**	**11.9**	**31.7**	–	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	0.06 U	0.06 U	0.06 U	–	–	–	–	–	–	–	5	NE
Acenaphthylene	0.02 U	0.02 U	0.02 U	–	–	–	–	–	–	–	NE	NE
Acenaphthene	0.02 U	0.02 U	0.02 U	–	–	–	–	–	–	–	4,800[9]	NE
Fluorene	0.02 U	0.02 U	0.02 U	–	–	–	–	–	–	–	3,200[9]	NE
Phenanthrene	**0.07**	**0.02**	0.02 U	–	–	–	–	–	–	–	NE	NE
Anthracene	0.02 U	0.02 U	0.02 U	–	–	–	–	–	–	–	24,000[9]	NE
Fluoranthene	**0.08**	**0.04**	**0.03**	–	–	–	–	–	–	–	3,200[9]	NE
Pyrene	**0.09**	**0.05**	**0.04**	–	–	–	–	–	–	–	2,4009[9]	NE
Benzo[a]anthracene	**0.03**	0.02 U	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Chrysene	**0.04**	**0.02**	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Benzo[b]fluoranthene	**0.04**	**0.03**	**0.02**	–	–	–	–	–	–	–	0.137[9]	NE
Benzo[k]fluoranthene	**0.03**	0.02 U	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Benzo[a]pyrene	**0.02**	0.02 U	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	**0.03**	**0.02**	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Dibenz[a,h]anthracene	**0.02**	0.02 U	0.02 U	–	–	–	–	–	–	–	0.137[9]	NE
Benzo[g,h,i]perylene	0.02 U	0.02 U	0.02 U	–	–	–	–	–	–	–	NE	NE
Total cPAH - TEQ[10]	**0.04**	**0.03**	**0.02**	–	–	–	–	–	–	–	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	0.1 U	0.1 U	0.1 U	–	–	–	–	–	–	–	1	NE
Metals (mg/kg)[12]												
Arsenic	6 U	6 U	6 U	–	–	–	–	–	–	–	20	7
Cadmium	0.25 U	0.24 U	0.25 U	–	–	–	–	–	–	–	2	1
Total Chromium	23	29	27	–	–	–	–	–	–	–	2,000[13]	110[14]
Lead	**29**	11	18	–	–	–	–	–	–	–	250	24
Mercury	0.04	0.04	0.03	–	–	–	–	–	–	–	2	0.13[14]

Sample Identification[1]	AS-8-47	AS-9-43.5	AS-10-40.5	AS-9-43.5	AS-10-40.5	AS-11-37	AS-12-43.5	AS-13-43.5	AS-14-45	AS-15-44.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**		
Sample Date	**9/18/2006**	**9/18/2006**	**9/15/2006**	**9/18/2006**	**9/15/2006**	**9/18/2006**	**9/15/2006**	**9/15/2006**	**9/15/2006**	**9/15/2006**		
Sample Depth (feet bgs)	**33**	**37.5**	**42.5**	**37.5**	**42.5**	**43.5**	**38.5**	**38.5**	**38.5**	**38.5**		
Sample Elevation (feet)[2]	**47**	**43.5**	**40.5**	**43.5**	**40.5**	**37**	**43.5**	**43.5**	**45**	**44.5**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	1158	2532	0.2	2532	0.2	32.8	852	441	23	12.5	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	**740**	**510**	4.8 U	**510**	4.8 U	**59**	**1,400**	**2,800**	3.5 U	11 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	**0.12**	**0.068**	--	**0.068**	--	**0.11**	**0.41**	**1.2**	--	--	0.03	NE
Toluene	**2.1**	**1.7**	--	**1.7**	--	**0.58**	**4.3**	**8.7**	--	--	6	NE
Ethylbenzene	**2.1**	**1.7**	--	**1.7**	--	**0.2**	**4.7**	**7.5**	--	--	7	NE
Total Xylenes	**11.9**	**9.1**	--	**9.1**	--	**1.25**	**24.4**	**41**	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	AS-16-41.5	AS-17-40.5	AS-18-38	AS-19-37	AS-20-16.5	AS-21-39	AS-22-36.5	AS-23-37	AS-22-36.5	AS-23-37	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**	**Shannon & Wilson**		
Sample Date	**9/25/2006**	**9/25/2006**	**9/18/2006**	**9/15/2006**	**9/25/2006**	**9/19/2006**	**9/25/2006**	**9/25/2006**	**9/25/2006**	**9/25/2006**		
Sample Depth (feet bgs)	**38.5**	**38.5**	**43**	**44**	**62.5**	**44**	**43**	**44**	**43**	**44**		
Sample Elevation (feet)[2]	**41.5**	**40.5**	**38**	**37**	**16.5**	**39**	**36.5**	**37**	**36.5**	**37**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	1400	0	1800	752	1.2	17	1425	1268	1425	1268	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	**1,900**	4.6 U	**720**	**270**	5.2 U	4.7 U	**1,400**	**2,000**	**1,400**	**2,000**	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	**1.1**	--	**0.098**	**0.25**	--	0.02 U	**0.38**	**1.3**	**0.38**	**1.3**	0.03	NE
Toluene	**0.29**	--	**3**	**1.5**	--	0.047 U	**2.2**	**13**	**2.2**	**13**	6	NE
Ethylbenzene	**3.9**	--	**2.1**	**0.75**	--	0.047 U	**2.8**	**8.4**	**2.8**	**8.4**	7	NE
Total Xylenes	**19.7**	--	**11.9**	**4.6**	--	**0.12**	**15.7**	**42**	**15.7**	**42**	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	AS-24-35.5	AS-25-40	AS-26-36.5	AS-27-18.5	AS-28-36.5	AS-29-38.5	SVE-1-29	SVE-2-58.2	SVE-2-49.4	SVE-3-49	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson		
Sample Date	9/25/2006	9/27/2006	9/27/2006	10/2/2006	10/2/2006	10/2/2006	10/9/2006	10/4/2006	10/2/2006	10/4/2006		
Sample Depth (feet bgs)	43.5	42.5	43.5	63.5	43.5	43.5	29	22.8	29.6	33		
Sample Elevation (feet)[2]	35.5	40	36.5	18.5	36.5	38.5	52	58.2	49.4	49		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	--	--	NE	NE
Headspace Vapors (ppm)	0	10	1300	43.9	1500	68	--	--	--	--	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	4.6 U	5.1 U	**2,300**	5.8 U	**390**	4.5 U	5.7 U	**24**	**1,100**	**500**	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	--	**0.44**	--	**1.2**	0.02 U	**0.027**	0.028 U	**0.32**	**0.39**	0.03	NE
Toluene	--	--	**11**	--	**3.6**	0.045U	**0.078**	**0.16**	0.38 U	0.8 U	6	NE
Ethylbenzene	--	--	**7.2**	--	**1.6**	0.045 U	**0.1**	**0.23**	**2.8**	**0.82**	7	NE
Total Xylenes	--	--	**44**	--	**9.7**	**0.093**	**0.57**	**1.45**	**6.9**	**5.5**	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SVE-4-48	SVE-5-48	SVE-6-42.5	SVE-7-38.5	SVE-8-36.5	SVE-9-36.5	SVE-10-34.7	SVE-11-37	WW-1-88.5	WW-2-78	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	Shannon & Wilson	GeoEngineers	GeoEngineers		
Sample Date	10/2/2006	10/2/2006	10/4/2006	10/2/2006	10/9/2006	10/9/2006	10/3/2006	10/9/2006	2/15/2007	3/9/2007		
Sample Depth (feet bgs)	33	34	38.5	43.5	44	44.5	44.8	44.5	12.5	23		
Sample Elevation (feet)[2]	48	48	42.5	38.5	36.5	36.5	34.7	37	88.5	78		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	--	--	--	--	--	NS	NS	NE	NE
Headspace Vapors (ppm)	--	--	--	--	--	--	--	--	10.3	10.3	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--			--	--	NE	NE
Gasoline-Range	**1,600**	**63**	**1,800**	**79**	**2,300**	**2,800**	**2,800**	**2,000**	3 U	3 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	**0.29**	0.02 U	**1.8**	0.02 U	**0.84**	**2.7**	**2.7**	**1**	0.03 U	0.03 U	0.03	NE
Toluene	**0.94**	0.067 U	**8.5**	**0.36**	**10**	**18**	**18**	**3.4**	0.05 U	0.05 U	6	NE
Ethylbenzene	**3.4**	**0.096**	**4.9**	**0.2**	**8.1**	**13**	**13**	**5.1**	0.05 U	0.05 U	7	NE
Total Xylenes	**19.4**	**0.24**	**29.3**	**0.95**	**50**	**64**	**64**	**26**	0.2 U	0.2 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SW-1-87	SW-1-74	SW-1-71	SW-3-88.5	SW-4-90	SW-5-88.5	SW-4-90	SW-5-88.5	SW-6-86	SW-7-90	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	2/15/2007	3/27/2007	3/30/2007	2/15/2007	2/15/2007	2/15/2007	2/15/2007	2/15/2007	2/15/2007	2/15/2007		
Sample Depth (feet bgs)	14	27	30	12.5	11	12.5	11	12.5	15	11		
Sample Elevation (feet)[2]	87	74	71	88.5	90	88.5	90	88.5	86	90		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	NS	HS	NS	NS	NS	NS	NS	NS	NS	NS	NE	NE
Headspace Vapors (ppm)	<1	>2,000	1.4	23.6	21.7	285	21.7	285	45.3	3.8	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	**8,000**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	**4.6**	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	**13**	0.03 U	--	--	--	--	--	--	--	0.03	NE
Toluene	--	**27**	0.05 U	--	--	--	--	--	--	--	6	NE
Ethylbenzene	--	**82**	0.05 U	--	--	--	--	--	--	--	7	NE
Total Xylenes	--	**110**	0.2 U	--	--	--	--	--	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SW-7-88.5	SW7-83	SW-7-78	SW-7-68	SW-8-78	SW-9-72	EW-1-87	EW-1-74	EW-2-87	EW-3-80	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**		
Sample Date	**2/15/2007**	**2/20/2007**	**3/9/2007**	**3/30/2007**	**3/9/2007**	**3/27/2007**	**2/27/2007**	**3/30/2007**	**2/27/2007**	**3/27/2007**		
Sample Depth (feet bgs)	**12.5**	**18**	**23**	**33**	**23**	**29**	**14**	**27**	**14**	**21**		
Sample Elevation (feet)[2]	**88.5**	**83**	**78**	**68**	**78**	**72**	**87**	**74**	**87**	**80**		
Soil Type	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**	**Native**		
Field Screening Results												
Sheen	MS	NS	MS	NS	NS	NS	MS	NS	MS	NS	NE	NE
Headspace Vapors (ppm)	308	5.6	115	2.4	1.3	<1	279	1.3	6.6	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	**2,500**	3 U	**22**	3 U	3 U	3 U	**1,100**	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Heavy Oil-Range	--	--	--	--	--	--	--	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	0.03 U	--	--	--	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03	NE
Toluene	0.05 U	--	--	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	6	NE
Ethylbenzene	0.05 U	--	--	--	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	7	NE
Total Xylenes	0.2 U	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	--	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs			--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic			--	--	--	--	--	--	--	--	20	7
Cadmium			--	--	--	--	--	--	--	--	2	1
Total Chromium			--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead			--	--	--	--	--	--	--	--	250	24
Mercury			--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	G1-81.5	G1-76.5	G1-71.5	H2-57.5	K1-74.5	K1-69.5	K1-62	L1-70	M1-65.5	M1-B-68.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**		
Sample Date	**8/13/2007**	**8/13/2007**	**8/13/2007**	**8/14/2007**	**8/13/2007**	**8/13/2007**	**8/13/2007**	**8/14/2007**	**8/14/2007**	**11/15/2007**		
Sample Depth (feet bgs)	**7.5**	**12.5**	**17.5**	**30**	**5.0**	**10.0**	**17.5**	**7**	**10**	**7.5**		
Sample Elevation (feet)[2]	**81.5**	**76.5**	**71.5**	**57.5**	**74.5**	**69.5**	**62**	**70**	**65.5**	**68.5**		
Soil Type	**Fill**	**Fill**	**Fill**	**Native**	**Fill**	**Fill**	**Native**	**Fill**	**Native**	**Fill**		
Field Screening Results												
Sheen	1.5	2	1.3	<1	NS	SS	NS	NS	<1	–	NE	NE
Headspace Vapors (ppm)	NS	NS	NS	MS	<1	<1	<1	<1	NS	–	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--								NE	NE
Gasoline-Range	–	–	–	**4**	–	–	3 U	–	6 U	–	30/100[5]	NE
Diesel-Range	25 U	25 U	25 U	25 U	25 U	**130**	25 U	25 U	35 U	–	2,000	NE
Heavy Oil-Range	50 U	50 U	**110**	**63**	50 U	**600**	50 U	50 U	70 U	–	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	–	–	–	0.03 U	–	–	–	–	–	–	0.03	NE
Toluene	–	–	–	0.05 U	–	–	–	–	–	–	6	NE
Ethylbenzene	–	–	–	0.05 U	–	–	–	–	–	–	7	NE
Total Xylenes	–	–	–	0.2 U	–	–	–	–	–	–	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	5	NE
Acenaphthylene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	NE	NE
Acenaphthene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	4,800[9]	NE
Fluorene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	3,200[9]	NE
Phenanthrene	0.02 U	**0.04**	**0.07**	0.02 U	0.02 U	**0.03**	–	**0.07**	–	–	NE	NE
Anthracene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	24,000[9]	NE
Fluoranthene	0.02 U	**0.11**	**0.10**	0.02 U	0.02 U	**0.03**	–	**0.13**	–	–	3,200[9]	NE
Pyrene	0.02 U	**0.14**	**0.11**	0.02 U	0.02 U	**0.04**	–	**0.17**	–	–	2,4009[9]	NE
Benzo[a]anthracene	0.02 U	**0.05**	**0.04**	0.02 U	0.02 U	0.02 U	–	**0.05**	–	–	0.137[9]	NE
Chrysene	0.02 U	**0.05**	**0.04**	0.02 U	0.02 U	0.02 U	–	**0.06**	–	–	0.137[9]	NE
Benzo[b]fluoranthene	0.02 U	**0.06**	**0.06**	0.02 U	0.02 U	**0.03**	–	**0.08**	–	–	0.137[9]	NE
Benzo[k]fluoranthene	0.02 U	**0.04**	**0.03**	0.02 U	0.02 U	0.02 U	–	**0.04**	–	–	0.137[9]	NE
Benzo[a]pyrene	0.02 U	**0.05**	**0.03**	0.02 U	0.02 U	0.02 U	–	**0.04**	–	–	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	0.02 U	**0.05**	**0.04**	0.02 U	0.02 U	0.02 U	–	**0.06**	–	–	0.137[9]	NE
Dibenz[a,h]anthracene	0.02 U	**0.04**	**0.03**	0.02 U	0.02 U	0.02 U	–	**0.04**	–	–	0.137[9]	NE
Benzo[g,h,i]perylene	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	–	0.02 U	–	–	NE	NE
Total cPAH - TEQ[10]	0.02 U	**0.07**	**0.06**	0.02 U	0.02 U	**0.02**	–	**0.08**	–	–	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	–	–	–	–	–	–	–	–	–	–	1	NE
Metals (mg/kg)[12]												
Arsenic	5 U	5 U	5 U	5 U	5 U	5 U	–	5 U	5 U	–	20	7
Cadmium	–	–	–	–	–	–	–	–	–	–	2	1
Total Chromium	39	27	25	37	32	52	–	28	34	–	2,000[13]	110[14]
Lead	6.7	**34**	**28**	5.7	16	17	–	**46**	20	8.1	250	24
Mercury	0.03	0.06	0.03	0.04	0.03	0.05	–	0.03	0.13	–	2	0.13[14]

Sample Identification[1]	M1-C-68.5	M1-D-68.5	M1-E-68.5	M2-74	M2-71.5	GEI-TP-15-69	GEI-TP-8-59	GEI-TP-14-67	A2-1-59	A2-2-59	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	11/15/2007	11/15/2007	11/15/2007	8/15/2007	8/15/2007	8/20/2008	10/7/2008	8/20/2008	11/20/2008	11/20/2008		
Sample Depth (feet bgs)	7.5	7.5	7.5	2.5	5	20	27	23	23	23		
Sample Elevation (feet)[2]	68.5	68.5	68.5	74	71.5	69	59	67	59	59		
Soil Type	Fill	Fill	Fill	Fill	Fill	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	--	--	--	3.3	3	NS	NS	NS	NS	NS	NE	NE
Headspace Vapors (ppm)	--	--	--	NS	NS	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification						--	--	--	--	--	NE	NE
Gasoline-Range	--	--	--	--	--	--	--	--	3 U	3 U	30/100[5]	NE
Diesel-Range	--	--	--	25 U	25 U	25 U	25 U	25 U	25 U	25 U	2,000	NE
Heavy Oil-Range	--	--	--	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	--	--	--	--	--	--	--	0.03 U	0.03 U	0.03	NE
Toluene	--	--	--	--	--	--	--	--	0.05 U	0.05 U	6	NE
Ethylbenzene	--	--	--	--	--	--	--	--	0.05 U	0.05 U	7	NE
Total Xylenes	--	--	--	--	--	--	--	--	0.2 U	0.2 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	0.02 U	0.02 U	--	--	--	0.02 U	0.02 U	5	NE
Acenaphthylene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	**0.02**	0.02 U	--	--	--	--	--	NE	NE
Anthracene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	**0.05**	0.02 U	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	**0.06**	0.02 U	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	**0.03**	0.02 U	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	**0.03**	0.02 U	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	**0.02**	0.02 U	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	**0.02**	0.02 U	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	0.02 U	0.02 U	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	**0.03**	0.02 U	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	5 U	5 U	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	19	24	--	--	--	--	--	2,000[13]	110[14]
Lead	**27**	23	9.6	11	8.5	--	--	--	--	--	250	24
Mercury	**--**	**--**	**--**	0.02 U	0.02 U	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	A2-3-50	A2-4-59	A2-5-50	A2-5-50dup	A3-1-50	A3-2-49	A3-3-50	A3-4-49	A3-5-58	A3-6-59	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	1/8/2009	11/20/2008	11/21/2008	11/21/2008	12/4/2008	12/9/2008	12/9/2008	12/9/2008	2/25/2009	12/31/2008		
Sample Depth (feet bgs)	30	21	31	31	31	32	33	33	33	25		
Sample Elevation (feet)[2]	50	59	50	50	50	49	50	49	58	59		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	NS	SS	NS	NS	NS	NS	NS	NS	NS	NS	NE	NE
Headspace Vapors (ppm)	<1	90	<1	<1	<1	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	**210**	3 U	3 U	3 U	3 U	3 U	3 U	3 U	**7**	30/100[5]	NE
Diesel-Range	25 U	**1,400**	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	2,000	NE
Heavy Oil-Range	50 U	**68**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	0.03 U	**1.8**	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	**0.04**	0.03	NE
Toluene	0.05 U	**4.3**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	6	NE
Ethylbenzene	0.05 U	**1.4**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	**0.1**	7	NE
Total Xylenes	0.2 U	**7.6**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.5**	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	0.02 U	**11.6**	0.02 U	0.02 U	--	--	--	--	--	--	5	NE
Acenaphthylene	--	0.02 U	--	--	--	--	--	--	--	--	NE	NE
Acenaphthene	--	**0.6**	--	--	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	**0.25**	--	--	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	**0.19**	--	--	--	--	--	--	--	--	NE	NE
Anthracene	--	0.02 U	--	--	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	0.02 U	--	--	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	0.02 U	--	--	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	0.02 U	--	--	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	0.02 U	--	--	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	0.02 U	--	--	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	8.8	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	A3-6-59dup	A3-7-59	A3-8-59	A3-9-50	A3-10-49	A3-11-58	A3-12-49	A3-13-49	A3-12-49	A3-13-49	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	12/31/2008	12/31/2008	1/9/2009	2/10/2008	1/16/2009	2/26/2009	3/23/2009	3/23/2009	3/23/2009	3/23/2009		
Sample Depth (feet bgs)	25	26	25	34	35	29	37	37	37	37		
Sample Elevation (feet)[2]	59	59	59	50	49	58	49	49	49	49		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	NS	NS	NS	HS	NS	NS	NS	NS	NS	NS	NE	NE
Headspace Vapors (ppm)	<1	<1	<1	160	<1	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	3 U	**1,000**	3 U	3 U	3 U	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range	25 U	25 U	25 U	**2,000**	25 U	25 U	25 U	25 U	25 U	25 U	2,000	NE
Heavy Oil-Range	50 U	50 U	50 U	**340**	50 U	50 U	50 U	50 U	50 U	50 U	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03	NE
Toluene	0.06 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	6	NE
Ethylbenzene	0.06 U	0.05 U	0.05 U	**1.6**	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	7	NE
Total Xylenes	0.2 U	0.2 U	0.2 U	**2.9**	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	--	**1.46**	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	--	**0.06**	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	--	**0.08**	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	--	**0.09**	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	--	**0.22**	--	--	--	--	--	--	NE	NE
Anthracene	--	--	--	**0.07**	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	--	**0.19**	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	--	**0.13**	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	--	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	--	**0.07**	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	--	**0.06**	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	--	**0.03**	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	--	**0.04**	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	--	**0.04**	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	--	**0.02**	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	--	0.02 U	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	--	**0.06**	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	5 U	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	SC-2-Ex-1-60	SC-3-Ex-1-56	SC-4-Ex-1-51	SC-6-Ex-1-63	SC-7-Ex-2-49.5	SC-7-Ex-2-50	SC-7-Ex-3-50	SC-8-Ex-4-82	SC-8-Ex-5-82	SC-8-Ex-6-82	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers	GeoEngineers		
Sample Date	10/30/2008	11/18/2008	9/6/2008	3/13/2009	3/23/2009	3/23/2009	3/24/2009	9/2/2009	9/2/2009	9/2/2009		
Sample Depth (feet bgs)	29	33	37	27	38.5	38	38	15	15	15		
Sample Elevation (feet)[2]	60	56	51	63	49.5	49.5	49.5	82	82	82		
Soil Type	Native	Native	Native	Native	Native	Native	Native	Native	Native	Native		
Field Screening Results												
Sheen	NS	NS	NS	HS	NS	NS	NS	NS	NS	NS	NE	NE
Headspace Vapors (ppm)	<1	<1	<1	30	<1	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	**Diesel**	--	--	--	--	--	--	NE	NE
Gasoline-Range	--	--	--	--	--	--	--	3 U	3 U	3 U	30/100[5]	NE
Diesel-Range	25 U	25 U	25 U	**340**	25 U	25 U	25 U	--	--	--	2,000	NE
Heavy Oil-Range	50 U	50 U	50 U	50 U	50 U	50 U	50 U	--	--	--	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	--	--	--	0.03 U	--	--	--	0.03 U	0.03 U	0.03 U	0.03	NE
Toluene	--	--	--	0.05 U	--	--	--	0.05 U	0.05 U	0.05 U	6	NE
Ethylbenzene	--	--	--	0.05 U	--	--	--	0.05 U	0.05 U	0.05 U	7	NE
Total Xylenes	--	--	--	0.2 U	--	--	--	0.2 U	0.2 U	0.2 U	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	0.02 U	--	0.02 U	**2.4**	--	--	--	--	--	--	5	NE
Acenaphthylene	--	--	0.02 U	**0.04**	--	--	--	--	--	--	NE	NE
Acenaphthene	--	--	0.02 U	**0.11**	--	--	--	--	--	--	4,800[9]	NE
Fluorene	--	--	0.02 U	**0.33**	--	--	--	--	--	--	3,200[9]	NE
Phenanthrene	--	--	0.02 U	**0.41**	--	--	--	--	--	--	NE	NE
Anthracene	--	--	0.02 U	**0.03**	--	--	--	--	--	--	24,000[9]	NE
Fluoranthene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	3,200[9]	NE
Pyrene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	2,4009[9]	NE
Benzo[a]anthracene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Chrysene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Benzo[b]fluoranthene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Benzo[k]fluoranthene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Benzo[a]pyrene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	0.02 U	0.02 U	--	--	--	--	--	--	NE	NE
Total cPAH - TEQ[10]	--	--	0.02 U	0.02 U	--	--	--	--	--	--	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	--	--	--	--	--	--	--	--	20	7
Cadmium	--	--	--	--	--	--	--	--	--	--	2	1
Total Chromium	--	--	--	--	--	--	--	--	--	--	2,000[13]	110[14]
Lead	--	--	--	--	--	--	--	--	--	--	250	24
Mercury	--	--	--	--	--	--	--	--	--	--	2	0.13[14]

Sample Identification[1]	GEI-29-68	GEI-MW-2-15	GEI-101-2-5.0	GEI-101-4-10.0	GEI-105-1-2.5	GEI-105-3-5.0	GEI-105-9-15.0	GEI-109-2-2.5	GEI-109-6-8.0	GEI-109-10-12.5	MTCA Method A Cleanup Level	Natural Background[3]
Sampled By	**GeoEngineers**	**GeoEngineers**	**6/14/2010**	**6/14/2010**	**6/15/2010**	**6/15/2010**	**6/15/2010**	**GeoEngineers**	**GeoEngineers**	**GeoEngineers**		
Sample Date	**5/7/2009**	**5/18/2010**	**5.0**	**10.0**	**2.5**	**5.0**	**15.0**	**6/15/2010**	**6/15/2010**	**6/15/2010**		
Sample Depth (feet bgs)	**25**	**15**	**77.1**	**77.1**	**80.8**	**80.8**	**80.8**	**2.5**	**8**	**12.5**		
Sample Elevation (feet)[2]	**68**	**82**	**72.1**	**67.1**	**78.3**	**75.8**	**65.8**	**74.1**	**68.6**	**64.1**		
Soil Type	**Native**	**Native**	**Fill**	**Native**	**Fill**	**Fill**	**Native**	**Fill**	**Fill**	**Native**		
Field Screening Results												
Sheen	NS	NS	NS	NS	SS	NS	NS	SS	NS	NS	NE	NE
Headspace Vapors (ppm)	<1	<1	--	--	5	<1	<1	<1	<1	<1	NE	NE
Petroleum Hydrocarbons (mg/kg)[4]												
Petroleum Identification	--	--	--	--	--	--	--	--	--	--	NE	NE
Gasoline-Range	3 U	3 U	--	--	--	--	--	--	--	--	30/100[5]	NE
Diesel-Range	25 U	--	25 U	25 U	**290**	25 U	25 U	25 U	25 U	25 U	2,000	NE
Heavy Oil-Range	50 U	--	**290**	50 U	**150**	**65**	<50	50 U	50 U	50 U	2,000	NE
Volatile Organic Compounds (VOCs; mg/kg)[7]												
Benzene	0.03 U	0.03 U	--	--	--	--	--	--	--	--	0.03	NE
Toluene	0.05 U	0.05 U	--	--	--	--	--	--	--	--	6	NE
Ethylbenzene	0.05 U	0.05 U	--	--	--	--	--	--	--	--	7	NE
Total Xylenes	0.2 U	0.2 U	--	--	--	--	--	--	--	--	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs; mg/kg)[8]												
Naphthalenes	--	--	0.02 U	0.02 U	**22.70**	**0.75**	0.02 U	0.02 U	0.02 U	0.02 U	5	NE
Acenaphthylene	--	--	0.02 U	0.02 U	**0.15**	0.04 U	0.02 U	0.02 U	0.02 U	0.02 U	NE	NE
Acenaphthene	--	--	0.02 U	0.02 U	**9.7**	**0.61**	0.02 U	0.02 U	0.02 U	0.02 U	4,800[9]	NE
Fluorene	--	--	0.02 U	0.02 U	**10**	**0.66**	0.02 U	0.02 U	0.02 U	0.02 U	3,200[9]	NE
Phenanthrene	--	--	0.02 U	0.02 U	**27**	**2.2**	0.02 U	**0.33**	0.02 U	0.02 U	NE	NE
Anthracene	--	--	0.02 U	0.02 U	**5.1**	**0.39**	0.02 U	0.02 U	0.02 U	0.02 U	24,000[9]	NE
Fluoranthene	--	--	0.02 U	0.02 U	**12**	**1.1**	0.02 U	**0.086**	0.02 U	0.02 U	3,200[9]	NE
Pyrene	--	--	0.02 U	0.02 U	**5.8**	**0.7**	0.02 U	**0.12**	0.02 U	0.02 U	2,4009[9]	NE
Benzo[a]anthracene	--	--	0.02 U	0.02 U	**10**	**0.66**	0.02 U	0.02 U	0.02 U	0.02 U	0.137[9]	NE
Chrysene	--	--	0.02 U	0.02 U	**1.60**	**0.18**	0.02 U	**0.063**	0.02 U	0.02 U	0.137[9]	NE
Benzo[b]fluoranthene	--	--	0.02 U	0.02 U	**1.50**	**0.21**	0.02 U	**0.076**	0.02 U	0.02 U	0.137[9]	NE
Benzo[k]fluoranthene	--	--	0.02 U	0.02 U	**0.36**	**0.057**	0.02 U	**0.1**	0.02 U	0.02 U	0.137[9]	NE
Benzo[a]pyrene	--	--	0.02 U	0.02 U	**0.36**	**0.02**	0.02 U	**0.066**	0.02 U	0.02 U	0.137[9]	NE
Indeno(1,2,3-c,d)pyrene	--	--	0.02 U	0.02 U	**0.31**	**0.042**	0.02 U	**0.081**	0.02 U	0.02 U	0.137[9]	NE
Dibenz[a,h]anthracene	--	--	0.02 U	0.02 U	**0.09**	**0.02**	0.02 U	**0.057**	0.02 U	0.02 U	0.137[9]	NE
Benzo[g,h,i]perylene	--	--	0.02 U	0.02 U	**0.062**	**0.02**	0.02 U	**0.024**	0.02 U	0.02 U	NE	NE
Total cPAH - TEQ[10]	--	--	0.02 U	0.02 U	**0.57**	**0.07**	0.02 U	**0.11**	0.02 U	0.02 U	0.1	NE
Polychlorinated Biphenyls (PCBs; mg/kg)[11]												
Total PCBs	--	--	--	--	--	--	--	--	--	--	1	NE
Metals (mg/kg)[12]												
Arsenic	--	--	3	2.2	2.6	5.6	3	2.2	2.4	**9.5**	20	7
Cadmium	--	--	1 U	1 U	1 U	1 U	1 U	1 U	0.02 U	1 U	2	1
Total Chromium	--	--	34	78	17	58	99	17	9.6	49	2,000[13]	110[14]
Lead	--	--	11	11	**30**	5.9	12	6.4	3.1	6.8	250	24
Mercury	--	--	0.02 U	0.062	0.02 U	0.02 U	0.053	0.02 U	0.047	0.065	2	0.13[14]

Notes

[1] The approximate sample locations are shown in Figures 3 and 4. Sample ID have been translated to reference the elevation in which the sample was obtained.

[2] Per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State," dated October 1994.

[3] Sample elevations are interpolated surface topography contours (NAVD-88) shown on Figure 2.

[4] Analyzed using NWTPH-HCID, NWTPH-G or NWTPH-Dx.

[5] Total petroleum hydrocarbons analyzed using TPH Method 418.1.

[6] MTCA Method A cleanup level is 30 mg/kg when benzene is detected.

[7] Analyzed using EPA Method 8260 or 8021.

[8] Analyzed by EPA Method 8270SIM.

[9] MTCA Method B cleanup level.

[10] Total carcinogenic PAHs (cPAHs) calculated using toxic equivalent (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one half of the detection limit for these calculations.

[11] Analyzed using EPA Method 8082.

[12] Analyzed using EPA Method 6000/7000 series.

[13] MTCA Method A cleanup level has not been established for total chromium. The MTCA Method A cleanup levels for chromium VI and III are 19 and 2,000 mg/kg, respectively. Chromium VI is produced during industrial processes (however, not likely produced at this property), and chromium III is a naturally occurring metal present in the Puget Sound region.

