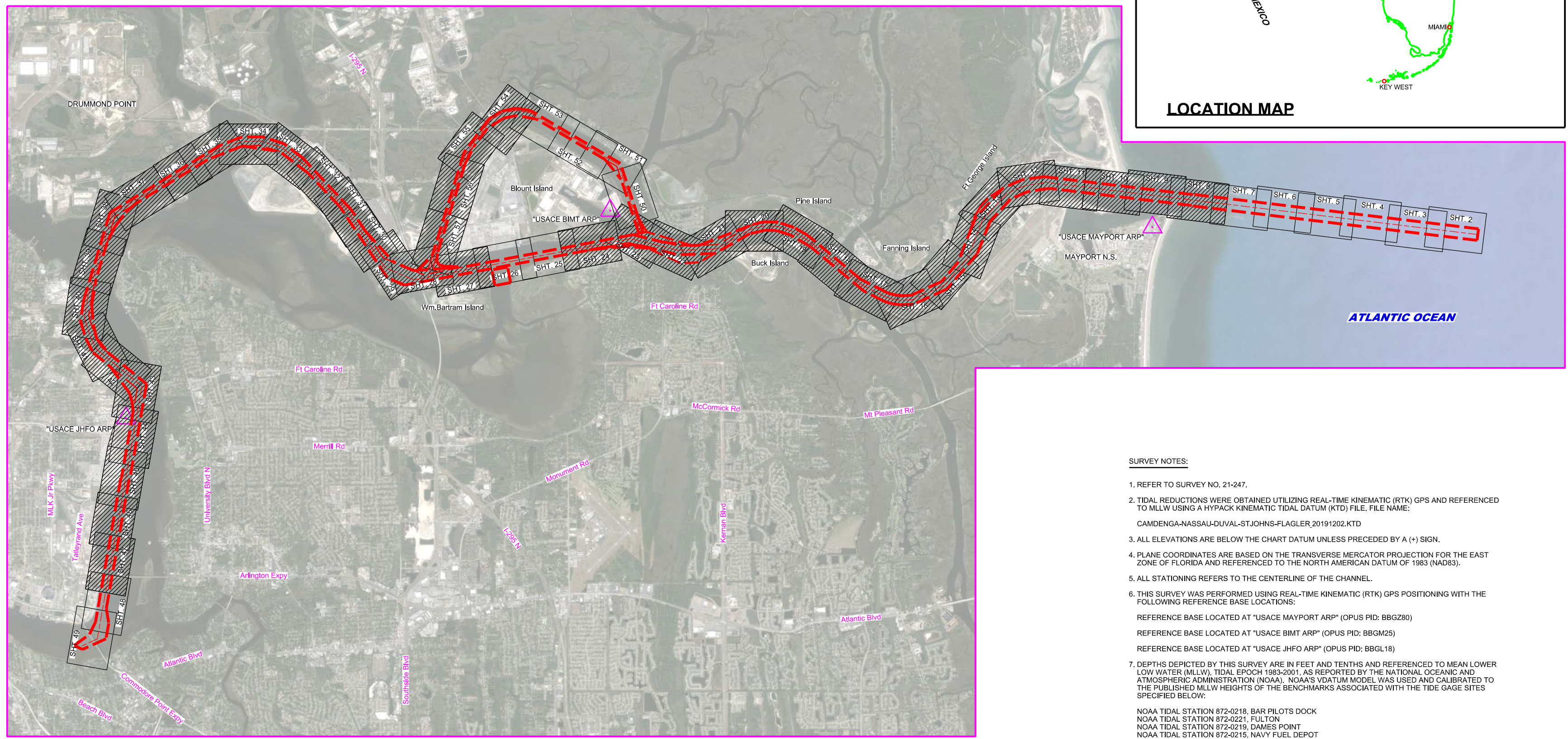
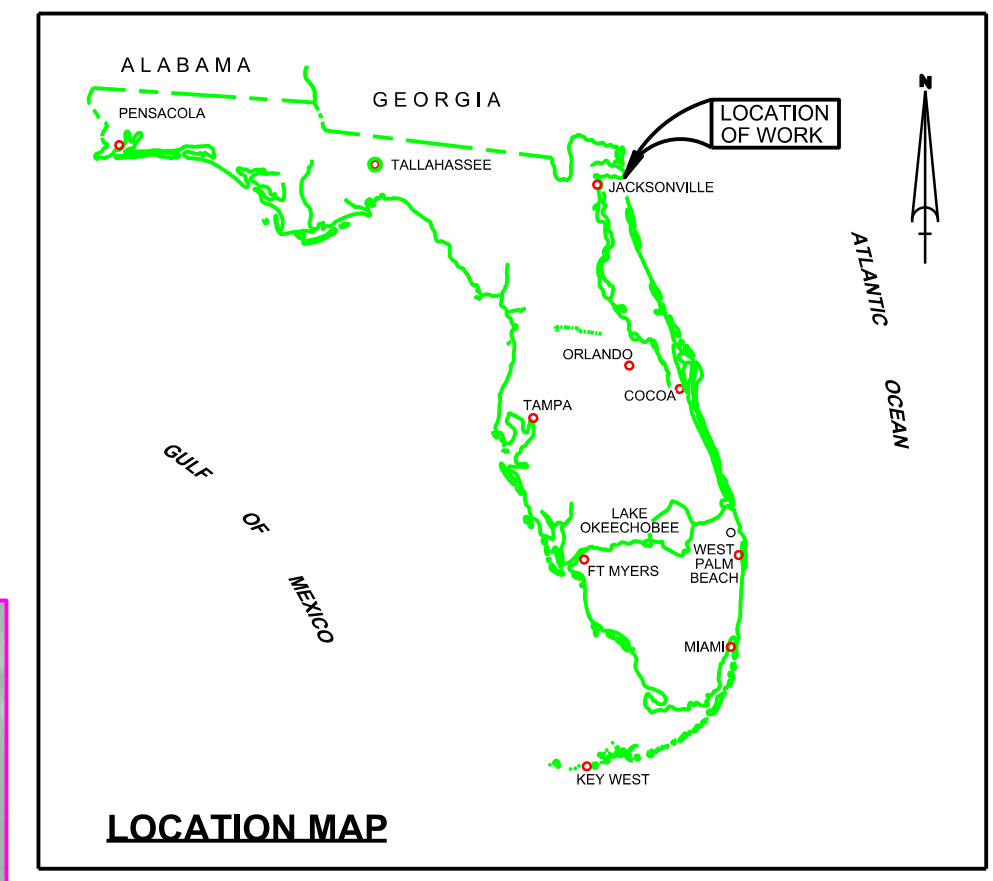


