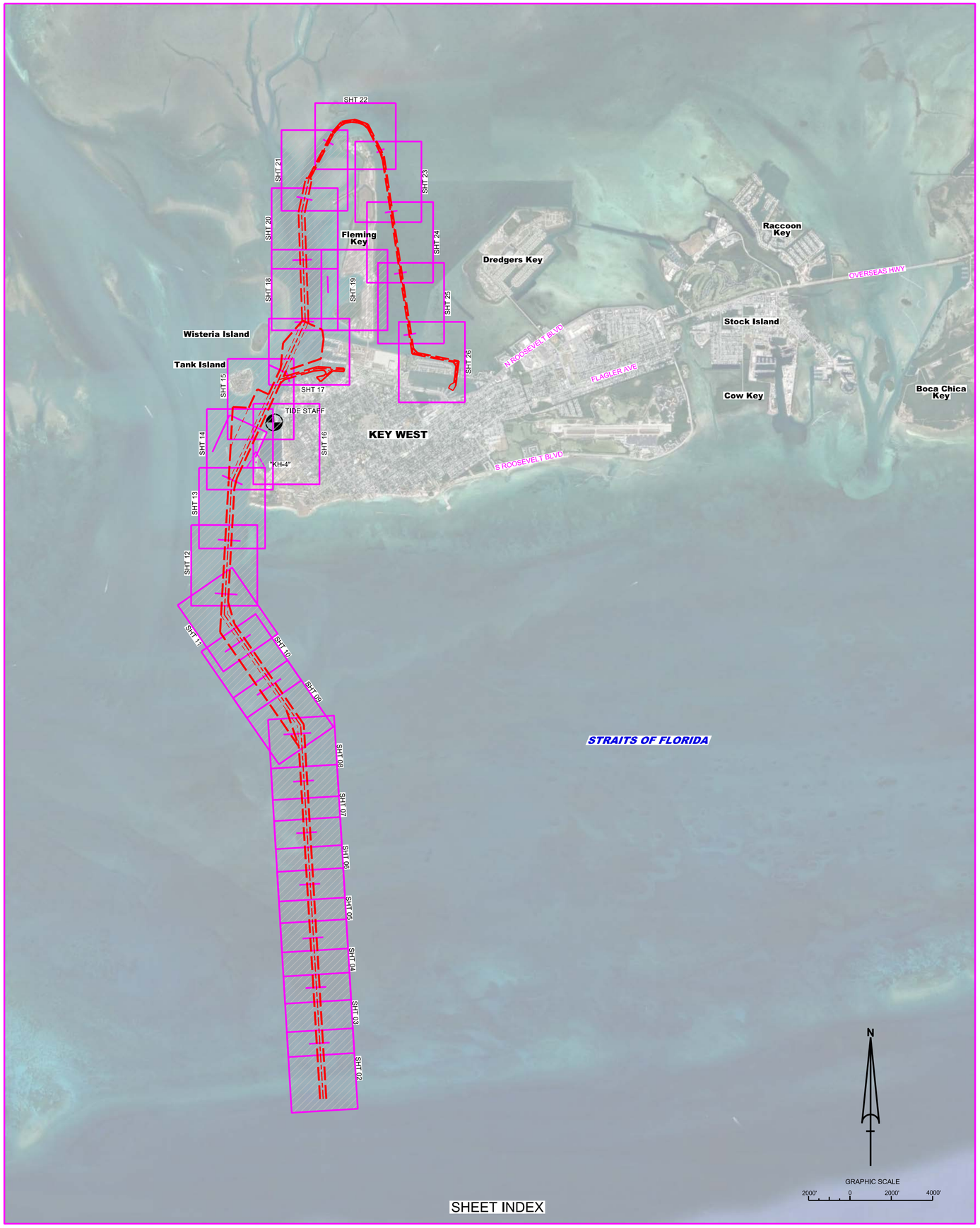
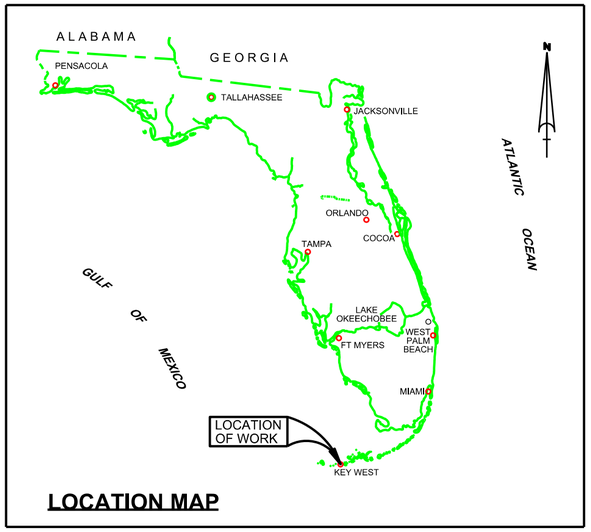




LOCATION MAP

KEY WEST HARBOR
MONROE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY19
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. 19-140.
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 2026 MULTI-BEAM SYSTEM OPERATING AT 240 KHZ AND A ROSS SMART SOUNDER 835C DUAL-FREQUENCY SOUNDER WITH A 28/200 KHZ SINGLE-BEAM TRANSDUCER. ALL SOUNDINGS SHOWN ARE IN HIGH FREQUENCY. A SEPARATE MAP SHEET ALSO SHOWS TRUMAN HARBOR IN LOW FREQUENCY.

