

ENVIRONMENTAL MANAGEMENT PLAN

St. Elizabeth's Shelter Relocation
Sycamore Street, SE, Washington, DC 20032

Prepared for:

Coakley Williams Construction
7475 Wisconsin Avenue
Bethesda, Maryland 20814

Prepared by:

Hillis-Carnes Capitol Services
1414 North Capitol Street, NW
Washington, DC 20002

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**DRAFT: NOT FOR
DEVELOPMENT OR CONSTRUCTION**

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1.0 INTRODUCTION

This Environmental Management Plan (EMP) has been prepared for the St. Elizabeth's Shelter Relocation located at 2700 Martin Luther King Jr. Avenue in Washington DC (the "Site"). This EMP provides protocols for the following:

- a) procedures to be undertaken if contaminated soil (defined later in this EMP) is encountered;
- b) procedures to be undertaken if subsurface features such as tanks, pits, lifts, oil/water separators, clarifiers, etc. are encountered during redevelopment;
- c) procedures to be undertaken if liquid-phase hydrocarbons in water (LPH) is encountered;
- d) procedures for the proper management of contaminated soil and/or water that is exported from the Site;
- e) procedures for the proper management of uncontaminated soil that is exported from the Site;
- f) procedures for the import of soil to the Site; and
- g) procedures for proper dewatering if groundwater is encountered.

The management, recordkeeping, reporting, characterization, transportation and disposal of soil, water and/or LPH must be done so in accordance with all applicable local, District and Federal regulations that govern such activities.

1.1 Proposed Site Development

The proposed development of the Site includes the construction of a multi-level (five stories maximum) building with a partial basement to be utilized as a housing assistance center. The proposed building construction also includes deeper excavation for grade beams beneath the building and a deep foundation system. The future on-site building will be connected to the municipal water source. This construction plan will include the excavation of soils at the Site. The depth of excavation is variable across the Site. Generally, the depth of excavation ranges from relatively shallow to 30 feet, and may include deeper depths associated with the deep

foundation system. The need for dewatering may also be necessary during development activities.

1.2 Current Site Conditions

The Site is undeveloped and no structures are currently located on the Site. The Site generally consists of undeveloped and wooded land. Historically, the site vicinity was used as a landfill that reportedly consisted of storm sewer cleanings, street sweepings, road construction debris, and incinerator fly ash. Portions of the landfill area were closed in 1983, 1987, 1988, and the remaining area closed in 1989.

1.3 Prior Environmental Assessments

Prior environmental assessments have been conducted at the Site, including Phase I Environmental Site Assessments (ESAs) in 2012 (by others) and 2018 and a Phase II Environmental Site Assessment in 2018 (by Hillis-Carnes Capitol Services). A summary of the major components of the findings is as follows:

Sampling in the vicinity of the fill area was conducted in 1984 and 1985, which resulted in the detection of Chlorinated dioxins and furans in the ash fill and PCB-1260 in the pond sediments. It is our understanding that the pond is not located within the proposed boundaries of the site redevelopment. Additionally, one composite soil sample was collected from the fill ash in 2008. The results of the 2008 sample were reportedly below the RCRA hazardous waste limits for the metals and semi-volatile organic compounds that were analyzed.

During the Phase II ESA, soil samples were collected and analyzed for various parameters including volatile organic compounds (VOCs), Semi-VOCs, total petroleum hydrocarbons for diesel and gasoline range organics (TPH-DRO and TPH-GRO), Priority Pollutant Heavy Metals, hexavalent chromium, total cyanide, Polychlorinated Biphenyls (PCBs), Dioxins and Furans, and full Toxicity Characteristic Leaching Procedure (TCLP) including VOCs, SVOCs, Chlorinated Pesticides, Chlorinated Herbicides, and Priority Pollutant Metals.

Evidence of impacted soils was not apparent during the probing activity (i.e., no odors or staining were observed). In addition, no Photoionization Detector (PID) readings above

background levels were detected in the soil intervals observed. Further, laboratory analyses of the soil samples did not reveal the presence of TPH-GRO, VOCs, PCBs, and TCLP SVOCs, TCLP VOCs, TCLP pesticides, and TCLP herbicides at concentrations exceeding the laboratory's practical quantitation limits.

