

COMPONENTS OF CONTRACT PLANS SET

ROADWAY
SIGNING AND PAVEMENT MARKING
STRUCTURES

A DETAILED INDEX APPEARS ON THE
KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

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16-17	GENERAL NOTES
18-33	PLAN SHEETS
34-43	PROFILE SHEETS
44-147	CROSS SECTION
148-160	TRAFFIC CONTROL PLANS
B1-1 - B1-16	STRUCTURES PLANS
B1E-1 - B1E-16	STRUCTURES PLANS

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED JANUARY 2006,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2004,
AS AMENDED BY CONTRACT DOCUMENTS.

CONTRACT PLANS REVISIONS

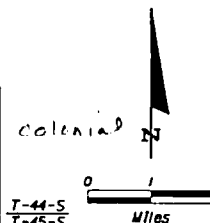
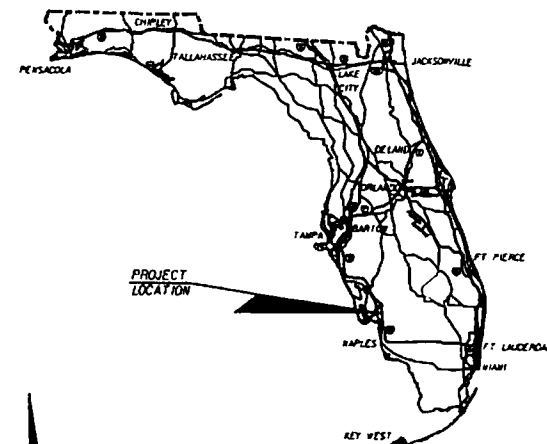
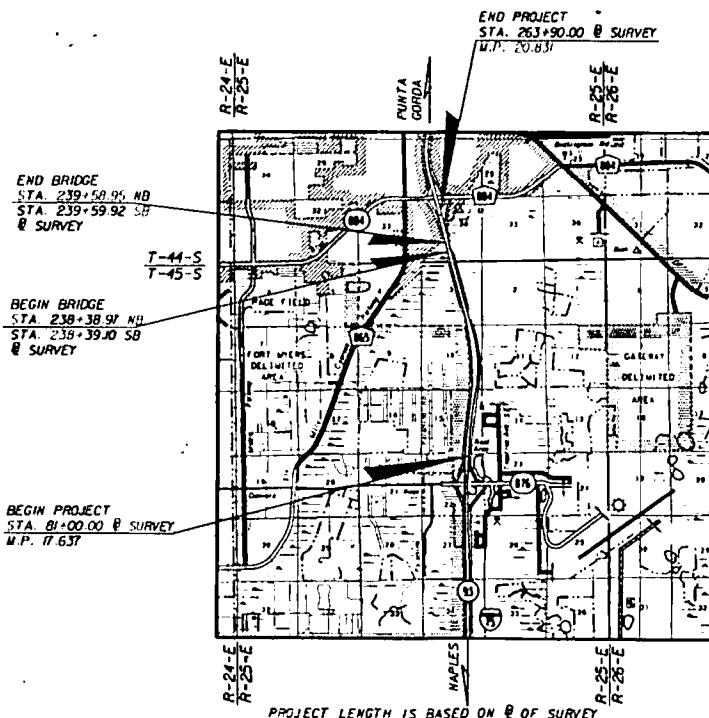
FINANCIAL PROJECT ID 41035-1-52-01
COMPONENT SHEET

Revised Date:

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 41035-1-52-01
(FEDERAL FUNDS)
LEE COUNTY (12075)
STATE ROAD NO. 93



HNTB

9/01/05

ROADWAY SHOP DRAWINGS
TO BE SUBMITTED TO:
DOUGLAS J. BURKHART, P.E.
10210 HIGHLAND MANOR DRIVE
SUITE 140
TAMPA, FL 33610
(813) 246-5527

PLANS PREPARED BY:
10210 HIGHLAND MANOR DR.
SUITE 140
TAMPA, FL 33610
(813) 246-5527
VENDOR ID NO. VF-43-1694597
CONTRACT ID NUMBER: C-7282
CERT. OF AUTH. NO. 6500

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	18169.82	3.441
BRIDGES	120.00	0.023
NET LENGTH OF PROJECT	18289.82	3.463
EXCEPTIONS	N/A	N/A
GROSS LENGTH OF PROJECT	18289.82	3.463

FDOT PROJECT MANAGER: NICOLE MILLS, P.E.

