



RESPONSE ACTION PLAN

**6709 and 6715 Pulaski Highway
Baltimore City, Maryland**

February 4, 2022

Submitted to:

**Maryland Department of the Environment
Voluntary Cleanup Program**

1800 Washington Boulevard, Suite 625

Baltimore, Maryland 21230

Attn: Ms. Barbara Brown

Prepared for:

6709 Pulaski, LLC

9475 Deereco Road, Suite 200

Baltimore, Maryland 21093

Attn: Mr. Bryan Eberle

Prepared by:

Geo-Technology Associates, Inc.

Geotechnical and Environmental Consultants

14280 Park Center Drive, Suite A

Laurel, Maryland 20707

(410) 792-9446 or (301) 470-4470

www.gtaeng.com

GTA Project No: 31210157

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS



A Practicing Geoprofessional Business Association Member Firm

February 4, 2022

6709 Pulaski, LLC
9475 Deereco Road, Suite 200
Baltimore, Maryland 21093

Attn: Mr. Bryan Eberle

Re: Response Action Plan
6709 and 6715 Pulaski Highway
Baltimore City, Maryland

Dear Mr. Eberle:

Geo-Technology Associates, Inc. (GTA) has prepared this Response Action Plan (RAP) for the 6709 and 6715 Pulaski Highway property (the "subject property"), of land southeast of Pulaski Highway and southwest of the Moravia Road onramp to Interstate 95, in Baltimore City, Maryland. This RAP has been prepared to address soil, soil vapor, groundwater contamination detected during prior evaluations in conjunction with site development. It is GTA's understanding that the subject property is planned to be developed with a warehouse and associated paved parking areas.

An application for the subject property's acceptance into the Maryland Department of the Environment (MDE) Voluntary Cleanup Program (VCP) was received by the MDE on December 3, 2021. The subject property was accepted into the VCP by the MDE on January 20, 2022.

We appreciate the continued opportunity to be of assistance on this project. Should you have any questions regarding this information, or should you require additional information, please contact our office at (410) 792-9446.

Sincerely,
GEO-TECHNOLOGY ASSOCIATES, INC.

Kevin P. Plocek
Associate

Paul H. Hayden, P.G., L.R.S., R.S.M.
Vice President

cc: Ms. Barbara Brown / Maryland Department of the Environment, Voluntary Cleanup Program
\\Laurel\docs\Project Files\2020\200522 6709 Pulaski Highway\Doc\ENV 200522 EMP.docx

14280 Park Center Drive, Suite A, Laurel, MD 20707 (410) 792-9446 (301) 470-4470

◆ Abingdon, MD ◆ Baltimore, MD ◆ Laurel, MD ◆ Frederick, MD ◆ Waldorf, MD ◆ New Castle, DE ◆ Georgetown, DE
◆ Somerset, NJ ◆ NYC Metro ◆ Pittsburgh Metro ◆ Quakertown, PA ◆ Scranton/Wilkes-Barre, PA ◆ York, PA
◆ Northeastern, OH ◆ Sterling, VA ◆ Nashville, TN ◆ Charlotte, NC ◆ Raleigh, NC ◆ Orlando, FL

Visit us on the web at www.gtaeng.com

TABLE OF CONTENTS

| | | |
|-------------|--|-----------|
| 1.0 | EXECUTIVE SUMMARY | 1 |
| 2.0 | INTRODUCTION..... | 2 |
| 2.1 | OVERVIEW AND PURPOSE | 2 |
| 2.2 | LIMITATIONS | 3 |
| 3.0 | GENERAL PROPERTY DESCRIPTION | 3 |
| 3.1 | SITE DESCRIPTION | 3 |
| 3.2 | PROPOSED DEVELOPMENT AFFECTED BY THE RAP..... | 4 |
| 3.3 | PHYSICAL SETTING..... | 5 |
| 3.4 | BACKGROUND | 6 |
| 3.4.1 | <i>General</i> | 6 |
| 3.4.2 | <i>Environmental</i> | 7 |
| 4.0 | EXPOSURE ASSESSMENT | 11 |
| 4.1 | DIRECT CONTACT SOIL CONTAMINATION | 11 |
| 4.2 | POTENTIAL EXPOSURE POPULATIONS AND PATHWAYS..... | 12 |
| 4.3 | INHALATION OF FUGITIVE DUST, PETROLEUM VAPORS, AND METHANE | 12 |
| 4.4 | EXPOSURE TO GROUNDWATER CONTAMINATION | 13 |
| 4.5 | MIGRATION OF CONTAMINATION TO ECOLOGICAL RECEPTORS..... | 13 |
| 5.0 | CLEANUP CRITERIA..... | 14 |
| 6.0 | SELECTED TECHNOLOGIES AND INSTITUTIONAL CONTROLS | 15 |
| 6.1 | SITE-WIDE CORRECTIVE ACTIONS..... | 15 |
| 6.1.1 | <i>Protection of Site Workers</i> | 15 |
| 6.1.2 | <i>Soil Contamination</i> | 16 |
| 6.1.3 | <i>Imported Fill Material Sampling and Analysis</i> | 17 |
| 6.1.4 | <i>Groundwater Contamination</i> | 18 |
| 6.1.5 | <i>Vapor Intrusion and Methane Mitigation</i> | 18 |
| 6.1.6 | <i>Institutional Controls</i> | 20 |
| 6.2 | CORRECTIVE ACTIONS FOR SPECIFIC DEVELOPMENT FEATURES..... | 20 |
| 6.2.1 | <i>Soil Improvements</i> | 20 |
| 6.2.2 | <i>Fill Areas</i> | 21 |
| 6.2.3 | <i>Submerged Gravel Wetlands</i> | 22 |
| 6.2.4 | <i>Proposed Buildings</i> | 22 |
| 6.2.5 | <i>Hardscaped and Landscaped Areas</i> | 22 |
| 7.0 | EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGIES | 23 |
| 7.1 | CERTIFICATE OF COMPLETION | 23 |
| 7.2 | CONTINGENCY MEASURES | 24 |
| 8.0 | PROPOSED RESPONSE ACTIONS | 25 |
| 8.1 | REPORTING REQUIREMENTS..... | 25 |
| 8.2 | MAINTENANCE | 25 |
| 8.3 | EXCAVATIONS..... | 27 |
| 8.3.1 | <i>Reuse of Soils Within Landscaped Areas</i> | 27 |
| 8.3.2 | <i>Reuse of Soils Below Hardscape</i> | 27 |
| 9.0 | PERMITS, NOTIFICATIONS, AND CONTINGENCIES | 27 |
| 10.0 | HEALTH AND SAFETY..... | 28 |

| | | |
|-------------|--|-----------|
| 10.1 | SITE SECURITY | 28 |
| 10.2 | HEALTH AND SAFETY PLAN..... | 28 |
| 10.3 | AIR MONITORING REQUIREMENTS..... | 28 |
| 11.0 | IMPLEMENTATION SCHEDULE | 29 |
| 12.0 | ADMINISTRATIVE REQUIREMENTS | 30 |
| 12.1 | WRITTEN AGREEMENT | 30 |
| 12.2 | ZONING CERTIFICATION | 30 |
| 12.3 | PUBLIC PARTICIPATION..... | 30 |
| 12.4 | PERFORMANCE BOND OR OTHER SECURITY | 31 |

APPENDICES

| | |
|------------|--|
| Appendix A | MDE Acceptance Letter |
| Appendix B | Figures |
| | Figure 1 – Site Location Map |
| | Figure 2 – 2020 Aerial Photograph |
| | Figure 3 – Existing Conditions Plan |
| | Figure 4 – Proposed Development Plan |
| | Figure 5 – Topographic Map |
| | Figure 6 – Existing Capping Plan |
| | Figure 7 – Generic Vapor Venting Details |
| | Figure 8 – Proposed Capping Plan |
| | Figure 9 – Capping Details |
| Appendix C | Prior Certificate of Completion |
| Appendix D | Notice of Compliance letter |
| Appendix E | Site Status and Case Closure letter |
| Appendix F | Cap Inspection Form |
| Appendix G | Slab Inspection Form |
| Appendix H | Written Agreement |
| Appendix I | Zoning Certification |

1.0 EXECUTIVE SUMMARY

Geo-Technology Associates, Inc. (GTA) has prepared this Response Action Plan (RAP) for the 6709 and 6715 Pulaski Highway property (the “subject property”), as described herein. This Executive Summary is limited in scope and detail and is presented for the convenience of the reader. Please refer to the written report for details concerning the environmental condition of the subject property, as well as the scope and limitations of this RAP. Do not rely on this Executive Summary for any purpose except that for which it was prepared. Rely only on the full report for information about the findings, recommendations, and other concerns.

The subject property consists of approximately 20.16 acres of land southeast of Pulaski Highway and southwest of the Moravia Road onramp to Interstate 95, in Baltimore City, Maryland. The subject property currently contains a vacant concrete, asphalt, and gravel covered lot; vegetated and wooded land; and stormwater management facilities. Herring Run bisects the southwestern portion of the subject property and a portion of the subject property beyond Herring Run consists of a paved parking lot. The majority of the subject property consists of an approximate 19.13-acre parcel identified at the address 6709 Pulaski Highway. This portion of the subject property previously contained a Baltimore City incinerator and is herein identified as the “former incinerator parcel”. The remaining portion of the subject property consists of an approximate 1.03-acre parcel identified at the address 6715 Pulaski Highway. This portion of the subject property is located on the northcentral portion of the subject property and is bound by the former incinerator parcel to the southwest, southeast, and northeast. The 6715 Pulaski Highway parcel previously contained a gasoline station and is herein identified as the “gasoline station parcel”.

Historically, the subject property consisted of vacant land prior to 1904. Several structures were located on the property between 1904 and 1908. These structures were razed and a solid waste incinerator facility was constructed on the subject property. This facility (City of Baltimore Incinerator) operated at the site from 1931 until ceasing operations in 1995. Incinerator ash and other refuse associated with incinerator operations were buried primarily on the southern and eastern portions of the of the subject property. This area included a former “ash dump.” This fill material reportedly consisted of incinerator ash and organic/inorganic debris (e.g., brick, household waste, wood, glass, metal, etc.). The facility was demolished prior to 2005. The property was reportedly utilized as an abandoned vehicle impoundment lot by the City of Baltimore after the solid waste incinerator uses were discontinued.

In addition, a gasoline station, which also contained a maintenance and storage shop, was constructed on the gasoline station parcel prior to 1957. Prior to 1981, the first-generation gasoline station was removed and replaced by a second-generation gasoline station. By 2017 the second-generation gasoline station had been removed from the gasoline station parcel, inclusive of associated underground storage tanks (USTs) and dispenser islands.

Two USTs were reportedly installed on the former incinerator parcel in the 1980s. These USTs were removed in 2008 under the supervision of the Maryland Department of the Environment (MDE) Oil Control Program (OCP). A total of 16 additional USTs were removed from the gasoline station parcel between 1987 and 2017 under MDE OCP supervision. Numerous environmental evaluations and



remedial efforts were performed on the gasoline station parcel with respect to prior petroleum impacts. The MDE issued a Site Status and Case Closure letter in February 2018 indicating that residual petroleum impacts remained at the gasoline station parcel and if these impacts were encountered, they “must be handled in a manner that complies with all federal, state, and local law and regulations.” A Phase II Environmental Site Assessment (ESA) was recently performed to evaluate current environmental conditions on the gasoline station parcel. Sampling generally confirmed that residual petroleum-impacted soil exists, but at concentrations below the current regulatory standards.

Several additional environmental evaluations were also performed on the southern and eastern portions of the of the subject property. These evaluations primarily focused on buried incinerator ash and other refuse associated with the former incinerator operations. Soil samples collected from these areas indicated elevated concentrations of metals, petroleum constituents, dioxins and furans, and semi-volatile organic compounds (SVOCs). Reportedly, a clay liner was installed in the former location of a concrete ash bin (CAB).

Under former ownership, an application for acceptance of the former incinerator parcel portion of the subject property into the MDE’s Voluntary Cleanup Program (VCP) was received by the MDE in 2003. The VCP application was accepted into the VCP by the MDE on January 16, 2007 as a responsible person. A RAP was prepared for the property and subsequently approved by the MDE VCP on October 23, 2009. Two 2010 RAP Addendums were prepared regarding the installation and screening/sampling of landfill gas monitoring wells and groundwater monitoring wells. Between 2009 and 2010, the incinerator parcel portion of the subject property was cleared of vegetation, capped and graded with MDE certified clean fill, and a concrete retaining wall was constructed on the southwestern portion of the property adjacent to Herring Run. The former incinerator parcel portion of the subject property was granted a Certificate of Completion (COC) dated September 13, 2011.

This RAP was prepared to address soil, soil vapor, and groundwater during the proposed redevelopment of the subject property.

2.0 INTRODUCTION

2.1 Overview and Purpose

During previous environmental evaluations, impacted soil, soil vapor, and groundwater were identified at the subject property above the applicable MDE criteria. Under former ownership; a RAP was prepared for the majority of the property, was approved by the MDE VCP, and the majority of the subject property was capped and graded with MDE certified clean fill. GTA has prepared this RAP to focus on the portions of the subject property within the proposed limits of disturbance (LOD) of proposed site development activities, the majority of which is located in formerly capped areas. Areas located outside of the LOD must continue to comply with the existing COC.

6709 Pulaski, LLC, applied to the MDE VCP as an “Inculpable Person” for the subject property. The subject property was accepted into the VCP by the MDE on January 20, 2022. 6709 Pulaski, LLC is

herein identified as the “Participant.” A copy of the MDE acceptance letter is included in *Appendix A*. The proposed future land use is restricted commercial (Tier 2B).

This RAP has been prepared to establish a proposed remedy for impacted soil, soil vapor, and groundwater contamination within the site boundary in conjunction with the planned site development. The proposed remedy for soil and soil vapor includes potentially removing impacted soil, the installation of a vapor barrier and sub-slab vapor mitigation system, construction observation for correct RAP implementation, and using appropriate construction observation and health and safety measures during the planned construction, capping to prevent direct contact exposure, and notification to MDE prior to future excavation activities. The proposed remedy for groundwater includes the proper abandonment of groundwater monitoring wells and methane monitoring probes, construction observation for correct RAP implementation, using appropriate construction observation and health and safety measures during the planned construction, and a deed notice to restrict groundwater use at the subject property. The RAP has been prepared for MDE submittal so that a COC may be obtained following the proposed RAP implementation.

2.2 Limitations

This report was prepared by GTA for the sole and exclusive use of the Client (6709 Pulaski, LLC), under the terms and conditions of GTA’s contract with the Client. GTA understands that if authorized by the Client, this report may be used by the Client’s current and future direct and indirect affiliates (including 6709 Pulaski, LLC), investors, partners, and lenders, and such use is subject to the applicable terms and conditions of GTA’s contract with the Client. GTA acknowledges that this document is being submitted to the MDE and will be part of the public record, and that the MDE is expected to use this report as part of its review process. However, use of this report by any unauthorized third party is at their sole risk. GTA is not responsible for any claims, damages, or liabilities associated with unauthorized third-party use. Reliance on this report can be provided to other parties at the request of the Client, subject to the terms and conditions of GTA’s contract with the Client.

3.0 GENERAL PROPERTY DESCRIPTION

3.1 Site Description

The subject property consists of approximately 20.16 acres of land southeast of Pulaski Highway and southwest of the Moravia Road onramp to Interstate 95, in Baltimore City, Maryland. The subject property currently contains a vacant concrete, asphalt, and gravel covered lot; vegetated and wooded land; and stormwater management facilities. Herring Run bisects the southwestern portion of the subject property and a portion of the subject property beyond Herring Run consists of a paved parking lot. A *Site Location Map* and a *2020 Aerial Photograph* are included as *Figures 1* and *2* in *Appendix B*.

According to online tax information obtained from the Maryland Department of Assessments and Taxation (MDAT), the subject property is identified as the following lots:

| Tax Lot/Section/Block/Map | Owner | Address | Land Area (Acres) |
|---------------------------|-------------------------------|----------------------|-------------------|
| 9/18/6235/26 | WH-Pulaski LLC | 6709 Pulaski Highway | 19.136 |
| 10/18/6235/26 | Marathon Petroleum Company LP | 6715 Pulaski Highway | 1.026 |
| Total Acreage | | | 20.162 |

It should be noted that the Participant purchased the above referenced lots in September (Lot 9) and October (Lot 10) 2021, respectively. The MDAT records have not yet been updated to reflect this information. Former owners were identified as Mayor and City Council (Lot 9) and Save Way Stations (Lot 10). No structures were identified on either lot. The MDAT records indicate that the land use for Lot 9 is “industrial” and Lot 10 is “commercial.”

3.2 Proposed Development Affected by the RAP

GTA was provided with a copy of an Existing Site Conditions and Proposed Site Plan of the subject property, prepared by Century Engineering and dated November 5, 2021. An *Existing Site Conditions Plan* is included as *Figure 3* in *Appendix B*. The majority of the former incinerator parcel contains open land with a “stone road” on the central portion. Nine monitoring wells are identified on the southern and western portions of the subject property. The “monitoring wells” generally correspond to methane monitoring probes that were installed at the site during prior RAP implementation and due diligence activities. Wooded land is depicted on and adjacent to the areas that border the subject property, and along the southwestern property boundary that includes a portion of Herring Run. Two “existing basin(s)” are depicted on the northwestern and northeastern portions of the subject property, and correspond to existing stormwater management ponds.

A *Proposed Development Plan* is included as *Figure 4* in *Appendix B*. The Proposed Development Plan indicates that a 222,400 square-foot warehouse is proposed to be constructed on the subject property. It is GTA’s understanding that this proposed warehouse will be connected to publicly available water and sewer utilities. Access to this building will be provided by two proposed paved ingress/egress roads that will originate from Pulaski Highway. Additional paved parking areas are proposed around the warehouse. The existing stormwater management ponds are proposed to be converted into submerged gravel wetlands. The proposed limits of disturbance (LOD) are highlighted on the Proposed Development Plan. Proposed RAP implementation activities discussed herein pertain to the areas located within the LOD. Areas outside of the LOD must be maintained in accordance to the existing COC for the subject property.

Detailed grading plans were not available at the time of the preparation of this RAP. However, the available conceptual plans include conceptual grading schemes. Based on a review of these plans, cuts and fills predominantly on the order of one to five feet will be required to establish the mass grades.

Once final development plans; inclusive of grading, stormwater, and foundation plans, are available these documents will be submitted to the MDE VCP and appropriate RAP addendums will be prepared and submitted for approval.

3.3 Physical Setting

The Site’s physical setting, based on the Site reconnaissance and/or the referenced physical setting sources, is summarized below.

| | |
|--|---|
| Soil Series | Source: U.S. Department of Agriculture (USDA) Web Soil Survey |
| <p>50A: Hatboro-Cordorus complex 40C and 42E: Udorthents 44UC: Urban land Note: Urban land includes areas where the original soil material has been disturbed by construction or other human activities, and may include areas where fill has been added.</p> | |
| Topography | Source: United States Geological Survey (USGS) Topographic Quadrangle Map (Baltimore, MD) and a Century Engineering Existing Conditions Plan |
| <p>Generally level to gently sloping downward to the southwest, southeast, and northeast. The Site elevation on the majority of the subject property is approximately 55 feet above mean sea level (MSL) to 40 feet above MSL in the proposed LOD. Steeper slopes exist along the site perimeter, outside of the LOD. Existing grades within the steeply sloping areas and topographic low points present along the periphery of the site range from approximately 19 feet above MSL in the vicinity of Herring Run in the southwestern portion of the subject property to approximately 46 feet above MSL along the site’s northeast boundary, adjacent to Moravia Road. A <i>Topographic Map</i> for the site and vicinity, based on the USGS Map, is included as <i>Figure 5 in Appendix B</i>.</p> | |
| Geology, Hydrogeology, and Surface Water | Source(s): Maryland Geological Survey <i>Geologic Map of Baltimore, Maryland</i>; USGS Topographic Quadrangle Map (Baltimore, MD) and a Century Engineering Existing Conditions Plan |
| <p>Physiographic Province: Coastal Plain Formation(s): Artificial Fill: The formation typically consist of a heterogeneous mixture of materials such as rock, unconsolidated sediment, refuse, and dredge spoil. Within Baltimore, Artificial Fill is primarily mapped in major areas of filled or highly disturbed ground, such as refilled pits or transportation corridors Alluvium: The formation is typically characterized by interbedded layers of gravel, sand, silt, and clay of variable composition and sorting. These soils are typically encountered in the floodplains of perennial streams, upland gathering areas, and estuarine marshes. In urban areas, alluvium is often inaccurately mapped because it is commonly overlain by artificial fills. The Clay Facies of the Arundel Formation: The formation is typically characterized by gray, brown, black, and red kaolinitic and illitic clays with interbedded layers, lenses, and/or pods of quartz sand. This formation frequently contains sideritic concretions and lignitized wood. Groundwater Flow Direction: Based on the observed and/or mapped local topography, and prior evaluations, the shallow groundwater is assumed to flow generally to the southwest. Shallow groundwater flow may be highly variable based on a number of factors. Prior evaluations identified groundwater elevations at the site ranging from 16 to 42 feet below bgs, with the majority showing groundwater at a depth around 30 feet bgs. Surface Water: Two existing stormwater management ponds are located on the northeastern and northwestern portions of the subject property, within the LOD. Herring Run is located on the southwestern portion of the subject property, outside of the proposed LOD. The portion of Herring Run that is located on the site runs through a concrete channel.</p> | |

Geotechnical explorations performed on the subject property encountered a subsurface profile that generally consisted of existing fills underlain by native clays with interbedded layers of sand, transitioning to more granular and non-plastic soils. Soils encountered near the existing ground surface in the explorations consisted of a variable mixture of sand, clay, and silt. Where encountered, this near surface soil profile was generally 2 to 4 feet thick and was representative of the existing cap on the former incinerator parcel. The existing fills encountered below the cap consisted of a heterogeneous mixture of sand, silt, and clay with varying amounts of gravel, concrete and brick fragments, wood pieces, glass shards, and cinders. The observed fills during geotechnical explorations extended to depths of 32 feet bgs; however, these fills reportedly extend to approximately 50 feet bgs on some portions of the site.

