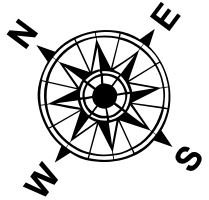
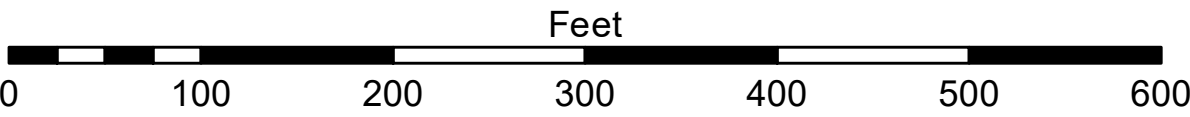


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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 NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPL ANX POS-M/V

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



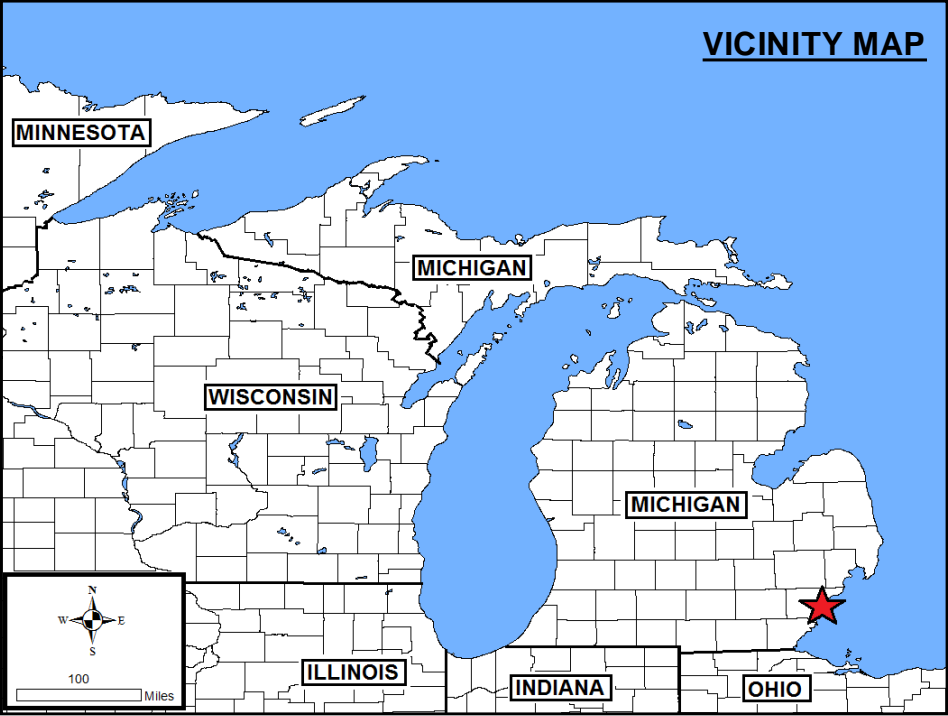
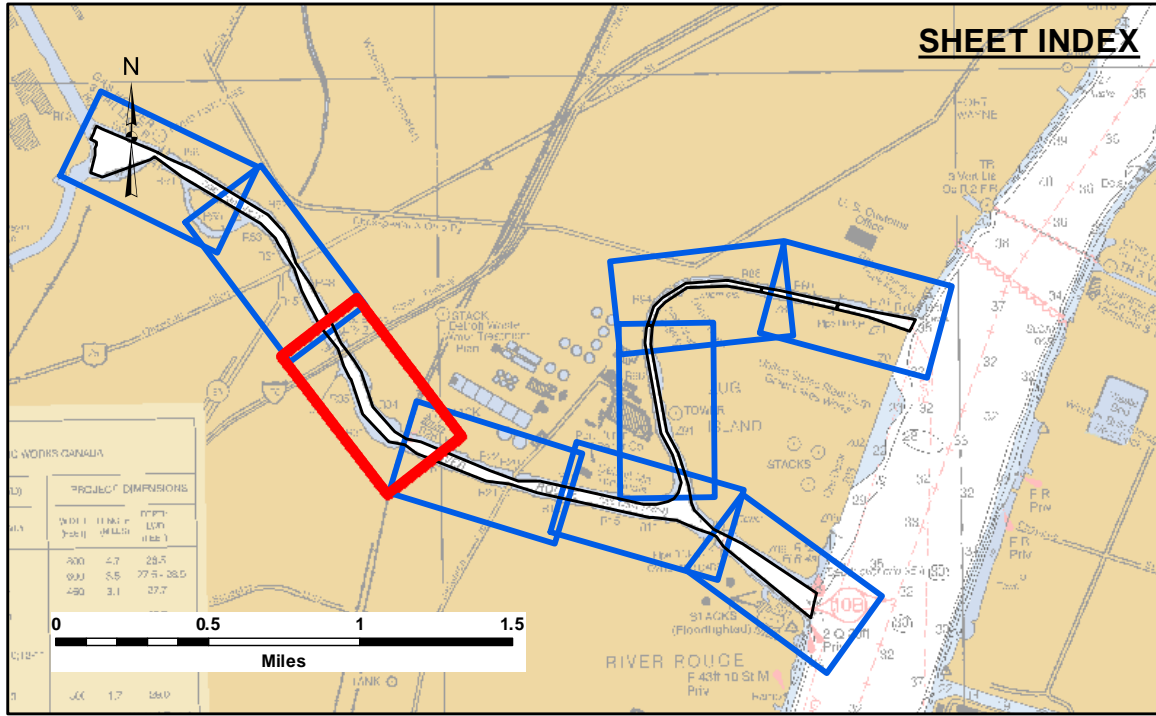
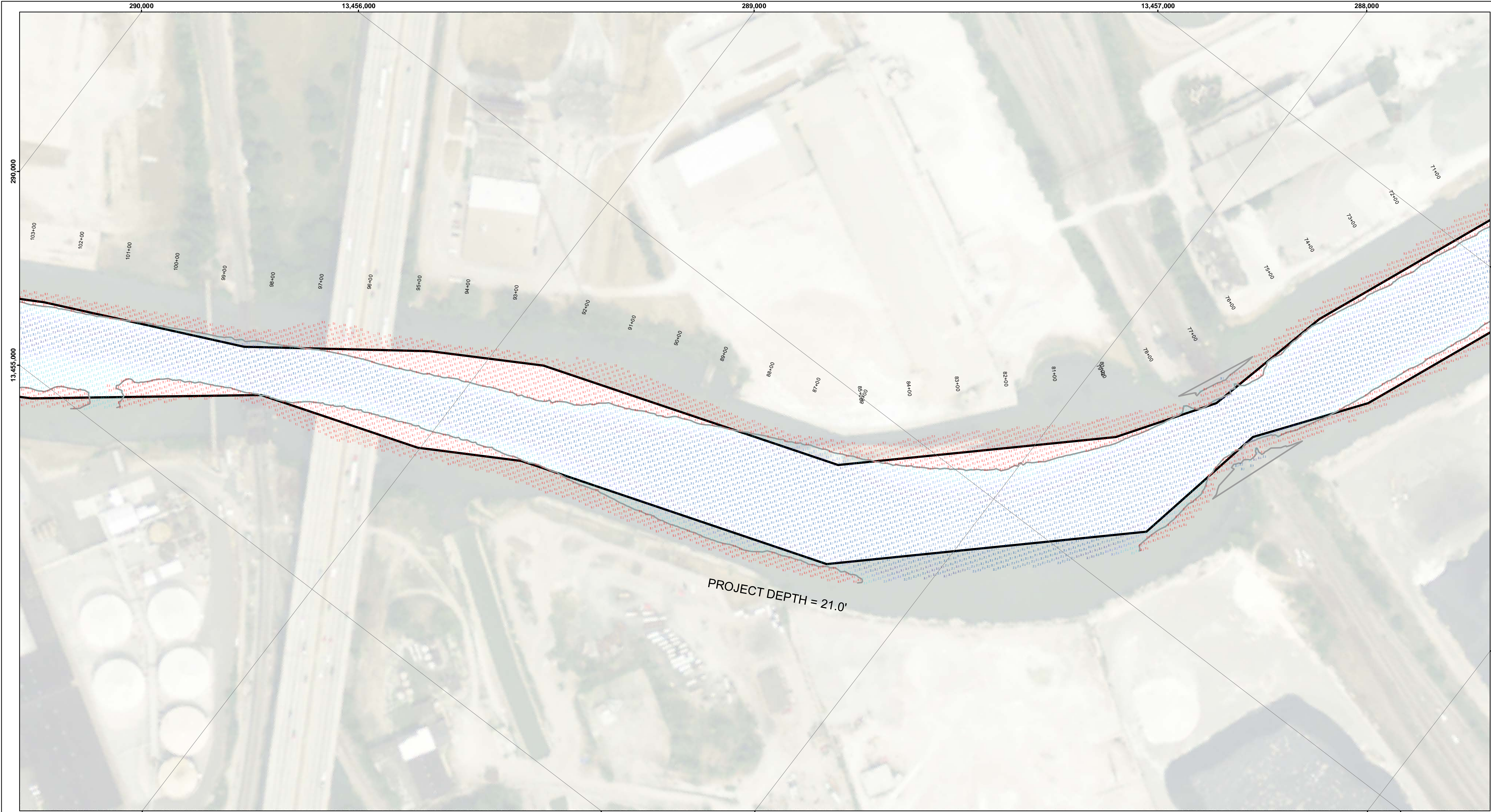
DISCLAIMER: The data represents the results of data collection and is not a guarantee of accuracy. The data is provided for informational purposes only. The user is responsible for the results of any application of the data for other than its intended purpose. The data is not to be used for navigation or other purposes. The data is not to be used for navigation or other purposes. The data is not to be used for navigation or other purposes.

