



| SURVEY CONTROL POINTS | | | |
|-----------------------|----------------|-------------|-------|
| STATION | COORDINATES | | NORTH |
| | EAST | X | |
| CDE3 | 19,737,430.738 | 829,044.618 | |
| HAM1 | 19,735,939.645 | 829,666.149 | |
| HAMMOND | 19,736,758.430 | 829,197.472 | |
| P1 | 19,735,805.443 | 829,714.889 | |
| P2 | 19,737,413.599 | 830,136.696 | |
| P3 | 19,736,869.817 | 828,645.105 | |
| P4 | 19,737,789.491 | 829,609.922 | |
| P5 | 19,737,932.404 | 827,586.695 | |
| PE | 19,738,368.627 | 828,649.498 | |
| TANK | 19,737,477.008 | 829,065.474 | |
| NAVAID 1 | 19,737,283.629 | 830,239.432 | |
| NAVAID 2 | 19,737,289.886 | 829,877.881 | |

| CHANNEL LINE POINTS | | | |
|---------------------|----------------|-------------|-------|
| STATION | COORDINATES | | NORTH |
| | EAST | X | |
| A | 19,737,828.540 | 830,360.490 | |
| B | 19,737,281.930 | 830,299.538 | |
| C | 19,737,241.712 | 830,277.367 | |
| D | 19,737,228.945 | 830,233.254 | |
| E | 19,737,251.116 | 830,193.036 | |
| F | 19,737,479.947 | 830,010.121 | |
| G | 19,737,853.655 | 829,386.132 | |
| H | 19,737,777.131 | 829,340.304 | |
| I | 19,737,175.908 | 829,495.359 | |
| J | 19,737,144.745 | 829,593.247 | |
| K | 19,737,347.253 | 829,847.000 | |
| L | 19,737,331.546 | 829,923.506 | |
| M | 19,736,940.983 | 830,235.697 | |
| N | 19,736,562.880 | 830,940.712 | |

LIMITS OF FEDERAL PROJECT
PROJECT DEPTH 12.0 FT.

LIMITS OF FEDERAL PROJECT
PROJECT DEPTH 10.0 FT.

WATER LEVEL / GAGE INFORMATION
Water level elevations (gags) obtained during the survey were from TBM 1 (B.M.).
TBM was established from NGS vertical control point W 301 (PID GR0514).

LEGEND
The information depicted on this map represents the results of the surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

LOW WATER DATUM
All depths and project depths are referred to Low Water Datum elevation 577.5 Ft. above Mean Water Level, (11.G.L.D.) 1985.

GRID COORDINATES
Grids shown are based on the National Geodetic Survey Projection Tables, State of Michigan, Central Zone (312), Lambert Projection, 1983 North American Datum, US SURVEY FOOT.

Navigation Buoys
Location of navigation buoys represents that general location on the date of the survey and cannot be considered for navigation.

Project Information
Project Depth - AS NOTED
10.0 Ft. contour shown thus -----
12.0 Ft. contour shown thus -----

Survey Information
Survey by: R. DELESTOWICZ
Date of survey: 4 NOVEMBER 2009
Position system: Starlink DGPS via Coast Guard System
Sonic sounder: InterSpace 448
Transducer: 208 KHZ with 8.0 degree beam angle

| | | | |
|--|---------------------------|--|----------------|
| NO. | DATE | REVISION | R.D. |
| 1 | 4 MAY, 2004 | BM DOCK DESTROYED | |
| U.S. ARMY ENGINEER DISTRICT, DETROIT CORPS OF ENGINEERS DETROIT, MICHIGAN | | | |
| DESIGNED BY: | HAMMOND BAY HARBOR, MI. | | |
| DRAWN BY: | R. DELESTOWICZ | | |
| CHECKED BY: | CONDITION 4 NOVEMBER 2009 | | |
| REVIEWED BY: | SAGINAW FIELD OFFICE | | |
| SUBMITTED BY: | P.E. | APPROVAL RECOMMENDED: | P.E. DATE |
| CHIEF, PROJ. OPNS. SEC. | | CHIEF, OPERATIONS TECHNICAL SUPPORT BRANCH | |
| APPROVED: | SCALE: 1 INCH = 100 FT. | | DRAWING NUMBER |
| CHIEF, CONSTRUCTION OPERATIONS DIVISION | SHEET 1 OF 1 | | HM0109C.DGN |