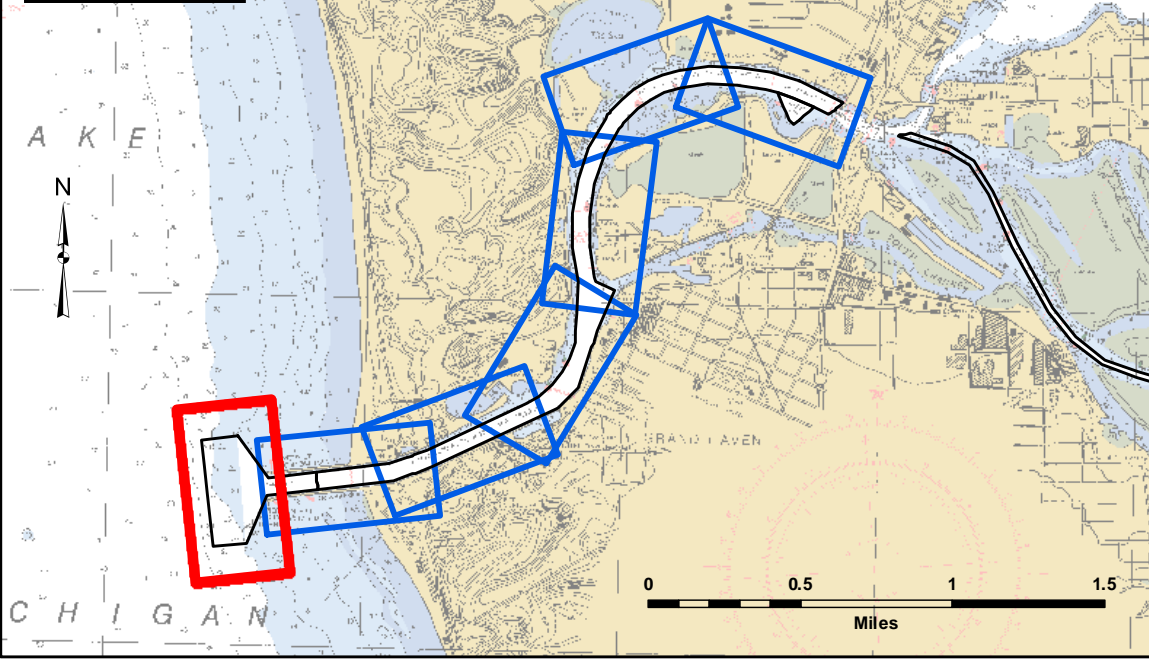


SHEET INDEX



VICINITY MAP

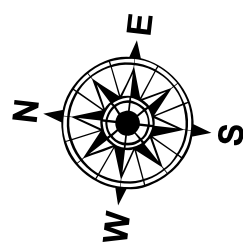


LEGEND

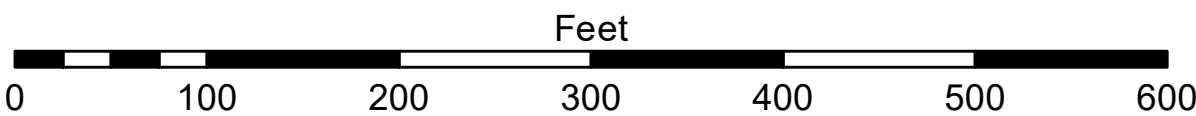
- ..... Cable Submarine
- - Cable Overhead
- Placement Area
- ⊥ Beacon, General
- Contour Lines
- ▭ Channel\_Limits

SOUNDING LEGEND

- LESS THAN PROJECT DEPTH
- PROJECT DEPTH
- PROJECT DEPTH +1'
- PROJECT DEPTH +2'
- PROJECT DEPTH +3'
- PROJECT DEPTH +4'
- PROJECT DEPTH +5'



1 inch = 100 feet



NOTES: THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. FOOT.

ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.3 FT. APPLIED

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAGE MARK ALONG THE SHEET STEEL WALL IN THE GRAND HAVEN GOVERNMENT BASIN.

PROJECT DEPTHS FOR THIS HARBOR RANGE FROM 18.0' TO 23.0'

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



DISCLAIMER: The data represented by the results of data collection is for informational purposes only. The U.S. Army Corps of Engineers actively and continuously monitors the general existing conditions of the project area. The user is responsible for the results of any of the application of the data for other than its intended purpose.

