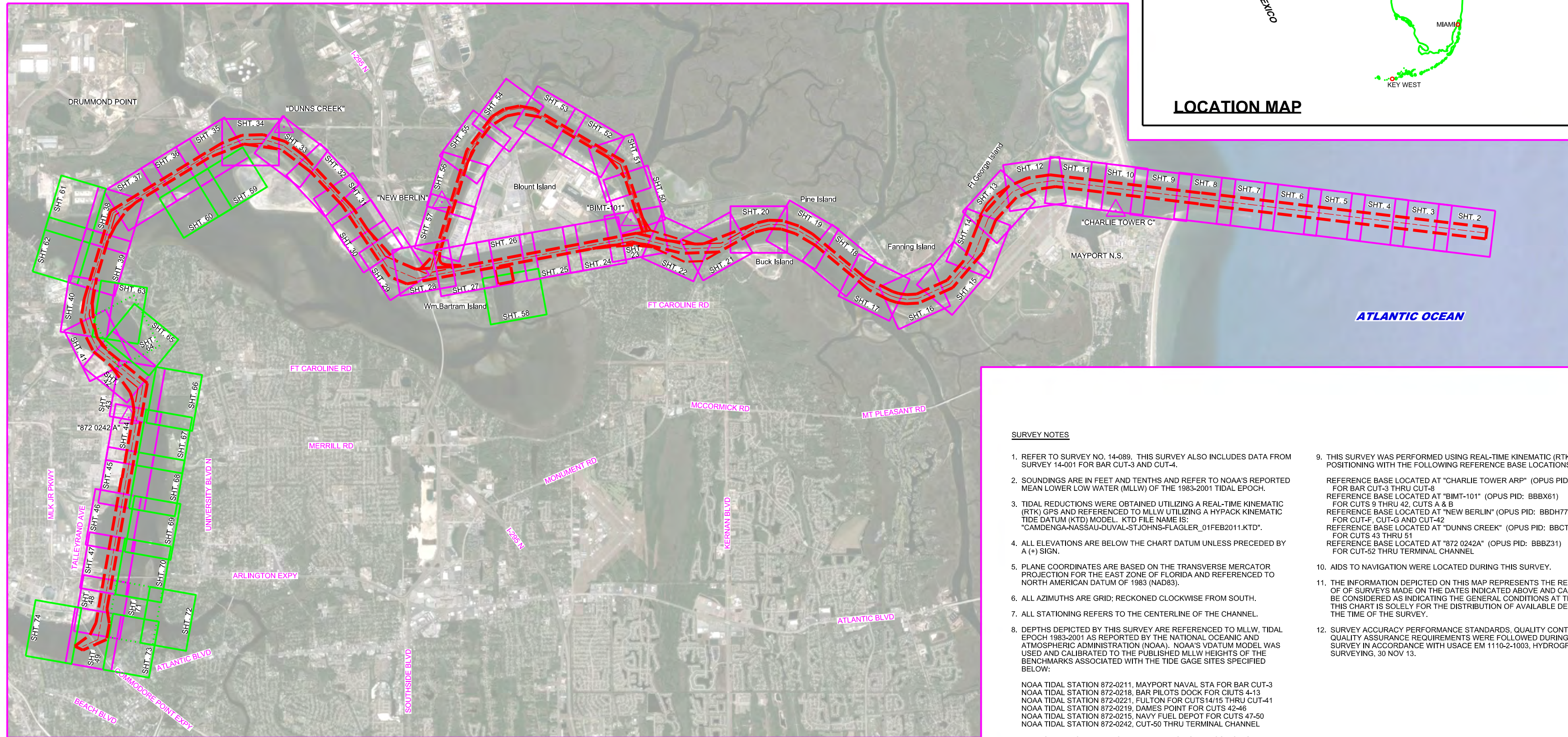


JACKSONVILLE HARBOR, FLORIDA

"BANK TO BANK" EXAM SURVEY FY14

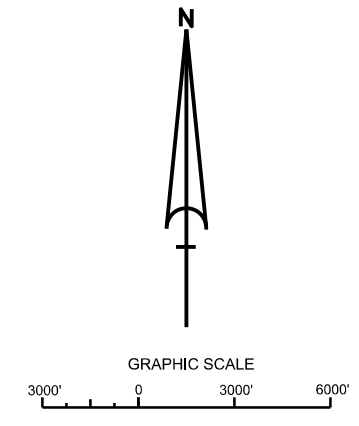


SURVEY NOTES

- REFER TO SURVEY NO. 14-089. THIS SURVEY ALSO INCLUDES DATA FROM SURVEY 14-001 FOR BAR CUT-3 AND CUT-4.
- SOUNDINGS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOWER LOW WATER (MLLW) OF THE 1985-2001 TIDAL EPOCH.
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING A REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW UTILIZING A HYPACK KINEMATIC TIDE DATUM (KTD) MODEL. KTD FILE NAME IS: "CAMDENGA-NASSAU-DUVAL-STJOHNS-FLAGLER_01FEB2011.KTD".
- ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
- PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA 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.
- DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDAL EPOCH 1983-2001 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 BENCHMARKS ASSOCIATED WITH THE TIDE GAGE SITES SPECIFIED BELOW:
NOAA TIDAL STATION 872-0211, MAYPORT NAVAL STA FOR BAR CUT-3
NOAA TIDAL STATION 872-0218, BAR PILOTS DOCK FOR CUTS 4-13
NOAA TIDAL STATION 872-0221, FULTON FOR CUTS 14/15 THRU CUT-41
NOAA TIDAL STATION 872-0219, DAMES POINT FOR CUTS 42-46
NOAA TIDAL STATION 872-0215, NAVY FUEL DEPOT FOR CUTS 47-50
NOAA TIDAL STATION 872-0242, CUT-50 THRU TERMINAL CHANNEL
- VERTICAL MEASUREMENTS WERE MADE USING A R2 SONIC MODEL 2024 MULTI-BEAM SYSTEM (240KHZ) AND A ROSS MODEL 835C SMARTSOUNDER WITH A DUAL-FREQUENCY (28/200 KHZ) SINGLE-BEAM TRANSDUCER. ALL DEPTHS ARE SHOWN IN HIGH FREQUENCY (200/240 KHZ).
- THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS:
REFERENCE BASE LOCATED AT "CHARLIE TOWER ARP" (OPUS PID: BBDC09) FOR BAR CUT-3 THRU CUT-6
REFERENCE BASE LOCATED AT "BIMT-101" (OPUS PID: BBBX61) FOR CUTS 9 THRU 42, CUTS A & B
REFERENCE BASE LOCATED AT "NEW BERLIN" (OPUS PID: BBDH77) FOR CUT-F, CUT-G AND CUT-42
REFERENCE BASE LOCATED AT "DUNNS CREEK" (OPUS PID: BBCT64) FOR CUTS 43 THRU 51
REFERENCE BASE LOCATED AT "872 0242A" (OPUS PID: BBBZ31) FOR CUT-52 THRU TERMINAL CHANNEL
- AIDS TO NAVIGATION WERE LOCATED DURING THIS SURVEY.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS AT THAT TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF THE SURVEY.
- SURVEY ACCURACY PERFORMANCE STANDARDS, QUALITY CONTROL, AND QUALITY ASSURANCE REQUIREMENTS WERE FOLLOWED DURING THIS SURVEY IN ACCORDANCE WITH USACE EM 1110-2-1003, HYDROGRAPHIC SURVEYING, 30 NOV 13.

