STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
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October 17, 2017

Mr.Ned Dunn
Seattle Center
305 Harrison St.
Seattle, WA 98109

Re: No Further Action at the following Site:

- **Site Name:** IRIS Holdings LLC
- **Site Address:** 500 5th Ave N Seattle, Washington
- **Facility/Site No.:** 2593
- **VCP Project No.:** NW1493

Dear Mr. Dunn:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the IRIS Holdings LLC facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

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

- Gasoline, diesel, oil, benzene, xylenes, cPAHs, arsenic, and lead into the soil.
- Gasoline and benzene into the groundwater.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note the Basil Lee Property facility (FSID 79418734) also affects a parcel of real property associated with this Site. This opinion does not apply to any contamination associated with the Basil Lee Property facility.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Soil Characterization Study – Seattle Center Lot No. 2 – Adjacent Utility Duct Bank Area – Seattle, Washington by GeoEngineers and dated February 4, 2008
2. Report of Environmental Services – Underground Storage Tank Removal – Seattle Center Lot No. 2 – Phase 1 Campus Location – Seattle, Washington – by GeoEngineers and dated January 29, 2010
3. Final Draft Feasibility Study – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated December 27, 2010
4. Cleanup Action Report – Phase 1 Campus – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated February 23, 2011
5. February 2011 Groundwater Monitoring Report – Gasoline UST Contamination, Stoddard Solvent Contamination and Contaminated Fill Sites – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated March 9, 2011
6. April 2011 Groundwater Monitoring Report – Gasoline UST Contamination, Stoddard Solvent Contamination and Contaminated Fill Sites – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated August 3, 2011
7. Final Feasibility Study – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated September 7, 2011
8. Draft Cleanup Action Plan – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated October 20, 2011
9. July 2011 Groundwater Monitoring Report – Gasoline UST Contamination, Stoddard Solvent Contamination and Contaminated Fill Sites – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated November 30, 2011

10. October 2011 Groundwater Monitoring Report – Gasoline UST Contamination, Stoddard Solvent Contamination and Contaminated Fill Sites – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated February 7, 2012
11. Cleanup Action Plan – 500 Fifth Avenue North Property – Seattle, Washington by GeoEngineers and dated February 20, 2012
12. Underground Storage Tank Removal and Closure Report – 500 Fifth Avenue North Property – Phase 2A Campus Development – Seattle, Washington by GeoEngineers and dated March 22, 2012
13. Right-of-Way Soil Characterization – Phase 2 Campus Development – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated June 22, 2012
14. Draft Property-Wide Cleanup Action Report – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated May 12, 2015
15. Draft Post-Construction Environmental Management Plan – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated May 12, 2015
16. Environmental Covenant Checklist – 500 Fifth Avenue North – Seattle, Washington byGeoEngineers and dated May 12, 2015
17. Draft Post-Construction Environmental Management Plan – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated November 7, 2016
18. Environmental Covenant Checklist – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated November 7, 2016
19. Draft Property-Wide Cleanup Action Report – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated November 7, 2016

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at 425 – 649 - 7190.

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

Analysis of the Cleanup

Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A.**

In 1968, twenty-one soil borings were drilled on site to evaluate the soil characteristics. Although gasoline-saturated soil was observed in one soil boring, no soil samples were analyzed for contamination.

In June of 1989, a geophysical survey and a soil gas survey were performed. The geophysical survey indicated the presence of several underground storage tanks while the screening-level soil gas survey confirmed the presence of volatile organics in the soil.

In September of 1989, eight borings were drilled on-site. In January of 1990, two shallow trenches were excavated on-site. Analysis of numerous soil samples revealed total petroleum contamination values above MTCA Method A standards. The contaminant was identified as diesel fuel or degraded gasoline. The contamination appeared to be limited to the upper five to fifteen feet of soil with no apparent off-site contamination.

In September of 1994, twenty-four borings, fourteen test pits, and five groundwater monitoring wells were installed at the site. Test samples from six of the test pits exceeded the MTCA standard for total petroleum hydrocarbons while soil samples from seven of the twenty-one borings exceeded the MTCA Method A standard for gasoline. No exceedances of benzene, ethylbenzene, toluene, or xylene were observed.

Five groundwater monitoring wells were sampled quarterly between 1995 and 1996 with the groundwater samples being analyzed for gasoline, diesel, benzene, ethylbenzene, toluene, and xylene. No detections of gasoline, diesel, ethylbenzene, or toluene were observed while all detections of benzene and xylene were below MTCA standards.

In 1996, a second geophysical survey and additional soil sampling was performed. The geophysical survey found no additional underground storage tanks. The soil samples were analyzed for gasoline, diesel, benzene, ethylbenzene, toluene, and xylenes. Only benzene, in two soil samples, was found to exceed the MTCA Method A standard.

In August of 2004, three groundwater monitoring wells were installed at the site, the previous five groundwater monitoring wells that were installed in 1994 having been abandoned in 1997. The groundwater samples were analyzed for gasoline, diesel, oil, benzene, ethylbenzene, toluene, xylene, and lead. Exceedances of the MTCA standard for benzene were found in two wells while an exceedance of the MTCA standard for gasoline was found in one well.

In March of 2005, eighteen additional soil borings were installed at the site, with four of the borings subsequently being converted to monitoring wells. Thirty-eight soil samples and groundwater samples from the four new monitoring wells and one existing well, along with two grab water samples from borings, were analyzed for gasoline, diesel, oil, volatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, and MTCA metals. Of the thirty-eight soil samples, one sample exceeded the MTCA standard for mineral spirits, three samples for carcinogenic polycyclic aromatic hydrocarbons, two samples for lead, and one sample for cadmium.

Three of the four exceedances found for arsenic occurred in fill, suggesting that soil contaminated with arsenic from elsewhere had been brought to the site.
Only exceedances of MTCA Method A and/or B standards for metals were observed, with one deep well having an exceedance for dissolved arsenic. Both shallow groundwater samples had exceedances of MTCA Method A and/or B for arsenic, chromium, and lead.

In June of 2006, five additional borings were installed at the site. Nine soil samples were collected from the borings and analyzed for gasoline, diesel, oil; volatile organic compounds, polycyclic aromatic hydrocarbons and carcinogenic polycyclic aromatic hydrocarbons, polychlorinated biphenyls, arsenic, cadmium, chromium, lead, and mercury. One soil sample exceeded the MTCA Method A and/or B standards for diesel, oil, and lead while two deep soil samples and one shallow soil sample had exceedances of various carcinogenic polycyclic aromatic hydrocarbons. No groundwater was sampled.

In June of 2010, fourteen additional soil borings were installed at the site. Thirty-eight soil samples were collected and analyzed for gasoline, diesel, oil, benzene, ethylbenzene, toluene, xylene, acetone, polycyclic aromatic hydrocarbons, arsenic, cadmium, chromium, lead, and mercury. Several samples were also tested by the Toxic Characteristics Leaching Test. Four groundwater samples were also obtained and analyzed for gasoline, diesel, oil, volatile organic compounds, polycyclic aromatic hydrocarbons, arsenic, cadmium, chromium, lead, and mercury. Oil and benzene exceeded the MTCA Method A standards in one soil sample while seven soil samples exceeded the MTCA Method A standards for polycyclic aromatic hydrocarbons and one soil sample exceeded the MTCA Method A standards for three metals (arsenic, cadmium, and lead). An additional two samples exceeded the Toxic Characteristics Leaching Test for leachable lead. The results for the groundwater samples found no exceedances of the MTCA Method A standards for any analyte.

In May of 2011, thirty-four additional borings were installed at the site. Eighteen soil samples were analyzed for total lead. Ten of eighteen soil samples exceeded the MTCA Method A standard for total lead while six of the ten samples also exceeded the Toxic Characteristics Leaching Test for leachable lead.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Soil

Gasoline – 30 mg/Kg
Diesel – 2,000 mg/Kg
Oil – 2,000 mg/Kg
Benzene – 0.03 mg/Kg
Toluene – 7 mg/Kg
Xylenes – 9 mg/Kg
Ethylbenzene – 6 mg/Kg
cPAH – 0.1 mg/Kg (TEQ)
Arsenic – 20 mg/Kg
Cadmium – 2 mg/Kg
Total chromium – 2,000 mg/Kg
Lead – 250 mg/Kg
Mercury – 2 mg/Kg

Groundwater

Gasoline – 800 µg/l
Diesel – 500 µg/l
Oil – 500 µg/l
Benzene – 5 µg/l
Toluene – 1,000 µg/l
Xylenes – 1,000 µg/l
Ethylbenzene – 700 µg/l
cPAH – 0.1 µg/l (TEQ)
Arsenic – 5 µg/l
Cadmium – 5 µg/l
Total chromium – 50 µg/l
Lead – 15 µg/l
Mercury – 2 µg/l

A standard horizontal point of compliance, the property boundary, was used for soil contamination.

A standard vertical point of compliance, fifteen feet, for soils was established in the soils throughout the site from the ground surface to fifteen feet below the ground surface. Fifteen feet is protective for direct contact with the contaminated soil.

A standard vertical point of compliance, from the uppermost level of the saturated zone to the lowest depth that could potentially be affected, was used for groundwater contamination

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The method selected for soil - excavation of the contaminated soil and transporting the soil off-site to a permitted facility – and groundwater – treatment using soil vapor extraction, meets the minimum requirements for cleanup actions by providing a permanent solution, immediate restoration time frame, provides for confirmation monitoring, and protects human health and the environment. Contaminated soil that can not be excavated will be capped with a concrete or earthen cap. An inspection and maintenance plan for the cap has been prepared. A monitoring plan for the groundwater, until such time as the groundwater contamination will be below State standards, is in preparation.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

In August of 2008, an underground storage tank (1,500 gallons) was excavated and taken off-site for recycling. Five confirmational soil samples were analyzed for diesel and oil, with one of the samples also analyzed for benzene, ethylbenzene, toluene, xylene, and carcinogenic polycyclic aromatic hydrocarbons.

No exceedances of the MTCA Method A standards for diesel and oil were found while the analyses for benzene, ethylbenzene, toluene, xylene, and carcinogenic polycyclic aromatic hydrocarbons found non-detectable concentrations in the sample tested.

Between 2007 and 2012, during property redevelopment, eleven areas of contamination were identified and remedial action taken. Some sixteen areas of contaminated soil were excavated and taken off site for remediation. Five additional underground storage tanks were excavated and taken off-site for recycling.

Four hundred and eighteen thousand cubic yards (418,000 cy) of contaminated soil were taken off-site for disposal at a permitted landfill. One hundred and thirteen thousand cubic yards (113,000 cy) of less-contaminated soil was reused on site or taken off-site for unrestricted land use.

For details of each excavation and associated confirmational soil sampling, see the **Draft Property-Wide Cleanup Action Report – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated November 7, 2016** and **Enclosure A** of this letter. Not all of the soil contaminated above MTCA Method A and B standards could be excavated. The remaining contaminated soil is located beneath buildings or is covered by at least three feet of soil. Because soil contaminated above State standards will remain on the property, an environmental covenant (**Enclosure C** of this letter) will be placed on the property deed and an inspection and maintenance plan (**Enclosure D** of this letter) will be followed to ensure protection of human health and the environment. Two small areas of soil contamination remain off-site in the right-of-way of Mercer Street and the right-of-way of Harrison Street. Both areas are currently covered by concrete. Environmental covenants (**Enclosure C** of this letter) will be placed on both areas to ensure protection of human health and the environment.

Between June of 2007 and August of 2008, seventeen soil vapor extraction wells and thirty-three air sparging wells were installed to treat the area of contaminated groundwater on-site. The system was shut down and decommissioned in 2008 due to on-site construction. Between November of 2010 and March of 2016, fourteen soil vapor extraction wells and thirty-two air sparging wells were installed to further treat the area of contaminated groundwater. The treatment system was shut down in March of 2016 in order to test for contaminant concentration rebound and remains shut down. Because contaminated groundwater remains on-site, but not off-site, a sampling and analysis plan will be used to monitor the groundwater as part of a transition to monitored natural attenuation. (**Enclosure E** of this letter)

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. Compliance with institutional controls.

Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional control is necessary at the Site:

- Restrictions on land use and land disturbance

To implement that control, Environmental Covenants have been recorded on the following parcels of real property in King County:

- 198820-1155
- Area on adjoining Mercer Street right-of-way (see map in covenant)
- Area on adjoining Harrison Street right-of-way (see map in covenant).

As you are not the owner of the property on which the covenants are to be placed, permission was obtained from each landowner to place the covenant on their property. The documents of consent are included in **Enclosure B**. Ecology approved the recorded Covenants. A copy of each Covenant is included in **Enclosure C**.

2. Operation and maintenance of engineered controls.

Engineered controls prevent or limit movement of, or exposure to, hazardous substances. The following engineered control is necessary at the Site:

- Concrete and soil cap.

Ecology has approved the operation and maintenance plan you submitted for this engineered control. A copy of the plan is included in **Enclosure D**.

3. Performance of confirmational monitoring.

Confirmational monitoring is necessary at the Site to confirm the long-term effectiveness of the cleanup. The monitoring data will be used by Ecology during periodic reviews of post-cleanup conditions. Ecology has approved the monitoring plans you submitted. A copy of the plan is included in **Enclosure E**.

Periodic Review of Post-Cleanup Conditions

Ecology will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If Ecology determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

Listing of the Site

Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List.

Limitations of the Opinion

1. **Opinion does not settle liability with the state.**

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

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

   To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

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

   To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. **State is immune from liability.**

   The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (NW 1493).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (360) 407-7223 or e-mail at Christopher.Maurer@ecy.wa.gov.

Sincerely,

Christopher Maurer

Christopher Maurer, P.E.
HQ - Toxics Cleanup Program

Enclosures (5): A – Description and Diagrams of the Site
B – Consent Documents to Place Covenants on Non-Client Property
C – Environmental Covenants for Institutional Controls
D – Operation and Maintenance Plan for Engineered Controls
E – Confirmational Monitoring Plan

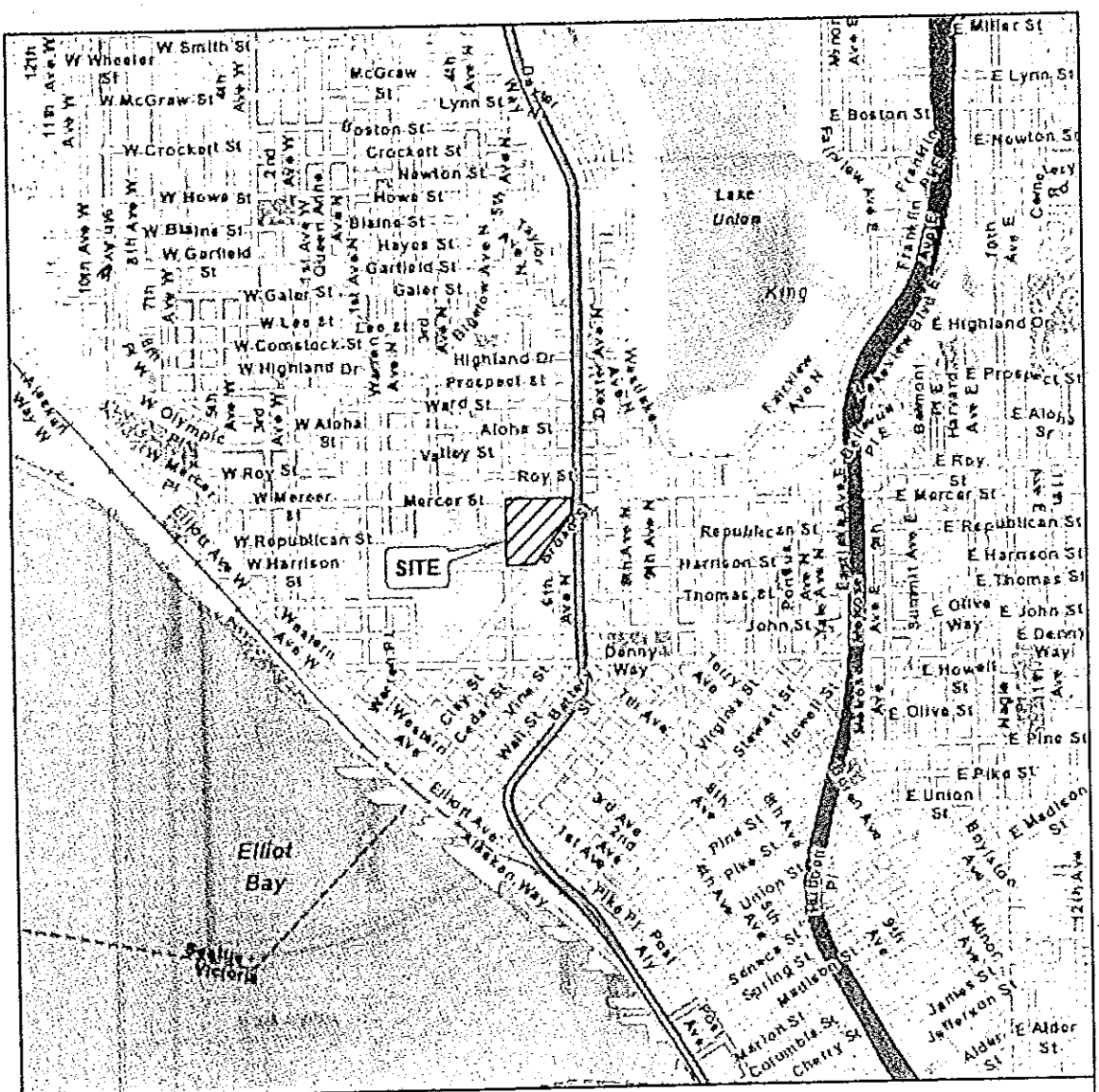
By Certified Mail: 9171999991703646816003

cc: Scott Gaulke, Shannon and Wilson
Slade Bedford, IRIS
Robert Trahan, Geo Engineers
Matt Alexander, Ecology

Enclosure A

Description and Diagrams of the Site

DENNYS DT HOME ADD PCL B SEATTLE BLA #3008913 REC #20080702900011 LESS N 50 FT PER DEED REC #20120620001393 & LESS POR FOR RD PER DEED REC# 20120919001435 SD BLA BEING ALL BLKS 62-63-64-65 & 73 & VAC STS & ALLEYS LESS BROAD ST & AURORA AVE LESS LOT 7 IN BLK 73 LESS RD



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

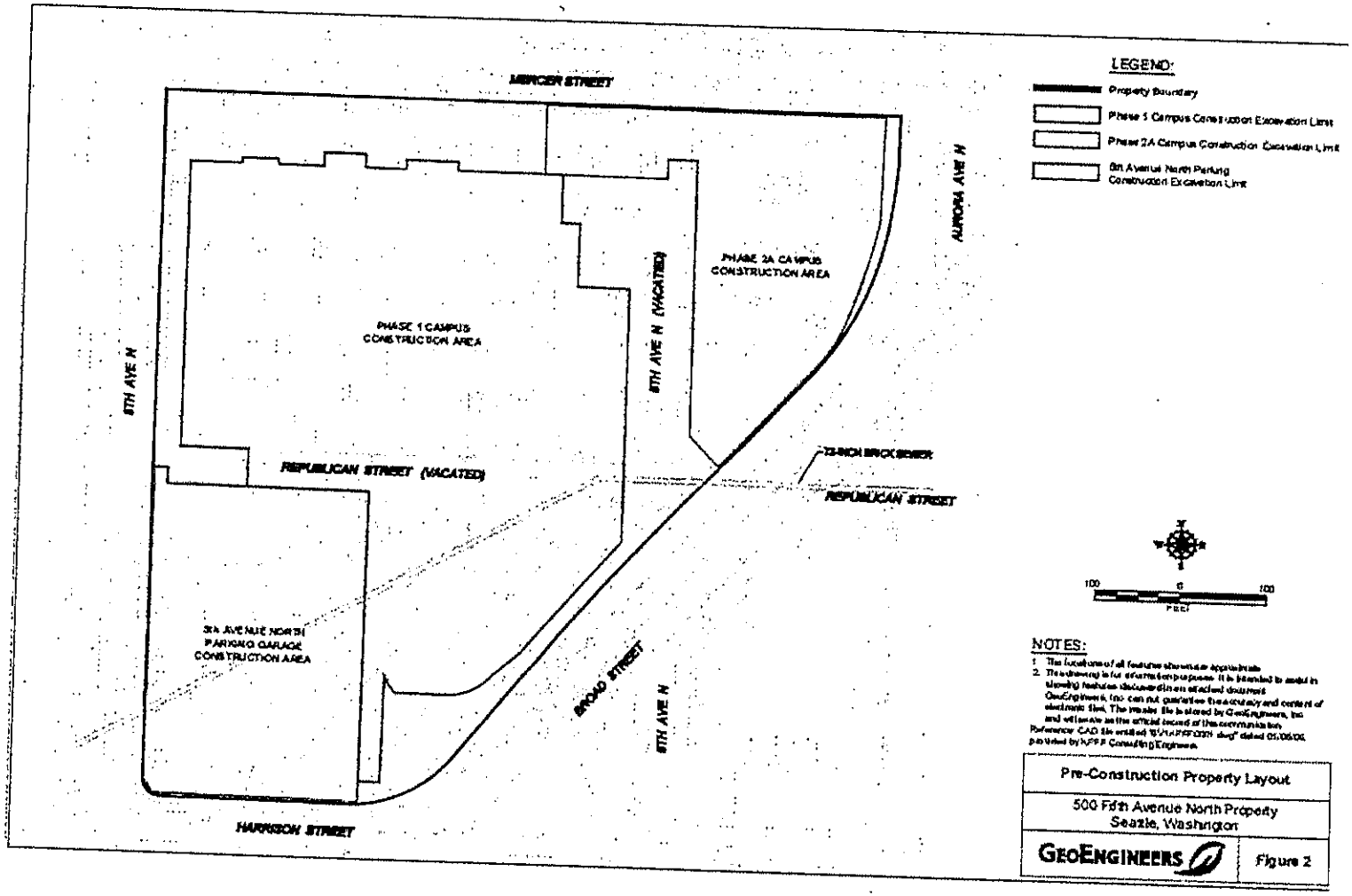
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Feet

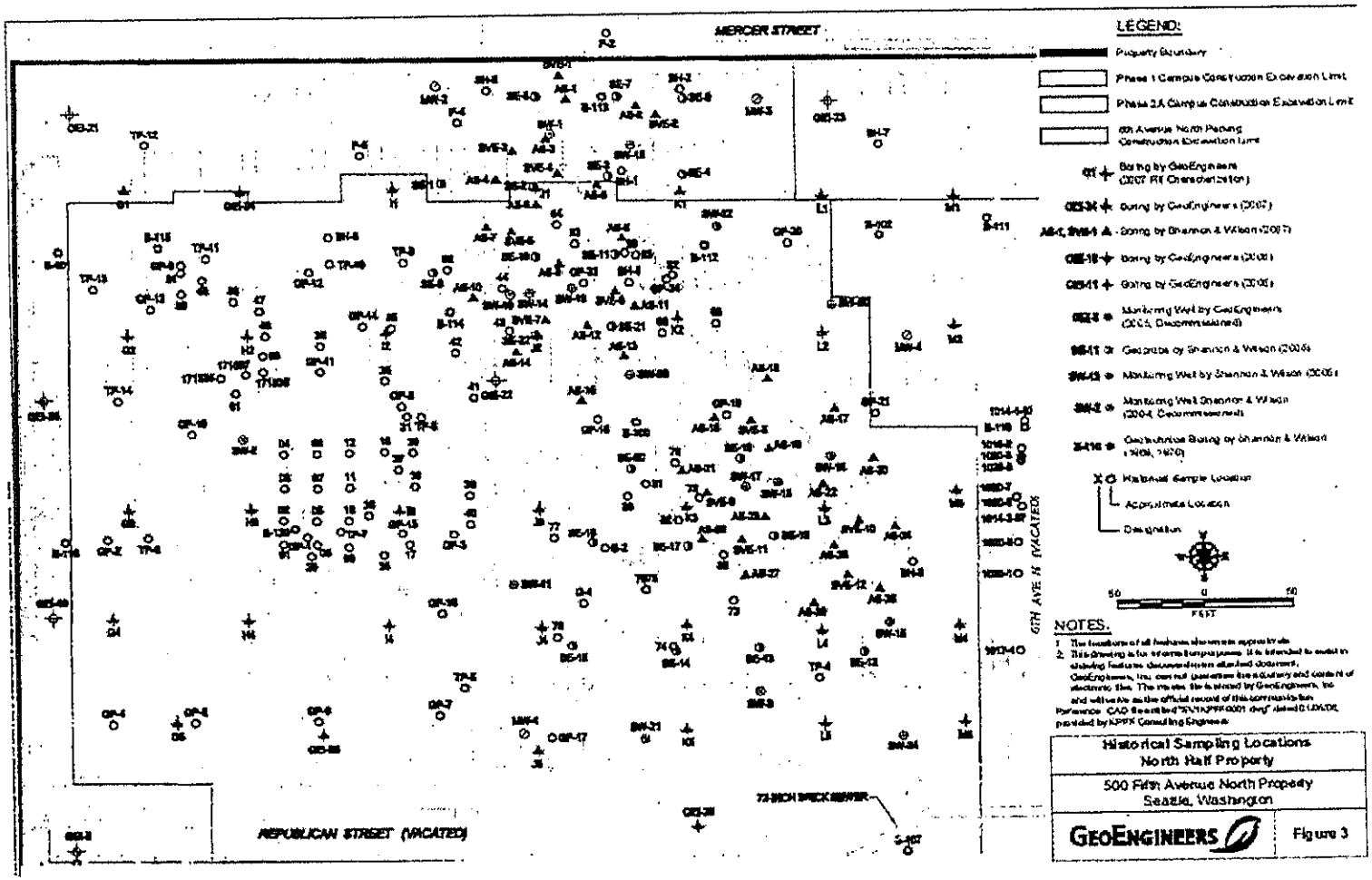
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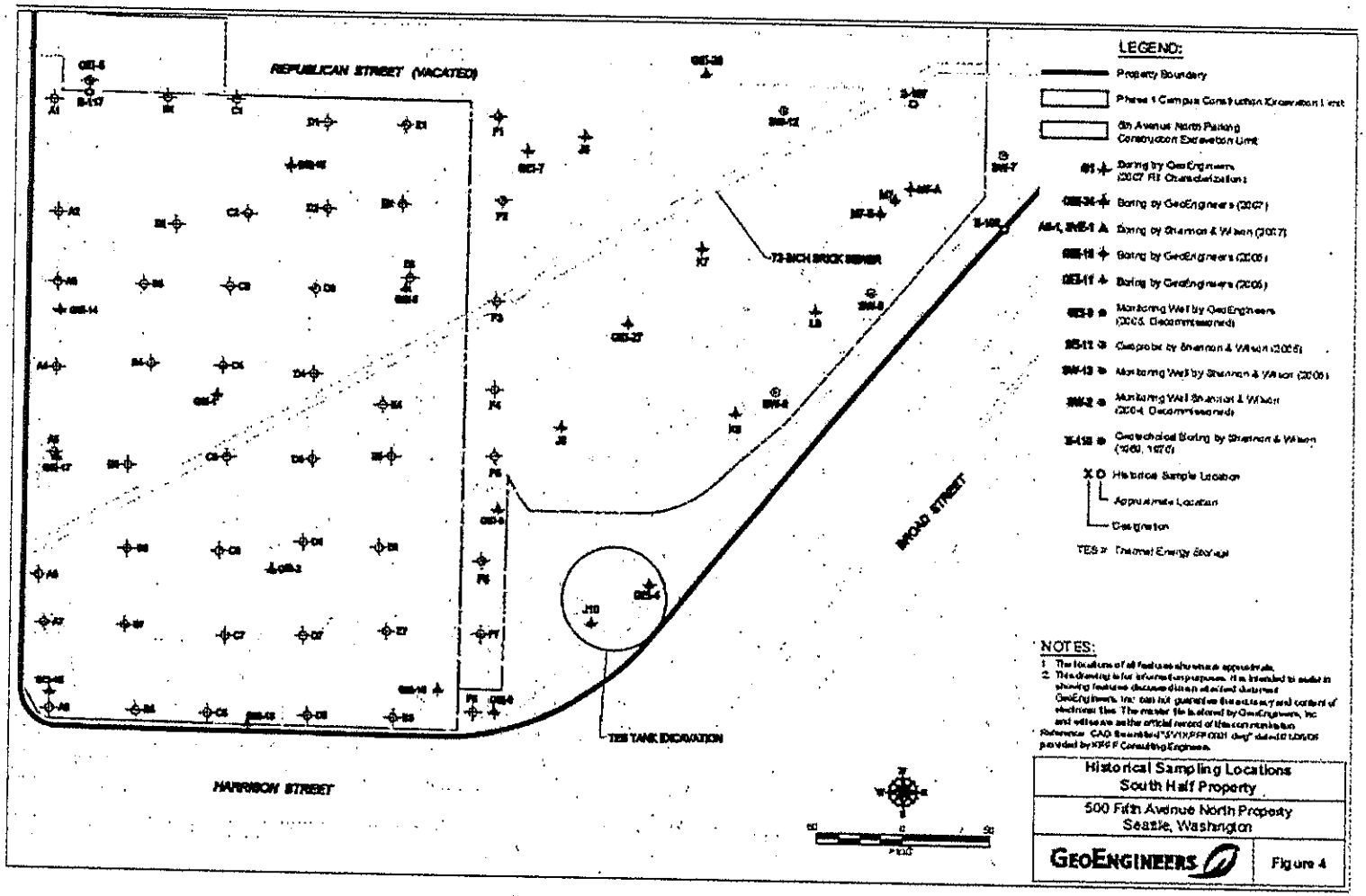
Seattle Center Lot No. 2 Property
Seattle, Washington

