

# **WORK PLAN - ADDITIONAL CONTROLLED MATERIAL EXCAVATION**

**FORMER PARSONS PROPERTY  
750 Farmington Avenue  
Farmington, Connecticut**

ConnDOT Assignment No. 214-5016

ConnDOT Project No. 0051-0260

Prepared for:



State of Connecticut  
Department of Transportation  
Newington, Connecticut 06131

Prepared by:



CDR Maguire Inc.  
2080 Silas Deane Highway  
Rocky Hill, Connecticut 06067

June 11, 2015

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
<b>2.0</b>	<b>SITE DESCRIPTION.....</b>	<b>3</b>
2.1	<i>General.....</i>	3
2.2	<i>Geology.....</i>	3
2.3	<i>Surface Water.....</i>	3
2.4	<i>Groundwater.....</i>	4
<b>3.0</b>	<b>BACKGROUND .....</b>	<b>5</b>
3.1	<i>Previous Environmental Investigations .....</i>	5
<b>4.0</b>	<b>PROPOSED ADDITIONAL CONTROLLED MATERIAL EXCAVATION.....</b>	<b>7</b>
4.1	<i>Definitions .....</i>	9
4.2	<i>Health &amp; Safety Requirements.....</i>	10
4.3	<i>Sedimentation and Erosion Control Requirements.....</i>	10
4.4	<i>Waste Stockpile Area Construction.....</i>	11
4.5	<i>Controlled Material Excavation .....</i>	11
4.6	<i>Disposal of Controlled Material.....</i>	12
4.7	<i>WSA Management.....</i>	12
4.8	<i>Site Restoration.....</i>	12
<b>5.0</b>	<b>SUMMARY AND POST-EXCAVATION MONITORING .....</b>	<b>13</b>