JACKSONVILLE HARBOR, FLORIDA 4th QUARTER EXAM SURVEY FY21 30, 34, 38, 40 & 42-FOOT PROJECT

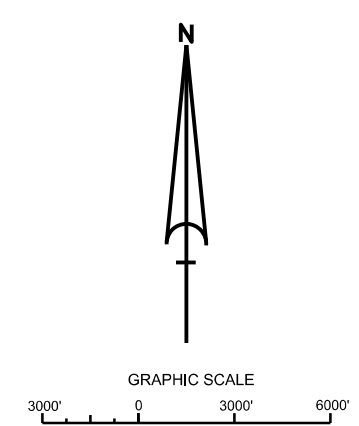


SURVEY NOTES:

- REFER TO SURVEY NO. 21-247.
- TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW USING A HYPACK KINEMATIC TIDAL DATUM (KTD) FILE. FILE NAME: CAMDENGA-NASSAU-DUVAL-ST.JOHN'S-FLAGLER,20191202.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 THE NORTH AMERICAN DATUM OF 1983 (NAD83).
- 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 "USACE MAYPORT ARP" (OPUS PID: BBGZ80)
 REFERENCE BASE LOCATED AT "USACE BIMT ARP" (OPUS PID: BBGM25)
 REFERENCE BASE LOCATED AT "USACE JHFO ARP" (OPUS PID: BBGL18)
- DEPTHS DEPICTED BY THIS SURVEY ARE IN FEET AND TENTHS AND REFERENCED TO MEAN LOWER LOW WATER (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 872-0218, BAR PILOTS DOCK
 NOAA TIDAL STATION 872-0221, FULTON
 NOAA TIDAL STATION 872-0219, DAMES POINT
 NOAA TIDAL STATION 872-0215, NAVY FUEL DEPOT
 NOAA TIDAL STATION 872-0242, LONG BRANCH
- VERTICAL MEASUREMENTS WERE MADE USING A R2 SONIC MODEL 2024 MULTI-BEAM SYSTEM (240 KHZ), A ROSS MODEL 830C SMARTSOUNDER WITH A DUAL-FREQUENCY (28/200 KHZ) SINGLE-BEAM TRANSDUCER, A RESON T20P MULTI-BEAM SYSTEM (300 KHZ), AN EDGE TECH 620S MULTI-BEAM (550 KHZ) AND AN ECHOTRAC E20 WITH A SINGLE-BEAM TRANSDUCER (28/200 KHZ). ALL SOUNDINGS SHOWN IN HIGH FREQUENCY EXCEPT FOR TERMINAL CHANNEL STATIONS 0+00 THRU 70+00 WHICH ARE IN LOW FREQUENCY (28 KHZ).

VESSEL	DATE OF SURVEY	AREA SURVEYED
SV SALZER	01 SEP 2021	BAR CUT-3 STA 180+00 - 300+00
SV SALZER	03 SEP 2021	CUT-17 THRU CUT-19
SB-44	24 SEP 2021	CUT-39 THRU CUT-42
SB-44	27 SEP 2021	CUT-42, CUT-F, CUT-G
SB-44	28 SEP 2021	CUTS 43 AND 44
SB-44	29 SEP 2021	CUT-51 THRU CUT-55
SV FLORIDA II	07 OCT 2021	CUT-4 THRU CUT-13
SV FLORIDA II	12 OCT 2021	CUT-14 THRU CUT-18
SB-36	21 OCT 2021	TERMINAL CHANNEL STA 0+00 - 70+00
SB-44	03 NOV 2021	CUT-47 THRU CUT-50
SB-44	04 NOV 2021	CUTS 45 AND 46
SB-44	05 NOV 2021	TERMINAL CHANNEL STA 70+00 - 130+00

