

Appendix D

Phase I Environmental Site Assessments



**Phase I Environmental Site Assessment
Suitland Parkway at Capital Beltway, 36 Acres
Prince George's County, MD 20746**

PCC Job No. 100105

January 22, 2010

**943-A Russell Ave., Gaithersburg, MD 20879
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1.0 EXECUTIVE SUMMARY

The Subject Site is currently undeveloped wooded land. No prior development was identified on the site. No regulated sites were identified that in our opinion might adversely impact the subject site. A former tennis court and small outbuilding formerly used as amenities for the adjacent apartments are present on the site. No recognized environmental conditions were observed either on or immediately adjacent to the subject site.

Two schools border the west side and Forest and Forest Village Apartments are located along the east side. Other immediately adjacent areas are wooded. To the northeast are three small vacated houses. To the north and separated by a wooded area are several structures that formerly made up R. Robinson Block Plant. It has recently had several tenants on it including a small stone company specializing in flooring and counter tops, Beltway Steel and Creative Pipe but is currently being vacated. It is separated from the subject site by several acres of heavily wooded land.

No Recognized Environmental Conditions were observed on the subject site.



PROFESSIONAL CONSULTING CORPORATION

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January 22, 2010

Jackson-Shaw
c/o NAI Michael Companies
10100 Business Parkway
Lanham, MD 20706-1802

Subject: Phase I Environmental Site Assessment
Suitland Parkway at Capital Beltway, 36 Acres
Prince George's County, MD 20746
PCC No. 100105

Gentlemen:

2.0 INTRODUCTION

Professional Consulting Corporation, PCC was retained by Jackson-Shaw to perform Environmental Services on the above referenced site. The assessment was performed in accordance with our proposal/agreement of January 12, 2010.

2.1 Purpose

This Phase I (Environmental Site Assessment) ESA was conducted to permit formulation of an opinion as to the potential for Recognized Environmental Conditions to exist at a site at levels likely to warrant mitigation. As such, it is intended to help permit Jackson-Shaw, to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability: that is, the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." It should be noted that this ESA is only part of the process of All Appropriate Inquiry and that additional inquiry may be required.

The term "Recognized Environmental Conditions" means 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 of 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 material risk of harm to public 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. Conditions determined to be de minimis are not recognized environmental conditions.

2.2 Scope of Services

The objective of this report is to identify, to the extent feasible, Recognized Environmental Conditions in connection with the Property. Accordingly we have provided the following services:

- 1) Review of available previous site ownership and use records.
- 2) Review of available Federal, State, and local standard environmental record sources.
- 3) Site reconnaissance consisting of visual observation of accessible portions of the property.
- 4) Development of a site history to include review of aerial photographs, property atlases and maps.
- 5) Our evaluation of subsurface conditions, based upon our observations and available published information, as to the potential for migration of hazardous or toxic substances to migrate onto the site.
- 6) Preparation of this report outlining results of our findings.

2.3 Assumptions and User /Reliance

PCC has relied on data and work product from others during the preparation of this report. PCC has used reasonable care in reviewing the data but assumes no responsibility regarding the accuracy, completeness, or validity of such data and the work product of others. PCC also assumes that all available information regarding environmental liens encumbering the property or any information with respect to previous uses of the property that identify or may identify recognized environmental conditions have been provided to us by the owner.

This report was prepared for the exclusive use of Jackson-Shaw. Other entities should not rely upon or use this data without written consent from Professional Consulting Corporation. If requested, we may consent to use of this report by other entities who legally have or acquire ownership interest in the subject property. Such reliance will be limited to the same extent that Jackson-Shaw is limited and to the extent that such reliance is insurable under our existing insurance coverage. The terms, conditions and limitations in our existing agreement with Jackson-Shaw will be applicable to any such reliance. Additional fees may apply.

2.4 Limitations and Exceptions

We have performed our services and prepared this report in accordance with generally accepted guidelines for the conduct of Phase I Environmental Site Assessments. No warranties or guarantees, either expressed or implied are made. Construction debris (e.g., discarded concrete and asphalt) are not considered to be of concern unless observations suggest that hazardous substances are likely to be present in significant concentrations or to migrate off site. This Phase I assessment did not include sampling and testing for asbestos, mold, lead in drinking water, lead paint, roofing materials or for naturally occurring radon or asbestos.

No Environmental Site Assessment can wholly eliminate uncertainty regarding the potential for Recognized Environmental Conditions in connection with a Property. The intent is to reduce, but not eliminate, uncertainty regarding the potential for Recognized Environmental Conditions in connection with the Property and standard practice recognizes reasonable limits of time, cost and access. Environmental conditions change with time. Findings and conclusions in this report are representative at the time of the inquiry and site reconnaissance only. This Phase I Environmental Site Assessment is not intended to serve as an audit of health, safety or compliance issues.

2.5 Special Terms and Conditions

The Standard Terms and Conditions included in our proposal/agreement apply to services provided.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The site consists of 36 acres that includes parts of the following parcels as shown on the Site Plan in Appendix B:

Parcel 57

Parcel 150

Parcel 152

Records for the original parcels are included in Appendix D. No development is recorded for any of the portions of the parcels making up the subject site.

3.2 Site and Vicinity Characteristics and Uses

The 36 acre site is undeveloped and heavily wooded. No prior development has been identified on the site. Adjacent properties included large wooded areas.

3.3 Current Use of Property

The subject site is currently heavily wooded and undeveloped. No use was identified on the site.

3.4 Description of Improvements and Utilities

The area is shown as served by WSSC for municipal water and sewer.

3.5 Description of Adjoining Properties

Two schools border the west side and Forest and Forest Village Apartments are located along the east side. Other immediately adjacent areas are wooded. To the northeast are three small vacated houses, two of which are on other portions of the lots identified in Section 3.1. To the north and separated by a wooded area are several structures that formerly made up R. Robinson Block Plant. It has recently had several tenants on it including a small stone company specializing in flooring and counter tops, Beltway Steel and Creative Pipe but is currently being vacated. It is separated from the subject site by several acres of heavily wooded land.

4.0 USER PROVIDED INFORMATION

4.1 Title Records/Ownership

Based on information from the Maryland Department of Assessments and Taxation the Lots are currently owned as follows:

Parcel 57 by the Bevard Family Partnership ETAL purchased from Morrison M. Clark in 1985.

Parcel 150 by Forest Village Apts. LLC purchased from J. Edwards Bates in 1983. Bates purchased the site in 1911.

Parcel 152 by Grace E. Crickard who purchased the site in 1950.

4.2 Environmental Liens and Use Limitations

Based on our interviews, there are no liens or use limitations on the 36 acre site. Complete title records for the parcels were not made available at the time this report was prepared.

4.3 Owner and Property Manager Information

PCC was not provided any previous reports for the site. It is our understanding that there are no reports for the 36 acres making up the subject site.

4.4 Valuation Reduction for Environmental Issues

The subject 36 acre site is undeveloped. No information was provide regarding any valuation reduction for environmental issues.

4.5 Specialized Knowledge and Reason for Phase I

It is our understanding that the purpose of this Phase I Environmental Site Assessment is related to purchase and/or development of the subject site. No environmental conditions were disclosed to us that might indicate the presence of Recognized Environmental Conditions.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

A search of Standard Record Sources as specified by ASTM was obtained from Environmental Data Resources, Inc. (EDR). Standard Record Sources include Federal, State and Tribal records. Approximate minimum search distances for some of the more relevant records used by EDR are given below. A complete list of records and approximate minimum search distances used by EDR is included in the EDR report (January 15, 2010).

