

PHASE I ENVIRONMENTAL SITE ASSESSMENT

**Two Vacant Parcels
36 and 38 Colonial Avenue
Dorchester/Boston, MA 02124**



August 2016

TRC Project No: 204940.0031.0000

Prepared For:

Department of Neighborhood
Development
26 Court Street, 8th Floor
Boston, MA 02108

Prepared By:

TRC 650 Suffolk Street
Lowell, MA 01854
(978) 970-5600
(978) 453-1995

Kolleen Shea, Engineer
TRC Environmental Professional

Kevin Kitchin, PG
TRC Project Manager/Geologist

Nicole M. Hudson, Geologist II
Project Reviewer



TABLE OF CONTENTS

	Page No.
EXECUTIVE SUMMARY	1
1.0 INTRODUCTION.....	3
1.1 PURPOSE AND SCOPE OF SERVICES	3
1.2 ADDITIONAL SERVICES	4
1.3 DEVIATIONS TO ASTM E 1527-13 STANDARD	4
2.0 SITE DESCRIPTION.....	5
2.1 SITE LOCATION AND LEGAL DESCRIPTION.....	5
2.2 SITE IMPROVEMENTS	5
2.3 CURRENT AND HISTORICAL SITE USE	5
2.3.1 <i>Current Site Use(s)</i>	5
2.3.2 <i>Previous Owner and Operator Information</i>	5
2.4 PHYSICAL SETTING	6
3.0 USER PROVIDED INFORMATION.....	7
3.1 TITLE & JUDICIAL RECORDS FOR ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS.....	7
3.2 SPECIALIZED KNOWLEDGE	7
3.3 PROPERTY VALUE REDUCTION ISSUES	7
3.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION	7
3.5 REASON FOR CONDUCTING PHASE I.....	7
4.0 RECORDS REVIEW	8
4.1 HISTORICAL USE INFORMATION	8
4.1.1 <i>Site History</i>	8
4.1.2 <i>Adjoining Property History</i>	9
4.1.3 <i>Surrounding Property History</i>	9
4.2 DATABASE REPORT & ENVIRONMENTAL RECORD REVIEW	9
4.2.1 <i>Adjoining & Surrounding Property Record Review</i>	10
4.2.1.1 <i>Surrounding Properties</i>	11
4.3 PREVIOUS REPORTS	13
4.4 OTHER ENVIRONMENTAL RECORD SOURCES	14
5.0 SITE RECONNAISSANCE.....	16
5.1 METHODOLOGY AND LIMITING CONDITIONS	16
5.2 INTERIOR AND EXTERIOR SITE OBSERVATIONS	16
5.2.1 <i>Hazardous Substances</i>	17
5.3 ADJOINING AND SURROUNDING PROPERTIES RECONNAISSANCE	17
5.3.1 <i>Adjoining Properties</i>	17
5.3.2 <i>Surrounding Properties</i>	17
6.0 INTERVIEWS.....	18
7.0 FINDINGS, OPINIONS AND CONCLUSIONS	19
7.1 RECS AND CRECS	19

7.2	HRECS	19
7.3	DE MINIMIS CONDITIONS	20
7.4	DATA GAPS.....	20
7.5	LIMITING CONDITIONS AND DEVIATIONS.....	20
	7.5.1 Accuracy and Completeness	20
	7.5.2 Warranties and Representations.....	21
	7.5.3 Continued Validity/User Reliance	21
	7.5.4 Significant Assumptions.....	22
8.0	REFERENCES.....	23
9.0	ADDITIONAL SERVICES.....	24

Tables

Table 2.1 - Previous Owner and Operator Information	5
Table 4.1 - Site History	8
Table 4.2 - Adjoining Property History	9
Table 4.3 - Surrounding Property History	9
Table 4.4 - Other Environmental Record Sources	14
Table 5.1 - Interior and Exterior Site Observations.....	16
Table 5.2 - Adjoining Properties Reconnaissance	17
Table 8.1 - References Information	23

Figures

Figure 1:	Site Location Map
Figure 2:	Site Layout Plan
Figure 3:	MassDEP Priority Resources Map

Appendices

Appendix A:	Database Radius Report
Appendix B:	User Questionnaire(s)
Appendix C:	Historical Research Documentation
Appendix D:	Photograph Log
Appendix E:	Other reference information
Appendix F:	TRC Staff and Environmental Professional Qualifications/Resumes
Appendix G:	Environmental Professional Statement

EXECUTIVE SUMMARY

Subject to the qualifications and limitations stated in Section 1 of this report, TRC Environmental Corporation (TRC) was retained by the City of Boston Department of Neighborhood Development (DND; also known as “Client” or “User”) to perform a Phase I Environmental Site Assessment (ESA) of the two adjoining parcels located at 36 and 38 Colonial Avenue in Boston/Dorchester, Suffolk County, Massachusetts (herein referred to as the “Site No. 1 and Site No. 2”). TRC’s assessment was conducted in connection with the Client’s planned potential sale of the Sites. The Phase I ESA described in this report was performed in accordance with the scope and limitations of the American Society of Testing and Materials Practice E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13). Limiting conditions and/or deviations from the ASTM E 1527-13 standard are described in Sections 1.3 and 7.6 of this report.

The subject Sites consist of two adjoining parcels identified as 36 Colonial Avenue (Site No. 1) and 38 Colonial Avenue (Site No. 2). Details regarding the Sites is as follows:

- Site No. 1 – an approximately 0.08-acre parcel located at 36 Colonial Avenue in Dorchester, Suffolk County, Massachusetts, in a mixed commercial/residential area and is described by the Boston tax assessor as parcel 1702407000; and
- Site No. 2 – an approximately 0.08-acre parcel located at 38 Colonial Avenue in Dorchester, Suffolk County, Massachusetts, in a mixed commercial/residential area and is described by the Boston tax assessor as parcel 1702409000.

The Sites are currently owned by the City of Boston as vacant lots.

As a result of the Phase I ESA, including but not limited to our visual observation of the Site; review of historical information, environmental databases, and information provided by the User; interviews with current Site representative(s); and TRC’s professional judgment, no evidence of *recognized environmental conditions* (RECs) or *controlled recognized environmental conditions* (CRECs) associated with the Site, as defined by the ASTM E 1527-13 standard were identified.

This Executive Summary is part of this complete report; any findings, opinions or conclusions in this Executive Summary are made in context with the complete report. TRC recommends that the User read the entire report for all supporting information related to findings, opinions and conclusions.