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

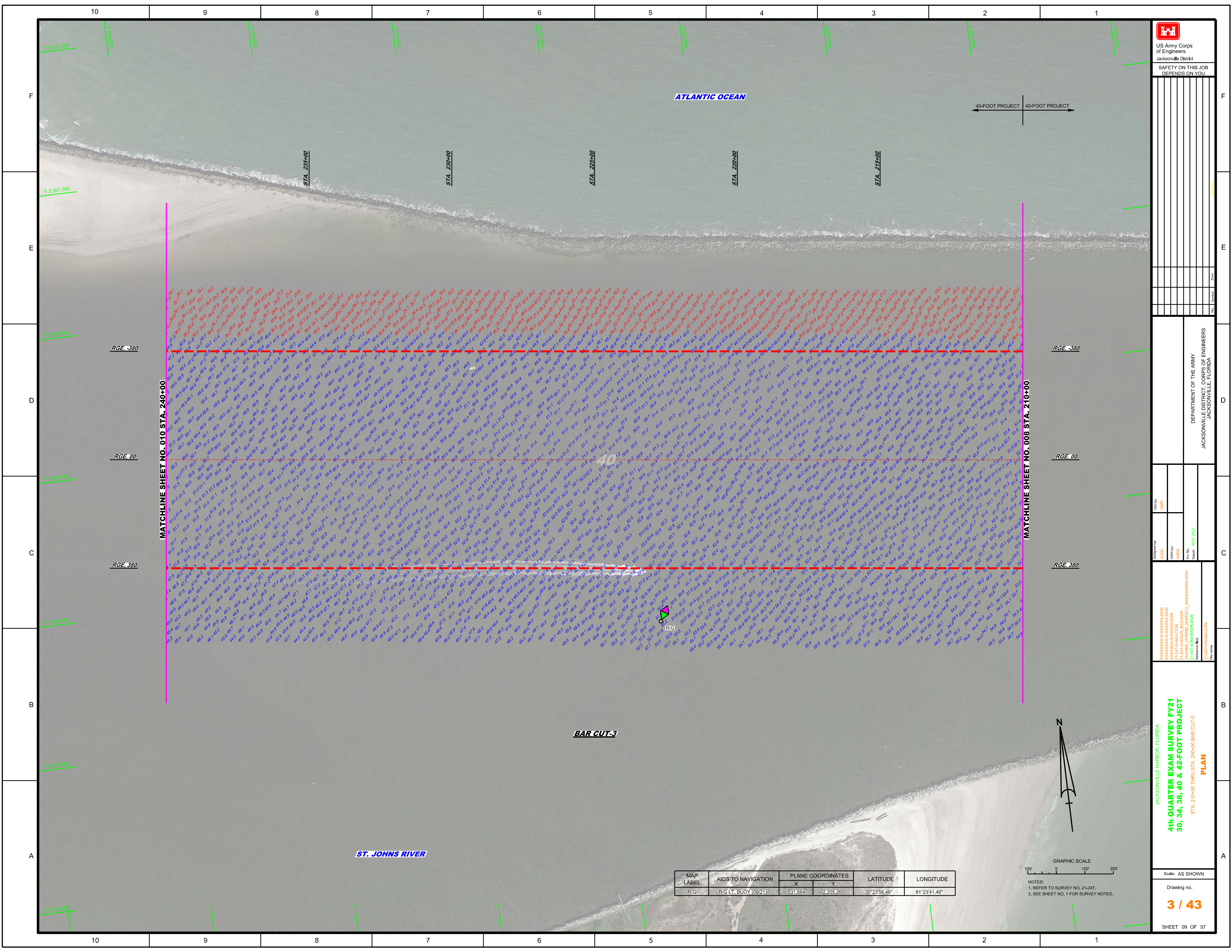



US Army Corps of Engineers
Jacksonville District
SAFETY ON THIS JOB DEPENDS ON YOU

