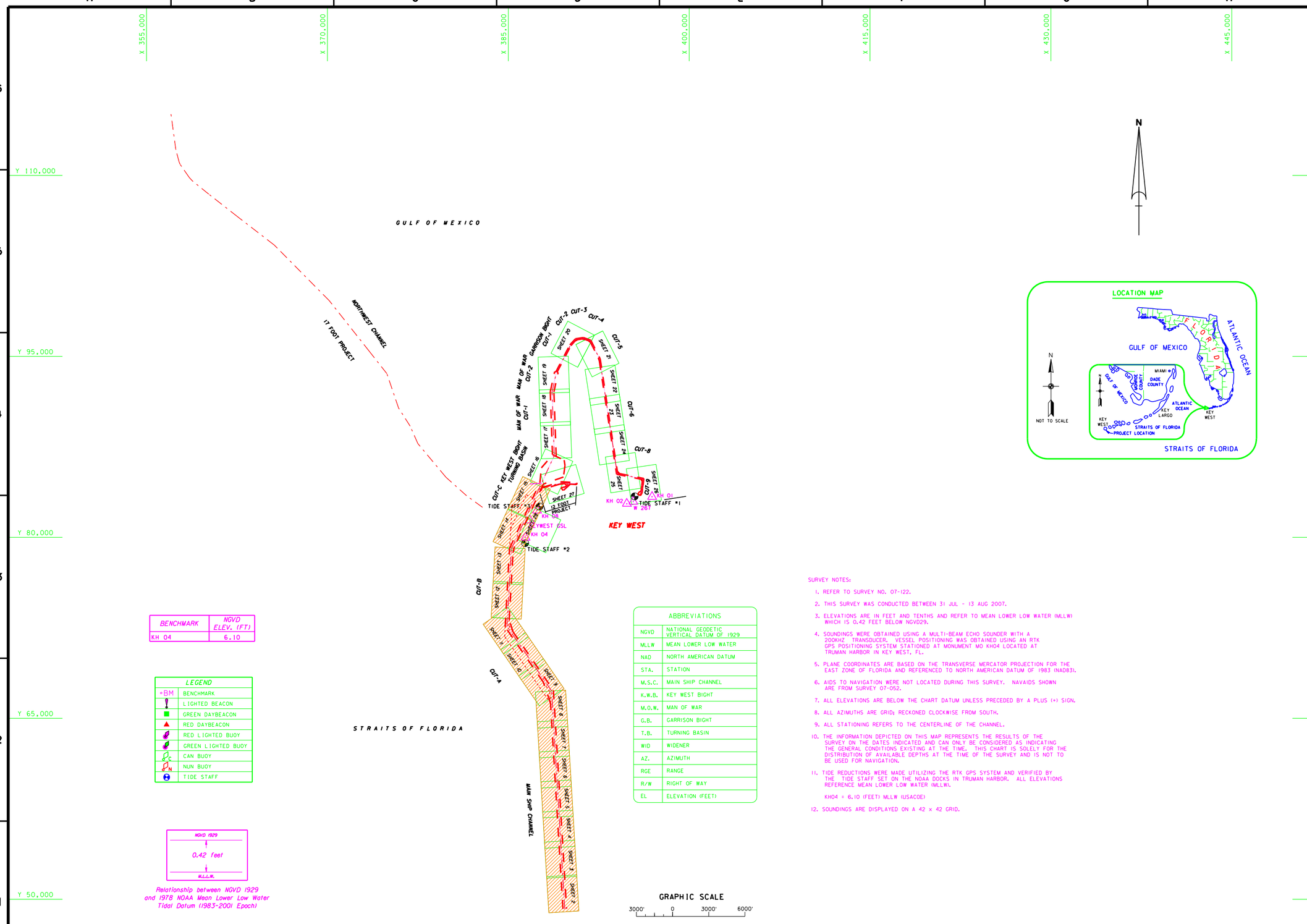


BENCHMARK	NGVD ELEV. (FT)
KH 04	6.10

LEGEND	
BM	BENCHMARK
	LIGHTED BEACON
	GREEN DAYBEACON
	RED DAYBEACON
	RED LIGHTED BUOY
	GREEN LIGHTED BUOY
C	CAN BUOY
N	NUN BUOY
	TIDE STAFF

NGVD 1929
0.42 feet
M.L.L.W.

Relationship between NGVD 1929 and 1978 NOAA Mean Lower Low Water Tidal Datum (1983-2001 Epoch)

ABBREVIATIONS	
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
MLLW	MEAN LOWER LOW WATER
NAD	NORTH AMERICAN DATUM
STA.	STATION
M.S.C.	MAIN SHIP CHANNEL
K.W.B.	KEY WEST BIGHT
M.O.W.	MAN OF WAR
G.B.	GARRISON BIGHT
T.B.	TURNING BASIN
WID	WIDENER
AZ.	AZIMUTH
RGE	RANGE
R/W	RIGHT OF WAY
EL	ELEVATION (FEET)

GRAPHIC SCALE
3000' 0 3000' 6000'

SURVEY NOTES:

1. REFER TO SURVEY NO. 07-122.
2. THIS SURVEY WAS CONDUCTED BETWEEN 31 JUL - 13 AUG 2007.
3. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO MEAN LOWER LOW WATER (MLLW) WHICH IS 0.42 FEET BELOW NGVD29.
4. SOUNDINGS WERE OBTAINED USING A MULTI-BEAM ECHO SOUNDER WITH A 200KHZ TRANSDUCER. VESSEL POSITIONING WAS OBTAINED USING AN RTK GPS POSITIONING SYSTEM STATIONED AT MONUMENT MO KH04 LOCATED AT TRUMAN HARBOR IN KEY WEST, FL.
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. AIDS TO NAVIGATION WERE NOT LOCATED DURING THIS SURVEY. NAVAIDS SHOWN ARE FROM SURVEY 07-052.
7. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A PLUS (+) SIGN.
8. ALL AZIMUTHS ARE GRID; RECKONED CLOCKWISE FROM SOUTH.
9. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
10. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF THE SURVEY ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THE TIME. THIS CHART IS SOLELY FOR THE DISTRIBUTION OF AVAILABLE DEPTHS AT THE TIME OF THE SURVEY AND IS NOT TO BE USED FOR NAVIGATION.
11. TIDE REDUCTIONS WERE MADE UTILIZING THE RTK GPS SYSTEM AND VERIFIED BY THE TIDE STAFF SET ON THE NOAA DOCKS IN TRUMAN HARBOR. ALL ELEVATIONS REFERENCE MEAN LOWER LOW WATER (MLLW).

    KH04 = 6.10 (FEET) MLLW (USACOE)
12. SOUNDINGS ARE DISPLAYED ON A 42 x 42 GRID.

LOCATION MAP

STRAITS OF FLORIDA

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No.	Symbol	Zone	Description	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: XX XX XXXX
Plot scale: XXX