[14] Site-specific background concentrations were established for these analytes.

bgs = below the ground surface

NS = No Sheen

SS = Slight Sheen

MS = Moderate Sheen

HS = Heavy Sheen

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

N/A = Not Available

ND = Not detected

NE = Not Established

ppm = parts per million

U = not detected above the laboratory reporting limit.

– = not tested

Bolding indicates analyte was detected greater than natural background.

Shading indicated analyte was detected at a concentration greater than the MTCA Cleanup Level.

Table 2

Summary of Groundwater Chemical Analytical Data

500 Fifth Avenue North Property

Seattle, Washington

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
SVE-13 (Upgradient Point of Compliance)	02/24/17	4 U	4 U	4 U	**6.3**	400 U
	11/18/16	4 U	4 U	4 U	**4**	400 U
	08/29/16	1 U	**1.9**	**14**	**19**	**520**
	05/26/16	1 U	1 U	1 U	**9.2**	**780**
	02/26/16	1 U	1 U	1 U	1 U	100 U
	11/20/15	1 U	1 U	1 U	1 U	100 U
	05/28/14	1 U	1 U	**1.1**	**2.6**	**220**
	02/25/14	1 U	**1.3**	**4**	**15**	**720**
	11/26/13	1 U	**4.4**	**10**	**66**	**1,400**
	05/30/13	1 U	1 U	**1.2**	**5.3**	**270**
	02/27/13	1 U	1 U	1 U	1.1	**270**
	11/26/12	1 U	1 U	1 U	2 U	100 U
	08/30/12	1 U	**1.6**	**3.8**	**33**	**900**
	05/30/12	**1.8**	1 U	**24**	**21**	**1,100**
	02/29/12	1 U	**1.5**	**3.3**	**16**	**1,500**
	11/29/11	1 U	1 U	1 U	2 U	100 U
	08/30/11	4 U	**5**	**5.7**	**20**	**4,900**
	05/27/11	4 U	4 U	4 U	**8.2**	**2,400**
	02/24/11	1 U	5 U	**4.2**	**25**	**5,100**
	05/20/10	**8.1**	4 U	**33**	**69**	**13,000**
SVE-16	02/24/17	4 U	4 U	4 U	4 U	400 U
	11/18/16	**2**	1 U	**3**	1 U	**260**
	08/29/16	2 U	7.2	4 U	**13**	100 U
	05/26/16	1 U	6.2	4 U	**3.6**	**420**
	02/26/16	1 U	3.4	4 U	1 U	100 U
	11/20/15	**5.7**	1 U	**1.4**	4 U	**950**
	05/28/14	**5.1**	1 U	**24**	**2.2**	**900**
	02/25/14	**3.6**	1 U	**17**	**1.5**	**580**
	11/26/13	**6.5**	1 U	**36**	**2.2**	790
	08/30/13	**5.2**	**1.4**	**29**	**15**	**850**
	05/30/13	4 U	1 U	**7.2**	8 U	400 U
	02/27/13	1 U	1 U	**2.9**	2 U	**220**
	11/27/12	**7.9**	**2.7**	**46**	**51**	**1,900**
	08/30/12	**9**	**1.3**	**48**	**21**	**1,200**
	05/31/12	**2.5**	1 U	**11**	**2.1**	**370**
	02/29/12	**3.1**	1 U	**10**	**1.8**	**440**
	11/29/11	**10**	1 U	**37**	**12**	**1,100**
	08/30/11	**9.7**	1 U	**30**	**11**	**1,100**
	05/27/11	**8.5**	1 U	**5.6**	**1.7**	**480**
	02/24/11	**16**	1 U	**13**	**20**	**1,300**
	05/20/10	**17**	1 U	**33**	**3.5**	**820**

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SVE-17	02/24/17	4 U	4 U	4 U	4 U	400 U
	11/18/16	1 U	1 U	1 U	1 U	100 U
	08/29/16	1 U	1 U	1 U	1 U	100 U
	05/26/16	1 U	**3.2**	1 U	2 U	100 U
	02/26/16	1 U	1 U	1 U	1 U	100 U
	11/20/15	**4**	**1.2**	**8.4**	**2.7**	**630**
	05/28/14	1 U	1 U	1 U	2 U	100 U
	02/25/14	1 U	1 U	1 U	2 U	100 U
	11/26/13	1 U	1 U	1 U	2 U	100 U
	08/30/13	1 U	1 U	1 U	2 U	**120**
	05/30/13	1 U	1 U	1 U	2 U	100 U
	02/27/13	1 U	1 U	1 U	**1.9**	**400**
	11/26/12	1 U	1 U	1 U	**1.4**	**180**
	08/30/12	1 U	1 U	1 U	2 U	**170**
	05/31/12	1 U	1 U	1 U	**2**	**300**
	02/29/12	1 U	1 U	1 U	**12**	**720**
	11/29/11	**1.2**	1 U	1 U	**12**	**620**
	08/30/11	**1.2**	1 U	**2.3**	**22**	**880**
	05/27/11	**3.2**	1 U	**4.1**	**34**	**1,200**
	02/24/11	**2.6**	**1.1**	**6.4**	**49**	**1,900**
	05/20/10	**2.9**	1 U	**8.1**	**6**	**590**
SVE-19	02/24/17	4 U	4 U	4 U	4 U	400 U
	11/17/16	4 U	4 U	4 U	4 U	400 U
	08/29/16	4 U	4 U	4 U	4 U	400 U
	05/26/16	1 U	1 U	1 U	2 U	**160**
	02/26/16	1 U	1 U	1 U	2 U	**240**
	11/20/15	1 U	1 U	**4**	**2.4**	**400**
	05/28/14	1 U	1 U	**4.7**	2 U	**510**
	02/25/14	1 U	1 U	**4.8**	2 U	**560**
	11/26/13	1 U	1 U	**3.6**	2 U	400
	08/30/13	1 U	1 U	**5.8**	2 U	**780**
	05/30/13	4 U	4 U	**44**	8 U	**960**
	02/26/13	1 U	1 U	**12**	2 U	**670**
	11/26/12	**1.1**	1 U	**22**	**4.5**	**1,300**
	08/30/12	1 U	1 U	**2.9**	**3.2**	**360**
	05/31/12	**2**	1 U	**52**	**4.9**	**1,500**
	02/29/12	**1.5**	1 U	**34**	**8.8**	**1,300**
	11/29/11	**3.2**	1 U	**46**	**15**	**1,900**
	08/30/11	**3.4**	1 U	**62**	**35**	**2,000**
	05/27/11	**2.6**	**1.8**	**36**	**70**	**1,400**
	02/24/11	**4.5**	**6.1**	**52**	**168**	**2,400**
	05/20/10	**14**	1 U	1 U	**122**	**3,100**
SVE-20	02/23/17	4 U	4 U	**6.1**	4 U	400 U
	11/17/16	4 U	4 U	**4.9**	4 U	400 U
	08/29/16	4 U	4 U	**6.3**	4 U	400 U
	05/26/16	**1**	**3**	**5.4**	**3.6**	**340**
	02/26/16	1 U	1 U	1 U	2 U	400 U

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SVE-20 (continued)	11/20/15	1 U	1 U	**4.8**	**4**	**500**
	05/28/14	**1.5**	**1.4**	**11**	**15**	**870**
	02/25/14	**2**	**1.7**	**11**	**17**	**840**
	11/26/13	**1.9**	**1.7**	**13**	**17**	**790**
	08/30/13	**2.8**	**4**	**66**	**63**	**3,000**
	05/29/13	4 U	4 U	**22**	**22**	**790**
	02/26/13	**1.4**	**1.3**	**28**	**23**	**1,100**
	11/26/12	**2.2**	**2.5**	**50**	**42**	**2,300**
	08/30/12	1 U	1 U	**20**	**4**	**690**
	05/30/12	1 U	**1.1**	**2.7**	**12**	**1,300**
	02/29/12	**3.3**	**1.9**	**51**	**54**	**1,800**
	11/29/11	**4.1**	**1.1**	**25**	**26**	**1,300**
	08/30/11	**5.1**	4 U	**61**	**40**	**2,200**
	05/27/11	**4.7**	4 U	**58**	**43**	**3,100**
	02/24/11	**8.8**	**1.7**	**47**	**50**	**3,000**
	05/20/10	**13**	4 U	**81**	**146**	**4,600**
SVE-23	08/13/19	**2.57**	**11.3**	**88.9**	**263**	**3,580**
	02/20/19	**2.65**	**15**	**123**	**212**	**3,430**
	08/28/18	4 U	**9**	**68**	**164**	**3,100**
	02/23/18	**2.6**	**18**	**100**	**238**	**4,400**
	11/28/17	**3.5**	**20**	**110**	**300**	**5,400**
	08/29/17	4 U	**9.6**	**93**	**195**	**3,800**
	05/25/17	4 U	**12**	**110**	**216**	**4,100**
	02/23/17	4 U	**10**	**86**	**177**	**2,700**
	11/17/16	4 U	**11**	**89**	**218**	**3,100**
	08/26/16	4 U	**12**	**86**	**218**	**3,100**
	05/25/16	**3.2**	**11**	**78**	**185**	**3,700**
	02/25/16	1 U	**8.8**	**69**	**175**	**2,800**
	11/19/15	1 U	1 U	1 U	1 U	100 U
	08/26/15	**2.1**	**7.2**	**49**	**87**	**2,200**
	05/28/15	**1.8**	1 U	**45**	**3.8**	**2,200**
	02/26/15	**2.7**	**8.2**	**62**	**143**	**2,800**
	11/19/14	4 U	**8.8**	**85**	**210**	**3,500**
	08/28/14	4 U	**6.8**	**81**	**185**	**3,500**
	05/27/14	**2.9**	**9.8**	**74**	**125**	**2,800**
	02/24/14	**2**	**4.2**	**44**	**43**	**1,400**
	11/25/13	**4.4**	**11**	**67**	**125**	**2,500**
	08/29/13	**5.3**	**12**	**67**	**135**	**3,100**
	05/29/13	**1.1**	**1.5**	**9.8**	**15.1**	**460**
	02/26/13	1 U	1 U	**3.3**	**5.6**	**230**
	11/26/12	**5**	**8**	**56**	**89**	**2,400**
	08/30/12	**8.2**	**11**	**75**	**126**	**3,300**
	05/31/12	**3.9**	**3.1**	**27**	**30**	**1,200**
	02/29/12	**3.3**	**2.5**	**27**	**24**	**880**
	11/29/11	**6.9**	**6.5**	**53**	**47**	**1,600**
	08/30/11	**13**	**8**	**78**	**73**	**2,600**
	05/27/11	**21**	**10**	**100**	**176**	**4,200**

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SVE-23 (continued)	02/24/11	**27**	**7.4**	**130**	**197**	**6,000**
	05/20/10	**47**	**19**	**250**	**820**	**7,700**
SVE-24	08/13/19	1 U	1 U	1 U	1 U	50 U
	02/20/19	1 U	1 U	1 U	1 U	50 U
	08/28/18	1 U	1 U	1 U	1 U	100 U
	02/22/18	1 U	1 U	1 U	1 U	100 U
	11/28/17	1 U	1 U	1 U	1 U	100 U
	08/29/17	1 U	1 U	1 U	1 U	100 U
	05/24/17	1 U	1 U	1 U	1 U	100 U
	02/22/17	**2.9**	1 U	**2.3**	1 U	**160**
	11/17/16	**38**	**4.5**	**18**	**20.5**	**680**
	08/25/16	**13**	4 U	**6.3**	4 U	**440**
	05/24/16	1 U	**1**	1 U	1 U	100 U
	02/25/16	1 U	1 U	1 U	1 U	100 U
	11/19/15	1 U	1 U	1 U	1 U	100 U
	08/26/15	1 U	1 U	1 U	1 U	100 U
	05/28/15	1 U	1 U	1 U	2 U	100 U
	02/26/15	1 U	1 U	1 U	2 U	**150**
	08/28/14	1 U	1 U	1 U	2 U	**190**
	05/27/14	1 U	1 U	1 U	2 U	100 U
	02/24/14	1 U	1 U	1 U	2 U	**110**
	11/25/13	1 U	1 U	1 U	2 U	100 U
	08/29/13	1 U	1 U	**2.5**	2 U	**210**
	05/29/13	1 U	1 U	**2.4**	2 U	**180**
	02/26/13	**14**	1 U	**6.8**	2 U	**310**
	11/26/12	**31**	**1.4**	**9.5**	**3.4**	**500**
	08/29/12	**3.1**	1 U	**2.8**	2 U	**260**
	05/30/12	1 U	1 U	1 U	2 U	100 U
	02/29/12	**1.1**	1 U	1 U	**1.8**	**140**
	11/29/11	1 U	1 U	1 U	2 U	100 U
	08/30/11	1 U	1 U	1 U	2 U	100 U
	05/31/11	4 U	4 U	4 U	4 U	400 U
	02/24/11	1 U	1 U	1 U	2 U	100 U
	05/20/10	1 U	1 U	1 U	2 U	100 U
SVE-25	08/13/19	**20.3**	**4.23**	**13.4**	**21.7**	**860**
	02/20/19	**29.3**	**33.6**	**144**	**338**	**3,230**
	08/28/18	**20**	**14**	**45**	**97**	**1,200**
	02/22/18	1 U	1 U	1 U	**2.7**	100 U
	11/28/17	**2.5**	1 U	**3.5**	**2.7**	**100**
	08/30/17	4 U	4 U	4 U	1 U	400 U
	05/25/17	4 U	4 U	4 U	1 U	400 U
	02/23/17	**10**	4 U	**7.8**	**8.1**	400 U
	11/17/16	1 U	1 U	**1.4**	1 U	100 U
	08/25/16	1 U	1 U	**1.9**	1 U	100 U
	05/24/16	**4**	**1.2**	**14**	**1.6**	**270**
	02/25/16	1 U	1 U	**9.5**	2 U	100 U
	11/20/15	1 U	1 U	1 U	2 U	100 U

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SVE-25 (continued)	08/26/15	**43**	**8.5**	**130**	**47**	**2,000**
	05/28/15	**68**	4 U	**160**	**12**	**3,000**
	02/26/15	**120**	**13**	**190**	**106**	**2,900**
	11/19/14	**250**	**40**	**300**	**140**	**3,800**
	08/28/14	**170**	**85**	**220**	**281**	**4,400**
	05/27/14	**91**	**19**	**200**	**158**	**3,500**
	02/24/14	**120**	**52**	**260**	**257**	**4,800**
	11/25/13	**100**	**28**	**200**	**113**	**3,200**
	08/29/13	**93**	**7.5**	**130**	**71**	**2,200**
	05/29/13	**68**	**4.6**	**82**	**40**	**1,300**
	02/27/13	**190**	**29**	**150**	**180**	**3,200**
	11/26/12	**380**	**160**	**270**	**580**	**7,200**
	08/29/12	**200**	**160**	**180**	**377**	**5,300**
	05/30/12	**79**	**20**	**63**	**160**	**1,600**
	02/29/12	**400**	**230**	**330**	**498**	**6,600**
	11/29/11	**290**	**230**	**240**	**480**	**5,800**
	08/30/11	**430**	**220**	**250**	**591**	**6,700**
	05/31/11	**390**	**330**	**200**	**490**	**6,100**
	02/24/11	**400**	**370**	**200**	**440**	**6,900**
	05/20/10	**360**	**130**	**150**	**109**	**2,800**
SVE-26	02/23/17	100 U	1 U	1 U	1 U	1 U
	11/16/16	100 U	1 U	1 U	1 U	1 U
	08/29/16	100 U	1 U	1 U	1 U	1 U
	05/26/16	100 U	1 U	1 U	1 U	1 U
	02/26/16	100 U	1 U	1 U	1 U	1 U
	11/20/15	100 U	1 U	1 U	1 U	1 U
	05/27/14	100 U	1 U	1 U	1 U	2 U
	02/24/14	**130**	1 U	1 U	1 U	2 U
	11/25/13	**170**	**1.4**	1 U	1 U	2 U
	08/29/13	**180**	**2.7**	1 U	1 U	1 U
	05/29/13	**130**	**1.4**	1 U	1 U	2 U
	02/27/13	**170**	1 U	1 U	**1.6**	2 U
	11/26/12	**270**	1 U	1 U	**4.8**	**4.8**
	08/29/12	**520**	**8**	1 U	**20**	**26**
	05/30/12	**3,700**	**250**	**54**	**260**	**161**
	02/29/12	**1,400**	**99**	**21**	**84**	**91**
	11/29/11	**2,600**	**180**	**86**	**91**	**200**
	08/30/11	**2,200**	**170**	**100**	**81**	**180**
	05/31/11	**990**	**150**	**96**	**28**	**61**
	02/24/11	**270**	**11**	**2.3**	**1.1**	**11**
	05/20/10	400 U	4 U	4 U	4 U	4 U
SW-25 (Downgradient Point of Compliance)	02/23/17	--	--	--	--	--
	11/18/16	1 U	1 U	1 U	1 U	100 U
	08/29/16	1 U	1 U	1 U	1 U	100 U
	05/26/16	**2.9**	1 U	1 U	1 U	100 U
	02/26/16	1 U	1 U	1 U	1 U	100 U
	11/20/15	1 U	1 U	1 U	1 U	100 U

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SW-25 (Downgradient Point of Compliance)	05/28/14	1 U	1 U	1 U	2 U	100 U
	02/25/14	1 U	1 U	1 U	2 U	100 U
	11/26/13	1 U	1 U	1 U	2 U	100 U
	08/30/13	1 U	1 U	1 U	2 U	100 U
	05/30/13	1 U	1 U	1 U	2 U	100 U
	02/27/13	1 U	1 U	1 U	2 U	100 U
	11/26/12	1 U	1 U	1 U	2 U	100 U
	08/30/12	1 U	1 U	1 U	2 U	100 U
	05/31/12	1 U	1 U	1 U	2 U	100 U
	02/29/12	1 U	1 U	1 U	2 U	100 U
	12/09/11	1 U	1 U	1 U	2 U	100 U
	08/30/11	1 U	1 U	1 U	2 U	100 U
	05/31/11	1 U	1 U	1 U	2 U	100 U
	02/24/11	1 U	1 U	1 U	2 U	100 U
	11/05/10	1 U	1 U	1 U	2 U	100 U
	04/30/10	1 U	1 U	1 U	2 U	100 U
SW-26 (Downgradient Point of Compliance)	08/13/19	1 U	1 U	1 U	1 U	100 U
	02/20/19	1 U	1 U	1 U	1 U	100 U
	08/23/18	1 U	1 U	1 U	1 U	100 U
	02/22/18	1 U	1 U	1 U	1 U	100 U
	11/27/17	1 U	1 U	1 U	1 U	100 U
	08/29/17	1 U	1 U	1 U	1 U	100 U
	05/24/17	1 U	1 U	1 U	1 U	100 U
	02/22/17	1 U	1 U	1 U	1 U	100 U
	11/16/16	1 U	1 U	1 U	1 U	100 U
	08/25/16	1 U	1 U	1 U	1 U	100 U
	05/24/16	1 U	**2.9**	1 U	1 U	100 U
	02/25/16	1 U	1 U	1 U	1 U	100 U
	11/19/15	1 U	1 U	1 U	1 U	100 U
	08/26/15	1 U	1 U	1 U	1 U	100 U
	05/28/15	1 U	1 U	1 U	2 U	100 U
	02/26/15	1 U	1 U	1 U	2 U	100 U
	11/19/14	1 U	1 U	1 U	2 U	100 U
	08/28/14	1 U	1 U	1 U	2 U	100 U
	05/27/14	1 U	1 U	1 U	2 U	100 U
	02/25/14	1 U	1 U	1 U	2 U	100 U
	11/25/13	1 U	1 U	1 U	2 U	100 U
	08/29/13	1 U	1 U	1 U	2 U	100 U
	05/29/13	1 U	1 U	1 U	2 U	100 U
	02/27/13	1 U	1 U	1 U	2 U	100 U
	11/26/12	1 U	1 U	1 U	2 U	100 U
	08/29/12	1 U	1 U	1 U	2 U	100 U
	05/30/12	**3.1**	1 U	**2.2**	**1.1**	**230**
	02/29/12	1 U	1 U	1 U	2 U	100 U
	11/29/11	1 U	1 U	1 U	2 U	100 U
	08/30/11	1 U	1 U	1 U	2 U	100 U
	05/31/11	1 U	1 U	1 U	2 U	100 U

Monitoring Well[1]	Sample Date	Volatile Organic Compounds (VOCs; µg/L)[2]				Petroleum Hydrocarbons (µg/L)[3]
		Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline-Range
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]
SW-26 (Downgradient Point of Compliance)	02/24/11	1 U	1 U	1 U	2 U	100 U
	11/05/10	**5.5**	1 U	**1**	2 U	100 U
	04/30/10	**5.5**	4 U	4 U	8 U	400 U
SW-27 (Downgradient Point of Compliance)	08/13/19	1 U	1 U	1 U	1 U	100 U
	02/20/19	1 U	1 U	1 U	1 U	100 U
	08/23/18	1 U	1 U	1 U	1 U	100 U
	02/22/18	1 U	1 U	1 U	1 U	100 U
	11/28/2017	1 U	1 U	1 U	1 U	100 U
	8/30/2017	1 U	1 U	1 U	1 U	100 U
	5/24/2017	1 U	1 U	1 U	1 U	100 U
	2/22/2017	1 U	1 U	1 U	1 U	100 U
	11/17/2016	4 U	4 U	4 U	4 U	400 U
	8/29/2016	4 U	4 U	4 U	4 U	400 U
	5/26/2016	1 U	1 U	1 U	2 U	100 U
	2/26/2016	1 U	1 U	1 U	2 U	100 U
	11/20/2015	1 U	1 U	1 U	2 U	100 U
	5/27/2014	1 U	1 U	1 U	2 U	100 U
	2/24/2014	1 U	1 U	1 U	2 U	100 U
	11/25/2013	1 U	1 U	1 U	2 U	100 U
	8/29/2013	1 U	1 U	1 U	2 U	100 U
	5/29/2013	1 U	1 U	1 U	2 U	100 U
	2/27/2013	1 U	1 U	1 U	2 U	100 U
	11/27/2012	1 U	1 U	1 U	2 U	100 U
	8/29/2012	1 U	1 U	1 U	2 U	100 U
	5/31/2012	1 U	1 U	1 U	2 U	100 U
	2/29/2012	1 U	1 U	1 U	2 U	100 U
	11/29/2011	1 U	1 U	1 U	2 U	100 U
	8/30/2011	1 U	1 U	1 U	2 U	100 U
	5/31/2011	**1.5**	1 U	1 U	2 U	100 U
	2/24/2011	**2.1**	1 U	1 U	2 U	100 U
	11/5/2010	**8**	1 U	1 U	2 U	100 U
	4/30/2010	**4.5**	1 U	1 U	2 U	100 U
MTCA Method A Cleanup Level		5	1,000	700	1,000	800/1000[3]

Notes

[1] Analyzed using NWTPH-G.

[2] Analyzed using EPA Method 8260 or 8021.

[3] MTCA Method A cleanup level is 800 mg/L when benzene is detected.

mg/L = milligrams per liter.

MTCA = Model Toxics Control Act

U = not detected above the laboratory reporting limit

µg/L = micrograms per liter

VOCs = volatile organic compounds

Bolding indicates analyte was detected.

Shading indicated analyte was detected at a concentration greater than the MTCA Method A Cleanup level.

Table 3

Sampling and Chemical Analytical Testing Plan[1]

500 Fifth Avenue North Property
Seattle, Washington

Contaminant of Concern	Contaminated Fill Site	Stoddard Solvent Contamination Site	Gasoline Contamination Site	Gasoline UST Contamination Site No. 1	Previously Undocumented Soil Contamination	Property Reuse Criteria[2]	
						MTCA Method A Cleanup Level[3]	Natural Background[4]
Petroleum Hydrocarbons by NWTPHG/Dx (mg/kg)							
Gasoline-Range		■	■	■	■	30/100[5]	NE
Diesel-Range	■				■	2,000	NE
Heavy Oil-Range	■				■	2,000	NE
Volatile Organic Compounds (VOCs) by EPA 8260 (mg/kg)							
Benzene			■	■	■	0.03	NE
Toluene			■	■	■	6	NE
Ethylbenzene			■	■	■	7	NE
Total Xylenes			■	■	■	9	NE
Polycyclic Aromatic Hydrocarbons (PAHs) By EPA 8270 SIM (mg/kg)							
Naphthalenes	■				■	5	NE
Acenaphthylene	■				■	NE	NE
Acenaphthene	■				■	4,800[6]	NE
Fluorene	■				■	3,200[6]	NE
Phenanthrene	■				■	NE	NE
Anthracene	■				■	24,000[6]	NE
Fluoranthene	■				■	3,200[6]	NE
Pyrene	■				■	2,400[6]	NE
Benzo[a]anthracene	■				■	See Total cPAH TEQ	NE
Chrysene	■				■		NE
Benzo[b]fluoranthene	■				■		NE
Benzo[k]fluoranthene	■				■		NE
Benzo[a]pyrene	■				■		NE
Indeno(1,2,3-c,d)pyrene	■				■		NE
Dibenz[a,h]anthracene	■				■		NE
Benzo[g,h,i]perylene	■				■		NE
Total cPAH - TEQ						0.1	NE
Polychlorinated Biphenyls (PCBs) by EPA 8082 (mg/kg)							
PCBs					■	1	NE
Total Metals by EPA 6000/7000 Series (mg/kg)							
Arsenic	■				■	20	7
Cadmium	■				■	2	1
Total Chromium	■				■	19/2,000[7]	110[8]
Lead	■				■	250	24
Mercury	■				■	2	0.13[8]
TCLP Metals[9] by EPA 1311/1312 (mg/L)							
Arsenic	■				■	5	NE
Cadmium	■				■	1	NE
Total Chromium	■				■	5	NE
Lead	■				■	5	NE
Mercury	■				■	0.20	NE

Notes:

[1] This table is intended to be used as guidance for soil stockpile characterization for the 500 5th Avenue North Property. Excavated soil must be characterized for disposal or on-site reuse as required by MTCA, Washington State Dangerous Waste regulations and/or the selected disposal facility. Where stockpile characterization sampling is necessary, stockpile sampling must be performed at a frequency consistent with Table 1 of Ecology's Guidance for Remediation of Petroleum Contaminated Soils (Ecology, 1995). Additional analysis that may be requested by the disposal receiving facility for waste acceptance if material is transported from the Property.

[2] For the purposes of solid waste handling, excavated soil will be managed as contaminated if; 1) contaminant concentrations are detected for any analyte other than metals, or 2) metals are detected at a concentration greater than natural background. Contaminated soil with analyte concentrations less than MTCA Method A or B Cleanup Levels may be reused if geotechnically suitable. Contaminated soil with one or more analytes exceeding MTCA Method A or B Cleanup Levels must be transferred from the Property to an owner approved landfill.

[3] Model Toxics Control Act (MTCA) Method A Cleanup Level for Unrestricted Land Use. MTCA Method B Cleanup Level used when Method A Cleanup Level is not established.

[4] Natural background concentration for Puget Sound per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State," dated October 1994.

[5] MTCA Method A Cleanup Level is 30 mg/kg when benzene is detected.

[6] MTCA Method B Cleanup Level.

[7] The MTCA Method A cleanup levels for chromium VI and III are 19 and 2,000 mg/kg, respectively. Chromium VI is produced during industrial processes (however, not likely produced at this Property), and chromium III is a naturally occurring metal present in the Puget Sound region.

[8] Site-specific background concentrations were established for these analytes.

