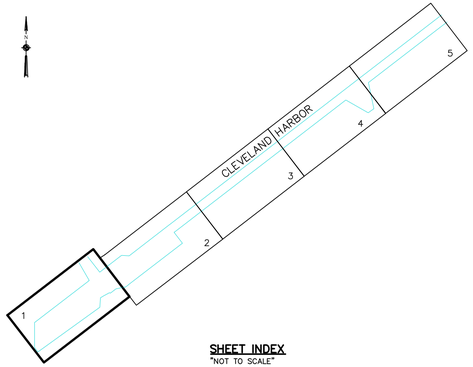

SHEET INDEX
"NOT TO SCALE"

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 (NEW), 17+00 (OLD)	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 LOW WATER DATUM OF 569.2 FEET IGLD 1985.
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   SONAR HEAD: 200 KHZ, RESON 7125 MULTIBEAM
   1 DEGREE BEAMS 160 DEGREE ARC
   HEAVE PITCH AND ROLL; APPLANIX POS–MV VER. 5
   VELOCITY PROFILER; SONTEK CASTAWAY
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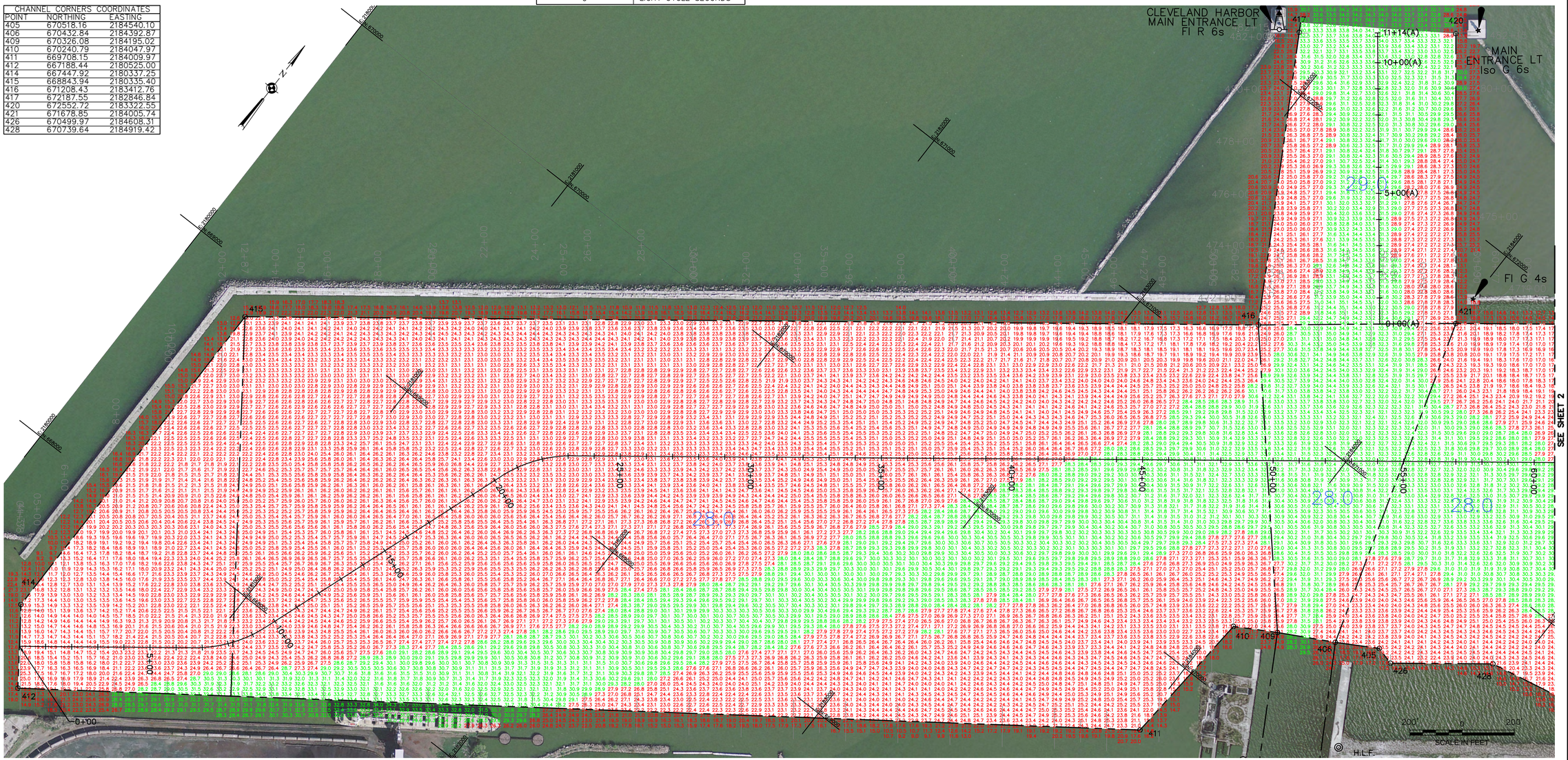
7. THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE STANDARDS OUTLINED IN CORPS OF ENGINEERS HYDROGRAPHIC SURVEY MANUAL EM 1110–2–1003.