3.4 Background

The subject property has been the subject of substantial prior investigation. Documentation provided to or prepared by GTA includes Phase I ESAs, Phase II ESAs, geophysical surveys, a Corrective Action Plan (CAP), VCP Applications, a RAP and associated RAP Addendums, a RAP Completion Report, and numerous correspondence including letters and emails. Documents typically pertained to either the evaluation and subsequent capping of the former incinerator parcel or the evaluation and remediation of the former gasoline station parcel. These documents have been provided to the Participant and the MDE VCP under separate cover. Please refer to these documents for details not summarized below.

3.4.1 General

6709 Pulaski Highway (Former Incinerator Parcel)

Historically, the majority of the former incinerator parcel was vacant land prior to 1904. Several structures were located on the property between 1904 and 1908. These structures were razed and a solid waste incinerator facility was constructed on the former incinerator parcel. This facility (City Incinerator Plant No. 2) operated at the site from reportedly 1931 until ceasing operations in 1995. The facility consisted of a dump pit, two furnaces, and one operating unit. An “ash dump” was located southeast of the facility. The remainder of the former incinerator parcel consisted of open and wooded land and Herring Run to the south and southwest. Reportedly, the facility was demolished and reconstructed in 1955. This facility contained a precipitator room, four operating units, a furnace room, and a tipping room. A parking lot was located southeast of the facility. Between 1957 and 1964, the eastern portion of the subject property was cleared of vegetation and an additional parking lot was constructed to the west of the facility. By 1979, the cleared land was paved and consisted of additional parking. A CAB was constructed in the 1980s near the incinerator and was used to temporarily store incinerator ash prior to off-site disposal. The facility was demolished prior to 2005. Reportedly the subject property was utilized as an abandoned car impoundment by the City of Baltimore, prior to being cleared and graded in 2009. Between 2009 and 2010, the site was cleared of vegetation, capped and graded with MDE certified clean fill, and a concrete retaining wall was constructed on the southwestern portion of the property adjacent to Herring Run.

6715 Pulaski Highway (Gasoline Station Parcel)

The gasoline station parcel is situated on the north-central portion of the subject property and is bound by the former incinerator parcel portions of the site to the southwest, southeast, and northeast. Prior to 1957, a structure was constructed on the property. A 1975 Sanborn Fire Insurance Map indicated that this structure and a steel canopy were associated with a “filling station.” Prior reports also identified this structure as a maintenance and storage shop. Several apparent fuel dispenser islands were observed northwest of the structure and the steel canopy in aerial photographs from the 1950s, 1960s, and 1970s. Prior to 1981, these dispenser islands were removed and were replaced by an additional structure on property (former canopy). Concrete pads were observed southwest and northeast of this second structure, consistent with UST basins. During the mid-1990s to early 2000s, the steel canopy was removed, and additional fuel dispenser islands were visible on the northeastern and southwestern portions of the Site. By 2017 the former structures had been removed from the property, and disturbed areas were apparent at the former locations of the UST basins and dispenser islands.

3.4.2 Environmental

6709 Pulaski Highway (Former Incinerator Parcel)

Based on prior environmental evaluations, incinerator ash and other refuse associated with incinerator operations were buried primarily on the southern and eastern portions of the of the subject property. This area included the former “ash dump.” Reportedly, fill materials extend to depths up to 50 feet bgs. According to previous evaluations, this fill material consisted of incinerator ash and organic/inorganic debris (e.g., brick, household waste, wood, glass, metal, etc.). Soil samples collected from these areas indicated elevated concentrations of metals, petroleum constituents, dioxins and furans, and semi-volatile organic compounds (SVOCs). Reportedly, a clay liner was installed in the former location of the CAB. No other information was provided regarding the clay liner.

The majority of the prior environmental evaluations conducted for the former incinerator parcel were completed after the incinerator facility was demolished in 1995. A Phase II ESA was performed in 1998, which included the collection of soil, sediment, surface water, and groundwater samples. Arsenic was detected above the current MDE Non-Residential Cleanup Standards (NRCS) in two soil samples at depths ranging from 4 to 10 feet bgs. These samples were collected near the CAB and a former storage yard. Reportedly, the 1998 Phase II ESA, indicated seven groundwater monitoring wells were installed as part of an environmental evaluation conducted in 1994. Groundwater samples were collected from five of these groundwater monitoring wells. Methylene chloride was detected in groundwater above the current MDE Groundwater Cleanup Standards (GCS). This monitoring well was located southeast of the former filling station. Methylene chloride is a common laboratory artifact associated with laboratory extraction methods, and therefore is not likely present in groundwater. Trichloroethylene (TCE) was also detected above the MDE GCS in a monitoring well located on the northeastern portion of the subject property.

A Phase II ESA was performed at the former incinerator parcel in 2006, which included the collection of sediment, soil, groundwater, and surface water samples; a geophysical evaluation; 11 hand auger soil borings; and excavation of 12 test pits. This Phase II ESA was conducted in accordance with an MDE-approved Work Plan dated November 15, 2005. The geophysical evaluation identified remnant demolition debris, remnants of prior structures, and two USTs. Fill materials were encountered to depths up to 10 feet bgs. Several soil samples were collected from various depths from the test pit excavations and hand auger borings. In addition, sediment samples were collected within on-site marsh areas and stream banks of Herring Run. Surface water samples were also collected from Herring Run. Groundwater samples were collected from existing on-site groundwater monitoring wells and from two additionally installed groundwater monitoring wells.

Several VOCs, cyanide, total petroleum hydrocarbons (TPH) gasoline range organics (GRO), and TPH diesel range organics (DRO) were detected in groundwater above the MDE GCS. Lead and TPH DRO were detected in surface water. Several polycyclic aromatic hydrocarbons (PAHs), metals, TPH DRO, and dioxins and furans, were detected in the soil and sediment above the applicable cleanup criteria at the time the evaluations were performed.

Two USTs (one 4,000-gallon kerosene UST and one 4,000-gallon diesel UST) were reportedly installed on the former incinerator parcel in the 1980s. These USTs were removed from the subject property in 2008 under the supervision of the MDE. According to MDE tank removal and abandonment forms, no perforations or pitting were observed on the USTs. In addition, impacted soil was not observed during UST removal activities. The UST removal activities are associated with OCP Case No. 08-0468BC. Two additional closed OCP cases (92-2903BA and 92-3009BC) are associated with the former incinerator parcel; however, no other information pertaining to these cases is available.

Under the former ownership (The New Pulaski Company Limited Liability Limited Partnership) an application for acceptance of the 6709 Pulaski Highway portion of the subject property into the MDE's VCP was received by the MDE in 2003. The VCP application was accepted into the VCP by the MDE on January 16, 2007 as a responsible person. A RAP was prepared for the property and subsequently approved by the MDE VCP on October 23, 2009. The response actions and RAP implementation activities included in the RAP for proposed commercial use consisted of: methane gas and groundwater investigation, evaluation of the CAB, MDE certified clean fill placement, compaction, and grading across the site, construction of sediment and erosion control system, and construction of a masonry block retaining wall along the Herring Run portion of the property.

As part of two 2010 RAP Addendums, five landfill gas monitoring wells and four groundwater monitoring wells were installed primarily on the southeastern portion of the subject property in the location of historic on-site burial of incinerator ash. One groundwater monitoring well was installed on the northeastern portion of the subject property. Four landfill gas monitoring events were conducted and elevated concentrations of measurable methane ranging from 10%

to over 100% of the lower explosive limit were detected. The groundwater monitoring wells were sampled and two of these groundwater monitoring wells detected concentrations of dissolved metals and VOCs above the current MDE GCS. In addition, elevated concentrations of polychlorinated dibenzodioxins and polychlorinated dibenzofurans were detected in the groundwater monitoring wells.

The CAB, which was reportedly built in the 1980s was used to temporarily store ash prior to off-site disposal. An MDE-approved sampling and analysis plan determined the concrete from the CAB to be non-hazardous and was used as fill beneath the MDE-approved clean fill cap.

Approximately 115,000 cubic yards of MDE certified clean fill was brought to the former incinerator portion of the subject property and was used as a clean fill cap. Marker fabric was reportedly not placed between the impacted soil and MDE certified clean fill cap. The MDE certified clean fill cap was graded to include sediment and erosion controls. The grading included the construction of two drainage areas; one to the northeast and one to the northwest side. The MDE certified clean fill cap is a minimum of two feet thick and reportedly covers the entire former incinerator portion of the subject property, excluding the western portion inclusive of and across Herring Run. An *Existing Cap Plan* is included as *Figure 6* in *Appendix B*. A Remedial Cap Inspection and Maintenance Plan was developed in order to maintain the cap.

A masonry block retaining wall was constructed for slope stabilization along the southwestern portion of the subject property along Herring Run. Several soil samples were collected from soil that was excavated as part of the construction of the retaining wall. This soil was used as fill beneath the MDE certified clean fill cap with approval from the MDE VCP. The retaining wall is approximately 900 feet long.

A RAP Completion Report was submitted to the MDE and a COC was issued on September 13, 2011, for restricted commercial (Tier 2B) and industrial (Tier 3B) uses. Land use requirements including an environmental covenant, Health and Safety Plan (HASp) generation and implementation, vapor barrier and/or additional vapor testing, indoor air testing (if warranted), bi-monthly inspections of the bank of Herring Run, groundwater use restrictions, impacted soil and groundwater controls and disposal, and capping maintenance are also required as part of the COC. A copy of the *Certificate of Completion* is presented as *Appendix C*.

6715 Pulaski Highway (Gasoline Station Parcel)

The gasoline station parcel historically contained at least two generations of gasoline stations. Sixteen USTs were removed from the gasoline station parcel from 1987 through 2017 under MDE OCP supervision. In 1998, MDE OCP Case No. 98-1654BC was opened due to the report of a leaking gasoline dispenser. The property subsequently underwent renovations and upgrades in 1998, including the replacement of dispensers and retrofitting the on-site USTs with overfill and spill protection.

The MDE requested a Site Investigation be performed in conjunction with the UST renovation activities. Four groundwater monitoring wells were installed at the site to evaluate dissolved-phase hydrocarbon concentrations. Soil and groundwater samples were collected from the borings/wells. Quarterly groundwater monitoring reports were prepared between 2001 and 2004, and in 2004 mitigation efforts were initiated because of historical presence of liquid phase hydrocarbons (LPH) in one well. A workplan was submitted to the MDE, which included the redevelopment of the monitoring well with the LPH (via surge block and groundwater purging), the application of a surfactant to the well, and the performance of Enhanced Fluid Recovery events via vacuum truck monthly for three consecutive months. In 2006 the MDE approved the use of surfactant injection via direct-push points installed onsite in to attempt to reduce the identified LPH. In 2007 the MDE approved a surfactant injection work plan.

A CAP was prepared in 2008, which included the installation of surfactant injection points around the two groundwater monitoring wells where LPH had previously been detected. In 2013 closure of OCP Case No. 98-1654BC was requested. Prior to closure, the MDE requested that all site groundwater monitoring wells and remaining surfactant injection points be properly abandoned. These monitoring wells and surfactant injection points were abandoned in 2014, and the MDE issued a *Notice of Compliance* letter for OCP Case No. 98-1654BC in May 2015. A copy of the *Notice of Compliance* letter is presented as *Appendix D*.

In 2015 and 2016, the remaining UST systems were placed in temporary closure status and soil and groundwater sampling was performed around the UST systems to verify subsurface conditions at that time. Soil samples were reportedly non-detect or below the MDE NRCS. Benzene, MTBE, TPH DRO, and TPH GRO, were detected in one or more groundwater samples that exceeded the MDE's GCS. No LPH was detected during groundwater sampling. In 2017, five USTs were removed from the Site under OCP Case No. 17-0539BC. During the UST removals, petroleum-impacted soil was removed from UST excavations on the central portion of the Site, beneath the former building on the southern portion of the Site, and beneath several dispensers and piping removal areas. The MDE issued a *Site Status and Case Closure* letter for OCP Case No. 17-0539BC in February 2018. A copy of the *Site Status and Case Closure* letter is presented as *Appendix E*.

In order to evaluate current soil, soil vapor, and groundwater conditions on the gasoline station parcel, GTA proposed a Phase II ESA at the site. In anticipation of enrollment of the property into the VCP, GTA prepared a Phase II ESA Work Plan for the property that was reviewed and approved by the MDE VCP. GTA performed a geophysical evaluation of the property, and anomalies consistent with USTs were not identified. GTA advanced six soil borings and installed two soil vapor points at the property. Aside from faint staining and a slight petroleum odor observed at depth in one soil boring; elevated field readings, unusual odors, or stained soils were not observed. Soil sampling results identified petroleum impacts, but at concentrations below the current MDE comparison values. GTA attempted to sample groundwater at the property; however, insufficient yield at a sampling location prevented collection of a groundwater sample. Observed soil vapor concentrations in a soil vapor sample did not identify

concentrations above the current MDE screening values. Due to the presence of methane on the southern portion of the subject property, one of the borings was converted into a methane monitoring probe. Screening of this probe did not identify methane.

Recent MDE Correspondence

Prior to the purchase of the former incinerator parcel portion of the subject property in September 2021, the Participant submitted an application for acceptance of the former incinerator parcel portion of the subject property into the MDE's VCP in August 2020. Acceptance into the program was pending cap maintenance items the then current property owner needed to address. On August 27, 2021, 6709 Pulaski, LLC received expedited Inculpable Person Status for the former incinerator parcel portion of the subject property. On October 21, 2021, 6709 Pulaski, LLC received expedited Inculpable Person Status for the entire subject property. An application for acceptance of the subject property into the MDE VCP was received by the MDE on December 2, 2021, and the subject property was accepted into the VCP by the MDE on January 20, 2022.

4.0 EXPOSURE ASSESSMENT

SVOCs, TPH-DRO, metals, and herbicides have been detected in on-site soils above the MDE's NRCS. These non-carcinogenic and carcinogenic contaminants are herein collectively identified as contaminants of potential concern (COPC), and are summarized in more detail below. No additional environmental evaluations of the subject property are currently proposed. In the event that additional evaluations are required, and if those evaluations identify additional COPCs, a RAP Addendum will be submitted to MDE VCP for review and approval with the additional COPCs.

4.1 Direct Contact Soil Contamination

SVOCs (specifically benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene), TPH-DRO, metals (arsenic, chromium, copper, lead, mercury, and nickel), and dioxins and furans are the COPCs that have been detected in on-site soils above the MDE's NRCS. It should be noted that the COPCs detected were below an existing clean fill cap (former incinerator parcel) or at depths below the existing ground surface (gasoline station parcel).

There is a potential for site construction workers to come into contact with the COPCs. This contact will be limited by implementing a site-specific HASP. If necessary, soil removal on portions of the Site will eliminate the direct contact exposure risk to construction worker and future adult, youth, and child populations. The proposed remedies for the soil contamination (HASP and potential soil removal) are protective of human health, because they are designed to prevent exposure to contamination. Under the current conditions, construction worker and adult, youth, and child populations at the subject property would be exposed to the COPCs; however, once this RAP is complete, all populations will be protected. These proposed remedial strategies are further outlined in *Section 6.1* and *6.2* of this report.

4.2 Potential Exposure Populations and Pathways

The subject property contains a vacant concrete, asphalt, and gravel covered lot; vegetated and wooded land; stormwater management facilities; and portions of Herring Run. Proposed redevelopment plans include the construction of a warehouse and paved roadways and parking areas. The planned use of the subject property includes “Tier 2B (Restricted Commercial)” as defined by the *MDE Voluntary Cleanup Program Guidance Document*.

A site-specific Human Health Risk Assessment for future occupants has not been prepared for this site because the proposed site development activities will eliminate the identified exposure pathways. Potential risks to construction workers may exist through direct contact/ingestion of impacted soil and through inhalation of dust and methane. The following exposure pathways have been identified and the summarized remedies are proposed.

Potential Exposed Populations

| Media | Exposure Pathway | Potentially Exposed Population | Contaminants |
|-----------------|---|---|--|
| Groundwater | Dermal Exposure | Construction Worker | VOCs, SVOCs, TPH-DRO, TPH GRO, metals, and dioxins and furans |
| | Incidental Ingestion | None | |
| | Inhalation | None | |
| Surface Soil | Dermal Exposure | None | None, the site is capped with MDE-approved clean fill or COPCs were not detected in the surface soil |
| | Ingestion | None | |
| | Inhalation of Volatiles and Fugitive Dust | None | |
| Subsurface Soil | Dermal Exposure | Adult, Youth, Children, Construction Worker | SVOCs, TPH-DRO, metals, and dioxins and furans |
| | Ingestion | Adult, Youth, Children, Construction Worker | |
| | Inhalation of Volatiles and Fugitive Dust | Adult, Youth, Children, Construction Worker | |

4.3 Inhalation of Fugitive Dust, Petroleum Vapors, and Methane

During future construction activities, it is possible for soil impacted by COPCs to become airborne. There is a potential for site construction workers to breathe this fugitive dust. The inhalation of fugitive dust will be limited by implementing a site-specific HASP and construction practices that prevent dust generation (e.g., implementation of dust control methodologies). In addition, there is a potential for site construction workers to encounter petroleum vapors and methane during on-site intrusive activities. The inhalation/collection of petroleum vapors and methane will be limited by implementing a site-specific HASP.

Capping (e.g., soil, asphalt, concrete, or clean fill) at the proposed building location, parking areas, and landscaped areas of the subject property will act as a limiting alternative, which will eliminate future exposure to inhalation of fugitive dust and petroleum vapors to future adult, youth, and child populations. In addition, installation of a vapor barrier (see *Section 6.1.5*) at the proposed building location will act as a limiting alternative, which will eliminate future exposure to methane to future adult, youth, and child populations. The proposed remedy for inhalation of fugitive dust, petroleum vapors (HASP), and methane is protective of human health since exposure to contamination above regulatory limits will be prevented.

4.4 Exposure to Groundwater Contamination

Groundwater has generally been identified at elevations at the site ranging from 16 to 42 feet below bgs, with the majority showing groundwater at a depth approximately 30 feet bgs. In addition, groundwater at the site is not currently used. There is a potential for site construction workers to come into contact with the groundwater during utility excavations. This contact will be limited by implementing a site-specific HASP.

It is not likely that site development activities will encounter groundwater. Proposed improvements will be connected to municipal water and sewer services. GTA proposes implementing a deed restriction prohibiting the use of groundwater at the site. Based on the implementation of the proposed remedies, a direct contact exposure pathway will not exist between future occupants or users, and potential groundwater contamination. The proposed remedies for the impacted groundwater are protective of human health, because contact with groundwater will be restricted.

4.5 Migration of Contamination to Ecological Receptors

Typical ecological receptors to contamination include wetlands and surface water bodies. Two stormwater management ponds and a portion of Herring Run are located on the subject property. The stormwater ponds are proposed to be converted to submerged gravel wetlands as part of the site development and RAP implementation activities discussed in *Section 6.2.3*. The portion of Herring Run located on the subject property is not currently proposed to be disturbed during development activities. In addition, this portion of the site was previously addressed during prior RAP implementation activities. Therefore, the primary migration route of on-site contaminants to ecological receptors is through wind-borne dust and surface water runoff. Dust will be controlled during site development using standard construction practices and will be monitored as discussed in *Section 10.3*. A vegetated buffer area, which is not currently proposed for development, separates the stream and proposed development areas. Sediment erosion controls will be installed downgradient of the proposed remedial areas to reduce potential for on-site contamination to migrate off-site. Once the RAP has been implemented, the migration pathway for contaminants will no longer exist. Based on this information, there does not appear to be a significant risk of migration of contamination to ecological receptors.

