



ENVIRONMENTAL SERVICES, LLC

BID PACKAGE ADDENDUM

**SOIL MANAGEMENT AND
HEALTH & SAFETY PLAN GUIDELINES**

FOR

**HORACE O'BRYANT ELEMENTARY SCHOOL
1105 LEON STREET
KEY WEST, MONROE COUNTY, FLORIDA 33040**

Prepared For:

**Monroe County School District
1301 United Street
Key West, Florida 33040**

Prepared by:

**EE&G Environmental Services, LLC
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Report Date: March 2017

Project No.: 2017 - 3036

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SECTION 1.0 INTRODUCTION

1.1 PURPOSE

EE&G Environmental Services, LLC (EE&G) was retained by the Monroe County School District (the Client) to complete a bid addendum package to outline the required soil management and health & safety guidelines to conduct proposed construction activities at the Horace O'Bryant Elementary School (HOB), located at 1105 Leon Street, in Key West, Florida 33040 (hereafter referred to as "the *Property*").

The proposed construction activities include the development of a bus loop at the northeastern portion of the site. The proposed project includes lighting, sidewalk, fencing and the development of two small stormwater retention ponds. The retention ponds will be located within the center of the bus loop and immediately north-northeast of the loop. The retention ponds will be connected via a short section of underground piping. Please refer to the attached **Figure A** for a layout of the proposed bus loop project, along with the existing layout of the school facility in the area of the project.

1.2 HISTORY OF THE PROPERTY

The northeastern portion of the *Property* and the northern adjoining property were historically a narrow salt run channel. Burrow pits also were excavated in these areas and then in-filled with debris and soils in circa the 1950's. Following which, the site was later redeveloped with the present-day athletic fields and school facilities.

1.3 SUMMARY OF CURRENT ASSESSMENT FINDINGS

During the initial and subsequent assessments of the soils/debris field and assessment of the overall HOB property in 2010 and 2013 (previously reported to the FDEP and available within the public record), organic vapors and impacted soils & groundwater were identified within the debris field area. Based on the field observations and laboratory analytical findings, EE&G concluded the following:

- Buried debris is present at the northeastern portion of the *Property*. See attached **Figure 1** for the assumed location of the debris. The debris appeared to be present at approximately 1-foot below land surface (BLS) and extended to at least 14-feet BLS. The debris consisted of rusted metal, glass, plastics, ceramics and treated wood.
- Elevated organic vapor analyzer (OVA) readings were identified in the debris field area, with the highest value being 200-parts per million. Stained/discolored soils with a hydrocarbon odor also are present within the debris area.
- Laboratory results have identified elevated concentrations of petroleum compounds in soils located in the debris area. The concentrations of these analyzed parameters were found to exceed their applicable Florida Department of Environmental Protection's (FDEPs) *leachability, residential-use direct exposure and/or commercial-use direct exposure* Soil Cleanup Target Levels (SCTLs).
- Groundwater samples also identified elevated concentrations of ammonia and petroleum compounds in excess of the FDEPs Groundwater Cleanup Target Levels (GCTLs). A

mild amount of petroleum sheen was observed atop the groundwater in a test pit advanced within the debris field.

The HOB facility is currently undergoing semi-annual air monitoring activities (per FDEP requirements), which include the screening of breathing space within Building 3, the concession stand, and a vapor mitigation piping vent located immediately east of Building 3. There also is a vapor mitigation cut-off piping trench immediately east of Building 3, which will need to be maintained during the construction of the bus loop. The air monitoring was initiated following the discovery of buried debris at the north-northeastern portion of the site, along with the subsequent site assessment findings in 2010 and 2013. Air monitoring has occurred on a regular basis at the school since 2012, including the most recent event conducted in October 2016. No significant elevated organic vapor readings were identified within the buildings or mitigation system vent piping during these past events.

SECTION 2.0 SOIL MANAGEMENT and HEALTH & SAFETY GUIDELINES

Dust and erosion control measures are commonly implemented at construction sites to minimize the potential for the creation of fugitive emissions from onsite soil handling and operation activities. The General Contractor will be required to implement typical dust and erosion controls during site preparation in order to minimize dust generation during the excavation activities in conformance with their typical permitting requirements and industry standards. In addition to the overall site dust control activities, supplemental wetting and/or misting may be required during trenching in areas where significant debris is encountered. This SMP assumes that the soils located outside the debris areas are unaffected and have unrestricted use onsite.

The Monroe County School District and the contractors selected through the bid process to conduct the bus loop construction activities, will employ the necessary Soil Management Plan (SMP) and Site-Specific Health & Safety Plan (HASP) to ensure the proper handling of impacted soils and/or groundwater encountered during construction and to ensure the health & safety of the workers, school students & employees and offsite receptors.

