HALEY & ALDRICH, INC.
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13 July 2021
File No. 0200427-000

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Coordinator
5 Post Office Square, Suite 100 (OEP06-01)
Boston, Massachusetts 02109-3912

Attention: Shauna Little, EPA/OEP RGP Coordinator

Subject: NPDES RGP NOI Application
Temporary Construction Dewatering
2 Harbor Street / 329 Northern Avenue
Boston, Massachusetts

Ladies and Gentlemen:

On behalf of the project owner, BCP-CG Harbor Property, LLC c/o Beacon Capital Partners, LLC, and in accordance with the 2017 National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, Haley & Aldrich, Inc. (Haley & Aldrich) submits this Notice of Intent (NOI) and the applicable documentation as required by the U.S. Environmental Protection Agency (EPA) for discharge of temporary construction site dewatering effluent under the NPDES RGP. Haley & Aldrich has prepared this submission to facilitate off-site discharge of temporary construction dewatering effluent planned in support of the proposed development located at 2 Harbor Street / 329 Northern Avenue in Boston, Massachusetts. Figure 1 depicts the Project Locus.

We anticipate temporary construction dewatering will be conducted, as necessary, to facilitate below-grade construction in-the-dry. As defined in Table 1 of the NPDES RGP, the Activity Category is III.G (Contaminated Site Dewatering, Sites with Known Contamination). A copy of the completed NOI form is enclosed as Appendix A.

EXISTING SITE CONDITIONS

The project site, located at 2 Harbor Street / 329 Northern Avenue in Boston, Massachusetts, consists of approximately 4.36 acres bound by Harbor Street to the southeast, Northern Avenue to the northeast, Massport Haul Road to the northwest, and two buildings, including the two-story 7 Channel Street and the nine-story 12 Channel Street, to the southwest. Channel Street generally bisects the site. Easements for the Massachusetts Department of Transportation (MassDOT) Ted Williams Tunnel (I-90 EB/WB) and a 54-in. diameter Boston Water and Sewer Commission (BWSC) storm drain utility pass beneath the northeast part of the site. An approximately 72,000 square foot (sf) two-story building previously occupied the southern portion of the site until it was demolished in early 2021 in preparation

for the proposed development. The remainder of the site is comprised of bituminous-paved surface parking. Surface grades across the site are relatively level, ranging from approximately El. 15 to El. 19.[1]

PROPOSED DEVELOPMENT

Our understanding of the subject development is based on drawings titled "100% Design Development", prepared by Handel Architects and dated 28 May 2021. The development includes construction of a 10-story above grade office/lab/research building (refered to as "Building No. 1") positioned over a one-level below-grade parking garage within the southeast portion of the site. The below-grade parking level will have an approximately 66,800 sf footprint and a finished floor elevation (FFE) set at approximatley El. 4, which is about 12 ft below current site grades (assuming an average existing surface grade of El. 16). Columns and walls for the new building and parking garage are planned to be supported by pile foundations installed to derive their load-carrying capacity in the bedrock underlying the site.

Discussions are also underway related to a second building ("Building No. 2") which is planned to be positioned directly to the southwest of Building No. 1. We understand that Building No. 2 would also have a single below-grade parking level connected to the Building No. 1 parking level. At ground level and above, the two buildings would be separated by a courtyard. Building No. 2 would also be supported on pile foundations.

Grade raises are planned along the north side of the proposed Building No. 1 through a combination of filling and hardscape/greenscape improvements that will be positioned over the I-90 EB/WB Ted Williams Tunnel and BWSC storm drain utility. In general, grade raises are anticipated to be in the range of no more than about 1 to 4 ft and will transition to existing grades at property boundaries, except for a planned hill (green feature) that gradually rises to about 12 ft above existing grade within the central portion of the final site improvements area.

SITE HISTORY

Historic sources, including Sanborn Fire Insurance Maps dated 1923 to 2002, aerial photographs dated 1938 to 2008, topographic maps dated 1903 to 1979, and "Gaining Ground, a History of Landmaking in Boston," by Nancy Seasholes, were reviewed for site historic information.

The site was originally composed of tidal flats in Boston Harbor, known as the South Boston Flats, which were filled in the mid- to late-1800s. Shorelines depicted on historic maps indicate the site was filled between 1888 and 1889. Following filling, the site was occupied by coal sheds associated with the Metropolitan Coal Company in the 1890s and the New York-New Haven & Hartford Railroad tracks and freight terminal into the 1920s. In the 1910s through the 1930s, the southeast portion of the site was occupied by tanks and a cooper shop associated with the Boston Molasses Company. The Navy built the building that previously occupied much of the southern portion of the site in 1942 to serve as a temporary warehouse for supplies to support World War II. Following the conclusion of World War II,

1 Elevations reported herein are given in feet and refer to the Boston City Base (BCB) Datum, which is 6.46 ft below the North American Vertical Datum of 1988 (NAVD 88) and 94.35 ft above the Central Artery/Tunnel (CA/T) Datum.

the Navy continued to use the building as a supply warehouse until about 1979. In the 1980s and 1990s, the building was used for private cargo handling. The northern corner of the building was altered in the early 1990s to facilitate construction of the Ted Williams Tunnel through the northeast portion of the site. The building was vacant prior to its demolition earlier in 2021.

ENVIRONMENTAL CONDITIONS AND REGULATORY BACKGROUND

The precharacterization program conducted at the site by Haley & Aldrich during May and June 2021 identified common urban fill constituents in soils including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), and metals (arsenic, lead, mercury and zinc) at levels above the applicable RCS-1 Reportable Concentrations under the Massachusetts Contingency Plan, 310 CMR 40.0000 (MCP). Reportable constituents were not detected in groundwater. Therefore, a 120-day Release Notification Form (RNF) will be submitted to the Massachusetts Department of Environmental Protection (MassDEP) in accordance with the MCP at 310 CMR 40.0315. Subsequently, MassDEP will assign a Release Tracking Number (RTN) to the site. A Release Abatement Measure (RAM) Plan will be prepared and submitted to MassDEP prior to the start of construction for the management of soil and groundwater.

A historical MCP spill site was also identified within the northwestern limits of the current project site due to a 2-hour petroleum release at 7 Channel Street (adjacent property). On 25 August 2010, approximately 120 gallons of diesel fuel was released to pavement and catch basins along Channel Street from a tractor trailer collision. Remedial actions included application of absorbents to the roadway and storm drain outfall as well as removal of impacted soil and sediment from affected catch basins. MassDEP assigned RTN 3-29470 to the site, and a Class A-1 Response Action Outcome (RAO) was filed on 22 October 2010, indicating that the contamination had been reduced to background concentrations. Based on the nature of the surficial release and implemented remedial actions, the RTN 3-29470 incident is not considered to have impacted subsurface conditions at the current project site.

TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT (NOI)

One (1) groundwater sample was obtained from observation well HA19-B2 on 2 June 2021. The location of the observation well is shown on Figure 2. A surface water sample was also obtained from the Boston Inner Harbor, the intended discharge point for site dewatering, at the location indicated on Figure 3. The samples were submitted to Alpha Analytical (Alpha) of Westborough, Massachusetts for analysis of the following NPDES RGP parameters: VOCs, SVOCs, total metals (including antimony, arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver and zinc), hexavalent and trivalent chromium, TPH, polychlorinated biphenyls (PCBs), total suspended solids (TSS), total chloride, total cyanide, total phenols, total residual chlorine (TRC), pH, salinity, hardness and ammonia. Measurements of temperature were obtained in the field on the sample date indicated above. Refer to Table I for a summary of the groundwater analytical data. The results did not indicate concentrations of constituents above applicable MCP RCGW-2 Reportable Concentrations or the applicable NPDES RGP Effluent Limitations.

When excavation to construct proposed foundations and other site improvements extend beneath site groundwater levels, dewatering will be necessary to control groundwater, seepage, precipitation,

surface water runoff, and construction-generated water to enable below-grade construction activities in-the-dry. Construction dewatering effluent that will be discharged off-site will be managed under the NPDES RGP. We estimate effluent discharge rates of a maximum of 100 gallons per minute (gpm). The duration of temporary construction dewatering is anticipated to be approximately two years, starting in January 2022 and continuing through approximately December 2023.

Temporary construction dewatering will be conducted from sumps located within excavations. Prior to discharge, collected water will be routed through a baffled sedimentation tank and bag filters to remove suspended solids and undissolved constituents, including metals, to within the limits established by the permit. Total flow will be measured with a flow meter/totalizer. If necessary to meet NPDES RGP Effluent Limitations, supplemental pre-treatment may include oil/water separators, pH control to adjust the pH to within the limits established by the permit, and/or other components as required; refer to Figure 4 for a schematic of the proposed treatment system as understood at this time.

Discharge of dewatering effluent will be to the local storm drain operated by the BWSC located beneath the site and adjacent Harbor Street, after which the effluent will flow beneath Northern Avenue before discharging at outfall SDO 242 to the Boston Inner Harbor. The proposed discharge route is shown on Figure 3. The BWSC Dewatering Discharge Permit Application is included in Appendix B.

RECEIVING WATER QUALITY INFORMATION AND DILUTION FACTOR

On 2 June 2021, Haley & Aldrich collected a receiving water sample from the Boston Inner Harbor near the proposed discharge location at outfall SDO 242 shown on Figure 3 using a disposable polyethylene bailer. The surface water sample was submitted to Alpha for chemical analysis of pH, ammonia, hardness, total metals and salinity. The temperature of the Boston Inner Harbor was measured in the field on the sample date indicated. The results of the receiving water data are included in Table I.

Results were used to calculate the site Water Quality Based Effluent Limitations (WQBELs). It is our understanding that since the receiving water is a saltwater body, analysis for total metals for the receiving water was not necessary, and analysis for hardness was not necessary for either the effluent water or receiving water. These analyses were conducted, and the results are included in Table I for completeness. Additionally, it is our understanding that the dilution factor for a saltwater receiving water is 1.

EFFLUENT CRITERIA DETERMINATION

The EPA-suggested WQBEL Calculation spreadsheet was used to calculate the Effluent Limitations for the site. Groundwater and receiving water data were input, and the resulting criteria were tabulated in the attached Table I. As requested by the EPA, the Microsoft Excel spreadsheet for the WQBEL calculations will be submitted to the EPA via email for their review upon submission of this NOI. Copies of the “EnterData” and “SaltwaterResults” tabs from the Microsoft Excel file are included in Appendix C.

DETERMINATION OF ENDANGERED SPECIES ACT ELIGIBILITY

In accordance with the Endangered Species Act (ESA) guidelines outlined in Appendix I of the 2017 NPDES RGP, a preliminary determination for the action area associated with this project was established using the U.S. Fish and Wildlife Service (FWS) Information, Planning, and Conservation (IPaC) online system; a copy of the determination is attached in Appendix D. Based on the results of the determination, the project and action area are considered to meet FWS Criterion A as no listed species or critical habitat have been established to be present within the project action area. Additionally, a MassDEP Phase 1 Site Assessment Map is included in Appendix D which confirms that no critical habitats are present at the subject site.

It is our understanding that listed species under the jurisdiction of the National Marine Fisheries Service (NMFS) are the Atlantic Sturgeon and the Shortnose Sturgeon, as well as two species of whales (North Atlantic Right Whale and Fin Whale) and four species of sea turtles (Loggerhead Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle and Green Sea Turtle) in the marine environment. Based upon our review of National Oceanic and Atmospheric Administration (NOAA) Protected Resources Section 7 Program Species Information and Maps, accessed by Haley & Aldrich on 8 June 2021, no listed species under the jurisdiction of NMFS have been established to be present within the project action area. Tables providing the regions and nearshore areas of importance for each of the NMFS listed species are provided in Appendix D.

DOCUMENTATION OF NATIONAL HISTORIC PRESERVATION ACT ELIGIBILITY REQUIREMENTS

Based on a review of the resources provided by the U.S. National Register of Historic Places and a review of the Massachusetts Cultural Resource Information System (MACRIS), no historic properties have been established to be present at the project site, and discharges and discharge-related activities are not considered to have the potential to affect historic properties. The discharge is considered to meet Criterion A. Documentation is included in Appendix E.

The building that previously occupied the southern portion of the site until it was demolished earlier in 2021 was identified as Building 19 of the Boston Army Supply Base area, included in the Massachusetts Historical Commission (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth. The Boston Army Supply Base area is identified as MHC# BOS.RT, and Building 19 was identified as MHC# BOS.12966 and listed with 6 Harbor Street as its address. According to the Expanded Project Notification Form for the subject development, submitted by ICCNE LLC (previous property owner) to the Boston Planning and Development Agency (BPDA) on 25 November 2019, in 2008 the Boston Landmarks Commission (BLC) granted approval under Article 85 of the Boston Zoning Code to demolish the building, citing lack of significance. Additional information is included in Appendix E.

ETHANOL DISCUSSION

The site history does not suggest that ethanol was used or stored at the property, and a petroleum product containing ethanol, typically gasoline, is not known to have been released at the site. Therefore, ethanol analysis was not conducted on the groundwater (i.e., effluent) sample.

BEST MANAGEMENT PRACTICES PLAN

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, will be available at the site.

OWNER AND OPERATOR INFORMATION

Owner:
BCP-CG Harbor Property, LLC
c/o Beacon Capital Partners, LLC
200 State Street, 5th Floor
Boston, Massachusetts 02109
Attn: Eric Ewer
Title: Senior Vice President

Operator:
Suffolk Construction Company
65 Allerton Street
Boston, Massachusetts 02119
Attn: Douglas Kimble
Title: Vice President, Operations

The General Contractor (i.e., Operator) will hire an earthwork subcontractor (Site Contractor) to conduct the site work, including dewatering activities. Haley & Aldrich will be on-site to monitor the Contractors' site and foundation work on behalf of the Owner and will conduct sampling and testing of the dewatering system influent and effluent in accordance with the NPDES RGP compliance requirements.

APPENDICES

The completed "Suggested Format for the Remediation General Permit Notice of Intent (NOI)" form is enclosed in Appendix A. Appendix B provides a copy of the BWSC Dewatering Discharge Permit Application submitted to the BWSC. Appendix C includes tabs from the WQBEL calculation spreadsheet for reference. Appendices D and E include the Endangered Species Act documentation and National Register of Historic Places and MHC documentation, respectively. The groundwater and receiving water laboratory data report is provided in Appendix F.

The Site Contractor has not yet been selected. Once selected, they will submit their construction dewatering submittal, which will include details of the proposed dewatering system along with Safety Data Sheets (SDSs) and fact sheets for possible chemical additives if required for pre-treatment of dewatering effluent (e.g., adjust pH, reduce suspended sediments). If required, this information will be submitted to the EPA using a Notice of Change (NOC).

CLOSING

Thank you for considering this NPDES RGP NOI. Please feel free to contact the undersigned should you require additional information or have questions.

Sincerely yours,
HALEY & ALDRICH, INC.

Jonathan M. Thibault
Senior Technical Specialist

Elliot I. Steinberg, P.E., LSP
Senior Associate

Attachments:

Table I – Summary of Water Quality Data
Figure 1 – Project Locus
Figure 2 – Site and Subsurface Exploration Location Plan
Figure 3 – Proposed Discharge Route
Figure 4 – Proposed Treatment System Schematic
Appendix A – Remediation General Permit Notice of Intent
Appendix B – BWSC Dewatering Discharge Permit Application
Appendix C – Effluent Limit Calculations
Appendix D – Endangered Species Act Documentation
Appendix E – National Register of Historic Places and Massachusetts Historical Commission Documentation
Appendix F – Laboratory Data Report

c: BCP-CG Harbor Property, LLC c/o Beacon Capital Partners, LLC; Attn: Eric Ewer
Suffolk Construction Company; Attn: Douglas Kimble
Boston Water and Sewer Commission; Attn: Francis McLaughlin, Jodi Dobay
Massachusetts Department of Environmental Protection; Attn: Catherine Vakalopoulos

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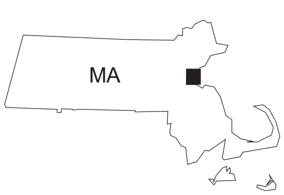
TABLE I
SUMMARY OF WATER QUALITY DATA
2 HARBOR STREET / 329 NORTHERN AVENUE
BOSTON, MASSACHUSETTS
FILE NO. 0200427-000

Location Name	2017 NPDES RGP Effluent Limitations	2014 MassDEP MCP RCGW-2 Reportable Concentrations	HA19-B2(OW)	Boston Inner Harbor Outfall SDO 242
Sample Name			HA19-B2(OW)_2021-06	HA21-NPDES-SW
Sample Date			06/02/2021	06/02/2021
Lab Sample ID			L2129453-01	L2129453-02
Well Screen Interval (ft, BCB) (Note 3)			6.8 to -3.2	NA
Groundwater Elevation (ft, BCB) (Note 4)			8.0	NA
Sample Type			Groundwater	Receiving Water
Volatile Organic Compounds (ug/L)				
1,1,1-Trichloroethane	200	4000	ND (2)	-
1,1,2-Trichloroethane	5	900	ND (1.5)	-
1,1-Dichloroethane	70	2000	ND (1.5)	-
1,1-Dichloroethene	3.2	80	ND (1)	-
1,2-Dibromoethane (Ethylene Dibromide)	0.05	2	ND (0.01)	-
1,2-Dichlorobenzene	600	2000	ND (5)	-
1,2-Dichloroethane	5	5	ND (1.5)	-
1,3-Dichlorobenzene	320	6000	ND (5)	-
1,4-Dichlorobenzene	5	60	ND (5)	-
Acetone	7970	50000	ND (10)	-
Benzene	5	1000	ND (1)	-
Carbon tetrachloride	4.4	2	ND (1)	-
cis-1,2-Dichloroethene	70	20	ND (1)	-
Ethylbenzene	NA	5000	ND (1)	-
m,p-Xylenes	NA	3000	ND (2)	-
Methyl Tert Butyl Ether	70	5000	ND (10)	-
Methylene chloride	4.6	2000	ND (1)	-
o-Xylene	NA	3000	ND (1)	-
Tert-Amyl Methyl Ether (TAME)	90	NA	ND (20)	-
Tert-Butyl Alcohol (tert-Butanol)	120	NA	ND (100)	-
Tetrachloroethene	5	50	ND (1)	-
Toluene	NA	40000	ND (1)	-
Trichloroethene	5	5	ND (1)	-
Vinyl chloride	2	2	ND (1)	-
Xylene (total)	NA	3000	ND (1)	-
Total BTEX	100	NA	ND	-
SUM of Volatile Organic Compounds	NA	NA	ND	-
Volatile Organic Compounds (SIM) (ug/L)				
1,4-Dioxane	200	6000	ND (5)	-
Semi-Volatile Organic Compounds (ug/L)				
bis(2-Ethylhexyl)phthalate (Dethylhexyl phthalate)	101	50000	ND (2.2)	-
Butyl benzylphthalate	NA	10000	ND (5)	-
Diethyl phthalate	NA	9000	ND (5)	-
Dimethyl phthalate	NA	50000	ND (5)	-
Di-n-butylphthalate	NA	5000	ND (5)	-
Di-n-octyl phthalate	NA	100000	ND (5)	-
Total Phthalates	190	NA	ND	-
SUM of Semi-Volatile Organic Compounds	NA	NA	ND	-
Semi-Volatile Organic Compounds (SIM) (ug/L)				
Acenaphthene	NA	6000	ND (0.1)	-
Acenaphthylene	NA	40	ND (0.1)	-
Anthracene	NA	30	ND (0.1)	-
Benzo(a)anthracene	1	1000	ND (0.1)	-
Benzo(a)pyrene	1	500	ND (0.1)	-
Benzo(b)fluoranthene	1	400	ND (0.1)	-
Benzo(g,h,i)perylene	NA	20	ND (0.1)	-
Benzo(k)fluoranthene	1	100	ND (0.1)	-
Chrysene	1	70	ND (0.1)	-
Dibenz(a,h)anthracene	1	40	ND (0.1)	-
Fluoranthene	NA	200	ND (0.1)	-
Fluorene	NA	40	ND (0.1)	-
Indeno(1,2,3-cd)pyrene	1	100	ND (0.1)	-
Naphthalene	20	700	ND (0.1)	-
Pentachlorophenol	1	200	ND (1)	-
Phenanthrene	NA	10000	ND (0.1)	-
Pyrene	NA	20	ND (0.1)	-
Total Group I Polycyclic Aromatic Hydrocarbons	1	NA	ND	-
Total Group II Polycyclic Aromatic Hydrocarbons	100	NA	ND	-
SUM of Semi-Volatile Organic Compounds (SIM) (ug/L)	NA	NA	ND	-
Total Petroleum Hydrocarbons (mg/L)	5	5	ND (3.6)	-
Total Metals (mg/L)				
Antimony, Total	0.206	8	ND (0.004)	ND (0.04)
Arsenic, Total	0.104	0.9	ND (0.001)	ND (0.01)
Cadmium, Total	0.0102	0.004	ND (0.0002)	ND (0.002)
Chromium, Total	NA	0.3	ND (0.001)	ND (0.01)
Chromium III (Trivalent), Total	0.323	0.6	ND (0.01)	-
Chromium VI (Hexavalent), Total	0.323	0.3	ND (0.01)	-
Copper, Total	0.242	100	ND (0.001)	ND (0.01)
Iron, Total	5	NA	0.476	0.116
Lead, Total	0.16	0.01	ND (0.001)	ND (0.01)
Mercury, Total	0.000739	0.02	ND (0.0002)	ND (0.0002)
Nickel, Total	1.45	0.2	0.00535	ND (0.02)
Selenium, Total	0.2358	0.1	ND (0.005)	ND (0.05)
Silver, Total	0.0351	0.007	ND (0.0004)	ND (0.004)
Zinc, Total	0.42	0.9	0.01375	ND (0.1)
Polychlorinated Biphenyls (ug/L)				
Aroclor-1016 (PCB-1016)	NA	5	ND (0.25)	-
Aroclor-1221 (PCB-1221)	NA	5	ND (0.25)	-
Aroclor-1232 (PCB-1232)	NA	5	ND (0.25)	-
Aroclor-1242 (PCB-1242)	NA	5	ND (0.25)	-
Aroclor-1248 (PCB-1248)	NA	5	ND (0.25)	-
Aroclor-1254 (PCB-1254)	NA	5	ND (0.25)	-
Aroclor-1260 (PCB-1260)	NA	5	ND (0.2)	-
SUM of Polychlorinated Biphenyls	0.000064	5	ND	-
Other				
Ammonia, Total (mg/L)	Report	NA	0.602	0.114
Chloride, Total (mg/L)	Report	NA	59.2	-
Chlorine, Total Residual (mg/L)	0.0075 (Note 7)	NA	**ND (0.02)**	-
Cyanide, Total (mg/L)	178	0.03	ND (0.005)	-
Phenols, Total (mg/L)	1.08	NA	ND (0.03)	-
Total Suspended Solids (TSS) (mg/L)	30	NA	ND (5)	-
pH (SU) (Note 5)	6.5 to 8.5	NA	6.6	7.6
Salinity, Total (SU)	NA	NA	ND (2)	26
Hardness, Total (mg/L)	NA	NA	297	3900
Temperature (°C) (Note 6)	29.5	NA	14.1	22.9

ABBREVIATIONS AND NOTES:
-: Not Analyzed
µg/L: micrograms per liter
MassDEP: Massachusetts Department of Environmental Protection
MCP: 310 CMR 40.0000 Massachusetts Contingency Plan effective 25 April 2014; revisions 23 May 2014
mg/L: milligrams per liter
NA: Not Applicable
ND (2.5): Not detected, number in parentheses is the laboratory reporting limit
NPDES RGP: National Pollutant Discharge Elimination System Remediation General Permit
SU: Standard Units

1. **Bold** values indicate an exceedance of the applicable NPDES RGP Effluent Limitations, determined in accordance with the procedures outlined in the EPA-suggested Water Quality Based Effluent Limitation (WQBEL) Calculation spreadsheet.
2. **Bold ND** values indicate the laboratory reporting limit exceeds the applicable NPDES RGP Effluent Limitation.
3. Elevations are in feet and refer to the Boston City Base (BCB) Datum.
4. Groundwater elevation measured in the field on the sample date indicated.
5. Receiving water and groundwater pH measured in the laboratory.
6. Receiving water and groundwater temperature measured in the field on the sample date indicated.
7. Effluent Limitations for Total Residual Chlorine (TRC) only apply if TRC is present or discharges are likely to contain residual chlorine, which is not the case for this site. The water quality based effluent limitation for TRC is 0.0075 mg/L, but the compliance level for TRC is 0.05 mg/L.



MAP SOURCE: ESRI
SITE COORDINATES: 42°20'42"N, 71°2'15"W

HALEY ALDRICH

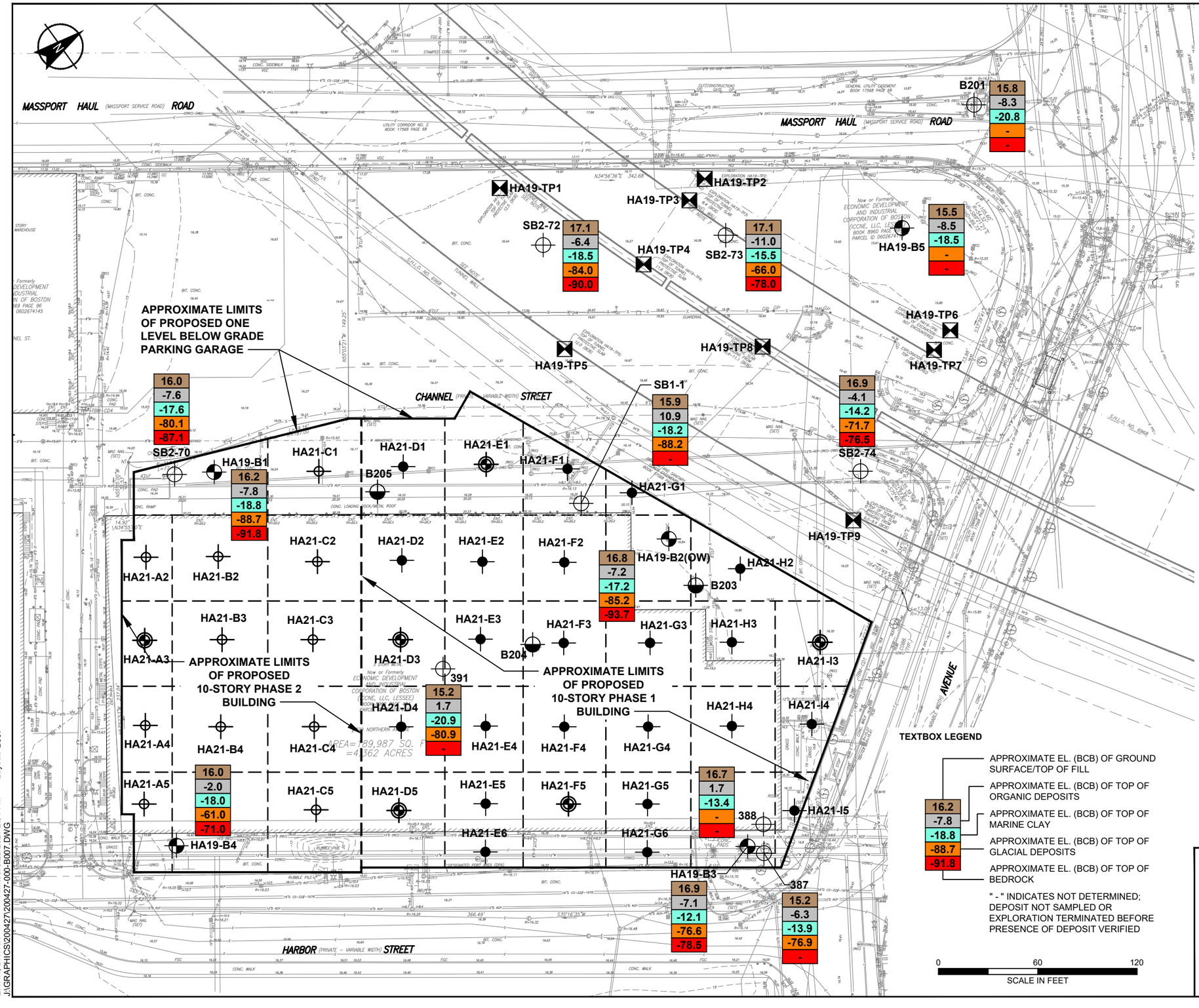
2 HARBOR STREET / 329 NORTHERN AVENUE
BOSTON, MASSACHUSETTS

PROJECT LOCUS

APPROXIMATE SCALE: 1 IN = 2000 FT
JULY 2021

FIGURE 1

GIS FILE PATH: \\haleyaldrich.com\share\bos_common\132753 - 2 Harbor Street\GLOBAL\GIS\Maps\2019_09\132753_006_0001_PROJECT_LOCUS.mxd — USER: hwachholz — LAST SAVED: 9/5/2019 5:46:30 PM



LEGEND

HA21-A3	DESIGNATION AND APPROXIMATE LOCATION OF PROPOSED TEST BORING DRILLED BY GEOLOGIC EARTH EXPLORATION, INC. FROM 2 TO 10 JUNE 2021
HA21-D1	DESIGNATION AND APPROXIMATE LOCATION OF PROPOSED GEOPROBE BETWEEN 15 TO 20 FT.
HA21-C4	DESIGNATION AND APPROXIMATE LOCATION OF GEOPROBE CONDUCTED BY GEOLOGIC EARTH EXPLORATION, INC. FROM 21 TO 27 MAY 2021
HA19-B3	APPROXIMATE LOCATION OF PROPOSED PHASE 2 GEOPROBE BETWEEN 15 TO 20 FT.
HA19-B3	DESIGNATION AND APPROXIMATE LOCATION OF TEST BORING DRILLED BY GEOLOGIC EARTH EXPLORATION, INC. AND MONITORED BY HALEY & ALDRICH, INC. BETWEEN 24 JUNE AND 15 JULY 2019
HA19-TP1	DESIGNATION AND APPROXIMATE LOCATION OF TEST PIT EXCAVATION CONDUCTED BY GEOLOGIC EARTH EXPLORATION, INC. FROM 24 TO 27 MAY 2021
HA19-TP1	DESIGNATION AND APPROXIMATE LOCATION OF TEST PIT EXCAVATION CONDUCTED BY JAMES W. FLETCO, INC. FROM 22 TO 29 JULY 2019.
(OW)	INDICATES OBSERVATION WELL INSTALLED IN COMPLETED BOREHOLE
SB2-72	DESIGNATION AND APPROXIMATE LOCATION OF HISTORIC TEST BORING CONDUCTED FOR THE CENTRAL ARTERY / TUNNEL PROJECT
B204	DESIGNATION AND APPROXIMATE LOCATION OF SHALLOW TEST BORING CONDUCTED FOR CARGO VENTURES IN 2004.

NOTES

1. BASE PLAN OBTAINED FROM PLAN TITLED "EXISTING CONDITIONS SURVEY", PREPARED BY FELDMAN LAND SURVEYORS AND DATED 5 SEPTEMBER 2019.
2. CONFIGURATION OF PROPOSED BUILDINGS TAKEN FROM AN ELECTRONIC FILE TITLED "A-100 LEVEL P OVERALL PLAN.dwg", PROVIDED BY HANDEL ARCHITECTS ON 24 MARCH 2021.
3. TECHNICAL MONITORING OF THE EXPLORATIONS CONDUCTED IN 2019 AND 2021 WAS PERFORMED BY HALEY & ALDRICH, INC.; THE LOCATIONS OF THE EXPLORATIONS WERE ESTIMATED BY TAPING TO EXISTING SITE FEATURES IN THE FIELD.
4. APPROXIMATE LOCATIONS OF PREVIOUS EXPLORATIONS CONDUCTED FOR CENTRAL ARTERY / TUNNEL PROJECT OBTAINED FROM "FIGURE 2A: SITE AND SUBSURFACE EXPLORATION LOCATION PLAN" AND "FIGURE 2B: SITE AND SUBSURFACE EXPLORATION LOCATION PLAN", TAKEN FROM REPORT TITLED "FINAL GEOTECHNICAL DATA REPORT, DESIGN SECTION D004A, CENTRAL ARTERY (I-93)/TUNNEL (I-90) PROJECT, BOSTON, MASSACHUSETTS", PREPARED BY HALEY & ALDRICH, INC. AND DATED 10 OCTOBER 1991.
5. APPROXIMATE LOCATIONS OF PREVIOUS EXPLORATIONS CONDUCTED FOR CARGO VENTURES IN 2004 OBTAINED FROM "FIGURE 3: SITE PLAN" TAKEN FROM REPORT TITLED "PHASE 1 AND PHASE II ENVIRONMENTAL SITE ASSESSMENT, BOSTON FREIGHT PROJECT, SOUTH BOSTON, MASSACHUSETTS", PREPARED BY ESS GROUP, INC. AND DATED 11 FEBRUARY 2005.
6. TEST BORINGS B203, B204 AND B205 WERE SHALLOW EXPLORATIONS THAT DID NOT PENETRATE THE FILL; ACCORDINGLY, TEXT BOXES NOT PROVIDED FOR THESE EXPLORATIONS.

TEXTBOX LEGEND

0 60 120
SCALE IN FEET

HALEY ALDRICH

SOUTH BOSTON TRANSPORTATION CAMPUS
200 NORTHERN AVENUE
BOSTON, MASSACHUSETTS

SITE SUBSURFACE EXPLORATION LOCATION PLAN

SCALE: AS SHOWN
JUNE 2021

FIGURE 2

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BOSTON INNER HARBOR

BOSTON INNER HARBOR
OUTFALL SDO 242

APPROXIMATE ROUTE
OF DISCHARGE TO
OUTFALL (TYP.)

APPROXIMATE LOCATION
OF POTENTIAL
DISCHARGE POINT (TYP.)

APPROXIMATE LIMITS OF
2 HARBOR STREET /
329 NORTHERN AVENUE

BOSTON FISH PIER
DRY DOCK
NORTHERN AV
FID KENNEDY DR
SEAFOOD WY
PARK LN
HARBOR VIEW LN
STARBOARD LN
MASSPORT HAUL RD
CHANNEL ST
HARBOR ST
ACCESS ROAD A
ACCESS ROAD B
TIDE ST
ANCHOR WY
AUBON PAIN WY
DRY DOCK AV
TERMINAL ST
PRIVATE RD
SUMMER ST
BLACK FALCON AV
CONRAIL
BOSTON ARMY SUPPLY BASE
RESERVED CHANNEL
PARKING

HALEY ALDRICH

2 HARBOR STREET / 329 NORTHERN AVENUE
BOSTON, MASSACHUSETTS

**PROPOSED
DISCHARGE ROUTE**

SCALE: AS SHOWN
JULY 2021

FIGURE 3

BOSTON WATER AND SEWER

N W E S

0 50 100 200
Feet

H

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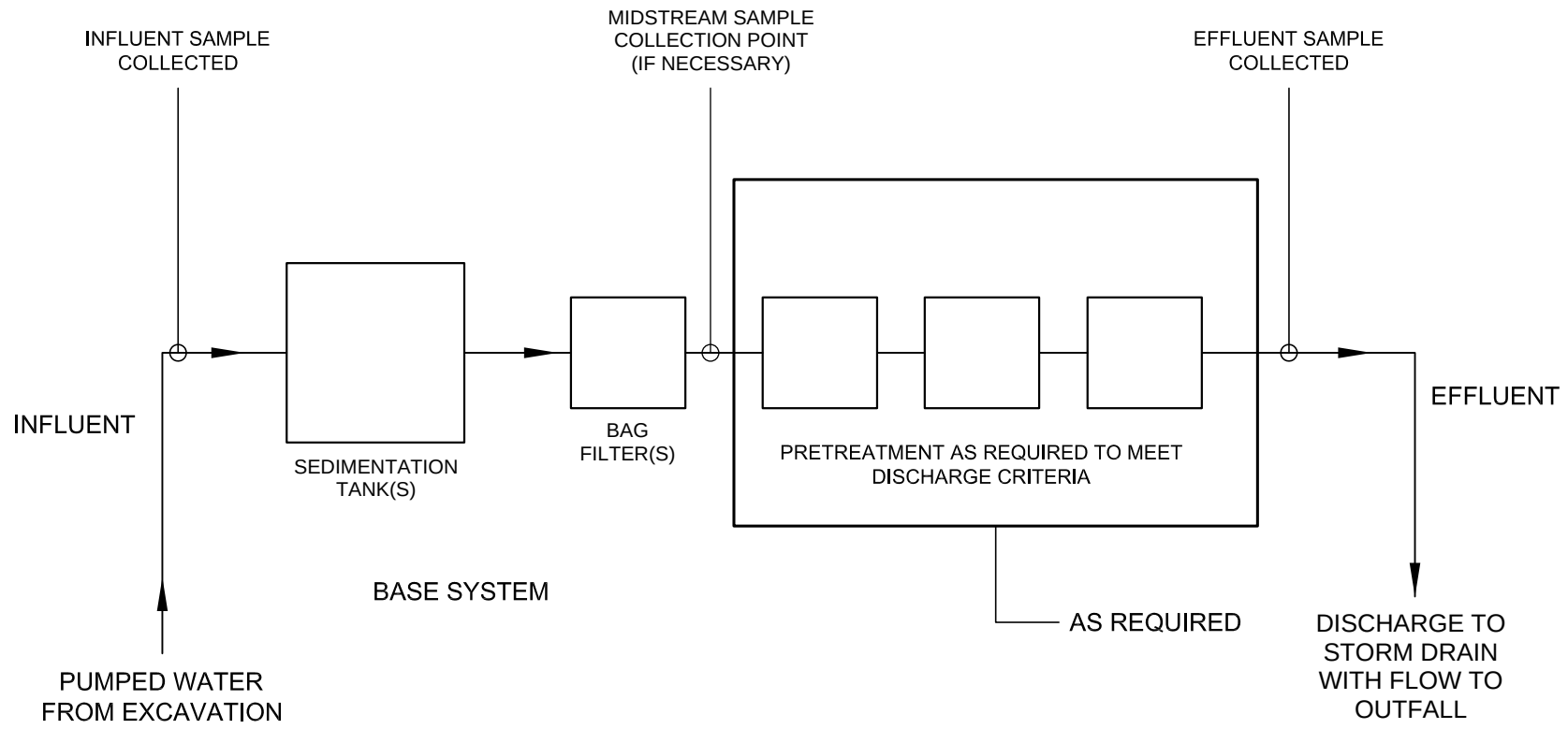


LEGEND:

DIRECTION OF FLOW

NOTE:

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.