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

4th QUARTER EXAM SURVEY FY21
30, 34, 38, 40 & 42-FOOT PROJECT
INDEX, LOCATION AND VICINITY MAP

Scale: AS SHOWN
Drawing no. 1 / 43
SHEET 01 OF 57




 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

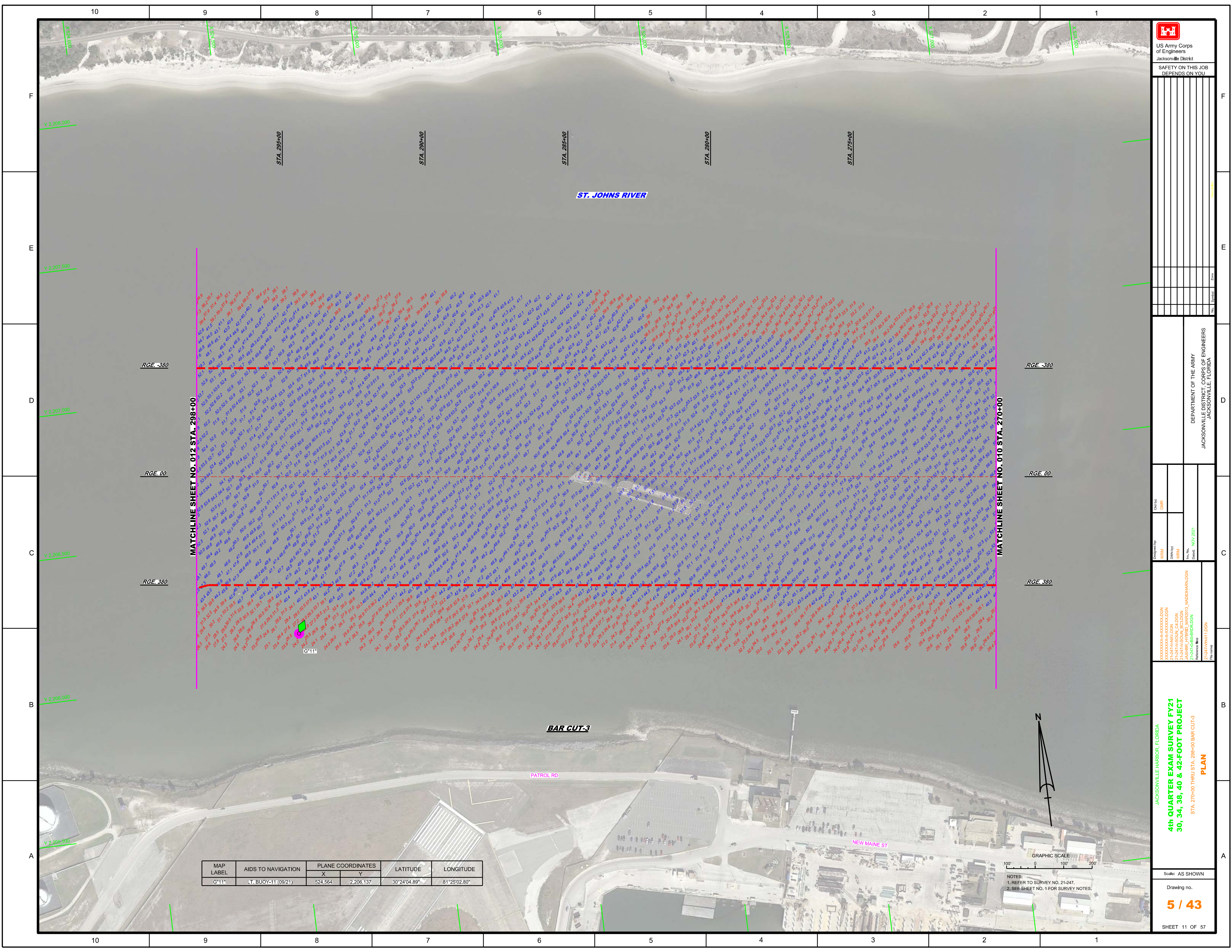
Designed by: **WRM**
 Checked by: **GHR**
 Drawn by: **WRM**
 Date: **NOV 2021**


JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY21
30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 210+00 THRU STA. 240+00 BAR CUT-3
PLAN

Scale: AS SHOWN
 Drawing no.
3 / 43
 SHEET 09 OF 57

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R/G	R/G LT, BUOY (09/21)	531.684	2,205.260	30°23'56.46"	81°23'41.46"

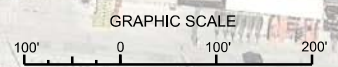
GRAPHIC SCALE
 100' 0 100 200'
 NOTES:
 1. REFER TO SURVEY NO. 21-247.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.





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

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
G*11	LT. BUOY-11 (09/21)	524,564	2,206,137	30°24'04.89"	81°25'02.80"



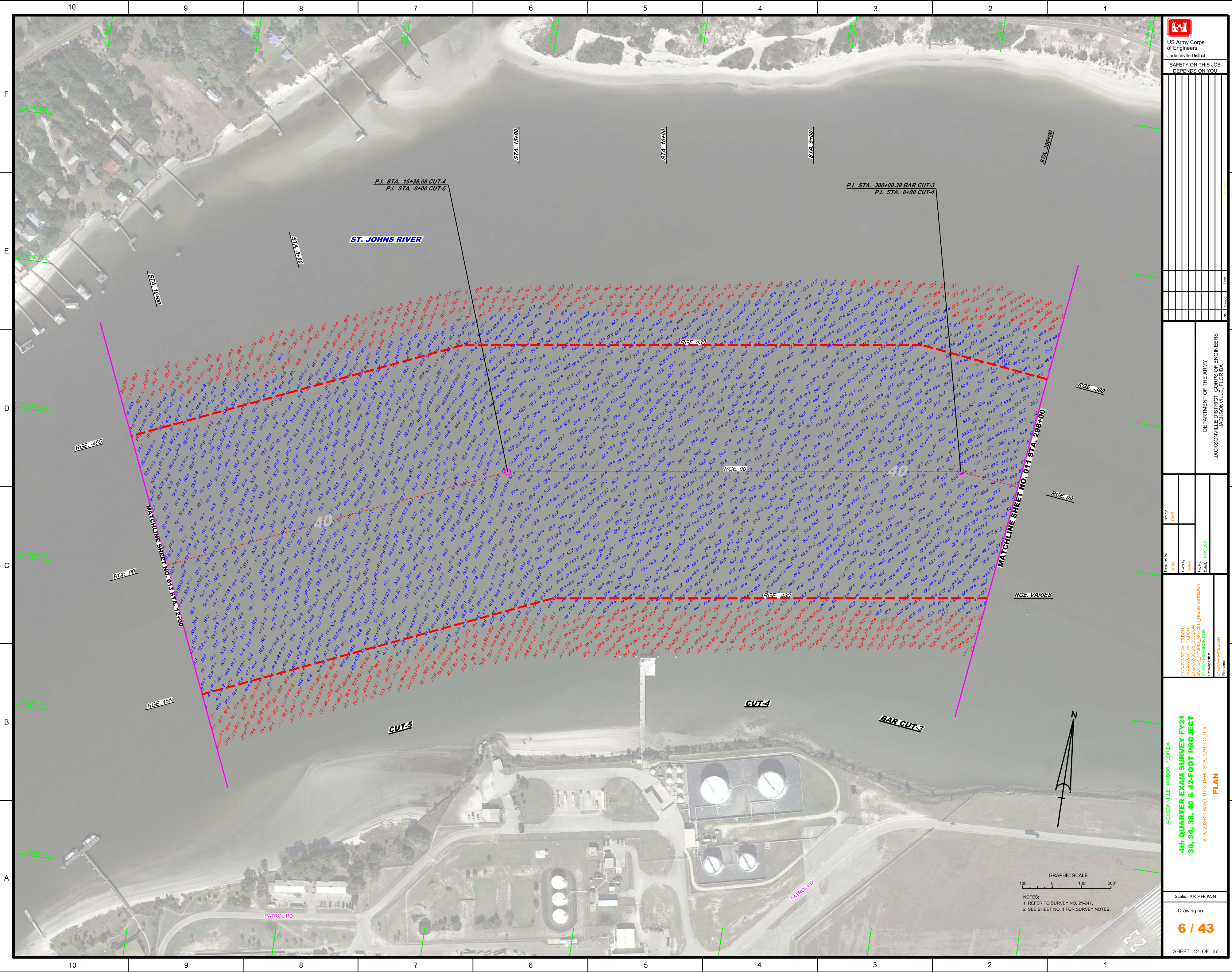
NOTES:
 1. REFER TO SURVEY NO. 21-247.
 2. SEE SHEET NO. 1 FOR SURVEY NOTES.