VESSEL	DATE OF SURVEY	CUT
S/V FLORIDA II	22 AUG 2019	MAIN SHIP CH. STA. 0+00 - 90+00
S/V FLORIDA II	23 AUG 2019	MAIN SHIP CH. STA. 90+00 - 180+00, CUTS A & B
S/V FLORIDA II	25 AUG 2019	MAN OF WAR CHANNEL, CUT-C AND TRUMAN HARBOR
S/V FLORIDA II	26 AUG 2019	TURNING BASIN
S/V FLORIDA II	27 AUG 2019	TURNING BASIN, KEY WEST BIGHT CUTS 1 - 3, KWB TURING BASIN

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
DWN by: WRM
Ckd by: GMR
Proj. No. V0312EP-XX-XX-XXXX
Date: AUG 2019

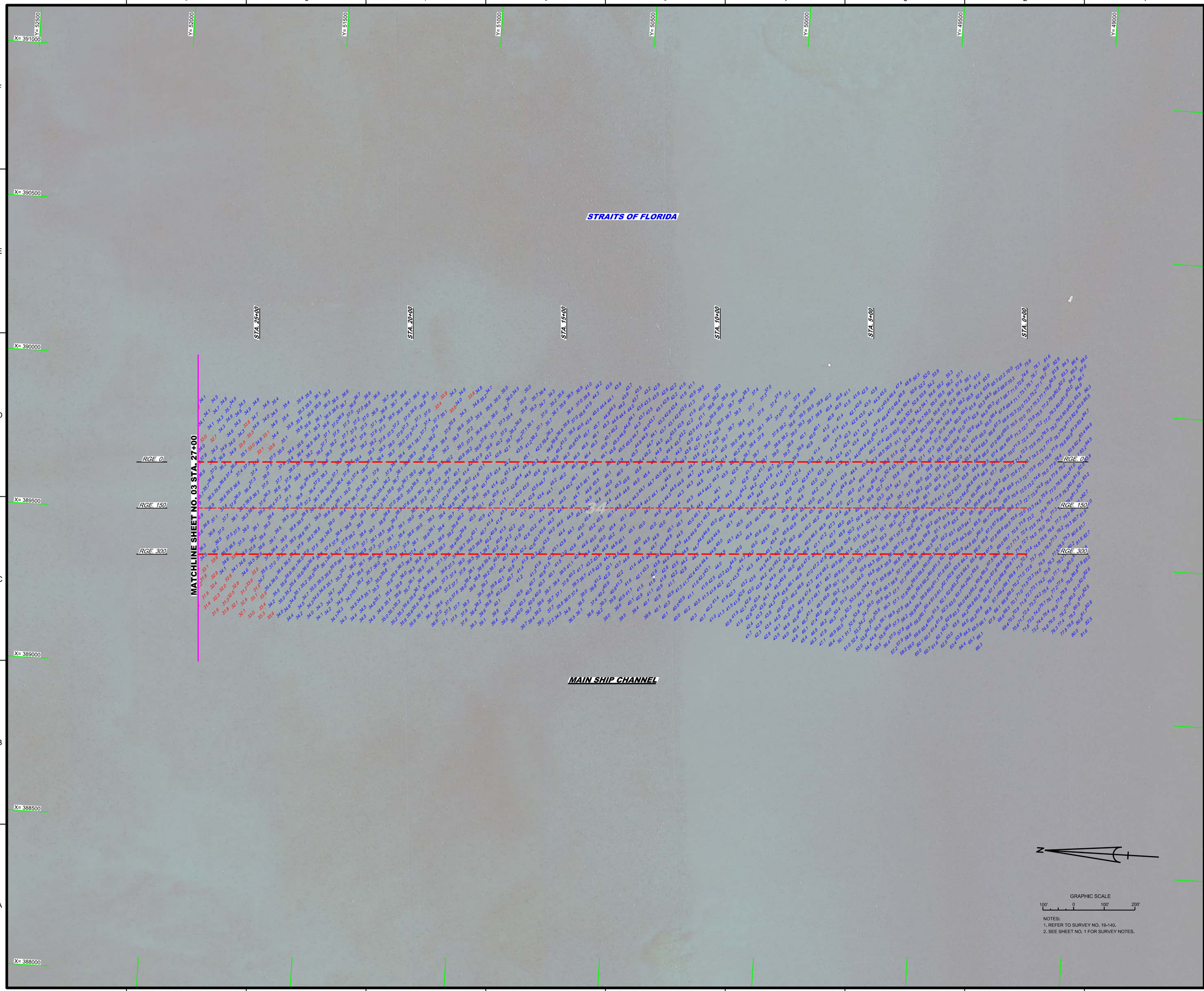
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
KH-04-XXXXXXXX.DGN
KWH_CHWB.DGN
KEY WEST HARBOR/C-NGM/CF.DGN
19-140-XX-BR/DR.DGN
Reference files:
19-140-XH001.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA
HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT
INDEX, LOCATION AND VICINITY
MAP

Scale: AS SHOWN

Drawing no.
1 / 21

SHEET 01 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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
Drawn by: WRM
Checked by: GMR
Proj. No.: V9312EP-XX-XX-XXX
Date: AUG 2019

XXXXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXXXX.DGN
19-140-A-SQUN_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-BS-BRGR.DGN
Reference files:

19-140-VR-002.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

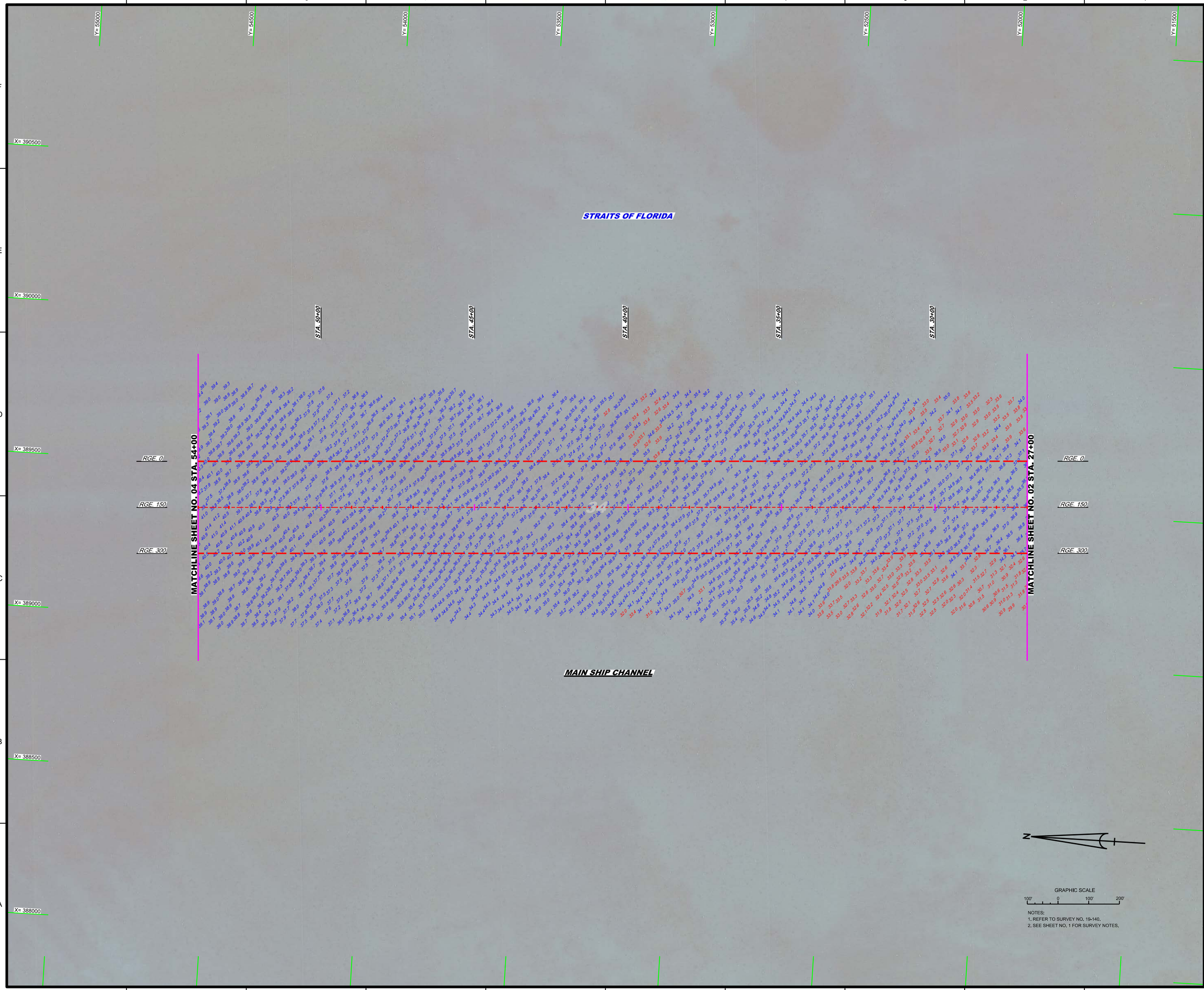
PLAN

Scale: AS SHOWN

Drawing no.

2 / 21

SHEET 02 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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. V03125P-XX-XX-XXX
Date: AUG 2019

Reference files:
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
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19-140-A-SQUAL MISC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-BR-GRDR.DGN
Reference files
19-140-VR-003.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

PLAN

Scale: AS SHOWN

Drawing no.

3 / 21

SHEET 03 OF 26

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 19-140.
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. V9912EP-XX-X-XXXX
Date: AUG 2019

LYYXXXXXX-X-XXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
19-140-X-SOUN_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-ES-BNDR.DGN
Reference files:
19-140-VH-004.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