<u>Record Type</u>	<u>Search Radius</u>
● NPL	1.0 mile
● Delisted NPL	0.5 mile
● CERCLIS	0.5 mile
● CERCLIS NFRAP	property & adjoining properties
● RCRIS CORRACTS	1.0 mile
● RCRIS non-Cortracts TSDs	0.5 mile
● RCRIS generators	site and adjoining properties
● ERNS List	property only
● State Hazardous Waste Sites (NPL)	1.0 mile
● State Hazardous Waste (CERCLIS)	0.5 mile
● Landfills/Solid Waste Disposal	0.5 mile
● State LUST Lists	site and adjoining properties
● State registered UST Lists	0.5 mile

5.2 Standard Federal Records

NPL: No National Priority List sites were identified within ASTM distances of 1.0 mile. The NPL includes the most serious uncontrolled or abandoned hazardous sites.

CERCLIS: No sites were identified in the EDR Report as on the Comprehensive Environmental Response, Compensation and Liability Act Information System, CERCLIS, within 0.5 mile of the subject site. The CERCLIS includes actual or potential hazardous substance release sites.

CERCLIS NFRAP: sites are CERCLIS sites designated "No Further Remedial Action Planned". Such sites may be removed following an initial investigation where no contamination was found, the contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. This is generally in keeping with part of the EPA's Brownfields Redevelopment Program to promote economic redevelopment of unproductive urban areas. No NFRAP site were noted in the EDR Report on the property and the adjoining properties.

RCRIS CORRACTS: There are no Corrective Action Reports (CORRACTS) listings within 1.0 mile of the property.

RCRIS non-Cortracts TSDs: No RCRIS non-Cortracts TSD facilities were identified within ASTM specified distances of 0.5 mile of the property. RCRIS-TSD facilities are those that store, treat or dispose of hazardous wastes.

RCRIS generators: There are no large or small RCRIS quantity generators identified in the EDR Report within 0.25 mile of the property. The presence of a site on one of the RCRIS databases indicates that its generation, use, transportation or disposal of hazardous substances is regulated. It does not indicate, unless otherwise noted, that any violations have taken place.

ERNS List: There are no Emergency Response Notification System Sites listing for the property.

Coal Gas: No coal gas facilities were identified in the EDR report between 0.5 and 1.0 mile of the subject site.

5.3 State of Maryland Records

The state of Maryland maintains lists of Landfill/Solid Waste Facilities, Underground Storage Tanks and Leaking Underground Storage Tanks.

State Hazardous Waste Sites: No State Hazardous Waste Sites were identified within 0.5 mile of the subject property in the EDR report.

State Landfill/Solid Waste Disposal Facilities: No current landfill/solid waste facilities were identified in the EDR report within 0.5 mile of the subject site.

State LUST (Leaky Underground Storage Tank Records) Lists: A total of 17 OCPCASES (Oil Control Program Cases) and no historic LUST (Leaking Underground Storage Tanks) were identified in the EDR

Report. All of the MD OCPCASES are closed except the Shell station at 6815 Suitland Road which is more than 0.25 mile away from the site.

State registered UST (Underground Storage Tank) Facility Reports Lists: Two current and one historic UST (Underground Storage Tank) records were identified in the EDR Report but all are greater than 0.125 mile from the site. No underground storage tanks were identified on the subject site. One closed site located at 4333 Forestville Rd., is shown as closed.

Orphans Summary: None were identified that would in our opinion affect the target site.

5.5 Additional Environmental Record Sources

Brownfields, institutional control sites, and VCP sites were not identified within 0.5 mile of the subject property in the EDR report.

The Prince George's Environmental Health Department was requested to provide information or records on the site (Appendix D). No reply has been received. If a reply should be received that would impact our conclusions, an addendum to this report will be issued.

5.6 Physical Setting Sources

Topographic Maps: The United States Geologic Survey (USGS) 15' Patuxent topographic maps prepared in 1906 shows the area around site as undeveloped except for a few houses. Later 7.5' Anacostia maps all show the site as wooded and undeveloped. By 1951 there was residential development to the west and what appears to have been the former block plant to the north along Forestville Rd. Subsequent maps show the addition of Interstate 495 to the south and the two adjacent schools.

Regional Physiography: The site is located on the Coastal Plain physiographic province.

Geology: Based on mapping by the United States Geological Survey and our observations, the site is underlain by upland gravel deposits.

Soils: The site lies on the gravelly sandy loam (i. e. Sassafras sandy loam, Croom gravelly sandy loam, Galestown gravelly loam sand, Avra & Croom gravelly loam and Bibb sandy loam).

Groundwater Characteristics: The subject site and surrounding areas are served by municipal water and sewer systems. No documentation was found indicating past or present wells on-site, and to our knowledge, no groundwater was ever drawn from on-site sources. We anticipate that local groundwater flow will mimic topography and be to the east towards a small creek.

Concerns about water quality are reduced by the public water and sewer lines (WSSC Grid 206SE07) which service the project area.

Radon: Radon levels provided by EDR range from 0.4 to 14 pCi/l.

5.7 Historical Use Information on Property

The objective of consulting reasonably ascertainable historical sources is to develop a site history back to when the site was first developed or 1940, whichever was earliest. PCC uses a variety of tools to help research former site activities. These include but are not limited to evaluating former ownership records, reviewing property atlases, topographic maps and interpretation of aerial photographs.

Sanborn Fire Insurance Maps: Historic Sanborn Fire Insurance Maps for the state of Maryland were reviewed by EDR. There were no Fire insurance maps depicting the property identified by EDR (January 15, 2010).

Aerial Photographs: Aerial photography for 1963, 1970, 1971, 1980, 1989 and 2005 obtained from EDR was reviewed. All of the aerials show the site as mostly wooded. Parcel A is in use on all of the aerials. The adjacent Junior High School and Elementary Schools are present on all of the aerial photographs from 1970 to the present. The Elementary School is also present on the 1963 aerial photograph, also present on all of the aerial photographs. What may be a utility easement runs south to north to the site on the 1971 aerial photograph. It is not discernable on any of the other aerial photographs and may be a defect on the photograph.

In addition, aerial photography taken in 1938, 1965, 1993, 1998, 2000, 2005 and 2007 was reviewed on the Prince George's County web site. In 1938 the site was mostly wooded and had no major roads. There was a structure on Parcel A and the northern part of Parcel 57 was cleared. In 1965 the Beltway and Suitland parkway were in place but otherwise the site was similar to 1938. There was a building adjacent to parcel 56. There were several small structures on Parcel A and along the North West side of Parcel A. In 1993 the site was similar to 1965. A small structure appeared on Parcel 151 with a long structure to the south west. Residential development occurred to the west with the site remaining mainly wooded. In 1998, 2000, 2005, and 2007 there were no significant changes from 1993. Copies of the aerial photographs are included in Appendix D.

Directories: City directory information was reviewed at the Adelphi Library in Prince George's County. No listings were noted for the site in either the Polk's 1954-55 Washington Suburban Directory or the 1964 and 1968 Polk's Hyattsville, Mount Rainier, Riverdale directories.

The 1967 South Prince George's Local Telephone Directory listed 4321 Forestville Ave. as Raymond Heironimus.

Haines Criss Cross Directories between 1984 and 2007 were also reviewed at the library.

The 2006-7 directory lists 4317 and 4321 Forestville Ave. as Kenneth Michael. Grace Crickard is shown at 4323 Forestville Ave. The 1994 and 1989 directories show Raymond Heironimus at 4321 Forestville Ave. and Kurt Fraser at 4323 Forestville Ave. The 1984 directory shows Raymond Heironimus at 4321 Forestville Ave.

5.8 Historical Use Information on adjoining Properties

Based on review of aerial photographs, atlases and directories adjacent properties include apartments and two schools. To the north is a small commercial/light industrial area. It is separated from the subject site by heavily wooded land.

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

The objective of the Site Reconnaissance was to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property. The site reconnaissance was conducted as a walk over the property on January 14, 2010 by James Kirkland and Linda Kirkland of Professional Consulting Corporation and on January 18, 2010 by James Kirkland and Ike Singh.

6.2 General Site Setting

As noted above in Section 5.8, the site is entirely wooded. No development has been identified on the site. Adjacent properties include apartments and two schools. To the north is a small commercial/light industrial area. It is separated from the subject site by heavily wooded land.

