



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
2170 SW Canal Street
Stuart, FL 34997

REPLY TO
ATTENTION OF

27 SEP 2007

Regulatory Division
Special Projects and Enforcement Branch
SAJ-2003-10326(IP-AAZ)

Florida Department of Transportation
Attn: Ms. Georgi Celusnek
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-34

Dear Ms. Celusnek:

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,

B.M.B
Loren M. Mason
Chief, Special Projects and
Enforcement Branch

DEPARTMENT OF THE ARMY PERMIT

Permittee: Florida Department of Transportation
Attn: Mr. Fernando Ascanio
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

Permit No: SAJ-2003-10326(IP-AAZ)

Issuing Office: U.S. Army Engineer District, Jacksonville

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 project would repave the two-lane State Road (SR) A1A, add a 5-foot paved shoulder on each side of the roadway, and construct an 8-foot sidewalk from the Walton Rock Beach entrance to the Turtle Beach nature trail. This project includes the widening of two bridges over Big Mud Creek and Blind Creek to accommodate the sidewalk. The bridge over Little Mud Creek will be widened to accommodate a sidewalk and be replaced due to damages caused by recent hurricanes. Sheet piling will be installed along the sides of the embankment of the Little Mud Creek Bridge to prevent further erosion. The channels of all three bridges will be stabilized with riprap along the sides and bottom of the channel. The total length of the road activities is 7.6 miles. All work will be within the Florida Department of Transportation (FDOT) right-of-way for State Road A1A. As a result of the project, approximately 0.043 acre of mangroves and 0.22 acre of unconsolidated bottom will be directly impacted. As mitigation, the applicant would install three culverts under SRA1A to improve the tidal flushing. The applicant would also purchase 0.2 credit at Bear Point Mitigation Bank. The work described above is to be completed in accordance with the twenty-six pages of drawings affixed at the end of this permit instrument.

Project Location: The project is located in waters of the United States along SR A1A from the Florida Power and Light (FPL) intake canal to the Fort Pierce city limits at Blue Heron Boulevard on Hutchinson Island in Sections 12, 13, 7, 18, 19, 29, 30, 32, 4, 5, 9 and 16, Townships 35 and 36 South, Ranges 40 and 41 East, St. Lucie County, Florida.

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Directions to site: To access this site from St. Lucie County, travel east on State Road A1A across the Intracoastal Waterway to South Hutchinson Island. The project involves the widening of SR A1A from just south of Blue Heron Boulevard to the FPL intake canal.

Latitude & Longitude:

Project Start: Latitude 27°20'00" North
 Longitude 80°14'00" West

Project End: Latitude 27°26'30" North
 Longitude 80°17'30" West

Permit Conditions

General Conditions:

1. The time limit for completing the work authorized ends on 9-27-2012. 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.

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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 ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. Within 60 days of completion of the work authorized, the attached "Self-Certification Statement of Compliance" must be completed and submitted to the U.S. Army Corps of Engineers. Mail the completed form to the Regulatory Division, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019.

2. If at some point you no longer have the requisite property interests for this project, you are required to transfer the individual permit to the new owner by having them sign the attached "Request for Permit Transfer" sheet. Mail the completed form to the Regulatory Division, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019.

3. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

4. Within 60 days from issuance of this permit, the permittee shall purchase a total of 0.2 credit from the Bear Point Mitigation Bank. The permittee shall provide to the Corps proof of purchase within 10 days from the date of purchase. This notification shall be provided to:

U.S. Army Corps of Engineers
Jacksonville District

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PERMITTEE: Florida Department of Transportation, District 4

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Regulatory Division, Enforcement Section
P.O. Box 4970
Jacksonville, FL 32232-0019

A courtesy copy will also be provided to:

U.S. Army Corps of Engineers
St. Lucie Lock Recreation Center
2170 SW Canal Street
Stuart, FL 34997

5. The permittee shall install three 36-inch culverts under SR A1A. The Corps understands that the FDOT will install the culvert to the edge of the road right-of-way. A separate agency, such as St. Lucie County or the South Florida Water Management District, shall perform the necessary modifications to the ends of the culverts at a later date to hydrologically connect the tidal waters from the Indian River Lagoon to the area east of the SRA1A.

6. The permittee agrees to abide by the enclosed standard construction conditions designed to protect the smalltooth sawfish and swimming sea turtles.

7. The permittee agrees to abide by the enclosed standard construction conditions designed to protect the endangered West Indian manatee.

8. The dredged spoil material and associated effluent shall be pumped to a self-contained temporary upland disposal site. No material shall enter back into the water.

9. The north-south terminals of the swales adjacent to SRA1A shall be constructed with an uphill-slope to retain stormwater runoff prior to entering the Indian River. Riprap shall be placed in the north-south ends of the swales to enhance water quality prior to discharge into the Indian River.

10. The permittee shall provide as-built drawings of the authorized work and a completed As-Built Certification Form. The drawings and Certification Form are to be submitted within 30 days of completion of the authorized work or a response indicating that the authorized work has not been accomplished shall be submitted prior to the expiration of the construction authorization of the permit. The drawings and Certification Form

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must be signed and sealed by a professional engineer registered in the State of Florida or a professional land surveyor registered in the State of Florida. In the event that the completed work deviates from the approved permit drawings and special conditions, the permittee shall describe, on the Certification Form, the deviation(s) between the project authorized by the permit and the project constructed.

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

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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.

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

Georg Cehnsek

(PERMITTEE)

Mr. Fernando Ascanio Ms Georgi Celusnek
Florida Department of Transportation

10 August 2007
(DATE)

(DATE)

(PERMITTEE NAME-PRINTED)

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

Bobo Barron

(DISTRICT ENGINEER)

Paul L. Grosskruger
Colonel, U.S. Army

27 SEP 2007

(DATE)

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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)

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*Attachments to Department of the Army
Permit Number SAJ-2003-10326(IP-AAZ)*

1. PERMIT DRAWINGS: Twenty-six (26) pages dated December 22, 2005
2. SELF-CERTIFICATION FORM: One (1) page
3. 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.
4. STANDARD CONSTRUCTION CONDITIONS FOR THE PROTECTION OF THE MANATEE AND THE SMALLTOOTH SAWFISH: One (1) page dated June 2001

AB 400 ARTICULATING BLOCK

RIGHT OF WAY LINE

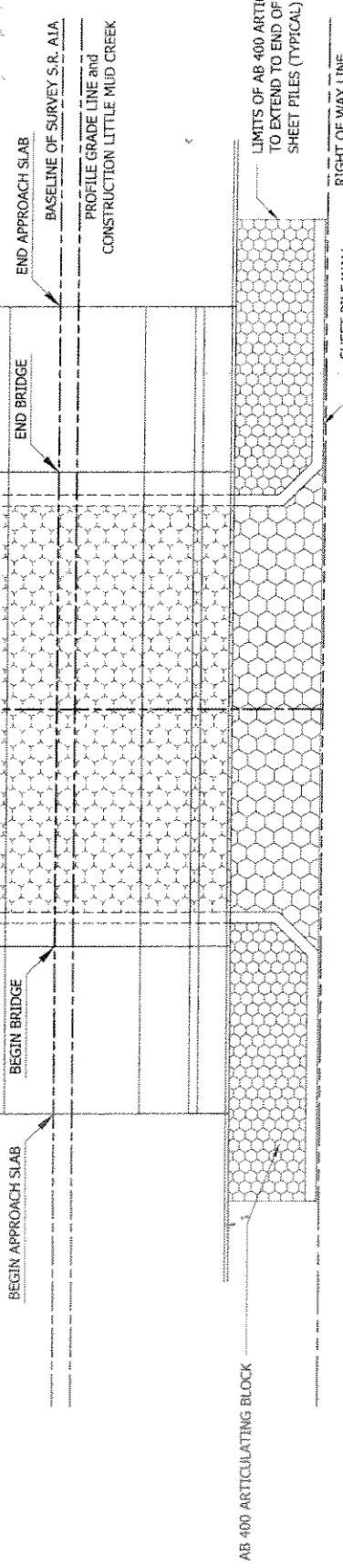
APPROVED

Cone & Graham, Inc.

JUN 26 2007

[Signature]

SEE NOTE 3 UNDER "SECTION
AT APPROACH SLAB" (TYPICAL)



NOTES:

1. AB 400 ARTICULATING BLOCK PROTECTION SHALL BE PROVIDED IN THE CHANNEL SECTION.
2. AB 400 ARTICULATING BLOCK PROTECTION SHALL ALSO BE PROVIDED ABOVE THE CONCRETE SHEET PILE WALLS UP TO THE ROADWAY.
3. THIS SHEET SHOULD BE USED ALONG WITH THE GENERAL PLAN AND ELEVATION SHEETS.
4. THE COST OF LABOR AND MATERIALS FOR THE GROUT BACKFILL (04-RR-24) SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR AB 400 ARTICULATING BLOCK, BID ITEM 530-3-3.



PLANS SIMILAR (Little Mud Creek, Big Mud Creek and Blind Creek)

APPROVED

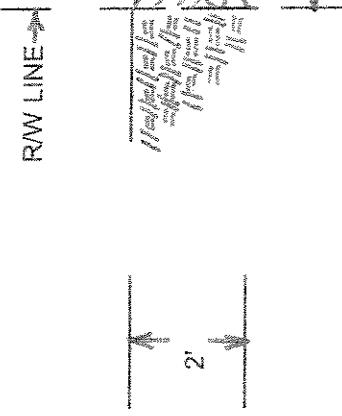
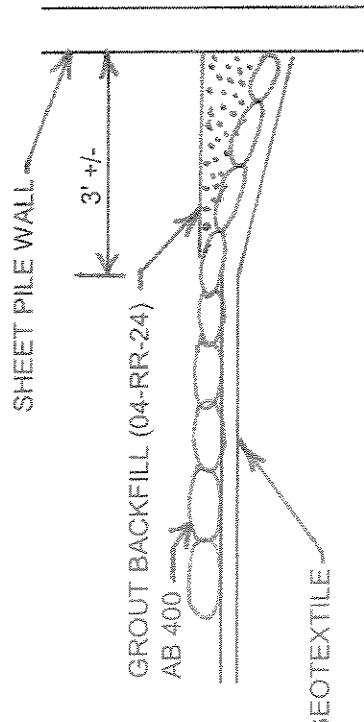
Dickerson Florida, Inc.

Initials: *[Signature]*

Date: *6/24/07*

Scale: 1" = 10'-0"

NOTE SHEET	1	1
REVISION	1	1
DATE	6/24/07	6/24/07
PROJECT	SR. RR. 24	SR. RR. 24
DESIGNER	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
ARCHITECT	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
CONTRACTOR	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
ADVISOR	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
AS-BUILT	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
OWNER	CONNE & GRAHAM INC.	CONNE & GRAHAM INC.
PERIOD	6/24/07	6/24/07
TIME	10:00 AM	10:00 AM
FILE NUMBER	630-78 Rip-Rap - Articulating Block Shop Drawing for	630-78 Rip-Rap - Articulating Block Shop Drawing for
ITEM NUMBER	SR. RR. 24	SR. RR. 24
SECTION NUMBER	1	1
SCALE	1"	1"
REMARKS	This sheet contains notes and drawings similar to those contained in the General Plan and Elevation Sheets. It is intended to be used along with those sheets.	



APPROVED

Cone & Graham, Inc.

JUN 26 2007

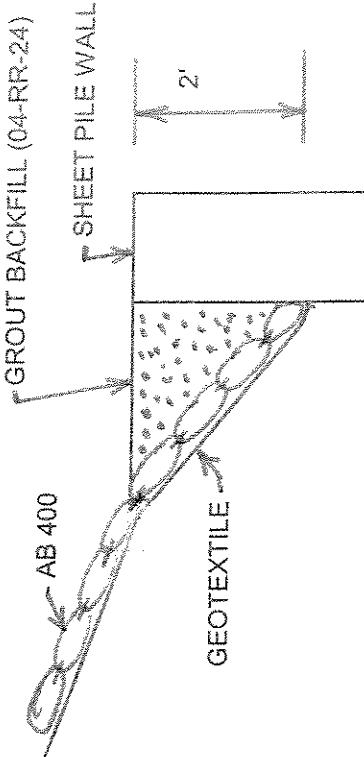
PROJECT QUANTITY

BRIDGE	AREA
# 940003 BIG MUD CREEK	1,010 SY
# 940004 BLIND CREEK	1,010 SY
# 940005 LITTLE MUD CREEK	1,630 SY
TOTAL =	3,650 SY

SECTION AT R/W LINE

APPROVED

Dates: 6/26/07
By: DICKERTSON
Signature: [Signature]



BRIDGE DESIGN ASSOCIATES, INC.
2035 VISTA PARKWAY
SUITE 200
WEST PALM BEACH, FL 33411
BRIAN C. RHEAULT, P.E. #3877V

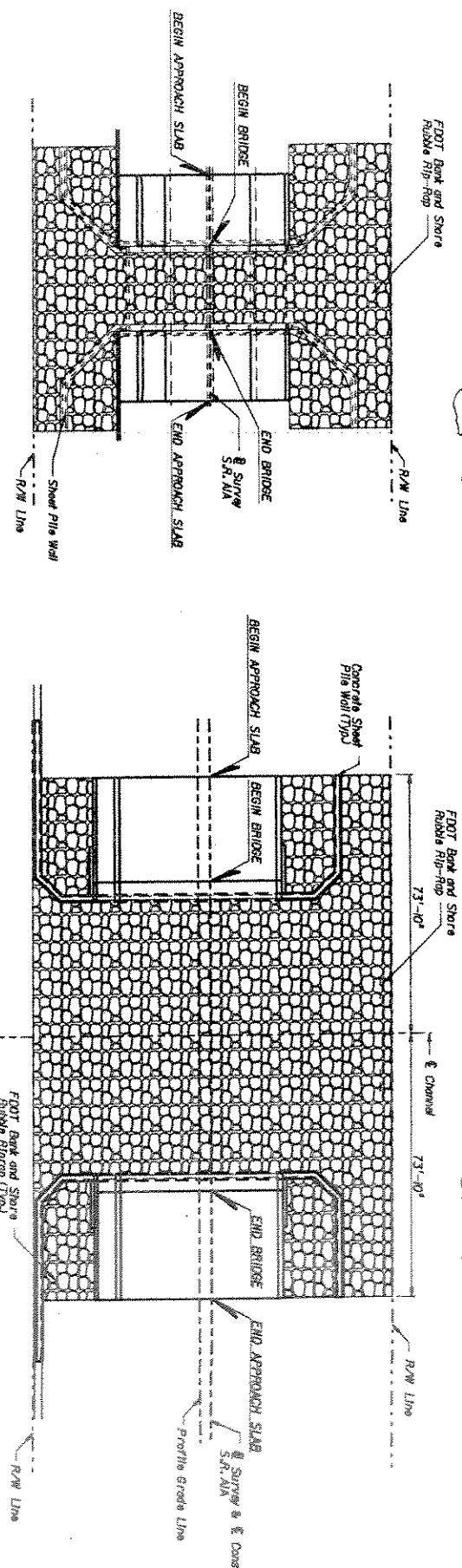
SECTION AT APPROACH SLAB
(SIMILAR NEAR WINGWALL)

OCEAN BREEZE CONSTRUCTION CO., INC.
CERTIFIED EROSION CONTROL SPECIALIST
P.O. Box 30459, Palm Beach Gardens, FL 33420
(561) 624-1020, Fax: (561) 624-1464, email: obchackett@earthlink.net

S.R. A1A over Little Mud Creek, Big Mud Creek & Blind Creek
530-78 RIPRAP - ARTICULATING BLOCK
SHOP DRAWING SUBMITTAL
CONTRACTOR: CONE & GRAHAM, INC.