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 navigation or other purposes. The data is not to be used for navigation or other purposes. The data is not to be used for navigation or other purposes.

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

River Rouge, MI
Rouge River
RR_01_ROU_20230905_BD
05 September 2023

Sheet
Reference
Number
2 of 9

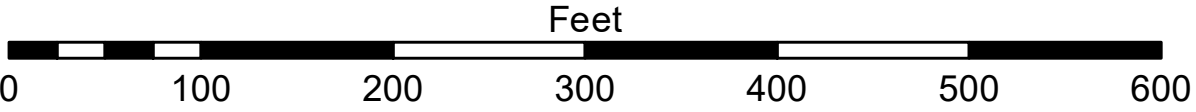


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPLANX POS-M/V

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



DISCLAIMER: The data represents 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 data is provided for informational purposes only and is not intended for use in any other manner. The user is responsible for the results of any 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 other purpose, expressed or implied, concerning the accuracy, completeness, readability, usability or suitability for any particular purpose of the recipient. The recipient agrees to indemnify and hold the Government harmless from any and all claims, damages, losses, and expenses, including reasonable attorneys' fees, incurred by the Government as a result of the use of these data by the recipient 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, Technical Services	

River Rouge, MI

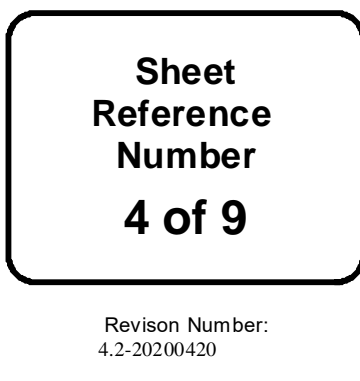
Rouge River

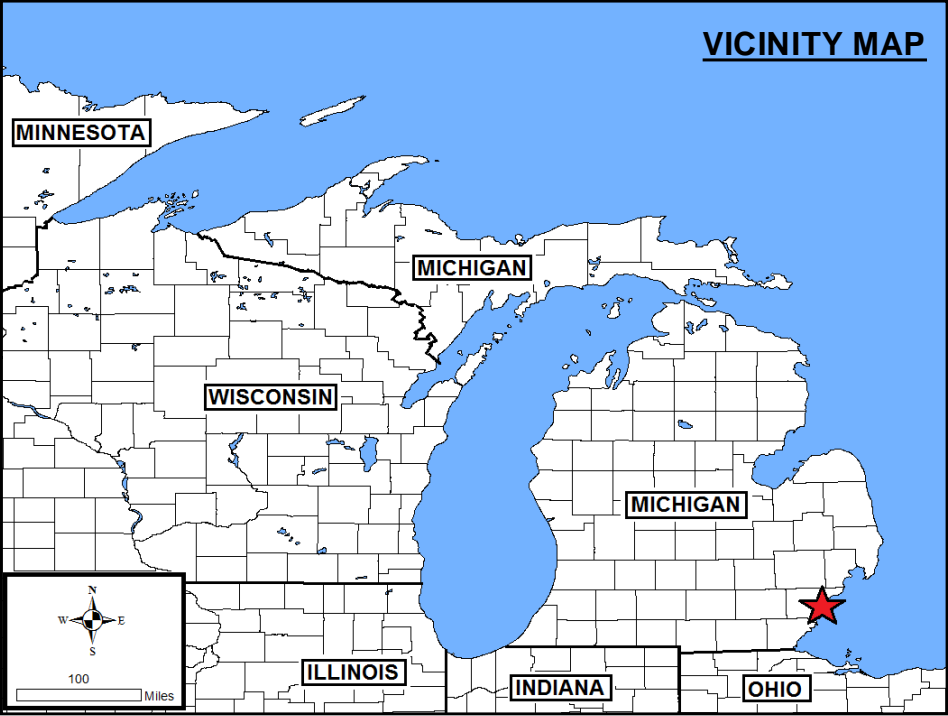
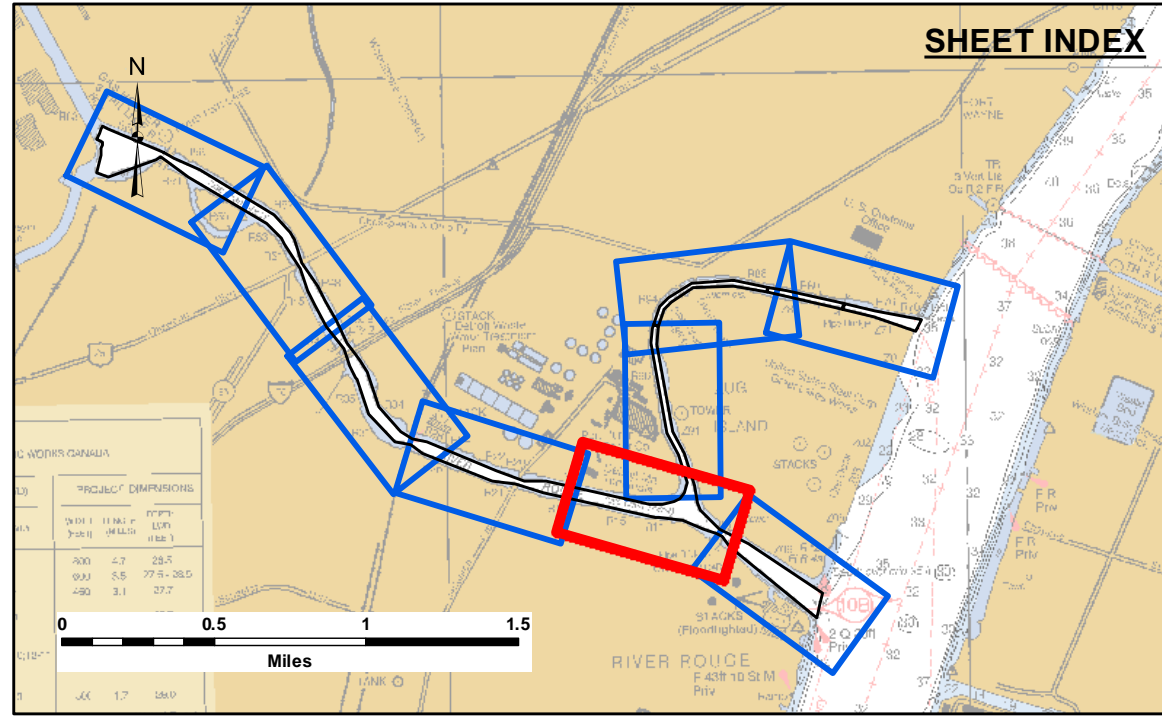
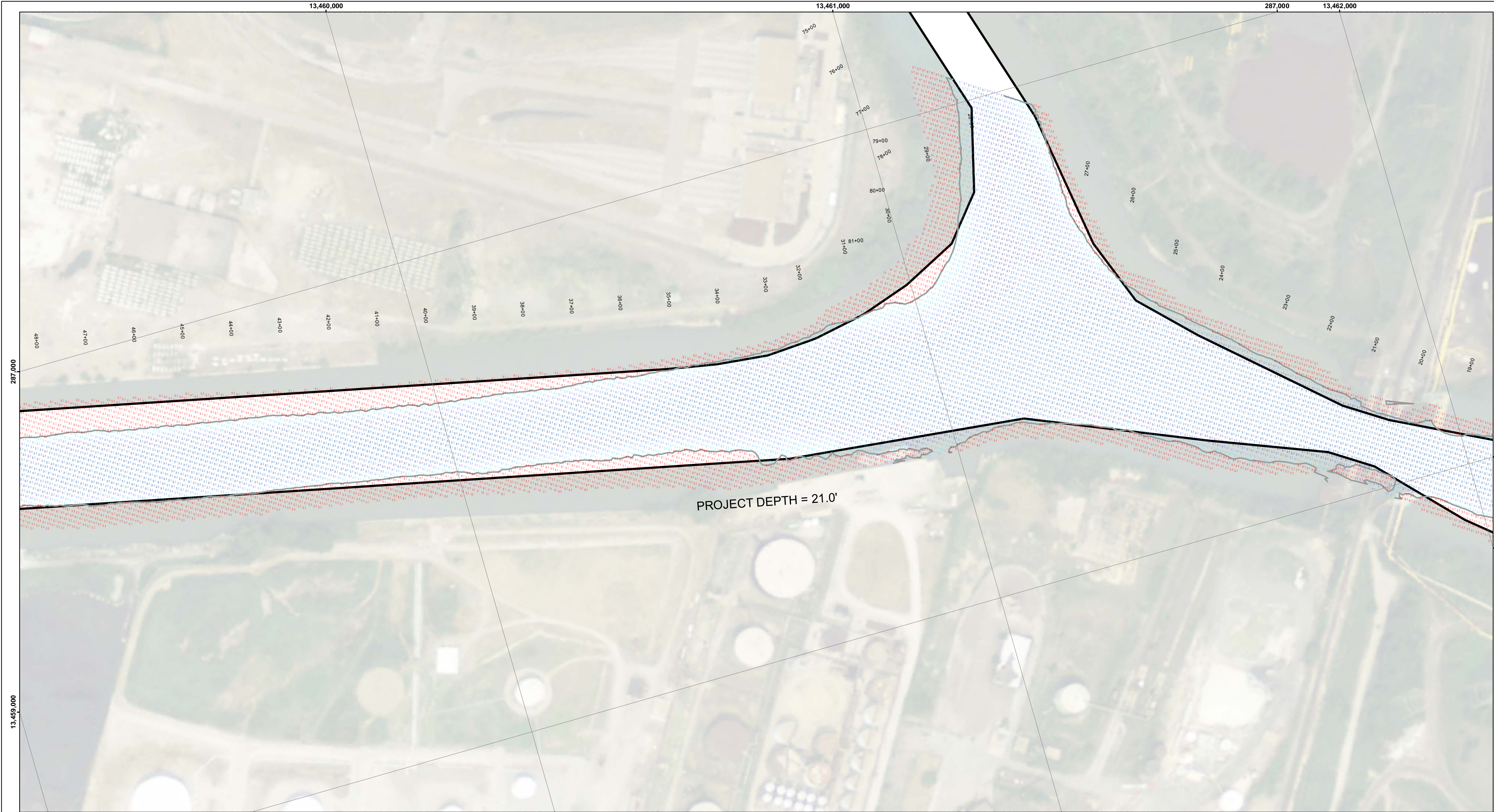
RR_01_ROU_20230905_BD