### FIGURES

Figure 1 – Site Location Plan

Figure 2 – Additional Controlled Material Excavation Plan

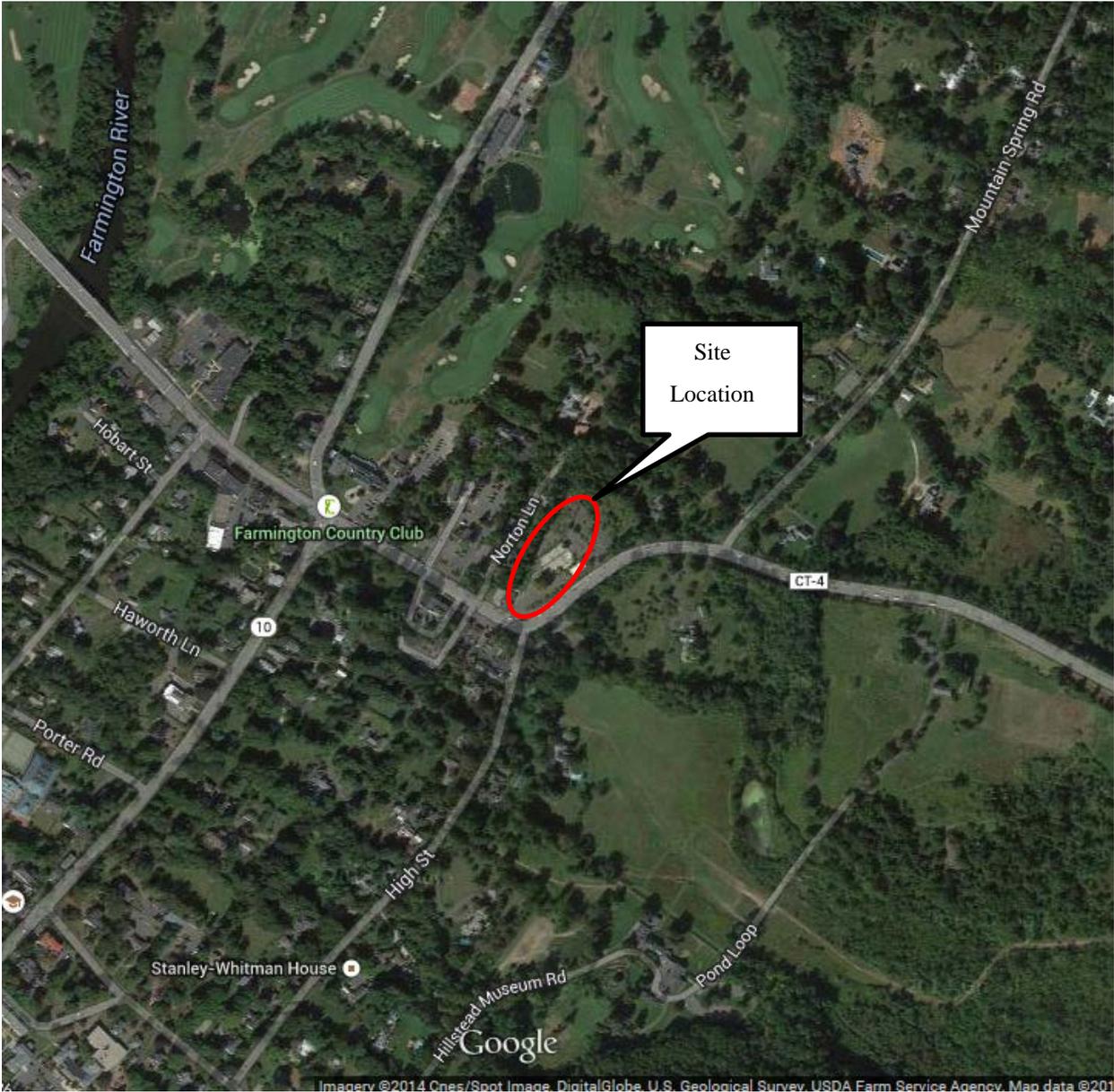
### TABLE

Table 1 – Confirmation Sampling Rationale

## **1.0 INTRODUCTION**

On behalf of the Connecticut Department of Transportation (CTDOT), CDR Maguire Inc. has prepared a Work Plan for the Additional Controlled Material Excavation required on the Former Parsons Property (Site) located at 750 Farmington Avenue within the project limits of CTDOT Project No. 0051-0260, Safety & Traffic Operational Improvements on Route 4 (Farmington Avenue) from Garden Street to Mountain Spring Road, in Farmington, Connecticut (See Figure 1 – Location Plan).

The Site meets the definition of an “Establishment” in accordance with Section 22a-134 of the Connecticut General Statutes (CGS) and compliance with the Connecticut Department of Environmental Protection (DEEP) Remediation Standard Regulations (RSRs) is required. This Work Plan has been developed to provide specific requirements for excavation, collection of confirmation samples, waste characterization and disposal of controlled materials in the “release areas” designated on Figure 2 – Additional Controlled Material Excavation Plan to achieve compliance with the RSRs. All work will be conducted in accordance with the remediation standards and under the direction of Licensed Environmental Professional (LEP).



**FIGURE 1 - LOCATION PLAN**  
**Former Parsons Property – 750 Farmington Avenue**  
**Farmington, Connecticut**

## **2.0 SITE DESCRIPTION**

### **2.1 General**

The Site is located along the northern side of Farmington Avenue between Norton Lane and Mountain Spring Road. The Site is approximately 3.18 acres in size and is currently vacant and unoccupied. The concrete slab remnants from the former buildings are still present on the Site. The CTDOT obtained the Site in August 2008 by Notice of Condemnation. Prior to CTDOT obtaining the Site it was occupied by Parson Chevrolet.