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

ROADWAY PLANS
ENGINEER OF RECORD: DOUGLAS J. BURKHART

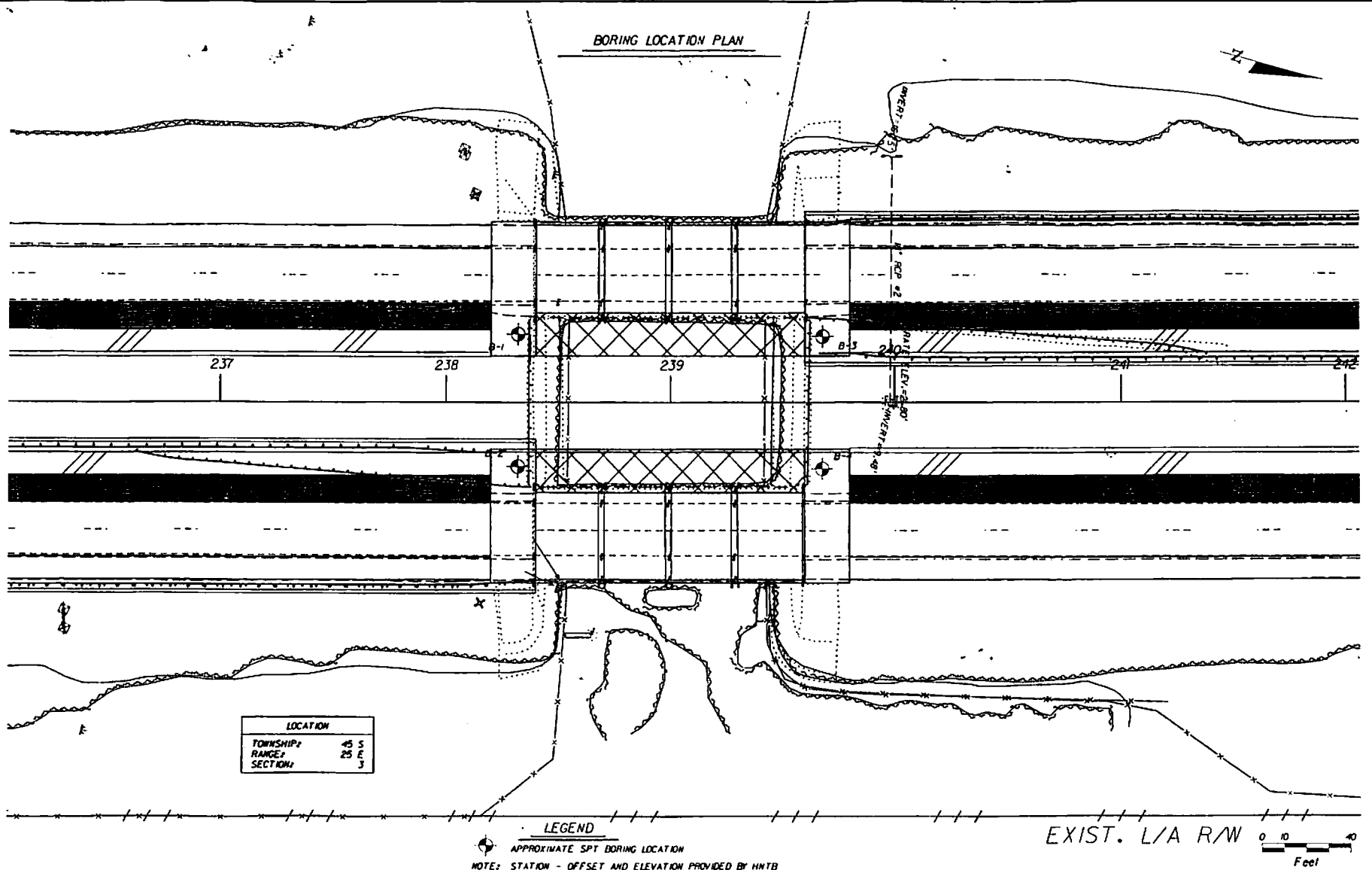
P.E. NO. 46796

FISCAL YEAR	SHEET NO.
08	1

PHASE I SUBMITTAL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6805-23.001, F.A.C.