Legal Notice

This document was prepared by TRC solely for the benefit of the User. With regard to third-party recipients of this document, neither TRC, nor the Client, nor the User, nor any of their respective parents, affiliates or subsidiaries, nor any person acting on their behalf: (a) makes any warranty, expressed or implied, with respect to the use of any information or methods disclosed in this document; or (b) assumes any liability with respect to the use of any information or

methods disclosed in this document. Any third-party recipient of this document, by its acceptance or use of this document, releases TRC, the Client, the User, and their parents, affiliates and subsidiaries, from any liability for direct, indirect, economic, incidental, consequential or special loss or damage whether arising in contract, warranty, express or implied, tort, or otherwise, and irrespective of fault, negligence, and strict liability.

1.0 INTRODUCTION

TRC Environmental Corporation (TRC) has prepared this Phase I Environmental Site Assessment (ESA) for City of Boston Department of Neighborhood Development (DND hereinafter “Client” or “User”).

This report was prepared for and may be relied upon by Client for the purposes set forth herein; it may not be relied on by any party other than the Client and reliance may not be assigned without the express approval of TRC. Authorization for third party reliance on this report will be considered by TRC if requested by the Client. TRC reserves the right to deny reliance on this report by third parties.

1.1 Purpose and Scope of Services

The following Phase I ESA was performed for the property located at 36 and 38 Colonial Avenue, Boston/Dorchester, Suffolk County, Massachusetts (hereinafter the “Sites No. 1 and No. 2” respectively). A Site location map is included as **Figure 1**. This Phase I ESA has been prepared by TRC in accordance with the American Society for Testing and Materials E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13) and is intended for the sole use of City of Boston DND (*Notice to Proceed email dated August 11, 2016*).

The purpose of this assessment is to identify *Recognized Environmental Conditions* (RECs) at the Site, as defined by the ASTM E 1527-13 standard. The completion of this Phase I ESA report may be used to satisfy one of the requirements for the User to qualify for the *innocent landowner, contiguous property owner, or bona fide prospective purchaser* limitations pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), thereby constituting *all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial or customary practice* as defined by 42 U.S.C. §9601(35)(B) of CERCLA.

TRC understands that this assessment is not funded with a federal grant awarded under the United States Environmental Protection Agency (U.S. EPA) Brownfields Assessment and Characterization program.

The Scope of Services for this Phase I ESA included the following tasks:

- Site and vicinity reconnaissance;
- Site and vicinity description and physical setting;
- Historical source review and description of historical Site conditions;
- Interviews with owners, operators, and/or occupants of the Site, and/or local officials;
- Review of environmental databases and regulatory agency records;
- Review of previous environmental reports/documentation, as applicable;
- Review of environmental liens, if provided or authorized to obtain by the User; and
- Preparation of a report summarizing findings, opinions and conclusions.

Pursuant to the ASTM E 1527-13 standard, recommendations to conduct Phase II sampling or other assessment activities are not required to be included in this report. TRC can provide such recommendations upon request.

1.2 Additional Services

Items outside the scope of the ASTM E 1527-13 standard include, but are not limited to, the following:

- Asbestos-containing building materials
- Radon
- Lead-based paint
- Lead in drinking water
- Wetlands
- Regulatory compliance
- Cultural and historic resources
- Industrial hygiene
- Health and safety
- Ecological resources
- Endangered species
- Indoor air quality unrelated to *releases of hazardous substances or petroleum products* into the environment
- Biological agents
- Mold

No additional services were performed outside the scope of the ASTM E 1527-13 standard.

1.3 Deviations to ASTM E 1527-13 Standard

Notwithstanding additions to the ASTM E 1527-13 standard, as listed in Sections 1.2 and 9, if applicable, no significant deviations or deletions to the ASTM standard were made during this Phase I ESA.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject Sites consist of two adjoining parcels identified as 36 Colonial Avenue (Site No. 1) and 38 Colonial Avenue (Site No. 2). Details regarding the Sites is as follows:

- Site No. 1 – an approximately 0.08-acre parcel located at 36 Colonial Avenue in Dorchester, Suffolk County, Massachusetts, in a mixed commercial/residential area and is described by the Boston tax assessor as parcel 1701545000; and
- Site No. 2 – an approximately 0.08-acre parcel located at 38 Colonial Avenue in Dorchester, Suffolk County, Massachusetts, in a mixed commercial/residential area and is described by the Boston tax assessor as parcel 1701544000.

The Sites are currently owned by the City of Boston. A Site location map is included as **Figure 1**.

2.2 Site Improvements

There are currently no structures or buildings on the Sites. A Site layout plan is included as **Figure 2**.

2.3 Current and Historical Site Use

2.3.1 Current Site Use(s)

The Sites are currently owned by the City of Boston as vacant lots.

2.3.2 Previous Owner and Operator Information

Based on information provided by the User (Section 3), the historical record review (Section 4), and/or interviews conducted during this Phase I (Section 6), historical Site ownership and operator information is provided in the tables below.

Table 2.1 - Previous Owner and Operator Information

Site Owner – Site No. 1 – 36 Colonial Ave.	From	To
Franklin Wilson	Unknown	c. 1978
City of Boston	c. 1978	Present

Site Operator	Description	From	To
Tenants	3 Story dwelling	c.1930	c. 1978
City of Boston	Vacant Land	c. 1978	Present

Site Owner – Site No. 2 – 38 Colonial Ave	From	To
Charles Hottoian	Unknown	c. 1976
City of Boston	c. 1976	Present

Site Operator	Description	From	To
Tenants	3 Story dwelling	c. 1930	c. 1976
City of Boston	Vacant Land	c. 1976	Present

2.4 Physical Setting

According to the United States Geological Survey (USGS) topographic map, Boston South, Massachusetts quadrangle dated 2012 (**Figure 1**), the Sites are located approximately 1.40 miles north of the Neponset River and approximately two miles west of the Neponset River mouth into the Dorchester Bay. The Sites topographic elevation are approximately 61 feet above mean sea level (MSL), and local topography slopes to the west. The topographic observed at the Sites during the Site reconnaissance is generally flat. The Sites are located north of the Neponset River and west of the Dorchester Bay which is possibly contributing to a localized radial groundwater flow pattern. However, for the purposes of this report based on historical reports reviewed of surrounding properties, TRC assumes direction of shallow groundwater flow is to the southwest. However, a subsurface investigation would be required to determine actual ground water flow direction.

The database radius report supplied by Environmental Data Resources, Inc. (EDR) of Shelton, Connecticut was reviewed to obtain information regarding the dominant soil composition in the Site vicinity. This information is summarized below:

Sites No. 1 and 2

Hydric Status: Unknown
 Soil Surface Texture: Fine sandy loam
 Soil Component Name: Urban land
 Deeper Soil Types: Gravelly loamy sand and very gravelly coarse sand

Please refer to the Geotcheck Physical Setting Source Summary of the EDR report presented in **Appendix A** for further information regarding the soil composition in the Site vicinity. According to EDR and Mass Priority Resource Map (**Figure 3**), the Site is not located in a Federal Emergency Management Agency (FEMA) flood zone.

