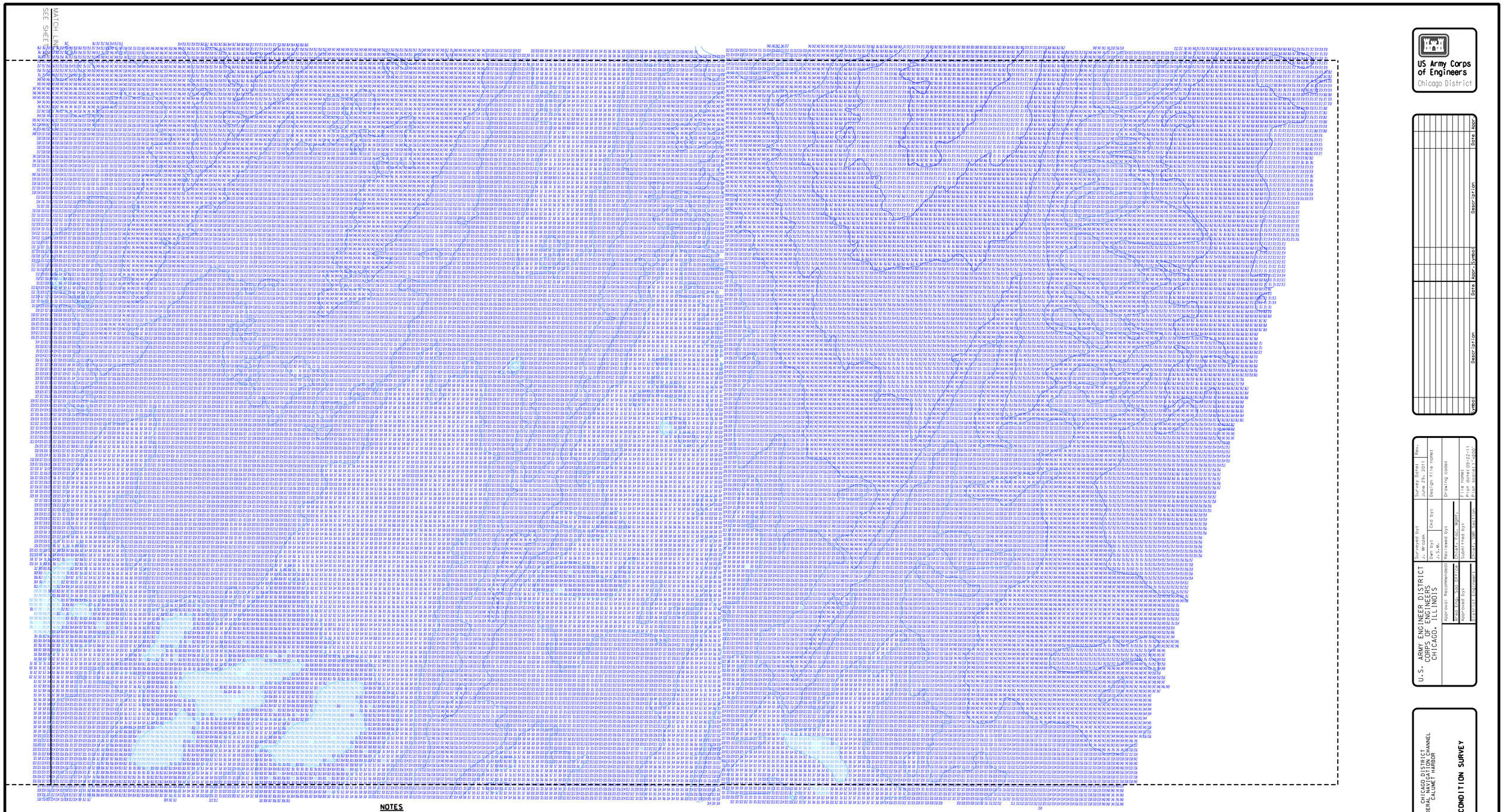


US Army Corps of Engineers
Chicago District

NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 29, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED APPLANIX MARINE POS/MV VER 4.0

5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST ZONE (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 29.0' BELOW LOW WATER DATUM.

