

E 13460000 N 209000

E 13460000 N 210000

E 13461000 N 212000

N 211000 E 13461000

E 13462000 N 211000

E 13462000 N 210000

E 13462000 N 209000

221+50

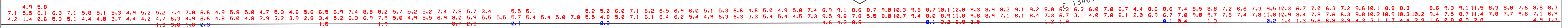
230+00

240+00

250+00

257+50

BAR POINT RANGE FRONT LIGHT 49D



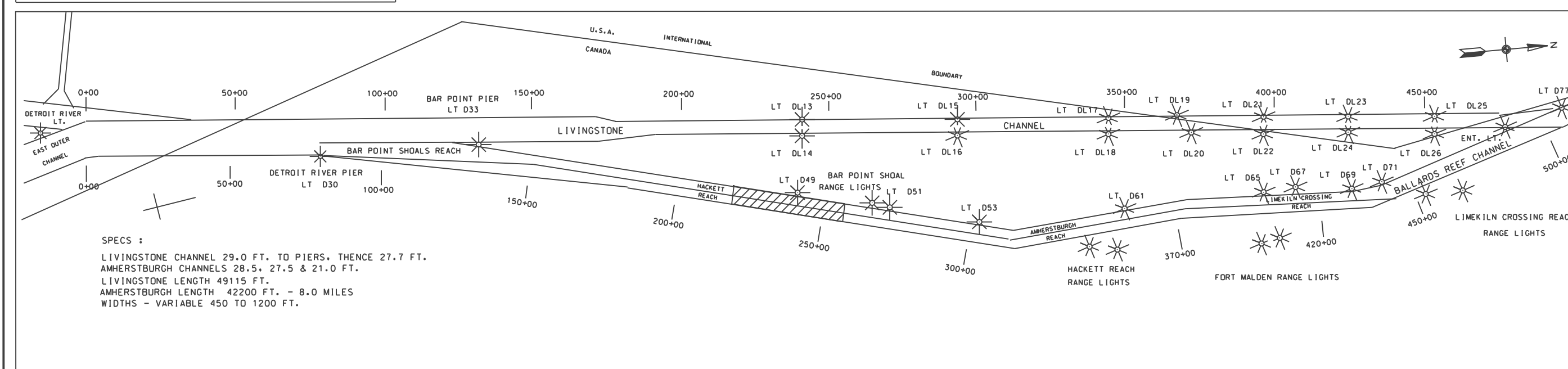
PROJECT DEPTH 28.5' (west half)

CENTER LINE, HACKETT REACH CHANNEL

PROJECT DEPTH 21.0' (east half)

FLOW

L.W.D. 569.2'



**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.

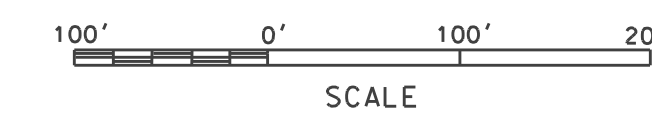
THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY ROBERT R. SCHLIEBE AND JAMES P. BYRNE, ABOARD THE USACDE SURVEY VESSEL "WHEELER".

**AUTOMATED EQUIPMENT USED**

POSITIONING: TSS POS-MW  
SOFTWARE: HYDRACK HYDROMAP  
SONIC SOUNDERS: RESON SEABAT 8125

**NOTES:**

- 1. GAGES USED WERE OBTAINED BY AVERAGING GAGE DATA FROM A TEMPORARY GAGE BOARD SET FROM TOM LADER AT THE CCG BASE IN AMHERSTBURG AND THE CHS PHONE GAGE AT BAR POINT DETROIT, MICHIGAN - FREQUENCY 319 KHZ, 200 BPS
- 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 MULTI-BEAM ECHOSOUNDER SYSTEM AND THE 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 MATRIX CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.



1. 23 JULY 2008	UPDATED NOTES	RWP	
2. 23 JULY 2008	PLACED SOUNDINGS	RWP	
NO.	DATE	REVISION	BY
U.S. ARMY ENGINEER DISTRICT, DETROIT CORPS OF ENGINEERS DETROIT, MICHIGAN			
DESIGNED BY:	DETROIT AREA OFFICE	16 JUNE 2008	
DRAWN BY:	RWP		
CHECKED BY:			
REVIEWED BY:			
SUBMITTED BY:			
APPROVED:			
DETROIT AREA OFFICE		16 JUNE 2008	
DETROIT RIVER, MICHIGAN			
AMHERSTBURG CHANNEL			
CS 221+50 TO CS 257+50			
MULTI-BEAM SWEEP SURVEY			
STRIKE PLOT			
APPROVAL RECOMMENDED:	P.E. DATE	P.E. DATE	
CHIEF, "PROJ. OPS. SEC."	CHIEF, OPERATIONS TECHNICAL SUPPORT BRANCH		
SCALE AS SHOWN		DRAWING NUMBER	
SHEET 5 OF 10		0550608.dgn	