LEGEND	
	MONUMENT
	LIGHTED BEACON
	GREEN DAYBEACON
	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
	CAN BUOY
	NUN BUOY
	TIDE STAFF
	PROJECT DEPTH

AUTHORIZED PROJECT DEPTH	
42 FT	CUT - 3 (BAR CUT) STA. 0+00 THRU STA. 210+00
40 FT	CUT - 3 (BAR CUT) STA. 210+00 THRU TERMINAL CHANNEL STA. 65+00
34 FT	TERMINAL CHANNEL STA. 65+00 THRU STA. 186+21 (APPROX. 1200 FEET UPSTREAM FROM THE HART BRIDGE NEAR COMMODORE POINT).
30 FT	CUT-A, STA. 0+00 THRU 53+10.21
38 FT	OLD RIVER BLOUNT ISLAND (WESTSIDE) CHANNEL CUT-F, STA. 10+00 - NEAR WOODEN FISHING BRIDGE PIER THRU INTERSECTION OF CUT - 42 (DAMES PT. - FULTON CUT - OFF



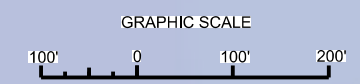
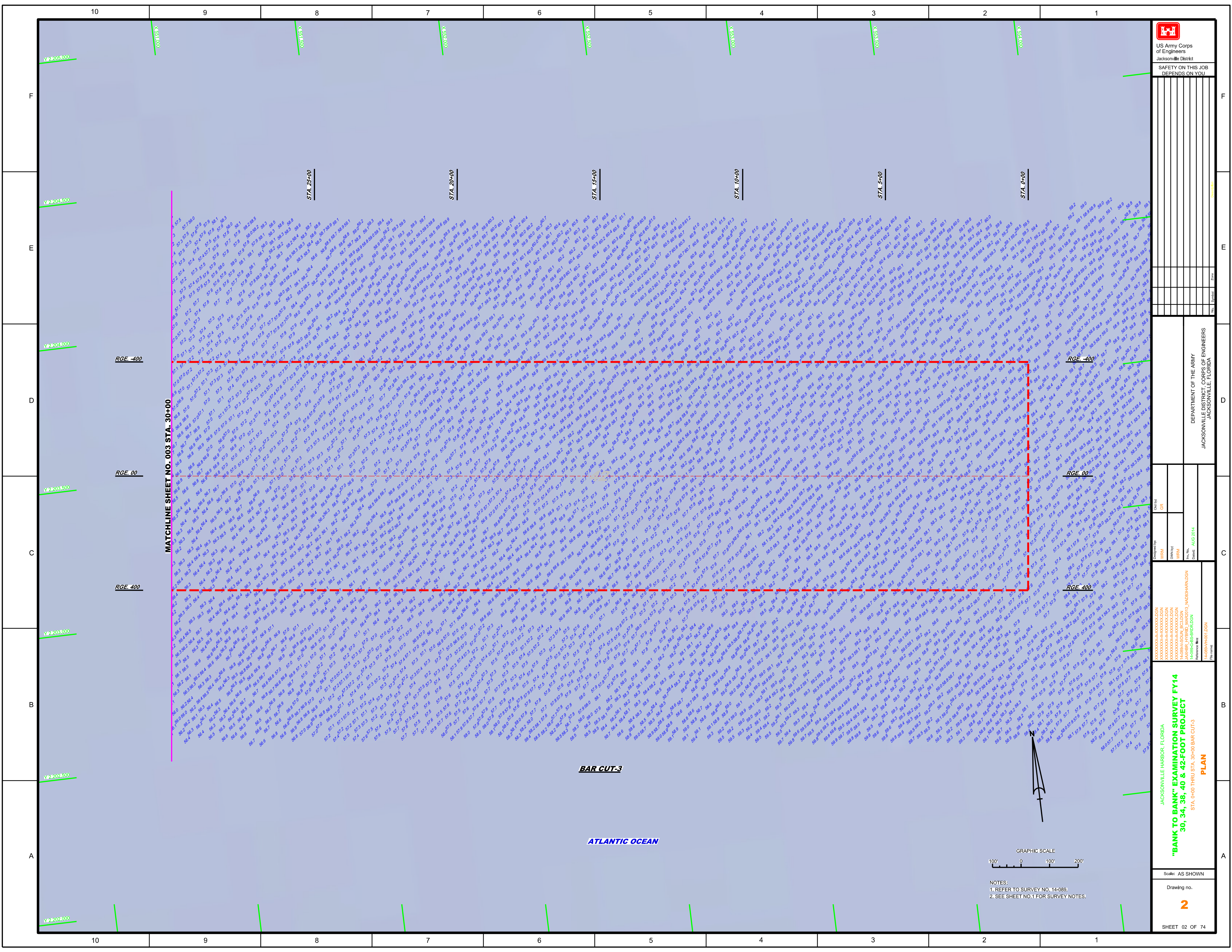
US Army Corps of Engineers
Jacksonville District
SAFETY ON THIS JOB DEPENDS ON YOU

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

Check By: GRL
Designed By: WRM
Drawn By: WRM
In Charge: WRM
Date: AUG 2014

JACKSONVILLE HARBOR, FLORIDA
"BANK TO BANK" EXAMINATION SURVEY FY14
30, 34, 38, 40 & 42-FOOT PROJECT
INDEX, LOCATION AND VICINITY MAP

