REPORT ON
ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT AND LIMITED SUBSURFACE SAMPLING AKRIDGE PARCEL AT BUZZARD POINT, SQUARE 0607, LOT 0013 WASHINGTON, DC

by

Haley & Aldrich, Inc.
Boston, Massachusetts

for

McKissack & McKissack
Washington, DC

File No. 40223-002
8 January 2014

Haley & Aldrich, Inc.
7926 Jones Branch Dr.
Suite 870
McLean, VA 22102

Tel: 703.336.6200
Fax: 703.356.4699
HaleyAldrich.com

8 January 2014
File No. 40223-002

McKissack & McKissack
1401 New York Avenue, NW
Suite 900
Washington, DC 20005

Attention: James Beall
Senior Project Manager

Subject: ASTM Phase I Environmental Site Assessment and Limited Subsurface Sampling
Akridge Parcel at Buzzard Point, Square 0607, Lot 0013
Washington, DC

Ladies and Gentlemen:

The enclosed report presents the results of a Phase I environmental site assessment (Phase I assessment) conducted at the above-referenced property, Square 0607, Lot 0013, in Washington, DC (herein referred to as the "subject site"). A Phase I assessment was conducted by Haley & Aldrich, Inc. (Haley & Aldrich) for seven parcels at Buzzard Point proposed for redevelopment as a professional soccer stadium, in accordance with our proposal to McKissack & McKissack dated 28 June 2013 ("Agreement"). This report was prepared in response to a request from Mr. James Beall of McKissack & McKissack to provide a separate stand-alone Phase I assessment for the subject site. The results of limited Phase II subsurface sampling, performed to evaluate the potential impact of "recognized environmental conditions" (RECs), are also included in this report.

Our conclusions regarding the presence and potential impact of RECs on the subject site are intended to help the user evaluate the "business environmental risk" associated with the subject site, as defined in the ASTM E 1527-05 Standard and discussed in Section 1.1 of this report.

Thank you for the opportunity to perform these services for you. Please do not hesitate to contact us if you have any questions or comments.

Sincerely yours,
HALEY & ALDRICH, INC.

Karin S. Holland
Senior Technical Specialist

Gregory B. Grose, PG
Senior Project Manager

Enclosures

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by

Haley & Aldrich, Inc.
Boston, Massachusetts

The undersigned declare the following:

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR Part 312, §312.10.

We have the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the subject site and "develop opinions and conclusions regarding conditions indicative of releases or threatened releases." We have developed and performed the "all appropriate inquiries" (AAI) in conformance with the standards and practices set forth in 40 CFR Part 312.

Gregory B. Grose, PG
Senior Project Manager

Karin S. Holland
Senior Technical Specialist

for

McKissack & McKissack, Inc.
Washington, DC

File No. 40223-002

EXECUTIVE SUMMARY

Haley & Aldrich, Inc. (Haley & Aldrich) performed a Phase I environmental site assessment (Phase I assessment) of the "Akridge" parcel at Buzzard Point, Square 0607, Lot 0013 (herein referred to as the "subject site") in Washington, DC. The scope of work is described and conditioned by our proposal dated 28 June 2013. As indicated in our proposal, this Phase I assessment was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) as referenced in 40 Code of Federal Regulations (CFR) Part 312 [the All Appropriate Inquiries (AAI) Rule]. Deviations from this Standard, and/or data gaps and their significance are described in Section 1.5 of this report. Limited Phase II subsurface sampling was also conducted to evaluate issues identified during the Phase I portion of the assessment. Our conclusions are intended to help the user evaluate the "business environmental risk" associated with the subject site, as defined in the ASTM E 1527-05 Standard and discussed in Section 1.1 of this report.

The subject site is bound by 1st, 2nd, S, and T Streets SW, and comprises a parking lot and a single-level storage building. The building is utilized to store end-of-life passenger vehicles and a motorcycle.

The objective of a Phase I assessment is to identify known and suspect "recognized environmental conditions" (RECs), historical RECs (HRECs), and *de minimis* conditions associated with the subject site, as defined in the ASTM E 1527-05 Standard and in Section 1.1 of this report. The objective of the limited Phase II subsurface sampling is to provide a preliminary evaluation of RECs identified during the Phase I portion of the assessment, including order of magnitude cost and schedule impacts on the proposed development.

The ASTM E 1527-05 Standard requires an environmental professional's opinion of the potential impacts of RECs, HRECs, and *de minimis* conditions identified on a site during a Phase I assessment. Our opinion is rendered with respect to an REC's potential (high, medium, or low) to require remedial response based on prevailing agency requirements and our understanding that the subject site is one of seven parcels being evaluated for potential redevelopment as a professional soccer stadium. Our opinion regarding a REC's potential impact on the subject site (high, medium, low, or unknown) is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, and/or our experience evaluating similar sites, and our understanding of the client's intended use for the subject site.

Data gaps were not identified for this report.

RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-05 Standard defines a REC as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property." A material threat is defined by the ASTM E 1527-05 Standard as "a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment."

This Phase I assessment identified 13 RECs. Details regarding the nature of these RECs and our opinion regarding potential impacts are provided below.

KNOWN RECOGNIZED ENVIRONMENTAL CONDITIONS

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs identified as being present with respect to the subject site are referred to as Known Recognized Environmental Conditions (KRECs). Two KRECs have been identified on the subject site from the limited Phase II subsurface sampling results.

KREC #1: Shallow subsurface petroleum impact from surface staining or urban fill
Potential Impact: Low
Explanation: Apparent hydrocarbon stains were observed on the asphalt-paved portion of the subject site utilized as a parking lot. A crack was observed in the asphalt under one of these stains and a soil sample (GSS-607-13-1, see Figure 3) collected by Haley & Aldrich from beneath the asphalt revealed a total petroleum hydrocarbons – diesel range organics (TPH-DRO) concentration of 184 milligrams per kilogram (mg/kg). This TPH-DRO detection confirms the presence of minor petroleum contamination in shallow soil, exceeding the D.C. Municipal Regulations (DCMR) Tier 0 Soil Standard for TPH of 100 mg/kg. The vertical extent of impact is currently not known, although based on the relatively low concentration immediately beneath the staining, the degree of impact appears to be minor. The TPH-DRO detection may also be related to urban fill encountered in this boring.

Analytical results for a soil sample collected along S Street (GTW-607-13-2, see Figure 3) from a depth of 5 to 10 feet below grade indicated minor petroleum impact (TPH-DRO at 119 mg/kg). This TPH-DRO detection confirms the presence of minor petroleum contamination in shallow soil, exceeding the DCMR Tier 0 Soil Standard for TPH of 100 mg/kg. Benzo(a)pyrene was also detected at 8.67 mg/kg, slightly exceeding the DC Risk-Based Corrective Action (DCRBCA) Screening Levels (SL) for construction worker exposure of 5.92 mg/kg. Other polycyclic aromatic hydrocarbons (PAHs) and metals (arsenic at 4.8 mg/kg and chromium at 10.3 mg/kg) were detected at concentrations exceeding the EPA Region III Risk-Based Screening Level (RSLs) for residential soil. The source and extent of impact is not known, although urban fill was encountered in this boring, which commonly yields similar results.

KREC #2: Minor groundwater contamination associated with chlorinated solvents
Potential Impact: Low
Explanation: Advantage Environmental Consultants, LLC (AEC) detected chlorinated solvents (tetrachloroethylene, trichloroethylene [TCE], 1,2 dichloroethane, and vinyl chloride[VC]) in a groundwater sample collected near the southeast corner of the subject site during a Phase II assessment conducted in 2005. The source of the chlorinated solvents is not known; however, Geomatrix, Inc. indicated an "asphalt pit" in this area of the subject site on Figure 3 of their Phase II assessment report completed in 1990. Chlorinated solvents detected in groundwater may also be due to migration from some unknown source

upgradient from the subject site. A groundwater sample collected by Haley & Aldrich in this area of the subject site (GTW-13-1A on the attached figure) confirmed the presence of minor contamination associated with chlorinated solvents, including relatively low concentrations of TCE and VC (43.9 and 38 micrograms per liter [μg/L], respectively). The VC concentration exceeds the EPA Region III Risk-Based Screening Level (SL) for residential exposure via ingestion, which may not be applicable to the subject site. The extent of impact is not known, although volatile organic compounds were reportedly not detected in groundwater samples collected by AEC at several other locations in 2005, suggesting the extent may be limited to the southeast corner of the subject site.

SUSPECT RECOGNIZED ENVIRONMENTAL CONDITIONS

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs that have been identified as being likely present with respect to the subject site are referred to as Suspect Recognized Environmental Conditions (SRECs). The Phase I assessment identified seven SRECs.

The following SREC was identified during our December 2013 subject site visit inside the on-site storage building.

SREC #1: Heavy staining near floor drains in the on-site storage building
Potential Impact: Medium
Explanation: Heavy staining of the concrete floor appearing to be caused by hydrocarbons was observed immediately surrounding two floor drains, one in the northwestern portion and a second in the southeastern portion of the building. Although no cracks were apparent in the concrete in the areas where staining was observed, it is unknown whether the source of the stains has also migrated into these floor drains or where the floor drains discharge. In addition, the source of the staining could have penetrated the concrete floor. A potential therefore exists for apparent hydrocarbon spills or leaks to have migrated to the subsurface.

The following SRECs were observed on the adjacent property north of the subject site during a site visit by Haley & Aldrich for the comprehensive Phase I assessment of Buzzard Point in August 2013.

SREC #2: Potentially unlined/unpaved sump at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: On-site stormwater and spills are captured and pumped to a sump in the southwestern portion of the lot before being disposed off-site by a licensed contractor. During a site visit to this property, the sump contained large quantities of oily liquid and it was not possible to ascertain whether the sump was lined and/or confirm the integrity of the lining. The site representative could not confirm the status of the sump lining. A potential therefore exists for hydrocarbons to migrate from the sump to the subsurface.

