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.

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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 INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302). NORTH AMERICAN DATUM 1927 (NAD27). ALL COORDINATES SHOWN ARE IN U.S.SURVEY FEET.

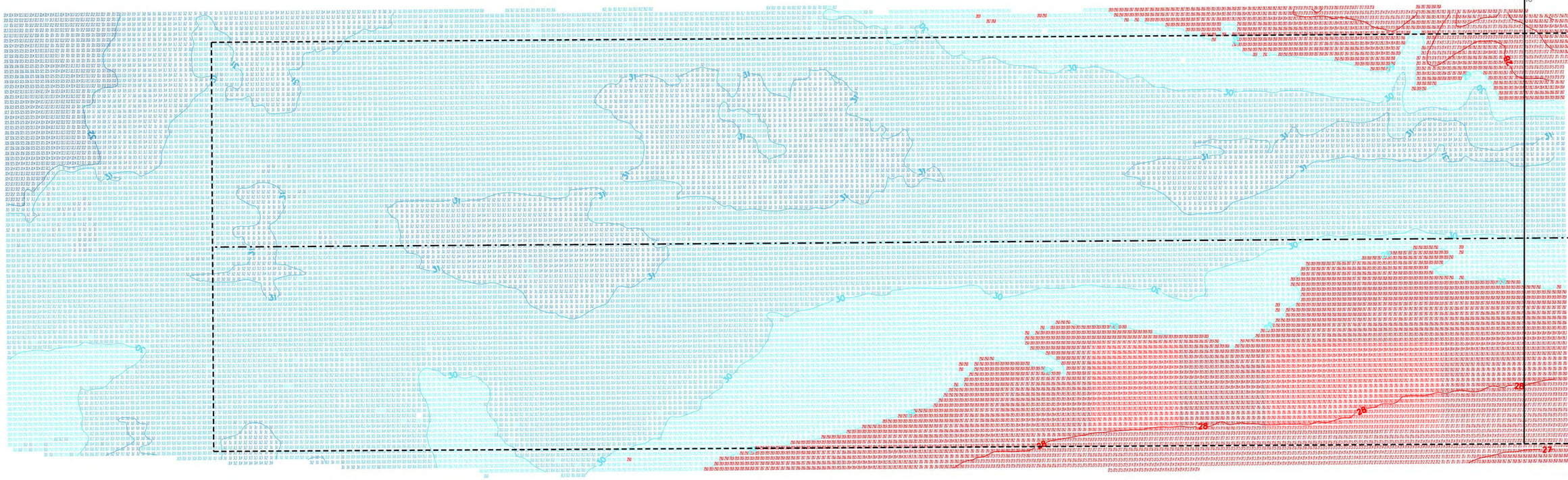
6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 29.0' BELOW LOW WATER DATUM.

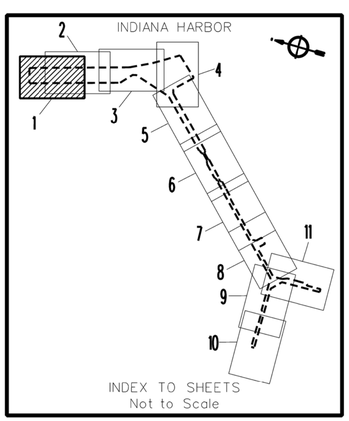
0.0'
29.0'
30.0'
31.0'
32.0'
33.0'
34.0'
35.0'
36.0'

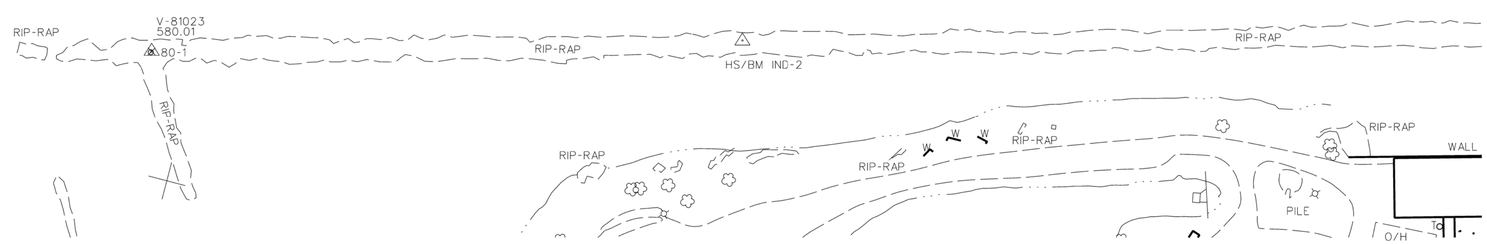
LAKE MICHIGAN

100' 50' 0 100' 200'
SCALE: 1"=100'

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
Dwn by: A.M.
Ckd by:
Reviewed by:
Chiefs - Doc. Mgmt.
Submitted by: Chiefs - SOR Operations
Survey Date: May 5, 2011
Design File name:
Drawing code:
File name:
Plot date: 6-08-11
Plot scale:
Rev.

Approval Recommended: Area Eng. Dist. Office
Approved by: District Engineer

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR
FY-11 CONDITION SURVEY

Sheet reference number:
IND-1
Sheet 01 of 11

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.

