NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

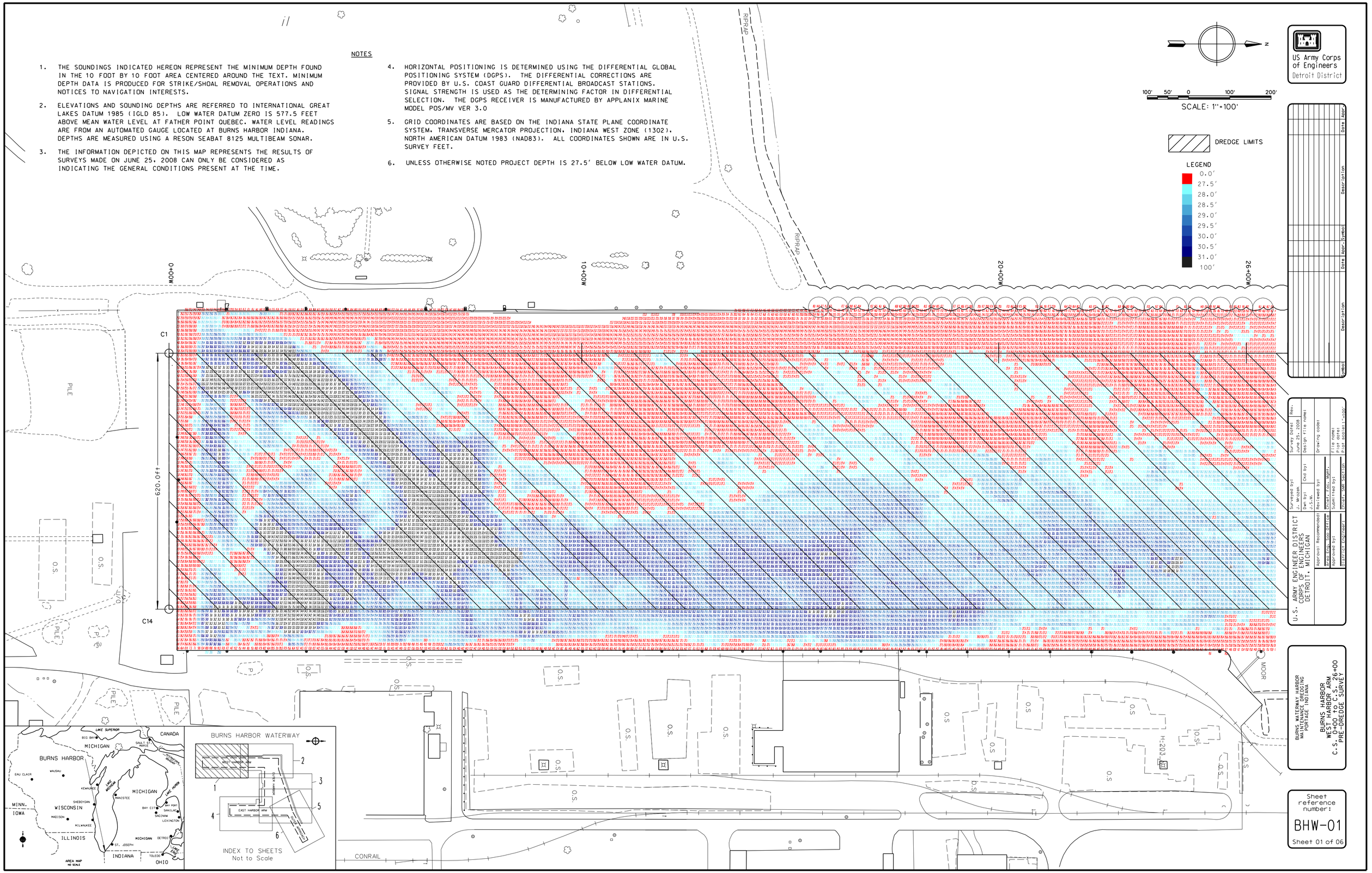
2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 25, 2008 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 MODEL POS/MV VER 3.0

5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 27.5' BELOW LOW WATER DATUM.



