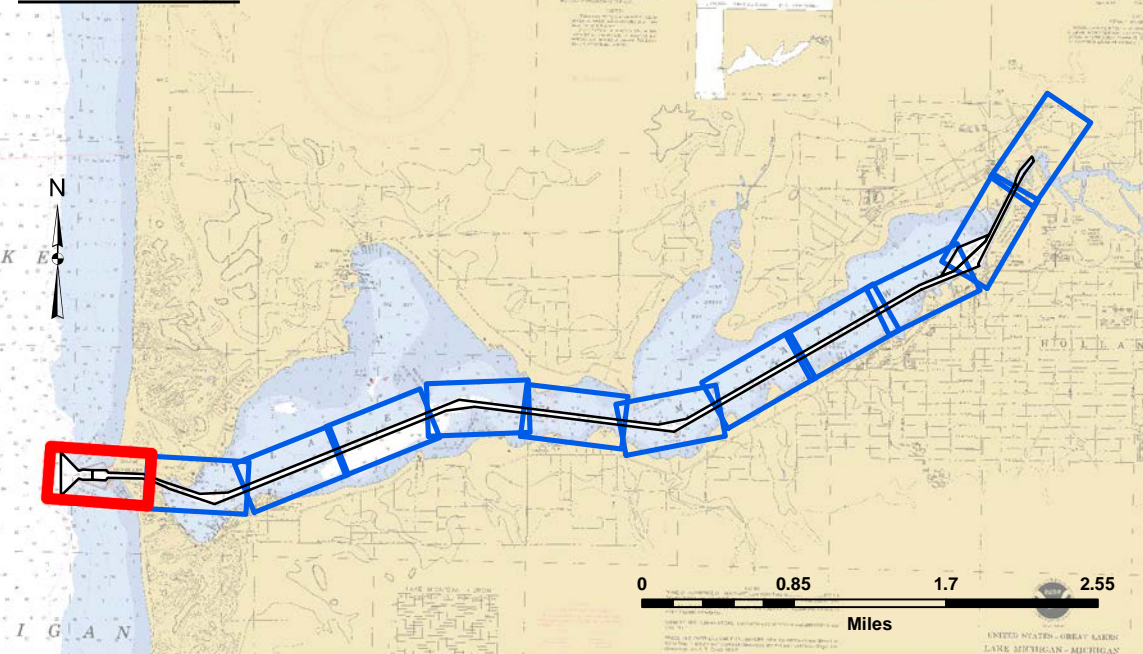
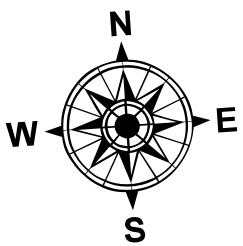


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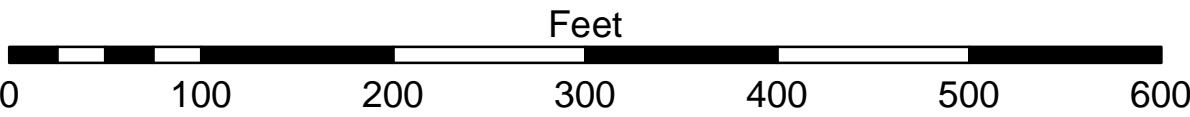


LEGEND	
.....	Cable Submarine
- - -	Cable Overhead
□	Placement Area
⊥	Beacon, General
—	Contour Lines
□	Channel Limits

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:
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  5. PROJECT DEPTH = 23.0-21.0 FEET
  6. POSITIONING: APPLANIX POS MV  
CORRECTIONS: OMNISTAR GNSS G2  
SONAR: ODOM CV 3 SINGLE BEAM ECHOSOUNDER  
SOFTWARE: HYPACK 2020  
VESSEL: LAUNCH 3058
  - 2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS
  - \*\* SHOALEST SOUNDING PER QUARTER PER REACH.

HOLLAND HARBOR, MI  
Holland Harbor  
HO\_01\_LND\_20221108\_CS  
08 November 2022

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Reference  
Number  
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Revision Number:  
4.2-2020M20

U.S. ARMY CORPS OF ENGINEERS

DETROIT DISTRICT

Submitted:

Surveyed By:

Recommended:

Plotted By:

Approved:

Checked By:

Chief, Survey Section

Chief, Technical Services

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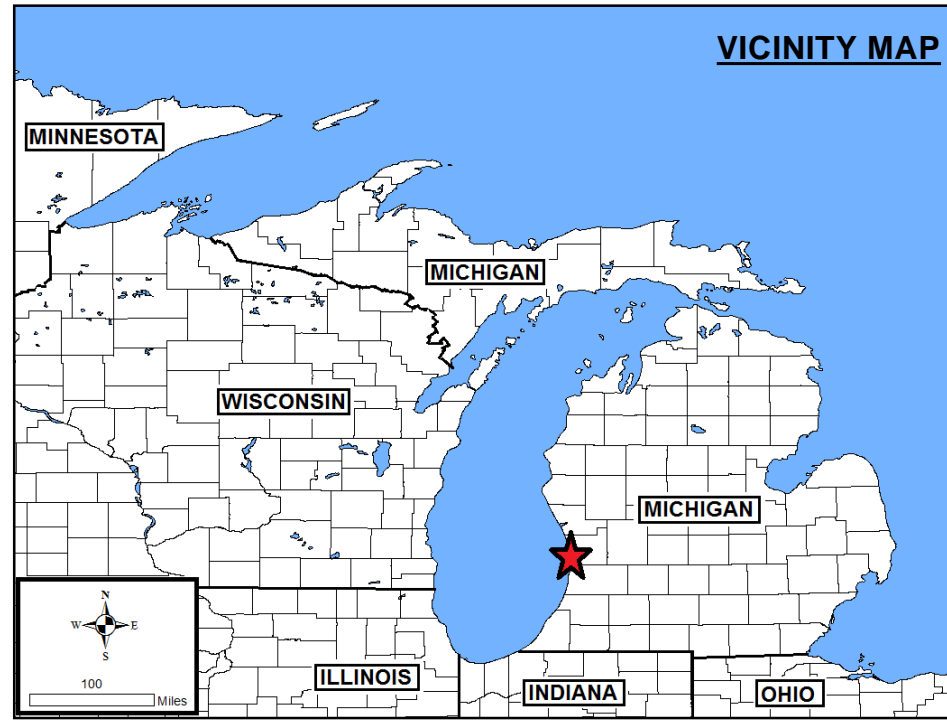
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U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT	
Submitted: _____	Surveyed By: _____
Recommended: _____	Plotted By: _____
Approved: _____	Checked By: _____
	Chief, Technical Services

