



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
JACKSONVILLE DISTRICT CORPS OF ENGINEERS  
COCOA REGULATORY FIELD OFFICE  
400 HIGH POINT DRIVE, SUITE 600  
COCOA, FLORIDA 32926

Cocoa Permits Section  
SAJ-2007-5634 (IP-AWP)

SEP 19 2008

Florida Department of Transportation, District 3  
Attn: Joy Giddens  
P.O. Box 607  
Chipley, Florida 32428

RECEIVED

SEP 22 2008

ENVIRONMENTAL MANAGEMENT  
OFFICE

Dear Ms. Giddens:

The U.S. Army Corps of Engineers (Corps) is pleased to enclose the Department of the Army permit, which should be available at the construction site. Work may begin immediately but the Corps must be notified of:

- a. The date of commencement of the work,
- b. The dates of work suspensions and resumptions of work, if suspended over a week, and
- c. The date of final completion.

This information should be mailed to the Enforcement Section of the Regulatory Division of the Jacksonville District at Post Office Box 4970, Jacksonville, Florida 32232-0019. The Enforcement Section is also responsible for inspections to determine whether Permittees have strictly adhered to permit conditions.

IT IS NOT LAWFUL TO DEVIATE FROM  
THE APPROVED PLANS ENCLOSED.

Sincerely,

for David S. Hobbie  
Chief, Regulatory Division

Enclosures

Copies Furnished:

FWS, Panama City (electronically)

EPA, Atlanta (electronically)

NMFS, St. Pete (electronically)

CESAJ-RD-PE

# DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Florida Department of Transportation, District 3  
Attn: Joy Giddens  
P.O. Box 607  
Chipley, Florida 32428

**RECEIVED**

**Permit No:** SAJ-2007-5634 (IP-AWP)

SEP 15 2008

**Issuing Office:** U.S. Army Engineer District, Jacksonville  
~~JACKSONVILLE DISTRICT~~  
USACE

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** The placement of clean fill material into 4.14 acres of waters of the United States (wetlands) for the replacement of the existing State Road 10 (SR-10) (US-90) bridge over the Perdido River and 1 acre of temporary impacts associated with the conversion of forested wetlands to herbaceous wetlands due to shading by the new structure. (FPN # 411118-1-52-01). The work described above is to be completed in accordance with the 3 attachments affixed at the end of this permit instrument.

**Project Location:** The project is the replacement of the existing SR-10 (US-90) bridge over the Perdido River. The project is located in Sections 10 and 15, Township 01 South, Range 32 West, and Section 15, Township 06 South, Range 06 East, Escambia County, Florida.

**Directions to site:** From the intersection of US-90 and Mobile Highway proceed west on US-90 approximately 3.5 miles to the Perdido River crossing.

**Latitude & Longitude:** Latitude 30.5221 North  
Longitude 87.4473 West

PERMIT NUMBER: SAJ-2007-5634 (IP-AWP)  
PERMITTEE: FDOT - District 3  
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**Permit Conditions**

**General Conditions:**

1. The time limit for completing the work authorized ends on **August 29, 2013**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and the mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to

PERMIT NUMBER: SAJ-2007-5634(IP-AWP)  
PERMITTEE: FDOT - District 3  
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ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.
2. Wetland impacts for this project will be mitigated through the Northwest Florida Umbrella, Watershed-Based, Regional Mitigation Plan (PLAN), as defined in the agreement between the Northwest Florida Water Management District (NFWMD) and the U.S. Army Corps of Engineers (Corps), Jacksonville District, July 31, 2006. The PLAN defines mitigation for this project as a combination of land acquisition, preservation, and restoration at the Perdido River site identified in section 5.1.4 Perdido River WMA, April 7, 2008 update.
3. Within 30 days from the date of initiating the authorized work or 12 months from the effective date of this permit, whichever first occurs, the Permittee shall provide verification to the Corps that 10.3 credits have been deducted from the Perdido River WMA credit ledger. The required verification shall reference this project's permit number (SAJ-2007-5634(IP-AWP)).
4. A representative of the Corps will be allowed to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of this permit.
5. All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232 and US Army Corps of Engineers, Cocoa Regulatory Field Office, Attn: Andrew Phillips, 400 High Point Drive, Suite 600, Cocoa, Florida 32926.



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PERMITTEE: FDOT - District 3

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6. Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

7. Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures around all work areas to prevent the displacement of fill material. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas adjacent to wetlands shall be stabilized using sod, degradable mats, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work has been completed and the site has been stabilized.

8. Within 60 days of completion of the authorized work or at the expiration of the construction window of this permit, whichever occurs first, the Permittee shall submit as-built drawings of the authorized work and a completed As-Built Certification Form (Attachment 3) to the Corps. The drawings shall be signed and sealed by a registered professional engineer and include the following:

a. A plan view drawing of the location of the authorized work footprint (as shown on the permit drawings) with an overlay of the work as constructed in the same scale as the attached permit drawings (8½-inch by 11-inch). The drawing should show all "earth disturbance," including wetland impacts, water management structures, and any on-site mitigation areas.

b. List any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the As-Built Certification Form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or As-Built Certification Form does not constitute approval of any deviations by the U.S. Army Corps of Engineers.

c. The Department of the Army Permit number.

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PERMITTEE: FDOT - District 3  
PAGE 5 of 10

- d. Include pre- and post-construction aerial photographs of the project site, if available.

**Further Information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

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PERMITTEE: FDOT - District 3  
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c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170)



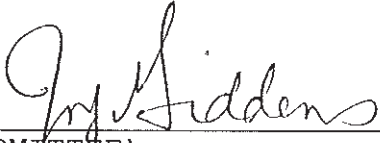
PERMIT NUMBER: SAJ-2007-5634 (IP-AWP)  
PERMITTEE: FDOT - District 3  
PAGE 7 of 10

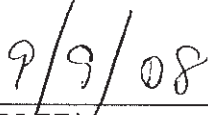
accomplish the corrective measures by contract or otherwise and bill you for the cost.

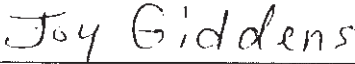
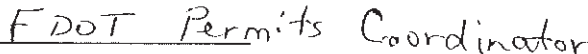
6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

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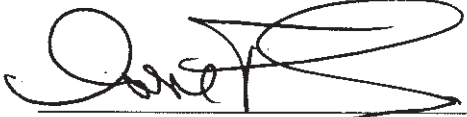
Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

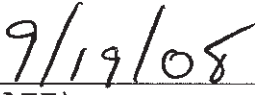
  
\_\_\_\_\_  
(PERMITTEE)

  
\_\_\_\_\_  
(DATE)

   
\_\_\_\_\_  
(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

  
\_\_\_\_\_  
for (DISTRICT ENGINEER)  
Paul L. Grosskruger  
Colonel, U.S. Army  
District Commander

  
\_\_\_\_\_  
(DATE)

PERMIT NUMBER: SAJ-2007-5634(IP-AWP)  
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When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE-SIGNATURE)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(NAME-PRINTED)

\_\_\_\_\_  
(ADDRESS)

\_\_\_\_\_  
(CITY, STATE, AND ZIP CODE)

PERMIT NUMBER: SAJ-2007-5634(IP-AWP)  
PERMITTEE: FDOT - District 3  
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***Attachments to Department of the Army  
Permit Number SAJ-2007-5634(IP-AWP)***

1. PERMIT DRAWINGS: 15 pages, dated 5/9/2008
  
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit. 12 pages.
  
3. As-Built Certification: 1 page

COMPONENTS OF CONTRACT PLANS SET  
ROADWAY PLANS  
SIGNING AND PAVEMENT MARKING PLANS  
STRUCTURE PLANS

A DETAILED INDEX APPEARING ON THE  
END SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

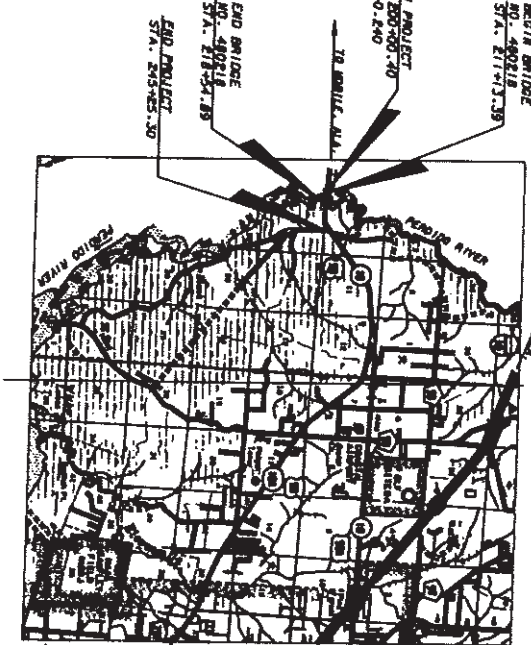
SHEET NO.	SHEET DESCRIPTION
1	SUMMARY OF PLAN ITEMS
2-3	DRAINAGE MAP
4-5	TYPICAL SECTION
6-7	SUMMARY OF QUANTITIES
8-9	OPTIMAL MATERIALS STRUCTURES
10-11	OPTIMAL MATERIALS TABLE FOR
12	GENERAL NOTES
13-14	PLAN SHEET
15	PROFILE
16-17	DRIVER'S PROFILE
18-19	DRAINAGE STRUCTURES
20-21	STORMWATER FLOOD SOIL SWNER
22-23	ROADWAY SOIL SWNER
24-25	ROADWAY SOIL SWNER
26-27	CROSS SECTIONS
28-29	STORMWATER POLLUTION PREVENTION PLAN
30-31	UTILITY CONTROL PLAN
32-33	WETLAND DELINEATION SHEET

CONTRACT STIPULATIONS AND SPECIAL CONDITIONS  
FINANCIAL STATEMENT OF TRANSPORTATION  
AND STATEMENT OF INVESTMENT  
AND STATEMENT OF EXPENDITURE FOR ROAD AND  
BRIDGE CONSTRUCTION PROJECTS,  
AS AUTHORIZED BY CONTRACT DOCUMENTS.

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6000-23.003, F.A.C.

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
CONTRACT PLANS

FINANCIAL PROJECT ID 41118-1-52-01  
ESCAMBIA COUNTY, FLORIDA (48010)  
BALDWIN COUNTY, ALABAMA  
STATE ROAD NO. 10

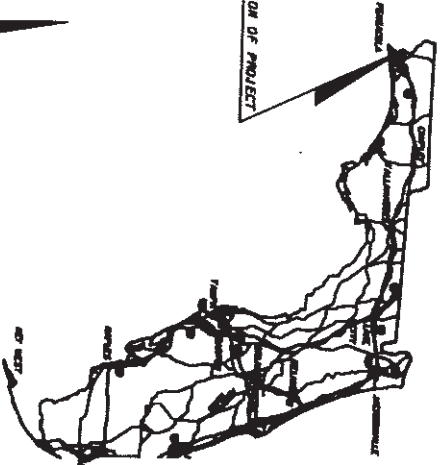


PROJECT LENGTH IS BASED ON E OF CONSTRUCTION

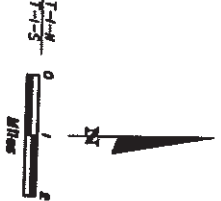
LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	3783.40	0.716
BRIDGES	741.50	0.140
NET LENGTH OF PROJECT	4524.90	0.856
EXCEPTIONS		
GROSS LENGTH OF PROJECT	4524.90	0.856

FOOT PROJECT MANAGER: Bill Howard

RECEIVED  
MAY 18 2008  
JACKSONVILLE DISTRICT  
USACE



LOCATION OF PROJECT



ROADWAY SHOP DRAWINGS  
TO BE SUBMITTED TO:  
Robert A. Venable Inc. P.E.  
c/o American Consulting Engineers of Florida, LLC  
4111 Lake O' Lakes Blvd., Suite 1700, Jacksonville, FL 32256  
Phone: (904) 996-2800 Fax: (904) 996-1908

PLANS PREPARED BY:



RECEIVED  
MAY 18 2008  
JACKSONVILLE DISTRICT  
USACE

JACKSONVILLE DISTRICT  
USACE

REV	DATE	BY	DESCRIPTION

58 80 045 500 and Florida River Bridge Replacement

PROJECT FILE NO.	
DATE	
PROJECT NO.	
PROJECT NAME	
PROJECT LOCATION	
PROJECT SHEET NO.	
PROJECT SHEET TOTAL	
PROJECT SHEET NO.	
PROJECT SHEET TOTAL	

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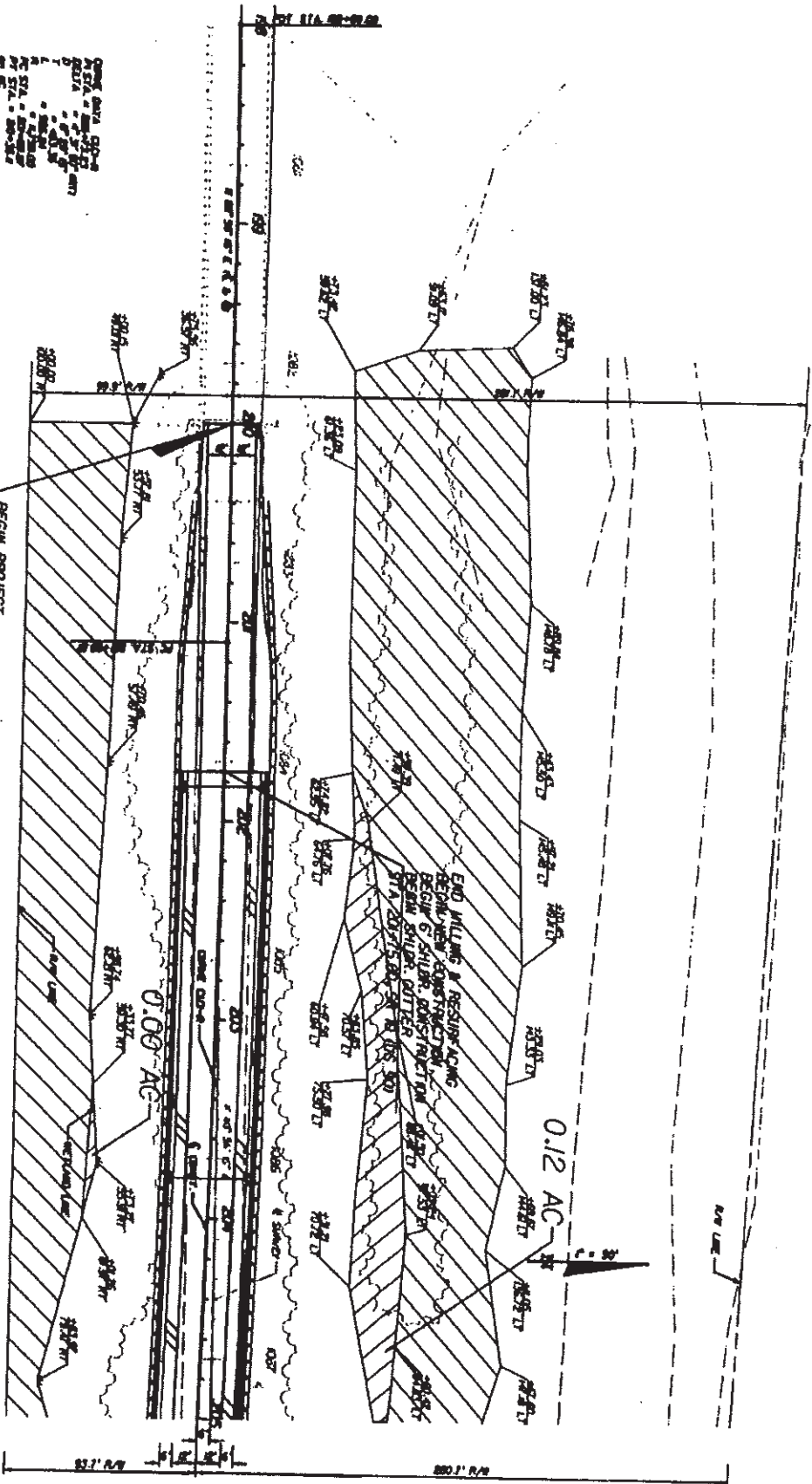




POINT DATA: 50-4  
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BEGIN PROJECT  
 BEGIN MILLING & RESURFACING  
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 STA. 200+00.00 & CONST. SR TO US 501