SREC #3: Heavy staining of concrete at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: During the site visit to this property, heavy concrete staining was observed at many locations. The concrete was in moderate to good condition where visible. In other areas, for example the area surrounding the sump's pump, the staining was too thick to confirm the integrity of the concrete. A potential therefore exists for hydrocarbons to migrate to underlying soil and groundwater.

SREC #4: Oil layer in secondary containment under aboveground storage tanks (ASTs) at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: A thick layer of oil was observed at the bottom of the AST tanks in the eastern portion of this property. It is understood that the flooring of the containment is paved with concrete. However, the integrity of the concrete could not be confirmed. A potential therefore exists for hydrocarbons to migrate to underlying soil and groundwater.

SREC #5: Concrete staining in area of an AST at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: Concrete staining on paving next to an AST was observed in the northern portion of this property. The concrete paving was in relatively good condition. However a large quantity of waste had been dumped immediately adjacent to the AST preventing Haley & Aldrich representatives from confirming the condition of the concrete beneath this waste. A potential exists for oil to migrate through the concrete to underlying soil and groundwater.

The following SRECs were identified on the adjacent properties east and south of the subject site.

SREC #6: Substation operations at Potomac Electric Power Company (PEPCO) Square 663, Lot 0024
Potential Impact: Medium
Explanation: Due to the age of the substation and the nature of activities taking place, there is a potential for leaks, spills or polychlorinated biphenyl-containing materials to be present at this lot.

SREC #7: Potentially leaking AST and underground pipeline at Potomac Electric Power Company (PEPCO) Square 609, Lot 0804
Potential Impact: Low
Explanation: A #6 fuel oil AST was installed in the late 1960s at the property at Square 0609, Lot 0804; and Square 0611, Lots 19 and 10. An underground pipeline was used to connect the AST to the nearby Generating Station. The AST was decommissioned and the underground pipeline filled in 1981. No information regarding releases from the AST or pipeline is known. The site was also employed for bulk fuel storage and vehicle and equipment maintenance and storage. Two independent sampling programs conducted in 2005 indicated that soil and groundwater was affected by petroleum hydrocarbon releases. It is unknown whether more recent studies have been performed and whether soil and groundwater are still impacted.

HISTORICAL RECs

The ASTM E 1527-05 Standard defines an HREC as an environmental condition "which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently." This Phase I assessment identified the following four HRECs.

HREC #1: Leaking Underground Storage Tank (LUST) case # 93094 for an on-site 20,000 gallon gasoline underground storage tank (UST) historically impacted soil and groundwater under the subject site and was reported in August 1993. The LUST case received regulatory closure in May 1994. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #2: LUST case # 92076 on an adjacent parcel north of the subject site owned by Rollingwood Real Estate LLC at 1714 2nd St SW is associated with a gasoline LUST that historically impacted soil and groundwater. The status of the LUST release is listed as closed. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #3: LUST case # 96030 on an adjacent parcel north of the subject site at 1711 1st Street SW, owned by Super Salvage, Inc., and related to a tank containing gasoline was reported to be impacting soil and was granted regulatory closure. Based on its status and impacts being limited to soil, impacts from the LUST do not present a threat to human health or the environment under current site conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #4: LUST case # 93051 on an adjacent parcel east of the subject site in Square 663, Lot 0024, PEPCO Generating Station. In 1993, significant gasoline and diesel contamination was discovered in soil and groundwater on the northern portion of Square 665, Lot 0024. PEPCO performed monitoring and remediation activities during the 1990s, removing more than 1,000 gallons of liquid-phase hydrocarbons. However, the latest groundwater sampling data reviewed in a 2005 Phase I indicated that total petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes were above applicable regulatory standards in certain monitoring wells. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current site conditions and it is unlikely that the LUST will require additional regulatory action.

DE MINIMIS CONDITIONS

The ASTM E 1527-05 Standard defines *de minimis* conditions as those conditions which "do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." The ASTM E 1527-05 Standard notes that "conditions determined to be *de minimis* are not recognized environmental conditions."

This Phase I assessment revealed the following *de minimis* condition: during the subject site visit performed in August 2013, minor stains were observed on loose gravel west of the building in the northwestern portion of the lot maintained by the United States Park Police. On a subsequent subject site visit in December 2013, the staining was no longer visible. No odors or stressed vegetation were encountered during either visit, suggesting that the staining was superficial in nature and unlikely to have migrated to the subsurface.

SUMMARY AND RECOMMENDATIONS

In summary, several RECs were identified during the comprehensive Buzzard Point Phase I assessment in August 2013 and subsequent Phase II sampling. An additional REC was identified during the December 2013 subject site visit of the storage building (staining around floor drains), which could impact the proposed development. We recommend that the outfall location for the drains be determined and that additional soil and groundwater sampling be performed to assess the potential subsurface impact from staining observed around floor drains inside the storage building.

Limited Phase II subsurface sampling described in this report did not delineate the extent of petroleum impacts detected in soil or groundwater at the subject site, but based on the relatively low concentrations detected, it is our opinion that additional regulatory action is unlikely under current subject site conditions. However, if excavation and construction dewatering are necessary for subject site development, then proper handling of soil and groundwater may be required:

- Groundwater contaminated by gasoline and chlorinated solvents detected near the southeast corner of the site (in the vicinity of the former gasoline UST and "asphalt pit") may require treatment prior to discharge or off-site disposal. If a deep structure (i.e. subsurface parking garage) is constructed in this area of the subject site that requires long-term dewatering, then a treatment system may be required, along with appropriate maintenance, permitting, and monitoring.
- Minor petroleum-impacted soil associated with surface staining in the parking lot is not appropriate for unrestricted use as fill.
- Urban fill encountered at the north end of the subject site along S Street with minor petroleum impact and metals concentrations may not be appropriate for unrestricted use as fill.

We recommend developing a site-specific health and safety plan and a soil management plan to address proper handling of excavated soil. If groundwater will be encountered during the proposed development, then the soil management plan should include proper handling procedures for construction dewatering. Excavated soil may require characterization and treatment/off-site disposal. The District Department of the Environment (DDOE) may require submission of a Work Plan to document how the developer will comply with applicable standards.

Schedule impacts on the proposed development associated with the recommended tasks range from 3 to 6 months, depending upon DDOE review and approval. Potential order of magnitude cost impacts from the identified RECs on the proposed development range from $60,000 to $370,000 (see Table 3 for assumptions regarding these order of magnitude costs). **Note that these cost ranges assume a nominal volume of soil (200 cubic yards) and groundwater (4,000 gallons) will require removal for the proposed development.** We have assumed deep foundation designs that produce minimal soil and groundwater spoils. If shallow foundations or a subsurface structure is constructed on the site, requiring the removal of a greater volume of soil and groundwater than we have assumed, then we request the opportunity to revise our order of magnitude cost and schedule impacts accordingly.

The remainder of this report contains additional information regarding the Phase I assessment, the resulting findings summarized above, and limitations affecting this report.

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1. INTRODUCTION

This report presents the results of a Phase I environmental site assessment (Phase I assessment) and limited Phase II subsurface sampling conducted at the Akridge parcel at Buzzard Point, Square 0607, Lot 0013 in Washington, DC (herein referred to as the "subject site"). A Phase I assessment was conducted by Haley & Aldrich, Inc. (Haley & Aldrich) for seven parcels at Buzzard Point proposed for redevelopment as a professional soccer stadium, in accordance with our proposal to McKissack & McKissack dated 28 June 2013 ("Agreement", Appendix A). This report was prepared in response to a request from Mr. James Beall of McKissack & McKissack to provide a separate stand-alone Phase I assessment for the subject site. Limited Phase II subsurface sampling was also conducted on the subject site in accordance with our proposal dated 24 September 2013 ("Agreement", Exhibit 1) and subsequent modifications documented in a letter dated 18 December 2013 to McKissack & McKissack. This Phase I assessment was performed in conformance with the scope and limitations of the American Society of Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) to comply with 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule).

1.1 Objective

The objective of a Phase I assessment is to identify known and suspect "recognized environmental conditions" (RECs), historical RECs (HRECs), and *de minimis* conditions associated with the subject site by evaluating subject site history, existing observable conditions, current subject site use, and current and former uses of adjoining properties as well as potential releases at surrounding properties that may impact the subject site. RECs are defined in the ASTM E 1527-05 Standard as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water at the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." A material threat is defined by the ASTM E 1527-05 Standard as "a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment."

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs identified as being present with respect to the subject site are referred to as Known Recognized Environmental Conditions (KRECs), and those RECs identified as being likely present with respect to the subject site are referred to as Suspect Recognized Environmental Conditions (SRECs). The ASTM E 1527-05 Standard defines HRECs as environmental conditions "which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently."

The objective of the limited Phase II subsurface sampling was to provide a preliminary evaluation of RECs identified during the Phase I portion of the assessment, including order of magnitude cost and schedule implications on the proposed development. Our conclusions are intended to help the user evaluate the "business environmental risk" associated with the subject site, defined in the ASTM E 1527-05 Standard as "a risk which can have a material environmental or environmentally-

driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations…"

The completion of this Phase I assessment is only one component of the process required to satisfy the AAI Rule. In addition, the user must adhere to a set of user responsibilities as defined by the ASTM E 1527-05 Standard and the AAI Rule. User responsibilities are discussed in section 5.3 of this report. A user seeking protection from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability as an innocent landowner, bona fide prospective purchaser, or contiguous property owner must complete all components of the AAI process in addition to meeting ongoing obligations. AAI components, CERCLA liability relief, and ongoing obligations are discussed in the AAI Rule and in Appendix XI of the ASTM E 1527-05 Standard.

1.2 Site Identification

The subject site is owned by The John Akridge Companies, Inc. (Akridge) and comprises a parking lot and a building utilized for storing end-of-life passenger vehicles and a motorcycle. The subject site is surrounded by S Street SW to the north, T Street SW to the south, 1st Street SW to the east and 2nd Street SW to the west.

1.3 Scope of Services

Haley & Aldrich performed the following scopes of service to complete this Phase I assessment. These services were performed either by, or under the direct supervision of, an environmental professional as defined by the AAI Rule.