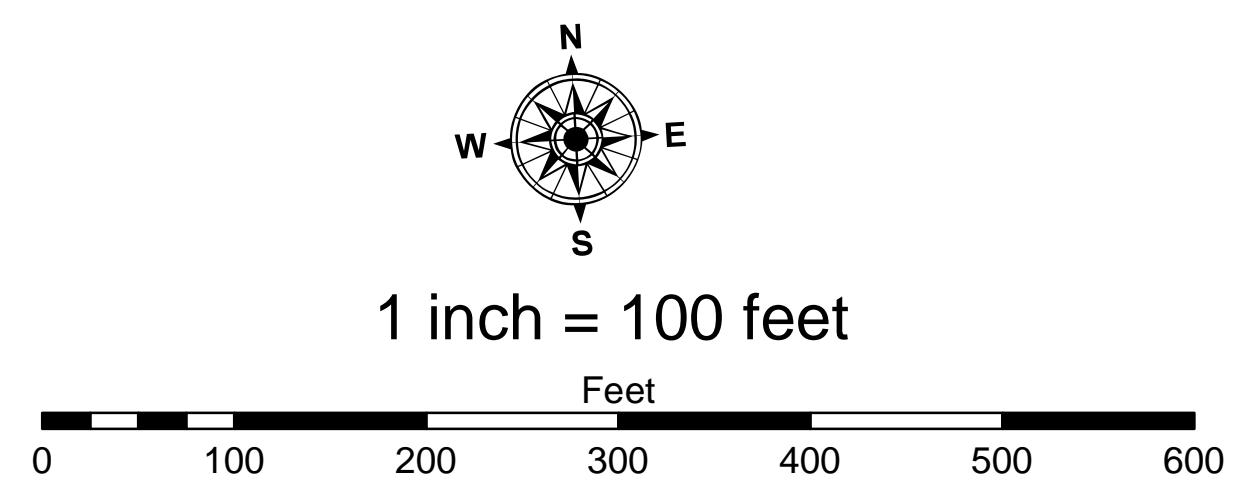
**HOLLAND HARBOR, MI**  
**Holland Harbor**  
**HO\_01\_LND\_20221108\_CS**  
**08 November 2022**

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4.2-20200420



- SOUNDING LEGEND**
- |   |                         |
|---|-------------------------|
|  | LESS THAN PROJECT DEPTH |
|  | PROJECT DEPTH           |
|  | PROJECT DEPTH +1'       |
|  | PROJECT DEPTH +2'       |
|  | PROJECT DEPTH +3'       |
|  | PROJECT DEPTH +4'       |
|  | PROJECT DEPTH +5'       |



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3. ALL SOUNDINGS ARE REFERENCED TO A LOW I.O.L.D. FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.

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5. PROJECT DEPTH = 23.0-21.0 FEET

6. POSITIONING: APPLANIX POS M/V  
CORRECTIONS: OMNISTAR GNSS G2  
SONAR: ODOM CV-5 SINGLE BEAM ECHOSOUNDER  
SOFTWARE: HYPACK 2020  
VESSEL: LAUNCH 3058

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

\*\* SHOALEST SOUNDING PER QUARTER PER REACH.



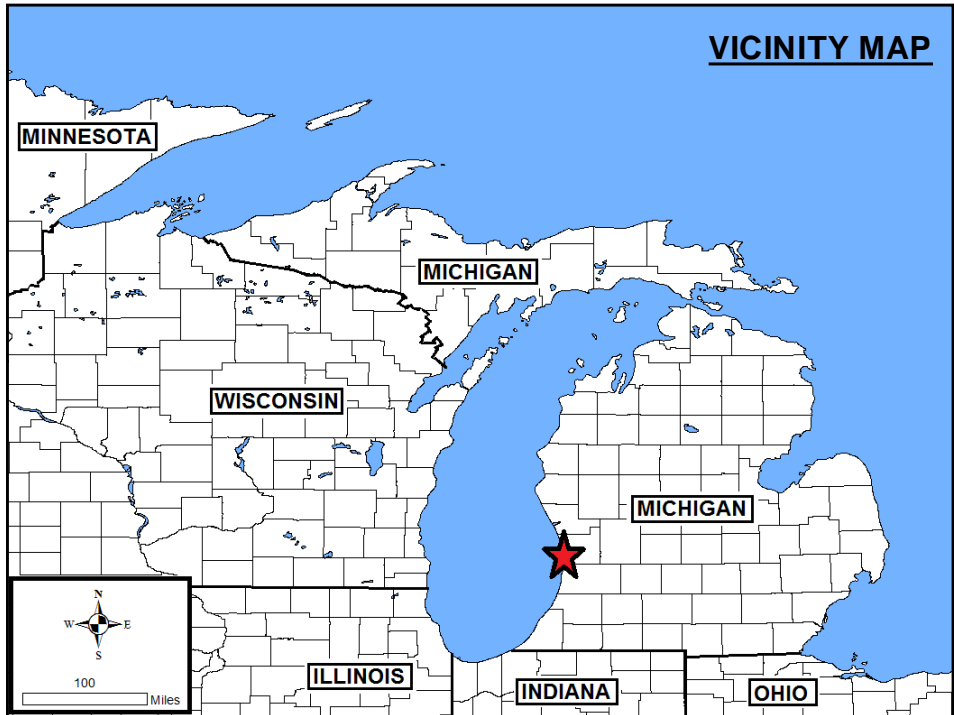
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U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT	
Submitted: _____	Surveyed By: _____
Recommended: _____ Chief, Survey Section	Plotted By: _____
Approved: _____ Chief, Technical Services	Checked By: _____








HOLLAND HARBOR, MI  
Holland Harbor  
HO\_01\_LND\_20220412\_CS  
12 April 2022

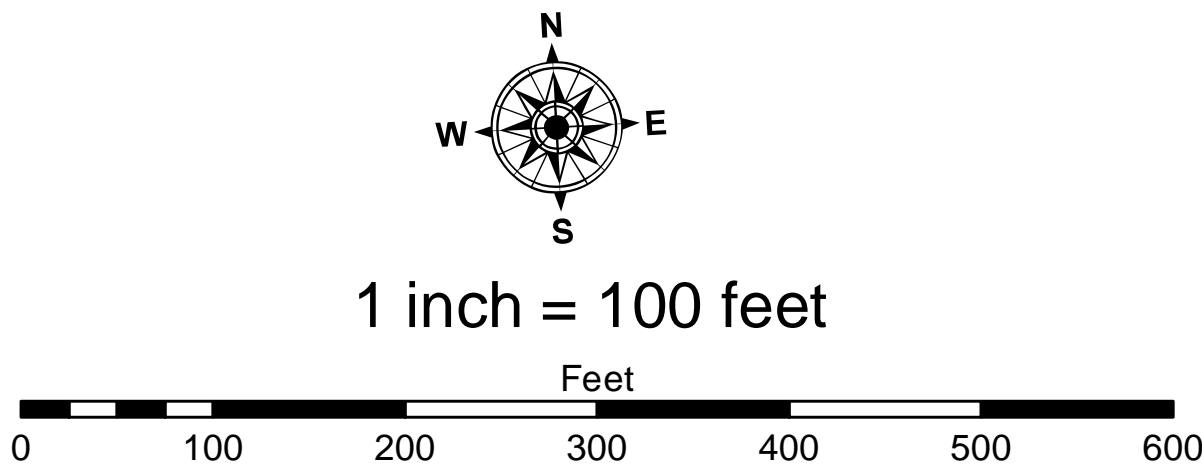
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Revision Number:  
4.2-20200420



