NOTICE OF INTENT FOR DISCHARGE PURSUANT TO MASSACHUSETTS REMEDIATION GENERAL PERMIT MAG9100000

WHITTIER STREET HOUSING DEVELOPMENT – PHASE 1A

ROXBURY, MASSACHUSETTS

MAY 14, 2018

Prepared For:

U.S. Environmental Protection Agency
Office of Ecosystem Protection
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

On Behalf Of:

NEI General Contracting (NEI)
&
Whitter 1A-4 Preservation Associates Limit Partnership

2269 Massachusetts Avenue
Cambridge, MA 02140
www.mcphailgeo.com
(617) 868-1420

PROJECT NO. 5660

May 14, 2018

U.S. Environmental Protection Agency
Dewatering GP Processing
Industrial Permit Unit (OEP 06-4)
5 Post Office Square – Suite 100
Mail Code OEP06-01
Boston, MA 02109-3912

Attention: To Whom It May Concern

Reference: Whittier Street Housing Development – Phase 1A; Roxbury, Massachusetts
Notice of Intent for Construction Dewatering Discharge Under
Massachusetts Remediation General Permit MAG910000

Ladies and Gentlemen:

On behalf of the NEI General Contracting, McPhail Associates, LLC (McPhail) has prepared the attached Notice of Intent (NOI) for coverage under the Remediation General Permit (RGP) MAG910000 that has been prepared for the Commonwealth of Massachusetts for the discharge of construction dewatering effluent into the Charles River via the City of Boston storm drainage system. The temporary construction dewatering discharge will occur during construction of the proposed building to be located at Whittier Street Housing Development – Phase 1A located in Roxbury, Massachusetts (subject site). Refer to **Figure 1** entitled: "Project Location Plan" for the general site locus.

These services were performed and this permit application was prepared in accordance with the authorization of Boston Housing Authority (BHA) and Preservation of Affordable Housing (POAH). These services are subject to the limitations contained in **Appendix A**.

The required Notice of Intent Form contained in the RGP permit and Boston Water & Sewer Commission (BWSC) Dewatering Discharge Permit Application are included in **Appendix B** and supporting information is included in **Appendix C**.

A Best Management Practice Plan (BMPP) is contained in **Appendix F**.

Applicant/Operator

The applicant for the Notice of Intent-Dewatering General Permit is:

NEI General Contracting
Address: 27 Pacella Park Drive | Randolph, MA 02368

Attention: Gary Young
Title: Project Executive
Phone: (781) 356-7666
Email: gyoung@neigc.com

Site Location and Existing Conditions

Fronting onto Tremont Street to the northwest, the 3.8-acre Whittier Street Housing development is bounded by Ruggles Street to the northeast, Cabot Street to the southeast, and Whittier Street to the southwest. Currently, the Whittier Street Housing development is occupied by four (4) 4 to 8-story brick/masonry residential buildings containing a total of 200 units. Asphalt paved parking lots and driveways as well as landscaped areas are located throughout the housing development. The subject site is owned and managed by the Boston Housing Authority (BHA) and was originally constructed during the early 1950's. An 11-foot wide sewer easement bisects the southern portion of the housing development in an approximate east-west direction. The existing ground surface across the subject site is generally level.

The Phase 1A development site occupies an approximately 59,719 square-foot (approximately 1.4-acre) portion of the larger Whittier Street Housing Development at the eastern portion of the site off of Cabot Street between Ruggles and Whittier Street. The limits of the subject site are depicted on **Figure 2**.

Proposed Scope of Site Development

The Phase 1A development will consist of the demolition of the existing 4 to 8 story structure and the construction of an approximately 20,000 square-foot, 4-story structure with a full level of below-grade parking (Building A). Two (2) separate 4-story wood-framed townhouse structures (Buildings B and C) will be constructed to the west of Building A. Each townhouse structure will have a lowest level slab that closely approximates existing site grades with no below-grade space.

Based on recent measurements of depth to groundwater in observation wells installed as part of our previous phase of explorations within the Phase 1A area, groundwater is anticipated to be present at depths of 9 to 11 feet below existing site grade and at elevations that vary between El. +10.3 to El. +11.2. The top of the lowest level parking slab is understood to be at Elevation +10, which is about 7 to 9 feet below existing site grades. Due to the depth of excavation relative to groundwater elevation, temporary construction groundwater discharge will be required to facilitate excavation for the proposed mat foundation of the new Building A. Excavation support will be provided by a continuous interconnected steel sheet pile earth support system.

In addition to the new buildings, site improvements include the construction of a new roadway to the west of the new buildings that will connect between Ruggles and Whittier Streets.

Environmental Status and Release History

Six (6) MA DEP listed release sites identified as Release Tracking Numbers (RTNs) 3-1645, 3-11181, 3-12401, 3-24299, 3-29839, and 3-25237 have been documented at the larger

Whittier Street Housing development. However, the six (6) release sites are not located within the defined limits of the Phase 1A subject site, which is a portion of the larger Whittier Street Housing development. Further, based on the status of each of these release sites and/or the nature of contamination, these release sites are not considered to have affected the Phase 1A subject site.

Site Environmental Setting and Surrounding Historical Places

Based on an on-line edition of the Massachusetts Geographic Information Systems DEP Priority Resources Map (GIS Map) viewed on April 18, 2018, 2018, the subject site is not located within the boundaries of a Sole Source Aquifer, Potentially Productive Aquifer or within a Zone II, Interim Wellhead Protection Area as defined by the Massachusetts Department of Environmental Protection. Further, there are no public drinking water supply wells, no Areas of Critical Environmental Concern, no fish habitats, no habitats of Species of Special Concern or Threatened or Endangered Species within specified distances of the subject site.

A review of information provided by the U.S. Fish and Wildlife Service in an Information for Planning and Conservation (IPaC) Trust Resource Report for the subject site did not identify the presence of endangered species at or in the vicinity of the discharge location and/or discharge outfall. Further, the Trust Resource Report did not identify the presence of a critical habitat in the vicinity of the discharge outfall and/or discharge location. Based upon the above, the site is considered a criterion A pursuant to Appendix IV of the RGP. A copy of the IPaC Trust Resource Report and correspondence are included in **Appendix C**.

The GIS Map indicates that there are no water bodies or wetland areas on or within 500 feet of the subject site. The map indicates that the closest Protected Open Space to the subject site is located approximately 1,000 feet to the west. The closest water body is the Muddy River of the Back Bay Fens, which is located approximately 1,350 feet to the northwest of the subject site. A copy of the Massachusetts GIS Priority Resources Map is included in **Appendix C**.

A review of the online Massachusetts Cultural Resource Information System (MACRIS) and the National Register of Historical Places for Suffolk County in Boston, Massachusetts did not identify records or addresses of historic places that exist in the immediate vicinity of the subject site and/or outfall location. A copy of the MACRIS Report is included in **Appendix C**.

Summary of Groundwater Analysis

On November 20, 2017 and April 4,2018, groundwater samples were collected from one monitoring well installed by McPhail and identified as B-22 (OW) located in the Phase 1A project area and submitted to a laboratory for analysis for the following parameters: total residual chlorine, hexavalent chromium, total cyanide, ammonia, pH, total phenolics, total suspended solids (TSS), total metals (antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, and zinc), dissolved lead, TPH, micro-extractables,

VOCs, SVOCs, and PCBs. Results indicated the presence of arsenic, chloride, copper, iron, lead, and zinc. It was noted that during the sampling event that the groundwater extracted exhibited the presence of suspended solids. The sample obtained on April 4, 2018, indicated concentrations of total lead above RCGW-2 Standards, however, the groundwater sample taken on November 20,2017, in conjunction with separate groundwater testing at the site, indicated values below detection limits for dissolved lead. In accordance with 40.0362 of the MCP, due to the non-detect results of dissolved lead observed in groundwater, the total lead observed in groundwater is attributed to TSS and thus, was not reported. A summary of the groundwater results is shown in the enclosed **Table 1**.

In conjunction with the updated 2017 NPDES RGP, a sample of water from the Charles River was obtained and analyzed for recoverable metals, ammonia, pH, and hardness summarized in **Table 2**.

