



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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May 18, 2015

Mr. Trent Mummery
1420 East Madison, LLC
1510 14th Avenue, Suite B
Seattle, WA 98122

Re: Opinion on Proposed Cleanup of the Following Site:

- **Site Name:** Taco Time NW Restaurant
- **Site Address:** 1420 East Madison Street, Seattle, WA
- **Facility/Site No.:** 5460498
- **VCP Project No.:** NW2954
- **Cleanup Site ID No.:** 811

Dear Mr. Mummery:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the **Taco Time NW Restaurant** 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

Upon completion of the proposed cleanup, will further remedial action likely be necessary to clean up contamination at the Site?

NO. Ecology has determined that, upon completion of your proposed cleanup, no further remedial action will likely be necessary to clean up contamination at the Site.

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:



Mr. Trent Mummery
May 18, 2015
Page 2

- Diesel (TPH-D) and oil-range (TPH-O) total petroleum hydrocarbons into the Soil, and diesel range total petroleum hydrocarbons into the Ground Water;
- TPH-D and 1,2-dichloroethane (EDC; also known as DCA) into the Ground Water.

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

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcels associated with this Site are affected by other sites.

Basis for the Opinion

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

1. SoundEarth Strategies, Inc., 2014. *Cleanup Action Plan Addendum, Madison TT Property (VCP #NW1621), 1420 East Madison Street, Seattle, WA.* July 2.
2. Associated Earth Sciences, Inc., 2014. *Subsurface Exploration Review, Geologic Hazard, and Preliminary Geotechnical Engineering Report, Madison Mixed-Use Building, 1420 East Madison Street, Seattle, WA.* May 15.
3. Environmental Associates, Inc., 2012. *Revised Work Plan – Proposed Independent Cleanup Plan, Taco Time Northwest, 1420 East Madison Street, Seattle, WA.* July 13.
4. TechSolve Environmental, Inc., 2011. *Remedial Investigation Summary, Feasibility Study (FS), and Cleanup Action Plan for Taco Time Northwest Restaurant, 1420 East Madison Street, Seattle, WA.* August 4.
5. G-Logics, Inc., 2010. *Well Installation and Groundwater Sampling, Taco Time Property, 1420 East Madison Street, Seattle, WA.* September 15.
6. G-Logics, Inc., 2010. *Well Installation and Groundwater Sampling, Taco Time Property, 1420 East Madison Street, Seattle, WA.* April 16.
7. G-Logics, Inc., 2009. *Groundwater Monitoring – August 2009, Taco Time Property, 1420 East Madison Street, Seattle, WA 98122.* November 2.
8. G-Logics, Inc., 2009. *Subsurface Assessment, Taco Time Property, 1420 East Madison Street, Seattle, WA 98122.* March 2.
9. GeoScience Management, Inc., 2006. *Monitoring Well Installation and Sampling, Taco Time Restaurant, 1420 East Madison Street, Seattle, WA.* July 26.

Mr. Trent Mummery
May 18, 2015
Page 3

10. Noll Environmental, Inc., 2005. *Results of Phase II Environmental Site Assessment, Taco Time Property Site, 1420 East Madison Street, Seattle, WA 98122.* November 2.
11. Geotech Consultants, Inc., 2003. *Limited Phase 2 Environmental Site Assessment, Proposed Madison Street Apartments, 1420 East Madison Street, Seattle, WA.* July 30.

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) 649-7235 or sending an email to: nwro_public_requests@ecy.wa.gov. 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, upon completion of your proposed cleanup, **no further remedial action** will likely be 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**.

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.

i. Cleanup levels.

Soil:

The Site is located in a mixed commercial and residential area. Soil cleanup levels suitable for unrestricted land uses are therefore applicable to this Site.

Soil cleanup level protective of terrestrial species were deemed not-applicable for this Site based on the exclusion relating to proximity of undeveloped land in accordance with WAC 173-340-7491(1)(c)(i). There are less than 1.5 contiguous acres of undeveloped land on or within 500 feet of any part of the Site.

Because the cleanup at this Site is expected to be relatively straightforward and involves few hazardous substances, MTCA Method A cleanup levels for

unrestricted land uses were selected. Method A cleanup levels were established based on direct contact and the protection of ground water. Ecology concurs for these exposure pathways.

Ground Water:

Cleanup levels were set for ground water based on its use as a potential drinking water source. MTCA Method A cleanup levels were selected. Ecology concurs for this exposure pathway.

