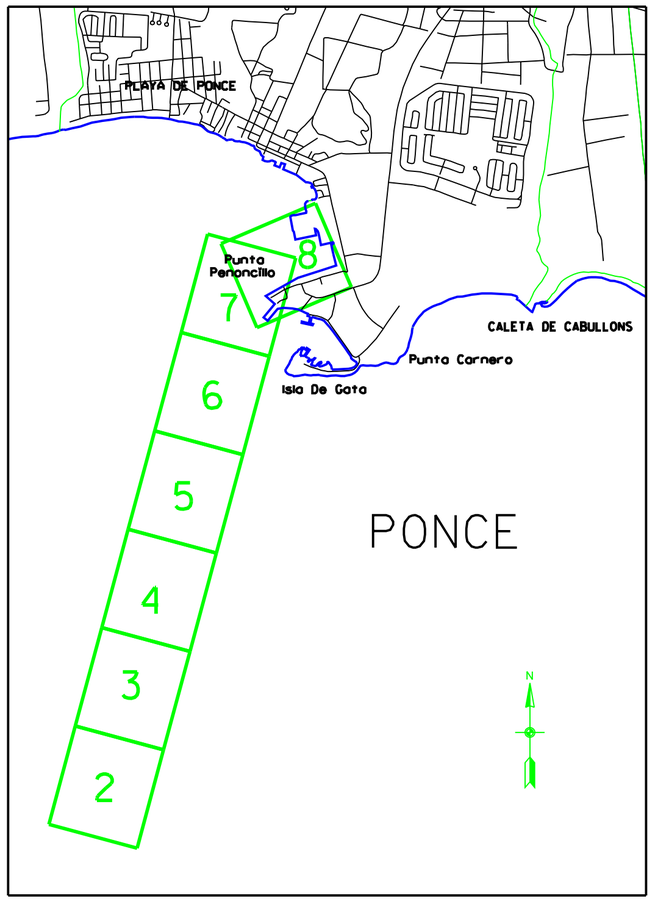
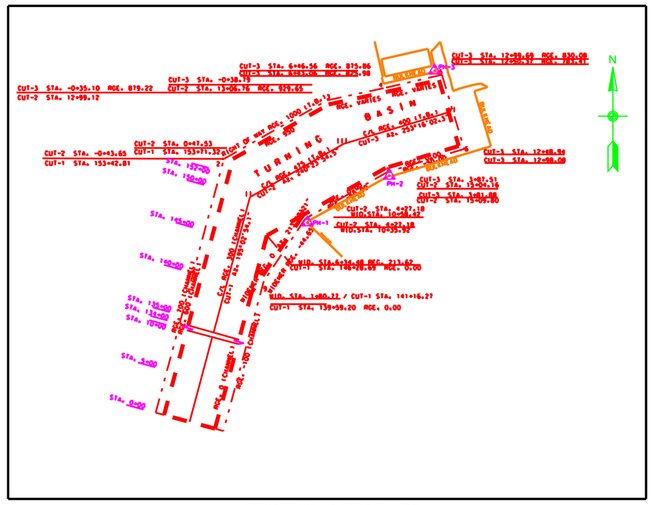


LOCATION PLAN
NOT TO SCALE



CONTROL LOCATION
NOT TO SCALE

LOCATION MAP

SHEET INDEX :	
COVER SHEET	1
PLAN VIEWS	2-8
CONTROL SHEET	9

HORIZONTAL & VERTICAL CONTROL

MONUMENTS	PLANE COORDINATES (NAD 83 IN FEET) X	Y	ELEV (MLW)	CUT	STATION	RANGE
CARDONA LIGHTHOUSE	586067.75	701016.54	N/A	1	93+98.45	3104.96
PH-1	590886.39	705408.86	N/A	2	4+27.18	-100.02
PH-2	591817.89	705938.12	6.59	3	3+93.15	-99.95
PH-3	592355.51	707126.93	N/A	3	12+50.55	833.63

VERTICAL DATUM DIAGRAM

N.G.V.D. 29

0.41'

M.L.W.

LEGEND/ABBREVIATIONS

USACOE - U.S. ARMY CORPS OF ENGINEERS
△ - FOUND USACOE GPS MONUMENT
℄ - CENTERLINE
AZ. - AZIMUTH
RGE. - RANGE
STA. - STATION
ELEV. - ELEVATION
MLW - MEAN LOW WATER
WID - WIDENER
T.B. - TURNING BASIN

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

SURVEY NOTES:

1. REFER TO SURVEY NO. (ARC) 07-078.
2. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO MEAN LOW WATER (MLW) WHICH IS 0.41 FEET BELOW NATIONAL GEODETIC VERTICAL DATUM 1929, (NGVD 1929).
3. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (-) SIGN.
4. TIDAL REDUCTIONS WERE MADE FROM A STAFF SET ON THE BULKHEAD IN CUT 3, AND REFERENCED FROM BENCHMARK 'PH-2' .
5. PLANE COORDINATES ARE BASED ON THE LAMBERT CONIC PROJECTION FOR PUERTO RICO AND THE U.S. VIRGIN ISLANDS, NORTH ZONE (NAD83).
6. ALL AZIMUTHS ARE GRID; RECKONED CLOCKWISE FROM SOUTH.
7. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL
8. REFER TO RAW SURVEY DATA:
   (A) FIELD BOOK NO. 2007 PUERTO RICO 13-03
9. SURVEY WAS PERFORMED USING DIFFERENTIAL GPS FOR POSITIONING AND UTILIZING THE USCG NAVBEACON SYSTEM 'ISABELA', PUERTO RICO AS THE REFERENCE SITE. VERTICAL MEASUREMENTS WERE MADE USING A RESON NAVI-SOUND 210 ECHOSOUNDER WITH A 200KHZ (HIGH FREQUENCY) TRANSDUCER.