05 September 2023

Sheet Reference Number

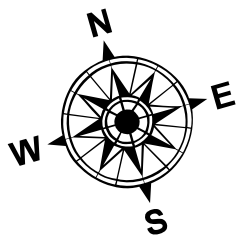
3 of 9



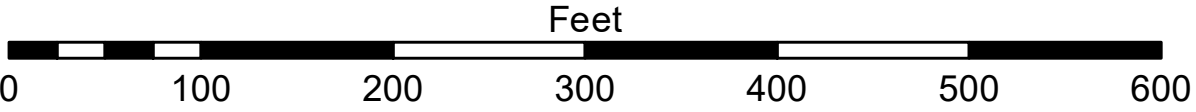


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ┆ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPLANIX POS-M/V

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



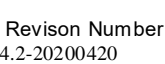
DISCLAIMER: The data represents the results of data collection and is not a guarantee of accuracy. The U.S. Army Corps of Engineers actively and continuously monitors and maintains the accuracy of the data. The user is responsible for the results of any application of the data for other than its intended purpose.

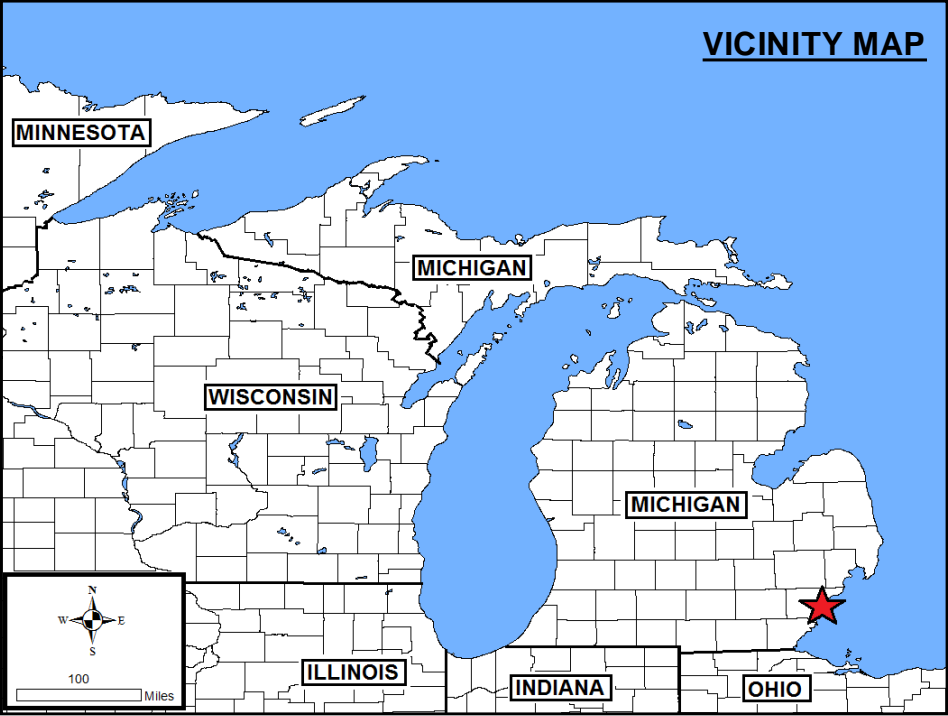
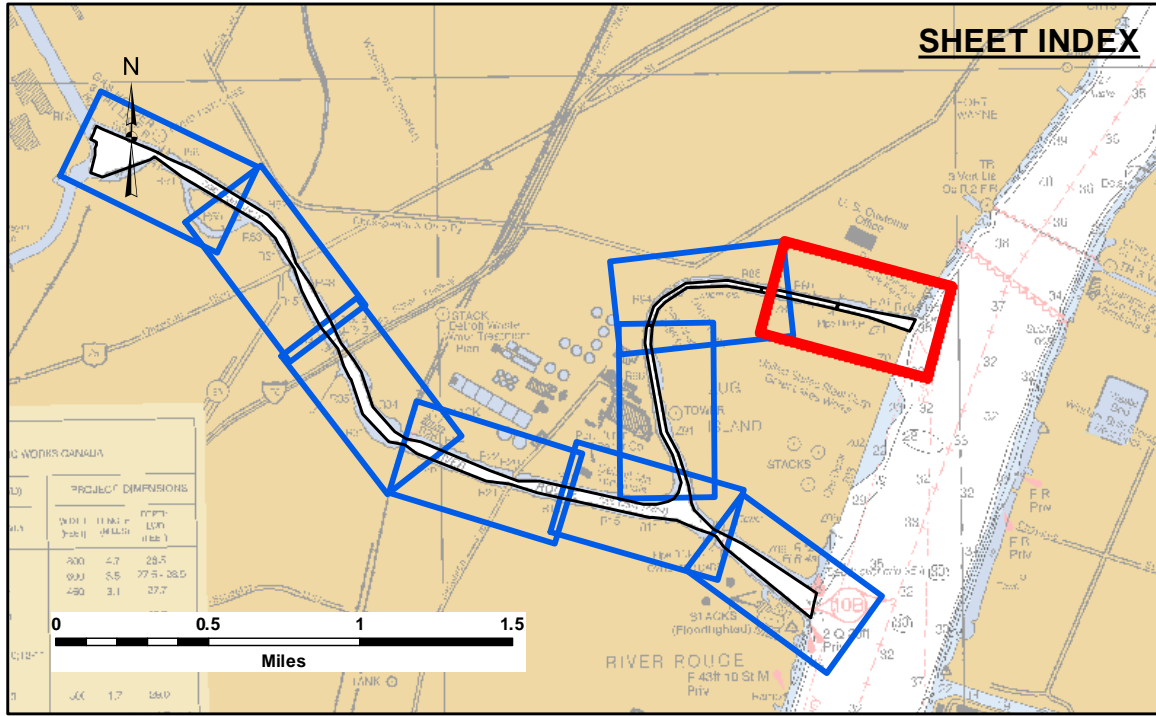
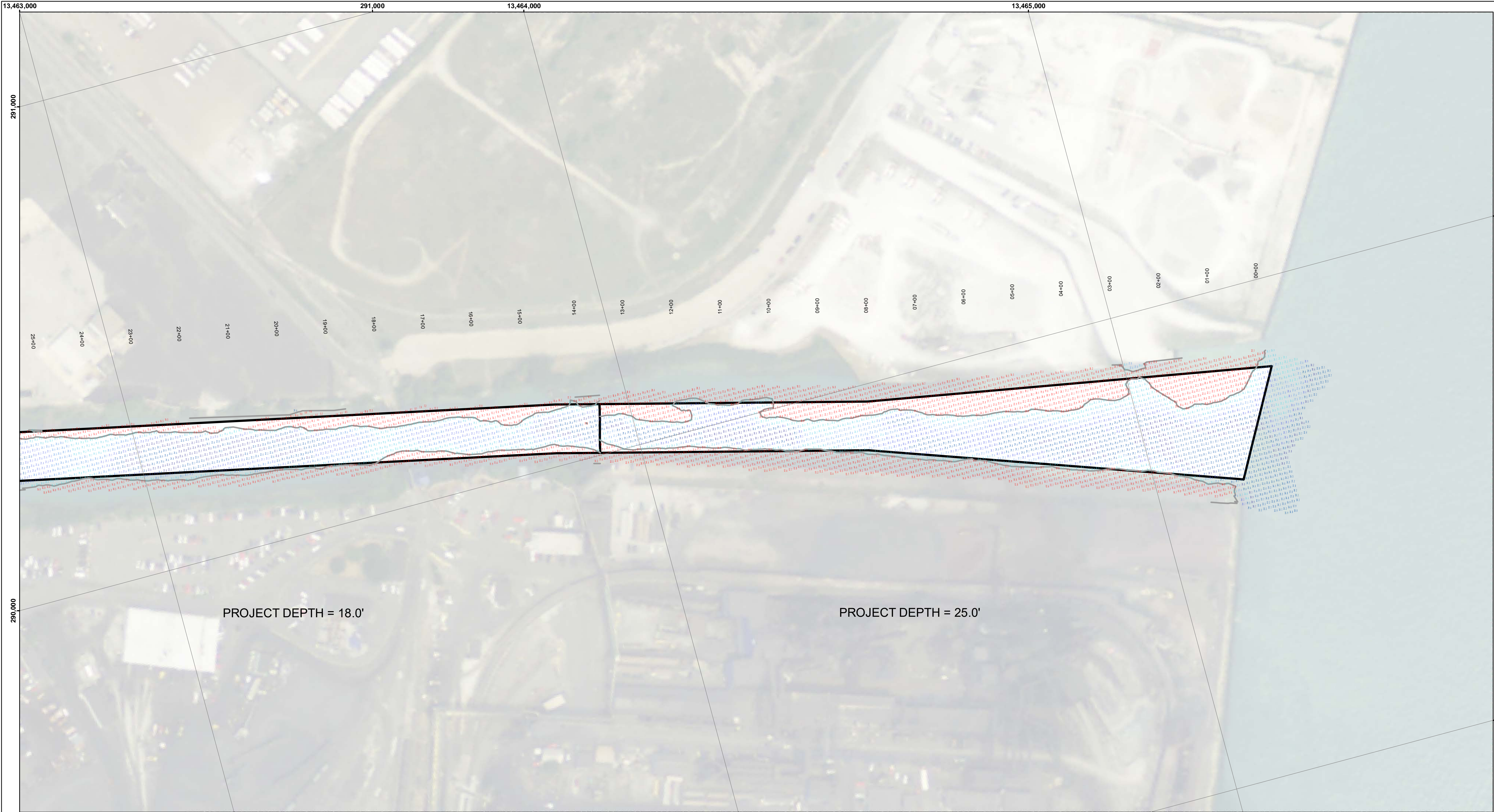
ACCESS AGREEMENT: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data are not to be used for any purpose other than that for which they were provided. The recipient may not transfer these data to others without transferring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