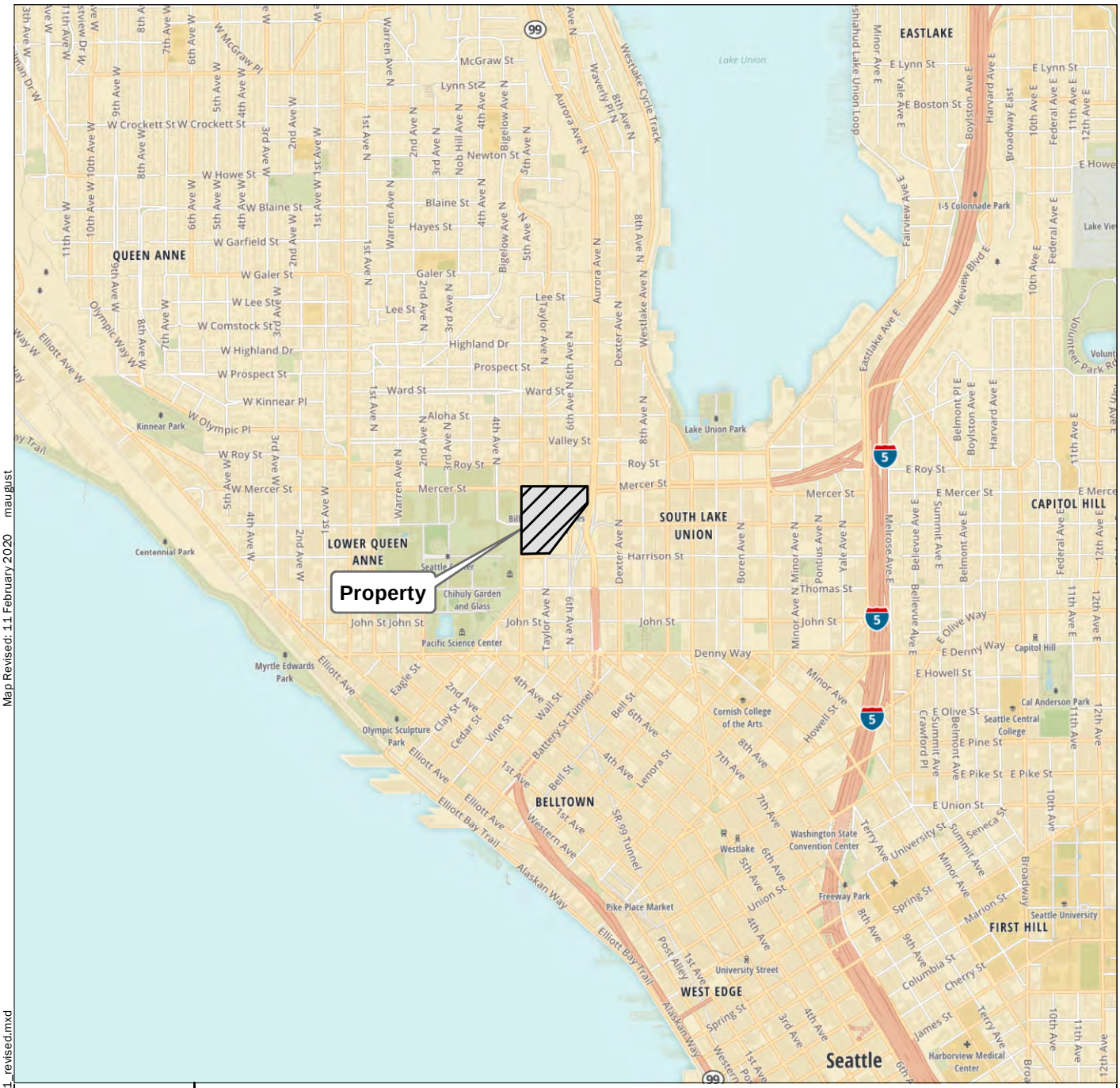
[9] Run follow-up Toxicity Characteristic Leaching Procedure (TCLP) analysis required if total metal concentration is greater than 20 times the TCLP criterion. Exceedance of the TCLP criterion must be managed as a dangerous waste per WAC 173-303.

mg/kg - milligrams per kilogram

mg/L = milligrams per liter

MTCA = Model Toxics Cleanup Act

UST = underground storage tank





N
W E
S

2,000 0 2,000
Feet

Data Sources: ESRI Data & Maps

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Projection: NAD 1983 UTM Zone 10N

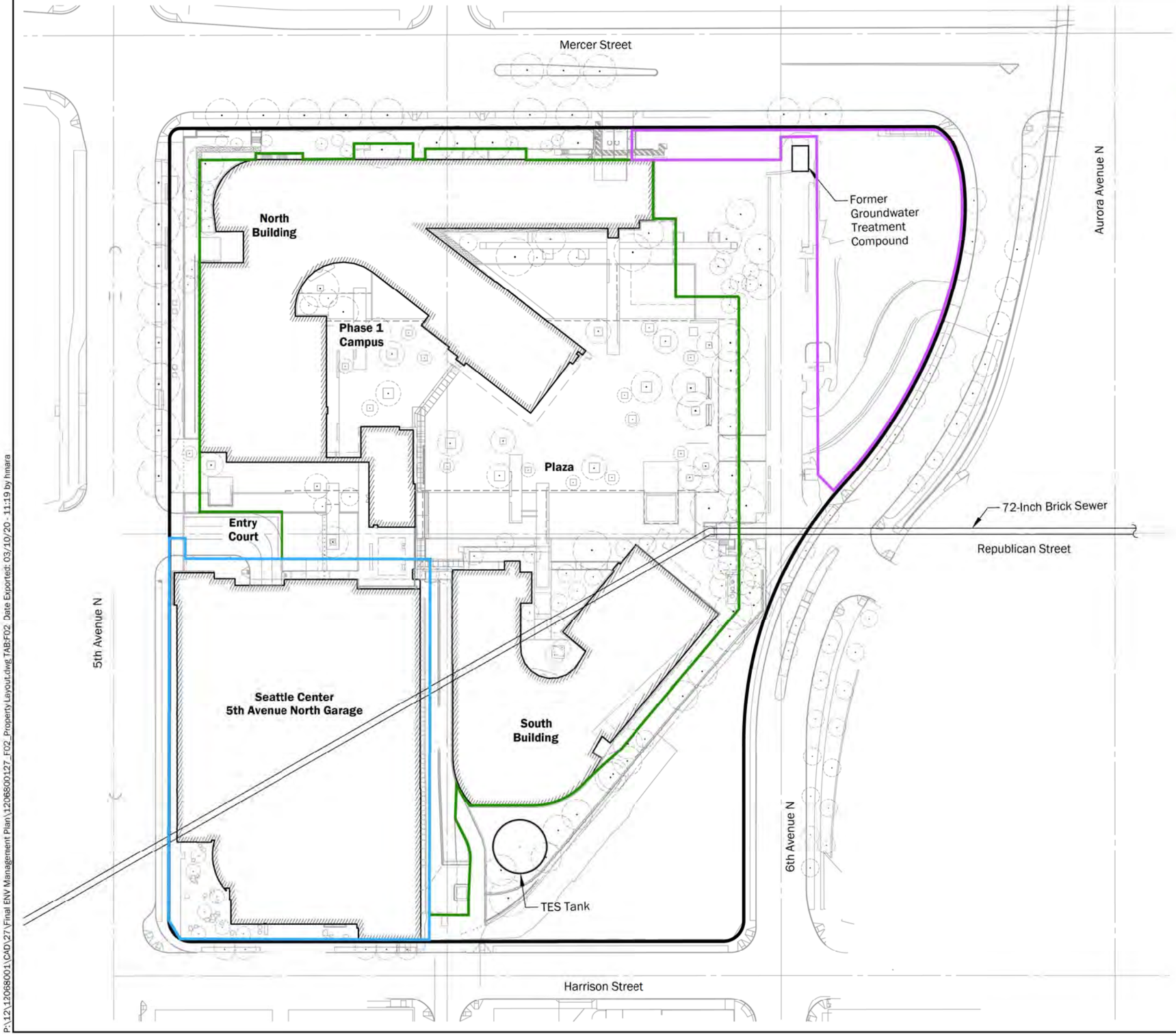
Vicinity Map

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 1

Office: Path: P:\12\12068001\06\GIS\MXDs\12068001060 4_F1_revised.mxd Map Revised: 11 February 2020 maugust



Legend

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

100 0 100
Feet

Property Layout

500 Fifth Avenue North Property
Seattle, Washington

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Figure 2

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Legend

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- Contaminants detected at concentrations greater than MTCA cleanup levels (See Table 1)
- Contaminants either not detected or detected at concentration less than MTCA cleanup levels (See Table 1)
- A A' Cross-Section Location

Contamination Sites:

- Contaminated Fill Site

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

100 0 100
Feet

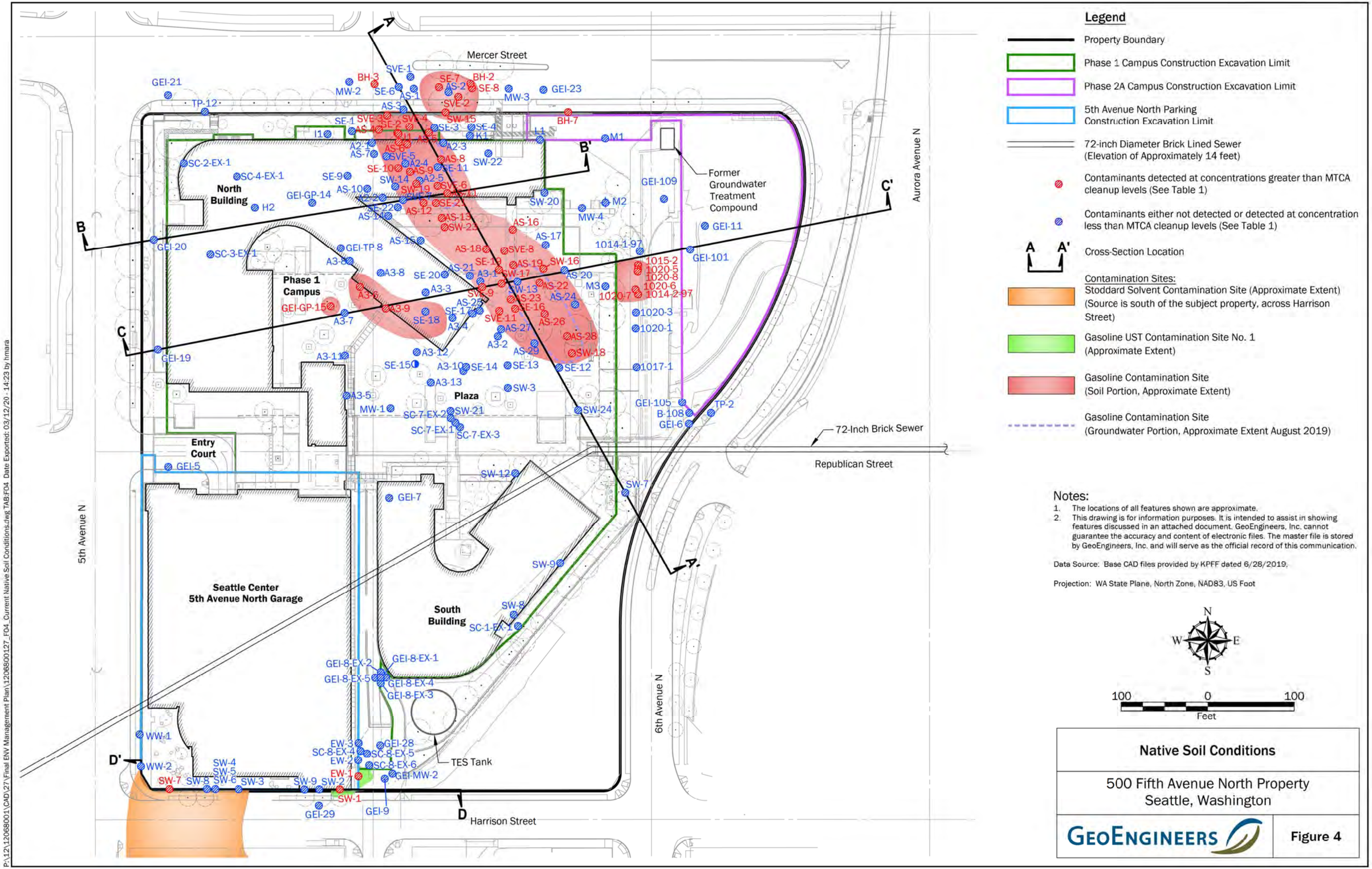
Fill Soil Conditions

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 3

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F03_Current Fill Soil Conditions.dwg TAB:F03 Date Exported: 03/10/20 - 11:22 by hmera



Legend

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- Contaminants detected at concentrations greater than MTCA cleanup levels (See Table 1)
- Contaminants either not detected or detected at concentration less than MTCA cleanup levels (See Table 1)
- Cross-Section Location

Contamination Sites:

- Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)
- Gasoline UST Contamination Site No. 1 (Approximate Extent)
- Gasoline Contamination Site (Soil Portion, Approximate Extent)
- Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

100 0 100
Feet

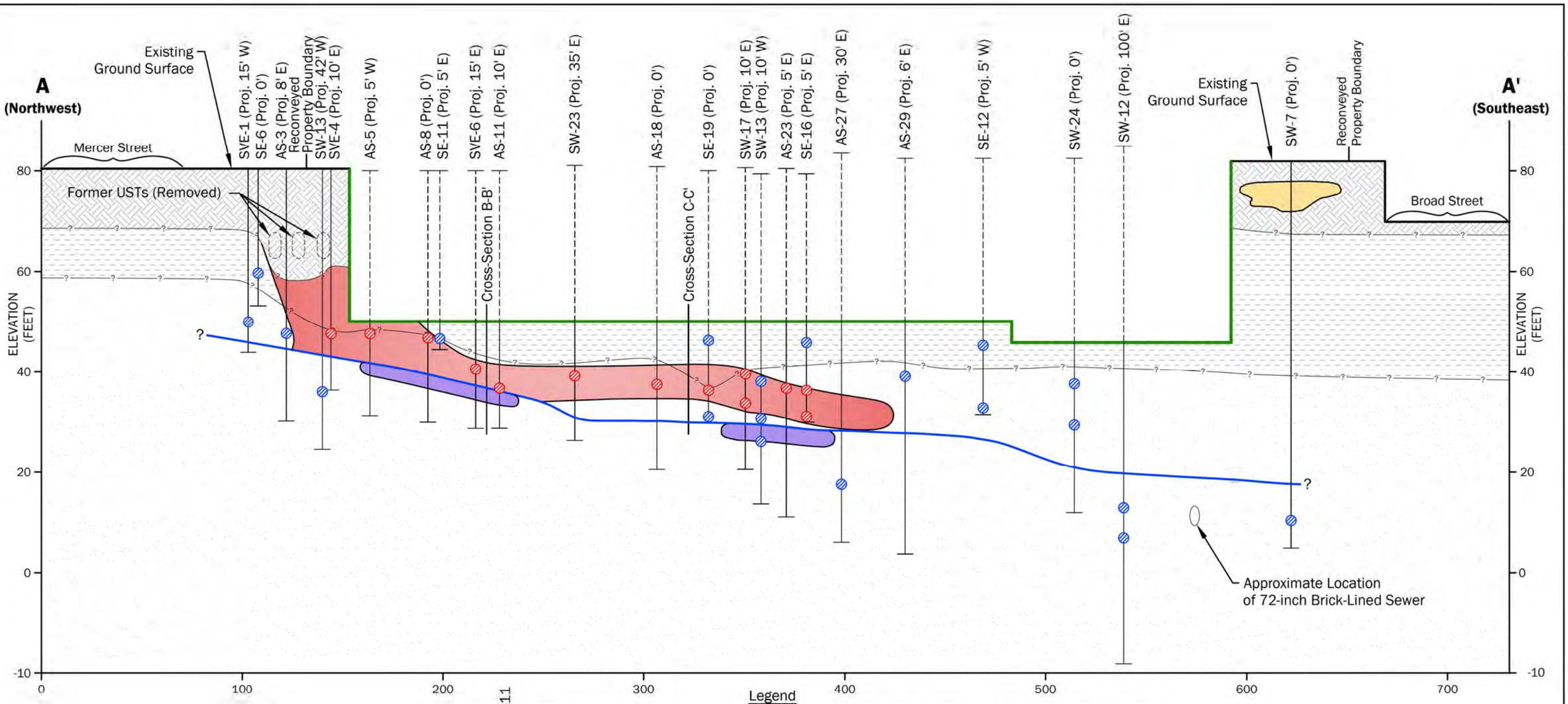
Native Soil Conditions

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 4

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F04_Current Native Soil Conditions.dwg TAB:F04 Date Exported: 03/12/20 - 14:23 by hmara



Legend

- Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 1)
- Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 1)

Contamination Sites:

- Gasoline Contamination Site (Soil Portion, Approximate Extent)
- Gasoline Contamination Site (Groundwater Portion, Approximate Extent)
- Contaminated Fill Site (Random Distribution, Conceptual Extent)

Analytes tested include one or more of the following: gasoline-range hydrocarbons, benzene, and polycyclic aromatic hydrocarbons (PAHs).

50 0 50
Horizontal Scale in Feet

20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2.5X

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Datum: NAVD 88, unless otherwise noted.

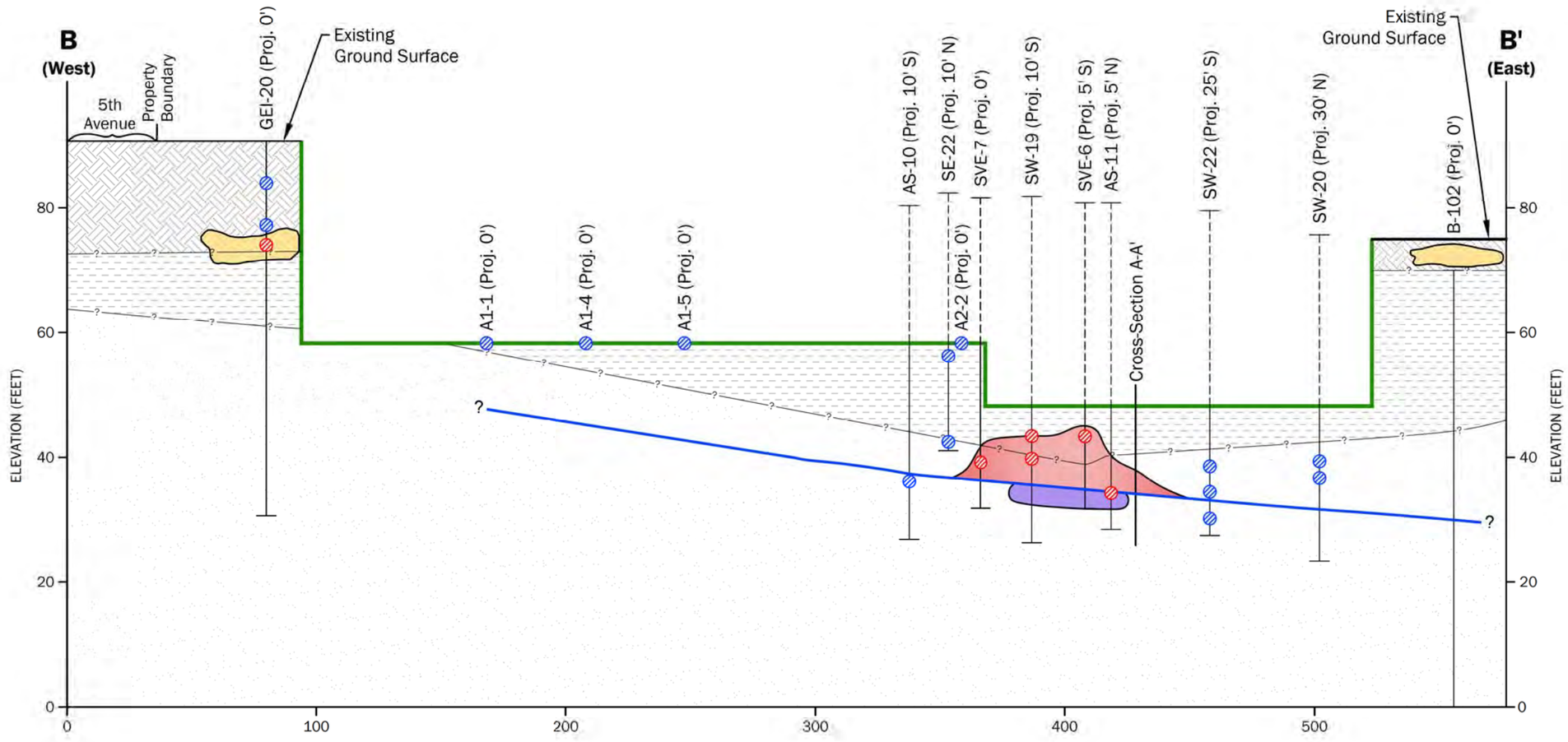
Cross-Section A-A'

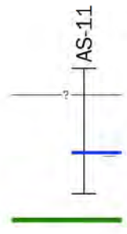
500 Fifth Avenue North Property
Seattle, Washington

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Figure 5

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Boring number

Inferred Soil Contact

Groundwater Table (Shannon & Wilson, 2008)

Phase 1 Campus Construction Excavation Limit

UST Underground Storage Tank

Fill

Lacustrine Deposits

Glacial Deposits

Legend

Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 1)

Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 1)

Contamination Sites:

Gasoline Contamination Site (Soil Portion, Approximate Extent)

Gasoline Contamination Site (Groundwater Portion, Approximate Extent)

Contaminated Fill Site (Random Distribution, Conceptual Extent)

Analytes tested include one or more of the following: gasoline-range hydrocarbons, benzene, and polycyclic aromatic hydrocarbons (PAHs).

50 0 50
Horizontal Scale in Feet

20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2.5X

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Datum: NAVD 88, unless otherwise noted.

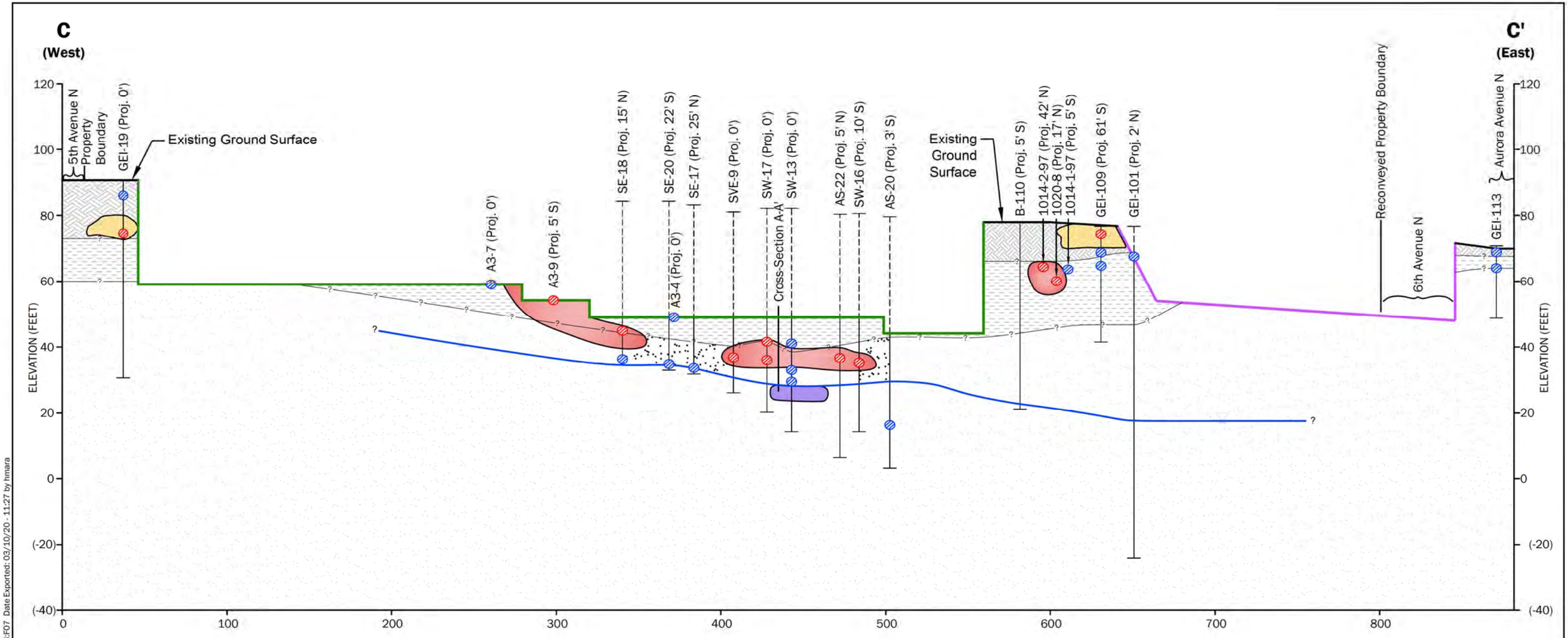
Cross-Section B-B'

500 Fifth Avenue North Property
Seattle, Washington

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Figure 6

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AS-22 — Boring number

? — Inferred Soil Contact

Groundwater Table (Shannon & Wilson, 2008)

Phase 1 Campus Construction Excavation Limit

UST — Underground Storage Tank

Fill

Lacustrine Deposits

Glacial Deposits

Legend

Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 1)

Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 1)

Contamination Sites:

Gasoline Contamination Site (Soil Portion, Approximate Extent)

Gasoline Contamination Site (Groundwater Portion, Approximate Extent)

Contaminated Fill Site (Random Distribution, Conceptual Extent)

Analytes tested include one or more of the following: gasoline-range hydrocarbons, benzene, and polycyclic aromatic hydrocarbons (PAHs).

60 0 60
Horizontal Scale in Feet

20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Datum: NAVD 88, unless otherwise noted.

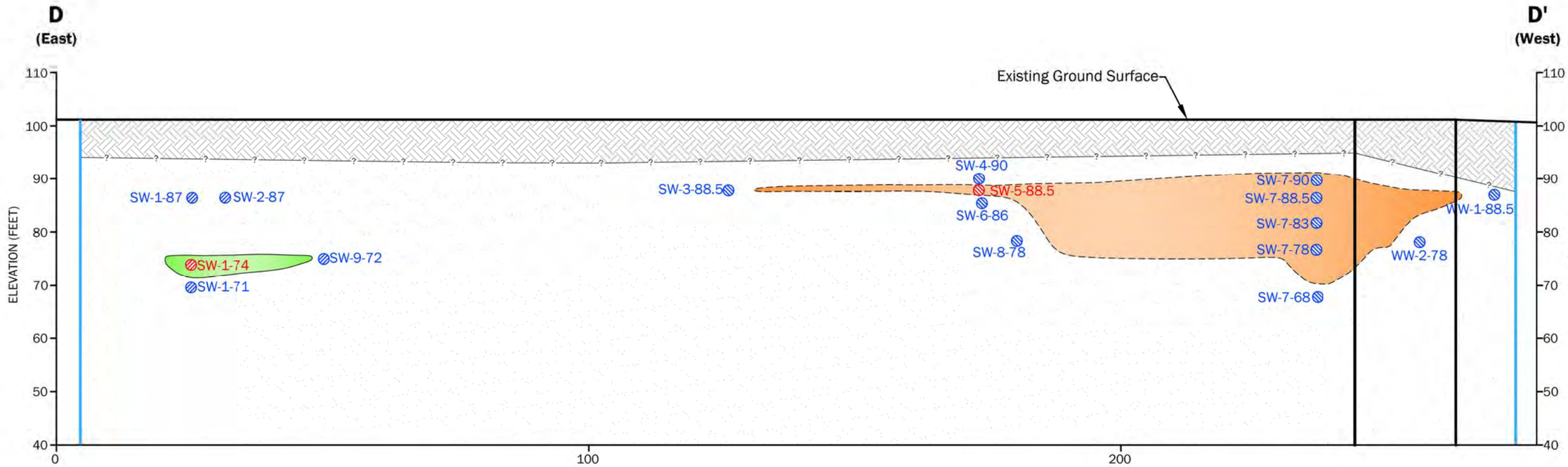
Cross-Section C-C'

500 Fifth Avenue North Property
Seattle, Washington

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Figure 7

P:\12\12068001\CAD\27\Final ENV Management Plan\120680012 7_i107_Section CC.dwg TAB:F07 Date Exported: 03/10/20 11:27 by hmara



AS-22 — Boring number

Inferred Soil Contact

Groundwater Table (Shannon & Wilson, 2008)

5th Avenue North Parking Construction Excavation Limit

Fill

Glacial Deposits

Legend

Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 1)

Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 1)

Contamination Sites:

Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)

Gasoline UST Contamination Site (Groundwater Portion, Approximate Extent)

Analytes tested include one or more of the following: gasoline-range hydrocarbons, benzene, and polycyclic aromatic hydrocarbons (PAHs).

20 0 20
Horizontal Scale in Feet

20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 1X

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Datum: NAVD 88, unless otherwise noted.

Cross-Section D-D'

500 Fifth Avenue North Property
Seattle, Washington

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Figure 8

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F08_Section DD.dwg TAB:F08 Date Exported: 03/10/20 13:44 by hmara

Mercer Street

Groundwater Treatment System Pipe Connection Vault

SVE-13

SVE-14

SVE-15

SVE-16

SVE-17

SVE-18

SVE-19

SVE-20

SVE-21

SVE-22

SVE-23

SVE-24

SVE-25

SVE-26

SW-26

SW-25

SW-27

North Building

Phase 1 Campus

Plaza

Entry Court

Former Groundwater Treatment Compound

Aurora Avenue N

72-Inch Brick Sewer

Republican Street

5th Avenue N

Seattle Center 5th Avenue North Garage

South Building

TES Tank

6th Avenue N

Harrison Street

Legend

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage
- Conditional Point of Compliance Monitoring Well (Shannon & Wilson)
- Gasoline Contamination Site (Soil Portion, Approximate Extent)
- Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)

Groundwater Treatment System:

- Horizontal Soil Vapor Extraction Piping (Shannon & Wilson)
- Soil Vapor Extraction Wells (Shannon & Wilson)
- Air Sparging Wells (Shannon & Wilson)
- Soil Vapor Extraction and Air Sparging Piping (Multiple Pipes)

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

100 0 100
Feet

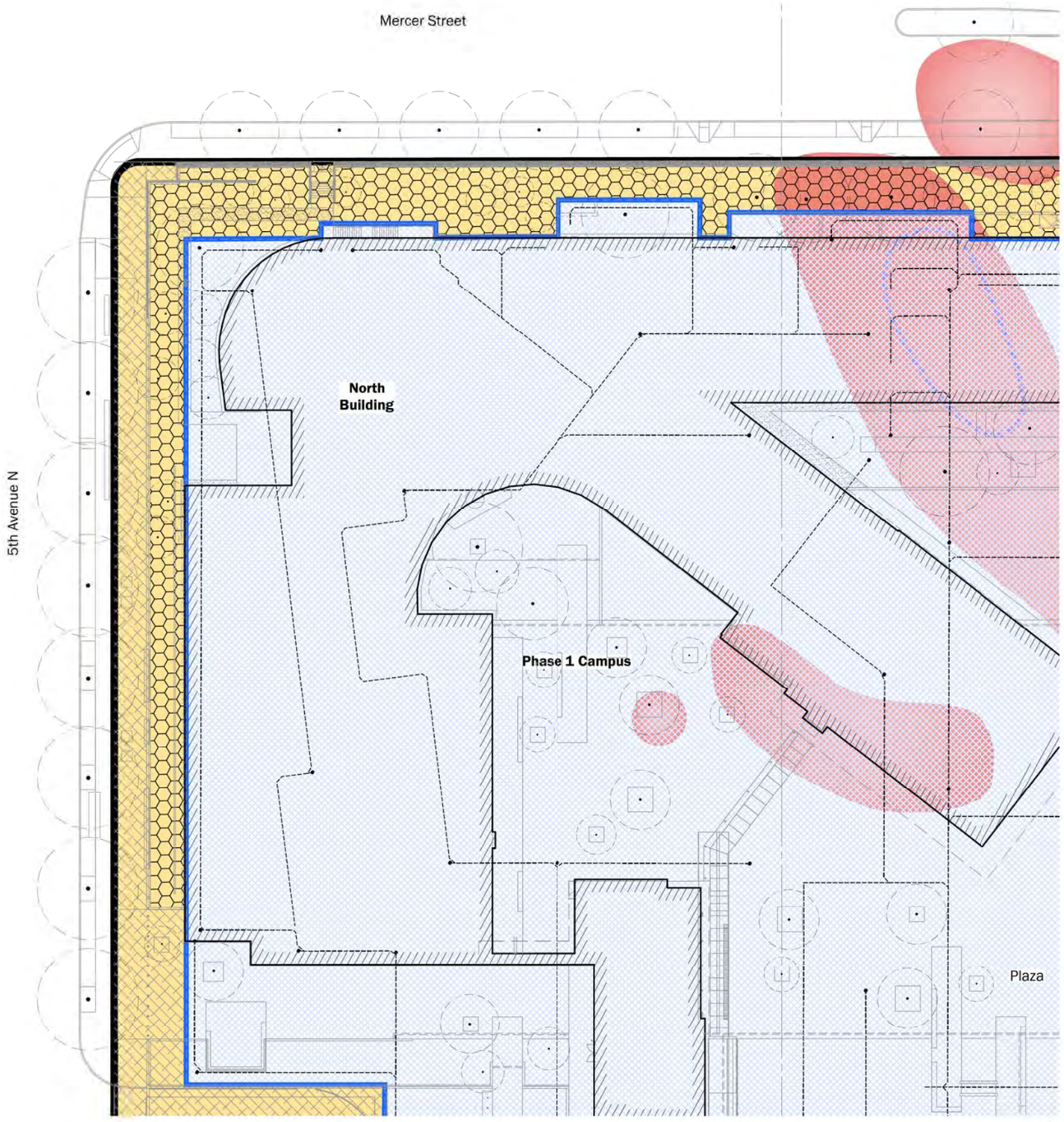
Groundwater Treatment System

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 9

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F09_GW Treatment System.dwg TABF09 Date Exported: 03/10/20 - 11:31 by hmara



Legend

- Property Boundary
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage
- Contamination Sites:
  - Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)
  - Gasoline UST Contamination Site No. 1 (Approximate Extent)
  - Contaminated Fill Site
  - Gasoline Contamination Site (Soil Portion, Approximate Extent)
  - Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)
- Engineering Controls:
  - Concrete/Asphalt Pavement
  - Under Slab Chemical Vapor Barrier (Liquid Boot ®)
  - Topsoil/Compact Gravel Over Visual Marker (Orange Construction Netting)
  - Compact Gravel/Vegetation (Grass)
  - Vertical Foundation Wall Chemical Vapor Barrier (Liquid Boot ®)
  - Underslab Drainage Piping (Passive Venting System)

N W E S

50 0 50
Feet

Notes:

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Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

Engineering Controls
NW Quadrant

500 Fifth Avenue North Property
Seattle, Washington

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Figure 10

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F10-F13_Engineering Controls.dwg TAB:F10 Date Exported: 03/10/20 - 11:55 by hmara



Legend

- Property Boundary
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage
- Contamination Sites:
  - Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)
  - Gasoline UST Contamination Site No. 1 (Approximate Extent)
  - Contaminated Fill Site
  - Gasoline Contamination Site (Soil Portion, Approximate Extent)
  - Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)
- Engineering Controls:
  - Concrete/Asphalt Pavement
  - Under Slab Chemical Vapor Barrier (Liquid Boot ®)
  - Topsoil/Compact Gravel Over Visual Marker (Orange Construction Netting)
  - Compact Gravel/Vegetation (Grass)
  - Vertical Foundation Wall Chemical Vapor Barrier (Liquid Boot ®)
  - Underslab Drainage Piping (Passive Venting System)

Notes:

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Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

