

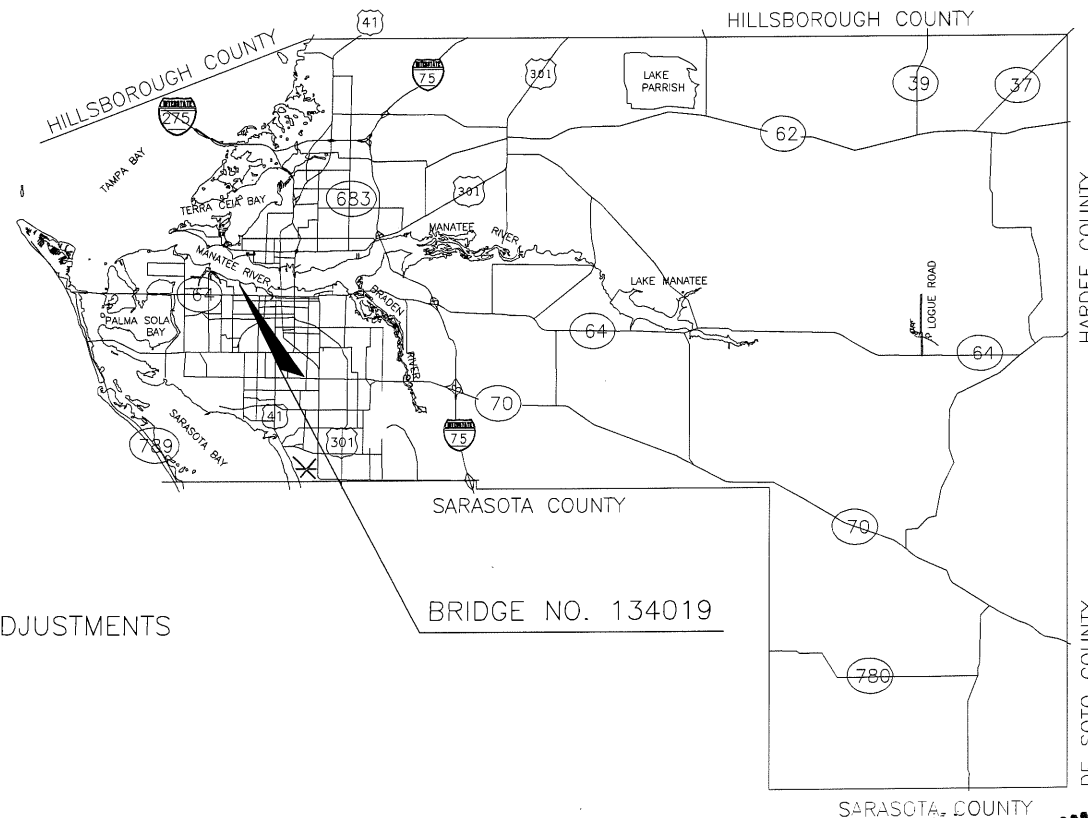
# RIVERVIEW BOULEVARD BRIDGE OVER McLEWIS BAYOU

## BRIDGE NO. 134019

### MANATEE COUNTY PROJECT NO. 6013260

NO. INDEX OF SHEETS

1	KEY SHEET
2	SUMMARY OF QUANTITIES
3	GENERAL NOTES
4	ROADWAY TYPICAL SECTION
5	PLAN & PROFILE
6-8	CROSS SECTIONS
9	DETOUR PLAN
10	BRIDGE PLAN & ELEVATION
11	REPORT OF CORE BORINGS
12	FOUNDATION LAYOUT
13	STEEL SHEET PILE RETAINING WALL
14	STEEL SHEET PILE RETAINING WALL DETAILS
15	END BENTS 1 & 2
16	END BENT DETAILS
17	SUPERSTRUCTURE TYPICAL SECTION
18	FRAMING PLAN
19	APPROACH SLAB DETAILS
20	REINFORCING BAR LIST
21	WATER MAIN & FORCE MAIN RELOCATIONS, AND UTILITY ADJUSTMENTS
22	UTILITY RELOCATION GENERAL NOTES & DETAILS
23	PROPOSED DREDGING PLAN



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. DO NOT USE SCALED DATA.

PLANS PREPARED BY:



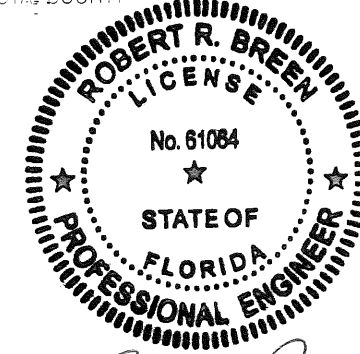
www.wadetrिम.com Building relationships on a foundation of excellence  
 8745 HENDERSON ROAD, SUITE 220  
 TAMPA, FLORIDA 33634  
 813.882.8396 FAX 813.884.5990  
 CONTRACT NO. C-092826TC  
 VENDOR NO. 56-2417170  
 CERTIFICATE OF AUTHORIZATION NO. 3952

ENGINEER OF RECORD:  
 ROBERT R. BREEN, PE

ROADWAY PLANS  
 APPROVED BY: ROBERT R. BREEN

DATE: 12/08/10

P.E. NO.: 61064



LENGTH OF PROJECT	
	FEET
ROADWAY	340'
BRIDGE	35'
NET LENGTH OF PROJ.	375'
EXCEPTIONS	N/A
GROSS LENGTH OF PROJ.	375'

MANATEE COUNTY PROJECT MANAGER : STEVE SERBATY

GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION,  
 DESIGN STANDARDS DATED 2010 ALONG  
 WITH CURRENT STANDARDS MODIFICATIONS

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE  
 CONSTRUCTION DATED 2010, AS AMENDED BY  
 CONTRACT DOCUMENTS

MANATEE COUNTY TRANSPORTATION DEPARTMENT  
 HIGHWAY & DRAINAGE STANDARDS DATED JUNE, 2007

MANATEE COUNTY UTILITY STANDARDS AND SPECIFICATIONS  
 DATED MARCH, 2009.

REVISIONS



PREPARED BY:



**WaDeTrim**

www.wadetrin.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8368 FAX 813.884.5690  
 Certificate of Authorization No. 3962

RIVERVIEW BOULEVARD BRIDGE OVER MCLEWIS BAYOU

BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

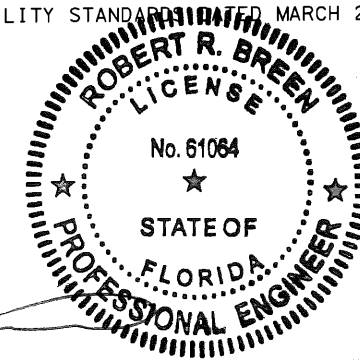
ITEM NO.	FDOT PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	101-1	MOBILIZATION	LS	1
2	102-1	MAINTENANCE OF TRAFFIC	LS	1
3	104-10-3	SEDIMENT BARRIER	LF	740
4	104-11	TURBIDITY BARRIER FLOATING	LF	233
5	104-18	INLET PROTECTION SYSTEM	EA	1
6	110-1-1	CLEARING AND GRUBBING	LS	1
7	110-3	REMOVAL OF EXISTING STRUCTURE	LS	1
8	110-7-1	MAILBOX, F&I SINGLE	EA	1
9	120-1	REGULAR EXCAVATION	CY	134
10	120-5	CHANNEL EXCAVATION	CY	135
11	120-6	EMBANKMENT	CY	64
12	160-4	TYPE B STABILIZATION	SY	1108
13	285-701	OPTIONAL BASE, GROUP 01	SY	222
14	285-706	OPTIONAL BASE, GROUP 06	SY	706
15	334-1-12	ASPHALTIC CONCRETE, TRAFFIC B, SUPERPAVE	TN	123.2
16	339-1	MISCELLANEOUS ASPHALT PAVEMENT	TN	8.2
17	400-2-10	CONCRETE CLASS II (APPROACH SLABS)	CY	82
18	400-4-4	CONCRETE CLASS IV (SUPERSTRUCTURE)	CY	25
19	400-4-5	CONCRETE CLASS IV (SUBSTRUCTURE)	CY	136
20	400-7	BRIDGE FLOOR GROOVING	SY	125
21	415-1-4	REINFORCING STEEL (SUPERSTRUCTURE)	LB	1573
22	415-1-5	REINFORCING STEEL (SUBSTRUCTURE)	LB	13383
23	415-1-9	REINFORCING STEEL (APPROACH SLABS)	LB	15618
24	450-3-25	PRESTRESSED SLAB UNITS, WIDTH 60", THICKNESS 15" (7 PIECES)	LF	244
25	455-14-3	CONCRETE SHEET PILING, 10"x30" (57 PIECES)	LF	920
26	455-14-5	CONCRETE SHEET PILING, SPECIAL, CORNER (5 PIECES)	LF	100
27	455-34-5	PRESTRESSED CONCRETE PILING, 24" SQ	LF	280
28	455-133-3	STEEL SHEET PILING (PERMANENT)	SF	2825
29	455-143-5	TEST PILES-PRESTRESSED CONCRETE, 24" SQ	LF	70
30	458-1-11	BRIDGE DECK EXPANSION JOINT, F & I, POURED JOINT WITH BACKER ROD	LF	70
31	460-70-1	ALUMINUM BULLET RAILING - SINGLE RAIL	LF	380
32	521-5-1	CONCRETE TRAFFIC RAILING, BRIDGE 32" F SHAPE	LF	380
33	522-2	SIDEWALK CONCRETE, 6" THICK	SY	31
34	530-3-3	RIP RAP-RUBBLE, BANK AND SHORE	TN	50.2
35	530-3-4	RIP RAP-RUBBLE, DITCH LINING	TN	38.9
36	530-74	BEDDING STONE	TN	27.1
37	536-1-1	GUARDRAIL, ROADWAY	LF	162.5
38	536-85-24	GUARDRAIL END ANCHORAGE ASSEMBLY-PARALLEL	EA	2
39	544-75-40	CRASH CUSHION - OPTIONAL	EA	2
40	570-1-2	PERFORMANCE TURF, SOD	SY	371
41	700-20-11	SINGLE POST SIGN, FURNISH & INSTALL	AS	2
42	700-20-60	SINGLE POST SIGN, REMOVE	EA	4
43	705-10-3	OBJECT MARKER, TYPE 3	EA	4
44	706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	EA	18
45	711-11-111	THERMOPLASTIC, STANDARD, WHITE, SOLID 6"	NM	0.14
46	711-11-211	THERMOPLASTIC, STANDARD, YELLOW, SOLID 6"	NM	0.14
47	1000-7	UTILITY WORK - POWER	LS	1
48		UTILITY COORDINATION	LS	1
49		MISCELLANEOUS WORK AND CLEAN UP	LS	1
		DISCRETIONARY WORK (ROADWAY)		

50		LEAK DETECTION VALVE AND MANHOLE, 8"	EA	1
51		UTILITY PIPE, DIRECTIONAL BORE, HDPE DR-11 CLASS 160, WATER, 8.0"	LF	368
52		UTILITY PIPE, REMOVE & DISPOSE, 8.0"	LF	354
53		UTILITY FIXTURES, F&I, 8.0", 45 DEGREE BEND	EA	4
54		UTILITY FIXTURES, F&I, 8.0", GATE VALVE ASSEMBLY	EA	1
		DISCRETIONARY WORK (WATERMAIN)		