Air:

Soil at the Property will be excavated to allow for construction of a 6-story residential structure with two floors of below ground parking. If all contaminated soil exceeding MTCA cleanup levels is excavated and removed from the Site, vapor intrusion is not expected to be an issue on the Property.

ii. Points of Compliance

Soil:

The soil cleanup levels were set based on the protection of ground water, the point of compliance in soil is therefore throughout the Site.

Groundwater:

The standard point of compliance for groundwater is throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

Air:

The standard point of compliance for air is in the ambient air throughout the Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action you proposed for the Site may meet the substantive requirements of MTCA.

The selected cleanup action will include the mass (lot-line to lot-line) excavation to a planned maximum elevation of 350 feet above mean sea level (msl) or approximately 12.5 feet below the ground surface (bgs). The cleanup action includes off-Site disposal of contaminated soil that will be removed to allow for construction of a two-story, below-

ground parking garage. Removal of contaminated soil to levels below Method A cleanup levels will be documented using confirmation soil samples in the sidewalls and bottom of the excavation. Areas that contain contamination exceeding Method A cleanup levels lower than 350 feet msl (deeper than the planned excavation depth) will be overexcavated with follow-up confirmational soil sampling to demonstrate compliance.

Ground water at the Site was most recently sampled in March 2015, which included a subset of 6 of the 15 existing monitoring wells where DCA had been previously detected at concentrations exceeding the Method A cleanup level including MW01, MW05, MW06, MW08, MW09 and MW16.

Ground water will be remediated at the time of Site redevelopment using insitu chemical oxidation (ISCO) in existing monitoring wells to reduce DCA concentrations in ground water. The ISCO event will consist of injecting hydrogen peroxide-activated sodium persulfate into monitoring wells MW01, MW05 and MW08 as an aqueous solution.

Compliance monitoring will be conducted at the Site to monitor the effectiveness of the cleanup action on ground water. Once the ISCO event has occurred, compliance monitoring on a quarterly basis will be conducted using monitoring wells MW01, MW05, MW08, MW09 and MW16. After Property redevelopment activities are initiated, compliance ground water monitoring should be conducted in wells in the downgradient portion of the Site in an area that is not hydraulically affected by dewatering.

A permanent dewatering system to be installed below the parking garage as the floor of the garage will be constructed below the water table. Ecology requires representative data that demonstrates contaminated ground water on the Site has been successfully remediated and that ground water contaminant concentrations are below Method A cleanup levels following redevelopment of the Site. Ecology requires that data be provided using discrete sampling locations rather than accumulated ground water in a foundation sump or influent to the dewatering system.

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.

Mr. Trent Mummery
May 18, 2015
Page 6

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

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

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

3. Opinion is limited to proposed cleanup.

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

4. State is immune from liability.

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

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (425) 649-7064 or e-mail at hvic461@ecy.wa.gov.

Sincerely,



Heather Vick, LHg
Toxics Cleanup Program

Enclosure: A – Description and Diagrams of the Site

cc: John Funderburk, SoundEarth Strategies, Inc.
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

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

Site: The Site is defined as releases of total petroleum hydrocarbons in the diesel and oil ranges to soil and ground water, and ethylene dichloride (EDC) into ground water at 1420 East Madison Street in Seattle, WA (Property). The Property consists of two irregularly-shaped King County tax parcels (1728800075 and 1728800080) totaling 0.28 acre in size. The Property and the Site are shown on the attached Site Diagrams.

Area Description: The Property is situated in the Capital Hill neighborhood, directly east of downtown Seattle. The area is completely developed, and dominated by commercial business operations and residential condominiums. Most land surfaces are paved or covered by buildings. The Property is bordered by Paramount Apartments and alley to the north, 15th Avenue to the east, East Madison Street to the south, and the First African Methodist Episcopal Church parking lot to the west.

Property History and Current Use: The Property was first developed before 1893 with three store buildings. By 1906, the Property was further developed with several one-story commercial structures. The Property was occupied by commercial businesses including a laundry/dry cleaner, rug cleaner/dye works, laundry/sheet-metal shop, foundry/sheet-metal shop, tavern and several automobile service/repair businesses up until 1963 when the existing buildings were removed. In 1965, a 1916-square foot, one-story building was constructed on the western parcel. The Property was a Taco Time restaurant from 1965 through 2010 when the restaurant building was demolished. The Property is currently being redeveloped as the Broadcast Apartments, a 6-story building with retail on the first floor and five apartment floors. The apartment building will have two floors of underground parking.