Scale: AS SHOWN
Drawing no. 1
SHEET 01 OF 74



NOTES:
1. REFER TO SURVEY NO. 14-088.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

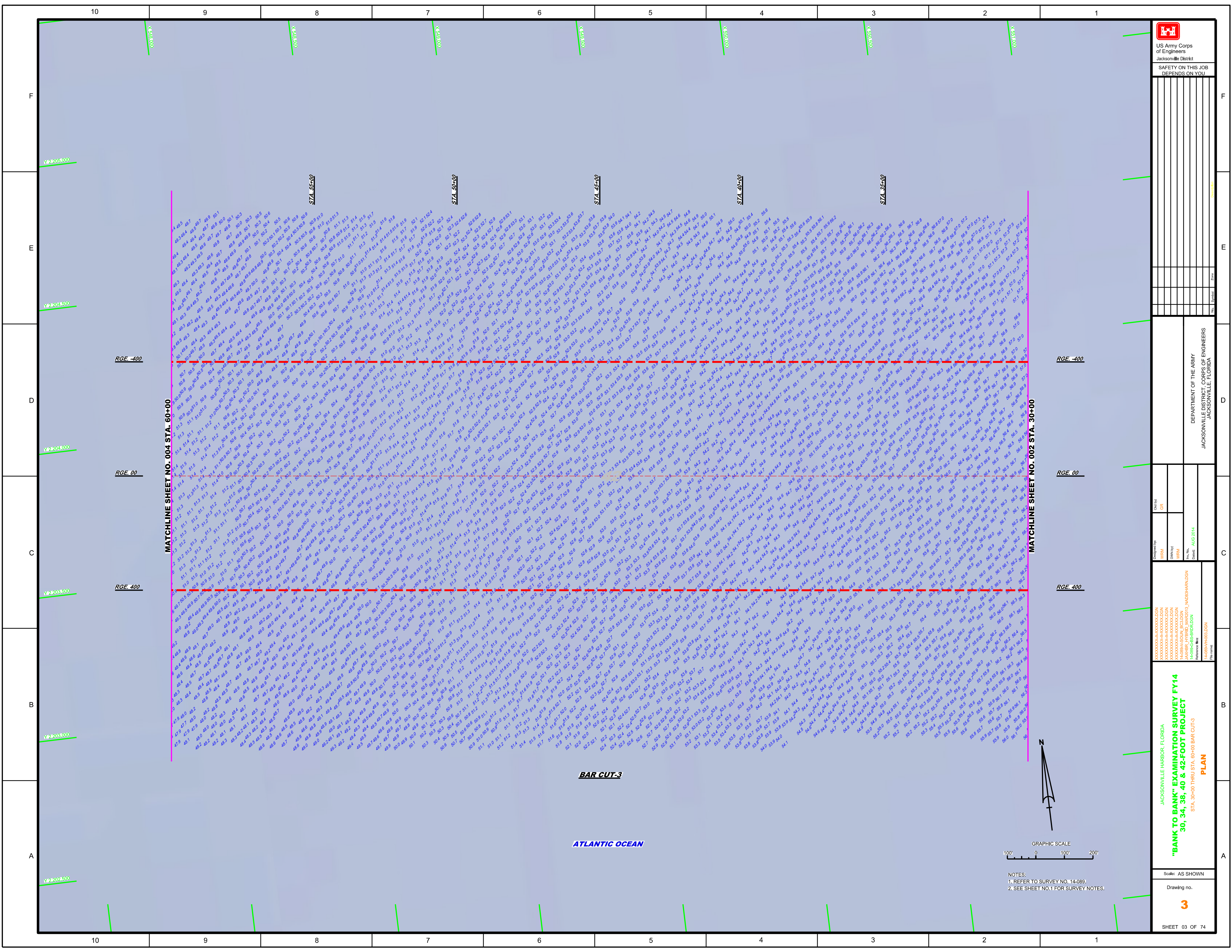


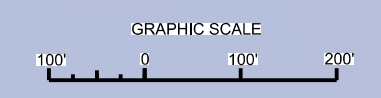
Table with columns for Name, Title, Date, and Status. Includes entries for 'JANER TERRY MARSH' and 'HARRIS-HARDEN'.

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

Designed by: WRM
Checked by: GRL
Date: AUG 2014

"BANK TO BANK" EXAMINATION SURVEY FY14
STA. 30+00 THRU STA. 40+00 BAR CUT-3
PLAN

Scale: AS SHOWN
Drawing no. 3
SHEET 03 OF 74



NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO.1 FOR SURVEY NOTES.



