

Drainage Design Documentation Report

I-75 (SR 93) from MP 33.989 to MP 46.000

Financial Project IDs: 444008-4-52-01

Collier County

Prepared For:

Florida Department of Transportation

District One



October 2022

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EXECUTIVE SUMMARY

The I-75 (SR 93) RRR project is intended to extend the service life of the existing roadway. The project begins at mile post 33.989 and ends at mile post 46.000. The project length is approximately 12 miles. See **Appendix A.1** for the **Straight-Line Diagram** of the project area.

The Drainage Design Documentation Report serves to document the analysis of the existing drainage system and the approach to the drainage modifications needed for the proposed roadway work. The proposed roadway work includes milling and resurfacing the travel lanes and paved shoulders and widening the inside shoulder to 12 feet. Wildlife crossings will be added at various locations along the corridor to enhance existing areas where wildlife has been known to use.

The existing roadway is a four-lane rural principal arterial interstate with a 70 MPH design and posted speed. It has one typical section for the entire length of the project with the exception of the 6 bridges where the road crosses canals. The existing typical section is comprised of two 12-foot travel lanes and has 12-foot outside shoulders of which 10 feet are paved and 8-foot inside shoulders of which 4 feet are paved. Guardrail is located along the outside shoulder of the northbound lanes. Roadway runoff sheet flows into roadside ditches that discharge directly into adjacent canals.

The proposed added impervious area is due to shoulder widening and therefore per F.A.C. 62-330.051 will not require water quality treatment. Existing SFWMD permit number 11-00396-S spans the length of the project corridor and details the treatment volume provided in the linear systems in the median. An analysis of the existing system was performed, and it was determined that there is enough existing overtreatment to accommodate the impact caused by the proposed median shoulder widening. See **Appendix C.1** for **Water Quality and Attenuation Volume Calculations**.

The proposed construction activities will cause negligible impact to the floodplain. The impacted floodplain volume will be offset with the available overtreatment volume provided from existing SFWMD permit number 11-00396-S.

1 PROJECT OVERVIEW

1.1 Introduction

The purpose of this report is to document the design decisions and calculations that are the basis of the project’s stormwater and drainage conveyance design. This report also identifies areas of encroachment to permitted facilities and the course of action taken for the remediation of those encroachments.

1.2 Site Location and Description

The project is in Collier County, along I-75 (SR 93) from MP 33.989 to MP 46.000. Refer to **Figure 1** for the **Project Location Map**.

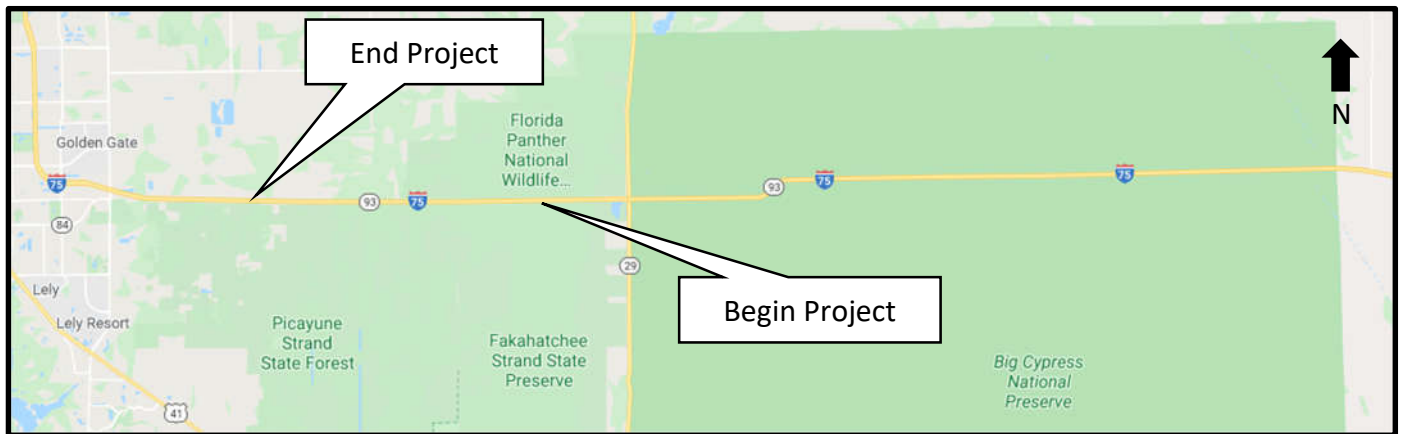


Figure 1 Project Location Map

The project length is approximately 12 miles and runs along the boundary of Townships 49S and 50S, passing through Ranges 27E to 29E. The corridor passes through Sections 31-36 in Township 49S and Sections 1-6 in Township 50S. See **Appendix A.2** for a **General Highway Map of Collier County** and **Appendix A.8** for **USGS Maps**.

The existing typical section is a four-lane rural principal arterial interstate with a 70 MPH design and posted speed. It is comprised of two 12-foot travel lanes and has 12-foot outside shoulders of which 10 feet are paved and 8-foot inside shoulders of which 4 feet are paved. Guardrail is located along the outside northbound shoulder. The southbound section is crowned while the northbound section slopes to the

outside. The vertical alignment is fairly flat with slight rises at the bridges. See **Appendix D for Existing Permit Information.**

Roadway runoff sheet flows off the road and into roadside ditches that discharge directly into adjacent canals. In the grass median, open ditches convey runoff to ditch bottom inlets where it is conveyed to the ditches at the right of way.

The project location falls within five WBIDs: 3278G, 3278I, 3259I, 3278H and 3278V. The only impaired WBID is 3259I for nutrients (historic Chlorophyll-a) with total phosphorous and total nitrogen as the limiting nutrients. See **Appendix A.6 for WBIDs and Impaired Waterbodies Map** and **Appendix A.7 for the Comprehensive Verified List.**

1.3 Floodplain Information

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) published in May 2012 are the latest information for the project area. There are seven panel numbers for this project area: 12021C0470H, 12021C0465H, 12021C0445H, and 12021C0440H. According to the FEMA maps, the project corridor passes through flood zones A, AE and AH. Refer to **Appendix A.3 for the FEMA FIRM Maps** and **Appendix A.4 for a FEMA Flood Zones Exhibit.**

2 DATA COLLECTION AND DOCUMENTATION

2.1 Coordination

The following is a summary of the coordination that has occurred during the preparation of this report. Specific information is provided in **Appendix B.**

- FDOT District 1 Scope Clarification Meeting on July 10, 2019
- SFWMD Pre-Application Meeting on May 27, 2020
- Memorandum to Maintenance on July 22, 2020
- FDOT District 1 Wildlife Access/North Canal Crossing Design Meeting on January 28, 2021

2.2 Investigations

2.2.1 *Field Investigations*

A field review was conducted on February 19 & 20, 2020 and December 16, 2020 to inspect the physical condition of the drainage infrastructure within the project area. In general, the drainage infrastructure appeared to be in good condition.

2.2.2 *Existing Drainage Maintenance Needs*

During the field review minor issues were identified that can be rectified with routine maintenance. Items that were recommended to maintenance include desilting pipes, clearing overgrown vegetation, fixing erosion, and patching concrete to repair chipped or spalled drainage structures. Inlets missing a grate were considered an immediate safety concern and these locations were also provided to maintenance for replacement. At the areas noted with vegetative growth in the joint separation between the inlet and ditch pavement, patching the joints was recommended to maintenance to prevent water intrusion from causing deterioration to the pavement in the long term. See Appendix B.1 Memorandum to Maintenance for a comprehensive list of all drainage issues found during the field review. The Memorandum to Maintenance was provided to Rolando Carrillo in the Fort Myers Operations Center to coordinate the recommendations with the Asset Management Contractor.

2.3 Existing SFWMD Permit

One existing SFWMD permit, ERP number 11-00396-S, spans the length of the project corridor and details the treatment volume provided in the linear systems in the median. The existing permit was originally approved in April 1987 for the section of I-75 from the Naples toll booth east to SR 29. The original permitted improvements consisted of widening I-75 from 2-lanes to 4-lanes with the construction of a drainage canal, cross drain extensions, and spreader swales to discharge into adjacent wetland areas and the Fakahatchee Strand Preserve. A major modification to the original permit was approved in March 1988 for the section of I-75 from SR 29 east to station 1760+00. This major modification permitted improvements consisting of widening I-75 from 2-lanes to 4-lanes with the construction of a drainage canal, cross drain extensions, and spreader swales that discharge into adjacent wetland areas and the Fakahatchee Strand Preserve. A second major modification to the original permit was approved in October 1988 for the section of I-75 from station 1760+00 east to the Broward County Line. This major modification permitted improvements consisting of widening I-75 from 2-lanes to 4-lanes with the construction of a drainage canal, cross drain extensions,

spreader swales, and nine new wildlife crossings that discharge into adjacent wetland areas and the Fakahatchee Strand Preserve. The intent of the drainage canal design was to re-establish sheet flow to the extensive wetland areas south of I-75 that had previously been disrupted by the original roadway construction. To promote an increased southerly flow of water, a variety of methods were utilized including bridge extensions, wildlife crossings, and earthwork plugs left when the drainage canals were excavated. The existing permit acknowledges that water quality was provided by utilizing raised inlets in the median and in the vast wetland areas located south of the spreader waterway system. Water quality treatment in excess of the first inch of runoff was expected to be provided by these mechanisms.

3 EXISTING DRAINAGE CHARACTERISTICS

3.1 Drainage Patterns

The Everglades West Coast Watershed encompasses the entire project area. Within the watershed the project crosses one basin: Rookery Bay. See **Appendix A.5** for the **Basin Map**.

3.2 Conveyance

Roadway runoff sheet flows into side and median ditches that discharge directly into adjacent canals. The median ditches have ditch bottom inlets to collect water and convey via pipes to ditches along the right of way. The bridge decks along the roadway drain runoff through scuppers directly into the canals. Bridge approaches are drained with short segments of shoulder gutter and inlets.

3.3 Treatment

Existing SFWMD permit number 06-00670-S spans the length of the project corridor and details the treatment volume for the linear treatment systems in the median. See **Appendix D** for **Existing Permit Information**.

3.4 Cross Drains

There are 13 existing cross drains. During the field review, the cross drains appeared to be in good condition and do not require maintenance. The proposed work in this project will not require the extension of any existing cross drains. See **Appendix A.1 Straight Line Diagram** for the locations and sizes of the cross drains.

4 PROPOSED CONDITIONS

The proposed roadway work for this project includes milling and resurfacing the travel lanes and paved shoulders and widening the inside shoulder. A 12-foot shoulder with 10-feet of pavement will be constructed along the median. During construction 6-feet of pavement will be added while saving the existing 4-foot shoulder pavement. None of the added impervious will be for travel lanes. According to F.A.C. 62-330.051 the proposed impervious area does not require water quality treatment. See **Appendix A.9** for **Proposed Typical Sections**.

4.1 Stormwater Quality/Quantity

An analysis of the existing system was performed and it was determined that there is enough existing overtreatment to accommodate impact caused by the proposed median shoulder widening. See **Appendix C.1** for **Water Quality and Attenuation Volume Calculations** and **Appendix D** for **Existing Permit Information** for the approved SFWMD permit number 11-105964-P.

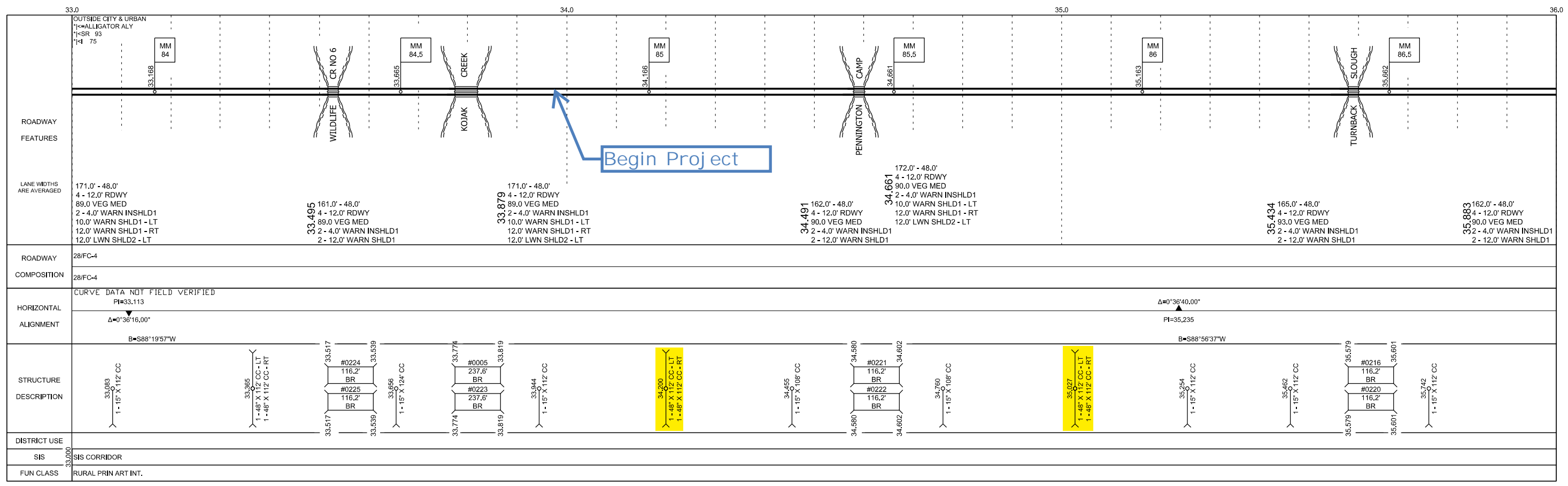
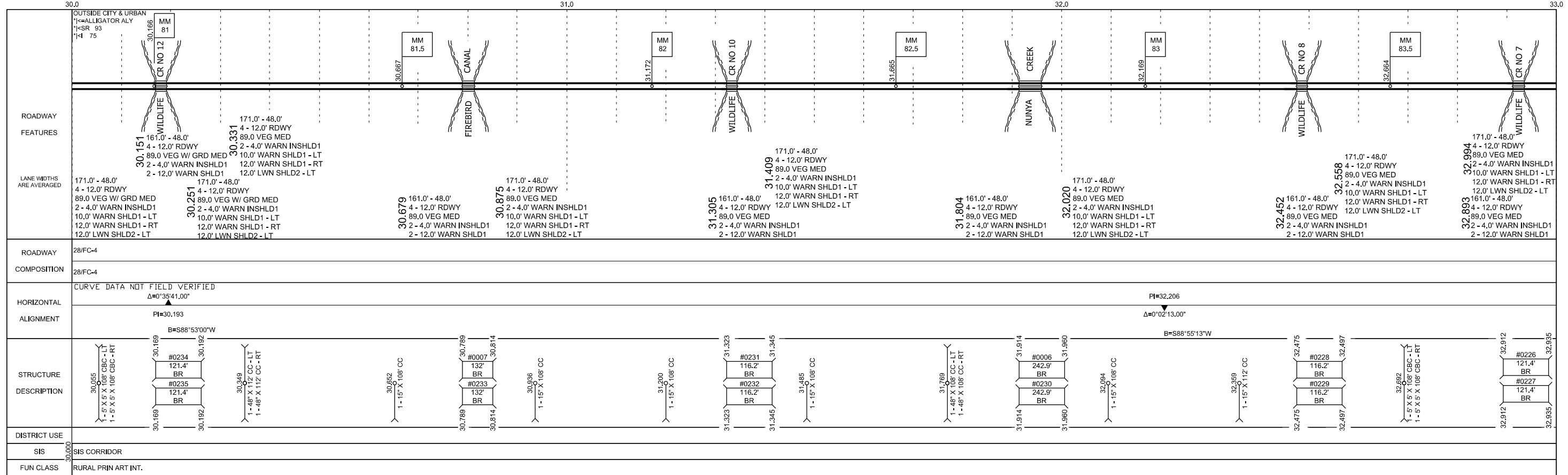
4.2 Floodplain Encroachment/Compensation

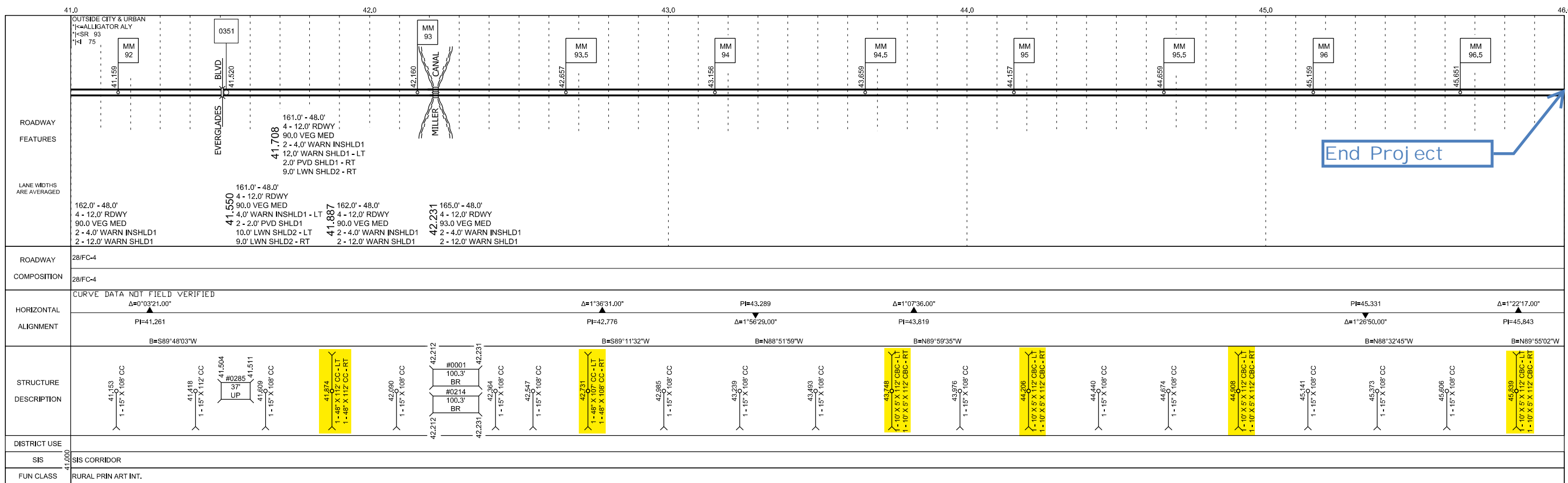
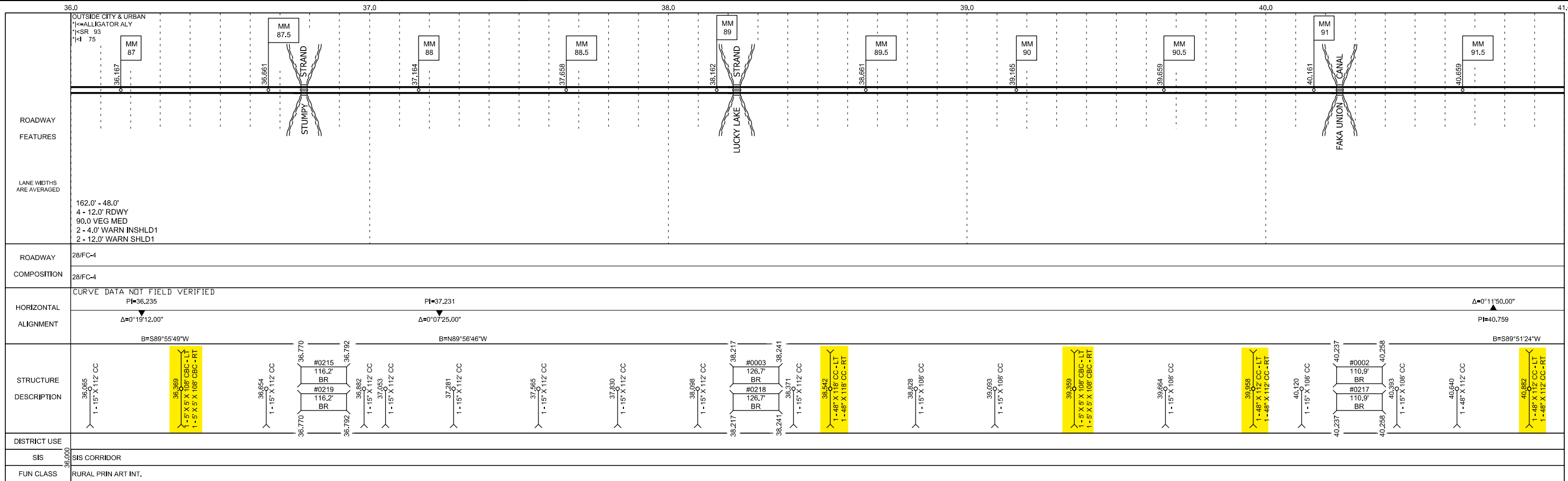
According to the FEMA maps, the project corridor passes through flood zones A, AE and AH. However, due to the nature of the proposed construction activities there will be negligible impact to the floodplain. The proposed shoulder widening will encroach less than 4.5 feet on each side. The impacted floodplain volume will be offset with the available overtreatment volume provided from existing SFWMD permit number 11-00396-S.

Appendix A

Miscellaneous Maps & Exhibits

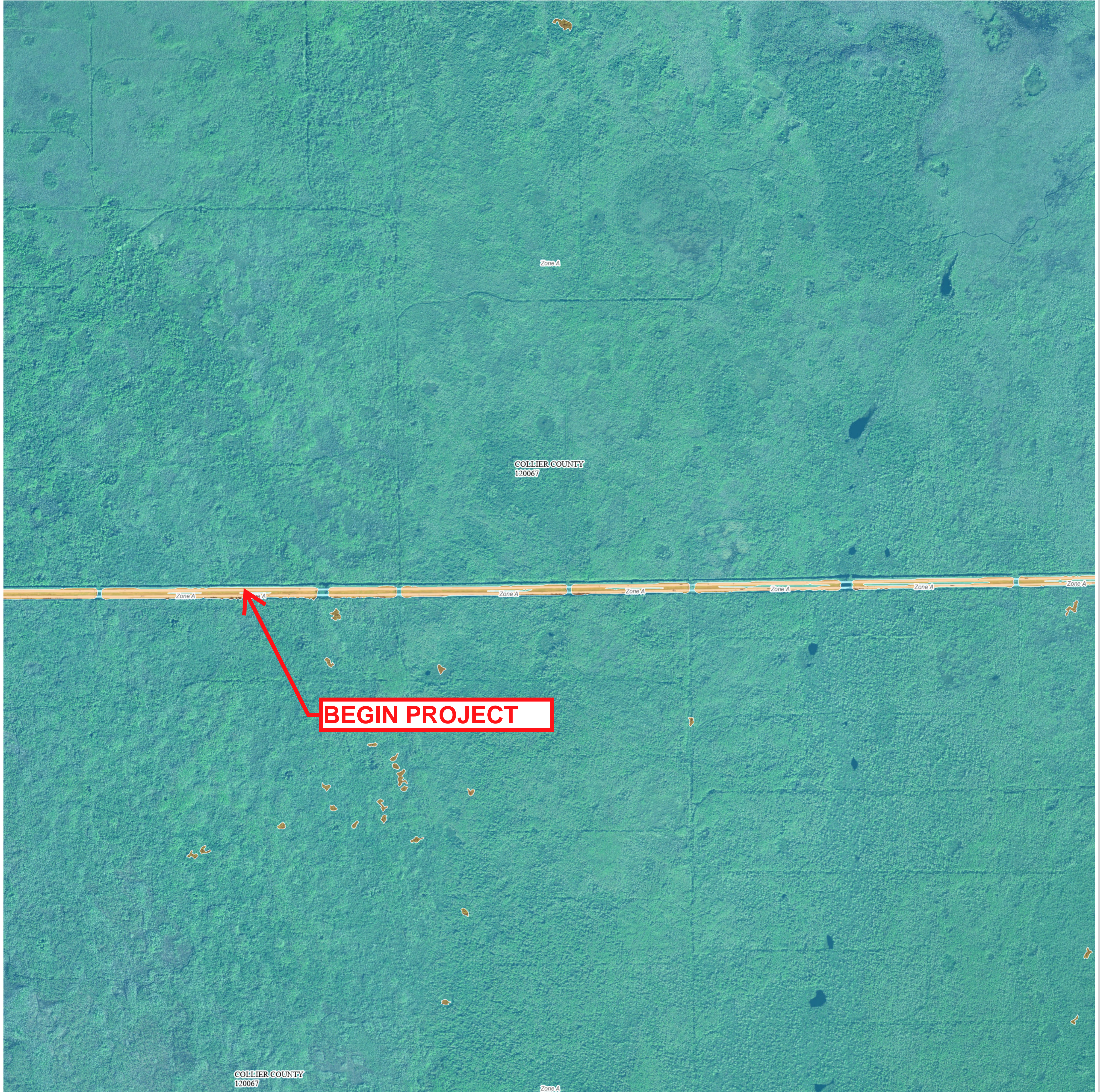
A.1 Straight Line Diagram





A.2 General Highway Map of Collier County

A.3 FEMA FIRM Maps



FLOOD HAZARD INFORMATION
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee See Notes Zone X
	Area with Flood Risk due to Levee Zone D
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
	Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
	20.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
OTHER FEATURES	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

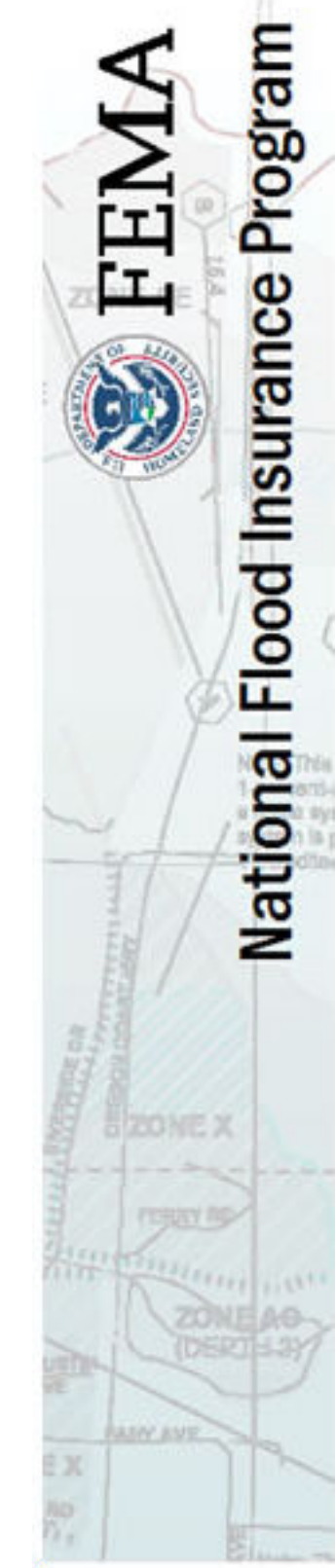
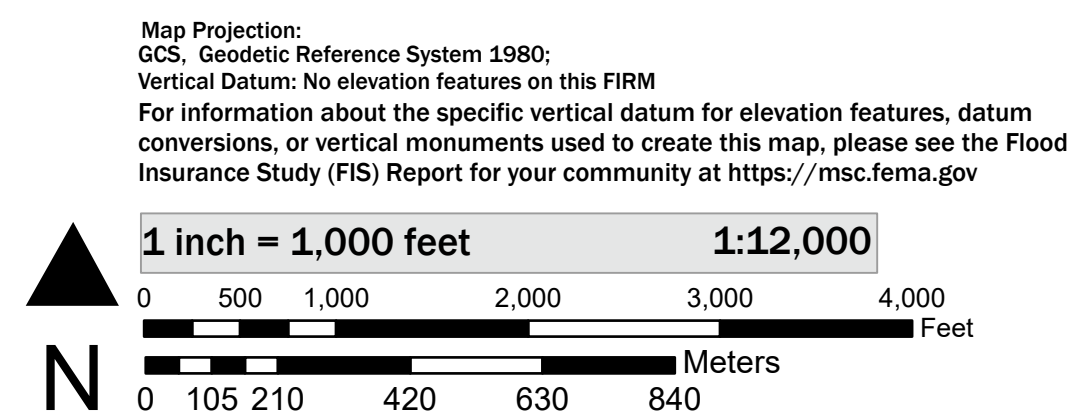
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery, Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **4/5/2021 3:26 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

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SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

COLLIER COUNTY, FLORIDA
AND INCORPORATED AREAS
PANEL 470 OF 1175

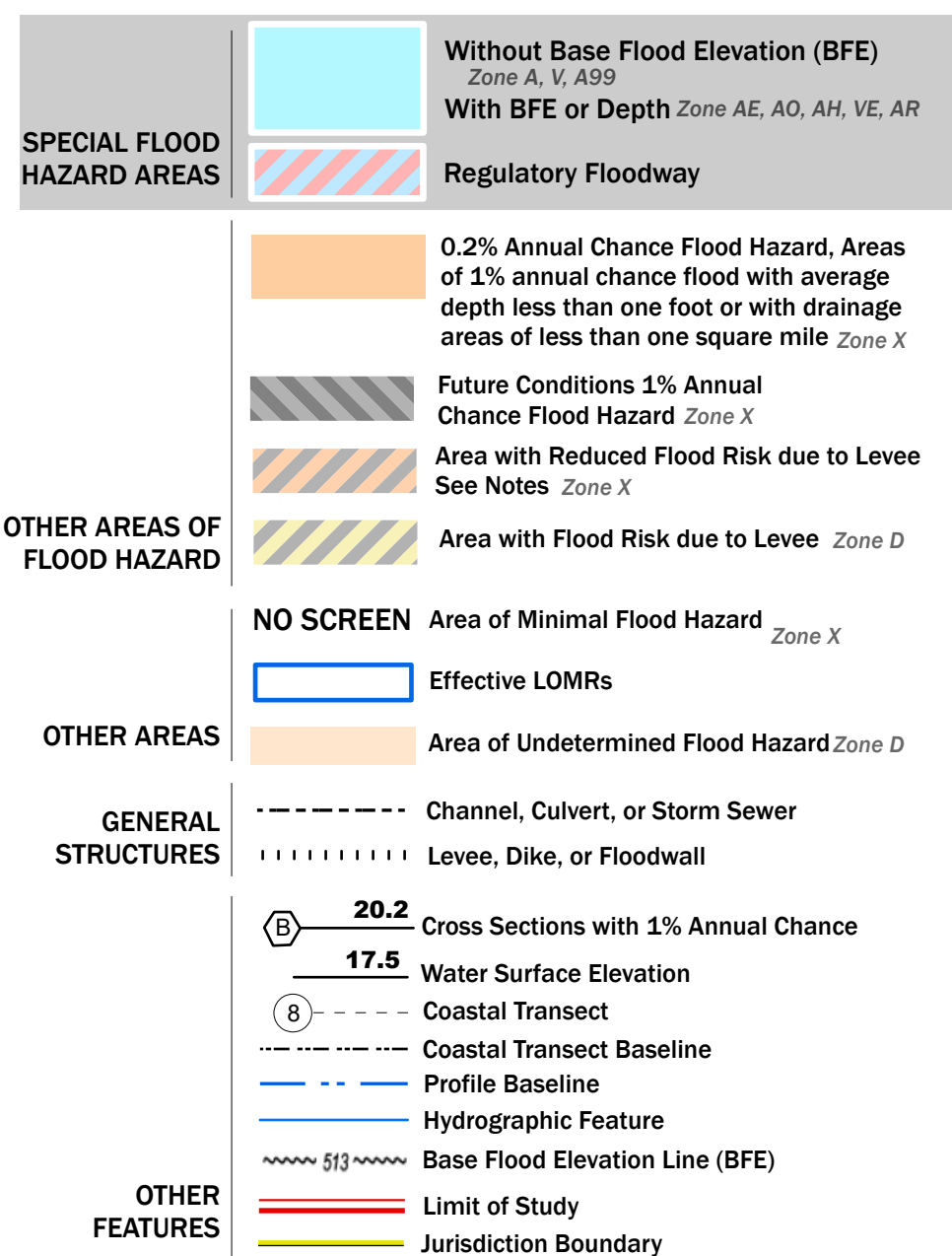
Panel Contains:

COMMUNITY	NUMBER	PANEL
COLLIER COUNTY	120067	0470



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT



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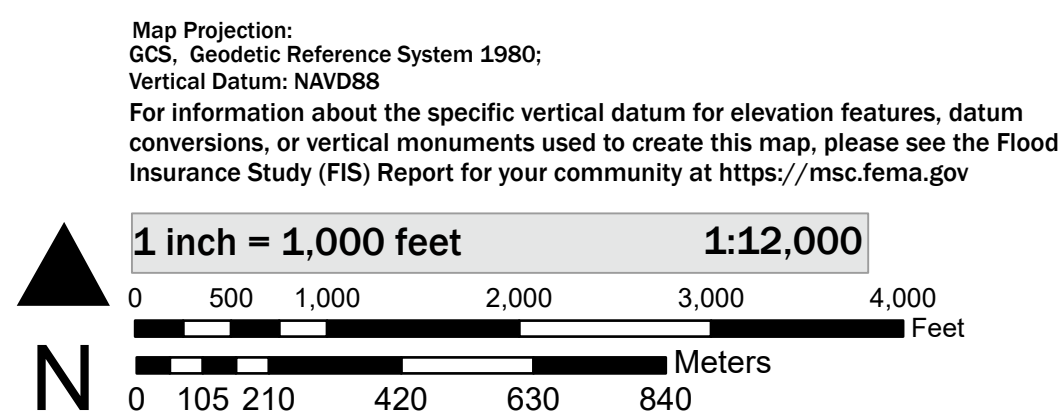
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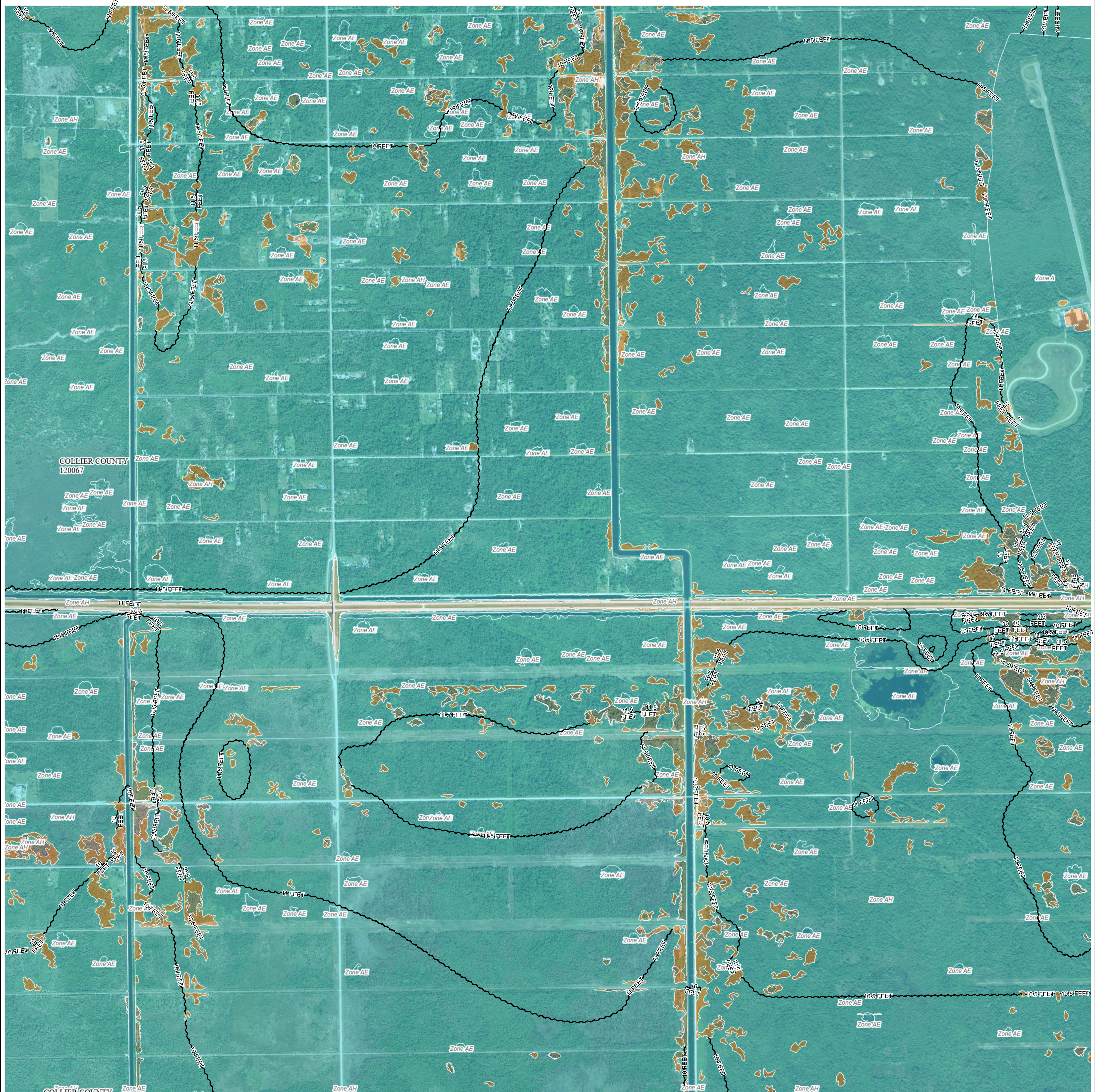
SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

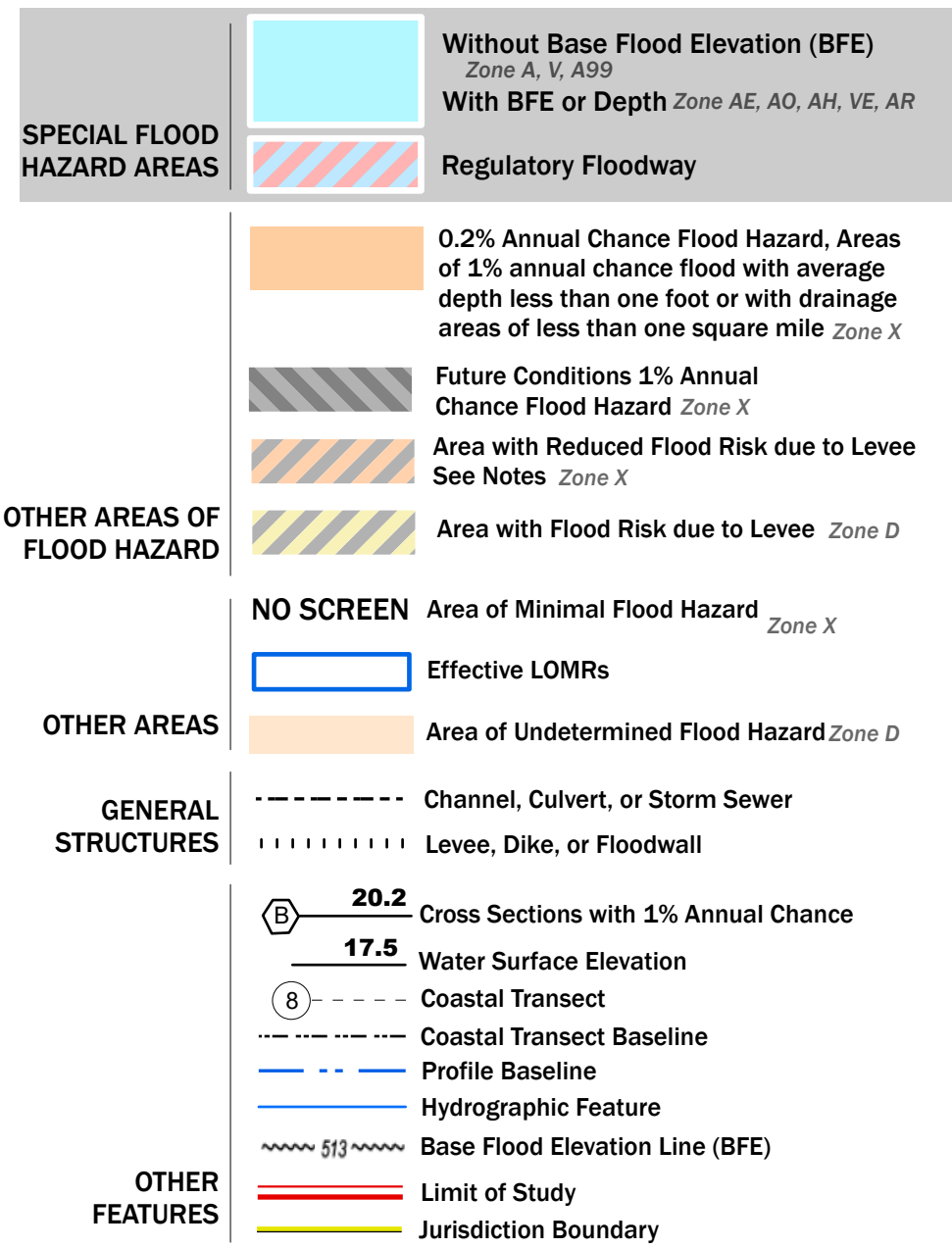
COLLIER COUNTY, FLORIDA
AND INCORPORATED AREAS
PANEL 465 OF 1175

Panel Contains:
COMMUNITY NUMBER PANEL
COLLIER COUNTY 120067 0465



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT



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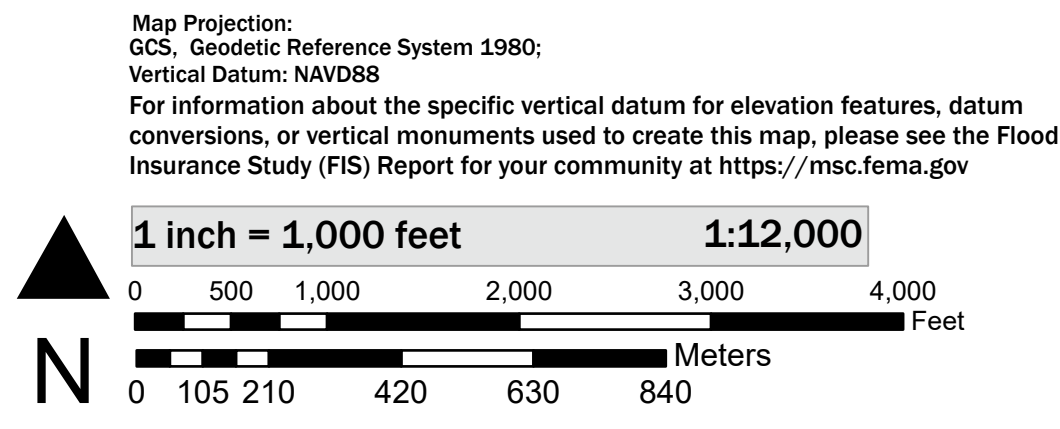
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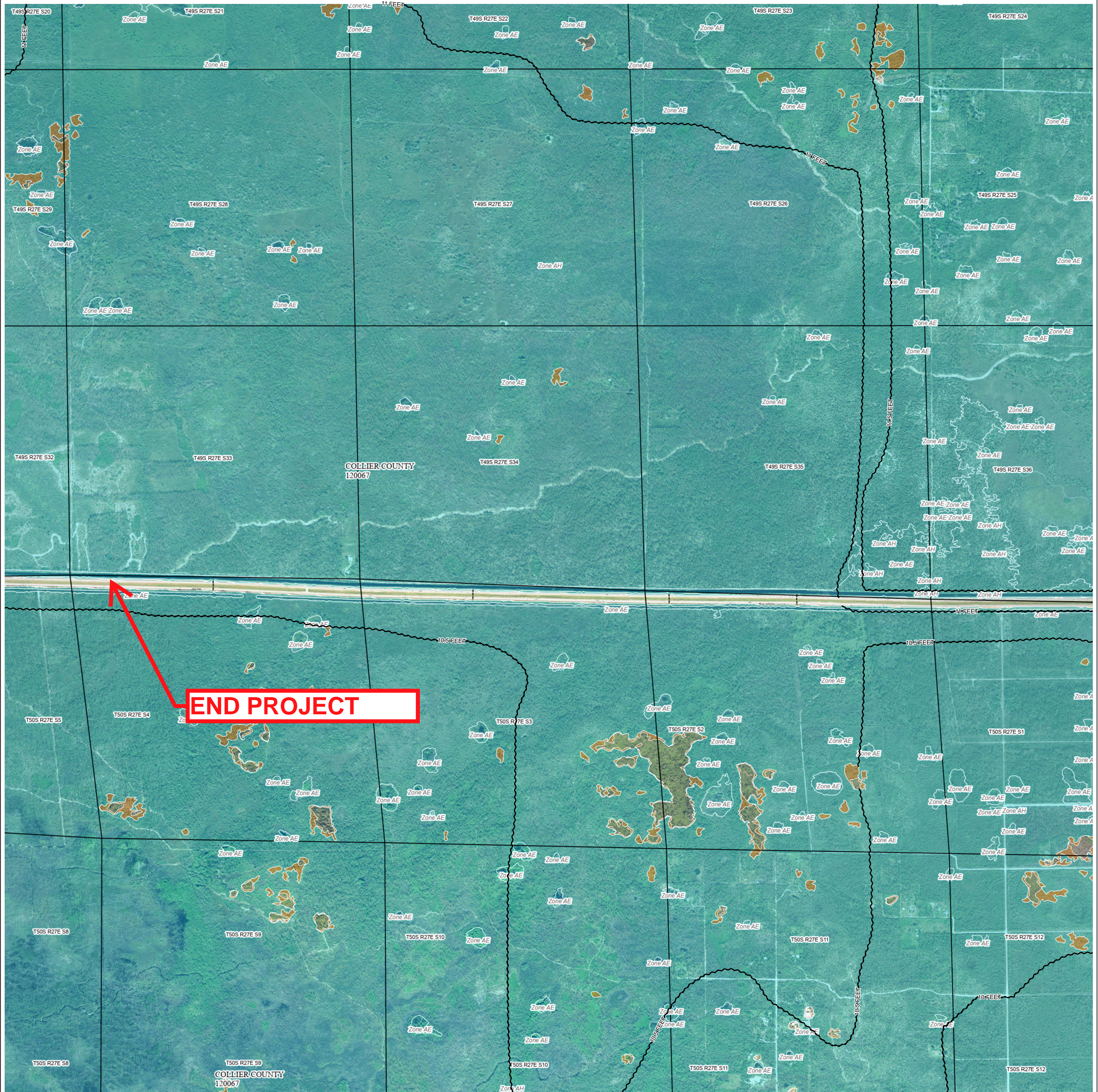
SCALE



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

COLLIER COUNTY, FLORIDA
AND INCORPORATED AREAS
PANEL 445 OF 1175

Panel Contains:
COMMUNITY NUMBER PANEL
COLLIER COUNTY 120067 0445



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
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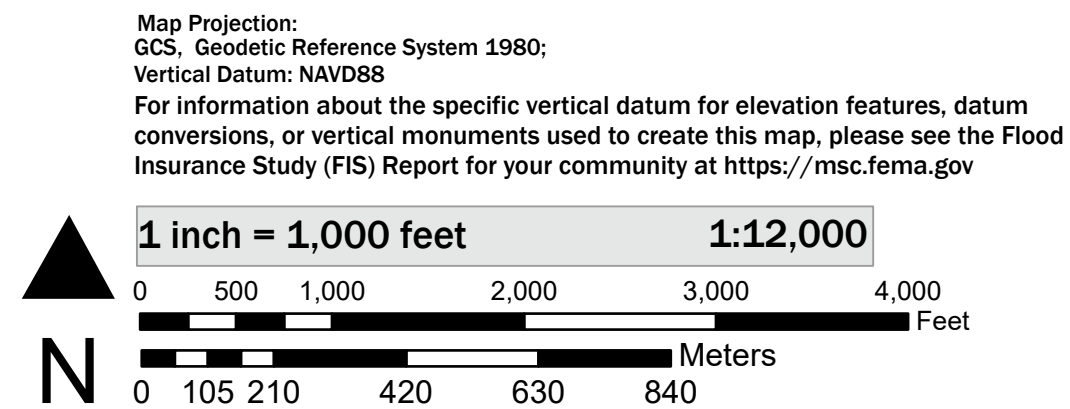
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SCALE



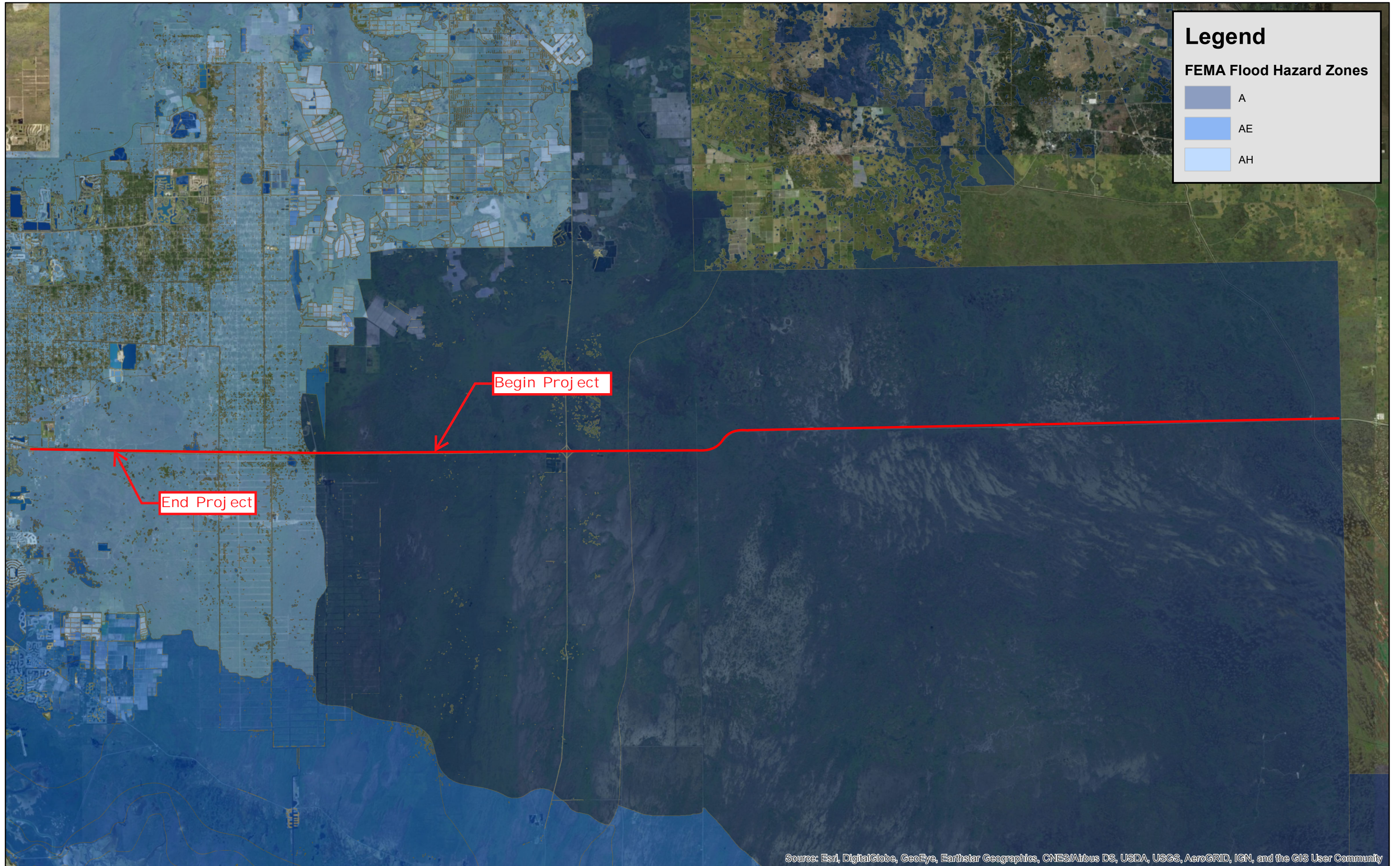
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

COLLIER COUNTY, FLORIDA
AND INCORPORATED AREAS
PANEL 440 OF 1175

Panel Contains:

COMMUNITY	NUMBER	PANEL
COLLIER COUNTY	120067	0440

A.4 FEMA Flood Zones Exhibit

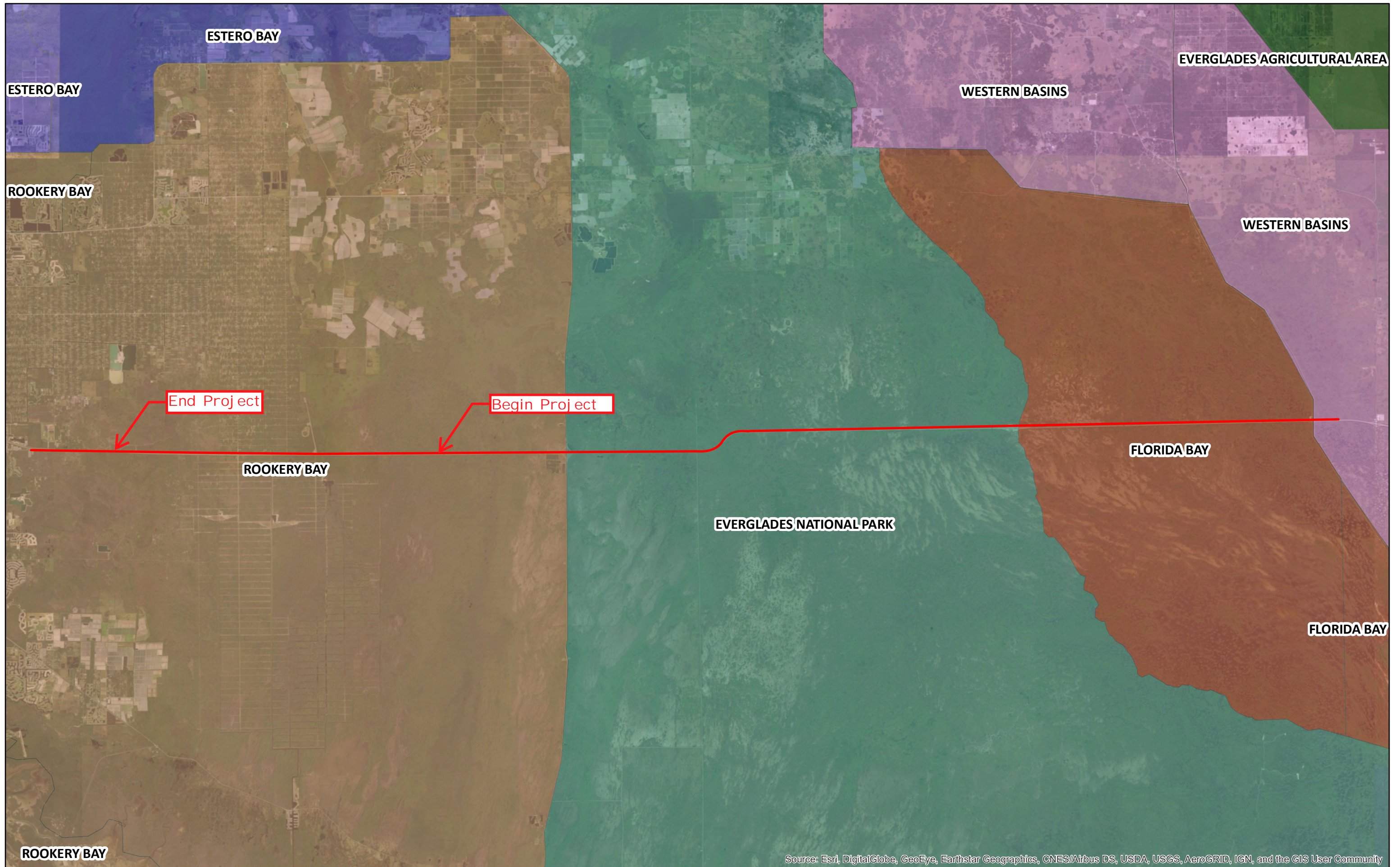


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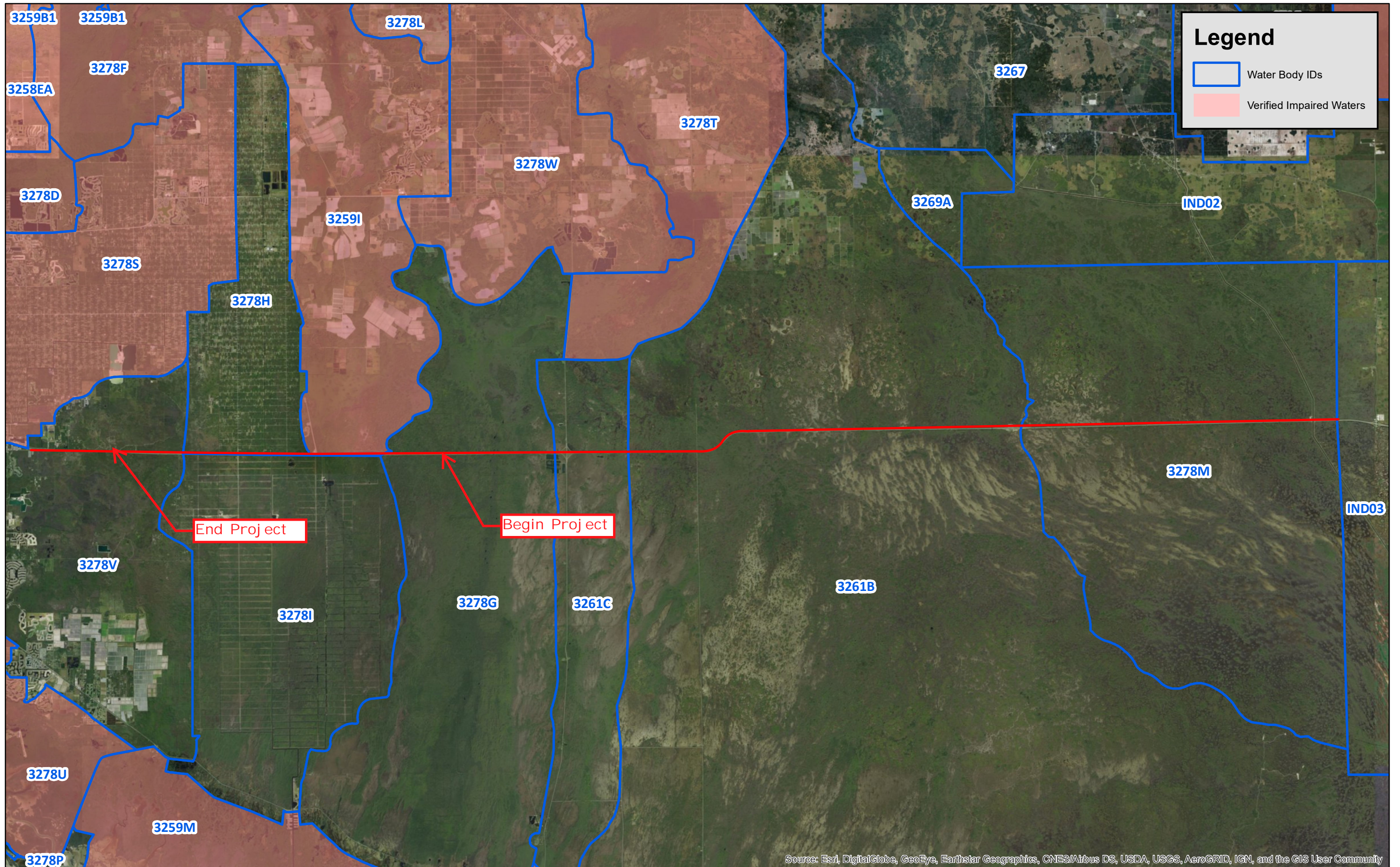
FEMA Flood Hazard Zones

- A
- AE
- AH

A.5 Basin Map



A.6 WBIDs and Impaired Waterbodies Map



A.7 Comprehensive Verified List

Cycle	Group	OGC Case Number	Group Name	Planning Unit	County (-ies)	WBID	Water Segment Name	Water-body Type	Water-body Class ¹	1998 303(d) Parameters of Concern	Parameters Assessed Using the Impaired Waters Rule (IWR)	Dissolved Oxygen/Biology Pollutant of Concern	Concentration of Criterion or Threshold Not Met	Priority for TMDL Development ³	Projected Year For TMDL Development ³	Verified Period Assessment Data ⁸	Comments ^{7,8}
3	1	13-0259	Everglades West Coast	Southwest Coast	Collier	3259I	Camp Keais	Stream	3F		Nutrients (Historic Chlorophyll-a)		≤ 9 µg/L	Medium		2005 (3 µg/L) 2006 (5 µg/L) 2007 (20 µg/L) 2008 (15 µg/L) 2009 (30 µg/L) 2010 (7 µg/L)	This parameter is impaired for this waterbody because annual average chlorophyll-a values exceeded the historic minimum of 6 µg/L by more than 50% in at least two consecutive years. The historic minimum was calculated using data from the period 2000 - 2004. Based on the median TN/TP ratio of 19.88, total nitrogen and total phosphorus are co-limiting nutrients. Historic chlorophyll-a is one part of the IWR nutrient assessment and dissolved oxygen is in category 4d and chlorophyll-a is also impaired based on annual average values greater than 20 µg/L. This parameter is being added to the 303(d) list.

¹ Florida's waterbody classifications are defined as:

- 1 - Potable water supplies
- 2 - Shellfish propagation or harvesting
- 3F - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in fresh water
- 3M - Recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife in marine water
- 4 - Agricultural water supplies
- 5 - Navigation, utility, and industrial use

² n is equal to the number of samples. When samples are collected at the same location less than 4 days apart, the median of those results represents a single sample for the purpose of determining n.

³ Where a parameter was identified as impaired under the IWR, a priority of "medium" was assigned. Exceptions are waters where the impairment poses a threat to potable water or human health, which have been assigned a "high" priority, and fecal coliform impairments, which have been assigned a "low" priority.

All other listings are prioritized based on the following: it is our intent that listings with a "High" priority be addressed within the next 5 years, listings with a "Medium" priority be addressed within 5-10 years as resources allow, and listings with a "Low" priority be addressed within the next 10 years.

⁷ PP - Planning Period (10 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples.

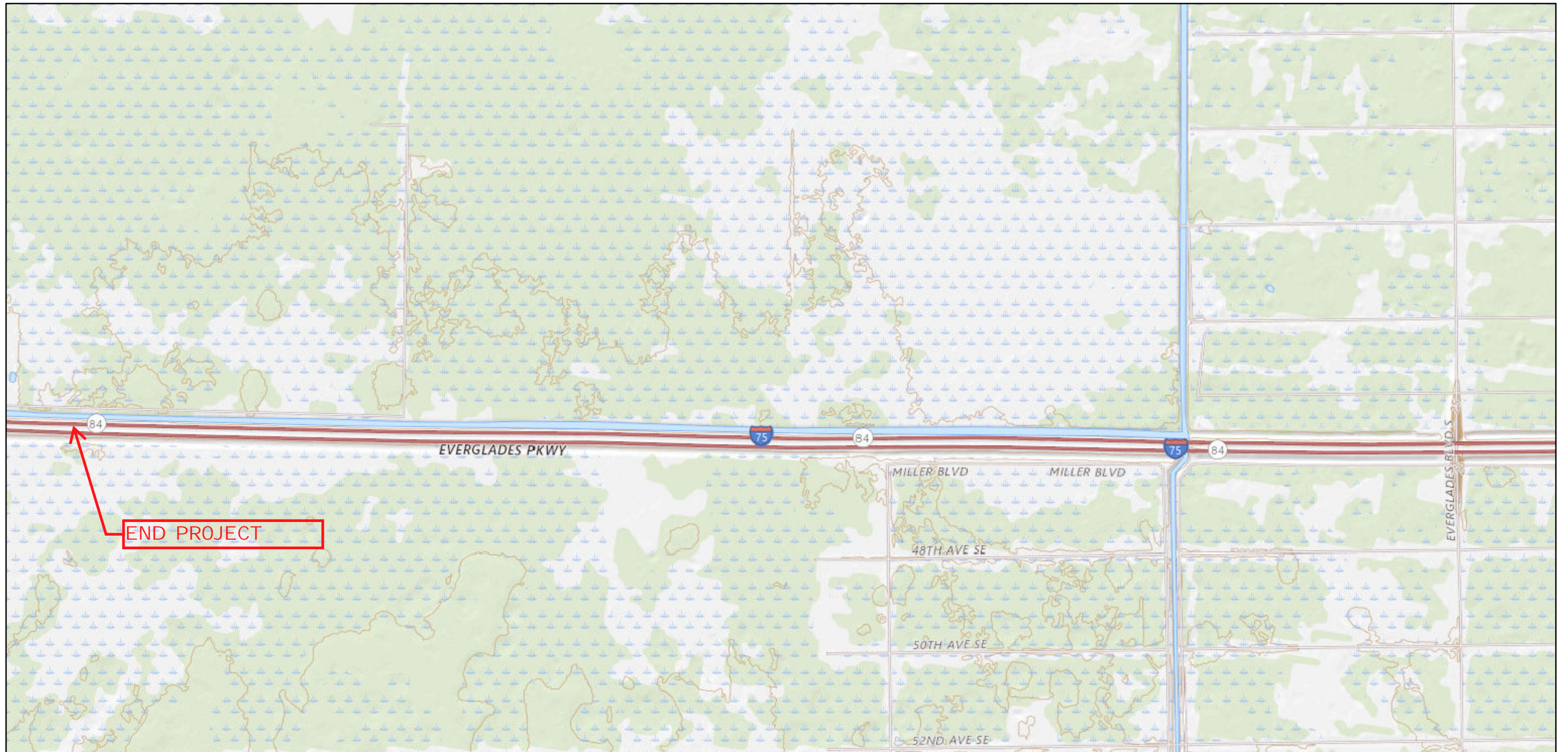
⁸ VP - Verified Period (7.5 year period; beginning and ending date vary by group/cycle combination); Where data are presented as x/y, x represents the number of exceedances and y represents the total number of samples. A statewide TMDL for mercury, that will address this waterbody, is scheduled to be completed in 2012.

N/A = Not Applicable, does not apply, or was not assessed in the previous cycle (i.e. it's a new WBID, waterbody type change, etc.).

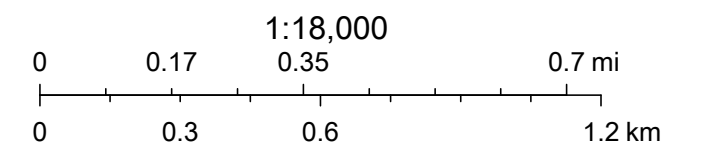
^ Beach advisories are based on FL Dept of Health Enterococcus criterion of >103 CFU/100mL.

A.8 USGS Maps

USGS Map (1)

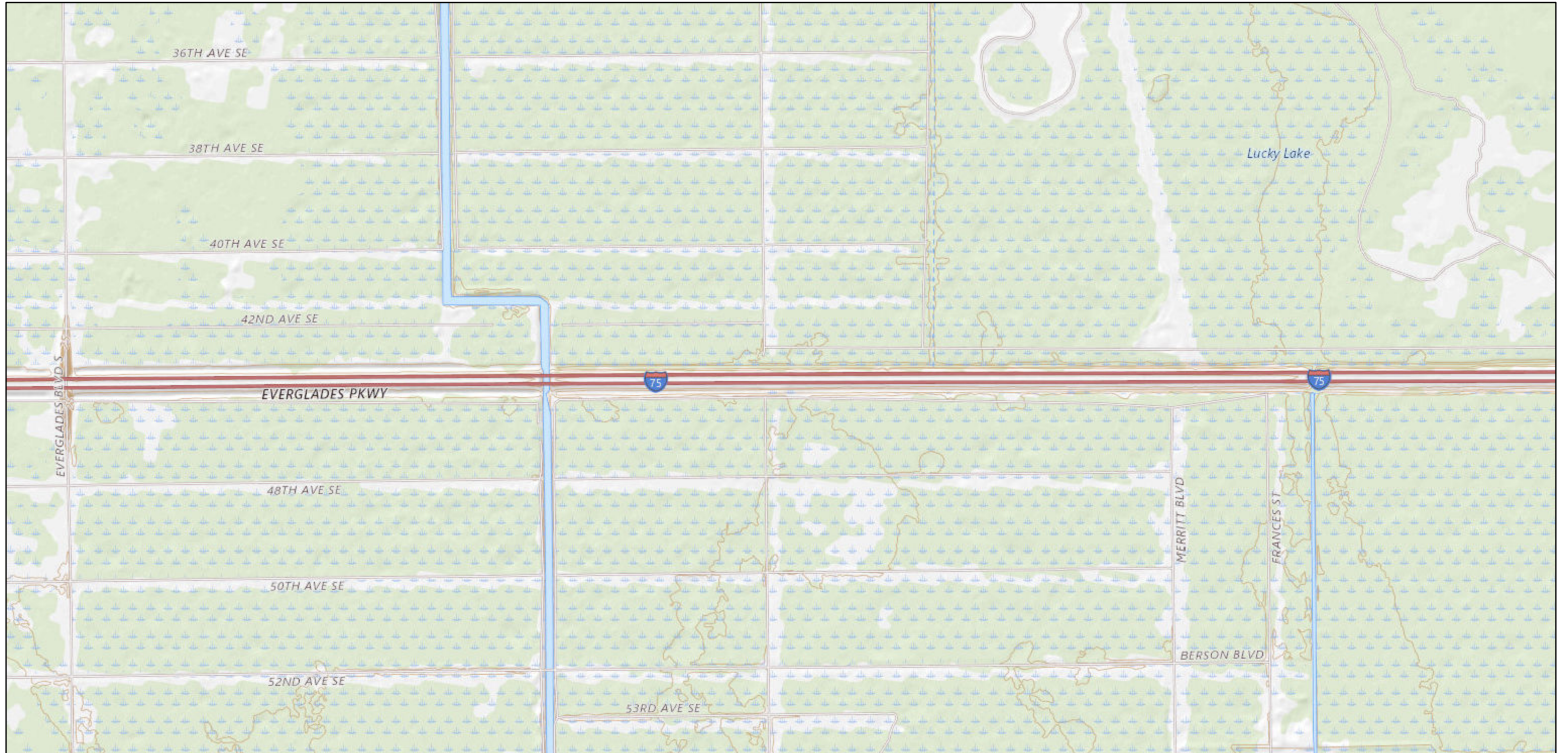


7/21/2021, 11:31:36 AM

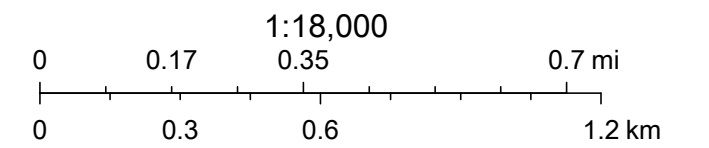


USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset;

USGS Map (2)

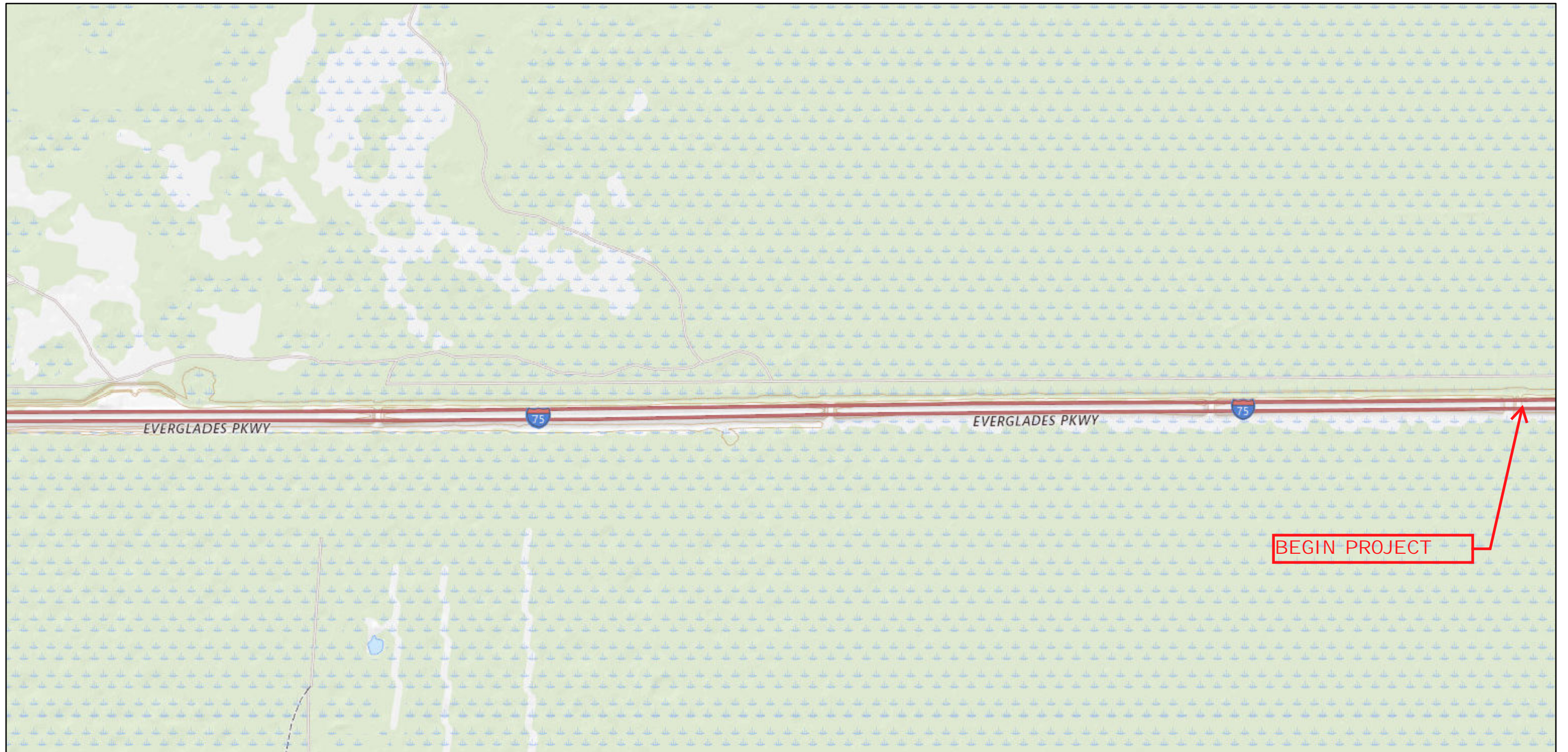


7/21/2021, 11:32:30 AM

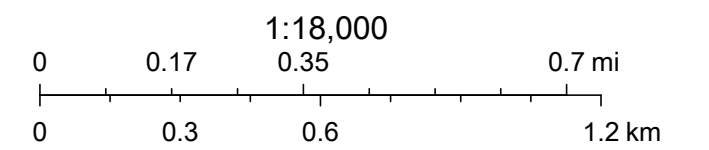


USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset;

USGS Map (3)



7/21/2021, 11:34:36 AM



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset;

A.9 Proposed Typical Sections

Appendix B

Project Correspondence & Documentation

B.1 Memorandum to Maintenance

Faller, Davis & Associates Inc.
4200 W. Cypress Street, Suite 500
Tampa, FL 33607
813.261.5136

MEMORANDUM

TO: Sean Pugh, P.E.

FROM: Alan Eldridge, P.E.

DATE: 7/23/2020

SUBJECT: FPID 444008-1-52-01

I-75 (SR 93) from the Broward County Line to the Toll Booth in Collier County
Maintenance Recommendations

The I-75 (SR 93) RRR project is in Collier County from the Broward County Line to the Toll Booth. The project length is 49.032 miles from MP 0.000 to MP 49.032. The project includes milling and resurfacing the existing pavement, widening the paved median shoulders, adjusting or adding vehicle crossovers, and adding wildlife crossings.

The existing roadway is a four-lane divided interstate with twelve-foot outside shoulder and eight-foot inside shoulders. There are seventeen bridges in total crossing over waterways and wildlife crossings. In the grass median, open ditches convey runoff to ditch bottom inlets where it is conveyed to the ditches at the right of way. The proposed typical includes widening the inside shoulder to twelve-feet with ten-feet paved. The design speed and posted speed is 70 mph.

Field reviews were conducted on February 19 and 20, 2020 to observe the hydraulic function and physical condition of the drainage infrastructure within the project area. During this review, minor issues were identified that can be rectified with routine maintenance. These items include desilting pipes, clearing overgrown vegetation, and patching concrete to repair chipped or spalled drainage structures. Areas of erosion identified at cross drain headwalls and ditch bottom inlets will need to be filled and compacted, with some requiring ditch pavement repairs. At the areas noted with the vegetative growth in the joint separation between the inlet and ditch pavement, patching the joints should be considered to prevent water intrusion from causing deterioration to the pavement in the long term. It is anticipated that the more severely damaged inlets requiring replacement outside of routine maintenance will be fixed as part of the construction plans. Attached is a complete list of recommended maintenance repairs.

MAINTENANCE SUMMARY TABLE

I-75 EXISTING CONDITIONS ASSESSMENT CONDUCTED FEBRUARY 19th & 20th, 2020
COLLIER COUNTY
FPID 444008-1-52-01 & 444008-1-52-02

Designed By: TT Date: 4/27/2020
Checked By: ASE Date: 5/11/2020

LOCATION		DESCRIPTION	ISSUE	Replace Inlet Top	Replace Inlet Grate	Patch Inlet Top	Repair Conc. Dt Pavt.	Desilting (LF)	Clear Vegetation and Grout Joint	Maintenance Replacement		Fill & Compact	Remarks
Station	Side									Replace Eyebolt & Chain	Replace Delineator		
251+00	LT	Headwall	Erosion									1	2'x4' Gap between slope and West side of Headwall
337+00	LT	Headwall	Erosion									1	3'x5' Gap between slope and both side of Headwall
440+00	LT	Shldr. Gutter Inlet	Damaged Grate		1								
577+00	MED.	DBI	Damaged Delineator									1	
736+00	MED.	DBI	No Eyebolt & Chain							1			
767+00	MED.	DBI	No Eyebolt & Chain							1			
795+00	LT	Side Drain	Damaged Delineator									1	
900+00	LT	Shldr. Gutter Inlet	Exposed Rebar			1							Rebar exposed, patch inlet top
1016+00	LT	Shldr. Gutter Inlet	Damaged Top			1							Rebar Exposed, Patch inlet top
1017+00	RT	Scupper	Maintenance Desilt					1					Opening is completely silted
1017+60	RT	Shldr. Gutter Inlet	Damaged Top			1							Inlet top chipped with exposed rebar
1104+00	MED.	DBI	No Delineator									1	No Delineator
1160+00	MED.	DBI	Missing Grate, No Eyebolt & Chain		1					1			
1200+00	MED.	DBI	No Eyebolt & Chain							1			
1298+00	MED.	Side Drain	Silted					72					Opening is completely silted
1501+00	MED.	Side Drain	Silted					46					Opening is completely silted
1557+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1569+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1584+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1597+50	RT	Headwall	Erosion									1	Gap between slope and east side of Headwall
1614+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1628+50	MED.	DBI	Damaged Top			1							2" displacement (west side)
1657+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1684+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1710+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
1723+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1738+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1753+00	MED.	DBI	No Delineator									1	
1768+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
1777+00	MED.	DBI	No Delineator									1	
1806+00	MED.	DBI	Repair cracks in concrete pavement				1						
1819+50	MED.	DBI	No Eyebolt & Chain									1	
1826+00	MED.	DBI	Dt Pavt. has sunk, Repair cracks in concrete pavement				1					1	Depression around inlet
1846+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
1857+50	MED.	DBI	No Eyebolt & Chain							1			
1857+50	LT	Headwall	Vegetation						1				Overgrown vegetation, not accessible
1869+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1880+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
1891+50	MED.	DBI	No Eyebolt & Chain							1			
1898+00	MED.	DBI	No Eyebolt & Chain							1			
1901+00	LT	Shldr. Gutter Inlet	Damaged Top	1									Inlet top crack and start to separate on westbound bridge
1906+00	MED.	DBI	No Eyebolt & Chain							1			
1919+00	MED.	DBI	Erosion, Damaged Dt Pavt., No Delineator				1					1	Depression around inlet
1932+40	MED.	DBI	No Eyebolt & Chain							1			
1970+00	MED.	DBI	Erosion									1	2'x4' Erosion hole
1980+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2002+40	MED.	DBI	No Eyebolt & Chain							1			
2048+00	MED.	DBI	No Eyebolt & Chain							1			
2062+00	MED.	DBI	Erosion									1	Erosion hole 3.5'x5.5'x1.25' deep
2086+00	MED.	DBI	No Eyebolt & Chain							1			
2098+60	MED.	DBI	No Eyebolt & Chain							1			
2111+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2125+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				

MAINTENANCE SUMMARY TABLE

I-75 EXISTING CONDITIONS ASSESSMENT CONDUCTED FEBRUARY 19th & 20th, 2020
COLLIER COUNTY
FPID 444008-1-52-01 & 444008-1-52-02

Designed By: TT Date: 4/27/2020
Checked By: ASE Date: 5/11/2020

LOCATION		DESCRIPTION	ISSUE	Replace Inlet Top	Replace Inlet Grate	Patch Inlet Top	Repair Conc. Dt Pavt.	Desilting (LF)	Clear Vegetation and Grout Joint	Maintenance Replacement		Fill & Compact	Remarks
Station	Side									Replace Eyebolt & Chain	Replace Delineator		
2129+80	LT	Shldr. Gutter Inlet	Damaged Top	1									
2148+40	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2160+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2173+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2185+00	MED.	DBI	No Eyebolt & Chain							1			
2197+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2209+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
2213+00	LT	Shldr. Gutter Inlet	Damaged Top	1									
2218+00	MED.	DBI	No Eyebolt & Chain, Damaged Delineator							1	1		
2226+00	MED.	DBI	No Eyebolt & Chain							1			
2239+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
2245+00	LT	Shldr. Gutter Inlet	Damaged Top	1									
2255+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth, No Eyebolt & Chain						1	1			
2284+00	MED.	DBI	Joint separation between inlet and Dt Pavt. with vegetative growth						1				
2325+00	MED.	DBI	Siltation of pipe & inlet, Joint separation between inlet and Dt Pavt. with vegetative growth					113	1				Silt build up in inlet, weed growing between inlet and ditch pavement
2339+00	MED.	DBI	Maintenance desilt., Erosion					110				1	Silt build up in inlet & pipe, 12"x12" erosion hole
2353+00	MED.	DBI	Erosion, Damaged Top			1						1	28"x17" Erosion hole south side of inlet
2361+60	LT	Scupper	Maintenance desilt					1					Opening is completely silted
2385+00	MED.	DBI	No Eyebolt & Chain							1			
2517+00	MED.	DBI	No Eyebolt & Chain							1			
2559+00	MED.	DBI	No Eyebolt & Chain							1			
2580+00	MED.	DBI	Damaged Top	1									Top broken & displaced, 54"x52" grate opening
2612+00	MED.	DBI	No Eyebolt & Chain, No Delineator										
Totals				5	2	5	3	343	26	27	8	9	

B.2 Scope Meeting Minutes

MEETING MINUTES

PROJECT: I-75 (SR 93) from Broward County Line to Toll Booth (Collier County)
FPID: 444008-1-32-01 & 4440008-1-32-02

DATE/TIME: July 30, 2019, 10:00 am

LOCATION: Florida Department of Transportation
District One Headquarters
801 N. Broadway Ave
Bartow, FL 33830

SUBJECT: Scope Clarification Meeting

WRITTEN BY: Sarah Wright, P.E.

ATTENDEES: Please see attached sign-in sheets

DISCUSSION:

I. Introductions

II. Project Overview

- Faller Davis began the meeting with a review of the PowerPoint slides from the oral technical presentation held on July 9.
- The project is a RRR project, and includes the following design components:
 - i. Cross slope correction through variable milling and constant depth resurfacing
 - ii. Milling and resurfacing the outside paved shoulders
 - iii. Widening the inside paved shoulders from 4' to 10'
 - iv. Improved access to multiple access points along corridor
 - v. Relocated and additional median crossovers
 - vi. Median high tension cable barrier installation at the two reverse curves
 - vii. Guardrail replacement
 - viii. Additional mile post signs
 - ix. Loop-activated signs at access points
 - x. Wrong-way interchange signing updates
 - xi. Enhanced wildlife crossings
- There are no separate designated safety funds. All funds are from the Alligator Alley toll funds and will be split into 2 FPID's. "-01" will be used for all RRR improvements and "-02" will be used for all safety improvements.
- The Letting date has been set for July 2021. FDA will adjust their proposed schedule to meet this Letting date. For the audit package, a 24-month schedule will be used.

III. Additional Discussion by Discipline

- **Public Involvement**
 - This will include updates or mark-ups to the project website and developing a Level II CAP plan.

- **Roadway**
 - Kevin Ingle stated that the L-28 Canal Boat Ramp cannot be closed. This is a residential access point that had been constructed before the interstate. FDA is proposing to improve the turnout by eliminating the existing erosion and drop-off and provide improved sight distance. The access point will remain open.

- **MOT**
 - TCP will include typical details for the on-ramps, off-ramps, toll booth, guardrail replacement, inside shoulder widening, deep milling depth and analysis of temporary barrier wall.
 - Two meetings are anticipated. One with District Construction and one with stakeholders.
 - Sean Pugh noted DCE Memo No. 07-19 pertaining to temporary concrete barrier was recently revised.

- **Drainage**
 - Hours will include a field review to document the existing drainage, documentation for any potential drainage improvements, and permits for the proposed median shoulder widening.

- **Utilities**
 - FDOT utilities stated that all designates can be obtained up-front. Any level A SUE requests will require a meeting before VVH's can be obtained. FDA will need to provide plan sheets specifying the locations of the test holes to obtain approval.

- **Environmental**
 - Nicole Monies suggested that FDA be prepared to discuss flood plain impacts at the pre-application meeting with SFWMD.
 - Nicole suggested that we may be able to use the additional wildlife crossings as justification for mitigation to any wood stork impacts to avoid purchasing credits.
 - It was asked how the wetland surface water limits will be determined. The elevation of the existing inlet tops may be used to determine wetland surface water limits. Niki Cribbs will follow up with Nicole Monies in advance of Nicole's August meeting with SFWMD.
 - Staff hours will assume a major permit modification.
 - Nicole has meeting with SFWMD on August 21 and will discuss this project with them.
 - Contamination will be handled in-house. There are no traffic noise impacts anticipated.