### **2.2 Geology**

According to the Bedrock Geological Map of the New Britain Quadrangle, the Site is underlain by the New Haven Arkose formation which is described as pale reddish-brown to grayish-red, coarse to fine grained sandstone, siltstone, and silty shale. Auger refusal in the test borings by others was encountered at depths of 9 to 32 feet below grade. No bedrock outcrops were observed within the Site. The Surficial Materials Map of Connecticut (August 2009) indicates that the surficial materials on the Site consist of kame terrace deposits, which are described as reddish-brown sand and gravel with stones generally less than six inches in diameter. Fill materials consisting of dark brown sand and traces of gravel, silt, asphalt, and brick fragments were observed to overly native material.

### **2.3 Surface Water**

The Site is located within the Farmington River Basin, within the Farmington Regional Basin which is within the Connecticut Major Basin. A small unnamed stream is located off site, immediately to the north. The stream flows into Pope Brook, which discharges to the Farmington River. The Farmington River is located approximately 0.4 mile west of the Site and is classified as a Class “B” surface water body by the CTDEEP. Class B surface water designated uses are fish

and wildlife habitat; recreational use; agricultural, industrial supply and other legitimate uses including navigation.

## **2.4 Groundwater**

The CTDEEP has designated the groundwater beneath the project corridor as “GA”. This classification indicates that groundwater is suitable for direct human consumption without treatment. The State’s goal is to maintain the groundwater quality. Groundwater beneath the Site is assumed to flow towards the Farmington River which is approximately 0.4-miles west of the project corridor.

### **3.0 BACKGROUND**

The Site was previously occupied by residences from approximately 1924 until 1933. The property was utilized as an automobile dealership, service garage, and body and paint shop from 1933 until 2006. Three (3) commercial structures, which included a main building, paint and body shop, and a garage/clean-up shop, previously occupied the Site. The main building consisted of an automobile showroom, offices and a service garage. The paint and body shop was located west of the main building. The garage/clean-up shop was located northwest of the main building. According to DEEP UST files, fourteen (14) underground storage tanks (USTs) have been removed from the Site. The USTs ranged in size from 1,000 to 3,000 gallons and had contained gasoline, motor oil, heating oil, auto transmission fluid and waste oil. A 275-gallon heating oil above ground storage tank (AST) had also been located on the Site to the west of the former garage/clean-up shop. The Site was also listed as a RCRA Small Quantity Generator of hazardous waste, which indicates that it generated between 100 and 1,000 kilograms of hazardous waste per month. Several spills occurred at the Site and are listed as “closed” in the DEEP database. In addition, several environmental assessments of the Site were indicated as being completed by the EPA and DEEP and is listed in the “No Further Remedial Action Planned” database.

#### **3.1 Previous Environmental Investigations**

The following environmental investigations have been conducted at the Site and within the Route 4 project corridor on behalf of the CTDOT:

- *Task 110 Corridor Land Use Evaluation, Route 4 Improvements from Garden Street to Mountain Spring Road, DTC, July 17, 2006*
- *Task 120 Preliminary Site Evaluation, Former Parsons Chevrolet, DTC, May 2008*
- *Task 210 Subsurface Site Investigation, Former Parsons Chevrolet, DTC, June 2008*
- *Task 210 Subsurface Site Investigation, Former Parsons Chevrolet, DTC, October 2008*
- *Task 210 Subsurface Site Investigation, Route 4 Improvements from Garden Street to Mountain Spring Road, DTC, August 2009*
- *Supplemental Task 210 Subsurface Site Investigation, Route 4 Improvements from Garden Street to Mountain Spring Road, DTC, May 2012*
- *Task 210: Subsurface Site Investigation Report, Safety & Traffic Operational Improvements*

*on Route 4 (Farmington Avenue) from Garden Street to Mountain Spring Road, Farmington, Connecticut, CDR Maguire, February 27, 2015.*

The results of the numerous investigations indicated the presence of contaminants of concern (COCs) associated with the historic site usage in soils at concentrations above criteria. Extractable total petroleum hydrocarbons (ETPH), lead (total and leachable) and polycyclic aromatic hydrocarbons (PAHs) were detected at concentrations exceeding the applicable criteria at several locations with the property boundaries and have been designated “release areas” on the attached Figure 2. These “release areas” require additional controlled material excavation beyond the proposed project limits to achieve compliance with the RSRs.