Full laboratory reports are included in **Appendix D & E.**

Construction Dewatering

To facilitate the construction of the building foundations, general excavation to a minimum depth of 8 to 10 feet below grade will be required for the below grade parking garage in Building A. Based upon the proposed excavation depth and the existing groundwater conditions, it is anticipated that temporary construction dewatering will be required for approximately eight (8) to twelve (12) months during foundation construction. The proposed dewatering system will consist of localized sumping during foundation construction from which pumped groundwater will be passed through a treatment system and discharged into the City of Boston storm drain system. It is estimated that the maximum continuous groundwater discharge required for foundation construction will be on the order of 50 to 100 gallons per minute. This quantity does not include surface runoff which would require removal from the excavation during the limited duration of a rain storm and shortly thereafter.

Based on the information obtained from the Boston Water and Sewer Commission (BWSC), manholes and catch basins along Whittier Street and Cabot Street flow into combined storm water and sewer line which act as dedicated storm drain line during typical seasonal weather conditions. The discharge flow path of these storm drainage terminate at one primary and one secondary outfall locations. The discharge flow path continues north away from the site under Whittier Street, then flows west towards Ruggles MBTA Station, under Forsyth Way, and towards the Back Bay Fens. The secondary discharge location is an emergency outfall at a gate house that, per BWSC, is only used in high discharge flow emergency events. The flow path follows along the Back Bay Fens under I-90, Commonwealth Avenue, and Storrow Drive out the Charles River. The primary discharge location is an outfall pipe listed as CSO 023 according to the BWSC. Both discharge locations and the singular discharge flow path are shown on the enclosed **Figure 3A, 3B, & 3C.**

Groundwater Treatment

The results of groundwater testing completed indicate the presence of elevated levels of metals which exceed the applicable freshwater chronic criteria. In summary, concentrations of arsenic, chloride, copper, iron, lead, and zinc were detected at the subject site and were utilized in Appendix V of the 2017 RGP, to determine if Water Quality-Based Effluent Limitations (WQBELs) for specific inorganics apply. WQBELs apply for iron and lead. The Appendix V calculations also indicate Technology-Based Effluent Limitations (TBELs) apply for all other Inorganics. A copy of the TBEL and WQBEL calculations is attached in **Appendix C**.

Based on the detected concentrations of metals, the treatment of the groundwater prior to off-site discharge will be necessary to comply with the provisions of the Remedial General Permit. Based upon our assessment of groundwater at the subject sit, the presence of metals in groundwater is considered attributable to TSS in the groundwater samples. Hence, in order to remove suspended solids, and thus lower the concentrations of total metals, in the effluent prior to discharge, two (2) 10,000-gallon capacity or one (1) 21,000-gallon sedimentation tank with 10 micron bag filters in series will be utilized. Water accumulated in the excavation will be pumped into the sedimentation tank prior to discharge. The tank will be cleaned out periodically in order to ensure the efficiency of the sediment removal. A schematic of the treatment system is shown on **Figure 4**.

Summary and Conclusions

The purpose of this report is to assess site environmental conditions and groundwater data to support an approval for discharge under a Massachusetts Remediation General Permit for off-site discharge of dewatered groundwater which will be encountered during the proposed development of Whittier Street Housing Development – Phase 1A located in Roxbury, Massachusetts.

Based on the results of the above referenced groundwater analyses, treatment of construction dewatering will be necessary to meet allowable WQBELs for iron and lead as well as allowable TBELs for other inorganics established by the US EPA prior to off-site discharge. However, should the effluent monitoring results indicate levels of iron or lead in excess of the applicable TBELs and/or WQBEL established in the Massachusetts RGP, additional mitigative measures in the form of Ion Exchange Resin Filtration will be implemented to meet the allowable discharge limits.

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Sincerely,

McPHAIL ASSOCIATES, LLC

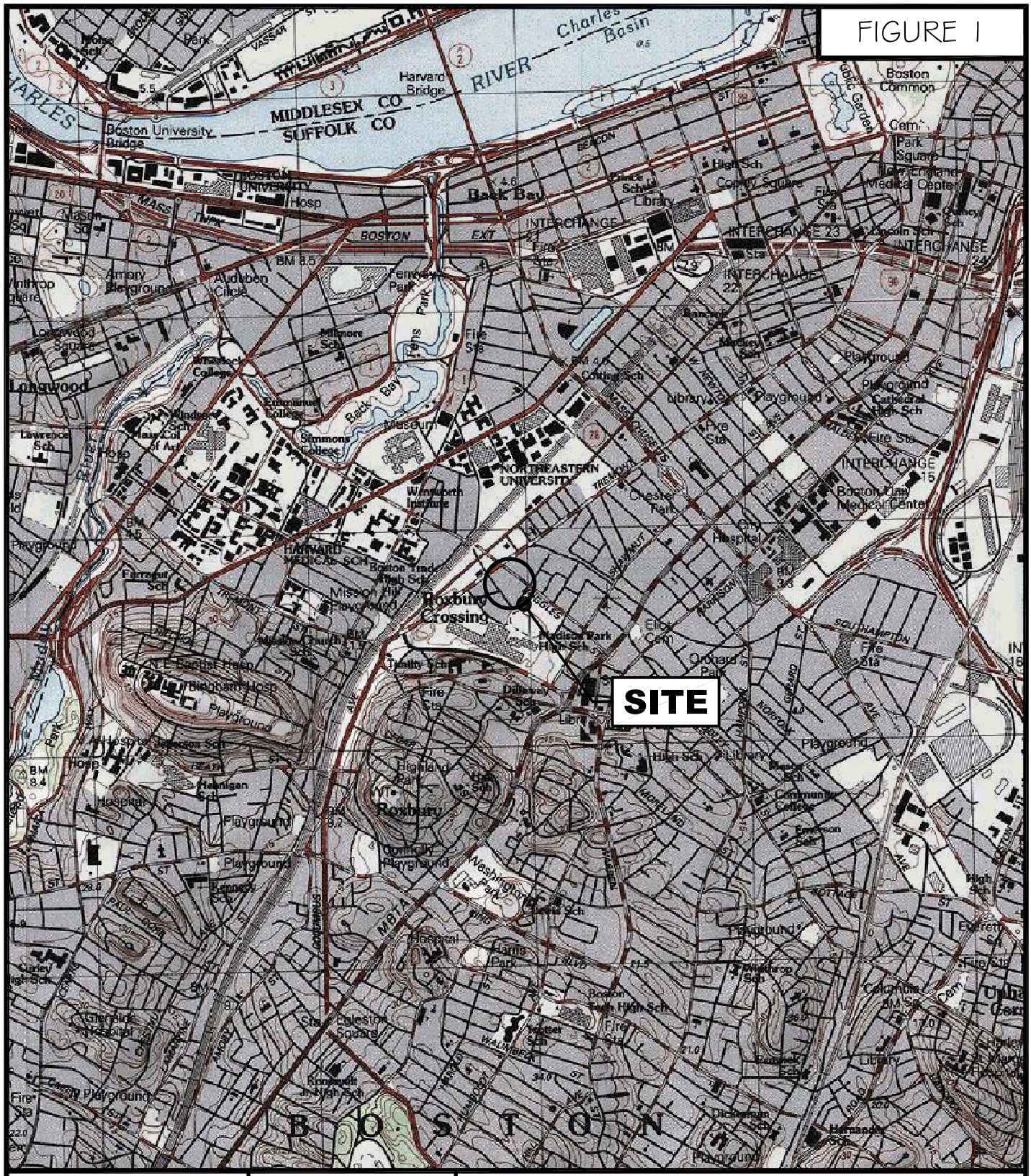
Kirk W. Seaman

William J. Burns, L.S.P.