- **Structures**
 - Per new developmental specifications, the high tension cable barrier is to be placed at a maximum of two mile runs. There are three cable barrier runs and six end anchorages estimated for the proposed high tension cable barrier.
 - Staff hours will assume one detail sheet for each proposed wildlife crossing.
 - Staff hours will include an ancillary structures report and a bridge evaluation report.
 - Richard will assume a percentage of structures that will need to be load rated. Andra Diggs suggested to assume 20 structures will need to be load rated as a worst-case scenario.

- **Signing and Pavement Marking/ITS**
 - The signing plans will be 500 scale plan sheets in a straight line diagram format showing existing and proposed signs. Pavement markings for the mainline will be shown as a typical section and plan sheets will be created for details at all interchange/ramp locations.
 - An informal sign inventory will be completed for all existing signs.
 - Staff hours will include additional time for analysis where any guardrail installation is being proposed to avoid impacts to the existing ITS.
 - All existing wrong-way signage will be updated to the recently updated standards at the SR 29 interchange
 - Any existing pavement sensors will be replaced in kind with the resurfacing. This will be for the TTMS, RWIS and PTMS as needed.
 - A new 96-count fiber cable is being proposed along the project and is to be installed in the spare conduit that was installed with the existing ITS system. The existing fiber within the project limits is a 48-count ITS fiber.
 - The ITS as-builts do not appear to be correct for the existing ITS facilities. Nicolas Leon has the latest information on existing ITS lines from the guardrail safety project on which he was the PM.
 - DMS signs may be capable of speed feedback. However, FDA is proposing these signs be placed ahead of the curves and rest areas where the most variable traffic speeds are present. FDOT will check on which DMS signs are speed feedback capable and FDA will determine if they would be appropriate to use.
 - Truck parking availability signs are currently being installed for the rest area within our project limits. Lulu Pierce in the Fort Myers office is the PM for this project. FDA will contact Lulu Pierce to gain more information.

- **Geotechnical**
 - All geotechnical work will be done in-house.
 - The cable barrier will require geotechnical investigation for the six end anchorages.
 - Potential locations of caprock will require geotechnical information.
 - The requested geotechnical information will be sent after Phase II plans.

- **Survey/Photogrammetry/SUE**
 - Dan Rutkosky requested that an aerial be provided with all survey limits prior to

the staff hour negotiations. Due to the size of the project, FDA will create a KMZ file to outline all limits of survey. The area for new wrong-way signage will be included.

- Dan asked what survey would be required at the proposed wildlife crossing locations. FDA responded that the low member elevations and a DTM of the ground line are all that will be necessary for the wildlife crossings. Season high water elevations will be required.
 - Dan asked if a specific purpose survey for survey waters would be required. Niki Cribbs does not believe this will be needed. The approach to obtaining the surface water limits in the median was discussed. Dan and Niki discussed using surveyed points in combination with DTM to establish a surface water limit. Niki will follow up with Nicole Monies on this approach.
 - All fence replacement is currently being handled by maintenance.
 - It was agreed that geotech borings can determine borehole elevations from DTM.
 - Scott Ellis stated that the current mowing schedule is 10 cycles/year. Scott will obtain a more detailed mowing schedule so the aerial flight can be scheduled immediately after mowing to allow for the most accurate survey data.
 - Dan asked what kind of detail would be required for the existing drainage structures. It will be assumed that 43 of the existing median inlets will require survey. However, a field review will be performed to identify any drainage structures to be replaced. Additional survey will be obtained if and when needed.
- **Maintenance**
 - It was suggested that any changes to the existing median crossovers may need to be approved by FHWA. FDA will also coordinate with FHP and the maintenance contractor (DBI) during design to obtain confirmation on proposed median crossover locations.

IV. Critical Dates

- **Preliminary staff hours due to Caitlin Tanner: August 12th**
- **Pre-Negotiations can begin: August 19th (After an email is received from Caitlin)**
- **Staff hour negotiations must be completed by: August 27th**
- **Letting date: July 2021**

SCOPE CLARIFICATION MEETING - ATTENDANCE ROSTER

DATE: July 30, 2019

PROJECT DESCRIPTION: I-75 (SR 93) from Broward County Line to Toll Booth

FP I.D. No.: 444008 1 32 01 & 444008 1 32 02/20120

NAME	TITLE/POSITION	OFFICE/FIRM	TELEPHONE NUMBER
Sean Pugh	Project Management Engineer	Project Management	(239) 225-1925
DAN RUTKOSKY	SURVEY	FDOT	863-519-2354
RAMASWAMY VENKATESAN	GEOTECH ENGINEER	FDOT	863-519-4241
Patricia Christie	FDA-Traffic	FDA	813-261-5136
Niki Cribbs	FDA - Env. + Permitting	FDA	" "
Karina Della Ser	Drainage FDOT	FDOT	863-519-2750
NEAL TURNER	FDOT	FDOT	
Scott Ellis	FDOT Maintenance	FDOT	863-519-2464
Dennis Carroll	FDOT Utilities	FDOT	863-519-2537
MARK BAYER	BAYEL UNITED - MOT	BAYEL UNITED	813-460-2199
SARAH WRIGHT	FDA - ROADWAY	FDA	813-261-5136
Dwight Pyburn	FDOT - EMO	FDOT	863-519-2375
Nicole Monier	Permits	FDOT	663-519-2359
Richard Hunter	Structures	American	813-267-4940
Andra Diggs II	Structures Design	FDOT	863-519-2426

ATTENDANCE SHEET

Date/Location: July 30, 2019 / Bartow

FDOT FPID: 444008-32-01 & 02

Project Description: SR 93 (I-75) from the Broward County Line to Toll Booth

<u>Name</u>	<u>Representing</u>	<u>Telephone No.</u>	<u>E-mail Address</u>
Sean Pugh	FDOT Project Manager	(239) 225-1925	sean.pugh@dot.state.fl.us
Ken Muzyk	FDA PM/Roadway	(813) 261-5136	kmuzyk@fallerdavis.com
Sarah Wright	FDA Deputy PM/Roadway	(813) 261-5136	swright@fallerdavis.com
Patty Christie	FDA Traffic EOR	(813) 261-5136	pchristie@fallerdavis.com
Nicole Cribbs	FDA Environmental	(813) 261-5136	ncribbs@fallerdavis.com
Richard Hunter	American - Structures	(813) 435-2639	rhunter@acp-fl.com
Grant Fichter	AIM - Survey	(239) 332-4569	gfichter@aimengr.com
Mark Holt	McKim & Creed - Survey	(239) 275-8875	mholt@mckimcreed.com
Ike Rooks	IF Rooks - Planimetrics	(813) 752-2113	iker@ifrooks.com
Mark Bayer MB	Bayer United – Traffic Control	(813) 460-2199	mbayer@bayerunited.com
Dennis Carroll	FDOT Utilities	863-519-2537	dennis.carroll@dot.state.fl.us
Scott Ellis	FDOT Maintenance	863-519-2464	Scott.ellis@dot.state.fl.us

Name	Representing	Telephone No.	E-mail Address
Tim Smith	FDOT TSM+O	863-519-2342	Timothy.W.Smith@dot.state.fl.us
RAMASAMY VENKATESAN	FDOT/GEO TECH	863-519-4241	RAMASAMY.VENKATESAN@dot.state.fl.us
GREAT FICHTER	AIM ENG. & SURVEY	239-872-2685	gfichter@aimengr.com
Tom Halstead	McKIM CREED	727-224-2645	Thalstead@McKimcreed.com
Ike Rooks	I. F. Rooks	813 752 2113	iker@i.f.rooks.com
Jeffrey James	FDOT NCIC	863 519-2625	Jeffrey.James@dot.state.fl.us
KEVIN INGLE	FDOT PM	863.519.2740	Kevin.ingle@dot.state.fl.us
Caitlin Tanner	Procurement	863-519-2598	Caitlin.Tanner@dot.state.fl.us

B.3 Pre-Application Meeting Minutes

SFWMD Pre-Application Meeting Minutes
I-75 Alligator Alley from Broward County Line to Toll Booth
FPID: 444008-1-52-01
Collier County

May 27th, 2020
10:30am via GoToMeeting

Attendees:

- Angelica Hoffert - SFWMD
- Melissa Roberts - SFWMD
- Laura Layman - SFWMD
- Brent Setchell - FDOT
- Nicole Monies - FDOT
- Alan Eldridge - Faller, Davis and Associates
- Niki Cribbs - Faller, Davis and Associates

Background

The meeting began with an overview of the project which is to mill and resurface the existing eastbound and westbound lanes, including paved shoulders for 49 miles. The project will also include the widening of inside paved shoulder, in both directions, from 4-foot to 10-foot. Wildlife crossings will be retrofitted at existing Channels 1, 2, D, A, Harold Strand and Lucky Lake Strand. The proposed typical section includes 4-12' travel lanes, 2-10' paved shoulders and an open conveyance drainage system.

Design Criteria

The project is in the Everglades West Coast Watershed and conveyance patterns are generally from the north to the south. The original SFWMD permit for the widening from 2-lanes to 4-lanes is ERP No. 06-0067-S. From these design calculations, when I-75 was widened to 4-lanes it was permitted to construct 8' of impervious inside shoulder in each direction. However, only an inside shoulder width of 4' was constructed. Water quality is provided in the median swales by flat bottoms and raised inlets. The original permit was modified with SFWMD ERP No. 11-00396-S which was part of a project to improve conveyance to the south by constructing additional cross drains, canal plugs and spreader swales.

The project is surrounded by Floodplain Zone A, however, I-75 appears to be raised above the floodplain in Zone X. There are some short sections of Zone A in the median. Impacts to these median floodplain areas will be minor due to the inside shoulder widening and it will be demonstrated that the overtreatment/retention volume available in the median swales will be sufficient to offset the impacted volume.

The drainage design approach for the impacts due to the median widening will follow how the Broward County section to the east was designed and permitted. A Letter Modification to existing SFWMD ERP will

be submitted along with calculations that demonstrate the overtreatment/over retention volume in the median is significantly greater than the increase in runoff per 1,400' section. This results in no reduction in storage capacity, stormwater treatment, or flood attenuation. The new shoulder pavement does not add capacity and is exempt from treatment and attenuation criteria per the F.A.C.

Environmental Discussion

The medians are permitted treatment systems and while some may be wet, these are not considered surface waters or wetlands and have not been delineated as such.

Enhancements for wildlife crossings are anticipated at six locations in the project limits (four culverts and two bridges). Jurisdictional limits and seasonal high-water elevations have been set at these locations. About 0.22 acres of impacts to surface waters will occur because of the enhancements. Land bridges are proposed to provide access for wildlife across the canals that parallel I-75 at the four culvert areas. One on the north and one on the south will be provided. The design of the land bridge will allow for water conveyance via a pipe that will be sized appropriately for these locations. In a previous design, 84" pipes were used; sizing will be analyzed for the current locations.

The land bridges will be placed to provide the least environmental impact. Photographs were shown to show that the top of bank conditions are upland where the land bridges will be placed. The canal slopes are very steep sided and there is a little to no littoral zone to support vegetation and minimal environmental impact is anticipated. FLUCCS mapping will be provided with permit documents demonstrating no wetland impacts. Plans notes will be prepared instructing the contractor that the areas adjacent to the land bridges must be left in a natural condition (i.e. returning grades to pre-existing elevations and minimizing vegetation disturbance). It was noted by FDOT staff that Brazilian pepper removal was done at the SR 29 and I-75 interchange area which could be considered as mitigation for minor impacts related to the crossing enhancements.

Permitting for the enhancements could be done separately from the roadway improvements or it could be included in the permit modification with the roadway improvements. Discussions during the meeting indicated it was preferred to prepare one permit modification and include the wildlife enhancements with roadway improvements.

B.4 Wildlife Crossing Design Correspondence

Alan Eldridge, P.E.

From: Setchell, Brent <Brent.Setchell@dot.state.fl.us>
Sent: Wednesday, March 3, 2021 1:16 PM
To: Nicole I. Cribbs, CE; Pugh, Sean; Diggs, Andra; Puckett, Teresa; Blair, Brian
Cc: Kenneth R. Muzyk, Jr., P.E.; Richard Hunter; Haunstetter, Francis X.; Alan Eldridge, P.E.
Subject: RE: [External] Structural Capacity Check of Prestressed Piles for Wildlife Crossing on I-75/Alligator Alley Project (444008-1)

I think that is the best solution. Once you get an updated concept sketch prepared, I would like to share it with FWC and FWS to make sure they are comfortable with the change.

Thanks,

Brent Setchell, P.E.
District Drainage Design Engineer
Florida Department of Transportation
801 N. Broadway Avenue
Bartow, Florida 33830
863-519-2557

From: Nicole I. Cribbs, CE <NCribbs@fallerdavis.com>
Sent: Wednesday, March 3, 2021 10:24 AM
To: Pugh, Sean <Sean.Pugh@dot.state.fl.us>; Diggs, Andra <Andra.Diggs@dot.state.fl.us>; Setchell, Brent <Brent.Setchell@dot.state.fl.us>; Puckett, Teresa <Teresa.Puckett@dot.state.fl.us>; Blair, Brian <Brian.Blair@dot.state.fl.us>
Cc: Kenneth R. Muzyk, Jr., P.E. <KMuzyk@fallerdavis.com>; Richard Hunter <rhunter@acp-fl.com>; Haunstetter, Francis X. <FHaunstetter@acp-fl.com>; Alan Eldridge, P.E. <AEldridge@fallerdavis.com>
Subject: RE: Structural Capacity Check of Prestressed Piles for Wildlife Crossing on I-75/Alligator Alley Project (444008-1)

EXTERNAL SENDER: Use caution with links and attachments.

After consideration of several design options for the wildlife crossing for the north canal, we propose to move forward with the 36-inch pile bridge in place of the land bridges. This design is expected to need less long term maintenance and overall be less expensive than other alternatives discussed recently, including the floating bridge concept. Based on feedback from the team in discussing the floating bridge, we believe that option would have substantially higher maintenance requirements including corrosion of anchor chains or links between floating segments, and debris across the canal that could be trapped by the structures. Other disadvantages we debated involved the cost of aluminum and the increased possibility of vandalism. We felt this design may look more like a pedestrian feature which is not the "wildlife use" we are encouraging.

The pile bridge design is proposed for the following locations to cross the north canal:

- Crossing B (Station 336+50 / MM 95.0 / MP 44.271)
- Crossing A (Station 299+50 / MM 95.7 / MP 44.972)

- Crossing D (Station 250+38 / MM 96.6 / MP 45.902)
- Crossing 2 (Station 190+00 / MM 97.8 / MP 47.046)
- Crossing 1 (Station 141+30 / MM 98.7 / MP 47.968)

A timber pole bridge is proposed at Harold Strand/Merritt Canal (Station 1560+55 / MM 71.8 / MP 21.088). The north canal at this location is narrow and the timber pole design will span the canal here. These locations were included in the geotech boring request.

Please feel free to contact me with any questions or comments.

Sincerely,
Niki Cribbs, CE
o 813.261.5136 | m 813.546.0736 | fallerdavis.com

From: Hunter, Richard A. <RHunter@acp-fl.com>
Sent: Friday, January 29, 2021 4:10 PM
To: 'Brent Setchell' <Brent.Setchell@dot.state.fl.us>; 'nicole.monies@dot.state.fl.us' <nicole.monies@dot.state.fl.us>; Andra.Diggs@dot.state.fl.us; teresa.puckett@dot.state.fl.us; brian.blair@dot.state.fl.us
Cc: Haunstetter, Francis X. <FHaunstetter@acp-fl.com>; Alan Eldridge, P.E. <AEldridge@fallerdavis.com>; Kenneth R. Muzyk, Jr., P.E. <KMuzyk@fallerdavis.com>; Nicole I. Cribbs, CE <NCribbs@fallerdavis.com>
Subject: [External] RE: Structural Capacity Check of Prestressed Piles for Wildlife Crossing on I-75/Alligator Alley Project (444008-1)

FYI, the unit cost for 24" piles is \$140/LF and not \$170/LF as I listed below. See attached pdf from SDG for more information.

Richard Hunter, PE

American Consulting Professionals, LLC
2818 Cypress Ridge Blvd., Suite 200 | Wesley Chapel, FL 33544
813.435.2639 (D) | 813.267.4940 (M) | RHunter@acp-fl.com | acp-americas.com

From: Hunter, Richard A. <RHunter@acp-fl.com>
Sent: Friday, January 29, 2021 3:26 PM
To: 'Brent Setchell' <Brent.Setchell@dot.state.fl.us>; 'nicole.monies@dot.state.fl.us' <nicole.monies@dot.state.fl.us>; Andra.Diggs@dot.state.fl.us; teresa.puckett@dot.state.fl.us; brian.blair@dot.state.fl.us
Cc: Haunstetter, Francis X. <FHaunstetter@acp-fl.com>; Alan Eldridge, P.E. <AEldridge@fallerdavis.com>; Kenneth R. Muzyk, Jr., P.E. <KMuzyk@fallerdavis.com>; Niki Cribbs (<NCribbs@FallerDavis.com>) <NCribbs@FallerDavis.com>
Subject: Structural Capacity Check of Prestressed Piles for Wildlife Crossing on I-75/Alligator Alley Project (444008-1)

Andra, Terry, Nicole, Brent, Brian,

I did a quick capacity check of the prestressed piles when used as a beam on a 70' span to hold an adult bear (450 lb) at mid-span and 1 cub (100 lb) about 5' away. Unfortunately, the 24" pile ends up being overstressed by about 32%. Note that I was looking at the ultimate loading using a dead load factor of

1.25 and a live load factor of 1.75 as specified by AASHTO but I thought that these may be too high for this structure but I still could not get the 24" pile to work even when setting these load factor to 1.0.

See that this is Friday afternoon, I wanted to start with the bad news above but to help get the weekend off to a good start, I will end on a more positive note . . . the 36" piles work with about 13% reserve capacity! This will cost a little more since 36" piles cost \$170/LF installed while 24" pile cost only \$170/LF installed but it seems like this would still be a better choice than to try to build pile bents in the middle of that canal. I am guessing that at this point, it is probably worthwhile for Terry to send the crews out to get the hand auger borings to make sure we do not hit any cap rock that high up and to confirm the bearing capacity of the end caps.



Richard Hunter, PE

Project Manager

American Consulting Professionals, LLC

2818 Cypress Ridge Blvd., Suite 200 | Wesley Chapel, FL 33544

813.435.2639 (D) | 813.267.4940 (M) | RHunter@acp-fl.com | acp-americas.com

Appendix C
Calculations

C.1 Water Quality and Attenuation Volume Calculations

WATER QUALITY VOLUME CALCULATIONS

Project: I-75 (SR 93) from MP 33.826 to MP 46.000

FPID No. : 444008-4-52-01

FDA No. : 608.00

Designed By: T. Tran

Checked By: A. Eldridge

Date: 22-Jul-20

Date: 22-Jul-20

From SFWMD ERP No. 11-00396-S, treatment is provided in the median swale. The swale has a 0.000% longitudinal slope and a typical bottom width of 30'. Ditch bottom inlets are currently placed at regular intervals of 1400'. Inlet openings are set 6" above the swale bottom. The extension of the shoulders will reduce storage volume in the median by filling a small section of swale.

Required Treatment Volume per 1400 LF of Roadway

	Area (ac)		Volume (ac-ft)
Total Basin Area 1400 ft length, 100 ft width	3.21	* 1.0" =	0.27
Impervious Area 1400 ft length, 32 ft width	1.03	* 2.5" =	0.21
Required Treatment Volume for Wet Detention (Choose the Highest Value)			0.27
Required Treatment Volume for Dry Retention (50% Wet Detention Requirement Volume)			0.14

Provided Treatment Volume per 1400 LF of Roadway - Swale Bottom = 30 FT

	Volume (ac-ft)
Exist. Treatment Volume Provided (6" treatment depth, 30 ft width bottom, 1:6 side slopes)	0.53
Proposed Fill Impact per 1400 LF Roadway (6" treatment depth, 30 ft width bottom, 1:6 side slopes)	0.06
Proposed Treatment Volume Provided (6" treatment depth, 30 ft width bottom, 1:6 side slopes)	0.47

Overtreatment through retention (per 1400 LF of Roadway) = 0.47 - 0.14 = 0.33 ac-ft

The overtreatment/retention credit shall be applied to the detention requirement for the project if necessary

ATTENUATION CALCULATIONS

Project: I-75 (SR 93) from MP 33.826 to MP 46.000
FPID No.: 444008-4-52-01
FDA No. : 608.00

Designed By: T. Tran
Checked By: A. Eldridge

Date: 22-Jul-20
Date: 22-Jul-20

Additional Impervious Area per 1400 LF of Roadway (1400 ft length, 2 ft inside shoulder width on each side) 0.13 ac

Pre-condition Runoff per 1400 LF of Roadway

Area (ac) =	0.13	
CN =	84	(Grass, Fair, Type D Soil)
$S \text{ (in)} = \frac{1000}{CN} - 10 =$	1.90	
P (in) =	11	(25 year, 24 hour SFWMD Storm)
$Q_{Pre} \text{ (in)} = \frac{(P - 0.2S)^2}{(P + 0.8S)} =$	9.00	
$Q_{Pre} \text{ (ac - ft)} = (9 \text{ in}) * (0.13 \text{ ac}) / 12 \text{ (in/ft)} =$	0.10	ac-ft

Post-condition Runoff per 1400 LF of Roadway

Area (ac) =	0.13	
CN =	98	(Paved)
$S \text{ (in)} = \frac{1000}{CN} - 10 =$	0.20	
P (in) =	11	(25 year, 24 hour SFWMD Storm)
$Q_{Post} \text{ (in)} = \frac{(P - 0.2S)^2}{(P + 0.8S)} =$	10.76	
$Q_{Post} \text{ (ac - ft)} = (10.76 \text{ in}) * (0.13 \text{ ac}) / 12 \text{ (in/ft)} =$	0.12	ac-ft

Increase in stormwater runoff (per 1400 LF of Roadway)= 0.12 - 0.10 = 0.02 ac-ft

The overtreatment/retention volume provided (per 1400 LF of Roadway)= 1

The overtreatment volume is significant greater than the increase in runoff volume.

Appendix D

Existing Permit Information

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

MODIFICATION OF SURFACE WATER MANAGEMENT PERMIT NO. 11-00396-5

RECEIVED NOV 18 1988

DATE ISSUED: October 6, 1988

ISSUED TO: Florida Department of Transportation
(I-75/Alligator Alley)
Hayden Burns Building
605 Suwannee Street
Tallahassee, Florida 32301-8064

POSTED	
Permit Number Book	
Inventory Book	
Canal Quadrangles	17E, 18, 45, 6
Date	11-16-88
Signed	KRUPALIC

LOCATION: Collier COUNTY, SEC --- TWP 49,50S RGE ---

ORIGINAL PERMIT AUTHORIZATION:

CONSTRUCTION AND OPERATION OF A WATER MANAGEMENT SYSTEM SERVING 20.0 MILES OF 4-LANE INTERSTATE HIGHWAY AND ASSOCIATED FACILITIES (FROM THE NAPLES TOLL BOOTH EAST TO S.R. 29) DISCHARGING VIA A CANAL SPREADER WATERWAY INTO EXISTING WETLAND AREAS AND THE FAKAHATCHEE STRAND PRESERVE.

APPROVED MODIFICATION:

REG COMP FILES

CONSTRUCTION AND OPERATION OF A WATER MANAGEMENT SYSTEM SERVING 17.25 MILES OF I-75 IMPROVEMENTS AND ASSOCIATED FACILITIES (FROM STATION 1760+00 TO STATION 2670+70.48) BY INCREASING TO 4-LANE HIGHWAY, CONSTRUCT A BORROW/DISTRIBUTOR CANAL, 9 NEW WILDLIFE CROSSINGS AND 5 BRIDGE EXTENSIONS DISCHARGING INTO EXISTING WETLAND AREAS AND THE FAKAHATCHEE STRAND STATE PRESERVE.

(App. No. 04148-B)

THIS PERMIT MODIFICATION IS APPROVED PURSUANT TO A REQUEST DATED Apr. 13, 1988. PERMITEE AGREES TO HOLD AND SAVE THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AND ITS SUCCESSORS HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE, OR USE OF ANY WORK OR STRUCTURE INVOLVED IN THE PERMIT. THE ORIGINAL PERMIT, INCLUDING ALL PLANS AND SPECIFICATIONS ATTACHED THERETO, AS ADDRESSED BY THE STAFF REPORT AND THOSE ADDRESSED BY THE MODIFICATION STAFF REPORT, ARE BY REFERENCE MADE A PART HEREOF.

ALL SPECIFICATIONS, SPECIAL AND LIMITING CONDITIONS ATTENDANT TO THE ORIGINAL PERMIT, UNLESS SPECIFICALLY REINDED BY THIS OR PREVIOUS MODIFICATIONS, REMAIN IN EFFECT.

SPECIAL CONDITIONS: SEE SHEET 2 OF 3 - 7 PROJECT SPECIAL CONDITIONS.
SEE SHEET 3 OF 3 - 12 LIMITING CONDITIONS.

ORIGINAL PERMIT ISSUED: April 9, 1987.

PERMIT MODIFICATION APPROVED BY THE GOVERNING BOARD OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

FILED WITH THE CLERK OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ORIGINAL SIGNED BY:
JAMES T. SHOW, P.E.

ON 10-10-88 Original signed by:
BY Vern Kaiser
DEPUTY CLERK

JAMES T. SHOW, P.E., DIRECTOR
WATER MANAGEMENT DIVISION
RESOURCE CONTROL DEPARTMENT

SPECIAL CONDITIONS
(FOR THIS PHASE ONLY)

1. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
2. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
3. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
4. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
5. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
6. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.
7. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.

LIMITING CONDITIONS

1. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED, ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.
3. THE PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LOCAL SUBDIVISION REGULATIONS AND OTHER LOCAL REQUIREMENTS. IN ADDITION THE PERMITTEE SHALL OBTAIN ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY CONSTRUCTION OR ALTERATION OF WORKS AUTHORIZED BY THIS PERMIT.
4. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFIES THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE DISTRICT. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL SUBMIT THE CERTIFICATION AND NOTIFY THE DISTRICT THAT THE FACILITIES ARE READY FOR INSPECTION AND APPROVAL. UPON APPROVAL OF THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE ENTITY APPROVED BY THE DISTRICT.
5. ALL ROADS SHALL BE SET AT OR ABOVE ELEVATIONS REQUIRED BY THE APPLICABLE LOCAL GOVERNMENT FLOOD CRITERIA.
6. ALL BUILDING FLOORS SHALL BE SET AT OR ABOVE ELEVATIONS ACCEPTABLE TO THE APPLICABLE LOCAL GOVERNMENT.
7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
8. NO CONSTRUCTION AUTHORIZED HEREIN SHALL COMMENCE UNTIL A RESPONSIBLE ENTITY ACCEPTABLE TO THE DISTRICT HAS BEEN ESTABLISHED AND HAS AGREED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN. UPON RECEIPT OF WRITTEN EVIDENCE OF THE SATISFACTION OF THIS CONDITION, THE DISTRICT WILL ISSUE AN AUTHORIZATION TO COMMENCE CONSTRUCTION.
9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.
10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.
11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
12. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX "V"
WEST PALM BEACH, FL. 33402

RECEIVED

*****NOTICE OF INTENT TO CONSTRUCT WORKS PURSUANT TO GENERAL PERMIT*****
(CHAPTER 40E-40, FLORIDA ADMINISTRATIVE CODE) APR 14 1988

OWNER'S NAME: Florida Department of Transportation 04148-B
MAILING ADDRESS: 605 Suwannee Street Mail Station 37 RESOURCE CONTROL DEPARTMENT
Tallahassee Florida 32399-0450 904/487-2780
(CITY) (STATE) (ZIP) (PHONE)

DESCRIPTION OF THE PROPOSED PROJECT:
LOCATION: SEC(S) see attached TWP(S) 50S RGE(S) 32E-34E
COUNTY Collier TOTAL ACREAGE: N/A ACRES
NUMBER OF DWELLING UNITS OR SQUARE FEET OF COMMERCIAL AREA: N/A

EVIDENCE VERIFYING ZONING COMPATIBILITY: (ATTACH DOCUMENT)
PROPOSED MINIMUM ROAD ELEVATION: 19.29' NGVD
PROPOSED MINIMUM FLOOR ELEVATION: N/A NGVD

BRIEF DESCRIPTION OF THE WORKS TO BE CONSTRUCTED OR ALTERED: Construct two new traffic lanes and misc. structures in upgrading SR 84 to Interstate 75

ACREAGE OF IMPERVIOUS COVER: 129 total, 83 acres new ACRES
ACREAGE OF WATER MANAGEMENT AREA: N/A ACRES
INCLUDE PAVING, GRADING & DRAINAGE PLANS, CALCULATIONS, AND, IF USING AN EXFILTRATION SYSTEM, PERCOLATION TESTS.

BRIEF STATEMENT OF FACTS WHICH SHOW WHY THE PROPOSED WORKS QUALIFY FOR A GENERAL PERMIT: This is a public road project which has undergone NEPA requirements. It is being constructed within DOT right-of-way and will utilize grassed median areas, grassed slope areas, closed canal systems and existing wetlands for stormwater treatment.

(ADD EXTRA SHEET IF NECESSARY)
DATE CONSTRUCTION OR ALTERATION IS EXPECTED TO COMMENCE: March, 1989

I HEREBY CERTIFY THAT ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS HAVE BEEN RECEIVED.

OWNER'S SIGNATURE: _____
(IF NOT THE OWNER, CERTIFY BELOW)

I HEREBY CERTIFY THAT I AM AN AUTHORIZED AGENT OF THE OWNER

SIGNATURE: Raymond A. Ashe Jr. TITLE: Public Transportation Specialist/Permits

DATE: April 13, 1988

LAST DATE FOR GOVERNING BOARD ACTION:
November 4, 1988

DRAFT
Subject to Governing
Board Approval

Application No. 04148-B

Permit (MOD) No. 11-00396-S

I-75, ALLIGATOR ALLEY

Collier County, S1-6&31-36/T50S/R32-34E

S T A F F R E P O R T

ABSTRACT

This application is a request to modify the construction and operation permit for a 17.25 mile stretch of I-75/Alligator Alley from Sta. 1760+00.00 to Sta. 2670+70.48 (the Broward/Collier County line) by expanding the previously permitted 2-lane roadway to 4-lanes. This 17.25 mile stretch of highway will be the last phase of SR 84 to receive this upgrade. Staff recommendation is for approval with conditions.

THE APPLICATION

- A. Existing Facilities: Existing is a 2-lane highway, Alligator Alley (SR 84), with an adjacent borrow canal located on the north side of the roadway. Drainage structures include 74-15" diameter median inlets which direct runoff into the north borrow canal, 14-10' by 5' box culverts which provide flow under the existing 2-lane roadway, 14 canal plugs located within the north borrow canal (see Exhibits 35 & 36 for locations) and 7 bridges.

- B. Proposed Facilities: Expansion of the 2-lane roadway to a 4-lane Interstate Highway number 75 with design changes to re-establish sheetflow to the south is proposed. The 14 existing 10' by 5' box culverts are to be extended south to proposed spreader canals located on the south side of the roadway. Five additional 48" diameter culverts will be added to improve flow through capabilities from the north to the south. Ten of the existing 14 canal plugs are to be removed and 32 additional plugs are proposed (see Exhibits 35 & 36 for dimensions and locations). Seven bridges labeled, Y,Z,AA (see Exhibits 19-22), BB, CC, DD and H (see Exhibits 24-28) are proposed for this section of the roadway.

EVALUATION

The plug and bridge locations throughout the project have been chosen to correspond with recommendations in the Greiner Engineering Study compiled for the Florida Department of Transportation (FDOT). The design intent of the study was to re-establish sheetflow to the extensive wetland areas south of Alligator Alley which had been previously disrupted by the original roadway construction (Alligator Alley/SR 84). It appears that the proposed roadway modification will be consistent with the above intent. Southerly flows will be enhanced through plug, bridge and wildlife crossing placement and hydraulic gradient of the existing and proposed canal.

ENVIRONMENTAL CONSIDERATIONS

The application includes the construction and operation of water management facilities to serve 17.25 miles of improvements to Interstate 75 in eastern Collier County. The improvements include the construction of two additional traffic lanes. The works include installation of numerous canal plugs and additional culverts to promote sheetflow to the south. A borrow/distributor canal will be constructed along portions of the southern side of the highway. The improvements also include the construction of nine new wildlife crossings and five bridge extensions which will also serve as wildlife crossings.

The project as proposed will impact 341.2 acres of wetlands. An additional 52.5 acres will be temporarily disturbed during actual construction. The wetlands to be impacted include cypress and mixed hardwood swamp, marshes and wet prairies. Some of these wetlands had been previously disturbed during the original highway construction. In order to minimize potential adverse impacts, the following items and modifications have been incorporated into the project design. The installation of additional culvert openings will promote and enhance sheetflow to the south. The construction of additional wildlife crossings will provide a greater degree of protection to the Florida panther. Additional activities associated with the project, but not directly related to the actual construction, include negotiating the purchase of over 30,000 acres of lands adjacent to the project to be placed in FDNR ownership. This purchase is part of a larger acquisition program through which over 100,000 acres will be purchased and set aside for conservation purposes.

In review of the project proposal, District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project.

WATER QUALITY

Water quality impacts from this project should be minimal. Raised inlets are provided in the grassed center median area of the roadway and vast wetland areas located south of the proposed spreader waterway system provide nutrient removal. Water quality treatment in excess of the first inch of runoff should be provided by these mechanisms.

OPERATION AND MAINTENANCE

The operation and maintenance of the surface water management system shall be the responsibility of Florida Department of Transportation.

RECOMMENDATION

APPLICATION REVIEWER:

SUPERVISOR/CHECKER:

TECHNICAL: M. Clemente

E. Yaun/J.Hiscock

WATER QUALITY: M. Clemente

K. Landers

ENVIRONMENTAL: R. Boylan

S. Bradow

MAJOR ISSUES: WETLAND PRESERVATION.

Based on the information provided, District rules have been adhered to.

SECTION SUPERVISOR: *Edward W. Yaun* DATE: 9/14/88
Edward W. Yaun, P.E.
Supervising Professional
West Section

Staff recommendation is for approval subject to the following 12 standard Limiting Conditions and 7 Special Conditions (for conceptual approvals only, these conditions as a minimum will apply to subsequent construction permitting).

DIVISION DIRECTOR: *James T. Show* DATE: 9/14/88
James T. Show, P.E.
Surface Water Management

DRAFT
Subject to Governing
Board Approval

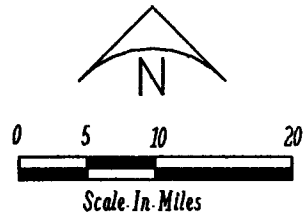
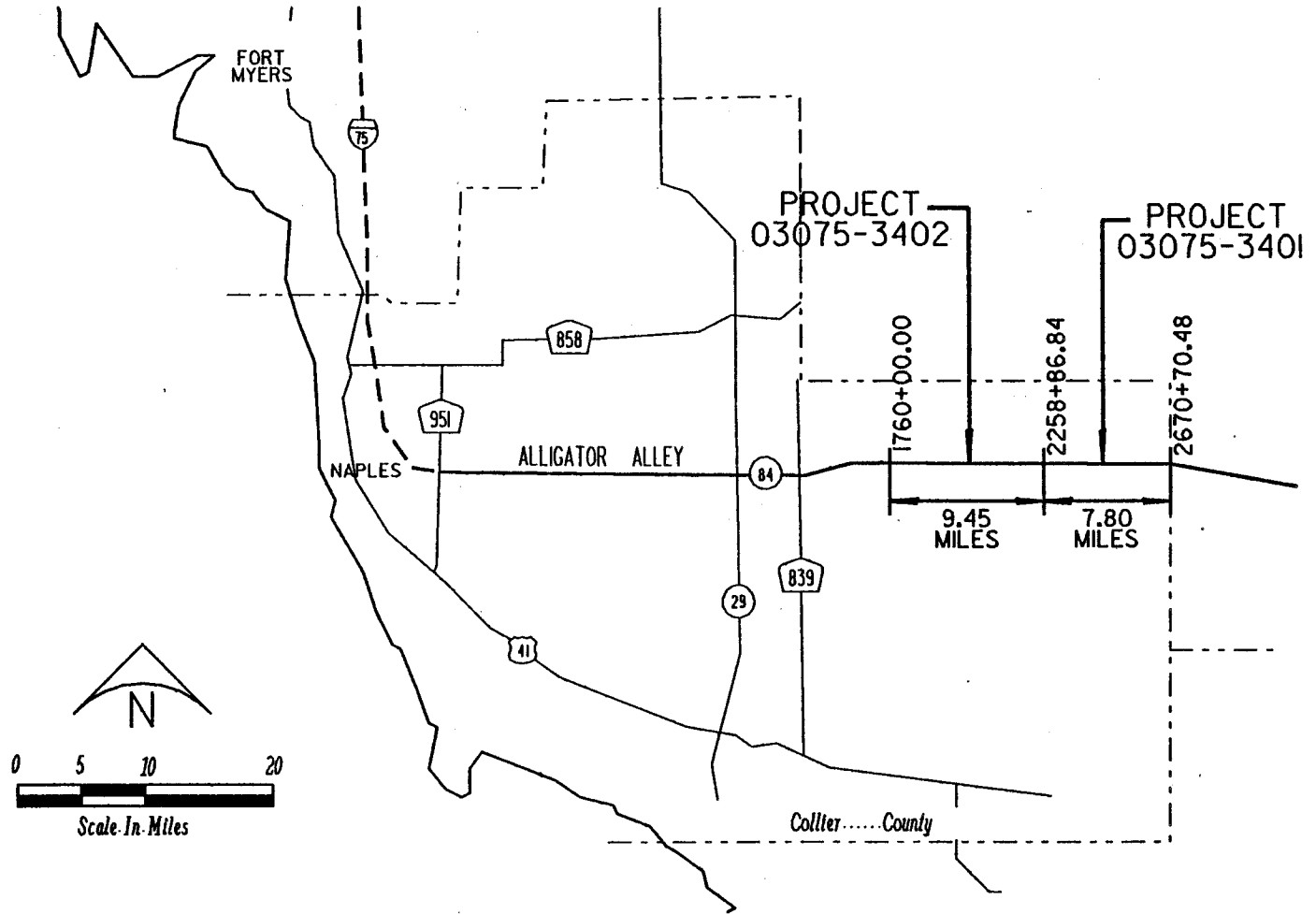
LIMITING CONDITIONS

1. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED, ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.
3. THE PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LOCAL SUBDIVISION REGULATIONS AND OTHER LOCAL REQUIREMENTS. IN ADDITION THE PERMITTEE SHALL OBTAIN ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY CONSTRUCTION OR ALTERATION OF WORKS AUTHORIZED BY THIS PERMIT.
4. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFIES THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE DISTRICT. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL SUBMIT THE CERTIFICATION AND NOTIFY THE DISTRICT THAT THE FACILITIES ARE READY FOR INSPECTION AND APPROVAL. UPON APPROVAL OF THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE ENTITY APPROVED BY THE DISTRICT.
5. ALL ROADS SHALL BE SET AT OR ABOVE ELEVATIONS REQUIRED BY THE APPLICABLE LOCAL GOVERNMENT FLOOD CRITERIA.
6. ALL BUILDING FLOORS SHALL BE SET AT OR ABOVE ELEVATIONS ACCEPTABLE TO THE APPLICABLE LOCAL GOVERNMENT.
7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
8. NO CONSTRUCTION AUTHORIZED HEREIN SHALL COMMENCE UNTIL A RESPONSIBLE ENTITY ACCEPTABLE TO THE DISTRICT HAS BEEN ESTABLISHED AND HAS AGREED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN. UPON RECEIPT OF WRITTEN EVIDENCE OF THE SATISFACTION OF THIS CONDITION, THE DISTRICT WILL ISSUE AN AUTHORIZATION TO COMMENCE CONSTRUCTION.
9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.
10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.
11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
12. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

SPECIAL CONDITIONS
(FOR THIS PHASE ONLY)

1. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
2. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
3. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
4. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
5. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
6. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.
7. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.

EXHIBIT 1



VICINITY MAP
COLLIER COUNTY
PROJECT LENGTH 17.25 MILES

PROJECT DESCRIPTION 7 MI EAST OF CR 839
TO COLLIER-BROWARD COUNTY LINE.

TWP: _____ RNG: _____

SEC _____

FLORIDA DEPARTMENT OF TRANSPORTATION

NAME: _____
SIGNATURE *Michael Starnes*
CERTIFICATE NO. _____ DATE: _____

STATE PROJECT NO. 03075-3402 & 03075-3401
COUNTY COLLIER

DER	CG	SHEET 2 OF 38
COE	WMD	DATE NOV. '87

STATE PROJECT NO. 03075-3402
 F.A. PROJ. NO. ACI-75-4(22)271
 PROPOSED I-75

9.45 MILES

STA. 1760+00.00

STA. 2258+86.84

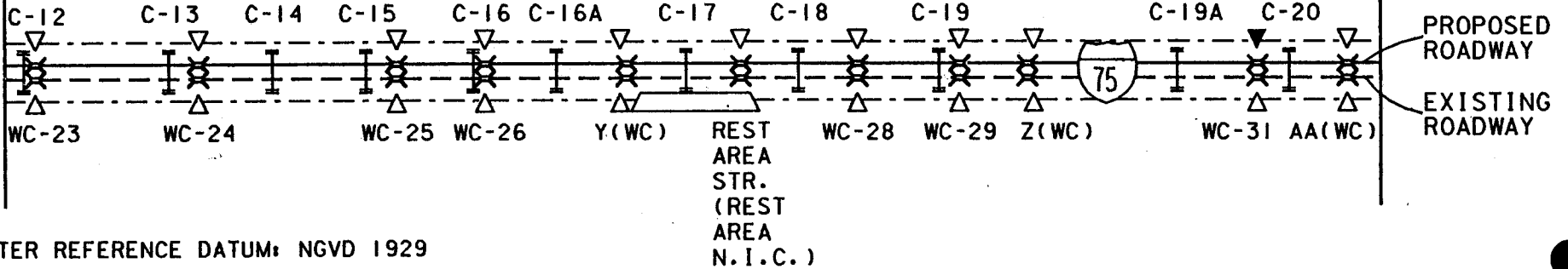
STA 2050+00

STA 2220+00

OHW
 EL 13.0

OHW
 EL 12.9

OHW
 EL 12.5



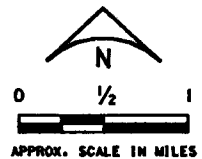
WATER REFERENCE DATUM: NGVD 1929

LEGEND

- CANAL
- XX Y(WC)
- XX WC-23
- I C-12
- ▽ or △ or ▭ PROP. DITCH BLOCK (PLUG)
- ▽ or △ or ▭ EXIST. DITCH BLOCK (PLUG) TO REMAIN
- STA. PROJECT STATION

NOTE: OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

SITE MAP



FOR SEC., TWP., RNG., SEE SHEETS 7 THRU 13

PROJECT DESCRIPTION 7 MI EAST OF CR 839	
TO .23 MI EAST OF STR AA	
TWP:	RNG:
SEC	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>Michael Hewitt</i>
CERTIFICATE NO.	12/3/87
DATE:	

STATE PROJECT NO. 03075-3402		
COUNTY COLLIER		
DER	CG	SHEET 3 OF 38
COE	WMD	DATE NOV. '87

EXHIBIT 2

SCANNED

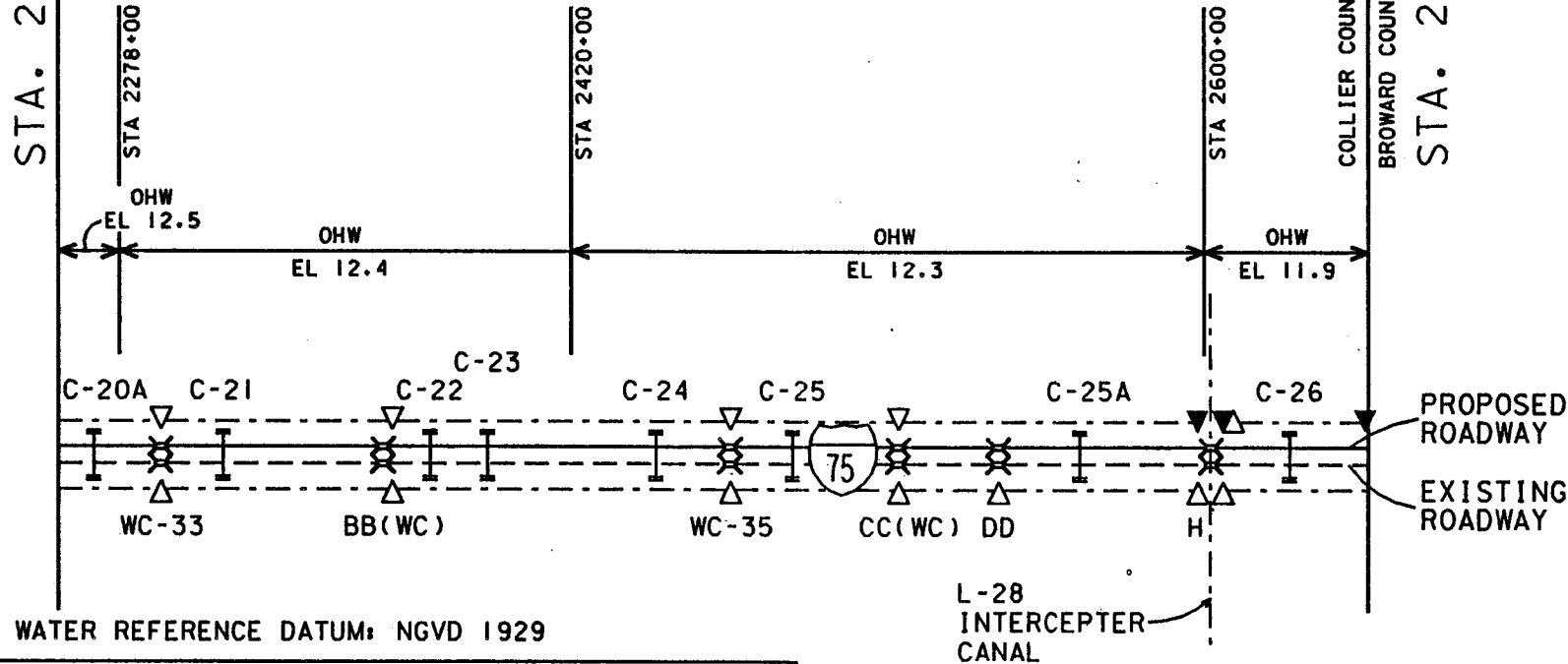
STATE PROJECT NO. 03075-3401
 F.A. PROJ. NO. ACI-75-4(21)263
 PROPOSED I-75

7.80 MILES

STA. 2258+86.84

STA. 2670+70.48

COLLIER COUNTY
 BROWARD COUNTY



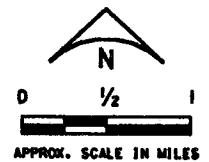
WATER REFERENCE DATUM: NGVD 1929

LEGEND

- CANAL
- XX DD BRIDGE
- XX BB(WC) BRIDGE EXTENSION
- XX WC-33 WILDLIFE CROSSING
- C-21 CULVERT
- ▽ or △ PROP. DITCH BLOCK (PLUG)
- ▲ EXIST. DITCH BLOCK (PLUG) TO REMAIN
- STA. PROJECT STATION

NOTE: OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

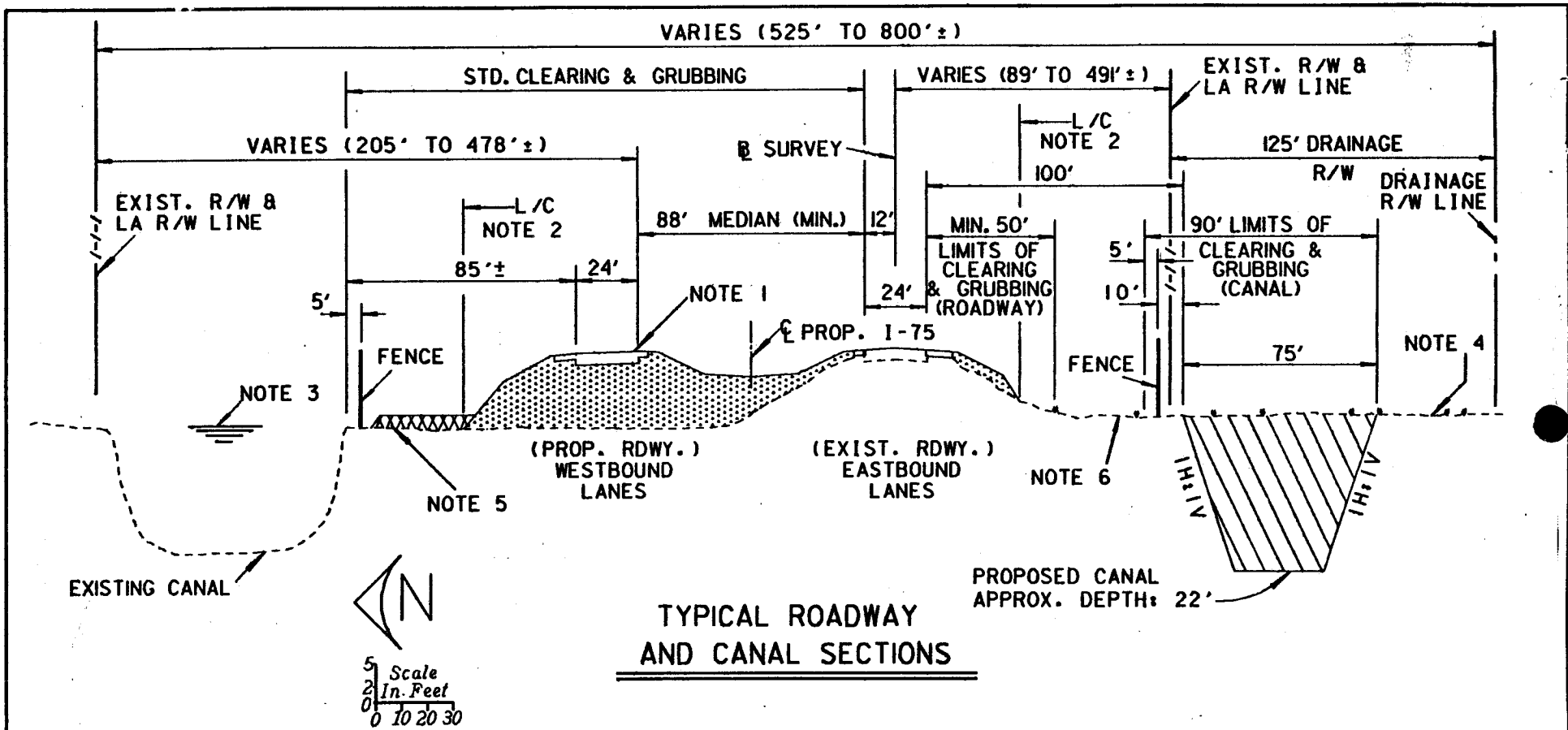
SITE MAP



FOR SEC., TWP., RNG., SEE SHEETS 14 THRU 19

EXHIBIT 3

PROJECT DESCRIPTION EAST OF STR AA TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401	
COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER	
TWP:	RNG:	NAME:	DER:	CG:	SHEET 4 OF 38
SEC:		SIGNATURE: <i>Michael Jensen</i>	COE:	WMD:	DATE NOV. '87
		CERTIFICATE NO. 123787	DATE:		



**TYPICAL ROADWAY
AND CANAL SECTIONS**

NOTES:

1. CREST ELEVATION VARIES: 03075-3402 - 19.29 TO 37.76
2. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
3. O.H.W. EL. VARIES: 03075-3402 - 12.5 TO 13.0
4. EXISTING GROUND EL. VARIES APPROX.: 03075-3402 - 11.9 TO 14.0
5. TEMPORARY FILL FOR CONTRACTOR'S STOCKPILE AREA. RESTORE TO NATURAL ELEVATION.
6. THE AREA BETWEEN CLEARING & GRUBBING LIMITS (ROADWAY AND CANAL) SHALL NOT BE DISTURBED DURING CONSTRUCTION EXCEPT AT HAUL ROAD CROSSINGS (APPROX. 1/2 MI. INTERVALS).

WATER REFERENCE DATUM: NGVD 1929

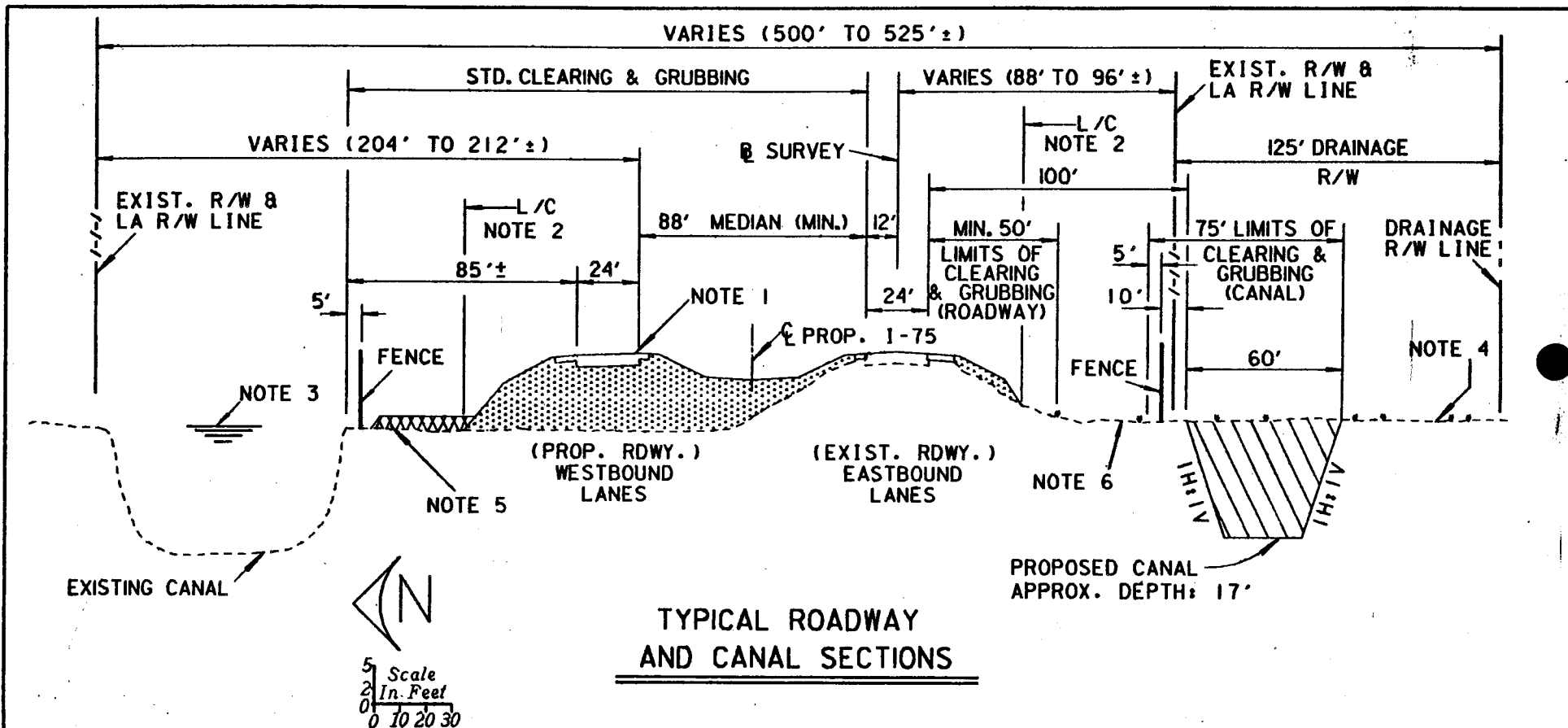
LEGEND	
	FILL
	EXCAVATION
	TEMP. FILL (STOCKPILE AND WORK AREA)
L/C	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

REVISED AUG. '88

PROJECT DESCRIPTION 7 MI EAST OF CR 839		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402	
TO .23 MI EAST OF STR AA				COUNTY COLLIER	
TWP:	RNG:	NAME:	SIGNATURE: <i>[Signature]</i>	DER:	CG
SEC:		CERTIFICATE NO.:	DATE: <i>[Date]</i>	COE:	WMD
				SHEET 5 OF 38	DATE NOV. '87

EXHIBIT 4

SCANNED



TYPICAL ROADWAY AND CANAL SECTIONS

NOTES:

1. CREST ELEVATION VARIES: 03075-3401 - 18.68 TO 32.42
2. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
3. O.H.W. EL. VARIES: 11.9 TO 12.5
4. EXISTING GROUND EL. VARIES APPROX.: 03075-3401 - 11.4 TO 16.6
5. TEMPORARY FILL FOR CONTRACTOR'S STOCKPILE AREA. RESTORE TO NATURAL ELEVATION.
6. THE AREA BETWEEN CLEARING & GRUBBING LIMITS (ROADWAY AND CANAL) SHALL NOT BE DISTURBED DURING CONSTRUCTION EXCEPT AT HAUL ROAD CROSSINGS (APPROX. 1/2 MI. INTERVALS).

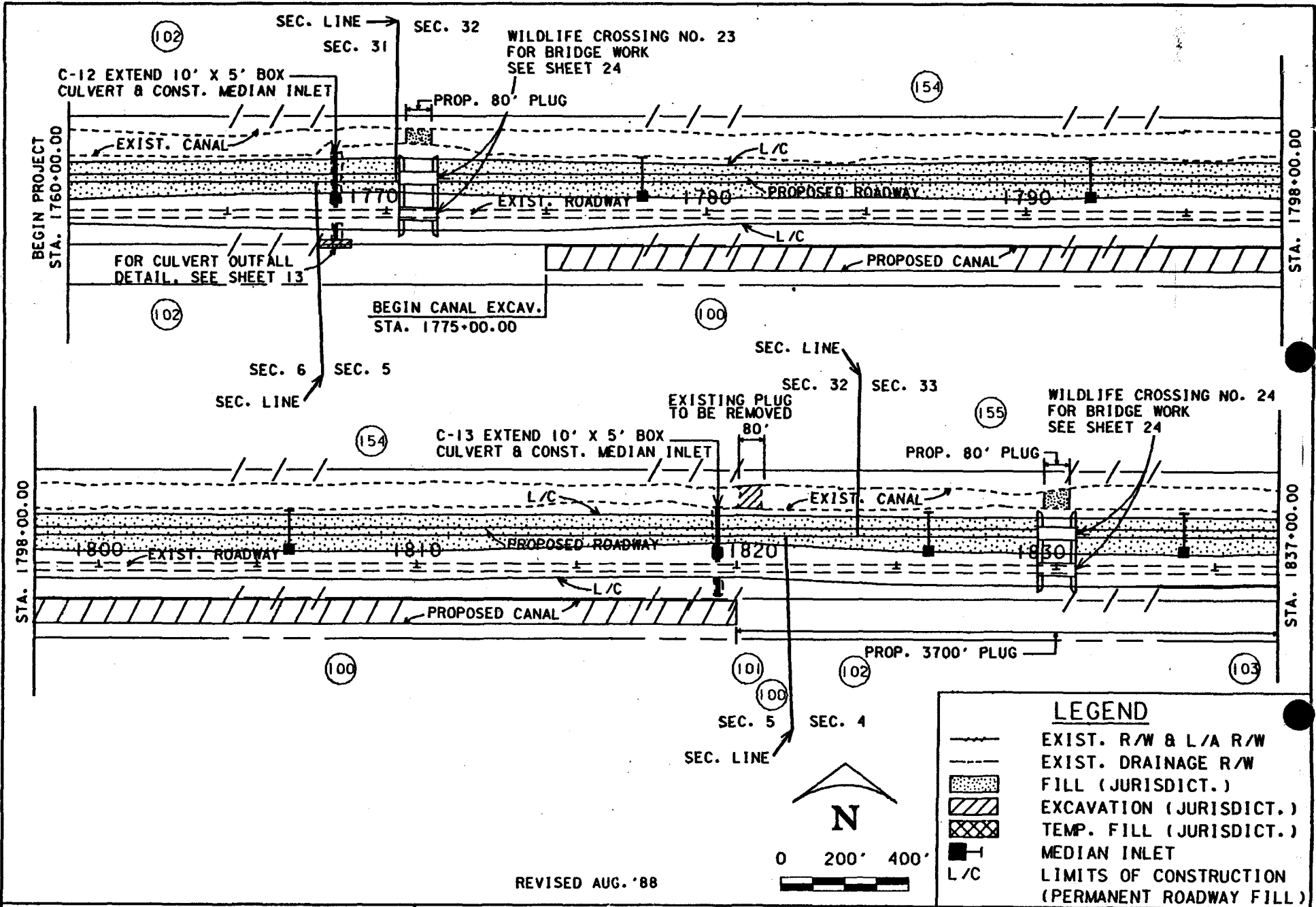
WATER REFERENCE DATUM: NGVD 1929

LEGEND	
	FILL
	EXCAVATION
	TEMP. FILL (STOCKPILE AND WORK AREA)
	L/C LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

REVISED AUG. '88

EXHIBIT 5

PROJECT DESCRIPTION EAST OF STR AA TO COLLIER-BROWARD COUNTY LINE		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401	
				COUNTY COLLIER	
TWP:	RNG:	NAME:	SIGNATURE: <i>[Signature]</i>	DER:	CG:
SEC:		CERTIFICATE NO.:	DATE: <i>[Date]</i>	CDE:	WMD:
				SHEET 6 OF 38	
				DATE NOV. '87	



REVISED AUG. '88

PROJECT DESCRIPTION 7 MI EAST OF CR 839
 TO .23 MI EAST OF STR AA
 TWP: 49S, 50S RNG: 32E
 SEC 4, 5, 6, 31, 32, 33

FLORIDA DEPARTMENT OF TRANSPORTATION

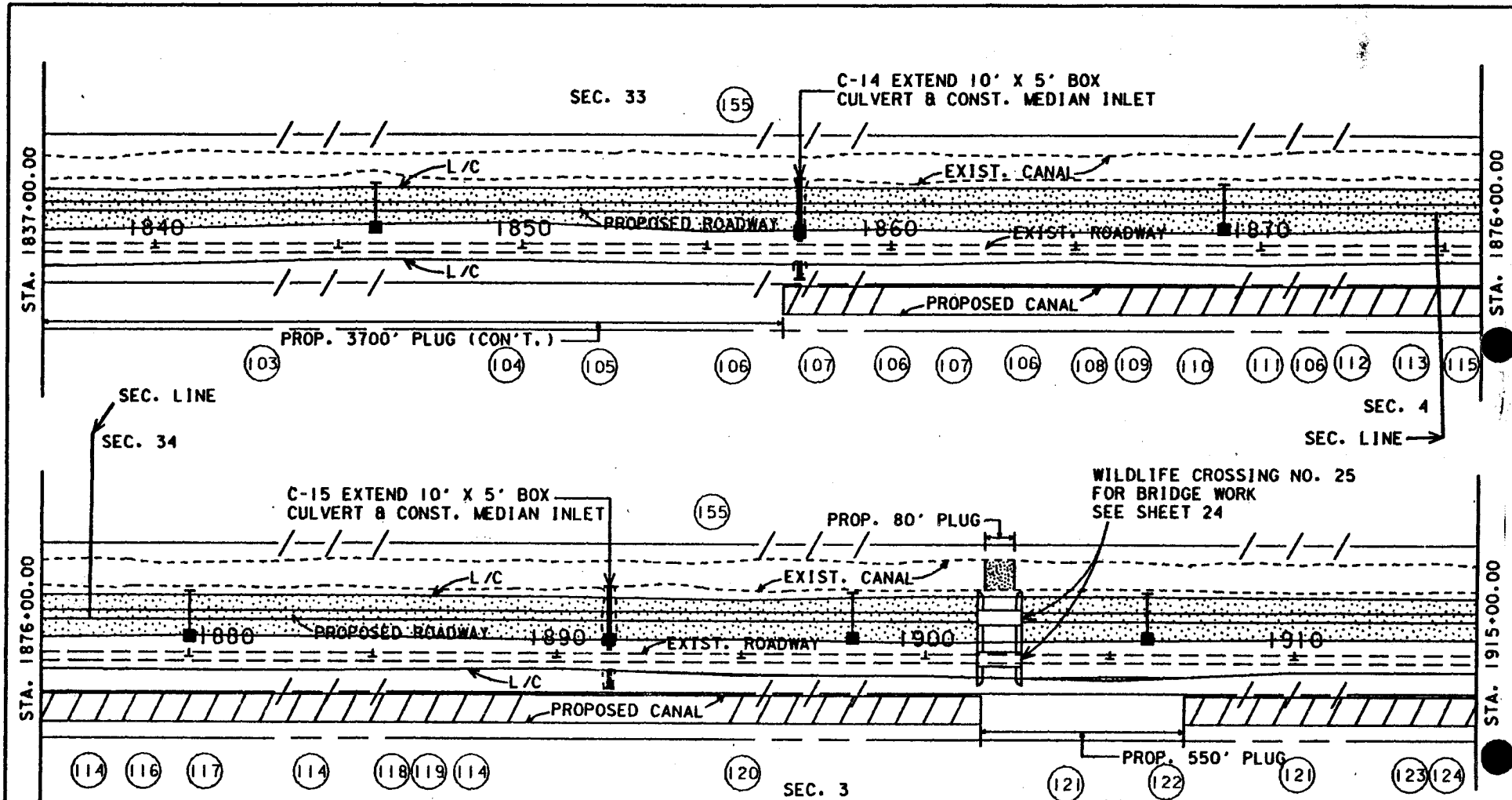
NAME: _____
 SIGNATURE: *[Signature]*
 CERTIFICATE NO. _____

STATE PROJECT NO. 03075-3402
 COUNTY COLLIER

DER	CG	SHEET 7 OF 38
COE	WMD	DATE NOV. '87

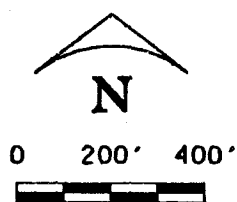
EXHIBIT 6

SCANNED



LEGEND

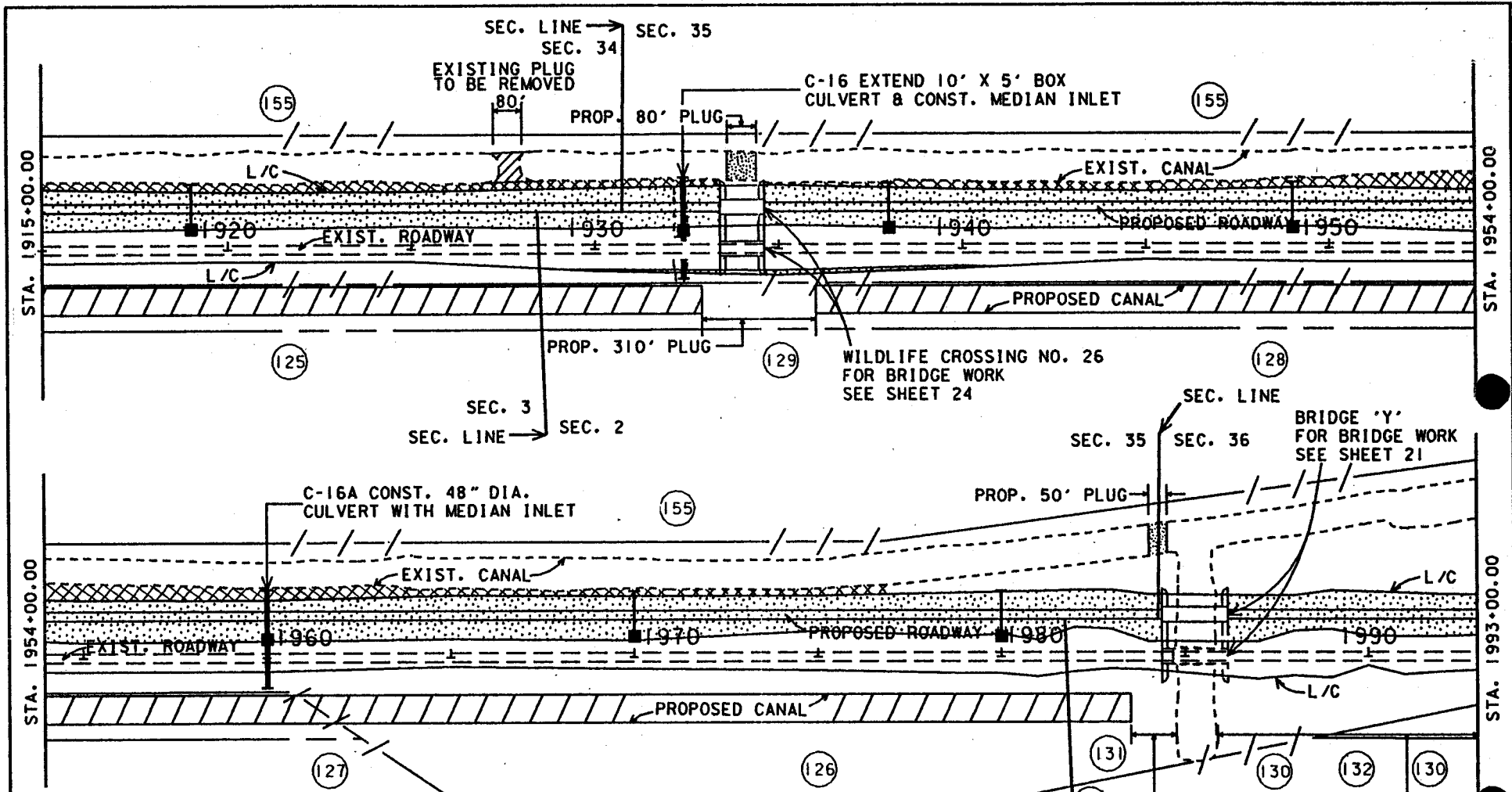
- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- L/C
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



REVISED AUG. '88

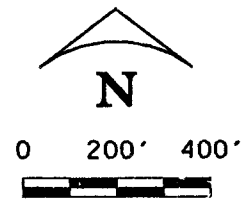
PROJECT DESCRIPTION 7 MI EAST OF CR 839		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402	
TO .23 MI EAST OF STR AA				COUNTY COLLIER	
TMP: 49S, 50S	RING: 32E	NAME: _____	DER: _____	CG: _____	SHEET 8 OF 38
SEC 3, 4, 33, 34		SIGNATURE: <i>[Signature]</i>	COE: _____	WMD: _____	DATE NOV. '87
		CERTIFICATE NO. _____	DATE: <i>[Date]</i>		

EXHIBIT 8



LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



PROJECT DESCRIPTION 7 MI EAST OF CR 839
 TO .23 MI EAST OF STR AA
 TWP: 49S, 50S RNG: 32E
 SEC 1, 2, 3, 34, 35, 36

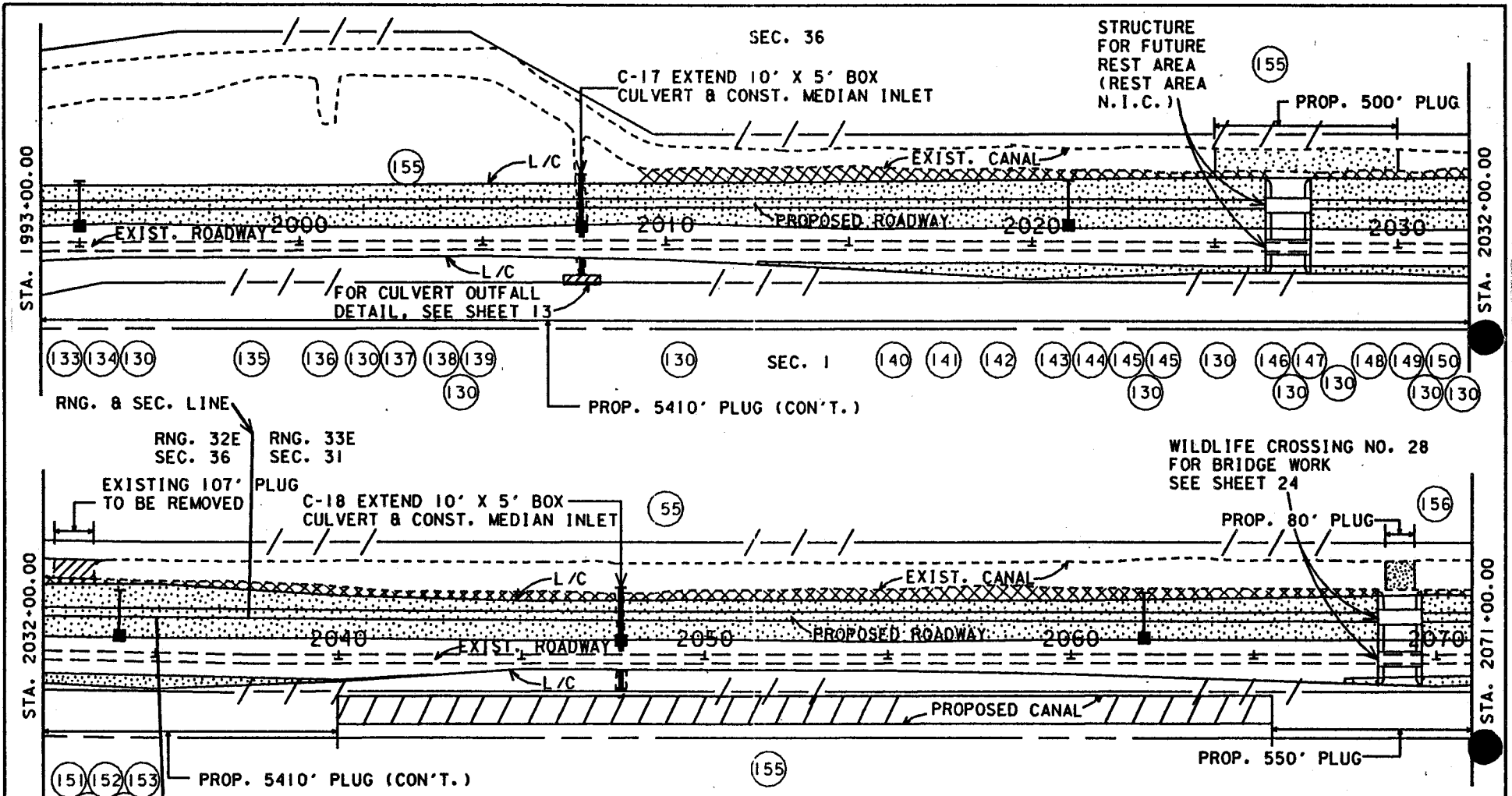
FLORIDA DEPARTMENT OF TRANSPORTATION

NAME: _____
 SIGNATURE: *Michael J. Lewis*
 CERTIFICATE NO. 12/3/87 DATE: _____

STATE PROJECT NO. 03075-3402
 COUNTY COLLIER

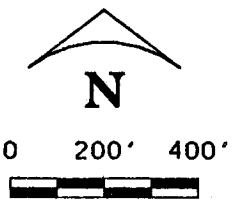
DER	CG	SHEET 9 OF 38
COE	WMD	DATE NOV. '87

SCANNED

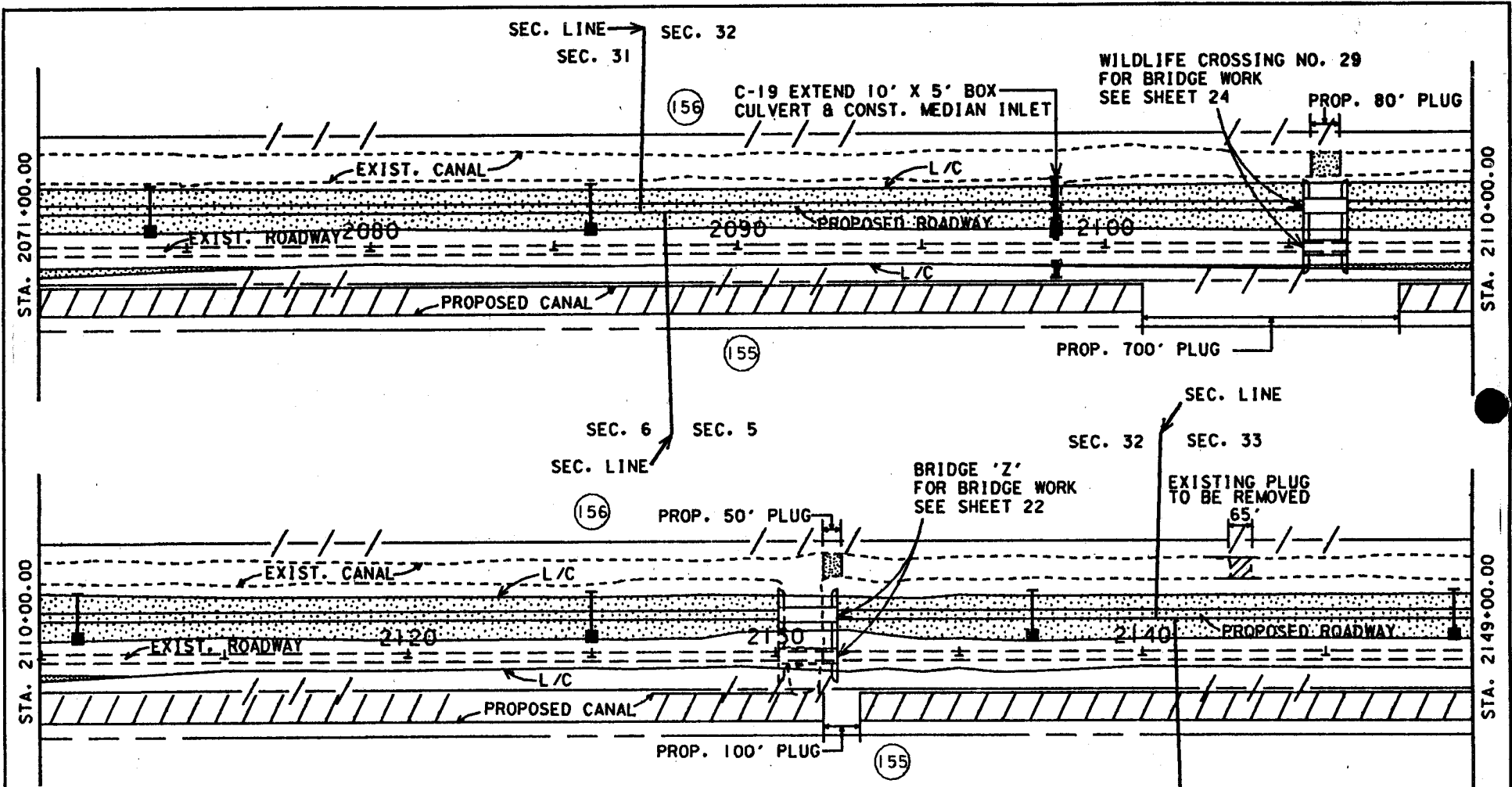


LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

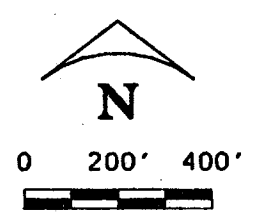


PROJECT DESCRIPTION 7 MI EAST OF CR 839 TO .23 MI EAST OF STR AA		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402	
TWP: 49S, 50S RNG: 32E, 33E				COUNTY COLLIER	
SEC 1, 6, 31, 36		NAME: _____	DER: _____	CG: _____	SHEET 10 OF 38
		SIGNATURE: <i>Michael Rawan</i>	COE: _____	WMD: _____	DATE NOV. '87
		CERTIFICATE NO. _____	DATE: _____		



LEGEND

	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	FILL (JURISDICT.)
	EXCAVATION (JURISDICT.)
	TEMP. FILL (JURISDICT.)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



SEC. 5
SEC. LINE
SEC. 4

REVISED AUG. '88

PROJECT DESCRIPTION 7 MI EAST OF CR 839	
TO .23 MI EAST OF STR AA	
TWP: 49S, 50S	RNG: 33E
SEC 4, 5, 6, 31, 32, 33	

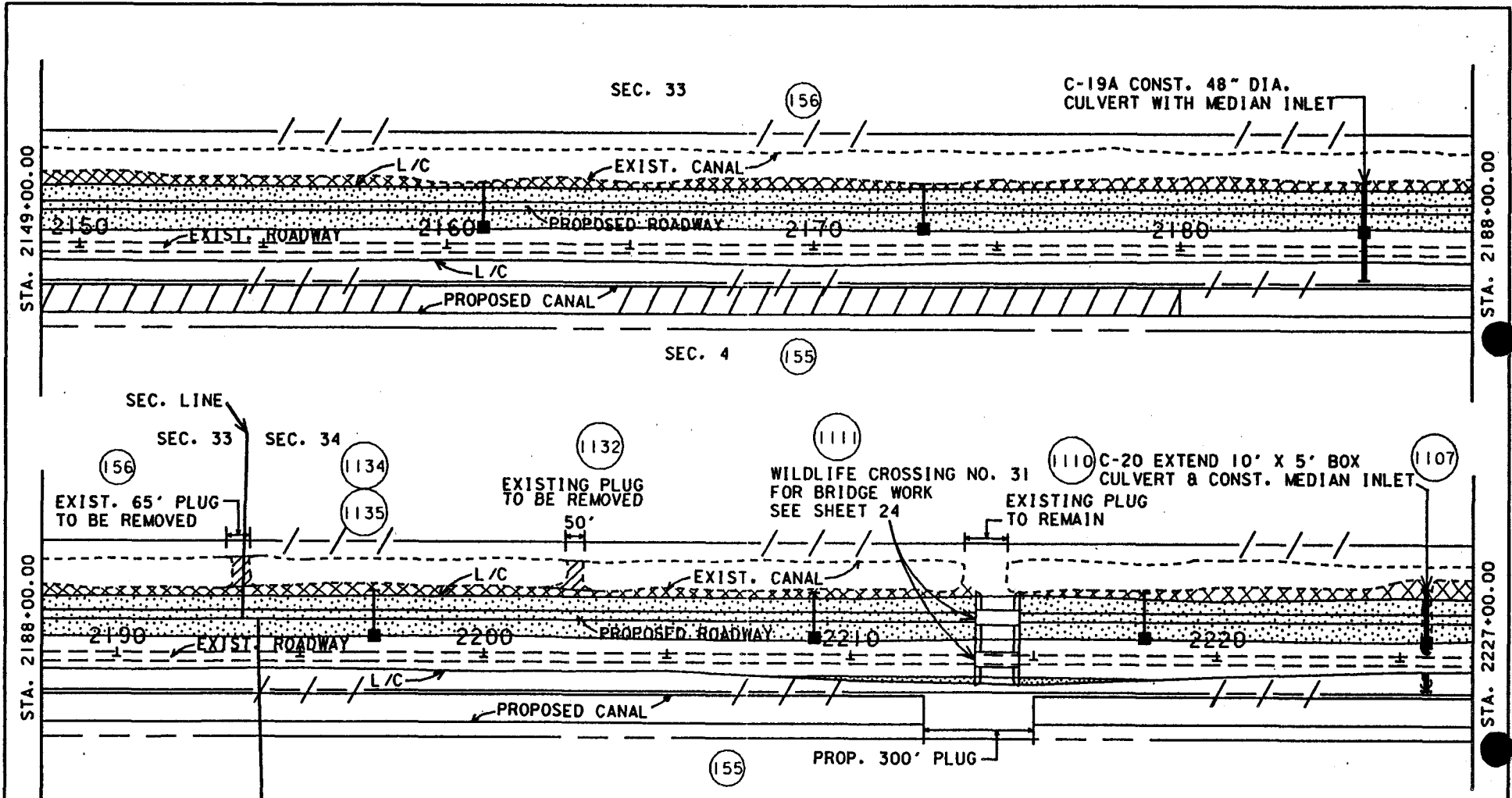
FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME: _____	
SIGNATURE: <i>[Signature]</i>	
CERTIFICATE NO. _____	DATE: <i>8/1/88</i>

