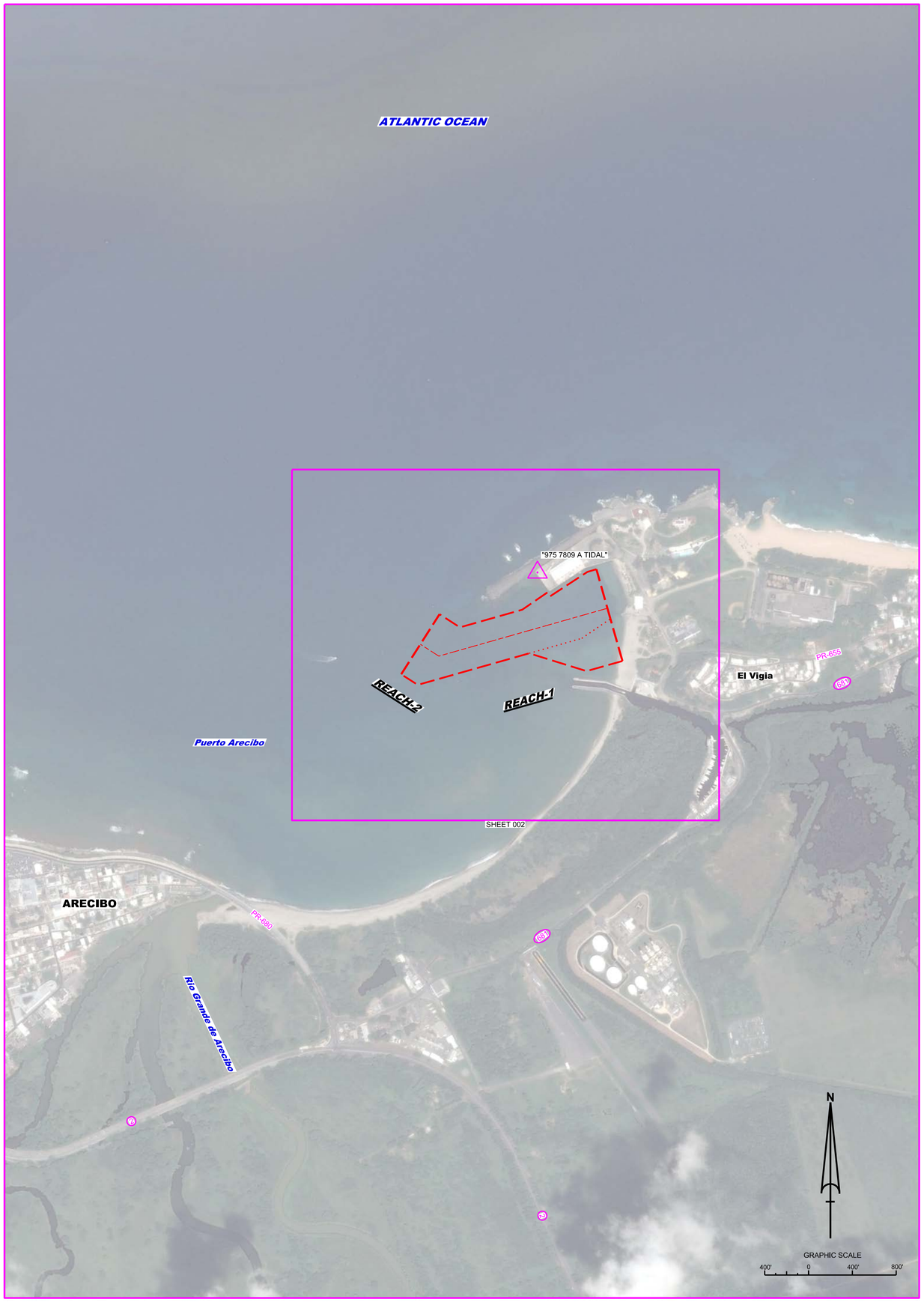
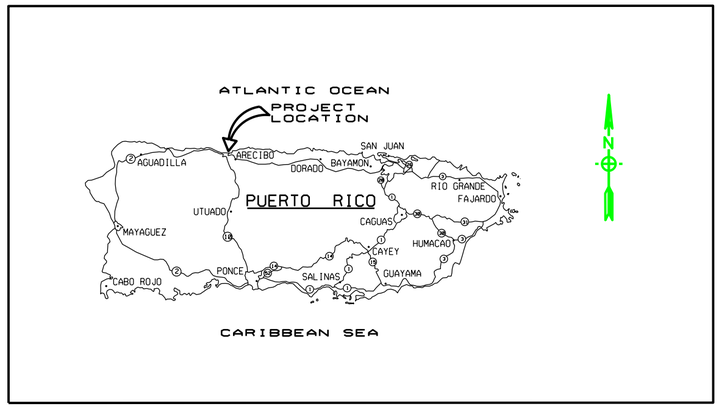