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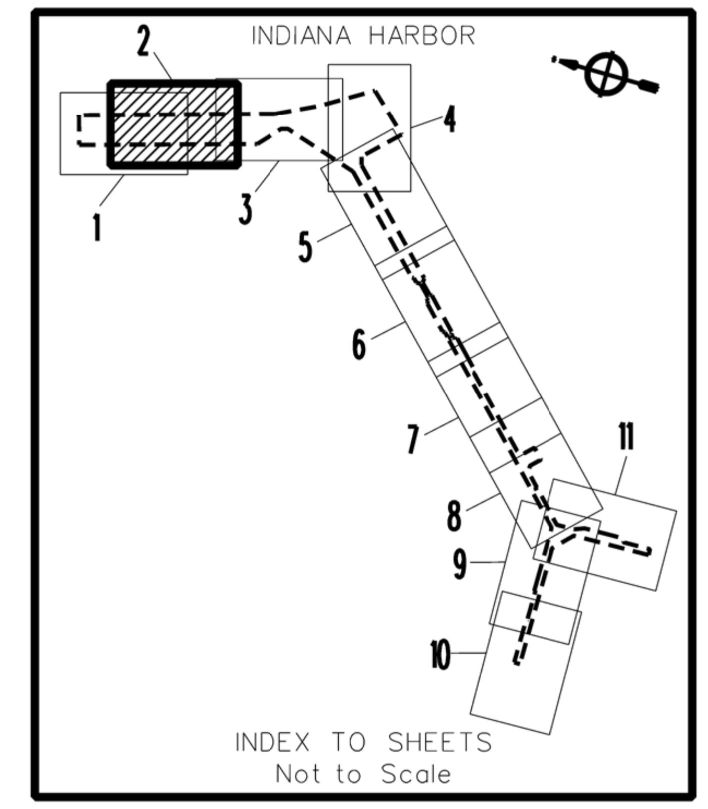
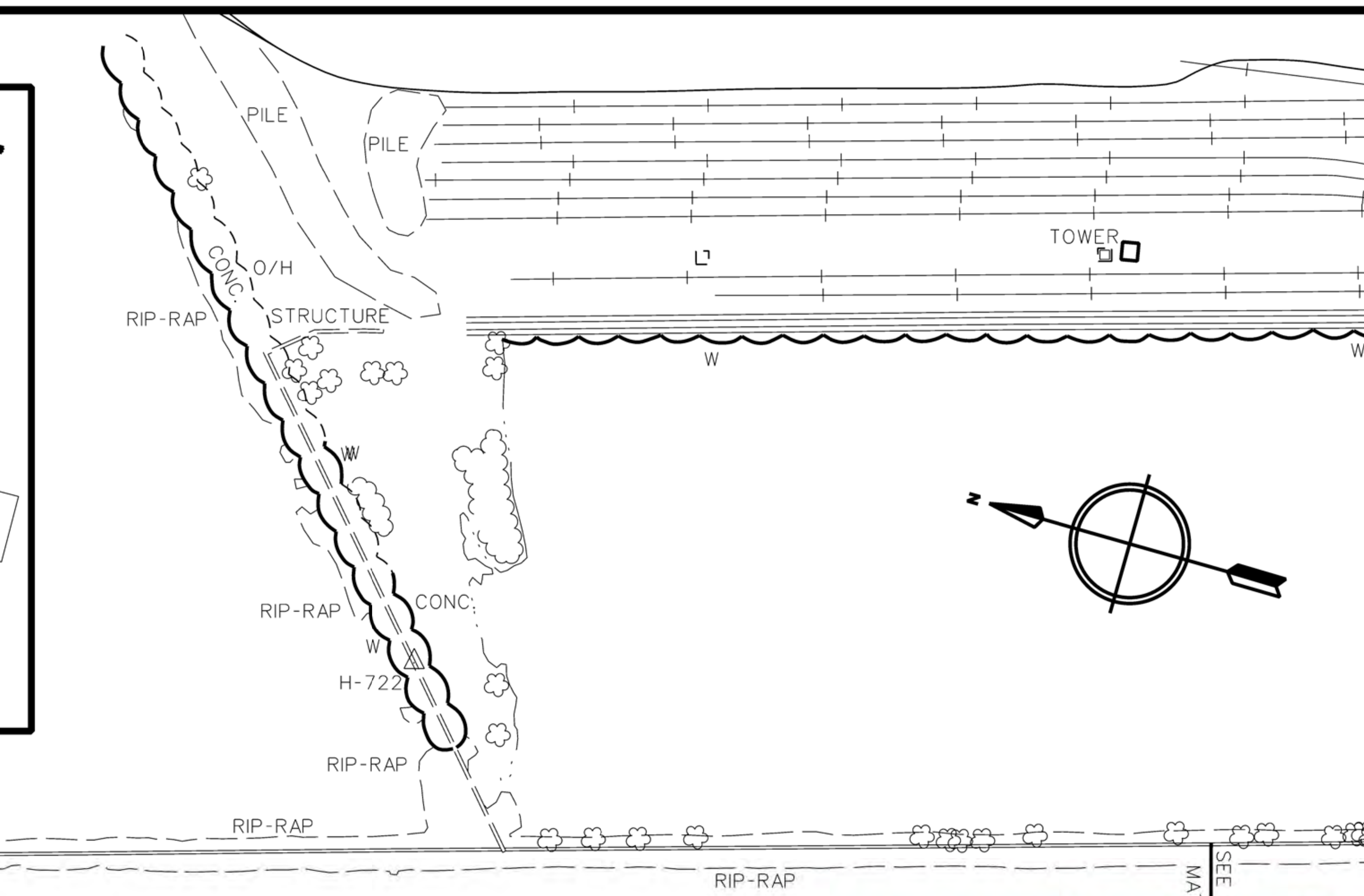
6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 29.0' BELOW LOW WATER DATUM.





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. Mrozek	Survey Date: May 5, 2011	Rev.
Dwn by: J.S.M.	Ckd by:	Design file name:
Approval Recommended:	Reviewed by:	Drawing code:
Area Eng. Soo Office	Chief, Fac. Mgmt.	
Approved by:	Submitted by:	File name: Plot date: 6-08-11 Plot scale:
District Engineer:	Chief, SMR Section	

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR
FY-11 CONDITION SURVEY

Sheet reference number:

IND-2

Sheet 02 of 11

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.

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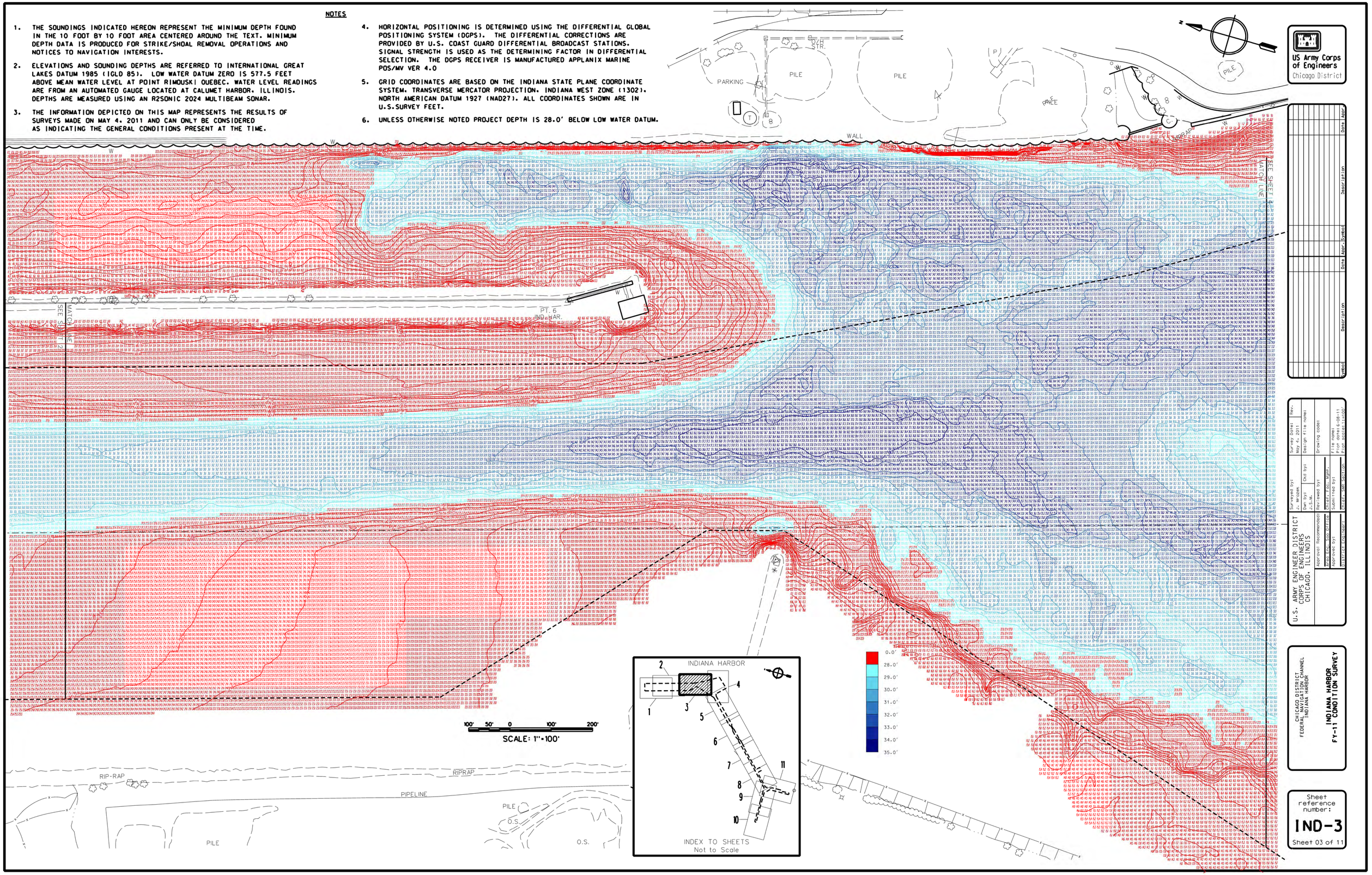
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON MAY 4, 2011 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THE TIME.