VICINITY MAP
"NOT TO SCALE"

CHANNEL CORNERS COORDINATES

POINT	NORTHING	EASTING
405	670518.16	2184540.10
406	670432.84	2184392.87
409	670326.08	2184195.02
410	670240.79	2184047.97
411	669708.15	2184009.97
412	667188.44	2180525.00
414	667447.92	2180337.25
415	668843.94	2180335.40
416	671208.43	2183412.76
417	672187.55	2182846.84
420	672552.72	2183322.55
421	671678.85	2184005.74
426	670499.97	2184608.31
428	670739.64	2184919.42



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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: October 13, 2015

US Army Corps of Engineers
Buffalo District

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

CLEVELAND HARBOR, OH

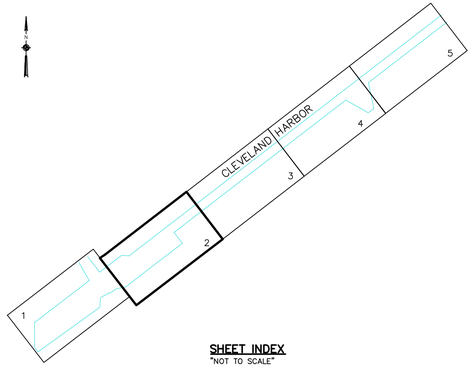
PROJECT CONDITIONS SOUNDINGS 2015

SCALE: 1"=200'

Sheet reference number
VH–101
Sheet 1 of 5

S:\DH–Cleveland Harbor\Channel Maintenance\Drawing Files (Cad)\2015\Dsr15x45.dwg

SAFETY PAYS



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 (NEW), 17+00 (OLD)	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:

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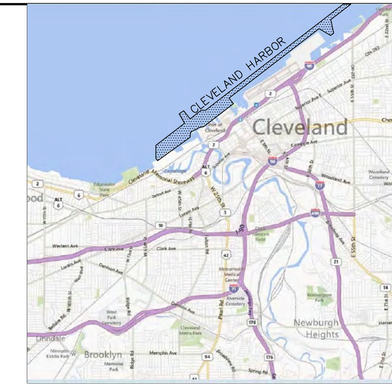
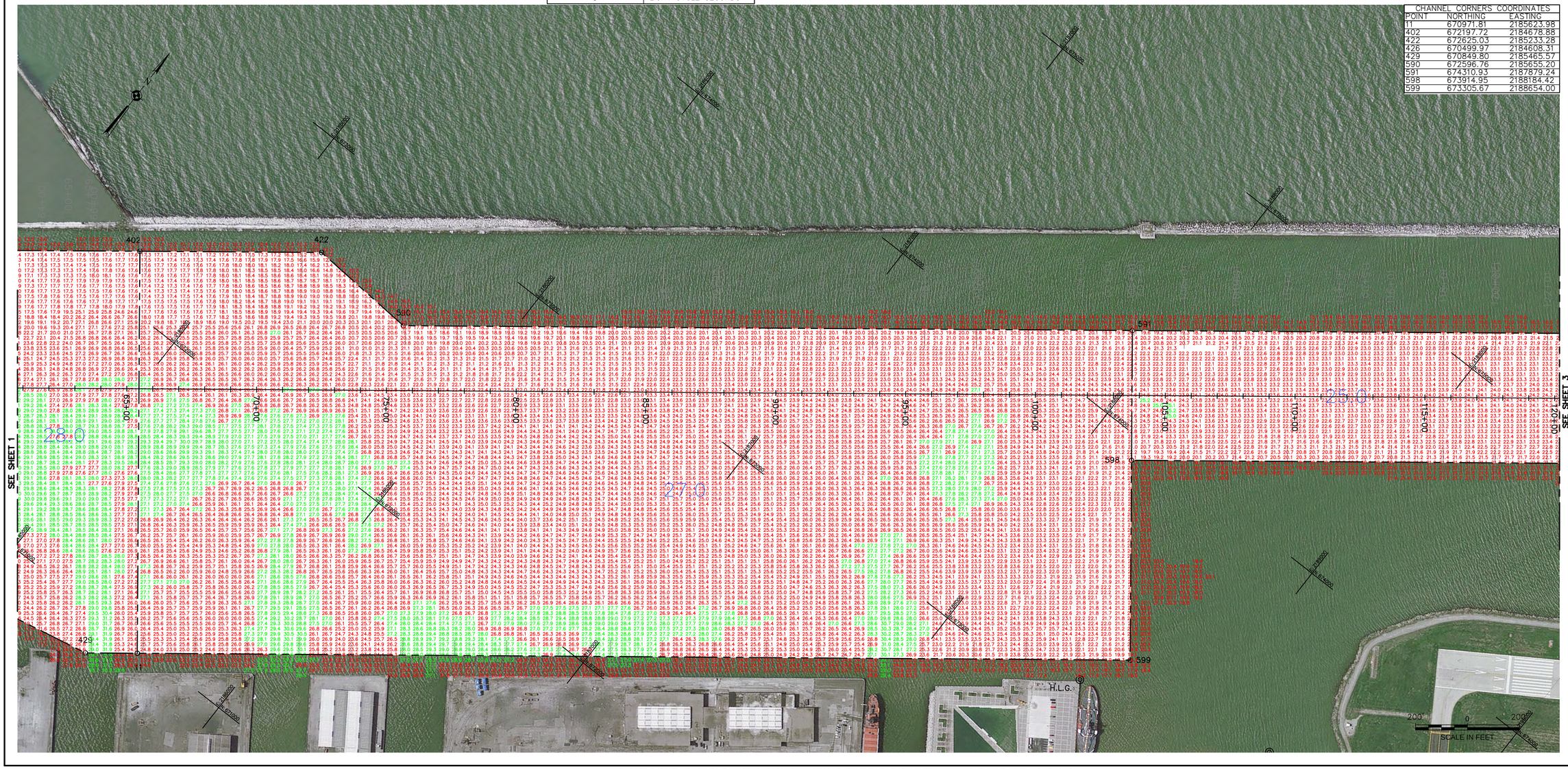


CHANNEL CORNERS COORDINATES		
POINT	NORTHING	EASTING
11	670971.81	2185623.98
402	672197.72	2184678.88
422	672625.03	2185233.28
426	670499.97	2184608.31
429	670849.80	2185465.57
590	672596.76	2185655.20
591	674310.93	2187879.24
598	673914.95	2188184.42
599	673305.67	2188654.00



US Army Corps of Engineers
Buffalo District

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Drawn by: KPL
Checked by: ACK
Reviewed by: Roman H. Figler III PLS
Chief, Survey Section
Approved by: Edward F. Gawarecki
Date: October 13, 2015
Chief, NY/PA Navigation and Maintenance Section