Sources of Contamination: The sources of the contamination detected at the Property have not been determined. However, potential contamination sources consist of releases of petroleum hydrocarbons and chlorinated solvents associated with various historical commercial operations at the Property.

Physiographic Setting: The Site is located within the Puget Sound Lowland physiographic province, a north-south trending structural and topographic depression that is bordered to the west by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene glacial and nonglacial sediments.

The Site and surrounding area are within the Capitol Hill upland physiographic subdivision of metropolitan Seattle. The Site is at an elevation of about 365 feet above sea level and slopes to the west.

Surface/Storm Water System: Surface water runoff in the area is collected in municipal storm drains. The closest surface water body is Elliot Bay in Puget Sound, located approximately 0.75 mile to the southwest.

Ecological Setting: There is little terrestrial habitat in the area. The area is heavily developed with primarily commercial land uses, with most surfaces either paved and/or covered by buildings.

Geology: Subsurface materials consist of approximately 5 to 10 feet of fill materials, overlying glacial till to depths of approximately 20 to 30 feet below the ground surface (bgs). A transitional zone of interbedded till/outwash underlies the glacial till to approximately 40 feet bgs. Underlying this transitional zone is sand (Advance outwash) to the maximum depth explored, which was 50 feet bgs.

Ground Water: Ground water occurs within the transitional zone of interbedded till/outwash underlying the glacial till and generally under confined conditions. Ground water has been encountered at depths of 12 to 15 feet bgs in Site monitoring wells. Ground water at the Site flows to the west and west-southwest.

Water Supply: The City of Seattle provides drinking water for the area. The City's water supply is from the Cedar and Tolt River watersheds.

Nature and Extent of Contamination – Soil: In 2003, three soil borings (B-1 through B-3) were advanced to about 40 feet bgs with ground water occurring at 22 to 30 feet bgs. Boring B-1 was advanced at the south end of a former rug cleaner and dye works, boring B-2 was in the northeast corner of a former laundry and cleaning business and B-3 was advanced on the west side of a former garage. In addition, B-3 was advanced downgradient of the Site. No odors, stains or obvious signs of contamination were observed. One soil sample was collected at 2.5 to 4 feet bgs from each boring; the samples were analyzed for TPH-G, TPH-D, TPH-O and BTEX with no detections with the exception of 180 mg/kg TPH-D and 860 mg/kg TPH-O in the sample from B-3. The soil samples were also analyzed for volatile organic compounds (VOCs) with no detections.

Five geoprobe borings (SB-1 through SB-5) were advanced to depths of 11.5 to 16 feet bgs in 2005 with no ground water encountered. One sample from each boring was tested for TPH-G, TPH-D, TPH-O and halogenated volatile organic compounds (HVOCs). A soil sample collected at 3.5 feet bgs in SB-3 contained TPH-D and TPH-O at concentrations below the Method A cleanup levels.

In 2008, 11 soil borings (GL-1 through GL-11) were advanced using direct-push drilling methods. The borings were sited to provide additional characterization of areas where elevated concentrations of DCA occurred in ground water. In addition, borings GL-8 through GL-11 were also advanced to assess petroleum hydrocarbon impacts that were initially encountered in boring GL-6.

In 2009, five deep borings (GB-1 through GB-5) were advanced to depths ranging from 20 to 50.5 feet bgs. Four of the deep borings (GB-2 through GB-5) were completed as monitoring wells MW-7 through MW-10 respectively.

In February 2014, three test pits (TP01 through TP03) were excavated in the north central,

southwestern and southeastern portions of the Property. The test pits were excavated to depths of 18 to 20 feet bgs and observed for soil characteristics, indications of contamination and the presence of shallow ground water. Test pit TP02 was also excavated to evaluate if a UST corresponding to a ground-penetrating radar anomaly was present but none was found. In TP01, a strong hydrocarbon odor was observed in soil encountered at 18.5 feet bgs. No samples were collected. The test pits were left open for 30 minutes to observe shallow ground water seepage. In TP01, some ground water was observed at 18 to 19 feet bgs but no measurable accumulation occurred suggesting a discontinuous lens. No ground water was observed in the other two test pits.

