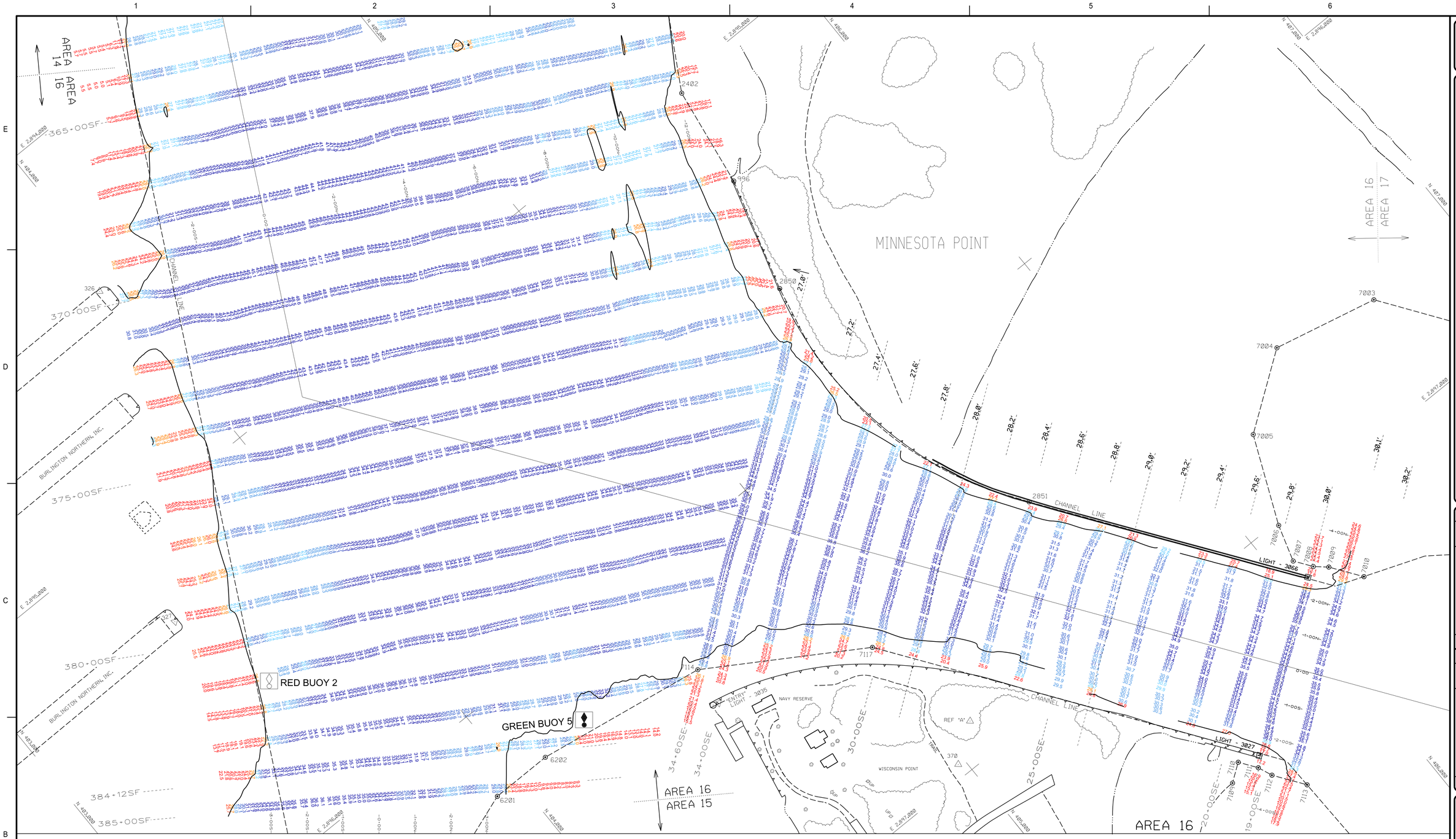
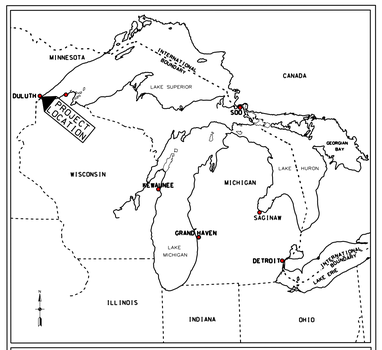
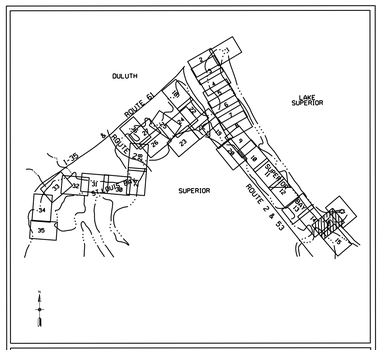