STATE PROJECT NO. 03075-3402		
COUNTY COLLIER		
DER	CG	SHEET 11 OF 38
COE	WMD	DATE NOV. '87

EXHIBIT 10

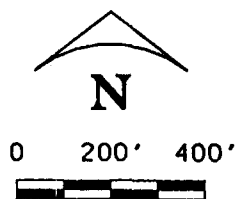
SCANNED

EXHIBIT 11

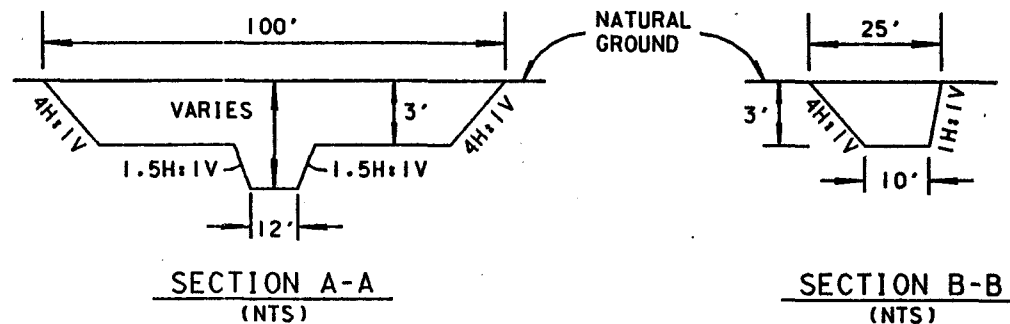
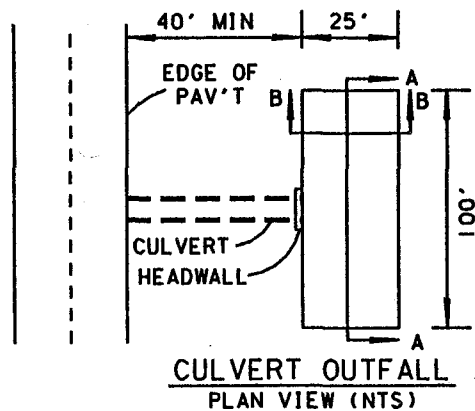
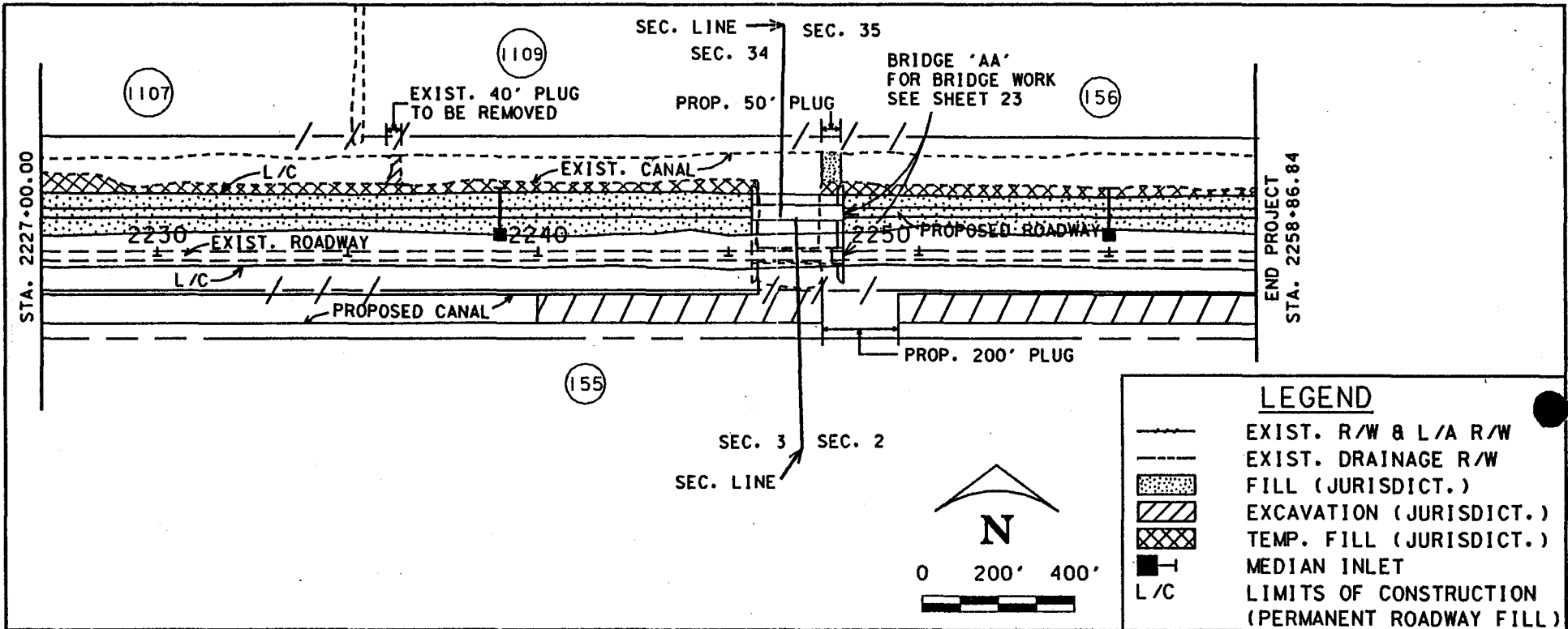


LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



PROJECT DESCRIPTION 7 MI EAST OF CR 839		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402		
TO .23 MI EAST OF STR AA				COUNTY COLLIER		
TWP: 49S, 50S	RNG: 33E	NAME: _____		DER	CG	SHEET 12 OF 38
SEC 3, 4, 33, 34		SIGNATURE: <i>Michael R. [Signature]</i>		COE	WMD	
		CERTIFICATE NO. _____		DATE: _____		



CULVERT OUTFALL DETAIL

EXHIBIT 12

PROJECT DESCRIPTION 7 MI EAST OF CR 839
 TO .23 MI EAST OF STR AA
 TWP: 49S, 50S RNG: 33E
 SEC 2, 3, 34, 35

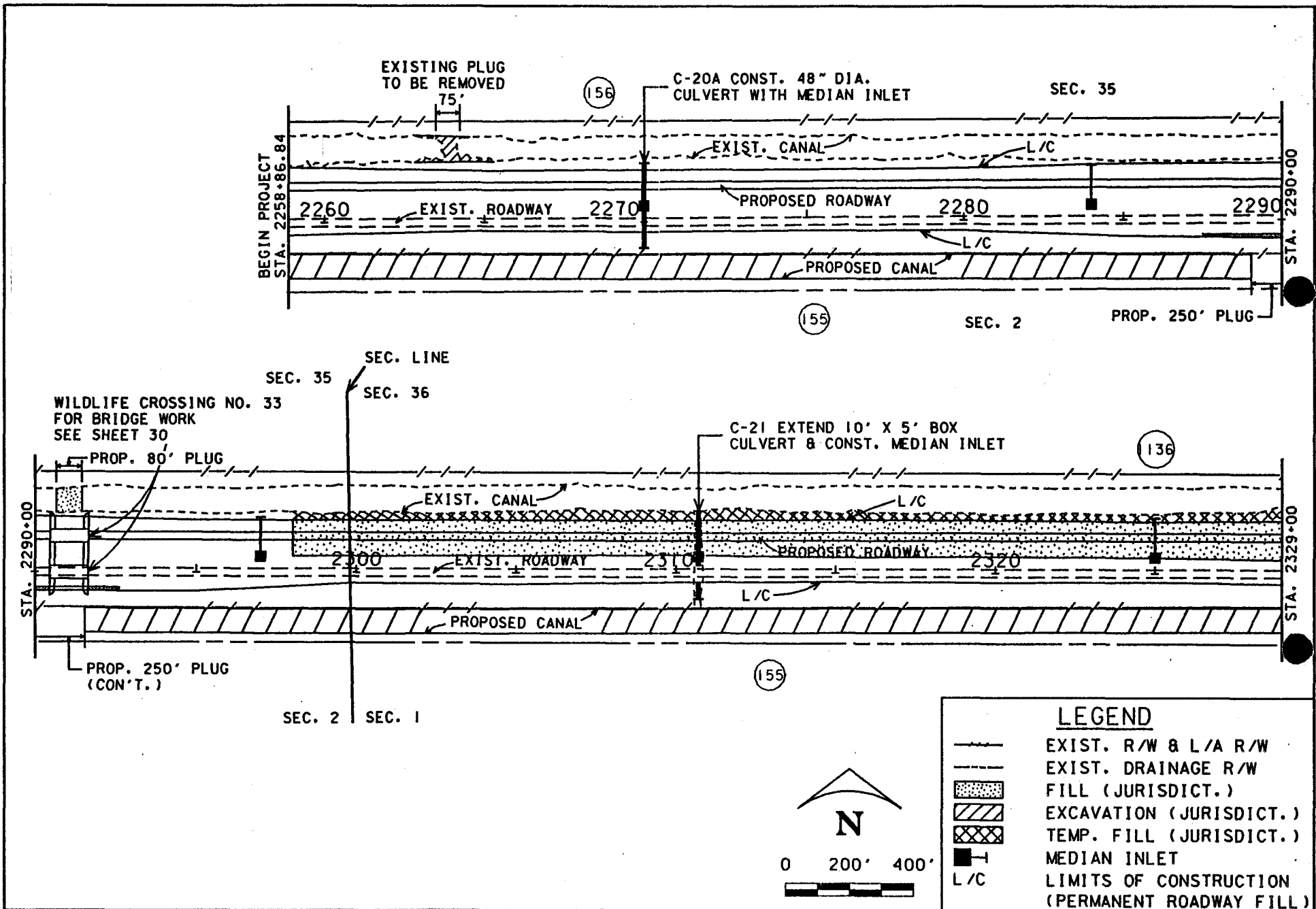
FLORIDA DEPARTMENT OF TRANSPORTATION

NAME: _____
 SIGNATURE: *Michael R. [Signature]*
 CERTIFICATE NO. _____ DATE: 12/3/87

STATE PROJECT NO. 03075-3402
 COUNTY COLLIER
 DER: _____ CG: _____
 COE: _____ WMD: _____

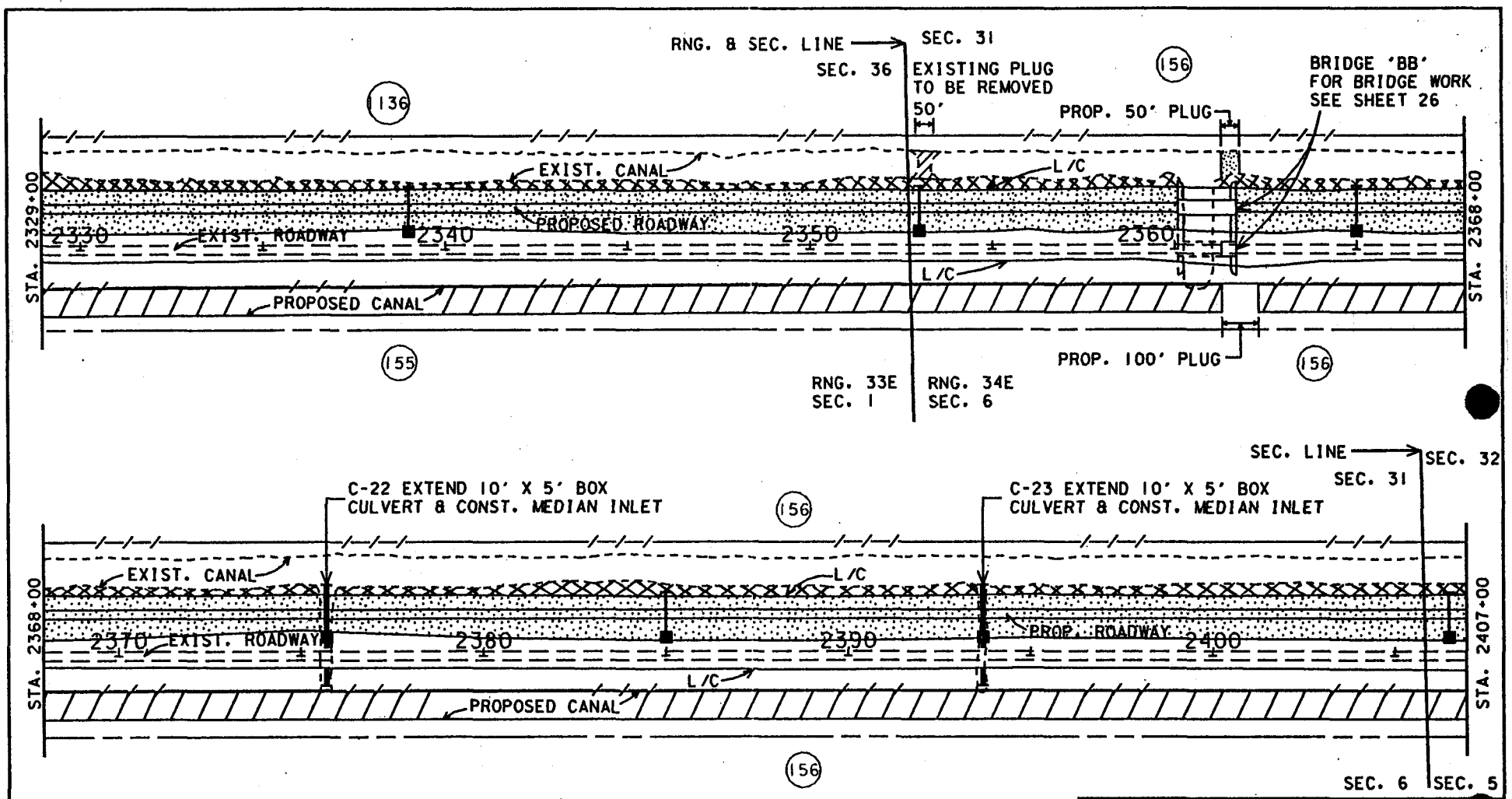
SHEET 13 OF 38
 DATE NOV. '87

SCANNED



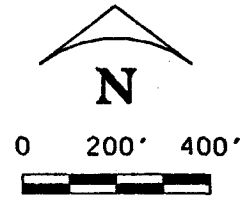
PROJECT DESCRIPTION EAST OF STR AA TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401		
COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER		
TWP: 49S, 50S	RNG: 33E	NAME: _____		DER	CG	SHEET 14 OF 38
SEC 1, 2, 35, 36		SIGNATURE: <i>Michael Kawa</i>		COE	WMD	DATE NOV. '87
		CERTIFICATE NO. _____		DATE: _____		

EXHIBIT 14



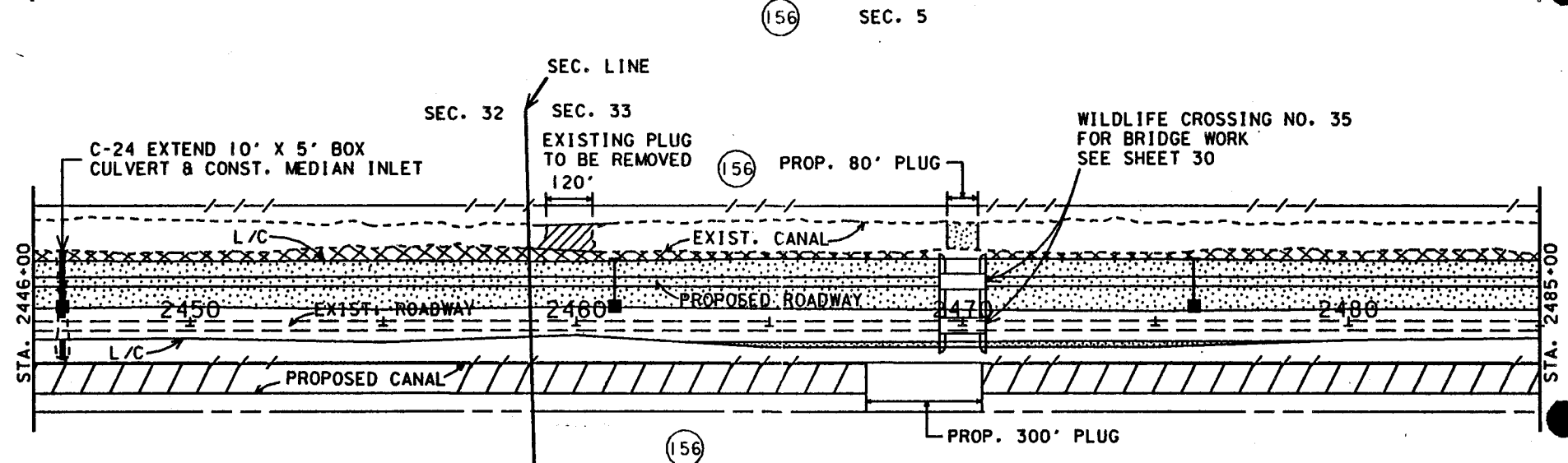
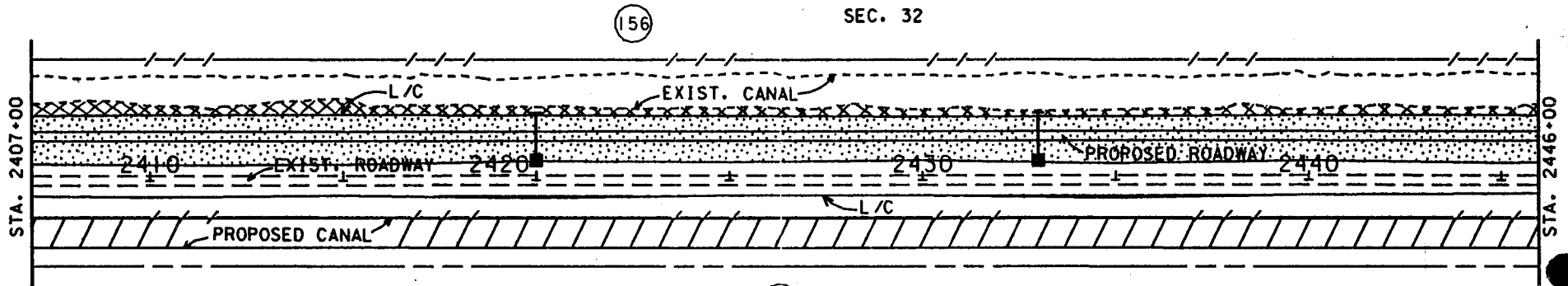
LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- L/C



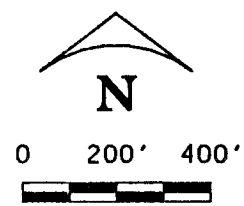
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COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER	
TWP: 49S, 50S	RNG: 33E, 34E	NAME:	 SIGNATURE DATE: 12/2/87		
SEC 1, 5, 6, 31, 32, 36		CERTIFICATE NO.			
		DATE:			
DER	CG	SHEET 15 OF 38			
COE	WMD	DATE NOV. '87			

SCANNED



LEGEND

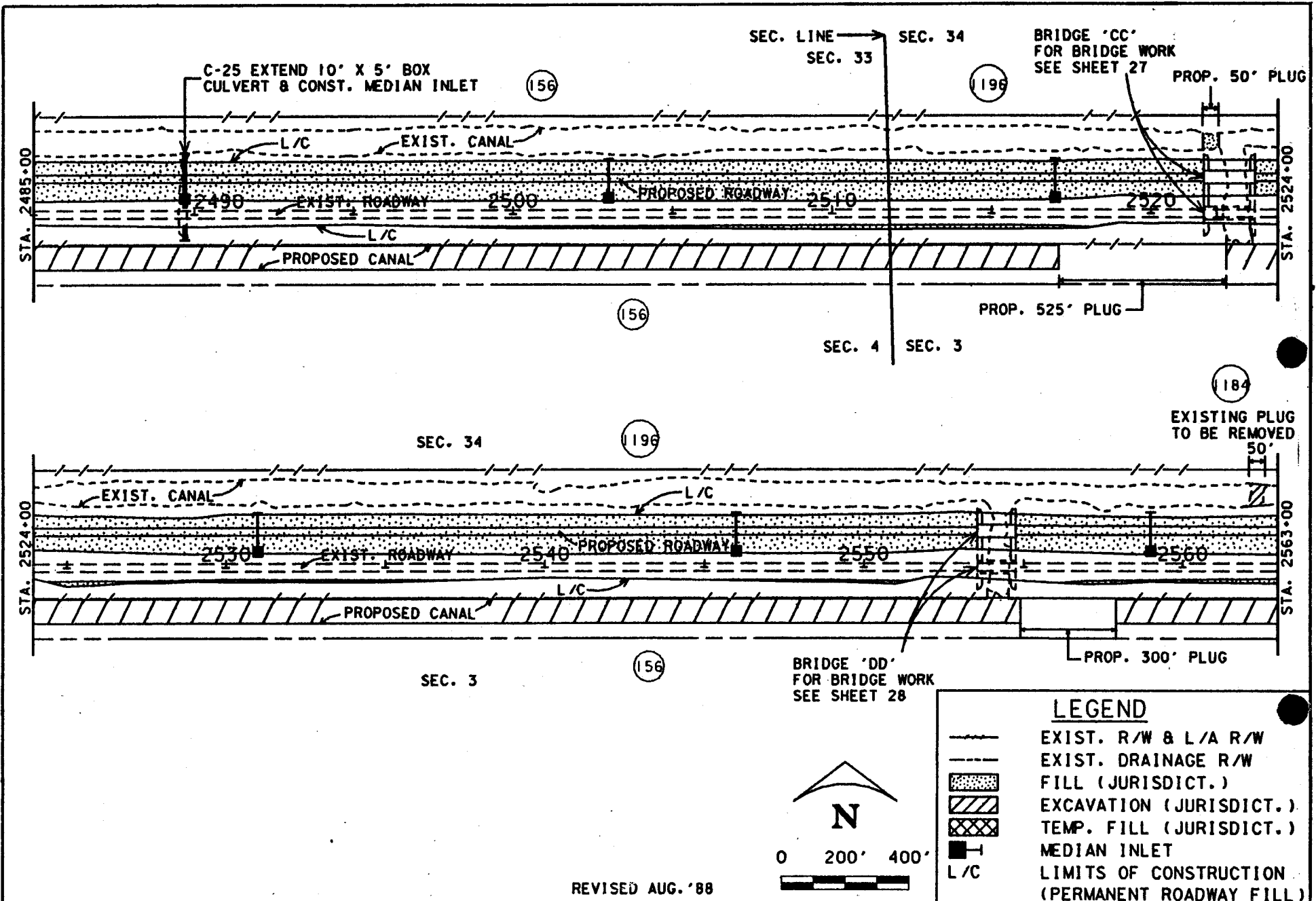
- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- L/C
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



PROJECT DESCRIPTION EAST OF STR AA TO	
COLLIER-BROWARD COUNTY LINE	
TWP: 49S, 50S	RNG: 34E
SEC 4, 5, 32, 33	

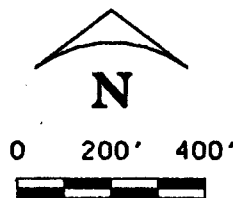
FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME: _____	
SIGNATURE: <i>Michael Lawe</i>	
CERTIFICATE NO. _____	DATE: _____

STATE PROJECT NO. 03075-3401		
COUNTY COLLIER		
DER	CG	SHEET 16 OF 38
COE	WMD	DATE NOV. '87



LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- L/C
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



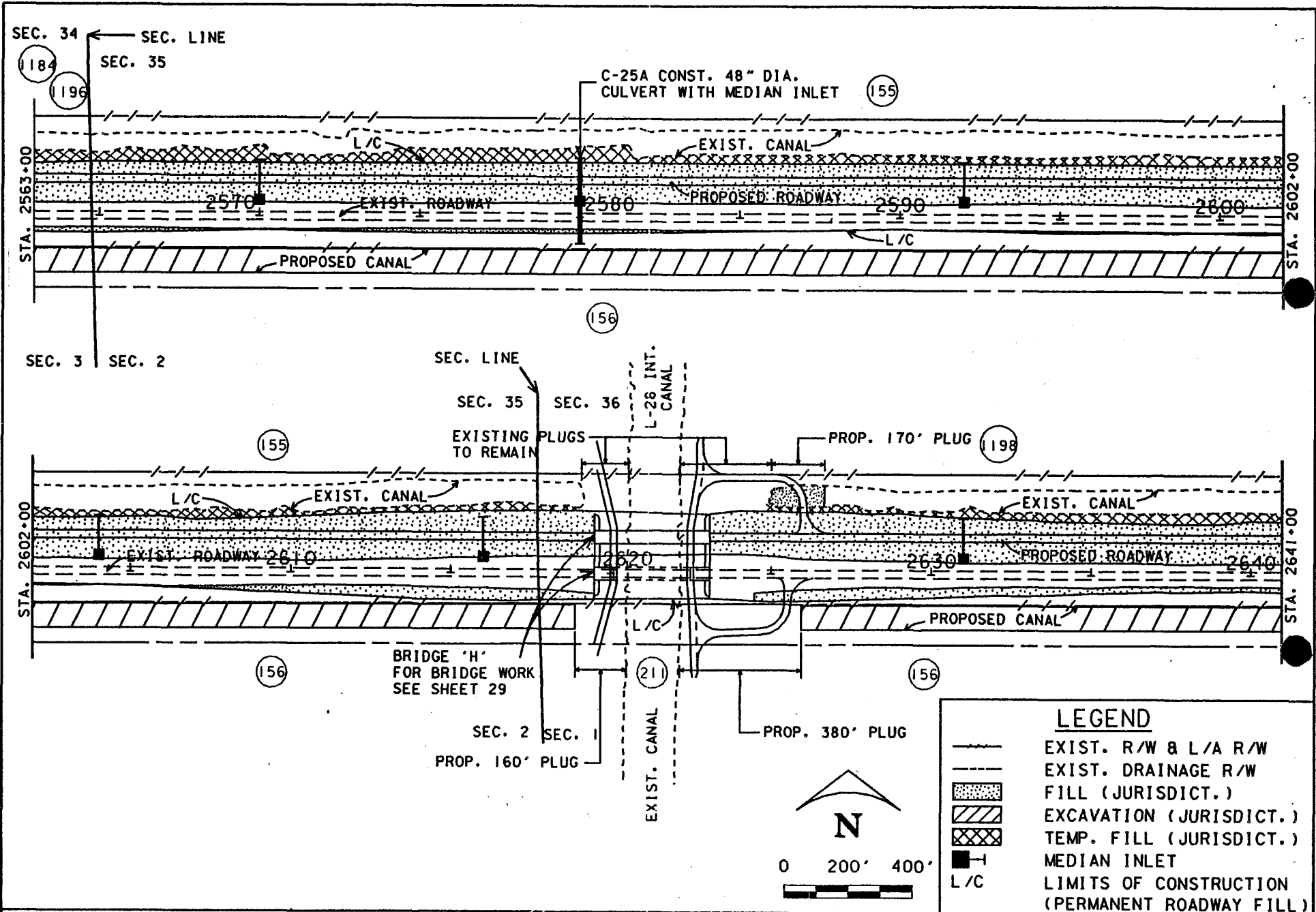
REVISED AUG. '88

PROJECT DESCRIPTION EAST OF STR AA TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401		
COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER		
TWP: 49S, 50S	RNG: 34E	NAME: _____		DER	CG	SHEET 17 OF 38
SEC 3, 4, 33, 34		SIGNATURE: _____		COE	WMD	DATE NOV. '87
		CERTIFICATE NO. _____		DATE: _____		

EXHIBIT 16

SCANNED

EXHIBIT 17



LEGEND	
	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	FILL (JURISDICT.)
	EXCAVATION (JURISDICT.)
	TEMP. FILL (JURISDICT.)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

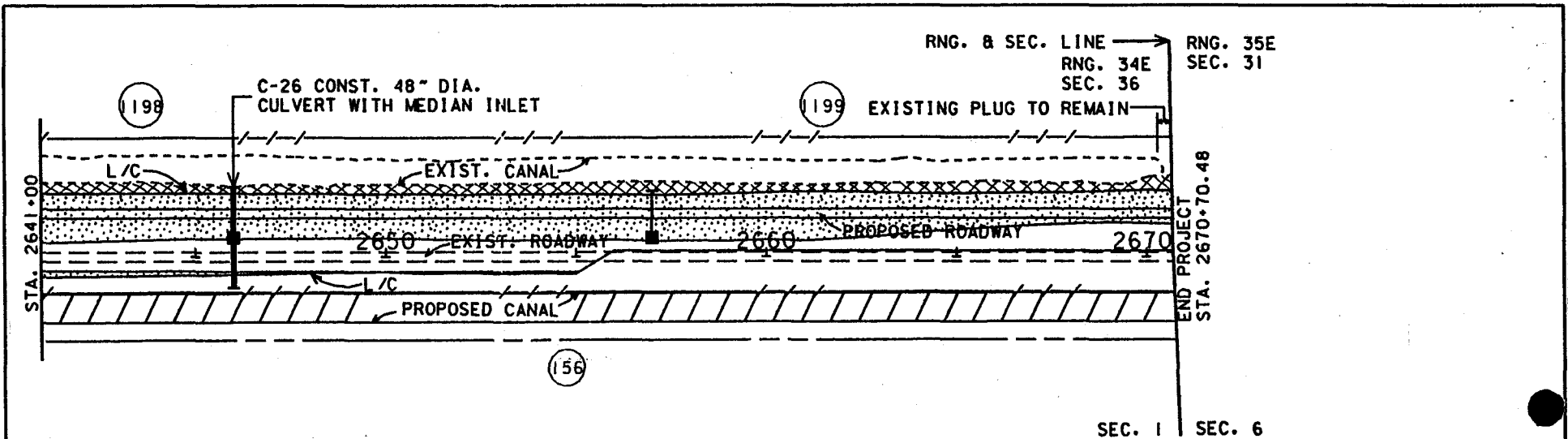
PROJECT DESCRIPTION EAST OF STR AA TO	
COLLIER-BROWARD COUNTY LINE	
TMP: 49S, 50S	RNG: 34E
SEC 1, 2, 3, 34, 35, 36	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE:	<i>Michael...</i>
CERTIFICATE NO.:	12/2/87
DATE:	

STATE PROJECT NO. 03075-3401		
COUNTY COLLIER		
DER	CG	SHEET 18 OF 38
COE	WMD	DATE NOV. '87

EXHIBIT 18

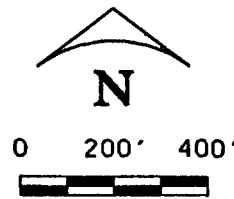
SCANNED



SEC. 1 SEC. 6

LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- L/C
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



PROJECT DESCRIPTION EAST OF STR AA TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401		
COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER		
TWP: 49S,50S	RNG: 34E	NAME: _____		DER	CG	SHEET 19 OF 38
SEC 1,36		SIGNATURE: <i>Michael Steward</i>		COE	WMD	DATE NOV. '87
		CERTIFICATE NO. 1213/87		DATE: _____		

KISSIMMEE GULLY STRAND

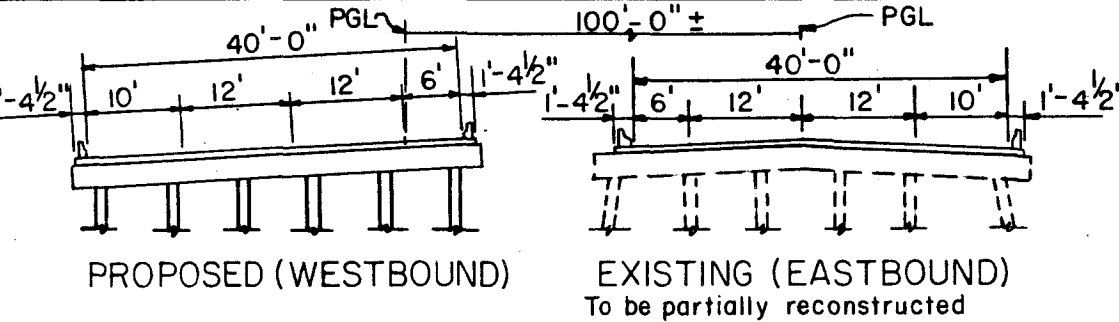
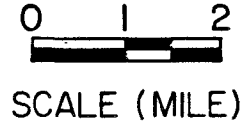
TO NAPLES

S.R. 84 (PROPOSED I-75)

REST AREA

○ = BRIDGE LOCATION
 △ = WILDLIFE CROSSING

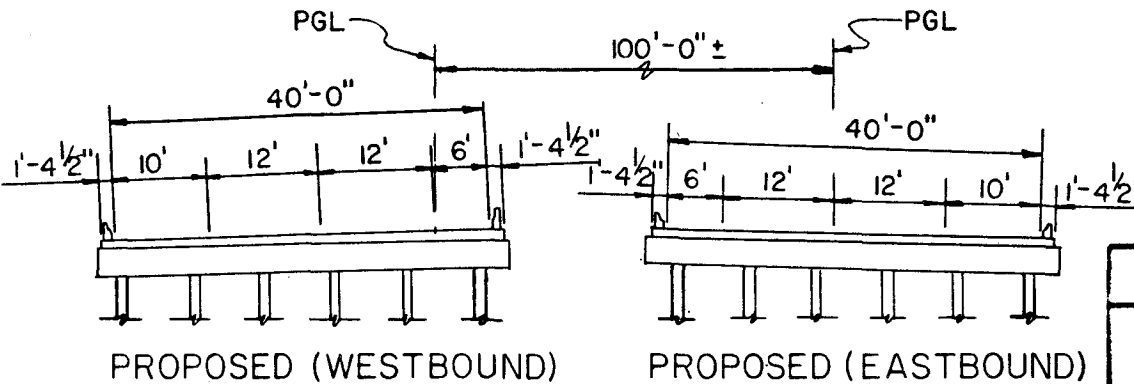
TO FT. LAUDERDALE



SECTION THRU BRIDGES "Y", "Z", AND "AA"

NOTE:

Water Reference Datum: National Geodetic Vertical Datum, 1929



SECTION THRU WILDLIFE CROSSING

Michael C. Carbone
 7/29/88

FEDERAL AID PARTICIPATING

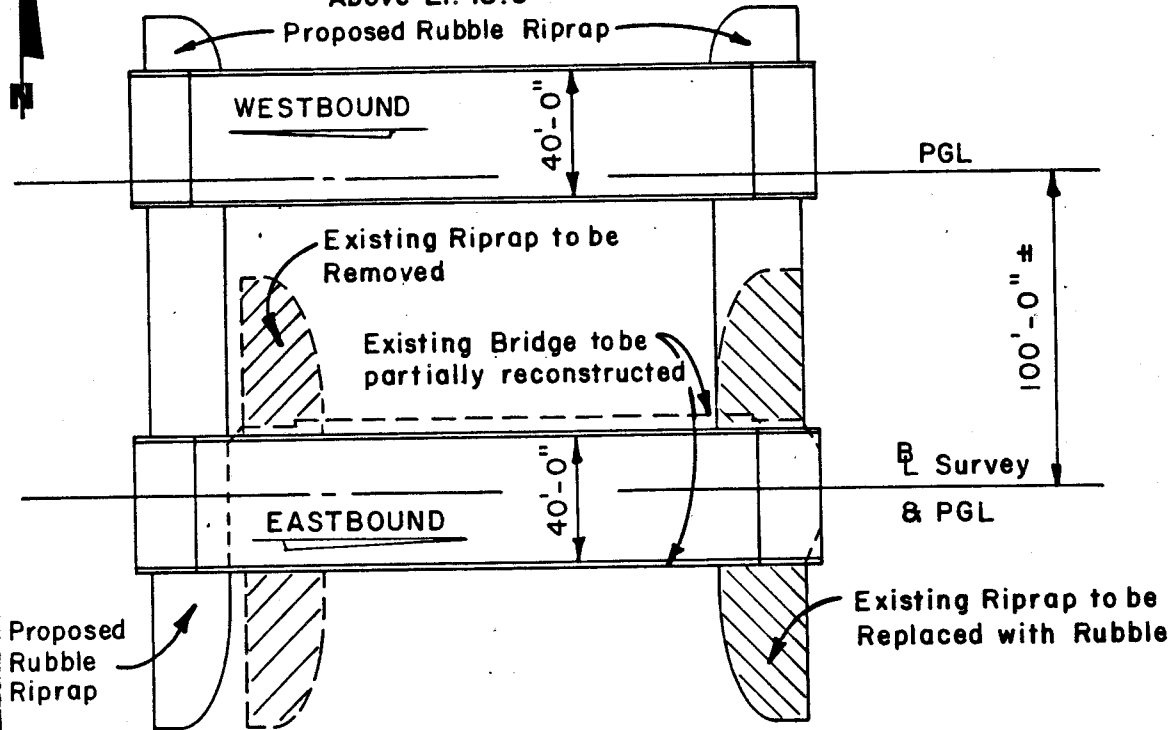
PROPOSED BRIDGES
 Y, Z, AA &
 WILDLIFE CROSSINGS
 23, 24, 25, 26, 28, 29, 31
 ON S.R. 84 (I-75)

OCT. 1987

FLORIDA DEPARTMENT OF
 TRANSPORTATION

Clearance	Existing	Proposed
Horizontal	27.0	26.5
Vertical *	6.4	6.3

* Above El. 15.0



NOTE: See Sheet No.20 for Typical Sections.

Elevation of Base Flood Plain=Not Available

Design High Water = 15.0 (50 Year Flood)

Water Reference Datum:
National Geodetic Vertical Datum, 1929

Michael Bartholomew
7/29/88

PLAN



BRIDGE NUMBERS

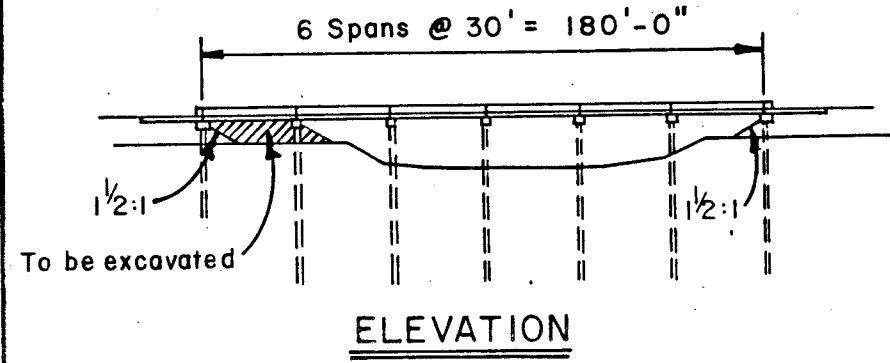
WESTBOUND = 030265

EASTBOUND = 030021

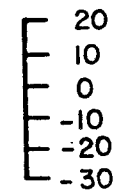
FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "Y"
ON S.R. 84 (1-75)

OCT. 1987
FLORIDA DEPARTMENT OF
TRANSPORTATION



ELEVATION



COLLIER 03075-3402

EXHIBIT 20

SCANNED

Clearance	Existing	Proposed
Horizontal	37.0	36.5
Vertical *	4.1	4.0

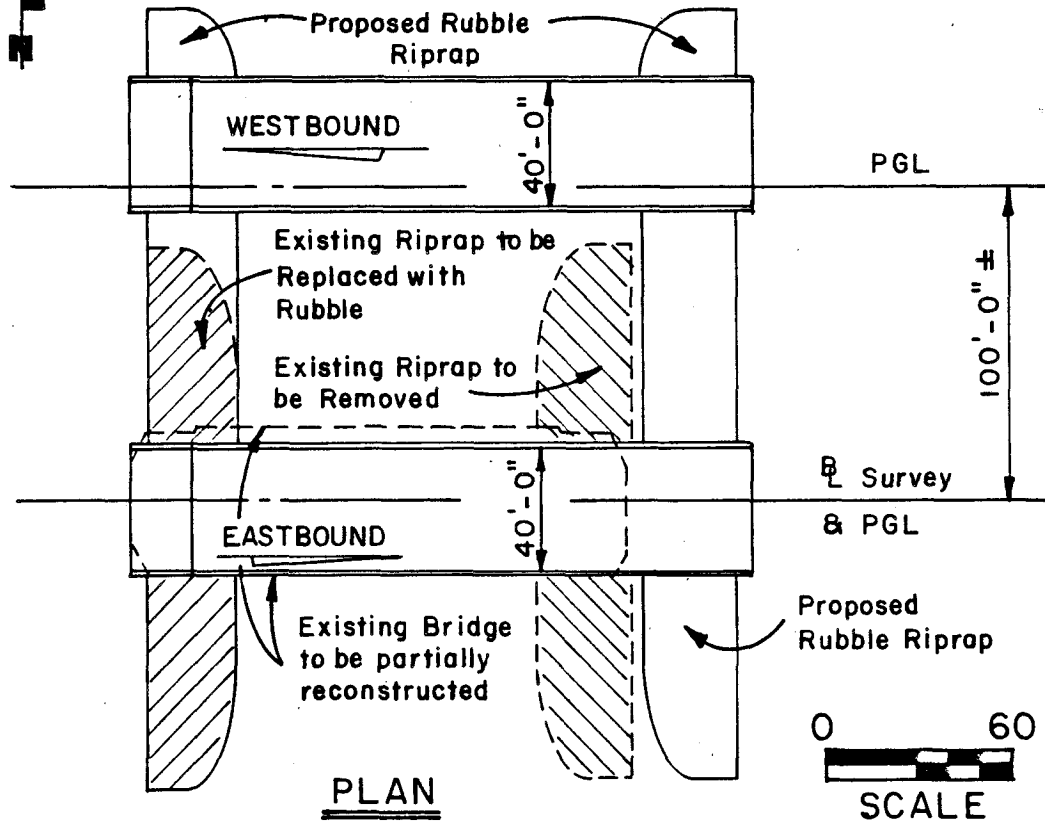
* Above El. 14.9

NOTE: See Sheet No. 20 for Typical Sections.

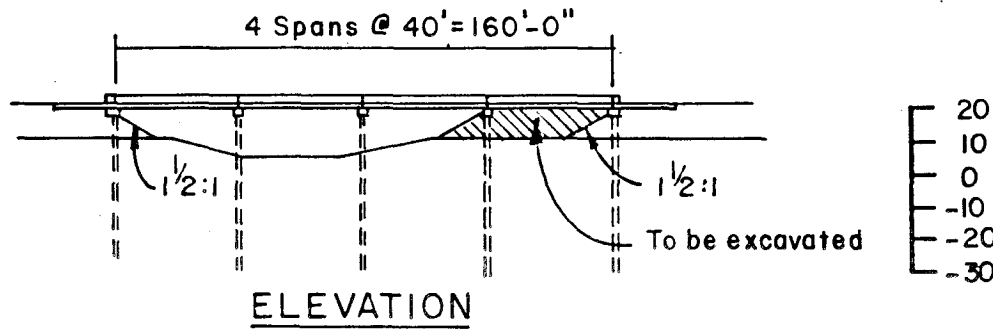
Elevation of Base Flood Plain = Not Available

Design High Water = 14.9
(50 Year Flood)

Water Reference Datum:
National Geodetic Vertical Datum, 1929



PLAN



ELEVATION

BRIDGE NUMBERS
WESTBOUND = 030272
EASTBOUND = 030023

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "Z"
ON S.R. 84 (I-75)

OCT. 1987
FLORIDA DEPARTMENT OF
TRANSPORTATION

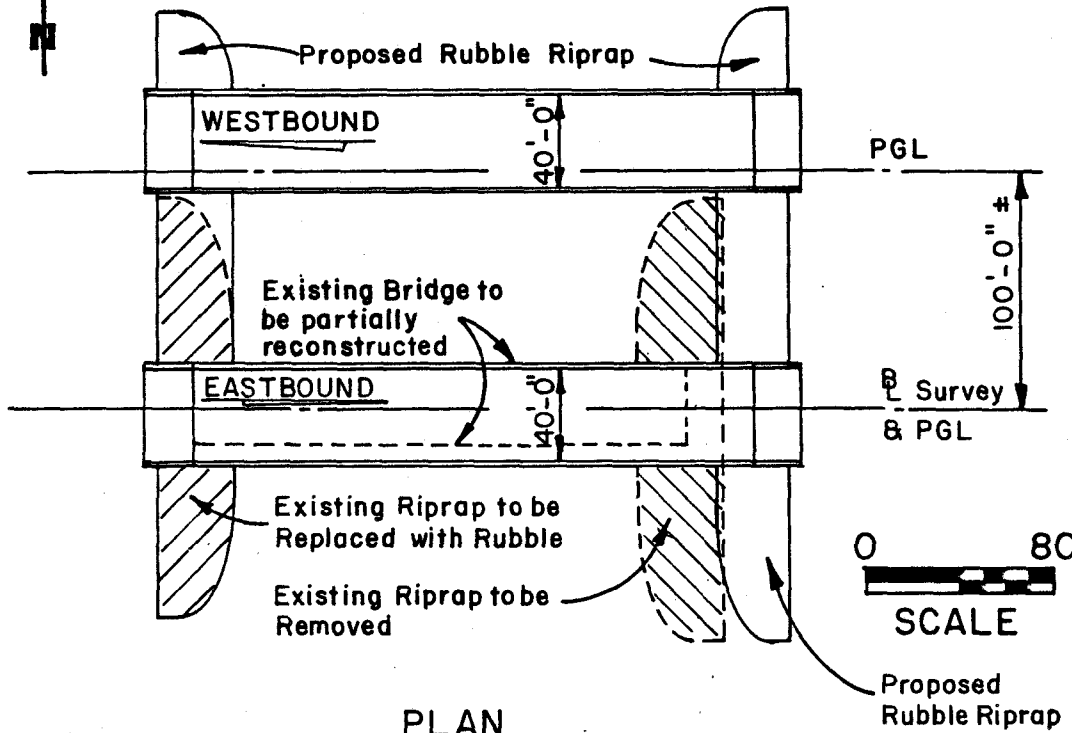
Theresa C. Caldwell
7/29/88

COLLIER 03075 - 3402

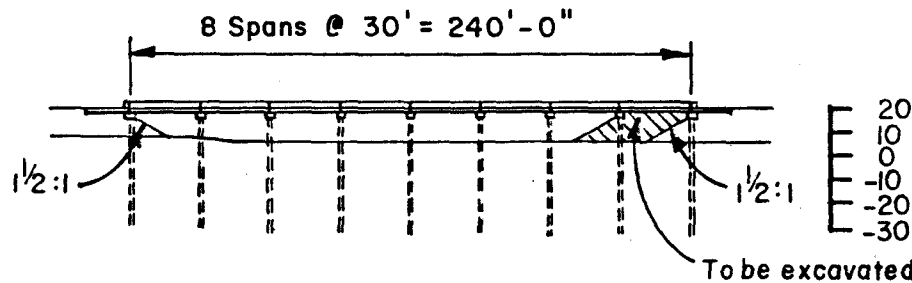
EXHIBIT 21

Clearance	Existing	Proposed
Horizontal	27.0	26.5
Vertical *	4.0	4.0

* Above El. 14.5



PLAN



ELEVATION

NOTE: See Sheet No.20 for Typical Sections.

Elevation of Base Flood Plain = Not Available

Design High Water = 14.5
(50 Year Flood)

Water Reference Datum:
National Geodetic Vertical Datum, 1929

Theresa Buckhorn
7/29/88

BRIDGE NUMBERS

WESTBOUND = 030275

EAST BOUND = 030027

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "AA"
ON S.R. 84 (1-75)

OCT. 1987

FLORIDA DEPARTMENT OF
TRANSPORTATION

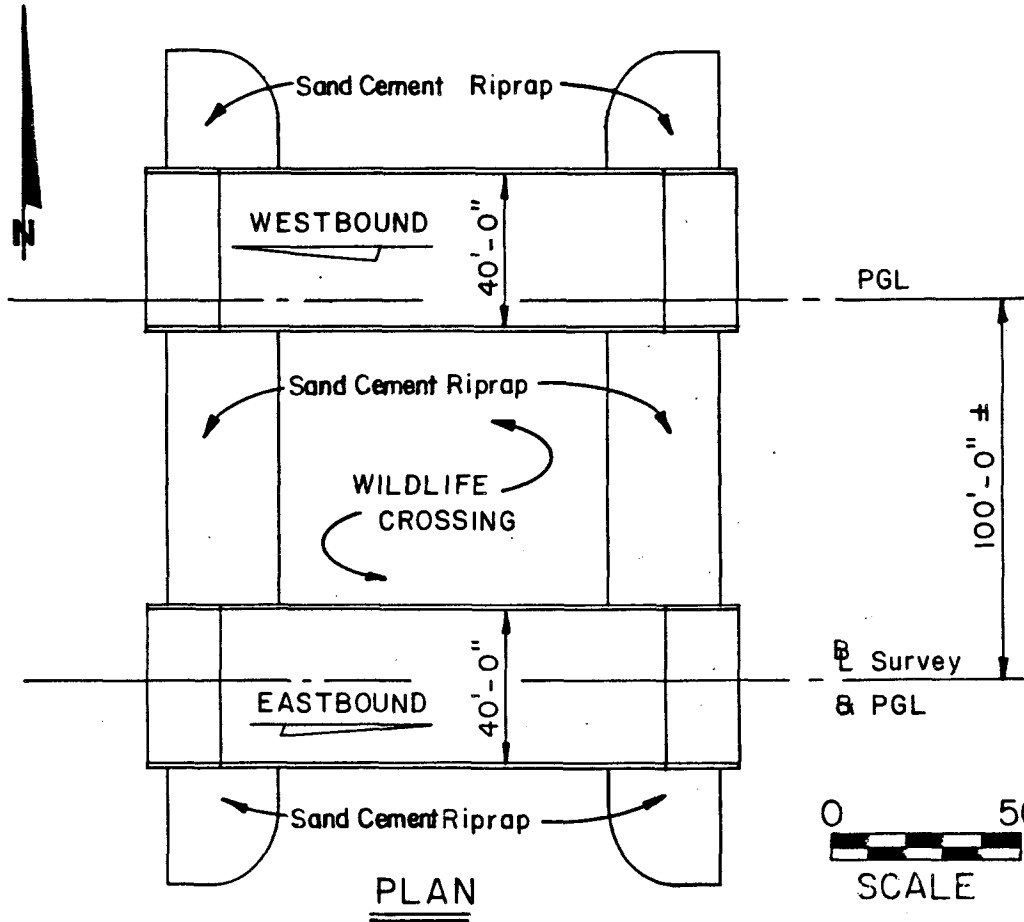
COLLIER 03075-3402

EXHIBIT 22

SCANNED

Revised 7/29/88

SHEET NO. 24 OF 38

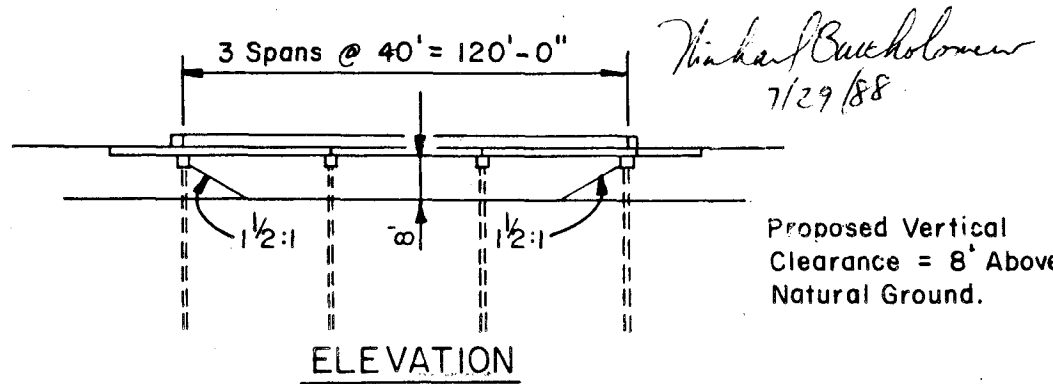


NOTE: See Sheet No. 20 for Typical Section.

WILDLIFE CROSSING NUMBERS		
W.L. NO.	WESTBOUND	EASTBOUND
23	030256	030257
24	030258	030259
25	030260	030261
26	030262	030263
28	030268	030269
29	030270	030271
31	030273	030274

COLLIER 03075 - 3402

EXHIBIT 23



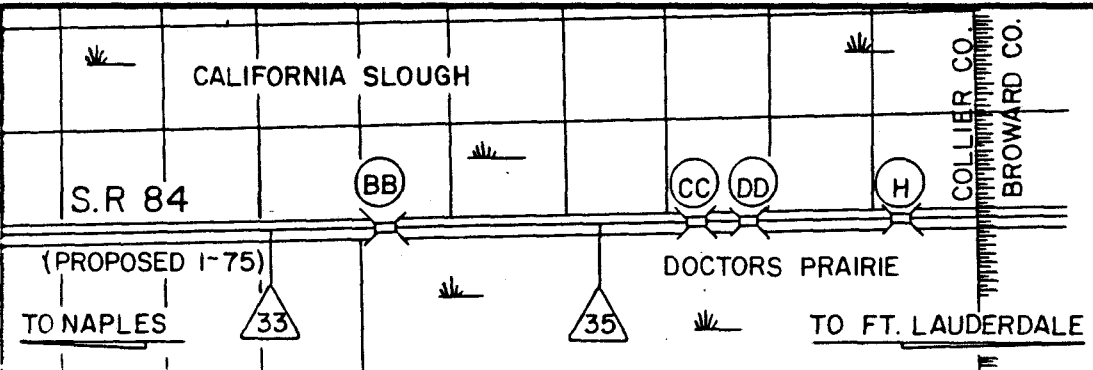
FEDERAL AID PARTICIPATION

PROPOSED WILDLIFE CROSSING

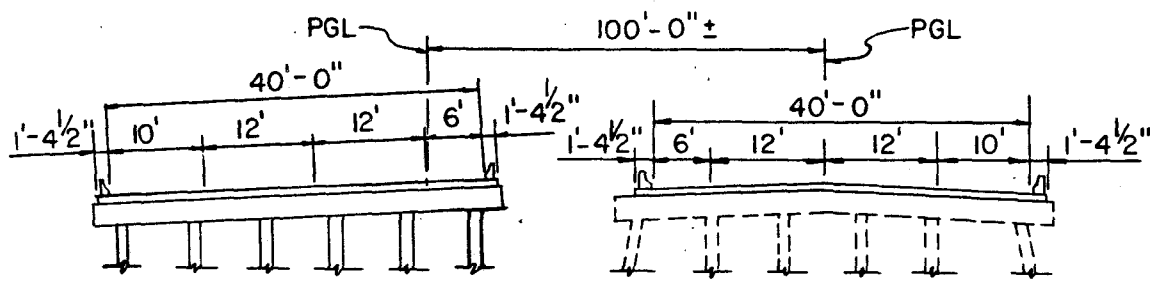
23, 24, 25, 26, 28, 29, 31

OCT. 1987

FLORIDA DEPARTMENT OF TRANSPORTATION

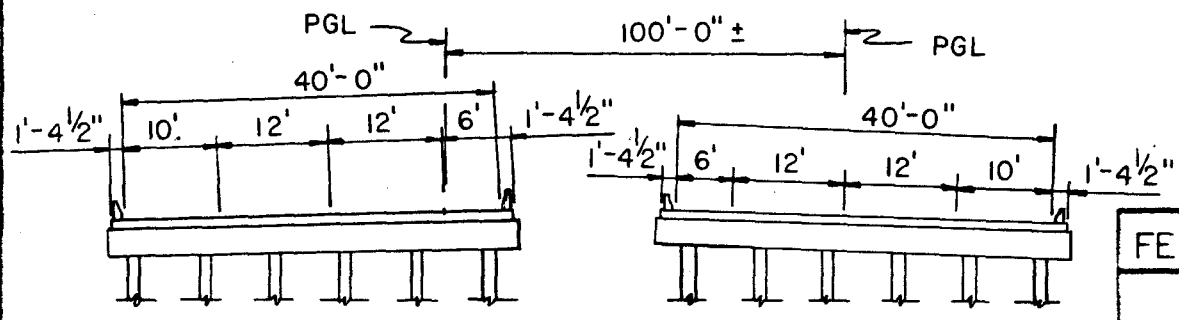


○ = BRIDGE LOCATION
 △ = WILDLIFE CROSSING



PROPOSED (WESTBOUND) EXISTING (EASTBOUND)
 To be partially reconstructed

SECTION THRU BRIDGES "BB", "CC", "DD"



PROPOSED (WESTBOUND) PROPOSED (EASTBOUND)

SECTION THRU WILDLIFE CROSSING
 AND BRIDGE "H"

NOTE:
 Water Reference Datum: National Geodetic Vertical Datum, 1929

Michael Baschlow
 7/29/88

FEDERAL AID PARTICIPATING

PROPOSED BRIDGES
 BB, CC, DD, & H

WILDLIFE CROSSINGS
 33, 35

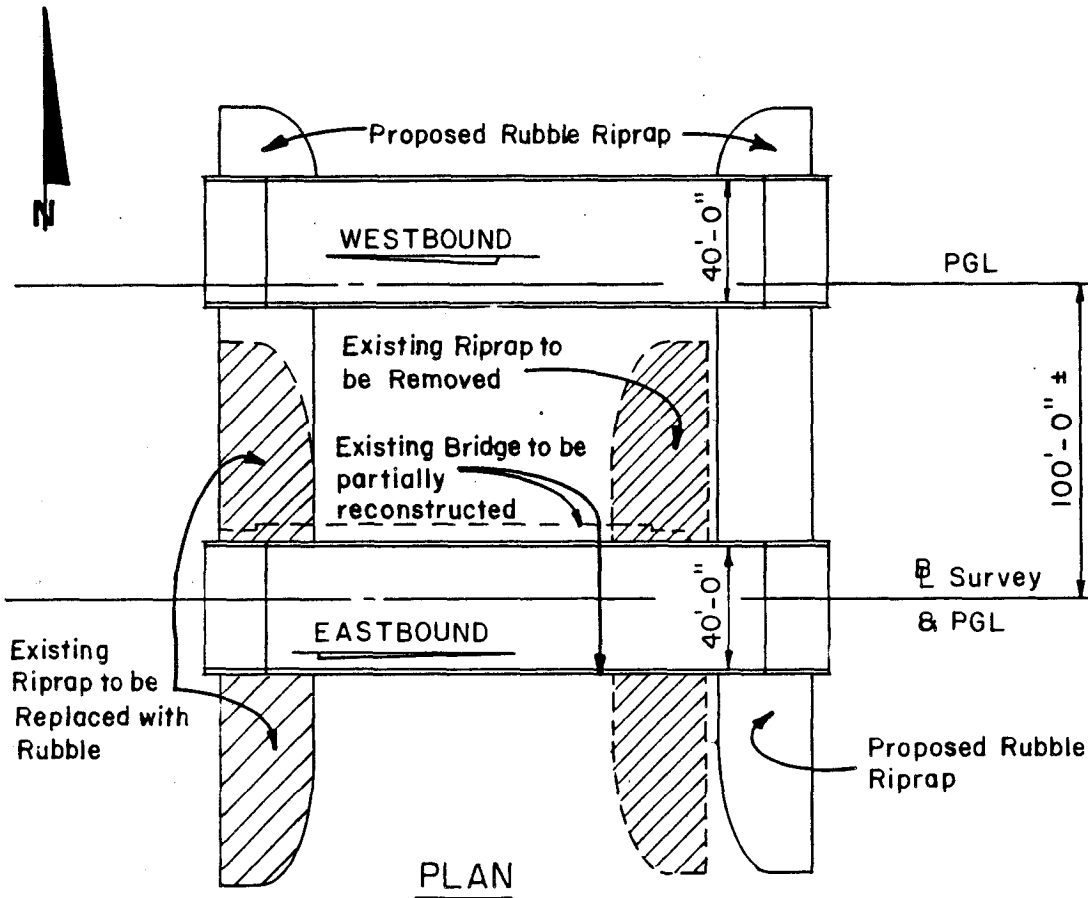
ON S.R. 84 (I-75)

OCT. 1987
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

COLLIER 03075-3401

EXHIBIT 24

SCANNED



NOTE: See Sheet No.25 for Typical Section.

Elevation of Base Flood Plain = Not Available

Design High Water = 14.4
(50 Year Flood)

Water Reference
Datum = National Geodetic Vertical Datum, 1929

*Above El. 14.4

Clearance	Existing	Proposed
Horizontal	37.0	36.5
Vertical *	4.1	4.1

BRIDGE NUMBERS
WESTBOUND = 030278
EASTBOUND = 030028

FEDERAL AID PARTICIPATION

PROPOSED BRIDGE "BB"
ON S.R. 84 (I-75)

OCT. 1987

FLORIDA DEPARTMENT OF
TRANSPORTATION

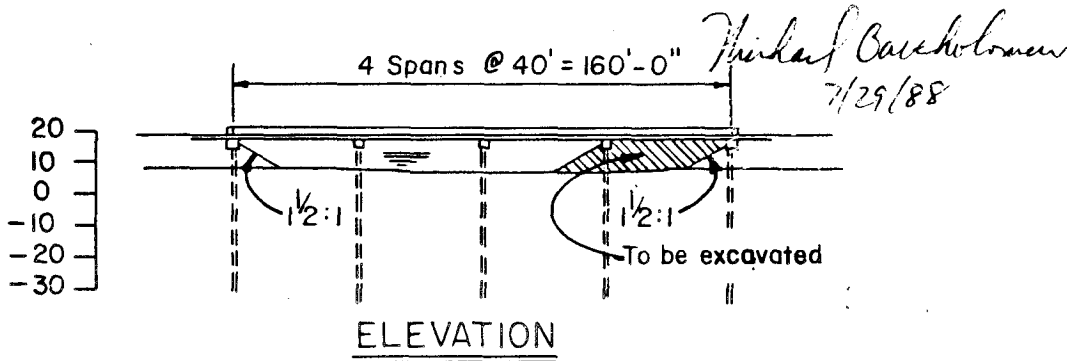
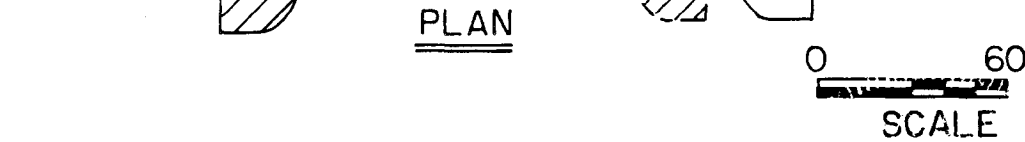


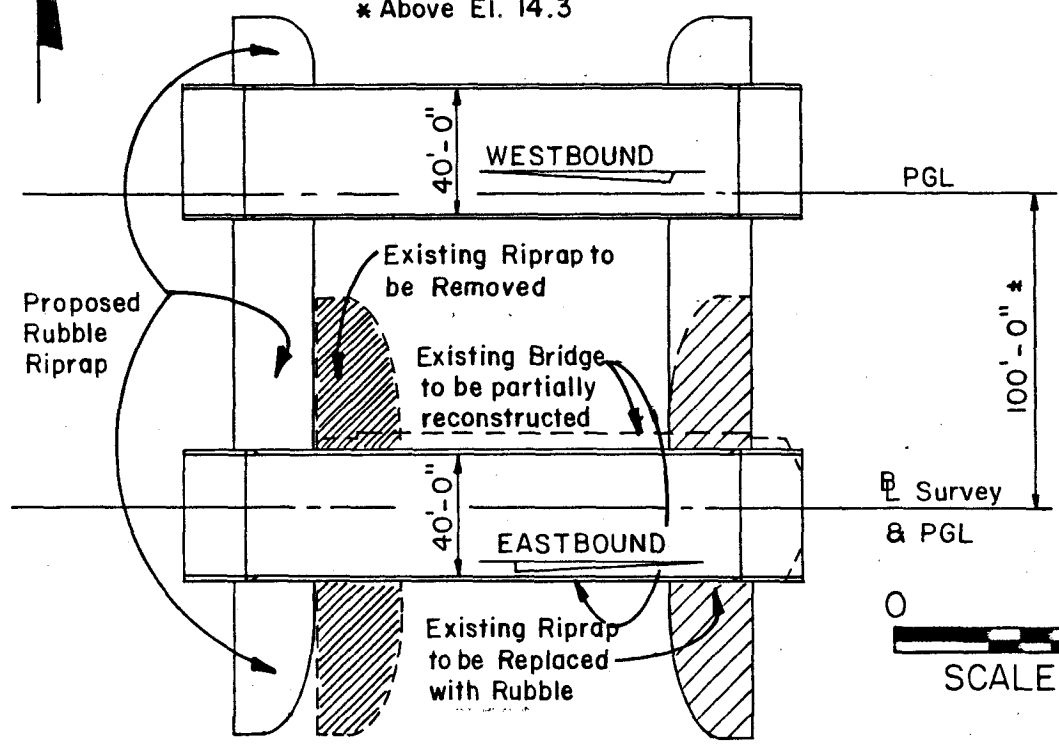
EXHIBIT 25

COLLIER 03075-3401

Clearance	Existing	Proposed
Horizontal	37.0	36.5
Vertical *	4.0	3.9

* Above El. 14.3

NOTE: See Sheet No.25 for Typical Section



Elevation of Base Flood Plain = Not Available

Design High Water = 14.3 (50 Year Flood)

Water Reference

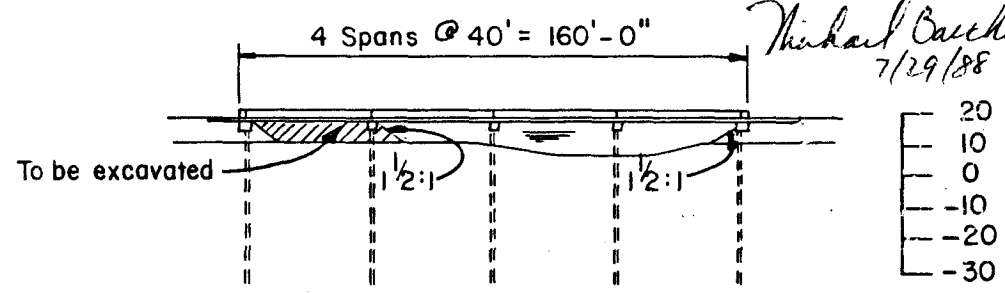
Datum = National Geodetic Vertical Datum, 1929



PLAN

BRIDGE NUMBERS

WESTBOUND = 030281
EASTBOUND = 030029



Michael Bacholner
7/29/88

ELEVATION

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "CC"
ON S.R. 84 (1-75)

OCT, 1987

FLORIDA DEPARTMENT OF TRANSPORTATION

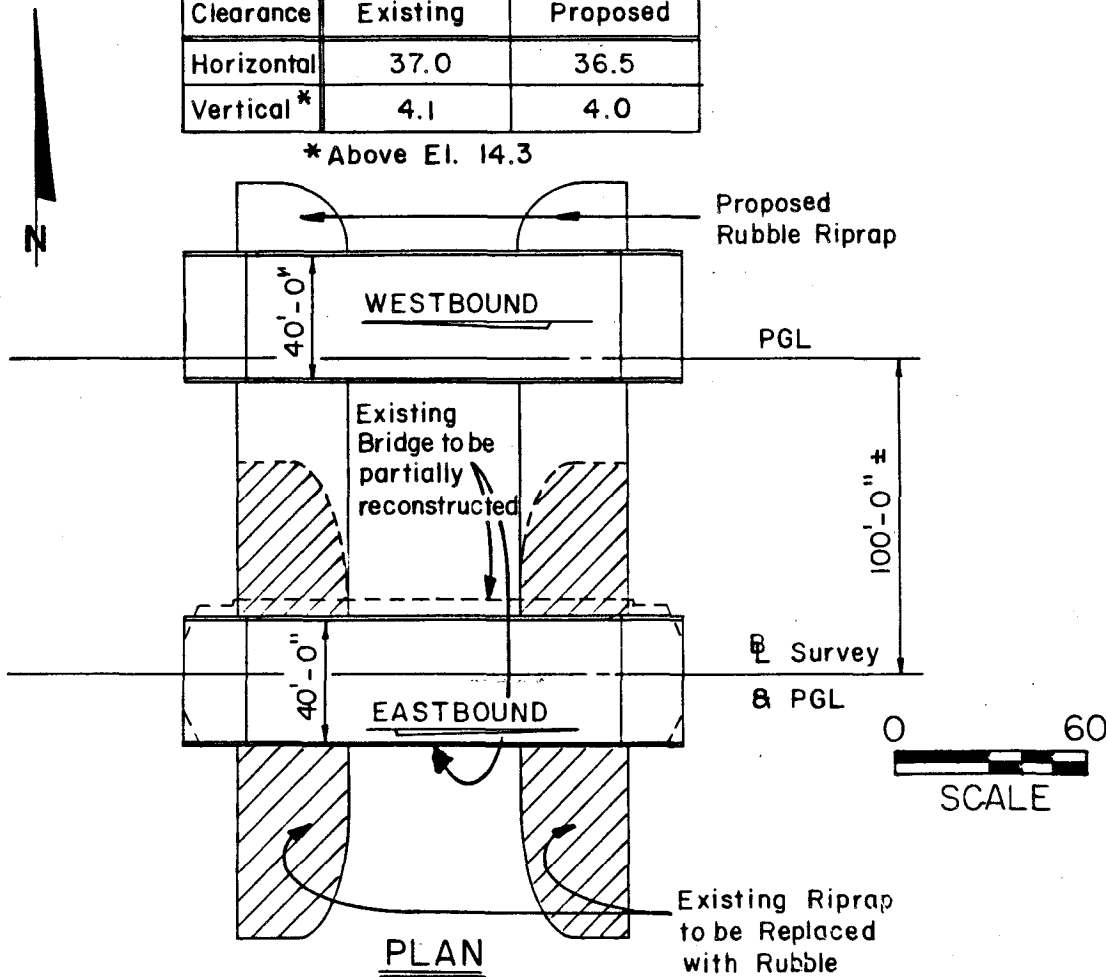
COLLIER 03075 - 3401

EXHIBIT 26

SCANNED

Clearance	Existing	Proposed
Horizontal	37.0	36.5
Vertical*	4.1	4.0

* Above El. 14.3



NOTE: See Sheet No. 25 for
for Typical Sections.

Elevation of Base Flood
Plain = Not Available

Design High Water = 14.3
(50 Year Flood)

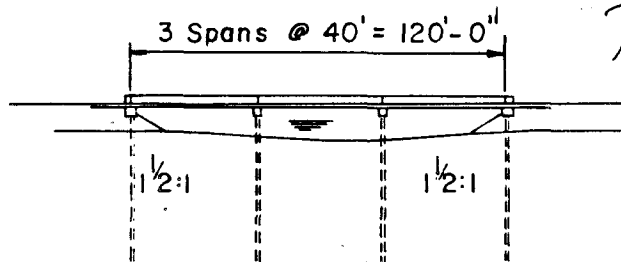
Water Reference

Datum = National Geodetic
Vertical Datum, 1929

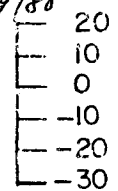
BRIDGE NUMBERS

WESTBOUND = 030282

EASTBOUND = 030030



Michael Bascholman
7/29/88



FEDERAL AID PARTICIPATION

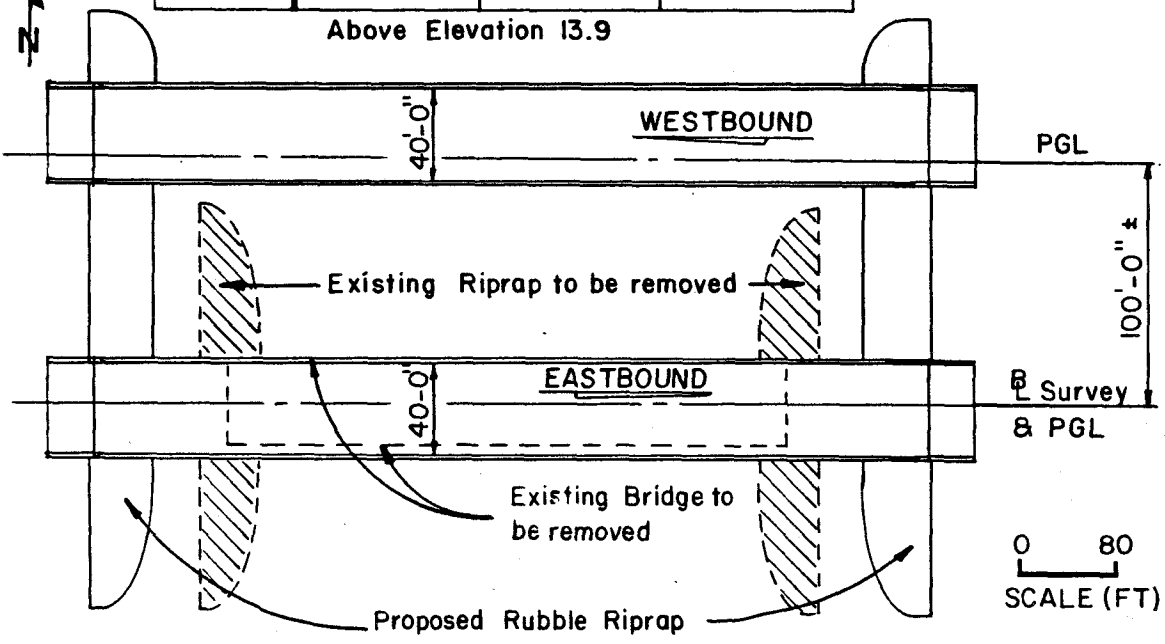
PROPOSED BRIDGE "DD"
ON S.R. 84 (I-75)

OCT. 1987

FLORIDA DEPARTMENT OF
TRANSPORTATION

Clearance	Existing	Proposed E.	Proposed W.
Horizontal	27.0	36.5	36.5
Vertical	8.4	16.3	16.0

NOTE: See sheet No. 25 for Typical Section.



Elev. of Base Flood Plain = Not Available

Design H.W. = 13.9
(50 Year Flood)

Water Reference

Datum = National Geodetic Vertical Datum . 1929

PLAN

BRIDGE NUMBERS

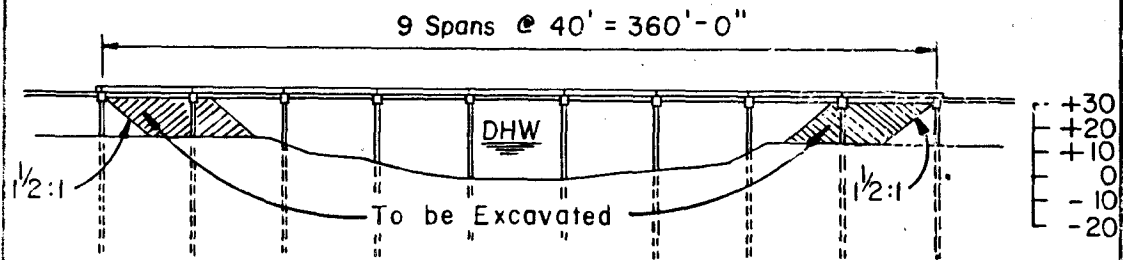
WESTBOUND = 030283
EASTBOUND = 030284

Michael Baccholonew
7/29/88

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "H"
ON S.R. 84 (I-75)

COLLIER 03075 - 3401



ELEVATION

OCT. 1987

FLORIDA DEPARTMENT OF TRANSPORTATION

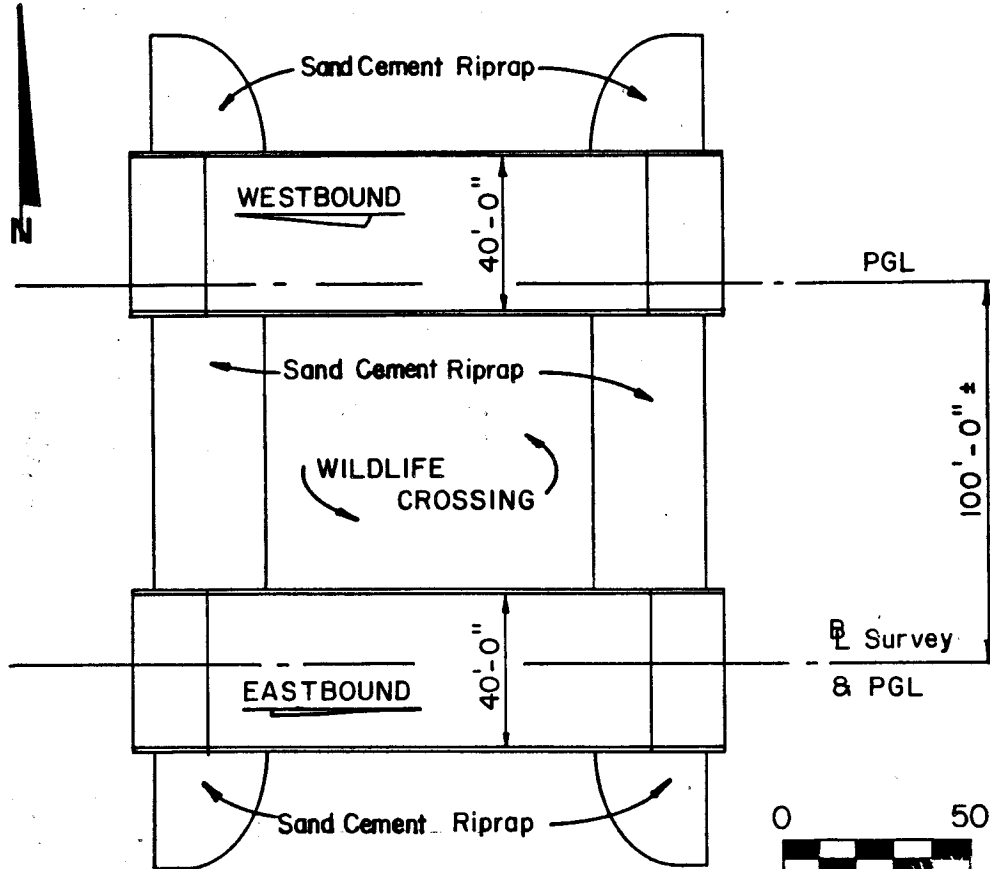
EXHIBIT 28

SCANNED

Revised 7/29/88

SHEET NO. 30 OF 38

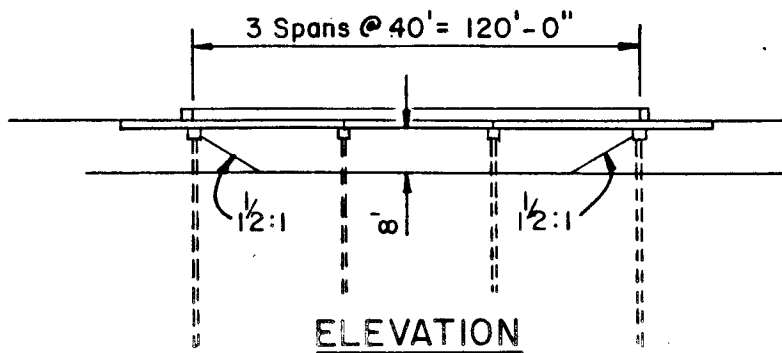
NOTE: See Sheet No. 25 for typical sections.



PLAN



WILDLIFE CROSSING NUMBERS		
W.L. NO.	WESTBOUND	EASTBOUND
33	030276	030277
35	030279	030280



ELEVATION

Michael Bachelore
7/29/88

Proposed Vertical
Clearance = 8' above
Natural Ground.

FEDERAL AID PARTICIPATION

PROPOSED WILDLIFE
CROSSINGS

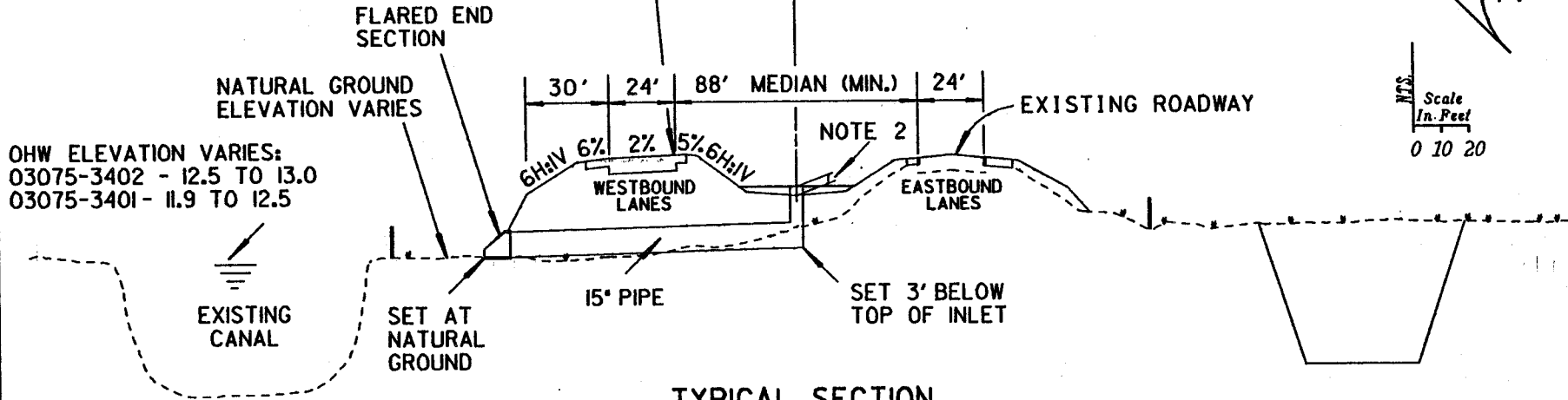
33, & 35

ON S.R. 84 (1-75)

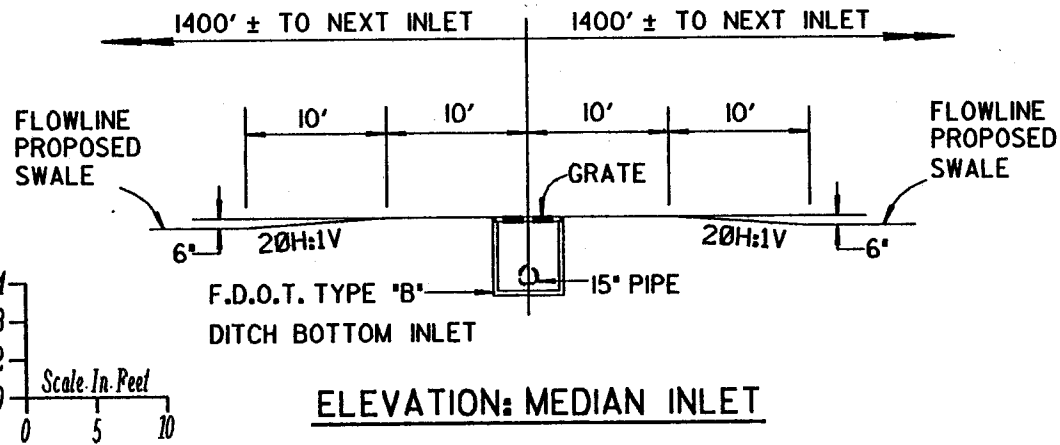
OCT. 1987

FLORIDA DEPARTMENT OF
TRANSPORTATION

ROAD CREST ELEVATION VARIES:
 03075-3402 - 19.29 TO 37.76
 03075-3401 - 18.68 TO 32.42



TYPICAL SECTION



NOTES:

1. THE NUMBER OF MEDIAN INLETS IN THIS SECTION IS BASED ON AN INLET SPACING OF 1400± FEET C. TO C.

2. DITCH BOTTOM ELEVATION VARIES. TOP OF INLET SET 6" ABOVE DITCH BOTTOM.

WATER REFERENCE DATUM: NGVD 1929

PROJECT DESCRIPTION 7 MI EAST OF CR 839
 TO COLLIER-BROWARD COUNTY LINE.

FLORIDA DEPARTMENT OF TRANSPORTATION

STATE PROJECT NO. 03075-3402 & 03075-3401
 COUNTY COLLIER

TMP: _____ RNG: _____
 SEC _____

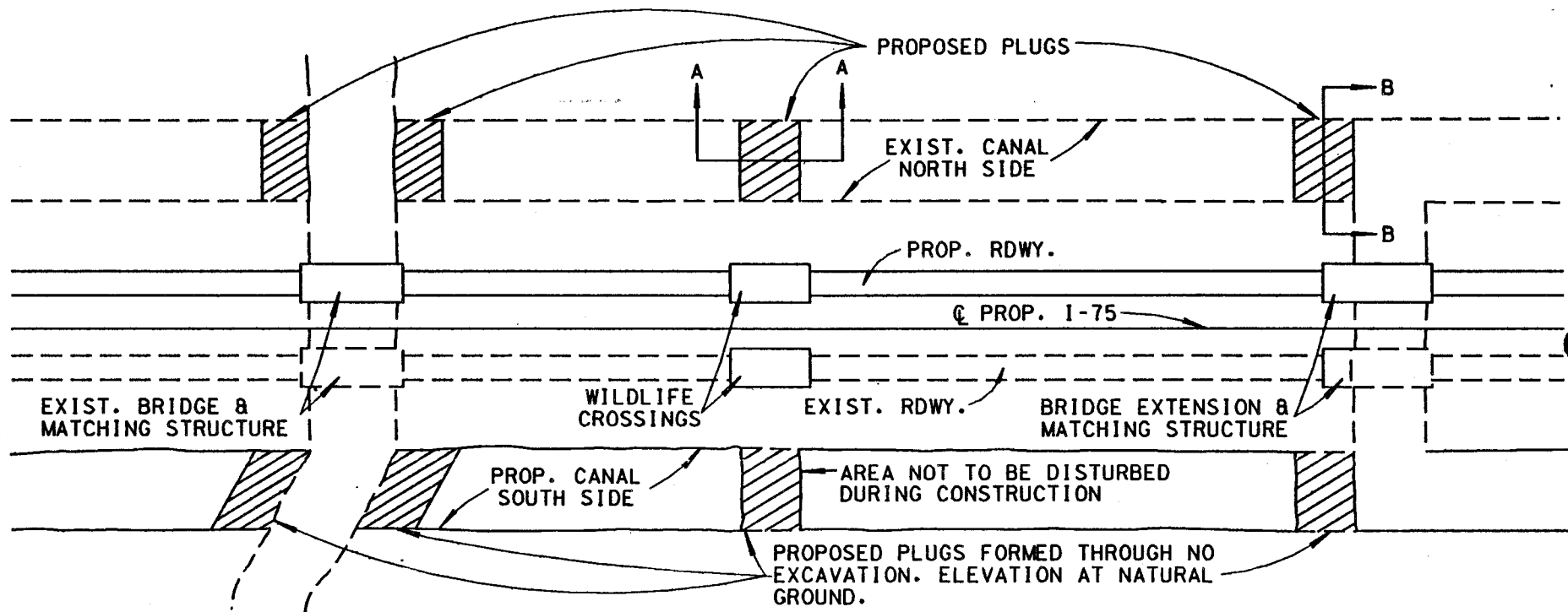
NAME: _____
 SIGNATURE: *Michael Howard*
 CERTIFICATE NO. _____ DATE: 12/3/87

DATE: _____

DER	CG	SHEET 31 OF 38
COE	WMD	DATE NOV. '87

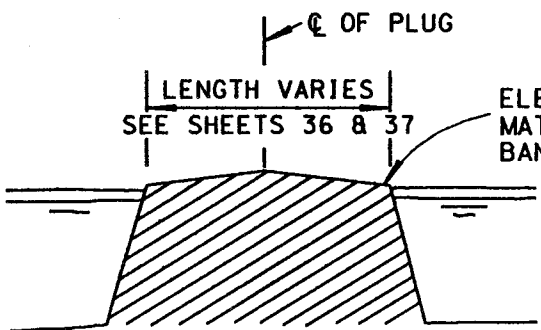
EXHIBIT 30

SCANNED



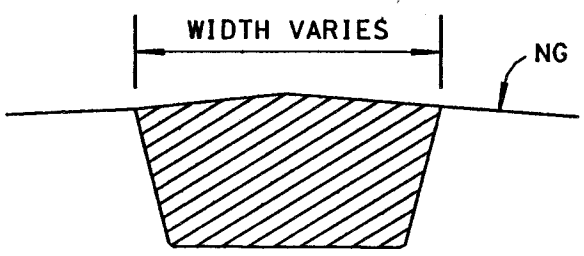
CANAL PLUGS PLAN

NTS



PROPOSED PLUG SECTION A-A

NTS



PROPOSED PLUG SECTION B-B

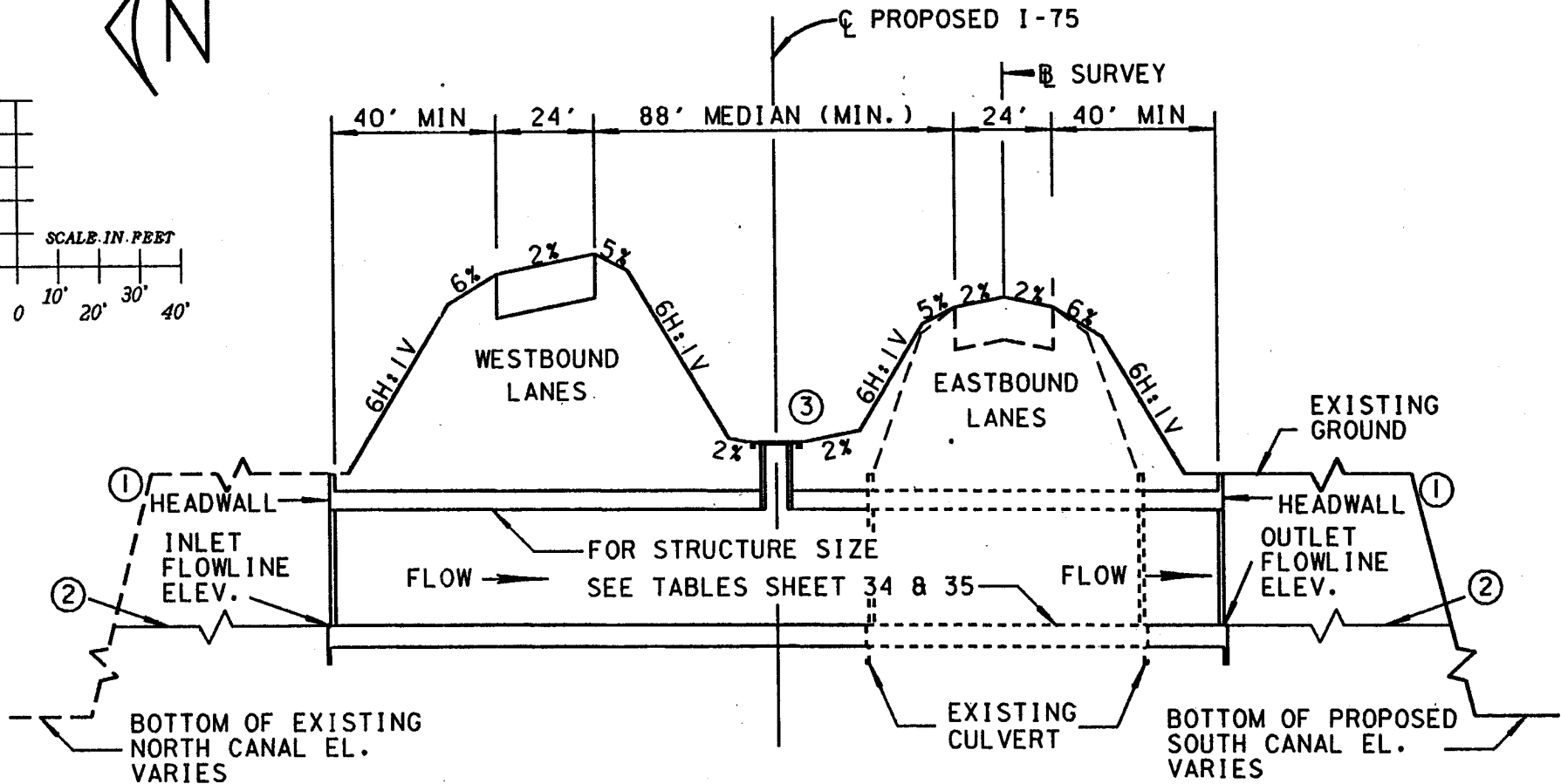
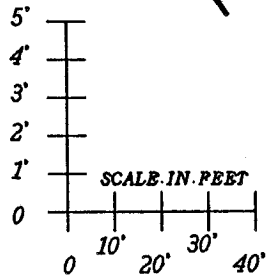
NTS

WATER REFERENCE DATUM: NGVD 1929

PROJECT DESCRIPTION 7 MI EAST OF CR 839 TO COLLIER-BROWARD COUNTY LINE.	
TWP:	RNG:
SEC	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>Michael Lewis</i>
CERTIFICATE NO.	12/2/87
DATE:	

STATE PROJECT NO. 03075-3402 & 03075-3401		
COUNTY COLLIER		
DER	CG	SHEET 32 OF 38
COE	WMD	DATE NOV. '87



LEGEND:

- ① HEADWALL FOR 10' X 5' CONCRETE BOX CULVERT, FLARED END SECTION FOR 48" PIPE.
- ② 10' BOTTOM WIDTH WITH 4:1 SIDE SLOPES.
- ③ FOR INLET DETAIL, SEE SHEET NO. 31.