US Army Corps
of Engineers
Jacksonville District

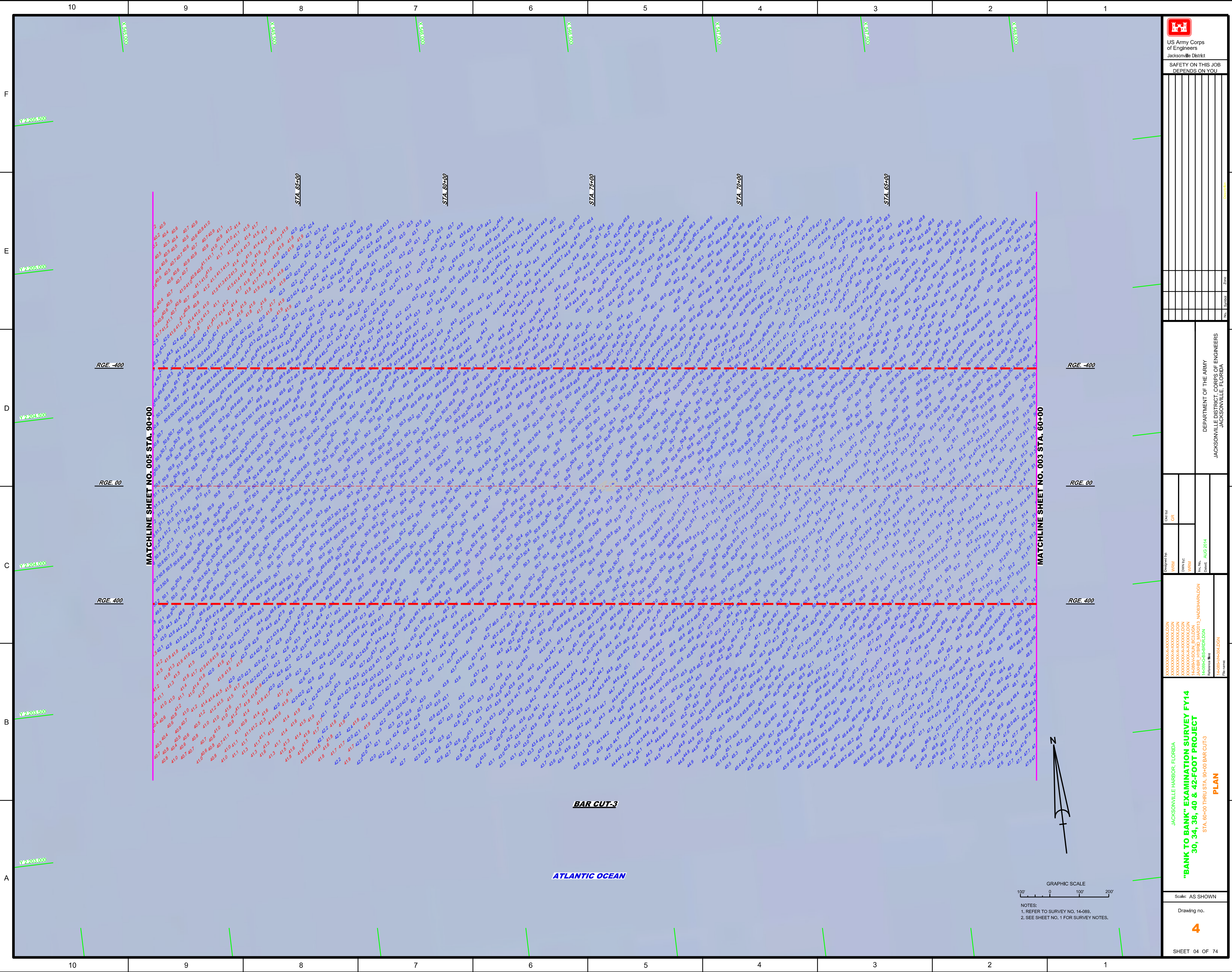
SAFETY ON THIS JOB
DEPENDS ON YOU

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

Checked By: GRL
Designed By: WRM
Drawn By: WRM
Reviewed By: JAWBR (TRFB), MARGO3, NA03BARDON
Reference File: H-8885-HR04LDGN
Date: AUG 2014

JACKSONVILLE HARBOR, FLORIDA
"BANK TO BANK" EXAMINATION SURVEY FY14
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 60+00 THRU STA. 90+00 BAR CUT-3
PLAN