Nature and Extent of Contamination – Ground Water: Ground water samples were first collected on the Site in 2003 from three soil borings (B-1 through B-3) and analyzed for petroleum hydrocarbons, BTEX and VOCs. Toluene and xylenes were detected in the sample from B-3 at concentrations well below the Method A cleanup levels. In addition, ground water in B-1 and B-3 contained DCA at concentrations exceeding the Method A cleanup level of 5 µg/L.

A total of 16 monitoring wells have been installed on the Site. In 2006, monitoring wells MW-1 through MW-3 were installed adjacent to soil borings B-1 and B-3 in which DCA was detected and screened from 25 to 35 feet bgs. DCA was detected in MW-1 at 53 µg/L and in MW-3 at 3 µg/L. No other VOCs were detected in any of the samples and the results were considered comparable to the 2003 ground water sampling results. MW-1 was resampled in February 2006 and found to contain DCA at 69 µg/L.

Monitoring wells MW-4 through MW-6 were installed in 2006 at the south end of the former laundry and sheet metal shop.

Ground water samples were collected from MW-1 through MW-6 in 2006. The samples were analyzed for petroleum hydrocarbons (MW-4 through MW-6 only) and VOCs. Only DCA was present at concentrations ranging from 6 to 61 µg/L in MW-1, MW-4, MW-5 and MW-6. These concentrations exceeded the Method A cleanup level.

Monitoring wells MW-7 through MW-13 were installed in 2009 to further delineate dissolved DCA. DCA was detected above the Method A cleanup level in MW-8 only (7.6 µg/L). As a result, in 2010, monitoring wells MW-14 and MW-15 were installed upgradient of MW-6 and MW-8. No DCA was detected in samples from these wells. The dissolved DCA plume does not appear to extend beyond the southern Property boundary.

In 2014, monitoring well MW-16 was installed in the sidewalk along the East Madison Street right-of-way, directly south of the Property.

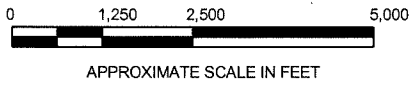
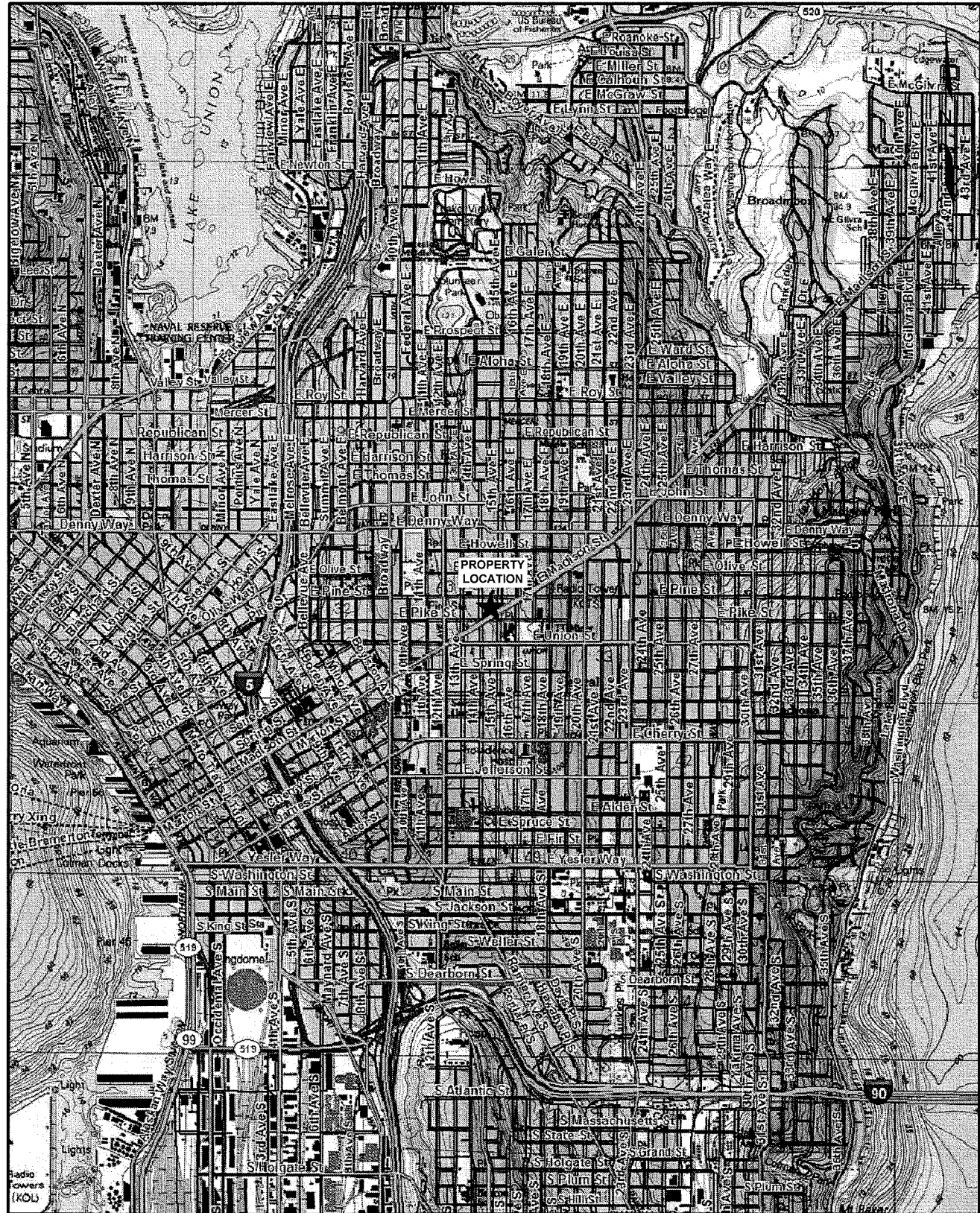
Nature and Extent of Contamination – Air: In 2008, 17 vapor probes (VP-1 through VP-17) were drilled using direct-push methods. The vapor probe locations were sited based on previous occurrences of DCA in ground water. Soil gas from the vapor probes was analyzed for VOCs with none detected.