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

River Rouge, MI
Rouge River
RR_01_ROU_20230905_BD
05 September 2023

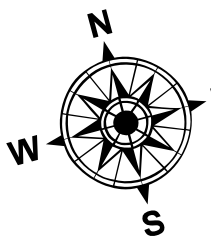
Sheet
Reference
Number
5 of 9



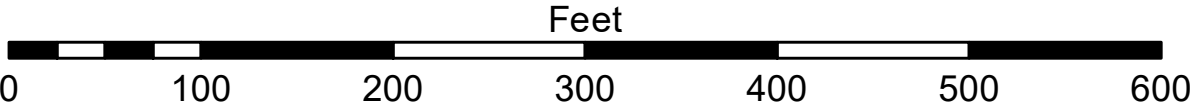


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPL ANX POS-M/V

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



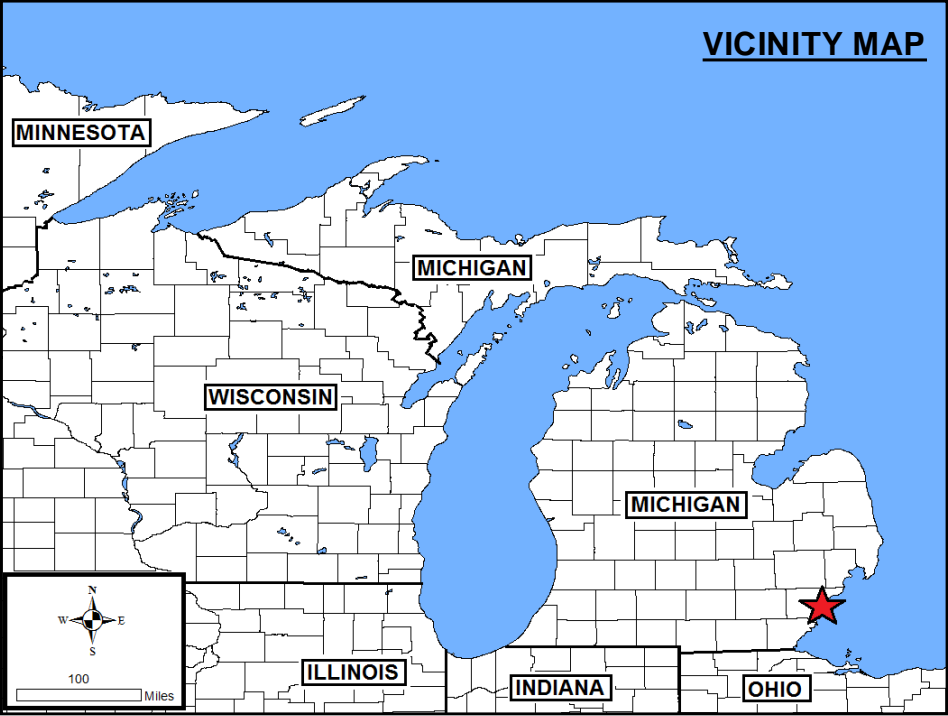
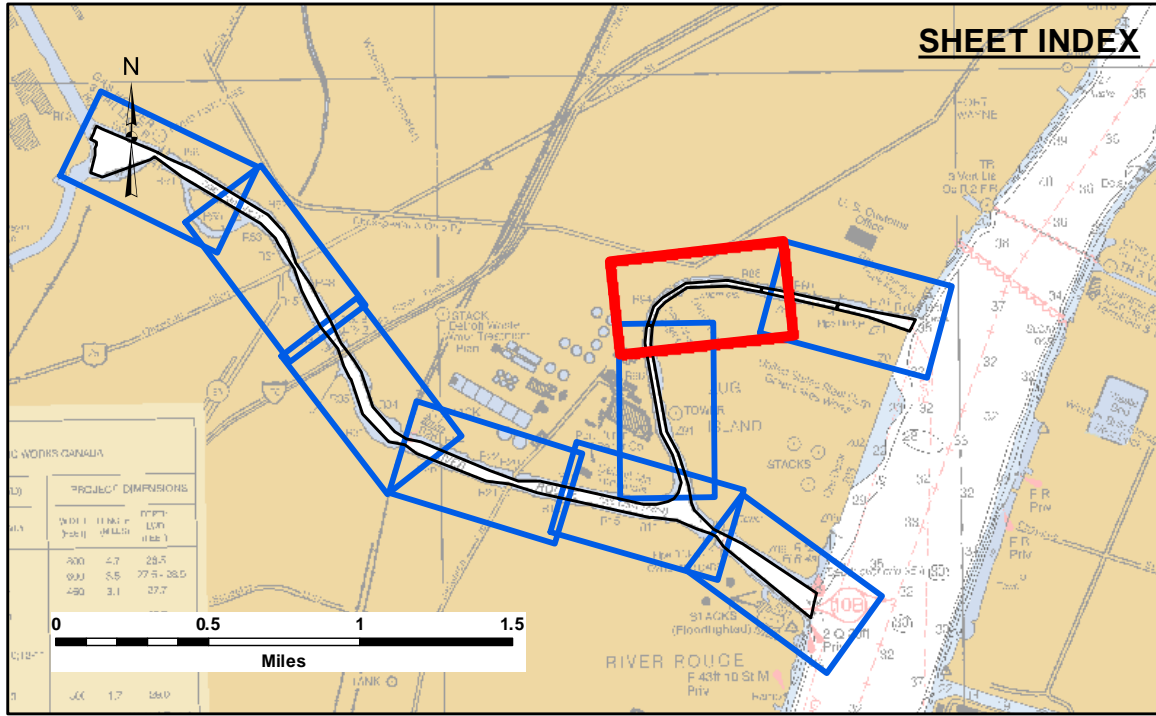
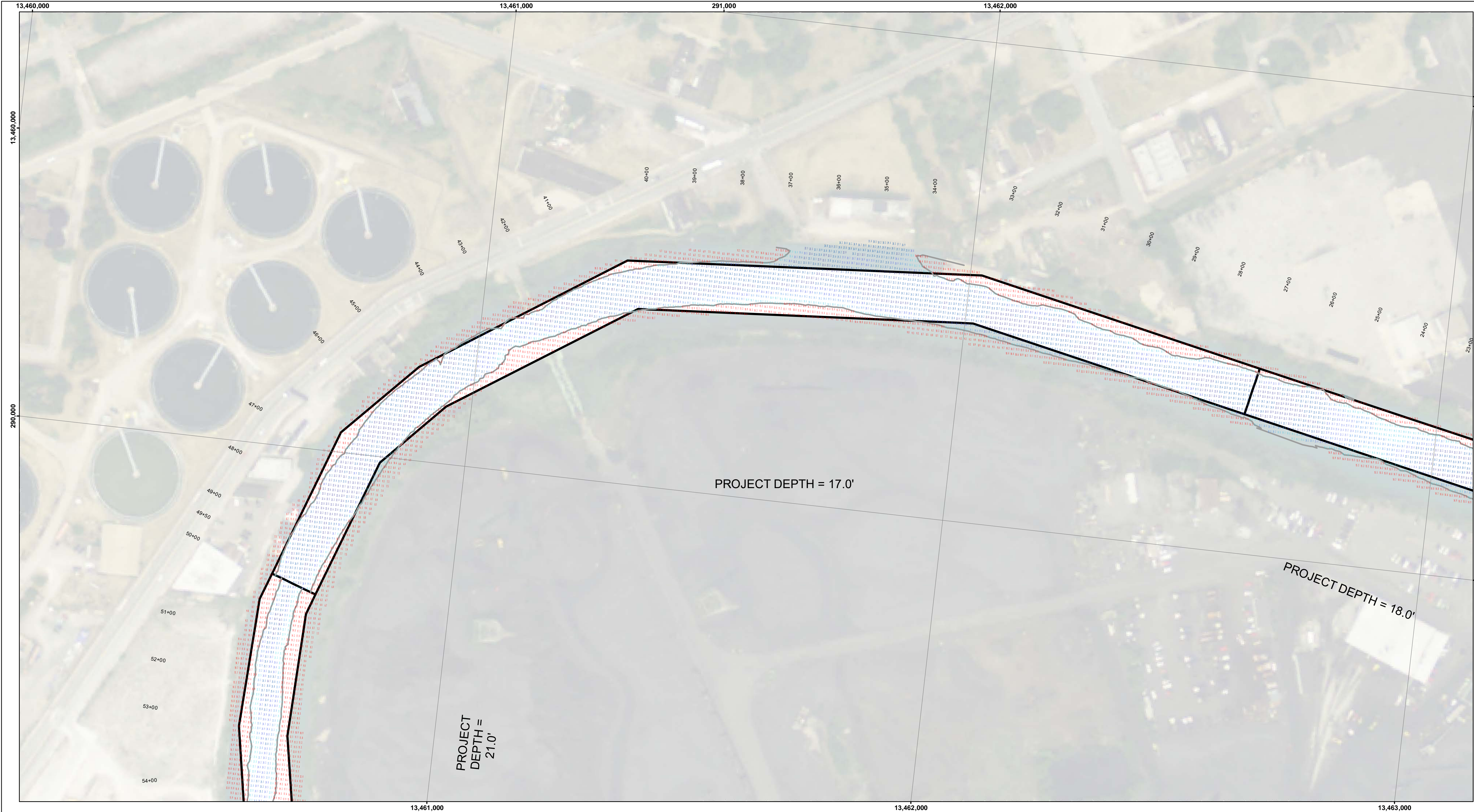
DISCLAIMER: The data presented in this report is the result of data collection and processing for a specific purpose. The U.S. Army Corps of Engineers activity and indicates the general existing conditions. The data is not intended to be used for any other purpose than the intended purpose of the data. The user is responsible for the results of any of the application of the data for other than its intended purpose.