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 INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1927 (NAD27). ALL COORDINATES SHOWN ARE IN U.S.SURVEY FEET.

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



Symbol	Description	Date Appr.

Symbol	Description	Date Appr.

Symbol	Description	Date Appr.

Survey Date: May 4, 2011
Rev.
Design File name:
Drawing code:
File name:
Plot date: 6-08-11
Plot scale: 1=100'

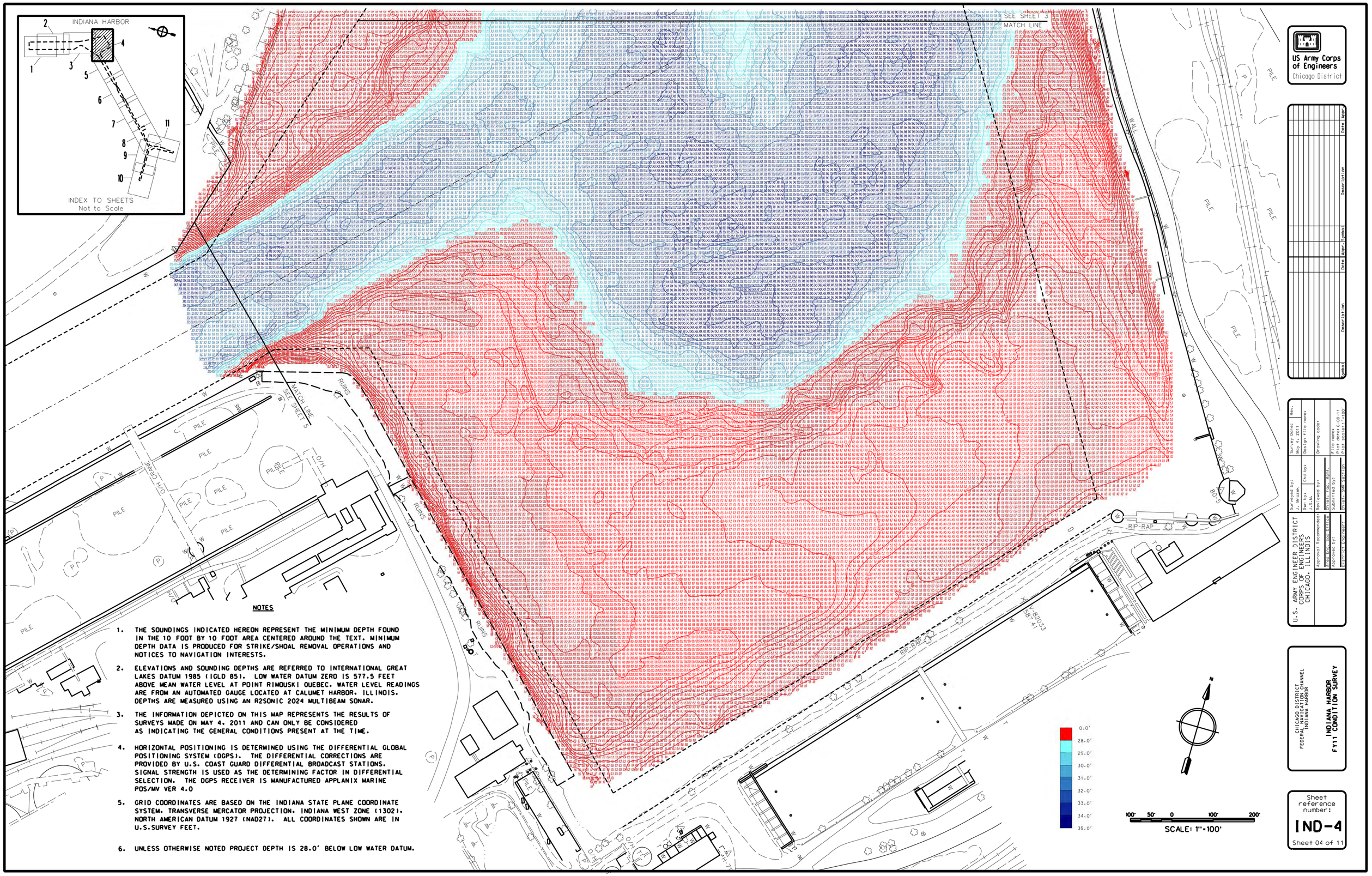
Surveyed by: J. McCabe
Drn by:
Ckd by:
Chief, Eng. Mgmt.
Reviewed by:
Chief, Hydr. Section
Approved by:
Chief, Sec. Section
Approved by:
Chief, Engineering
Approved by:
Chief, Hydr. Section

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

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR
FY-11 CONDITION SURVEY

Sheet reference number:
IND-3
Sheet 03 of 11



NOTES

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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