JACKSONVILLE HARBOR, FLORIDA
4th QUARTER EXAM SURVEY FY21
30, 34, 38, 40 & 42-FOOT PROJECT
 STA. 270+00 THRU STA. 298+00 BAR CUT-3
PLAN

Scale: AS SHOWN
 Drawing no.
5 / 43
 SHEET 11 OF 57

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

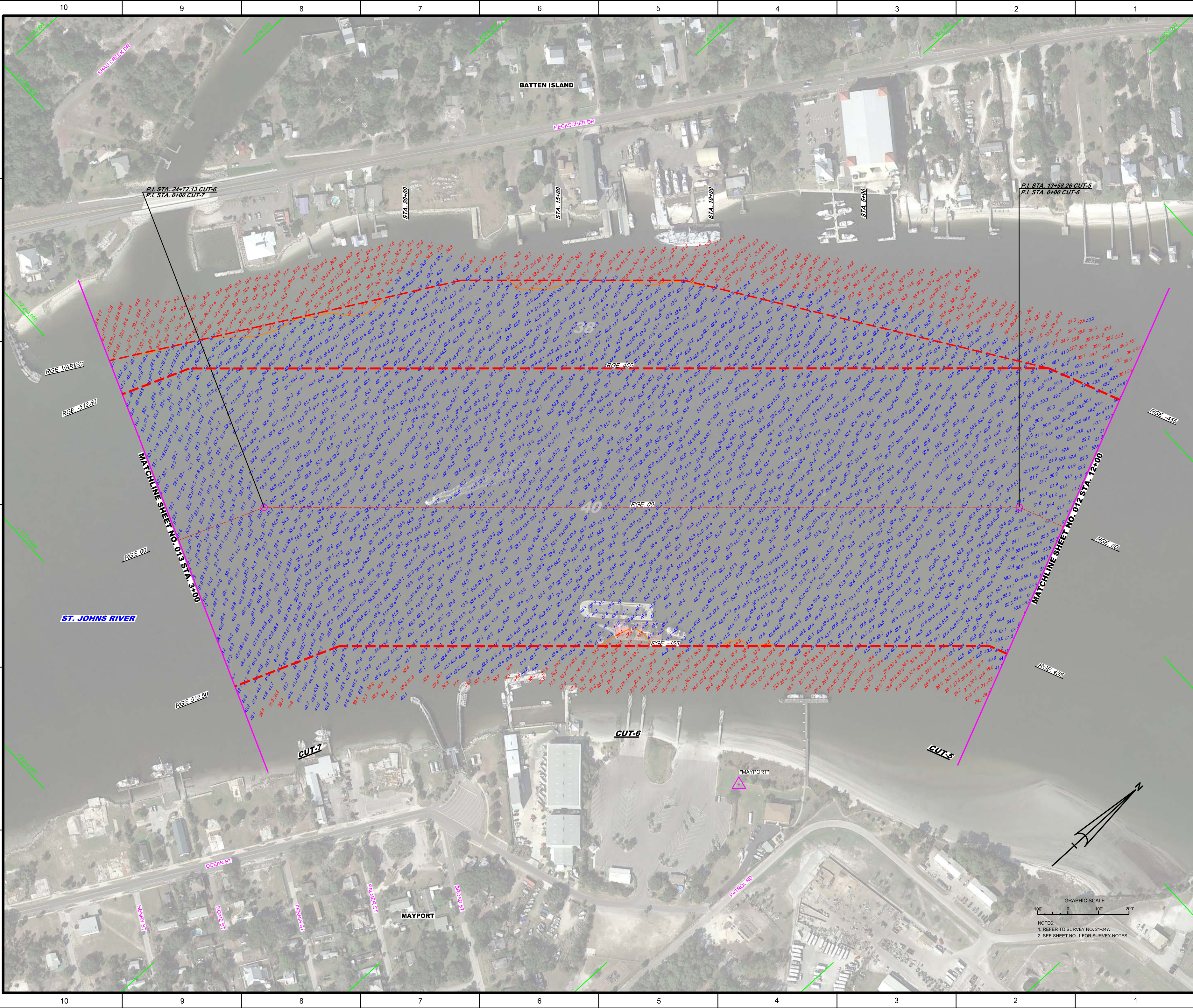
Designated By: WRM
 Drawn By: WRM
 Checked: NOV 2021