Symbol	Description	Date	Approved

Survey Date: June 29, 2011
Rev.
Design File name:
Drawing code:
File name:
Plot date: 09-22-11
Plot scale: 1"=200'

Surveyed by: J. Mozak
Ckd by:
Dwn by: R. Lewis
Reviewed by:
Submitted by:
Chief, Hydr. Mgmt. Section
Approved by:
Chief, Hydr. Mgmt. Section

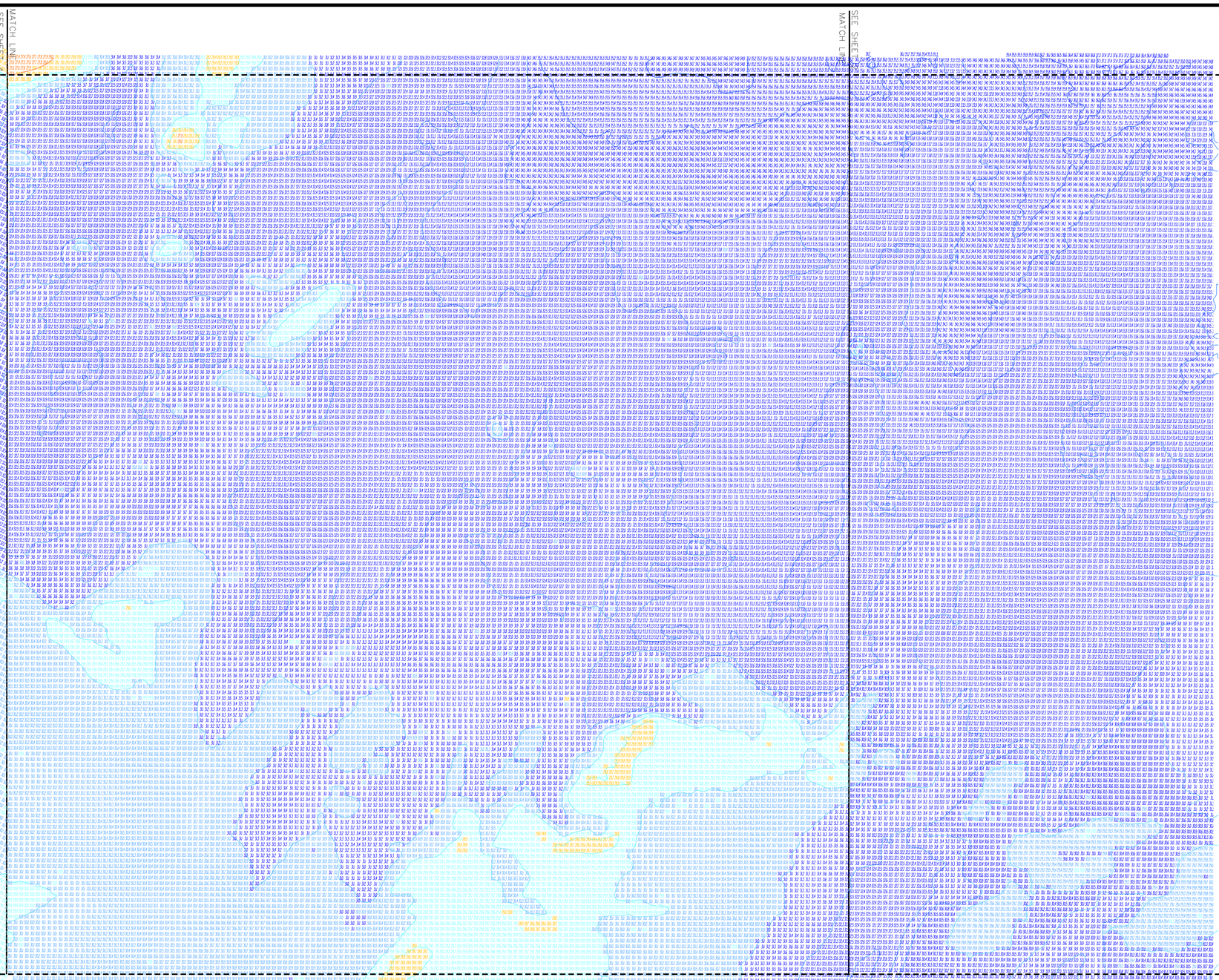
Approved: Recommended:
Design Engineer:
Project Engineer:

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:
CAL-2
Sheet 02 of 07



NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 30, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED APPLANIX MARINE POS/MV VER 4.0

5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM. TRANSVERSE MERCATOR PROJECTION. ILLINOIS EAST ZONE (1201). NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 29.0' BELOW LOW WATER DATUM.