BORING LOCATION PLAN



LOCATION	
TOWNSHIP	45 S
RANGE	25 E
SECTION	3

LEGEND

 APPROXIMATE SPT BORING LOCATION
 NOTE: STATION - OFFSET AND ELEVATION PROVIDED BY HNTB

EXIST. L/A R/W

0 10 20
Feet

REVISIONS						TIERRA Geotechnical and Materials Engineering 7805 Professional Place Tampa, FL 33637 P.O. Box 1384 FL 33611-1384 P.E. No. 6496 Engineer of Record since 7/2009, P.E. No. 155420	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		REPORT OF CORE BORINGS (I)	SHEET NO. BI-4
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY		
							SR 93	LEE	FINANCIAL PROJECT ID 411035-1-52-01	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 605-21.003, F.A.C.

BOR #
STA.
REF.
OFF.
ELEV.
DATE
DRILLER
HAMMER
RIG

B-1
238+32
B/L SURVEY
30' RT
25.0
3/23/2005
A. TORRES
SAFETY
CME-45

BOR #
STA.
REF.
OFF.
ELEV.
DATE
DRILLER
HAMMER
RIG

B-2
238+32
B/L SURVEY
28' RT
24.8
3/23/2005
A. TORRES
SAFETY
CME-45

Latitude: 26.60292702 North
Longitude: -81.80028787 West

LEGEND

BROWN TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP/SP-SM)

BLUE GREEN SILTY CLAY (CL)

INDURATED CLAYEY SILT (ML)

GREEN SILT (MH)

WEATHERED Limestone

GRAY SILTY SAND (SM)

SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2488)
GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

GW GROUNDWATER LEVEL

N NUMBERS TO THE LEFT OF BORINGS INDICATE
SPT VALUE FOR 12 INCHES OF PENETRATION
(UNLESS OTHERWISE NOTED).

-200 FINES PASSING THE #200 STANDARD SIEVE (%)

LL LIQUID LIMIT (%)

PL PLASTIC LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

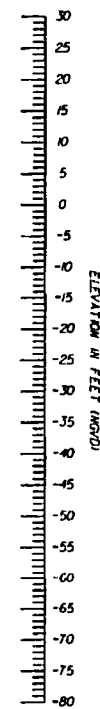
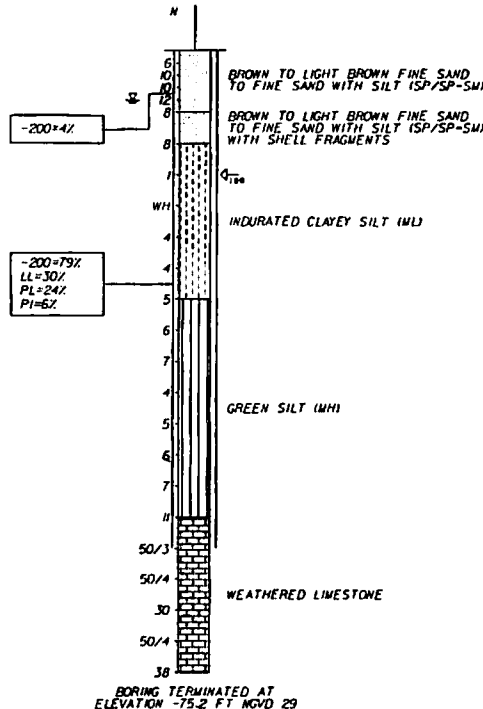
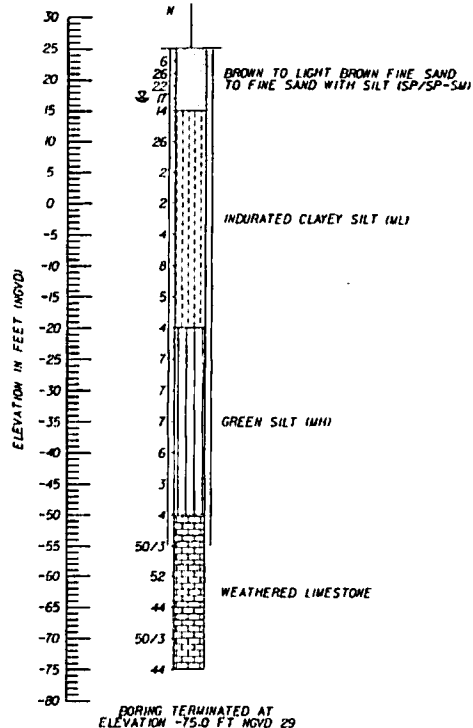
Q₁₀₀ LOSS OF CIRCULATION OF DRILLING FLUID (%)