HALEY ALDRICH

2 HARBOR STREET / 329 NORTHERN AVENUE
BOSTON, MASSACHUSETTS

PROPOSED TREATMENT SYSTEM SCHEMATIC

SCALE: NONE
JULY 2021

FIGURE 4

APPENDIX A

Remediation General Permit Notice of Intent

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:
2 Harbor Street / 329 Northern Avenue</td><td colspan="3">Site address:
Street: 2 Harbor Street / 329 Northern Avenue</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02210</td></tr>
<tr><td rowspan="4">2. Site owner
BCP-CG Harbor Property, LLC
c/o Beacon Capital Partners, LLC

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Eric Ewer</td></tr>
<tr><td colspan="2">Telephone: 617.293.8311</td><td>Email: EEwer@beaconcapital.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 200 State Street, 5th Floor</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02109</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Suffolk Construction Company</td><td colspan="3">Contact Person: Douglas Kimble</td></tr>
<tr><td colspan="2">Telephone: 617.828.1145</td><td>Email: DKimble@suffolk.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 65 Allerton Street</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02119</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
TBD

NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
■ MA Chapter 21e; list RTN(s):
TBD
☐ 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):
BOSTON INNER HARBOR	MA70-02	SB

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. Category 5 - Waters Requiring TMDL per 2016 MA Integrated List of Waters (Dissolved Oxygen, PCBs in Fish Tissue, Fecal Coliform, Enterococcus)

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.	NA (Saltwater Receiving Water)
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.	1 (Saltwater)

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: No 7Q10 and No Dilution Factor Requested

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: Groundwater, Seepage, Precipitation, Surface Water Runoff

NOTE: ALTHOUGH "CONTAMINATED GROUNDWATER" IS LISTED, SEE TABLE FOR COMPOUNDS ACTUALLY DETECTED

2. Source water contaminants: No Contaminants Above RCGW-2 or Effluent Limitations; See Table for Compounds Actually Detected	
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): SDO 242	Outfall location(s): (Latitude, Longitude) 42.3483, -71.0341
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Storm drain system located beneath and adjacent to site, operated by Boston Water and Sewer Commission (BWSC) ☐ 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: BWSC Dewatering Discharge Permit Application Submitted Concurrently 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): January 2022 - December 2023 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>

* COMPOUNDS DETECTED IN SOIL ONLY

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	SM 4500	75	602	-	Report mg/L	---
Chloride		✓	1	300.0	5000	59,200	-	Report µg/l	---
Total Residual Chlorine	✓		1	SM 4500	20	ND	-	0.2 mg/L	7.5 ug/L
Total Suspended Solids	✓		1	2540D	5000	ND	-	30 mg/L	---
Antimony	✓		1	200	4	ND	-	206 µg/L	640 ug/L
Arsenic	✓		1	200	1	ND	-	104 µg/L	36 ug/L
Cadmium	✓		1	200	0.2	ND	-	10.2 µg/L	8.9 ug/L
Chromium III	✓		1	107	10	ND	-	323 µg/L	100 ug/L
Chromium VI	✓		1	7196A	10	ND	-	323 µg/L	50 ug/L
Copper	✓		1	200	1	ND	-	242 µg/L	3.7 ug/L
Iron		✓	1	200	50	476	-	5,000 µg/L	---
Lead	✓		1	200	1	ND	-	160 µg/L	8.5 ug/L
Mercury	✓		1	245	0.2	ND	-	0.739 µg/L	1.11 ug/L
Nickel		✓	1	200	2	5.35	-	1,450 µg/L	8.3 ug/L
Selenium	✓		1	200	5	ND	-	235.8 µg/L	71 ug/L
Silver	✓		1	200	0.4	ND	-	35.1 µg/L	2.2 ug/L
Zinc		✓	1	200	10	13.75	-	420 µg/L	86 ug/L
Cyanide	✓		1	4500 CN	5	ND	-	178 mg/L	1 ug/L
B. Non-Halogenated VOCs									
Total BTEX	✓		1	624	1	ND	-	100 µg/L	---
Benzene	✓		1	624	1	ND	-	5.0 µg/L	---
1,4 Dioxane	✓		1	624 SIM	5	ND	-	200 µg/L	---
Acetone	✓		1	624	10	ND	-	7.97 mg/L	---
Phenol	✓		1	420	30	ND	-	1,080 µg/L	300 ug/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	624	1	ND	-	4.4 µg/L	1.6 µg/L
1,2 Dichlorobenzene	✓		1	624	5	ND	-	600 µg/L	---
1,3 Dichlorobenzene	✓		1	624	5	ND	-	320 µg/L	---
1,4 Dichlorobenzene	✓		1	624	5	ND	-	5.0 µg/L	---
Total dichlorobenzene	✓		1	624	5	ND	-	763 µg/L in NH	---
1,1 Dichloroethane	✓		1	624	1.5	ND	-	70 µg/L	---
1,2 Dichloroethane	✓		1	624	1.5	ND	-	5.0 µg/L	---
1,1 Dichloroethylene	✓		1	624	1	ND	-	3.2 µg/L	---
Ethylene Dibromide	✓		1	504.1	0.01	ND	-	0.05 µg/L	---
Methylene Chloride	✓		1	624	1	ND	-	4.6 µg/L	---
1,1,1 Trichloroethane	✓		1	624	2	ND	-	200 µg/L	---
1,1,2 Trichloroethane	✓		1	624	1.5	ND	-	5.0 µg/L	---
Trichloroethylene	✓		1	624	1	ND	-	5.0 µg/L	---
Tetrachloroethylene	✓		1	624	1	ND	-	5.0 µg/L	3.3 µg/L
cis-1,2 Dichloroethylene	✓		1	624	1	ND	-	70 µg/L	---
Vinyl Chloride	✓		1	624	1	ND	-	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✓		1	625	2.2	ND	-	190 µg/L	---
Diethylhexyl phthalate	✓		1	625	2.2	ND	-	101 µg/L	2.2 µg/L
Total Group I PAHs	✓		1	625 SIM	0.1	ND	-	1.0 µg/L	---
Benzo(a)anthracene	✓		1	625 SIM	0.1	ND	-	As Total PAHs	0.0038 µg/L
Benzo(a)pyrene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Benzo(b)fluoranthene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Benzo(k)fluoranthene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Chrysene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Dibenzo(a,h)anthracene	✓		1	625 SIM	0.1	ND	-		0.0038 µg/L
Indeno(1,2,3-cd)pyrene	✓		1	625 SIM	0.1	ND	-		0.0038 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
Total Group II PAHs	✔		1	625 SIM	0.1	ND	-	100 µg/L	---
Naphthalene	✔		1	625 SIM	0.1	ND	-	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔		1	608	0.2	ND	-	0.000064 µg/L	---
Pentachlorophenol	✔		1	625 SIM	1	ND	-	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		1	1664A	3.600	ND	-	5.0 mg/L	---
Ethanol	✔		NA	NA	NA	NA		Report mg/L	---
Methyl-tert-Butyl Ether	✔		1	624	10	ND	-	70 µg/L	20 µg/L
tert-Butyl Alcohol	✔		1	624	100	ND	-	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		1	624	20	ND	-	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 (SU)		✔	1	4500	-	6.6	-		
Temperature (°C)		✔	1	FIELD	-	14.1	-		
Hardness		✔	1	200	660	297,000	-		
*See attached table for additional compounds detected in soil									

Compounds Detected in Soil:

VOCs
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
2-Butanone (Methyl Ethyl Ketone)
Acetone
Benzene
Chloroform (Trichloromethane)
cis-1,2-Dichloroethene
Cymene (p-Isopropyltoluene)
Ethylbenzene
Naphthalene
n-Butylbenzene
Tetrachloroethene
Toluene
Trichloroethene
Trichlorofluoromethane (CFC-11)
Xylene (total)

SVOCs
2,4-Dimethylphenol
2-Methylnaphthalene
3&4-Methylphenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
bis(2-Ethylhexyl)phthalate
Chrysene
Dibenz(a,h)anthracene
Dibenzofuran
Fluoranthene
Fluorene
Indeno(1,2,3-cd)pyrene
Naphthalene
Phenanthrene
Pyrene

Metals
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Lead
Lead, TCLP
Mercury
Nickel*
Selenium
Silver
Vanadium
Zinc*

Other
Total Petroleum Hydrocarbons
PCBs Aroclor-1254
PCBs Aroclor-1260

**Compound also detected in groundwater*

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:
Treatment as required to meet Effluent Limitations

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.
Prior to discharge, collected water will be routed through sedimentation tank(s) and bag filters to remove suspended solids and undissolved constituents, including metals. Total flow will be measured with a flow meter/totalizer. Supplemental pre-treatment may be required to meet Effluent Limitations and may include oil/water separators, pH control, and/or other components as required. If required, additional information on supplemental pre-treatment will be provided via Notice of Change (NOC). Refer to Figure 3 of the NPDES RGP NOI application for a treatment system schematic.

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:

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: Bag Filters Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	100 GPM
Provide the proposed maximum effluent flow in gpm.	100 GPM
Provide the average effluent flow in gpm.	25 GPM
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	NA

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:
Site Contractor has not yet submitted their construction dewatering submittal which will include details of proposed system along with SDSs and fact sheets for possible chemical additives

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

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.

Refer to attached Haley & Aldrich, Inc. letter

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 meeting the requirements of this general permit will be developed and 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 ■
Signature: E. Ewer	Date: 7/9/21
Print Name and Title: ERIC EWER SVP	

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 meeting the requirements of this general permit will be developed and 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 ■

Signature: Douglas L. Kimble

Date: 7-13-21

Print Name and Title: Douglas L. Kimble V.P. of Operations

APPENDIX B

BWSC Dewatering Discharge Permit Application

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129
617.886.7400

13 July 2021
File No. 0200427-000

Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue
Boston, Massachusetts 02119

Attention: Jodi Dobay

Subject: Request for Approval of Temporary Construction Dewatering
2 Harbor Street / 329 Northern Avenue
Boston, Massachusetts

Ladies and Gentlemen:

On behalf of our client, BCP-CG Harbor Property, LLC c/o Beacon Capital Partners, LLC, this letter submits the Boston Water and Sewer Commission (BWSC) Dewatering Discharge Permit Application in support of the proposed development located at 2 Harbor Street / 329 Northern Avenue in Boston, Massachusetts.

Dewatering is necessary to enable below-grade construction in-the-dry and is anticipated to begin in January 2022 and continue for approximately two years. Prior to discharge, collected water will be routed through at minimum a sedimentation tank and bag filters to remove suspended solids and undissolved constituents, including metals. Other pre-treatment may be conducted as necessary to comply with National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) Effluent Limitations. The proposed dewatering discharge route and BWSC outfall location are shown on Figure 3 of the submitted NPDES RGP Notice of Intent (NOI), attached for reference and currently under review by the U.S. Environmental Protection Agency (EPA) under the NPDES RGP.

If you have any questions, please feel free to contact the undersigned at 617-886-7400.

Sincerely yours,
HALEY & ALDRICH, INC.

Jonathan M. Thibault
Senior Technical Specialist

Elliot I. Steinberg, P.E., LSP
Senior Associate

Attachments:
BWSC Dewatering Discharge Permit Application
Copy of NPDES RGP NOI Application

\\haleyaldrich.com\share\CF\Projects\0200427\003 - Environmental\NPDES RGP\Appendix B - BWSC Permit Application\2021-0713-HAI-2 Harbor_BWSC Letter-F.docx

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

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: BCP-CG Harbor Property, LLC Address: 200 State Street, 5th Floor, Boston, MA 02109

Phone Number: (617) 457-0400 Fax number: _____

Contact person name: Eric Ewer Title: Senior Vice President

Cell number: (617) 293-8311 Email address: EEwer@beaconcapital.com

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

Owner's Information (if different from above):

Owner of property being dewatered: _____

Owner's mailing address: _____ Phone number: _____

Location of Discharge & Proposed Treatment System(s):

Street number and name: 2 Harbor Street / 329 Northern Avenue Neighborhood South Boston

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

Describe Proposed Pre-Treatment System(s): Sedimentation tank, bag filters, other components as necessary (refer to NPDES RGP NOI)

BWSC Outfall No. SDO 242 Receiving Waters Boston Inner Harbor

---

Temporary Discharges (Provide Anticipated Dates of Discharge): From 01/01/2022 To 12/31/2023

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

Permanent Discharges

☐ Foundation Drainage	☐ Crawl Space/Footing Drain
☐ Accumulated Surface Water	☐ Non-contact/Uncontaminated Cooling
☐ Non-contact/Uncontaminated Process	☐ 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: Jodi Dobay, Engineering Customer Service
E-mail: beginj@bwsc.org
Phone: 617-989-7259 Fax: 617-989-7716

Signature of Authorized Representative for Property Owner: _____ Date: 7/9/21

APPENDIX C

Effluent Limit Calculations

Enter number values in green boxes below

Enter values in the units specified

↓

0	Q_R = Enter upstream flow in **MGD**
0.144	Q_P = Enter discharge flow in **MGD**
0	Downstream 7Q10

Enter a dilution factor, if other than zero

↓

0

Enter values in the units specified

↓

0	C_d = Enter influent hardness in **mg/L** $CaCO_3$
0	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$

Enter **receiving water** concentrations in the units specified

↓

7.6	pH in **Standard Units**
22.9	Temperature in **°C**
0.114	Ammonia in **mg/L**
3900	Hardness in **mg/L** $CaCO_3$
26	Salinity in **ppt**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
0	Copper in **µg/L**
116	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
0	Zinc in **µg/L**

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**
0.602	Ammonia in **mg/L**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
0	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
0	Copper in **µg/L**
476	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
5.35	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
13.75	Zinc in **µg/L**
0	Cyanide in **µg/L**
0	Phenol in **µg/L**
0	Carbon Tetrachloride in **µg/L**
0	Tetrachloroethylene in **µg/L**
0	Total Phthalates in **µg/L**
0	Diethylhexylphthalate in **µg/L**
0	Benzo(a)anthracene in **µg/L**
0	Benzo(a)pyrene in **µg/L**
0	Benzo(b)fluoranthene in **µg/L**
0	Benzo(k)fluoranthene in **µg/L**
0	Chrysene in **µg/L**
0	Dibenzo(a,h)anthracene in **µg/L**
0	Indeno(1,2,3-cd)pyrene in **µg/L**
0	Methyl-tert butyl ether in **µg/L**

Notes:

Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved

Saltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry

Discharge flow is equal to the design flow or 1 MGD, whichever is less

Only if approved by State as the entry for Q_R; leave 0 if no entry

Saltwater (estuarine and marine): only if approved by the State

Leave 0 if no entry

Freshwater only

pH, temperature, and ammonia required for all discharges

Hardness required for freshwater

Salinity required for saltwater (estuarine and marine)

Metals required for all discharges if present and if dilution factor is > 1

Enter 0 if non-detect or testing not required

if >1 sample, enter maximum

if >10 samples, may enter 95th percentile

Enter 0 if non-detect or testing not required

Dilution Factor	0.0					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	0.2	mg/L	**7.5**	µg/L	50	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	640	µg/L		
Arsenic	**104**	µg/L	36	µg/L		
Cadmium	**10.2**	µg/L	8.9	µg/L		
Chromium III	**323**	µg/L	100.0	µg/L		
Chromium VI	**323**	µg/L	50	µg/L		
Copper	**242**	µg/L	3.7	µg/L		
Iron	**5000**	µg/L	---	µg/L		
Lead	**160**	µg/L	8.5	µg/L		
Mercury	**0.739**	µg/L	1.11	µg/L		
Nickel	**1450**	µg/L	8.3	µg/L		
Selenium	**235.8**	µg/L	71	µg/L		
Silver	**35.1**	µg/L	2.2	µg/L		
Zinc	**420**	µg/L	86	µg/L		
Cyanide	**178**	mg/L	1.0	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7.97**	mg/L	---			
Phenol	**1,080**	µg/L	300	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**		1.6	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
1,1 Dichloroethane	**70**	µg/L	---			
1,2 Dichloroethane	**5.0**	µg/L	---			
1,1 Dichloroethylene	**3.2**	µg/L	---			
Ethylene Dibromide	**0.05**	µg/L	---			
Methylene Chloride	**4.6**	µg/L	---			
1,1,1 Trichloroethane	**200**	µg/L	---			
1,1,2 Trichloroethane	**5.0**	µg/L	---			
Trichloroethylene	**5.0**	µg/L	---			
Tetrachloroethylene	**5.0**	µg/L	3.3	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			
D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	2.2	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0038	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	µg/L
Pentachlorophenol	**1.0**	µg/L	---			
F. Fuels Parameters						
Total Petroleum Hydrocarbons	**5.0**	mg/L	---			
Ethanol	**Report**	mg/L	---			
Methyl-tert-Butyl Ether	**70**	µg/L	20	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

APPENDIX D

Endangered Species Act Documentation

MassDEP - Bureau of Waste Site Cleanup

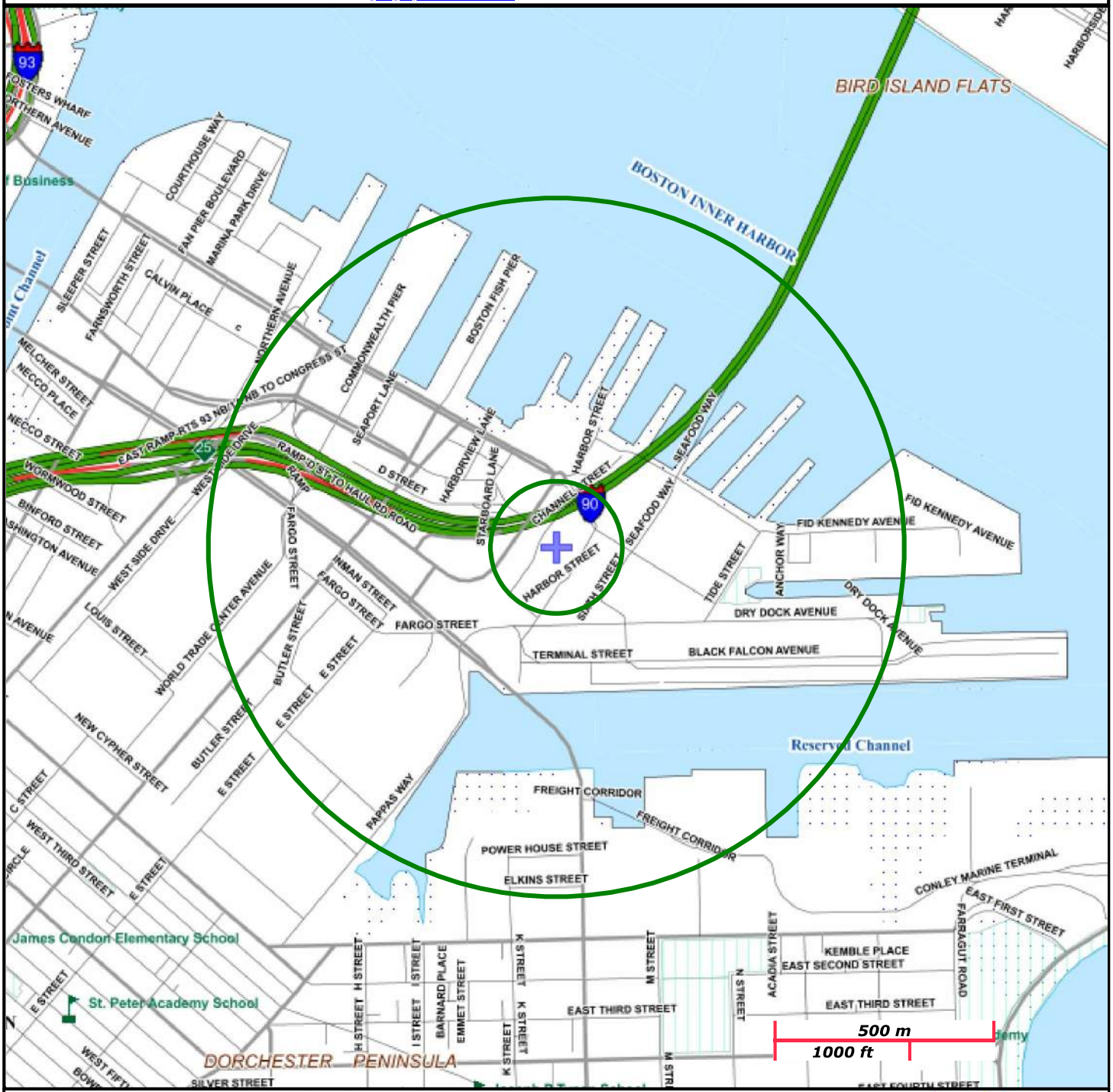
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
2 HARBOR STREET / 329 NORTHERN AVENUE
BOSTON, MA

NAD83 UTM Meters:
4690229mN , 332276mE (Zone: 19)
June 11, 2021

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: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

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: June 18, 2021
Consultation Code: 05E1NE00-2021-SLI-3869
Event Code: 05E1NE00-2021-E-11682
Project Name: 2 Harbor Street / 329 Northern Avenue

Subject: List of threatened and endangered species that may occur in your proposed project location 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: 05E1NE00-2021-SLI-3869
Event Code: 05E1NE00-2021-E-11682
Project Name: 2 Harbor Street / 329 Northern Avenue
Project Type: DEVELOPMENT
Project Description: The project site, located at 2 Harbor Street / 329 Northern Avenue in Boston, Massachusetts, consists of approximately 4.36 acres bound by Harbor Street to the southeast, Northern Avenue to the northeast, Massport Haul Road to the northwest, and two buildings at 7 Channel Street and 12 Channel Street to the southwest. Channel Street generally bisects the site, and the Ted Williams Tunnel (I-90 EB/WB) passes beneath the northeast part of the site. An approximately 72,000 sf building previously occupied the southern portion of the site until it was demolished in early 2021 in preparation for the proposed development, consisting of a 10-story office/lab/research building over one level of below-grade parking. Construction is expected to begin in July 2021. Temporary construction dewatering will be necessary to complete below-grade construction activities in-the-dry.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.34717015,-71.03572983278698,14z

Counties: Suffolk County, Massachusetts

Endangered Species Act Species

There is a total of 0 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

2 Harbor Street / 329 Northern Avenue

LOCATION

Suffolk County, Massachusetts

DESCRIPTION

Some(The project site, located at 2 Harbor Street / 329 Northern Avenue in Boston, Massachusetts, consists of approximately 4.36 acres bound by Harbor Street to the southeast, Northern Avenue to the northeast, Massport Haul Road to the northwest, and two buildings at 7 Channel Street and 12 Channel Street to the southwest. Channel Street generally bisects the site, and the Ted Williams Tunnel (I-90 EB/WB) passes beneath the northeast part of the site. An approximately 72,000 sf building previously occupied the southern portion of the site until it was demolished in early 2021 in preparation for the proposed development, consisting of a 10-story office/lab/research building over one level of below-grade parking. Construction is expected to begin in July 2021. Temporary

construction dewatering will be necessary to complete below-grade construction activities in-the-dry.)

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE

	BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
American Oystercatcher Haematopus palliatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Buff-breasted Sandpiper Calidris subruficollis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9488	Breeds elsewhere
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Dunlin Calidris alpina arcticola This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
King Rail Rallus elegans This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Least Tern Sterna antillarum This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 20 to Sep 10

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Long-eared Owl asio otus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Nelson's Sparrow Ammodramus nelsoni — Breeds May 15 to Sep 5
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Purple Sandpiper Calidris maritima — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-throated Loon Gavia stellata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Rusty Blackbird Euphagus carolinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Seaside Sparrow Ammodramus maritimus — Breeds May 10 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Semipalmated Sandpiper Calidris pusilla — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Whimbrel Numenius phaeopus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

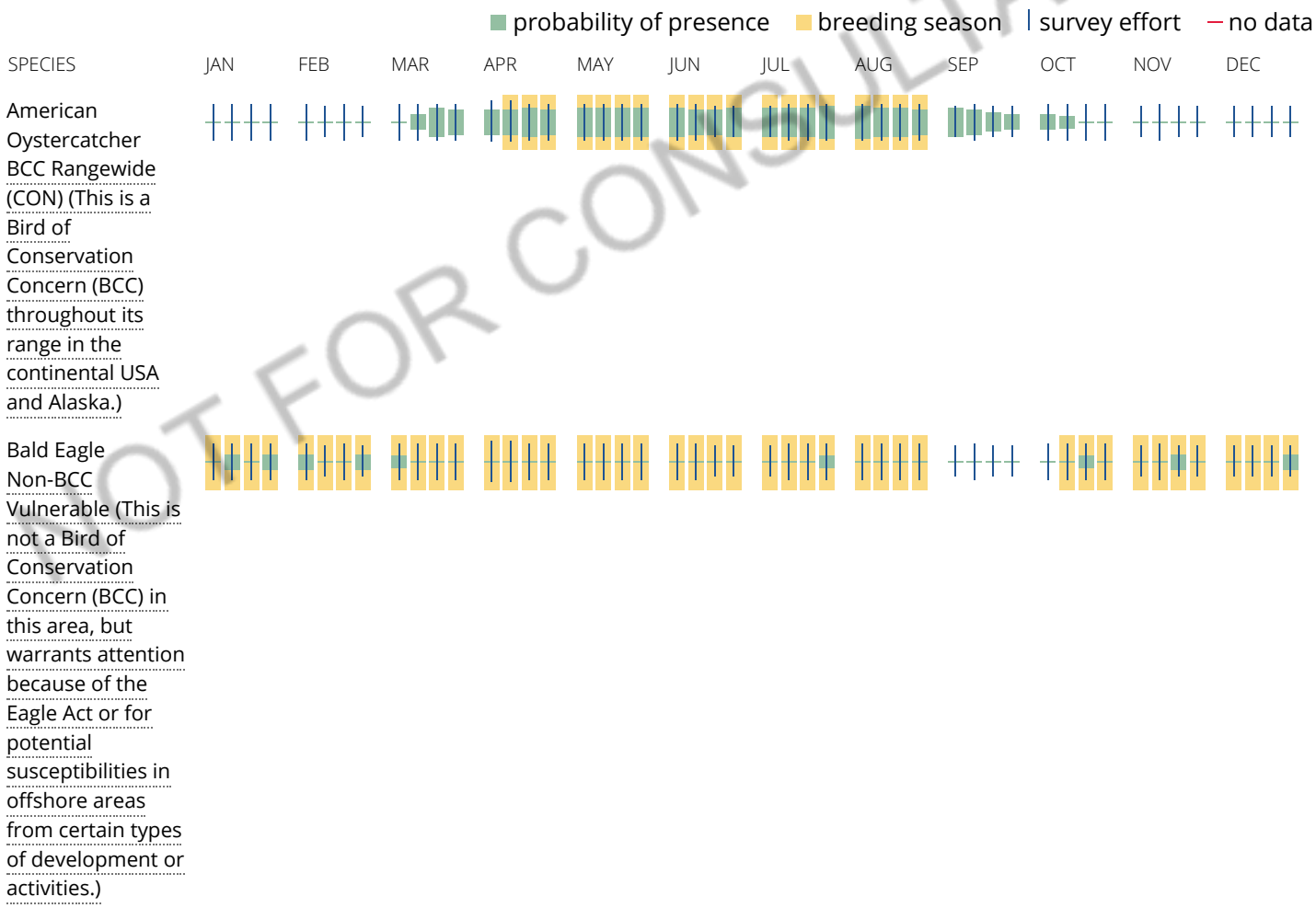
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

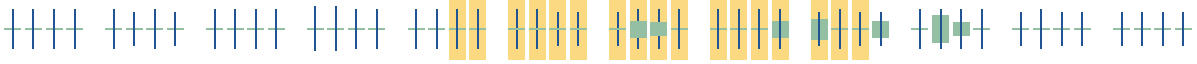
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

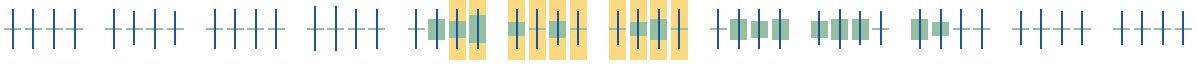
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Black Skimmer BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

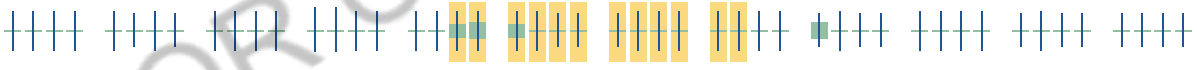


Bobolink BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



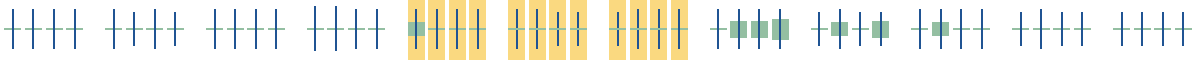
Buff-breasted Sandpiper BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Dunlin BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



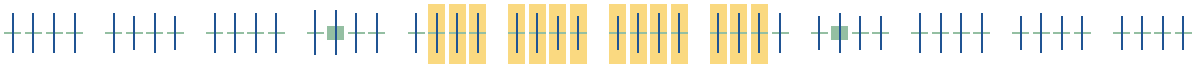
Purple Sandpiper BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Red-throated Loon BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Ruddy Turnstone BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Rusty Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Seaside Sparrow BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



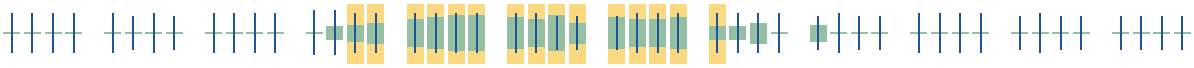
Semipalmated Sandpiper BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-billed Dowitcher BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

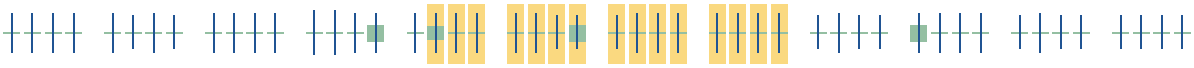
Snowy Owl BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Whimbrel BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Willet BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Wood Thrush BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they

might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

ESTUARINE AND MARINE DEEPWATER

E1UBLx

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

GARFO Master ESA Species Table - Marine Mammals

Species	Region	Offshore distribution	Nearshore areas of importance	Likely Presence	Life Stages Present	Behaviors Anticipated to Occur
North Atlantic right whale	Northeast (ME to Cape Cod, MA)	throughout continental shelf and slope waters	Cape Cod Bay, Massachusetts Bay, Great South Channel, western Gulf of Maine, Georges Bank, Jordan Basin, Wilkinson Basin, Jeffreys Ledge, Cashes Ledge	Year round	Adults and juveniles	**Foraging -** Cape Cod Bay (January-April), Massachusetts Bay (January-April), Great South Channel (April-June), the western Gulf of Maine (April-May and July-October), the northern edge of Georges Bank (May-July), Jordan Basin (August-October), and Wilkinson Basin (April-July) **Wintering -** Increasing evidence of wintering areas (approximately November-January) in Cape Cod Bay, Jeffreys and Cashes Ledge, Jordan Basin, and Massachusetts Bay (e.g., Stellwagen Bank)
	Mid-Atlantic (Cape Cod, MA to VA)	throughout continental shelf and slope waters	possibly waters off New Jersey and Virginia	Year round	Adults and juveniles	**Migration** - Migratory pathway to/from northern (high latitude) foraging and southern calving grounds (primarily November-April)
Fin whale	Northeast (ME to Cape Cod, MA)	throughout continental shelf and slope waters	Massachusetts Bay, Stellwagen Bank, Great South Channel, east of Cape Cod, western Gulf of Maine, eastern perimeter of Georges Bank	Year round	Adults and juveniles	**Foraging** - Greatest densities from March-August; lower densities from September-November; important foraging grounds include Massachusetts Bay (especially Stellwagen Bank), Great South Channel, waters off Cape Cod (~40-50 meter contour), the western Gulf of Maine (especially Jeffreys Ledge), and the eastern perimenter of Georges Bank **Wintering** - Evidence of wintering areas in Stellwagen Bank and eastern perimeter of Georges Bank
	Mid-Atlantic (Cape Cod, MA to VA)	throughout continental shelf and slope waters	east end of Long Island, mid-shelf east of New Jersey	Year round	Adults and juveniles	**Foraging** - Year round in the mid-shelf area off the east end of Long Island **Migration** - Migratory pathway to/from northern (high latitude) foraging and southern (low latitude) calving grounds **Wintering** - Evidence of wintering areas in mid-shelf areas east of New Jersey **Calving** - Possible offshore calving area (October-January)

Sei whale	Northeast (ME to Cape Cod, MA)	continental shelf edge/slope waters with depths greater than 200 meters	none	Year round	Adults and juveniles	**Foraging** - Spring through summer, found in greatest densities in offshore waters of the Gulf of Maine and Georges Bank (eastern margin into the Northeast Channel area; along the southwestern edge in the area of Hydrographer Canyon); prefer continental shelf edge/slope waters (i.e., >200 meters), although incursions into continental shelf waters do occur seasonally or sporadically during periods of high prey abundance; generally feed on copepods and can often be found in areas where right whales are also found foraging, typically a bit further offshore than Cape Cod Bay **Migration** - The population is believed to migrate from south of Cape Cod and along the coast of eastern Canada in June-July, and return on a southward migration again in September-October
Sperm whale	Northeast and Mid-Atlantic (ME to VA)	areas with depths greater than 600 meters, and are relatively uncommon in waters less than 300 meters deep	none	Year round	Adults and juveniles	**Foraging** - In winter, concentrated east and northeast of Cape Hatteras; in spring, the center of distribution shifts northward to east of Delaware and Virginia, and is widespread throughout the central portion of the Mid-Atlantic Bight and the southern portion of Georges Bank; in summer, the distribution is similar but also includes the area east and north of Georges Bank and into the Northeast Channel region, as well as the continental shelf (inshore of the 100 meter isobath) south of New England; in fall, occurrence south of New England on the continental shelf is at its highest level, and there remains a continental shelf edge occurrence in the Mid-Atlantic Bight **Migration** - In some mid-latitudes, there seems to be a general trend to migrate north and south depending on the seasons (they move poleward in the summer); in temperate areas, there appears to be no obvious seasonal migration

Blue whale	Northeast and Mid-Atlantic (ME to VA)	continental shelf edge/slope waters with depths greater than 200 meters	none	Year round	Adults and juveniles	**Foraging** - Off the U.S. Northeast and Mid-Atlantic coasts, they are most common during the summer and fall feeding seasons and typically leave by early winter; although they are rare in continental shelf waters, blue whales are occasionally seen off Cape Cod; best considered an occasional visitor in U.S. Atlantic waters, which may represent the southern limit of its feeding range **Migration** - Migrate seasonally between summer and winter, but some evidence suggests that individuals remain in certain areas year round; information about movements varies with location, and migratory routes are not well known

Species	Listing Rule	Recovery Plan
North Atlantic right whale	73 FR 12024; March 6, 2008	NMFS 2005
Fin whale	35 FR 18319; December 2, 1970	NMFS 2010a
Sei whale	35 FR 18319; December 2, 1970	NMFS 2011
Sperm whale	35 FR 18319; December 2, 1970	NMFS 2010b
Blue whale	35 FR 18319; December 2, 1970	NMFS 1998

References: CETAP 1982; Watkins and Schevill 1982; Payne 1984; Kenney et al. 1986, 1995; Schevill et al. 1986; Winn et al. 1986; Wenzel et al. 1988; Hamilton and Mayo 1990; Payne et al.1990; Hain et al. 1992; Brown et al. 2002; McClellan et al. 2004; Good 2008; NOAA 2008; Baumgartner et al. 2011; Cole et al. 2013; Khan et al. 2013, 2014, 2016; Waring et al. 2016; 81 FR 4837, January 27, 2016; 50 CFR 224.105.