NOTES:

- 1. ALL STATIONS ARE @ SURVEY.
- 2. OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.
- 3. PROPOSED 48" CULVERTS ARE TO BE CONSTRUCTED TO THE SAME LIMITS AS SHOWN ABOVE. FOR LOCATIONS, SEE SHEET NO. 34 & 35.

PROJECT DESCRIPTION 7 MI EAST OF CR 839		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402 & 03075-3401	
TO COLLIER-BROWARD COUNTY LINE.				COUNTY COLLIER	
TWP:	RNG:	NAME:		DER:	CG:
SEC:		SIGNATURE <i>Michael J. Lewis</i>		COE:	WMO:
		CERTIFICATE NO. <u>12/3/87</u>		DATE: _____	
				SHEET 33 OF 38	
				DATE NOV. '87	

EXHIBIT 32

SCANNED

TABULATION OF CULVERTS

STRUCT. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL EL.	OUTLET FL EL.	OHW	DHW
03075-3402							
C-12	1768+40	10' X 5'	EXTENDED	9.5	9.2	13.0	15.0
C-13	1819+40	10' X 5'	EXTENDED	9.7	9.4	13.0	15.0
C-14	1857+50	10' X 5'	EXTENDED	9.6	9.3	13.0	15.0
C-15	1891+40	10' X 5'	EXTENDED	9.5	9.2	13.0	15.0
C-16	1932+40	10' X 5'	EXTENDED	10.5	10.2	13.0	15.0
C-16A	1960+00	48"	PROPOSED	8.5	8.1	13.0	15.0
C-17	2007+70	10' X 5'	EXTENDED	8.8	8.6	13.0	15.0
C-18	2047+70	10' X 5'	EXTENDED	9.4	9.1	13.0	15.0
C-19	2098+65	10' X 5'	EXTENDED	10.3	10.0	12.9	14.9
C-19A	2185+00	48"	PROPOSED	8.4	8.0	12.9	14.9
C-20	2225+70	10' X 5'	EXTENDED	9.1	8.8	12.5	14.5

EXHIBIT 33

WATER REFERENCE DATUM: NGVD 1929

PROJECT DESCRIPTION 7 MI EAST OF CR 839 TO .23 MI EAST OF STR AA TWP: _____ RNG: _____ SEC _____	FLORIDA DEPARTMENT OF TRANSPORTATION NAME: _____ SIGNATURE: <i>Michael Kewa</i> CERTIFICATE NO. <u>1213/87</u>	STATE PROJECT NO. 03075-3402 COUNTY COLLIER DER _____ CG _____ COE _____ WMD _____ SHEET 34 OF 38 DATE NOV. '87
---	--	--

TABULATION OF CULVERTS

STRUCT. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL EL.	OUTLET FL EL.	OHW	DHW
03075-3401							
C-20A	2270+00	48"	PROPOSED	8.1	7.7	12.5	14.5
C-21	2310+70	10' X 5'	EXTENDED	8.9	8.6	12.4	14.4
C-22	2375+70	10' X 5'	EXTENDED	8.8	8.5	12.4	14.4
C-23	2393+70	10' X 5'	EXTENDED	8.8	8.5	12.4	14.4
C-24	2446+70	10' X 5'	EXTENDED	8.9	8.6	12.3	14.3
C-25	2489+70	10' X 5'	EXTENDED	8.8	8.5	12.3	14.3
C-25A	2580+00	48"	PROPOSED	7.8	7.4	12.3	14.3
C-26	2646+00	48"	PROPOSED	7.9	7.5	11.9	13.9

WATER REFERENCE DATUM: NGVD 1929

PROJECT DESCRIPTION EAST OF STR AA TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401	
COLLIER-BROWARD COUNTY LINE				COUNTY COLLIER	
TWP:	RNG:	NAME:	SIGNATURE <i>Michael Rowe</i>	DER	CG
SEC		CERTIFICATE NO. <u>1218/87</u>	DATE:	COE	WMD
				SHEET 35 OF 38	
				DATE NOV. '87	

EXHIBIT 34

SCANNED

TABULATION OF DITCH BLOCKS (PLUGS)

PROJECT NO.	STATION	LOCATION / MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW / OHW
03075-3402					
	1771+00	NORTH / 33.5	80	13.6	15.0 / 13.0
	1830+00	NORTH / 34.7	80	12.8	15.0 / 13.0
	1838+50 ①	SOUTH / 34.9	3700	13.4	15.0 / 13.0
	1902+00	NORTH / 36.0	80	12.7	15.0 / 13.0
	1904+25 ①	SOUTH / 36.0	550	13.1	15.0 / 13.0
	1934+00	NORTH / 36.6	80	14.6	15.0 / 13.0
	1934+45 ①	SOUTH / 36.6	310	12.9	15.0 / 13.0
	1984+15 ①	SOUTH / 37.6	125	13.4	15.0 / 13.0
	1984+25	NORTH / 37.6	50	13.9	15.0 / 13.0
	2012+95 ①	SOUTH / 38.1	5410	13.4	15.0 / 13.0
	2027+50	NORTH / 38.4	500	13.4	15.0 / 13.0
	2068+25 ①	SOUTH / 39.2	550	12.7	14.9 / 12.9
	2069+00	NORTH / 39.2	80	13.7	14.9 / 12.9
	2104+50 ①	SOUTH / 39.8	700	12.2	14.9 / 12.9
	2106+00	NORTH / 39.9	80	13.0	14.9 / 12.9
	2131+55	NORTH / 40.4	50	13.1	14.9 / 12.9
	2131+80 ①	SOUTH / 40.4	100	13.7	14.9 / 12.9
	2213+50 ①	SOUTH / 41.9	300	13.4	14.9 / 12.9
	2213+70 ②	NORTH / 41.9	120	12.0	14.9 / 12.9
	2247+70	NORTH / 42.6	50	14.7	14.5 / 12.5
	2248+45 ①	SOUTH / 42.6	200	12.9	14.5 / 12.5

①
DITCH BLOCK
CONSTRUCTED
THROUGH NO
EXCAVATION

②
EXIST. PLUG

NOTES:

WATER REFERENCE DATUM: NGVD 1929

1. ALL STATIONS ARE @ SURVEY AT ½ DITCH BLOCK. 2. NORTH/SOUTH DESIGNATES LOCATION RELATIVE TO ROADWAYS. 3. OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY. REVISED AUG. '88

PROJECT DESCRIPTION 7 MI EAST OF CR 839	FLORIDA DEPARTMENT OF TRANSPORTATION	STATE PROJECT NO. 03075-3402	
TO .23 MI EAST OF STR AA		COUNTY COLLIER	
TWP: _____	NAME: _____	DER: _____	CG: _____
SEC: _____	SIGNATURE: _____	COE: _____	WMD: _____
	CERTIFICATE NO. _____	DATE: _____	SHEET 36 OF 38
			DATE NOV. '87

EXHIBIT 35

TABULATION OF DITCH BLOCKS (PLUGS)

PROJECT NO.	STATION	LOCATION/ MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW / OHW
03075-3401	2290+25 ①	SOUTH / 43.4	250	12.2	14.4 / 12.4
	2291+00	NORTH / 43.4	80	13.2	14.4 / 12.4
	2361+50	NORTH / 44.7	50	12.3	14.4 / 12.4
	2361+80 ①	SOUTH / 44.7	100	13.3	14.4 / 12.4
	2469+00 ①	SOUTH / 46.8	300	12.2	14.3 / 12.3
	2470+00	NORTH / 46.8	80	13.8	14.3 / 12.3
	2521+80	NORTH / 47.8	50	12.1	14.3 / 12.3
	2519+62 ①	SOUTH / 47.8	525	12.3	14.3 / 12.3
	2556+40 ①	SOUTH / 48.4	300	11.0	14.3 / 12.3
	2619+70 ①	SOUTH / 49.6	160	12.5	13.9 / 11.9
	2619+80 ②	NORTH / 49.6	150	16.7	13.9 / 11.9
	2623+60 ②	NORTH / 49.7	285	14.1	13.9 / 11.9
	2624+05 ①	SOUTH / 49.7	380	16.6	13.9 / 11.9
	2625+80 ③	NORTH / 49.7	170	12.8	13.9 / 11.9
2670+70 ②	NORTH / 50.6	50	12.3	13.9 / 11.9	

①
DITCH BLOCK
CONSTRUCTED
THROUGH NO
EXCAVATION

②
EXIST. PLUG

③
PLUG TO BE LOCATED AT
STA. 2625+80 IS EXTENSION
OF EXISTING PLUG AT
STA. 2623+60.

- NOTES: 1. ALL STATIONS ARE @ SURVEY
AT C DITCH BLOCK.
2. NORTH/SOUTH DESIGNATES
LOCATION RELATIVE TO
ROADWAYS.
3. OHW/DHW ARE SHOWN IN THESE
PERMITS FOR INFORMATIONAL
PURPOSES ONLY.

REVISED AUG. '88

WATER REFERENCE DATUM: NGVD 1929

PROJECT DESCRIPTION EAST OF STR AA TO COLLIER-BROWARD COUNTY LINE		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3401	
				COUNTY COLLIER	
TWP:	RNG:	NAME: _____	SIGNATURE: <i>[Signature]</i>	DER	CG
SEC		CERTIFICATE NO. _____	DATE: <i>2/1/88</i>	COE	WMD
				SHEET 37 OF 38	
				DATE NOV. '87	

INVOLVEMENT	PERMANENT				TEMPORARY	
	EXCAVATION		FILL		FILL	
	AREA	VOLUME	AREA	VOLUME	AREA*	VOLUME
03075-3402 JURISDICTIONAL WETLANDS	52.8	1,324,785	127.7	933,427	30.0	NC
03075-3401 JURISDICTIONAL WETLANDS	54.2	1,064,787	106.5	614,646	22.5	NC
TOTAL JURISDICTIONAL WETLANDS	107.0	2,389,572	234.2	1,548,073	52.5	NC

NOTES: AREA IN ACRES; VOLUME IN CUBIC YARDS

*TEMPORARY FILL AREA IS WITHIN EXISTING RIGHT OF WAY AND WILL BE USED BY THE CONTRACTOR DURING CONSTRUCTION FOR STOCKPILING MATERIAL. IT WILL BE RESTORED TO NATURAL ELEVATION UPON COMPLETION OF CONSTRUCTION.

NC - NOT COMPUTED BECAUSE IT WILL BE REMOVED.

REVISED AUG. '88

PROJECT DESCRIPTION 7 MI EAST OF CR 839 TO COLLIER-BROWARD COUNTY LINE.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3402 & 03075-3401 COUNTY COLLIER		
TWP:	RNG:			DER	CG	SHEET 38 OF 38
SEC		NAME:	SIGNATURE: <i>[Signature]</i>	DATE: <i>[Date]</i>	COE	WMD
		CERTIFICATE NO. _____				DATE NOV. '87



South Florida Water Management District

John R. Wodraska, Executive Director
Tilford C. Creel, Deputy Executive Director

Post Office Box 24680 3301 Gun Club Road
West Palm Beach, Florida 33416-4680
Telephone (407) 686-8800
Florida WATS Line 1-800-432-2045

Post Office Box 8325 3504 Radio Road
Naples, Florida 33941
Telephone (813) 643-1585

IN REPLY REFER TO:

October 3, 1988

Mr. Jose S. Garcia
Post Office Box 789
Fort Myers, Florida 33902

Dear Mr. Garcia:

Subject: Permit No. 11-00396-S, I-75/SR 84
Alligator Alley
Collier County, S-/T50S/R26 thru 30E

The proposed animal crossing changes, as discussed in our meeting on September 27, 1988, will require a permit modification from the South Florida Water Management District.

Additional information will be required to obtain a permit modification. Please provide the following information:

- A cover letter describing the proposed change and why it is necessary.
- A project location map showing the locations of the animal crossings.
- A drawing depicting the animal crossings (plan and cross-sectional view).

This submittal should be made to the attention of Mr. Ed Yaun, Supervising Professional, Surface Water Management Division in our West Palm Beach Office. If you have any questions, do not hesitate to call.

Sincerely,

Margaret A. Kincaid

Margaret A. Kincaid
Regulatory Professional - Naples
Field Engineering Division

cc: DER - Fort Myers
COE - Fort Myers
bcc: A. Castro/J. Urquhart/E. Yaun/Insp

Nancy H. Roen
Chairman - Plantation

J.D. York
Vice Chairman - Palm City

Nathaniel P. Reed
Hobe Sound

Oscar M. Corbin, Jr.
Ft. Myers

Arsenio Milian
Miami

Fritz Stein
Belle Glade

James F. Garner
Ft. Myers

Mike Stout
Windermere

Doran A. Jason
Key Biscayne

SCANNED



Post Office Box 789
Fort Myers, Florida 33902
(813) 995-5403
September 26, 1988

RECEIVED SEP 28 1988

Southwest Florida Water Management District
Post Office Box 8325
Naples, Florida 33941

Attention: Margaret Kincaid

Re: Alligator Alley
W.P.I. Nos: 4141408 & 4141414
State Job Nos: 03175-3405 & 03175-3407
F.A.P. Nos: ACI-75-4(93)93 & ACI-75-4(91)80
County: Collier

Dear Ms. Kincaid:

As per our phone discussion, find attached a cross-section of the required animal accesses into the south canal at Alligator Alley. The section shows a twenty-four (24) foot opening that will allow permanent flow in the canals.

The method of installation required this extended ramp on the north side in order to allow the installation at the south side of the canal. Twenty-four feet is the canal required minimum section.

We would like to know if it meets with your approval before we instruct the contractor to proceed.

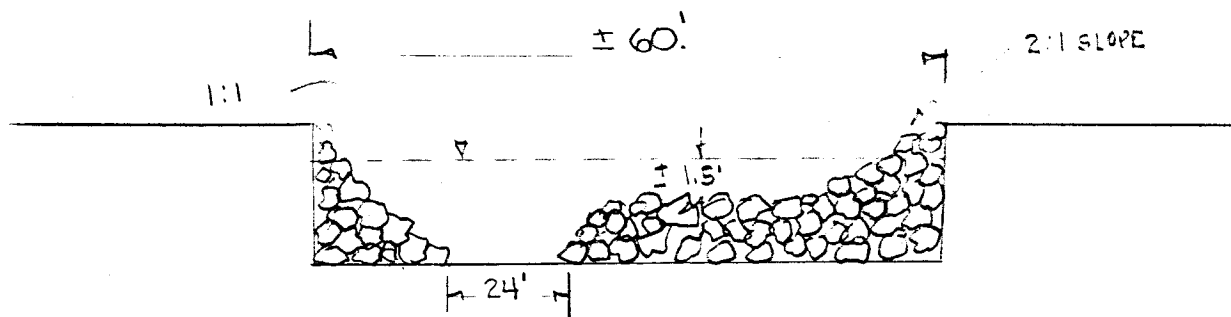
Yours truly,

Jose S. Garcia, P. E.
Ass't. Resident Engineer

JSG:lf

Attachment

cc: T. M. Rosseter
C. L. Carner
Raymond Ashe
Ray Ann Boyland, DER Fort Myers
Herb Moon
C. J. Deese
File

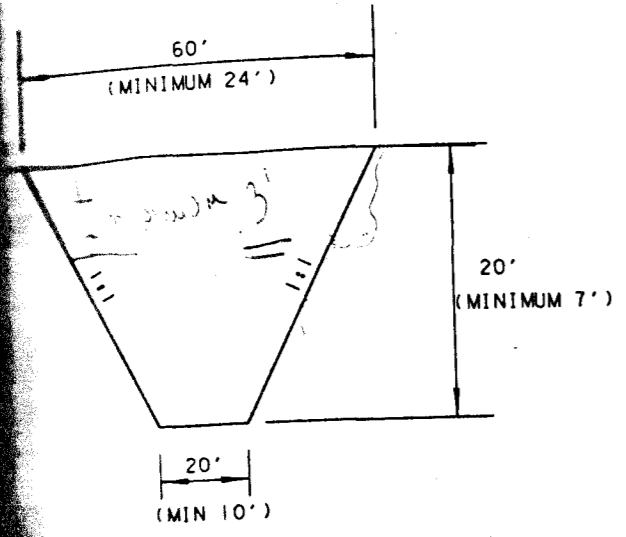


FLORIDA DEPARTMENT OF TRANSPORTATION

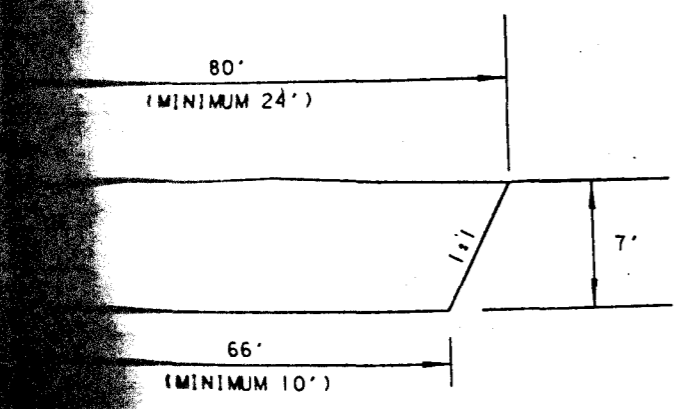
CROSSSECTION OF CANAL ANIMAL ACCESS

STATE JOB NOS: 03175-3405 & 03175-3407

SCANNED



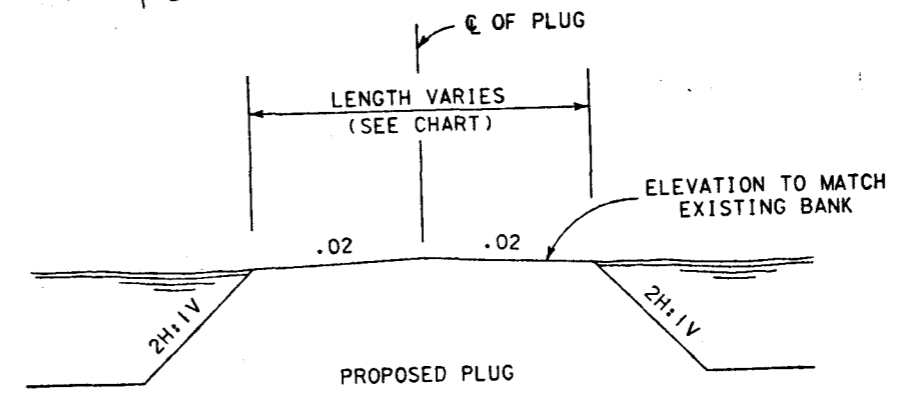
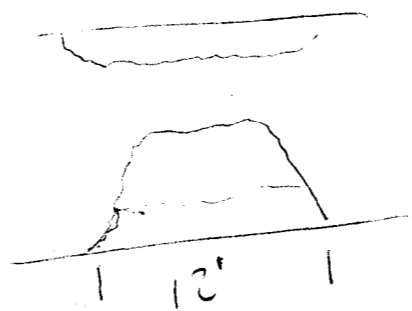
TYPICAL SECTION NO. 2
 STA 495+00 TO STA 523+00
 STA 567+00 TO STA 657+00
 STA 673+00 TO STA 688+00
 STA 729+10 TO STA 747+00
 STA 775+00 TO STA 811+60.70
 EXCEPT AT PLUG LOCATIONS



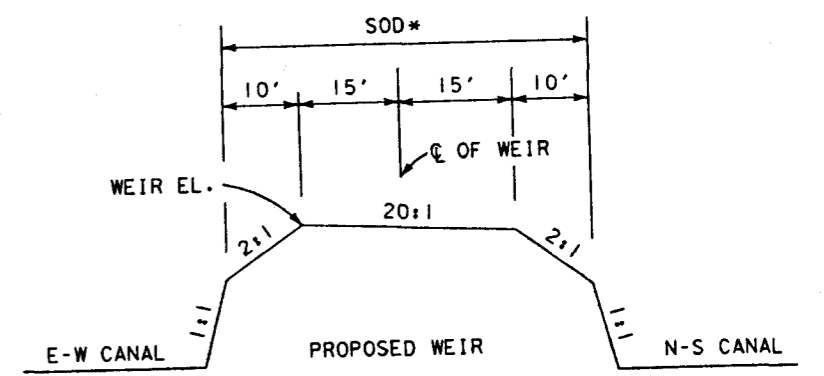
TYPICAL SECTION NO. 1
 STA 480+00 TO STA 495+00
 STA 523+00 TO STA 567+00
 STA 657+00 TO STA 673+00
 STA 688+00 TO STA 729+10
 STA 747+00 TO STA 775+00
 EXCEPT AT PLUG LOCATIONS

CANAL EXCAVATION		
STA	AREA(SF)	VOL(CY)
BEGIN CANAL		
480+00	511	28389
495+00	511	
CHANGE TO TYPICAL NO. 2		
495+00	800	82963
523+00	800	
CHANGE TO TYPICAL NO. 1		
523+00	511	41164
544+75	511	
PLUG FORMED THRU NO EXCAVATION EXISTING NORTH-SOUTH CANAL		
PLUG FORMED THRU NO EXCAVATION		
546+60	511	38609
567+00	511	
CHANGE TO TYPICAL NO. 2		
567+00	800	28148
576+50	800	
PLUG FORMED THRU NO EXCAVATION		
580+20	800	114074
618+70	800	
PLUG FORMED THRU NO EXCAVATION		
620+70	800	91407
651+55	800	
PLUG FORMED THRU NO EXCAVATION EXISTING NORTH-SOUTH CANAL		
PLUG FORMED THRU NO EXCAVATION		
652+95	800	12000
657+00	800	
CHANGE TO TYPICAL NO. 1		
657+00	511	30281
673+00	511	
CHANGE TO TYPICAL NO. 2		
673+00	800	44444
688+00	800	
CHANGE TO TYPICAL NO. 1		
688+00	511	75893
728+10	511	

CANAL EXCAVATION		
STA	AREA(SF)	VOL(CY)
PLUG FORMED THRU NO EXCAVATION CHANGE TO TYPICAL NO. 2		
729+10	800	53037
747+00	800	
CHANGE TO TYPICAL NO. 1		
747+00	511	52993
775+00	511	
CHANGE TO TYPICAL NO. 2		
775+00	800	46519
790+70	800	
PLUG FORMED THRU NO EXCAVATION		
793+70	800	53058
811+60.70	800	
END CANAL		
TOTAL CANAL EXCAVATION		792979 CY



TYPICAL SECTION NO. 3
 PLUG DETAIL



TABULATION OF WEIRS		
Q STA.	LOCATION	WEIR EL.
545+00	SOUTH	9.5
546+35	SOUTH	9.5
544+95	NORTH	9.5
546+70	NORTH	9.5
651+25	NORTH	10.0
651+80	SOUTH	9.5
652+70	SOUTH	10.0
653+20	NORTH	10.0

* LAP SOD AS PER INDEX NO. 100.

WEIR DETAIL

TABULATION OF PLUGS		
Q STA.	LOCATION	LENGTH
578+35	SOUTH	370'*
619+70	NORTH	200'*
619+70	SOUTH	200'*
728+60	SOUTH	100'*
728+60	NORTH	100'*
792+20	SOUTH	300'*
792+20	NORTH	80'*

* PLUG FORMED THRU NO EXCAVATION
 * EXISTING DITCH BLOCK

NO.	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE
1	DMW	DESIGNED	4/87	DMW	DRAWN	4/87	CWB	CHECKED	4/87
2	CWB	CHECKED	4/87	CWB	CHECKED	4/87	JWC	SUPERVISED	4/87



State of Florida
DEPARTMENT OF NATURAL RESOURCES

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399

TOM GARDNER
Executive Director

BOB MARTINEZ
Governor
JIM SMITH
Secretary of State
BOB BUTTERWORTH
Attorney General
GERALD LEWIS
State Comptroller
BILL GUNTER
State Treasurer
DOYLE CONNER
Commissioner of Agriculture
BETTY CASTOR
Commissioner of Education

PLEASE ADDRESS REPLY TO:

September 16, 1988

Mr. Carson Carner
Resident Engineer
P.O. Box 789
Ft. Myers, FL. 33902

03175 3405
" 3406
" 3407

Dear Mr. Carner:

In reference to our telephone conversation of September 14, 1988 concerning the (8) eight feet minimum clearance requirement under the wildlife crossings constructed on the portion of I-75 within Collier County.

I have reviewed the approved construction plans being used by the contractors and find that the (8) eight feet minimum clearance requirement stipulated in the DER permit was not intergated into the plans. The only way to achieve the eight feet clearance at this point would be to dig out the area under each crossing, there by creating an unsatisfactory condition of standing water at these locations.

I have discussed this situation with my DNR chain of command and we feel that a standing water situation would be detrimental to any wildlife using the crossings. Therefore, we are requesting that the natural grade elevation as indicated on the approved constructed plans be used at these locations.

If I can provide any additional assistance please contact me at Fakahatchee Strand State Preserve.

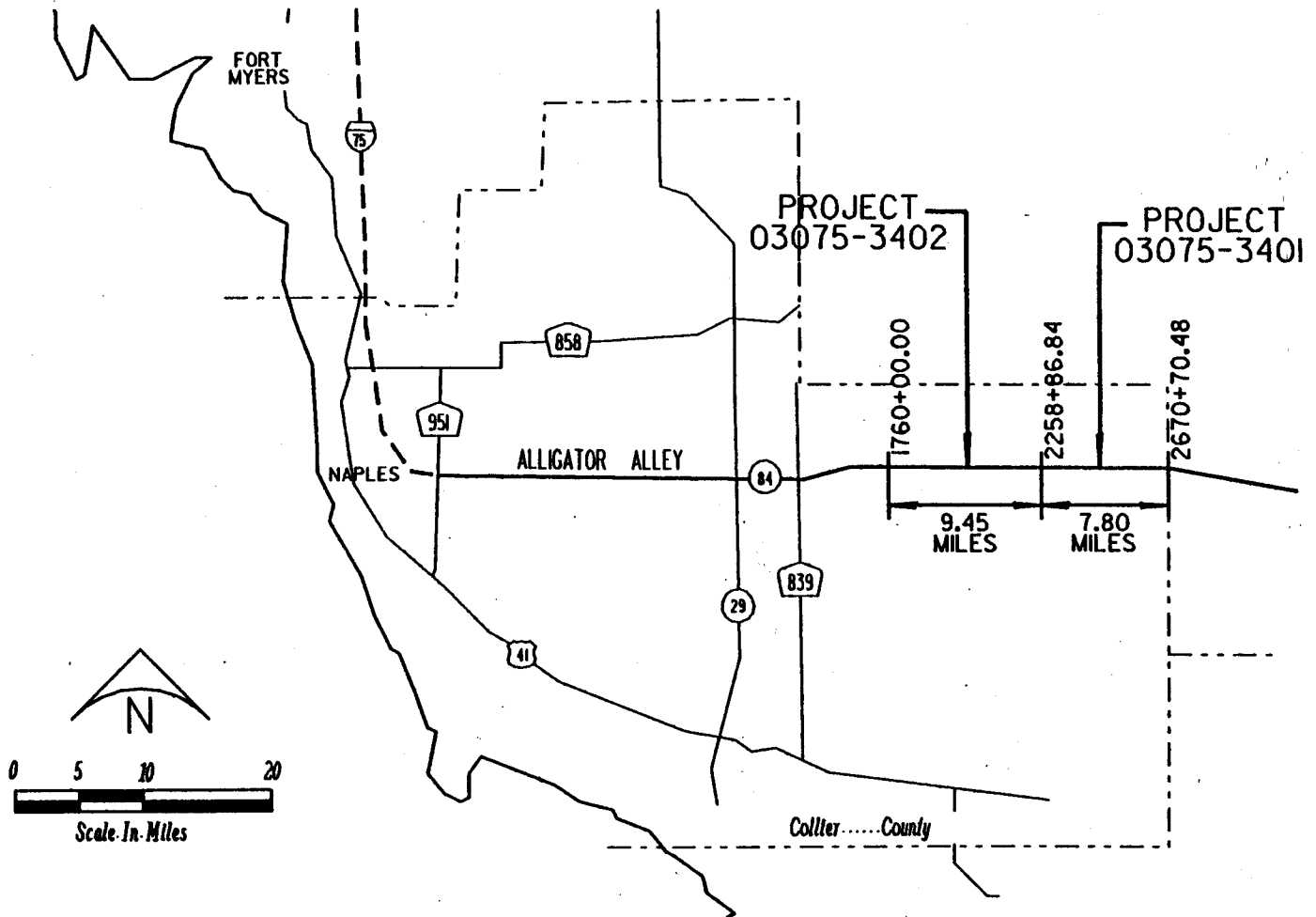
Sincerely,

Buff Wiley, Park Manager
Fakahatchee Strand State Preserve

cc: Robert Dye, District Manager

EXHIBIT 1

10318-D



VICINITY MAP
COLLIER COUNTY
PROJECT LENGTH 17.25 MILES

PROJECT DESCRIPTION 7 MI EAST OF CR 839
TO COLLIER-BROWARD COUNTY LINE.

TMP: _____ RING: _____
SEC _____

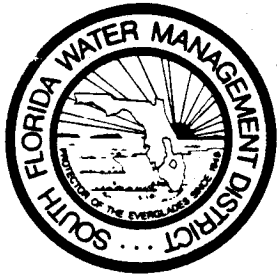
FLORIDA DEPARTMENT OF TRANSPORTATION

NAME: _____
SIGNATURE: *Michael Stern*
CERTIFICATE NO. _____ DATE: 12/3/87

STATE PROJECT NO. 03075-3402 & 03075-3401
COUNTY COLLIER

DER	CG	SHEET 2 OF 38
COE	WMD	DATE NOV.

SCANNED



South Florida Water Management District

John R. Wodraska, Executive Director
Tilford C. Creel, Deputy Executive Director

Post Office Box 24680 3301 Gun Club Road
West Palm Beach, Florida 33416-4680
Telephone (407) 686-8800
Florida WATS Line 1-800-432-2045

IN REPLY REFER TO:

Application Number: 04148-B
Permit (Mod.) No. 11-00396-S
Resource Control Department

September 14, 1988

Raymond A. Ashe, Jr.
Florida Department of Transportation
605 Suwannee Street, Mail Station 37
Tallahassee, FL 32399-0450

Dear Applicant:

Subject: I-75/Alligator Alley, Collier County, S---/T50S/R32-34E

Pursuant to Rule 40E-1.603, Florida Administrative Code, this is to advise you that the requested additional information regarding the above referenced application received August 22, 1988 was sufficient to constitute a complete application.

District staff recommendations will be presented to the Governing Board of this District at a regularly scheduled meeting not later than November 4, 1988. A copy of the staff report with the staff recommendations for approval or denial will be provided to you upon completion and in advance of presentation to the Governing Board.

Should you have any questions in this matter please feel free to contact this office.

Sincerely,

Edward W. Yaun
Supervising Professional
Surface Water Management Division

EWY/mc

cc: DER
Collier County Engineer
Mr. Oscar Corbin

bcc: M.Clemente/B.Colevecchio/Field Rep/Area Engineer/Enforcement/J.Morgan

Nancy H. Roen
Chairman - Plantation

J.D. York
Vice Chairman - Palm City

Nathaniel P. Reed
Hobe Sound

Oscar M. Corbin, Jr.
Ft. Myers

Arsenio Milian
Miami

Fritz Stein
Belle Glade

James F. Garner
Ft. Myers

Mike Stout
Windermere

Doran A. Jason
Key Biscayne

SCANNED

RECEIVED SEP 14 1988

M E M O R A N D U M

TO: Maria Clemente
FROM: Rae Ann Boylan *RAB*
DATE: September 12, 1988
SUBJECT: 04148-B, SR 84 to Interstate 75
Collier County, --/T50S/R32E-34E
Environmental Comments

The application includes the construction and operation of water management facilities to serve 17.25 miles of improvements to Interstate 75 in eastern Collier County. The improvements include the construction of two additional traffic lanes. The works include installation of numerous canal plugs and additional culverts to promote sheetflow to the south. A borrow / distributor canal will be constructed along portions of the southern side of the highway. The improvements also include the construction of nine new wildlife crossings and five bridge extensions which will also serve as wildlife crossings.

The project as proposed will impact 341.2 acres of wetlands. An additional 52.5 acres will be temporarily disturbed during actual construction. The wetlands to be impacted include cypress and mixed hardwood swamp, marshes and wet prairies. Some of these wetlands had been previously disturbed during the original highway construction. In order to minimize potential adverse impacts, the following items and modifications have been incorporated into the project design. The installation of additional culvert openings will promote and enhance sheetflow to the south. The construction of additional wildlife crossings will provide a greater degree of protection to the Florida panther. Additional activities associated with the project, but not directly related to the actual construction, include negotiating the purchase of over 30,000 acres of lands adjacent to the project to be placed in FDNR ownership. This purchase is part of a larger aquisition program through which over 100,000 acres will be purchased and set aside for conservation purposes.

In review of the project proposal, District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project.

RAB/rab
cc: S. Bradow/ E. Yaun/ M. Kincaid/ K. Dryden

SCANNED

FLORIDA

BOB MARTINEZ
GOVERNOR



RECEIVED MAY 27 1988

DEPARTMENT OF TRANSPORTATION

605 Suwannee Street, Tallahassee, Florida 32399-0450, Telephone (904) 488-8541

May 19, 1988

KAYE N. HENDERSON
SECRETARY

INSPECTION
RECEIVED

MAY 24 1988

Mr. Edward W. Yaun, P.E.
Surface Water Management Division
South Florida Water Management Division
3301 Gun Club Road
West Palm Beach, Florida 33402-9958

RESOURCE CONTROL DEPARTMENT

Dear Mr. Yaun:

Re: SFWMD application No. 04148-B, State Projects 03075-3402 and 3401, Work Program Items 1142185 and 1142190, I-75/ Alligator Alley from 12 miles east of SR 29 to the Broward County line, Collier County, Florida

The following information is submitted in response to your May 13, 1988 request for additional information. The numbered items correspond to the items in that request.

1. This project is not within an OFW. This project is located to the east of the Big Cypress National Preserve. A map of the Preserve is attached with the project boundary noted.
2. The total acreage for the project corridor is approximately 1100 acres. Within this area, approximately 46 acres is presently impervious. The proposed construction will add approximately 83 acres, for a total impervious area of 129 acres.
3. The median will provide treatment for one of the existing lanes, runoff from the remaining lanes will flow across grassed areas and into the closed canal system.
4. The same type of treatment for stormwater will be provided for this 12 mile project as was provided for the 32 miles of project to the west and 25 miles of project to the east that have been permitted and are under construction. This provides for all stormwater to flow across grassed areas and into the closed canal system and then sheetflow across the adjacent lands during periods of high water.
5. The flow patterns existing are not "natural", but are a result of the openings that were constructed when the original SR 84/Alligator Alley was constructed. As described in General Note 4 in the permit application, the southern canal will serve to reestablish the flow that existed prior to the SR 84 construction. All the canal banks and canal blocks or plugs will be left at a natural ground elevation.

SCANNED

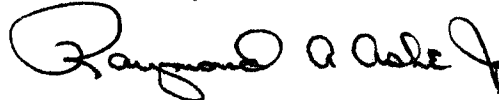
Additional bridges and culverts are being constructed. Therefore, no flows are being intercepted and the current flow patterns, which discharge at isolated points, are being enhanced by allowing for a uniform flow pattern.

6. The Department of Environmental Regulation (DER) will conduct a biological review of this project as they review the permit application. The Department is not routinely copied in on this report, however, a copy can be obtained from Ms. Trudy Bell, DER, Tallahassee when it is available.
7. Eliminating the canal sections that were identified will result in increasing the size of the remaining canal. These sections of canal will provide approximately 314,000 cubic yards of material or 13 per cent of the fill required. To eliminate this 2 miles of canal, the remaining canal section will have to be widened by an additional 5 to 10 feet. The Department is in the process of obtaining soil boring data to determine the type of material that exists in the area of this canal. We will further evaluate the feasibility of eliminating these canal sections when we have reviewed the soil data.
8. The land purchase is progressing at a steady rate. A total of 100,000 acres are being acquired. All acquisitions are scheduled to be completed by June 1989.

This information should allow you to continue with your review and processing of this application. We will inform you of our decision to eliminate sections of the canal through the larger forested wetland systems as soon as we review the soil data.

If you need any additional information or clarification, please call me at 904/487-2780.

Sincerely,



Raymond A. Ashe Jr.
Transportation Specialist
Permits

Attachment

cc: Jim Wilt
Jim Cunningham
Bill Laufman



South Florida Water Management District

RECEIVED JUL 18 1988

John R. Wodraska, Executive Director
Tilford C. Creel, Deputy Executive Director

Post Office Box 24680 3301 Gun Club Road
West Palm Beach, Florida 33416-4680
Telephone (407) 686-8800
Florida WATS Line 1-800-432-2045

IN REPLY REFER TO:

Application No. 04148-B
Resource Control Department

June 23, 1988

Raymond A. Ashe, Jr.
Florida Department of Transportation
605 Suwannee Street Mail Station 37
Tallahassee, FL 32399-0450

Dear Mr. Ashe:

Subject: I-75/Alligator Alley from 12 miles east of SR 29 to the Broward County Line, Collier County S1-6 & 31-36/T50S/R32-34E

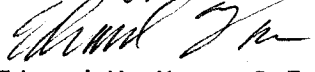
The data you submitted on May 24, 1988 has been reviewed. The information received was incomplete and did not adequately address the following items. According to Rule 40E-40, Florida Administrative Code (FAC), review of this project cannot be completed without this information.

Please provide a copy of the results of the soil boring data and the results of your evaluation of the feasibility of the elimination of the southern borrow/distributor canal. Please be advised that additional comments may be forthcoming following a review of this material, when submitted.

In accordance with 40E-1.603(5) FAC, if the information is not received within 30 days of this date, to render the application complete, the application may be processed for denial if not withdrawn by the applicant. Please submit FOUR copies of the information.

Should you have any questions, please call Maria Clemente (ext. 88-404), of this office. Also, please direct any response to the above comment to Ms. Clemente.

Sincerely,


Edward W. Yaun, P.E.
Supervising Professional

EWY/mc

cc: Collier County Engineer
DER

bcc: M.Clemente/B.Colevecchio/R.Boylan/Area Engineer/Field Representative/

Nancy H. Roen
Chairman - Plantation

J.D. York
Vice Chairman - Palm City

Nathaniel P. Reed
Hobe Sound

Oscar M. Corbin, Jr.
Ft. Myers

Arsenio Milian
Miami

Fritz Stein
Belle Glade

James F. Garner
Ft. Myers

Mike Stout
Windermere

Doran A. Jason
Key Biscayne

SCANNED



South Florida

Water Management District

Post Office Box 24680 3301 Gun Club Road
West Palm Beach, Florida 33416-4680
Telephone (407) 686-8800
Florida WATS Line 1-800-432-2045

Insp
John R. Wodraska, Executive Director
Tilford C. Creel, Deputy Executive Director

IN REPLY REFER TO:

Application No. 04148-B
Resource Control Department

May 13, 1988

Raymond A. Ashe, Jr.
Florida Department of Transportation
605 Suwannee Street Mail Station 37
Tallahassee, FL 32399-0450

Dear Mr. Ashe:

Subject: I-75/Alligator Alley from 12 miles east of SR 29 to the Broward
County Line, Collier County S1-6 & 31-36/T50S/R32-34E

The staff has completed a preliminary review of the above. According to Rule 40E-40, Florida Administrative Code (FAC), the following items must be addressed before our review can continue.

1. It appears that this project discharges to an Outstanding Florida Water (OFW). Please be advised that all projects discharging to an OFW are required to provide dry pretreatment. Please address.
2. Please provide the total acreage figure for this project, including pervious and impervious area for both the existing and proposed project area.
3. It appears that water quality is being provided in the median. How will runoff from the roadway be directed toward the median?
4. Please provide water quality calculations for this project which include the volume of water quality being provided for both the proposed and existing roadway.
5. Please document how the natural flow patterns entering and exiting under the roadway will be impacted as a result of the excavation of the southern borrow/distribution canal. Staff is concerned that flows will be intercepted and patterns will be disturbed.
6. The information submitted indicates a more detailed review of existing vegetation type was being prepared. Please submit a copy of this report, once completed for staff's review.

Nancy H. Roen
Chairman - Plantation

J.D. York
Vice Chairman - Palm City

Nathaniel P. Reed
Hobe Sound

Oscar M. Corbin, Jr.
Ft. Myers

Arsenio Milian
Miami

Fritz Stein
Belle Glade

James F. Garner
Ft. Myers

Mike Stout
Windermere

Doran A. Jason
Key Biscayne

SCANNED

Raymond A. Ashe, Jr.
May 13, 1988
Page 2

7. It appears a majority of the wetland impacts will result from excavation of the southern borrow / distributor canal. In order to minimize impacts staff recommends elimination of the canal and extension of the proposed natural grade plugs through the larger forested wetland systems. Such areas include but are not limited to Stations 1810 - 1840, 1851 - 1862, 1884 - 1907, 2045 - 2055, 2100 - 2107, 2140 - 2155 and 2517 - 2527.
8. The information indicates the purchase of approximately 30,000 acres of lands adjacent to the site is currently being negotiated. What is the status of this land acquisition?

In accordance with 40E-1.603(5) FAC, if the information is not received within 90 days of this date, the application may be processed for denial if not withdrawn by the applicant. Please submit FOUR copies of the information.

Should you have any questions, please call Maria Clemente (extension 88404) of this office. For questions concerning environmental issues, please contact Rae Ann Boylan of our Ft. Myers office at (813)332-0399.

Sincerely,



Edward W. Yaun, P.E.
Supervising Professional
Surface Water Management Division

EWY/mc

cc: DER
Collier County Engineer

bcc: M.Clemente/Inspection/B.Colevecchio/F.Vidzes/Ft.Myers

RECEIVED MAY 12 1988

M E M O R A N D U M

TO: Maria Clemente
FROM: Rae Ann Boylan *RAB*
DATE: May 11, 1988
SUBJECT: 04148-B, SR-84 to Interstate 75
Collier County, S--/T50S/R32-34E
Environmental Review (Flight 4/28/88)

The project as proposed includes the construction 17.25 miles of interstate highway improvements. The improvements include two additional traffic lanes. The works include the installation of numerous canal plugs and additional culverts to promote sheetflow to the south. A borrow / distributor canal will be constructed along the southern side of highway. The improvements also include construction of nine new wildlife crossings and five bridge extensions will also serve as wildlife crossings.

The project as proposed will impact 342.7 acres of wetlands. An additional 52.5 acres of wetlands will be temporarily disturbed during actual construction. The wetlands to be impacted include cypress and mixed hardwood swamp, marshes and wet prairies.

Prior to completion of an environmental review the following information is requested:

1. The information submitted indicates a more detailed review of existing vegetation type was being prepared. Please submit a copy of this report, once completed for staff's review.
2. It appears a majority of the wetland impacts will result from excavation of the southern borrow / distributor canal. In order to minimize impacts staff recommends elimination of the canal and extension of the proposed natural grade plugs through the larger forested wetland systems. Such areas include but are not limited to Stations 1810 - 1840, 1851-1862, 1884 - 1907, 2045 - 2055, 2100 - 2107, 2140 - 2155 and 2517 - 2527.
3. The information indicates the purchase of approximately 30,000 acres of lands adjacent to the site is currently being negotiated. What is the status of this land acquisition?

RAB/jr

cc: S. Bradow/E. Yaun/M. Kincaid/K. Dryden

SCANNED

RECEIVED MAY 11 1988

MEMORANDUM

TO: Marie Zwicker
FROM: Rae Ann Boylan *RAB*
DATE: May 9, 1988
SUBJECT: 04158-F, Shaarda & Company
Collier County, S8/T51S/R27E
Environmental Review (Flight 4/28/88)

The project site includes improved agricultural lands used for vegetable production. The site is bordered on the north and west by farm lands. An undeveloped tract of land, primarily cypress forest, is located east of the site.

The application includes the withdrawal of supplemental irrigation water from the lower Tamiami aquifer. Adverse environmental impacts are not anticipated as a result of the proposed allocation.

RAB/jr

cc: S. Bradow
M. Kincaid

SCANNED



South Florida Water Management District

Vidzys
John R. Wocraska, Executive Director
Timothy C. Creel, Deputy Executive Director

Post Office Box 24680 3301 Gun Club Road
West Palm Beach, Florida 33416-4680
Telephone (305) 686-8800
Florida WATS Line 1-800-432-2045

IN REPLY REFER TO:

Our Application No. 08267-B
Resource Control Department

**BIG CYPRESS BASIN
SO. FLA. WATER MANAGEMENT DISTRICT
P. O. BOX 8325
NAPLES, FL 33941**

RECEIVED SEP 30 1987

September 25, 1987

Mr. Raymond A. Ashe, Jr.
Florida Department of Transportation
605 Suwannee Street, Mail Station 37
Tallahassee, Florida 32399-0450

Dear Mr. Ashe:

Subject: Permit (MOD) No. 11-00396-S, I-75/SR 84 From SR 29 West 11.93
Miles, Collier County, S--/T49-50S/R30-32E

The staff has completed a preliminary review of the above. According to Rule 40E-4, Florida Administrative Code (FAC), the following items must be addressed before our review can continue.

1. Please provide an additional set of aerial photographs with the project superimposed on it for the West Palm Beach office. The set which was supplied originally was sent to the Fort Myers office for the environmental review.
2. From review of the plans, it appears that water quality may only be provided for 12' of the existing roadway. Water quality criteria must be met for the new pavement. Please address this issue.
3. Please provide soil borings to confirm that no confining layers will be breached by the proposed canal excavation which may adversely affect the wetland community.
4. Please describe the plans for the intersection of the proposed project at SR 29 and at CR 839 (Turner River Road).
5. How were the culvert dimensions determined?
6. The application states 23 bridges, yet Staff could only locate 11 bridges on the plans. Please clarify.
7. Please supply plans depicting the structures (culverts, bridges, ditch blocks, etc.) presently existing.

Nancy H. Roen
Chairman - Plantation

J.D. York
Vice Chairman - Palm City

Nathaniel P. Reed
Hobe Sound

Oscar M. Corbin, Jr.
Ft. Myers

Arsenio Milian
Miami

Fritz Stein
Belle Glade

James F. Garner
Ft. Myers

Mike Stout
Windermere

Doran A. Jason
Key Biscayne

SCANNED

8. Does the proposed relocated SR 29 canal have sufficient capacity to convey the runoff presently being routed through the existing canal? Please provide calculation and cross section of the existing and proposed canals to verify this. Please document that downstream property will not be adversely impacted by rerouting the canal or increasing drainage.
9. Will velocities through the culverts be erosive? If so, what method of dissipating energy will be utilized?
10. Comments from the District's Resource Planning Staff are not available at this time. Please be advised that additional comments may be forthcoming.

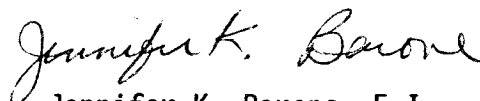
The following questions pertain to the environmental review of the project. Questions should be directed to Rae Ann Boylan of the Fort Myers office, (813) 332-0399.

11. The plans indicate 147 acres of wetlands will be impacted. Since wetland impacts are involved please provide details of a mitigation or compensation proposal to off-set the potential adverse environmental impacts.
12. Please provide a typical cross-section of the proposed canal to be excavated to replace that portion of the S.R. 29 canal which will be filled.
13. Will any improvements be made to the existing S.R. 29 canal south of where the new canal will tie back into the system?
14. Pursuant to staff's conversation with Raymond Ashe (Florida D.O.T.) it was indicated Bridge T will be replaced with a box culvert and control structure. If details of this proposed modification are available please submit a copy to the District.
15. Please provide additional information which indicates how the locations of the northern canal plugs were selected.
16. The original set of aerials submitted with the application did not contain Sheet 48 of 91. Please submit this sheet.

I-75/SR 84 From SR 29 West 11.93 Miles
September 25, 1987
Page 3

In accordance with 40E-1.603(5) FAC, if the information is not received within 90 days of this date, the application may be processed for denial if not withdrawn by the applicant. Please submit FOUR copies of the information. Should you have any questions, please call.

Sincerely,



Jennifer K. Barone, E.I.
Water Management Engineer 2

copy
JKB/jkb

cc: Mr. Oscar Corbin
Mr. James Garner
Mr. Fred Fagergren
DER
Collier County Engineer

bcc: Inspection, Ryan, Daron, Fort Myers, Boylan, Vidzes, Milleson

RECEIVED JUN - 4 1987

South Florida Water Management District

SURFACE WATER MANAGEMENT PERMIT NO. 11-00396-S

(NON-ASSIGNABLE)

DATE ISSUED: April 9, 1987

AUTHORIZING: CONSTRUCTION AND OPERATION OF A WATER MANAGEMENT SYSTEM SERVING 20.0 MILES OF 4-LANE INTERSTATE HIGHWAY AND ASSOCIATED FACILITIES (FROM THE NAPLES TOLL BOOTH EAST TO S.R. 29) DISCHARGING VIA A CANAL SPREADER WATERWAY INTO EXISTING WETLAND AREAS AND THE FAKAHATCHEE STRAND STATE PRESERVE.

LOCATED IN: COLLIER COUNTY, SECTION --- TWP. 50S RGE. 26 THRU 30E

ISSUED TO: Florida Department of Transportation
(I-75/Alligator Alley)
Hayden Burns Building
605 Suwannee Street
Tallahassee, Florida / 32301-8064
(App. Nos. 08076-K, 08116-B and 08116-F)

This Permit is issued pursuant to Application for Permit No. _____ dated August 4, 19 86. Permittee agrees to hold and save the South Florida Water Management District and its successors harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance, or use of any work or structure involved in the Permit. Said application, including all plans and specifications attached thereto, as addressed by the staff report, is by reference made a part hereof.

This Permit may be revoked or modified at anytime pursuant to the appropriate provisions of Chapter 373, Florida Statutes.

This Permit does not convey to Permittee any property rights or privileges other than those specified herein, nor relieve the Permittee from complying with any law, regulation, or requirement affecting the rights of other bodies or agencies. All structures and works installed by Permittee hereunder shall remain the property of the Permittee.

Within thirty (30) days after the completion of the construction of any work or structure relative to this permit, the Permittee shall file with the District a written statement of completion on the appropriate form provided by the Board.

SPECIAL CONDITIONS ARE AS FOLLOWS:

SEE SHEET 2 OF 3 - 9 PROJECT SPECIAL CONDITIONS.
SEE SHEET 3 OF 3 - 12 LIMITING CONDITIONS.

*POSTED
6-9-87
JPS*

POSTED
QUADRANGLES <u>3, 4, 8, 24</u>
ITEM NUMBER <u>8, 56, 6,</u>
DATE <u>5-21-87</u>
SIGNED <u>KRUPINIS</u>

FILED WITH THE CLERK OF THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ON 5-18-87 Original signed by:
BY Vern Kaiser
DEPUTY CLERK

SOUTH FLORIDA WATER MANAGEMENT DISTRICT, BY ITS GOVERNING BOARD

Original Signed
by Thomas E. Huser
By Assistant Secretary

SCANNED

SPECIAL CONDITIONS

1. WITHIN NINE MONTHS FROM THE DATE OF PERMIT ISSUANCE, THE PERMITTEE SHALL COMPLETE A DRAINAGE STUDY TO DETERMINE THE APPROPRIATE WEIR CREST ELEVATIONS FOR ALL PROPOSED WEIR STRUCTURES. THE STUDY SHALL BE PRESENTED TO BOTH THE DISTRICT AND COLLIER COUNTY STAFF FOR REVIEW AND APPROVAL.
2. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
3. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
4. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
5. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
6. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
7. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.
8. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.
9. LAKE SIDE SLOPES SHALL BE 6:1 (HORIZONTAL:VERTICAL) AS SHOWN ON EXHIBIT 4H. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.

LIMITING CONDITIONS

1. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED, ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.
3. THE PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LOCAL SUBDIVISION REGULATIONS AND OTHER LOCAL REQUIREMENTS. IN ADDITION THE PERMITTEE SHALL OBTAIN ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY CONSTRUCTION OR ALTERATION OF WORKS AUTHORIZED BY THIS PERMIT.
4. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFIES THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE DISTRICT. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL SUBMIT THE CERTIFICATION AND NOTIFY THE DISTRICT THAT THE FACILITIES ARE READY FOR INSPECTION AND APPROVAL. UPON APPROVAL OF THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE ENTITY APPROVED BY THE DISTRICT.
5. ALL ROADS SHALL BE SET AT OR ABOVE ELEVATIONS REQUIRED BY THE APPLICABLE LOCAL GOVERNMENT FLOOD CRITERIA.
6. ALL BUILDING FLOORS SHALL BE SET AT OR ABOVE ELEVATIONS ACCEPTABLE TO THE APPLICABLE LOCAL GOVERNMENT.
7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
8. NO CONSTRUCTION AUTHORIZED HEREIN SHALL COMMENCE UNTIL A RESPONSIBLE ENTITY ACCEPTABLE TO THE DISTRICT HAS BEEN ESTABLISHED AND HAS AGREED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN. UPON RECEIPT OF WRITTEN EVIDENCE OF THE SATISFACTION OF THIS CONDITION, THE DISTRICT WILL ISSUE AN AUTHORIZATION TO COMMENCE CONSTRUCTION.
9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.
10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.
11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
12. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

I-75

Resp

SPECIAL CONDITIONS

1. WITHIN NINE MONTHS FROM THE DATE OF PERMIT ISSUANCE, THE PERMITTEE SHALL COMPLETE A DRAINAGE STUDY TO DETERMINE THE APPROPRIATE WEIR CREST ELEVATIONS FOR ALL PROPOSED WEIR STRUCTURES. THE STUDY SHALL BE PRESENTED TO BOTH THE DISTRICT AND COLLIER COUNTY STAFF FOR REVIEW AND APPROVAL.
2. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
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6. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
7. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF ~~COLLIER COUNTY WITHIN THE PLATTED SUBDIVISION OF GOLDEN GATE ESTATES AND THE FLORIDA DEPARTMENT OF TRANSPORTATION, ELSEWHERE~~
8. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.
9. LAKE SIDE SLOPES SHALL BE 6:1 (HORIZONTAL:VERTICAL) AS SHOWN ON EXHIBIT 4H. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.

Perm -
Condition 7 revised at Governing Board
meeting on 4-9-87.

Charlie

cc: Ryan

Unsell

LAST DATE FOR GOVERNING BOARD ACTION:
April 14, 1988

DRAFT
Subject to Governing
Board Approval

Application No. 08267-B-

Modification No. 11-00396-S

I-75, ALLIGATOR ALLEY

Collier County, S5/T49&50S/R30E to S6/T49&50S/R32E

S T A F F R E P O R T

ABSTRACT

This application is a request to modify the construct and operate permit for I-75/Alligator Alley (permit # 11-00396-S) to include and an additional 12.4 miles of interstate highway and associated drainage facilities from SR 29 (Station 1105+00.00) east to Station 1760+00.00 (see Exhibit 1). Staff recommendation is for approval.

THE APPLICATION

- A. Existing Facilities: Existing is a 2-lane highway, Alligator Alley (SR 84), with an adjacent borrow canal located on the north side of the roadway alignment with 14-15" diameter median inlets which direct runoff into the north borrow canal, 3-10' by 5' box culverts which provide flow under the existing 2-lane roadway, 1 plug (to be removed) in the north borrow canal located approximately at station 1247 and 2 bridges located approximately at stations 1130 (to be replaced) and 1247 (refer to Exhibits 2F - 2I).
- B. Proposed Facilities: Expansion of the 2-lane roadway to a 4-lane interstate highway number 75. The 3 existing 10' by 5' box culverts are to be extended south to spreader swales with 8 additional 48" diameter culverts, 1 additional double 9' by 8.5' box culvert and 3 additional 10' by 5' box culverts (see Exhibit 2U) to improve flow through capabilities from the north to the south. The existing plug in the north borrow canal is to be removed and replaced with 13 plugs (see Exhibits 2B and 2C for location and Exhibit 2V for dimensions). Four bridges, U, V, W and X, are proposed for this section of the roadway (see Exhibits 2N and 2Q-2S).

Relocation of the State Route 29 roadside canal is also proposed in this application. The canal requires relocation to allow for a future interchange between I-75 and State Route 29.

EVALUATION

The plug and bridge locations throughout the project have been chosen to correspond with recommendations in the Greiner Engineering Study compiled for the Florida Department of Transportation (FDOT). The design intent of the study was to re-establish sheetflow to the extensive wetland areas south of Alligator Alley which had been previously disrupted by the original roadway construction (Alligator Alley/SR 84). It appears that the proposed roadway modification will be consistent with the above intent. Southerly flows will be enhanced through plug, bridge and wildlife crossing placement and hydraulic gradient of the existing and proposed canal. Big Cypress Basin has recommended placing a control structure located at the State Route 29 crossing with the stipulation that the Big Cypress Basin procure responsibility for operation of the structure. Details of the structure are not available at this time (see Special Condition No. 8).

ENVIRONMENTAL CONSIDERATIONS

The project as proposed includes the construction of 12.4 miles of interstate highway improvements located east of SR 29 and will transect the Big Cypress National Preserve.

The improvements include two additional traffic lanes. The works include the installation of numerous canal plugs and additional culverts to promote historic sheetflow to the south. The southern borrow/distribution canal has been deleted from this segment of the highway. Smaller spreader swales will be constructed at the culverts to distribute the water. The borrow lake at the southwestern corner of the SR 29 and I-75 will be expanded to provide the necessary fill material. The works also include construction of six new wildlife crossings and three bridge extensions which will also serve as wildlife crossings.

The project as proposed will impact 146.2 acres of wetlands. An additional 49.2 acres of wetlands will be temporarily disturbed during actual construction. The wetlands to be impacted were previously altered during the original alley construction. The wetlands to be impacted are primarily cypress and mixed hardwood swamp and freshwater marshes. In order to minimize potential adverse environmental impacts, the following items and modifications have been incorporated into the project design. The overall project has been designed to promote and re-establish historic sheetflow in the area. Processing is underway to purchase a 640-acre parcel of wetlands adjacent to the highway. These lands will then be preserved under state ownership. A portion of these wetlands (the northern half section) have been impacted by altered drainage and subsequent wildfires. The re-establishment of sheetflow should enhance these wetlands. In order to minimize potential impacts to the Big Cypress National Preserve, the southern distributor canal has been deleted. The borrow lake will be expanded. Also, this segment of highway will include six new wildlife crossings and three bridge extensions. Since automobile accidents represent the cause of significant mortalities of the Florida panther, these wildlife crossings will provide an additional degree of protection for the panther.

Additional activities associated with the project, but not directly related to the actual construction, include combining FDOT right-of-way monies with Department of Interior and Department of Natural Resources' funds to add an additional 128,000 acres of land to the Big Cypress National Preserve. An additional 2,000 acres of land have been purchased at the intersection of I-75 and S.R. 29. A majority of these lands will be set aside for preservation purposes.

In review of the project proposal, District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project.

WATER QUALITY

Water quality impacts from this project should be minimal. Raised inlets are provided in the grassed center median area of the roadway and vast wetland areas located south of the proposed spreader waterway system provide nutrient removal. Water quality treatment in excess of the first inch of runoff should be provided by these mechanisms.

OPERATION AND MAINTENANCE

The operation and maintenance of the surface water management system shall be the responsibility of Florida Department of Transportation.

RECOMMENDATION

The Staff recommends approval of Permit (MOD) No. 11-00396-S subject to the following 12 Standard Limiting Conditions, 9 Special Conditions and 3 Exhibits.

APPLICATION REVIEWER:

SUPERVISOR/CHECKER:

TECHNICAL:

J. Barone

E. Yaun

WATER QUALITY:

J. Barone

D. Watt

ENVIRONMENTAL:

R.A. Boylan

C. Padera

APPROVED:

DIVISION DIRECTOR:

James D. How

DEPARTMENT DIRECTOR:

Richard A. Rogers
Richard A. Rogers, P.E.
Resource Control Department

DATE: 3/24/88

DRAFT
Subject to Governing
Board Approval

AGENDA DESCRIPTION: MODIFICATION OF PERMIT FOR CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING AN ADDITIONAL SEGMENT, 12.4 MILES, OF 4-LANE INTERSTATE HIGHWAY FROM SR 29 EAST TO STATION 1760+00.00 WHICH DISCHARGES SOUTH TO EXISTING WETLAND AREAS AND THE FAKAHATCHEE STRAND STATE PRESERVE VIA SPREADER SWALES.

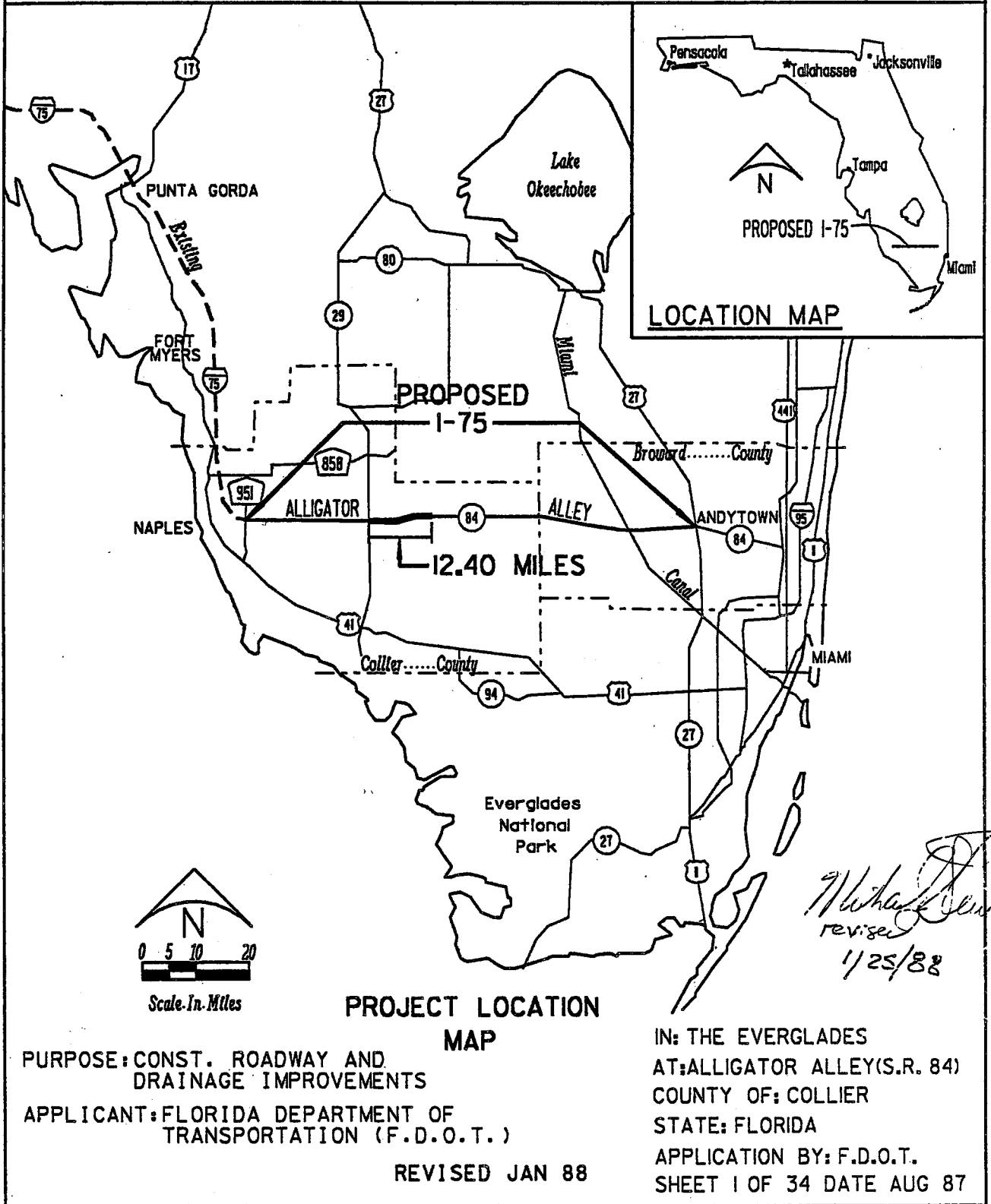
LIMITING CONDITIONS

1. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED, ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.
3. THE PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LOCAL SUBDIVISION REGULATIONS AND OTHER LOCAL REQUIREMENTS. IN ADDITION THE PERMITTEE SHALL OBTAIN ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY CONSTRUCTION OR ALTERATION OF WORKS AUTHORIZED BY THIS PERMIT.
4. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFIES THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE DISTRICT. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL SUBMIT THE CERTIFICATION AND NOTIFY THE DISTRICT THAT THE FACILITIES ARE READY FOR INSPECTION AND APPROVAL. UPON APPROVAL OF THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE ENTITY APPROVED BY THE DISTRICT.
5. ALL ROADS SHALL BE SET AT OR ABOVE ELEVATIONS REQUIRED BY THE APPLICABLE LOCAL GOVERNMENT FLOOD CRITERIA.
6. ALL BUILDING FLOORS SHALL BE SET AT OR ABOVE ELEVATIONS ACCEPTABLE TO THE APPLICABLE LOCAL GOVERNMENT.
7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
8. NO CONSTRUCTION AUTHORIZED HEREIN SHALL COMMENCE UNTIL A RESPONSIBLE ENTITY ACCEPTABLE TO THE DISTRICT HAS BEEN ESTABLISHED AND HAS AGREED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN. UPON RECEIPT OF WRITTEN EVIDENCE OF THE SATISFACTION OF THIS CONDITION, THE DISTRICT WILL ISSUE AN AUTHORIZATION TO COMMENCE CONSTRUCTION.
9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.
10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.
11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
12. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

SPECIAL CONDITIONS
(FOR THIS PHASE ONLY)

1. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
2. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
3. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
4. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
5. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
6. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE FLORIDA DEPARTMENT OF TRANSPORTATION.
7. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.
8. MODIFICATION OF THIS PERMIT IS REQUIRED PRIOR TO INSTALLATION OF THE CONTROL STRUCTURE PROPOSED FOR THE CROSSING AT STATE ROUTE 29 CANAL.
9. LAKE SIDE SLOPES SHALL BE 6:1 (HORIZONTAL:VERTICAL) TO A DEPTH OF TWO FEET BELOW THE CONTROL ELEVATION. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.

STATE PROJECT NOS. 03075-3404
03075-3403



**PROJECT LOCATION
MAP**

PURPOSE: CONST. ROADWAY AND
DRAINAGE IMPROVEMENTS

APPLICANT: FLORIDA DEPARTMENT OF
TRANSPORTATION (F.D.O.T.)

REVISED JAN 88

IN: THE EVERGLADES
AT: ALLIGATOR ALLEY (S.R. 84)
COUNTY OF: COLLIER
STATE: FLORIDA
APPLICATION BY: F.D.O.T.
SHEET 1 OF 34 DATE AUG 87

EXHIBIT 1

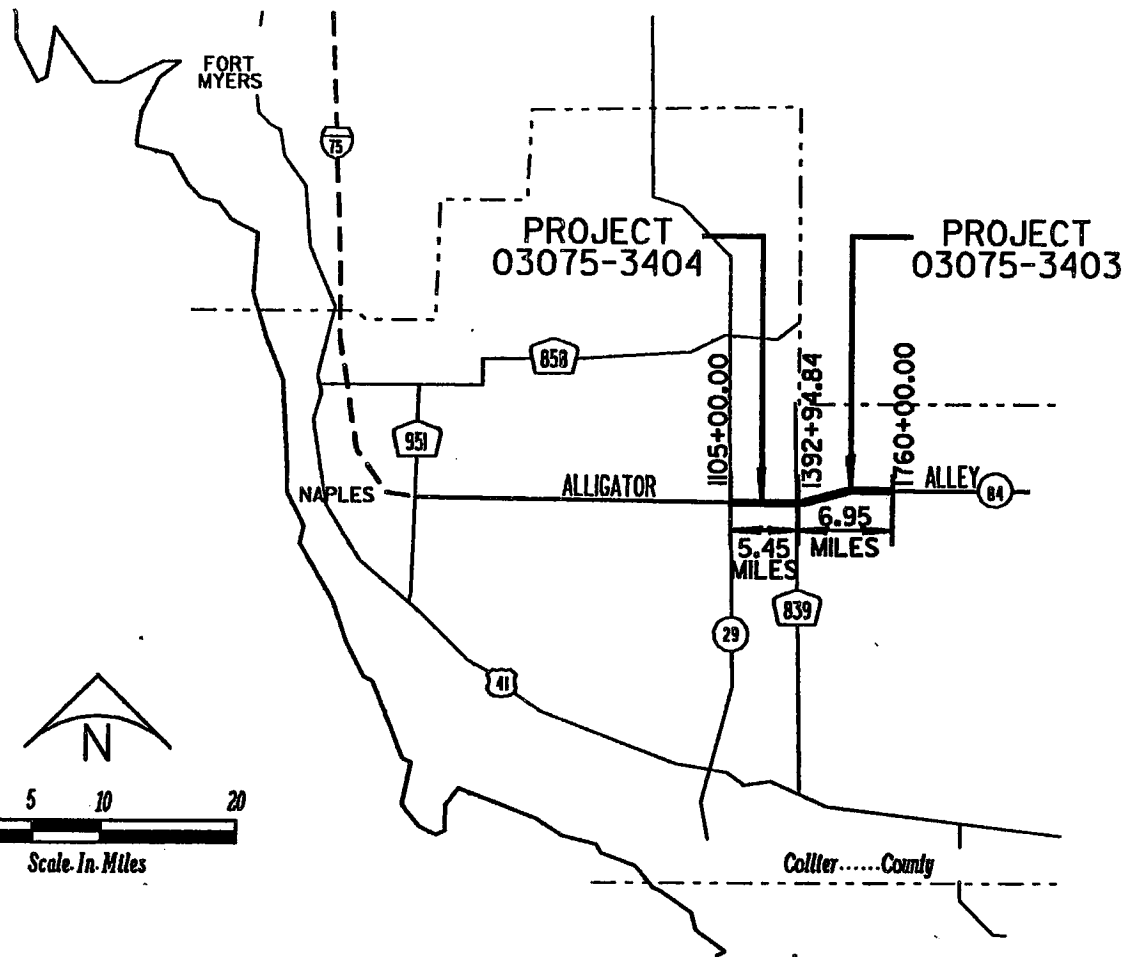


EXHIBIT 2A

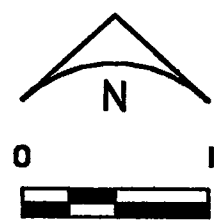
VICINITY MAP
COLLIER COUNTY
PROJECT LENGTH 12.40 MILES

REVISED JAN 88

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI. EAST OF T.R.R. (C.R. 839)		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404 & 03075-3403	
TWP:	RNG:	NAME:	COUNTY COLLIER		
SEC		SIGNATURE: <i>Michael De...</i>	DER	CG	SHEET 2 OF 34
		CERTIFICATE NO. <i>revised 1/1/88</i> DATE:	COE	WMD	DATE AUG 87

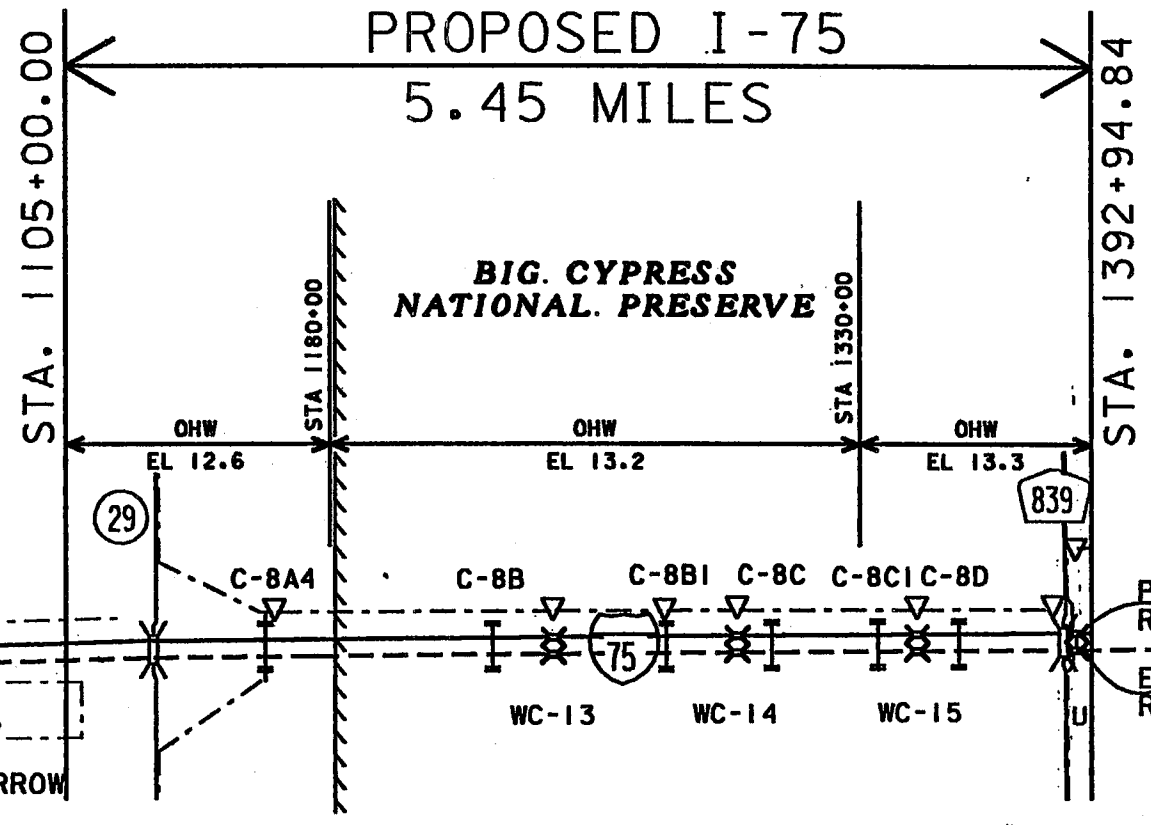
STATE PROJECT NO. 03075-3404
 F.A. PROJ. NO. I-75-4(24)288
 PROPOSED I-75

5.45 MILES



APPROX. SCALE IN MILES

**BIG. CYPRESS
 NATIONAL PRESERVE**



WATER REFERENCE DATUM: NGVD 1929

NOTE: OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

LEGEND

- CANAL
- XX T
- XX T(WC)
- XX WC-13
- I-C-8B
- ▽ or △ PROPOSED DITCH BLOCK
- STA. PROJECT STATION

SITE MAP

FOR SEC., TWP., RNG., SEE SHEETS 6A THRU 11

REVISED JAN 88

EXHIBIT 2B

PROJECT DESCRIPTION S.R. 29 TO TURNER		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404		
RIVER ROAD (C.R. 839)				COUNTY COLLIER		
TWP:	RNG:	NAME:	DER	CG	SHEET 3 OF 34	
		SIGNATURE: <i>Marta...</i>				

SCANNED

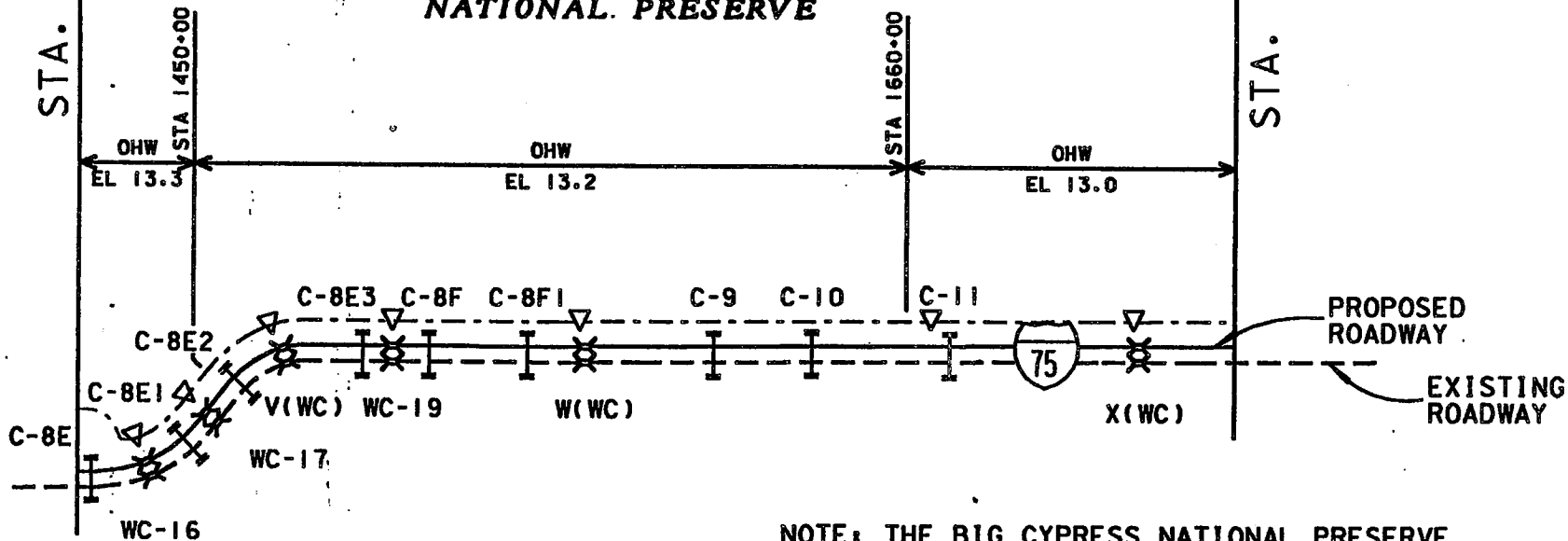
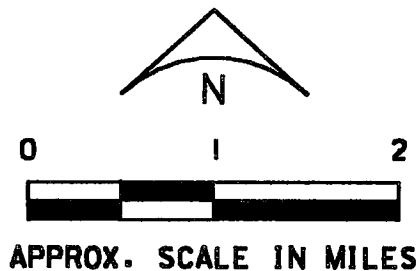
STATE PROJECT NO. 03075-3403
 F.A. PROJ. NO. I-75-4(23)280
 PROPOSED I-75

6.95 MILES

**BIG CYPRESS
 NATIONAL PRESERVE**

STA. 1392+94.84

STA. 1760+00.00



NOTE: THE BIG CYPRESS NATIONAL PRESERVE
 ENDS AT APPROX. STA. 1769+00.
 OHW/DHW ARE SHOWN IN THESE PERMITS
 FOR INFORMATIONAL PURPOSES ONLY.

WATER REFERENCE DATUM: NGVD 1929

LEGEND

- CANAL
- XXX V BRIDGE
- XXX V(WC) BRIDGE EXTENSION
- XXX WC-16 WILDLIFE CROSSING
- C-8E CULVERT
- ▽ or Δ PROPOSED DITCH BLOCK
- STA. PROJECT STATION

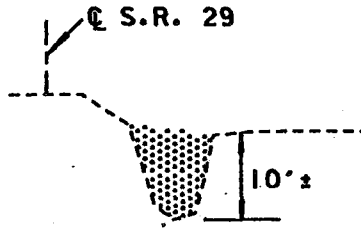
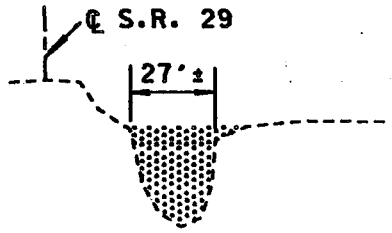
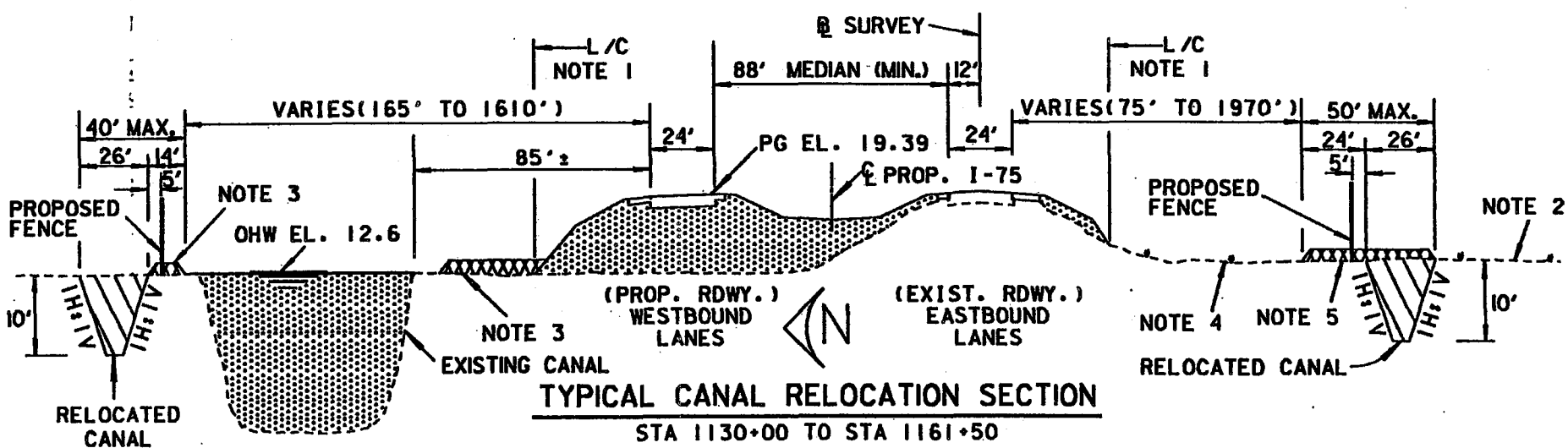
SITE MAP

FOR SEC., TWP., RNG., SEE SHEETS 12 THRU 18

REVISED DEC 87

EXHIBIT 2C

PROJECT DESCRIPTION TURNER RIVER ROAD TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3403		
6.95 MI. EAST OF T.R.R. (C.R. 839)				COUNTY COLLIER		
TWP:	RNG:	NAME:	DER:	CG:	SHEET 4 OF 34	
SEC:		SIGNATURE: <i>D. W. Schlemmer</i>	COE:	WMD:	DATE AUG 87	
		CERTIFICATE NO. _____	DATE: 12-15-87			



Scale
 1" = 20'
 0 10 20 30

REVISED DEC 87

NOTES:

1. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
2. EXISTING GROUND EL. VARIES 13.1 TO 14.1
3. TEMPORARY FILL FOR CONTRACTOR'S WORK AREA, STOCKPILES AND HAUL ROAD. RESTORE TO NATURAL ELEVATION.
4. THE AREA BETWEEN L/C AND THE RELOCATED CANAL SHALL NOT BE DISTURBED DURING CONSTRUCTION, EXCEPT AS PER NOTE 5.
5. TEMPORARY FILL TO USED AS A HAUL ROAD PRIOR TO AND DURING CANAL RELOCATION. AREA NOT EXCAVATED FOR CANAL RELOCATION IS TO BE RESTORED TO NATURAL ELEVATION.