L O C A T I O N M A P

ARECIBO HARBOR
ARECIBO, PUERTO RICO
POST-HURRICANE MARIA
HYDROGRAPHIC EXAM SURVEY FY17
25-FOOT PROJECT

SURVEY NOTES

1. REFER TO SURVEY NO. 17-248.
2. TIDAL REDUCTIONS WERE OBTAINED UTILIZING REAL-TIME KINEMATIC (RTK) GPS AND REFERENCED TO MLLW USING AN ORTHOMETRIC HEIGHT OF 0.81'. A MEASURE DOWN POINT FROM SURVEY MONUMENT "975 7809 B TIDAL" (PID: DO1528), LOCATED AT THE SW CORNER OF THE SEAWALL, WAS USED TO VERIFY RTK TIDES PRIOR TO SURVEYING.
3. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
4. PLANE COORDINATES ARE BASED ON THE LAMBERT CONIC PROJECTION FOR PUERTO RICO AND THE U.S. VIRGIN ISLANDS AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83).
5. THE NGS FIRST-ORDER ELEVATION AT "872 7809 B TIDAL" AND THE KTD FILE "ARECIBO-2011APRIL06.KTD" WAS USED TO CALCULATE THE MLLW ELEVATION AT THE STATION (5.76' NAVD88 ELEV. + 0.81' ORTHOMETRIC HEIGHT CORRECTION = 6.57')
6. ALL STATIONING REFERS TO THE CENTERLINE OF THE CHANNEL.
7. THIS SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC (RTK) GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATION:

   REFERENCE BASE LOCATED AT "975-7809 A TIDAL" (PID: DO1529)
8. DEPTHS DEPICTED BY THIS SURVEY ARE REFERENCED TO MLLW, TIDAL EPOCH 1983-2001, AS REPORTED BY THE NATIONAL OCEANIC AND ATMOSPHERIC ADMIONISTRATION (NOAA). NOAA'S VDATUM MODEL WAS USED AND CALIBRATED TO THE PUBLISHED MLLW HEIGHTS OF THE BENCH MARK ASSOCIATED WITH THE TIDE GAGE SITE SPECIFIED BELOW:

   NOAA TIDAL STATION 975-7809 B TIDAL FOR REACH 1 AND 2 (PID: DO1528)
9. VERTICAL MEASUREMENTS WERE MADE USING A ROSS SMART SOUNDER DUAL-FREQUENCY28/200 KHZ SINGLE-BEAM TRANSDUCER. SOUNDINGS SHOWN ARE IN HIGH FREQUENCY (200KHZ).

VESSEL	DATE OF SURVEY	CUT
SB-34	27 SEP 2017	REACH 1 & 2

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 2013.

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

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
Inv. No. W912EP-XX-X-XXX
Dates: SEP 2017