GARFO Master ESA Species Table - Sea Turtles

General distribution: Four species (loggerhead, green, Kemp's ridley, and leatherback) found throughout continental shelf and slope waters of the Northwest Atlantic Ocean; tropical to boreal waters, preferred temperatures greater than 10°C; northward and inshore movement into waters of the Greater Atlantic Region begins in the spring, with turtles arriving into Mid-Atlantic waters in mid-April/May and into Gulf of Maine waters in June; in the fall, this trend is reversed with most turtles leaving the region's waters by the end of November; outside of these times, sea turtle presence in the region's waters is considered unlikely aside from cold-stunned individuals that fail to migrate south (see below); a fifth species (hawksbill) is considered extremely rare in the region based on only a few documented occurrences and its affinity for tropical waters and coral reef type habitats

Disclaimer: the best available information on the presence of sea turtles in the Greater Atlantic Region is presented below; coastal/inshore areas of regular occurrence highlighted below are ones where we have information specific to sea turtle use of the area that would be helpful for action agencies reviewing proposed actions and their potential effects on turtles; however, they may occur in other coastal/inshore areas within this region for which we do not currently have specific information; for nesting individuals, the U.S. Fish and Wildlife Service has jurisdiction over sea turtles when they are on land

State	Coastal / Inshore Areas of Regular Occurrence	Likely Presence	Life Stages Present	Behaviors Anticipated to Occur
ME/NH and MA (north of Cape Cod)	Cape Cod Bay	June to October/November (note: cold stunning of hard-shelled sea turtles occurs annually from October to January)	Loggerhead (Northwest Atlantic DPS) - Pelagic and benthic juveniles, subadults, and adults Green (North Atlantic DPS) - Juveniles and adults Kemp's ridley - Juveniles only Leatherback - Juveniles and adults	**Foraging** Loggerhead (Northwest Atlantic DPS) - Pelagic and benthic juveniles - omnivorous on bottom and surface - Sub-adults and adults - benthic invertebrates along the coast Green (North Atlantic DPS) - Juveniles - Omnivorous along coasts and in protected bays and lagoons - Adults - Herbivorous in nearshore areas Kemp's ridley - Juveniles - Benthic invertebrates in protected coastal areas Leatherback - Juveniles and adults - Primarily prey on jellyfish in offshore oceanic or coastal neritic areas **Nesting** North of North Carolina, sea turtle nesting is rare (there is occasional loggerhead nesting in Virginia, but no established nesting beaches further north)
MA (south of Cape Cod)	Buzzards Bay, Nantucket and Vineyard Sounds	May to November (note: cold stunning of hard-shelled sea turtles occurs annually from October to January)		
RI	Narragansett Bay and Block Island Sound			
CT/NY	Long Island Sound and associated bays/estuaries (e.g., Peconic Bay)			
NY/NJ	Coastal waters off the New York Harbor Complex (e.g., Raritan and Sandy Hook Bays)			
NJ/DE	Delaware Bay and other back bays (e.g., Barnegat Bay)			
DE/MD/VA	Coastal waters off Virginia Beach, coastal waters and back bays of the DelMarVa Peninsula, Chesapeake Bay, Tangier Sound, and lower portions of southern Chesapeake Bay tributaries (e.g., James, York, Rappahannock, and Potomac Rivers)			

GARFO Master ESA Species Table - Sea Turtles

Loggerhead (Northwest Atlantic DPS)	**Listing rule**: 76 FR 58868, September 22, 2011;**Recovery plan**: NMFS and USFWS 2008; **Additional references**: Shoop and Kenney 1992; Epperly et al. 1995a, 1995b, 1995c; Braun-McNeill and Epperly 2004; Morreale and Standora 2005; Braun-McNeill et al. 2008; Conant et al. 2009; Mansfield et al. 2009; NMFS NEFSC 2011; Griffin et al. 2013
Green (North Atlantic DPS)	**Listing rule**: 81 FR 20057, April 6, 2016;**Recovery plan**: NMFS and USFWS 1991; **Additional references**: Lahanas et al. 1994; Wynne and Schwartz 1999; Ruiz-Urquiola et al. 2010; Seminoff et al. 2015
Kemp's ridley	**Listing rule**: 35 FR 18319, December 2, 1970;**Recovery plan**: NMFS et al. 2011; **Additional references**: TEWG 2000; Morreale et al. 2007; NMFS and USFWS 2015
Leatherback	**Listing rule**: 35 FR 8491, June 2, 1970;**Recovery plan**: NMFS and USFWS 1992; **Additional references**: Bjorndal 1997; TEWG 2007; Fossette et al. 2008; Dodge et al. 2011; NMFS and USFWS 2013
Hawksbill	**Listing rule**: 35 FR 18319, December 2, 1970;**Recovery plan**: NMFS and USFWS 1992; **Additional references**: NMFS and USFWS 2013

General distribution: Atlantic Ocean waters and associated bays, estuaries, and coastal river systems from Hamilton Inlet, Labrador, Canada, to Cape Canaveral, Florida; only subadult and adult lifestages occur in marine waters, where they are typically found in waters 5-50 meters in depth (Stein et al. 2004; ASMFC TC 2007); subadults and adults may travel long distances in marine waters, aggregate in both ocean and estuarine areas at certain times of the year, and exhibit seasonal coastal movements in the spring and fall; distribution in rivers and inshore bays typically occurs from the estuary or river mouth generally up to the first impassible barrier (e.g., a dam or falls); Atlantic sturgeon generally use the deepest habitats available to them in rivers, but they have also been collected over shallow (2.5 meters), tidally influenced flats and substrates ranging from mud to sand and mixed rubble and cobble (Savoy and Pacileo 2003)

Disclaimer: the best available information on Atlantic sturgeon presence within coastal rivers, estuaries, and bays of the Greater Atlantic Region is presented below; waterbodies highlighted below are ones where we have information specific to Atlantic sturgeon use of the area that would be helpful for action agencies reviewing proposed actions and their potential effects on Atlantic sturgeon; however, they may occur in other watersheds within this range for which we do not currently have specific information; note: individuals from any of the five listed DPSs (Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic) may occur in any of the areas identified throughout the species' range; a description of Atlantic sturgeon life history stages are included at the end of the table below

Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Cobscook Bay/St. Croix River (ME)	Up to the Milltown Dam at Calais, ME (RKM 16)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Zydlewski (UMaine) pers. comm., September 21, 2015
Penobscot River (ME)	Up to the Milford Dam (RKM 62)	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Spawning** - undocumented, but 12 km of suitable spawning habitat is accessible[2] **Foraging -** wherever suitable forage is present, documented in the lower river (RKM 21-24.5)[1]	[1] Fernandes et al. 2010; [2] Wippelhauser et al. 2017
Damariscotta River (ME)	Up to Damariscotta Lake Dam (RKM 30.3)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present; tag detections indicate that usage of the river is for short periods during coastal migrations[1]	[1] Picard and Zydlewski 2014
Sheepscot River (ME)	Up to the head-of-tide dam (RKM 35)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present; may occur in Montsweag Bay as shortnose sturgeon foraging has been documented there[1]; subadults have been captured in the river[2]	[1] Fried and McCleave 1973; [2] ASSRT 2007
Kennebec River (ME)	Up to the Lockwood Dam (RKM 102), also includes the entirety of the Back and Sasanoa Rivers	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning** - May-August[4]; documented via captures of spawning condition adults and larvae (RKM 52.8-76)[1][4]; potentially occurs as far upstream as the Lockwood Dam in the restored spawning habitat (RKM 87-102)[4] **Rearing -** ELS have been documented near the spawning grounds[4]; juveniles have also been documented in the river[3] **Foraging** - assumed to occur wherever suitable forage is present (documented from RKM 0-42)[4]; also documented in the Sasanoa and Back Rivers[2][3]	[1] Wippelhauser 2011; [2] Wippelhauser 2012; [3] Wippelhauser and Squiers 2015; [4] Wippelhauser et al. 2017

Androscoggin River (ME)	Up to the Brunswick Dam (RKM 8.4)	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning** - May-August[2]; capture of a ripe male[2] in the summer below the Brunswick Dam (RKM 7.7-8.4)[1] indicates that spawning is likely occurring **Rearing** - Juveniles likely present throughout the river year-round **Foraging** - assumed to occur wherever suitable forage is present	[1] Wippelhauser and Squiers 2015; [2] Wippelhauser et al. 2017
Presumpscot River (ME)	Up to Presumpscot Falls (RKM 3)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present; an Atlantic sturgeon was caught below Presumpscot Falls[1]	[1] Yoder et al. 2009
Scarborough River (ME)	Throughout the entire river	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Wippelhauser et al. 2017
Saco River (ME)	Up to Cataract Dam (RKM 10)	juveniles, subadults, and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Novak et al. 2017
Piscataqua River Watershed including Salmon Falls and Cocheco tributaries (NH)	Up to the confluence with the Salmon Falls and Cocheco Rivers (RKM 15) and including Great Bay; Salmon Falls River – up to the Route 4/South Berswick Dam (RKM 7); Cocheco River – up to the Cocheco Falls Dam (RKM 6)	subadults and adults (eggs, larvae, YOY, and juveniles possible)	**Spawning** - potentially occurs in the Salmon Falls and Cocheco rivers based on the presence of features necessary to support reproduction and recruitment as well as the capture of an adult female Atlantic sturgeon in spawning condition in 1990[1][3] **Rearing** - Juveniles potentially present throughout the river year-round **Foraging** - used seasonally for foraging and resting during spring and fall migrations; tagging data indicates that use by individual sturgeon is limited to days or weeks[2]	[1] ASSRT 2007; [2] Kieffer and Trefry 2017 pers. comm.; [3] NMFS 2017
Merrimack River (MA)	Up to the Essex Dam (RKM 46); often found around the lower islands reach (RKM 3-12) and the mouth of the river	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Spawning** - potentially occurs due to the presence of features necessary to support reproduction and recruitment[4] **Rearing** - data suggests it is used as a nursery area for juveniles[3] **Foraging** - mouth of the river and the lower islands area (RKM 0-12); subadults use RKM 7-12[1][2]	[1] Kieffer and Kynard 1993; [2] Kynard et al. 2000; [3] ASSRT 2007; [4] NMFS 2017
Charles River (MA)	Up to Charles River Locks (RKM 5.5)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Boston.com February 20, 2012 (http://archive.boston.com/news/science/articles/2012/02/20/from_depths_of_the_charles_an_ancient_species/)
North River (MA)	Up to Dam #1 on the Indian Head Reservoir at Luddam's Ford (RKM 21)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present; an adult was found in the North River, 4 miles from the mouth in 2012[1]	[1] The Patriot Ledger June 1, 2012 (http://www.patriotledger.com/article/20120601/NEWS/306019786)
Taunton River (MA)	Up to the convergence of the Town River and Matfield River	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1][2]	[1] Buerkett and Kynard 1993; [2] ASSRT 2007

Narragansett Bay (RI)	Throughout the bay	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] ASSRT 2007
Thames River (CT)	Up to the Yantic Dam in the Yantic River and up to the Greenville Dam in the Shetucket River	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1][2][3]	[1] Whitworth 1996; [2] ASSRT 2007; [3] The Day June 17, 2016 (http://www.theday.com/article/20160617/NWS01/160619212)
Connecticut River (CT/MA)	Up to the Holyoke Dam (RKM 140); mainly stay in the summer range of the salt wedge (RKM 0-26)	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning/Rearing** - captures of pre-migratory juvenile sturgeon in the river strongly suggests that spawning is occurring in this river[3] **Foraging** - assumed to occur wherever suitable forage is present[1][2]	[1] Savoy and Shake 1993; [2] Savoy and Pacileo 2003; [3] Savoy et al. 2017
Quinnipiac River (CT)	Up to bridge at Quinnipiac Street and River Road in Wallingford (RKM 27)	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Hartford Courant September 30, 1994 (http://articles.courant.com/1994-09-30/news/9409300111_1_sturgeon-fish-story-giant-fish)
Housatonic River (CT)	Up to the Derby Dam (RKM 23.5)	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Spawning** - not documented; potentially occurs due to the presence of features necessary to support reproduction and recruitment[3] **Foraging** - assumed to occur wherever suitable forage is present[1][2]	[1] Whitworth 1996; [2] ASSRT 2007; [3] NMFS 2017
Long Island Sound (NY/CT)	All of Long Island Sound	subadults and adults	**Foraging** - where suitable forage is present; 85% of Atlantic sturgeon caught in Long Island Sound are over mud/transitional bottoms of 27-37 meters deep in the central basin[1]	[1] Savoy and Pacileo 2003
East River (NY)	full length of the East River	subadults and adults	**Migration** - subadults and adults have been documented using this waterbody to move between the Hudson River and western Long Island Sound[1][2] **Foraging** - assumed to occur wherever suitable forage is present, but forage is limited[1][2]	[1] Savoy and Pacileo 2003; [2] Tomichek et al. 2014

Hudson River (NY/NJ)	up to the Troy Dam (approximately RKM 246)	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning** - late April through August[1][6], notably around Hyde Park (RKM 129-135) [4] and Catskill (RKM 182)[2], as well as throughout RKM 113-184[4]; evidence strongly suggests that there is also spawning further upstream of RKM 193[6] **Rearing** - larvae and YOY - RKM 60-148[1] [3]; remain upstream of the salt wedge[2]; juveniles - RKM 63-140[1][3]; utilize the estuary up through Kingston (RKM 148)[1]; Newburgh and Haverstraw Bays (RKM 55-61) are areas of known juvenile concentrations[5] **Foraging** - assumed to occur wherever suitable forage is present **Overwintering** - juveniles - RKM 19-74 from fall through winter[1]; some juveniles were recorded in Esopus Meadows (RKM 134)[3]	[1] Dovel and Berggren 1983; [2] Van Eenennaam et al. 1996; [3] Bain 1997; [4] Bain et al. 1998; [5] Sweka et al. 2006; [6] Dewayne Fox, DSU, and Kathy Hattala, NYDEC, personal communication April 2014
Delaware River (NJ/DE/PA)	Up to the fall line near Trenton, NJ (RKM 211)	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning** - documented and/or potential spawning habitat in April through July from the Marcus Hook Bar to the fall line at Trenton, NJ (RKM 125-211)[2][3][5] **Rearing** - YOY/juveniles - Deepwater to Roebling, NJ (RKM 105-199)[4] with most of the detections in the Marcus Hook Area (RKM 127-129)[7] **Foraging** - where suitable forage and appropriate habitat conditions are present **Overwintering** - juveniles - move between lower (RKM 100-150) and upper (RKM 185-199) tidal areas[6]; may overwinter in tidal fresh water[1]	[1] Lazzari et al. 1986; [2] Simpson and Fox 2006; [3] Simpson 2008; [4] Calvo et al. 2010; [5] Breece et al. 2013; [6] Stetzar et al. 2015; [7] Hale et al. 2016
C&D Canal (DE/MD)	Used at least occasionally to move from Chesapeake Bay to the Delaware River	juveniles, subadults, and adults	**Foraging** - Assumed to occur in areas with suitable forage [1][2]	[1] Simpson 2008; [2] Brundage and O'Herron 2009
Chesapeake Bay (MD/VA)	Throughout the bay typically in spring through fall	juveniles, subadults, and adults	**Migration** - April-November for adults[5] and subadults[1]; year round for juveniles[2] [3]; these lifestages wander among coastal and estuarine habitats[5] **Foraging** - typically in areas where suitable forage and appropriate habitat conditions are present; typically tidally influenced flats and mud, sand and mixed cobble substrates[4]	[1] Dovel and Berggren 1983; [2] Secor et al. 2000; [3] Welsh et al. 2002; [4] Stein et al. 2004; [5] Horne and Stence 2016
Susquehanna River (MD)	Up to the Conowingo Dam (RKM 16)	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Foraging** - where suitable forage and appropriate habitat conditions are present [1]	[1] ASSRT 2007

Choptank River (MD)	Range not confirmed, but they have been documented in this river (likely up to the dam at RKM 102)	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Foraging** - where suitable forage and appropriate habitat conditions are present [2] **Spawning** - not documented, but a gravid female was caught at the mouth of the river near Tilghman Island[1]	[1] The Baltimore Sun June 13, 2007 (http://articles.baltimoresun.com/2007-06-13/news/0706130110_1_sturgeon-chesapeake-bay-university-of-maryland); [2] ASSRT 2007
Nanticoke River, including Marshyhope Creek and Broad Creek tributaries (MD)	Range not confirmed, but they have been documented in the Nanticoke River up to the mouth of Broad Creek; they have also been found up to Federalsburg, MD in Marshyhope Creek and up to Laurel, DE in Broad Creek[2]	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Spawning** - potential for spawning due to the presence of features necessary to support reproduction and recruitment in one of its tributaries (in Marshyhope Creek, spawn ready adults have been captured)[2] **Rearing** - may be used as a nursery for juveniles[1] **Foraging** - assumed to occur wherever suitable forage is present[1]	[1] ASSRT 2007; [2] Horne and Stence 2016
Pocomoke River (MD)	To the limit of tidal influence where Whiton Crossing Road crosses the river	subadults and adults	**Foraging** - assumed to occur wherever suitable forage is present[1]	[1] Horne and Stence 2016
Potomac River (MD/VA)	Up to Little Falls Dam (RKM 189)	juveniles, subadults, and adults (potentially eggs, larvae, and YOY)	**Spawning** - potentially occurs as three small juveniles[3] and a large mature female[2] have been captured and due to the presence of features necessary to support reproduction and recruitment[1][2] **Rearing** - three juveniles have been captured[3] **Foraging** - where suitable forage and appropriate habitat conditions are present [2]	[1] Niklitschek and Secor 2005; [2] ASSRT 2007; [3] Kynard et al. 2007
Rappahannock River (VA)	Range not confirmed, but they have been documented in this river (likely throughout the entire river)	subadults and adults (potentially eggs, larvae, YOY, and juveniles)	**Spawning** - potentially occurs due to the capture of a male sturgeon in spawning condition in September 2015 and the presence of features necessary to support reproduction and recruitment[1][3] **Rearing** - may be used as a nursery for juveniles[2] **Foraging** - where suitable forage and appropriate habitat conditions are present [2]	[1] Bushnoe et al. 2005; [2] ASSRT 2007; [3] NMFS 2016

York River, including Mattaponi and Pamunkey River tributaries (VA)	York River - up to confluence with the Mattaponi and Pamunkey Rivers (RKM 55); Pamunkey River - up to RKM 150; Mattaponi River - up to RKM 120	eggs, larvae, YOY, juveniles, subadults, and adults	**Spawning** - potential for fall spawning due to the presence of features necessary to support reproduction in its tributaries (Mattaponi and Pamunkey Rivers) and recruitment in both the York River and its tributaries[1]; documented in the Pamunkey River through the capture of an adult female sturgeon in post-spawning condition in the fall and the presence of features necessary to support reproduction and recruitment[3]; may occur in the Pamunkey River as far upstream as RKM 150[4] **Rearing** - in freshwater reaches downstream of spawning sites; four age-0 Atlantic sturgeon were captured in the York River[2]; Juveniles likely present throughout the river year-round **Foraging** - where suitable forage and appropriate habitat conditions are present [1]	[1] Bushnoe et al. 2005; [2] Balazik et al. 2012; [3] Hager et al. 2014; [4] Kahn et al. 2014
James River (VA)	Up to Boshers Dam (RKM 182.3)	eggs, larvae, YOY, juveniles, subadults, and adults	**Staging** - likely done by fall spawners, during summer and fall in brackish water before and after the fall spawn (RKM 22-107)[4] **Spawning** - both a spring (likely at RKM 90-95)[4] and fall spawning event (likely between RKM 105 and the fall line near Richmond, VA at RKM 155)[3] **Rearing** - freshwater reaches downstream of spawning locations[1][2]; Juveniles likely present throughout the river year-round **Foraging** - where suitable forage and appropriate habitat conditions are present [2]	[1] Florida Museum of Natural History 2004; [2] ASSRT 2007; [3] Balazik et al. 2012; [4] Balazik and Musick 2015
Appomattox River (VA), tributary of the James River	Range not confirmed, but they have been documented in this river (likely up to Battersea Dam, RKM 21)	subadults and adults	**Foraging** - where suitable forage and appropriate habitat conditions are present [1]	[1] The Hopewell News 2013

Listing rules: 77 FR 5880 and 77 FR 5914, February 6, 2012; **Recovery plan**: none published

General distribution: Atlantic Ocean waters and associated bays, estuaries, and coastal river systems from Minas Basin, Nova Scotia, Canada, to the St. Johns River, Florida; only adults occur in marine waters, with some adults making coastal migrations between river systems (e.g., Penobscot River to Merrimack River via the Gulf of Maine; Merrimack River to Connecticut River via the Gulf of Maine and Long Island Sound; Connecticut River to Hudson River via Long Island Sound and the East River); typically, distribution in rivers and inshore bays occurs from the estuary or river mouth up to the first impassible barrier (e.g., a dam or falls); comprehensive information on species biology and distribution is available in the Shortnose Sturgeon Status Review Team's Biological Asessment (SSSRT 2010; available at: http://www.nmfs.noaa.gov/pr/pdfs/species/shortnosesturgeon_biological_assessment2010.pdf)

Disclaimer: the best available information on shortnose sturgeon presence within the Greater Atlantic Region is presented below; waterbodies included are ones where we have information specific to shortnose sturgeon use of the area that would be helpful for action agencies reviewing proposed actions and their potential effects on shortnose sturgeon; for waterbodies not listed below, we have no data on usage by shortnose sturgeon; however, we expect the species may be present in other coastal waters in the Gulf of Maine and along the U.S. Atlantic coast between the Merrimack and Hudson Rivers; bracketed footnotes are provided in the table to match up "Use of the Watershed" information to the specific reference(s) from which it came; a description of shortnose sturgeon life history stages are included at the end of the table below

Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Narraguagus River (ME)	Up to Cherryfield Dam (RKM 10.6)	adults	**Foraging** - May be used for foraging; tag detections indicate that usage of the river is for short periods during coastal migrations[1]	[1] Dionne et al. 2013
Penobscot River (ME)	Up to Milford Dam (RKM 62)	adults documented; other life stages assumed but unknown	**Spawning** - Not documented to date; suitable spawning habitat is accessible[3] **Foraging** - Foraging concentrations from RKM 10-24.5 during the summer months as well as throughout the lower and middle estuary; RKM 21-45 by mid-July and August[1] **Overwintering** - Aggregations located from RKM 36.5-42 from mid-August to mid-April[2]	[1] Fernandes et al. 2010; [2] Lachapelle 2013; [3] Johnston 2016
St. George River (ME)	Up to RKM 39 in lower estuary	adults	**Foraging** - May be used for foraging; tag detections indicate that usage of the river is for short periods during coastal migrations[1][2]	[1] Zydlewski et al. 2011; [2] Dionne et al. 2013
Medomak River (ME)	Up to RKM 17.5	adults	**Foraging** - May be used for foraging; tag detections indicate that usage of the river is for short periods during coastal migrations[1][2][3]	[1] Zydlewski et al. 2011; [2] Dionne et al. 2013; [3] Johnston 2016
Damariscotta River (ME)	Up to Damariscotta Lake Dam (RKM 30.3)	adults	**Foraging** - May be used for foraging; tag detections indicate that usage of the river is for short periods during coastal migrations[1][2]	[1] Zydlewski et al. 2011; [2] Dionne et al. 2013
Sheepscot River (ME)	Up to Head Tide Dam (RKM 35)	adults	**Foraging** - Montsweag Bay during the summer [1] **Overwintering** - Suspected to occur in the estuary[2]	[1] Fried and McCleave 1973; [2] SSSRT 2010

General distribution: Atlantic Ocean waters and associated bays, estuaries, and coastal river systems from Minas Basin, Nova Scotia, Canada, to the St. Johns River, Florida; only adults occur in marine waters, with some adults making coastal migrations between river systems (e.g., Penobscot River to Merrimack River via the Gulf of Maine; Merrimack River to Connecticut River via the Gulf of Maine and Long Island Sound; Connecticut River to Hudson River via Long Island Sound and the East River); typically, distribution in rivers and inshore bays occurs from the estuary or river mouth up to the first impassible barrier (e.g., a dam or falls); comprehensive information on species biology and distribution is available in the Shortnose Sturgeon Status Review Team's Biological Asessment (SSSRT 2010; available at: http://www.nmfs.noaa.gov/pr/pdfs/species/shortnosesturgeon_biological_assessment2010.pdf)

Disclaimer: the best available information on shortnose sturgeon presence within the Greater Atlantic Region is presented below; waterbodies included are ones where we have information specific to shortnose sturgeon use of the area that would be helpful for action agencies reviewing proposed actions and their potential effects on shortnose sturgeon; for waterbodies not listed below, we have no data on usage by shortnose sturgeon; however, we expect the species may be present in other coastal waters in the Gulf of Maine and along the U.S. Atlantic coast between the Merrimack and Hudson Rivers; bracketed footnotes are provided in the table to match up "Use of the Watershed" information to the specific reference(s) from which it came; a description of shortnose sturgeon life history stages are included at the end of the table below

Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Kennebec River (ME)	Up to Lockwood Dam (RKM 103), also includes Merrymeeting Bay, Sagadahoc Bay, and the entirety of the Back, Sasanoa, Eastern, and Cathance Rivers	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Occurs at two sites: below the former Edwards Dam[7] (RKM 58-74) and downstream of the Lockwood Dam[8] (RKM 87-103) **Rearing** - Eggs and larvae occur in freshwater reaches below the spawning sites[8] **Foraging** - Throughout the lower estuary to the mouth of the river[4][5][8] (below RKM 70) with concentration areas near Bath[3][5][8] (RKM 16-29) including Sagadahoc Bay[6] and the Back and Sasanoa Rivers[1][5][8] **Overwintering** - Majority in Merrymeeting Bay [5][7] (RKM 37-40 and 40-42), also Bluff Head [2][5] (RKM 15), and in the lower portions of the Eastern and Cathance Rivers (tributaries to Merrymeeting Bay)[2]	[1] McCleave et al. 1977; [2] Squiers and Robillard 1997; [3] Squiers 2003; [4] Fernandes et al. 2010; [5] SSSRT 2010; [6] Fire et al. 2012; [7] Wippelhauser and Squiers 2015; [8] Wippelhauser et al. 2015
Androscoggin River (ME)	Up to Brunswick Dam (RKM 8.4)	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Below Brunswick Dam to the Rt. 201 Bridge(RKM 7.7-8.4)[2] **Rearing** - Eggs and larvae occur in freshwater reaches below the spawning sites[3] **Foraging** - Montsweag Bay during the summer [1]	[1] McCleave et al. 1977; [2] Wippelhauser and Squiers 2015; [3] Wippelhauser et al. 2015
Presumpscot River (ME)	Up to Presumpscot Falls (RKM 4)	adults	**Foraging** - May be used for foraging[1]	[1] Yoder et al. 2009
Saco River (ME)	Up to Cataract Dam (RKM 10)	adults	**Foraging** - Used seasonally May-November[1]	[1] Little et al. 2013; [2] Hodgdon et al. 2018
Piscataqua River (NH)	Entirety of Piscataqua River including Cocheco River from its confluence with Piscataqua River upstream to Cocheco Falls Dam and waters of Salmon Falls River from its confluence with Piscataqua River upstream to the Route 4 Dam	adults	**Foraging** - Used seasonally for foraging and resting during spring and fall migrations; tracking data indicates that use by individual sturgeon is limited to days or weeks[1]	[1] Kieffer and Trefry, pers. comm., April 18, 2017

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Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Merrimack River (MA)	Up to Essex Dam (RKM 46)	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Near Haverhill[2] (RKM 30-32) **Rearing** - Eggs and larvae present in spawning grounds four weeks after spawning occurs, following which they would begin to move downstream continuing their development in the freshwater reach of the river[1] (RKM 16-32) **Foraging** - Lower river with concentrations near Amesbury and the lower islands[1][3] (RKM 6-24) **Overwintering** - Late fall to early spring[1]; multiple overwintering sites from RKM 15-29 in freshwater reaches beyond the maximum salt penetration[4]	[1] Kieffer and Kynard 1993; [2] Kieffer and Kynard 1996; [3] Kynard et al. 2000; [4] Wippelhauser et al. 2015
Narragansett Bay (RI)	Throughout the bay	adults	**Foraging** - Potentially occurs where suitable forage is present[1]	[1] NMFS 1998
Thames River (CT)	Up to the Greenville Dam (RKM 28)	adults undocumented, but assumed based on documented occurrences of Atlantic sturgeon in the river	**Foraging** - Assumed to occur where suitable forage is present[1]	[1] The Day June 17, 2016 (http://www.theday.com/article/20160617/NWS01/160619212)

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Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Connecticut River (CT/MA)	Up to Turners Falls Dam, MA (RKM 198)	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Below Turners Falls Dam/Cabot Station at two locations depending on river conditions[3] (RKM 193-194); limited spawning may occasionally occur below Holyoke Dam[3] (RKM 139-140) **Rearing** - Eggs and larvae spawned upstream documented up to 20 km downstream of the spawning site[3]; if spawning is successful downstream of Holyoke, early life stages would be present in downstream freshwater reaches [1][3] (RKM 13-194) **Foraging** - Concentrations above the Holyoke Dam in the Deerfield Concentration Area[3] (RKM 144-192), Agawam Concentration Area [1] (RKM 114-119), and the lower Connecticut Concentration Area[3] (RKM 0-110) **Overwintering** - Concentrations above the Holyoke Dam in the Deerfield Concentration Area[3] (RKM 144-192); below the Holyoke Dam concentrations near Holyoke[2] (RKM 137-140), Agawam[3] (RKM 114-119), Hartford [2] (RKM 82-86), Portland, CT[3] (RKM 46), and the lower river[2] (RKM 0-25)	[1] Buckley and Kynard 1983; [2] Buckley and Kynard 1985; [3] Kynard et al. 2012
Deerfield River (MA), tributary of the Connecticut River	Up to Deerfield No. 2 at Shelburne Falls (RKM 22.5)	adults documented in lower 3 km; larvae spawned in Connecticut River may be present during certain flow conditions	**Rearing** - Water flow could potentially draw migrating larvae into unfavorable habitat in the Deerfield River[1]; potential refuge area during high flows[2] **Foraging** - Spring through fall in lower river[2] (RKM 0-3.5) **Overwintering** - May be used as an overwintering area potential pre-spawning staging area for adults[1]	[1] Kieffer and Kynard 1992; [2] Kynard et al. 2012

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Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Westfield River (MA), tributary of the Connecticut River	Up to DSI Dam (RKM 9.5)	adults	**Foraging** - Assumed to occur where suitable forage is present[1]	[1] USFWS 2007 in SSSRT 2010
Quinnipiac River (CT)	Up to Wallace Dam (RKM 27)	adults undocumented, but assumed based on documented occurrences of Atlantic sturgeon in the river	**Foraging** - Assumed to occur where suitable forage is present[1]	[1] Hartford Courant September 30, 1994 (http://articles.courant.com/1994-09-30/news/9409300111_1_sturgeon-fish-story-giant-fish)
Housatonic River (CT)	Up to Derby Dam (RKM 23.5)	adults	**Spawning** - Historical spawning occurred above the Derby Dam, none known to occur currently[1] **Foraging** - Potentially occurs where suitable forage is present[1]	[1] Savoy and Benway 2006 in SSSRT 2010
Long Island Sound (CT/NY)	Full length of Long Island Sound in nearshore coastal waters	adults	**Foraging** - Potentially occurs where suitable forage is present[1]	[1] Savoy 2004 in SSSRT 2010
East River (NY)	Full length of the East River	transient adults undocumented, but assumed based on detections of Atlantic sturgeon and occasional movements of shortnose sturgeon from Hudson River to Connecticut River	**Foraging** - Potentially occurs where suitable forage is present[1]	[1] Savoy 2004 in SSSRT 2010

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Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Hudson River (NY/NJ)	Up to Troy Dam, NY (approximately RKM 246)	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Documented from late March to early May when water temperatures reach 10° -18°C[1] from Coxsackie to below the Federal Dam at Troy[1][3] (RKM 190-246) **Rearing** - Eggs on the spawning grounds; larvae downstream to at least RKM 104; YOY downstream to at least RKM 64[1] **Foraging** - Throughout the Hudson River (RKM 38-175) [3][4] with concentrations in Haverstraw Bay[1] (RKM 56-64) **Overwintering** - Late fall to early spring[3]; largest area (mainly spawning adults) near Kingston[2] (RKM 137-149); smaller overwintering areas are located from Saugerties to Hyde Park[2] (RKM 123-170) and in the Croton-Haverstraw Bay area[2] (RKM 54-61); many juveniles overwinter in the lower river[1] (RKM 0-64)	[1] Dovel et al. 1992; [2] Geoghegan et al. 1992; [3] Bain 1997; [4] Pendleton et al. 2018

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Body of Water (State)	Distribution/Range in Watershed	Life Stages Present	Use of the Watershed	References
Delaware River and Bay (NJ/DE/PA)	Up to Lambertville, PA (RKM 240)	eggs, larvae, YOY, juveniles, and adults	**Spawning** - Documented from late March through late May; water temperatures 6-18°C; between Trenton and Lambertville[6] (RKM 214-238) **Rearing** - Eggs and larvae between Trenton and Lambertville[6] (RKM 214-238); juveniles located upstream of the salt wedge from Wilmington to Philadelphia[3] (RKM 114-148) **Foraging** - Throughout the river, between the vicinity of Trenton south to Artificial Island[7] (RKM 79) **Overwintering** - November to March[1]; overwinter when waters reach 10°C (typically mid-November)[2]; many adults concentrate from RKM 190-212[1][4], but occur downstream below Wilmington[4] (RKM 116); juveniles overwinter from Philadelphia to below Artificial Island[5] (RKM 70-154); variety of behaviors from sedentary to active[6]	[1] O'Herron et al. 1993; [2] USGS gauge at Philadelphia (01467200) during the 2003-2008 time period; [3] Burton et al. 2005; [4] ERC 2006; [5] Brundage and O'Herron 2009; [6] ERC 2009; [7] SSSRT 2010
Schuylkill River (PA), tributary of the Delaware River	Up to Fairmount Dam (RKM 13.6)	juveniles and adults	**Foraging** - Potentially occurs where suitable forage is present[1]	[1] Philadelphia Water Department November 7, 2014 (http://www.phillywatersheds.org/endangered-shortnose-sturgeon-returns-schuylkill)
C&D Canal (DE/MD)	Used at least occasionally to move from Chesapeake Bay to the Delaware River	adults	**Foraging** - Assumed to occur in areas with suitable forage[1]	[1] Welsh et al. 2002
Chesapeake Bay (MD/VA)	Maryland and Virigina waters of mainstem bay and tidal tributaries including those specifically listed below.	adults documented; other life stage presence unknown	**Foraging, Resting, and Overwintering** - Assumed to occur in areas with suitable forage [1][2]	[1] SSSRT 2010; [2] Balazik 2017

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Susquehanna River (MD)	Up to Conowingo Dam (RKM 16)	adults documented; other life stages assumed but unknown	**Spawning** - Historically occurred; currently unknown as suitability of habitat is likely impacted by dam operations[1] **Foraging** - Assumed to occur in areas with suitable forage[2] **Overwintering** - Not documented but assumed based on anecdotal reports of aggregations of sturgeon in deep holes near Lapidum and Perrysville[2]	[1] Litwiler 2001; [2] SSSRT 2010
Potomac River (MD/VA)	Up to Little Falls Dam (RKM 189)	adults documented; other life stages assumed but unknown	**Spawning** - Historically occurred; current spawning not documented but assumed based on presence of pre-spawning females and suitable habitat at RKM 185-187[1] **Rearing** - Eggs expected at RKM 185-187, larvae would be present downstream in freshwater[1] **Foraging** - Mainly in the deepwater channel from RKM 63-141[1][2] **Overwintering** - Near Mattawoman Creek; saltwater/freshwater reach near Craney Island [1][2] (RKM 63-141)	[1] Kynard et al. 2007; [2] Kynard et al. 2009
Rappahannock River (VA)	Range not confirmed, but they have been documented in this river (likely throughout the entire river)	adults	**Foraging** - Potentially occurs where suitable forage is present; one was captured in May 1998[1]	[1] Spells 1998
York River (VA)	Range unknown (potentially throughout the river and tributaries)	adults	**Foraging** - Potentially occurs where suitable forage is present [1]	[1] Balazik, pers. comm., June 7, 2018

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James River (VA)	Range not confirmed, but likely up to Boshers Dam (RKM 182.3)	adults	**Foraging/Spawning** - Foraging potentially occurs where suitable forage is present; a sturgeon, possibly from the Potomac or Delaware River, was captured on March 13, 2016, at RKM 48[1]; on February 2018, a second sturgeon (a confirmed gravid female) was captured near RKM 48[2] (genetics results not yet available); spawning area unknown; the salinity at RKM 48 is usually low (brackish).	[1] Balazik 2017; [2] Balazik, pers. comm., February 10, 2018

Listing rule: 32 FR 4001, March 11, 1967; **Recovery plan**: NMFS 1998. Available online: http://www.nmfs.noaa.gov/pr/pdfs/recovery/sturgeon_shortnose.pdf

June 7, 2019

GARFO Species List

(Proceed to page 2 for complete reference list)

Whales:

North Atlantic right whale (*Eubalaena glacialis*)(73 FR 12024; Recovery plan: NMFS 2005)
Fin whale (*Balaenoptera physalus*)(35 FR 18319; Recovery plan: NMFS 2010a)
Sei whale (*Balaenoptera borealis*)(35 FR 18319; Recovery plan: NMFS 2011)
Sperm whale (*Physeter macrocephalus*)(35 FR 18319; Recovery plan: NMFS 2010b)
Blue whale (*Balaenoptera musculus*)(35 FR 18319; Recovery plan: NMFS 1998b)

Sea Turtles:

Loggerhead turtle (*Caretta caretta*)(76 FR 58868; Recovery plan: NMFS & USFWS 2008) [1]
Leatherback turtle (*Dermochelys coriacea*)(35 FR 8491; Recovery plan: NMFS & USFWS 1992a)
Green turtle (*Chelonia mydas*)(81 FR 20057; Recovery plan: NMFS & USFWS 1991) [2]
Kemp's ridley turtle (*Lepidochelys kempii*)(35 FR 18319; Recovery plan: NMFS *et al.* 2011)
Hawksbill turtle (*Eretmochelys imbricata*)(35 FR 8491; Recovery plan: NMFS & USFWS 1992b)

Fish:

Shortnose sturgeon (*Acipenser brevirostrum*)(32 FR 4001; Recovery plan: NMFS 1998a)
Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*)(77 FR 5880 and 77 FR 5914)[3]
Atlantic salmon (*Salmo salar*)(74 FR 29344; Recovery plan: NMFS & USFWS 2019)[4]

Critical Habitat:

North Atlantic right whale (81 FR 4837)
Loggerhead turtle (79 FR 4837)
Atlantic sturgeon (82 FR 39160)
Atlantic salmon (74 FR 29300)

[1] For loggerhead turtles, only the Northwest Atlantic Distinct Population Segment (DPS) occurs in the Greater Atlantic Region
[2] For green turtles, only the North Atlantic DPS occurs in the Greater Atlantic Region
[3] For Atlantic sturgeon, there are five listed DPSs that may occur in the Greater Atlantic Region: (1) Gulf of Maine, (2) New York Bight, (3) Chesapeake Bay, (4) Carolina, and (5) South Atlantic
[4] For Atlantic salmon, there is one listed DPS: the Gulf of Maine DPS

ESA Listing Rules:

North Atlantic right whale:
(73 FR 12024; March 6, 2008)

Fin, Sei, Sperm, and Blue whales:
(35 FR 18319; December 2, 1970)

Loggerhead turtle:
(76 FR 58868; September 20, 2011)

Leatherback turtle:
(35 FR 8491; June 2, 1970)

Green turtle:
(81 FR 20057; April 6, 2016)

Kemp's ridley and Hawksbill turtles:
(35 FR 18319; December 2, 1970)

Shortnose sturgeon:
(32 FR 4001; March 8, 1967)

Atlantic sturgeon:
(77 FR 5880; February 6, 2012)
(77 FR 5914; February 6, 2012)

Atlantic salmon:
(74 FR 29344; June 19, 2009)

Species Recovery Plans:

National Marine Fisheries Service (NMFS). (1998a). Final Recovery Plan for the Shortnose Sturgeon (*Acipenser brevirostrum*).