Certain Priority Pollutant Metals, including Hexavalent Chromium, certain TCLP Metals, certain SVOCs, Total Cyanide, and Dioxins and Furans were detected in one or more of the soil samples analyzed. With the exception of Hexavalent Chromium, TPH-DRO, and certain Dioxins, the detected concentrations were below the applicable screening level standards. The concentrations of Hexavalent Chromium in boring P-2, TPH-DRO in borings P-3 and P-4, and certain Dioxins in borings P-3 and P-4 were above the applicable screening level standards (refer to the Sample Location Plan in Appendix B). Therefore, it is anticipated that impacted soils will be encountered during site excavation activity associated with the redevelopment project.

Saturated soils and/or groundwater were not encountered at the depths of the probes advanced during the Phase II ESA. It should be noted that boring logs from a geotechnical investigation indicate that groundwater at the Site is variable and was detected between 30 feet and 71 feet below the existing ground surface at the time of exploration. However, perched water was encountered at shallower depths.

It is anticipated that additional soil samples will be collected during the geotechnical survey for laboratory analyses to better delineate both the horizontal and vertical extents of impacted soils. At that time, a site map will be prepared to illustrate the extent of soils exceeding applicable screening level standards.

1.4 Purpose of EMP

The purpose of this EMP is to describe the procedures that Site contractors must follow if:

- a) contaminated soil is encountered during the proposed redevelopment activity;
- b) subsurface features such as tanks, pits, lifts, oil/water separators, clarifiers, etc. are encountered during the proposed redevelopment;
- c) liquid-phase hydrocarbons in water (LPH) is encountered;
- d) contaminated soil and/or water is exported from the Site;

- e) uncontaminated soil is exported from the Site;
- f) soil is to be imported to the Site; and
- g) dewatering is necessary during the proposed redevelopment activity.

The EMP has been developed to facilitate the redevelopment of the Site by outlining those specific procedures that will be used for identifying, testing, handling, and disposal of contaminated soil and water that may be encountered during the proposed redevelopment activities. Implementing the procedures in this EMP will help to ensure that contaminated soil and water at the Site is managed in a manner that is protective of human health, the environment, Owner's liability, and compliant with applicable Federal, District and local regulations.

A copy of this EMP shall be kept in the on-site construction management office for reference, and it is the responsibility of the General Contractor (Coakley Williams Construction) and applicable subcontractors to ensure it is followed.

The Owner will retain the services of an Environmental Professional (EP - Hillis-Carnes Capitol Services) to monitor the site activities as they relate to the procedures described in this EMP and to document those activities for inclusion in a Completion Report at the completion of the project. If the EP's field personnel observe deviations from the procedures described in this EMP, the EP's field personnel will inform the EP's Project Manager/Senior Project Manager. If the EP's Project Manager/Senior Project Manager determines that project activities are not being conducted in accordance with the intent of the EMP, the EP's Project Manager/Senior Project Manager will contact the General Contractor's Senior Superintendent and Project Managers.

Organizational charts for Coakley Williams Construction project employees and Hillis-Carnes Capitol Services project employees are included in Appendix C. The organizational chart as presented in this EMP will be utilized as a reference for determining the chain of communication and applicable project responsibilities. If any changes to or deviations from the organizational structure presented are required, Hillis-Carnes Capitol Services should be notified so that this EMP can be updated as necessary.

2.0 SOIL MANAGEMENT

This section describes the management protocols recommended for handling, moving, stockpiling, and disposing of contaminated soil on and from the Site, as well as requirements for soil to be imported to the Site. Soil that would be considered a "Characteristic Hazardous Waste" due to Toxicity, Corrosivity, Reactivity and/or Ignitability is not anticipated to be present at the Site; therefore, the Soil Management procedures and protocols presented in this EMP are intended to apply to non-hazardous soils impacted with petroleum hydrocarbons. However, Section 2.9 of the EMP does address "Hazardous Soil".