Soil and Groundwater Contamination: The Property can be divided into the following three primary source/contaminant type areas:

- Area 1 - Northeast of the former restaurant building: Elevated concentrations of diesel-range petroleum hydrocarbons occur in soil at depths of 10 to 15 feet bgs. No contaminants of concern were detected in ground water in this area except that TPH-D was detected once in MW-10 slightly above the MTCA Method A cleanup level. The source of the contamination has not been determined. It is likely from leaks and spills associated with historical on-site activities.
- Area 2 - Northwest corner of the Property: Elevated concentrations of TPH-D and TPH-O occur in soil within the upper 4 feet of the subsurface. The source of the contamination has not been determined. It is likely from leaks and spills associated with historical on-site activities. Ground water downgradient of this area has not been analyzed for TPH-D and TPH-O.
- Area 3 - South-central area of the Property: Ground water on the Site is contaminated with EDC. During the August 2012 ground water sampling event, 8 of the 15 existing monitoring wells were sampled. EDC concentrations ranged from 7 to 9.9 µg/L. However, EDC was not detected in any soil samples collected to a maximum depth of 50 feet bgs. No other chlorinated solvents were detected in soil, ground water or soil vapor samples collected in this area. It is likely that the presence of EDC in ground water is associated with historical operations on this portion of the Property. Based on the ground water monitoring data, EDC-contaminated ground water has not migrated off-Property to the west.

Ground water samples were collected in Site monitoring wells in 2014 and 2015. The samples were analyzed for EDC only with samples from two wells (MW-11 and MW-16) also analyzed for sulfate. During that period, monitoring wells MW-1, MW-5 and MW-8 contained EDC at concentrations exceeding the Method A cleanup level. Monitoring well MW-11 contained non-detectable levels of sulfate; sulfate in MW-16 ranged from 525 to 1,780 milligrams per liter (mg/L), exceeding the Secondary Maximum Contaminant Level of 250 mg/L.