0.00 AC  
 0.12 AC



**American**  
 Consulting Engineers of Florida, LLC

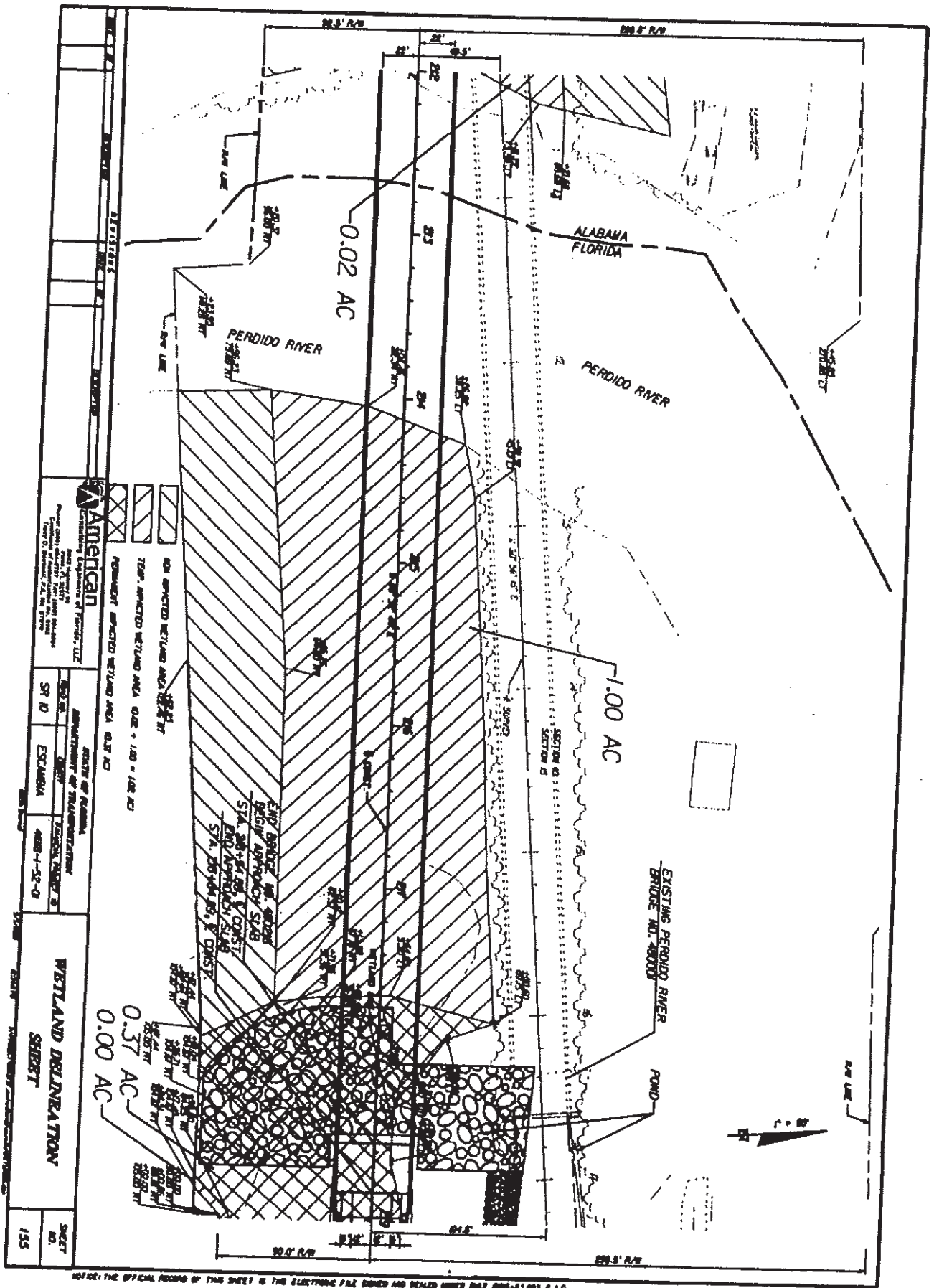
State of Florida  
 Department of Transportation  
 SR 10 ESCAMBA 488-1-52-0

WETLAND DELINEATION  
 SHEET

SHEET NO. 43

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**American**  
 CONSULTING ENGINEERS OF FLORIDA, LLC  
 1000 N. 11th St.  
 Tallahassee, FL 32301  
 Phone: 904.438.1111  
 Fax: 904.438.1112  
 www.american-engineers.com

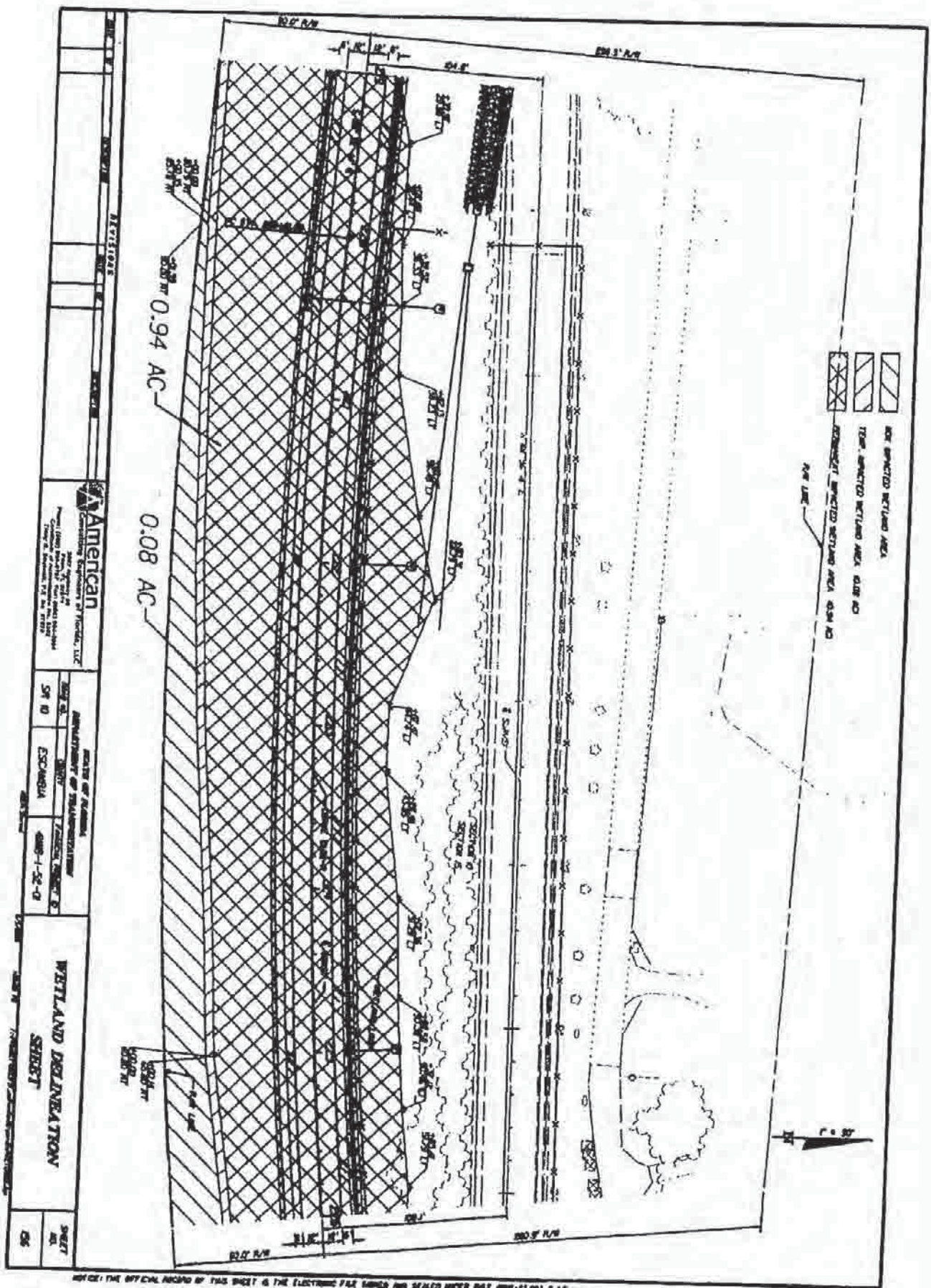
STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
SR NO	SECTION
ESCAMBA	4800-4820-0



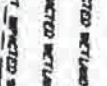
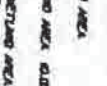
**WETLAND DELINEATION SHEET**

SHEET NO. 155

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-  ONE IMPACTED WETLAND AREA
-  TWO IMPACTED WETLAND AREA 0.08 AC
-  ADJACENT IMPACTED WETLAND AREA 0.94 AC
-  NEW LINE

**American**  
 Environmental Services, Inc.  
 10000 Highway 100, Suite 100  
 Houston, Texas 77036  
 Phone: (713) 865-1111  
 Fax: (713) 865-1112  
 Email: info@american-es.com

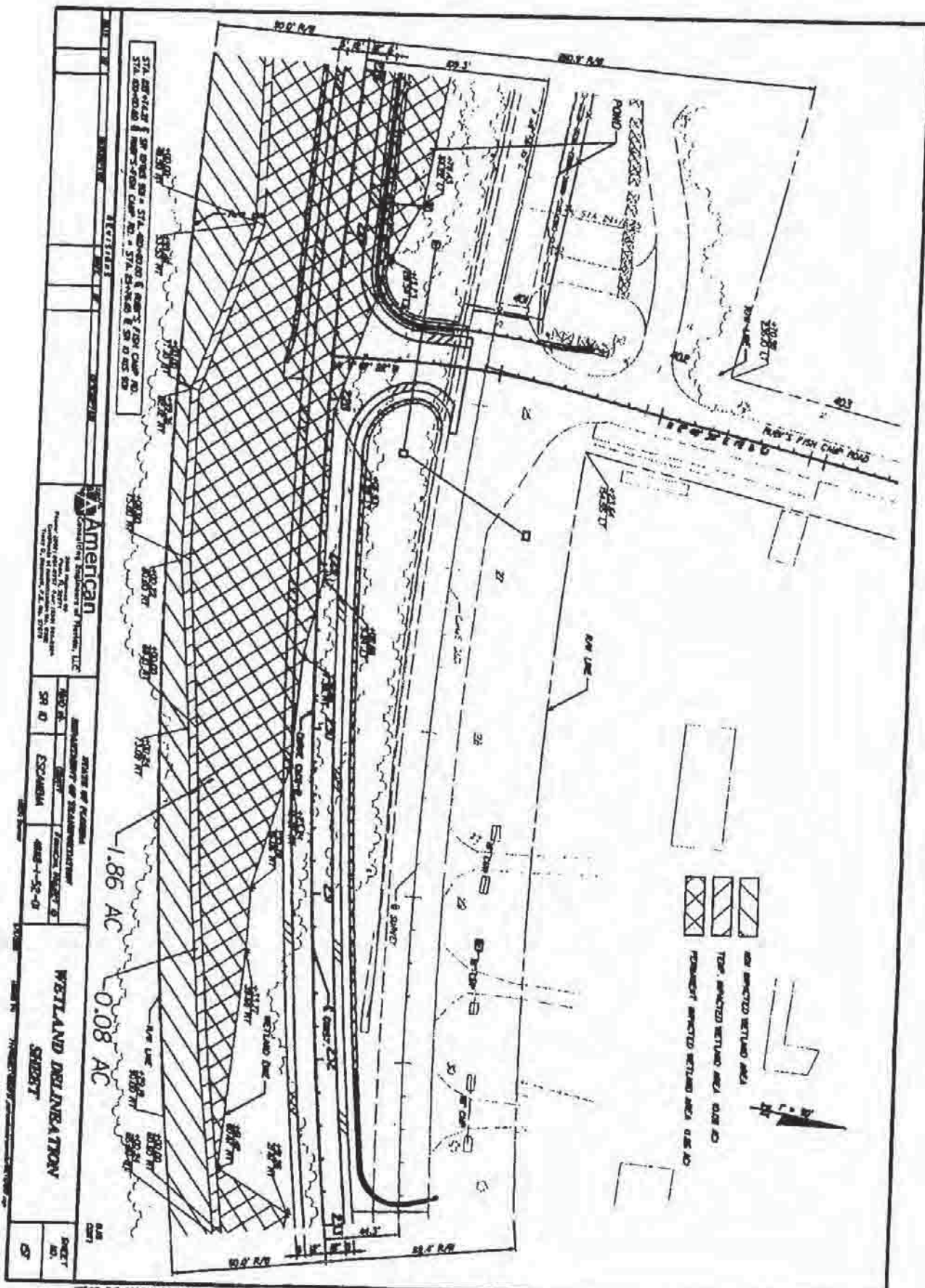
STATE OF TEXAS  
 DEPARTMENT OF TRANSPORTATION  
 DISTRICT 10  
 ESCOBAR  
 480-1-22-0

**WETLAND DELINEATION SHEET**

SHEET NO. 05

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STA. 400+00 TO STA. 400+50 = 574.40 SQ. FT. OF WETLAND  
 STA. 400+50 TO STA. 400+100 = 574.40 SQ. FT. OF WETLAND  
 STA. 400+100 TO STA. 400+150 = 574.40 SQ. FT. OF WETLAND  
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 STA. 400+950 TO STA. 400+1000 = 574.40 SQ. FT. OF WETLAND

**American**  
 Consulting Engineers of Florida, LLC  
 1000 N. W. 10th Street, Suite 100  
 Ft. Lauderdale, FL 33304  
 Phone: (954) 571-1111  
 Fax: (954) 571-1112  
 Email: info@american-engineers.com

STATE OF FLORIDA  
 DEPARTMENT OF STATE  
 DIVISION OF LAND MANAGEMENT  
 1000 N. W. 10th Street, Suite 100  
 Ft. Lauderdale, FL 33304  
 Phone: (954) 571-1111  
 Fax: (954) 571-1112  
 Email: info@fldm.state.fl.us

**WETLAND DELINEATION SHEET**

DATE: 08/15/2011  
 DRAWN BY: J. B. [unreadable]  
 CHECKED BY: [unreadable]  
 PROJECT NO.: [unreadable]

NOTE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE STORED AND SEALED UNDER RULE 68B-23.001, F.A.C.









American Consulting Engineers of Florida, LLC

4489 Woodbine Road • Pace, Florida 32571

Tel 850.994.9757 • Fax 850.994.9684

american@ace-fla.com • www.ace-fla.com

## Wetland Impacts

### SR 10 (US 90) OVER PERDIDO RIVER BRIDGE REPLACEMENT

#### Sheet Totals

Sheet 153	Temp. Impacts:	0.12 AC
	Perm. Impacts:	0.00 AC
Sheet 154	Temp. Impacts:	0.19 AC
	Perm. Impacts:	0.44 AC
Sheet 155	Temp. Impacts:	1.02 AC
	Perm. Impacts:	0.37 AC
Sheet 156	Temp. Impacts:	0.08 AC
	Perm. Impacts:	0.94 AC
Sheet 157	Temp. Impacts:	0.08 AC
	Perm. Impacts:	1.86 AC
Sheet 158	Temp. Impacts:	0.00 AC
	Perm. Impacts:	0.04 AC
Sheet 159	Temp. Impacts:	0.00 AC
	Perm. Impacts:	0.00 AC

#### Project Totals

Temp. Impacts: 1.49 AC  
Perm. Impacts: 3.65 AC

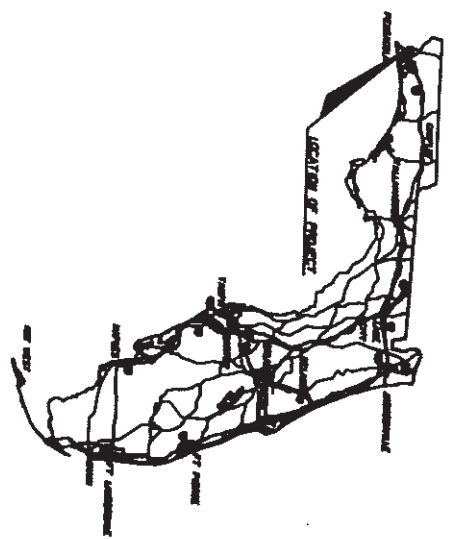
Total Impacts 5.14 AC

**RECEIVED**  
SEP 15 2008  
JACKSONVILLE DISTRICT  
USAGE

**STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION**

**CONTRACT PLANS**

FINANCIAL PROJECT ID 41118-1-52-01  
 ESCAMBIA COUNTY, FLORIDA (48010)  
 BALDWIN COUNTY, ALABAMA  
 STATE ROAD NO. 10 (US 90) OVER PERDIDO RIVER  
 BRIDGE NO. 480218  
**STRUCTURE PLANS**



**INDEX OF STRUCTURE PLANS**

SHEET NO.	SHEET DESCRIPTION
B-01	KEY SHEET
B-02	GENERAL NOTES
B-03	PIER AND ELEVATOR 0 OF 31
B-04	PIER AND ELEVATOR 12 OF 31
B-05	PIER AND ELEVATOR 13 OF 31
B-06	BRIDGE HYDRAULIC RECOMMENDATIONS
B-07	REMOVAL OF EXISTING STRUCTURES
B-08	SOIL BORING LOCATIONS
B-09	REPORT OF SOIL BORINGS 11 OF 41
B-10	REPORT OF SOIL BORINGS 12 OF 41
B-11	REPORT OF SOIL BORINGS 13 OF 41
B-12	FOUNDATION LAYOUT 11 OF 31
B-13	FOUNDATION LAYOUT 12 OF 31
B-14	FOUNDATION LAYOUT 13 OF 31
B-15	PILE DATA TABLE
B-16	END BEAT 1
B-17	END BEAT 2
B-18	END BEAT 3
B-19	END BEAT 4
B-20	INTERMEDIATE BEATS 2 THRU 9
B-21	INTERMEDIATE BEAT DETAILS
B-22	ASBUILT BEAR LAYOUT
B-23	TYPICAL SECTION THROUGH BRIDGE DECK
B-24	FINISH GRADE ELEVATIONS 0 OF 31
B-25	FINISH GRADE ELEVATIONS 12 OF 31
B-26	FINISH GRADE ELEVATIONS 13 OF 31
B-27	SUPERSTRUCTURE 0 OF 31
B-28	SUPERSTRUCTURE 12 OF 31
B-29	SUPERSTRUCTURE 13 OF 31
B-30	SUPERSTRUCTURE DETAILS 0 OF 31
B-31	SUPERSTRUCTURE DETAILS 12 OF 31
B-32	SUPERSTRUCTURE DETAILS 13 OF 31
B-33	ASBUILT THE II BEAR - TABLE OF BEAR DIMENSIONS
B-34	BUILDUP & DETECTION DATA TABLE FOR I-BEAMS
B-35	APPROACH SLAB 0 OF 31
B-36	SLOPE PROTECTION DETAILS 0 OF 31
B-37	SLOPE PROTECTION DETAILS 12 OF 31
B-38	SLOPE PROTECTION DETAILS 13 OF 31
B-39	REINFORCING BAR LIST
B-40	LOAD RATING CHARTS

REVISIONS

FOOT PROJECT MANAGER: BILL HOWELL

NO.	DATE	DESCRIPTION

SCALE: AS SHOWN  
 SHEET NO. 10 OF 41  
 PROJECT NO. 41118-1-52-01

PROJECT TEAM	SHEET NO.
	10

STRUCTURE SHOP DRAWINGS  
 TO BE SUBMITTED TO:  
 SCOTT SMITH, P.E.  
 C/O AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC  
 40 LAND O' LAKES BOULEVARD  
 LAND O' LAKES, FLORIDA 33465  
 (813) 946-2800

PLANS PREPARED BY:  
**American**  
 Consulting Engineers of Florida, LLC  
 4111 Land O' Lakes Blvd., Suite 210  
 Land O' Lakes, Florida 33465  
 Phone: (813) 946-2800 Fax: (813) 946-1866  
 Certificate of Accreditation No. 15397  
 Vendor No. VT 64382348-011  
 Certified No. C-31848

NOTE: THE SCALE OF THESE PLANS ARE  
 AS SHOWN AND NOT TO SCALE.