DATE: 01-Feb-2007
SCALE: N.T.S.
DRAWN BY: AKH

6/13/07



३८५

Big M Creek & Blind Creek

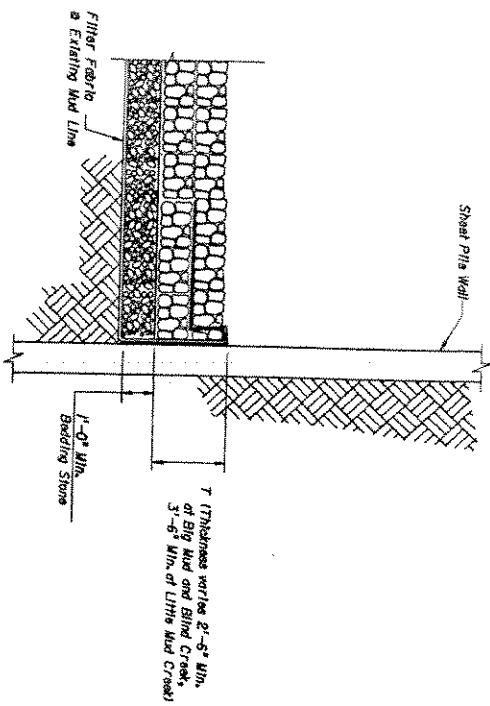
PLAY

4. This sheet should be used along with the General Plan and Elevation Sheets.
2. **FOOT Bank and Shore Rubble Riprap**: protection should be provided in the Channel section.
3. The protection should extend to the side of Concrete Sheet Piles far Blind Creek and Big Blue Creek. For Little Mud Creek, the protection should extend to the begin and end of approach slope.

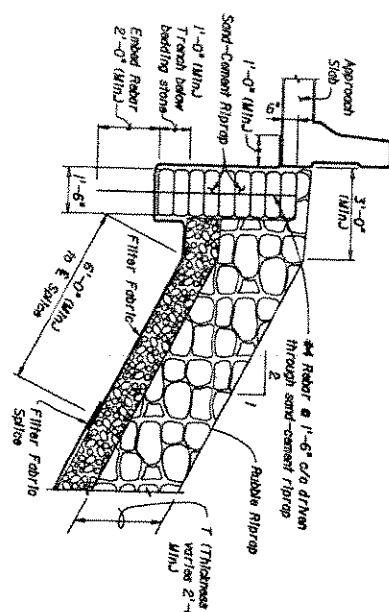
三

1. FOOT Bank and Shore Ripples Ridge protection should be provided in the Channel section.
 2. FOOT Bank and Shore Ripples Ridge protection should also be provided along the Dune ridge Sheet Pile walls in the懦端.