Site Diagrams



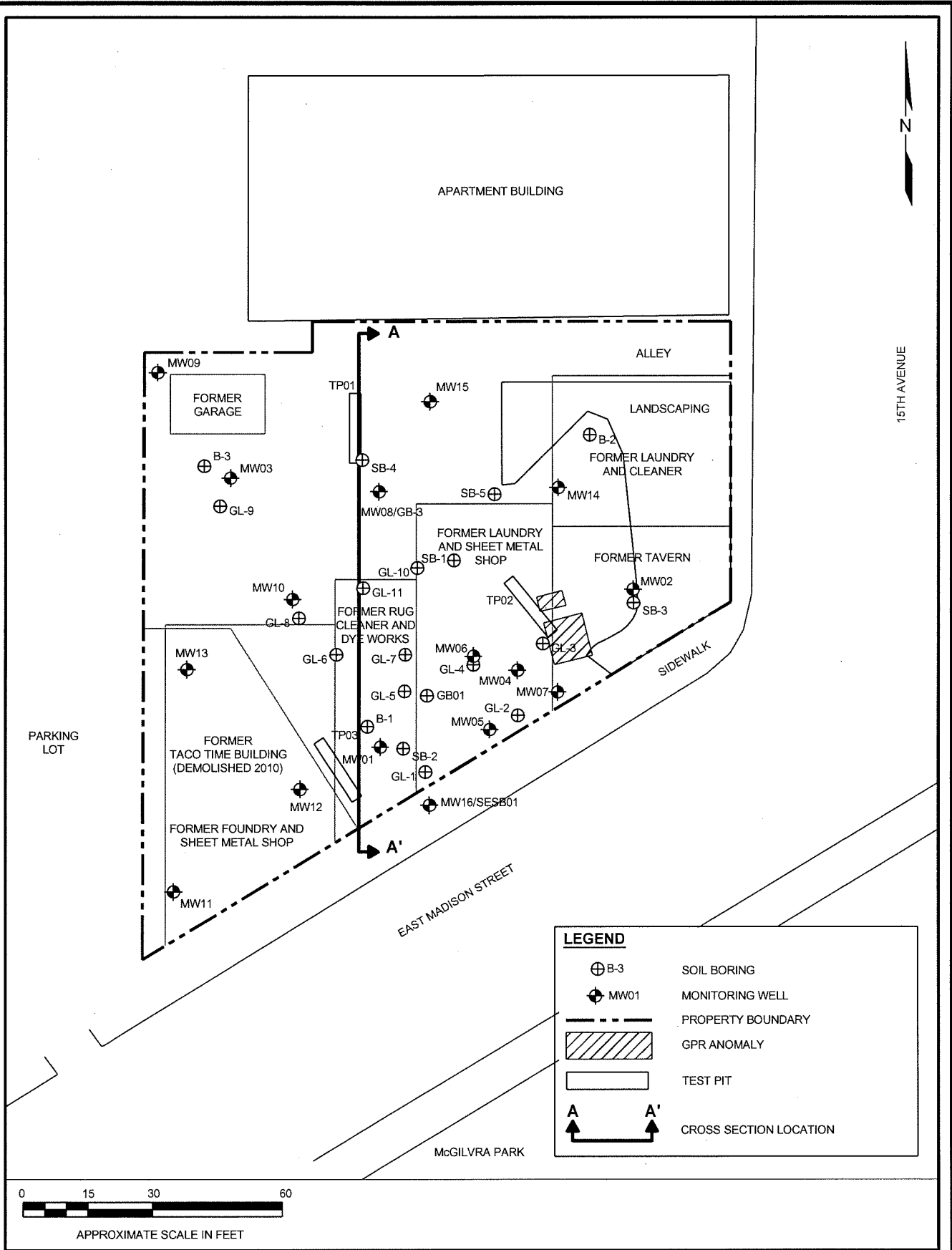
CREATED WITH TOPO!®
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 ©2007 TELE ATLAS; REL.1/2007



DATE: _____ 01/21/2014
 DRAWN BY: _____ BLR
 CHECKED BY: _____ APH
 CAD FILE: _____ 1002-003_VIC

PROJECT NAME: _____ MADISON TACO TIME PROPERTY
 PROJECT NUMBER: _____ 1002-003
 STREET ADDRESS: _____ 1420 EAST MADISON STREET
 CITY, STATE: _____ SEATTLE, WASHINGTON