VESSEL	DATE OF SURVEY	CUT
RENTAL	12-13 SEPTEMBER 2007	CUT 1-3

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 AND IS NOT TO BE USED FOR NAVIGATION.
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, 1 JAN 02.
13. THIS IS A HYDROGRAPHIC SURVEY PERFORMED BY JOHNSON-MCADAMS SURVEYING AND MAPPING, LLC. PLANIMETRICS (I.E. BULKHEAD, ETC.) WERE NOT FIELD LOCATED, BUT RATHER ARE SHOWN ACCORDING TO INFORMATION PROVIDED BY THE U.S. ARMY CORPS OF ENGINEERS.

CERTIFICATION:

DATE:

JOHN E. SHERRILL
FLORIDA REGISTERED CERTIFICATE NO. 6135
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

Description | Date | No. | Revision | Zone

ARC SURVEYING & MAPPING, INC.
5282 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 387-7777
LICENSED BUSINESS NO. 6487

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

Designed by:
Drawn by:
Proj. No. W912EP-05-D-0003
Dsign 2007 AUG 30
D.O.F.I.L.E. NO. NNN-NN, NNN
Date NNN YYYY

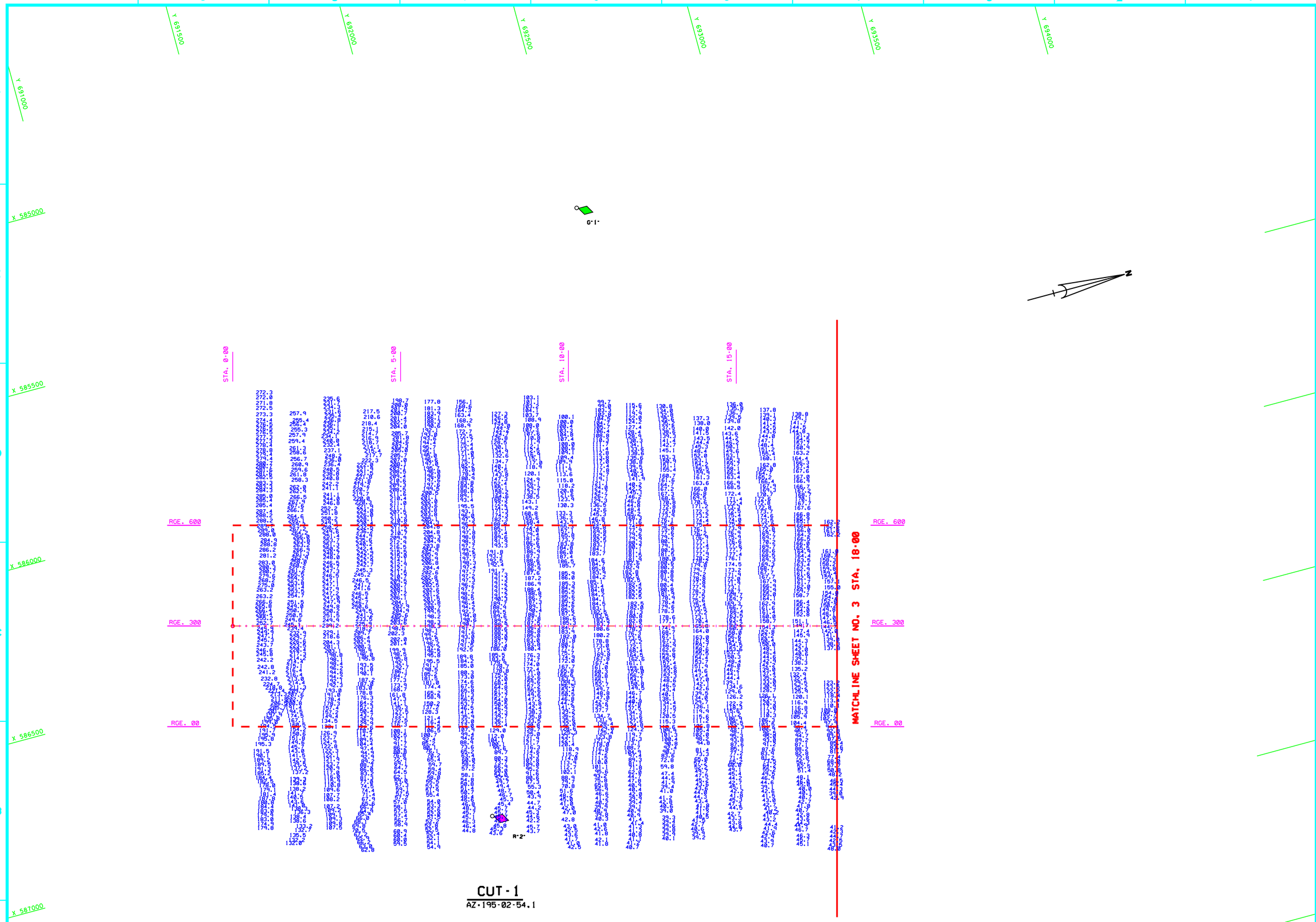
07-087WHDGRDRC.DGN
07-087WHDGRTB.DGN
07-087WHSPNAV.DGN
07-087WHSPCHAN.DGN
07-087WHSPCUT1.DGN
07-087WHSPCUT2.DGN
07-087WHSPCUT3.DGN
Reference files:
File name: 07-078WH01.DGN

