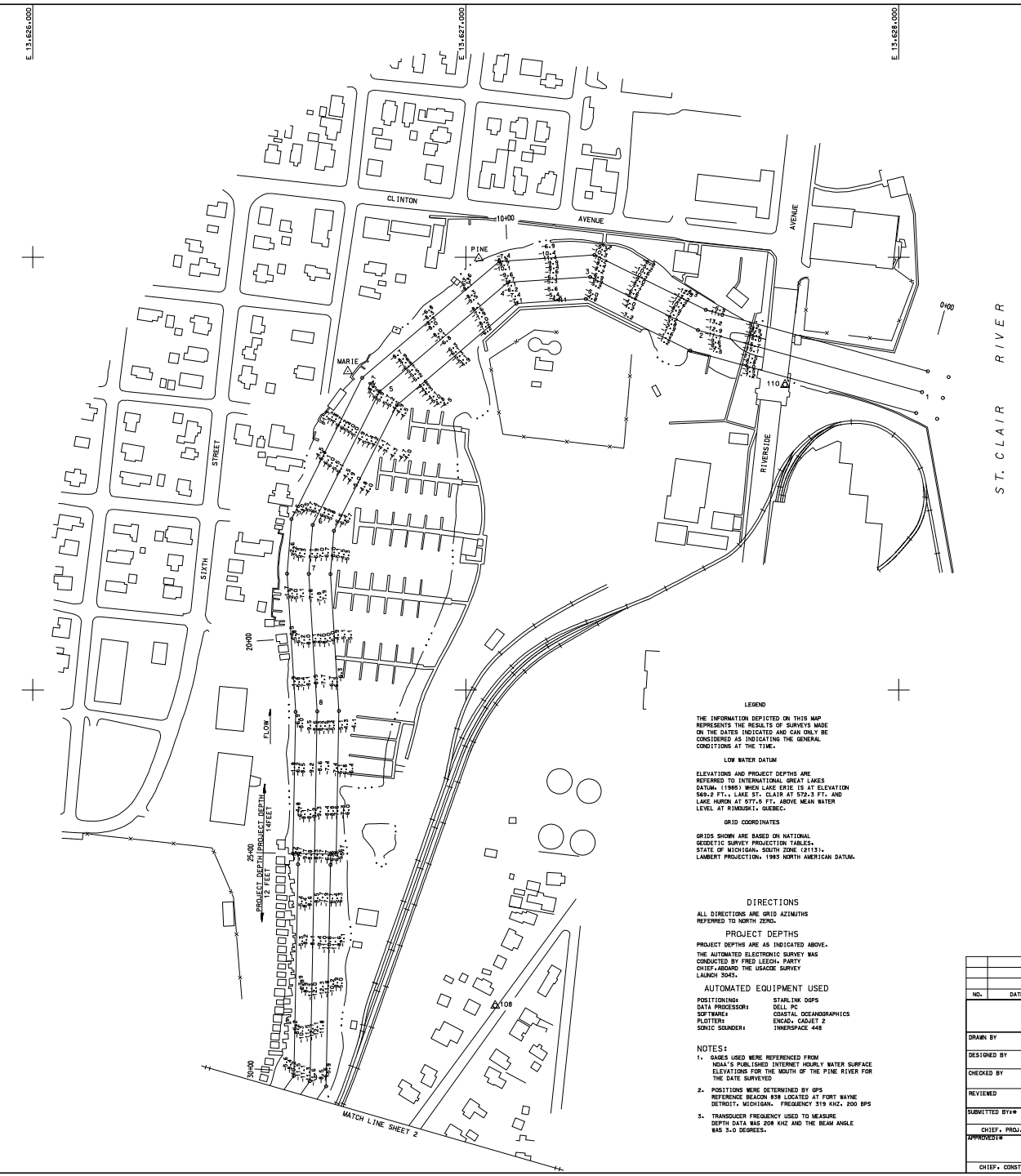

LEGEND

—×——×—	FENCE
—·—·—	SHORELINE
~~	CONTOUR LINE
△	HORIZONTAL CONTROL POINT
△	HORIZONTAL CONTROL POINT AND BENCHMARK
⊠	BENCHMARK

