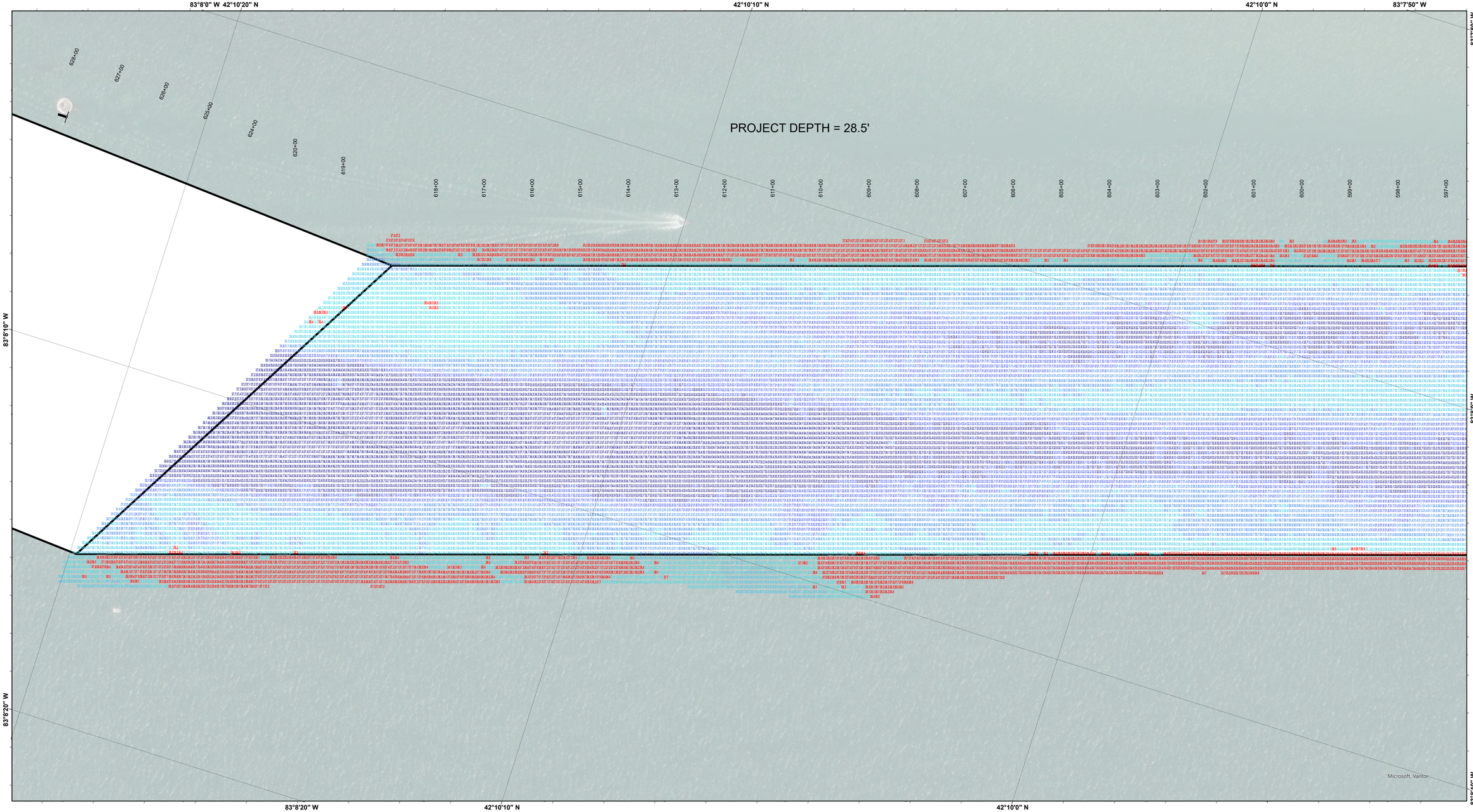


US Army Corps of Engineers
District: CELRE

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U.S. ARMY CORPRPS OF ENGINEERS
DETROIT DISTRICT

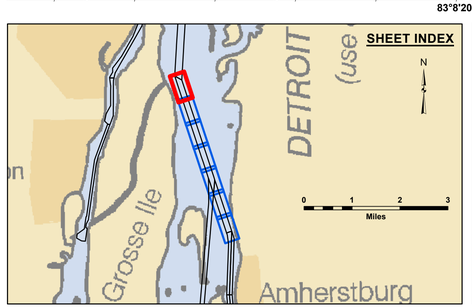
Surveyed By:	Plotted By:	Checked By:
Submitted:	Recommended: Chief, Survey Section	Approved: Chief, Technical Services