**GENERAL NOTES**

**GENERAL SPECIFICATIONS:**

Florida Department of Transportation Standard Specifications for Road and Bridge Construction (dated 2007), as amended by contract documents.

**DESIGN SPECIFICATIONS:**

FOOT Structures Manual dated July 2007 (rev. V01), Section I.G1, Subsequent Structures Temporary Design Bulletin February 14, 2007; Section 8, 2007; March 27, 2007; April 20, 2007; May 4, 2007 and June 18, 2007.

**ENVIRONMENT:**

Superstructure - Slightly Aggressive  
Substructure - Concrete: Extremely Aggressive (Sel - pH=4.9)  
Steel: Extremely Aggressive (Sel - pH=4.9)

**PUTTING WEARING SURFACE:**

Design does not include allowance for 15 mil.

**CONCRETE:**

All concrete shall be in accordance with Section 346.

**Concrete**

Min. 28-day Compressive Strength (ksi) Location of Structure

**II**

$f_c = 3.4$

CIP Traffic Railing Barrier

**II (Bridge Deck)**

$f_c = 4.5$

CIP Superstructure

**II (Bridge Deck)**

$f_c = 4.5$

CIP Approach Slabs

**IV**

$f_c = 5.5$

Substructure

**V (Special)**

$f_c = 6.0$

Pre-stressed Piles

**VI**

$f_c = 8.5$

Pre-stressed Beams

**CONCRETE COVER:**

CIP Superstructure = 2" (Typical except as noted)

CIP Substructure = 4 1/2" for reinforced surfaces cast against earth

4" for other reinforced surfaces

2" for top of girder protrusions

Concrete covers shown in the plans do not include placement and fabrication tolerances unless shown as "minimum cover". See FDOT Standard Specifications for allowable tolerances.

**REINFORCING STEEL:**

Reinforcing steel shall be ASTM A615, Grade 60, Service Stress and Service III loading shall be limited to 24 ksi for bent caps.

**APPLIED FINISH COATING:**

A Class 5 Finish Coating shall be applied to the portions of the structures shown on the Surface Finish Detail, see detail that show as well as all exposed surfaces (top, inside and outside) of end bent wingtips.

**PLAN DIMENSIONS:**

All dimensions in these plans are measured in feet and inches either horizontally or vertically unless otherwise noted.

**UTILITIES:**

For locations of existing utilities, see Plan and Elevation sheets B-03, B-04 and B-05. The utility shown in the Bridge plans are of approximate locations. For additional information refer to the Roadway Plans.

**JOINTS IN CONCRETE:**

Construction joints shall be permitted only at locations indicated on the plans. Additional construction joints or alterations to those shown shall require approval of the Engineer.

**SCREENING DECK SLABS:**

Screen the riding surface of the Bridge Deck and Approach Slabs to achieve the Finish Grade Elevations shown in the plans, account for theoretical deflections due to deck self weight, deck casting sequence, deck forming systems, construction loads and temporary shoring, etc. as required.

**STAY IN PLACE DECK FORMS:**

Design includes allowance for 20 psf over the projected plan area of the metal forms for the unit weight of metal forms and concrete required to fill the form later.

**PHASING OF WORK:**

Work phasing and progression of the work shall conform with the Traffic Control Plans located in the Roadway Plans.

**DEMOLITION/REMOVAL OF EXISTING STRUCTURE:**

Demolition and removal of the existing structure shall be accomplished in accordance with the Environmental Permit and approved by the Florida Department of Environmental Protection. The Contractor shall be responsible to retain debris within the wetland areas. The Contractor shall be responsible to retain debris prior to the debris being into the wetland area. Any debris in the wetland area shall be immediately removed.

**EXISTING STEEL BEAMS:**

Existing steel beams shall be delivered to Trac Longevity Corporation, 10151 South Loop Road, Pensacola, FL 32507-9834, Phone (850) 458-0227; Fax (251) 900-6462

**LEAD BASED PAINT:**

The Contractor is responsible for following the requirements of the Departmental Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA) and other governing Authorities when removing paint or components coated with lead based paint. See the Specifications for additional information.

**HAZARDOUS AND NON-HAZARDOUS WASTE:**

If it has been determined that there is lead pigment on the existing girders and all mechanical items (nuts, washers, storage areas, storage containers) of all hazardous and non-hazardous waste material. Non-hazardous waste shall be disposed of in accordance with local, state and federal rules and regulations, including but not limited to, local landfill requirements. The Contractor shall contact local non-hazardous disposal sites to obtain information concerning local requirements. The Department shall be responsible for the disposal of hazardous waste.

**DESIGN STANDARDS:**

The following Design Standard shall be used in the plan set: 199, 420, 2010, 2010, 2019, 2050, 2060, 2060, 2062, 2062, 2062, 2062, 2110, 2120 and 2130.

**BID ITEM NOTES**

- For Summary of Bridge Pay Items, see sheets 2 and 3 of Roadway Plans.
- Payment for incidental items not specifically covered in individual Bid Items shall be included in the Contract Unit Price for the Bid Items.
- For Traffic Control Notes, see Roadway Plans.

4. Item Number 110-3 includes removal of the following approximate plan area of existing structure: 24809 square feet - Bridge No. 480001

All demolition activities including methods, materials, labor, work zone protection, equipment and disposal shall be included in the Contract Unit Price for Bid Item Number 110-3. Removal of Existing Structures, for limits of removal, see sheet B-02.

5. The Approach Slab sheets are included with the Bridge Plans. All quantities that are associated with the respective Approach Slabs are included with the quantities for their respective items, except for the approach overlay quantities. They are included with the Roadway quantities.

6. The cost of the deck inserts for future utility hangers shall be included in the Contract Unit Price for Bid Item Number 400-2-4, Superstructure Concrete.

7. The cost of labor and materials for construction of the expansion joints in the bridge deck shall be included in the Contract Unit Price for Bid Item Number 458-1-11, Bridge Deck Expansion Joint.

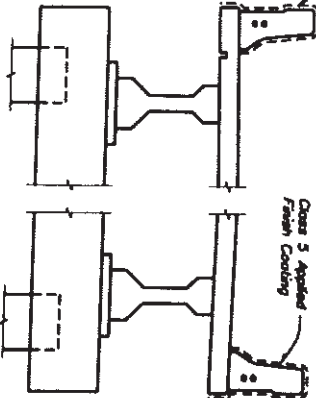
8. Payment for furnishing and installing embedded deck collectors shall be included in the Contract Unit Price for Bid Item Number 453-1-16.

9. Payment for furnishing and installing composite neoprene bearing pads shall be under Bid Item Number 400-1-17 and include the following:

STD. BEARING PADS (INDEX NO. 20500)		
Bearing Pad Dimension	No. of Pads	Std. Pad Type
1'-2" x 1'-6" x 2 1/2"	108	Type III - B

Class 5 Applied Finish Coating

Class 5 Applied Finish Coating



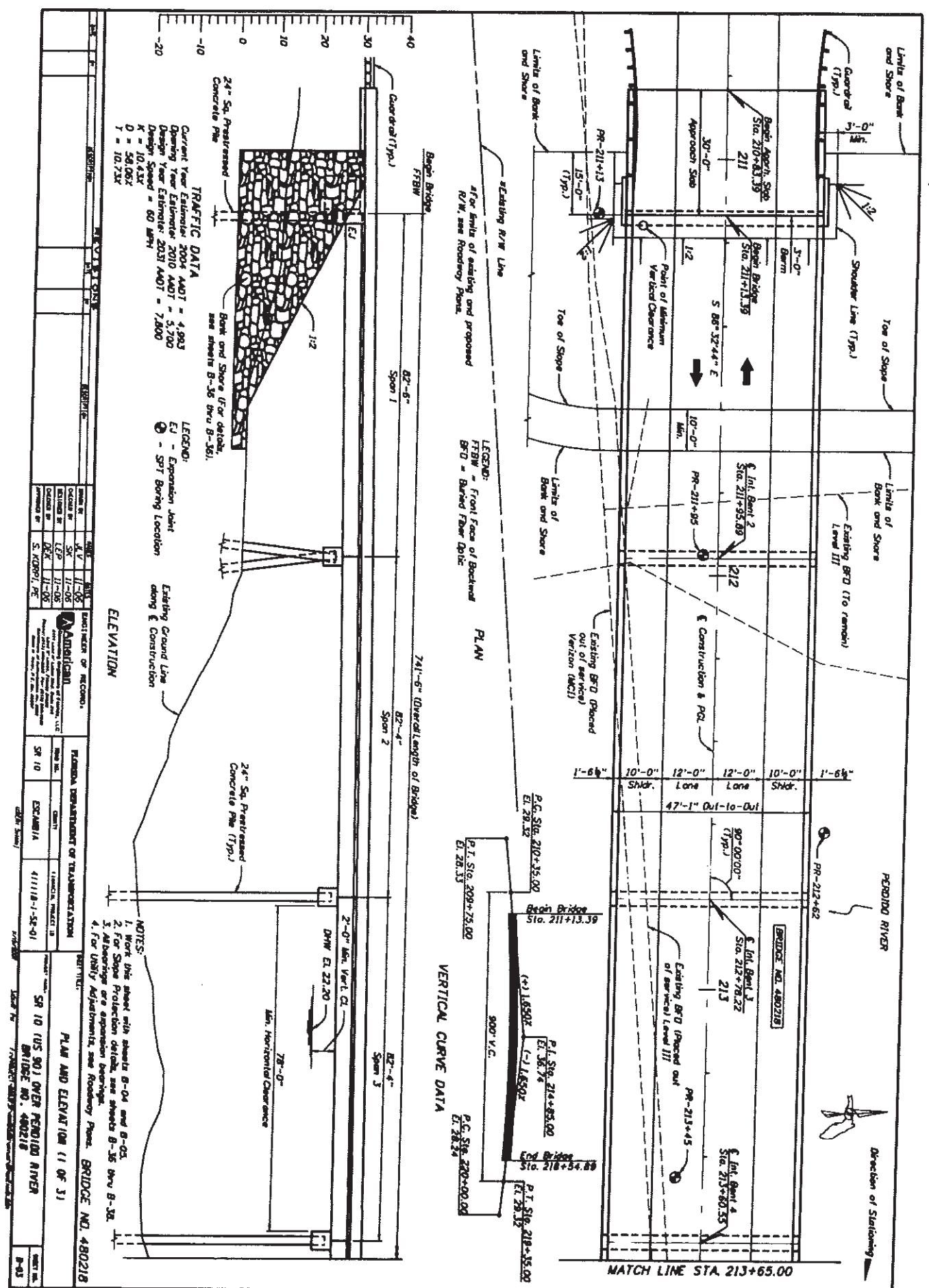
**SURFACE FINISH DETAIL**

DATE	BY	REVISION	DESCRIPTION
11-06	J.V.	1	ISSUED FOR BIDDING
11-06	J.V.	2	REVISED PER COMMENTS
11-06	J.V.	3	REVISED PER COMMENTS
11-06	J.V.	4	REVISED PER COMMENTS
11-06	J.V.	5	REVISED PER COMMENTS

DESIGNED BY	AMERICAN	REGISTERED PROFESSIONAL ENGINEER
PROJECT NO.	SR 10	ESC/AB/A
DATE	4/11/18	-52-01
SCALE	AS SHOWN	
PROJECT TITLE	BRIDGE NO. 480218	
GENERAL NOTES	SR 10 (US 90) OVER PENOLDO RIVER	
DATE	11/18/18	
BY	J.V.	





**TRAFFIC DATA**

Current Year Estimate 2004 AADT = 4,903  
 Opening Year Estimate 2010 AADT = 5,700  
 Design Year Estimate 2031 AADT = 7,800  
 Design Speed = 60 MPH  
 K = 10.45X  
 D = 56.08X  
 L = 10.75X

**LEGEND:**

FTBW - Front Face of Backfill  
 BFD - Buried Flow Ditch

**LEGEND:**

EL - Expansion Joint  
 SPT - Spot Boring Location

**REVISIONS**

NO.	DATE	BY	DESCRIPTION
1	11-05	J.V.	ISSUED FOR PERMITS
2	11-05	S.K.	ISSUED FOR PERMITS
3	11-05	LEP	ISSUED FOR PERMITS
4	11-05	R.K.	ISSUED FOR PERMITS
5	11-05	S.K.	ISSUED FOR PERMITS

**DESIGNER'S RECORD**

DESIGNED BY: American  
 CHECKED BY: American  
 DATE: 11-05

**FLORIDA DEPARTMENT OF TRANSPORTATION**

PROJECT NO. SR 10  
 COUNTY: ESCAMBIA  
 PROJECT ID: 411118-1-56-01

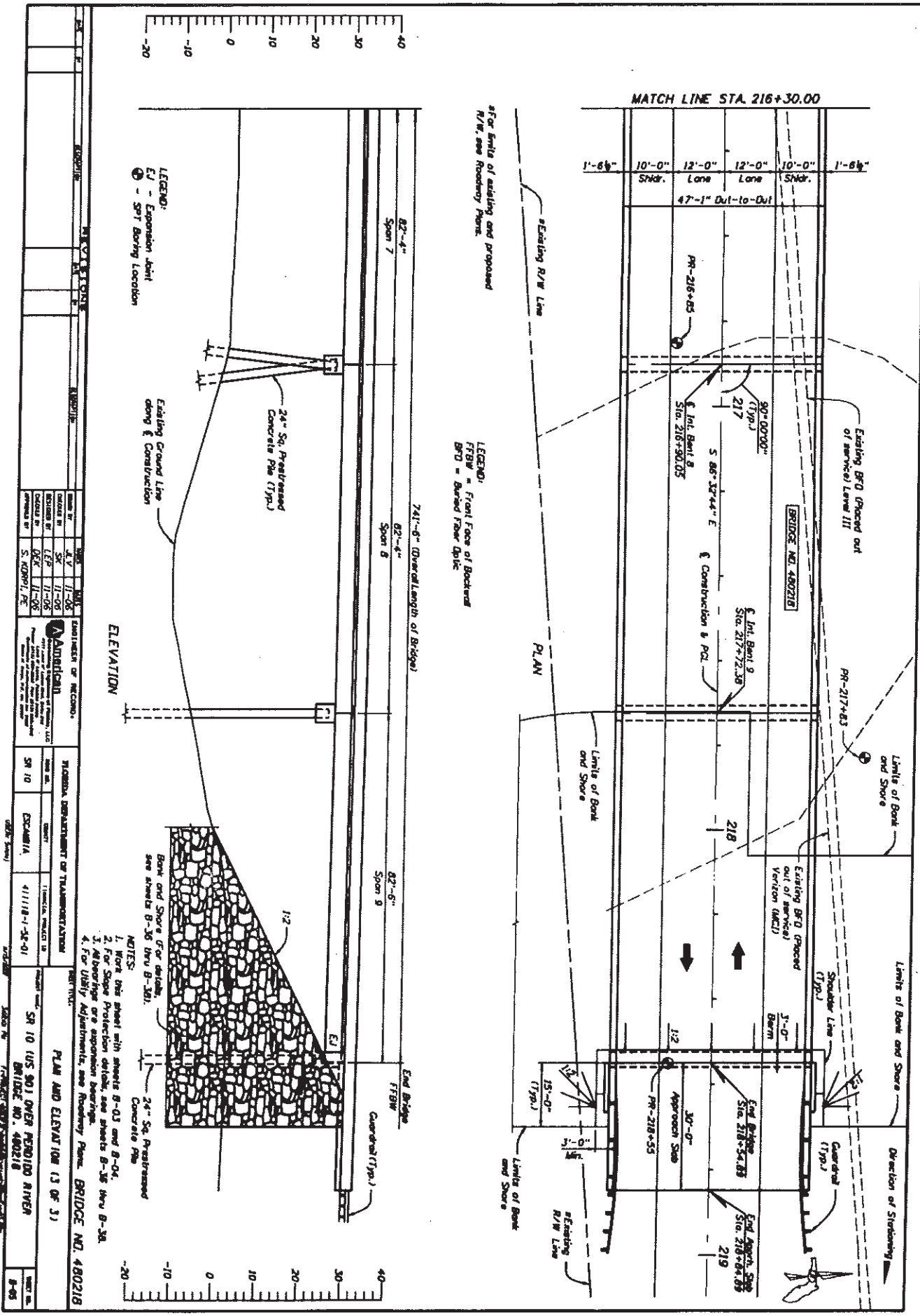
**NOTES:**

1. Work this sheet with sheets B-04 and B-05.
2. For Slope Protection details, see sheets B-35 thru B-38.
3. All bearings are expansion bearings.
4. For Utility Adjustments, see Roadway Plans, BRIDGE NO. 480218.

