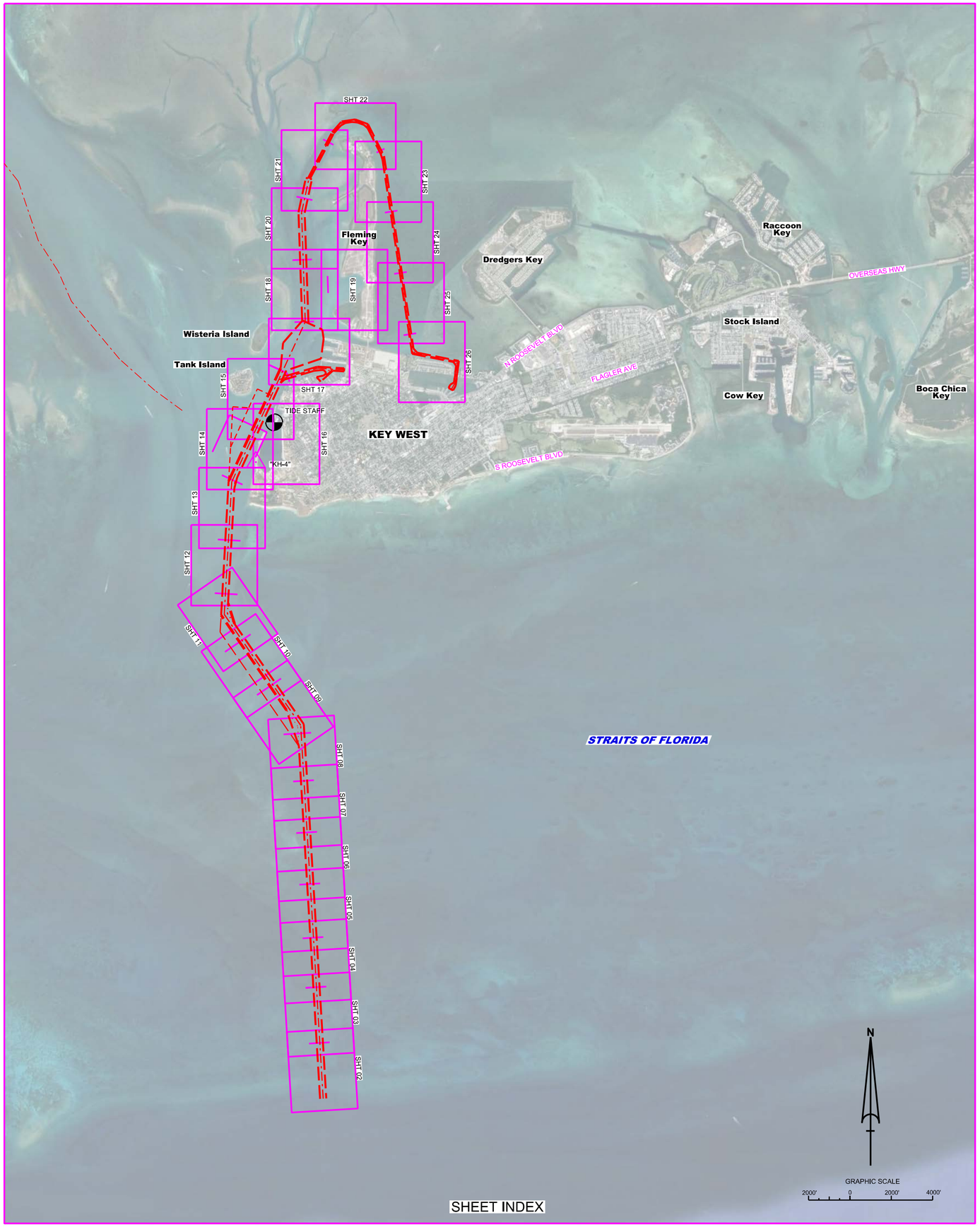
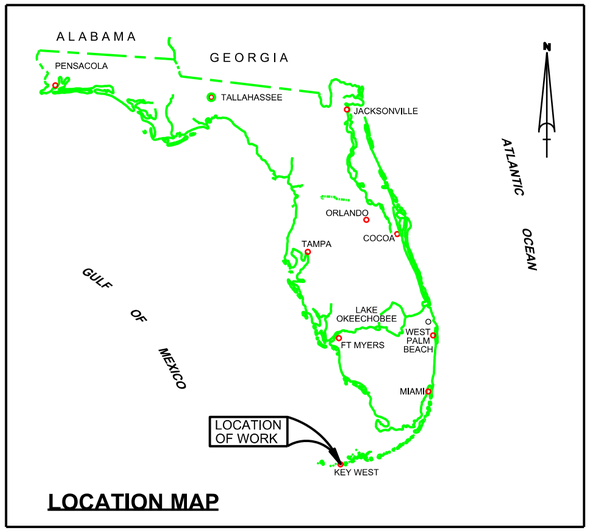




