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U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT	
SUBMITTED BY: Zachary McAvoy	SURVEYED BY: MJO
APPROVED BY: NAE Survey	CHECKED BY: ZSM
MAP DOCUMENT MA_01_NEB_20220304_CS_026	ISSUE DATE: 3/24/2022
SHEET ANS/D	

**NEWBURYPORT HARBOR
 MASSACHUSETTS
 CONDITION SURVEY
 15 AND 9-FOOT CHANNELS**
 File Name: MA_01_NEB_20220304_CS_026

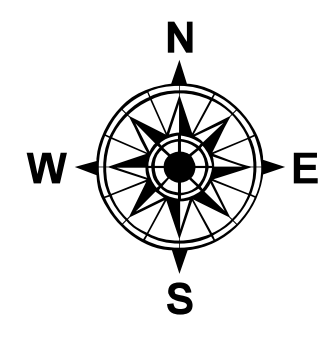
SHEET IDENTIFICATION
 Newburyport Harbor
 Sheet 1 of 5

LEGEND

--- Federal Navigation Channel	✱ Fixed Navigation Aids
..... Cable or Pipe Areas	🚩 Red Navigation Buoy
- - - Channel Center Line	🚩 Green Navigation Buoy
— Contour Line	🔴 Shoaling Area
⊗ Obstruction Point	🟡 Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE
 1" = 200'
 0 200 400 Feet



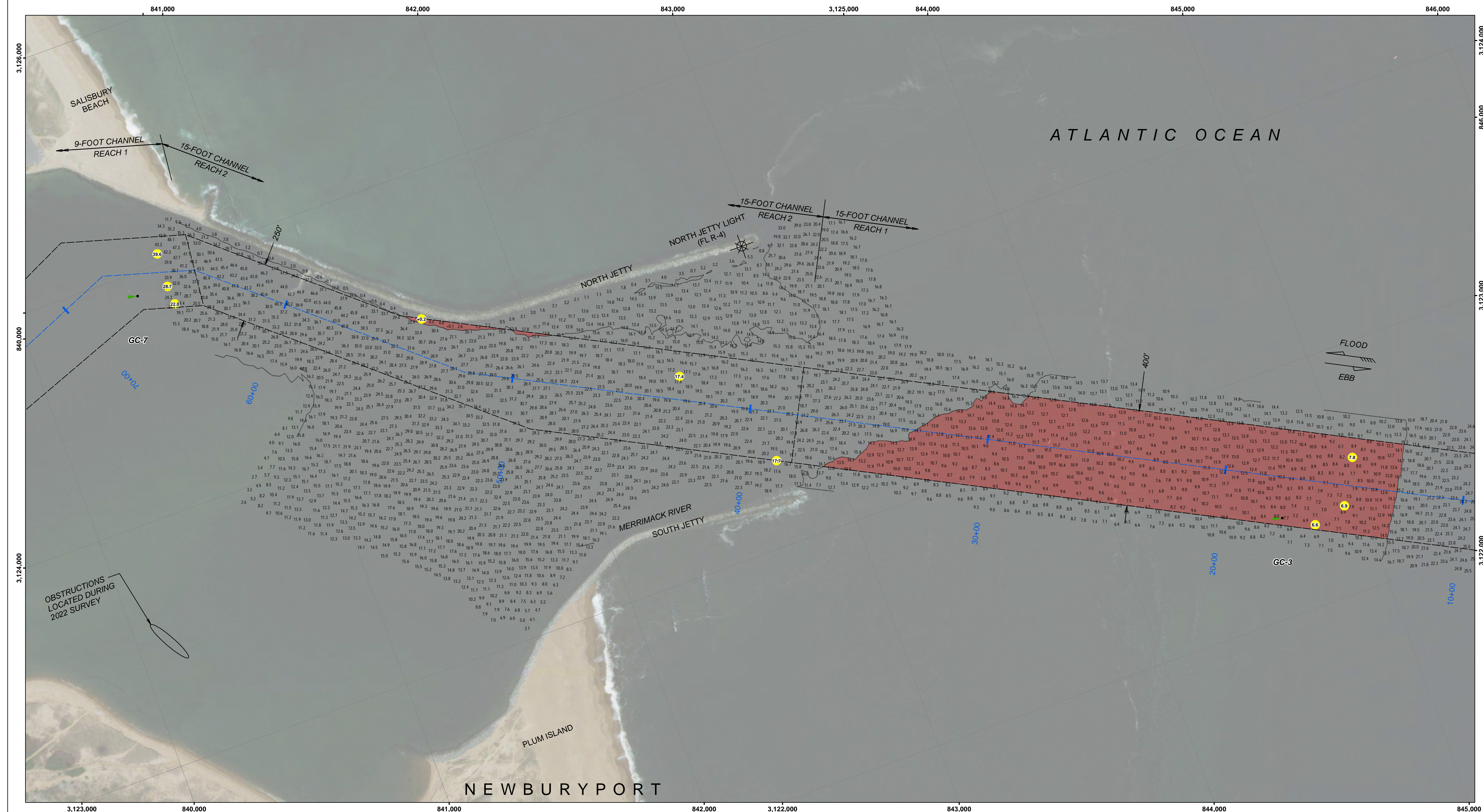
Notes:
 Horizontal Datum: Mass Mainland, MA-2001 NAD 83
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: POPHAM BEACH
 Sonar System: Reson TS0 (Multibeam Sonar)
 Sounding Frequency: 300 kHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: RAMP 2009
 Software Used: Hypack
 Sounding Sort Distance: 40'
 Field Books: R&H 4549
 Survey No.: MA_01_NEB_20220304_CS_026
 Reference NOAA Chart No.: 13274