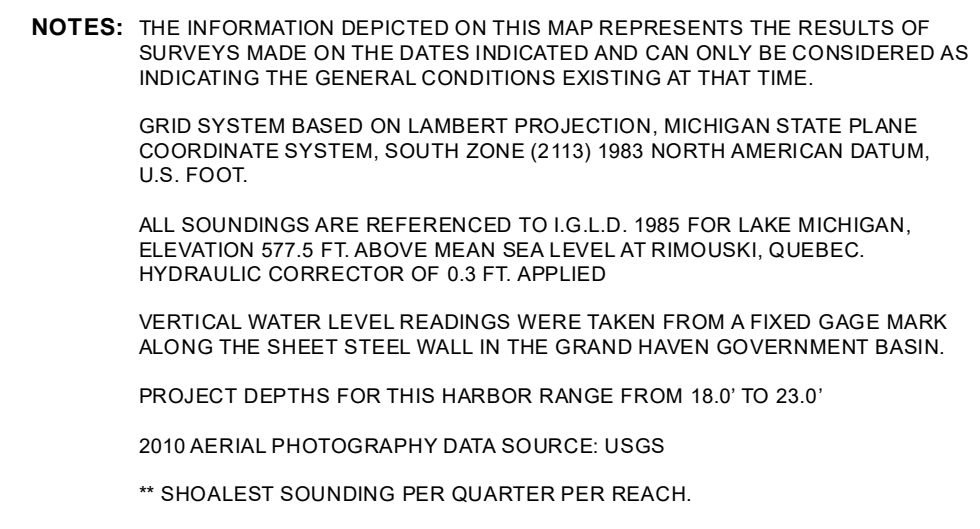
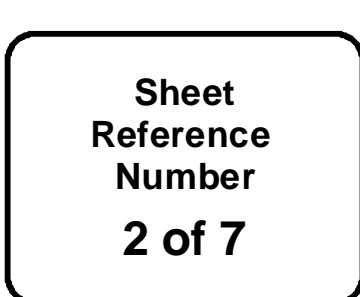
ACCESS: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were originally collected, expressed, or implied concerning the accuracy, completeness, readability, usability or suitability for any particular purpose of the recipient. The data are not to be used for any purpose other than that for which they were originally collected, expressed, or implied concerning the accuracy, completeness, readability, usability or suitability for any particular purpose of the recipient. These data belong to the Government. No part of these data may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as may be permitted in writing by the Government. The recipient may not transfer these data to others without obtaining the permission of the Government.

U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT		
Submitted:	Surveyed By:	
Recommended:	Plotted By:	
Approved:	Checked By:	

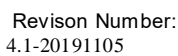
Grand Haven, MI  
Grand Haven Harbor  
GR\_01\_HVN\_20200528\_AD  
28 May 2020