LOCATION MAP

KEY WEST HARBOR
MONROE COUNTY, FLORIDA
POST-HURRICANE IRMA
EXAMINATION SURVEY FY17
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. 17-222.
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: "KEYWEST_07JAN2011.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). NOAA'S VDATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCHMARKS ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:

   NOAA TIDAL STATION 872-4580, KEY WEST, FLORIDA
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)

   TIDE STAFF LOCATED FROM "KH-08" (PID: AA1753)
9. VERTICAL MEASUREMENTS WERE MADE USING A R2SONIC 2024 MULTI-BEAM SYSTEM OPERATING AT 240 KHZ AND A ROSS 835 SMARTSOUNDER OPERATING AT 28/200 KHZ. SOUNDINGS SHOWN ARE IN HIGH FREQUENCY.

VESSEL	DATE OF SURVEY	CUT
SV-FLORIDA II	22 SEP 2017	MAIN SHIPPING CHANNEL, CUT-A
SV-FLORIDA II	23 SEP 2017	CUT-B, CUT-C
SV-FLORIDA II	24 SEP 2017	TRUMAN HARBOR, USCG BERTHS, KEY WEST BIGHT CUTS
SV-FLORIDA II	25 SEP 2017	TURNING BASIN, KWB AND MOW CUTS
SV-FLORIDA II	26 SEP 2017	GARRISON BIGHT CUTS, AMMO DOCK

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 AND EM 1110-2-6056, STANDARDS AND PROCEDURES FOR REFERENCING PROJECT ELEVATION GRADES TO NATIONWIDE VERTICAL DATUMS, 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
DWN by: WRM
Ckd by: GMR
Proj. No. V912EP-XX-XX-XXXX
Date: SEP 2017

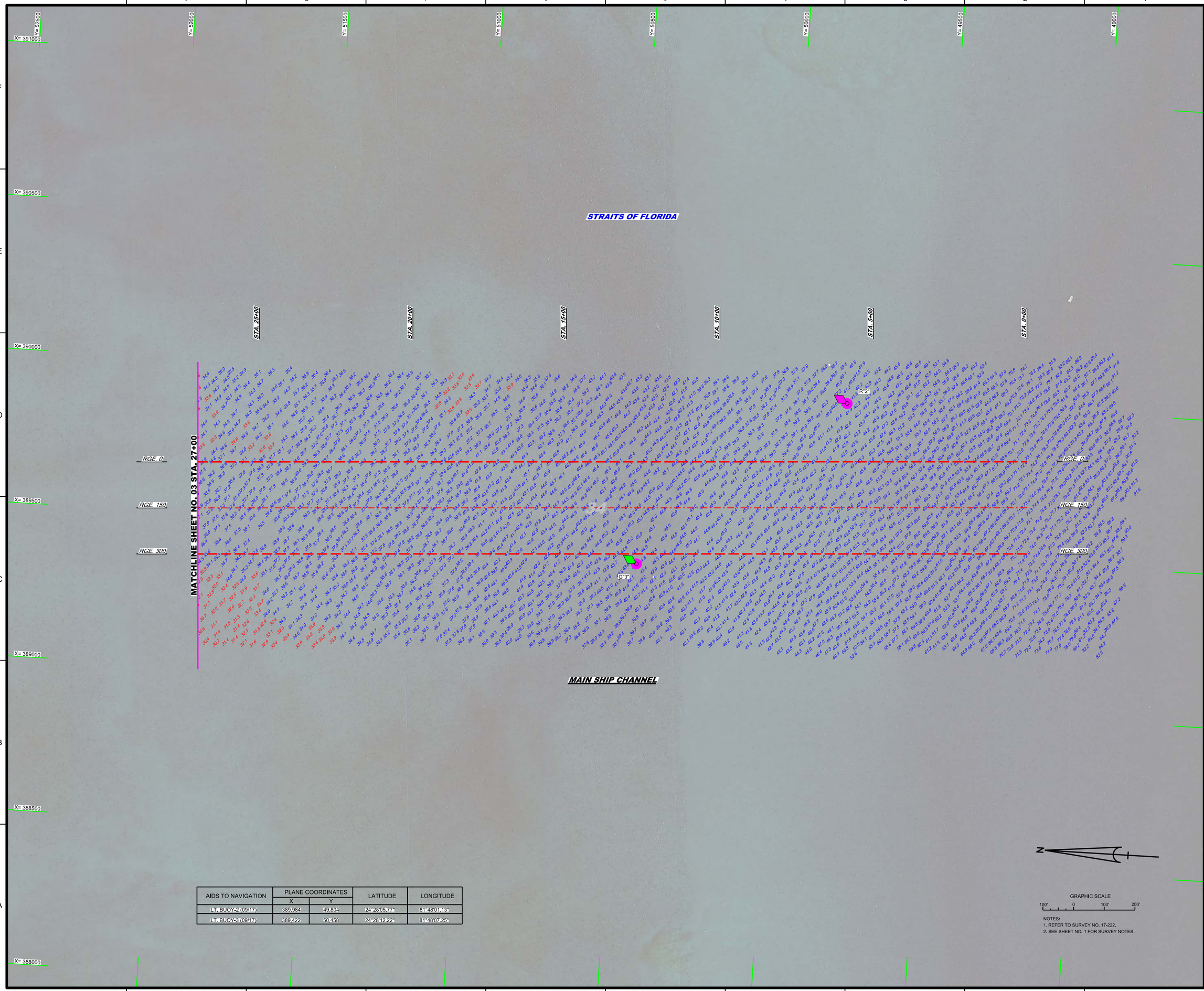
X:\XXXXXXX-X-XXXX-X.DGN
XXXXXXXX-X-XXXXX-X.DGN
XXXXXXXX-X-XXXXX-X.DGN
XXXXXXXX-X-XXXXX-X.DGN
XXXXXXXX-X-XXXXX-X.DGN
17-222-AIRD2.DGN
KWH_CHVB.DGN
17-222-X-BR-BRDR.DGN
Reference files:
File name: 17-222-XHR01.DGN

