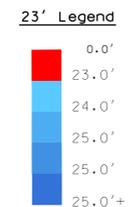
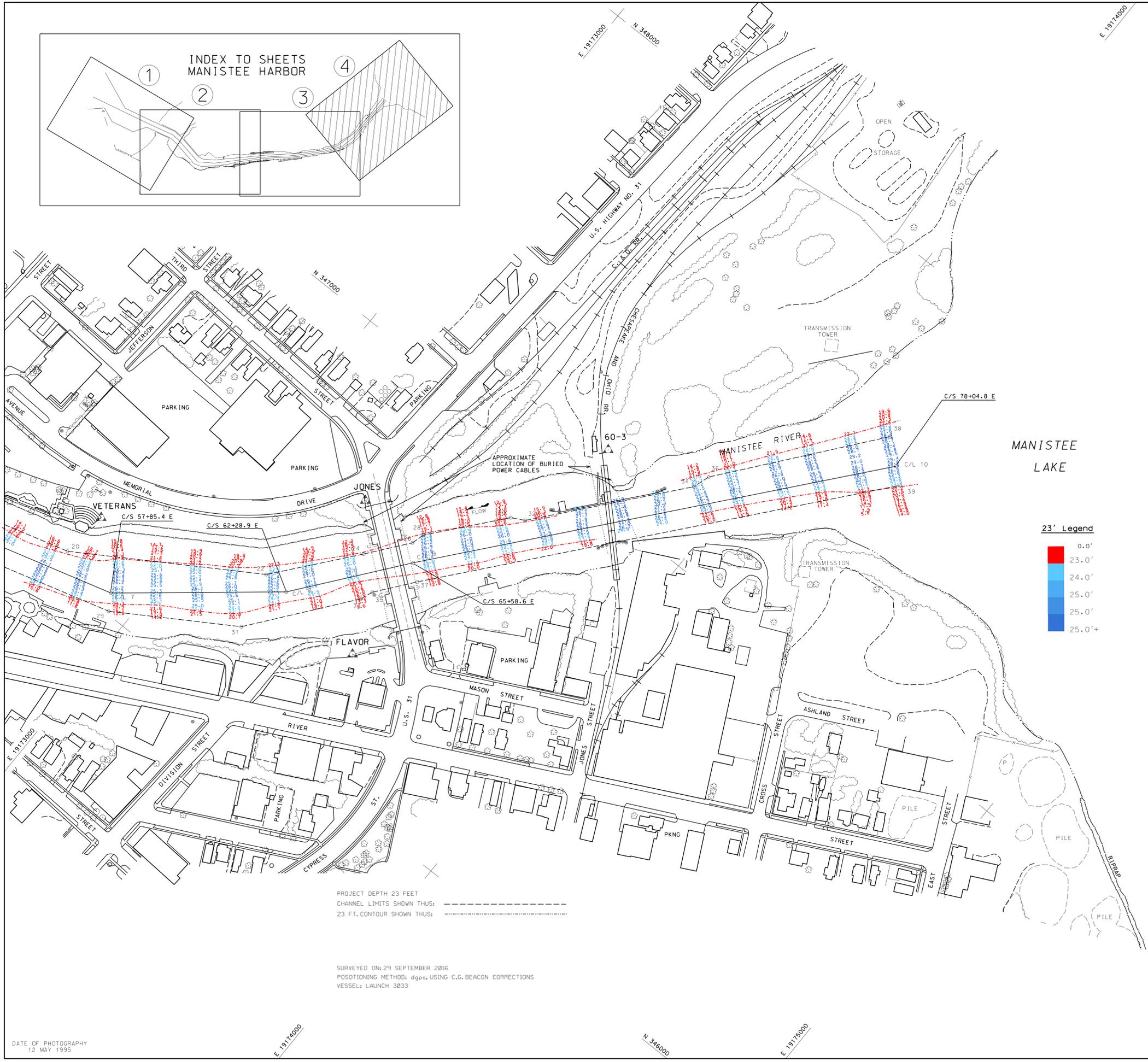


**CENTERLINE TURNING POINTS**

CROSS SECTION	EAST (X)	NORTH (Y)
57+85.4 C/L 7	19,172,923.95	346,047.12
62+28.9 C/L 8	19,173,268.00	346,327.03
65+58.6 C/L 9	19,173,471.74	346,586.26
78+04.8 C/L 10	19,174,269.54	347,543.57

**CHANNEL LINE TURNING POINTS**

CHANNEL POINT	EAST (X)	NORTH (Y)
CHTP-20	19,172,771.67	346,061.72
CHTP-22	19,173,200.83	346,330.26
CHTP-24	19,173,359.80	346,524.74
CHTP-26	19,173,438.29	346,624.62
CHTP-28	19,173,447.59	346,657.50
CHTP-29	19,172,948.65	346,007.30
CHTP-30	19,173,591.63	346,830.36
CHTP-31	19,173,235.01	346,186.48
CHTP-32	19,173,624.86	346,848.09
CHTP-33	19,173,426.48	346,431.57
CHTP-34	19,173,903.35	347,182.27
CHTP-35	19,173,438.27	346,462.76
CHTP-36	19,173,916.89	347,224.71
CHTP-37	19,173,510.61	346,554.80
CHTP-38	19,174,210.35	347,592.88
CHTP-39	19,174,307.95	347,511.56



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.

GRID SYSTEM BASED ON LAMBERT PROJECTION, MICHIGAN STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE (2112) 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.

VERTICAL WATER LEVEL READINGS WERE TAKEN FROM A FIXED GAUGE MARK ALONG THE SHEET STEEL WALL NEAR THE COAST GUARD STATION IN MANISTEE HARBOR, MI.

PROJECT DEPTH 23 FEET  
 CHANNEL LIMITS SHOWN THUS: - - - - -  
 23 FT. CONTOUR SHOWN THUS: —————

SURVEYED ON: 29 SEPTEMBER 2016  
 POSITIONING METHOD: dgps, USING C.G. BEACON CORRECTIONS  
 VESSEL: LAUNCH 3033

NO.	DATE	REVISION	BY
<b>U.S. ARMY ENGINEER DISTRICT, DETROIT</b> <b>CORPS OF ENGINEERS</b> <b>DETROIT, MICHIGAN</b>			
DESIGNED BY:	<b>MANISTEE HARBOR, MICHIGAN</b> <b>CONDITION OF CHANNEL</b> <b>SEPTEMBER 2016</b> <b>GRAND HAVEN AREA OFFICE</b>		
DRAWN BY:			
CHECKED BY:			
REVIEWED BY:			
SUBMITTED BY:	APPROVAL RECOMMENDED:	DATE	
CHIEF, PROJ. OPNS. SEC.	CHIEF, OTS BRANCH		
APPROVED:	SCALE 1" = 100 FT.		CADD FILE NAME: MHC04G16.DGN
CHIEF, CONST. OPNS. DIVISION	DRAWING NUMBER		SHEET 4 OF 4

DATE OF PHOTOGRAPHY  
 12 MAY 1995