- 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'       |

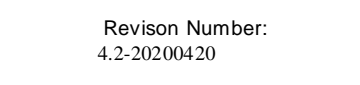


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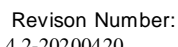
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5. PROJECT DEPTH = 23-21.01 FEET
6. POSITIONING: APPLINAX POS M/V  
CORRECTIONS: OMNISTAR CHRS 2  
SONAR: ZSONIC 2024 MULTIBeam  
SOFTWARE: HYPACK 2020  
VESSEL: LAUNCH 3058

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

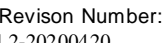




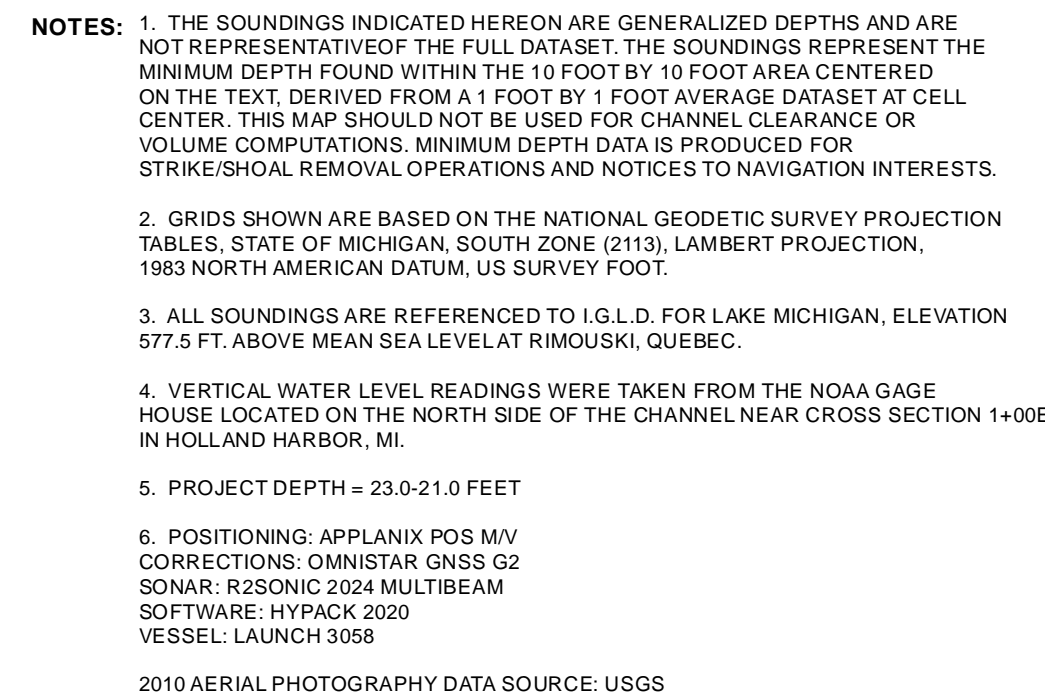
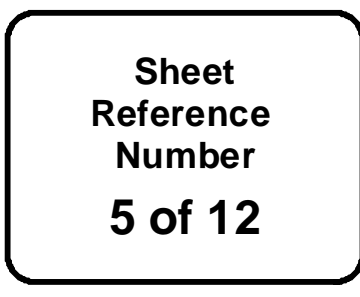