6.3 Exterior Observations:

The subject site is entirely wooded. No roads were identified on the site. One path leading from the adjacent apartment complex to the nearby school is present across the site. Two small former amenities for the apartment complex are also present in the form of a deteriorated tennis court and small covered structure. Some household type debris and trash was observe along the boundaries of the site. Photographs in Appendix C are typical of the views within the site. Adjacent to the subject site are apartment buildings to the east and schools to the west.

6.4 Interior Observations

There is no development on the subject site.

7.0 INTERVIEWS

7.1 Interview with Owner/Manager

An interview with Mr. David Michael representing the sellers indicated that they have been familiar with the site for about 25 years and that there has never been any development on the 36 acres. He further said that there are no liens or use limitations that he knows of. A copy of the interview form is included in Appendix E.

7.2 Other Interviews

Interview with Local government Officials: Due to time limitations The Maryland Department of Natural Resources Groundwater Permits Program and the Maryland Department of Natural Resources Water Rights Programs were not contacted for information on Ground Water use in the vicinity and area water well surveys. The area is covered by municipal water and sewerage from the Washington Suburban Sanitary Commission (WSSC Grid 206SE07).

8.0 FINDINGS

The Subject Site is currently undeveloped wooded land. No prior development was identified on the site. No regulated sites were identified that in our opinion might adversely impact the subject site. No recognized environmental conditions were observed either on or immediately adjacent to the subject site.

9.0 CONCLUSIONS/OPINIONS

Discussion of Data Gaps: Research of historical data, aerial, and topographic maps was not possible to the first development of the site. Gaps exist between

With the exception of early farming activities (which have not been confirmed) no significant environmental concerns have been ascertained from early activities on the site.

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the subject property. Exceptions to, or deletions identified from, this practice are described in the data gaps or Deviations sections of this report.

This assessment has revealed no evidence of "Recognized Environmental Conditions" in connection with the property.

10.0 DEVIATIONS

Client imposed constraints: This report was prepared on a fast track schedule such that responses from regulatory officials were not available.

Deviations and deletions: Complete chain-of-title records were not available for our review.

11.0 ADDITIONAL SERVICES

This Phase I assessment did not include any additional services on the 36 acre subject site.

12.0 REFERENCES

EDR-Radius Map, Environmental Data Resources, Inc.
Franklin Survey of Prince George's County, Maryland, 1940, Franklin Survey Company, Philadelphia, Pa.
United States Department of Agriculture, Soil Conservation Service, 1967, Soil Survey of Prince George's County, Maryland.

United States Geological Survey, 1976, Miscellaneous Field Studies, Map MF-768 A, Mineral Resources, Prince George's County, MD.

United States Geological Survey, 1977, Miscellaneous Investigations Series, Map I-1004, Geologic Map for Land-Use Planning, Prince George's County, MD.

United States Geological Survey, 1976, Miscellaneous Field Studies, Map MF-768 B, Construction Conditions, Prince George's County, MD.

United States Geological Survey, 1983, Water Resources Basic Data Report No. 13.

United States Geological Survey, 1988, Open File Report 99-52. Radon Soil-Gas Survey in Prince George's County, Maryland.

United States Geological Survey topographic maps.

Weaver, Kenneth N., 1968, Geologic Map of Maryland, Maryland Geologic Survey.

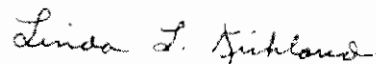
13.0 SIGNATURES AND QUALIFICATIONS

This Phase I Environmental Site Assessment has been prepared using ASTM Practice E1527-05 as guidance and the report has been tailored to the subject site. We have the specific qualifications based on education, training, and experience to meet the definition of "Environmental Professional" as defined in 40 CFR 312.10 to assess a property of the nature, history, and setting of the subject property.

Very truly yours,
Professional Consulting Corporation



James T. Kirkland, Ph.D., C.P.G.
Senior Professional Geologist



Linda L. Kirkland, Ph.D.
Senior Environmental Scientist

The qualifications of the environmental professionals responsible for conducting this Phase I Environmental Site Assessment are presented in Appendix H. We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312" and 12.13.2 " We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We believe that we have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

PHASE I ENVIRONMENTAL SITE ASSESSMENT CONTAMINATED AND HAZARDOUS MATERIALS

Prepared For:



**Washington Metropolitan Area
Transit Authority
Southern Avenue Bus Garage
Replacement Project
4421 Southern Avenue
Capitol Heights,
Prince George's County, Maryland**

Prepared By:



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MARCH 2011

EXECUTIVE SUMMARY
WMATA Southern Avenue Bus Garage Replacement Project
Phase I Environmental Site Assessment
Hazardous and Contaminated Materials Summary

A Phase I Environmental Site Assessment (ESA) was completed for the existing Washington Metropolitan Area Transit Authority (WMATA) Southern Avenue Bus Garage located at the intersection of Southern Avenue and Marlboro Pike, in Capitol Heights, Prince George's County, Maryland. Investigations were also completed for the potential expansion areas that immediately surround the current Garage. The Phase I ESA included a Federal and State database records search of upwards of a 1/2-mile of the proposed site in accordance with *Phase I Environmental Site Assessment Process*, American Society for Testing and Materials (ASTM) Standard E1527-05 and All Appropriate Inquiry (AAI) Standards. Reviews of Sanborn Fire Insurance Maps, historical aerial photographs, and historical topographic maps were completed along with a site reconnaissance and an interview with the WMATA Southern Avenue Bus Garage Superintendent.

The Phase I ESA was conducted to determine potential "Recognized Environmental Conditions" (RECs) that exist at and surrounding the project area that could impact the site and/or its redevelopment. According to the findings of the Phase I ESA, nine RECs were observed to be present at the Southern Avenue Bus Garage Replacement Project including:

- REC # 1 – WMATA Southern Avenue Bus Garage current underground storage tank (UST) systems;
- REC #2 - WMATA Southern Avenue Bus Garage former USTs;
- REC #3 – WMATA Southern Avenue Bus Garage palletized drum storage, and Garage aboveground storage tanks (ASTs);
- REC #4 – WMATA Southern Avenue Bus Garage oil/water separator and drains;
- REC #5 – WMATA Southern Avenue Bus Garage general operations and conditions;
- REC #6 – WMATA Southern Avenue Bus Garage asbestos containing materials (ACM);
- REC #7 – Potential Expansion Area Properties ACM
- REC #8 – Former Mobil Station/Current Tire & Auto Repair Shop 4501 Bowen Road S.E.

A Phase II ESA Investigation is recommended to further investigate the observed RECs. Additional evaluation of the expansion properties should be completed upon right-of-entry onto the properties to determine the presence of any ACM, lead-based paint (LBP), and the exact nature of environmental conditions at the properties.

In accordance with 40 CFR Part 61.145(a), the National Emission Standards for Hazardous Air Pollutants (NESHAP), a full building survey and testing of suspect ACM and LBP by an United States Environmental Protection Agency (EPA)-certified professional is recommended prior to any demolition or renovation that could disturb the suspected materials at the existing Southern Avenue Bus Garage or the proposed expansion area properties.

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1.0 METHODOLOGY

A Phase I Environmental Site Assessment (ESA) for hazardous waste and contaminated materials was completed for the existing Washington Metropolitan Area Transit Authority (WMATA) Southern Avenue Bus Garage located at 4421 Southern Avenue at the intersection of Southern Avenue and Marlboro Pike in Capitol Heights, Prince George's County, Maryland (Figure 1-1). In addition, properties immediately surrounding the existing facility are being considered for expansion of the WMATA facility. The additional properties reviewed included:

- 4703 Marlboro Pike
- 4270 Pear Street
- 4208 Quinn Street
- Pear Street Right-of-Way
- 4403 Southern Avenue
- 4405 Southern Avenue
- 4415 Southern Avenue
- 4401 Southern Avenue

This Phase I ESA was completed in accordance with the Council on Environmental Quality (CEQ) regulations (40 CFR parts 1500-1508), *Phase I Environmental Site Assessment Process*, American Society for Testing and Materials (ASTM) Standard E1527-05 and the USEPA's All Appropriate Inquiry (AAI) Standards.

