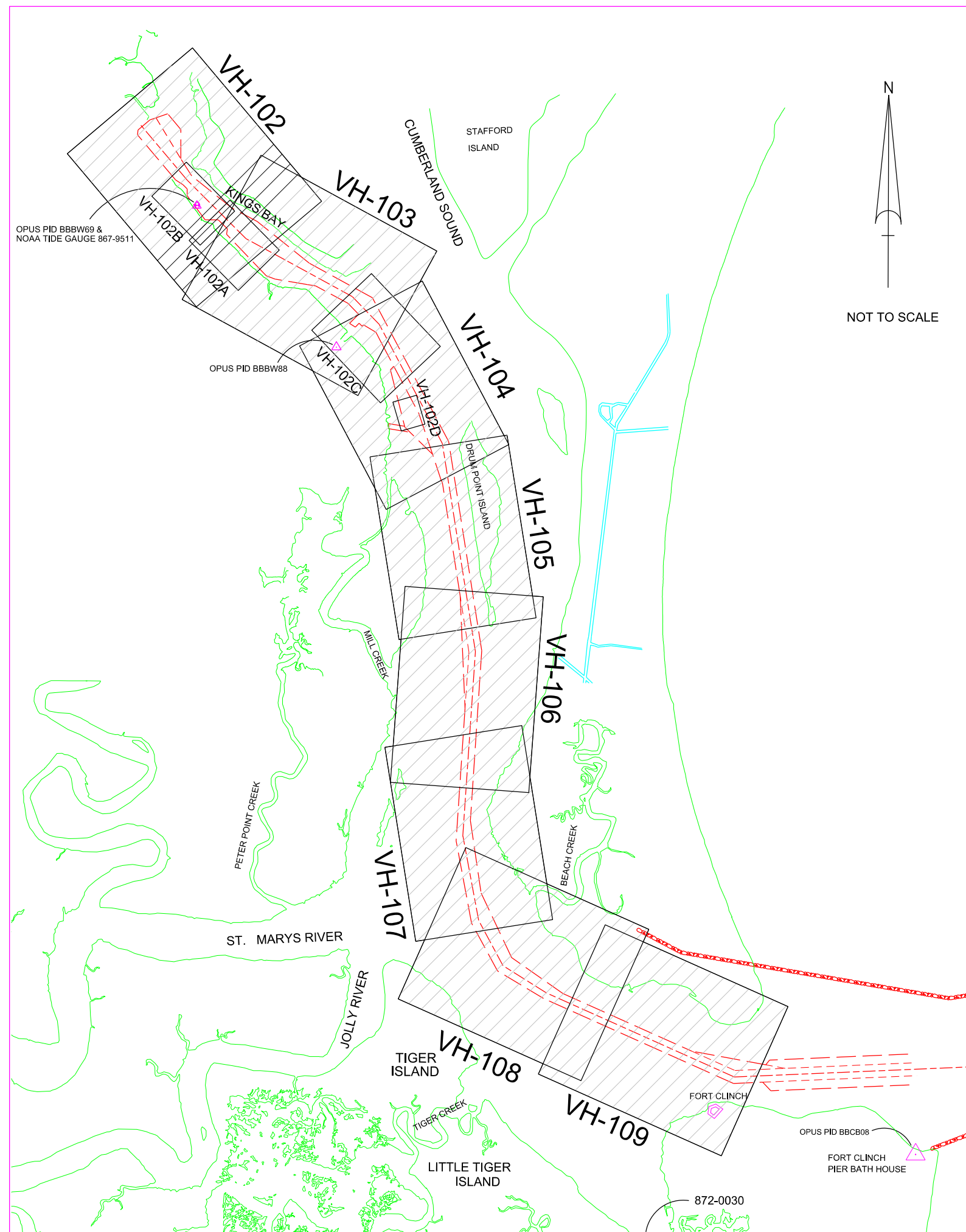


U.S. NAVY SUBMARINE BASE KINGS BAY, GEORGIA KINGS BAY INNER CHANNEL HYDROGRAPHIC EXAMINATION SURVEY 3RD QUARTER FY14



LEGEND	
+ BM	BENCHMARK
	LIGHTED BEACON
	GREEN DAY BEACON
	RED DAY BEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUN BUOY
	TIDE STAFF

DEPTH COLOR CODE	
<39.9	
40.0-41.9	
42.0-45.9	
46.0-48.9	
>49.0	

SURVEY NOTES:

- REFER TO SURVEY NO. 14-136. THIS SURVEY ALSO INCLUDES HYDROGRAPHIC DATA FROM AD SURVEY NO. 13-155.
- SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER (MLLW) TIDAL DATUM.
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS USING A HYPACK KINEMATIC TIDAL DATUM MODEL (KINGSBAY-2013 06 10.KTD).
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF GEORGIA AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83).
- ALL AZIMUTHS ARE GRID; RECKONED CLOCKWISE FROM SOUTH.
- ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS:
 REFERENCE BASE LOCATED AT "BATH HOUSE ARP" (OPUS PID # BBCB08), FOR RANGE-A THRU RANGE-C.
 REFERENCE BASE LOCATED AT "USCG KINGS BAY ARP" (OPUS PID # BBK29), FOR RANGE-D THRU RANGE-I.
 NOAA TIDAL STATION 872-0030, FERNANDINA, FL, FOR RANGE-A THRU RANGE-G (OUTSIDE WRA)
 NOAA TIDAL STATION 867-9511, KINGS BAY, GA, FOR RGE-G THRU RGE-I (INSIDE WRA)
- DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). NOAA'S VDATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCH MARKS ASSOCIATED WITH THE TIDE GAUGE SITES SPECIFIED BELOW:
 NOAA TIDAL STATION 872-0030, FERNANDINA, FL, FOR RANGE-A THRU RANGE-G (OUTSIDE WRA)
 NOAA TIDAL STATION 867-9511, KINGS BAY, GA, FOR RGE-G THRU RGE-I (INSIDE WRA)
- VERTICAL MEASUREMENTS WERE MADE USING A RESON MODEL 7101 MULTIBEAM SYSTEM, AN R2SONIC MODEL 2024 MULTIBEAM SYSTEM AND A ROSS MODEL 533C SMARTSOUNDER WITH A DUAL-FREQUENCY (28200KHZ) TRANSDUCER. SOUNDINGS SHOWN ARE IN HIGH FREQUENCY FROM RANGE-A THRU RANGE-D AND LOW FREQUENCY FROM RANGE-E THRU RANGE-I.

VESSEL	SURVEY NO.	DATE OF SURVEY	AREA SURVEYED
SB-36	13-155	9-10 APR 2014	RGE-G, STA 39+100 TO STA 41+400
SB-36	13-155	14 APR 2014	RGE-G, STA 41+500 TO 42+217 & RGE-H, STA 42+300 TO 42+600
SB-36	13-155	16 APR 2014	RGE-H, STA 42+600 TO 43+300
SB-36	13-155	21 APR 2014	RGE-G, STA 41+600 TO 43+300 & RGE-H, STA 42+217 TO 43+300
SB-36	13-155	24 APR 2014	REFIT WHARF 1 & 2
SB-36	13-155	29 APR 2014	RGE-H, STA 43+300 TO 45+436
SB-36	13-155	1 MAY 2014	REFIT WHARF 1 & 2
SB-36	13-155	10 MAY 2014	RGE-I, STA 45+436 TO 48+175
SB-36	13-155	20 MAY 2014	RGE-F, STA 36+000 TO 37+500 & RGE-G, STA 37+504 TO 39+100
SB-36	13-155	31 MAY 2014	RGE-E, STA 31+500 TO 35+900 & RGE-F, STA 35+999 TO 37+504
SB-36	14-136	3 JUN 2014	RGE-E, STA 30+748 TO STA 31+400 & RGE-D, STA 30+100 TO 30+700
SB-36	14-136	4 JUN 2014	RGE-C, STA 19+000 TO 22+547 & RGE-D, STA 22+547 TO 26+000
SB-36	13-155/14-136	9 JUN 2014	RGE-E, STA 30+748 TO 32+000 & STA 33+900 TO 35+200
SB-36	13-155/14-136	10 JUN 2014	RGE-D, STA 26+200 TO STA 27+700 & MSF
SB-46	14-136	11 JUN 2014	RGE-A, STA 0+000 THRU RGE-C, STA 19+000

US Army Corps of Engineers
Jacksonville District

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DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

