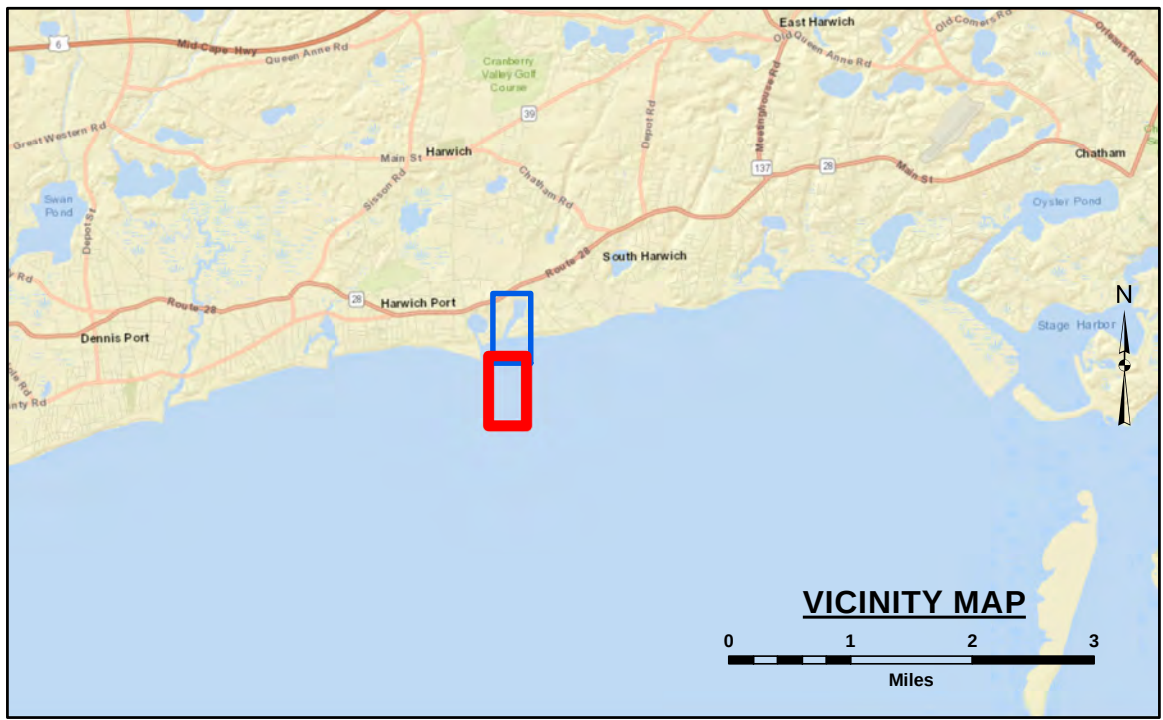




LEGEND

Federal Navigation Channel

Channel Center Line

.....

Cable/Pipeline Area

—

Contour Line

—

Marine Infrastructure *

✱

Fixed Navigation Aids

📍

Red Navigation Buoy

📍

Green Navigation Buoy

📍

Junction Buoy

📍

Shoaling Area

📍

Shoalest Sounding**

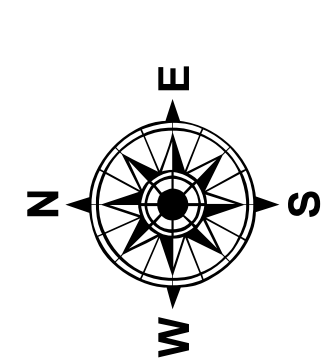
GRAPHIC SCALE

1" = 100'

100 0 100 200 Feet

Notes:

** Shoalest Sounding per Quarter per Reach
* Present at Time of Hydrographic Survey



Notes:
Horizontal Datum: Mass Mainland, MA-2001
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: POPHAM BEACH
Sonar System: ODOM MK 3 (Singlebeam Sonar)
Sounding Frequency: 200 kHz
Survey Method: RTK GPS TIDES
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 20'
Field Books: R&H 4500
Survey No.: MA_47_AND_20200206_CS_015
Reference NOAA Chart No.: 13229

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.

General Notes
The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during February 2020. 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. Orthoimagery 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 within federal navigation project limits surveyed by topographic methods.