<p>US Army Corps of Engineers Jacksonville District</p>	
<p>SAFETY ON THIS JOB DEPENDS ON YOU</p>	
<p>DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA</p>	
<p>Checked By: GHR</p>	<p>Designed By: WRM</p>
<p>Drawn By: WRM</p>	<p>Checked By: WRM</p>
<p>Project No: 21-247-65-B-0003</p>	<p>Date: NOV 2021</p>
<p>21-247-65-B-0003 21-247-65-B-0003 21-247-65-B-0003</p>	
<p>4th QUARTER EXAM SURVEY FY21 30, 34, 38, 40 & 42-FOOT PROJECT</p>	
<p>STA. 298+00 BAR CUT-3 THRU STA. 12+00 CUT-5</p>	
<p>PLAN</p>	
<p>Scale: AS SHOWN</p>	
<p>Drawing No. 6 / 43</p>	
<p>SHEET 12 OF 57</p>	

GRAPHIC SCALE
100' 0 100' 200'

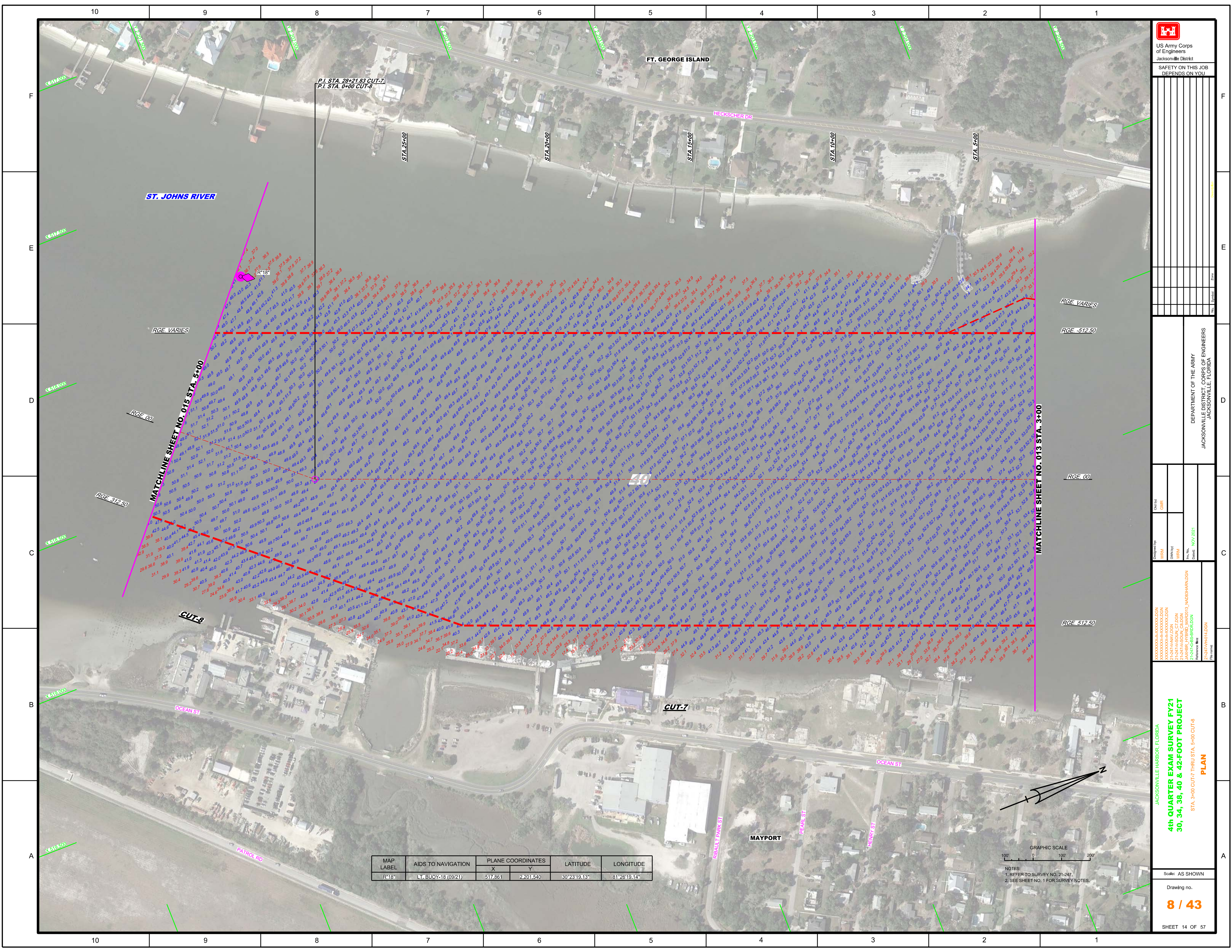
NOTES:
1. REFER TO SURVEY NO. 21-247.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.