**BRIDGE NO. 480218**

SR 10 (US 90) OVER PERDIDO RIVER  
 BRIDGE NO. 480218





DATE	BY	CHKD BY	APP'D BY	DESCRIPTION
11-06	J.V.	J.V.	J.V.	REVISED
11-06	LEG	LEG	LEG	REVISED
11-06	OKC	OKC	OKC	REVISED
11-06	S. KOPPEL, P.E.	S. KOPPEL, P.E.	S. KOPPEL, P.E.	REVISED

CONTRACTOR OR RECORD	FLORIDA DEPARTMENT OF TRANSPORTATION
PROJECT NO.	SR 10
SECTION NO.	EXCUMBIA
DATE	11/11/18-1-18-01
PROJECT NAME	SR 10 (US 90) OVER PERDIDO RIVER BRIDGE NO. 480218
PROJECT NO.	BRIDGE NO. 480218

**PLAN AND ELEVATION (3 OF 3)**

**NOTES:**

1. Work this sheet with sheets B-03 and B-04.
2. For Slope Protection details, see sheets B-36 thru B-38.
3. Abutments are expansion bearings.
4. For Utility Adjustments, see Roadway Plans. BRIDGE NO. 480218

**LEGEND:**

EV - Expansion Joint

⊕ - SPI Boring Location

**LEGEND:**

FTBW - Front Face of Backward

BTD - Buried From Drive

**LEGEND:**

Existing R/W Line

PLAN

**LEGEND:**

Existing R/W Line

ELEVATION

For limits of existing and proposed R/W, see Roadway Plans.

Existing BRQ (Piled out of service) Level III

BRIDGE NO. 480218

90'-00" (Typ.)

217

5 86'-32'-44" E

Int. Bent. B Sta. 217+22.38

Construction B P.C.

218

3'-0" Berm

Existing BRQ (Piled out of service) Vertical (MCI)

Shoulder Line (Typ.)

Limit of Bank and Shore

Direction of Storming

Concrete Pile (Typ.)

End Bridge Approach Slab

30'-0"

PR-218+55

End Abut. Sta. 216+24.09

219

15'-0" (Typ.)

Limit of Bank and Shore

Existing R/W Line

741'-6" (Overall Length of Bridge)

82'-4" Span 7

82'-4" Span 8

82'-5" Span 9

End Bridge FTBW

Concrete Pile (Typ.)

24" Sq. Prestressed Concrete Pile (Typ.)

Existing Ground Line along Construction

1:2

Bank and Shore (for details, see sheets B-36 thru B-38).

24" Sq. Prestressed Concrete Pile

1'-6 1/2" Shoulder

10'-0" Lane

12'-0" Lane

12'-0" Lane

10'-0" Shoulder

1'-6 1/2" Shoulder

47'-1" Out-to-Out

MATCH LINE STA. 216+30.00

40

30

20

10

0

-10

-20

40

30

20

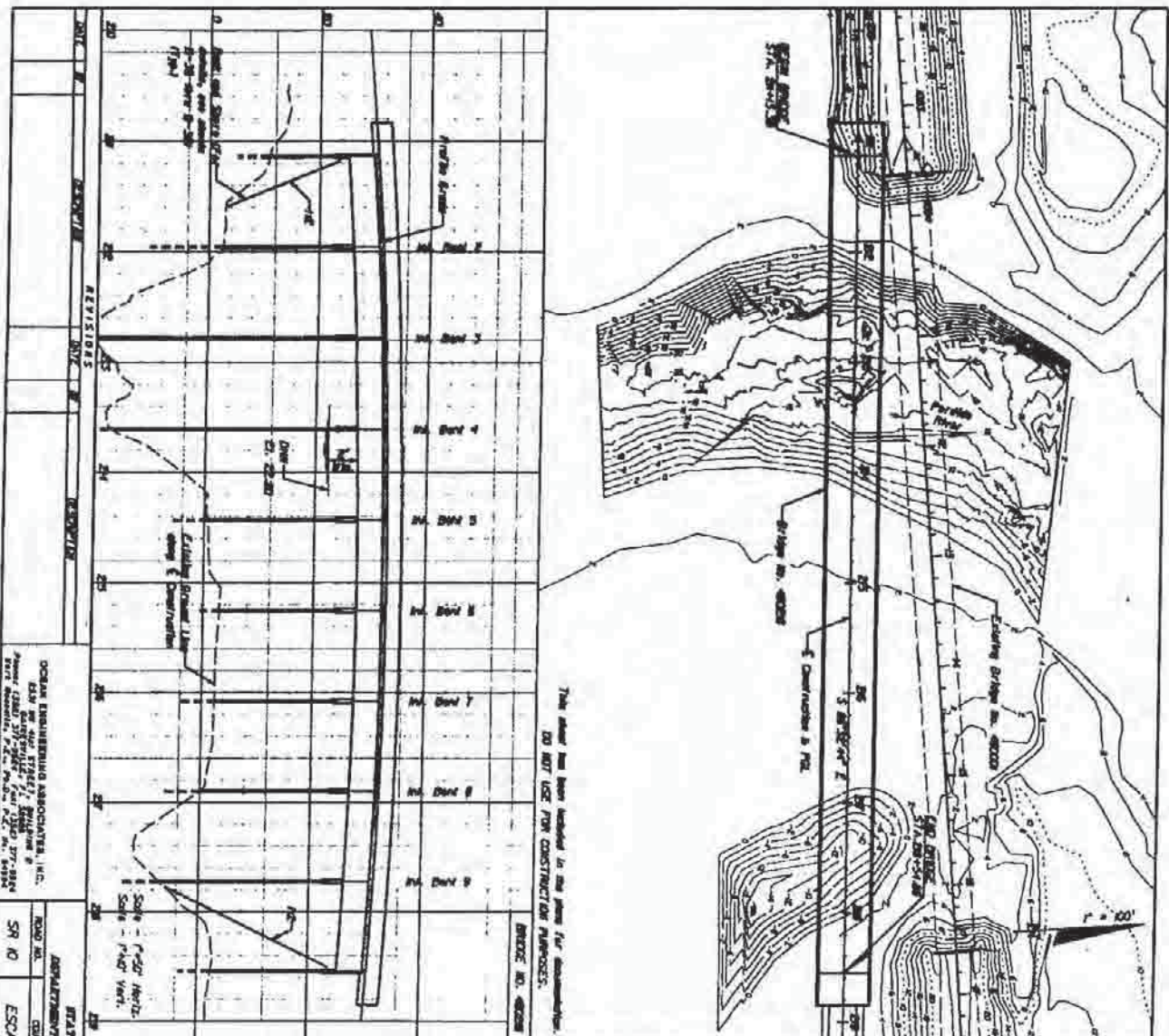
10

0

-10

-20





OCEAN ENGINEERING ASSOCIATES, INC.  
 4000 WEST 17TH AVENUE, SUITE 100  
 DENVER, COLORADO 80202  
 PHONE: 303-755-1100  
 FAX: 303-755-1101

STATE OF ALABAMA  
 DEPARTMENT OF TRANSPORTATION  
 ROAD NO. 4118-1-52-01  
 SR NO. ESCAMBA  
 4118-1-52-01

BRIDGE HYDRAULIC  
 RECOMMENDATIONS  
 BRIDGE NO. 402018

SHEET  
 NO. B-06

**HYDRAULIC DESIGN DATA**

APPROVED PROJECT NO. \_\_\_\_\_  
 PROJECT LOCATION \_\_\_\_\_  
 EXISTING STRUCTURE \_\_\_\_\_  
 PROPOSED STRUCTURE \_\_\_\_\_  
 DATE OF DESIGN \_\_\_\_\_  
 DESIGNER'S NAME \_\_\_\_\_  
 CHECKER'S NAME \_\_\_\_\_  
 SCALE \_\_\_\_\_  
 SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_

**HYDRAULIC RECOMMENDATIONS**

1. FLOW VELOCITY: \_\_\_\_\_  
 2. CHANNEL PROTECTION: \_\_\_\_\_  
 3. BANK STABILIZATION: \_\_\_\_\_  
 4. SEDIMENTATION: \_\_\_\_\_  
 5. FLOOD PROTECTION: \_\_\_\_\_  
 6. CHANNEL CLEARANCE: \_\_\_\_\_  
 7. CHANNEL WIDTH: \_\_\_\_\_  
 8. CHANNEL DEPTH: \_\_\_\_\_  
 9. CHANNEL SLOPE: \_\_\_\_\_  
 10. CHANNEL CURVATURE: \_\_\_\_\_  
 11. CHANNEL OBSTRUCTIONS: \_\_\_\_\_  
 12. CHANNEL EROSION: \_\_\_\_\_  
 13. CHANNEL COLLAPSE: \_\_\_\_\_  
 14. CHANNEL INFILTRATION: \_\_\_\_\_  
 15. CHANNEL SCOUR: \_\_\_\_\_  
 16. CHANNEL SILTING: \_\_\_\_\_  
 17. CHANNEL WEAR: \_\_\_\_\_  
 18. CHANNEL DAMAGE: \_\_\_\_\_  
 19. CHANNEL RESTORATION: \_\_\_\_\_  
 20. CHANNEL MAINTENANCE: \_\_\_\_\_







# Florida Department of Environmental Protection

Northwest District Office  
160 Governmental Center, Suite 308  
Pensacola, Florida 32502-5794

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

RECEIVED

MAY 19 2008

## WETLAND RESOURCE PERMIT

JACKSONVILLE DISTRICT  
USACE

### PERMITTEE/AUTHORIZED ENTITY:

Florida Department of Transportation  
Attn: Joy Giddens  
1074 Highway 90  
Chipley, FL 32428

### Permit/Authorization Number:

17-0281915-001-DF  
Date of Issue: May 7, 2008  
Expiration Date: May 7, 2013

County: Escambia  
Project: Perdido River Bridge  
reconstruction

This permit is issued under the authority of Part IV of Chapter 373, F.S., and Title 62, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain a Wetland Resource Permit. The Department is responsible for reviewing and taking final agency action on this activity.

This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act.

A copy of this authorization also has been sent to the U.S. Army Corps of Engineers (USACOE) for review. The USACOE may require a separate permit. Failure to obtain this authorization prior to construction could subject you to enforcement action by that agency. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. This permit to use sovereign submerged lands is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached 15 General Conditions and 24 Specific Conditions, which are a binding part of this permit. You are advised to read and understand these drawings and conditions prior to

"More Protection, Less Process"  
[www.dep.state.fl.us](http://www.dep.state.fl.us)

U.S. Army Corps of Engineers  
Permit # SAF-2007-5634  
Date: 8/18/08  
Attachment: 2





# Florida Department of Environmental Protection

Northwest District Office  
160 Governmental Center, Suite 308  
Pensacola, Florida 32502-5794

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

May 7, 2008

Florida Department of Transportation  
Attn: Joy Giddens  
1074 Highway 90  
Chipley, FL 32428

Dear Ms. Giddens:

Enclosed is Wetland Resource Permit, No. 17-0281915-001-DF, issued pursuant to Part IV of Chapter 373, Florida Statutes, and Title 62, Florida Administrative Code.

If you have any questions about this document, please contact me at (850) 595-8300 ext. 1134.

Sincerely,

Andy Joslyn  
Environmental Supervisor  
Submerged Lands and  
Environmental Resources Program

commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action.

#### **ACTIVITY DESCRIPTION:**

The proposed bridge reconstruction calls for the design and construction of a new bridge and approaches on the south side of the existing facility. The necessary additional right-of-way has been obtained.

The total area of wetland within the project right-of-way in the State of Florida is 6.3 acres in size. The proposed bridge replacement will permanently fill 3.2 acres of wetlands and temporarily impact (cleared and/or temporarily filled for construction access) 1.7 acres of DEP wetlands. Unavoidable wetland impacts will be mitigated for in accordance with Florida Statute, Chapter 373.4137.

#### **ACTIVITY LOCATION:**

The proposed project limits extend along SR 10 (US 90) approximately three tenths of a mile west of the Florida / Alabama State Line (MP -0.30) to Ruby's Fish Camp Road (MP 0.307), Perdido River, Pensacola, Class III Waters of the State, Prohibited Shellfish Harvesting Area, Section 10, Township 1-south, Range 32-west, Latitude 30° 31' 20"N, Longitude 87° 26' 42"W, Escambia County.

#### **GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

- c. Sample or monitor any substances or parameters at any location reasonable necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of noncompliance; and
- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages that may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon Department approval in accordance with rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the Department approves the transfer.



12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    1. the date, exact place, and time of sampling or measurements;
    2. the person responsible for performing the sampling or measurements;
    3. the dates analyses were performed;
    4. the person responsible for performing the analyses;
    5. the analytical techniques or methods used; and
    6. the results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law that is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

1. At no time shall construction material of any type be discharged to wetlands or other surface waters outside the limits of the permitted impact areas.
2. The applicant shall be responsible for obtaining all necessary right-of-way authorizations and property access authorizations prior to the commencement of the proposed work.
3. If during the progress of this project prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement are encountered at any time within the project site area, the permitted project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The permittee, or their designee, shall contact the Florida Department of State, Division of Historical Resources, Review and Compliance Section at (850) 245-6333 or (800) 847-7278, as well as the appropriate pitting agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section Chapter 872.05, Florida Statutes.
4. At least 48 hours prior to commencement of work authorized by this permit, the permittee shall notify the Department of Environmental Protection, Submerged Lands & Environmental Resources Program, Compliance and Enforcement Section, Suite 202, Northwest District Office, 160 Governmental Center, Pensacola, Florida 32501-5794, in writing. The Department telephone number for reporting problems, malfunctions or exceedances under this permit is (850) 595-8300 during normal working hours.
5. Prior to construction, the limits of the proposed fill areas shall be clearly flagged and/or staked particularly in areas adjacent to remaining natural wetlands. All construction personnel shall be shown the location(s) of all wetland areas outside of the construction area so as to prevent encroachment from heavy equipment into these areas.
6. If the approved permit drawings conflict with the specific conditions, then the specific conditions shall prevail.



7. All storage or stockpiling of tools or materials (construction materials, pilings, etc.) shall be limited to uplands or within the impact areas authorized by this project. All cleared vegetation, excess material, trash, garbage and any other type of debris shall be removed from wetlands/waters of the state within 14 days of completion of that section of work authorized in this permit.
8. All stockpiled fill material to be used in future construction activities of the project shall be maintained and stabilized in such a manner as to prevent possible erosion or turbid discharges into wetlands or open waters following rain events. Methods of stabilization shall include, but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and the installation of turbidity screens around the immediate stockpiled fill area.
9. The Permittee shall be responsible for ensuring that turbidity levels do not exceed background levels. The following measures shall be taken by the permittee whenever turbidity levels within the waters of the State exceed background.
  - a. Immediately cease all work contributing to the water quality violation.
  - b. Modify the work procedures that were responsible for the violation, install floating turbidity screens with weighted skirts that extend within 1 ft. of the bottom around each piling or pile group. The screen shall remain in place for the duration of the procedure causing turbidity levels to exceed permitted values.
  - c. Alternative turbidity control methods may be employed provided these methods maintain turbidity levels within permitted levels.
  - d. Turbidity control devices shall be maintained in good working order as necessary so that there are no violations of state water quality standards.
  - e. Notify the Bureau of Submerged Lands and Environmental Resources, Compliance and Enforcement Section within 24 hours of the time the violation is first detected.
10. The project shall at all times comply with applicable State Water Quality Standards, namely:  
  
62-302.500 -Minimum Criteria for All Waters at All Times and All Places;

62-302.510 - Minimum Criteria for all Surface Waters; and  
62-302.700 - Special Protection - Outstanding Florida Waters, Outstanding National Resource Waters

11. All wetland areas or water bodies outside the specific limits of construction authorized by this permit must be protected from erosion, siltation, scouring and/or dewatering. Turbidity barriers/erosion control devices shall be installed prior to any excavation or placement of fill material and shall be maintained in effective condition at all locations and at all times until construction is completed and disturbed areas are stabilized. Thereafter, the permittee must remove the barriers. At no time shall there be any discharge in violation of the water quality standards in 62-302 F.A.C. Turbidity/erosion controls shall be installed prior to any clearing, excavation or placement of fill material and shall be maintained in an effective condition at all locations until construction is completed, disturbed areas are stabilized, and turbidity levels have fallen to less than ambient background. The permittee shall be responsible for ensuring that erosion control devices/procedures are inspected/maintained daily during all phases of construction authorized by this permit. Once these conditions are met, the turbidity and erosion control devices shall be removed within 14 days. Staked filter cloth shall be positioned at the edge of the permitted fill slopes where they are adjacent to wetlands in order to prevent turbid run-off and erosion.
12. Any damage to wetlands/littoral zone area as a result of construction work shall be restored to pre-construction elevations and then replanted with vegetation of the size, density, and species that exist in the adjacent areas. The restoration shall be completed within 30 days of completion of the bridge construction.
13. The permittee and its contractors shall adhere to the standard specifications for prevention, control and abatement of erosion and water pollution, as stated in Section 104 of the Florida Department of Transportation - Standard Specifications for Road and Bridge Construction, and to any stricter standards as required in these Specific Conditions.
14. Best management practices for controlling erosion and turbidity, including but not limited to the use of staked hay bales, turbidity curtains, and staked filter cloth, shall be utilized and maintained at all times during project construction to prevent erosion, sedimentation and the discharge of turbid water into wetlands and other waters of the State outside of the authorized areas of impact. These erosion and turbidity control devices shall be maintained until post-construction stabilization has been achieved in the area.

