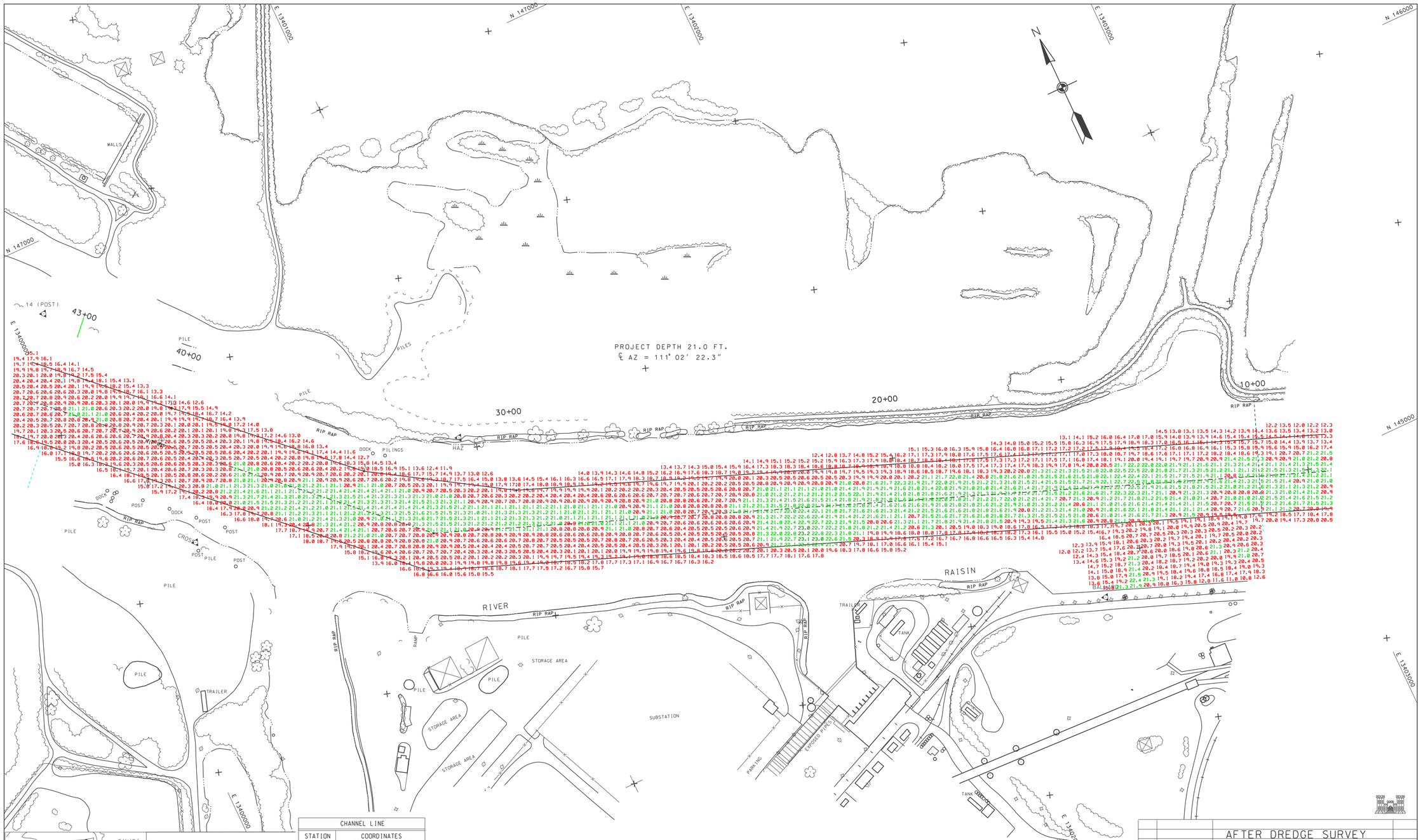

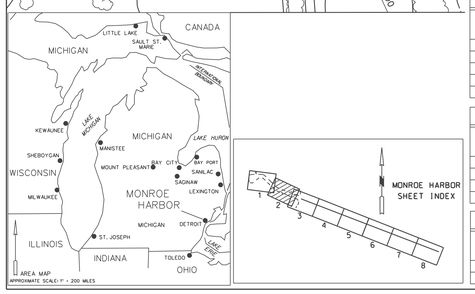

CHANNEL LINE		
STATION NUMBER	COORDINATES NORTH	EAST
1	145849.4883	13401046.6348
2	145752.4188	13400741.9006
3	146069.0466	13400696.7743
1D	146295.8832	13400162.7999
3D	146441.7208	13400299.6671

HORIZONTAL GROUND CONTROL		
STATION NUMBER	COORDINATES NORTH	EAST
14 (POST)	146816.9050	13400095.1450
CROSS	146086.6340	13400295.5420
HAZ	146042.7890	13400966.2030
BALLARD	144918.7390	13402361.2560

CENTERLINE		
STATION NUMBER	COORDINATES NORTH	EAST
CL1(32+25.48)	145838.7273	13400796.0642
2D	146368.8001	13400231.2269

21.0 FT. CONTOUR

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS ARE AS INDICATED ABOVE.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY JAMES BYRNE, PARTY CHIEF. ABOARD THE USACOE SURVEY VESSEL WHEELER

AUTOMATED EQUIPMENT USED

POSITIONING:	TSS POS-MV
DATA PROCESSOR:	DELL 330 PC
SOFTWARE:	HYPACK
PLOTTER:	ENCAD, CADJET 2
SONIC SOUNDER:	RESON SEABAT 8125

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.

NOTES:

1. GAGES USED WERE OBTAINED ELECTRONICALLY FROM NOAA GAGE AT FERMI POWER PLANT, MICHIGAN. VIA THE INTERNET.
2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838 LOCATED AT FORT WAYNE, DETROIT, MICHIGAN. FREQUENCY 319 KHZ AT 200 BPS.
3. DEPTH MEASURED USING RESON SEABAT 8125 ULTRA HIGH RESOLUTION FOCUSED MULTIBEAM SOUNDER SYSTEM AND ODOM DIGIBAR PRO DB1200 VELOCITY PROFILER.
4. EDITED MULTIBEAM SOUNDINGS WERE SORTED INTO A 37 FOOT BY 15 FOOT MATRIX. THE AVERAGE OF THE SOUNDINGS LOCATED IN EACH MATRIX CELL WAS THEN SELECTED FOR PLOTTING AT THE CELL CENTER.

100′ 0 100′ 200′ 300′
scale feet

NO.	DATE	REVISION	BY
		AFTER DREDGE SURVEY	

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

DETROIT AREA OFFICE — 24 OCTOBER 2007

MONROE HARBOR, MICH.

CS 43+00W TO CS 10+00W
MULTIBEAM SWEEP SURVEY
AVERAGE DEPTH PLOT

DRAWN BY: J.B.
DESIGNED BY:
CHECKED BY:
REVIEWED:
SUBMITTED: CHIEF, DTS BRANCH
APPROVED: LTC. C.E. DISTRICT ENGINEER
APPROVAL RECOMMENDED: CHIEF, C.O. DIVISION — DATE

SCALE 1″ = 100′
DRAWING NUMBER
SHEET 2 OF 8 — mon2a1007.dgn