14-136-AS-480R.DGN
KINGSBAY-ARP.DGN
INDEX.DGN

14-136-AS-480R.DGN
KINGSBAY-ARP.DGN
INDEX.DGN

U.S. NAVY SUBMARINE BASE
KINGS BAY, GEORGIA

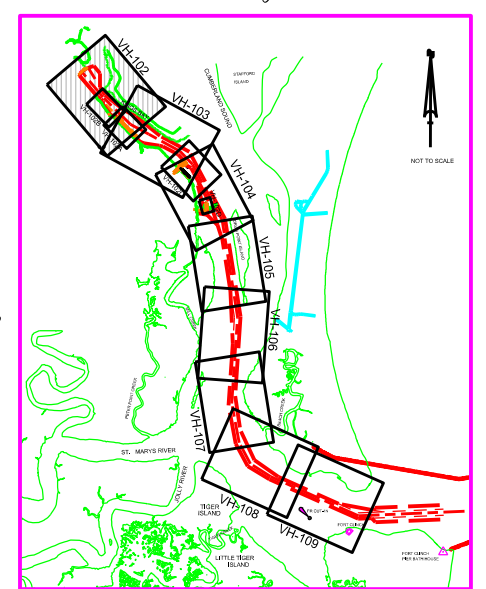
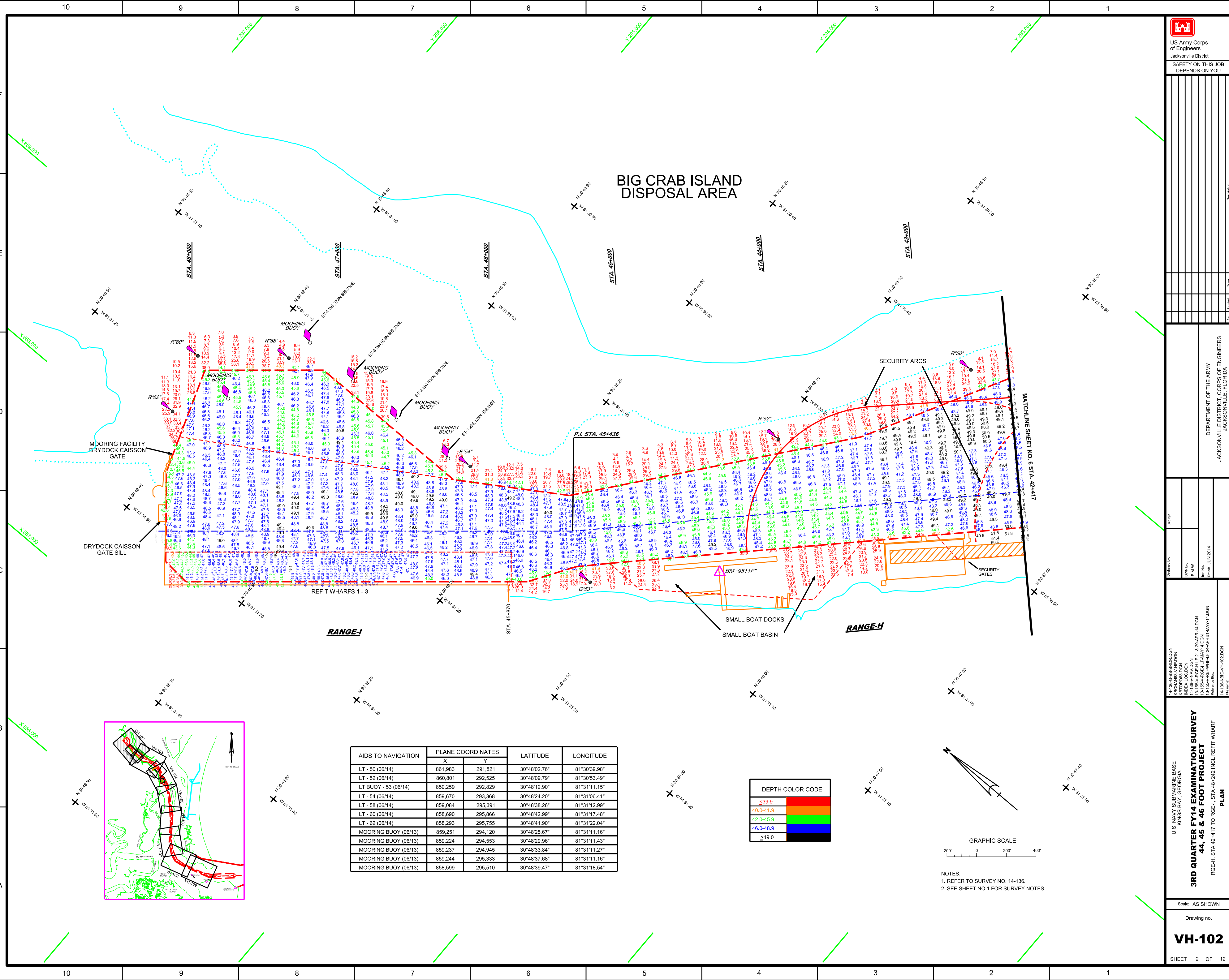
**3RD QUARTER FY14 EXAMINATION SURVEY
44, 45 & 46 FOOT PROJECT
INDEX AND LOCATION
PLAN**

Scale: AS SHOWN

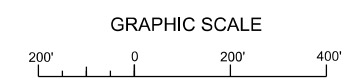
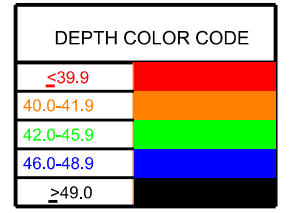
Drawing no.

VH-101

SHEET 1 OF 12



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT - 50 (06/14)	861,983	291,821	30°48'02.76"	81°30'39.98"
LT - 52 (06/14)	860,801	292,525	30°48'09.79"	81°30'53.49"
LT BUOY - 53 (06/14)	859,259	292,829	30°48'12.90"	81°31'11.15"
LT - 54 (06/14)	859,670	293,368	30°48'24.20"	81°31'06.41"
LT - 58 (06/14)	859,084	295,391	30°48'38.26"	81°31'12.99"
LT - 60 (06/14)	858,690	295,866	30°48'42.99"	81°31'17.48"
LT - 62 (06/14)	858,293	295,755	30°48'41.90"	81°31'22.04"
MOORING BUOY (06/13)	859,251	294,120	30°48'25.67"	81°31'11.16"
MOORING BUOY (06/13)	859,224	294,553	30°48'29.96"	81°31'11.43"
MOORING BUOY (06/13)	859,237	294,945	30°48'33.84"	81°31'11.27"
MOORING BUOY (06/13)	859,244	295,333	30°48'37.68"	81°31'11.16"
MOORING BUOY (06/13)	858,599	295,510	30°48'39.47"	81°31'18.54"