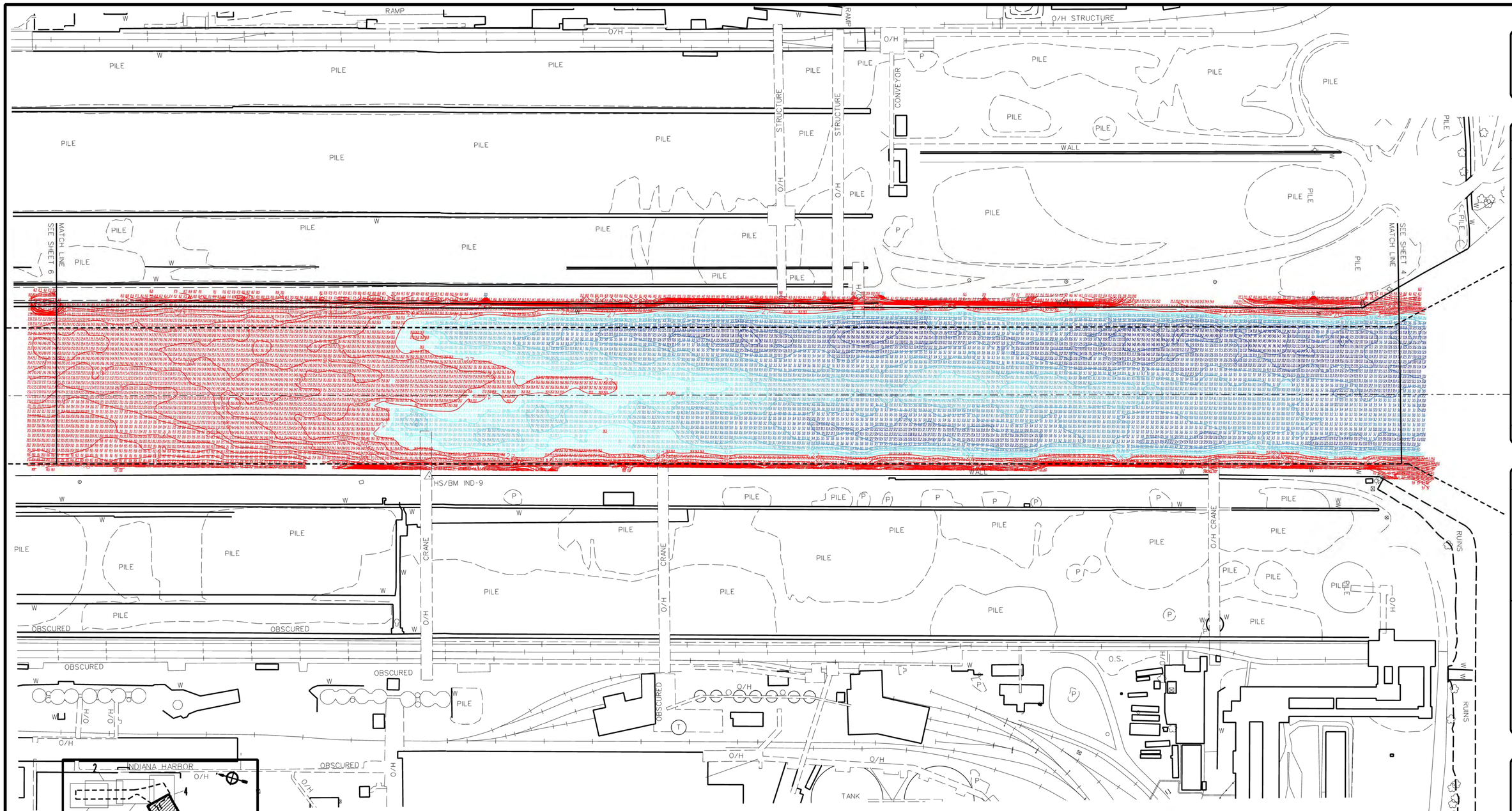
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

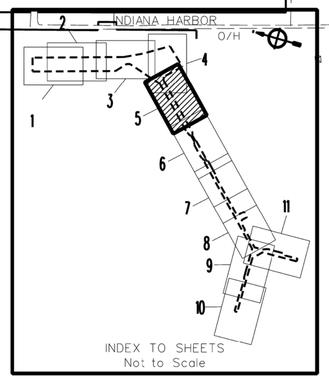
Surveyed by: J. Mrozek	Survey Dates: May 4, 2011
Dwn by: Ck. Mc	Design File name:
Ckd by:	Drawing code:
Rev. Reviewed by:	
Approval Recommended:	
Area Eng. Soo Office	Chief, Doc. Mgmt.
Approved by:	Submitted by:
District Engineer	Project Mgr. Sec.

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR
FY11 CONDITION SURVEY

Sheet reference number:
IND-4
Sheet 04 of 11





INDEX TO SHEETS
Not to Scale

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6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 27.0' BELOW LOW WATER DATUM.

0.0'
27.0'
28.0'
29.0'
30.0'
31.0'
32.0'
33.0'
34.0'

100' 50' 0 100' 200'
SCALE: 1"=100'

US Army Corps of Engineers
Chicago District

Symbol	Date	Description	Date	Approved

Survey Dates: May 5, 2011
Rev.
Design File name:
Drawing code:
File name:
Plot date: 6-08-11
Plot scale: 1=100'

Surveyed by: J. Mrozek
Dwn by: J. Kim
Ckd by:
Reviewed by:
Checked by: Chief, Soc. Ugas.
Submitted by: Chief, Sup Section