NOTES

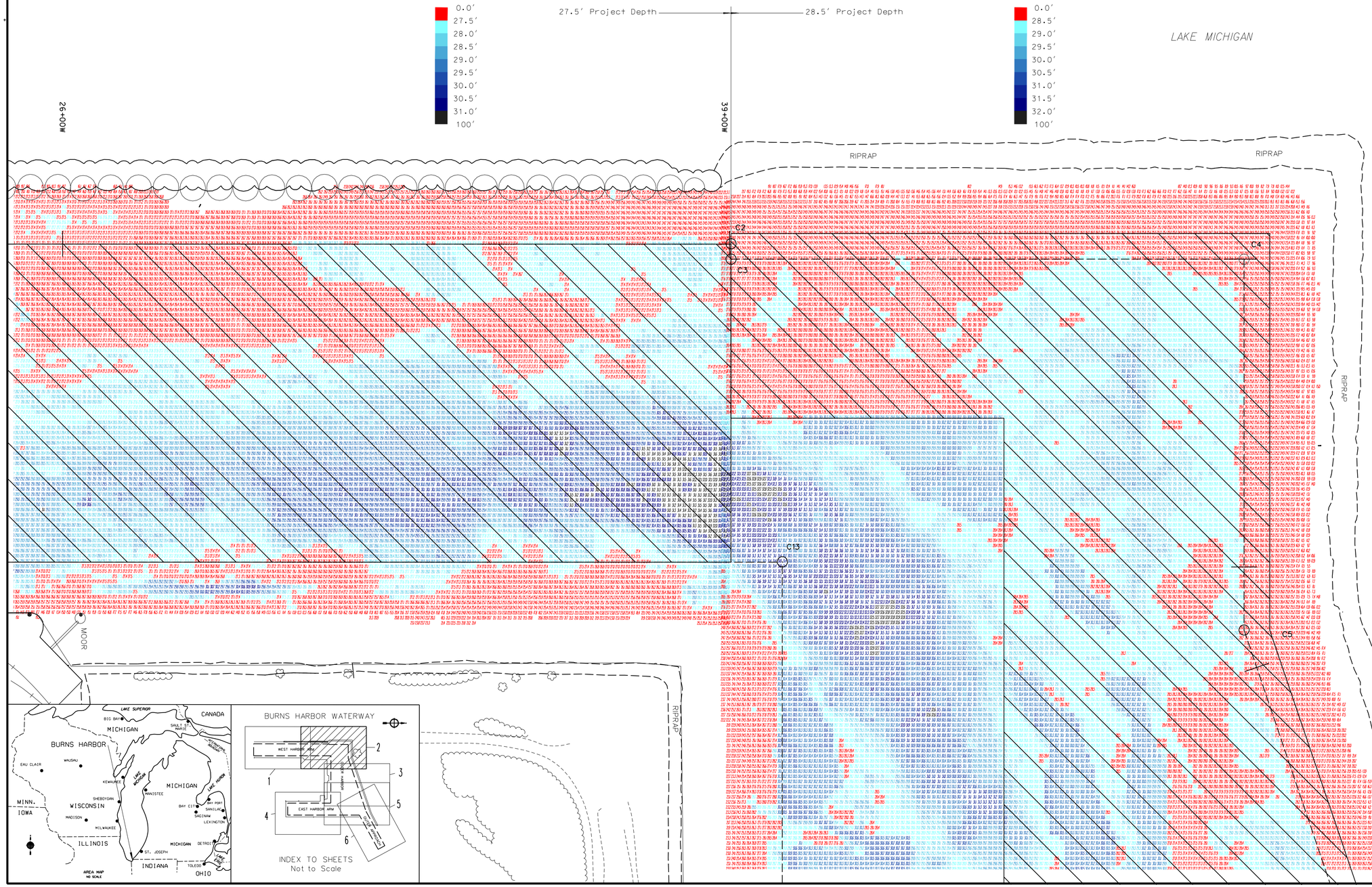
1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

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 FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 26, 2008 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 MODEL POS/MV VER 3.0

5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.