National Marine Fisheries Service (NMFS). (1998b). Recovery plan for the blue whale (*Balaenoptera musculus*). Prepared by Reeves R.R., P.J. Clapham, R.L. Brownell, Jr., and G.K. Silber for the National Marine Fisheries Service, Silver Spring, MD. 42 pp.

National Marine Fisheries Service (NMFS). (2005). Recovery Plan for the North Atlantic Right Whale (*Eubalaena glacialis*).

National Marine Fisheries Service (NMFS). (2010a). Final Recovery Plan for the Fin Whale (*Balaenoptera physalus)*.

National Marine Fisheries Service (NMFS). (2010b). Final Recovery Plan for the Sperm Whale (*Physeter macrocephalus)*.

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National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). (1991). Recovery Plan for U.S. Population of Atlantic Green Turtle (*Chelonia mydas*).

National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). (1992a). Recovery Plan for Leatherback Turtles (*Dermochelys coriacea*) in the U.S. Caribbean, Atlantic, and Gulf of Mexico.

National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS). (1992b). Recovery Plan for the Hawksbill turtle (*Eretmochelys imbricata*) in the U.S. Carribean, Atlantic and Gulf of Mexico.

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APPENDIX E

National Register of Historic Places and
Massachusetts Historical Commission Documentation

Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

Massachusetts Cultural Resource Information System

MACRIS

Scanned forms and photos now available for selected towns!

The Massachusetts Cultural Resource Information System (MACRIS) allows you to search the Massachusetts Historical Commission database for information on historic properties and areas in the Commonwealth.

Users of the database should keep in mind that it does not include information on all historic properties and areas in Massachusetts, nor does it reflect all the information on file on historic properties and areas at the Massachusetts Historical Commission.

Click here to begin your search of the MACRIS database.




Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street No: 2; Street Name: Harbor; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street No: 329; Street Name: Northern; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street Name: Harbor St; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
BOS.6862	Kent, Barker B. House	17 Dixfield St	Boston	c 1849
BOS.6866	Briggs, James Edwin House	142 Dorchester St	Boston	r 1856
BOS.6867	Sears, Jabez H. - Woods, Solomon A. House	146 Dorchester St	Boston	1859
BOS.12966	Boston Army Supply Base - Building 19	6 Harbor St	Boston	c 1940

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street Name: Northern; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
BOS.1512	U. S. Coast Guard Building	408 Atlantic Ave	Boston	1918
BOS.1513	Hook, James J. Lobster Company	436-440 Atlantic Ave	Boston	c 1936
BOS.9000	Northern Avenue Draw Bridge	Northern Ave	Boston	c 1907
BOS.12967	Boston Army Supply Base - Refrigeration Plant	Northern Ave	Boston	c 1980
BOS.12968	Boston Army Supply Base - Building 38	Northern Ave	Boston	c 1940
BOS.12971	Boston Army Supply Base - Building 18	Northern Ave	Boston	c 1940
BOS.15356	Northern Avenue Draw Bridge Tenders House	Northern Ave	Boston	1908
BOS.15229	Chapel of Our Lady of Good Voyage	65 Northern Ave	Boston	1952
BOS.9252	South Boston Fish Pier	212-234 Northern Ave	Boston	c 1910
BOS.16589	South Boston Fish Pier - East Building	212-234 Northern Ave	Boston	c 1910
BOS.16590	South Boston Fish Pier - West Building	212-234 Northern Ave	Boston	c 1910
BOS.16591	South Boston Fish Pier - Fish Exchange Building	212-234 Northern Ave	Boston	c 1910
BOS.12969	Boston Army Supply Base - Building 56	300 Northern Ave	Boston	c 1940
BOS.12970	Boston Army Supply Base - Building 53	306 Northern Ave	Boston	c 1940
BOS.7179	Commonwealth Pier Five	162 Seaport Blvd	Boston	1914

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

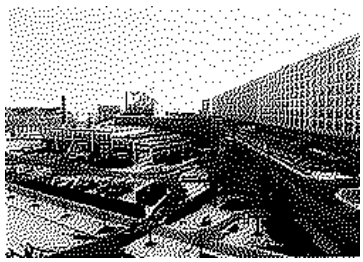
Search Criteria: Town(s): Boston; Street Name: Channel; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
BOS.9509	Nix's Mate Daybeacon	Boston Harbor	Boston	1834
BOS.5546	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1916
BOS.5547	Boston Wharf Company Warehouse	1-5 Channel Center St	Boston	1914
BOS.5548	Abbott, W. Herbert, Inc. Building	1-5 Channel Center St	Boston	1913
BOS.5543	Boston Wharf Company Warehouse	15 Channel Center St	Boston	c 1914
BOS.5544	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1911
BOS.5545	Boston Wharf Company Warehouse	15 Channel Center St	Boston	1912
BOS.5541	Boston Wharf Company Warehouse	35 Channel Center St	Boston	1902
BOS.12946	Boston Army Supply Base - Building 17	7 Channel St	Boston	c 1940
BOS.8062	Boston Army Supply Base Steam Locomotive Shop	11 Channel St	Boston	1918
BOS.12947	Boston Army Supply Base - Building 32	12 Channel St	Boston	c 1940

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	BOS.RT
Historic Name:	Boston Army Supply Base
Common Name:	
Address:	
City/Town:	Boston
Village/Neighborhood:	South Boston; South Boston West
Local No:	
Year Constructed:	
Architect(s):	Fay, Frederic Harold
Architectural Style(s):	
Use(s):	Fort or Base; Industrial Complex or District; Ship Yard
Significance:	Archaeology, Historic; Architecture; Commerce; Industry; Military; Transportation
Area(s):	
Designation(s):	
Building Materials(s):	



Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

FORM A - AREA

Assessor's Sheets	USGS Quad	Area Letter	Form Numbers in Area
(see continuation sheet)	Boston South	RT	See Area Data Sheet

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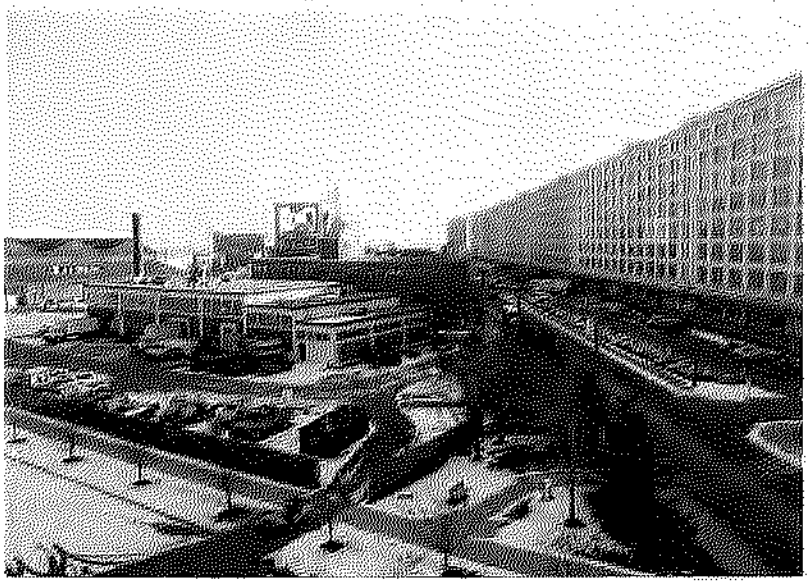


L-R: Buildings 20, 21 and Army Marine Terminal Storehouse; Drydock #3 at Center

Town Boston

Place *(neighborhood or village)* South Boston

Name of Area Boston Army Supply Base

Present Use industrial, commercial, mixed use

Construction Dates or Period 1918-present

Overall Condition good

Major Intrusions and Alterations some demolition and recent infill

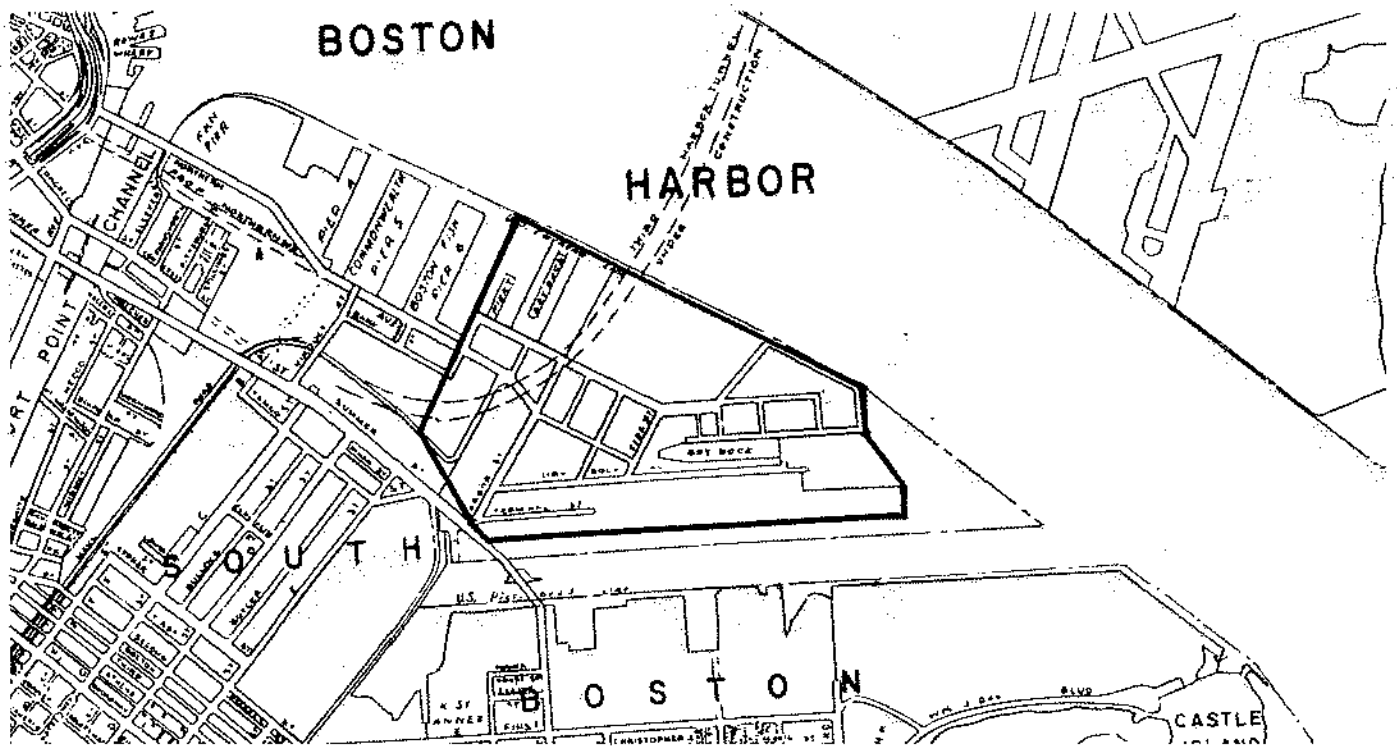
Acreage approximately 43 acres

Recorded by VHA, MK, MKH, NCA, KVD

Organization The Public Archaeology Laboratory, Inc.

Date *(month/day/year)* July 1997

Sketch Map
Please see attached.



AREA FORM

ARCHITECTURAL DESCRIPTION _X *see continuation sheet*

The Boston Army Supply Base area includes 29 individual buildings, and one major structure, Drydock #3 MHC,12956 1914-1918). The triangular area is roughly 43 acres and bounded by Boston Harbor to the northeast, the Reserved Channel to the south, and Harbor Street to the northwest, and incorporates Northern Avenue, Channel Street, Tide Street, FID Kennedy Way, Drydock Street, and Dolphin Way. The buildings can be divided into three major building programs and a fourth subsequent period of adaptive reuse and infill construction. The first program, beginning about 1914 and lasting until 1918, consisted of Drydock #3 (MHC 12956, 1914-1918) and its three associated, one-story, brick-walled, classically-detailed support structures located on its south edge, Building 1 (Pump House) (MHC 12959, ca. 1918), and Buildings 22 and 23 (MHC 12957, 12958, ca. 1918). Almost simultaneous was the construction of the adjacent Boston Army Supply Base to the south, which included several massive, concrete-clad, steel-frame buildings: the Army Marine Terminal Storehouse (Building 114) (MHC 12948, 1918), or simply "Storehouse"; the adjacent Wharf Shed (Building 119) (MHC 12944, 1918); and the North and South Pier Sheds (Buildings 117 and 113) (MHC 12962, 1918). An associated boiler house, electrical substation, and administration building have been demolished. All of the Boston Army Supply Base buildings were completed in 1918, and share an abstracted classical decorative system typical of warehouse architecture of the period.

The massive concrete buildings of the 1918 Boston Army Supply Base continue to dominate and define the complex; the lesser, although still large, buildings still convey the industrial spirit and scale of the site; and ship repair continues in the drydock area. Several minor associated historic buildings have been demolished, some existing historic buildings have been altered, and some incongruous buildings have been erected.

HISTORICAL NARRATIVE _X *see continuation sheet*

The land upon which the present buildings in the Boston Army Supply Base Area stand did not exist prior to 1914. This area was created as part of a gradual filling process in South Boston which began in 1836 and continued through to the mid-20th century. Buildings located on the base were built during three general phases: World War I, World War II, and a fourth, more recent adaptive-reuse phase for private commercial and industrial concerns.

South Boston was originally a peninsula of about 600 acres, known as Dorchester Neck, which extended eastward into Boston Harbor. Dorchester Neck was then a part of the town of Dorchester, established in 1630. In the 17th century, land on the Neck was granted to settlers for pasturage. The first house, apparently located on E Street at about West Fourth Street, was not constructed until 1673 (Elia 1989:226). There was very little growth on the Neck during the Colonial period. 12 families were living on the Neck about 1700; there were only 7 houses on the entire Neck in 1725, growing to 9 by 1775. Agriculture was the chief economic activity, with some quarrying of slate for local use on Telegraph Hill, southwest of the Boston Army Supply Base Area.

South Boston's initial development, like East Boston's two decades later, was the result of planned real estate development under the direction of a group of real estate speculators, the South Boston Associates, chartered by legislature in 1804. The company bought most of the land which then comprised Dorchester Neck and soon laid out streets and lots and chartered a toll bridge company (Beard 1987:8/1). South Boston's population had risen to 60 families by 1804, the year in which it was annexed to Boston, following efforts by the South Boston Associates.

BIBLIOGRAPHY and/or REFERENCES _X *see continuation sheet*

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_X **Recommended for listing on the National Register of Historic Places.** ***If checked, you must attach a completed National Register Criteria Statement form.***

INVENTORY FORM CONTINUATION SHEET

Community: South Boston

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ARCHITECTURAL DESCRIPTION ***(continued)***

Despite these changes, the association, character, materials, and relationships of the historic fabric remain intact. Through creative adaptive reuse, the Boston Army Supply Base remains an active, definable commercial and industrial complex.

The third construction program, overseen by the U.S. Navy, began in 1940 and lasted until at least 1942. This construction was concentrated to the north and northwest of the earlier facilities and included construction of several piers along the northeast waterfront. It is difficult to determine the exact location and number of buildings from this era; as the Boston Army Supply Base was a federal facility, most maps do not show the area in detail. Of the 26 World War II–era buildings known to have been there in 1970 (USGS map), only 16 appear to be standing today. With the exception of Building 30, a large steel-framed building which stood on the northeast side of Northern Avenue, the demolished buildings were all relatively small structures. Some of the surviving World War II–era buildings echo both classical and contemporary architectural trends, while others are more utilitarian and are typical of wartime emergency architecture in their lack of detail. More research is needed to determine if this phenomenon is related to pre- or post-Pearl Harbor U.S. military construction standards.

The fourth development phase began in the early 1980s and is associated with the economic redevelopment of the site by the Economic Development and Industrial Commission (EDIC) including the Boston Marine Industrial Park and the Boston Design Center. This phase is characterized by demolition of roughly a dozen minor structures, significant cosmetic alteration of others, and new construction of at least seven utilitarian structures.

The following architectural descriptions roughly follow the chronology outlined above from south to north across the area. Many of the buildings have been given a number which corresponds to their original U.S. military designation.

The Army Marine Terminal Storehouse (Building 114) (MHC 12948, 1918) and Wharf Shed (Building 119) (MHC 12944, 1918) are located at the south edge of the base, south of Drydock Avenue, on the Reserved Channel. These two extraordinarily long buildings were originally built as the main storage buildings for the base and functioned as one facility. The larger, northern of the two, the Storehouse (Building 114) (MHC 12948, 1918), has been converted to show rooms for a variety of home furnishing businesses, and is known as the Boston Design Center. This is one of the largest and most visible buildings of the Boston waterfront, and is both an architectural and engineering landmark. The smaller, southern of the two, the Wharf Shed (Building 119) (MHC 12944, 1918), is used predominantly as warehouse storage, with the Black Falcon Cruise terminal and offices at the western end. The two buildings are connected by six steel-framed, concrete-clad bridges on their second floors. Both buildings have undergone adaptive reuse, and are in good condition. The abstracted, classically-derived ornamentation scheme is consistent with American warehouse architecture of the period.

The Storehouse (Building 114) (MHC 12948, 1918) is a massive, rectangular, reinforced concrete structure. It is 1638 feet long by 126 feet wide, 8 stories, 78-by-6 bays, flat-roofed, and rests on a concrete foundation. The building is ornamented with spare classical motifs: cast-concrete string courses at the first through seventh stories, piers topped by Doric capitals, projecting molding on the string course separating the seventh and eighth floors, and a simple cornice with ornate brackets at the corners of the building. The corner towers of the building project slightly from the plane of the building, and are further expressed by narrow windows and parapets at the roof line. The main entrance to the building

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ARCHITECTURAL DESCRIPTION ***(continued)***

is located at the west end of the structure. This elevation has been emphasized by the addition of a Post-Modern facade (mid-20th century), consisting of a 2-story, outward-bowed, granite entrance pavilion. The piers are clad with smooth, granite sheathing to just below the topmost string course, where decorative, square, tile patterns form capitals. The facade is surmounted by a solid pediment pierced by a semi-circular opening. There are multiple service entrances on all elevations. Public pedestrian entrances have been combined with raised rail docks (now truck loading docks) at each of the show rooms on the north elevation. A hung, concrete- frame awning spans the length of the north elevation. The south elevation has truck loading docks and private pedestrian entrances. The building has rectangular, multi-pane, fixed, steel sash windows, inset with awning operating sections. All of the windows on the first floor of the north elevation of the building have been replaced with modern steel-and-plate-glass display windows with doors. This building is a very large example of the type of construction used throughout the Boston Army Supply Base Area.

The Wharf Shed (Building 119) (MHC 12944, 1918) to the south is also a massive, rectangular, reinforced concrete structure, set on a concrete foundation. It is 3-by-78 bays, and 2-stories, with a flat roof. The building is ornamented with spare classical motifs. Shallowly stepped pediments at the east and west ends of the building, recessed panels, brackets at the cornice line, emphasized corner piers, and piers capped with Doric capitals all echo the ornamentation of the adjacent Storehouse (Building 114) (MHC 12948, 1918). The building is connected to the Storehouse on the second floor by steel-frame, concrete-clad, overhead enclosed bridges, lettered A-F, from east to west. These bridges are supported by concrete buttresses. Equally spaced between these overhead bridges are five emphasized stair bays/entrances on the north elevation, which historically demarcated shipping berths. There are numerous pedestrian and service entrances on the east, west, and north elevations. A raised truck dock in the north bay of the west elevation is protected by a corrugated-metal awning. There is a street-level truck entrance on the east elevation, also protected by a corrugated metal awning. The east and west elevations of the building are marked by higher and wider bays than the north and south elevations. Windows on the north elevation of the first floor are rectangular, fixed operation, with steel sash, the majority of which are original to the building. The first and second stories on the north and south elevations have two panel, double-hung doors with fixed lights. The second story on the south (wharf) elevation is served by a narrow, continuous concrete balcony. Running the length of the roof on the south elevation, facing the reserved channel, is the steel framework for a now missing traveling crane. Large sections of the east end of the building appear to be vacant. At the west end of the building, bays 49 through 71 have been opened on the first and second floors through the building to create an entrance pavilion (late-20th century) and car park for the Black Falcon Cruise terminal and offices. The west elevation has new blue metal awnings with black glass windows in the middle and south bay for the MassPort offices. This building has seen slight physical alterations to accommodate the new needs of commercial maritime industries of the late 20th century.

The North and South Pier Sheds (Buildings 117 and 113) (MHC 12962, 1918) are located east of the Storehouse (Building 114) (MHC 12948, 1918) and Wharf Shed (Building 119) (MHC 12944, 1918) at the extreme southeast corner of the base on Boston Harbor. This storage facility is comprised of two identical buildings designed to act as one facility. The buildings sit parallel to each other, and are connected by multiple, concrete, enclosed bridges on the second and third stories. The pier sheds are 4-by-44-bay, reinforced concrete, rectangular, 3-story, flat-roof buildings with concrete foundations. The west elevations of the buildings have a spare classical decorative scheme, consisting of a cast concrete cornice and the center two, slightly projecting bays are ornamented with simplified Doric pilasters and

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ARCHITECTURAL DESCRIPTION *(continued)*

capitals. The north and south elevations of both buildings are devoid of ornament. Windows are rectangular, of fixed operation, with no sash. The original glass panes have been replaced by sheets of light-permeable plexiglass. Both buildings have truck loading docks on the west elevation. The paired buildings are bounded on the north and south sides by a dry dock and the Reserved Channel respectively. Each bay facing the water along the length of the buildings is surmounted by a gantry crane, for loading and unloading materials from the wharves. Four elevator towers are located on the roof of each of the buildings. The buildings are unmodified, in good condition and have undergone adaptive reuse. Their Classically-inspired detailing is consistent with warehouse architecture of the period.

The Coastal Cement Corporation, 39 Drydock Avenue (MHC 12960, ca.1980) is located between the Storehouse/Wharf Shed Complex (Buildings 114 and 119) (MHC 12948, 12944, 1918) and the North and South Pier Sheds (Buildings 117 and 113) (MHC 12962, 1918). This is a recently-constructed cement-storage and shipping complex. It consists of a steel-framed office building and four large, reinforced-concrete silos with a free-standing weigh-station office to the south. The rectangular, 3-story, main office building sits on a concrete foundation, is 4-by-4 bays, with a flat, built-up roof. The building is Post-Modern in style, clad with large, square panels with metal trim. Punched-out, aluminum-trimmed, fixed-pane, square windows are placed at regular intervals on the elevations. The main entrance lobby is reached on the northwest corner through a glass and metal frame tower. Service entrances to the building are located on the south elevation, consisting of two roll-up metal garage doors protected by a hung flat roof. To the east of the office building are four massive, cylindrical, concrete silos used to store dry concrete for construction. The service entrances consist of punched openings on the north and south side of each silo where trucks can drive in to be loaded. Wharves are located on the north side of the silos, where ships off-load dry concrete by conveyors mounted atop each silo. To the south is a one-story, four bay square weigh station office. Like the main office, it sits on a concrete foundation and is clad with metal trimmed panels. The north, east, and south elevations of the building have metal-frame ribbon windows. The main entrance to the building is through a steel security door centrally located on the south elevation. A service window on the east elevation is reached by a few steps to a small landing. This complex is in its original use and in excellent condition.

Drydock #3, Boston Ship Repair Company (MHC 12956, 1914-1918) is located north of the Storehouse (Building 114) (MHC 12948, 1918) and Drydock Avenue. The drydock is 1200 feet long, 149 feet wide, and 46 feet deep. It is the oldest structure at the Boston Army Supply Base and is constructed of reinforced concrete, with a stepped granite-block facing. A 1600-ton, hollow steel caisson serves as a door and can be placed at the end or the middle of the drydock, which holds 60,000,000 gallons of water. The drydock is served by three self-propelled, rail-guided gantry cranes, two located on the south rim, and one on the north rim. A wide concrete deck surrounds the drydock, and includes electrically-operated capstans and winches. Three buildings are associated with the original construction and operation of the drydock, Pump House (Building 1) (MHC 12959, ca. 1918), Building 22 (MHC 12957, 1918), and Building 23 (MHC 12958, 1918). Additionally, Building 40 (MHC 12960, ca. 1918) may have been associated with the drydock. The drydock is in good condition, and has been refitted for the operation of the Boston Ship Repair Company. It was the second-largest drydock in the world when constructed and was considered an engineering marvel. It remains the largest drydock in Boston Harbor.

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ARCHITECTURAL DESCRIPTION ***(continued)***

The Pumphouse (Building 1), 32 Drydock Avenue (MHC 12959, ca.1918) is located on the north side of Drydock Avenue, between the Storehouse (Building 114) (MHC 12948, 1918) and Drydock #3 (MHC 12956, 1918). It is a rectangular, 10-by-3-bay, 1½-story, brick-walled building with a shallow, truncated hip roof and a granite foundation. The elevations are articulated by a heavy, molded, classical, stone cornice and belt course, and rows of blank arch window openings with granite keystones and sills. Four round tin ventilators are located along the roof ridge. Two small associated buildings, a transformer shed and a Butler-type building, are located immediately to the east. This building is in good condition and used by the Boston Ship Repair Company as a steam and electricity generating station. The form and detailing of the building are consistent with the following two associated drydock buildings to the west.

Building 23 (MHC 12958, ca.1918) is located between Building 1 (MHC 12959, ca. 1918) and Building 22 (MHC 12957, 1918). It is a small, L-shaped, 1-story, 3-by-3-bay, square, brick-walled building with two parallel, side-gable, slate roofs. The building rests on a granite foundation. The main feature of the south elevation is the triple garage entrances with wood-paneled, roll-type doors. Windows are multi-light wood, double-hung sash. Details include wood rake boards and brick header course sills. This original 1918 drydock-associated building is in good condition and in use by the Boston Ship Repair Company. The form and details are similar to the associated drydock buildings located to either side.

Building 22 (MHC 12957, ca.1918) is located between Building 21 (MHC 12954, ca. 1940-1942) and Building 23 (MHC 12958, 1918). It is a rectangular, 12-by-4-bay, 1-story, brick-walled, flat-roofed structure with a granite block foundation. Windows are original steel-sash, multi-pane, center-pivot type. Personnel doors are located on the east and west elevations. Details include a classical, molded, concrete cornice, and concrete window sills. It is in good condition, and in use by the Boston Ship Repair Company. The form and details of this building are similar to the two associated drydock buildings to the east.

Located on Drydock Avenue, north of the Storehouse (MHC 12848, 1918) and east of the intersection of Tide Street, Building 21, 24-26 Drydock Avenue (MHC 12954, ca.1940-1942) consists of two similarly-detailed and scaled, attached, east and west blocks. Both 3-story blocks have flat roofs, concrete foundations, emphasized central entrance bays, and trim emphasizing the horizontal bands of windows. Fire escapes are located on the east, west, and north elevations of the structure. The west block is 9-by-3 bays, of masonry construction, with brick walls, horizontally-scored piers, and continuous horizontal concrete bands at the window sill and lintel lines. The center entrance includes stripped Classical detailing including a molded concrete cornice above the double wood doors, which are reached by a short flight of concrete steps. Windows are original, multi-light steel sash, with some replacements on the first story. The stair tower above the entrance contains a continuous, 2-story, vertical, narrow window. The east block is 20-by-6-bay, timber-framed, and continues the horizontal facade articulation of the west block with wood trim and bands of shingles. Windows are rows of individual, rectangular, aluminum replacement sash. The brick central entrance tower is less detailed than that of the west block, lacking the stairwell-height window band. Both buildings are in fair condition and appear unused. This structure expresses better than any other the contrast between the more substantial, and the more utilitarian World War II-era construction at the base, and suggests that the west wing could have been built circa-1940, and the east wing after Pearl Harbor and declaration of Wartime Emergency, a pattern that may extend to the other buildings of the period in this area.

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The Public Works Building, 22 Drydock Avenue (MHC 12953, ca.1940-1942) is located on the north side of Drydock Avenue, at the intersection of Tide Street. It is a 3-story, 7-by-6-bay, flat-roof building built on an irregular septagonal L-shaped plan to accommodate its site at the intersection of Drydock Avenue and Tide Street. The building has brick walls with continuous wide concrete string courses at the lintel line, and a narrow course at the sill line. Metal frame replacement windows are grouped in threes, with intervening brick spans. The north and south entrances consist of replacement aluminum and glass double doors and canopies. Adjacent to each entrance is a horizontal concrete panel with the legend "PUBLIC WORKS BLDG" cast in shallow relief. The building is in good condition and is in use by the Boston Technical Center. Its sparing use of Modern/Art Deco details makes it similar to Building 21 (MHC 12954, ca. 1940-1942).

Building 20, 20 Drydock Avenue (MHC 12952, ca.1940-1942) is located northeast of the Public Works Building (MHC 12953, ca. 1940-1942), and north of the Storehouse (Building 114) (MHC 12948, 1918), on the north side of Drydock Avenue. It is a rectangular, 6-by-3-bay, 2-story, reinforced-concrete frame, flat-roof building with brick infill between the vertical concrete piers. The four northeast bays are highest, and the two remaining southwestern bays step down to a lower height. Windows are predominantly original multi-pane, center-pivot, steel-frame type, located at the tops of the walls, with some replacement, single-light windows on the southwest end of the building. Personnel doors are located on all but the south elevation. Three roll-type doors are located on the west elevation, and one is located on the east elevation. The building is in good condition, and is used by Paul's Lobster Company. It is an unremarkable example of a smaller concrete-frame industrial building.

Building 40 (MHC 12961, ca.1918) is located east of Building 20 (MHC 12952, ca. 1940-1942), on the north side of Drydock Avenue. It is a small, 1-story, 2-by-1-bay, side-gable, brick masonry structure with a concrete slab foundation, an asphalt shingle roof, bricked-in windows with concrete sills, and a steel door in the south elevation. It is in good condition, and the current use is unknown. The location, shape and materials suggest that it may have been associated with Drydock #3 (MHC 12956, 1918), the reason it has been assigned its 1918 date.

The Parking Garage (MHC 12951, ca.1980) is located northwest of Building 40 (MHC 12961, ca. 1918) and northeast of Building 15 (MHC 12949, ca. 1940-1942). It is of recent construction and consists of a 5-level, reinforced-concrete structure with polychrome concrete surface treatment and stair towers with exposed, exterior concrete spiral stairs with steel-pipe railings at all four corners.

Building 15, 10 Drydock Avenue (MHC 12949, ca.1940-1942) is located in the southeast corner of the Base, north of Drydock Avenue and south of British Airways World Cargo (MHC 12950, ca. 1980), and is now a branch of the First Trade Union Bank. This is a, masonry-and-timber-frame, rectangular, 2½-story building composed of three attached Georgian Revival-style blocks. Windows on all three blocks are replacement with faux 6/6 muntins. The central block is a 5-by-4-bay, brick-walled building with a truncated, hipped slate roof, shallow brick pilasters, and gable-roof dormers on the southwest and northeast roof planes. The original, center entrance includes a pedimented portico with Doric columns. Details include wood window trim, soldier-coursed brick lintels and header-coursed sills, and a corbeled cornice. A corbeled brick chimney is located on the north elevation. Alterations consist of a modern bank entrance with a pedimented portico at the southwest corner (late-20th century). The flanking east and west blocks are clapboarded, with asphalt-sheathed hip roofs. Details include fluted wood Doric

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pilasters at the corners. Alterations consist of a classically-inspired *porte-cochere*-type bank drive-through window located at the northwest corner, which required that the corner of the building be chamfered to accommodate the driveway. The building is in good condition and is in use. Its Georgian Revival, domestically-associated form and detailing are unique to the base and suggest that it was possibly originally built as quarters for army or navy military personnel.