5.0 CLEANUP CRITERIA

Presented below are the soil cleanup criteria selected for the Site, and are based upon current regulatory requirements that will guide these proposed remedial activities. The MDE NRCS and GCS concentrations are referenced in MDE's *Cleanup Standards for Soil and Groundwater; October 2018; Interim Final Guidance (Update No. 3)*. The applicable cleanup criteria and known maximum detected concentrations for COPCs at the Site are summarized below.

Known Contaminate Ranges and Applicable Cleanup Criteria

| Analyte | Known Concentration Ranges in On-Site Soils | Cleanup Criteria |
|-------------------------------------|---|--------------------------|
| SVOCs | | |
| Benzo(a)pyrene | 0.49-23 mg/kg | 2.1 mg/kg (MDE NRCS) |
| Benzo(b)fluoranthene | 13-42 mg/kg | 21 mg/kg (MDE NRCS) |
| Dibenz(a,h)anthracene | 0.89-13 mg/kg | 2.1 mg/kg (MDE NRCS) |
| Indeno(1,2,3-cd)pyrene | 5-53 mg/kg | 21 mg/kg (MDE NRCS) |
| Total Petroleum Hydrocarbons | | |
| TPH-DRO | 630-2,300 mg/kg | 620 mg/kg (MDE NRCS) |
| Total Metals | | |
| Arsenic | 4.0-71 mg/kg | 26.8 mg/kg (RCV*) |
| Chromium (total) | 310 and 1,000 mg/kg | 6.3 mg/kg (MDE NRCS) |
| Copper | 6,000-27,000 mg/kg | 4,700 mg/kg (MDE NRCS) |
| Lead | 1,200-28,000 mg/kg | 550 mg/kg (MDE NRCS) |
| Mercury | 0.15-6.7 mg/kg | 4.6 mg/kg (MDE NRCS) |
| Nickel | 32,000 mg/kg | 2,200 mg/kg (MDE NRCS) |
| Herbicides | | |
| Dioxins and Furans | 20-601 ng/kg | Varies |
| Analyte | Known Concentration Ranges in On-Site Groundwater | Cleanup Criteria |
| VOCs | | |
| Benzene | 520 µg/L | 5.0 µg/L (MDE GCS) |
| Methyl Tert-Butyl Ether | 390 µg/L | 20 µg/L (MDE GCS) |
| Naphthalene | 23 µg/L | 0.17 µg/L (MDE GCS) |
| Trichloroethene | 14 µg/L | 5.0 µg/L (MDE GCS) |
| Total Petroleum Hydrocarbons | | |
| TPH-GRO | 600-5,000 µg/L | 47 µg/L (MDE GCS) |
| TPH-DRO | 800-1,500 µg/L | 47 µg/L (MDE GCS) |
| Total Metals | | |
| Beryllium | 13-75 µg/L | 4.0 ug/L (MDE GCS) |
| Cadmium | 5.8-13 µg/L | 5.0 ug/L (MDE GCS) |
| Chromium (total) | 110 µg/L | 100 ug/L (MDE GCS) |
| Cyanide | 880 µg/L | 200 ug/L (MDE GCS) |
| Nickel | 63-2,000 µg/L | 39 ug/L (MDE GCS) |
| Thallium | 2.1 µg/L | 2.0 ug/L (MDE GCS) |
| Zinc | 6,400 µg/L | 600 ug/L (MDE GCS) |
| Analyte | Known Concentration Ranges in On-Site Soil Vapor | Cleanup Criteria |
| Methane | >100% LEL | 0% LEL within structures |

Soil concentrations expressed in milligrams per kilogram (mg/kg), equivalent to parts per million (ppm).
 Groundwater concentrations expressed in micrograms per liter (ug/L), equivalent to parts per billion (ppb).
 * Cleanup standard for arsenic is above MDE NRCS and a commercial risk-based comparison value.

6.0 SELECTED TECHNOLOGIES AND INSTITUTIONAL CONTROLS

Potential exposure pathways have been identified between the contaminated soil and construction worker and future adult, youth, and child populations. These exposure pathways will be eliminated through the preparation of a HASP; construction observation for correct RAP implementation using appropriate health and safety measures during the planned construction; excavation and potential off-site disposal of impacted materials encountered during development activities; capping of the parking area; the installation of a vapor mitigation system in the proposed building; and engineering and institutional controls (e.g. deed restrictions on use of groundwater and notifications prior to excavation). The engineering and institutional controls are summarized below.

Engineering and Institutional Controls

| ENGINEERING CONTROLS | INSTITUTIONAL CONTROLS |
|---|---|
| HASP preparation and implementation for construction workers. | Restricted commercial land use requirement (per the VCP land use definition). |
| Permanent site capping requirements. | Groundwater use prohibition. |
| Potential soil excavation and off-site disposal. | One-Call system (Miss Utility) notification |
| Sub-slab vapor mitigation system and vapor barrier. | Inspection and maintenance requirement for site caps. |
| | Soil excavation notification. |
| | MDE notification of transfer of property ownership. |

Limiting alternatives to future potential exposure will be performed through placement of deed restrictions prohibiting the use of groundwater beneath the property and the restriction of soil excavation and cap maintenance. Additionally, future site improvements will be connected to municipal water and sewer services.

6.1 Site-Wide Corrective Actions

6.1.1 Protection of Site Workers

A HASP will be prepared and implemented to reduce direct contact exposure of construction workers to the COPCs during construction. Appropriate construction practices for dust control will be utilized to limit worker exposure to contaminants borne on dust and windblown particulates. On-site construction monitoring will be provided during earthwork activities to ensure that the soil is handled properly and document on-site activities.

6.1.2 Soil Contamination

Excavated materials generated during general site grading and foundation and utility installation are anticipated to be utilized elsewhere on-site beneath a capped area or removed from the site for disposal. The COPCs consist of SVOCs, petroleum, metals, and herbicides. SVOC-, metals-, and herbicide-impacted material is currently proposed to be placed below capped areas, while petroleum-impacted materials encountered during construction activities may require off-site disposal.

It is likely that petroleum-impacted materials may be encountered during re-development activities, primarily during utility installations at the subject property. Should petroleum-impacted materials be encountered, an evaluation of the excavated materials will be performed during construction activities, consisting of visual/olfactory observations and use of field screening equipment (e.g., PID). Petroleum-impacted soil is typically identified visually by dark gray or black staining in the soil, or olfactory by petroleum odors in the soil.

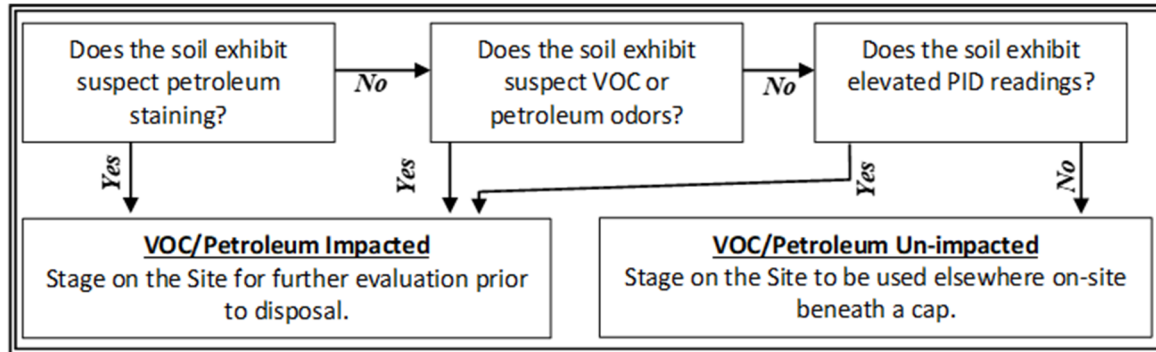
Soil exhibiting evidence of contamination (elevated PID readings or visual/olfactory evidence of impact) will be staged in an established soil staging area that will be constructed in a predetermined area of the subject property. At a minimum, 10-mil plastic sheeting must be available on-site in the event that contaminated materials are encountered that require segregation. The 10-mil plastic sheeting will be placed at the established soil staging area, and the contaminated soil will be placed on-top of the sheeting.

In addition to the established on-site erosion controls associated with the subject property's development, the soil staging areas will also have additional controls for erosion and prevention of cross contamination. The staging areas will be constructed using methods to limit migration of the contaminants and contain the water that separates from the soil or other materials. The staging areas will be constructed using a plastic 10-mil liner system with stone berms, or its equivalent. Depending on quantities and anticipated weather, the soil will be covered and secured with plastic while awaiting off-site disposal.

Once final development plans are available these documents will be submitted to the MDE VCP and a RAP addendum will be prepared and submitted for approval concerning staging of impacted soil.

In general, impacted soils encountered on the Site will be relocated to a designated staging area on the subject property using the following flowchart:

SOIL SEGREGATION FLOWCHART



Petroleum un-impacted soils will be utilized elsewhere on-site beneath a capped area or removed from the site for disposal. In the event that soil will need to be transported off-site, the likely off-site disposal facilities proposed for receiving contaminated soil are as follows:

Soil Safe, Inc. (Soil Safe)
7401 Foxley Road
Upper Marlboro, Maryland 20722
(410) 872-3990 ext. 1122
<http://www.soilsafe.com>
Point of Contact: Amy Mullins

or

Clean Earth Inc. (Clean Earth)
6250 Dower House Road
Upper Marlboro, Maryland 20772
(301) 599-0939
www.cleanearthinc.com
Point of Contact: Casey Kersey

Use of either facility as an off-site disposal facility is contingent on waste characterization soil sample results. If on-site soils are determined to be non-hazardous in a waste disposal scenario or have COPC concentrations below the levels in the facility’s permit, the soil will be excavated, loaded, and transported to the selected licensed waste disposal facility. Additional/alternate disposal facilities may also be utilized. Information regarding these facilities will be provided to MDE prior to the transport of impacted soil off-site.

6.1.3 Imported Fill Material Sampling and Analysis

Imported fill may be needed to establish site grades or replace removed impacted soil. Such fill material will be sampled, with analytical results submitted for approval by MDE VCP, prior to being transported to the site. Work plans for sampling fill material source areas will be submitted to the VCP for review and approval prior to proposed soil sample collection and analysis. The MDE VCP review period for the work plans is generally one week, though it may be longer dependent on the MDE VCP work load. The work plan will include number and location of samples and sample analyses. No soil will be transported on-site for use as fill material without prior written approval by the VCP project manager and soil transported on-site for use as fill material will meet MDE NRCS and/or cleanup criteria in Section 5.0. Documentation of the imported fill sampling activities will also be summarized within monthly RAP Implementation Progress Reports and the RAP Completion Report.

6.1.4 Groundwater Contamination

The Site contains several groundwater monitoring wells or methane monitoring probes that extend into the groundwater table. These monitoring wells and probes will be properly abandoned by a State of Maryland-licensed driller in accordance with applicable state and local regulations.

The planned site development includes connection to a public water supply; therefore, groundwater use by future occupants will not occur. There is a potential for site construction workers to come into contact with the groundwater during well abandonment and construction activities. This contact will be limited by implementing a site-specific HASP. Otherwise, direct contact between the groundwater and construction workers and future occupants is not anticipated.

A groundwater use prohibition will be established for the site and recorded in the local land records. The proposed remedy for the groundwater contamination (groundwater use prohibition) is protective of human health, because contact with the potentially contaminated groundwater will be prevented.

6.1.5 Vapor Intrusion and Methane Mitigation

The planned site development includes the construction of a slab-on-grade warehouse building. A potential exposure pathway exists between elevated methane concentrations and the future occupants of the planned buildings through vapor intrusion to indoor air.

During construction, a vapor mitigation system will be installed below the building slab to mitigate indoor vapor accumulation for the building, thus eliminating the exposure pathway. Detailed drawings of the proposed building and its configuration were not available at the time of this RAP.

Based on the currently available information, the vapor mitigation systems will conceptually consist of a 20-mil (minimum) geomembrane or similar vapor barrier; a gas collection medium (e.g., lateral slotted/perforated PVC piping or proprietary geosynthetic vent product) in a gravel bed below the vapor barrier; and a vertical stack (3"-diameter PVC pipe), equipped with a sample port, extending above the building. Sealants will be used on building floor slab penetrations to prevent vapor intrusion. Vapor barrier seams will be taped, the vapor barrier will be sealed to the walls, and pipe or conduit penetrations will be sealed in accordance with the manufacturer's instructions. The vapor barrier will be smoke-tested, and any leaks will be repaired following the manufacturer's instructions. The concrete floor slab will then be poured on top of the vapor barrier. Vapors migrating through the subsurface soil beneath the building slabs will be blocked by the vapor barrier, transmitted through the preferential pathway created by the PVC piping or geosynthetic gas collection medium, and vented to the exterior through the vertical stack. The final methane mitigation plan may also require methane detection and alarm devices in occupied structures and/or utility corridors. Once detailed drawings of the

proposed building are available, GTA will provide a vapor mitigation system design for MDE VCP's review and approval in a RAP Addendum.

To address potential preferential vapor migration along utilities, utility trenches entering the building footprint will be sealed using a backfill material consisting of pelletized bentonite mixed with MDE-certified clean fill and hydrated after emplacement. Trench backfill seals will be placed beneath foundation entry points and extending outward from the foundation approximately 18 inches in each direction along the trench.

Confirmatory indoor air sampling will be performed after approval of the sampling method and analysis parameters, location, and appropriate comparison values are reviewed and approved in a RAP Addendum. This confirmatory indoor air sampling will be conducted as the building is completed and the results reviewed by MDE prior to occupancy of the building. Confirmatory indoor air samples will initially be collected from the building envelope prior to installation of interior walls and fixtures and after the installation of the HVAC system to evaluate the efficiency of the vapor mitigation system and vapor barrier. Results from the indoor air sampling event will be submitted to MDE VCP no more than 30 days following receipt of analytical results, or within 24 hours from receipt of data indicating an exceedance of indoor air quality criteria. The proposed remedy for indoor air (vapor mitigation system and a vapor barrier) is protective of human health, because it is designed to prevent exposure to contamination above regulatory levels.

Conceptually confirmatory indoor air will be analyzed for methane. The concentration of methane may not exceed zero. Any approved passive vapor mitigation system will be constructed in such a manner as to allow ready conversion to an active venting system, using an inline blower system or an MDE-approved alternative, if the MDE established criteria are not met.

Atmospheric pressure differentials and other factors such as soil permeability, moisture content, etc., may cause accumulation of methane beneath hardscaped paved areas, and will be addressed by installation of vapor vents located at several light locations, as described below. Vapor vent spacing will generally be based on the spacing of the area light locations, and the number and locations of the proposed hardscaped pavement vapor vents will be submitted to the MDE VCP for approval in a RAP Addendum.

Hardscaped pavement vapor vents will be constructed of 36 inches of gravel sub-base, installed in a 10-foot diameter area surrounding each light pole, with a 3-inch diameter PVC pipe penetrating the pavement and extending into the sub-base. A horizontal three-leg manifold of 3-inch diameter slotted PVC pipe will extend outward five feet from the light pole approximately three to six inches below the top of the sub-base, in a "T" configuration to increase the vented area. Each vertical vent pipe will be mounted to the light pole and will extend to a height of 8 feet above grade, above the breathing zone in the parking lots. *Generic Vapor Venting Details*

are included as *Figure 7* in *Appendix B*. Please note that these plans are not for construction. A detailed design for the proposed development will be prepared once plans are available.

6.1.6 Institutional Controls

Institutional controls will be listed on the Certificate of Completion issued by the MDE VCP for the successful completion of RAP activities. These institutional controls will include the maintenance of the cap, soil excavation restrictions, restrictions on the use of groundwater beneath the property, and other restrictions the MDE deems necessary based on implementation of the approved RAP. A restriction on maintenance and excavation through the cap will be recorded in the local land records. The future owners and occupants will act as an independent third party that will notify MDE of any request for excavation at the site.

The proposed remedies for the soil, soil vapor, and groundwater contamination are protective of human health because the remedies are designed to prevent exposure to contamination.

6.2 Corrective Actions for Specific Development Features

6.2.1 Soil Improvements

With the exception of the gasoline station parcel and the stormwater management ponds, a minimum of a two-foot MDE-certified clean fill cap exists throughout the proposed development area. In some areas this clean fill cap is in excess of two feet in depth. Prior to site development activities soil improvements will be conducted on the subject property. These improvements will generally include removal of the vegetative cover throughout the development area, grading, and dynamic compaction.

The topsoil layer will be removed from the previously capped areas of the subject property and will be staged in an established soil staging area that will be constructed in a predetermined area of the subject property. This staged soil will be reused as capping material within landscaped areas during future development.

The subject property will then be mass graded to prepare for dynamic compaction activities across the proposed development area. During grading, care should be taken to not intermix surface soils from the gasoline station parcel from the remainder of the proposed development area. Surface soils within the gasoline station parcel are considered "impacted." Should cuts be required in the gasoline station parcel, soil removed from this area must be relocated to a designated staging area on the subject property pending future use beneath the cap.

Dynamic compaction is a in situ method of ground improvement used to modify the support characteristics of existing fills or other loose soils, which involves repeatedly raising and dropping a large weight via crane. The impact energy at the ground surface results in densification of the existing fill and/or soil deposits, as well as the collapse of voids which are likely present within the fill stratum. For improvement beneath the proposed warehouse footprint, deep dynamic compaction (a high-energy application), will be utilized. Within the

proposed roadway and paved parking areas, an “ironing pass” dynamic compaction program will be utilized.

The dynamic compaction process will generally be conducted in a grid pattern throughout the planned improvement areas. Several passes may be required to achieve the required compaction. After each pass, the pore pressures should be allowed to dissipate and craters will be created. Within the areas of deep dynamic compaction, resultant craters are anticipated to generally be three feet in depth. Resulting craters in the “ironing pass” areas will be approximately six inches in depth. The “ironing pass” craters will be graded and filled in utilizing the surrounding surface soils. Excess soils from the “ironing pass” areas will also be relocated to the deep dynamic compaction area and utilized as fill material. Deep dynamic compaction may result in craters that penetrate the existing cap. As such, initial grading to fill the craters within the deep dynamic compaction area shall be limited to that area.

6.2.2 Fill Areas

The United States Environmental Protection Agency (USEPA) has defined locations such as the capped onsite fill areas containing incinerator ash and other refuse associated with the former incinerator operations as “Waste-In-Place” locations, where waste was disposed to land when it was a legal and acceptable business practice, and operations ceased prior to the implementation of any regulatory requirements. These locations are not subject to current regulatory requirements, and are evaluated only when they are identified through other means. As previously discussed, proposed development activities will be conducted within and above onsite fill areas.

The USEPA recommends that “Waste-In-Place” locations be managed as “landfills” and that post closure requirements in C.F.R. Subpart G 265.110 be used as performance standards to satisfy corrective action obligations for “Waste-In-Place” locations. The onsite fill areas must satisfy the following landfill Subpart G Section 265.111 (b) Closure Performance Standard:

"Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere."

As discussed in *Section 3.4.2*, several assessments of subject property have been performed, and these evaluations concluded that there is little or no migration of waste material from the onsite fill under current conditions. Therefore, this RAP provides proposed remedies for the soil, soil vapor, and groundwater of the onsite fill areas that are protective of human health since the remedies are designed to prevent exposure to contamination and prevent escape or migration of contaminants within the onsite fill areas. The subject property is proposed to be redeveloped and capped with buildings and hardscaped and landscaped areas.

Hardscaped and landscaped areas over onsite fill areas will be capped in general conformance with the methods specified in *Section 6.2.5*. However, the composition, lateral extent, depth, and permeability of the capping material must be approved by the MDE VCP prior to installation.

6.2.3 Submerged Gravel Wetlands

The existing stormwater management ponds are proposed to be converted into submerged gravel wetlands. Detailed plans were not available at the time of the preparation of this report. However, GTA understands that the submerged gravel wetlands will be lined to prevent the infiltration of water into the onsite fill areas. The composition, lateral extent, depth, and permeability of the liner or lining material must be approved by the MDE VCP prior to installation. Remaining materials utilized to construct the submerged gravel wetlands must also be approved by the MDE VCP prior to installation.

6.2.4 Proposed Buildings

The Site is proposed to be developed with a warehouse building. Detailed structural information for the building was not available at the time the RAP was prepared. Once available these details will be provided to the MDE VCP in a RAP addendum. However, it is anticipated that this structure will have a slab-on-grade foundation. The building will include a minimum 4-inch concrete slab and stone subbase that will act as a cap, which will eliminate the direct contact exposure risk to future construction workers and adult, youth, and child populations.

6.2.5 Hardscaped and Landscaped Areas

Paved parking areas and ingress/egress roadways that will be constructed on the site as part of the site development. In addition, common areas to be constructed include landscaped areas, submerged gravel wetlands, and grassed areas. The remedy for these areas includes capping, which will eliminate the direct contact exposure risk to future adult, youth, and child populations. A *Proposed Capping Plan* and *Capping Details* are included as *Figures 8* and *9* in *Appendix B*. These capping details must be cross referenced with final construction drawings to ensure that they meet the engineering requirements for the required uses at the subject property. These plans are not for construction, and will be designed/incorporated into the detailed design of the proposed development by the design engineer. If capping changes are needed, such changes will be provided in a RAP Addendum that will be submitted to MDE VCP for review and approval.