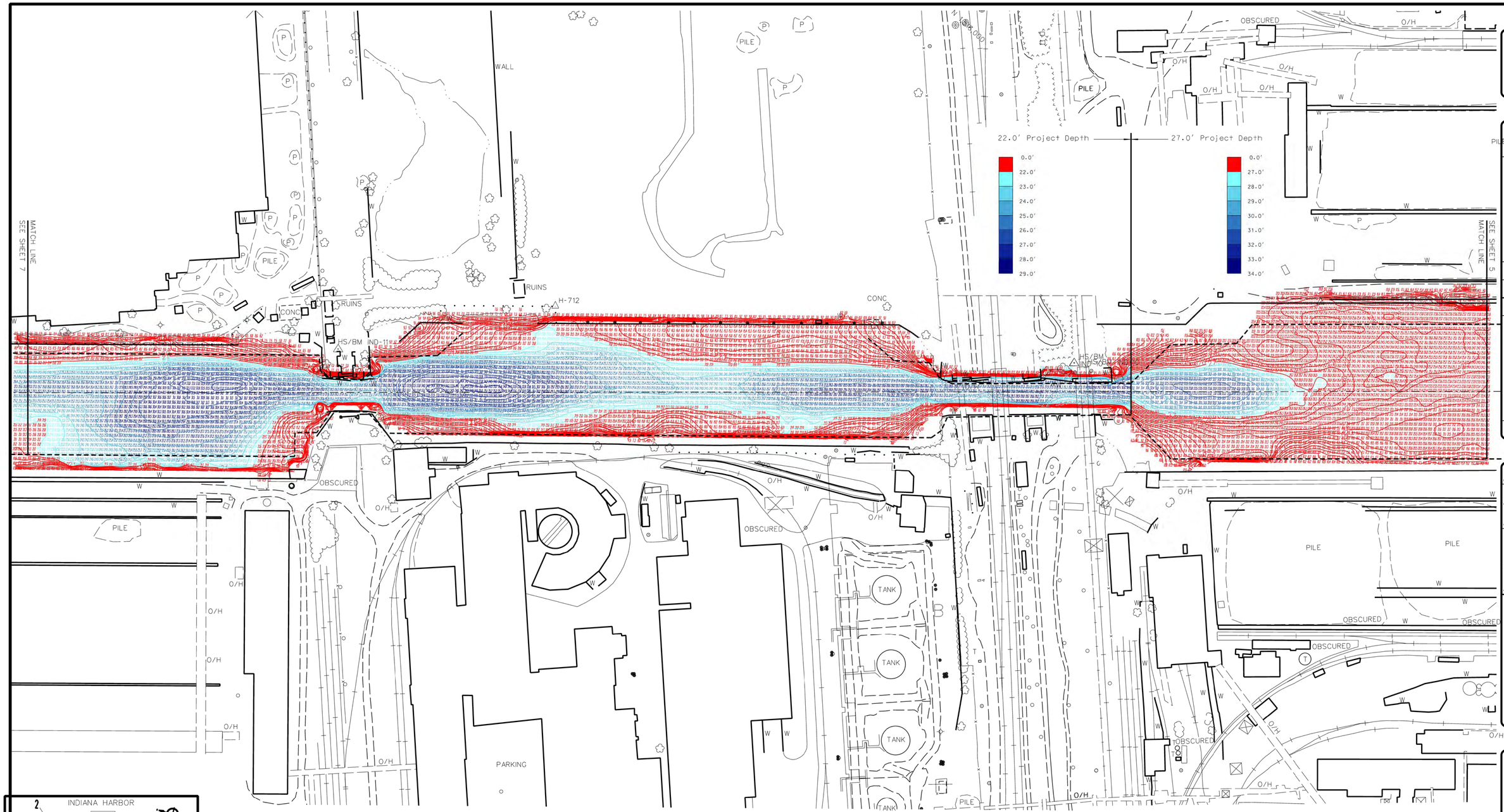
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

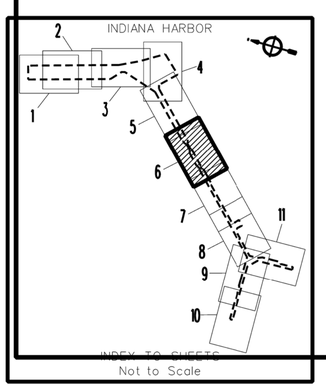
Approval Recommended:
Area Eng. Soo. Office
Approved by:
District Engineer

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR
FY 11 CONDITION SURVEY

Sheet reference number:
IND-5
Sheet 05 of 11





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6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 22.0' BELOW LOW WATER DATUM.

100' 50' 0 100' 200'

SCALE: 1"=100'

US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.

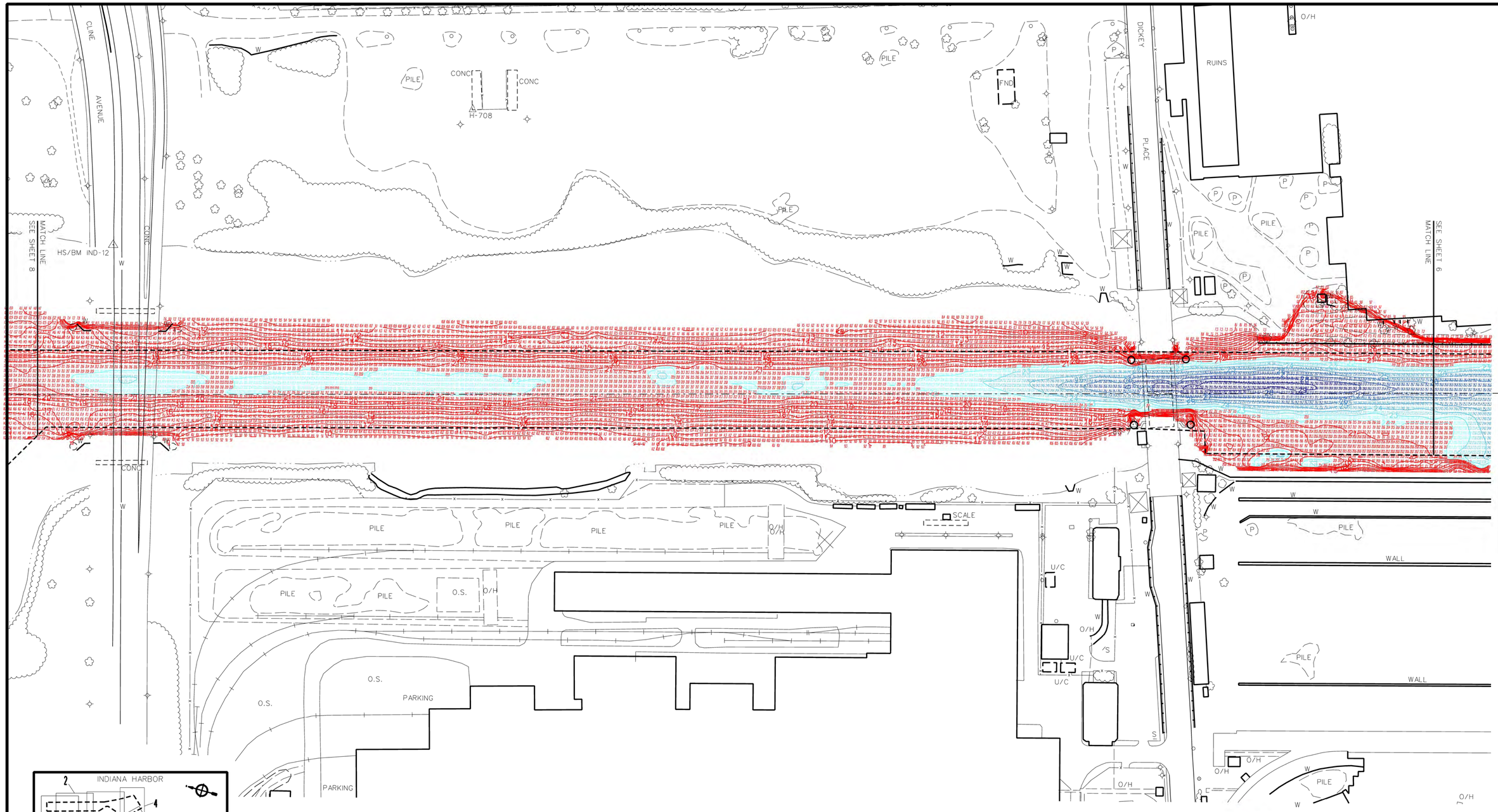
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