55		UTILITY PIPE, DIRECTIONAL BORE, HDPE DR-11 CLASS 160, SEWER, 4.0"	LF	325
56		UTILITY PIPE, REMOVE & DISPOSE, 4.0"	LF	305
57		UTILITY FIXTURES, F&I, 4.0", PLUG VALVE ASSEMBLY	EA	2
58		UTILITY FIXTURES, F & I, 4.0", 45 DEGREE BEND	EA	4
59		ABOVE GROUND AIR RELEASE VALVE ASSY. FOR FORCE MAINS	EA	1
60		ADJUST MANHOLE TOP, SANITARY	EA	1
		DISCRETIONARY WORK (SANITARY SEWER)		

PAY ITEM NOTES:

- 102-1 INCLUDES ALL LABOR, MATERIALS, AND TRAFFIC CONTROL DEVICES ASSOCIATED WITH MOT INCLUDING DETOURS. SEE SHEET 9 FOR DETOUR PLAN
- 110-1-1 CLEARING AND GRUBBING SHALL INCLUDE THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING ASPHALT PAVEMENT, EXISTING CONCRETE PAVEMENT, GUARDRAIL, CONCRETE POST AND TREES. THIS PAY ITEM ALSO INCLUDES THE SELECTIVE CLEARING OF EXOTIC AND NUISANCE SPECIES IDENTIFIED BY THE ENGINEER.
- 110-3 REMOVAL OF EXISTING STRUCTURES SHALL INCLUDE THE COST OF REMOVAL AND DISPOSAL OF THE EXISTING CONCRETE BRIDGE, INCLUDING BUT NOT LIMITED TO PILES, ABUTMENTS, RETAINING WALLS AND RIP RAP.
- 120-5 SHALL INCLUDE ALL WORK DESCRIBED IN THE DREDGING GENERAL NOTES SHEET 23 FOR REQUIREMENTS IN RELATIONSHIP TO CHANNEL EXCAVATION.
- 160-4 INCLUDES 12 SY FOR TURNOUT CONSTRUCTION AND ALL REQUIRED LABOR FOR PLACEMENT OF MATERIALS
- 285-701
- 334-1-12 INCLUDES 2 TONS FOR TURNOUT CONSTRUCTION AND ALL REQUIRED LABOR FOR PLACEMENT OF MATERIALS.
- 450-3-25 PRESTRESSED SLAB UNITS SHALL INCLUDE THE COST OF THE POST TENSIONING SYSTEM AND THE NON-SHRINK GROUT REQUIRED FOR ASSEMBLY.
- 455-14-3 PRECAST CONCRETE SHEET PILE SHALL INCLUDE ALL LABOR AND MATERIALS, INCLUDING FILTER CLOTH AND PRESSURE GROUTING AS SHOWN IN THE PLANS.
- 455-14-5
- 455-133-3 STEEL SHEET PILES SHALL INCLUDE ALL LABOR AND MATERIALS. IT SHALL INCLUDE THE JOINT WATERPROOFING AT THE INTERFACE WITH THE CONCRETE SHEET PILING. HEADED WELDED STUDS ATTACHED TO THE SHEET PILE FACES SHALL BE INCLUDED IN THIS PAY ITEM.
- 455-143-5 TEST PILES (24" SQ) WILL BE PAID FOR BASED ON THE LENGTH OF PILING FURNISHED AND DRIVEN. THE COUNTY WILL INCUR THE COST OF THE PDA TESTING REQUIRED TO DEVELOP THE DRIVING CRITERIA. ANY REQUIRED PILE SPLICES SHALL BE INCIDENTAL.
- 521-5-1 THE COST OF THE ADDITIONAL CONCRETE USED FOR THE ONE FOOT VERTICAL EXTENSION OF THE TRAFFIC RAILING ALONG THE ROADWAY PORTION (AS SHOWN ON SHEET 14) SHALL BE INCLUDED IN THE UNIT PRICE.
- 522-2 ITEM IS TO PROVIDE FOR THE CONSTRUCTION OF CONCRETE TURNOUTS AND ALL REQUIRED LABOR FOR PLACEMENT OF MATERIALS.
- 536-1-1 SHALL INCLUDE THE COST FOR BRIDGE ANCHORAGE ASSEMBLY, THRIE BEAM PANELS, NESTED PANELS, W-THRIE BEAM TRANSITION PANEL, BACK UP PLATE, FILLER PLATE AND ACCESSORIES. REFER TO FDOT STANDARD INDEX 400 SHEET 13 OF 26 FOR MORE INFORMATION REGARDING PRICE, PAYMENT AND INSTALLATION.
- 570-1-2 SHALL INCLUDE ALL ASSOCIATED LABOR, COST AND MATERIALS FOR MOWING AND LITTER REMOVAL ASSOCIATED WITH THIS ITEM.
- 1000-7 SHALL INCLUDE ALL REQUIRED LABOR AND PLACEMENT OF MATERIALS FOR FURNISHING AND INSTALLING ELECTRIC SERVICE CONNECTION TO THE EXISTING LIFT STATION AND THE REMOVAL AND DISPOSAL OF THE EXISTING ELECTRIC SERVICE CONNECTION INCLUDING ALL ASSOCIATED ITEMS. REFER TO MANATEE COUNTY PUBLIC WORKS UTILITY STANDARD SPECIFICATIONS MARCH 2009 FOR ADDITIONAL GUIDANCE.



*Robert Breen*

REVISION	BY	DATE
SURVEYED	ZNS	3/01
DESIGNED	RRB	7/09
DRAWN	DAC	10/10
CHECKED	LJJ/RRB	10/10

SEAL

ROBERT R. BREEN, PE No.61064

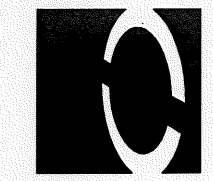








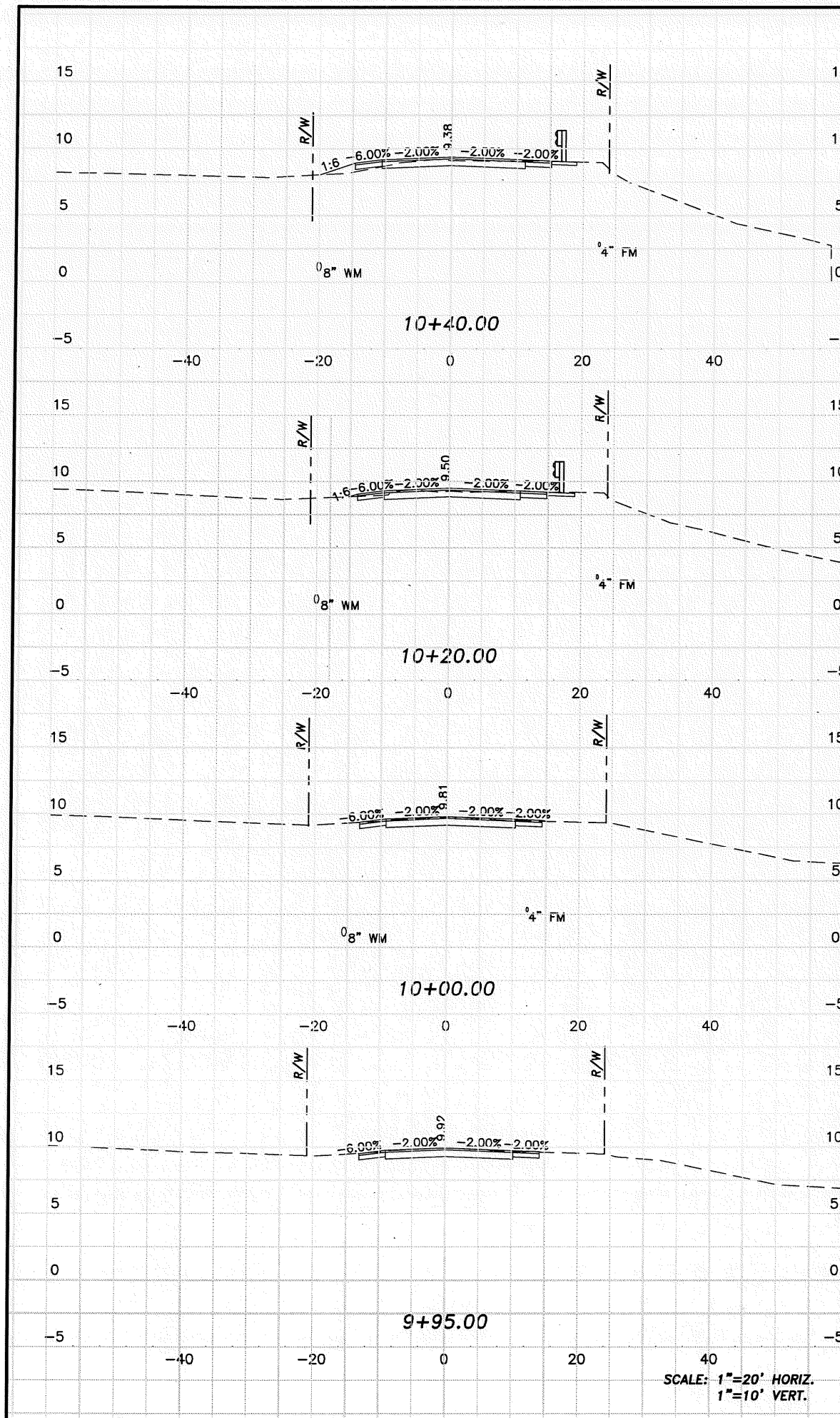
PREPARED BY:



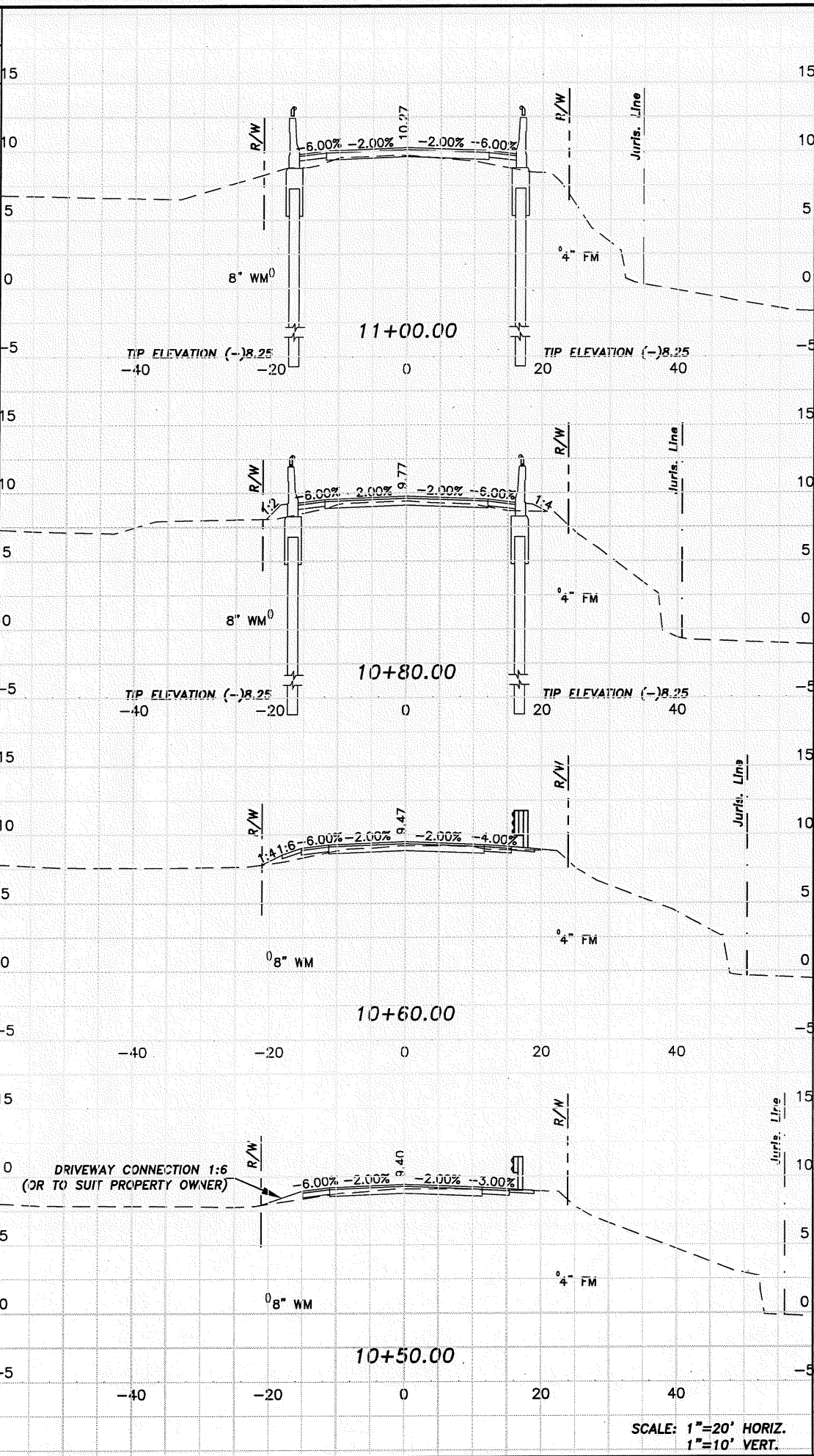
**WADETRIM**  
 www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8366 FAX 813.884.5990  
 Certificate of Authorization No. 3952