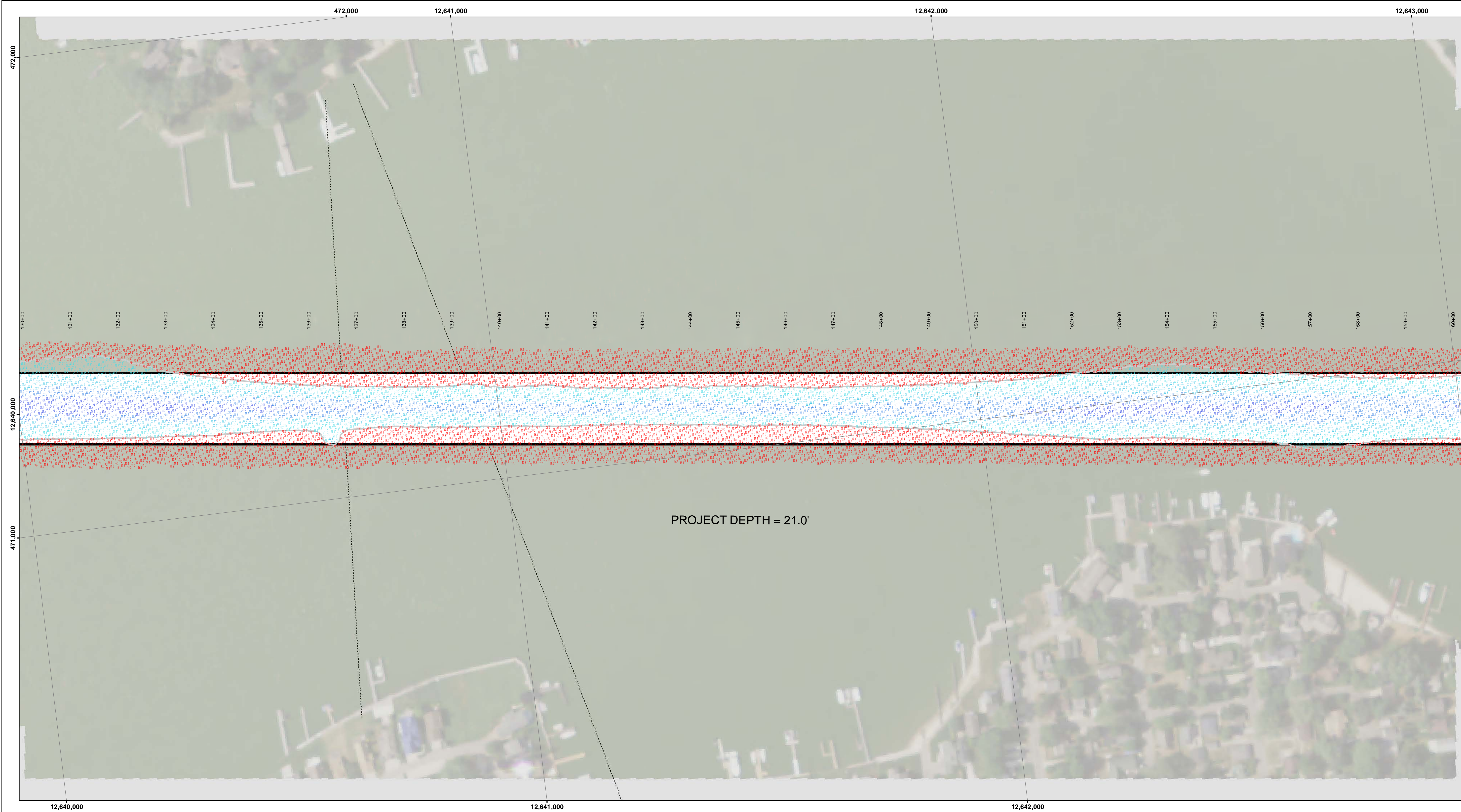




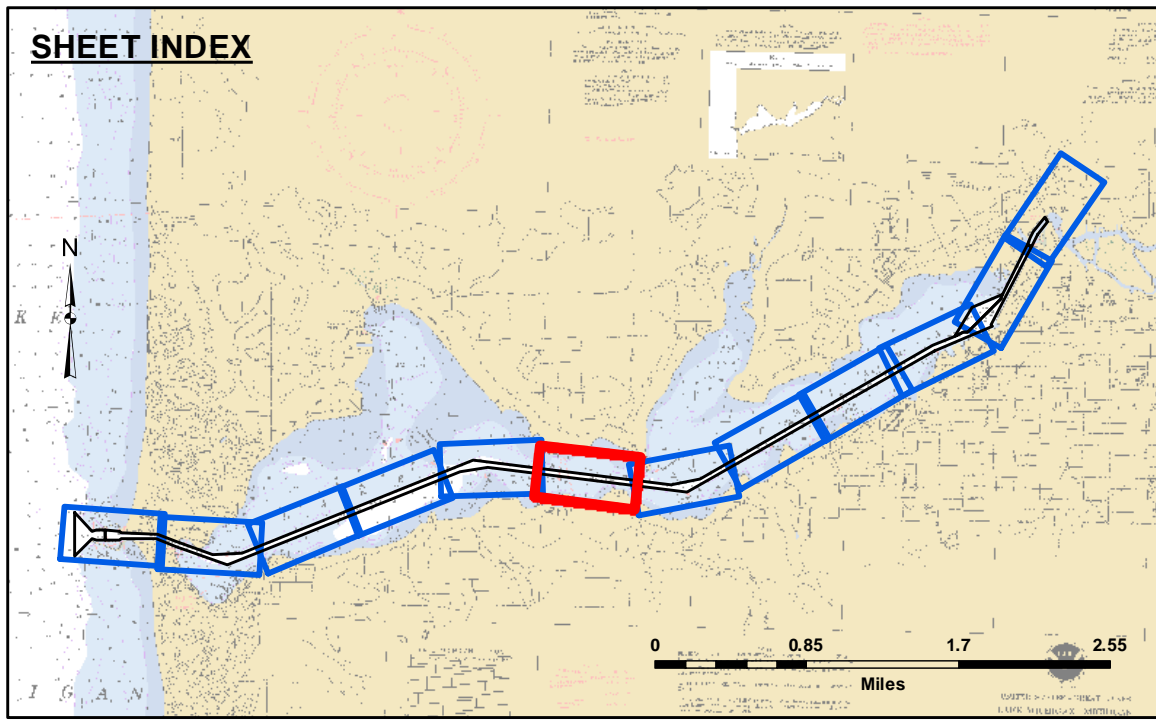




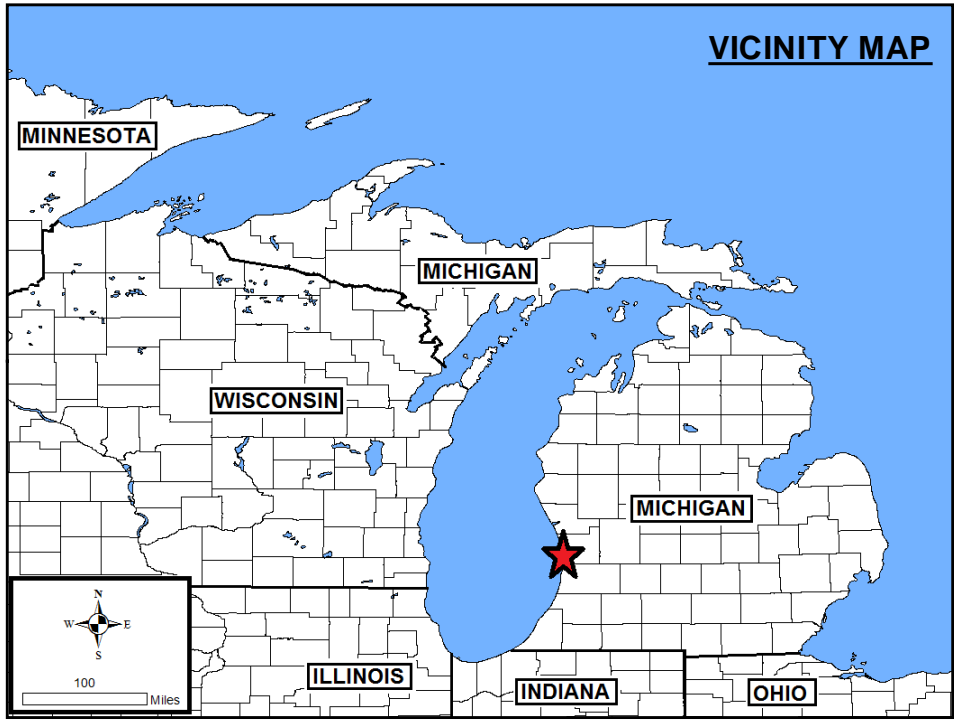




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VICINITY MAP

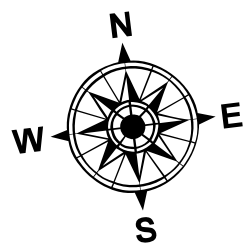


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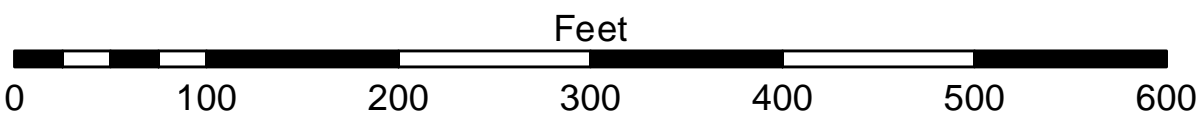
- ..... Cable Submarine
- Cable Overhead
- Placement Area
- ⊥ Beacon, General
- Contour Lines
- ▭ Channel Limits

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



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  5. PROJECT DEPTH = 23.0-21.0 FEET
  6. POSITIONING: APPLANIX POS M/V  
CORRECTIONS: OMNISTAR GNSS G2  
SONAR: R2SONIC 2024 MULTIBEAM  
SOFTWARE: HYPACK 2020  
VESSEL: LAUNCH 3058
- 2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