The hardscaped areas are proposed to consist of a minimum of six inches of granular sub-base and four inches of asphalt or concrete over in-situ material or MDE-certified clean fill. Landscaped areas will be capped with a minimum of two feet of MDE-certified clean fill, placed above a geo-textile fabric. The thickness of the cap will be increased as necessary to accommodate the planting of different species in order to ensure the minimum clean fill requirements and accommodate the plant's root ball. Based on preliminary grading estimates, the re-use of on-site materials is anticipated, with MDE-certified clean fill that meets

commercial soil standards used where necessary to reach final grade. A total of at least two feet of MDE certified clean fill material above a marker barrier will be placed in landscaped areas. A *Clean Fill Sampling Plan* will be submitted for MDE VCP approval, implemented, and the material accepted by MDE prior to the use of any off-site fill source on the property.

The landscaped capping will be underlain by a marker barrier. The marker barrier will not be placed beneath hardscaped capping and the building. The marker barrier will be placed between the impacted soil and MDE-certified clean fill. The marker barrier will consist of a geotextile fabric meeting the Maryland State Highway Administration specification 921.09; under Maryland application class SD Type I, woven, monofilament. The property owner is responsible for ensuring the proper implementation of all recorded deed restrictions and land use controls, and maintenance requirements for site caps to reduce the risk to public health and the environment.

It should be noted that utilities may be installed in these areas prior to capping. Excavated materials generated during utility installation that are not used as backfill will either be placed elsewhere onsite beneath a capped area or removed from the site for disposal. Specific details regarding soil disposal are presented in *Section 6.1.2*. Detailed utility drawings indicating the type of utility, depths, and bedding material will be submitted as a RAP Addendum. Documentation of these activities will be submitted to MDE VCP within monthly RAP Implementation Progress Reports and the RAP Completion Report.

7.0 EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGIES

This RAP has been prepared to address potential exposure risks due to direct contact, ingestion, and/or inhalation for soil, soil vapor, and groundwater contamination at the Site. The proposed remedy for soil and soil vapor includes the installation of a vapor barriers and sub-slab vapor mitigation system, construction observation for correct RAP implementation, and using appropriate construction observation and health and safety measures during the planned construction, capping to prevent direct contact exposure, and notification to MDE prior to future excavation activities. The proposed remedy for groundwater includes the proper abandonment of groundwater monitoring wells and methane monitoring probes, construction observation for correct RAP implementation, and using appropriate construction observation and health and safety measures during the planned construction, and a deed notice to restrict groundwater use at the Site.

7.1 Certificate of Completion

The end point of the proposed remedial actions will be the completion of the planned site development (establishing the landscaped and hardscaped caps) and implementation of institutional and engineering controls pursuant to this RAP. These activities will be documented in a RAP Completion Report. Upon submitting this report, the Participant will request a COC.

7.2 Contingency Measures

The RAP will be implemented upon approval from the MDE. The Client and its contractors should comply with applicable local, State, and Federal regulations by obtaining necessary approvals and required permits during the RAP process.

If site conditions observed during construction and/or remediation differ substantially from those described herein, modifications to this RAP may be necessary. Such differing conditions may warrant an adjustment of remedial activities, and such modifications will be addressed in an addendum or revision to this RAP. The MDE VCP will be notified of any newly discovered contamination, proposed changes to this RAP, or citations from other regulatory agencies.

Specifically, if newly discovered contamination is identified during site development, the following contingency measures will be taken:

- Notify MDE within 24 hours (verbally and written/email);
- Postpone implementation of the RAP;
- Evaluate new site conditions identified; and
- Amend EMP to address new site conditions identified.

Notified departments will include:

MDE Land Restoration Program
Land and Materials Administration
1800 Washington Boulevard
Baltimore, Maryland 21230
(410) 537-3212
Attention: Barbara Brown

As discussed in *Section 6.1.4*, it is not anticipated that the installation of utilities and utility connections at the subject property will require dewatering. However, if groundwater is encountered, the site may be required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit that will specify the discharge limits. This NPDES Permit will be obtained by GTA, in connection with the on-site construction activities, and will be utilized for dewatering activities on the site. If dewatering is necessary, GTA will submit an addendum to the RAP.

In addition to the above, if there is evidence of an oil discharge at the Site in violations of applicable regulations, it must be reported within two hours as specified in COMAR 26.10.08.01, to the OCP (410-537-3442) or, if after normal business hours, to the 24-hour Spill Reporting Hotline (1-866-633-4646). The MDE will be verbally notified within 48 hours (72 hours in writing /email) of changes (planned or emergency) to the RAP implementation schedule, previously undiscovered contamination, and citations from regulatory entities related to health and safety practices. Notifications shall be made to the MDE project manager at 410-537-3212.

8.0 PROPOSED RESPONSE ACTIONS

The following table provides a summary of the technologies selected to address the contamination found on-site.

Remedial Response Actions

| POTENTIAL EXPOSURE RISKS | PROPOSED RESPONSE ACTION |
|---|---|
| Dermal contact, ingestion, and inhalation of impacted soil by construction workers | Implementation of HASP; construction monitoring; excavation and disposal of soil impacted by contaminants of concern. |
| Dermal contact, ingestion, and inhalation of impacted soil by future occupants | Excavation and disposal of soil impacted by COPC; capping; excavation restrictions through a deed restriction. |
| Ingestion and dermal contact of contaminated groundwater by construction workers | Implementation of HASP; construction monitoring. |
| Ingestion and dermal contact of contaminated groundwater by future occupants | Groundwater use restriction. |
| Dermal contact, ingestion, and inhalation of impacted soil by construction workers | Implementation of HASP; construction monitoring; excavation and disposal of soil impacted by contaminants of concern. |
| Dermal contact, ingestion, and inhalation of impacted soil by future occupants | Excavation and disposal of soil impacted by contaminants of concern; capping; excavation restrictions through a deed restriction. |
| Inhalation of soil vapors and methane by construction workers and future occupants. | Field screening for petroleum vapors and methane, and installation of vapor and methane mitigation systems and vapor barrier. |

8.1 Reporting Requirements

The VCP project manager will be notified in writing or electronically within five calendar days of the beginning RAP implementation activities. Monthly RAP Implementation Progress Reports will be submitted to the VCP documenting RAP activities. These monthly RAP Implementation Progress Reports will generally be submitted by the 15th day of the following month. At the completion of the RAP implementation, details of the site development, on-site construction monitoring, and clean materials information will be submitted in a RAP Completion Report, and will include a written request for issuance of the COC for the completed development.

Sampling work plans, clean imported fill work plans, and/or RAP addenda will be submitted to the MDE VCP for review and approval. Clean imported fill work plans will be prepared in general accordance with the MDE's VCP – Clean Imported Fill Material Fact Sheet.

8.2 Maintenance

The proposed remedy includes the installation of asphalt and concrete caps that will require periodic maintenance activities. Landscaped capping of areas of the subject property will also require periodic

maintenance activities. The proposed building will also be equipped with vapor barrier and vapor mitigation system. The maintenance plan that will be implemented by future owners or occupants of the site is presented below.

Physical maintenance requirements will include maintenance of the capped areas to prevent degradation of the cap and unacceptable exposure to the underlying soil. Yearly inspections of the cap will be conducted. The property owner will be responsible to direct an Environmental Consultant to perform an annual inspection of the onsite cap, performing maintenance to the cap, and maintaining all cap inspection records. Maintenance records will include, at a minimum, the date of the inspection, name of the inspector, any noted issues, and subsequent resolution of the issues. Areas of the asphalt cap that have degraded to a Pavement Condition Index of 4.0 will be repaired in a timely manner. A *Cap Inspection Form* is attached in *Appendix F*. All other capped areas will have similar indexes.

Physical maintenance requirements for the vapor systems will include maintenance of the building slabs and vapor ventilation systems. Because concrete slabs will cover the vapor barriers, the integrity of the concrete slab will be used as a surrogate for the purposes of routine vapor barrier inspections. In the event that active vapor systems are installed, the active system will also be inspected to assure that they are operating in accordance to the manufactures specifications. Yearly inspections of the vapor systems will be conducted. The property owner will be responsible to direct an Environmental Consultant to perform an annual inspection of the vapor system, performing maintenance to the vapor system, and maintaining all vapor system inspection records. Maintenance records will include, at a minimum, the date of the inspection, name of the inspector, any noted issues, and subsequent resolution of identified issues. A *Slab Inspection Form* is attached in *Appendix G*. All deficiencies noted during each annual inspection shall be corrected within 30 calendar days after being identified, and the repairs shall be documented in the maintenance records. In the event that necessary repairs cannot be completed within 30 calendar days, the MDE shall be notified via email regarding the date the issue was identified, current conditions including access to the impacted area, and a proposed schedule for completing repairs.

If construction or excavation is planned that will breach the vapor barrier or cap, the subject property owner shall submit written notification the MDE VCP at least 30 calendar days prior to any planned future excavation or intrusive activities on the subject property. Such activities include any activity that breaches the vapor barrier or building slab and cap, including, but not limited to, borings for the purposes of geotechnical, soil, or groundwater sampling; landscaping activities; and utility installation or maintenance activities. Written notice of planned excavation activities will include the proposed date(s) for the excavation, location of the excavation(s), health and safety protocols (as required), MDE certified clean fill source and documentation (as required), and proposed characterization and disposal requirements (as required).

In the event of an unplanned emergency excavation on the subject property, the subject property owner shall follow all procedures set forth in this RAP and verbally or electronically notify the MDE within 24 hours following initiation of the emergency excavation activities. Within 10 calendar days

following completion of an unplanned emergency excavation, the subject property owner shall submit a detailed written report to the MDE.

8.3 Excavations

Soil excavated from the site is anticipated to be utilized elsewhere on-site beneath a capped area or removed from the site for disposal, at a regulated facility. Documentation of the disposed materials will be provided to the MDE following construction. Generalized details regarding soil relocation of impacted soil are presented in *Section 6.1.2*. Once final development plans are available these documents will be submitted to the MDE VCP and a RAP addendum will be prepared and submitted for approval concerning relocation of impacted soil. Clean backfill documentation will be provided to the MDE prior to its use on the property. During any future excavation activity that breeches a site cap, a HASP will be in place outlining appropriate measures to protect worker health and safety. Excavated material will be disposed in accordance with applicable local, State, and federal laws and regulations.

In order to ensure that the site is returned to a condition that complies with the Cleanup Criteria outlined in *Section 5.0*, potentially impacted soil encountered during intrusive activities should be managed as described in the following sections.

8.3.1 Reuse of Soils Within Landscaped Areas

All soil excavated from the upper two feet of landscaped areas (above the geotextile marker fabric) should be stockpiled separately from any soils excavated from below the geotextile marker fabric. Soil that is excavated from the upper two feet (above the geotextile marker fabric) in landscaped areas will have been certified as MDE approved clean when first placed and may be used at any depth at any locations on the site. Soil that is excavated from below the geotextile fabric (i.e., at depths greater than two feet bgs) must be re-used under an appropriate engineering control such as hardscape or two feet of MDE certified clean soil cover underlain by geotextile marker fabric. Handling of this material will be consistent with the procedures indicated in *Section 6.1.2*.

8.3.2 Reuse of Soils Below Hardscape

All soil that is excavated from below hardscape such as building slab or parking areas must be reused on-site as backfill below an appropriate engineering control such as hardscape or two feet of MDE certified clean soil cover underlain by geotextile marker fabric. Handling of this material will be consistent with the procedures indicated in *Section 6.1.2*.

9.0 PERMITS, NOTIFICATIONS, AND CONTINGENCIES

The Client will comply with federal, State and local laws and regulations by obtaining necessary approvals and permits to conduct activities and implement this RAP. The MDE VCP will be verbally notified within 48 hours (72 hours in writing) of planned changes to the RAP implementation schedule. However, in the event of unplanned or emergency changes to the RAP implementation schedule such as previously undiscovered contamination, previously undiscovered storage tanks and other oil-related issues, and citations from regulatory entities related to health and safety practices, the MDE VCP and

OCP will be verbally notified within 24 hours. Notifications shall be made to the VCP project manager and/or VCP Division Chief at 410-537-3493, and the MDE OCP at (410) 537-3442.

The MDE VCP and OCP will be provided with documentation and analytical reports generated as a result of any unidentified contamination. The Client understands that previously undiscovered contamination and/or previously undiscovered storage tanks or other oil-related issues may require an amendment to this RAP.

10.0 HEALTH AND SAFETY

10.1 Site Security

The Site will be secured with fencing prior to beginning construction activities in order to prevent trespassing during non-working hours. Excavations resulting from redevelopment work must be secured with perimeter fencing if they are to be left open for more than one workday. Any breaches to the fence required by construction activities must be promptly re-secured.

10.2 Health and Safety Plan

A site-specific HASP must be developed, implemented, and maintained on-site. The HASP must itemize environmental risks, such as dust inhalation, soil vapors (especially VOCs, petroleum, and methane), and the potential for encountering contaminated soil. A PID will be used to monitor petroleum, and appropriate field instrumentation will be used to monitor methane (e.g., Lower Explosive Limit) during on-site intrusive activities. Personnel must be made aware of the HASP. The HASP must be submitted to the MDE prior to the commencement of work.

10.3 Air Monitoring Requirements

Air monitoring requirements must be included in the site-specific HASP. The OSHA permissible exposure limits (PELs) for Particulates Not Otherwise Regulated (PNOR)/nuisance dust) is 15 mg/m³. However; in order to minimize risks associated with dust emissions generated during general construction operations and cap construction activities, a conservative level of PNOR/nuisance dust of 12 mg/m³ will be used as the action level to determine the need to implement dust suppression techniques. Dust suppression techniques will use Best Management Practices (BMPs) and will likely consist of water application on a routine basis determined by day-to-day weather conditions. Activities that generate dust will not occur unless the appropriate dust suppression equipment (e.g., water truck, misting hose, etc.) are on-site and fully functional. Dust control will also be necessary during weekends and holidays if contaminated soil is exposed. A windsock or other device to determine prevailing wind direction will be installed at the subject property.

When site development activities requiring soil movement are conducted, dust monitoring will be performed using a real time handheld dust monitoring instrumentation, specifically a DustTrak DRX aerosol monitor. Dust monitoring will be conducted continually, each day of soil movement activities. Readings will be collected from the immediate vicinity of the work, from the center of the work area, and from the boundary of the work area downwind of the work. If the 12 mg/m³ action level is

exceeded, operations should be stopped and additional dust suppression BMPs performed (e.g. additional wetting or misting, water truck application, etc.) until dust levels are reduced to below the 3 mg/m³ action level. Operations may be resumed once dust has been reduced indicating that dust concentrations are below the 12 mg/m³ action level. However, as a conservative measure, air monitoring will be conducted during intrusive operations involving soil excavation, grading, and soil relocation operations.

In order to document PNOR/nuisance dust concentrations in the dust generated, two dust sample events will be collected during initial site grading and building improvement excavation activities. A minimum of three samples should be collected during each event. One sample should be collected from the immediate vicinity of the earthwork, one from the center of the work area, and one from the boundary of the work area downwind of the earthwork. The samples should be collected over an 8-hour period using pumps and a filter assembly and should be analyzed for PNOR/nuisance dust. The results of the analysis will be compared to the 12 mg/m³ action level. An exceedance of the 12 mg/m³ action level will require additional dust control measures and additional monitoring. If no PNOR/nuisance dust is detected in the dust samples at a concentration above the 12 mg/m³ action level, the sampling will be discontinued until the next sampling event activity commences, with approval from MDE VCP. Dust control measures will be implemented in accordance with local regulations/permits and BMPs.

11.0 IMPLEMENTATION SCHEDULE

The VCP project manager will be notified in writing within five calendar days of the beginning RAP implementation activities, and monthly RAP Implementation Progress Reports will be submitted to the VCP project manager during the implementation of this RAP. The VCP project manager will be verbally notified within 48 hours (72 hours in writing) of any changes (planned or emergency) to the RAP implementation schedule.

The proposed schedule to implement the RAP is presented below. The VCP may request a new implementation schedule if RAP activities have not begun within 12 months of the participant receiving approval of this RAP.

RAP Implementation Schedule

| RESPONSE ACTION ACTIVITY | TENTATIVE SCHEDULE* |
|--|--|
| RAP Review/Approval | January 2022 – March 2022 |
| Public Participation Period | January 2022 – February 2022 (30 days) |
| MDE RAP Kickoff Meeting | March 2022 |
| Submit and maintain RAP security (Letter of Credit, Performance Bond, ect.) | 10 Days after receiving RAP approval and annually thereafter (dependent on type of RAP security) |
| Deep Dynamic Compaction | 2 nd Quarter 2022 |
| Begin Submittal of Monthly RAP Progress Reports | May 2022 |
| Begin Earthwork | 2 nd Quarter 2022 |
| Begin Site Utilities | 2 nd Quarter 2022 |

| RESPONSE ACTION ACTIVITY | TENTATIVE SCHEDULE* |
|-------------------------------------|---|
| Slab on Grade/Building Construction | 2 nd Quarter 2022 through 1 st Quarter 2023 |
| Complete Site Capping | 3 rd Quarter 2022 |
| Indoor Air Sampling | 1 st Quarter 2023 |
| Complete Construction | 2 nd Quarter 2023 |
| RAP Completion Report to MDE | 2 nd Quarter 2023 |
| Initial Request issuance of COC | 2 nd Quarter 2023 |

(*) = The tentative schedule presented above is subject to change beyond the Applicant’s control. Deviations from this proposed schedule will be communicated to MDE.

It should be noted that the construction schedule is highly contingent on the site development team, which is currently under consideration for the proposed development. Once selected, GTA will review the above RAP Implementation Schedule with the site development team and will submit a revised schedule to the MDE VCP. As requested, the revised schedule will be more specific with regards to site development methodology, duration of soil exposure, and auger cast pile and utility installation timing.

12.0 ADMINISTRATIVE REQUIREMENTS

12.1 Written Agreement

If the RAP is approved by the MDE, the Participant agrees, subject to the withdrawal provisions of Section 7-512 of the Environment Article, to comply with the provisions of the RAP. The Participant understands that if he fails to implement and complete the requirements of the approved RAP and schedule, the MDE may reach an agreement with the Participant to revise the schedule of completion in the approved RAP or, if an agreement cannot be reached, the Department may withdraw approval of the RAP. A *Written Agreement* from the Participant is included as *Appendix H*.

12.2 Zoning Certification

6709 Pulaski, LLC certifies that the Site meets all applicable provisions and zoning requirements, as required by Section 7, Subtitle 5 of the Environmental Article, *Annotated Code of Maryland*. A certified statement from 6709 Pulaski, LLC is included as *Appendix I*.

12.3 Public Participation

On behalf of 6709 Pulaski, LLC, GTA will submit an MDE-approved RAP public notice to *The Baltimore Sun*, a weekly newspaper with coverage that includes Baltimore, Maryland. The notice will be published February 20, 2022 and February 27, 2022.

The RAP public notice indicates that 6709 Pulaski, LLC will hold a public informational meeting on the proposed RAP via on-line teleconference (as necessitated by the Governor of Maryland’s Executive Order limitations on public gatherings due to the COVID-19 pandemic) on Monday March 7, 2022 at 6:00 PM. The site history, detected on-site contamination, planned future use of the site, and a description of the proposed remedies will be presented at the meeting.

During the 30-day public comment period after publishing the public notice, a property sign will be placed along Pulaski Highway. This sign depicts the same information provide in the public notice outlined above. The sign will be removed following the 30-day public comment period. Documentation of the sign placement and legibility will be provided to the MDE for approval.

12.4 Performance Bond or Other Security

As required by the VCP, 6709 Pulaski, LLC will provide either a Performance Bond or Letter of Credit in the amount of \$25,000 to MDE covering the cost of securing and stabilizing the property. The site is currently vacant. Securing and stabilizing the property includes activities necessary to:

- Post appropriate warnings and notices about conditions on the property;
- Restrict access to contaminated portions of the property;
- Prevent exposure to contaminated soil prior to continuing implementation of a response action plan;
- Prevent dust or other movement of contaminated soil or contaminants off of the property prior to continuing implementation of a response action plan;
- Backfill open excavations where applicable;
- Prevent and abate any other dangerous conditions prior to continuing implementation of a response action plan; and,
- Maintain the above-referenced measures in effective working order.

6709 Pulaski, LLC understands that the obligation for the performance bond or other security remains in effect for the Site and does not become void until issuance of the final Certificate of Completion for the Site, or 16 months after withdrawal of this application from the VCP. 6709 Pulaski, LLC acknowledges that failure to maintain the performance bond or other security for the property will result in the withdrawal of the application from the VCP.