KEY WEST HARBOR
MONROE COUNTY, FLORIDA
POST-HURRICANE IRMA EXAM SURVEY FY17
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 (09/17)	389,984	49,804	24°28'05.77"	81°48'01.13"
LT. BUOY-3 (09/17)	389,422	50,458	24°28'12.22"	81°48'07.25"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 17-222.
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

Drawn by: CMR
Checked by: VWM
Designed by: VWM
Rev. No. V9123EP-XX-X-XXXX
Date: SEP 2017

I:\XXXXXXXX-X-XXXX-XX.DGN
XXXXXXXX-X-XXXXXX-XX.DGN
XXXXXXXX-X-XXXXXX-XX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
17-222-N-SOUN_MSC.DGN
KWH_CHVR.DGN
17-222-C-BS-BRDR.DGN
Reference files:
17-222-VH-002.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

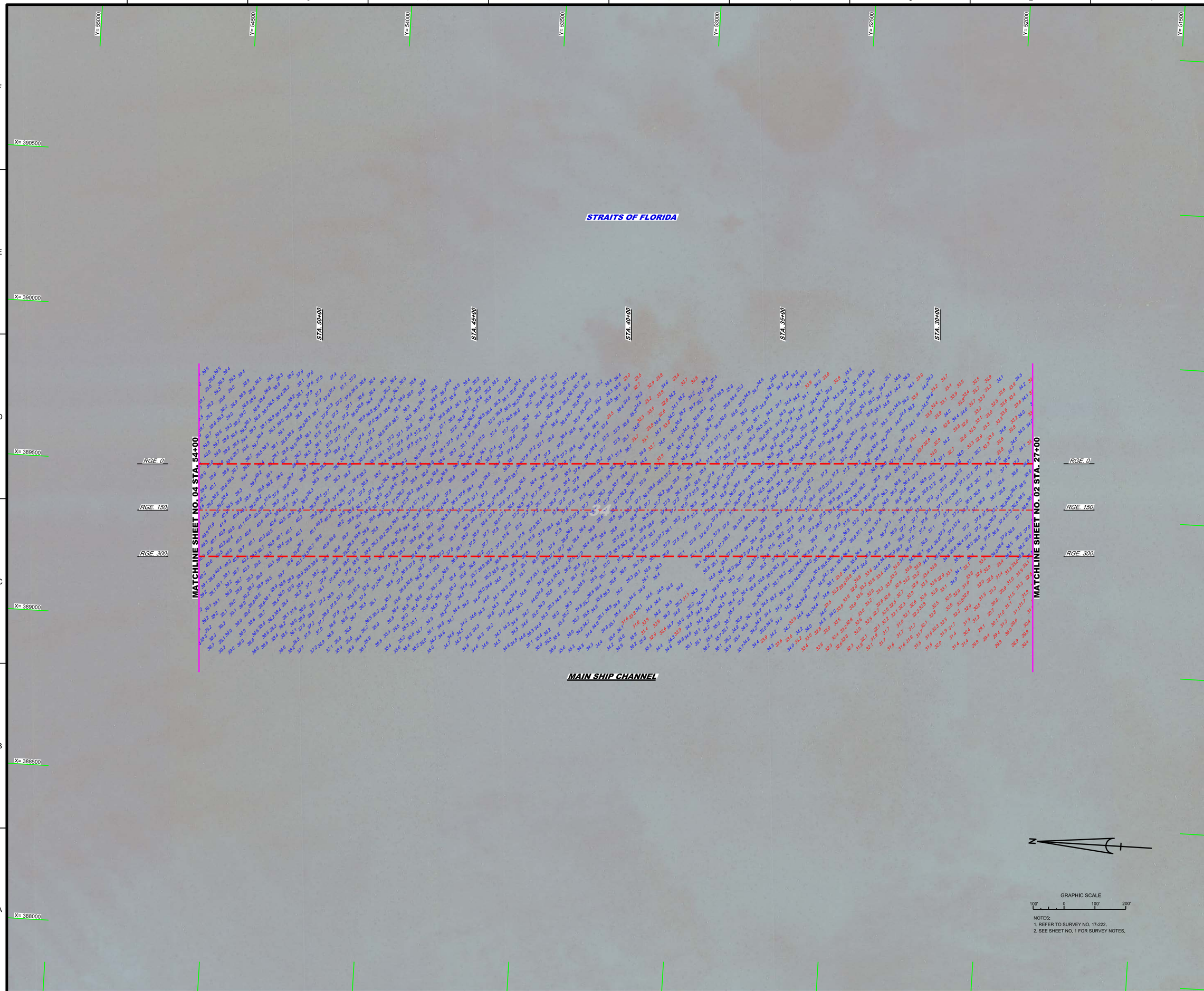
PLAN

Scale: AS SHOWN

Drawing no.

2

SHEET 02 OF 26



NOTES:
1. REFER TO SURVEY NO. 17-222.
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

Cad by: CMR
Designed by: VIRM
DWN by: VIRM
Rev. No. V9123EP-XX-X-XXXX
Date: SEP 2017

File name:	Reference files:
17-222-VH-003.DGN	17-222-H-SHORELINE.DGN XXXXXXXXX-X-XXXXXX.DGN XXXXXXXXX-X-XXXXXX.DGN XXXXXXXXX-X-XXXXXX.DGN XXXXXXXXX-X-XXXXXX.DGN XXXXXXXXX-X-XXXXXX.DGN 17-222-H-SOUNDING.DGN KWH_CHV8.DGN 17-222-H-SHORELINE.DGN

