

[illegible]

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|--|--|---|---|---|
| U.S. ARMY CORPS OF ENGINEERS DETROIT DISTRICT DETROIT, MI | SPORTEC NO. 85 | REVIEWED BY: REVIEWED DATE: 01/11/2016 | APPROVED BY: APPROVED DATE: 01/11/2016 | FILE NUMBER: FILE NAME: Bollis Harbor.dgn |
| | DRAWING DATE: 1/11/2016 DRAWING DATE: 1/11/2016 | SUBMITTED BY: CONTRACT NO.: | PLOT SCALE: 1" = 100' IMAGE SOURCE: ANSI D | IMAGE DATE: 1/11/2016 |
| DETROIT AREA OFFICE 6309 WEST JEFFERSON AVE. DETROIT, MICHIGAN 48209 | | | | |

**BOLLES HARBOR
MICHIGAN**

CONDITION SURVEY
6 & 7 JUNE 2018

SHEET IDENTIFICATION

SHEET 1 OF 3



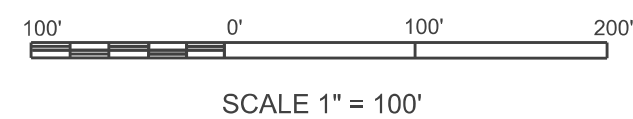
NOTES:

- 1) THE SOUNDINGS AND ASSOCIATED INFORMATION REPRESENTED HEREIN ARE THE RESULT OF SURVEYS MADE ON THE DATE AS INDICATED AND CAN ONLY BE CONSIDERED REPRESENTATIVE OF THE GENERAL CONDITIONS EXISTING AT THE TIME OF SURVEY.
- 2) 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.
VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985.
- 3) THE ABOVE LAKE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY LAUNCH #3053 EMPLOYING THE FOLLOWING COMPONENTS:
POSITIONING: APPLANIX POS-MV4 W/DGPS CORRECTIONS, U.S.C.G. BEACON #319
MOTION COMPENSATION: APPLANIX POS-MV4
SONAR: ODOM CV-300
SOFTWARE: HYPACK 2015

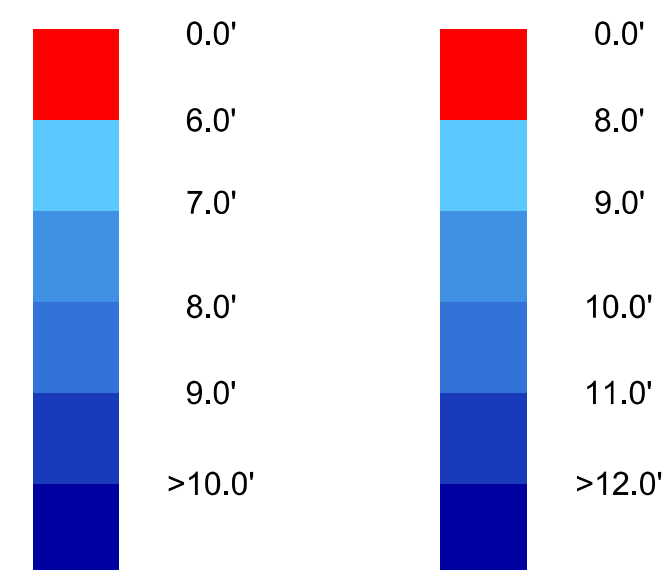
THE ABOVE RIVER SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL
SKIFF EMPLOYING THE FOLLOWING COMPONENTS:
POSITIONING: TRIMBLE R-10 GPS W/RTN-VRS CORRECTIONS
MOTION COMPENSATION:
SONAR: ODOM CV-300
SOFTWARE: HYPACK 2015

- 4) TIDE GAGE USED FOR RIVER WERE REFERENCED FROM A CHISELED MARK ON STEEL WALL LOCATED ACROSS FROM BOLLES HARBOR DNR BOAT RAMP, AT APPROXIMATELY C.S. 2+00N, SET OFF NGS B.M. 14DTSRR, PID -- MC0305.

TIDE GAGE USED FOR LAKE WERE DERIVED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) WATER LEVEL STATION(S) AS FOLLOWS:
FERMI POWER PLANT, MI (#9063090) L.W.D.=569.2



LEGEND



6.0 ft. PROJECT DEPTH CONTOUR

8.0 ft. PROJECT DEPTH CONTOUR

| CHANNEL CONTROL DATA | | | | CHANNEL CONTROL DATA | | | |
|----------------------|--------------|--------------|-----------------|----------------------|--------------|--------------|-----------------|
| STATION NUMBER | DESCRIPTION | COORDINATES | | STATION NUMBER | DESCRIPTION | COORDINATES | |
| | | NORTH | EAST | | | NORTH | EAST |
| 8 | CHANNEL LINE | 137,495.3712 | 13,389,717.4357 | 11 | CHANNEL LINE | 138,071.6575 | 13,388,722.8524 |
| 9 | CHANNEL LINE | 137,878.3691 | 13,389,164.1633 | 4 | CHANNEL LINE | 137,371.3642 | 13,391,364.2624 |
| 10 | CHANNEL LINE | 137,889.1159 | 13,389,166.7186 | 5 | CHANNEL LINE | 137,628.0029 | 13,390,453.8543 |
| 11 | CHANNEL LINE | 137,893.3234 | 13,388,588.2496 | 6 | CHANNEL LINE | 137,628.5688 | 13,390,190.7383 |
| 12 | CHANNEL LINE | 138,006.9219 | 13,388,265.8119 | 7 | CHANNEL LINE | 137,638.0667 | 13,389,918.1793 |
| 13 | CHANNEL LINE | 138,006.9219 | 13,388,265.8119 | 8 | CHANNEL LINE | 137,638.0667 | 13,389,918.1793 |
| 14 | CHANNEL LINE | 137,908.4555 | 13,388,605.6565 | 20 | CHANNEL LINE | 137,938.5013 | 13,390,235.5633 |
| 15 | CHANNEL LINE | 137,746.7279 | 13,388,775.8883 | 21 | CHANNEL LINE | 137,880.8179 | 13,390,520.9292 |
| 16 | CHANNEL LINE | 137,737.5340 | 13,388,775.8883 | 22 | CHANNEL LINE | 137,880.8179 | 13,391,293.2131 |
| 17 | CHANNEL LINE | 137,706.7159 | 13,389,225.0477 | 23 | CHANNEL LINE | 137,909.5311 | 13,391,488.3831 |
| 18 | CHANNEL LINE | 137,548.8151 | 13,389,564.9719 | 3 | CENTERLINE | 137,623.6313 | 13,391,734.8562 |
| 7 | CENTERLINE | 137,623.6313 | 13,389,728.2778 | 2 | CENTERLINE | 137,623.6313 | 13,391,734.8562 |
| 6 | CENTERLINE | 137,692.4925 | 13,389,204.4941 | 5 | CENTERLINE | 137,885.5851 | 13,390,231.1508 |
| 5 | CENTERLINE | 137,702.283 | 13,389,704.4335 | 6 | CENTERLINE | 137,885.5851 | 13,389,673.6503 |
| 4 | CENTERLINE | 137,885.5851 | 13,389,673.6503 | | | | |