#### **4.0 PROPOSED ADDITIONAL CONTROLLED MATERIAL EXCAVATION**

The proposed remedial activities detailed in this Work Plan include excavation, confirmation sampling (See Table 1 – Confirmation Sampling Rationale), waste characterization and off-site disposal of soil from the following “Release Areas” identified at the Site:

##### **Release Area 1 – Former USTs Location (Borings B-108 and B-109)**

The results of the environmental investigations indicated the presence of ETPH and PAHs in soil samples collected from borings B-108 and B-109 located proximate to the former USTs west of the former main building. This area has been designated “Release Area 1” on the attached Figure 2. Contaminated soil (controlled material) within the limits of “Release Area 1” will be excavated to a depth of twelve (12) feet below grade as directed by the Engineer. Confirmation samples will be collected from the bottom and sides of the excavation as shown on the attached Figure 2 to determine compliance with the RSRs. The confirmation samples shall be analyzed for the COCs associated with “Release Area 1”:

- ETPH – CT ETPH Method
- PAHs – EPA Method 8270

The excavation limits will extend laterally based on field observations, both visual and olfactory, with confirmation sampling as shown on Figure 2 and as directed by the Engineer. Upon compliance with the applicable RSR standards the Contractor shall continue excavations and/or backfilling as required based on the proposed construction cross sections for the area.

##### **Release Area 2 – Former Garage/Clean-up Shop and Service Garage (Borings B-105, B-106, B-107, B-110, B-111, B-113, B-216, B-217, and MW-104)**

The results of the environmental investigations indicated the presence of ETPH, PAHs, and lead in soil samples collected from borings B-105, B-106, B-107, B-110, B-111, B-113, B-216, B-217, and MW-104 located proximate to the former garage/clean-up shop and service garage. This area

has been designated “Release Area 2” on the attached Figure 2. The horizontal limits of “Release Area 2” encompass “Release Area 1”. Contaminated soil (controlled material) within “Release Area 2”, but outside the horizontal limits of “Release Area 1”, will be excavated to a depth of six (6) feet below grade as directed by the Engineer. Confirmation samples will be collected from the bottom and sides of the excavation as shown on the attached Figure 2 to determine compliance with the RSRs. The confirmation samples shall be analyzed for the COCs associated with “Release Area 2”:

- ETPH – CT ETPH Method
- PAHs – EPA Method 8270
- Total Lead – EPA SW846 6010C
- SPLP Lead – EPA SW846 6010C

The excavation limits will extend laterally based on field observations, both visual and olfactory, with confirmation sampling as shown on Figure 2 and as directed by the Engineer. Upon compliance with the applicable RSR standards the Contractor shall continue excavations and/or backfilling as required based on the proposed construction cross sections for the area.

### **Release Area 3 – Former Grassed Parking Area (Boring B-219)**

The results of the environmental investigations indicated the presence of leachable lead in soil samples collected from boring B-219. This area has been designated “Release Area 3” on the attached Figure 2. Contaminated soil (controlled material) within “Release Area 3” will be excavated to a depth of five (5) feet below grade as directed by the Engineer. Confirmation samples will be collected from the bottom and sides of the excavation as shown on the attached Figure 2 to determine compliance with the RSRs. The confirmation samples shall be analyzed for the COC associated with “Release Area 3”:

- SPLP Lead – EPA SW846 6010C

The excavation limits will extend laterally based on field observations, both visual and olfactory, with confirmation sampling as shown on Figure 2 and as directed by the Engineer. Upon compliance with the applicable RSR standards the Contractor shall continue excavations and/or

backfilling as required based on the proposed construction cross sections for the area.