1. Conducted visual observations of site conditions, and of abutting property use, to evaluate the nature and type of activities that have been or are being conducted at and adjoining to the subject site, in terms of the potential for release or threat of release of hazardous substances or petroleum products.

2. Reviewed federal, state, tribal, and local environmental database information within the ASTM-specified distance from the subject site using a database service to access records. Used 7.5-minute topographic maps to evaluate the subject site's physical setting.

3. Reviewed District environmental files pertaining to the subject site and nearby sites with the potential to impact the subject site.

4. Reviewed previous reports prepared for the subject site.

5. Reviewed the following sources of historical use information: Sanborn maps, aerial photographs and topographic maps.

6. Contacted District agencies regarding the subject site and surrounding properties and structures.

7. Interviewed the key site manager and property tenant representatives.

8. Performed limited Phase II subsurface sampling and analysis.

9. Interpreted the information and data assembled as a result of the above work tasks, and formulated conclusions regarding the potential presence and impact of RECs, including HRECs.

1.4 Non-Scope Considerations

The ASTM E 1527-05 Standard includes the following list of "additional issues" that are non scope considerations outside of the scope of the ASTM Phase I assessment practice: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, bio-agents, and mold. These items were not included in this Phase I assessment of the subject site.

A limited assessment of the presence of polychlorinated biphenyls (PCBs) is included in the ASTM work scope. Accordingly, our assessment of the presence of PCBs is limited to those potential sources specified in the ASTM E 1527-05 Standard as "electrical or hydraulic equipment known or likely to contain PCBs...to the extent visually and or physically observed or identified from the interview or records review."

1.5 Exceptions and Deviations

1.5.1 Deviations

Haley & Aldrich completed this Phase I assessment in substantial conformance with the ASTM E 1527-05 Standard. In our opinion, no additions were made to or deviations and deletions made from the ASTM work scope in completing this Phase I assessment.

1.5.2 Data Gaps

No data gaps were identified for this report. Thus, it is our opinion that sufficient information was obtained to identify subject site conditions indicative of releases or threatened releases of hazardous substances and petroleum hydrocarbons. Our opinion is limited by the conditions prevailing at the time our work was performed and the applicable regulatory requirements in effect.

1.5.3 Limitations

Our work for this project was performed in accordance with the standards and practices set forth in 40 CFR Part 312 and is consistent with the ASTM E 1527-05 Standard for Phase I Environmental Site Assessments. Several organizations other than ASTM, such as professional associations ASFE and AGWSE, have also developed guidelines or standards for environmental site assessments. The Phase I assessment presented in this report may vary from the specific guidelines or standards required by other organizations.

This Phase I assessment was prepared pursuant to an Agreement dated 9 July 2013 between McKissack & McKissack and Haley & Aldrich, which Agreement is attached hereto and is made a part of this report. The limited Phase II subsurface sampling was performed pursuant to an Agreement dated 30 October 2013 and a subsequent letter dated 18 December 2013 between McKissack & McKissack and Haley & Aldrich. All uses of this report are subject to, and

deemed accepting of, the conditions and restrictions contained in these Agreements. The observations and conclusions described in this report are based solely on the Scope of Services provided pursuant to these Agreements. Haley & Aldrich has not performed any additional observations, investigations, studies, or other testing not specified in these Agreements. Haley & Aldrich shall not be liable for the existence of any condition the discovery of which would have required the performance of services not authorized under these Agreements.

This report is prepared for the exclusive use of McKissack & McKissack and their prime contract holder, the District of Columbia Department of General Services (DGS) in connection with the proposed development of the subject site. A copy of this report will be provided to SW Landholder, LLC (Owner) in accordance with an Access Agreement between the Owner and Haley & Aldrich, dated 12 November 2013. There are no intended beneficiaries other than McKissack & McKissack. Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Agreements or the report. Use of this report by any person or entity other than McKissack & McKissack or the DGS for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from McKissack & McKissack and from Haley & Aldrich. Use of this report by such other person or entity without the written authorization of McKissack & McKissack and Haley & Aldrich shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

Use of this report by any person or entity, including by McKissack & McKissack, for a purpose other than for with the proposed development of the subject site is expressly prohibited unless such person or entity obtains written authorization from Haley & Aldrich indicating that the report is adequate for such other use. Use of this report by any person or entity for such other purpose without written authorization by Haley & Aldrich shall be at such person's or entity's sole risk and shall be without legal exposure or liability to Haley & Aldrich.

This report reflects subject site conditions observed and described by records available to Haley & Aldrich as of the date of report preparation. The passage of time may result in significant changes in subject site conditions, technology, or economic conditions, which could alter the findings and/or recommendations of the report. Accordingly, McKissack & McKissack and any other party to whom the report is provided recognize and agree that Haley & Aldrich shall bear no liability for deviations from observed conditions or available records after the time of report preparation.

Use of this report by any person or entity in violation of the restrictions expressed in this report shall be deemed and accepted by the user as conclusive evidence that such use and the reliance placed on this report, or any portions thereof, is unreasonable, and that the user accepts full and exclusive responsibility and liability for any losses, damages, or other liability which may result.

2. SITE DESCRIPTION

2.1 Site Ownership and Location

2.1.1 Name of Site Owners

SW Landholder, LLC owns the subject site.

2.1.2 Name of Site Operator

Akridge is the operator of the subject site.

2.1.3 Project Locus Map

The United States Geologic Survey (USGS) topographic map for the subject site is the Washington West, District of Columbia Quadrangle, dated 1983 (see Figure 1). The USGS topographic map was used as the source for subject site setting information.

2.2 Site and Vicinity Description

Figure 2 is a Site Plan of the subject site and shows relevant features of the subject site and immediately adjoining properties, as described below. The subject site comprises a parking lot and a small building in the northwestern portion utilized for end-of-life vehicle storage.

The area in the vicinity of the subject site is generally characterized as urban industrial and commercial.

- **North:** Rollingwood Real Estate and Super Salvage, Inc. Rollingwood Real Estate reportedly used to store and refurbish bicycles for the Washington DC Capital Bike Share Program. Super Salvage, Inc. operates a salvage yard for diverse metal structures.
- **South:** Marc/Park parking (a parking lot)
- **West:** National defense unit
- **East:** Potomac Electric Power Company (PEPCO) owns and operates an electrical substation.

2.3 Physical Setting

The subject site geology and hydrology were evaluated based on the results of the limited Phase II sampling (see Section 6 of this report) performed by Haley & Aldrich subsequent to the Phase I assessment, available public information or references, and upon our experience and understanding of subsurface conditions in the subject site area.

2.3.1 Topography

Topographically, the subject site and its vicinity are relatively flat with a gradual downward slope to the south. The subject site is at an elevation of approximately 21 feet above sea level (based on the Environmental Resources Data report).

2.3.2 Geology

Three borings were advanced under the subject site as part of the limited Phase II sampling in December 2013. Shallow soil under the site (to a depth of five feet below ground surface [bgs]) generally comprises sand and silt with some gravel and clay. Construction-related materials, including brick, glass, concrete fragments and possible asphalt or ash fill were encountered in shallow soil. Clay was generally observed to a depth of 29 feet bgs. Deeper soils to a depth of 40 feet bgs were comprised of clay, sand and/or gravel. According to information obtained from the Environmental Data Resources (EDR), Inc., report, bedrock beneath the subject site consists of a stratified sequence of Cretaceous–aged sedimentary rock.

Soils details in the subject site vicinity were not available, however, due to the proximity of the Anacostia River, alluvial sediments likely exists above the sedimentary rock. The subject site and vicinity are located in area comprised of urban land characterized by disturbed surface soils covered with structures and other impervious materials (pavement and concrete).

2.3.3 Hydrology

Based on surface topography, surface water from the subject site appears to flow in a southerly direction.

Also based on topography and the location of nearest water bodies (the Anacostia River, located approximately 0.15 miles east and 0.2 miles south and the Potomac River located approximately 0.3 miles west of the subject site), regional groundwater flow is anticipated to be tidally influenced. Hydrogeologic investigations were not performed at the subject site during this Phase I assessment and limited Phase II sampling; therefore, it is unknown to what extent localized variations in groundwater depth and flow occur on the subject site.

According to the Flood Insurance Rate Map supplied by EDR, the subject site is located within a floodplain. Potable water is supplied to the subject site by the District of Columbia Water and Sewer Authority. There is no known monitoring or pumping wells located on the property.

3. PREVIOUS REPORTS

The following reports previously prepared for the subject site and surrounding properties were reviewed for this Phase I assessment. Information contained in these reports is included herein and summarized below. Copies of pertinent sections of these reports are included in Appendix B.

- "Assessment of the Buzzard Point Properties," prepared by Geomatrix, Inc., for Potomac Electric Power Company, dated March 1990. *Note: This report included a multi-lot properties currently and formerly owned by PEPCO (including the subject site) located south of Potomac Avenue, North of V Street, east of 2nd Street, and west of Half Street. Only findings that may impact the condition of the subject site are discussed herein.*

- "Limited Phase II Environmental Investigation, Buzzard Point, 2nd Street SW / V Street SW, Washington, D.C.," prepared by URS Corporation, Inc. (URS), for Potomac Electric Power Company, dated 22 March 2005. *Note: This report included a multi-lot area, south of T Street, North of V Street, east of 2nd Street, and west of 1st Street. Only findings that may impact the condition of the subject site are discussed herein.*

- "Phase I Environmental Site Assessment, Buzzard Point, Squares 609 & 611, 2nd Street and V Street, SW, Washington, DC," prepared by URS for PEPCO Holdings Inc., dated 4 April 2005. *Note: This report included a multi-lot area, south of T Street, North of V Street, east of 2nd Street, and west of 1st Street. Only findings that may impact the condition of the subject site are discussed herein.*

- "Phase I Environmental Site Assessment, Buzzard Point, 2nd Street and V Street, SW, Washington, DC," prepared by Advantage Environmental Consultants, LLC (AEC), for The John Akridge Companies, Inc., dated 10 June 2005. *Note: This report included a multi-lot area located south of S Street, North of V Street, east of 2nd Street, and west of 1st Street. Only findings that may impact the condition of the subject site are discussed herein.*

- "Phase II Environmental Site Assessment, Buzzard Point, 2nd Street and V Street, SW, Washington, DC," prepared by AEC for The John Akridge Companies, Inc., dated 10 June 2005. *Note: This report included a multi-lot area located south of S Street, North of V Street, east of 2nd Street, and west of 1st Street. Only findings that may impact the condition of the subject site are discussed herein.*

Subject site: In 1990, Geomatrix collected soil samples for total petroleum hydrocarbon (TPH), benzene, toluene, ethylbenzene and xylenes (BTEX), PCBs, and toxicity metals. The subject site was identified as "Site 2" in the report and was being used as a gasoline filling station for PEPCO vehicles at the time of the investigation. Soil samples were collected from 0 to 2 feet bgs. Of the thirteen samples collected, ten showed TPH concentrations ranging from 100 ppm to 360 parts per million (ppm). Geomatrix concluded that TPH concentrations were fairly well distributed throughout the site.