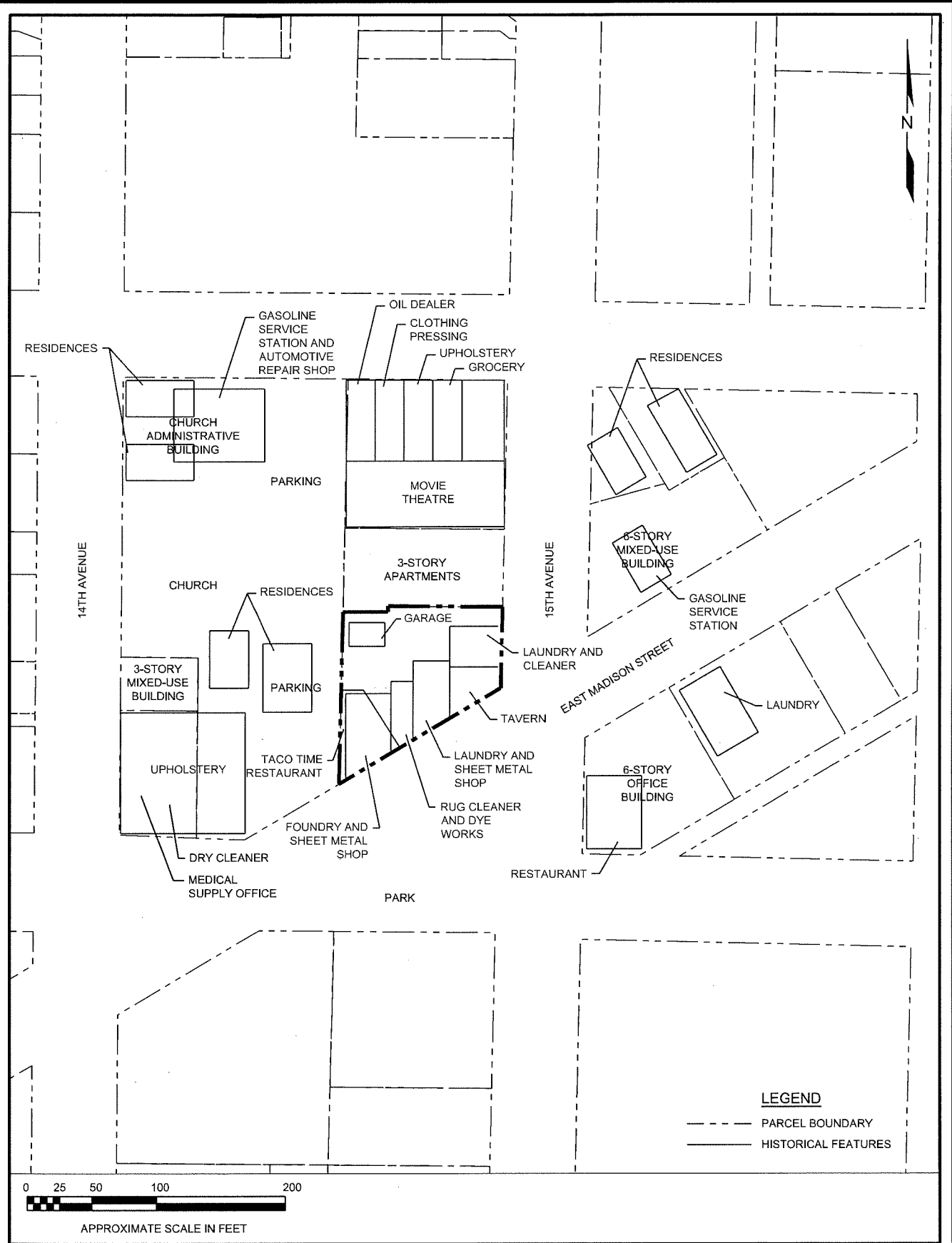
FIGURE 1
 PROPERTY LOCATION PLAN



DATE: 06/11/14
 DRAWN BY: BLR/JQC
 CHECKED BY: APH
 CAD FILE: 1002-003_2014CAP_EL

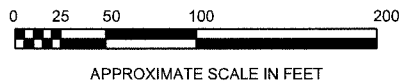
PROJECT NAME: MADISON TACO TIME PROPERTY
 PROJECT NUMBER: 1002-003
 STREET ADDRESS: 1420 EAST MADISON STREET
 CITY, STATE: SEATTLE, WASHINGTON