50 0 50
Feet

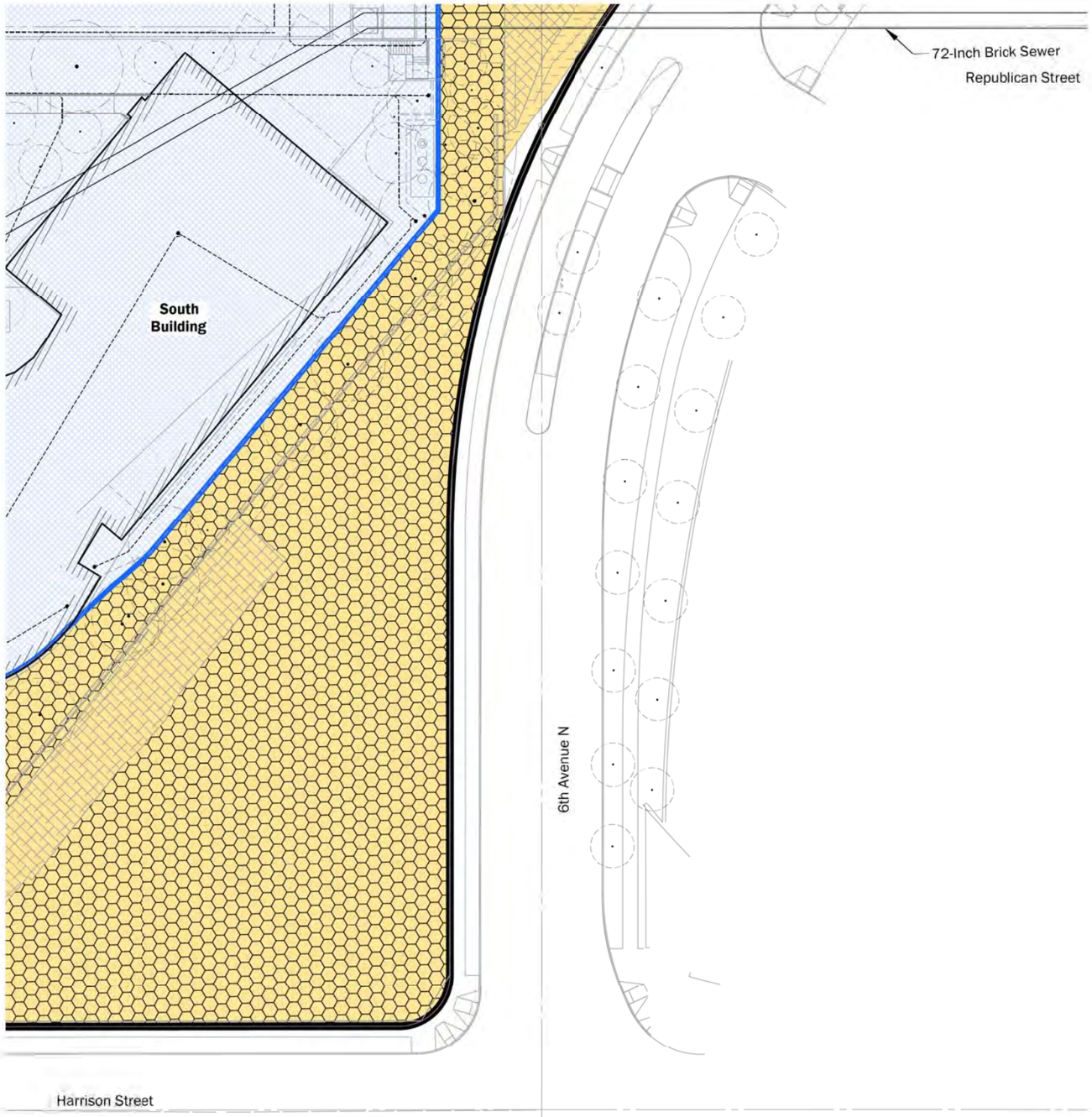
Engineering Controls
NE Quadrant

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 11

P:\12\12068001\CAD\27\Final ENV Management Plan\1206800127_F10-F13_Engineering Controls.dwg TAB:F11 Date Exported: 03/10/20 - 11:55 by hmara



Legend

- Property Boundary
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage

Contamination Sites:

- Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)
- Gasoline UST Contamination Site No. 1 (Approximate Extent)
- Contaminated Fill Site
- Gasoline Contamination Site (Soil Portion, Approximate Extent)
- Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)

Engineering Controls:

- Concrete/Asphalt Pavement
- Under Slab Chemical Vapor Barrier (Liquid Boot ®)
- Topsoil/Compact Gravel Over Visual Marker (Orange Construction Netting)
- Compact Gravel/Vegetation (Grass)
- Vertical Foundation Wall Chemical Vapor Barrier (Liquid Boot ®)
- Underslab Drainage Piping (Passive Venting System)

Notes:

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Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

50 0 50
Feet

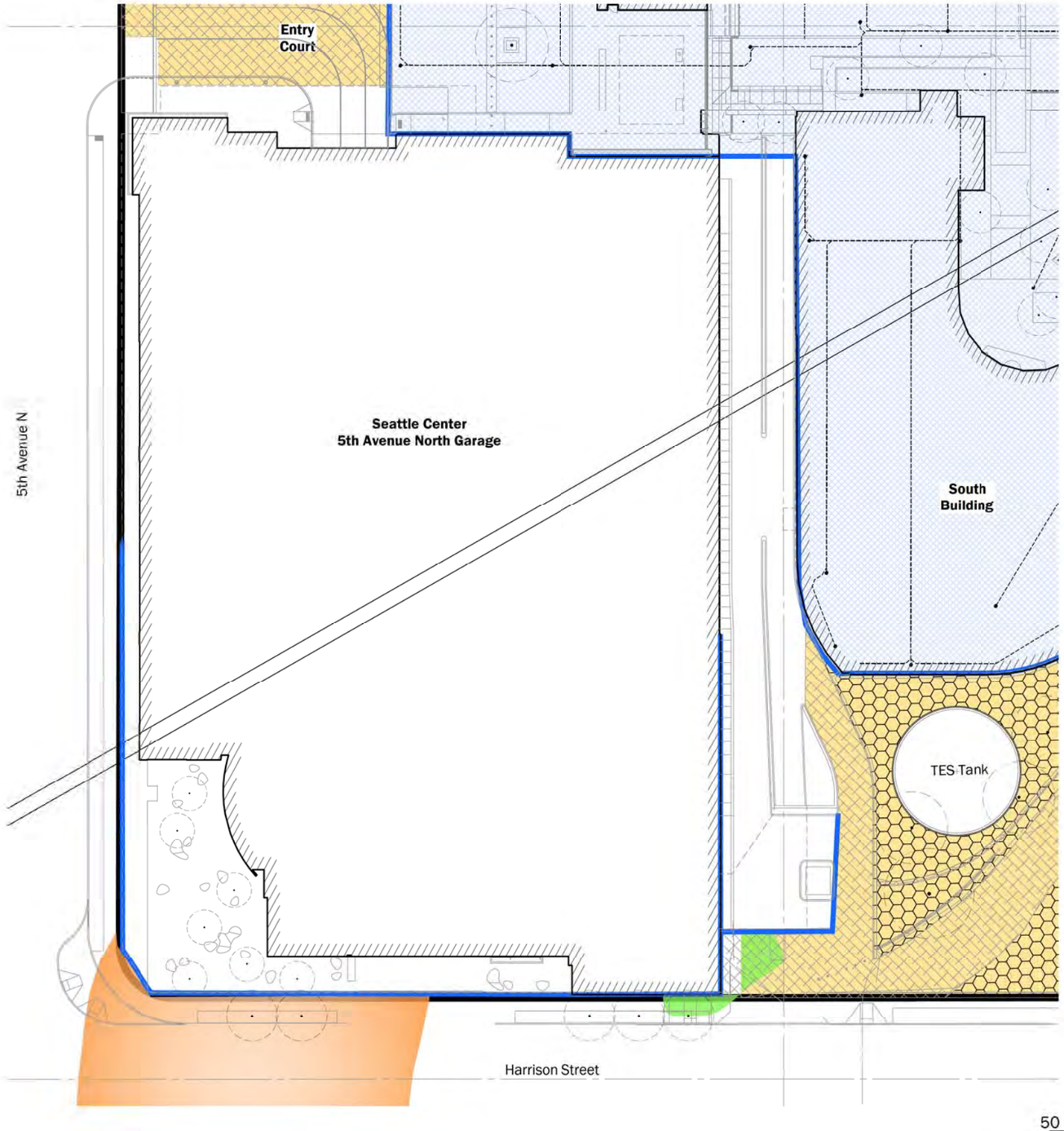
Engineering Controls
SE Quadrant

500 Fifth Avenue North Property
Seattle, Washington

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Figure 12

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F10-F13_Engineering Controls.dwg TAB:F12 Date Exported: 03/10/20 - 11:56 by hmara



Legend

- Property Boundary
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage
- Contamination Sites:
  - Stoddard Solvent Contamination Site (Approximate Extent) (Source is south of the subject property, across Harrison Street)
  - Gasoline UST Contamination Site No. 1 (Approximate Extent)
  - Contaminated Fill Site
  - Gasoline Contamination Site (Soil Portion, Approximate Extent)
  - Gasoline Contamination Site (Groundwater Portion, Approximate Extent August 2019)
- Engineering Controls:
  - Concrete/Asphalt Pavement
  - Under Slab Chemical Vapor Barrier (Liquid Boot ®)
  - Topsoil/Compact Gravel Over Visual Marker (Orange Construction Netting)
  - Compact Gravel/Vegetation (Grass)
  - Vertical Foundation Wall Chemical Vapor Barrier (Liquid Boot ®)
  - Underslab Drainage Piping (Passive Venting System)

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

50 0 50
Feet

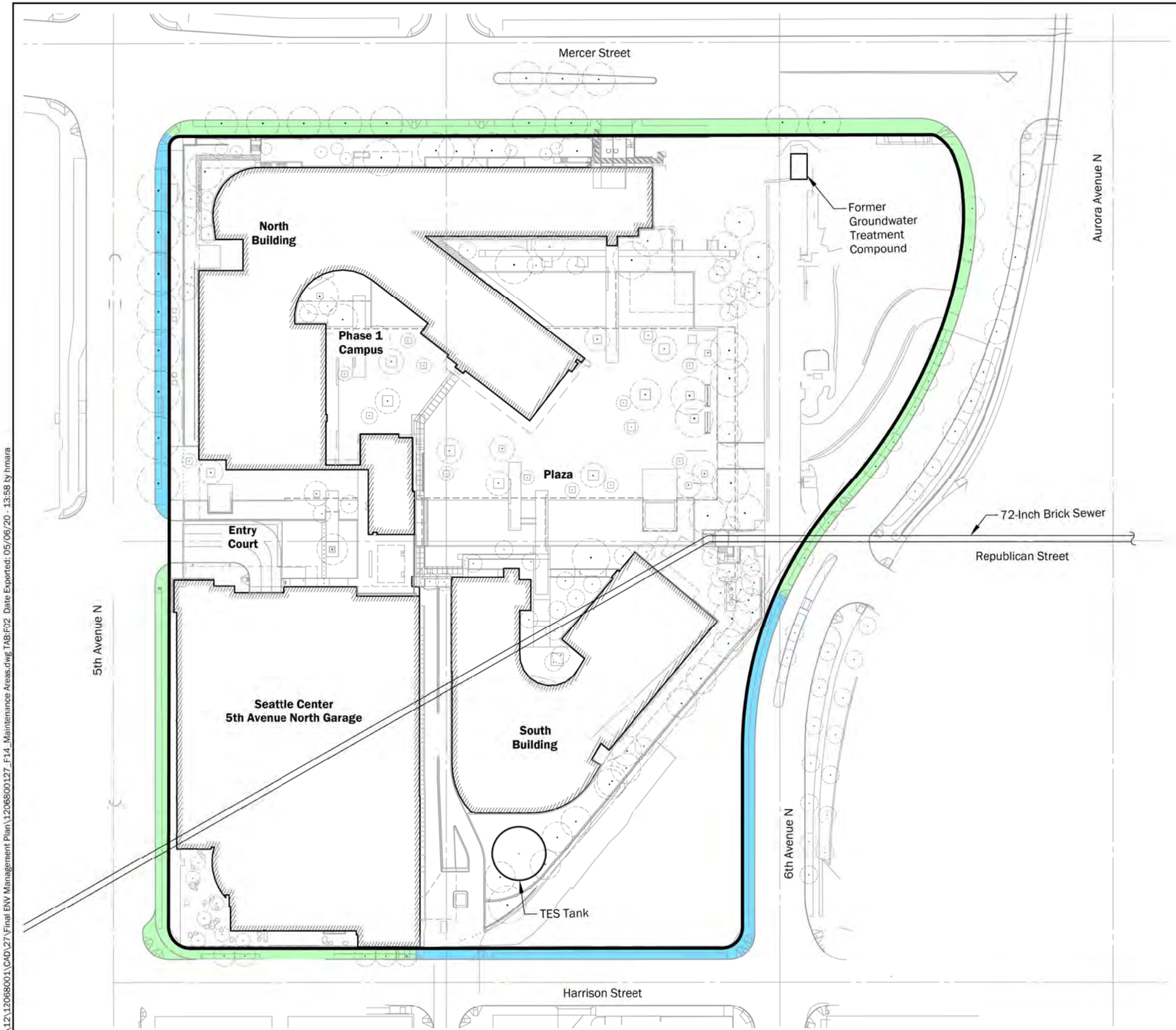
Engineering Controls
SW Quadrant

500 Fifth Avenue North Property
Seattle, Washington

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Figure 13

P:\12\12068001\CAD\27\Final ENV Management Plan\120680001127_F10-F13_Engineering Controls.dwg TAB:F13 Date Exported: 03/10/20 - 12:01 by hmara



Legend

- Property Boundary
- 72-inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
- TES — Thermal Energy Storage
- IRIS Rights-of-Way Maintenance Area
- SDOT Rights-of-Way Maintenance Area

Notes:

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2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base CAD files provided by KPFF dated 6/28/2019.

Projection: WA State Plane, North Zone, NAD83, US Foot

N W E S

100 0 100
Feet

Rights-of-Way Maintenance Areas

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 14

P:\12\12068001\CAD\27\Final ENV Management Plan\12068001127_F14_Maintenance Areas.dwg TAB:F02 Date Exported: 05/06/20 - 13:58 by hmara

APPENDIX A
Groundwater Treatment and Monitoring Plan

Post-Construction Groundwater Monitoring Plan
Seattle Center Lot Number 2 (IRIS Holding LLC 500 5th Avenue North)
Seattle, Washington

June 9, 2017

SHANNON & WILSON, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Excellence. Innovation. Service. Value.
Since 1954.

Submitted To:
Seattle Center Redevelopment
Attn: Mr. Ned Dunn
305 Harrison Street, Suite 109
Seattle, Washington 98103

By:
Shannon & Wilson, Inc.
400 N 34th Street, Suite 100
Seattle, Washington 98103

21-1-12176-046

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TABLE

1 Groundwater Monitoring Plan Summary

FIGURE

1 Site Map

APPENDIX

Important Information About Your Environmental Site Assessment/Evaluation Report

POST-CONSTRUCTION GROUNDWATER MONITORING PLAN
SEATTLE CENTER LOT NUMBER 2 (IRIS HOLDING LLC 500 5TH AVENUE NORTH)
SEATTLE, WASHINGTON

1.0 INTRODUCTION

This plan describes groundwater monitoring being performed following shutdown of the groundwater treatment system at the former Seattle Center Lot Number 2 property, now known as the IRIS Holding LLC 500 5th Avenue North, Seattle, Washington (Site). This monitoring plan serves as a living document and is subject to change based on the results of future groundwater monitoring events.

Remediation of gasoline-contaminated groundwater at the Site using an air sparging/soil vapor extraction (AS/SVE) system was conducted in two phases: Phase I, which operated from June 2007 through August 2008, and Phase II, which operated from November 2010 through March 2016. Based on data collected through March 2016, contaminant concentrations are non-detect at the property boundary and the remediation system appears to have reached a point of diminishing returns as the plume status is measured to be stable or shrinking. The system was turned off on March 14, 2016, and groundwater monitoring was instituted to evaluate the following: (a) the potential for rebound in contaminant concentrations without active remediation and (b) the potential for monitored natural attenuation (MNA) to address residual levels of contaminants. The contaminants of concern (COCs) for the Site are gasoline-range petroleum hydrocarbons and benzene, ethylbenzene, toluene, and xylenes (TPH-Gx/BTEX). The post-remediation monitoring plan is presented below.

2.0 OBJECTIVES

Monitoring objectives are as follows:

- Confirm contaminant concentrations in compliance monitoring wells meet groundwater cleanup levels.
- Determine the effectiveness of MNA to address residual contamination on the property. In particular:
  - Measure geochemical parameters for evidence of ongoing MNA and
  - Confirm that the contaminant plume is stable or shrinking.
- Achieve closure with four quarters of monitoring where both performance wells and compliance wells are below cleanup criteria for COCs.

3.0 GROUNDWATER MONITORING PLAN

Post-construction groundwater monitoring that occurred during Phase II of groundwater remediation (February 2011 to March 2016) consisted of analyzing for COCs. Trends have shown that performance wells that have historically exceeded the cleanup criteria are either stable or decreasing and compliance wells have not been detected for the COCs for at least eight quarters. The prescribed monitoring wells, analytes, and frequency are presented in Table 1.

Groundwater monitoring is being conducted at Site wells that have been used during Phase II remediation to evaluate remedy performance and compliance with cleanup standards, as follows:

- Performance monitoring wells, located in the vicinity of the former source and treatment area, are SVE-13, SVE-16, SVE-17, SVE-19, SVE-20, SVE-23, SVE-24, SVE-25, and SVE-26 (Figure 1).
- Compliance monitoring wells, located downgradient of the former source and treatment area, are SW-25, SW-26, and SW-27 (Figure 1).

3.1 Rebound Monitoring

Rebound monitoring began after the groundwater treatment system was shut off in March 2016 and is currently ongoing. As of the date this monitoring plan was generated, five quarters of rebound monitoring have already occurred. This monitoring consists of analyzing for COCs and MNA geochemical indicators at performance and compliance wells. MNA indicators were added to the plan to evaluate whether conditions for MNA are favorable and can be implemented as a final groundwater treatment method. The first component of the rebound monitoring will be conducted for eight quarters. Upon completion of the first component of the rebound monitoring, the treatment system compound and controls will be removed if groundwater data show continued compliance with the cleanup standards (i.e., COCs below groundwater cleanup levels) in compliance wells and performance wells continue to show a table and/or shrinking plume. If one or more COCs are detected above the cleanup standard at the point of compliance or groundwater monitoring results indicate an unstable and/or increasing contaminant plume, additional monitoring will be completed to evaluate whether reactivation of the groundwater treatment is necessary to maintain plume stability.

Once the objectives of the first component of rebound monitoring are met, rebound monitoring for the second component will occur on a biannual frequency for two years and will consist of monitoring for COCs only. Upon completion of the second component of rebound monitoring, any AS/SVE wells that are not used for monitoring purposes will be decommissioned in

accordance with state regulations if groundwater data show continued compliance with the monitoring objectives (Section 2.0). The prescribed monitoring wells, analytes, and frequency for the Rebound Monitoring are presented in Table 1.

3.2 Performance Monitoring

Monitoring will switch to a five-year frequency if continued compliance with cleanup standards in each compliance well can be shown and performance wells show continued indications of a shrinking or stable plume in accordance with the Washington State Department of Ecology's (Ecology's) *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation.*[1] The prescribed monitoring wells, analytes, and frequency for the Performance Monitoring are presented in Table 1.

3.3 Closure Monitoring

Once it is shown that the contaminants are below cleanup standards in both performance and compliance wells, closure monitoring will begin on a quarterly basis. Closure monitoring will end once four quarters of data show compliance with the cleanup standards. The prescribed monitoring wells, analytes, and frequency for the Closure Monitoring are summarized in Table 1.

4.0 GROUNDWATER MONITORING PROCEDURES

Groundwater monitoring field activities will consist of:

- Visually inspect monitoring well conditions.
- Verify calibration of field equipment and recalibrate if necessary.
- Measure water levels in each monitoring well.
- Purge each monitoring well until measured water quality field parameters are stable.
- Collect groundwater samples for laboratory analysis.
- Preserve and ship/deliver samples to the appropriate laboratory.

The following subsections describe the above activities in more detail.

[1] Washington State Department of Ecology (Ecology), 2005. Guidance on remediation of petroleum-contaminated ground Water by natural attenuation: Olympia, Wash, Washington State Department of Ecology, Publication no. 05-09-097, July.

4.1 Instrumentation and Calibration

Instruments to be used for the groundwater monitoring include a peristaltic environmental sampler (e.g., Masterflex Portable Sampler), water quality meters (e.g., YSI Pro series and LaMotte turbidity meters), and a portable electronic water level indicator.

Field staff will:

1. Check the condition and calibration of all field instruments at the start of each field day per the instrument manufacturer's instructions.
2. If measurements of a calibration standard are not within 5 percent, the instrument will be recalibrated following the instrument manufacturer's instructions.

4.2 Decontamination

Field staff will decontaminate all equipment that comes into contact with groundwater prior to and after each use. Disposable equipment intended for one-time use will not be decontaminated, but packaged and disposed as general refuse.

Field staff will decontaminate equipment, as follows:

1. Wash with diluted, phosphate-free detergent (e.g., Alconox).
2. Rinse with potable water.
3. Rinse with deionized water.

4.3 Water Level Measurement

Before purging and sampling a monitoring well, field staff will measure and record the water level as follows:

1. Decontaminate the portable electronic water level indicator (WLI) probe and cable.
2. Remove well monument cover.
3. Lower the WLI probe into the well casing until the probe reaches groundwater. When placing the probe in the well, take precautions to not disturb or agitate the water. When the probe reaches water, the WLI will produce an audible alarm.
4. Adjust the sensitivity of the WLI according to the manufacturer's recommendation so the unit produces a clear audible alarm when dipped into the water, and shuts off abruptly when raised just above the water.
5. With the probe tip at the depth of groundwater, record the length from the top of casing (on the north side) in one-hundredths of a foot to the probe tip. The cable of the WLI is

marked with distance to the probe tip. This measurement is referred to as depth to water, and can later be subtracted from the surveyed elevation value for the top of casing to determine groundwater table elevation.

6. Lock the water level meter in place so the depth to water can be monitored during the well purging process.

4.4 Groundwater Purging and Parameter Stabilization

Purging and sampling of groundwater will use low-flow sampling methods that limit disturbance of the water column and surrounding formation, thereby decreasing sample turbidity. By pumping slowly, water is drawn laterally to the inlet from the surrounding formation rather than from above or below the pump. This technique typically achieves stable water chemistry while generating significantly less purge water than the fixed-well-volume method (e.g., purging three well volumes).

After measuring the water level and before sampling, field personnel will purge the monitoring well to remove stagnant water. Select field parameters will be measured and recorded during purging. When parameter values are stable, purging will cease and the well can be sampled.

Field personnel will purge the well using the peristaltic pump as follows:

1. Connect the Masterflex Sampler peristaltic pump (or equivalent) to the tubing in the well where the intake is within the upper 2-3 feet of the water column then connect the tubing from the peristaltic pump to the bottom port of an in-line water quality flow-through cell.
2. Turn the peristaltic pump. The optimum flow rate for low-flow sampling methods should be between 0.1 and 0.5 liter per minute and drawdown of the initial static water level should be less than 0.1 meter (0.3 foot). Collect the water discharging from the flow-through cell to measure the flow rate. Adjust the controller settings to obtain the optimum flow rate for the specific well which will result in achieving a minimal drawdown of the initial static water level. All purge water from the monitoring wells will be containerized in buckets and transported to the 500-gallon poly tank for future disposal.
3. Use a YSI 600 series groundwater quality meter and a LaMotte turbidity meter (or equivalent meters) to measure pH, temperature, specific conductance, redox potential, turbidity, and dissolved oxygen. After at least one volume (e.g., bladder and tubing volume) of groundwater has been purged, record the initial water quality measurements. Continue recording water quality measurements at three- to five-minute intervals until these parameters have stabilized over three consecutive measurements as defined by the following criteria:

   — pH ±0.1 units

- Temperature ±10 percent
- Specific Conductance ±3 percent microSiemens per centimeter
- Turbidity ±10 percent Nephelometric Turbidity Units
- Dissolved Oxygen ±10 percent or within 10 percent of 0.2 milligram per liter, whichever is greater

4. Continue measuring the water level at three- to five-minute intervals during purging. If drawdown does not stabilize during purging, reduce the flow rate on the controller.
5. Continue purging until water quality parameters and the water levels are stable.
6. Purge water will be containerized and temporarily stored in the onsite 500-gallon poly tank for future disposal.

4.5 Groundwater Sampling

Immediately after purging the monitoring well, field staff will collect groundwater samples as follows:

1. Disconnect the water quality flow-through cell and its tubing. Samples should not be collected from the effluent end of the flow-through cell.
2. Don a new pair of nitrile gloves (or equivalent) immediately before sample collection at each well. Avoid touching the discharge line on the sampling pump, the top of the sample bottles, the inside of the bottle caps, or the Teflon® septa.
3. Fill sampling containers in order of decreasing volatility for target constituents. Volatile organic compound (VOC) samples should be collected first with as little agitation or disturbance as possible.
    a. Adjust the flow rate as needed during sampling to facilitate laminar flow conditions while collecting the VOC sample.
    b. Fill VOC sample vials so that a meniscus forms at the top of the vial and absolutely no bubbles or headspace are present in the vial after being capped.
    c. After securely tightening the cap, invert the vial and tap on the palm of one hand to see if any undetected bubbles are dislodged. If bubbles are present, top off the vial using a minimal amount of sample to re-establish the meniscus. Care should be taken not to flush any preservative out of the vial during topping off.
    d. If, after topping off and capping the vial, bubbles are still present, use a new vial and collect a new sample.
4. Label sample jars with:
    a. Project name
    b. Monitoring well number
    c. Sampler's name

d. Date and time
e. Analyses

5. Remove and decontaminate the WLI and flow-through cell.
6. Replace well monument cover.

Groundwater samples will be collected in the following bottles according to analysis:

- TPH-Gx/BTEX
  - Four 40 milliliter (mL) preserved volatile organic analysis vials
- MNA parameters (to be discontinued upon completion of the first component of rebound monitoring)
  - Total and dissolved manganese – one preserved 500 mL poly and one unpreserved 500 mL poly
  - Ferrous iron – one preserved 500 mL amber
  - Nitrate, sulfate, and alkalinity – one unpreserved one liter poly

4.6 Site Access

The groundwater monitoring wells are located in the P2 garage of the Gates Foundation campus. Access to the groundwater monitoring wells will be provided by Cushman and Wakefield who provide security for the Site. The groundwater treatment system with the 500-gallon wastewater poly tank is located at the north end of the former 6th Avenue entrance to the campus. A door was installed in the east gate of the campus located adjacent to the retaining wall along 6th Avenue North to access compliance well SW-25.

5.0 DATA EVALUATION AND REPORTING

Data at compliance monitoring wells will be compared with Site cleanup levels (Model Toxics Control Act Method A cleanup levels for unrestricted use). Performance monitoring data will be evaluated in accordance with Ecology's *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation.* A Mann-Kendall statistical analysis will be used to evaluate statistically significant trends at monitoring wells with detectable contaminant concentrations. Groundwater monitoring reporting will continue to occur at the same frequency of each sampling event. Once four quarters of groundwater monitoring have occurred that show compliance with cleanup standards in performance and compliance wells, a final report will be issued that will summarize the monitoring to date and will request a discontinuation of groundwater monitoring.

6.0 LIMITATIONS

The data presented in this report are based on the groundwater monitoring that has occurred at the Site and should be considered representative of our observations at the time. We also note that the facts and conditions referenced in this monitoring plan may change over time, and that those set forth here are applicable to the facts and conditions as described only at the time this monitoring plan was written. We believe that the conclusions stated here are factual, but no guarantee is made or implied.

This monitoring plan was prepared for the exclusive use of Seattle Center and its representatives and in no way, guarantees that any agency or its staff will reach the same conclusions as Shannon & Wilson, Inc. Shannon & Wilson, Inc. has prepared the enclosed Appendix, "Important Information About Your Environmental Site Assessment/Evaluation Report," to help you and others in understanding our reports.

SHANNON & WILSON, INC.

Edwin V. Ptak
Environmental Scientist

Scott W. Gaulke, PE, LHG
Vice President

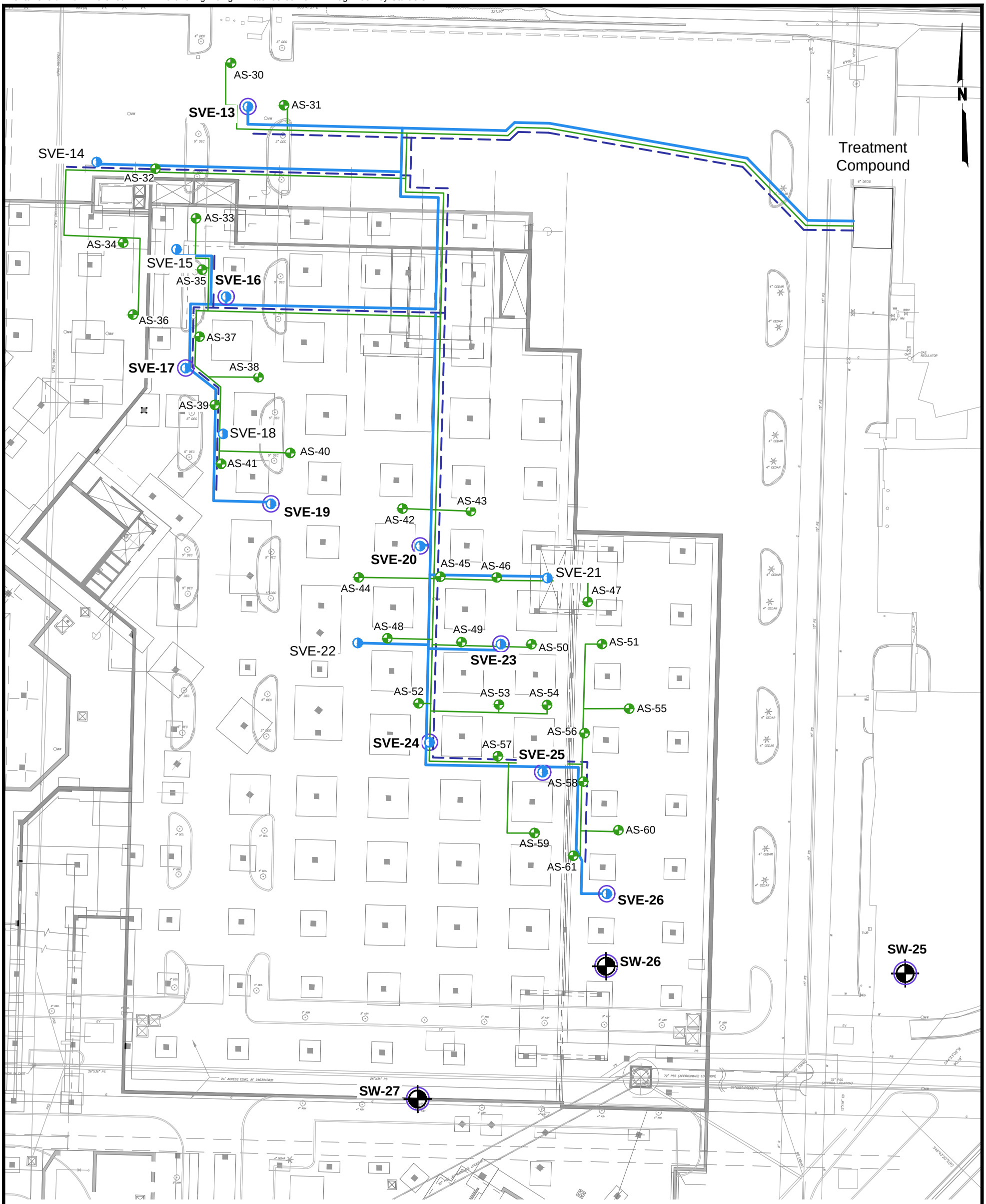
EVP: SWG/evp

TABLE 1
GROUNDWATER MONITORING PLAN SUMMARY

Event	Monitoring Wells	Frequency	Time Frame*	Analyses	Triggering Event
Rebound Monitoring Component 1	SVE-13, SVE-16, SVE-17, SVE-19, SVE-20, SVE-23, SVE-24, SVE-25, SVE-26, SW-25, SW-26, and SW-27	Quarterly	February 2016 to February 2018	TPH-Gx/BTEX and MNA	MTCA cleanup standard compliance in compliance wells and stable plume status in performance wells. Removal of treatment compound and controls once Component 1 monitoring objectives are met.
Rebound Monitoring Component 2	SVE-23, SVE-24, SVE-25, SW-26, and SW-27	Bi-annual	February 2018 to February 2020	TPH-Gx/BTEX	Continued cleanup standard compliance in compliance wells and stable or shrinking plume status in performance wells. Decommission AS/SVE wells not used for evaluating groundwater conditions once Component 2 monitoring objectives are met.
Performance Monitoring	SVE-23 and SW-26	5-Year	February 2025	TPH-Gx/BTEX	Continued cleanup standard compliance in compliance wells and stable or shrinking plume status in performance wells following Component 2 of the rebound monitoring period.
Closure Monitoring	SVE-13, SVE-16, SVE-17, SVE-19, SVE-20, SVE-23, SVE-24, SVE-25, SVE-26, SW-25, SW-26, and SW-27	Quarterly	February 2025 to February 2026	TPH-Gx/BTEX	Compliance with water quality standards in both performance and compliance wells following the Performance Monitoring period. Request a discontinuation of groundwater monitoring once Closure Monitoring objectives are met.

