STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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July 14, 2014

Mr. David S. Schooler
Sterling Realty Organization Co.
600 106th Avenue NE, Suite 200
Bellevue, WA 98004

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

- **Name:** Bellevue Corner Property Unocal 4511
- **Address:** 10605 NE 8th Street, Bellevue, WA 98004
- **Facility/Site No.:** 5569973
- **VCP No.:** NW2817
- **Cleanup Site ID No.:** 7649

Dear Mr. Schooler:

Thank you for submitting documents regarding your proposed remedial action for the **Bellevue Corner Property Unocal 4511** facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site:

- Tetrachloroethylene (PCE) and related degradation products, methylene chloride, chloroform, chloromethane, gasoline-, diesel-, and oil-range petroleum hydrocarbons (TPHg, TPHd, TPHo), benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) into the Soil.

- PCE and related degradation products and naphthalene into the Ground Water.

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial action(s):

1. Sweet-Edwards/EMCON, Inc, *Preliminary Environmental Site Assessment (PESA), Unocal Service Station 4511, Bellevue, WA,* September 5, 1990.

2. EMCON Northwest, Inc., *Underground Storage Tank Closure Assessment, UNOCAL Corporation Service Station 4511, 106th Avenue and NE 8th Street, Bellevue, WA,* May 21, 1992.

3. Terra Associates, Inc., *Limited Phase II Environmental Site Assessment, SRO Site, SEC NE 8th Street and 106th Avenue NE, Bellevue, WA, (Ecology's file copy is missing laboratory data report attachment),* July 17, 2008.

4. URS, *Report, Limited Phase II Site Investigation, SRO Bellevue Corner Property, NE 8th and 106th Avenue, Bellevue, WA (Ecology's file copy is missing Appendices C and D),* October 10, 2008.

5. SoundEarth Strategies, Inc., *Remedial Investigation and Focused Feasibility Study Report, Former Thinker Toys Property, 10610 Northeast 8th Street, Bellevue, WA (only portions of Appendix B and Appendix D reviewed),* April 8, 2011.

6. GeoEngineers, *Remedial Investigation and Feasibility Study (RI/FS), Sterling Realty Organization, Bellevue Corner Property, 10605 and 10619 NE 8th Street, Bellevue, WA,* December 30, 2013.

7. GeoEngineers, *Revised DRAFT Remedial Investigation and Feasibility Study, Sterling Realty Organization, Bellevue Corner Property, 10605 and 10619 NE 8th Street, Bellevue, WA,* June 10, 2014.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Appointments can be made by calling the NWRO resource contact at (425) 649-7235 or sending an email to nwro_public_request@ecy.wa.gov.

The Site is defined by the extent of contamination caused by the following releases:

- PCE and related degradation products, methylene chloride, chloroform, chloromethane, TPHg, TPHd, TPHo, BTEX, and MTBE into the Soil.

- PCE and related degradation products and napthalene into the Ground Water.

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following releases at the Site, Ecology has determined:**

- This letter supercedes Ecology's opinion letter dated April 11, 2014, regarding the previously submitted draft RI/FS. Another opinion letter will be issued on the Draft Cleanup Action Plan (CAP) which outlines the proposed cleanup effort in more detail. Ecology recognizes that the proposed re-development will result in the removal of a significant quantity of contaminated soil and ground water, and we expect that this effort and related compliance monitoring will eventually result in a determination of No Further Action (NFA) for the Property.

- Based on the detections of TPHo in near surface soils and TPHg in soils from 1.8 to 9 feet below the ground surface (bgs) at concentrations greater than MTCA Method A cleanup levels, the previous NFA determination for the Site dated July 2, 1992, is no longer valid. All data related to previous investigations and remediation conducted for former Unocal 4511 should be presented in the Final RI/FS text, tables and figures. A future Property-specific NFA would address contamination associated with the Former Unocal 4511 Site that was contained within the Property boundary.

- The extent of petroleum-contaminated soil (PCS) appears to be limited to within the boundaries of the proposed construction excavation. Ecology understands that additional characterization of the nature and extent of soil contamination related to two former service stations at the Property will be conducted during construction excavation activities. In addition, it appears that all impacted soil related to the former use of the Property as a service station will be removed during construction activities.

- The proposed cleanup levels for the Property are Method A cleanup levels, except where Method A levels are not available. In this case, Method B cleanup levels protective of potable ground water are proposed. Ecology concurs with the cleanup levels presented in the June 2014 RI/FS.

- PCE has been detected at concentrations greater than the proposed cleanup levels in soil samples collected at URS-MW-4 and at URS-SB-13, including at depths as shallow as 12.5 feet bgs. The contamination at this location appears to be separate from the PCE contamination from the Thinker Toys and former Unocal 4511 Sites. The potential source and the extent of PCE in soil and ground water in the vicinity of these borings require additional investigation. Ecology understands that some of this characterization will occur during construction activities.

- Several constituents have been detected at the Property including naphthalenes in ground water and methylene chloride, chloroform, chloromethane, MTBE in one or more soil samples. All contaminant detections should be presented on Final RI/FS tables and discussed in the text. Estimated contaminant concentrations below the laboratory practical quantitation limit cannot be dismissed as non-detections. It may be easiest to present these low level detections in a separate table. Ecology concurs that naphthalene, chloromethane, chloroform, and methylene chloride can be removed as COCs for the Property. However, common degradation daughter products of PCE including all 1,2-dichloroethylene (DCE) isomers and vinyl chloride as well as dichloroethane (DCA), MTBE and BTEX will need to be retained as COCs for the Property. In addition, all the COCs for the Property have to be discussed through Section 4 and the remainder of the document, not just PCE.