N:\Working Documents\Reports\5660_RGP_032918.docx

KWS/wjb

FIGURE 1



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SCALE 1:25,000

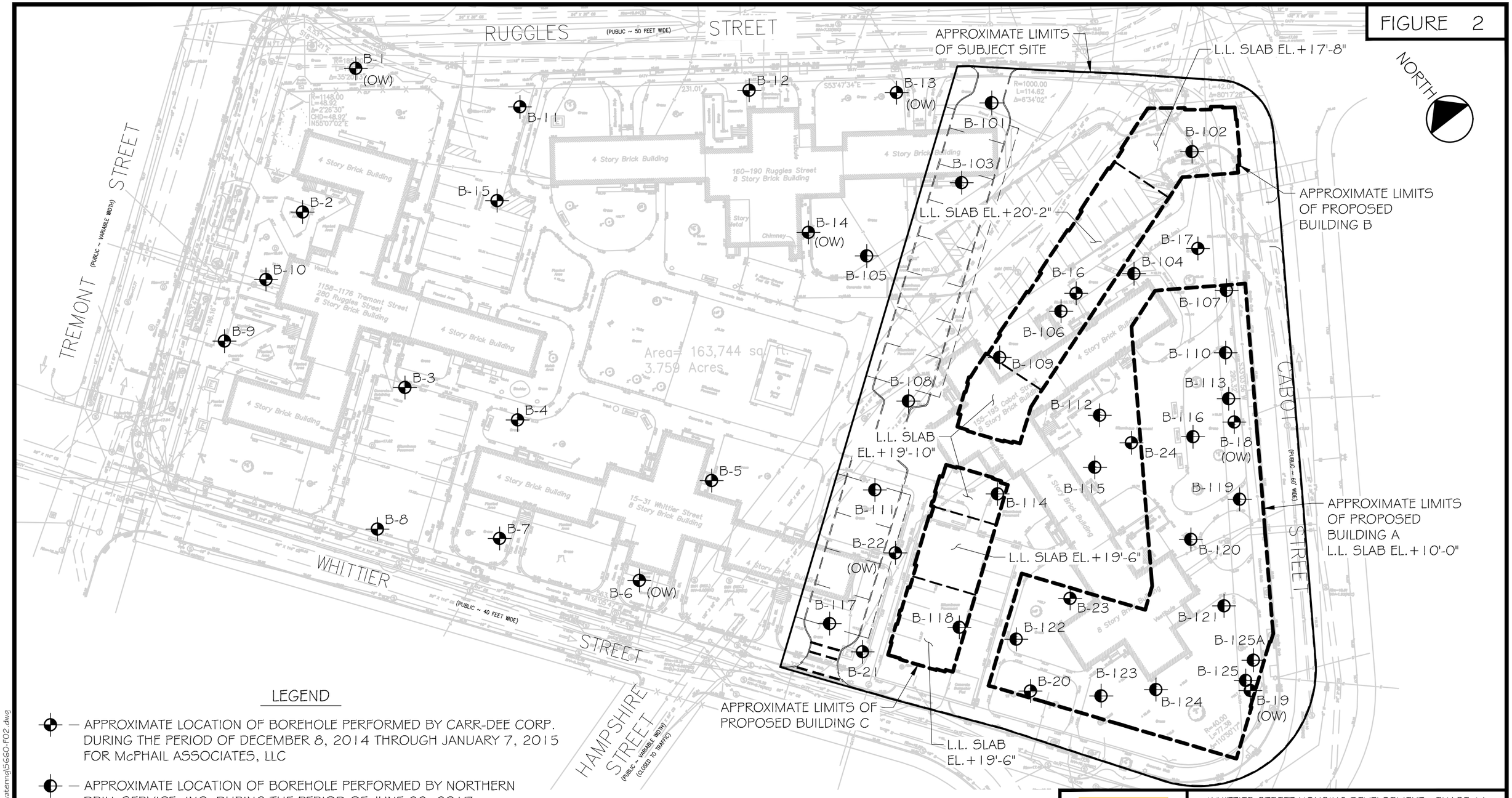
PROJECT LOCATION PLAN

WHITTIER STREET HOUSING DEVELOPMENT

PHASE 1A

ROXBURY MASSACHUSETTS

FIGURE 2



LEGEND

— APPROXIMATE LOCATION OF BOREHOLE PERFORMED BY CARR-DEE CORP. DURING THE PERIOD OF DECEMBER 8, 2014 THROUGH JANUARY 7, 2015 FOR McPHAIL ASSOCIATES, LLC

— APPROXIMATE LOCATION OF BOREHOLE PERFORMED BY NORTHERN DRILL SERVICE, INC. DURING THE PERIOD OF JUNE 22, 2017 THROUGH JUNE 29, 2017 FOR McPHAIL ASSOCIATES, LLC

(OW) — INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE

REFERENCE: THIS PLAN WAS PREPARED FROM A 20-SCALE DRAWING ENTITLED "EXISTING CONDITIONS PLAN OF LAND" DATED JANUARY 29, 2014 PREPARED BY SAMIOTES CONSULTANTS, INC.

GRAPHIC SCALE

50 0 50 100

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WHITTIER STREET HOUSING DEVELOPMENT - PHASE 1A

ROXBURY MASSACHUSETTS

SUBSURFACE EXPLORATION PLAN

FOR

NEI GENERAL CONTRACTING

BY

McPHAIL ASSOCIATES, LLC

Date: APRIL 2018	Dwn: K.S.W.	Chkd: A.M.F.	Scale: 1" = 50'
Project No: 5660			

FILE NAME: N:\Acad\JOBS\5660\Dewatering\5660-F02.dwg

FIGURE 3A

NORTH

POSSIBLE LOCATIONS FOR POTENTIAL DISCHARGE INTO STORM DRAIN SYSTEM

POSSIBLE LOCATIONS FOR POTENTIAL DISCHARGE INTO STORM DRAIN SYSTEM

POSSIBLE LOCATIONS FOR POTENTIAL DISCHARGE INTO STORM DRAIN SYSTEM

APPROXIMATE LIMITS OF SUBJECT SITE

BOSTON HOUSING AUTHORITY WHITTIER STREET DEVELOPMENT

GEORGE ROBERT WHITE FUND HEALTH UNIT

REFERENCE: THIS PLAN WAS PREPARED FROM THE BOSTON WATER AND SEWER GIS ENTITLED, "1" PRINTED ON OCTOBER 20, 2017 PROVIDED BY THE BOSTON WATER AND SEWER COMMISSION