**RIVERVIEW BOULEVARD BRIDGE  
 OVER MCLEWIS BAYOU**  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

**CROSS SECTIONS**



ROADWAY EXCAVATION		EMBANKMENT	
A	V	A	V
11.9		2.3	
9.8		1.0	
14.5		0.5	
10.6		0.2	
14.0		0	
2.7		0	
15.2		0	



ROADWAY EXCAVATION		EMBANKMENT	
A	V	A	V
11.1		5.0	
10.4		3.7	
17.0		5.0	
9.6		2.5	
9.1		2.7	
3.4		0.9	
9.5		2.1	
4.0		0.8	

REVISION	DATE
SURVEYED	ZNS 3/01
DESIGNED	RRB 7/09
DRAWN	
CHECKED	

ROBERT R. ROSEN  
 No. 61064  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

P:\VTE\2009\134019\134019.dwg (Converted files) 10/19/07 AM, Kelley, 11x17



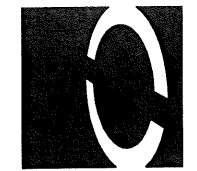








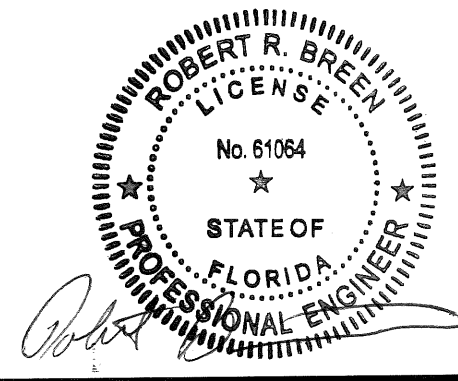
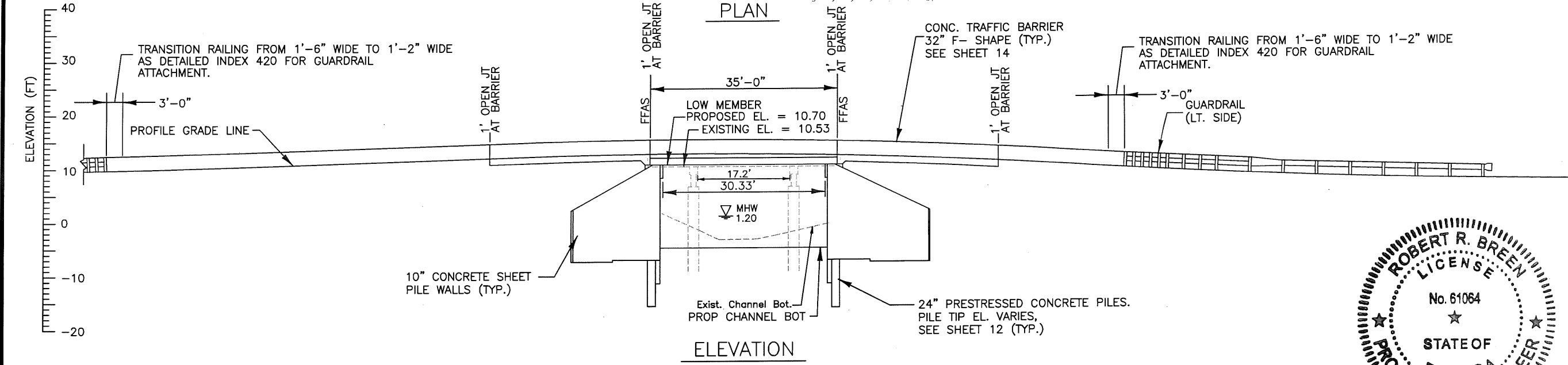
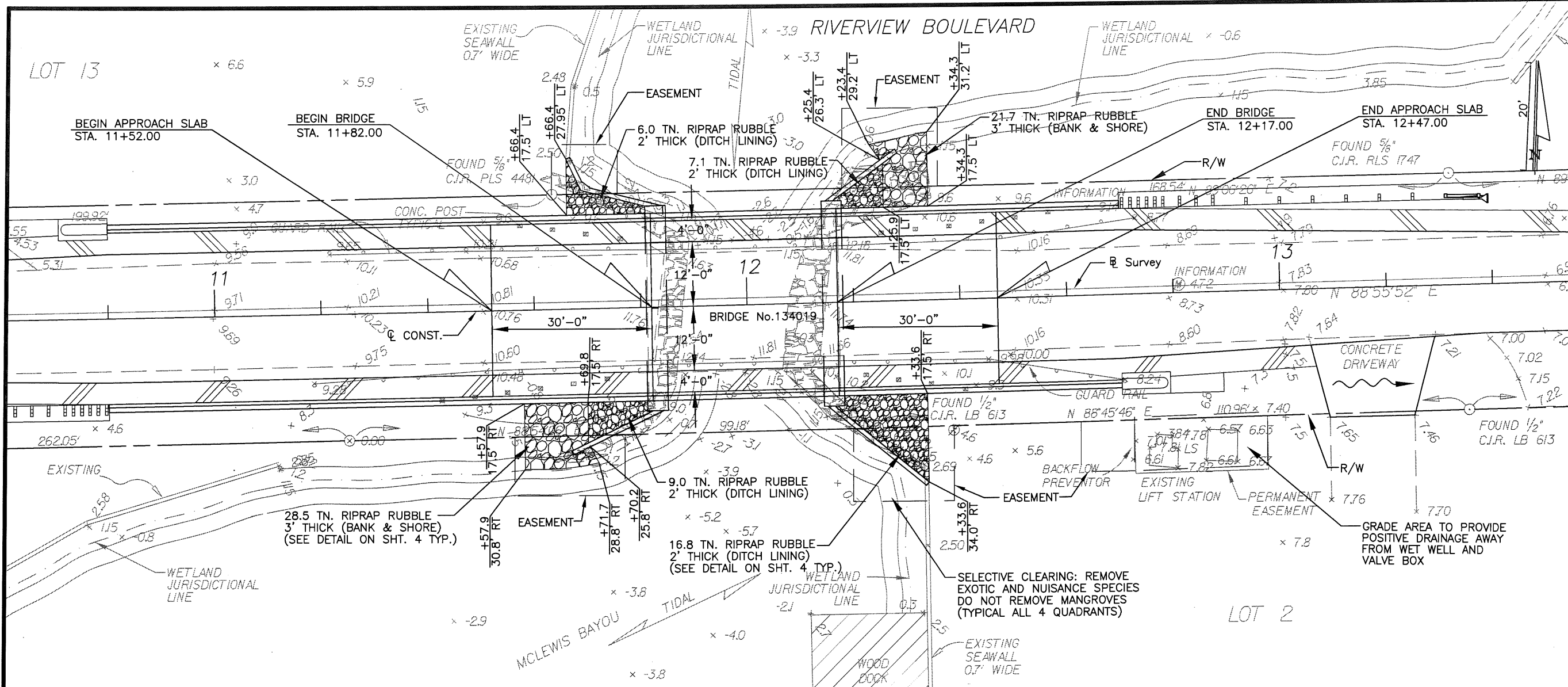
PREPARED BY:



**WADETRIM**  
 www.wadeftrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8386 FAX 813.884.5990  
 Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE  
 OVER MCLEWIS BAYOU  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