2.1 General Procedures

Construction workers may disturb the subsurface through digging, grading, trenching and/or excavation, and therefore may be potentially exposed to certain environmental constituents. Construction workers or other workers involved in activities that disrupt soil may encounter previously unknown structures or areas of affected soil. Workers who may directly contact contaminated soil or water during construction activities will be provided training specific to potential contaminant exposure (e.g., during site orientation safety meetings, during tailgate safety meetings, etc.), and will conduct the work in accordance with Occupational Safety and Health Administration (OSHA) training and worker protection rules and regulations and their company's Health & Safety procedures. At a minimum, the company Health & Safety procedures utilized must meet all the minimum requirements of all applicable OSHA requirements.

The General Contractor shall provide a competent person who has successfully completed a 30-hour OSHA Construction Training course. The on-site person(s) conducting the soil screening described in Section 2.3 of this EMP will have successfully completed a 40-hour OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) course.

The information provided in this EMP will be used to communicate the location of known contaminated soil and potential concentration of constituents of concern to workers. All Non-Hazardous Contaminated Soil that will be transported off-site must be adequately characterized and disposed at a facility that is permitted to receive such material as outlined in this EMP.

Likewise, all soil that will be imported to the Site must be either from a virgin quarry, or certified or determined by analysis to be "clean" in accordance with applicable standards prior to arriving at the Site.

2.2 Potential Soil Disturbance Activities

Activities that may cause soil disturbance include: excavation for subgrade building levels such as basements and grade beams; site grading; grubbing; removal of soil; removing/installing underground utilities and utility pipeline repair activities; planting trees/landscaping; excavating elevator shaft pits; excavating sediment basins, storm water retention ponds, etc.; installing foundations; and performing other construction activities. If these or other subsurface activities are performed, this EMP will be followed.

2.3 Soil Monitoring and Screening

Soils identified and located within the boundaries of the delineated areas will be excavated and removed from the property. The on-site Environmental Professional (EP) will monitor and document the proper removal of the delineated soils. In addition, during all grading and excavation activities (e.g., for subgrade building levels, foundations and utility work) conducted outside the boundaries of the delineated areas, continuous soil screening will be performed by the on-site EP. The soil screening will consist of the following:

- a) Soils will be monitored with a calibrated PID for evidence of volatile organic compounds (VOCs). Evidence of VOCs will be considered to be sustained PID readings greater than 10 units;
- b) Soils will be inspected for visual indication of environmental impact (i.e., staining apparently due to impact);
- c) Soils will be inspected for olfactory indication of environment impact (i.e., odors apparently due to impact);
- d) Soils will be inspected for the presence of waste materials; and
- e) Soils will be inspected for evidence of free oil (i.e., oil which could potentially be drained or otherwise extracted from the soil and which is sometimes referred to as "non-aqueous phase liquids" or NAPL).

The on-site EP will conduct the soil screening activities on a daily and continuous basis when all grading or excavation activity is occurring. This soil screening will be accomplished by a variety of ways (e.g., screening exposed soil surface areas, screening soil as it becomes exposed as excavation is occurring, screening soil contained within a backhoe bucket, screening soil that may be temporarily stockpiled on-site, etc.), depending on specific site activities and safety considerations.

Based on previous environmental data and in-field screening results, soil will be segregated into one of the following categories: a) Uncontaminated Soil – soil not located within the boundaries of the delineated contaminated soil areas; and soil that does not exhibit any evidence of environmental contamination, based on the absence of all of the above-listed indicators; or b) Non-Hazardous Contaminated Soil – soil located within the boundaries of the delineated contaminated soils areas; or soil that does exhibit one or more of the above-listed indicators of environmental contamination.

Uncontaminated Soil may be re-used on-site without environmental restriction. Non-Hazardous Contaminated Soil will be stockpiled temporarily (refer to Section 2.5 – Stockpile Management) to allow for the proper sampling/characterization of the soil (refer to Section 2.6.3 – Soil Characterization – Non-Hazardous Contaminated Soil), per the requirements of an off-site disposal facility permitted to accept Non-Hazardous Contaminated Soil, and/or may be “live-loaded” for off-site disposal.

If site workers observe evidence of free oil in soils (i.e., oil which could potentially be drained or otherwise extracted from the soil) or evidence of liquid-phase hydrocarbons on water (i.e., petroleum product floating on the surface of water), work in that area will be suspended and the Environmental Professional shall be notified.