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WHITTIER STREET HOUSING DEVELOPMENT - PHASE 1A

ROXBURY MASSACHUSETTS

DISCHARGE LOCATION PLAN

FOR

NEI GENERAL CONTRACTING

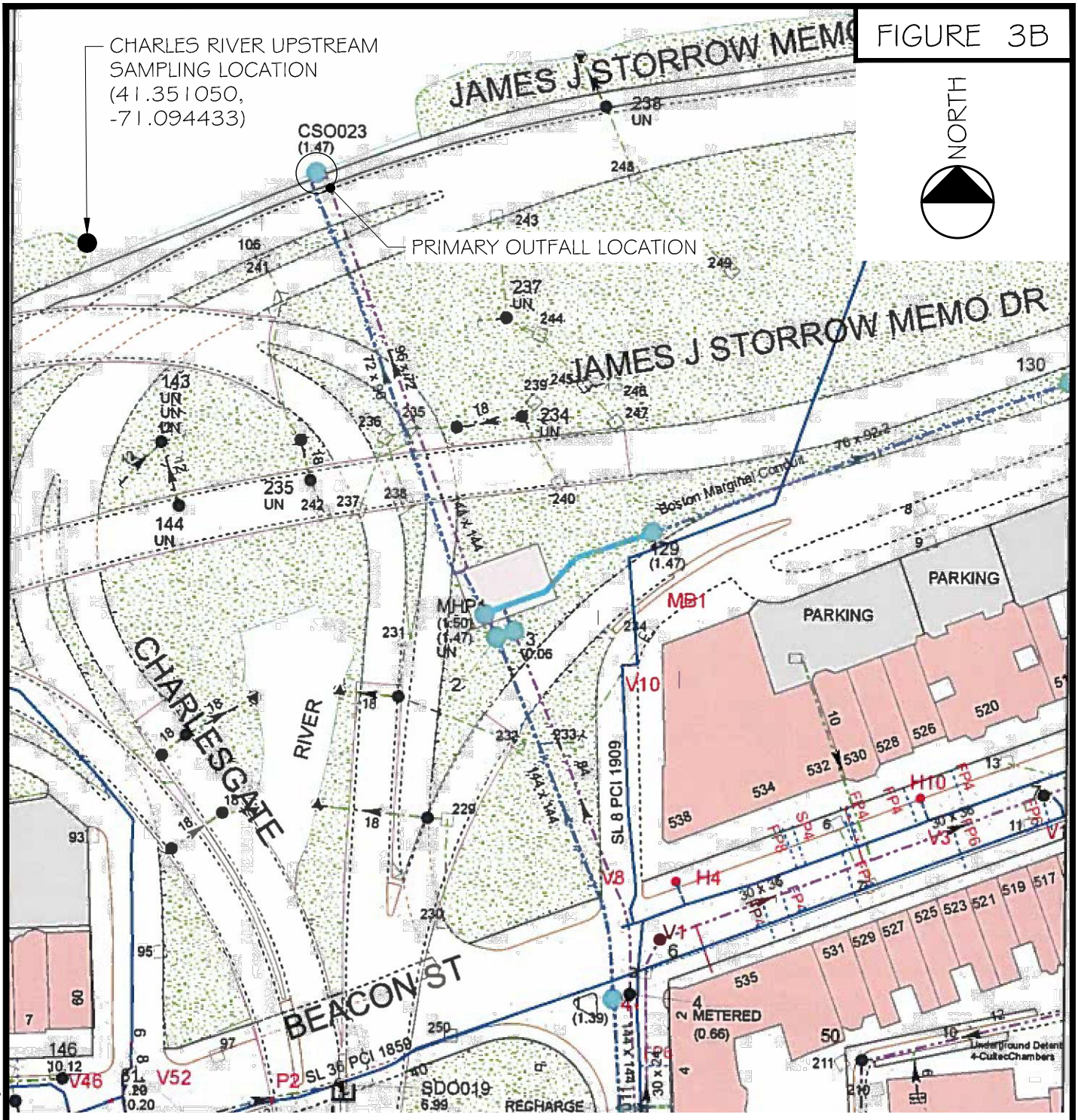
BY

McPHAIL ASSOCIATES, LLC

Date: MARCH 2018	Dwn: M.B.S.	Chkd: A.M.F.	Scale: 1" = 100'
Project No: 5660			

FILE NAME: N:\Acad\OBS\5660\Dewatering\5660-E03A.dwg

FIGURE 3B



REFERENCE: THIS PLAN WAS PREPARED FROM AN 100-SCALE DRAWING GENERATED FROM THE BOSTON WATER AND SEWER DATABASE ON FEBRUARY 28, 2018

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WHITTIER STREET HOUSING DEVELOPMENT - PHASE 1A

ROXBURY MASSACHUSETTS

PRIMARY OUTFALL LOCATION & UPSTREAM SAMPLING LOCATION

FOR

NEI GENERAL CONTRACTING

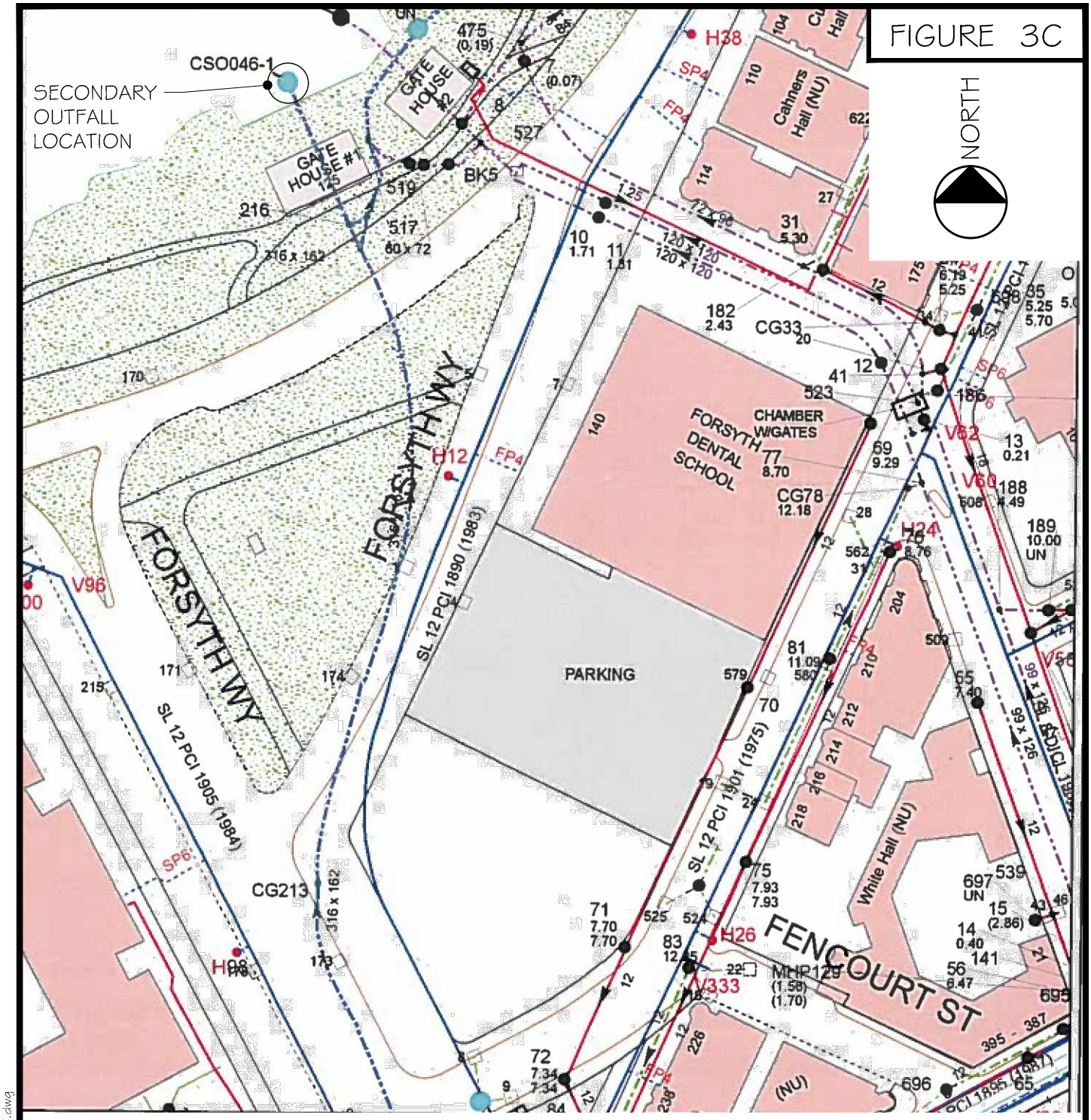
BY

McPHAIL ASSOCIATES, LLC

Date: APRIL 2018	Dwn: M.B.S.	Chkd: K.W.S.	Scale: 1" = 100'
Project No: 5660			

FILE NAME: N:\Cad\JOBS\5660\Dewatering\5660-F03B.dwg

FIGURE 3C



REFERENCE: THIS PLAN WAS PREPARED FROM AN 100-SCALE DRAWING GENERATED FROM THE BOSTON WATER AND SEWER DATABASE ON FEBRUARY 28, 2018

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WHITTIER STREET HOUSING DEVELOPMENT - PHASE 1A

ROXBURY MASSACHUSETTS

SECONDARY OUTFALL LOCATION

FOR

NEI GENERAL CONTRACTING

BY

McPHAIL ASSOCIATES, LLC

Date: APRIL 2018	Dwn: M.B.S.	Chkd: K.W.S.	Scale: 1" = 100'
Project No: 5660			

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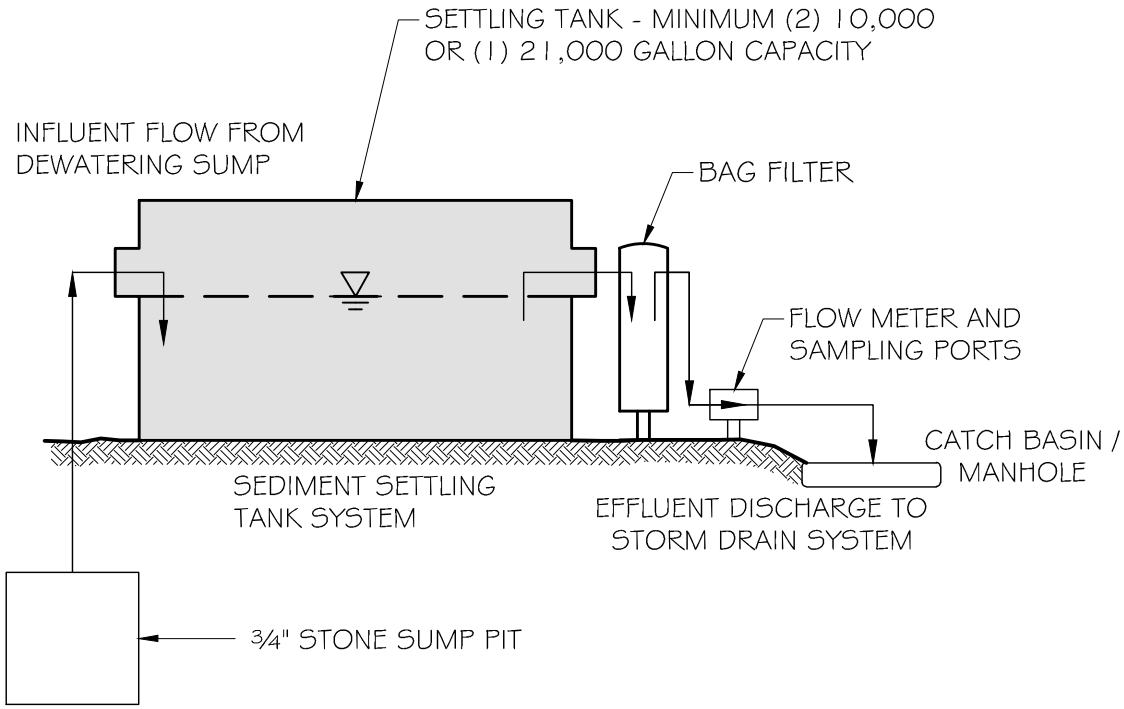
FIGURE 4