BRIDGE PLAN AND ELEVATION

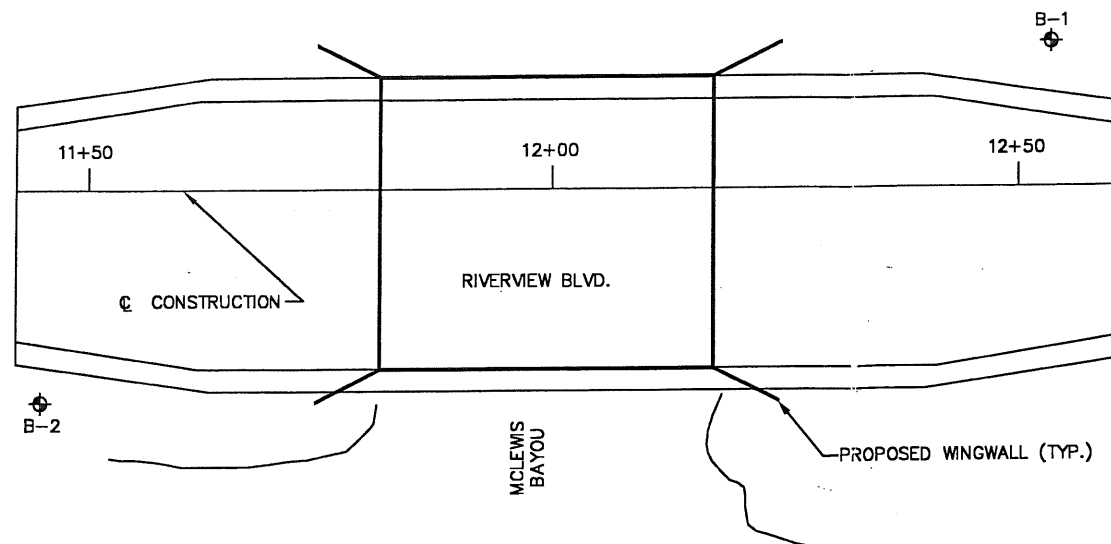


REVISION	BY	DATE
SURVEYED	ZNS	7/01
DESIGNED	RRB	9/10
DRAWN	JTK	10/10
CHECKED	LJ	10/10

SEAL

ROBERT R. BREEN, PE No. 61064

**SHEET 10 OF 23**



**BORING LOCATION PLAN**

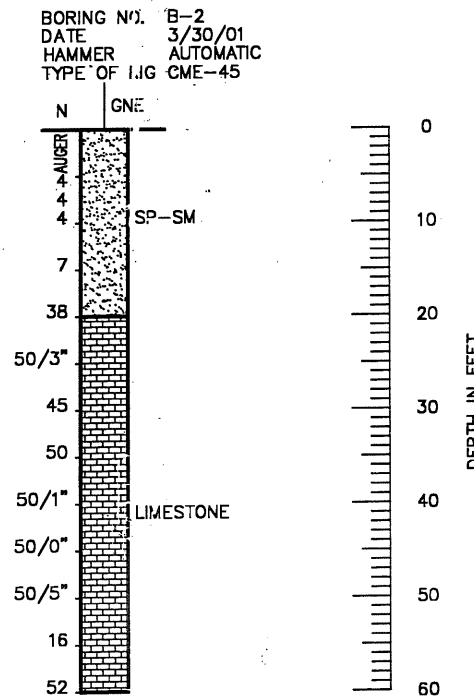
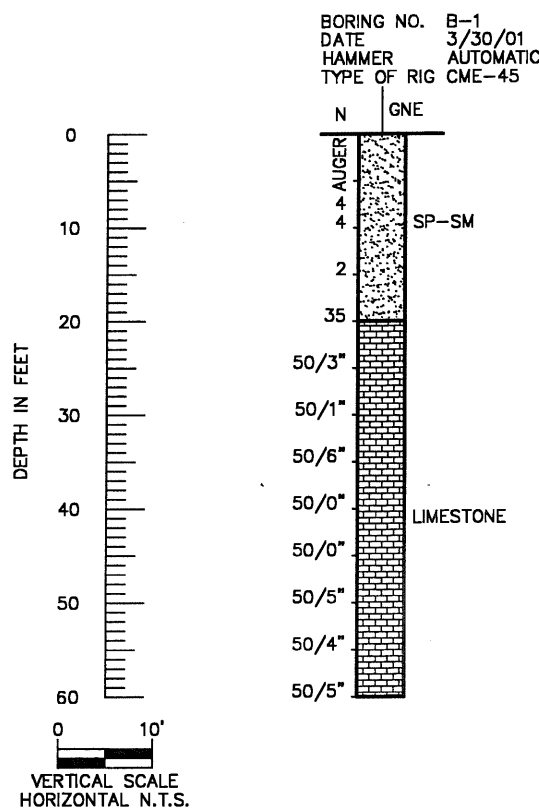


**LEGEND**

- (SP-SM), GRAY AND BROWN SLIGHTLY SILTY FINE SAND WITH SHELL INTERMIXED
- (LIMESTONE), GRAY INDURATED SILTY CLAY TO CLAYEY SILT, WEATHERED LIMESTONE

**NOTES:**

- ↯ WATER TABLE
  - N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)
  - ⊕ APPROXIMATE SPT BORING LOCATION
- 50/6" FIFTY BLOWS FOR SIX INCHES



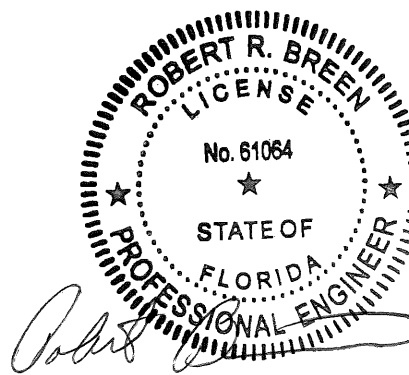
**ENVIRONMENTAL CLASSIFICATION**

SUBSTRUCTURE: MODERATELY AGGRESSIVE

**SOIL**

RESISTIVITY: 1600 OHMS-CM  
CHLORIDES: < 80 PPM  
SULFATES: < 288 PPM  
pH: 7.21

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



REVISIONS					
Date	By	Description	Date	By	Description

Name	Date
Drawn by: KM	4/01
Checked by: JAS	4/01
Designed by:	
Checked by:	
Approved by: SAM A. FUSCO, P.E.	

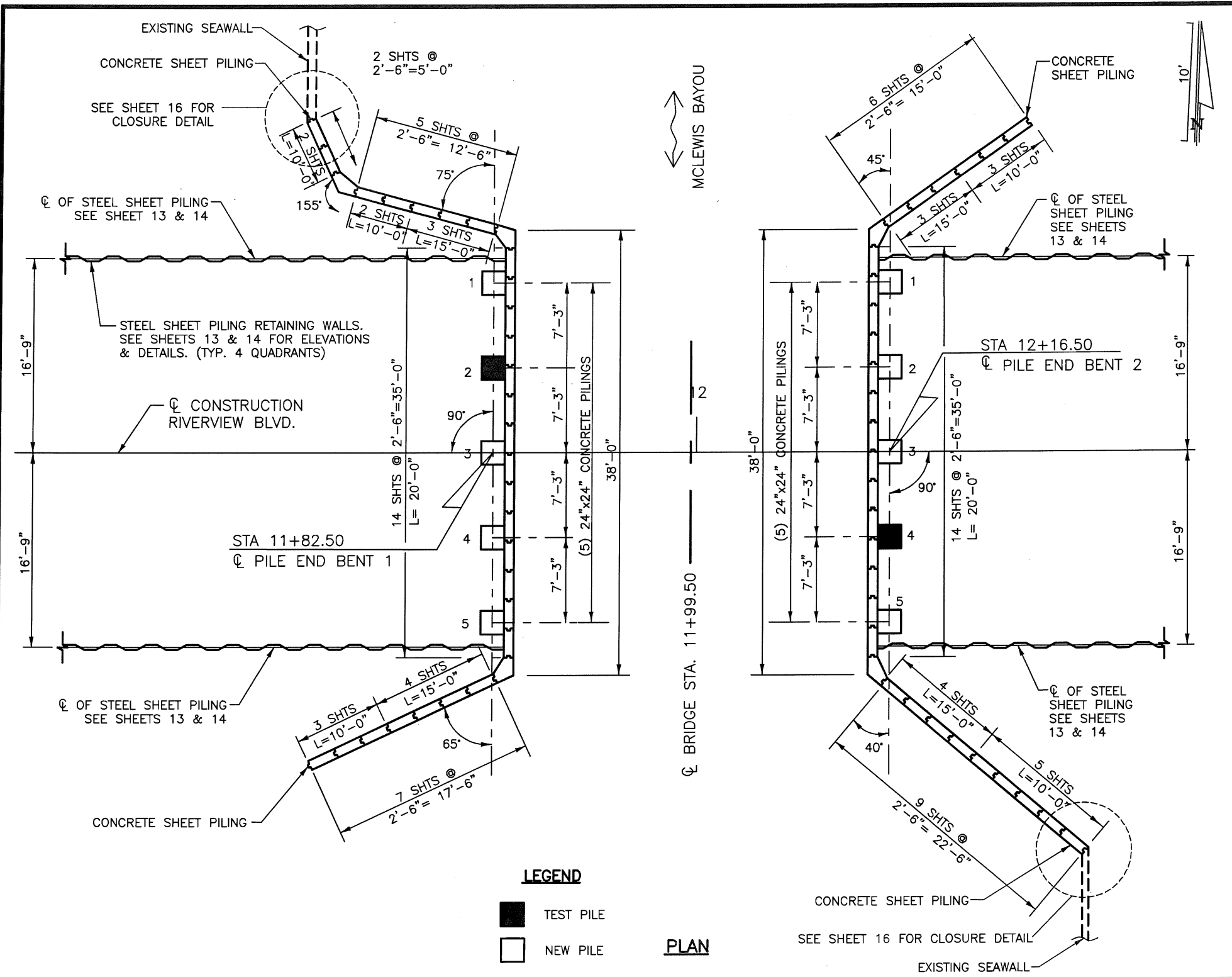


**PROFESSIONAL SERVICE INDUSTRIES, INC.**  
5801 BENJAMIN CENTER DR., SUITE 112  
TAMPA, FL 33634  
(813)-886-1075

**FLORIDA ENGINEERING CERTIFICATE  
OF AUTHORIZATION No. 3684**

FLORIDA DEPARTMENT OF TRANSPORTATION		
STRUCTURES DESIGN OFFICE		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID.
	MANATEE	

SHEET TITLE:	SHEET NO.
REPORT OF CORE BORINGS	11 OF 23
PROJECT NAME:	
RIVERVIEW BOULEVARD BRIDGE NO. 134019	




**CONCRETE SHEET PILING NOTES:**  
 Contractor to provide shop drawings to the Engineer of Record for approval.  
 All concrete sheet pile joints and weep holes shall be backed with filter cloth.

CONCRETE SHEET PILE				
TYPE	LENGTH FT	PILE TIP EL.	PILE CUT-OFF EL.	NUMBER
2'-6"	20	-11.50	VARIABLES	28
2'-6"	15	-7.0±	VARIABLES	14
2'-6"	10	-7.25±	VARIABLES	15
CORNER	20	-11.50	VARIABLES	5

24" SQ CONCRETE PILE		
LOCATION	PILE TIP EL	PILE CUT-OFF EL
END BENT 1	-15.60	9.40
END BENT 2	-15.88	9.12

**PILE INSTALLATION NOTES:**  
 Contractor to verify location of all utilities prior to any pile driving.  
 Minimum Tip Elevation is required for lateral stability.  
 When a required jetting elevation is shown, the jet shall be lowered to the elevation and continue to operate at this elevation until the pile driving is completed. If jetting or preforming elevations differ from those shown on the table, the Engineer shall be responsible for determination of the required driving distance.  
 No jetting will be allowed without the approval of the Engineer.  
 At each Bent, pile driving is to commence at the center of the bent and proceed outward.

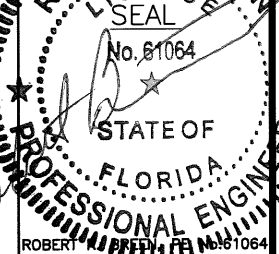


PREPARED BY:  
  
**WADE TRIM**  
 www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8368 FAX 813.884.5990  
 Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE OVER MCLEWIS BAYOU  
 FOUNDATION LAYOUT  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

REVISION	DATE

BY	DATE
SURVEYED ZNS	7/01
DESIGNED R. R. R.	7/09
DRAWN R. R. R.	7/09
CHECKED R. R. R.	7/09



$$\frac{\text{Factored Design Load} + \text{Net Scour Resistance} + \text{Down Drag}}{\phi} \leq \text{Nominal Bearing Resistance}$$

**TENSION RESISTANCE** - The ultimate side friction capacity that must be obtained below the 100 year scour elevation to resist pullout of the pile (Specify only when design requires tension capacity).

**TOTAL SCOUR RESISTANCE** - An estimate of the ultimate static side friction resistance provided by the scourable soil.

**NET SCOUR RESISTANCE** - An estimate of the ultimate static side friction resistance provided by the soil from the required preformed or jetting elevation to the scour elevation.

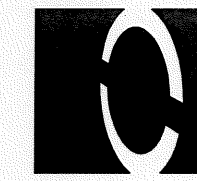
**100-YEAR SCOUR ELEVATION** - Estimated elevation of scour due to the 100 year storm event.