At the time of the AEC 2005 Phase I, the subject site was used as a fenced parking lot with a prefabricated metal storage building and trailers. The subject site was used for vehicle fueling and storage by PEPCO from the late 1960s until 1993. Three Underground Storage Tanks (USTs) were located on-site:

- 6,000 gallon gasoline UST removed in 1988;
- 6,000 gallon diesel UST removed in 1988; and
- 20,000 gallon gasoline UST removed in 1993 and assigned Leaking Underground Storage Tank (LUST) case 93094 due to the discovery of petroleum impact to groundwater at the subject site during removal of the UST. Confirmatory soil samples were not significantly contaminated; however, groundwater samples were above regulatory limits. One monitoring well (MW-13) was later installed in this area. Petroleum concentrations in soil were below action limits at the time, although BTEX (1.77 milligrams per liter [mg/L]) and total petroleum hydrocarbons ([TPH]; 3.0 mg/L) were above action limits for groundwater. The LUST case received regulatory closure in May 1994.

In May 2005, AEC advanced borings (B-1 through B-9, B-27, B-29, and B-30) using Geoprobe rigs, screened soils with a photoionization detector, collected soil samples for total TPH diesel range organics (TPH DRO), TPH gasoline range organics (TPH GRO), Volatile Organic Compounds (VOCs), and priority pollutant metals, PCBs, metals, and ignitability, installed groundwater monitoring wells, and collected groundwater samples for TPH DRO, VOCs, and lead. Soil results indicated:

- TPH-DRO/GRO were below detection limits in soil except for DRO detected on the southwest corner of Lot 0013 at 11 ppm and DRO detected on the southeast corner of the subject site near the former USTs at 45 ppm.
- VOCs and PCBs were below detection limits.
- Lead was detected across Lot 0013 at concentrations below 170 ppm.

Groundwater samples indicated:

- TPH DRO and lead were below detection limits.
- VOCs detected on the southeast corner of the subject site near the former USTs included benzene and solvents.

PEPCO Generating Station, located immediately east of the subject site at Square 0665, Lot 0024 and Square 0661, Lot 0804: The AEC 2005 Phase I identified four LUST cases. In the early 1970s, a release was reported from a four-inch diameter underground pipeline that connected the Generating Station (Lot 0024) to the two, 0.411-million gallon #2 fuel oil aboveground storage tanks ([ASTs]; Lot 0804) under S Street. In 1993, significant gasoline and diesel contamination was discovered in soil and groundwater on the northern portion of Lot 0024.

Monitoring wells installed in both lots identified TPH GRO, TPH DRO, and BTEX in soil and monitoring wells as well as liquid-phase hydrocarbons (LPH). The groundwater flow direction was documented to be west and southwest.

In January 1996, PEPCO installed a soil vapor extraction system that operated through November 1999 that removed approximately 6,925 gallons of petroleum. From May 2001 to April 2002, a portable high vacuum pump and treat system was used to recover LPH from two of the most contaminated wells (MW-5 and MW-11), removing 1.5 gallons of groundwater and 1,350 gallons of petroleum. The site had been monitored monthly since 1993 with semi-annual sampling events. Results were reported to DC Department of Health (now DC Department of the Environment [DCDE]) in quarterly reports.

The AEC 2005 Phase I reviewed the March 2004 groundwater sampling data. TPH GRO, TPH DRO, and BTEX were above applicable regulatory standards except in three downgradient wells. Only passive remediation with absorbent booms and monitoring was ongoing.

Super Salvage, Inc. located immediately north of the subject site: These lots operated as a metal scrap yard since the 1960s. The URS and AEC 2005 Phase Is identified these lots on the RCRA Small Quantity Generator, LUST, and UST databases. One 2,000 gallon UST was permanently out of use. The LUST case was granted regulatory closure. No additional details were provided.

Square 0609, Lot 0804; Square 0611, Lots 19 & 10, located immediately southeast of the subject site: At the time of the URS and AEC 2005 Phase Is, these lots were used as a fenced parking lot with an unused 1.9-million gallon bulk #6 fuel oil AST installed in the late 1960s, an associated firefighting foam house, and a small storage shed. These lots were used as a coal storage yard from the late 1920s until the Generating Station began using fuel oil to power the station in 1968. From 1968 until the Generating Station was decommissioned in 1981, the lots were used by PEPCO for bulk fuel storage and leased to W.A. Chester for use as a vehicle and equipment maintenance and storage lot. An underground pipeline installed beneath 1st Street was used to connect the 1.9-million gallon AST to the Generating Station. The AST was decommissioned and the underground pipeline was filled in 1981. No information regarding releases from the AST or pipeline is known.

A URS sampling program conducted in 2005 indicated that soil and groundwater were affected by releases of petroleum hydrocarbons. No visual or olfactory evidence of contamination was observed, but laboratory analysis identified various levels of metals and TPH-DRO/GRO in soil and groundwater samples collected. An AEC sampling program conducted in 2005 also indicated that soil and groundwater were impacted by releases of petroleum hydrocarbons with low levels of TPH-DRO and lead detected.

4. SITE HISTORY

Past usage of the site and/or adjoining properties was assessed through a review of Sanborn maps dated 1928, 1959, 1977, 1984, 1988, 1990, 1991, 1992, 1994, and 1998; a review of aerial photographs dated 1944, 1949, 1951, 1957, 1963, 1968, 1970, 1977, 1983, 1988, 1994, 1998, 2000, 2005, 2007, 2008, 2009, 2011 and 2012; and topographic maps dated 1885, 1894, 1947, 1951, 1956, 1965, 1971, 1972, 1983 and 1994 prepared for the subject site (Appendix C).

By the late 1940s, the subject site was developed with residential properties. Grading of these properties took place between the late 1950s and the late 1960s. The subject site was observed to be vacant until 1970, at which time PEPCO operated a garage in the northwestern portion of the site. The remainder of the subject site was used for parking. By 2005, a small structure is shown in the northeastern corner of the subject site. This structure is no longer present in 2011.

The table below provides a detailed summary of pertinent information from the historical sources reviewed:

Dates	Description of Subject Site	Description of Adjoining Properties	Sources
1949-1956	The subject site was developed with residential properties.	North: residential dwellings and light commercial/industrial structures South: grading East: residential dwellings West: a commercial/industrial property	1949 and 1951 aerial photos
1957-1969	The dwellings on the subject site appear to have been graded by 1957.	North, east and west: the residential dwellings have been graded. Light commercial/industrial structures are still observed. By 1957, a substation is located southeast of the subject site. By 1968, two ASTs were observed on the property northeast of the subject site. These are later identified as fuel oil tanks on the 1984 Sanborn map. A truck parking lot was also observed in the east of the subject site.	1957, 1963 and 1968 aerial photos and 1984 Sanborn map

Dates	Description of Subject Site	Description of Adjoining Properties	Sources
1970-2012	PEPCO operates a garage in the northwestern portion of the subject site. The remainder of the subject site is used for parking.	North: A parking garage and an associated office and a scrap metal yard reportedly owned by Onec are located adjacent to the subject site. South: an AST is located in the southern portion of the property immediately adjacent to the subject site. This AST is no longer present in 2007. East: According to the Sanborn map dated 1984, PEPCO is located east of the subject site. A transfer yard was observed south of the storage tanks on the PEPCO property. A conveyor yard is located southeast of the subject site. West: By 1983, the northern portion of the commercial/industrial property is no longer present and the footprint of this structure has been graded. By 1988, the entire commercial/industrial structure adjacent to the subject site is no longer present. By 1998, a parking lot is located southwest of the subject site. This parking lot is no longer present in 2005. By 2007, a large commercial/industrial building was observed adjacent to the west of the subject site.	1970, 1977, 1983, 1988, 1994, 1998, 2000, 2005, 2007. 2008, 2009, 2011 and 2012 aerial photos and 1984, 1988, 1990, 1991, 1992, 1994 and 1998 Sanborn maps

Notes:

1. Unless otherwise noted above, per the ASTM standard, sources were reviewed dating back to 1940 or first developed use, whichever is earlier, and at five-year intervals if the use of the property has changed within that time period.

Copies of historical references reviewed are included in Appendix B.

5. ENVIRONMENTAL RECORDS REVIEW

5.1 Standard Environmental Records Review

Haley & Aldrich used the electronic database service Environmental Date Resources to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced agency records, located within the ASTM-specified approximate minimum search distances as shown in the table below. Section 5.1.1 presents a description of each database searched.