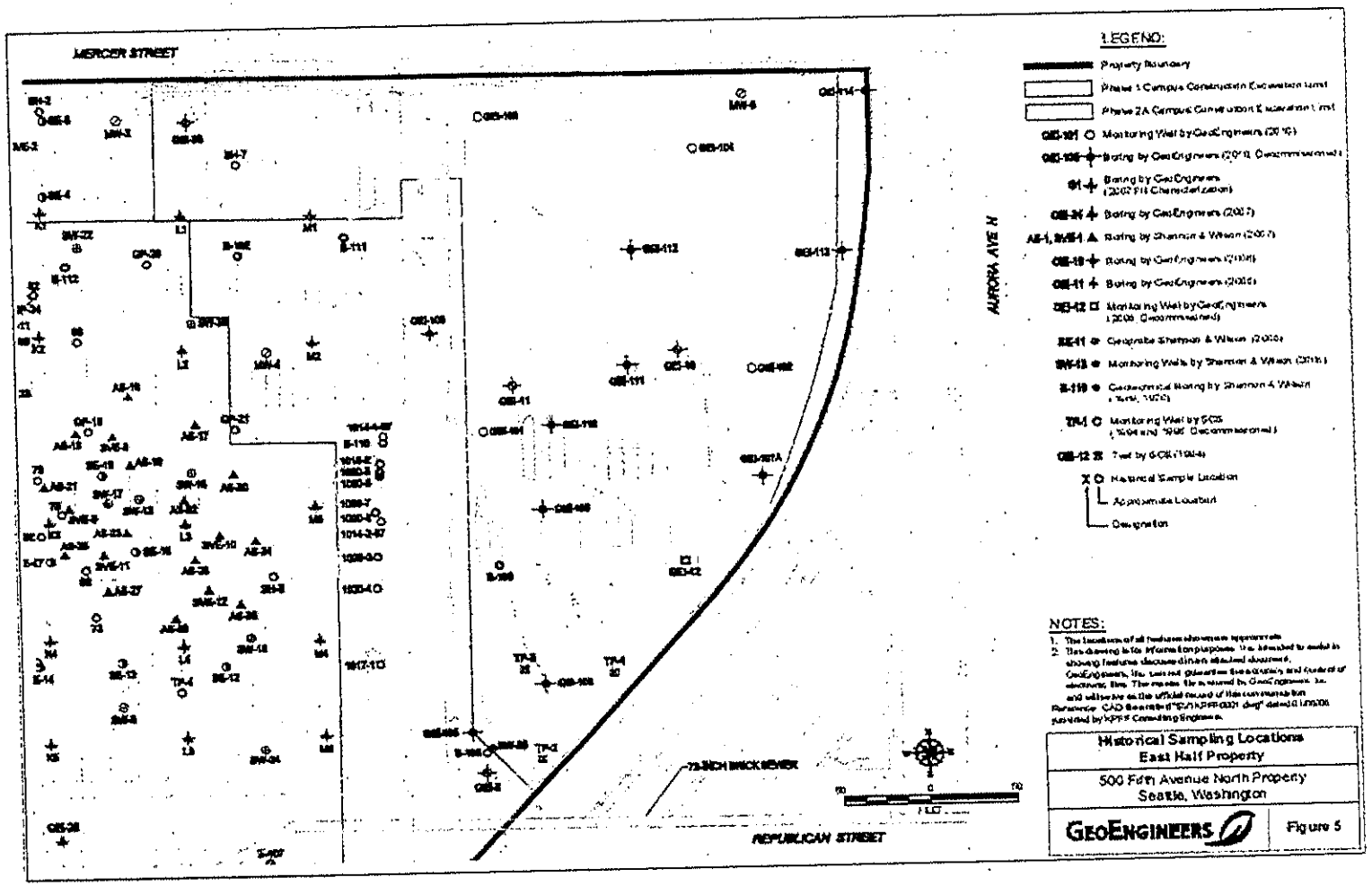
GeoEngineers

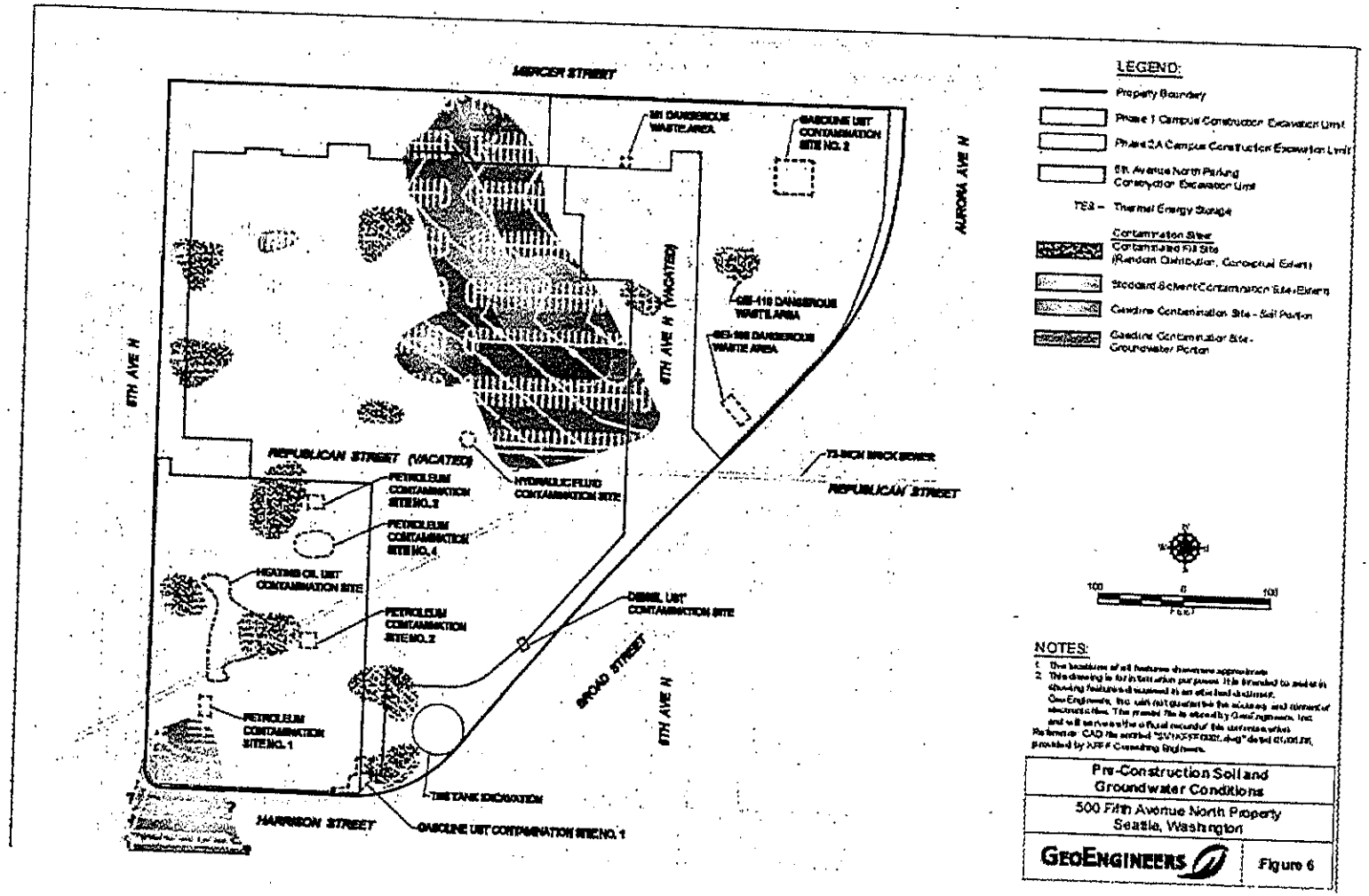
Figure 1


MERCER STREET
AURORA AVE N
5TH AVE N
5TH AVE N (VACATED)
PHASE 1 CAMPUS CONSTRUCTION AREA
PHASE 2A CAMPUS CONSTRUCTION AREA
REPUBLICAN STREET (VACATED)
72-INCH BRICK SEWER
REPUBLICAN STREET
5TH AVENUE NORTH PARKING GARAGE CONSTRUCTION AREA
BROAD STREET
5TH AVE 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
100
0
100
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 "EVALPREP.DGN" dated 05.09.06 provided by NPP Consulting Engineers.
Pre-Construction Property Layout
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 2


MERCER STREET
REPUBLICAN STREET (VACATED)
6TH AVE N (VACATED)
72-INCH BRICK SEWER
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
6th Avenue North Paving Construction Excavation Limit
Boring by GeoEngineers (2007 RI Characterization)
Boring by GeoEngineers (2007)
Boring by Shannon & Wilson (2007)
Boring by GeoEngineers (2005)
Boring by GeoEngineers (2005)
Monitoring Well by GeoEngineers (2004, Decommissioned)
Geoprobe by Shannon & Wilson (2004)
Monitoring Well by Shannon & Wilson (2004)
Monitoring Well Shannon & Wilson (2004, Decommissioned)
Geotechnical Boring by Shannon & Wilson (1968, 1970)
Historical Sample Location
Approximate Location
Designation
50 0 50
FEET
NOTES:
1. The locations of all features shown are approximate.
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Reference: CAD file entitled "SVNTHPRP0001.dwg" dated 8/24/06, provided by KPFF Consulting Engineers.
Historical Sampling Locations
North Half Property
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 3


REPUBLICAN STREET (VACATED)
HARRISON STREET
BROAD STREET
72-INCH BRICK SEWER
TES TANK EXCAVATION
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
5th Avenue North Parking Conservation Excavation Limit
Boring by GeoEngineers (2007 RI Characterization)
Boring by GeoEngineers (2007)
Boring by Shannon & Wilson (2007)
Boring by GeoEngineers (2005)
Boring by GeoEngineers (2005)
Monitoring Well by GeoEngineers (2005, Decommissioned)
Geoprobe by Shannon & Wilson (2005)
Monitoring Well by Shannon & Wilson (2005)
Monitoring Well Shannon & Wilson (2004, Decommissioned)
Geotechnical Boring by Shannon & Wilson (1960, 1970)
Historical Sample Location
Approximate Location
Designation
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. 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 "S:\110\FIG\01.dwg" dated 10/30/08 provided by KPFF Consulting Engineers.
Historical Sampling Locations
South Half Property
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 4

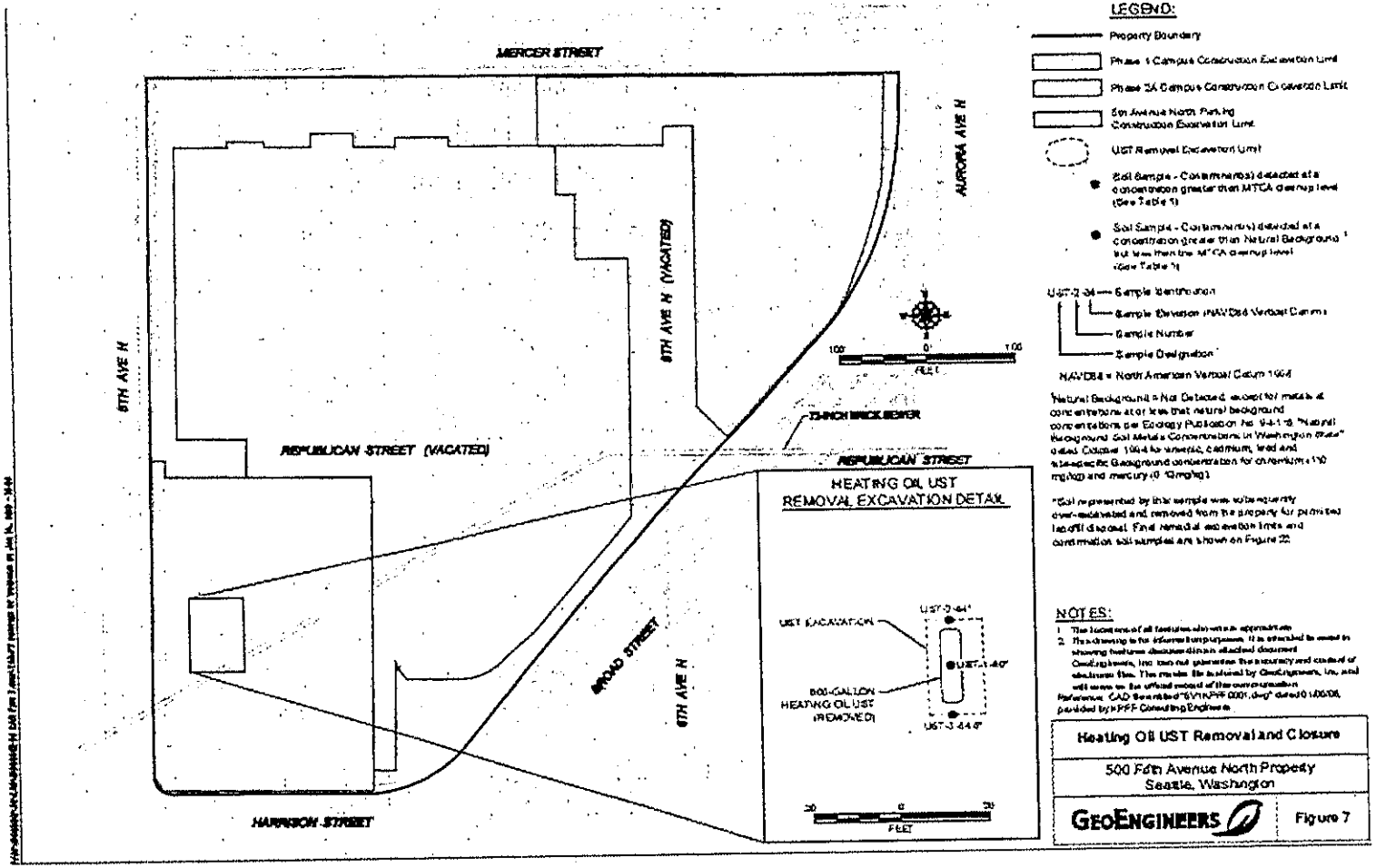

MERCER STREET
REPUBLICAN STREET
AURORA AVE N
72-INCH BRICK SEWER
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
Monitoring Well by GeoEngineers (2010)
Boring by GeoEngineers (2010, Decommissioned)
Boring by GeoEngineers (2007 Fill Characterization)
Boring by GeoEngineers (2007)
Boring by Shannon & Wilson (2007)
Boring by GeoEngineers (2006)
Boring by GeoEngineers (2005)
Monitoring Well by GeoEngineers (2005, Decommissioned)
Geoprobe Shannon & Wilson (2005)
Monitoring Well by Shannon & Wilson (2005)
Geotechnical Boring by Shannon & Wilson (1990)
Monitoring Well by SCS (1994 and 1995, Decommissioned)
Test by GeoEngineers (1994)
Historical Sample Location
Approximate Location
Designation
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational purposes. It is intended to assist in showing features discussed in the attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is retained by GeoEngineers, Inc. and will serve as the official record of this communication.
Reference: CAD file entitled "SCHEMP0301.dwg" dated 1/15/08 provided by KPFF Consulting Engineers.
Historical Sampling Locations
East Half Property
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 5

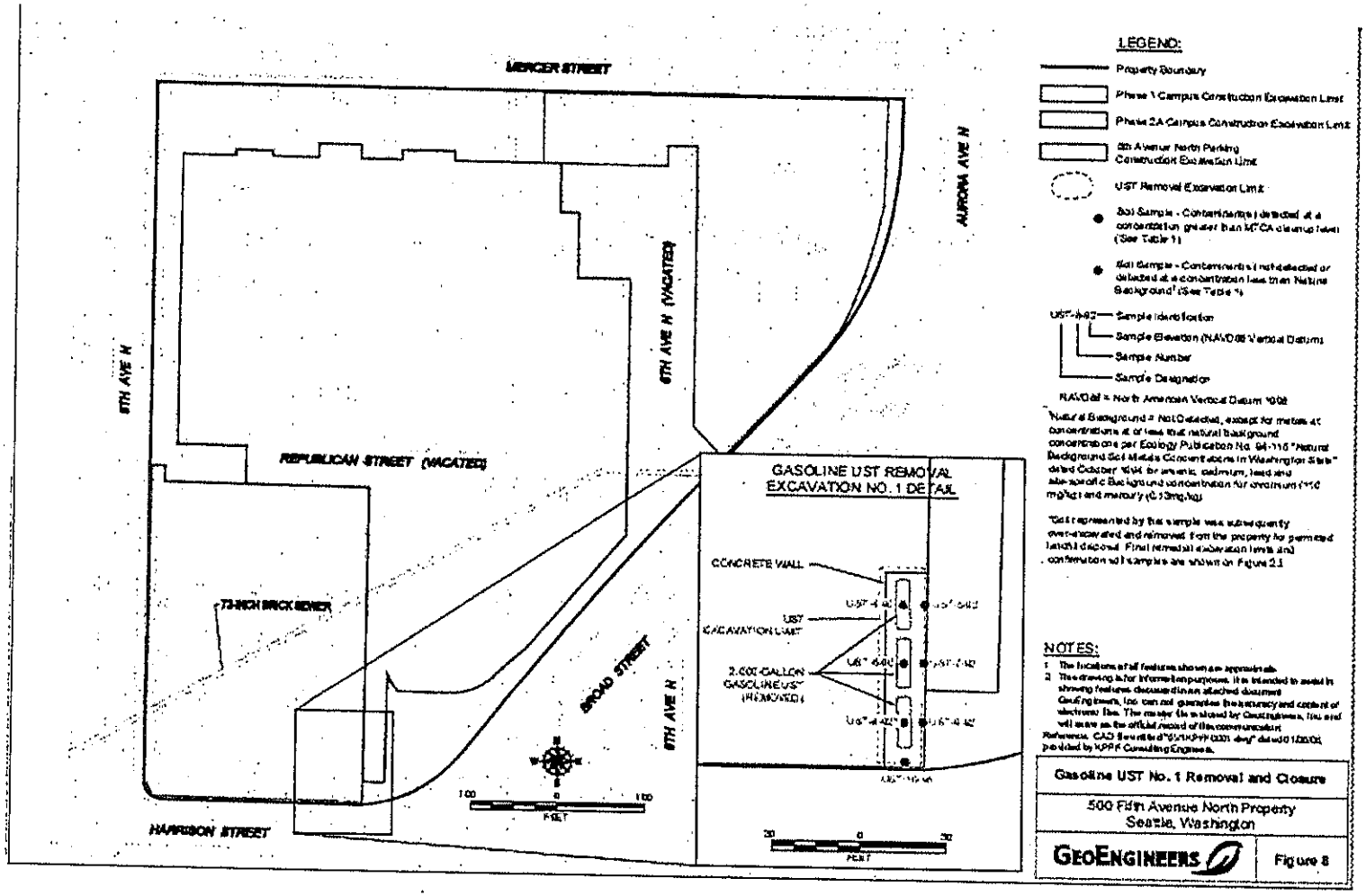


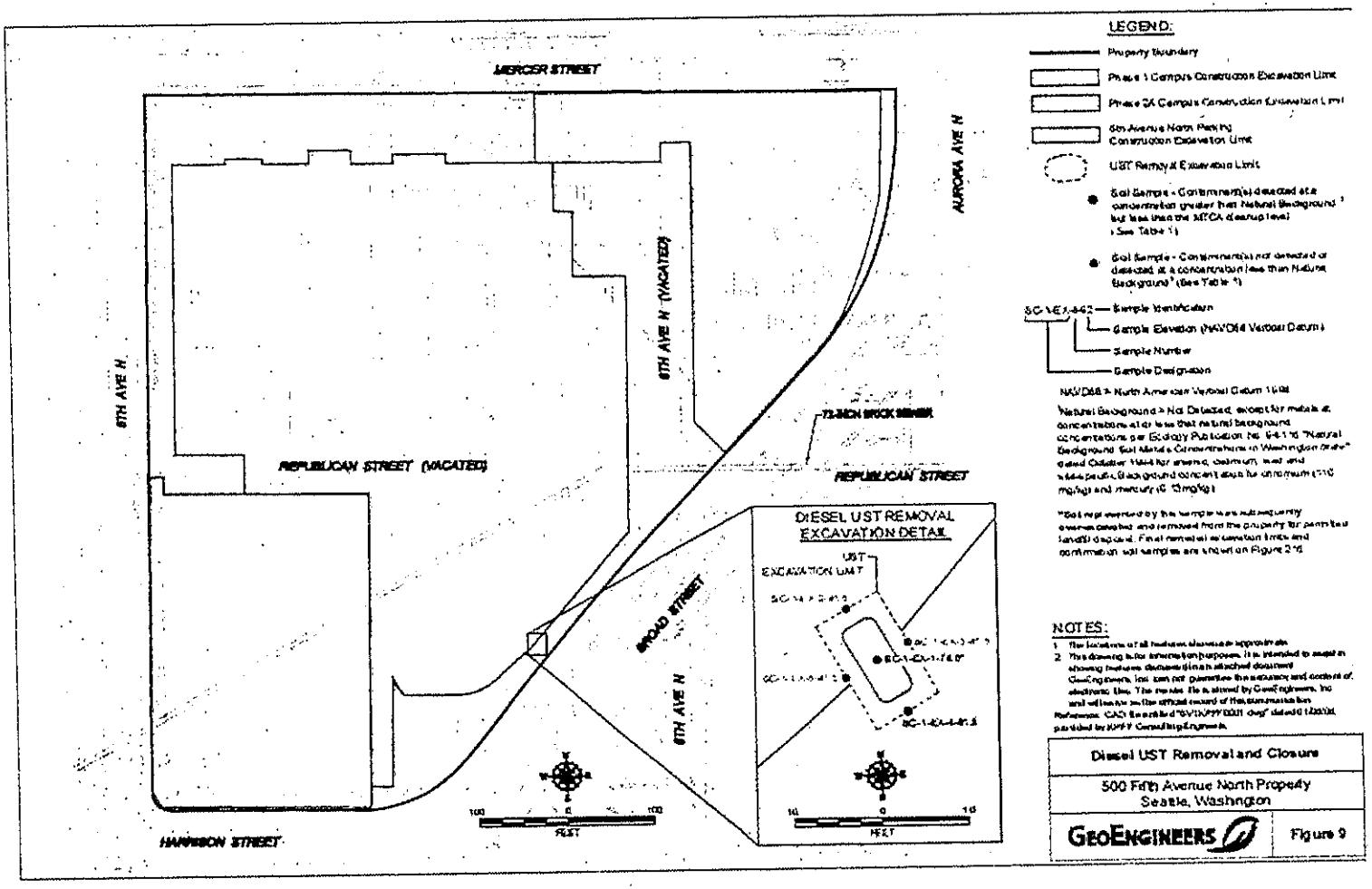
Pre-Construction Soil and Groundwater Conditions

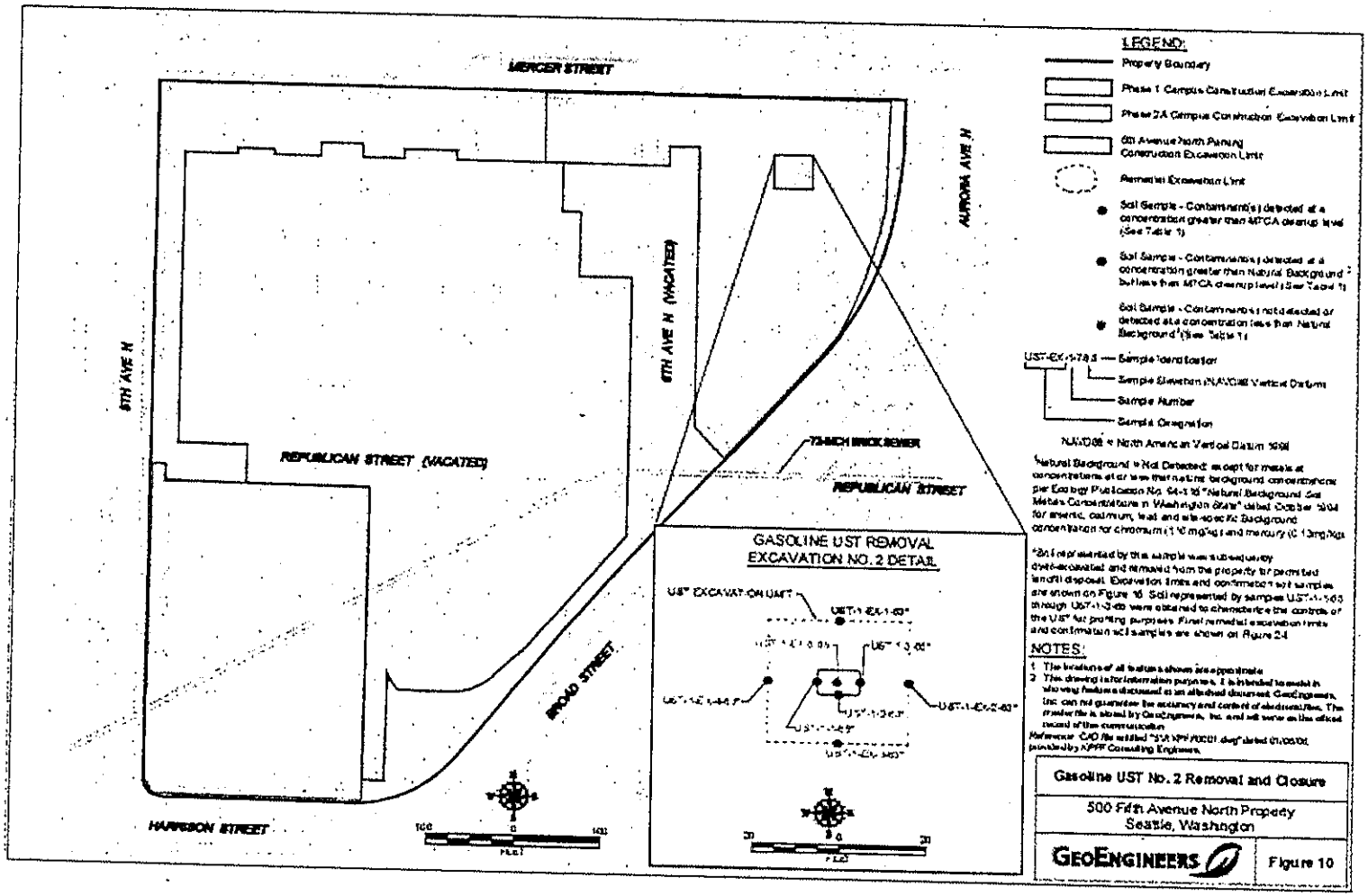
500 Fifth Avenue North Property
Seattle, Washington