**LONG TERM SCOUR ELEVATION** - Estimated elevation of scour used in design for extreme event loading.

24" SQUARE CONCRETE PILE DATA TABLE														
INSTALLATION CRITERIA								DESIGN CRITERIA						
END BENT NUMBER	PILE SIZE (in.)	NOMINAL BEARING RESISTANCE (tons)	TENSION RESISTANCE (tons)	MINIMUM TIP ELEVATION (ft.)	TEST PILE LENGTH (ft.)	REQUIRED JET ELEVATION (ft.)	REQUIRED PREFORM ELEVATION (ft.)	FACTORED DESIGN LOAD (tons)	DOWN DRAG (tons)	TOTAL SCOUR RESISTANCE (tons)	NET SCOUR RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	LONG TERM SCOUR ELEVATION (ft.)	RESISTANCE FACTOR $\phi$
1	24	254	-	-15.0	35	-	-	160	0	0	0	-	-	0.65
2	24	254	-	-15.0	35	-	-	160	0	0	0	-	-	0.65



PREPARED BY:



**WADETRIM**  
 www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8368 FAX 813.884.5690  
 Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE  
 OVER MCLEWIS BAYOU  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

STEEL SHEET PILE  
 RETAINING WALL

REVISION	BY	DATE
SURVEYED	ZNS	3/01
DESIGNED	RRB	8/10
DRAWN	JTK	10/10
CHECKED	RRB	10/10

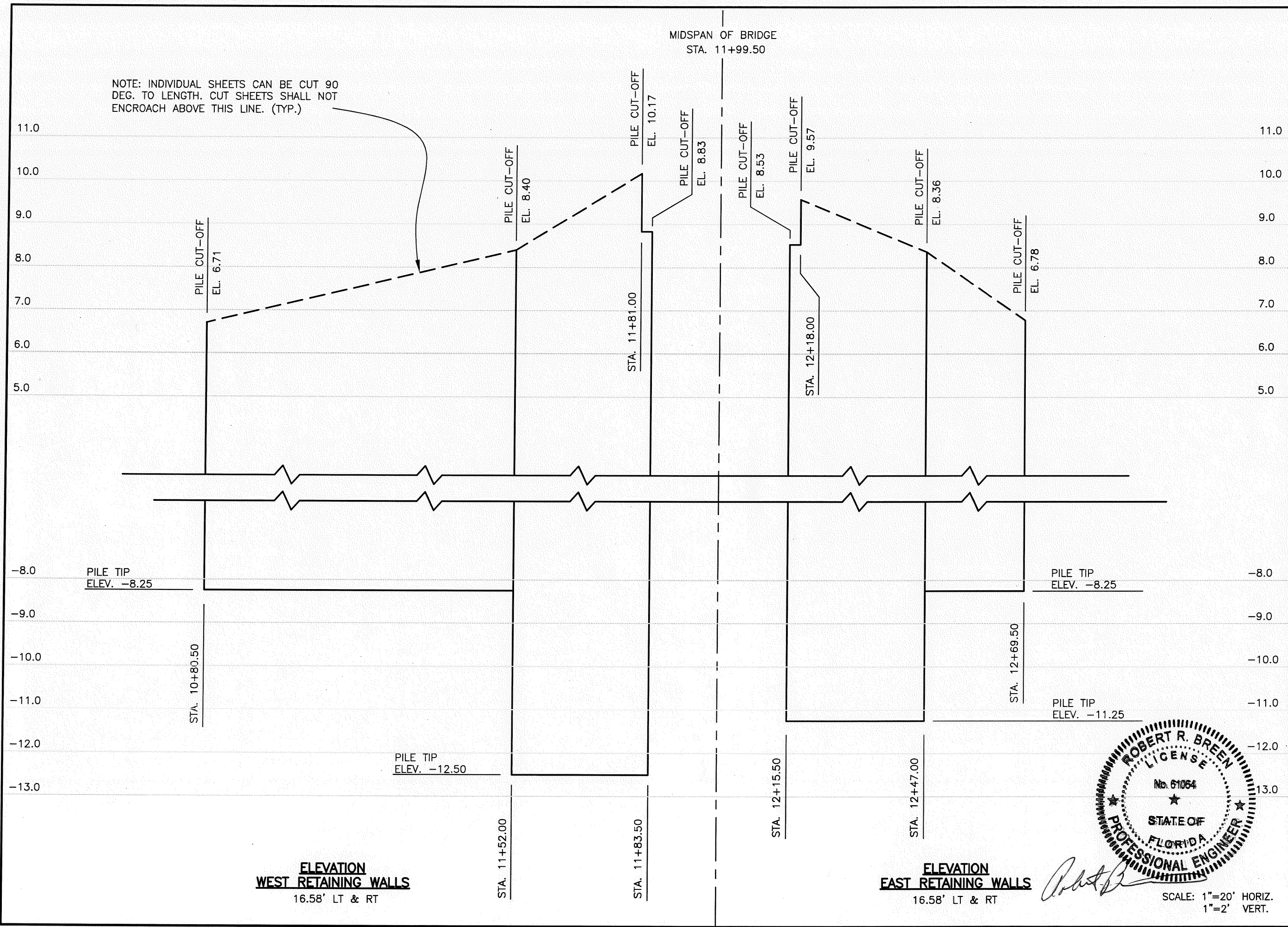
SEAL

ROBERT R. BREEN, PE No.61064

SHEET 13 OF 23

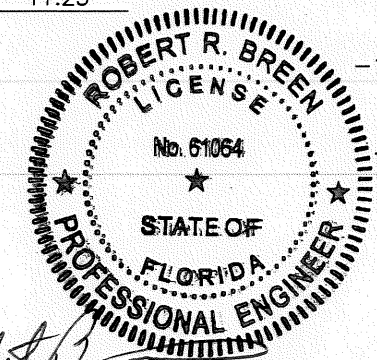
P:\VTE2007\02.m\CADD\data\Converted files\SDT-RetainingWallProf.dwg, 12/2/2010 10:36:57 AM, jkelley, 11x17

NOTE: INDIVIDUAL SHEETS CAN BE CUT 90 DEG. TO LENGTH. CUT SHEETS SHALL NOT ENCROACH ABOVE THIS LINE. (TYP.)

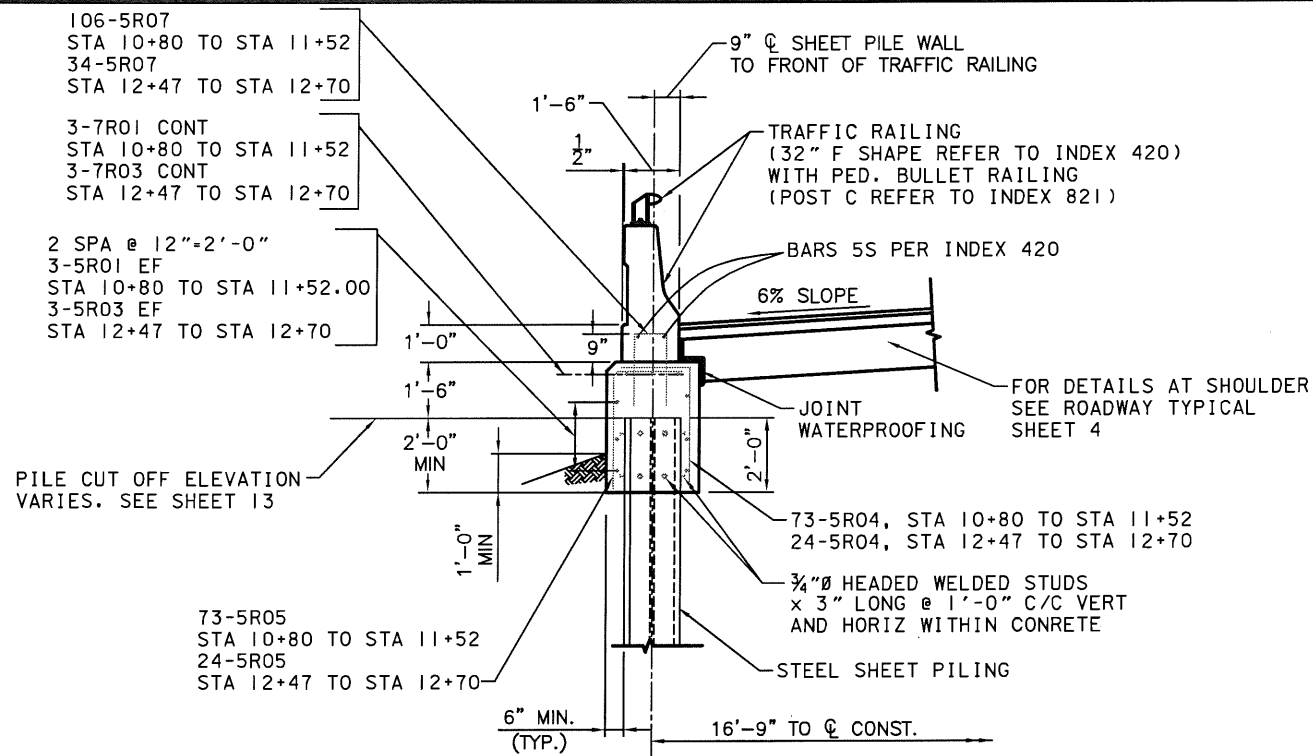


**ELEVATION  
 WEST RETAINING WALLS**  
 16.58' LT & RT

**ELEVATION  
 EAST RETAINING WALLS**  
 16.58' LT & RT



SCALE: 1"=20' HORIZ.  
 1"=2' VERT.



**SECTION AT ROADWAY**

1"=5'-0"

STA 10+80.00 TO STA 11+52.00 (LT AND RT)  
STA 12+47.00 TO STA 12+70.00 (LT AND RT)

PILE CUT OFF ELEVATION VARIES. SEE SHEET 13

106-5R07  
STA 10+80 TO STA 11+52  
34-5R07  
STA 12+47 TO STA 12+70

3-7R01 CONT  
STA 10+80 TO STA 11+52  
3-7R03 CONT  
STA 12+47 TO STA 12+70

2 SPA @ 12"=2'-0"  
3-5R01 EF  
STA 10+80 TO STA 11+52.00  
3-5R03 EF  
STA 12+47 TO STA 12+70

73-5R05  
STA 10+80 TO STA 11+52  
24-5R05  
STA 12+47 TO STA 12+70

9" Ø SHEET PILE WALL TO FRONT OF TRAFFIC RAILING

TRAFFIC RAILING (32" F SHAPE REFER TO INDEX 420) WITH PED. BULLET RAILING (POST C REFER TO INDEX 821)

BARS 5S PER INDEX 420

6% SLOPE

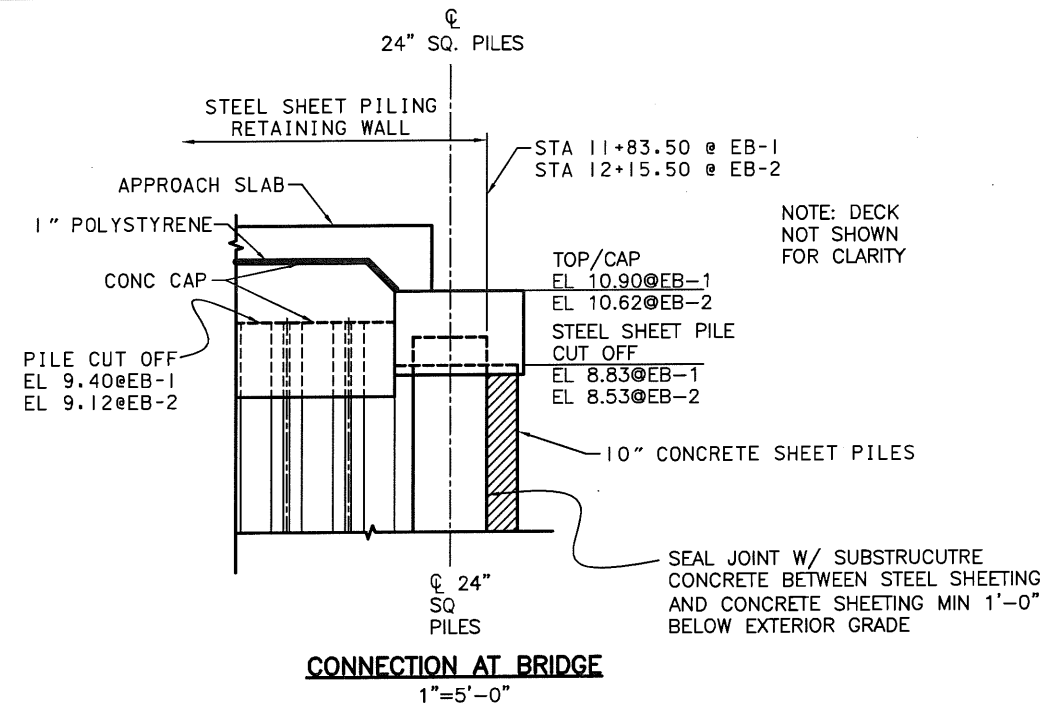
FOR DETAILS AT SHOULDER SEE ROADWAY TYPICAL SHEET 4