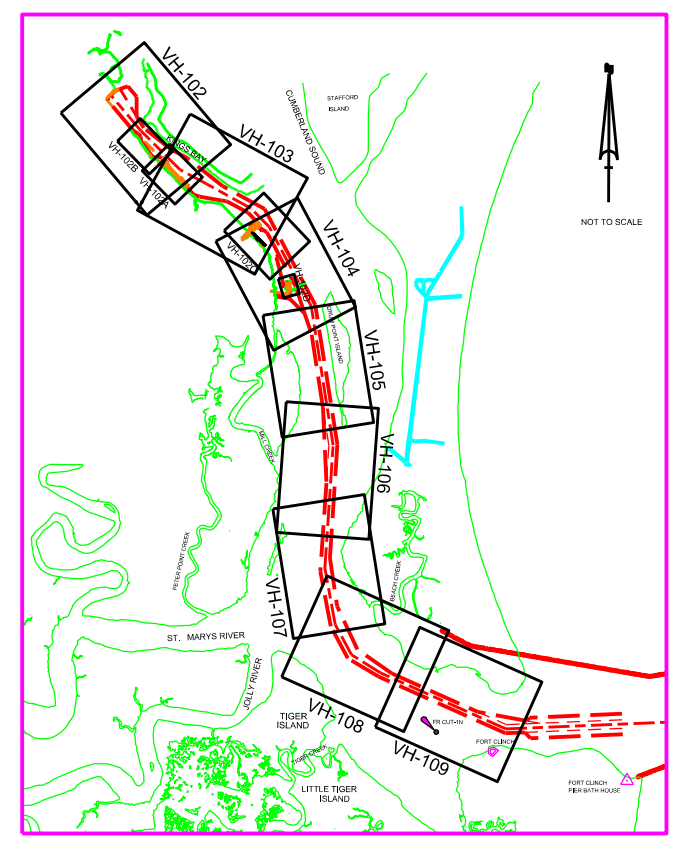
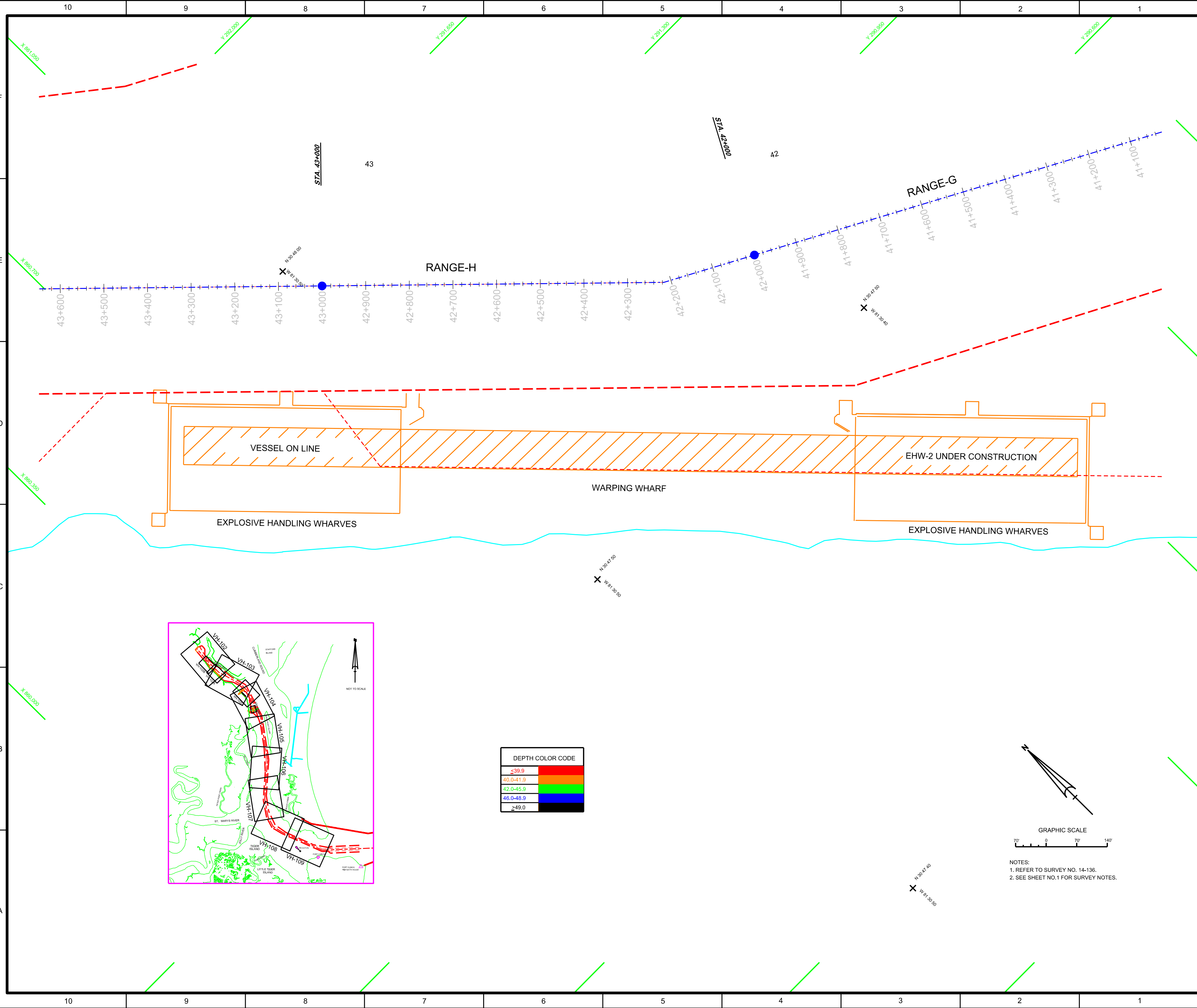


NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.



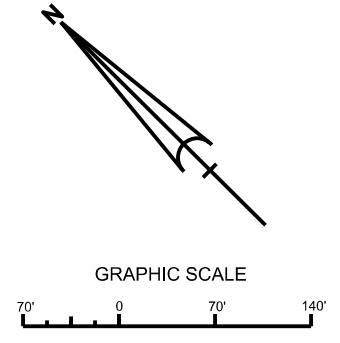
US Army Corps of Engineers
Jacksonville District

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DEPENDS ON YOU



DEPTH COLOR CODE

≤ 39.9	Red
40.0-41.9	Orange
42.0-45.9	Green
46.0-48.9	Blue
≥ 49.0	Black



NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

Date	By	Description

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

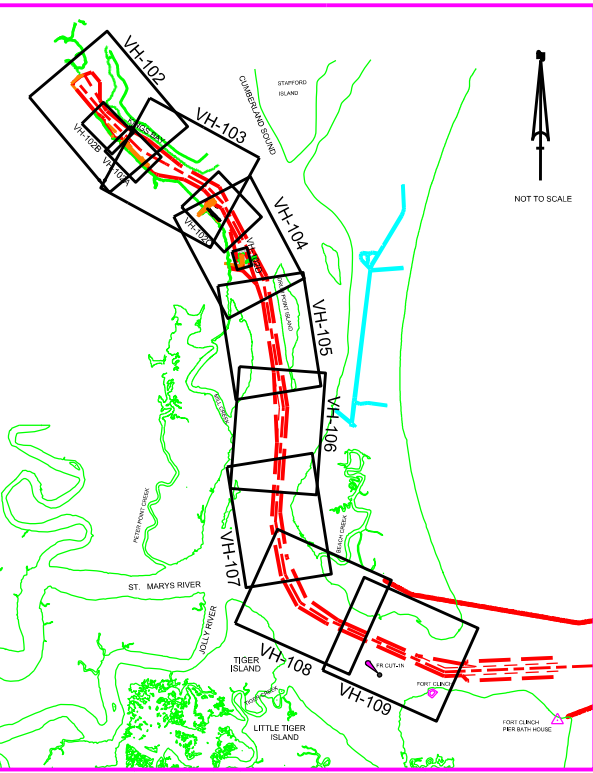
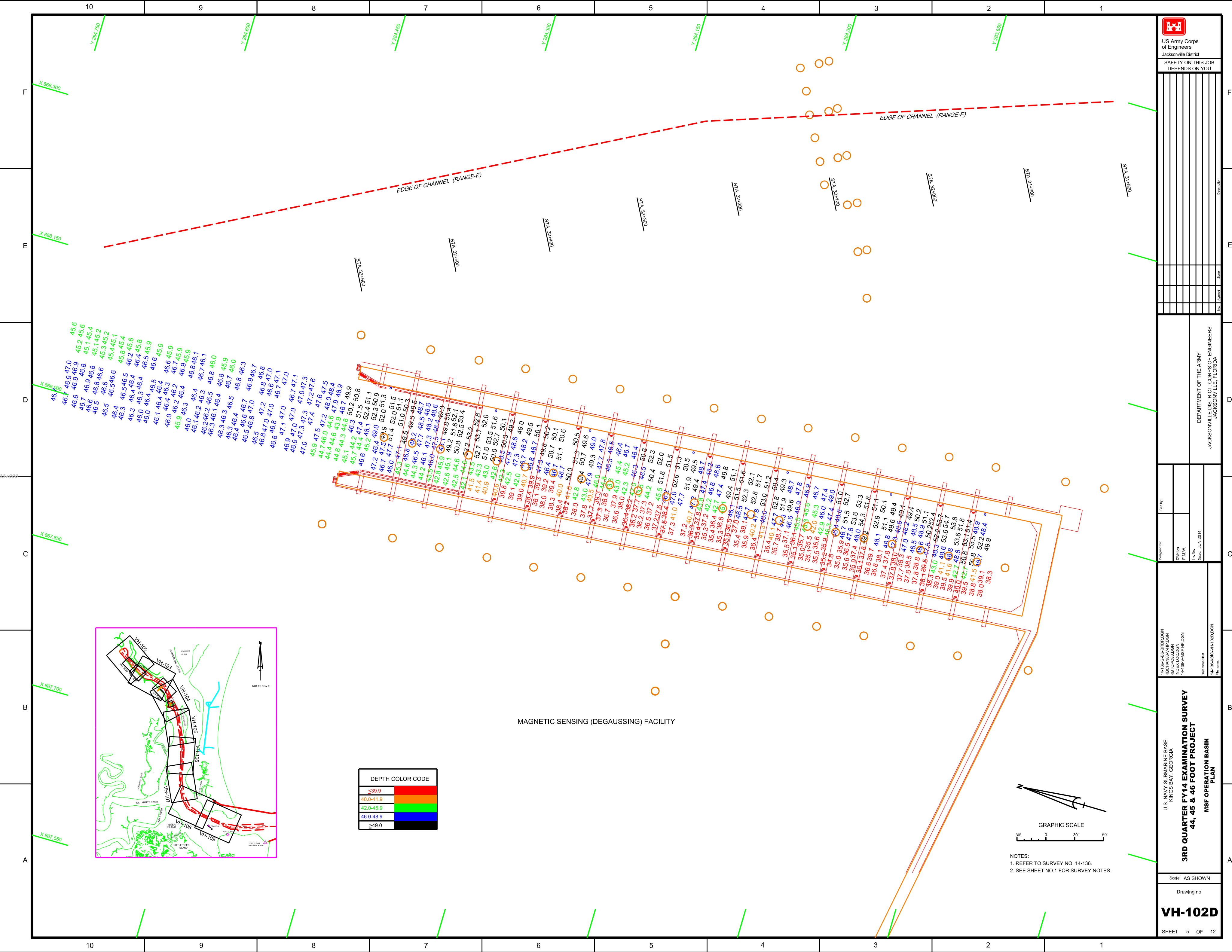
Designed by:	
Checked by:	
DWN by:	F.A.L.W.
Plot. No.:	
Date:	JUN 2014
DWN by:	