******* END OF REPORT *******



APPENDIX A
MDE Acceptance Letter



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

January 20, 2022

ELECTRONIC DELIVERY

Bryan Eberle, Authorized Agent
6709 Pulaski, LLC
9475 Deereco Road, Suite 200
Timonium, Maryland 21093

Re: Voluntary Cleanup Program Application
6709 and 6715 Pulaski Highway Property
Baltimore, Maryland 21237
BMI: MD 1142

Dear Mr. Eberle:

The Voluntary Cleanup Program (“VCP”) of the Maryland Department of the Environment (“Department”) has completed its evaluation of the VCP application package submitted for the 20.162 -acre 6709 and 6715 Pulaski Highway Property (“Property”) located in Baltimore, Baltimore City, Maryland. The Department accepts the Property for participation in the VCP and confirms the inculpable person status of 6709 Pulaski, LLC for this Property pursuant to Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland. The Property is approved for future restricted commercial (Tier 2B) or restricted industrial (Tier 3B) purposes.

Since the Property does not qualify for a No Further Requirements Determination, a proposed response action plan (“RAP”) must be developed, approved by the Department, and implemented to address risks to human health and the environment from contaminants in the soil, soil gas and groundwater at the Property and ensure the proposed development of the Property meets the requirements of the Certificate of Completion issued on September 13, 2011 for the 6709 Pulaski Highway property

Submission of the proposed RAP and implementation of all statutory requirements must occur within 18 months of receipt of this letter. The guidelines for preparation of the proposed RAP can be found on the Department’s website and the statutory requirements can be found in Section 7-508 of the Environment Article. Simultaneously with submission of the proposed RAP to the Department for review and approval, you must comply with the public participation requirements by posting a sign at the Property and publishing a notice in a daily or weekly newspaper of general circulation in the geographic area where the participating property is located. Both notices for the proposed RAP must include the date and location of the public informational meeting.

Bryan Eberle, Authorized Agent

Page 2

You are requested to forward a draft of the sign and newspaper notice for the proposed RAP to the VCP for review and approval prior to publication and posting at the Property. Please contact the project manager, Ms. Barbara Brown, to discuss development of the proposed RAP and the exact date for submitting the proposed RAP to the Department for review and approval.

Upon satisfactory implementation and completion of the requirements set forth in the approved RAP and any subsequent addendums, the Department will issue a Certificate of Completion for the Property which must be recorded in the land records of Baltimore City within 30 days following receipt.

In accordance with the provisions of Section 7-506(g)(1) of the Environment Article, you are requested to inform the Department in writing, within 30 days of receipt of this letter, whether 6709 Pulaski, LLC intends to proceed as a participant in the VCP. If the Department does not receive the notice of intent to proceed within the 30-day period, the application for participation in the VCP shall be deemed withdrawn pursuant to Section 7-506(g)(2) of the Environment Article.

If you have any questions regarding the requirements, development of the proposed RAP or other aspects of the program, please contact me at Barbara.Brown1@maryland.gov or 410-537-3212.

Sincerely,

Barbara Brown

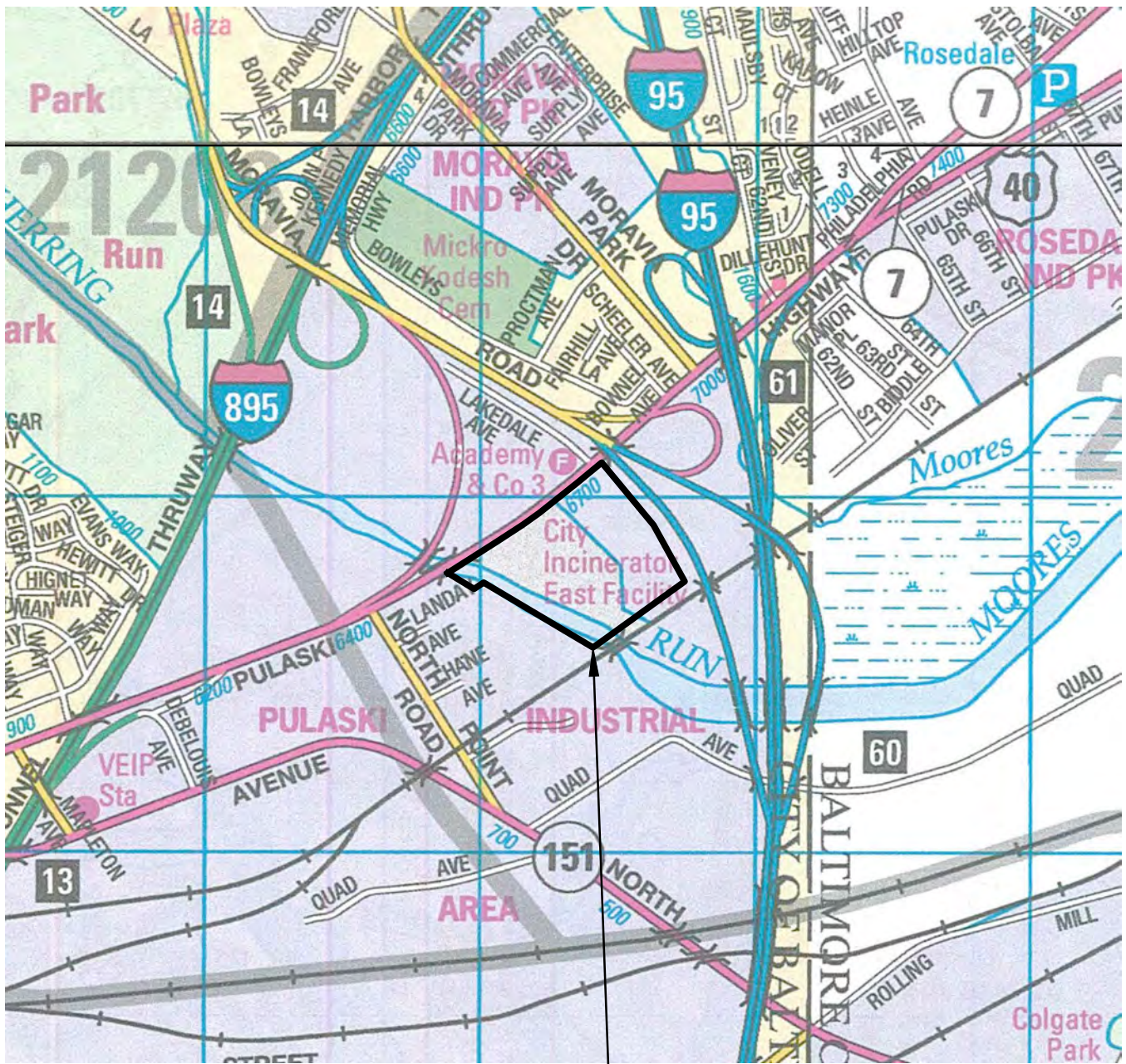
Barbara Brown, Section Head
Voluntary Cleanup Program

cc: Mr. Kevin Plocek, Associate, Geo-Technology Associates, Inc.
Dr. Letitia Dzirasa, Health Officer, City of Baltimore

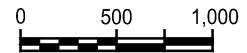


APPENDIX B

Figures



Approximates Site Boundary



Approximate Scale
1 inch = 1,000 feet



Notes

1. Map Copyright © ADC The Map People, (800) 829-6277
2. Permitted Use Number 031282B



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 or (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

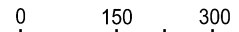
SITE LOCATION MAP



Approximate Site Boundary

Notes

- 1. Base map image obtained from Google Earth (©2020 Google).



Approximate Scale
1 inch = 300 feet



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

14280 PARK CENTER DRIVE, SUITE A
LAUREL, MARYLAND 20707
(410) 792-9446 or (301) 470-4470
FAX: (410) 792-7395
www.gtaeng.com
© Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
BALTIMORE CITY, MARYLAND

2020 AERIAL PHOTOGRAPH

PROJECT: 31210157

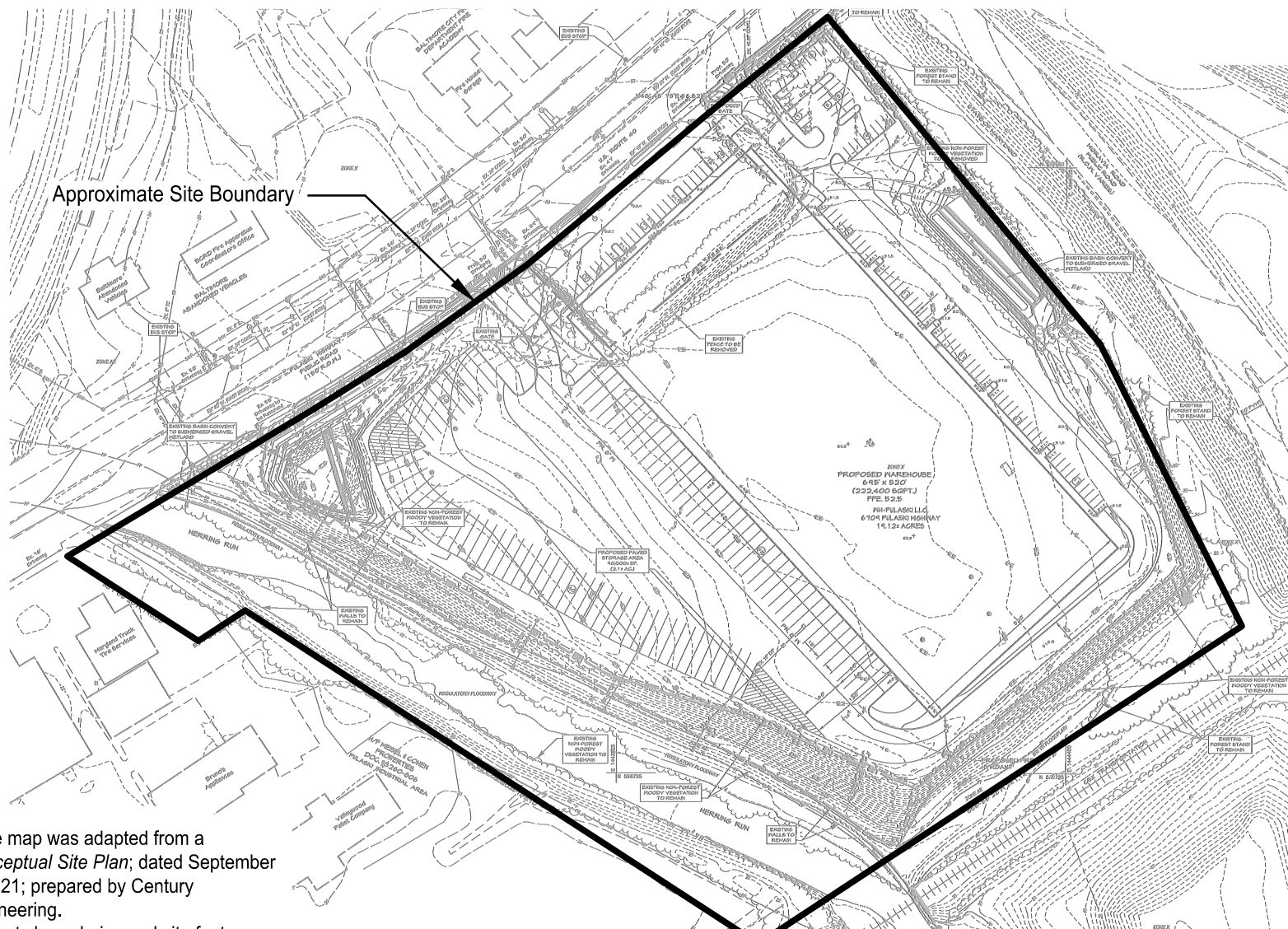
DATE: JANUARY 2022

SCALE: 1" = 300'

DESIGN BY: KRB

REVIEW BY: KPP

FIGURE: 2



Approximate Site Boundary

PROPOSED WAREHOUSE
645' x 820'
(322,400 sq ft)
14.124 ACRES

Notes

1. Base map was adapted from a *Conceptual Site Plan*; dated September 1, 2021; prepared by Century Engineering.
2. Property boundaries and site features are approximate.



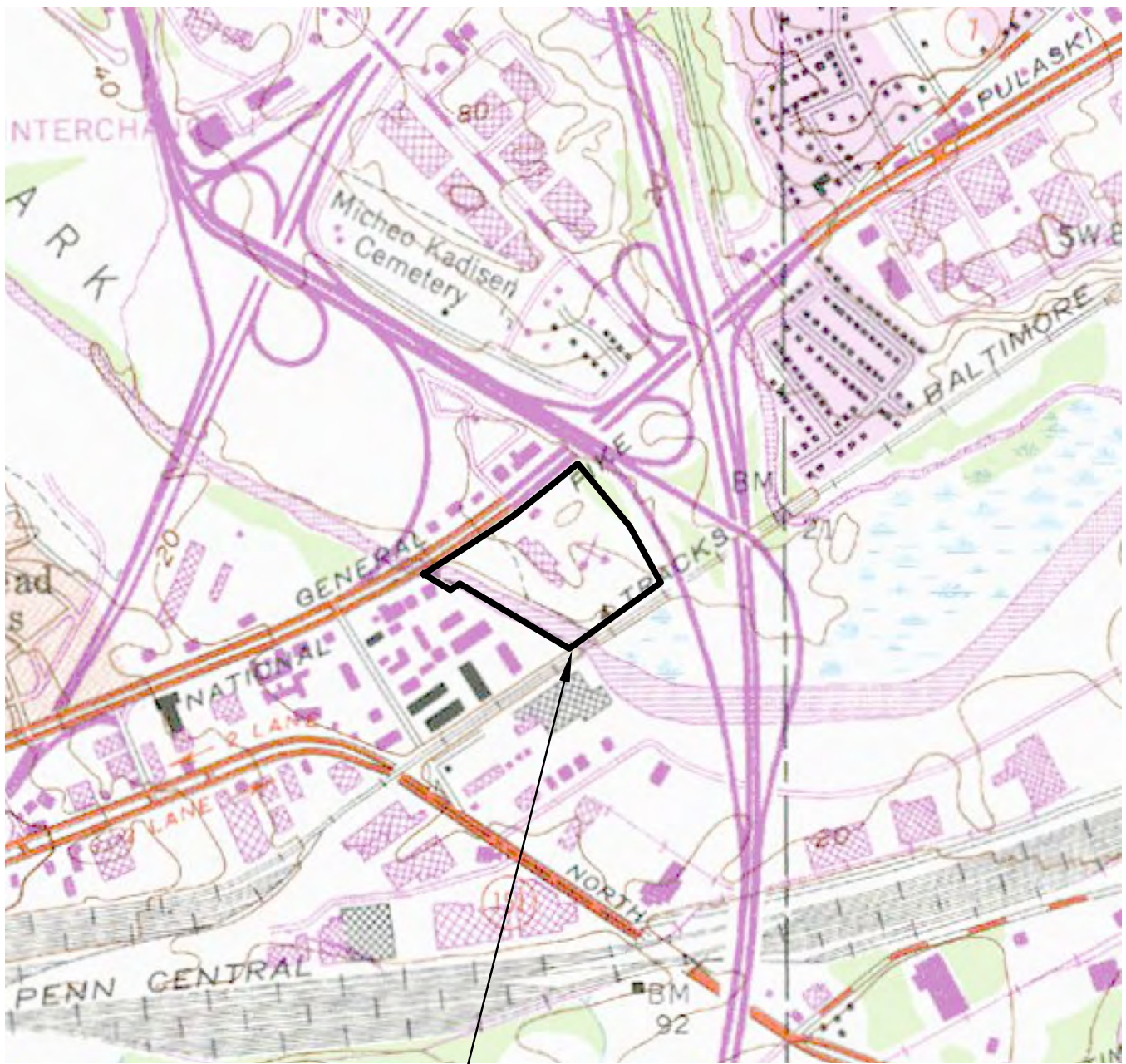
Approximate Scale
1 inch = 200 feet



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 OR (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND
PROPOSED DEVELOPMENT PLAN

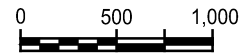
| | | | | | |
|-------------------|--------------------|------------------|----------------|----------------|-----------|
| PROJECT: 31210157 | DATE: JANUARY 2022 | SCALE: 1" = 200' | DESIGN BY: KPP | REVIEW BY: KPP | FIGURE: 4 |
|-------------------|--------------------|------------------|----------------|----------------|-----------|



Approximate Site Boundary

Notes

1. Based on the USGS Baltimore East, MD 7.5 Minute Quadrangle Map.
2. Copyright 2013 MyTopo, Inc.



Approximate Scale
1 inch = 1,000 feet

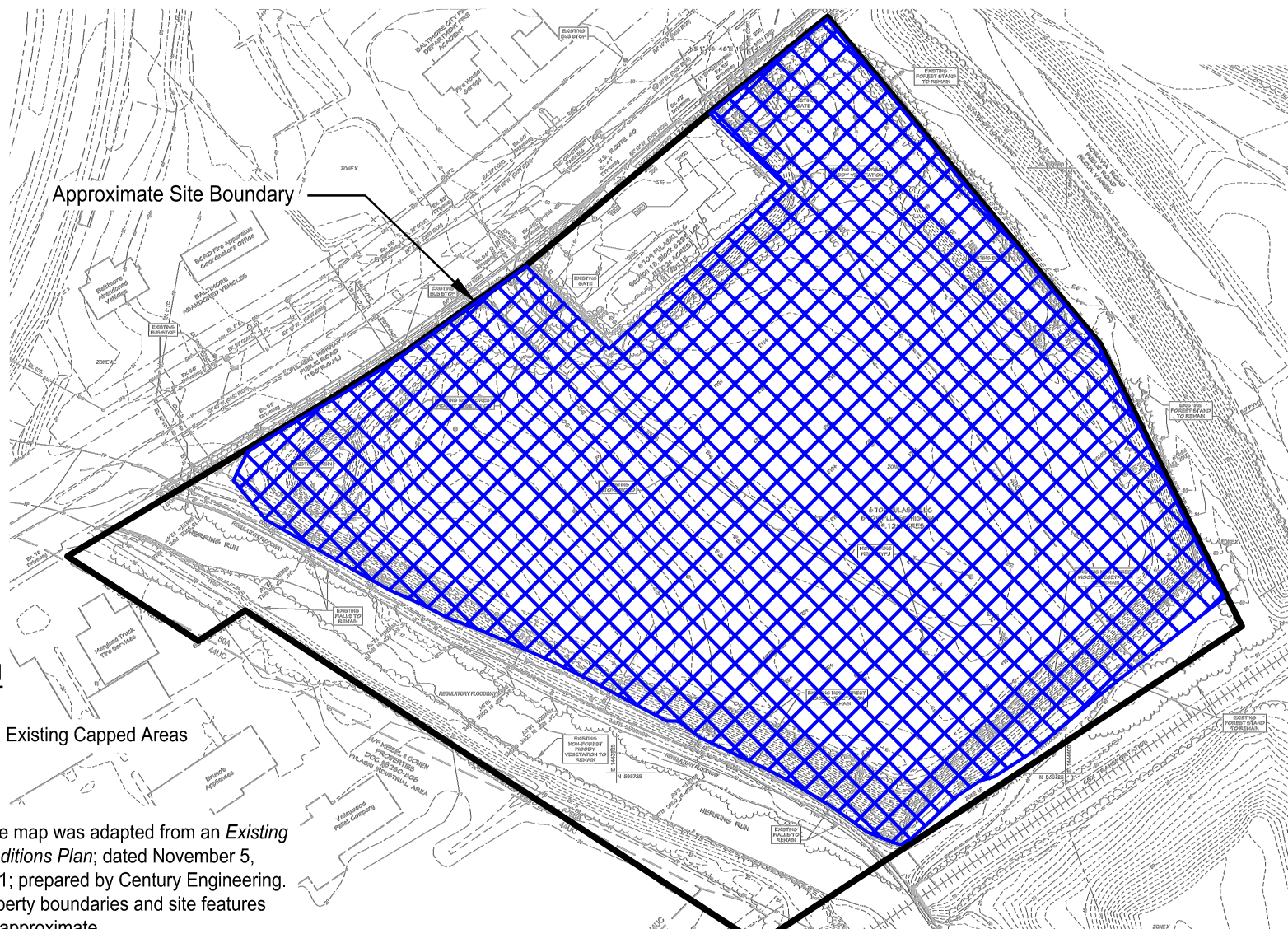


GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS


14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 or (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

TOPOGRAPHIC MAP

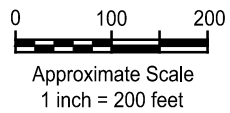


Legend

 Existing Capped Areas

Notes

1. Base map was adapted from an *Existing Conditions Plan*; dated November 5, 2021; prepared by Century Engineering.
2. Property boundaries and site features are approximate.