Sheet  
Reference  
Number  
1 of 7

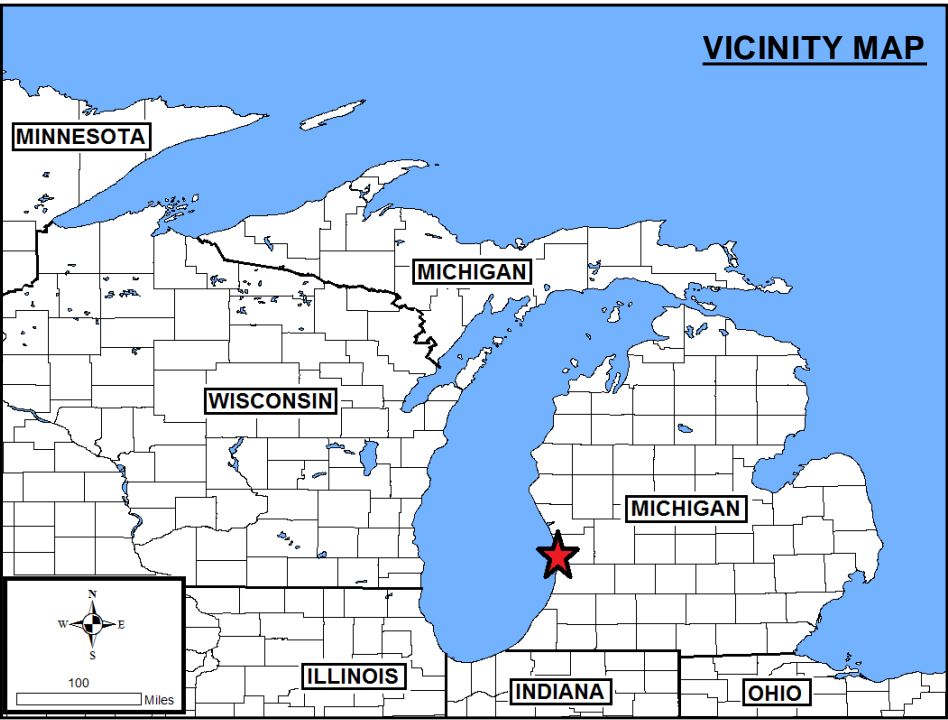
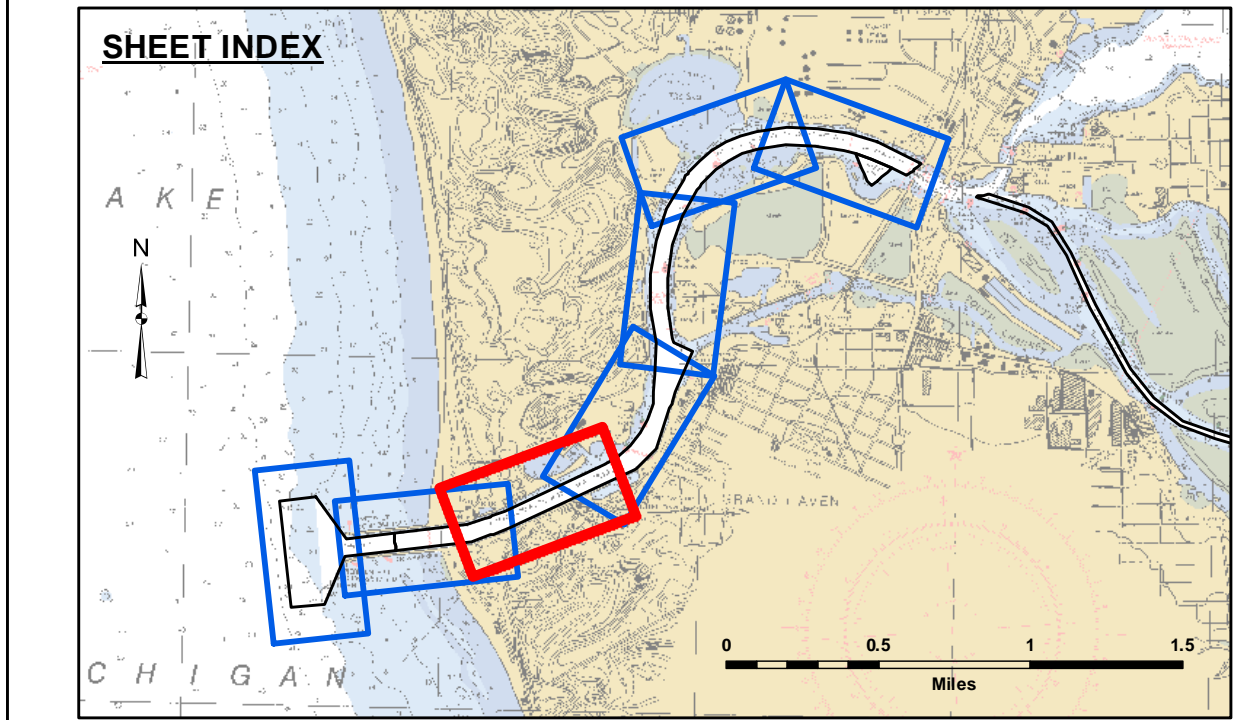
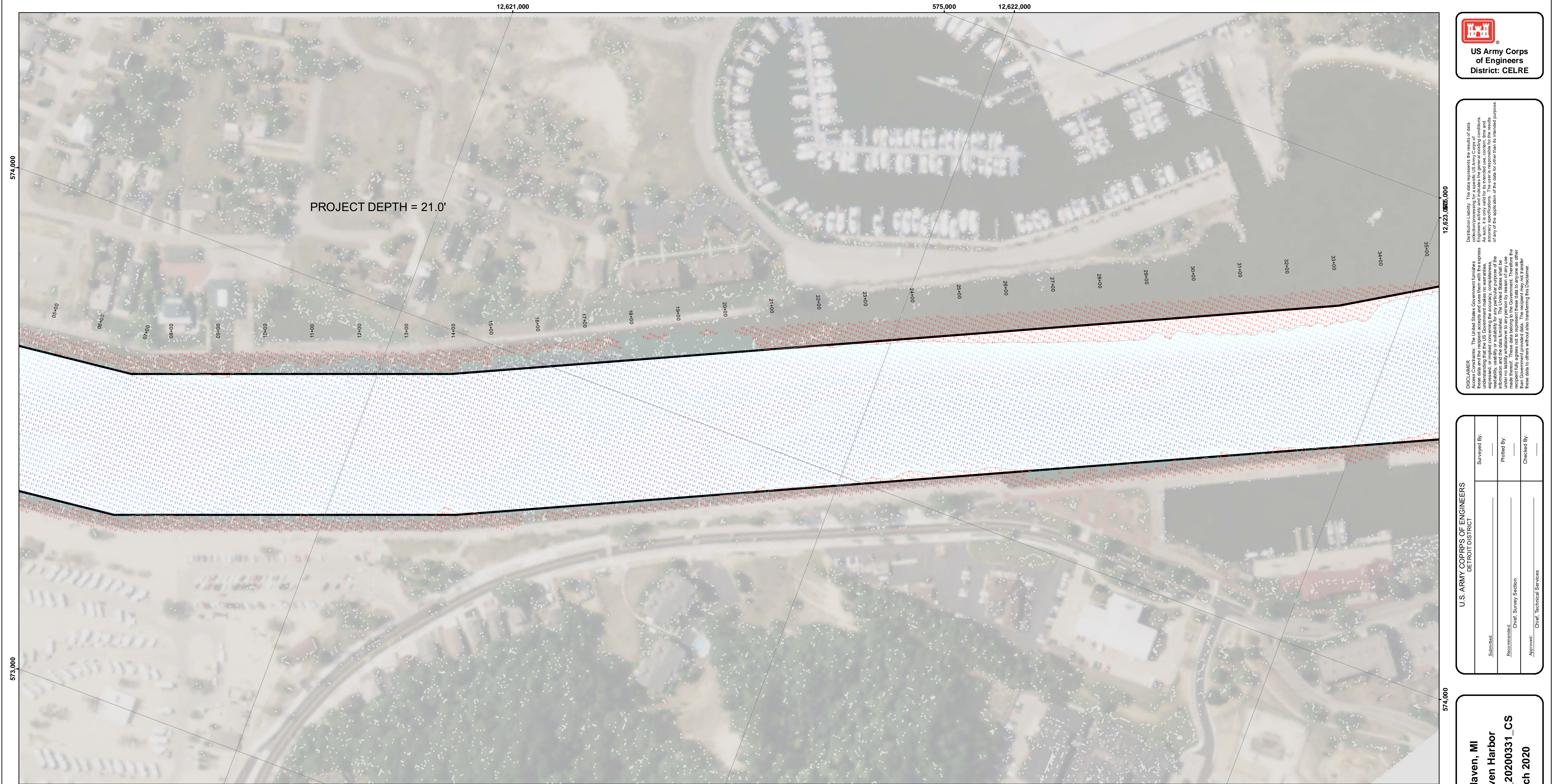