CASING

50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION

WH FELL UNDER WEIGHT OF ROD AND HAMMER

MGVD 29 NATIONAL GEODETIC VERTICAL DATUM OF 1929



ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: MODERATELY AGGRESSIVE
(500 OHMS-CM < RESISTIVITY < 3,000 OHMS-CM)
SUBSTRUCTURE STEEL: MODERATELY AGGRESSIVE
(1500 OHMS-CM < RESISTIVITY < 3,000 OHMS-CM)
SUPERSTRUCTURE SLIGHTLY AGGRESSIVE
WATER RESULTS:
RESISTIVITY 2,500 OHMS-CM
CHLORIDES 92 PPM
SULFATES 4.8 PPM
PH 7.3
SOIL RESULTS:
RESISTIVITY 20,000 - 32,000 OHMS-CM
CHLORIDES 15 PPM
SULFATES 14.4 - 17.1 PPM
PH 6.9 - 7.0

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5 TO 10
MEDIUM	11 TO 30
DENSE	31 TO 50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3 TO 4
FIRM	5 TO 9
STIFF	9 TO 15
VERY STIFF	16 TO 30
HARD	GREATER THAN 30

REVISIONS			
DATE	BY	DESCRIPTION	

TERRA
Geotechnical and Materials Engineering
1805 Professional Plaza
Tampa, FL 33637
(813) 989-1354
FAX (813) 989-1355
E-MAIL: info@terraeng.com

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT NO.
SR 93	LEE	41035-1-52-01

REPORT OF CORE BORINGS (2)

SHEET
NO.
BI-5

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 6A-09-21.001, F.A.C.

Latitude: 26.60292702 North
Longitude: -81.80028787 West

LEGEND

BROWN TO LIGHT BROWN FINE SAND TO FINE SAND WITH SILT (SP/SP-SM)

BLUE GREEN SILTY CLAY (CL)

INDURATED CLAYEY SILT (ML)

GREEN SILT (MH)

WEATHERED LIMESTONE

GRAY SILTY SAND (SM)

SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2488) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

GROUNDWATER LEVEL

N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).

-200 FINES PASSING THE #200 STANDARD SIEVE (%)

LL LIQUID LIMIT (%)

PL PLASTIC LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

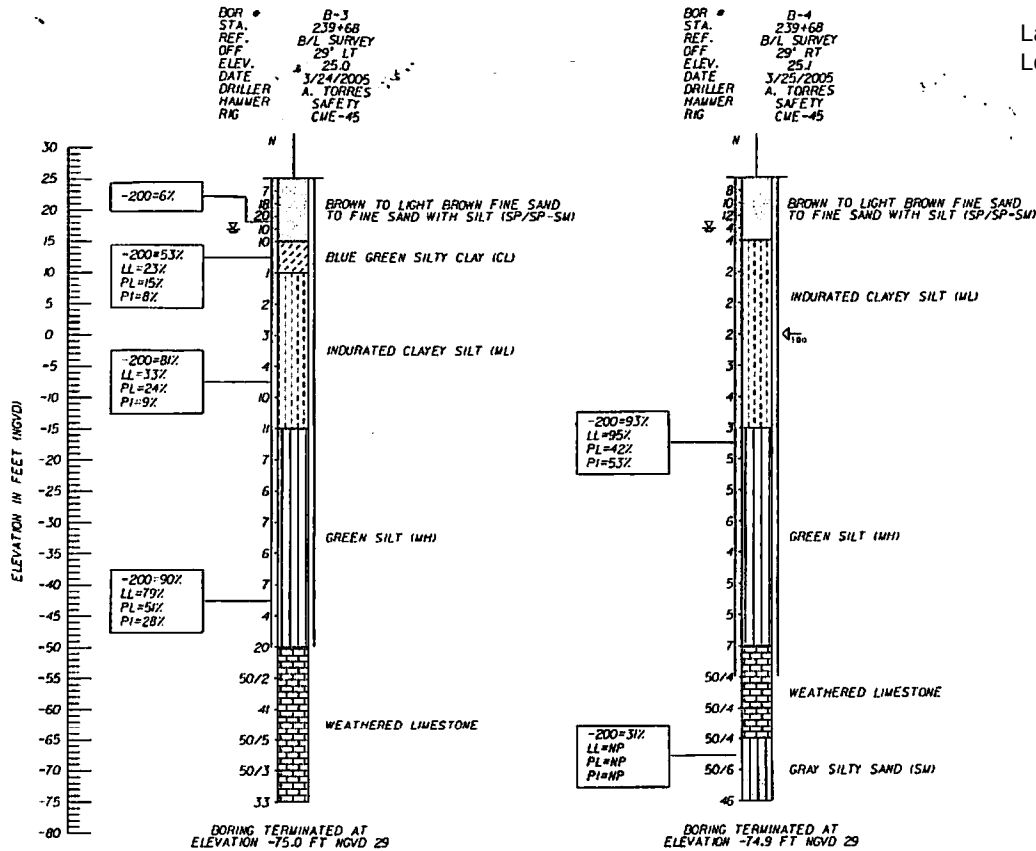
LOSS OF CIRCULATION OF DRILLING FLUID (%)