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WHITTIER STREET HOUSING DEVELOPMENT - PHASE IA

ROXBURY MASSACHUSETTS

SCHEMATIC OF WATER FLOW

FOR

NEI GENERAL CONTRACTING

BY

McPHAIL ASSOCIATES, LLC

CONSULTING GEOTECHNICAL ENGINEERS

Date: APRIL 2018	Dwn: M.B.S.	Chkd: K.W.S.	Scale: N.T.S.
Project No: 5660			

Table 1 - Groundwater Analytical Results

Whittier Street Housing Phase 1A Project; Roxbury, MA
McPhail Job No. 5660

LOCATION	EPA-ALFCCC	B-22 (OW)	B-22 (OW)
SAMPLING DATE		4/4/2018	11/20/2017
LAB SAMPLE ID		L1811672-01	L1742762-01
SAMPLE TYPE		GROUNDWATER	GROUNDWATER
General Chemistry (ug/l)			
Chlorine, Total Residual		ND(20)	
Chromium, Hexavalent	11	ND(10)	
Chromium, Trivalent	74	ND(10)	
Cyanide, Total	5.2	ND(5)	
Nitrogen, Ammonia		5000	
pH (SU)		6.7	
Phenolics, Total		ND(30)	
Solids, Total Suspended		46000	
TPH, SGT-HEM		ND(4000)	
Total Hardness (ug/l)			
Hardness		880000	
Total Metals (ug/l)			
Antimony, Total		ND(4)	
Arsenic, Total	150	1.1	
Cadmium, Total	0.25	ND(0.2)	
Chromium, Total		ND(1)	
Copper, Total		3.51	
Iron, Total	1000	**2870**	
Lead, Total	2.5	**11.11**	
Mercury, Total	0.77	ND(0.2)	
Nickel, Total	52	ND(2)	
Selenium, Total	5	ND(5)	
Silver, Total		ND(0.4)	
Zinc, Total	120	15.15	
Dissolved Metals (ug/l)			
Lead, Dissolved			ND(0.01)
Anions (ug/l)			
Chloride	230000	**1490000**	
Microextractables (ug/l)			
1,2-Dibromoethane		ND(0.01)	
Polychlorinated Biphenyls (ug/l)			
Total/SUM		ND	
Semivolatile Organics (ug/l)			
Total/SUM		ND	
Volatile Organics (ug/l)			
Total/SUM		ND	

EPA-ALFCCC = National Recommended Water Quality Criteria - Freshwater Aquatic Chronic
Bold = Above EPA-ALFCCC Standards
ND - Not detected above lab reporting limits

Table 2
Labratory Analytical Results - Surface Water

Whittier Street Housing Phase 1A Project; Roxbury, MA
Project No. 5660

LOCATION	CHARLES RIVER
SAMPLING DATE	5/12/2017
LAB SAMPLE ID	L1715658-01
	Results
General Chemistry (ug/l)	
Chromium, Trivalent	ND(10)
Nitrogen, Ammonia	304
Chromium, Hexavalent	3
Total Hardness (ug/l)	
Hardness	96500
Total Metals (ug/l)	
Antimony, Total	2.02
Arsenic, Total	1.05
Cadmium, Total	ND(1)
Chromium, Total	1.24
Copper, Total	3.66
Iron, Total	1010
Lead, Total	4.13
Mercury, Total	ND(0.2)
Nickel, Total	3.2
Selenium, Total	ND(5)
Silver, Total	ND(1)
Zinc, Total	11.11

ND - Not detected in excess of the laboratory method detection limit
Blank - Not analyzed

APPENDIX A:

LIMITATIONS

LIMITATIONS

The purpose of this report is to present a summary of environmental conditions, including the results of testing of groundwater samples obtained from groundwater monitoring wells on the property located at Whittier Street Housing Project – Phase 1A in Roxbury, Massachusetts in support of an application for approval of temporary construction dewatering discharge of groundwater into surface waters of the Commonwealth of Massachusetts under EPA's Massachusetts Remediation General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the spaced subsurface explorations become evident in the future, it will be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

Laboratory analyses have been performed for specific constituents during the course of this assessment, as described in the text. However, it should be noted that additional constituents not searched for during the current study may be present in soil and/or groundwater at the site.

This report and application have been prepared on behalf of and for the exclusive use of BHA, POAH, and NEI General Contracting. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, other than the submission to relevant governmental agencies, nor used in whole or in part by any other party without prior written consent of McPhail Associates, LLC.

APPENDIX B:

NOTICE OF INTENT - NPDES REMEDIATION GENERAL PERMIT
BOSTON WATER & SEWER DEWATERING DISCHARGE PERMIT APPLICATION

II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Whittier Street Housing Project - Phase 1A</td><td colspan="3">Site address: 10 Whittier Street
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02215</td></tr>
<tr><td rowspan="4">2. Site owner
Whittier 1A-4 Preservation Associates Limit Partnership

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Deanna Savage</td></tr>
<tr><td colspan="2">Telephone: (617) 594 8941</td><td>Email: dsavage@poah.org</td></tr>
<tr><td colspan="3">Mailing address:
Street: 40 Court Street</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02108</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
NEI General Contracting</td><td colspan="3">Contact Person: Gary Young</td></tr>
<tr><td colspan="2">Telephone: 781 356 7666</td><td>Email: gyoung@neigc.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 27 Pacella Park Drive</td></tr>
<tr><td>City: Randolph</td><td>State: MA</td><td>Zip: 02368</td></tr>
<tr><td colspan="2">4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ■ RGP ☐ DGP ■ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="2">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s):
3-1645, 3-11181, 3-12401, 3-24299, 3-29839, and 3-25237
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Charles River	MA72-38	B

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ■ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ■ No
If yes, specify:

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP.
Charles River MA72-36 - See Appendix C for further information

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	29.2 cfs = 18.87 MGD
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	132

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 4/13/2018

7. Has the operator attached a summary of receiving water sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No

C. Source water information:

1. Source water(s) is (check any that apply):

■ Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ■ Yes ☐ No	☐ Contaminated surface water Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

2. Source water contaminants: Ammonia, TSS, Arsenic, Chloride, Copper, Iron, Lead, and Zinc	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ■ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance with the instructions in Appendix VIII? (check one): ☐ Yes ☐ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ■ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): Outfall #001 - The location of the effluent port is undetermined at this time due to the potential mobility of the treatment system. The outfall will be within the limits of the project site.	Outfall location(s): (Latitude, Longitude) (42.333537, -71.087701)
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge outfall indirectly into Charles River ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for obtaining permission: Submission of documentation to and approval from BWSC in tandem with this NOI Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ■ Yes ☐ No	
Provide the expected start and end dates of discharge(s) (month/year): May 2018 - June 2019 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="4">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">a. If Activity Category I or II: (check all that apply)

☐ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)