US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Approv.	Symbol	Description	Date	Approv.	Symbol	Description	Date	Approv.

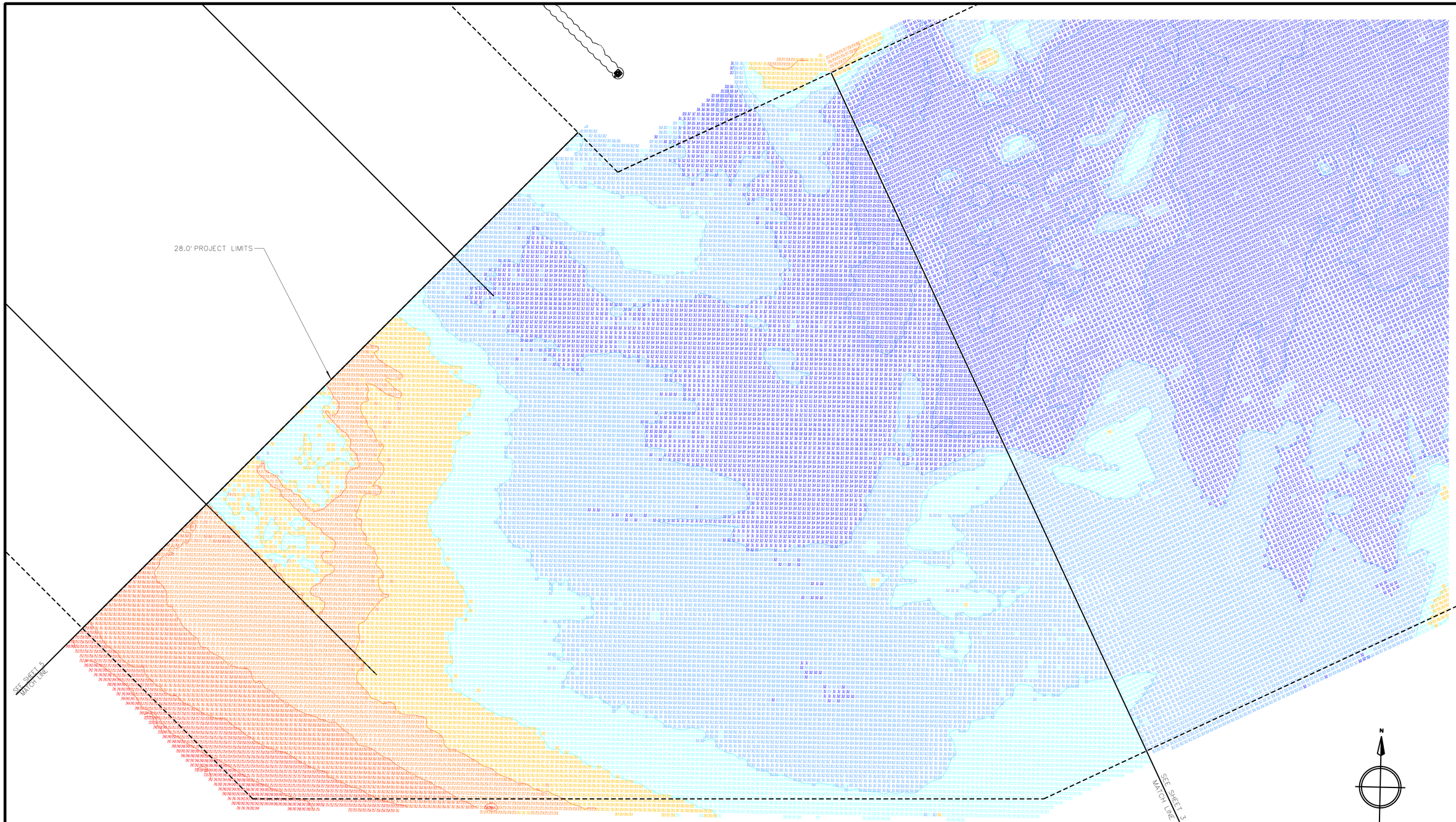
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Wrobek	Dwn by: R.S. Hall	Crd by:	Survey Date: June 30, 2011
Reviewed by:			Design file name:
Chief, Eng. Geo Br.	Chief, Eng. Geo Sec.	Drawing code:	
Supervised by:	Supervised by:		File name:
Chief, Survey Section	Chief, MVR Section		Plot date: 09-22-11
Approved by:			Plot scale: 1"=200'
Chief, Engineering Div.			