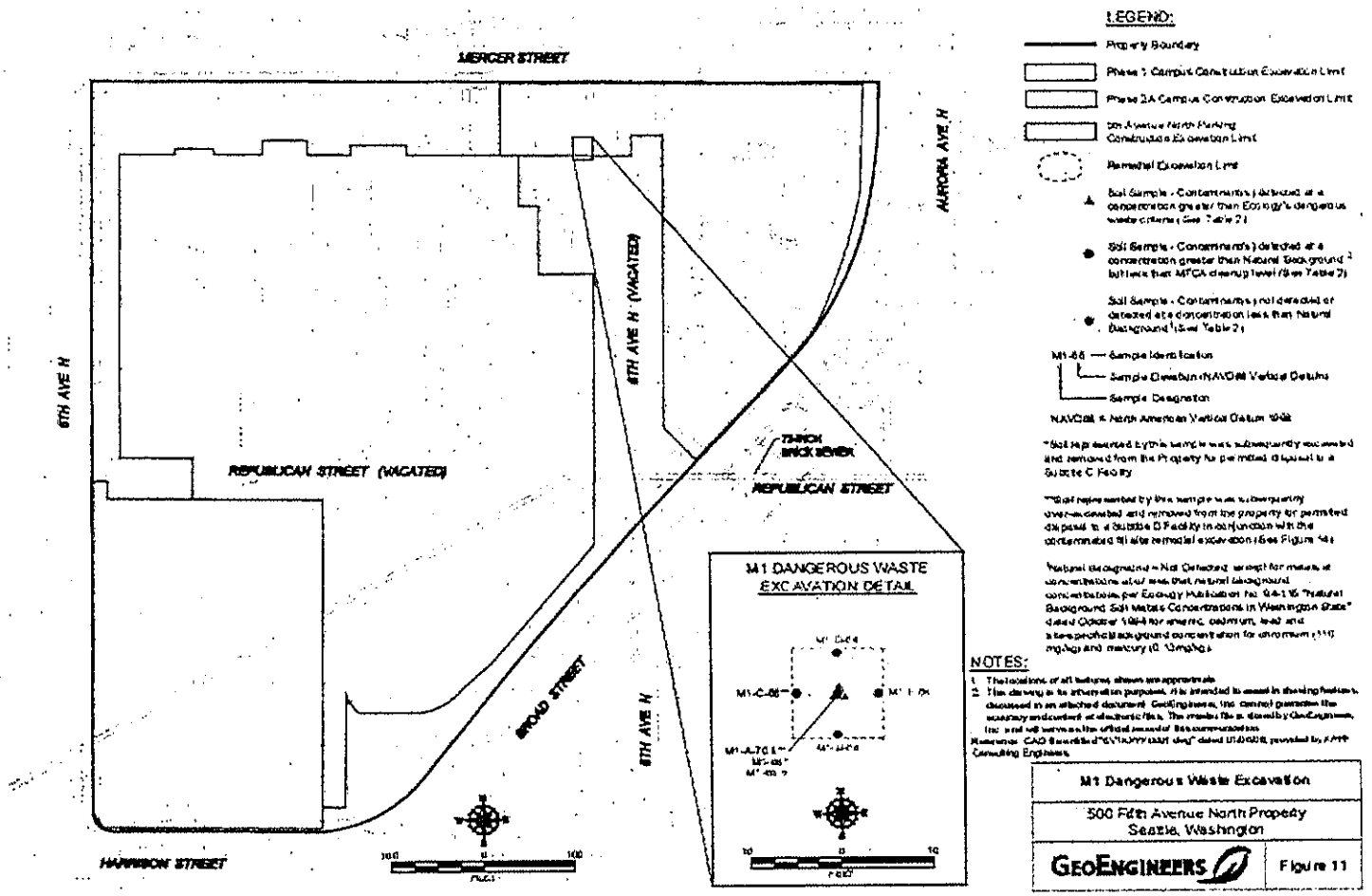
GeoEngineers | Figure 6


MERCER STREET
5TH AVE N
REPUBLICAN STREET (VACATED)
5TH AVE N (VACATED)
AURORA AVE N
REPUBLICAN STREET
BROAD STREET
5TH AVE N
HARRISON STREET
12-INCH BRICK SEWER
100 0 100
FEET
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
UST Removal Excavation Limit
Soil Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 1)
Soil Sample - Contaminant(s) detected at a concentration greater than Natural Background[1] but less than the MTCA cleanup level (See Table 1)
UST-2-34 — Sample Identification
Sample Elevation (NAVD84 Vertical Datum)
Sample Number
Sample Designation
NAVD84 = North American Vertical Datum 1984
[1]Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site-specific Background concentration for chromium (19 mg/kg) and mercury (0.10 mg/kg).
[2]Soil represented by this sample was subsequently over-excavated and removed from the property for permitted landfill disposal. Final remedial excavation limits and confirmation soil samples are shown on Figure 2.
HEATING OIL UST REMOVAL EXCAVATION DETAIL
UST EXCAVATION
500-GALLON HEATING OIL UST (REMOVED)
UST-2-34
UST-1-40
UST-3-44
20 0 20
FEET
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. does not guarantee the accuracy and content of electronic files. The master file is retained by GeoEngineers, Inc. and will serve as the official record of the communication.
Reference: CAD file entitled "SVINPF 0001.dwg" dated 01/06/06, provided by KPFF Consulting Engineers.
Heating Oil UST Removal and Closure
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 7


MERCER STREET
8TH AVE N
8TH AVE N (VACATED)
AURORA AVE N
REPUBLICAN STREET (VACATED)
72-INCH BRICK SEWER
BROAD STREET
8TH AVE N
HARRISON STREET
100
0
100
FEET
GASOLINE UST REMOVAL
EXCAVATION NO. 1 DETAIL
CONCRETE WALL
UST
EXCAVATION LIMIT
2,000-GALLON
GASOLINE UST
(REMOVED)
20
0
20
FEET
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
8th Avenue North Parking
Construction Excavation Limit
UST Removal Excavation Limit
Soil Sample - Contaminants detected at a
concentration greater than MTCA cleanup level
(See Table 1)
Soil Sample - Contaminants not detected or
detected at a concentration less than Natural
Background (See Table 1)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
Natural Background = Not Detected, except for metals at
concentrations at or less than natural background
concentrations per Ecology Publication No. 94-115 "Natural
Background Soil Metals Concentrations in Washington State"
dated October 1994 for arsenic, cadmium, lead and
site-specific Background concentration for chromium (11.0
mg/kg) and mercury (0.13mg/kg).
Soil represented by this sample was subsequently
over-excavated and removed from the property for permitted
landfill disposal. Final removal excavation limits and
confirmation soil samples are shown on Figure 2.1.
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational 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 retained by GeoEngineers, Inc. and
will serve as the official record of this communication.
Reference: CAD file entitled "05-11-079-0301.dwg" dated 1/20/06,
provided by KPFF Consulting Engineers.
Gasoline UST No. 1 Removal and Closure
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 8


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (VACATED)
REPUBLICAN STREET (VACATED)
REPUBLICAN STREET
BROAD STREET
HARRISON STREET
DIESEL UST REMOVAL
EXCAVATION DETAIL
UST
EXCAVATION LIMIT
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
6th Avenue North Parking
Construction Excavation Limit
UST Removal Excavation Limit
Soil Sample - Contaminant(s) detected at a concentration greater than Natural Background but less than the MTCA cleanup level (See Table 1)
Soil Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background (See Table 1)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NOTES:
Diesel UST Removal and Closure
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 9


MERCER STREET
8TH AVE N
8TH AVE N (VACATED)
AURORA AVE N
REPUBLICAN STREET (VACATED)
REPUBLICAN STREET
72-INCH BRICK SEWER
BROAD STREET
HARRISON STREET
GASOLINE UST REMOVAL
EXCAVATION NO. 2 DETAIL
UST EXCAVATION LIMIT
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
6th Avenue North Parking
Construction Excavation Limit
Remedial Excavation Limit
Soil Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 1)
Soil Sample - Contaminant(s) detected at a concentration greater than Natural Background but less than MTCA cleanup level (See Table 1)
Soil Sample - Contaminants not detected or detected at a concentration less than Natural Background (See Table 1)
UST-EX-1-7.5 — Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
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 the communication.
Reference: CAD file entitled "SVA VPH ROOT.dwg" dated 01/30/08, provided by KPFF Consulting Engineers.
Gasoline UST No. 2 Removal and Closure
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 10



LEGEND:

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- Remedial Excavation Limit
- Soil Sample - Contaminant(s) detected at a concentration greater than Ecology's dangerous waste criteria (See Table 2)
- Soil Sample - Contaminant(s) detected at a concentration greater than Natural Background [2] but less than MTCA cleanup level (See Table 2)
- Soil Sample - Contaminants not detected or detected at a concentration less than Natural Background [2] (See Table 2)

M1-66 — Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Designation

NAVD88 = North American Vertical Datum 1988

[1] Soil represented by this sample was subsequently excavated and removed from the Property for permitted disposal to a Subtitle D Facility.

[2] Soil represented by this sample was subsequently over-excavated and removed from the property for permitted disposal to a Subtitle D Facility in conjunction with the contaminated fill site remedial excavation (See Figure 4a).

"Natural Background" = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site-specific background concentration for chromium (110 mg/kg) and mercury (0.12mg/kg).

NOTES:

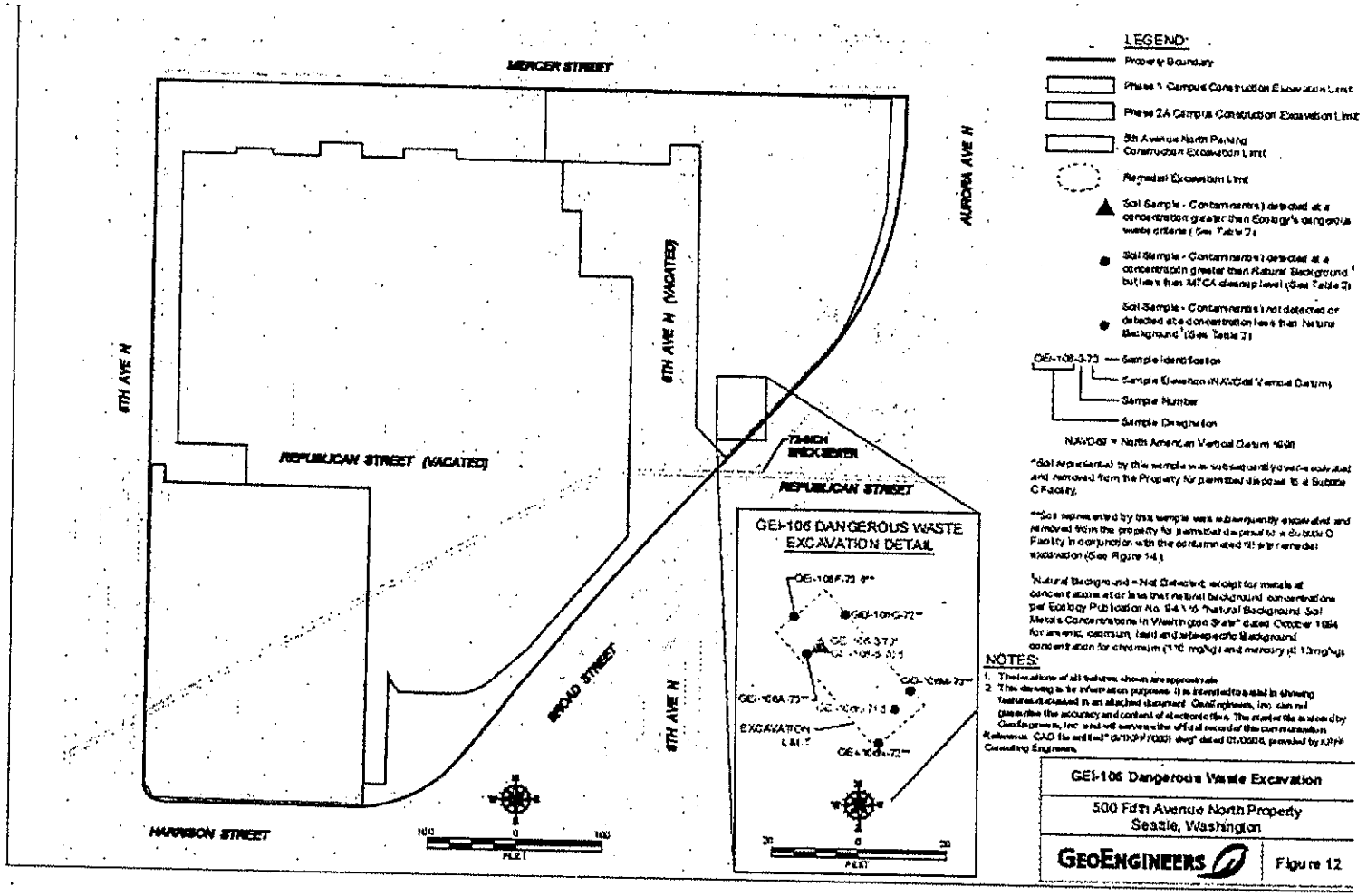
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers,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

Reference: CAD file title d:\01\10\YYY\cad\ dwg" dated 01/02/08, provided by XYZ Consulting Engineers.

M1 Dangerous Waste Excavation

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers | Figure 11



*Soil represented by this sample was subsequently excavated and removed from the Property for permitted disposal to a Subtitle C Facility.

**Soil represented by this sample was subsequently excavated and removed from the property for permitted disposal to a Subtitle C Facility in conjunction with the contaminated fill site remedial excavation (See Figure 14.)

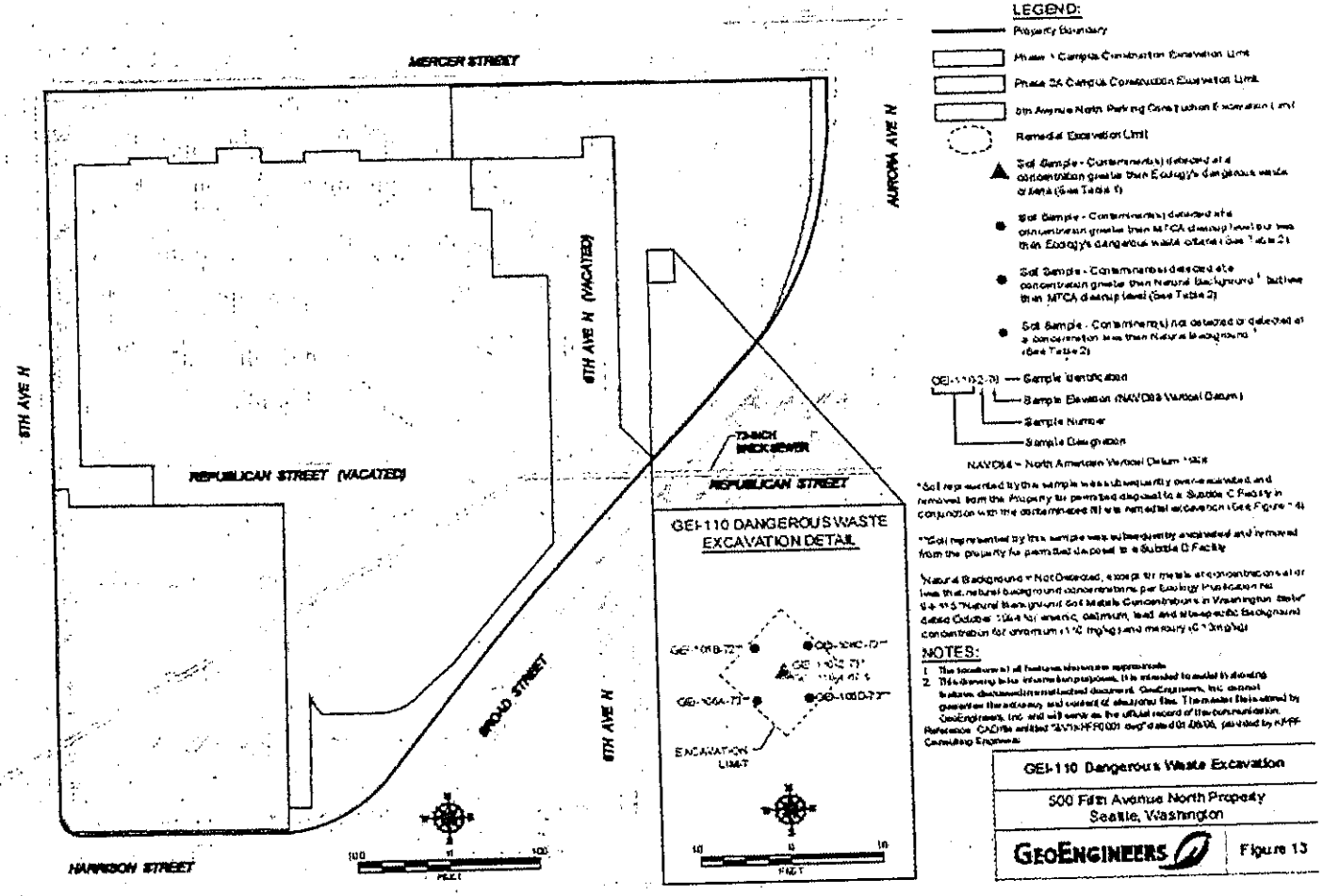
[1] Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and beryllium. Background concentration for chromium (VI) 19 mg/kg and mercury (I) 1.3mg/kg.