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

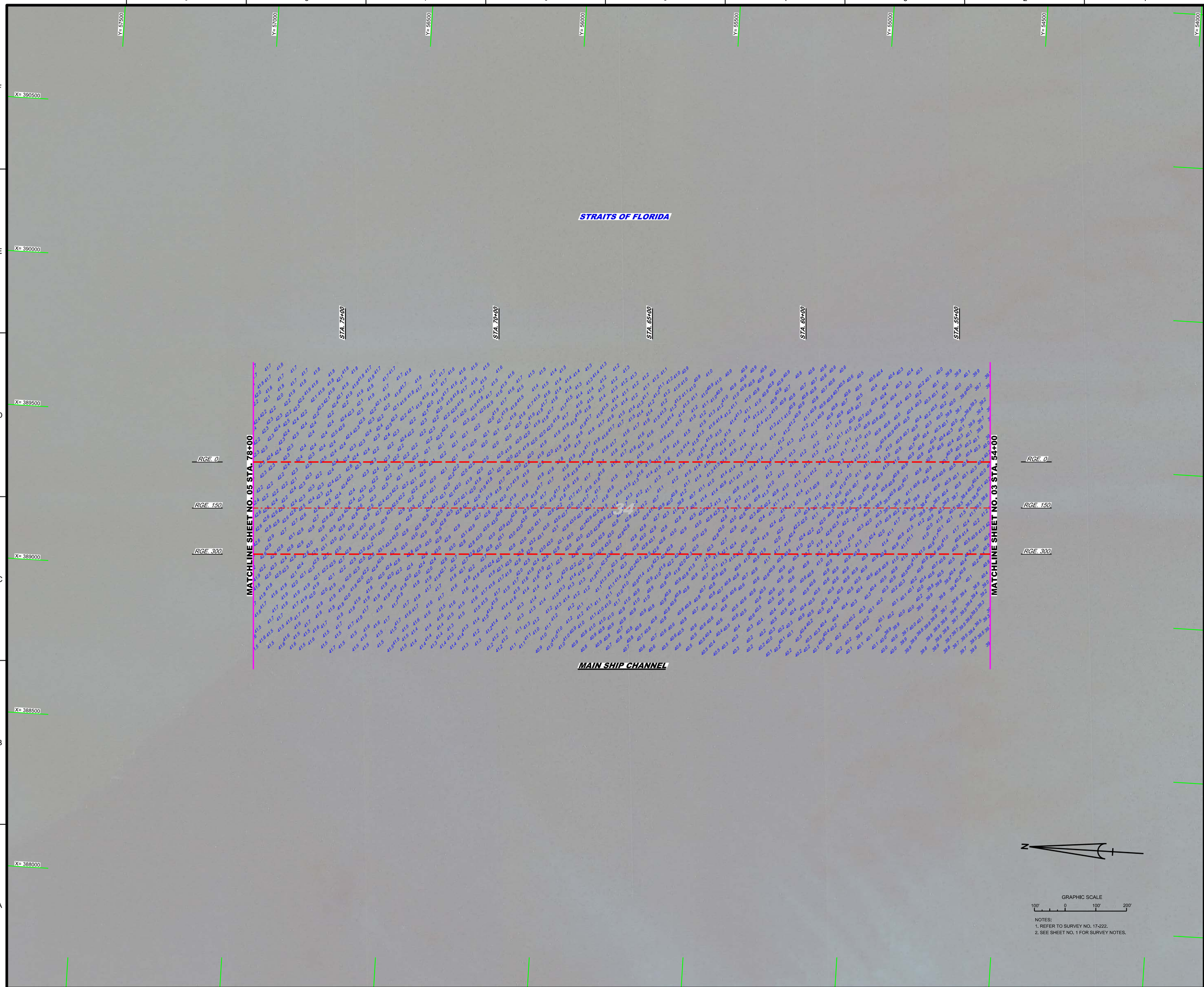
PLAN

Scale: AS SHOWN

Drawing no.

3

SHEET 03 OF 26



NOTES:
1. REFER TO SURVEY NO. 17-222.
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: CMR
Rev. No. V9123EP-XX-X-XXXX
Date: SEP 2017

I:\XXXXXXXX-X-XXXX-X.DGN
XXXXXXXX-X-XXXXXX-D.DGN
XXXXXXXX-X-XXXXXX-D.DGN
XXXXXXXX-X-XXXXXX-D.DGN
XXXXXXXX-X-XXXXXX-D.DGN
17-222-V-SOUNDING.DGN
KWI_CHVR.DGN
17-222-C-FS-SRDR.DGN
Reference files:
17-222-VH-004.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