3.0 USER PROVIDED INFORMATION

According to the ASTM E 1527-13 standard, certain tasks that may help identify the presence of RECs associated with the Site are generally conducted by the Phase I ESA User. These tasks include: providing, or authorizing the *environmental professional* to obtain, recorded land title records for environmental liens or activity and land use limitations (AULs); providing specialized knowledge related to RECs at the Site (e.g., information about previous ownership or environmental litigation); providing commonly known or *reasonably ascertainable* information within the local community about the *property* that is material to RECs in connection with the *property*; and informing the *environmental professional* if, as believed by the User, the purchase price of the *property* is lower than the fair market value due to contamination. A list of requested information was included in TRC's *Notice to Proceed email dated August 11, 2016* (see Section 1.1). A copy of the User questionnaire is included in **Appendix B**.

3.1 Title & Judicial Records for Environmental Liens or Activity and Use Limitations

In addition to reviewing the EDR report (discussed in Section 4.2), local municipal records (Section 4.4), and the Massachusetts Land Records on-line database (Section 4.4), TRC obtained supplemental information regarding AUL-listed properties within the City of Boston from the MassDEP. No evidence of AULs associated with the Sites was identified.

3.2 Specialized Knowledge

The User was not aware of specialized knowledge related to RECs at the Site.

3.3 Property Value Reduction Issues

The User was not aware of property valuation reduction issues regarding the Site.

3.4 Commonly Known or Reasonably Ascertainable Information

A previous Phase I Environmental Site Assessment for both properties was provided to TRC by the User.

3.5 Reason for Conducting Phase I

It is TRC's understanding that the User requires a Phase I for potential sale of the Sites.

4.0 RECORDS REVIEW

4.1 Historical Use Information

Information regarding Site and vicinity historical uses was obtained from various publicly available and practically reviewable sources including:

- Aerial photographs (scale: 1" = 500') dated 1938, 1952, 1955, 1960, 1969, 1970, 1978, 1980, 1985, 1995, 1996, 2008, 2010, and 2012;
- Sanborn fire insurance maps dated 1908, 1931, 1950, 1989, 1990, 1993, 1994, 1995, 1996, 1998, and 2002;
- Topographic maps dated 1893, 1903, 1943, 1944, 1946, 1949, 1954, 1956, 1970, 1979, 1987, and 2012;
- City directories dated 1930, 1935, 1945, 1950, 1960, 1965, 1973, 1986, 1992, 1995, 1999, 2003, 2008, and 2013;
- Local municipal records;
- An environmental database report; and
- Interviews with Site representative(s) and regulatory agency official(s), as necessary.

Historical research documentation is included in **Appendix C**.

4.1.1 Site History

Operational History

Table 4.1 - Site History

Year	Site History – Site No. 1 – 36 Colonial Ave
c. 1908 - c. 1931	The Site property is undeveloped land.
c. 1931 – c.1978	A three-story dwelling appears at the Site.
c. 1978 – Present	The dwelling was removed and the Site is vacant land until the present.

Year	Site History – Site No. 2 – 38 Colonial Ave
c. 1908 - c. 1931	The Site property is undeveloped land.
c. 1931 – c.1950	A three-story dwelling and shed appear at the Site.
c. 1978 – Present	The dwelling and shed were removed and the Site is vacant land until present day.

It does not appear that topographic contours in the Sites area have significantly changed during the time period reviewed.

Hazardous Substances

No hazardous substances including raw materials; finished products and formulations; hazardous wastes; hazardous constituents and pollutants including intermediates and byproducts appear to be historically present at the Sites or identified during site reconnaissance.

4.1.2 Adjoining Property History

Table 4.2 - Adjoining Property History

Direction	Adjoining Property History – Site No. 1 – 36 Colonial Ave
North	Colonial Ave. has been present since the early 1900's; beyond this area has consisted of two-story and 3 story dwellings since c. 1931.
East	Since c.1931 until present there has been a three-story dwelling.
South	Since c.1931 until present there has been a two-story dwelling.
West	Site No. 2 as described in Table 4.1.

Direction	Adjoining Property History – Site No. 2 – 38 Colonial Ave
North	Colonial Ave. has been present since the early 1900's; beyond this area has consisted of two-story and three-story dwellings since c. 1931.
East	Site No. 1 as described in Table 4.1.
South	Since 1931 until present there has been a two-story dwelling.
West	A three-story dwelling appears from c. 1931 until c.1950. The property appears vacant land from c. 1951 until 1996, when a three-story dwelling appears until present.

4.1.3 Surrounding Property History

Table 4.3 - Surrounding Property History

Year	Surrounding Property History
1888 – Present	Surrounding properties generally appear as multi-family residential with few properties becoming vacant and/or developed during various years. There are schools appearing throughout various years.

4.2 Database Report & Environmental Record Review

A database search report that identifies properties listed on state and federal databases within the ASTM-required radii of the Site was obtained from EDR and is included in **Appendix A**.

The environmental database report identified 189 properties/listings. These properties included those that could be mapped and those that could not (i.e., orphan properties).

4.2.1 Adjoining & Surrounding Property Record Review

TRC evaluated the following factors to determine whether additional environmental records should be reviewed with respect to the potential for contaminant migration from the adjoining and surrounding properties:

- (1) Whether the property is up-gradient or down-gradient of the Site vis-à-vis **ground water migration** based on the local topography, and the assumed ground water depth and southwest shallow ground water flow direction;
- (2) Whether the property is up-gradient or down-gradient of the Site vis-à-vis **vapor migration** based on readily available information pursuant to the ASTM E 1527-13 standard including soil and geological characteristics; contaminant characteristics; contaminated plume migration data; and significant conduits that might provide preferential pathways for vapor migration such as major utility corridors, sanitary sewers, storm sewers, and significant natural conduits such as Karst terrain (vapor migration may also be influenced by the age and design of infrastructure features associated with these conduits);
- (3) Property case status (i.e., Massachusetts Department of Environmental Protection [MassDEP] has issued a No Further Action letter or Response Action Outcome [RAO] Statement [or current equivalent] has been submitted);
- (4) Type of database and whether the presence of contamination is known; and
- (5) The distance between the listed property and the Site. Due to heavily populated area surrounding the Site. As allowed by ASTM E1527-13, TRC adjusted ASTM-specified approximate minimum search distances for governmental records due to the Site's densely-developed urban setting. Database listings were reviewed for properties located within a 1/8-mile radius of the Site.

Based on this evaluation, TRC limited the review of additional environmental records to the properties listed below, since the potential for contamination to be migrating to the Site from the other properties identified by the database search is considered low.

