DESIGN AUTHENTICATION

PROJECT: Maintenance Dredging, Atlantic Intracoastal Waterway (AIWW), Vicinity of Sawpit Creek, Duval and Nassau Counties, FL

ATTACHED PLAN SHEETS: 20 Sheets

The attached plan sheets were prepared by the Jacksonville District, U.S. Army Corps of Engineers (USACE). The initials or signatures and registrations designations of the signatory below or that appear on these project documents are within the scope of employment as required by USACE Engineering Regulation 1110-1-8152, PROFESSIONAL REGISTRATION, 8 Aug 1995, and are not made in the individual capacity of the signatories.

USACE employee signatures are provided in support of the “Interagency Coordination Agreement for Civil Works Projects”, signed 28 Feb 2006 by the Florida Department of Environmental Protection, the USACE Jacksonville District, and USACE Mobile District.

These plans are for permitting purposes only, and are not for construction.

Richard I. McMillen P.E. #023351
Chief, Navigation Branch
Operations Division

10/28/11 DATE
**SURVEY TABULATION**

<table>
<thead>
<tr>
<th>VESSEL</th>
<th>AREA SURVEYED</th>
<th>DATE SURVEYED</th>
<th>BENCHMARK</th>
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<td>WR-32</td>
<td>CUT 7 THRU 9</td>
<td>28 JAN 10</td>
<td>STARK</td>
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<td>WR-32</td>
<td>CUT 9 THRU 12</td>
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<td>N 326</td>
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<td>CUT 10 THRU 12</td>
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<td>WR-32</td>
<td>CUT 15 THRU 21</td>
<td>02 FEB 10</td>
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**LEGEND**

- BM: BENCHMARK
- LB: LIGHTED BEACON
- GB: GREEN BEACON
- RB: RED BEACON
- SM: SMOKE MARKER
- NR: NAVIGATION MARKER
- TB: TIDESTAFF

**CHANNEL SURVEY NOTES:**

1. REFER TO SURVEY NO. 10-039.
2. ELEVATIONS ARE IN FEET AND TENTHS AND REFER TO NOAA'S REPORTED MEAN LOW WATER (MLW) OF THE 1983-2001 TIDAL EPOCH.
3. ALL ELEVATIONS ARE BELOW THE CHART DATUM UNLESS PRECEDED BY A (+) SIGN.
4. TIDAL REDUCTIONS WERE MADE UTILIZING REAL-TIME KINEMATIC TIDE DATUM MODEL.
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 DISTANCES ARE GROSS, RECONSIDERED CLOCKWISE FROM SOUTH.
7. ALL STATIONS REFER TO THE CENTERLINE OF THE CHANNEL.
8. SURVEY WAS PERFORMED USING REAL-TIME KINEMATIC GPS POSITIONING WITH THE FOLLOWING REFERENCE BASE LOCATIONS:
   - REFERENCE BASE LOCATED AT N 326 FOR CUTS 19 THRU 21:
     - NORTHING: 2,246,616'
     - EASTING: 512,105'
     - NAVTIDE ELEVATION: 8.22'
     - MLLW ELEVATION: 11.20'
   - REFERENCE BASE LOCATED AT W 326 FOR CUTS 19 THRU 21:
     - NORTHING: 2,326,114'
     - EASTING: 515,903'
     - NAVTIDE ELEVATION: 12.18'
     - MLLW ELEVATION: 20.37'
9. VERTICAL MEASUREMENTS WERE MADE USING A ROSS SMARTSOUNDER DUAL FREQUENCY 200KHZ SINGLE-BEAM TRANSDUCER. SOUNDINGS SHOWN IN THIS SURVEY ARE REPORTED IN HIGH FREQUENCY (200KHZ) DATA.
10. 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.
11. 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, JAN 02.
- Contours shown are at 2 foot intervals
- Red contours are above project depth
- Blue contours are below project depth (> 12 ft)

Atlantic Intracoastal Waterway
Duval and Nassau Counties, Florida
Maintenance Dredging
Vicinity of Sawpit Creek
Plan View
CUT-24 STA. 11+00 TO CUT-25 STA. 8+00

Plate: 4
DECISIONS SHOWN ARE AT 2 FOOT INTERVALS
RED CONTOURS ARE ABOVE PROJECT DEPTH
BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)

CUT-25 STA. 8+00 TO CUT-27 STA. 3+00

PLATE: 5
GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)
- MATERIAL FROM CUT-27 STA. 15+00 THROUGH CUT-27A STA. 0+00 (CROSS-HATCHED AREA) IS NOT TO BE INCLUDED IN BEACH PLACEMENT

DEPARTMENT OF THE ARMY - MATERIAL FROM CUT-27 STA. 15+00 THROUGH CUT-27A STA. 0+00

PLATE: 6

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK

PLAN VIEW:
CUT-27 STA. 3+00 TO CUT-27 STA. 20+00
ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA

MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK

PLAN VIEW:
CUT-27 STA. 20+00 TO CUT-27 STA. 37+00

WQC PLATES
NOT FOR CONSTRUCTION

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

FILE NAME:
Sawp/FY11-WQCSht07.dgn

DRAWN BY:
BTM

DATE:
OCT 2011

DRAWN BY:
S R

SCALE:
AS SHOWN

DRAWN BY:
GKM

GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)
- MATERIAL FROM CUT-27 STA. 15+00 THROUGH CUT-27A STA. 0+00
(CROSS-HATCHED AREA) IS NOT TO BE INCLUDED IN BEACH PLACEMENT
GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)
- MATERIAL FROM CUT-27 STA. 15+00 THROUGH CUT-27A STA. 0+00 (CROSS-HATCHED AREA) IS NOT TO BE INCLUDED IN BEACH PLACEMENT

ATLANTIC INTRACOASTAL WATERWAY
DUAIV AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK
PLAN VIEW:
CUT-27 STA. 37+00 TO CUT-27 STA. 54+00

PLATE: 8
WQC PLATES
NOT FOR CONSTRUCTION

DEPTH: 10'

FILE NAME:
DATASHPY11-WQCMS205.dgn

OWN BY:
BTM

GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12FT)
- MATERIAL FROM CUT-27 STA. 15+00 THROUGH CUT-27A STA. 0+00
(CROSS-HATCHED AREA) IS NOT TO BE INCLUDED IN BEACH PLACEMENT

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

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK
PLAN VIEW:
CUT-27 STA. 54+00 TO CUT-27A 0+00

PLATE:
9
GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK
PLAN VIEW:
CUT-27B STA. 21+00 TO CUT-27B STA. 32+00

PLATE: 11
FILE NAME: SawpFY11-WQCSht13.dgn
OWN BY: BTM
DATE: OCT 2011
SCALE: AS SHOWN
DRAWN BY: CKM
GENERAL NOTES:
- CONTOURS SHOWN ARE AT 2 FOOT INTERVALS
- RED CONTOURS ARE ABOVE PROJECT DEPTH
- BLUE CONTOURS ARE BELOW PROJECT DEPTH (> 12 FT)

PLATE:

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK
PLAN VIEW:
CUT-27C STA. 10+00 TO CUT-27D STA. 0+00

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

WQC PLATES
NOT FOR CONSTRUCTION
NOTES:
1. BERM WIDTH AND ELEVATION WILL VARY DEPENDING UPON EXISTING CONDITIONS AT THE TIME OF DREDGING. IF THERE IS NOT SUFFICIENT CAPACITY IN THE BEACH TEMPLATE, THE BERM WILL EXTEND SEAWARD.
2. PIPELINE ROUTE MAY VARY PER DREDGING EVENT.
3. AREA "A" (GREEN HATCH) WILL BE FILLED PRIOR TO AREA "B" (BLUE HATCH).
4. ELEVATIONS SHOWN ARE IN NAD83 (HORIZONTAL) AND NAVD88 (VERTICAL).
5. BEACH SURVEY WAS OBTAINED FROM OLSEN ASSOCIATES, INC. DATA WAS COLLECTED IN JULY 2010.
6. CONTOURS SHOWN ARE IN 5-FOOT INTERVALS.

LEGEND

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<thead>
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FILE NAME: SenoSPFY11-WQCSN14.dgn
OWN BY: BTM
DATE: OCT 2011
SCALE: AS SHOWN
GRID BY: CKM

PLATE: 14

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

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING VICINITY OF SAWPIT CREEK
BEACH PLACEMENT
AREA TO BE DREDGED
PROJECT CHANNEL

12-FOOT REQUIRED DEPTH

2-FOOT ALLOWABLE OVERDEPTH

EXISTING BOTTOM

ELEVATION IN FEET (MLLW)

10
2
-2
-10
-30
-500 -400 -300 -200 -100 0 100 200 300 400 500

-500 -400 -300 -200 -100 0 100 200 300 400 500

GRAPHIC SCALE

HORIZONTAL

50' 0 50' 100'

VERTICAL

5' 0 5' 10'

G 9
CUT-27 65+00

H 10
CUT-27A 15+00
10 AREA TO BE DREDGED

PROJECT CHANNEL

EXISTING BOTTOM

12-FOOT REQUIRED DEPTH

8-FOOT ALLOWABLE OVERDEPTH

CUT-27B 20+00

CUT-27B 25+00

GRAPHIC SCALE

HORIZONTAL 50' 0' 50' 100'

VERTICAL 5' 0' 5' 10'

GENERAL NOTES:

ATLANTIC INTRACOASTAL WATERWAY
DUVAL AND NASSAU COUNTIES, FLORIDA
MAINTENANCE DREDGING
VICINITY OF SAWPIT CREEK

PLATE: 19
AREA TO BE DREDGED

EXISTING BOTTOM

10-FOOT REQUIRED DEPTH

2-FOOT ALLOWABLE OVERDEPTH

EXISTING BOTTOM

10-FOOT REQUIRED DEPTH

2-FOOT ALLOWABLE OVERDEPTH

GRAPHIC SCALE
HORIZONTAL

VERTICAL

K
CUT-27B 33+00

L
CUT-27C 15+00