Designed by: XXX
Dwn by: JONE
Ckd by: JONE

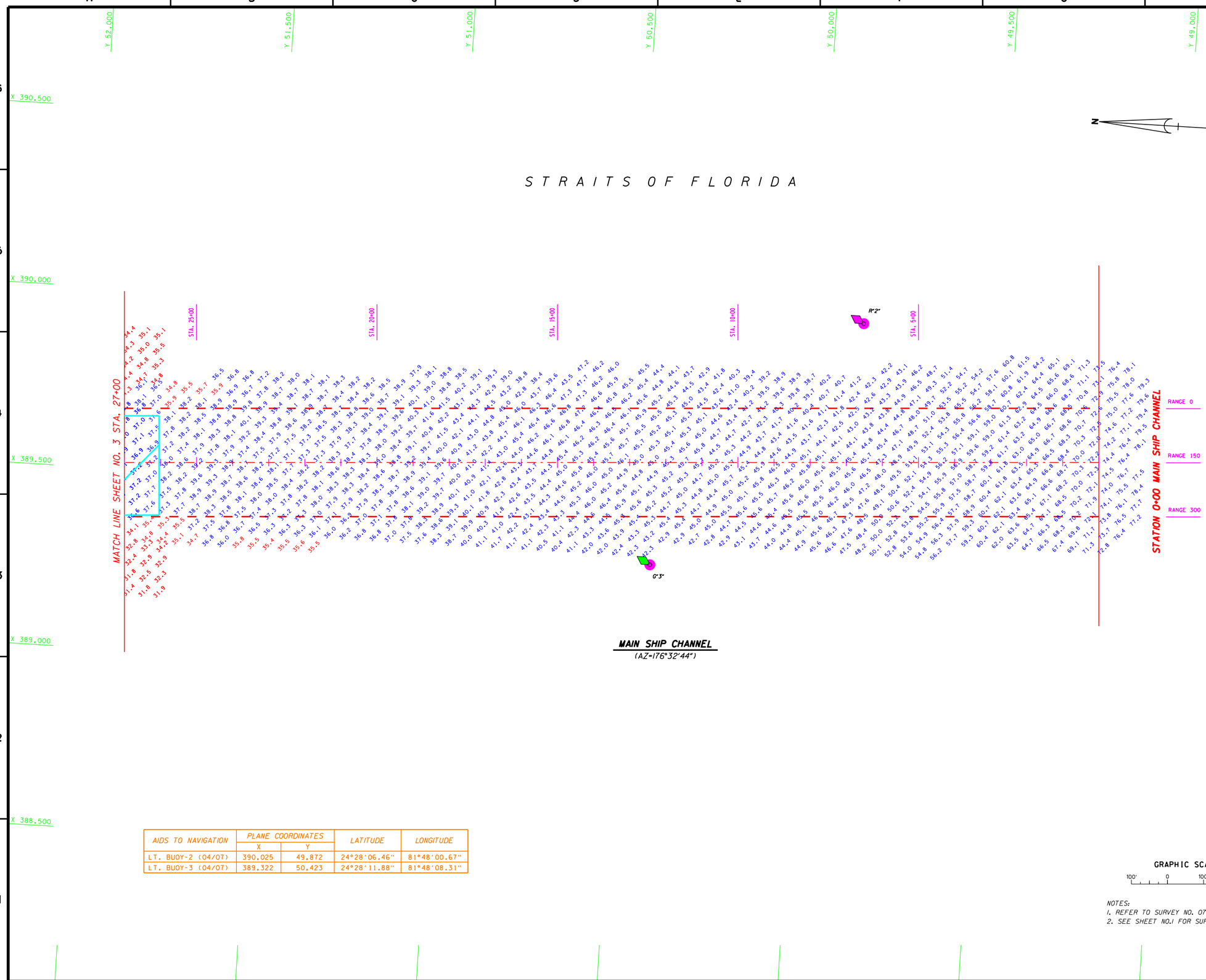
Dated: AUG 2007
D.O.F.ILE NO. XXX-XX.XXX

File name: 07-122SHO1.DGN
Reference files: BBORGB.DGN KW_CHAN.DGN KW_TOPO.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
INDEX, LOCATION AND PLAN
PLAN

DRAWING NO.
1/15

SHEET 1 OF 28



MAIN SHIP CHANNEL
(AZ=176°32'44")

AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-2 (04/07)	390,025	49,872	24°28'06.46"	81°48'00.67"
LT. BUOY-3 (04/07)	389,322	50,423	24°28'11.88"	81°48'08.31"

GRAPHIC SCALE
100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

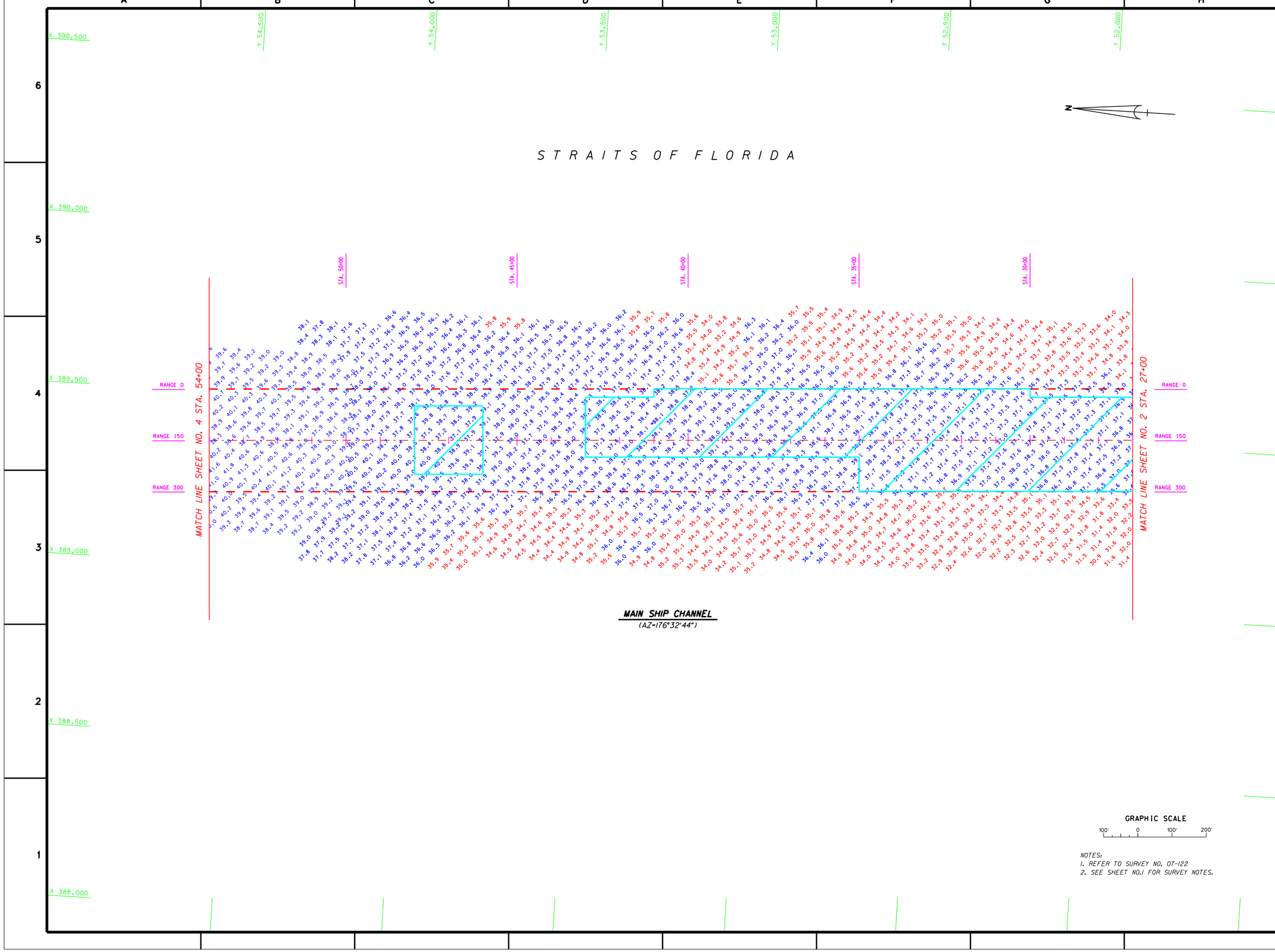
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH02.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN 07-122MSC_MEP.DGN 07-052NAV.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 0+00 THRU 27+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
2/15