4.2.1.1 Surrounding Properties

Surrounding property information included in the database search report is summarized in the following table(s):

Facility Name(s) and/or Address(es)	9-11 Mallard Ave./ 239-241 Talbot Ave., Dorchester, MA 02124
Approximate Location Relative to Site	Approximately 283/381 feet north from the Sites.
EDR Map No(s).	A1 and A7
Database(s)	SHWS and Release
Description/ID No(s).	RTNs 3-0027127 and 3-0028964
Presumed Hydrogeologic Setting	Up-Gradient
Database Review Summary	<p><u>RTN 3-0027127</u>: According to the EDR report and MassDEP files, a concentration of hydrocarbons in soil exceeding applicable MassDEP Method 1 S-1 standards on the western portion of property was reported to MassDEP on September 21, 2007, at which time Release Tracking Number (RTN) 3-0027127 was assigned. The sources of the contamination are attributed to contaminated fill onsite and the property's historic use as an automobile sales lot. Remedial actions included the initiation of a Release Abatement Measure (RAM), soil excavation, and confirmatory soil sampling. A Class A-2 RAO was submitted for the release on February 20, 2008, indicating that a permanent solution has been achieved, but contamination has not been reduced to background.</p> <p><u>RTN 3-0028964</u>: According to the EDR report and MassDEP files, a concentration of hydrocarbons in soil exceeding Mass DEP Method 1 S-1 standards on the northern portion of the property was reported to MassDEP on December 18, 2009, at which time RTN 3-0028964 was assigned. Remedial actions included the initiation of a RAM, soil excavation, and confirmatory soil sampling. A Class A-2 RAO was submitted for the release on December 18, 2010, indicating that a permanent solution has been achieved, but contamination has not been reduced to background.</p> <p>Based on the regulatory status, the releases associated with RTNs 3-0027127 and 3-0028964 are not expected to impact subsurface conditions at the Sites.</p>

Facility Name(s) and/or Address(es)	270 Talbot Ave, Dorchester, MA 02124
Approximate Location Relative to Site	Approximately 355 feet north northeast of the Sites.
EDR Map No(s).	A5 and A6
Database(s)	US Brownfields; FINDS; ECHO; SHWS; LUST and Release

Description/ID No(s).	US Brownfields # 1009437650 and RTN 3-0029889
Presumed Hydrogeologic Setting	Up-gradient
Database Review Summary	<p>According to the EDR report and MassDEP files, concentrations of tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene, and vinyl chloride in exceedance of applicable Reportable Concentration in Groundwater (RCGW-2) was reported to MassDEP on March 23, 2011, at which time RTN 3-0029889 was assigned. Further investigation included soil, groundwater, and sub slab vapor sampling along with documented groundwater flow to delineate contamination. The downgradient off-site monitoring well (MW-113) recently indicated detected levels of chlorinated solvents, however below the MCP Method 1 standards. The status of the RTN was labeled Tier 2 Phase III as of March 23, 2012. Further MCP response actions are required to address impacted soil and groundwater at the property. In 2015, a RAM completion report was submitted for the property, after removal of two abandoned underground storage tanks (USTs).</p> <p>Based on the potential radial groundwater flow in area and data discussed above with regards to downgradient monitoring well MW-113, the release associated with RTN 3-0029889 is not expected to impact subsurface conditions at the Sites.</p>

Facility Name(s) and/or Address(es)	246 Talbot Ave., Dorchester, MA 02125
Approximate Location Relative to Site	Approximately 381 feet north of the Sites.
EDR Map No(s).	A8
Database(s)	LUST, Release, and ENF
Description/ID No(s).	RTN 3-0003254
Presumed Hydrogeologic Setting	Up-gradient
Database Review Summary	<p>According to the EDR report and Mass DEP files, a release of petroleum from a leaking UST was reported to MassDEP on January 11, 1989, at which time RTN 3-0003254 was assigned. According to MassDEP there are no records of response actions being conducted to date. As of August 2, 1996, the release type had been classified as a Tier 1D, after MassDEP did not receive a RAO related to property.</p> <p>Based on the potential radial groundwater flow in area and date of release, the release associated with RTN 3-0003254 is not expected to impact subsurface conditions at the Sites.</p>

Facility Name(s) and/or Address(es)	31 and 35 Elmhurst St., Dorchester, MA 02124
Approximate Location Relative to Site	Approximately 488 feet south of the Sites.

EDR Map No(s).	B9
Database(s)	SHWS and Release
Description/ID No(s).	RTN 3-0024632
Presumed Hydrogeologic Setting	Down-gradient
Database Review Summary	<p>According to the EDR report, a concentration of 4.2 milligrams per kilograms (mg/kg) of 2-methylnaphthalene and a concentration of 370 mg/kg aromatic hydrocarbons (carbon ranges C11 thru C22) was reported to MassDEP on February 5, 2005, at which time RTN 3-0024632 was assigned. A Class B-1 RAO was submitted for the release on February 10, 2006, indicating that remedial actions have not been conducted because a level of No Significant Risk exists.</p> <p>Based on the regulatory status and presumed groundwater flow direction, the release associated with RTN 3-0024632 is not expected to impact subsurface conditions at the Sites.</p>

Facility Name(s) and/or Address(es)	109 Norfolk St., Dorchester, MA 02124
Approximate Location Relative to Site	Approximately 668 feet south of the Sites.
EDR Map No(s).	B17, B18, and B19
Database(s)	SHWS, Release, ENF, Financial Assurance, HW GEN
Description/ID No(s).	RTN 3-0021632
Presumed Hydrogeologic Setting	Down-gradient
Database Review Summary	<p>According to the EDR report and MassDEP files, an undisclosed amount of oil and/or hazardous material was released and was reported to MassDEP on April 2, 2002, at which time RTN 3-0021632 was assigned. Remedial actions included soil excavation, offsite disposal, and confirmatory sampling. A Class A-2 RAO was submitted for the release on April 2, 2003, indicating that a permanent solution has been achieved, but contamination has not been reduced to background.</p> <p>Based on the regulatory status and distance from the Sites, the release associated with RTN 3-0021632 is not expected to impact subsurface conditions at the Sites.</p>

4.3 Previous Reports

The following environmental reports were reviewed by TRC:

- March 5, 2002, Response Action Outcome Statement & Limited Removal Action, 109 Norfolk Street, Dorchester, MA; Prepared by Finsness Environmental;

- April 25, 2002, URGENT LEGAL MATTER: PROMPT ACTION NECESSARY, 109 Norfolk Street, Dorchester, MA; Prepared by Mary Bester-Colby;
- October 15, 2004, *Phase I Environmental Site Assessment 36 and 38 Colonial Ave.*; Prepared by Environmental Strategies & Management, Inc.;
- November 1, 2007, *Response Action Outcome Statement 9-11 Mallard Avenue, Dorchester, MA*; Prepared by IES, Inc.;
- April 14, 2010, *Response Action Outcome, 9-11 Mallard Avenue. 239-241 Talbot Avenue, Dorchester, MA*; Prepared by IES Inc.;
- June, 2014, *Phase II Comprehensive Site Assessment, 270 Talbot Avenue Dorchester (Boston), Massachusetts*; Prepared by Woodard & Curran; and
- June 2015, *Release Abatement Measure Completion Report, UST Removal 270 Talbot Avenue Dorchester, MA*; Prepared by Woodard and Curran.