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:
CAL-3
Sheet 03 of 07



NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 30, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED APPLANIX MARINE POS/MV VER 4.0

5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST ZONE (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 29.0' BELOW LOW WATER DATUM.

0.0'
25.0'
26.0'
27.0'
28.0'
29.0'
30.0'
31.0'
40.0'

200' 100' 0 200' 400'
SCALE: 1"=200'

US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Wrzosek		Survey Date: June 30, 2011	Rev.
Dwn by:	Chd by:	Design file name:	
Reviewed by:		Drawing code:	
Approval Recommended: Chief, Hydrographic Surveys Section	Chief, Geo. Mgmt. Branch	File name: Plot date: 09-15-11	
Approved by: Director, Engineering Division	Supervised by: Chief, Hydrographic Surveys Section	Plot scale: 1"=200'	

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:
CAL-4
Sheet 04 of 07

NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

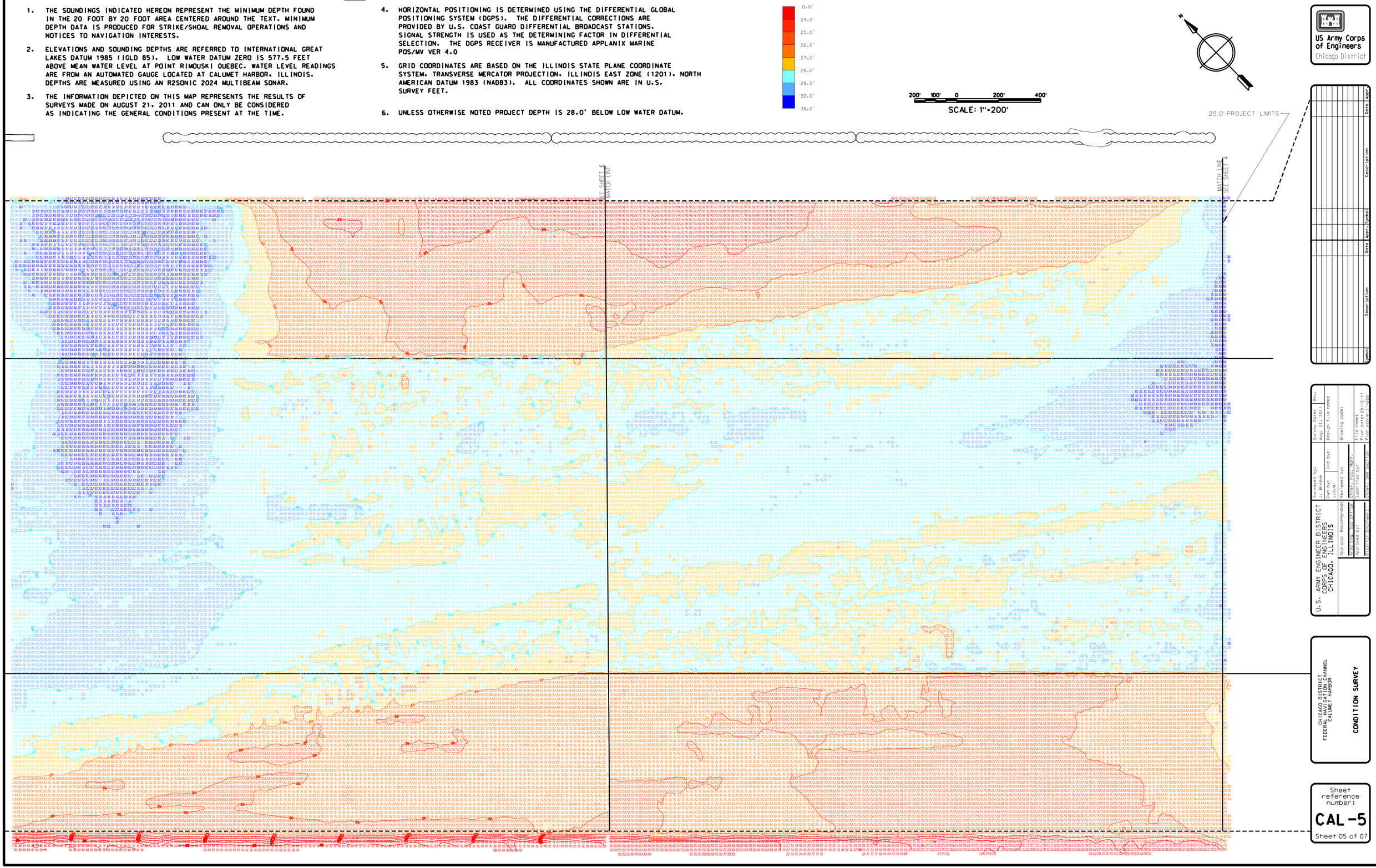
2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON AUGUST 21, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED APPLANIX MARINE POS/MV VER 4.0