- Excavation is an appropriate remedial technology for soil at the Property. A sufficient number of final limit of excavation sidewall and base of excavation samples below cleanup levels will need to be collected and analyzed for the appropriate parameters to demonstrate that all impacted soil is removed.

  The RI/FS indicates that there may be locations where soil samples containing concentrations of COCs at concentrations greater than cleanup levels will remain below the proposed total depth of excavation. In this case, the remaining impacted soil areas should be thoroughly characterized. Residual impacted soils beneath the final limits of excavation will need to be treated or removed or shown to no longer be present at concentrations greater than Site cleanup levels at some later date. Alternately, a Restrictive Covenant for the remaining impacted soil could be requested with a Property-specific NFA. Final limit of excavation soil samples should be analyzed for TPHg, TPHd, TPHo, and VOCs. Removed soil will have to be disposed of in accordance with local, state, and federal regulations.

  After the excavation is complete, residual contaminated soil vapor may exist within the Property boundaries due to residual VOCs in soil and ground water surrounding the Property. The new building floor and walls are to be designed to act as a barrier to vapor intrusion. Confirmation soil, ground water, soil vapor, and air sampling will be needed during and following the remediation in accordance with MTCA requirements for

demonstrating that cleanup levels have been met at the points of compliance. The details for the sampling will be set forth in a Compliance Monitoring Plan to be submitted to Ecology for review before the start of the remedial action.

- Shallow ground water sampling has not been conducted immediately downgradient of the residual PCS at the Property to determine if ground water is impacted. However, limited ground water samples collected within the Property down gradient but distant from the residual PCS have not contained BTEX and TPHg concentrations greater than laboratory reporting limits. Removal of the source and ground water during construction activities will be considered a source removal action for ground water at the Property.

- For PCE-impacted perched ground water, excavation will be considered a removal action for the Property, and will likely result in lowered concentrations of COCs in ground water. This assumes that the proposed wall drains will prevent movement of upgradient contaminated perched zone ground water from entering the Property in either water-bearing zone. Provisions will have to be made during Property re-development to ensure that ground water monitoring of the deep zone beneath and the perched zone adjacent to the Property can continue to be conducted after Property re-development, particularly within the Property boundaries. This should include installation of monitoring wells beneath and adjacent to the new building, and preparation of a confirmation ground water monitoring plan for Ecology review. A minimum of four quarters of ground water post-remediation ground water monitoring for TPHg, TPHd, TPHo, and VOCs with concentrations less than proposed cleanup levels is required to support an eventual NFA finding for the Property. Because the wall drains are an engineering control to prevent ground water migration, an NFA for the Property would require ongoing ground water monitoring as part of a Restrictive Covenant.

- The point of compliance for ground water at the Property is throughout all water bearing zones within the Property boundary. Because impacted ground water is present at the Property, the point of compliance for soil is throughout the Property to all depths.

- Boring logs for SRO-1 through SRO-21, MW-19, and MW-20 need to be included with the remaining boring logs for the Property with the Final RI/FS.

- Any future samples collected at the Property should be analyzed according to Table 830-1 of the MTCA regulation and Table 7.2, page 95, in the ***Guidance for the Remediation of Petroleum Contaminated Sites***, Ecology Publication No. 10-09-057, September 2011. The additional parameters listed on Table 830-1 of the MTCA regulation should be analyzed in the samples with the greatest TPH concentrations.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site

or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me at (425) 649-7257 or at masa461@ecy.wa.gov.

Sincerely,

Louise Bordy for Maureen Sanchez

Maureen Sanchez
Site Manager
Toxics Cleanup Program

Enclosures: A: Description and Diagrams of the Site

cc: James G. Roth, GeoEngineers
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

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

Site: The Site is defined as PCE and related degradation products, methylene chloride, chloroform, chloromethane, TPHg, TPHd, TPHo, BTEX, and MTBE in soil, and PCE and related degradation products and naphthalene to ground water. The Site is located on King County tax parcels 1544100221 and 1544100216 at 10605 and 10619 NE 8th Street in Bellevue, WA (Property).

Area and Property Description: The Property is located east of 106th Avenue East and south of NE 8th Street, see **Figure 1.** The Property is in the Bellevue central business district, surrounded by numerous commercial and multi-story condominium developments.

Site History and Current Use: Parcel 1544100221 (10605 NE 8th Street) was reportedly undeveloped until 1958 when a retail gasoline station was constructed on the Property by the Union Oil Company of California (Unocal). The gas station consisted of separate shop and station buildings, three gasoline underground storage tanks (USTs), a waste oil UST and an oil UST. In 1969, the gas station was re-developed by Unocal as a Union 76 station. The Union 76 station included two 10,000-gallon gasoline USTs, a heating oil UST, a waste oil UST, three hydraulic hoists, an oil-water separator, and a dry well (**Figure 2**). The disposition of the original (1958) USTs is not known. Parcel 1544100221 continued to be used as a service station until 1991 when the station building was demolished and the facilities removed. Approximately 2,000 cubic yards of petroleum-impacted soil were removed from the Property during the closure of the service station. An NFA finding for the Site was issued by Ecology in July 1992; however, that NFA is no longer valid due to new information. Parcel 1544100221 is vacant, paved and currently in use as a parking lot.