#### **Release Area 4 – Former Paint/Body Shop (Borings B-101 and B-103)**

The results of the environmental investigations indicated the presence of leachable lead in soil samples collected from borings B-101 and B-103 proximate to the former paint/body shop. This area has been designated “Release Area 4” on the attached Figure 2. Contaminated soil (controlled material) within “Release Area 4” will be excavated to a depth of three (3) feet below grade as directed by the Engineer. Confirmation samples will be collected from the bottom and sides of the excavation as shown on the attached Figure 2 to determine compliance with the RSRs. The confirmation samples shall be analyzed for the COC associated with “Release Area 4”:

- SPLP Lead – EPA SW846 6010C

The excavation limits will extend laterally based on field observations, both visual and olfactory, with confirmation sampling as shown on Figure 2 and as directed by the Engineer. Upon compliance with the applicable RSR standards the Contractor shall continue excavations and/or backfilling as required based on the proposed construction cross sections for the area.

#### **4.1 Definitions**

Controlled Material shall be defined as (1) soil materials located within a defined “Release Area” at the project site, excluding pavement, subbase, structures, or utilities, extending from surface grade to the depth indicated, or (2) any material containing regulated substances at concentrations exceeding numeric criteria in the Connecticut Department of Energy and Environmental Protection (DEEP) Remediation Standard Regulations (RSRs) or (3) material exhibiting evidence of contamination as determined by the Engineer.

Special Handling shall mean the methods used to excavate, grade, load, move, transport, store, dispose, fill, utilize, treat, convey, manage, or otherwise handle a Controlled Material such that (1) the spillage, loss, commingling, or uncontrolled deposition of such material is minimized, (2)

personal exposure to contaminants in such a material are minimized, and (3) the adverse impacts to the community and the surrounding environment from contaminants present in such a material are minimized.

Form 816 shall mean the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 816, 2004, including all Addenda thereto.

#### **4.2 Health & Safety Requirements**

The Contractor shall establish protocols and provide procedures to protect the health and safety of his employees and subcontractors as it relates to the proposed activities. The Contractor shall develop and implement a written Health and Safety Plan (HASP) which addresses the relative risk of exposure to documented hazards present within the limits of the project site. The HASP shall establish health and safety protocols which address the relative risk of exposure to regulated substances in accordance with 29 CFR 1910.120 and 29 CFR 1926.65 and the requirements of the Contract Documents. Such protocols shall only address those concerns directly related to site conditions.

The Contractor shall be responsible for the implementation of the HASP throughout the performance of remedial activities as specified in this Work Plan and Figures. All remedial activities shall be performed in conformance with Title 29 of the Code of Federal Regulations, Part 1910.120, Hazardous Waste Site Operations and Emergency Response (HAZWOPER).

#### **4.3 Sedimentation and Erosion Control Requirements**

Prior to the start of the additional controlled materials excavation, the Contractor shall install a sedimentation control system in accordance with the “Connecticut Guidelines for Soil Erosion and Sediment Control” and the Contract Documents.

#### **4.4 Waste Stockpile Area Construction**

The Waste Stockpile Area (WSA) shall be constructed at the location(s) shown on the Contract Drawings and in accordance with the Contract Documents. Construction of the WSA shall be completed prior to the initiation of additional controlled material excavation at the Site

#### **4.5 Controlled Material Excavation**

Excavation activities involving Controlled Material performed by the Contractor or subcontractors within the designated Release Areas shall be performed in a manner which considers the health and safety of operating personnel, motorists, the community, and the surrounding environment. Activities involving Controlled Material shall be conducted in accordance with the applicable sections of this Work Plan, applicable Items in the Contract Documents and applicable Federal and State Regulations.

Unless otherwise directed by the Engineer, materials removed from excavations within the Release Areas shall be transported directly from their point of origin on the Site to the project WSA. At the WSA, the material shall be placed in the bins and covered with polyethylene sheeting as shown on the Contract Drawings. The Engineer will sample the stockpiled materials for waste characterization determinations for disposal.