A database records search was provided by InfoMap Technologies, Inc. (InfoMap) to screen specified Federal and State databases in the project area and adjacent properties located upwards of 1/2-mile of the site to identify the presence of potential or existing liabilities.

Sanborn Fire Insurance Maps, historical aerial photographs, and historical topographic maps were also reviewed to assess historical land modifications through time and possibly the types of developments at the project site and surrounding area. These maps were reviewed to determine potential areas of concern such as retail gasoline operations, underground or above ground storage tanks (USTs or ASTs), dry cleaners, and locations that may have distributed or stored potential hazardous materials.

In addition, site specific information was obtained from a chain-of-title/environmental lien search of the subject properties, a site reconnaissance, and interviews with the Superintendent of WMATA's Southern Avenue Bus Garage.

This investigative approach provided the due diligence required to review the surrounding land uses and evaluated potential impact to the proposed project as a result of hazardous substances and contaminated materials. This investigation evaluates the presence of potential areas of concern and the possible presence of contaminated substances, as well as the need for additional information and/or investigations for WMATA's Southern Avenue Bus Garage Replacement Project.

2.0 CURRENT SITE SETTING

The existing WMATA Southern Avenue Bus Garage is approximately 8.5 acres in size and is located at 4421 Southern Avenue at the intersection of Southern Avenue and Marlboro Pike in Capitol Heights, Prince George's County, Maryland (Figure 1-1). In 1973, WMATA acquired the facility through their purchase of multiple private bus companies operating in the Washington Metropolitan Area.

The existing Bus Garage includes a single maintenance building that extends from Southern Avenue to Boones Hill Road as well as asphalt-paved employee parking and bus storage where Metrobuses can be queued up to five deep, facing Quinn Street. The eastern end of the maintenance building contains the refueling, fare box collection, washing facilities, maintenance bays, offices, and bus operator's lounge. The westernmost portion of the building, adjacent to Southern Avenue, is generally unoccupied. While Boones Hill Road is used as an entrance and exit for all Metrobuses, the access road is also utilized by Metrobuses maneuvering from their parked positions to the western portion of the maintenance building. An emergency entrance/exit is provided at the end of Pear Street.

2.1 Surrounding Land Use

The existing facility is surrounded by a variety of uses including commercial, institutional, and residential. Adjacent to the facility's northern boundary is vacant retail and surface parking in Green Hill Plaza, as well as the Free Gospel Deliverance Temple. Commercial businesses are adjacent to the eastern boundary of the Bus Garage between Pear and Quinn Streets, and directly to the west of the facility is the Coral Hills Shopping Center.

Northwest of Southern Avenue and the Bus Garage are partially vacant commercial/retail properties, including an active tire and auto repair shop. Northeast of Marlboro Pike are two apparent former auto repair facilities, a one-story restaurant, and an open lot. Flair Dry Cleaners is present on the northeast corner of the intersection of Boones Hill Road and Marlboro Pike. Additionally, residential properties are located along the southern boundary of the existing facility (Figure 2-1).

Properties immediately abutting the current WMATA Southern Avenue Bus Garage included in the potential replacement project are summarized in Table 2.1 on the following page.

Table 2.1: WMATA Southern Avenue Bus Garage Replacement Project - Potential Expansion Properties

Property Address	Description	Land SF	Building Area SF	Year Built	Comments
4703 Marlboro Pike	NE corner of Parcel A	3,191	3,120	1955	Super Liquors retail store.
4703 Marlboro Pike	Partial Take: Parcel A	46,700	33,101	1946	Retail properties with on-site parking in front of stores.
4270 Pear Street	Lots 31-32, Block 60	4,000	840	1954	Building located behind Southern Avenue.
4208 Quinn Street	Lots 11-15, Block 60	10,000	1,224	1930	Single family property; vacant.
Pear Street Right-of-Way	Lots 27-30, Block 60	8,000	0	N/A	Public records indicate land only.
4401 Southern Avenue	Lots 17-18, Block 60	4,400	2,017	1938	Restaurant on corner of Southern Avenue & Quinn Street.
4403 Southern Avenue	Lots 16, 19-21, Block 60	8,600	1,617	1911	1-1/2 story commercial use property.
4405 Southern Avenue	Lots 22-23, Block 60	4,400	1,440	1940	1-1/2 story commercial use property; occupied by Sag Graphics.
4415 Southern Avenue	Lots 24-26, Block 60	6,600	8,731	1942	2-story commercial building with flat roof.

Notes:

SF = Square Feet.

2.2 Site Reconnaissance

WMATA Southern Avenue Bus Garage

A site reconnaissance and interview was conducted at the site on February 14, 2011 with Mr. Flonorial Merritt the WMATA Bus Garage Superintendent. The reconnaissance and interview was completed to provide a general overview of the subject property and the project area to locate any obvious areas of concerns related to contaminated materials. Such areas may include USTs, ASTs, petroleum dispenser islands, floor drains, storm water management areas, distressed vegetation, staining, monitoring wells, waste piles at or within the project area.

As observed during the site reconnaissance and interview, the WMATA Southern Avenue Bus Garage is currently an operating facility that maintains up to 132 Metrobuses. Conditions within the facility are typical of a long-standing maintenance and bus storage facility, with the concrete floors exhibiting staining and general wear.

Service bays were generally positioned along the north side of the Bus Garage building, many of which contained lifts for the maintenance operations. As detailed in WMATA's *Replacement of the Southern Avenue Bus Garage May 2009 Environmental Assessment*, Trenches for the three hydraulic lifts in the Bus Garage are pumped out on a routine basis. Floor drains are also generally centrally-located at each of the service bays.

Lubricants, oils, and other fluids were contained within 55-gallon and 35-gallon drums and stored on pallets. These pallets were stored within each maintenance bay and also centrally located within the Garage near the two 2,000-gallon secondarily-contained, motor oil ASTs. In addition, a 1,000-gallon anti-freeze, secondarily-contained, AST is also present at this location. Vehicle batteries are palletized and are stored along the south wall west of the boiler room area.

The facility was also visually inspected for the potential presence of asbestos containing materials (ACM) and lead-based paint (LBP). Based upon the mid-1940's age of construction of the Garage (Section 3.2), the facility is anticipated to contain ACM and LBP. Upgrades to the facility were reportedly completed in 2000; however, Mr. Merritt was unaware if any ACM and/or LBP abatement activities occurred during these upgrades.

The visual inspection focused on suspect materials that could contain non-friable ACM such as vinyl floor tiles, mastics (i.e., floor adhesives), ceiling tiles, and drywall components; however, no friable materials were not readily apparent. Insulation of pipes on the ceiling of the main maintenance building and around fittings in the boiler room appeared to be fiberglass or similar. However, a full building survey and testing of suspect ACM and LBP by an EPA-certified professional is recommended prior to any demolition or renovation that could disturb the suspected materials at the facility.

The site reconnaissance was also completed in the Metrobus parking and storage yard. A total of five USTs are documented to exist throughout site. The following details the tanks and the respective contents:

- Two 20,000-gallon diesel USTs,
- One 20,000-gallon anti-freeze and water UST (out-of-service),
- One 6,000-gallon engine oil UST, and
- One 8,000-gallon heating oil UST (used for the boiler room), with an emergency generator located nearby.

At least two groundwater monitoring wells were observed near the 8,000-gallon heating oil UST; no other wells were observed. According to Mr. Merritt, there have been no recent releases or spills associated with the USTs, and all reported releases are “older” and have been closed. In addition, Mr. Merritt indicated that the USTs at the facility were scheduled to be removed and/or upgraded within the coming months.