Scale: AS SHOWN
Drawing no.
4
SHEET 04 OF 74

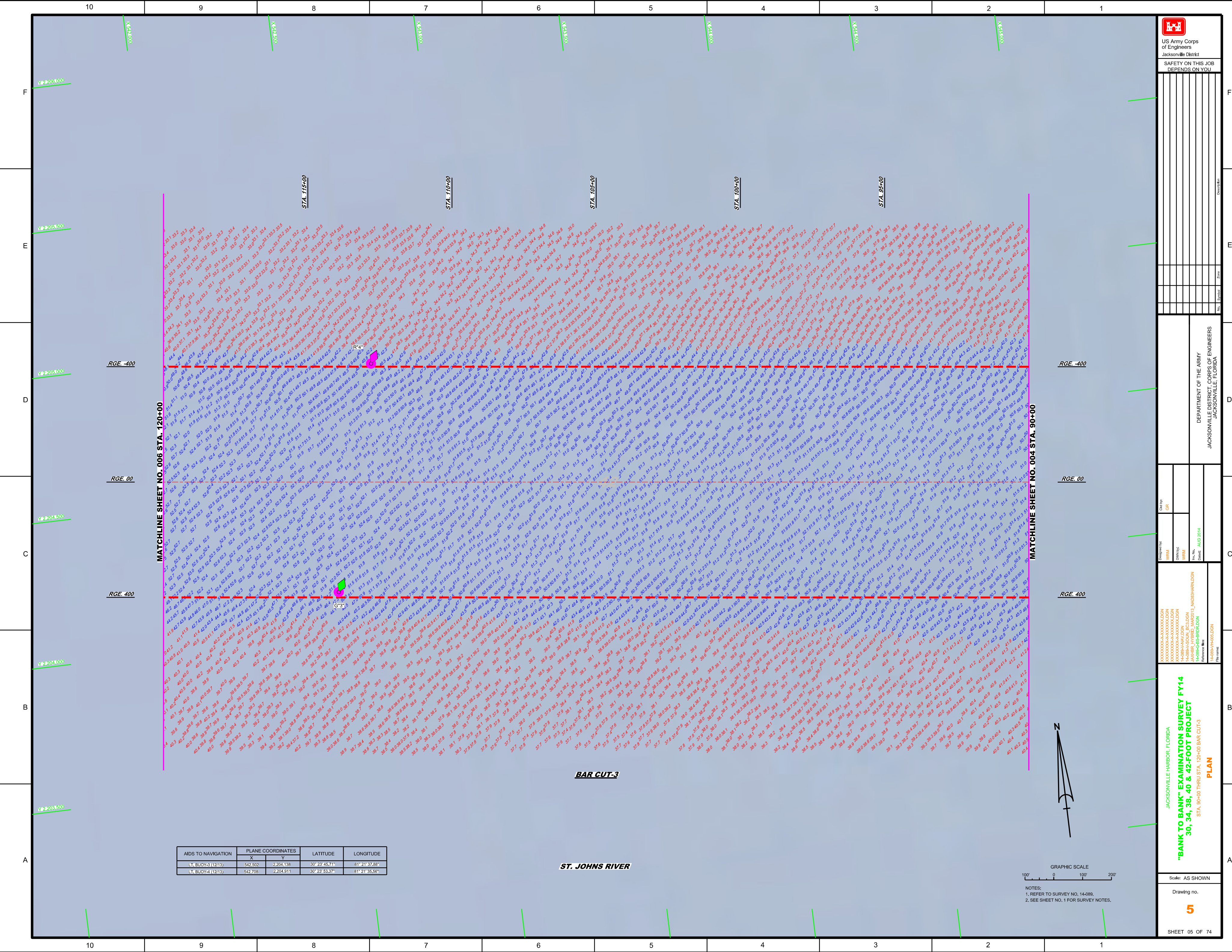


BAR CUT-3

ATLANTIC OCEAN

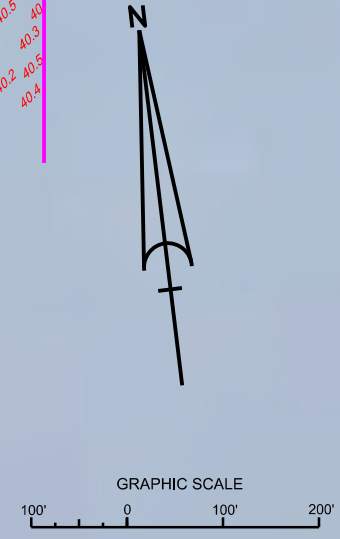
GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT BUOY-3 (12113)	542,502	2,204,138	30° 23' 45.71"	81° 21' 37.88"
LT BUOY-4 (12113)	542,708	2,204,911	30° 23' 53.37"	81° 21' 35.56"

ST. JOHNS RIVER



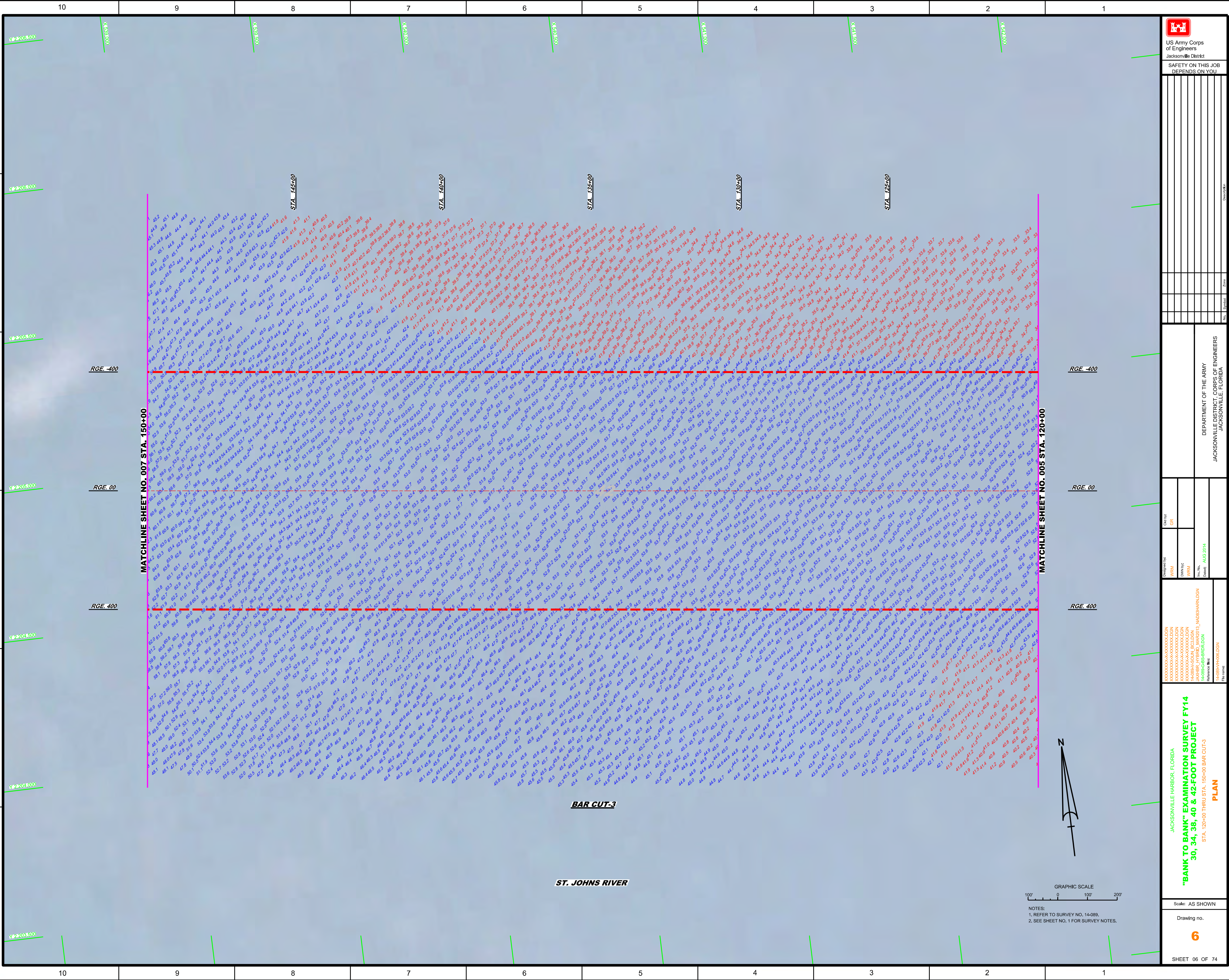
NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

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

DESIGNED BY: WRM
CHECKED BY: GRL
DATE: AUG 2014

JACKSONVILLE HARBOR, FLORIDA
"BANK TO BANK" EXAMINATION SURVEY FY14
STA. 90+00 THRU STA. 120+00 BAR CUT-3
PLAN

Scale: AS SHOWN
Drawing no. **5**
SHEET 05 OF 74



Revision table with columns for No., Date, and Description.

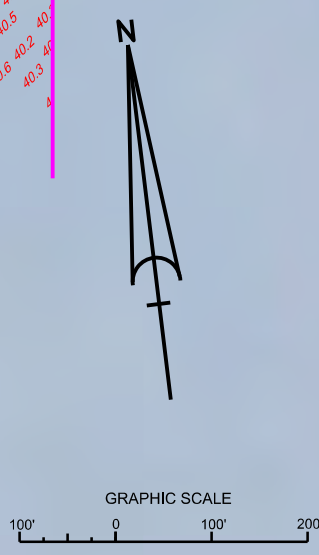
DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

Designed by: WRM
Checked by: GR
Drawn by: WRM
Reviewed by: WRM
Date: AUG 2014

JACKSONVILLE HARBOR, FLORIDA
"BANK TO BANK" EXAMINATION SURVEY FY14
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 120+00 THRU STA. 150+00 BAR CUT-3
PLAN