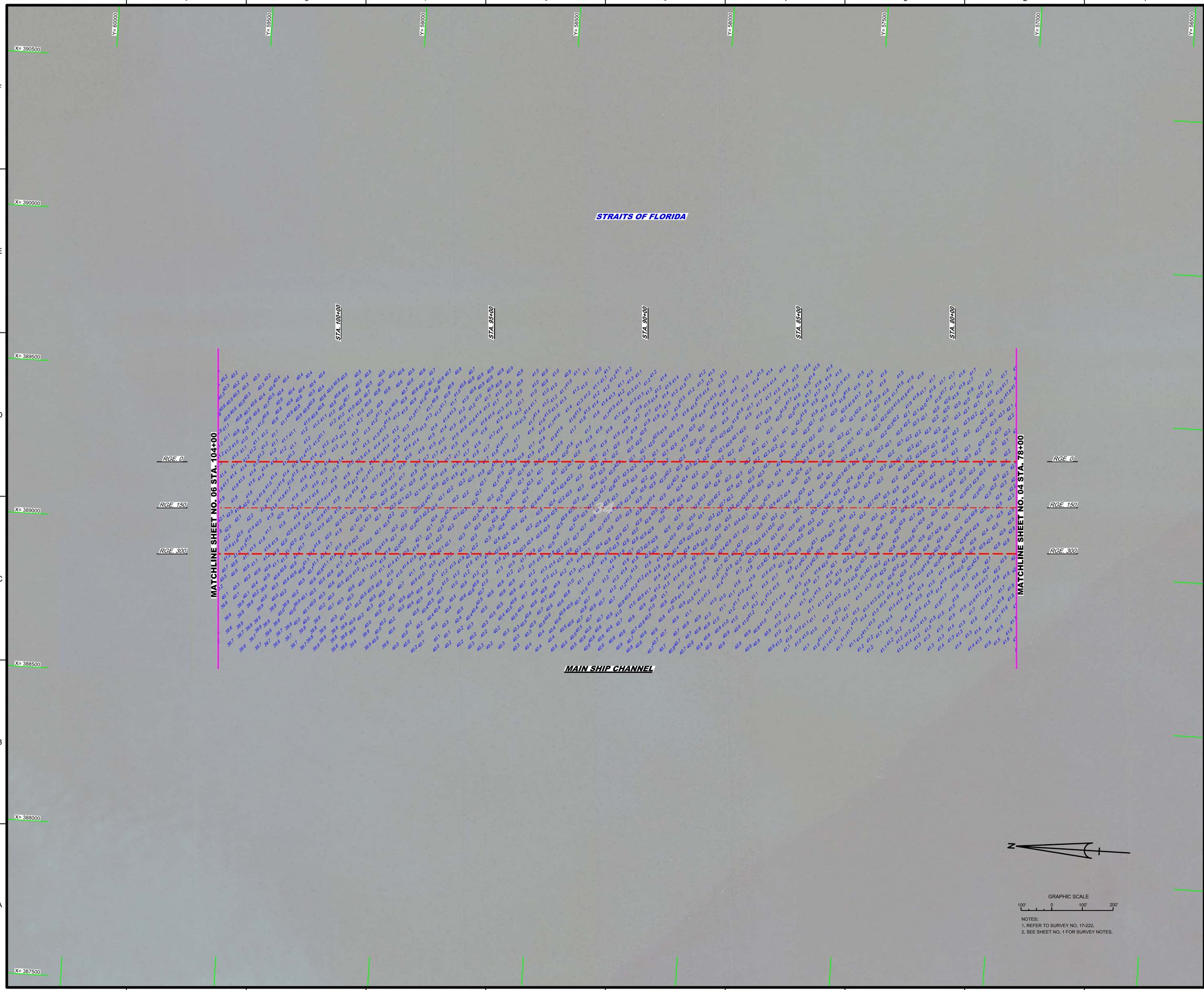
PLAN

Scale: AS SHOWN

Drawing no.

4

SHEET 04 OF 26



NOTES:
1. REFER TO SURVEY NO. 17-222.
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-XXX
Date: SEP 2017

XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
