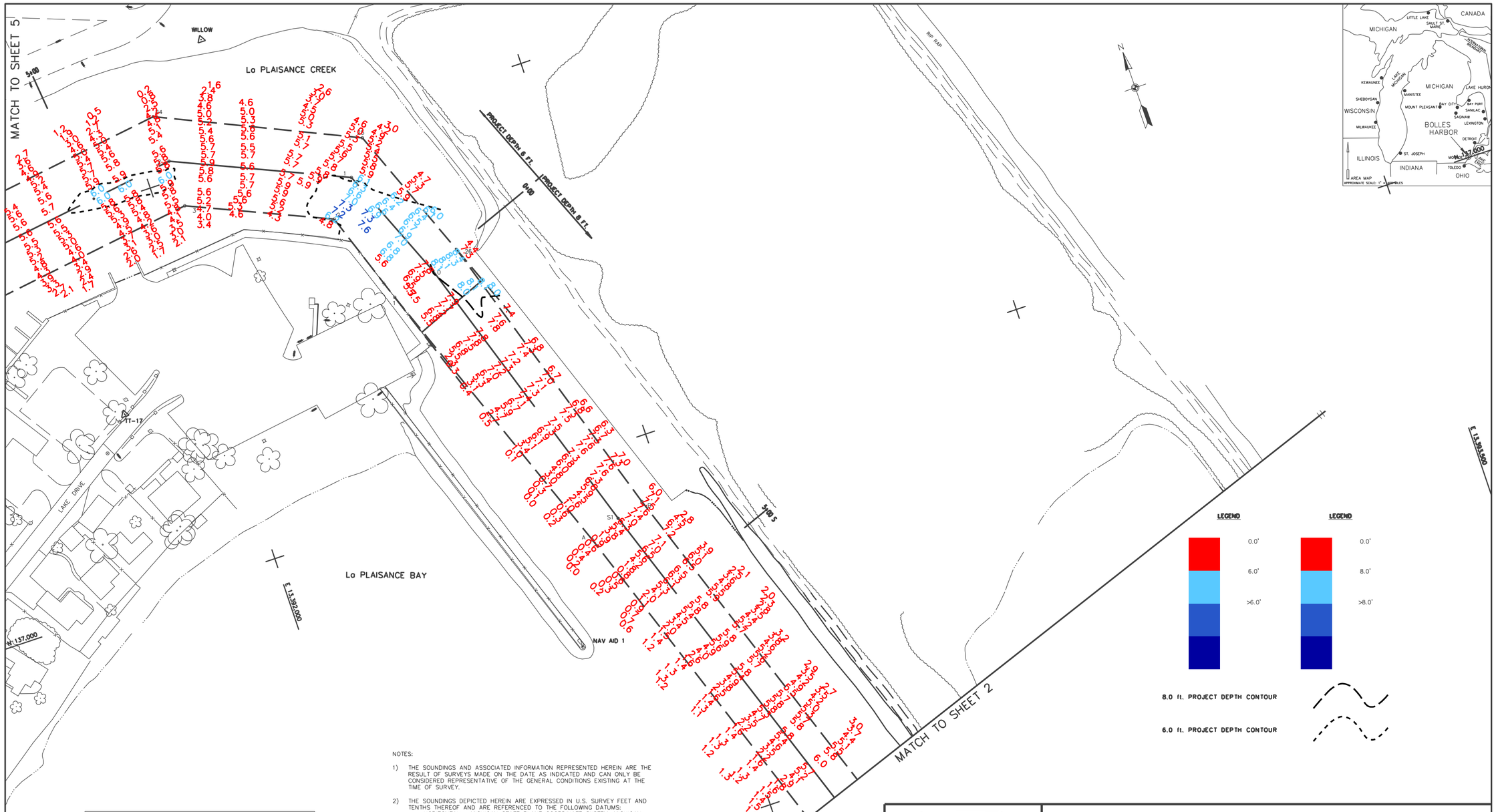

AIDS TO NAVIGATION			
DESCRIPTION	COORDINATES NORTH	COORDINATES EAST	ELEV.
NAV AID 1	136,767	13,392,337	

CHANNEL CONTROL DATA			
STATION NUMBER	DESCRIPTION	COORDINATES NORTH	COORDINATES EAST
A	CHANNEL LINE	136,893.4156	13,392,392.4152
1	CHANNEL LINE	137,268.0063	13,392,251.7156
2	CHANNEL LINE	137,387.3878	13,392,210.2491
3	CHANNEL LINE	137,464.4191	13,392,034.5988
24	CHANNEL LINE	137,585.3230	13,392,032.8052
25	CHANNEL LINE	137,474.4008	13,392,277.5273
26	CHANNEL LINE	137,300.8223	13,392,346.1738
B	CHANNEL LINE	136,919.6725	13,392,467.9857
0	CENTERLINE	137,284.4981	13,392,308.9454
1	CENTERLINE	137,430.8513	13,392,248.0801
2	CENTERLINE	137,524.8711	13,392,033.7020
S1	CENTERLINE	136,909.1000	13,392,432.4000

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 2013

THE ABOVE RIVER SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL SKIFF EMPLOYING THE FOLLOWING COMPONENTS:
POSITIONING: TRIMBLE DSM
MOTION COMPENSATION:
SONAR: ODOM CV-300
SOFTWARE: HYPACK 2013

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

US ARMY CORPS OF ENGINEERS
DETROIT DISTRICT

UNITED STATES ARMY CORPS OF ENGINEERS
DETROIT AREA OFFICE, DETROIT, MICHIGAN

CONDITION SURVEY
BOLLES HARBOR, MI

CS 00+00 TO CS 06+00
CS 00+00 TO CS 09+00S

DRAWN BY: B.R.

CHECKED BY: C.V.L.

DATE OF SURVEY: 26 APRIL 2016

100' 0' 100' 200'

SCALE 1" = 100'

SHEET 1 OF 6