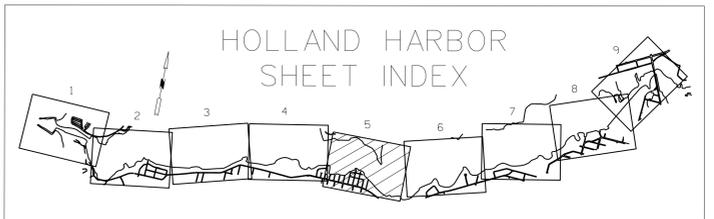
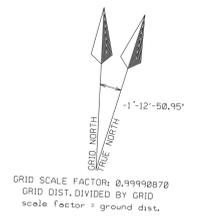




21 FT. PROJECT DEPTH
 CHANNEL LIMITS SHOWN THUS: ---
 21 FT. CONTOUR SHOWN THUS: - - -

SURVEYED ON: 09 JUNE 2016
 POSITIONING METHOD: DGPS, USING C. G. BEACON CORRECTIONS
 VESSEL: LAUNCH 3033



ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.3 FT. APPLIED.

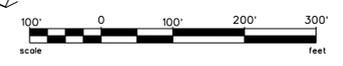
GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. SURVEY FOOT.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAUGE MARK ALONG THE SHEET STEEL WALL NEAR CROSS SECTION 290+00E IN HOLLAND HARBOR, MI.

| CHANNEL LINE T.P. | | |
|-------------------|---------------|------------|
| T.P. | EAST X | NORTH Y |
| M | 12,643,985.57 | 470,853.10 |
| 102 | 12,644,461.09 | 470,643.36 |

| CENTER LINE T.P. | | |
|------------------|---------------|------------|
| T.P. | EAST X | NORTH Y |
| CL 5 | 12,644,440.33 | 470,722.52 |



| NO. | DATE | REVISION | BY |
|--|------|---|----|
| U.S. ARMY ENGINEER DISTRICT, DETROIT CORPS OF ENGINEERS DETROIT, MICHIGAN | | | |
| DRAWN BY | | HOLLAND HARBOR, MICHIGAN | |
| DESIGNED BY | | CONDITION OF CHANNEL | |
| CHECKED BY | | JUNE 2016 | |
| REVIEWED | | GRAND HAVEN AREA OFFICE | |
| SUBMITTED | | APPROVAL RECOMMENDED: | |
| CHIEF, PROJ. OPERS. SECTION | | CHIEF, OTS' BRANCH | |
| APPROVED | | DATE | |
| P.E. | | SCALE 1" = 100' | |
| CHIEF, CONST. OPNS. DIVISION | | CADD FILENAME: HOC05016.DGN DRAWING NUMBER | |
| | | SHEET 5 OF 9 | |