SHEET 2 OF 28



NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXXX

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

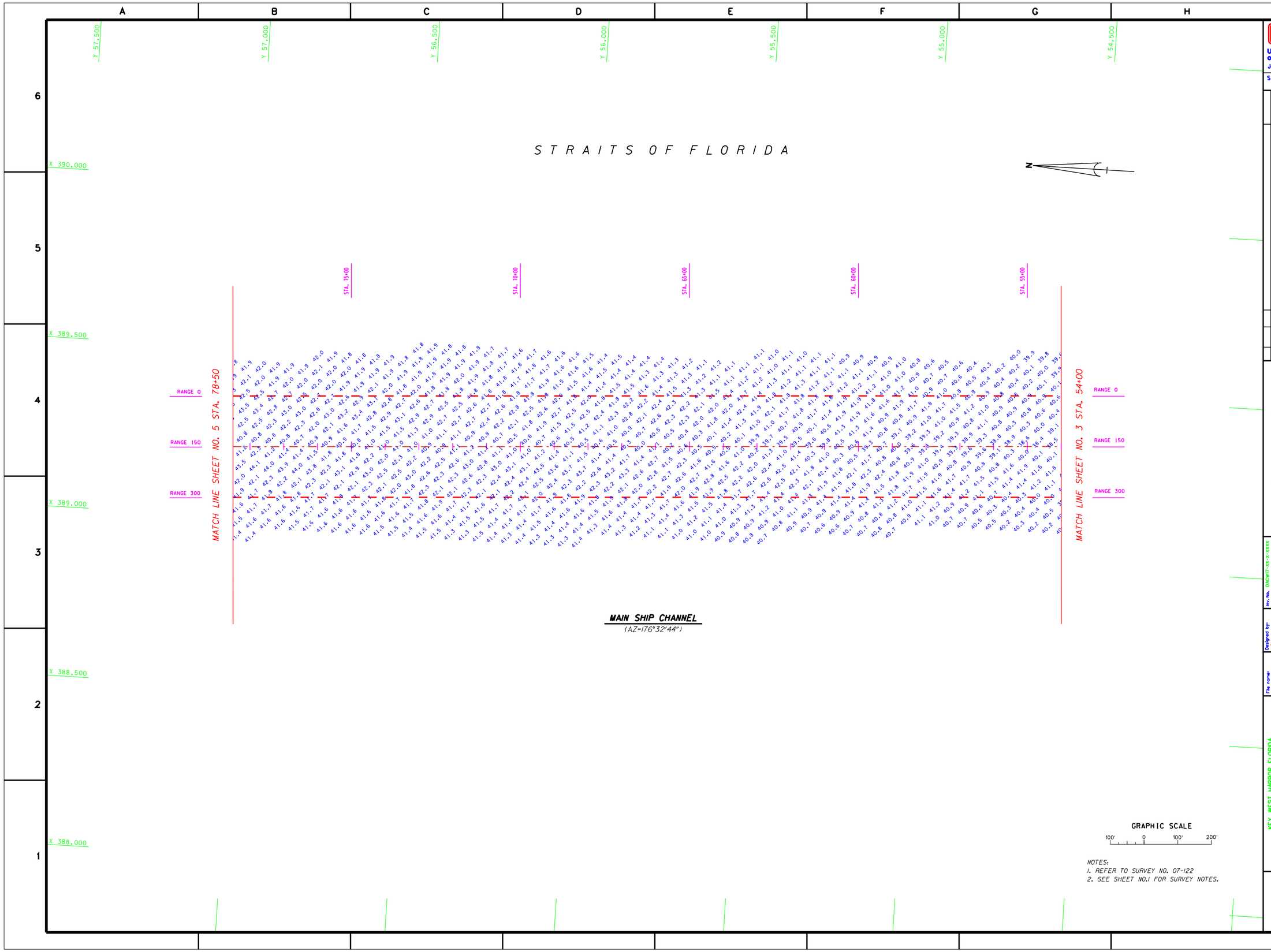
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH03.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN 07-122NSC_MEP.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 27+00 THRU 54+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
3/15

SHEET 3 OF 28



GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX

Designed by: WRU
Dwn by: WRU
Ckd by: WRU

Dated: AUG 2007
D.O.FILE NO. XXX-XX.XXX

File name: 07-122SH04.DGN
Reference files: BR0958.DGN KW_CHAN.DGN 07-122WSC_MEP.DGN

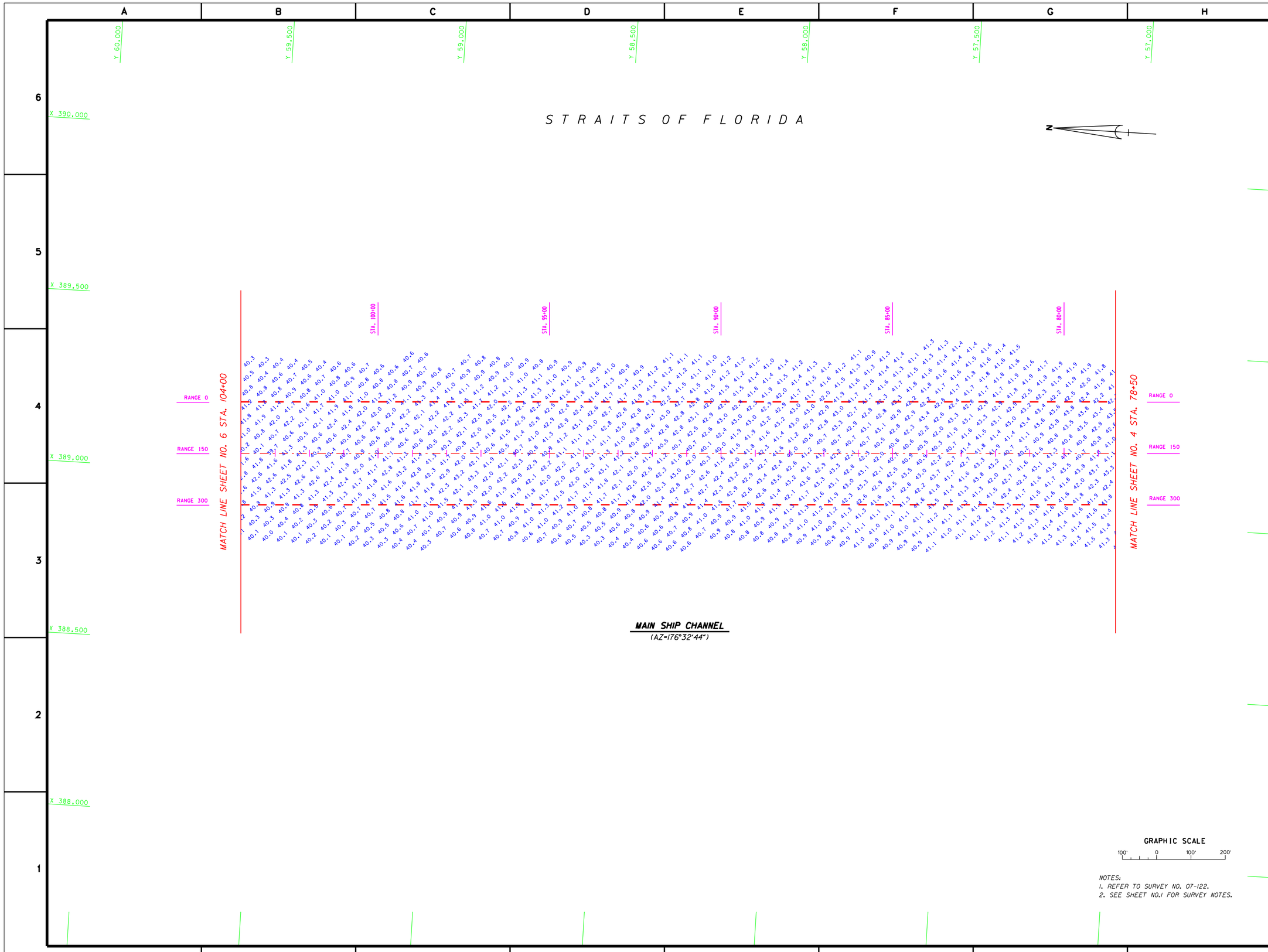
KEY WEST HARBOR, FLORIDA

PROJECT CONDITION SURVEY
36-FOOT PROJECT

STA. 54+00 THRU 78+50 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
4/15

SHEET 4 OF 28



NOTES:
1. REFER TO SURVEY NO. 07-122.
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

