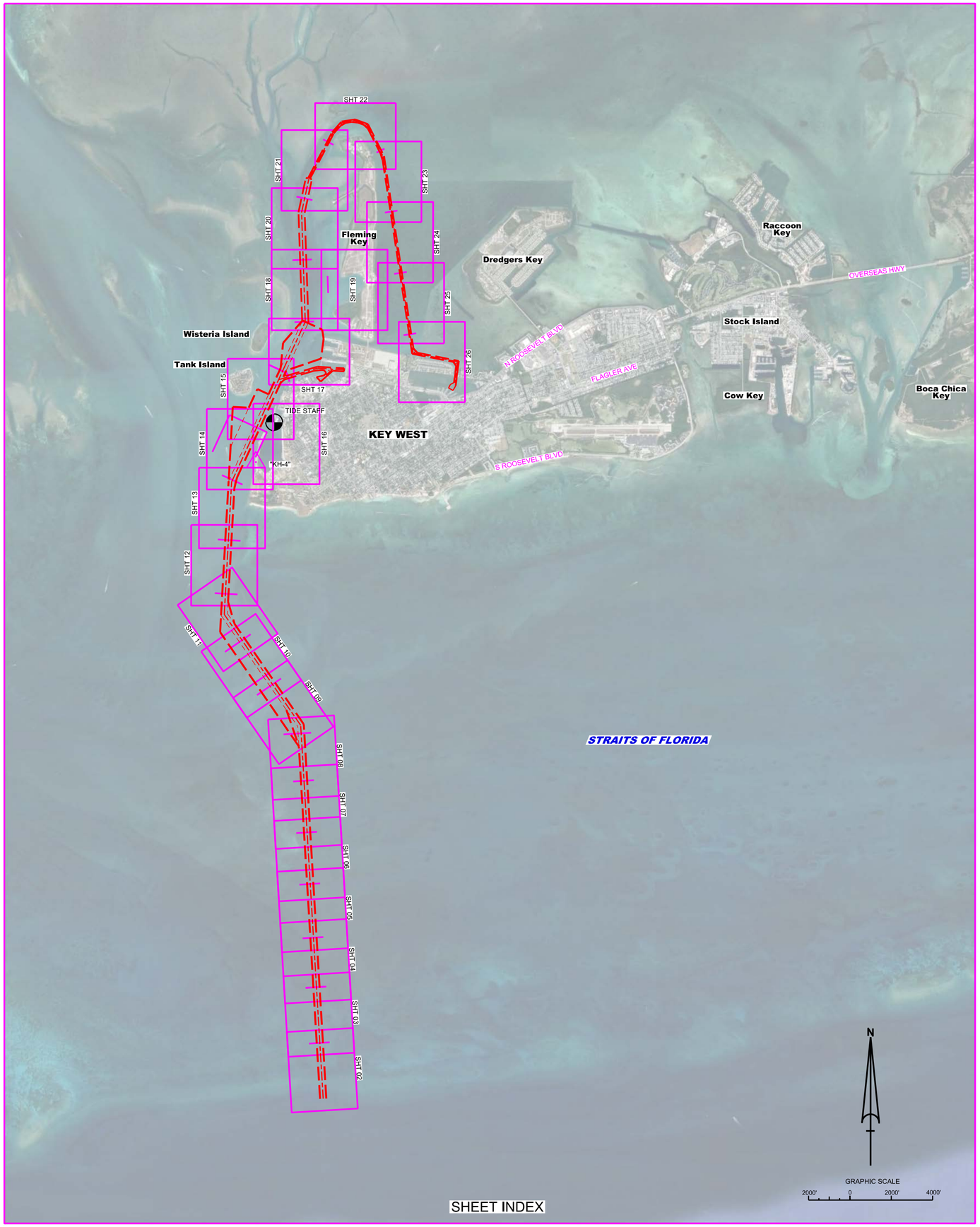
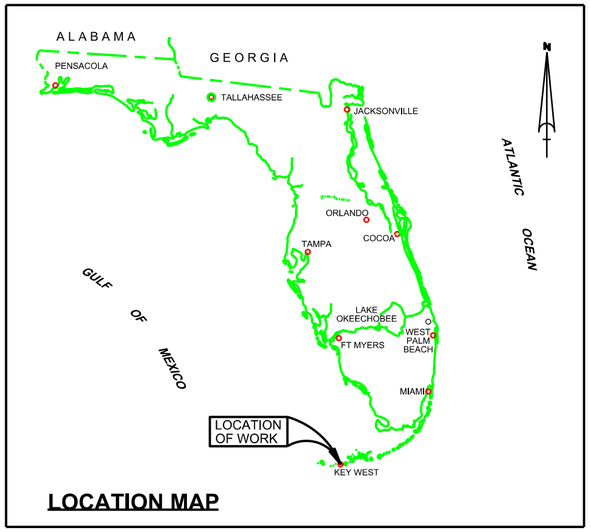




KEY WEST HARBOR
MONROE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 AND 34-FOOT PROJECT

