



**MASSACHUSETTS CONTINGENCY PLAN  
RELEASE ABATEMENT MEASURE PLAN**

**FORMER LEWIS CHEMICAL PROPERTY  
12-24 FAIRMOUNT COURT  
HYDE PARK, MASSACHUSETTS**

**DEP Site Number: 3-1616**

February 20, 2006

Prepared for:

City of Boston Public Facilities Commission  
Acting through its Department of Neighborhood Development  
26 Court Street, 9<sup>th</sup> Floor  
Boston, MA 02108

Prepared by:

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## **CONTENTS**

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 SCOPE OF WORK.....</b>	<b>1</b>
2.1 <i>Person Assuming Responsibility for RAM.....</i>	<i>1</i>
2.2 <i>Description of the Release(s), Site Conditions, and Surrounding Receptors..</i>	<i>1</i>
2.3 <i>RAM Work Plan .....</i>	<i>2</i>
2.3.1 Overall Objectives	2
2.3.2 UST Removal Procedures	2
2.3.3 Post-Excavation Sampling Procedures	3
2.4 <i>Remediation Waste .....</i>	<i>3</i>
2.5 <i>Monitoring Plan.....</i>	<i>3</i>
2.6 <i>Federal, State, and Local Permits.....</i>	<i>4</i>
2.7 <i>Licensed Site Professional.....</i>	<i>4</i>

## **FIGURE**

- 1 Site Map

## 1.0 INTRODUCTION

The City of Boston Public Facilities Commission, through its Department of Neighborhood Development (DND) retained Environmental Strategies & Management, Inc. (ES&M) to conduct a Phase II Comprehensive Site Assessment at the former Lewis Chemical Site, 12-24 Fairmont Court, Hyde Park, Massachusetts (see Figure 1). This project is funded by a Brownfields grant through the United States Environmental Protection Agency (USEPA). As part of the Phase II activities, test pits were excavated on June 1, 2005 to confirm the location of an underground storage tank (UST) in the northwestern portion of the site, between the building and the MBTA rail lines. The UST, which measured 22 feet in length and eight feet in diameter (approximate volume of 8,000 gallons), was uncovered to access the fill port. Upon uncovering, it was determined that approximately 562 gallons of liquid (478 gallons of petroleum and 84 gallons of water) were contained within the tank. Although soil samples collected around the outside of the tank did not indicate significant petroleum impact, DND has elected to remove the tank to further improve environmental conditions at the site. This Release Abatement Measure (RAM) Plan was developed to describe the removal process and associated soil sampling procedures after the UST is removed.

## 2.0 SCOPE OF WORK

The following is site-specific information as required by the Massachusetts Contingency Plan (MCP, 310 CMR 40.0444 (1)):

### 2.1 *Person Assuming Responsibility for RAM*

The City of Boston/Department of Neighborhood Development is responsible for implementation of this RAM. Correspondence should be directed to:

Mr. Scott Shelton, Senior Project Manager  
Department of Neighborhood Development  
26 Court Street; 9<sup>th</sup> Floor  
Boston, MA 02108  
617-635-0103

### 2.2 *Description of the Release(s), Site Conditions, and Surrounding Receptors*

#### Description of Release

As part of a Phase I investigation completed in 2002, monitoring wells ESM-8 and ESM-10 were installed in the vicinity of the UST. Soil samples collected from the borings for these wells and field screened with a photoionization detector indicated impact by volatile organics near the water table. Select soil samples from these borings were submitted to a laboratory for analysis of volatile organics, pesticides, metals, and PCBs; the results of which indicated volatile organics (primarily toluene, ethylbenzene, and xylenes) at concentrations below MCP Method 1 Standards. Groundwater samples collected from these wells also indicated impact by volatile organics, however at

concentrations below MCP Method 1 groundwater standards.

Soil samples collected for field screening near the bottom of the tank at each end during the June 1, 2005 test pits did not indicate petroleum impact, however, the test pits did not extend to the water table, nor were samples collected immediately below the tank. Since the UST is located adjacent to the building, no soil or groundwater samples have been collected immediately downgradient of the tank.

During the 2002 Phase I investigation, a Ground Penetrating Radar (GPR) survey was conducted to determine the presence/locations of USTs and other underground structures. The GPR survey identified the 8,000-gallon UST, and also indicated that a second, smaller tank was present adjacent to the UST. However, several test pits were completed in the area, and no other USTs were found.

#### Site Conditions and Surrounding Receptors

The property is presently vacant and is undergoing assessment with funding from the USEPA. The entire perimeter of the property is surrounded by chain link fence.

Surrounding receptors include the Neponset River to the south of the UST area, and railroad tracks for the MBTA commuter rail to the north.