■ A. Inorganics
☐ B. Non-Halogenated Volatile Organic Compounds
☐ C. Halogenated Volatile Organic Compounds
☐ D. Non-Halogenated Semi-Volatile Organic Compounds
☐ E. Halogenated Semi-Volatile Organic Compounds
☐ F. Fuels Parameters</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✓	1	121.4500	75	5000	5000	Report mg/L	---
Chloride		✓	1	443000	500	10300	10300	Report µg/l	---
Total Residual Chlorine	✓		1	121.4500	20	<DL	<DL	0.2 mg/L	
Total Suspended Solids		✓	1	1212540I	5000	46000	46000	30 mg/L	
Antimony	✓		1	1.6020A	4	<DL	<DL	206 µg/L	
Arsenic		✓	1	1.6020A	0.5	1.1	1.1	104 µg/L	
Cadmium	✓		1	1.6020A	0.2	<DL	<DL	10.2 µg/L	
Chromium III	✓		1	1.6020A	10	<DL	<DL	323 µg/L	
Chromium VI	✓		1	1.6020A	10	<DL	<DL	323 µg/L	
Copper		✓	1	1.6020A	1	3.51	3.51	242 µg/L	
Iron		✓	1	19200.7	500	2870	2870	5,000 µg/L	
Lead		✓	1	1.6020A	0.5	11.11	11.11	160 µg/L	
Mercury	✓		1	3.245.1	0.2	<DL	<DL	0.739 µg/L	
Nickel	✓		1	1.6020A	2	<DL	<DL	1,450 µg/L	
Selenium	✓		1	1.6020A	5	<DL	<DL	235.8 µg/L	
Silver	✓		1	1.6020A	0.4	<DL	<DL	35.1 µg/L	
Zinc		✓	1	1.6020A	10	15.15	15.15	420 µg/L	
Cyanide	✓		1	121.4500	5	<DL	<DL	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✓		1	18260C	0.5	<DL	<DL	100 µg/L	---
Benzene	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
1,4 Dioxane	✓		1	18260C	3.0	<DL	<DL	200 µg/L	---
Acetone	✓		1	18260C	5.0	<DL	<DL	7.97 mg/L	---
Phenol	✓		1	18260C	10	<DL	<DL	1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✓		1	18260C	0.5	<DL	<DL	4.4 µg/L	
1,2 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	600 µg/L	---
1,3 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	320 µg/L	---
1,4 Dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	5.0 µg/L	---
Total dichlorobenzene	✓		1	18260C	2.5	<DL	<DL	763 µg/L in NH	---
1,1 Dichloroethane	✓		1	18260C	0.5	<DL	<DL	70 µg/L	---
1,2 Dichloroethane	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
1,1 Dichloroethylene	✓		1	18260C	0.5	<DL	<DL	3.2 µg/L	---
Ethylene Dibromide								0.05 µg/L	---
Methylene Chloride	✓		1	18260C	3	<DL	<DL	4.6 µg/L	---
1,1,1 Trichloroethane	✓		1	18260C	0.5	<DL	<DL	200 µg/L	---
1,1,2 Trichloroethane	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
Trichloroethylene	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	---
Tetrachloroethylene	✓		1	18260C	0.5	<DL	<DL	5.0 µg/L	
cis-1,2 Dichloroethylene	✓		1	18260C	0.5	<DL	<DL	70 µg/L	---
Vinyl Chloride	✓		1	18260C	1.0	<DL	<DL	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✓		1	18270D-S	5.0	<DL	<DL	190 µg/L	
Diethylhexyl phthalate	✓		1	18270D-S	5.0	<DL	<DL	101 µg/L	
Total Group I PAHs	✓		1	18270D-S	0.1	<DL	<DL	1.0 µg/L	---
Benzo(a)anthracene	✓		1	18270D-S	0.1	<DL	<DL	As Total PAHs	
Benzo(a)pyrene	✓		1	18270D-S	0.1	<DL	<DL		
Benzo(b)fluoranthene	✓		1	18270D-S	0.1	<DL	<DL		
Benzo(k)fluoranthene	✓		1	18270D-S	0.1	<DL	<DL		
Chrysene	✓		1	18270D-S	0.1	<DL	<DL		
Dibenzo(a,h)anthracene	✓		1	18270D-S	0.1	<DL	<DL		
Indeno(1,2,3-cd)pyrene	✓		1	18270D-S	0.1	<DL	<DL		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✓		1	18270D-S	0.1	<DL	<DL	100 µg/L	---
Naphthalene	✓		1	18270D-S	0.1	<DL	<DL	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✓		1	5.608	0.227	<DL	<DL	0.000064 µg/L	---
Pentachlorophenol	✓		1	18270D-S	0.8	<DL	<DL	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✓		1	74.1664A	400	<DL	<DL	5.0 mg/L	---
Ethanol	✓		0					Report mg/L	---
Methyl-tert-Butyl Ether	✓		1	1.8260C	1.0	<DL	<DL	70 µg/L	
tert-Butyl Alcohol	✓		1	1.8260C	10	<DL	<DL	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✓		1	1.8260C	2.0	<DL	<DL	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
Ph (Influent)		✓	1	1214500I		6.7			
Hardness (Influent) mg/l		✓	1	3005A	660	880	880		
Temp Influent			1	YSI		14.5 C			
		✓							
Dissolved Lead		✓	1	EPA	0.01	<DL	<DL		
Ph (effluent)		✓	1	1214500I		8.31			
Hardness (effluent)		✓	1	3005A		96.5			
Temp effluent		✓	1	YSI		11.74			

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)

☐ Adsorption/Absorption ☐ Advanced Oxidation Processes ☐ Air Stripping ☐ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption
☐ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ■ Separation/Filtration ☐ Other; if so, specify:

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Settling tank and bag filters, if necessary, Ion exchange resin filter

Identify each major treatment component (check any that apply):
■ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ☐ Media filter
☐ Chemical feed tank ☐ Air stripping unit ■ Bag filter ■ Other; if so, specify: Ion exchange resin filter if necessary

Indicate if either of the following will occur (check any that apply):
☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Frac Tank Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	100
Provide the proposed maximum effluent flow in gpm.	100
Provide the average effluent flow in gpm.	50
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	

4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes ☐ No

F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)

☐ Algaecides/biocides ☐ Antifoams ☐ Coagulants ☐ Corrosion/scale inhibitors ☐ Disinfectants ☐ Flocculants ☐ Neutralizing agents ☐ Oxidants ☐ Oxygen ☐ scavengers ☐ pH conditioners ☐ Bioremedial agents, including microbes ☐ Chlorine or chemicals containing chlorine ☐ Other; if so, specify:
n/a

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No

G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

☐ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ☐ the operator ☐ EPA ☐ Other; if so, specify:

☐ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ☐ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ☐ Yes ☐ No

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ☐ Yes ☐ No; if yes, attach.

H. National Historic Preservation Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

■ **Criterion A**: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.

☐ **Criterion B**: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.

☐ **Criterion C**: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ■ Yes ☐ No

A MACRIS Report is attached in the Appendices

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): ☐ Yes ■ No

I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

n/a

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

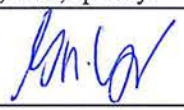
J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

BMPP certification statement: A BMPP Statement has been prepared in accordance with good engineering practices following Part 2.5 of the RGP and shall be implemented upon initiation of discharge.

Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No ☐
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes ☐ No ■ NA ☐
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ■ No ☐ NA ☐

Submission of documentation to and approval from BWSC in tandem with this NOI

Signature: 

Date: 5/14/2018

Print Name and Title: Gary Young - PROJECT EXECUTIVE

Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: NEI General Contracting Address: 27 Pacella Park Drive, Randolph, MA 02368

Phone Number: 781-356-5666 Fax number: 781-356-2221

Contact person name: Brian Turley Title: Superintendent

Cell number: 781-910-8973 Email address: bturley@neigc.com

Permit Request (check one): ☒ New Application ☐ Permit Extension ☐ Other (Specify):

Owner's Information (if different from above):

Owner of property being dewatered: Whittier 1A-4 Preservation Associates Limit Partnership

Owner's mailing address: 40 Court Street, Suite 700 Boston, MA 02108 Phone number: 617 449 6661

Location of Discharge & Proposed Treatment System(s):

Street number and name: 10 Whittier Street Neighborhood Lower Roxbury

Discharge is to a: ☐ Sanitary Sewer ☒ Combined Sewer ☐ Storm Drain ☐ Other (specify):

Describe Proposed Pre-Treatment System(s): Sediment Settling Tank and Bag Filters

BWSC Outfall No. CG 90, 91, 78, or 140 Receiving Waters Charles River (CSO 23)

Temporary Discharges (Provide Anticipated Dates of Discharge): From May, 2018 To April, 2019

- ☐ Groundwater Remediation
- ☒ Utility/Manhole Pumping
- ☐ Accumulated Surface Water
- ☐ Tank Removal/Installation
- ☐ Test Pipe
- ☐ Hydrogeologic Testing
- ☒ Foundation Excavation
- ☐ Trench Excavation
- ☐ Other