LEGEND	
△	BENCHMARK
	LIGHTED BEACON
■	GREEN DAYBEACON
▲	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
C	CAN BUOY
N	NUN BUOY
	TIDE STAFF
8	PROJECT DEPTH

SURVEY NOTES

1. REFER TO SURVEY NO. 18-123.
2. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER (MLLW) TIDAL DATUM.
3. TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW UTILIZING A HYPACK KINEMATIC TIDE DATUM (KTD) MODEL. KTD FILE NAME IS: "BROWARD-MIAMIDADE-MONROE-COLLIER_2018 05 02.KTD".
4. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
5. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE EAST ZONE OF FLORIDA AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD83).
6. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
7. DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDAL EPOCH 1983-2001 AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). A MODIFIED VERSION OF NOAA'S VDATUM MODEL WAS USED TO CALIBRATE TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS BELOW:

   NOAA TIDAL STATION 872-4580, KEY WEST, FLORIDA (PID: AA1753)
8. THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:

   REFERENCE BASE LOCATED AT "KH-04" (PID: BBCF03)
9. VERTICAL MEASUREMENTS WERE MADE USING A R2SONIC 2024 MULTI-BEAM SYSTEM OPERATING AT 240 KHZ. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.

VESSEL	DATE OF SURVEY	CUT
S/V JACKSONVILLE	29 JUL 2018	TRUMAN HARBOR
S/V JACKSONVILLE	30 JUL 2018	CUT-C, KEY WEST BIGHT TB
S/V JACKSONVILLE	01 AUG 2018	USCG BASIN, MAN OF WAR CUTS 1 & 2, KEY WEST BIGHT CUTS 1, 2 & 3
S/V JACKSONVILLE	07 AUG 2018	CUT-A, CUT-B, MAIN SHIP CH.
S/V JACKSONVILLE	08 AUG 2018	MAIN SHIP CHANNEL
SB-48	28 NOV 2018	GARRISON BIGHT CUTS 1 - 6
SB-48	29 NOV 2018	GARRISON BIGHT CUTS 6 - TB

10. AIDS TO NAVIGATION WERE LOCATED DURING THIS SURVEY.
11. 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.
12. 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.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No. Symbol Zone

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

Designed by: WRM
Drawn by: WRM
Chkd by: GMR
Proj. No. V912EP-XX-XX-XXX
Date: AUG / NOV 2018

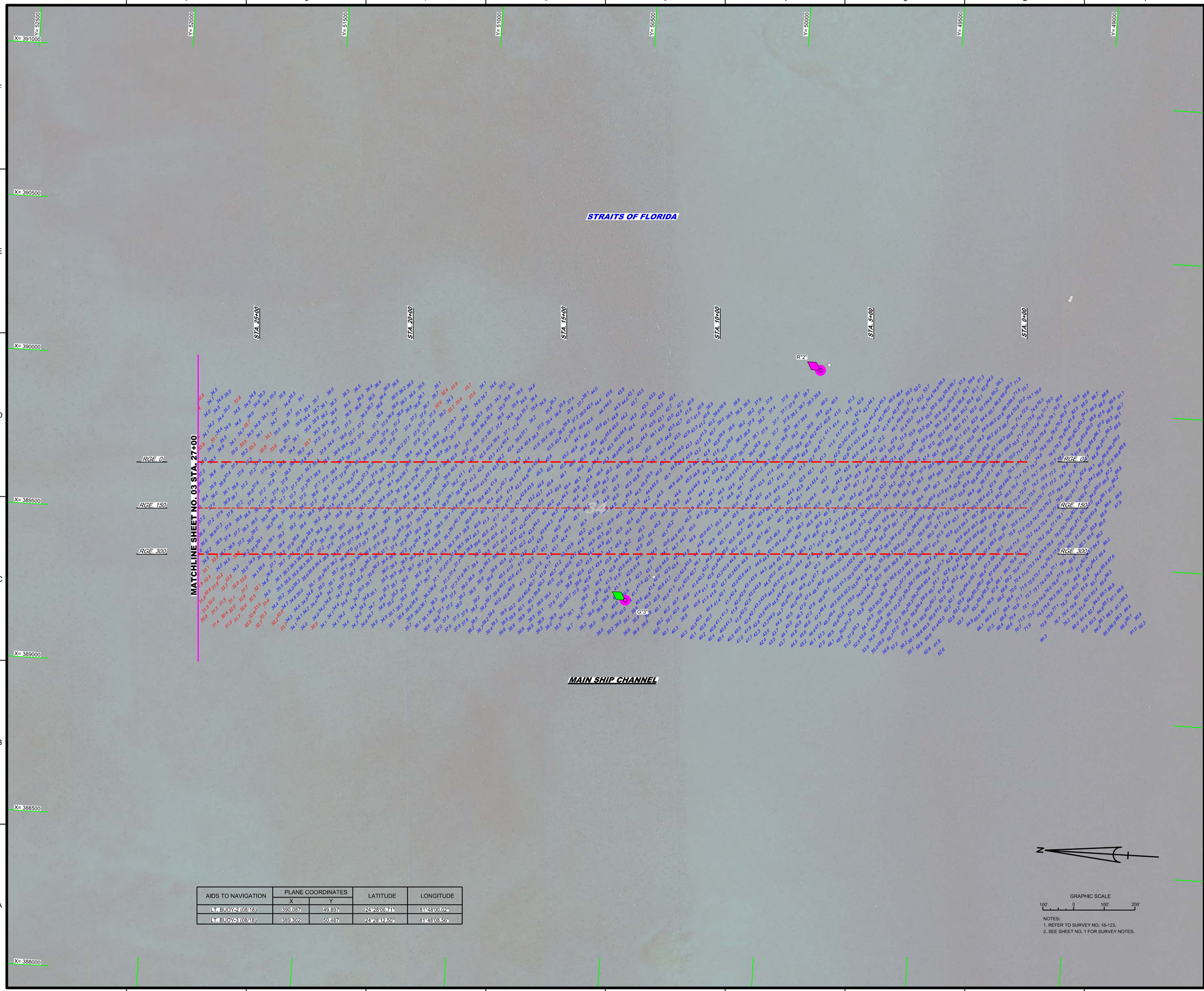
X:\XXXXXXXX-XXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
KWH_CHWB.DGN
KEY WEST HARBOR-C-NGMCF.DGN
18-123-C-BB-BRDR.DGN
Reference files:
18-123-XHH001.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT
INDEX, LOCATION AND VICINITY
MAP