Information provided in these reports is summarized throughout this report.

4.4 Other Environmental Record Sources

Per the ASTM standard, local or additional state records were reviewed to enhance and supplement the ASTM-required federal and state records reviewed and discussed earlier in this report. These additional records include state agency lists of: waste disposal facilities; brownfield properties; hazardous waste/contaminated facilities; registered storage tanks; records of emergency release reports; and records of contaminated public wells. Local sources that were contacted to obtain this information include: Department of Health; Fire Department; Building Permit/Inspection Department; and land records (for AULs). Information from these sources is discussed below:

Table 4.4 - Other Environmental Record Sources

MUNICIPAL/STATE REGULATORY AGENCY/ DEPARTMENT	Available Information – Site No. 1 – 36 Colonial Ave.
Department of Health/ Environmental Division	TRC contacted the City of Boston Health Department. No environmentally pertinent information was identified.
Fire Department	TRC contacted the City of Boston Fire Department. No environmentally pertinent information was identified.
Building Permit/Inspection/ Construction/Engineering Department	TRC accessed the City of Boston Building Department online database. No environmentally pertinent information was identified.
Land Records	The TRC searched the Suffolk County Registry of Deeds online data base and found one “Instrument of Taking” document.
State Agency List(s)	TRC reviewed the online MassDEP UST Query Tool on August 24, 2016. No records for USTs were identified.

MUNICIPAL/STATE REGULATORY AGENCY/ DEPARTMENT	Available Information – Site No. 2 – 38 Colonial Ave.
Department of Health/ Environmental Division	TRC contacted the City of Boston Health Department. No environmentally pertinent information was identified.
Fire Department	TRC contacted the City of Boston Fire Department. No environmentally pertinent information was identified.
Building Permit/Inspection/ Construction/Engineering Department	TRC accessed the City of Boston Building Department online database. No environmentally pertinent information was identified.
Land Records	The TRC searched the Suffolk County Registry of Deeds online data base and found one “Instrument of Taking” document.
State Agency List(s)	TRC reviewed the online MassDEP UST Query Tool on August 24, 2016. No records for USTs were identified.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

Ms. Nicole M. Hudson, Geologist II and Ms. Kolleen Shea, Engineer, of TRC conducted a Site reconnaissance of accessible areas on and around the Site on August 16, 2016 for the purpose of identifying potential RECs, and were not accompanied by a representative of DND. Photographs taken during the reconnaissance are provided in **Appendix D**. A Site layout plan is included as **Figure 2**.

5.2 Interior and Exterior Site Observations

Unless otherwise noted, the items listed in the table below appeared in good condition with no visual evidence of staining, deterioration or a discharge of hazardous materials; and there are no records of a release in these areas. Items where further description is warranted are discussed in the section(s) following the table.

Table 5.1 - Interior and Exterior Site Observations

Item	Present (Current/ Historic/ No)	Description Site Nos. 1 and 2
Hazardous material storage or handling areas	No	Not Applicable
Aboveground storage tanks (ASTs) and associated piping	No	Not Applicable
Underground storage tanks (USTs) and associated piping	No	Not Applicable
Drums & containers (≥ 5 gallons)	No	Not Applicable
Odors	No	Not Applicable
Pools of liquid, including surface water bodies and sumps (handling hazardous substances or substances likely to be hazardous only)	No	Not Applicable
Polychlorinated Biphenyls (PCBs) / Transformers	No	Not Applicable
Stains or corrosion	No	Not Applicable
Drains & sumps	No	Not Applicable
Pits, ponds & lagoons	No	Not Applicable
Stressed vegetation	No	Not Applicable
Historic fill or any other fill material	No	Not Applicable
Wastewater (including storm water or any discharge into a drain, ditch, underground injection system, or stream on or adjacent to the Site)	No	Not Applicable
Wells (including dry wells, irrigation wells, injection wells, abandoned wells, or other wells)	No	Not Applicable
Septic systems or cesspools	No	Not Applicable

Table 5.1 - Interior and Exterior Site Observations

Item	Present (Current/Historic/No)	Description Site Nos. 1 and 2
Other	Current	Site No. 2– Partially fenced.
Other	Current	Site No. 1 and 2 – The Sites have landscape and construction debris.

5.2.1 Hazardous Substances

No hazardous substances including raw materials; finished products and formulations; hazardous wastes; hazardous constituents and pollutants including intermediates and byproducts that are currently present at the Sites or identified during site reconnaissance.

5.3 Adjoining and Surrounding Properties Reconnaissance

5.3.1 Adjoining Properties

During the Site reconnaissance, TRC viewed the adjoining properties from the Site and publicly accessible areas (e.g., public roadways, etc.).

Table 5.2 - Adjoining Properties Reconnaissance

Direction from Site	Current Land Use Description – Site No. 1 -36 Colonial Ave.
North	Colonial Avenue beyond, a residential patio area
East	Residential building
South	Residential building with shed in back yard
West	Site No. 2

Direction from Site	Current Land Use Description – Site No. 2 -38 Colonial Ave.
North	Colonial Avenue beyond, a residential patio area
East	Site No. 1
South	Residential building with shed adjacent to Site
West	Residential building

5.3.2 Surrounding Properties

Surrounding properties of the Sites generally include residential to the north, south, east, and west.

6.0 INTERVIEWS

The following persons were interviewed to obtain historically and/or environmentally-pertinent information regarding RECs associated with the Site. Interview documentation is included in **Appendix B**.

- Mr. James Smith (City of Boston - DND - Senior Project Manager) – *Key Site Manager* (as defined by the ASTM standard and identified by the property Owner and User)

The information provided by each is discussed and referenced in the text or provided below. Other references and sources of information are included in **Appendix E**.

7.0 FINDINGS, OPINIONS AND CONCLUSIONS

Potential findings can include RECs, historical RECs (HRECs), controlled RECs (CRECs) and *de minimis* conditions, pursuant to the ASTM E 1527-13 standard.

RECs are defined as the presence or likely presence of any *hazardous substances* or *petroleum products* in, on, or at a *property*: (1) due to any *release* to the environment; (2) under conditions indicative of a *release* to the *environment*; or (3) under conditions that pose a *material threat* of a future *release* to the *environment*.

CRECs are defined as a REC resulting from a past *release* of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls (for example, *property* use restrictions, *activity and use limitations*, *institutional controls*, or *engineering controls*).