GEI-106 Dangerous Waste Excavation

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

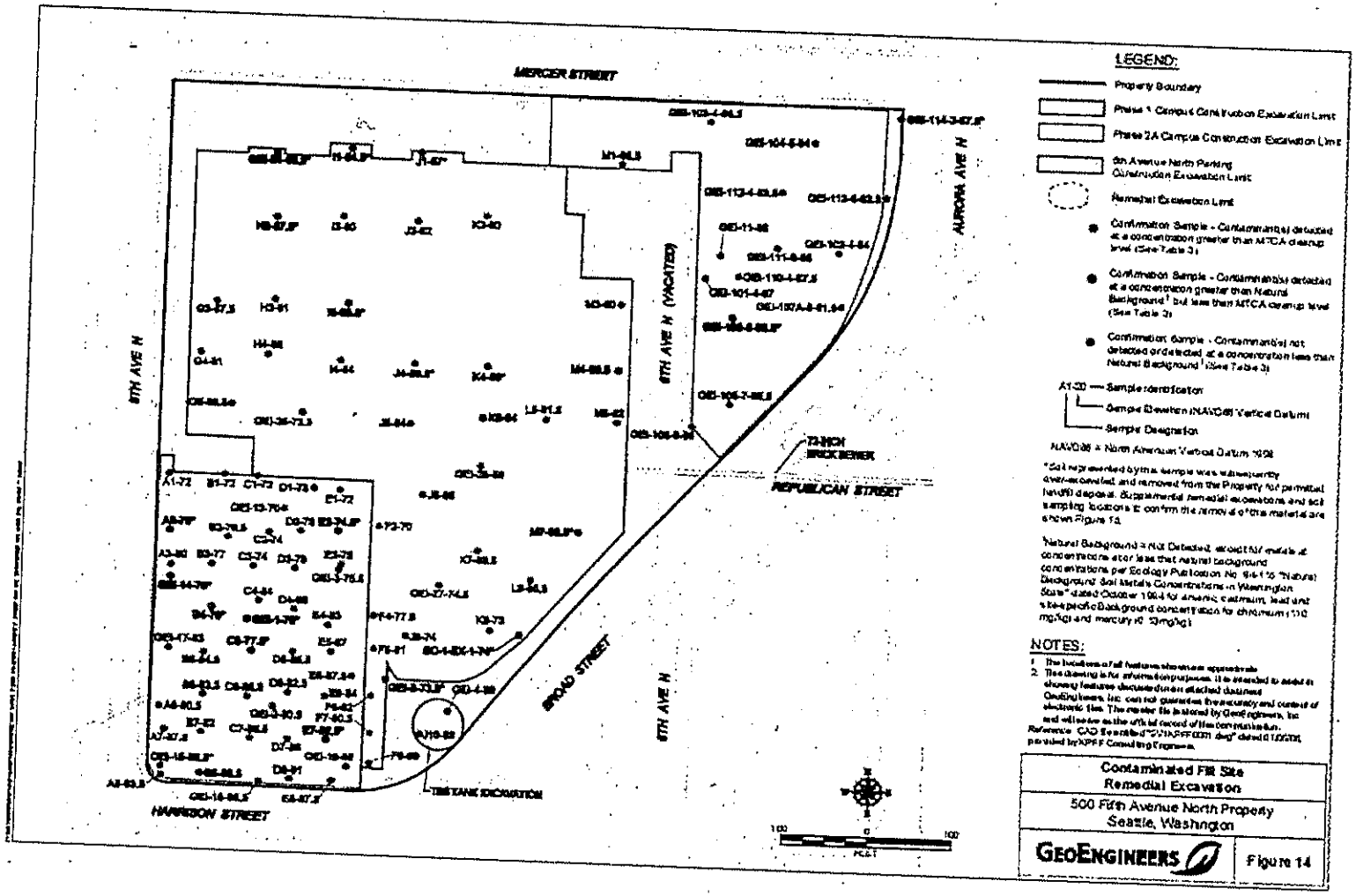
Figure 12

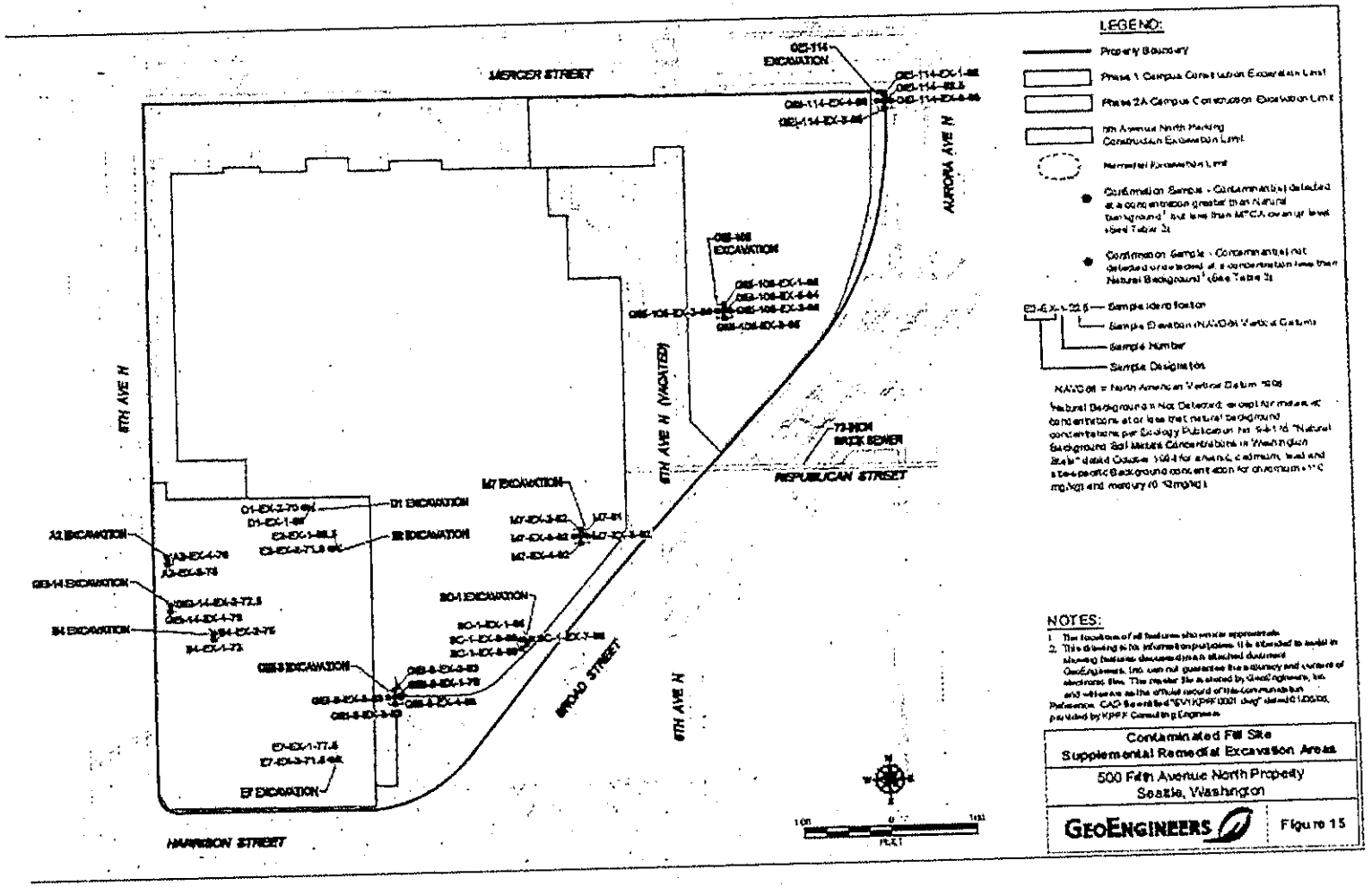


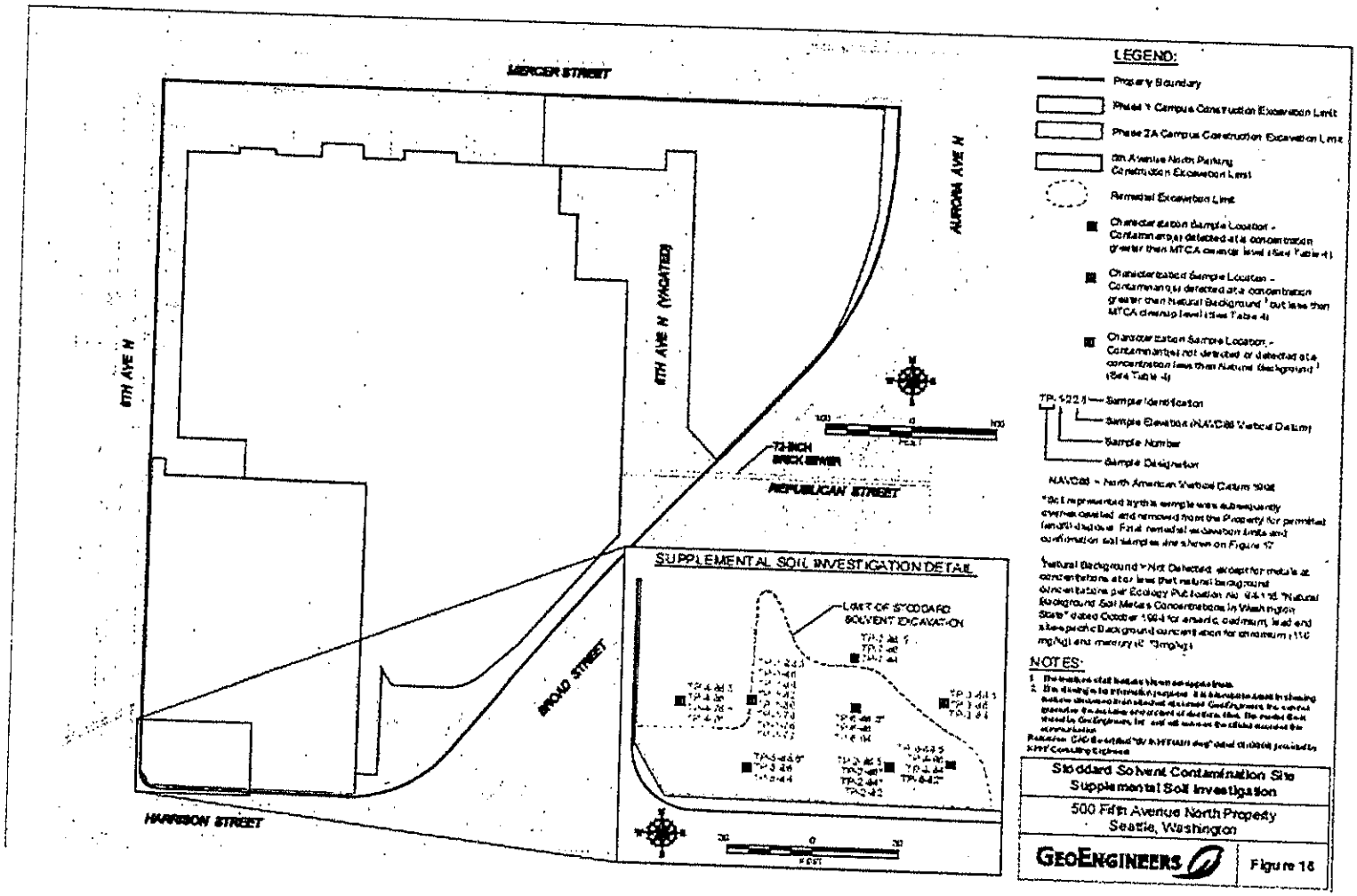
GEI-110 Dangerous Waste Excavation

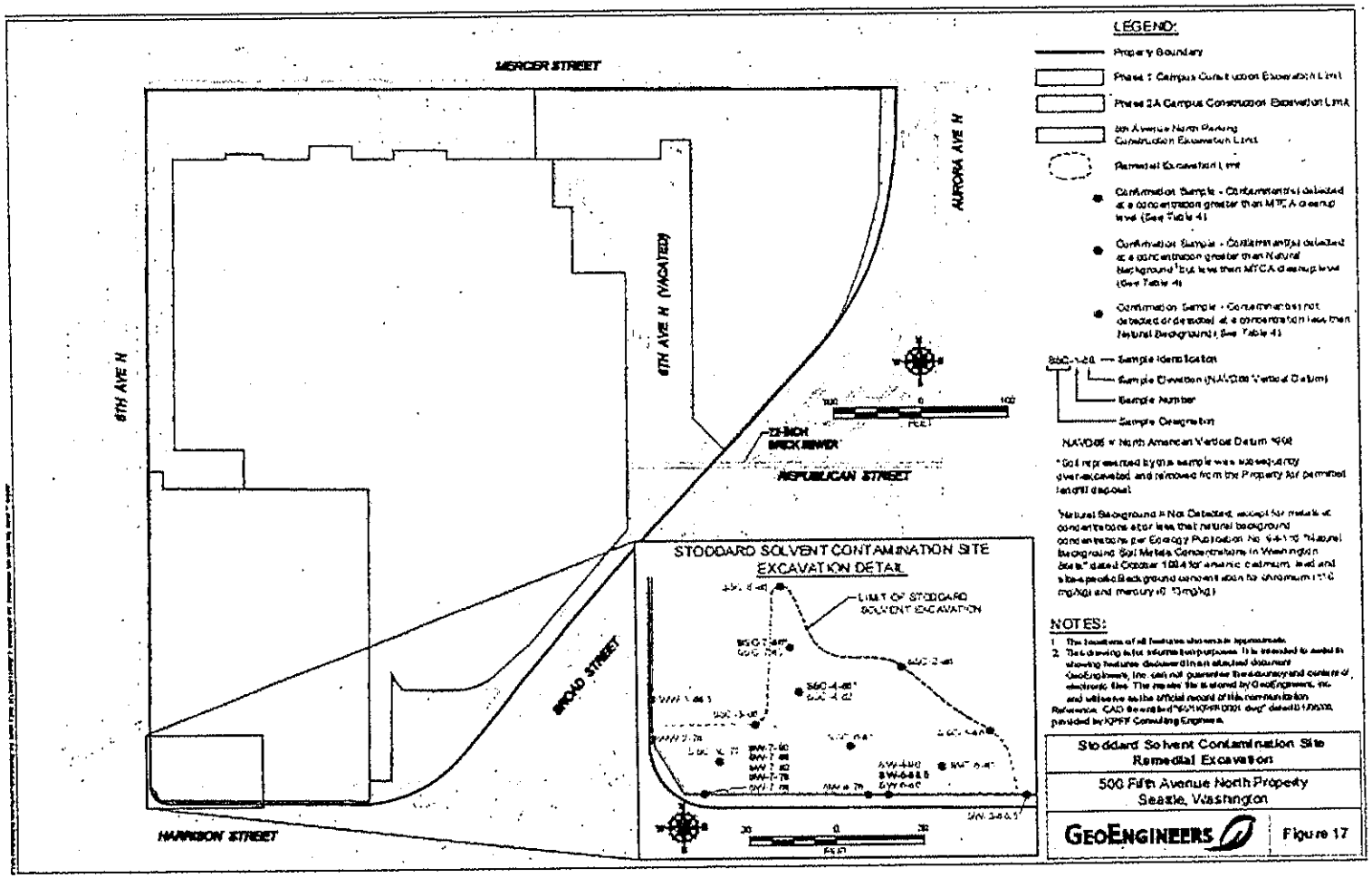
500 Fifth Avenue North Property
Seattle, Washington

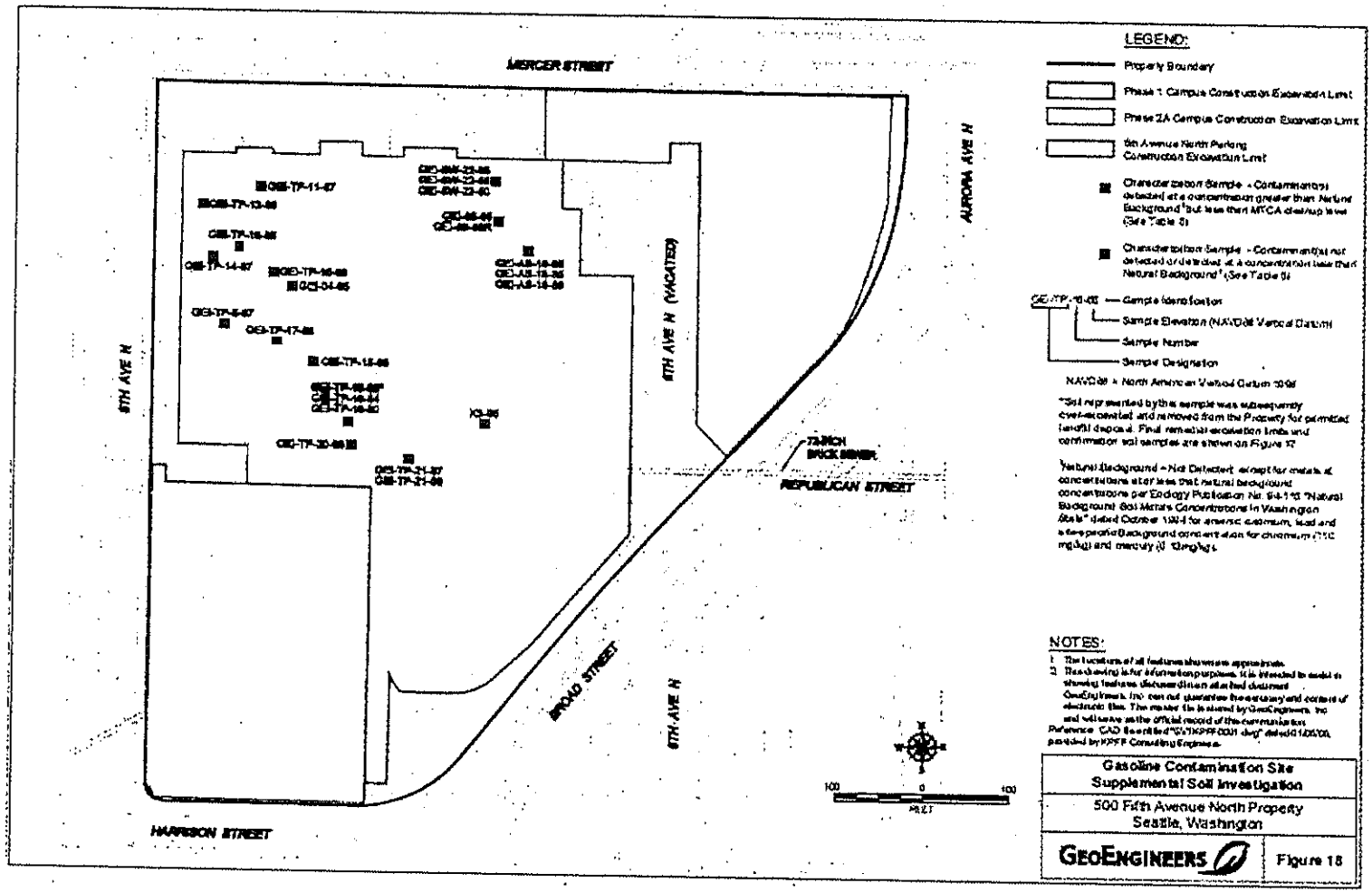
GeoEngineers | Figure 13


MERCER STREET
REPUBLICAN STREET
HARRISON STREET
BROAD STREET
8TH AVE N
8TH AVE N (VACATED)
AURORA AVE N
72-INCH BRICK SEWER
TIE TANK EXCAVATION
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 3)
Confirmation Sample - Contaminant(s) detected at a concentration greater than Natural Background[1] but less than MTCA cleanup level (See Table 3)
Confirmation Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background[1] (See Table 3)
A1-20 — Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Designation
NAVD88 = North American Vertical Datum 1988
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 "SWNPFF001.dwg" dated 10/2/08, provided by KPFF Consulting Engineers.
Contaminated Fill Site
Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 14


MERCER STREET
HARRISON STREET
REPUBLICAN STREET
BROAD STREET
8TH AVE N
8TH AVE N (VACATED)
AURORA AVE N
OB5-114 EXCAVATION
OB5-108 EXCAVATION
73-INCH BRICK SEWER
D1 EXCAVATION
B2 EXCAVATION
A2 EXCAVATION
OB3-14 EXCAVATION
B4 EXCAVATION
OB3-8 EXCAVATION
M7 EXCAVATION
BC-1 EXCAVATION
E7 EXCAVATION
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than Natural Background[1] but less than MTCA cleanup level (see Table 3)
Confirmation Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background[1] (See Table 3)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
[1]Natural Background is Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and a site-specific Background concentration for chromium = 11.0 mg/kg and mercury (0.12mg/kg).
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 "SV1KPFF001.dwg" dated 6/20/06, provided by KPFF Consulting Engineers.
Contaminated Fill Site
Supplemental Remedial Excavation Areas
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 15


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (YACATEE)
72-INCH BRICK SEWER
REPUBLICAN STREET
BROAD STREET
HARRISON STREET
SUPPLEMENTAL SOIL INVESTIGATION DETAIL
LIMIT OF STODDARD SOLVENT EXCAVATION
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
6th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Characterization Sample Location - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 4)
Characterization Sample Location - Contaminant(s) detected at a concentration greater than Natural Background [1] but less than MTCA cleanup level (See Table 4)
Characterization Sample Location - Contaminant(s) not detected or detected at a concentration less than Natural Background [1] (See Table 4)
TP-122.1 — Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
NOTES:
Stoddard Solvent Contamination Site
Supplemental Soil Investigation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 18


MERCER STREET
6TH AVE N
6TH AVE N (VACATED)
AURORA AVE N
72-INCH BRICK SEWER
REPUBLICAN STREET
BROAD STREET
HARRISON STREET
STODDARD SOLVENT CONTAMINATION SITE
EXCAVATION DETAIL
LIMIT OF STODDARD SOLVENT EXCAVATION
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
6th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 4)
Confirmation Sample - Contaminant(s) detected at a concentration greater than Natural Background but less than MTCA cleanup level (See Table 4)
Confirmation Sample - Contaminants not detected or detected at a concentration less than Natural Background (See Table 4)
SSC-1.2 Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
* Soil represented by this sample was subsequently over-excavated and removed from the Property for permitted landfill disposal.
Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State," dated October 1994 for arsenic, cadmium, lead and site-specific background concentrations for chromium (19.0 mg/kg) and mercury (0.13 mg/kg).
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational 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 retained as the official record of this communication.
Reference: CAD file entitled "SOUTHPRP001.dwg" dated 8/1/2008, provided by KPFF Consulting Engineers.
Stoddard Solvent Contamination Site
Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 17

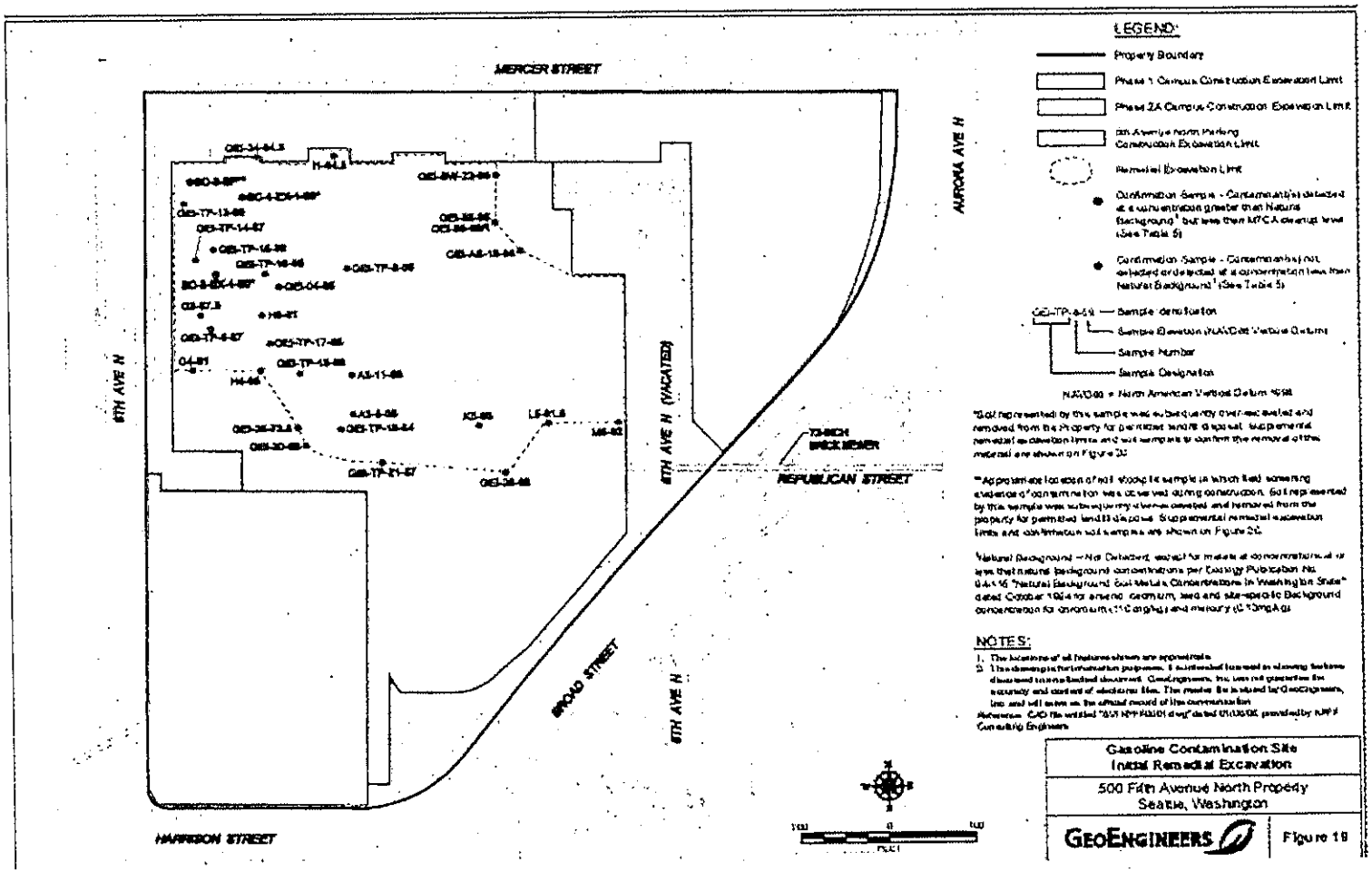


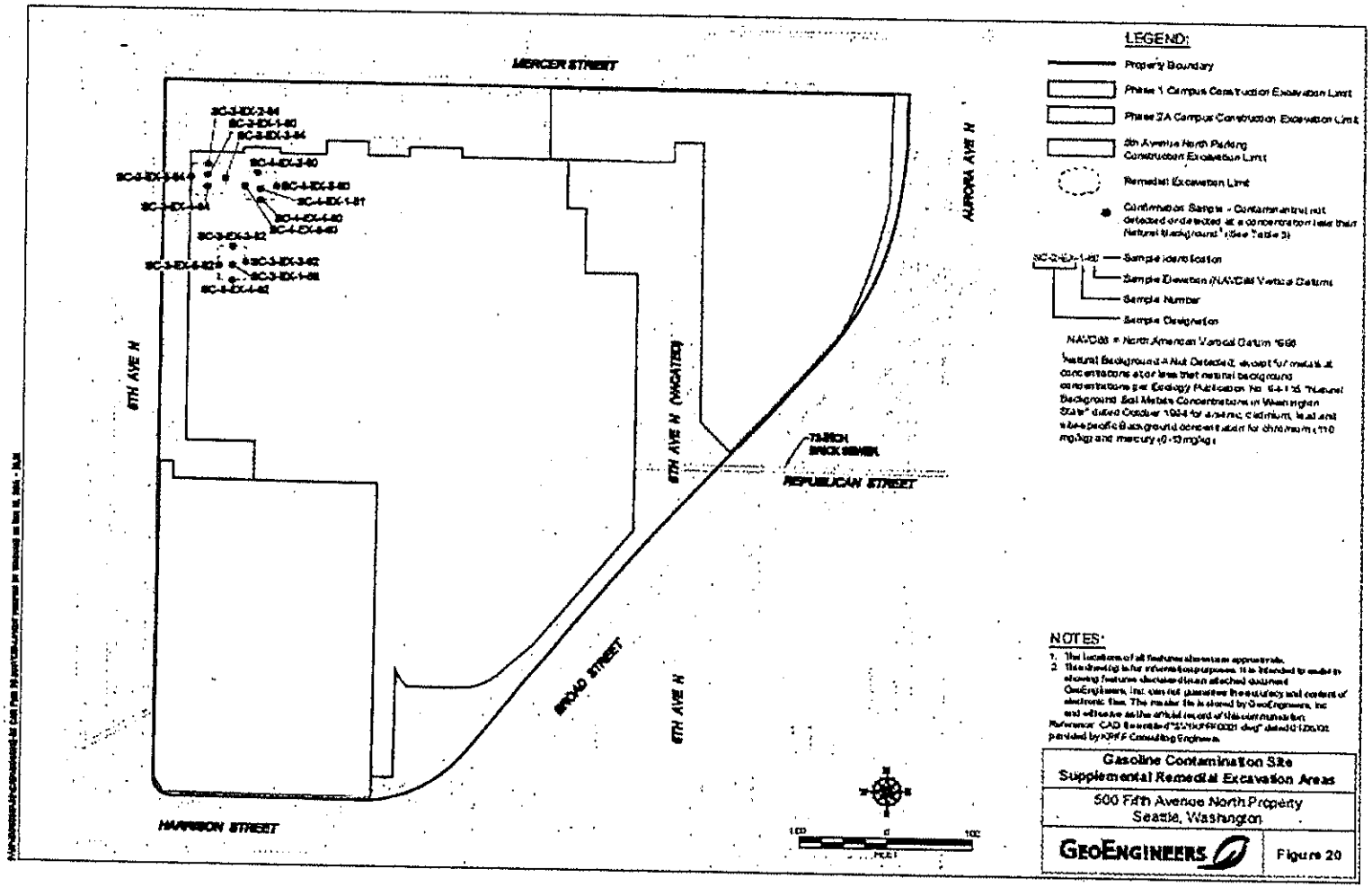
Gasoline Contamination Site
Supplemental Soil Investigation

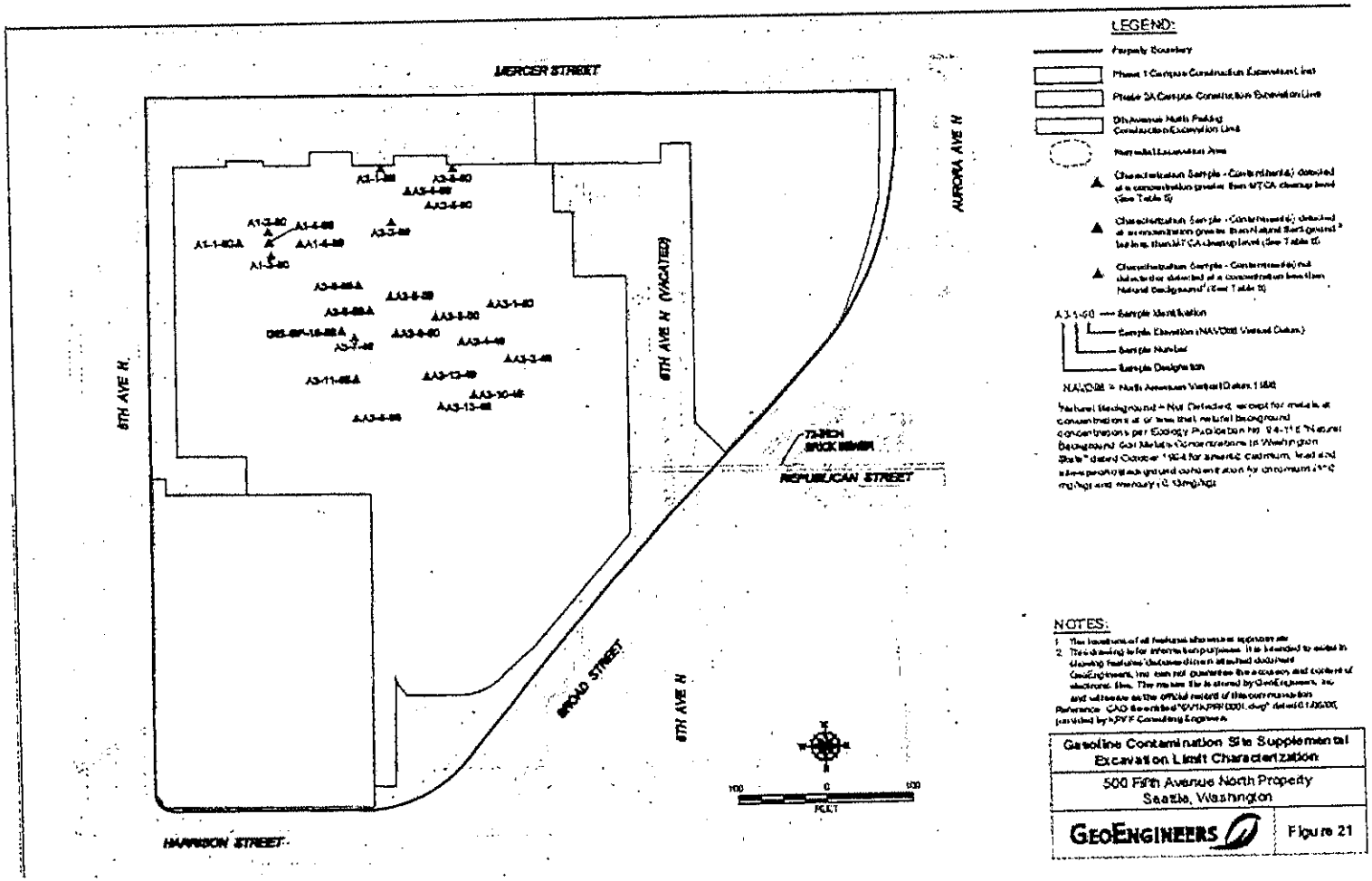
500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 18


MERCER STREET
8TH AVE N
8TH AVE N (VACATED)
AURORA AVE N
REPUBLICAN STREET
BROAD STREET
HARRISON STREET
TO MECH BRICK MEMBER
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than Natural Background[1] but less than MTCA cleanup level (See Table 5)
Confirmation Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background[1] (See Table 5)
GEI-TP-8-(9) — Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
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 a limited document. GeoEngineers, Inc. does 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 "SW NPP FIG01.dwg" dated 07/06/06 provided by NPP Consulting Engineers
Gasoline Contamination Site
Initial Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 19


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (VIADUCT)
REPUBLICAN STREET
BRICK SEWER
BROAD STREET
HARRISON STREET
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant not detected or detected at a concentration less than Natural Background (See Table 3)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115, "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site-specific background concentration for chromium (110 mg/kg) and mercury (0.13 mg/kg).
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational 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 be the official record of this communication.
Reference: CAD file entitled "S:\Vicki\F00001.dwg" dated 01/26/02 provided by KPFF Consulting Engineers.
Gasoline Contamination Site
Supplemental Remedial Excavation Areas
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 20



LEGEND:

- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- Remedial Excavation Area
- Characterization Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 6)
- Characterization Sample - Contaminant(s) detected at a concentration greater than Natural Background * but less than MTCA cleanup level (See Table 6)
- Characterization Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background * (See Table 6)

A3-1-60 — Sample Identification
- Sample Elevation (NAVD88 Vertical Datum)
- Sample Number
- Sample Designation

NAVD88 = North American Vertical Datum 1988

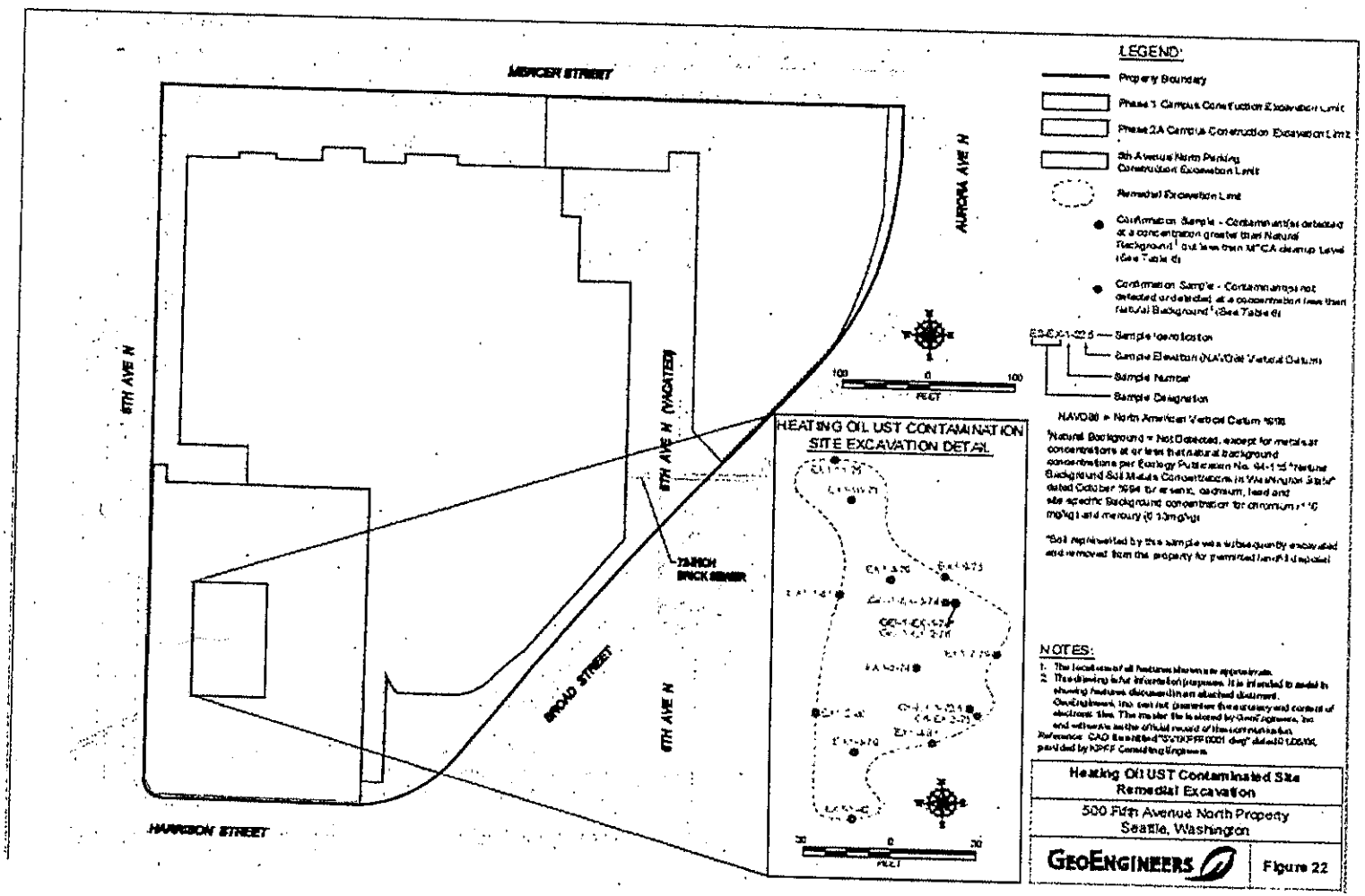
*Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and silver and Washington soil background for chromium, nickel, mercury (0.12mg/kg).