N

100' 50' 0 100' 200'

SCALE: 1"=100'

DREDGE LIMITS

US Army Corps of Engineers
Detroit District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

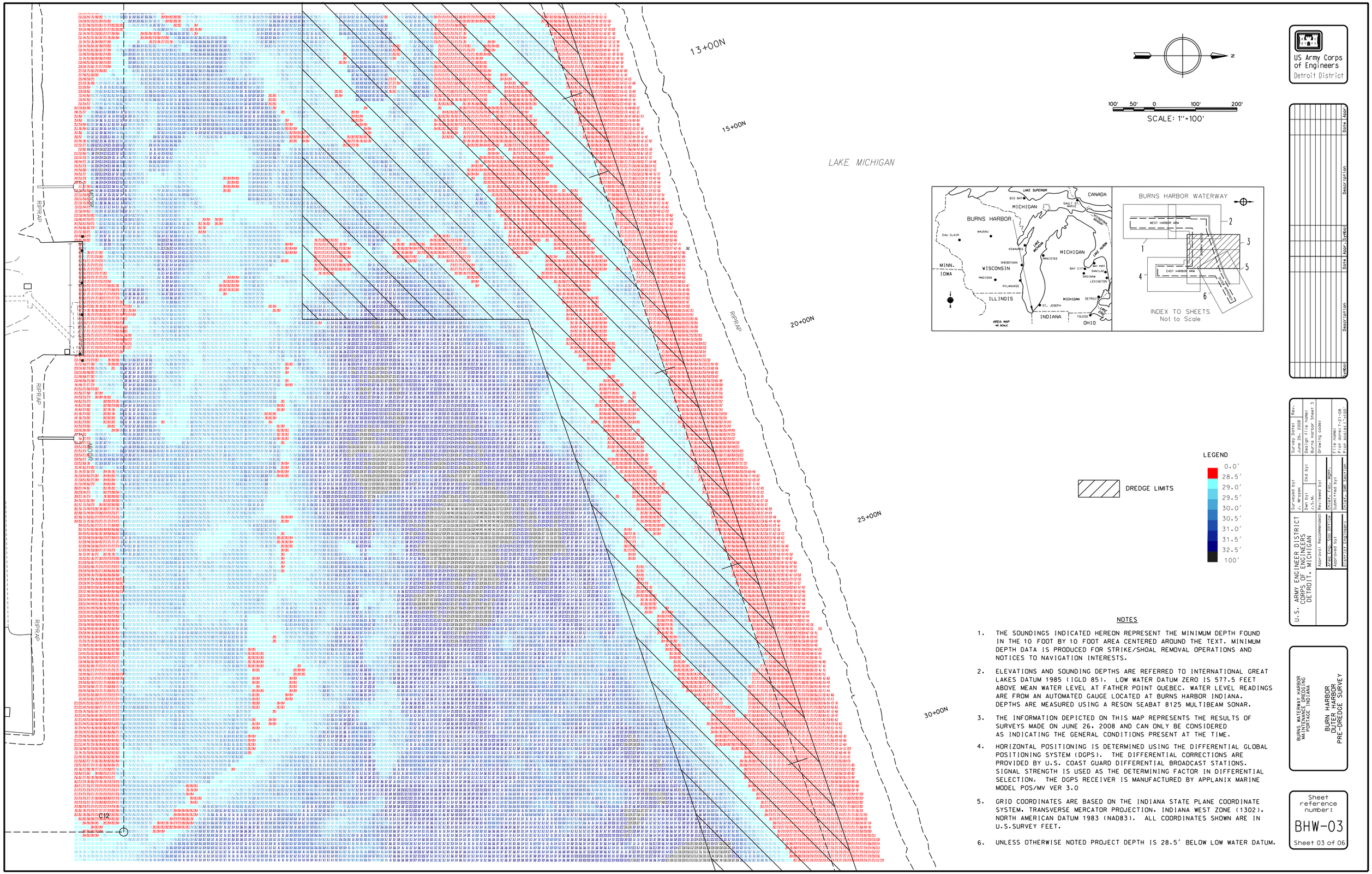
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
DETROIT, MICHIGAN

Surveyed by: J. Morzek		Survey Dates: June 26, 2008	Rev.
Dwn by:	Ckd by:	Design File name:	
Reviewed by:		Drawing code:	
Chief, Plan. Mgmt.		File name:	
Chief, Ops. Sup Office		Plot date: 7-21-08	
Approved by:		Plot scale: 1"=100'	
Chief, Hydrographic			
Approval Recommended:			

BURNS WATERWAY HARBOR
WASTELAND DISPOSAL
PORTAGE INDIANA

BURNS HARBOR
WEST HARBOR ARM
OUTER HARBOR
PRE-DREDGE SURVEY

Sheet reference number:
BHW-02
Sheet 02 of 06



NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 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 FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 26, 2008 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 MODEL POS/MV VER 3.0

5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S.SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 28.5' BELOW LOW WATER DATUM.

Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

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

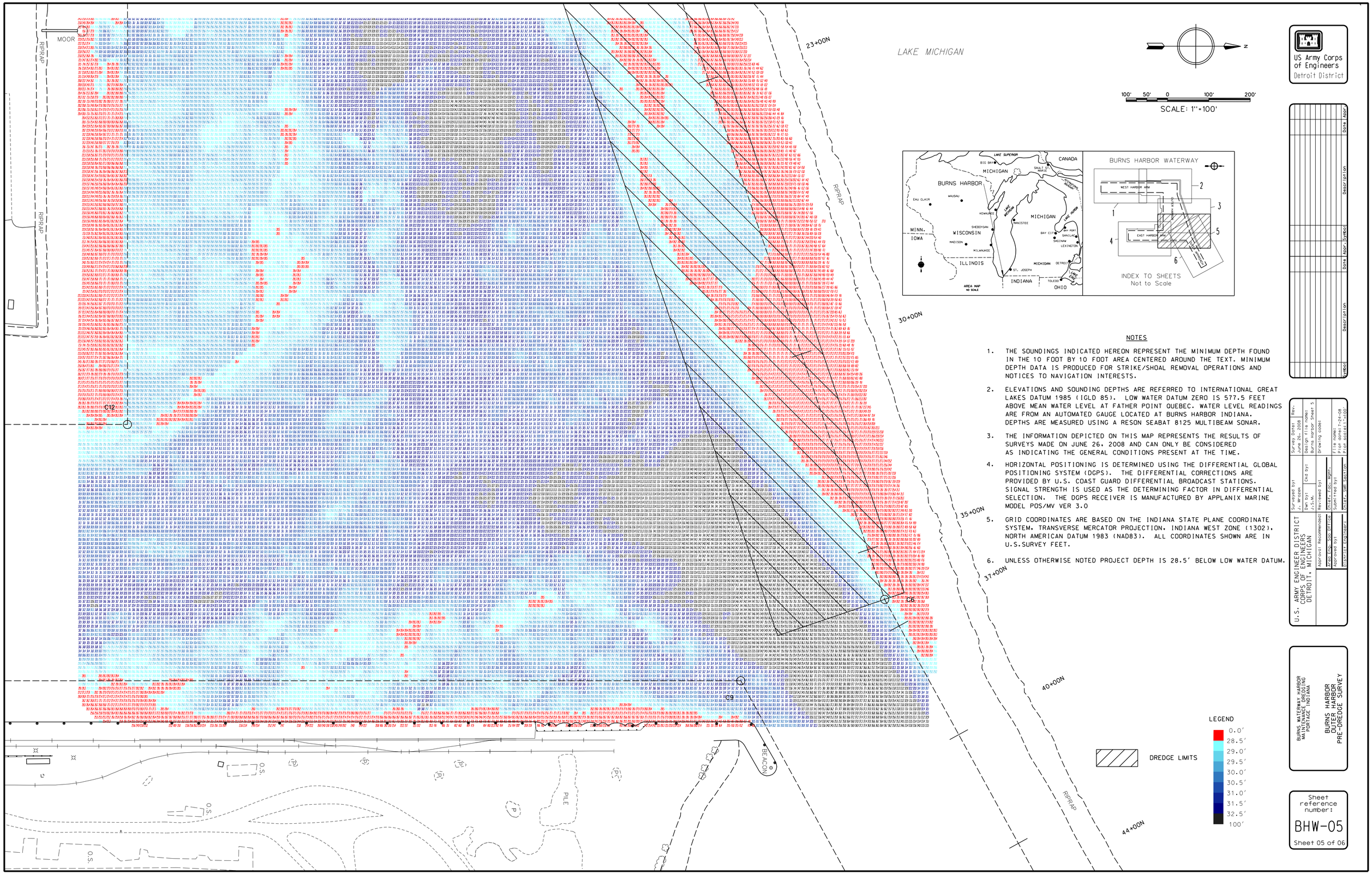
Surveyed by: J. Mrozek
Drawn by: J. Mrozek
Checked by:
Reviewed by:
Chief, Eng. Mgmt.
Scanned by:
Approved by:
Area Eng. Spec. Section
Approved by:
Chief, Sub Section
Approved: Recommended:
Area Eng. Spec. Section
District Engineer

Survey Dates: June 26, 2008
Design file name: BURNS HARBOR Sheet 3
Drawing code:
File name:
Plot date: 7-21-08
Plot scale: 1"=100'
Rev.