Notes:
* = Time frame is based on the results of future groundwater monitoring and should be considered an estimate.
MNA = monitored natural attentuation geochemical indicators manganese, ferrous iron, nitrate, alkalinity, sulfate, dissolved oxygen, oxidation reduction potential, and specific conductivity.
MTCA = Model Toxics Control Act
TPH-Gx/BTEX = total petroleum hydrocarbons gasoline range with benzene, toluene, ethlybenzene, and xylenes
AS = air sparging
SVE = soil vapor extraction

Filename: J:\211\12176-046\21-1-12176-046 Fig 1.dwg Date: 05-09-2017 Login: Jeffrey Sanders



LEGEND

- SVE (Soil Vapor Extraction) Well
- AS (Air Sparging) Well
- Well Selected for Groundwater Monitoring
- Compliance Monitoring Well
- SVE Piping (Multiple Pipes)
- AS Piping (Multiple Pipes)
- Fugitive Vapor Collection Piping

0 40 80

Scale in Feet

NOTES

1. Well locations and piping are adapted from as-built drawing provided by Sellen Construction, received 5-18-2011.
2. Figure adapted from electronic files provided by Aspect Consulting and KPFF, dated March 2008 and March 2011.
3. Well AS-30 was decommissioned in May 2013.

Post-Construction Groundwater Monitoring Plan
Seattle Center Lot No. 2
Seattle, Washington

SITE PLAN

June 2017 21-1-12176-046

SHANNON & WILSON, INC. GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1

FIG. 1

APPENDIX

IMPORTANT INFORMATION ABOUT YOUR ENVIRONMENTAL SITE ASSESSMENT/EVALUATION REPORT

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Report 21-1-12176-046

Date: June 9, 2017

To: Seattle Center Redevelopment
Attn: Mr. Ned Dunn

IMPORTANT INFORMATION ABOUT YOUR ENVIRONMENTAL SITE ASSESSMENT/EVALUATION REPORT

ENVIRONMENTAL SITE ASSESSMENTS/EVALUATIONS ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

This report was prepared to meet the needs you specified with respect to your specific site and your risk management preferences. Unless indicated otherwise, we prepared your report expressly for you and for the purposes you indicated. No one other than you should use this report for any purpose without first conferring with us. No one is authorized to use this report for any purpose other than that originally contemplated without our prior written consent.

The findings and conclusions documented in this site assessment/evaluation have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in this area. The conclusions presented are based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

OUR REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

Our environmental site assessment is based on several factors and may include (but not be limited to): reviewing public documents to chronicle site ownership for the past 30, 40, or more years; investigating the site's regulatory history to learn about permits granted or citations issued; determining prior uses of the site and those adjacent to it; reviewing available topographic and real estate maps, historical aerial photos, geologic information, and hydrologic data; reviewing readily available published information about surface and subsurface conditions; reviewing federal and state lists of known and potentially contaminated sites; evaluating the potential for naturally occurring hazards; and interviewing public officials, owners/operators, and/or adjacent owners with respect to local concerns and environmental conditions.

Except as noted within the text of the report, no sampling or quantitative laboratory testing was performed by us as part of this site assessment. Where such analyses were conducted by an outside laboratory, Shannon & Wilson relied upon the data provided and did not conduct an independent evaluation regarding the reliability of the data.

CONDITIONS CAN CHANGE.

Site conditions, both surface and subsurface, may be affected as a result of natural processes or human influence. An environmental site assessment/evaluation is based on conditions that existed at the time of the evaluation. Because so many aspects of a historical review rely on third party information, most consultants will refuse to certify (warrant) that a site is free of contaminants, as it is impossible to know with absolute certainty if such a condition exists. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas that showed no signs of contamination at the time they were studied.

Unless your consultant indicates otherwise, your report should not be construed to represent geotechnical subsurface conditions at or adjacent to the site and does not provide sufficient information for construction-related activities. Your report also should not be used following floods, earthquakes, or other acts of nature; if the size or configuration of the site is altered; if the location of the site is modified; or if there is a change of ownership and/or use of the property.

INCIDENTAL DAMAGE MAY OCCUR DURING SAMPLING ACTIVITIES.

Incidental damage to a facility may occur during sampling activities. Asbestos and lead-based paint sampling often require destructive sampling of pipe insulation, floor tile, walls, doors, ceiling tile, roofing, and other building materials. Shannon & Wilson does not provide for paint repair. Limited repair of asbestos sample locations are provided. However, Shannon & Wilson neither warranties repairs made by our field personnel, nor are we held liable for injuries or damages as a result of those repairs. If you desire a specific form of repair, such as those provided by a licensed roofing contractor, you need to request the specific repair at the time of the proposal. The owner is responsible for repair methods that are not specified in the proposal.

READ RESPONSIBILITY CLAUSES CAREFULLY.

Environmental site assessments/evaluations are less exact than other design disciplines because they are based extensively on judgment and opinion, and there may not have been any (or very limited) investigation of actual subsurface conditions. Wholly unwarranted claims have been lodged against consultants. To limit this exposure, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses may appear in this report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

Consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed, or conditions at the site have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of the final assessment/evaluation.

An assessment/evaluation of a site helps reduce your risk, but does not eliminate it. Even the most rigorous professional assessment may fail to identify all existing conditions.

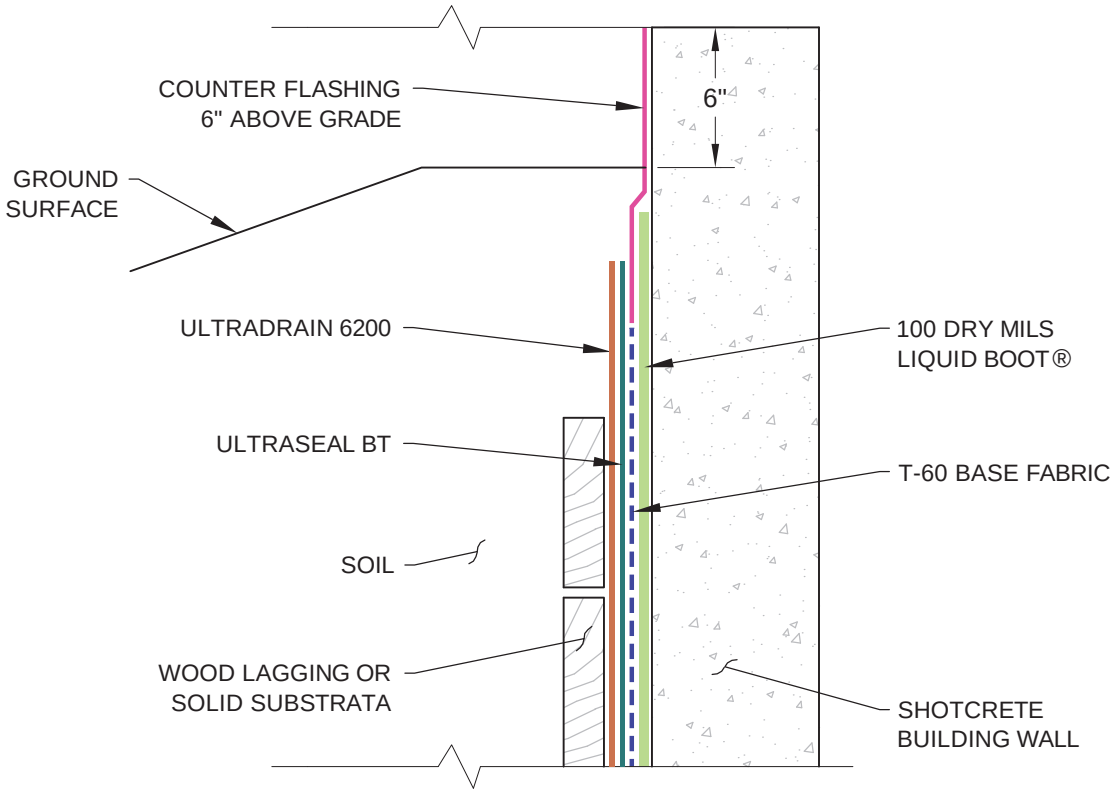
ONE OF THE OBLIGATIONS OF YOUR CONSULTANT IS TO PROTECT THE SAFETY, HEALTH, PROPERTY, AND WELFARE OF THE PUBLIC.

If our environmental site assessment/evaluation discloses the existence of conditions that may endanger the safety, health, property, or welfare of the public, we may be obligated under rules of professional conduct, statutory law, or common law to notify you and others of these conditions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland

APPENDIX B
Chemical Vapor Barrier As-Built Details

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Notes

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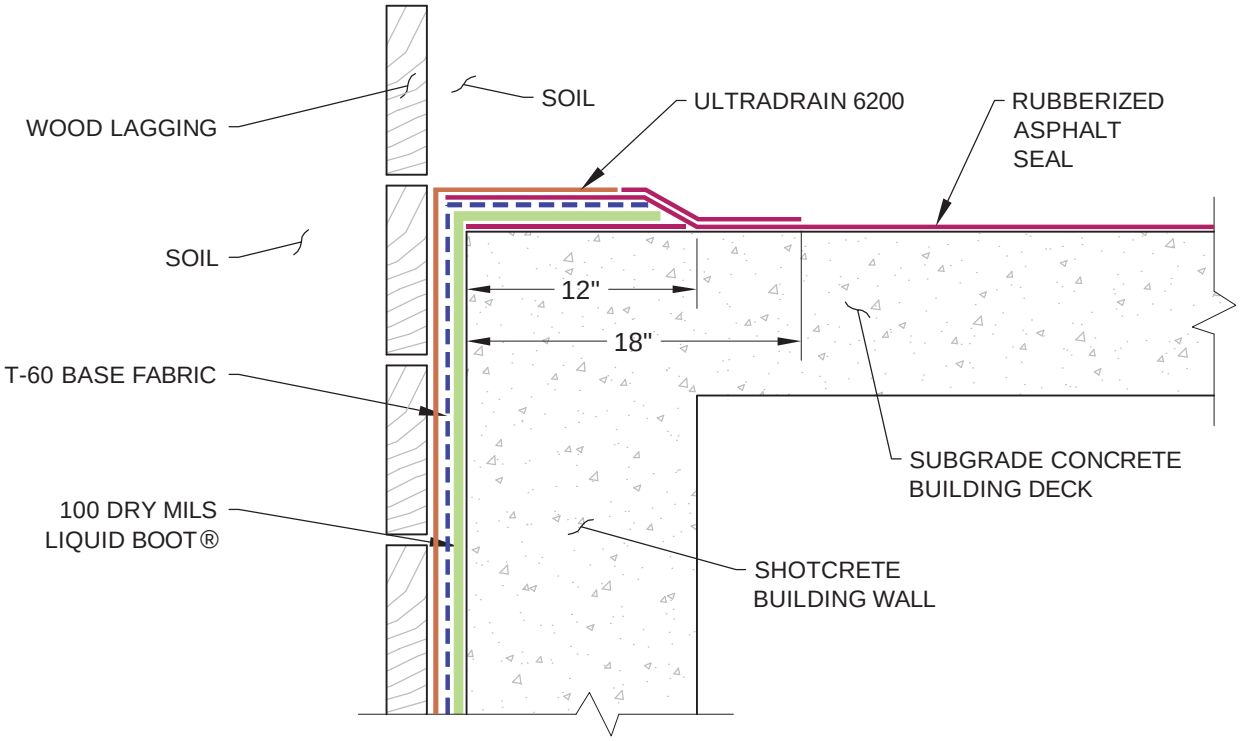
Reference: Drawing entitled "Foundation Wall Termination at Grade", dated 10/16/08, provided by Cetco.

Typical Foundation Wall Termination at Ground Surface

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-2



NOT TO SCALE



Notes

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Reference: Drawing entitled "Concrete Deck, Transition - Property Line Wall With Ultraseal", dated 07/06, provided by Cetco.

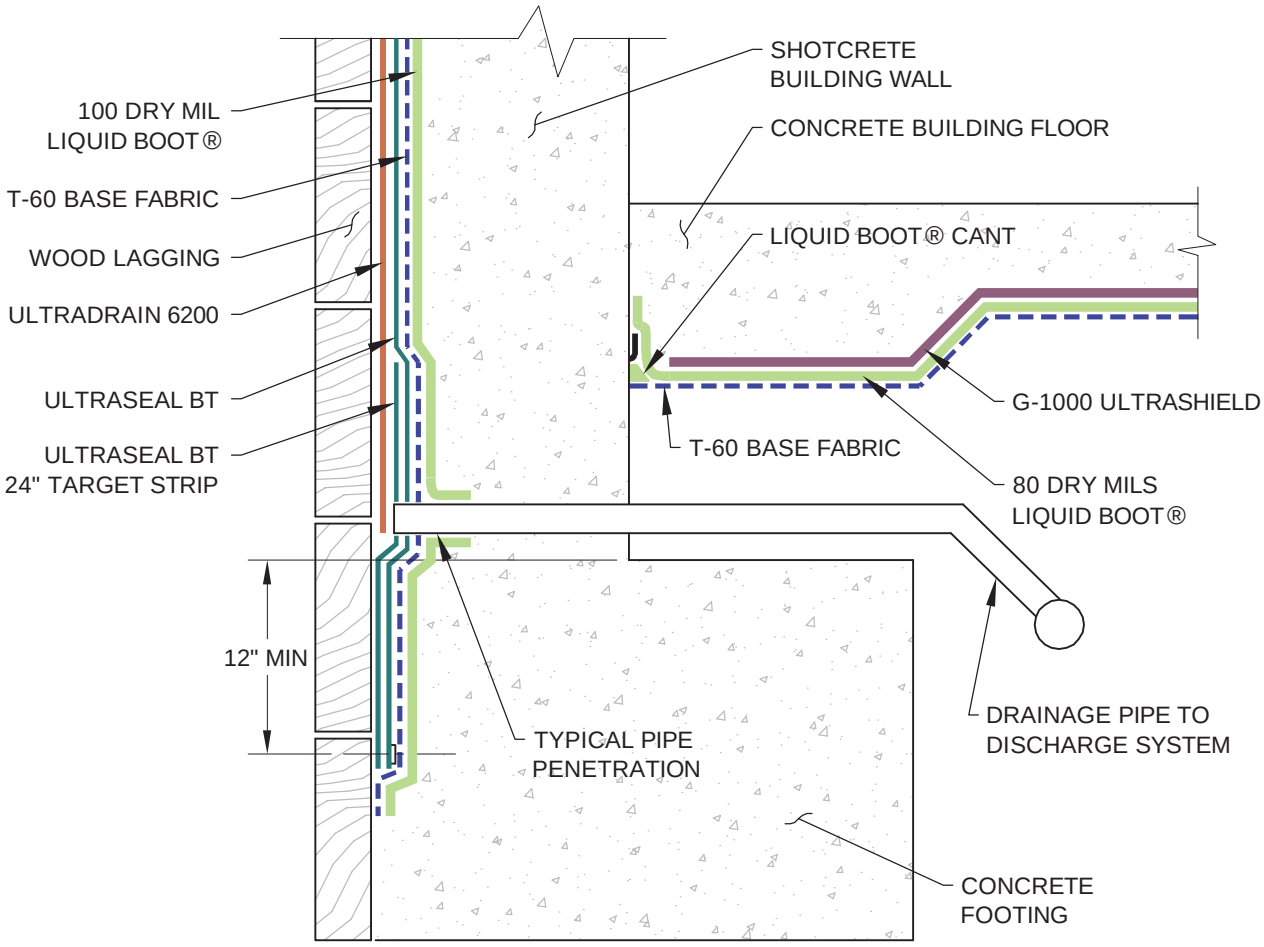
Typical Shotcrete Wall to Concrete Deck Transition

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-3

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Notes

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Reference: Drawing entitled "Cetco Waterproofing, Foundation Well, Slab, Well & Footing", dated 10/16/08, provided by Cetco.

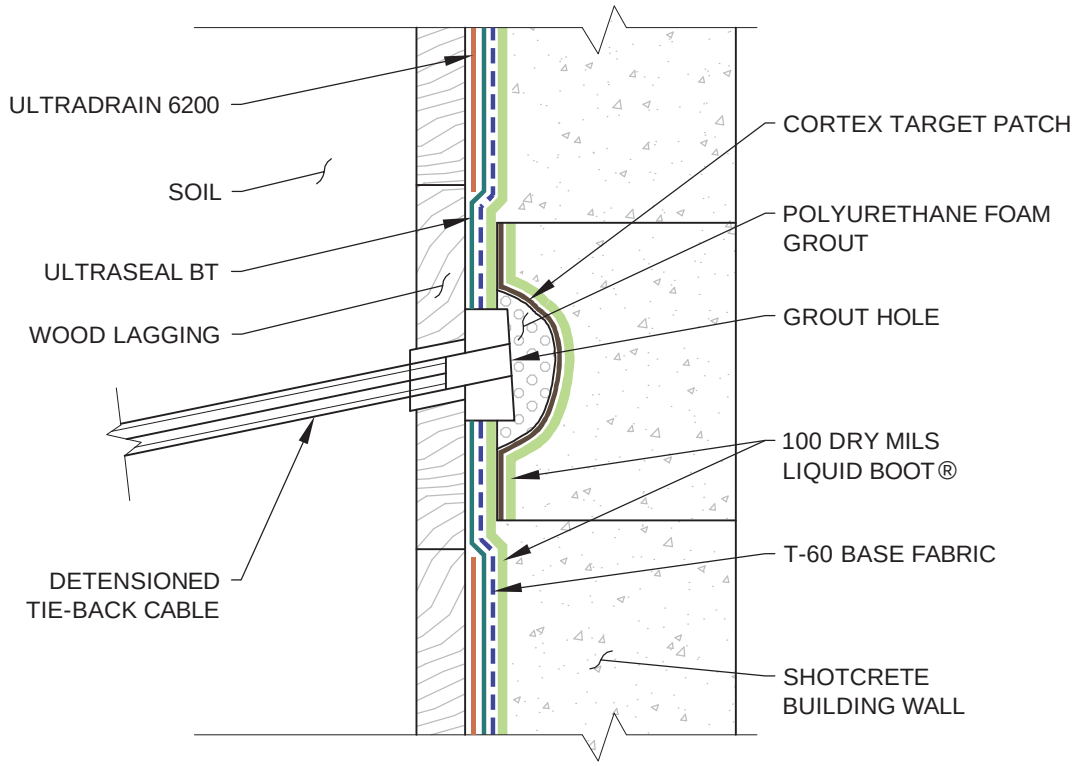
Typical Wall Foundation

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-4

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Notes

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Reference: Drawing entitled "Cetco Water Proofing, Foundation Well, Tie-Back Box Out - Liquid Boot Well", dated 10/16/08, provided by Cetco.

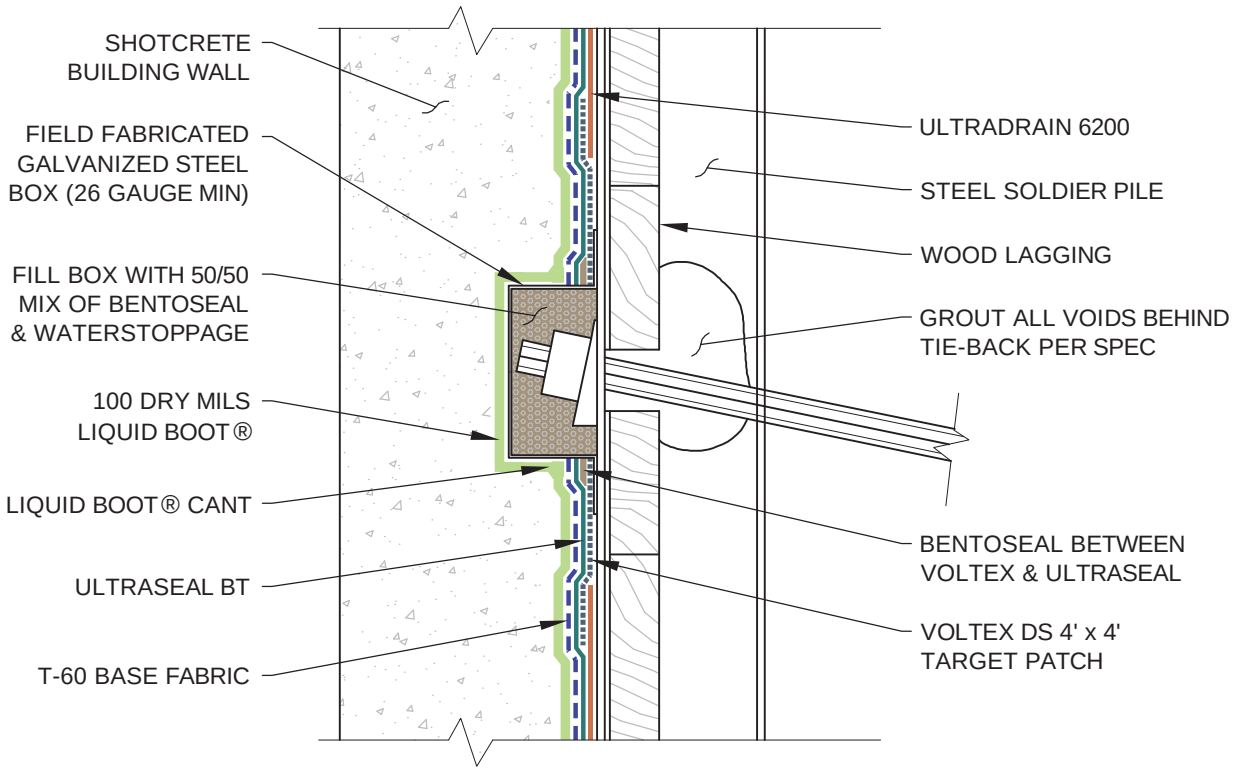
Typical Foundation Wall Detail with Tie-Back Box Out

500 5th Avenue North Property
Seattle, Washington

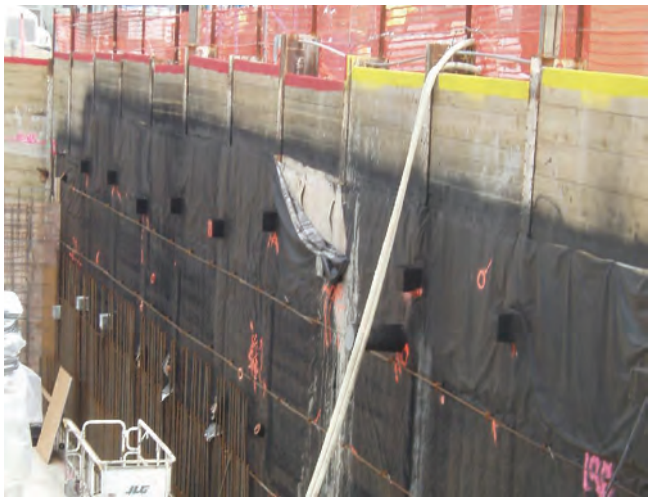
GeoEngineers

Figure F-5

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Reference: Drawing entitled "Foundation Well Field Fabricated Galvanized Tie-Back Cover", dated 2/4/09, provided by Cetco.

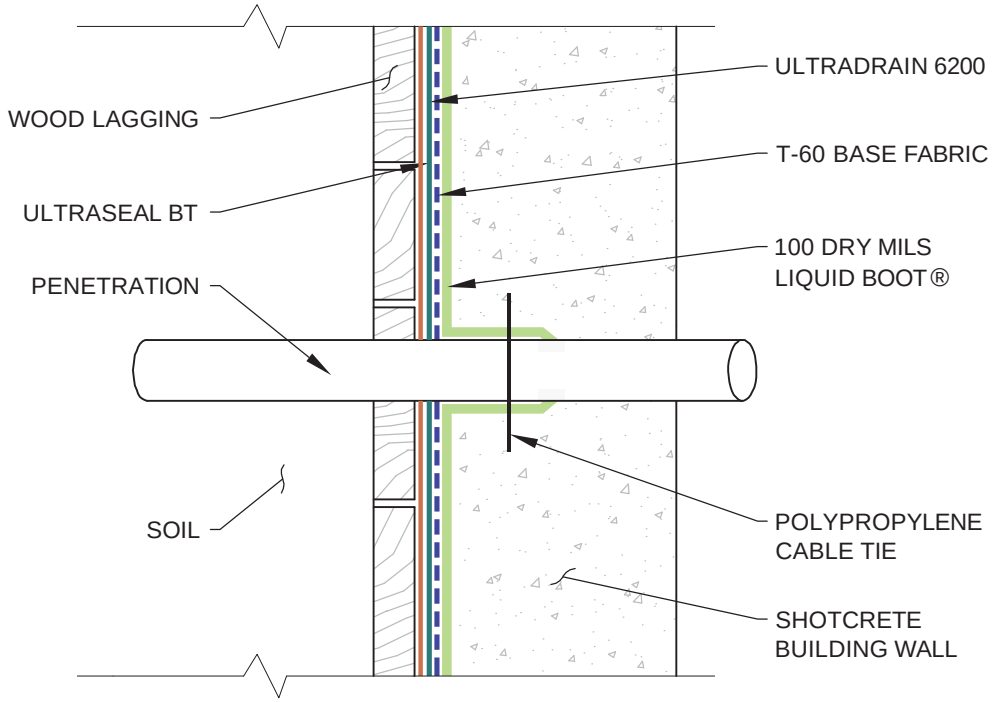
Typical Foundation Wall
Field Fabricated Galvanized Tie-Back Cover

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-6

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Notes

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Reference: Drawing entitled "Waterproofing Penetration with Solid Substrata", dated 2007, provided by Cetco.

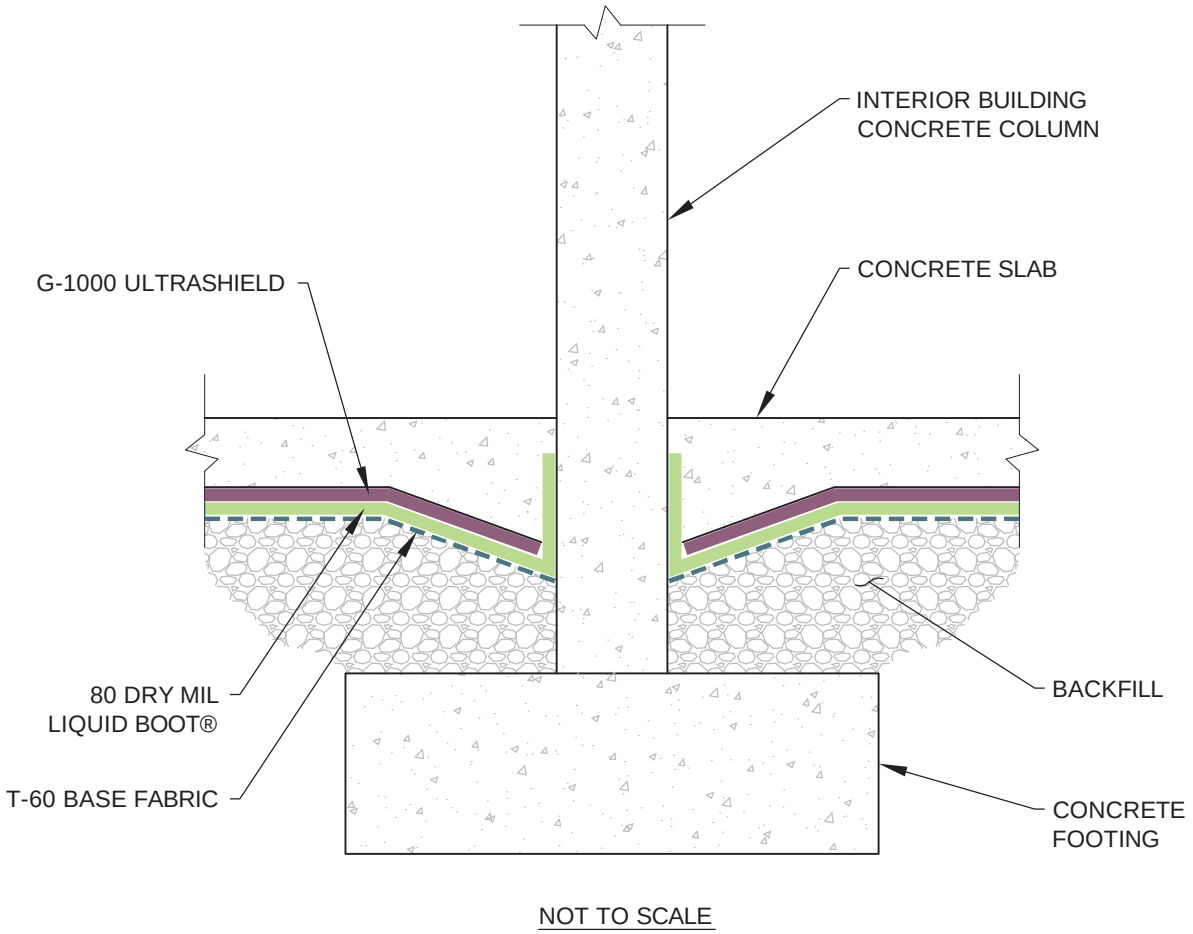
Typical Shoring Wall Penetration Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-7

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Notes

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Reference: Drawing entitled "Liquid Boot Gas Vapor Barrier Vertical Attachment", dated 2008, provided by Cetco.