The asphalt of the Metrobus parking and storage yard appeared to be in good condition; no spills or excessive staining was observed. An oil/water separator was observed centrally located within the yard. According to Mr. Merritt this unit is connected to the drains of the facility and the surface water inlets in the yard and treats the water prior to offsite discharge.

Two diesel dispensers were noted on the eastern portion of the site. Spill containment kits were observed in the area of the dispensers (and the two 20,000-gallon diesel USTs).

An apparent vent pipe and fill caps were observed in the concrete sidewalk on the northern corner of the building fronting 4421 Southern Avenue. No stains or discharges were evident. Mr. Merritt indicated that was probably from “the old gas tank”. As discussed later in Section 3.2, two gas USTs were identified on Sanborn Fire Insurance Maps dated 1939 near this location. Site reconnaissance photographs are included in Appendix A.

Potential Expansion Properties

Street-side observations were completed for the potential expansion area properties since access was not available during the February 14, 2011 site reconnaissance. As detailed in Table 2.1, construction of these properties occurred between 1911 and 1955. Based upon the ages of construction, ACM and LBP may therefore be present in the structures on these properties. Full building surveys and testing of suspect ACM and LBP by an EPA-certified professional is recommended prior to any demolition or renovation that could disturb any potentially suspect materials at these properties.

Other observations included construction debris piles (roofing, dry wall, lumber, etc.) were observed behind the vacant 4403 Southern Avenue property. An apparent grease trap may be probable, located at the southwest corner of the restaurant building. No other environmental conditions were observed at these properties. Site reconnaissance photographs are included in Appendix A.

2.3 Topography, Site Soils, and Geology

Topography

As detailed in WMATA's *Replacement of the Southern Avenue Bus Garage May 2009 Environmental Assessment*, the project area is generally flat due to the presence of a large, paved bus parking area, with only a moderate slope from north to south. Grading along

Quinn Street near the southernmost area of the project site has created a relatively steep slope outside the perimeter fence of the Bus Garage. The elevations within the project site range from about 290 feet above mean sea level (msl) along the north to about 240 feet msl along the southern border.

Site Soils

According to the Natural Resources Conservation Service (NRCS), the project area contains the following types of soils: Urban Land, Croom-Urban Land Complex, Grosstown-Urban Land Complex, and Marr-Dodon-Urban Land Complex.

Most of the project area is covered by the Urban Land designation. This soil classification is given to nearly level to moderately sloping areas covered with substantial amounts of impervious surfaces, such as concrete, asphalt, and buildings. The project site exemplifies this soil classification with its large asphalt bus storage area, as well as the existing buildings.

The Croom-Urban Land Complex is a well drained soil of the Croom series, in which it has been altered by grading for development. Large portions of the complex were covered by as much as 18 inches of fill material, and impervious surfaces. According to the Soil Survey of Prince George's County, Maryland (April 1967) and the Soil Survey of the District of Columbia (July 1976), the permeability of this soil is moderate to moderately slow in undisturbed areas, and variable in cut and fill areas. Its runoff is medium to rapid, and the risk of erosion is moderate to severe.

The Grosstown-Urban Land Complex is a well drained soil of the Grosstown series, which has been altered by grading for development, while the Marr-Dodon-Urban Land Complex is also a moderately well to well drained fine sandy loam soil that has undergone grading due to development and is classified as an erosion hazard (WMATA, 2009).

Geology

According to the United States Geologic Survey (USGS), geologic formations in the vicinity of the project area include the Quaternary-aged Western Shore Deposits and the Miocene-aged Calvert Formation of the Chesapeake Group.

The Western Shore Upland Deposits consists primarily of gravel and sand, which are commonly orange-brown, locally limonite-cemented with minor silt and red, white, or gray clay. Thicknesses of the deposits can measure between 0 and 50 feet.

The Calvert Formation of the Chesapeake Group contains interbedded dark green to dark bluish-gray, fine-grained argillaceous sand and sandy clay. The Calvert Formation can contain prominent shell beds and locally silica-cemented sandstones. Thicknesses of the Formation can measure between 0 and 150 feet.

2.4 Surface Waters and Hydrology

The project area does not contain any surface waters. Oxon Run, a tributary of the Potomac River, is the nearest surface water, located approximately a ½-mile southeast of the project area. The stream is listed as a 303(d) water both within Maryland and the District of

Columbia, in accordance with the Federal Clean Water Act. This designation is applied to water bodies which are impaired by at least one pollutant, affecting recreation or the protection and propagation of fish, shellfish and wildlife. In Maryland, Oxon Run is impaired by nutrients and sediment, and in the District of Columbia, Oxon Run is impaired by fecal coliform, metals, and organics.

The project area is located within the Oxon Run Watershed, which covers approximately 12.4 square miles in the District of Columbia and Prince George's County. This watershed is part of the larger Middle Potomac-Anacostia-Occoquan watershed (USGS watershed 02070010), which encompasses 15 counties in and around the metropolitan area of the District of Columbia.

Storm water management of WMATA's Southern Avenue Bus Garage is regulated under a General National Pollutant Discharge Elimination System (NPDES) permit for industrial discharges (permit number not provided). The storm water management system uses an oil/water separator to meet the required standards prior to offsite discharge (WMATA, 2009).

3.0 HISTORIC SITE SETTING

A chain-of-title/environmental lien search and reviews of Sanborn Fire Insurance Maps, historical aerial photographs, and historical topographic maps were completed to assess historic conditions at the project area. The following summarizes the findings of each of these reviews.

3.1 Chain-of-Title/Environmental Liens

A chain-of-title search was conducted on the following subject properties.

Current WMATA Southern Avenue Bus Garage:

- 4421 Southern Avenue

Potential Expansion Area:

- 4703 Marlboro Pike (excluding the church sanctuary)
- 4270 Pear Street (and 4415 Southern Avenue)
- 4208 Quinn Street
- 4401 Southern Avenue
- 4403 Southern Avenue
- 4405 Southern Avenue

No environmental liens were found on any of the properties researched. Copies of the Chain-of-Title/Environmental Liens are included in Appendix B.

3.2 Sanborn Fire Insurance Maps

Available Sanborn Fire Insurance Maps provided by InfoMap and reviewed including those dated 1939, 1959, and 1964. Maps from 1960 and 1985 were also provided but did not cover the project area. Copies of the Sanborn Fire Insurance Maps are included in Appendix C. The information obtained from each map is detailed below.

1939

One- and two-story stores and dwellings are shown immediately west of the intersection of Southern Avenue and Marlboro Pike. These properties are identified as 1400 through 1402 Southern Avenue.

West of these dwellings are two structures identified as 1408 and 1410 Southern Avenue, which coincide with the portion of the current Bus Garage that fronts Southern Avenue. These two structures are identified as auto repair facilities. Two gas tanks are identified to exist at the auto repair facility located at 1408 Southern Avenue.

Webb Avenue is shown immediately west of these structures, and appears to be located at the currently named Pear Street.

Four dwellings and structures are identified West of Webb Avenue as 1492, 1490, 1488, and 1484 Southern Avenue. These properties are identified within the potential expansion area of the Southern Avenue Garage Replacement Project.

West of these structures is Sigsbee Avenue, which is now known as Quinn Avenue.

No structures are shown along Marlboro Pike and at the southern portion of the current facility.

1959

The one- and two-story stores and dwellings immediately west of the intersection of Southern Avenue and Marlboro Pike depicted on the 1939 map have been replaced by a movie theater.

The two structures identified as auto repair facilities at 1410 and 1408 Southern Avenue on the 1939 map are no longer present. A structure associated with the WM&A Motor Lines, Inc. facility is present, coinciding with the current 4421 Southern Avenue WMATA Bus Garage. This structure is shown to contain a boiler room, house 56 buses, and was constructed in 1946.

One gas tank is shown to exist along Southern Avenue and two gas tanks are identified to exist at the southern portion of the site at the intersection of (former) 48th Street and Pard Road S.E. (currently Pear Street).

