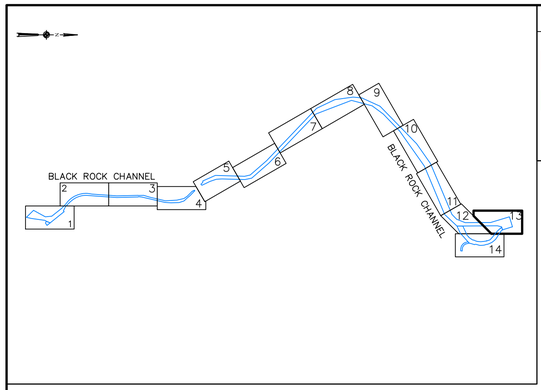


SHEET INDEX
"NOT TO SCALE"

SOUNDING COLOR LEGEND

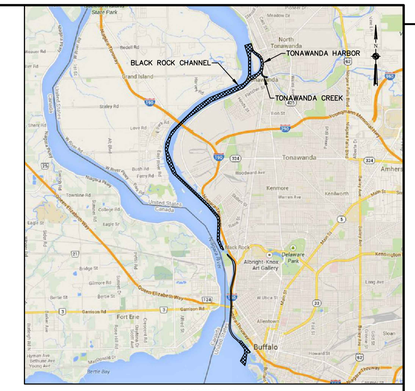
	DEPTHS 0.1' OR MORE ABOVE PROJECT DEPTH
	DEPTHS AT OR BELOW PROJECT DEPTH
18.0	PROJECT DEPTH

LEGEND OF SYMBOLS

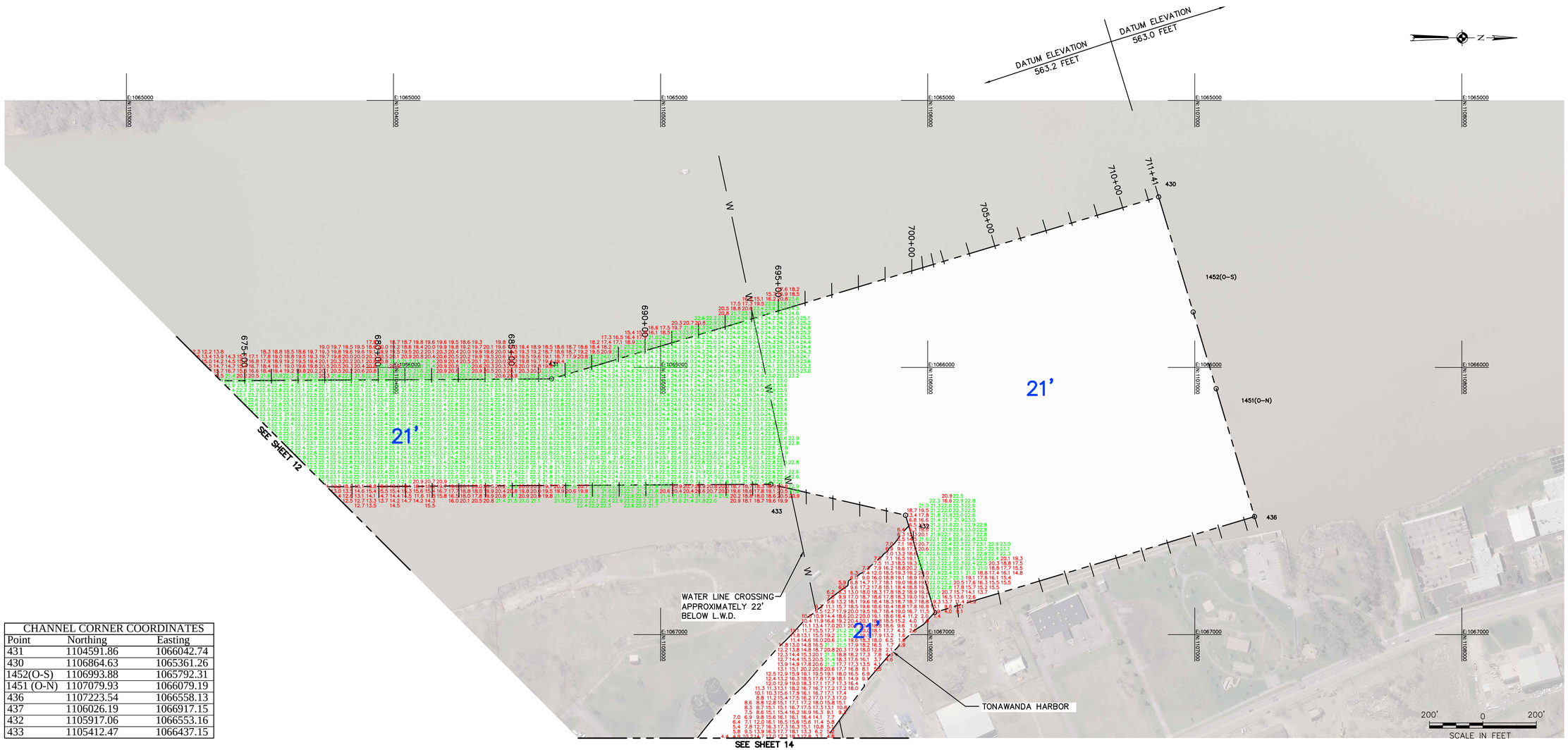
17+00	CHANNEL STATIONING
417	CHANNEL CORNER
H.L.F.	HARBOR LINE CORNER
	FEDERAL CHANNEL
	HARBOR LINE
	SUBMARINE CABLE
C	CAN BUOY
N	NUN BUOY
	LIGHTED BUOY
	FIXED LIGHT
	LIGHT HOUSE
W	LIGHT COLOR WHITE
R	LIGHT COLOR RED
G	LIGHT COLOR GREEN
FL	FLASHING LIGHT
F	FIXED LIGHT
Oc	OCCULTING LIGHT
Iso	EQUAL INTERVAL
AL	ALTERNATING
Q	QUICK (FLASHING)
S	LIGHT CYCLE SECONDS