BURNS WATERWAY HARBOR
PORTAGE, INDIANA

BURN HARBOR
OUTER HARBOR
PRE-DREDGE SURVEY

Sheet reference number:
BHW-03
Sheet 03 of 06



US Army Corps of Engineers
Detroit District

NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 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 FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 26, 2008 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 MODEL POS/MV VER 3.0
5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S.SURVEY FEET.
6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 28.5' BELOW LOW WATER DATUM.

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

Surveyed by: J. Mrozek
Dwn by: J.S.M.
Ckd by:
Reviewed by:
Approved Recommended:
Approved by:
Chief, Tech. Mgmt.
Submitted by:
Chief, Engineering
Survey Date: June 26, 2008
Design file name: Burns Harbor Sheet 5
Drawing code:
File name:
Plot date: 7-24-08
Plot scale: 1"=100'

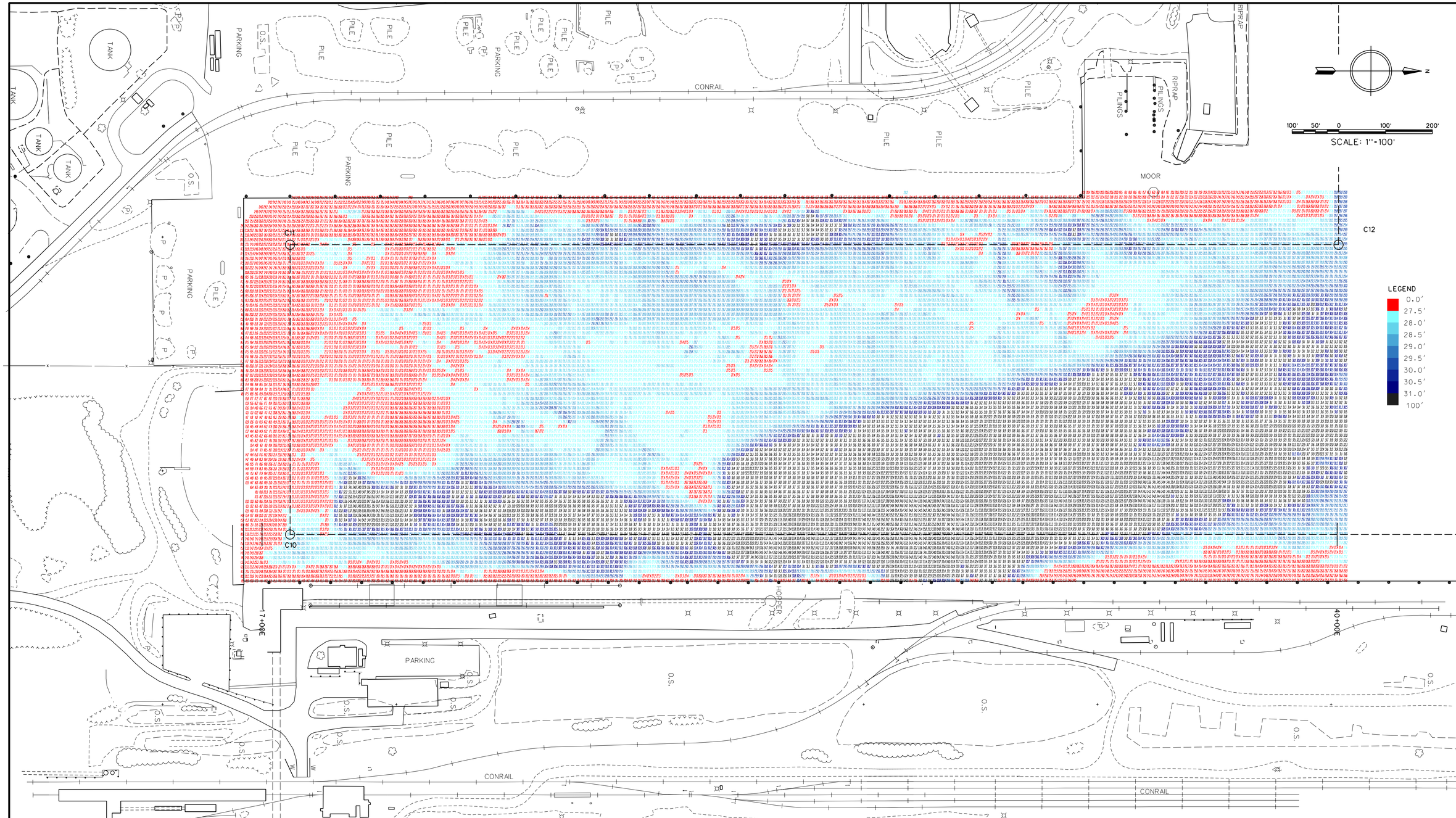
BURNS WATERWAY HARBOR
MAINTENANCE DREDGING
PORTAGE INDIANA

BURNS HARBOR
OUTER HARBOR
PRE-DREDGE SURVEY

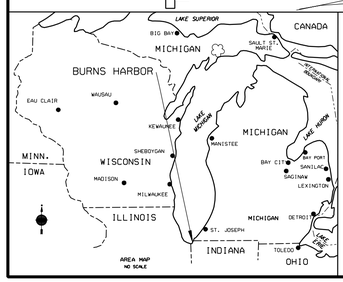
LEGEND
0.0'
28.5'
29.0'
29.5'
30.0'
30.5'
31.0'
31.5'
32.5'
100'

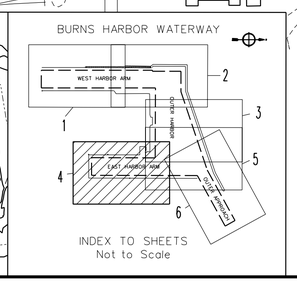
DREDGE LIMITS

Sheet reference number:
BHW-05
Sheet 05 of 06



US Army Corps of Engineers