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 OR (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com

© Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

EXISTING CAPPING PLAN

PROJECT: 31210157

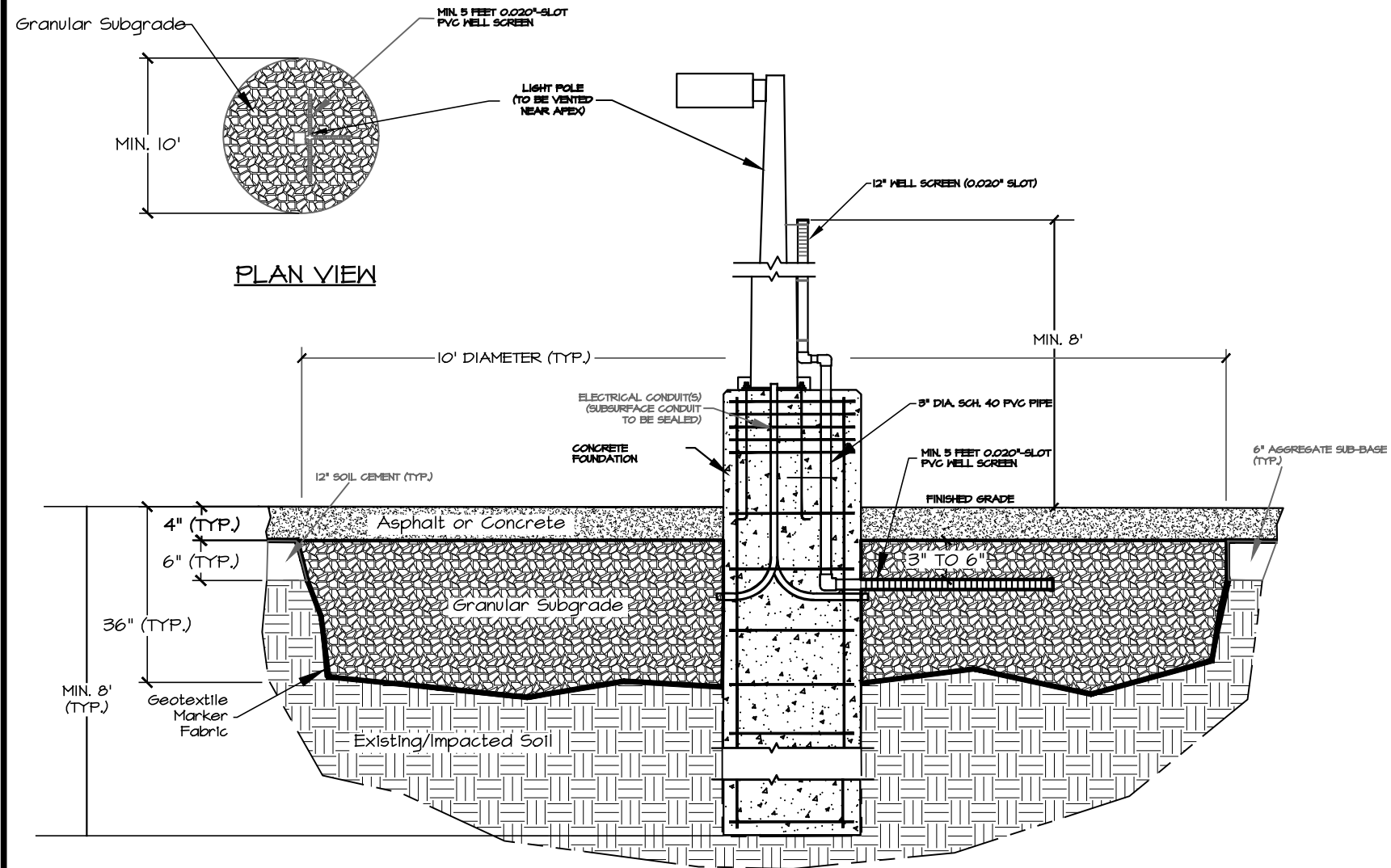
DATE: JANUARY 2022

SCALE: 1" = 200'

DESIGN BY: KPP

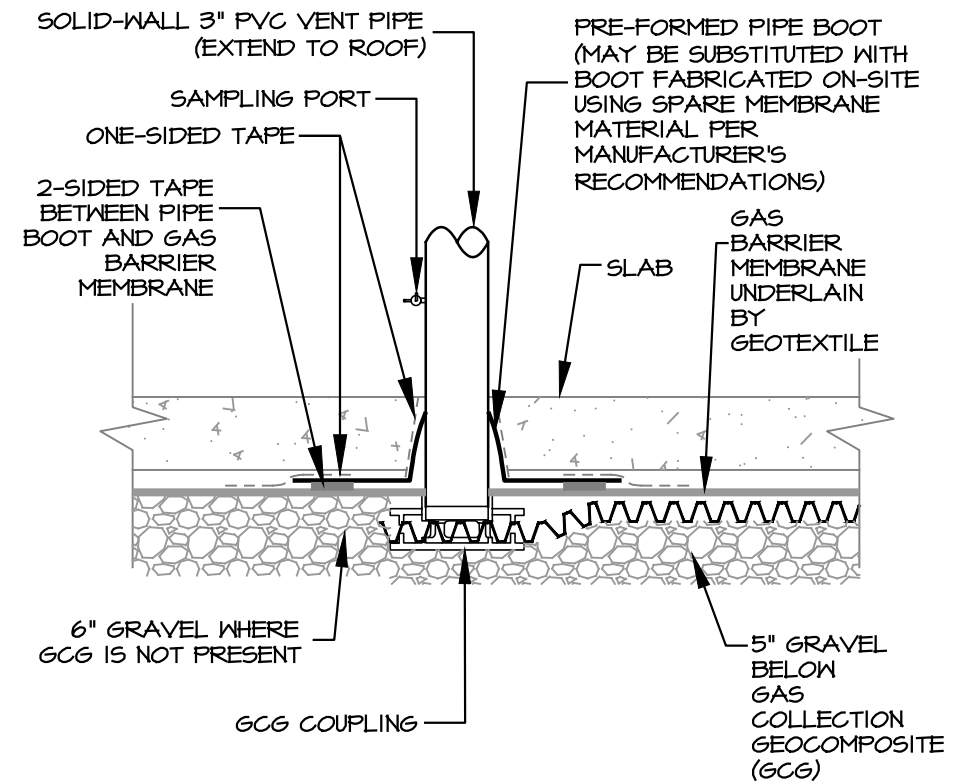
REVIEW BY: KPP

FIGURE: 6



IMPERVIOUS PAVEMENT VAPOR VENT AREA

Typical Section



SUB-SLAB VENTING SYSTEM

Typical Section

NOTES:

1. VAPOR BARRIER SHALL CONSIST OF 20 MIL (0.020 INCH) POLYVINYL CHLORIDE (PVC) OR POLYETHYLENE (PE) SHEETING WITH SEAMS OVERLAPPED A MINIMUM OF 12 INCHES AND TAPED. BARRIER SHALL BE SEALED AT THE FOUNDATION INTERFACE USING A NON-SHRINK POLYURETHANE.
2. STONE SUBGRADE SHALL CONSIST OF OPEN GRADED STONE (TYPICAL #57 STONE).
3. JOINTS IN FOUNDATION WALLS AND FLOORS SHALL BE SEALED UTILIZING A NON-CRACKING POLYURETHANE OR EQUIVALENT.
4. ANY DUCTWORK (SUCH AS ELECTRICAL CONDUIT OR SANITARY SEWER) THAT IS ROUTED BENEATH THE BUILDING SHALL BE PROPERLY TAPED OR SEALED.
5. VENT PIPES TO BE LOCATED IN HIDDEN AREAS OF THE BUILDING.
6. VENT STACKS SHALL BE ADEQUATELY SUPPORTED, GAS TIGHT, THROUGH ENCLOSED AREAS OF BUILDING.

Notes

1. Details are not for construction.
2. Details are provided for informational purposes only and are subject to final design.



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 OR (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

**GENERIC VAPOR VENTING
 DETAILS**

PROJECT: 31210157

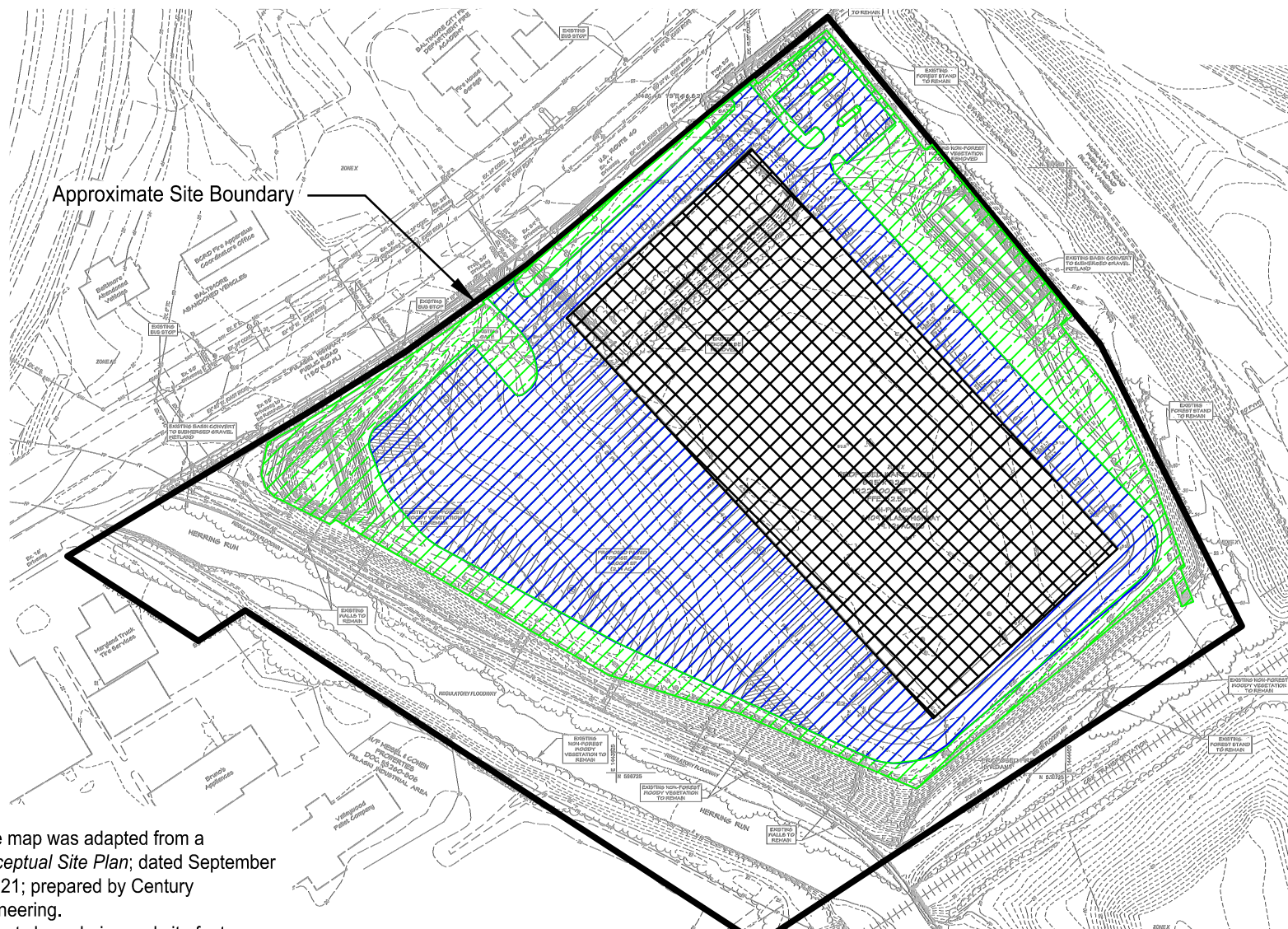
DATE: JANUARY 2022




SCALE: NTS

DESIGN BY: KPP

REVIEW BY: KPP

FIGURE: 7



- Legend**
-  Proposed Building Capped Areas
 -  Proposed Hardscape Capped Areas
 -  Proposed Landscape Capped Areas

Notes

1. Base map was adapted from a *Conceptual Site Plan*; dated September 1, 2021; prepared by Century Engineering.
2. Property boundaries and site features are approximate.



Approximate Scale
1 inch = 200 feet

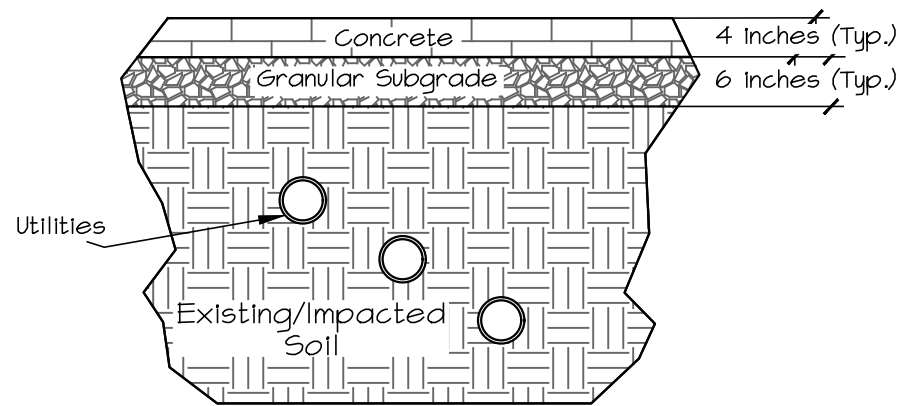


GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 OR (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

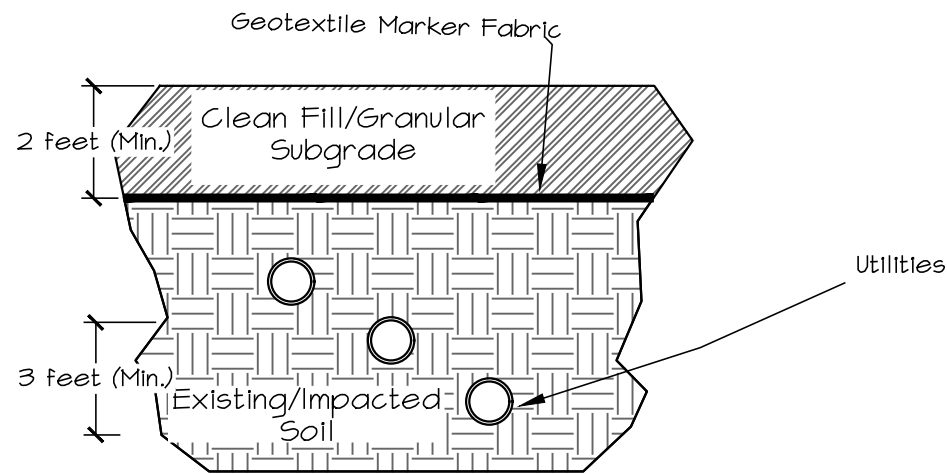
6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

PROPOSED CAPPING PLAN

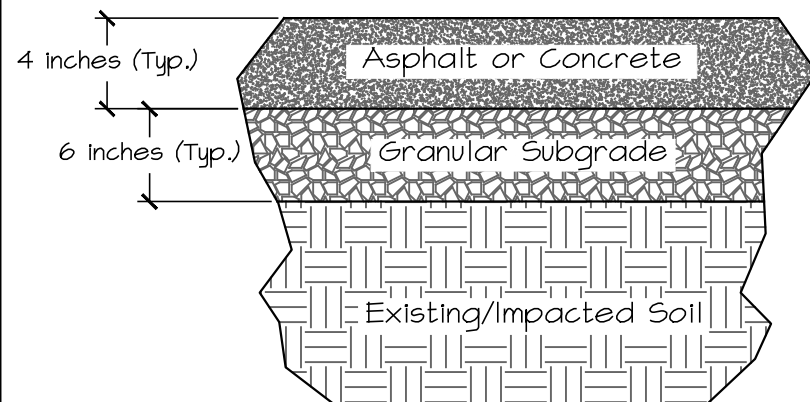
| | | | | | |
|-------------------|--------------------|------------------|----------------|----------------|-----------|
| PROJECT: 31210157 | DATE: JANUARY 2022 | SCALE: 1" = 200' | DESIGN BY: KPP | REVIEW BY: KPP | FIGURE: 8 |
|-------------------|--------------------|------------------|----------------|----------------|-----------|



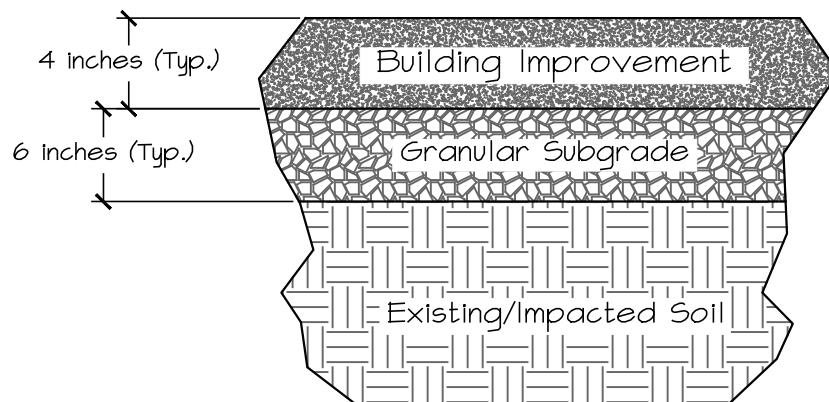
HARDCAPED AREA (CONCRETE)
Typical Section



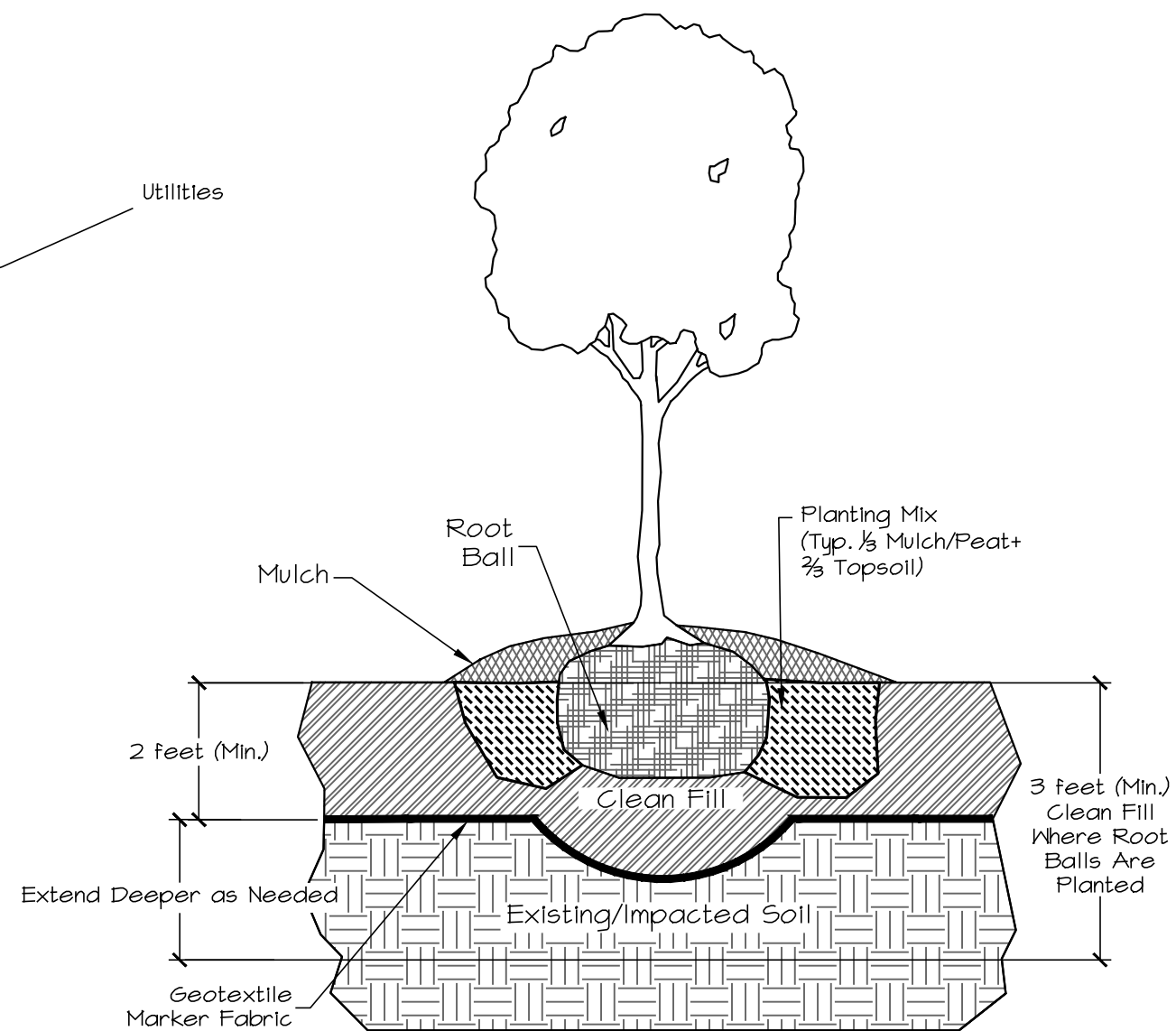
LANDSCAPED AREA
Typical Section



PAVED AREA
Typical Section



BUILDING SLAB
Typical Section



LANDSCAPE AREA (PLANTING)
Typical Section

Notes

1. Details are not for construction.
2. Details are provided for informational purposes only and are subject to final design.