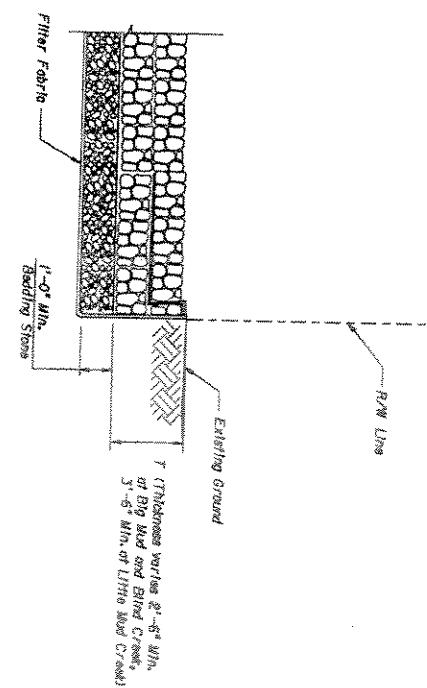
FOR PERMITTING ONLY



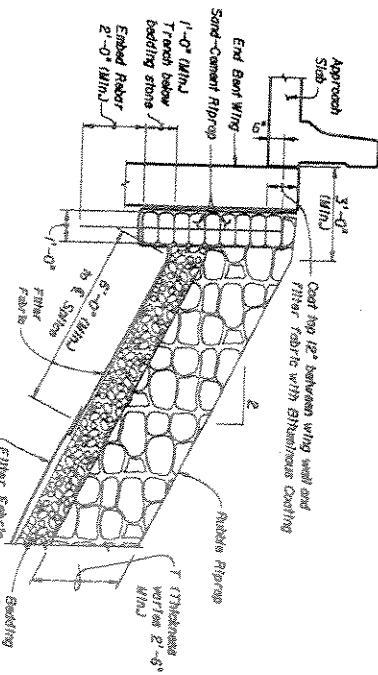
SECTION AT SHEET PILE WALL



SECTION AT APPROACH SLAB

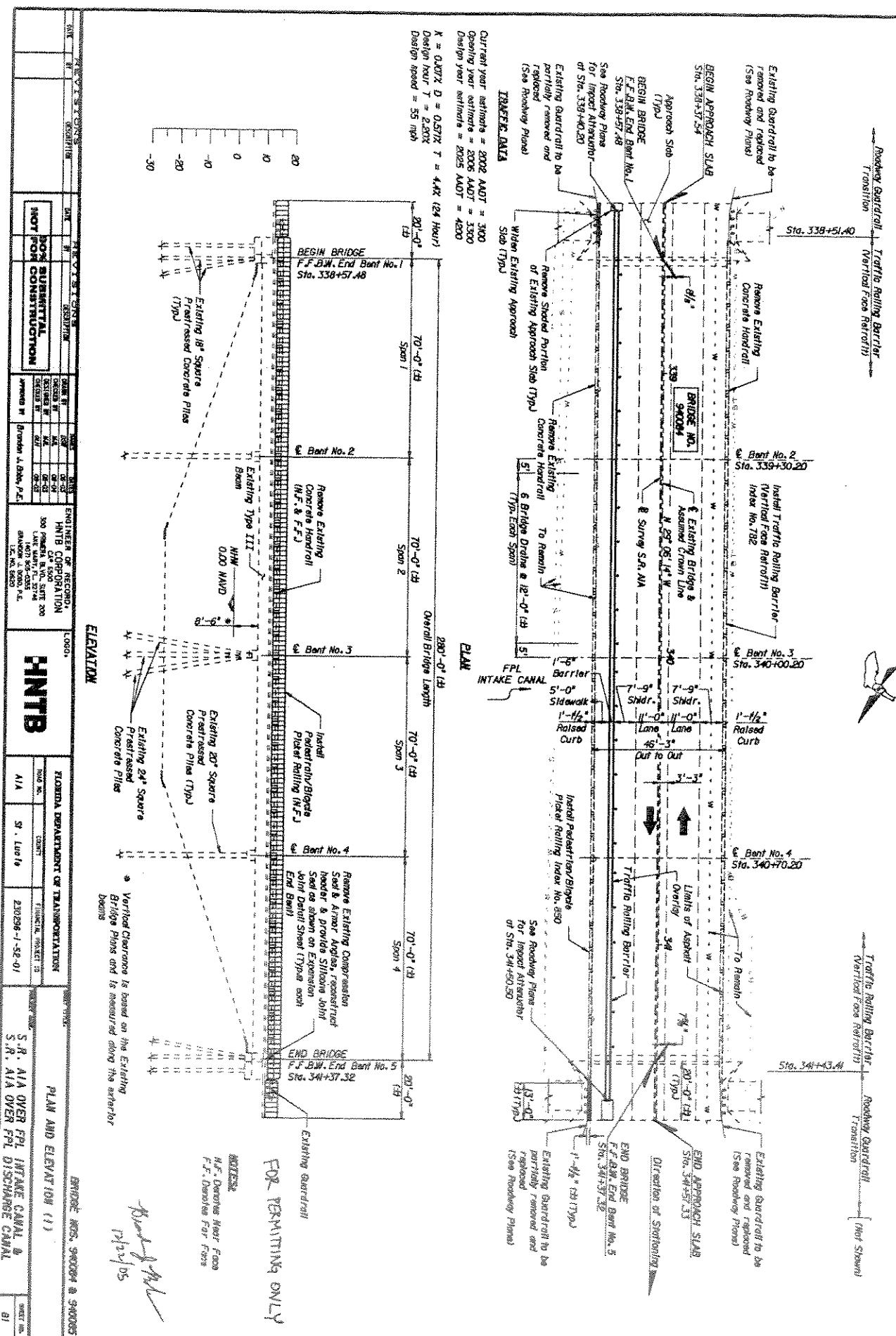


SECTION AT R/W LINE

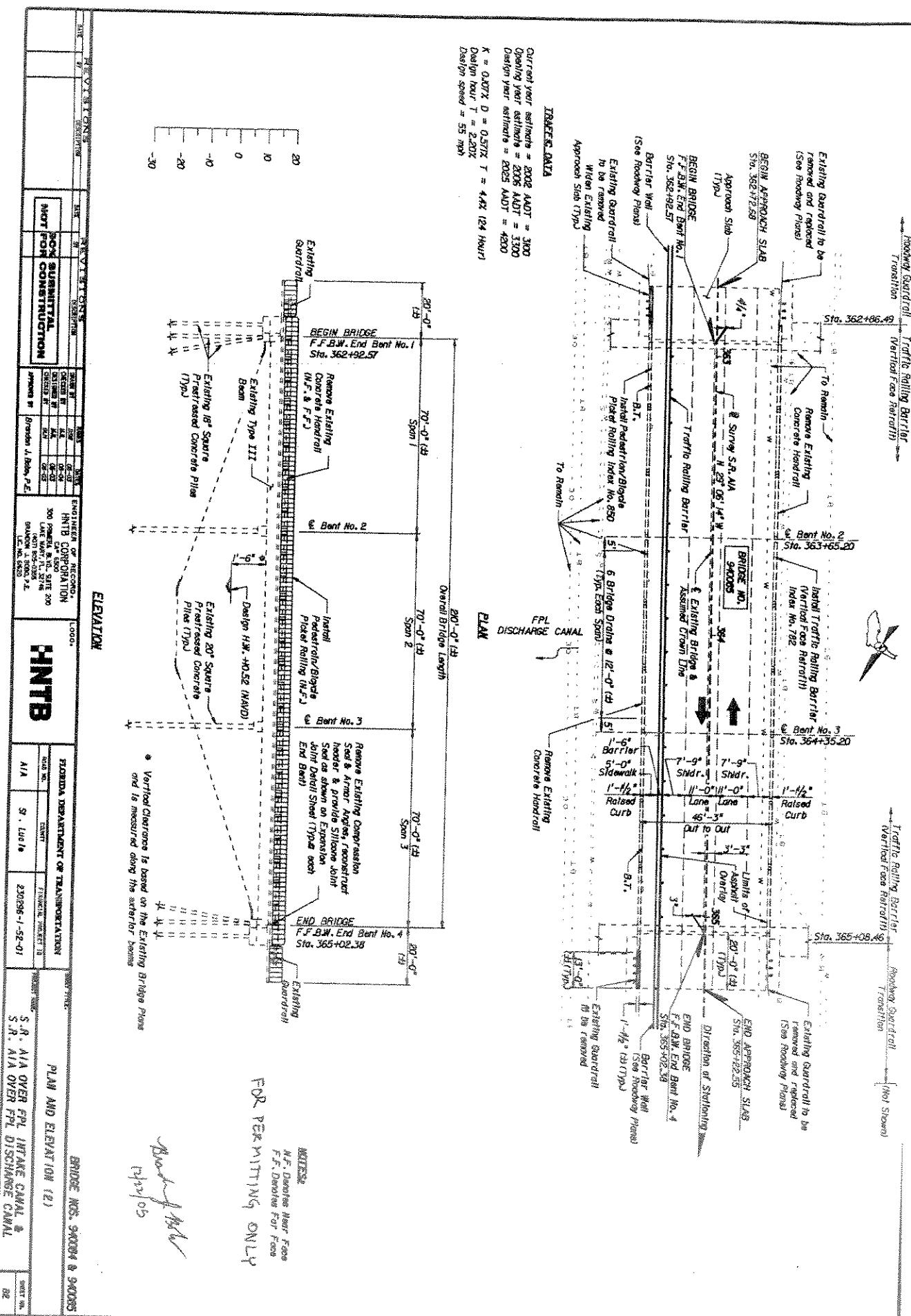


SECTION AT APPROACH SLAB NEAR WINGWALL

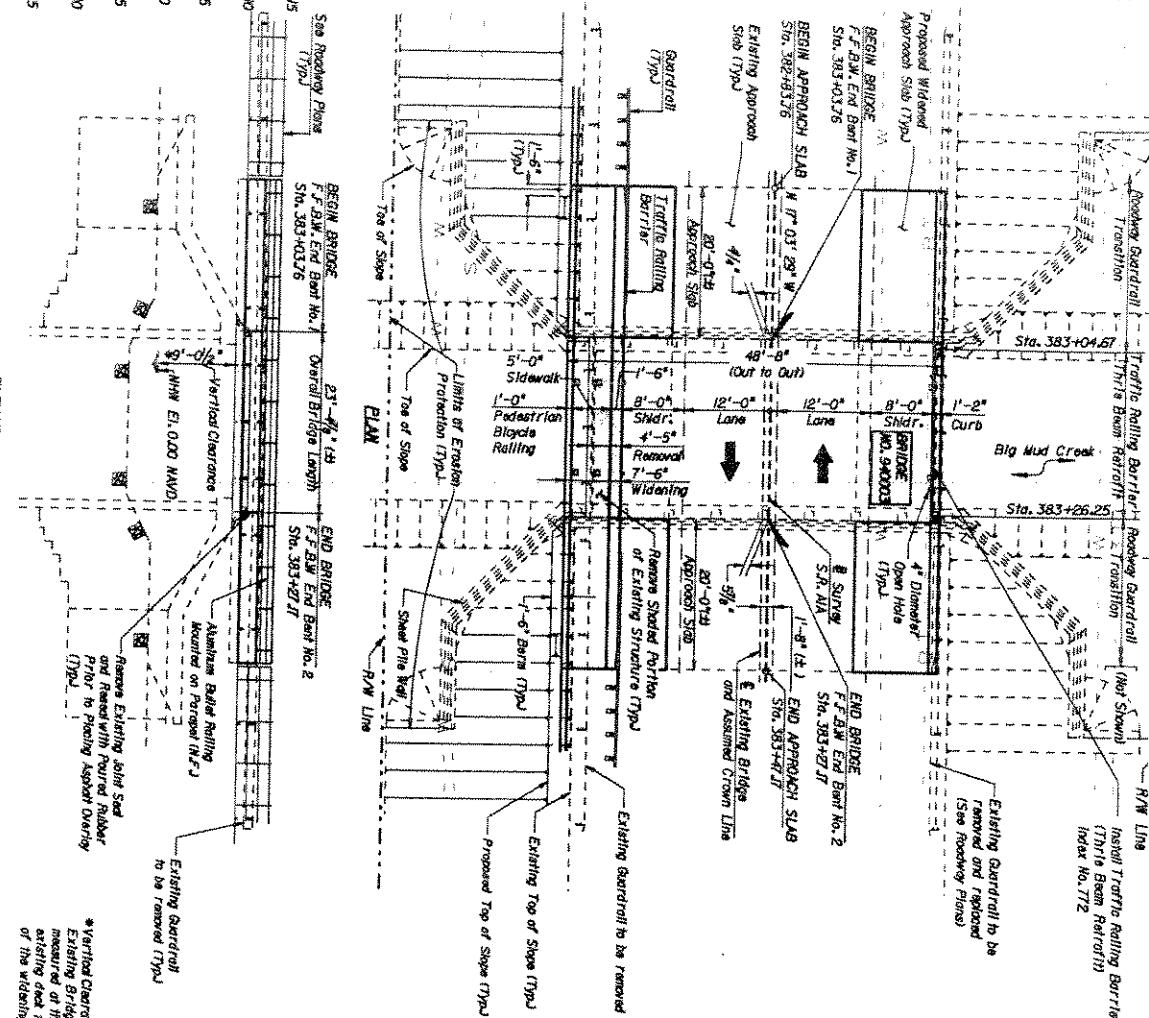
REV.	REVISIONS	PREVIOUS EDITION	DATE	NAME	TITLE	COMPANY	PHONE	FLORIDA DEPARTMENT OF TRANSPORTATION	PHONE	PROJECT	NOTES	
	DOCK SLAB CONSTRUCTION	REV. B REV. C	1-05	LEONARD M. BROOKS, P.E.	ENGR.	HNTB CORPORATION 300 PARKER AVE., SUITE 800 LITTLE ROCK, AR 72204 TEL: (501) 221-2216 FAX: (501) 221-2216 EMAIL: L.BROOKS@HNTB.COM	(501) 682-0200	FLORIDA DEPARTMENT OF TRANSPORTATION 300 PARKER AVE., SUITE 800 LITTLE ROCK, AR 72204 TEL: (501) 221-2216 FAX: (501) 221-2216 EMAIL: L.BROOKS@HNTB.COM	(501) 221-2216	BRIDGE NO. 9400084, 9400085, 9400093, 940004 & 940059	S.R. AIA JR PROJECT	NOTICE: This sheet is an electronic file signed & sealed under GES-23-003, FAC.



NOTICE! This sheet's official record is an electronic file signed & sealed under E&G-24.003, FAC.



NOTICE! This sheet's official record is on electronic file signed & sealed under 6015-23.003, FAC,
08-025-2005 5:00 PM

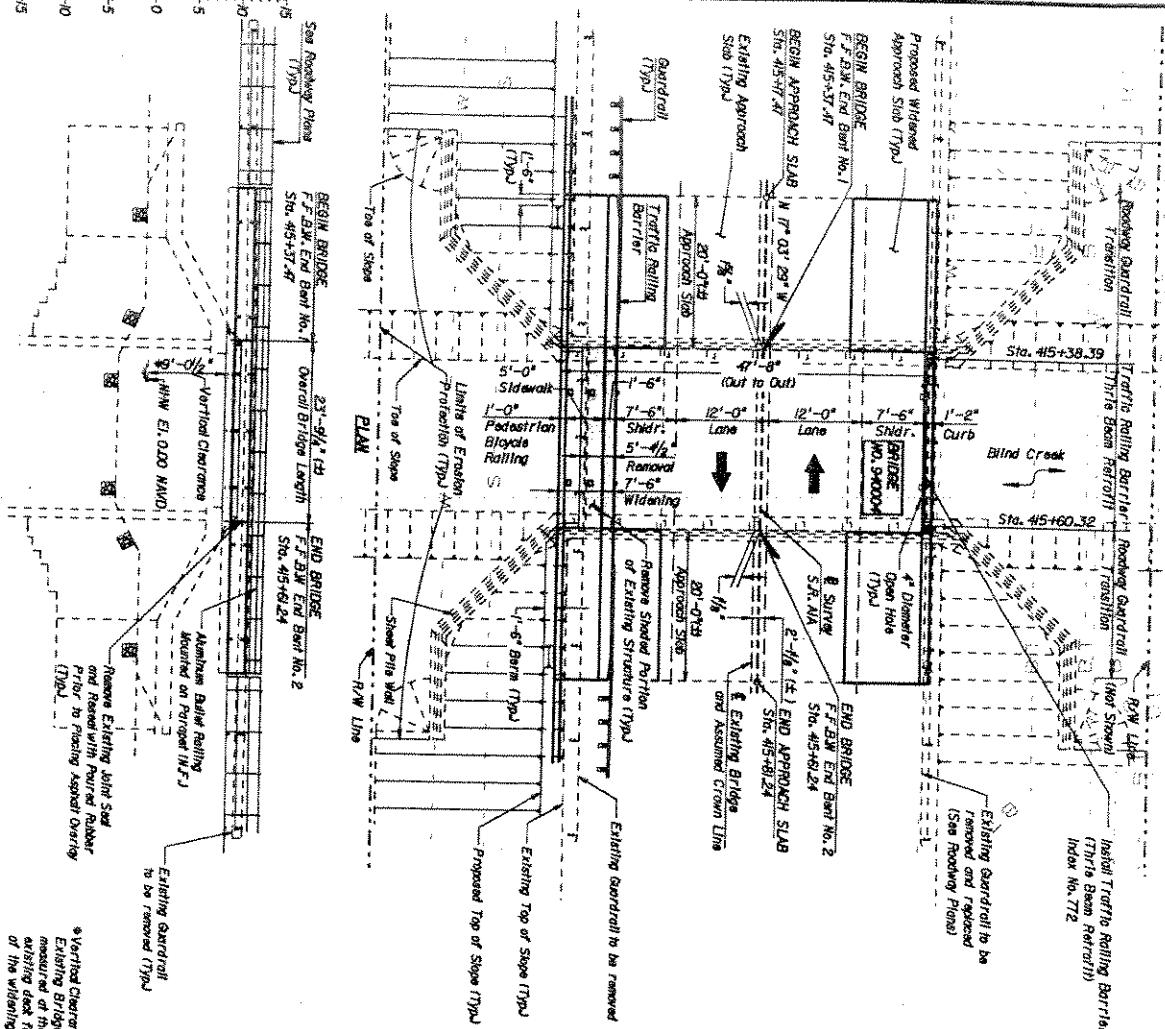


NOTE
For Erosion Protection Categories and Standards see Part IV.

TRAFEX DATA

FOR PERMITTING ONLY

Brundage
50 (part)
195



104

- 2. For Erosion Protection Details and Sheet A-36 and A-37.**
Notified Register for Historic Sites. A Prior written Authorization must
be present to monitor the Island Creek site during any construction related
to construction upon recommendation of the Archaeologist, the Engineer
may suspend the Contractor's operations in accordance with section 8-6
of the Specifications.

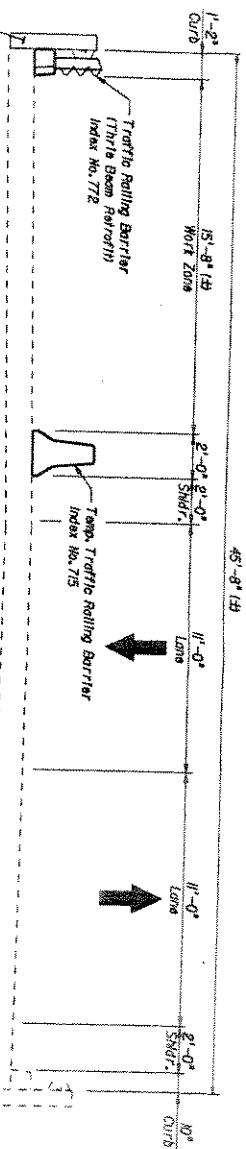
TRADE DRAFT

Current Year Estimate = \$520 ADT = \$3,000
 Current Year Estimate = \$500 ADT = \$3,000
 Design Year Estimate = \$225 ADT = \$4,200
 $K = 0.87X$, $D = 0.37X$, $T = 4.82$ (See Note)

FOR PERMITTING ONLY

FOR PERMITTING ONLY

*Book of the
Year 1905*



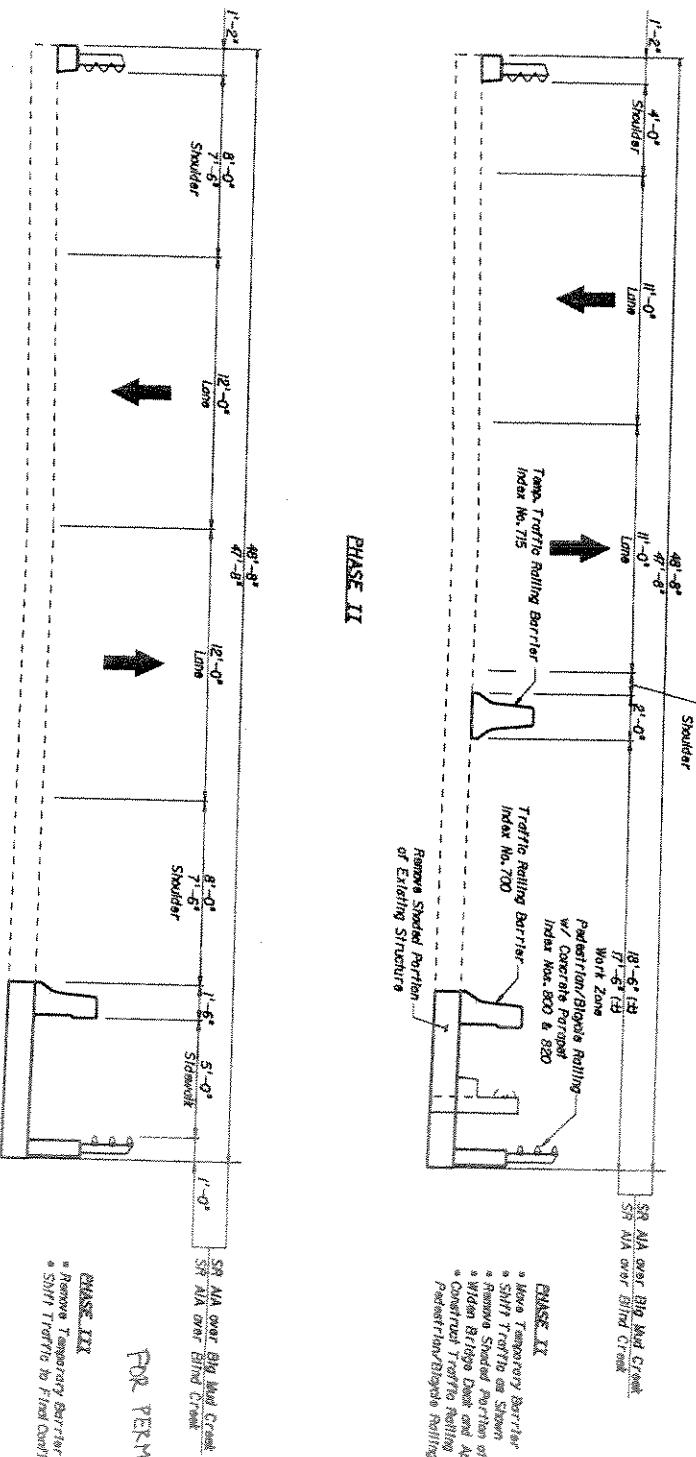
PHASE II

20

四庫全書

Sociodemographic

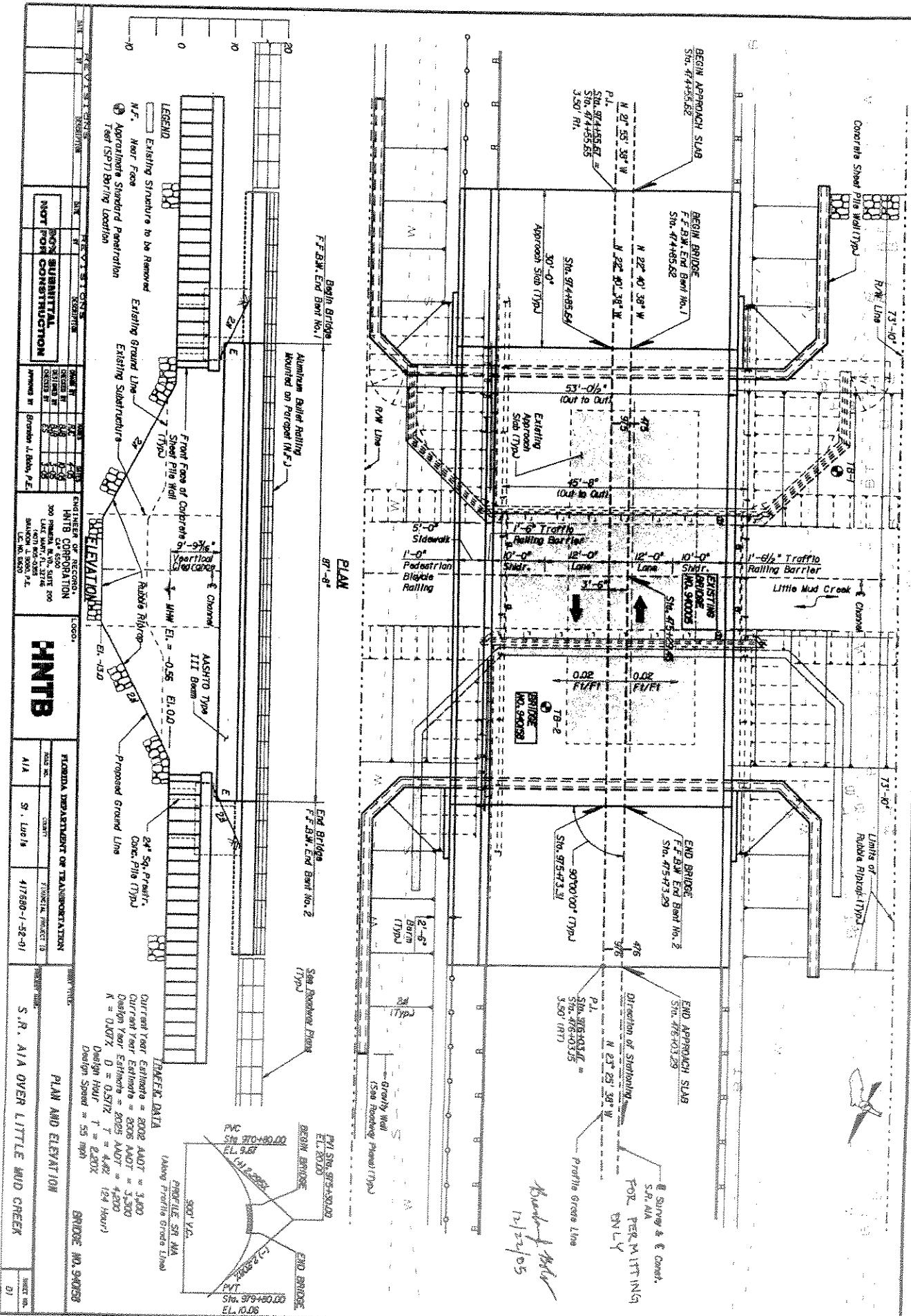
CHASE.
Shift Traffic as shown
Places Temporary Barrier
Remove Shaded Portion of Existing Structures
Reconstruct Curbs and Pave Thru Beam Pavement