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
COVER SHEET
PLAN VIEW

Scale: AS SHOWN

Drawing no.
VH 101

SHEET 1 OF 9



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
BUOY-1 (09/07)	585,394	692,520	17°56'00.02"	66°38'12.99"
BUOY-2 (09/07)	587,086	691,809	17°55'53.00"	66°37'55.46"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

Description
No. Symbol Zone

ARC SURVEYING & MAPPING, INC.
5262 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 387-8191 FAX (904) 387-1777
LICENSED BUSINESS NO. 6487

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

Designed by:
Date typ:
Checked by:
Rev. No. W912EP-05-D-0003
Date: 2007 AUG 30
D.O. FILE NO. NNN-NN, NNN
Date: NNN YYYY

07-087WSOBERE.DGN
07-087WSOBERW.DGN
07-087WSNAV.DGN
07-087WSPCHALOGN
07-087WSPCHAWGN
07-087WSPCUT2.DGN
07-087WSPCUT3.DGN

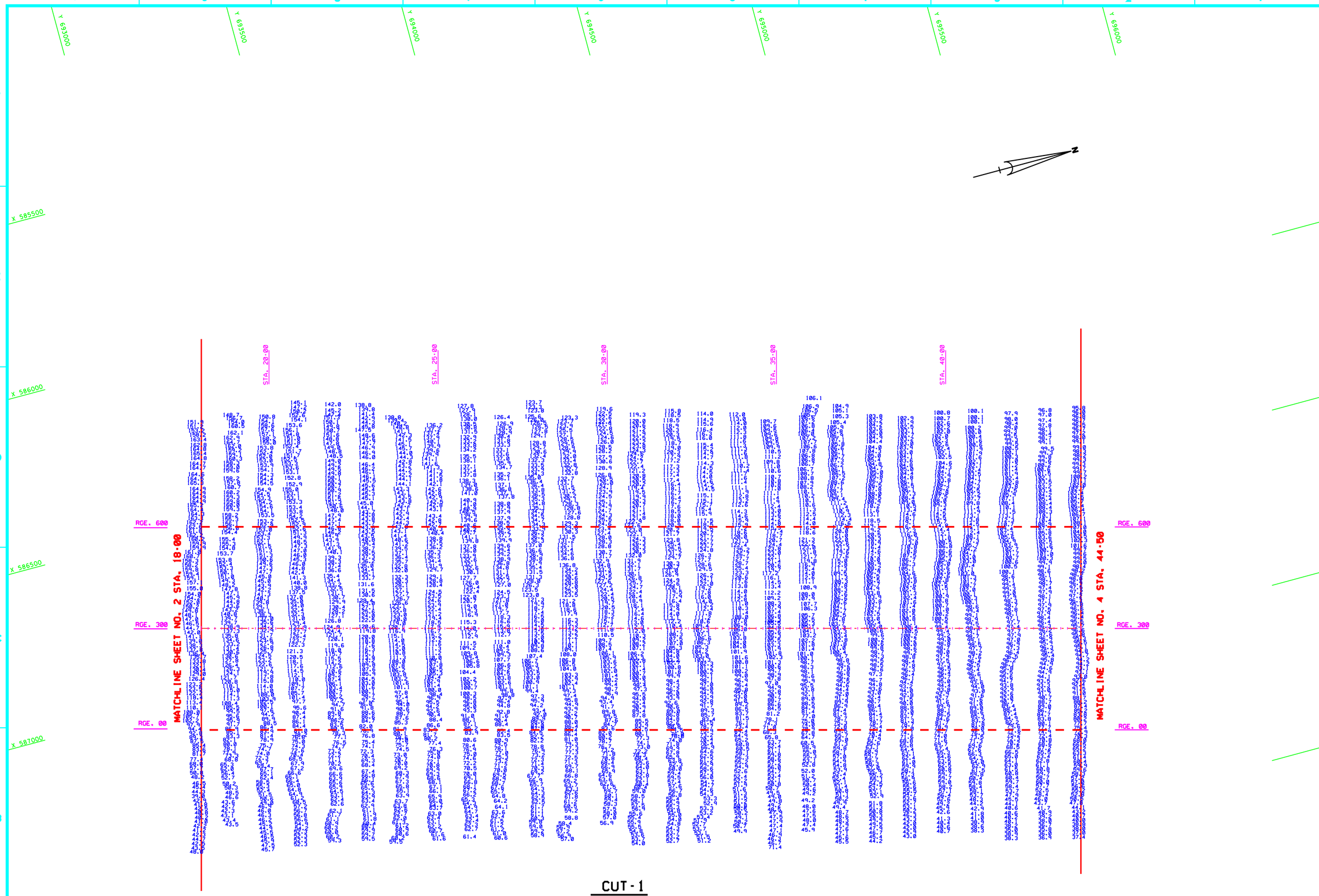
Reference files
File name: 07-078WS02.DGN

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
PLAN VIEW

Scale: AS SHOWN

Drawing no.
VH 102

SHEET 2 OF 9



CUT - 1

AZ-195-02-54.1

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

ARC SURVEYING & MAPPING, INC.
5282 SAN JUAN AVENUE
JACKSONVILLE, FLORIDA 32210
PHONE: 904/384-6377
LICENSED BUSINESS NO. 6487

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

Designed by:
Drawn by:
Chk by:
Appd by:
Date: 07-087VHSDBRDR.DGN
07-087VHSDBRCH.DGN
07-087VHSNAV.DGN
07-087VHSPCHAN.DGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN
Reference files:
File name: 07-078VH103.DGN