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 14280 PARK CENTER DRIVE, SUITE A
 LAUREL, MARYLAND 20707
 (410) 792-9446 OR (301) 470-4470
 FAX: (410) 792-7395
 www.gtaeng.com
 © Geo-Technology Associates, Inc.

6709 AND 6715 PULASKI HIGHWAY
 BALTIMORE CITY, MARYLAND

CAPPING DETAILS



APPENDIX C
Prior Certificate of Completion

COMMONWEALTH LAND TITLE INSURANCE CO

1 North Charles Street, Suite 400

Baltimore, Maryland 21201

Sherry Dörsey/2610-00068

LIBER 13761 PAGE 341

2/2

MARYLAND DEPARTMENT OF THE ENVIRONMENT

LAND MANAGEMENT ADMINISTRATION

VOLUNTARY CLEANUP PROGRAM

CITY OF BALTIMORE RECORDATION TAX

EXEMPT DOCUMENT

REVENUE COLLECTIONS

DEPARTMENT OF FINANCE

CERTIFICATE OF COMPLETION

Arabella Diamond 9/19/2011
Recordation Clerk Date

DATE OF ISSUE: September 13, 2011 Re-Issue No. 2 (original documents misplaced)

Description of Property

Name: Pulaski Incinerator Facility
Address: 6709 Pulaski Highway
Baltimore, Maryland 21237

Voluntary Cleanup Program Participant

Name: Willard Hackerman
Contact: General Manager
Status: Responsible Person

This Certificate of Completion, hereinafter referred to as "Certificate," is issued pursuant to Maryland law authorizing a Voluntary Cleanup Program for properties contaminated by controlled hazardous substances or oil (Section 7-501 et seq. of the Environment Article, Annotated Code of Maryland).

THE MARYLAND DEPARTMENT OF THE ENVIRONMENT CERTIFIES THAT:

6235

The requirements of the Voluntary Cleanup Program response action plan, hereinafter referred to as the "RAP," approved October 23, 2009 by the Maryland Department of the Environment, hereinafter referred to as "the Department," for the 19.136-acre Pulaski Incinerator Facility property located at 6709 Pulaski Highway, Baltimore City, Maryland 21237, hereinafter referred to as "the property," have been completed.

The New Pulaski Company Limited Liability Limited Partnership has demonstrated that implementation of the approved RAP has achieved the applicable cleanup criteria at the property.

The Department may not bring an enforcement action against The New Pulaski Company Limited Liability Limited Partnership at the property.

The New Pulaski Company Limited Liability Limited Partnership is released from further liability for the environmental cleanup of the contamination identified in the environmental assessments on the property submitted as part of the complete Voluntary Cleanup Program application package. Pursuant to Section 7-506 of the Environment Article, Annotated Code of Maryland, the environmental assessments on the property submitted as part of the complete Voluntary Cleanup Program application package are intended to adequately investigate all areas of contamination and potential sources of contamination at the property.

The New Pulaski Company Limited Liability Limited Partnership is not subject to a contribution action by a responsible person for the contamination identified in the environmental assessments on

LIDER 13761 PAGE 342

the property submitted as part of the complete Voluntary Cleanup Program application package at the property.

This Certificate does not:

1. Prevent the Department from taking any actions against any person to prevent or abate an imminent or substantial endangerment to public health or the environment at the property;
2. Remain in effect if it was obtained through fraud or material misrepresentation;
3. Affect the authority of the Department to take any action against any person concerning new contamination or exacerbation of contamination at the property;
4. Affect the authority of the Department to take any action against a responsible person concerning previously undiscovered contamination at the property;
5. Prevent the Department from taking action against any person who is responsible for any long-term monitoring and maintenance requirements in the approved RAP;
6. Prevent the Department from taking action against any person who does not comply with conditions on the permissible use of the eligible property contained in the Certificate; or
7. Prevent the Department from requiring any person to take further action if the property fails to meet the applicable cleanup criteria set forth in the RAP approved by the Department.

LAND USES

Tier 1 (Residential): Planned use of the property that allows exposure and access by all populations including infant, children, elderly, and infirmed populations.

- **A (Unrestricted):** No land use controls are imposed on the property. Tier 1A properties typically include single and multi-family dwellings.
- **B (Restricted):** One or more land use controls are imposed as a condition of residential use of the property. Tier 1B properties typically include hospitals and health care facilities, education facilities, day care facilities, playgrounds and other recreational areas.

Tier 2 (Commercial): Planned use of the property that allows exposure and access by the general public, workers, and other expected users, including customers, patrons, or visitors. Commercial purposes allow access to the property and duration consistent with a typical business day. Tier 2 properties typically include shopping centers, retail businesses, vehicle service stations, medical offices, hotels, office space, religious institutions and restaurants.

- **A (Unrestricted):** No land use controls are imposed on the property for commercial use.

The New Pulaski Company Limited Liability Limited Partnership Property, Page 2 of 8

LIBER 13761 PAGE 34

- **B (Restricted):** One or more land use controls are imposed as a condition of commercial use of the property.

Tier 3 (Industrial): Planned use of the property by workers over the age of 18, adult workers and construction workers, and other potential expected users. Industrial purposes allow access to the property at a frequency and duration consistent with a typical business day. Tier 3 properties typically include manufacturing facilities, maritime facilities, metal working shops, oil refineries, chemical and other material plants.

- **A (Unrestricted):** No land use controls are imposed on the property for industrial use.
- **B (Restricted):** One or more land use controls are imposed as a condition for industrial use of the property.

LAND USE CONTROLS

Land use controls means any restriction or control that serves to protect human health and the environment by limiting use of or exposure to any portion of the property, including water resources. These controls may include:

- **Engineering controls:** remedial actions directed toward containing or controlling the migration of contaminants through the environment. These include, but are not limited to, stormwater conveyance systems, slurry walls, liner systems, caps, leachate collection systems, pump and treat systems, and groundwater recovery systems.
- **Institutional controls:** legal or administrative tools designed to prevent or reduce human exposure to remaining contamination and to prevent activities that may result in increased exposure to or spread of such contamination.

If this Certificate is conditioned on the permissible use of the property for certain purposes, it shall become void if it is not recorded in the land records of the local jurisdiction within 30 days following receipt of the Certificate.

This Certificate is not conditioned on the use of the property for certain purposes.

This Certificate is conditioned on the use of the property as indicated below:

- Restricted Residential (Tier 1B) purposes;
- Restricted Commercial (Tier 2B) purposes; or
- Restricted Industrial (Tier 3B) purposes.

LIBER 13761 PAGE 34

LAND USE REQUIREMENTS

The restricted commercial or restricted industrial use of the property requires the property owner to maintain compliance at all times with the following requirements:

Requirement for an Environmental Covenant

The New Pulaski Company Limited Liability Limited Partnership shall execute and record in the land records of Baltimore City an environmental covenant, which will be signed by all holders, designated as Exhibit A of this Certificate of Completion.

Maintenance of the Remedial Cap Area, and Future Landscape, Parking/Walkway, and Building Slab Areas Located Atop the Remedial Cap

The excavation, disturbance, and/or transport of any soil material that forms or contributes to the integrity of the clean-fill remedial cap is prohibited without at least 30-day prior notification to and written permission from the Department. The property owner will maintain the integrity of the clean-fill remedial cap as described in the approved response action plan (RAP) at the property at all times to prevent any exposure to contaminated soil by any person on the property at any time. As described in Appendix O of the approved RAP, the property owner will maintain records of the results of the remedial cap inspection which will be performed, at a minimum, during April and October of each year. Inspection records will be made available upon request by the Department. The requirements for remedial cap inspection will apply to future landscaped areas, parking areas, and any slab-on-grade buildings that may be located atop the remedial cap area. Repairs to the remedial cap, future landscape areas, future parking/walkway areas, and future slab-on-grade or similar buildings that may be located atop the remedial cap will be completed within fifteen (15) business days of discovery of the needed repairs and so documented in the maintenance records.

Soil Material Excavation and Disposal From Areas Excluding The Remedial Cap Areas

The property owner shall submit written notification, to the attention of the Division Chief of the Voluntary Cleanup Program, at least 30 days prior to any planned future grading, excavation or intrusive landscaping activities on areas of the property excluding the landfill cap areas. When conducting any planned grading, excavation or intrusive landscaping activities, appropriate dust control measures and air monitoring shall be performed in accordance with a site-specific health and safety plan to ensure that all worker protection requirements are met. In the event of an unplanned emergency excavation on the property, the property owner shall verbally or electronically notify the Department within 24 hours following initiation of the emergency excavation activities. Within ten days following completion of an unplanned emergency excavation, the property owner shall file a detailed written report with the Department.

All excavated soil at the property shall be analyzed before disposal and the analytical results shall be the basis for appropriate disposition of the material in accordance with applicable local, State, and federal laws and regulations. No excavated material from the property shall be disposed in

areas with current or proposed residential use.

Ground Water

The use of ground water beneath the property for any purpose is prohibited.

Groundwater Encountered During Excavations In Areas Excluding The Landfill Cap Areas

When conducting any excavation activities on the property (excluding the landfill cap areas) that extend to the ground water table, the property owner shall implement the requirements of the site-specific health and safety plan to ensure that all worker protection measures are met.

The encountered groundwater shall be containerized during all dewatering activities at the property and shall be analyzed before disposal. The analytical results shall be the basis for appropriate disposition of the ground water in accordance with applicable local, State and federal laws and regulations.

Vapor Barrier

The design and construction of new buildings on the property shall include the use of a vapor barrier or other effective measures that will protect occupants of the buildings from exposure to vapors from the underlying soils or ground water. In lieu of a vapor barrier, the property owner may conduct additional subsurface testing to demonstrate elimination of any vapor intrusion pathway to indoor air.

Indoor Air Quality

The exposure to volatile organic compounds in indoor air shall remain below the Department's cancer threshold of 1×10^{-5} for workers at all tenant spaces except tenant spaces occupied by dry cleaning operations where OSHA standards apply. Prior to any tenant occupancy change at 6709 Pulaski Highway to any commercial or industrial activity other than a dry cleaning operation, the property owner shall collect indoor air samples to verify that contaminant levels do not exceed the risk-based concentrations for any contaminants of concern at this tenant space.

Area Of Property Located Adjacent To West Bank Of Herring Run

The property owner will conduct bi-monthly reconnaissance and inspections of the west bank area, all of which is not covered by a landfill cap, to monitor for evidence of dumping or other forms of contamination. Each reconnaissance/inspection event must be photo-documented with clear photographs and detailed field inspection notes. The property owner will submit a bi-annual summary report of all findings to the Department in June and December of each year.

In the event that any bi-monthly reconnaissance/inspection event detects evidence of dumping or other forms of contamination, the property owner will take appropriate action to determine the origin

LIBER 1376 | PAGE 306

and responsible person(s) for such activity. If necessary, the property owner may seek assistance from the City of Baltimore and/or the Department to initiate enforcement action.

ONE-CALL SYSTEM NOTIFICATION

If this Certificate is conditioned on certain uses of the property or on the maintenance of certain land use requirements, the participant shall send a copy of this Certificate to a one-call system, as defined in Section 12-101 of the Public Utility Companies Article. The copy of this Certificate should be sent within 30 days of the effective date to the attention of MISS UTILITY, c/o General Manager, currently located at 7223 Parkway Drive, Suite 100, Hanover, Maryland 21076.

The obligation for the participant to send a copy of this Certificate does not negate the obligation of the owner, as defined in Section 12-101(f) of the Public Utility Companies Article, to become a member of the one-call system under Title 12 of the Public Utility Companies Article. Additional information may be obtained by calling 410-712-0056.

DEPARTMENT NOTIFICATIONS

All notifications to the Department required herein shall be in writing and addressed to the attention of the Division Chief, Voluntary Cleanup Program, Land Management Administration, Maryland Department of the Environment, currently located at 1800 Washington Boulevard, Baltimore, Maryland 21230.

TRANSFER OF OWNERSHIP

If ownership of the property or any portion thereof is transferred, the property owner shall notify the Department at least five (5) business days prior to the transfer. In addition, any successor in interest must submit a written certification to the attention of the Division Chief of the Voluntary Cleanup Program that the successor in interest has a copy of this Certificate including the land use requirements for the property.

The participant and any successors in interest in a property subject to a certificate of completion shall continue to be protected from liability in the event of any violation of the conditions placed on the use of the property, provided that the participant and any successors in interest did not cause or contribute to the violation.

LIBER 13761 PAGE 34

TRANSFERABILITY

This Certificate may be transferred to any person whose actions did not cause or contribute to the contamination at the property. To validate a transfer of this Certificate, the transferee must complete a "Certificate of Completion Transfer Affidavit" available from the Department.

This Certificate does not prevent the Department from taking action against any person who uses the property for any use other than the use of the property as required by this Certificate.

If an owner of the property wants to change the use of the property to a new use and that new use is consistent with the appropriate planning and zoning authority of the appropriate city or municipality, the owner shall be responsible for the cost of cleaning up the property to the appropriate standard as determined by the Department.

ANY OTHER USE OF THE PROPERTY OR FAILURE TO MAINTAIN COMPLIANCE WITH THE LAND USE REQUIREMENT SPECIFIED HEREIN SHALL RESULT IN THIS CERTIFICATE BEING VOIDED FOR THE CURRENT HOLDER OF THE CERTIFICATE AND FOR ANY OTHER PERSON WITH OWNERSHIP OR CONTROL OF THIS PROPERTY. THIS PROVISION SHALL NOT APPLY TO A PRIOR HOLDER OF THE CERTIFICATE WHO HAS TRANSFERRED THE CERTIFICATE AND RETAINS NO INTEREST IN THE PROPERTY.

LIBER 13761 PAGE 348

Horacio Tablada
Horacio Tablada, Director
Land Management Administration

Sept. 13, 2011
Date

STATE OF MARYLAND, B City OF Baltimore , TO WIT:

I HEREBY CERTIFY, that on this 13th day of September, 2011 before me, the undersigned Notary Public of said State, personally appeared Horacio Tablada, who acknowledged himself to be the Director, Land Management Administration, Maryland Department of the Environment, known to me to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained as the duly authorized Director of said Administration by signing his name as Director of said Administration.

WITNESS my hand and Notarial Seal.

[Signature]
Notary Public



My Commission Expires: July 27, 2014

EXHIBIT A

LIBER 10761 PAGE 349

ENVIRONMENTAL COVENANT

HOLDER: The New Pulaski Company Limited Liability Limited Partnership
PROPERTY ADDRESS: 6709 Pulaski Highway, Baltimore City, Maryland 21237

This Environmental Covenant is executed pursuant to the provisions of Subtitle 8, Title 1 of the Environmental Article, Ann. Code of Md. (2007 Repl. Vol.). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As indicated later in this document, this Environmental Covenant has been approved by the Maryland Department of the Environment (Department).

1. **Property Affected.** The property affected (Property) by this Environmental Covenant is located in the Baltimore City, Maryland.

The postal street address of the Property is: 6709 Pulaski Highway, Baltimore City, Maryland 21237.

The County Land Records Deed Reference: Baltimore City Ward 26, Section 18, Block 6235, Lots 9 and 9A (account # 26 18 6235 009 and 26 18 6235 009A).

The latitude and longitude of the center of the Property affected by this Environmental Covenant is: N 39° 18' 17.7552" / W -76° 32' 6.4818".

The Property has been known by the following names:

- Pulaski Incinerator.

A complete metes and bounds description of the Property is attached to this Environmental Covenant as Exhibit A. A map of the Property is attached to this Environmental Covenant as Exhibit B.

2. **Property Owner/Holder.** The New Pulaski Company Limited Liability Limited Partnership is the holder of the land lease of the Property and the Mayor & City Council, Baltimore, Maryland is the Owner of the Property. The mailing address of the Holder of the Land Lease is/are 300 East Joppa Road, Towson, Maryland 21286 and the mailing address of the Property Owner is/are 200 North Holiday Street, 10th floor, Baltimore, Maryland 21202.

3. **Holder/Grantee.** The New Pulaski Company Limited Liability Limited Partnership.

4. **Regulatory Program(s) Issuing Departmental Determination.** The following regulatory program(s) within the Department is responsible for having issued a determination requiring the use of this Environmental Covenant:

- Voluntary Cleanup Program
- Controlled Hazardous Substance Enforcement Division
- Oil Control Program
- Solid Waste Program
- Hazardous Waste Program

Other Program within the Department: _____

5. **Activity & Use Limitations.** The Property is subject to the following activity and use limitations, which the Owner and each subsequent owner of the Property shall abide by:

a. **Maintenance of the Remedial Cap Area, and Future Landscape, Parking/Walkway, and Building Slab Areas Located Atop the Remedial Cap.** The excavation, disturbance, and/or transport of any soil material that forms or contributes to the integrity of the clean-fill remedial cap is prohibited without at least 30-day prior notification to and written permission from the Department. The property owner will maintain the integrity of the clean-fill remedial cap as described in the approved response action plan (RAP) at the property at all times to prevent any exposure to contaminated soil by any person on the property at any time. As described in Appendix O of the approved RAP, the property owner will maintain records of the results of the remedial cap inspection which will be performed, at a minimum, during April and October of each year. Inspection records will be made available upon request by the Department. The requirements for remedial cap inspection will apply to future landscaped areas, parking areas, and any slab-on-grade buildings that may be located atop the remedial cap area. Repairs to the remedial cap, future landscape areas, future parking/walkway areas, and future slab-on-grade or similar buildings that may be located atop the remedial cap will be completed within fifteen (15) business days of discovery of the needed repairs and so documented in the maintenance records.

b. **Soil Material Excavation and Disposal From Areas Excluding The Remedial Cap Areas.** The property owner shall submit written notification, to the attention of the Division Chief of the Voluntary Cleanup Program, at least 30 days prior to any planned future grading, excavation or intrusive landscaping activities on areas of the property excluding the landfill cap areas. When conducting any planned grading, excavation or intrusive landscaping activities, appropriate dust control measures and air monitoring shall be performed in accordance with a site-specific health and safety plan to ensure that all worker protection requirements are met. In the event of an unplanned emergency excavation on the property, the property owner shall verbally or electronically notify the Department within 24 hours following initiation of the emergency excavation activities. Within ten days following completion of an unplanned emergency excavation, the property owner shall file a detailed written report with the Department.

All excavated soil at the property shall be analyzed before disposal and the analytical results shall be the basis for appropriate disposition of the material in accordance with applicable local, State, and federal laws and regulations. No excavated material from the property shall be disposed in areas with current or proposed residential use.

c. **Ground Water.** The use of ground water beneath the property for any purpose is prohibited.

LIBER 13761 PAGE 351

- d. **Groundwater Encountered During Excavations In Areas Excluding The Landfill Cap Areas.** When conducting any excavation activities on the property (excluding the landfill cap areas) that extend to the ground water table, the property owner shall implement the requirements of the site-specific health and safety plan to ensure that all worker protection measures are met.

The encountered groundwater shall be containerized during all dewatering activities at the property and shall be analyzed before disposal. The analytical results shall be the basis for appropriate disposition of the ground water in accordance with applicable local, State and federal laws and regulations.

- e. **Vapor Barrier.** The design and construction of new buildings on the property shall include the use of a vapor barrier or other effective measures that will protect occupants of the buildings from exposure to vapors from the underlying soils or ground water. In lieu of a vapor barrier, the property owner may conduct additional subsurface testing to demonstrate elimination of any vapor intrusion pathway to indoor air.
- f. **Indoor Air Quality.** The exposure to volatile organic compounds in indoor air shall remain below the Department's cancer threshold of 1×10^{-5} for workers at all tenant spaces except tenant spaces occupied by dry cleaning operations where OSHA standards apply. Prior to any tenant occupancy change at 6709 Pulaski Highway to any commercial or industrial activity other than a dry cleaning operation, the property owner shall collect indoor air samples to verify that contaminant levels do not exceed the risk-based concentrations for any contaminants of concern at this tenant space.
- g. **Area Of Property Located Adjacent To West Bank Of Herring Run.** The property owner will conduct bi-monthly reconnaissance and inspections of the west bank area, all of which is not covered by a landfill cap, to monitor for evidence of dumping or other forms of contamination. Each reconnaissance/inspection event must be photo-documented with clear photographs and detailed field inspection notes. The property owner will submit a bi-annual summary report of all findings to the Department in June and December of each year.