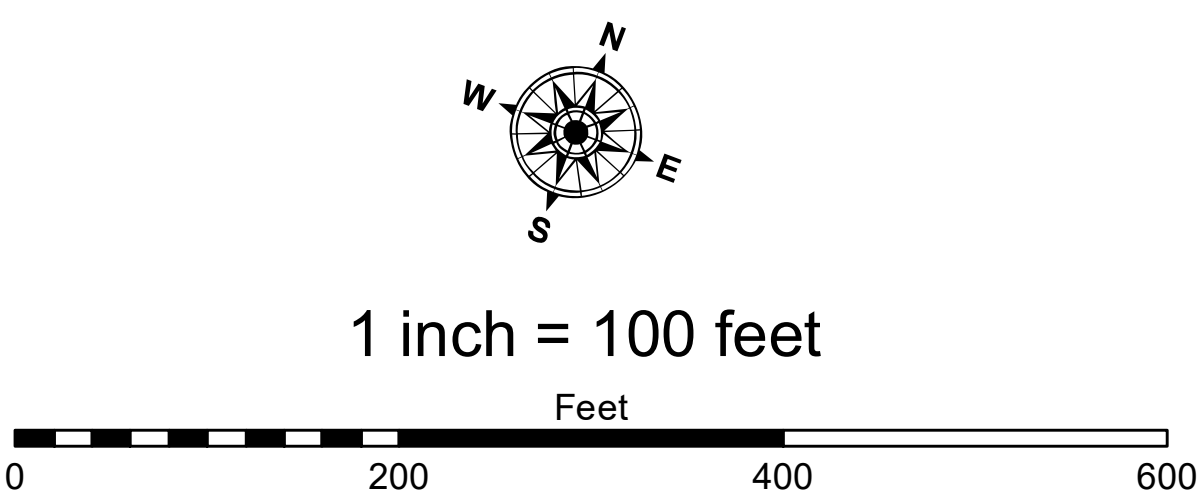








- LEGEND**
- Federal Navigation Channel
  - Federal Navigation Center Line
  - ..... Cable Submarine
  - - Cable Overhead
  - Contour Line
  - Placement Area
  - Shoaling Area
  - Shoalest Sounding\*\*
  - ⚓ Beacon, General
  - ◆ Red Navigation Buoy
  - ◇ Green Navigation Buoy



DISCLAIMER: The data represented by the results of data collection is provided for informational purposes only. The Corps of Engineers does not warrant the accuracy, completeness, or reliability of the data for any purpose other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

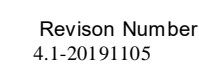
DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were provided. The recipient may not transfer these data to others without also transferring this Disclaimer.

U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT		
Submitted:	Surveyed By:	
Recommended:	Plotted By:	
Approved:	Chief, Survey Section	
	Chief, Technical Services	