Scale: AS SHOWN

Drawing no.
1

SHEET 01 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-2 (08/18)	390,087	49,897	24°28'06.71"	81°48'00.02"
LT. BUOY-3 (08/18)	389,302	50,487	24°28'12.50"	81°48'08.56"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: VIRM
Drawn by: VIRM
Checked by: CMR
Rev. No. V9912EP-XX-X-XXXX
Date: AUG 2018

Reference files:
17-XXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
18-123-A-SOUN_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-ES-BNDR.DGN
Reference files:
18-123-VH-002.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 0+00 THRU STA. 27+00 MAIN SHIP CHANNEL

PLAN

Scale: AS SHOWN

Drawing no.

2

SHEET 02 OF 26

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: VIRM
DWN by: VIRM
Ckd by: GMR
Rev. No.: V9125EP-XX-X-XXXX
Date: AUG 2018

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
18-123-ASDUM_MSC.DGN
KEY WEST HARBOR-C-NGMICCF.DGN
18-123-C-ESHBORDR.DGN
Reference files:
18-123-VH303.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 27+00 THRU STA. 54+00 MAIN SHIP CHANNEL

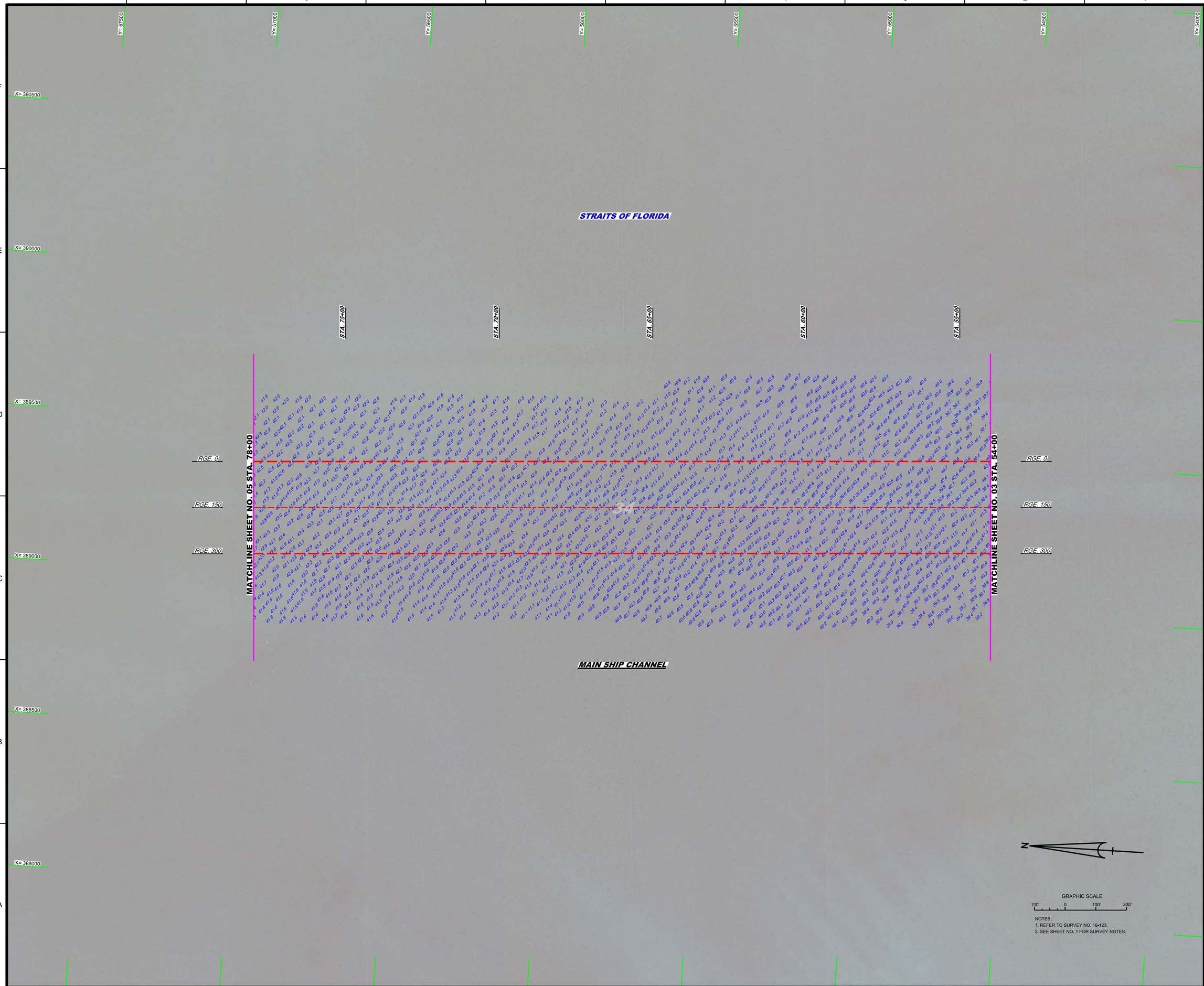
PLAN

Scale: AS SHOWN

Drawing no.

3

SHEET 03 OF 26



GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: VIRM
DWN by: VIRM
Chk'd by: CMR
Rev. No. W912EP-XX-X-XXXX
Date: AUG 2018

Reference files:
X:\XXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
18-123-X-SOUN_MSC.DGN
KEY WEST HARBOR-C-NGS\MCCF.DGN
18-123-C-SB-SRDR.DGN

File name: 18-123-VH004.DGN

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 54+00 THRU STA. 78+00 MAIN SHIP CHANNEL

