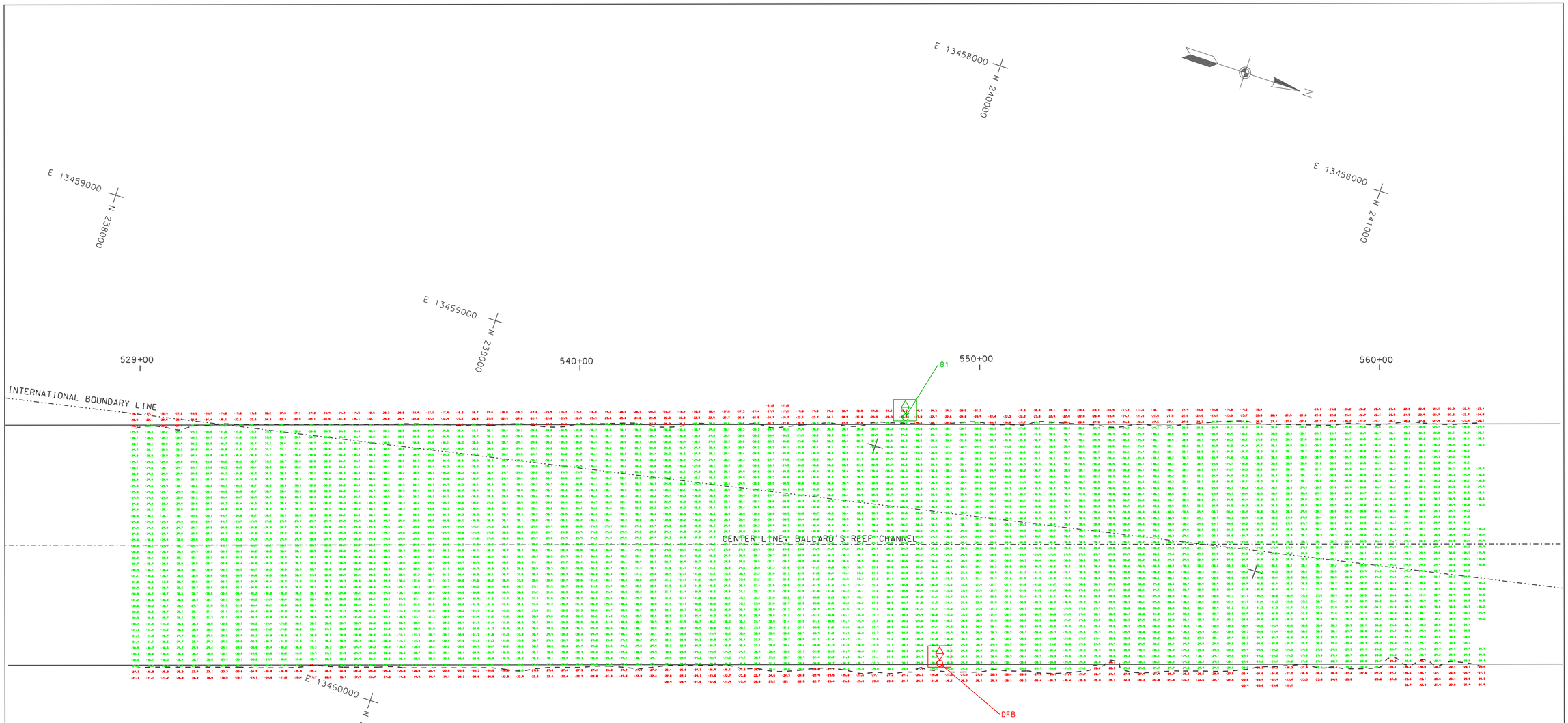

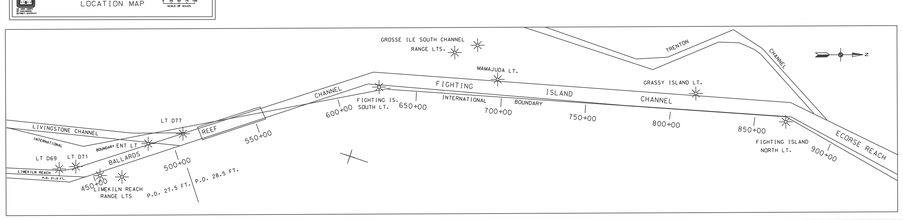


LEGEND

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 USACOE SURVEY VESSEL "WHEELER".

AUTOMATED EQUIPMENT USED

| | |
|---|---|
| POSITIONING: | TSS POS-MV |
| SOFTWARE: | HYPACK HYSWEEP |
| SONIC SOUNDER: | RESON SEABAT 8125 |

NOTES:

1. GAGES USED WERE OBTAINED ELECTRONICALLY FROM THE NOAA GAGE AT WYANDOTTE (9044030) VIA THE INTERNET.
2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838, LOCATED AT FORT WAYNE DETROIT, MICHIGAN - FREQUENCY 319 KHZ, 200 BPS
3. DEPTH MEASURED USING SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTIBEAM ECHOSOUNDER SYSTEM AND ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER.
4. EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FT. BY 15 FT. MATRIX. THE LARGEST STRIKE LOCATED IN EACH CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.

28.5 ft. PROJECT DEPTH CONTOUR

100' 0' 100' 200'
SCALE

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1. | 27 AUG. 2008 | EDITTED NOTES | RWP |
| 2. | 27 AUG. 2008 | PLACED SOUNDINGS AND CONTOURED | RWP |

U.S. ARMY ENGINEER DISTRICT, DETROIT
CORPS OF ENGINEERS
DETROIT, MICHIGAN

DETROIT AREA OFFICE — 21 JULY 2008

# DETROIT RIVER, MICHIGAN
## BALLARD'S REEF CHANNEL
CS 529+00 TO CS 560+00
MULTI-BEAM SWEEP CONDITION SURVEY
AVERAGE DEPTH PLOT

DESIGNED BY:
DRAWN BY: RWP
CHECKED BY:
REVIEWED BY:
SUBMITTED BY: CHIEF, PROJ OPNS SEC P.E.
APPROVAL RECOMMENDED: CHIEF, OPERATIONS MAINT BRANCH P.E. DATE
APPROVED: CHIEF, CONSTRUCTION - OPERATIONS DIVISION P.E.
SCALE AS SHOWN
SHEET 4 OF 6
DRAWING NUMBER br4c0708.dgn