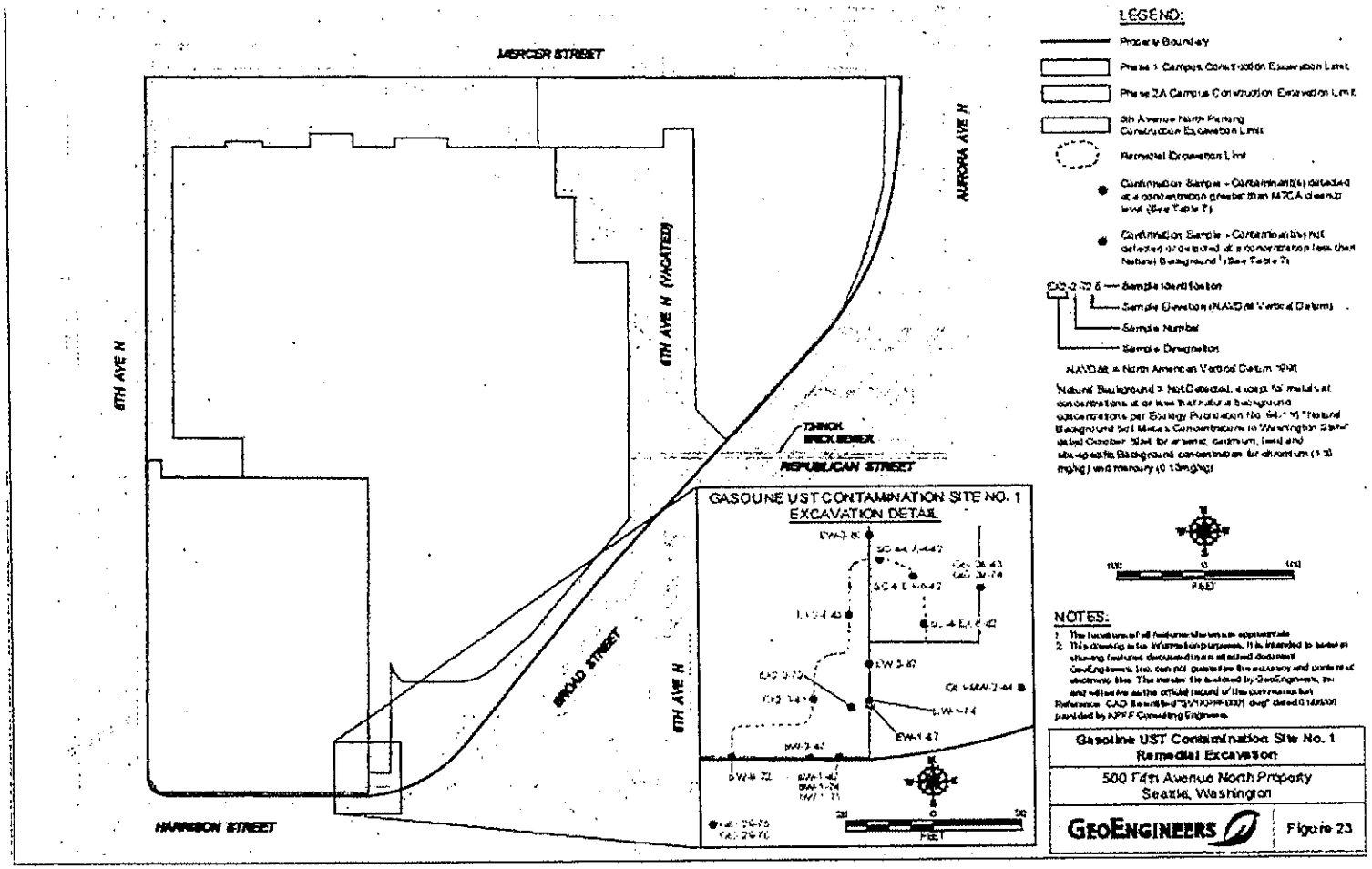
NOTES:

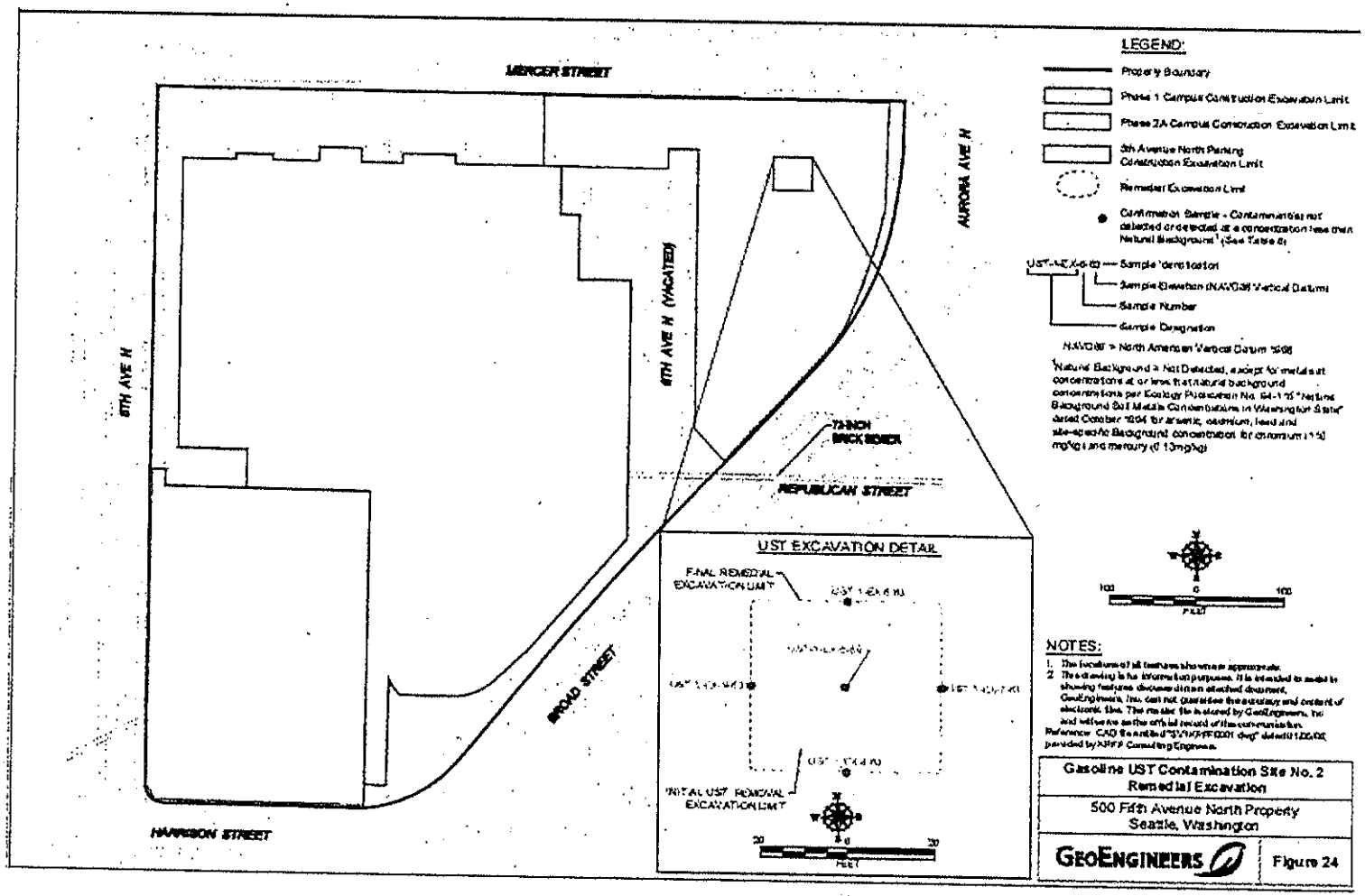
1. The locations of all features shown are approximate.
2. This drawing is for informational purposes. It is intended to assist in displaying features discussed in attached documents. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers,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

Reference: CAD file entitled "5VIA_PSR.DGN, dwg" dated 6/30/06, provided by KPFF Consulting Engineers.

Gasoline Contamination Site Supplemental Excavation Limit Characterization	
500 Fifth Avenue North Property Seattle, Washington	
GeoEngineers	Figure 21


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (VACATED)
6TH AVE N
BROAD STREET
HARRISON STREET
7'ARCH BRICK SEWER
HEATING OIL UST CONTAMINATION
SITE EXCAVATION DETAIL
100 0 100
FEET
30 0 30
FEET
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than Natural Background [1] but less than MTCA cleanup Level (See Table 6)
Confirmation Sample - Contaminants not detected or detected at a concentration less than Natural Background [1] (See Table 6)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
[1] Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site specific Background concentration for chromium (16 mg/kg) and mercury (0.13mg/kg)
[2] Soil represented by this sample was subsequently excavated and removed from the property for permitted landfill disposal
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for illustration 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 titled "S:\CIVIL\FIG001.dwg" dated 10/20/06, provided by KPFF Consulting Engineers.
Heating Oil UST Contaminated Site
Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 22


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (VACATED)
THOMAS STREET
REPUBLICAN STREET
BROAD STREET
6TH AVE N
HARRISON STREET
GASOLINE UST CONTAMINATION SITE NO. 1
EXCAVATION DETAIL
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample - Contaminant(s) detected at a concentration greater than MTCA cleanup level (See Table 7)
Confirmation Sample - Contaminant(s) not detected or detected at a concentration less than Natural Background (See Table 7)
Sample Identification
Sample Elevation (NAVD88 Vertical Datum)
Sample Number
Sample Designation
NAVD88 = North American Vertical Datum 1988
Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site-specific Background concentration for chromium (13.3 mg/kg) and mercury (0.13mg/kg).
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for illustrative 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 retained by GeoEngineers, Inc. and is the official record of this communication.
Reference: CAD file entitled "SWMXHF0001.dwg" dated 01/05/01 provided by KPFF Consulting Engineers.
Gasoline UST Contamination Site No. 1
Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 23

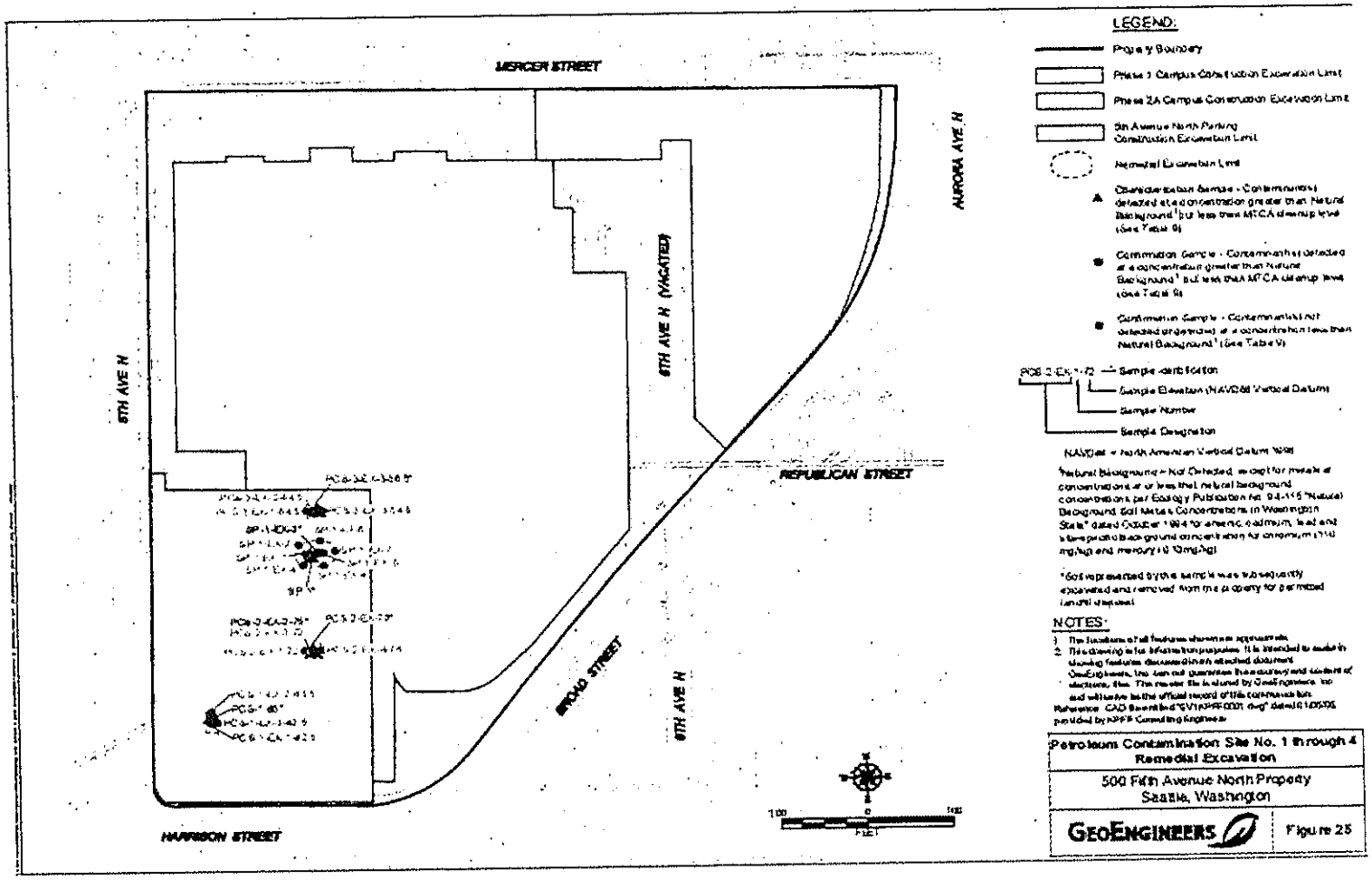


Gasoline UST Contamination Site No. 2
Remedial Excavation

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 24



NOTES:

1. The locations of all features shown are approximate.
2. This drawing is for illustration purposes. It is intended to assist in understanding features discussed in each attached document. GeoEngineers, Inc. does 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.

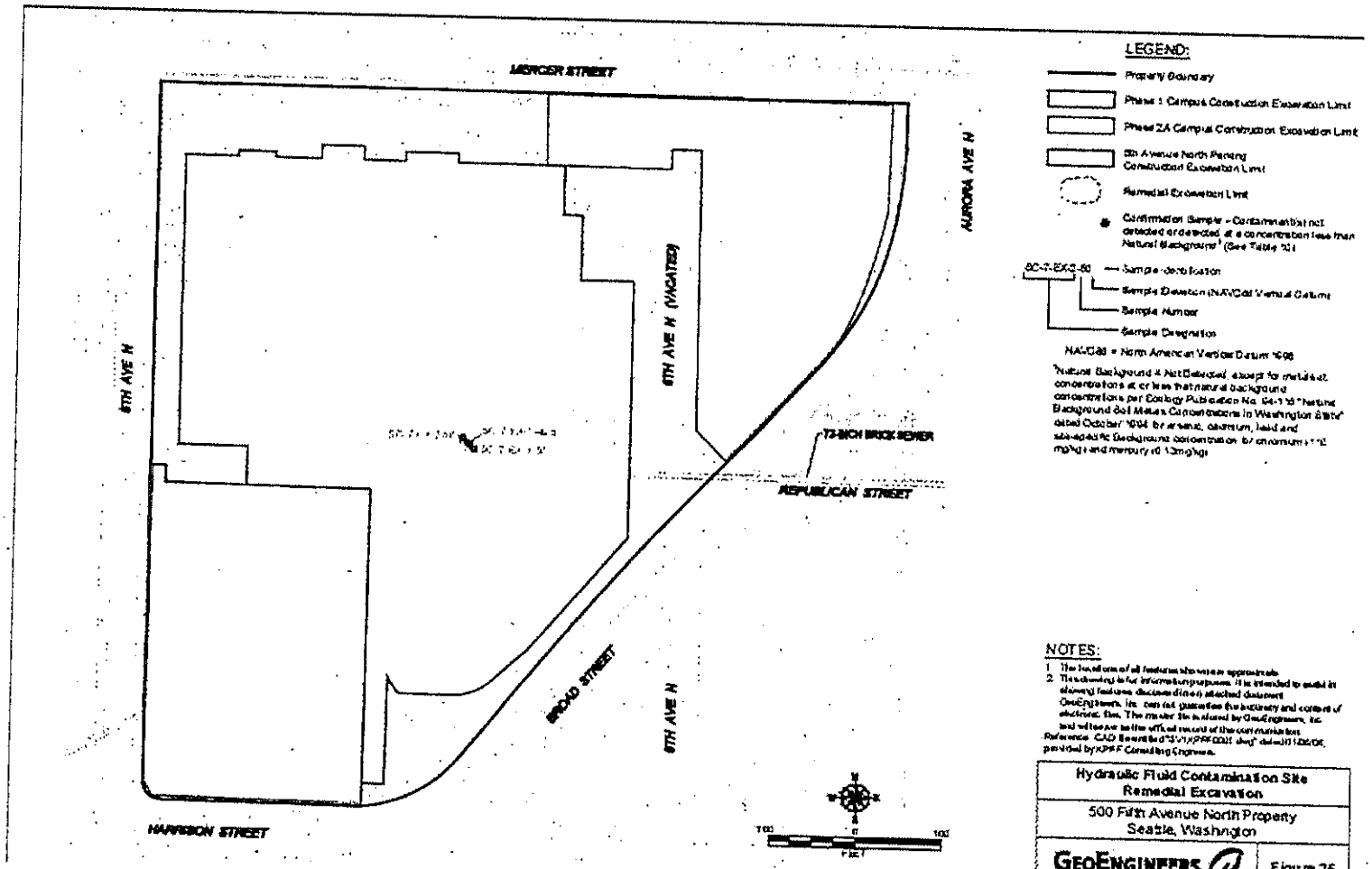
Reference: CAD file entitled "SV1XRFF001.dwg" dated 6/20/06 provided by KPFF Consulting Engineers.

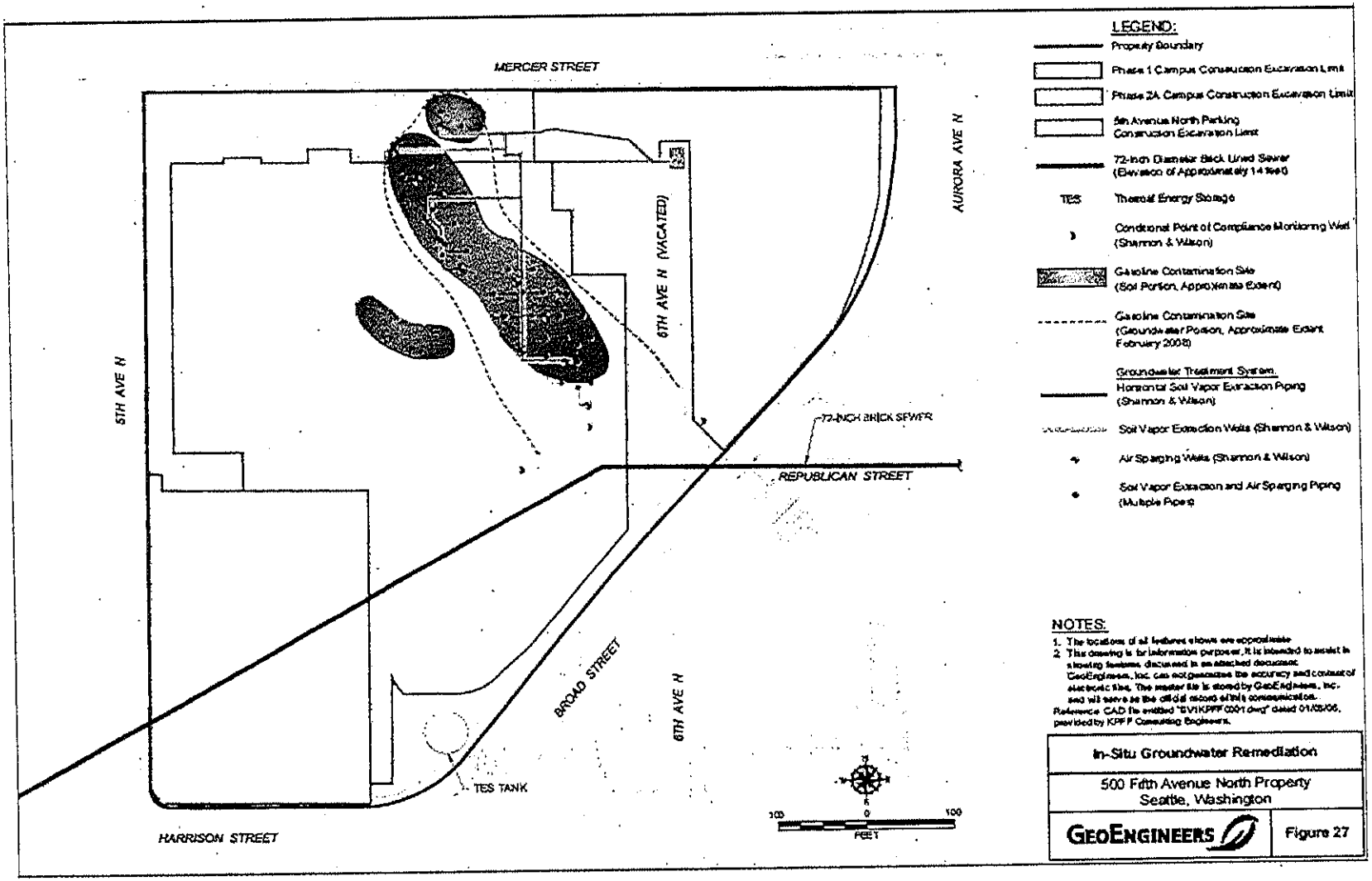
Petroleum Contamination Site No. 1 through 4 Remedial Excavation

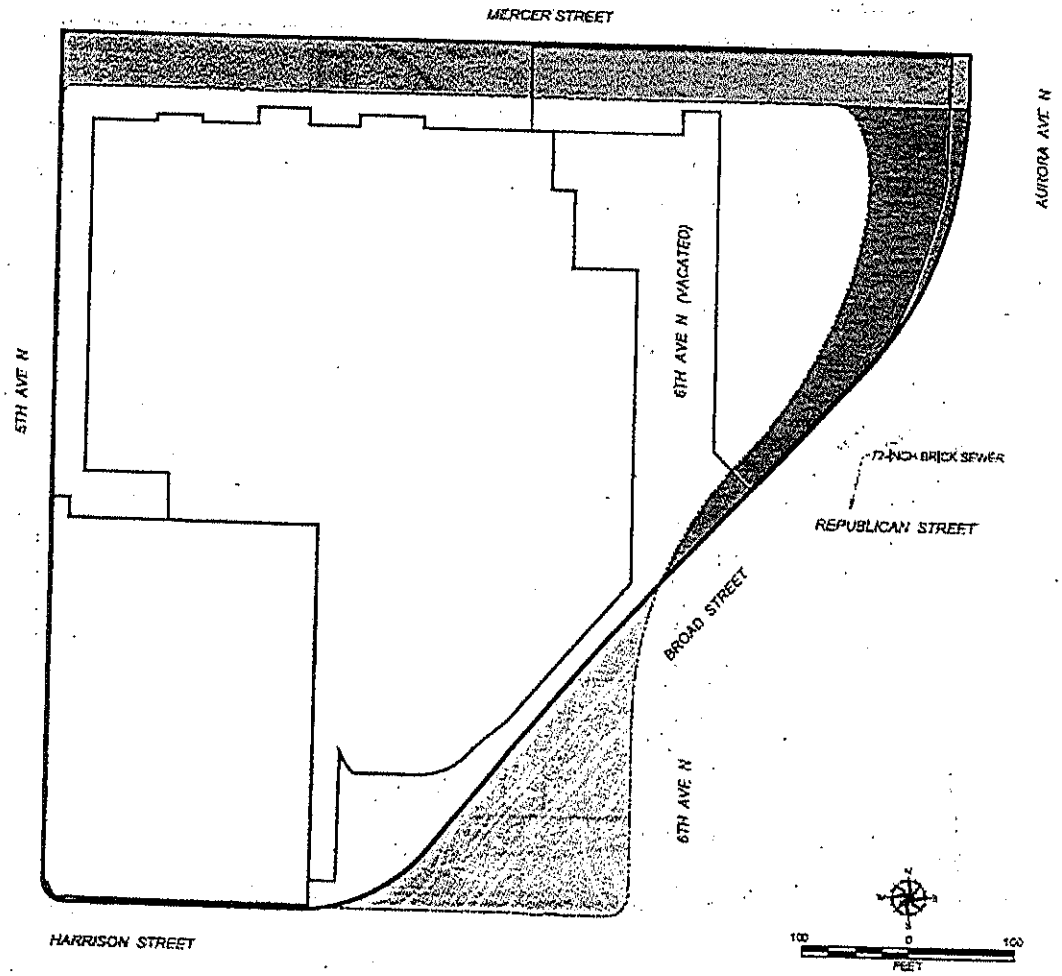
500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 25


MERCER STREET
AURORA AVE N
6TH AVE N
6TH AVE N (VACATED)
72-INCH BRICK SEWER
REPUBLICAN STREET
BROAD STREET
6TH AVE N
HARRISON STREET
LEGEND:
Property Boundary
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Paving Construction Excavation Limit
Remedial Excavation Limit
Confirmation Sample – Contaminants not detected or detected at a concentration less than Natural Background[1] (See Table 10)
SC-7-EX2-60 — Sample Designation
Sample Number
Sample Elevation (NAVD88 Vertical Datum)
Sample Location
NAVD88 = North American Vertical Datum 1988
[1]Natural Background = Not Detected, except for metals at concentrations at or less than natural background concentrations per Ecology Publication No. 94-115 "Natural Background Soil Metals Concentrations in Washington State" dated October 1994 for arsenic, cadmium, lead and site-specific background concentration for chromium = 12 mg/kg and mercury = 0.13mg/kg.
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational purposes. It is intended to assist in showing features discussed in the attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is retained by GeoEngineers, Inc. and will serve as the official record of the communication.
Reference: CAD file titled "SVI-XPRT.DGN" dwg" dated 11/22/05, provided by KPFF Consulting Engineers.
Hydraulic Fluid Contamination Site
Remedial Excavation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 26


MERCER STREET
5TH AVE N
6TH AVE N (VACATED)
AURORA AVE N
72-INCH BRICK SEWER
REPUBLICAN STREET
BROAD STREET
6TH AVE N
TES TANK
HARRISON STREET
100
0
100
FEET
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 February 2008)
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. 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 "SVIKPFF0001.dwg" dated 01/05/06, provided by KPFF Consulting Engineers.
In-Situ Groundwater Remediation
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 27



LEGEND:

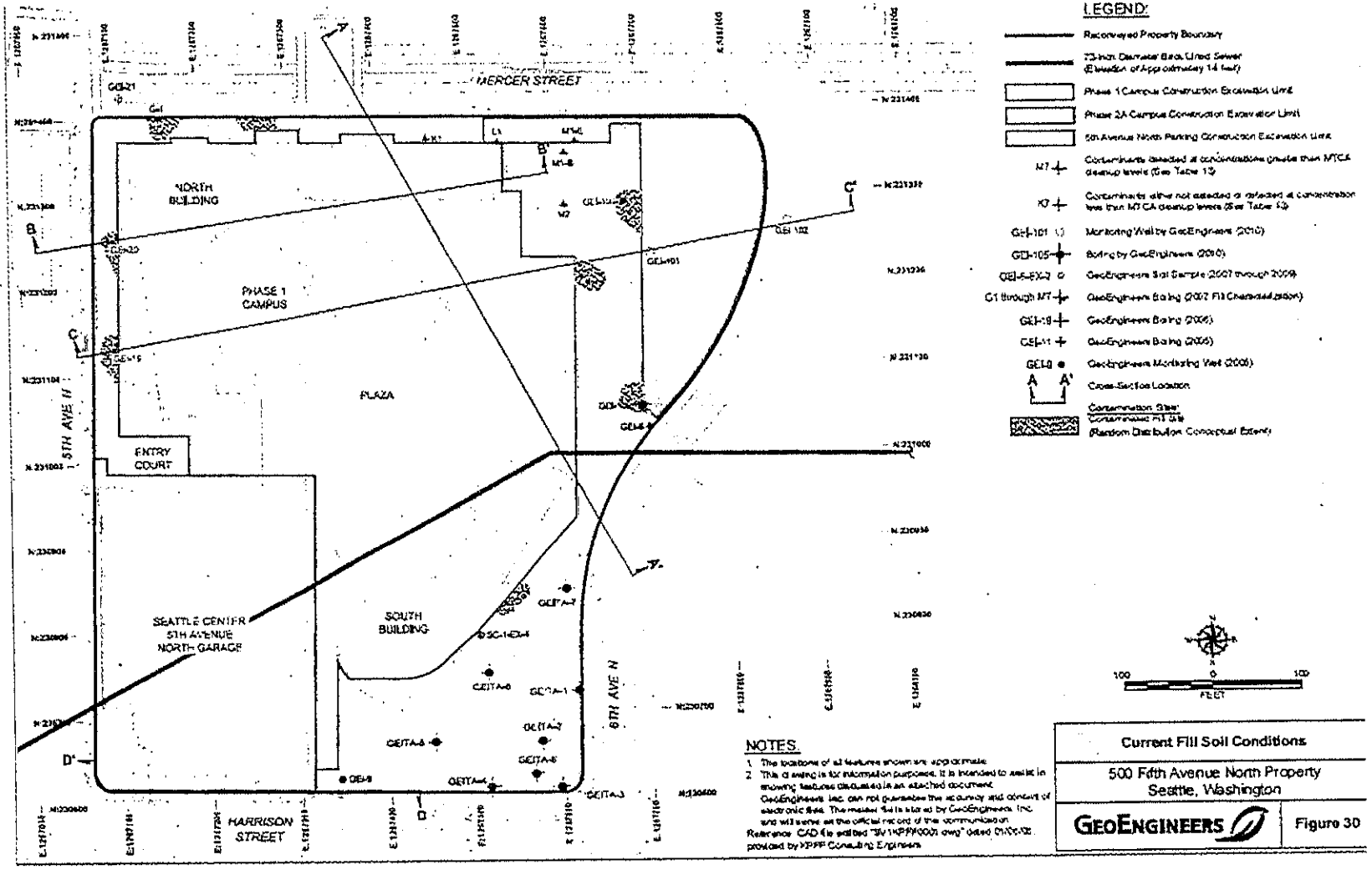
- Property Boundary
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- 5th Avenue North Parking Construction Excavation Limit
- Property Conveyed to City of Seattle under the Sixth Avenue Extension Agreement
  - Mercer Right-of-Way Property
  - Sixth Avenue Extension Property
- Property Conveyed to Vulcan under the Sixth Avenue Extension Agreement
  - Triangle Property

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 "SVNXPFF001.dwg" dated 01/05/06, provided by KPFF Consulting Engineers.