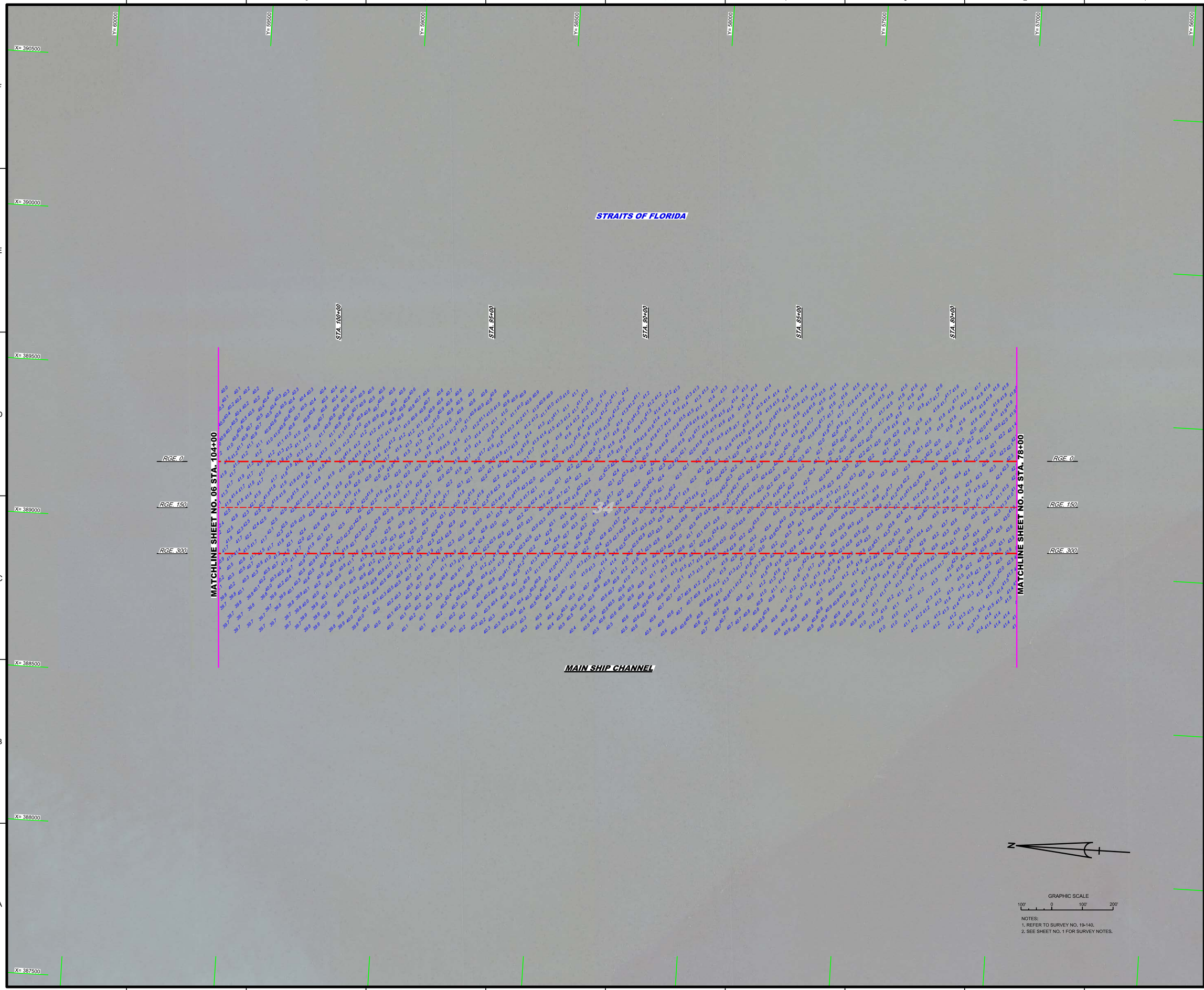
PLAN

Scale: AS SHOWN

Drawing no.

4 / 21

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-XX-XXXX
Date: AUG 2019

LYNX-XXXX-X-XXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
XXXXXXXX-XXXXXXX.DGN
19-140-A-SCUM_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-ES-BNDR.DGN
Reference files:
19-140-VH-005.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

PLAN

N

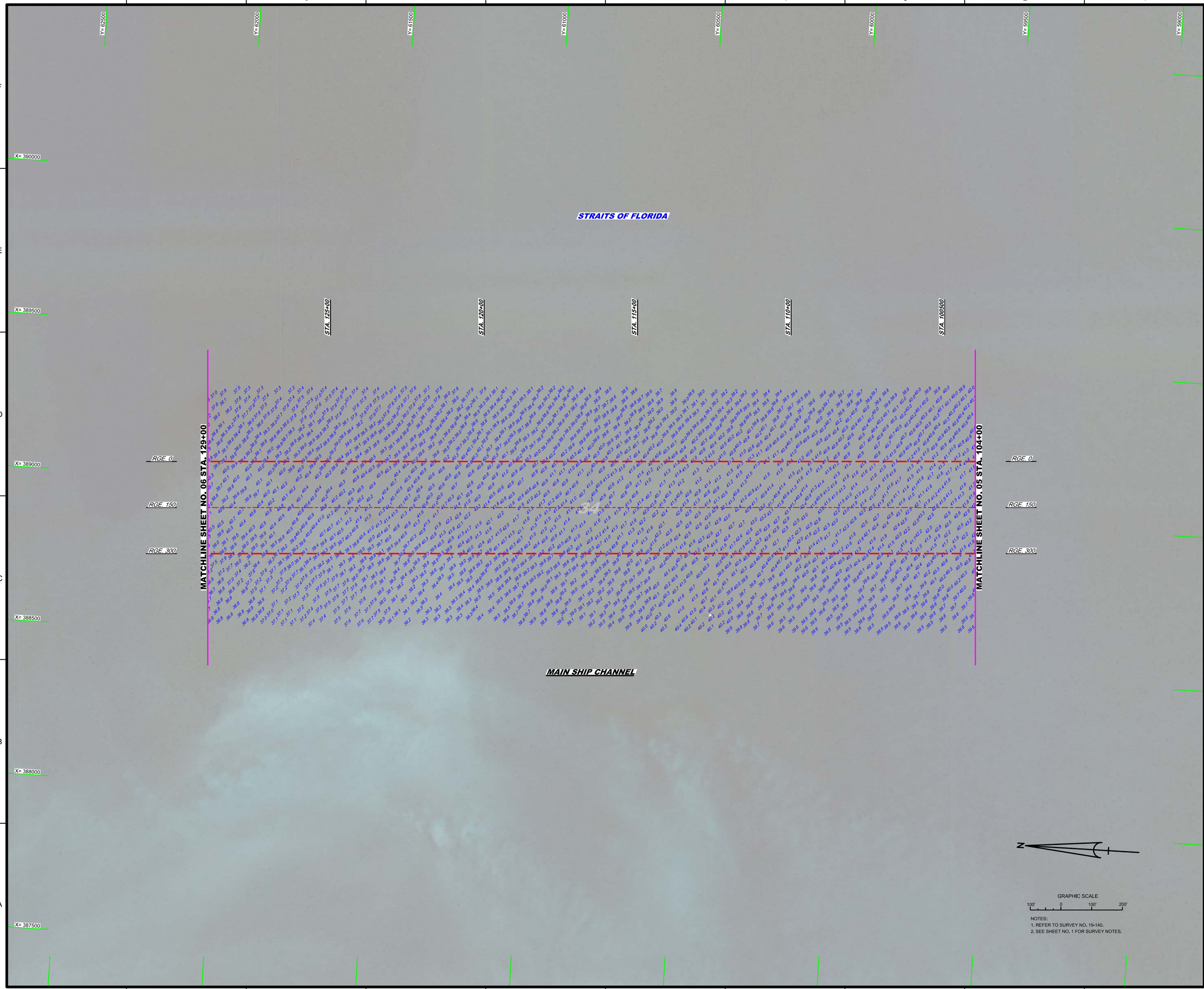
GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 19-140.
2. SEE SHEET NO. 1 FOR SURVEY NOTES.