JOINT WATERPROOFING

73-5R04, STA 10+80 TO STA 11+52  
24-5R04, STA 12+47 TO STA 12+70

¾" Ø HEADED WELDED STUDS x 3" LONG @ 1'-0" C/C VERT AND HORIZ WITHIN CONCRETE

STEEL SHEET PILING



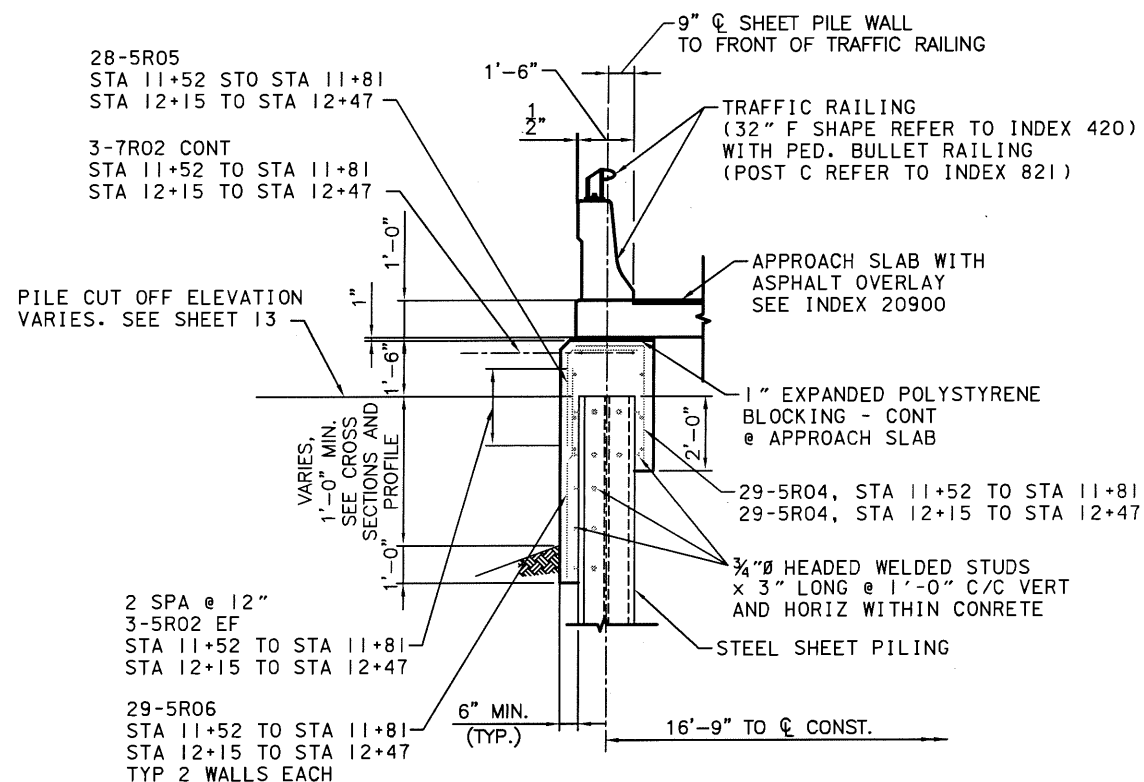
**CONNECTION AT BRIDGE**

1"=5'-0"

ESTIMATED QUANTITIES THIS SHEET		
ITEM	UNIT	QUANTITY
CLASS IV CONCRETE (SUBSTRUCTURE)	CY	101
REINFORCING STEEL (SUBSTRUCTURE)	LB	10027
CONCRETE TRAFFIC RAILING (32" F-SHAPE)	LF	310
ALUMINUM BULLET RAILING - SINGLE RAIL	LF	310

**NOTES:**

- ALL SHEET PILING IS DESIGNED BASED ON A UNIT WEIGHT OF SOIL = 115 PCF, INTERVAL FRICTION ANGLE = 26 DEGREES, AND SURCHARGE LOAD = 240 PSF. IF SOIL PARAMETERS DIFFERENT FROM THOSE SHOWN ARE UNCOVERED, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO BRING THIS TO THE ATTENTION OF THE ENGINEER FOR A POSSIBLE REDESIGN.
- SHEET PILES SHALL BE OF STRUCTURAL STEEL CONFORMING TO ASTM A-572 GRADE 50 (Fy = 50 KSI). COLD-ROLLED SECTIONS WILL BE ALLOWED AS SUBSTITUTES FOR HOT-ROLLED SECTIONS AS LONG AS THE SECTION PROPERTY REQUIREMENTS ARE MET. MINIMUM SECTION MODULUS = 59.5 IN<sup>3</sup>/FT WIDTH, MINIMUM MOMENT OF INERTIA = 525 IN<sup>4</sup>/FT AND MAXIMUM DEFLECTION = 0.004 FT.
- SHOP DRAWINGS MUST BE SUBMITTED FOR REVIEW AND APPROVAL. THE FULLY DETAILED SHOP DRAWINGS CONTAINING ALL DETAILS AND DIMENSIONS NECESSARY TO CONSTRUCT THE WALLS SHALL BE PREPARED TO DEPARTMENT STANDARDS AND SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. AS A MINIMUM THE SHOP DRAWINGS SHALL INCLUDE:
  - SHEET PILE LAYOUT SHOWING STATIONS AND OFFSETS AT CRITICAL POINTS ALONG THE WALL (BEGIN WALL, END WALL).
  - SHAPES AND SIZES OF MEMBERS USED ALONG WITH MATERIAL PROPERTIES.
  - TOP OF WALL AND TIP ELEVATIONS.
  - CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO DRIVING SHEET PILES. FOR UTILITY LOCATIONS SEE UTILITY PLANS.
  - WHERE SHEET PILES ARE PLACED NEAR AN EXISTING STRUCTURE OR UTILITY, CARE SHOULD BE TAKEN SO AS TO NOT DAMAGE THE EXISTING STRUCTURE OR UTILITY.
  - MINIMUM THICKNESS OF SHEET PILE SHOULD BE CHOSEN TO BE COMPATIBLE WITH THE SOILS TO BE ENCOUNTERED/DRIVEN THROUGH AND THE PILE DRIVING EQUIPMENT. CONTRACTOR SHALL REDUCE ALL SECTION PROPERTIES OF PROPOSED SHEET PILES TO ACCOUNT FOR A 0.09 (INCHES) SACRIFICIAL THICKNESS.
- SEE SHEET 13 FOR PILE CUT OFF AND PILE TIP ELEVATIONS.
- THE REINFORCING STEEL FOR THE TRAFFIC RAILING SHOWN ON THIS SHEET IS NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL REFER TO INDEX 420 FOR DETAILS ON THE STEEL REINFORCING REQUIRED FOR THE TRAFFIC RAILING AT THE APPROACH SLAB AND AT THE ROADWAY. ALL STEEL REINFORCING REQUIRED FOR THE TRAFFIC RAILING IS INCLUDED IN THAT PAY ITEM. THE STEEL REINFORCING SHOWN ON THIS SHEET IS PAID FOR AS REINFORCING STEEL (SUBSTRUCTURE).
- PROVIDE MIN 3" COVER FOR STEEL REINFORCEMENT.
- WHERE STEEL SHEET PILING IS ADJACENT TO RUBBLE RIP RAP, THE EXTERIOR CONCRETE FASCIA SHALL EXTEND ONE FOOT BELOW THE BEDDING STONE.



**SECTION AT APPROACH SLAB**

1"=5'-0"

STA 11+52.00 TO STA 11+83.50 (LT AND RT)  
STA 12+15.50 TO STA 12+47.00 (LT AND RT)

PILE CUT OFF ELEVATION VARIES. SEE SHEET 13

28-5R05  
STA 11+52 ST0 STA 11+81  
STA 12+15 TO STA 12+47

3-7R02 CONT  
STA 11+52 TO STA 11+81  
STA 12+15 TO STA 12+47

2 SPA @ 12"  
3-5R02 EF  
STA 11+52 TO STA 11+81  
STA 12+15 TO STA 12+47

29-5R06  
STA 11+52 TO STA 11+81  
STA 12+15 TO STA 12+47  
TYP 2 WALLS EACH

9" Ø SHEET PILE WALL TO FRONT OF TRAFFIC RAILING

TRAFFIC RAILING (32" F SHAPE REFER TO INDEX 420) WITH PED. BULLET RAILING (POST C REFER TO INDEX 821)

APPROACH SLAB WITH ASPHALT OVERLAY SEE INDEX 20900

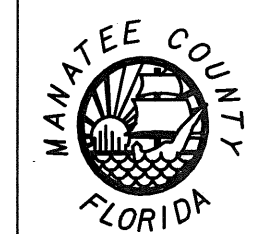
1" EXPANDED POLYSTYRENE BLOCKING - CONT @ APPROACH SLAB

29-5R04, STA 11+52 TO STA 11+81  
29-5R04, STA 12+15 TO STA 12+47

¾" Ø HEADED WELDED STUDS x 3" LONG @ 1'-0" C/C VERT AND HORIZ WITHIN CONCRETE

STEEL SHEET PILING

VARIES, 1'-0" MIN. SEE CROSS SECTIONS AND PROFILE



PREPARED BY:

www.wadetrtrim.com  
8745 Henderson Road, Suite 220  
Tampa, FL 33634  
813.882.8388 FAX 813.884.5990  
Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE OVER MCLEWIS BAYOU  
BRIDGE No. 134019  
MANATEE COUNTY, FLORIDA

STEEL SHEET PILE RETAINING WALL DETAILS

REVISION	DATE
SURVEYED	ZNS 7/01
DESIGNED	RRB 8/10
DRAWN	RRB
CHECKED	RRB
IN CHARGE	RRB

STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
ROBERT GREEN, No. 61064

SHEET 14 OF 23



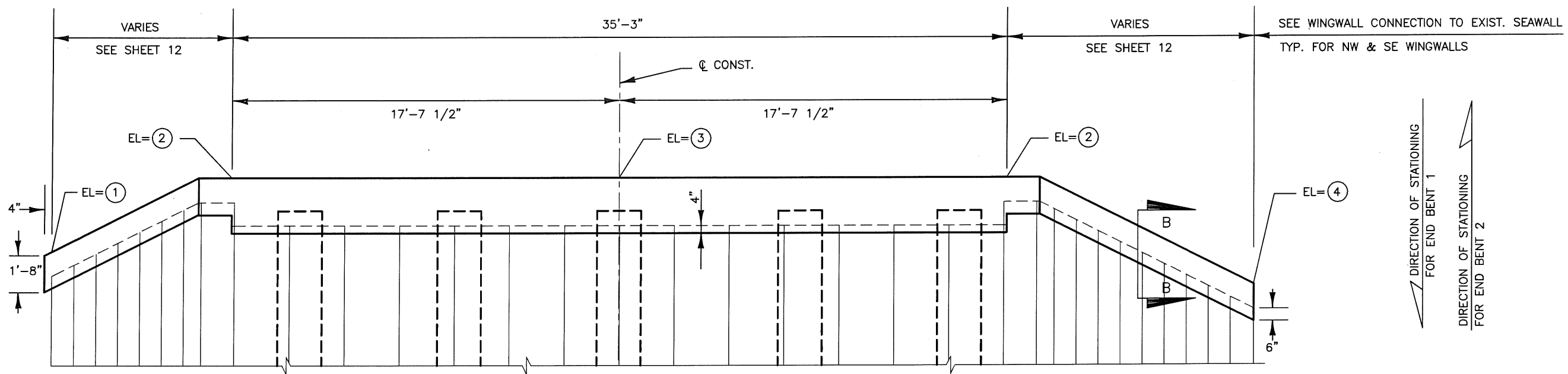
PREPARED BY:



