

ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN. ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.3 FT. APPLIED.

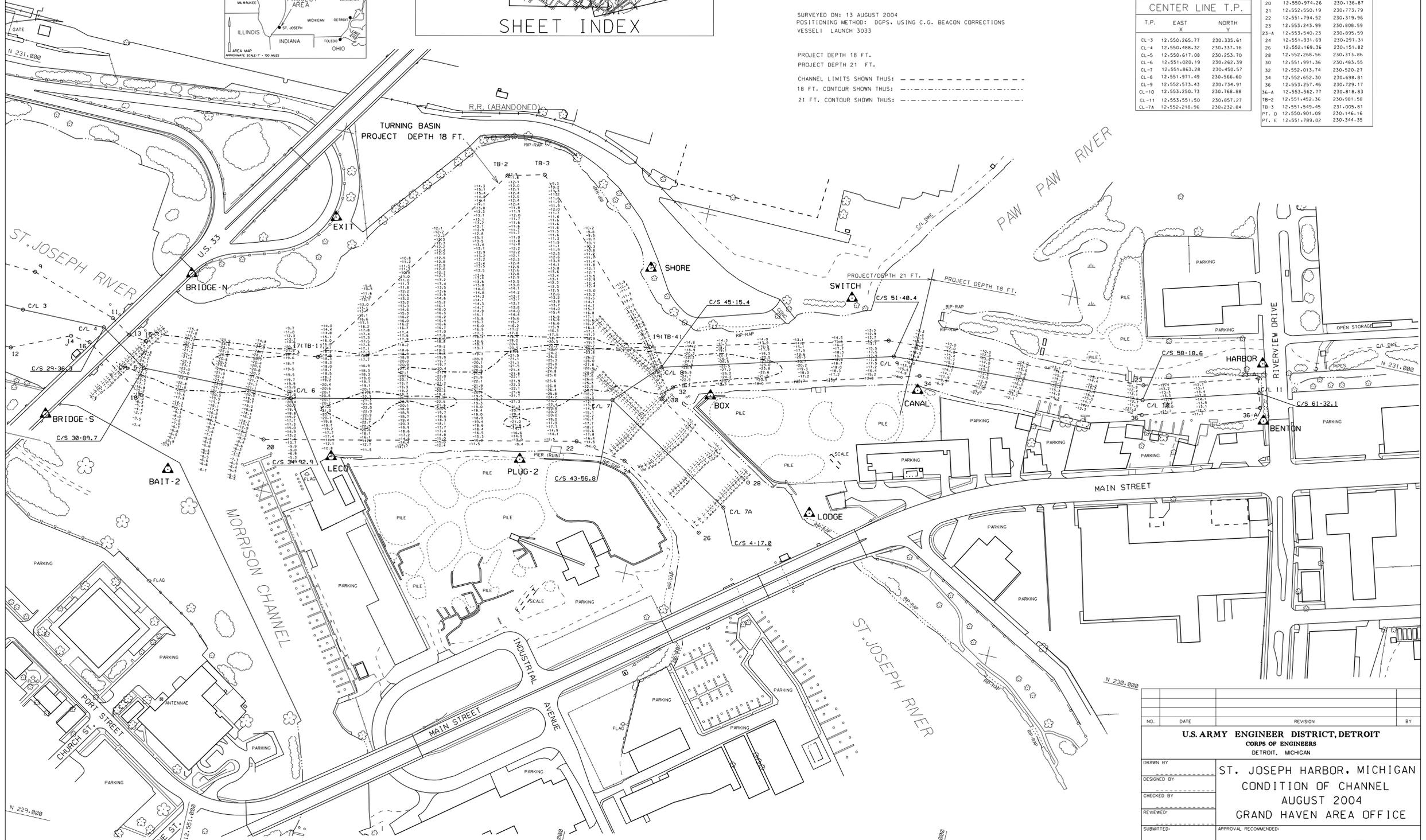
STATE PLANE COORDINATE SYSTEM, SOUTH ZONE (2113) 1983 NORTH AMERICAN DATUM, U.S. SURVEY FOOT. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

SURVEYED ON: 13 AUGUST 2004  
POSITIONING METHOD: DOPS, USING C.G. BEACON CORRECTIONS  
VESSEL: LAUNCH 3033

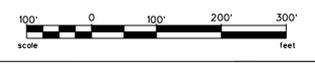
PROJECT DEPTH 18 FT.  
PROJECT DEPTH 21 FT.  
CHANNEL LIMITS SHOWN THUS: ---  
18 FT. CONTOUR SHOWN THUS: - - -  
21 FT. CONTOUR SHOWN THUS: - - -

CHANNEL LINE T.P.		
T.P.	EAST X	NORTH Y
9	12,550,274.71	230,442.84
11	12,550,506.19	230,367.29
12	12,550,296.82	230,228.37
13	12,550,593.42	230,532.78
14	12,550,407.60	230,295.32
15	12,550,606.81	230,326.50
16	12,550,459.98	230,288.39
17	12,551,066.12	230,387.91
18	12,550,627.25	230,180.90
19	12,551,929.24	230,612.93
20	12,550,974.26	230,136.87
21	12,552,950.19	230,773.79
22	12,551,794.52	230,319.96
23	12,553,243.99	230,808.59
23-A	12,553,540.23	230,895.59
24	12,551,931.69	230,297.31
26	12,552,169.36	230,151.82
28	12,552,688.56	230,313.86
30	12,551,991.35	230,483.55
32	12,552,013.74	230,520.27
34	12,552,652.30	230,698.81
36	12,553,257.46	230,729.17
36-A	12,553,562.77	230,818.83
TB-2	12,551,452.36	230,981.98
TB-3	12,551,549.45	231,005.81
PT. 0	12,550,901.09	230,146.16
PT. E	12,551,789.02	230,344.35

CENTER LINE T.P.		
T.P.	EAST X	NORTH Y
CL-3	12,550,265.77	230,335.61
CL-4	12,550,488.32	230,337.16
CL-5	12,550,617.08	230,253.70
CL-6	12,551,020.19	230,262.39
CL-7	12,551,863.28	230,450.57
CL-8	12,551,971.49	230,566.60
CL-9	12,552,573.43	230,734.91
CL-10	12,553,250.73	230,768.88
CL-11	12,553,551.50	230,851.27
CL-7A	12,552,218.96	230,232.84



DATE OF PHOTOGRAPHY  
19 JULY 1992



NO.	DATE	REVISION	BY
<b>U.S. ARMY ENGINEER DISTRICT, DETROIT</b> CORPS OF ENGINEERS DETROIT, MICHIGAN			
DRAWN BY		<b>ST. JOSEPH HARBOR, MICHIGAN</b> <b>CONDITION OF CHANNEL</b> <b>AUGUST 2004</b> <b>GRAND HAVEN AREA OFFICE</b>	
DESIGNED BY			
CHECKED BY			
REVIEWED			
SUBMITTED		APPROVAL RECOMMENDED	
APPROVED		DATE	
P.E.		SCALE 1" = 100'	
CHIEF, CONST. & OPER. DIVISION		SHEET 3 OF 3	