Pard Street S.E. is indicated to be present at Webb Avenue which appears to be located at the currently named Pear Street.

West of Pard Street the four dwellings and structures are identified as 4401 through 4415 Southern Avenue. These properties are identified within the potential expansion area of the Southern Avenue Garage Replacement Project.

West of these structures is Q Street S.E (formerly Sigsbee Avenue). This appears to be currently Quinn Avenue.

Approximately 15 addresses/stores are shown along Marlboro Pike in the current proposed expansion area of Green Hill Plaza and are identified as 4711 through 4745 Marlboro Pike. The 4731 Marlboro Pike property is identified as "Paints".

A dry cleaner is identified at 4800 Marlboro Pike at the southeast corner of 48th Street and Marlboro Pike.

A Used Auto Sales facility is identified at 4716 Marlboro Pike.

An Auto Repair facility is identified at approximately 4710 Marlboro Pike.

1964

The Sanborn Maps are generally consistent with those described in 1959, with the exception that the 4731 Marlboro Pike property is no longer identified as "Paints".

3.3 Historical Aerial Photographs

Aerial photographs dated 1937, 1952, 1963, 1981, 1989, and 2005 were provided by InfoMap and reviewed. Copies of the photographs are included in Appendix D. The information obtained from each aerial is detailed below.

1937

The majority of the current WMATA Southern Avenue Bus Garage and potential acquisition properties to the east and north appear to be forested. Structures/development appear to be present at the intersection of Southern Avenue and Webb Avenue coinciding with the structures identified on the 1939 Sanborn Fire Insurance Map detailed in Section 3.2

1952

The general area appears to have had a significant increase in residential and commercial development.

The Bus Garage building, constructed in 1946 as detailed on the 1959 and 1964 Sanborn Fire Insurance Maps, is apparent. The current parking and bus storage yard located in the southern portion of the facility remains forested.

Stores and a movie theater are now present fronting Marlboro Pike and Southern Avenue in the potential acquisition area. Stores and commercial development are also present on the north side of Marlboro Pike.

The property at the current tire and auto repair shop at 4501 Bowen Road, S.E. has an apparent similar property layout as currently exists. According to the database reports in Section 4.0, this property was identified as a former Mobil Station. Therefore, this property may have operated as a gasoline service station since at least 1952.

1963

Development in the area continues, primarily via infilling previously undeveloped areas.

The current parking/bus storage area located in the southern portion of the Bus Garage appears to be present. It is unclear whether the parking area is paved, gravel covered, or an open lot. The forested area has been further reduced and only incorporates an area south of the facility.

The Coral Hill Shopping Center east of the facility is present.

1981

Most facilities and properties appear to be consistent with the 1963 aerial photograph. However, the current bus parking and storage yard located in the southern portion of the facility appears to be asphalt covered.

1989

Most facilities and properties appear to be consistent with the 1981 aerial photograph.

The forested area to the south appears to be under development for the current residential properties in that location.

2005

The features of the site and surrounding properties appear to be consistent with the current conditions.

3.4 Historical Topographic Maps

Historical topographic maps were received from InfoMap for the years 1896, 1891, 1898, 1900, 1945, 1950, 1951, 1956, 1965 and the photo-revised maps dated 1971, 1979, and 1982. The topographic maps are included in Appendix E. The following details the maps and potential findings.

1886: Upper Marlboro, MD Quadrangle: Original Map Scale: 1: 62500

The project area is characterized by small hills generally sloping approximately ½-mile towards the south and an unnamed stream which is currently identified as Oxon Run. No structures are present. Bowen Road is identified which closely coincides with the current Marlboro Pike.

1891: Washington, MD Quadrangle - Original Map Scale: 1: 62500

The project area is consistent with the description of the 1886 topographic map.

1898: Washington, MD Quadrangle - Original Map Scale: 1: 62500

Two structures are identified southwest of Bowen Road and southwest of the proposed WMATA Southern Avenue Garage Replacement Project location.

1900: Washington, MD Quadrangle - Original Map Scale: 1: 62500

The project area is consistent with the description of the 1898 topographic map.

1945: Anacostia, DC Quadrangle - Original Map Scale: 1: 31680

The project area is identified as Bradbury Heights. But, no structures are indicated at the subject properties. Significant development is apparent with many roads – including Southern Avenue - and structures detailed throughout the map. Fort Meigs is identified west of Marlboro Pike and west of the WMATA Southern Avenue Garage Replacement Project location.

1950: Anacostia, DC Quadrangle - Original Map Scale: 1: 25000

The project area is consistent with the description of the 1945 topographic map.

1951: Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

The project area is consistent with the description of the 1950 topographic map.

1956: Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

A large structure, coinciding with the approximate shape of the WM&A Motor Lines, Inc. facility (currently the WMATA Bus Garage) and the Green Hill Plaza stores fronting Marlboro Pike (within the potential expansion area), is identified. The Coral Hills Shopping Center immediately south of the subject properties is also identified.

1965: Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

The project area is consistent with the description of the 1956 topographic map.

Photo-Revised 1971 (1965): Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

The project area is consistent with the description of the 1965 topographic map.

Photo-Revised 1979 (1965): Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

The project area is consistent with the description of the photo-revised 1971 topographic map.

Photo-Revised 1979 & 1982 (1965): Anacostia, DC Quadrangle - Original Map Scale: 1: 24000

The project area is consistent with the description of the photo-revised 1979 topographic map.

4.0 REGULATORY DATABASE REVIEWS

A records search of Federal and State databases upwards of ½-mile of the proposed WMATA Southern Avenue Bus Garage Replacement Project was reviewed from InfoMap in accordance with ASTM and AAI Standards. Database sources screened included:

Federal Databases

- CERCLIS - Comprehensive Environmental Response, Compensation, and Liability Information System
- CERC-NFRAP - CERCLIS No Further Remedial Action Planned
- COR ACT - Corrective Action Report
- ERNS - Emergency Response Notification System
- NPL - National Priority List (Current, Proposed, and Delisted)
- RCRA-LQG, NonGen, SQG, and TSDF - Resource Conservation Recovery Act, Large, Non Generators, and Small Quantity Generators; and Transporters, Storage and Disposal Facilities
- TRIBAL LANDS - Indian Reservations
- FEDERAL BROWNFIELDS - Brownfields Database

State Databases

- State SPILLS 90 – Spill sites dating to 1990
- UST/AST – Underground and Above ground Storage Tanks
- SWL – The Solid Waste Landfill Facility Directory
- LUST – Leaking UST / Active Remediation Sites
- EC/IC CONTROLS – Declaration Environmental Restriction/Deed Notice and Classification Exception Area Sites
- VCP – Voluntary Cleanup Program Sites
- State BROWNFIELDS – Brownfields Database

The database reports are included in Appendix F. Table 4.1 details the number of reports that were identified within the designated radii searches.

Table 4.1: Radius Search of Federal and State Databases and Records Reports

Database	Within 1/4-Mile Radius	Within 1/8-Mile Radius	Within 100-Feet Radius	Subject Property
Federal Databases				
CERCLIS	--	--	--	--
ERNS	--	--	--	--
NPL	--	--	--	--
NFRAP	--	--	--	--
RCRA COR ACT	--	--	--	--
RCRA GEN	2	--	3	1
State Databases				
State Spills	--	--	--	--
State SWL	--	--	--	--
State EC/IC	--	--	--	--
UST/AST	7	5	1	1
Leaking USTs	3	6	1	4
State VCP	--	--	--	--
Report Totals	12	11	5	6

Potential sites of concern located approximately 100 feet of the WMATA Southern Avenue Bus Garage Replacement Project are further summarized in Table 4.2.