**WADETRIM**  
 www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8368 FAX 813.884.5990  
 Certificate of Authorization No. 3952

**RIVERVIEW BOULEVARD BRIDGE OVER MCLEWIS BAYOU**  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

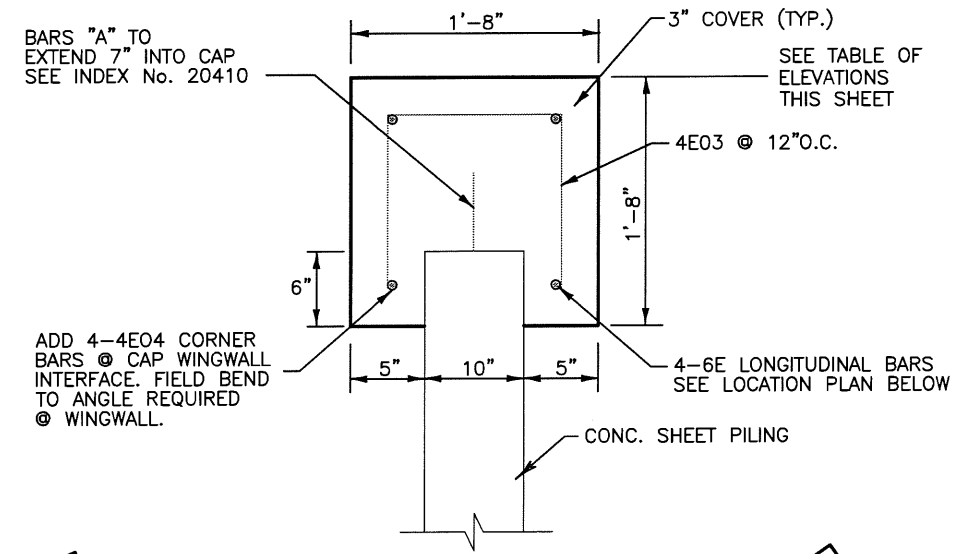
**END BENTS DETAILS**



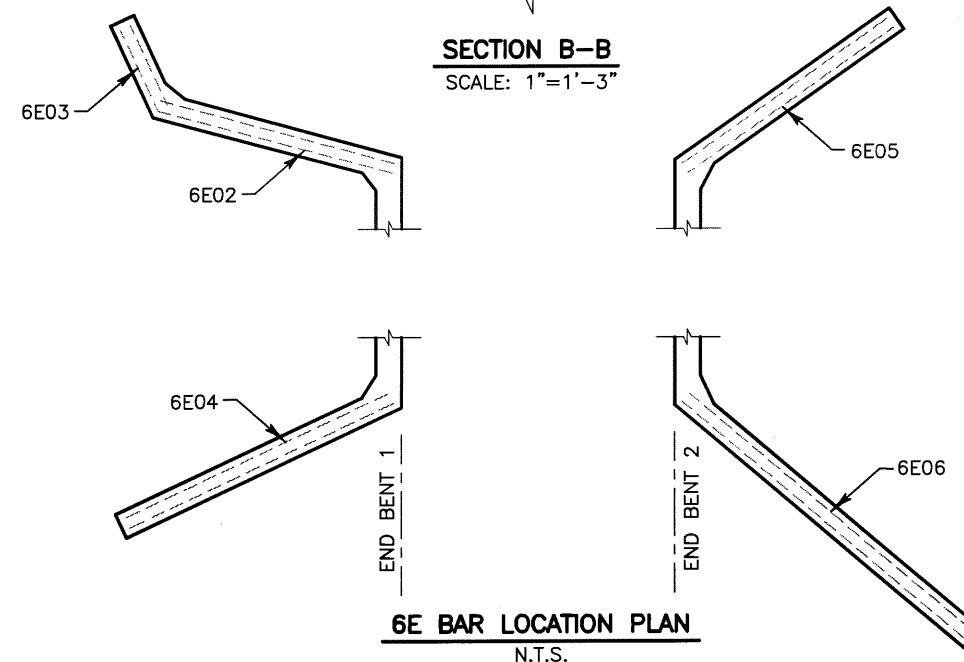
**END BENT ELEVATION**  
 SCALE: 1"=5'-0"

END BENT NO.	1	2	3	4
1	2.60	10.90	10.90	2.50
2	2.50	10.62	10.62	2.69

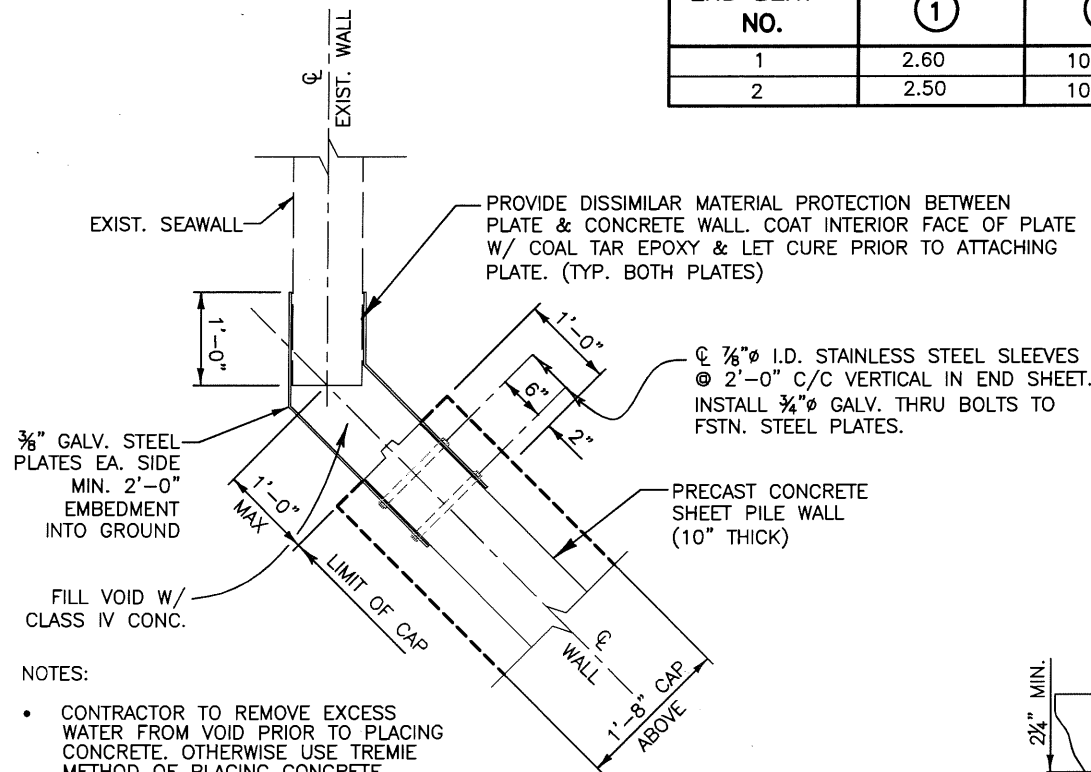
**TABLE OF ELEVATIONS**



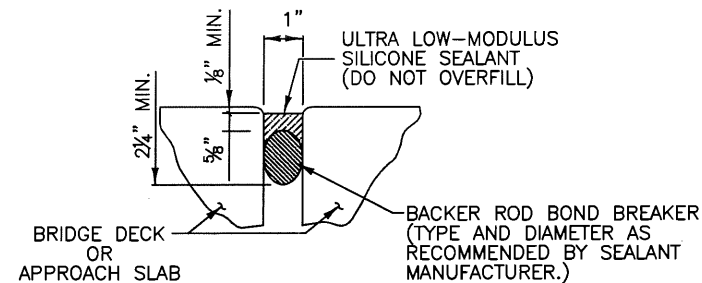
**SECTION B-B**  
 SCALE: 1"=1'-3"



**6E BAR LOCATION PLAN**  
 N.T.S.



**WINGWALL CONNECTION TO EXISTING SEAWALL**  
 SCALE: 1"=2'-0"



**EXPANSION JOINT DETAIL**  
 N.T.S.

- NOTES:
- CONTRACTOR TO REMOVE EXCESS WATER FROM VOID PRIOR TO PLACING CONCRETE. OTHERWISE USE TREMIE METHOD OF PLACING CONCRETE.
  - CONTRACTOR SHALL FIELD MEASURE THE CONSTRUCTED CONDITIONS PRIOR TO FABRICATING THE PLATES.
  - CONTRACTOR SHALL RESTORE GRADES @ PLATES TO MATCH EXIST. GRADES.

REVISION	DATE

DESIGNER: ZNS 7/01  
 SURVEYED: ZNS 7/01  
 DRAWN: R. BAILEY  
 CHECKED: R. BAILEY  
 SEAL No. 61064  
**STATE OF FLORIDA**  
**PROFESSIONAL ENGINEER**  
 ROBERT R. BAILEY No. 61064



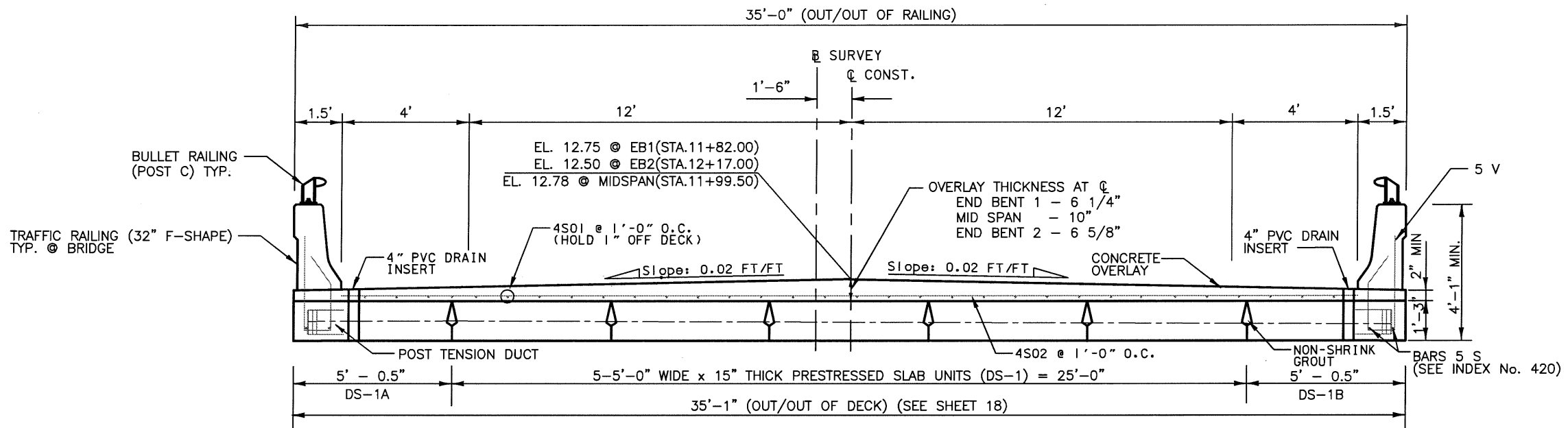


PREPARED BY:



**WADE TRIM**  
 www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8368 FAX 813.884.5990  
 Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE  
 OVER MCLEWIS BAYOU  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA  
 SUPERSTRUCTURE  
 TYPICAL SECTION



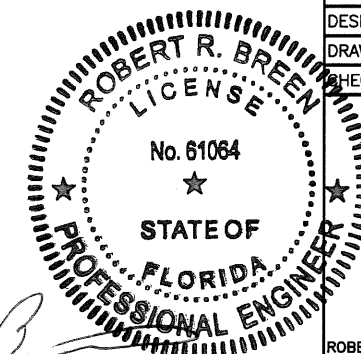
**BRIDGE TYPICAL**  
**(LOOKING UP STATION)**

ESTIMATED QUANTITIES THIS SHEET		
ITEM	UNIT	QUANTITY
CLASS IV CONCRETE (SUPERSTRUCTURE)	CY	25
REINFORCING STEEL (SUPERSTRUCTURE)	LB	1573
CONCRETE TRAFFIC RAILING (32" F-SHAPE)	LF	70
ALUMINUM BULLET RAILING - SINGLE RAIL	LF	70

**SUPERSTRUCTURE NOTES:**

1. A VARIABLE DEPTH CONCRETE OVERLAY SHALL BE PLACED ON TOP OF THE PRESTRESSED SLAB UNITS.
2. REFER TO STANDARD INDEX 420, SECTION A-A FOR TRAFFIC RAILING DETAILS BRIDGE. REFER TO INDEX 821 FOR BULLET RAILING DETAILS.