WATER REFERENCE DATUM: NGVD 1929

LEGEND	
	FILL
	EXCAVATION
	TEMP. FILL (STOCKPILE AND WORK AREA)
L/C LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)	

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI. EAST OF T.R.R. (C.R. 839)	
TWP:	RNG:

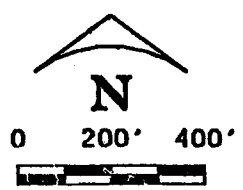
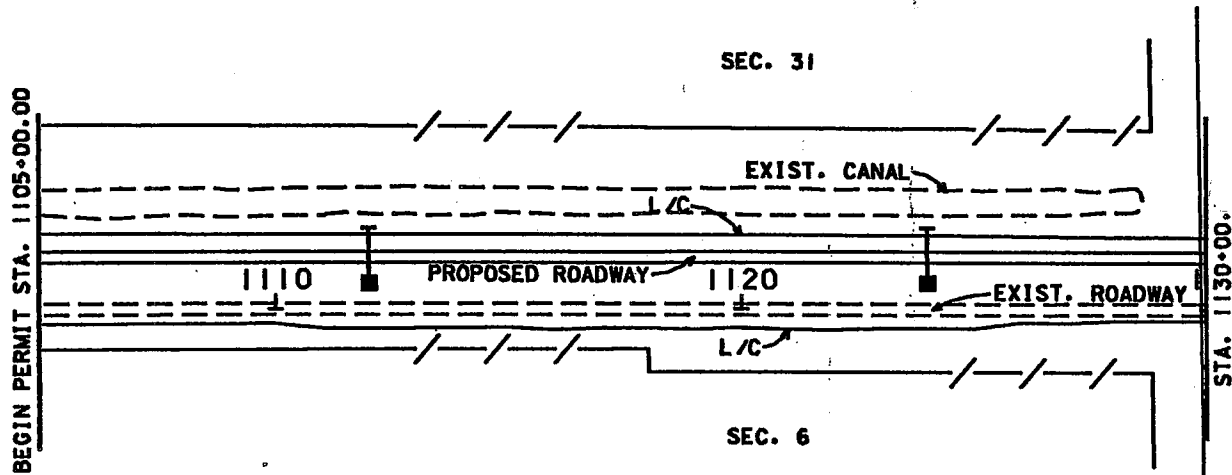
FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>D. W. Stelmeyer</i>

STATE PROJECT NO. 03075-3404 & 03075-3403		
COUNTY COLLIER		
DER	CG	SHEET 5 OF 34

EXHIBIT 2D

SCANNED

EXHIBIT 2F



REVISED JAN 88

LEGEND	
	EXISTING R/W & L/A R/W
	FILL (JURISDICTIONAL)
	EXCAVATION (JURISDICTIONAL)
	TEMPORARY FILL (JURISDICTIONAL)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

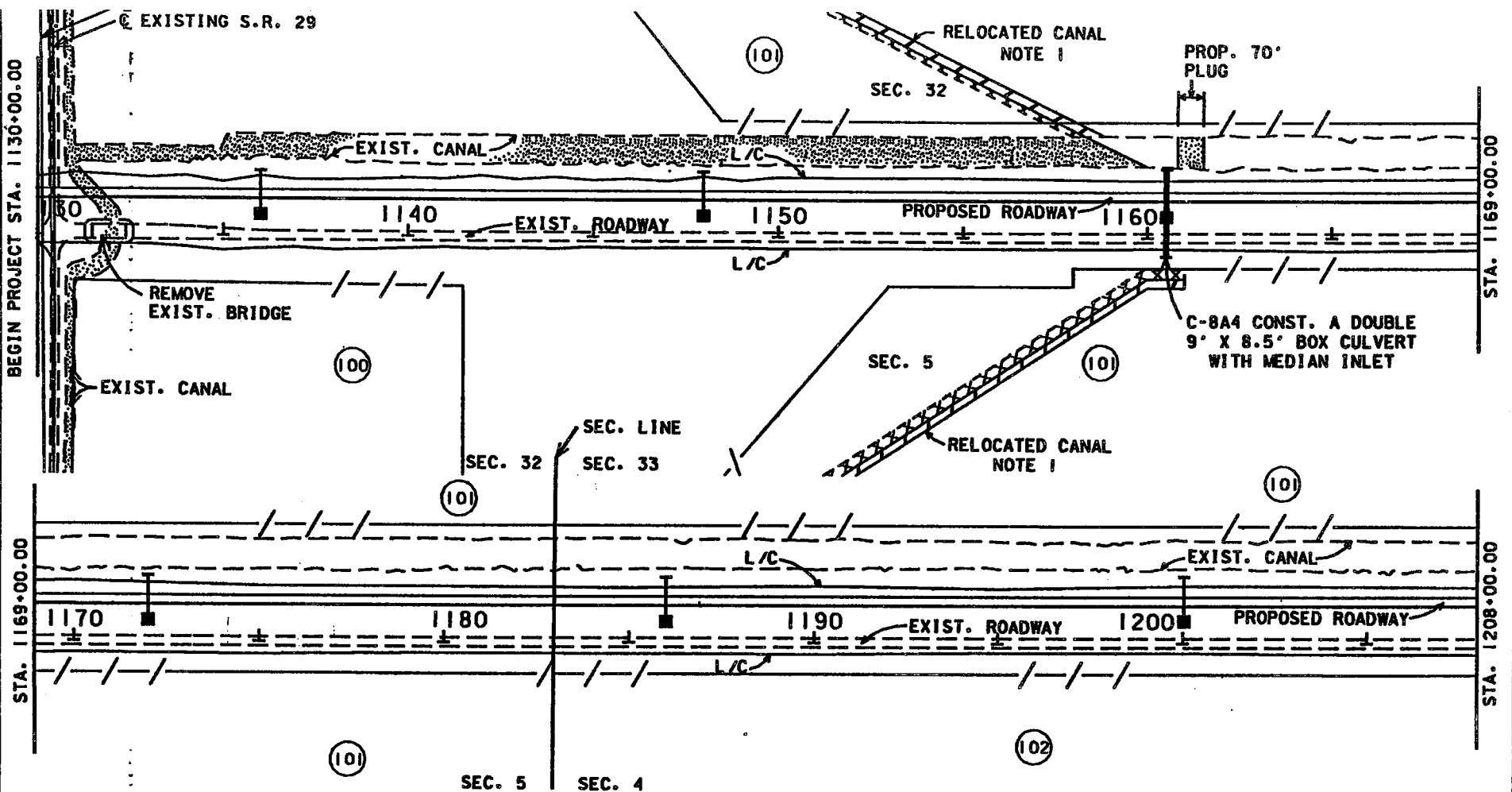
PROJECT DESCRIPTION S.R. 29 TO TURNER	
RIVER ROAD (C.R. 839)	
TWP: 49S, 50S	RNG: 30E

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>M. J. [Signature]</i>

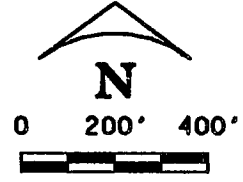
STATE PROJECT NO. 03075-3404		
COUNTY COLLIER		
DER	CG	SHEET 6A OF 34
DATE	AUG 87	

SCANNED

EXHIBIT 25



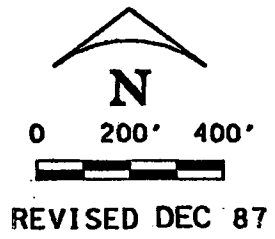
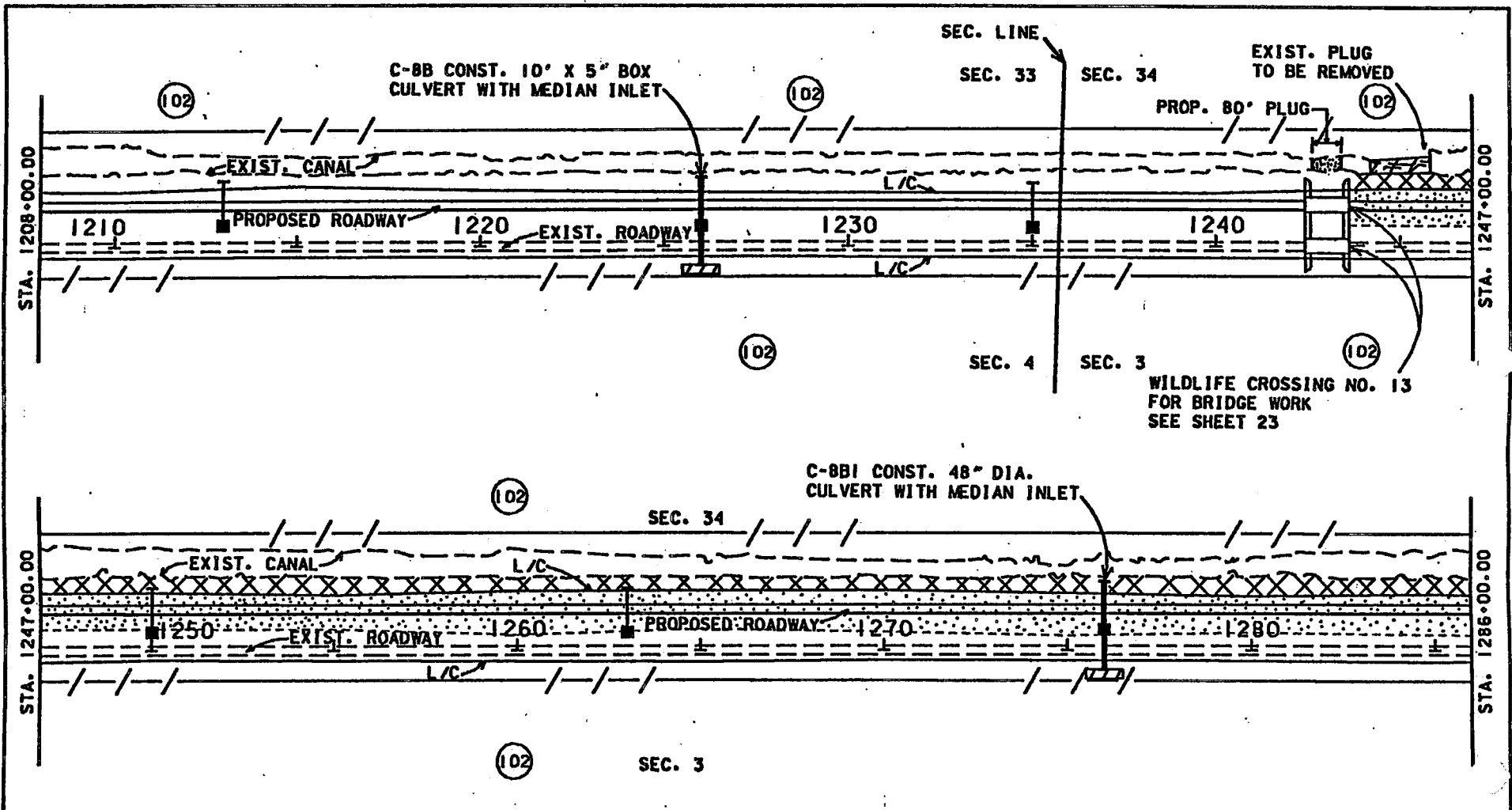
NOTE:
1. FOR CANAL CONTINUATION AT S.R. 29 SEE SHEET 11.



REVISED DEC 87

LEGEND	
---/---/---	EXISTING R/W & L/A R/W
[Stippled Box]	FILL (JURISDICTIONAL)
[Hatched Box]	EXCAVATION (JURISDICTIONAL)
[Cross-hatched Box]	TEMPORARY FILL (JURISDICTIONAL)
[Square with T]	MEDIAN INLET
L/C	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION S.R. 29 TO TURNER		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404	
RIVER ROAD (C.R. 839)		NAME: _____		COUNTY COLLIER	
TWP: 49S, 50S RNG: 30E		SIGNATURE: <i>DW Stehmer</i>		DER	CG
SEC 4, 5, 32, 33		CERTIFICATE NO. _____		COE	WMD
				SHEET 7 OF 34	
				DATE 12-15-87	
				DATE AUG 87	

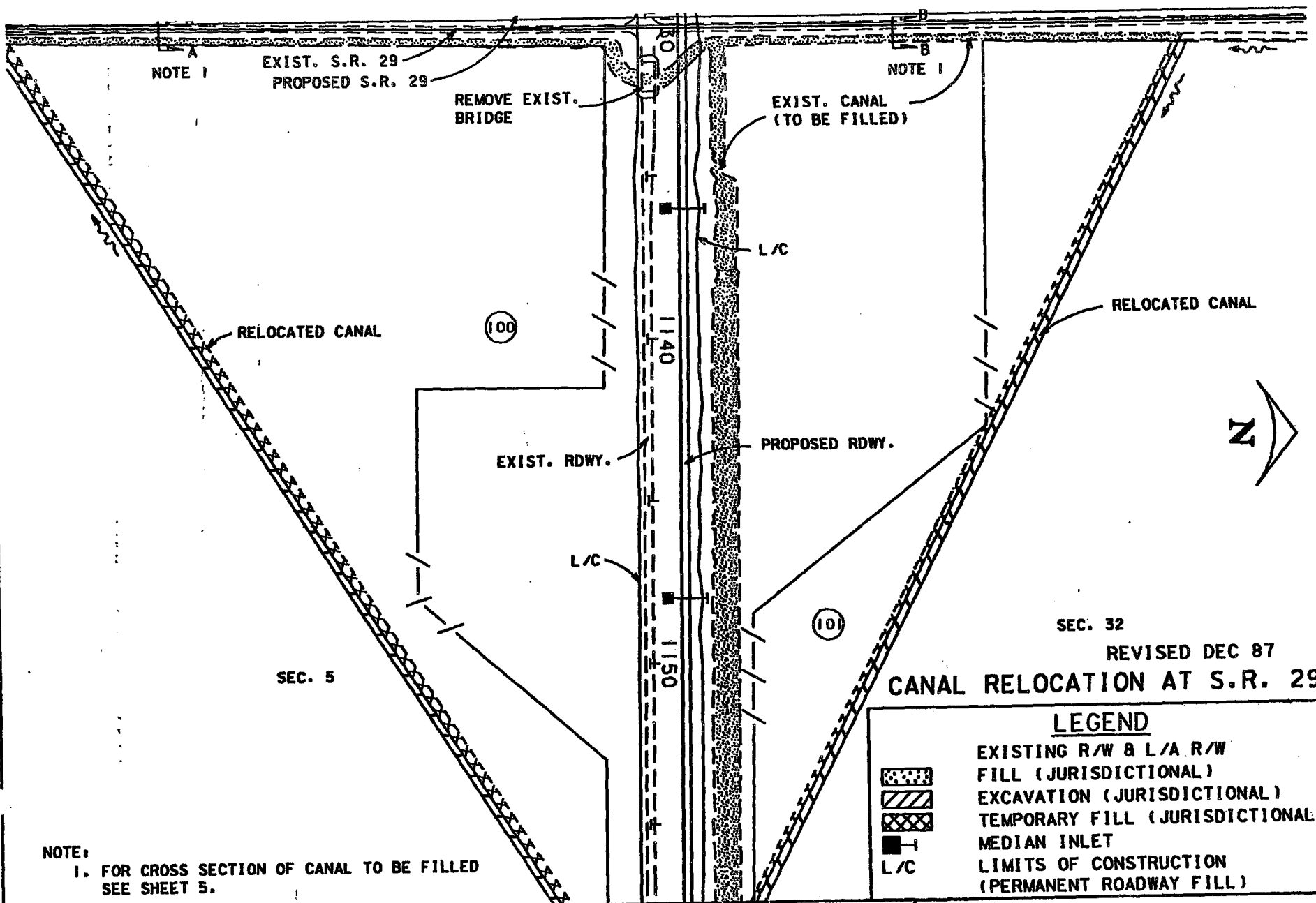


LEGEND	
	EXISTING R/W & L/A R/W
	FILL (JURISDICTIONAL)
	EXCAVATION (JURISDICTIONAL)
	TEMPORARY FILL (JURISDICTIONAL)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

EXHIBIT 2H

SCANNED

PROJECT DESCRIPTION S.R. 29 TO TURNER		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404	
RIVER ROAD (C.R. 839)		NAME: <i>D.W. Stehmyer</i>		COUNTY COLLIER	
TWP: 49S, 50S	RNG: 30E	SIGNATURE	<i>D.W. Stehmyer</i>	DER	CG
			12/15/87	SHEET 8 OF 34	



NOTE 1

NOTE 1

EXIST. S.R. 29
PROPOSED S.R. 29

REMOVE EXIST.
BRIDGE

EXIST. CANAL
(TO BE FILLED)

RELOCATED CANAL

RELOCATED CANAL

(100)

(10)

EXIST. RDWY.

PROPOSED RDWY.

L/C

L/C






SEC. 5

SEC. 32

REVISED DEC 87

CANAL RELOCATION AT S.R. 29

LEGEND

-  EXISTING R/W & L/A R/W FILL (JURISDICTIONAL)
-  EXCAVATION (JURISDICTIONAL)
-  TEMPORARY FILL (JURISDICTIONAL)
-  MEDIAN INLET
-  LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

NOTE:
1. FOR CROSS SECTION OF CANAL TO BE FILLED
SEE SHEET 5.

EX. AT 21

PROJECT DESCRIPTION S.R. 29 TO TURNER		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404	
RIVER ROAD (C.R. 839)				COUNTY COLLIER	
TWP: 49S, 50S	RNG: 30E	NAME: _____	DATE: 12-15-87		
SEC 5, 32		SIGNATURE: <i>D. J. Stehmeser</i>	DER: _____	CO: _____	SHEET 11 OF 34
		CERTIFICATE NO. _____	COE: _____	WMD: _____	DATE AUG 87



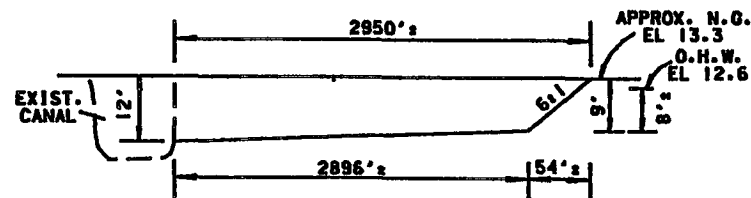
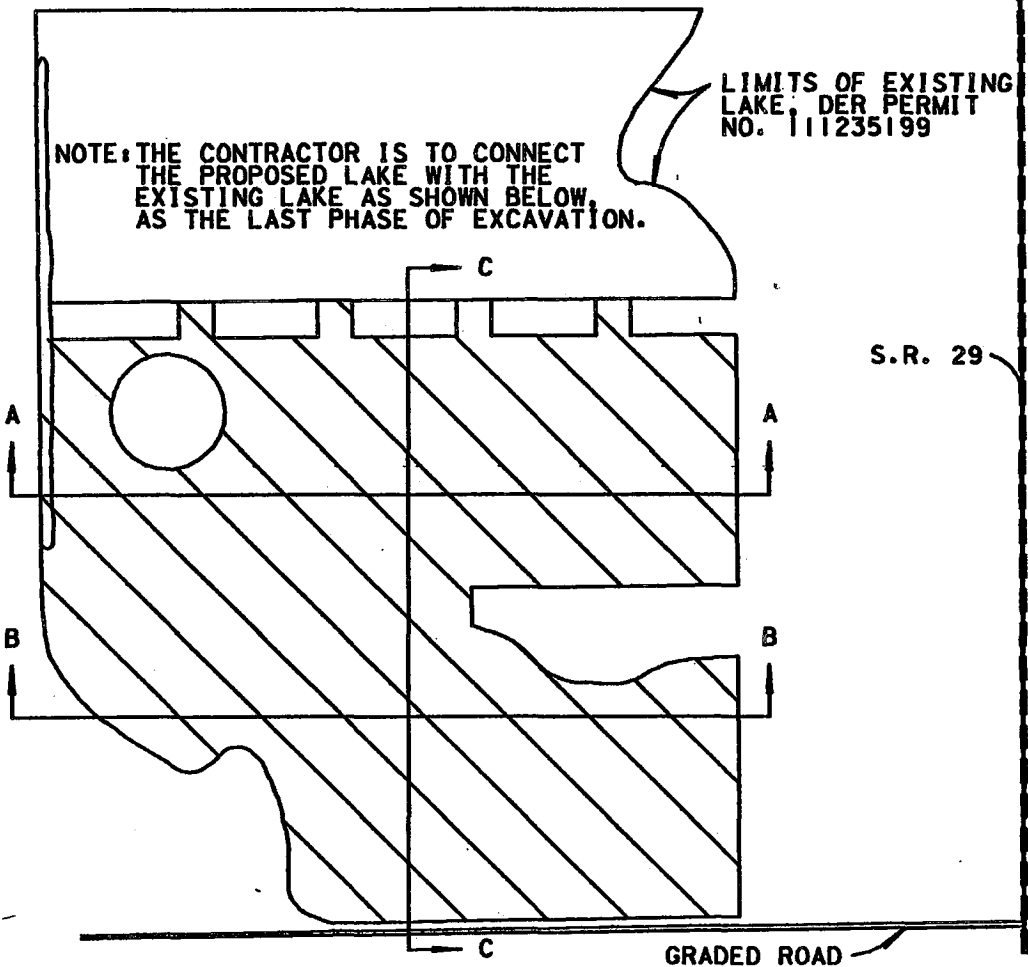
 EXCAVATION

WATER REFERENCE DATUM: NGVD 1929

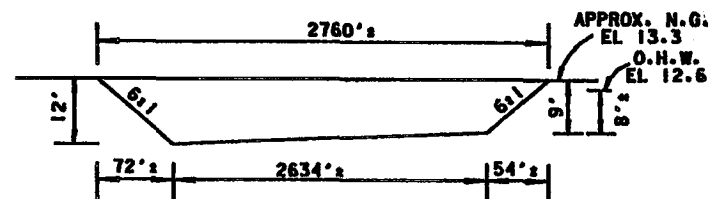
§ SURVEY I-75

LIMITS OF EXISTING LAKE, DER PERMIT NO. 111235199

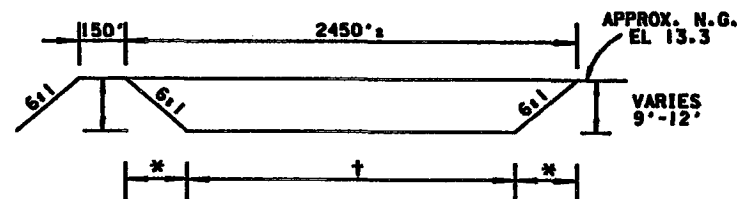
NOTE: THE CONTRACTOR IS TO CONNECT THE PROPOSED LAKE WITH THE EXISTING LAKE AS SHOWN BELOW, AS THE LAST PHASE OF EXCAVATION.



SECTION A-A



SECTION B-B



* VARIES 54'-72'
† VARIES 2342'-2306'

SECTION C-C

BORROW LAKE SECTIONS

NOT TO SCALE

REVISED DEC 87

EXHIBIT 2J

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI.

EAST OF T.R.R. (C.R. 839)

TWP: _____ RNG: _____

FLORIDA DEPARTMENT OF TRANSPORTATION

NAME: _____
SIGNATURE: *D.W. Stehmes*

STATE PROJECT NO. 03075-3404 & 03075-3403

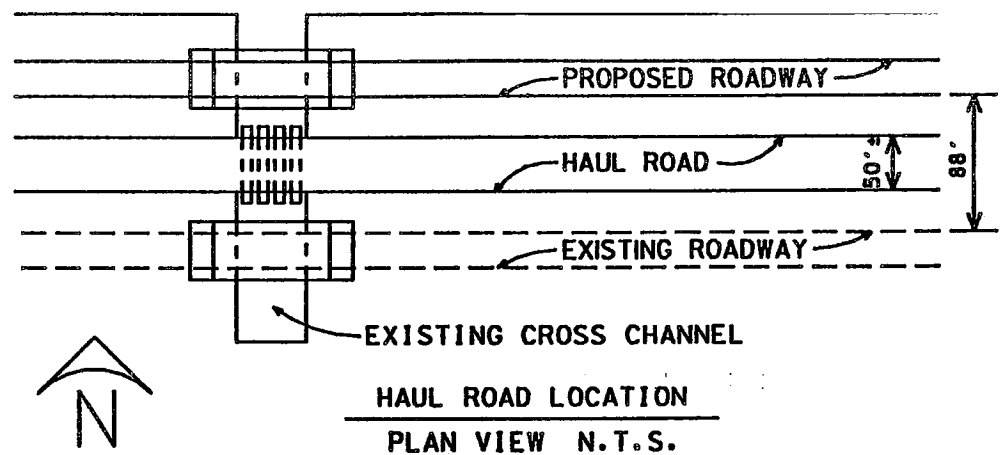
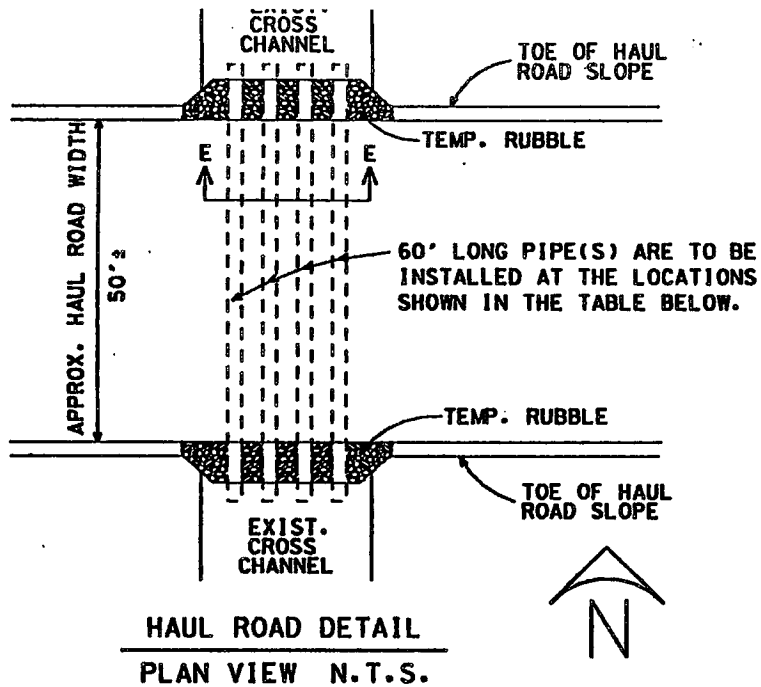
COUNTY COLLIER

DER

CG

SHEET 19 OF 34

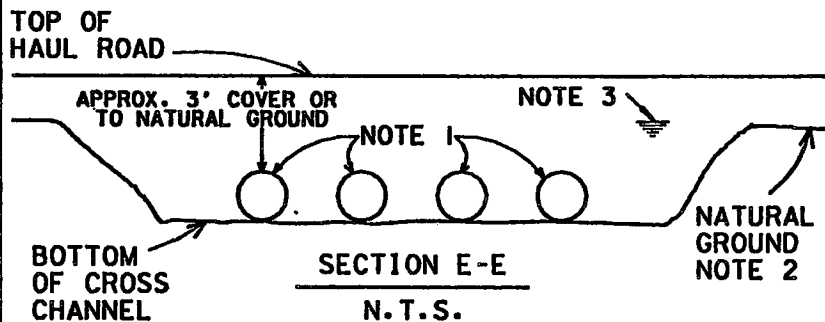
SCANNED



STRUCTURE (LOCATION)	STATION	APPROX. FLOW ELEVATION	MINIMUM OPENING (S.F.)	TEMP. FILL	
				AREA (ACRES)	VOLUME (C.Y.)
S.R. 29	80+00	3.0	13.90	0.04	533
U	1389+69	8.0	12.73	0.09	508
V	1470+40	6.0	28.07	0.12	652
W	1562+74	6.0	7.97	0.10	751
C-9	1598+80	9.2	5.00	0.06	416
C-10	1628+75	9.2	5.00	0.06	336
C-11	1670+70	9.4	5.00	0.06	364
X	1730+37	5.5	7.10	0.18	1553
TOTAL				0.71	5113

THE CONTRACTOR SHALL PROVIDE THE MINIMUM OPENING, AS SHOWN ABOVE, BETWEEN O.H.W. AND THE FLOW ELEVATION. THE WATER ELEVATION NORTH AND SOUTH OF THE EXISTING ROADWAY SHALL BE MONITORED REGULARLY AND THE TEMPORARY FILL FOR THE HAUL ROAD CROSSING REMOVED WHEN THE DIFFERENCE IN WATER ELEVATIONS IS ONE FOOT OR GREATER AND RISING.

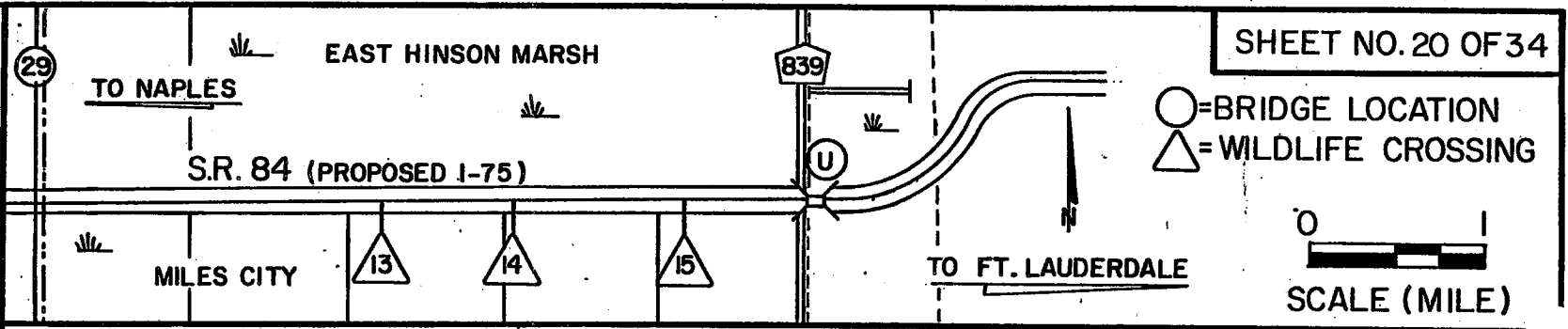
WATER REFERENCE DATUM: NGVD 1929



1. THE CONTRACTOR MAY USE WHATEVER PIPE SIZE HE CHOOSES IN SUFFICIENT NUMBERS TO PROVIDE THE SPECIFIED SQUARE FEET OF OPENING.
2. EXIST. GROUND VARIES EL. APPROX. 11 TO 14.
3. O.H.W. VARIES EL. 12.6 TO 13.3.

EXHIBIT 2K

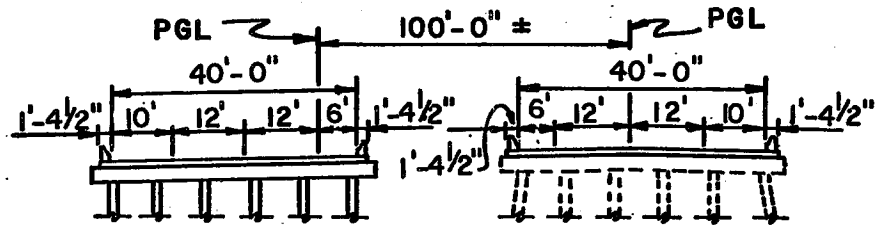
PROJECT DESCRIPTION S.R. 29 TO 6.95 MI. EAST OF T.R.R. (C.R. 839)		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404 & 03075-3403	
TWP:	RNG:			COUNTY COLLIER	
SEC:		NAME: <i>Kay E. Reissner, P.E.</i>	SIGNATURE: <i>Kay E. Reissner, P.E.</i>	DER:	CG:
		CERTIFICATE NO. 33724	DATE: 12/15/87	COE:	WD:
				SHEET 19A OF 34	
				DATE DEC 87	



NOTE:

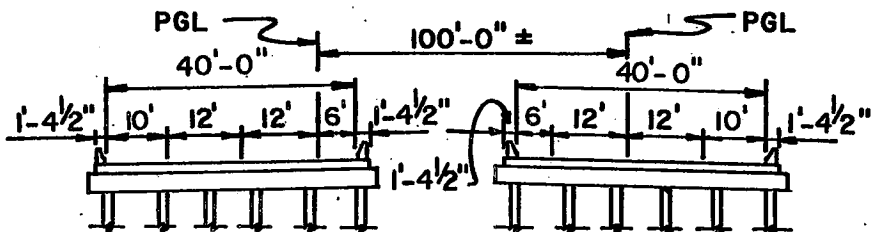
Water Reference Datum: National Geodetic Vertical Datum, 1929

Michael Bachman
11/13/87



PROPOSED (WESTBOUND) EXISTING (EASTBOUND)
To be partially reconstructed

SECTION THRU BRIDGE "U"



PROPOSED (WESTBOUND) PROPOSED (EASTBOUND)
SECTION THRU WILDLIFE CROSSING

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE
U
WILDLIFE CROSSINGS
13, 14, 15

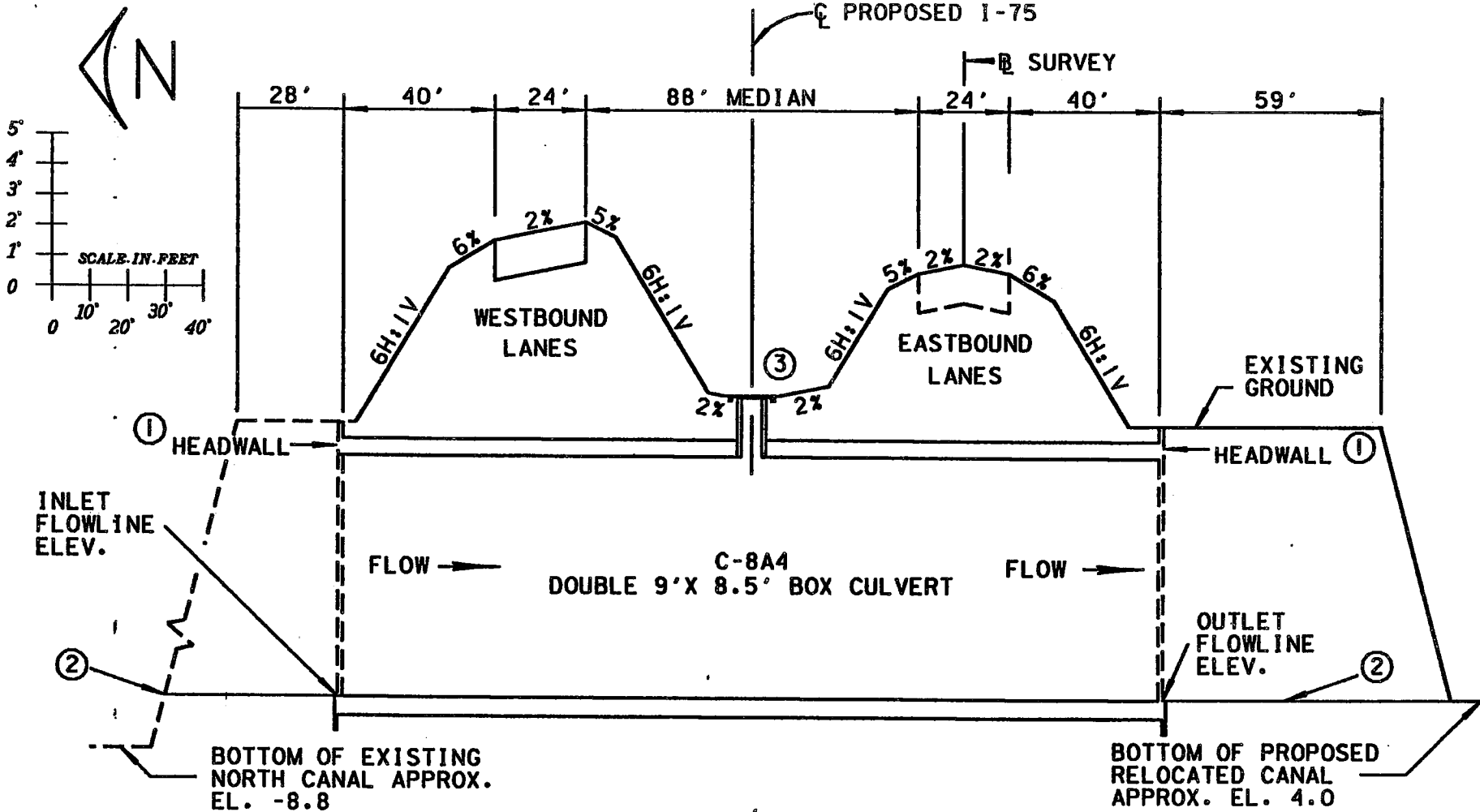
ON S.R. 84 (I-75)

AUG. 1987

FLORIDA DEPARTMENT OF

COLLIER 03075-3404

EXHIBIT A



LEGEND:

- ① HEADWALL FOR DOUBLE 9' X 8.5' CONCRETE BOX CULVERT.
- ② 20' BOTTOM WIDTH WITH 4:1 SIDE SLOPES.
- ③ FOR INLET DETAIL, SEE SHEET NO. 29.

NOTES:

- 1. ALL STATIONS ARE @ SURVEY.
- 2. OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI.
EAST OF T.R.R. (C.R. 839)

FLORIDA DEPARTMENT OF TRANSPORTATION

STATE PROJECT NO. 03075-3404 & 03075-3403
COUNTY COLLIER

TWP: _____ RNG: _____

NAME: _____

D.W. Stehmer

SIGNATURE _____

DATE: 12-15-87

CERTIFICATE NO. _____

DER _____

CG _____

SHEET 21 OF 34

COE _____

WMD _____

DATE DEC 87

EXHIBIT 2M

Clearance	Existing	Proposed
Horizontal	27.0	26.5
Vertical *	3.0	2.8

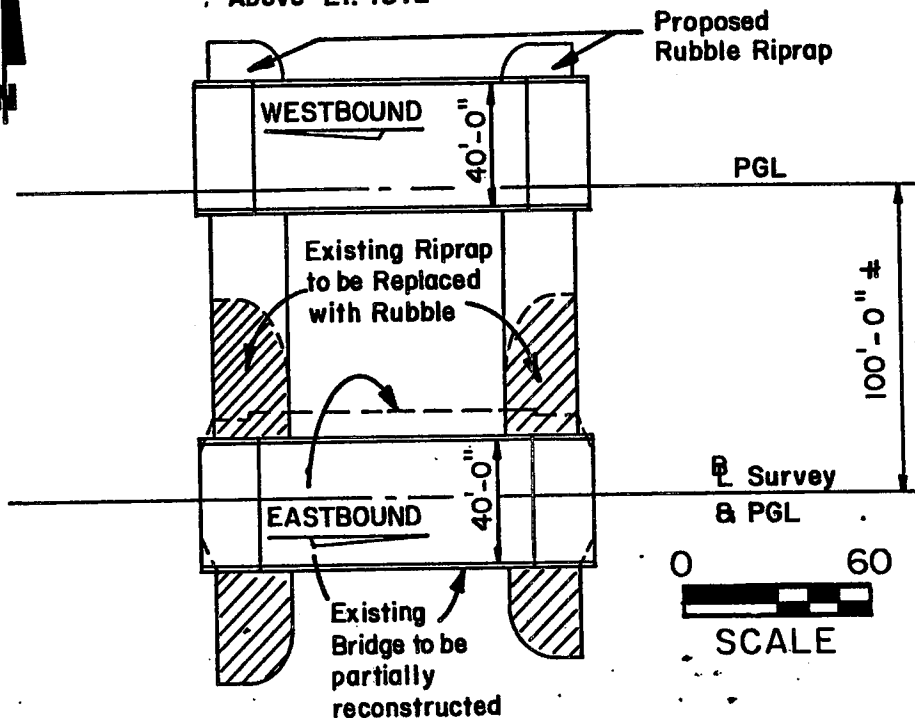
* Above El. 15.2

NOTE: See Sheet No. 20 for Typical Section.

Elevation of Base Flood Plain = Not Available

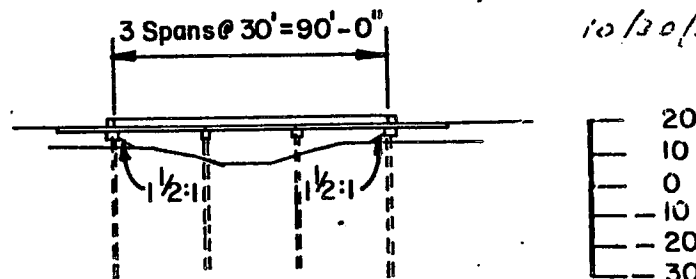
Design High Water = 15.2
(50 Year Flood)

Water Reference
Datum = National Geodetic Vertical Datum, 1929



PLAN

Michael B. Anderson
10/30/87



ELEVATION

BRIDGE NUMBERS

WESTBOUND = 030245
EASTBOUND = 030009

FEDERAL AID PARTICIPATION

PROPOSED BRIDGE "U"
ON S.R. 84 (1-75)

AUG. 1987

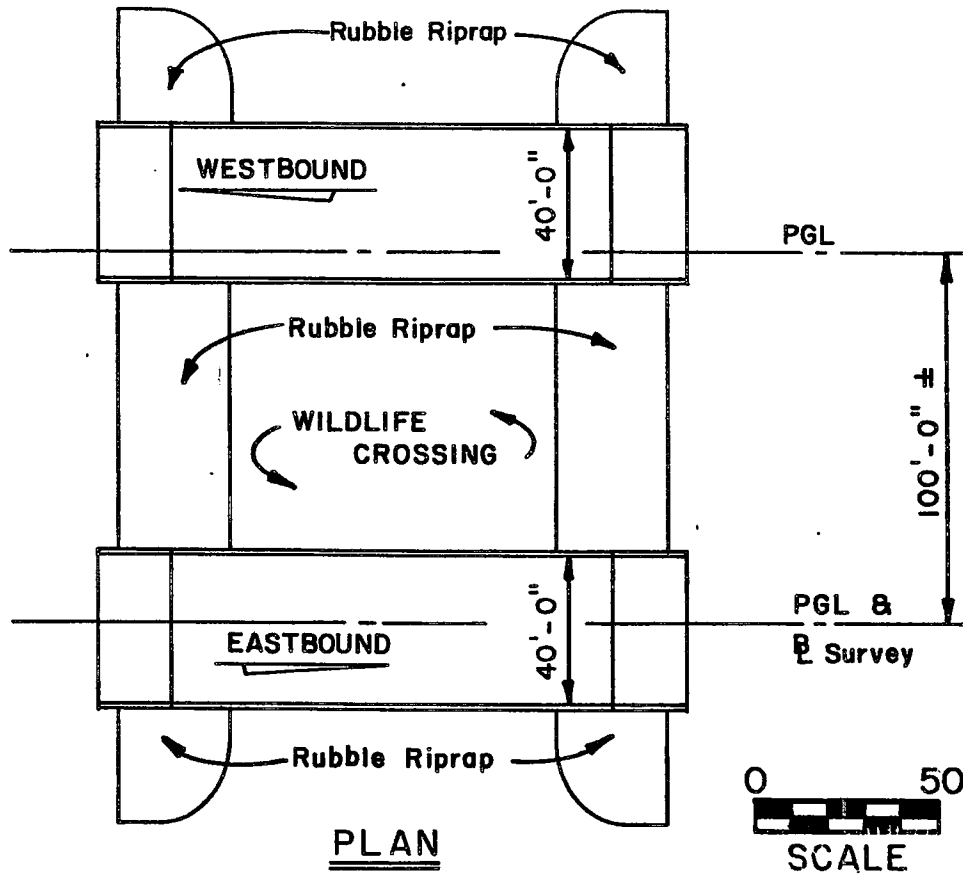
FLORIDA DEPARTMENT OF
TRANSPORTATION

COLLIER 03075-3404

EXHIBIT 2N

SCANNED

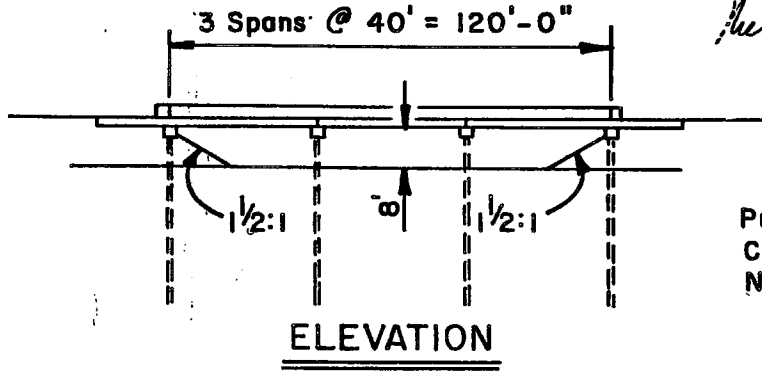
NOTE: See Sheet No. 20 for Typical Sections.



WILDLIFE CROSSINGS NUMBERS		
W.L. NO.	WESTBOUND	EASTBOUND
13	030239	030240
14	030241	030242
15	030243	030244

COLLIER 03075 - 3404

E. BIT 20

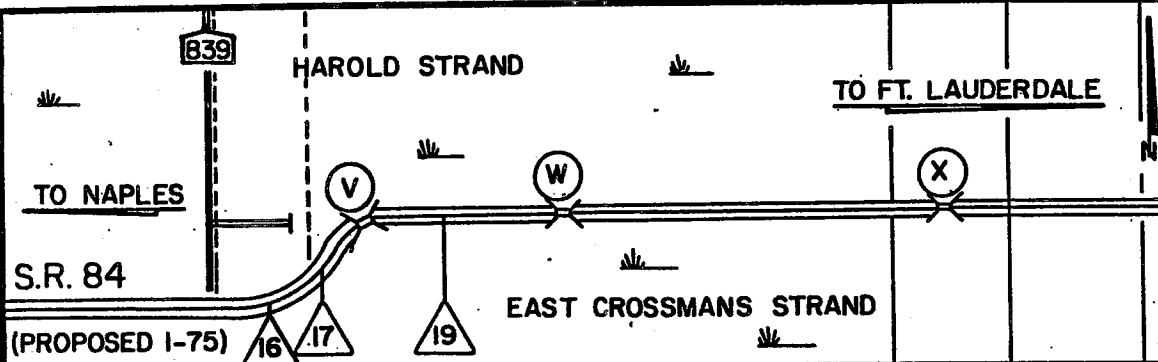


Michael Bartholomew
10/30/87

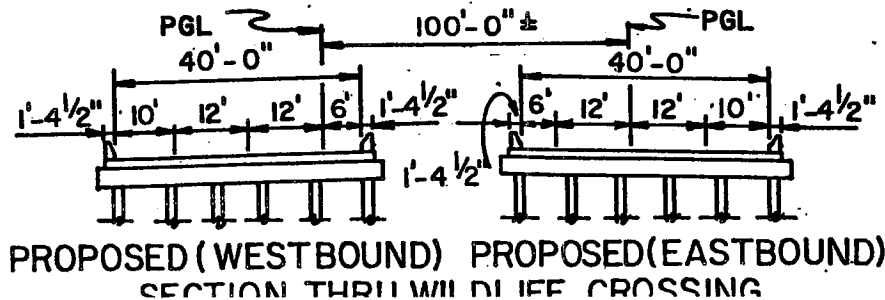
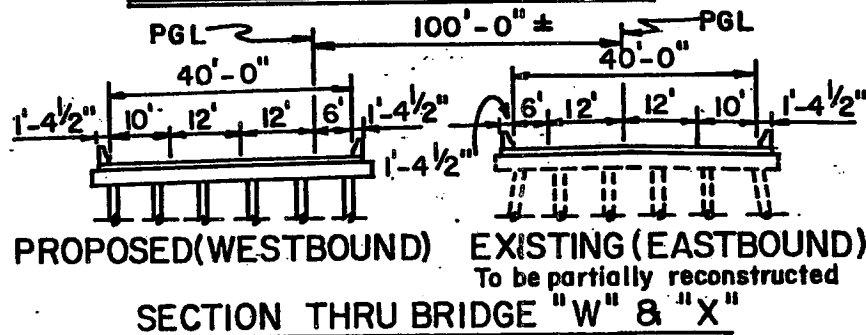
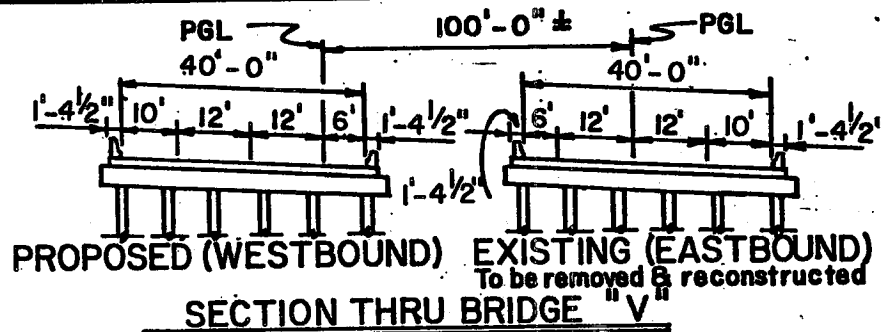
Proposed Vertical Clearance = 8' Above Natural Ground.

FEDERAL AID PARTICIPATING

PROPOSED WILDLIFE CROSSINGS
13, 14, 15.
ON S.R. 84 (I-75)
AUG. 1987
FLORIDA DEPARTMENT OF TRANSPORTATION



- = BRIDGE LOCATION
- △ = WILDLIFE CROSSING



NOTE:
Water Reference Datum: National Geodetic Vertical Datum, 1929

Michael Baschlow
10/30/87

FEDERAL AID PARTICIPATING

PROPOSED BRIDGES
V, W, & X

WILDLIFE CROSSINGS
16, 17, 19

ON S.R. 84 (I-75)

AUG 1987
FLORIDA DEPARTMENT OF
TRANSPORTATION

COLLIER 03075-3403

EXHIBIT 2P

Clearance	EASTBOUND	WESTBOUND
Horizontal	37.0	36.5
Vertical *	4.0	5.1

*Above El. 15.2

NOTE: See Sheet No. 24 for Typical Sections.

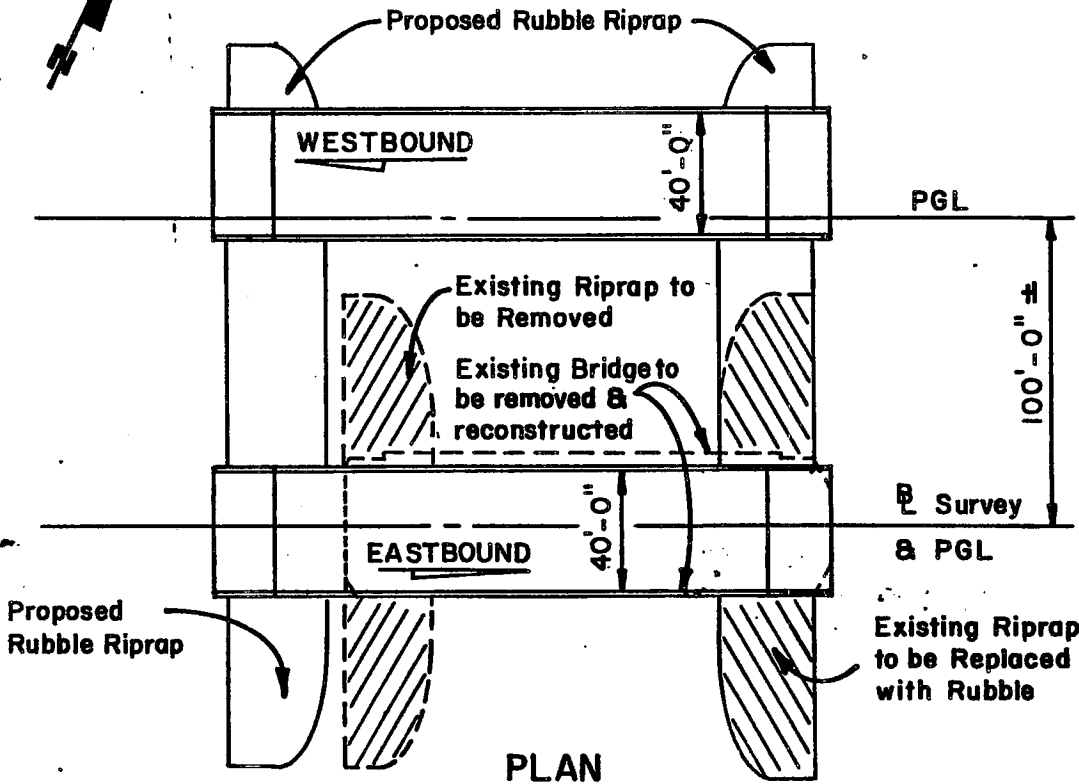
Elevation of Base Flood Plain = Not Available

Design High Water = 15.2
(50 Year Flood)

Water Reference Datum = National Geodetic Vertical Datum, 1929

Michael B. ...
10/30/87

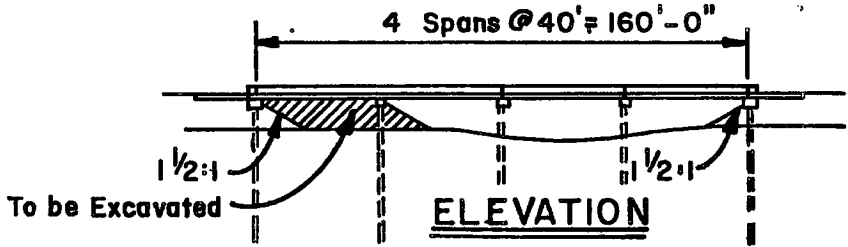
BRIDGE NUMBERS
WESTBOUND = 030250
EASTBOUND = 030251



PLAN

COLLIER 03075 - 3403

EXHIB 2A



ELEVATION



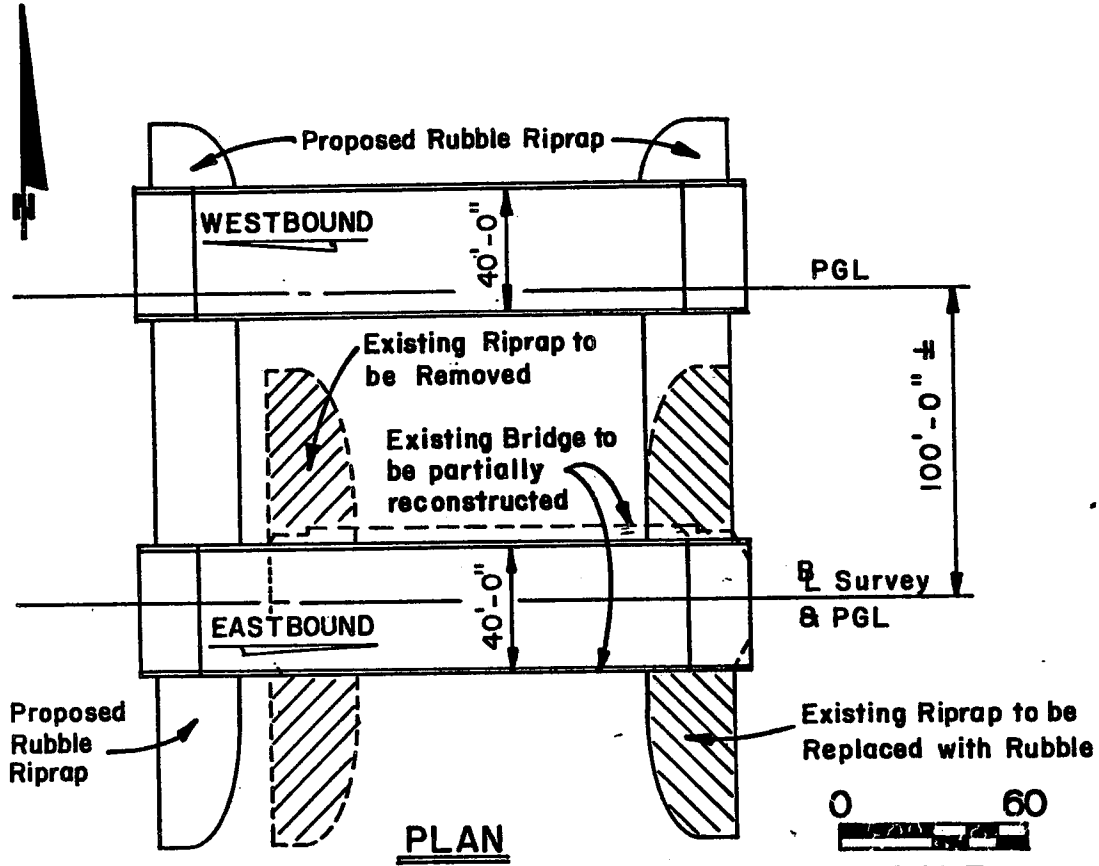
SCALE

FEDERAL AID PARTICIPATING

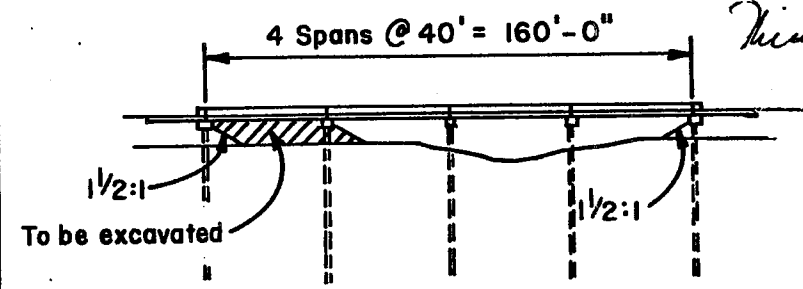
PROPOSED BRIDGE "V"
ON S.R.84 (I-75)

AUG. 1987

FLORIDA DEPARTMENT OF
TRANSPORTATION



PLAN



ELEVATION

NOTE: See Sheet No. 24 for Typical Sections.

Elevation of Base Flood Plain = Not Available

Design High Water = 15.2 (50 Year Flood)

Water Reference Datum: National Geodetic Vertical Datum, 1929

Clearance	Existing	Proposed
Horizontal	37.0	36.5
Vertical *	4.3	4.2

* Above El. 15.2

BRIDGE NUMBERS
 WESTBOUND = 030254
 EASTBOUND = 030011

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE "W"
 ON S.R. 84 (I-75)

AUG. 1987
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

Michael Bartholomew
 10/30/87

COLLIER 03075 - 3403

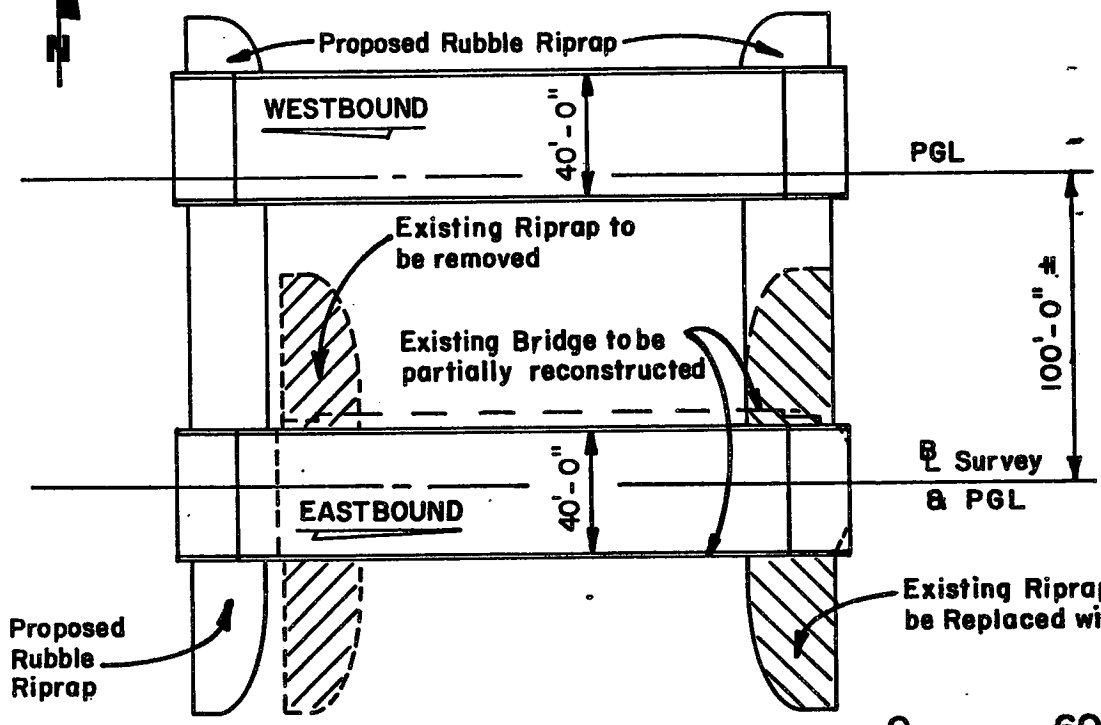
EXHIBIT 2R

SCANNED

Clearance	Existing	Proposed
Horizontal	27.0	26.5
Vertical *	4.3	4.2

* Above El. 15.0

NOTE: See Sheet No. 24 for Typical Sections.



Elevation of Base Flood Plain = Not Available

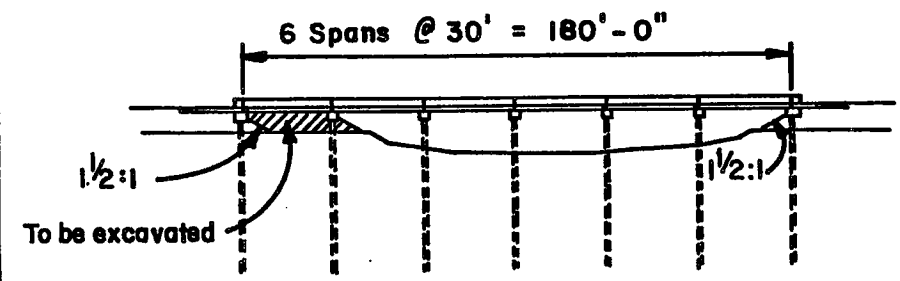
Design High Water = 15.0 (50 Year Flood)

Water Reference Datum: National Geodetic Vertical Datum 1929

Theresa Bachman
10/30/87

BRIDGE NUMBERS
WESTBOUND = 030255
EASTBOUND = 030012

PLAN



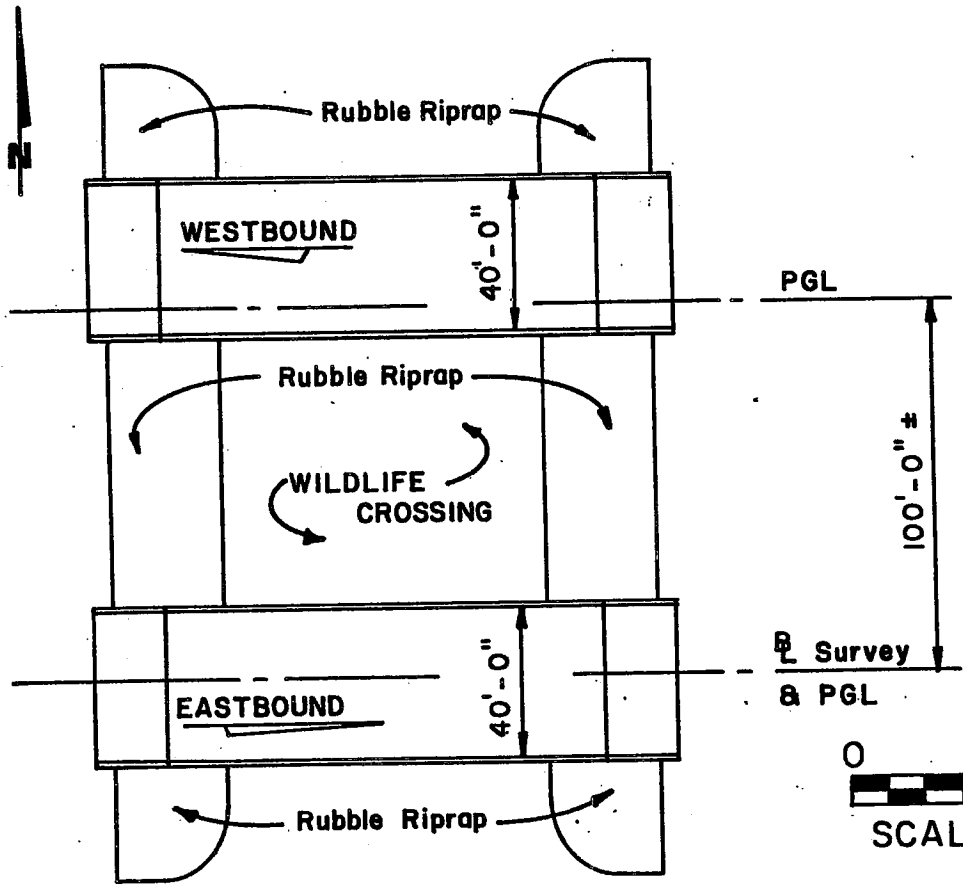
ELEVATION

FEDERAL AID PARTICIPATING
PROPOSED BRIDGE "X"
ON S.R. 84 (I-75)
AUG. 1987
FLORIDA DEPARTMENT OF
TRANSPORTATION

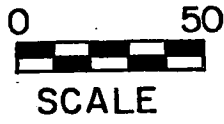
COLLIER 03075-3403

EXHIBIT 28

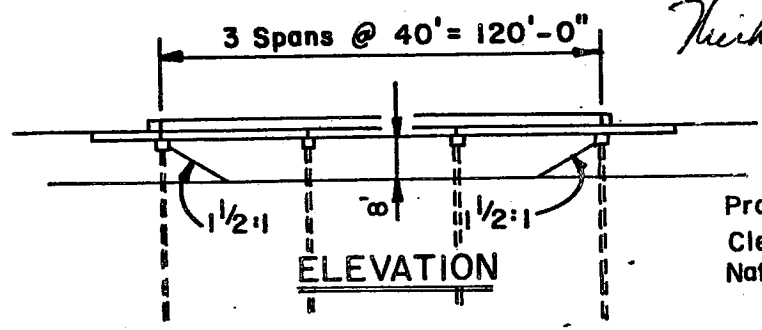
See Sheet No. 24 for Typical Sections.



WILDLIFE CROSSING NUMBERS		
W.L. NO.	WESTBOUND	EASTBOUND
16	030246	030247
17	030248	030249
19	030252	030253



PLAN



ELEVATION

Michael Bachslower
10/20/87

Proposed Vertical Clearance = 8' Above Natural Ground.

FEDERAL AID PARTICIPATION

PROPOSED WILDLIFE CROSSINGS
16, 17, 19

AUG. 1987
FLORIDA DEPARTMENT OF TRANSPORTATION

COLLIER 03075 - 3403

EXHIBIT 21

SCANNED

TABULATION OF CULVERTS

STRUCT. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL EL.	OUTLET FL EL.	OHW	DHW
03075-3404							
C-8A4	1160+50	DOUBLE 9' X 8.5'	PROPOSED	4.0	4.0	13.2	15.2
C-8B	1226+00	10' X 5'	PROPOSED	7.0	6.6	13.2	15.2
C-8BI	1276+00	48"	PROPOSED	8.6	8.2	13.2	15.2
C-8C	1305+00	10' X 5'	PROPOSED	7.3	6.9	13.2	15.2
C-8CI	1335+00	48"	PROPOSED	8.9	8.5	13.3	15.3
C-8D	1358+00	10' X 5'	PROPOSED	7.6	7.2	13.3	15.3
03075-3403							
C-8E	1409+00	48"	PROPOSED	9.3	8.9	13.3	15.3
C-8E1	1434+00	48"	PROPOSED	8.6	8.2	13.3	15.3
C-8E2	1456+00	48"	PROPOSED	9.3	8.9	13.2	15.2
C-8E3	1495+00	48"	PROPOSED	9.0	8.6	13.2	15.2
C-8F	1512+00	48"	PROPOSED	8.6	8.2	13.2	15.2
C-8F1	1546+00	48"	PROPOSED	8.7	8.3	13.2	15.2
C-9	1598+80	10' X 5'	EXTENDED	9.4	9.1	13.2	15.2
C-10	1628+75	10' X 5'	EXTENDED	9.5	9.2	13.2	15.2
C-11	1670+70	10' X 5'	EXTENDED	9.6	9.2	13.0	15.0

REVISED DEC 87

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI. EAST OF T.R.R. (C.R. 839)		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404 & 03075-3403 COUNTY COLLIER	
TWP:	RNG:	NAME: _____	<i>DW Stehmer</i>		DER
SEC		SIGNATURE _____	DATE: <i>12-15-87</i>		CG
		CERTIFICATE NO. _____			SHEET 32 OF 34
					DATE AUG 87

EX BIT 21

TABULATION OF DITCH BLOCKS (PLUGS)

PROJECT NO.	STATION	LOCATION / MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW / OHW
03075-3404	1161+15	NORTH / 22.0	70	14.0	14.6 / 12.6
	1243+00	NORTH / 23.5	80	14.4	15.2 / 13.2
	1295+00	NORTH / 24.5	80	14.0	15.2 / 13.2
	1346+00	NORTH / 25.5	80	15.2	15.3 / 13.3
	1387+80	NORTH / 26.3	200	13.0	15.3 / 13.3
	1390+55	NORTH / 26.3	110	13.0	15.3 / 13.3
03075-3403	1416+00	NORTH / 26.8	80	13.2	15.3 / 13.3
	1442+00	NORTH / 27.3	80	12.3	15.3 / 13.3
	1469+60	NORTH / 27.8	50	13.5	15.2 / 13.2
	1504+00	NORTH / 28.4	80	13.0	15.2 / 13.2
	1560+80	NORTH / 29.5	50	10.9	15.2 / 13.2
	1667+40	NORTH / 31.5	50	13.0	15.0 / 13.0
	1729+20	NORTH / 32.7	50	13.5	15.0 / 13.0

NOTES:

1. ALL STATIONS ARE @ SURVEY AT @ OF DITCH BLOCK.
2. OHW/DHW SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

REVISED DEC 87

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI.	FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404 & 03075-3403		
EAST OF T.R.R. (C.R. 839)			COUNTY COLLIER		
TWP: _____	RNG: _____	NAME: _____	DER: _____	CG: _____	SHEET 33 OF 34
		SIGNATURE: <i>D.W. Stehman</i>			

EXHIBIT 2V

SCANNED

INVOLVEMENT	PERMANENT				TEMPORARY	
	EXCAVATION		FILL		FILL	
	AREA	VOLUME	AREA	VOLUME	AREA*	VOLUME
03075-3404,03 JURISDICTIONAL WETLANDS	6.5	66130	139.7	991742	49.2	NC
03075-3404,03 BORROW LAKE	125.0	1906872	-	-	-	-
TOTAL JURISDICTIONAL INVOLVEMENT	131.5	1973002	139.7	991742	49.2	NC

NOTES: AREA IN ACRES; VOLUME IN CUBIC YARDS

* TEMPORARY FILL AREA IS WITHIN EXISTING RIGHT OF WAY AND WILL BE USED BY THE CONTRACTOR DURING CONSTRUCTION FOR STOCKPILING MATERIAL. IT WILL BE RESTORED TO NATURAL ELEVATION UPON COMPLETION OF CONSTRUCTION.

NC - NOT COMPUTED BECAUSE IT WILL BE REMOVED.

REVISED DEC 87

PROJECT DESCRIPTION S.R. 29 TO 6.95 MI. EAST OF T.R.R. (C.R. 839)		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03075-3404 & 03075-3403		
TWP:	RNG:	NAME:	<i>DW Stehmer</i>		DER	CG
SEC		SIGNATURE			COE	WMD
		CERTIFICATE NO. _____	DATE: <i>12-15-87</i>			SHEET 34 OF 34 DATE AUG 87

EXHIBIT 2M

RECEIVED MAR 23 1988

M E M O R A N D U M

TO: Jennifer Barone
FROM: Rae Ann Boylan *rab*
DATE: March 18, 1988
SUBJECT: 08267-B (11-00396-S), I-75
Collier County, S--/T49-50S/R30-32E
Environmental Comments

The project as proposed includes the construction of 12.4 miles of interstate highway and associated water management facilities. This segment of highway improvements is located east of SR 29 and will transect the Big Cypress National Preserve.

The improvements include two additional traffic lanes. The works include the installation of numerous canal plugs and additional culverts to promote sheet-flow. A portion of the SR 29 Canal is to be relocated. The southern borrow / distribution canal has been deleted from this segment of the highway. Smaller spreader swales will be constructed at the culverts to distribute the water. The borrow lake at the southwestern corner of the SR 29 and I-75 will be expanded to provide the necessary fill material. The works also include construction of six new wildlife crossings and three bridge extensions to serve as wildlife crossings.

The project as proposed will impact 146.2 acres of wetlands. An additional 49.2 acres of wetlands will be temporarily disturbed during actual construction. The wetlands to be impacted for the most part were previously altered during the original alley construction. The wetlands to be impacted are primarily cypress and mixed hardwood swamp and freshwater marshes. In order to minimize potential adverse environmental impacts, the following items and modifications have been incorporated into the project design. The overall project has been designed to promote and re-establish historic sheetflow in the area. Processing is underway to purchase a 640 acre parcel of wetlands adjacent to the highway. These lands will then be preserved under state ownership. A portion of these wetlands (the northern half section) have been impacted by altered drainage and subsequent wildfires. The re-establishment of sheetflow should enhance these wetlands. In order to minimize potential impacts to the Big Cypress National Preserve. The southern distributor canal has been deleted. The borrow lake will be expanded. Also, this segment of highway will include 6 new wildlife crossings and 3 bridge extensions. Since automobile accidents represent the cause of significant mortalities of the Florida panther, these wildlife crossings will provide an additional degree of protection for the panther.

SCANNED

Jennifer Barone (08267-B, 11-00396-S)
March 18, 1988
Page 2

Additional activities associated with the project, but not directly related to the actual construction, include combining FDOT right-of-way monies with Department of Interior and Department of Natural Resources' funds to add an additional 128,000 acres of land to the Big Cypress National Preserve. An additional 2,000 acres of land have been purchased at the intersection of I-75 and SR 29. A majority of these lands will be set aside for preservation purposes.

In review of the project proposal, District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project.

RAB/jr

cc: C. Padera
E. Yaun
M. Kincaid

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX "V"

WEST PALM BEACH, FL. 33402

*****NOTICE OF INTENT TO CONSTRUCT WORKS PURSUANT TO GENERAL PERMIT*****
(CHAPTER 40E-40, FLORIDA ADMINISTRATIVE CODE)

OWNER'S NAME: Florida Department of Transportation

MAILING ADDRESS: 605 Suwannee Street

Tallahassee Florida 32301-8064 904/487-2780
(CITY) (STATE) (ZIP) (PHONE)

DESCRIPTION OF THE PROPOSED PROJECT:

LOCATION: SEC(S) 1-5, 6 TWP(S) 50S RGE(S) 29E, 30E

COUNTY Collier TOTAL ACREAGE: 383.7 ACRES

NUMBER OF DWELLING UNITS OR SQUARE FEET OF COMMERCIAL AREA: _____

EVIDENCE VERIFYING ZONING COMPATIBILITY: (ATTACH DOCUMENT)

PROPOSED MINIMUM ROAD ELEVATION 18.9 NGVD

PROPOSED MINIMUM FLOOR ELEVATION: _____ NGVD

BRIEF DESCRIPTION OF THE WORKS TO BE CONSTRUCTED OR ALTERED: Construct two 12' travel lanes north of existing SR 84 roadway, excavate canal 25' deep, 70-90' wide south of existing roadway.

ACREAGE OF IMPERVIOUS COVER: 55.6 ACRES

ACREAGE OF WATER MANAGEMENT AREA: _____ ACRES

INCLUDE PAVING, GRADING & DRAINAGE PLANS, CALCULATIONS, AND, IF USING AN EXFILTRATION SYSTEM, PERCOLATION TESTS.

BRIEF STATEMENT OF FACTS WHICH SHOW WHY THE PROPOSED WORKS QUALIFY FOR A

GENERAL PERMIT: See attached letter

(ADD EXTRA SHEET IF NECESSARY)

DATE CONSTRUCTION OR ALTERATION IS EXPECTED TO COMMENCE: July 1987

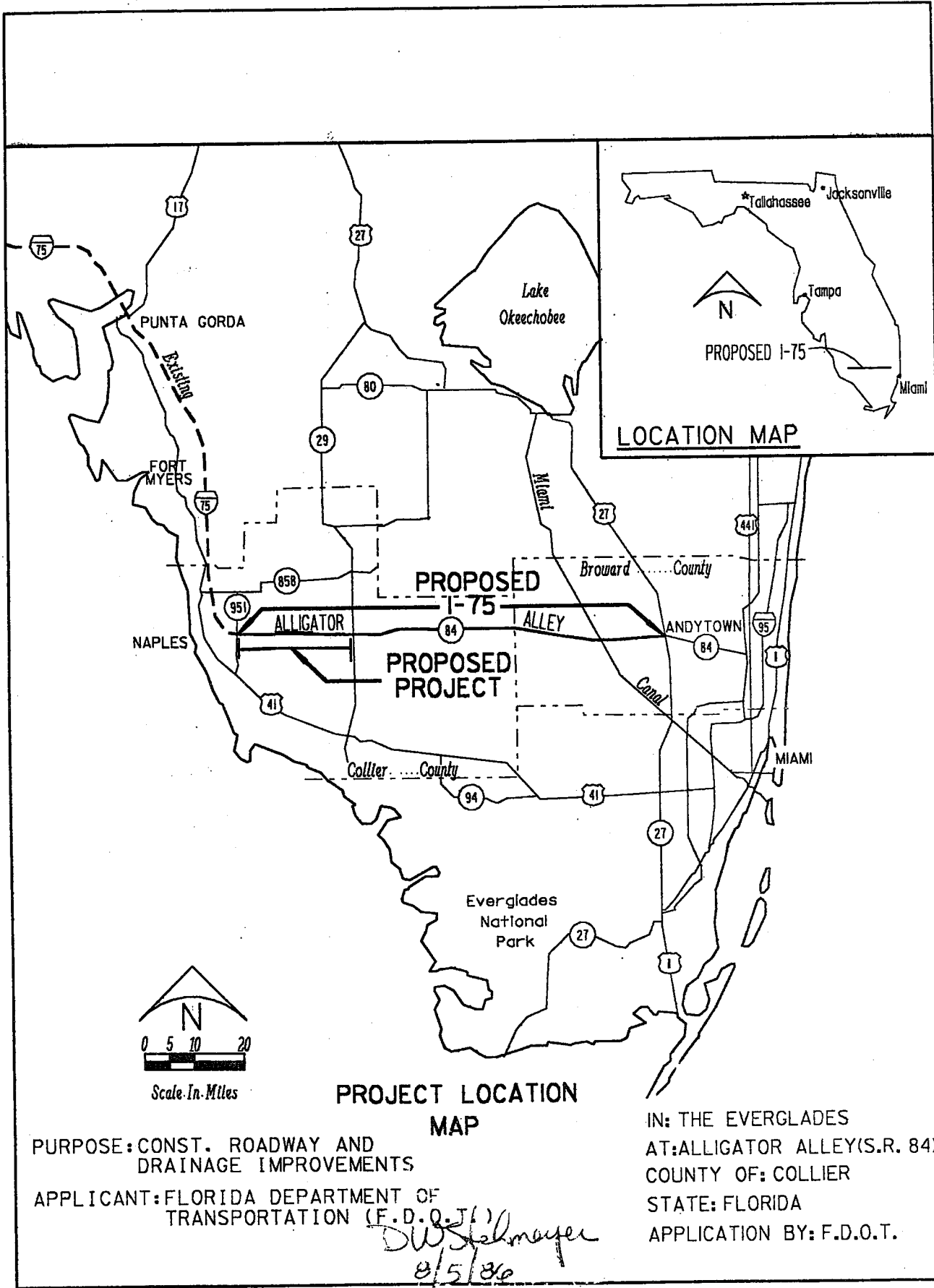
I HEREBY CERTIFY THAT ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS HAVE BEEN RECEIVED.

OWNER'S SIGNATURE: _____
(IF NOT THE OWNER, CERTIFY BELOW)

I HEREBY CERTIFY THAT I AM AN AUTHORIZED AGENT OF THE OWNER

SIGNATURE: Raymond A. Ashe, Jr. TITLE: Public Transportation Specialist/Permits

DATE: August 4, 1987



PROJECT LOCATION MAP

PURPOSE: CONST. ROADWAY AND DRAINAGE IMPROVEMENTS

APPLICANT: FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.)

D.W. Schmeyer
8/5/86

IN: THE EVERGLADES
AT: ALLIGATOR ALLEY (S.R. 84)
COUNTY OF: COLLIER
STATE: FLORIDA
APPLICATION BY: F.D.O.T.

SPECIAL CONDITIONS

1. WITHIN NINE MONTHS FROM THE DATE OF PERMIT ISSUANCE, THE PERMITTEE SHALL COMPLETE A DRAINAGE STUDY TO DETERMINE THE APPROPRIATE WEIR CREST ELEVATIONS FOR ALL PROPOSED WEIR STRUCTURES. THE STUDY SHALL BE PRESENTED TO BOTH THE DISTRICT AND COLLIER COUNTY STAFF FOR REVIEW AND APPROVAL.
2. THE PERMITTEE IS RESPONSIBLE FOR ITS CONTRACTOR'S MAINTENANCE OF HISTORIC DRAINAGE DURING CONSTRUCTION.
3. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION OR SHOALING PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
4. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
5. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.
6. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.
7. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF COLLIER COUNTY WITHIN THE PLATTED SUBDIVISION OF GOLDEN GATE ESTATES AND THE FLORIDA DEPARTMENT OF TRANSPORTATION ELSEWHERE.
8. PRIOR TO THE INITIATION OF ANY WITHDRAWAL OF WATER (IRRIGATION, DEWATERING, PUBLIC WATER SUPPLY, ETC.), IT WILL BE NECESSARY TO APPLY FOR A WATER USE PERMIT. THE PERMITTEE IS CAUTIONED THAT A MINIMUM OF 90 DAYS IS REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION. THE PERMITTEE IS CAUTIONED THAT THE ISSUANCE OF A SURFACE WATER MANAGEMENT PERMIT SHALL NOT BE CONSTRUED TO BE A GUARANTEE THAT WATER WILL BE AVAILABLE.
9. LAKE SIDE SLOPES SHALL BE 6:1 (HORIZONTAL:VERTICAL) AS SHOWN ON EXHIBIT 4H. SIDE SLOPES SHALL BE NURTURED OR PLANTED FROM 2 FEET BELOW TO 1 FOOT ABOVE CONTROL ELEVATION TO INSURE VEGETATIVE GROWTH.