U.S. NAVY'S SUBMARINE BASE
KINGS BAY, GEORGIA

**3RD QUARTER FY14 EXAMINATION SURVEY
44, 45 & 46 FOOT PROJECT
EXPLOSIVE HANDLING WHARVES
PLAN**

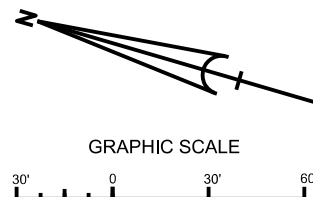
Scale: AS SHOWN

Drawing no.
V-102A



DEPTH COLOR CODE	
<39.9	Red
40.0-41.9	Orange
42.0-45.9	Yellow
46.0-48.9	Green
>49.0	Blue

MAGNETIC SENSING (DEGAUSSING) FACILITY



NOTES:
 1. REFER TO SURVEY NO. 14-136.
 2. SEE SHEET NO.1 FOR SURVEY NOTES.



US Army Corps
of Engineers
Jacksonville District
SAFETY ON THIS JOB
DEPENDS ON YOU

No.	Revised	Description

DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

Date	By	Check by	Drawn by	F. A. M. No.	Project No.	Date

14-136-CBS-BRDG.DGN
 KSGHANS/VP/DGN
 INDEK/LOCDGN
 14-136-VMSF/HF.DGN
 14-136-RBC-VH-102/DGN
 14-136-RBC-VH-102/DGN

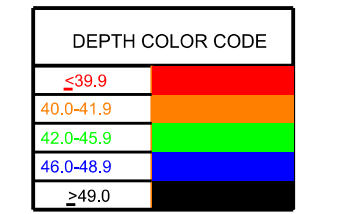
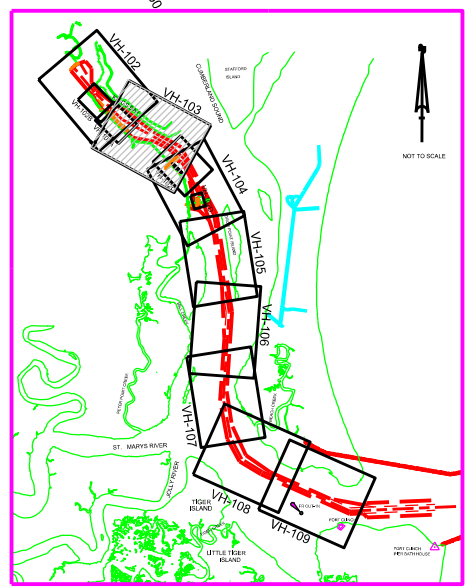
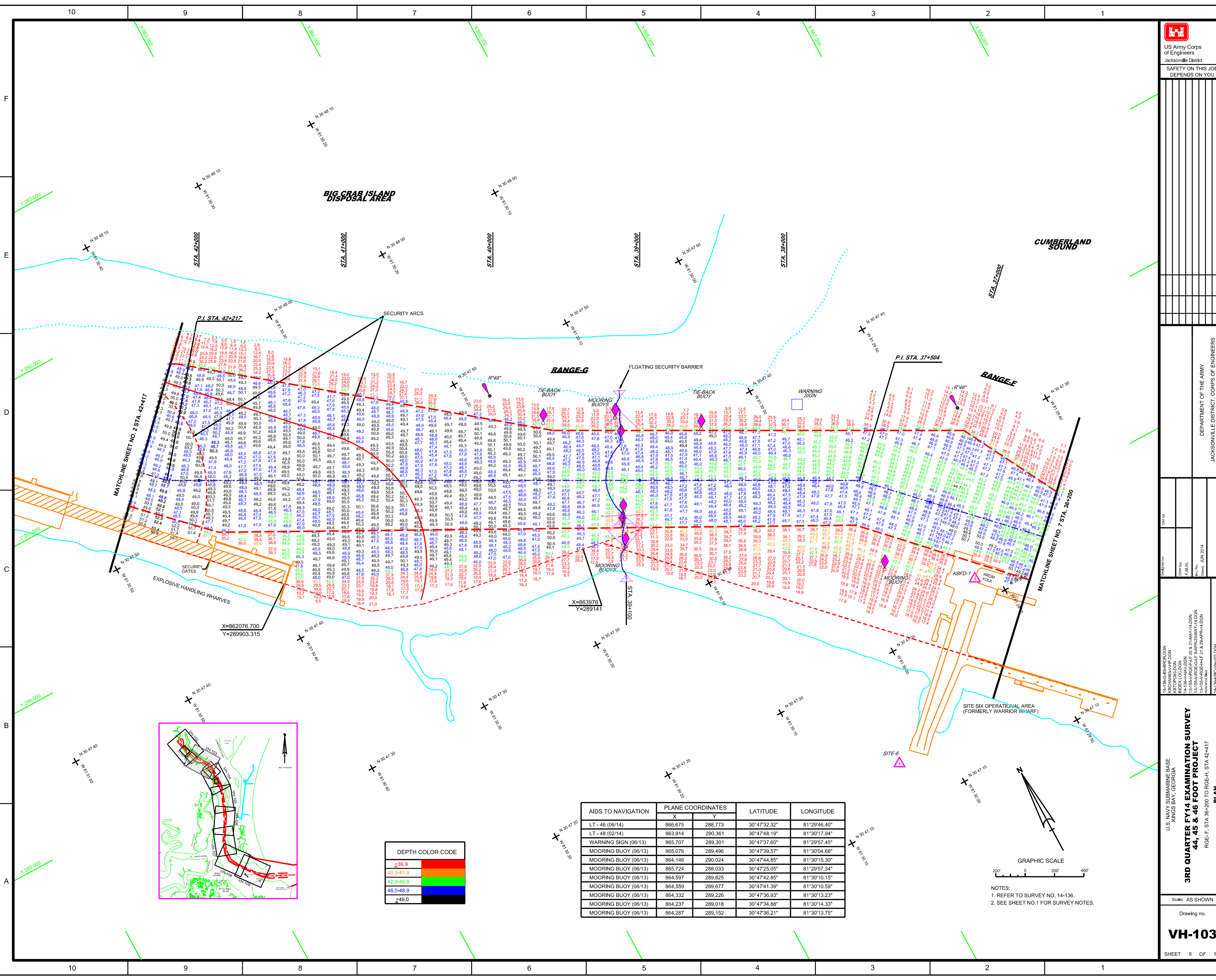
3RD QUARTER FY14 EXAMINATION SURVEY 44, 45 & 46 FOOT PROJECT MSP OPERATION BASIN PLAN

U.S. NAVY, SUBMARINE BASE
 KING'S BAY, GEORGIA

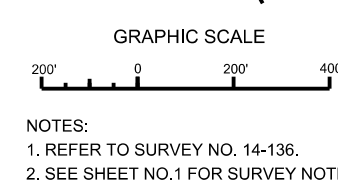
Scale: AS SHOWN

Drawing no.