SURVEY CONTROL DATA

STATION NUMBER	COORDINATES NORTH	COORDINATES EAST	ELEV.
MARIE	486,736.130	13,626,727.325	
PINE	486,997.540	13,627,029.813	
108	485,270.582	13,627,067.995	604.990
110	486,705.383	13,627,737.587	591.150

CHANNEL CONTROL DATA

STATION NUMBER	DESCRIPTION	COORDINATES NORTH	COORDINATES EAST
1	CENTERLINE	486,688.073	13,628,053.828
2	CENTERLINE	486,831.323	13,627,536.346
3	CENTERLINE	486,954.265	13,627,287.229
4	CENTERLINE	486,941.495	13,627,097.091
5	CENTERLINE	486,689.648	13,626,800.829
6	CENTERLINE	486,381.277	13,626,646.306
7	CENTERLINE	486,268.214	13,626,637.252
8	CENTERLINE	485,950.416	13,626,656.905
9	CENTERLINE	485,096.376	13,626,640.041

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) WHEN LAKE ERIE IS AT ELEVATION 569.2 FT., LAKE ST. CLAIR AT 572.3 FT. AND LAKE HURON AT 577.5 FT. ABOVE MEAN WATER LEVEL AT RIMOUSKI, QUEBEC.

GRID COORDINATES

GRIDS SHOWN ARE BASED ON NATIONAL GEODETIC SURVEY PROJECTION TABLES, STATE OF MICHIGAN, SOUTH ZONE (2113), LAMBERT PROJECTION, 1983 NORTH AMERICAN DATUM.

DIRECTIONS

ALL DIRECTIONS ARE GRID AZIMUTHS REFERRED TO NORTH ZERO.

PROJECT DEPTHS

PROJECT DEPTHS ARE AS INDICATED ABOVE.

THE AUTOMATED ELECTRONIC SURVEY WAS CONDUCTED BY FRED LEECH, PARTY CHIEF, ABOARD THE USACOE SURVEY LAUNCH 3043.

AUTOMATED EQUIPMENT USED

POSITIONING:	STARLINK DGPS
DATA PROCESSOR:	DELL PC
SOFTWARE:	COASTAL OCEANOGRAPHICS
PLOTTER:	ENCAD, CADJET 2
SONIC SOUNDER:	INNERSPACE 448

NOTES:

1. GAUGE USED WERE REFERENCED FROM NOAA'S PUBLISHED INTERNET HOURLY WATER SURFACE ELEVATIONS FOR THE MOUTH OF THE PINE RIVER FOR THE DATE SURVEYED
2. POSITIONS WERE DETERMINED BY GPS REFERENCE BEACON 838 LOCATED AT FORT WAYNE DETROIT, MICHIGAN. FREQUENCY 319 KHZ, 200 BPS
3. TRANSDUCER FREQUENCY USED TO MEASURE DEPTH DATA WAS 208 KHZ AND THE BEAM ANGLE WAS 3.0 DEGREES.

14.0 FT. CONTOUR

12.0 FT. CONTOUR

100' 0 100' 200' 300'

SCALE: 1" = 100'

NO.	DATE	REVISION	BY

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

PINE RIVER, MI

CONDITION SOUNDINGS
C.S. 0+00 TO C.S. 30+00
19 JUN 2003
DETROIT AREA OFFICE

DRAWN BY
DESIGNED BY
CHECKED BY
REVIEWED

SUBMITTED BY:*
CHIEF, PROJ. OPNS SECT.

APPROVED:*
CHIEF, CONST-OPNS DIVISION

APPROVAL RECOMMENDED:*
CHIEF OTS BRANCH

SCALE AS SHOWN 1" = 100'
CADD FILE NAME PINMOIA94.DGN
DRAWING NUMBER pr103c.dgn
SHEET 1 OF 2