British Airways World Cargo (MHC 12950, ca.1980) is located in the southwest corner of the base, west of Building 15 (MHC 12949, ca. 1940-1942) and east of Building 32 (MHC 12946, ca 1940-1942). It is of recent construction, and consists of two major sections. At the southwest is a 1-story administrative block with a prominent, bright blue, sloping standing-seam metal roof. The southwest elevation contains several aluminum and glass windows and doors. Attached to the northeast is a 1-story, flat-roofed warehouse block, with its northwest and southeast elevations entirely occupied by raised loading docks with roll-type metal doors. The building is in use and in good condition and is a modern addition to the architectural styles of the area.

Located at the southeast corner of the base at the intersection of Channel and Harbor streets, Building 32, 12 Channel Street (MHC 12946, ca. 1940-1942) is a reinforced-concrete-frame, rectangular, 9-by-8-bay, 9-story, flat-roof warehouse structure. The bays contain brick spandrels and bands of original 12-light, steel-sash, awning-type windows. A modern glass-and-aluminum entrance vestibule is located at the southeast corner. The first story is ringed by a raised concrete loading dock with a concrete awning hung from steel rods, which shelters multiple roll-type doors on all elevations. A stair tower with narrow vertical windows is located in the northeast corner, and rises above the roofline. Decoration is absent, except for a subtle molded cornice. The building is in good condition, and is in use. It is a typical example of a concrete-frame warehouse building of the period.

Building 19, 6 Harbor Street (MHC 12966, ca. 1940-1942) is located immediately northeast of Building 32 (MHC 12946, ca. 1940-1942) on Harbor Street. This steel-frame, 2-story, building with a concrete-slab foundation has been clad entirely in modern corrugated sheet metal siding (late-20th century), however, it resembles several other known circa 1940-1942 buildings in its size and massing, hence the assigned date. The central 2-story section of the building has a sawtooth monitor roof, and the northeast and southwest elevations have attached 1-story, shed-roof sections. The southwest elevation includes a glass-and-metal entranceway, and three truck loading diaphragms are located on the southeast elevation. The southwest elevation consists of a full-width raised truck dock with a corrugated metal awning. The building is in good condition and in use, but has been significantly altered (late-20th century). It is an example of adaptive reuse of a World War II-era building within the base.

Building 17, 7 Channel Street (MHC 12945, ca. 1940-1942) is located in the extreme southwest corner of the Base, northeast of Building P-28 (MHC 8062, 1918) and northwest of Building 32 (MHC 12946, ca. 1940-1942), and consists of two attached sections. The main section is a 1½-story, rectangular, steel-framed, monitor-roofed structure with a concrete slab foundation, clad in corrugated metal siding and rusticated concrete blocks. It is similar in configuration and construction to the multiple monitor-roofed Building 18 (MHC 12971, ca 1940-1942) and Building 31 (MHC 12947, ca 1940-1942), although more altered, with aluminum-framed doors and windows, and bands of glass block. Seven loading dock doors are located on the northeast and the southwest ends of the building. A 2-story, timber-frame, rectangular, metal-shingled office block is attached to the southeast corner. The building has been altered (late-20th century) and in good condition, and is a typical example of industrial adaptive reuse of a World War II-

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era Boston Army Supply Base building.

Building P-28, 11 Channel Street (MHC 8062, 1918) is located west of Building 32 (MHC 12946, ca. 1940-1942) and east of Harbor Street. It is a 170-foot by 78-foot, 1-story, flat-roofed, concrete-frame structure divided into two attached reinforced-concrete frame sections with brick infill: a 10-bay section to the northeast, and a 2-bay section to the southwest. The entire building is three bays wide. The southeast elevation of both sections are marked by multiple tall vehicle openings, some with metal roll doors and some bricked over. The northwest and southwest elevations are lit by bands of multiple-pane, steel-sash windows across the tops of the walls. A concrete lintel tops the steel personnel door at the south corner of the building. The southwest section of the building was originally a steam-and-diesel-locomotive maintenance shop, and the interior still exhibits some features unique to this function, including tin "smokejack" vents for locomotive smoke and floor patterns indicating the former location of the inspection pit. The building is currently used for vehicle maintenance by the U.S. Army Reserve and is the only remaining military presence on the former Boston Army Supply Base. In 1984, a temporary wooden second-story structure and a stairway were demolished, otherwise, Building P-28, an unremarkable, small concrete-frame utility building, retains its architectural integrity. One outbuilding, a small concrete-block shed with steel-sash windows and a paneled wood door in the southeast elevation, is located southeast of the main building.

Building 38 (MHC 12968, ca. 1940-1942) is located at the extreme northwest corner of the Base, northwest of 300 Northern Avenue (MHC 12969, ca. 1940-1942). It is a rectangular, 1-story, 6-by-3-bay, reinforced-concrete, flat-roof building. The lower half of several bays are filled with brick, and the upper half are screened with wood lattice panels, while other bays have a narrow band of original wood-sash, multiple-light windows at the tops of the walls. The main entrance is located in the center bay of the southeast elevation and consists of paneled wood double-doors with six-light windows. This building possibly served as a substation for the electrically-driven cranes in this portion of the shipyard. It is in good condition, and is a representative example of the service- and utility-related structures in the base.

Refrigeration Plant, Northern Avenue (MHC 12967, ca. 1980). This building is located immediately northwest of Building 38 (MHC 12968, ca. 1940-1942) and is of recent construction. It is a small, single, 1- to 2-story, windowless, corrugated metal-sheathed building with steel entrance doors. It appears to be a service facility for the adjacent pier slip to the northwest. This unadorned building is an example of a modern structure used in the ongoing maritime uses of the area.

Building 56, 300 Northern Avenue (MHC 12969, ca. 1940-1942) is located on the north side of Northern Avenue, north of the Parking Garage (MHC 12951, ca. 1980). This rectangular, 1-story, flat-roofed, timber-frame, building rests upon a concrete-slab foundation and has been clad with modern, corrugated-metal siding. Windows appear on the northwest and southeast elevations, and are modern double-hung, metal-sash, double-hung type. The main entrance and multiple roll-type doors are located on the southeast elevation. This building is in use and was originally similar to Building 54 (MHC 12972, ca. 1940-1942), but has been extensively altered on the exterior (late-20th century).

Building 53, 306 Northern Avenue (MHC 12970, ca. 1940-1942) is located east of Building 56 (MHC 12969, ca. 1940-1942) and west of Building 16 (MHC 12965, ca. 1940-1942). It is a massive, steel-frame, rectangular, 28-by-6-bay, 3-story, flat-roof building with a concrete-slab foundation. The building has a 6-bay central block, with 2-story flanking blocks. The elevations consist of concrete piers with

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brick infill. Windows are replacement aluminum-frame with Plexiglas panels and faux mullions. Multiple roll doors and loading bays are concentrated on the southeast and southwest elevations, and a long loading dock is located on the northwest elevation. A 4-story stair tower is located at the southwest corner. The building is in good condition and is used by Harpoon Brewery. It is similar to Building 19 (MHC 12966, ca. 1940-1942), Building 16 (MHC 12965, ca. 1940-1942), and Building 31 (MHC 12947, ca. 1940-1942) in its steel-frame construction and massing.

Building 18 (MHC 12971, ca. 1940-1942) is located northeast of the intersection of Tide Street and Northern Avenue. It is a large, rectangular, 1½-story, 10-by-11-bay, steel-frame building with brick piers and corrugated-metal siding, set upon a concrete foundation. The most prominent feature of the building is its triple, end-gable roof clad in corrugated metal. The main block of the building is flanked to the northeast and southwest by 1½-story, shed-roof wings. Primary entrances are located on the southwest, southeast, and northeast elevations, and include truck loading bays with metal, roll-top doors. Original windows are rectangular, multi-pane, steel sash, arranged in bands and groups of three. The present tenant is J. J. Daly, a stationary manufacturer. The building is one of a group of base buildings with steel frames, similar massing, and multiple-gable roofs.

Building 54, 7 Tide Street (MHC 12972, ca. 1940-1942) is located southeast of the intersection of Tide Street and FID Kennedy Way. It is a wood-frame, rectangular, 14-by-5-bay, 2-story, flat-roofed building with a concrete slab foundation, asbestos shingle siding, and wood trim. The roof overhangs slightly on the southeast and northwest elevations. Windows are original, 16-light, wood sash with 8-pane, center-pivot sections. Main entrances are located to the southwest, on Tide Street, and on the northeast, on Anchor Way, and consist of original, wood-paneled, double doors in offset, full-height, brick stair shafts. Vehicle-height service entrances consist of a modern metal roll door on the northeast elevation, and an original paneled wood roll door on the southwest elevation. The building is in fair, near-original condition and appears to be vacant. It is an unusually well-preserved World War II-era base building.

3 Anchor Way, Matt McDonald Company Special Steel (MHC 12943, ca.1980) is located due east of Building 54 (MHC 12972, ca. 1940-1942) on FID Kennedy Way. Built on the site of Building 9, this recently-constructed, 1-story, L-shaped, shallow pent-roof building with concrete-slab foundation is entirely clad in corrugated metal siding. A personnel entrance is located in the east elevation, which also includes a roll-type garage door. The building is lit by several modern rectangular 2-pane windows with metal frames.

Au Bon Pain, 19 FID Kennedy Way (MHC 12963, ca. 1980) is located northeast of Building 54 (MHC 12972, ca. 1940-1942). It is of recent construction, L-shaped in plan, 2-stories, with a flat roof and corrugated-metal siding. Windows on both stories consist of bands of modern aluminum-framed lights. The entrance is in a triangular recess on the east elevation, accented by a red metal roof. Truck docks are located in the north and west elevations. The block at the northwest corner may possibly be a reclad portion of the original circa 1940-1942 Building 29, no longer extant. The building houses Au Bon Pain offices and is in good condition and is a recent addition to the architecture of the area.

Subaru Distributors, FID Kennedy Way (MHC 12964, ca.1980) is located on the north side of FID Kennedy Way, north of Building 16 (MHC 12965, ca. 1940-1942). This recently-constructed, rectangular, 1-story, 3-by-8-bay, concrete-block, flat-roofed, building with a concrete-slab foundation has five metal roll-type doors on the south elevation, and two on the east elevation.

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Building 16, 25 FID Kennedy Way (MHC 12965,ca. 1940-1942) is located at the northeast corner of the Base, north of Drydock #3 (MHC 12956, 1918) and south of FID Kennedy Way, and east of Building 31 (MHC 12947, ca. 1940-1942). It is a single, massive, 20-by-8-bay, open-interior, rectangular, steel-frame, corrugated-sheet-metal-clad structure. The shallow-pent roof is surmounted by 10, full-width, raised, rectangular illumination monitors. Stair towers rise above the roof at the southeast and northwest corners. The structure consists of three rows of massive steel I-beam columns, one each running longitudinally at the north and south elevations, and one at the center of the building, dividing it into two east-west bays. These columns support overhead roof trusswork, and each of the two east-west bays includes a rail-guided traveling crane. This configuration suggests that it was a heavy fabrication shop associated with the adjacent Drydock #3 (MHC 12956, 1918). Service access consists of oversize metal roll-type doors, with two each on the east and west elevations, three on the south, and one on the north elevation. The building is impressive for its sheer geometric mass, and also for its surface articulation and detailing. The steel frame is clad in a thin membrane of alternating wide horizontal bands of corrugated sheet metal and translucent corrugated Plexiglas to allow diffuse light to the interior. The top band of windows are multiple-pane, steel-sash, with hopper and awning-type for ventilating the interior. The stair towers have subtle Moderne detailing, including offset vertical bands of windows grouped under concrete bands. The first floor of the north and south elevations consists of a 1-story, yellow-brick administrative block that extends one bay from the main block of the building. These blocks are characterized by continuous horizontal scored rustication, and a wide molded concrete band at the cornice. Details include original heavy single-and double-leaf paneled wood doors with decorative strap hinges, elaborate, abstracted carved drapery motifs and the number "16" carved into shields at the stair-tower corner entrances, and the date "1940" carved into the raised granite foundation. Building 16 is in fair condition, and is currently used for storage of construction materials. It possesses the unusual combination of utilitarian mass and decorative detail that characterizes the pre-Pearl Harbor U.S. Navy architecture at the Boston Army Supply Base.

Building 31, Subaru Distributors, 3 Dolphin Way (MHC 12947, ca. 1940-1942) is located at the extreme east end of FID Kennedy Way, on Boston Harbor, east of Building 16 (MHC 12965, ca. 1940-1942). This structure now houses Subaru Distributors and a number of smaller business tenants. It is a large, rectangular, 1½-story, 13-by-15-bay, steel-frame building with brick piers and corrugated-metal siding, set upon a concrete foundation. The most prominent feature of the building is its double, end-gable roof clad in corrugated metal. The main block of the building is flanked to the east and west by 1½-story, shed-roof wings. Primary entrances are located on the south elevation; truck loading bays with metal, roll-top doors are located along the west elevation. Windows are rectangular, multi-pane, steel-and-aluminum sash in bands and groups of three. It is similar to Building 16 (MHC 12965, ca. 1940-1942), Building 19 (MHC 12966, ca. 1940-1942), and Building 53 (MHC 12970, ca. 1940-1942) for its steel-frame construction, massing, and multiple gable roofs.

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In 1805 the South Boston toll bridge opened across South Bay, along the present line of West Fourth Street, to connect South Boston to Boston. In that same year, the Dorchester Turnpike (present day Dorchester Avenue) was laid out along the shore of South Bay to Dorchester and the present street grid was laid out (Elia 1989:226). Following the War of 1812, iron furnaces, glass works, and shipbuilding yards—three industries which were to dominate growth in this period—were established throughout South Boston. Population growth in this period was spurred by the opening of the North Free Bridge in 1828,

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resulting in the relocation of numerous residents of Boston to South Boston (MHC 1980:6). Residential development in the area began at the eastern end of Dorchester Neck, primarily east of D Street; industry was generally located at the western end. By 1830, the population on the Neck had grown to 2,200 inhabitants, an increase of over 55 percent from 1804 (Beard 1987:8/1). Between 1830 and 1850, population rose rapidly from 2,200 in 1830 to 13,309 by 1850. South Boston's population nearly tripled between 1850 and 1870 when it stood at 39,215 residents. This growth can be partially attributed to the influx of large numbers of skilled workers to the area (MHC 1980:6).

The industrialization of South Boston was one factor in the major topographical changes which occurred there during this period. Cyrus Alger filled in the area west of Foundry Street in various stages from the mid-1830s to 1860. The most dramatic alterations to the area's landscape were in the area north of First Street between Dorchester Avenue and B Street where the Boston Wharf Company began to fill the South Boston Flats in order to create wharf and storage facilities (Elia 1989:228). The Boston Wharf Company was organized in 1836 as a result of the growing interest in creating new wharves for Boston. Prior to the arrival of the railroad, most large quantities of commerce were carried by sea; Boston's waterfront was inundated with shipping traffic and wharf space was at a premium. The organization of the Boston Wharf Company was an early attempt to capitalize on the need for new wharfage (Beard 1987:8/2).

The original land purchased by the company was a strip of land 822 feet long on First Street, to the east of today's Dorchester Avenue and west of the Boston Army Supply Base Area. The title carried with it riparian rights to the flats which fronted the land. These rights extended in a northeasterly direction to a point approximately 1200 feet eastward of Fort Point Channel (*New England Real Estate Journal* 1963:4). The company immediately began filling the flats to create docks and wharves. Construction of the Fort Point Channel wharves was completed about 1837. Following this, the company began the exclusive storage of sugar and molasses, a trade it retained for 30 years (Beard 1987:8/3).

The gradual filling process by the Boston Wharf Company began in 1836 and continued to 1872, when the Great Boston Fire occurred. This event proved a blessing to the growing Boston Wharf Company since debris from the ruins of buildings destroyed in the fire was used for fill (Stone 1930:1295), after which the area acquired the nickname the "Dump" (Beard 1987:8/4). It was initially difficult to attract shipping away from the city docks despite the overcrowded conditions there. With poor trucking, no rail service into the area, and only partially filled land, the facilities at the company's docks were inadequate and shippers were very hesitant to transfer their business to the area. Negotiations for rail service to the area, begun in 1838, were finally complete in 1851 (*NEREJ* 1963:4). The introduction of rail lines was responsible for a number of changes in the area throughout the 19th century. In 1851 the Boston Wharf Company took a strip of land along the eastern and northern edges of their property by eminent domain for railroad purposes. This became the genesis of the New York, New Haven & Hartford Railroad yards which dominated a large part of the flats until recently (Beard 1987:8/4).

For decades the state had been planning the construction of piers along the Commonwealth's unclaimed mudflats east of the Boston Wharf Company land. In the last quarter of the 19th century, the Commonwealth undertook a vast reclamation of the flats, commonly referred to as the South Boston Flats, in order to promote industrial and commercial development (Stott 1983 [*South Boston*]). The development of these flats was due to a plan originated in 1859 and subsequently carried out by the Harbor and Land Commissioners. This project was placed under the direction of the Directors of the Port of Boston upon its organization in 1911. The Directors of the Port of Boston, the first city-appointed

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authority of its type in the United States, was established by the Legislature "to build adequate piers and in connection with such piers suitable highways, waterways, railroad connections and storage yards and sites for warehouses and industrial establishments" (Commonwealth of Massachusetts 1915:35). These plans were to be consistent with a comprehensive development of the harbor as a whole. The primary purpose of the original plan for the reclamation of the flats was for the development of a harbor and as a health improvement measure, the development of the land was seen as secondary. By 1914, the purpose of the Directors was the further development of the land and its adaptation for commercial purposes (Commonwealth of Massachusetts 1915:47).

The Commonwealth originally owned the whole area outside high water line. Over time, rights had been granted to various shore owners to develop the area and extend wharves. In their annual report, the Directors of the Port of Boston recommended the building of a dry dock in South Boston in order to allow larger ships access to the harbor and to encourage the creation of an industrial center on the South Boston side of the harbor (Commonwealth of Massachusetts 1915:9). The Directors felt that following the construction of the dry dock, land along the Reserved Channel would become valuable and marketable for development. At that time, across the Reserved Channel between the proposed dry dock site and Castle Island, were approximately 80 acres of flats under water which the Directors recommended be filled (Commonwealth of Massachusetts 1915:11).

The Directors felt that since the Commonwealth land in South Boston could have direct rail access, it would serve as an inducement to industrial concerns. The closer the manufacturers could get to the means of transportation, the less handling would be required in the moving of freight, resulting in greater incentives to business. The Directors were hoping for increased commerce and the concentration of industrial plants at terminal sites in South Boston (Commonwealth of Massachusetts 1915:34).

The Directors already anticipated the need for storage space following the development of South Boston's harbor, and recommended the erection of warehouses built with assistance from the state. South Boston's harbor was seen as the obvious place for a great rail and water terminal (Commonwealth of Massachusetts 1915:35-36). By 1914, the land upon which the Boston Army Supply Base now stands was in the process of being filled and the dry dock had only been proposed. The Reserved Channel area was created soon afterwards. The newly filled land on the flats became the locus of railroad yards and railroad-related structures, warehouses and various industries. Summer Street was extended during this period across the Fort Point Channel, over the railroad yards, to provide access to the planned state piers. Commonwealth Pier 5 (NR 1979), to the west of the Boston Army Supply Base Area, was planned as part of this vigorous campaign for the enlargement of Boston's port. It was completed in 1914 at a cost of $4,500,000 (Stone 1930:1240) for the Directors of the Port of Boston. Following its completion, the Commonwealth Pier became a center of the American wool trade, handling the unloading of imported wool for New England's textile industry (Pfeiffer 1979:7/1). The Pier and C Street Area (MHC RU) warehouses, along with others located in the nearby Fort Point Channel district, helped establish Boston as the largest wool trade center in the world by 1930 (Stone 1930:1245).

Aside from the activity on the flats, industries elsewhere in South Boston declined during this period (1870-1915), though machine and tool factories continued to be important. The population of South Boston reached its peak in 1910 although it had not increased as rapidly as in the previous period. Poles, Lithuanians, and Italians began to move into the western sections, and the Irish moved further east (Elia 1989:228). By 1910, the various stages of land filling had expanded the size of South Boston to 1,333

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acres (MHC 1980:1).

Naval authorities were first attracted to the new South Boston site due to the government's need for a large dry dock prior to World War I. It was not long before the federal government was negotiating for the dry dock parcel and adjacent land immediately to the south where the Boston Army Supply Base was built in 1918. Although planned and constructed by the state beginning in 1914, the land and dry dock were acquired by the government for $4,100,000 with the understanding that they were to be used for both naval and commercial purposes (*International Marine Engineering* 1920:433). The massive reinforced concrete, granite-lined Drydock #3 (MHC 12956, 1914-1918) was built by the Halbrook, Cabot & Rollins Corporation of Boston, and when completed in 1918, was the largest in the United States, and second largest in the world. The drydock is 1200 feet long, 149 feet wide, and 46 feet deep. The 1600-ton floating caisson door was built by Bethlehem Steel Bridge Corp. and was the largest in the world when installed (*Marine Review* 1920:571-572). The dock holds 60,000,000 gallons of water, and is now filled and emptied by new equipment in the original Pumphouse, Building 1 (MHC 12959, 1918). Other original structures associated with the drydock include Buildings 22 and 23 (MHC 12957; 12958, 1918), and possibly Building 40 (MHC 12961, 1918).

Construction of the Boston Army Supply Base began in 1918 on the filled land along the Reserved Channel. The Base was part of a massive federal building campaign at East Coast ports to handle supplies for World War II American Expeditionary Forces. Designed to serve as the receiving and shipping station for all army supplies originating in New England, the facility was nevertheless built with a view toward its eventual conversion to peacetime commercial use. Frederic Harold Fay, founding partner of the noted Boston engineering firm of Fay, Spofford & Thorndike, designed and oversaw construction of the base. Built during World War I as a storage and shipping terminal, it consisted of a 3,000-by-550-feet parcel, containing the 8-story concrete-clad, steel-frame Army Marine Terminal Storehouse (Building 114) (MHC 12948, 1918) 1,638 feet long and 126 feet wide; a 2-story Wharf Shed (Building 119) (MHC 12944, 1918) the same length and 100 feet wide; the North and South Pier Sheds (Buildings 117 and 113) (MHC 12962, 1918) two connected buildings 924 feet long and 100 feet wide, and a wharf and pier that stretched along the Reserved Channel of Boston Harbor for 4,500 feet. Another building that survives from the original 1918 complex is Building 22 (MHC 12957, 1918), a railroad locomotive service and storage shed located on Channel Street. A concrete 4-story administration building, a powerhouse, and an electrical substation associated with this facility have been demolished. The Storehouse (Building 114) (MHC 12948, 1918) was constructed with an overall floor area of 1,651,000 square feet. Orra Stone reported in 1929 that the building was one of the largest of its kind in the world. Its construction was an engineering marvel—begun in April 1918, it was more than 90 percent complete by December (Parkman 1978:163). Completed at a cost of $28,040,000, the base was turned over to the army transportation service for operation on June 4, 1919 (*Marine Review* 1920:133).

The Boston Army Supply Base was serviced by three lines of the New York, New Haven & Hartford Railroad. The New York, New Haven & Hartford freight terminal in South Boston in the C Street Area (MHC RU) was reputed in the early part of the 20th century to be the largest freight terminal in the country operated by one company at one location. Rail lines ran between the Army Marine Terminal Storehouse (Building 114) (MHC 12948, 1918) and Wharf Shed (MHC 12944, 1918) directly to the buildings for loading and unloading (MHC form). Eleven railroad tracks within the property allowed for a car capacity of 465 (*Marine Review* 1920:134).

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HISTORICAL NARRATIVE *(continued)*

The 8-story Army Marine Terminal Storehouse (MHC 12948, 1918) provided semipermanent storage for the facility and incorporated innovative supplies and materials handling systems. To handle the movement of freight within the Storehouse, four automatic freight elevators, each capable of lifting 10,000 pounds at a speed of 100 feet per minute, were provided. These elevators were equipped for remote control from the central dispatching station and were capable of being automatically lifted to any floor. At the time, the army supply base in South Brooklyn, New York, was the only other known installation of this type equipped with extensive cargo handling. Modern materials-conveying apparatus was used throughout the building, allowing for 200 carloads of 6,000 tons of freight to be placed in the building within a 10-hour work day (*Marine Review* 1920:134). The Wharf Shed (MHC 12944, 1918) and two Pier Sheds (MHC 12962, 1918) were capable of handling the temporary storage of freight as well. The overhead bridges connecting the Storehouse and the Wharf Shed allowed for the easy transference of cargo between both buildings without interfering with traffic on Terminal Street. Locomotive cranes were installed on the site for handling bulk cargo. These cranes could be moved to any area on the site for loading or unloading steamships or freight cars, and for locating freight in the numerous temporary or semipermanent storage spaces throughout the base. The capacity of the base in 1920 was estimated as 13,220 tons or 440 cars per 10-hour work day (*Marine Review* 1920:135-136).

The Boston Army Supply Base was only half-completed when the Armistice was signed and the plant was never, therefore, operated to full capacity by the War Department. Following its completion, the base was used principally for the return of troops and supplies from overseas and for temporary storage by both the army and navy. After the immediate transportation requirements of the war department had been met, the base was made available for private use (*Marine Review* 1920:136).

Despite the efforts of the state and private concerns, the new port facilities failed to revive Boston's shipping industry, and the flats area began to decline. Railroad structures were taken down and the piers were underutilized (Elia 1989:228). By 1930, South Boston's population was rapidly declining, losing over 13,600 residents since its peak in 1910. Structural problems at the Boston Army Supply Base were encountered in the mid-1930s. While most of the buildings rested on cement caissons or concrete piles sunk into fill on the reclaimed flats, the wharf and pier, because of the need for haste, were built on wooden piles. Oak piles were usually used in Boston Harbor, but due to insufficient quantities (30,000 were needed), piles of untreated Southern Pine were used instead. By 1935 the piles, badly in need of repair, were replaced and repaired as part of a WPA project under the direction of the Constructing Quartermaster; subsequent repairs were made in 1945 (Parkman 1978:164).

During World War II, the World War I complex on the north edge of the Reserved Channel remained in active use, and beginning in 1940 numerous additional buildings and facilities were built to the north and northwest of the World War I complex by the United States Navy as part of the massive naval build-up for World War II. About 1942, the Navy built a series of "finger" piers north from the drydock area, extending them out to the U.S. Boston Harbor Pierhead-Bulkhead Line. This land was previously occupied by industrial concerns such as the Metropolitan Coal Company docks, and the Boston Molasses Company, which leased the land from the U.S. Navy (Sanborn Map 1942). The building was used as an office and storage area for the Navy's facility engineers responsible for operating the docks and maintaining the installation's buildings and grounds. Of the 26 known buildings constructed at this time, only 16 remain and are included in this survey. Variations in detailing and materials suggest changes in construction standards after wartime emergency was declared after the bombing of Pearl Harbor on December 7, 1941.

INVENTORY FORM CONTINUATION SHEET

Community: South Boston

Property Address:

Massachusetts Historical Commission
Massachusetts Archives Facility
220 Morrissey Boulevard
Boston, Massachusetts 02125

Area(s) Boston Army Supply Base

Form No. See Area Data Sheet

HISTORICAL NARRATIVE *(continued)*

As the army's needs for such a large facility decreased dramatically following World War II, it was decided to consolidate the army's Boston facilities into one location. The renovated Jeremiah Williams Wool Warehouse, now the Barnes Building at 495 Summer Street (MHC 12989, 1910) in the C Street Area (MHC RU), now serves that function and the Army Base was declared surplus property (Stott 1983 [*Boston Army Supply Base, South Boston*]). An investigation in 1953 revealed that corrosion of the pier bulkhead at the base was progressing rapidly and extensive rehabilitation was needed. Since the base had been leased following World War II and it was not considered necessary for government use, the army considered abandoning it. Faced with the possibility of losing a major shipping facility, several Boston interests swayed Congress to take action and rehabilitate the wharf and pier structures. Due to the possibility that the base might be useful in a national emergency, the army was authorized to proceed with rehabilitation at a cost not to exceed $11 million and to lease the facilities to the Commonwealth of Massachusetts, which was to bear 10 percent of the expense (Parkman 1978:164).

The post-war shift from trains to trucks as carriers of freight greatly affected South Boston. Many structures on the flats were taken down and railroad tracks removed (Elia 1989:133). The wool industry continued to thrive throughout the early 20th century and along with it the Boston Wharf Company and C Street Areas (MHC RU). Soon, however, due to the low cost of labor in the South, textile mills previously located in New England began to relocate. Along with these mills went the wool industry. The former wool warehouses in these areas to the west of the Boston Army Supply Base then became home to several smaller tenants.

Land and buildings north of Dry Dock Avenue were developed by the Economic Development & Industrial Corporation (EDIC) as the Boston Marine Industrial Park (BMIP) prior to 1980. In 1980, the Massachusetts Port Authority requested to construct and maintain a commercial marine terminal at the site. This organization filled in 36 acres on the north side of the site, however, it is currently being used for automobile storage and as a staging and spoil area for the Central Artery/Third Harbor Tunnel project. The Economic Development & Industrial Corporation (EDIC) acquired 22 Dry Dock Avenue, the Public Works Building (MHC 12953, ca 1940-1942) in 1976 (BLC Form 1993). In July 1983, the EDIC purchased an additional portion of the base, including the Army Marine Terminal Storehouse (Building 114), (MHC 12948, 1918) gutted it, added new floors and walls, and installed new building systems. The west elevation was given a Post Modern facade and converted to the building's main entrance. The storehouse was renovated for industrial use by garment firms displaced from the downtown area (Stott *1983: Boston Army Supply Base, South Boston*). The Storehouse (Building 114) (MHC 12948, 1918), currently referred to as the Boston Design Center now houses numerous furniture, clothing, and design-related activities and retailers. Active ship repair was part of the BMIP plans, and today the Boston Ship Repair Company repairs ships for clients including the U.S. Navy, under contract and uses most of the cranes and buildings originally associated with the structure.

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INVENTORY FORM CONTINUATION SHEET

Community: South Boston

Property Address:

Massachusetts Historical Commission
Massachusetts Archives Facility
220 Morrissey Boulevard
Boston, Massachusetts 02125

Area(s) Boston Army Supply Base

Form No. See Area Data Sheet

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INVENTORY FORM CONTINUATION SHEET

Community: South Boston

Property Address:

Massachusetts Historical Commission
Massachusetts Archives Facility
220 Morrissey Boulevard
Boston, Massachusetts 02125

Area(s) Boston Army Supply Base

Form No. See Area Data Sheet

AREA DATA SHEET

Buildings and sites are listed in alphabetical order by street.

MHC#	WARD/ PARCEL	ADDRESS	DATE	STYLE/FORM	OUT BLDG	TYPE
12944		Matt J. McDonald Company Special Steel 3 Anchor Way	ca.1980		none	B
12945		Wharf Shed Building 119 1 Black Falcon Drive	1918	Classical Revival	none	B
12946		Building 17 7 Channel Street	ca.1940-1942		none	B
8062		Building P-28 11 Channel Street	1918		none	B
12947		Building 32 12 Channel Street	ca. 1940-1942		none	B
12948		Building 31 Subaru Distributors 3 Dolphin Way	ca. 1940-1942		none	B
12949		Army Marine Terminal Storehouse Building 114 Dry Dock Avenue	1918	Classical Revival/ Post Modern alterations	none	B
12950		Building 15 First Trade Union Bank 10 Dry Dock Avenue	ca. 1940-1942	Colonial Revival (Georgian Revival)	none	B
12951		British Airways World Cargo 15 Dry Dock Avenue	ca. 1980		none	B
12952		Parking Garage Drydock Avenue	ca. 1980		none	F
12953		Building 20 Paul's Lobster Company 20 Dry Dock Avenue	ca. 1940-1942		none	B

INVENTORY FORM CONTINUATION SHEET

Community: South Boston

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Boston, Massachusetts 02125

Area(s) Boston Army Supply Base

Form No. See Area Data Sheet

MHC#	WARD/ PARCEL	ADDRESS	DATE	STYLE/FORM	OUT BLDG	TYPE
12954		Public Works Building/Boston Technical Center 22 Dry Dock Avenue	ca. 1940-1942	Moderne/Art Deco	none	B
12955		Building 21 24-26 Dry Dock Avenue	ca. 1940-1942	Moderne/Stripped Classical	none	B
12956 94427		Drydock #3 Boston Ship Repair Co. Drydock Avenue and Tide Street	1914-1918		none	F, 3 cranes
12957		Building 22 Boston Ship Repair Co. Dry Dock Avenue	ca.1918		none	B
12958		Building 23 Boston Ship Repair Co. Dry Dock Avenue	ca.1918		none	B
12959		Building 1 Boston Ship Repair Co. Steam and Electrical Station 32 Dry Dock Avenue	ca.1918	Renaissance Revival	transformer shed and Butler building	B
12960		Coastal Cement Corp. 39 Dry Dock Avenue	ca. 1980	Post Modern	none	B, F (silos)
12961		Building 40 Dry Dock Avenue	ca.1918		none	B
12962		North and South Pier Sheds Buildings 117 and 113 Drydock Avenue/ Cruise Terminal Way	1918	Classical Revival	none	B
12963		Au Bon Pain Offices 19 FID Kennedy Way	ca. 1980		none	B
12964		Subaru Distributors FID Kennedy Way	ca. 1980		none	B

INVENTORY FORM CONTINUATION SHEET

Community: South Boston

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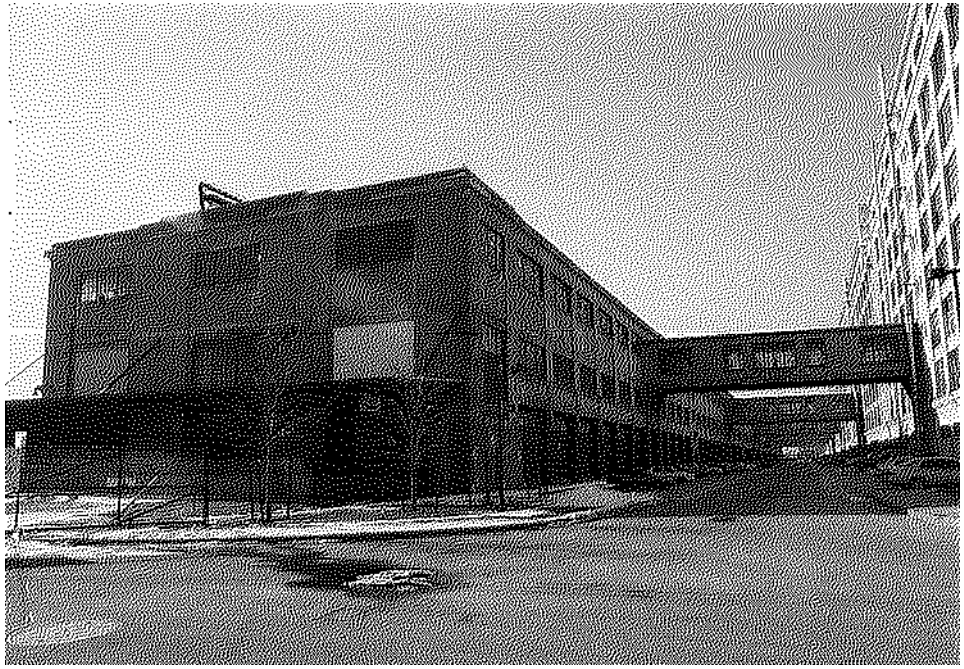
Area(s) Boston Army Supply Base

Form No. See Area Data Sheet

MHC#	WARD/ PARCEL	ADDRESS	DATE	STYLE/FORM	OUT BLDG	TYPE
12965		Building 16 25 FID Kennedy Way	ca.1940-1942		none	B
12966		Building 19 6 Harbor Street	ca. 1940-1942		none	B
12967		Refrigeration Plant Northern Avenue	ca. 1980		none	B
12968		Building 38 Electrical Substation Northern Avenue	ca.1940-1942		none	B
12969		Building 56 Economic Development and Industrial Corporation (EDIC) Offices 300 Northern Avenue	ca. 1940-1942		none	B
12970		Building 53 Harpoon Brewing Co. 306 Northern Avenue	ca. 1940-1942		none	B
12971		Building 18 J. J. Daly Northern Avenue	ca. 1940-1942		none	B
12972		Building 54 7 Tide Street	ca. 1940-1942		none	B