### **2.3 RAM Work Plan**

#### **2.3.1 Overall Objectives**

The objective of this document is to outline the tank removal procedures that will be employed during completion of the RAM. The RAM Plan also includes collection of soil samples from beneath the tank to further the assessment of this portion of the site.

#### **2.3.2 UST Removal Procedures**

Prior to excavation, DigSafe will be notified and permits will be secured from the City of Boston (Boston Fire Department and Inspectional Services Department). In addition, an overhead electric line is located near the work area, and this line will be de-energized or insulated.

The removal procedure for the UST will be as follows:

- Uncover around the perimeter of the tank and remove enough soil so that the tank can be lifted on one end.
- Soil that is removed around the tank will be field screened with a photoionization detector (PID) equipped with an 11.7 eV lamp using the jar headspace method. Soil that exhibits PID readings below 100 ppmv will be stockpiled for reuse. Soil that exhibits PID readings above 100 ppmv will be separated, placed on and covered with plastic sheeting.
- Once the tank is tilted, a vacuum truck will be used to remove all liquids and

pump-able sludge. This material will be transported to a licensed disposal facility under an MCP Bill of Lading or hazardous waste manifest.

- The tank will be completely removed from the excavation and the air inside the tank will be rendered inert with dry ice. An O<sub>2</sub>/LEL meter will be used to verify that the atmosphere inside the tank is oxygen deficient. Following this, the tank will be cut open and the inside of the tank will be thoroughly cleaned. All residual sludge and sorbent material will be shipped off-site with the liquids. The tank will be transported to a metal scrap yard that is licensed to accept storage tanks.
- The excavation area will be lined with a geofabric and backfilled with clean fill from an off-site source.

### **2.3.3 Post-Excavation Sampling Procedures**

The UST area will be assessed for the presence of contamination in accordance with DEP Policy WSC-402-96 "Underground Storage Tank Closure Assessment Manual" (April 9, 1996). As described on pages 10 through 17, soil samples will be collected from a number of locations for field screening with the PID. Additional samples will also be collected for laboratory analysis. At a minimum, one set of composite soil samples will be collected for laboratory analysis of PCBs and lead (composite of bottom and sidewalls); two discrete samples will be collected for VPH/EPH (one from the bottom, and one from the sidewalls); and one discrete soil sample will be collected for VOCs (highest PID reading). All soil samples will be collected using the methods described in the "Quality Assurance Project Plan" (QAPP) for this site (ES&M, 5/25/2005, revised 8/26, 2005). The specific sampling locations will be determined by the field screening results. All soil samples will be properly preserved, and submitted to a certified laboratory under Chain-of-Custody procedures for analysis of VPH and EPH by the DEP Method; VOCs by EPA Method 8260; PCBs by EPA Method 8082; and lead by EPA 6010B.

### **2.4 Remediation Waste**

Remediation waste (petroleum/water from inside the tank) will be managed as outlined in Section 2.3. A RAM Completion Report will be prepared to document the disposition of all waste generated during implementation of this RAM Plan.

### **2.5 Monitoring Plan**

The UST excavation project outlined under this RAM Plan will be conducted by a qualified subcontractor with appropriately trained personnel, and will be monitored by a representative of ES&M. ES&M will be on site to field screen and to collect the post-removal soil samples. The soil sampling plan is further described in Section 2.3.

## **2.6 Federal, State, and Local Permits**

It is not anticipated that any Federal permits will be required to complete the RAM, nor will any State permits be required since the site is presently Tier Classified. Local permits for the removal will include Boston Fire Department UST removal permit, and Inspectional Services Department excavation permit.

## **2.7 Licensed Site Professional**

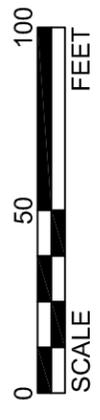
The Licensed Site Professional who prepared this RAM Plan is Douglas A. Heely (LSP No. 9632). Mr. Heely's signature and stamp are found on the RAM Transmittal form.

LEGEND  
RAM PLAN FIELD WORK

 8,000 GAL UST

-  PROPERTY BOUNDARY (APPROXIMATE)
-  FENCE (APPROXIMATELY LOCATED)
-  RAILROAD TRACKS
-  SURVEY BENCHMARK (PK NAIL IN ASPHALT ABOVE SEWER)