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

CLEVELAND HARBOR, OH

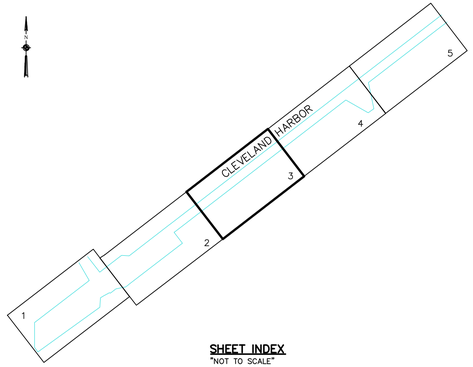
PROJECT CONDITIONS SOUNDINGS 2015

SCALE: 1"=200'

Sheet reference number
VH–102

Sheet 2 of 5

SUPPORT VALUE ENGINEERING – IT PAYS



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 (NEW), 17+00 (OLD)	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

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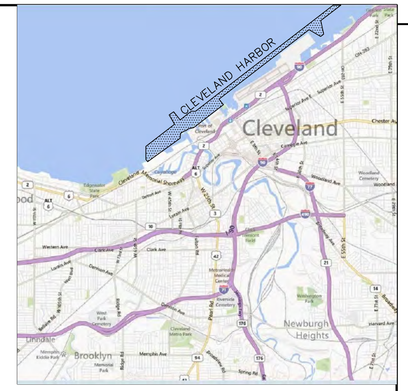