HOLLAND HARBOR, MI  
Holland Harbor  
HO\_01\_LND\_20220714\_CS  
14 July 2022

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4.2-2022/04/20

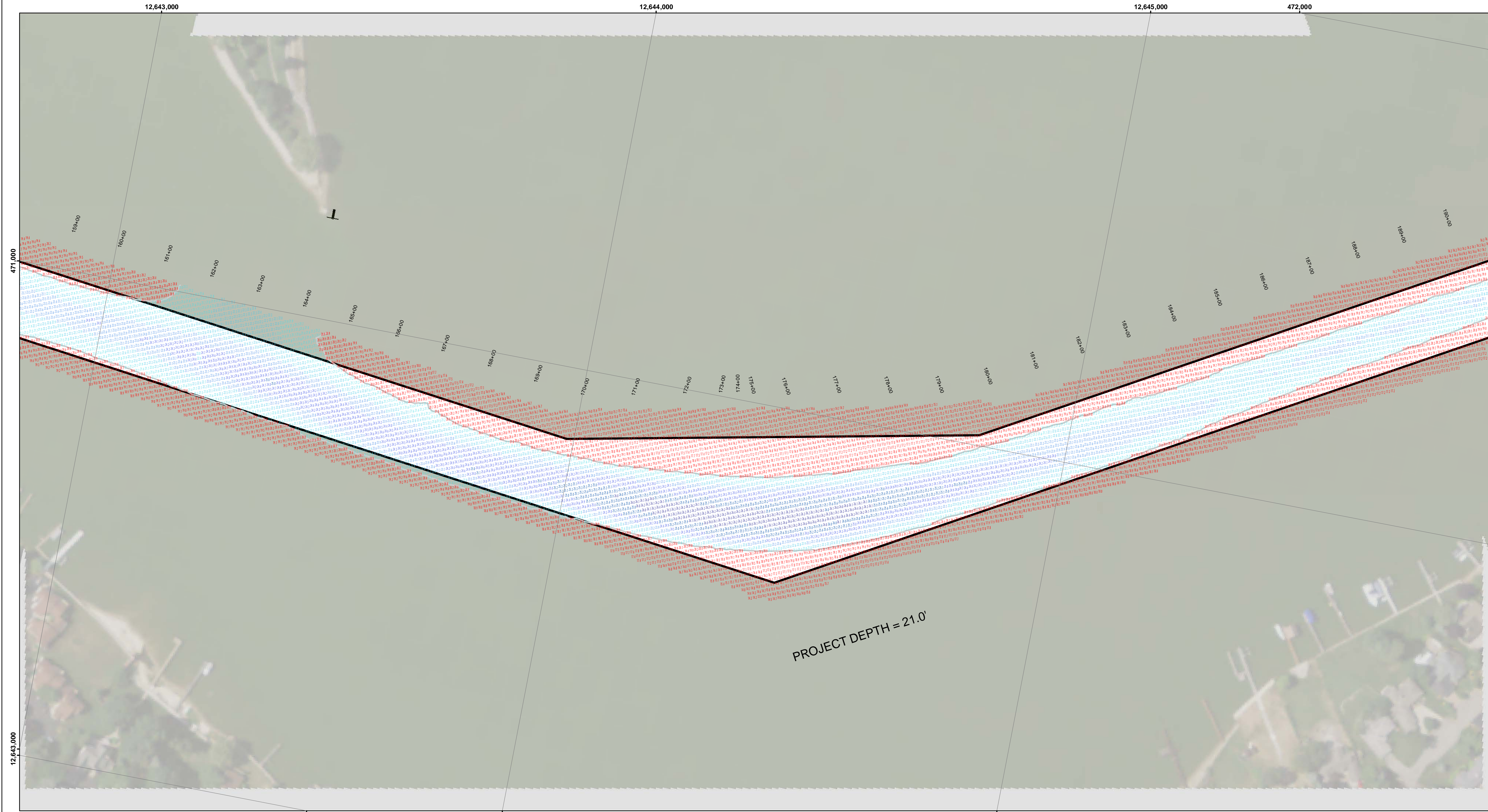
U.S. ARMY CORPS OF ENGINEERS  
DETROIT DISTRICT

Submitted:	Surveyed By:
Recommended:	Plotted By:
Approved:	Checked By:

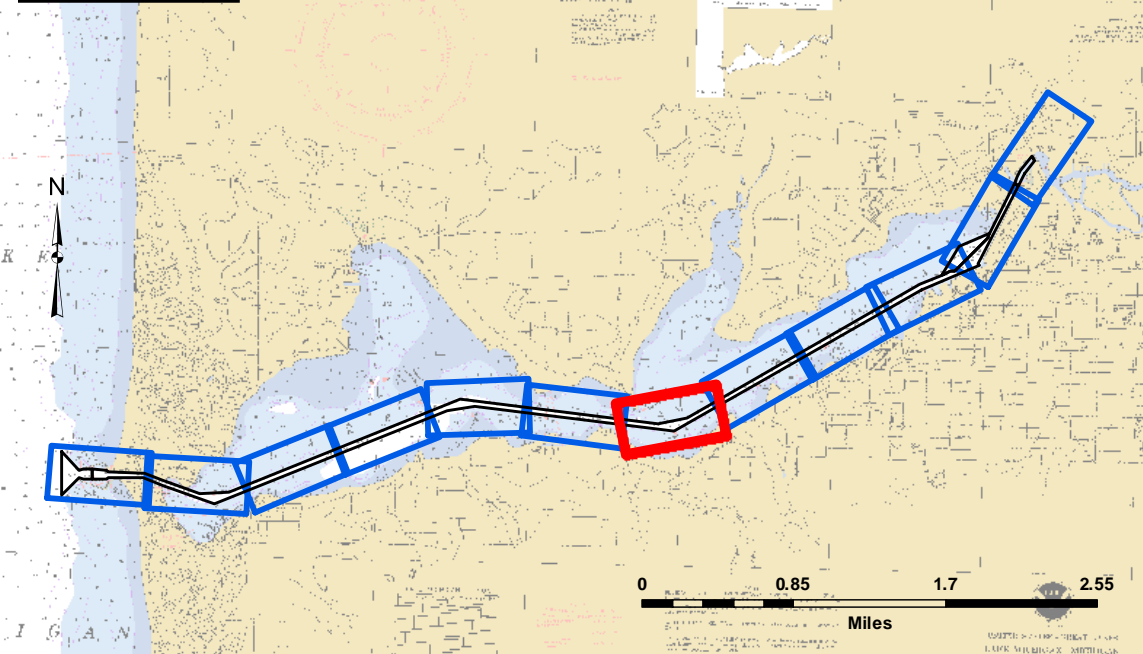
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US Army Corps  
of Engineers  
District: CELRE





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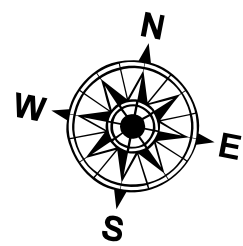