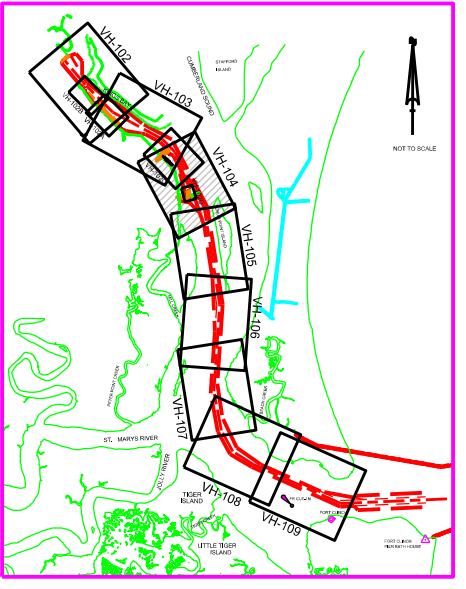
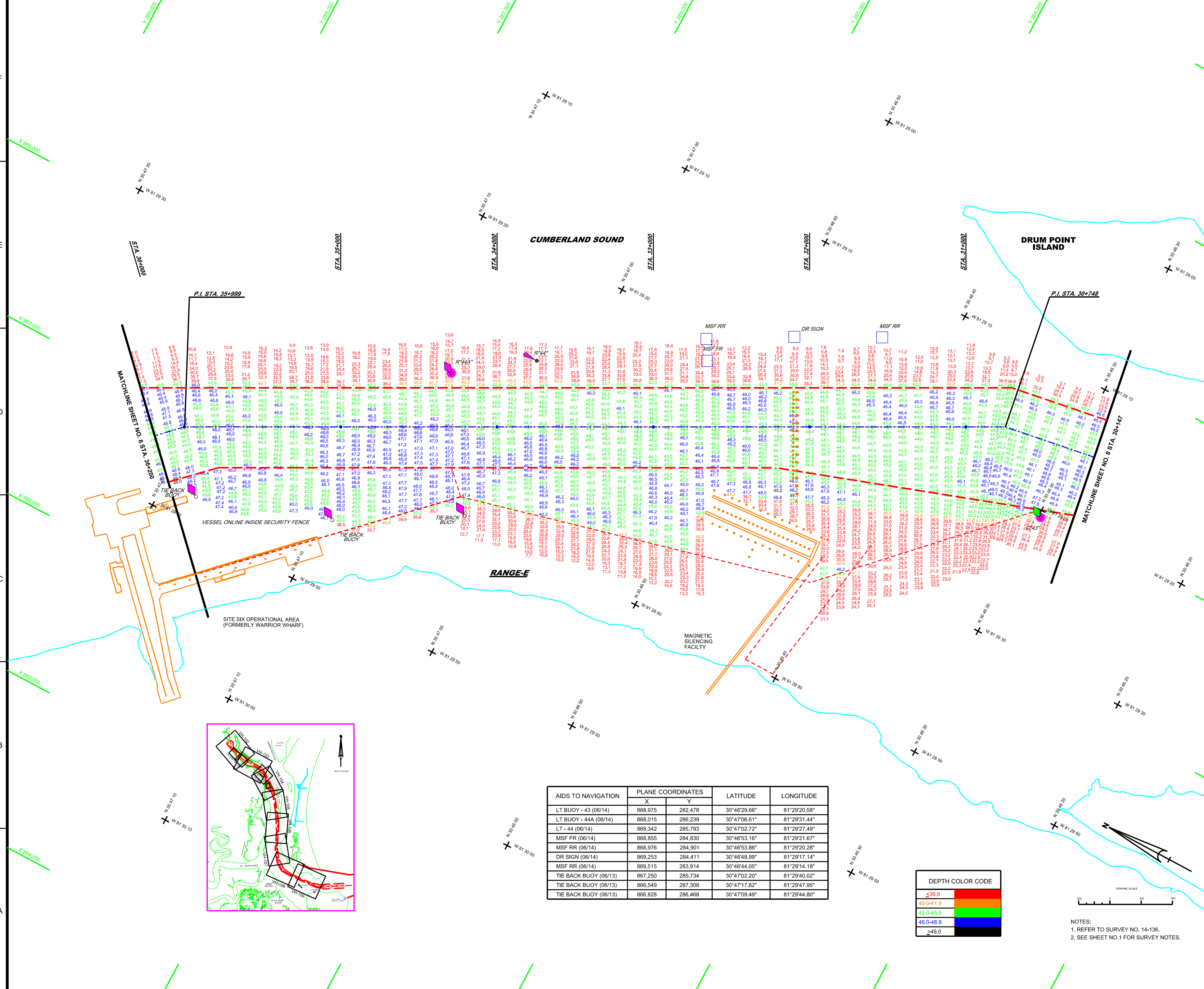
VH-102D



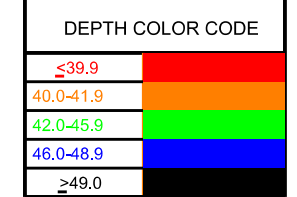
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT - 46 (06/14)	866,675	288,773	30°47'32.32"	81°29'46.40"
LT - 48 (02/14)	863,914	290,361	30°47'48.19"	81°30'17.94"
WARNING SIGN (06/13)	865,707	289,301	30°47'37.60"	81°29'57.45"
MOORING BUOY (06/13)	865,076	289,496	30°47'39.57"	81°30'04.68"
MOORING BUOY (06/13)	864,146	290,024	30°47'44.85"	81°30'15.30"
MOORING BUOY (06/13)	865,724	288,033	30°47'25.05"	81°29'57.34"
MOORING BUOY (06/13)	864,597	289,825	30°47'42.85"	81°30'10.15"
MOORING BUOY (06/13)	864,559	289,677	30°47'41.39"	81°30'10.59"
MOORING BUOY (06/13)	864,332	289,226	30°47'36.93"	81°30'13.23"
MOORING BUOY (06/13)	864,237	289,018	30°47'34.88"	81°30'14.33"
MOORING BUOY (06/13)	864,287	289,152	30°47'36.21"	81°30'13.75"



NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 43 (06/14)	868,975	282,478	30°46'29.66"	81°29'20.58"
LT BUOY - 44A (06/14)	868,015	286,239	30°47'06.51"	81°29'31.44"
LT - 44 (06/14)	868,342	285,793	30°47'02.72"	81°29'27.49"
MSF RR (06/14)	868,855	284,830	30°46'53.16"	81°29'21.67"
MSF RR (06/14)	868,976	284,901	30°46'53.86"	81°29'20.28"
DR SIGN (06/14)	869,253	284,411	30°46'48.99"	81°29'17.14"
MSF RR (06/14)	869,515	283,914	30°46'44.05"	81°29'14.18"
TIE BACK BUOY (06/13)	867,250	285,734	30°47'02.20"	81°29'40.02"
TIE BACK BUOY (06/13)	866,549	287,308	30°47'17.82"	81°29'47.95"
TIE BACK BUOY (06/13)	866,828	286,468	30°47'09.49"	81°29'44.80"



NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

U.S. NAVY, SUBMARINE BASE
KINGS BAY, GEORGIA

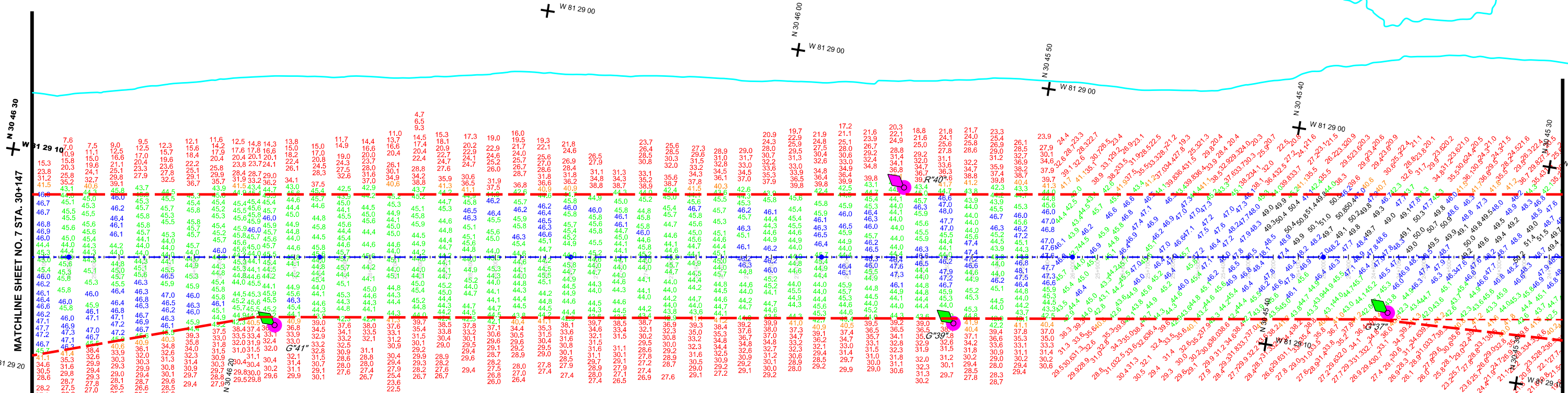
**3RD QUARTER FY14 EXAMINATION SURVEY
44, 44A, 45 & 46 FOOT PROJECT**

