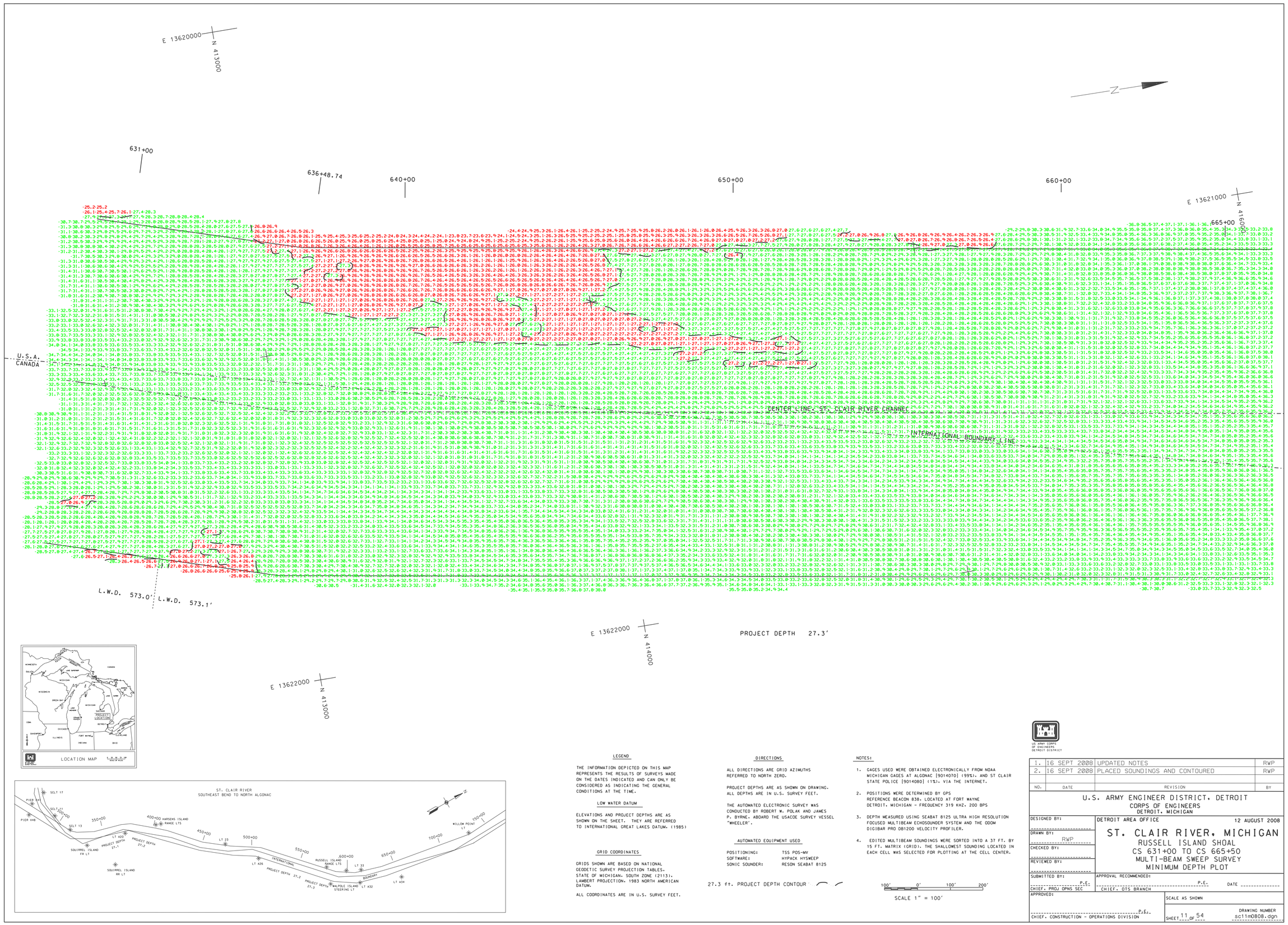








LEGEND

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 AS SHOWN ON THE SHEET. THEY 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 |

27.3 ft. PROJECT DEPTH CONTOUR

NOTES:

1. GAGES USED WERE OBTAINED ELECTRONICALLY FROM NOAA MICHIGAN GAGES AT ALGONAC [9014070] (99%). AND ST CLAIR STATE POLICE [9014080] (1%). 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 THE ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER.
4. EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FT. BY 15 FT. MATRIX (GRID). THE SHALLOWEST SOUNDING LOCATED IN EACH CELL WAS SELECTED FOR PLOTTING AT THE CELL CENTER.

100' 0' 100' 200'

SCALE 1" = 100'

US ARMY CORPS OF ENGINEERS DETROIT DISTRICT

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| 1. | 16 SEPT 2008 | UPDATED NOTES | RWP |
| 2. | 16 SEPT 2008 | PLACED SOUNDINGS AND CONTOURED | RWP |

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

DETROIT AREA OFFICE — 12 AUGUST 2008

# ST. CLAIR RIVER, MICHIGAN

RUSSELL ISLAND SHOAL
CS 631+00 TO CS 665+50
MULTI-BEAM SWEEP SURVEY
MINIMUM DEPTH PLOT

DESIGNED BY:
DRAWN BY: RWP
CHECKED BY:
REVIEWED BY:
SUBMITTED BY: P.E.
CHIEF, PROJ OPNS SEC

APPROVAL RECOMMENDED: P.E.
CHIEF, OTS BRANCH
DATE

APPROVED: P.E.
CHIEF, CONSTRUCTION - OPERATIONS DIVISION

SCALE AS SHOWN

SHEET 11 OF 54

DRAWING NUMBER sc11m0808.dgn