In the event that any bi-monthly reconnaissance/inspection event detects evidence of dumping or other forms of contamination, the property owner will take appropriate action to determine the origin and responsible person(s) for such activity. If necessary, the property owner may seek assistance from the City of Baltimore and/or the Department to initiate enforcement action.

6. **Notice of Limitations in Future Conveyances.** Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

LIBER 13761 PAGE 352

7. **Access by the Department.** In addition to any rights already possessed by the Department, this Environmental Covenant grants to the Department a right of access of the Property to implement or enforce this Environmental Covenant.

8. **Recordation & Filing with Registry.** The Owners shall file a Notice of Environmental Covenant in the Land Records of Dorchester following the execution of the covenant and send proof of the recording to the Department within 30 days of recordation. This Environmental Covenant shall be filed as soon as possible after execution in the Registry of environmental covenants maintained by the Department.

9. **Termination or Modification.** This environmental covenant may only be terminated or modified in accordance with Section 1-809 of the Environmental Article, Ann. Code of Md. (2007 Repl. Vol.).

10. **Department's Address.** Communications with the Department regarding this Environmental Covenant shall be sent to: Registry of Environmental Covenants, Maryland Department of the Environment, Land Management Administration, Land Restoration Program, 1800 Washington Blvd., Baltimore, MD 21230.

LIBER 13761 PAGE 353

ACKNOWLEDGMENTS by Owner(s) and any Holder(s), in the following form:

ATTEST:

FOR THE HOLDER

THE NEW PULASKI COMPANY LIMITED
LIABILITY LIMITED PARTNERSHIP

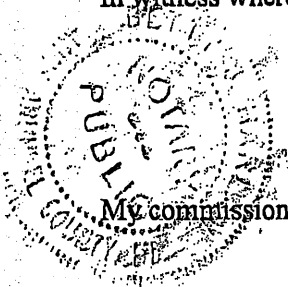
James D. Wright
Signature
James D. Wright
Printed Name

Willard Hackerman
Signature
Willard Hackerman
Printed Name
General Partner
Title

STATE OF Maryland, ^{City} COUNTY OF Baltimore, to wit:

On this 14th day of September, 2011, before me, the undersigned authorized representative of the Holder, The New Pulaski Company Limited Liability Limited Partnership, personally appeared and acknowledged himself / ~~herself~~ to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that he executed the same on behalf of the Holder for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



Betty J. Harlan
Notary Public

My commission expires: 1-14-2013

LIBER 13761 PAGE 354

FOR THE HOLDER

MAYOR & CITY COUNCIL
DEPARTMENT OF PUBLIC WORKS
CITY OF BALTIMORE, MARYLAND

Alfred H. Foxx
Signature
Alfred H. Foxx
Printed Name
Director
Title

STATE OF Maryland ^{City}, COUNTY OF Baltimore, to wit:

On this 16th day of September, 2011, before me, the undersigned authorized representative of the Holder, Mayor & City Council Department of Public Works, City of Baltimore, Maryland, is subscribed to this Environmental Covenant, and acknowledged that he executed the same on behalf of the Holder for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

John J. Blask
Notary Public

My commission expires: 3/9/14

Approved as to form and legal sufficiency
this 16 day of September, 2011.

Steven D. Shattuck
Steven D. Shattuck, Special Chief Solicitor



LIBER 13761 PAGE 355

ATTEST:

FOR THE AGENCY

MARYLAND DEPARTMENT OF THE ENVIRONMENT

[Signature]
Signature
James Carroll
Printed Name

[Signature]
Signature
Horacio Tablada
Printed Name
Director
Title

STATE OF Maryland, COUNTY OF Baltimore, to wit:

On this 13th day of September, 2011, before me, the undersigned authorized representative of the Holder, Maryland Department of the Environment, personally appeared and acknowledged himself /herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that he executed the same on behalf of the Holder for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

[Signature]
Notary Public



My commission expires: July 27, 2014

Approved as to form and legal sufficiency this 14 day of Sept 2011.
[Signature]
Assistant Attorney General

LIBER 13761 PAGE 356

EXHIBIT A
[LEGAL PROPERTY DESCRIPTION]

S:\JOBS2007\INCINERATOR\6709 PULASKI PLAT-1
14:14:51 11/27/07

Job Description:

Page No.: 1

Lot : 1 Final Boundary (BCMD)

6235

| From PNT | Bearing | Distance | Northing | Easting | To Pnt |
|--|-------------|----------|----------|-----------|--------|
| 1 | N48°48'13"E | 46.82 | 3291.340 | 22864.536 | 2 |
| 2 | N51°46'46"E | 154.13 | 3322.178 | 22899.766 | 3 |
| 3 | S39°48'04"E | 545.43 | 3417.537 | 23020.857 | 4 |
| 4 | S26°52'35"E | 405.03 | 2998.500 | 23369.999 | 5 |
| 5 | S56°36'28"W | 741.14 | 2637.220 | 23553.100 | 6 |
| 6 | N57°05'20"W | 783.10 | 2229.321 | 22934.305 | 7 |
| 7 | S59°04'36"W | 72.72 | 2654.808 | 22276.882 | 8 |
| 8 | N57°05'20"W | 198.03 | 2617.438 | 22214.498 | 9 |
| 9 | N59°14'17"E | 358.89 | 2725.035 | 22048.249 | 10 |
| 10 | N55°48'23"E | 336.86 | 2908.597 | 22356.643 | 12 |
| ARC= 337.06 RAD= 2813.92 DELTA= 6.5147 - Area RadNum= 11 | | | | | |
| 12 | S45°08'32"E | 150.00 | 3097.910 | 22635.275 | 13 |
| 13 | N49°50'43"E | 299.96 | 2992.107 | 22741.604 | 14 |
| 14 | N45°08'32"W | 150.00 | 3185.538 | 22970.865 | 1 |
| Square Feet : 832794.2 Acres : 19.118 | | | | | |
| Square Metres: 77369.12 Hectares : 7.737 | | | | | |
| TOTAL Traverse Distance : 4242.11 | | | | | |
| TOTAL Traverse Perimeter: 4242.31 | | | | | |
| TOTAL Traverse Stations : 13 | | | | | |
| ERROR of Closure : 1:INFINITY | | | | | |
| Frontage: 200.951281. | | | | | |

LIBER 18761 PAGE 358

EXHIBIT B
[MAP OF THE PROPERTY]



Former Pulaski Incinerator Site- 2010 Aerial Photograph (© 2011 Google)

6709 Pulaski Highway

Baltimore, Maryland

— Indicates Site Boundary (approximate)



APPENDIX D
Notice of Compliance letter



MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
410-537-3442 410-537-3092 (fax) 1-800-633-6101, ext. 3442

Larry Hogan
Governor

Ben Grumbles
Secretary

Boyd Rutherford
Lieutenant Governor

May 12, 2015

Mr. John Schenkewitz
Hess Corporation
One Hess Plaza
Woodbridge NJ 07095

RE: NOTICE OF COMPLIANCE
Case No. 1998-1654-BC
Notice of Violation NV-OCP-2004-058
Hess Station No. 20500
6715 Pulaski Highway
Baltimore City, Maryland
Facility I.D. No. 11778

Dear Mr. Schenkewitz:

The Oil Control Program recently completed a review of the case file for the above-referenced property, including the *Water Well Abandonment Reports – August 14, 2014* and the *Injection Well Abandonment Report – April 17, 2015*. This case was opened in February 1998 due to the report of a leaking gasoline pump, which was subsequently repaired. In May 1999, liquid phase hydrocarbons (LPH) were encountered in the tank field during upgrade of the underground storage tank (UST) system and on perched water near the kiosk. A shallow monitoring pipe was installed by the kiosk where LPH were observed.

Four monitoring wells were installed in August 2000 to assess groundwater conditions on site. LPH were detected in monitoring well MW-2. In June 2004, two additional monitoring wells were installed on site to further delineate the extent of LPH. Due to the presence of LPH in MW-2 and MW-6, four monitoring wells were installed on and off site between February and March 2005. LPH were later detected in MW-8. Two off-site monitoring wells buried by the developer in 2009 could not be located. These wells never exhibited LPH. Remediation activities initially consisted of manual bailing and periodic enhanced fluid recovery (EFR) events. In October 2008, surfactants were injected into eight points around MW-2 and MW-8 and a vacuum extraction event was conducted on these wells. LPH have not been detected in any monitoring well since December 2007. LPH were never detected in the monitoring pipe near the kiosk.

Your environmental consultant provided a Mann-Kendall trend analysis of the dissolved phase contamination in the monitoring wells for various parameters and time intervals. Most of the parameters exhibited a stable or decreasing trend. The wells with the greatest dissolved phase contamination are MW-2 and MW-8. Monitoring well MW-2 exhibited a stable or decreasing trend for all parameters and time frames.

Benzene and ethylbenzene concentrations had an increasing trend in MW-8 over a 16-quarter evaluation; however, both of these parameters had a stable or decreasing trend over a 7-year evaluation. The depth to groundwater in these two wells is greater than 25 feet below the ground surface. The Department understands that the site is served by public water. The monitoring wells were properly abandoned by a Maryland-licensed well driller in May 2014. The surfactant injection points were abandoned by a Maryland-licensed well driller in December 2014.

Based on the aforementioned findings, the Oil Control Program does not require further corrective action at the subject property. Thus, the subject property is now in compliance with Code of Maryland Regulations (COMAR) 26.10.09.05-.06 and Notice of Violation NV-OCP-2004-058. The Oil Control Program hereby closes its case in reference to this site. The residual petroleum contamination present on-site in the soil and groundwater does not present a risk for the current exposure pathways. Excavation in the area of investigation may create exposure pathways if impacted soil is encountered and must be handled in a manner that complies with State and local regulatory programs.

This notice should not be construed as a waiver of the Department's right to take any other enforcement action it deems appropriate with respect to this site. If you have any questions, please contact the Oil Control Program at 410-537-3442.

Sincerely,



Ellen Jackson, Central Region Section Head
Remediation and State-Lead Division
Oil Control Program

LDR/nln

cc: Ms. Colleen Varga (Marathon Petroleum Co., LP)
Mr. Sterling Turner (ARCADIS US, Inc.)
Mary Beth Haller, Esquire (Baltimore City Health Dept.)
Mr. Andrew B. Miller
Mr. Christopher H. Ralston
Ms. Hilary Miller



APPENDIX E
Site Status and Case Closure letter



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

February 28, 2018

Ms. Colleen Varga
Environmental Technical Services
Marathon Petroleum Company, LP
539 South Main Street
Findlay OH 45840

RE: SITE STATUS AND CASE CLOSURE
Case No. 2017-0539-BC
Marathon No. 20500
6715 Pulaski Highway
Baltimore City, Maryland
Facility I.D. No. 11778

Dear Ms. Varga:

The Maryland Department of the Environment's (the Department) Oil Control Program (OCP) recently completed a review of the case file for the above-referenced property, including the *Underground Storage Tank (UST) Permanent Closure Report*, dated September 8, 2017. This case was opened as a result of the removal of five UST systems (three 10,000-gallon gasoline, one 10,000-gallon diesel, and one 10,000-gallon kerosene) in March and April 2017. The USTs were 29 years old at the time of removal. The UST systems were removed under the direct supervision of a Maryland-certified UST technician and in the presence of OCP personnel.

Prior to this case, in January 2015, Marathon Petroleum Company, LP temporarily closed the five UST systems at this facility. In anticipation of requesting a one-year extension to the temporarily closed status of the USTs, Marathon Petroleum Company submitted an *Environmental Site Assessment Work Plan*, dated December 22, 2015, to complete a site assessment to investigate where contamination would most likely be present, in accordance with Code of Maryland Regulations (COMAR) 26.10.10. The Department approved the *Work Plan* in a letter dated January 21, 2016.

In February 2016, Marathon Petroleum Company's environmental consultant completed ten soil borings to depths ranging from approximately 13.5 to 45 feet below the ground surface. A total of 14 soil samples were collected and analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates, using EPA Method 8260 and total petroleum hydrocarbons - diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015. Ten of the soil samples exceeded the holding times for TPH-GRO due to a mistake on the chain-of-custody form. All soil sampling results were either non-detect or below the Department's non-residential soil cleanup standards.

Temporary wells were installed in five of the ten soil boring locations for the collection of groundwater samples. One of the temporary wells did not produce sufficient water for sample collection. The groundwater samples were analyzed for full-suite VOCs and TPH-DRO and GRO using the same methods listed above. Benzene, methyl tertiary-butyl ether (MTBE), TPH-DRO, and TPH-GRO were detected in one or more samples at concentrations exceeding State groundwater standards. Liquid phase hydrocarbons (LPH) were not observed during this investigation.

When the UST systems were removed in March and April 2017, petroleum-impacted soil and pea gravel were encountered in the diesel and kerosene UST excavations, as well as below portions of the piping, multiple dispensers, and a maintenance building after it was demolished. LPH were observed with the perched water in the diesel and kerosene UST excavations. LPH and contaminated water were pumped out and properly disposed, and approximately 769 tons of impacted soil and pea gravel were disposed off site. Forty-three post-excitation soil samples were collected at depths ranging from approximately 2 to 14 feet bgs. The soil samples were analyzed for full-suite VOCs using EPA Method 8260 and TPH-DRO and GRO using EPA Method 8015. All soil sampling results were either non-detect or below the Department's non-residential cleanup standards. The Department understands the site and vicinity are served by public water.

Based on the existing nature and extent of the petroleum contamination currently known to the Department and the current non-residential land use, the Oil Control Program hereby closes its case in reference to this site. The residual petroleum contamination does not pose an unacceptable risk to human health receptors that warrants further regulatory action at this time for the current exposure pathways. Future excavation in the area of investigation may create exposure pathways to the existing petroleum contamination that may impact human health or the environment. If impacted soil or groundwater is encountered during future excavation, it must be handled in a manner that complies with all federal, State, and local law and regulations. Please contact the Department if there is any proposed change to the land use or installation of any wells on the property. If a change in land use occurs or is proposed, a risk assessment may need to be performed.

This letter should not be construed as a waiver or limitation of the Department's right to take enforcement or other action with respect to activities not addressed by this letter or unknown to the Department at this time, including newly discovered contamination or the exacerbation of existing contamination. The Department and the State of Maryland retain all authority and rights against any persons in any way responsible for causing the contamination present at or migrating from the site, including the right to seek all available relief, including equitable relief and damages of any nature, such as compensatory and natural resource damages, resulting from the release of any contaminant at the site.

If you have any questions, please contact the Oil Control Program at 410-537-3442.

Sincerely,



Ellen Jackson, Northern Region Supervisor
Remediation and State-Lead Division
Oil Control Program

LDR/nln

cc: Dr. Leana S. Wen (Baltimore City Health Dept.)
Mr. Andrew B. Miller
Mr. Christopher H. Ralston
Ms. Hilary Miller



APPENDIX F
Cap Inspection Form

CAP INSPECTION FORM

| | | | |
|-------------------|---|-------------------|--|
| Location: | 6709 and 6715 Pulaski Highway (BMI MD 1142) | Date/Time: | |
| Inspector: | Signature: | Weather: | |

PAVEMENT

| | |
|--------------------------|--|
| Overall Condition | |
|--------------------------|--|

Specific Areas of Note (use PCI, below, and attach sketches/ photographs, as needed)

| Area | PCI | Comments |
|------|-----|----------|
| | | |
| | | |
| | | |
| | | |

Pavement Condition Index (PCI)

| Response? | PCI | Characterization | Description |
|-----------------|-----|--|---|
| Optional | 1 | New, crack-free surface | Black in color, smooth texture |
| | 2 | Oxidation has started | Short hairline cracks start to develop. Dark gray color. |
| | 3 | Oxidation in advanced state | Hairline cracks are longer and wider. Gray in color. |
| Required | 4 | Oxidation complete | Cracks are ¼" wide and crack lines have found base faults. |
| | 5 | Moisture penetrating through ¼" cracks. Loose material (stone and sand) evident. | Texture of surface becoming rough. Preventive maintenance. |
| | 6 | Cracks widen and join. | Cracks and shrinkage evident at curb and gutter lines. |
| | 7 | Potholes develop in low spots. | Gatoring areas begin to break up. Overall texture very rough. |
| | 8 | Potholes developing. | Pavement breaking up. |
| | 9 | Heaving due to excessive moisture in base. | Distorts entire surface. |
| | 10 | General breakup of surface. | |

SIDEWALKS, CURBS, GUTTERS

| | Sidewalks | Curbs and Gutters |
|-----------------------------|---|---|
| Overall Condition | | |
| Check all that apply | <input type="checkbox"/> Exists <input type="checkbox"/> Sound <input type="checkbox"/> Cracked <input type="checkbox"/> Deteriorated <input type="checkbox"/> Root Intrusion <input type="checkbox"/> Work Completed Since Prior Inspection | <input type="checkbox"/> Exists <input type="checkbox"/> Sound <input type="checkbox"/> Cracked <input type="checkbox"/> Deteriorated <input type="checkbox"/> Root Intrusion <input type="checkbox"/> Work Completed Since Prior Inspection |
| Other Comments | | |

LAWNS AND LANDSCAPED AREAS

| | |
|-----------------------------|---|
| Overall Condition | Newly planted in many areas. Newly constructed islands appear to be unplanted at this time. Some tire tracks / ruts were observed on the northern perimeter. |
| Check all that apply | <input type="checkbox"/> Sound <input type="checkbox"/> Erosion <input type="checkbox"/> Healthy Plant Condition <input type="checkbox"/> Mortality <input type="checkbox"/> Animal Burrows |
| Trees | <input type="checkbox"/> Healthy <input type="checkbox"/> Poor Health <input type="checkbox"/> Dead <input type="checkbox"/> Fallen <input type="checkbox"/> Other _____ |
| Shrubs | <input type="checkbox"/> Healthy <input type="checkbox"/> Poor Health <input type="checkbox"/> Dead <input type="checkbox"/> Fallen <input type="checkbox"/> Other _____ |

RESPONSE ACTIONS

| | |
|---|--|
| Responses Required | |
| Work Completed (Description, Date, Contractor, etc.) | |
| List Attached Photographs/Sketches | |



APPENDIX G
Slab Inspection Form

SLAB INSPECTION FORM

| | | | |
|-------------------|---|-------------------|--|
| Location: | 6709 and 6715 Pulaski Highway (BMI MD 1142) | Date/Time: | |
| Inspector: | | Weather: | |

CONCRETE SLAB

| | |
|--------------------------|--|
| Overall Condition | |
|--------------------------|--|

| | | | | |
|-----------------------------|--------------------------------|----------------------------------|---------------------------------------|--|
| Check all that apply | <input type="checkbox"/> Sound | <input type="checkbox"/> Cracked | <input type="checkbox"/> Deteriorated | <input type="checkbox"/> Penetration/Soil Exposure |
|-----------------------------|--------------------------------|----------------------------------|---------------------------------------|--|

Condition Index (CI)

| CI | Description | Response Action Needed? |
|----|--|-------------------------|
| 1 | New, crack-free surface | Optional |
| 2 | Hairline, surficial cracks | |
| 3 | Surficial cracks | |
| 4 | Partially penetrating cracks, possible settlement | <u>Required</u> |
| 5 | Full penetration of slab, exposed soil, visible settlement | |

Specific Areas of Note

(use CI, below, and attach sketches/ photographs, as needed)

| Area | CI | Comments |
|------|----|----------|
| | | |
| | | |
| | | |
| | | |
| | | |

RESPONSE ACTIONS

| | |
|--|--|
| Responses Required | |
| Work Completed (Description, Date, Contractor, etc.) | |
| List Attached Photographs/Sketches | |

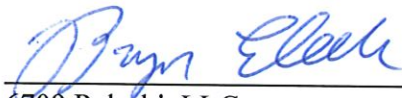
Attach additional sheets as necessary.



APPENDIX H
Written Agreement

WRITTEN AGREEMENT

“If the RAP is approved by the MDE, the participant agrees, subject to the withdrawal provisions of Section 7-512 of the Environment Article, to comply with the provisions of the response action plan. Participant understands that if he fails to implement and complete the requirements of the approved plan and schedule, the Maryland Department of the Environment may reach an agreement with the participants to revise the schedule of completion in the approved response action plan or, if an agreement cannot be reached, the Department may withdraw approval of the plan.”



6709 Pulaski, LLC
Mr. Bryan Eberle
Authorized Agent



Date

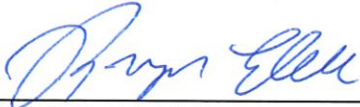


APPENDIX I
Zoning Certification

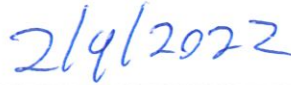
CERTIFIED STATEMENT RE: COUNTY AND MUNICIPAL ZONING REQUIREMENTS

“The participant hereby certifies that the property meets all applicable county and municipal zoning requirements.

The participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environmental Article, Annotated Code of Maryland, and that this certification is required to be included in a response action plan for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environmental Article, Annotated Code of Maryland.”



6709 Pulaski, LLC
Mr. Bryan Eberle
Authorized Agent



Date