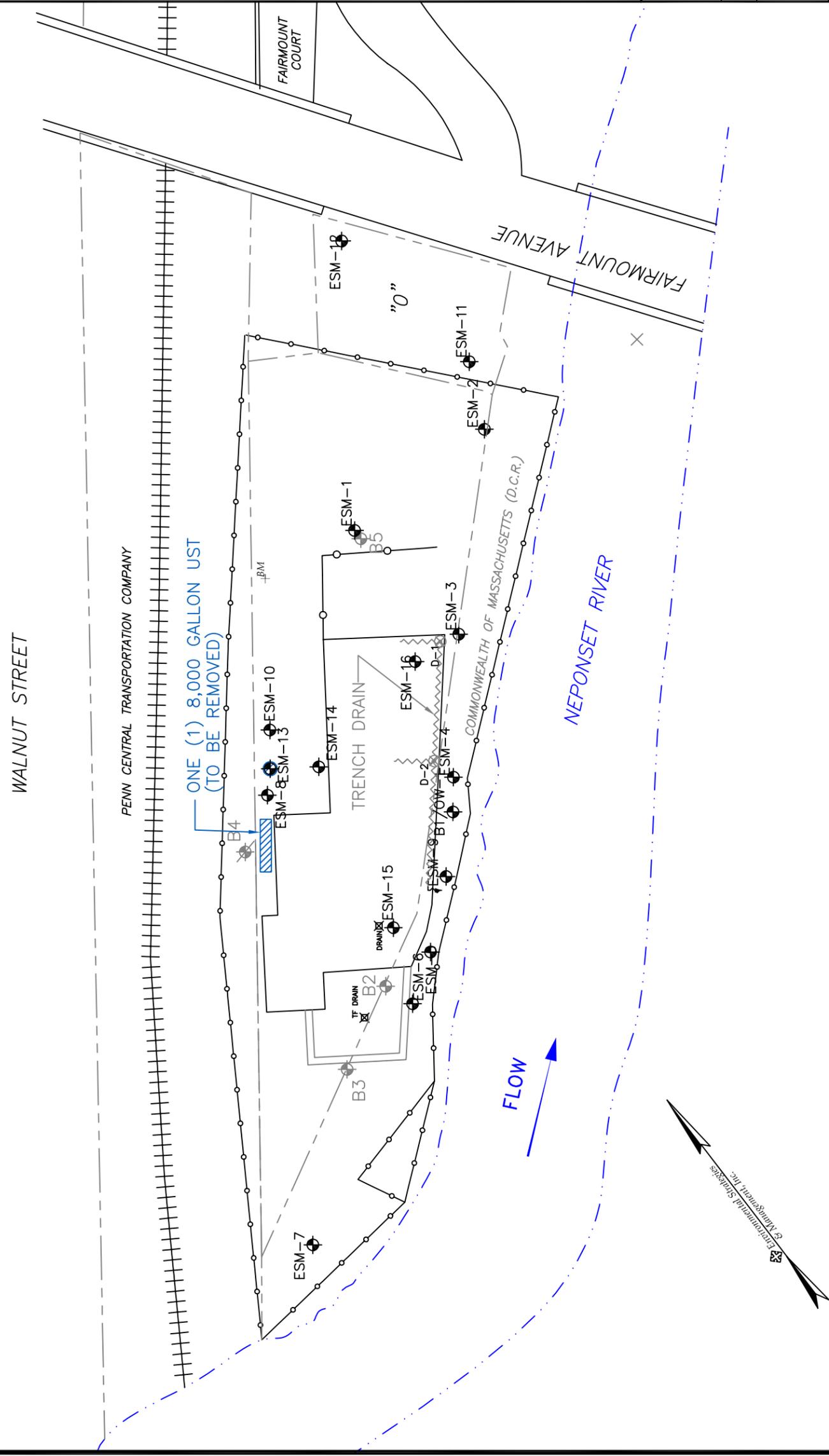
BASE MAP SOURCES: 1] "PLAN OF LAND IN BOSTON, JOSEPH F. PAGE, SURVEYOR, OCTOBER 1974";  
2] FIGURE 2, "SITE SKETCH, LEWIS CHEMICAL CORP".  
3] CITY OF BOSTON ASSESSORS MAP

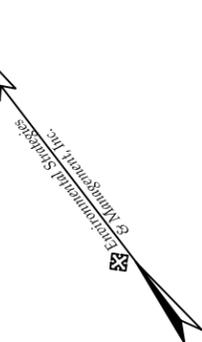


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GAUGING DATE: N/A      DRAWING DATE: 06/13/05      ACAD FILE: DND-LEWIS/RAM1

SITE MAP	
RELEASE ABATEMENT MEASURE PLAN	
CLIENT:	BOSTON DEPARTMENT OF NEIGHBORHOOD DEVELOPMENT
PM:	DH
LOCATION:	"0" AND 12-24 FAIRMOUNT COURT HYDE PARK BOSTON, MA
LSP:	DH
RTN:	DWG: AF      PROJECT NO.: 2004-301
3-1616	FIGURE: 1



 Environmental Strategies & Management, Inc.