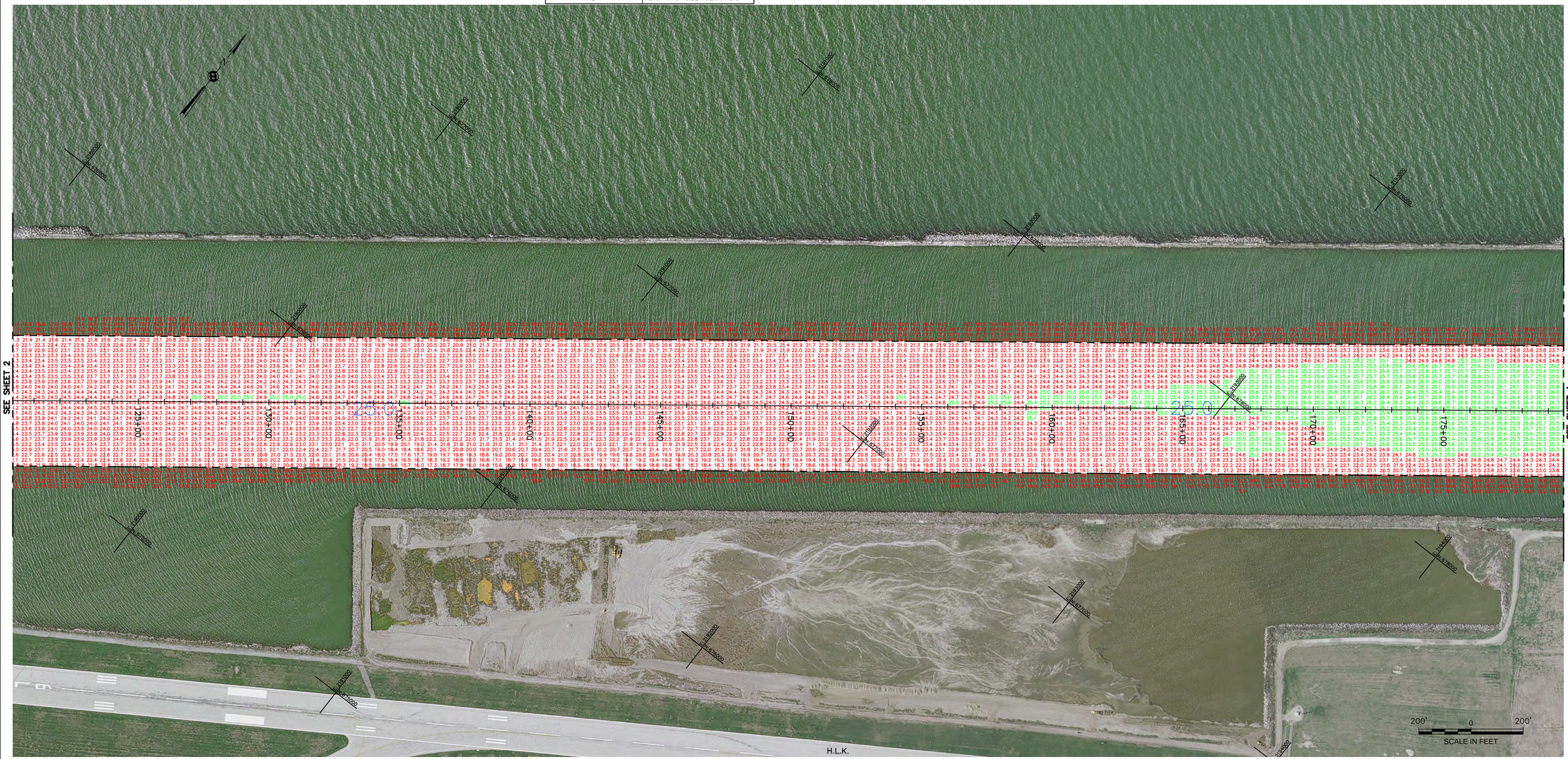

US Army Corps of Engineers
Buffalo District

Original sheet size = ANSI D

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: October 13, 2015

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