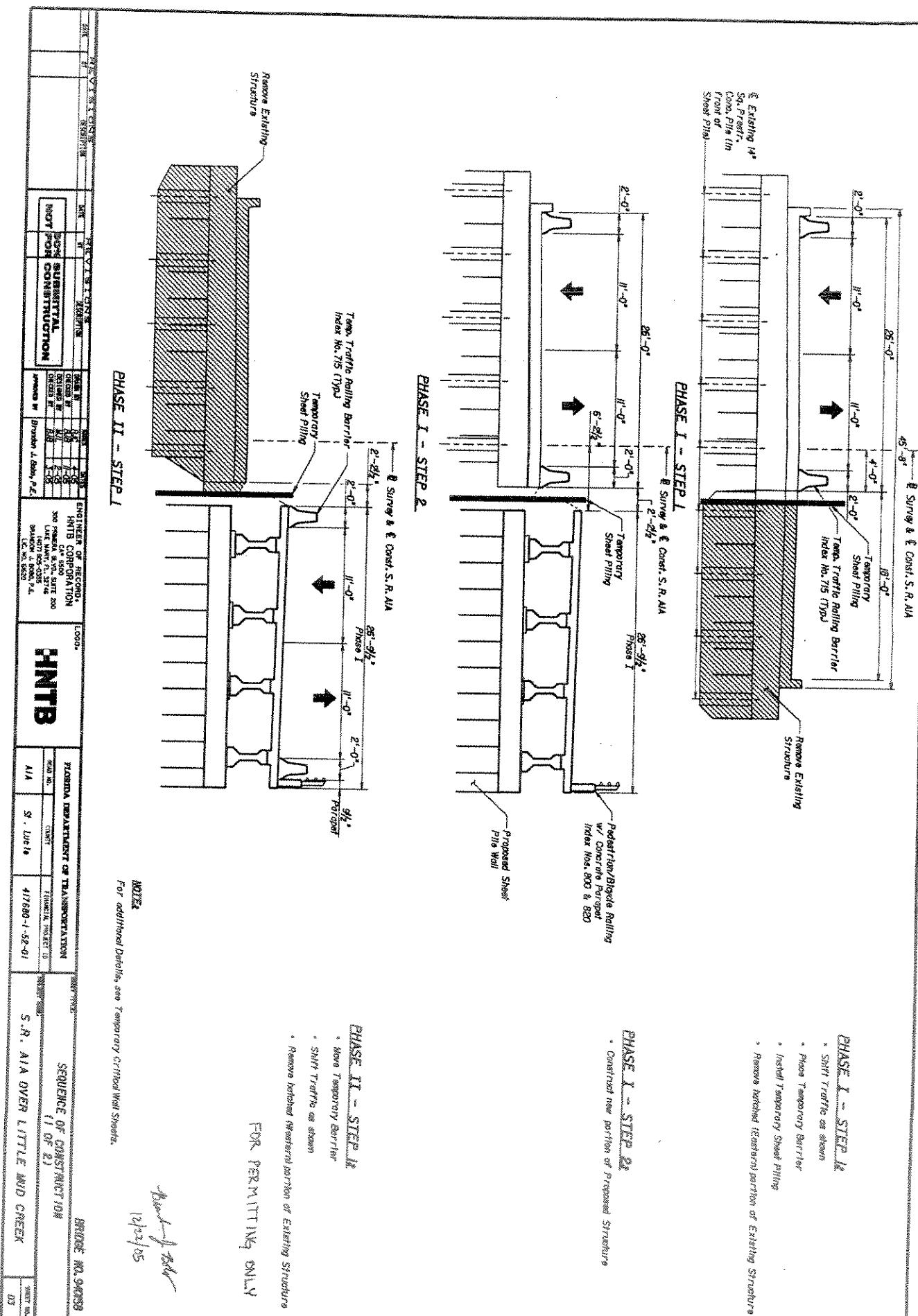


*** Shift Traffic to Fixed Configuration**

Folk Remittances Only

Brandy / Other
refugees





NOTICE: This sheet's official record is an electronic file stored & copied using FAX AT 608-514-

Survey & Const. S.R. AIA
Phase II

2'-0" Phase I

11'-0" 2'-0"

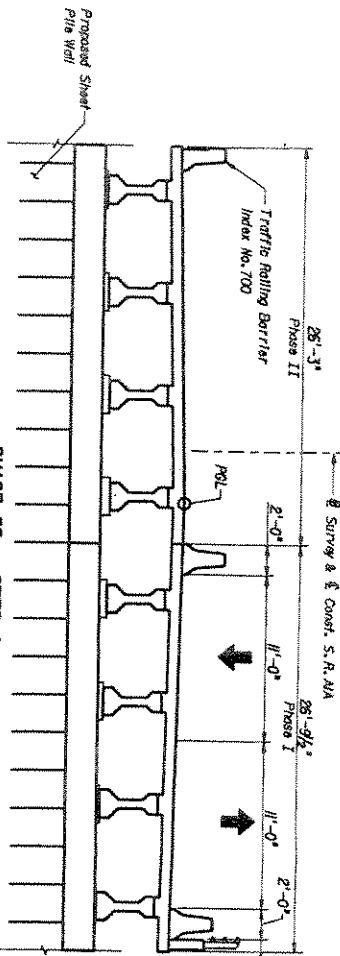
86'-9 $\frac{1}{2}$ "

9 $\frac{1}{2}$ "

Pile Wall

Proposed Sheet

Traffic Rolling Barrier
Index No. 700



PHASE II - STEP 2

• Survey & Const. S.R. AIA

53'-0 $\frac{1}{2}$ "

1'-8 $\frac{1}{2}$ " Shoulder Lane 1'-0" Lane 20'-6" Workzone

Traffic Rolling Barrier

Index No. 700

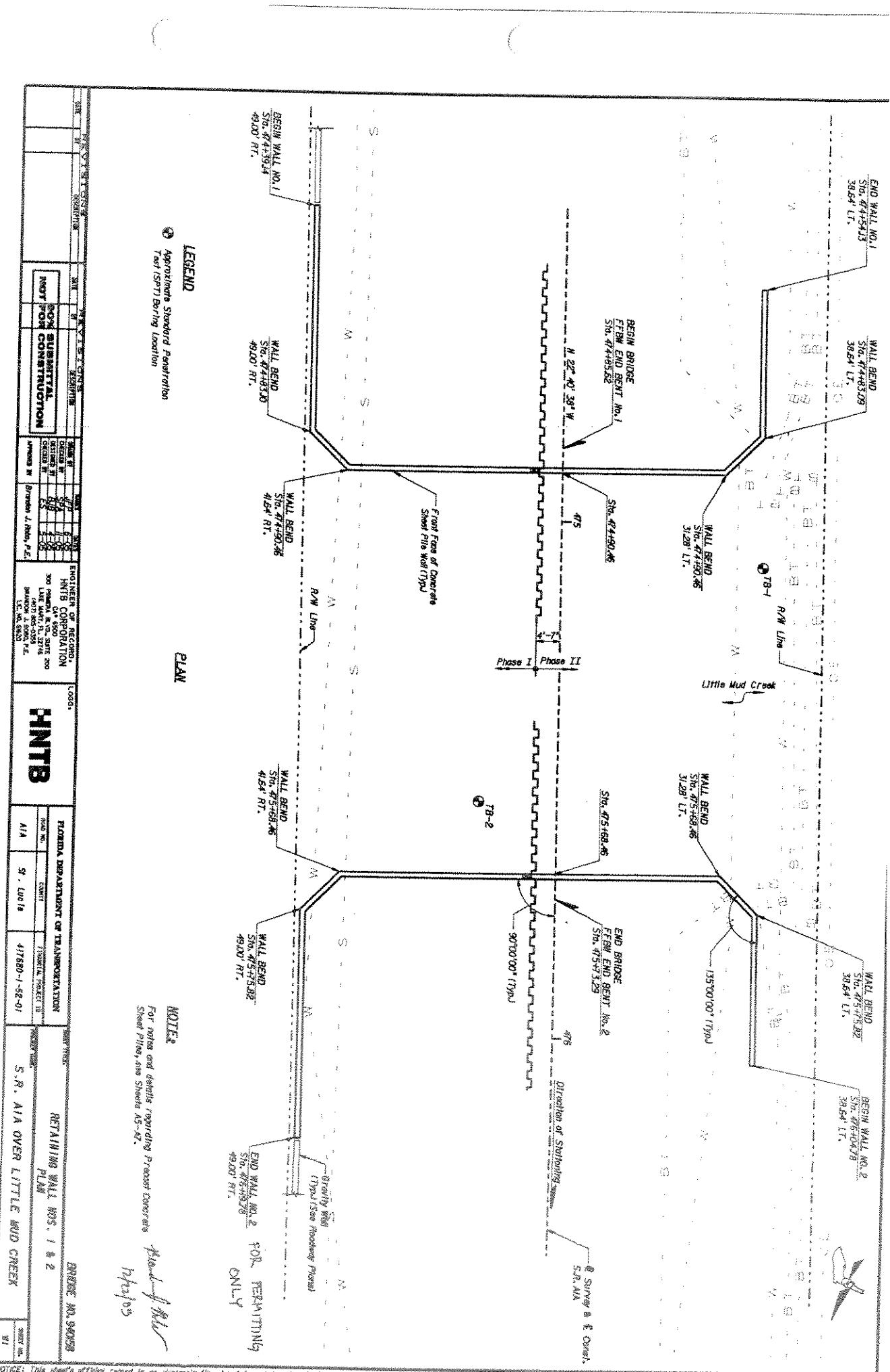
1'-0"

Pile

Sho

Wor

Zone



NOTICE: This sheet's official record is an electronic file signed & sealed under GRS-95 (Rev. 10-2000) 100%.

Heights Along
Front Face of Wall

156'-8"

43'-11 1/2" 10'-5" 36'-9 1/2" 38'-5 1/2" 10'-5" 20'-11 1/2"

Existing/Proposed
Ground Line

EL. 87'35"

EL. 87'44

Existing/Proposed
Ground Line

EL. 87'35"

EL. 87'44

Phase I Phase II

156'-8"

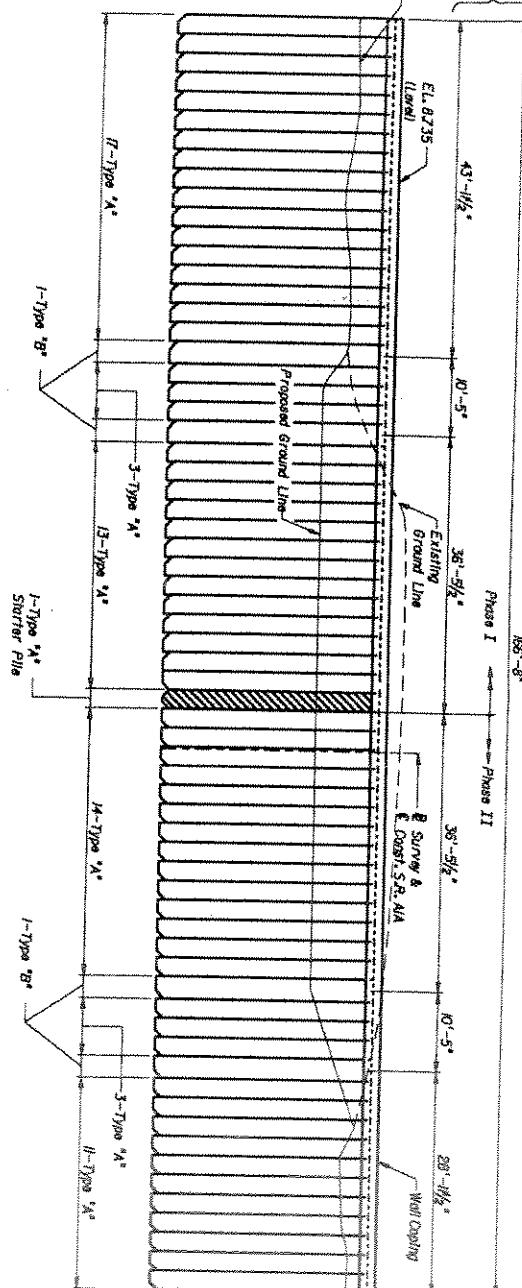
Phase II Phase I

28'-11 1/2" 10'-5" 36'-9 1/2" 10'-5" 43'-11 1/2"