VICINITY MAP

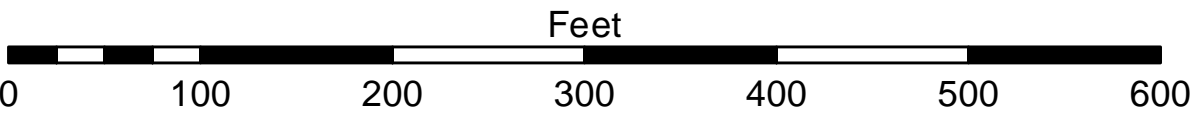


- LEGEND**
- ..... Cable Submarine
  - Cable Overhead
  - Placement Area
  - └ Beacon, General
  - Contour Lines
  - ▭ Channel Limits

- SOUNDING LEGEND**
- LESS THAN PROJECT DEPTH
  - PROJECT DEPTH
  - PROJECT DEPTH +1'
  - PROJECT DEPTH +2'
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SONAR: RZSONIC 2024 MULTIBEAM  
SOFTWARE: HYPACK 2020  
VESSEL: LAUNCH 3058

2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

U.S. ARMY CORPS OF ENGINEERS  
DETROIT DISTRICT

Submitted: \_\_\_\_\_  
Reviewed by: Chief, Survey Section  
Approved: Chief, Technical Services

HOLLAND HARBOR, MI  
Holland Harbor  
HO\_01\_LND\_20220714\_CS  
14 July 2022

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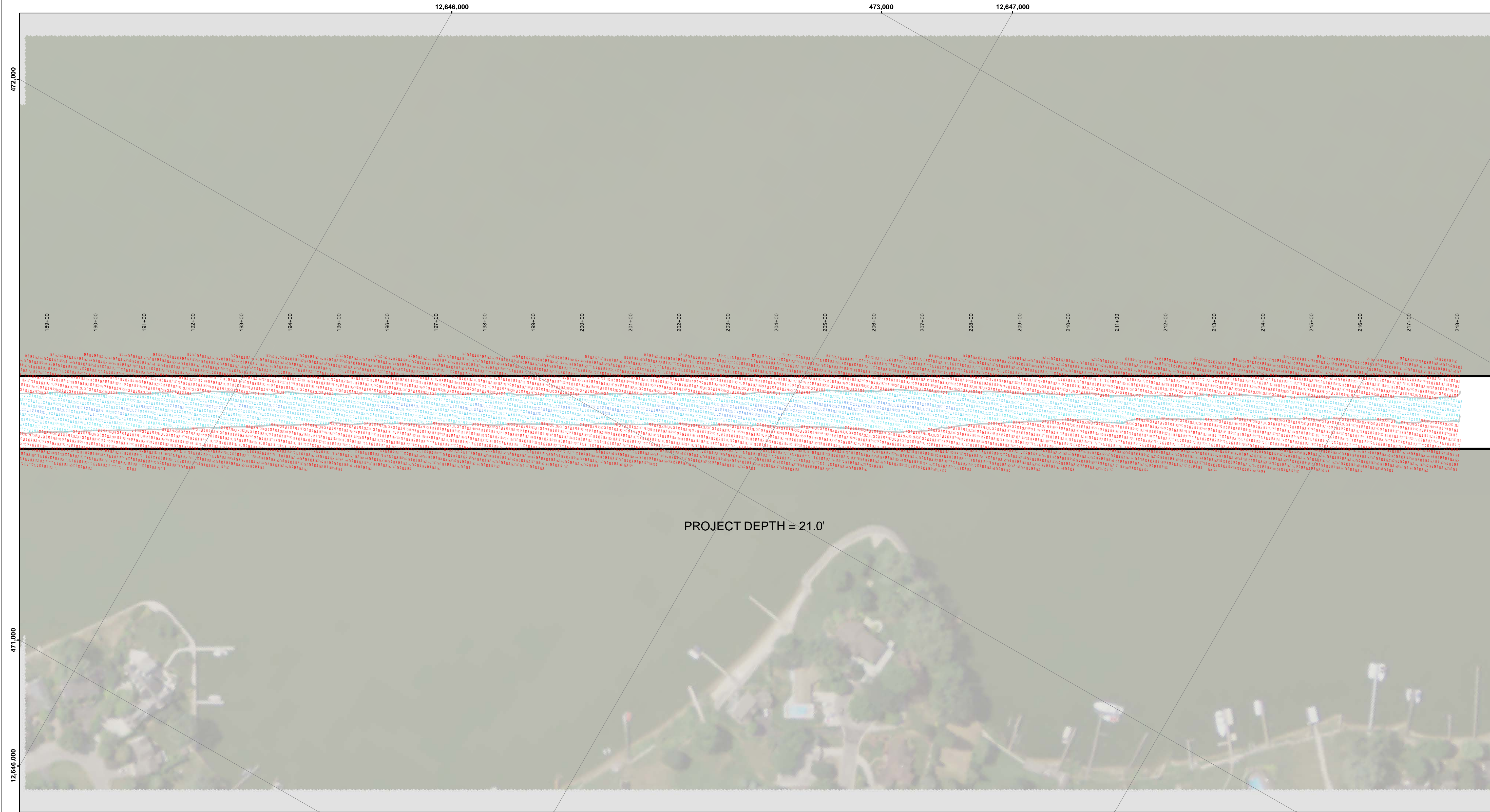
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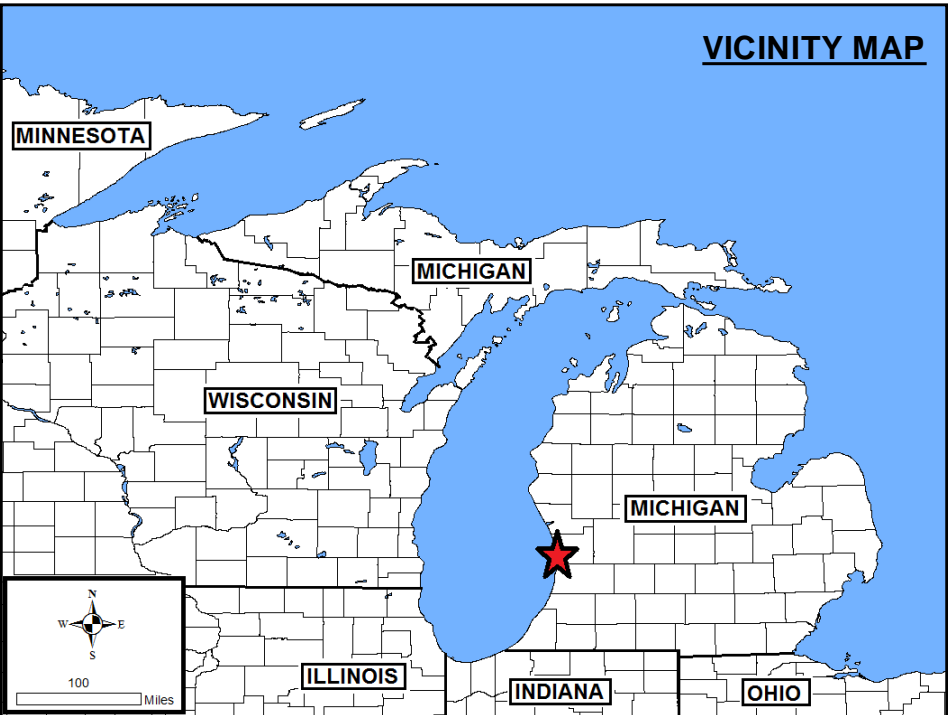
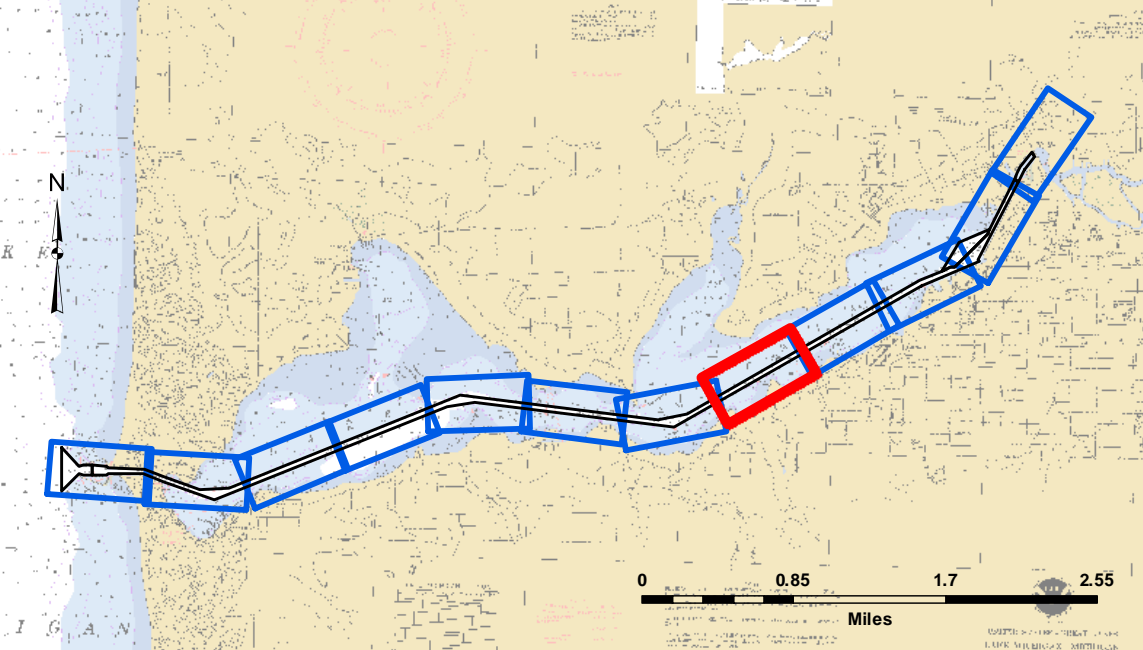