CLEVELAND HARBOR, OH

PROJECT CONDITIONS SOUNDINGS 2015

SCALE: 1"=200'

Sheet reference number
VH–103
Sheet 3 of 5

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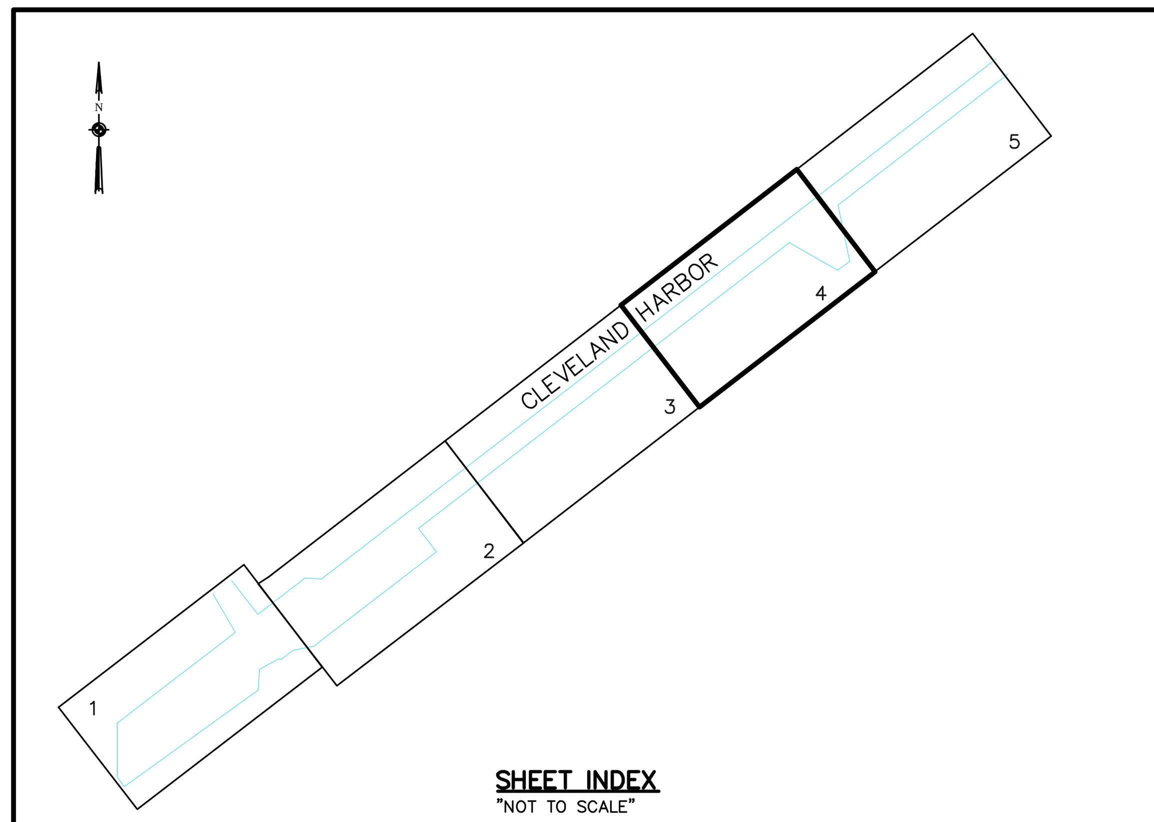