US Army Corps of Engineers
Detroit District

LOCATION MAP

0 25 50 75 100
SCALE OF MILES



US Army Corps of Engineers
Detroit District

SHEET INDEX

0 2000 4000 6000 8000
SCALE (FT)

NOTES

1) THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON SEPTEMBER 02, 2016 AND SEPTEMBER 06, 2016 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THAT TIME.

2) SOUNDING DEPTHS ARE REFERENCED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85) LOW WATER DATUM ELEVATION 601.1 FEET ABOVE MEAN WATER LEVEL AT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED NOAA GAGE LOCATED AT DULUTH, MINNESOTA (9099064). DEPTHS ARE MEASURED USING A ROSS LABORATORIES MODEL 825C PORTABLE SURVEY SOUNDER.

3) PROJECT DEPTHS FOR THIS AREA ARE 27'-30' BELOW LOW WATER DATUM.

4) THE GRID COORDINATE SYSTEM SHOWN IS REFERENCED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM, LAMBERT PROJECTION, NORTH ZONE (2201), NORTH AMERICAN DATUM 1983 (NAD 83), U.S. SURVEY FOOT.

5) THE LOCATION OF NAVIGATION AIDS REPRESENTS THEIR GENERAL LOCATION AND CANNOT BE CONSIDERED FOR NAVIGATION.

6) HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POTITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS LOCATED AT WISCONSIN POINT, SUPERIOR, WISCONSIN.

27' LEGEND	28' LEGEND	29' LEGEND	30' LEGEND
0.0'	0.0'	0.0'	0.0'
26.0'	27.0'	28.0'	29.0'
27.0'	28.0'	29.0'	30.0'
28.0'	29.0'	30.0'	31.0'
29.0'	30.0'	31.0'	32.0'
30.0'	31.0'	32.0'	33.0'
60.0'	60.0'	60.0'	60.0'

LEGEND

- GPS CONTROL POINT
- HORIZONTAL CONTROL POINT
- NO. — CHANNEL LINE TURNING POINT
- CHANNEL LINE
- SHORELINE
- PROJECT DEPTH CONTOUR
- BASELINE
- —0+00— BASELINE STATIONING FOR SUPERIOR FRONT BASELINE

N

0 100' 200'

CHANNEL LINE
COORDINATE TABLE

STA.	COORDINATES	
	NORTHING	EASTING
996	405516.594	2895311.444
2402	405558.190	2895030.738
2850	405427.432	2895624.308
2851	405592.290	2896522.160
6201	403927.957	2896225.773
6202	404099.916	2896225.525
7003	406691.179	2896690.105
7004	406397.617	2896623.925
7005	406194.450	2896769.606
7006	406090.250	2897010.431
7007	406059.072	2897112.792
7008	406092.880	2897159.920
7009	406125.487	2897188.218
7010	406184.569	2897270.578
7109	405539.042	2897485.846
7110	405587.794	2897450.872
7111	405621.602	2897498.000
7112	405637.959	2897537.956
7113	405697.041	2897620.316
7114	404582.701	2896303.695
7117	404999.054	2896561.556

US Army Corps of Engineers

MARK	DESCRIPTION	DATE	APPD.	MARK	DESCRIPTION

SURVEYOR: ATA
REVIEWED BY:
APPROVED BY:
PLOT SCALE: 1" = 100'
IMAGE DATE:
IMAGE SOURCE:
SIZE: ANSI D
DATE OF SURVEY: 06-Sept-16
SUBMITTED BY:
CONTRACT NO.:
DRAWING DATE: 07-Sept-16
FILE NAME: DULUTH2016.dgn

U.S. ARMY CORPS OF ENGINEERS
DETROIT DISTRICT
DETROIT, MI

DULUTH AREA OFFICE
600 LAKE AVENUE SOUTH
DULUTH, MN 55802

DULUTH SUPERIOR HARBOR
MINNESOTA / WISCONSIN

CONDITION OF CHANNEL
SEPTEMBER 2016

SHEET IDENTIFICATION
VH101
SHEET 16 OF 35