Existing/Proposed
Ground Line

EL. 87'44

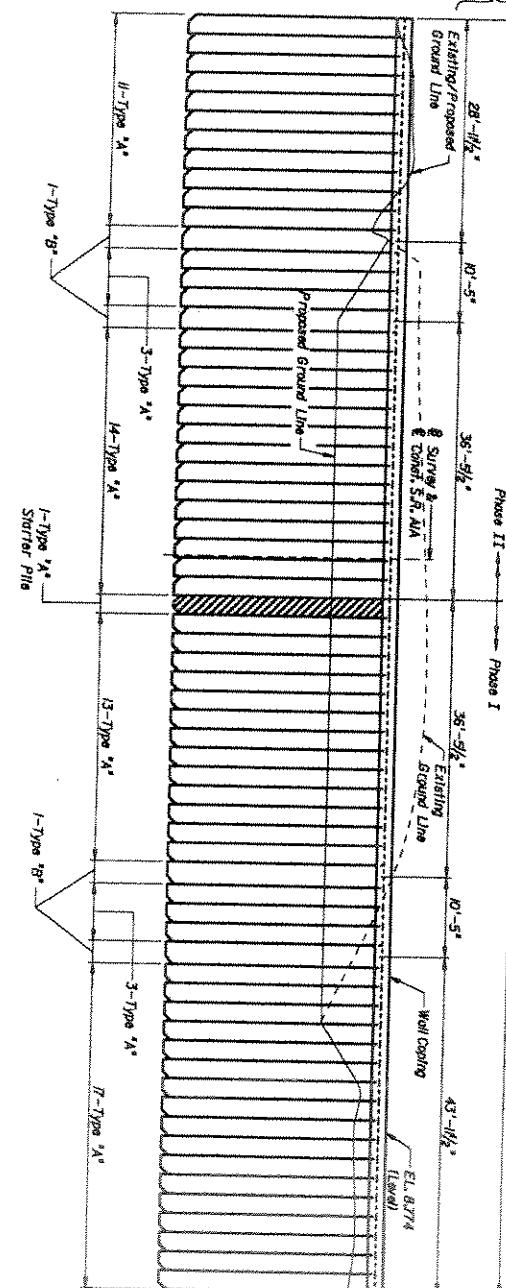
ELEVATION - WALL NO.1



* Keego Sheet Piles I'-10²
from existing utility

Utility-Sheet Pile Interface Detail

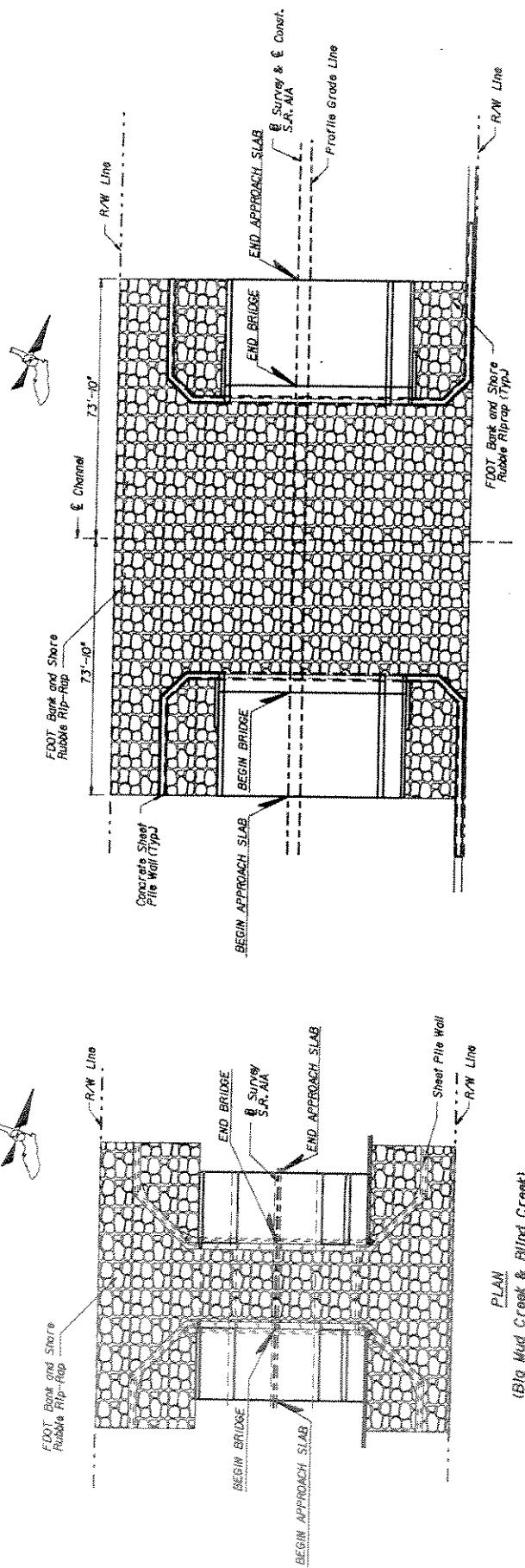
ELEVATION - WALL NO.2



FOR PERMITTING ONLY

Blanchard Field
12/2/2005

REV. NO.	PREVIOUS EDITION	DATE	PAGES	NAME	TITLE	ENGINEER OF RECORD	LOCO#	FLORIDA DEPARTMENT OF TRANSPORTATION	DIVISION	NOTES	RETAINING WALL NO. 1 & 2	ELEVATION	S.R. AIA OVER LITTLE MUD CREEK
	NOT SUBMITTED	01/09/2005	10	NO. 1	RETAINING WALL NO. 1 & 2	HNTB CORPORATION C/O SNOOK CONSULTING 200 PARKER BLVD., SUITE 200 LAKE HAVASU, AZ 86404	200	NO. 1	10/05/2005	10/05/2005	EL. 87'35"	10/05/2005	10/05/2005
	APPROVED BY	Brendon J. Bobo, P.E.	10	HNTB	AIA	S.I. Log #	417580-J-52-01						



NOTES:

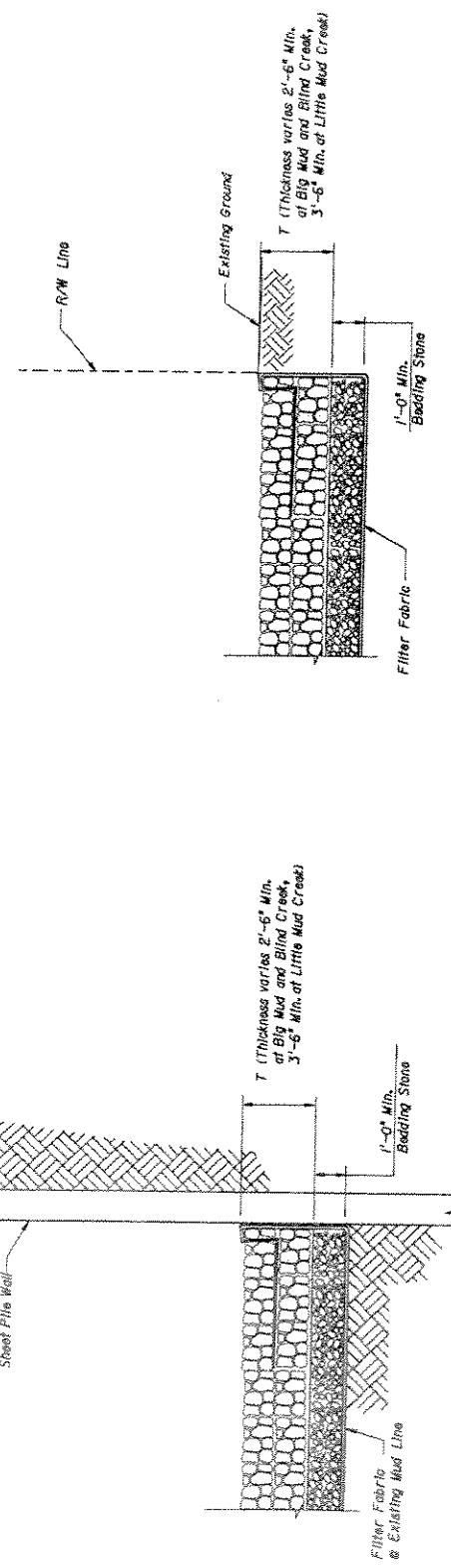
1. FOOT Bank and Shore Rubble Riprap protection should be provided in the Channel section.
2. FOOT Bank and Shore Rubble Riprap protection should also be provided above the Concrete Sheet Pile walls up to the roadway.
3. This protection should extend to the edge of Concrete Sheet Piles for Blind Creek and Big Mud Creek. For Little Mud Creek, the protection should extend to the length and one of approach slabs.
4. This sheet should be used along with the General Plan and Elevation Sheets.

PLAN
(Little Mud Creek)

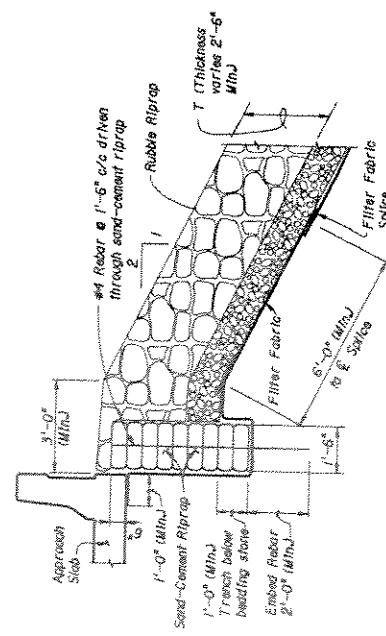
FOR PERMITTING ONLY
B7620
17/2/05

BRIDGE NOS. 940084, 940085, 940003, 940004 & 940058
NOTICE: THIS SHEET IS FOR OFFICIAL RECORDS ONLY.
WHEN THIS SHEET IS USED AS AN EROSION PROTECTION DESIGN, THE DESIGNER'S SIGNATURE SHOULD BE PLACED ON THE SHEET IN ADDITION TO THE ENGINEER'S SIGNATURE.
8-DEC-2005 18:49
B7620

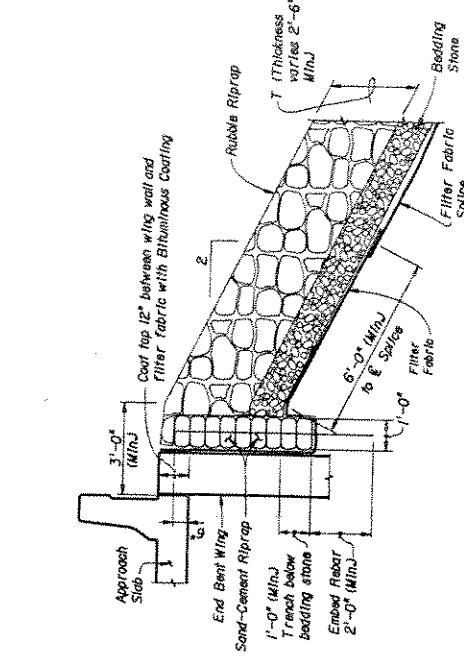
REVISIONS		DESCRIPTION		DATE		REVISIONS		DESCRIPTION		DATE		REVISIONS		DESCRIPTION		DATE	
NAME	NR	NAME	NR	DATE	BY	NAME	NR	NAME	NR	DATE	BY	NAME	NR	NAME	NR	DATE	BY
INT'L CORP.	1-05	ENGINEER OF RECORD	1-05	1-05	INT'L CORP.	CA 8500	1-05	FLORIDA DEPARTMENT OF TRANSPORTATION	1-05	1-05	FLORIDA DEPARTMENT OF TRANSPORTATION	1-05	EROSION PROTECTION DETAILS /	1-05	BRIDGE NOS. 940084, 940085, 940003, 940004 & 940058	1-05	
NOT FOR CONSTRUCTION		NOT FOR CONSTRUCTION			NOT FOR CONSTRUCTION	NOT FOR CONSTRUCTION		HNTB			HNTB		S.R. AIA 3R PROJECT		NOT FOR CONSTRUCTION		NOT FOR CONSTRUCTION