2.4 Control Measures During Soil Grading and Excavation Activities

During soil grading and excavation activities, the excavation contractor will use control measures for fugitive dust, odor and uncontrolled migration of potentially impacted soils. Dust and odor control measures will be used such that no visible dust migration or offensive odors are observed. OSHA worker safety requirements shall be followed as appropriate.

Control measures would typically include misting with water; however, other control measures such as reducing vehicle speeds, lowering "drop heights" of soil from equipment, and stabilization of exposed soil as soon as practical will be used, as necessary, to control dust emissions and odors.

If control measures typically implemented at construction sites are not effective at controlling odors, the Environmental Professional shall be notified, and the appropriate assessment protocol shall be determined with the assistance of a Certified Industrial Hygienist (CIH). Such assessment could include ambient air monitoring within the breathing zone of employees with the PID. The procedure for this ambient air monitoring is as follows. In the event control measures typically implemented at construction sites are not effective at controlling odors, real-time monitoring will be conducted and will include attaching tubing to the sample port of the PID and placing the end of the tubing near the workers' breathing zone (e.g., by the lowering of the tubing into the excavation trench where the odors have been reported, etc.). If PID readings are greater than 5 units above background in the breathing zone for a 3-minute period, personnel will suspend work, retreat from the work area, and allow time (at least 15 minutes) vapors to dissipate. If monitoring indicates that concentrations still exceed 5 units after 15 minutes, the EP will advise that work not continue without further evaluation. The procedures for further evaluation will be conducted based on the recommendations of the CIH and could include, but is not necessary limited to, the following: ambient air monitoring to include the collection of samples for laboratory analyses, or personal air monitoring of workers in trenches where odors have been identified, etc.

2.5 Stockpile Management

If stockpiles of Non-Hazardous Contaminated Soil are created during construction activities, they must be managed in accordance with the project Stormwater Pollution Prevention Plan (SWPPP) and appropriate erosion and sediment control measures prepared by others. At a minimum, (a) stockpiles will be covered with polyethylene sheeting at the end of each work day, (b) hay bales or silt fencing will be installed to prevent runoff, (c) stockpiles shall not be located near storm drains and/or surface water drainage courses and (d) stockpiles shall be kept to a manageable size. Further, Non-Hazardous Contaminated Soil, if stockpiled, shall be placed on polyethylene sheeting (6-mil minimum) in addition to being covered with polyethylene sheeting at the end of the work day. The sheeting covering the stockpile shall be weighted down at the

end of each work day to prevent shifting of the sheeting from the wind. The approximate locations of the stockpiles of Non-Hazardous Contaminated Soil will be documented in the EP's field notes, as well as the approximate quantity of soil in each stockpile. Stockpiles of Non-Hazardous Contaminated Soil will be labeled with signage to identify the stockpile as contaminated.

2.6 Soil Characterization

2.6.1 Uncontaminated Soil for Re-Use On-Site

As described in this EMP, soil that is re-used on-site will have been field screened and classified as Uncontaminated Soil. Additional environmental characterization of Uncontaminated Soil that is re-used on-site is not warranted.

2.6.2 Uncontaminated Soil for Export

Soil that has been classified as Uncontaminated Soil and that is to be exported from the Site will be characterized to document the environmental conditions to the satisfaction of the receiving property/facility. The number of representative samples of Uncontaminated Soil to be exported from the Site that will be characterized via laboratory analyses will be in a manner deemed sufficient by the receiving property/facility and the EP, and will not be less than three composite soil samples. Each composite sample will be generated from an 8-point grab sampling methodology. The composite samples may be generated from a stockpile of soil that has been screened, classified as Uncontaminated Soil, and temporarily stockpiled on-site. The composite samples may also be generated from the excavation of test pits and soil screening of the encountered soils in areas of the Site at which Uncontaminated Soil are anticipated (based on the prior environmental analyses).

The composite soil samples will be generated utilizing an 8-point grab sampling methodology and will be collected utilizing gloved hands and/or a clean stainless-steel sampling device. A clean stainless-steel mixing bowl and gloved hands will be utilized to composite the grab samples. The composited soil will be promptly transferred to laboratory-provided glassware which will be placed on ice in a cooler and delivered to the analytical laboratory. All appropriate chain-of-custody procedures will be utilized from sample collection to delivery at the laboratory.