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

<p>Checked By: GHR</p> <p>Designed By: WRM</p> <p>Drawn By: WRM</p> <p>Project No.: 21-247-00</p> <p>Date: NOV 2021</p>	<p>DEPARTMENT OF THE ARMY JACKSONVILLE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA</p>
<p>21-247-00-CONCLUSION 21-247-00-01-CONCLUSION 21-247-00-02-CONCLUSION 21-247-00-03-CONCLUSION 21-247-00-04-CONCLUSION 21-247-00-05-CONCLUSION 21-247-00-06-CONCLUSION 21-247-00-07-CONCLUSION 21-247-00-08-CONCLUSION 21-247-00-09-CONCLUSION 21-247-00-10-CONCLUSION 21-247-00-11-CONCLUSION 21-247-00-12-CONCLUSION 21-247-00-13-CONCLUSION 21-247-00-14-CONCLUSION 21-247-00-15-CONCLUSION 21-247-00-16-CONCLUSION 21-247-00-17-CONCLUSION 21-247-00-18-CONCLUSION 21-247-00-19-CONCLUSION 21-247-00-20-CONCLUSION 21-247-00-21-CONCLUSION 21-247-00-22-CONCLUSION 21-247-00-23-CONCLUSION 21-247-00-24-CONCLUSION 21-247-00-25-CONCLUSION 21-247-00-26-CONCLUSION 21-247-00-27-CONCLUSION 21-247-00-28-CONCLUSION 21-247-00-29-CONCLUSION 21-247-00-30-CONCLUSION 21-247-00-31-CONCLUSION 21-247-00-32-CONCLUSION 21-247-00-33-CONCLUSION 21-247-00-34-CONCLUSION 21-247-00-35-CONCLUSION 21-247-00-36-CONCLUSION 21-247-00-37-CONCLUSION 21-247-00-38-CONCLUSION 21-247-00-39-CONCLUSION 21-247-00-40-CONCLUSION 21-247-00-41-CONCLUSION 21-247-00-42-CONCLUSION 21-247-00-43-CONCLUSION 21-247-00-44-CONCLUSION 21-247-00-45-CONCLUSION 21-247-00-46-CONCLUSION 21-247-00-47-CONCLUSION 21-247-00-48-CONCLUSION 21-247-00-49-CONCLUSION 21-247-00-50-CONCLUSION 21-247-00-51-CONCLUSION 21-247-00-52-CONCLUSION 21-247-00-53-CONCLUSION 21-247-00-54-CONCLUSION 21-247-00-55-CONCLUSION 21-247-00-56-CONCLUSION 21-247-00-57-CONCLUSION 21-247-00-58-CONCLUSION 21-247-00-59-CONCLUSION 21-247-00-60-CONCLUSION 21-247-00-61-CONCLUSION 21-247-00-62-CONCLUSION 21-247-00-63-CONCLUSION 21-247-00-64-CONCLUSION 21-247-00-65-CONCLUSION 21-247-00-66-CONCLUSION 21-247-00-67-CONCLUSION 21-247-00-68-CONCLUSION 21-247-00-69-CONCLUSION 21-247-00-70-CONCLUSION 21-247-00-71-CONCLUSION 21-247-00-72-CONCLUSION 21-247-00-73-CONCLUSION 21-247-00-74-CONCLUSION 21-247-00-75-CONCLUSION 21-247-00-76-CONCLUSION 21-247-00-77-CONCLUSION 21-247-00-78-CONCLUSION 21-247-00-79-CONCLUSION 21-247-00-80-CONCLUSION 21-247-00-81-CONCLUSION 21-247-00-82-CONCLUSION 21-247-00-83-CONCLUSION 21-247-00-84-CONCLUSION 21-247-00-85-CONCLUSION 21-247-00-86-CONCLUSION 21-247-00-87-CONCLUSION 21-247-00-88-CONCLUSION 21-247-00-89-CONCLUSION 21-247-00-90-CONCLUSION 21-247-00-91-CONCLUSION 21-247-00-92-CONCLUSION 21-247-00-93-CONCLUSION 21-247-00-94-CONCLUSION 21-247-00-95-CONCLUSION 21-247-00-96-CONCLUSION 21-247-00-97-CONCLUSION 21-247-00-98-CONCLUSION 21-247-00-99-CONCLUSION 21-247-00-100-CONCLUSION</p>	
<p>JACKSONVILLE HARBOR, FLORIDA 4th QUARTER EXAM SURVEY FY21 30, 34, 38, 40 & 42-FOOT PROJECT STA. 12+00 CUT-5 THRU STA. 3+00 CUT-7 PLAN</p>	
<p>Scale: AS SHOWN Drawing no. 7 / 43 SHEET 13 OF 57</p>	