HRECs are defined as a past *release* of any *hazardous substances* or *petroleum products* that has occurred in connection with the *property* and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the *property* to any required controls (for example, *property* use restrictions, *activity and use limitations*, *institutional controls*, or *engineering controls*).

De minimis conditions are defined as a condition that generally does not present a threat to human health or the *environment* and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not RECs nor CRECs.

TRC has performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13 at two parcels located in Boston/Dorchester, Suffolk County, Massachusetts (herein referred to as the “Site No. 1 and Site No. 2”), see **Appendices F and G**. Deviations from this standard are described in Sections 1.3 and 7.5 of this report.

7.1 RECs and CRECs

This assessment has revealed no evidence of RECs (including CRECs) in connection with the Site.

7.2 HRECs

This assessment has revealed no evidence of HRECs in connection with the Site.

7.3 De Minimis Conditions

This assessment has revealed no evidence of *de minimis* conditions in connection with the Site, except for the following:

- Potential dumping (construction debris, landscaping debris) on Site Nos. 1 and Site No. 2.

7.4 Data Gaps

TRC has made an appropriate inquiry into the commonly known and reasonably ascertainable resources concerning the historical ownership and use of the Site back to the first development per 40 CFR Part 312.24 (*Reviews of Historical Sources of Information*). Data gaps identified during this assessment include the following:

1. Ownership records prior to City of Boston obtaining Site No. 1 and Site No. 2.

Based on EDR report and state databases, Data Gap No. 1 is not considered *significant* as historical records review that the Sites are primarily used as residential since the late 1800s.

7.5 Limiting Conditions and Deviations

7.5.1 Accuracy and Completeness

The ASTM E 1527-13 standard recognizes inherent limitations for Phase I ESAs that apply to this report, including:

- Uncertainty Not Eliminated – No Phase I ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Data gaps identified during this Phase I ESA are listed in Section 7.4.
- Not Exhaustive – A Phase I ESA is not an exhaustive investigation.
- Past Uses of the Property – A review of standard historical sources at intervals less than five years is not required.

The Client is advised that the Phase I ESA conducted at the Site is a limited inquiry into a property's environmental status, cannot wholly eliminate uncertainty, and is not an exhaustive assessment to discover every potential source of environmental liability at the Site. Therefore, TRC does not make a statement i) of warranty or guarantee, express or implied for any specific use; ii) that the Site is free of RECs or environmental impairment; iii) that the Site is "clean"; or iv) that impairments, if any, are limited to those that were discovered while TRC was performing the Phase I ESA. This limiting statement is not meant to compromise the findings of this report; rather, it is meant as a statement of limitations within the ASTM standard and intended scope of this assessment. Specific limiting conditions identified during the Site reconnaissance are described in Section 5.1. Subsurface conditions may differ from the conditions implied by

surface observations, and can be evaluated more thoroughly through intrusive techniques that are beyond the scope of this assessment. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other construction purposes.

This report presents TRC's site reconnaissance observations, findings, and conclusions as they existed at the time of the Site reconnaissance. TRC makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. TRC makes no guarantees as to the accuracy or completeness of information obtained from others during the course of this Phase I ESA report. It is possible that information exists beyond the scope of this assessment, or that information was not provided to TRC. Additional information subsequently provided, discovered, or produced may alter findings or conclusions made in this Phase I ESA report. TRC is under no obligation to update this report to reflect such subsequent information. The findings presented in this report are based upon reasonably ascertainable information and observed Site conditions at the time of the assessment.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not assessed. Regardless of the findings stated in this report, TRC is not responsible for consequences or conditions arising from facts that were not fully disclosed to TRC during the assessment.

An independent data research company provided the government agency database referenced in this report. Information regarding surrounding area properties was requested for approximate minimum search distances and was assumed to be correct and complete unless obviously contradicted by TRC's observations or other credible referenced sources reviewed during the assessment.

TRC is not a professional title insurance or land surveyor firm and makes no guarantee, explicit or implied, that any land title records acquired or reviewed, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

7.5.2 Warranties and Representations

This report does not warrant against: (1) operations or conditions which were not evident from visual observations or historical information provided; (2) conditions which could only be determined by physical sampling or other intrusive investigation techniques; (3) locations other than the client-provided addresses and/or legal parcel description; or (4) information regarding off-site location(s) (with possible impact to the Site) not published in publicly available records.

7.5.3 Continued Validity/User Reliance

This report is presumed to be valid, in accordance with, and subject to, the limitations specified in the ASTM E 1527-13 standard, for a period of 180 days from completion, or until the Client obtains specific information that may materially alter a finding, opinion, or conclusion in this

report, or until the Client is notified by TRC that it has obtained specific information that may materially alter a finding, opinion, or conclusion in this report. Additionally, pursuant to the ASTM E 1527-13 standard, this report is presumed valid if completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction.

7.5.4 Significant Assumptions

During this Phase I ESA, TRC relied on database information; interviews with Site representatives, regulatory officials, and other individuals having knowledge of Site operations; and information provided by the User as requested in our authorized Scope of Work. TRC has assumed that the information provided is true and accurate. Reliance on electronic database search reports is subject to the limitations set forth in those reports. TRC did not independently verify the information provided. TRC found no reason to question the validity of the information received unless explicitly noted elsewhere in this report. If other information is discovered and/or if previous reports exist that were not provided to TRC, our conclusions may not be valid.