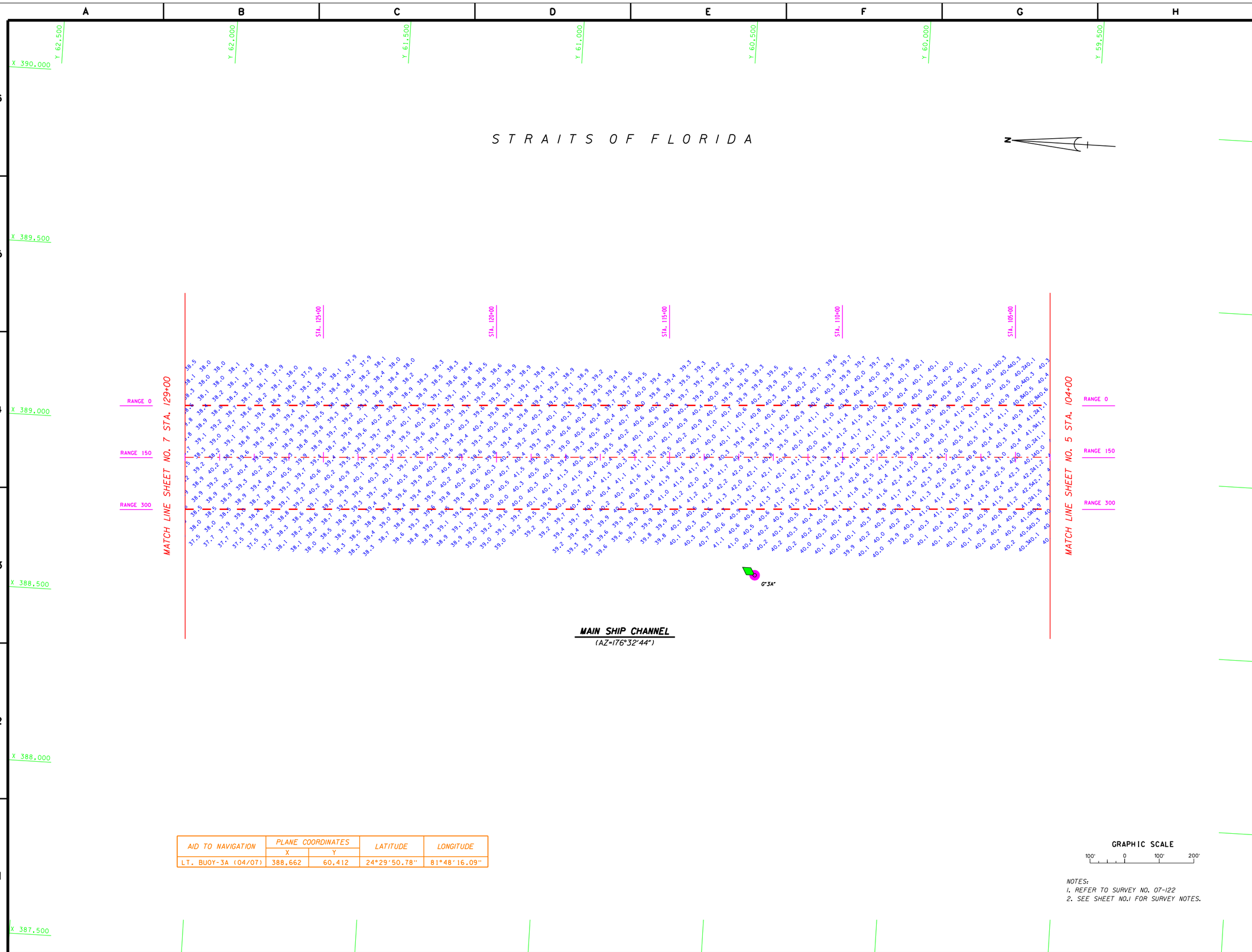
File name: 07-122SH05.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN 07-122NSC_NEP.DGN

Dated: AUG 2207
D.O.FILE NO. XXX-XX,XXX

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 78+50 THRU 104+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
5/15

SHEET 5 OF 28



AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-3A (04/07)	388,662	60,412	24°29'50.78"	81°48'16.09"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

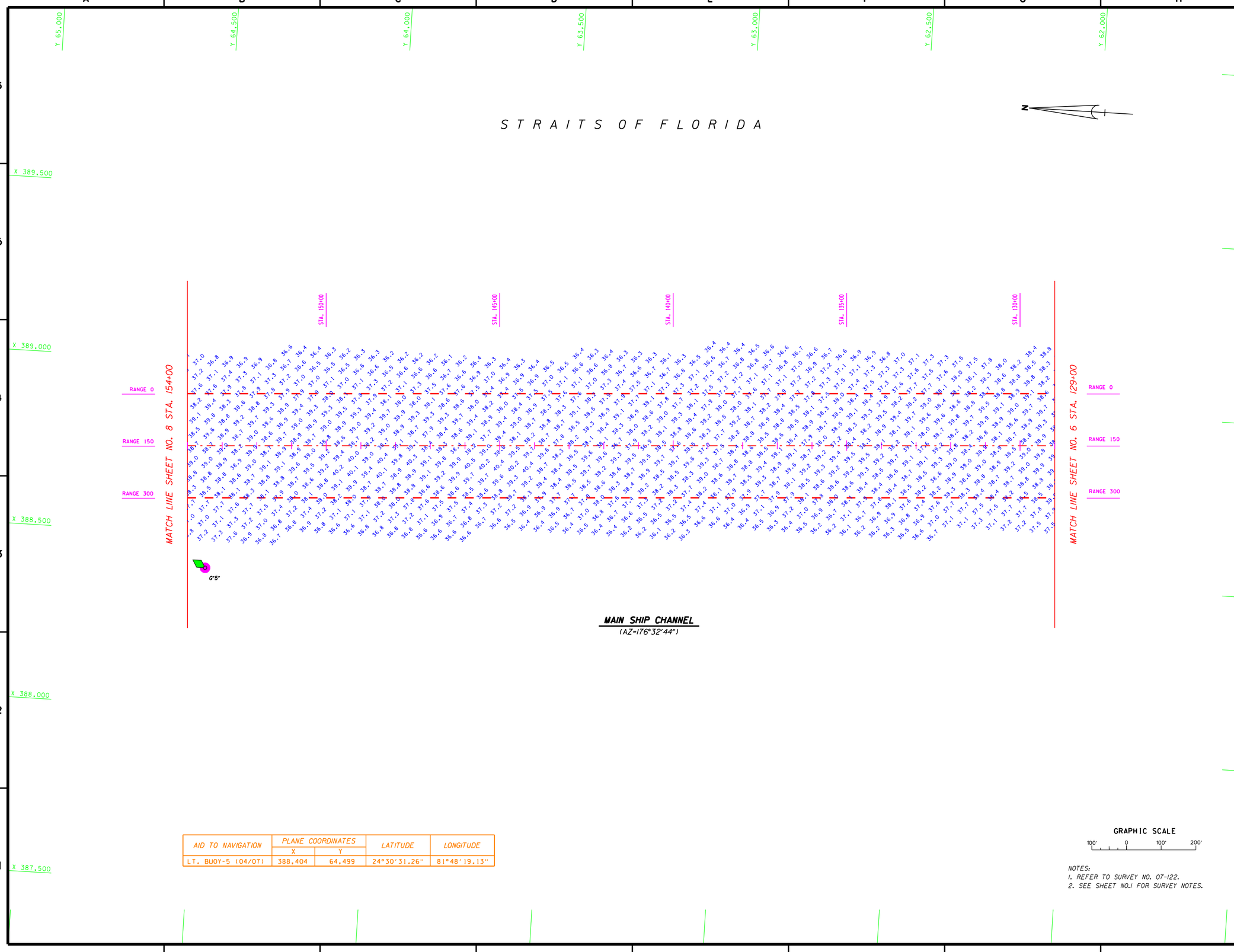
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH06.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN 07-122NSC_NEP.DGN 07-052NAV.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 104+00 THRU 129+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
6/15

SHEET 6 OF 28



AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-5 (04/07)	388,404	64,499	24°30'31.26"	81°48'19.13"

NOTES:
1. REFER TO SURVEY NO. 07-122.
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XX:X