Database Searched	Approximate Minimum Search Distance	Subject Site Listed?	Number of Sites within Search Distance
NPL Sites	1 mile	No	1
Delisted NPL Sites	0.5 mile	No	0
CERCLIS Sites	0.5 mile	No	1
CERCLIS-NFRAP Sites	0.5 mile	No	3
Federal ERNS	Site only	No	0
RCRA non-CORRACTS TSD Facilities	0.5 mile	No	0
RCRA CORRACTS TSD Facilities	1 mile	No	1
RCRA Generators	Site & Adjoining	Yes	4
Federal Institutional Controls/Engineering Controls	Site Only	No	0
State and Tribal Equivalent NPL Sites	1 mile	No	0
State and Tribal Equivalent CERCLIS Sites	0.5 mile	No	0
State and Tribal Registered Storage Tanks	Site & Adjoining	No	5
State and Tribal Landfills and Solid Waste Disposal Sites	0.5 mile	No	0
State and Tribal Leaking Storage Tanks	0.5 mile	Yes	33
State and Tribal Institutional Controls/Engineering Controls	Site Only	No	0
State and Tribal Voluntary Cleanup Sites	0.5 mile	No	1
State and Tribal Brownfield Sites	0.5 mile	Yes	13
DC Historical USTs	0.25 mile	Yes	7

The Environmental Data Resources (EDR) report also contains search results of other State environmental databases that are relevant to the subject site.

Haley & Aldrich also searched the Orphan Site List provided in the EDR report for the subject site and sites adjoining the subject site. Orphan sites are those that, due to incorrect or incomplete addresses,

could not be mapped. Neither the subject site not the adjoining properties were identified on the Orphan Site List. The complete environmental database report is provided in Appendix D.

5.1.1 Descriptions of Databases Searched

Numerous regulatory databases were searched during this Phase I assessment. Each database reviewed is described in the EDR report presented in Appendix D. Those databases required by the ASTM E 1527-05 Standard are identified below.

1. **NPL Sites:** The National Priorities List (NPL) is a list of contaminated sites that are considered the highest priority for cleanup by the U.S. Environmental Protection Agency (USEPA).

2. **Delisted NPL Sites:** The Delisted National Priorities List (NPL) is a list of formal NPL sites formerly considered the highest priority for cleanup by the USEPA that met the criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for deletion from the NPL because a no further response was appropriate.

3. **CERCLIS Sites:** The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list identifies sites which are suspected to have contamination and require additional investigation to assess whether they should be considered for inclusion on the NPL.

4. **CERCLIS-NFRAP Sites:** CERCLIS-NFRAP status indicates that a site was once on the CERCLIS List but has No Further Response Actions Planned (NFRAP). Sites on the CERCLIS-NFRAP List were removed from the CERCLIS List in February 1995 because, after an initial investigation was performed, no contamination was found, contamination was removed quickly, or the contamination was not significant enough to warrant NPL status.

5. **Federal ERNS:** The Federal Emergency Response Notification System (ERNS) list tracks information on reported releases of oil and hazardous materials.

6. **RCRA non-CORRACTS TSD facilities:** The Resource Conservation and Recovery Act (RCRA) non-CORRACTS TSD Facilities List tracks facilities which treat, store, or dispose of hazardous waste and are not associated with corrective action activity.

7. **RCRA CORRACTS TSD facilities:** The RCRA CORRACTS TSD Facilities list catalogues facilities that treat, store, or dispose of hazardous waste and have been associated with corrective action activity.

8. **RCRA Generators:** The RCRA Generator list is maintained by the USEPA to track facilities that generate hazardous waste.

9. **Federal Institutional Controls/Engineering Controls:** The Federal Institutional Control list and Engineering Control list are maintained by the USEPA. Some Institutional Control and Engineering Control information may not be made publicly available and therefore will not be included on this registry.

10. **State and Tribal Equivalent NPL/CERCLIS Sites:** The (ASTM E 1527-05 Standard) requires searching "State and Tribal Equivalent NPL Sites." A state equivalent to the Federal NPL list is not maintained in District of Columbia. The subject site is not within tribal jurisdiction.

11. **State and Tribal Equivalent CERCLIS Sites:** The (ASTM E 1527-05 Standard) requires searching "State and Tribal Equivalent CERCLIS Sites." A state equivalent to the Federal CERCLIS list is not maintained in District of Columbia. The subject site is not within tribal jurisdiction.

12. **State and Tribal Registered Storage Tanks:** The District of Columbia Department of the Environment maintains a list of aboveground and underground storage tanks. The subject site is not within tribal jurisdiction.

13. **State and Tribal Landfills and Solid Waste Disposal Sites:** The District of Columbia Solid Waste Disposal Division is responsible for waste disposal at facilities located in Virginia. The subject site is not within tribal jurisdiction.

14. **State and Tribal Leaking Storage Tanks:** The District of Columbia Department of the Environment maintains an inventory of reported leaking underground storage tank incidents. The subject site is not within tribal jurisdiction.

15. **State and Tribal Voluntary Cleanup Sites:** The District of Columbia Department of Health maintains a list of Voluntary Cleanup sites. The subject site is not within tribal jurisdiction.

16. **State and Tribal Brownfield Sites:** The District of Columbia Department of the Environment maintains a list of Brownfield sites which includes properties where redevelopment or re-use may be compromised by the presence or presumed presence of hazardous materials or petroleum. The subject site is not within tribal jurisdiction.

17. **Other Databases Searched (Historical Cleaners and Auto Stations):** EDR Proprietary Records include Historical Cleaners, a database that consists of potential dry cleaner sites; and Historical Auto Stations, available listings of potential gas station/filling station/service station sites.

5.1.2 Detailed Description of Relevant Subject Site Listings

The EDR report identified the following database listings in searched databases (including more databases than listed above) at the subject site.

100 S Street, SW (Square 0607, Lot 0013, Map ID # 1) is listed on the Brownfields database.

PEPCO Buzzard – Tank #1 located at 180 S Street, SW (Square 0607, Lot 0013, Map ID # A2) is listed on the LUST (case number 93094) and Brownfields databases. The site owned and operated a gasoline or diesel UST. A release from the UST was reported in August 1993 and reportedly impacted soil. The status of the release is listed as closed. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

Buzzard Point Facility, also located at 180 S Street, SW (Square 0607, Lots 0013, Map ID # I36) is listed on the UST database. Three tanks storing gasoline are listed as Permanently Out of Use.

5.1.3 Detailed Descriptions of Relevant Nearby Site Listings

The EDR report identified database listings in searched databases (including more databases than listed above) within the prescribed search radii. The majority of the database listings were USTs and LUST sites. Based on the urban area of the site, characterized by subsurface building levels, subway tunnels, and utilities that create barriers to groundwater flow, and based on the assumption that the groundwater under the subject site is tidally influenced, only those sites in the immediate vicinity of the subject site would be anticipated to have the potential to affect the subject site. These sites are listed below.

PEPCO, located at 1st and T Street, SW (Map ID # 7), immediately east of the subject site and crossgradient of the subject site, is listed on the UST database. Two entries are included in this database for tanks of capacity 6,000 gallons and containing diesel. These entries are listed as Permanently Out of Use.

Super Salvage, Inc. located at 1711 1st Street, SW (Map ID # C9, C10 and C11), adjacent to the north and upgradient of the subject site, is listed on the LUST (case # 96030), UST and RCRA-CESQC databases. A tank containing gasoline was reported to be leaking in October 1995 and reportedly impacted soil. The status of this release is listed as Closed. A 2,000-gallon gasoline located at the site is listed as Permanently Out of Use. Additionally, this entity is listed as a Conditionally Exempt Small Quantity Generator for storing ignitable hazardous wastes, as well as waste cadmium, lead, benzene, methyl ethyl ketone, tetrachloroethylene (PCE), and trichloroethylene (TCE). No violations have been reported associated with this listing. Based on its status and impacts being limited to soil, impacts from the LUST do not present a threat to human health or the environment under current site conditions and it is unlikely that the LUST will require additional regulatory action

Attis located at 1714 2nd Street, SW (Square 0605, Lots 0007, Map ID # A3) and adjacent to the north and upgradient of the subject site, is listed on the UST database. The 3,500-gallon tank contained gasoline. The entry is listed as Permanently Out of Use. AT&T is also located at 1714 2nd Street, SW (Square 0605, Lots 0007, Map ID # A4) and is listed on the LUST (case # 92076) and Brownfield databases. The site owned and operated a 3,500 gallon gasoline UST. A release from the UST was reported in July 1992 and impacted soil and groundwater. The status of the release is listed as Closed. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

An entry located at 1700 1st Street, SW (Map ID # C10), located approximately 300 feet northeast and crossgradient of the subject site, is listed on the Brownfield database. No additional details are provided.

5.2 Additional Environmental Records Review

To supplement the (ASTM E 1527-05 Standard) environmental record sources, we contacted the following state and local government agencies, and/or reviewed the following additional sources:

5.2.1 D.C. Department of the Environment

Additional environmental records were requested for this assessment through a Freedom of Information Act (FOIA) request to the DDOE. To date, no response has been received from the FOIA request. Due to the information obtained through interviews with key subject site personnel, and other records reviews, it does not appear that responses to the FOIA requests should affect our conclusions regarding the site. However, if a response is received that affects our conclusions regarding the subject site, we will provide an addendum to this report.

5.2.2 Fire and EMS Department

Additional environmental records were requested for this assessment through a FOIA request to the DC Fire and EMS Department. This department responded to our request on 27 December 2013. According to the files held by this department, operations taking place at the subject site and adjoining properties are unlikely to be impacting the subject site. A copy of the response from the DC Fire and EMS Department is included in Appendix D.

5.3 User Responsibilities

The AAI Rule requires that the user of the report consider the following:

- Whether the user has specialized knowledge about previous ownership or uses of the subject site that may be material to identifying RECs;
- Whether the user has determined that the subject site's Title contains environmental liens or other information related to the environmental condition of the property, including engineering and institutional controls and Activity and Use Limitations, as defined by ASTM;
- Whether the user is aware of commonly known or reasonably ascertainable information about the subject site including whether or not the presence of contamination is likely on the subject site and to what degree it can be detected; and
- Whether the user has prior knowledge that the price of the subject site has been reduced for environmentally related reasons.

We requested such information for inclusion in this report. Though neither the AAI Rule nor the ASTM E 1527-05 Standard requires that this information be provided to the environmental professional(s), failure on the part of the user to obtain such information for their own records, should it be reasonably ascertainable, may invalidate the user's compliance with the AAI Rule for CERCLA liability protection in the future.