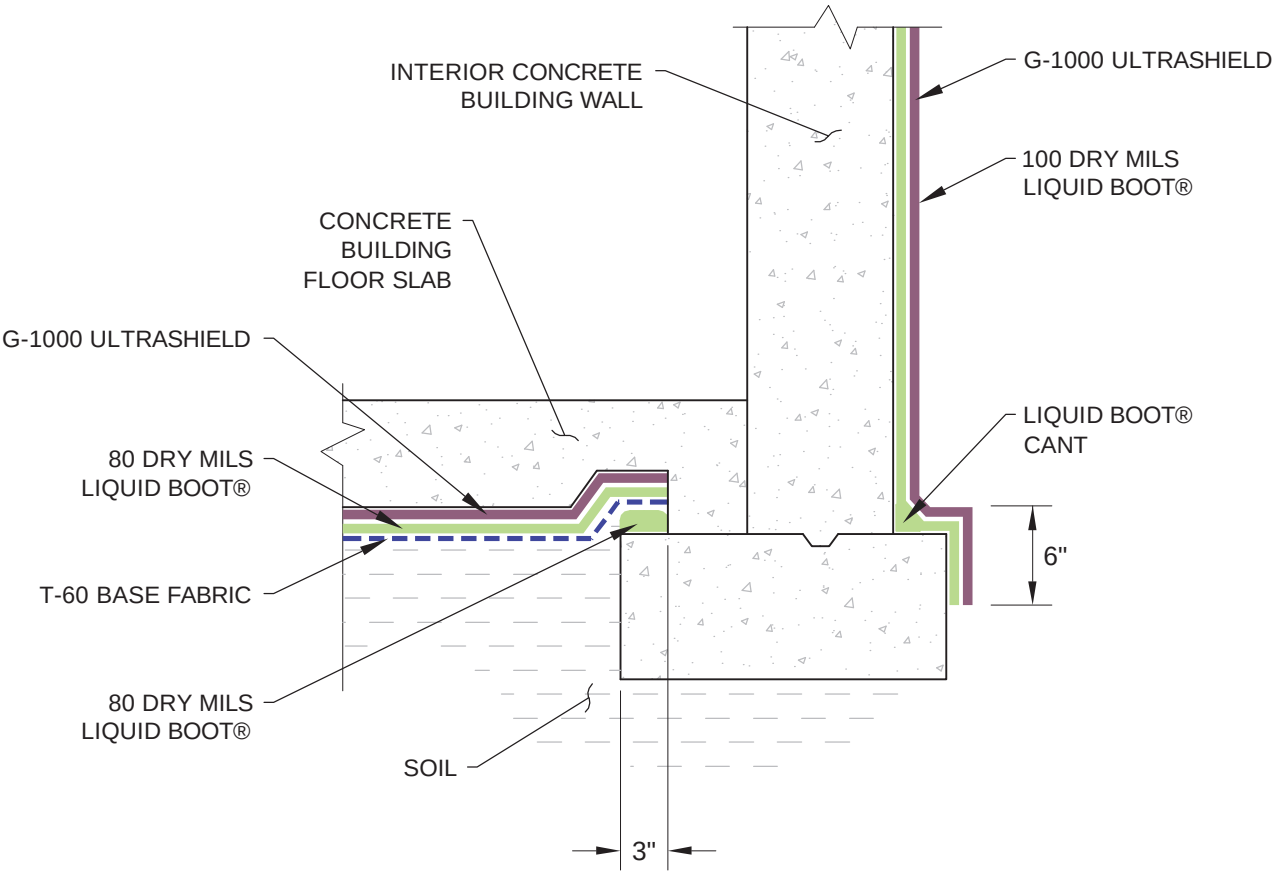
Typical Structural Footing Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-8

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NOTE: TERMINATE MEMBRANE 1" ABOVE FINISH GRADE





Notes

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Reference: Drawing entitled "Gas Vapor Barrier, Under Slab and Walls", dated 2007, provided by Cetco.

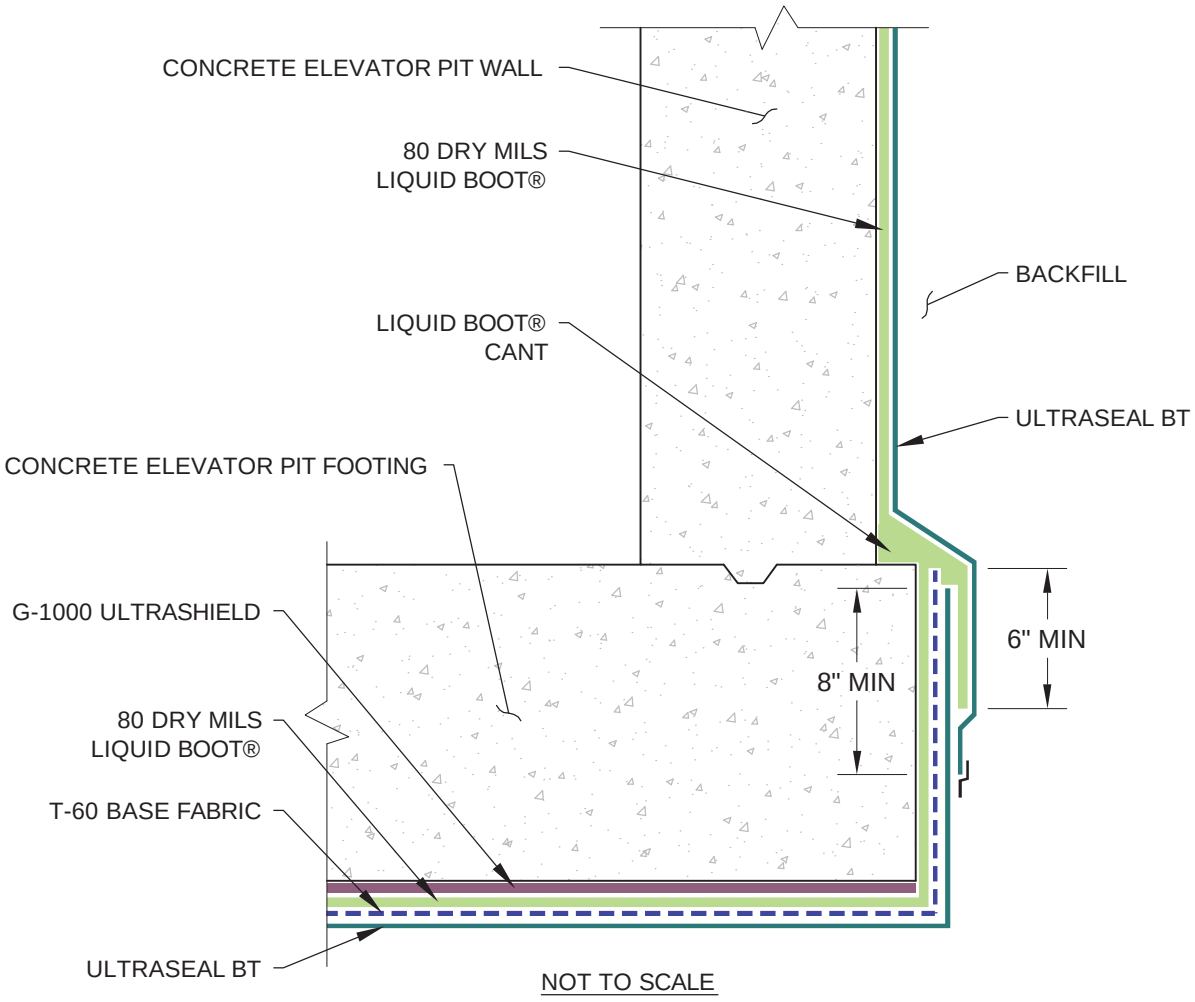
Typical Building Floor Slab to Interior Wall Transition Detail

500 5th Avenue North Property
Seattle, Washington

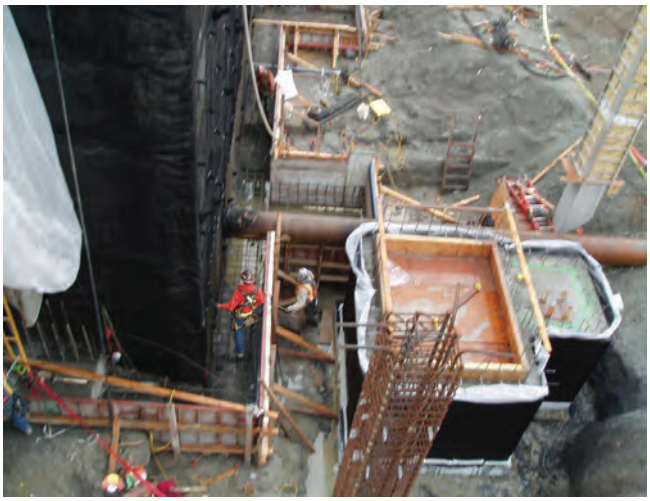
GeoEngineers

Figure F-9

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Notes

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Reference: Drawing entitled "Elevator Pit Slab to Well Transition Detail", dated 12/15/08, provided by Cetco.

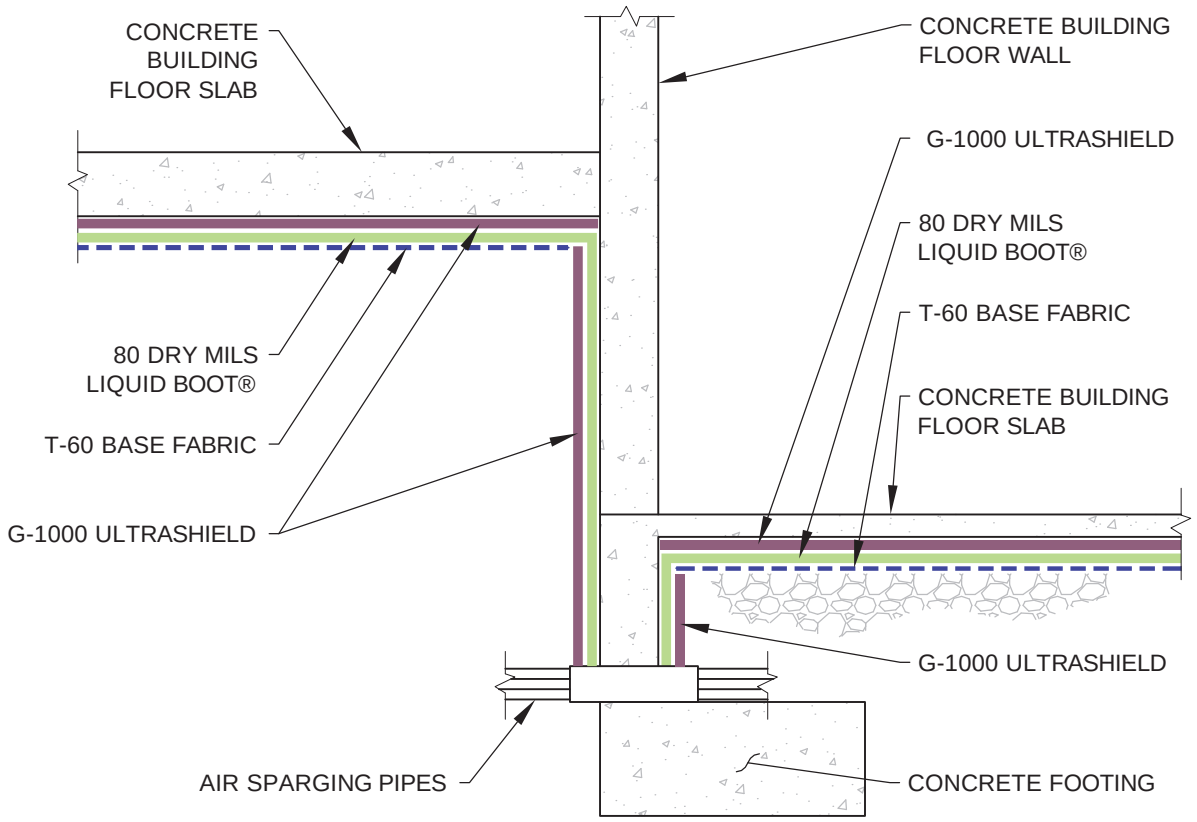
Typical Elevator Pit Slab to Wall Transition Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-10

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Notes

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Reference: Drawing entitled "Air Sparging Area, Typical Detail", dated 2009, provided by Cetco.

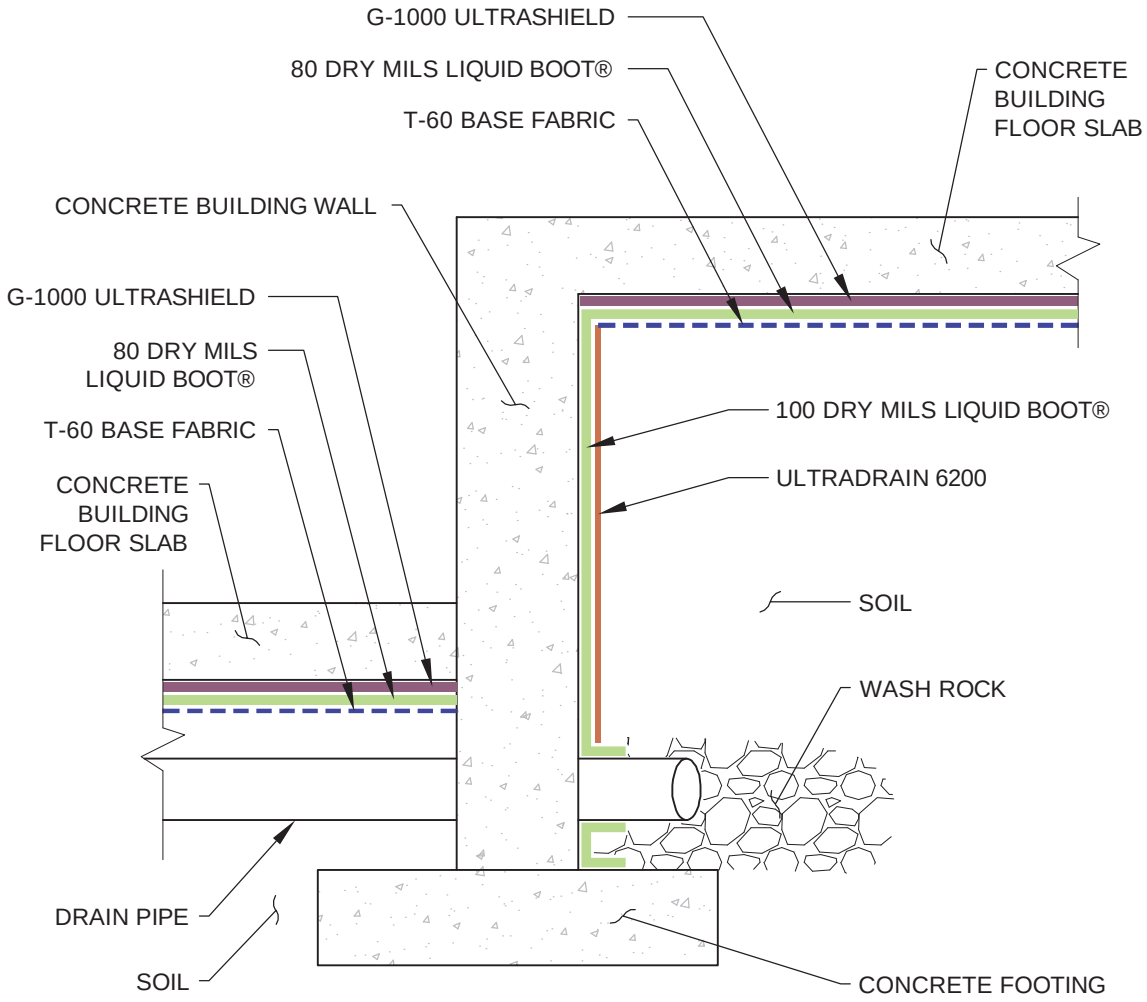
Air Sparging Piping Trench Corridor (Gridline 28)

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-11

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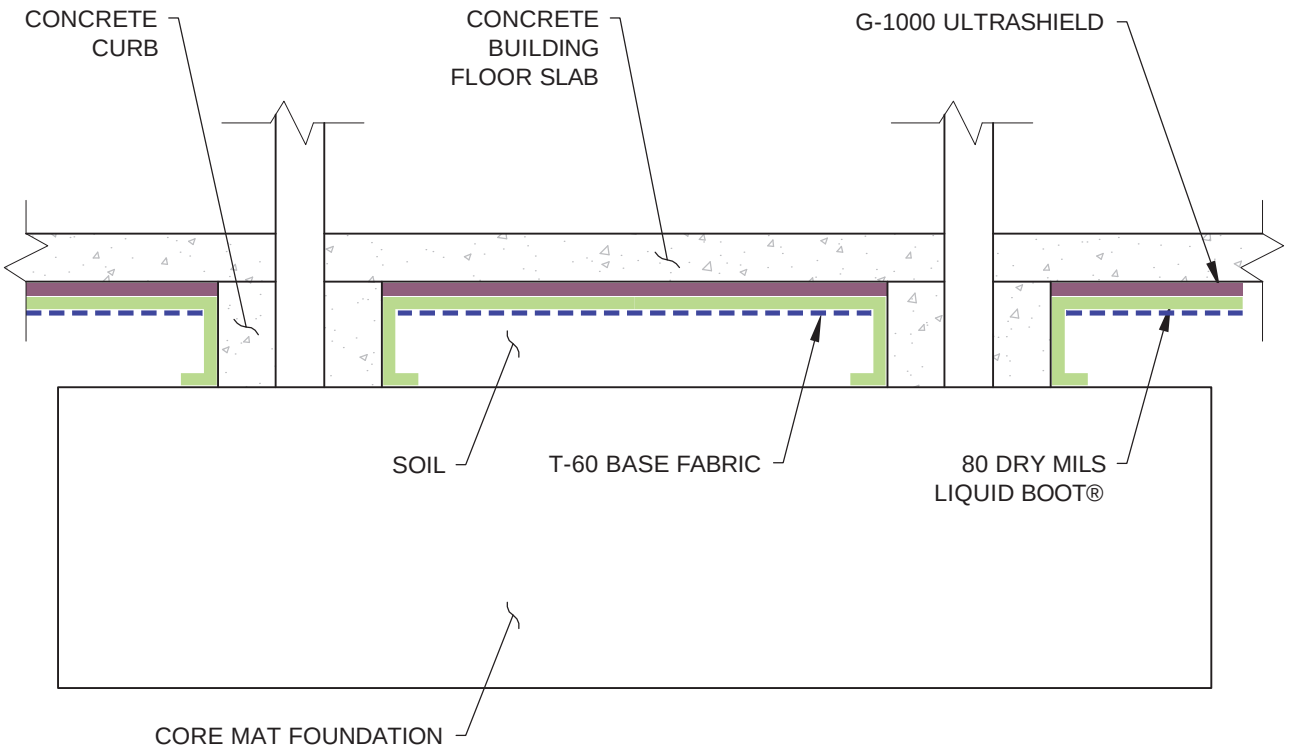
Transition Detail at Garage Ramp with Drain Pipe

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-12

P:\12\1206800\12\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\1206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-12 MODIFIED BY TMICHAUD ON JAN 13, 2011 - 14:49



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Notes

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Reference: Drawing entitled "WP 213", dated 12/18/08, from Cetco submittal "Slab on Grade Waterproofing Shop Drawings".

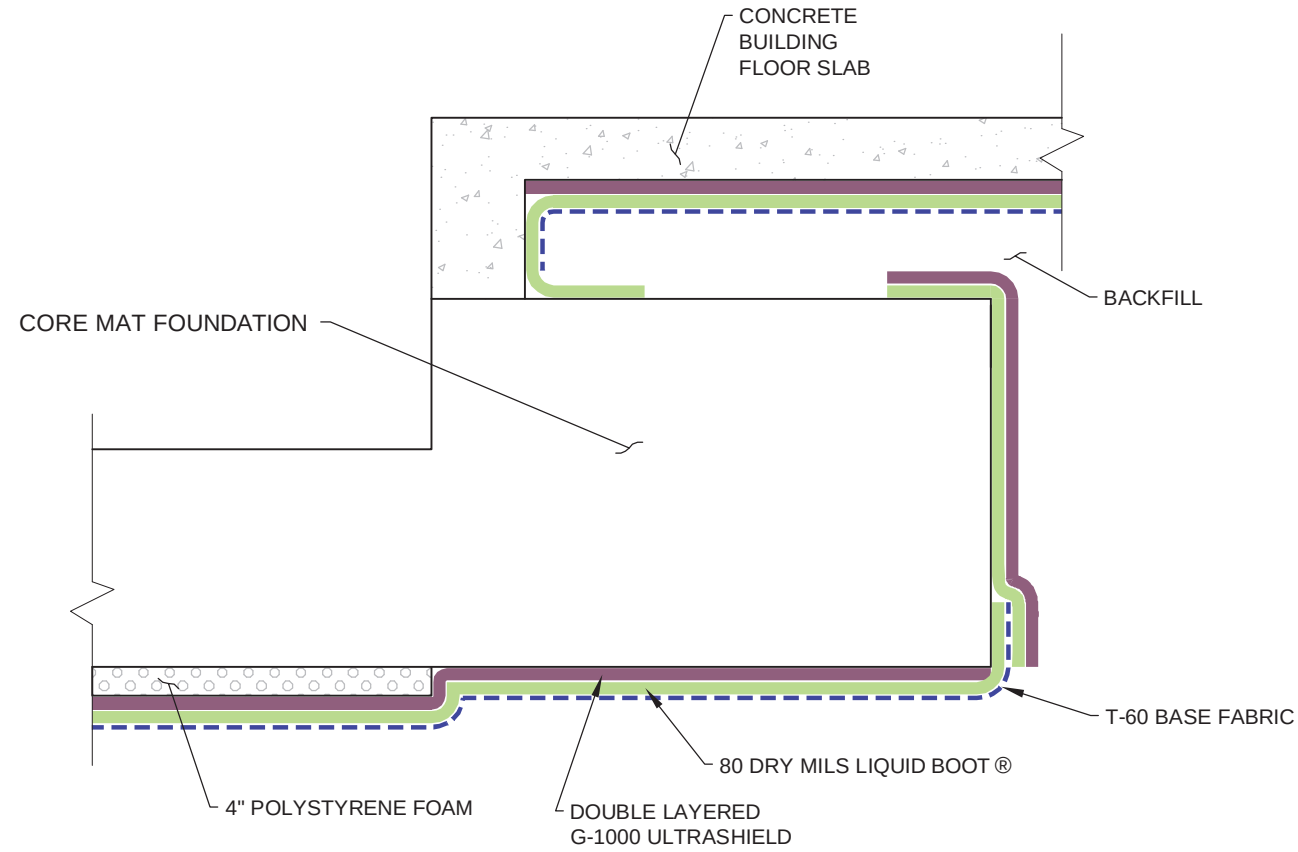
Typical Mat Foundation Detail Without Elevator Pit at A1, B1 & B3 Cores

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-13

P:\12\206800\12\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-13 MODIFIED BY TMICHAUD ON OCT 07, 2010 - 10:47



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Notes

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Reference: Drawing entitled "Well Head, Trenching, and Piping Notes & Details", dated February 2009, provided by Shannon & Wilson.

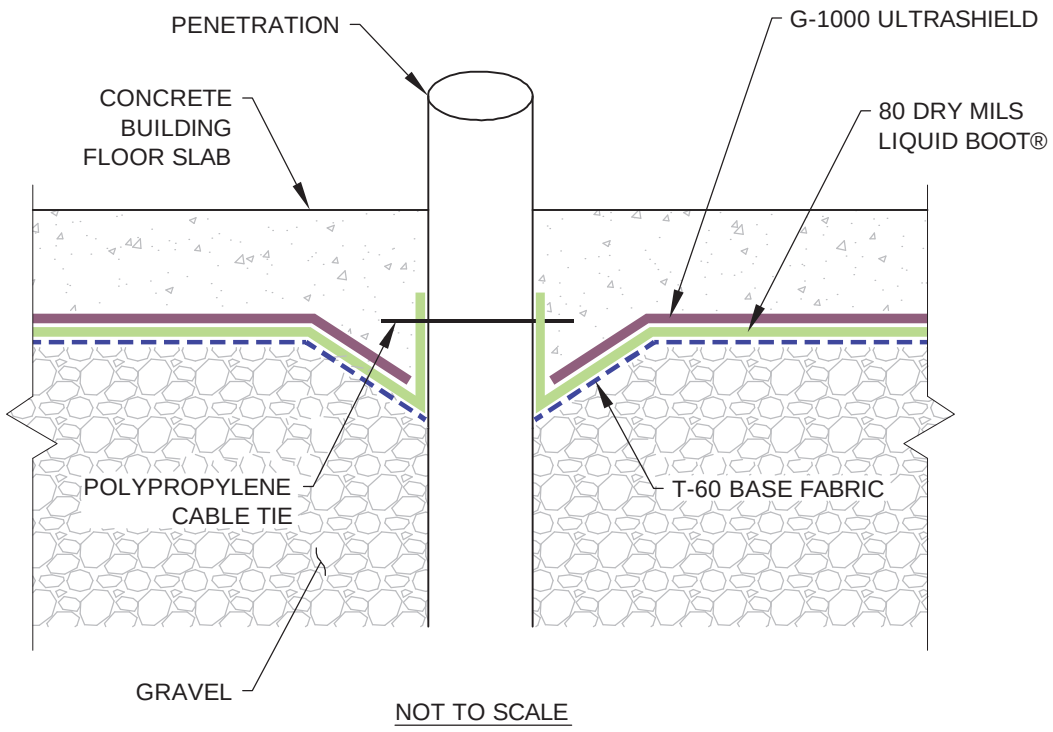
Typical Mat Foundation Detail with Elevator Pit at A2, A3 & B2 Cores

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-14

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Notes

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2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing entitled "Waterproofing Penetration on Earth or Gravel Substrata", dated 2007, provided by Cetco.

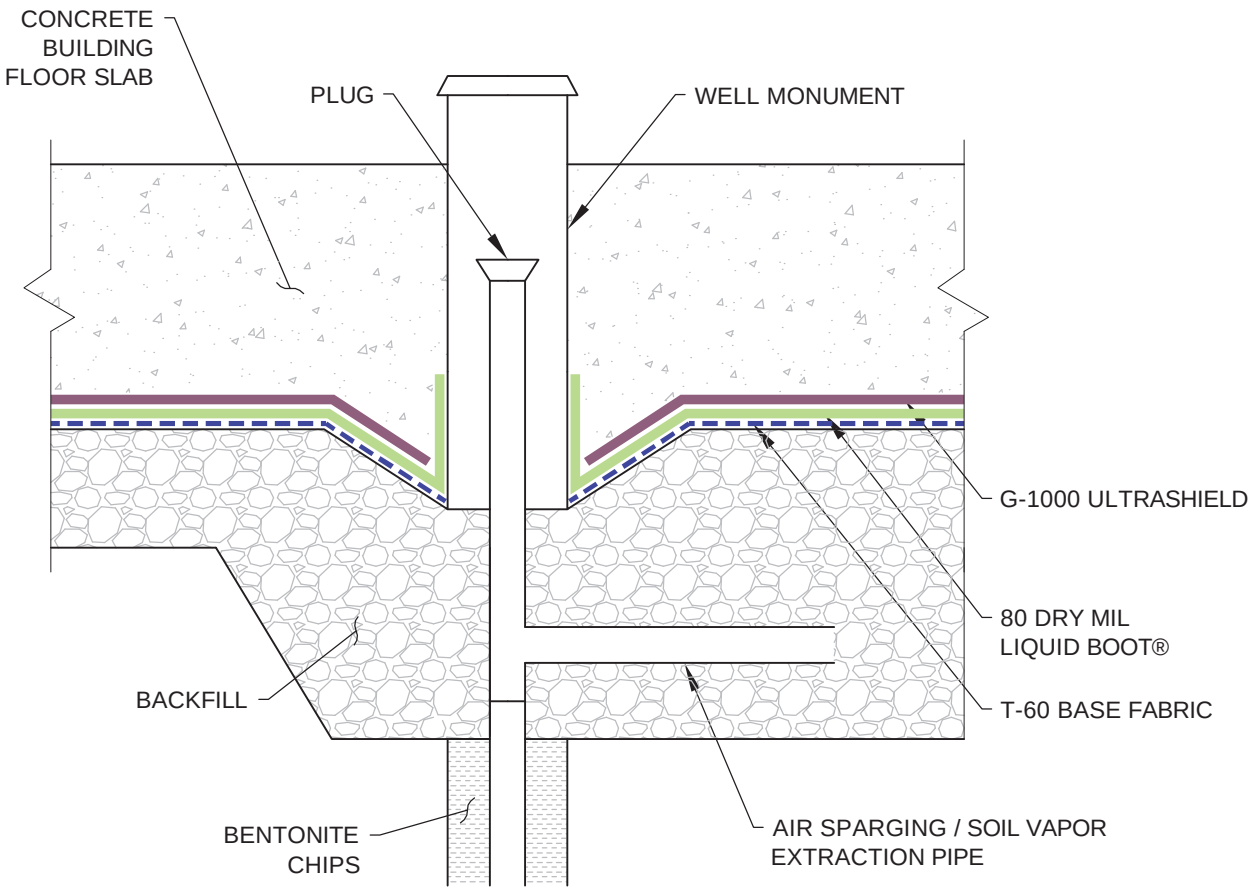
Typical Concrete Floor Slab Penetration Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-15

P:\I2\I206800\I2\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\I206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-I5 MODIFIED BY TMICHAUD ON OCT 07, 2010 - 10:52



NOT TO SCALE





Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing entitled "Waterproofing Penetration on Earth or Gravel Substrata", dated 2007, provided by Cetco.

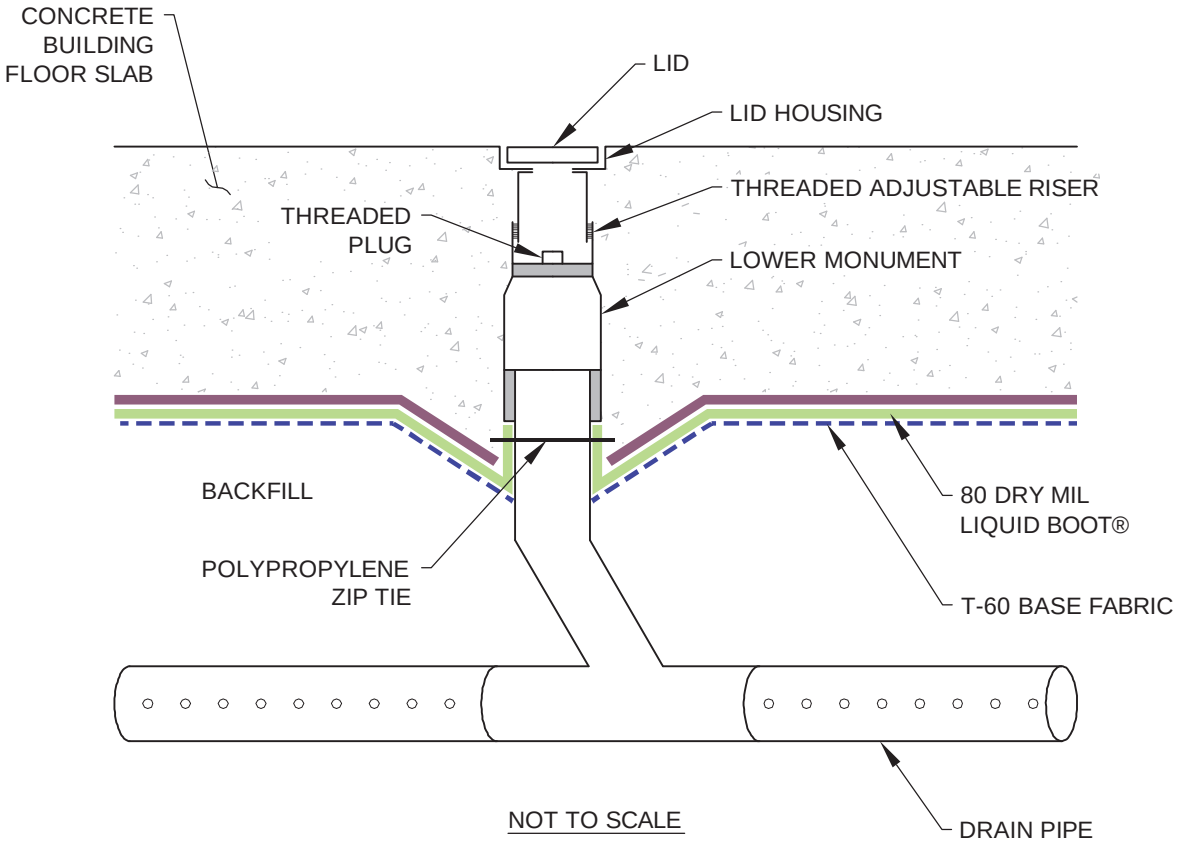
Typical Air Sparging / Soil Vapor Extraction Well Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-16

P:\I2\I206800\I2\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\I206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-I6 MODIFIED BY TMICHAUD ON OCT 07, 2010 - 10:55





Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing entitled "Foundation Drainage & Sparging Details, L510", dated 12/1/08, provided by KPFF, NBBJ & ARUP. Drawing entitled "Waterproofing Penetration on Earth or Gravel Substrata", dated 2007, provided by Cetco.