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

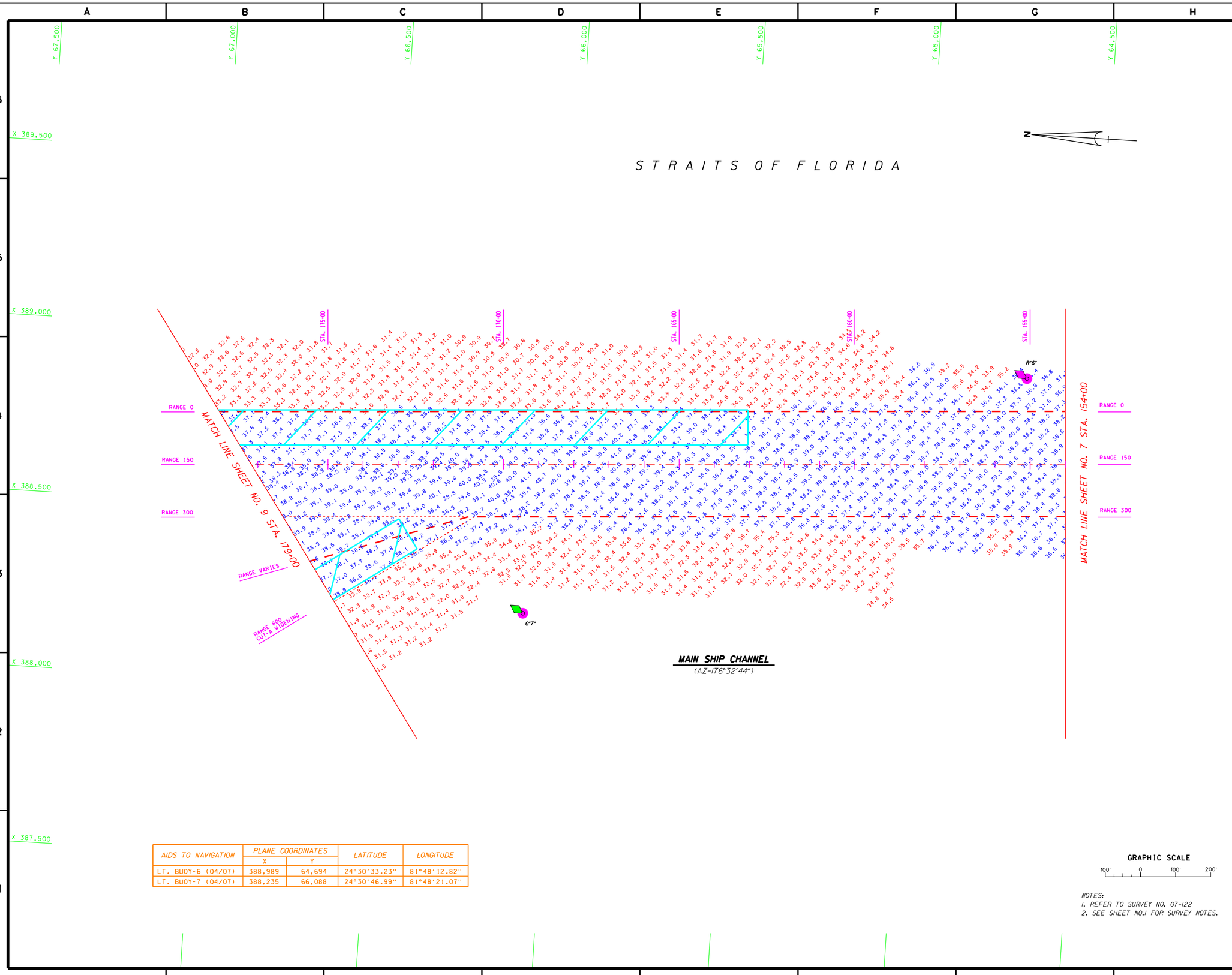
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH07.DGN
Reference files: BRDR98.DGN 07-122NSC_NEP.DGN KW_CHAN.DGN 07-052NAV.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 129+00 THRU 154+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
7/15

SHEET 7 OF 28



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-6 (04/07)	388,989	64,694	24°30'33.23"	81°48'12.82"
LT. BUOY-7 (04/07)	388,235	66,088	24°30'46.99"	81°48'21.07"

NOTES:
1. REFER TO SURVEY NO. 07-122
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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XX:X

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

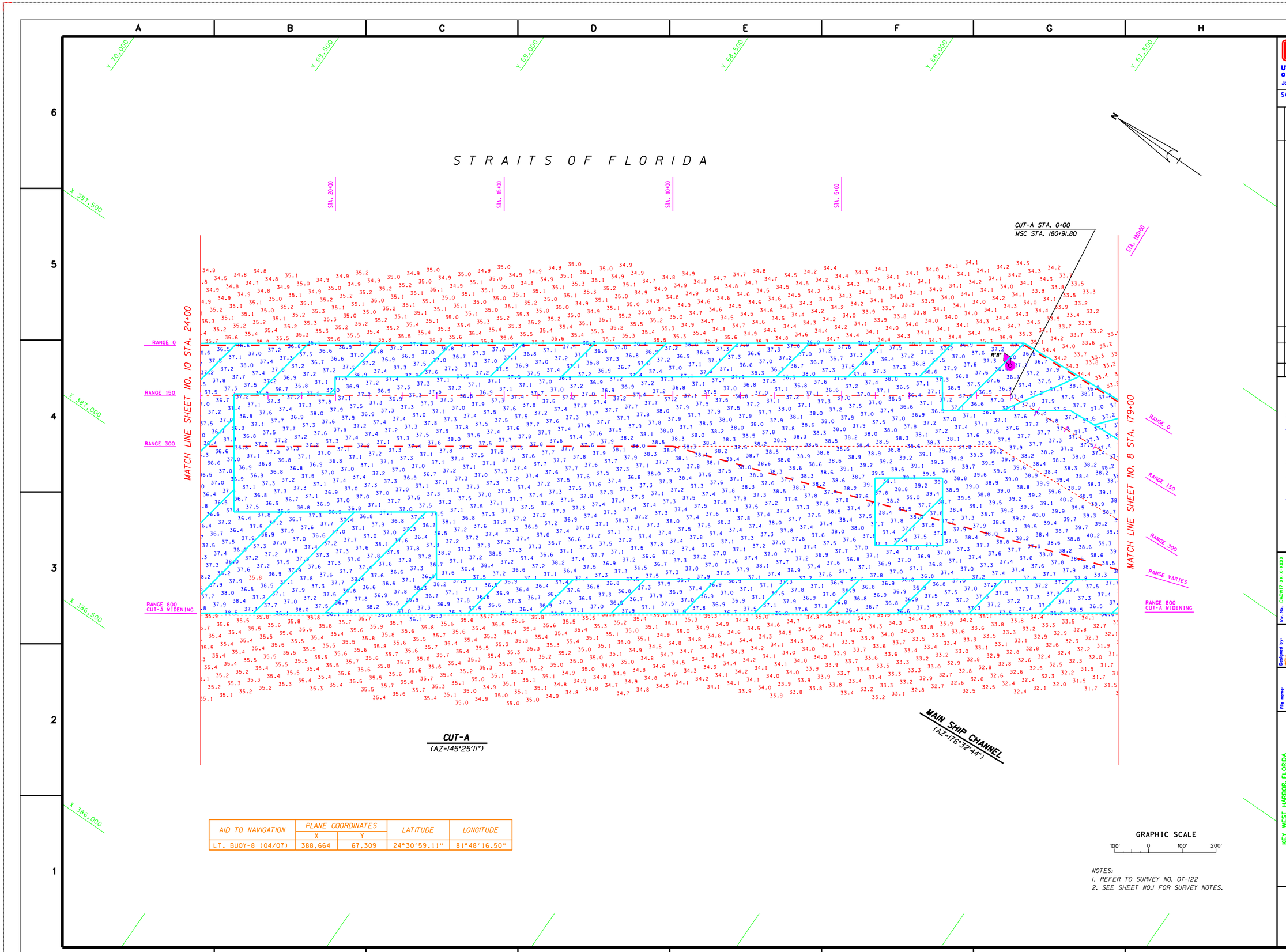
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH08.DGN
Reference files: BRDR98.DGN 07-122HSC_NEP.DGN KW_CHAN.DGN 07-122CTA_NEP.DGN 07-052NAV.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 154+00 THRU 179+00 MAIN SHIP CHANNEL
PLAN

DRAWING NO.
8/15

SHEET 8 OF 28



AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-8 (04/07)	388,664	67,309	24°30'59.11"	81°48'16.50"

NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX

Designed by: WRW
Dwn by: WRW
Ckd by: WRW

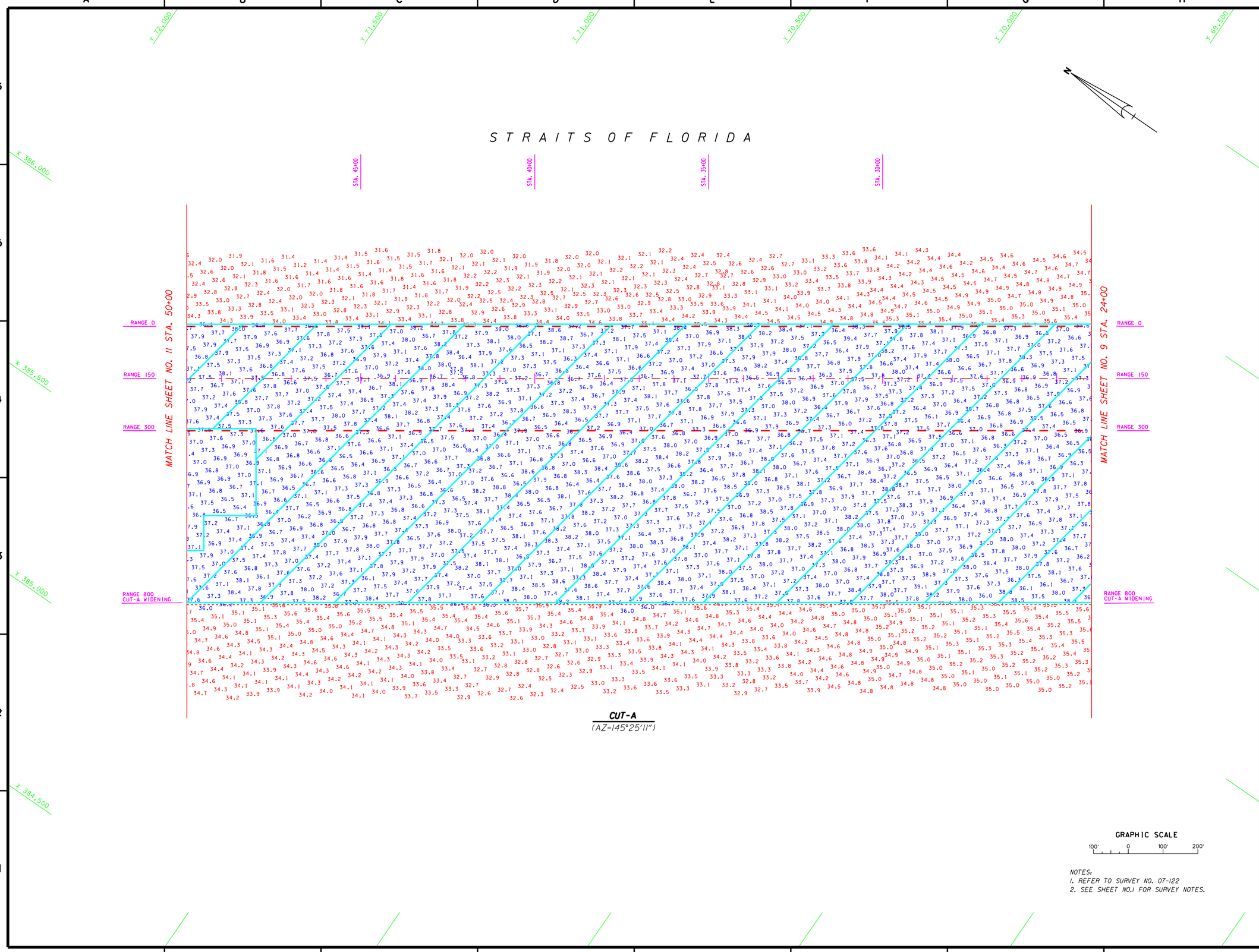
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH09.DGN
Reference files: BRDR98.DGN 07-122NSC_NEP.DGN KW_CHAN.DGN 07-122CT_NEP.DGN 07-052NAV.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 179+00 MAIN SHIP CHANNEL THRU STA. 24+00 CUT-A
PLAN

DRAWING NO.
9/15

SHEET 9 OF 28



NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

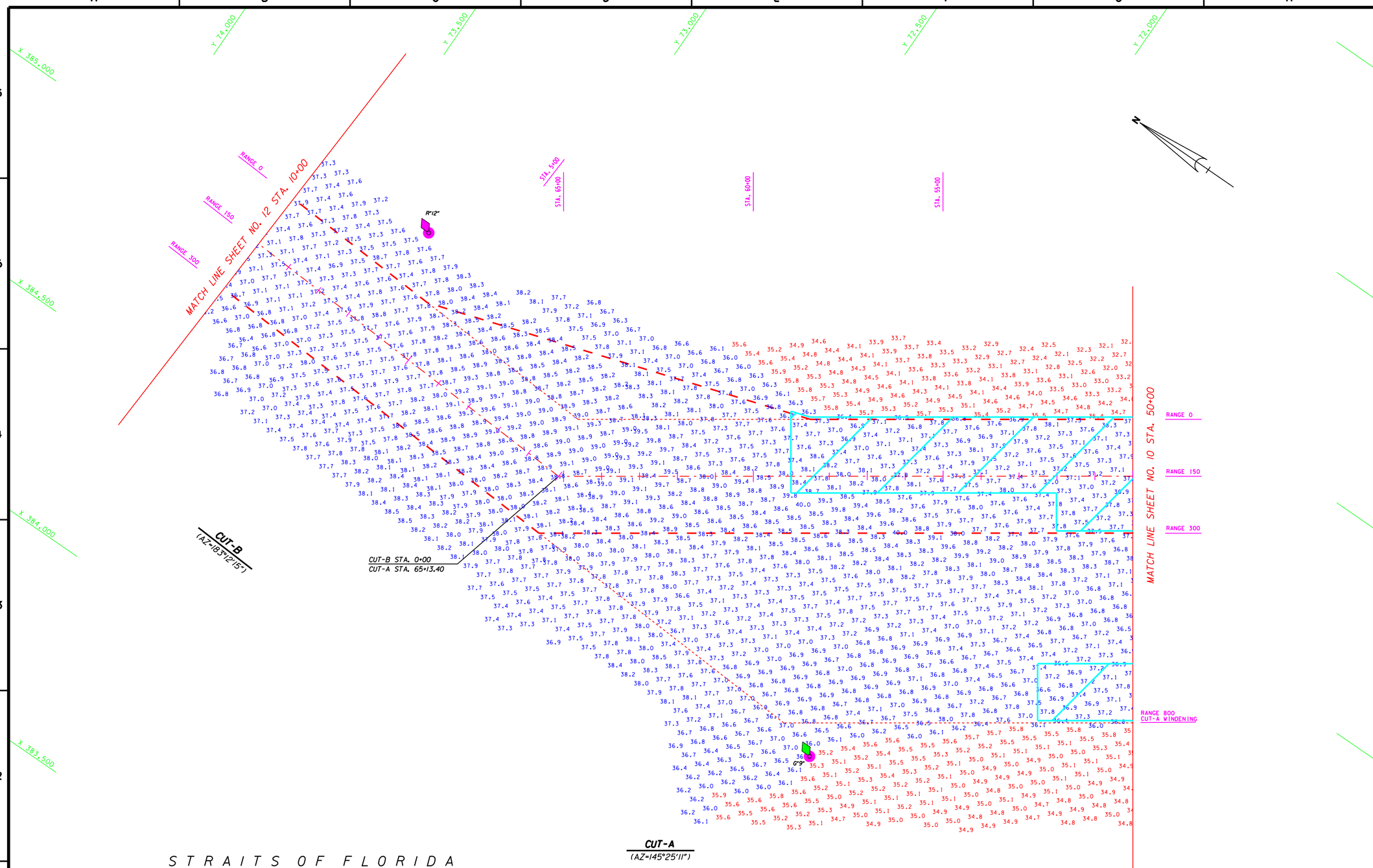
Designed by: WRM
Dwn by: WRM
Ckd by: WRM
Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: XX XX XXXX
Plot scale: XXX
Dated: AUG 2007
D.O. FILE NO. XXX-XX,XXX

File name: 07-122SH10.DGN
Reference files: BRDR98.DGN 07-122CTA_MEP.DGN KW_CHAN.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 24+00 THRU 50+00 CUT-A
PLAN

DRAWING NO.
10/15

SHEET 10 OF 28



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-9 (04/07)	384,661	71,657	24°31'41.95"	81°49'00.12"
LT. BUOY-12 (04/07)	385,227	73,266	24°31'57.92"	81°48'54.09"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-122.
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	Approved

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

Designed by: WRM
Dwn by: WRM
Ckd by: WRM
Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: XX XX XXXX
Plot scale: XXX

File name: 07-122SH11.DGN
Reference files: BRDR98.DGN 07-122CT1A_NEP.DGN KW_CHAN.DGN 07-122CT8_NEP.DGN 07-052NAV.DGN DREDGE-AREA.DGN

Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

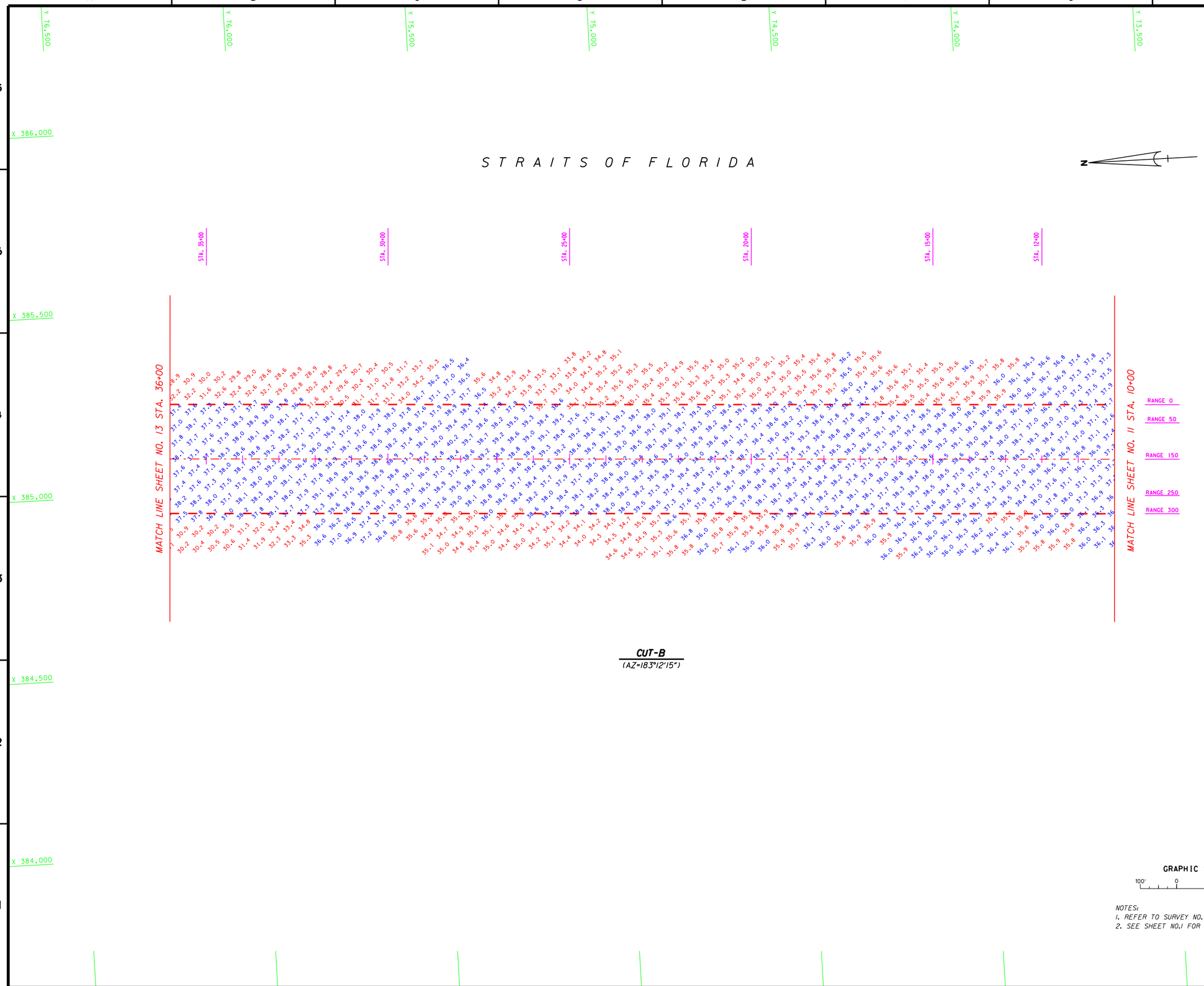
KEY WEST HARBOR, FLORIDA

PROJECT CONDITION SURVEY
36-FOOT PROJECT

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

DRAWING NO.
11/15

SHEET 11 OF 28



NOTES:
1. REFER TO SURVEY NO. 07-122.
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XX:X

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

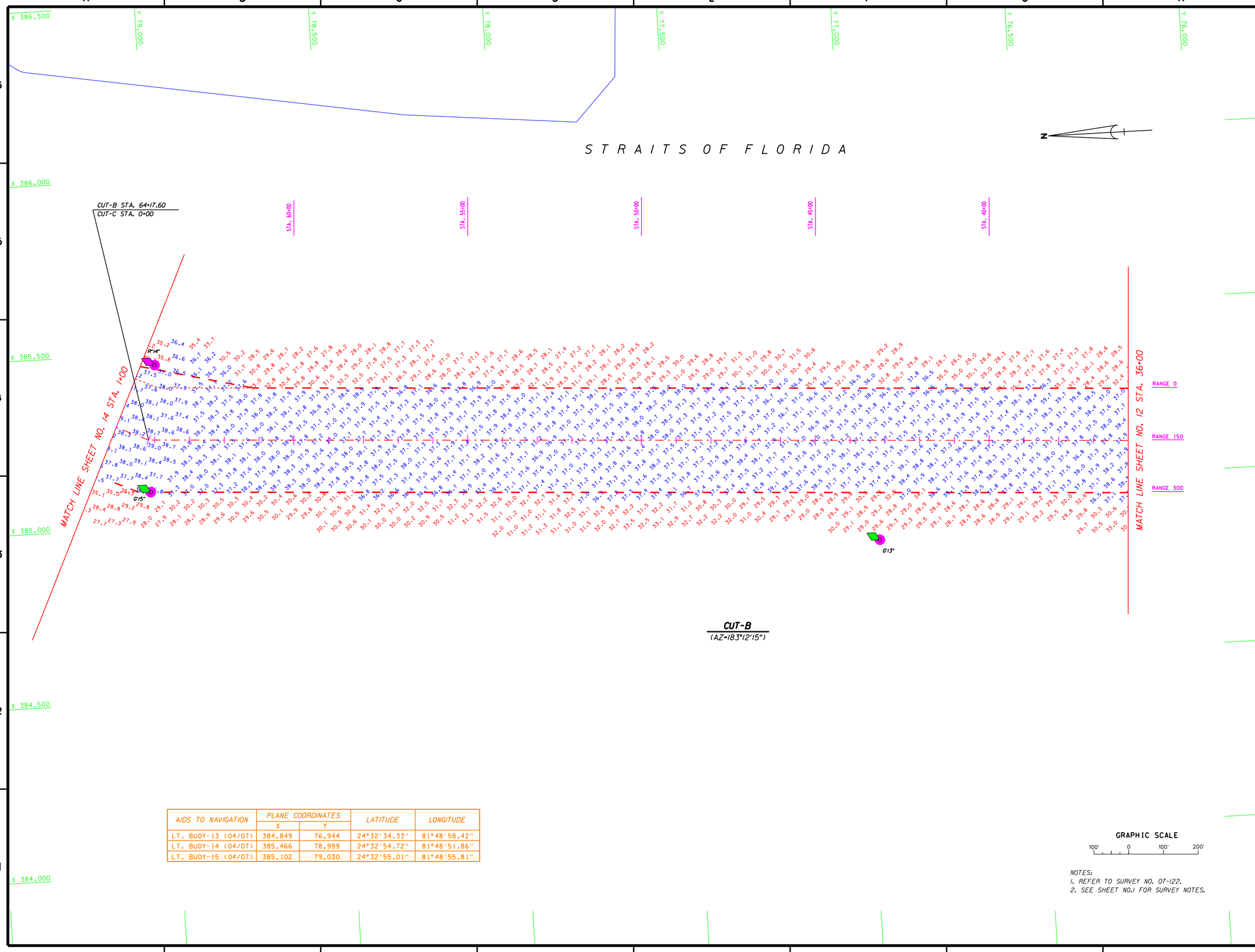
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH12.DGN
Reference files: BRDR98.DGN 07-122CTB_MEP.DGN KW_CHAN.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 10+00 THRU 36+00 CUT-B
PLAN

DRAWING NO.
12/15

SHEET 12 OF 28



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-13 (04/07)	384,849	76,944	24°32'34.33"	81°48'58.42"
LT. BUOY-14 (04/07)	385,466	78,999	24°32'54.72"	81°48'51.86"
LT. BUOY-15 (04/07)	385,102	79,030	24°32'55.01"	81°48'55.81"

NOTES:
1. REFER TO SURVEY NO. 07-122.
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XX:X

Designed by: WRM
Dwn by: WRM
Ckd by: WRM

Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH13.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN KW_TOPO.DGN 07-122CTB_MEP.DGN 07-122CTC_MEP.DGN 07-052NAV.DGN