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

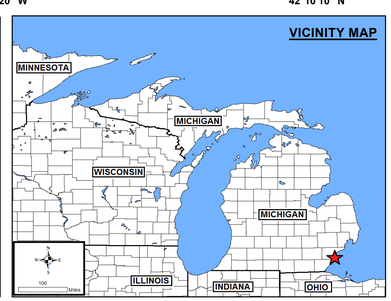
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Revision Number:
5.26.04.06-5.26.04.06

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VICINITY MAP

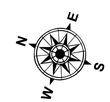


LEGEND

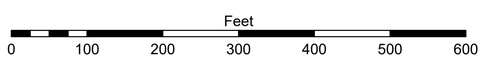
- Cable Submarine
- Cable Overhead
- Placement Area
- Beacon, General
- Contour Lines
- Channel_Limits

SOUNDING LEGEND

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



1 inch = 100 feet



NOTES: THE SOUNDINGS INDICATED HEREIN ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10X10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1X1 FOOT AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICE TO NAVIGATION INTERESTS

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PROJECT DEPTHS FOR BALLARDS REEF CHANNEL RANGE FROM 27.5' TO 28.5'

TIDE VALUES ARE DERRIVED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) WATER LEVEL STATIONS:

WYANDOTTE, MI (#9044030)
GIBRALTAR (#9044020)
FERMI POWER PLANT, MI (#9063090)

POSITIONING:APPLANIX POS-MV4 W/ VRS/RTK OR MARINESTAR GNSS.
MOTION COMPENSATION: APPLANIX POS-MV4
SONAR: R2SONIC 2024 (MULTIBEAM TRANSDUCER)
SOFTWARE: HYPACK

AERIAL PHOTOGRAPHY DATA SOURCE: MAXAR, MICROSOFT

CORPS OF ENGINEERS U.S. ARMY

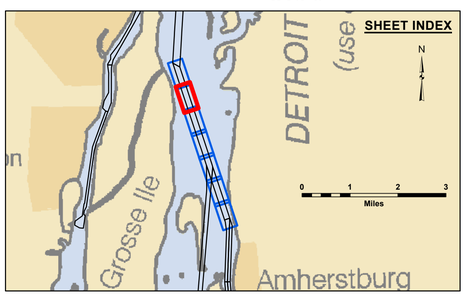
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PROJECT DEPTH = 28.5'

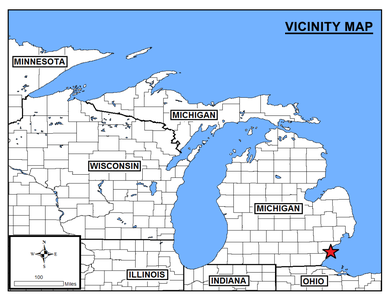
83°8'0" W 83°8'10" W 42°9'40" N 42°9'30" N 83°8'0" W

Microsoft, Vantor

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'
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- PROJECT DEPTH +5'

1 inch = 100 feet

Feet 0 100 200 300 400 500 600

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SOFTWARE: HYPACK

AERIAL PHOTOGRAPHY DATA SOURCE: MAXAR, MICROSOFT

US Army Corps of Engineers
District: CELRE

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U.S. ARMY CORPS OF ENGINEERS
DETROIT DISTRICT

Surveyed By: _____
Plotted By: _____
Checked By: _____

Submitted: _____
Recommended: Chief, Survey Section
Approved: Chief, Technical Services

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

Sheet Reference Number 2 of 7

Revision Number:
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CORPS OF ENGINEERS

U.S. ARMY

42°9'30" N

42°9'20" N

83°7'30" W

83°7'40" W

83°7'50" W

83°8'0" W

42°9'10" N

83°7'50" W

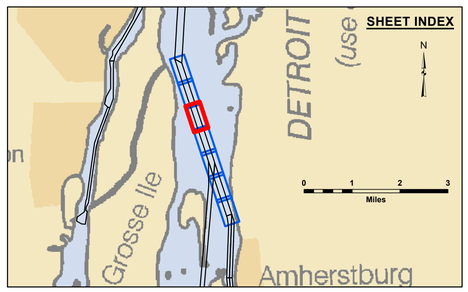
42°9'0" N

PROJECT DEPTH = 28.5'

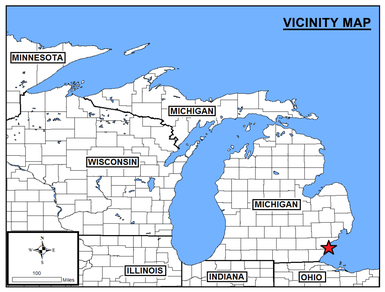
572+00 571+00 570+00 569+00 568+00 567+00 566+00 565+00 564+00 563+00 562+00 561+00 560+00 559+00 558+00 557+00 556+00 555+00 554+00 553+00 552+00 551+00 550+00 549+00 548+00 547+00 546+00 545+00 544+00 543+00