6. SITE RECONNAISSANCE AND KEY PERSONNEL INTERVIEW(S)

A subject site visit to observe site conditions was conducted by Karin Holland and Christian-Noel Tschibelu of Haley & Aldrich on 28 August 2013. Access to the building located in the northwestern portion of the subject site was provided to Karin Holland on 23 December 2013. Access to the subject site was provided by Terrance Jones of Akridge and by Lieutenant Mike Wilson of the US Capitol Police. Haley & Aldrich personnel observed accessible interior areas of the subject site building(s), including common areas, basement areas, mechanical spaces, and tenant spaces. Haley & Aldrich also observed the exterior portions of the subject site, including the property boundaries, and observed adjoining property conditions from the subject site boundaries and/or public thoroughfares. No weather-related conditions or other conditions that would limit our ability to observe the subject site or adjoining properties occurred during our subject site visit.

Terrance Jones and Mike Wilson were interviewed during the subject site visits. The findings of the subject site visit and interviews are discussed below. Site photographs are included in Appendix E.

ASTM E 1527-05 Standard Section 10.8 requires that, prior to the subject site visit**,** the current subject site owner or key site manager and user, if different from the current owner or key site manager, be asked if there are any helpful documents that can be made available for review. These consist of environmental site assessment reports, audits, permits, tank registrations, Material Safety Data Sheets, Community Right-to-Know plans, safety plans, hydrogeologic or geotechnical reports, or hazardous waste generator reports. We made such a request but were not provided with any documents.

6.1 Subject Site Observations

6.1.1 Current Use of the Property and General Description of Structures

The subject site is operated by Akridge and comprises an asphalt parking lot and a building that stores end-of-life vehicles, including passenger vehicles and a motorcycle. Three metal containers are located in the northern portion of the subject site. The Akridge site representative believed that the subject site has been used for current activities for at least ten years.

6.1.2 Potable Water Supply and Sewage Disposal System or Septic Systems

The subject site is not connected to a potable water supply and a sewage disposal system.

6.1.3 Use and Storage of Petroleum Products and Hazardous Materials

Bulk petroleum products and/or hazardous materials were not observed or reported to be currently used, stored, and/or disposed of at the subject site. However, petroleum and hazardous materials were previously used and stored at the subject site, as described below:

Tank #	AST/ UST	Contents/ Capacity	Location[1]	Use	Closure Status	Observations/ Evidence of release
9	LUST (case # 93094)	Gasoline, 20,000 gallon	Unknown	Unknown	Out of use, listed as Closed	A loose gravel and vegetated area was observed in the western portion of the subject site and could be the potential location of one of the former USTs.
10	UST	Gasoline, 6,000 gallon	Unknown	Unknown	Removed in 1988	
11	UST	Diesel, 6,000 gallon	Unknown	Unknown	Removed in 1988	

Notes:
1. Approximate tank locations are shown on Figure 2.

Three small, empty cylinders were observed in the building. The former contents of these containers are unknown.

6.1.4 Disposal of Petroleum Products and Hazardous Materials

Petroleum products and hazardous materials were not observed at the subject site.

6.1.5 Odors

No odors were detected at the subject site during the subject site visits in August and December 2013. However, a hydrocarbon-like odor was encountered during the limited Phase II sampling at depths of approximately seven to eleven feet bgs in a borehole (GTW-607-13-2, see Section 6) advanced in the northeastern portion of the subject site.

6.1.6 PCBs Associated with Electrical or Hydraulic Equipment

Due to the nature of activities, PCB-containing materials are unlikely to be present at the subject site.

6.1.7 Unidentified Substance Containers

Three small, empty jerry cans were observed in the building. The former contents of these containers are unknown.

6.1.8 Heating and Cooling System

The subject site is not equipped with a heating or cooling system.

6.1.9 Stains or Corrosion on Floors, Walls, or Ceilings

Staining believed to be associated with hydrocarbon spills was observed on the concrete floor inside the building. The concrete was observed to be in good condition.

6.1.10 Floor Drains and Sumps

Two floor drains were observed in the building, one in the northwestern portion and a second in the southeastern portion of the building. Heavy staining appearing to be caused by hydrocarbons was observed on concrete surrounding the floor drains. Although no cracks were apparent in the concrete in the areas where staining was observed, it is unknown whether the source of the stains has also migrated into these floor drains or where the floor drains discharge. In addition, the source of the staining could have penetrated the concrete floor.

At least three drains were also observed in the southern portion of the parking lot.

6.1.11 Hydraulic Elevators

No hydraulic elevators were observed or reported at the subject site.

6.1.12 Vehicle Maintenance Lifts

No hydraulic vehicle maintenance lifts were observed or reported at the subject site.

6.1.13 Emergency Generators and Sprinkler System Pumps

No emergency generators and sprinkler system pumps were observed or reported at the subject site.

6.1.14 Catch Basins

No catch basins were observed or reported at the subject site.

6.1.15 Dry Wells

Dry wells were not observed or reported at the subject site.

6.1.16 Pits, Ponds, Lagoons, and Pools of Liquid

Pits, Ponds, Lagoons, and Pools of Liquid were not observed or reported at the subject site.

6.1.17 Stained Soil or Pavement

Minor stains appearing to be caused by hydrocarbons were observed on asphalt in the northern and central portions of the subject site. During the site visit in August 2013, minor stains were observed on loose gravel west of the building in the northwestern portion of the lot. On the subsequent subject site visit in December 2013, the staining was no longer visible. No odors or stressed vegetation was encountered during either visit, suggesting that the staining was superficial in nature and is unlikely to have migrated to the subsurface.

6.1.18 Stressed Vegetation

Grasses, shrubs and small trees were observed in the northwest portion of the subject site to the building. Evidence of stressed vegetation was not observed.

6.1.19 Solid Waste and Evidence of Waste Filling

Evidence of solid waste and waste filling was not observed. Storage of waste cloths and packaging was observed in the western portion of the building.

6.1.20 Wastewater and Stormwater Discharge

The subject site does not generate wastewater.

6.1.21 Monitoring, Water Supply, or Irrigation Wells

Monitoring, water supply, and irrigation wells were not observed or reported at the subject site.

6.1.22 Sanitary Sewer and Septic Systems

Septic systems were not observed or reported at the subject site.

6.2 Adjoining Property Observations

Properties adjoining the subject site were generally observed to be light industrial or commercial in nature.

7. SUBSURFACE EXPLORATION

In order to evaluate subsurface conditions of the subject site and assess whether current and former operation at and adjacent to the subject site are impacting the subject site, Haley & Aldrich conducted a limited Phase II subsurface assessment at the subject site. The approximate locations of explorations are shown on Figure 3.

7.1 Geoprobe Sampling and Monitoring Well Installations 5 and 6 December 2012

On 5 and 6 December 2012, Haley & Aldrich oversaw the advancement of temporary groundwater monitoring wells at two locations (see Figure 3) at the subject site by Vironex Drilling, Inc. Two wells were initially advanced to approximate depths of 23.5 and 15 feet bgs (GTW-607-13-1 and GTW-607-13-2, respectively); however, the clay formation encountered within the screened interval of these wells did not provide adequate yield of groundwater for collection of the proposed analyses. Adjacent, deeper wells (GTW-607-13-1A and GTW-607-13-2A) were therefore advanced to approximate depths of 36 and 34.7 feet bgs. GTW-607-13-1 is located in the vicinity of the on-site 20,000 gallon gasoline LUST (case # 93094) in the southeastern portion of the subject site and GTW-607-13-2 is located along S Street at the north end of the site (topographically down-gradient from the Super Salvage property). An additional Geoprobe (GSS-607-13-3) was advanced in the central portion of the subject site in the vicinity of observed staining of asphalt.

Geoprobe reports and observation well installation reports are included in Appendix F.

7.1.1 Soil Sampling 5 December 2013

Soil samples collected during the advancement of the temporary groundwater monitoring wells (GTW-607-13-1 and GTW-607-13-2) and the Geoprobe (GSS-607-13-3) were screened for VOCs by exposing a photoionization detector (PID) to vapors accumulated in the headspace of jar samples. The soil sample corresponding to the highest PID reading from each boring was submitted for laboratory analysis. Samples collected for TPH-GRO and VOCs were field preserved using VOC sampling kits. The soil samples were placed on ice in the field prior to being shipped via overnight courier to Pace Analytical Services, Inc. (Pace) in Huntersville, North Carolina. Priority pollutant metals analyses were performed at the Pace laboratory in Asheville, North Carolina, while TPH, VOCs and semi-volatile organic compounds (SVOCs) analyses were performed at the Pace laboratory in Charlotte, North Carolina.

7.1.2 Groundwater Sampling 12 and 13 December 2012

Monitoring well GTW-607-13-1A was sampled using low-flow sampling techniques on 12 December 2012. The following groundwater quality parameters were monitored and recorded prior to sampling: pH, temperature, conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity. Wells GTW-607-13-1, GTW-70-13-2 and GTW-607-13-2A did not provide sufficient yield for low-flow sampling; these wells were therefore purged and allowed to recover for sampling within 24 hours. No evidence of free product or sheens were observed in groundwater from the sampled monitoring wells or detected using an electronic oil-water interface probe. Groundwater sampling records are included in Appendix G. Groundwater samples were collected and placed in laboratory prepared containers and stored on

ice in the field prior to being submitted for TPH and VOCs analyses at the Pace laboratory in Charlotte, North Carolina.

7.2 Subsurface Findings

Subsurface investigations described in this report did not define the lateral extent of petroleum impacts to soil or groundwater at the subject site. The objective was to explore SRECs and KRECs to evaluate current conditions to assess the general magnitude of potential impacts.

7.2.1 Soil Results

Soil analytical results are summarized in Table 1, along with regulatory screening levels for comparison. Laboratory analytical reports are included in Appendix H.

Analytical results for a soil sample collected near the southeastern corner of the subject site (GTW-607-13-1-3) from a depth of 10 to 15 feet bgs in the area of the former 20,000-gallon gasoline UST were less than the laboratory reporting limits for VOCs, SVOCs, TPH-GRO, and TPH-DRO. Arsenic (7.1 mg/kg) and chromium (18.2 mg/kg) were detected at concentrations exceeding the EPA Region III Risk-Based Screening Levels for residential soil.