Permanent Discharges

- ☐ Foundation Drainage
- ☐ Accumulated Surface Water
- ☐ Non-contact/Uncontaminated Process
- ☐ Crawl Space/Footing Drain
- ☐ Non-contact/Uncontaminated Cooling
- ☐ Other;

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges.
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information.
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Matthew Tuttle, Engineering Customer Service
E-mail: tuttlemp@bwsc.org
Phone: 617-989-7204 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: Date: 5/14/2018

APPENDIX C:

DEP PRIORITY RESOURCES MAP

USGS STREAMFLOW STATISTICS REPORT

DILUTION FACTOR AND WQBEL CALCULATIONS

ADDITIONAL NOI SUPPORT INFORMATION

MassDEP - Bureau of W aste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

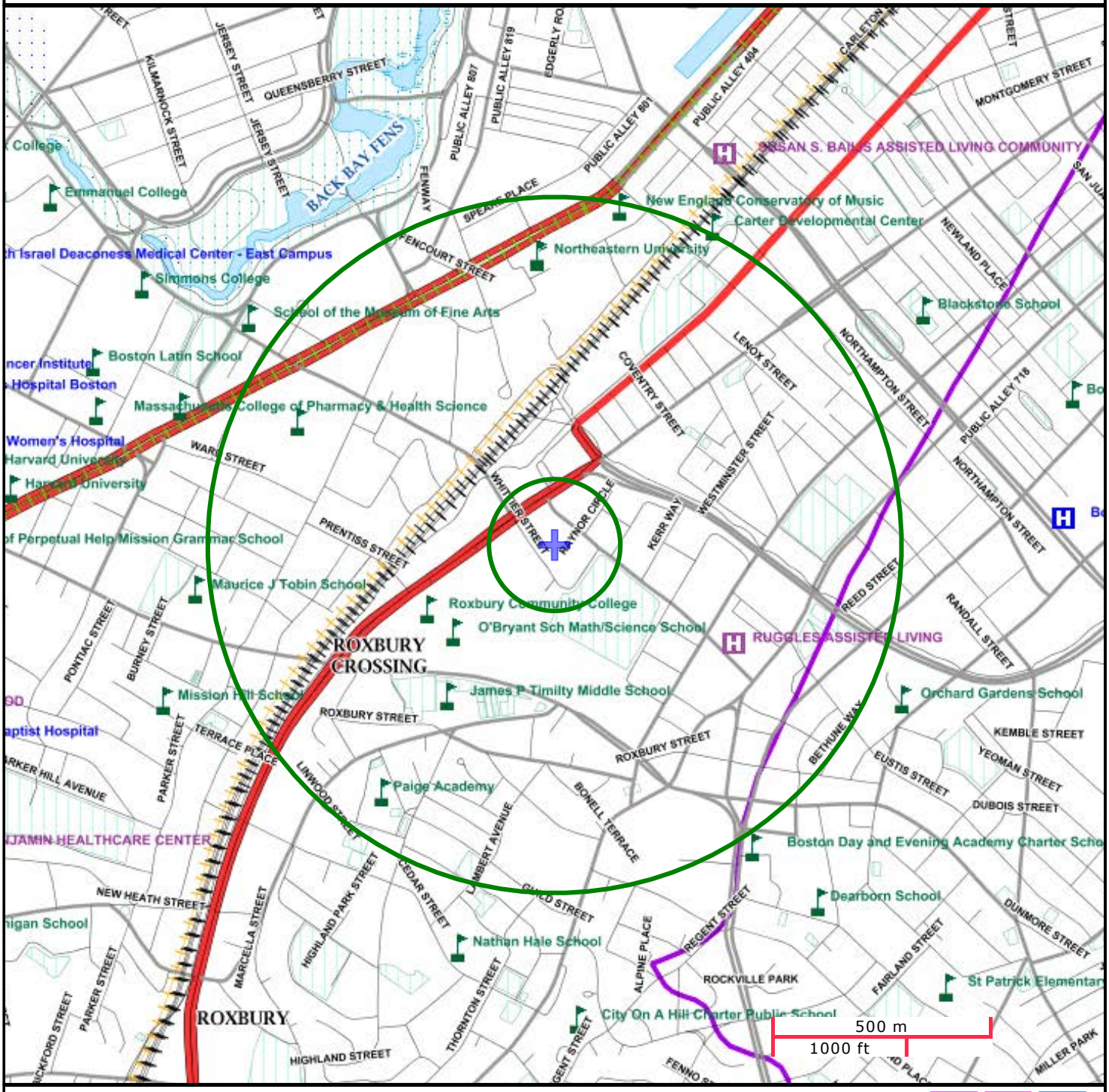
Site Information:

10 WHITTIER STREET BOSTON, MA

NAD83 UTM Meters:
4688964mN , 327955mE (Zone: 19)
May 1, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: October 20, 2017
Consultation Code: 05E1NE00-2018-SLI-0195
Event Code: 05E1NE00-2018-E-00481
Project Name: Whittier Street Housing Development

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2018-SLI-0195

Event Code: 05E1NE00-2018-E-00481

Project Name: Whittier Street Housing Development

Project Type: DEVELOPMENT

Project Description: >1 acre

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.333476532101784N71.08791934432895W

Counties: Suffolk, MA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
Red Knot *Calidris canutus rufa*	Threatened

No critical habitat has been designated for this species.

Species profile: https://ecos.fws.gov/ecp/species/1864

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Roxbury; Street No: 10; Street Name: Whittier St; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

StreamStats Report

Region ID: MA
Workspace ID: MA20180413191520329000
Clicked Point (Latitude, Longitude): 42.35409, -71.09395
Time: 2018-04-13 15:15:35 -0400

Charles mid-channel at Muddy River

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	307	square miles
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.341	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.25	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Parameter Code	Parameter Description	Value	Unit
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	46.69	percent
FOREST	Percentage of area covered by forest	39.42	percent

Low-Flow Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	307	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	2.341	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.25	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
7 Day 2 Year Low Flow	57.3	ft^3/s
7 Day 10 Year Low Flow	29.2	ft^3/s

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

APPENDIX D:

LABORATORY ANALYTIC DATA - GROUNDWATER

JOB: L1811672 REPORT STYLE: Data Usability Report
0010: Alpha Analytical Report Cover Page - OK
0015: Sample Cross Reference Summary - OK
0060: Case Narrative - OK
0100: Volatiles Cover Page - OK
0110: Volatiles Sample Results - OK
0120: Volatiles Method Blank Report - OK
0130: Volatiles LCS Report - OK
0150: Volatiles Matrix Spike Report - OK
0180: Semivolatiles Cover Page - OK
0190: Semivolatiles Sample Results - OK
0200: Semivolatiles Method Blank Report - OK
0210: Semivolatiles LCS Report - OK
0700: PCBs Cover Page - OK
0710: PCBs Sample Results - OK
0720: PCBs Method Blank Report - OK
0730: PCBs LCS Report - OK
0750: PCBs Matrix Spike Report - OK
0760: PCBs Duplicate Report - OK
1005: Metals Sample Results - OK
1010: Metals Method Blank Report - OK
1020: Metals LCS Report - OK
1040: Metals Matrix Spike Report - OK
1050: Metals Duplicate Report - OK
1180: Inorganics Cover Page - OK
1200: Wet Chemistry Sample Results - OK
1210: Wet Chemistry Method Blank Report - OK
1220: Wet Chemistry LCS Report - OK
1240: Wet Chemistry Matrix Spike Report - OK
1250: Wet Chemistry Duplicate Report - OK
5100: Sample Receipt & Container Information Report - OK
5200: Glossary - OK
5400: References - OK

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/4/18

ALPHA Job #: L1811672

Project Information

Project Name: Whittier Street Housing Project - PRAGCIA
Project Location: Roxbury MA
Project #: 560.9.00
Project Manager: KWS AMF
ALPHA Quote #:

Client Information

Client: McPhail Associates, LLC
Address: 2269 Massachusetts Avenue
Cambridge, MA 02140
Phone: (617) 868-1420
Fax:
Email: kseaman@mcphailgeo.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information Data Deliverables

☐ FAX ☐ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client Info PO #:

Regulatory Requirements/Report Limits

State/Fed Program	Criteria
NPDES RGP	

Other Project Specific Requirements/Comments/Detection Limits:

Circle the following if required:
SALINITY (HARDNESS) (PH)
Sect. A inorganics: Ammonia, Chloride, TRC,TSS,CrVI,CrIII, Tot-CN, RGP Metals
B- Non-Hal- VOC- 8260, 8260-SIM, Tot. Phenol Sect C- VOC- 8260 & 504
D: 8270/8270-SIM: E- PCB's, PCP(8270/8270-SIM): F-TPH, 8260, Sub-Ethanol

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RGP Metals (200.8) (A)	TSS- (A)	Ammonia (4500 (A))	TCN (A)	HexCr (7196), TRC, Cl- (A)	8260 (B, C, F)/8260SIM (B)	Tphenol-420 (B)	504-EDB (C)	8270/8270SIM- (D, E)	PCB-608- (E)	TPH-1664-(F)	SUB-ETHANOL (F)	Sample Specific Comments	TOTAL # BOTTLES
11672-01	B-22(OW)	4/4/18	11:30	GW	CES	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		20
Container Type						P	P	P	P	P	V	A	V	A	A	A	V		
Preservative						C	A	D	E	A	B	D	H	A	H	B	B		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Relinquished By:	Date/Time	Received By:	Date/Time
Cerea Steficek	4/4/18 4:15pm	AAL	4/4/18 1647
AAL	4/4/18 1824	Dan MacNutt	4/4/18 18:30

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I-NJ) (rev. 5-JAN-12)

ALPHA ANALYTICAL
World Class Chemistry

Subcontract Chain of Custody

Test America (Nashville)
2960 Foster Creighton Drive
Nashville, TN 37204

Alpha Job Number
L1811672

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 603.319.5010
Email: mgulli@alphalab.com

Project Information

Project Location: MA
Project Manager: Melissa Gulli

Turnaround & Deliverables Information

Due Date: 04/17/18
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria:

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L1811672

Report to include Method Blank, LCS/LCSD:

Additional Comments: Send all results/reports to subreports@alphalab.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	B-22 (OW)	04-04-18 11:30	WATER	Ethanol by EPA 1671 Revision A	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	AK	4/5/18		
Form No: AL_subcoc				

APPENDIX E:

LABORATORY ANALYTICAL DATA – SURFACE WATER

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab: 5/12/17

ALPHA Job #: L1715658

Client Information

Client: McPhail Associates

Address: 2269 Mass Ave
Cambridge MA

Phone: 617 868 1420

Email:

Project Information

Project Name: WIT

Project Location: Charles River

Project #: 0222.0219.T4

Project Manager: KWS

ALPHA Quote #:

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☒ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Additional Project Information:

Metals: RGP13: Sb,As,Cd,Cr,Cu,Fe,Pb,Hg,Ni,Se,Ag,Zn, CRIII, CRVI

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Hardness
Ammonia
Recoverable Metals

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Hardness	Ammonia	Recoverable Metals	Sample Comments	TOTAL # BOTTLES
15658-01	Charles River	5/12/17	1100	SW	LDP		X			1
01	Charles River	5/12/17	1100	SW	LDP	X				1
01	Charles River	5/12/17	1100	SW	LDP			X		1

Container Type						A	P	P		
Preservative						A	D	O		

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	5/12/17 1200		
	5/12/17 1720		5/12/17 1600 5/12/17 1720

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO. 01-01 (rev. 12-Mar-2012)

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 5/12/17

ALPHA Job #: L1715688

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Client Information

Client: McPhail Associates

Address: 2269 Mass Ave
Cambridge MA

Phone: 617 868 1420

Email:

Additional Project Information:

Project Information

Project Name: WIT

Project Location: Mill Charles River

Project #: 0222.0219.T4

Project Manager: KWS

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Report Information - Data Deliverables

☒ ADEx ☐ EMAIL

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☒ No MA MCP Analytical Methods ☐ Yes ☒ No CT RCP Analytical Methods
☐ Yes ☒ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☒ No GW1 Standards (Info Required for Metals & EPH with Targets)
☒ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ☐ 8260 ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
Hardness
Ammonia
Recoverable Metals

SAMPLE INFO
Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	Sample Comments	TOTAL # BOTTLES
15688-01	Charles River	5/12/17	1100	SW	LDP		1
01	Charles River	5/12/17	1100	SW	LDP		1
01	Charles River	5/12/17	1100	SW	LDP		1

Container Type		A	P	P
Preservative		A	D	O

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Relinquished By:	Date/Time	Received By:	Date/Time
	5/12/17 1200		5/12/17 1600
	5/12/17 1720		5/12/17 1720

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO. 01-01 (rev. 12-Mar-2012)

APPENDIX F:

BEST MANAGEMENT PRACTICE PLAN

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering that will occur during redevelopment of the Whittier Street Housing Project – Phase 1A in Roxbury, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

During construction of the proposed building foundation, dewatering effluent is anticipated to be pumped from localized sumps and trenches within the excavation directly into a settling tank. Based on the information obtained from the Boston Water and Sewer Commission (BWSC), manholes and catch basins along Whittier Street and Cabot Street flow into combined storm water and sewer line which act as storm drain line during typical seasonal operating conditions. The discharge flow path of these storm drain lines terminate at one primary and one secondary outfall locations. The discharge flow path continues north away from the site under Whittier Street, then flows west towards Ruggles MBTA Station, under Forsyth Way, and towards the Back Bay Fens. The secondary discharge location is an emergency outfall at a gate house that, per BWSC, is only used in high discharge flow emergency events. The flow path follows along the Back Bay Fens under I-90, Commonwealth Avenue, and Storrow Drive out the Charles River. The primary discharge location is an outfall pipe listed as CSO 023 according to the BWSC.

Dewatering effluent treatment will consist of a settling tank, bag filters to remove suspended soil particulates. If further treatment is necessary, effluent discharge will be passed through ion resin media vessels prior to off-site discharge to lower concentrations of metals below applicable WQBELs and/or TBELs.

Discharge Monitoring and Compliance

Sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. During the first week of discharge, the operator will sample the untreated influent and treated effluent two times: one (1) sample of untreated influent and one (1) sample of the treated effluent will be collected on the first day of discharge, and one (1) sample of untreated influent and one (1) sample of treated effluent will be collected on one additional non-consecutive day within the first week of discharge. Samples will be analyzed in accordance with 40 CFR §136 unless otherwise specified by the RGP, with a maximum 5-day turnaround time and results will be reviewed no more than 48 hours from receipt of the results of each sampling event. After the first week, samples will be analyzed with up to a ten (10)-day turnaround time and results must be reviewed no

more than 72 hours from receipt of the results. If the treatment system is operating as designed and achieving the effluent limitations outlined in the RGP, on-going sampling shall be conducted weekly for three (3) additional weeks beginning no earlier than 24 hours following initial sampling, and monthly as described below. Any adjustments/reductions in monitoring frequency must be approved by EPA in writing.

In accordance with Part 4.1 of the RGP, the operator will perform routine monthly monitoring for both influent and effluent beginning no more than 30 days following the completion of the sampling requirements for new discharges or discharges that have been interrupted. The routine monthly monitoring is to be conducted through the end of the scheduled discharge. The routine monthly monitoring must continue for five (5) consecutive months prior to submission of any request for modification of monitoring frequency.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing, and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the "system design flow" by regularly monitoring flow and adjusting the amount of construction dewatering as needed. Monthly monitoring reports will be compiled and maintained at the site.

System Maintenance

Regular maintenance and periodic cleaning of the treatment system will be conducted to verify proper operation and shall be conducted in accordance with Section 1.11 of the project earthwork specifications. Regular maintenance will include checking the condition of the treatment system equipment such as the settling tanks, bag filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues and unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Contractor.

Miscellaneous Items

It is anticipated that the erosion control measures and the nature of the site will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control. Site security for the treatment system will be addressed within the overall site security plan.

No adverse effects on designated uses of surrounding surface water bodies is anticipated. The GIS Map indicates that there are no water bodies or wetland areas on or within 500 feet of the subject site. The map indicates that the closest Protected Open Space to the subject site is located approximately 1,000 feet to the west. The closest water body is the Muddy

River of the Back Bay Fens, which is located approximately 1,350 feet to the northwest of the subject site.

Management of Treatment System Materials

Dewatering effluent will be pumped directly into the treatment system from the excavation with use of hoses and localized sumps to minimize handling. The Contractor will establish staging areas for equipment or materials storage that may be possible sources of pollution away from any dewatering activities, to the extent practicable.

Sediment from the tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. Bags will be replaced/disposed of as necessary.