All soils excavated from within Release Areas are considered to be controlled material. Soil contamination has been documented to exist and such contamination generally consists of non-hazardous concentrations of ETPH, PAHs, and, lead. Where contaminated soil is excavated, such soil will not be reusable as backfill and will require special handling, disposal and documentation procedures.

#### **4.6 Disposal of Controlled Material**

The Contractor shall load, transport and dispose of contaminated soil, hereinafter also called “controlled material”, which has been generated from the Site and determined to be contaminated at non-hazardous levels. Such material, after proper characterization by the Engineer, shall be taken from the WSA, loaded, transported to and disposed of at a permitted disposal facility in accordance with the applicable Item in the Contract Documents.

#### **4.7 WSA Management**

The Contractor is responsible for the maintenance of all components of the WSA throughout the Additional Controlled Material Excavation at the Former Parsons Property. Operation and maintenance of the WSA shall be in accordance with the applicable Items of the Contract Documents.

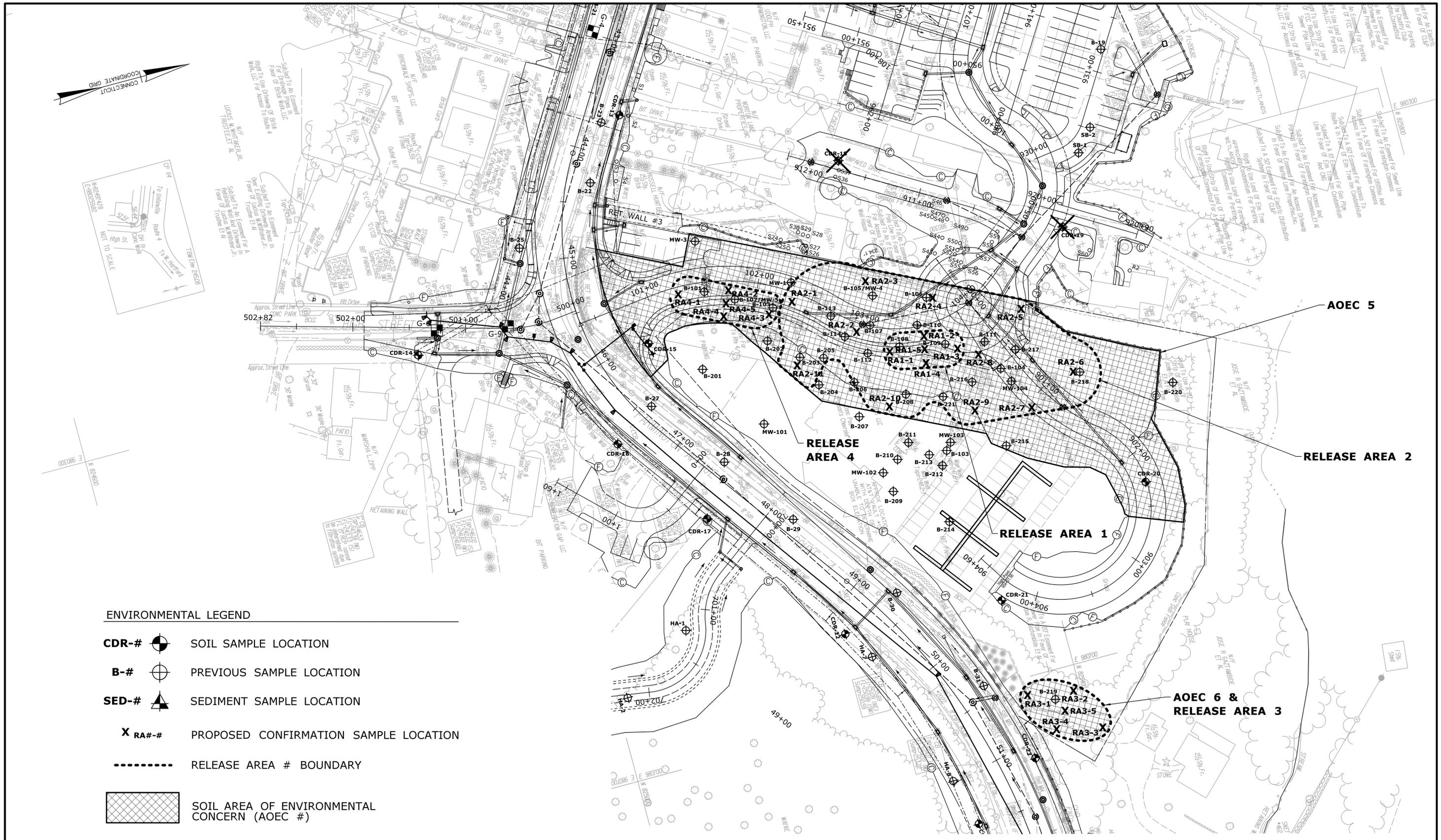
#### **4.8 Site Restoration**

Upon completion of excavation activities within the designated “Release Areas” and receipt of confirmation sample results indicating compliance with the RSRs, the Contractor shall continue with excavation/construction activities as required by the Contract Plans and Cross Sections for the Site.

## **5.0 SUMMARY AND POST-EXCAVATION MONITORING**

Following completion of the excavation activities at the Site, a summary report will be prepared for submittal to CTDOT for use in the future transfer of the property to the Town of Farmington. The RSRs require groundwater monitoring for any remediation, which is conducted to achieve