8.0 REFERENCES

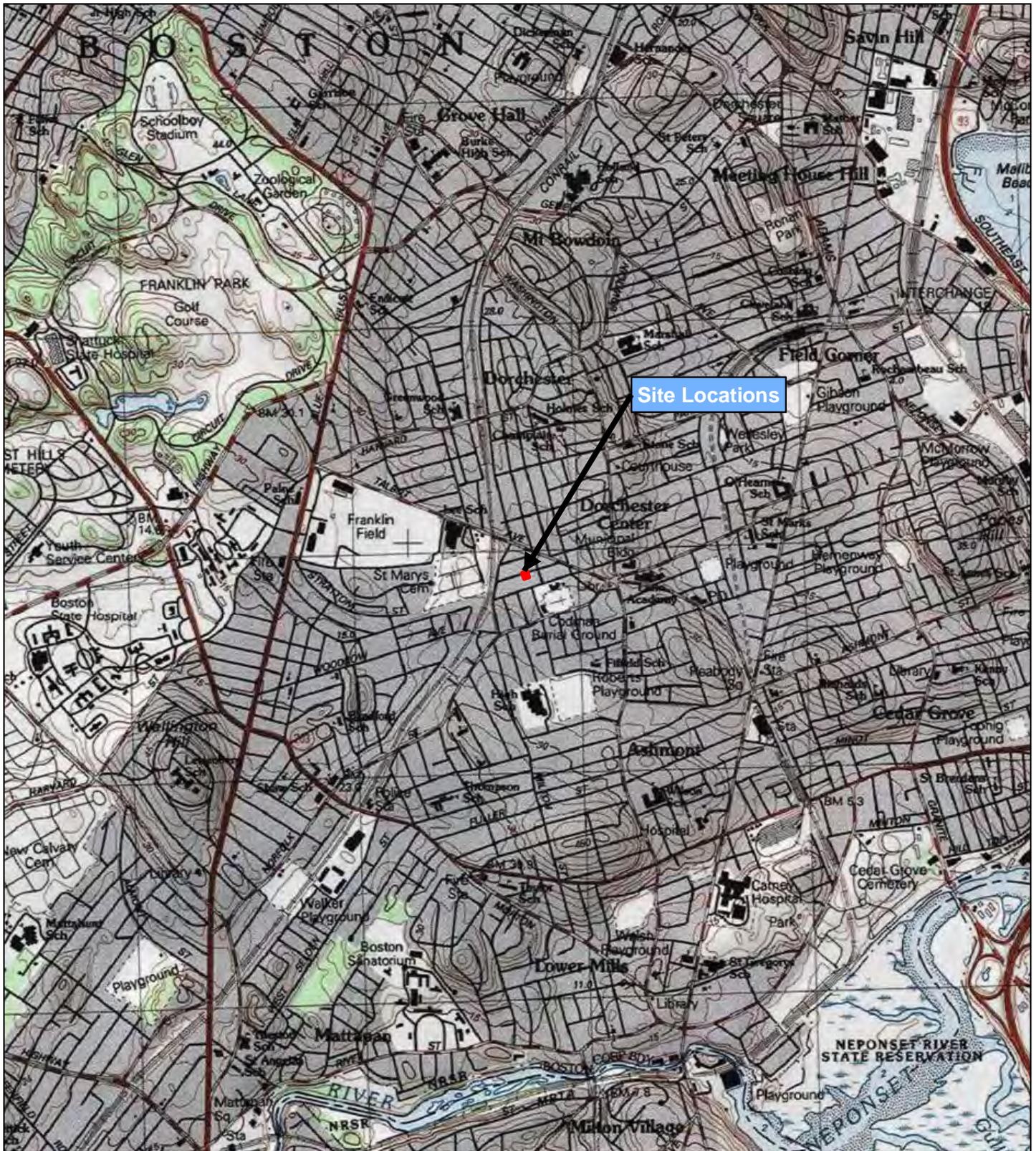
Table 8.1 - References Information

Description/Title of Document(s) Received or Agency Contacted	Date Information Request Filled/Date of Agency Contact	Information Updated	Reference Source
United States Geological Survey <i>7.5 Minute Topographic Quadrangle: Boston South</i> , dated 2012	NA	Current	USGS
Topographic maps dated 1893, 1903, 1943, 1944, 1946, 1949, 1954, 1956, 1970, 1979, 1987, and 2012;	Request No. 4698354.4 on August 12, 2016	Current	EDR
Aerial photographs (scale: 1" = 500') 1938, 1952, 1955, 1960, 1969, 1970, 1978, 1980, 1985, 1995, 1996, 2008, 2010, and 2012;	Request No. 4698354.9 on August 12, 2016	Current	EDR
Sanborn fire insurance maps dated 1908, 1931, 1950, 1989, 1990, 1993, 1994, 1995, 1996, 1998, and 2002;	Request No. 4698354.3 on August 12, 2016	Current	EDR
City directories dated 1930, 1935, 1945, 1950, 1960, 1965, 1973, 1986, 1992, 1995, 1999, 2003, 2008, and 2013;	Request No. 46983545 on August 12, 2016	Current	EDR
American Society for Testing and Materials (ASTM). <i>Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process</i> , ASTM Designation E1527-13. 2013.	NA	Current	ASTM
MassDEP Reportable Release Sites	August 2016	Current	MassDEP Website (eDEP)
Historical Reports	August 2016	Current	See Section 4.3
Radius Map Report / EDR	Request No. 04698354,2 on August 12, 2016	Current	Multiple federal and state agencies

9.0 ADDITIONAL SERVICES

No additional services were performed during this Phase I ESA.

FIGURES

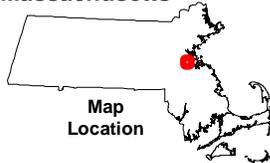


Approximate Site Boundary



Wannalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

Massachusetts



Map Location

SITE LOCATION MAP

**36 AND 38 COLONIAL AVE
DORCHESTER, MA**

FIGURE 1

AUGUST 2016

Base Map: Copyright:© 2013 National Geographic Society, i-cubed

**APPENDIX A:
DATABASE RADIUS REPORT**

**APPENDIX B:
USER QUESTIONNAIRE(S)**



PHASE I ENVIRONMENTAL SITE ASSESSMENT INTERVIEW QUESTIONNAIRE

SITE INFORMATION			
Site Name:	36-38 Colonial Ave	Site Address:	
INTERVIEWEE INFORMATION			
Name :	James Smith	Role:	
Title:	Sr. Environmental Compliance Mgr	Company/Agency:	Boston DND
Interview Date:	8/11/16	Years Associated with Site:	5
REQUESTED SITE KNOWLEDGE AND DOCUMENTATION			
1.) TRC requests knowledge and copies of <i>Helpful Documents</i> (if any) as described in ASTM E1527-13, Section 10.8.1. Such documents include: environment site assessment reports, environment compliance and audit reports, environmental permits, registrations for on-Site petroleum storage tanks, reports regarding Site hydrogeologic conditions, notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the Site or relating to environmental liens encumbering the Site, hazardous waste generator notices or reports, geotechnical studies, risk assessments, and activity and land use limitations (AULs).			
Previous Phase I ESA provided			
2.) TRC requests knowledge and supporting documentation (if any) of regulatory proceedings involving the Site. Such proceedings may include: (a) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Site; (b) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site; and (c) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.			
None			
3.) TRC requests additional specialized knowledge involving the Site regarding miscellaneous historically and/or environmentally-pertinent information.			
None			
4.) TRC requests knowledge regarding the storage, current use, or historic use of oil and/or hazardous materials at the Site or surrounding properties (including underground or aboveground petroleum storage for heating/fuel purposes).			
None			

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
USER QUESTIONNAIRE**

Pursuant to the American Society for Testing and Materials E 1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E 1527-13), in order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the User must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The User should provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete.

The "User" is defined in the ASTM E 1527-13 standard as *the party seeking to use Practice E 1527 to complete an environmental site assessment of the Site. A User may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager.*

Thank you for taking the time to complete this questionnaire. If you have any questions, please call Kevin Kitchin at (603) 621-9259 x27 or e-mail kkitchin@trcsolutions.com.