CASING

50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION

WN FELL UNDER WEIGHT OF ROD AND HAMMER

NGVD 29 NATIONAL GEODETIC VERTICAL DATUM OF 1929



ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: MODERATELY AGGRESSIVE
1500 OHMS-CM < RESISTIVITY < 3,000 OHMS-CM

SUBSTRUCTURE STEEL: MODERATELY AGGRESSIVE
1500 OHMS-CM < RESISTIVITY < 3,000 OHMS-CM

SUPERSTRUCTURE SLIGHTLY AGGRESSIVE

WATER RESULTS:
RESISTIVITY 2,500 OHMS-CM
CHLORIDES 92 PPM
SULFATES 4.8 PPM
pH 7.3

SOIL RESULTS:
RESISTIVITY 20,000 - 32,000 OHMS-CM
CHLORIDES 15 PPM
SULFATES 14.4 - 17.1 PPM
pH 6.9 - 7.0

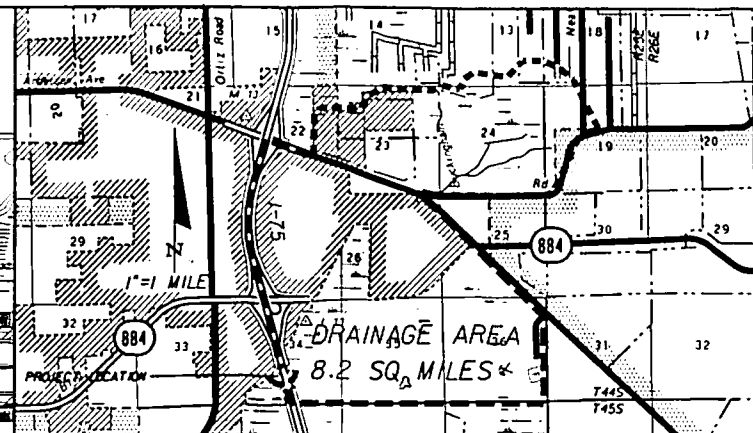
GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5 TO 10
MEDIUM	11 TO 30
DENSE	31 TO 50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3 TO 4
FIRM	5 TO 9
STIFF	9 TO 15
VERY STIFF	16 TO 30
HARD	GREATER THAN 30

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	FINANCIAL PROJECT ID	
						SR 93 LEE 411035-1-52-01	BI-6

TIERRA
Geotechnical and Materials Engineering
7805 International Place
Tampa, Florida 33637
(813) 988-1554
FL Cert No. 6486
Engineers of Record (Stamp V. Jolly, P.E., No. 55420)

REPORT OF CORE BORINGS (3)

NOTES: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 60G-23.001, F.A.C.



	EXISTING STRUCTURES		PROPOSED STRUCTURE
	SB (12018)	NB (12019)	
(REFERENCE)	CONC PILES	CONC PILES	CONC PILES
FOUNDATION	180"	180"	180"
OVERALL LENGTH	4 AT 30'	4 AT 30'	4 AT 30'
SPAN LENGTH	CONCRETE	CONCRETE	CONCRETE
TYPE CONSTRUCTION	45 S.F.	45 S.F.	45 S.F.
AREA OF OPENING C.D.F.	42.8'	42.8'	42.8'
BRIDGE WIDTH	22.49'	22.49'	22.49'
ENV. LOW MEMBER			

NOTE: The hydraulic data is shown for informational purposes only to indicate the flood discharges and water surface elevations which may be anticipated in any given year. This data was generated using highly variable factors determined by a study of the watershed. Many judgments and assumptions are required to establish these factors. The resultant hydraulic data is sensitive to changes, particularly antecedent conditions, urbanization, channelization and land use. Users of this data are cautioned against the assumption of precision which cannot be obtained.