SECTION AT SHEET PILE WALL



SECTION AT APPROACH SLAB



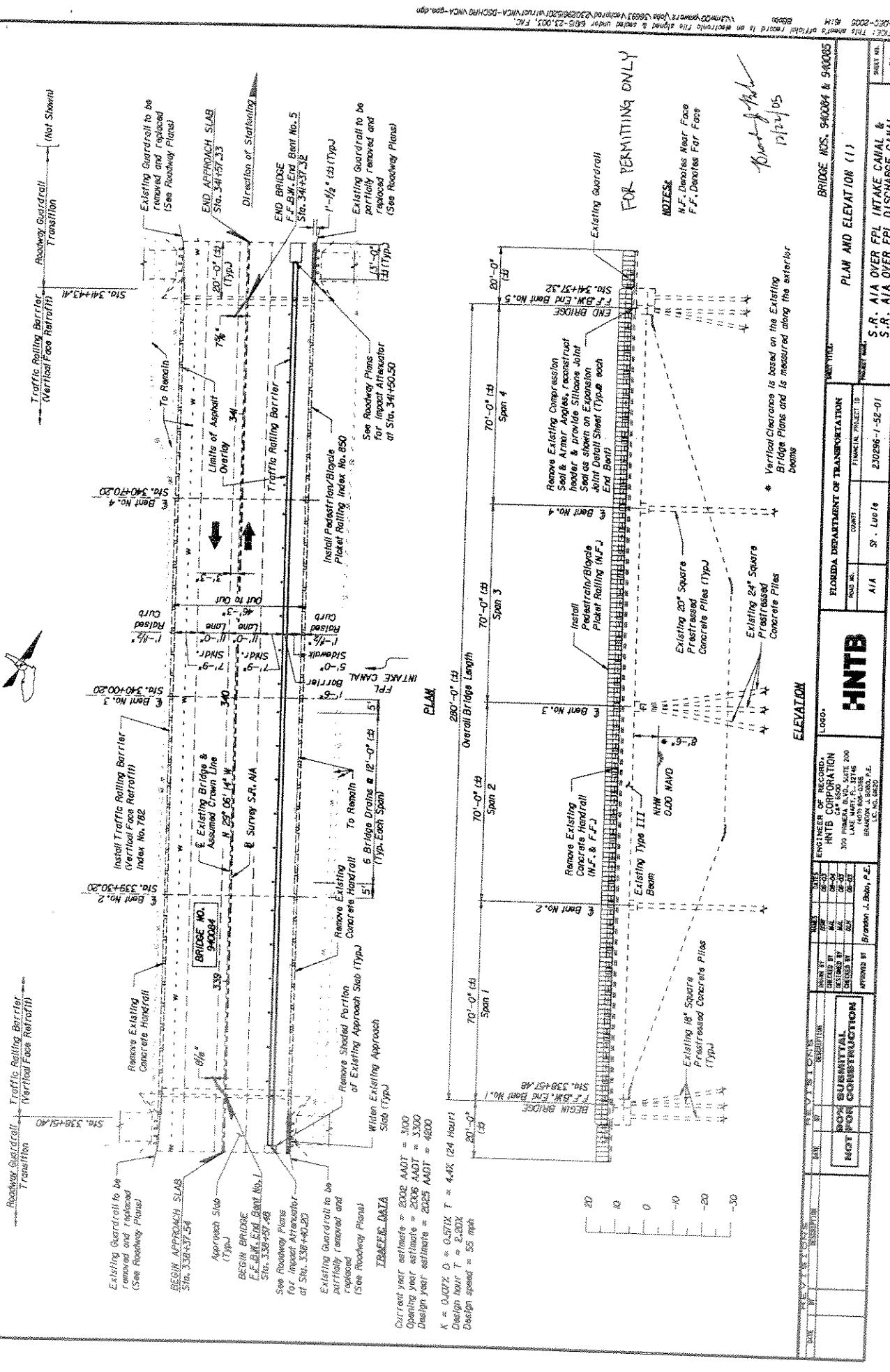
SECTION AT R/W LINE

SECTION AT APPROACH SLAB NEAR WINGWALL

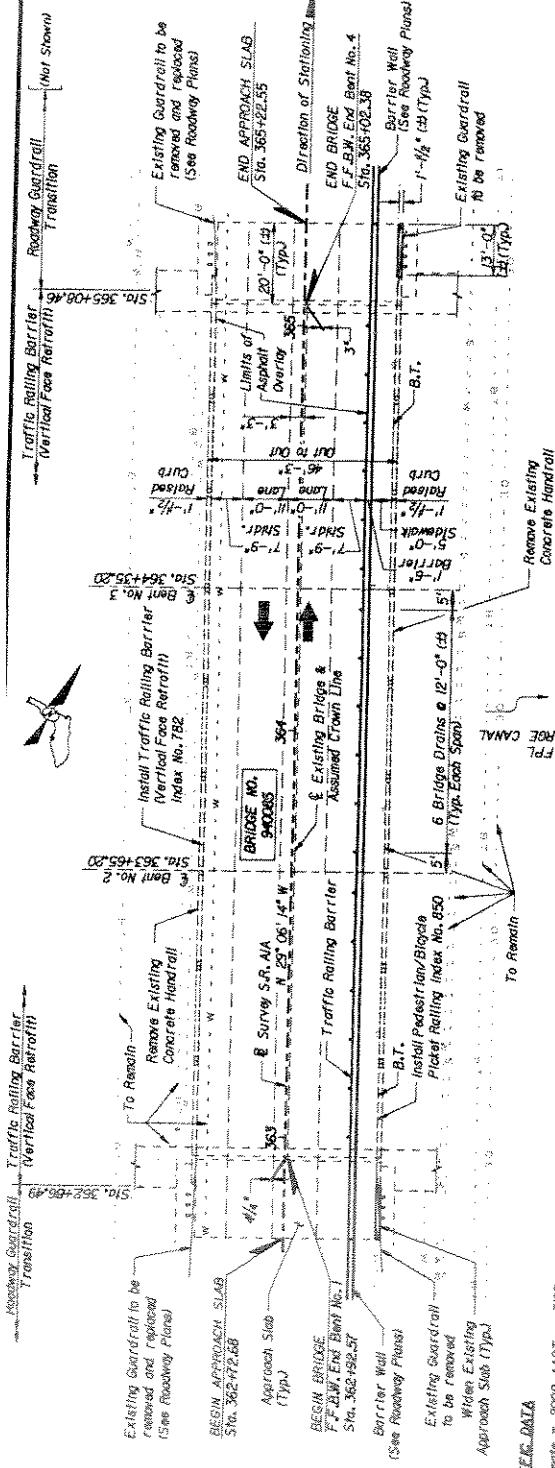
Brander J. Brader
1/22/05

SECTION AT APPROACH SLAB NEAR WINGWALL

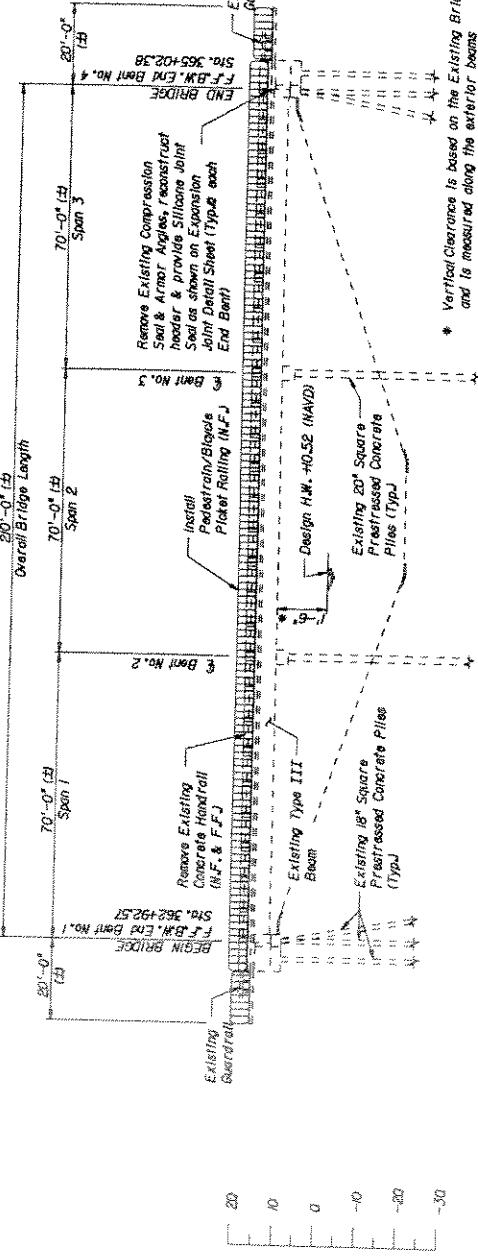
DATE	PROJECT NUMBER	DESIGNER	REVIEWER	APPROVING OFFICIAL	NUMBER OF RECORD	LOG#	FLORIDA DEPARTMENT OF TRANSPORTATION	DRAWING	NOTICE: THIS DRAWING IS THE PROPERTY OF THE STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION. IT IS TO BE KEPT IN A SECURE PLACE AND IS NOT TO BE COPIED OR USED EXCEPT UNDER SUPERVISION OF A FLORIDA DEPARTMENT OF TRANSPORTATION ENGINEER.	
									50% SUBMITTAL NOT FOR CONSTRUCTION	50% SUBMITTAL NOT FOR CONSTRUCTION
11-OCT-2005	BRIDGE NO. 540084, 540085, 940003, 940004 & 940158	Brander J. Brader, P.E. Approved by	St. Lucie	230296-152-01 #17560-152-01	100	100	HNTB	EROSION PROTECTION DETAILS 2	S.R. AIA 3R PROJECT	Sheet No. A37



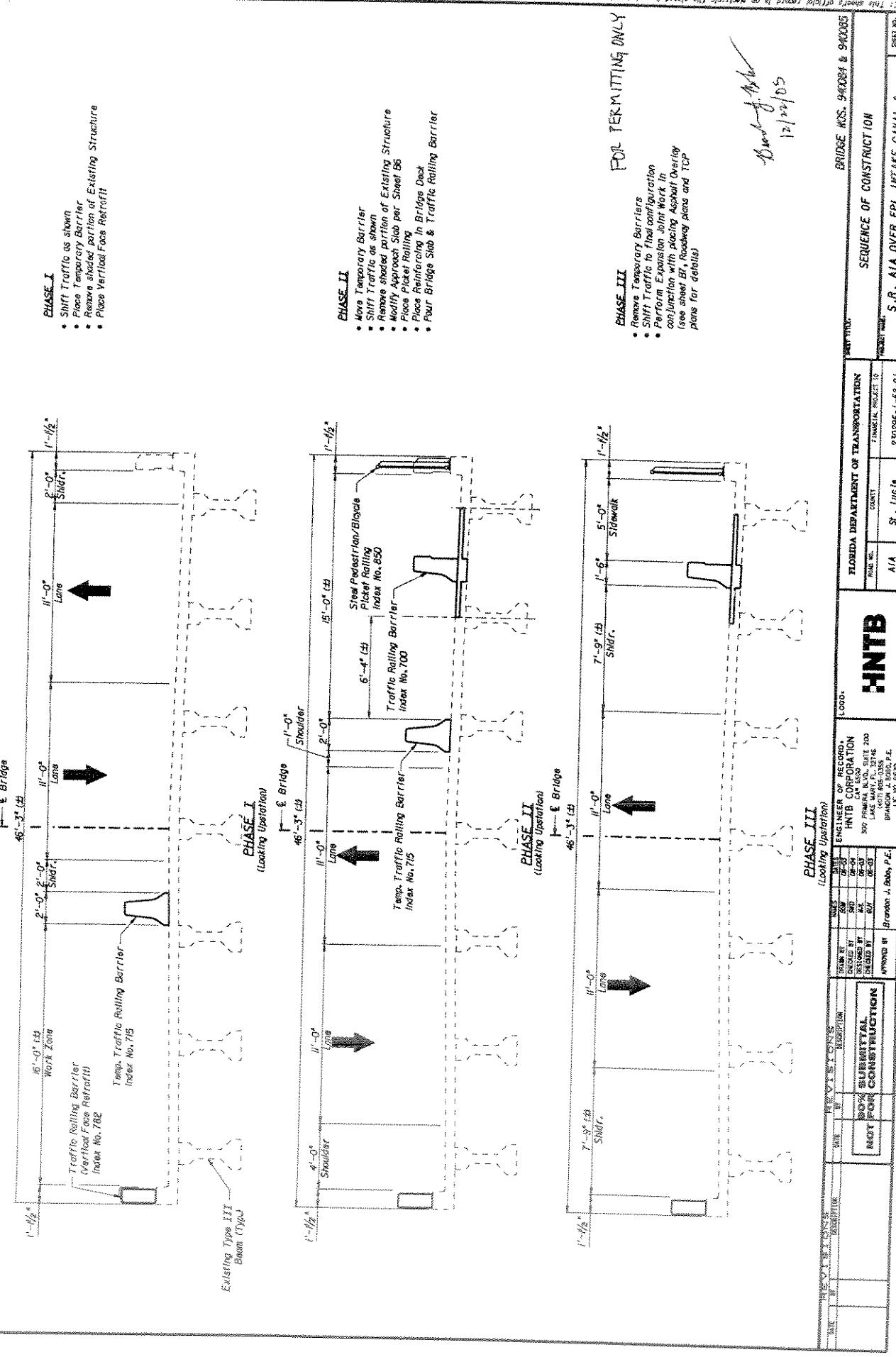
98-030-2003 15:30 Sheet 1 of 1 Last printed: Tuesday, January 15, 2013 at 15:30 by: S. B. G. (S. B. G. - DISCHARGE SOURCE) - gba-gba



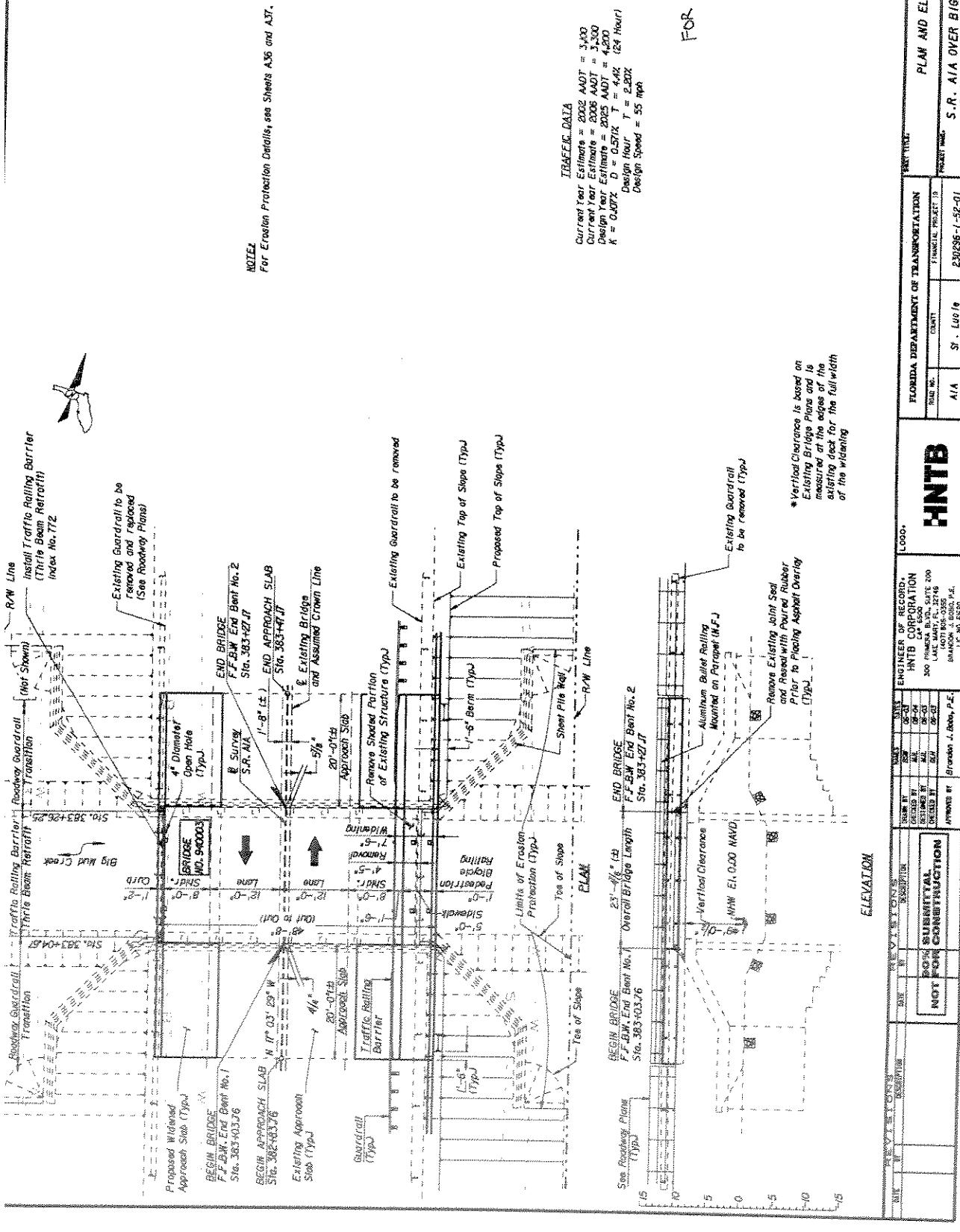
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Ongoing year estimates = 2006 ADT ≈ 3500
Design year estimates = 2025 ADT ≈ 4200