Microsoft, Vantor

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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'
- PROJECT DEPTH +3'
- PROJECT DEPTH +4'
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1 inch = 100 feet

Feet

0 100 200 300 400 500 600

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MOTION COMPENSATION: APPLANIX POS-MV4
SONAR: R2SONIC 2024 (MULTIBEAM TRANSDUCER)
SOFTWARE: HYPACK

AERIAL PHOTOGRAPHY DATA SOURCE: MAXAR, MICROSOFT

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US Army Corps of Engineers
District: CELRE

U.S. ARMY CORPPS OF ENGINEERS
DETROIT DISTRICT

Surveyed By:	____	Plotted By:	____
Submitted	____	Chief, Survey Section	
Recommended	____	Chief, Technical Services	
Approved	____		

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

Sheet Reference Number
3 of 7

Revision Number:
5.26.04.06-5.26.04.06

CORPS OF ENGINEERS

U.S. ARMY

42°9'0" N

42°8'50" N

83°7'20" W

42°8'40" N

83°7'30" W

83°7'40" W

PROJECT DEPTH = 28.5'

545+00 544+00 543+00 542+00 541+00 540+00 539+00 538+00 537+00 536+00 535+00 534+00 533+00 532+00 531+00 530+00 529+00 528+00 527+00 526+00 525+00 524+00 523+00 522+00 521+00 520+00 519+00 518+00 517+00 516+00 515+00

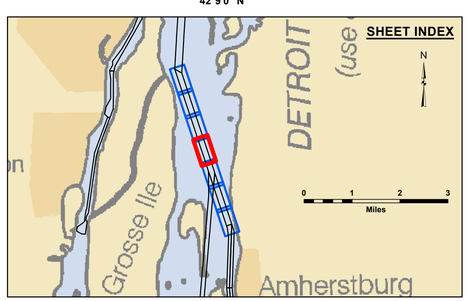
Microsoft, Vantor

42°9'0" N

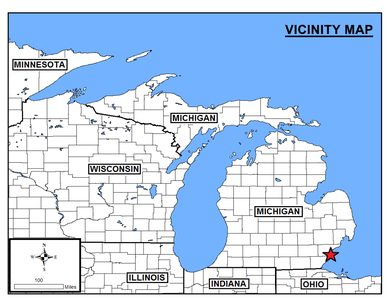
42°8'50" N

83°7'40" W

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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'
- PROJECT DEPTH +3'
- PROJECT DEPTH +4'
- PROJECT DEPTH +5'

1 inch = 100 feet

Feet

0 100 200 300 400 500 600

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SOFTWARE: HYPACK

AERIAL PHOTOGRAPHY DATA SOURCE: MAXAR, MICROSOFT

US Army Corps of Engineers
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U.S. ARMY CORPPS OF ENGINEERS
DETROIT DISTRICT

Surveyed By:		
Plotted By:		Checked By:
Submitted:		
Recommended:	Chief, Survey Section	
Approved:	Chief, Technical Services	

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

Sheet Reference Number 4 of 7

Revision Number:
5.26.04.06-5.26.04.06

42°8'40" N
42°8'30" N
83°7'10" W
42°8'20" N
83°7'20" W
83°7'0" W
42°8'40" N
42°8'30" N
83°7'30" W
42°8'20" N
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42°8'20" N
42°8'10" N

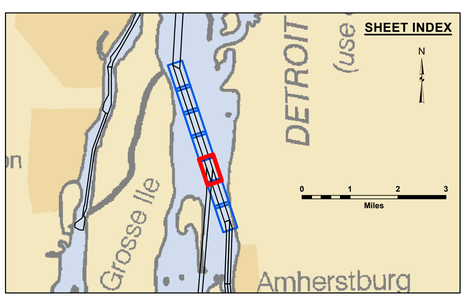
PROJECT DEPTH = 28.5'

PROJECT DEPTH = 27.7'

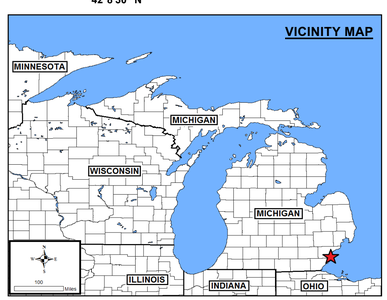
Microsoft, Vantor

518+00 517+00 516+00 515+00 514+00 513+00 512+00 511+00 510+00 509+00 508+00 507+00 506+00 505+00 504+00 503+00 502+00 501+00 500+00 499+00 498+00 497+00 496+00 495+00 494+00 493+00 492+00 491+00 490+00 489+00 488+00

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'
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Feet

0 100 200 300 400 500 600

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US Army Corps of Engineers
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DETROIT DISTRICT