XXXXXXXXXX-XXXXXX.DGN
17-222-A-SDQA_MSC.DGN
KWH_CHWB.DGN
17-222-C-BR-BRDR.DGN
Reference files:
17-222-HH05.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

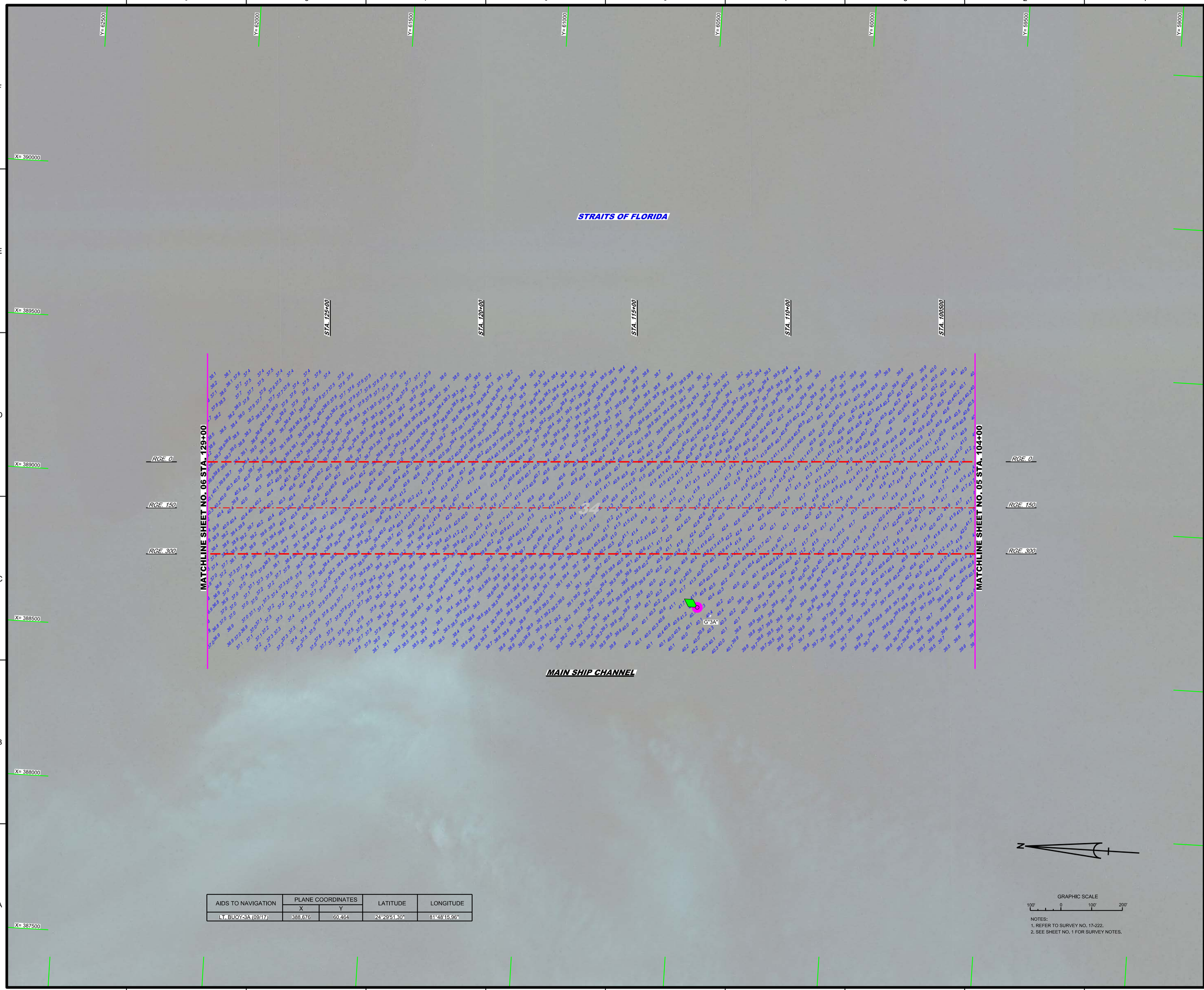
PLAN

Scale: AS SHOWN

Drawing no.