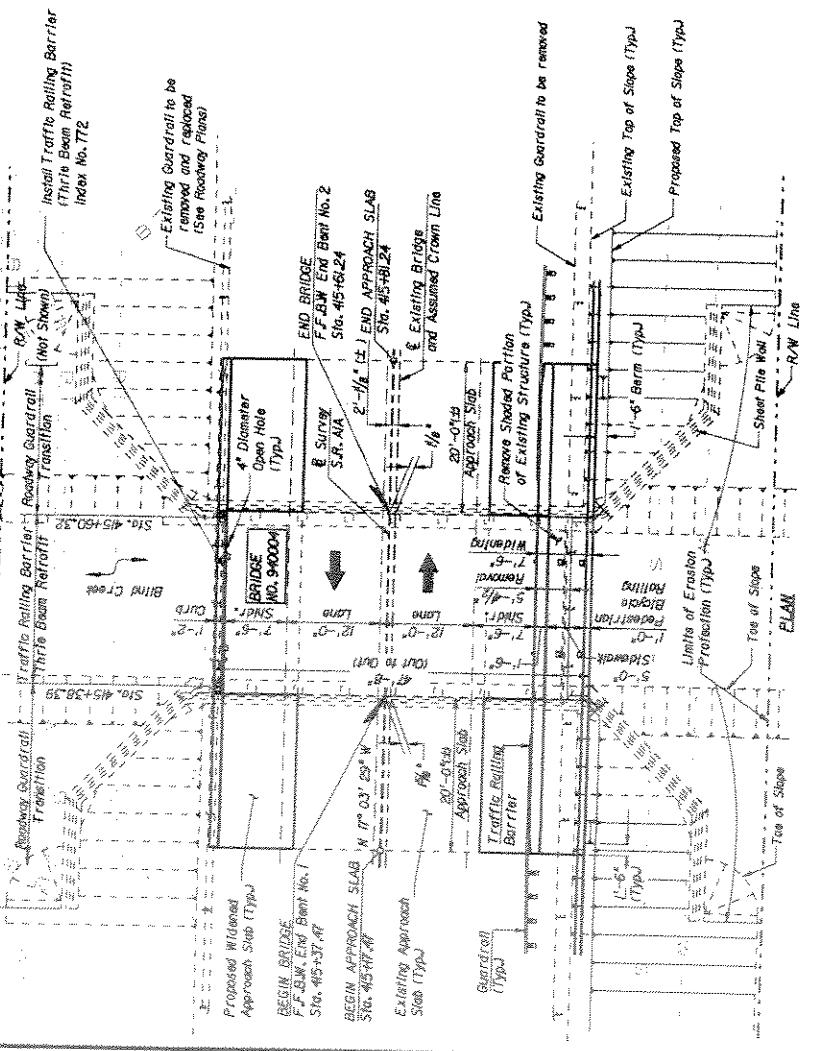


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www.wo.com, www.yes24.com, www.kyobobook.co.kr, www.munich.de, www.kitaboo.com, www.kitaboo.com.tr, www.kitaboo.com.mx, www.kitaboo.com.ar, www.kitaboo.com.pe, www.kitaboo.com.cl, www.kitaboo.com.ve, www.kitaboo.com.uy, www.kitaboo.com.eg, www.kitaboo.com.sa, www.kitaboo.com.bn, www.kitaboo.com.lb, www.kitaboo.com.jo, www.kitaboo.com.ps, www.kitaboo.com.qa, www.kitaboo.com.bh, www.kitaboo.com.ae, www.kitaboo.com.kw, www.kitaboo.com.ly, www.kitaboo.com.tn, www.kitaboo.com.ma, www.kitaboo.com.dz, www.kitaboo.com.al, www.kitaboo.com.ye, www.kitaboo.com.bn, www.kitaboo.com.lb, www.kitaboo.com.jo, www.kitaboo.com.ps, www.kitaboo.com.qa, www.kitaboo.com.bh, www.kitaboo.com.ae, www.kitaboo.com.kw, www.kitaboo.com.ly, www.kitaboo.com.tn, www.kitaboo.com.ma, www.kitaboo.com.dz, www.kitaboo.com.al, www.kitaboo.com.ye





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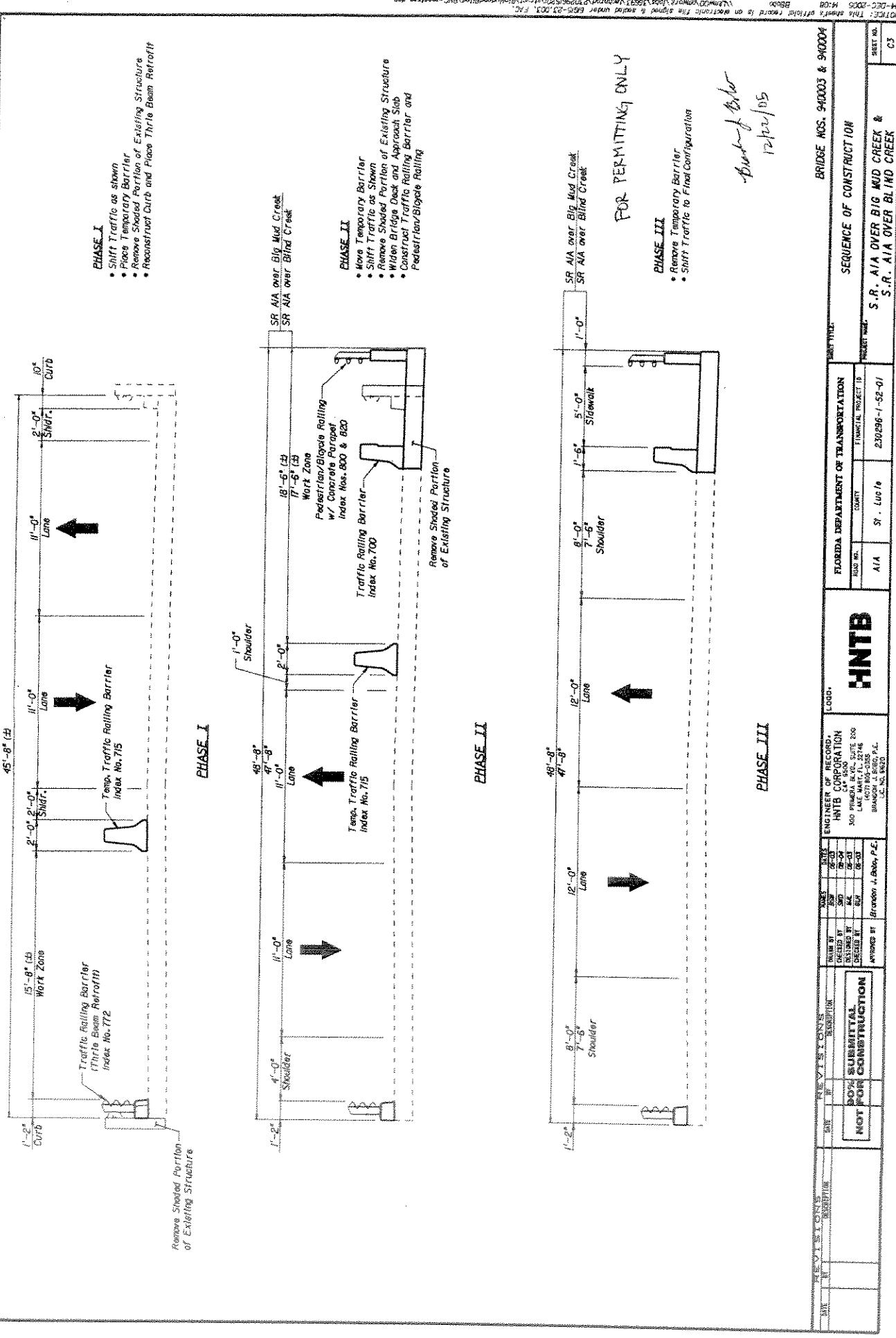
1. For Excavation Details, see Sheets A-36 and A-37.

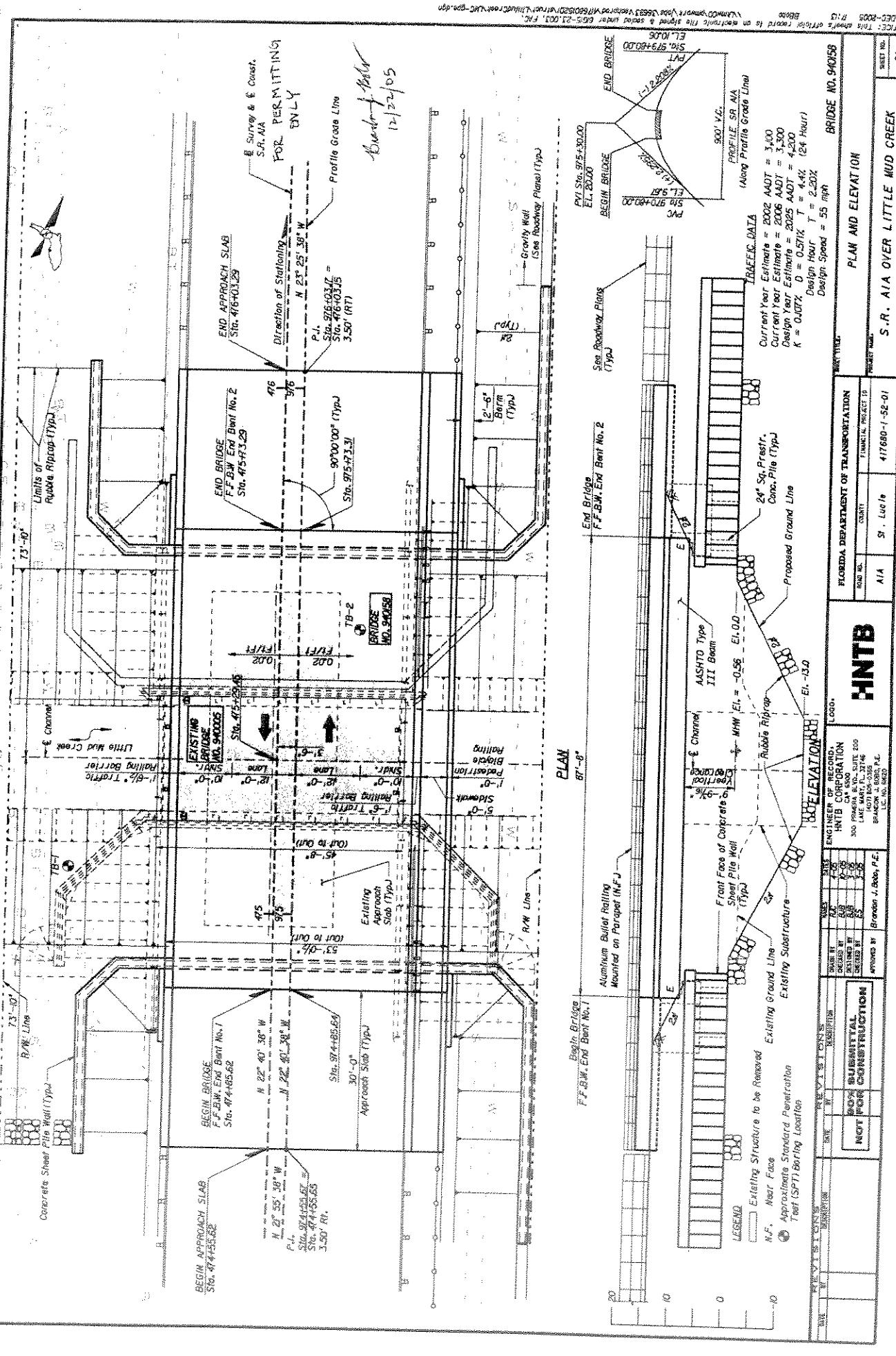
2. This site may contain archaeological artifacts and is subject to listing in the National Register for Historic Places. A Professional Archaeologist must be present to monitor the Blind Creek site during any excavation required for Construction. Upon completion of any excavation required for Construction, the Contractor's excavator or his Archaeologist may submit the Contractor's observations to the Archaeologist; this Report will be the responsibility of the Archaeologist.

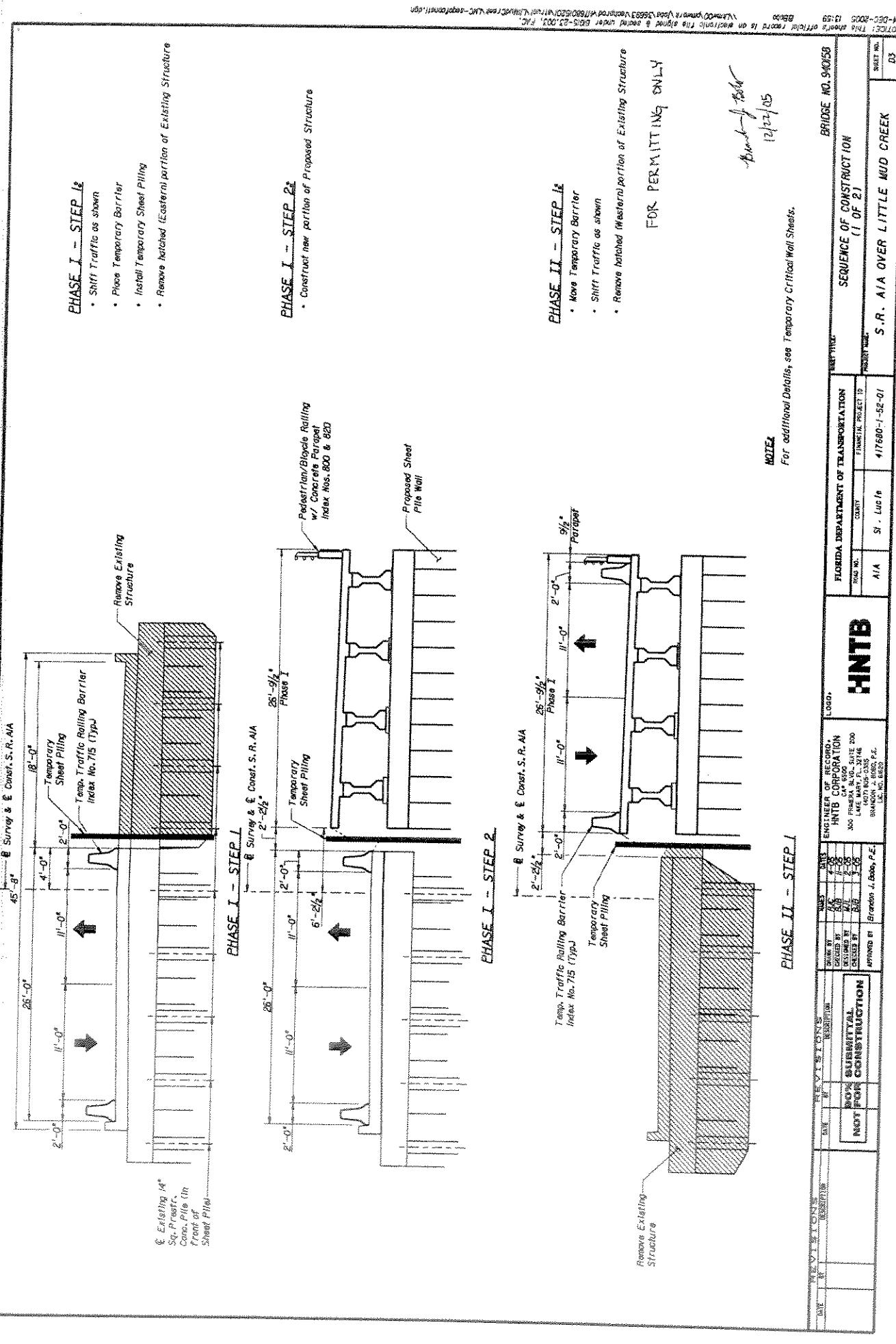
TRAFFIC DATA

Current Year Estimation = 2002 ADOT	= 3,000	
Current Year Estimation = 2006 ADOT	= 3,000	
Design Year Estimation = 2025 ADOT	= 4,200	
$K = 0.07X^2$	$D = 0.57X^2$	$T = 4.4\%$
Design Hour	$T = 2.20\%$	
Design Speed = 55 mph	DEMANDING ONLY	