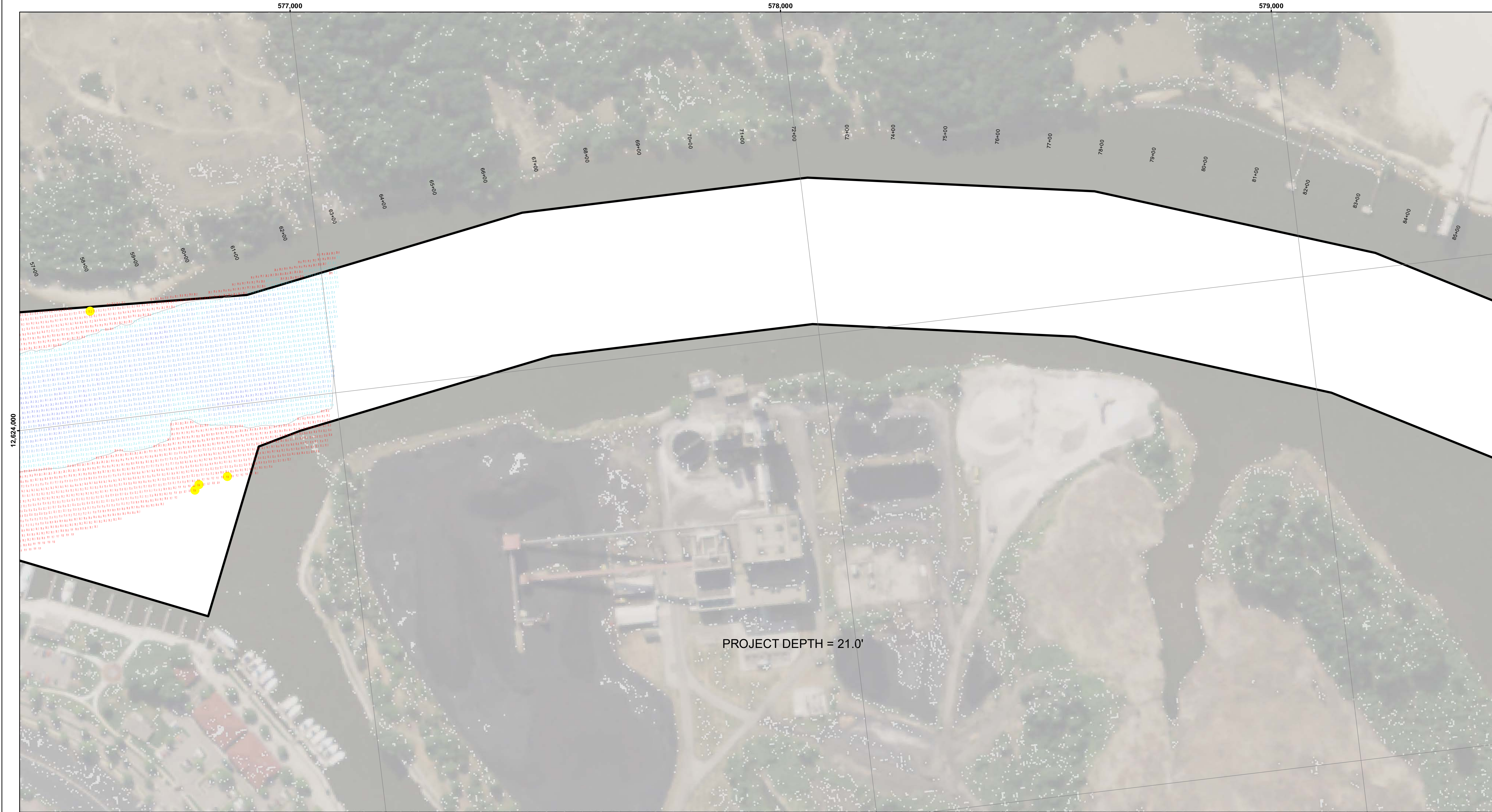
**Grand Haven, MI**  
**Grand Haven Harbor**  
**GR\_01\_HVN\_20200331\_CS**  
**31 March 2020**