Surveyed By:		
Plotted By:		
Checked By:		
Submitted		
Recommended	Chief, Survey Section	
Approved	Chief, Technical Services	

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

Sheet Reference Number 5 of 7

Revision Number:
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CORPS OF ENGINEERS

U.S. ARMY

42°8'10" N

42°8'0" N

83°7'0" W

42°7'50" N

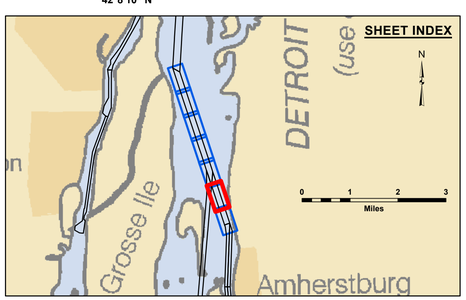
83°7'10" W

83°7'20" W

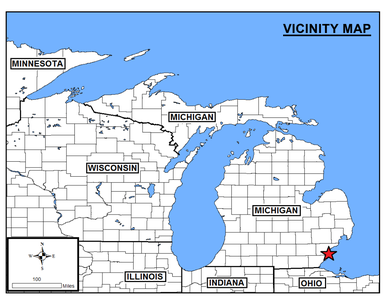
PROJECT DEPTH = 27.5'

Microsoft, Vantor

SHEET INDEX



VICINITY MAP



LEGEND

- Cable Submarine
- Cable Overhead
- Placement Area
- Beacon, General
- Contour Lines
- Channel_Limits

SOUNDING LEGEND

- LESS THAN PROJECT DEPTH
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PROJECT DEPTHS FOR BALLARDS REEF CHANNEL RANGE FROM 27.5' TO 28.5'

TIDE VALUES ARE DERRIVED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) WATER LEVEL STATIONS:

WYANDOTTE, MI (8944030)
GIBRALTAR (8944020)
FERMI POWER PLANT, MI (8963090)

POSITIONING:APPLANIX POS-MV4 W/ VRS/RTK OR MARINESTAR GNSS.
MOTION COMPENSATION: APPLANIX POS-MV4
SONAR: R2SONIC 2024 (MULTIBEAM TRANSDUCER)
SOFTWARE: HYPACK

AERIAL PHOTOGRAPHY DATA SOURCE: MAXAR, MICROSOFT

US Army Corps of Engineers
District: CELRE

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U.S. ARMY CORPS OF ENGINEERS
DETROIT DISTRICT

Surveyed By:	Plotted By:	Checked By:
Submitted:		
Recommended:	Chief, Survey Section	
Approved:	Chief, Technical Services	

Detroit River, MI
Ballards Reef Channel
DR_01_BRC_20260423_CS
23 April 2026

Sheet Reference Number
6 of 7

Revision Number:
5.26.04.06-5.26.04.06

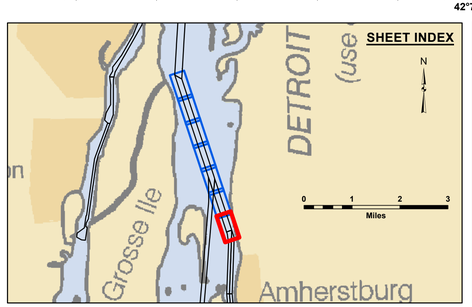
42°7'50" N
42°7'40" N
83°6'50" W
42°7'30" N
83°7'0" W
83°6'50" W
42°7'20" N
42°7'40" N
83°7'10" W
42°7'30" N
83°7'0" W
42°7'20" N

PROJECT DEPTH = 21.0'

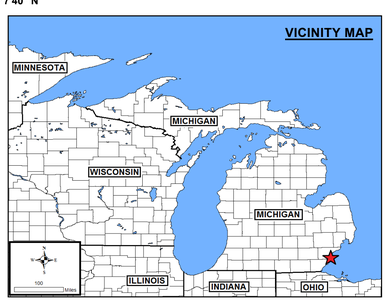
PROJECT DEPTH = 27.5'

Microsoft, Vantor

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

Feet
0 100 200 300 400 500 600

NOTES: THE SOUNDINGS INDICATED HEREIN ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF EVERY POINT ON THE SHEET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10X10 FOOT AREA CENTERED ON THE TEXT, DERIVED FROM A 1X1 FOOT AVERAGE DATASET AT CELL CENTER. THIS MAP SHOULD NOT BE USED FOR CHANNEL CLEARANCE OR VOLUME COMPUTATIONS. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICE TO NAVIGATION INTERESTS

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U.S. ARMY COPPPS OF ENGINEERS
DETROIT DISTRICT

Surveyed By: ____
Plotted By: ____
Checked By: ____

Submitted: Chief, Technical Services
Recommended: Chief, Survey Section
Approved: ____

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