Scale: AS SHOWN

Drawing no.
5 / 21

SHEET 05 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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. XX912EP-XX-X-XXXX
Date: AUG 2019

Reference files:
19-140-VHD06.DGN
19-140-VHD05.DGN
19-140-C-XXXXXX.DGN
XXXXXXXX-XXXXXX.DGN
XXXXXXXX-XXXXXX.DGN
XXXXXXXX-XXXXXX.DGN
XXXXXXXX-XXXXXX.DGN
19-140-VSQUIL_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-ESBRDR.DGN

File name: 19-140-VHD06.DGN

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

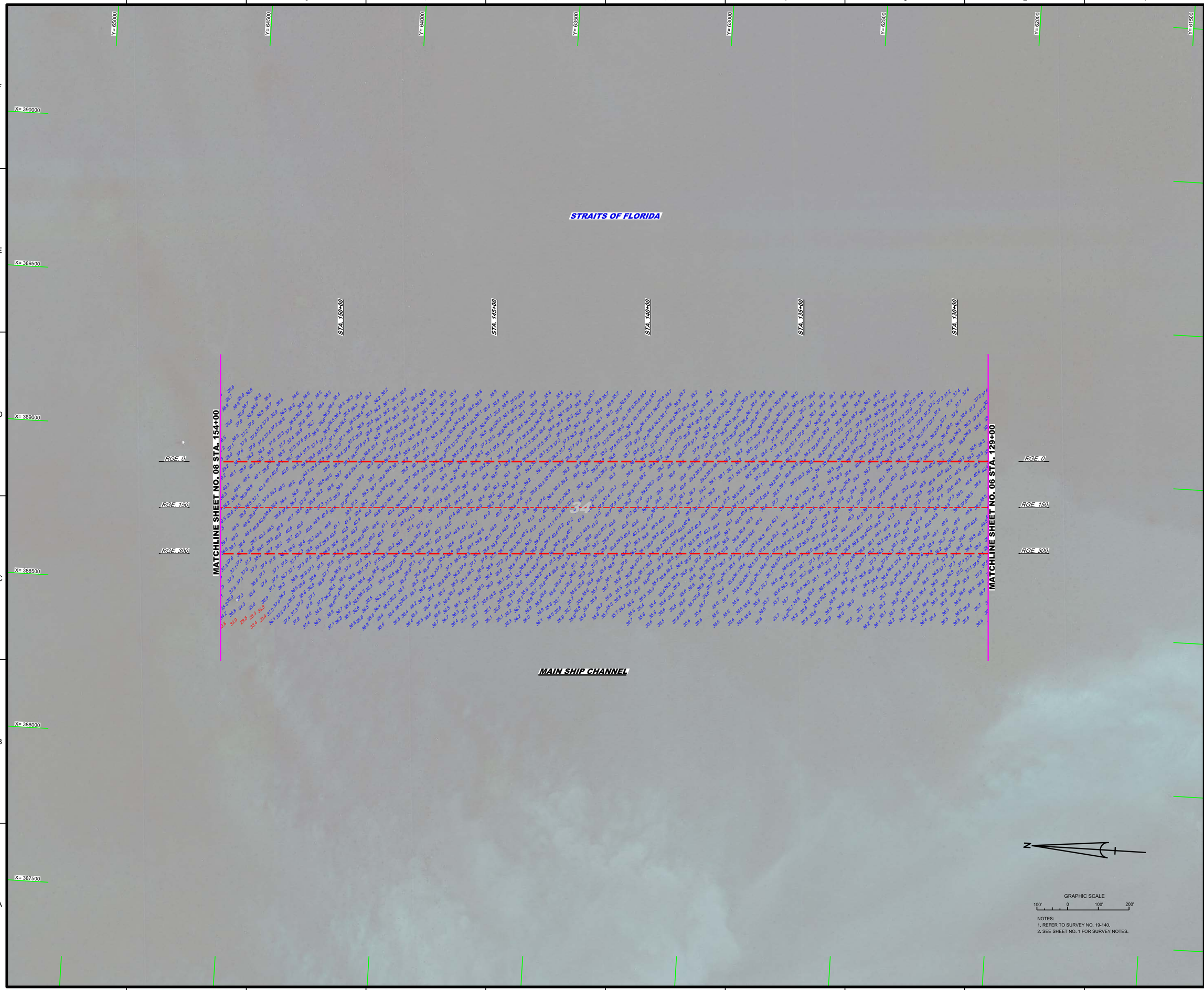
PLAN

Scale: AS SHOWN

Drawing no.