5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST ZONE (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 28.0' BELOW LOW WATER DATUM.



US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Morzek	Chkd by:	Survey Date: Aug. 21, 2011	Rev.
Dwn by: J. Morzek		Design File name:	
Reviewed by:		Drawing code:	
Approval Recommended: Craig Eng, Chief Office	Chief, Rec. Mgmt.	File name:	
Approved by:	Supervisor	Plot date: 09-15-11	
Director, Engineering	Chief, Tech. Support	Plot scale: 1"=200'	

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:

CAL -5

Sheet 05 of 07

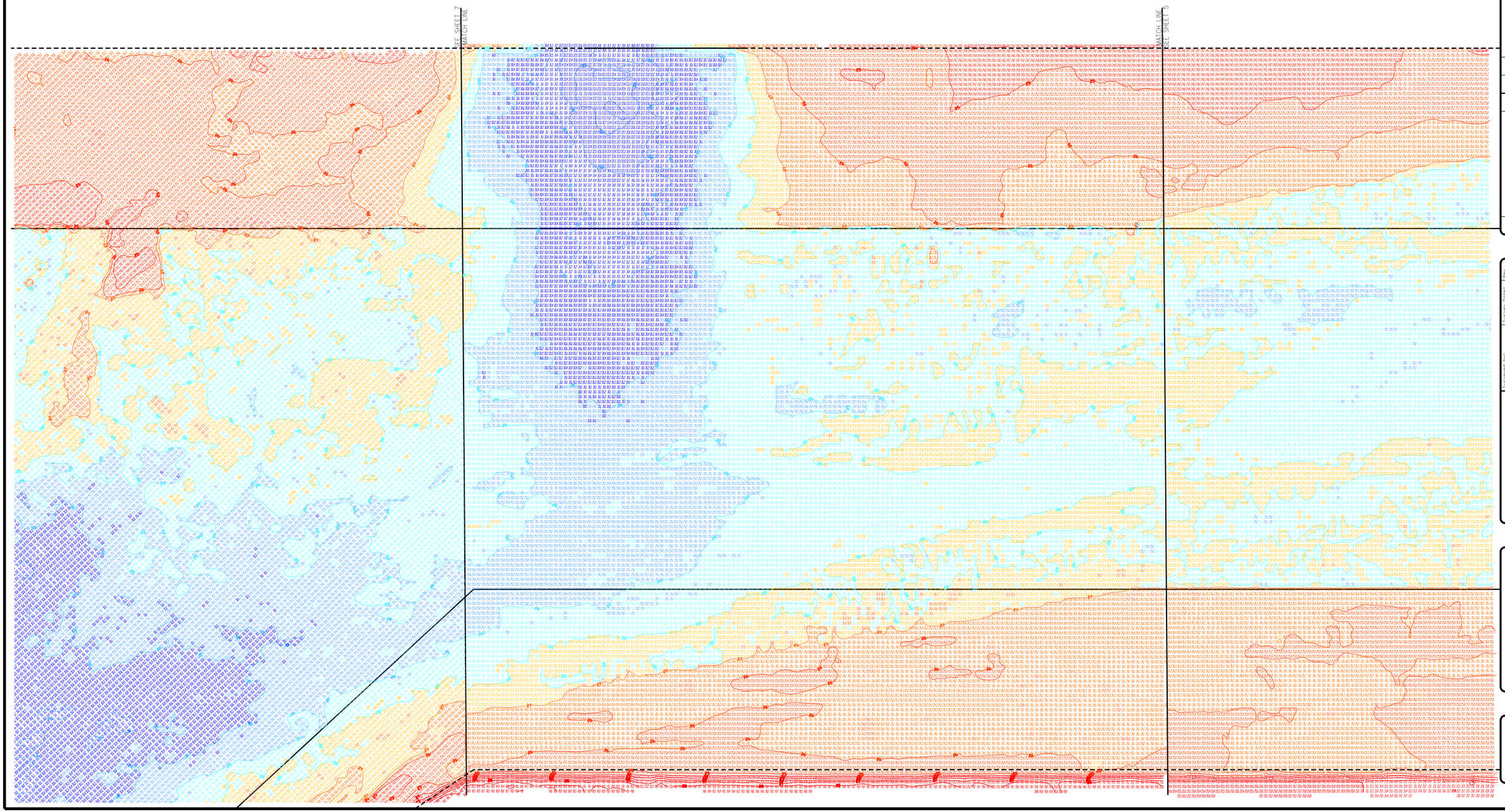
NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.
2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON AUGUST 20, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.
4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED APPLANIX MARINE POS/MV VER 4.0
5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST ZONE (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.
6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 28.0' BELOW LOW WATER DATUM.

0.0'
24.0'
25.0'
26.0'
27.0'
28.0'
29.0'
30.0'
36.0'

200' 100' 0 200' 400'
SCALE: 1"=200'

US Army Corps of Engineers
Chicago District



Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Mrozek		Survey Date: Aug. 20, 2011	Rev.
Dwn by:	Chd by:	Design file name:	
Reviewed by:		Drawing code:	
Approval Recommended:			
Area Eng. Soo Office			
Approved by:		Submitted by:	
District Engineer:		Chief, SMR Section	

File name:
Plot date: 09-15-11
Plot scale: 1"=200'

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:

CAL -6

Sheet 06 of 07

NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 20 FOOT BY 20 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