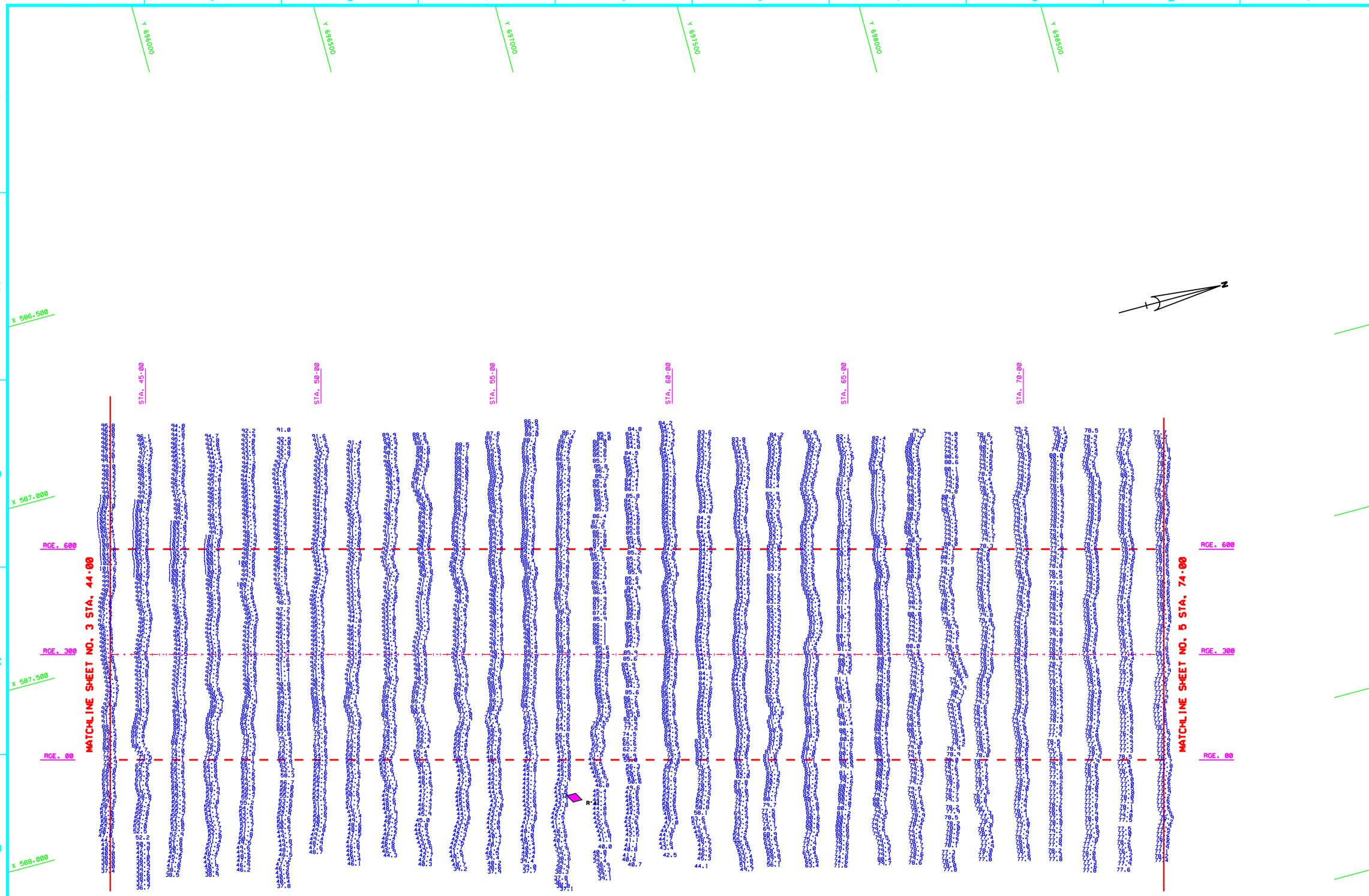
Rev. No. Symbol Zone Description

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
PLAN VIEW

Scale: AS SHOWN

Drawing no.
VH 103

SHEET 3 OF 9



CUT-1

AZ-195-02-54.1

AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
BUOY-4 (09/07)	588.197	696.603	17°56'40.53"	66°37'44.01"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

ARC SURVEYING & MAPPING, INC.
5282 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
PHONE: 904/384-6377
LICENSED BUSINESS NO. 6487

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

Designed by: | Date by:
Drawn by: | Date:
Inv. No. W912EP-05-D-0003
Dated 2007 AUG 30
D.O.FILE NO. NNN-NN, NNN
Dated NNN YYYY

Reference Dwgs
07-087VH008RDR.DGN
07-087VHSPCTRL.DGN
07-087VHSPNAV.DGN
07-087VHSPCHAN.DGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN
File name: 07-078VH104.DGN