TERMS:
Design Flood: Utilized to assure a desired level of hydraulic performance.
Base Flood: Has a 1% chance of being exceeded in any given year (100 year frequency).
Overlapping Flood: Causes flow over the highway, over glaciated slide, or emergency relief structures.
Greatest Flood: The most severe that can be predicted where overlapping is not practicable.

WATER SURFACE ELEVATIONS: N.H.W. (Non-Tidal)		M.H.S.	M.H.W. (Tidal)		
CONTROL (Non-Tidal)					
FLOOD DATA:		DESIGN FLOOD	BASE FLOOD	☐ OVERTOPPING OF ☒ GREATEST FLOOD	
STAGE ELEV. HIGD (1)	MAX. EVENT OF RECORD	30.00	27.30		
DISCHARGE (MGD)		94	50		
AVERAGE VELOCITY (FPS)		0.98	1.26	1.30	
EXCEEDANCE PROB. (%)		0.8	1.0	0.8	
FREQUENCY (yr.)		50	100	500	
SCOUR PREDICTIONS FOR PROPOSED STRUCTURE DESCRIBED ABOVE:					
PIER INFORMATION		TOTAL SCOUR ELEVATION			
NUMBERS	SIZE AND TYPE	LONG TEAM	WORST CASE	< 100 yr.	WORST CASE
8-1	1" CONC. PIERS	M.O.	FREQ. 100	100	FREQ. 100
			0.9		0.2

HYDRAULIC RECOMMENDATIONS

1. BEGIN BRIDGE STATION	630+39.40 USB = 0.00M 630+38.50 OF 1000 = 0.00M	END BRIDGE STATION	630+39.50 USB = 0.00M 630+38.50 OF 1000 = 0.00M	SKEW ANGLE	0°
2. CLEARANCE PROVIDED:	NAY: HORIZ: 28.5' VERT: 3.0'	ABOVE EL.	86.5'	DRAFT: HORIZ: 28.5' VERT: 1.8'	ABOVE EL. 30.80'
3. MINIMUM CLEARANCE:	NAY: HORIZ: 10.0' VERT: 6.0'	ABOVE EL.	86.5'	DRAFT: HORIZ: N/A VERT: 2.0'	ABOVE EL. 30.80'
4. ABUTMENTS:	SPILL-THROUGH SLOPE ABUTMENT				
	RUBBLE GRADE:	BEGIN BRIDGE	SAND-CEMENT	END BRIDGE	SAND-CEMENT
	SLOPE:	1.5 : 1		1.5 : 1	
	BURIED OR NON-BURIED HORIZ. TOE:	BURIED		BURIED	
	TOE HORIZ. DISTANCE:	15'		15'	
	LIMIT OF PROTECTION:	A		B	
5. DECK DRAINAGE:	SPREAD IS CONTAINED IN SHOULDER RUN OFF IS DISCHARGED THROUGH 4" SCUPPERS ON Q CENTER SPACINGS				

REMARKS: WDS REGRESSION EQUATION REGION A WAS USED TO CALCULATE DISCHARGES.
DRAINAGE BASIN INCLUDES 2.90 MILES OF AREA NORTH OF SR 80.