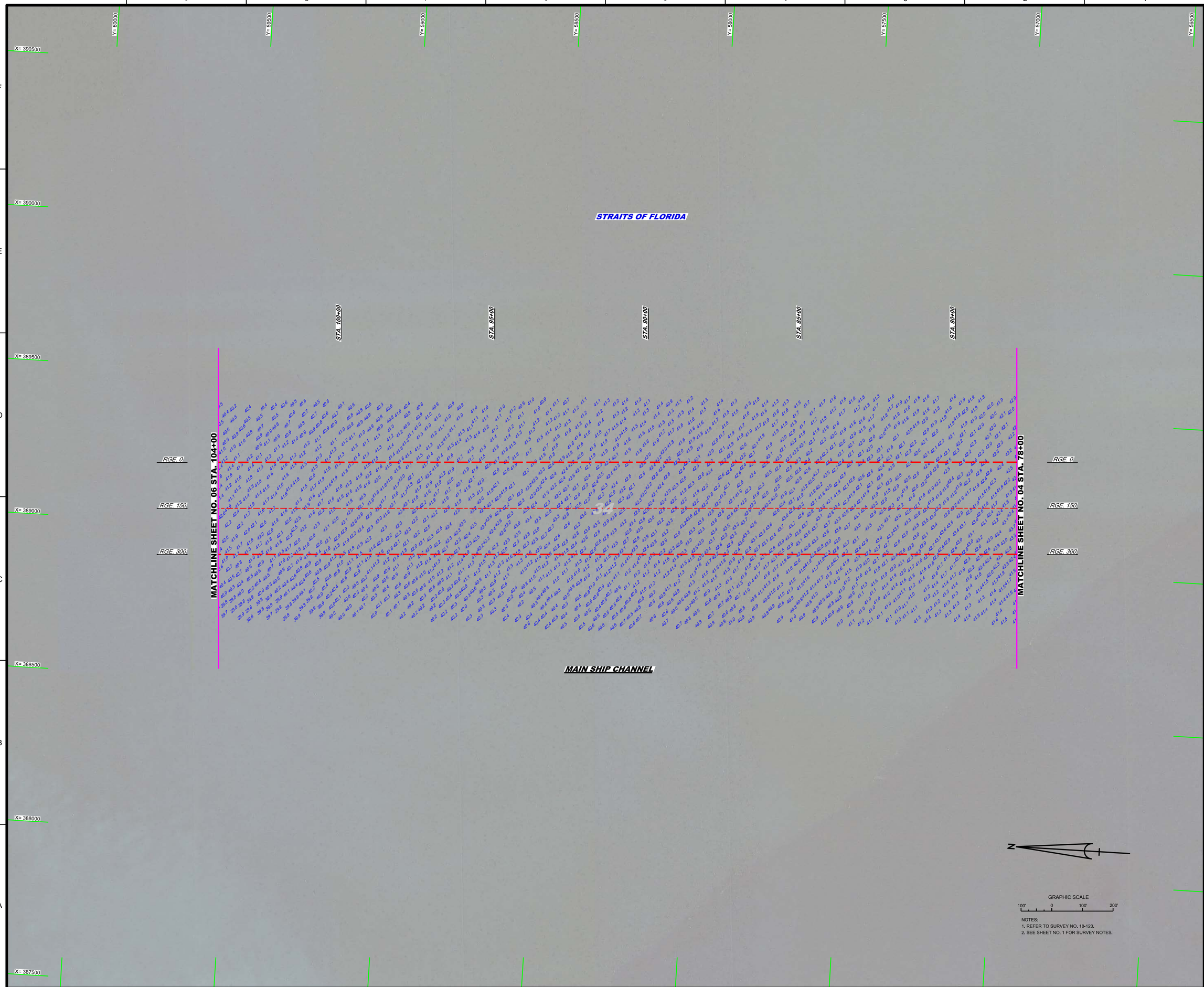
PLAN

Scale: AS SHOWN

Drawing no.

4

SHEET 04 OF 26



US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: VIRM
DWN by: VIRM
Chk'd by: CMR
Rev. No. V9123EP-XX-X-XXXX
Date: AUG 2018

XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