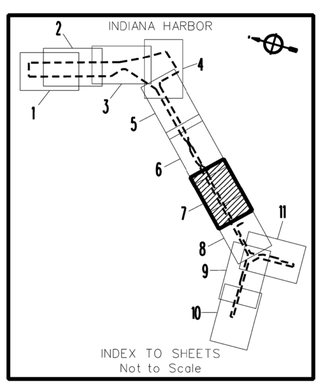
Surveyed by: J. Mrozek
Drawn by: J. Zak
Ckd by:
Reviewed by:
Approved Recommended:
Chief, Hydr. Section
Approved by:
District Engineer
Survey Date: May 5, 2011
Design File name:
Drawing code:
File name:
Plot date: 6-08-11
Plot scale: 1"=100'
Chief, Coordination & Support Section
Submitted by:
Chief, Hydraulic Engineering Section

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR CANAL
FY-11 CONDITION SURVEY

Sheet reference number:
IND-6
Sheet 06 of 11





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US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

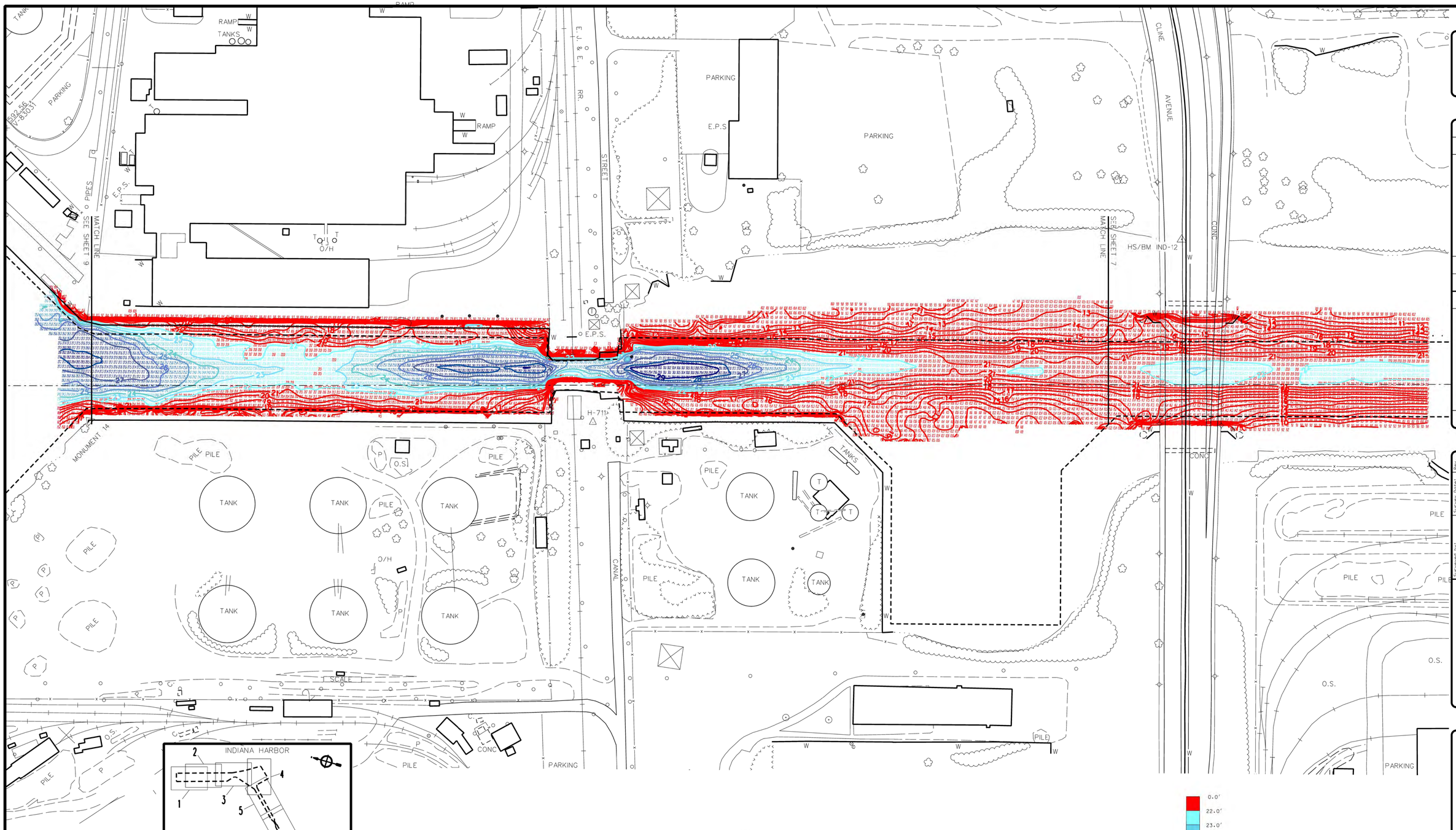
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

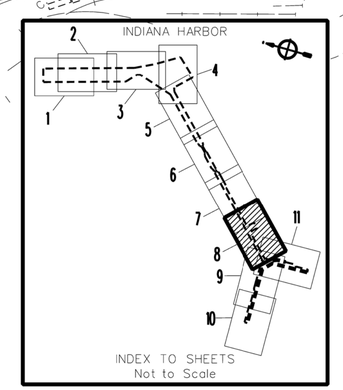
Surveyed by: J. Wrzosek
Drn by: J. Wa
Ckd by:
Drawing code:
Reviewed by:
Approval Recommended: Frank Rios - Ops Div Chief
Approved by: District Engineer
Survey Date: May 5, 2011
Design file name:
File name:
Plot date: 6-08-11
Plot scale: 1"=100'

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIANA HARBOR CANAL
FY-11 CONDITION SURVEY

Sheet reference number:
IND-7
Sheet 07 of 11





INDEX TO SHEETS
Not to Scale

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6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 22.0' BELOW LOW WATER DATUM.

0.0'
22.0'
23.0'
24.0'
25.0'
26.0'
27.0'
28.0'
29.0'

100' 50' 0 100' 200'
SCALE: 1"=100'

US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Approv.	Symbol	Description	Date	Approv.

