



**LEGEND**  
 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 AT THE TIME.

**LOW WATER DATUM**  
 ELEVATIONS AND PROJECT DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM, (1985)

**GRID COORDINATES**  
 GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (2113), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.

ALL COORDINATES ARE IN U.S. SURVEY FEET.

**DIRECTIONS**  
 ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS ARE AS SHOWN ON DRAWING. ALL DEPTHS ARE IN U.S. SURVEY FEET.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY ROBERT W. POLAK AND JAMES P. BYRNE, ABOARD THE USACE SURVEY VESSEL "WHEELER".

**AUTOMATED EQUIPMENT USED**  
 POSITIONING: TSS POS-MV  
 SOFTWARE: HYDRACK HYSWEEP  
 SONIC SOUNDERS: RESON SEABAT 8125

**NOTES:**

- GAUGES USED WERE OBTAINED FROM A TEMPORARY GAUGE BOARD SET FROM A TBM ON LIGHT DL16. TBM WAS SET BY GPS AND VERIFIED BY GAUGES SET ON THE GREEN SIDE OF CHANNEL.
- POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838, LOCATED AT FORT WAYNE DETROIT, MICHIGAN - FREQUENCY 319 KHZ, 200 BPS
- DEPTH MEASURED USING SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTI-BEAM ECHOSOUNDER SYSTEM AND THE ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER
- EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FT. BY 15 FT. MATRIX. THE LARGEST STRIKE LOCATED IN EACH MATRIX CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.



**\* SPECIAL NOTICE**  
 THE CENTER 200 FT. OF CHANNEL WAS SURVEYED ON THE DATE INDICATED, THE REMAINDER WAS SURVEYED IN THE BEGINNING OF THE SEASON, 13 MAY 2008.

RESWEEP -- 2

DESIGNED BY:	DATE:	REVISION:	BY:
U.S. ARMY ENGINEER DISTRICT, DETROIT CORPS OF ENGINEERS DETROIT, MICHIGAN			
DESIGNED BY:	DATE:	26 AUGUST 2008	
DETROIT AREA OFFICE DETROIT RIVER, MICHIGAN LIVINGSTONE CHANNEL CS 285+50 TO 321+50 MULTI-BEAM SWEEP SURVEY STRIKE PLOT			
CHECKED BY:	APPROVAL RECOMMENDED:	P.E.	DATE
REVIEWED BY:	CHIEF, PROJ OPS SEC	CHIEF, OPERATIONS TECHNICAL SUPPORT BRANCH	
APPROVED:	SCALE AS SHOWN		DRAWING NUMBER
CHIEF, CONSTRUCTION - OPERATIONS DIVISION	SHEET 9 OF 14		19LSD0808.ggd