RGED, STA. 30+147 TO RGEF, STA. 30+200
PLAN

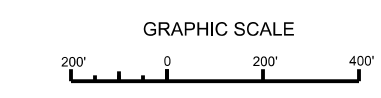
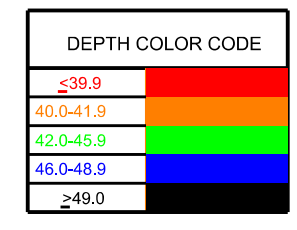
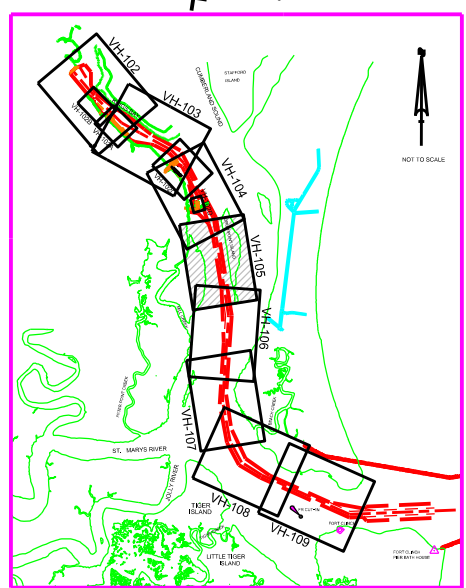
Scale: AS SHOWN
Drawing no.
VH-104

SHEET 7 OF 12

DRUM POINT ISLAND



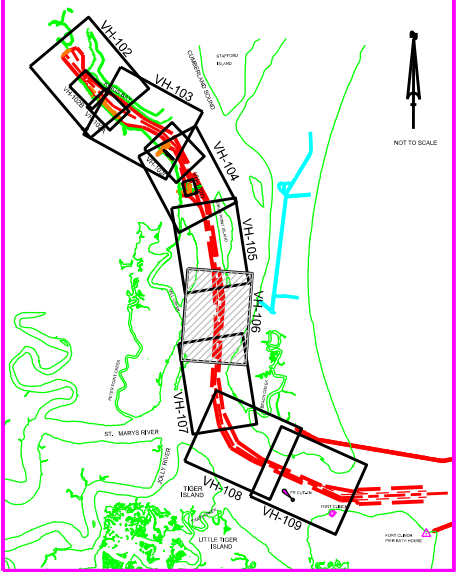
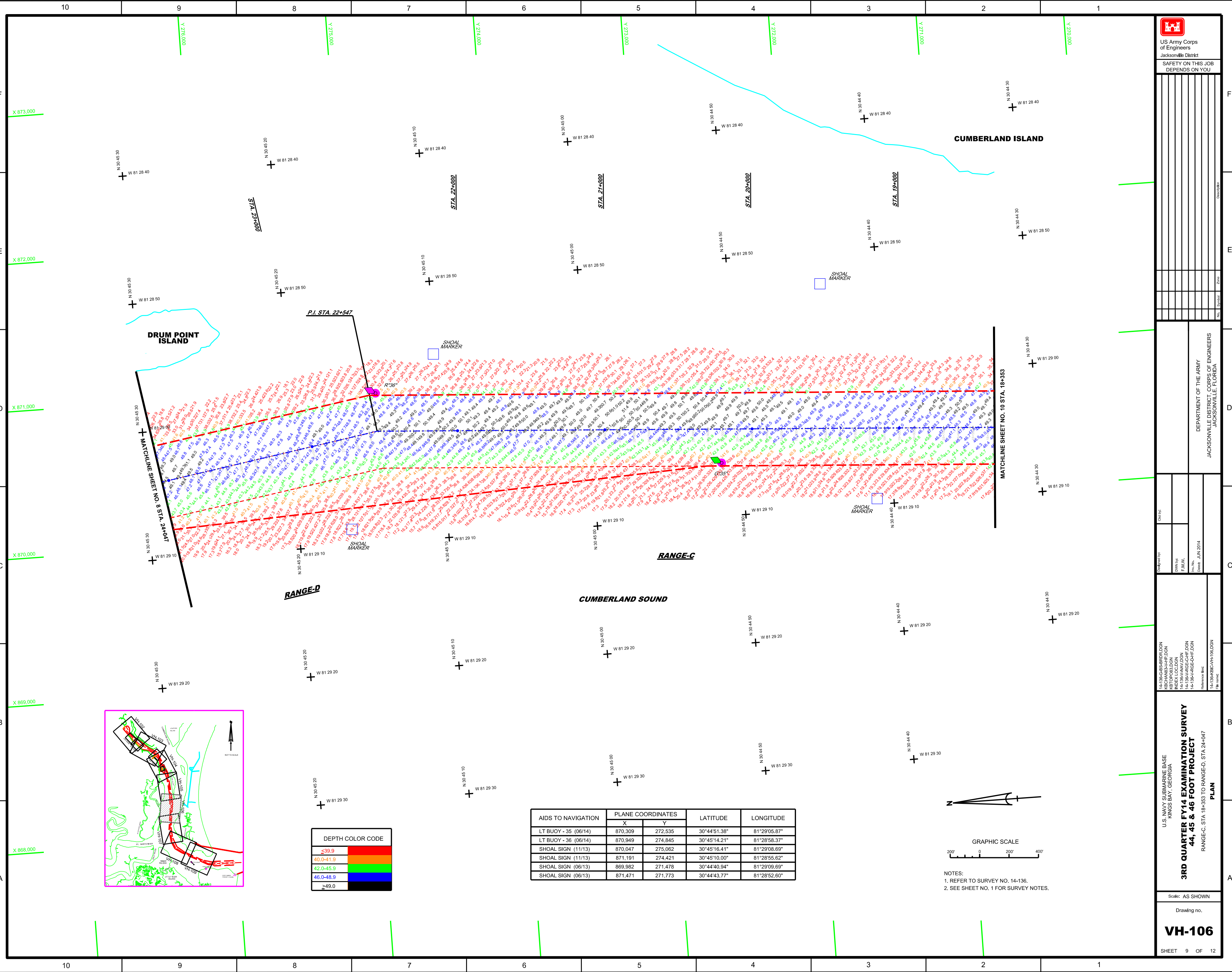
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 37 (06/14)	870,120	276,987	30°45'35.46"	81°29'07.72"
LT BUOY - 39 (06/14)	869,801	278,688	30°45'52.32"	81°29'11.25"
LT BUOY - 40 (06/14)	870,305	278,969	30°45'55.06"	81°29'05.46"
LT BUOY - 41 (06/14)	869,363	281,358	30°46'18.76"	81°29'16.10"



NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

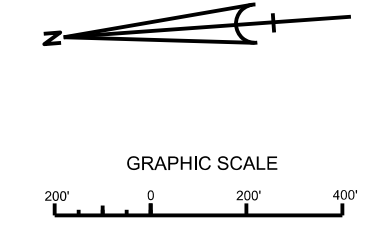


US Army Corps of Engineers
Jacksonville District
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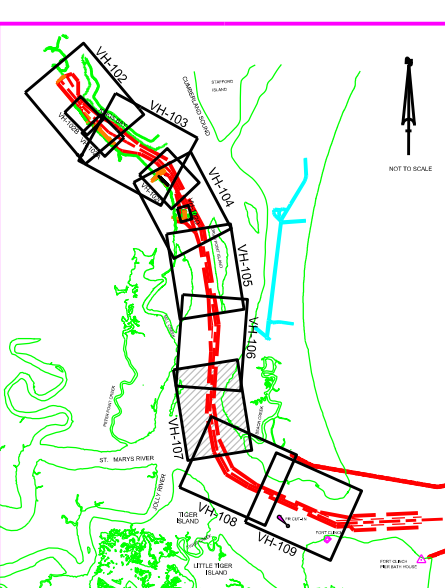
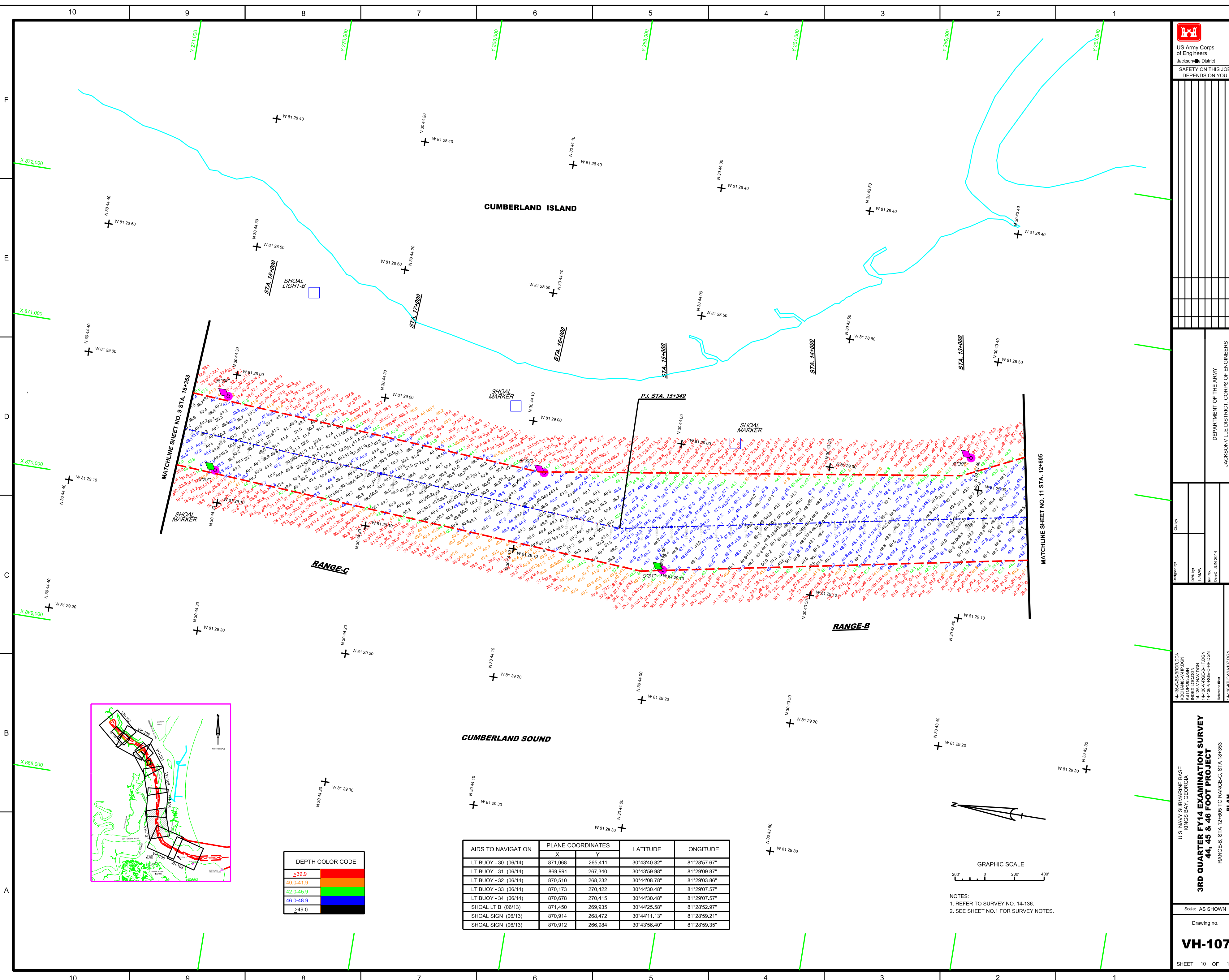
DEPTH COLOR CODE	
<39.9	Red
40.0-41.9	Orange
42.0-45.9	Yellow
46.0-48.9	Green
>49.0	Blue

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 35 (06/14)	870,309	272,535	30°44'51.38"	81°29'05.87"
LT BUOY - 36 (06/14)	870,949	274,845	30°45'14.21"	81°28'58.37"
SHOAL SIGN (11/13)	870,047	275,062	30°45'16.41"	81°29'08.69"
SHOAL SIGN (11/13)	871,191	274,421	30°45'10.00"	81°28'55.62"
SHOAL SIGN (06/13)	869,982	271,478	30°44'40.94"	81°29'09.69"
SHOAL SIGN (06/13)	871,471	271,773	30°44'43.77"	81°28'52.60"



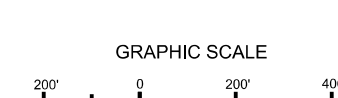
NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

<p>DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT CORPS OF ENGINEERS JACKSONVILLE, FLORIDA</p>	<p>Checked by:</p>
	<p>Designed by:</p>
	<p>DWYN/26 F.A.W. 10/18/14</p>
	<p>14-136-CBS-ARL/DON 14-136-NAV/DON 14-136-AI/DON 14-136-RS-CH/DON</p>
<p>U.S. NAVY'S SUBMARINE BASE KINGS BAY, GEORGIA</p>	<p>Reference file: 14-136-RS-CH/DON</p>
<p>3RD QUARTER FY14 EXAMINATION SURVEY 44, 45 & 46 FOOT PROJECT</p>	
<p>RANGE-C, STA. 18+363 TO RANGE-D, STA. 24+047</p>	
<p>PLAN</p>	
<p>Scale: AS SHOWN</p>	
<p>Drawing no.</p>	
<p>VH-106</p>	
<p>SHEET 9 OF 12</p>	

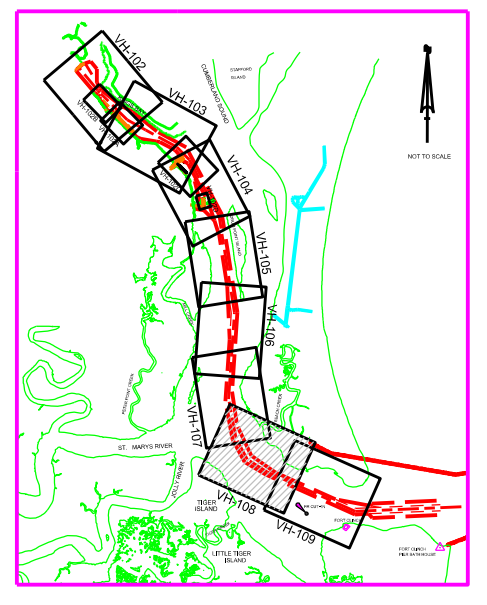
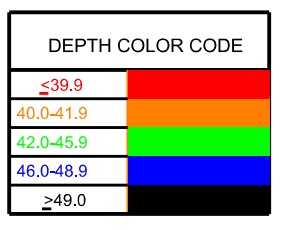
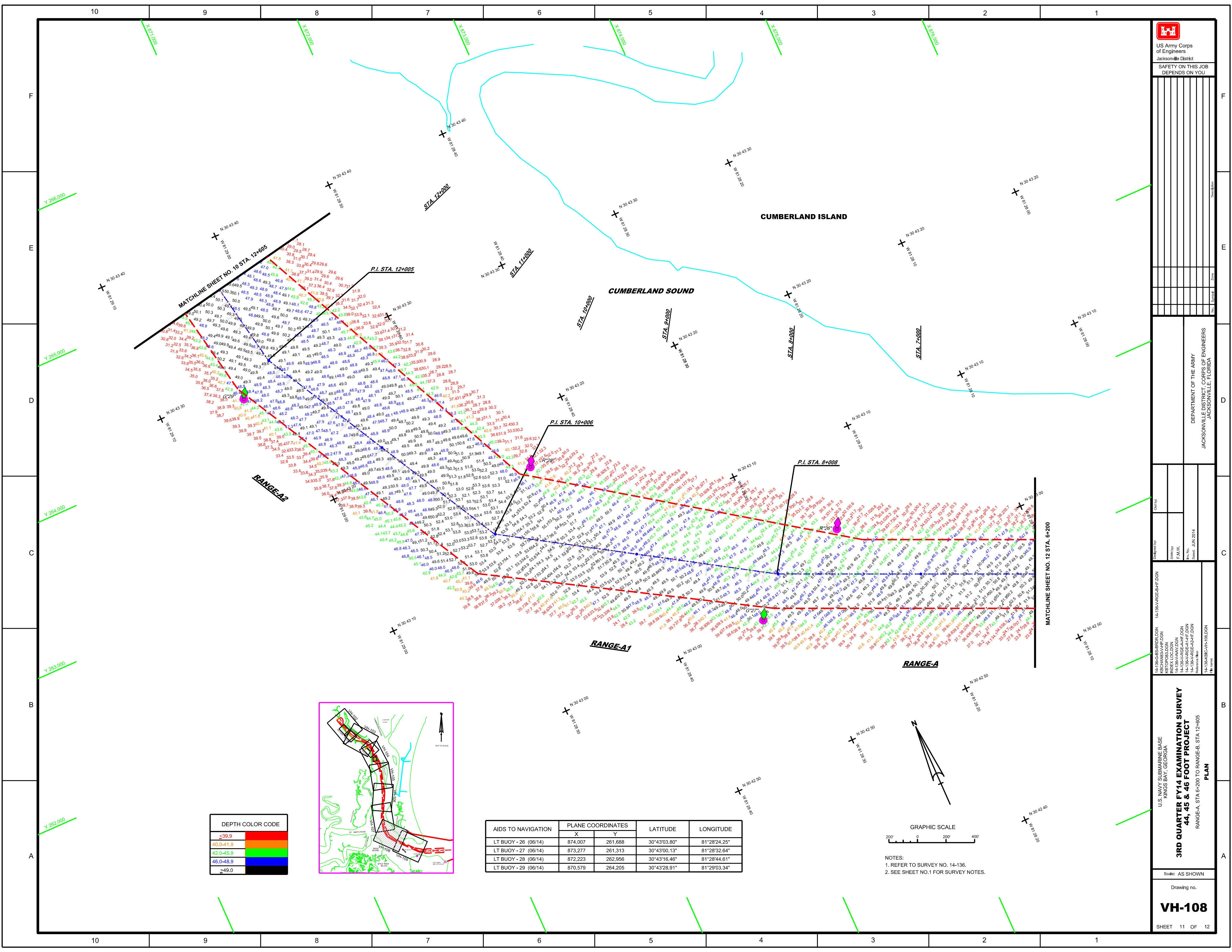