Property Reconveyance	
500 Fifth Avenue North Property Seattle, Washington	
GeoEngineers	Figure 28



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.

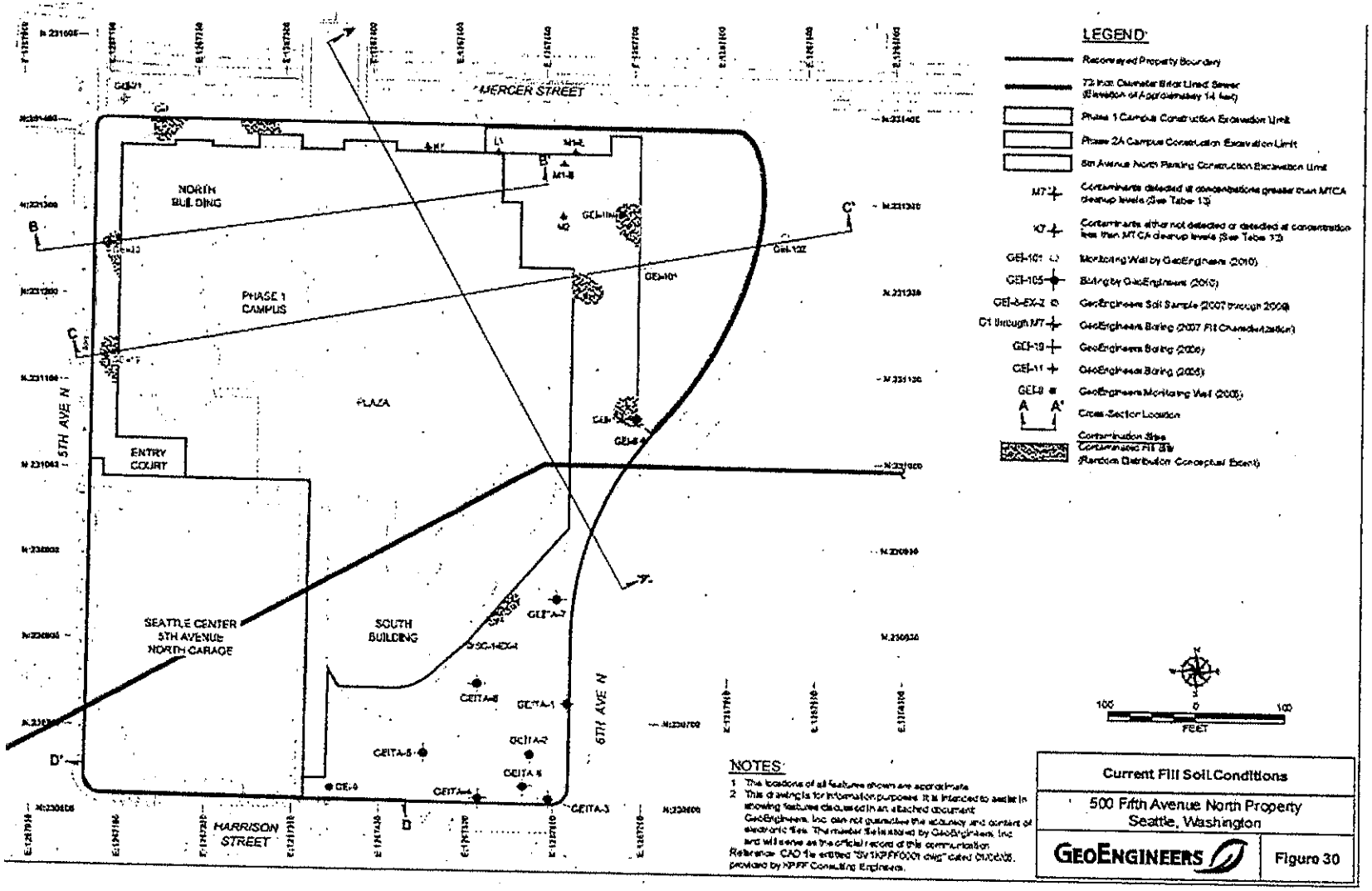
Reference CAD file entitled "SU1NPFP0001.dwg" dated 01/05/10 provided by KPFF Consulting Engineers.

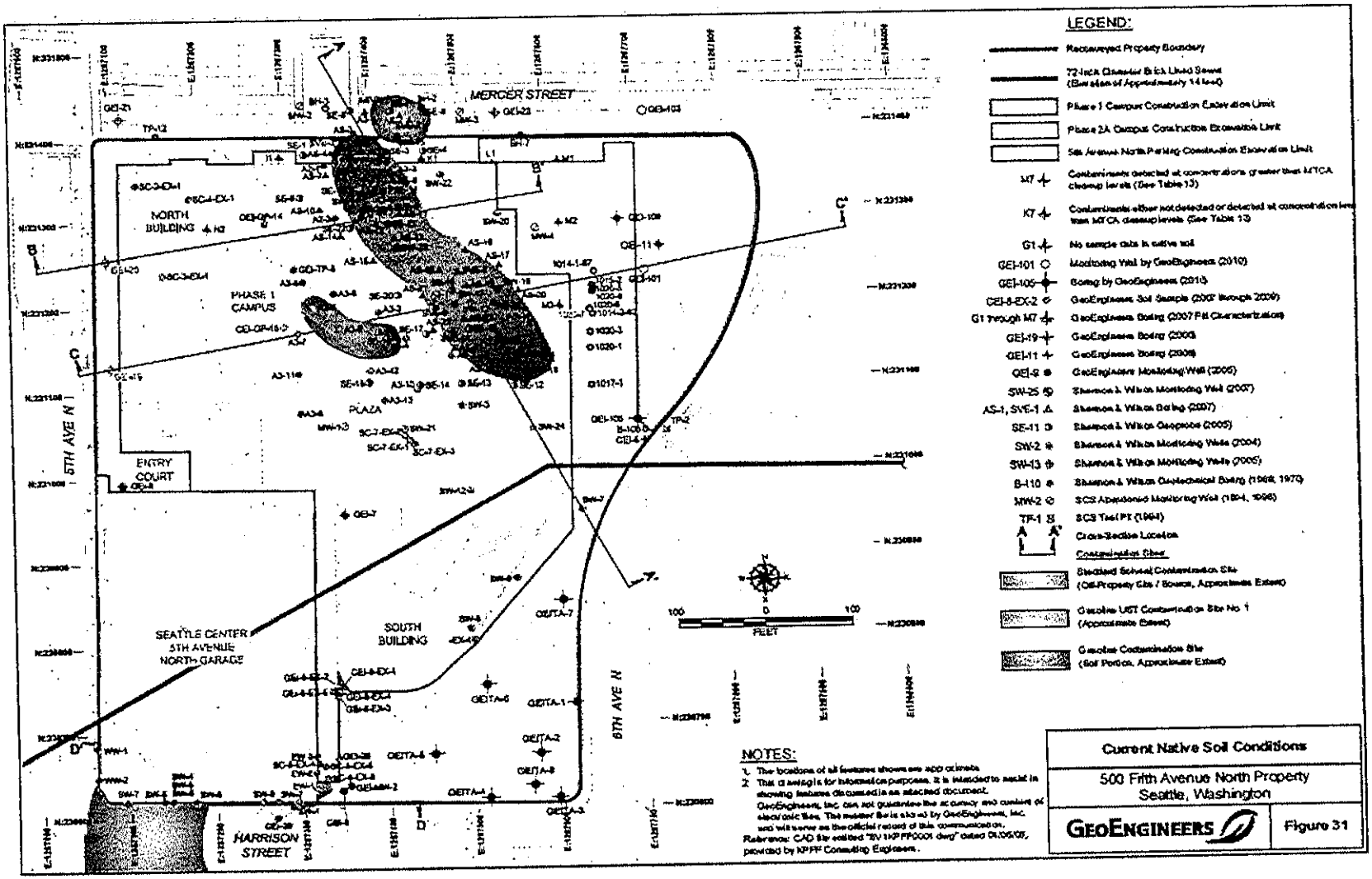
Current Fill Soil Conditions

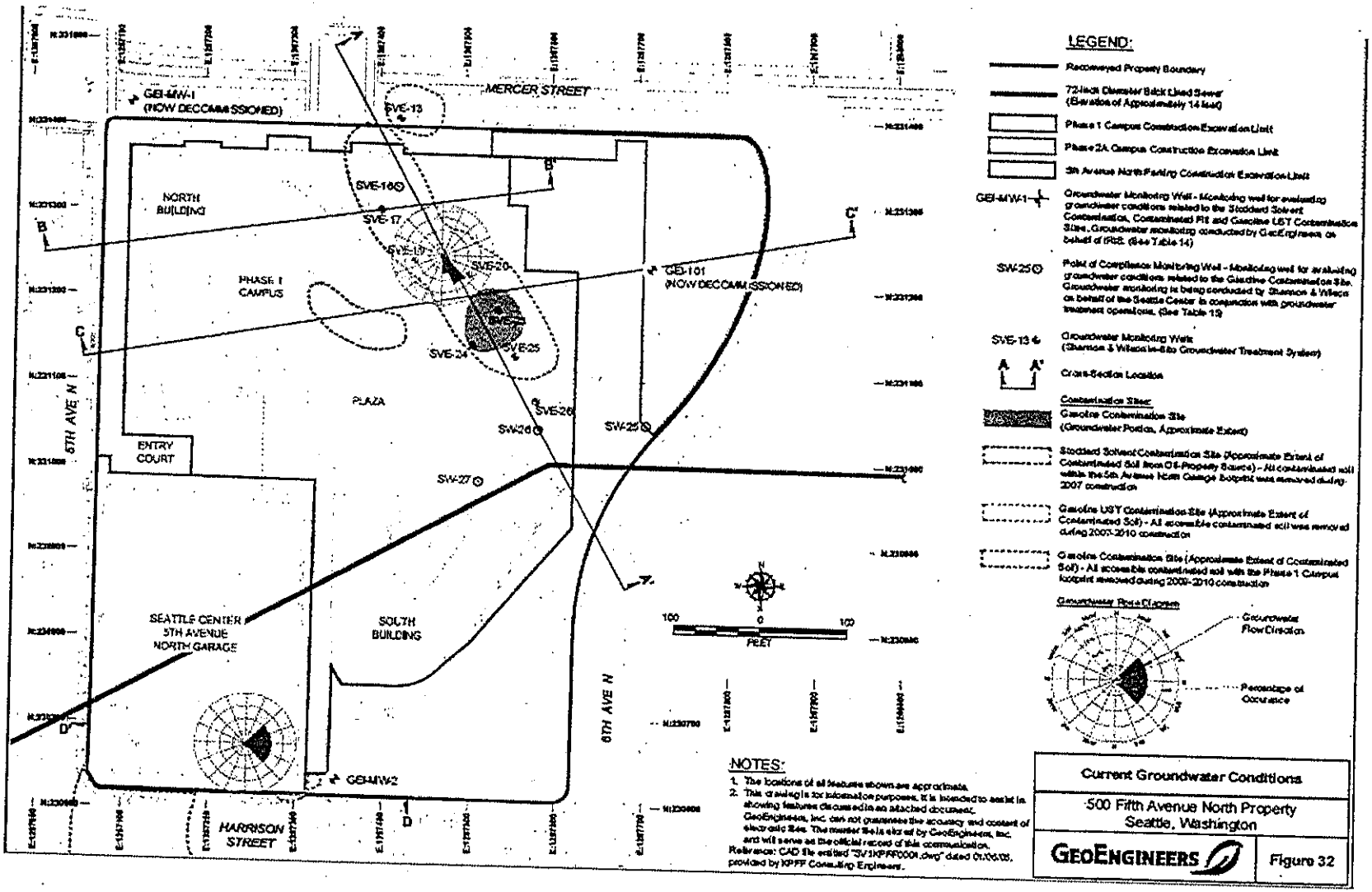
500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 30


MERCER STREET
NORTH BUILDING
PHASE 1 CAMPUS
PLAZA
ENTRY COURT
SEATTLE CENTER 5TH AVENUE NORTH GARAGE
SOUTH BUILDING
5TH AVE N
6TH AVE N
HARRISON STREET
LEGEND
Recorded Property Boundary
72 Inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Contaminants detected at concentrations greater than MTCA cleanup levels (See Table 13)
Contaminants either not detected or detected at concentration less than MTCA cleanup levels (See Table 13)
Monitoring Well by GeoEngineers (2010)
Boring by GeoEngineers (2010)
GeoEngineers Soil Sample (2007 through 2008)
GeoEngineers Boring (2007 Fill Characterization)
GeoEngineers Boring (2006)
GeoEngineers Boring (2005)
GeoEngineers Monitoring Well (2005)
Cross-Section Location
Contamination Area
Contaminated Fill Silt
(Random Distribution Conceptual Basis)
100
0
100
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 01/06/08, provided by KPFF Consulting Engineers.
Current Fill Soil Conditions
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 30


LEGEND:
Surveyed Property Boundary
72-Inch Diameter Brick Lined Sewer (Elevation of Approximately 14 feet)
Phase 1 Campus Construction Excavation Limit
Phase 2A Campus Construction Excavation Limit
5th Avenue North Parking Construction Excavation Limit
Contaminants detected at concentrations greater than MTCA cleanup levels (See Table 13)
Contaminants either not detected or detected at concentrations less than MTCA cleanup levels (See Table 13)
No sample data in native soil
Monitoring Well by GeoEngineers (2010)
Boring by GeoEngineers (2010)
GeoEngineers Soil Sample (2007 through 2009)
GeoEngineers Boring (2007 Fill Characterization)
GeoEngineers Boring (2006)
GeoEngineers Boring (2008)
GeoEngineers Monitoring Well (2006)
Shannon & Wilson Monitoring Well (2007)
Shannon & Wilson Boring (2007)
Shannon & Wilson Geoprobe (2005)
Shannon & Wilson Monitoring Wells (2004)
Shannon & Wilson Monitoring Wells (2005)
Shannon & Wilson Geotechnical Boring (1968, 1973)
SCS Abandoned Monitoring Well (1984, 1996)
SCS Test Pit (1984)
Cross-Section Location
Contamination Sites
Stadium Solvent Contamination Site (Off-Property Site / Source, Approximate Extent)
Gasoline UST Contamination Site No. 1 (Approximate Extent)
Gasoline Contamination Site (Soil Portion, Approximate Extent)
MERCER STREET
HARRISON STREET
5TH AVE N
8TH AVE N
NORTH BUILDING
PHASE 1 CAMPUS
PLAZA
ENTRY COURT
SOUTH BUILDING
SEATTLE CENTER 5TH AVENUE NORTH GARAGE
100
0
100
FEET
NOTES:
1. The locations of all features shown are approximate.
2. This drawing is for informational purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. does 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 "EV 1KPFP0001.dwg" dated 01/05/09, provided by KPFF Consulting Engineers.
Current Native Soil Conditions
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 31



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.

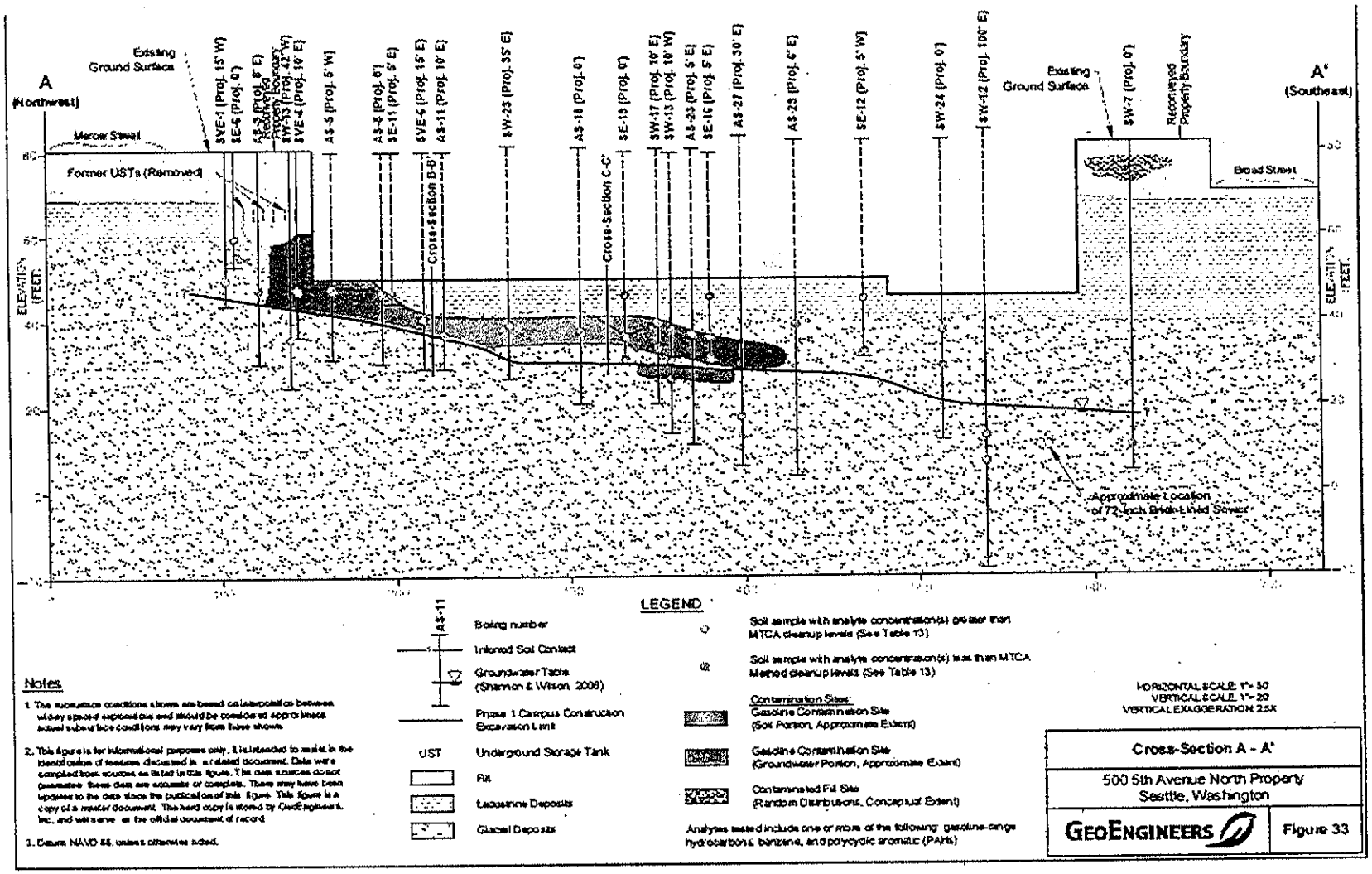
Reference: CAD file entitled "SV1KPFF0001.dwg" dated 01.05.05, provided by KPFF Consulting Engineers.

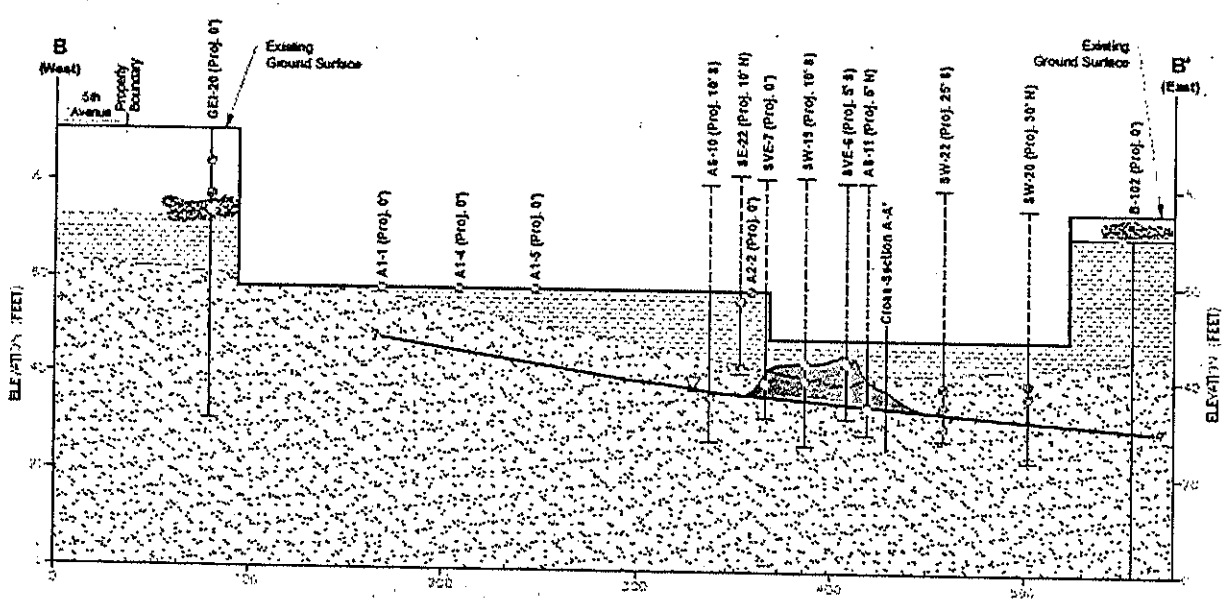
Current Groundwater Conditions

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers

Figure 32


A
(Northwest)
A'
(Southeast)
Existing Ground Surface
Mercer Street
Former USTs (Removed)
Broad Street
Approximate Location of 72-inch Brick-Lined Sewer
ELEVATION (FEET)
SVE-1 (Proj. 15' W)
SE-5 (Proj. 0')
AS-3 (Proj. 5' E)
Recorded Property Boundary
SW-13 (Proj. 42' W)
SVE-4 (Proj. 10' E)
AS-5 (Proj. 5' W)
AS-6 (Proj. 8')
SE-11 (Proj. 5' E)
SVE-6 (Proj. 15' E)
AS-11 (Proj. 10' E)
Cross-Section B-B'
SW-23 (Proj. 35' E)
AS-18 (Proj. 0')
Cross-Section C-C'
SE-13 (Proj. 0')
SW-17 (Proj. 10' E)
SW-13 (Proj. 10' W)
AS-23 (Proj. 5' E)
SE-16 (Proj. 5' E)
AS-27 (Proj. 30' E)
AS-25 (Proj. 6' E)
SE-12 (Proj. 5' W)
SW-24 (Proj. 0')
SW-12 (Proj. 100' E)
SW-7 (Proj. 0')
Recorded Property Boundary
AS-11
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 13)
Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 13)
Contamination Sites:
Gasoline Contamination Site (Soil Portion, Approximate Extent)
Gasoline Contamination Site (Groundwater Portion, Approximate Extent)
Contaminated Fill Site (Random Distributions, Conceptual Extent)
Analytes tested include one or more of the following: gasoline-range hydrocarbons, benzene, and polycyclic aromatic (PAHs)
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. This hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.
1. Datum NAVD 88, unless otherwise noted.
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 20'
VERTICAL EXAGGERATION 2.5X
Cross-Section A - A'
500 5th Avenue North Property
Seattle, Washington
GeoEngineers
Figure 33



LEGEND

- A5-11 — Boring number
- Inferred Soil Contact
- Groundwater Table (Shannon & Wilson, 2006)
- Phase 1 Campus Construction Excavation Limit
- UST — Underground Storage Tank
- Fill
- Lacustrine Deposits
- Glacial Deposits

- Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 13)
- Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 13)

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

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

Notes

1. The subsurface conditions shown are based on interpretation between widely spaced exploration 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.
3. Datum: NAVD 88, unless otherwise noted.