18-123-A-SOUN_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-ES-BNDR.DGN
Reference files:
18-123-VH-005.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 78+00 THRU STA. 104+00 MAIN SHIP CHANNEL

PLAN

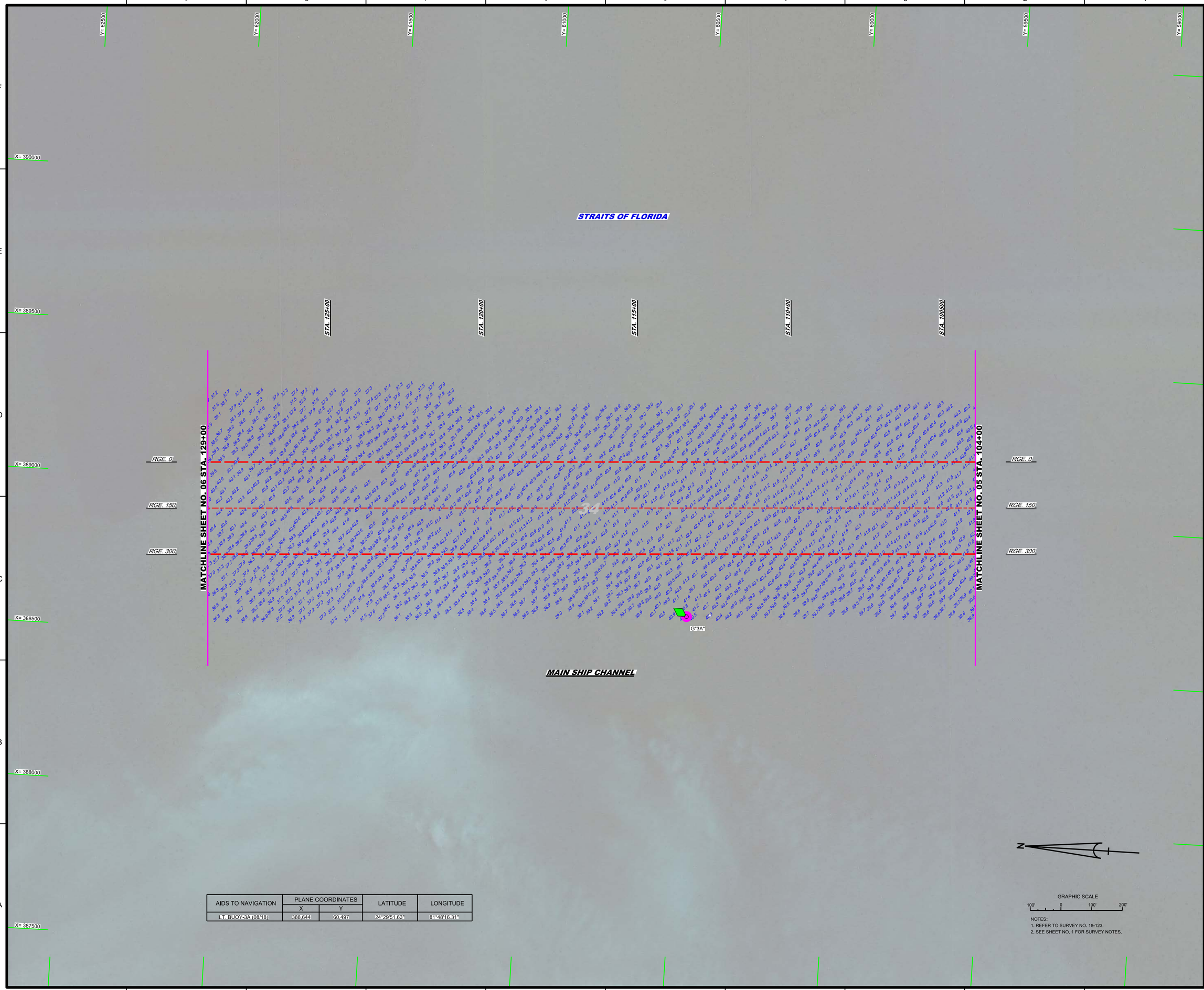
GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Scale: AS SHOWN