The General Contractor will need to conduct the following soil handling procedures at the property during construction activities. The Soil Management Plan and HASP guidelines include the following:

- Soils removed from excavations with obvious signs of debris (which cannot be returned to the excavation area at an appropriate depth interval) shall be stockpiled and placed atop and securely covered by visqueen. The stockpiled soils shall not be placed near storm water drainage structures or site boundary areas. These soils will subsequently be hauled offsite for disposal at a landfill.
- Soils with obvious signs of debris shall not be spread out on the surface, mixed with other soils that do not contain debris, or spilled during transport to the stockpile area.
- Excavated soils with no obvious signs of debris shall be placed back into trenches at an interval two-foot below grade and above the watertable interface. This soil shall be covered with at least two feet of clean fill after placement into the trench. Soils that cannot be placed back into the trench in this manner shall be stockpiled for characterization and disposal. Clean fill is considered crushed limestone from a burrow pit quarry. Documentation of the origin of the clean fill shall be made to the School District upon request.
- During construction activities, the General Contractors and tier-down subcontractors will be required to maintain and comply with applicable Occupational Safety & Health Administration (OSHA) regulations and guidelines, and as outlined within their company's own health & safety plans. Recommendations and guidelines for this bid package addendum include, but are not limited to, the following health & safety requirements:
 - The recommended emergency hospital and trauma center will be identified for workers.
 - Employee / worker communication of the onsite conditions and hazards.
 - The site will be restricted from unauthorized public access during construction.

- Health & safety communication and contractor notifications of the site conditions will be conducted.
- Dust and erosion control measures to minimize the potential for the creation of fugitive emissions from handling affected soils and operation activities.
- The onsite bathrooms will be opened during construction to facilitate employees washing their hands on a regular basis and prior to eating or leaving the site. Eating and smoking restrictions will apply in debris affected areas to minimize potential ingestion and inhalation hazards.
- Employees excavating soils with obvious debris will be required to wear heavy cloth gloves or latex gloves to minimize contact with these metal and petroleum-affected soils and to reduce the likelihood of being cut by glass.
- Personnel and vehicles affected by impacted soils will not be permitted to transition offsite until proper wash-down/hygiene procedures have been conducted.
- In the event that affected soils are saturated, they will be stage atop visqueen immediately adjacent to the excavation area and allowed to drain back into the pit. This will minimize the potential for runoff to affect un-impacted surficial soils near the excavation area or were soils area staged prior to offsite disposal.
- Affected soils will be handled as such:
 - o Affected soils and debris will be re-utilized onsite by being placed back into the excavation area at a depth of at least two-feet below grade and covered with a clean soil fill cap, or below a hardscape such the asphaltic driveway of the bus loop.
 - o If affected soils cannot be placed below a 2-foot soil cap or hardscape, they will be temporarily placed atop and covered with visqueen. These soils will be characterized and hauled under manifest for offsite disposal at a lined-landfill in Miami, Florida.
- The affected soils will be characterized through laboratory analysis and approved by a licensed waste disposal facility prior to hauling offsite, in accordance with the criteria set forth in Chapter 62-713, FAC, and transported to a proper disposal facility. Affected soils must be stage onsite and may not be transported to another property prior to disposal. The soils will be transported to a lined landfill under signed manifest. Manifests will be made available to the School District by the contractor.
- At a minimum, personnel working on the jobsite, and in particular the areas with debris, should be properly trained regarding the potential petroleum-based substances present in the soil and the proper work and personal hygiene practices recommended minimizing the potential for exposure to those substances. The recommended level of training for personnel working within the subsurface at/below the groundwater table in debris areas during site preparation activities is 24 hours of Hazardous Waste Operations and Emergency Response (HAZWOPER) Training or equivalent training comprising the demonstrated knowledge of hazardous materials,

- hazard identification, emergency response involving hazardous substances, and the proper selection and application of personal protective equipment. *However, the general contractor and tier-down contractors are responsible for determining the appropriate level of training to be mandated for this project.*
- It is recommended that Personnel performing work in the affected soil areas wear a modified Level D protection to include the following:
 - Gloves – cloth in dry soil areas and latex in groundwater environments
 - Steel-toed boots
 - Hard Hat
 - Safety glasses
 - Hearing protection
 - Dust masks or particulate respirators (available if necessary)

 - If significant petroleum vapors are encountered during soil disturbances in the debris field, then an environmental professional should be present to screen the work and breathing space with an OVA/FID to ascertain if PPE should be upgraded or if further assessment or action is required (i.e. should more stringent respiratory protection be donned).

 - No dewatering is planned for the project. However, if impacted water is encountered within an excavation area, the necessary health & safety procedures will be employed to eliminate contractor contact with the material, as well as to control any potential discharge to the surface or offsite areas. In the event that dewatering is necessary, the general contractor will provide the local authorities with a Dewatering Plan prior to implementation. If minimum pump-out groundwater activities are required, then the removed from groundwater from debris areas shall be hauled to a licensed waste disposal facility under signed manifest. Manifests will be made available to the School District by the contractor.