LIMITING CONDITIONS

1. THE PERMITTEE SHALL PROSECUTE THE WORK AUTHORIZED IN A MANNER SO AS TO MINIMIZE ANY ADVERSE IMPACT OF THE WORKS ON FISH, WILDLIFE, NATURAL ENVIRONMENTAL VALUES, AND WATER QUALITY. THE PERMITTEE SHALL INSTITUTE NECESSARY MEASURES DURING THE CONSTRUCTION PERIOD, INCLUDING FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED STRUCTURES, TO REDUCE EROSION, TURBIDITY, NUTRIENT LOADING AND SEDIMENTATION IN THE RECEIVING WATERS.
2. WATER QUALITY DATA FOR THE WATER DISCHARGED FROM THE PERMITTEE'S PROPERTY OR INTO SURFACE WATERS OF THE STATE SHALL BE SUBMITTED TO THE DISTRICT AS REQUIRED. PARAMETERS TO BE MONITORED MAY INCLUDE THOSE LISTED IN CHAPTER 17-3. IF WATER QUALITY DATA IS REQUIRED, THE PERMITTEE SHALL PROVIDE DATA AS REQUIRED, ON VOLUMES OF WATER DISCHARGED, INCLUDING TOTAL VOLUME DISCHARGED DURING THE DAYS OF SAMPLING AND TOTAL MONTHLY DISCHARGES FROM THE PROPERTY OR INTO SURFACE WATERS OF THE STATE.
3. THE PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LOCAL SUBDIVISION REGULATIONS AND OTHER LOCAL REQUIREMENTS. IN ADDITION THE PERMITTEE SHALL OBTAIN ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS PRIOR TO THE START OF ANY CONSTRUCTION OR ALTERATION OF WORKS AUTHORIZED BY THIS PERMIT.
4. THE OPERATION PHASE OF THIS PERMIT SHALL NOT BECOME EFFECTIVE UNTIL A FLORIDA REGISTERED PROFESSIONAL ENGINEER CERTIFIES THAT ALL FACILITIES HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE DESIGN APPROVED BY THE DISTRICT. WITHIN 30 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL SUBMIT THE CERTIFICATION AND NOTIFY THE DISTRICT THAT THE FACILITIES ARE READY FOR INSPECTION AND APPROVAL. UPON APPROVAL OF THE COMPLETED SURFACE WATER MANAGEMENT SYSTEM, THE PERMITTEE SHALL REQUEST TRANSFER OF THE PERMIT TO THE RESPONSIBLE ENTITY APPROVED BY THE DISTRICT.
5. ALL ROADS SHALL BE SET AT OR ABOVE ELEVATIONS REQUIRED BY THE APPLICABLE LOCAL GOVERNMENT FLOOD CRITERIA.
6. ALL BUILDING FLOORS SHALL BE SET AT OR ABOVE ELEVATIONS ACCEPTABLE TO THE APPLICABLE LOCAL GOVERNMENT.
7. OFF-SITE DISCHARGES DURING CONSTRUCTION AND DEVELOPMENT SHALL BE MADE ONLY THROUGH THE FACILITIES AUTHORIZED BY THIS PERMIT. NO ROADWAY OR BUILDING CONSTRUCTION SHALL COMMENCE ON-SITE UNTIL COMPLETION OF THE PERMITTED DISCHARGE STRUCTURE AND DETENTION AREAS. WATER DISCHARGED FROM THE PROJECT SHALL BE THROUGH STRUCTURES HAVING A MECHANISM SUITABLE FOR REGULATING UPSTREAM WATER STAGES. STAGES MAY BE SUBJECT TO OPERATING SCHEDULES SATISFACTORY TO THE DISTRICT.
8. NO CONSTRUCTION AUTHORIZED HEREIN SHALL COMMENCE UNTIL A RESPONSIBLE ENTITY ACCEPTABLE TO THE DISTRICT HAS BEEN ESTABLISHED AND HAS AGREED TO OPERATE AND MAINTAIN THE SYSTEM. THE ENTITY MUST BE PROVIDED WITH SUFFICIENT OWNERSHIP SO THAT IT HAS CONTROL OVER ALL WATER MANAGEMENT FACILITIES AUTHORIZED HEREIN. UPON RECEIPT OF WRITTEN EVIDENCE OF THE SATISFACTION OF THIS CONDITION, THE DISTRICT WILL ISSUE AN AUTHORIZATION TO COMMENCE CONSTRUCTION.
9. THE PERMIT DOES NOT CONVEY TO THE PERMITTEE ANY PROPERTY RIGHT NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED IN THE PERMIT AND CHAPTER 40E-4, FAC.
10. THE PERMITTEE SHALL HOLD AND SAVE THE DISTRICT HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE BY REASON OF THE CONSTRUCTION, OPERATION, MAINTENANCE OR USE OF ANY FACILITY AUTHORIZED BY THE PERMIT.
11. THIS PERMIT IS ISSUED BASED ON THE APPLICANT'S SUBMITTED INFORMATION WHICH REASONABLY DEMONSTRATES THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS WILL NOT BE CAUSED BY THE COMPLETED PERMIT ACTIVITY. IT IS ALSO THE RESPONSIBILITY OF THE PERMITTEE TO INSURE THAT ADVERSE OFF-SITE WATER RESOURCE RELATED IMPACTS DO NOT OCCUR DURING CONSTRUCTION.
12. PRIOR TO DEWATERING, PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. INFORMATION SHALL INCLUDE AS A MINIMUM: PUMP SIZES, LOCATIONS AND HOURS OF OPERATION FOR EACH PUMP. IF OFF-SITE DISCHARGE IS PROPOSED, OR OFF-SITE ADVERSE IMPACTS ARE EVIDENT, AN INDIVIDUAL WATER USE PERMIT MAY BE REQUIRED. THE PERMITTEE IS CAUTIONED THAT SEVERAL MONTHS MAY BE REQUIRED FOR CONSIDERATION OF THE WATER USE PERMIT APPLICATION.

WATER QUALITY

Water quality impacts from this project should be minimal. Raised inlets are provided in the grassed center median area of the roadway and vast wetland areas located south of the proposed spreader waterway system provide nutrient removal. Water quality treatment in excess of the first inch of runoff should be provided by these mechanisms.

OPERATION AND MAINTENANCE

The operation and maintenance of the surface water management system shall be the responsibility of Florida Department of Transportation.

RECOMMENDATION

The Staff recommends approval of Application Nos. 08076-K, 08116-B and 08116-F subject to the following 12 Standard Limiting Conditions, 9 Special Conditions and 5 Exhibits.

APPLICATION REVIEWER:

SUPERVISOR/CHECKER:

TECHNICAL: J. Mang

E. Yaun

WATER QUALITY: J. Mang

D. Watt

ENVIRONMENTAL: R.A. Boylan

C. Padera

APPROVED:

DIVISION DIRECTOR:

Charles W. Fumble

DEPARTMENT DIRECTOR:

Richard A. Rogers
Richard A. Rogers, P.E.
Resource Control Department

DATE: 4/2/87

AGENDA DESCRIPTION:

CONSTRUCTION AND OPERATION OF A SURFACE WATER MANAGEMENT SYSTEM SERVING THREE SEGMENTS, 20.0 MILES, OF 4-LANE INTERSTATE HIGHWAY FROM THE NAPLES TOLL BOOTH EAST TO SR 29 WHICH DISCHARGES SOUTH TO EXISTING WETLAND AREAS AND THE FAKAHATCHEE STRAND STATE PRESERVE VIA A CANAL SPREADER WATERWAY.

ENVIRONMENTAL CONSIDERATIONS

The proposed works include the construction of twenty miles of interstate highway and associated drainage facilities from S.R. 29 west to the toll booth. The improvements include two additional traffic lanes. A southern borrow/distributor canal will be constructed along with numerous canal plugs, additional culverts and weir structures to promote historic sheetflow to the south. The works also include construction of eight new wildlife crossings and 4 bridge extensions which will also serve as wildlife crossings.

The project as proposed will impact 192.9 acres of wetlands. An additional 44.5 acres of wetlands will be temporarily disturbed during actual construction. The wetlands to be impacted are primarily cypress forest and mixed hardwood swamp. The eastern segment of these improvements will transect the Fakahatchee Strand. In order to minimize potential adverse environmental impacts, the following items and modifications have been incorporated into the project design. The overall project has been designed to promote and re-establish historic sheetflow in the area. At the present time, processing is underway to purchase approximately 150 acres remaining of a total 640-acre parcel of wetlands adjacent to the highway. These lands will then be preserved under state ownership. A portion of these wetlands (the northern half section) have been impacted by altered drainage and subsequent wildfires. The re-establishment of sheetflow should enhance these wetlands. In order to minimize potential impacts to the Fakahatchee Strand State Preserve, the southern distributor canal has been significantly reduced in size. A borrow lake has been included in the design to provide the necessary fill material. This lake is to be located in the southwestern section of the S.R. 29 and I-75 intersection. Also, this segment of highway will include eight new wildlife crossings and 4 bridge extensions. Since automobile accidents represent the cause of significant mortalities of the Florida panther, these wildlife crossings will provide an additional degree of protection for the panther.

Additional activities associated with the project, but not directly related to the actual construction, include combining FDOT right-of-way monies with Department of Interior and Department of Natural Resources' funds to add an additional 128,000 acres of land to the Big Cypress National Preserve. An additional 2,000 acres of land have been purchased at the intersection of I-75 and S.R. 29. A majority of these lands will be set aside for preservation purposes.

District staff has expressed concern over the proposed weir control elevations. These elevations are temporary in nature and are subject to change once the drainage study agreed to by FDOT has been completed (see Special Condition No. 1) and assurances have been provided that no adverse environmental impacts will result from these control elevations.

In review of the project proposal, District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project.

In the east section, a new south borrow canal is to be excavated to a maximum top width of 24 feet and a depth of 7 feet. A 73.1-acre borrow lake is to be excavated from station 1089.50 to 1115.50 (see Exhibits 4G and 4H for details). The existing 10' by 5' box culvert and 48" diameter culvert are to be extended to the south borrow canal (stations 945.00 and 1104.00). Five 48" diameter culverts and 1-10' by 5' box culvert (located at stations 821.90, 865.50, 909.50, 994.00, 1069.50 and 1085.00 respectively - see Exhibit 40) are proposed to improve flow through capabilities from the north borrow canal to the south borrow canal. The two existing plugs in the north borrow canal are to be removed and 5 plugs constructed (refer to Exhibits 4C - 4F for location and details).

Three bridges, D, E and F, are proposed for this section of the roadway (see Exhibits 4I and 4K - 4M).

Two canal crossings south of the I-75/Alligator Alley alignment are also proposed in these applications. The first is a crossing over GGE canal #1 which is approximately three fourths of a mile south of Bridge A (refer to Exhibits 2I and 2K for location and details). The second crossing is located at the western end of Berson Blvd. over GGE canal #2 and is approximately three fourths of a mile south of Bridge B (refer to Exhibits 3H and 3J for location and details).

EVALUATION

The plug and bridge locations throughout the project have been chosen to correspond with recommendations in the Greiner Engineering Study compiled for the Florida Department of Transportation (FDOT). The design intent of the study was to re-establish sheetflow to the extensive wetland areas south of Alligator Alley which had been previously disrupted by the original roadway construction (Alligator Alley/SR 84). It appears that the proposed roadway modification will be consistent with the above intent. Southerly flows will be enhanced through plug, bridge and wildlife crossing placement and hydraulic gradient of the existing and proposed canal. Since the Greiner Study did not address control elevations for the system, an additional drainage study will be necessary to determine the final overflow elevations of the weirs associated with Bridges A, B and C. Temporary elevations have been set as previously described in the proposed facilities section above and are subject to modification once the study has been completed. FDOT selected these temporary elevations to continue to provide drainage for the GGE platted subdivision. Staff is concerned with preventing over drainage of these lands.

The canal width and depth through the Fakahatchee Strand was reduced to the current design of a maximum 24' top width and 7' depth at the request of the Department of Environmental Regulation (DER). The additional fill necessary to construct the additional 2 lanes of roadway will be obtained from the 73.1-acre borrow lake located at the southwest corner of the intersection of SR 29 and Alligator Alley. Approximately 907,512 cubic yards of fill will be excavated from the borrow lake. The lake's side slopes of 6:1 (H:V) and maximum depth of 9.7' were also recommended by DER.

B. Proposed Facilities: Expansion of the 2-lane roadway to a 4-lane interstate highway number 75. In the west section, the existing north borrow canal is to be excavated to a maximum depth of 10 feet below existing ground and a new south borrow canal to be excavated in the following manner, from station 90.00 to 399.70 - maximum top width of 40' and depth of 15', from station 399.70 to 476.70 - maximum top width of 60' and depth of 7'. The 6-10' by 5' box culverts are to be extended south to the new borrow canal with two additional 48" diameter culverts installed (stations 414.50 and 460.00, see Exhibit 2M) to improve flow through capabilities from the north to the south borrow canal. The 6 existing plugs in the north borrow canal are to be removed and replaced with 3-50' wide plugs, two of which will function as overflow weirs to Golden Gate Estate's (GGE) canal 1 adjacent to proposed Bridge A (see Exhibit 2G). Five plugs are proposed for the south borrow canal, two of which are located due to archeological sites and two are associated with Bridge A and function as overflow weirs (refer to Exhibits 2C, 2E, 2G and 2N for location and details). One bridge, A, is proposed for this section of the roadway (see Exhibits 2G and 2I-2K). The 4 overflow weirs adjacent to Bridge A will consist of earthen sodded spillways and will be set according to the following schedule: the northwest quadrant set at natural ground with the northeast, southeast and southwest quadrant set at 1 foot below natural grade in order to provide drainage to the platted GGE system. Once the drainage study to be conducted by the permittee is completed, the weir elevations may be modified (refer to Special Condition No. 1).

In the middle section, a new south borrow canal is to be excavated in the following manner, maximum top width of 80' and depth of 7' from station 480.00 to 495.00, from station 523.00 to 544.75, from station 546.60 to 567.00, from station 657.00 to 673.00, from station 688.00 to 728.00 and from station 747.50 to 775.00. Elsewhere, the south borrow canal is to have a maximum top width of 60' with an approximate depth of 20'. The existing 10' by 5' box culvert (station 593.00) is to be extended south to the new borrow canal with the addition of 1-10' by 5' box culvert (station 751.00) and 3-48" diameter culverts (stations 512.00, 561.50 and 636.00) to improve flow through capabilities from the north to south (refer to Exhibit 30). Three of the existing plugs are to be removed (stations 500.00, 577.00 and 780.00) with 6 new plugs proposed in the north borrow canal, 4 of which are associated with Bridges B and C and will also function as overflow weirs to GGE canals 2 and 3 (refer to Exhibits 3C, 3E - 3G). Eight plugs are proposed in the south borrow canal, 4 of which function as overflow weirs in association with Bridges B and C (refer to Exhibits 3C - 3G for location and size). Two bridges, B and C, are proposed for this section of the roadway (see Exhibits 3H, 3I and 3K). Eight overflow weirs, earthen sodded spillways, are associated with Bridges B and C and will be set according to the following schedule: Bridge B - weirs to be set 1 foot below natural ground in all four quadrants, Bridge C - weir set 0.5' below natural ground in the northeast, northwest and southeast quadrants and 1.0' below natural ground in the southwest quadrant. Once the drainage study conducted by the applicant is completed, these weir elevations may be modified (refer to Special Condition No. 1).

LAST DATE FOR GOVERNING BOARD ACTION:
June 11, 1987

Application Nos. 08076-K, 08116-B, and 08116-F

I-75, ALLIGATOR ALLEY

Collier County, S--/T50S/R26-30E

S T A F F R E P O R T

ABSTRACT

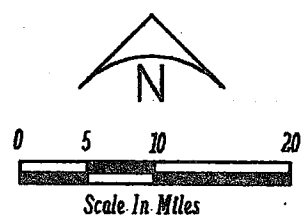
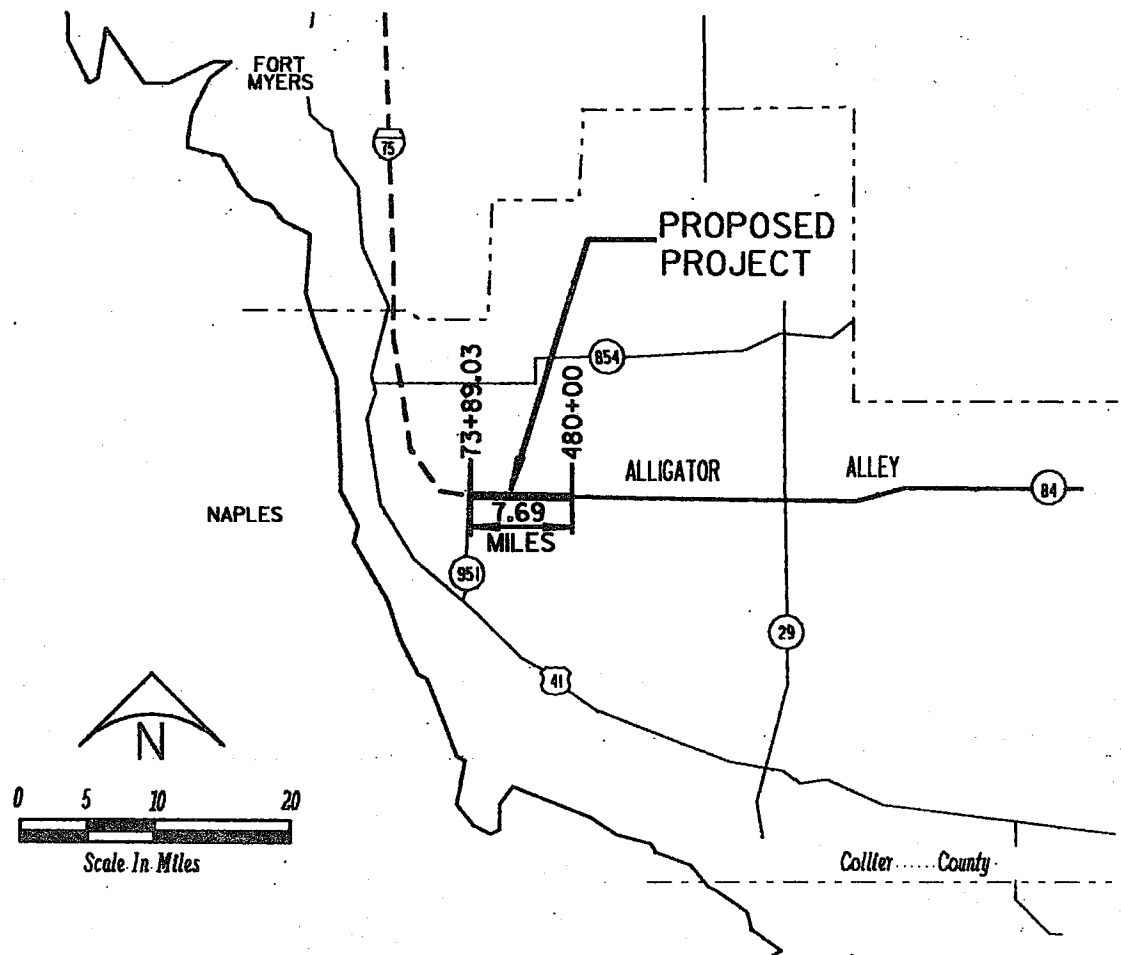
The applications, listed above, are a request to construct and operate a surface water management system to serve 20.0 miles of interstate highway and associated drainage facilities from the toll booth in Naples east to SR 29 (see Exhibit 1). Staff recommendation is for approval.

THE APPLICATION

A. Existing Facilities: The 2-lane Alligator Alley (SR 84) with an adjacent borrow canal located on the north side of the roadway alignment. In the west section, 7.69 miles (A#08076-K, State Project No. 03175-3405, see Exhibit 2), there exists 24-15" diameter median inlets which direct runoff into the north borrow canal, 6-10' by 5' box culverts which provide flow under the existing 2-lane roadway and 6 plugs in the north borrow canal (located approximately at stations 225, 273, 305, 333, 360 and 430 respectively - refer to exhibits 2C - 2H).

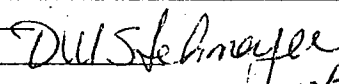
In the middle section, 6.28 miles (A#08116-B, State Project No. 03175-3407, see Exhibit 3), there exists 16-15" diameter median inlets which direct runoff into the north borrow canal, 1-10' by 5' box culvert which provides flow under the existing 2-lane roadway and 4 plugs in the north borrow canal (located approximately at stations 500, 577, 620 and 780 respectively - refer to Exhibits 3C, 3D, and 3F).

In the east section, 6.03 miles (A#08116-F, State Project No. 03175-3406, see Exhibit 4), there exists 11-15" diameter median inlets which direct runoff into the north borrow canal, 2-10' by 5' box culverts which provide flow under the existing 2-lane roadway and 2 plugs in the north borrow canal (located approximately at stations 866 and 972 respectively - refer to Exhibits 4C and 4E).



VICINITY MAP
COLLIER COUNTY
PROJECT LENGTH 7.69 MILES

EXHIBIT 2

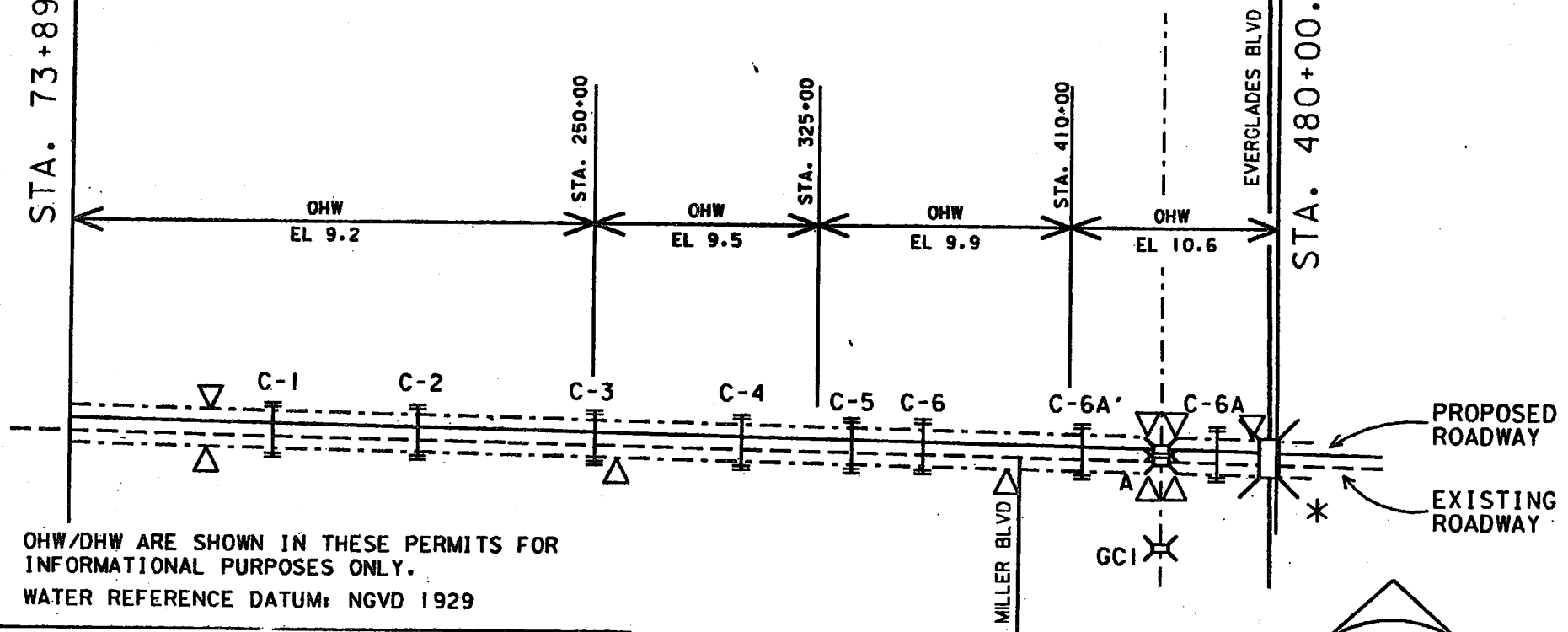
PROJECT DESCRIPTION E. OF CR-951 TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405		
E. OF EVERGLADES BLVD.				COUNTY COLLIER		
TYPE:	RNG:	NAME:	 DATE: 10/3/84	DER	CG	SHEET 2 OF 18
SEC		CERTIFICATE NO. _____		COE	WAD	DATE AUG 86

F.A. PROJ. NO. I-75-4(27)305
 PROPOSED PROJECT (I-75)

7.69 MILES

STA. 73+89.03

STA. 480+00.00



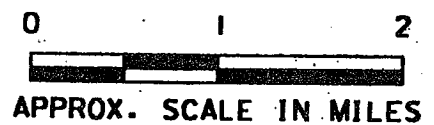
OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.
 WATER REFERENCE DATUM: NGVD 1929

LEGEND

- CANAL
- XX A BRIDGE
- XX GC CANAL CROSSING
- XX* BRIDGE ON EVERGLADES BLVD.
- C-1 CULVERT
- ▽ PROPOSED DITCH BLOCK
- △ STA. PROJECT STATION

SITE MAP

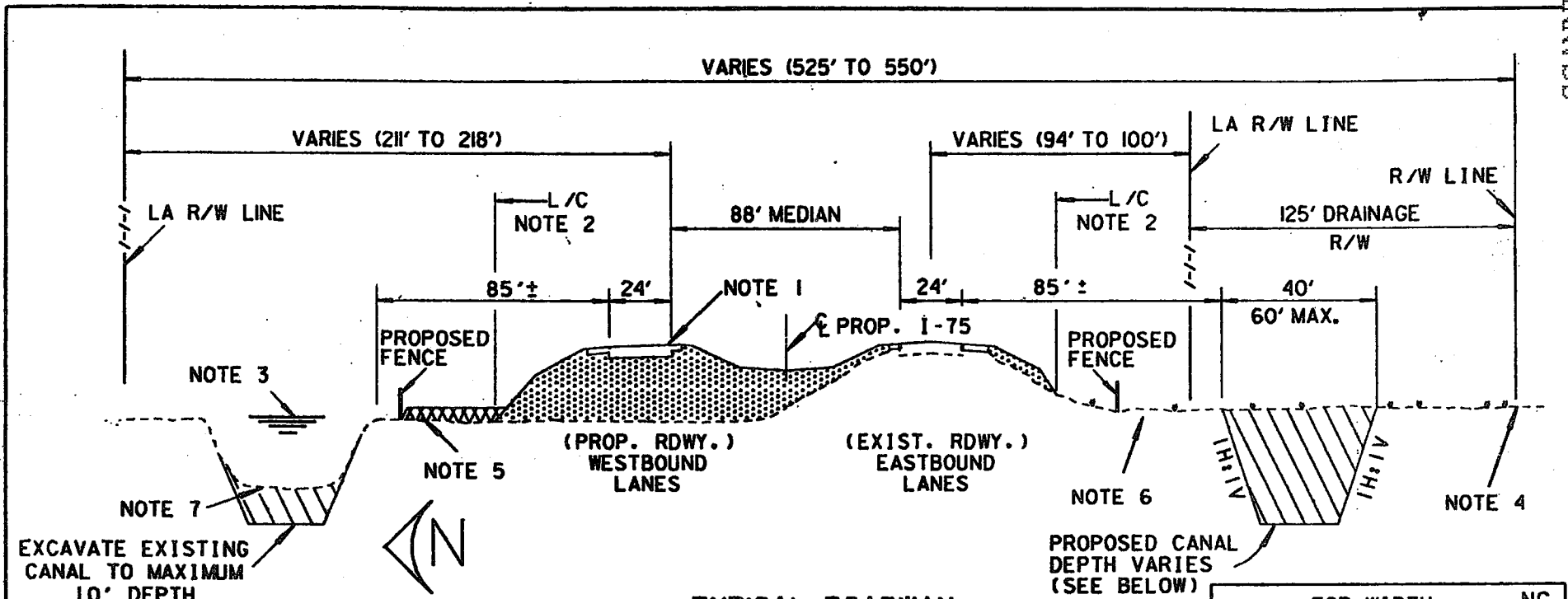
FOR SEC., TWP., RNG.,
 SEE SHEETS 5 THRU 10



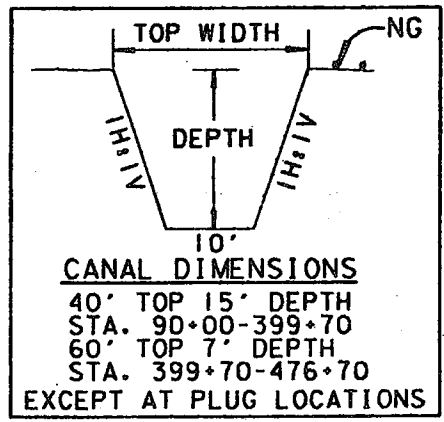
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EXHIBIT 2A

PROJECT DESCRIPTION E. OF CR-951 TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405	
E. OF EVERGLADES BLVD.				COUNTY COLLIER	
TWP:	RNG:	NAME:	SIGNATURE: <i>Dwight Amyer</i>	DER:	CG:
SEC:		CERTIFICATE NO.:	DATE: 2-17-87	COE:	WMD:
				SHEET 3 OF 18	
				DATE AUG 86	



TYPICAL ROADWAY AND CANAL SECTIONS



- NOTES:**
1. CREST ELEVATION VARIES 17.7 TO 23.03.
 2. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
 3. O.H.W. VARIES EL. 9.2 TO 10.6.
 4. EXISTING GROUND VARIES EL. APPROX. 9.5 TO 11.5.
 5. TEMPORARY FILL FOR CONTRACTOR'S STOCKPILE AREA. RESTORE TO NATURAL ELEVATION.
 6. THE AREA BETWEEN L/C AND THE PROPOSED CANAL SHALL NOT BE DISTURBED DURING CONSTRUCTION EXCEPT AT HAUL ROAD CROSSINGS (APPROX. 1/2 MILE INTERVALS).
 7. EXISTING CANAL DEPTH VARIES 2.0 TO 19.8.

- LEGEND**
- FILL
 - EXCAVATION (JURISDICTIONAL)
 - TEMP. FILL (STOCKPILE AND WORK AREA)
 - L/C LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

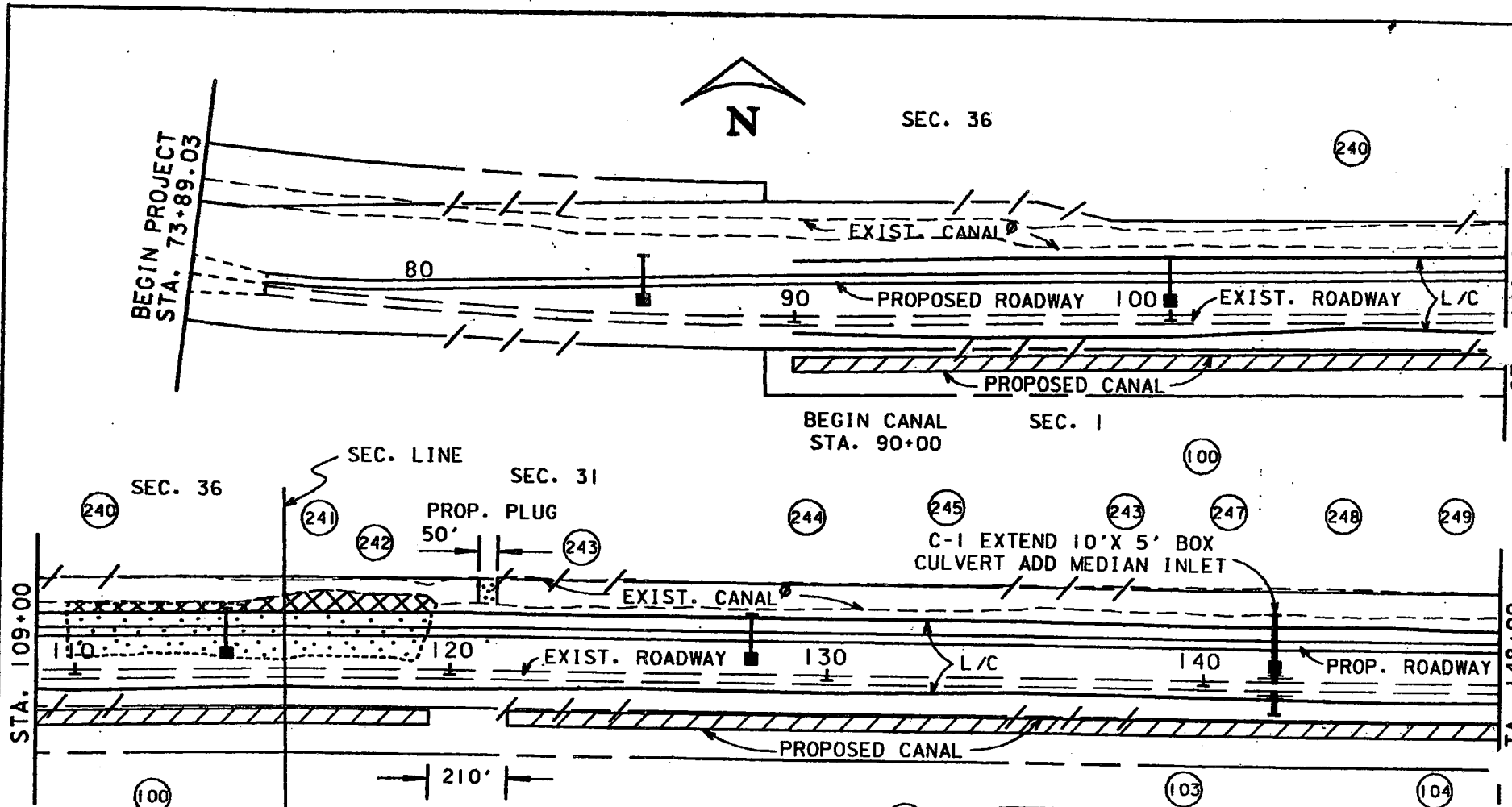
WATER REFERENCE DATUM: NGVD 1929

REVISED FEB 87

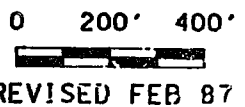
PROJECT DESCRIPTION E. OF CR-951 TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405		
E. OF EVERGLADES BLVD.				COUNTY COLLIER		
TWP:	RNG:	NAME:		DER	CG	SHEET 4 OF 18
SEC		SIGNATURE		COE	WMD	DATE AUG 86
		CERTIFICATE NO.		DATE: 2-17-87		

EXHIBIT 2B

EXHIBIT 2C

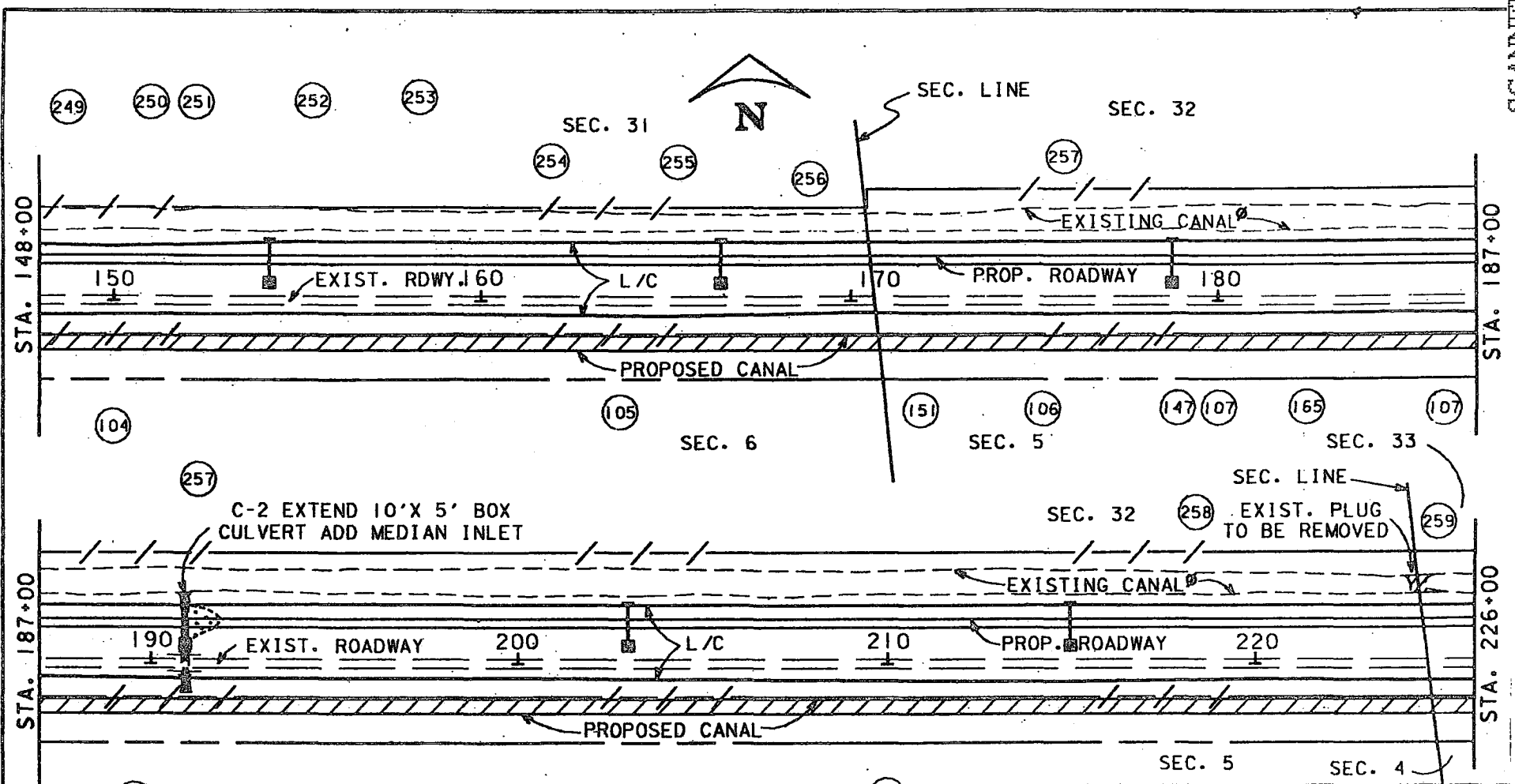


NOTE: # - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST
Ø - EXIST. CANAL IS TO BE EXCAVATED
TO A MAXIMUM DEPTH OF 10'

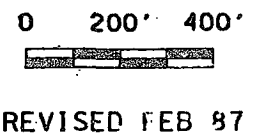


LEGEND	
---/---/---	EXISTING R/W & L/A R/W
----	EXISTING DRAINAGE R/W
.....	FILL (JURISDICTIONAL)
////	EXCAVATION (JURISDICTIONAL)
XXXX	TEMPORARY FILL (JURISDICTIONAL)
■	MEDIAN INLET
L/C	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405		
TWP: 49 S, 50 S RNG: 26 E, 27 E				COUNTY COLLIER		
SEC 36, 31: 1, 6		NAME: <i>D. W. Stehman</i>		DER	CG	SHEET 5 OF 18
		SIGNATURE		COE	WMD	DATE AUG 88
		CERTIFICATE NO. _____		DATE: 2-17-87		



NOTE: (*) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST
Ø - EXIST. CANAL IS TO BE EXCAVATED
TO A MAXIMUM DEPTH OF 10'

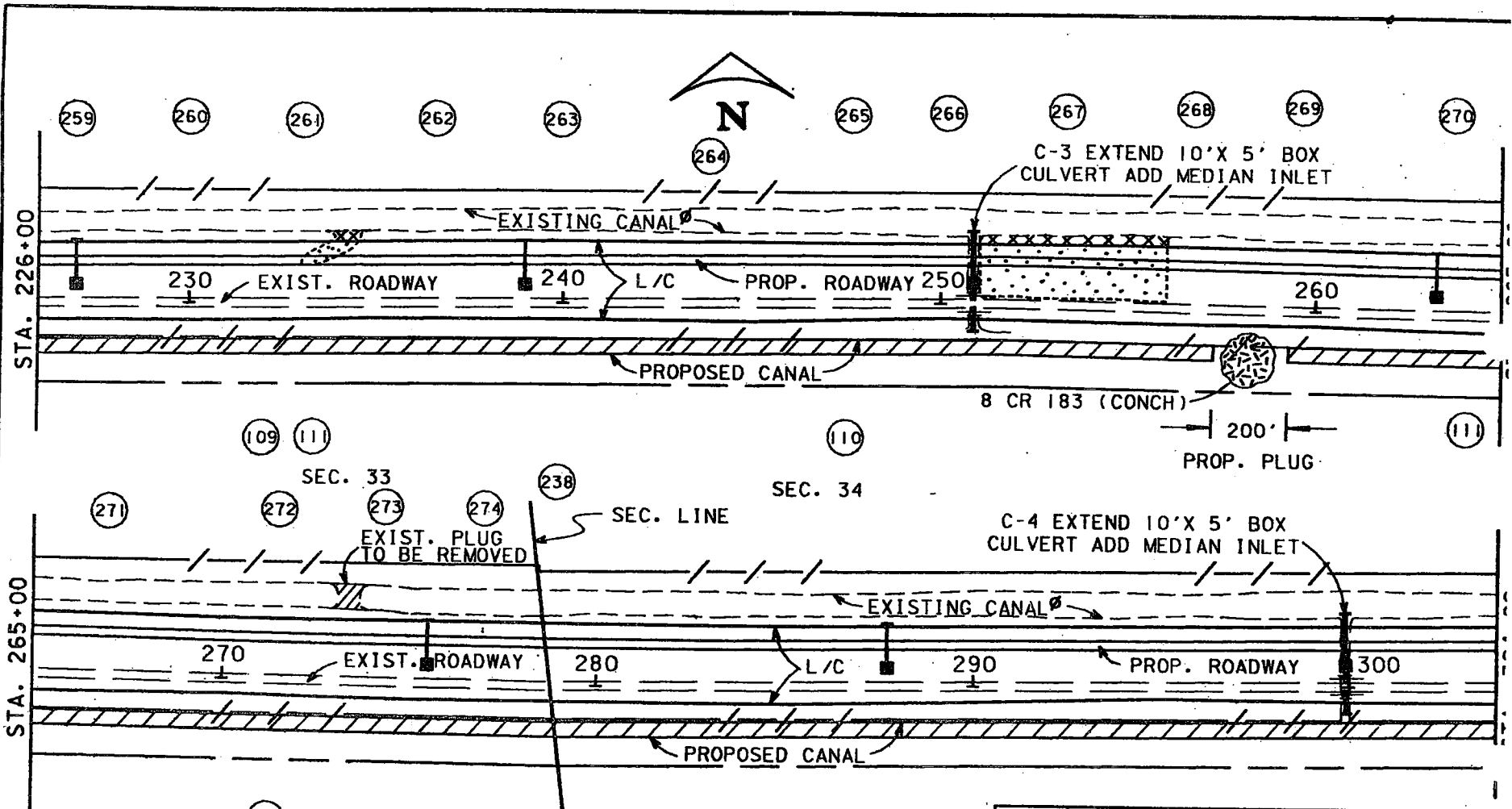



LEGEND



- EXISTING R/W & L/A R/W
- EXISTING DRAINAGE R/W
- FILL (JURISDICTIONAL)
- EXCAVATION (JURISDICTIONAL)
- TEMPORARY FILL (JURISDICTIONAL)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION
(PERMANENT ROADWAY FILL)

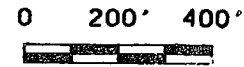
EXHIBIT 2D

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405	
TWP: 49 S, 50 S RNG: 27 E		NAME: <i>DW Schmeyer</i>		COUNTY COLLIER	
SEC 31, 32, 33: 6, 5, 4		SIGNATURE: <i>DW Schmeyer</i>		DER	CG
		CERTIFICATE NO. _____		COE	WMO
		DATE: 2-17-87		SHEET 6 OF 18	
				DATE AUG 86	



 ARCHEOLOGICAL SITE

NOTE:  - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST
 - EXIST. CANAL IS TO BE EXCAVATED
TO A MAXIMUM DEPTH OF 10'



REVISED FEB 87








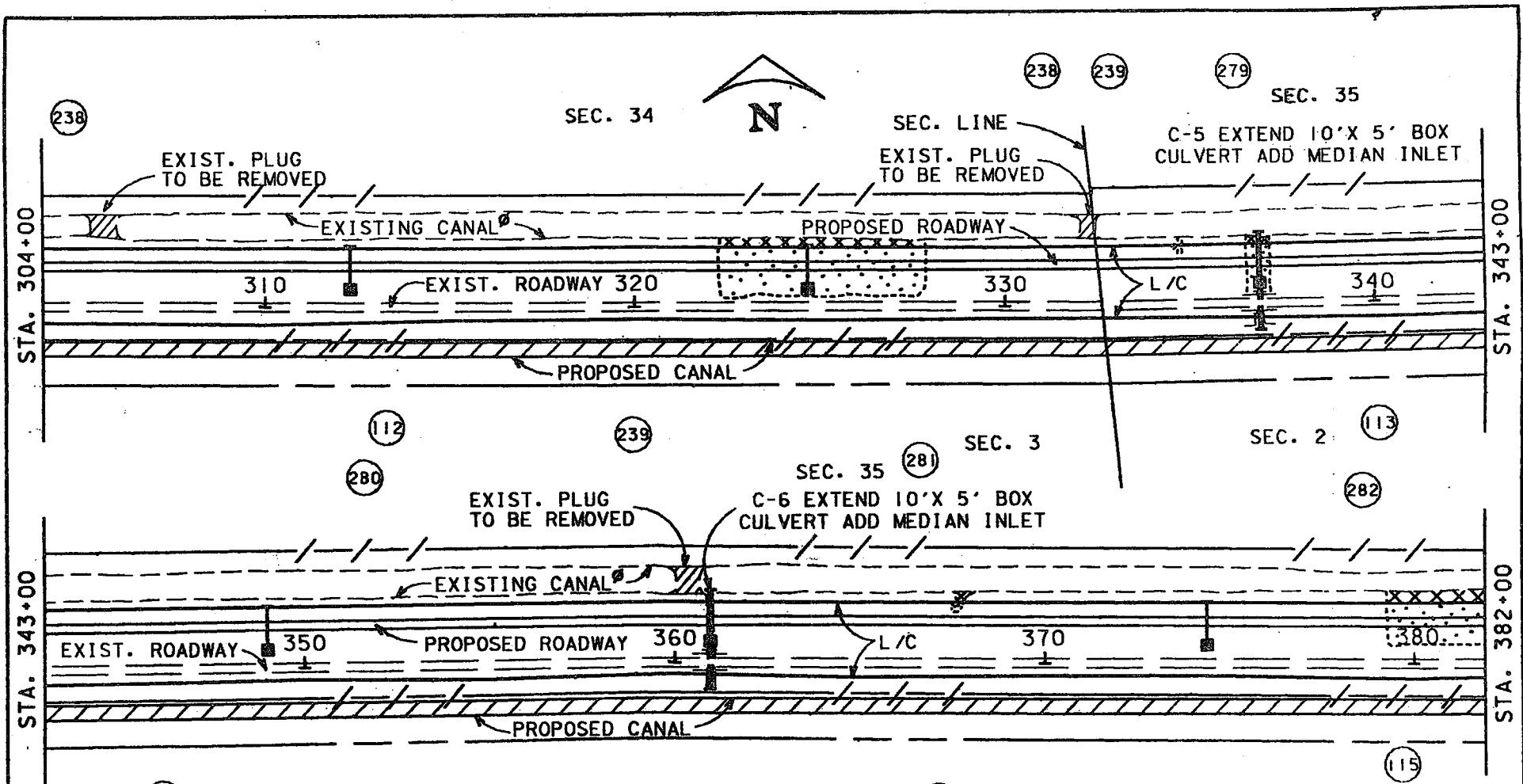
LEGEND	
	EXISTING R/W & L/A R/W
	EXISTING DRAINAGE R/W
	FILL (JURISDICTIONAL)
	EXCAVATION (JURISDICTIONAL)
	TEMPORARY FILL (JURISDICTIONAL)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

EXHIBIT 2E

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405	
TWP: 49 S, 50 S	RNG: 27 E	NAME:	COUNTY COLLIER		
SEC 33, 34, : 4, 3		SIGNATURE: <i>D. J. Schmeyer</i>	DER:	CG:	SHEET 7 OF 11
		CERTIFICATE NO. _____	COE:	WMD:	DATE AUG 81
					DATE 2-17-87



NOTE: (#) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST
Ø - EXIST. CANAL IS TO BE EXCAVATED
TO A MAXIMUM DEPTH OF 10'



LEGEND	
---/---/---	EXISTING R/W & L/A R/W
---	EXISTING DRAINAGE R/W
[Dotted pattern]	FILL (JURISDICTIONAL)
[Hatched pattern]	EXCAVATION (JURISDICTIONAL)
[Cross-hatched pattern]	TEMPORARY FILL (JURISDICTIONAL)
[Square with vertical line]	MEDIAN INLET
[Line with vertical bars]	L/C
[Line with vertical bars]	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405	
TWP: 49 S, 50 S RNG: 27 E		NAME: _____		COUNTY COLLIER	
SEC 34, 35: 3, 2		SIGNATURE: <i>DW Stehmyer</i>		DER	CG
		CERTIFICATE NO. _____		COE	WMD
		DATE: 2-17-87		SHEET 8 OF 18	
				DATE AUG 86	

EXHIBIT 2F

SCANNED

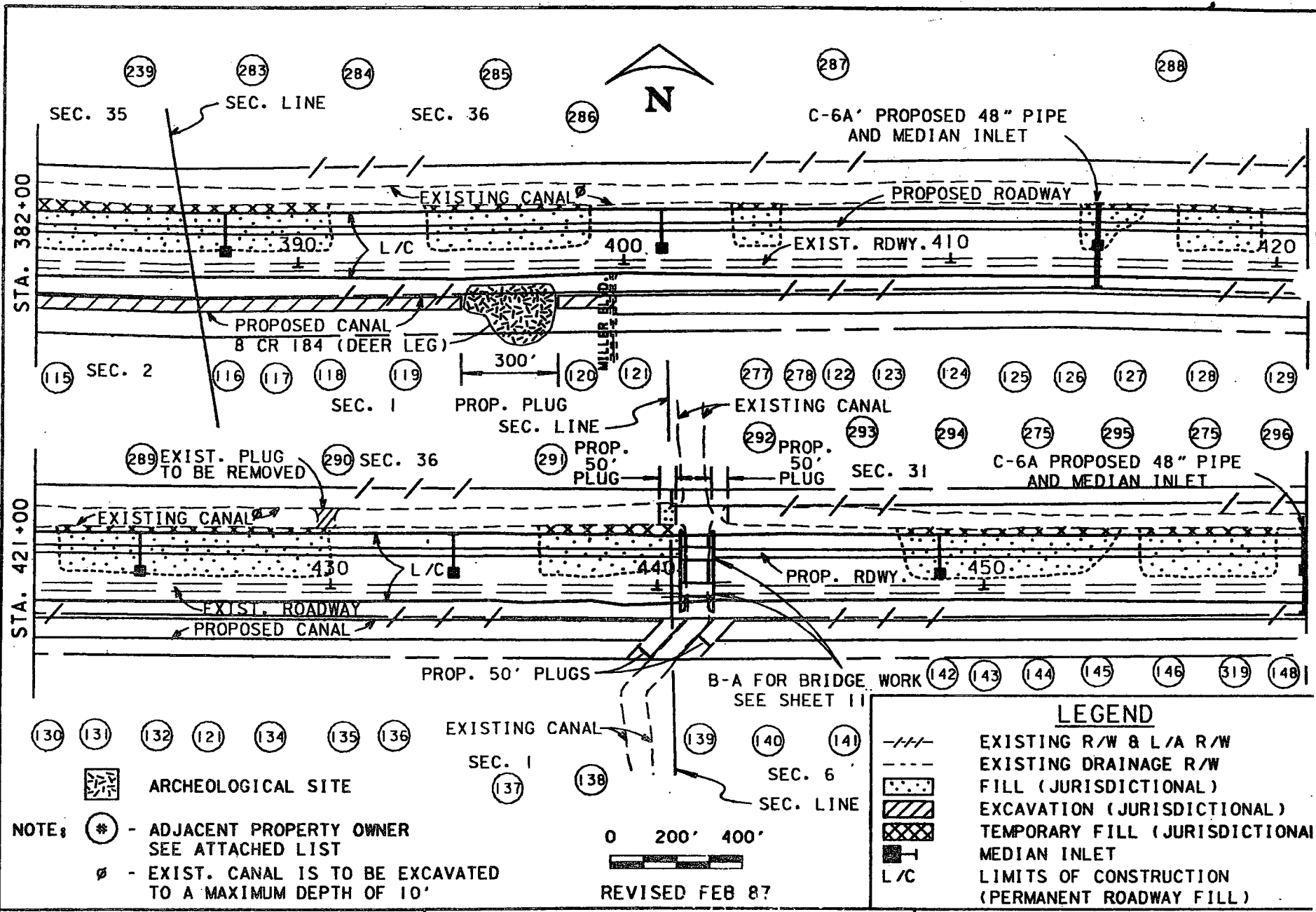
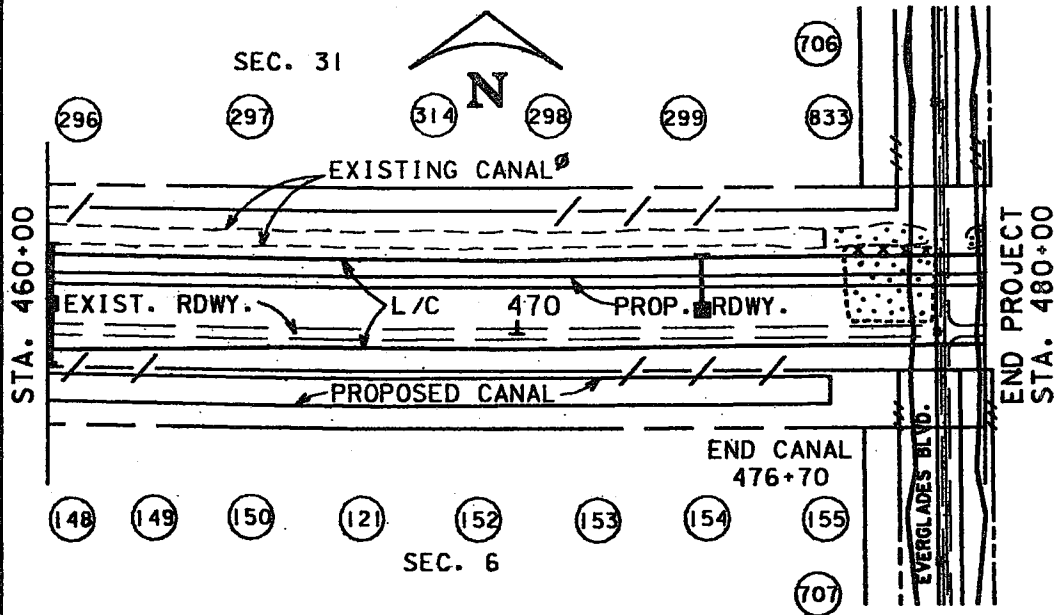


EXHIBIT 26

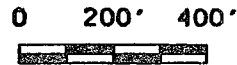
PROJECT DESCRIPTION E. OF CR-951 TO	
E. OF EVERGLADES BLVD.	
TWP: 49 S, 50 S	RNG: 27 E, 28 E
SEC 35, 36, 31; 2, 1, 6	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME: _____	
SIGNATURE: <i>D. J. Stehney</i>	
CERTIFICATE NO. _____	DATE: 2-17-87

STATE PROJECT NO. 03175-3405		
COUNTY COLLIER		
DER	CG	SHEET 9 OF 1
COE	WMD	DATE AUG 8



NOTE: (⊛) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST
∅ - EXIST. CANAL IS TO BE EXCAVATED
TO A MAXIMUM DEPTH OF 10'



REVISED FEB 87

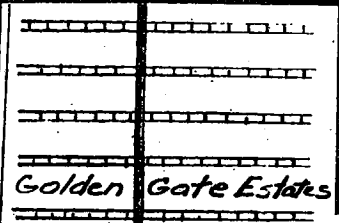
LEGEND	
	EXISTING R/W & L/A R/W
	EXISTING DRAINAGE R/W
	FILL (JURISDICTIONAL)
	EXCAVATION (JURISDICTIONAL)
	TEMPORARY FILL (JURISDICTIONAL)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION E. OF CR-951 TO
E. OF EVERGLADES BLVD.
TWP: 49 S, 50 S RNG: 28 E
SEC 31:6

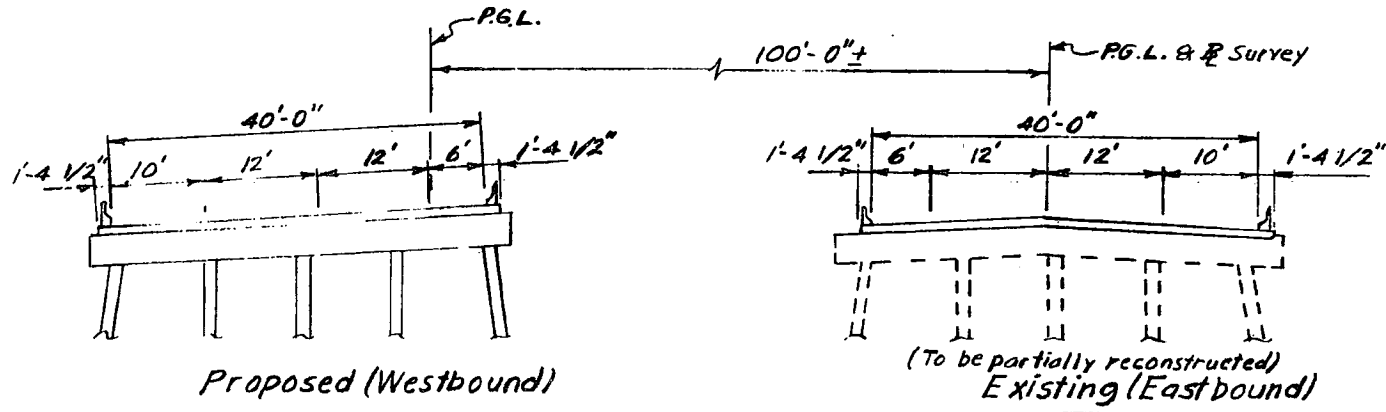
FLORIDA DEPARTMENT OF TRANSPORTATION
NAME: _____
SIGNATURE: *D. J. Stehney*
CERTIFICATE NO. _____ DATE: *2-17-87*

STATE PROJECT NO. 03175-3405
COUNTY COLLIER
DER _____ CG _____ SHEET 10 OF 18
COE _____ RMD _____ DATE AUG 86

EXHIBIT 2H
SCANNED



NOTE: All structure details shown on sheets 11 thru 13 are for illustrative purposes only and may not be indicative of final design conditions shown in the contract plans.



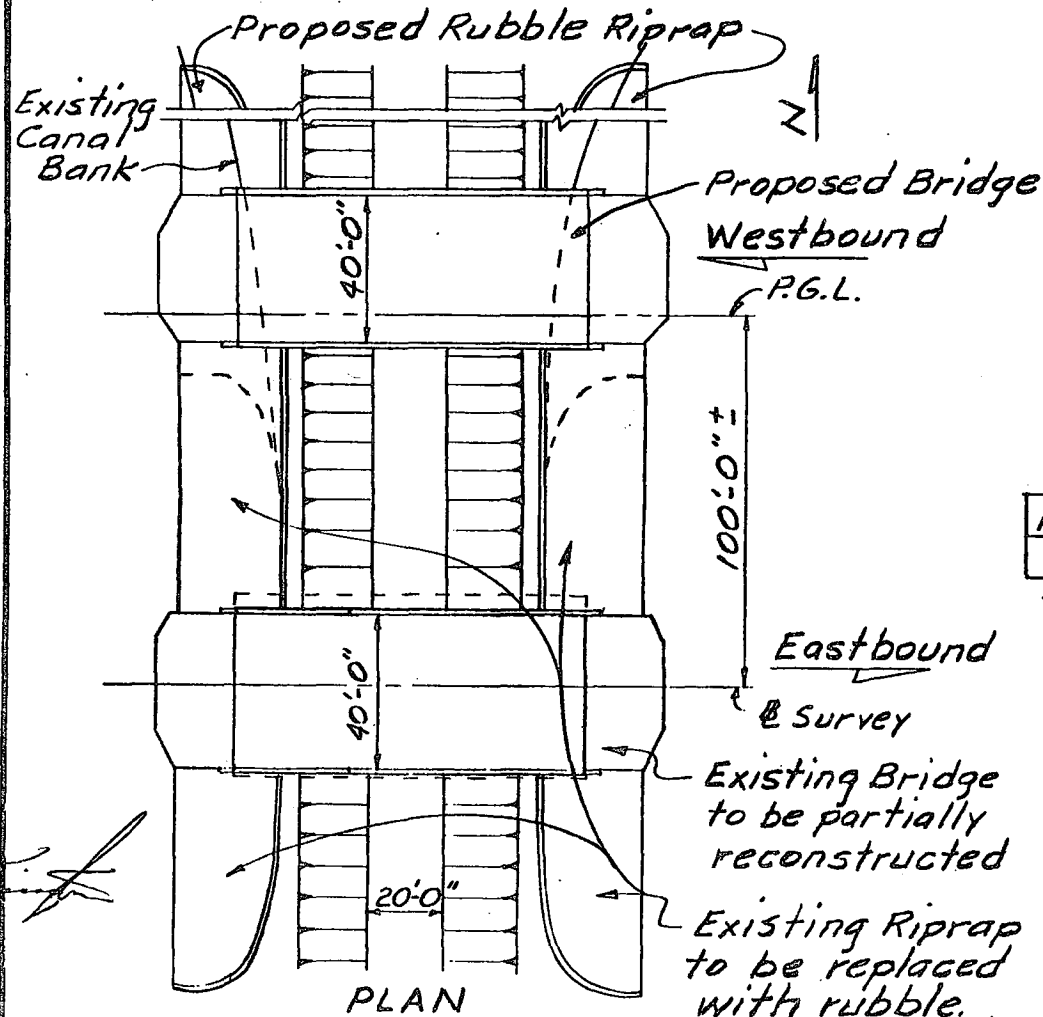
SECTION THRU BRIDGE 'A'

NOTE: Water Reference Datum: National Geodetic Vertical Datum, 1929

J. W. [Signature]
8/4/86

COLLIER
03175-3405

FEDERAL AID PARTICIPATING
PROPOSED BRIDGE 'A'
ON SR84(I-75) &
CANAL CROSSING TO
THE SOUTH
Aug. 1986
FLORIDA DEPARTMENT OF
TRANSPORTATION



Elev. of Base Flood Plain = Not Available
 Design H.W. = 12.6 (50 Year Flood)
 Water Reference Datum = National Geodetic Vertical Datum 1929.

	Existing	Proposed
Horiz. Cl.	26.75'	27.0'
Vert. Cl.*	4.0'	4.2'

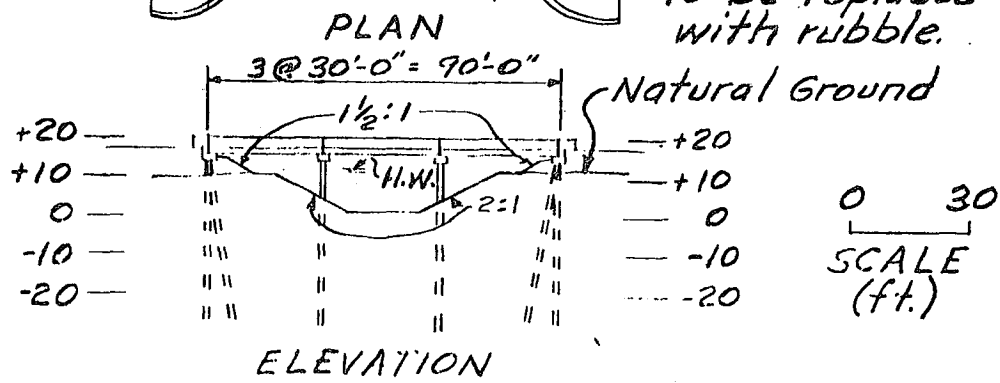
* Above H.W. El. 12.6

For Typical Section see Sheet No. 11

Existing Bridge to be partially reconstructed
 Existing Riprap to be replaced with rubble.

BRIDGE NUMBERS
 WESTBOUND: 030214
 EASTBOUND: 030001

S. W. [Signature]
 8/17/86

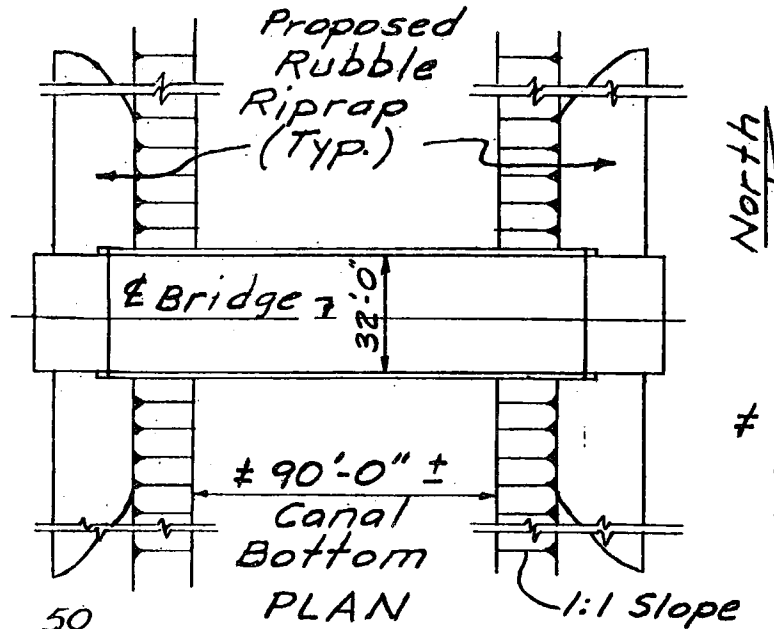


FEDERAL AID PARTICIPATING

PROPOSED BRIDGE
 'A'
 ON S.R. 84 (I-75)

Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

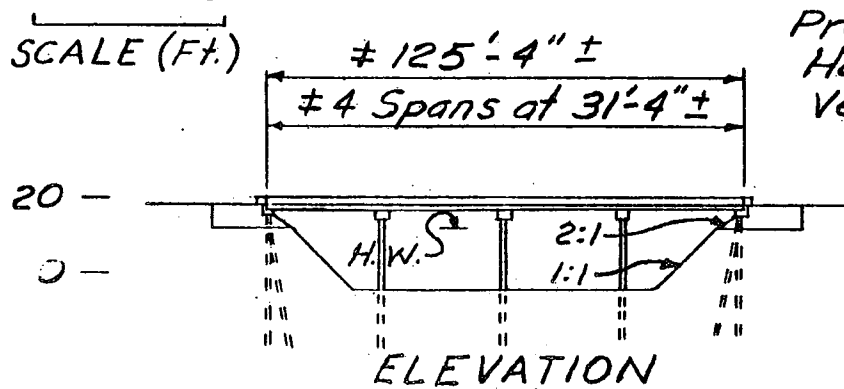
COLLIER
 03175-3405



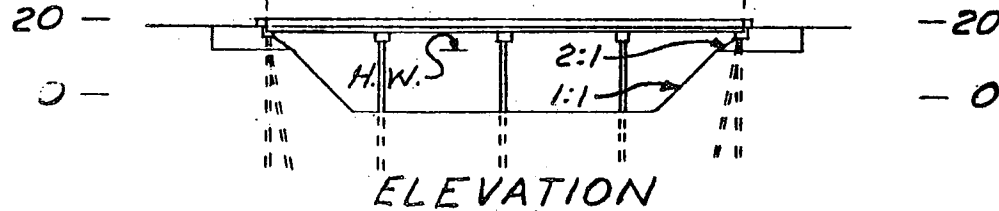
Elev. of Base Flood Plain Not Available
 Design H.W. = No information available at this site.
 Water Reference Datum - National Geodetic Vertical Datum 1929.

± Channel profile, span length bridge length set by project manager, Tom Barry.

0 50
 SCALE (Ft.)



Proposed Clearance:
 Horizontal ~ 28.0'
 Vertical (desirable) 4.2' above DHM



BRIDGE NUMBER
 030237

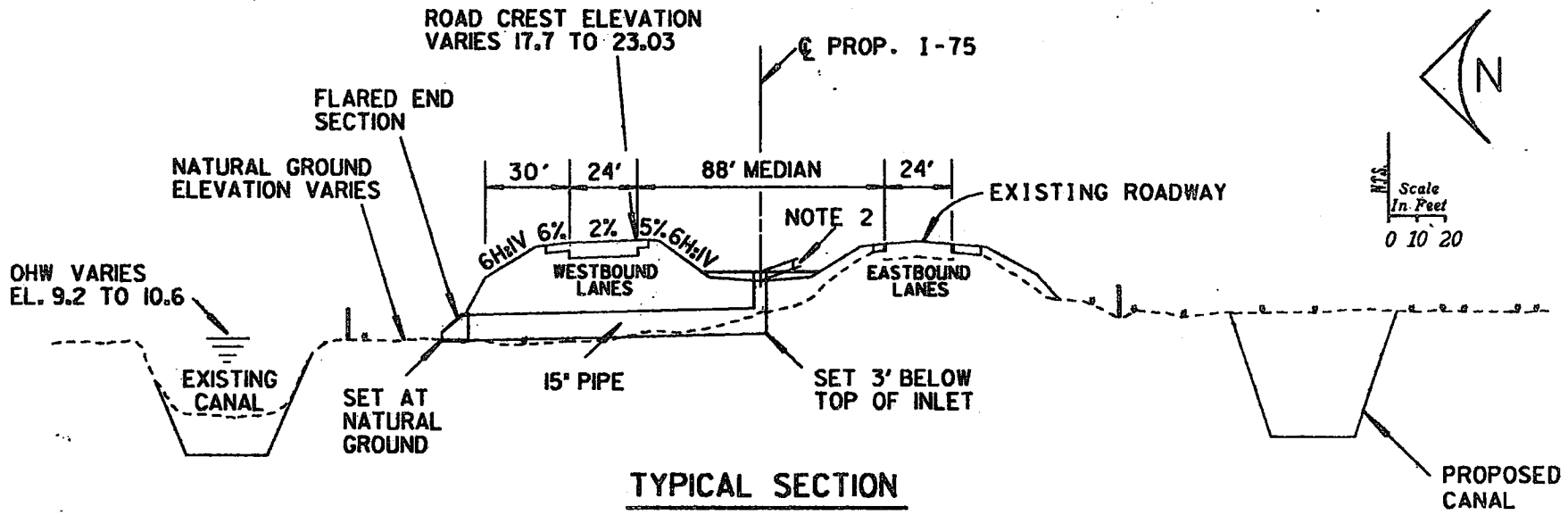
FEDERAL AID PARTICIPATION
 CANAL CROSSING
 SOUTH OF BRIDGE 'A'
 (GCI)

Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

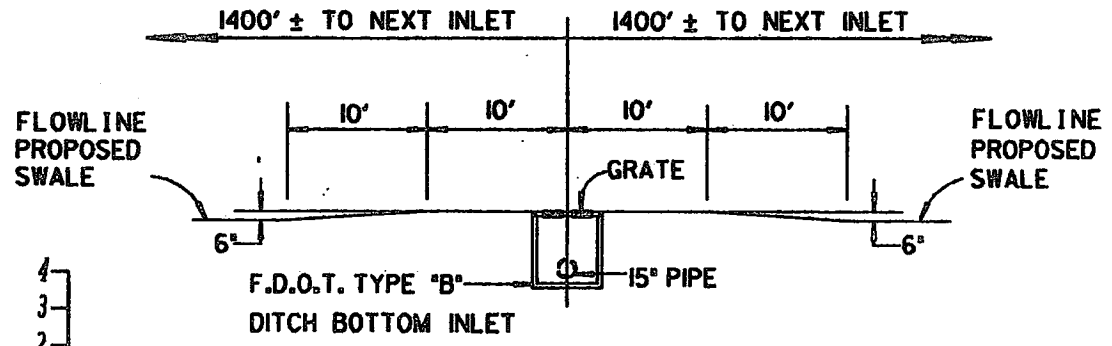
COLLIER
 03175-3405

J. W. Pennington
 8/1/86

EXHIBIT 2K



TYPICAL SECTION



ELEVATION: MEDIAN INLET

NOTES:

1. THE NUMBER OF MEDIAN INLETS IN THIS SECTION IS BASED ON AN INLET SPACING OF 1400± FEET C. TO C.
2. DITCH BOTTOM ELEVATION VARIES. TOP OF INLET SET 6" ABOVE DITCH BOTTOM.

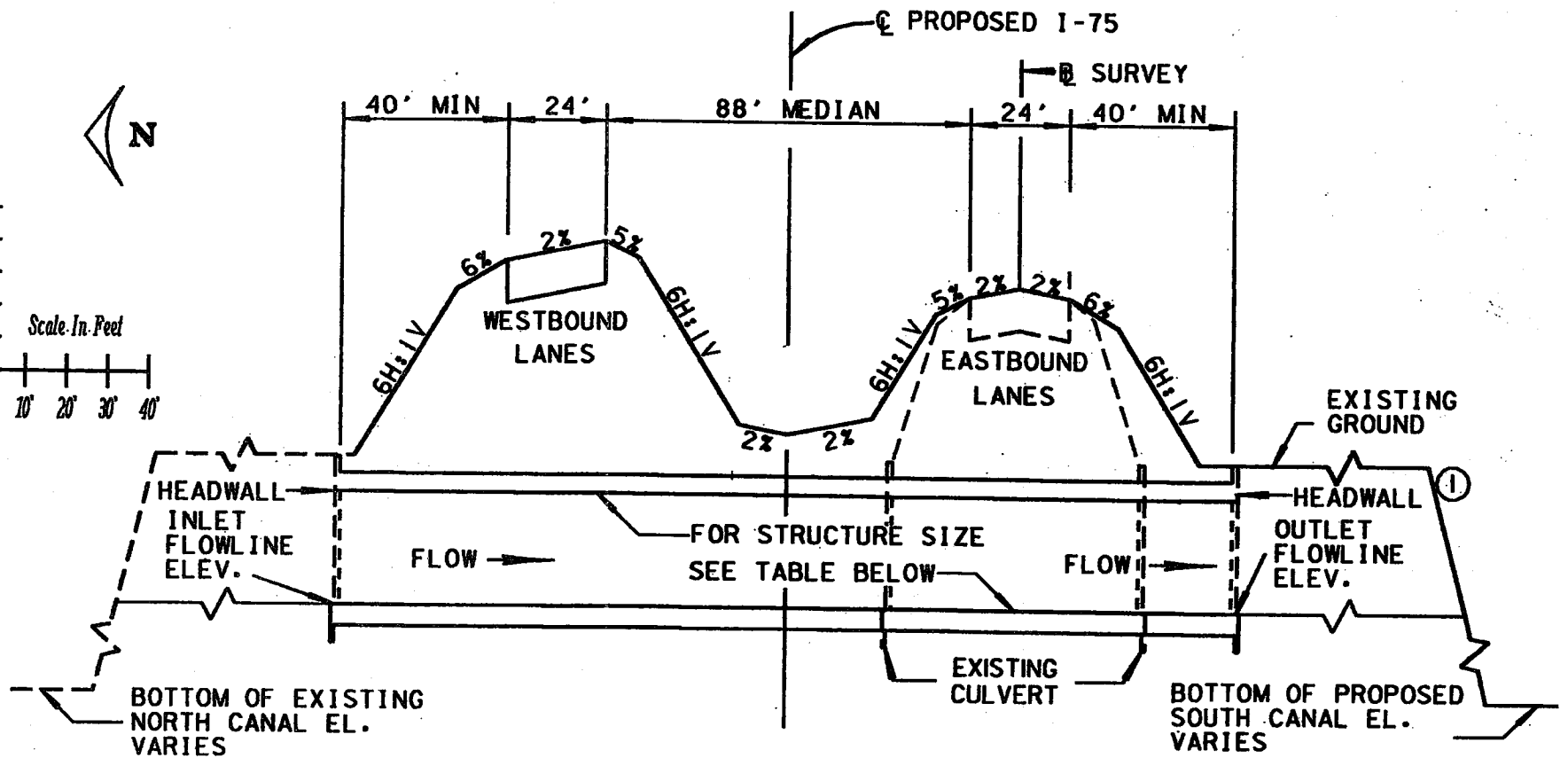
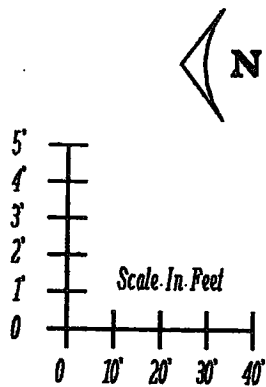
WATER REFERENCE DATUM: NGVD 1929

REVISED FEB 87

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405			
TWP:	RNG:			COUNTY COLLIER			
SEC:		NAME:	SIGNATURE: <i>D. J. Stehmer</i>		DER:	CG:	SHEET 14 OF 18
		CERTIFICATE NO.:	DATE: 2-17-87	COE:	WMD:	DATE AUG 86	

EXHIBIT 2L

SCANNED



STRUC. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL. EL.	OUTLET FL. EL.	OHW	DHW
C-1	141+90	10' X 5'	EXTENDED	5.7	5.4	9.2	11.1
C-2	190+00	10' X 5'	EXTENDED	6.0	5.6	9.2	11.2
C-3	250+90	10' X 5'	EXTENDED	6.4	6.0	9.5	11.3
C-4	299+90	10' X 5'	EXTENDED	6.5	6.3	9.5	11.5
C-5	336+95	10' X 5'	EXTENDED	6.4	6.2	9.9	11.8
C-6	361+00	10' X 5'	EXTENDED	6.5	6.3	9.9	11.9
C-6A'	414+50	48"	PROPOSED	7.2	7.0	10.6	12.4
C-6A	460+00	48"	PROPOSED	7.4	7.2	10.6	12.6

LEGEND:

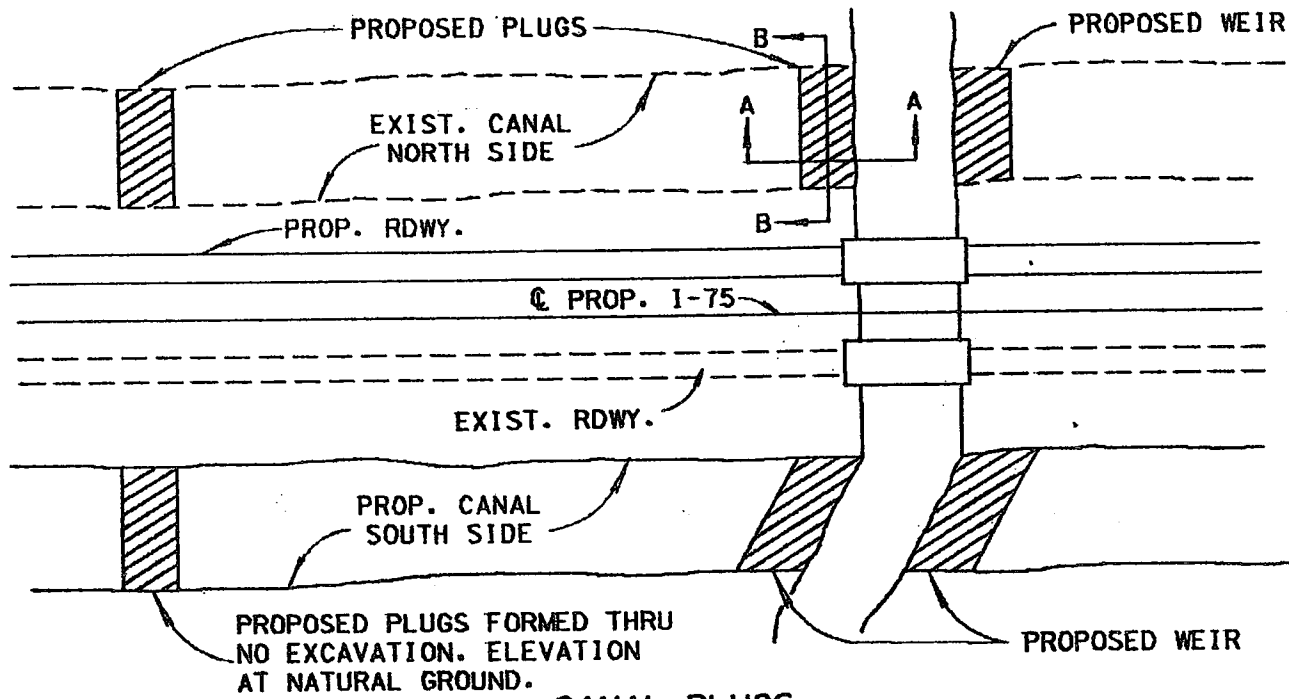
① HEADWALL FOR 10' X 5' CONCRETE B. CULVERT, FLARED END SECTION FOR 48" PIPE.

NOTE:

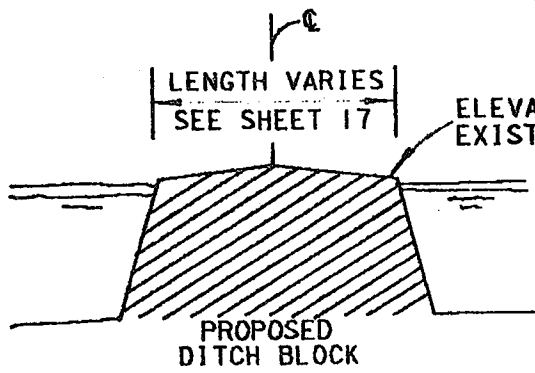
1. ALL STATIONS @ SURVEY
2. OHW/DHW ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

EXHIBIT 2M

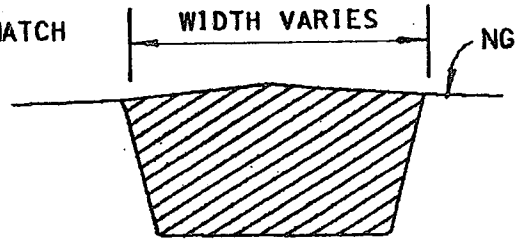
PROJECT DESCRIPTION E. OF CR-951 TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405		
E. OF EVERGLADES BLVD.				COUNTY COLLIER		
TWP:	RNG:	NAME:	<i>Dick Stehmer</i>	DER	CG	SHEET 15 OF 1
SEC		SIGNATURE		COE	WMD	DATE AUG 8
		CERTIFICATE NO.		DATE: 10/30/80		



**CANAL PLUGS
PLAN**
NTS



SECTION A-A
NTS



SECTION B-B
NTS

WATER REFERENCE DATUM: NGVD 1929

REVISED FEB 87

PROJECT DESCRIPTION E. OF CR-951 TO	
E. OF EVERGLADES BLVD.	
TWP:	RNG:
SEC:	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>D. V. Stehmer</i>
CERTIFICATE NO.	DATE: 2/19/87

STATE PROJECT NO. 03175-3405		
COUNTY COLLIER		
DER	CG	SHEET 16 OF 18
COE	WAD	DATE AUG 86

EXHIBIT 2N

SCANNED

TABULATION OF DITCH BLOCKS (PLUGS)

STATION	LOCATION/ MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW/OHW
120+50 ^①	SOUTH / 2.1	210	10.5	11.1 / 9.
121+00	NORTH / 2.1	50	9.8	11.1 / 9.
258+30 ^①	SOUTH / 4.9	200	10.5	11.4 / 9.
396+50 ^①	SOUTH / 7.5	300	10.7	12.0 / 9.
440+50 ^{① ②}	SOUTH / 8.2	50	10.8	12.6 / 10.
440+30	NORTH / 8.2	50	10.4	12.6 / 10.
441+90 ^②	NORTH / 8.2	50	10.3	12.6 / 10.
442+00 ^{① ②}	SOUTH / 8.2	50	9.9	12.6 / 10.
478+70	NORTH / 8.9	260	10.5	12.6 / 10.

LEGEND:

- ① DITCH BLOCK CONSTRUCTED THROUGH NO EXCAVATION
- ② WEIR

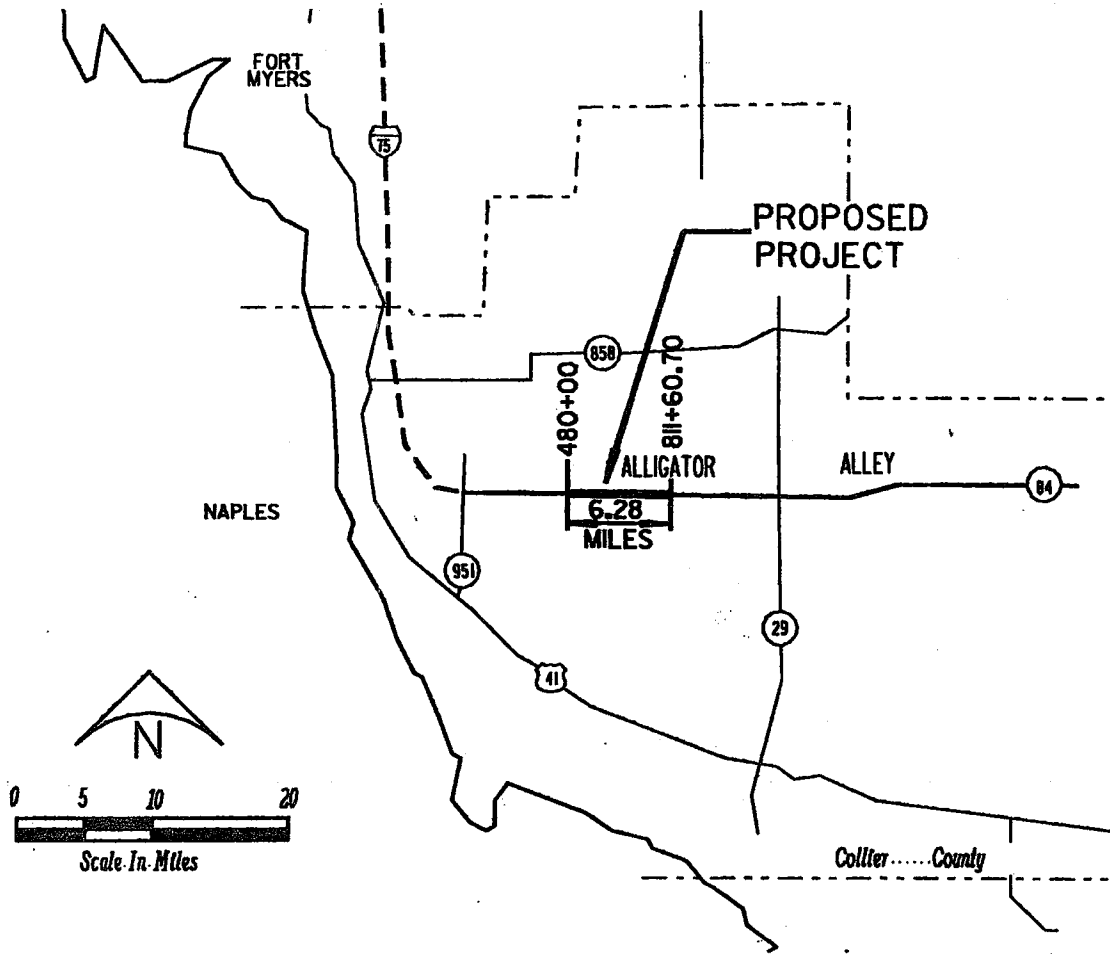
NOTE:

1. ALL STATIONS ARE @ SURVEY AND AT THE Q OF THE DITCH BLOCK (PLUG).
2. NORTH/SOUTH DESIGNATES LOCATION RELATIVE TO ROADWAYS.
3. OHW/DHW ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

REVISED FEB 87

EXHIBIT 20

PROJECT DESCRIPTION E. OF CR-951 TO E. OF EVERGLADES BLVD.		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405	
TWP:	RNG:	NAME: _____		COUNTY COLLIER	
SEC		SIGNATURE: <i>D. J. Stehmer</i>		DER	CG
		CERTIFICATE NO. _____		COE	WMD
		DATE: 2-17-87		SHEET 17 OF _____ DATE AUG 1987	



VICINITY MAP
 COLLIER COUNTY
 PROJECT LENGTH 6.28 MILES

EXHIBIT 3

SCANNED

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER	
TWP:	RNG:	NAME:	DER	CG	SHEET 2 OF 19
SEC		SIGNATURE: <i>DW Stehmer</i>	COE	WMD	
		CERTIFICATE NO. _____	DATE: 10/31/86		DATE AUG. '8

INVOLVEMENT	PERMANENT				TEMPORARY	
	EXCAVATION		FILL		FILL	
	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
JURISDICTIONAL WETLAND	27.8	420,278	21.4	116,272	3.4	NC
EXISTING NORTH CANAL	NA	192,952				

NOTES: AREA IN ACRES; VOLUME IN CUBIC YARDS

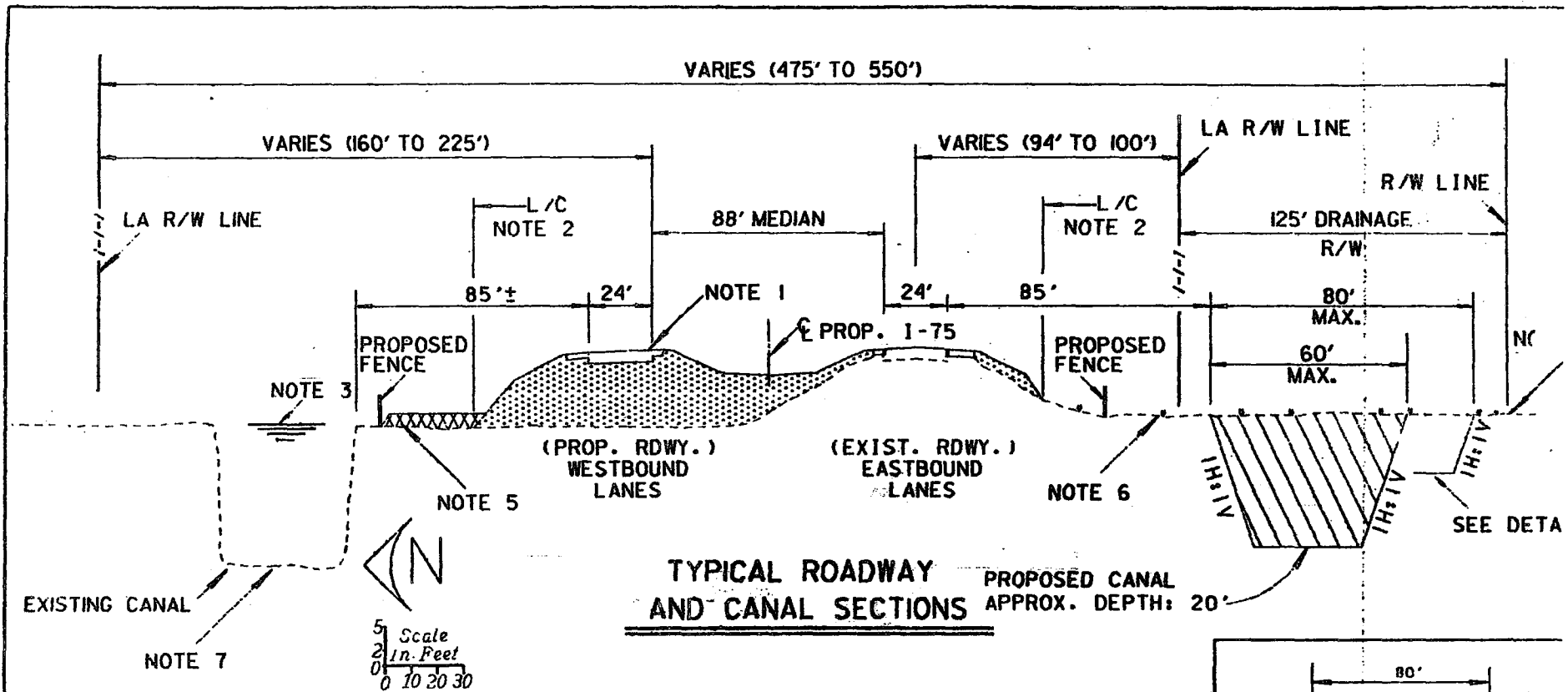
TEMPORARY FILL AREA IS WITHIN EXISTING R/W AND WILL BE USED BY THE CONTRACTOR DURING CONSTRUCTION AS A WORK AREA FOR STOCKPILING MATERIAL. IT WILL BE RESTORED TO NATURAL ELEVATION UPON COMPLETION OF CONSTRUCTION.