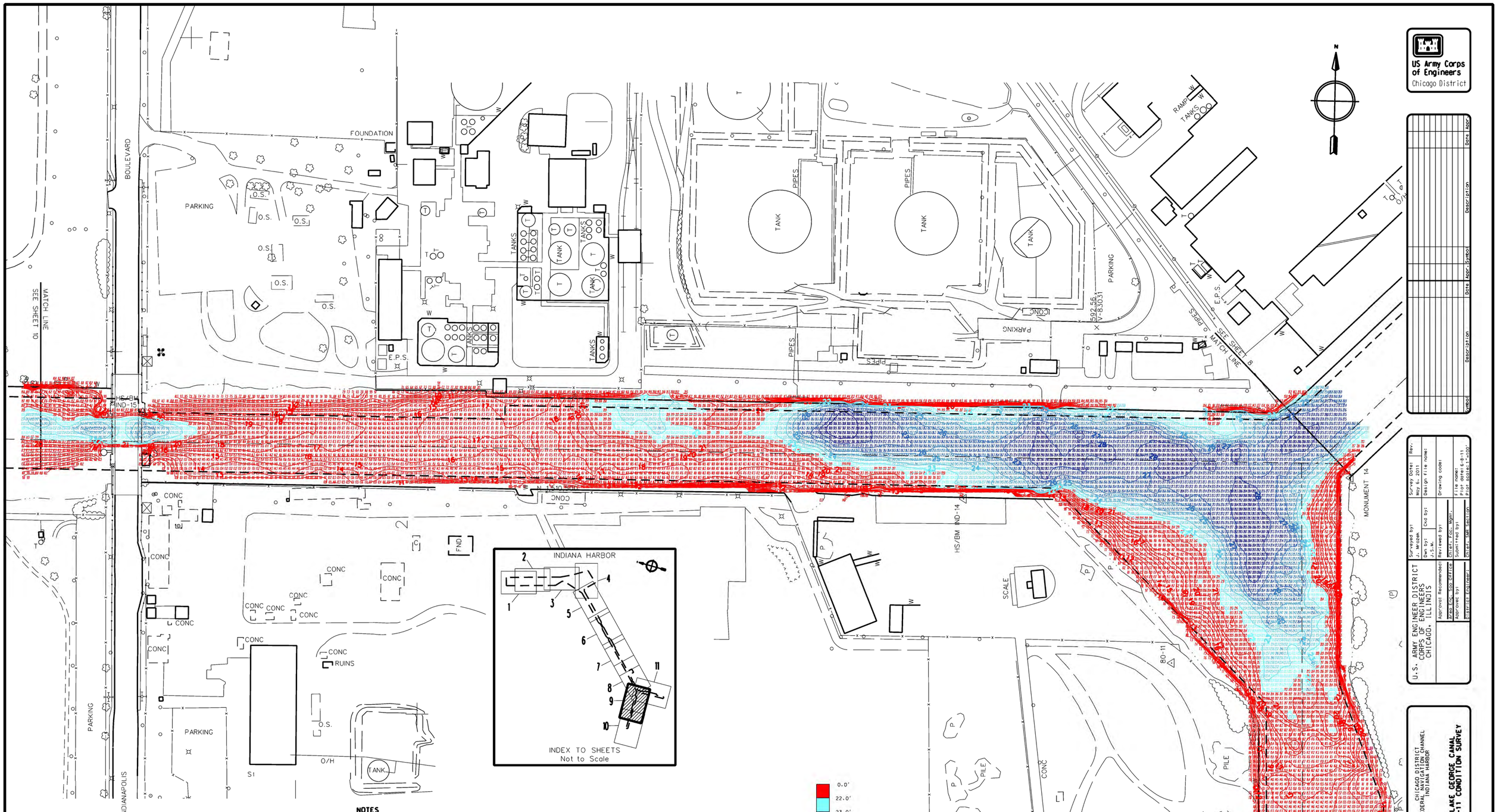
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Surveyed by: J. Wrobek
Dwn by: K. Ma
Ckd by:
Reviewed by:
Approved by:
Survey Date: May 6, 2011
Design File name:
Drawing code:
File name:
Plot date: 6-08-11
Plot scale: 1"=100'

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

INDIAN HARBOR CANAL
FY-11 CONDITION SURVEY

Sheet reference number:
IND-8
Sheet 08 of 11



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. Mrozek
Survey Date: May 6, 2011
Rev.
Dwn by:
Date:
Chd by:
Design File name:
Drawing code:
Approval Recommended:
Reviewed by:
Chief, Ops. Mgmt.
Chief, Cons. Section
Approved by:
District Engineer
Chief, Tech. Support
File name:
Plot date: 6-8-11
Plot scale: 1"=100'

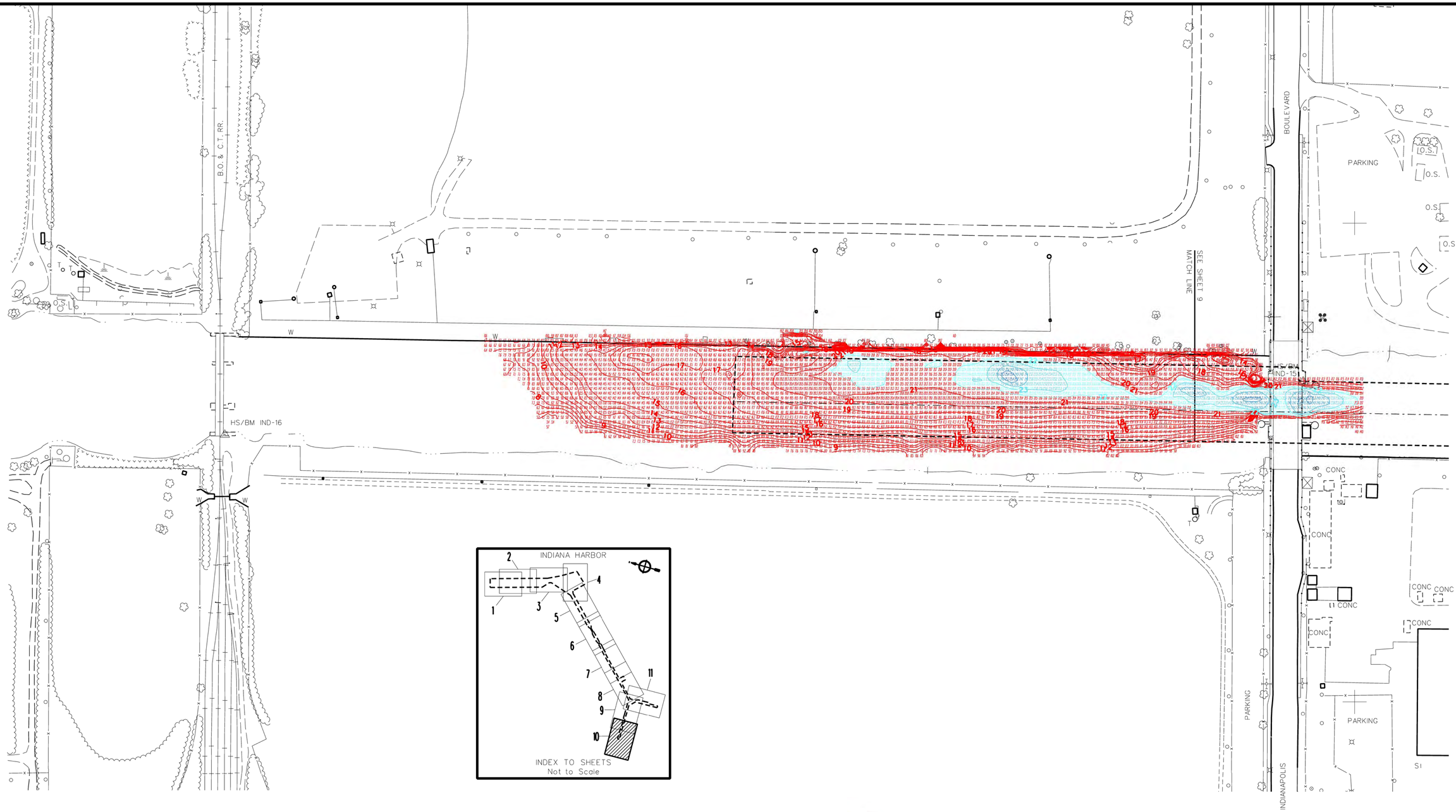
CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