The samples will be analyzed in accordance with EPA methodologies and within the applicable holding times.

The composite soil samples will be laboratory analyzed for the following parameters:

- a) Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) via EPA Method 8015;
- b) Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-GRO) via EPA Method 8015;
- c) Volatile Organic Compounds (VOCs) via EPA Method 8260;
- d) Oil & Grease (O&G) via EPA Method 9071;
- e) RCRA 8 Metals via EPA Method 8260;
- f) Polychlorinated Biphenyls (PCBs) via EPA Method 8082; and
- g) Semi-Volatile Organic Compounds (SVOCs) via EPA Method 8280.

It should be noted that this sampling and analytical protocol is the minimum protocol for the characterization of Uncontaminated Soil to be exported from the Site and is subject to alteration if deemed appropriate by the EP.

2.6.3 Non-Hazardous Contaminated Soil for Off-site Disposal

Soil that has been screened and classified as Non-Hazardous Contaminated Soil will be appropriately sampled and characterized/profiled prior to being transported off-site for disposal. The District solid and hazardous waste management regulations and other applicable waste management regulations have requirements and procedures for handling Non-Hazardous Contaminated Soil.

Profiling of soil for the off-site disposal facility is necessary to determine proper disposal methods to verify that the soil meets all acceptance criteria of the proposed disposal facility, and ensure compliance with all Federal, District, and local regulations. Stockpile or in-situ soil sampling will be collected as required by the off-site, appropriately permitted disposal facility/facilities.

Generally, the characterization requirements of the off-site disposal facilities that would likely be utilized for the project (refer to Section 2.8) are as follows. For each 3,000 tons of Non-Hazardous Contaminated Soil, a composite sample will be generated from an 8-point grab sampling methodology. The composite sample will be laboratory analyzed for the following parameters:

- a) Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) via EPA Method 8015;
- b) Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-GRO) via EPA Method 8015;
- c) Oil & Grease (O&G) via EPA Method 9071
- d) Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) via EPA Method 8021;
- e) Complete Toxicity Characteristic Leaching Procedures (TCLP) which includes TCLP Metals, TCLP Volatile Organic Compounds, TCLP Semi-Volatile Organic Compounds, TCLP Pesticides and TCLP Herbicides) via EPA Method 1311/1312/Various; and
- f) Polychlorinated Biphenyls (PCBs) via EPA Method 8082.

Prior to any characterization activity, representatives of the potential soil disposal facilities will be contacted by the General Contractor or their Subcontractor(s) to confirm the characterization requirements. Documentation of the characterization will be obtained (i.e., an approved Material Characterization Report, an approved Waste Profile Form; refer to Section D).

2.7 Transportation

All transport of soil will be performed by properly licensed and permitted haulers in accordance with appropriate local, District and Federal regulations. Loaded transport vehicles leaving the Site will be appropriately lined and securely covered, cleaned, manifested and placarded in accordance with appropriate local, District and Federal requirements. Truck tickets, or equivalent documentation, for loads of Non-Hazardous Contaminated Soil exported from the Site will be obtained.

2.8 Off-Site Disposal Facilities

Non-Hazardous Contaminated Soil transported for off-site disposal/recycling must be transported to facilities that are permitted by the applicable regulatory authorities to receive such material. The following is a list of potential off-site disposal facilities permitted to accept and treat Non-Hazardous Contaminated Soil.

- Clean Earth
6250 Dower House Road
Upper Marlboro, MD 20772
877-455-3478
- Soil Safe
16001 Mattawoman Drive
Brandywine, Maryland 20613
410-872-3990

This list is not intended to be comprehensive as they may be other potential facilities of consideration.