BRIDGE NOS. SB 11250A NB 11250B

234 235 236 237 238 239 240 241 242 243 244

21.44 21.52 21.62 21.71 21.85 21.94 25.04 25.15 25.20

30

20

10

21.81 21.82 21.83 21.84 21.85 21.86 21.87 21.88 21.89 21.90 21.91 21.92 21.93 21.94 21.95 21.96 21.97 21.98 21.99 22.00 22.01 22.02 22.03 22.04 22.05 22.06 22.07 22.08 22.09 22.10 22.11 22.12 22.13 22.14 22.15 22.16 22.17 22.18 22.19 22.20 22.21 22.22 22.23 22.24 22.25 22.26 22.27 22.28 22.29 22.30 22.31 22.32 22.33 22.34 22.35 22.36 22.37 22.38 22.39 22.40 22.41 22.42 22.43 22.44 22.45 22.46 22.47 22.48 22.49 22.50 22.51 22.52 22.53 22.54 22.55 22.56 22.57 22.58 22.59 22.60 22.61 22.62 22.63 22.64 22.65 22.66 22.67 22.68 22.69 22.70 22.71 22.72 22.73 22.74 22.75 22.76 22.77 22.78 22.79 22.80 22.81 22.82 22.83 22.84 22.85 22.86 22.87 22.88 22.89 22.90 22.91 22.92 22.93 22.94 22.95 22.96 22.97 22.98 22.99 23.00 23.01 23.02 23.03 23.04 23.05 23.06 23.07 23.08 23.09 23.10 23.11 23.12 23.13 23.14 23.15 23.16 23.17 23.18 23.19 23.20 23.21 23.22 23.23 23.24 23.25 23.26 23.27 23.28 23.29 23.30 23.31 23.32 23.33 23.34 23.35 23.36 23.37 23.38 23.39 23.40 23.41 23.42 23.43 23.44 23.45 23.46 23.47 23.48 23.49 23.50 23.51 23.52 23.53 23.54 23.55 23.56 23.57 23.58 23.59 23.60 23.61 23.62 23.63 23.64 23.65 23.66 23.67 23.68 23.69 23.70 23.71 23.72 23.73 23.74 23.75 23.76 23.77 23.78 23.79 23.80 23.81 23.82 23.83 23.84 23.85 23.86 23.87 23.88 23.89 23.90 23.91 23.92 23.93 23.94 23.95 23.96 23.97 23.98 23.99 24.00 24.01 24.02 24.03 24.04 24.05 24.06 24.07 24.08 24.09 24.10 24.11 24.12 24.13 24.14 24.15 24.16 24.17 24.18 24.19 24.20 24.21 24.22 24.23 24.24 24.25 24.26 24.27 24.28 24.29 24.30 24.31 24.32 24.33 24.34 24.35 24.36 24.37 24.38 24.39 24.40 24.41 24.42 24.43 24.44 24.45 24.46 24.47 24.48 24.49 24.50 24.51 24.52 24.53 24.54 24.55 24.56 24.57 24.58 24.59 24.60 24.61 24.62 24.63 24.64 24.65 24.66 24.67 24.68 24.69 24.70 24.71 24.72 24.73 24.74 24.75 24.76 24.77 24.78 24.79 24.80 24.81 24.82 24.83 24.84 24.85 24.86 24.87 24.88 24.89 24.90 24.91 24.92 24.93 24.94 24.95 24.96 24.97 24.98 24.99 25.00 25.01 25.02 25.03 25.04 25.05 25.06 25.07 25.08 25.09 25.10 25.11 25.12 25.13 25.14 25.15 25.16 25.17 25.18 25.19 25.20 25.21 25.22 25.23 25.24 25.25 25.26 25.27 25.28 25.29 25.30 25.31 25.32 25.33 25.34 25.35 25.36 25.37 25.38 25.39 25.40 25.41 25.42 25.43 25.44 25.45 25.46 25.47 25.48 25.49 25.50 25.51 25.52 25.53 25.54 25.55 25.56 25.57 25.58 25.59 25.60 25.61 25.62 25.63 25.64 25.65 25.66 25.67 25.68 25.69 25.70 25.71 25.72 25.73 25.74 25.75 25.76 25.77 25.78 25.79 25.80 25.81 25.82 25.83 25.84 25.85 25.86 25.87 25.88 25.89 25.90 25.91 25.92 25.93 25.94 25.95 25.96 25.97 25.98 25.99 26.00

END BENT 5
PIER 4
PIER 3
PIER 2
END BENT 1

RAIS. RIRRAP

EXISTING GRADE AT SURVEY

LOW CHORD ELEV. = 122.49

EXISTING GRADE AT RIGHT LA RW

EXISTING GRADE AT LEFT LA RW

50 YEAR FLOOD ELEV. = 20.68

HIGH ELEV. = 18.65

PRESENT WATER ELEV. = 17.4 1/22/2005

LOW EDGE OF PAVEMENT FGL

1" = 100' HORIZ.
1" = 10' VERT.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