Parcel 1544100216 was used from approximately 1930 to 1958 as part of the Cheriton Fruit Gardens that had fruit trees, berry plants and fields in agricultural use. The 11,250-square foot masonry commercial building on Parcel 1544100216 was constructed in the early 1960s for use as office and retail space. The commercial building on Parcel 1544100216 is currently used for retail businesses.

Sources of Contamination: The sources of petroleum hydrocarbon contamination at the Site are the USTs and associated product piping and dispensers, and potentially the former service garage waste oil UST and dry well. Based on data collected at the Property and surrounding area, the apparent source of PCE detected in soil and ground water at the Property is the upgradient Thinker Toys Site located north of the Property across NE 8th Street.

Physiographic Setting: The Site is situated on top of and near the middle of the Interlake Drift Upland, a topographic highland bordered by Lake Washington on the west and the Lake Sammamish/Sammamish River valley to the east. The upland surface is molded into a series of north-south trending ridges and valleys, and near the Site slopes gently down to the southwest. Elevations at the Site range from about 150 to 160 feet above mean sea level.

Surface/Storm Water System: Surface water runoff from the Property and surrounding area is captured in the City of Bellevue's storm water drainage system. The runoff is likely directed to the southwest towards Meydenbauer Creek, the surface water body closest to the Site. This creek, and its tributaries, historically drained much of downtown Bellevue, but now that drainage is mostly underground in culverts. The creek daylights about ½-mile southwest of the Property, where it continues to the south and west before discharging into Lake Washington.

Ecological Setting: The downtown area near the Property has little ecological habitat, except for limited landscaping around commercial buildings. The land surface in the Site area is covered by paving and buildings.

Geology: The Property vicinity is mapped as being underlain by glacial till. The Property is generally underlain by approximately five to 15 feet of fill underlain by silt, sand, and gravel interpreted as glacial till to approximately 35 to 40 feet bgs. This unit contains some sandy zones, particularly at 20 to 30 feet bgs, where perched water is encountered. Below this unit is a deposit consisting of silt, sand, and gravel that has been interpreted as glacial (Advance) outwash that extends to a maximum depth of approximately 88 feet bgs. A blue-gray dense, sandy silt layer was encountered beneath the Advance outwash at depths ranging from 76 to 88 feet bgs in some borings.

Ground Water: The uppermost ground water at the Site reportedly occurs as a perched zone within sand lenses in the till. This water-bearing zone occurs between 20 and 35 feet bgs, whereas static water levels are generally 22 to 30 feet bgs. Lateral flow in the perched zone is to the south or southwest **(Figure 3).**

A lower aquifer, the deep zone, has also been identified at a depth below 75 feet (static water levels range from 74 to 93 feet bgs). The boring logs and cross-sections are not clear as to how thick the deep zone aquifer is, because the borings were terminated in the Advance outwash. Flow direction in the deep zone is to the southeast.

Release and Extent of Contamination in Soil and Ground Water:

Soil: Soil samples indicate that soil containing petroleum hydrocarbon concentrations greater than MTCA Method A cleanup levels remains at several locations at the Property. TPHo was detected in near surface soils and TPHg was detected in soils from 1.8 to 9 feet bgs (at SRO-7) at concentrations greater than Site cleanup levels. The nature and extent of the TPH releases have not been defined. PCE has been detected in soil samples collected at the Property at depths ranging from 12.5 to 65 feet bgs.