P.I. STA. 26+21.83 CUT-7
P.I. STA. 0+00 CUT-8

ST. JOHNS RIVER

FT. GEORGE ISLAND

HECKSCHER DR


MATCHLINE SHEET NO. 015 STA. 5+00

MATCHLINE SHEET NO. 013 STA. 3+00

MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R18*	LT. BUOY-18 (09/21)	517,861	2,201,540	30°23'19.13"	81°26'19.14"



NOTES:
1. REFER TO SURVEY NO. 21-247.
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

4th QUARTER EXAM SURVEY FY21
30, 34, 38, 40 & 42-FOOT PROJECT
STA. 3+00 CUT-7 THRU STA. 5+00 CUT-8
PLAN

Scale: AS SHOWN
Drawing no.
8 / 43
SHEET 14 OF 57

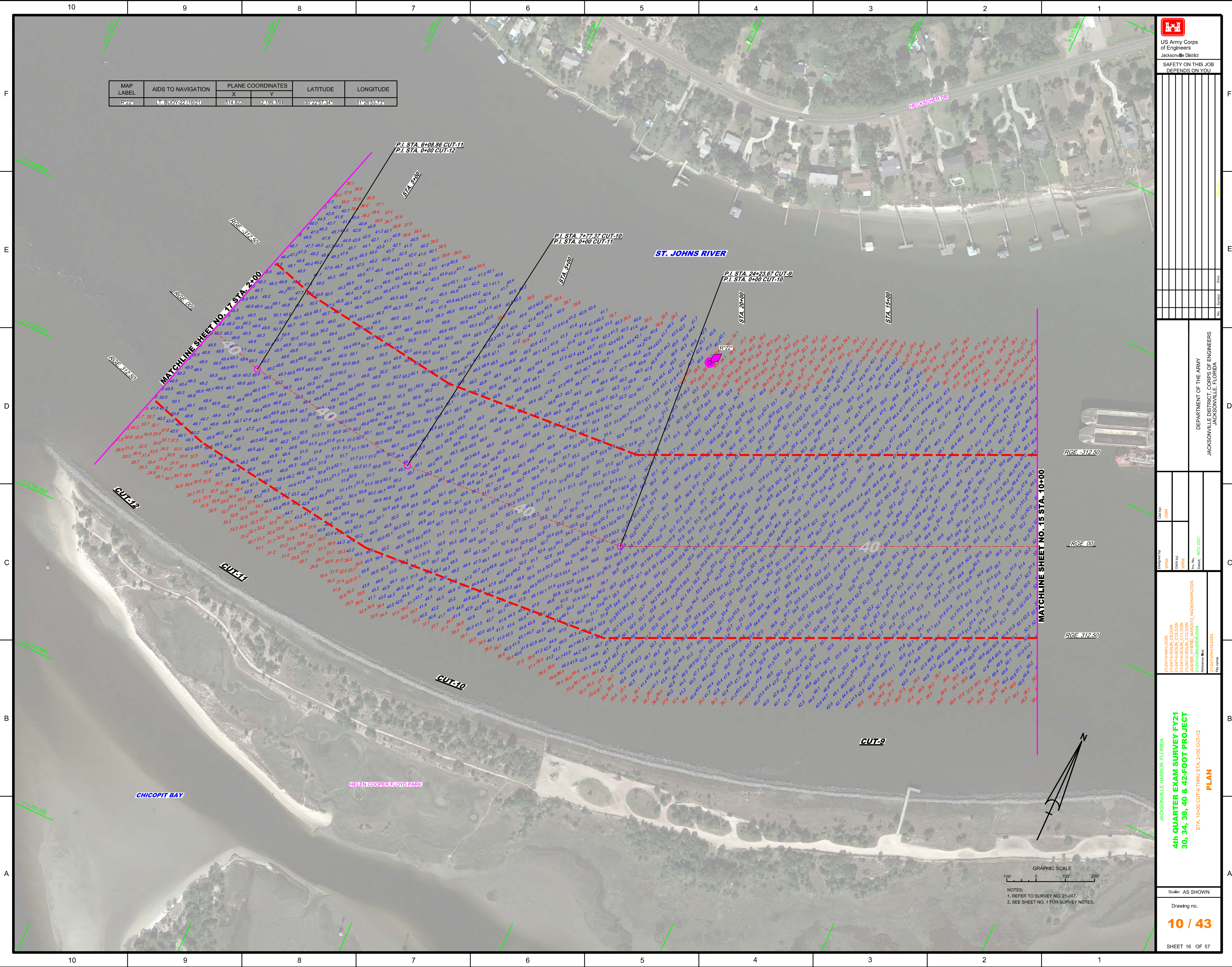
MAP LABEL	AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
		X	Y		
R'22	LT. BUOY 22 (10/21)	514,822	2,199,350	30°22'57.34"	81°26'53.73"

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: GHR
Checked by: GHR
Designed by: WRM
DWG No: 21-247-0000
Project No: 21-247-0000
Revision: 1
Date: NOV 2021



JACKSONVILLE HARBOR, FLORIDA

4th QUARTER EXAM SURVEY FY21
30, 34, 38, 40 & 42-FOOT PROJECT

STA. 10+00 CUT-9 THRU STA. 2+00 CUT-12

PLAN

Scale: AS SHOWN

Drawing No. **10 / 43**

SHEET 16 OF 57

NOTES:
1. REFER TO SURVEY NO. 21-247.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