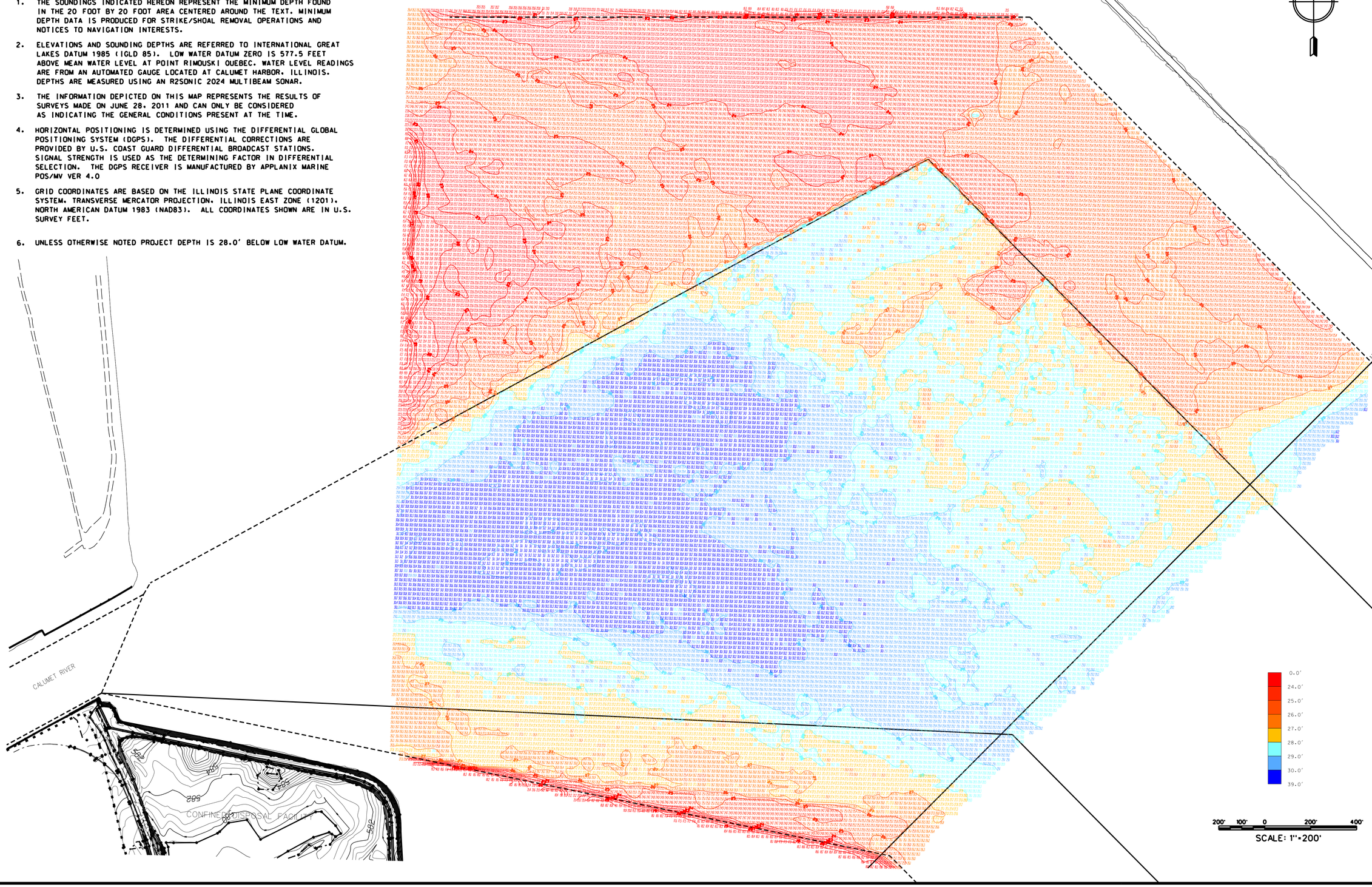
2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT CALUMET HARBOR, ILLINOIS. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 28, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

4. HORIZONTAL POSITIONING IS DETERMINED USING THE DIFFERENTIAL GLOBAL POSITIONING SYSTEM (DGPS). THE DIFFERENTIAL CORRECTIONS ARE PROVIDED BY U.S. COAST GUARD DIFFERENTIAL BROADCAST STATIONS. SIGNAL STRENGTH IS USED AS THE DETERMINING FACTOR IN DIFFERENTIAL SELECTION. THE DGPS RECEIVER IS MANUFACTURED BY APPLANIX MARINE POS/MV VER 4.0

5. GRID COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, ILLINOIS EAST ZONE (1201), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 28.0' BELOW LOW WATER DATUM.



US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Wrzosek
Dwn by: M. Yi
Ckd by:
Approval Recommended:
Chief, Engineering Division
Approved by:
District Engineer
Reviewed by:
Chief, Hydraulics Section
Chief, Navigation Section
Survey Dates: June 28, 2011
Rev.
Design File name:
Drawing code:
File name:
Plot date: 09-15-11
Plot scale: 1"=200'

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
CALUMET HARBOR

CONDITION SURVEY

Sheet reference number:
CAL-7
Sheet 07 of 07