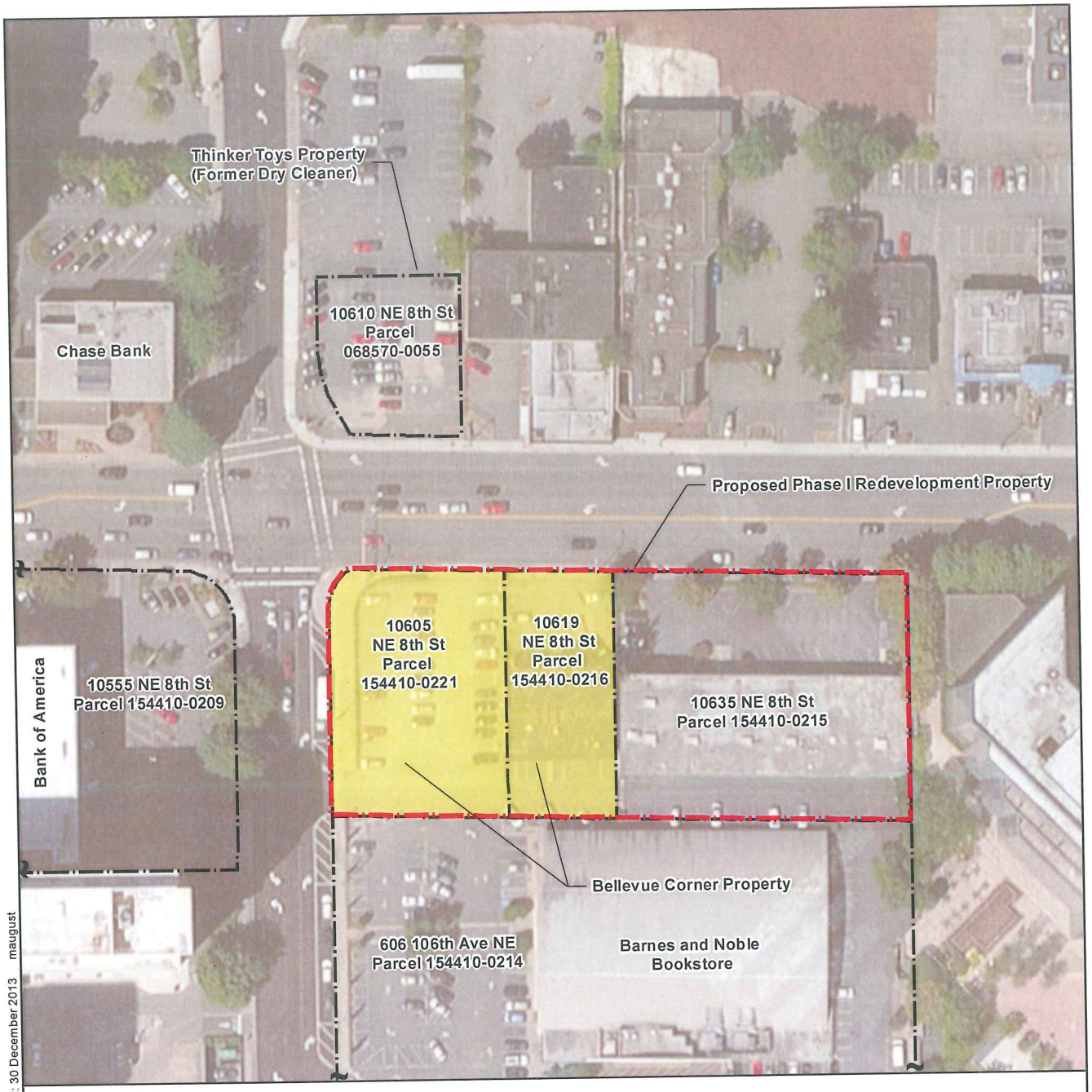
Ground Water: Ground water samples obtained from a number of monitoring wells on the Thinker Toys Site and on the Property show a broad PCE plume in the perched zone that extends onto, and likely beyond the Property. PCE concentrations close to 10,000 µg/L in two wells on the Thinker Toys property suggest the potential for product to be present and indicate the apparent upgradient source of PCE at the Property. Water quality data from the deep zone indicate that PCE is not present at concentrations greater than MTCA Method A cleanup levels

at the Property or at the Thinker Toys property.

Ground water in the perched zone has not been sampled immediately downgradient of the TPH detections in soil to determine if TPH impacts are present in ground water. However, data collected from more distant down gradient wells indicate that impacted ground water is not present in those wells.

The sampling locations at the Site with select sample results are shown on **Figures 4 and 5,** which are included in the Site Diagrams.

Site Diagrams



Legend

- Bellevue Corner Property at 10605 and 10619 NE 8th Street
- Proposed Phase I Redevelopment Property
- Parcel Boundary

N
W E
S

100 0 100
Feet

Data Source: Aerial image from Microsoft, 2011.
Parcel boundaries from King County, 2013.

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.