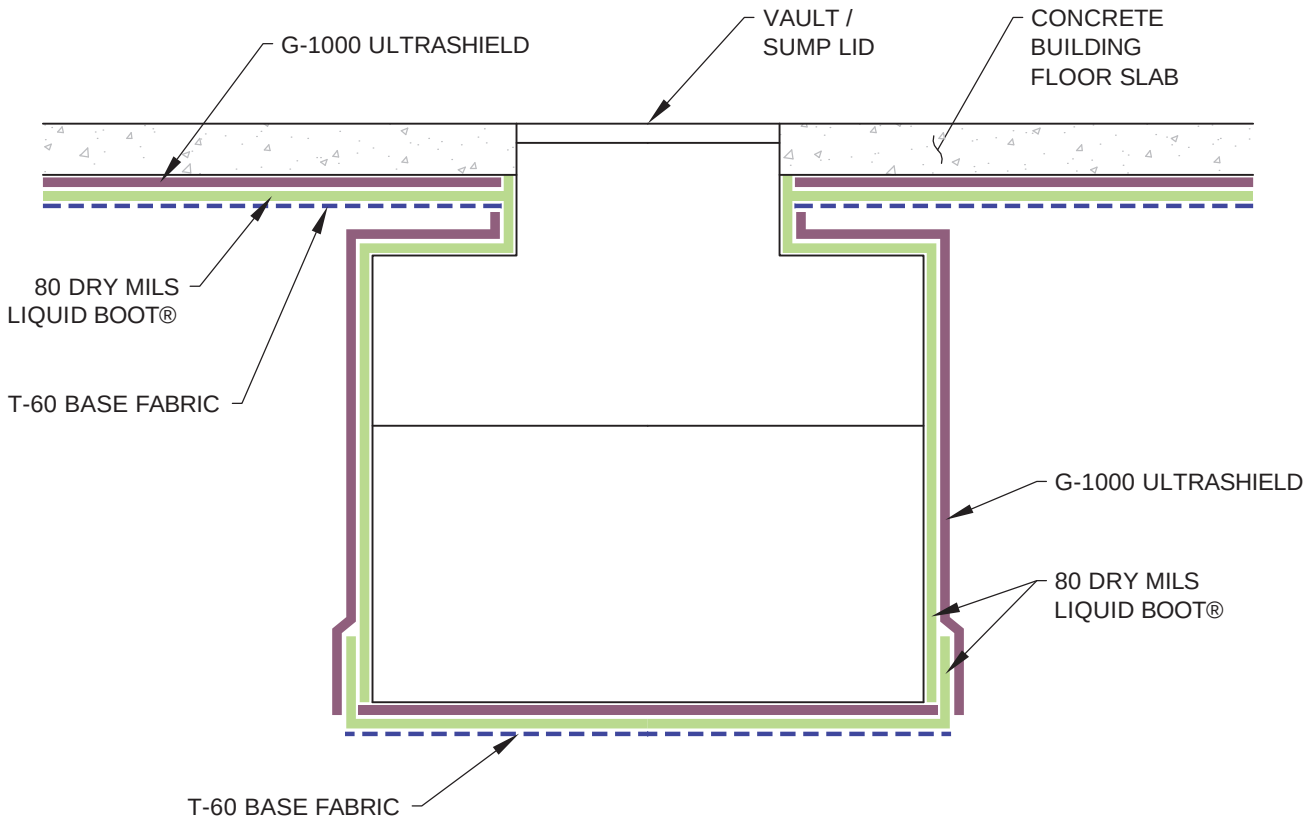
Typical Drainage Pipe Cleanout Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-17

P:\I2\I206800\I2\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\I206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-I7 MODIFIED BY TMICHAUD ON OCT 07, 2010 - 11:00



NOT TO SCALE





Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing entitled "Utility Vault Typical Detail", dated 2008, provided by Cetco.

Typical Vault/Sump Detail

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure F-18

P:\12\206800\12\CAD\T04\DRAFT CAR FIGURES\OCTOBER 2010 REVISIONS\206800I2T04_DRAFT CAR DETAILS.DWG\TAB:F-18 MODIFIED BY TMICHAUD ON OCT 07, 2010 - 11:10

APPENDIX C
Environmental Covenants

When Recorded, Return to:

Christopher Maurer, P.E.
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7500

20170915000106
COVENANT Rec: $88.00
9/15/2017 8:23 AM
KING COUNTY, WA

Environmental Covenant

Grantor: IRIS Holdings, LLC

Grantee: State of Washington, Department of Ecology

Brief Legal Description:
PTN DENNYS DT HOME ADD PCL B SEATTLE BLA #3008913 REC #20080702900011

Tax Parcel No.: 198820-1155

RECITALS

a. This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

b. The Property that is the subject of this Covenant is part or all of a site commonly known as 500 Fifth Avenue North Property, Property Site/Facility Identification No. 2593, VCP No NW1493. The Property is the headquarters campus of the Bill & Melinda Gates Foundation It includes all of the property acquired by the Grantor in 2006 from the City of Seattle other than a sliver of north and east sides of the property that was reconveyed to the City of Seattle for road street purposes. The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

c. The Property is the subject of remedial action under MTCA. This Covenant is required because residual contamination remains on the Property after completion of remedial actions. Specifically, residual contamination remains in-place in the following identified "sites" (as defined by MTCA) on the Property, the locations of which are shown on attached Exhibit C:

- **Gasoline Contamination Site** – Gasoline and benzene contaminated soil related to historic bus barn maintenance and fueling facilities remains in-place in the northern

portion of the Property beneath the Phase 1 Campus North Building and underground parking garage;

- **Contaminated Fill Site** – Randomly distributed residual contamination, generally including metals (arsenic, mercury and lead), cPAHs and petroleum hydrocarbons, related to historic backfill imported to the Property from the Pacific Place Site and other unknown locations remains in-place beyond the 5th Avenue North Parking Garage and Phase 1 Campus construction footprints; and
- **Gasoline UST Contamination Site No. 1** – Gasoline contaminated soil associated with releases from a historic dairy facility gasoline underground storage tank (UST) (now decommissioned) remains in-place beyond the 5th Avenue North Parking Garage and Phase 1 Campus construction footprints.

Stoddard solvent contamination (Stoddard Solvent Contamination Site) resulting from off-Property releases from USTs (now removed) associated with a former dye works/cleaning facility (Basil Lee Property; Site/Facility Identification No. 79418734) is located in soil south of the Property. Remedial actions were completed to remove portions of the Stoddard Solvent Contamination Site within the Property during construction for the 5th Avenue North Parking Garage. Residual off-site contamination currently remains in-place beneath City of Seattle rights-of-way (ROWs) at depths ranging from approximately 10 to 30 feet below ground surface (bgs).

All contamination associated with other identified sites on the Property was removed during construction of the 5th Avenue North Parking Garage and Phase I Bill & Melinda Gates Foundation campus on the Property.

d. The following principle contaminants remain in each of the remaining identified sites on the Property:

- **Gasoline Contamination Site** –

Medium	Principle Contaminants Present
Soil	Total Petroleum Hydrocarbons as gasoline and benzene in native soil at depths between approximately 30 and 60 feet below ground surface (bgs)
Groundwater	N/A
Surface Water/Sediment	N/A

- **Contaminated Fill Site** –

Medium	Principle Contaminants Present
Soil	Metals (arsenic, mercury and lead), carcinogenic polycyclic aromatic hydrocarbon (cPAH) and Total Petroleum Hydrocarbons as diesel and heavy oil in soil above the fill – native soil contact layer to depths of approximately 10 to 20 feet

	bgs
Groundwater	N/A
Surface Water/Sediment	N/A

- **Gasoline UST Contamination Site No. 1 –**

Medium	Principle Contaminants Present
Soil	Total Petroleum Hydrocarbons as gasoline and benzene, toluene, ethylbenzene and xylenes (BTEX) in native soil at depths between approximately 25 and 30 feet bgs
Groundwater	N
Surface Water/Sediment	N/A

e. It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the site. Records describing the extent of residual contamination and remedial actions conducted are available through the Washington State Department of Ecology. This includes the following documents:

- Final Feasibility Study for the 500 Fifth Avenue North Property, Seattle Washington, prepared for the Washington State Department of Ecology on behalf of IRIS, dated September 7, 2011.
- Cleanup Action Plan for the 500 Fifth Avenue North Property, Seattle Washington, prepared for IRIS, dated February 20, 2012.
- Property-Wide Cleanup Action Report for the 500 Fifth Avenue North Property, Seattle Washington, prepared for the Washington State Department of Ecology on behalf of IRIS, dated May 15, 2017.

f. This Covenant grants the Washington State Department of Ecology, as holder of this Covenant, certain rights specified in this Covenant. The right of the Washington State Department of Ecology as a holder is not an ownership interest under MTCA, Chapter 70.105D RCW or the Comprehensive Environmental Response, Compensation, and Liability Act.

COVENANT

IRIS Holdings, LLC, a Washington limited liability company, as Grantor and fee owner of the Property hereby grants to the Washington State Department of Ecology, and its successors and assignees, (hereafter "Ecology") the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall run with the land and be binding on all current and future owners of any portion of, or interest in, the Property.

Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

a. Interference with Remedial Action. The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

b. Protection of Human Health and the Environment. The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.

d. Leases. Grantor shall restrict any lease for any portion of the Property to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.

e. Amendment to the Covenant. Grantor must notify and obtain approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with this Covenant. Before approving any proposal, Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal. If Ecology approves the proposal, the Covenant will be amended to reflect the change.

Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Property.

a. Containment of soil. The remedial action for the Property is based on containing contaminated soil under a cap consisting of the following for each of the identified Sites on the Property and located as illustrated in Exhibit D:

- **Gasoline Contamination Site** – Residual contaminated soil is capped by the subgrade building foundations and floorslabs of the Phase 1 Campus Buildings, asphalt paving, roads, concrete sidewalks, and imported topsoil approximately 3 feet in thickness with a visual marker (orange construction fencing, geotextile fabric or similar) underlying the imported topsoil. ;
- **Contaminated Fill Site** – Residual contaminated soil is capped by the asphalt paved roads, concrete sidewalks, imported topsoil approximately 3 feet in thickness with a visual marker (orange construction fencing, geotextile fabric or similar) underlying the imported topsoil and vegetated soil cover; and
- **Gasoline UST Contamination Site No. 1** – Residual contaminated soil is capped by the asphalt paved roads and concrete sidewalks located with the City of Seattle right-of-way and on the Property.

In addition, the migration of residual contamination beneath City of Seattle ROWs onto the Property is being restricted by the 5th Avenue North Parking Garage and Phase 1 Campus subgrade building foundations.

The primary purpose of this cap is to minimize the potential for contact with contaminated media. As such, the following restrictions shall apply to the caps illustrated in Exhibit D:

Any activity on the Property that will compromise the integrity of the cap including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; installation of underground utilities; removal of the cap; or, application of loads in excess of the cap load bearing capacity, is prohibited, except as follows:

i. If the activity compromising the integrity of the cap such as utility trenching or other maintenance actions result in the direct exposure of contaminated media, the Grantor shall consult with Ecology before the activity on appropriate precautions and restoration procedures, including appropriate disposal of contaminated materials encountered during excavation. Intrusive activities in the capped areas that involve worker contact with contaminated media shall be conducted by individuals that have the appropriate training and certifications for working on hazardous waste sites and in conformance with a site-specific health and safety plan. Unless otherwise agreed to by Ecology, the Grantor shall promptly repair any disturbance to the cap by replacing the damaged area with similar materials and submit written documentation to Ecology documenting the activity within ninety (90) days of completing the repairs.

ii. If the activity compromising the integrity of the cap such as utility trenching or other maintenance actions do not result in the direct exposure of contaminated media, the Grantor shall promptly repair any damage to the cap by replacing the damaged area with similar materials and submit written documentation to Ecology documenting these repairs within ninety (90) days of completing the repairs.

The Grantor shall not alter or remove the existing structures on the Property in any manner that would expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway, without prior written approval of Ecology. Should the Grantor propose to remove all or a portion of the existing structures illustrated in Exhibits C and D so that access to the underlying contamination is feasible, Ecology may require treatment or removal of the underlying contaminated soil.

b. Vapor/gas controls. The residual contamination on the Property includes volatile chemicals that may generate harmful vapors. As such, the following engineering controls have been, and shall be, utilized on the Property within the areas of the identified Sites on the Property to minimize the potential for exposure to these vapors:

- Installation of horizontal vapor extraction piping, passive venting and a chemical vapor barrier (Liquid Boot®) applied to all subgrade surfaces (building walls and floors) of the Phase 1 Campus (beneath, and round, the North and South Buildings and underground

parking garage) and the southern subgrade building wall of the 5th Avenue North Parking garage as illustrated in Exhibit D.

Any future building or other enclosed structure constructed on the Property within 100 feet of the Stoddard Solvent Contamination Site, Gasoline Contamination Site or Gasoline UST Contamination Site No. 1 shall be constructed with a sealed foundation and with a vapor control system installed and maintained to prevent the migration of vapors into the building or structure unless re-evaluation of the vapor conditions indicate that a sealed foundation and with a vapor control system is no longer warranted.

e. Monitoring. Several groundwater monitoring wells and vapor probes are located on the Property to monitor the performance of the remedial action. The Grantor shall maintain clear access to these devices and protect them from damage until such time as they are decommissioned and abandoned in accordance with applicable regulations. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to any monitoring device. Unless Ecology approves of an alternative plan in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs.

Section 3. Access.

a. The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.

b. The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.

c. No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

Section 4. Notice Requirements.

a. Conveyance of Any Interest. The Grantor, when conveying any interest within the area of the Property illustrated in Exhibits C and D, including but not limited to title, easement, leases, and security or other interests, must:

i. Notify Ecology at least thirty (30) days in advance of the conveyance.

ii. Include in the conveying document a notice in substantially the following form, as well as a complete copy of this Covenant:

NOTICE: THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT GRANTED TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY ON [DATE] AND RECORDED WITH THE [COUNTY] COUNTY AUDITOR UNDER RECORDING NUMBER [RECORDING NUMBER]. USES AND

ACTIVITIES ON THIS PROPERTY MUST COMPLY WITH THAT COVENANT, A COMPLETE COPY OF WHICH IS ATTACHED TO THIS DOCUMENT.

iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

b. Reporting Violations. Should the Grantor become aware of any violation of this Covenant, Grantor shall promptly report such violation to Ecology.

c. Emergencies. For any emergency or significant change in site conditions due to Acts of Nature (for example, flood, fire) resulting in a violation of this Covenant, the Grantor is authorized to respond to such an event in accordance with state and federal law. The Grantor must notify Ecology of the event and response actions planned or taken as soon as practical but no later than within 24 hours of the discovery of the event.

d. Any required written notice, approval, or communication shall be personally delivered or sent by first class mail to the following persons. Any change in this contact information shall be submitted in writing to all parties to this Covenant.

Director, Global Workplace Resources IRIS Holdings, LLC P.O. Box 23350 Seattle, WA 98102 (206) 770-2040	Environmental Covenants Coordinator Washington State Department of Ecology Toxics Cleanup Program P.O. Box 47600 Olympia, WA 98504 – 7600 (360) 407-6000

As an alternative to providing written notice and change in contact information by mail, these documents may be provided electronically in an agreed upon format at the time of submittal.

Section 5. Modification or Termination.

a. If the conditions at the site requiring a Covenant have changed or no longer exist, then the Grantor may submit a request to Ecology that this Covenant be amended or terminated. Any amendment or termination of this Covenant must follow the procedures in Chapter 64.70 RCW and Chapter 70.105D RCW and any rules promulgated under these chapters.

b. By signing this agreement, per RCW 64.70.100, the original signatories to this agreement, other than Ecology, agree to waive all rights to sign amendments to and termination of this Covenant.

Section 6. Enforcement and Construction.

a. This Covenant is being freely and voluntarily granted by the Grantor.

b. Grantor shall provide Ecology with an original signed Covenant and proof of recording within ten (10) days of execution of this Covenant.

c. Ecology shall be entitled to enforce the terms of this Covenant by resort to specific performance or legal process. All remedies available in this Covenant shall be in addition to any and all remedies at law or in equity, including Chapter 70.105D RCW and Chapter 64.70 RCW. Enforcement of the terms of this Covenant shall be at the discretion of Ecology, and any forbearance, delay or omission to exercise its rights under this Covenant in the event of a breach of any term of this Covenant is not a waiver by Ecology of that term or of any subsequent breach of that term, or any other term in this Covenant, or of any rights of Ecology under this Covenant.

d. The Grantor, upon request by Ecology, shall be obligated to pay for Ecology's costs to process a request for any modification or termination of this Covenant and any approval required by this Covenant.

e. This Covenant shall be liberally construed to meet the intent of the Model Toxics Control Act, chapter 70.105D RCW and Uniform Environmental Covenants Act, chapter 64.70 RCW.

f. The provisions of this Covenant shall be severable. If any provision in this Covenant or its application to any person or circumstance is held invalid, the remainder of this Covenant or its application to any person or circumstance is not affected and shall continue in full force and effect as though such void provision had not been contained herein.

g. A heading used at the beginning of any section or paragraph or exhibit of this Covenant may be used to aid in the interpretation of that section or paragraph or exhibit but does not override the specific requirements in that section or paragraph.

The undersigned Grantor warrants it holds the title to the Property and has authority to execute this Covenant.

EXECUTED this 2ND day of JUNE, 2017.

IRIS Holdings, LLC,
a Washington limited liability company

By: _____
AARON J. MOSES
Title: DIRECTOR, GLOBAL FACILITIES, EVENTS & TRAVEL

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

On this 2nd day of June, 2017, I certify that Aaron J. Moses personally appeared before me, acknowledged that **he/~~she~~** is the Director, GFET of IRIS Holdings, LLC, the company that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that **he/~~she~~** was authorized to execute said instrument for said company.

Notary Public
State of Washington
CHRISTOPHER M MCNEECE
My Appointment Expires Oct 29, 2019

Notary Public in and for the State of Washington, residing at Renton, WA.
My appointment expires 10/29/2019.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Rogowski
Section Manager, Toxics Cleanup Program

Dated: 8/4/17

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On this 4th day of August, 2017, I certify that Barry Rogowski personally appeared before me, acknowledged that he is the Section Manager, Toxics Cleanup Program, of the Washington Department of Ecology, the public agency that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said agency, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument for said agency.



Valerie L Pearson
Notary Public in and for the State of Washington, residing at
Lacey, WA
My appointment expires 03-28-2020

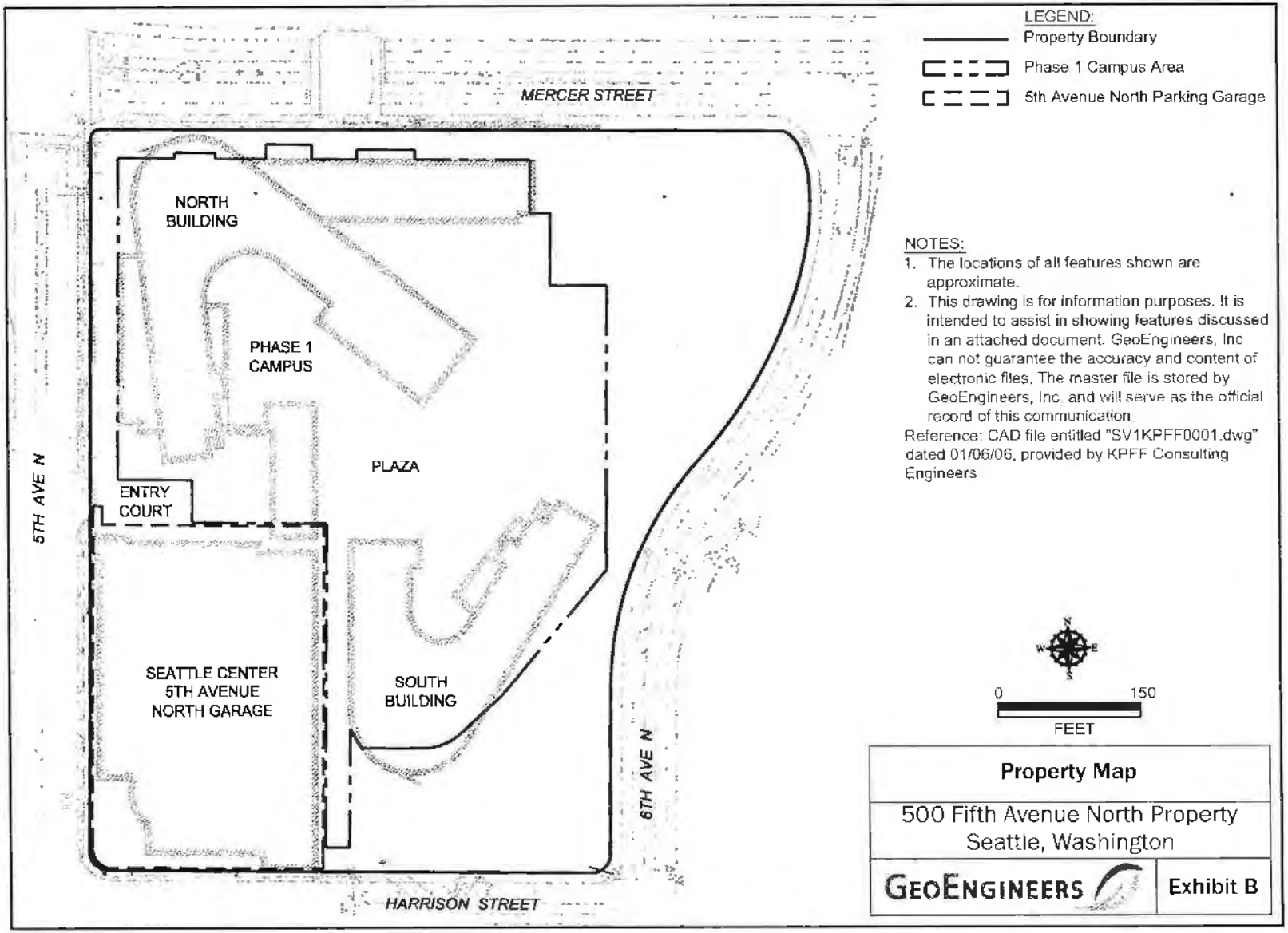
Exhibit A

LEGAL DESCRIPTION

Parcels A and B of City of Seattle Lot Boundary Adjustment No. 3008913, recorded under King County Recording No. 20080702900011, in King County, Washington;

EXCEPT those portions conveyed for street purposes to the City of Seattle by deeds recorded under Recording Nos. 20120620001398 and 20120919001435.

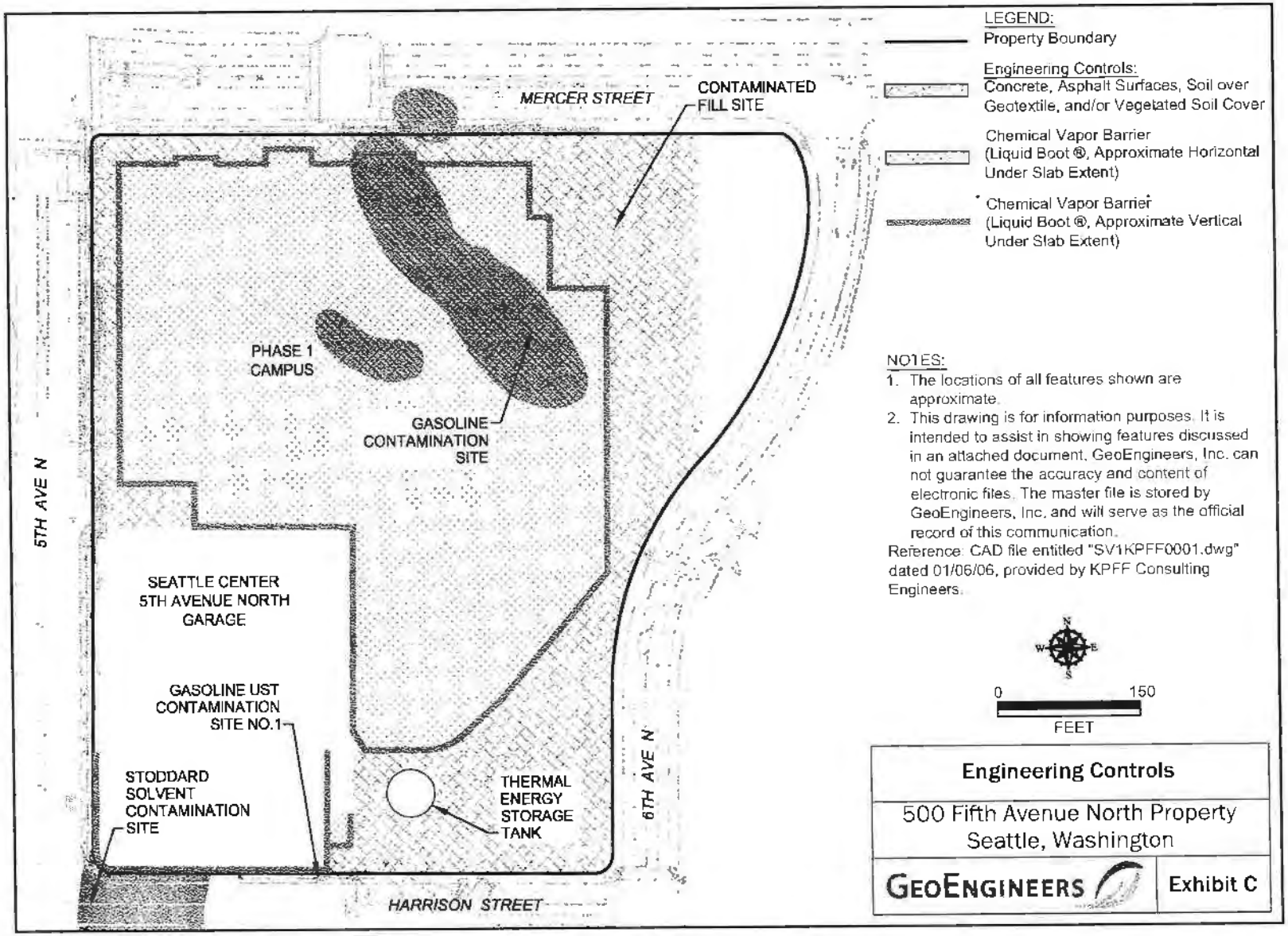
Situate in the City of Seattle, County of King, State of Washington.

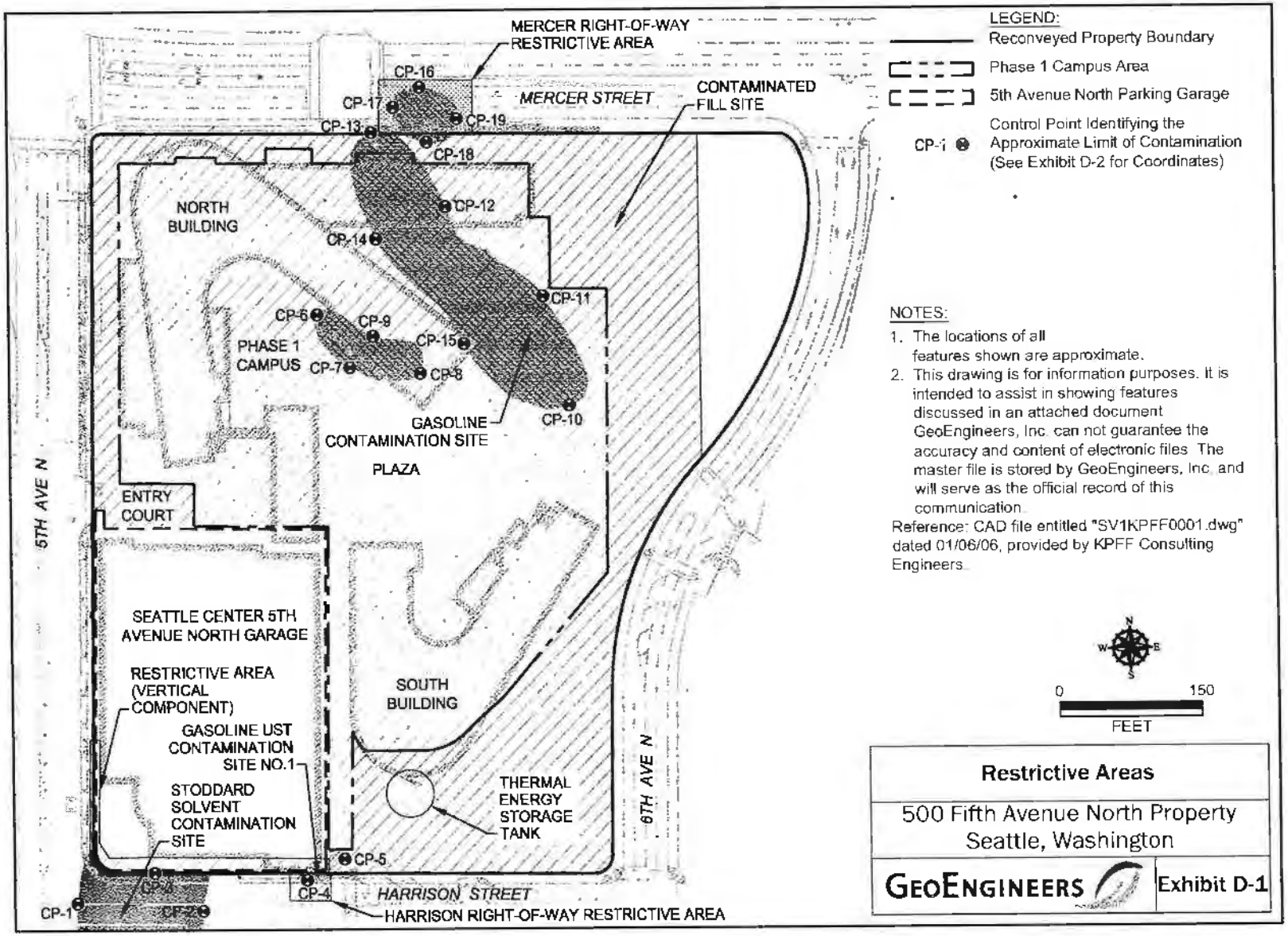


Property Map

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers | Exhibit B


MERCER STREET
CONTAMINATED FILL SITE
PHASE 1 CAMPUS
GASOLINE CONTAMINATION SITE
5TH AVE N
SEATTLE CENTER 5TH AVENUE NORTH GARAGE
GASOLINE UST CONTAMINATION SITE NO.1
STODDARD SOLVENT CONTAMINATION SITE
THERMAL ENERGY STORAGE TANK
6TH AVE N
HARRISON STREET
LEGEND:
Property Boundary
Engineering Controls:
Concrete, Asphalt Surfaces, Soil over Geotextile, and/or Vegetated Soil Cover
Chemical Vapor Barrier (Liquid Boot ®, Approximate Horizontal Under Slab Extent)
Chemical Vapor Barrier (Liquid Boot ®, Approximate Vertical Under Slab Extent)
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
Reference: CAD file entitled "SV1KPFF0001.dwg" dated 01/06/06, provided by KPFF Consulting Engineers.
N
W
E
S
0
150
FEET
Engineering Controls
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Exhibit C



Restrictive Areas

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Exhibit D-1

Control Point Coordinates		
Control Point #	**Northing**	**Easting**
CP-1	230586.6386	1267044.4814
CP-2	230575.7560	1267128.1192
CP-3	230617.4831	1267128.1192
CP-4	230606.2586	1267290.7838
CP-5	230627.9985	1267331.3756
CP-6	231206.9052	1267318.5492
CP-7	231149.8362	1267351.9197
CP-8	231142.2018	1267426.8506
CP-9	231182.6062	1267377.3623
CP-10	231104.6600	1267584.5527
CP-11	231220.8376	1267559.5814
CP-12	231317.9842	1267458.2047
CP-13	231397.8453	1267381.2738
CP-14	231285.5331	1267383.4021
CP-15	231172.5876	1267474.2980
CP-16	231444.3574	1267433.8129
CP-17	231424.3041	1267405.3409
CP-18	231386.6320	1267440.1499
CP-19	231410.6175	1267472.7898

Control Point Coordinates	
500 Fifth Avenue North Property Seattle, Washington	
GeoEngineers	Exhibit D-2

Return Address:
CHRISTOPHER MAURER, P.E.
DEPARTMENT OF ECOLOGY
P.O. BOX 47600
OLYMPIA, WA 98504-7500



20170913000099

COVENANT Rec: $84.00
9/13/2017 9:51 AM
KING COUNTY, WA

Please print or type information **WASHINGTON STATE RECORDER'S Cover Sheet** (RCW 65.04)

Document Title(s) (or transactions contained therein): (all areas applicable to your document **must** be filled in)

1. Environmental Covenant 2. _____
3. _____ 4. _____

Reference Number(s) of Documents assigned or released:

Additional reference #'s on page _____ of document

Grantor(s) (Last name, first name, initials)

1. City of Seattle 2. _____
3. _____ 4. _____
Additional names on page _____ of document.

Grantee(s) (Last name first, then first name and initials)

1. Washington Department of Ecology 2. _____
3. _____ 4. _____
Additional names on page _____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
A rectangle shaped portion of City-controlled ROW starting 218 feet East of the property boundary corner of Parcel 257040000 at 5th Ave. N and Harrison Street; proceeding South 8 feet; East 34 feet; North 8 feet; then proceeding West 34 feet to starting point; Situate in the City of Seattle, King County, Washington State.
Additional legal is on page 1 and Exhibit B of document.

Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned
2570400000

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

After Recording Return
Original Signed Covenant to:

Christopher Maurer, P.E.
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7500

Environmental Covenant

Grantor: City of Seattle

Grantee: State of Washington, Department of Ecology

Brief Legal Description: A rectangle shaped portion of the City-controlled right of way; the start point is the northwest corner of the rectangle, located 218 feet east from the IRIS property boundary at the corner of 5th Ave N and Harrison Street, on the property boundary between the Seattle Center Fifth Avenue North parking garage and Harrison Street; then proceeding South 8 feet; then proceeding East 34 feet; then proceeding North 8 feet; then proceeding West 34 feet back to the Starting Point (See map at Exhibit B).

RECITALS

a. This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

b. The Property that is the subject of this Covenant is part or all of a site commonly known as Mercer Right of Way adjacent to the Gates Foundation Campus North Building. The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

c. The Property is the subject of remedial action under MTCA. The restrictions on use described in this document are required because residual contamination remains on the Property after completion of remedial actions. Records describing the extent of residual contamination and remedial actions conducted are available through the Washington State Department of Ecology ("Ecology"). These include the following documents:

- Final Feasibility Study for 500 Fifth Avenue North Property, Seattle, Washington, prepared for the Washington State Department of Ecology on behalf of IRIS dated September 7, 2011
- Cleanup Action Plan for the 500 Fifth Avenue Property, Seattle, Washington, prepared for IRIS, dated February 20, 2012
- Property-Wide Cleanup Action Report for the 500 Fifth Avenue North Property, prepared for Washington State Department of Ecology on behalf of IRIS.

Specifically, the following principal contaminants remain on the Property:

Medium	Principle Contaminants Present
Soil	Total Petroleum Hydrocarbons as gasoline and benzene, toluene, ethylbenzene and xylenes (BTEX) in native soil at depths between approximately 25 and 30 feet bgs

d. It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the site. Records describing the extent of residual contamination and remedial actions conducted are available through the Washington State Department of Ecology

e. This Covenant grants the Washington State Department of Ecology, as holder of this Covenant, certain rights specified in this Covenant. The right of the Washington State Department of Ecology as a holder is not an ownership interest under MTCA, Chapter 70.105D RCW or the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") 42 USC Chapter 103.

COVENANT

City of Seattle, as Grantor and fee simple owner of the Property hereby grants to the Washington State Department of Ecology, and its successors and assignees, (hereafter "Ecology") the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall run with the land and be binding on all current and future owners of any portion of, or interest in, the Property.

Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

a. Interference with Remedial Action. The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

b. Protection of Human Health and the Environment. The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology, except as authorized by Section 2.b of this Covenant. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.

d. Leases. Grantor shall restrict any lease for any portion of the Property to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.

e. Amendment to the Covenant. Grantor must notify and obtain approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with this Covenant.[1] Before approving any proposal, Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal. If Ecology approves the proposal, the Covenant will be amended to reflect the change.

Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Property.

a. Land Use. The remedial action for the Property is based on a cleanup designed for commercial or industrial property. As such, the Property shall be used in perpetuity only for right-of-way purposes and for commercial or industrial land uses as those terms are defined in the rules promulgated under Chapter 70.105D RCW. Prohibited uses on the Property include but are not limited to residential uses, childcare facilities, K-12 public or private schools, parks, grazing of animals, and growing of food crops.

b. Containment of Soil/Waste Materials. The remedial action for the Property is based on containing contaminated soil under a cap consisting of the concrete or asphalt road pavement and/or concrete sidewalk located as illustrated in Exhibit B. The primary purpose of this cap is to minimize the potential for contact with contaminated soil and to minimize the leaching of contaminants to groundwater. As such, the following restrictions shall apply within the area of gasoline contamination in the ROW area as illustrated in Exhibit B.

---

[1] Examples of inconsistent uses are: using the Property for a use not allowed under the covenant (for example, mixed residential and commercial use on a property that is restricted to industrial uses); OR, drilling a water supply well when use of the groundwater for water supply is prohibited by the covenant.

Any activity on the Property that will compromise the integrity of the cap including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; removal of the cap; or, application of loads in excess of the cap load bearing capacity is prohibited, except as follows:

i. When the City is (a) conducting normal Operations and Maintenance ("O&M") of the ROW, utilities, utility vaults or remedial elements located in the ROW, or (b) responding to an emergent situation where public health and safety or the environment is at immediate and substantial risk, then any work, including, but not limited to drilling; digging; piercing the cap; grading; excavation; work on underground utilities; or removal of the cap that is required to conduct normal O&M or to respond to the emergent situation is pre-approved and authorized under this Document, **PROVIDED** that the City shall promptly repair any damage to the cap by replacing the damaged area with similar materials upon completion of the O&M work.

c. Stormwater facilities. To minimize the potential for mobilization of contaminants remaining in the soil and groundwater on the Property, no stormwater infiltration facilities or ponds shall be constructed on the property without approval of Ecology.

d. Vapor/gas controls. The residual contamination on the Property includes volatile chemicals that may generate harmful vapors. As such, all applicable federal, state and local laws regarding vapor control and vapor mitigation shall be applied on the Property to minimize the potential for exposure to these vapors when any work is being conducted in or under the ROW.

Section 3. Access.

a. The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.

b. The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.

c. No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

Section 4. Notice Requirements.

a. Conveyance of Any Interest. The Grantor, when conveying any interest including but not limited to title, easement, leases, and security or other interests, must:

i. Notify Ecology at least thirty (30) days in advance of the conveyance.

ii. Include in the conveying document a notice in substantially the following form, as well as a complete copy of this Covenant:

NOTICE: **THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT GRANTED TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY ON [DATE] AND RECORDED WITH THE [COUNTY] COUNTY AUDITOR UNDER RECORDING NUMBER [RECORDING NUMBER]. USES AND ACTIVITIES ON THIS PROPERTY MUST COMPLY WITH THAT COVENANT, A COMPLETE COPY OF WHICH IS ATTACHED TO THIS DOCUMENT.**

iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

b. Reporting Violations. Should the Grantor become aware of any violation of this Covenant, Grantor shall promptly report such violation to Ecology.

c. Emergencies. For any emergency or significant change in site conditions due to Acts of Nature (for example, flood, fire) resulting in a violation of this Covenant, the Grantor is authorized to respond to such an event in accordance with state and federal law. The Grantor must notify Ecology of the event and response actions planned or taken as soon as practical after discovery of the event.

d. Any required written notice, approval, or communication shall be personally delivered or sent by first class mail to the following persons. Any change in this contact information shall be submitted in writing to all parties to this Covenant.

City of Seattle Maya Hunnewell Real Property and Environmental Mgr. Seattle Department of Transportation PO Box 94709 Seattle, WA 98124-4709 (206) 684-5001 Email: maya.hunnewell@seattle.gov	Environmental Covenants Coordinator Washington State Department of Ecology Toxics Cleanup Program P.O. Box 47600 Olympia, WA 98504 – 7600 (360) 407-6000

As an alternative to providing written notice and change in contact information by mail, these documents may be provided electronically in an agreed upon format at the time of submittal.

Section 5. Modification or Termination.

a. If the conditions at the site requiring a Covenant have changed or no longer exist, then the Grantor may submit a request to Ecology that this Covenant be amended or terminated. Any amendment or termination of this Covenant must follow the procedures in Chapter 64.70 RCW and Chapter 70.105D RCW and any rules promulgated under these chapters.

Section 6. Enforcement and Construction.

a. This Covenant is being freely and voluntarily granted by the Grantor.

b. Grantor shall direct the County to provide Ecology with the original signed Covenant upon recording of this Covenant.

c. Ecology shall be entitled to enforce the terms of this Covenant by resort to specific performance or legal process. All remedies available in this Covenant shall be in addition to any and all remedies at law or in equity, including Chapter 70.105D RCW and Chapter 64.70 RCW. Enforcement of the terms of this Covenant shall be at the discretion of Ecology, and any forbearance, delay or omission to exercise its rights under this Covenant in the event of a breach of any term of this Covenant is not a waiver by Ecology of that term or of any subsequent breach of that term, or any other term in this Covenant, or of any rights of Ecology under this Covenant.

d. The Grantor, upon request by Ecology, shall be obligated to pay for Ecology's costs to process a request for any modification or termination of this Covenant and any approval required by this Covenant.

e. This Covenant shall be liberally construed to meet the intent of the Model Toxics Control Act, chapter 70.105D RCW and Uniform Environmental Covenants Act, chapter 64.70 RCW.

f. The provisions of this Covenant shall be severable. If any provision in this Covenant or its application to any person or circumstance is held invalid, the remainder of this Covenant or its application to any person or circumstance is not affected and shall continue in full force and effect as though such void provision had not been contained herein.

g. A heading used at the beginning of any section or paragraph or exhibit of this Covenant may be used to aid in the interpretation of that section or paragraph or exhibit but does not override the specific requirements in that section or paragraph.

The undersigned Grantor warrants he/she holds the title to the Property and has authority to execute this Covenant.

EXECUTED this 18 day of July, 2017.

City of Seattle

Scott Kubly
Director, SDOT

GRANTOR INDIVIDUAL ACKNOWLEDGMENT

STATE OF Washington
COUNTY OF King

On this 18th day of July, 2017, I certify that Scott Kubly personally appeared before me, and acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

MICHELLE TALBOT
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
02-15-20

Michelle Talbot
Notary Public in and for the State of Washington, residing at Anacortes.

My appointment expires 2/15/20.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

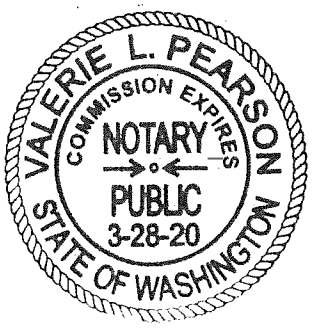
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Rogowski
Section Manager, Toxics Cleanup Program

Dated: 8/4/17

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On this 4th day of August, 2017, I certify that Barry Ragowski personally appeared before me, acknowledged that he is the Section Manager, Toxics Cleanup Program, of the Washington Department of Ecology, the public agency that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said agency, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument for said agency.

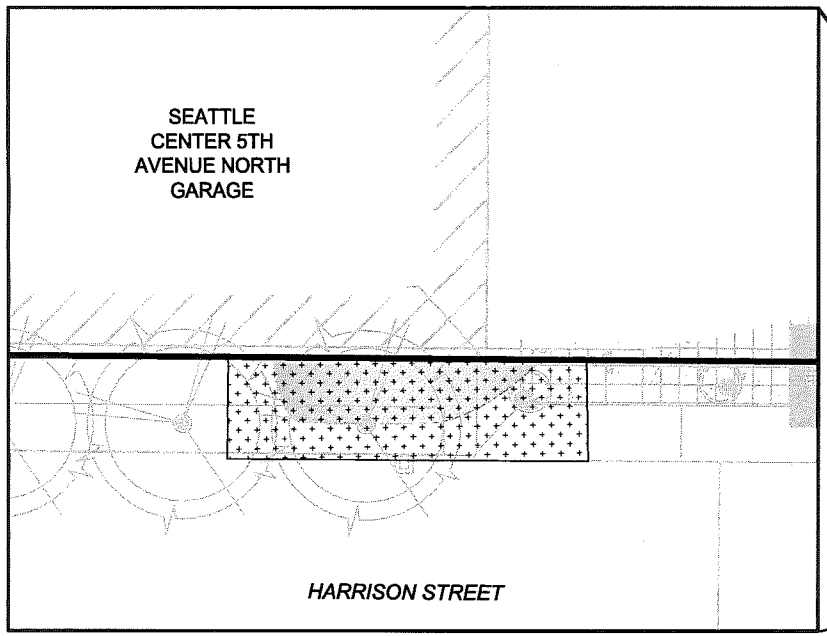


Notary Public in and for the State of Washington, residing at Lacey, WA.
My appointment expires 03-28-2020.

Exhibit A

LEGAL DESCRIPTION

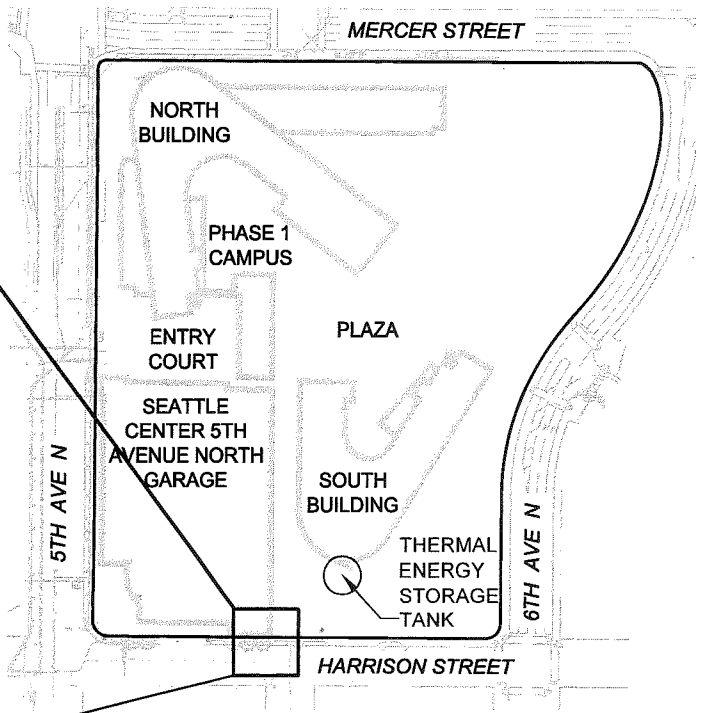
A rectangle shaped portion of the City-controlled right of way; the start point is the northwest corner of the rectangle, located 218 feet east from the IRIS property boundary at the corner of 5th Ave N and Harrison Street, on the property boundary between the Seattle Center Fifth Avenue North parking garage and Harrison Street; then proceeding South 8 feet; then proceeding East 34 feet; then proceeding North 8 feet; then proceeding West 34 feet back to the Starting Point (See map at Exhibit B).



HARRISON STREET RESTRICTIVE COVENANT AREA

0 30

FEET



OVERVIEW MAP

0 250

FEET

N
W E
S

NOTES:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: CAD file entitled "SV1KPFF0001.dwg" dated 01/06/06, provided by KPFF Consulting Engineers.

LEGEND:

	500 Fifth Avenue North Property Boundary
	Restrictive Covenant Area
TES	Thermal Energy Storage
	Gasoline UST Contamination Site No. 1

Harrison Street Right-of-Way Restrictive Area

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers | Exhibit B

Exhibit C

SUBORDINATION AGREEMENT

KNOW ALL PERSONS, That SEATTLE DEPARTMENT OF TRANSPORTATION, the owner and holder of that certain COVENANT (Instrument) bearing the date the 13TH day of SEPTEMBER, 2017, executed by SCOTT KUBLY, DIRECTOR, and recorded in the office of the County Auditor of KING County, State of Washington, on the 13TH OF SEPTEMBER, 2017, under Auditor's File Number 20170913000099, does hereby agree that said Instrument shall be subordinate to the interest of the State of Washington, Department of Ecology, under the environmental (restrictive) covenant dated JULY 18, 2017, executed by SCOTT KUBLY, and recorded in KING County, Washington under Auditor's File Number 20170913000099.

Dated 7/18, 2017.

NAME

Scott Kubly, Director, SDOT

STATE OF Washington
COUNTY OF King

On this 18th day of July, 2017, I certify that Scott Kubly personally appeared before me, and acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

MICHELLE TALBOT NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 02-15-20

Michelle Talbot
Notary Public in and for the State of Washington, residing at Anacortes.
My appointment expires 2/15/20.

Return Address:
CHRISTOPHER MAURER, P.E.
DEPARTMENT OF ECOLOGY
P.O. BOX 47600
OLYMPIA, WA 98504-7500



201709130000 98

COVENANT Rec: $84.00
9/13/2017 9:51 AM
KING COUNTY, WA

Please print or type information **WASHINGTON STATE RECORDER'S Cover Sheet** (RCW 65.04)

Document Title(s) (or transactions contained therein): (all areas applicable to your document **must** be filled in)

1. Environmental Covenant 2. _____
3. _____ 4. _____

Reference Number(s) of Documents assigned or released:

Additional reference #'s on page _____ of document

Grantor(s) (Last name, first name, initials)

1. City of Seattle 2. _____
3. _____ 4. _____
Additional names on page _____ of document.

Grantee(s) (Last name first, then first name and initials)

1. Washington Department of Ecology 2. _____
3. _____ 4. _____
Additional names on page _____ of document.

Legal description (abbreviated: i.e. lot, block, plat or section, township, range)
Portion of Parcel B, of City of Seattle Lot Boundary Adjustment No. 3008913, recorded under King County recording No. 20080702900011, more particularly: The north 50.00 feet thereof; containing an area of 42,941 square feet; Situate in the City of Seattle, King County, Washington State.
Additional legal is on page 1 and Exhibit B of document.

Assessor's Property Tax Parcel/Account Number ☐ Assessor Tax # not yet assigned
1988201155

The Auditor/Recorder will rely on the information provided on the form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

After Recording Return
Original Signed Covenant to:

Christopher Maurer, P.E.
Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7500

Environmental Covenant

Grantor: City of Seattle

Grantee: State of Washington, Department of Ecology

Brief Legal Description: A portion of Parcel B, of City of Seattle Lot Boundary Adjustment No. 3008913, recorded under King County recording No. 20080702900011, more particularly described as follows: The north 50.00 feet thereof; Containing an area of 42,941 square feet or 0.9858 acres, more or less. Situate in the City of Seattle, King County, Washington State. (See Exhibit B).

RECITALS

a. This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

b. The Property that is the subject of this Covenant is part or all of a site commonly known as Mercer Right of Way adjacent to the Gates Foundation Campus North Building. The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

c. The Property is the subject of remedial action under MTCA. The restrictions on use described in this document are required because residual contamination remains on the Property after completion of remedial actions. Records describing the extent of residual contamination and remedial actions conducted are available through the Washington State Department of Ecology ("Ecology"). These include the following documents:

- Final Feasibility Study for 500 Fifth Avenue North Property, Seattle, Washington, prepared for the Washington State Department of Ecology on behalf of IRIS dated September 7, 2011
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- Property-Wide Cleanup Action Report for the 500 Fifth Avenue North Property, prepared for Washington State Department of Ecology on behalf of IRIS.

Specifically, the following principal contaminants remain on the Property:

Medium	Principal Contaminants Present
Soil	Total Petroleum Hydrocarbons as gasoline and benzene in native soil at depths between approximately 30 and 60 feet below ground surface (bgs)
Groundwater	Total Petroleum Hydrocarbons as gasoline and benzene

d. It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the site. Records describing the extent of residual contamination and remedial actions conducted are available through the Washington State Department of Ecology

e. This Covenant grants the Washington State Department of Ecology, as holder of this Covenant, certain rights specified in this Covenant. The right of the Washington State Department of Ecology as a holder is not an ownership interest under MTCA, Chapter 70.105D RCW or the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") 42 USC Chapter 103.

COVENANT

City of Seattle, as Grantor and fee simple owner of the Property hereby grants to the Washington State Department of Ecology, and its successors and assignees, (hereafter "Ecology") the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall run with the land and be binding on all current and future owners of any portion of, or interest in, the Property.

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The following general restrictions and requirements shall apply to the Property:

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operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

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c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.

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[1] Examples of inconsistent uses are: using the Property for a use not allowed under the covenant (for example, mixed residential and commercial use on a property that is restricted to industrial uses); OR, drilling a water supply well when use of the groundwater for water supply is prohibited by the covenant.

soil and to minimize the leaching of contaminants to groundwater. As such, the following restrictions shall apply within the area of gasoline contamination in the ROW area as illustrated in Exhibit B.

Any activity on the Property that will compromise the integrity of the cap including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; removal of the cap; or, application of loads in excess of the cap load bearing capacity is prohibited, except as follows:

i. When the City is (a) conducting normal Operations and Maintenance ("O&M") of the ROW, utilities, utility vaults or remedial elements located in the ROW, or (b) responding to an emergent situation where public health and safety or the environment is at immediate and substantial risk, then any work, including, but not limited to drilling; digging; piercing the cap; grading; excavation; work on underground utilities; or removal of the cap that is required to conduct normal O&M or to respond to the emergent situation is pre-approved and authorized under this Document, **PROVIDED** that the City shall promptly repair any damage to the cap by replacing the damaged area with similar materials upon completion of the O&M work.

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iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

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The undersigned Grantor warrants he/she holds the title to the Property and has authority to execute this Covenant.

EXECUTED this 18 day of July, 2017.

City of Seattle

Scott Kubly
Director, SDOT

GRANTOR INDIVIDUAL ACKNOWLEDGMENT

STATE OF Washington
COUNTY OF King

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MICHELLE TALBOT NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 02-15-20

Michelle Talbot
Notary Public in and for the State of Washington, residing at Anacortes.

My appointment expires 2/15/20.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Ragowski
Barry Rogowski
Section Manager, Toxics Cleanup Program

Dated: 8/4/17

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On this 4th day of August, 2017, I certify that Barry Ragowski personally appeared before me, acknowledged that he is the Section Manager, Toxics Cleanup Program, of the Washington Department of Ecology, the public agency that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said agency, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument for said agency.

VALERIE L. PEARSON
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
3-28-20

Valerie L Pearson

Notary Public in and for the State of
Washington, residing at
Lacey, WA.
My appointment
expires 03-28-2020.

Exhibit A

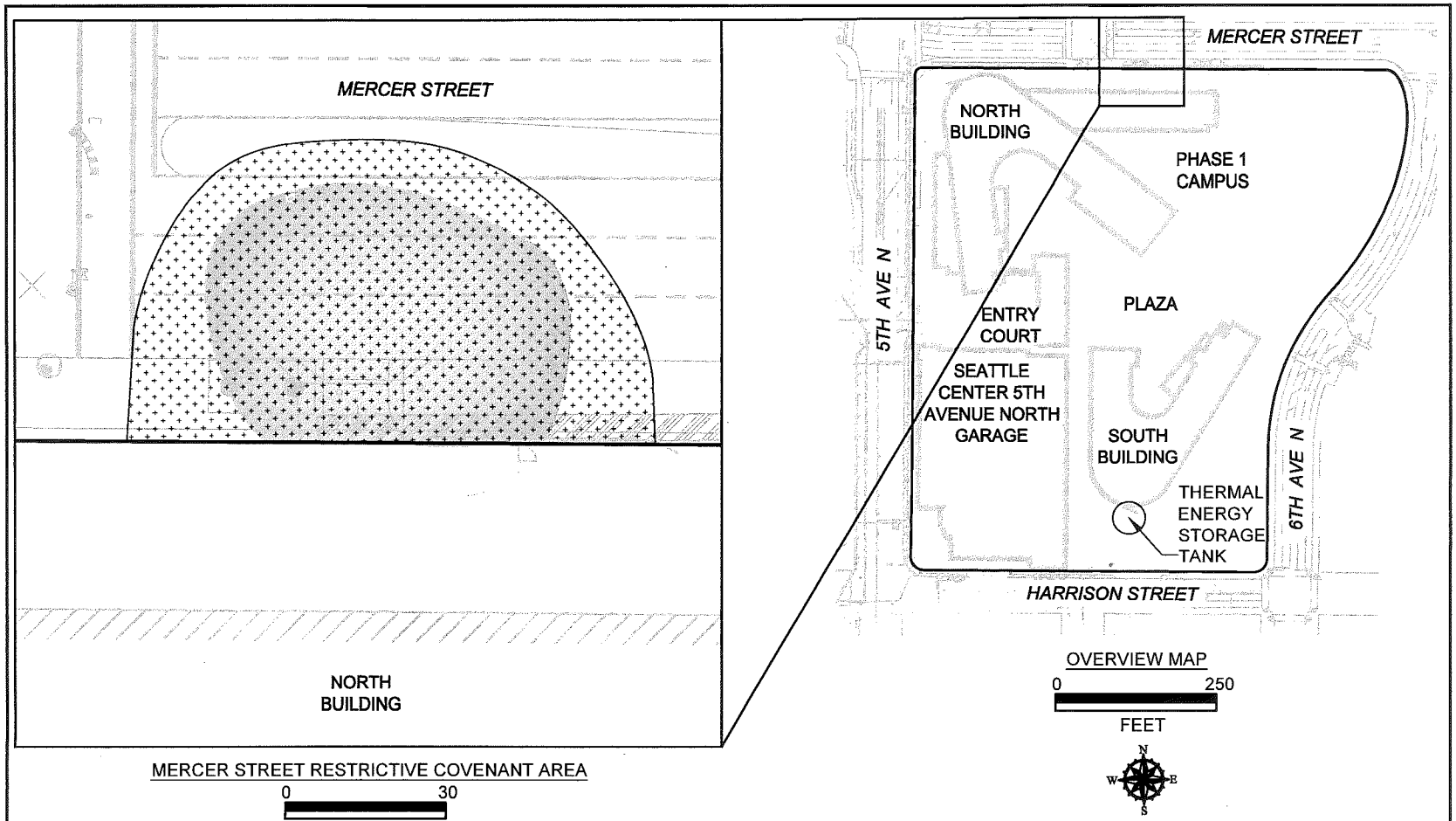
LEGAL DESCRIPTION

A portion of Parcel B, of City of Seattle Lot Boundary Adjustment No. 3008913, recorded under King County recording No. 20080702900011, more particularly described as follows:

The north 50.00 feet thereof;

Containing an area of 42,941 square feet or 0.9858 acres, more or less.

Situate in the City of Seattle, King County, Washington State



MERCER STREET RESTRICTIVE COVENANT AREA

0 30

FEET

NOTES:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: CAD file entitled "SV1KPFF0001.dwg" dated 01/06/06, provided by KPFF Consulting Engineers.

LEGEND:

- 500 Fifth Avenue North Property Boundary
- Restrictive Covenant Area
- TES — Thermal Energy Storage
- Gasoline Contamination Site

Mercer Street Right-of-Way Restrictive Area

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Exhibit B

Exhibit C

SUBORDINATION AGREEMENT

KNOW ALL PERSONS, That SEATTLE DEPARTMENT OF TRANSPORTATION, the owner and holder of that certain COVENANT (Instrument) bearing the date the 13TH day of SEPTEMBER, 2017, executed by SCOTT KUBLY, DIRECTOR, and recorded in the office of the County Auditor of KING County, State of Washington, on the 13TH OF SEPTEMBER, 2017, under Auditor's File Number 20170913000098, does hereby agree that said Instrument shall be subordinate to the interest of the State of Washington, Department of Ecology, under the environmental (restrictive) covenant dated JULY 18, 2017, executed by SCOTT KUBLY, and recorded in KING County, Washington under Auditor's File Number 20170913000098.

Dated 7/18, 2017.

NAME

Scott Kubly, Director, SDOT

STATE OF Washington
COUNTY OF King

On this 18th day of July, 2017, I certify that Scott Kubly personally appeared before me, and acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

MICHELLE TALBOT NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 02-15-20

Michelle Talbot
Notary Public in and for the State of Washington, residing at Anacortes.
My appointment expires 2/15/20.

APPENDIX D
Report Limitations and Guidelines for Use

APPENDIX D
REPORT LIMITATIONS AND GUIDELINES FOR USE[6]

General

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

GeoEngineers has completed this Post-Construction Environmental Management Plan for the 500 Fifth Avenue North Property located in Seattle, Washington in general accordance with our agreement dated March 8, 2005. This report has been prepared for the exclusive use of IRIS Holdings, LLC, the Bill & Melinda Gates Foundation, their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and property. No one except IRIS Holdings, LLC, The Bill & Melinda Gates Foundation, their authorized agents and regulatory agencies should rely on this environmental report without first conferring with GeoEngineers. Use of this report is not recommended for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the 500 Fifth Avenue North Property located in Seattle, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise

[6] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

Historical Information Provided by Others

GeoEngineers makes no warranties or guarantees regarding the accuracy or completeness of information provided by others. The information presented in this report is based on the above-described research. GeoEngineers has relied upon information provided by others in our descriptions of historical conditions and in our review of regulatory databases and files. The available data do not provide definitive information with regard to all past uses, operations or incidents at the property or adjacent properties.

Environmental Uncertainty

No study can wholly eliminate uncertainty regarding the potential for environmental conditions or contamination in connection with a property. There is always a potential that areas with contamination that were not identified during this study exist at the site or in the study area. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Environmental Regulations Are Always Evolving

Some substances may be present in the vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substances, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other properties or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject property or reuse of the affected soil or groundwater on-site to evaluate the potential for associated environmental liabilities. We are unable to assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject property to another location or its reuse on-site in instances that we did not know or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the subject property. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the property. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

An Environmental Report Could be Subject to Misinterpretation

Misinterpretation of this plan by other design team members can result in costly problems. You could lower that risk by having GeoEngineers confer with appropriate members of the design team after submitting the plan. Also retain GeoEngineers to review pertinent elements of the design team's plans and specifications. contractors can also misinterpret an environmental plan. Reduce that risk by having GeoEngineers participate in pre-bid and preconstruction conferences, and by providing construction observation.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

Contractors are Responsible for Site Safety on Their Own Construction Projects

Our environmental recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and to adjacent property.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more about how these "Report Limitations and Guidelines for Use" apply to your project or property.