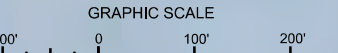
BAR CUT-3

ST. JOHNS RIVER

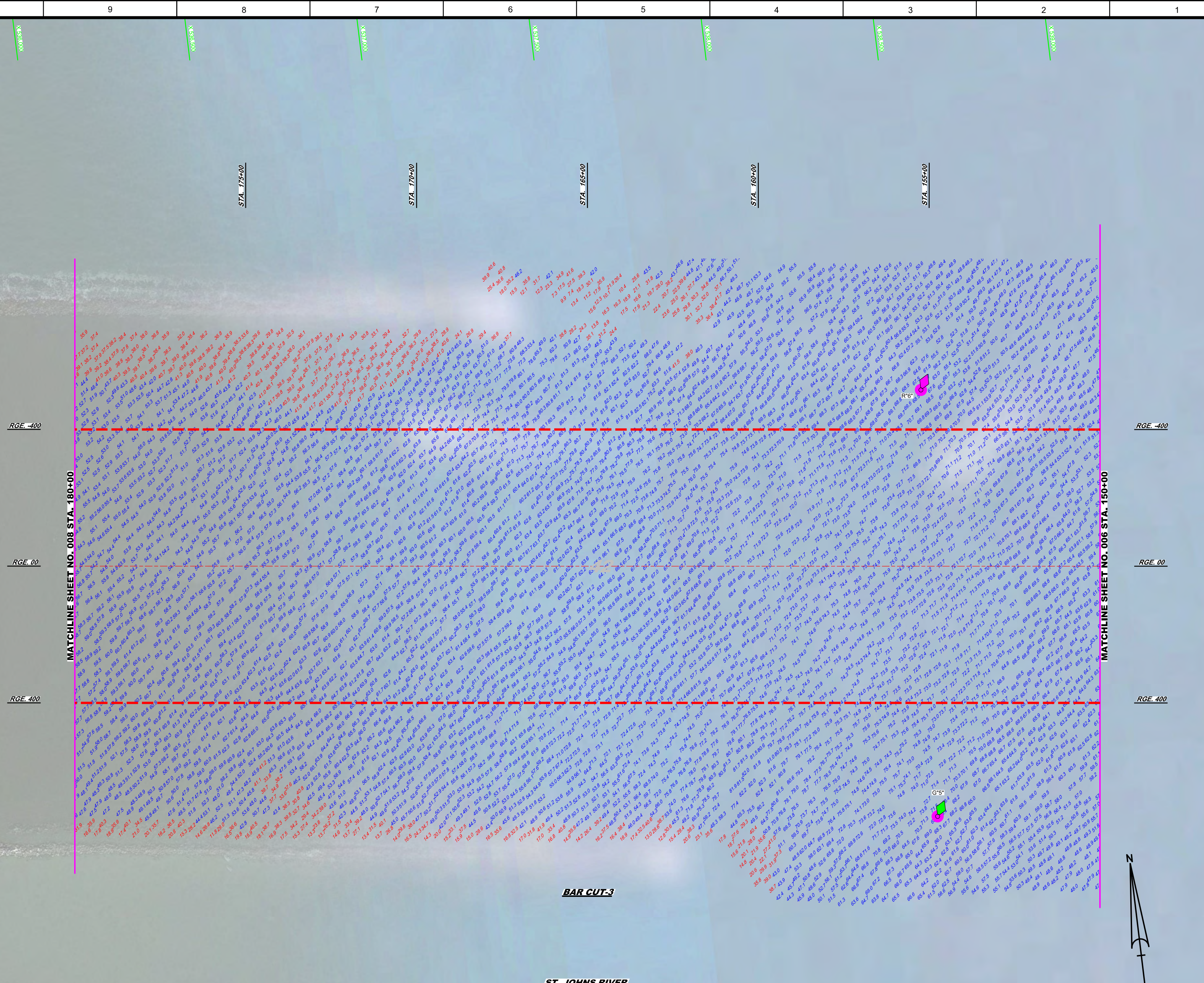


NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT-BOUY-5 (1213)	538,407	2,204,280	30°23'46.96"	81°22'24.65"
LT-BOUY-6 (1213)	538,503	2,205,524	30°23'59.31"	81°22'23.65"



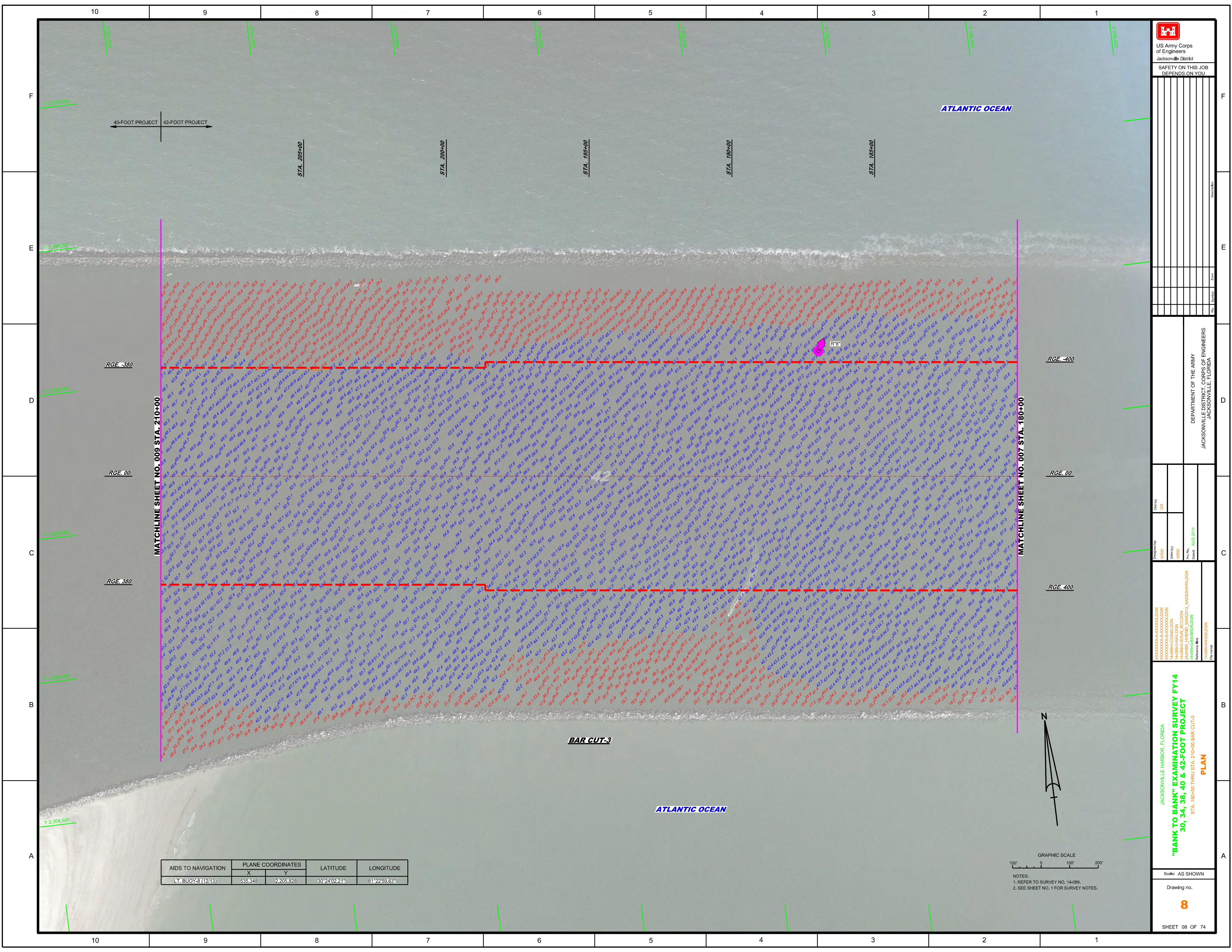
NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.