Detroit District





NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 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 FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 26. 2008 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 MODEL POS/MV VER 3.0

5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302). NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 27.5' BELOW LOW WATER DATUM.

Symbol	Description	Date	Approv.

Symbol	Description	Date	Approv.

Symbol	Description	Date	Approv.

Survey Date: June 26, 2008
Rev.
Design File name: MS Sheet 4
Drawing code:
Surveyed by: W. Wacek
Cad by:
Dwn by: D. Wilkins
Reviewed by:
Chief, Fac. Mgmt.
Chief, SUR Section
Approval Recommended
Area Eng. Geo Bran.
Approved by:
District Engineer
File name:
Plot date: 7-24-08
Plot scale: 1"=100'

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

BURNS WATERWAY HARBOR
BURNS HARBOR, PORTAGE, INDIANA

BURNS HARBOR
EAST HARBOR ARM
17+00 TO C.S. 40+00
PRE-DREDGE SURVEY

Sheet reference number:
BHW-04
Sheet 04 of 06

NOTES

1. THE SOUNDINGS INDICATED HEREON REPRESENT THE MINIMUM DEPTH FOUND IN THE 10 FOOT BY 10 FOOT AREA CENTERED AROUND THE TEXT. MINIMUM DEPTH DATA IS PRODUCED FOR STRIKE/SHOAL REMOVAL OPERATIONS AND NOTICES TO NAVIGATION INTERESTS.