15. The permittee shall assign a qualified environmental scientist(s), who is independent of the construction contractors, to be responsible for oversight and quality assurance of the construction contractors inspections of the erosion and turbidity control devices, for overseeing turbidity monitoring, for keeping a inspection log, and for ensuring that the effectiveness of each erosion and turbidity control device is maintained at all times until post-construction turbidity levels in open water are at ambient levels and vegetative stabilization is achieved on land. The inspection log will be prepared in accordance with FDOT Standard Specifications and forms. The inspection log shall note the date that the control devices were installed, the type of devices, occurrence of precipitation, adequacy of devices, turbidity levels, corrective or maintenance measures required, and the date that the devices were removed. Turbidity monitoring shall be conducted as specified in the **MONITORING REQUIRED** section of this permit. The log shall be kept up to date, shall be made available upon the Department's request, and shall be submitted to the Northwest District Wetland Resources Program, Compliance-Enforcement Section with the final semiannual narrative report. The name, address, phone number, and qualifications of the environmental scientist(s) shall be indicated in the construction commencement notice and the semi-annual narrative reports.
16. If dewatering is necessary for any construction activities associated with this project, it shall be accomplished by pumping the water into functional, upland detention ponds. The capacity of the ponds and the management of pumping rates and discharges shall be adequate to control turbidity such that the turbidity level of the effluent is less than 29 NTUs above ambient levels.
17. No lead-based paint shall be used on the bridges associated with this project. Additionally, no hazardous materials used in association with this project shall be stored within or over the limits of the Department's jurisdiction.
18. Fueling of barge mounted equipment, for example, cranes, compressors, etc. will be from double-walled fuel tanks transported and loaded onto the barge that supports the equipment to be fueled. No refueling will occur across open water.
19. Construction debris shall not be discarded into open waters or wetlands. For that portion of the material that is suitable for artificial reef deployment, the material must first meet the criteria of the Escambia County Large Area Artificial reef site and be deployed under the direction of the Escambia County Marine Resources Division. That



portion of the construction debris not suitable for deployment to artificial reef sites shall be disposed of in an approved solid waste disposal site.

20. There shall be no discharge of oil, greases, solid waste or construction debris in Escambia Bay from any activity associated with this project.

21. The contractor(s) shall make portable toilets available at the bridge construction site and, if possible, on construction barges. The portable toilets are to be serviced on a regular basis and at no time shall the contents be released into the Perdido River or other waters of the State.

22. Unavoidable wetland impacts shall be mitigated for in accordance with Florida Statute, Chapter 373.4137.

#### **MONITORING REQUIRED**

23. Turbidity- During installation of the first bridge piling and removal of the first existing bridge piling, turbidity samples shall be taken at 25, 50 and 100 foot distances upstream and downstream from the piling at top, mid and bottom (one foot above bottom) elevations. If test results indicate turbidity levels below state standards then additional sampling will not be required. If, however, the methodology for piling installation or removal changes then additional monitoring may be required depending on the specific method of construction.

#### **REPORTING**

24. Semi-annual narrative reports shall be submitted by the Permittee or the designated responsible party to the DEP Northwest District Office at the address on the letterhead of this permit. The reports shall indicate the status of the project and shall include the following information:

a. Brief description and extent of work (dredging, filling, construction, etc.) completed since the previous report or since permit was issued. Indicate on copies of the permit drawings those areas where work has been completed.

b. Brief description and extent of work (dredging, construction, planting, etc.) anticipated in the next six months. Indicate on copies of the permit drawings those areas anticipated that work will be done.

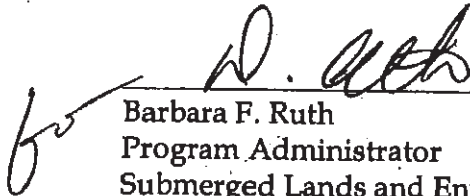
Permittee: Florida Department of Transportation  
Perdido River Bridge Replacement  
File No.: 17-0281915-001-DF  
Page 11 of 12

c. Brief description of problems encountered and how those problems were resolved.

The first semi-annual report is due six months from the date of permit issuance. The last status report shall be submitted within 30 days after the completion of the construction activities authorized by his permit.

Executed in Escambia County Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
\_\_\_\_\_  
Barbara F. Ruth  
Program Administrator  
Submerged Lands and Environmental  
Resource Program

Cc: U.S. Army Corps of Engineers  
Thompson Engineering, Agent  
Escambia County Property Appraiser

Enclosure: Location Map  
Project Drawings

Permittee: Florida Department of Transportation  
Perdido River Bridge Replacement  
File No.: 17-0281915-001-DF  
Page 12 of 12

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this permit including all copies were mailed before the close of business on May 7<sup>th</sup>, 2008 to the above listed persons.

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to 120.52(9),  
Florida Statutes, with the designated Department Clerk,  
receipt of which is hereby acknowledged.

Clerk

Date

Cathy Brewer

May 7<sup>th</sup>, 2008

Prepared By: Elizabeth Mullins

61 pages attached

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineered drawings to the U.S. Army Corps of Engineers, Enforcement Branch, Post Office Box 4970, Jacksonville, Florida 32232-0019. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-2907.

1. Department of the Army Permit Number: \_\_\_\_\_

2. Permittee Information:

Name \_\_\_\_\_

Address \_\_\_\_\_

3. Project Site Identification:

Physical location/address \_\_\_\_\_

4. As-Built Certification:

I hereby certify that the authorized work has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

\_\_\_\_\_  
Signature of Engineer

\_\_\_\_\_  
Name (Please type)

\_\_\_\_\_  
Florida Reg. Number

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

(Affix Seal)

\_\_\_\_\_  
City State ZIP

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone Number

Deviations from the approved plans and specifications: (attach additional pages if necessary)

U.S. Army Corps of Engineers  
Permit # 5AS-2007-5634  
Date: 2/18/08  
Attachment: 3





Copy of UWRMP 5.1.4

Perdido River, 4/7/08 Update  
Referenced in this Permit

## PERDIDO RIVER WMA – PHASE II MITIGATION

### UWRMP Section 5.1.4 Supplement

April 7, 2008

#### **Background:**

In 2006, the NFWFMD acquired (fee-simple) 5,456 acres from the International Paper Company (IP) to form the Perdido River Water Management Area (WMA). These lands consist of a mosaic of forested wetlands and upland buffers, with extensive cover of loblolly and slash pine plantation. Harvesting rights for merchantable timber stands have been reserved by IP through 2011; the purchase price for this acquisition was ~\$12,000,000. Most funding came from the Florida Forever program, although \$480,000 of FDOT mitigation funding was used for acquisition of 220 acres of the IP lands to offset impacts associated with construction of the US 90 Escambia Co. Weigh Station<sup>1</sup>. On the remaining Perdido River WMA lands (i.e., excluding the 220 acres already used as mitigation) there continue to be ample restoration opportunities to offset future FDOT impacts. Plans being developed for the restoration of 54 acres on the Perdido River WMA lands (i.e., “Phase II Mitigation”) are described below.

#### **Phase II Mitigation:**

This project will restore and enhance ~54 acres of mostly 6-year old bedded pine plantation (loblolly pine planted 2002) to a mixture of ~25 acres of Forested Mixed Wetlands – FLUCCS 630, ~16 acres of Hydric Pine Flatwoods – FLUCCS 625, and ~13 acres of Mesic Pine Flatwoods – FLUCCS 411.

Per NRCS data, the soils of this site consist of:

- Croatan and Pickney Soils, Depressional
- Doravan Muck and Fluvaquents, Frequently Flooded
- Hurricane and Albany Soils, 0-5% Slopes, Occasionally Flooded
- Pehham-Yemassee Complex, Occasionally Flooded

**Polygon I (formerly E) – (FLUCCS 441 Current / 630 Restored)**. This polygon is ~4 acres of mostly pine plantation (FLUCCS 441), with minor inclusions of forested mixed wetlands (FLUCCS 630) along a natural drain, that occur within 300’ of US 90. To restore this polygon completely to Forested Mixed Wetlands – FLUCCS 630, the planted slash pine will be removed, relic windrows dispersed, breached or removed, and appropriate forested mixed wetland species planted. Dispersal of relic windrows will only occur during drier periods to prevent rutting and other disturbances to soil structure. Appropriate BMPs will be observed at all times.

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<sup>1</sup> This use of 220 acres at the Perdido River WMA to offset the US 90 Escambia Weigh Station impacts constitutes “Phase I Mitigation.”

**Polygon II (formerly A) – (FLUCCS 441 Current / 630 Restored).** This polygon is ~9.5 acres of slash pine plantation (FLUCCS 441) and is greater than 300' from US 90. To restore this polygon to Forested Mixed Wetlands – FLUCCS 630, the planted slash pine will be removed, relic windrows dispersed, breached or removed, and appropriate forested mixed wetland species planted. Dispersal of relic windrows will only occur during drier periods to prevent rutting and other disturbances to soil structure. Appropriate BMPs will be observed at all times.

**Polygon III (formerly B) – (FLUCCS 630 Current & Post Mitigation).** This polygon consists of ~11.5 acres of Forested Mixed Wetlands – FLUCCS 630 and will be enhanced by management for exotic/invasive species and improvements garnered by restoration of adjacent hydric pine flatwoods and mixed forested wetlands. Prescribed fire from adjacent polygons will be allowed to burn into the Forested Mixed Wetlands areas when it is determined by a state-certified Burn Master that catastrophic damage would not result. Firebreaks will be used only where necessary to prevent catastrophic fire damage. Some brush reduction may be implemented along the margins of this polygon and/or where appropriate

**Polygon IV (formerly D) – (FLUCCS 441 Current / 625 Restored).** This ~16-acre polygon will be restored to Hydric Pine Flatwoods – FLUCCS 625 by having existing pine plantation (FLUCCS 441) thinned to no more than 112 trees per acre. Brush reduction will be accomplished by prescribed fire and, as necessary, mechanical means such as gyro-tracking or roller chopping. Relic wind rows will be dispersed, breached or removed by bulldozer or other appropriate equipment. Appropriate BMPs will be observed at all times; brush reduction or dispersal of wind rows will occur only during drier conditions when disturbance of the soil matrix is unlikely to occur. To promote groundcover diversity, wiregrass and other species may be planted or seeded if necessary. Prescribed fire (growing season) and exotic/invasive species control will be implemented for long-term management. Removal of existing wind rows will improve hydrologic sheetflow conditions.

**Polygon V (formerly C) – (FLUCCS 441 Current / 411 Restored).** This polygon, ~13 acres, will be restored as Mesic Pine Flatwoods (FLUCCS 411). Pine will be thinned to approximately 200 trees per acre. Prescribed fire and exotics management will be implemented.

UMAM analysis by NFWFMD staff and the CORPS/IRT indicate that 8.58 credits will be gained by restoration of this site.

**Success Criteria:**

Success criteria will be derived from UWRMP Chapter 11.

**Monitoring:**

Monitoring protocols necessary to ensure effective preservation, enhancement and restoration will be derived from Chapter 11.0 of the UWRMP.

**Long-term Management:**

The NFWWMD is responsible for ensuring the perpetual management of mitigation lands. Florida Statutes sections 373.1391(1)(a) and 373.59(3) mandate the ecological management and restoration, to the extent practicable, of lands owned by the NFWWMD. Mitigation lands owned by the NFWWMD will be managed in perpetuity for ecological integrity in accordance with the “Management Policies for Water Management Areas of the Northwest Florida Water Management District” (NFWWMD 1998). Long-term management is described in the UWRMP Chapter 11.

**Annual Status Reports:**

Annual status reports, if required by the CORPS/IRT, will be generated and posted at <http://www.nfwmdwetlands.com>. A summary status report for all mitigation projects, including cost accounting, will also be provided annually to the CORPS if requested.

Location of US 90 Perdido Bridge Impact and Perdido River WMA





### Perdido River WMA - Phase II Mitigation



2004 DOQ

0 0.5 1 Miles

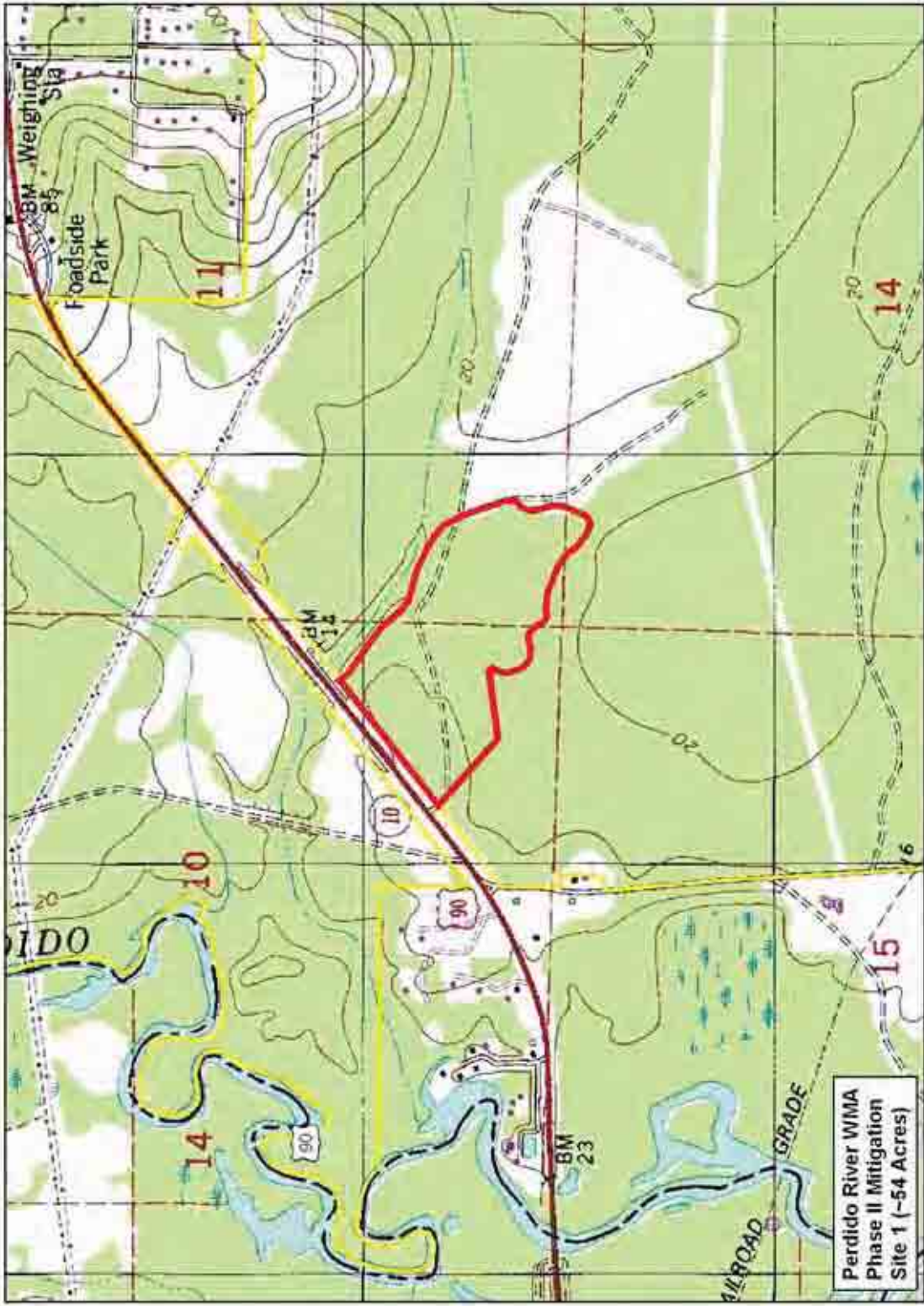




Perdido River WMA Phase II Mitigation - Site 1 Soils



# Topography



USGS Quad

Perdido River WMA  
Phase II Mitigation  
Site 1 (~54 Acres)



