



N 404.000

N 403.000

N 402.000

E 13.540.000

E 13.541.000

E 13.542.000

E 13.543.000

E 13.541.000

E 13.542.000

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 THAT TIME.

LOW WATER DATUM
ELEVATIONS AND PROJECT DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM, 1985. THE LOW WATER DATUM FOR CLINTON RIVER IS 572.3 FT ABOVE MEAN SEA LEVEL.

GRID COORDINATES
GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE 12113, LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.
ALL COORDINATES ARE IN U.S. SURVEY FEET.

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

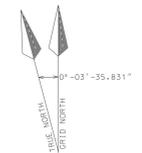
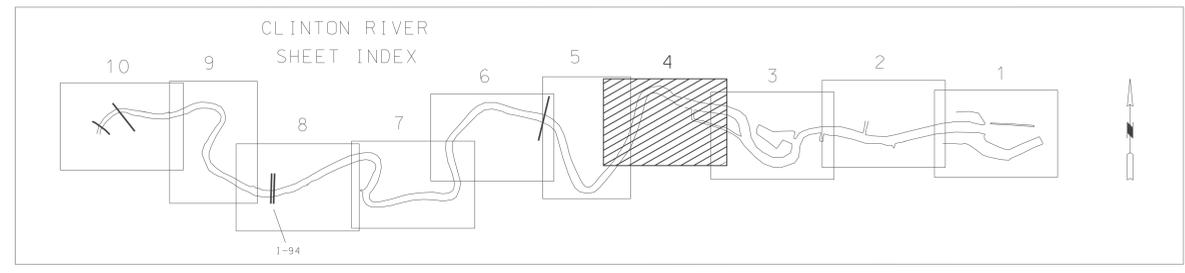
PROJECT DEPTHS ARE AS INDICATED ABOVE. ALL DEPTHS ARE IN U.S. SURVEY FEET.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY JOSEPH D. PERCELL AND DAN BONACORSI (13 JULY 2012), BRIAN WACKERMAN (23 JULY 2012), ABOARD THE USACE SURVEY VESSEL SKIFF.

AUTOMATED EQUIPMENT USED
POSITIONING: TRIMBLE DGPS VIA U.S. COAST GUARD SYSTEM
SOUNDING: SONAR HYPACK
SONIC SOUNDER: ODOM CV-300 WITH 200kHz 4 DEGREE TRANSDUCER

CENTER LINE T.P.		
T.P.	EAST X	NORTH Y
12	13.542.725.97	403.723.29
13	13.542.079.40	403.991.36
14	13.541.653.20	404.252.74
15	13.541.219.57	404.132.65
16	13.540.692.83	402.464.02

CHANNEL LINE T.P.		
T.P.	EAST X	NORTH Y
12N	13.542.732.51	403.747.64
12S	13.542.719.44	403.698.93
13N	13.542.080.79	404.013.70
13S	13.542.068.01	403.967.02
14N	13.541.657.01	404.279.73
14S	13.541.649.40	404.225.74
14W1	13.541.719.11	404.182.99
14W2	13.541.570.39	404.203.92
15N	13.541.199.81	404.153.12
15S	13.541.239.32	404.112.18
15W1	13.541.321.56	404.134.95
15W2	13.541.213.64	404.030.81
16N	13.540.670.18	402.475.32
16S	13.540.715.48	402.452.72



GRID SCALE FACTOR: 0.99991945
GRID DIST. DIVIDED BY GRID SCALE FACTOR = GROUND DIST.

MATCH SHEET 3

NOTES

GAGES USED WERE REFERENCED FROM GAGE BOARD SET ON PILING NEAR MOUTH OF CLINTON RIVER, ON THE EAST SIDE OF THE DNR DOCK, IN FRONT OF THE DNR FISHERIES BUILDING, AND FROM A 4 FT MARK SET ON A CONCRETE HEADWALL DOWNRIVER OF THE FEDERAL LOADING DOCK, ABOVE BRIDGEVIEW RD. BRIDGE, AT APP. CS 158+00.

POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838, LOCATED AT FORT WAYNE, DETROIT, MICHIGAN, FREQUENCY 319 KHZ, 200 BPS.



NO.	DATE	REVISION	BY
U.S. ARMY ENGINEER DISTRICT, DETROIT CORPS OF ENGINEERS			
DETROIT, MICHIGAN			
CLINTON RIVER, MICH.			
CONDITION SURVEY			
CS 97+00 TO CS 103+49 13 JULY 2012 CS 104+00 TO CS 139+00 23 JULY 2012			
DETROIT AREA OFFICE			
DESIGNED BY	J. PERCELL		
CHECKED BY			
REVIEWED:			
SUBMITTED:			
APPROVED			
APPROVAL RECOMMENDED:		DATE	
		SCALE 1" = 100'	
		DRAWING NUMBER	
		CL10412c.dgn	
		SHEET 4 OF 10	