Drawing no.
5

SHEET 05 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-3A (08/18)	388,644	60,497	24°29'51.63"	81°48'16.31"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: WRM
DWN by: WRM
Ckd by: GMR
Proj. No. V0312EP-XX-XX-XXX
Date: AUG 2018

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
18-123-A-SOUN_MISC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-BR-BRDR.DGN
Reference files:
18-123-VR-06.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 104+00 THRU STA. 129+00 MAIN SHIP CHANNEL

PLAN

Scale: AS SHOWN

Drawing no.

6

SHEET 06 OF 26

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-5 (08/18)	388,406	64,544	20°30'31.70"	81°48'19.13"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: WRM
DWN by: WRM
Ckd by: GMR
Proj. No. V0312EP-XX-XX-XXXX
Date: AUG 2018

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
18-123-A-SOUN_MISC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-BR-BRDR.DGN
Reference files:
18-123-XHH07.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 129+00 THRU STA. 154+00 MAIN SHIP CHANNEL

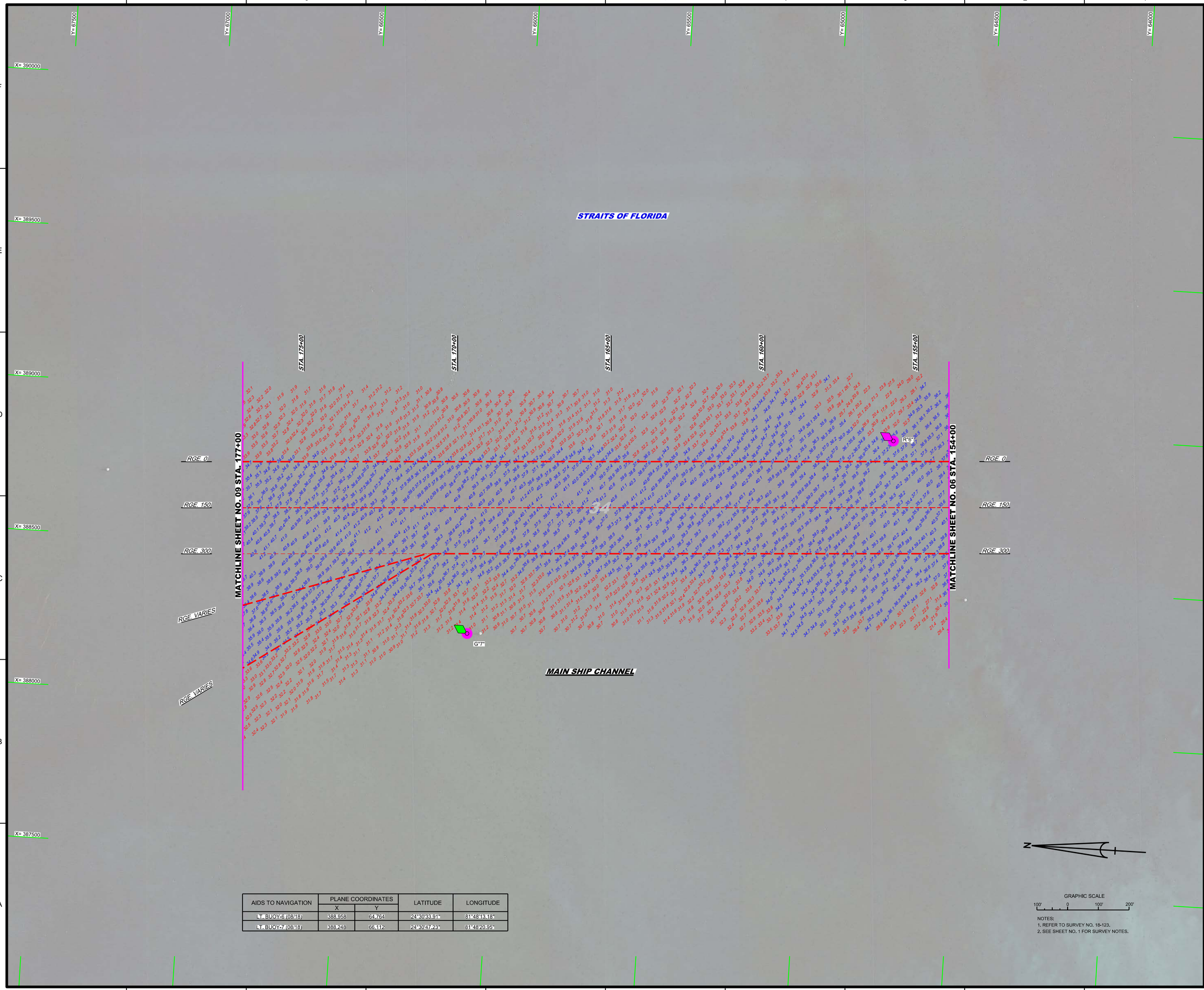
PLAN

Scale: AS SHOWN

Drawing no.