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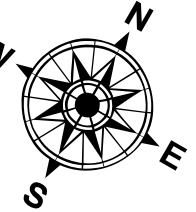
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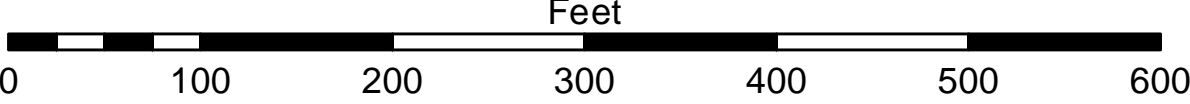


- LEGEND**
- ..... Cable Submarine
  - Cable Overhead
  - Placement Area
  - ⊥ Beacon, General
  - Contour Lines
  - ▭ Channel Limits

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



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2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS

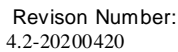
U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT	
Submitted: _____	Surveyed By: _____
Recommended: _____	Plotted By: _____
Chief, Survey Section	Checked By: _____
Approved: _____	Chief, Technical Services

HOLLAND HARBOR, MI  
Holland Harbor  
HO\_01\_LND\_20220714\_CS  
14 July 2022

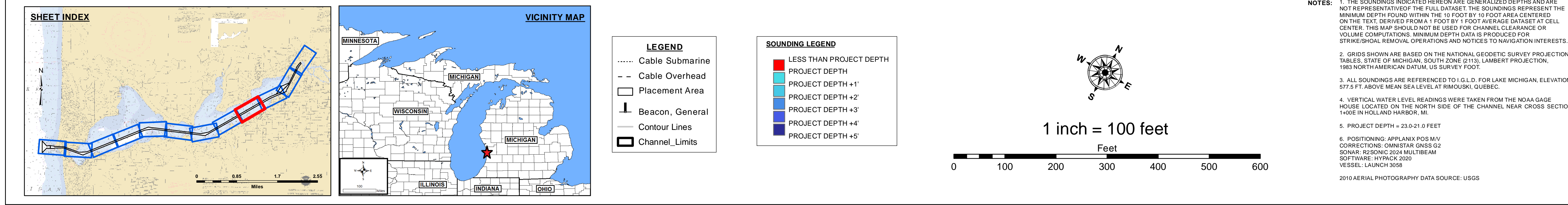
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4.2-2022/04/20