PONCE, PUERTO RICO
PONCE HARBOR

PROJECT CONDITION SURVEY
36-FOOT PROJECT

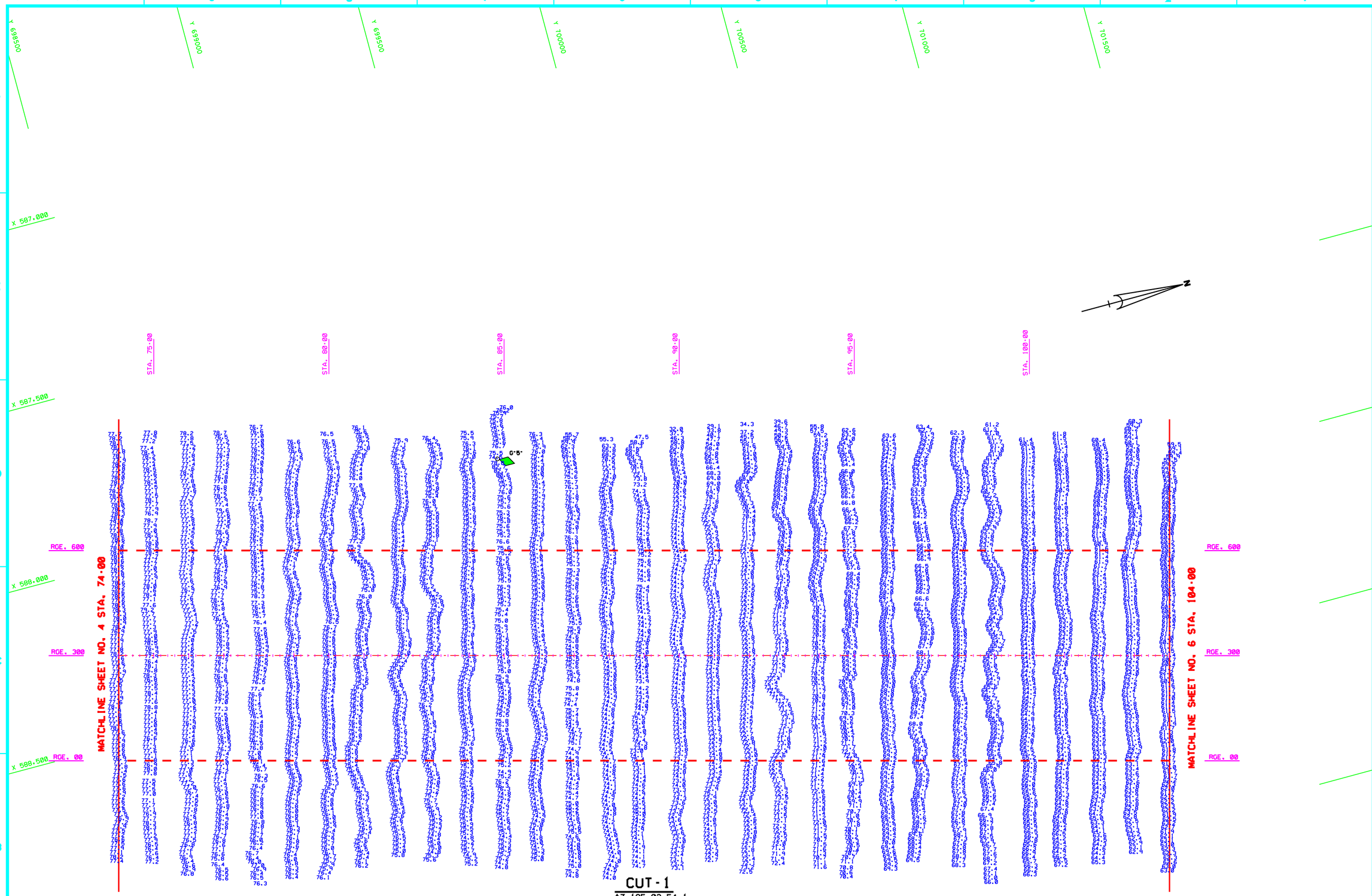
PLAN VIEW

Scale: AS SHOWN

Drawing no.

VH 104

SHEET 4 OF 9



CUT-1

AZ-195-02-54.1

AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
BUOY-5 (09/07)	587,994	699,548	17°57'09.73"	66°37'46.15"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No. Revision Date Zone Description

ARC SURVEYING & MAPPING, INC.
5262 SW 40th AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 777-7777
LICENSED BUSINESS NO. 6487

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

Designed by: Date by:
Drawn by: Date by:
Rev. No. W912EP-05-D-0003
Date: 2007 AUG 30
D.O. FILE NO. NNN-NN, NNN
Date: NNN YYYY

07-087VHDGDRB.DGN
07-087VHSDRB.DGN
07-087VHSPNAV.DGN
07-087VHSPCHN.DGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN
Reference files