SHEET INDEX
"NOT TO SCALE"

SOUNDING COLOR LEGEND

(red)	DEPTHS 0.1' OR MORE ABOVE PROJECT DEPTH
(green)	DEPTHS AT OR BELOW PROJECT DEPTH
18.0	PROJECT DEPTH

LEGEND OF SYMBOLS

Symbol	Meaning
17+00 (NEW), 17+00 (OLD)	CHANNEL STATIONING
⊙ 417	CHANNEL CORNER
◎ H.L.F.	HARBOR LINE CORNER
——— — — ———	FEDERAL CHANNEL
———— ————	HARBOR LINE
—— —— —— ——	SUBMARINE CABLE
(symbol) C	CAN BUOY
(symbol) N	NUN BUOY
(symbol)	LIGHTED BUOY
(symbol)	FIXED LIGHT
(symbol)	LIGHT HOUSE
W	LIGHT COLOR WHITE
R	LIGHT COLOR RED
G	LIGHT COLOR GREEN
FL	FLASHING LIGHT
F	FIXED LIGHT
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SITE SPECIFIC NOTES:

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US Army Corps of Engineers
Buffalo District

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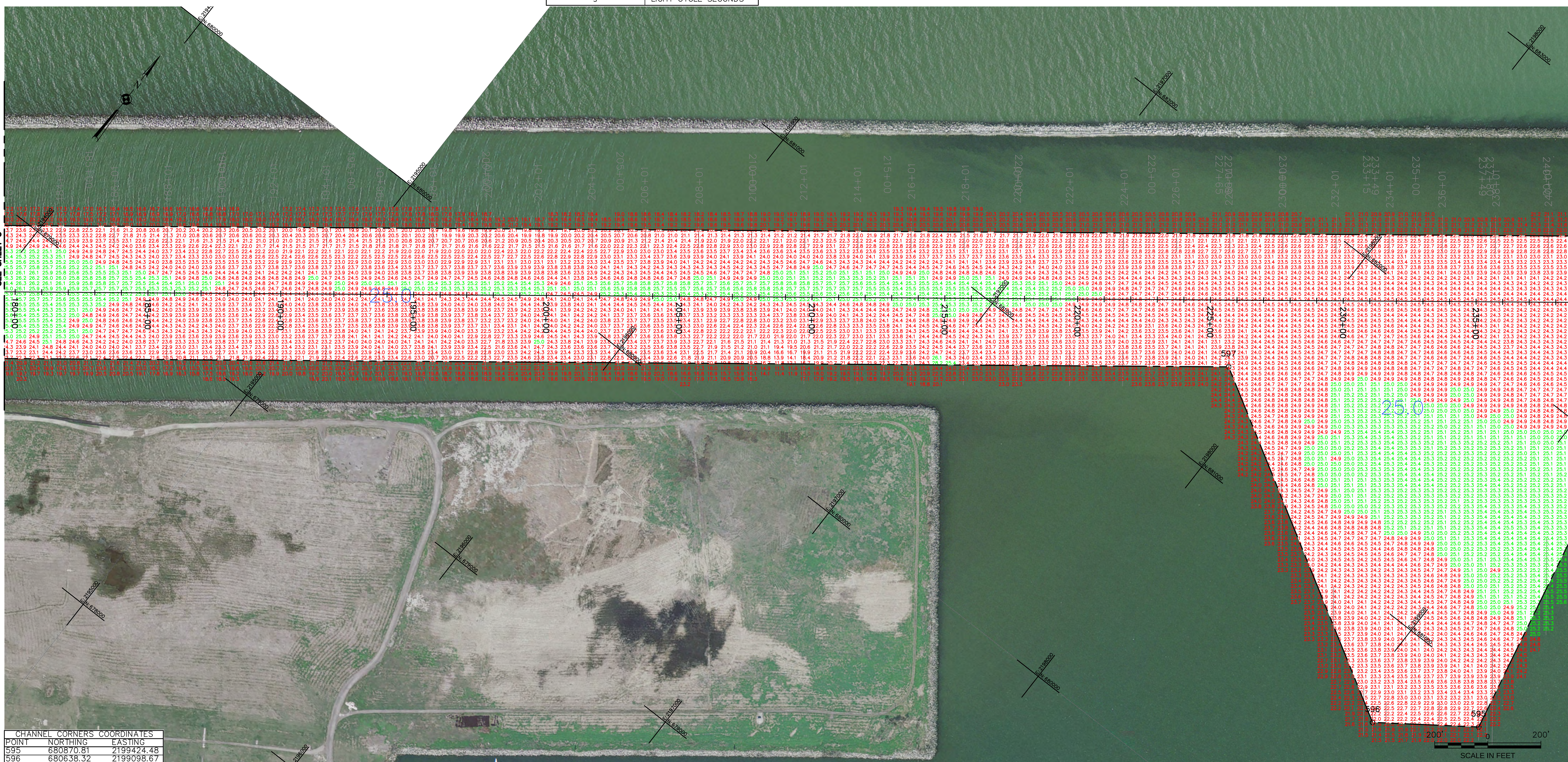
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NEW YORK 14207—3199