6 / 21

SHEET 06 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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. V9123EP-XX-X-XXXX
Date: AUG 2019

LYYXXXXXXX-X-XXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
XXXXXXXX-X-XXXXXX.DGN
19-140-X-SOUNDING.DGN
19-140-X-SUM_MSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-ES-SHDR.DGN
Reference files:
19-140-VH-007.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

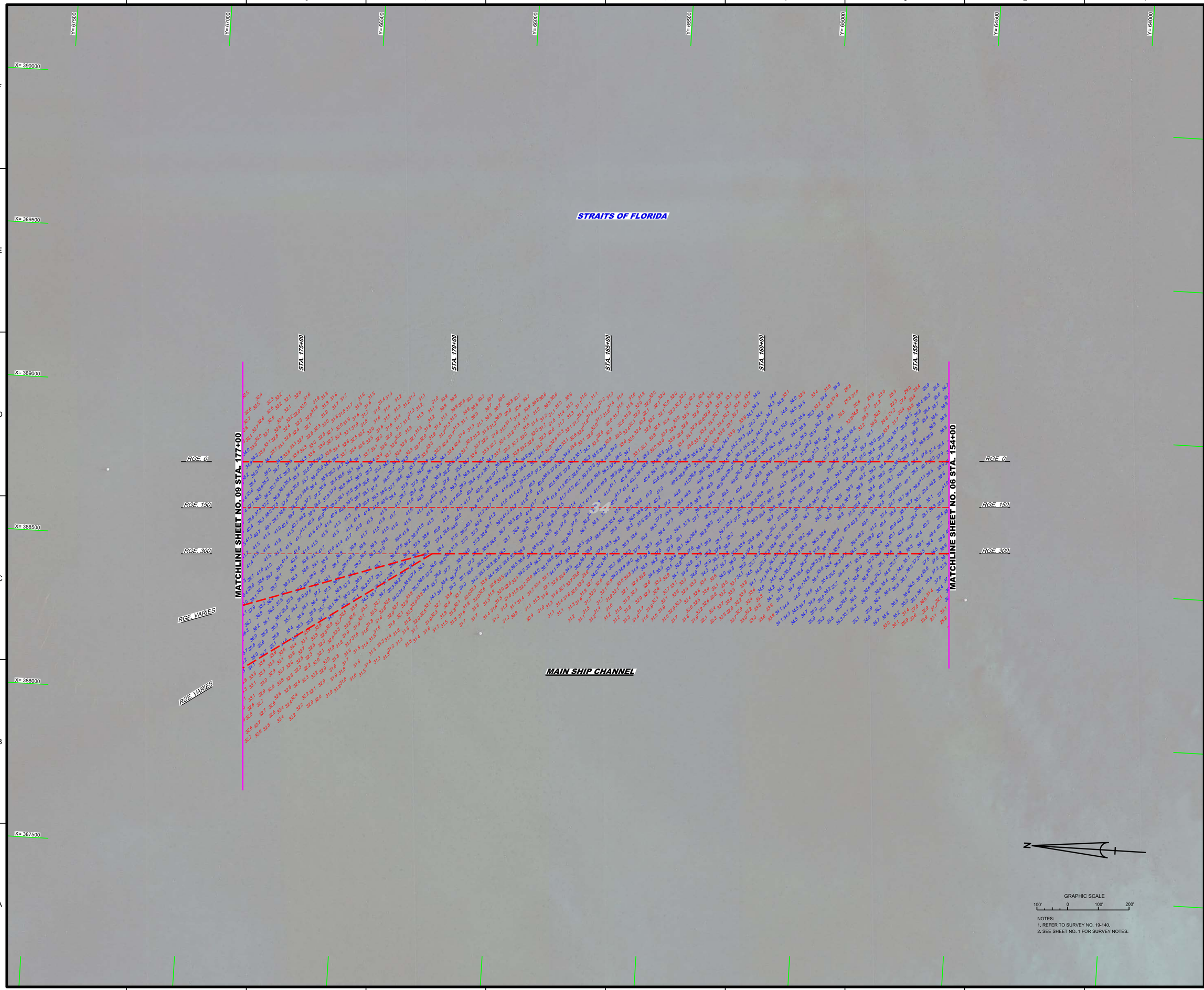
PLAN

Scale: AS SHOWN

Drawing no.

7 / 21

SHEET 07 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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. V0312EP-XX-XX-XX
Date: AUG 2019

XXXXXXXXXX-XXXXXXX.DGN
XXXXXXXXXX-XXXXXXX.DGN
XXXXXXXXXX-XXXXXXX.DGN
XXXXXXXXXX-XXXXXXX.DGN
19-140-A-SDVN_MISC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-BR-BRDR.DGN
Reference files:
19-140-VR-008.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