MATCHLINE SHEET NO. 008 STA. 180+00

MATCHLINE SHEET NO. 006 STA. 150+00

DESIGNED BY	WRM	CHECKED BY	GR
DRAWN BY	WRM	DATE	AUG 2014
PROJECT NO.	14-089-HAV-DGN		
PROJECT NAME	"BANK TO BANK" EXAMINATION SURVEY FY14		
PROJECT LOCATION	ST. JOHNS RIVER, JACKSONVILLE, FLORIDA		
PROJECT PHASE	PLAN		
PROJECT NUMBER	14-089-HAV-DGN		
PROJECT TITLE	"BANK TO BANK" EXAMINATION SURVEY FY14		
PROJECT DESCRIPTION	ST. JOHNS RIVER, JACKSONVILLE, FLORIDA		
PROJECT STATUS	PLAN		
PROJECT DATE	AUG 2014		
PROJECT SCALE	AS SHOWN		
PROJECT SHEET	7		
PROJECT TOTAL SHEETS	7		



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

Drawn by: GRL
Checked by: GRL
Designed by: WRM
Reviewed by: WRM
Checked by: WRM
Date: AUG 2014
Project: "BANK TO BANK" EXAMINATION SURVEY FY14 30, 34, 38, 40 & 42-FOOT PROJECT
Scale: AS SHOWN
Drawing No. 8
SHEET 08 OF 74

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-8 (1213)	535.848	2205.828	30°24'02.21"	81°22'59.53"

N

GRAPHIC SCALE
0 100 200

NOTES:
1. REFER TO SURVEY NO. 14-089.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