LAKE GEORGE CANAL
FY-11 CONDITION SURVEY

Sheet reference number:
IND-9
Sheet 09 of 11

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 POINT RIMOUSKI QUEBEC. WATER LEVEL READINGS ARE FROM AN AUTOMATED GAUGE LOCATED AT THE DICKEY RD. BRIDGE. DEPTHS ARE MEASURED USING AN R2SONIC 2024 MULTIBEAM SONAR.
3. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON MAY 6 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 INDIANA STATE PLANE COORDINATE SYSTEM, TRANSVERSE MERCATOR PROJECTION, INDIANA WEST ZONE (1302), NORTH AMERICAN DATUM 1927 (NAD27). ALL COORDINATES SHOWN ARE IN U.S.SURVEY FEET.
6. UNLESS OTHERWISE NOTED PROJECT DEPTH IS 22.0' BELOW LOW WATER DATUM.



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US Army Corps of Engineers
Chicago District

Symbol	Description	Date	Appr.	Symbol	Description	Date	Appr.

Survey Date: May 6, 2011 | Rev.
Surveyed by: J. Wrozek
Design File name:
Dwn by: J.S.M.
Ckd by:
Drawing code:
Reviewed by:
Chief, Plan. Mgmt.
Approved by:
Chief, Hydrologic Engineering
File name:
Plot date: 6-08-11
Plot scale: 1"=100'

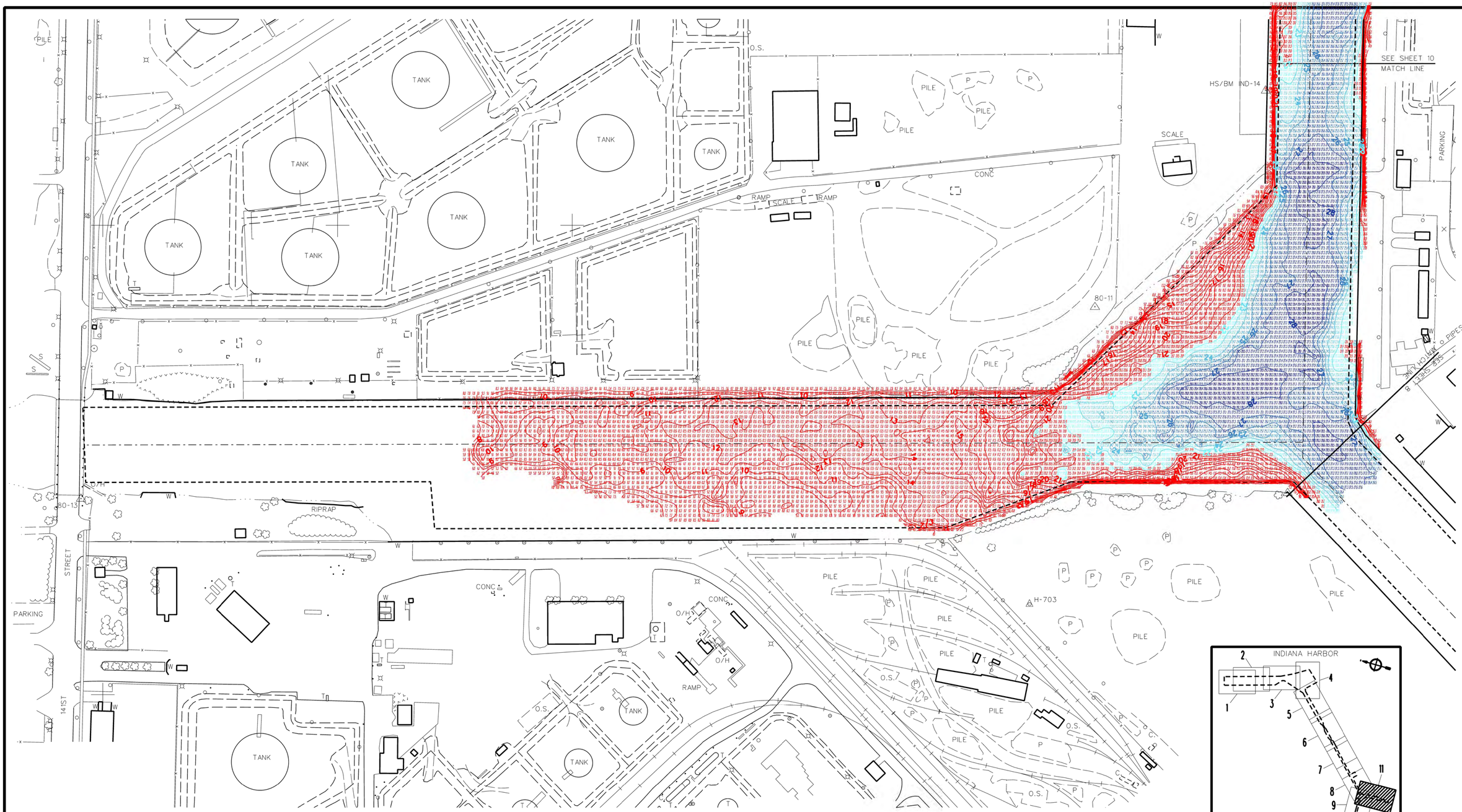
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

Approval Recommended:
Area Eng. Coord Office
Approved by:
District Engineer

CHICAGO DISTRICT
FEDERAL NAVIGATION CHANNEL
INDIANA HARBOR

LAKE GEORGE CANAL
FY-11 CONDITION SURVEY

Sheet reference number:
IND-10
Sheet 10 of 11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