**Historic B&W Aerial (1940)**



0 0.1 0.2 Miles



# Perdido WMA - Site 1



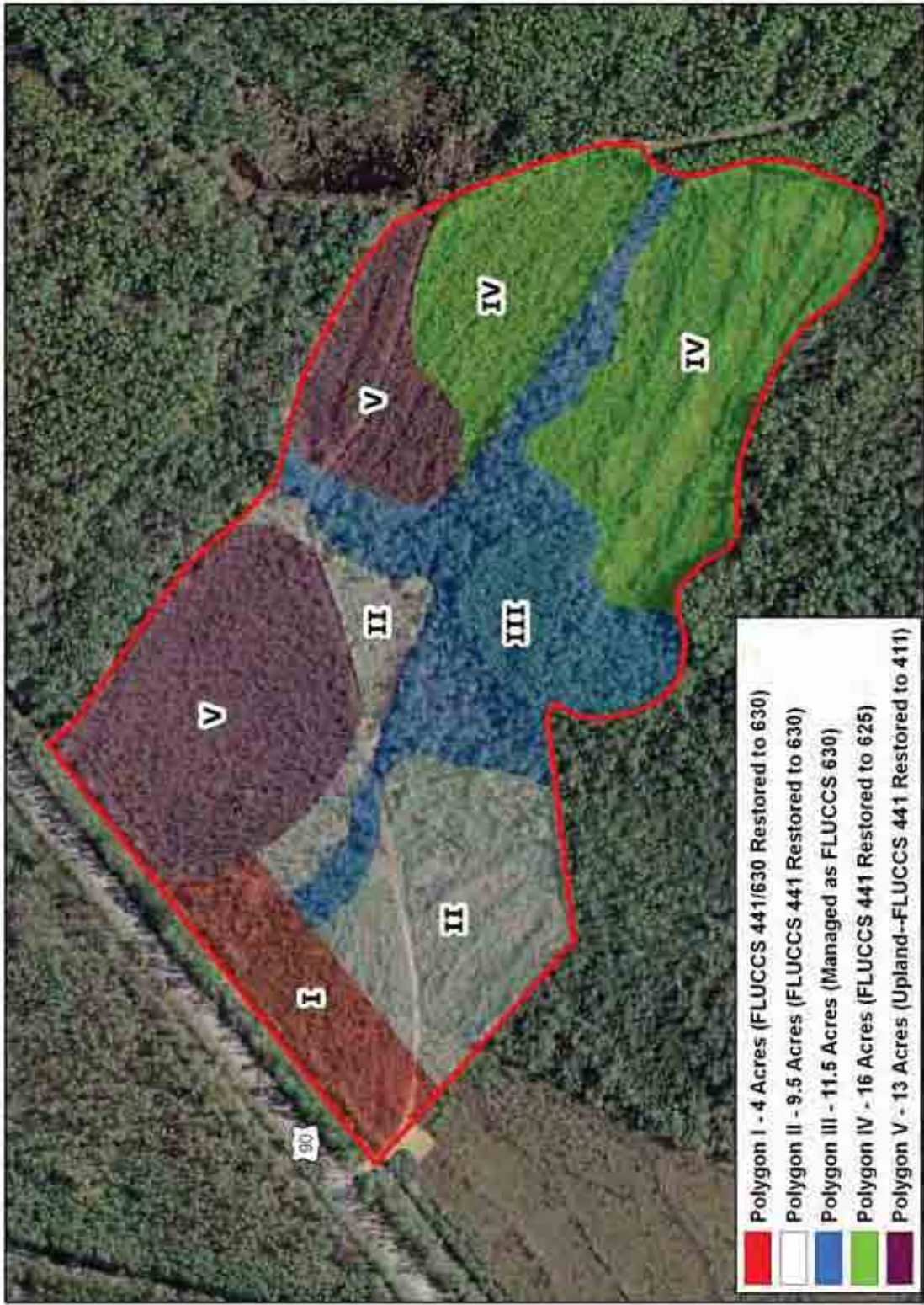
Potential FDOT Eco-Passage Site

Perdido River WMA  
Phase II Mitigation  
Site 1 (~54 Acres)