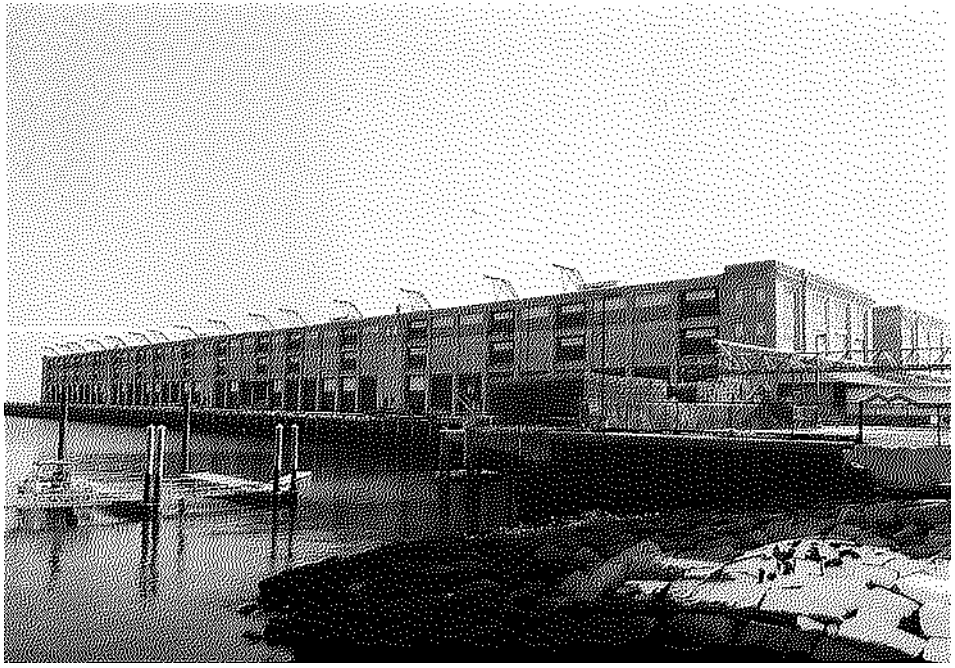
1. Army Marine Terminal Storehouse (BOS.12949)



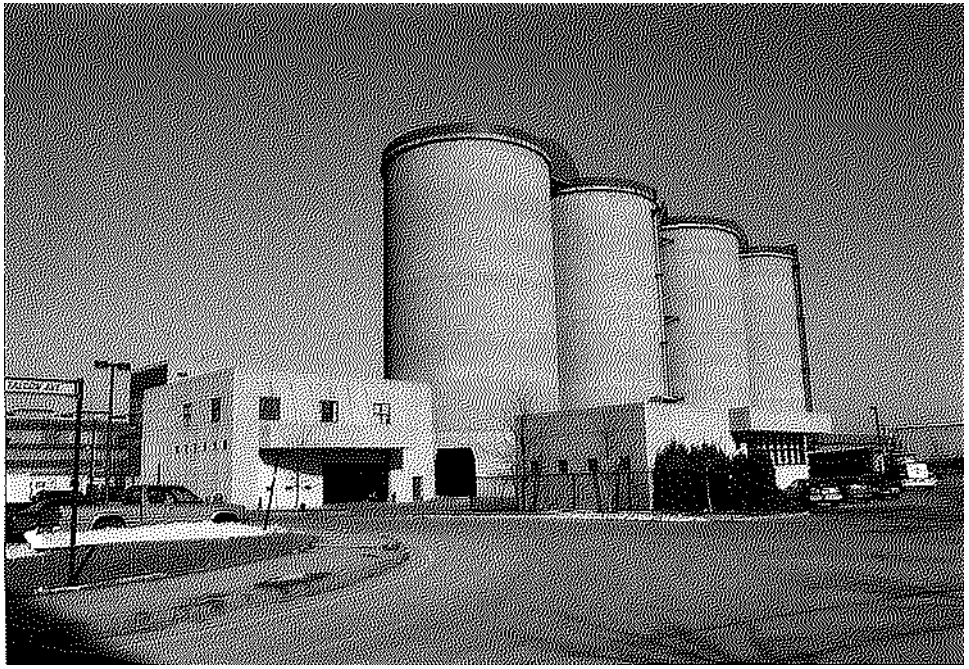
2. Wharf Shed (BOS.12945)

3. L-R: Marine Terminal Storehouse, Wharf Shed

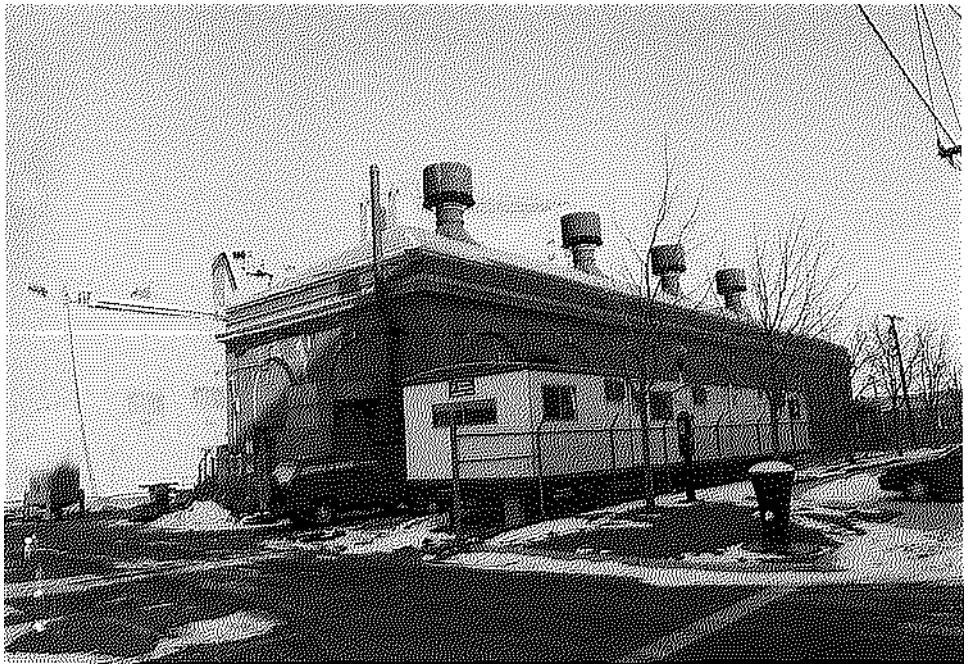
4. Wharf Shed (BOS.12945)



5. North and South Pier Sheds (BOS.12962)

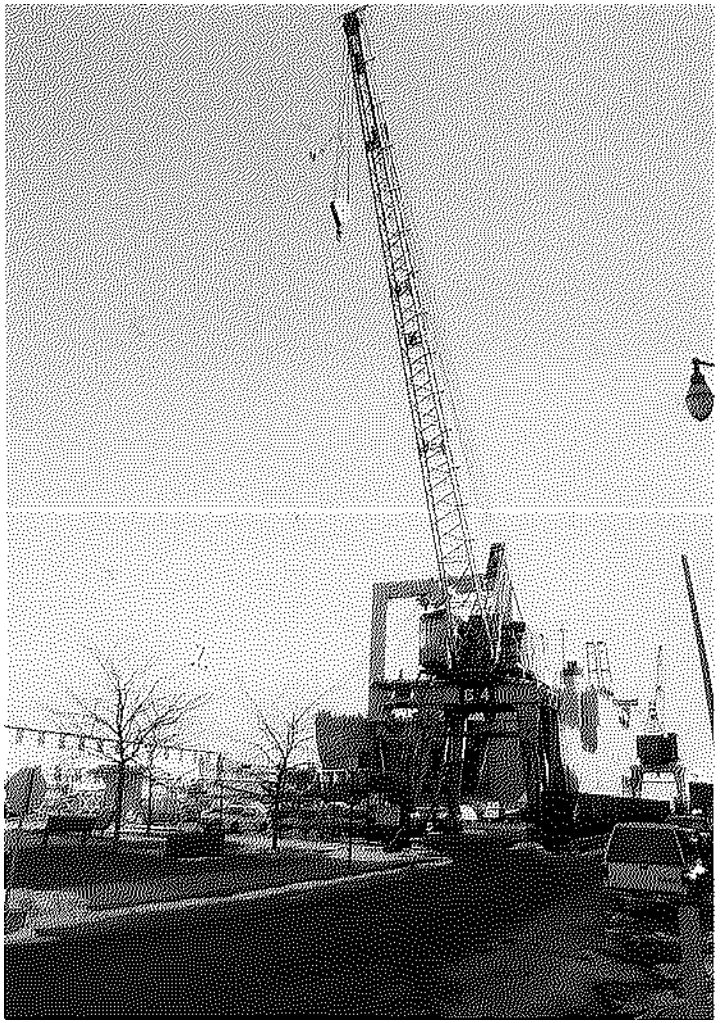


6. Coastal Cement Corp. (BOS.12960)

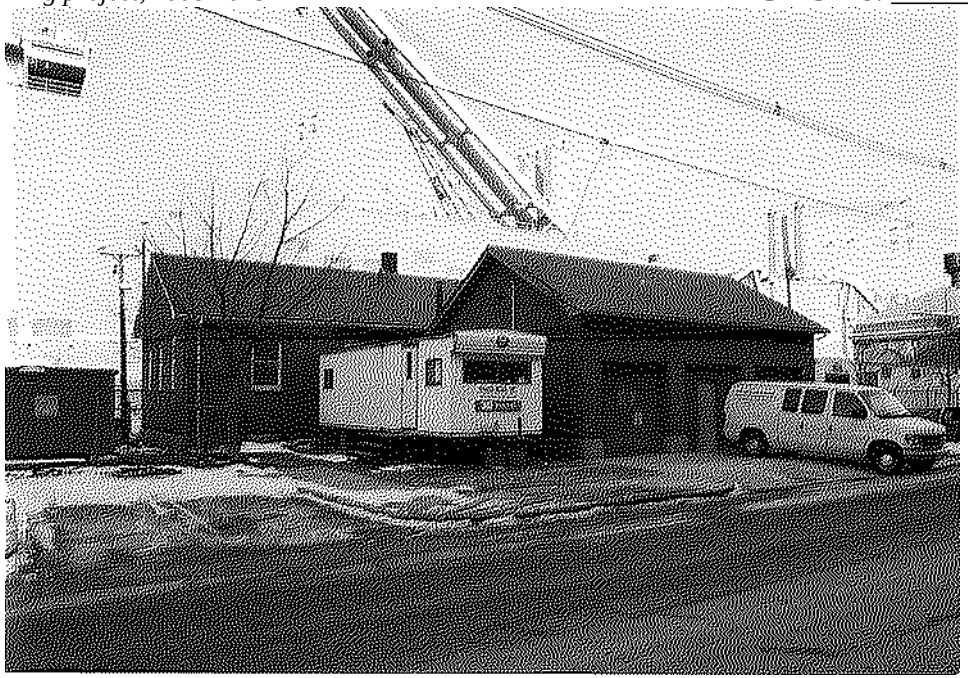


7. Pumphouse (Building No.1) (BOS.12959

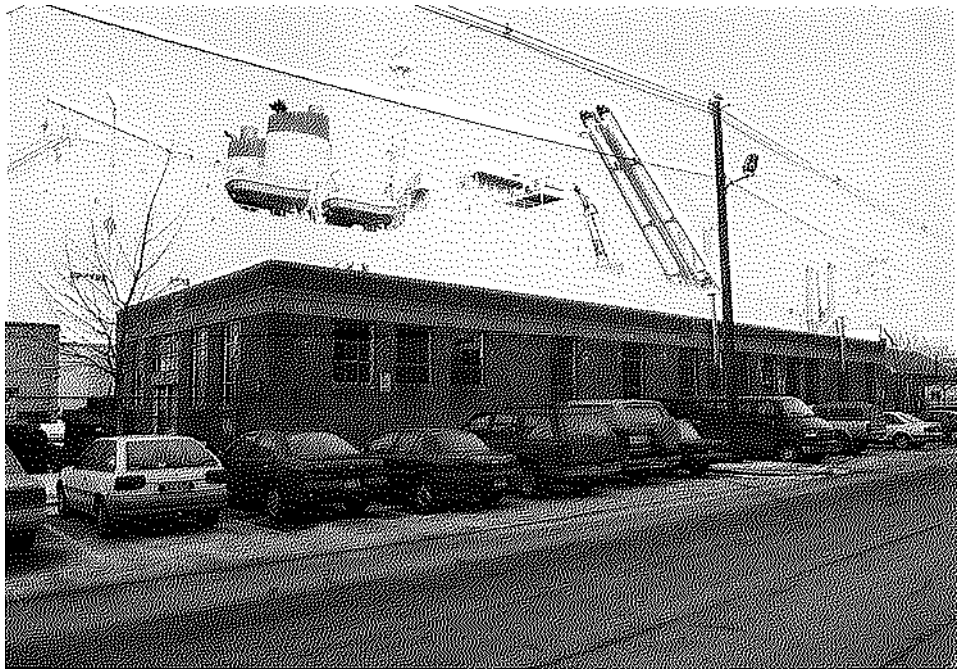
8. Drydock # 3 (BOS.9427)



9. Drydock # 3 (BOS.9427)

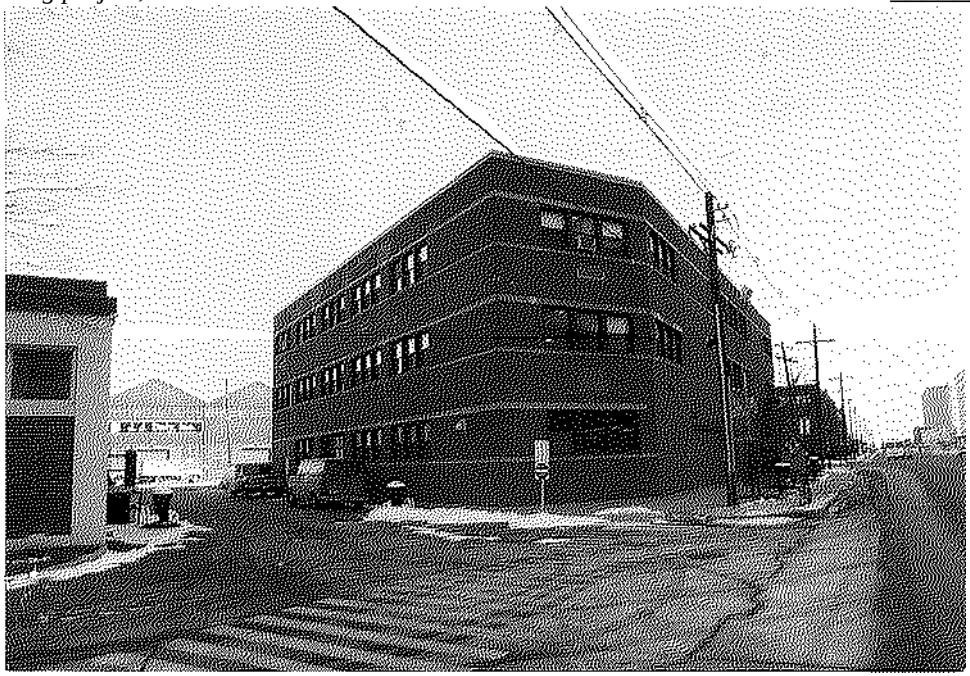


10. Building #23 (BOS.12958)

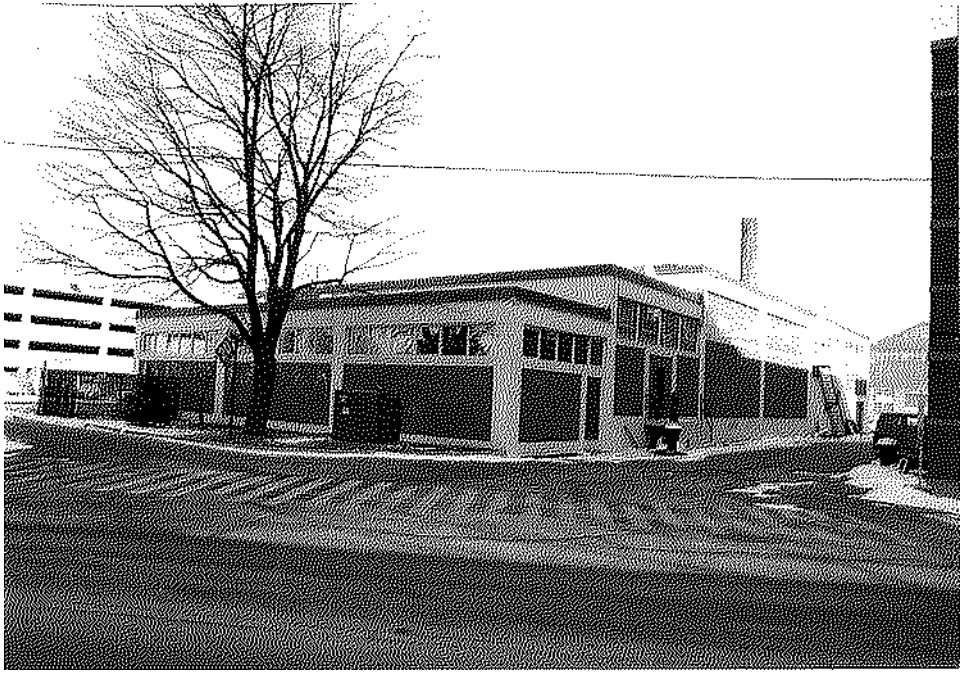


11.Building #22 (BOS.12957), looking northwest

12. Building #21 (BOS.12955), looking northwest

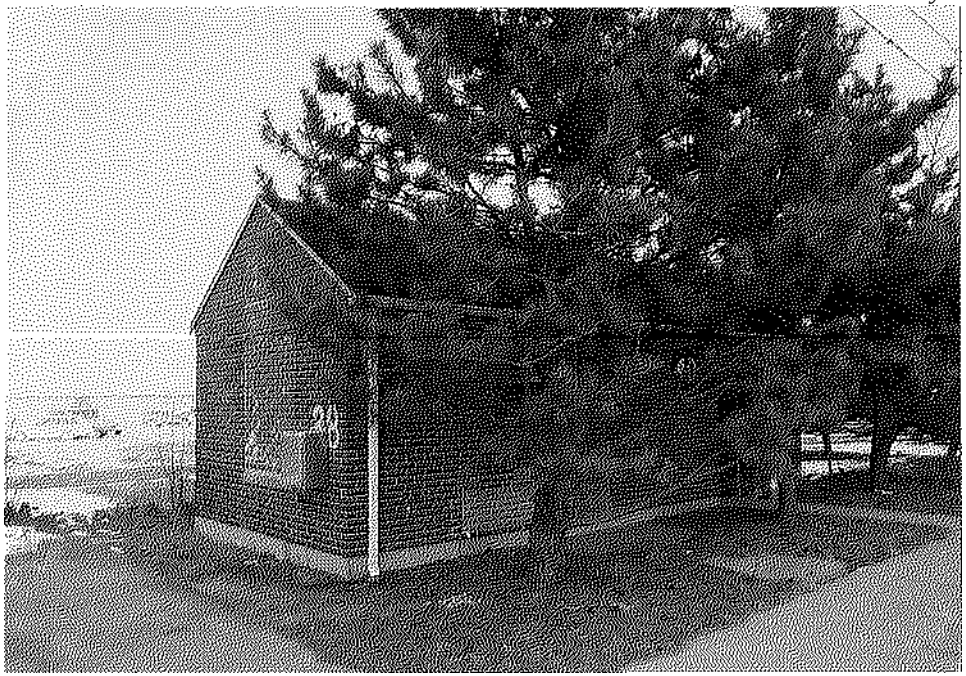


13. Public Works Building (BOS.12954)

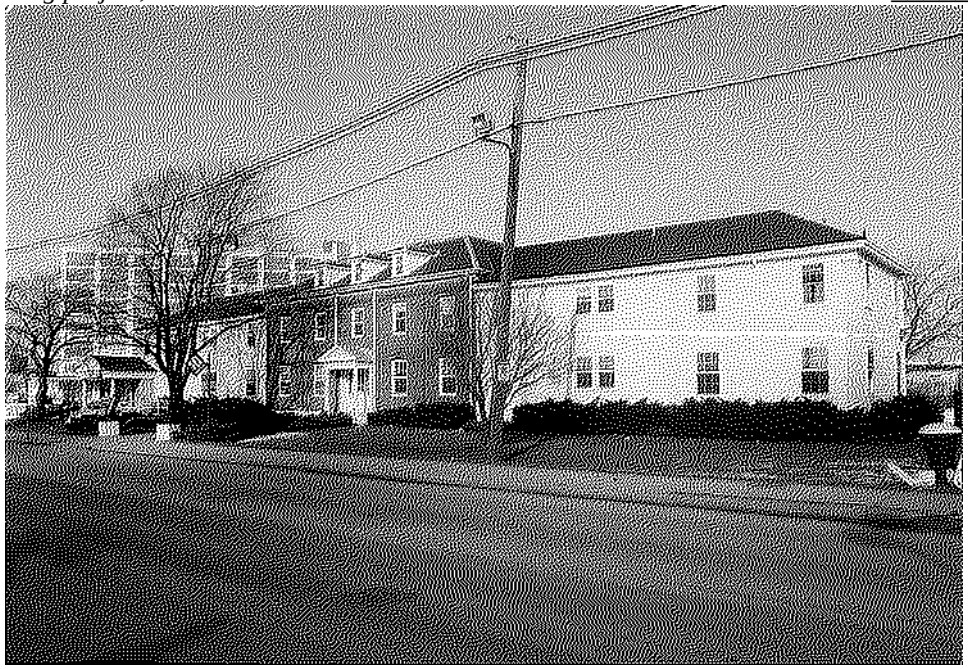


14. Building #20 (BOS.12953), looking north

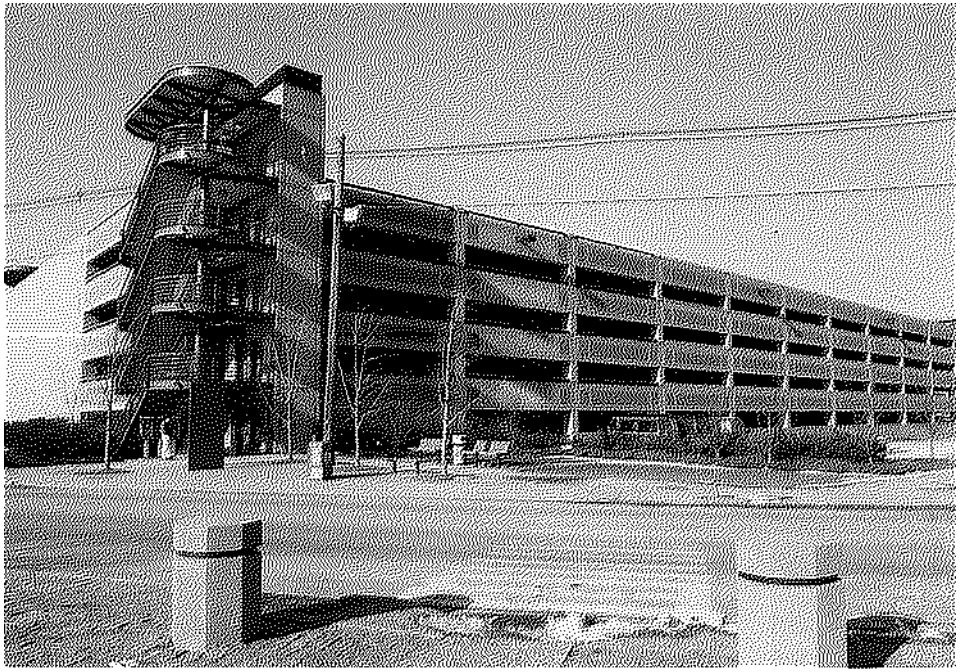
15. Public Works Building, detail, north entrance, looking south



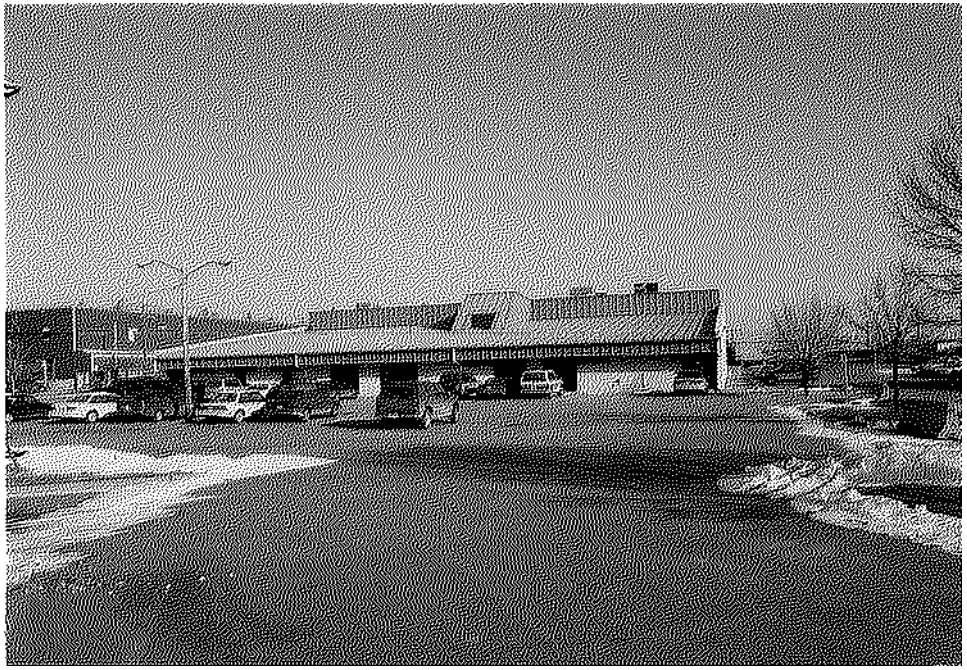
16. Building #40 (BOS.12961), looking northeast



17. Building #15 (BOS.12950), looking northwest

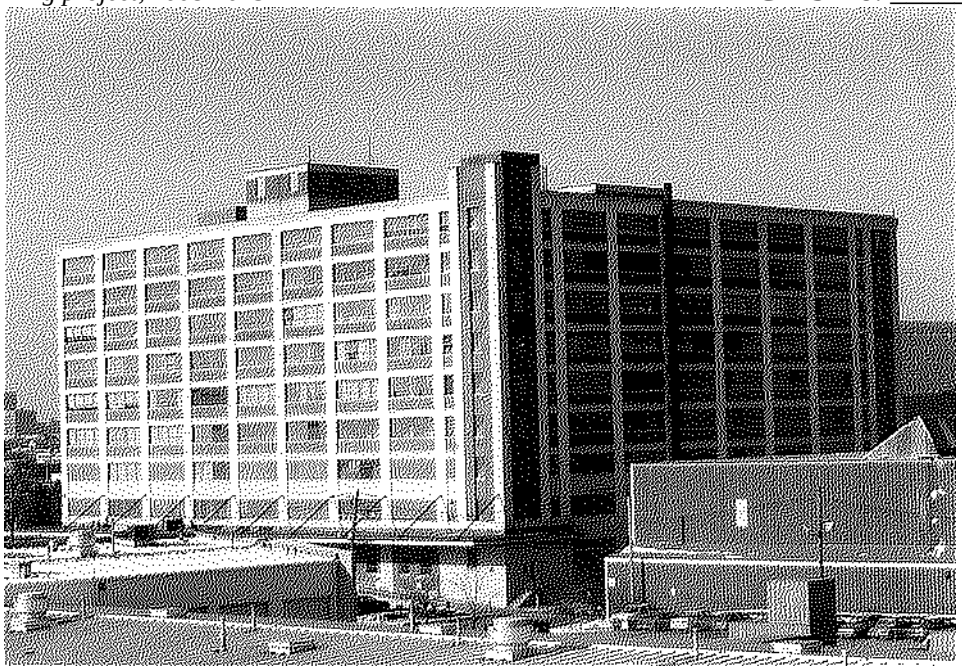


18. Parking Garage (BOS.12952)

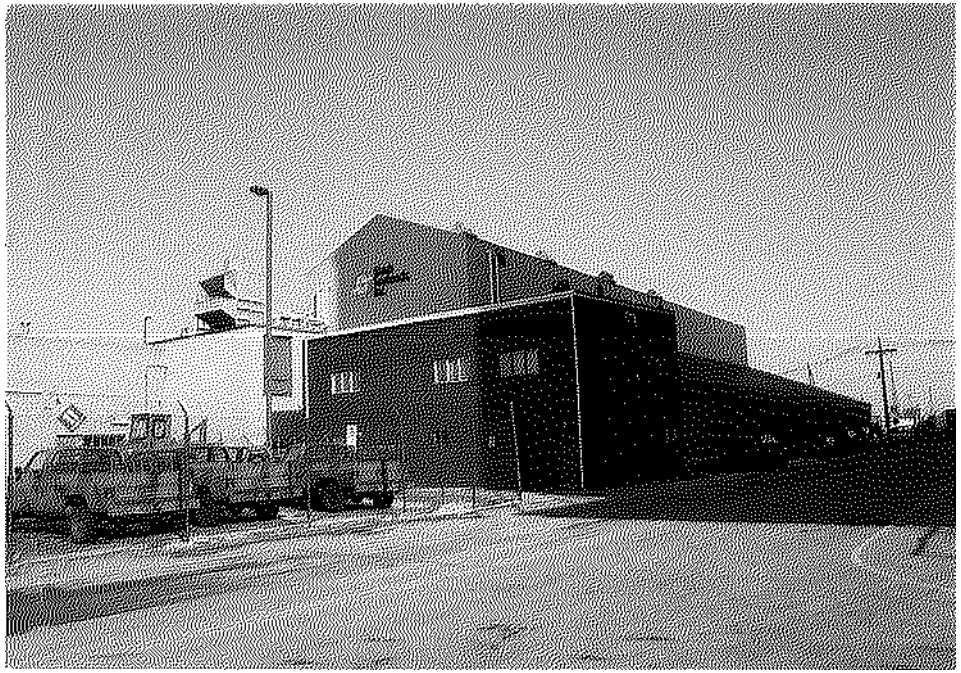


19. British Airways World Cargo (BOS.12951), looking northeast

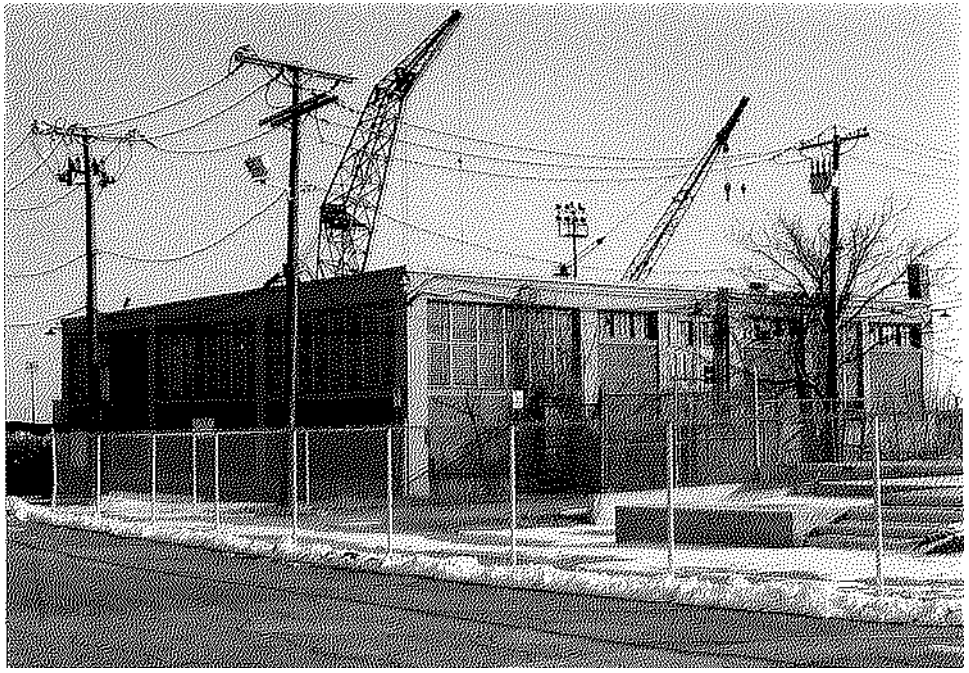
20. Building #19 (BOS.12966), looking north



21. Building #32 (BOS.12947), looking west

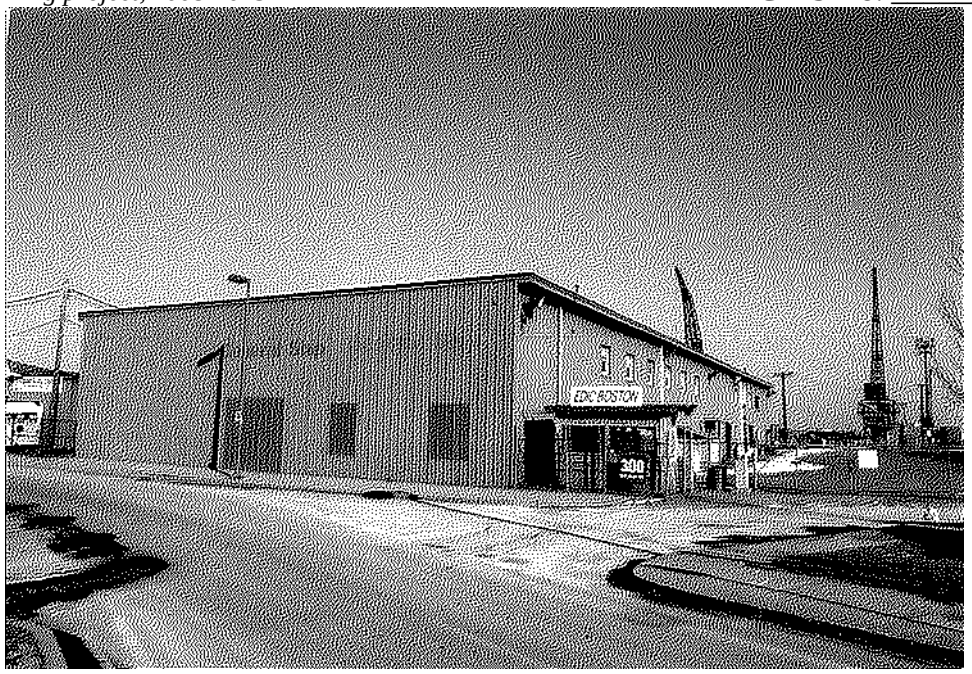


22. Building #17 (BOS. 12946), looking north



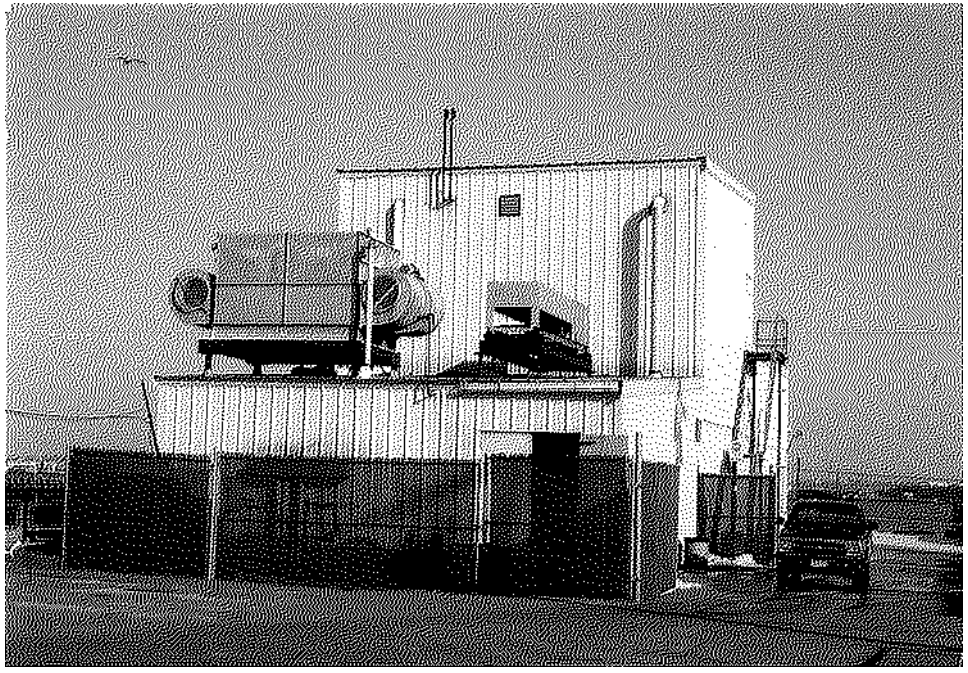
23. Building #38 (BOS.12968), looking northeast