2.9 Hazardous Soil

As previously indicated, based on the findings of the prior environmental assessments, soil that would be considered a "Characteristic Hazardous Waste" due to Toxicity, Corrosivity, Reactivity and/or Ignitability is not anticipated to be present at the Site. However, if future soil sampling at the Site reveals the presence of soil that would be classified as a characteristic hazardous waste, the soil will be excavated, transported, and disposed of at a facility permitted to dispose of hazardous waste. As feasible, temporary on-site stockpiling of soil that has been deemed a hazardous waste would be avoided. It should be noted that the off-site hazardous waste disposal facility may require laboratory analyses. If it is determined that the soil would be classified as a non-hazardous waste, the procedures and protocols for the handling, characterization, transport and disposal of Non-Hazardous Contaminated Soil presented in this EMP will be applicable.

2.10 Imported Soil

It is the intent of the project team to minimize the import of soil to the Site by maximizing the use of on-site material as fill, to the extent practically feasible. Should it be necessary to import soil to the Site (e.g., soils for backfill, topsoil for landscaped areas), proposed fill material from an off-site source must come from a certified "virgin" mine, borrow pit or other source; or be certified as "clean" by an independent entity. Such certification can be based on the following: a) an affidavit from the facility providing the virgin material indicating that the material does not contain petroleum hydrocarbons, hazardous substances or other contaminants; or b) laboratory testing of representative soil samples to confirm that the proposed fill contains no regulated constituents at concentrations that exceed regulatory standards for residential fill, or concentrations that exceed those present at the Site. Such testing would include one (1) composite soil sample resulting from an 8-point grab sampling methodology for every 3,000 cubic yards of imported soil. The composite soil sample would be laboratory analyzed for the following parameters:

- a) Complete TCLP via EPA Methods 1311/1312/Various;
- b) Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO) via EPA Method 8015;
- c) Total Petroleum Hydrocarbons-Gasoline Range Organics (TPH-GRO) via EPA Method 8015; and
- d) Volatile Organic Compounds (VOCs) via EPA Method 8260).

3.0 WATER MANAGEMENT

3.1 General Procedures

All water to be removed from the Site, including excavation dewatering, storm water and vehicle wash water will be managed, transported and disposed in accordance with applicable local, District and Federal regulations.

Discharge of water generated during large-scale construction activities to surface waters (i.e., a local pond, stream or river) will be performed under a specific National Pollutant Discharge and Elimination System (NPDES) permit. Prior to any large site development (i.e., greater than 1 acre), a Stormwater Pollution Prevention Plan (SWPPP) must be developed. The SWPPP must comply with the requirements of the applicable environmental agency.

3.2 Dewatering System Monitoring Requirements

According to data collected during the geotechnical investigation, groundwater at the Site is variable and was detected between 30 feet and 71 feet below the existing ground surface at the time of exploration. However, perched water was encountered at shallower depths. Therefore, dewatering may be necessary during construction at the Site. Upon commencement of the operation of a dewatering system, a daily inspection of the dewatering system discharge will be conducted to inspect for the presence of odors indicative of contamination, sheens and LPH. If odors, sheens or LPH are detected, the discharge from the dewatering system will be containerized for proper characterization and consideration of handling (e.g., off-site disposal, on-site treatment prior to discharge, etc.).

In addition, on the first day of operation, the dewatering system discharge will be sampled and analyzed for the following parameters:

- a) pH (field meter);
- b) Total Suspended Solids (field meter);
- c) Total Petroleum Hydrocarbons (EPA Method 1664-HEM-SGT); and
- d) Total Chromium.

The sampling will be conducted at the discharge point of the dewatering system. Gloved hands will be utilized during the sampling and the samples will be collected in appropriate glassware, and preserved and transported promptly to the laboratory, as appropriate.

Lastly, the dewatering system discharge will be sampled and analyzed for the previously referenced parameters on a weekly basis for the first month of operation.

The allowable limits for the dewatering system discharge are as follows:

- a) pH – Standard Units between 5.0 and 12.5 (Common Permitted Threshold, based on HCEA's experience)
- b) Total Suspended Solids (TSS) – 300 parts per million or less (Common Permitted Threshold, based on HCEA's experience)
- c) Total Petroleum Hydrocarbons – 100 parts per million or less (Common Permitted Threshold, based on HCEA's experience)
- d) Total Chromium – shall not exceed the EPA's Maximum Contaminant Level for Total Chromium in Drinking Water (0.1 parts per million)

If the allowable limits of the dewatering system discharge are met for the first month of operation, the dewatering system discharge will be sampled and analyzed for the previously referenced parameters on a monthly basis.