File name: 07-078VHDS.DGN

PONCE, PUERTO RICO
PONCE HARBOR

PROJECT CONDITION SURVEY
36-FOOT PROJECT

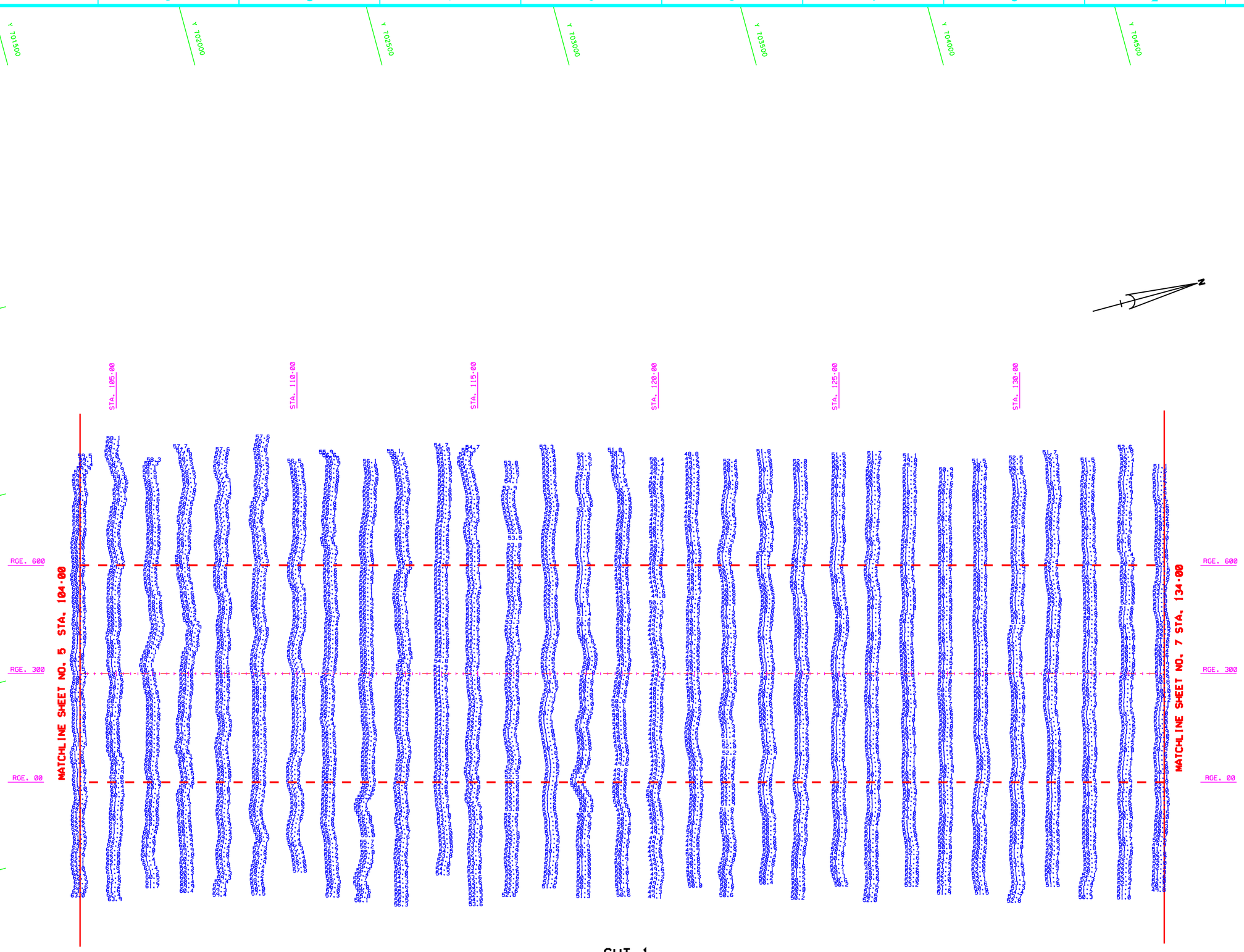
PLAN VIEW

Scale: AS SHOWN

Drawing no.

VH 105

SHEET 5 OF 9



CUT - 1

AZ-195-02-54.1

R=6'

AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
BUOY 6 (09/07)	590.475	703.401	17°57'47.94"	66°37'20.48"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

No. Revision Date Description

ARC SURVEYING & MAPPING, INC.
5262 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 384-7977
LICENSED BUSINESS NO. 6487

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

Designed by:
Drawn by:
Checked by:

File No. W912EP-05-D-0003
Date: 2007 AUG 30
D.O.T.L.E. NO. NNN-NN, NNN
Date: YYYY MMM DD

07-087VHSDEPTH.DGN
07-087VHSCONTOUR.DGN
07-087VHSPNAV.DGN
07-087VHSPCH4N.DGN
07-087VHSPCU2.DGN
07-087VHSPCU3.DGN
07-087VHSPCU13.DGN

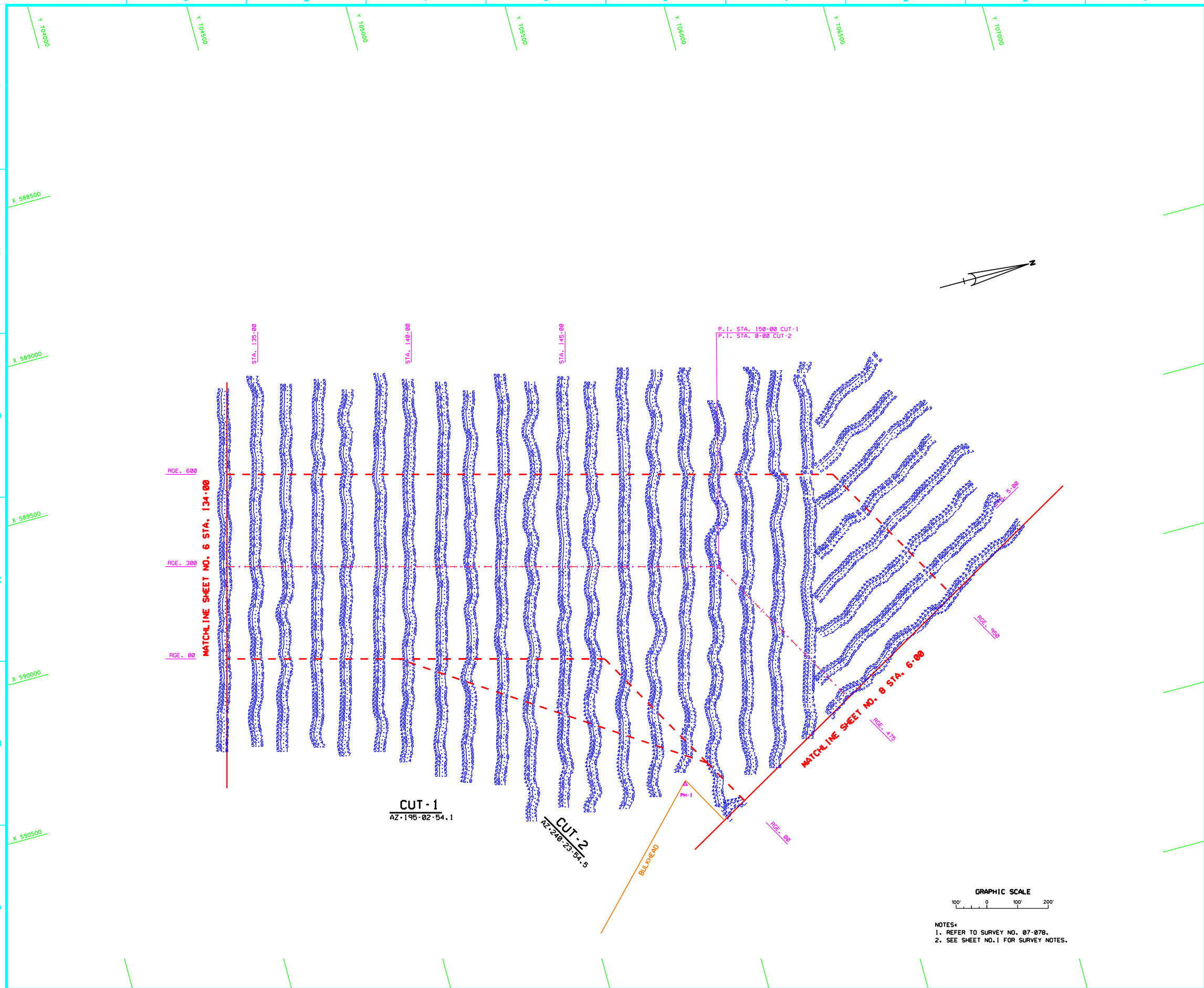
Reference files:
Filename: 07-078VH06.DGN