7

SHEET 07 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-6 (08/18)	388,958	64,764	24°30'33.91"	81°48'13.18"
LT. BUOY-7 (08/18)	388,248	66,112	24°30'47.23"	81°48'20.95"

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: MRM
DWN by: MRM
Ckd by: GMR
Proj. No.: V912EP-XX-XX-XXXX
Date: AUG 2018

XXXXXXXXXX-XXXXXXX.DGN
XXXXXXXXXX-XXXXXXX.DGN
18-123A-CON34.DGN
18-123A-SOUN.DGN
18-123A-SOUN_MISC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-BR-BRDR.DGN
Reference files:
18-123-VHD08.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 154+00 THRU STA. 177+00 MAIN SHIP CHANNEL

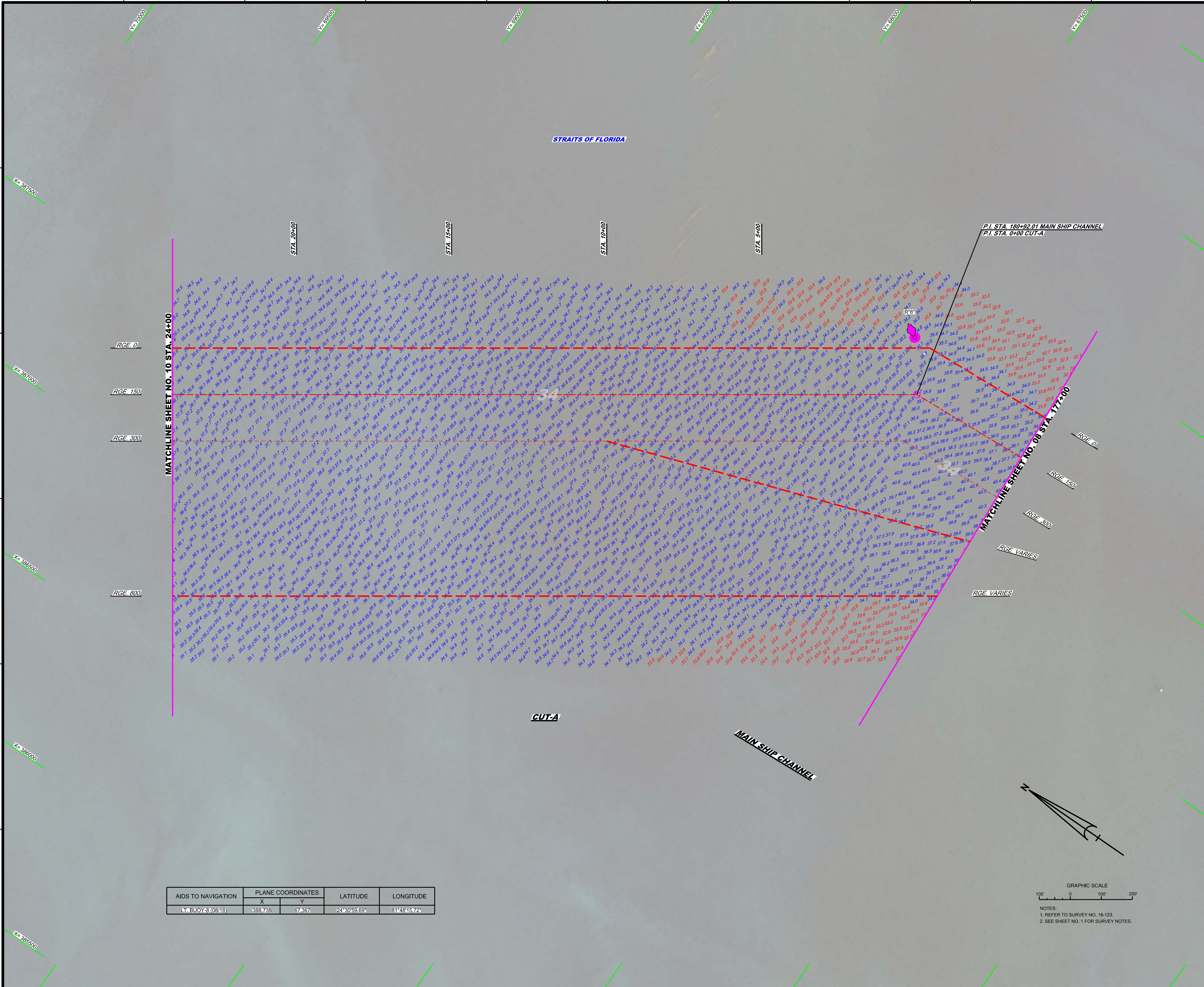
PLAN

Scale: AS SHOWN

Drawing no.