24. Building #P-28 (BOS.8062)



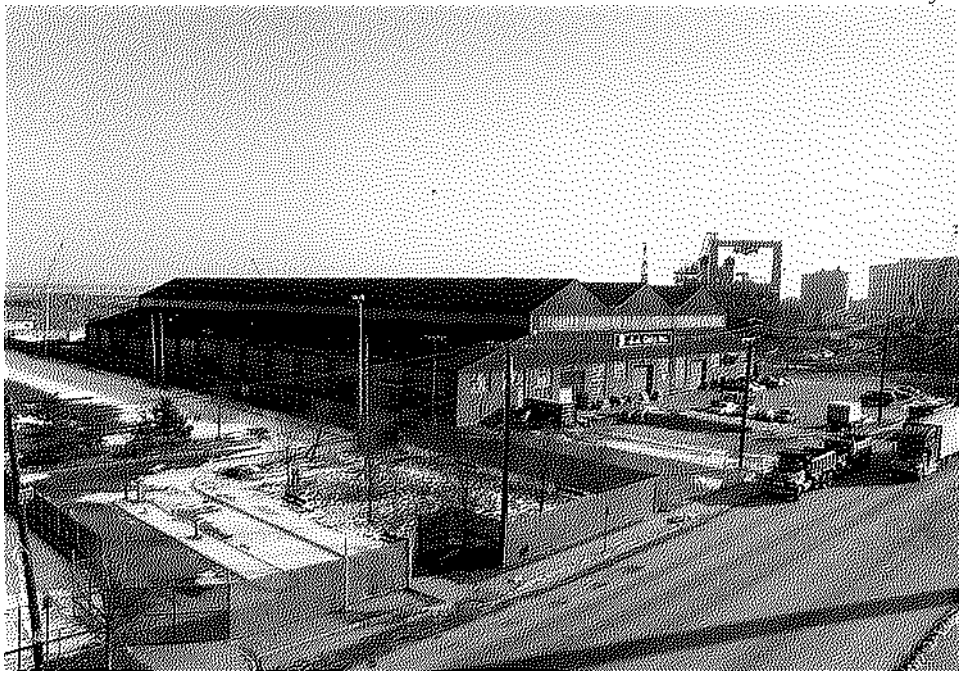
25. Building #56 (BOS.12969)

26. Building #53 (BOS.12970), looking north

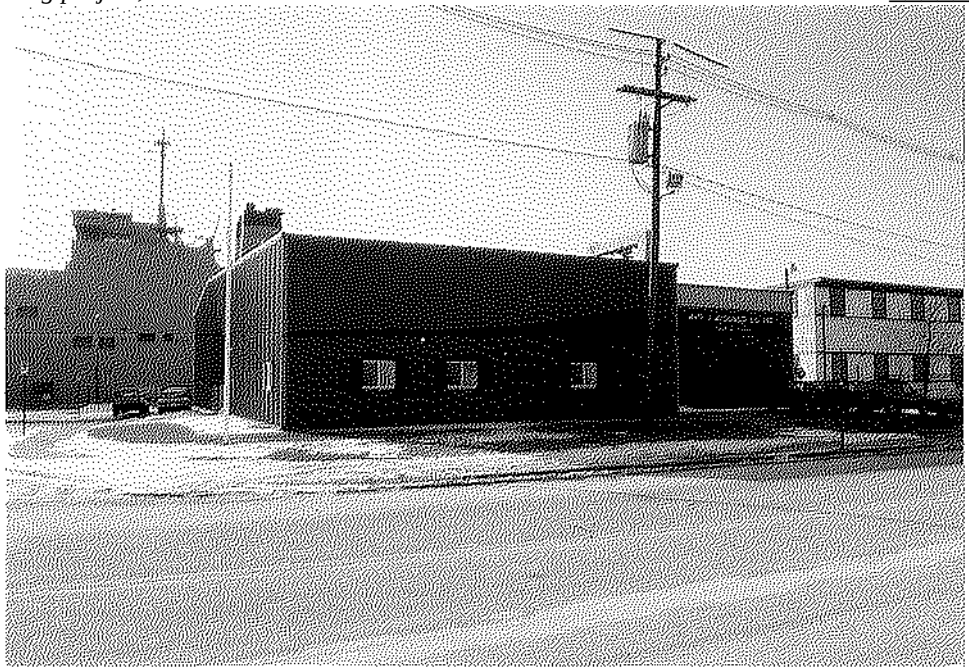


27. Refrigeration Plant (BOS.12967)

continuation sheet 26



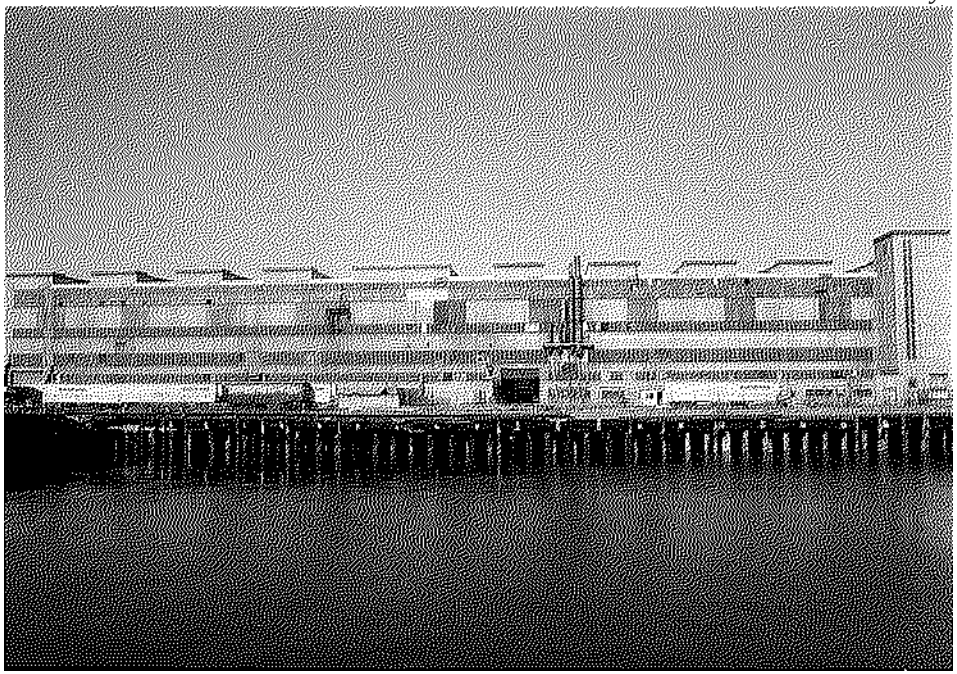
28. Building #18 (BOS.12971), looking east



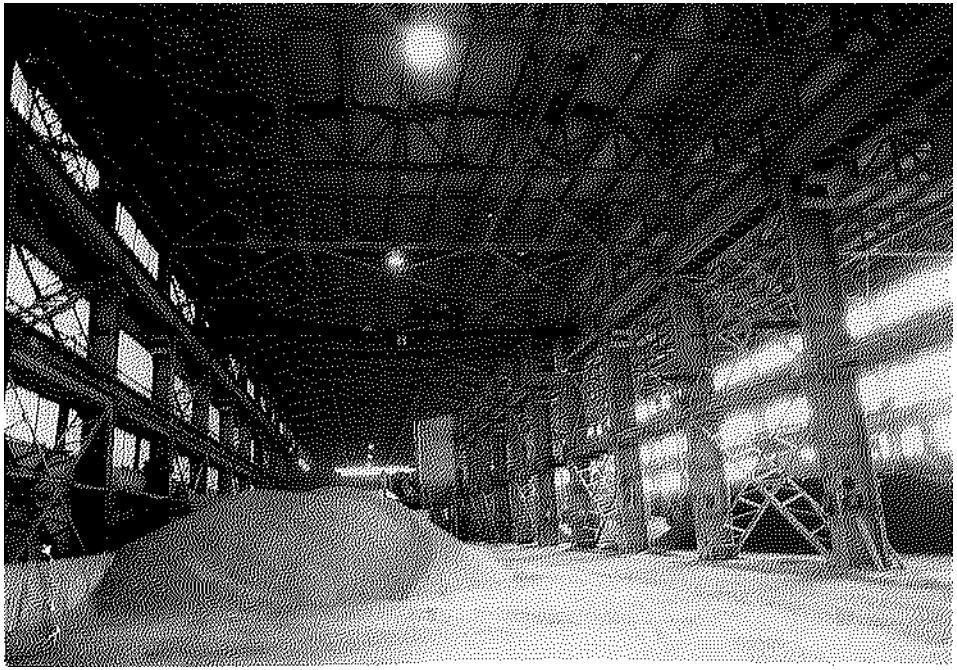
29. 3 Anchor Way (Matt J. McDonald Co.) (BOS.12944)

30. Building #54 (BOS.12972), looking northeast

31. Building #16 (BOS.12965), looking northwest

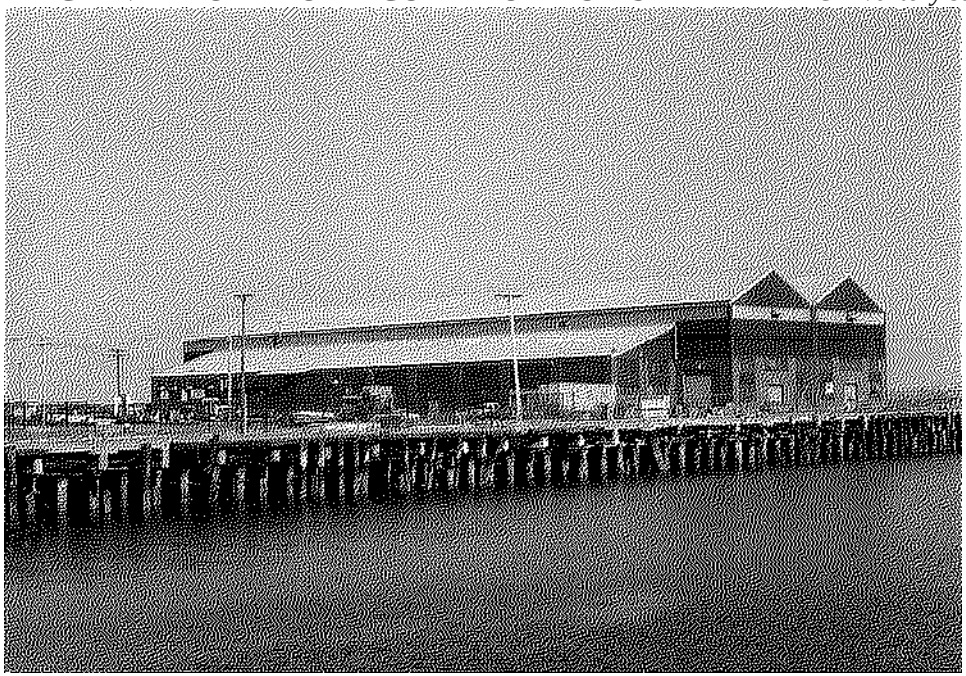


32. Building #16 (BOS.12965), looking north

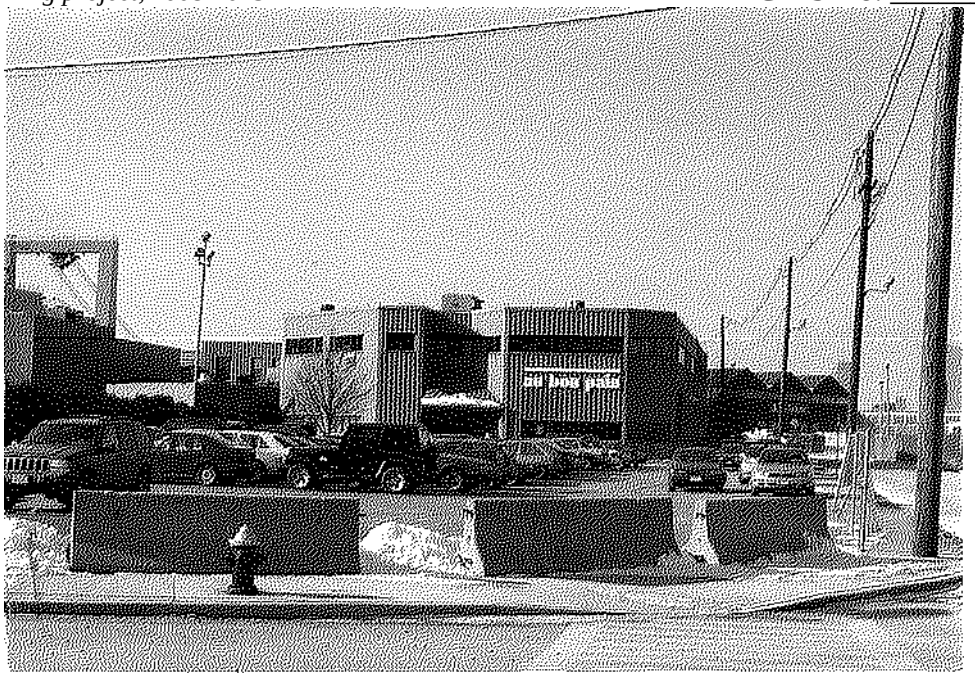


33. Building #16, interior view, looking east

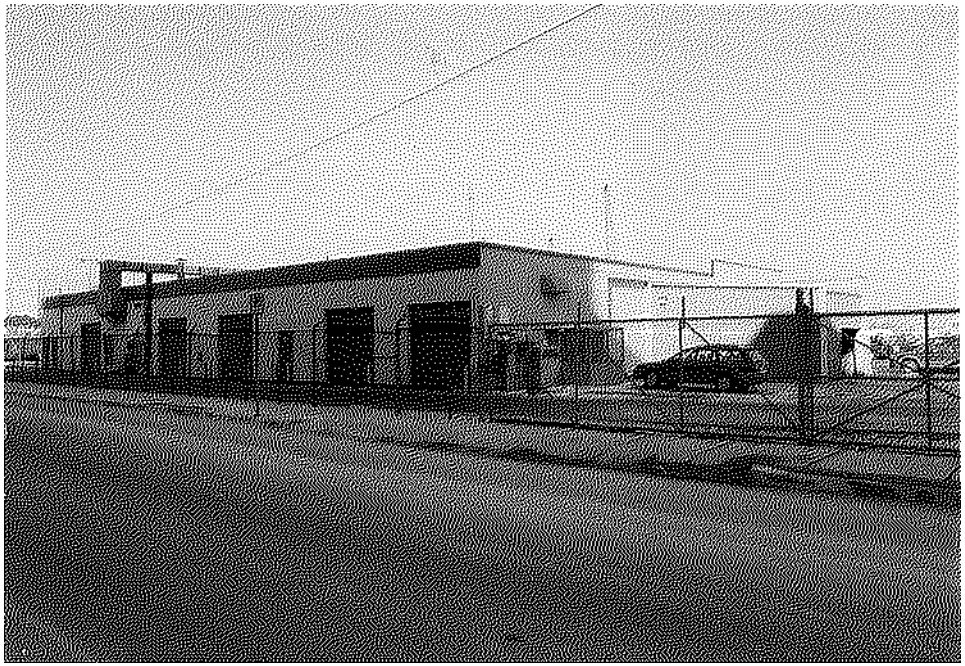
34. Building #16, SW corner detail, looking northeast



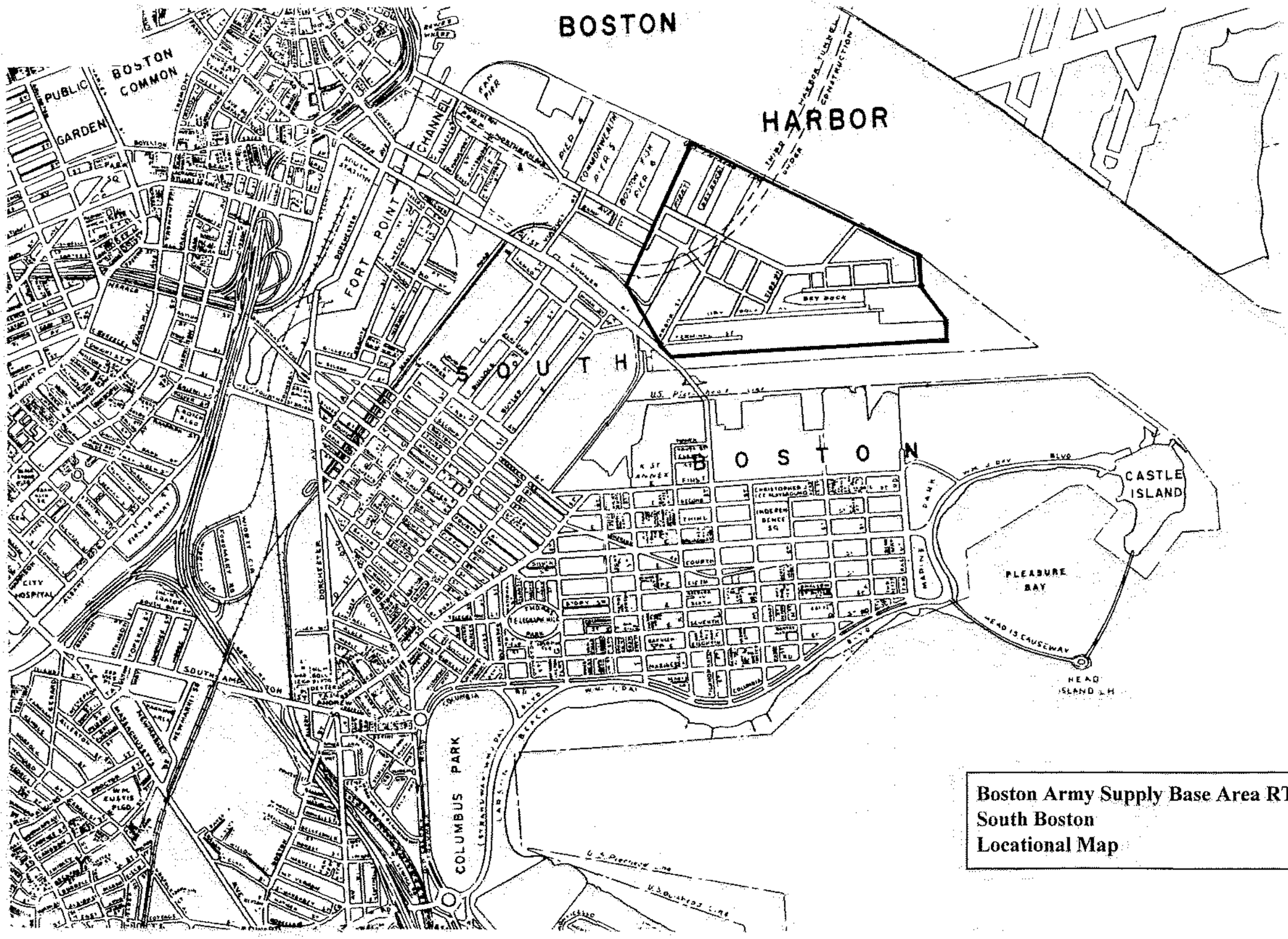
35. Building #31 (BOS.12948), looking east



36. 19 FID Kennedy Way (Au Bon Pain) (BOS.12963)



37. Subaru Distributors (FID Kennedy Way) (BOS.12964)

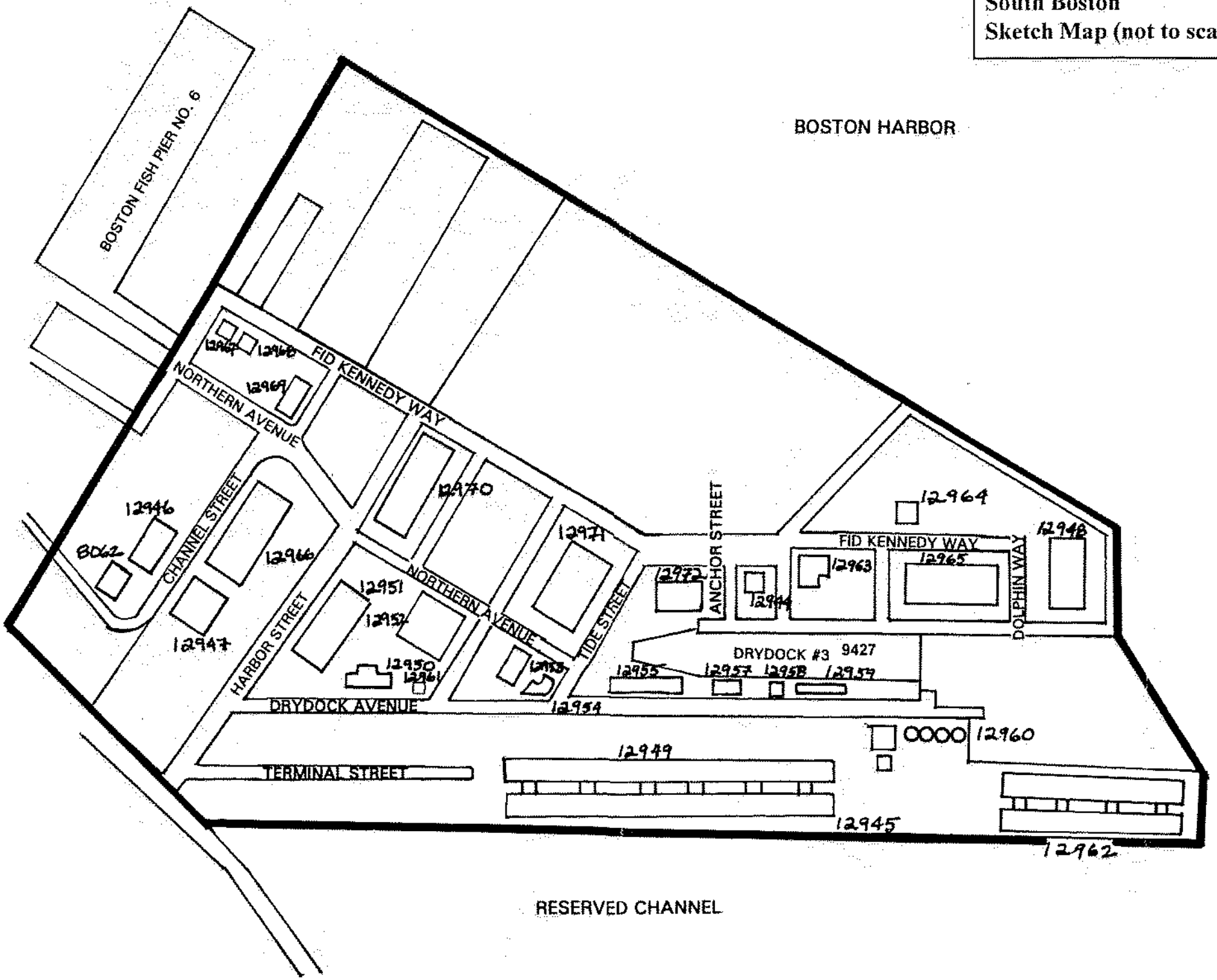


Boston Army Supply Base Area RT
South Boston
Locational Map

See Individual Area Sketch Map for Exact Area Boundaries and Individual Building Locations.

N

Boston Army Supply Base Area RT
South Boston
Sketch Map (not to scale)



Map Shows Industrial Properties Surveyed as Part of this Project Only. There May Be Previously Surveyed Non-industrial Properties Within this Area.

N

Massachusetts Historical Commission
Massachusetts Archives Facility
220 Morrissey Boulevard
Boston, Massachusetts 02125

Community: South Boston

Property Address: Summer Street at Reserved Channel

Area(s) Boston Army Supply Base

Form No.

National Register of Historic Places Criteria Statement Form

Check all that apply:

___Individually eligible **___Eligible only in a historic district**

___Contributing to a potential historic district **__X__ Potential historic district**

Criteria: **__X__ A __B __X__ C __D**

Criteria Considerations: **__A __B __C __D __E __F __G**

Statement of Significance by The Public Archaeology Laboratory, Inc., August 1997
The criteria that are checked in the above sections must be justified here.

The Boston Army Supply Base possesses integrity of location, design, setting, materials, workmanship, feeling, and association with military, industrial, and commercial uses, notably World War I warehousing and early twentieth-century attempts at developing the Port of Boston. The Boston Army Supply Base remains an active, definable commercial and industrial complex, and the character, materials, and relationships of the historic fabric remain intact. Its age, varied architectural forms, and active marine industrial setting are all important elements of its local significance. It meets criteria A and C of the NRHP. Its period of significance extends from 1918 to 1947. Additional historical research will be required to complete a nomination.

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FOR MHC USE ONLY	
Original (pink) form to CLG file	
One copy to the following:	
Eligibility file	
Inventory form	
Town *file (with correspondence)*	
MACRIS Coordinator	
National Register Director	

Community:	South Boston

CLG OPINION: ELIGIBILITY FOR NATIONAL REGISTER

Date Received:	11/5/15	**Date Due:**		**Date Reviewed:**	11/20/2015
Type:	Individual	Yes/No	Y	District (attach map indicating boundaries)	
Property Name	Building 16			**MHC Inv Form #:**	BOS.12965, BOS.RT
Prop. Address	25 Fid Kennedy Avenue				

Action	**Honor**	Yes/No	N	**ITC**	Yes/No	Y	**Grant**	Yes/No	N
	CLGC initiated		Yes/No			N	**Other**		

INDIVIDUAL PROPERTIES		**DISTRICTS**	
Eligible	Yes	Eligible	Yes/No
Eligible, also in a district	No	Ineligible	Yes/No
Eligible only in a district	No	More Information Needed	Yes/No
Ineligible	No		
More Information Needed	No		

CRITERIA:	A- Yes	B- No	C- Yes	D- No
LEVEL:	Local- Yes	State- No		National- No

STATEMENT OF SIGNIFICANCE by:	Tonya Loveday, Assistant Survey Director, Boston Landmarks Commission

(Refer to criteria cited above in statement of significance. If more information is needed, use space to describe what is needed to finish eligibility opinion)

25 Fid Kennedy (Building 16) is located within the Marine Industrial Park in South Boston. It was built between 1941 and 1942 by the Hughes-Foulkrod Company and rests on wood pilings that were constructed by the Fehlaber Pile Company. The rectangular structure has a tall asbestos-coated corrugated sheet metal main block with one-story brick sections along the north and south elevations. At the east and west ends of the building are stairtowers that rise above the roofline. The building is supported by steel I-beams and is clad in asbestos coated corrugated sheet metal panels and yellow brick with cast stone trim. This utilitarian structure features Art Deco details at the stairtowers.

The building served as the primary location for the repair and construction of vessels at the Boston Naval Annex from its development as a fully operational shipyard in 1941 until it closed in 1974. It housed multiple operations related to the ship repair industry while other supporting buildings were under construction, and remained the principal building when the base eventually downsized.

25 Fid Kennedy Avenue is individually eligible for listing on the National Register of Historic Places at the local level under Criterion A for its association with the development and operation of the Boston Naval Annex during World War II through the 1970s. The building also satisfies Criterion C as a rare local example of an Art Deco style industrial building. 25 Fid Kennedy Avenue retains a high degree of architectural integrity with original fabric including windows, doors, cladding and decorative cast stone elements. The building possesses the location, design, setting, workmanship, materials, feeling, and

association that define integrity.
Use reverse side if necessary

MHC STAFF OPINION				
Date Received:	12/24/15	Date Reviewed:	1/13/16; 5/31/18	
Opinion:	Concur X	Disagree		More Information Needed
Use Reverse for Comments				

Revised Eligibility Opinion 5.31.18

Massachusetts Historical Commission staff have reconsidered the eligibility of the South Boston Naval Annex in light of additional information received by this office. Upon reconsideration, it is the opinion of the MHC that the area known as the South Boston Naval Annex is eligible for listing in the National Register of Historic Places as a district that includes contiguous buildings, structures, and sites associated with the operations of the United States Navy during World War I and World War II and as an annex of the Charlestown Navy Yard. The district is associated with Boston's naval history and with the development of the port of Boston, and served as a location for ship repair and as a maintenance facility during and after the two wars. There has been some demolition of buildings and structures associated with the Naval Annex operations, and it is likely that the sites of these former resources may need to be included within the district boundaries for reasons of contiguity. The district meets Criteria A and C at the local and potentially state and national levels. This area excludes the following resources, previously included within the boundaries of the area determined eligible: BOS.12960, BOS.12962, BOS.12949 and BOS.12945.

In addition, because of its adjacency to the buildings of the Boston Army Supply Base, the South Boston Naval Annex area is part of a larger district, as previously indicated, associated with 20th century military operations in South Boston, and this would include both the South Boston Naval Annex and the Boston Army Supply Base (corresponding largely to the boundaries of survey area BOS.RT). It is likely that the buildings of the Boston Army Supply Base are also eligible for listing as a separate district, as well as standing within the potential larger area.

association that define integrity.
Use reverse side if necessary

MHC STAFF OPINION				
Date Received:	12/24/15	Date Reviewed:	1/13/16	
Opinion:	Concur	Disagree X		More Information Needed
Use Reverse for Comments				

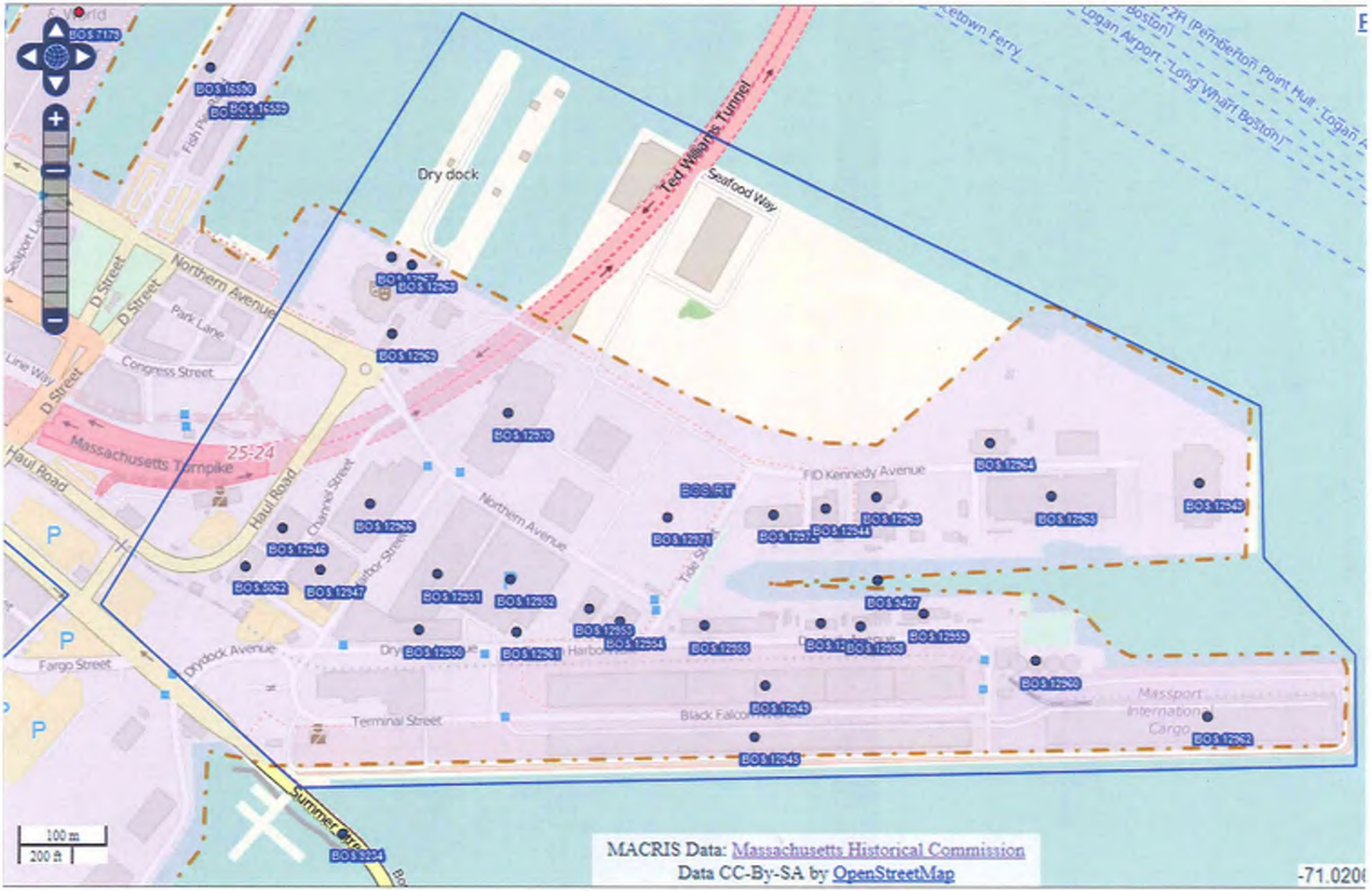
The MHC does not concur with the BLC's CLG opinion.

Building 16 is located at 25 Fid Kennedy Ave in South Boston, within the former South Boston Naval Annex, now the Boston Marine Industrial Park. The property was constructed in 1940-41 and was the first building developed as part of the expansion and development of the South Boston Naval Annex into a full-fledged shipyard. The site was selected in 1939 as an annex to the Charlestown Navy Yard and served as a main ship repair facility for the Navy Yard for over three decades, servicing over 600 ships in World War II alone. Following WWII, the annex was utilized in the mothballing of ships, housing the Reserve Fleet, and sonar testing, along with continued ship repair. Building 16 was constructed to serve as a multi-purpose facility as the shipyard was developed, and again became multi-use as the need for repairs declined in the post-war period. Following the closure of the Navy Yard in 1974, the building first housed a steel fabrication plant (1979-92) and later served as a concrete batch plant supporting the construction of the Central Artery Tunnel.

The property retains its original massing and most of its original materials. The main block measures approximately 500 feet by 130 feet and 81 feet in height, clad in asbestos coated corrugated sheet metal panels, and is flanked by 4 one-story lateral brick wings. Cast stone trim with Art Deco motifs are found at stair tower entrances. Most window openings retain their original steel sash, and bands of windows exhibit wired or corrugated glazing. The interior of the building remains a large open volume with an exposed steel structure and industrial crane. The building was constructed according to Navy plans, and similar buildings were built at Naval bases in Philadelphia, Norfolk, Bayonne, Hunters Point and Terminal Island.

The property is located within the former South Boston Naval Annex. The area retains a number of WWII-era Navy buildings, WWI-era buildings associated with the Navy as well as the adjacent Boston Army Supply Base, and more recent buildings associated with the redevelopment of the area as the Boston Marine Industrial Park. Notable extant structures include Dry Dock #3 and its Classical Revival-style Pump House (both 1918, BOS.9427 and 12959), Public Works Building (1940, BOS.12954), Administrative Offices at 24-26 Dry Dock (ca. 1940-42, BOS.12955), General Warehouse at 12 Channel Street (ca. 1940-42, BOS.12947), and the Army Marine Terminal Storehouse and Wharf Shed (1918, BOS.12949, 12945) among others.