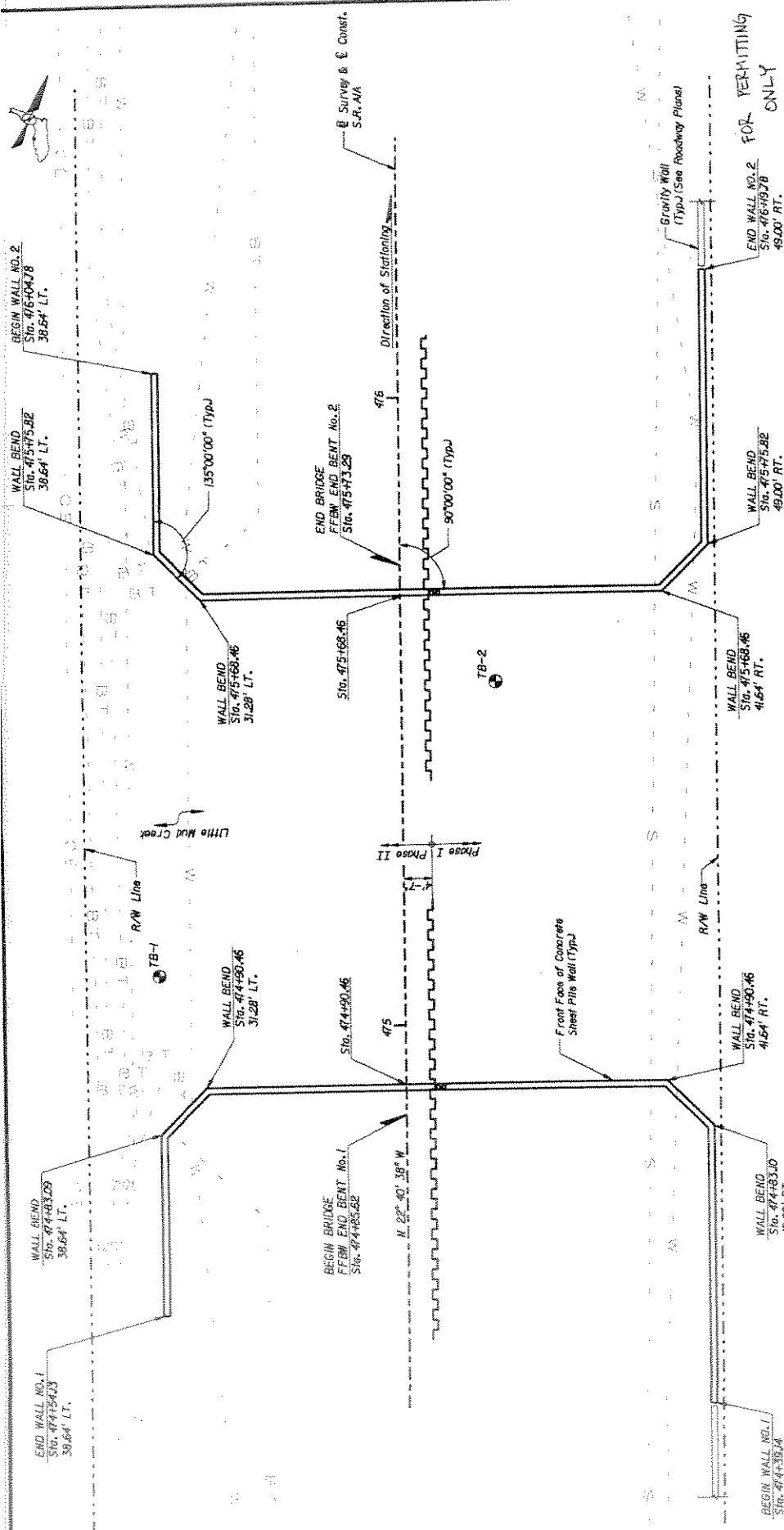
Bush of Bala
12/22/05







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100

Approximate Standard Penetration

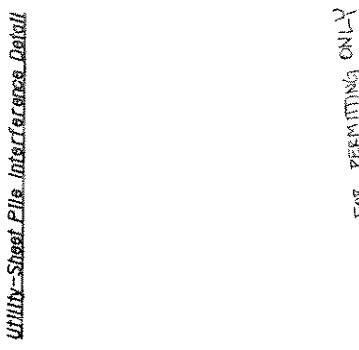
11

*For notes and details regarding *Precast Concrete**

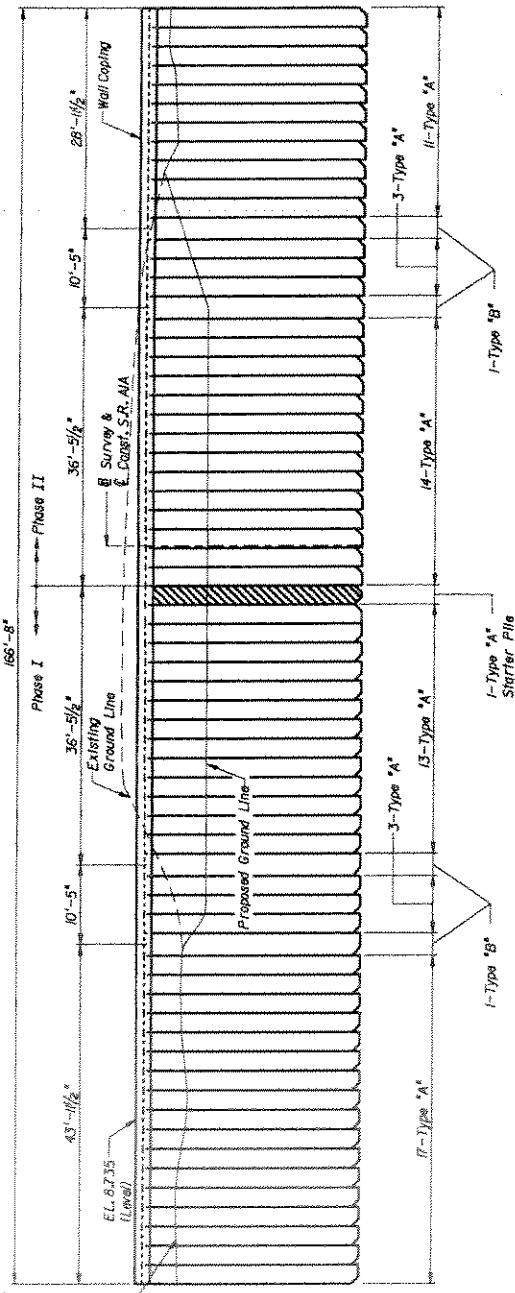
12/21/05

BRIDGE NO. 94008
RETAINING WALL NOS. 1 & 2
ELEVATION
S.R. AIA OVER LITTLE MUD CREEK

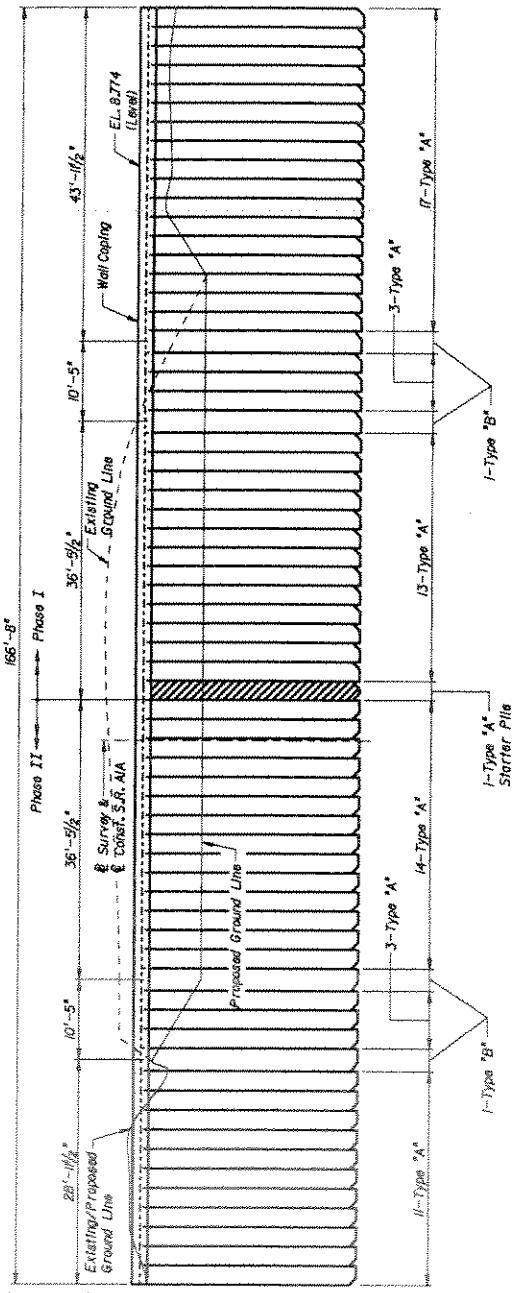
SHEET NO.
W2



Utility-Sheet Pile Interference Detail



ELEVATION - WALL NO. 1



ELEVATION - WALL NO. 2

PROJECT NUMBER		PROJECT NAME		ENGINEER OF RECORD		FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME	NUMBER	NAME	NUMBER	NAME	NUMBER	NAME	NUMBER
BRANDON J. BOHN, P.E.	417680-1-52-01	HNTB	417680-1-52-01	HNTB CORPORATION	CA# 5500	STATE	FLORIDA PROJECT #
APPROVED BY		BRANDON J. BOHN, P.E.	417680-1-52-01	SOONER PLATE LTD., SUITE 200	100 PARKWAY, SUITE 200	COUNTY	BRADENTON, FL 34210
		APPROVED BY		100 PARKWAY, SUITE 200	100 PARKWAY, SUITE 200	STREET	100 PARKWAY, SUITE 200
		BRANDON J. BOHN, P.E.	417680-1-52-01	BRADENTON, FL 34210	BRADENTON, FL 34210	ZIP CODE	BRADENTON, FL 34210

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of manatees and/or their habitat, which will also be adhered to. In addition, manatee protection special conditions may be included in the SFWMD and USACE permits. Special conditions in these permits may include, but are not limited to, instructions to be given to all construction personnel concerning manatee protection, acceptable siltation barriers and manatee protection signage.

Sea Turtle Protection Plan

Direct impacts to sea turtles or their nesting habitats (coastal beaches) are not proposed nor anticipated within the scope of this project. The proximity of the construction area to coastal beaches is close enough that there may be indirect impacts to turtles from lighting, should construction lighting be visible from the beach. Artificial lighting near sea turtle nesting beaches may cause disorientation to hatchlings and nesting females (the sea turtle nesting season typically runs from May to October), (FWC 2005). However, use of construction lighting for this project is not anticipated. If substantial construction lighting is needed during this time period to expedite completion of the project, measures will be taken to limit the effect of the lighting on the beach, including use of shielding and limiting the height of light fixtures. In addition, if construction will occur during the sea turtle nesting season, qualified biologists will work with the FWC to identify any active turtle nests and limit hatchling disorientation. New roadway lighting is not proposed for the construction in this project, so no permanent impacts to sea turtle nesting habitat are anticipated.

Sea turtles are also protected by the Marine Mammal Protection Act of 1972. All standard sea turtle protection protocols (**Appendix C**) as well as additional protocols identified in the conditions of the SFWMD and/or USACE permits for listed species will be in the construction plans and will be followed during construction.

Smalltooth Sawfish Protection Plan

The smalltooth sawfish is a federally endangered species, as listed by the NMFS in May of 2003. All smalltooth sawfish protection protocols identified in the Standard Notes (**Appendix C**) as well as the conditions of the SFWMD and/or USACE permits for listed species will be in the construction plans and will be followed during construction.

12.0 CUMULATIVE EFFECTS

The proposed A1A crossing rehabilitation project will not result in significant cumulative impacts to water quality or other wetland functions of the IRL or its watershed. The roadway

**Little Mud Creek EA/EFH Assessment
Impact and Mitigation Summary Table**

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Location	Impact type	Impact Area	Mitigation/ Restoration
Little Mud Creek	Direct - wetland	0.010 acres	TBD
	Indirect - wetland	0.010 acres	TBD
	Unconsolidated bottom	0.073 acres	Restoration of Creek bottom
	Water column	0.073 acres (varying depth)	Restoration of column with depth ≥ previous
Blind Creek	Direct – wetland	0.017 acres	TBD
	Indirect - wetland	0.120 acres	TBD
	Unconsolidated bottom	0.073 acres	Restoration of Creek bottom
	Water column	0.073 acres (varying depth)	Restoration of column with depth ≥ previous
Big Mud Creek	Direct - wetland	0.016 acres	TBD
	Indirect - wetland	0.168 acres	TBD
	Unconsolidated bottom	0.073 acres	Restoration of Creek bottom
	Water column	0.073 acres (varying depth)	Restoration of column with depth ≥ previous
Roadway	Direct – wetland (SFWMD)	0.00 acres	0.30 credits at Bear Point
	Direct – wetland (US ACE)	5.87 acres	1 credit at Bear Point
	Indirect - wetland	1.46 acres	(included with direct impacts)
Sidewalk	Direct – wetland (SFWMD)	0.01 acres	1.50 credits at Bear Point
	Direct – wetland (US ACE)	0.00 acres	-
	Indirect - wetland	7.64 acres	(included with direct impacts)
Culverts – A1A	Direct - wetland	0.171 acres	0.20 credits at Bear Point
	Indirect - wetland	0.00 acres	(included with direct impacts)