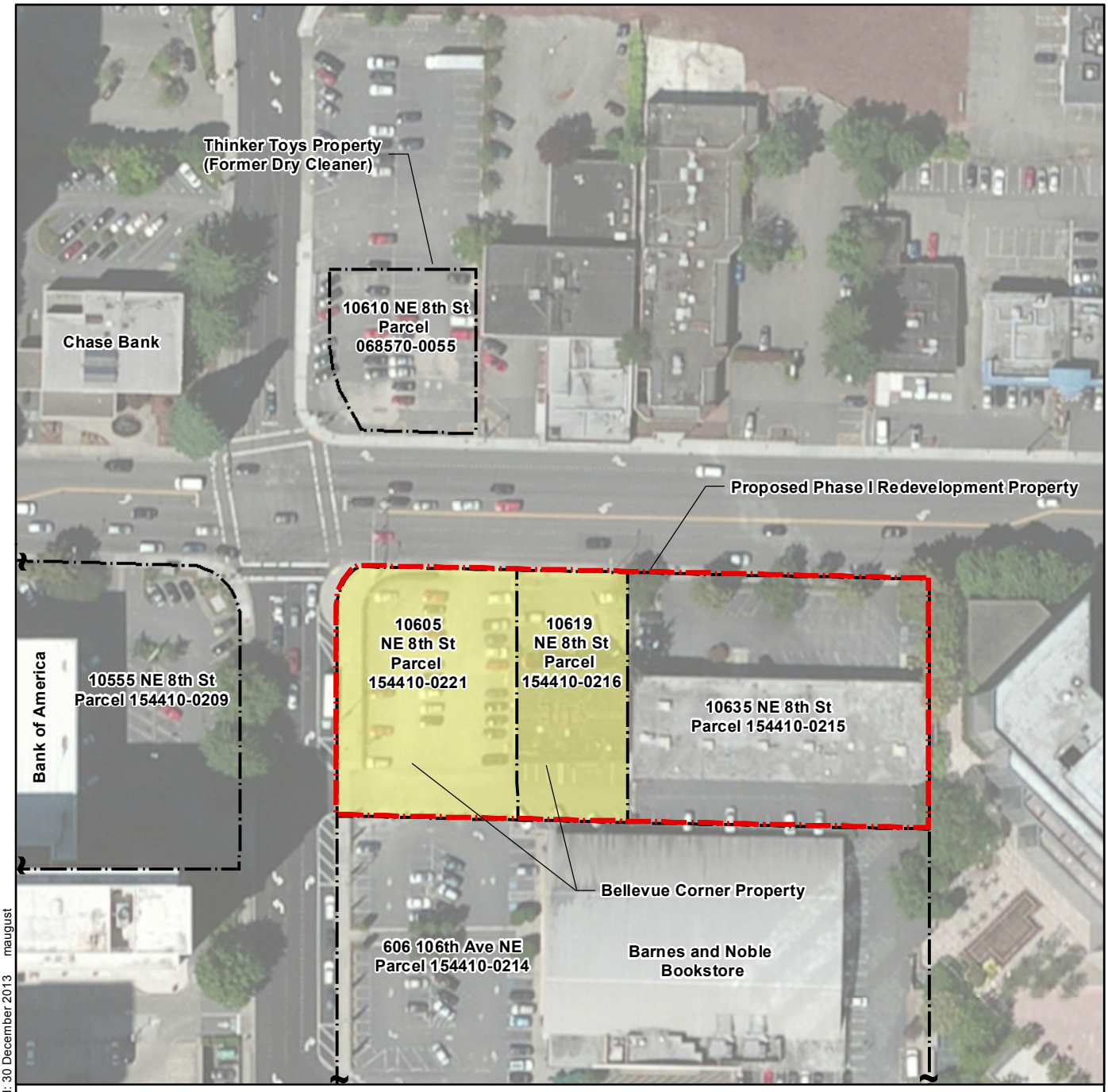
Bellevue Corner Property and Vicinity

SRO, 10605 and 10619 NE 8th Street
Bellevue, Washington

GeoEngineers | Figure 2

Path: \\sea\projects\9\9227004\GIS\9227004000_SitePlan.mxd Map Revised: 30 December 2013 maugust

Exhibit A, Figure 1



Legend

- Bellevue Corner Property at 10605 and 10619 NE 8th Street
- Proposed Phase I Redevelopment Property
- Parcel Boundary

N
W E
S

100 0 100
Feet

Data Source: Aerial image from Microsoft, 2011.
Parcel boundaries from King County, 2013.

Notes:
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Bellevue Corner Property and Vicinity

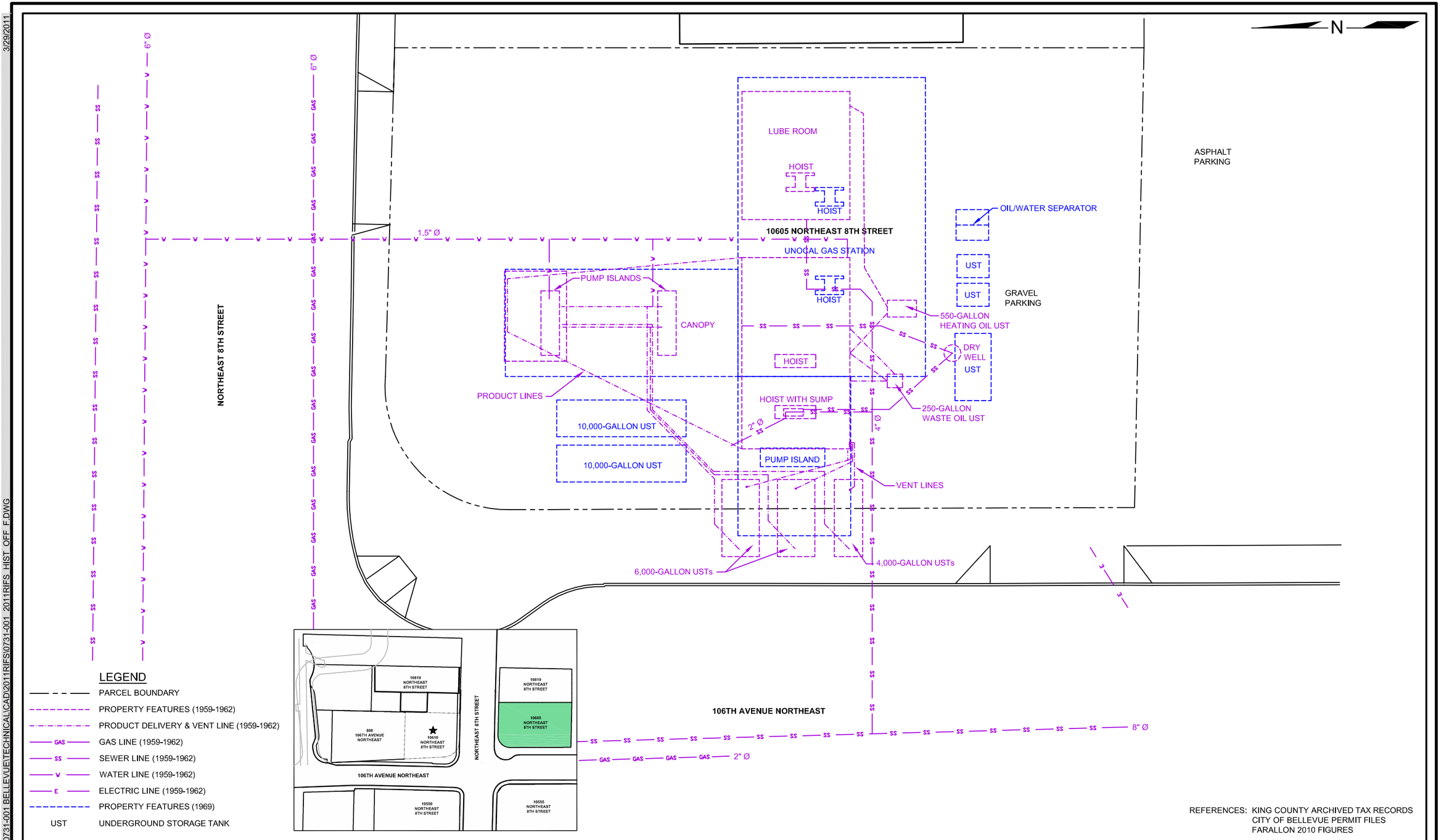
SRO, 10605 and 10619 NE 8th Street
Bellevue, Washington