NC - NOT COMPUTED BECAUSE IT WILL BE REMOVED.

NA - NOT COMPUTED BECAUSE THE CANAL WILL NOT BE WIDENED, ONLY THE DEPTH CHANGE.

REVISED OCT 86

PROJECT DESCRIPTION E. OF CR-951 TO		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3405			
E. OF EVERGLADES BLVD.				COUNTY COLLIER			
TWP:	RNG:	NAME:	<i>D.W. Stehmer</i>		DER	CG	SHEET 18 OF 18
SEC		SIGNATURE			COE	WAD	DATE AUG 86
		CERTIFICATE NO.	DATE: 10/30/86				



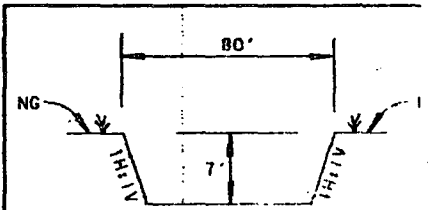
TYPICAL ROADWAY AND CANAL SECTIONS

PROPOSED CANAL APPROX. DEPTH: 20'

- NOTES:**
1. CREST ELEVATION VARIES 17.7 TO 24.65
 2. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
 3. O.H.W. VARIES EL. 10.6 TO 12.0
 4. EXISTING GROUND VARIES EL. APPROX. 9.3 TO 16.5
 5. TEMPORARY FILL FOR CONTRACTOR'S STOCKPILE AREA. RESTORE TO NATURAL ELEVATION.
 6. THE AREA BETWEEN L/C AND PROPOSED CANAL SHALL NOT BE DISTURBED DURING CONSTRUCTION EXCEPT AT HAUL ROAD CROSSINGS (APPROX. 1/2 MI. INTERVALS).
 7. DEPTH OF EXISTING CANAL VARIES APPROX. 10.6 TO 40.1.

LEGEND

- FILL
- EXCAVATION
- TEMP. FILL (STOCKPILE AND WORK AREA)
- L/C LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)



DETAIL

- STA. 480+00 - STA. 495+
- STA. 523+00 - STA. 544+
- STA. 546+60 - STA. 567+
- STA. 657+00 - STA. 673+
- STA. 688+00 - STA. 728+
- STA. 747+50 - STA. 775+

WATER REFERENCE DATUM: NGVD 1929

REVISED: FEB. 1987
REVISED: OCT. 1986

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407			
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER			
TWP:	RNG:	NAME:		DER	CG	SHEET. 4 OF	
SEC		SIGNATURE		COE	WMD		DATE
		CERTIFICATE NO.		DATE: 2-24-87			

EXHIBIT 3B

SCANNED

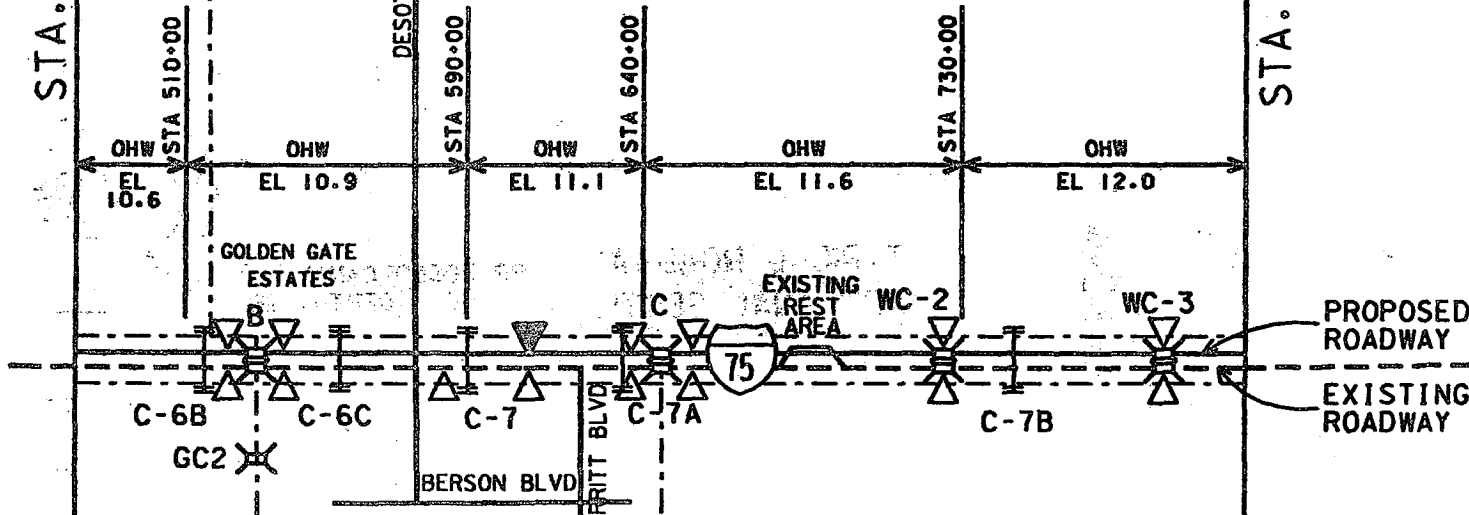
F.A. PROJ. NO. I-75-4(26)299
 PROPOSED PROJECT (I-75)
 6.28 MILES

STA. 480+00.00

STA. 811+60.70



APPROX. SCALE IN MILES



WATER REFERENCE DATUM: NGVD 1929

LEGEND

- CANAL
- XXX B BRIDGE
- XXX WC-2 WILDLIFE CROSSING
- XXX GC CANAL CROSSING
- C-6B CULVERT
- ▽ EXISTING DITCH BLOCK
- ▽ PROPOSED DITCH BLOCK
- ▽ STA. PROJECT STATION

- CANAL
- XXX B BRIDGE
- XXX WC-2 WILDLIFE CROSSING
- XXX GC CANAL CROSSING
- C-6B CULVERT
- ▽ EXISTING DITCH BLOCK
- ▽ PROPOSED DITCH BLOCK
- ▽ STA. PROJECT STATION

NOTE: OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

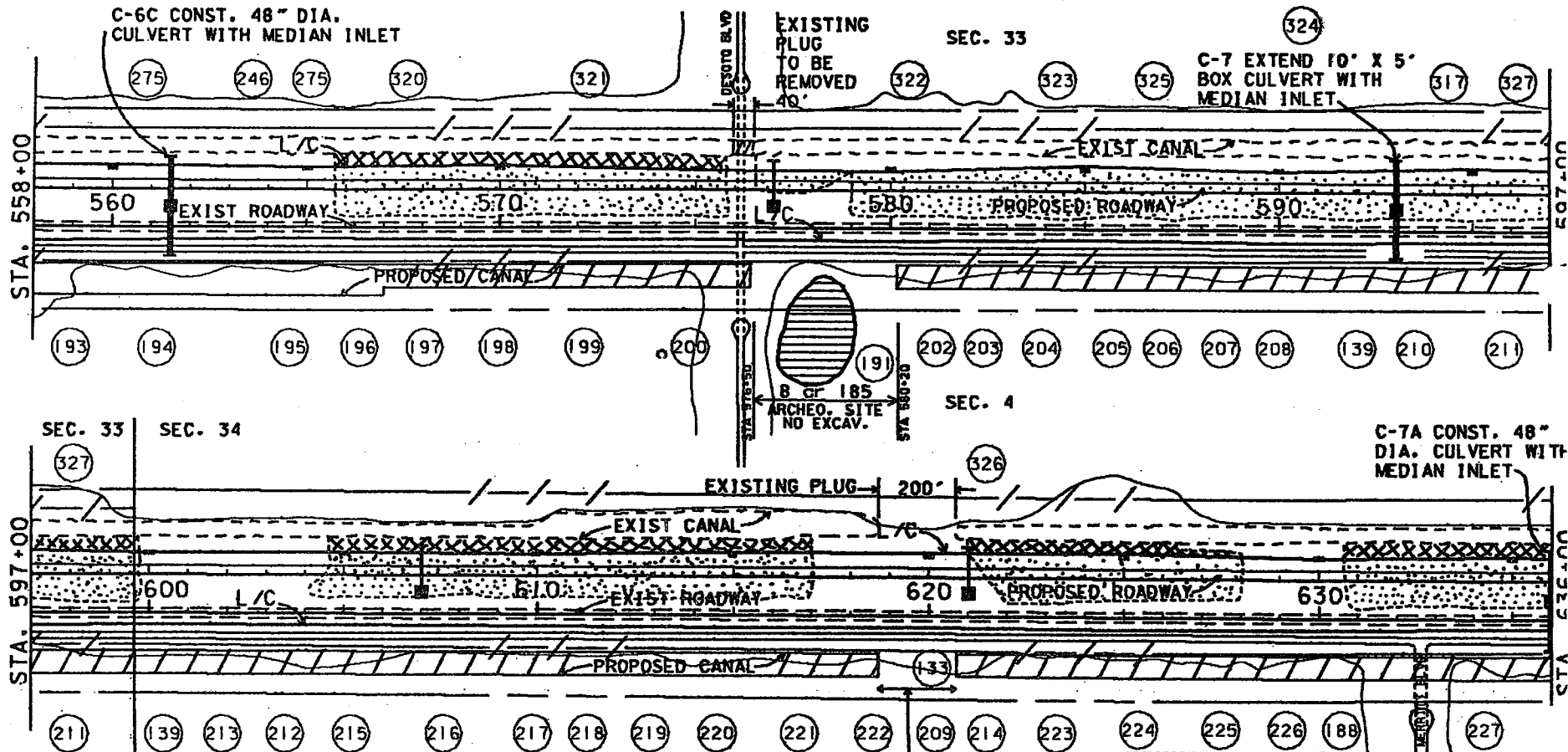
SITE MAP

FOR SEC., TWP., RNG., SEE SHEETS 5 THRU 9

REVISED: OCT. 1986

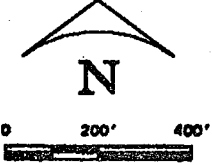
EXHIBIT 3A

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER	
TWP:	RNG:	NAME:			
SEC:		SIGNATURE: <i>D.W. Stehlmeyer</i>	DER:	CG:	SHEET 3 OF 19
		CERTIFICATE NO.:	COE:	WMD:	DATE AUG. '86



LEGEND

	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	ARCHEOLOGICAL SITE
	FILL (JURISDICT.)
	EXCAVATION (JURISDICT.)
	TEMP. FILL (JURISDICT.)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

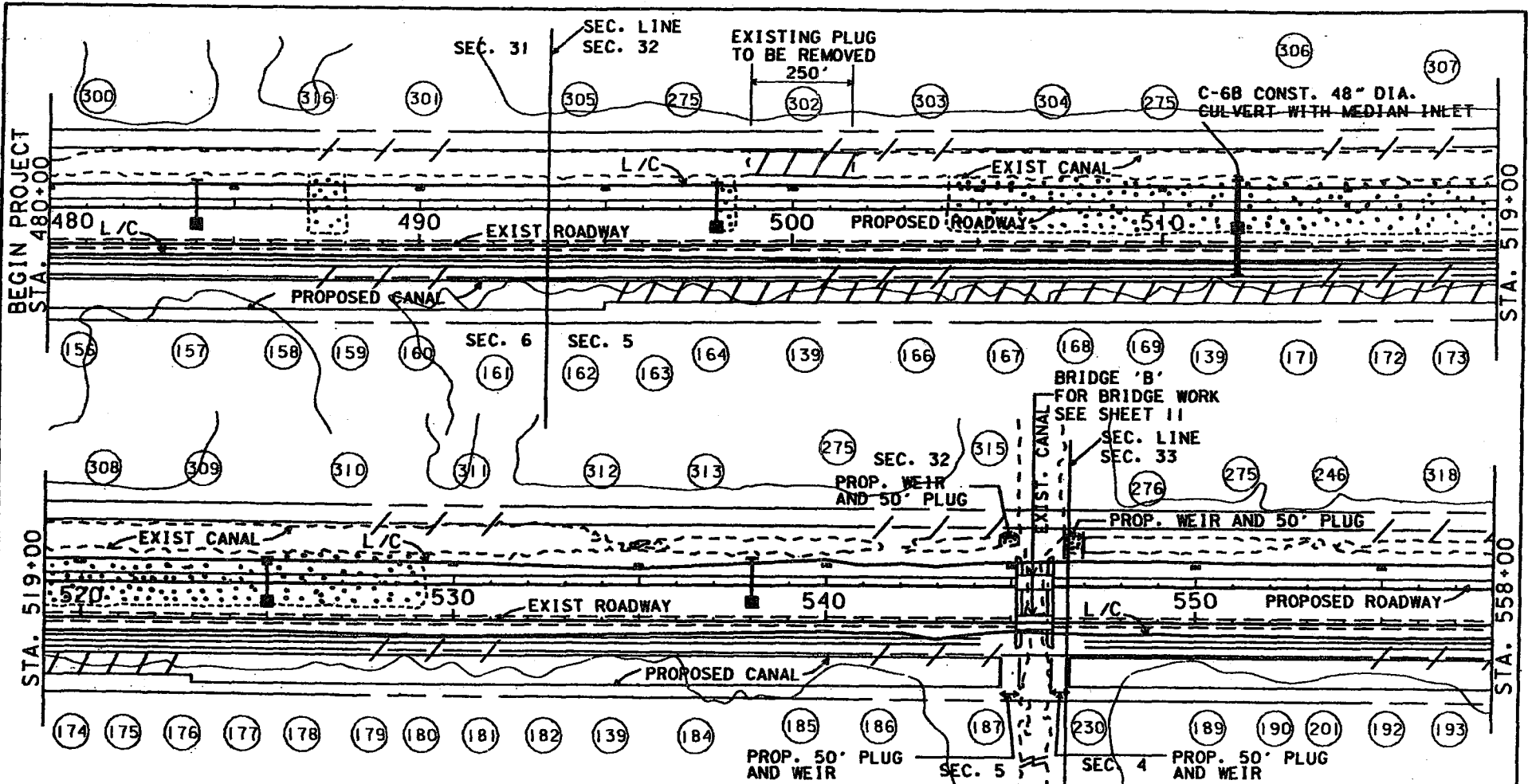


NOTE: (#) - ADJACENT PROPERTY OWNER SEE ATTACHED LIST

REVISED: OCT. 1986

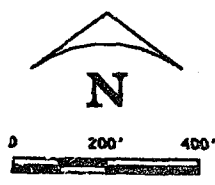
PROJECT DESCRIPTION E OF EVERGLADES BLVD TO 6.0 MI. W. ODFSBR209		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
TWP. 49S, 50S RNG. 28E		NAME: _____		COUNTY COLLIER	
SEC 3, 2, 3333435, 36		SIGNATURE: <i>DW Stehmer</i>		DER	CG
		CERTIFICATE NO. _____		COE	WMD
		DATE: <i>10/31/86</i>		SHEET 6 OF 19	
				DATE AUG. '86	

EXHIBIT 3D
SCANNED



NOTE: 1. (#) ADJACENT PROPERTY OWNER
SEE ATTACHED LIST

REVISED: FEB. 1987
REVISED: OCT. 1986



LEGEND	
	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	FILL (JURISDICT.)
	EXCAVATION (JURISDICT.)
	TEMP. FILL (JURISDICT.)
	MEDIAN INLET
	L/C
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION E OF EVERGLADES BLVD
TO 6.0 MI. W OF SR 29
TWP: 49S, 50S RNG: 28E
SEC 3, 4, 33, 34

FLORIDA DEPARTMENT OF TRANSPORTATION
NAME: _____
SIGNATURE: *D. W. Schmeyer*
CERTIFICATE NO. _____ DATE: 2-24-87

STATE PROJECT NO. 03175-3407
COUNTY COLLIER
DER _____ CG _____ SHEET 5 OF 19
COE _____ WMD _____ DATE AUG. '86

EXHIBIT 3C

C-7B CONST. 10' X 5' BOX
CULVERT WITH MEDIAN INLET.

WILDLIFE CROSSING NO. 2
FOR BRIDGE WORK
SEE SHEET 14

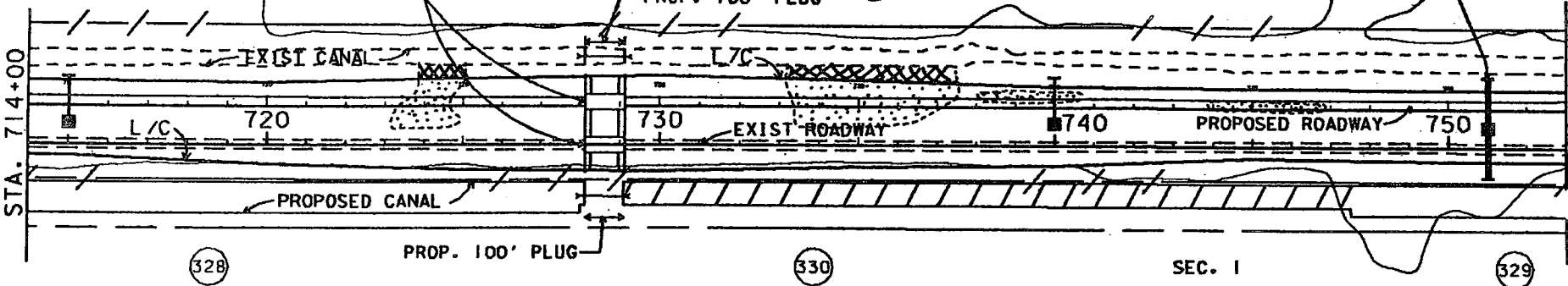
SEC. 36

PROP. 100' PLUG

326

STA. 714+00

STA. 753+00



PROP. 100' PLUG

330

SEC. 1

329

RNG. 8 SEC. LINE

RNG. 28E
SEC. 36

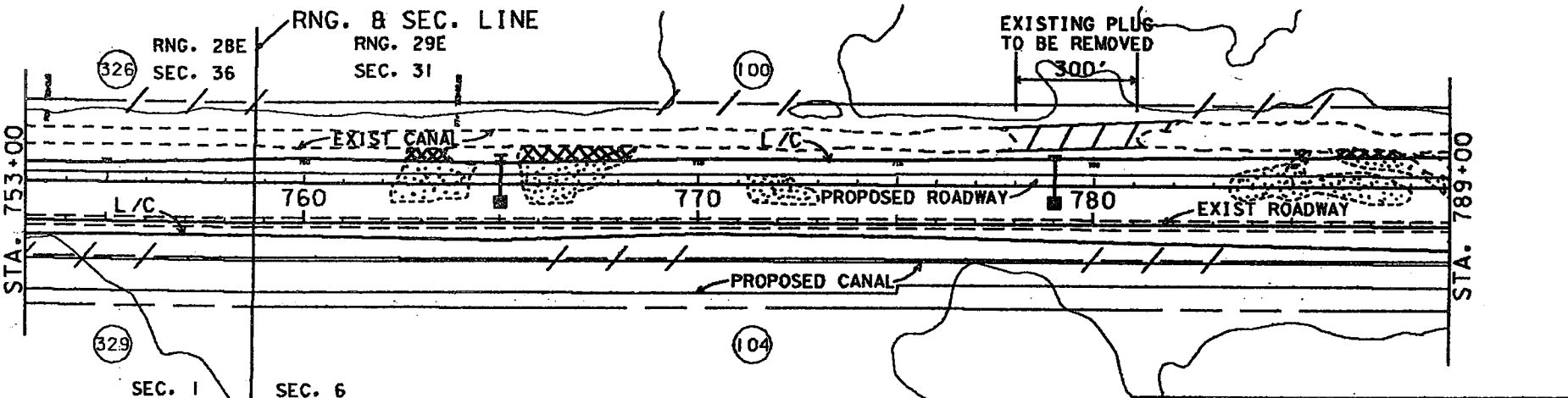
RNG. 29E
SEC. 31

100

EXISTING PLUG
TO BE REMOVED
300'

STA. 753+00

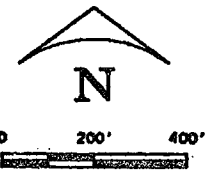
STA. 789+00



SEC. 1 SEC. 6

LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMP. FILL (JURISDICT.)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)
- L/C



NOTE: (#) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST

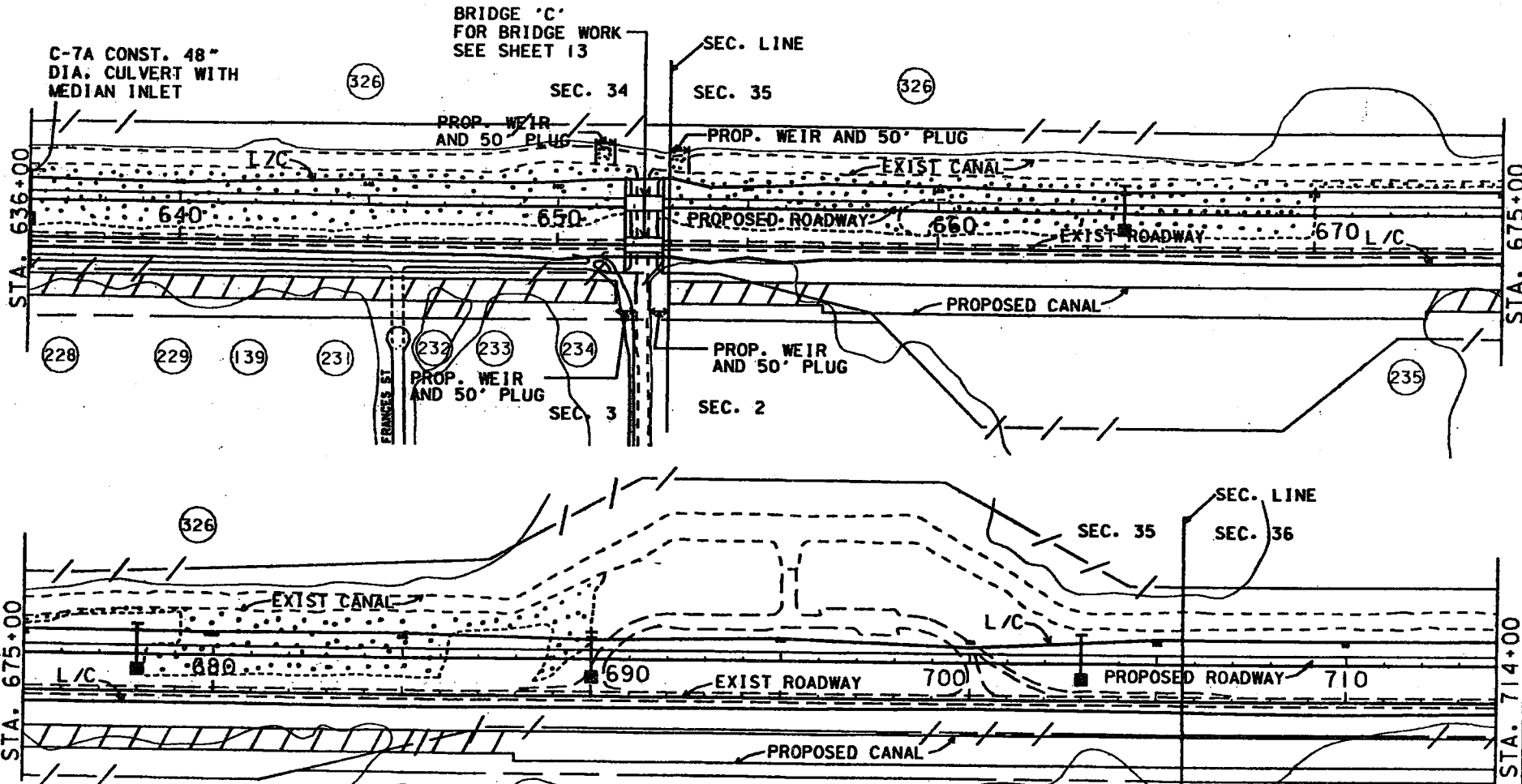
REVISED: OCT. 1986

PROJECT DESCRIPTION E OF EVERGLADES BLVD TO 6.0 MI. W OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
TWP: 49S, 50S RNG: 28E, 29E		NAME: _____		COUNTY COLLIER	
SEC 1, 6, 31, 36		SIGNATURE: <i>Dill Stelmeyer</i>		DER	CG
		CERTIFICATE NO. _____		COE	WMD
		DATE: <i>10/31/86</i>		SHEET 8 OF 19	
				DATE AUG. '86	

EXHIBIT 3F
SCANNED

BRIDGE 'C'
FOR BRIDGE WORK
SEE SHEET 13

C-7A CONST. 48"
DIA. CULVERT WITH
MEDIAN INLET



LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICT.)
- EXCAVATION (JURISDICT.)
- TEMPORARY FILL (JURISDICT.)
- MEDIAN INLET
- L/C

REVISED: FEB. 1987
REVISED: OCT. 1986

NOTE: (#) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST

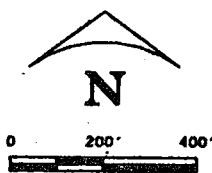


EXHIBIT 3E

PROJECT DESCRIPTION E OF EVERGLADES BLVD
TO 6.0 MI. W. OF SR 29
TWP: 49S, 50S RNG: 28E
SEC 1, 2, 3, 34, 35, 36

FLORIDA DEPARTMENT OF TRANSPORTATION

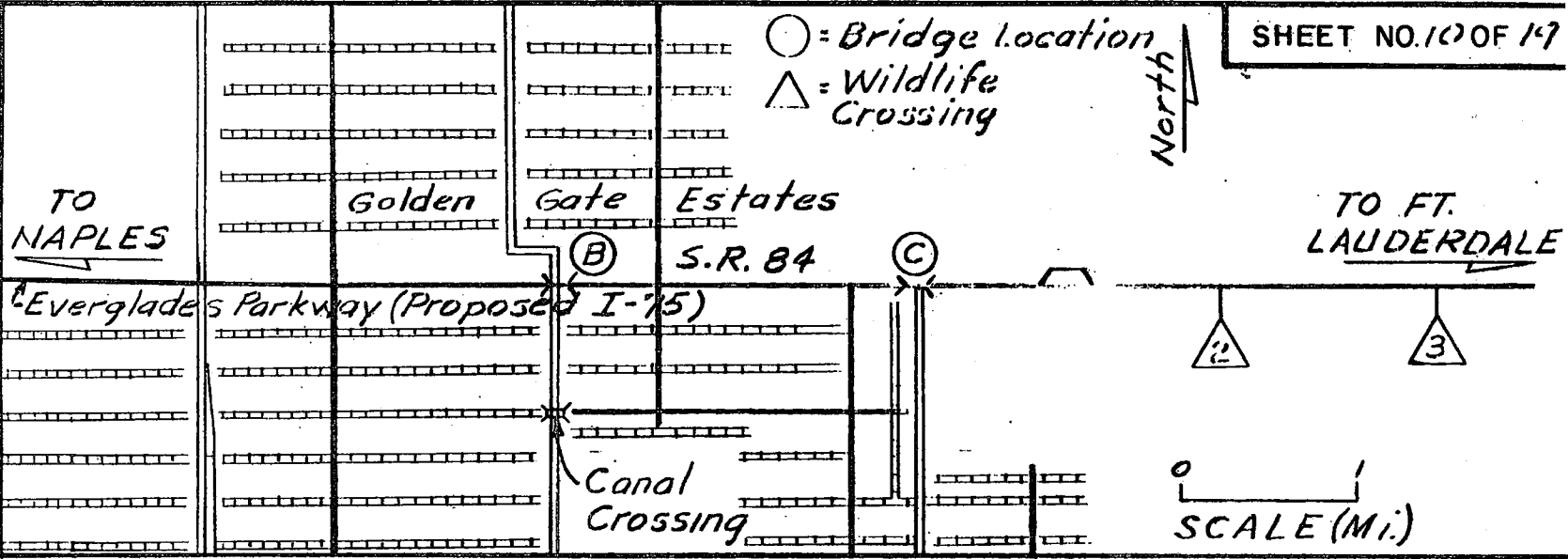
NAME: _____
SIGNATURE: *D.W. Stehmyer*
CERTIFICATE NO. _____ DATE: 2-24-87

STATE PROJECT NO. 03175-3407
COUNTY COLLIER

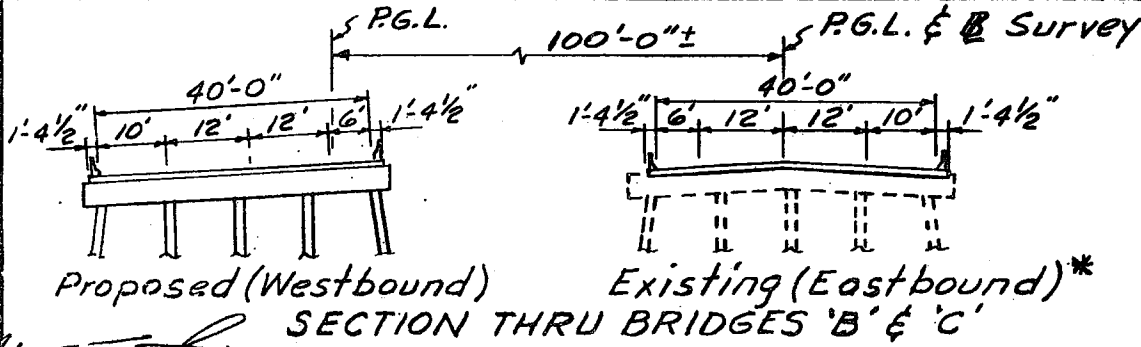
DER	CG	SHEET 7 OF 19
COE	WMD	DATE AUG. '86

○ = Bridge Location
 △ = Wildlife Crossing

North ↑

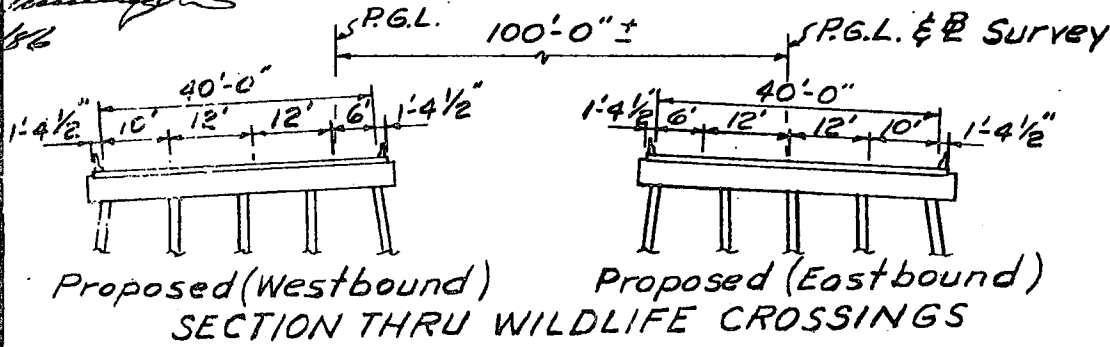


Note: All structure details shown on sheets 10 thru 14 are for illustrative purposes only and may not be indicative of final design conditions shown in the contract plans.



* To be partially reconstructed

J. W. [Signature]
 8/1/86



Note: Water Reference Datum: National Geodetic Vertical Datum, 1929

FEDERAL AID PARTICIPATING

PROPOSED BRIDGES
 B, C & WILDLIFE CROSSINGS
 2 & 3 ON S.R. 84 (I-75) & CANAL
 CROSSING SOUTH OF BRIDGE B

Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

COLLIER
 03175-3407

EXHIBIT 3H

SCANNED

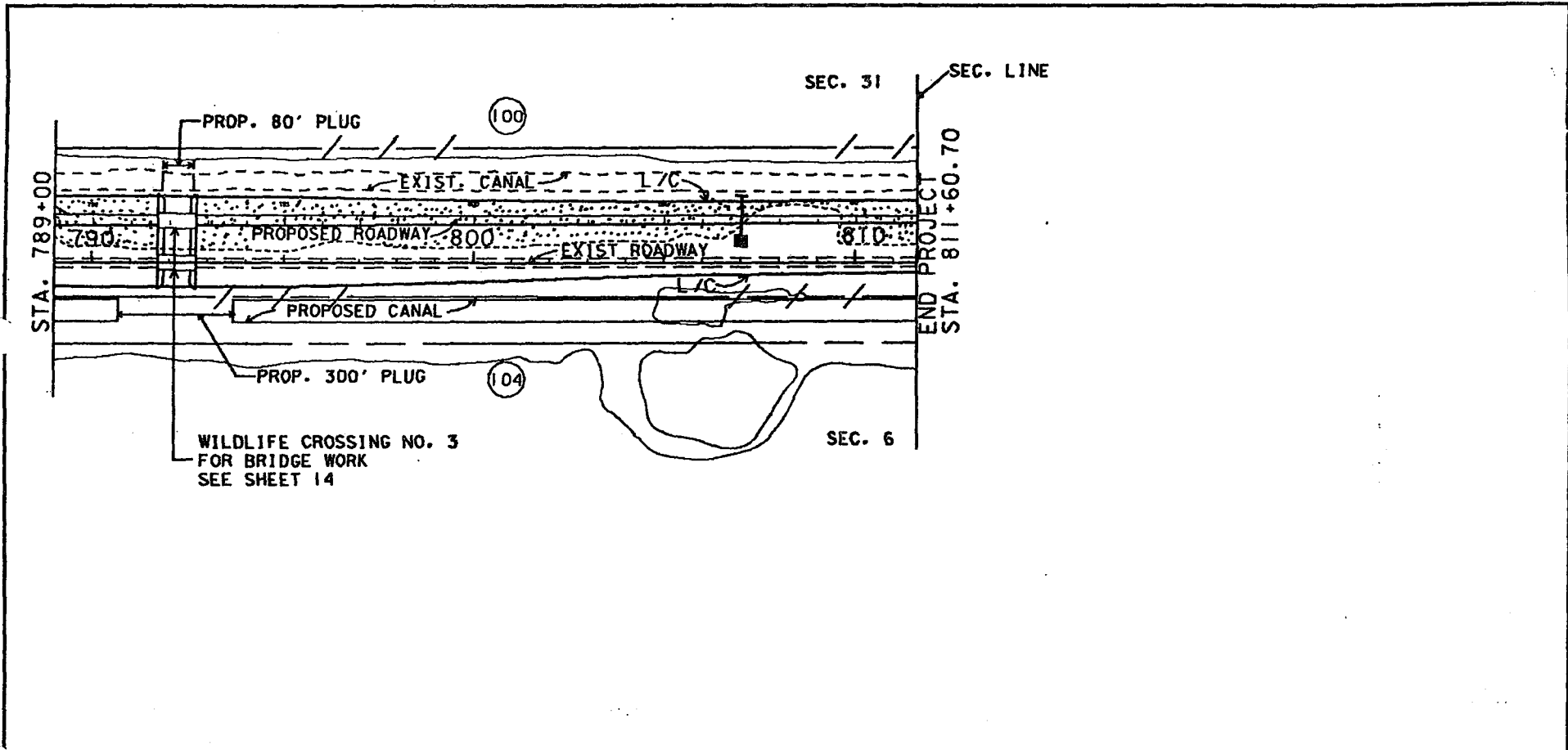
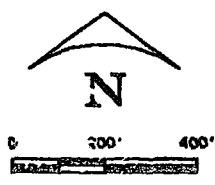


EXHIBIT 3G

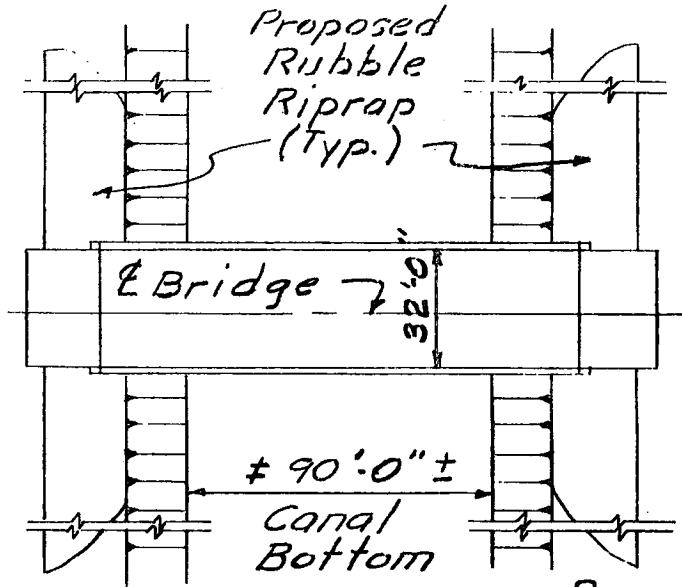
NOTE: (#) - ADJACENT PROPERTY OWNER
SEE ATTACHED LIST

REVISED: OCT. 1986



LEGEND	
	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	FILL (JURISDICT.)
	EXCAVATION (JURISDICT.)
	TEMP. FILL (JURISDICT.)
	MEDIAN INLET
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION E OF EVERGLADES BLVD TO 6.0 MI. W OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
TWP: 49S, 50S RNG: 29E				COUNTY COLLIER	
SEC 6, 31		NAME: _____	DER: _____		CG: _____
		SIGNATURE: <i>DW Stehmer</i>	COE: _____		SHEET 9 OF 19
		CERTIFICATE NO. _____	DATE: 10/31/86		DATE AUG. '86



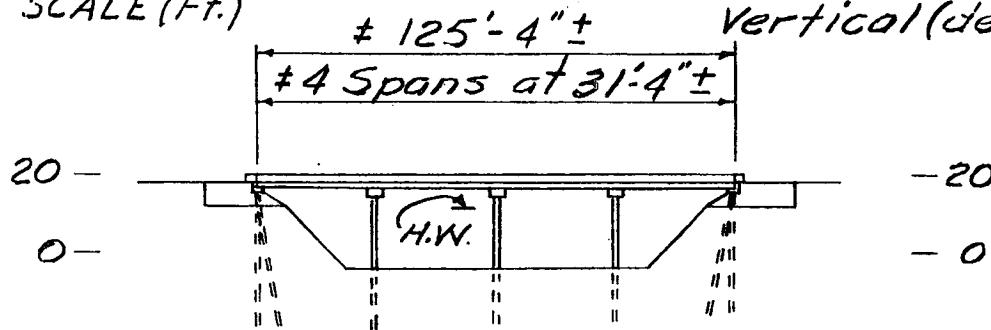
Elev. of Base Flood Plain
Not Available.
Design H.W. = No information
available at this site.
Water Reference Datum -
National Geodetic
Vertical Datum 1929.

± Channel profile, span length
& bridge length set by
project manager, Tom Barry.

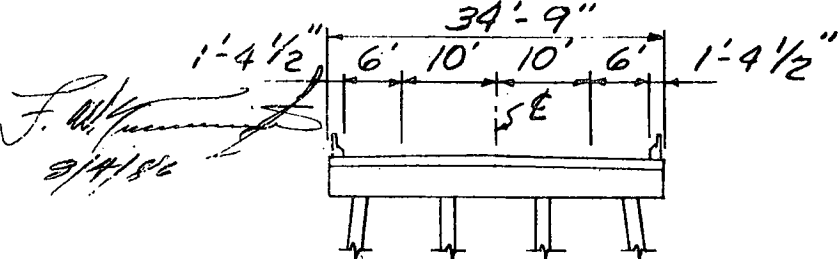
0 50
SCALE (Ft.)

PLAN

Proposed Clearance
Horizontal ~ 28.0'
Vertical (desirable) 4.1' above D.H.W.



ELEVATION



SECTION THRU ROADWAY

BRIDGE NUMBER
030238

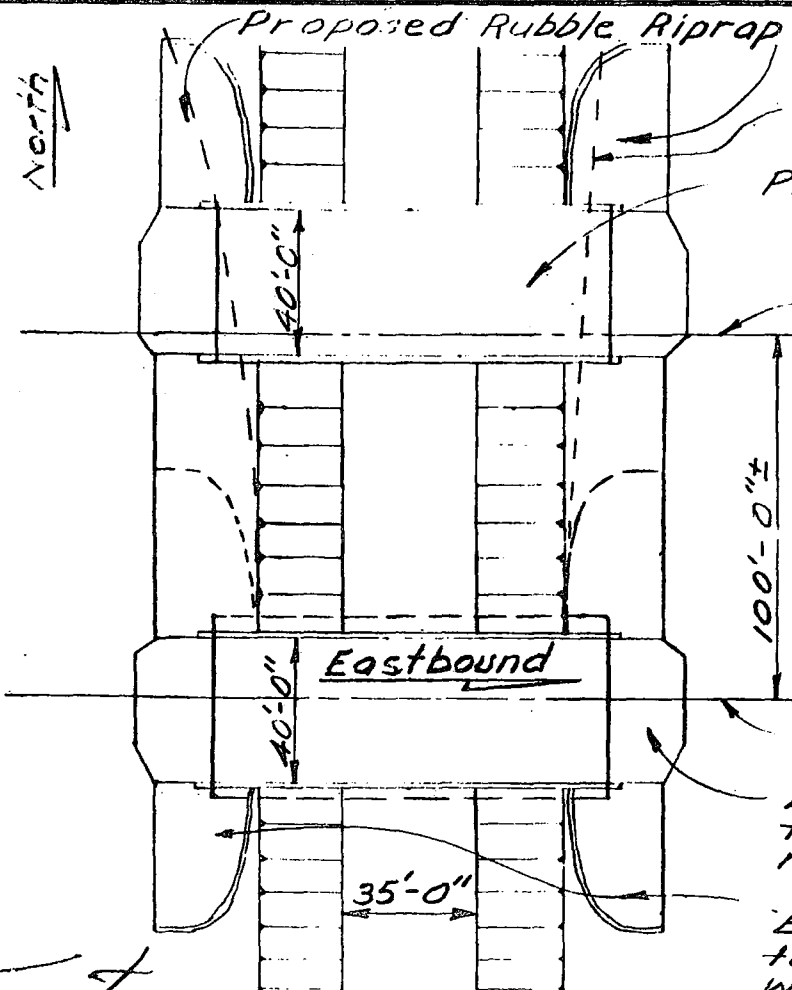
FEDERAL AID PARTICIPATING

CANAL CROSSING
SOUTH OF BRIDGE 'B'
(GC2)

Aug. 1986

FLORIDA DEPARTMENT OF
TRANSPORTATION

COLLIER
03175-3407

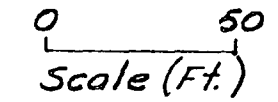
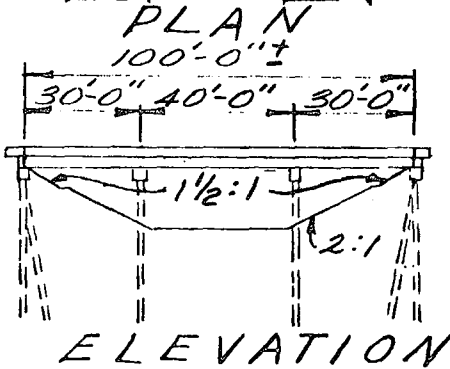


Existing Canal Bank
 Proposed Bridge
 Westbound
 P.G.L.
 Elev. of Base Flood Plain = Not Available
 Design H.W. = 12.9
 (50 Year Flood)
 Water Reference Datum = National Geodetic Vertical Datum 1929.

Note: See Sheet No. 10 for Typical Section

	Existing	Proposed
Horiz. Cl.	36'-9"	37'-0"
Vert. Cl.	*	4.1'±

Survey * Not Available
 † Above H.W. El. 12.9
 Existing Bridge to be partially reconstructed
 Existing Riprap to be replaced with rubble.
 BRIDGE NUMBERS:
 WESTBOUND: 030217
 EASTBOUND: 030002



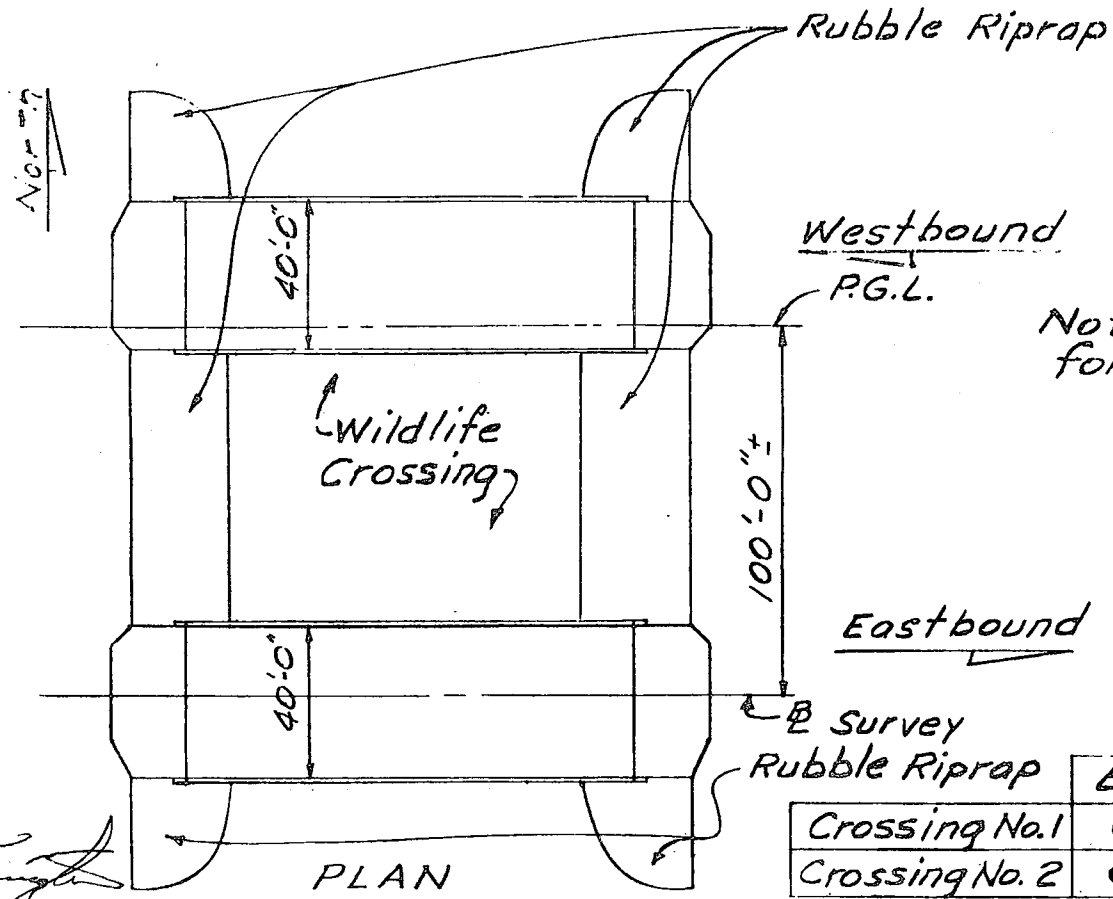
+20
 +10
 0
 -10
 -20

J.W. Jennings
 8/1/86

COLLIER
 03175-3407

+20
 +10
 0
 -10
 -20

FEDERAL AID PARTICIPATING
 PROPOSED BRIDGE 'B'
 ON S.R. 84 (I-75)
 Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

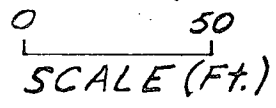


Note: see Sheet No. 10 for Typical Section

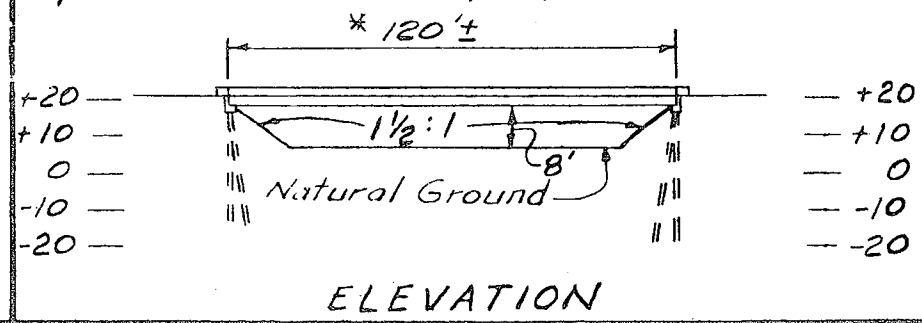
BRIDGE (CROSSING) NUMBERS

	Eastbound	Westbound
Crossing No. 1	030215	030219
Crossing No. 2	030216	030220

Proposed Vertical Clearance = 8.0' above Natural Ground



* Bridge Span layout for Wildlife crossings is dependent on future considerations regarding type of construction proposed.



FEDERAL AID PARTICIPATING

PROPOSED WILDLIFE CROSSINGS 2&3 ON S.R. 84 (I-75)

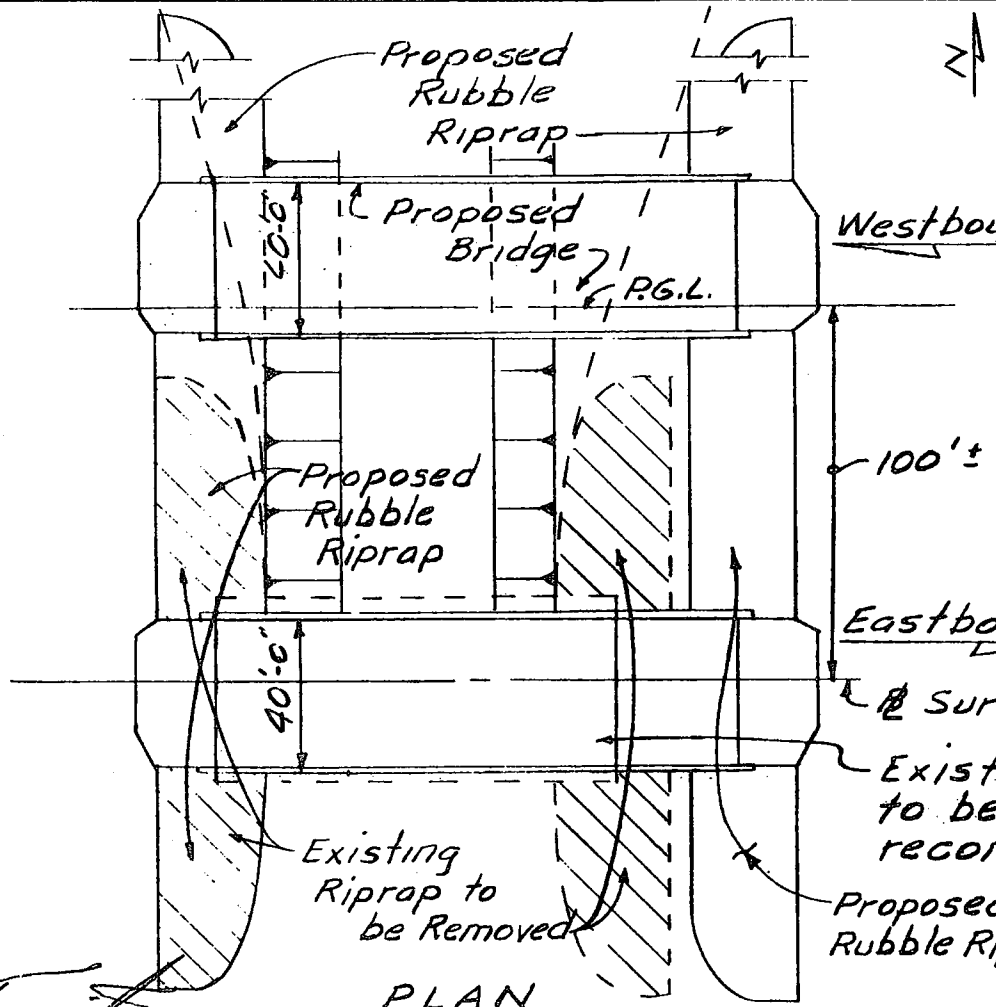
Aug. 1986

FLORIDA DEPARTMENT OF TRANSPORTATION

COLLIER
03175-3407

EXHIBIT 3L

SCANNED



Elev. of Base Flood Plain = Not Available
 Design H.W. = 13.6
 (50 Year Flood)

Water Reference Datum = National Geodetic Vertical Datum 1929

	Existing	Proposed
Horiz. Cl.	36'-9"	37.0'
Vert. Cl.*	3.8'	3.9'

100'±
 Eastbound * Above Design H.W. El. 13.6
 Survey Note: See Sheet No. 10 for Typical Section

Existing Bridge to be partially reconstructed.

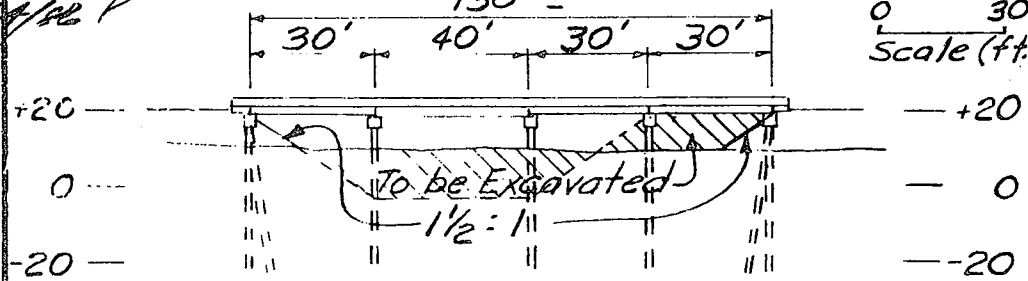
Proposed Rubble Riprap
 BRIDGE NUMBERS:
 WESTBOUND: 030218
 EASTBOUND: 030003

J. M. [Signature]
 8/4/86

COLLIER
 03175-3407

PLAN
 130'±

0 30'
 Scale (ft.)

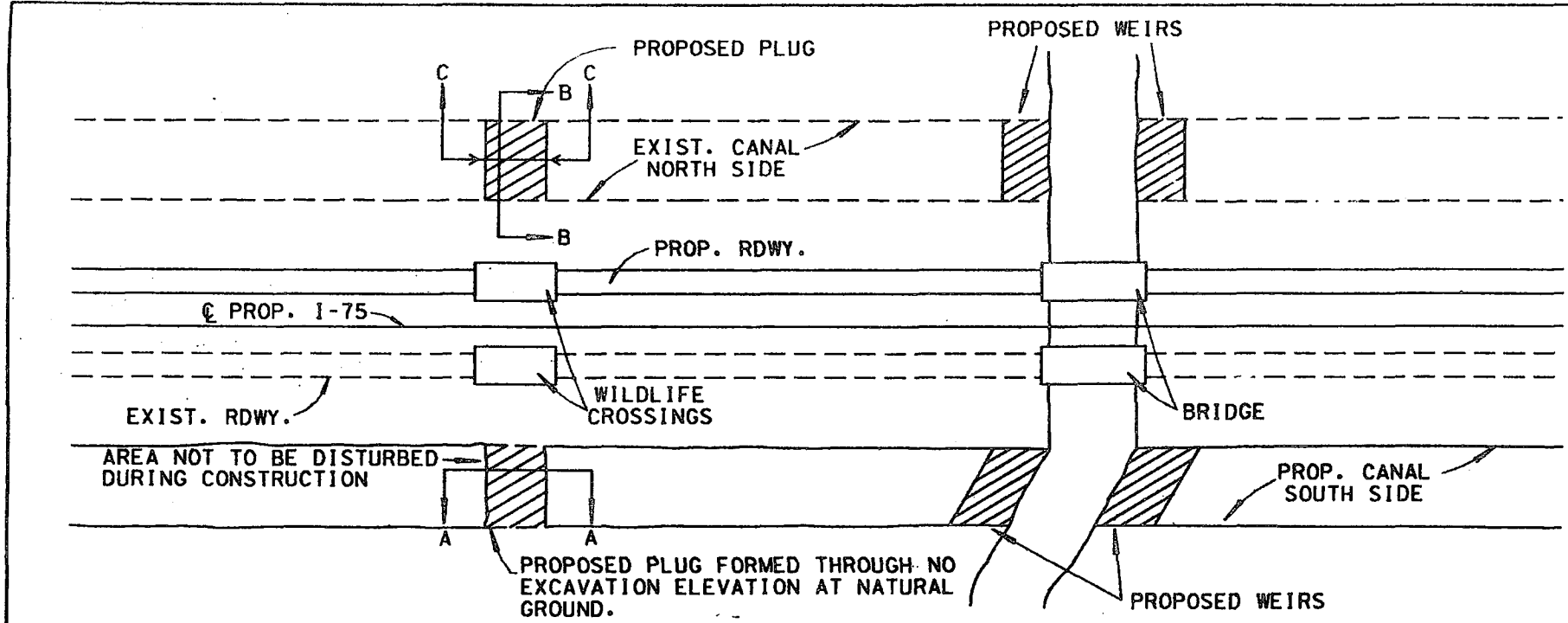


ELEVATION

FEDERAL AID PARTICIPATING

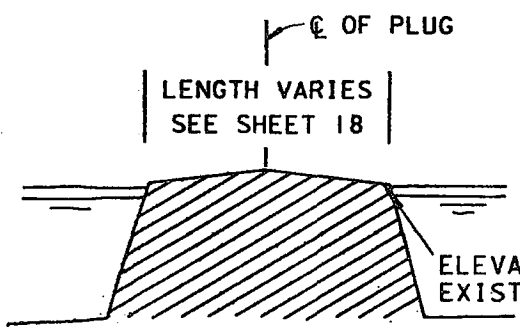
PROPOSED BRIDGE
 'C'
 ON S.R. 84 (I-75)

Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION



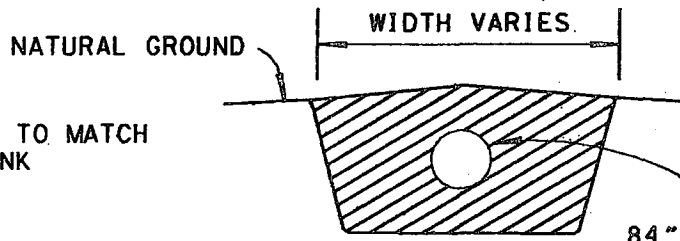
CANAL PLUGS PLAN

NTS



PROPOSED PLUG SECTION A-A

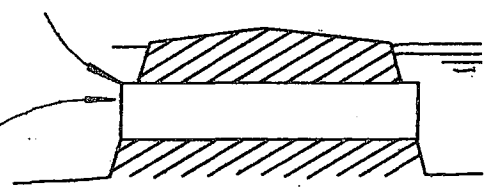
NTS



SECTION B-B

NTS

3' BELOW NATURAL GROUND OR AT OHW WHICHEVER IS LOWER



PROPOSED PLUG SECTION C-C

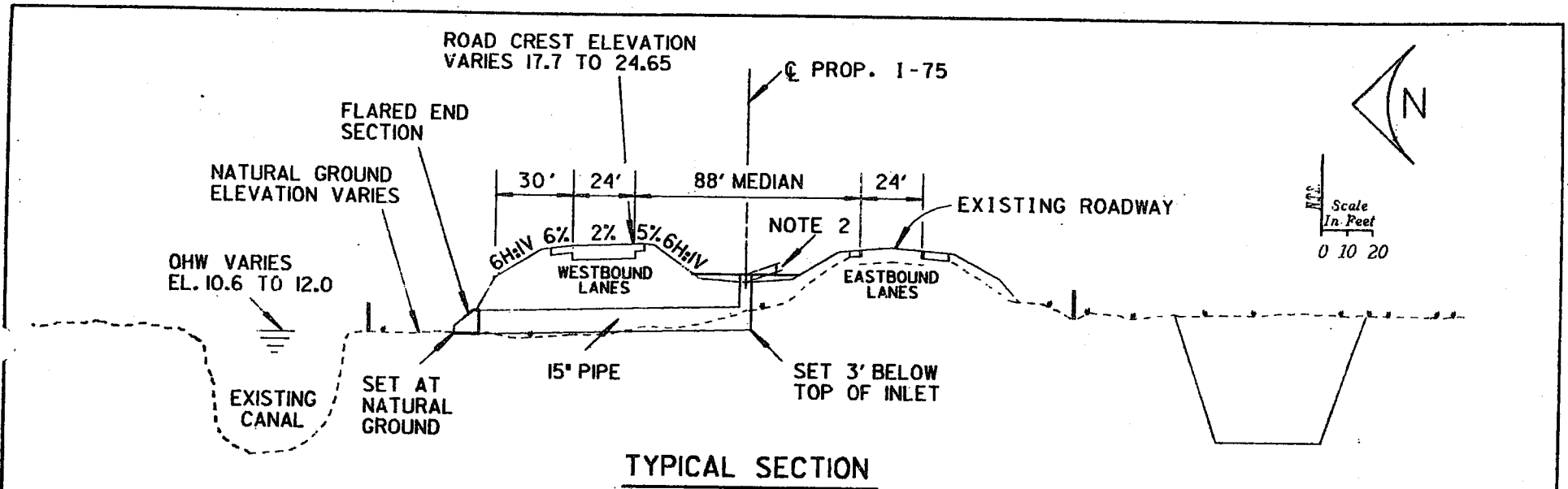
NTS

WATER REFERENCE DATUM: NGVD 1929

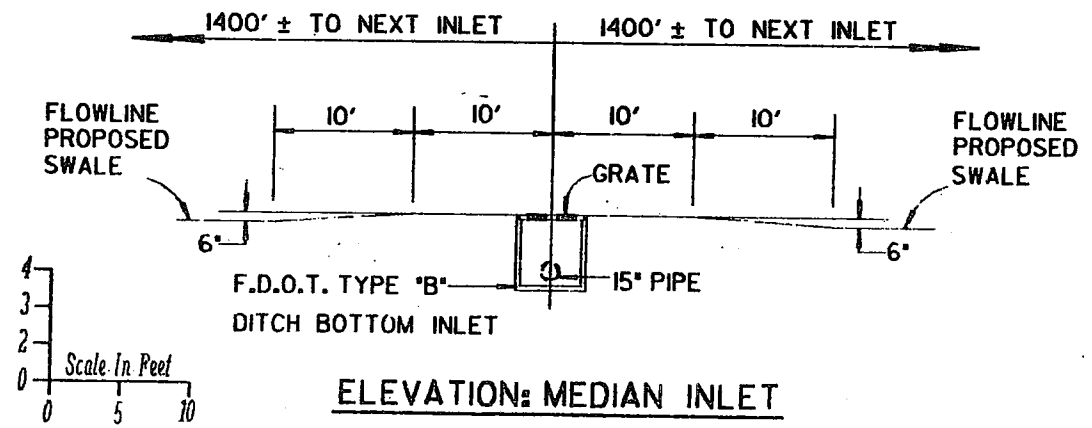
REVISED: FEB. 1987
REVISED: OCT. 1986

EXHIBIT 3N

PROJECT DESCRIPTION: E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29		NAME: _____		COUNTY COLLIER	
TWP: _____	RNG: _____	SIGNATURE: <i>D.W. Stelmeyer</i>		DER: _____	CG: _____
SEC: _____		CERTIFICATE NO. _____		COE: _____	W&D: _____
				SHEET 16 OF 16	
				DATE AUG. '87	



TYPICAL SECTION



NOTES:

1. THE NUMBER OF MEDIAN INLETS IN THIS SECTION IS BASED ON AN INLET SPACING OF 1400± FEET C. TO C.

2. DITCH BOTTOM ELEVATION VARIES. TOP OF INLET SET 6" ABOVE DITCH BOTTOM.

WATER REFERENCE DATUM: NGVD 1929

REVISED: FEB. 1987
REVISED: OCT. 1986

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER	
TWP:	RNG:	NAME:	DER		
SEC:		SIGNATURE: <i>D.W. Schumyer</i>	CG	SHEET 15 OF 19	
		CERTIFICATE NO.:	COE	WMD	DATE AUG. '86

EXHIBIT 3M

TABULATION OF DITCH BLOCKS (PLUGS)

STATION	LOCATION/ MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW / OHW
545+00 ①	SOUTH / 10.1	50	12.5	12.9 / 10.9
544+95 ④	NORTH / 10.1	50	11.7	12.9 / 10.9
546+70 ④	NORTH / 10.1	50	11.1	12.9 / 10.9
546+35 ①	SOUTH / 10.1	50	11.8	12.9 / 10.9
578+35 ①	SOUTH / 11.0	370	10.1	12.9 / 10.9
619+70 ②	NORTH / 11.5	200	12.8	13.1 / 11.1
619+70 ①	SOUTH / 11.4	200	11.3	13.1 / 11.1
651+25 ① ④	NORTH / 12.2	50	10.1	13.6 / 11.6
651+80 ① ④	SOUTH / 12.2	50	10.3	13.6 / 11.6
653+20 ④	NORTH / 12.2	50	10.1	13.6 / 11.6
652+70 ① ④	SOUTH / 12.2	50	10.1	13.6 / 11.6
728+60 ① ③	SOUTH / 13.7	100	12.2	13.6 / 11.6
728+60 ③	NORTH / 13.7	100	11.8	13.6 / 11.6
792+20 ①	SOUTH / 14.9	300	12.4	14.0 / 12.0
792+20	NORTH / 14.9	80	13.0	14.0 / 12.0

NOTES:

1. ALL STATIONS ARE B SURVEY AT Q DITCH BLOCK.
2. NORTH/SOUTH DESIGNATES LOCATION RELATIVE TO ROADWAYS.
3. OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

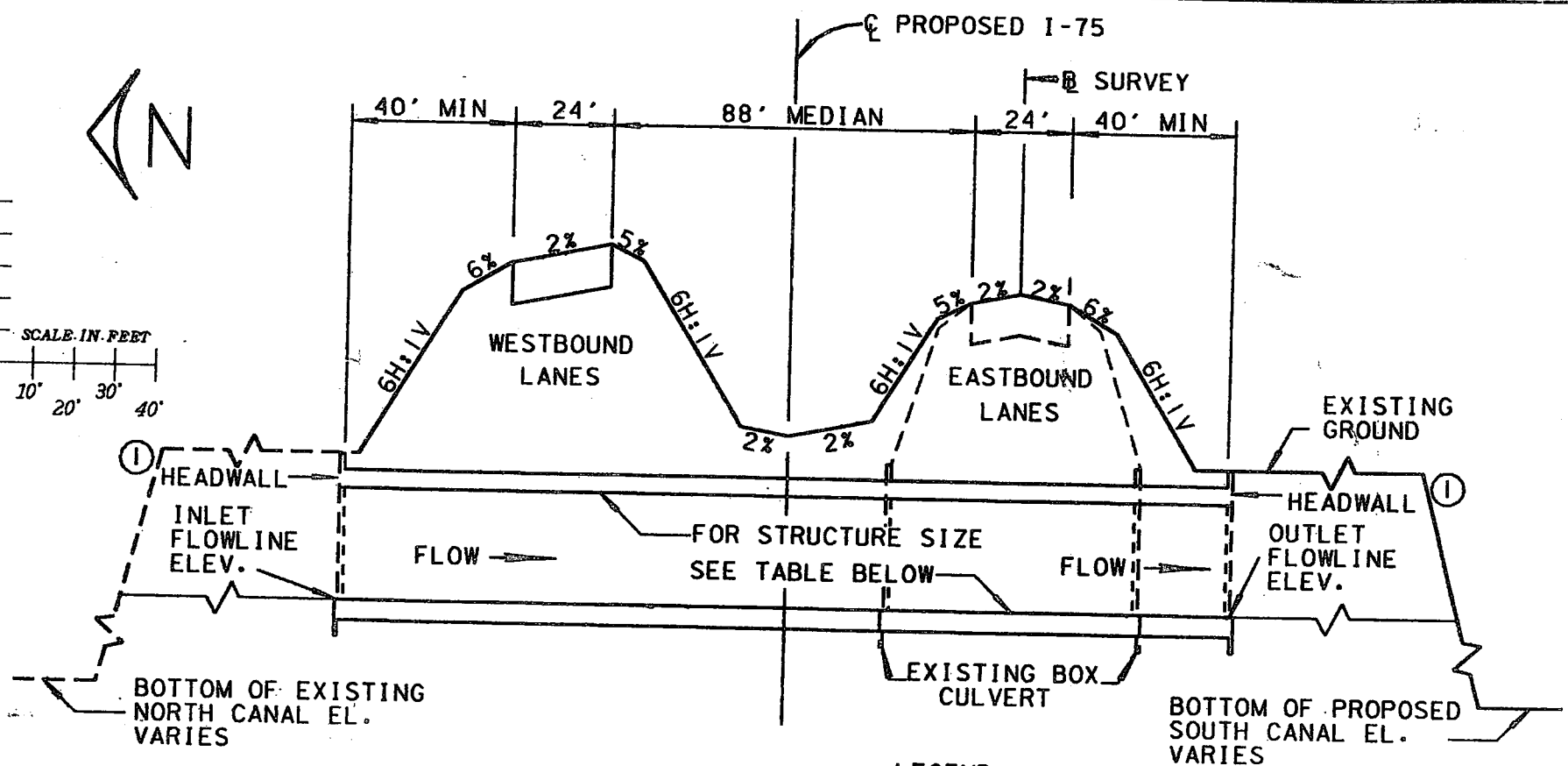
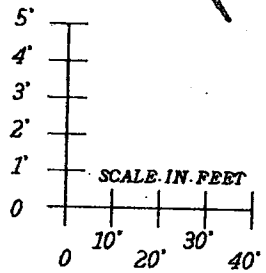
- ① DITCH BLOCK CONSTRUCTED THROUGH NO EXCAVATION
- ② EXISTING DITCH BLOCK
- ③ 84" PIPE CULVERT
- ④ WEIR

REVISED: FEB. 1987
REVISED: OCT. 1986

EXHIBIT 3P

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29		NAME: _____		COUNTY COLLIER	
TWP: _____	RNG: _____	SIGNATURE: <i>D. J. Stehmer</i>		DER _____	CG _____
SEC _____	CERTIFICATE NO. _____	DATE: 2-24-87		COE _____	WMD _____
				SHEET 18 OF 1	DATE AUG. _____

SCANNED



LEGEND:

① HEADWALL FOR 10' X 5' CONCRETE BOX CULVERT, FLARED END SECTION FOR 48" PIPE.

NOTE:

1. ALL STATIONS ARE @ SURVEY.
2. OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.

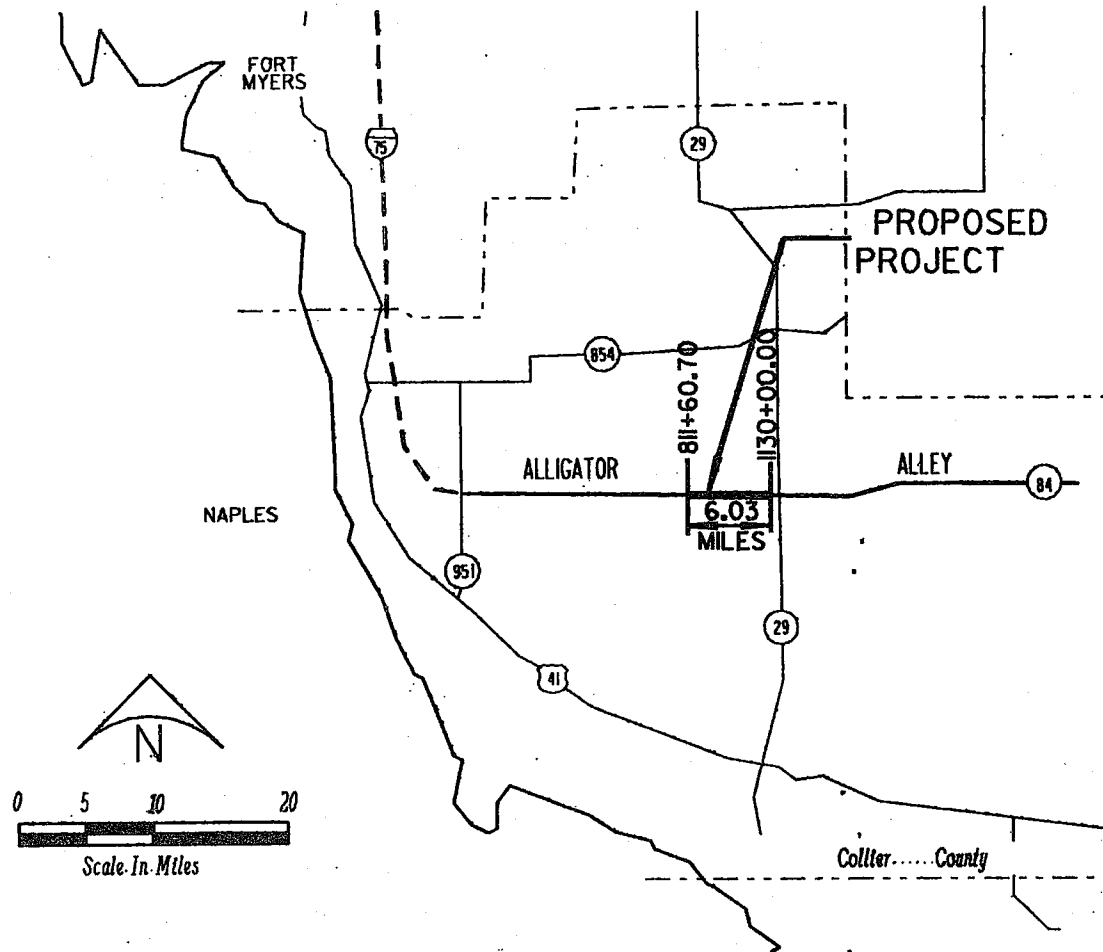
STRUC. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL EL.	OUTLET FL EL.	OHW	DHW
C-6B	512+00	48"	PROPOSED	6.2	5.8	10.9	12.9
C-6C	561+50	48"	PROPOSED	6.0	5.6	10.9	12.9
C-7	593+00	10' X 5'	EXTENDED	7.0	6.8	11.1	13.1
C-7A	636+00	48"	PROPOSED	6.4	6.0	11.1	13.1
C-7B	751+00	10' X 5'	PROPOSED	7.1	6.9	12.0	14.0

REVISED: FEB. 1987
REVISED: OCT. 1986

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407	
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER	
TWP:	RNG:	NAME:			
SEC:		SIGNATURE: <i>Bill Stelinger</i>	DER:	CG:	SHEET 17 OF 19
		CERTIFICATE NO.:	COE:	WMD:	DATE AUG. '86

DATE: 2-24-87

EXHIBIT 30



VICINITY MAP
COLLIER COUNTY
PROJECT LENGTH 6.03 MILES

EXHIBIT 4

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406			
TWP: _____ RNG: _____				COUNTY COLLIER		DER	CG
SEC _____		NAME: _____		COE		WMD	DATE AUG. '86
		SIGNATURE <i>D. J. Stehman</i>		DATE: 2-24-87			
		CERTIFICATE NO. _____					

SCANNED

INVOLVEMENT	PERMANENT				TEMPORARY	
	EXCAVATION		FILL		FILL	
	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
JURISDICTIONAL WETLANDS	24.1	517,351	39.9	273,532	12.3	NC

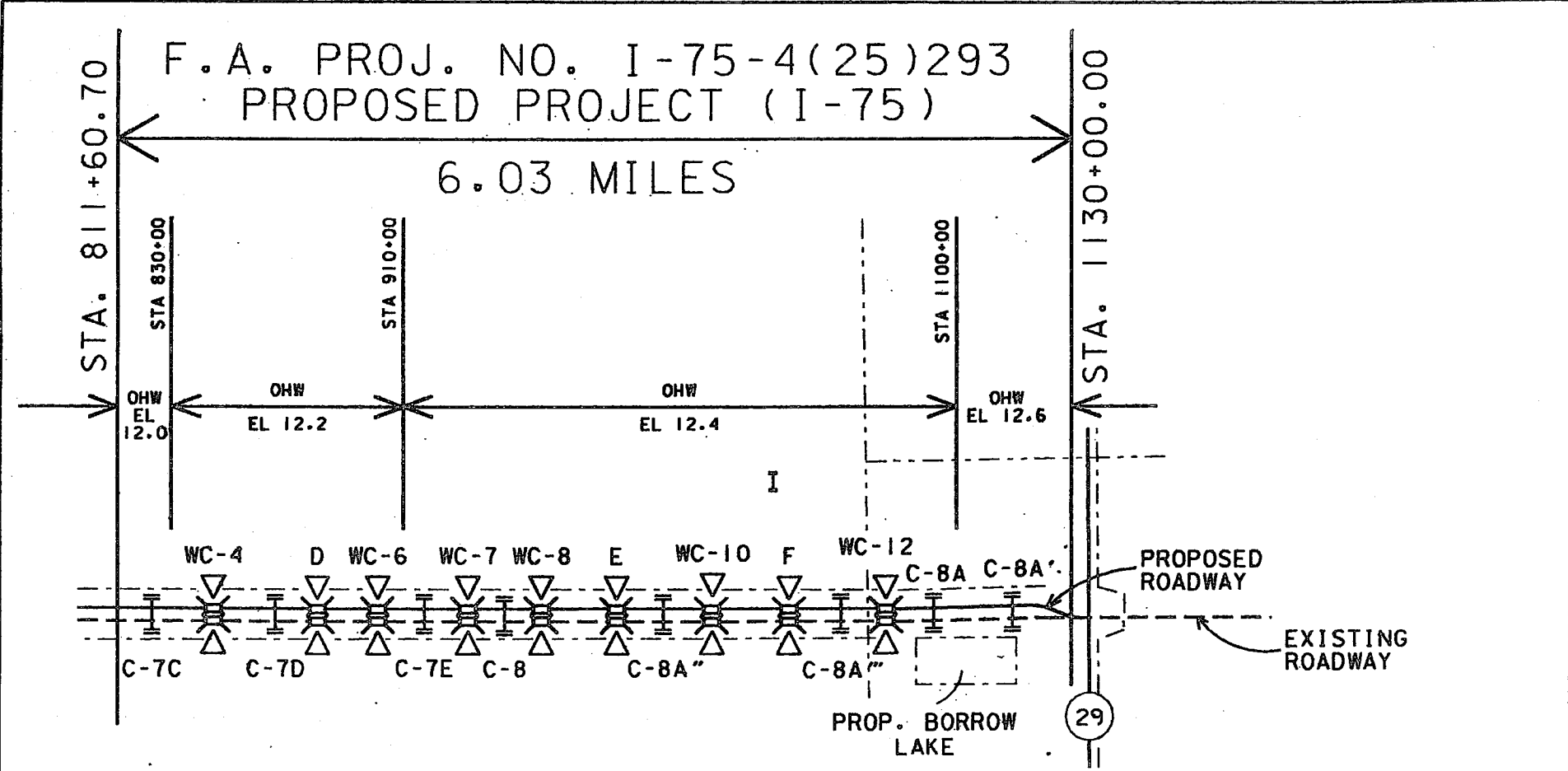
NOTES: AREA IN ACRES; VOLUME IN CUBIC YARDS

TEMPORARY FILL AREA IS WITHIN EXISTING RIGHT OF WAY AND WILL BE USED BY THE CONTRACTOR DURING CONSTRUCTION FOR STOCKPILING MATERIAL. IT WILL BE RESTORED TO NATURAL ELEVATION UPON COMPLETION OF CONSTRUCTION.

NC - NOT COMPUTED BECAUSE IT WILL BE REMOVED.

EXHIBIT 30

PROJECT DESCRIPTION E. OF EVERGLADES		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3407			
BLVD. TO 6.0 MI. W. OF S.R. 29				COUNTY COLLIER			
TWP:	RNG:	NAME:	SIGNATURE <i>DW Stehmer</i>		DER	CG	SHEET 19 OF 19
SEC		CERTIFICATE NO.	DATE: 10/3/86	COE	WMD	DATE AUG. '86	

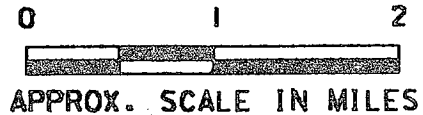


OHW/DHW ARE SHOWN IN THESE PERMITS FOR INFORMATIONAL PURPOSES ONLY.
 WATER REFERENCE DATUM: NGVD 1929

SITE MAP

FOR SEC., TWP., RNG.,
 SEE SHEETS 5 THRU 9B

REV. FEB. 87

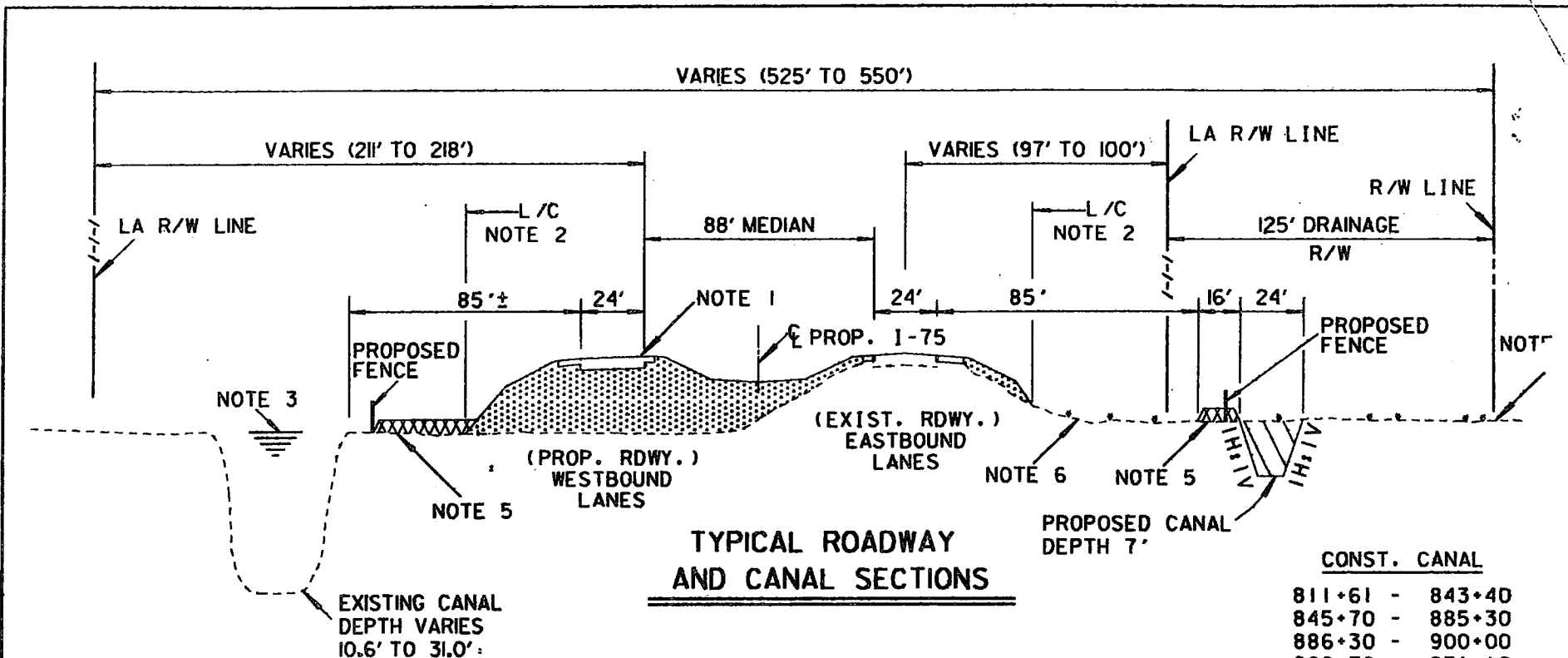


LEGEND

- CANAL
- D BRIDGE
- WC-4 WILDLIFE CROSSING
- C-7C CULVERT
- PROPOSED DITCH BLOCK
- PROJECT STATION

EXHIBIT 4A

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406		
TO SR 29				COUNTY COLLIER		
TWP:	RNG:	NAME:	<i>D. Stelmeyer</i>	DER	CG	SHEET 3 OF 20
SEC		SIGNATURE		COE	WMD	DATE AUG. '86
		CERTIFICATE NO.	DATE: 2-24-87			



CONST. CANAL	
811+61	- 843+40
845+70	- 885+30
886+30	- 900+00
902+70	- 931+10
935+90	- 955+60
956+60	- 985+65
989+15	- 1014+80
1017+80	- 1045+40
1049+30	- 1077+60

NOTES:

1. CREST ELEVATION VARIES 18.79 TO 22.68.
2. LIMITS OF CONSTRUCTION, SEE PLAN SHEETS.
3. O.H.W. VARIES EL. 12.0 TO 12.6.
4. EXISTING GROUND VARIES EL. APPROX. 10.4 TO 13.8.
5. CONTRACTOR'S WORK AREA, STOCKPILES, AND HAUL ROAD. RESTORE TO NATURAL ELEVATION.
6. THE AREA BETWEEN L/C AND THE PROPOSED CANAL SHALL NOT BE DISTURBED DURING CONSTRUCTION EXCEPT AT HAUL ROAD CROSSINGS (APPROX. 1/2 MILE INTERVALS).