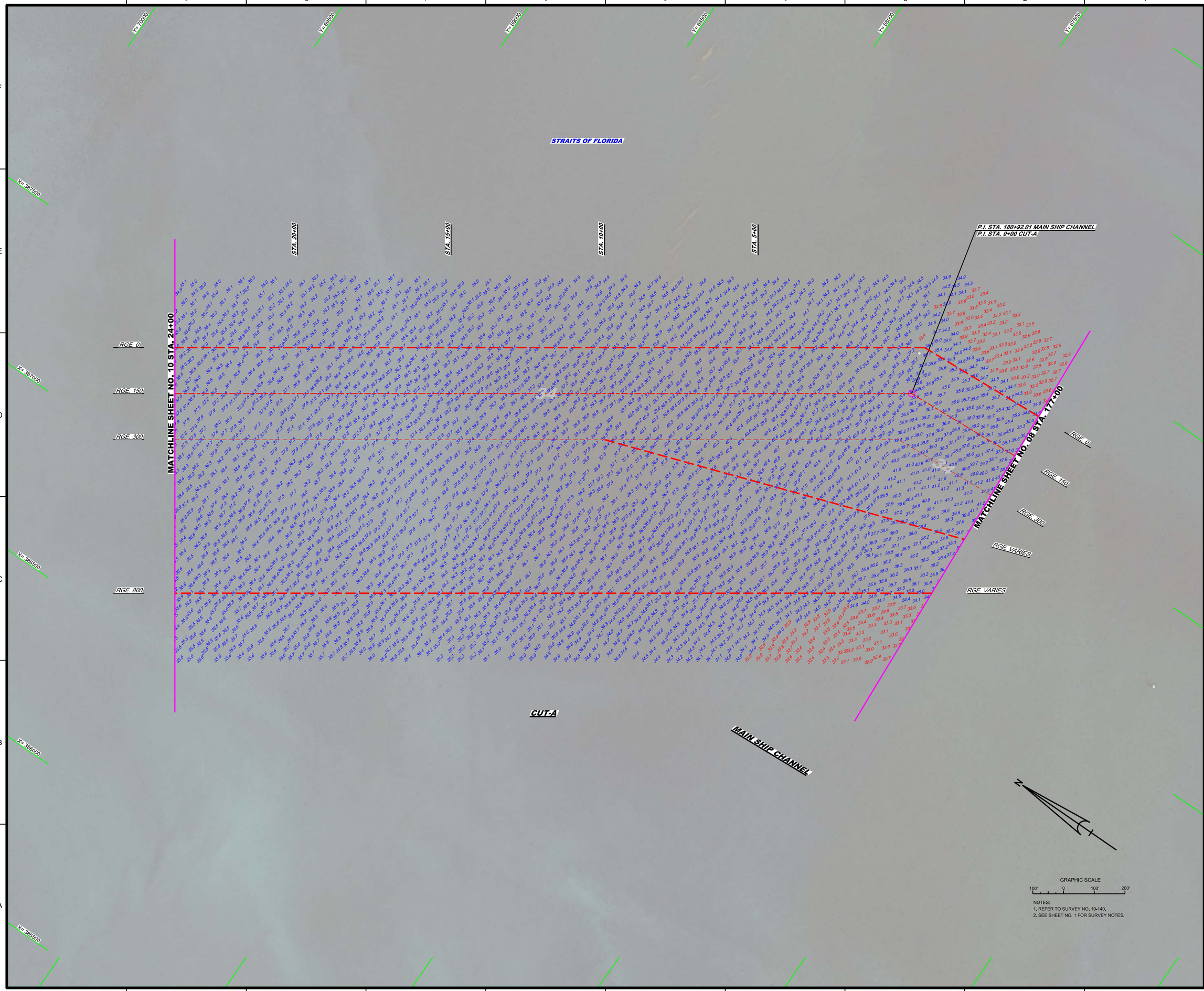
PLAN

Scale: AS SHOWN

Drawing no.

8 / 21

SHEET 08 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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 2019

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
19-140-A-SOUN_INSC.DGN
KEY WEST HARBOR-C-NGMCCF.DGN
19-140-C-BS-BRGR.DGN
Reference files
19-140-VH-009.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

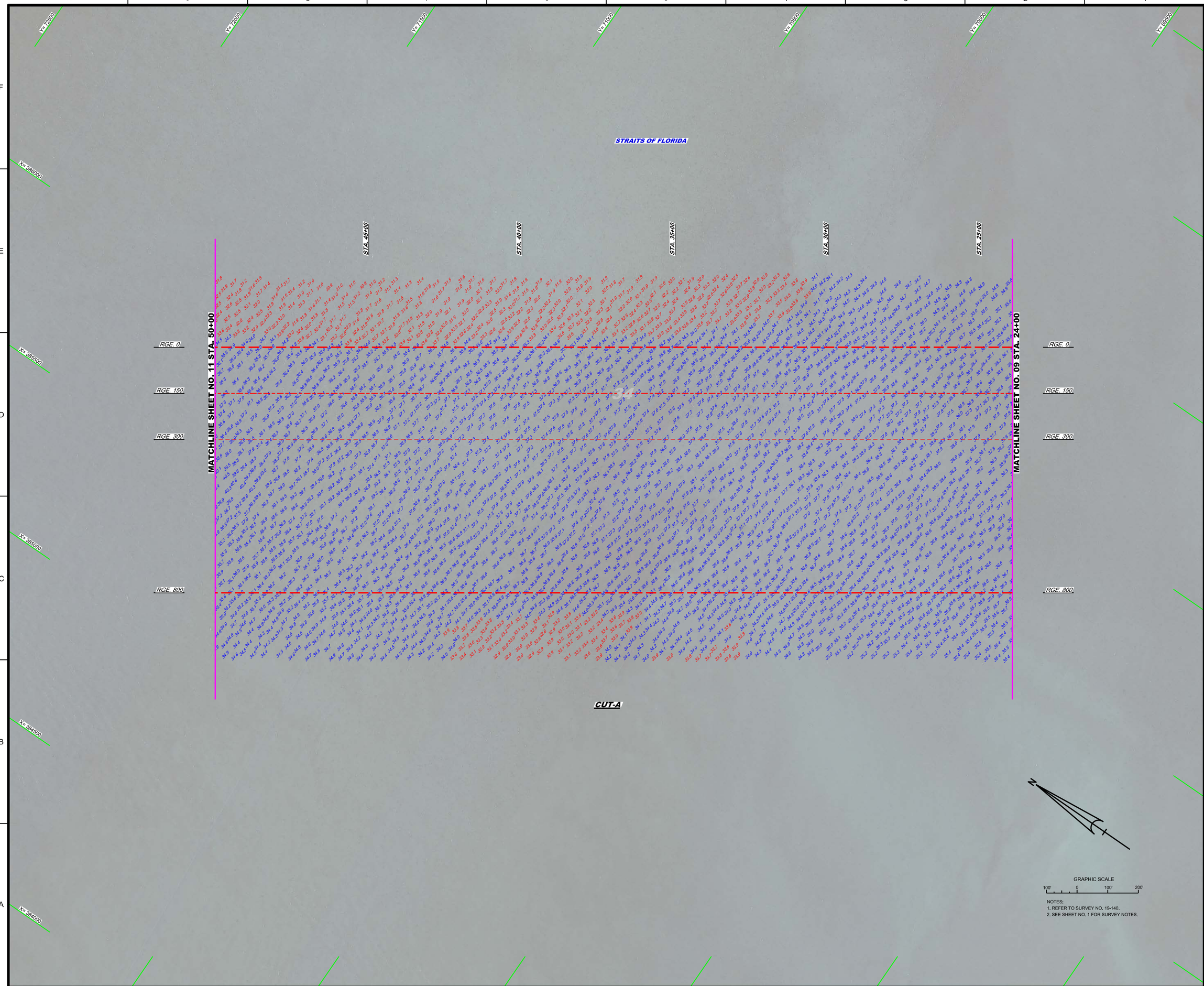
PLAN

Scale: AS SHOWN

Drawing no.