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during February and March 2022. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagey is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
 Marine infrastructure and adjacent beach surveyed with Lidar. Topographic Lidar data included with sounding data. Specifications Survey

The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

Water Level Information
 Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 4.45 to 5.28 feet. These corrections are referenced from NOAA's V-Datum Model V-Datum Model Version 4.1, ME/NH/MA Region Version 2.3, in the vicinity of Newburyport Harbor, Newburyport, Massachusetts, NAVD88 is above MLLW; therefore the correction should be added to NAVD88 to convert to MLLW. No tide gauges were used on this project.



US Army Corps of Engineers
District: CENAE

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SURVEYED BY: MJO	CHECKED BY: ZSM	ISSUE DATE: 3/24/2022
APPROVED BY: NAE Survey	MAP DOCUMENT: MA_01_NEB_20220304_CS_026	
SIZE: ANSI D		

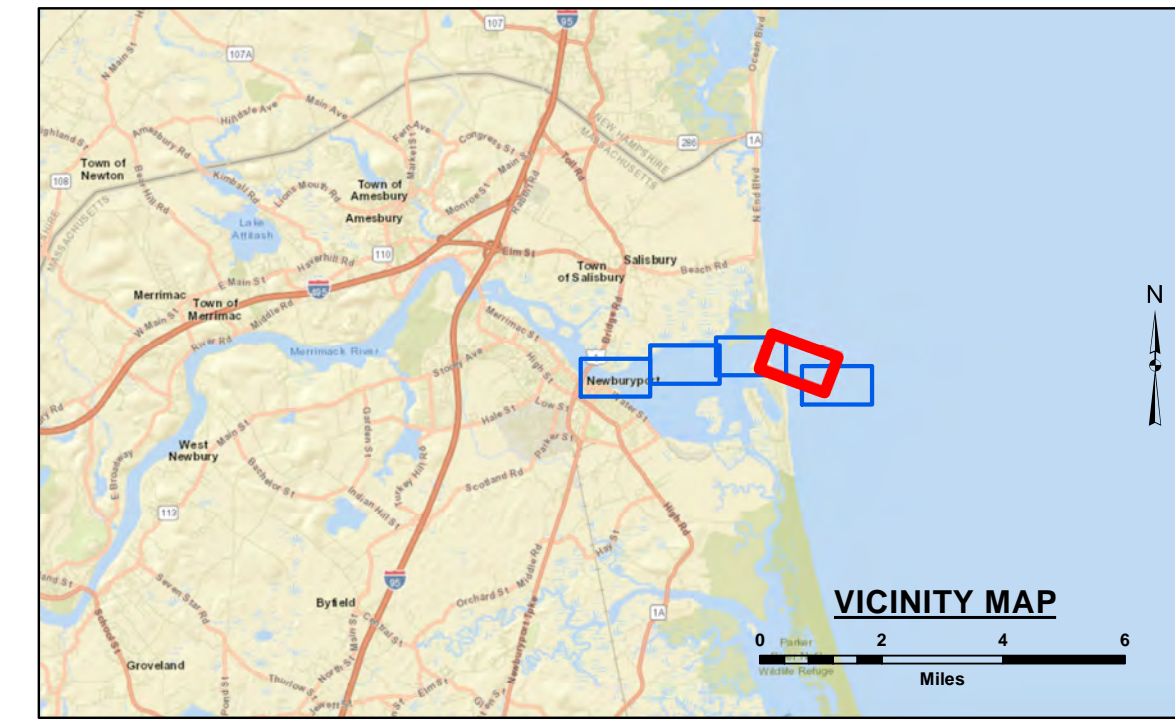
NEWBURYPORT HARBOR AND SALISBURY MASSACHUSETTS
CONDITION SURVEY

15 AND 9-FOOT CHANNELS

File Name: MA_01_NEB_20220304_CS_026

SHEET IDENTIFICATION
Newburyport Harbor

Sheet 2 of 5



LEGEND

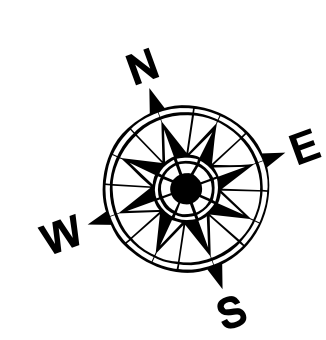
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