FIGURE 2
 EXPLORATION LOCATION MAP



LEGEND

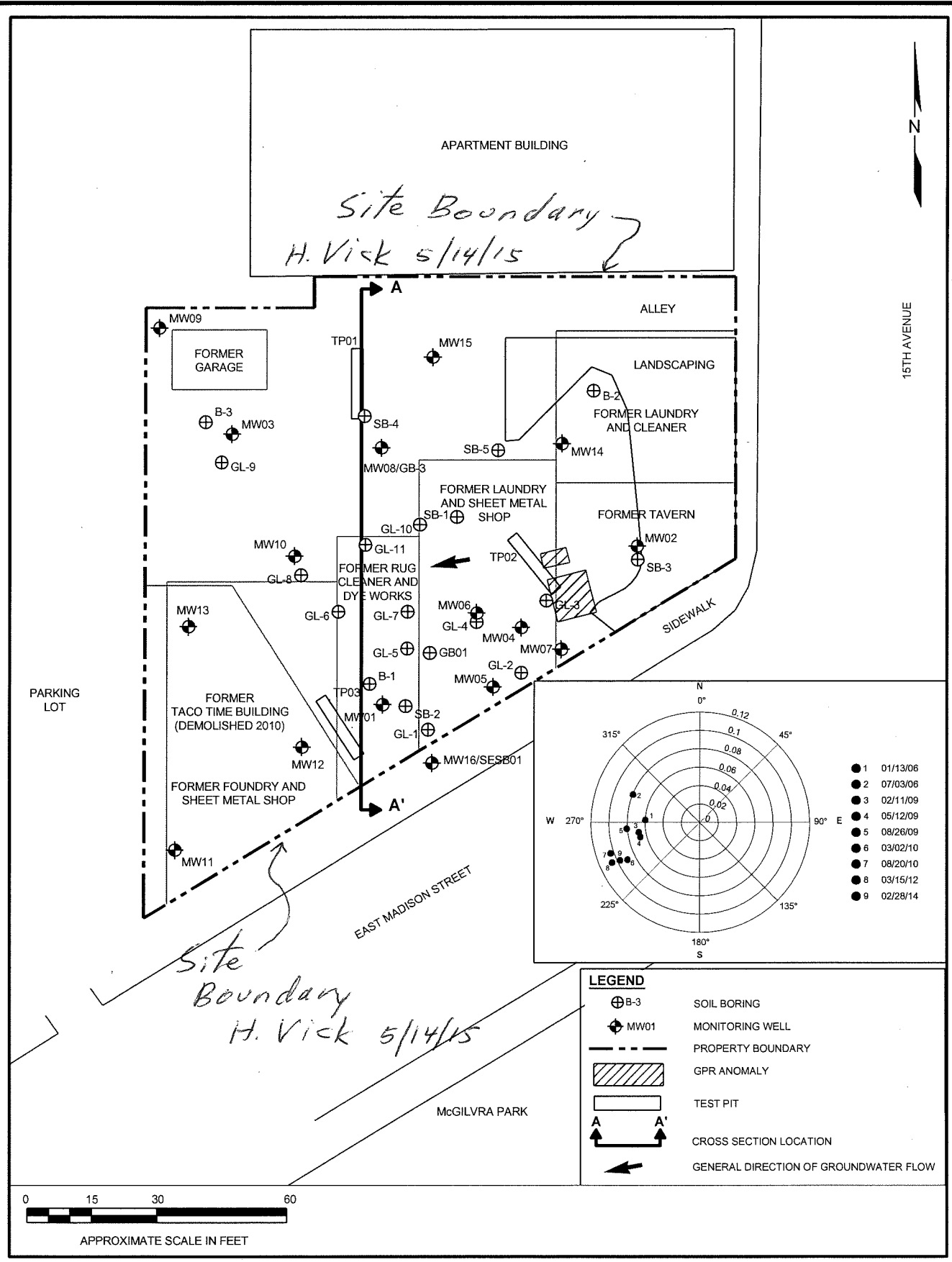
- PARCEL BOUNDARY
- HISTORICAL FEATURES



DATE: 06/11/14
 DRAWN BY: BLR/JQC
 CHECKED BY: APH
 CAD FILE: 1002-003_2014CAP_HF

PROJECT NAME: MADISON TACO TIME PROPERTY
 PROJECT NUMBER: 1002-003
 STREET ADDRESS: 1420 EAST MADISON STREET
 CITY, STATE: SEATTLE, WASHINGTON

FIGURE 3
 CURRENT AND HISTORICAL
 PROPERTY USE



DATE: 06/27/14
 DRAWN BY: JQC
 CHECKED BY: APH
 CAD FILE: 1002-003_2014CAP_ROSE

PROJECT NAME: MADISON TACO TIME PROPERTY
 PROJECT NUMBER: 1002-003
 STREET ADDRESS: 1420 EAST MADISON STREET
 CITY, STATE: SEATTLE, WASHINGTON

FIGURE 4
ROSE DIAGRAM