GeoEngineers

Figure 2

Path: \\sea\projects\91922700400\GIS\922700400_SitePlan.mxd Map Revised: 30 December 2013 maugust

Exhibit A, Figure 1



REFERENCES: KING COUNTY ARCHIVED TAX RECORDS
CITY OF BELLEVUE PERMIT FILES
FARALLON 2010 FIGURES

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

DATE: 03/29/11
DRAWN BY: NAC
CHECKED BY: EKR
CAD FILE: 0731-001_2011RIFS_HIST_OFF

PROJECT NAME: FORMER THINKER TOYS
PROJECT NUMBER: 0731-001-02
STREET ADDRESS: 10610 NORTHEAST 8TH STREET
CITY, STATE: BELLEVUE, WASHINGTON

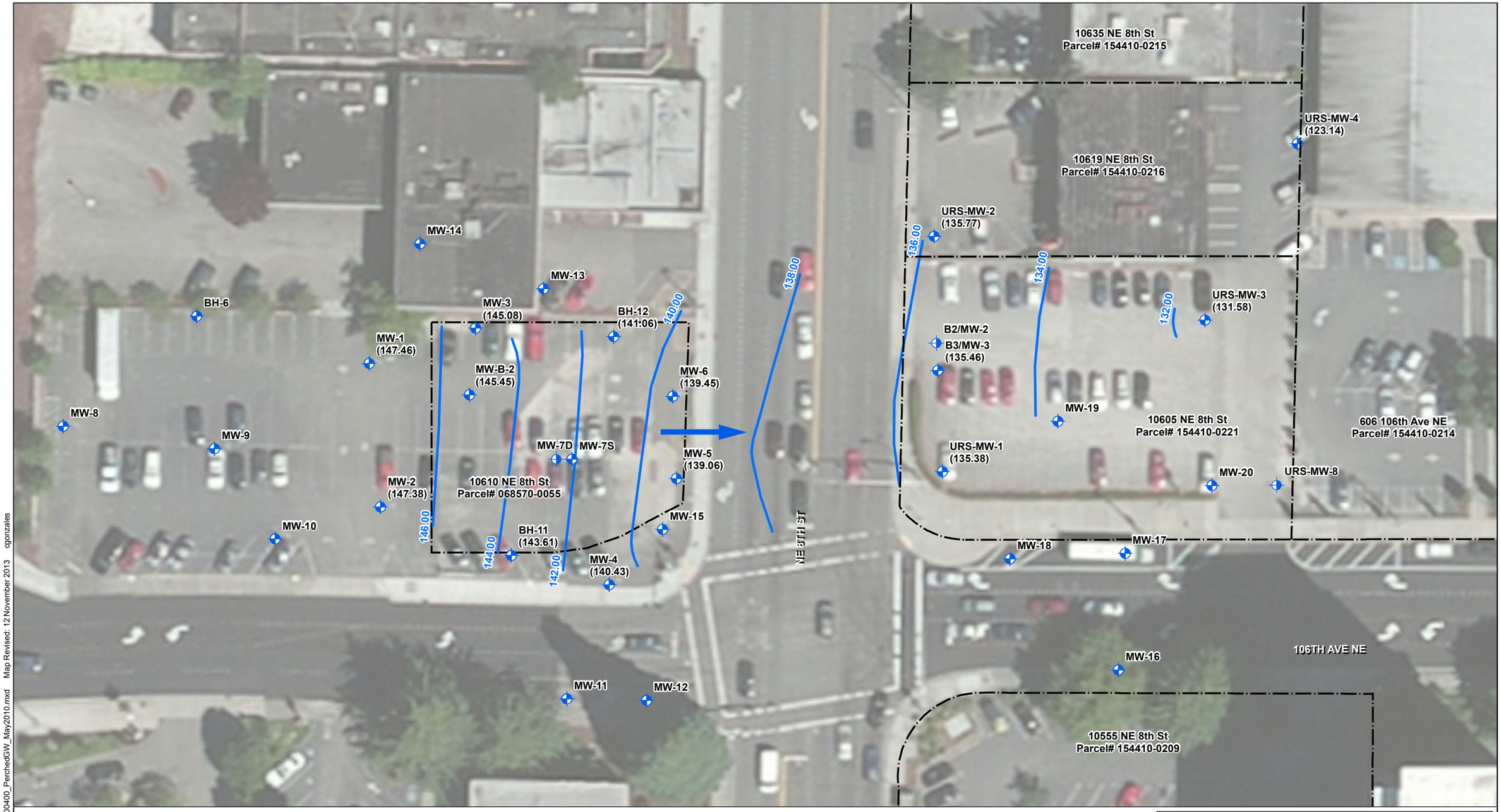
REGION:

0 10 20 40
APPROXIMATE SCALE IN FEET

FIGURE 6
HISTORICAL SOUTH-ADJOINING PROPERTY FEATURES

3/29/2011
P:\0731 TOUCHSTONE\0731-001 BELLEVUE\TECHNICAL\CAD\2011RIFS\0731-001 2011RIFS HIST OFF F.DWG
SOUNDEARTHINC.COM

Exhibit A, Figure 2



Data Source: Aerial image from Microsoft, 2011.
Wells and Groundwater contour digitized from Sound Earth Strategies, 2011.