If the allowable limits of the dewatering system discharge are not met, the discharge from the dewatering system will be containerized for proper characterization and consideration of handling (e.g., off-site disposal, on-site treatment prior to discharge, etc.).

3.3 Removal of Liquid-Phase Hydrocarbon

Liquid-phase hydrocarbon (LPH, or a layer of hydrocarbons floating on the surface of the groundwater and sometimes referred to as "free product") is not anticipated to be present in the groundwater at the Site. If LPH is encountered in an excavation, work in that area would be suspended and the LPH will be removed. The LPH will be removed in a manner that minimizes the spread of contamination into previously uncontaminated zones by using a containment recovery and storage system to contain and remove the LPH. The material would require

testing to obtain acceptance at an approved disposal facility prior to transport for off-site disposal. The discovery of LPH at the Site would require notification to the appropriate local or district agencies.

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4.0 CONTINGENCY PROCEDURES

The following contingency procedures will be followed upon discovery of an unknown source of contamination that may require remediation (such as unknown underground storage tanks, buried drums or other chemical storage containers, LPH in water, free-liquids in soil, etc.), and the procedures for suspending excavation work, transferring any materials, and notifying applicable local, District and/or Federal agencies. The contingency procedures include the following:

- a) If an underground storage tank (UST), free liquids in soils, and/or LPH is found during grading or excavation, activities in the affected area will be suspended. In the case of a UST being discovered, the District of Columbia's Department of Energy and Environment (DOEE) would be contacted (202-535-2600) within 24 hours to coordinate the proper removal of the UST at a later date. In the case of free liquids in soils, and/or LPH, within two (2) hours of discovered, the District's Homeland Security and Emergency Management Agency (202-727-6161) and DOEE's Hazardous Waste Branch (202-671-3308) will be contacted.
- b) If buried chemical storage containers or a previously unidentified contamination source (e.g., oil/water separators, lifts, pits, clarifiers, etc.) is found during grading or excavation, activities in the affected area will be suspended until an adequate plan is implemented to address the condition. Notification to the DOEE of the discovery of such a condition would be made, if required by the applicable regulations. Sampling will be performed on the material, soil, groundwater and surrounding soils, etc., as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed by the EP consistent with the concern identified and include analyses as appropriate (e.g., disposal parameters, metals; volatiles and semi-volatiles, pesticides PCBs, etc.).

Identification of unknown or unexpected condition will be promptly communicated by telephone to the project manager(s) and the Owner's representative(s).

5.0 HEALTH AND SAFETY

All work shall be performed in accordance with all applicable Occupational Safety and Health Administration (OSHA) standards as a minimum. Based on the known contaminant concentrations, site workers will wear the appropriate level of personal protective equipment (PPE) as described in their Health & Safety Plan and in accordance with their company policies and procedures. Levels of PPE should be reconsidered and modified depending on the conditions encountered as the project progresses. The General Contractor is responsible for workers adhering to all applicable OSHA requirements as a minimum and all the Health & Safety policies and procedures.

As previously indicated in this EMP, the General Contractor shall provide a competent person who has successfully completed a 30-hour OSHA Construction Training course. The on-site person(s) conducting the soil screening described in Section 2.3 of this EMP will have successfully completed a 40-hour OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) course.

6.0 DOCUMENTATION

Following completion of site excavation and grading, the activities conducted in accordance with this Environmental Management Plan will be documented in an Environmental Management Completion Report. Documentation will include a narrative of activities completed (e.g., EP daily reports noting field screening findings), identification of areas excavated including appropriate figures (e.g., as-built drawings) showing aerial extent and depth of excavation and fill areas, quantity of Non-Hazardous Contaminated soil and/or water transported off-site to each disposal facility, volume of Uncontaminated Soil exported from the Site, volume of soil imported onto the Site, laboratory reports for the characterization of soil and/or water transported off-site, truck tickets (or equivalent) and waste manifests for contaminated soil and/or water disposed of off-site; and laboratory reports for samples obtained from the dewatering system discharges.