Water Level Information
Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.58 feet to 2.59 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the Vicinity of Andrews River, Harwich Port & Sagittuck Harbor, 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

ANDREWS RIVER
HARWICH, MASSACHUSETTS
CONDITION SURVEY

6-FOOT CHANNEL AND ANCHORAGE

SHEET IDENTIFICATION
Andrews River

Sheet 1 of 2

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT

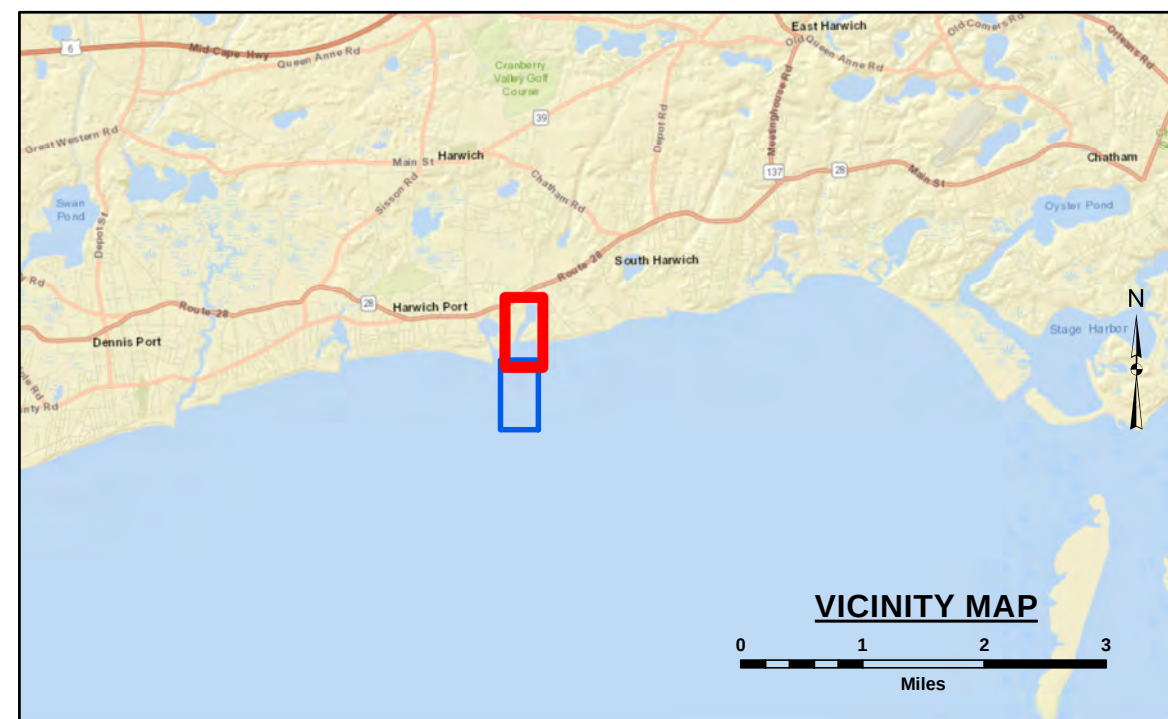
SUBMITTED BY: Zachary McAvoy	SURVEYED BY: BJF
APPROVED BY: NAE Survey	CHECKED BY: ZSM
SIZE: ANSI D	ISSUE DATE: 2/13/2020

MAP DOCUMENT
MA_47_AND_20200206_CS_015

File Name: MA_47_AND_20200206_CS_015

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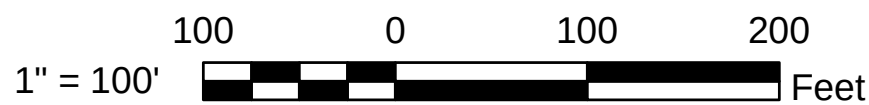


- Federal Navigation Channel
- Channel Center Line
- Cable/Pipeline Area
- Contour Line
- Marine Infrastructure *



-  Fixed Navigation Aids
-  Red Navigation Buoy
-  Green Navigation Buoy
-  Junction Buoy
-  Shoaling Area
-  Shoalest Sounding*

** Shoalest Sounding per Quarter per Reach
* Present at Time of Hydrographic Survey



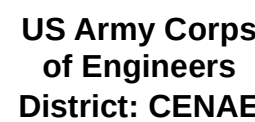
Horizontal Datum: Mass Mainland, MA-2001
Distance Units: U.S. Survey Feet
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Sonar System: ODOM MK 3 (Singlebeam Sonar)
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GPS_System: Trimble GPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
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Marine infrastructure within federal navigation project limits surveyed by topographic methods.

Tides were recorded using RTK GPS. The MLLW to NAVD88 corrections for this project range from 2.58 feet to 2.59 feet. These corrections are referenced from NOAA's V-Datum Model Version 3.9, ME/NH/MA region Version 1.3, in the Vicinity of Andrews River, Harwich Port & Saquatucket Harbor, 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.



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U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT		SUBMITTED BY: Zachary McAvoy	SUPERVISED BY: JRM
		APPROVED BY: NAE Survey	CHECKED BY: ZSM
SIZE: ANSI D	MAP DOCUMENT: MA_47_AND_202002026_CS_015	ISSUE DATE: 2/13/2020	

ANDREWS RIVER
WICH, MASSACHUSETTS
CONDITION SURVEY

File Name: MA 47 AND 20200206 CS 015

**SHEET
IDENTIFICATION**
Andrews River

Sheet 2 of 2