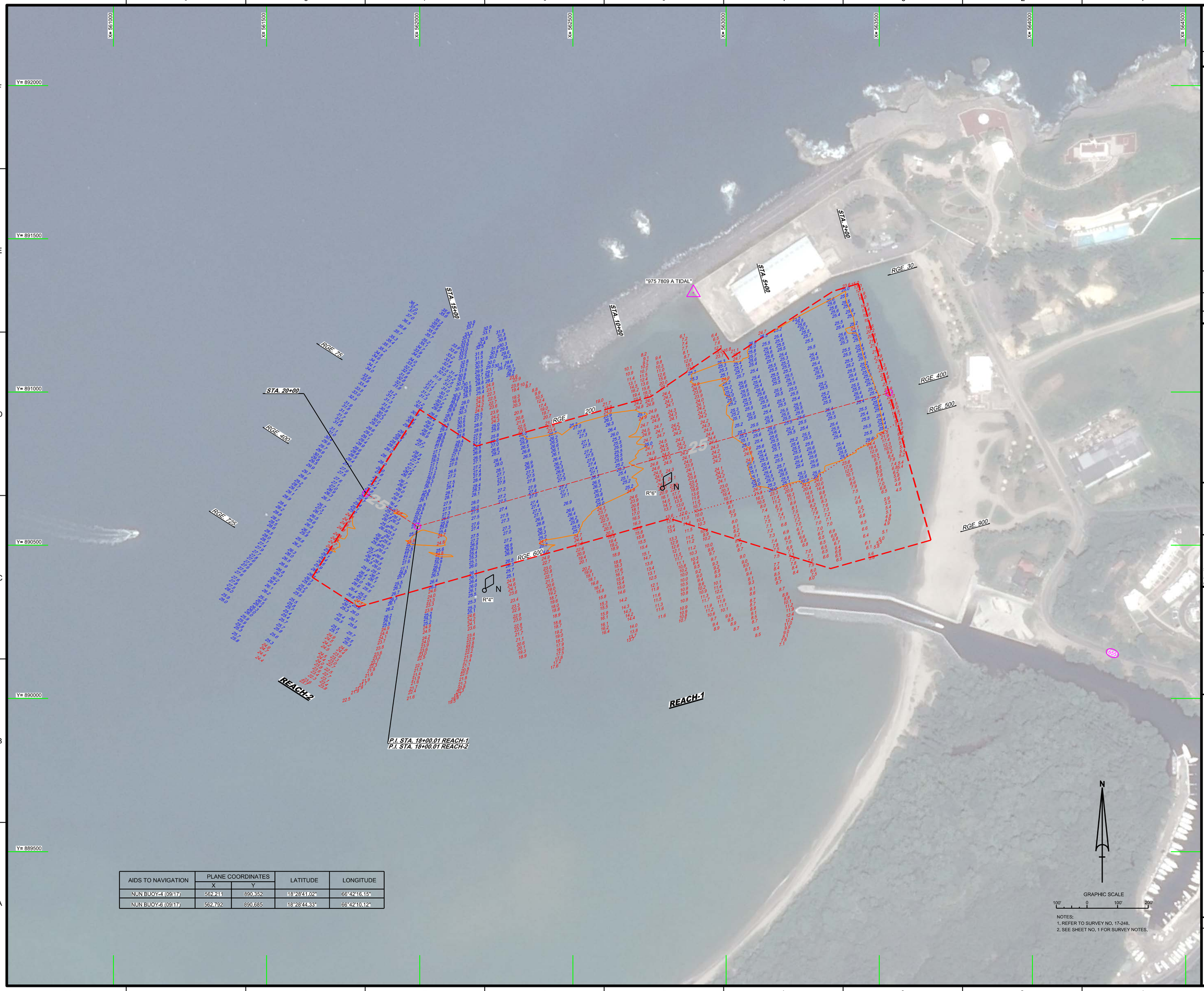
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
XXXXXXXXXXXXXXXXXX.DGN
ARECIBO HARBOR-C-NGMCF.DGN
17-248-A-Sb-SBROR.DGN
Reference files:
17-248-A-FH-01.DGN
File name:

ARECIBO HARBOR
ARECIBO, PUERTO RICO
POST-HURRICANE MARIA EXAM SURVEY FY17
25-FOOT PROJECT
INDEX, LOCATION AND VICINITY
MAP

Scale: AS SHOWN

Drawing no.
1

SHEET 01 OF 02



AIDS TO NAVIGATION	PLANE COORDINATES		LATITUDE	LONGITUDE
	X	Y		
NUN BUOY-4 (09/17)	562,211	890,352	18°28'41.02"	66°42'16.15"
NUN BUOY-6 (09/17)	562,792	890,685	18°28'44.33"	66°42'10.12"

N

GRAPHIC SCALE

100' 0 100' 200'

NOTES:
1. REFER TO SURVEY NO. 17-248.
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
Fn. No. V8312EP-XX-XX-XXX
Date: SEP 2017

XXXXXXXXX-XX-XXXXXX.DGN
XXXXXXXXX-XX-XXXXXX.DGN
17-248A-NAV.DGN
17-248A-SOUND.DGN
17-248A-SOUN.DGN
ARECIBO HARBOR-C-NGMCF.DGN
17-248A-C-BR-BRDR.DGN
Reference files
17-248-VH-02.DGN
File name:

AREOIBO HARBOR
ARECIBO, PUERTO RICO

POST-HURRICANE MARIA EXAM SURVEY FY17
25-FOOT PROJECT

STA. 2+00 REACH-1 THRU STA. 20+00.01 REACH-2

PLAN

Scale: AS SHOWN

Drawing no.

2

SHEET 02 OF 02