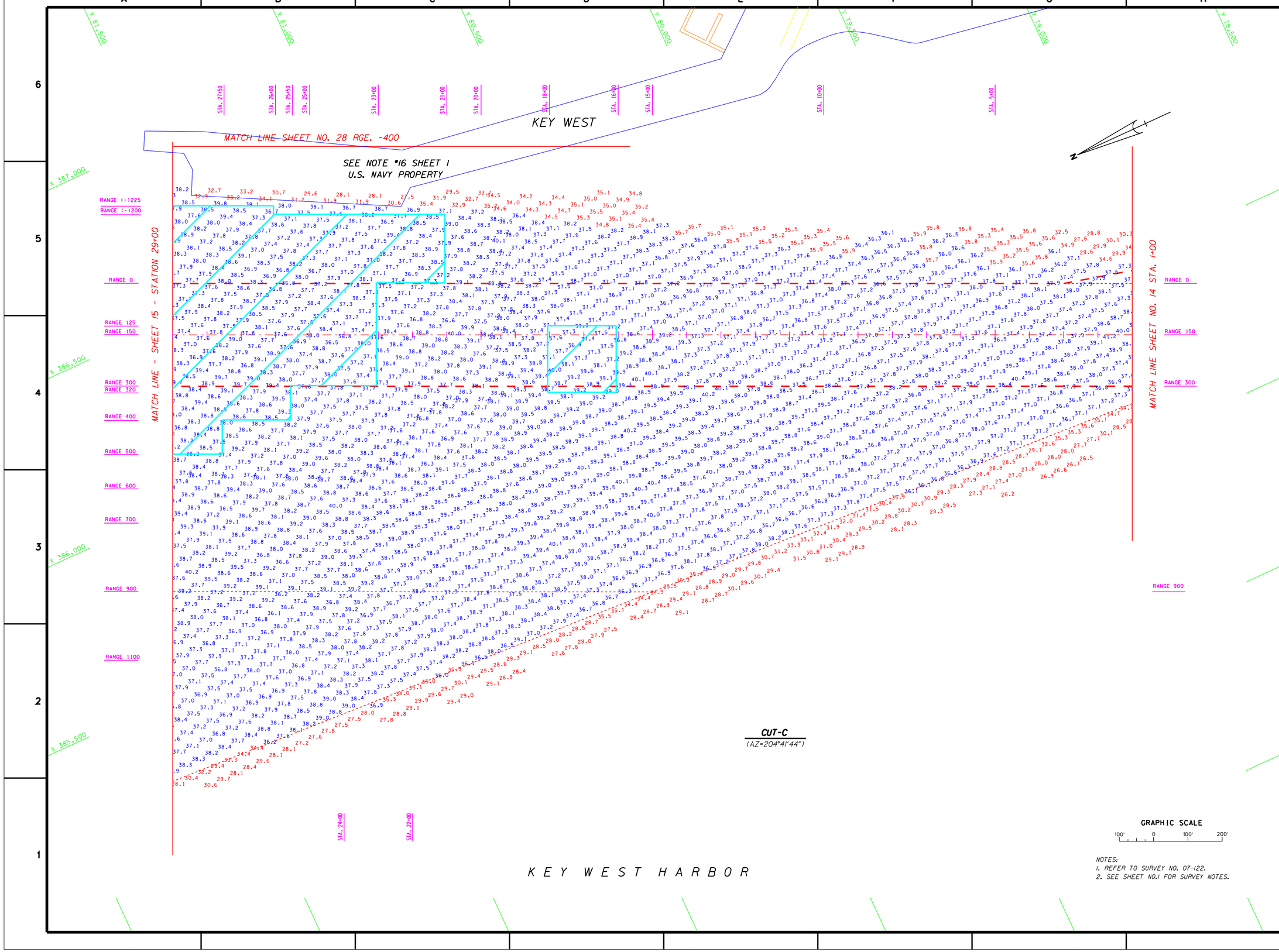
KEY WEST HARBOR, FLORIDA

PROJECT CONDITION SURVEY
36-FOOT PROJECT

STA. 36+00 CUT-B THRU STA. 1+00 CUT-C
PLAN

DRAWING NO.
13/15

SHEET 13 OF 28



NOTES:
1. REFER TO SURVEY NO. 07-122.
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

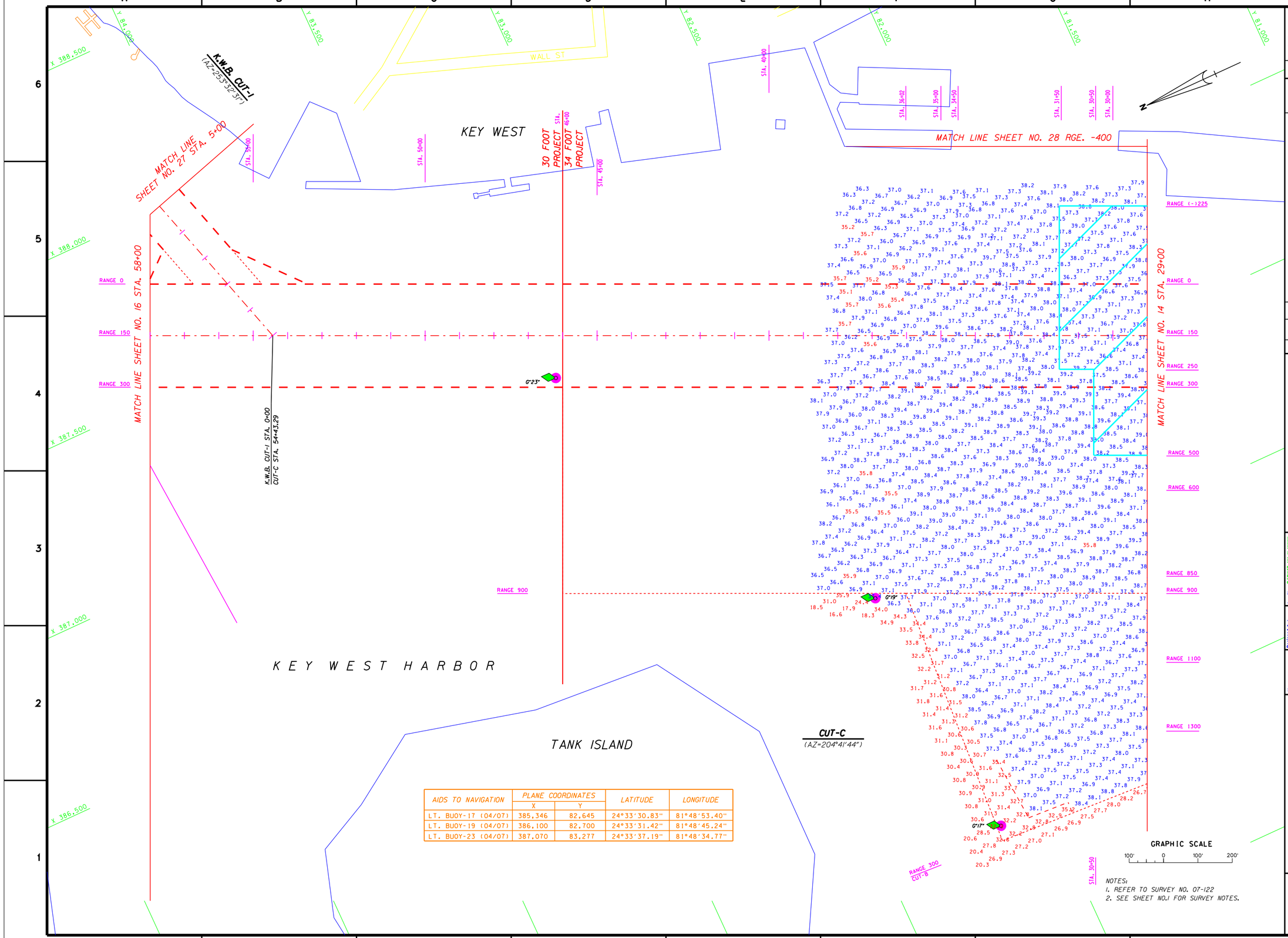
Designed by: WRM
Dwn by: WRM
Ckd by: WRM
Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XXX
Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH14.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN KW_TOPO.DGN 07-122CTC_MEP.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA
PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA. 1+00 THRU 29+00 CUT-C
PLAN

DRAWING NO.
14/15

SHEET 14 OF 28



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
LT. BUOY-17 (04/07)	385,346	82,645	24°33'30.83"	81°48'53.40"
LT. BUOY-19 (04/07)	386,100	82,700	24°33'31.42"	81°48'45.24"
LT. BUOY-23 (04/07)	387,070	83,277	24°33'37.19"	81°48'34.77"

NOTES:
1. REFER TO SURVEY NO. 07-122
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	Approved

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

Inv. No. DACW17-XX-X-XXXX
Dated: XX XXX XXXX
Scale: AS SHOWN
Plot date: xx xx xxxx
Plot scale: XX:X

Designed by: WRW
Dwn by: WRW
Ckd by: WRW

Dated: AUG 2007
D.O.FILE NO. XXX-XX,XXX

File name: 07-122SH15.DGN
Reference files: BRDR98.DGN KW_CHAN.DGN KW_TOPO.DGN 07-052NAV.DGN 07-122CTC_MEP.DGN DREDGE_AREA.DGN

KEY WEST HARBOR, FLORIDA

PROJECT CONDITION SURVEY
36-FOOT PROJECT
STA.29+00 THRU 58+00 CUT-C
PLAN

DRAWING NO.
15/15

SHEET 15 OF 28