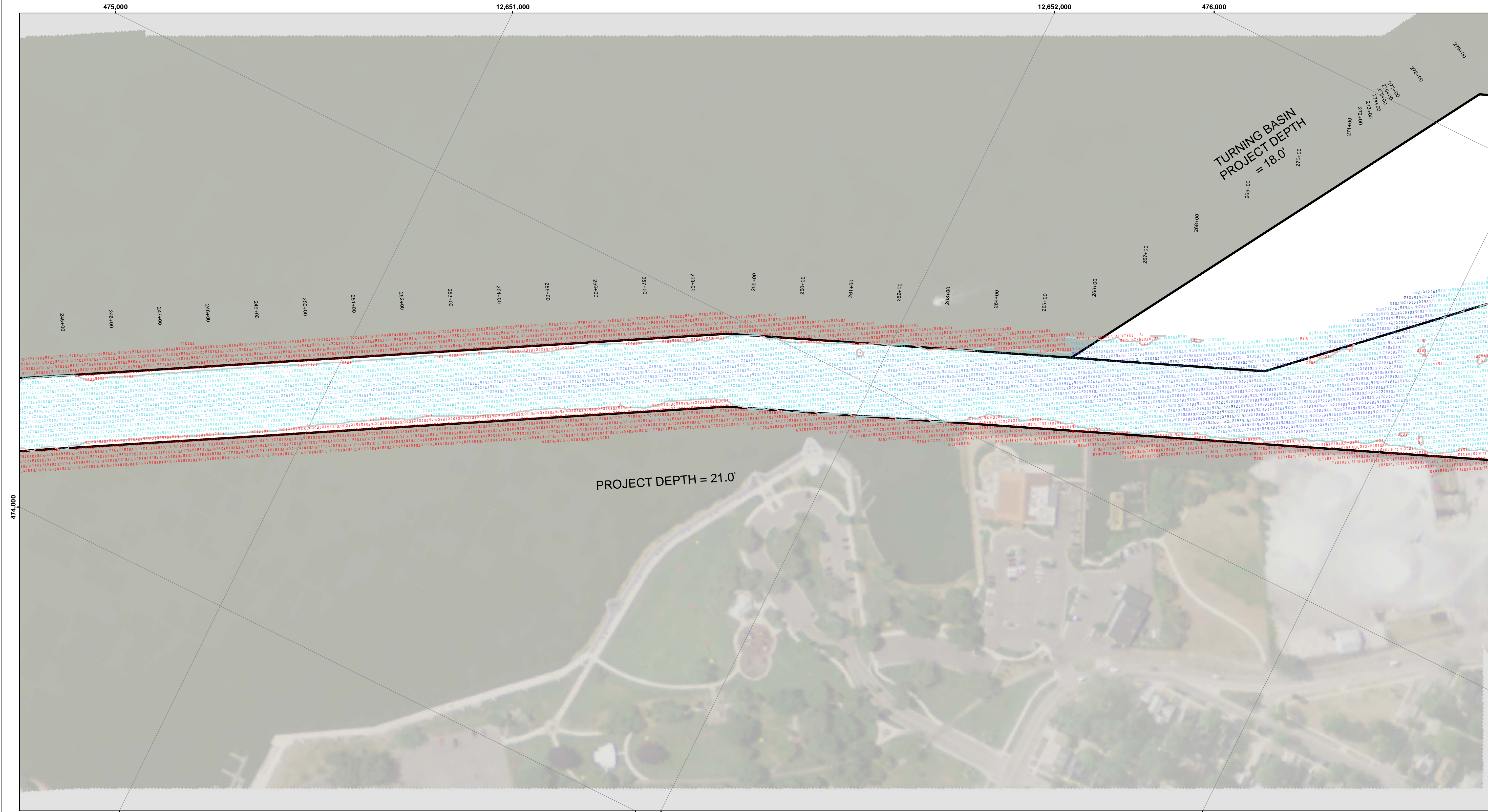




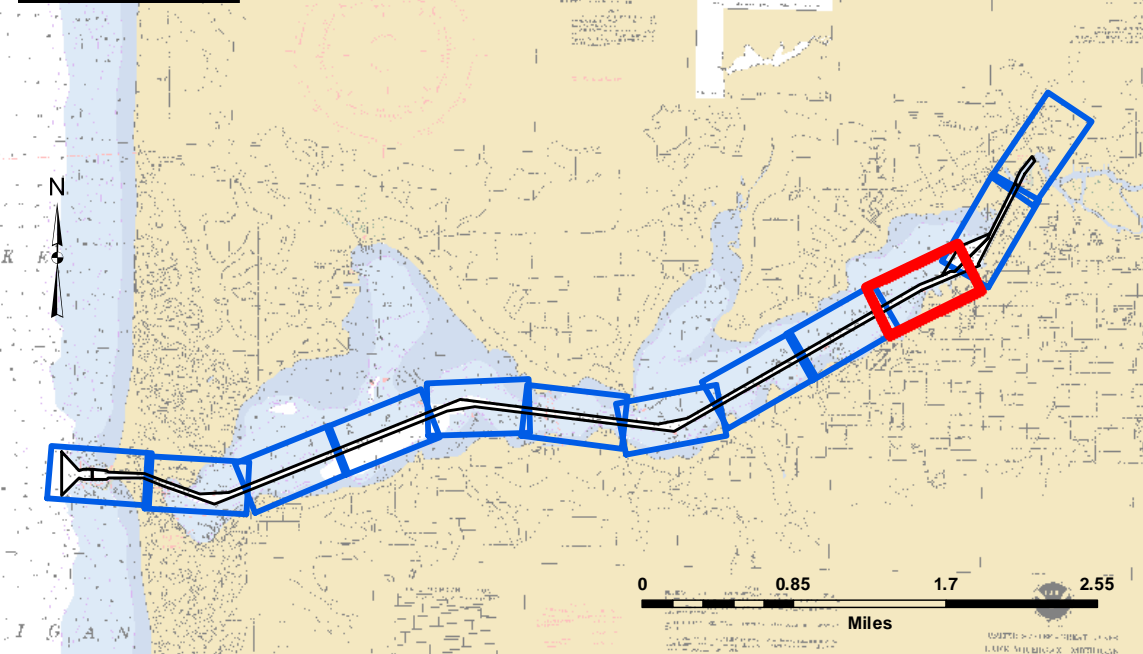


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VICINITY MAP

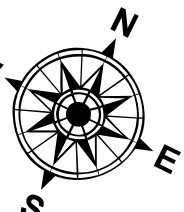


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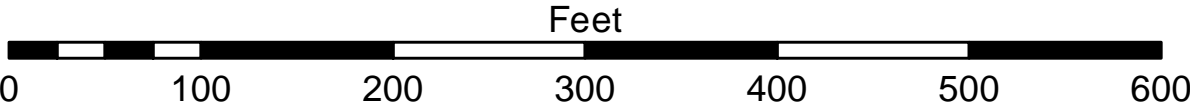
- ..... Cable Submarine
- Cable Overhead
- Placement Area
- Beacon, General
- Contour Lines
- Channel Limits

SOUNDING LEGEND

- LESS THAN PROJECT DEPTH
- PROJECT DEPTH
- PROJECT DEPTH +1'
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- GRIDS SHOWN ARE BASED ON THE NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (215), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM, US SURVEY FOOT.
- ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC.
- VERTICAL WATER LEVEL READINGS WERE TAKEN FROM THE NOAA GAGE HOUSE LOCATED ON THE NORTH SIDE OF THE CHANNEL NEAR CROSS SECTION 1+00E IN HOLLAND HARBOR, MI.
- PROJECT DEPTH = 23.0-21.0 FEET
- POSITIONING: APPLANIX POS MV  
CORRECTIONS: OMNISTAR GNSS G2  
SONAR: R2SONIC 2024 MULTIBEAM  
SOFTWARE: HYPAACK 2020  
VESSEL: LAUNCH 3058
- 2010 AERIAL PHOTOGRAPHY DATA SOURCE: USGS



US Army Corps  
of Engineers  
District: CELRE

The data on this map was derived from the results of data collection and processing for a specific project. The U.S. Army Corps of Engineers actively and regularly updates the general existing conditions of the project area. The user is responsible for the accuracy, completeness, and reliability of the data for other than its intended purpose. The user is responsible for the accuracy, completeness, and reliability of the data for other than its intended purpose.

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, and reliability of the data for other than its intended purpose. The user is responsible for the accuracy, completeness, and reliability of the data for other than its intended purpose. The user is responsible for the accuracy, completeness, and reliability 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:
Chief, Survey Section	
Chief, Technical Services	

HOLLAND HARBOR, MI

Holland Harbor

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04 April 2022

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4.2-2020/04/20