**Sheet Reference Number**  
**3 of 7**

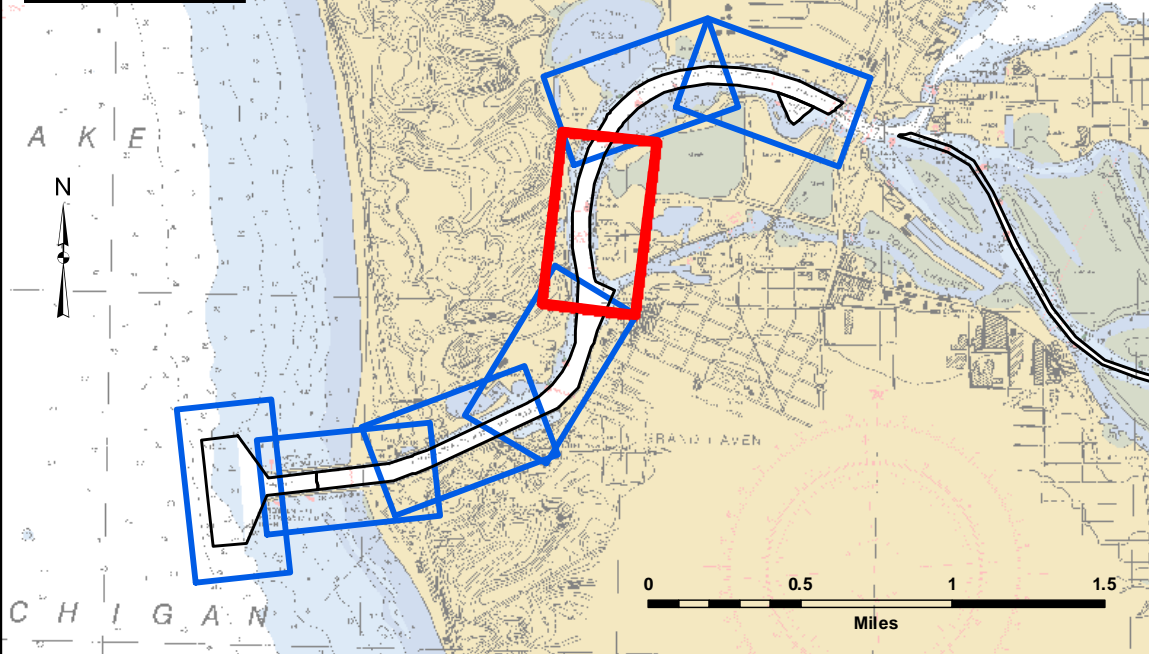








SHEET INDEX

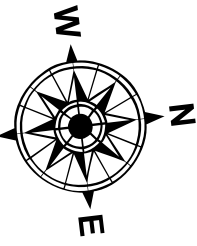


VICINITY MAP

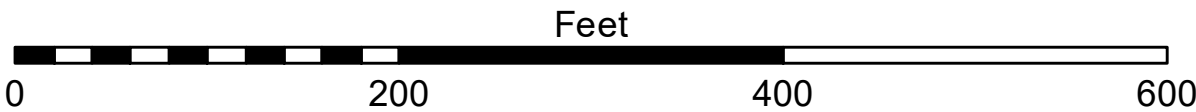


LEGEND

- |                                |                       |
|--------------------------------|-----------------------|
| Federal Navigation Channel     | Shoaling Area         |
| Federal Navigation Center Line | Shoalest Sounding**   |
| Cable Submarine                | Beacon, General       |
| Cable Overhead                 | Red Navigation Buoy   |
| Contour Line                   | Green Navigation Buoy |
| Placement Area                 |                       |



1 inch = 100 feet



**NOTES:** THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. FOOT.

ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.3 FT. APPLIED

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAGE MARK ALONG THE SHEET STEEL WALL IN THE GRAND HAVEN GOVERNMENT BASIN.

PROJECT DEPTHS FOR THIS HARBOR RANGE FROM 18.0' TO 23.0'

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

\*\* SHOALEST SOUNDING PER QUARTER PER REACH.



**DISCLAIMER:** The data represented by the results of data collection, processing, or analysis for a specific US Army Corps of Engineers activity and indicates the general existing conditions. The data is not intended to be used for any purpose other than the intended purpose of the activity. The user is responsible for the results of any of the application of the data for other than its intended purpose.

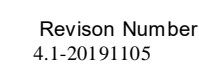
**ACCESS CONSTRAINTS:** The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than the intended purpose of the activity. The data are not to be used for any purpose other than the intended purpose of the activity. The user is responsible for the results of any of the application of the data for other than its intended purpose.

U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT	
Submitted:	Surveyed By:
Recommended:	Plotted By:
Approved:	Checked By:

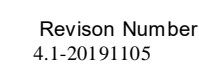
**Grand Haven, MI**  
**Grand Haven Harbor**  
**GR\_01\_HVN\_20200331\_CS**  
**31 March 2020**