Analytical results for a soil sample collected at the north end of the subject site (GTW-607-13-2-2, located along S Street) from a depth of 5 to 10 feet bgs indicated minor petroleum impact (TPH-DRO and PAHs). The TPH-DRO concentration detected (119 mg/kg) slightly exceeds the DC Tier 0 Soil Standard for TPH of 100 mg/kg. Benzo(a)pyrene was detected at 8.67 mg/kg, slightly exceeding the DC Risk-Based Corrective Action (DCRBCA) Screening Levels for construction worker exposure of 5.92 mg/kg. Other PAHs, along with arsenic (4.8 mg/kg) and chromium (10.3 mg/kg) were detected at concentrations exceeding the EPA Region III Risk-Based Screening Levels for residential soil. The source and extent of impact is currently not known, although brick, concrete fragments, glass, wood and apparent ash or asphalt (typical of urban fill) was encountered in this boring, which commonly yields similar results.

Analytical results for a soil sample collected from beneath the asphalt in an area of staining on the parking lot in the central portion of the subject site (GSS-607-13-3-1) indicated minor petroleum impact. The TPH-DRO concentration detected in GTW-607-13-3-1 (184 mg/kg) exceeds the DC Tier 0 Soil Standard for TPH of 100 mg/kg. The extent of vertical impact is currently not known, although based on the relatively low concentration immediately beneath the staining, the degree of impact appears to be minor. Brick and apparent asphalt debris, typical of urban fill were also observed in this sample.

7.2.2 Groundwater Results

Groundwater analytical results are summarized in Table 2, along with regulatory screening levels for comparison. Laboratory analytical reports are included as Appendix H.

Analytical results for groundwater collected from GTW-607-13-1A, located in the southeastern portion of the subject site, were generally consistent with findings from the 2005 AEC Phase II assessment, with gasoline-related constituents (TPH-GRO at 2.1 mg/L, benzene at 10.2 micrograms per liter [μg/L] and methyl tertiary butyl ether [MTBE] at 38 μg/L) and relatively low concentrations of chlorinated solvents (TCE at 43.9 μg/L and vinyl chloride (VC)

at 38 µg/L). MTBE (54 µg/L) and acetone (115 µg/L) were also detected in groundwater collected from GTW-607-13-1, the shallow well adjacent to GTW-607-13-1A. The gasoline-related constituents are likely associated with the former 20,000-gallon gasoline UST in this area of the site. The source for the chlorinated solvents is not known, but may be related to a former "asphalt pit" identified on a site figure in a 1990 Geomatrix report or may have migrated from some other unknown off-site source. The extent of impact is was not delineated during our sampling, however volatile organic compounds were reportedly not detected in several other groundwater samples collected by AEC at the subject site in 2005, suggesting that the extent may be limited to the southeast corner.

The groundwater analytical results for GTW-607-2 and GTW-607-2A, located at the north end of the site along S Street, were less than the laboratory reporting limits for TPH-DRO, TPH-GRO, and VOCs, with the exception of acetone, which was detected at concentrations of 79 and 625 µg/L, respectively.

8. FINDINGS AND CONCLUSIONS

Haley & Aldrich performed a Phase I environmental site assessment (Phase I assessment) of the Akridge parcel at Buzzard Point, Square 0607, Lot 0013 in Washington, DC. The scope of work is described and conditioned by our proposal dated 28 June 2013. As indicated in our proposal, this Phase I assessment was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) as referenced in 40 Code of Federal Regulations (CFR) Part 312 [the All Appropriate Inquiries (AAI) Rule]. Deviations from this Standard, and/or data gaps and their significance are described in Section 1.5 of this report. Limited Phase II subsurface sampling was also conducted to evaluate issues identified during the Phase I portion of the assessment. Our conclusions are intended to help the user evaluate the "business environmental risk" associated with the subject site, as defined in the ASTM E 1527-05 Standard and discussed in Section 1.1 of this report.

The subject site is bound by 1st, 2nd, S, and T Streets SW, and comprises a parking lot and a single-level storage building. The building is utilized to store end-of-life passenger vehicles and a motorcycle.

The objective of a Phase I assessment is to identify known and suspect "recognized environmental conditions" (RECs), historical RECs (HRECs), and *de minimis* conditions associated with the subject site, as defined in the ASTM E 1527-05 Standard and in Section 1.1 of this report. The objective of the limited Phase II subsurface sampling is to provide a preliminary evaluation of RECs identified during the Phase I portion of the assessment, including order of magnitude cost and schedule impacts on the proposed development.

The ASTM E 1527-05 Standard requires an environmental professional's opinion of the potential impacts of RECs, HRECs, and *de minimis* conditions identified on a site during a Phase I assessment. Our opinion is rendered with respect to an REC's potential (high, medium, or low) to require remedial response based on prevailing agency requirements and our understanding that the subject site is one of seven parcels being evaluated for potential redevelopment as a professional soccer stadium. Our opinion regarding a REC's potential impact on the subject site (high, medium, low, or unknown) is based on the scope of our work, the information obtained during the course of our work, the conditions prevailing at the time our work was performed, the applicable regulatory requirements in effect at the time our work was performed, and/or our experience evaluating similar sites, and our understanding of the client's intended use for the subject site.

Data gaps were not identified for this report.

RECOGNIZED ENVIRONMENTAL CONDITIONS

The ASTM E 1527-05 Standard defines a REC as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property." A material threat is defined by the ASTM E 1527-05 Standard as "a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment."

This Phase I assessment identified 13 RECs. Details regarding the nature of these RECs and our opinion regarding potential impacts are provided below.

KNOWN RECOGNIZED ENVIRONMENTAL CONDITIONS

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs identified as being present with respect to the subject site are referred to as Known Recognized Environmental Conditions (KRECs). Two KRECs have been identified on the subject site from the limited Phase II subsurface sampling results.

KREC #1: Shallow subsurface petroleum impact from surface staining or urban fill
Potential Impact: Low
Explanation: Apparent hydrocarbon stains were observed on the asphalt-paved portion of the subject site utilized as a parking lot. A crack was observed in the asphalt under one of these stains and a soil sample (GSS-607-13-1, see Figure 3) collected by Haley & Aldrich from beneath the asphalt revealed a total petroleum hydrocarbons – diesel range organics (TPH-DRO) concentration of 184 milligrams per kilogram (mg/kg). This TPH-DRO detection confirms the presence of minor petroleum contamination in shallow soil, exceeding the D.C. Municipal Regulations (DCMR) Tier 0 Soil Standard for TPH of 100 mg/kg. The vertical extent of impact is not known, although based on the relatively low concentration immediately beneath the staining, the degree of impact appears to be minor. The TPH-DRO detection may also be related to urban fill encountered in this boring.

Analytical results for a soil sample collected along S Street (GTW-607-13-2, see Figure 3) from a depth of 5 to 10 feet below grade indicated minor petroleum impact (TPH-DRO at 119 mg/kg). This TPH-DRO detection confirms the presence of minor petroleum contamination in shallow soil, exceeding the DCMR Tier 0 Soil Standard for TPH of 100 mg/kg. Benzo(a)pyrene was also detected at 8.67 mg/kg, slightly exceeding the DC Risk-Based Corrective Action (DCRBCA) Screening Levels (SL) for construction worker exposure of 5.92 mg/kg. Other PAHs and metals (arsenic at 4.8 mg/kg and chromium at 10.3 mg/kg) were detected at concentrations exceeding the EPA Region III Risk-Based Screening Level (RSLs) for residential soil. The source and extent of impact is not known, although urban fill was encountered in this boring, which commonly yields similar results.

KREC #2: Minor groundwater contamination associated with chlorinated solvents
Potential Impact: Low
Explanation: AEC detected chlorinated solvents (PCE, TCE, 1,2-dichloroethane, and VC) in a groundwater sample collected near the southeast corner of the subject site during a Phase II assessment conducted in 2005. The source of the chlorinated solvents is not known; however, Geomatrix, Inc. indicated an “asphalt pit” in this area of the subject site on Figure 3 of their Phase II assessment report completed in 1990. Chlorinated solvents detected in groundwater may also be due to migration from some unknown source upgradient from the subject site. A groundwater sample collected by Haley & Aldrich in this area of the subject site (GTW-13-1A on the attached figure) confirmed the presence of minor

contamination associated with chlorinated solvents, including relatively low concentrations of TCE and VC (43.9 and 38 μg/L, respectively). The VC concentration exceeds the EPA Region III Risk-Based Screening Level for residential exposure via ingestion, which may not be applicable to the subject site. The extent of impact is currently not known, although volatile organic compounds were reportedly not detected in groundwater samples collected by AEC at several other locations in 2005, suggesting the extent may be limited to the southeast corner of the subject site.

SUSPECT RECOGNIZED ENVIRONMENTAL CONDITIONS

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs that have been identified as being likely present with respect to the subject site are referred to as Suspect Recognized Environmental Conditions (SRECs). The Phase I assessment identified seven SRECs.

The following SREC was identified during our December 2013 subject site visit inside the on-site storage building.

SREC #1: Heavy staining near floor drains in the on-site storage building
Potential Impact: Medium
Explanation: Heavy staining of the concrete floor appearing to be caused by hydrocarbons was observed immediately surrounding two floor drains, one in the northwestern portion and a second in the southeastern portion of the building. Although no cracks were apparent in the concrete in the areas where staining was observed, it is unknown whether the source of the stains has also migrated into these floor drains or where the floor drains discharge. In addition, the source of the staining could have penetrated the concrete floor. A potential therefore exists for apparent hydrocarbon spills or leaks to have migrated to the subsurface.

The following SRECs were observed on the adjacent property north of the subject site during a site visit by Haley & Aldrich for the comprehensive Phase I assessment of Buzzard Point in August 2013.

SREC #2: Potentially unlined/unpaved sump at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: On-site stormwater and spills are captured and pumped to a sump in the southwestern portion of the lot before being disposed off-site by a licensed contractor. During a site visit to this property, the sump contained large quantities of oily liquid and it was not possible to ascertain whether the sump was lined and/or confirm the integrity of the lining. The site representative could not confirm the status of the sump lining. A potential therefore exists for hydrocarbons to migrate from the sump to the subsurface.