DEPTH COLOR CODE	
≤39.9	Red
40.0-41.9	Orange
42.0-45.9	Yellow
46.0-48.9	Green
≥49.0	Blue

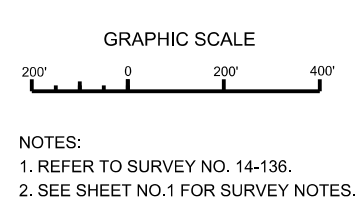
AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 30 (06/14)	871,068	265,411	30°43'40.82"	81°28'57.67"
LT BUOY - 31 (06/14)	869,991	267,340	30°43'59.98"	81°29'09.67"
LT BUOY - 32 (06/14)	870,510	268,232	30°44'08.78"	81°29'03.86"
LT BUOY - 33 (06/14)	870,173	270,422	30°44'30.48"	81°29'07.57"
LT BUOY - 34 (06/14)	870,678	270,415	30°44'30.48"	81°29'07.57"
SHOAL LT B (06/13)	871,450	269,935	30°44'25.58"	81°28'52.97"
SHOAL SIGN (06/13)	870,914	268,472	30°44'11.13"	81°28'59.21"
SHOAL SIGN (06/13)	870,912	266,984	30°43'56.40"	81°28'59.35"



NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY - 26 (06/14)	874,007	261,688	30°43'03.80"	81°28'24.25"
LT BUOY - 27 (06/14)	873,277	261,313	30°43'00.13"	81°28'32.64"
LT BUOY - 28 (06/14)	872,223	262,956	30°43'16.46"	81°28'44.61"
LT BUOY - 29 (06/14)	870,579	264,205	30°43'28.91"	81°29'03.34"





US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB
DEPENDS ON YOU

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

3RD QUARTER FY14 EXAMINATION SURVEY
44, 45 & 46 FOOT PROJECT
PLAN

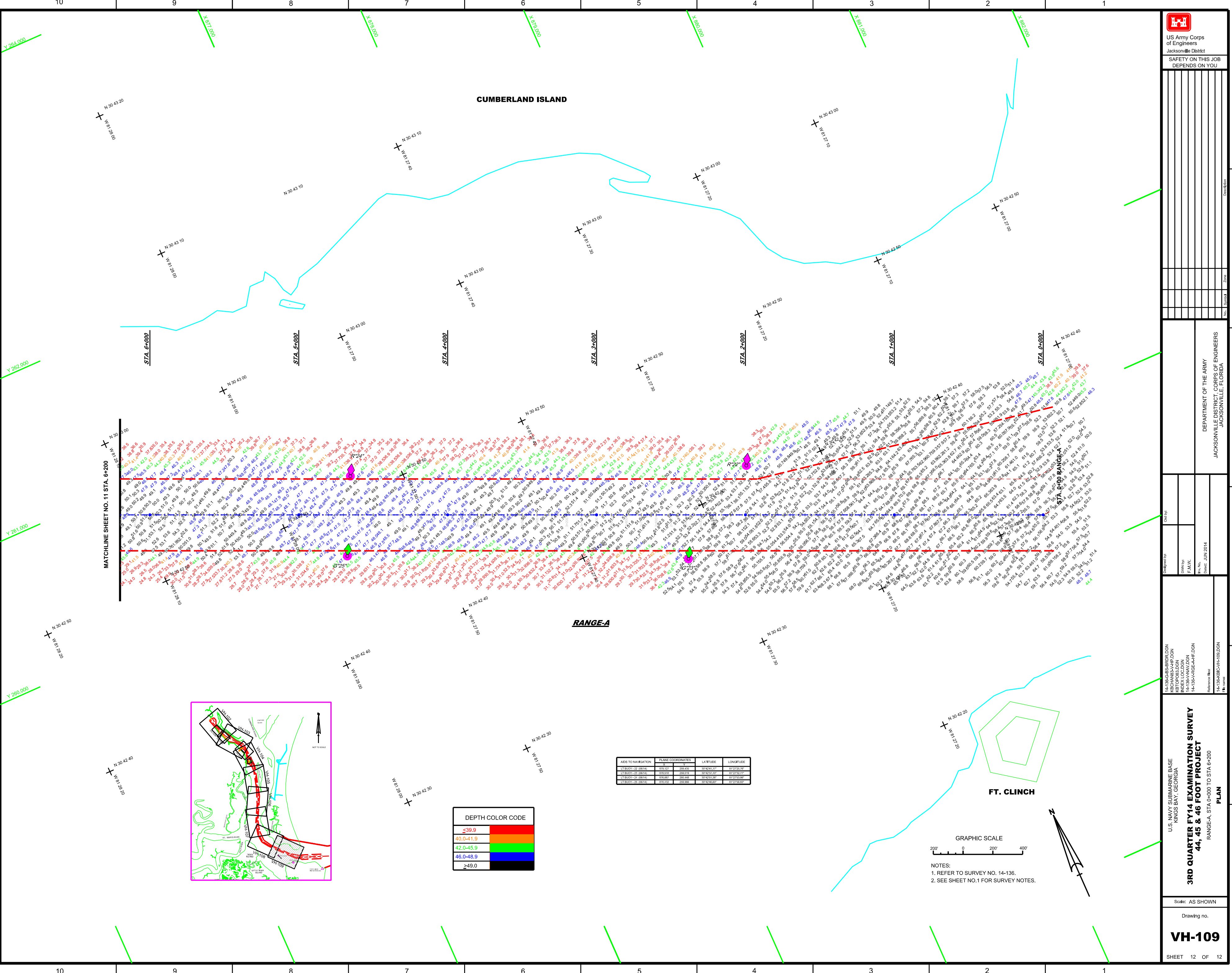
Scale: AS SHOWN

Drawing no.

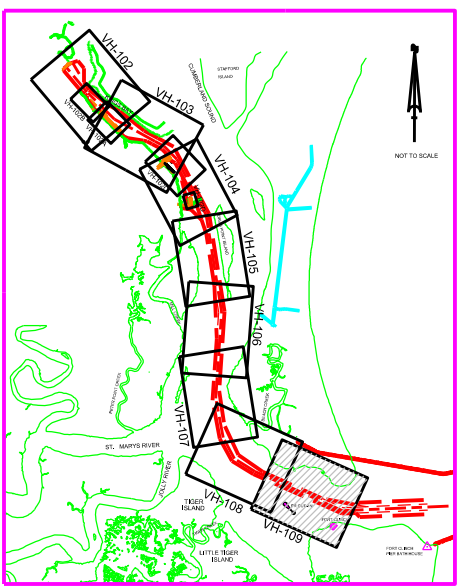
VH-109

SHEET 12 OF 12

CUMBERLAND ISLAND

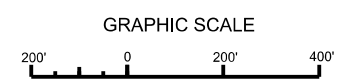


MATCHLINE SHEET NO. 11 STA. 6+200



≤39.9	Red
40.0-41.9	Orange
42.0-45.9	Yellow
46.0-48.9	Green
≥49.0	Blue

ADS TO NAVIGATION	PLANE COORDINATES	LATITUDE	LONGITUDE
LT BUDY-22 08H4	221.12	30°43'13"	81°22'56.74"
LT BUDY-23 08H4	226.54	30°43'13"	81°23'07.77"
LT BUDY-26 08H4	228.88	30°43'13"	81°23'09.84"
LT BUDY-28 08H4	232.42	30°43'13"	81°23'10.84"



- NOTES:
1. REFER TO SURVEY NO. 14-136.
2. SEE SHEET NO.1 FOR SURVEY NOTES.