**Sheet**  
**Reference**  
**Number**  
**5 of 7**

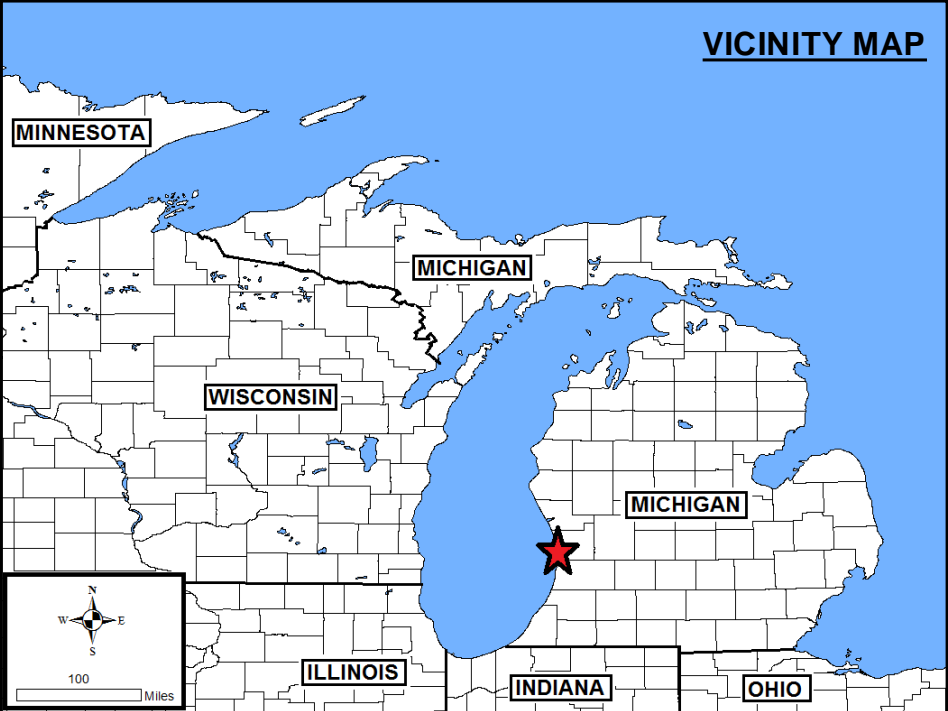
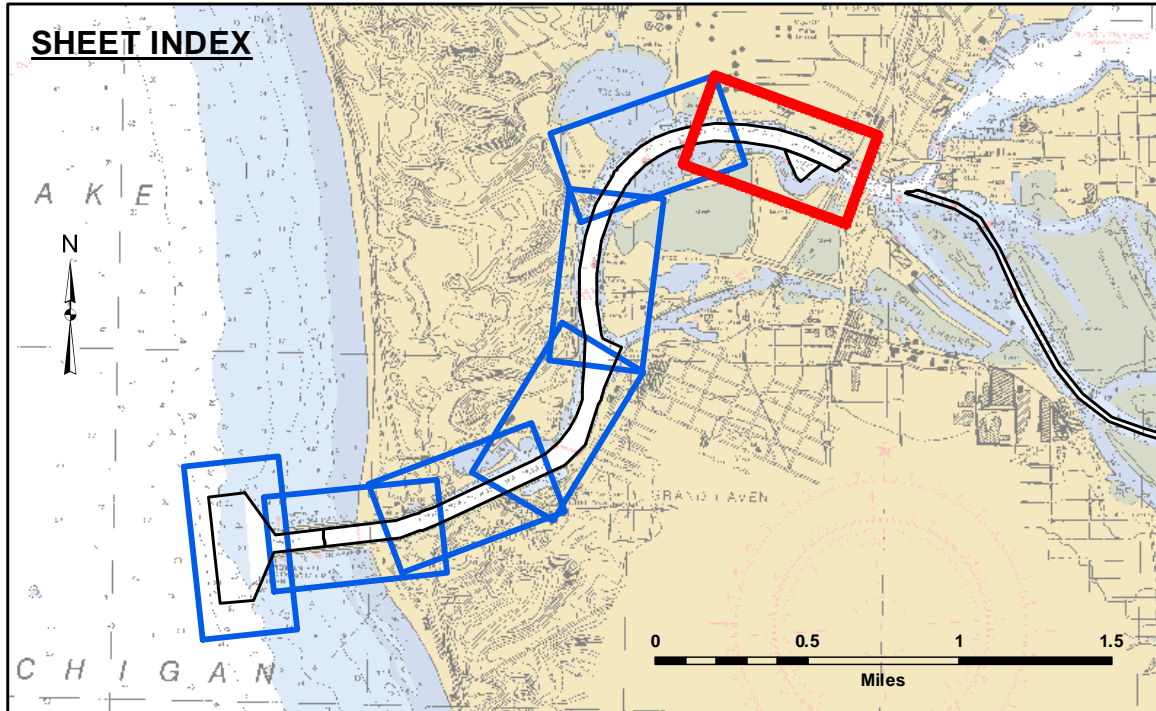
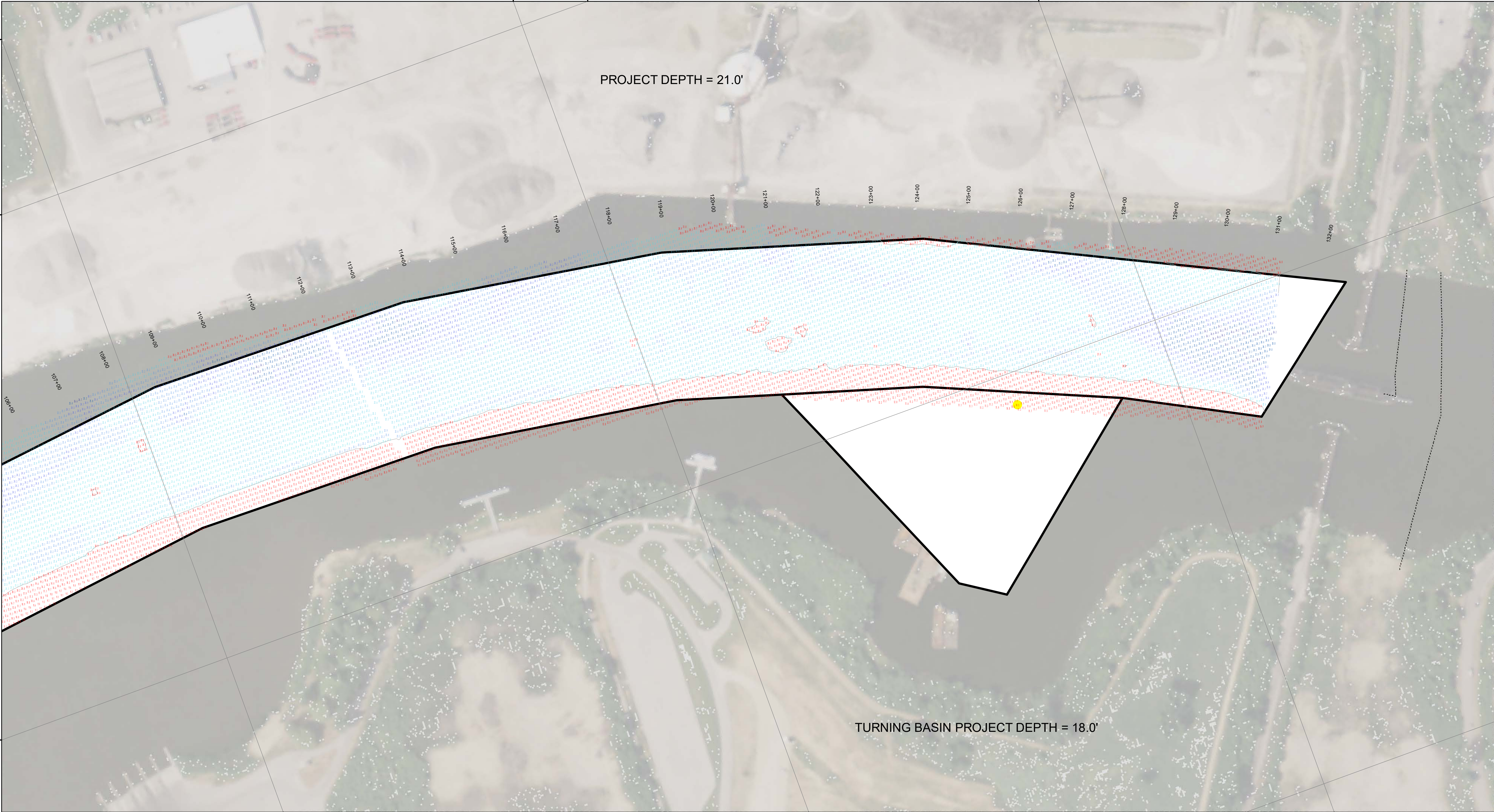