Date: 8/11/16

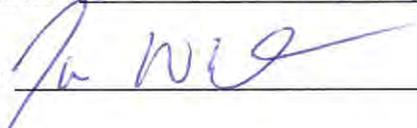
User Name: James Smith

Company: Boston DND

Address: 26 Court St
Boston, MA 02108

Telephone No.: 617-635-0103

E-mail Address: james.smith@boston.gov

Signature: 

Site Name & Address: 36-38 Colonial Ave

Purpose of ASTM Phase I (potential purchase, potential sale, re-finance, update the environmental condition of the Site, Lease termination or initiation, etc.)

(1.) Environmental cleanup liens that are filed or recorded against the Site (40 CFR 312.25)

Did a search of recorded land title records (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed or recorded against the Site under federal, tribal, state or local law?

Yes

No

NOTE 1 — In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

(2.) **Activity and land use limitations (AULs) that are in place on the Site or that have been filed or recorded against the Site (40 CFR 312.26(a)(1)(v) and (vi))**

Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the Site and/or have been filed or recorded against the Site under federal, tribal, state or local law?

Yes No

(3.) **Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protection (LLP) (40 CFR 312.28)**

Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes No

(4.) **Relationship of the purchase price to the fair market value of the Site property (40 CFR 312.29)**

Does the purchase price being paid for the Site property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

Yes No

N/A

(5.) **Commonly known or reasonably ascertainable information regarding the Site property (40 CFR 312.30)**

Are you aware of commonly known or reasonably ascertainable information about the Site that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,

- (a.) Can you provide any information regarding the past uses of the Site?
- (b.) Can you provide any information regarding specific chemicals that are present or once were present at the Site?
- (c.) Can you provide any information regarding spills or other chemical releases that have occurred at the Site?
- (d.) Can you provide any information regarding any environmental cleanups that have occurred at the Site?

Yes No

Previous Phase I ESA provided

(6.) **The degree of obviousness of the presence or likely presence of contamination at the Site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)**
 Based on your knowledge and experience related to the Site are there any obvious indicators that point to the presence or likely presence of releases at the Site?

Yes No

(7.) **Proceedings Involving the Site**
 Are you aware of: (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the Site; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the Site; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products at the Site?

Yes No

(8.) **Questions Regarding Helpful Documents**

Are you aware of the presence of any of the documents listed below and, if so, whether copies can and will be provided to TRC within reasonable time and cost constraints?

- | | Yes | No |
|---|-------------------------------------|-------------------------------------|
| - Environment site assessment reports | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - Environment compliance audit reports | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Environmental permits (e.g., solid waste disposal permits; hazardous waste disposal permits; wastewater permits; National Pollutant Discharge Elimination System [NPDES] permits; or underground injection permits) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Registrations for underground and aboveground storage tanks | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Registrations for underground injection systems | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Material Safety Data Sheets (MSDSs) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Community Right-To-Know plan(s) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc., | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Reports regarding hydrogeologic conditions at the Site and surrounding area | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Notices or other correspondence from any government agency regarding current or previous violations of environmental laws with respect to the Site or relating to environmental liens encumbering the Site property | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Hazardous waste generator notices or reports | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Geotechnical studies | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Risk assessments | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Recorded AULs. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**APPENDIX C:
HISTORICAL RESEARCH DOCUMENTATION**

**APPENDIX D:
PHOTOGRAPH LOG**

Appendix D Phase I ESA Photograph Log



Photo 1: View of Site Nos.1 and 2, facing south.



Photo 2: View of adjoining property to the north of Site Nos. 1 and 2.



Photo 3: View of adjoining property to the south of Sites Nos. 1 and 2.



Photo 4: View of adjoining property to the east of Site No. 1.



Photo 5: View of adjoining property to the west of Site No. 2.



Photo 6: View of Site No. 1 – 36 Colonial Ave., facing south.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
204940.0031	K. Shea	1 of 2	Department of Neighborhood Development	36 and 38 Colonial Ave. Dorchester, MA	

Appendix D Phase I ESA Photograph Log



Photo 7: View of Site No. 2 – 38 Colonial Ave., facing south.



Photo 8: View east down Colonial Ave.



Photo 9: View west down Colonial Ave.



Photo 10: Construction and landscaping debris located on Site No. 2.



Photo 11: Partial fencing located between Site No. 2 and adjoining property.

TRC Job No.	Photographs Taken By:	Page No.	Client:	Site Name & Address:	
204940.0031	K. Shea	2 of 2	Department of Neighborhood Development	36 and 38 Colonial Ave. Dorchester, MA	

**APPENDIX E:
OTHER REFERENCE INFORMATION**

**APPENDIX F:
TRC STAFF AND ENVIRONMENTAL PROFESSIONAL
QUALIFICATIONS/RESUMES**

Nicole M. Hudson (Environmental Professional)

B.S., Geological Sciences, Salem State University, 2008

Experience

Ms. Hudson is a Scientist II with TRC and holds a Bachelor's of Science degree in Geological Science from Salem State University (2008). She has 7 years of experience in including managing and performing, due diligence, regulatory compliance, site assessment, Investigations, and remediation projects. Ms. Hudson's experiences include many field sampling procedures, contractor oversight with environmental monitoring and reporting experience including Phase I/Phase II reporting; as well as regulatory compliance status and completion reporting. She has experience in site inspection including location such as vacant lots, auto repair shops, residential, industrial and commercial properties.

Kevin M. Kitchin, PG (Project Manager)

B.S., Geological Sciences, Salem State University, 2004

Experience

Mr. Kitchin is a Professional Geologist with TRC and holds a Bachelors of Science degree in Geological Science from Salem State University (2004). He has 12 years of experience including managing and performing Brownfields, due diligence, regulatory compliance, hazardous waste site assessment, and remediation projects. Mr. Kitchin's experiences include many field sampling procedures, contractor oversight with environmental monitoring and reporting experience including Phase I/Phase II reporting; as well as regulatory compliance status and completion reporting. He has experience in site inspection including location such as vacant lots, auto repair shops, laboratory space, industrial buildings and transportation infrastructure.

Kolleen Shea (Engineer)

B.S., Civil and Environmental Engineering, University of Massachusetts Lowell, 2015

Experience

Ms. Shea is an Engineer I with TRC and holds a Bachelor's of Science degree in Civil and Environmental Engineering from University of Massachusetts Lowell. She has 10 months of experience including managing and performing, due diligence, regulatory compliance, site assessment, Investigations, and remediation projects.

**APPENDIX G:
ENVIRONMENTAL PROFESSIONAL STATEMENT**

**DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT
EXPERIENCE THERETO PURSUANT TO 40 CFR 312**

(1) a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1(c)) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).

(2) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.

(3) An environmental professional should remain current in his or her field through participation in continuing education or other activities.

(4) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b).

(5) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

Relevant experience, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1(c)) to the Site. TRC personnel resume(s) are included in **Appendix F**.

I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature of
Environmental
Professional:



Date: 8/26/16