2006 DOQ



# Mitigation Polygons

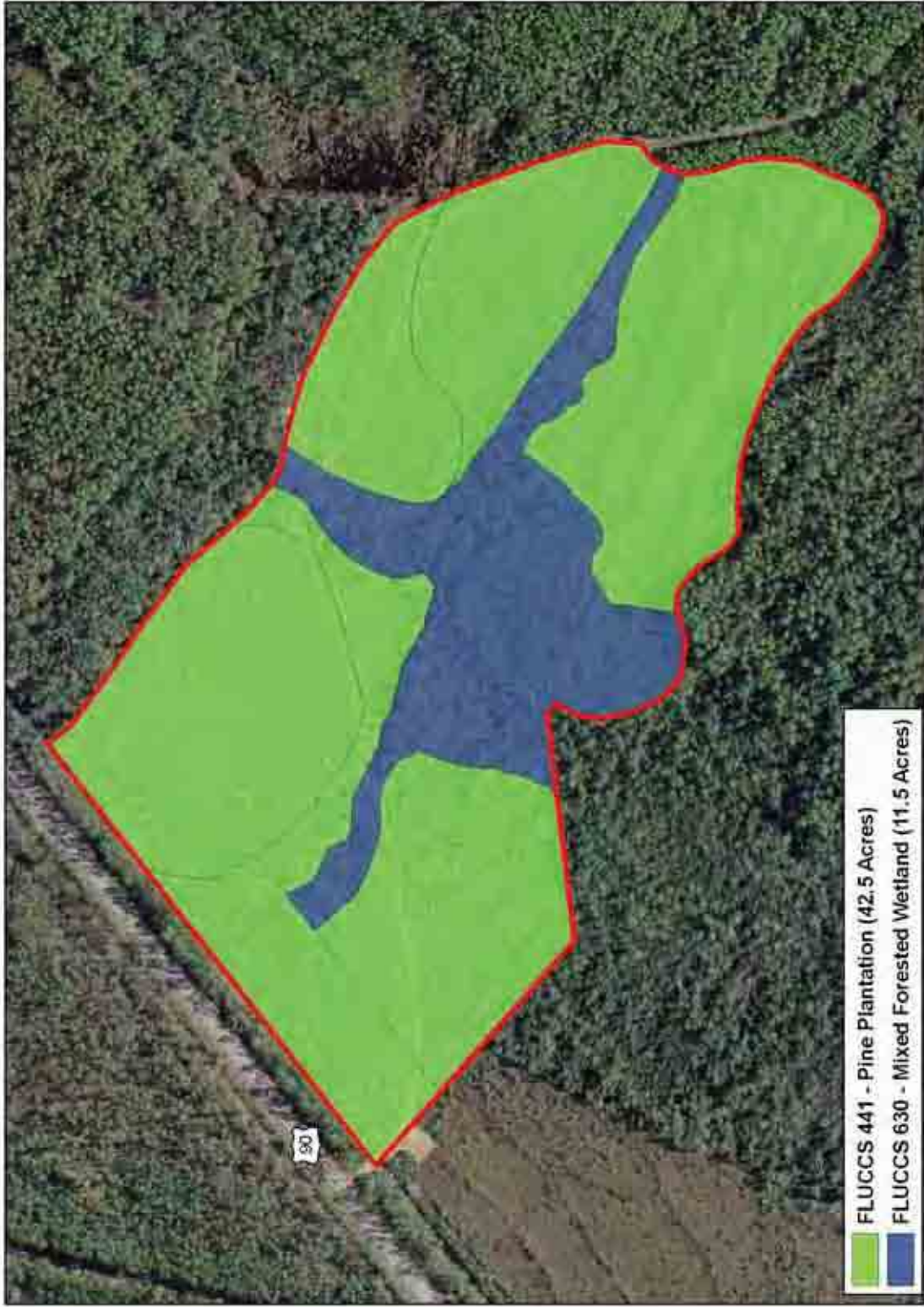


2006 DOQ

0 0.1 0.2 Miles

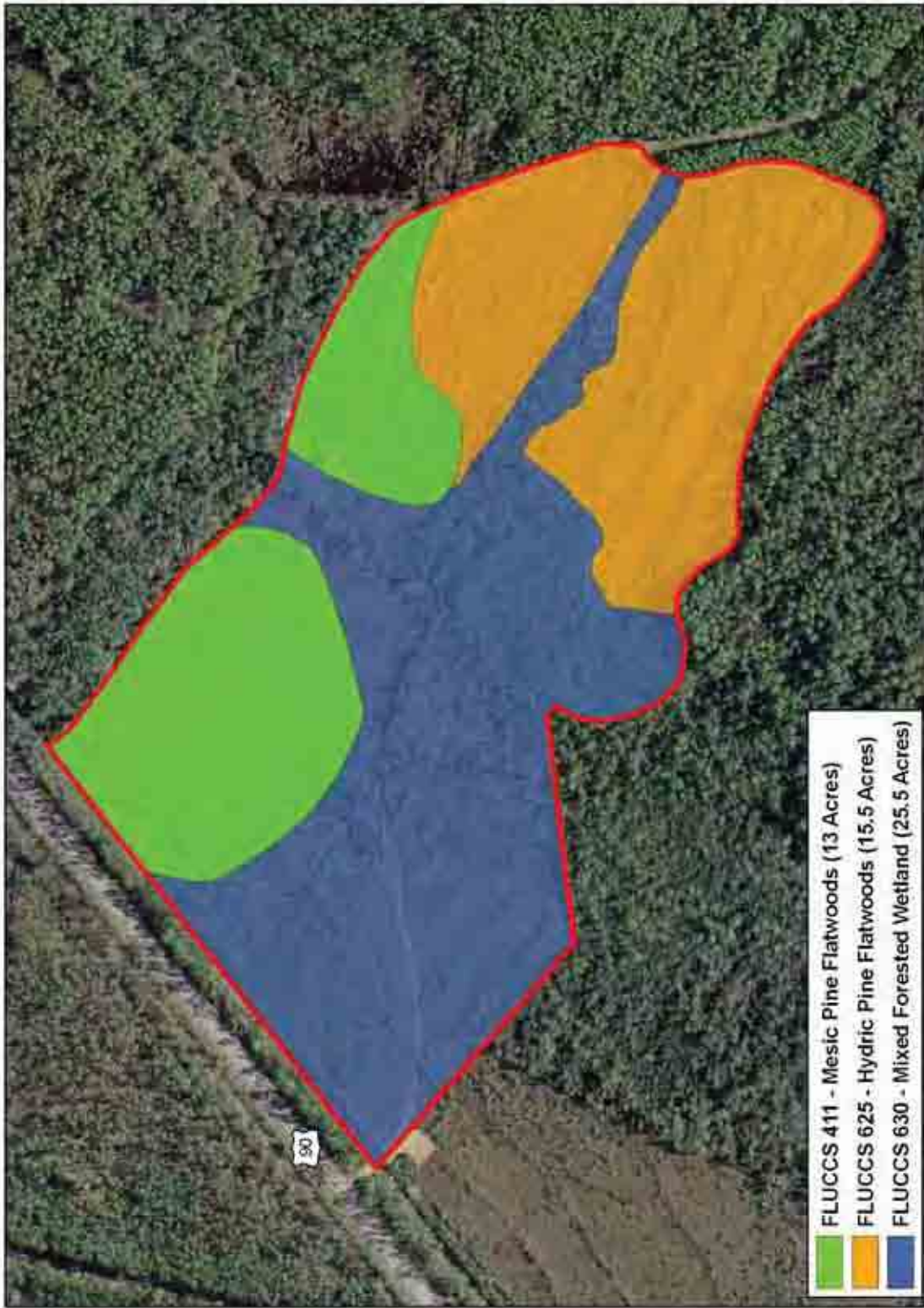


Pre-Restoration



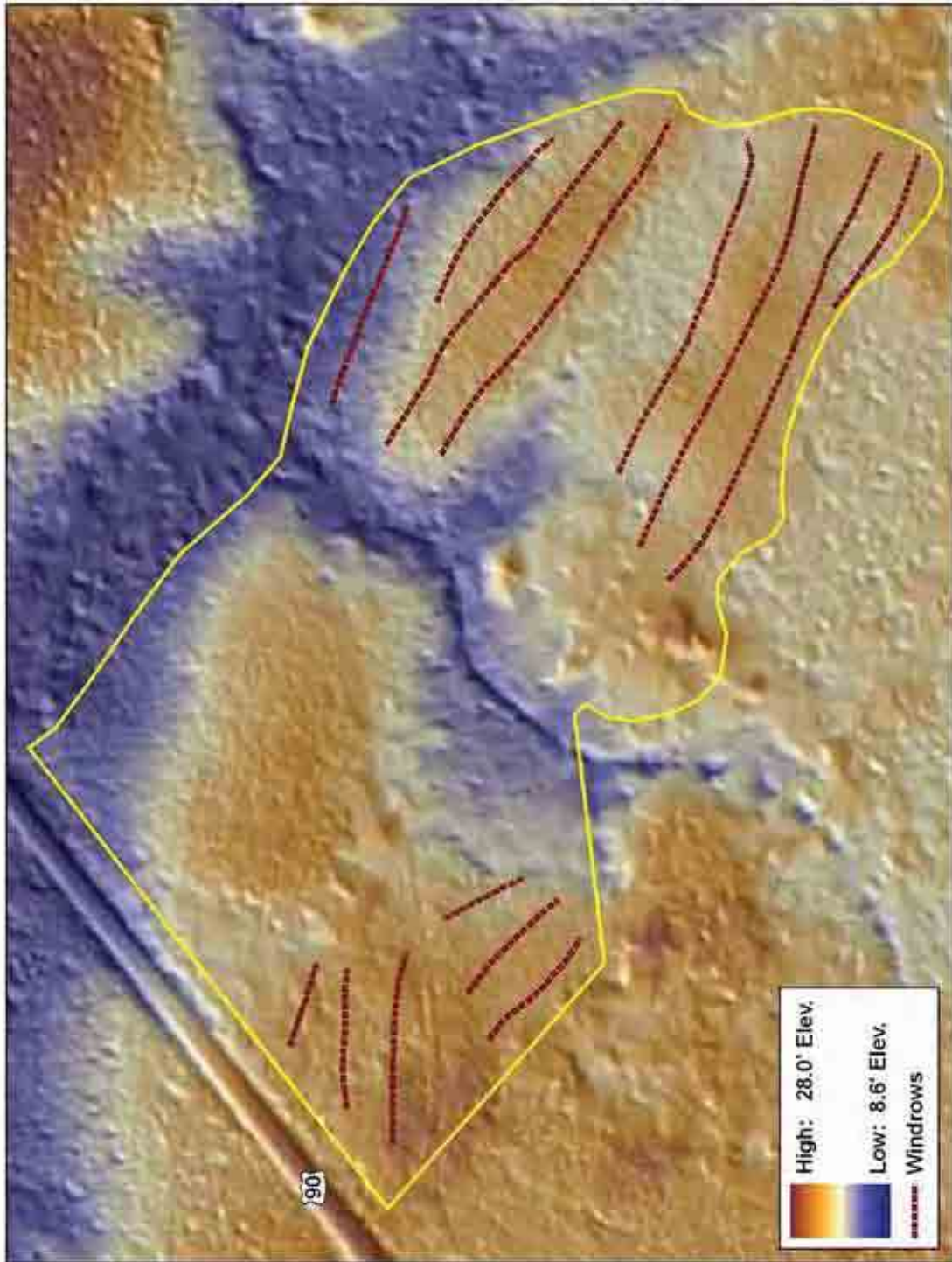


Post-Restoration



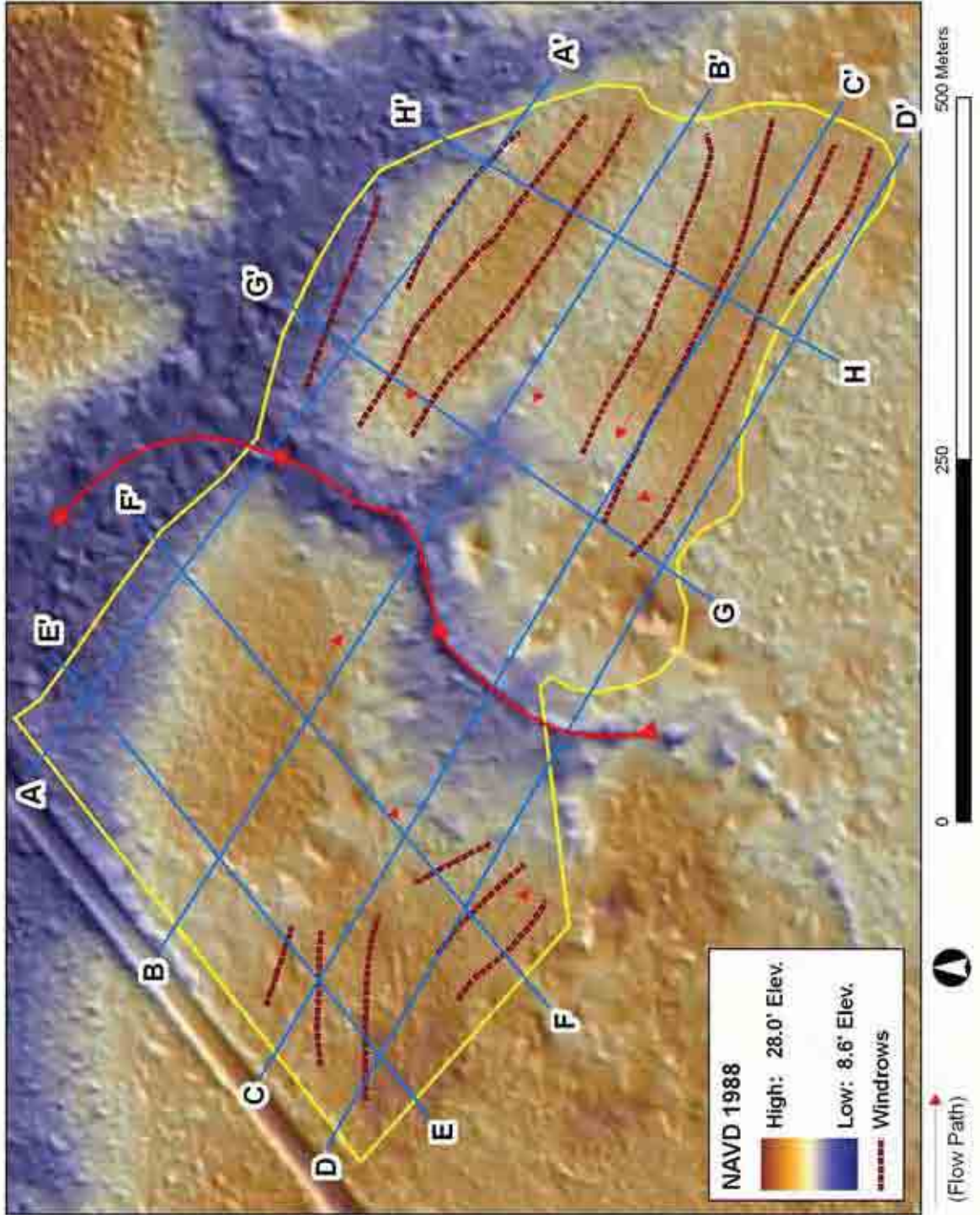
2006 DOQ

**LiDAR Data - Perdido River WMA Phase II Mitigation Area**



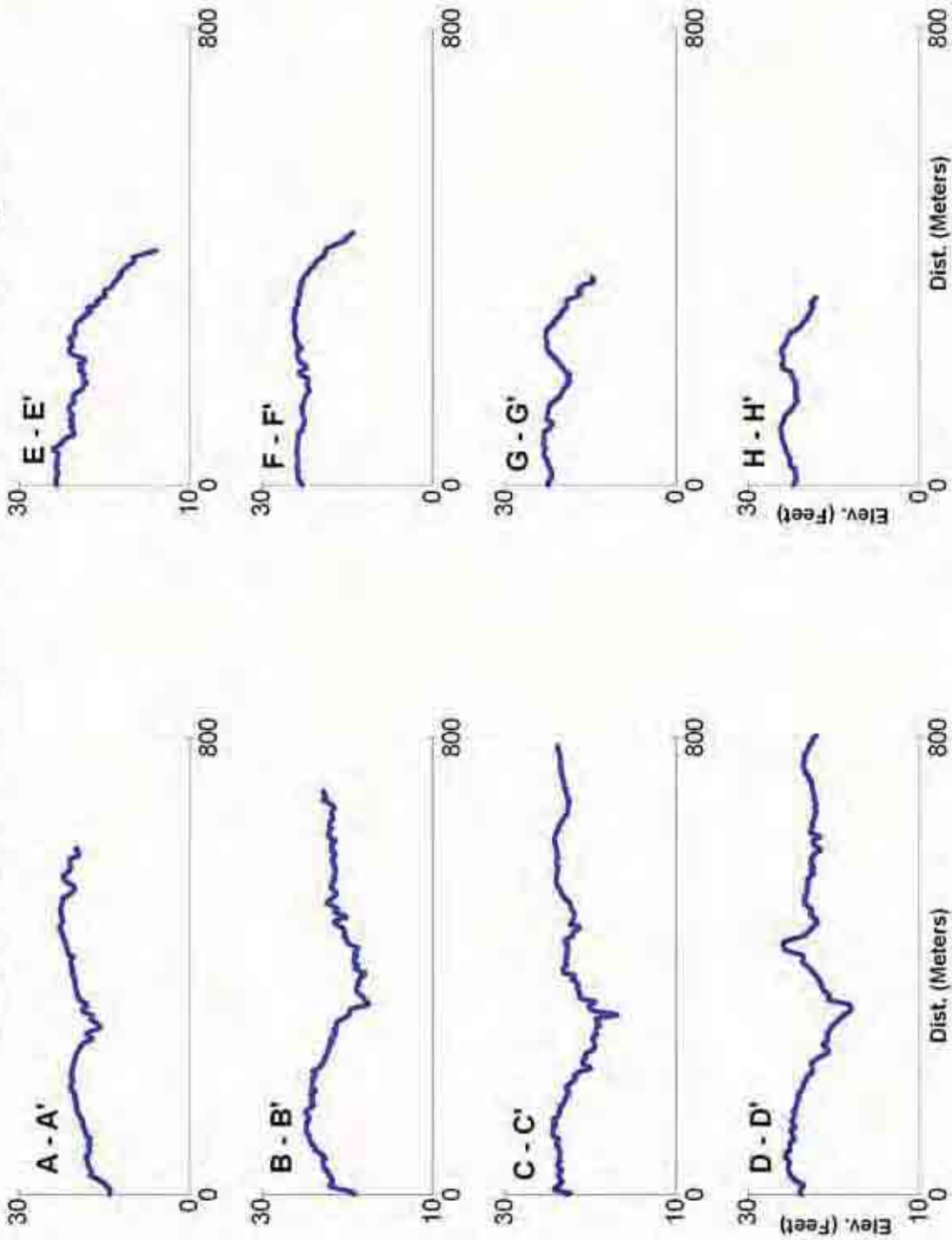


DEM Derived from LiDAR Data with Elevational Transects - Perdido River WMA Phase II Mitigation Area





LIDAR Derived Elevational Transects - Perdido River WMA Phase II Mitigation Area



Note: LIDAR data does not pick up windrows present on this site.



Hydrich Pine Flatwoods Restoration Area



Hydrich Pine Flatwoods Restoration Area



Forested Mixed Wetlands Enhancement Area



Mesic Pine Flatwoods Enhancement Area



## Species List

Perdido River Water Management Area – Phase II Mitigation Site

March 5, 2008

**Table 1. Polygon I & II (formerly E & A; FLUCCS 441 Current / 630 Restored)**

Wildlife observed: crayfish chimney, southern cricket frog, deer scat.

Bedded pine with large wind rows and a large amount of sphagnum moss.

Water depth 0-2”.

Scientific Name	Common Name	Tree	Shrub	Vine	Herb
<i>Acer rubrum</i>	Red maple	X			
<i>Andropogon glomeratus</i>	Bushy bluestem				X
<i>Carex tenax</i>	Caric sedge				X
<i>Centella asiatica</i>	Centella				X
<i>Clethra alnifolia</i>	Sweet pepper bush		X		
<i>Cliftonia monophylla</i>	Black titi		X		
<i>Cyrilla racemiflora</i>	Red titi		X		
<i>Dicanthelium spp.</i>	Panic grass				X
<i>Drosera brevifolia</i>	Small sundew				X
<i>Gaylussacia frondosa</i> var. <i>tomentosa</i>	Blue huckleberry		X		
<i>Hypericum exile</i>	Florida sands St. Johns Wort				X
<i>Ilex coriacea</i>	Large gallberry		X		
<i>Ilex glabra</i>	Gall berry		X		
<i>Ilex myrtifolia</i>	Myrtle-leaved holly		X		
<i>Lachnocaulon anceps</i>	White-headed bog buttons				X
<i>Lycopodiella appressa</i>	Southern club-moss				X
<i>Lycopodiella caroliniana</i>	Slender club-moss				X
<i>Lyonia lucida</i>	Fetter bush		X		
<i>Magnolia grandiflora</i>	Bull bay	X			
<i>Magnolia virginiana</i>	Silver bay	X			
<i>Myrica inodorata</i>	Odorless wax myrtle		X		
<i>Persea paulistris</i>	Silk bay	X			
<i>Pinus elliotii</i>	Slash pine	X			
<i>Quercus hemisphaerica</i>	Diamond oak	X			
<i>Rhexia nashii</i>	Maid Marion meadow beauty				X
<i>Scleria sp.</i>	Scleria				X
<i>Serenoa repens</i>	Saw palmetto		X		
<i>Solidago fistulosa</i>	Pine barrens goldenrod				X
<i>Woodwardia virginica</i>	Virginia chain fern				X
<i>Woodwardia areolata</i>	Netted chain fern				X
<i>Vaccinium corymbosum</i>	High bush blueberry		X		
<i>Viola primulifolia</i>	Primrose leaf violet				X
<i>Vitis rotundifolia</i>	Muscadine grape			X	
<i>Xyris sp.</i>	Yellow eyed grass				X



**Table 2. Polygon III (formerly B; FLUCCS 630 current and post mitigation)**

Wildlife observed: crayfish chimney, southern cricket frog, sphagnum moss.  
Water depth 0-6".

Scientific Name	Common Name	Tree	Shrub	Vine	Herb
<i>Acer rubrum</i>	Red maple	X			
<i>Andropogon glomeratus</i>	Bushy bluestem				X
<i>Carex tenax</i>	Caric sedge				X
<i>Clethra alinifolia</i>	Sweet pepper bush		X		
<i>Cliftonia monophylla</i>	Black titi		X		
<i>Cyrilla racemiflora</i>	Red titi		X		
<i>Dicanthelium spp.</i>	Panic grass				X
<i>Drosera brevifolia</i>	Small sundew				X
<i>Eleocharis vivipara</i>	Viparous spikerush				X
<i>Gaylussacia frondosa</i> var. <i>tomentosa</i>	Blue huckleberry		X		
<i>Hypericum exile</i>	Florida sands St. Johns Wort				X
<i>Hyptis alata</i>	Musky mint				X
<i>Ilex coriacea</i>	Large gallberry		X		
<i>Ilex glabra</i>	Gall berry		X		
<i>Ilex myrtifolia</i>	Myrtle-leaved holly		X		
<i>Lachnocaulon anceps</i>	White-headed bog buttons				X
* <i>Listera australis forma viridis</i>	Southern tway blade orchid				X
<i>Ludwigia sp.</i>	Seedbox				
<i>Lycopodiella appressa</i>	Southern club-moss				X
<i>Lycopodiella caroliniana</i>	Slender club-moss				X
<i>Lyonia lucida</i>	Fetter bush		X		
<i>Magnolia grandiflora</i>	Bull bay	X			
<i>Magnolia virginiana</i>	Silver bay	X			
<i>Myrica cerifera</i>	Wax myrtle		X		
<i>Myrica inodorata</i>	Odorless wax myrtle		X		
<i>Nyssa sylvatica</i> var. <i>biflora</i>	Swamp tupelo	X			
<i>Osmunda cinnamomea</i>	Cinnamon fern				X
<i>Persea paulistris</i>	Silk bay	X			
<i>Photinia pyrifolia</i>	Red chokeberry		X		
<i>Pinus elliotii</i>	Slash pine	X			
<i>Quercus hemisphaerica</i>	Diamond oak	X			
<i>Rhexia nashii</i>	Maid Marion meadow beauty				X
<i>Rhynchospora capillacea</i>	Wiry Rhynchospora				X
<i>Rubus argutus</i>	Blackberry		X		
<i>Scleria sp.</i>	Scleria				X
<i>Serenoa repens</i>	Saw palmetto		X		
<i>Smilax laurifolia</i>	Catbriar			X	
<i>Solidago fistulosa</i>	Pine barrens goldenrod				X
<i>Taxodium ascendens</i>	Pond cypress	X			
<i>Woodwardia virginica</i>	Virginia chain fern				X
<i>Woodwardia areolata</i>	Netted chain fern				X
<i>Vaccinium corymbosum</i>	High bush blueberry		X		
<i>Viola primulifolia</i>	Primrose leaf violet				X
<i>Vitis rotundifolia</i>	Muscadine grape			X	
<i>Xyris sp.</i>	Yellow eyed grass				X

\* State Threatened Species,

**Table 3. Polygon IV (formerly D; FLUCCS 441 current / 625 restored)**

Wildlife observed: crayfish chimney, deer scat.  
 Bedded pine with large wind rows and sphagnum moss.  
 Water depth 0-4”.

Scientific Name	Common Name	Tree	Shrub	Vine	Herb
<i>Acer rubrum</i>	Red maple	X			
<i>Andropogon glomeratus</i>	Bushy bluestem				X
<i>Carex tenax</i>	Caric sedge				X
<i>Cliftonia monophylla</i>	Black titi		X		
<i>Cyrilla racemiflora</i>	Red titi		X		
<i>Drosera brevifolia</i>	Small sundew				X
<i>Eupatorium capillifolium</i>	Yankee weed				X
<i>Hypericum crux-andreae</i>	St. Andrew's cross				X
<i>Hypericum exile</i>	Florida sands St. Johns Wort				X
<i>Ilex coriacea</i>	Large gallberry		X		
<i>Ilex glabra</i>	Gall berry		X		
<i>Ilex myrtifolia</i>	Myrtle-leaved holly		X		
<i>Ilex vomitoria</i>	Yaupon		X		
<i>Lachnocaulon anceps</i>	White-headed bog buttons				X
<i>Lycopodiella appressa</i>	Southern club-moss				X
<i>Lycopodiella caroliniana</i>	Slender club-moss				X
<i>Lyonia lucida</i>	Fetter bush		X		
<i>Magnolia virginiana</i>	Silver bay	X			
<i>Myrica odorata</i>	Odorless wax myrtle		X		
<i>Osmunda cinnamomea</i>	Cinnamon fern				X
<i>Persea paulistris</i>	Silk bay	X			
<i>Pinus elliotii</i>	Slash pine	X			
<i>Pluchea sp.</i>	Pluchea				X
<i>Quercus hemisphaerica</i>	Diamond oak	X			
<i>Rhexia nashii</i>	Maid Marion meadow beauty				X
<i>Saccharum giganteum</i>	Giant plume grass				X
<i>Scleria sp.</i>	Scleria				X
<i>Serenoa repens</i>	Saw palmetto		X		
<i>Solidago fistulosa</i>	Pine barrens goldenrod				X
<i>Woodwardia areolata</i>	Netted chain fern				X
<i>Woodwardia virginica</i>	Virginia chain fern				X
<i>Vaccinium corymbosum</i>	High bush blueberry		X		
<i>Viola primulifolia</i>	Primrose leaf violet				X
<i>Vitis rotundifolia</i>	Muscadine grape			X	
<i>Xyris sp.</i>	Yellow eyed grass				X

**Table 4. Polygon V [Upland] (formerly C; FLUCCS 441 current / 411 restored)**

Wildlife observed: deer scat.

Bedded pine with large wind rows.