**SECTION 3.0
ENVIRONMENTAL PROFESSIONAL STATEMENT**

This bid package addendum was prepared by the following EE&G professionals:

Report Prepared By:



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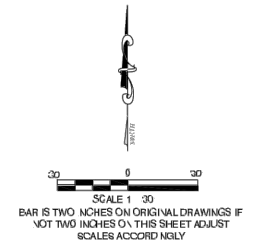
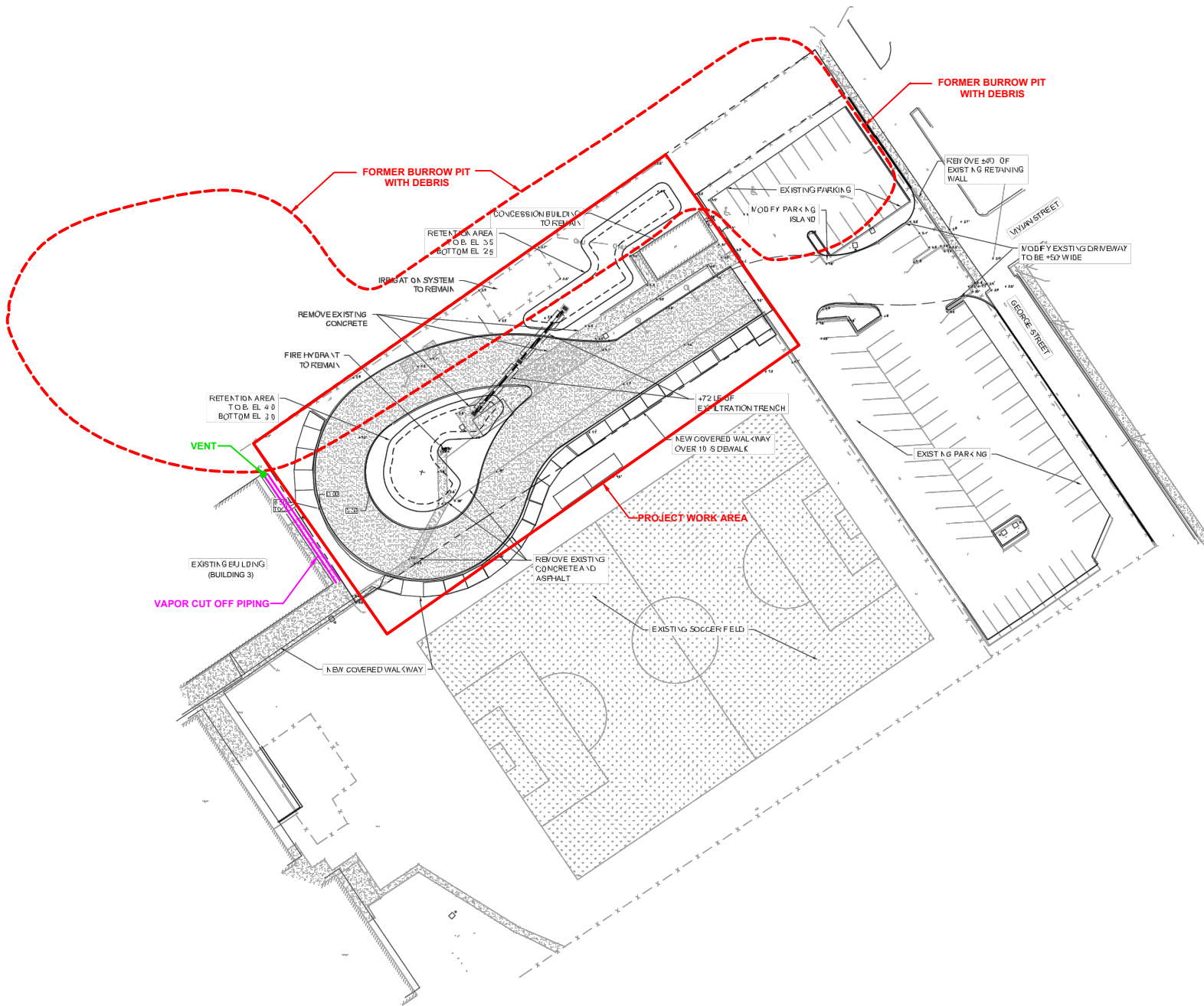
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Attachment: Figure 1 – Site and Proposed Construction Layout Map

FIGURE



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HORACE O'BRYANT SCHOOL
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SITE LAYOUT
 & PROPOSED
 CONSTRUCTION MAP

Date: 02/27/2017
 Project # 2017-3036
 Drawn by: NV
 Cad File: FIG1
 Dwg. Scale: As Noted

FIGURE
 1