9 / 21

SHEET 09 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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 2019

Reference files:
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X:\XXXXXXXX-X-XXXXX.DGN
X:\XXXXXXXX-X-XXXXX.DGN
X:\XXXXXXXX-X-XXXXX.DGN
19-140-A-SOUN_CTA.DGN
KEY WEST HARBOR-C-NGMCF.DGN
19-140-C-ES-BKDR.DGN
Title block:
19-140-VH-010.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

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

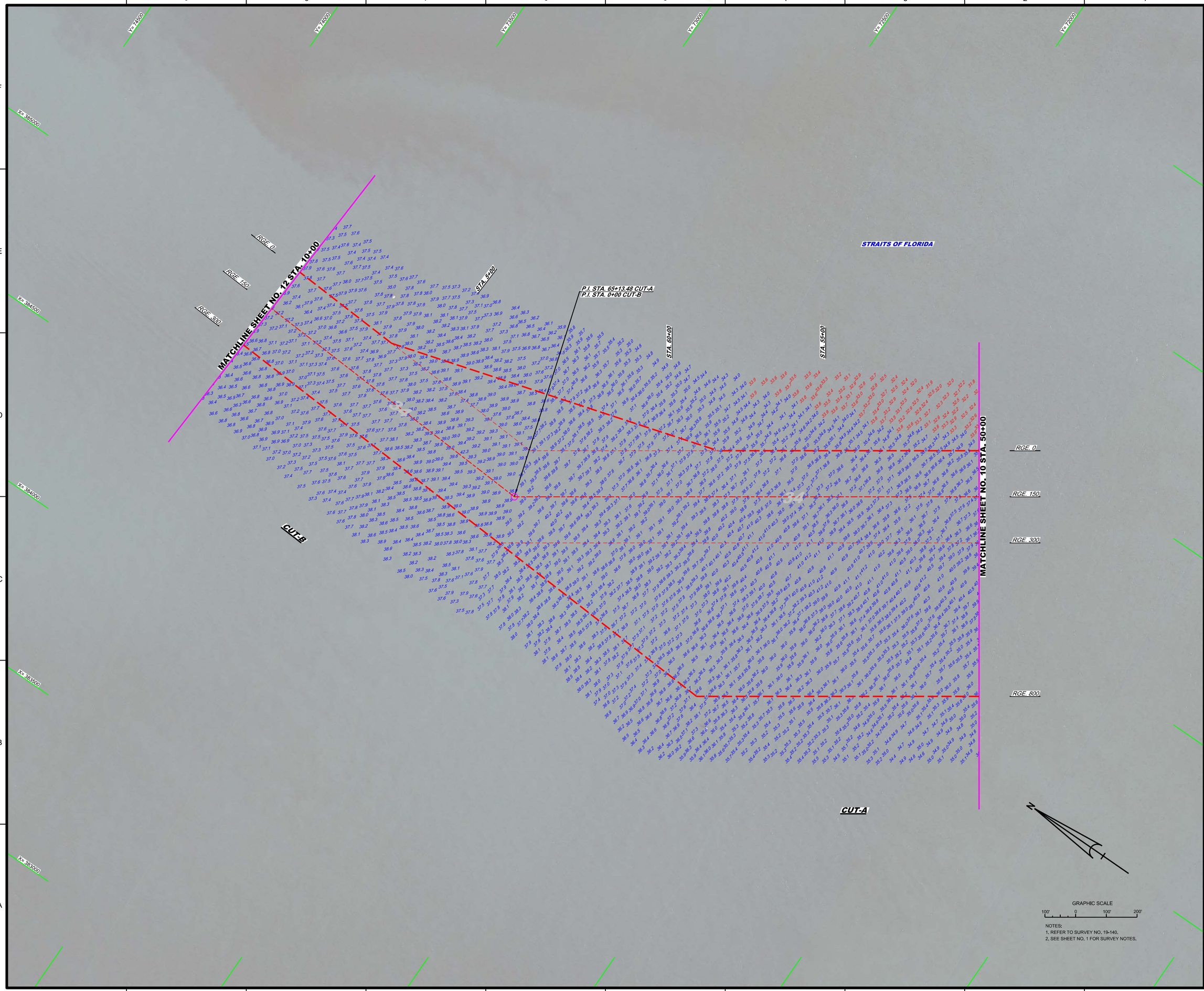
PLAN

Scale: AS SHOWN

Drawing no.

10 / 21

SHEET 10 OF 26



NOTES:
1. REFER TO SURVEY NO. 19-140.
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. V03125-P-XX-XX-XX
Date: AUG 2019

XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
19-140-A-SOUN_CTA.DGN
KEY WEST HARBOR-C-NGM/CCF.DGN
19-140-C-BR-BRDR.DGN
Reference files:
19-140-VH-011.DGN
File name:

KEY WEST HARBOR
MONROE COUNTY, FLORIDA

HYDROGRAPHIC EXAM SURVEY FY19
8, 12, 26, 30 & 34-FOOT PROJECT

STA. 50+00 CUT-A THRU STA. 10+00 CUT-B

PLAN

Scale: AS SHOWN

Drawing no.

11 / 21

SHEET 11 OF 26