SITE SPECIFIC NOTES:

1. PROJECT DEPTHS AND SOUNDINGS ARE REFERRED TO IGLD85 LOW WATER DATUM STEP AS SHOWN.
2. HORIZONTAL CONTROL IS REFERRED TO NORTH AMERICAN DATUM 1983 NEW YORK STATE PLANE COORDINATE SYSTEM–WEST ZONE.
3. PROJECT DEPTH IS AS NOTED BELOW LOW WATER DATUM.
4. SOUNDINGS WERE TAKEN BY THE BUFFALO DISTRICT ARMY CORPS OF ENGINEERS BY D. DELL AND PARTY ON APRIL 18, 2014 THROUGH APRIL 24, AND AUGUST 22 2014 USING:
   GPS POSITIONING, POS–MV VER. 5 AND REAL TIME KINEMATIC TIDES
   REFERENCE POINT USED; EPM
   SONAR HEAD: 240 KHZ, SEABAT 7101 MULTIBEAM
   1.5 DEGREE BEAMS 210 DEGREE ARC
   HEAVE, PITCH AND ROLL; APPLANIX POS–MV VER. 5
   VELOCITY PROFILER; SONTEK CASTAWAY CTD
   HYPACK SURVEY SOFTWARE
   SURVEY VESSEL "WITMER"
5. THE SOUNDING INFORMATION DEPICTED ON THE MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION AT THAT TIME.
6. THE BACKGROUND IMAGERY SHOWN WAS ACQUIRED FROM THE NEW YORK STATE GIS CLEARINGHOUSE.
7. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE STANDARDS OUTLINED IN CORPS OF ENGINEERS HYDROGRAPHIC SURVEY MANUAL EM 1110–2–1003.



VICINITY MAP
"NOT TO SCALE"



CHANNEL CORNER COORDINATES		
Point	Northing	Easting
431	1104591.86	1066042.74
430	1106864.63	1065361.26
1452(O-S)	1106993.88	1065792.31
1451 (O-N)	1107079.93	1066079.19
436	1107223.54	1066558.13
437	1106026.19	1066917.15
432	1105917.06	1066553.16
433	1105412.47	1066437.15

US Army Corps of Engineers
Buffalo District

Original sheet size = ANSI D

** COPY OF SIGNED ORIGINAL **

Drawn by: KPL
Checked by: ACK
Reviewed by: Roman H. Figler III PLS
Chief, Survey Section
Approved by: Edward F. Gawarecki
Chief, NY/PA Navigation and Maintenance Section
Date: August 28, 2014

To download an electronic version of this map, point a web browser to http://www.lrb.usace.army.mil/Library/AppendixCharts.aspx

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NEW YORK 14207–3199

BLACK ROCK CHANNEL &
TONAWANDA HARBOR, NY
PROJECT CONDITIONS SOUNDINGS 2014
SCALE: 1"=200'

Sheet reference number
VH–113
Sheet 13 of 14

C:\Users\h36dagn\Desktop\BRC 2014 PCS.dwg