5

SHEET 05 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-3A (09/17)	388,676	60,464	24°29'51.30"	81°48'15.96"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 17-222.
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-XXX
Date: SEP 2017

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
17-222-XX-SOUN_MISC.DGN
KWH_CHVR.DGN
17-222-XX-BR-BRDR.DGN
Reference files:
17-222-XX-HH06.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

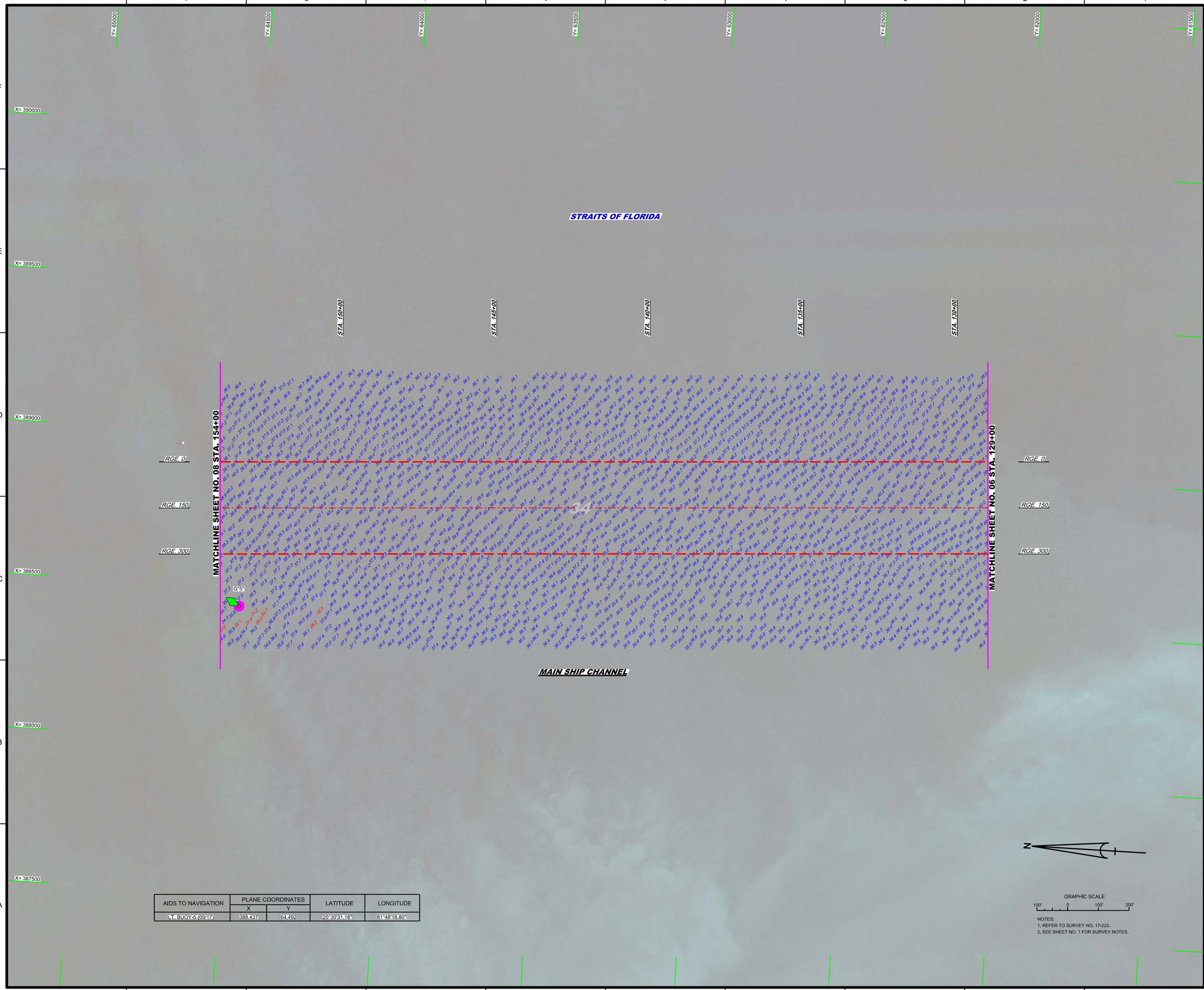
PLAN

Scale: AS SHOWN

Drawing no.