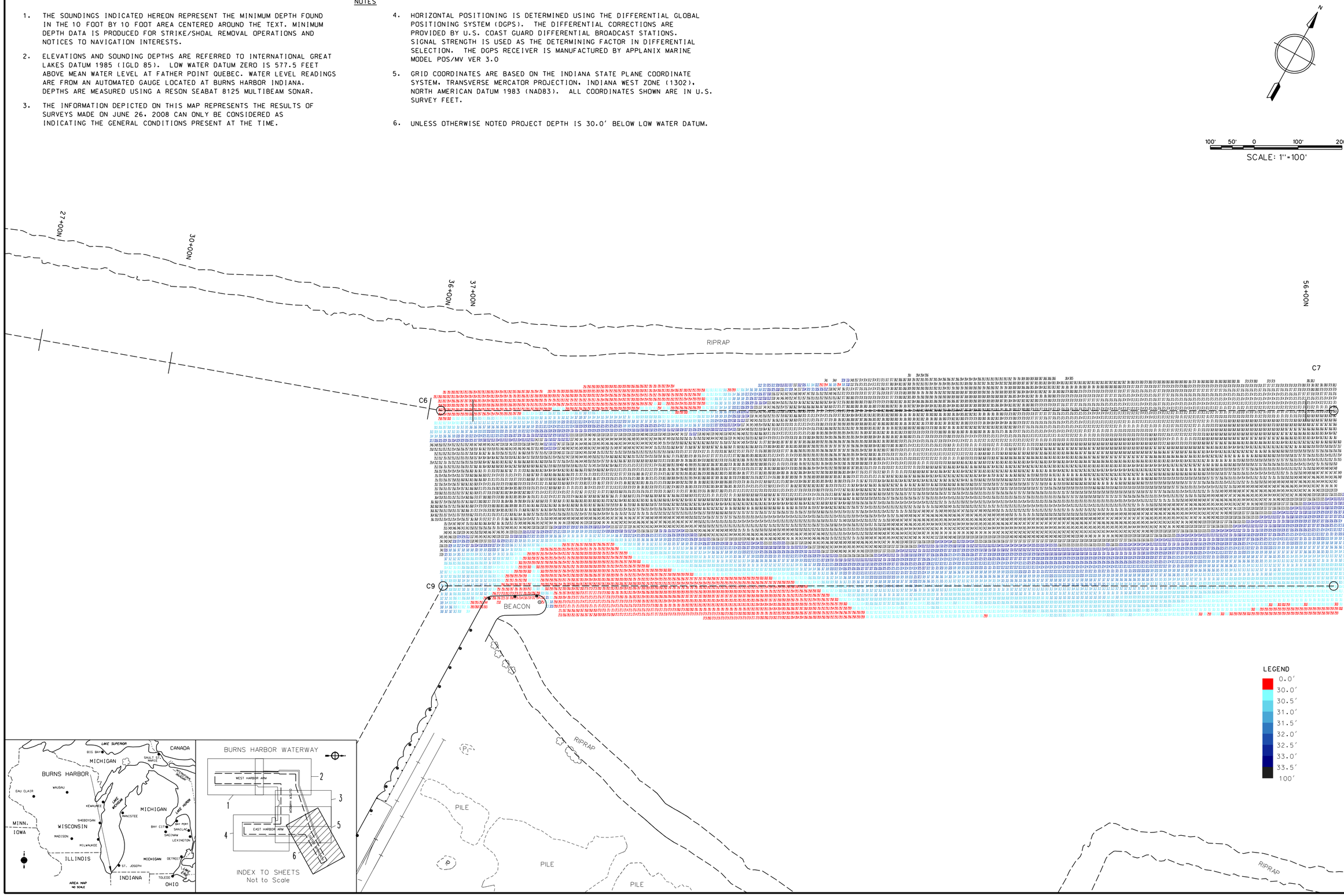
2. ELEVATIONS AND SOUNDING DEPTHS ARE REFERRED TO INTERNATIONAL GREAT LAKES DATUM 1985 (IGLD 85). LOW WATER DATUM ZERO IS 577.5 FEET ABOVE MEAN WATER LEVEL AT FATHER POINT QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT BURNS HARBOR INDIANA. DEPTHS ARE MEASURED USING A RESON SEABAT 8125 MULTIBEAM SONAR.

3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON JUNE 26, 2008 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 MODEL POS/MV VER 3.0

5. GRID COORDINATES ARE BASED ON THE INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1983 (NAD83). ALL COORDINATES SHOWN ARE IN U.S. SURVEY FEET.

6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 30.0' BELOW LOW WATER DATUM.



US Army Corps of Engineers
Detroit District

Symbol	Description	Date	Appr.

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

Surveyed by: J. Mrozek
Dwn by: Ckd by:
Surveyed by: Dwn by: Ckd by:
Rev. Dwn by: Ckd by:
Scale: 1"=100'
Date: 7-24-08
Plot scale: 1"=100'

BURNS WATERWAY HARBOR
MAINTENANCE DREDGING
PORTAGE INDIANA

BURNS HARBOR
OUTER APPROACH
C.S. 37+00 to C.S. 56+00
PRE-DREDGE SURVEY

Sheet reference number:
BHW-06
Sheet 06 of 06