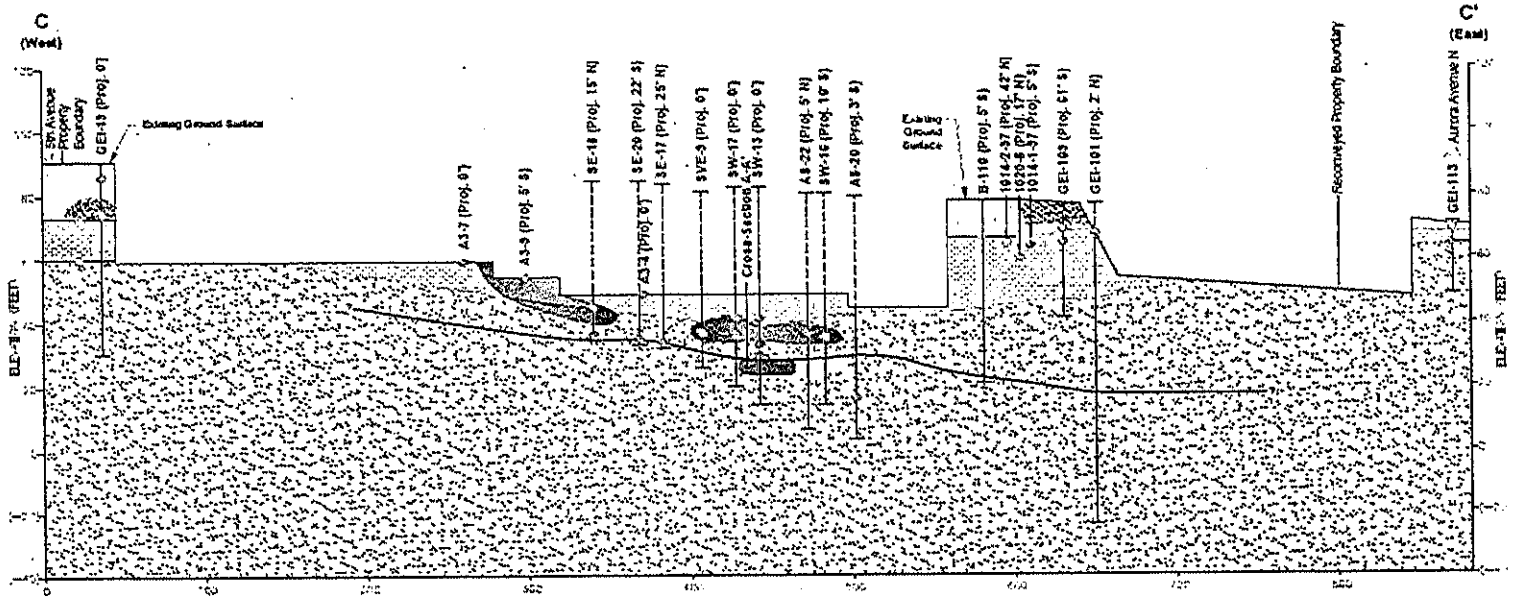
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 20'
VERTICAL EXAGGERATION: 2.5X

Cross-Section B - B'

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure 3-4



LEGEND

- Boring number
- Inferred Soil Contact
- Groundwater Table (Approximate)
- Phase 1 Campus Construction Excavation Limit
- Phase 2A Campus Construction Excavation Limit
- UST — Underground Storage Tank
- Fill
- Lacustrine Deposits
- Glacial Deposits

- Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 13)
- Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 13)

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

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

HORIZONTAL SCALE: 1"=60'
VERTICAL SCALE: 1"=30'
VERTICAL EXAGGERATION: 2X

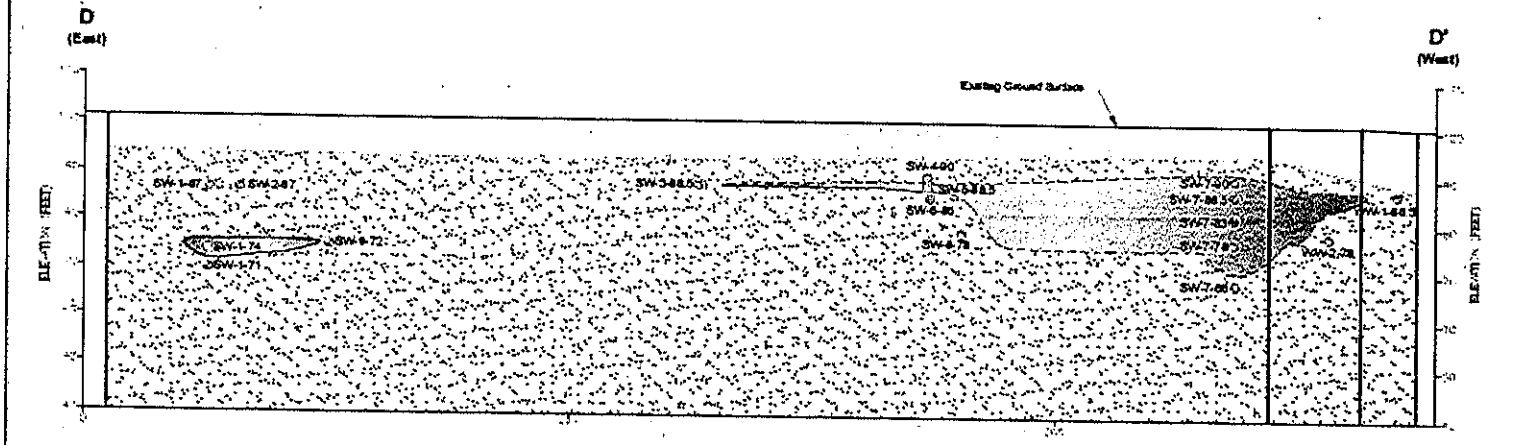
Notes

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 issues 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.
3. Datum: NAVD 88, unless otherwise noted.

Cross-Section C-C'

500 5th Avenue North Property
Seattle, Washington

GeoEngineers | Figure 35



LEGEND

- AS-22 — Boring number
- Inferred Soil Contact
- Groundwater Table (Approximate)
- 5th Avenue North Parking Construction Excavation Limit
- Fill
- Glacial Deposits
- Soil sample with analyte concentration(s) greater than MTCA cleanup levels (See Table 13)
- Soil sample with analyte concentration(s) less than MTCA Method cleanup levels (See Table 13)
- Contamination Sites:
  - Stoddard Solvent Contamination Site (Off-Property Site / Source, Approximate Extent)
  - Gasoline UST Contamination Site No. 1 (Approximate Extent)

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

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 associated 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.
3. Datum: NAVD 83, unless otherwise noted.

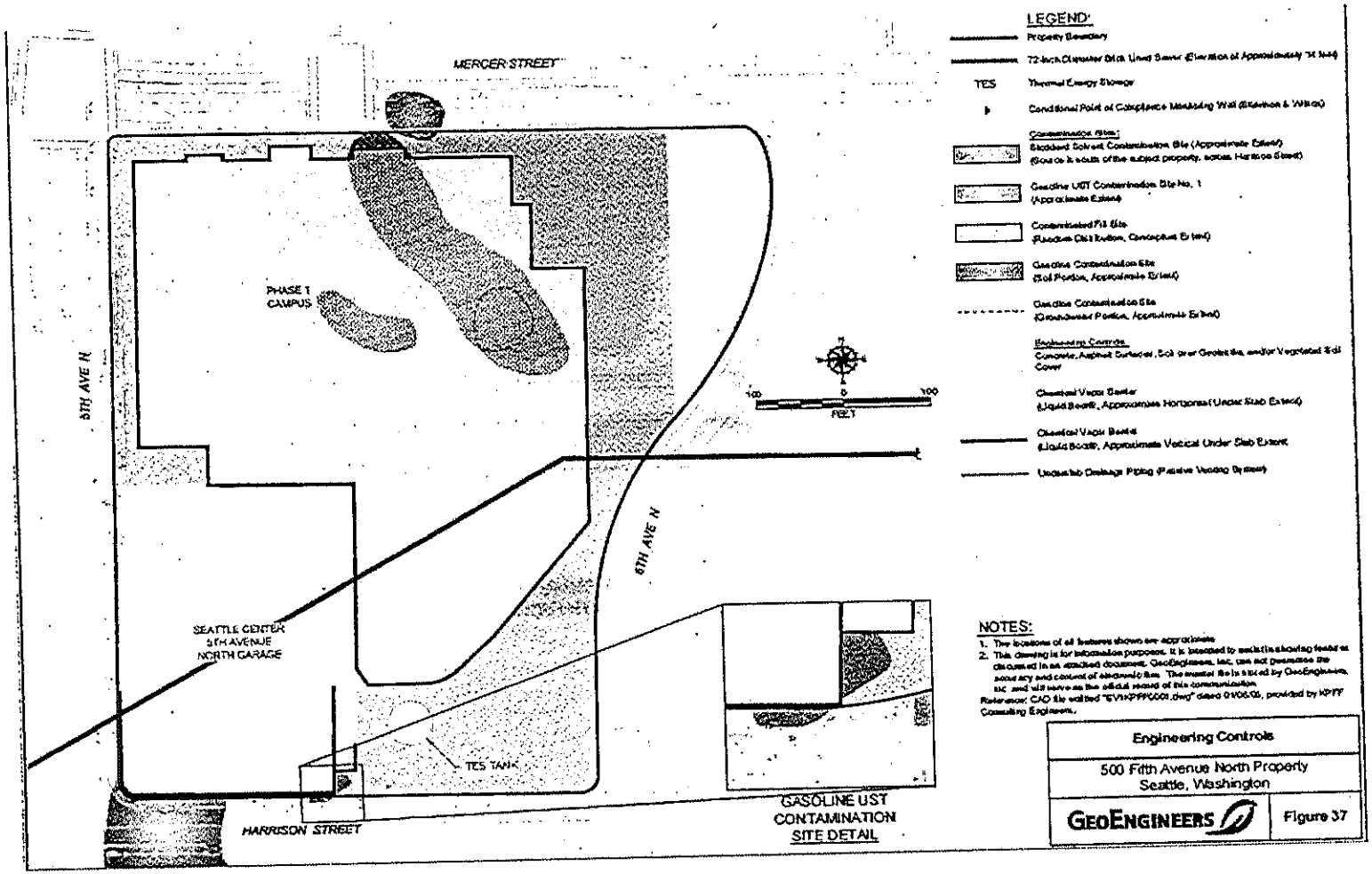
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 20'
VERTICAL EXAGGERATION: 1X

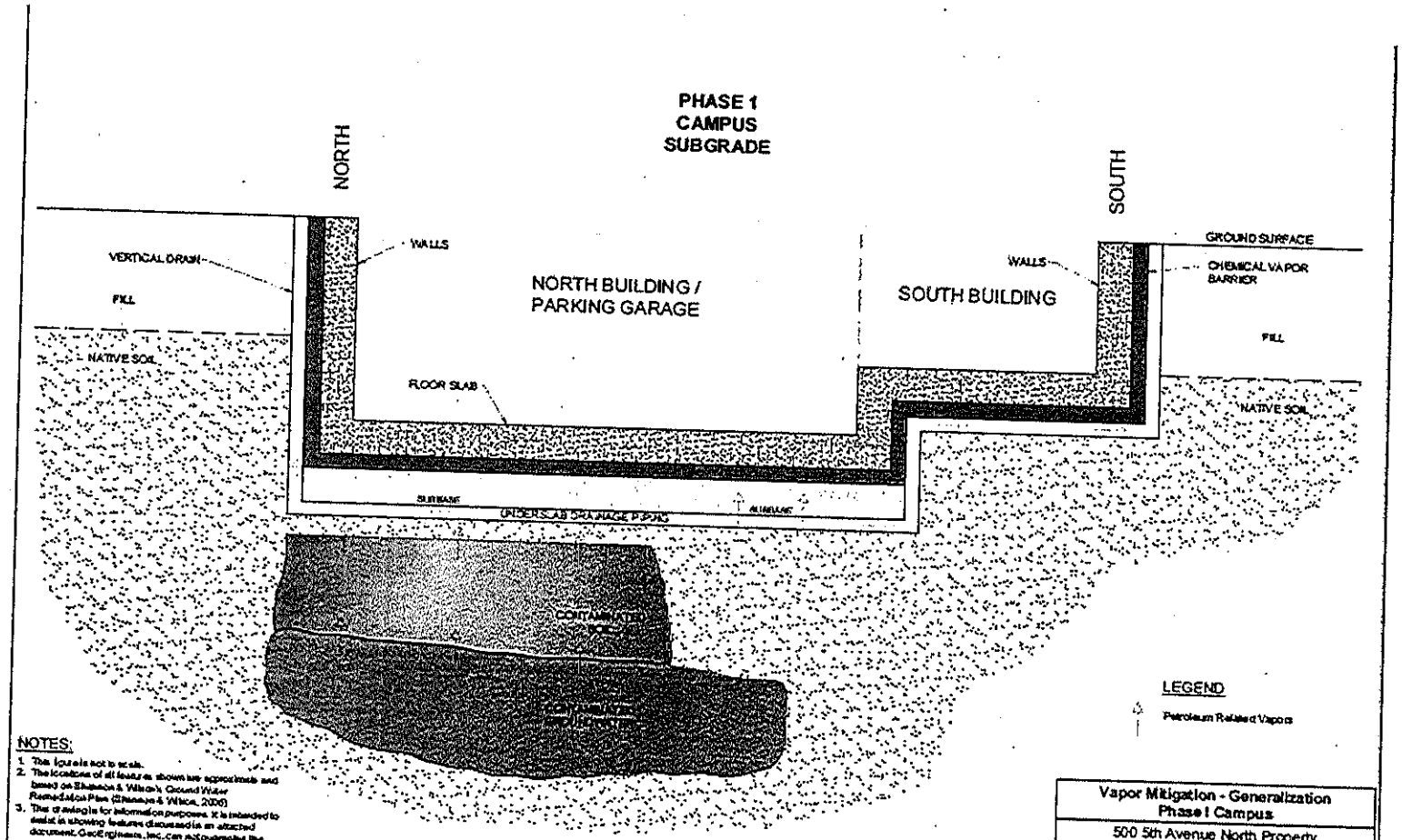
Cross-Section D-D'

500 5th Avenue North Property
Seattle, Washington

GeoEngineers

Figure 36


MERCER STREET
5TH AVE N
6TH AVE N
PHASE 1
CAMPUS
SEATTLE CENTER
5TH AVENUE
NORTH GARAGE
HARRISON STREET
TES TANK
GASOLINE UST
CONTAMINATION
SITE DETAIL
100
0
100
FEET
LEGEND:
Property Boundary
72-Inch Diameter Brick Lined Sewer (Elevation of Approximately 74 feet)
TES
Thermal Energy Storage
Conditional Point of Compliance Monitoring Well (Electron & Water)
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
(Fluvium Distribution, Conceptual Extent)
Gasoline Contamination Site
(Soil Portion, Approximate Extent)
Gasoline Contamination Site
(Groundwater Portion, Approximate Extent)
Engineering Controls:
Concrete, Asphalt Surface, Soil over Geotextile, and/or Vegetated Soil Cover
Chemical Vapor Barrier
(Liquid Boots, Approximate Horizontal Under Slab Extent)
Chemical Vapor Barrier
(Liquid Boots, Approximate Vertical Under Slab Extent
Under Slab 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. does 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 named "EVHKPPK001.dwg" dated 01/05/05, provided by KPFF Consulting Engineers.
Engineering Controls
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Figure 37



NOTES:

1. This figure is not to scale.
2. The locations of all features shown are approximate and based on Shannon & Wilson's Ground Water Remediation Plan (Shannon & Wilson, 2006)
3. 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.

Vapor Mitigation - Generalization Phase I Campus
500 5th Avenue North Property Seattle, Washington
GeoEngineers / Figure 38

Enclosure B

Consent Documents to Place Covenants on Non-Client Property

April 17, 2017

BY REGULAR MAIL AND EMAIL (cmau461@ECY.WA.GOV)

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

Re: IRIS 5th Avenue North Property Environmental Covenant –
VCP No. NW1943

Dear Mr. Maurer:

As you know, in accordance with the Ecology-approved Cleanup Action Plan, the Seattle Center Department of the City of Seattle and IRIS Holdings, LLC have worked together with Ecology since 2005 under VCP No. NW1493 to address soil and groundwater contamination identified at the 500 Fifth Avenue North Property. The cleanup action relied on a combination of source removal during construction and in-situ groundwater treatment and the use of engineering controls (capping) combined with institutional controls following construction to prevent exposure to soil, groundwater and resulting soil vapor and indoor air containing concentrations of contaminants above cleanup levels. Under the 2005 Property Remediation Agreement between the parties, IRIS is responsible for addressing soil contamination while the City of Seattle is responsible for addressing contaminants in groundwater.

By this letter, IRIS Holdings, LLC agrees and gives consent to Ecology to place institutional controls, in the form of an environmental covenant, on its 500 Fifth Avenue North Property to address residual contamination remaining in place following development activities. The intent of this covenant is to limit or prohibit activities on the site that may interfere with the integrity of the cleanup action or cause exposure to the residual contamination remaining in place on the property.

Please let Konrad Liegel (who is cc'd on this letter), our outside counsel on the project, know if you have any comments on the proposed form of the environmental covenant, which covenant has been previously provided to you by GeoEngineers, our environmental consultant on the project.

Sincerely,

IRIS Holdings, LLC

Aaron Moses
Director, Global Facilities, Events & Travel

Cc (by email):

Lisa Johnsen, Deputy General Counsel, Lisa.Johnsen@gatesfoundation.com
Robert Trahan, GeoEngineers, rtrahan@geoengineers.com
Konrad Liegel, Konrad J. Liegel, Attorney-At-Law, PLLC, konrad@konradjliegel.com

The City has already recorded the Conveyance document (copy attached) by which the City conveyed the Parcel that IRIS cleaned up and now owns. In that conveyance document, which has been recorded in King County, the Director of the Seattle Department of Transportation agreed to place **"environmental deed restriction and Institutional Controls on the Property consistent with those placed by Grantor on its adjoining property, and will comply with the limitation on use of the Property contained in the deed restriction or other Institutional Controls imposed under the Cleanup Action Plan."** (see yellow highlighted text in the attached document).

This recorded Conveyance Document is enforceable. For this reason, I do not believe we need another letter. Let me know if you disagree. Thanks.

Tad H. Shimazu
Assistant City Attorney
Environmental Protection Section
Seattle City Attorney's Office
701 Fifth Avenue, Suite 2050
Seattle, WA 98104-7097
Phone: 206-233-2151

Grantee acknowledges that there are soils and groundwater containing contaminants above state cleanup levels resulting from the presence of hazardous materials on the Property when Grantor acquired the Property from Grantee on November 28, 2006. Controls on future use of the Property will therefore be required to protect human health and the environment from these residual contaminants ("Institutional Controls"). The types of Institutional Controls likely to be employed are described in the Washington Department of Ecology approved Cleanup Action Plan, 500 Fifth Avenue North Property, Seattle, Washington, prepared by GeoEngineers and dated February 20, 2012, as may be amended or supplemented from time to time. They include deed restrictions and plans to protect the completed cleanup, and plans for handling potentially contaminated soils or groundwater at the Property. Grantee will place an environmental deed restriction and* Institutional Controls on the Property consistent with those placed by Grantor on its adjoining property, and will comply with any limitations on use of the Property contained in the deed restriction or other Institutional Controls imposed under the Cleanup Action Plan.

After Recording
Return Document to:
Seattle City Attorney's
Office 600 Fourth Ave., 4th
Floor P.O. Box 94769
Seattle, WA 98124-4769
Attn: Helaine Honig

III ID If
III!1111111

11 111110
II
201206200
01393
CHICAGO TITLE 0 66.00
PAGE-001 OF 005
06/20/2012 14:26
KING COUNTY, WA
E2549466
06/20/2012 1426
KING COUNTY, WA
$10.00 PAGE-001 OF 001
TAX $0.00 SALE

Document Title: Grantor: Grantee: Abbreviated Land Description: Tax Parcel No. Bargain and Sale Deed IRIS Holdings, LLC The City of Seattle A portion of Parcel B, City of Seattle Lot Boundary Adjustment	Rec. No. 200807029 00011 Complete legal description is on Exhibit A of document A portion of Tax Parcel No. 198820115 5

Bargain and Sale Deed

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, IRIS Holdings, LLC, a Washington limited liability company ("Grantor"), does hereby grant, bargain, sell and convey to the City of Seattle, a Washington municipal corporation ("Grantee"), that real property situate in the County of King, State of Washington, and more particularly described on Exhibit A attached hereto and incorporated herein by reference (the "Property"),

Together with all tenements, hereditaments and appurtenances thereto belonging or appertaining and any and all reversions, remainders, rents, issues and profits thereof. Grantee acknowledges that there are soils and groundwater containing contaminants above state cleanup levels resulting from the presence of hazardous materials on the Property when Grantor acquired the Property from Grantee on November 28, 2006. Controls on future use of the Property will therefore be required to protect human health and the environment from these residual contaminants ("Institutional Controls"). The types of Institutional Controls likely to be employed are described in the Washington Department of Ecology approved Cleanup Action Plan, 500 Fifth Avenue North Property, Seattle, Washington, prepared by GeoEngineers and dated February 20, 2012, as may be amended

or supplemented from time to time. They include deed restrictions and plans to protect the completed cleanup, and plans for handling potentially contaminated soils or groundwater at the Property. Grantee will place an environmental deed restriction and* Institutional Controls on the Property consistent with those placed by Grantor on its adjoining property, and will comply with any limitations on use of the Property contained in the deed restriction or other Institutional Controls imposed under the Cleanup Action Plan.

To the extent permitted by law, Grantee hereby agrees to release, defend, indemnify and hold harmless Grantor and the Bill & Melinda Gates Foundation ("Gates Foundation") and their respective directors, officers, employees, agents, members, and successors and assigns of all of them from and against any and all claims, orders or liability including, without limitation, all foreseeable and all unforeseeable consequential damages, directly or indirectly arising out of the presence on the Property prior to November 28, 2006 of any hazardous materials, including without limitation the cost of any required or necessary repair, cleanup, or remediation and the preparation, submission and review of any closure or other required plans.

As provided by RCW 84.60.070, the Grantor herein requests the lien of taxes owing shall be set over to the property retained by the Grantor.

Dated the 15th day of June, 2012.

SELLER: IRIS Holdings, LLC
a Washington limited liability company
By: _____
Martha Martha Choe
Its: Chief Administrative Officer

STATE OF WASHINGTON
) ss.
COUNTY OF KING

I certify that I know or have satisfactory evidence that MARTHA CHOE is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the Chief Administrative Officer of IRIS Holdings, LLC, a Washington limited liability company, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: *aLtn& 13,* ae/A.

My commission eZres // -/S--/L„

LYNANNE L LEIN1S
STATE OF WASHINGTON
NOTARY PUBLIC MY COMMISSION VANES
11-1542
Notary P
Print Name ____
na..rtn4, L.

The City of Seattle, the Grantee herein, agrees to and accepts all terms and conditions contained in the Deed and approves the form of the Deed.

GRANTEE:

CITY OF SEATTLE

By: _____ Name: Peter Hahn

Title: Director, Seattle Department of Transportation

Dated: June 11, 2012

STATE OF WASHINGTON

) ss.

COUNTY OF KING

I certify that I know or have satisfactory evidence that PETER HAHN is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Director of the Seattle Department of Transportation of The City of Seattle, a Washington municipal corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: *3tA.v\e1141 2o .011,1111ft/4i*

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Print Name ,Thc,wtue SPen My commission expires 1-13 - I 5

Enclosure C

Environmental Covenants For Institutional Controls

When Recorded, Return to:

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

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 _____ day of _____, 201_.

IRIS Holdings, LLC,
a Washington limited liability company

By:

_____

Title: _____

STATE OF WASHINGTON)
) ss.
COUNTY OF KING)

On this _____ day of _____, 201__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the _____ 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 in and for the State of Washington, residing at _____.
My appointment expires_____.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Ragowski
Section Manager, Toxics Cleanup Program

Dated:

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On this _____ day of _____, 201__, 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 _____.
My appointment expires_____.

Exhibit A

LEGAL DESCRIPTION

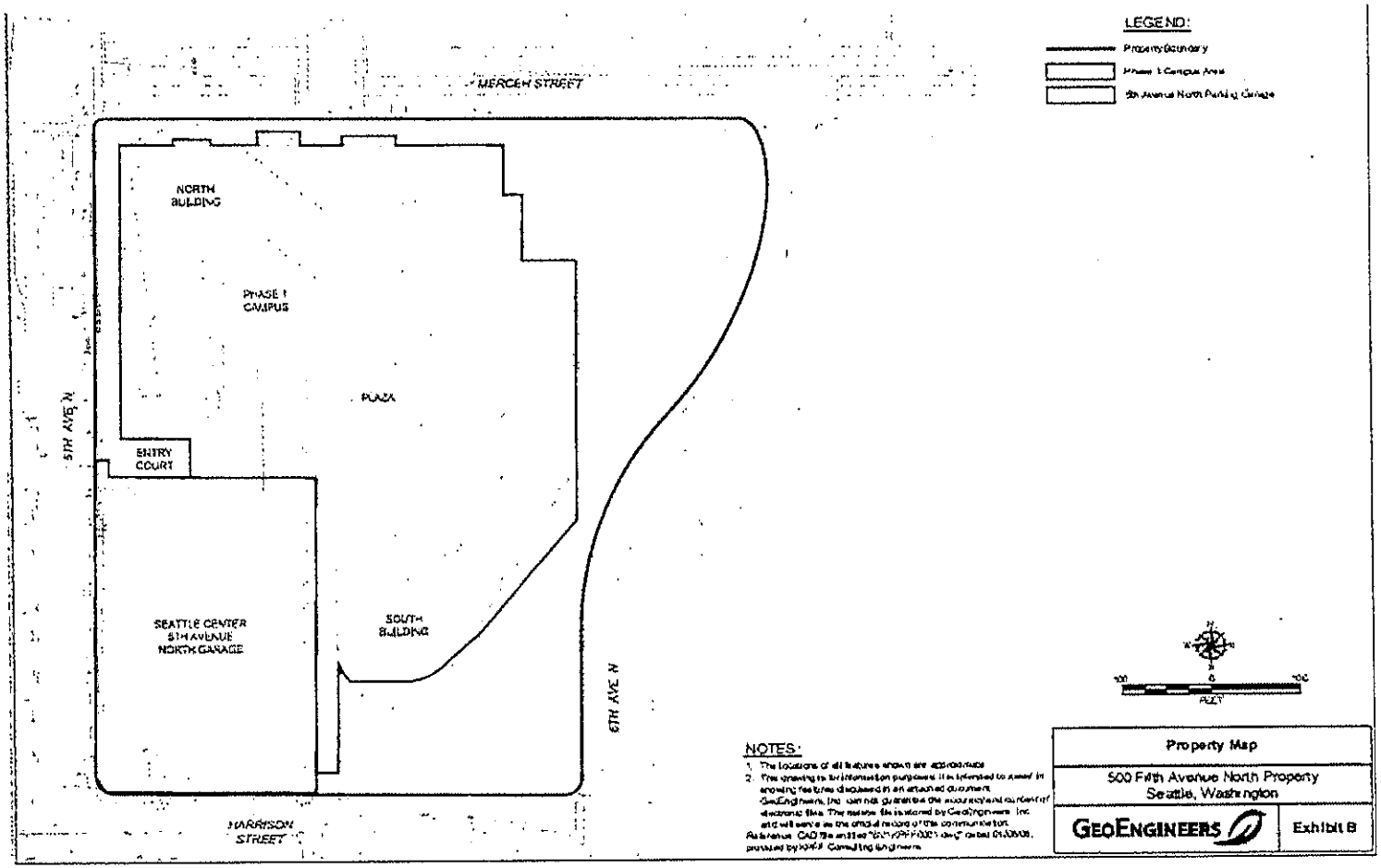
Parcels A and B of City of Seattle Lot Boundary Adjustment No. 3008913, recorded under King County Recording No. 20080702900011, in King County, Washington;

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.

Exhibit B

PROPERTY MAP



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 retained by GeoEngineers, Inc. and will serve as the official record of this communication.

As-built survey CAD file entitled "SVY_KPFF001.dwg" dated 01.30.08, provided by KPFF Consulting Engineers.