Table 4.2: Regulatory Database Reports +/- 100 Feet of WMATA's Southern Avenue Bus Garage

Distance/ Direction	Site Name	Address	Municipality	Database	Site ID	Description
SITE	WMATA SOUTHERN AVE BUS ANNEX	4421 SOUTHERN AVE	CAPITOL HEIGHTS	LUST	03-1467PG1	OPENED 3/25/2003: MOTORL/FUEL OIL TANK CLOSURE. CLOSED 7/15/2004.
				LUST	97-1259PG1	OPENED 1/13/1997: HEATING OIL GW CONTAMINATION. CLOSED 4/4/2000.
				LUST	91-0258PG	OPENED 8/6/1990. CLOSED 4/17/1992.
				LUST	8-0921PG	STATUS: OPEN - MONITORING.
				RCRAGEN	MDD982579914	CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS: GENERATES LESS THAN 100 KG/ MONTH OF HAZARDOUS WASTE.
						NOV: 1/9/1990 - GENERATOR ALL REQUIREMENTS.
+/-100 FT WEST	FORMER MOBIL OIL STATION	4501 BOWEN ROAD SE	WASHINGTON DC	UST	7001942	OUT OF USE: (2) 3,000-GAL GASOLINE USTS; (2) 1,000-GAL GASOLINE USTS; (1) 10,000-GAL GASOLINE UST; (1) 550-GAL USED OIL UST; (1) 1,000-GAL HEATING OIL UST.
				LUST	93049	REPORT DATE 1/27/1993: GASOLINE AND WASTE OIL IN GROUNDWATER AND SOIL. NO FURTHER ACTION.
+/-100 FT NE	FLAIR CLEANERS	4800 MARLOBORO PIKE	CAPITOL HEIGHTS	RCRAGEN	MDD071169544	SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE.
						NOV: 12/19/2005 - GENERATOR-PRE-TRANSPORT REQUIREMENTS.

Notes:

LUST: Leaking Underground Storage Tank.

NOV: Notice of Violation.

RCRAGEN: Resource Conservation and Recovery Act (RCRA) Generator of Hazardous Waste.

UST: Underground Storage Tank.

Sources:

InfoMap Environmental FirstSearch Report, dated January 14, 2011.

5.0 MAY 2009 ENVIRONMENTAL ASSESSMENT FINDINGS

WMATA completed an Environmental Assessment for the Replacement of the Southern Avenue Bus Garage in May 2009. A Phase I ESA was completed and the findings were included in Section 3.6 of the EA.

According to Table 3-2 of the EA, eight Recognized Environmental Conditions (RECs) were observed at or near the Southern Avenue Garage. The following summarizes the RECs contained within the May 2009 EA.

1. Contaminated soil from previously remediated leaking underground storage tanks may not have been removed.
2. Sporadic oil stains located inside garage and outside in the parking area that can eventually flow into storm water management inlet.
3. Groundwater seeps out into the storage warehouse on the first floor of the maintenance building. The seepage had an oil sheen, but it could not be determined if the sheen is in the groundwater or from a stain on the floor.
4. Aboveground storage tanks feature sporadic staining. In particular, the aboveground storage tank for used oil has a considerable amount of visible staining.
5. Four underground storage tanks located in the asphalt parking lot area, which are used to store diesel fuel, engine oil, heating oil.
6. Trenches for the three hydraulic lifts in the garage are pumped out on a routine basis, but there is the potential that releases have occurred from these lifts and associated lines.
7. The former Mobil station to the northwest of the bus garage on Bowen Road has historical records of leaking underground storage tanks, which have undergone remediation. The remediation process is closed. However, contamination could have migrated towards the project site.
8. The third floor of the vacant section of the maintenance building has areas with excessive amounts of guano, which could pose a threat to worker safety during demolition.

As detailed in Section 6.0, six of the RECs identified in the May 2009 EA are consistent with the findings of this Phase I ESA. However, two RECs identified in the EA could not be confirmed. The groundwater seeps into the storage warehouse were not observed during the February 14, 2011 site reconnaissance and the third floor of the vacant section was not accessed. Table 3-2 of the EA summarized the findings and the RECs determined during the 2009 EA investigation (Appendix G).

6.0 CONCLUSIONS

As detailed below, the findings from the investigation were used to determine potential "Recognized Environmental Conditions" (RECs) that could impact the WMATA Southern Avenue Bus Garage Replacement Project. The term REC means 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 of 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 material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be *de minimis* are not RECs.

The RECs observed and/or determined to be present at the WMATA Southern Avenue Bus Garage Replacement Project are summarized below according to location and by the type concern (e.g., drum storage and the USTs are grouped into single RECs, respectively, and not subdivided based upon the location or contents of each individual drum or UST).

REC # 1 – WMATA Southern Avenue Bus Garage; Current UST Systems

The documented current UST systems include:

- Two 20,000-gallon diesel USTs with two dispensers,
- One 20,000-gallon anti-freeze and water UST (out-of-service),
- One 6,000-gallon engine oil UST, and
- One 8,000-gallon heating oil UST (used for the boiler room), with an emergency generator located nearby.

The current USTs should remain as RECs until their conditions can be confirmed and/or until they have been removed and any observed or suspected spills are remediated. A Phase II ESA Investigation is recommended to be completed for the current UST systems and/or ensuring sampling and investigations are completed during the scheduled closure and replacement of the tanks.

REC #2 - WMATA Southern Avenue Bus Garage; Former USTs

- Two gas tanks identified on the 1939 Sanborn Fire Insurance Map (and one gas tank on the 1959 and 1964 Map) and the vent pipe and fill caps identified along the northern corner of the building at 4421 Southern Avenue during the February 14, 2011 site reconnaissance.
- Two gas tanks are identified on the 1959 and 1964 Sanborn Fire Insurance Maps to be located at the southeast corner of the facility near the former intersection of Pard Avenue (currently Pear Avenue) and 48th Street SE.

- The databases detail that one 6,000-gallon gasoline UST, one 10,000-gallon diesel UST, and two 4,000-gallon gasoline USTs are permanently out of use. These former UST locations were not observed during the site reconnaissance and the current condition of the USTs – if applicable - is not known at this time.

A Phase II ESA Investigation is recommended to be completed at the in-active/former UST locations to ensure the condition of the USTs (if remaining in-place) or of the area of the former UST locations.

REC #3 – WMATA Southern Avenue Bus Garage; Palletized Drum Storage and Facility ASTs

- 55-gallon and 35-gallon drums of lubricants, oils, and fluids were stored on pallets to keep them off the floor of the Garage. Battery storage is also currently contained to pallets within the Garage. Oil and anti-freeze ASTs were secondarily-contained and labeled. Hazardous waste drums are also currently contained within secondary-containment systems. The presence of these materials and potential for spillage or release determined them as a REC.
- According to the database reports, the facility is a conditionally exempt small quantity generator of hazardous waste with former violations.

A Phase II ESA Investigation is recommended to be completed to evaluate the subsurface conditions related to the current and historic storage of lubricants, oils, and fluids at the Southern Avenue Bus Garage.

REC #4 – WMATA Southern Avenue Bus Garage; Oil/Water Separator and Drains

- Drains in the maintenance bays may contain residual oils and fluids from bus service operations. The oil/water separator may contain residual oils and fluids from bus service operations and from any spills from the asphalt-covered parking and storage yard.

A Phase II ESA Investigation is recommended to be completed to evaluate the integrity and subsurface conditions related to the oil/water separator and drains at the Southern Avenue Bus Garage.

REC #5 – WMATA Southern Avenue Bus Garage; General Operations and Conditions

- The current conditions at the Bus Garage are typical of a long-standing maintenance and bus storage facility with the concrete floors exhibiting staining and general wear from operations. Additionally, the location fronting 4421 Southern Avenue was shown to contain two auto repair shops on the 1939 Sanborn Fire Insurance Map.

A Phase II ESA Investigation is recommended to be completed to evaluate the subsurface conditions related to the long-standing maintenance operations at the Southern Avenue Bus Garage.