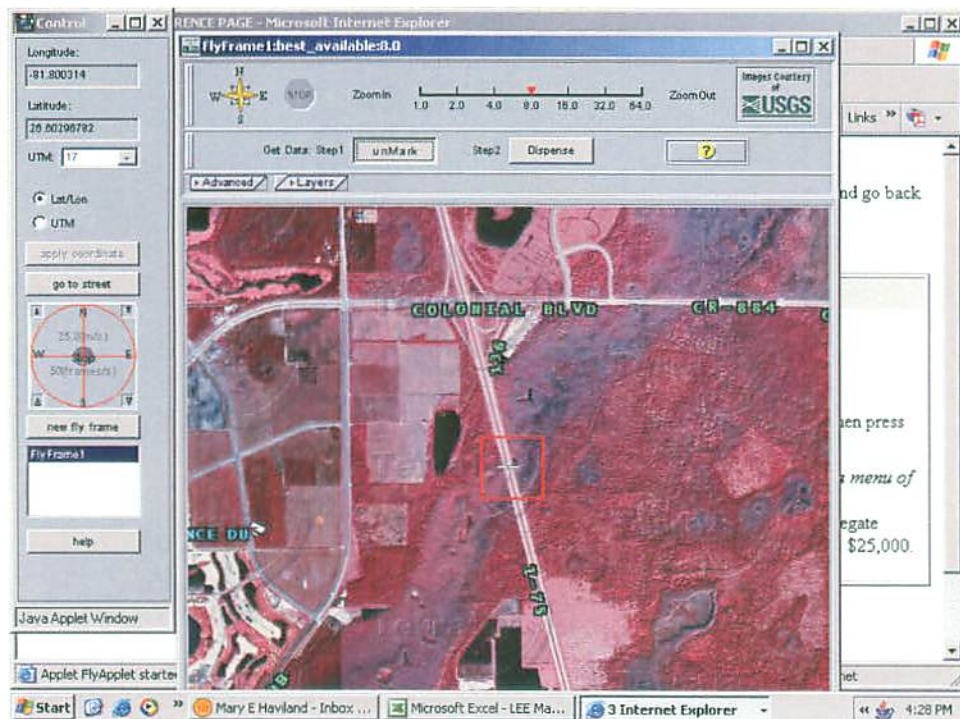
HNTB 10210 HIGHLAND MANOR
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CERT OF AUTH No 6500

DOUGLAS J BURKHART, P.E. No 40900

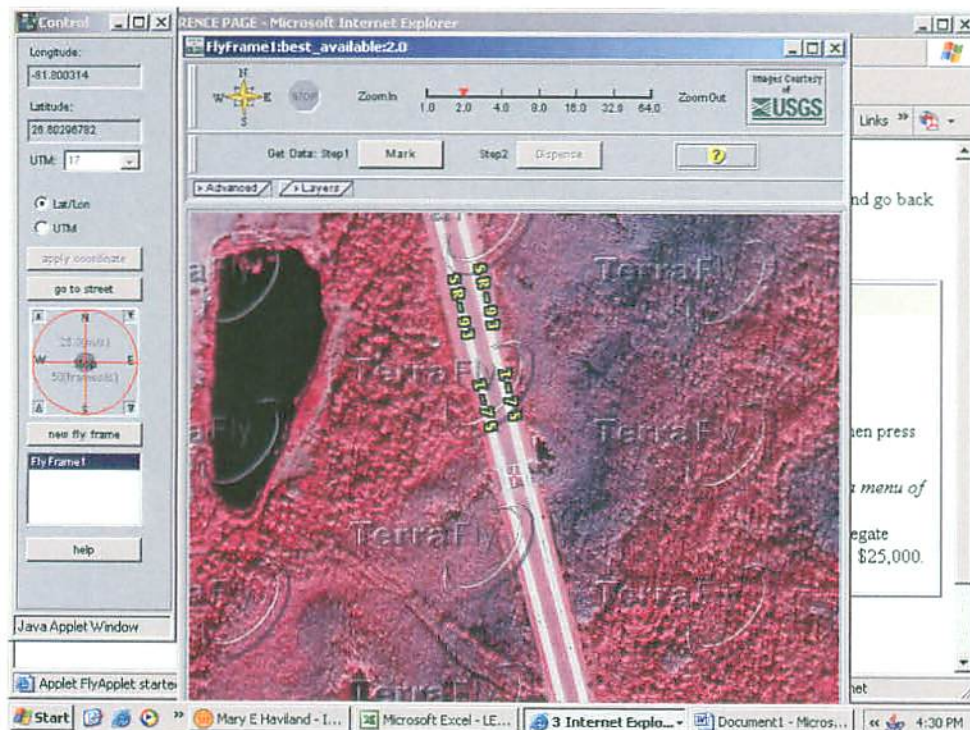
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
93	LEE	411035-1-52-01

BRIDGE HYDRAULIC RECOMMENDATIONS	SHEET NO.
	BI-4

SIX MILE CYPRESS BRIDGE Br # 120119, 120118



Approx 3600 ft S/O Colonial Blvd/I 75 Lee Co PFN: 411035-1





**Six-Mile Cypress Slough,
Bridge Hydraulic Report**

Drawn by:
CAS

Date:
1/9/2006



**Figure 1:
Location Map
Digital Orthoquad**

Scale: NTS