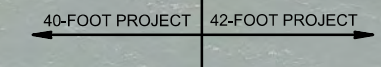
MATCHLINE SHEET NO. 009 STA. 210+00

MATCHLINE SHEET NO. 007 STA. 180+00

BAR CUT-3

ATLANTIC OCEAN

ATLANTIC OCEAN



STA. 205+00

STA. 200+00

STA. 195+00

STA. 190+00

STA. 185+00

RGE.380

RGE.400

RGE.00

RGE.00

RGE.380

RGE.400

F

E

D

C

B

A

10

9

8

7

6

5

4

3

2

1

10

9

8

7

6

5

4

3

2

1

X 535.848

X 535.848

X 535.848

X 535.848

X 535.848

X 535.848

X 535.848

X 535.848

Y 2207.000

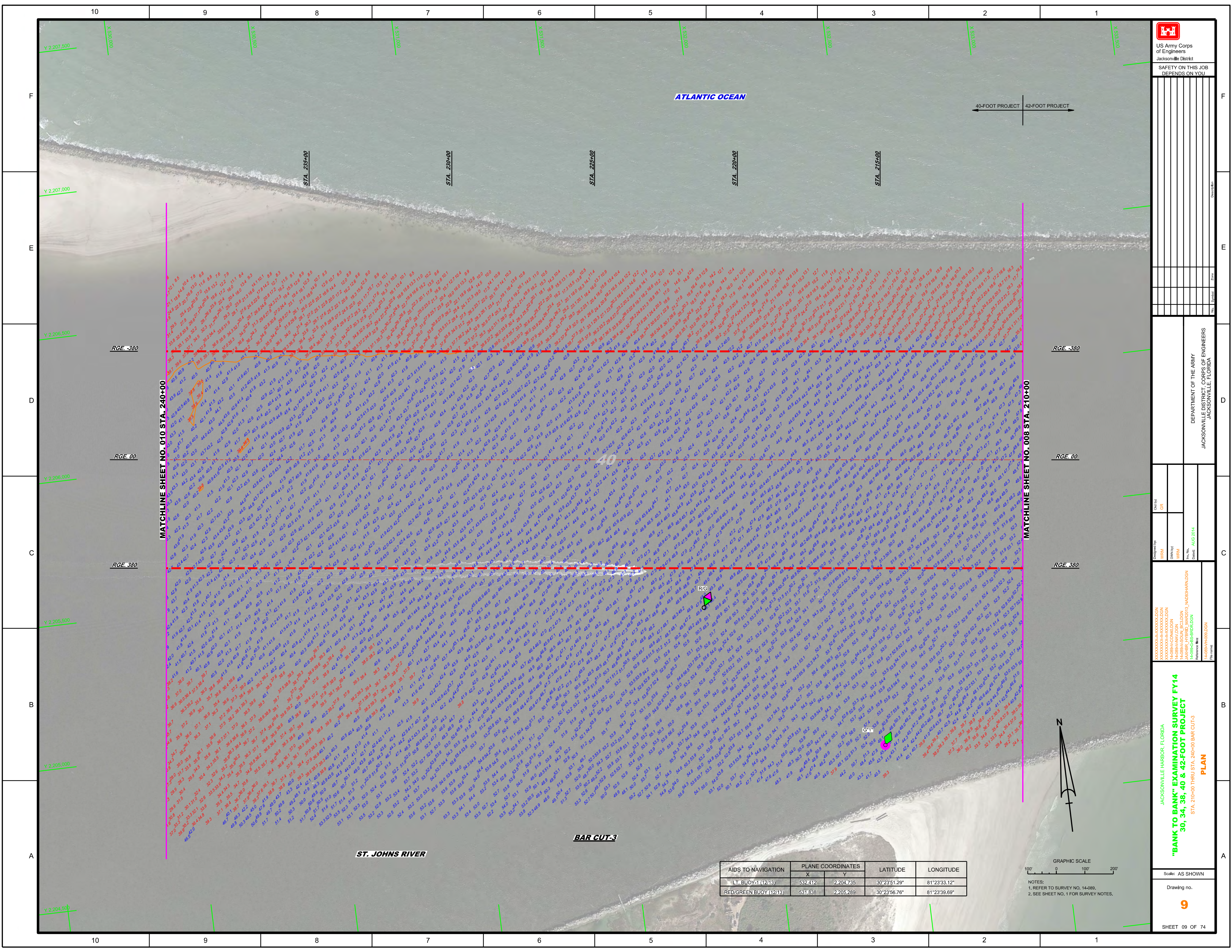
Y 2206.500


Y 2205.000

Y 2205.500

Y 2204.500

Y 2204.500





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

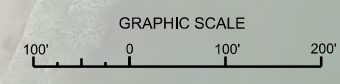
DEPARTMENT OF THE ARMY
 JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
 JACKSONVILLE, FLORIDA

Drawn by: GR
 Checked by: GR
 Date: AUG 2014

JACKSONVILLE HARBOR, FLORIDA
 "BANK TO BANK" EXAMINATION SURVEY FY14
 30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 210+00 THRU STA. 240+00 BAR CUT-3
 PLAN

Scale: AS SHOWN
 Drawing no. 9
 SHEET 09 OF 74

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-1 (12/13)	532.412	2,204.735	30°23'51.29"	81°23'33.12"
RED/GREEN BUOY (12/13)	531.838	2,205.289	30°23'56.76"	81°23'39.69"

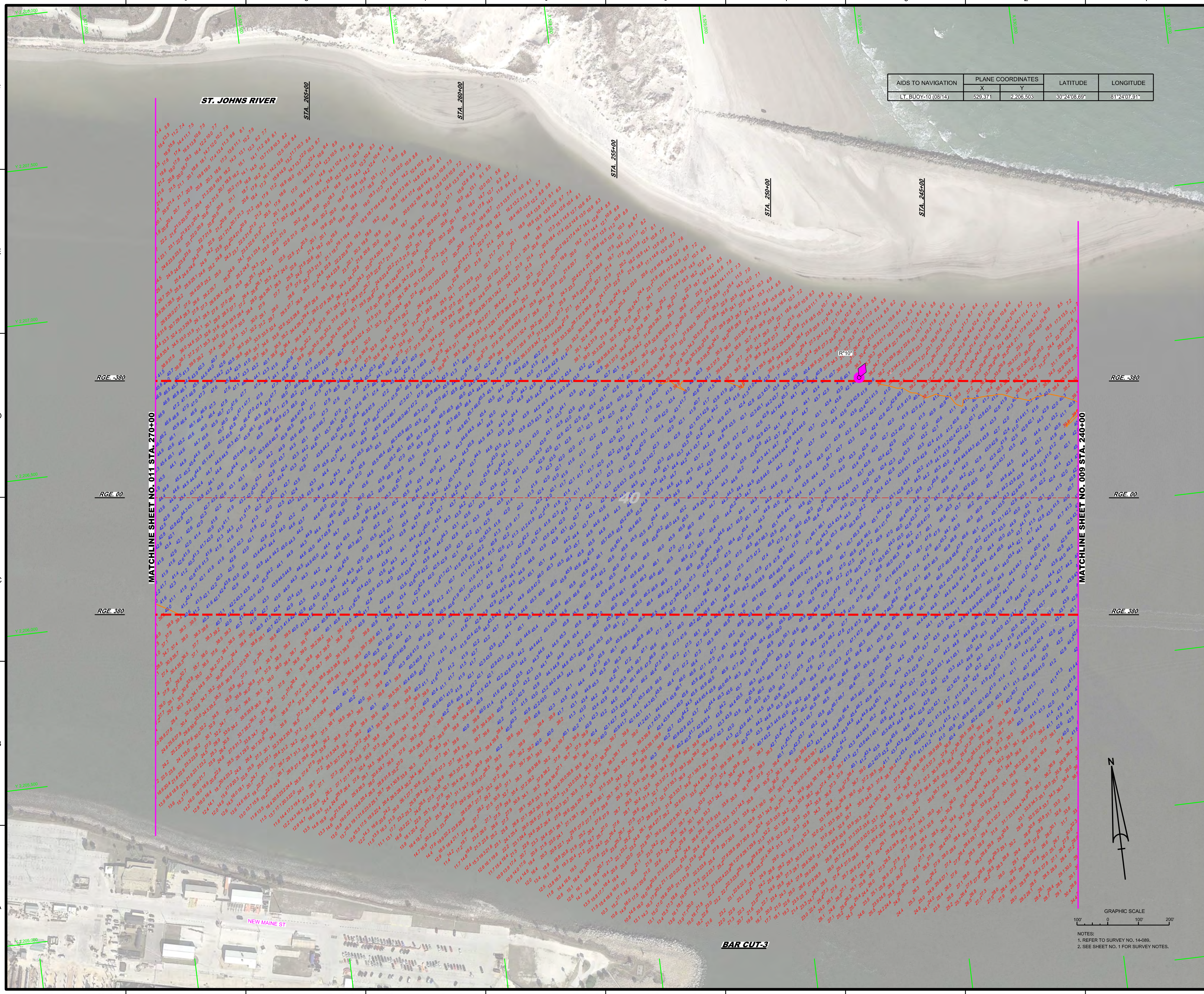


NOTES:
 1. REFER TO SURVEY NO. 14-089,
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.



SAFETY ON THIS JOB
DEPENDS ON YOU

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-10 (08/14)	529.371	2,206.503	30°24'08.69"	81°24'07.91"



JACKSONVILLE HARBOR, FLORIDA
"BANK TO BANK" EXAMINATION SURVEY FY14
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 240+00 THRU STA. 270+00 BAR CUT-3
PLAN

JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA
Designed by: WRM, GRH
Checked by: WRM, GRH
Date: AUG 2014