Notes:
1. May 3, 2010 groundwater elevation data for shallow wells on the SRO Property are shown in Table 1. Groundwater elevation data for the Thinker Toys property wells is not tabulated.
2. The locations of all features shown are approximate.
3. 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.

Legend

- Monitoring Well
- Deep Monitoring Well
- 2-Foot Interval Contour Line
- Estimated Perched Groundwater Flow Direction (May 3, 2010)
- Approximate Parcel Boundary

N W E S

40 0 40
Feet

Perched Interval Groundwater Contour Map (May 3, 2010)

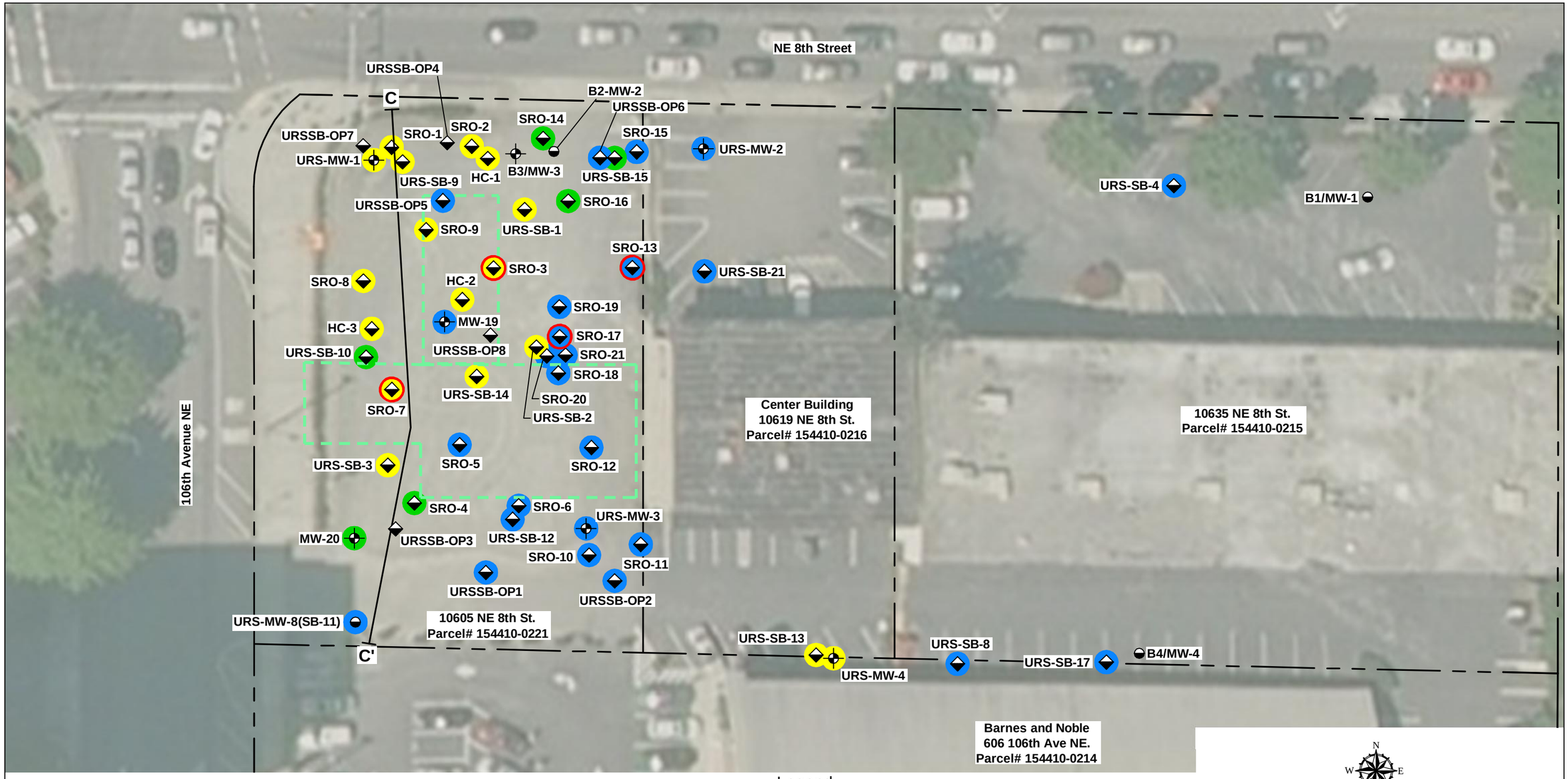
SRO, 10605 and 10619 NE 8th Street
Bellevue, Washington

GeoEngineers

Figure 5

Path: \\seal\projects\9\92270041\GIS\922700400_PerchedGW_May2010.mxd Map Revised: 12 November 2013 cgonzales

Exhibit A, Figure 3



Legend

- Monitoring Well Location
- Deep Monitoring Well Location
- Soil Boring Location
- Approximate Parcel Boundaries
- **HC** Hart Crowser Soil Boring
- **URS** URS Soil Boring/Well
- **SRO** Farallon Soil Boring
- **B1/MW-1** Terra Associates Boring/Well
- Former Gas Station
- **C** — **C'** Cross-Section

Highest PCE Concentration in Soil:

- Not detected above laboratory reporting limit
- Detected at or below MTCA Method A Cleanup Level (0.05 mg/kg)
- Detected above MTCA Method A Cleanup Level (0.05 mg/kg) and at or below 2.3 mg/kg
- Gasoline or diesel-/oil-range petroleum detected above MTCA Method A Cleanup level in shallow soil (<_9' bgs)

No Color = Chemical analysis not performed

N W E S

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. 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: Background image obtained from Bing Images, 2012.