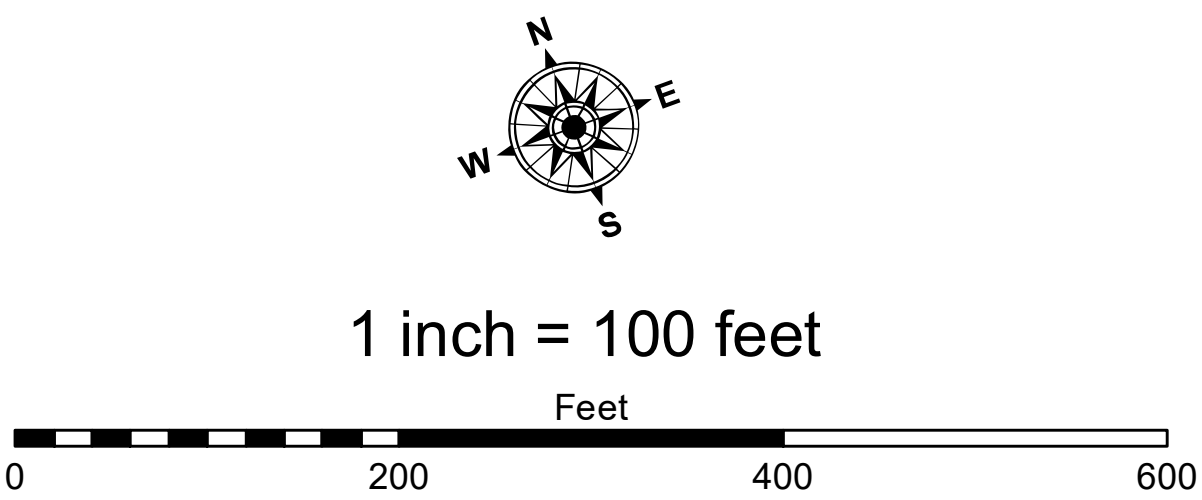








LEGEND	
	Federal Navigation Channel
	Federal Navigation Center Line
	Cable Submarine
	Cable Overhead
	Contour Line
	Placement Area
	Shoaling Area
	Shoalest Sounding**
	Beacon, General
	Red Navigation Buoy
	Green Navigation Buoy



NOTES: THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. FOOT.

ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.3 FT. APPLIED.

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAGE MARK ALONG THE SHEET STEEL WALL IN THE GRAND HAVEN GOVERNMENT BASIN.

PROJECT DEPTHS FOR THIS HARBOR RANGE FROM 18.0' TO 23.0'

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

\*\* SHOALEST SOUNDING PER QUARTER PER REACH.



DISCLAIMER: The data represented on this map is the result of data collected by the U.S. Army Corps of Engineers for a specific purpose. The U.S. Army Corps of Engineers does not warrant the accuracy, completeness, or reliability of the data for any purpose other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were provided. The recipient may not transfer these data to others without also transferring this Disclaimer.

U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT		
Submitted:	Surveyed By:	
Recommended:	Plotted By:	
Approved:	Chief, Survey Section	
	Chief, Technical Services	

Grand Haven, MI  
Grand Haven Harbor  
GR\_01\_HVN\_20200401\_CS  
01 April 2020

Sheet  
Reference  
Number  
7 of 7