SREC #3: Heavy staining of concrete at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: During the site visit to this property, heavy concrete staining was observed at many locations. The concrete was in moderate to good condition where visible. In other areas, for example the area surrounding the sump's pump, the staining

was too thick to confirm the integrity of the concrete. A potential therefore exists for hydrocarbons to migrate to underlying soil and groundwater.

SREC #4: Oil layer in secondary containment under ASTs at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: A thick layer of oil was observed at the bottom of the AST tanks in the eastern portion of this property. It is understood that the flooring of the containment is paved with concrete. However, the integrity of the concrete could not be confirmed. A potential therefore exists for hydrocarbons to migrate to underlying soil and groundwater.

SREC #5: Concrete staining in area of an AST at Super Salvage Inc., 1711 1st Street SW
Potential Impact: Low
Explanation: Concrete staining on paving next to an AST was observed in the northern portion of this property. The concrete paving was in relatively good condition. However a large quantity of waste had been dumped immediately adjacent to the AST preventing Haley & Aldrich representatives from confirming the condition of the concrete beneath this waste. A potential exists for oil to migrate through the concrete to underlying soil and groundwater.

The following SRECs were identified on the adjacent properties east and south of the subject site.

SREC #6: Substation operations at Potomac Electric Power Company (PEPCO) Square 663, Lot 0024
Potential Impact: Medium
Explanation: Due to the age of the substation and the nature of activities taking place, there is a potential for leaks, spills or PCB-containing materials to be present at this lot.

SREC #7: Potentially leaking AST and underground pipeline at Potomac Electric Power Company (PEPCO) Square 609, Lot 0804
Potential Impact: Low
Explanation: A #6 fuel oil AST was installed in the late 1960s at the property at Square 0609, Lot 0804; and Square 0611, Lots 19 and 10. An underground pipeline was used to connect the AST to the nearby Generating Station. The AST was decommissioned and the underground pipeline filled in 1981. No information regarding releases from the AST or pipeline is known. The site was also employed for bulk fuel storage and vehicle and equipment maintenance and storage. Two independent sampling programs conducted in 2005 indicated that soil and groundwater was affected by petroleum hydrocarbon releases. It is unknown whether more recent studies have been performed and whether soil and groundwater are still impacted.

HISTORICAL RECs

The ASTM E 1527-05 Standard defines an HREC as an environmental condition "which in the past would have been considered a recognized environmental condition, but which may or may not be

considered a recognized environmental condition currently." This Phase I assessment identified the following four HRECs.

HREC #1: LUST case # 93094 for an on-site 20,000 gallon gasoline UST historically impacted soil and groundwater under the subject site and was reported in August 1993. The LUST case received regulatory closure in May 1994. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #2: LUST case # 92076 on an adjacent parcel north of the subject site owned by Rollingwood Real Estate LLC at 1714 2nd St SW is associated with a gasoline LUST that historically impacted soil and groundwater. The status of the LUST release is listed as closed. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #3: LUST case # 96030 on an adjacent parcel north of the subject site at 1711 1st Street SW, owned by Super Salvage, Inc., and related to a tank containing gasoline was reported to be impacting soil and was granted regulatory closure. Based on its status and impacts being limited to soil, impacts from the LUST do not present a threat to human health or the environment under current site conditions and it is unlikely that the LUST will require additional regulatory action.

HREC #4: LUST case # 93051 on an adjacent parcel east of the subject site in Square 663, Lot 0024, PEPCO Generating Station. In 1993, significant gasoline and diesel contamination was discovered in soil and groundwater on the northern portion of Square 665, Lot 0024. PEPCO performed monitoring and remediation activities during the 1990s, removing more than 1,000 gallons of LPH. However, the latest groundwater sampling data reviewed in a 2005 Phase I indicated that total petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes were above applicable regulatory standards in certain monitoring wells. Based on its status, impacts from the LUST do not present a threat to human health or the environment under current site conditions and it is unlikely that the LUST will require additional regulatory action.

***DE MINIMIS* CONDITIONS**

The ASTM E 1527-05 Standard defines *de minimis* conditions as those conditions which "do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." The ASTM E 1527-05 Standard notes that "conditions determined to be *de minimis* are not recognized environmental conditions."

This Phase I assessment identified the following *de minimis* condition: during the subject site visit performed in August 2013, minor stains were observed on loose gravel west of the building in the northwestern portion of the lot maintained by the United States Park Police. On a subsequent site visit in December 2013, the staining was no longer visible. No odors or stressed vegetation were encountered during either visit, suggesting that the staining was superficial in nature and unlikely to have migrated to the subsurface.

SUMMARY AND RECOMMENDATIONS

In summary, several RECs were identified during the comprehensive Buzzard Point Phase I assessment in August 2013 and subsequent Phase II sampling. An additional REC was identified during the December 2013 subject site visit of the storage building (staining around floor drains), which could impact the proposed development. We recommend that the outfall location for the drains be determined and additional soil and groundwater sampling be performed to assess the potential subsurface impact from staining observed around floor drains inside the storage building.

Limited Phase II subsurface sampling described in this report did not delineate the extent of petroleum impacts detected in soil or groundwater at the subject site, but based on the relatively low concentrations detected, it is our opinion that additional regulatory action is unlikely under current subject site conditions. However, if excavation and construction dewatering are necessary for subject site development, then proper handling of soil and groundwater may be required:

- Groundwater contaminated by gasoline and chlorinated solvents detected near the southeast corner of the site (in the vicinity of the former gasoline UST and "asphalt pit") may require treatment prior to discharge or off-site disposal. If a deep structure (i.e. subsurface parking garage) is constructed in this area of the subject site that requires long-term dewatering, then a treatment system may be required, along with appropriate maintenance, permitting, and monitoring.
- Minor petroleum impacted soil associated with surface staining in the parking lot is not appropriate for unrestricted use as fill.
- Urban fill encountered at the north end of the subject site along S Street with minor petroleum impact and metals concentrations may not be appropriate for unrestricted use as fill.

We recommend developing a site-specific health and safety plan and a soil management plan to address proper handling of excavated soil. If groundwater will be encountered during the proposed development, then the soil management plan should include proper handling procedures for construction dewatering. Excavated soil may require characterization and treatment/off-site disposal. The District Department of the Environment (DDOE) may require submission of a Work Plan to document how the developer will comply with applicable standards.

Schedule impacts on the proposed development associated with the recommended tasks range from 3 to 6 months, depending upon DDOE review and approval. Potential order of magnitude cost impacts from the identified RECs on the proposed development range from $60,000 to $370,000 (see Table 3 for assumptions regarding these order of magnitude costs). **Note that these cost ranges assume a nominal volume of soil (200 cubic yards) and groundwater (4,000 gallons) will require removal for the proposed development.** We have assumed deep foundation designs that produce minimal soil and groundwater spoils. If shallow foundations or a subsurface structure is constructed on the site, requiring the removal of a greater volume of soil and groundwater than we have assumed, then we request the opportunity to revise our order of magnitude cost and schedule impacts accordingly.

9. CREDENTIALS

This Phase I assessment report was prepared by Karin Holland under the direct supervision of Gregory Grose, who served as the Project Manager of this project. Qualification information for the project personnel is provided below.

KARIN HOLLAND
Senior Specialist

Ms. Holland received a Bachelor of Arts degree in Natural Sciences from the University of Cambridge, United Kingdom in 2002 and a Master of Science degree in Law and Environmental Science from the University of Nottingham, United Kingdom in 2003. Ms. Holland is involved in a variety of projects, including environmental site assessments, soil management, and field sampling events. Her responsibilities with Phase I Environmental Site Assessments include site history research, interaction with clients and state regulatory agencies, interpretation and evaluation of environmental conditions, and development of recommendations for future investigations.

GREGORY GROSE
Senior Project Manager

Mr. Grose has 21 years of experience in the engineering and environmental consulting industry. He has a diverse background, having served as environmental group leader for 10 years with responsibility for personnel performing due diligence, hazardous building materials assessment and abatement, permitting and compliance, assessment and remediation. Mr. Grose has performed regulatory compliance and assessment monitoring, site characterization and remediation at over 100 LUST sites and numerous operable units at RCRA solid waste facilities and CERCLA sites. He has also provided due diligence and brownfield support, including various state voluntary cleanup programs in the Mid-Atlantic Region.

REFERENCES

1. Topographic Map, Washington West, District of Columbia Quadrangle, United States Geological Survey 7.5 minute series, dated 1983.

2. Haley & Aldrich, Inc., site visit conducted by Karin Holland and Christian-Noel Tschibelu on 28 August 2013.

3. Tat-Lin Angus of PEPCO, Terrance Jones of Akridge and John Keller of Super Salvage, Inc. interviews with Haley & Aldrich, Inc., on 28 August 2013.

4. Environmental Date Resources, Database Report, dated July 2013.

5. "Assessment of the Buzzard Point Properties," prepared by Geomatrix, Inc., prepared for Potomac Electric Power Company, dated March 1990.

6. "Limited Phase II Environmental Investigation, Buzzard Point, 2nd Street SW / V Street SW, Washington, D.C.," prepared by URS Corporation, Inc. (URS), prepared for Potomac Electric Power Company, dated 22 March 2005.

7. "Phase I Environmental Site Assessment, Buzzard Point, Squares 609 & 611, 2nd Street and V Street, SW, Washington, DC," prepared by URS, prepared for PEPCO Holdings Inc., dated 4 April 2005.

8. "Phase I Environmental Site Assessment, Buzzard Point, 2nd Street and V Street, SW, Washington, DC," prepared by Advantage Environmental Consultants, LLC (AEC), prepared for The John Akridge Companies, Inc., dated 10 June 2005.

9. "Phase II Environmental Site Assessment, Buzzard Point, 2nd Street and V Street, SW, Washington, DC," prepared by AEC, prepared for The John Akridge Companies, Inc., dated 10 June 2005.