CLEVELAND HARBOR, OH

PROJECT CONDITIONS SOUNDINGS 2015

SCALE: 1"=200'



CHANNEL CORNERS COORDINATES		
POINT	NORTHING	EASTING
595	680870.81	2199424.48
596	680638.32	2199098.67
597	681359.55	2197847.87

Sheet reference number
VH—104
Sheet 4 of 5

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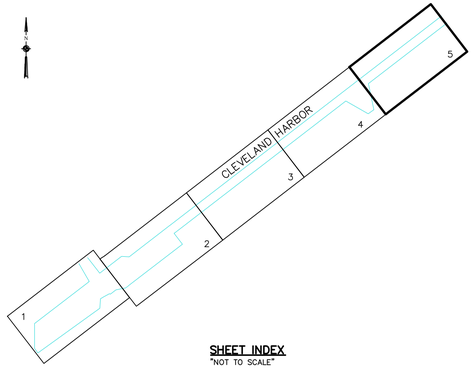
SAFETY PAYS



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 (NEW), 17+00 (OLD)	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
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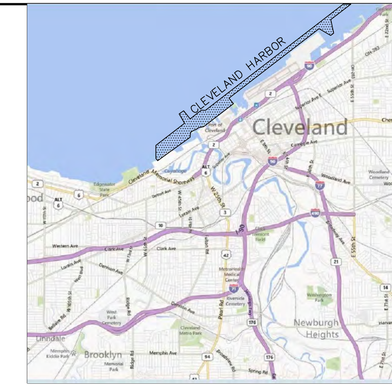
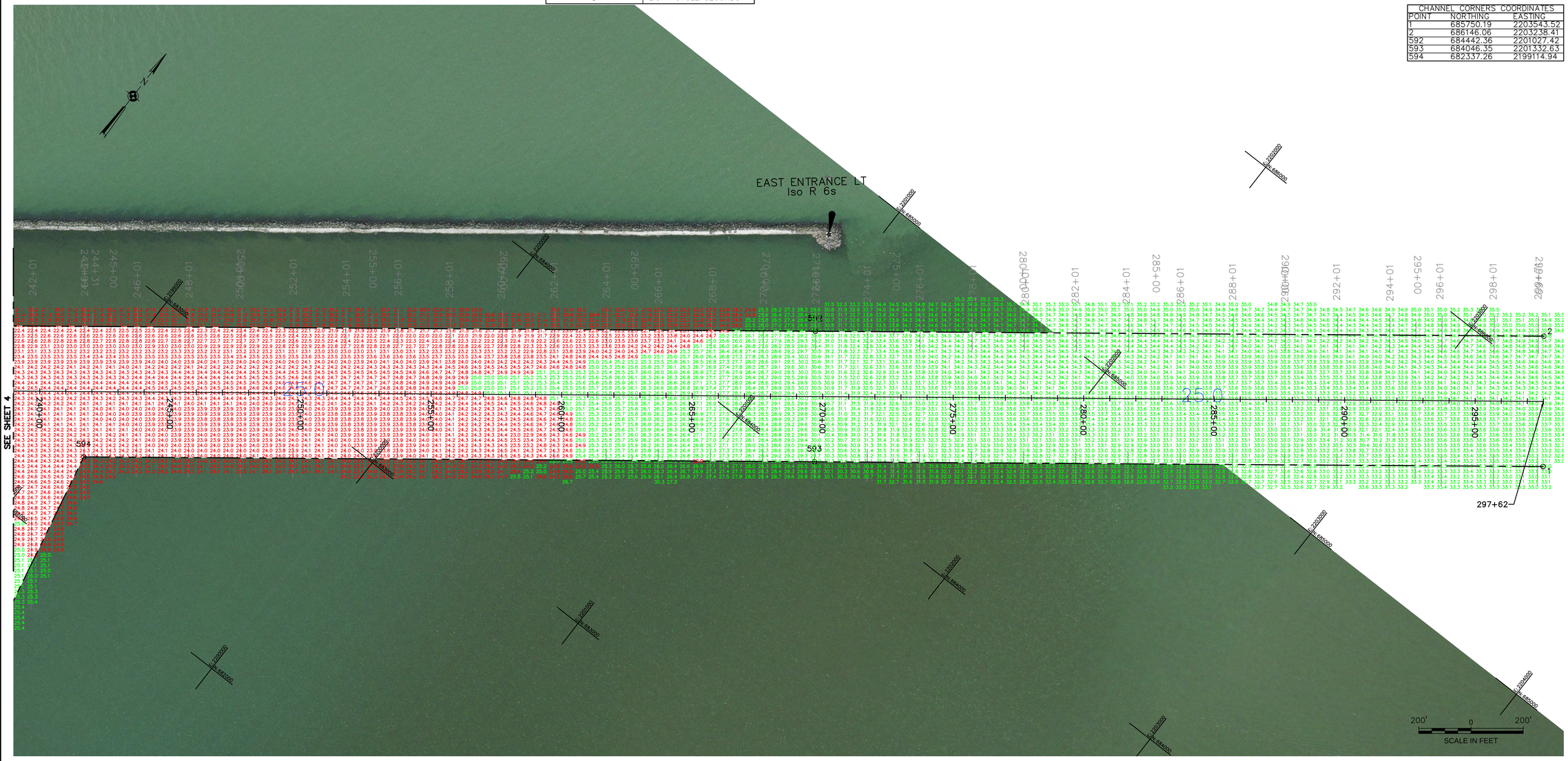


CHANNEL CORNERS COORDINATES		
POINT	NORTHING	EASTING
1	685750.19	2203543.52
2	686146.06	2203238.41
592	684442.36	2201027.42
593	684046.35	2201332.63
594	682337.26	2199114.94



US Army Corps of Engineers
Buffalo District

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CLEVELAND HARBOR, OH

PROJECT CONDITIONS SOUNDINGS 2015

SCALE: 1"=200'

Sheet reference number
VH–105

Sheet 5 of 5

SUPPORT VALUE ENGINEERING – IT PAYS