Property Map

500 Fifth Avenue North Property
Seattle, Washington

GeoEngineers | Exhibit B

Exhibit C

ENGINEERING CONTROLS

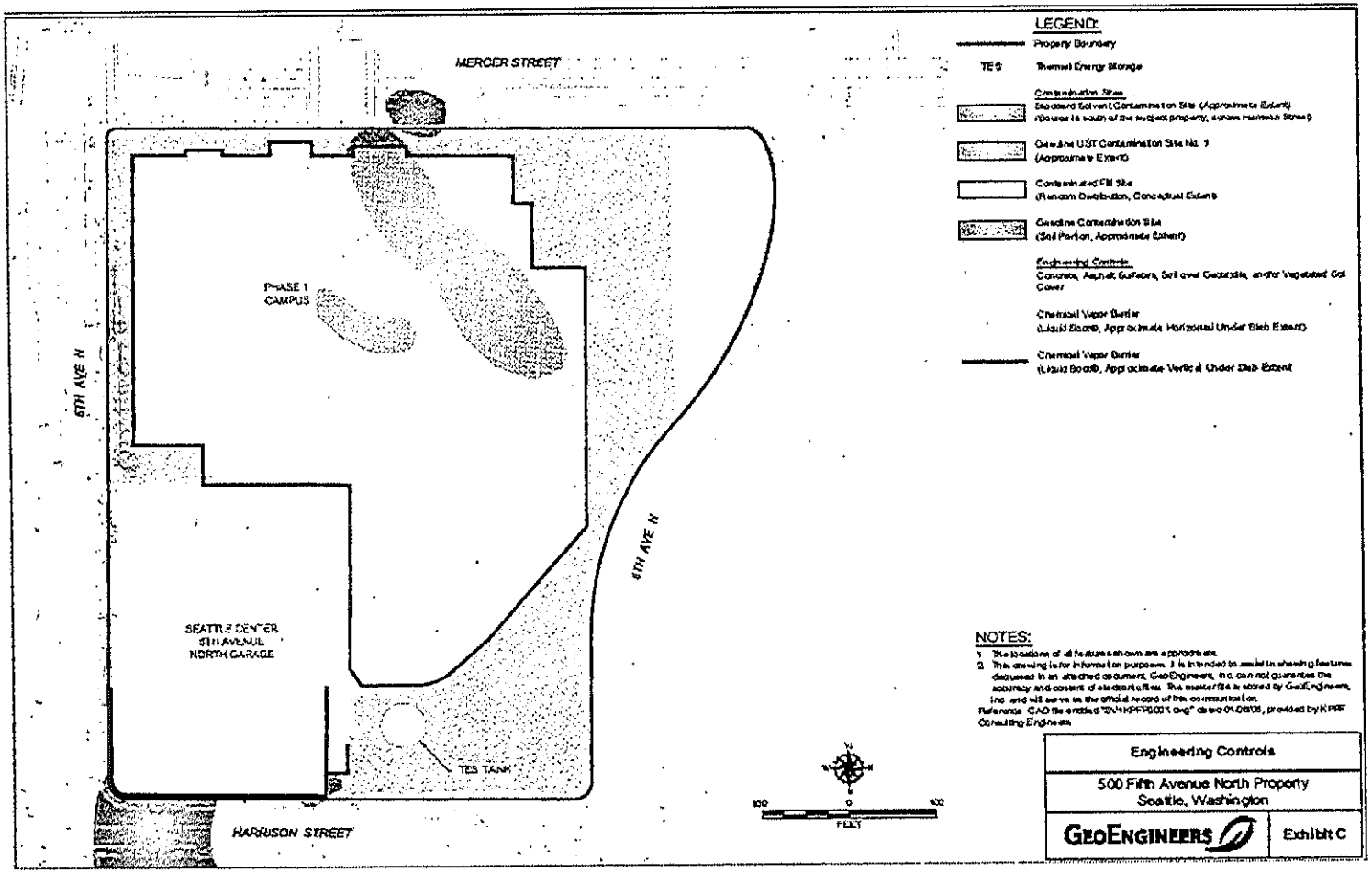
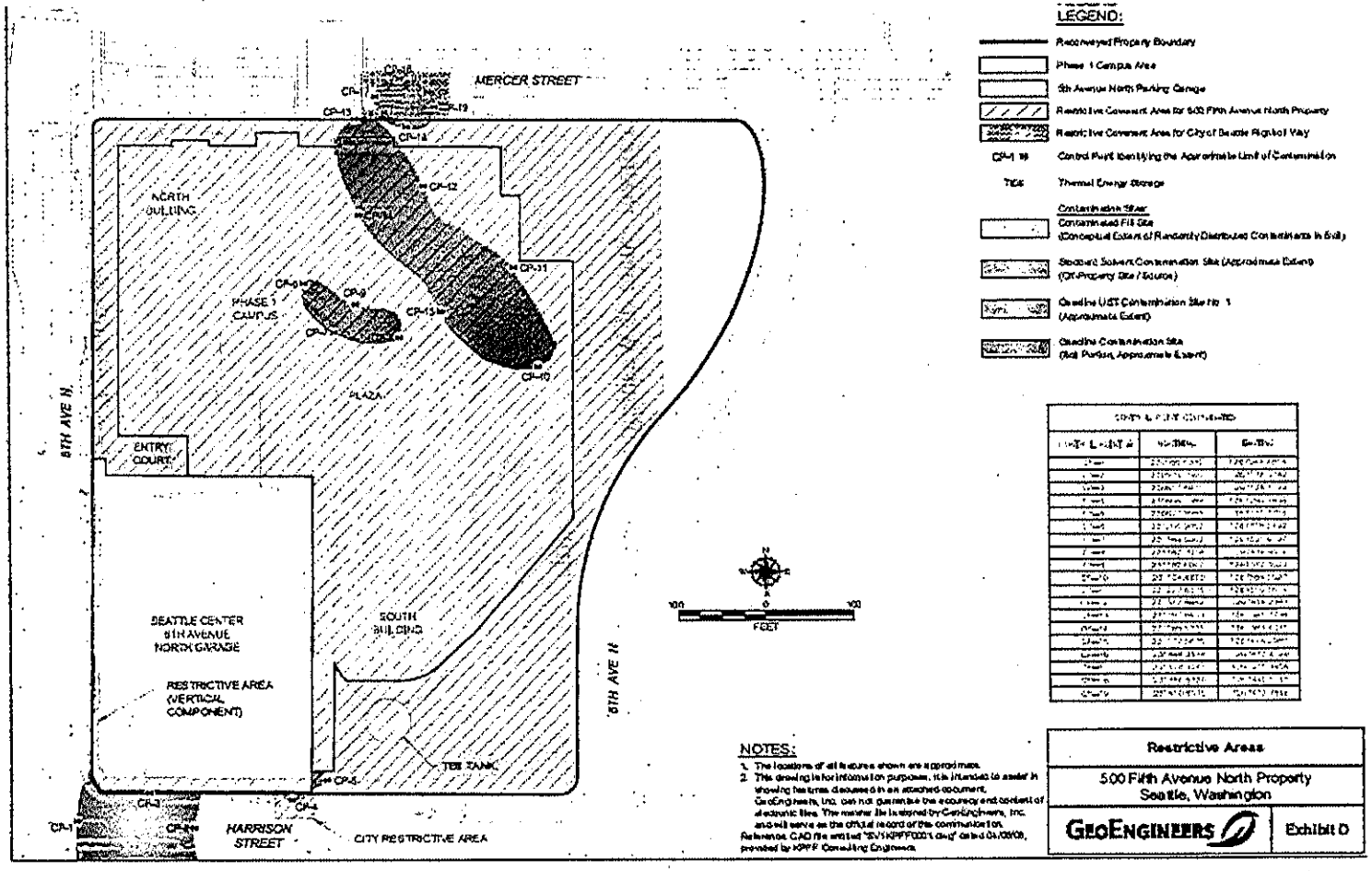

MERCER STREET
6TH AVE N
PHASE 1
CAMPUS
SEATTLE CENTER
5TH AVENUE
NORTH GARAGE
TES TANK
HARRISON STREET
6TH AVE N
LEGEND:
Property Boundary
TES
Thermal Energy Storage
Contamination Sites
Standard Solvent Contamination Site (Approximate Extent)
(Source is south of the subject property, across Harrison Street)
Gasoline UST Contamination Site No. 1
(Approximate Extent)
Contaminated Fill Site
(Random Distribution, Conceptual Extent)
Gasoline Contamination Site
(Soil Portion, Approximate Extent)
Engineering Controls
Concrete, Asphalt Surfaces, Soil over Geotextile, and/or Vegetated Soil Cover
Chemical Vapor Barrier
(Liquid Boots, Approximate Horizontal Under Slab Extent)
Chemical Vapor Barrier
(Liquid Boots, Approximate Vertical Under Slab Extent)
N
100
0
100
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 "SN1KPP1001.dwg" dated 01.08.08, provided by KPFF Consulting Engineers.
Engineering Controls
500 Fifth Avenue North Property
Seattle, Washington
GeoEngineers
Exhibit C

Exhibit D

RESTRICTIVE AREAS



LEGEND:

- Reconveyed Property Boundary
- Phase 1 Campus Area
- 5th Avenue North Parking Garage
- Restrictive Covenant Area for 5.00 Fifth Avenue North Property
- Restrictive Covenant Area for City of Seattle Right-of-Way
- CP-1 to 20 — Control Point Identifying the Approximate Limit of Contamination
- TES — Thermal Energy Storage

Contamination Sites:

- Contaminated Fill Site (Conceptual Extent of Randomly Distributed Contaminants in Soil)
- Stockpiled Solvent Contamination Site (Approximate Extent) (Off-Property Site / Source)
- Gasoline UST Contamination Site No. 1 (Approximate Extent)
- Gasoline Contamination Site (Soil Portion, Approximate Extent)

CP-1 to CP-20 COORDINATES		
POINT #	NORTHING	EASTING
CP-1	232,[illegible]	1,[illegible]
CP-2	232,[illegible]	1,[illegible]
CP-3	232,[illegible]	1,[illegible]
CP-4	232,[illegible]	1,[illegible]
CP-5	232,[illegible]	1,[illegible]
CP-6	232,[illegible]	1,[illegible]
CP-7	232,[illegible]	1,[illegible]
CP-8	232,[illegible]	1,[illegible]
CP-9	232,[illegible]	1,[illegible]
CP-10	232,[illegible]	1,[illegible]
CP-11	232,[illegible]	1,[illegible]
CP-12	232,[illegible]	1,[illegible]
CP-13	232,[illegible]	1,[illegible]
CP-14	232,[illegible]	1,[illegible]
CP-15	232,[illegible]	1,[illegible]
CP-16	232,[illegible]	1,[illegible]
CP-17	232,[illegible]	1,[illegible]
CP-18	232,[illegible]	1,[illegible]
CP-19	232,[illegible]	1,[illegible]
CP-20	232,[illegible]	1,[illegible]

NOTES:

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

Reference: CAD file entitled "5TH HPFT001.dwg" dated 01/09/08, provided by HPFF Consulting Engineers.

Restrictive Areas

5.00 Fifth Avenue North Property
Seattle, Washington

GeoEngineers | Exhibit D

After Recording Return
Original Signed Covenant to:

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

Environmental Covenant
(5/25/2017 DRAFT)

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
- 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	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.

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.

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)

[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.

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 Mark Mazzola Environmental Manager Seattle Department of Transportation PO Box 94709 Seattle, WA 98124-4709 206-733-9117 Email: mark.mazzola@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 _____ day of _____, 20___.

City of Seattle

_____

TITLE:

GRANTOR INDIVIDUAL ACKNOWLEDGMENT

STATE OF

COUNTY OF

On this _____ day of _____, 20__, I certify that _____ 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.

_____

Notary Public in and for the State of Washington, residing at _____.

My appointment expires_____.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Rogowski
Section Manager, Toxics Cleanup Program

Dated:

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

On this _____ day of _____, 201__, 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 _____.
My appointment expires_____.

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

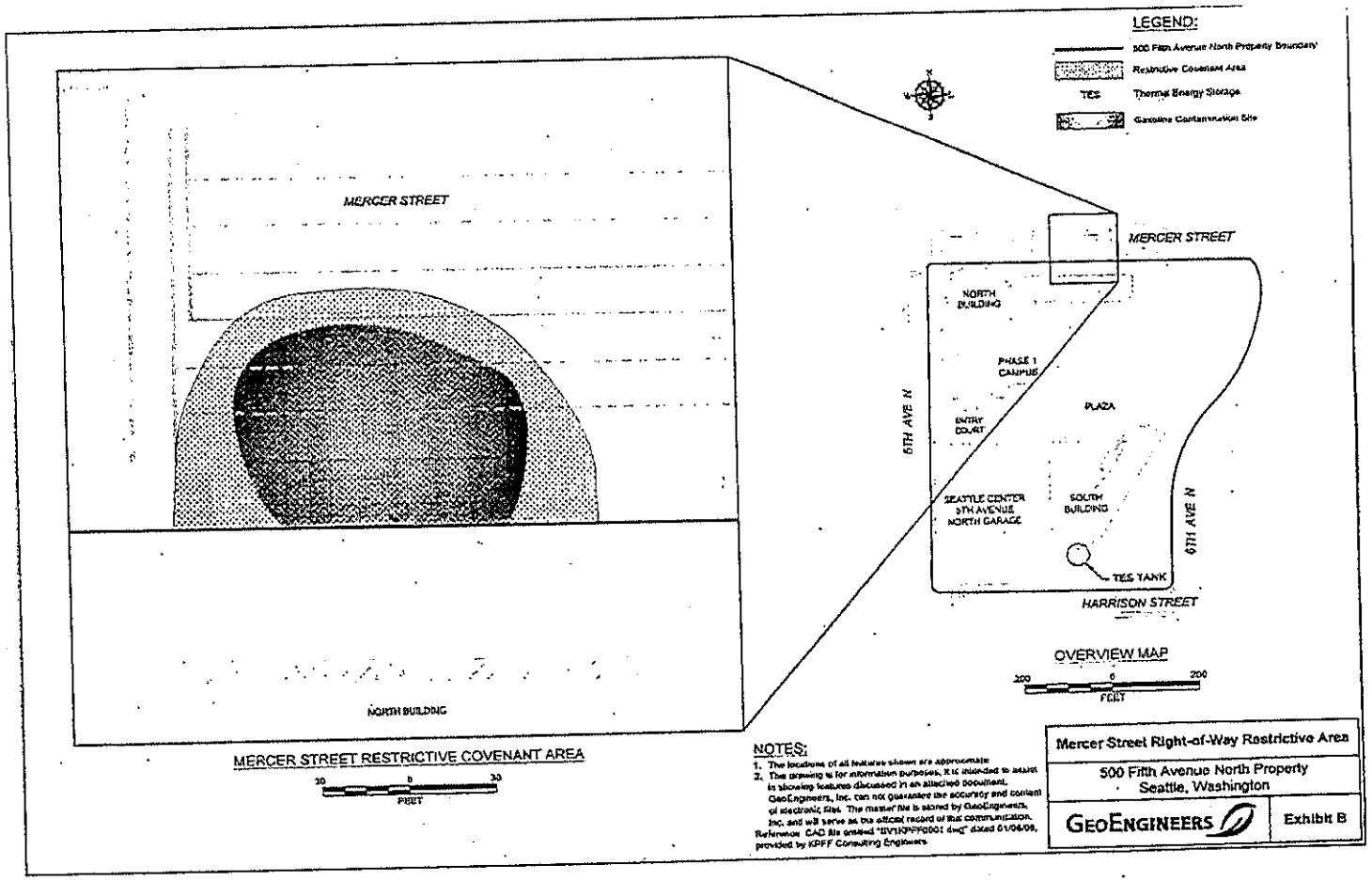

LEGEND:
500 Fifth Avenue North Property Boundary
Restrictive Covenant Area
TES
Thermal Energy Storage
Gasoline Contamination Site
MERCER STREET
NORTH BUILDING
MERCER STREET
NORTH BUILDING
PHASE 1 CAMPUS
PLAZA
ENTRY COURT
6TH AVE N
SEATTLE CENTER 5TH AVENUE NORTH GARAGE
SOUTH BUILDING
TES TANK
6TH AVE N
HARRISON STREET
OVERVIEW MAP
200 0 200
FEET
MERCER STREET RESTRICTIVE COVENANT AREA
30 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 01/04/09, provided by KPFF Consulting Engineers
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 _____, the owner and holder of that certain _____ (Instrument) bearing the date the _____ day of _____, 20____, executed by _____, _____, and recorded in the office of the County Auditor of _____ County, State of Washington, on the _____, 20____, under Auditor's File Number _____, 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 _____, 20____, executed by _____, and recorded in _____ County, Washington under Auditor's File Number _____.

Dated _____, 20___.

NAME

_____

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20____, I certify that _____ 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.

_____
Notary Public in and for the State of Washington, residing at _____.
My appointment expires _____.

After Recording Return
Original Signed Covenant to:

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

Environmental Covenant

(5/25/2017 DRAFT)

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.[2] 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.

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:

---

[2] 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.

j. 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 Mark Mazzola Environmental Manager Seattle Department of Transportation PO Box 94709 Seattle, WA 98124-4709 206-733-9117 Email: mark.mazzola@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 _____ day of _____, 20___.

City of Seattle

_____

Title:

Dated:

GRANTOR CORPORATE ACKNOWLEDGMENT

STATE OF

COUNTY OF

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the _____ of the City of Seattle that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said City of Seattle, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said City of Seattle.

_____

Notary Public in and for the State of Washington, residing at _____.

My appointment expires_____.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Barry Rogowski
Section Manager, Toxics Cleanup Program

Dated:

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

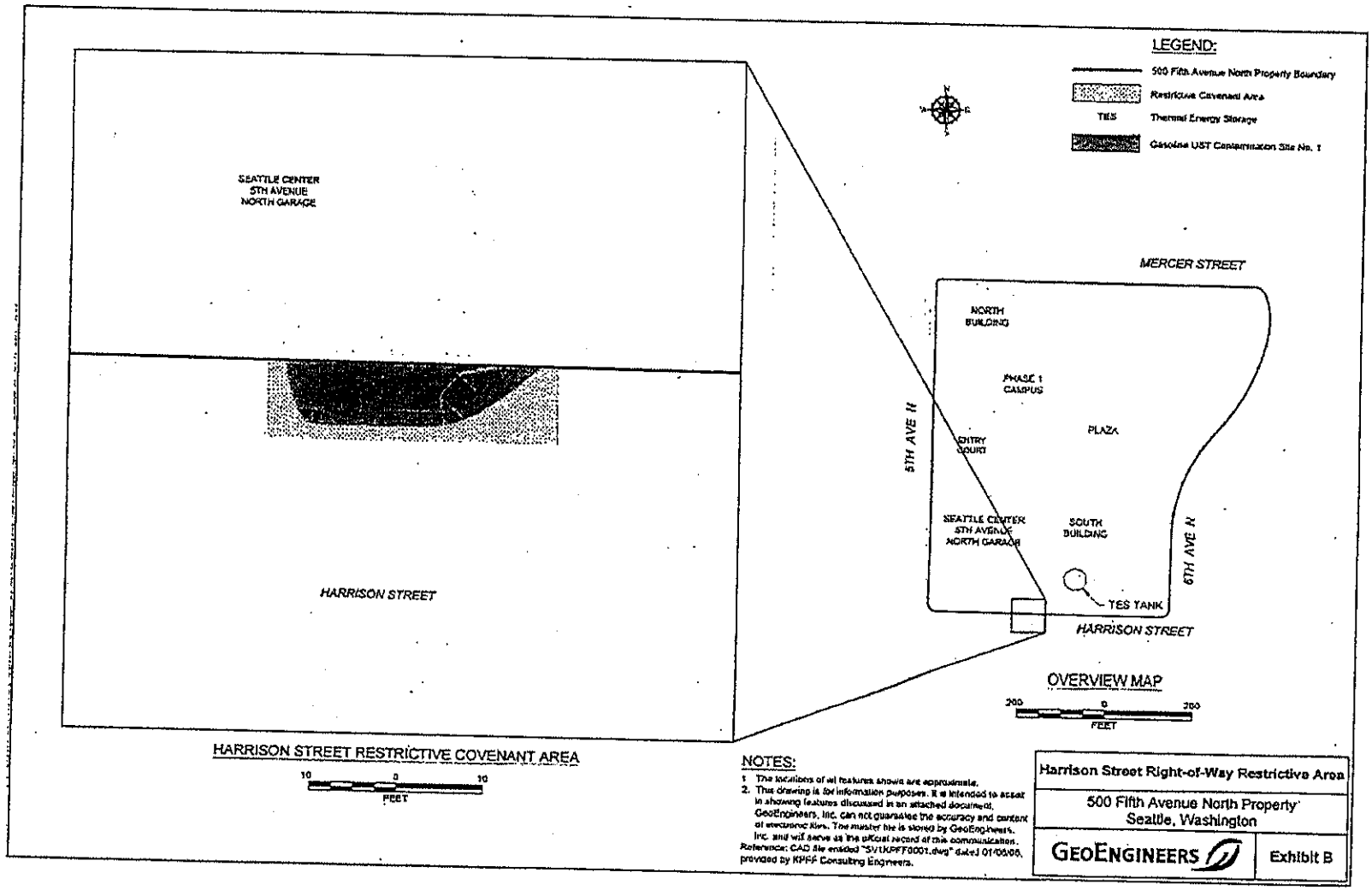
On this _____ day of _____, 201__, I certify that Barry Ragowski personally appeared before me, acknowledged that he is the Section Manager, Toxics Cleanup Program, of the Washington Department of Ecology, the public agency that executed the within and foregoing instrument, and signed said instrument 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 _____.
My appointment expires_____.

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).



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 "SVTKPFF0001.dwg" dated 01/05/06, provided by KPFF Consulting Engineers.

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 _____, the owner and holder of that certain _____ (Instrument) bearing the date the _____ day of _____, 20____, executed by _____, _____, and recorded in the office of the County Auditor of _____ County, State of Washington, on the _____, 20____, under Auditor's File Number _____, 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 _____, 20____, executed by _____, and recorded in _____ County, Washington under Auditor's File Number _____.

Dated _____, 20___.

NAME

_____

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20____, I certify that _____ 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.

_____
Notary Public in and for the State of Washington, residing at _____,
My appointment expires _____.

Enclosure D

Operation and Maintenance Plan for Engineered Controls

See the Draft Post-Construction Environmental Management Plan – 500 Fifth Avenue North – Seattle, Washington by GeoEngineers and dated November 7, 2016

Enclosure E

Confirmational 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	Base Period	Analytes	Proposed Event
Baseline Monitoring (Component 1)	MW-11, MW-16, MW-17, MW-19, MW-20, MW-21, MW-24, MW-25, MW-26, MW-27, and MW-28	Quarterly	February 2016 to February 2018	DRO-Ca (EPH and VPH)	MTCA cleanup standard compliance or compliance with an alternative plan; statistical performance with Removal of Contaminants Component 1 monitoring objectives met.
Baseline Monitoring (Component 2)	MW-21, MW-26, MW-27, MW-28, and MW-29	Biannual	February 2016 to February 2018	DRO-Ca (EPH)	Contaminant cleanup standard compliance or compliance with an alternative cleanup plan; statistical performance with Component 1 monitoring objectives met. Groundwater monitoring network modification to Component 2 monitoring objectives.
Performance Monitoring	MW-21 and MW-28	5 Years	February 2023	DRO-Ca (EPH)	Contaminant cleanup standard compliance or compliance with an alternative cleanup plan; statistical performance with following Component 1 of the baseline monitoring period.
Closure Monitoring	MW-11, MW-16, MW-17, MW-19, MW-20, MW-21, MW-24, MW-25, MW-26, MW-27, and MW-28	Quarterly	February 2028 to February 2029	DRO-Ca (EPH)	Compliance with water quality standards based performance and compliance with following the Performance Monitoring program. Request termination of groundwater monitoring program. Closure Monitoring objectives met.

Notes:

• = Four times a year as a result of high groundwater elevations during wet months (December through March).

MTCA = Washington State Model Toxics Control Act regulations, Washington Administrative Code (WAC) 173-340, dated October 12, 2007, and as amended.

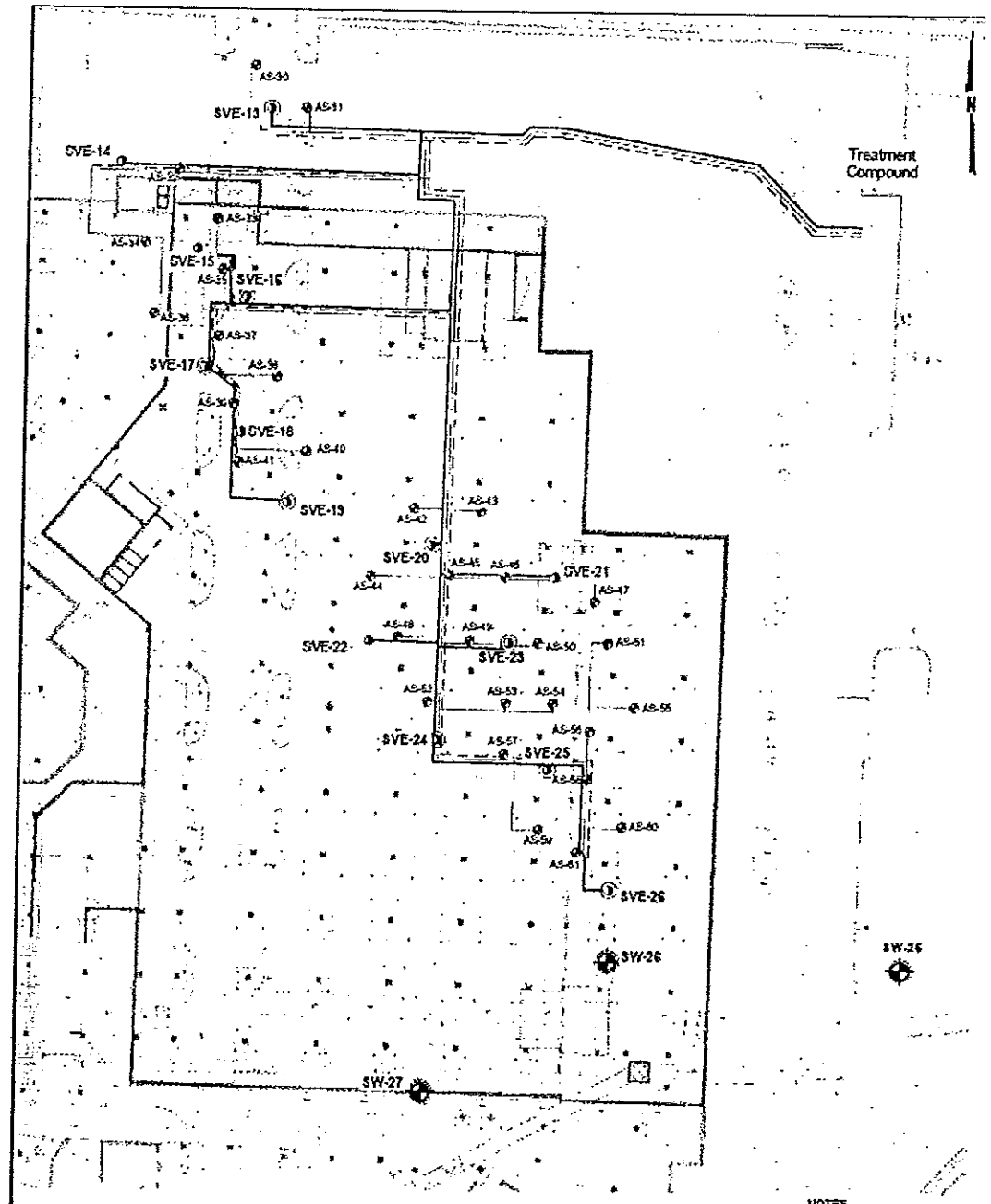
Statistical evaluation (potential) in accordance with MTCA.

MTCA = Model Toxics Control Act

DRO-Ca (EPH) = diesel range organics (carbon range with hexane extraction, silica gel cleanup, and analysis by gas chromatography with flame ionization detection)

ft bgs = feet below ground surface

VPH = volatile petroleum hydrocarbons



NOTES

1. Well locations and piping are adapted from as-built drawing provided by Selen Construction, received 6-18-2011.
2. Figure adapted from electronic files provided by Aspect Consulting and KPFF, dated March 2009 and March 2011.
3. Well AS-30 was decommissioned in May 201

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

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

SITE PLAN

June 2017 21-1-12176-005

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 21-1-02176-046
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.

1/2017

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