6

SHEET 06 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-5 (09/17)	388.437	64.492	20°30'31.18"	81°48'18.80"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 17-222.
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
Chd by: CMR
Rev. No. V912EP-XXX-XXXX
Date: SEP 2017

XXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXX.DGN
17-222-VHS07.DGN
17-222-MISC.DGN
XVH_CHV.DGN
17-222-Ch5-BRDR.DGN
Reference files:
17-222-VHS07.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
8, 12, 26, 30 & 34-FOOT PROJECT

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

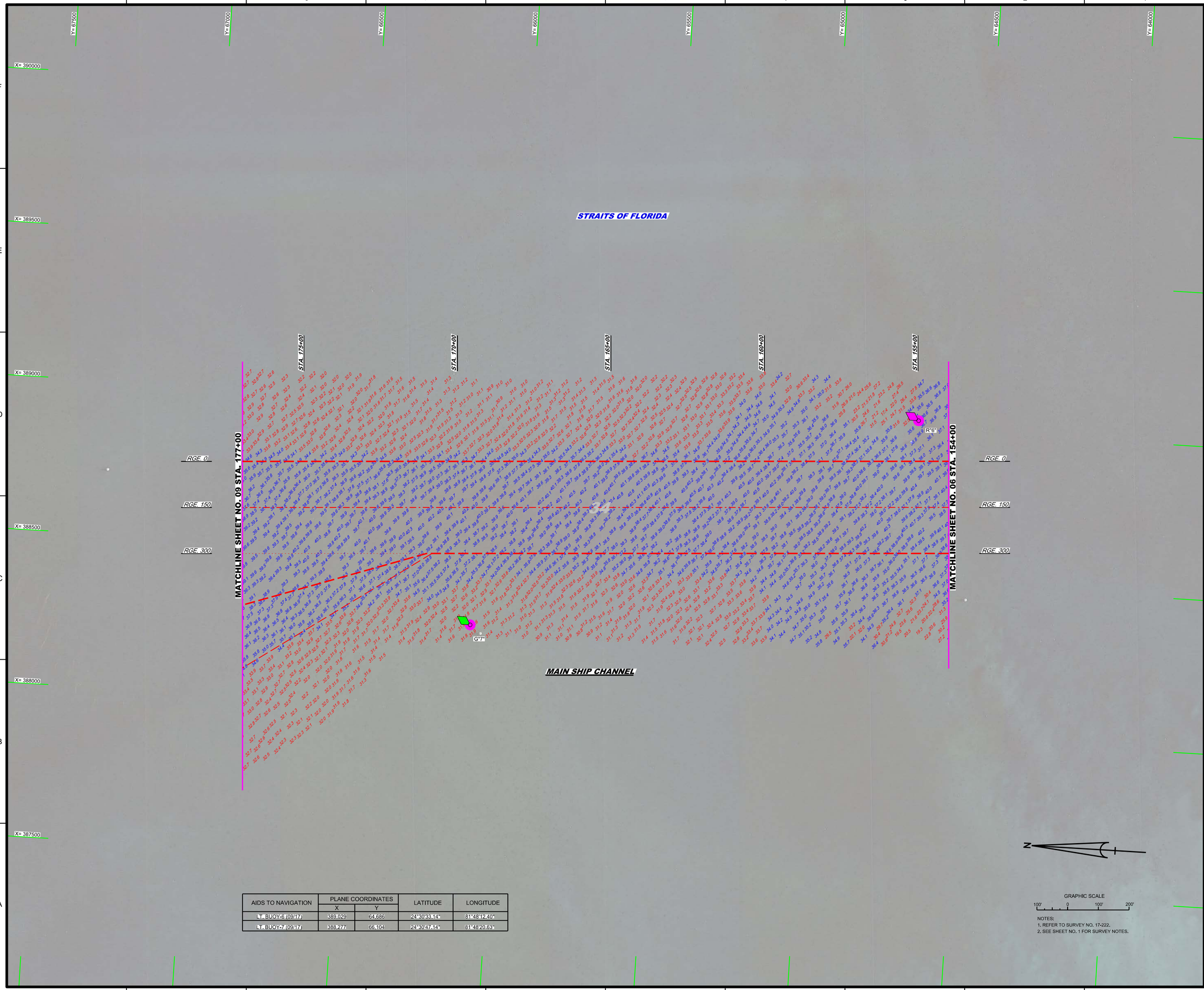
PLAN

Scale: AS SHOWN

Drawing no.

7

SHEET 07 OF 26



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-6 (09/17)	389,029	64,686	24°30'33.14"	81°48'12.40"
LT. BUOY-7 (09/17)	388,277	66,104	24°30'47.14"	81°48'20.63"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 17-222.
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. V9123EP-XX-X-XXXX
Date: SEP 2017

XXXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXX-X-XXXXX.DGN
17-222-HYDRO-XXXX.DGN
17-222-N-SOUN_MSC.DGN
KWI_CIVIL.DGN
17-222-C-PS-BRDR.DGN
Reference files:
17-222-VH008.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

POST-HURRICANE IRMA EXAM SURVEY FY17
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