Scientific Name	Common Name	Tree	Shrub	Vine	Herb
<i>Andropogon glomeratus</i>	Bushy bluestem				X
<i>Cliftonia monophylla</i>	Black titi		X		
<i>Eupatorium capillifolium</i>	Yankee weed				X
<i>Hypericum crux-andreae</i>	St. Andrew's cross				X
<i>Ilex glabra</i>	Gall berry		X		
<i>Ilex vomitoria</i>	Yaupon		X		
<i>Lachnocaulon anceps</i>	White-headed bog buttons				X
<i>Magnolia grandiflora</i>	Bull bay	X			
<i>Magnolia virginiana</i>	Silver bay	X			
<i>Myrica inodorata</i>	Odorless wax myrtle		X		
<i>Persea borbonia</i>	Red bay	X			
<i>Pinus elliottii</i>	Slash pine	X			
<i>Quercus hemisphaerica</i>	Diamond oak	X			
<i>Rhexia mariana</i>	Pale meadow beauty				X
<i>Serenoa repens</i>	Saw palmetto		X		
<i>Solidago fistulosa</i>	Pine barrens goldenrod				X
<i>Vaccinium corymbosum</i>	High bush blueberry		X		
<i>Viola primulifolia</i>	Primrose leaf violet				X
<i>Vitis rotundifolia</i>	Muscadine grape			X	

**PART I – Qualitative Description  
(See Section 62-345.400, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation</b>		Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon I (formerly E)</b>	
FLUCCs code <b>441 with 630 inclusions (Current); 630 (Post Restoration)</b>		Further classification (optional) <b>---</b>	Impact or Mitigation Site? <b>Mitigation</b>	Assessment Area Size <b>4 Acres</b>
Basin/Watershed Name/Number <b>Perdido River and Bay</b>	Affected Waterbody (Class) <b>III</b>	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) <b>OFW</b>		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands <b>Contiguous to Perdido River wetlands. Polygon is within 300' of US 90.</b>				
Assessment area description <b>Pine Plantation (FLUCCS 411) with inclusions of Forested Mixed Wetlands (FLUCCS 630).</b>				
Significant nearby features <b>Within Perdido River WMA; adjacent to TNC Rainwater Nature Preserve.</b>		Uniqueness (considering the relative rarity in relation to the regional landscape.) <b>Typical Habitat</b>		
Functions <b>Water quality; protection of recharge areas; floral and faunal habitat.</b>		Mitigation for previous permit/other historic use <b>None Known</b>		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) <b>Deer, possum, raccoon, bob cat, box turtle, spotted skunk, black racer, oak toad, American toad, garter snake, diamond back rattler, cotton mouse, rabbit, squirrel.</b>		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) <b>Pineland bog button (LT), yellow fringeless orchid (LE), yellow fringed orchid (LT), white top pitcher plant (LE), gulf coast purple pitcher plant (LT), eastern indigo snake (LT), Florida pine snake (LS), wood stork.</b>		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): <b>Deer, rabbit, raccoon.</b>				
Additional relevant factors: <b>---</b>				
Assessment conducted by: <b>IRT / NFWMD Staff</b>		Assessment date(s): <b>3/25/2008</b>		



**PART II – Quantification of Assessment Area (impact or mitigation)**  
**(See Sections 62-345.500 and .600, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>	Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon I (formerly E)</b>
Impact or Mitigation <b>Mitigation</b>	Assessment conducted by: <b>NWFWM Staff</b>	Assessment date: <b>3/25/2008</b>

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed
--

<b>Optimal (10)</b> Condition is optimal and fully supports wetland/surface water functions	<b>Moderate(7)</b> Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	<b>Minimal (4)</b> Minimal level of support of wetland/surface water functions	<b>Not Present (0)</b> Condition is insufficient to provide wetland/surface water functions
--	--	---	--

.500(6)(a) Location and Landscape Support	<b>Without Mitigation</b> - A major highway (US 90) impedes wildlife access and movement across the northwest boundary; existing pine plantation within the polygon diminishes value of site to wildlife in surrounding area. <b>With Mitigation</b> - Restoration of adpace				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">6</td> <td align="center">7</td> </tr> </table>	w/out mit	with mit	6	7	
w/out mit	with mit				
6	7				

.500(6)(b)Water Environment (N/A for Uplands)	<b>Without Mitigation</b> - Pine plantation bedding and wind rows in adjacent polygons and roadside ditching along US 90 make conditions less than optimal. <b>With Mitigation</b> - improves with restoration of adjacent polygons.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">6</td> <td align="center">7</td> </tr> </table>	w/out mit	with mit	6	7	
w/out mit	with mit				
6	7				

.500(6)(c)Community structure  Vegetation and/or Benthic Community	<b>Without Mitigation</b> - Remains as forested mixed wetlands with encroachment/edge effects of thick shrub layers. <b>With Mitigation</b> - Exotic/invasives management implemented; restoration and management of adjacent hydric pine flatwoods and savanna; reduction o				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">4</td> <td align="center">8</td> </tr> </table>	w/out mit	with mit	4	8	
w/out mit	with mit				
4	8				

Score = sum of above scores/30 (if uplands, divide by 20)				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">0.53</td> <td align="center">0.73</td> </tr> </table>	w/out mit	with mit	0.53	0.73
w/out mit	with mit			
0.53	0.73			

If preservation as mitigation
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
N/A

Delta = [with - w/out]
0.20

If mitigation / restoration
<b>Federal Time Lag Factor (25 years) = 0.68</b>
<b>Risk factor = 1.25</b>

Polygon Acreage = 4	
For mitigation assessment areas	
<b>Mitigation Credits</b> [(Delta / (Time Lag * Risk)) * Acres] =	0.95

**PART I – Qualitative Description  
(See Section 62-345.400, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>		Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon II (formerly A)</b>	
FLUCCs code <b>441 with 630 inclusions (Current); 630 (Post Restoration)</b>		Further classification (optional) <b>---</b>	Impact or Mitigation Site? <b>Mitigation</b>	Assessment Area Size <b>9.5 Acres</b>
Basin/Watershed Name/Number <b>Perdido River and Bay</b>	Affected Waterbody (Class) <b>III</b>	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) <b>OFW</b>		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands <b>Contiguous to Perdido River wetlands.</b>				
Assessment area description <b>Pine Plantation (FLUCCS 441).</b>				
Significant nearby features <b>Within Perdido River WMA; adjacent to TNC Rainwater Nature Preserve.</b>		Uniqueness (considering the relative rarity in relation to the regional landscape.) <b>Typical Habitat</b>		
Functions <b>Water quality; protection of recharge areas; floral and faunal habitat.</b>		Mitigation for previous permit/other historic use <b>None Known</b>		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) <b>Deer, possum, raccoon, bob cat, box turtle, spotted skunk, black racer, oak toad, American toad, garter snake, diamond back rattler, cotton mouse, rabbit, squirrel.</b>		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) <b>Pineland bog button (LT), yellow fringeless orchid (LE), yellow fringed orchid (LT), white top pitcher plant (LE), gulf coast purple pitcher plant (LT), eastern indigo snake (LT), Florida pine snake (LS), wood stork.</b>		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): <b>Deer, rabbit, raccoon.</b>				
Additional relevant factors: <b>---</b>				
Assessment conducted by: <b>IRT / NFWMD Staff</b>		Assessment date(s): <b>3/25/2008</b>		

**PART II – Quantification of Assessment Area (impact or mitigation)**  
**(See Sections 62-345.500 and .600, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>	Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon II (formerly A)</b>
Impact or Mitigation <b>Mitigation</b>	Assessment conducted by: <b>NWFWM Staff</b>	Assessment date: <b>3/25/2008</b>

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	<b>Without Mitigation</b> - A major highway (US 90) impedes wildlife access and movement across the northwest boundary; existing pine plantation within the polygon diminishes value of site to wildlife in surrounding area. <b>With Mitigation</b> - Restoration of adja						
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">8</td> <td align="center">9</td> </tr> </table>	w/out mit	with mit	8	9			
w/out mit	with mit						
8	9						

.500(6)(b)Water Environment (N/A for Uplands)	<b>Without Mitigation</b> - Pine plantation bedding and wind rows in adjacent polygons and roadside ditching along US 90 make conditions less than optimal. <b>With Mitigation</b> - improves with restoration of adjacent polygons.						
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">6</td> <td align="center">7</td> </tr> </table>	w/out mit	with mit	6	7			
w/out mit	with mit						
6	7						

.500(6)(c)Community structure  Vegetation and/or Benthic Community	<b>Without Mitigation</b> - Remains as forested mixed wetlands with encroachment/edge effects of thick shrub layers. <b>With Mitigation</b> - Exotic/invasives management implemented; restoration and management of adjacent hydric pine flatwoods and savanna; reduction o						
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">4</td> <td align="center">8</td> </tr> </table>	w/out mit	with mit	4	8			
w/out mit	with mit						
4	8						

Score = sum of above scores/30 (if uplands, divide by 20)	
w/out mit	with mit
0.60	0.80

If preservation as mitigation
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
N/A

Delta = [with - w/out]
0.20

If mitigation / restoration
<b>Time Lag Factor (6-10 years) = 0.68</b>
<b>Risk factor = 1.25</b>

Polygon Acreage = 9.5	
For mitigation assessment areas	
<b>Mitigation Credits</b> [(Delta / (Time Lag * Risk)) * Acres] =	2.25

**PART I – Qualitative Description  
(See Section 62-345.400, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>		Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon III (formerly B)</b>	
FLUCCs code <b>630 - Forested Mixed Wetlands (Current and Post Restoration)</b>		Further classification (optional) <b>---</b>	Impact or Mitigation Site? <b>Mitigation</b>	Assessment Area Size <b>11.5 Acres</b>
Basin/Watershed Name/Number <b>Perdido River and Bay</b>	Affected Waterbody (Class) <b>III</b>	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) <b>OFW</b>		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands <b>Contiguous to Perdido River wetlands.</b>				
Assessment area description <b>Primarily Forested Mixed Wetlands (FLUCCS 630).</b>				
Significant nearby features <b>Within Perdido River WMA; adjacent to TNC Rainwater Nature Preserve.</b>		Uniqueness (considering the relative rarity in relation to the regional landscape.) <b>Typical Habitat</b>		
Functions <b>Water quality; protection of recharge areas; floral and faunal habitat.</b>		Mitigation for previous permit/other historic use <b>None Known</b>		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) <b>Deer, possum, raccoon, bob cat, box turtle, spotted skunk, black racer, oak toad, American toad, garter snake, diamond back rattler, cotton mouse, rabbit, squirrel.</b>		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) <b>Pineland bog button (LT), yellow fringeless orchid (LE), yellow fringed orchid (LT), white top pitcher plant (LE), gulf coast purple pitcher plant (LT), eastern indigo snake (LT), Florida pine snake (LS), wood stork.</b>		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): <b>Deer, rabbit, raccoon.</b>				
Additional relevant factors: <b>---</b>				
Assessment conducted by: <b>IRT / NFWMD Staff</b>		Assessment date(s): <b>3/25/2008</b>		



**PART II – Quantification of Assessment Area (impact or mitigation)**  
**(See Sections 62-345.500 and .600, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>	Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon III (formerly B)</b>
Impact or Mitigation <b>Mitigation</b>	Assessment conducted by: <b>NWFWM Staff</b>	Assessment date: <b>3/25/2008</b>

**Scoring Guidance**  
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

<b>Optimal (10)</b> Condition is optimal and fully supports wetland/surface water functions	<b>Moderate(7)</b> Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	<b>Minimal (4)</b> Minimal level of support of wetland/surface water functions	<b>Not Present (0)</b> Condition is insufficient to provide wetland/surface water functions
--	--	---	--

.500(6)(a) Location and Landscape Support	<b>Without Mitigation</b> - A major highway (US 90) impedes wildlife access and movement across the northwest boundary; existing pine plantation within the polygon diminishes value of site to wildlife in surrounding area. <b>With Mitigation</b> - Restoration of adjacent hydric pine flatwoods and savanna increases value to wildlife in surrounding area; FDOT eco-passage provides wildlife access across US 90.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">7</td> <td align="center">8</td> </tr> </table>	w/out mit	with mit	7	8	
w/out mit	with mit				
7	8				

.500(6)(b)Water Environment (N/A for Uplands)	<b>Without Mitigation</b> - Pine plantation bedding and wind rows in adjacent polygons and roadside ditching along US 90 make conditions less than optimal. <b>With Mitigation</b> - improves with restoration of adjacent polygons.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">8</td> <td align="center">9</td> </tr> </table>	w/out mit	with mit	8	9	
w/out mit	with mit				
8	9				

.500(6)(c)Community structure  Vegetation and/or Benthic Community	<b>Without Mitigation</b> - Remains as forested mixed wetlands with encroachment/edge effects of thick shrub layers. <b>With Mitigation</b> - Exotic/invasives management implemented; restoration and management of adjacent hydric pine flatwoods and savanna; reduction of encroaching shrub layers.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">7</td> <td align="center">8</td> </tr> </table>	w/out mit	with mit	7	8	
w/out mit	with mit				
7	8				

Score = sum of above scores/30 (if uplands, divide by 20)

w/out mit	with mit
0.73	0.83

If preservation as mitigation
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
N/A

Delta = [with - w/out]
0.10

If mitigation / restoration
<b>Federal Time Lag Factor (8 years) = 0.89</b>
Risk factor = 1

Polygon Acreage = 11.5
For mitigation assessment areas
<b>Mitigation Credits</b> [(Delta / (Time Lag * Risk)) * Acres] = 1.29

**PART I – Qualitative Description  
(See Section 62-345.400, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>		Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon IV (formerly D)</b>	
FLUCCs code <b>441 - Pine Plantation (Current); 625 - Hydric Pine Flatwoods (Restored)</b>		Further classification (optional) <b>---</b>	Impact or Mitigation Site? <b>Mitigation</b>	Assessment Area Size <b>16 Acres</b>
Basin/Watershed Name/Number <b>Perdido River and Bay</b>	Affected Waterbody (Class) <b>III</b>	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) <b>OFW</b>		
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands <b>Contiguous to Perdido River wetlands.</b>				
Assessment area description <b>6-year old bedded pine plantation (FLUCCS 441) in hydric conditions; upland vegetation on wind rows.</b>				
Significant nearby features <b>Within Perdido River WMA; adjacent to TNC Rainwater Nature Preserve.</b>		Uniqueness (considering the relative rarity in relation to the regional landscape.) <b>Typical Habitat</b>		
Functions <b>Water quality; protection of recharge areas; floral and faunal habitat.</b>		Mitigation for previous permit/other historic use <b>None Known</b>		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found ) <b>Deer, possum, raccoon, bob cat, box turtle, spotted skunk, black racer, oak toad, American toad, garter snake, diamond back rattler, cotton mouse, rabbit, squirrel.</b>		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) <b>Pineland bog button (LT), yellow fringeless orchid (LE), yellow fringed orchid (LT), white top pitcher plant (LE), gulf coast purple pitcher plant (LT), eastern indigo snake (LT), Florida pine snake (LS), wood stork, Southern tway blade (LT).</b>		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): <b>Deer, rabbit, raccoon, pinewoods bluestem.</b>				
Additional relevant factors: <b>---</b>				
Assessment conducted by: <b>IRT / NFWMD Staff</b>		Assessment date(s): <b>3/25/2008</b>		

**PART II – Quantification of Assessment Area (impact or mitigation)**  
**(See Sections 62-345.500 and .600, F.A.C.)**

Site/Project Name <b>Perdido River WMA - Phase II Mitigation (Site 1)</b>	Application Number <b>Not Applicable</b>	Assessment Area Name or Number <b>Polygon IV (formerly D)</b>
Impact or Mitigation <b>Mitigation</b>	Assessment conducted by: <b>NWFWMD Staff</b>	Assessment date: <b>3/25/2008</b>

**Scoring Guidance**  
 The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

<b>Optimal (10)</b>	<b>Moderate(7)</b>	<b>Minimal (4)</b>	<b>Not Present (0)</b>
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	<b>Without Mitigation</b> - A major highway (US 90) impedes wildlife access and movement across the northwest boundary; existing pine plantation within the polygon diminishes value of site to wildlife in surrounding area. <b>With Mitigation</b> - Restoration of hydric pine flatwoods increases value to wildlife in surrounding area; FDOT eco-passage provides wildlife access across US 90.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">8</td> <td align="center">9</td> </tr> </table>	w/out mit	with mit	8	9	
w/out mit	with mit				
8	9				

.500(6)(b)Water Environment (N/A for Uplands)	<b>Without Mitigation</b> - Hydrology degraded by bedding, roadside ditching along US 90, and wind rows. <b>With Mitigation</b> - Removal of wind rows improves sheetflows.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">5</td> <td align="center">7</td> </tr> </table>	w/out mit	with mit	5	7	
w/out mit	with mit				
5	7				

.500(6)(c)Community structure  Vegetation and/or Benthic Community	<b>Without Mitigation</b> - Remains as dense planted pine stand with thick shrub layers; groundcover diversity greatly suppressed. <b>With Mitigation</b> - Restored as hydric pine flatwoods with lower pine densities and greater groundcover diversity. Restoration methods may include prescribed fire, mechanical shrub reduction, thinning of pines to not more than 112 trees per acre, planting of wiregrass and possible herbaceous seeding.				
<table border="1"> <tr> <td>w/out mit</td> <td>with mit</td> </tr> <tr> <td align="center">4</td> <td align="center">9</td> </tr> </table>	w/out mit	with mit	4	9	
w/out mit	with mit				
4	9				

Score = sum of above scores/30 (if uplands, divide by 20)

w/out mit	with mit
0.57	0.83

If preservation as mitigation
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
N/A

Delta = [with - w/out]
0.27

If mitigation / restoration
<b>Federal Time Lag Factor (12 years) = 0.83</b>
<b>Risk factor = 1.25</b>

Polygon Acreage = 16
For mitigation assessment areas
<b>Mitigation Credits</b> [(Delta / (Time Lag * Risk)) * Acres] = <b>4.10</b>

Perdido River WMA Phase II Mitigation  
 UMAM Credit Assessment - March, 2008  
 (IRT and NFWFMD Staff)

DO NOT ENTER DATA ON THIS PAGE  
 ENTER SCORES ONLY ON INDIVIDUAL POLYGON PAGES

Polygon	Acres	L1	L2	W1	W2	C1	C2	W/Out Score	With Score	Raw Delta	Time Lag	P Factor	Risk	Adjusted Delta	UMAM Credits
I (E)	4	6	7	6	7	4	8	0.53	0.73	0.20	0.68	N/A	1.25	0.24	0.95
II (A)	9.5	8	9	6	7	4	8	0.60	0.80	0.20	0.68	N/A	1.25	0.24	2.25
III (B)	11.5	7	8	8	9	7	8	0.73	0.83	0.10	0.89	N/A	1	0.11	1.29
IV (D)	16	8	9	5	7	4	9	0.57	0.83	0.27	0.83	N/A	1.25	0.26	4.10
Uplands	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	54														8.58

- L1 = Location and Landscape Support - Without Mitigation
- L2 = Location and Landscape Support - With Mitigation
- W1 = Water Environment - Without Mitigation
- W2 = Water Environment - With Mitigation
- C1 = Community Structure - Without Mitigation
- C2 = Community Structure - With Mitigation

Raw Delta = w/mit score - without mitigation score  
 Adjusted Delta = Raw Delta / (Time Lag \* Risk)  
 UMAM Credits = Acres \* Adjusted Delta