8

SHEET 08 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-8 (08/18)	388,738	67,367	24°30'59.69"	81°48'15.72"

NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No. Symbol Zone Description

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

Designed by: WRM
DWN by: WRM
Ckd by: GMR
Inv. No. W912EP-XX-X-XXXX
Dated: AUG 2018

Reference files:
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
18-123-V-NAV.DGN
18-123-V-SOUN_CTA.DGN
18-123-V-SOUN_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-G-BS-BRDR.DGN

File name: 18-123-VH-009.DGN

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

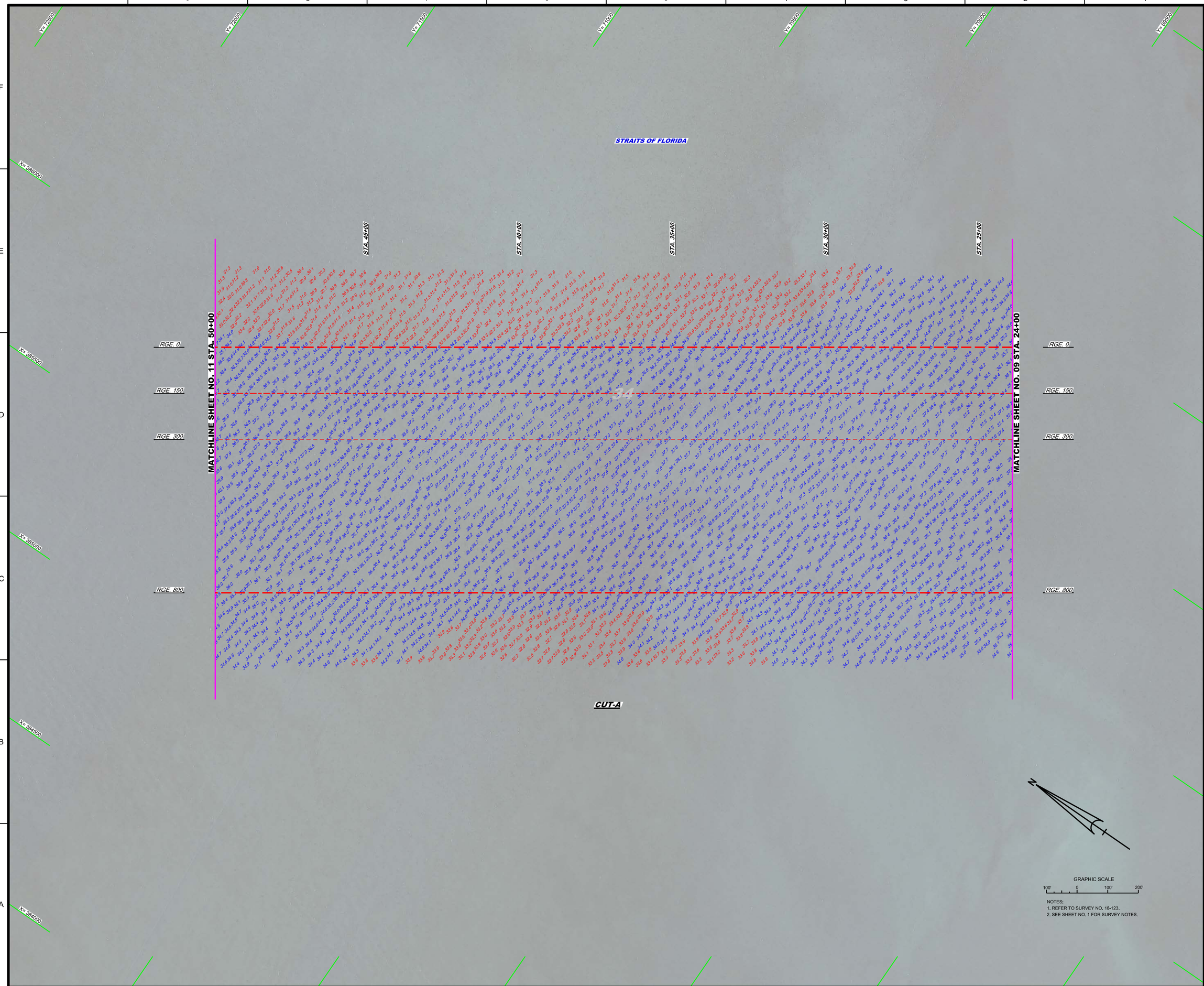
STA. 177+00 MAIN SHIP CHANNEL THRU STA. 24+00 CUT-A

PLAN

Scale: AS SHOWN

Drawing no. 9

SHEET 09 OF 26



NOTES:
1. REFER TO SURVEY NO. 18-123.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone

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

Designed by: WRM
DWN by: WRM
Ckd by: GMR
Proj. No.: V912EP-XX-XX-XX
Date: AUG 2018

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
18-123-ASQUN_CTA.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
18-123-C-BS-BRGR.DGN
Reference files
18-123-VH-010.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY18
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 24+00 THRU STA. 50+00 CUT-A

PLAN

Scale: AS SHOWN

Drawing no.

10

SHEET 10 OF 26