ACCESS LIMITATIONS: 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 other purpose than the intended purpose of the data. The data are not to be used for any other purpose than the intended purpose of the data. The data are not to be used for any other purpose than the intended purpose of the data.

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

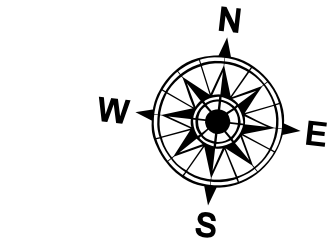
River Rouge, MI
Rouge River
RR_01_ROU_20230919_CS
19 September 2023

Sheet Reference Number
7 of 9

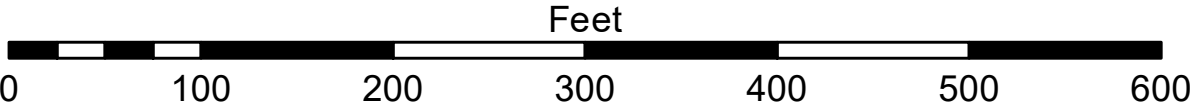


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPL ANX POS-M/V

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



DISCLAIMER: The data represents the results of data collection and processing 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. The user is responsible for the results of any of the application of the data for other than its intended purpose.

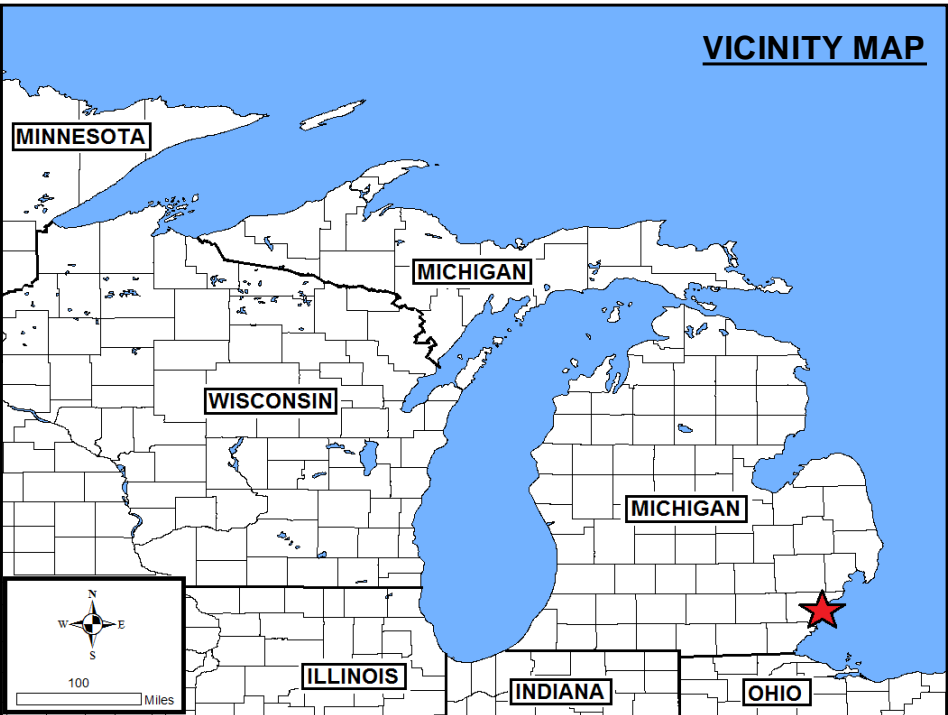
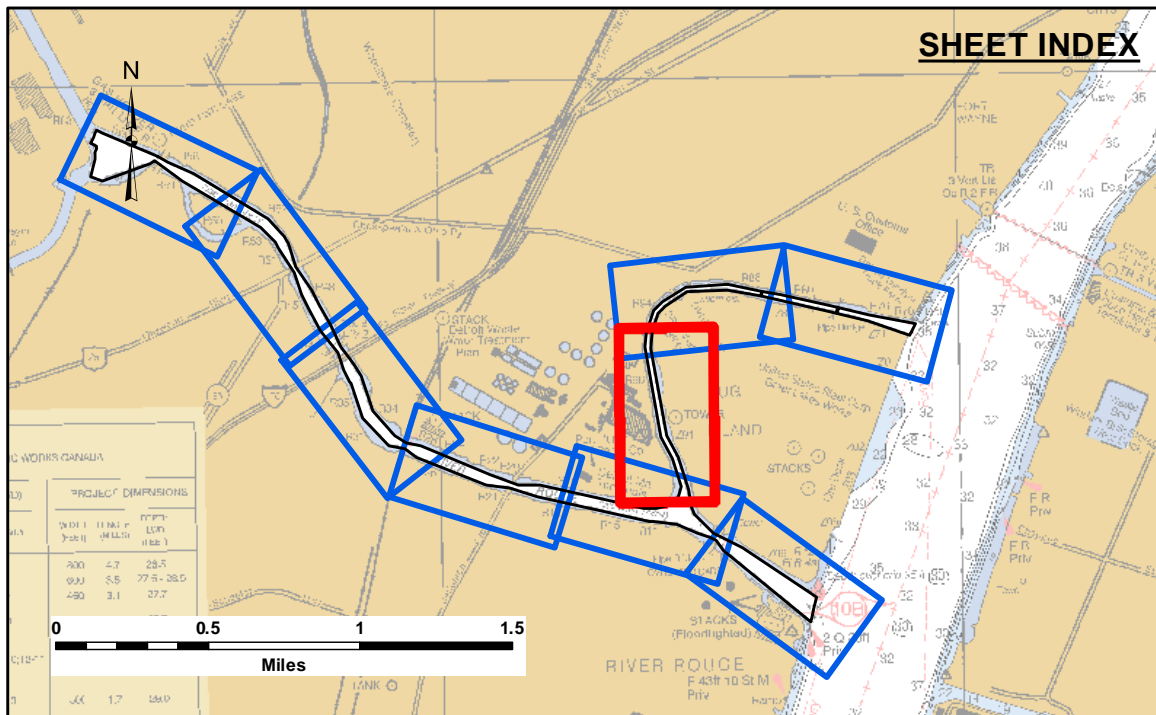
DISCLAIMER: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the data is not intended to be used for any purpose other than the intended purpose. The data is not intended to be used for any purpose other than the intended purpose. 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: Chief, Survey Section	Plotted By:
Approved: Chief, Technical Services	Checked By:

River Rouge, MI
Rouge River
RR_01_ROU_20230919_CS
19 September 2023

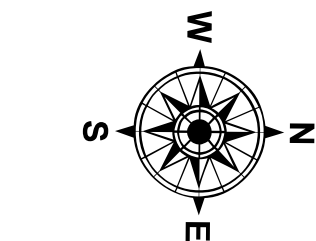
Sheet
Reference
Number
8 of 9

Revision Number:
4.2-20230919

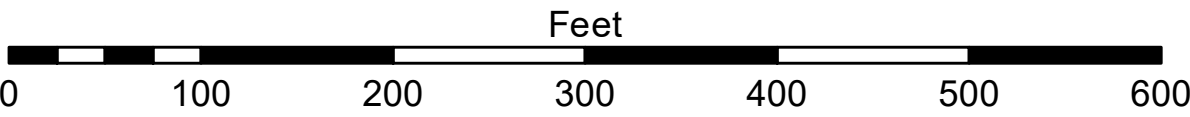


- LEGEND**
- Cable Submarine
 - - Cable Overhead
 - Placement Area
 - ⊥ Beacon, General
 - Contour Lines
 - ▭ Channel_Limits

- 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 HEREON ARE GENERALIZED DEPTHS AND ARE NOT REPRESENTATIVE OF THE FULL DATASET. THE SOUNDINGS REPRESENT THE MINIMUM DEPTH FOUND WITHIN THE 10 FOOT BY 10 FOOT AREA CENTERED ON THE TEXT. DERIVED FROM A 1 FOOT BY 1 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/SOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:

HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE #2113, NORTH AMERICAN DATUM (NAD) OF 1983, U.S. SURVEY FEET

VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985. THE LOW WATER DATUM FOR THE ROUGE RIVER IS 571.2'.

PROJECT DEPTHS FOR THE ROUGE RIVER INCLUDE: 17', 18', 21' AND 25'

TOP OF 5 FOOT GAGE BOARD LOCATED AT THE JEFFERSON AVE BRIDGE WAS USED TO DETERMINE THE WATER LEVEL.

THE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL(S) WHEELER AND/OR LAUNCH 3053, EMPLOYING THE FOLLOWING COMPONENTS:

POSITIONING: APPL ANX POS-M IV

CORRECTIONS: VRSRTK OR MARINESTAR GNSS

SONAR: R2SONIC 2024 (MULTI-BEAM), CV-300 (SINGLE-BEAM)

SOFTWARE: HYPACK



DISCLAIMER: The data represents the results of data collection and processing 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 data. The user is responsible for the results of any of the 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 is not intended to be used for any purpose other than the intended purpose of the data. 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:	

River Rouge, MI
Rouge River
RR_01_ROU_20230919_CS
19 September 2023

Sheet
Reference
Number
9 of 9