REC #6 – WMATA Southern Avenue Bus Garage; ACM

- During the site reconnaissance suspect materials that could contain non-friable ACM included vinyl floor tiles, mastics (i.e., floor adhesive), ceiling tiles, and drywall components.
- Friable materials were not readily apparent. Insulation of pipes on the ceiling of the main maintenance building and around fittings in the boiler room appeared to be fiberglass or similar.

A Phase II ESA Investigation is recommended to be completed. In accordance with 40 CFR Part 61.145(a), the National Emission Standards for Hazardous Air Pollutants (NESHAP), a full building survey and testing of suspect ACM and lead-based paint (LBP) by an EPA-certified professional is recommended prior to any demolition or renovation that could disturb the suspected materials at the Bus Garage.

REC #7 – Potential Expansion Areas Properties; ACM

- ACM may be present based upon the ages of construction of the structures on the expansion area properties (circa 1911 to 1955).

A Phase II ESA Investigation is recommended to be completed at the potential expansion area properties. In accordance with NESHAP, a full building survey and testing of suspect ACM and LBP by an EPA-certified professional is recommended prior to any demolition or renovation that could disturb the suspected materials at these properties.

REC #8 – Former Mobil Station/Current Tire & Auto Repair Shop 4501 Bowen Road S.E.

- The current tire and auto repair shop at 4501 Bowen Road, SE was a former Mobil Station. Aerial photographs dating to 1952 show an apparent similar property layout and therefore may have operated as a gasoline service station since at least 1952. According to the database reports, the former Mobil Station contained three gasoline USTs, one heating oil UST, and one used oil UST. The database indicated a release of gasoline and waste oil in the groundwater and soil as of January 27, 1993. The UST systems appear to have been removed but the presence of a groundwater monitoring well along the eastern property boundary and the topography suggests that the groundwater flow may be towards (or side-gradient of) the Southern Avenue Bus Garage.

A Phase II ESA Investigation is recommended to be completed. The Former Mobil Station/Current Tire & Auto Repair Shop at 4501 Bowen Road S.E. should remain a REC until the groundwater gradient is confirmed and/or impacts to the Bus Garage from the property are determined not to be present. The former auto dealership, auto repair facilities, and Flair Dry Cleaners along Marlboro Pike are not considered RECs since the properties appear to be topographically down-gradient of the WMATA Southern Avenue Bus Garage Replacement Project.

7.0 REFERENCES

- AECOM, Site Reconnaissance, February 14, 2011.
- InfoMap Technologies Incorporated, *Environmental FirstSearch Report™, Historical Aerial Photographs, Historical Topographic Maps, and Sanborn Fire Insurance Maps for Southern Ave and Marlboro Pike Capitol Heights, MD 20734*, January 14, 2011.
- The Maryland Department of the Environment (MDE) Permits and Approvals webpage, <http://www.mde.state.md.us/Programs/Permits/Pages/Permits/index.aspx>, reviewed on February 7, 2011.
- United States Geologic Survey (USGS) Maryland Geologic Data webpage, <http://tin.er.usgs.gov/geology/state/state.php?state=MD>, of the *Geologic Map of Maryland* viewed on February 21, 2011.
- Washington Metropolitan Area Transit Authority (WMATA), *Replacement of the Southern Avenue Bus Garage Prince Georges County, Maryland Environmental Assessment*, May 2009.

FIGURES



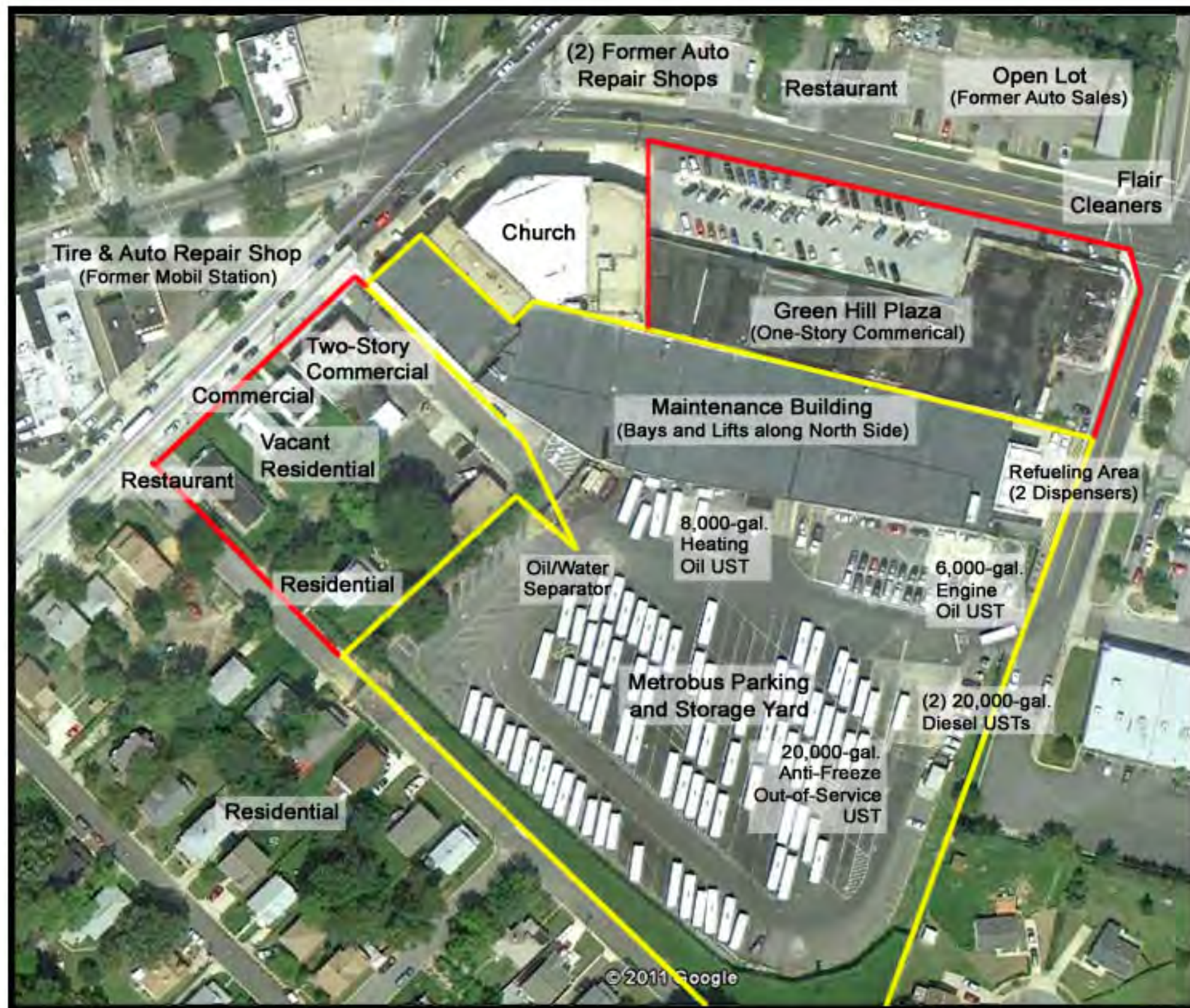
Source: WMATA Environmental Assessment, Replacement of the Southern Avenue Bus Garage, May 2009.

LEGEND

- Limits of Current WMATA Southern Avenue Bus Garage
- Potential Replacement Project Expansion Areas

Figure 1-1
Site Location Map
 Phase I Environmental Site Assessment
 WMATA Southern Avenue Bus Garage
 Replacement Project
 4421 Southern Avenue
 Capitol Heights, Prince George's County, Maryland

March 2011



LEGEND

- Limits of Current WMATA Southern Avenue Bus Garage
- Potential Replacement Project Expansion Areas

SCALE
0 100
feet

FIGURE 2-1
WMATA Southern Avenue Garage
and Surrounding Conditions Map
 Phase I Environmental Site Assessment
 WMATA Southern Avenue Bus Garage
 Replacement Project
 4421 Southern Avenue
 Capitol Heights, Prince George's County, Maryland

March 2011