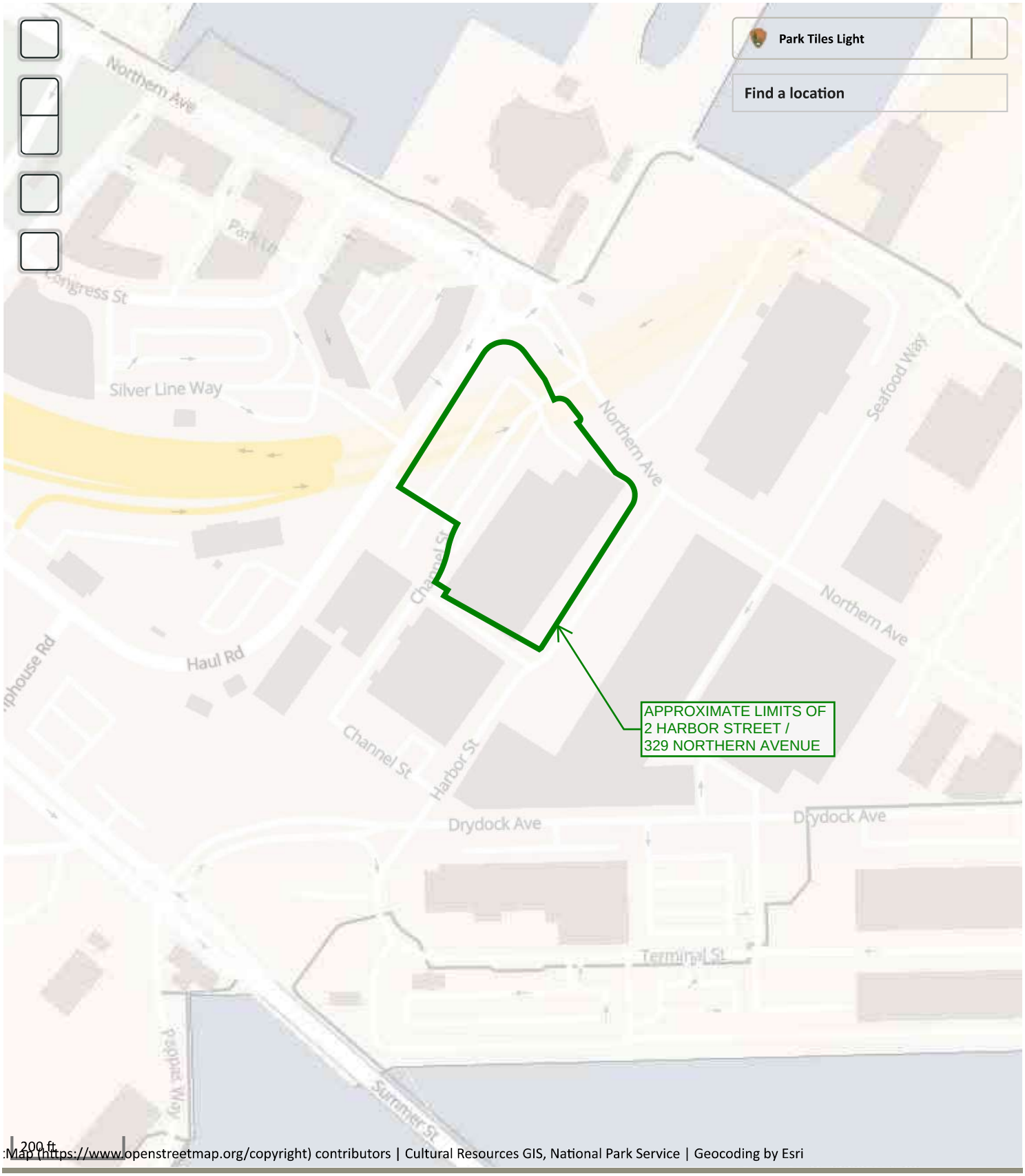
It is the opinion of MHC staff that Building 16 at 25 Fid Kennedy Ave contributes to a potential National Register District under criteria A and C at the local level, the boundaries of which largely correspond to the Boston Army Supply Base survey area, BOS. RT. MHC staff find it may be appropriate, however, to omit the portion of filled land north of Fid Kennedy Ave east of Dry Dock #4 and west of the Subaru Distributors (BOS.12964), allowing for the inclusion of the extant North Jetty. The aforementioned filled land was formerly occupied by Navy piers and now contains large open lots and post-1980 structures; the infilling of this land took place outside of the likely period of significance.


Dry dock
Ted Williams Tunnel
Seafood Way
Northern Avenue
D Street
Park Lane
Congress Street
Massachusetts Turnpike
25-24
Haul Road
Charles Street
Harbor Street
Tide Street
FID Kennedy Avenue
Drydock Avenue
Fargo Street
Terminal Street
Summer Street
Massport International Cargo
BOS:RT
BOS:7179
BOS:16550
BOS:16559
BOS:12965
BOS:12969
BOS:12970
BOS:12966
BOS:12946
BOS:9062
BOS:12947
BOS:12951
BOS:12952
BOS:12971
BOS:12944
BOS:12963
BOS:12964
BOS:12945
BOS:9427
BOS:12959
BOS:12960
BOS:12950
BOS:12961
BOS:12954
BOS:12955
BOS:12958
BOS:12949
BOS:12962
BOS:12948
BOS:9264
100 m
200 ft
MACRIS Data: Massachusetts Historical Commission
Data CC-By-SA by OpenStreetMap
-71.020

National Register of Histori...

National Park Service
U.S. Department of the Interior

Public, non-restricted data depicting National Register spatial data proce...



APPENDIX F

Laboratory Data Report

ANALYTICAL REPORT

Lab Number:	L2129453
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Corinne McKenzie
Phone:	(617) 886-7380
Project Name:	2 HARBOR ST.
Project Number:	0200427-000
Report Date:	06/10/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2129453-01	HA19-B2(OW)_2021-06	WATER	2 HARBOR STREET, BOSTON, MA	06/02/21 11:30	06/02/21
L2129453-02	HA21-NPDES-SW	WATER	2 HARBOR STREET, BOSTON, MA	06/02/21 13:00	06/02/21

Project Name:	2 HARBOR ST.	**Lab Number:**	L2129453
Project Number:	0200427-000	**Report Date:**	06/10/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 2 HARBOR ST. **Lab Number:** L2129453
Project Number: 0200427-000 **Report Date:** 06/10/21

Case Narrative (continued)

Sample Receipt

L2129453-02: Sample containers for Chloride, TPH, Phenols, Salinity and PCB 608 analysis were received for the "HA21-NPDES-SW" sample, but were not listed on the chain of custody. At the client's request, only the Salinity analysis was performed..

Total Metals

L2129453-02: The sample has elevated detection limits for all elements analyzed by Method 200.8 due to the dilution required by the sample matrix.

The WG1507779-7 MS recovery for hardness (0%), performed on L2129453-02, does not apply because the sample concentration is greater than four times the spike amount added.

Chlorine, Total Residual

L2129453-01 was analyzed with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Jennifer L Clements

Title: Technical Director/Representative Date: 06/10/21

ORGANICS

VOLATILES

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01 Date Collected: 06/02/21 11:30
Client ID: HA19-B2(OW)_2021-06 Date Received: 06/02/21
Sample Location: 2 HARBOR STREET, BOSTON, MA Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 06/04/21 14:57
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
Tetrachloroethene	ND		ug/l	1.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene	ND		ug/l	2.0	--	1
o-xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
Acetone	ND		ug/l	10	--	1
Methyl tert butyl ether	ND		ug/l	10	--	1
Tert-Butyl Alcohol	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--	1

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01 Date Collected: 06/02/21 11:30

Client ID: HA19-B2(OW)_2021-06 Date Received: 06/02/21

Sample Location: 2 HARBOR STREET, BOSTON, MA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	92		60-140
4-Bromofluorobenzene	86		60-140

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01 Date Collected: 06/02/21 11:30
Client ID: HA19-B2(OW)_2021-06 Date Received: 06/02/21
Sample Location: 2 HARBOR STREET, BOSTON, MA Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1-SIM
Analytical Date: 06/04/21 14:57
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	94		60-140
4-Bromofluorobenzene	94		60-140

Project Name: 2 HARBOR ST.
Lab Number: L2129453
Project Number: 0200427-000
Report Date: 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01
Client ID: HA19-B2(OW)_2021-06
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 11:30
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 06/07/21 16:38
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 06/07/21 12:34

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010	--	1	A

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 06/07/21 15:29
Analyst: AMM

Extraction Method: EPA 504.1
Extraction Date: 06/07/21 12:34

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG1508472-1						
1,2-Dibromoethane	ND		ug/l	0.010	--	A

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/04/21 14:13
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1508678-4					
Methylene chloride	ND		ug/l	1.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
Tetrachloroethene	ND		ug/l	1.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene	ND		ug/l	2.0	--
o-xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
Acetone	ND		ug/l	10	--
Methyl tert butyl ether	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether	ND		ug/l	20	--

Project Name: 2 HARBOR ST.
Project Number: 0200427-000
Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 06/04/21 14:13
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1508678-4					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	98		60-140
Fluorobenzene	92		60-140
4-Bromofluorobenzene	87		60-140

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1-SIM
Analytical Date: 06/04/21 14:13
Analyst: GT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1508687-4					
1,4-Dioxane	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Fluorobenzene	93		60-140
4-Bromofluorobenzene	100		60-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab	Associated sample(s): 01		Batch: WG1508472-2						
1,2-Dibromoethane	111		-		80-120	-			A

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1508678-3								
Methylene chloride	80		-		60-140	-		28
1,1-Dichloroethane	85		-		50-150	-		49
Carbon tetrachloride	85		-		70-130	-		41
1,1,2-Trichloroethane	95		-		70-130	-		45
Tetrachloroethene	95		-		70-130	-		39
1,2-Dichloroethane	85		-		70-130	-		49
1,1,1-Trichloroethane	80		-		70-130	-		36
Benzene	85		-		65-135	-		61
Toluene	95		-		70-130	-		41
Ethylbenzene	85		-		60-140	-		63
Vinyl chloride	55		-		5-195	-		66
1,1-Dichloroethene	65		-		50-150	-		32
cis-1,2-Dichloroethene	85		-		60-140	-		30
Trichloroethene	75		-		65-135	-		48
1,2-Dichlorobenzene	90		-		65-135	-		57
1,3-Dichlorobenzene	85		-		70-130	-		43
1,4-Dichlorobenzene	85		-		65-135	-		57
p/m-Xylene	85		-		60-140	-		30
o-xylene	85		-		60-140	-		30
Acetone	100		-		40-160	-		30
Methyl tert butyl ether	80		-		60-140	-		30
Tert-Butyl Alcohol	99		-		60-140	-		30
Tertiary-Amyl Methyl Ether	70		-		60-140	-		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1508678-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	96				60-140
Fluorobenzene	90				60-140
4-Bromofluorobenzene	89				60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1508687-3								
1,4-Dioxane	90		-		60-140	-		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Fluorobenzene	90				60-140
4-Bromofluorobenzene	102				60-140

Matrix Spike Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1508472-3 QC Sample: L2128363-06 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.25	0.256	102		-	-		80-120	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.25	0.252	101		-	-		80-120	-		20	A
1,2,3-Trichloropropane	ND	0.25	0.307	**123**	Q	-	-		80-120	-		20	A

SEMIVOLATILES

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01
Client ID: HA19-B2(OW)_2021-06
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 11:30
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1
Analytical Date: 06/07/21 16:21
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/06/21 20:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--	1
Butyl benzyl phthalate	ND		ug/l	5.00	--	1
Di-n-butylphthalate	ND		ug/l	5.00	--	1
Di-n-octylphthalate	ND		ug/l	5.00	--	1
Diethyl phthalate	ND		ug/l	5.00	--	1
Dimethyl phthalate	ND		ug/l	5.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	72		42-122
2-Fluorobiphenyl	78		46-121
4-Terphenyl-d14	87		47-138

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01
Client ID: HA19-B2(OW)_2021-06
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 11:30
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 129,625.1-SIM
Analytical Date: 06/07/21 17:30
Analyst: RP

Extraction Method: EPA 625.1
Extraction Date: 06/06/21 20:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.100	--	1
Fluoranthene	ND		ug/l	0.100	--	1
Naphthalene	ND		ug/l	0.100	--	1
Benzo(a)anthracene	ND		ug/l	0.100	--	1
Benzo(a)pyrene	ND		ug/l	0.100	--	1
Benzo(b)fluoranthene	ND		ug/l	0.100	--	1
Benzo(k)fluoranthene	ND		ug/l	0.100	--	1
Chrysene	ND		ug/l	0.100	--	1
Acenaphthylene	ND		ug/l	0.100	--	1
Anthracene	ND		ug/l	0.100	--	1
Benzo(ghi)perylene	ND		ug/l	0.100	--	1
Fluorene	ND		ug/l	0.100	--	1
Phenanthrene	ND		ug/l	0.100	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--	1
Pyrene	ND		ug/l	0.100	--	1
Pentachlorophenol	ND		ug/l	1.00	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-87
Phenol-d6	38		16-65
Nitrobenzene-d5	105		42-122
2-Fluorobiphenyl	98		46-121
2,4,6-Tribromophenol	114		45-128
4-Terphenyl-d14	106		47-138

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1
Analytical Date: 06/07/21 15:35
Analyst: SZ

Extraction Method: EPA 625.1
Extraction Date: 06/06/21 20:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1508294-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.20	--
Butyl benzyl phthalate	ND		ug/l	5.00	--
Di-n-butylphthalate	ND		ug/l	5.00	--
Di-n-octylphthalate	ND		ug/l	5.00	--
Diethyl phthalate	ND		ug/l	5.00	--
Dimethyl phthalate	ND		ug/l	5.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	57		42-122
2-Fluorobiphenyl	64		46-121
4-Terphenyl-d14	74		47-138

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 129,625.1-SIM
Analytical Date: 06/07/21 17:13
Analyst: JJW

Extraction Method: EPA 625.1
Extraction Date: 06/06/21 20:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1508295-1					
Acenaphthene	ND		ug/l	0.100	--
Fluoranthene	ND		ug/l	0.100	--
Naphthalene	ND		ug/l	0.100	--
Benzo(a)anthracene	ND		ug/l	0.100	--
Benzo(a)pyrene	ND		ug/l	0.100	--
Benzo(b)fluoranthene	ND		ug/l	0.100	--
Benzo(k)fluoranthene	ND		ug/l	0.100	--
Chrysene	ND		ug/l	0.100	--
Acenaphthylene	ND		ug/l	0.100	--
Anthracene	ND		ug/l	0.100	--
Benzo(ghi)perylene	ND		ug/l	0.100	--
Fluorene	ND		ug/l	0.100	--
Phenanthrene	ND		ug/l	0.100	--
Dibenzo(a,h)anthracene	ND		ug/l	0.100	--
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.100	--
Pyrene	ND		ug/l	0.100	--
Pentachlorophenol	ND		ug/l	1.00	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		25-87
Phenol-d6	33		16-65
Nitrobenzene-d5	83		42-122
2-Fluorobiphenyl	79		46-121
2,4,6-Tribromophenol	96		45-128
4-Terphenyl-d14	96		47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1508294-2								
Bis(2-ethylhexyl)phthalate	96		-		29-137	-		82
Butyl benzyl phthalate	96		-		1-140	-		60
Di-n-butylphthalate	91		-		8-120	-		47
Di-n-octylphthalate	99		-		19-132	-		69
Diethyl phthalate	90		-		1-120	-		100
Dimethyl phthalate	93		-		1-120	-		183

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	83				42-122
2-Fluorobiphenyl	85				46-121
4-Terphenyl-d14	93				47-138

Lab Control Sample Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1508295-3								
Acenaphthene	99		-		60-132	-		30
Fluoranthene	114		-		43-121	-		30
Naphthalene	92		-		36-120	-		30
Benzo(a)anthracene	114		-		42-133	-		30
Benzo(a)pyrene	121		-		32-148	-		30
Benzo(b)fluoranthene	124		-		42-140	-		30
Benzo(k)fluoranthene	115		-		25-146	-		30
Chrysene	110		-		44-140	-		30
Acenaphthylene	106		-		54-126	-		30
Anthracene	111		-		43-120	-		30
Benzo(ghi)perylene	115		-		1-195	-		30
Fluorene	105		-		70-120	-		30
Phenanthrene	106		-		65-120	-		30
Dibenzo(a,h)anthracene	118		-		1-200	-		30
Indeno(1,2,3-cd)pyrene	119		-		1-151	-		30
Pyrene	113		-		70-120	-		30
Pentachlorophenol	99		-		38-152	-		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1508295-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	62				25-87
Phenol-d6	42				16-65
Nitrobenzene-d5	103				42-122
2-Fluorobiphenyl	95				46-121
2,4,6-Tribromophenol	123				45-128
4-Terphenyl-d14	109				47-138

PCBS

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01
Client ID: HA19-B2(OW)_2021-06
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 11:30
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 127,608.3
Analytical Date: 06/09/21 22:25
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 06/08/21 08:23
Cleanup Method: EPA 3665A
Cleanup Date: 06/08/21
Cleanup Method: EPA 3660B
Cleanup Date: 06/09/21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.250	--	1	A
Aroclor 1221	ND		ug/l	0.250	--	1	A
Aroclor 1232	ND		ug/l	0.250	--	1	A
Aroclor 1242	ND		ug/l	0.250	--	1	A
Aroclor 1248	ND		ug/l	0.250	--	1	A
Aroclor 1254	ND		ug/l	0.250	--	1	A
Aroclor 1260	ND		ug/l	0.200	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		37-123	B
Decachlorobiphenyl	71		38-114	B
2,4,5,6-Tetrachloro-m-xylene	76		37-123	A
Decachlorobiphenyl	82		38-114	A

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 127,608.3
Analytical Date: 06/08/21 15:18
Analyst: CW

Extraction Method: EPA 608.3
Extraction Date: 06/07/21 21:32
Cleanup Method: EPA 3665A
Cleanup Date: 06/08/21
Cleanup Method: EPA 3660B
Cleanup Date: 06/08/21

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1508762-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		37-123	B
Decachlorobiphenyl	83		38-114	B
2,4,5,6-Tetrachloro-m-xylene	90		37-123	A
Decachlorobiphenyl	92		38-114	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1508762-2									
Aroclor 1016	86		-		50-140	-		36	A
Aroclor 1260	85		-		8-140	-		38	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81				37-123	B
Decachlorobiphenyl	85				38-114	B
2,4,5,6-Tetrachloro-m-xylene	84				37-123	A
Decachlorobiphenyl	83				38-114	A

METALS

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01 Date Collected: 06/02/21 11:30

Client ID: HA19-B2(OW)_2021-06 Date Received: 06/02/21

Sample Location: 2 HARBOR STREET, BOSTON, MA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.00400	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Arsenic, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Cadmium, Total	ND		mg/l	0.00020	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Chromium, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Copper, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Iron, Total	0.476		mg/l	0.050	--	1	06/08/21 13:16	06/09/21 23:39	EPA 3005A	19,200.7	BV
Lead, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Mercury, Total	ND		mg/l	0.00020	--	1	06/08/21 14:13	06/09/21 20:08	EPA 245.1	3,245.1	OU
Nickel, Total	0.00535		mg/l	0.00200	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Selenium, Total	ND		mg/l	0.00500	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Silver, Total	ND		mg/l	0.00040	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Zinc, Total	0.01375		mg/l	0.01000	--	1	06/08/21 13:16	06/09/21 18:32	EPA 3005A	3,200.8	CD
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	297		mg/l	0.660	NA	1	06/08/21 13:16	06/09/21 23:39	EPA 3005A	19,200.7	BV
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	--	1		06/09/21 18:32	NA	107,-	

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-02 Date Collected: 06/02/21 13:00

Client ID: HA21-NPDES-SW Date Received: 06/02/21

Sample Location: 2 HARBOR STREET, BOSTON, MA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Antimony, Total	ND		mg/l	0.04000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Arsenic, Total	ND		mg/l	0.01000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Cadmium, Total	ND		mg/l	0.00200	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Chromium, Total	ND		mg/l	0.01000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Copper, Total	ND		mg/l	0.01000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Iron, Total	0.116		mg/l	0.050	--	1	06/08/21 13:16	06/10/21 00:02	EPA 3005A	19,200.7	BV
Lead, Total	ND		mg/l	0.01000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Mercury, Total	ND		mg/l	0.00020	--	1	06/08/21 14:13	06/09/21 19:27	EPA 245.1	3,245.1	OU
Nickel, Total	ND		mg/l	0.02000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Selenium, Total	ND		mg/l	0.05000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Silver, Total	ND		mg/l	0.00400	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Zinc, Total	ND		mg/l	0.1000	--	10	06/08/21 13:16	06/09/21 19:05	EPA 3005A	3,200.8	CD
Total Hardness by SM 2340B - Mansfield Lab											
Hardness	3900		mg/l	0.660	NA	1	06/08/21 13:16	06/10/21 00:02	EPA 3005A	19,200.7	BV

Project Name: 2 HARBOR ST. **Lab Number:** L2129453

Project Number: 0200427-000 **Report Date:** 06/10/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1507779-1										
Iron, Total	ND		mg/l	0.050	--	1	06/08/21 13:16	06/09/21 23:30	19,200.7	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Mansfield Lab for sample(s): 01-02 Batch: WG1507779-1										
Hardness	ND		mg/l	0.660	NA	1	06/08/21 13:16	06/09/21 23:30	19,200.7	BV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1507781-1										
Antimony, Total	ND		mg/l	0.00400	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Arsenic, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Cadmium, Total	ND		mg/l	0.00020	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Chromium, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Copper, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Lead, Total	ND		mg/l	0.00100	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Nickel, Total	ND		mg/l	0.00200	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Selenium, Total	ND		mg/l	0.00500	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Silver, Total	ND		mg/l	0.00040	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD
Zinc, Total	ND		mg/l	0.01000	--	1	06/08/21 13:16	06/09/21 18:12	3,200.8	CD

Prep Information

Digestion Method: EPA 3005A

Project Name: 2 HARBOR ST.
Project Number: 0200427-000
Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1507783-1										
Mercury, Total	ND		mg/l	0.00020	--	1	06/08/21 14:13	06/09/21 19:20	3,245.1	OU

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1507779-2								
Iron, Total	94		-		85-115	-		
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 Batch: WG1507779-2								
Hardness	100		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1507781-2								
Antimony, Total	85		-		85-115	-		
Arsenic, Total	92		-		85-115	-		
Cadmium, Total	95		-		85-115	-		
Chromium, Total	87		-		85-115	-		
Copper, Total	88		-		85-115	-		
Lead, Total	94		-		85-115	-		
Nickel, Total	85		-		85-115	-		
Selenium, Total	95		-		85-115	-		
Silver, Total	95		-		85-115	-		
Zinc, Total	98		-		85-115	-		
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1507783-2								
Mercury, Total	100		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-3 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06												
Iron, Total	0.476	1	1.41	93		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-3 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06												
Hardness	297	66.2	359	94		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-7 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW												
Iron, Total	0.116	1	1.02	90		-	-		75-125	-		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-7 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW												
Hardness	3900	66.2	3760	**0**	Q	-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507781-3 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06												
Antimony, Total	ND	0.5	0.4325	86		-	-		70-130	-		20
Arsenic, Total	ND	0.12	0.1116	93		-	-		70-130	-		20
Cadmium, Total	ND	0.051	0.04792	94		-	-		70-130	-		20
Chromium, Total	ND	0.2	0.1759	88		-	-		70-130	-		20
Copper, Total	ND	0.25	0.2219	89		-	-		70-130	-		20
Lead, Total	ND	0.51	0.4703	92		-	-		70-130	-		20
Nickel, Total	0.00535	0.5	0.4248	84		-	-		70-130	-		20
Selenium, Total	ND	0.12	0.1178	98		-	-		70-130	-		20
Silver, Total	ND	0.05	0.04599	92		-	-		70-130	-		20
Zinc, Total	0.01375	0.5	0.5027	98		-	-		70-130	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507783-3 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW									
Mercury, Total	ND	0.005	0.00500	100	-	-	70-130	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-4 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06						
Iron, Total	0.476	0.482	mg/l	1		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-4 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06						
Hardness	297	299	mg/l	1		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-8 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW						
Iron, Total	0.116	0.110	mg/l	5		20
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-8 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW						
Hardness	3900	3760	mg/l	4		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507781-4 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06					
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Copper, Total	ND	ND	mg/l	NC	20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	0.00535	0.00522	mg/l	2	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.01375	0.01303	mg/l	5	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507783-4 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW					
Mercury, Total	ND	ND	mg/l	NC	20

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2129453
Report Date: 06/10/21

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1507779-10 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW						
Hardness	3900	4220	mg/l	8		20

INORGANICS
&
MISCELLANEOUS

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-01
Client ID: HA19-B2(OW)_2021-06
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 11:30
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	ND		SU	2.0	--	1	-	06/04/21 17:23	121,2520B	AS
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/04/21 14:50	121,2540D	AC
Cyanide, Total	ND		mg/l	0.005	--	1	06/04/21 12:40	06/04/21 15:36	121,4500CN-CE	CR
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/03/21 20:05	121,4500CL-D	AS
pH (H)	6.6		SU	-	NA	1	-	06/03/21 22:30	121,4500H+-B	JH
Nitrogen, Ammonia	0.602		mg/l	0.075	--	1	06/08/21 19:00	06/09/21 16:43	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	3.60	--	.9	06/03/21 20:00	06/03/21 21:00	74,1664A	TL
Phenolics, Total	ND		mg/l	0.030	--	1	06/07/21 07:30	06/07/21 10:56	4,420.1	KP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/03/21 10:40	06/03/21 11:21	1,7196A	KP
Anions by Ion Chromatography - Westborough Lab										
Chloride	59.2		mg/l	5.00	--	10	-	06/07/21 23:59	44,300.0	AT

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

SAMPLE RESULTS

Lab ID: L2129453-02
Client ID: HA21-NPDES-SW
Sample Location: 2 HARBOR STREET, BOSTON, MA

Date Collected: 06/02/21 13:00
Date Received: 06/02/21
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
SALINITY	26		SU	2.0	--	1	-	06/09/21 17:32	121,2520B	AS
pH (H)	7.6		SU	-	NA	1	-	06/03/21 22:30	121,4500H+-B	JH
Nitrogen, Ammonia	0.114		mg/l	0.075	--	1	06/08/21 19:00	06/09/21 16:44	121,4500NH3-BH	AT

Project Name: 2 HARBOR ST.
Project Number: 0200427-000
Lab Number: L2129453
Report Date: 06/10/21

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1507108-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	06/03/21 10:40	06/03/21 11:20	1,7196A	KP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1507296-1										
TPH, SGT-HEM	ND		mg/l	4.00	--	1	06/03/21 20:00	06/03/21 21:00	74,1664A	TL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1507297-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	06/03/21 20:05	121,4500CL-D	AS
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1507631-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/04/21 14:50	121,2540D	AC
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1507671-1										
Cyanide, Total	ND		mg/l	0.005	--	1	06/04/21 12:40	06/04/21 15:08	121,4500CN-CE	CR
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1508332-1										
Phenolics, Total	ND		mg/l	0.030	--	1	06/07/21 07:30	06/07/21 10:50	4,420.1	KP
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG1508776-1										
Chloride	ND		mg/l	0.500	--	1	-	06/07/21 18:31	44,300.0	AT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1509344-1										
Nitrogen, Ammonia	ND		mg/l	0.075	--	1	06/08/21 19:00	06/09/21 16:40	121,4500NH3-BH	AT

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507108-2								
Chromium, Hexavalent	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507296-2								
TPH	82		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507297-2								
Chlorine, Total Residual	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1507396-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507631-2								
Solids, Total Suspended	94		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507671-2								
Cyanide, Total	106		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1507853-1								
SALINITY	99		-			-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1508332-2					
Phenolics, Total	112	-	70-130	-	
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG1508776-2					
Chloride	103	-	90-110	-	
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1509344-2					
Nitrogen, Ammonia	98	-	80-120	-	20
General Chemistry - Westborough Lab Associated sample(s): 02 Batch: WG1509946-1					
SALINITY	99	-		-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507108-4 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06												
Chromium, Hexavalent	ND	0.1	0.089	89		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507296-4 QC Sample: L2129493-02 Client ID: MS Sample												
TPH	ND	19.6	13.7	70		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507297-4 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06												
Chlorine, Total Residual	ND	0.25	0.23	92		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507671-4 QC Sample: L2127415-03 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.204	102		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1508332-4 QC Sample: L2130256-02 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.32	80		-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1508776-3 QC Sample: L2129228-02 Client ID: MS Sample												
Chloride	4.17	4	8.24	102		-	-		90-110	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1509344-4 QC Sample: L2130234-02 Client ID: MS Sample												
Nitrogen, Ammonia	0.327	4	3.82	87		-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507108-3 QC Sample: L2129453-01 Client ID: HA19-B2(OW)_2021-06						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507296-3 QC Sample: L2129493-01 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507297-3 QC Sample: L2129637-01 Client ID: DUP Sample						
Chlorine, Total Residual	1.1	1.1	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1507396-2 QC Sample: L2129291-01 Client ID: DUP Sample						
pH	7.4	7.4	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507631-3 QC Sample: L2128916-05 Client ID: DUP Sample						
Solids, Total Suspended	83	88	mg/l	6		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507671-3 QC Sample: L2127415-03 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1507853-2 QC Sample: L2130036-01 Client ID: DUP Sample						
SALINITY	ND	ND	SU	NC		
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1508332-3 QC Sample: L2130256-02 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 2 HARBOR ST.

Project Number: 0200427-000

Lab Number: L2129453

Report Date: 06/10/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1508776-4 QC Sample: L2129228-02 Client ID: DUP Sample					
Chloride	4.17	4.08	mg/l	2	18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1509344-3 QC Sample: L2130234-02 Client ID: DUP Sample					
Nitrogen, Ammonia	0.327	0.378	mg/l	14	20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1509946-2 QC Sample: L2129453-02 Client ID: HA21-NPDES-SW					
SALINITY	26	26	SU	0	

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2129453-01A	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01B	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01C	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01D	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01E	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01F	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L2129453-01G	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		504(14)
L2129453-01H	Vial Na2S2O3 preserved	C	NA		4.2	Y	Absent		504(14)
L2129453-01I	Amber 120ml unpreserved	C	7	7	4.2	Y	Absent		SALINITY(28)
L2129453-01J	Plastic 250ml HNO3 preserved	C	<2	<2	4.2	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2129453-01K	Plastic 250ml HNO3 preserved	C	<2	<2	4.2	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDU(180),FE-UI(180),HG-U(28),SE-2008T(180),AS-2008T(180),AG-2008T(180),PB-2008T(180),SB-2008T(180),CR-2008T(180)
L2129453-01L	Plastic 250ml NaOH preserved	C	>12	>12	4.2	Y	Absent		TCN-4500(14)
L2129453-01M	Plastic 500ml H2SO4 preserved	C	<2	<2	4.2	Y	Absent		NH3-4500(28)
L2129453-01N	Plastic 950ml unpreserved	C	7	7	4.2	Y	Absent		HEXCR-7196(1),CL-300(28),TRC-4500(1),PH-4500(.01)
L2129453-01O	Plastic 950ml unpreserved	C	7	7	4.2	Y	Absent		TSS-2540(7)
L2129453-01P	Amber 950ml H2SO4 preserved	C	<2	<2	4.2	Y	Absent		TPHENOL-420(28)
L2129453-01Q	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		PCB-608.3(365)
L2129453-01R	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		PCB-608.3(365)
L2129453-01S	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L2129453-01T	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)

*Values in parentheses indicate holding time in days

Project Name: 2 HARBOR ST.
Project Number: 0200427-000

Lab Number: L2129453
Report Date: 06/10/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2129453-01U	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L2129453-01V	Amber 1000ml Na2S2O3	C	7	7	4.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L2129453-01W	Amber 1000ml HCl preserved	C	NA		4.2	Y	Absent		TPH-1664(28)
L2129453-01X	Amber 1000ml HCl preserved	C	NA		4.2	Y	Absent		TPH-1664(28)
L2129453-02A	Plastic 120ml unpreserved	B	7	7	4.1	Y	Absent		PH-4500(.01)
L2129453-02B	Amber 120ml unpreserved	B	7	7	4.1	Y	Absent		SALINITY(28)
L2129453-02C	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	Y	Absent		HOLD-METAL-DISSOLVED(180)
L2129453-02D	Plastic 250ml HNO3 preserved	B	<2	<2	4.1	Y	Absent		CD-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDU(180),FE-UI(180),AS-2008T(180),SE-2008T(180),HG-U(28),AG-2008T(180),CR-2008T(180),PB-2008T(180),SB-2008T(180)
L2129453-02E	Plastic 500ml H2SO4 preserved	B	<2	<2	4.1	Y	Absent		NH3-4500(28)
L2129453-02F	Amber 950ml H2SO4 preserved	B	<2	<2	4.1	Y	Absent		HOLD-WETCHEM()
L2129453-02G	Amber 1000ml Na2S2O3	B	7	7	4.1	Y	Absent		HOLD-608(7)
L2129453-02H	Amber 1000ml Na2S2O3	B	7	7	4.1	Y	Absent		HOLD-608(7)
L2129453-02I	Amber 1000ml HCl preserved	B	N/A	N/A	4.1	Y	Absent		HOLD-WETCHEM()
L2129453-02J	Amber 1000ml HCl preserved	B	N/A	N/A	4.1	Y	Absent		HOLD-WETCHEM()

*Values in parentheses indicate holding time in days

Project Name:	2 HARBOR ST.	**Lab Number:**	L2129453
Project Number:	0200427-000	**Report Date:**	06/10/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report

Project Name:	2 HARBOR ST.	**Lab Number:**	L2129453
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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the reporting limit (RL) for the sample.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report

Project Name:	2 HARBOR ST.	**Lab Number:**	L2129453
Project Number:	0200427-000	**Report Date:**	06/10/21

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Project Name:	2 HARBOR ST.	**Lab Number:**	L2129453
Project Number:	0200427-000	**Report Date:**	06/10/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.

14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

74 Method 1664,Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.

128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.

129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-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, **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 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: 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 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, 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, EPA 537.1.

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, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers: Brewer, ME 04412 — Portsmouth, NH 03801 — Mahwah, NJ 07430 — Albany, NY 12205 — Tonawanda, NY 14150 — Holmes, PA 19043

Page 1 of 1

Date Rec'd in Lab: 6/2/21

ALPHA Job #: L2129453

Project Information

Project Name: 2 Harbor Street

Project Location: 2 Harbor Street, Boston, MA

Project #: 0200427-000

(Use Project name as Project #)

Project Manager: L. Vanzler / C. McKenzie

ALPHAQuote #:

Turn-Around Time

Standard ☑ — Due Date:

(only if pre approved) ☐ — # of Days: 5 Day

Deliverables

☑ Email ☐ Fax

☐ EQuIS (1 File) ☑ EQuIS (4 File)

☐ Other:

Billing Information

☐

PO #

H&A Information

H&A Client: BCP-CG Harbor Property LLC

H&A Address 465 Medford St

Boston, MA 0212-1400

H&A Phone: 617-886-7400

H&A Fax:

H&A Email: CMcKenzie, NLescalleet

Regulatory Requirements (Program/Criteria)

MA NPDES RGP

Note: Select State from menu & identify criteria.

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:

NJ ☐ NY ☐

Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

PLEASE RUN FOR FULL 2017 RGP SUITE, MINUS ETHANOL
Analyze using the EPA 2017 RGP Approved Testing Methods

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TSS-2540, TRC-4500	TCN-4500, 504	624.1, 624.1-SIM for Dioxane	HEXCR-3500, Trivalent Chromium	625.1 TCL (also including Diethylhexylphthalate),	625.1 TCL-SIM	Total Metals: Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Se, Zn, Fe, Hg	CL-300	Ammonia	Hardness	TPH-1664, PCB-608, TPHENOL-420	*Diss. Metals: Ag, As, Cd, Cr, Cu, Ni, Pb, Sb, Se, Zn, Fe, Hg	pH	Salinity			Total Bottles
29453-01	HA19-B2(OW)_2021-06	6/2/21	11:30	AQ	[illegible]	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
-02	HA21-NPDES-SW	6/2/21	13:00	AQ	[illegible]	[illegible]						X		X	X		X	X				

Sample Filtration

☑ Done
☐ Lab to do

Preservation
☐ Lab to do

(Please Specify below)

Sample Specific Comments

* Field filtered; HOLD diss metals analysis until contacted by H&A

Preservative Code: A = None, B = HCl, C = HNO_3, D = H_2SO_4, E = NaOH, F = MeOH, G = $NaHSO_4$, H = $Na_2S_2O_3$, K/E = Zn Ac/NaOH, O = Other

Container Code: P = Plastic, A = Amber Glass, V = Vial, G = Glass, B = Bacteria Cup, C = Cube, O = Other, E = Encore, D = BOD Bottle

Westboro: Certification No: MA935

Mansfield: Certification No: MA015

Container Type

Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	6/2/21 14:30	[illegible]	6/2/21 1695
[illegible]	6/2/21 1645	Alum AAL	6/2/21 1645
[illegible]	6/2/21 1811	[illegible]	6/2/21 1811

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. Alpha Analytical's services under this Chain of Custody shall be performed in accordance with terms and conditions within Blanket Service Agreement# 2015-18-Alpha Analytical by and between Haley & Aldrich, Inc., its subsidiaries and affiliates and Alpha Analytical.

Document ID: 20455 Rev 1 (1/28/2016)