compliance with sections 22a-133k-1 through 22a-133k-3, inclusive, of the Regulations of Connecticut State Agencies (RCSA). A groundwater monitoring plan, including installation of groundwater monitoring wells, will be developed and implemented at the Site to determine the effectiveness of the soil excavation in preventing pollution of groundwater by substances from the release areas. The monitoring plan will consist of quarterly sampling of a minimum of three (3) monitoring wells, to be installed, until compliance with the groundwater protection criteria is achieved. The groundwater monitoring will be discontinued a minimum of three years after compliance with the groundwater protection criteria has been achieved in accordance with the monitoring requirements in the RSRs for a GA area.

## **FIGURES**



**ENVIRONMENTAL LEGEND**

- CDR-#** SOIL SAMPLE LOCATION
- B-#** PREVIOUS SAMPLE LOCATION
- SED-#** SEDIMENT SAMPLE LOCATION
- X RA-#** PROPOSED CONFIRMATION SAMPLE LOCATION
- RELEASE AREA # BOUNDARY
- SOIL AREA OF ENVIRONMENTAL CONCERN (AOEC #)

**FIGURE - 2**


**TABLE**

**Table 1**  
**Confirmation Sampling Rationale**

<b>Release Area ID</b>	<b>Sample ID</b>	<b>Release Area Description</b>	<b>Sample Location and Sample Depth</b>	<b>PAHs</b>	<b>CT ETPH</b>	<b>Total Lead</b>	<b>SPLP Lead</b>
1	RA1-1 to RA1-5	Former USTs Location	From bottom and sides of excavation (See Figure 2) <b>12-feet</b> below grade	<b>X</b>	<b>X</b>		
2	RA2-1 to RA2-11	Former Garage/Clean-up Shop and Service Garage	From bottom and sides of excavation (See Figure 2) <b>6-feet</b> below grade	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
3	RA3-1 to RA3-5	Former Grassed Parking Area	From bottom and sides of excavation (See Figure 2) <b>5-feet</b> below grade				<b>X</b>
4	RA4-1 to RA4-5	Former Paint/Body Shop	From bottom and sides of excavation (See Figure 2) <b>5-feet</b> below grade				<b>X</b>