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
PLAN VIEW

Scale: AS SHOWN

Drawing no.
VH 106

SHEET 6 OF 9



NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

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ARC SURVEYING & MAPPING, INC.
5282 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
PHONE: 904/384-0377
LICENSED BUSINESS NO. 6407

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

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Drawn by:
Inv. No. W912EP-05-D-0003
Dated 2007 AUG 30
D.O.FILE NO. NNN-NN, NNN
Drawn MMM YYYY

07-087VH00BRDR.DGN
07-087VHSPCTRL.DGN
07-087VHSPNAV.DGN
07-087VHSPCHAN.DGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN

Reference files:
File name: 07-078VH107.DGN

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
PLAN VIEW

Scale: AS SHOWN
Drawing no.
VH 107
SHEET 7 OF 9

AID TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
BUOY-7 (09/07)	590.702	707.725	17°58'30.81"	66°37'18.18"

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

US Army Corps of Engineers
Jacksonville District

SAFETY ON THIS JOB DEPENDS ON YOU

Description
No. Revision Date

ARC SURVEYING & MAPPING, INC.
5262 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 387-4617
LICENSED BUSINESS NO. 6487

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

Designed by:
Drawn by:
Reviewed by:

Proj. No. W912EP-05-D-0003
Date: 2007 AUG 30
D.O.FILE NO. NNN-NN, NNN
Division: MM YYYY

07-087VHDEBRIS.DGN
07-087VHDGPS1.DGN
07-087VHSPNAV.DGN
07-087VHSPCHALDGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN

Reference files

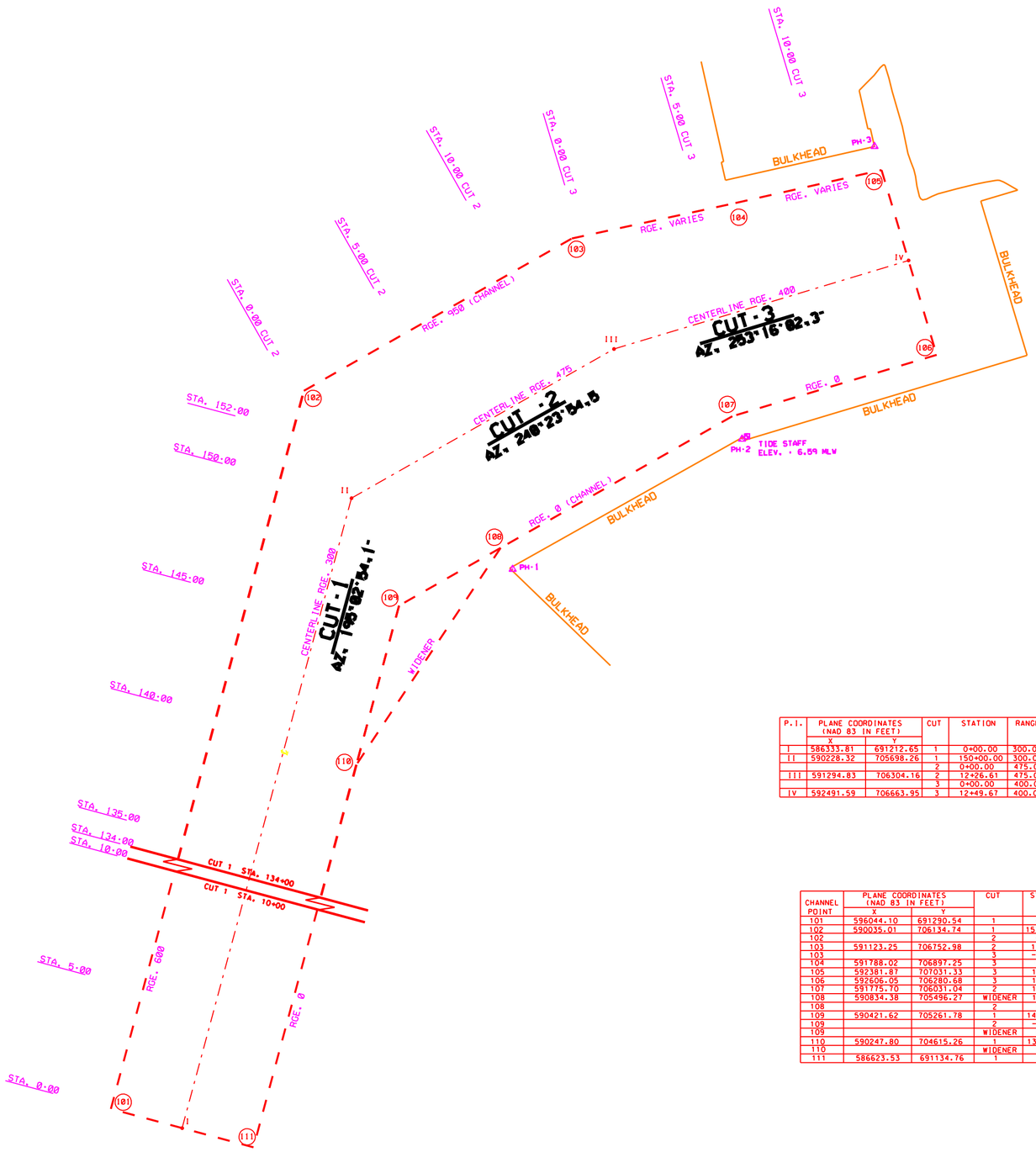
File name: 07-078VH108.DGN

PONCE, PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
35-FOOT PROJECT
PLAN VIEW

Scale: AS SHOWN

Drawing no.
VH 108

SHEET 8 OF 9



LEGEND/ABBREVIATIONS

USACOE = U.S. ARMY CORPS OF ENGINEERS
= TIDE STAFF
= FOUND USACOE GPS MONUMENT
℄ = CENTERLINE
AZ. = AZIMUTH
RGE. = RANGE
STA. = STATION
ELEV. = ELEVATION
MLW = MEAN LOW WATER

HORIZONTAL & VERTICAL CONTROL

MONUMENTS	PLANE COORDINATES (NAD 83 IN FEET) X	Y	ELEV (MLW)	CUT	STATION	RANGE
PH-1	590886.39	705408.86	N/A	2	4+27.18	-100.02
PH-2	591817.89	705938.12	N/A	3	3+93.15	-99.95
PH-3	592355.51	707126.93	6.59	3	12+50.55	833.63

P.I.	PLANE COORDINATES (NAD 83 IN FEET) X	Y	CUT	STATION	RANGE	AZIMUTH	DISTANCE
I	586333.81	691212.65	1	0+00.00	300.00	195-02-54	15000.00
II	590228.32	705698.26	1	150+00.00	300.00		
			2	0+00.00	475.00	240-23-54	1226.60
III	591294.83	706304.16	2	12+26.61	475.00		
			3	0+00.00	400.00	253-16-02	1249.67
IV	592491.59	706663.95	3	12+49.67	400.00		

CHANNEL POINT	PLANE COORDINATES (NAD 83 IN FEET) X	Y	CUT	STATION	RANGE
101	596044.10	691290.54	1	0+00.00	600.00
102	590035.01	706134.74	1	153+71.33	600.00
102			2	0+47.43	950.00
103	591123.25	706752.98	2	12+99.12	950.00
103			3	-0+35.10	879.22
104	591788.02	706897.25	3	6+43.06	825.98
105	592381.87	707031.33	3	12+50.37	783.41
106	592606.05	706280.68	3	12+48.94	00.00
107	591775.70	706031.04	2	15+09.80	00.00
108	590834.38	705496.27	WIDENER	10+58.42	00.00
108			2	4+27.18	00.00
109	590421.62	705261.78	1	146+28.68	00.00
109			2	-0+47.53	00.00
109			WIDENER	6+34.48	213.62
110	590247.80	704615.26	1	139+59.20	00.00
110			WIDENER	0+00.00	00.00
111	586623.53	691134.76	1	0+00.00	00.00

N

GRAPHIC SCALE
200' 0 200' 400'

NOTES:
1. REFER TO SURVEY NO. 07-078.
2. SEE SHEET NO.1 FOR SURVEY NOTES.

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

No. Revision Date Zone Description

ARC SURVEYING & MAPPING, INC.
5262 SAN JUAN AVENUE,
JACKSONVILLE, FLORIDA 32210
(904) 387-6450 FAX (904) 387-6377
LICENSED BUSINESS NO. 6487

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

Designed by: Drawn by: Chk by:
Proj. No. W912EP-05-D-0003
Dsign 2007 AUG 30
D.O.F.I.L.E. NO. NNN-NN, NNN
Date MMM YYYY

07-087VHSDEPR.DGN
07-087VHSCTRL.DGN
07-087VHSPNAV.DGN
07-087VHSPCHN.DGN
07-087VHSPCUT1.DGN
07-087VHSPCUT2.DGN
07-087VHSPCUT3.DGN
Reference files:
File name: 07-078VH109.DGN

PONCE-PUERTO RICO
PONCE HARBOR
PROJECT CONDITION SURVEY
36-FOOT PROJECT
PLAN VIEW
CONTROL

Scale: AS SHOWN
Drawing no.
VH 109
SHEET 9 OF 9