PCE Detections in Soil

SRO, 10605 and 10619 NE 8th Street
Bellevue, Washington

GeoEngineers | Figure 7

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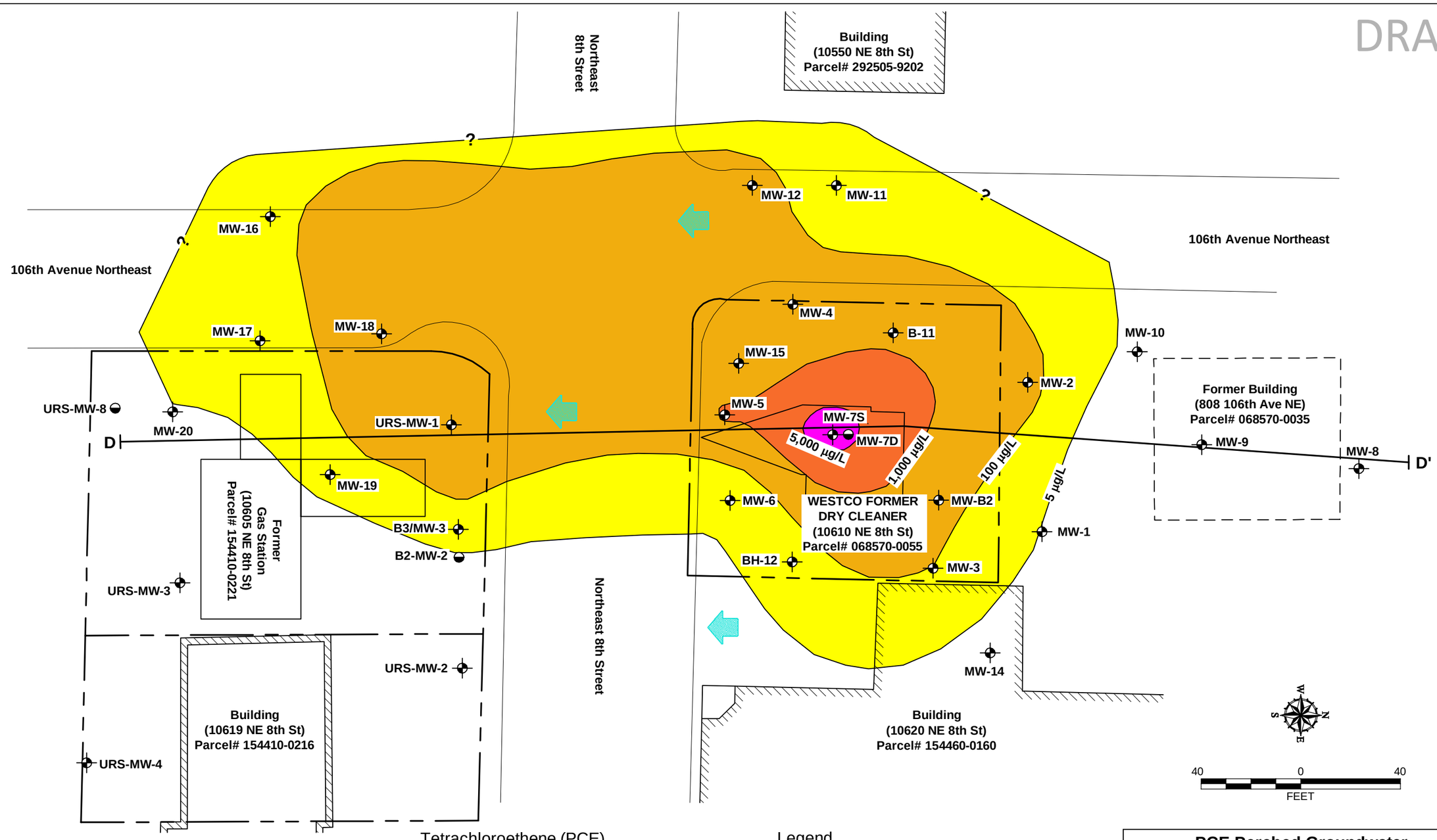
Exhibit A, Figure 4

DRAFT



Notes

1. PCE groundwater data for SRO Property Wells is shown in Table 3.
2. The locations of all features shown are approximate.
3. 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: Background image provided by URS, dated 2011. Modified by GeoEngineers.

Tetrachloroethene (PCE) Concentrations

- 5 to 100 µg/L
  - MTCA Method A Cleanup Level = 5 µg/L
- 100 to 1,000 µg/L
- 1,000 to 5,000 µg/L
- > 5,000 µg/L

Legend

- Monitoring Well Location
- Deep Monitoring Well Location
- Approximate Parcel Boundaries
- 100 — Approximate PCE Iso-Concentration Contours (µg/L) for August 2010
- Approximate Goundwater Flow Direction in Perched Interval

PCE Perched Groundwater Contamination Map (August 2010)

SRO, 10605 and 10619 NE 8th Street
Bellevue, Washington

GeoEngineers | Figure 9

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Exhibit A, Figure 5