Scale
 5
 2
 0 In. Feet
 0 10 20 30

LEGEND

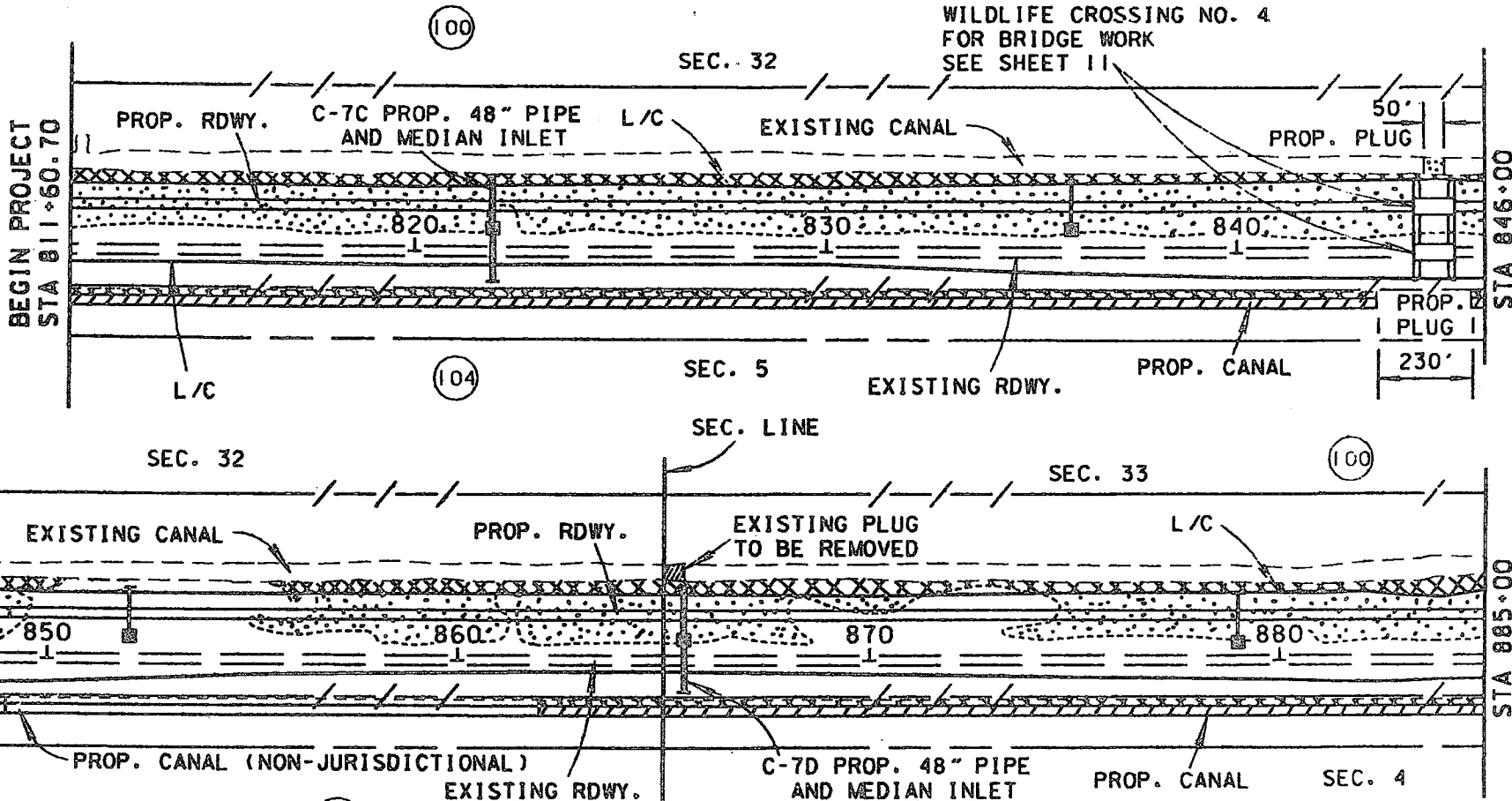
- FILL
- EXCAVATION
- TEMP. FILL (STOCKPILE; WORK AREA)
- L/C LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

WATER REFERENCE DATUM: NGVD 1929

REV. FEB. 87

EXHIBIT 4B

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TWP: _____ RNG: _____		NAME: _____		COUNTY COLLIER	
SEC _____		SIGNATURE: <i>D. J. Stelmeyer</i>		DER _____	CG _____
		CERTIFICATE NO. _____		COE _____	WMD _____
		DATE: 2-24-87		SHEET 4 OF 20	
				DATE AUG. '88	



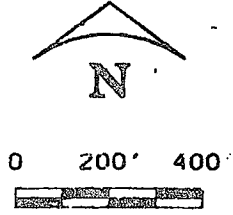
STA 846+00

STA 846+00

STA 885+00

NOTE: (*) - ADJACENT PROPERTY OWNER SEE ATTACHED SHEET

REV. FEB. 87

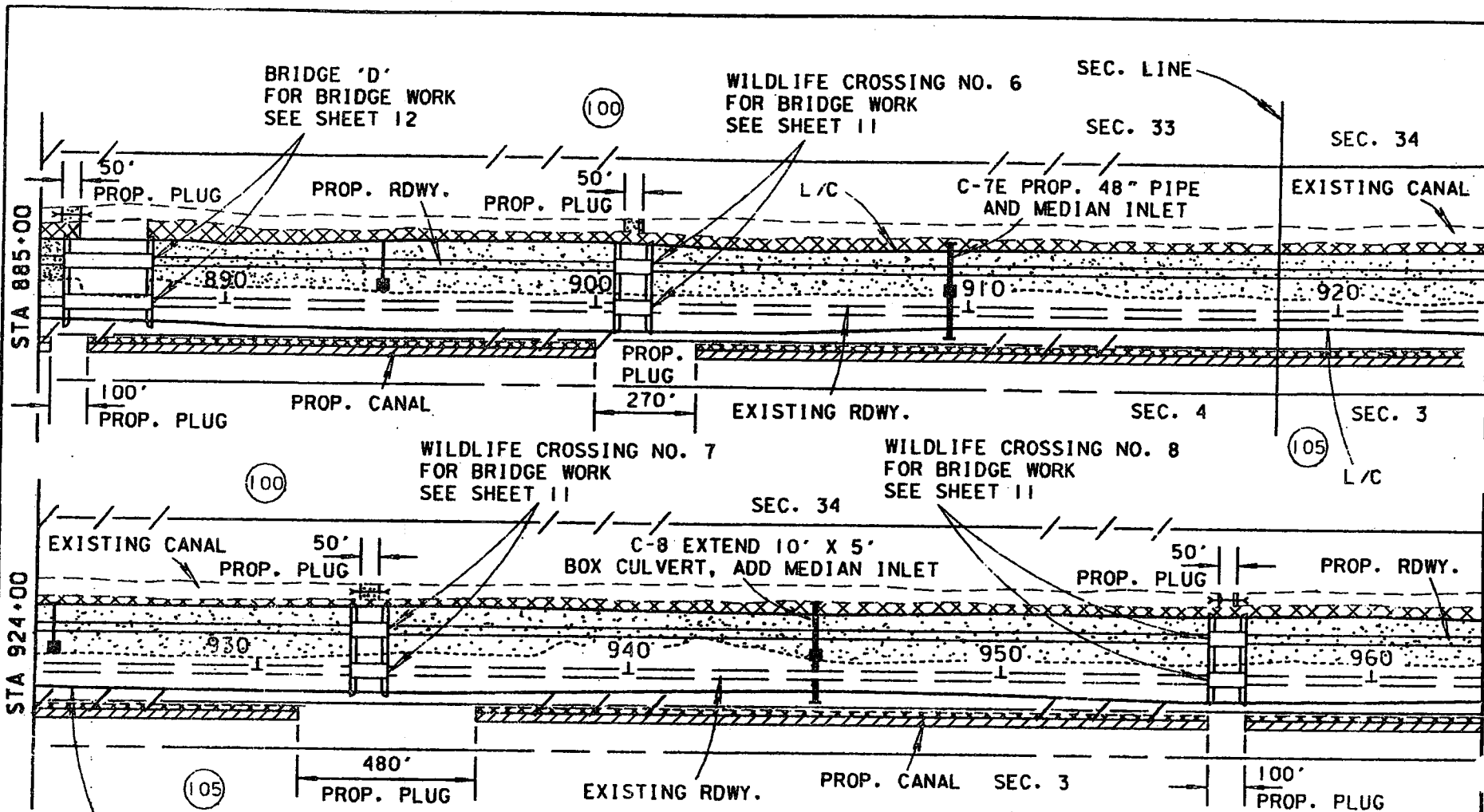


LEGEND	
- / - / -	EXIST. R/W & L/A R/W
- - - - -	EXIST. DRAINAGE R/W
[Dotted pattern]	FILL (JURISDICTIONAL)
[Hatched pattern]	EXCAVATION (JURISDICTIONAL)
[Cross-hatched pattern]	TEMPORARY FILL (JURISDICTIONAL)
[Square with T]	MEDIAN INLET
- - - - -	L/C
[Solid line]	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

EXHIBIT 4C

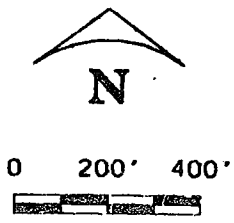
PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TWP: 49S, 50S	RNG: 29E	NAME: _____	COUNTY COLLIER		
SEC _____		SIGNATURE: <i>D.W. Stelmeyer</i>	DER _____	CG _____	SHEET 5 OF 20
		CERTIFICATE NO. _____	COE _____	WARD _____	DATE AUG '86

DATE: 2-24-87



NOTE: (100) - ADJACENT PROPERTY OWNER
SEE ATTACHED SHEET

REV. FEB. 87



LEGEND	
---/---/---	EXIST. R/W & L/A R/W
----	EXIST. DRAINAGE R/W
[Cross-hatched box]	FILL (JURISDICTIONAL)
[Diagonal hatched box]	EXCAVATION (JURISDICTIONAL)
[Dotted box]	TEMPORARY FILL (JURISDICTIONAL)
[Square with T]	MEDIAN INLET
[Line with T]	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)
[Line with T]	L/C

EXHIBIT 4D

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29	
TO SR 29	
TWP: 49S; 50S	RNG: 29E
SEC 33, 34; 4, 3	

FLORIDA DEPARTMENT OF TRANSPORTATION	
NAME:	
SIGNATURE	<i>D.W. Schomberger</i>
CERTIFICATE NO.	DATE: 2-24-87

STATE PROJECT NO. 03175-3406		
COUNTY COLLIER		
DER	CG	SHEET 6 OF 2
COE	WMD	DATE AUG '8

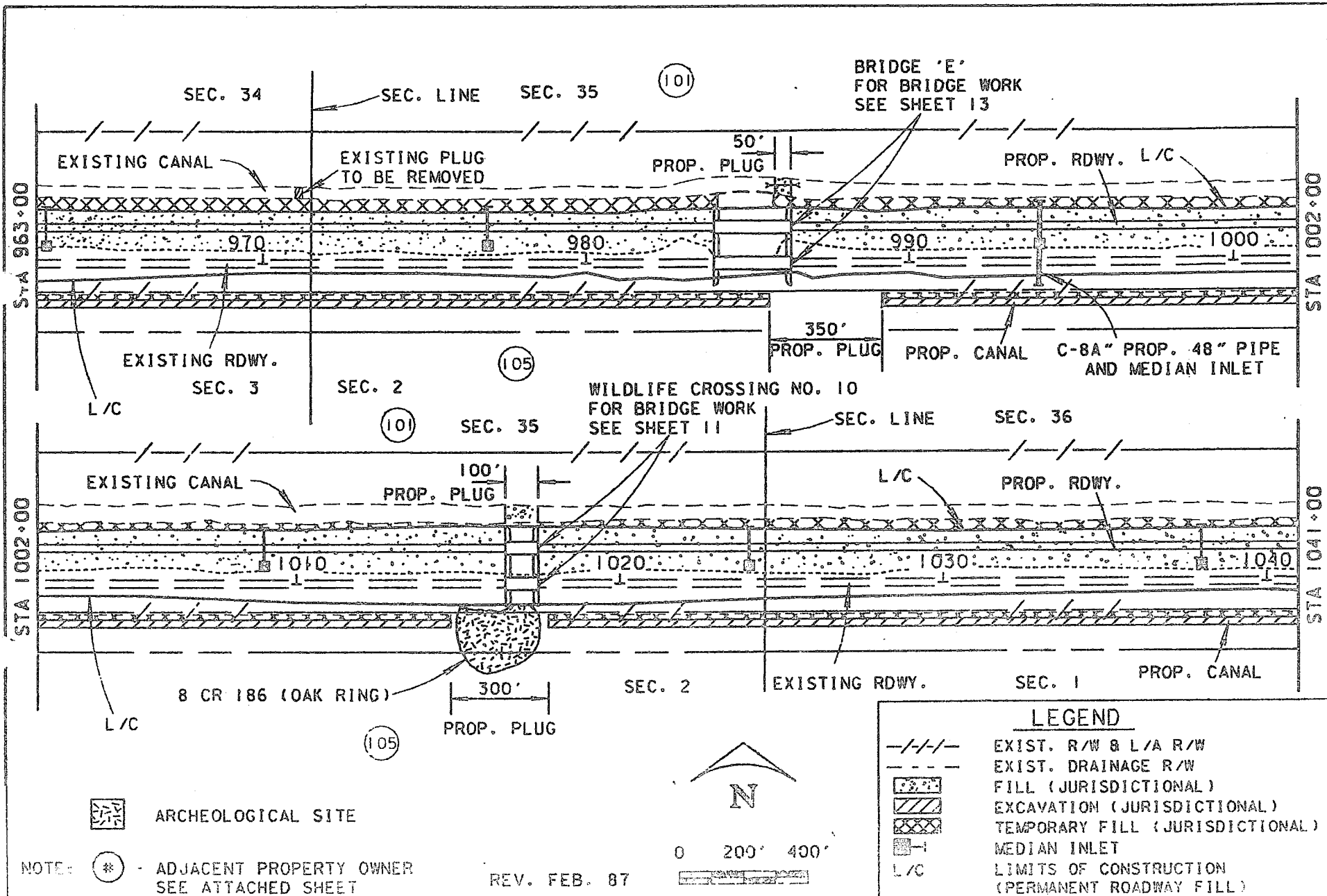


EXHIBIT 4E

NOTE: (#) - ADJACENT PROPERTY OWNER SEE ATTACHED SHEET

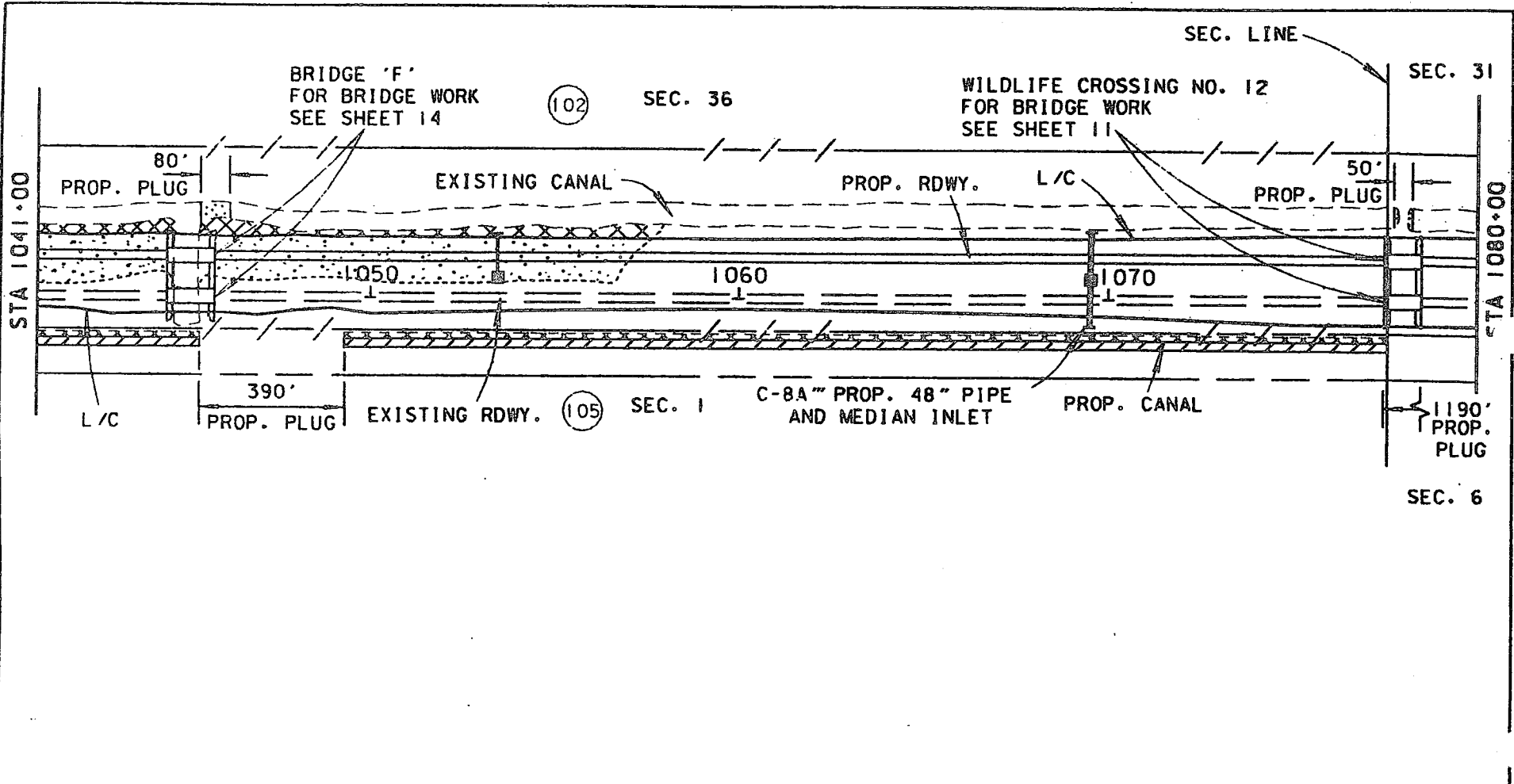
REV. FEB. 87

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29
 TO SR 29
 TWP: 49S; 50S RNG: 29E
 SEC 34, 35, 36; 3, 2, 1

FLORIDA DEPARTMENT OF TRANSPORTATION

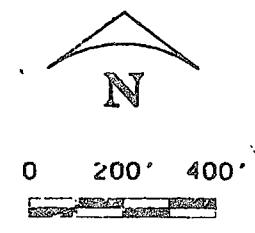
NAME: _____
 SIGNATURE: *D. J. Stehman*
 CERTIFICATE NO. _____
 DATE: 2-24-87

STATE PROJECT NO. 03175-3406
 COUNTY COLLIER
 DER _____ CG _____ SHEET 7 OF 20
 COE _____ W/D _____ DATE AUG '86



NOTE: (#) - ADJACENT PROPERTY OWNER
SEE ATTACHED SHEET

REV. FEB. 87

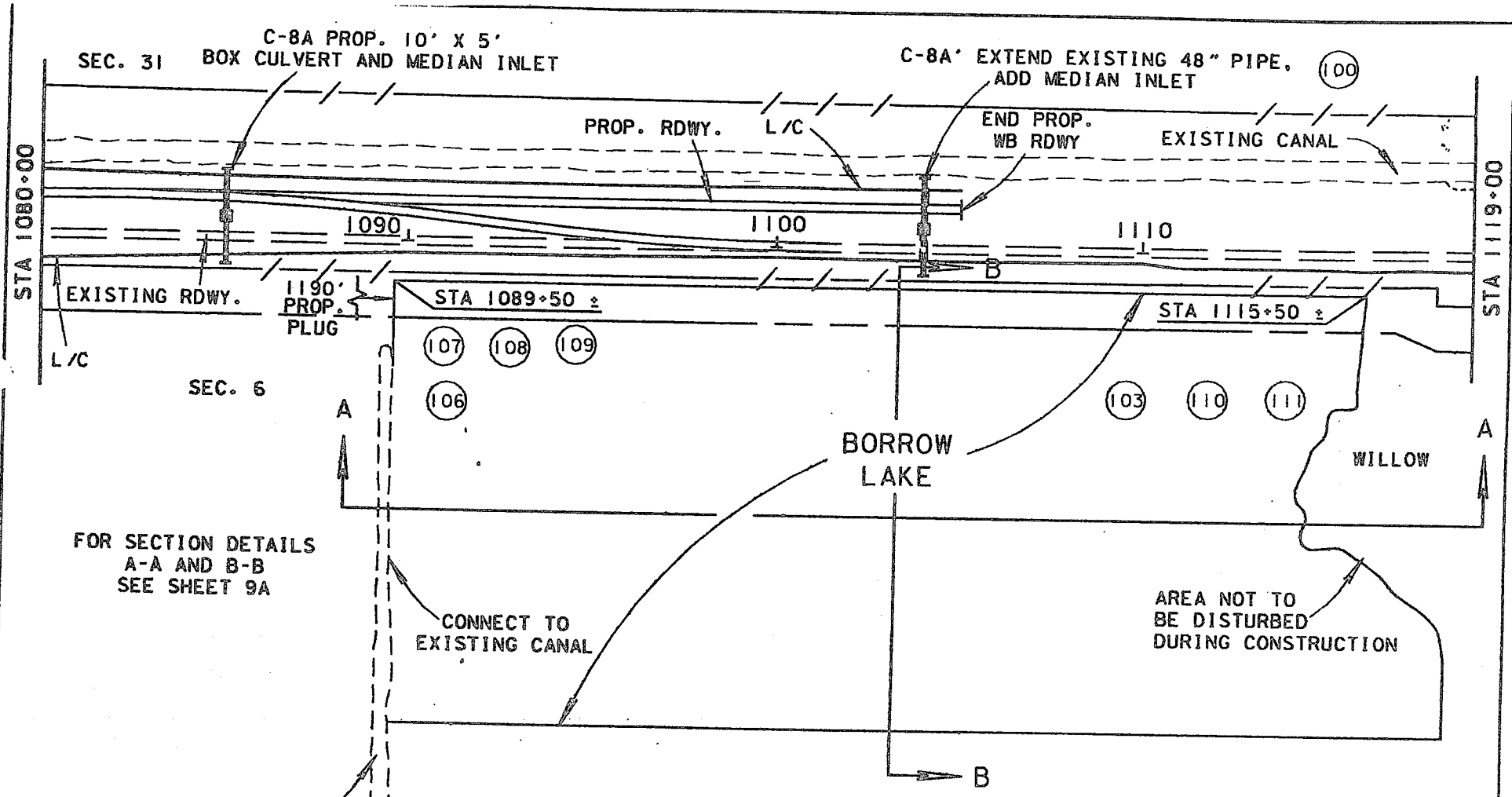


LEGEND	
---/---/---	EXIST. R/W & L/A R/W
- - - - -	EXIST. DRAINAGE R/W
[Stippled pattern]	FILL (JURISDICTIONAL)
[Diagonal hatching]	EXCAVATION (JURISDICTIONAL)
[Cross-hatching]	TEMPORARY FILL (JURISDICTIONAL)
[Square with dot]	MEDIAN INLET
[Dashed line]	L/C
[Solid line]	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

EXHIBIT 4F

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406		
TWP: 49S; 50S	RNG: 29E, 30E	NAME: _____	SIGNATURE: <i>D.W. Schmege</i>	DER	CG	SHEET 8 OF 20
SEC 36, 31; 1, 6		CERTIFICATE NO. _____		COE	WMD	DATE AUG '86

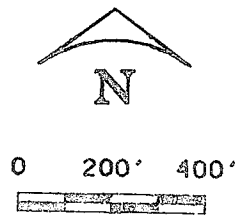
DATE: 2-24-87



FOR SECTION DETAILS
A-A AND B-B
SEE SHEET 9A

LEGEND

- EXIST. R/W & L/A R/W
- EXIST. DRAINAGE R/W
- FILL (JURISDICTIONAL)
- EXCAVATION (JURISDICTIONAL)
- TEMPORARY FILL (JURISDICTIONAL)
- MEDIAN INLET
- LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

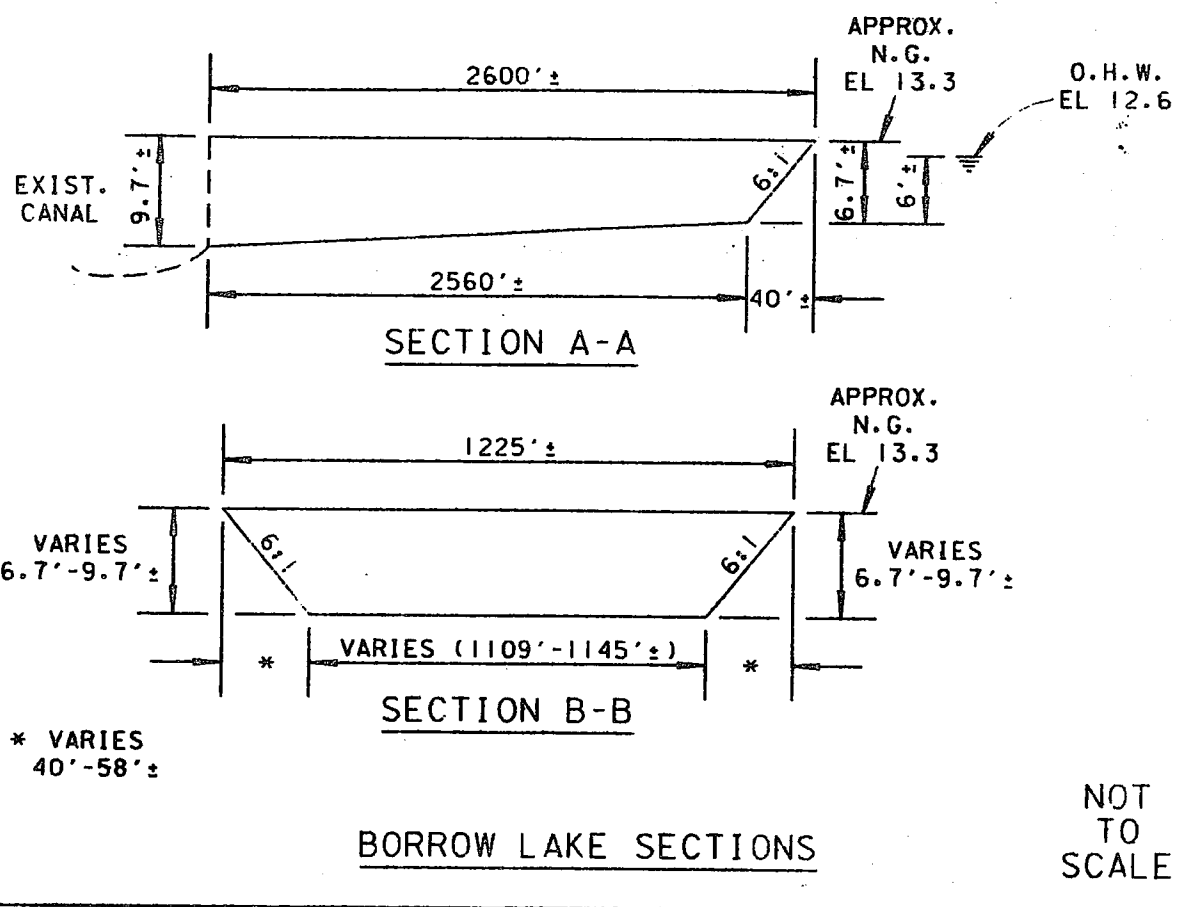
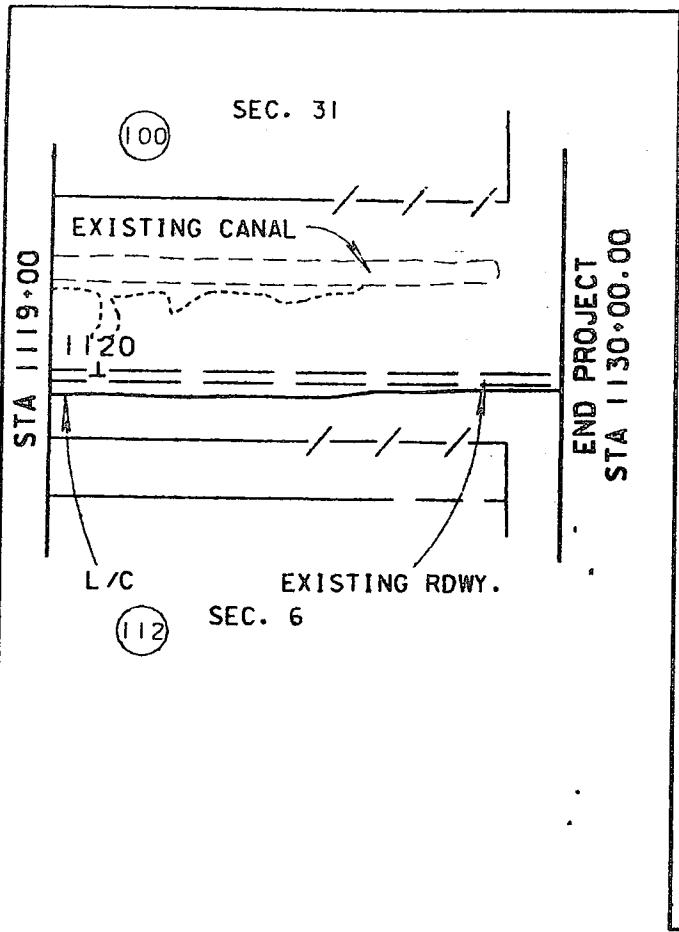


NOTE: - ADJACENT PROPERTY OWNER SEE ATTACHED SHEET

REV. FEB. 87

EXHIBIT 45

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TWP: 49S; 50S RNG: 30E		NAME: _____		COUNTY COLLIER	
SEC 31: 6		SIGNATURE: <i>D.W. Selman</i>		DER: _____ CG: _____ SHEET 9 OF 20	
		CERTIFICATE NO. _____		COE: _____ WMD: _____ DATE AUG '86	



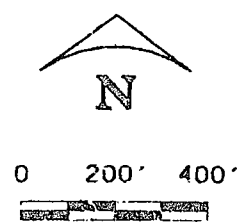
BORROW LAKE SECTIONS

NOT TO SCALE

EXHIBIT 4H

NOTE: (#) - ADJACENT PROPERTY OWNER SEE ATTACHED SHEET

REV. FEB. 87

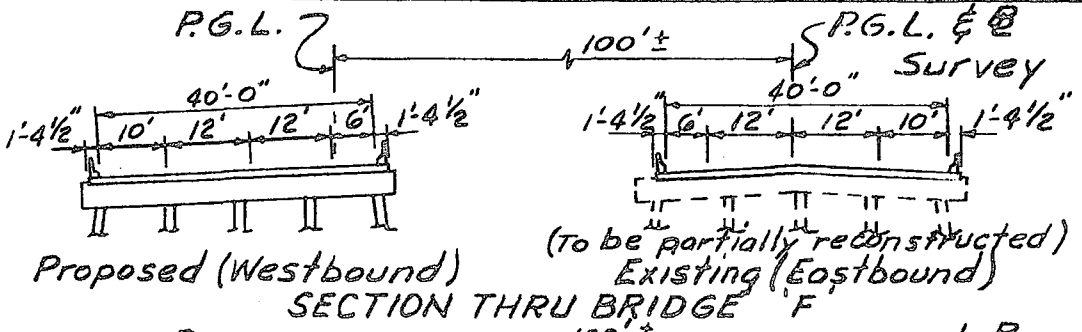
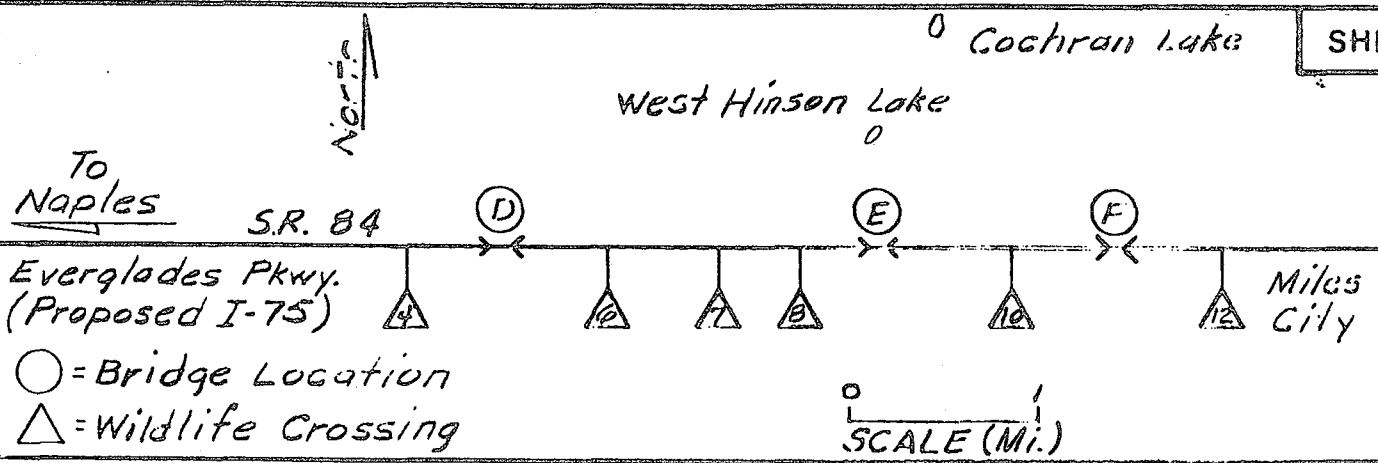


LEGEND

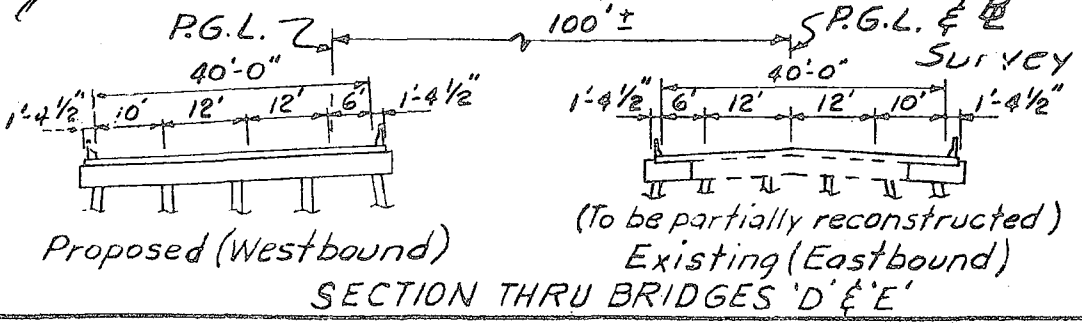
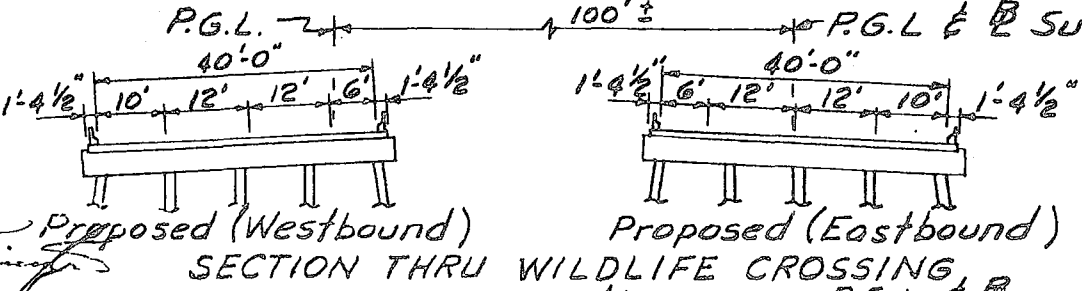
	EXIST. R/W & L/A R/W
	EXIST. DRAINAGE R/W
	FILL (JURISDICTIONAL)
	EXCAVATION (JURISDICTIONAL)
	TEMPORARY FILL (JURISDICTIONAL)
	MEDIAN INLET
	L/C
	LIMITS OF CONSTRUCTION (PERMANENT ROADWAY FILL)

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406			
TWP. 49S; 50S RNG. 30E				COUNTY COLLIER			
SEC 31:6		NAME: _____	 DATE: 2-24-87		DER	CG	SHEET 9A OF 20
		SIGNATURE			COE	WMC	DATE
		CERTIFICATE NO. _____					

Note: All structure details shown on sheets 10 thru 14 are for illustrative purposes only and may not be indicative of final design conditions shown in the contract plans.



Note: Water Reference Datum: National Geodetic Vertical Datum, 1929



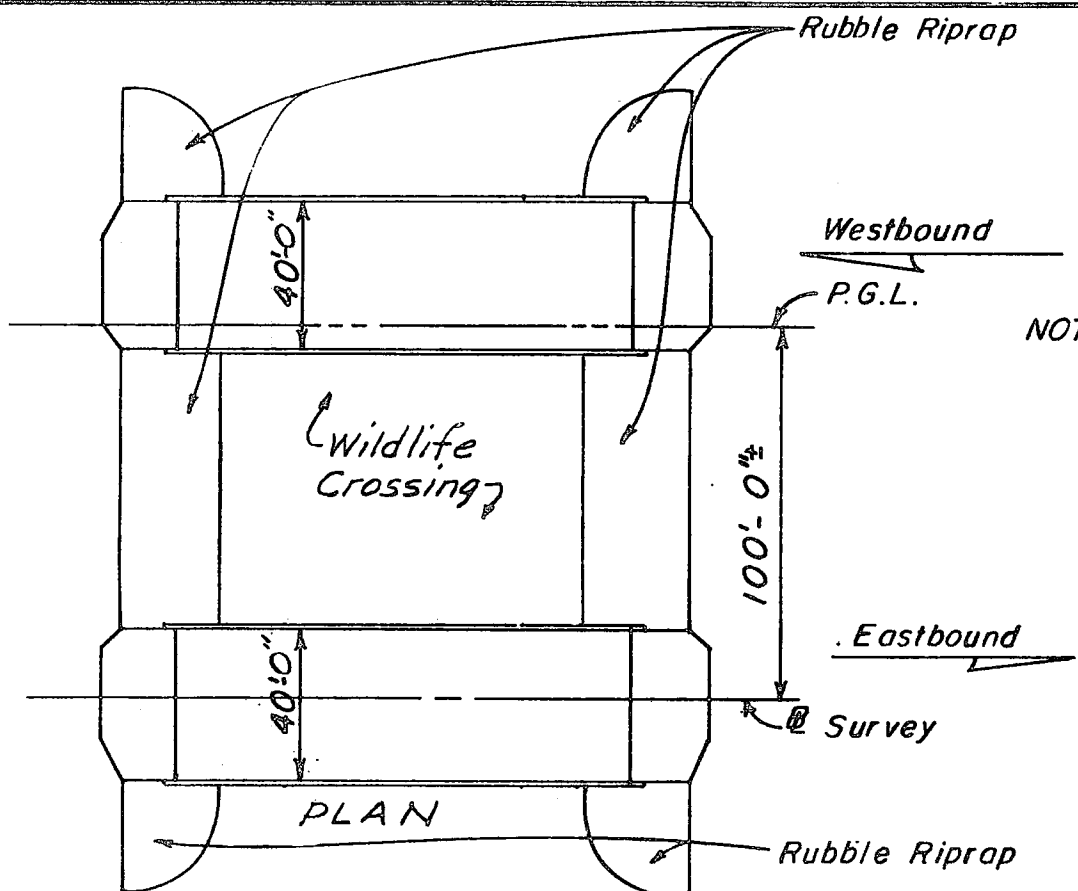
FEDERAL AID PARTICIPATING

PROPOSED BRIDGES D, E, F AND WILDLIFE CROSSINGS 4, 6, 7, 8, 10 & 12 ON S.R. 84 (I-75) Aug. 1986.

FLORIDA DEPARTMENT OF TRANSPORTATION

J.M. [Signature]
8/5/86

COLLIER
CB175-3406



NOTE: See sheet No. 10 for Typical Section.

BRIDGE (CROSSING) NUMBERS		
No.	Eastbound	Westbound
4	030221	030222
6	030224	030225
7	030226	030227
8	030228	030229
10	030231	030232
12	030234	030235

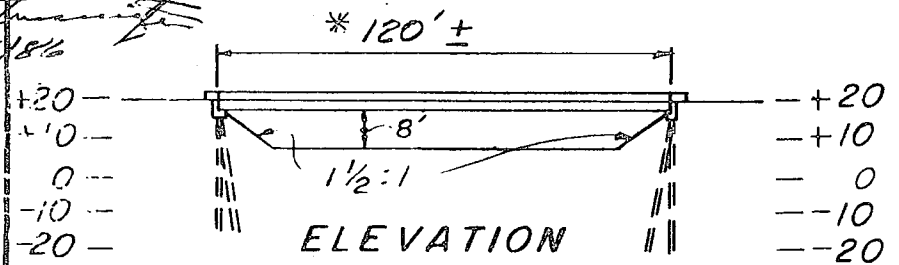
Proposed Vertical Clearance: 30' over Natural Ground

* Bridge Span layout for Wildlife crossings is dependent on future considerations regarding type of construction proposed.



F.W. [Signature]
8/5/82

COLLIER
03175-3406



FEDERAL AID PARTICIPATING

PROPOSED WILDLIFE CROSSINGS 4,6,7,8,10 & 12 ON S.R. 84(I-75)

Aug. 1986

FLORIDA DEPARTMENT OF TRANSPORTATION

EXHIBIT 4J

Clearance	Existing	Proposed
Horizontal	27.0'	27.0'
Vertical*	3.8'	4.1'

*above El. 14.2

NOTE: See sheet No. 10 for Typical Section.

Elev. of Base Flood Plain = Not Available

Design H.W. = 14.2 (50 Year Flood)

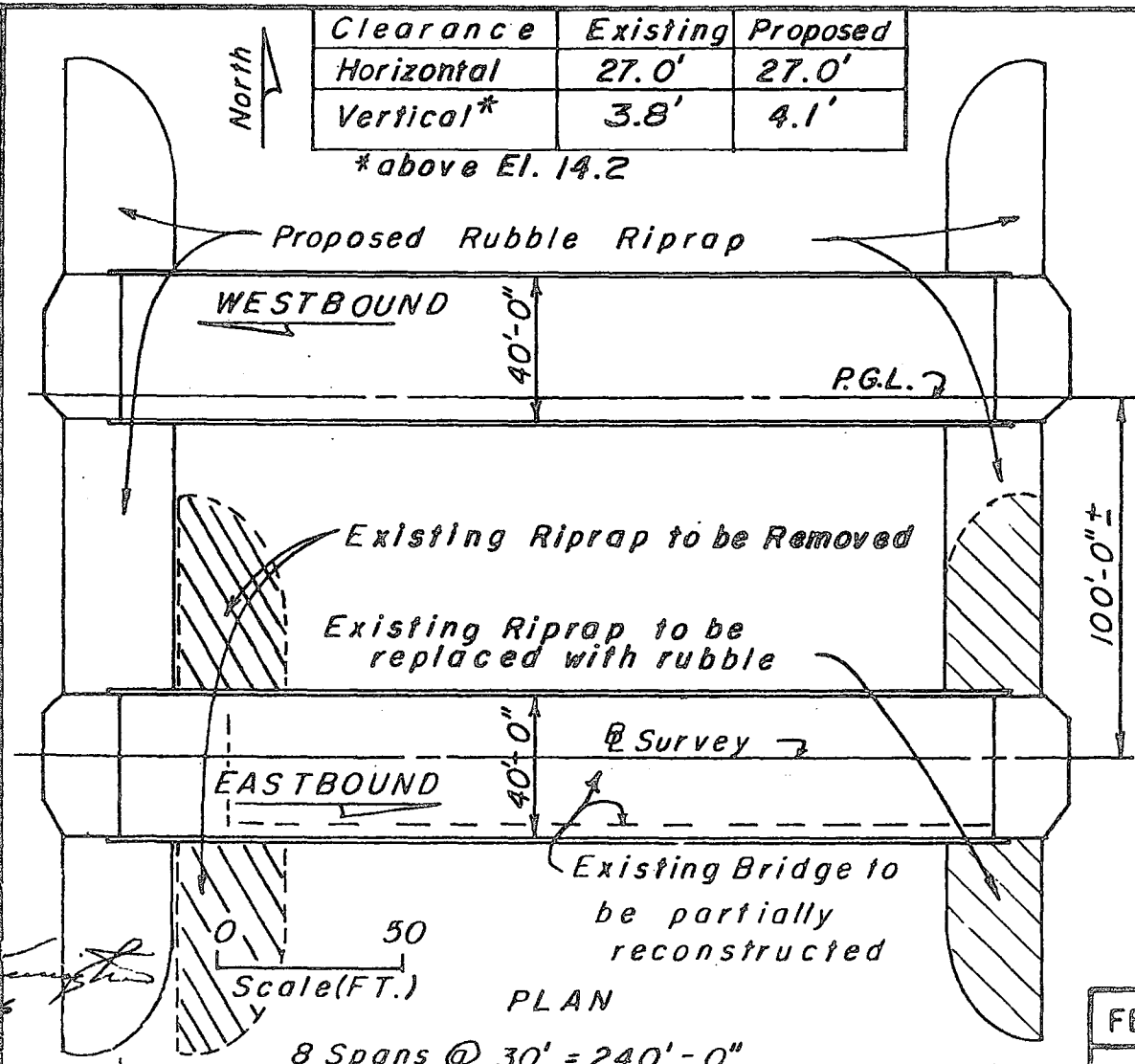
Water Reference Datum = National Geodetic Vertical Datum 1929

BRIDGE NUMBERS:
EASTBOUND: 030005
WESTBOUND: 030223

FEDERAL AID PARTICIPATING

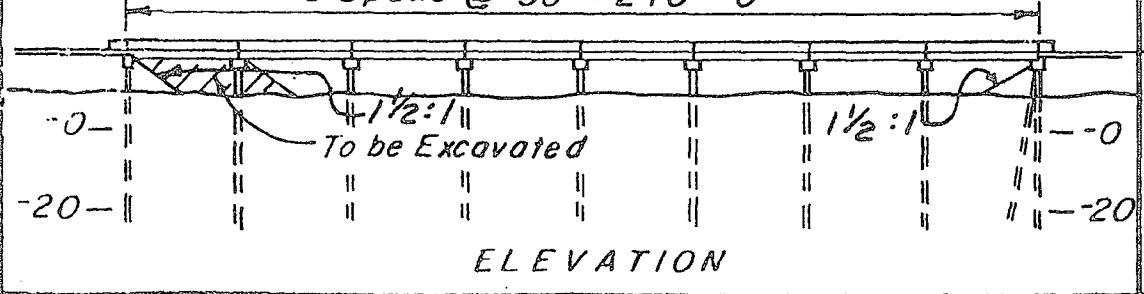
PROPOSED BRIDGE 'D' ON S.R. 84 (I-75)

Aug. 1986
FLORIDA DEPARTMENT OF TRANSPORTATION



Scale (FT.)
50

PLAN



ELEVATION

J. W. Thompson
8/5/86

COLLIER
03175-3406

EXHIBIT 4K

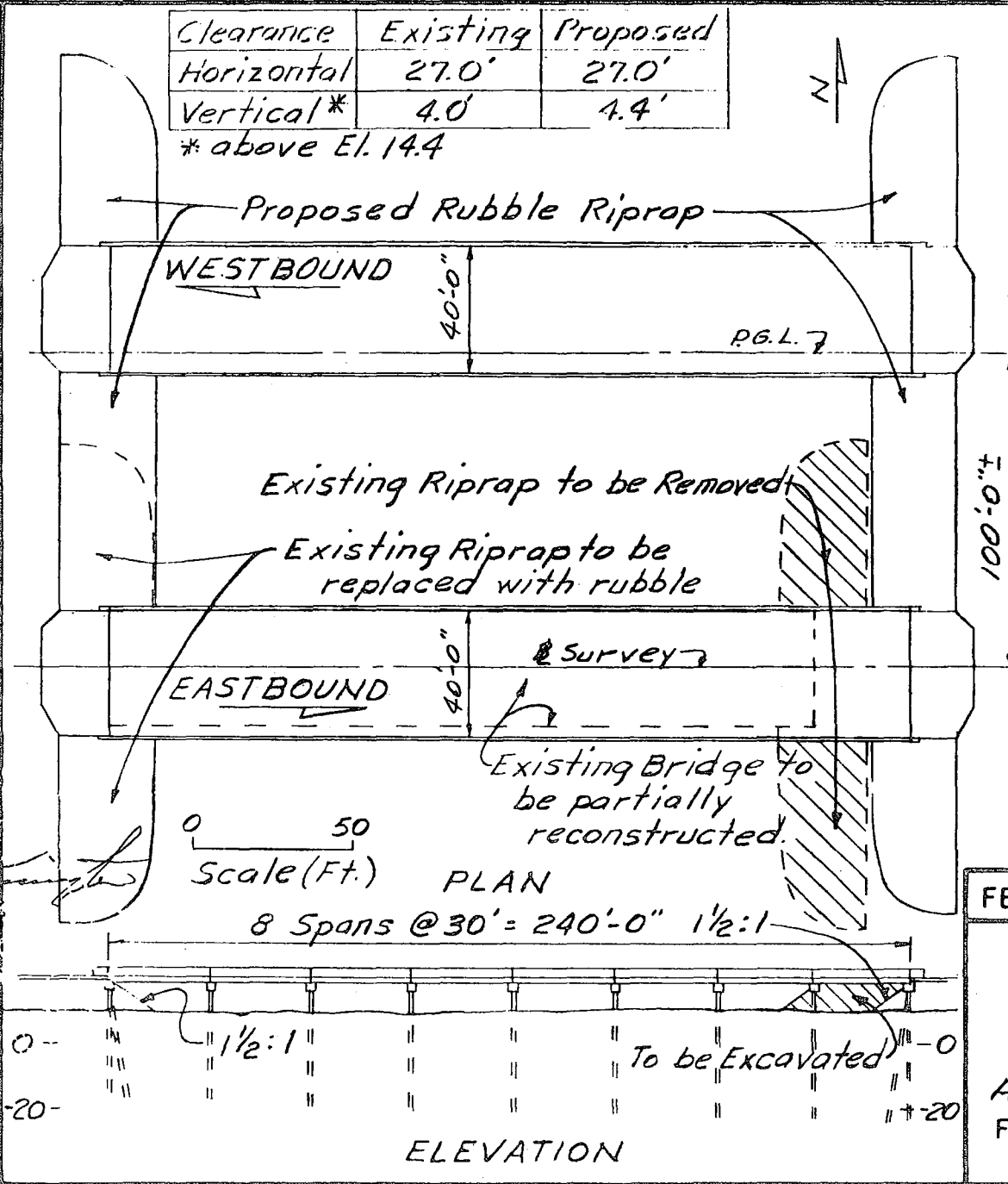
Clearance	Existing	Proposed
Horizontal	27.0'	27.0'
Vertical*	4.0'	4.4'

* above El. 14.4

Note: See sheet No. 10 for Typical Section.

Elev. of Base Flood Plain = Not Available
 Design H.W. = 14.4
 (50 Year Flood)

Water Reference Datum = National Geodetic Vertical Datum 1929.



BRIDGE NUMBERS:
 EASTBOUND: 030006
 WESTBOUND: 030230

FEDERAL AID PARTICIPATING

PROPOSED BRIDGE
 'E' ON S.R. 84 (I-75)

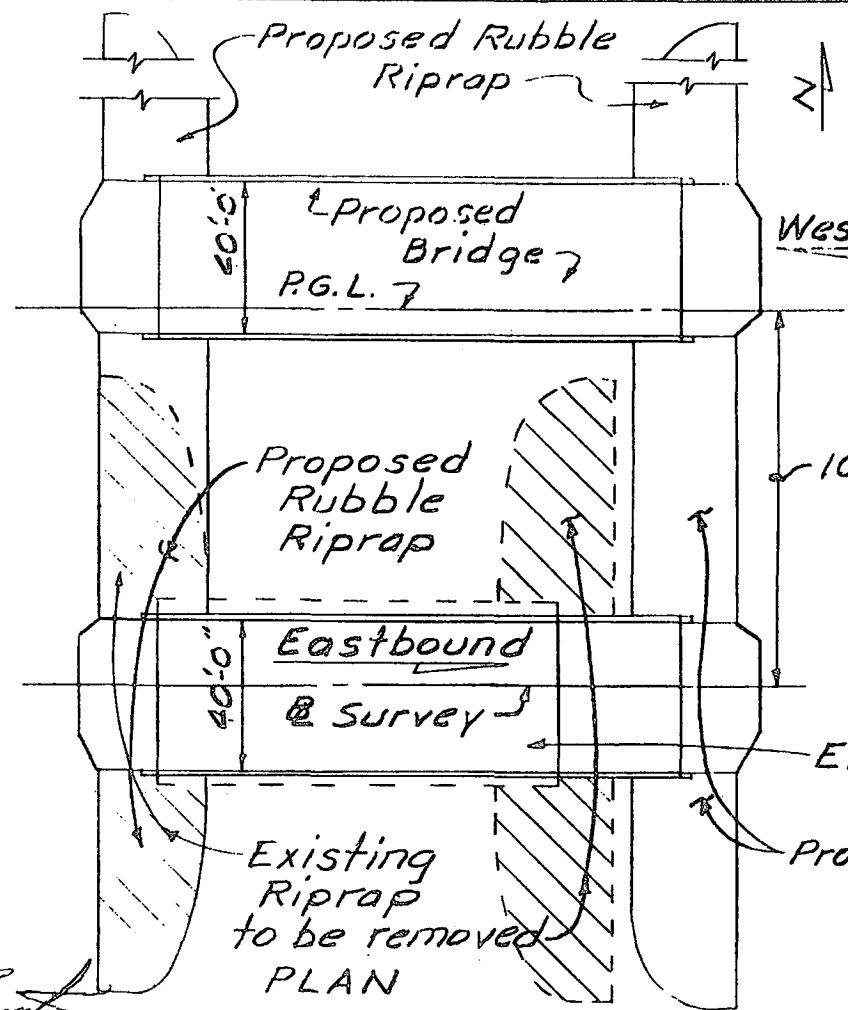
Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION

F. W. [Signature]
 8/5/86

COLLIER
 03175-3406

ELEVATION

EXHIBIT 4L



Design H.W. - 14.4 (50 Year Flood)
 Elev of Base Flood Plain = Not Available
 Westbound

Water Reference Datum =
 National Geodetic
 Vertical Datum 1929

	Existing	Proposed
Horiz. Cl.	36.75'	37.0'
Vert. Cl.*	4.0'	4.0'

* Above Design H.W. (El. 14.4)

Note: See Sheet No. 10 for
 Typical Section.

Existing Bridge to be partially
 reconstructed.

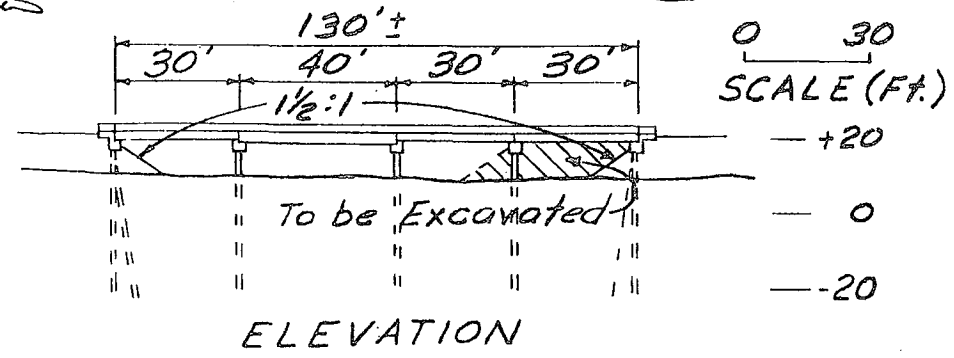
Proposed Rubble Riprap

BRIDGE NUMBERS:
 WESTBOUND: 030233
 EASTBOUND: 030007

FEDERAL AID PARTICIPATING

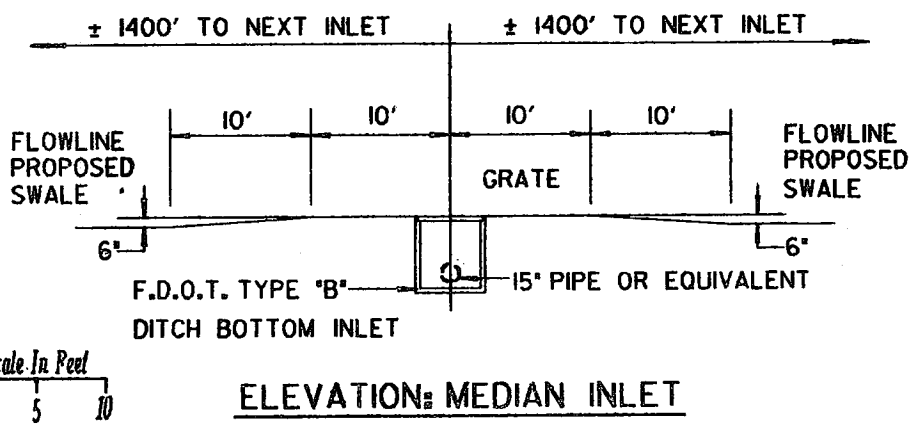
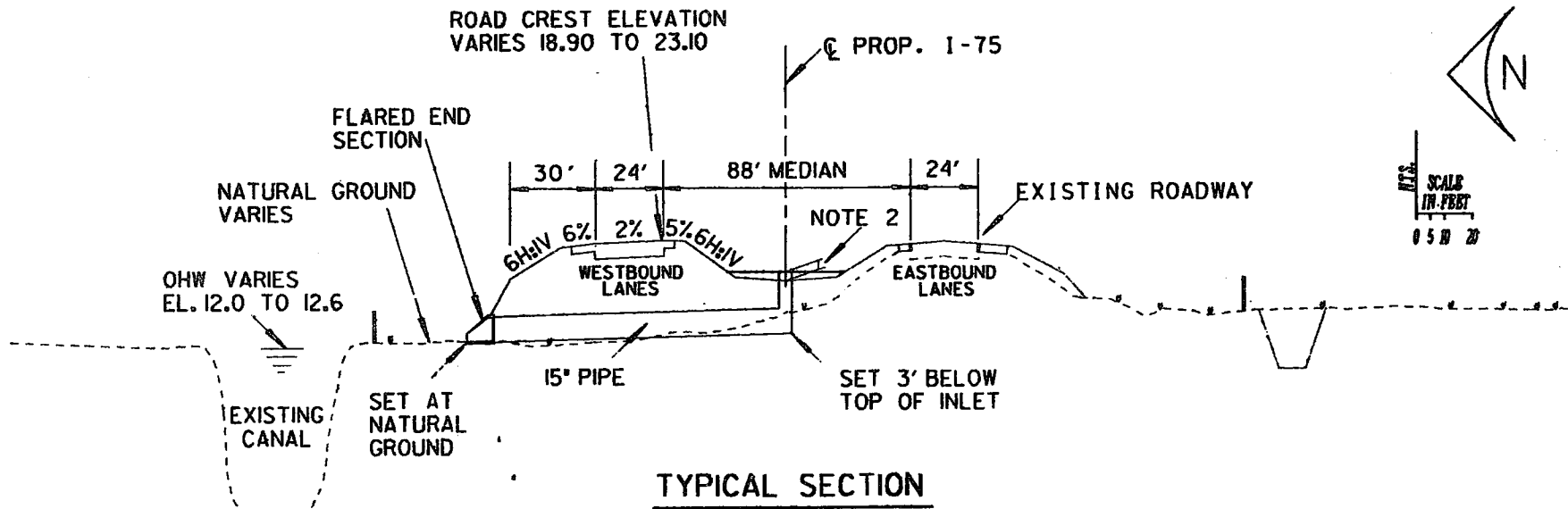
PROPOSED BRIDGE
 'F' ON S.R. 84 (I-75)

Aug. 1986
 FLORIDA DEPARTMENT OF
 TRANSPORTATION



F. W. [Signature]
 8/5/86

COLLECTOR
 9075-5406
 03175-54160
 837700



NOTES:

1. THE NUMBER OF MEDIAN INLETS IN THIS SECTION IS BASED ON AN INLET SPACING OF 1400± FEET C. TO C.

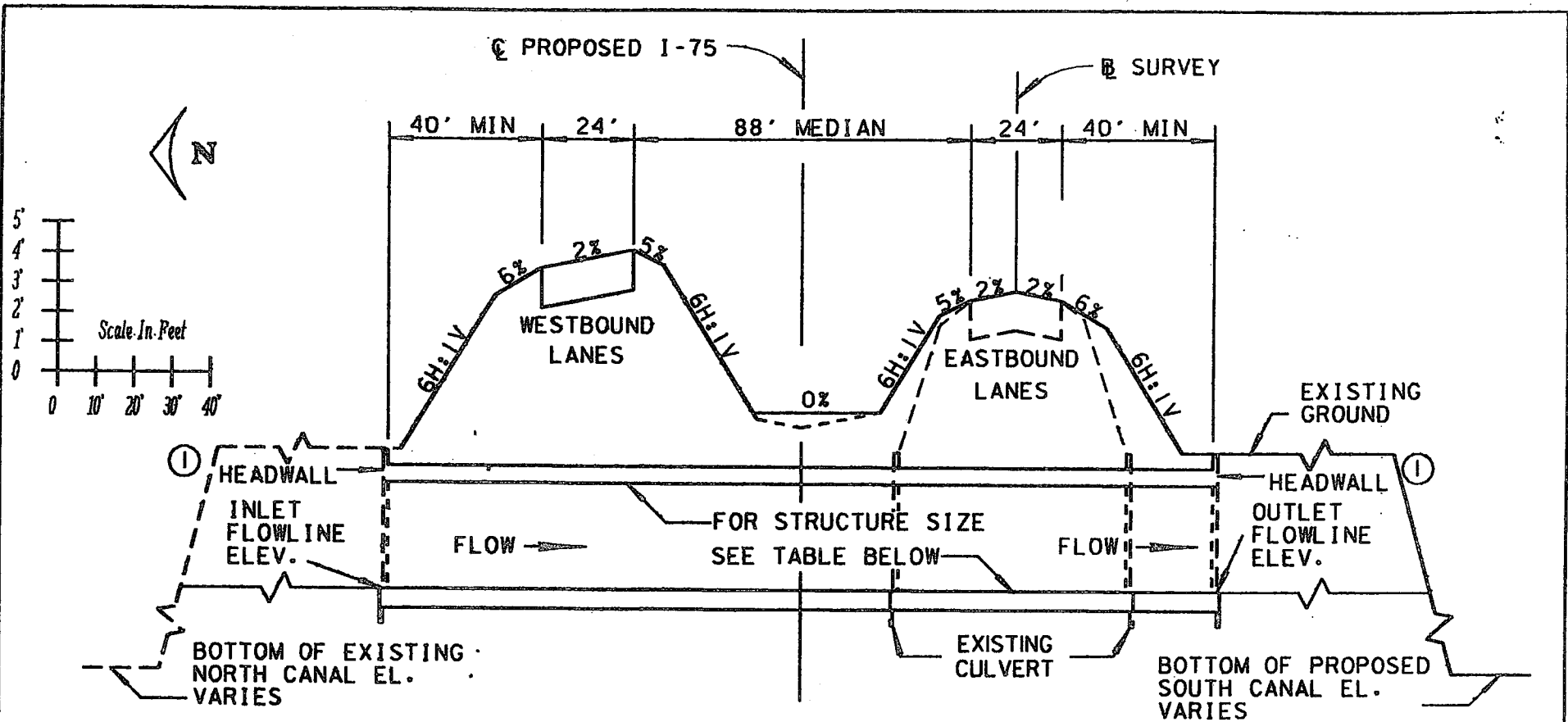
2. DITCH BOTTOM ELEVATION VARIES. TOP OF INLET SET 6" ABOVE DITCH BOTTOM.

WATER REFERENCE DATUM: NGVD 1929

REV. FEB. 87

EXHIBIT 4N

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TWP:	RNG:	NAME:	<i>D. Stehlmeyer</i>	COUNTY COLLIER	
SEC:		SIGNATURE:	<i>D. Stehlmeyer</i>	DER:	CG:
		CERTIFICATE NO.:	DATE: 2-24-87	WMD:	SHEET 15 OF 20
					DATE AUG. '86



STRUC. NO.	PROJECT STATION	SIZE	DESCRIPTION	INLET FL EL.	OUTLET FL EL.	OHW	DHW
C-7C	821+90	48"	PROPOSED	8.7	8.5	12.0	14.1
C-7D	865+50	48"	PROPOSED	8.8	8.6	12.2	14.2
C-7E	909+50	48"	PROPOSED	8.9	8.7	12.4	14.4
C-8	945+00	10' X 5'	EXTENDED	8.3	8.1	12.4	14.4
C-8A"	994+00	48"	PROPOSED	9.0	8.8	12.4	14.4
C-8A'''	1069+50	48"	PROPOSED	9.2	9.0	12.4	14.4
C-8A	1085+00	10' X 5'	PROPOSED	6.9	6.7	12.4	14.4
C-8A'	1104+00	48"	EXTENDED	9.5	9.3	12.6	14.6

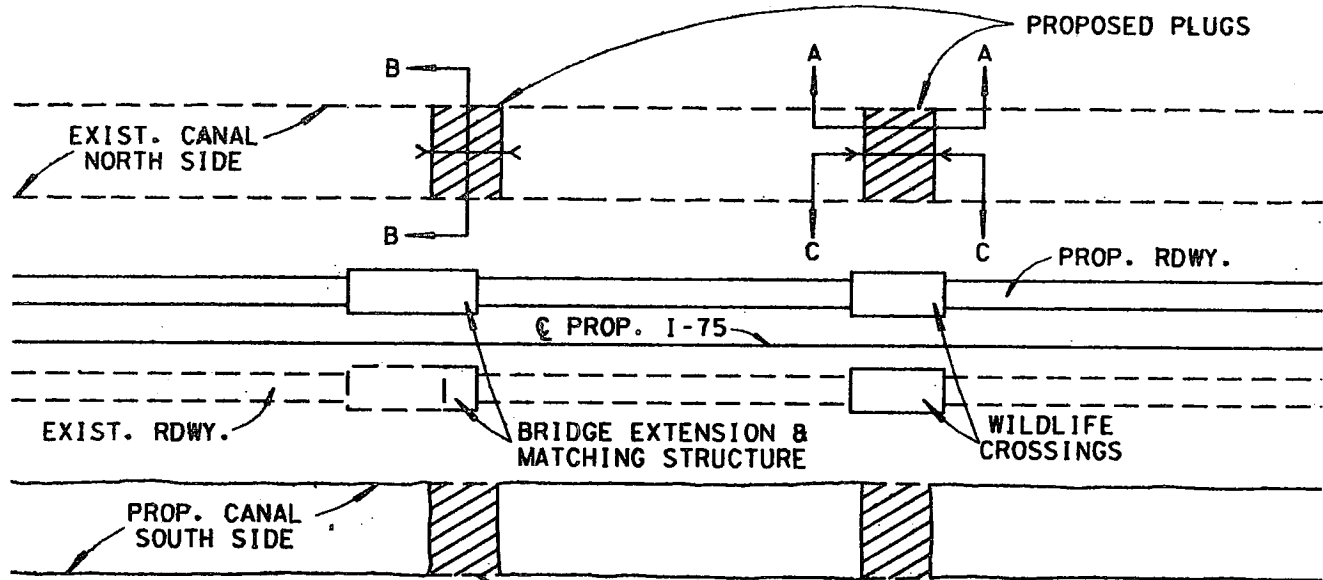
LEGEND:
 Ⓢ HEADWALL FOR 10' X 5' CONCRETE BOX CULVERT, FLARED END SECTION FOR 48" PIPE.

NOTE:
 1. ALL STATIONS @ SURVEY
 2. OHW/DHW SHOWN FOR INFORMATIONAL PURPOSES ONLY.

REV. FEB. 87

EXHIBIT 40

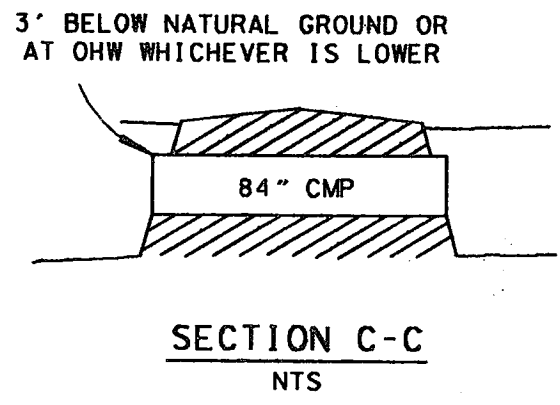
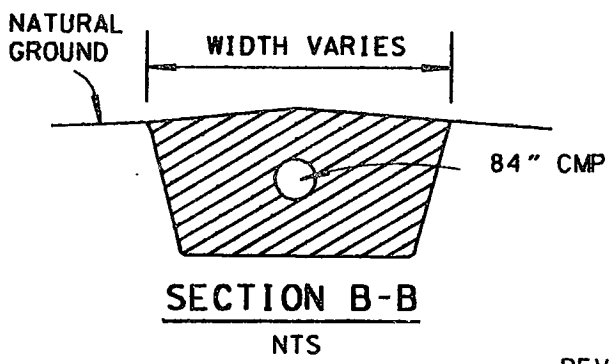
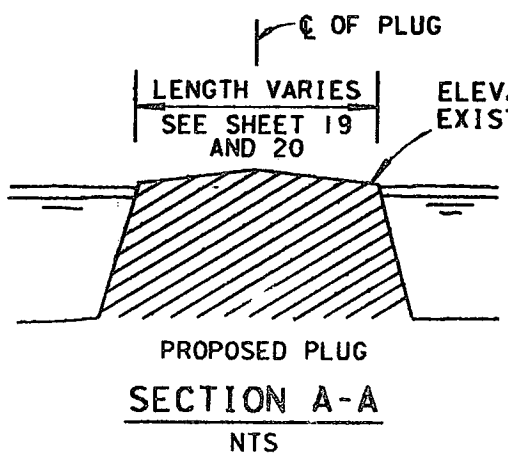
PROJECT DESCRIPTION 6.0 MI. W. OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TO SR 29		NAME: _____		COUNTY COLLIER	
TWP: _____	RNG: _____	SIGNATURE: <i>Dell Schmeizer</i>		DER	CG
SEC		CERTIFICATE NO. _____		COE	WAD
		DATE: 2-24-87		SHEET 16 OF 20	
				DATE AUG. '86	



PROPOSED PLUGS FORMED THROUGH NO EXCAVATION. ELEVATION AT NATURAL GROUND. AREA NOT TO BE DISTURBED DURING CONSTRUCTION.

CANAL PLUGS PLAN

NTS



WATER REFERENCE DATUM: NGVD 1929

REV. OCT. 86

EXHIBIT 4F

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29 TO SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406		
TWP:	RNG:			COUNTY COLLIER		
SEC:		NAME:	DER:		CG:	SHEET 17 OF 20
		SIGNATURE: <i>D. J. Schmeider</i>	COE:		WARD:	DATE AUG. '86
		CERTIFICATE NO.:	DATE: 2-24-87			

TABULATION OF DITCH BLOCKS (PLUGS)

STATION	LOCATION/ MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW/OHW
844+80 ②	NORTH / 15.8	50	12.0	14.1 / 12.2
844+55 ①	SOUTH / 15.8	230	12.3	14.1 / 12.2
885+80 ②	NORTH / 16.6	50	12.0	14.1 / 12.2
885+80 ①	SOUTH / 16.6	100	13.1	14.1 / 12.2
901+00	NORTH / 16.9	50	13.2	14.1 / 12.2
901+35 ①	SOUTH / 16.9	270	12.1	14.1 / 12.2
933+00 ②	NORTH / 17.5	50	11.3	14.4 / 12.4
933+50 ①	SOUTH / 17.5	480	13.1	14.4 / 12.4
956+10 ②	NORTH / 17.9	50	12.2	14.4 / 12.4
956+10 ①	SOUTH / 17.9	100	12.0	14.4 / 12.4
986+10 ②	NORTH / 18.5	50	11.5	14.4 / 12.4
987+40 ①	SOUTH / 18.5	350	12.0	14.4 / 12.4
1017+00	NORTH / 19.1	100	11.0	14.4 / 12.4
1016+30 ①	SOUTH / 19.1	300	12.1	14.4 / 12.4
1045+80	NORTH / 19.6	80	12.4	14.4 / 12.4
1047+35 ①	SOUTH / 19.6	390	11.1	14.4 / 12.4

REV. OCT. 86

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29	FLORIDA DEPARTMENT OF TRANSPORTATION	STATE PROJECT NO. 03175-3406	
TO SR 29		COUNTY COLLIER	
TWP: _____	NAME: _____	DER _____	CG _____
RNG: _____	SIGNATURE <i>D. J. Stehney</i>	COE _____	WMD _____
SEC _____	CERTIFICATE NO. _____	SHEET 18 OF 20	
	DATE 2-24-87	DATE AUG. '86	

EXHIBIT 40

TABULATION OF DITCH BLOCKS (PLUGS)

STATION	LOCATION/ MILE POST	LENGTH (FT.)	APPROX. TOP ELEV.	DHW/OHW
1078+00	NORTH / 20.2	50	13.0	14.4 / 12.
1078+10 ^①	SOUTH / 20.2	1190	13.4	14.4 / 12.

LEGEND:

- ① DITCH BLOCK CONSTRUCTED THROUGH NO EXCAVATION
- ② 84" PIPE CULVERT

NOTE:

1. ALL STATIONS ARE B SURVEY AND THE Q OF DITCH BLOCK (PLUG).
2. NORTH/SOUTH DESIGNATES LOCATION RELATIVE TO ROADWAYS.
3. OHW/DHW SHOWN FOR INFORMATIONAL PUPOSES ONLY.

REV. FEB. 87

EXHIBIT 4R

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TO SR 29		NAME: _____		COUNTY COLLIER	
TWP: _____	RNG: _____	SIGNATURE <u>D. W. Stehmer</u>		DER _____	CG _____
SEC _____	CERTIFICATE NO. _____	DATE: <u>2-24-87</u>		COE _____	WMD _____
				SHEET 19 OF 2	DATE AUG. '8

INVOLVEMENT	PERMANENT				TEMPORARY	
	EXCAVATION		FILL		FILL	
	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME
JURISDICTIONAL WETLANDS	12.7	101,719	67.0	536,684	28.8	NC
BORROW LAKE	73.1	907,512	NA	NA	NA	NA

NOTES: AREA IN ACRES, VOLUME IN CUBIC YARDS

TEMPORARY FILL IS WITHIN EXISTING RIGHT-OF-WAY AND WILL BE USED BY THE CONTRACTOR DURING CONSTRUCTION AS A WORK AREA AND FOR STOCKPILING MATERIAL. IT WILL BE RESTORED TO NATURAL ELEVATION UPON COMPLETION OF CONSTRUCTION.

NC - NOT COMPUTED BECAUSE IT WILL BE REMOVED.

REV. FEB. 87

PROJECT DESCRIPTION 6.0 MI. W. OF SR 29		FLORIDA DEPARTMENT OF TRANSPORTATION		STATE PROJECT NO. 03175-3406	
TO SR 29				COUNTY COLLIER	
TWP:	RNG:	NAME:	<i>D. S. Stehmer</i>	DER	CG
SEC		SIGNATURE	<i>D. S. Stehmer</i>	COE	WMD
		CERTIFICATE NO.	DATE. 2-24-87		SHEET 20 OF 20
					DATE AUG. '86

STAFF REPORT DISTRIBUTION LIST

PROJECT I-75/Alligator Alley APPLICATION NUMBER 08076-K, 08116-B, 08116-F

INTERNAL DISTRIBUTION

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Florida Dept. of Trans.
Applicant's Consultant:

Applicant's Agent:

X Engineer, County of
Collier

EXTERNAL DISTRIBUTION CONTINUED

Engineer, City of _____

Local Drainage District

BUILDING AND ZONING

Boca Raton
Boynton Beach
Royal Palm Beach
Tequesta
West Palm Beach

COUNTY

Broward-Dir. Water Mgmt Division
X Collier-Agricultural Agent
Dade-DEEM
Lee-Long Range Planning
-Mosquito Control
-E.P.S.
Martin-Planning and Zoning
Palm Beach-Building Department
-Area Planning Board
-School Brd, Plant Planning
Polk-Water Resources Department

X Fred Vidzes, Big Cypress Basin
Kissimmee River Coordinating Council

Other:

X Corps of Engineers
X Department of Natural Resources
X Florida Audubon Society
X Florida Game and Fresh Water
Fish Commission
X National Park Service
X U.S. Fish and Wildlife Service

EXHIBIT 5

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

P.O. BOX "V"

WEST PALM BEACH, FL. 33402

*****NOTICE OF INTENT TO CONSTRUCT WORKS PURSUANT TO GENERAL PERMIT*****
(CHAPTER 40E-40, FLORIDA ADMINISTRATIVE CODE)

OWNER'S NAME: Florida Department of Transportation 08076-K

MAILING ADDRESS: 605 Suwannee Street, MS-37

Tallahassee Florida 32301-8064 904/487-2780
(CITY) (STATE) (ZIP) (PHONE)

DESCRIPTION OF THE PROPOSED PROJECT:

LOCATION: SEC(S) 1, 1-6, 6 TWP(S) 50S RGE(S) 26E, 27E, 28E

COUNTY Collier TOTAL ACREAGE: 470 (Right-of-Way) ACRES

NUMBER OF DWELLING UNITS OR SQUARE FEET OF COMMERCIAL AREA: _____

EVIDENCE VERIFYING ZONING COMPATIBILITY: (ATTACH DOCUMENT)

PROPOSED MINIMUM ROAD ELEVATION 27.7' NGVD

PROPOSED MINIMUM FLOOR ELEVATION: _____ NGVD

BRIEF DESCRIPTION OF THE WORKS TO-BE CONSTRUCTED OR ALTERED: Construct two 12' travel lanes north of existing SR 84 roadway, excavate canal 15' deep, 60'-80' wide south of existing roadway.

ACREAGE OF IMPERVIOUS COVER: 70.5 ACRES

ACREAGE OF WATER MANAGEMENT AREA: _____ ACRES

INCLUDE PAVING, GRADING & DRAINAGE PLANS, CALCULATIONS, AND, IF USING AN EXFILTRATION SYSTEM, PERCOLATION TESTS.

BRIEF STATEMENT OF FACTS WHICH SHOW WHY THE PROPOSED WORKS QUALIFY FOR A

GENERAL PERMIT: See attached letter

RECEIVED

AUG 07 1986

RESOURCE CONTROL DEPARTMENT

(ADD EXTRA SHEET IF NECESSARY)

DATE CONSTRUCTION OR ALTERATION IS EXPECTED TO COMMENCE: July 1987

I HEREBY CERTIFY THAT ALL NECESSARY FEDERAL, STATE, LOCAL AND SPECIAL DISTRICT AUTHORIZATIONS HAVE BEEN ~~APPLIED~~ applied

OWNER'S SIGNATURE: _____
(IF NOT THE OWNER, CERTIFY BELOW)

I HEREBY CERTIFY THAT I AM AN AUTHORIZED AGENT OF THE OWNER

SIGNATURE: Raymond A. Ashe, Jr. TITLE: Public Transportation Specialist

DATE: August 4, 1986

MEMORANDUM

TO: Jenni Mang, Regulatory Supervisor
FROM: Rae Ann Boylan, Environmental Analyst *RAAB*
DATE: April 1, 1987
SUBJECT: 08076-K, 08116-B, 08116-F; I-75/Alligator Alley
Collier County
Environmental Comments

2861 2 - ... RECEIVED
BIG CYPRESS BASIN
FLA. WATER MANAGEMENT DISTRICT
P. O. BOX 8325
NAPLES, FL 33941
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The proposed works include the construction of twenty miles of interstate highway and associated drainage facilities from S.R. 29 west to the toll booth. The improvements include two additional traffic lanes. A southern borrow/distributor canal will be constructed along with numerous canal plugs, additional culverting and weir structures to promote historic sheetflow to the south. The works also include construction of eight new wildlife crossings.

The project as proposed will impact 192.9 acres of wetlands. An additional 44.5 acres of wetlands will be temporarily disturbed during actual construction. The wetlands to be impacted are primarily cypress forest and mixed hardwood swamp. The eastern segment of these improvements will transect the Fakahatchee Strand. In order to minimize potential adverse environmental impacts, the following items and modifications have been incorporated into the project design. The overall project has been designed to promote and reestablish historic sheetflow in the area. At the present time, processing is underway to purchase approximately 640 acres of wetlands adjacent to the highway. These lands will then be preserved under state ownership. A portion of these wetlands (the northern half section) have been impacted by altered drainage and subsequent wildfires. The reestablishment of sheetflow should enhance these wetlands. In order to minimize potential impacts to the Fakahatchee Strand State Preserve, the southern distributor canal has been significantly reduced in size. A borrow lake has been included in the design to provide the necessary fill material. This lake is to be located in the southwestern section of the S.R. 29 and I-75 intersection. Also, this segment of highway will include eight wildlife crossings. Since automobile accidents represent the cause of significant mortalities of the Florida panther, these wildlife crossings will provide an additional degree of protection for the panther.

Additional activities associated with the project, but not directly related to the actual construction, include combining DOT ROW monies with DOI and DNR funds to add an additional 128,000 acres of lands to the Big Cypress National Preserve. An additional 2,000 acres of lands have been purchased at the

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intersection of I-75 and S.R. 29. A majority of these lands will be set aside for preservation purposes.

In review of the project proposal District staff acknowledges the wetland impacts, the constraints under which DOT must operate, the items and revisions included in the project design to minimize environmental impacts and the general public interest aspects associated with the highway project. In light of these issues the overall project as proposed should have a fair environmental impact.

Recommended Special Condition:

1. Prior to construction activities, detailed plans of the weir structures and appropriate documentation to support the control elevations shall be submitted to District staff for review and approval.

RAB/jr

cc: C. Padera
J. Hall
E. Yaun
✓ R. Edenfield
Inspection

Samples

M E M O R A N D U M

TO: Files

FROM: Rae Ann Boylan, Environmental Analyst *RAB*

DATE: September 5, 1986

SUBJECT: #08076-K, 08116-F, FDOT Alligator
 Collier County Toll Booth to S.R. 29
 Environmental Review (Flight 8/22/86, Field 9/4/86)

The proposed project includes the 4-laning of Alligator Alley from the toll booth east to S.R. 29 (20.0 miles). The proposal includes the excavation of a borrow canal south of the existing road, installation of 8 new wildlife crossings, 4 bridge expansions with adjacent canal plugs, the installation of 8 control structures in the two north-south canals adjacent to Everglades Boulevard, and construction of two east-west bridges south of the Alley.

The project site includes uplands, primarily pine flatwoods and extensive wetlands, primarily cypress systems and mixed hardwood swamps. The project as proposed will impact approximately 165.7 acres of wetlands through excavation of the canal and 165.3 acres through filling. These figures are estimates and need to be verified. As mitigation for these wetland losses the applicant proposes the construction of approximately 14 acres of littoral shelves.

Prior to completion of an environmental review the following information is requested:

1. Please provide an acreage figure for the amount of wetlands to be impacted through excavation. Please provide details of any mitigation proposals to compensate for the total wetland losses, through both excavation and filling.
2. Please provide soil boring data to document that no confining layers will be breached through the canal excavation adjacent to the wetlands.
3. Please provide details of the 8 control structures. Please provide information regarding how the control elevations are to be determined.
4. Please provide a location sketch for the two bridges to be located south of Alligator Alley.

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5. Please provide relevant portions of the Griner Study regarding the selection of the canal plug locations in relationship to the re-establishment of sheetflow to the south.

RAB/jr

cc: C. Padera
J. Hall
F. Vidzes
E. Yaun
J. Mang
R. Edenfield
✓ Inspection