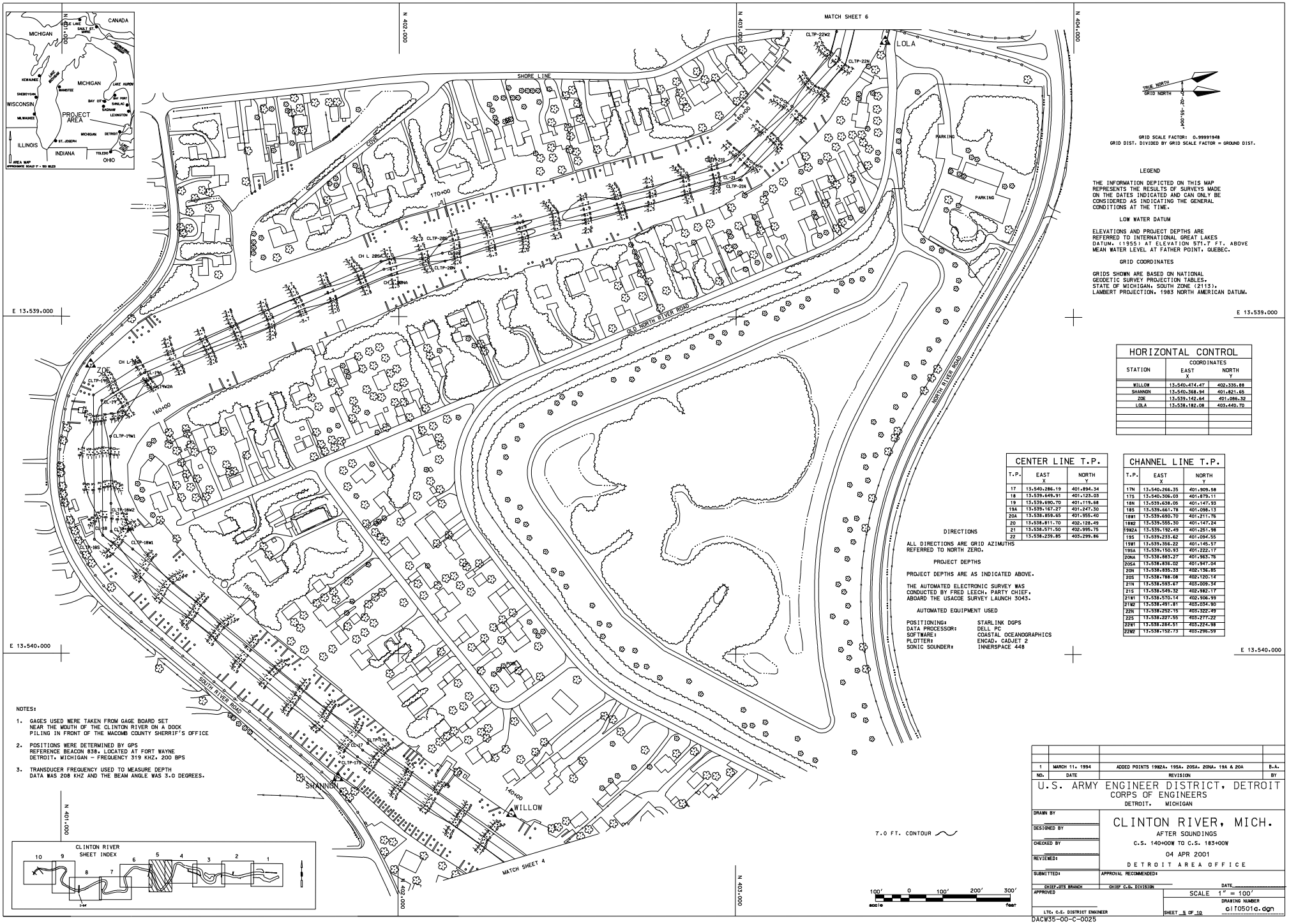

LEGEND

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, (1955) AT ELEVATION 571.7 FT. ABOVE MEAN WATER LEVEL AT FATHER POINT, 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.

HORIZONTAL CONTROL

STATION	COORDINATES EAST X	COORDINATES NORTH Y
WILLOW	13,540,474.47	402,335.88
SHANNON	13,540,368.94	401,821.65
ZOE	13,539,142.64	401,086.32
LOLA	13,538,182.08	403,440.70

CENTER LINE T.P.

T.P.	EAST X	NORTH Y
17	13,540,286.19	401,894.34
18	13,539,649.91	401,123.03
19	13,539,690.70	401,119.68
19A	13,539,167.27	401,247.30
20A	13,538,859.85	401,955.40
20	13,538,811.70	402,128.49
21	13,538,571.50	402,995.75
22	13,538,239.85	403,299.86

CHANNEL LINE T.P.

T.P.	EAST X	NORTH Y
17N	13,540,266.35	401,909.58
17S	13,540,306.03	401,879.11
18N	13,539,638.05	401,147.93
18S	13,539,661.78	401,098.13
18W1	13,539,690.70	401,211.76
18W2	13,539,555.30	401,147.24
19W2A	13,539,192.49	401,251.98
19S	13,539,233.62	401,094.55
19W1	13,539,356.22	401,145.57
19SA	13,539,150.93	401,222.17
20NA	13,538,885.27	401,983.76
20SA	13,538,836.02	401,947.04
20N	13,538,835.33	402,136.85
20S	13,538,788.08	402,120.14
21N	13,538,593.67	403,009.34
21S	13,538,549.32	402,982.17
21W1	13,538,570.14	402,906.99
21W2	13,538,491.81	403,034.90
22N	13,538,252.15	403,322.49
22S	13,538,227.55	403,217.22
22W1	13,538,284.51	403,224.98
22W2	13,538,152.73	403,296.59

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 449

NOTES:

1. GAGES USED WERE TAKEN FROM GAGE BOARD SET NEAR THE MOUTH OF THE CLINTON RIVER ON A DOCK PILING IN FRONT OF THE MACOMB COUNTY SHERRIF'S OFFICE
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.

NO.	DATE	REVISION	BY
1	MARCH 11, 1994	ADDED POINTS 19W2A, 19SA, 20SA, 20NA, 19A & 20A	B.A.

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

CLINTON RIVER, MICH.

AFTER SOUNDINGS
C.S. 140+00W TO C.S. 183+00W
04 APR 2001
DETROIT AREA OFFICE

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

SCALE 1" = 100'
DRAWING NUMBER c170501c.dgn
SHEET 5 OF 10

DACW35-00-C-0025