REVISION	BY	DATE
SURVEYED	ZNS	7/01
DESIGNED	RRB	7/09
DRAWN	YL	7/09
CHECKED	LSM	7/09



*Robert R. Breen*

SEAL  
 ROBERT R. BREEN, PE No. 61064  
**SHEET 17 OF 23**



PREPARED BY:

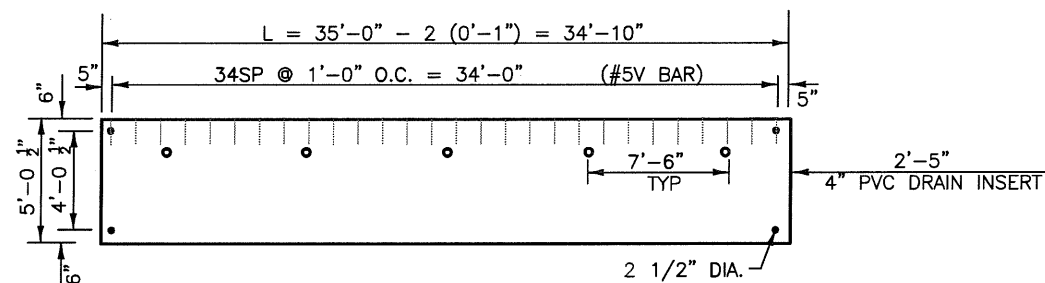
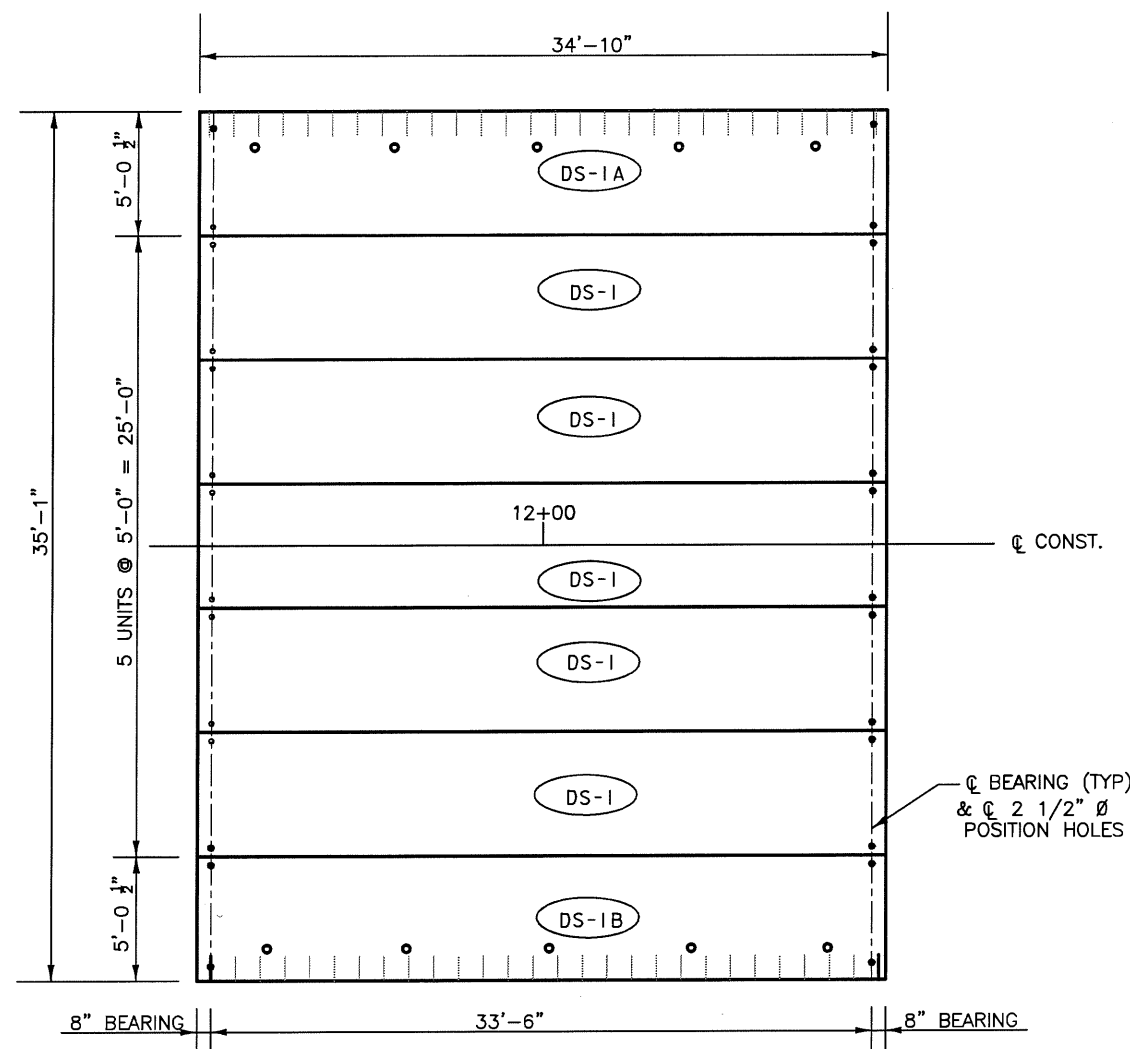


**WADE TRIM**

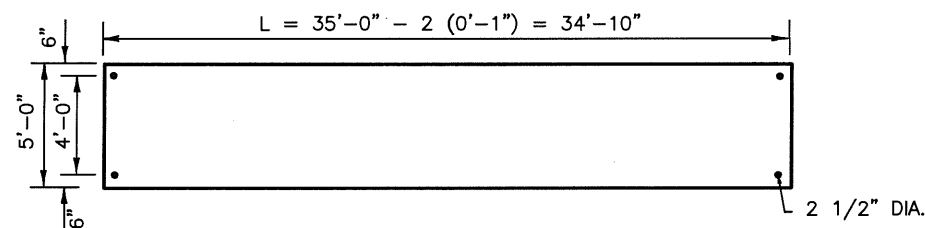
www.wadetrtrim.com  
 8745 Henderson Road, Suite 220  
 Tampa, FL 33634  
 813.882.8366 FAX 813.884.5990  
 Certificate of Authorization No. 3952

RIVERVIEW BOULEVARD BRIDGE  
 OVER McLEWIS BAYOU  
 BRIDGE No. 134019  
 MANATEE COUNTY, FLORIDA

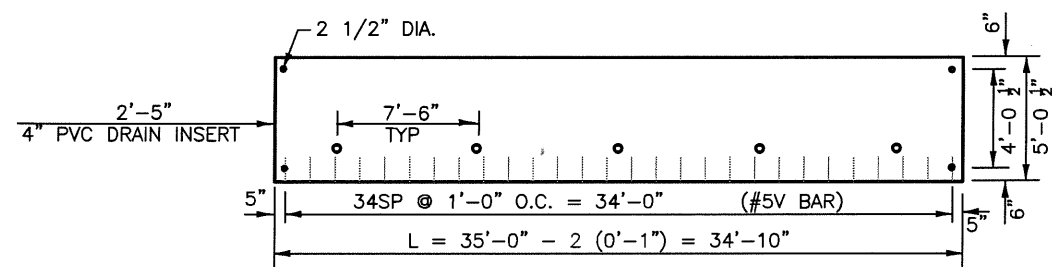
FRAMING PLAN



MK DS-1A (1) REQUIRED



MK DS-1 (5) REQUIRED



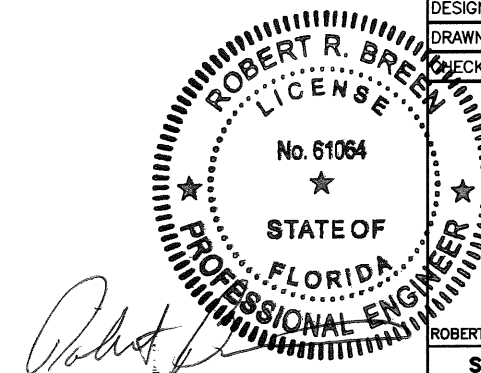
MK DS-1B (1) REQUIRED

DECK SLAB NOTES:

- DECK SLABS AND BEARING PADS SHALL BE DESIGNED BY THE CONTRACTOR FOR HL-93 LIVE LOAD, FUTURE WEARING SURFACE (15 LB/SF) AND ALL DEAD LOADS AS SHOWN IN THE PLANS.
- CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF THE DECK SLAB UNITS AND POST-TENSIONED SYSTEM TO THE ENGINEER OF RECORD FOR APPROVAL.
- CALCULATIONS FOR THE DESIGN OF THE DECK SLAB UNITS SHALL ALSO BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL. THE CALCULATIONS SHALL BE SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER, WITH LICENSURE IN THE STATE OF FLORIDA. THE CALCULATIONS SHALL SHOW INITIAL AND FINAL STRESSES FOR ALL CONDITIONS. AS NOTED ELSEWHERE, THE DESIGN SHALL BE BASED ON DEAD LOAD PLUS HL-93 LIVE LOAD. IN ADDITION TO DESIGN CALCULATIONS, THE DECK SHALL BE LOAD RATED FOR BOTH INVENTORY AND OPERATING CONDITIONS. THE LOAD RATINGS SHALL MEET FDOT REQUIREMENTS, INCLUDING THE FL120 LOAD. RATING INFORMATION (INVENTORY & OPERATING) SHALL BE INCLUDED IN THE SIGNED & SEALED CALCULATION PACKAGE.
- 5V BARS SHALL BE OF SUFFICIENT LENGTH TO ACCOMODATE THE TOPPING.
- THE COST OF (28) BEARING PADS, Poured NEOPRENE RUBBER AND 70 LF OF EXPANSION JOINT SEALANT SHALL BE INCLUDED IN THE UNIT PRICE FOR PRESTRESSED SLAB UNITS.
- THE BEARING PADS SHALL BE 1" THICK AND HAVE A HARDNESS OF 50 DUROMETER. DIMENSIONS TO BE DETERMINED BY CONTRACTOR.

REVISION	BY	DATE
SURVEYED	ZNS	7/01
DESIGNED	RRB	7/09
DRAWN	YL	7/09
CHECKED	LSM	7/09

SEAL



ROBERT R. BREEN, PE No. 61064

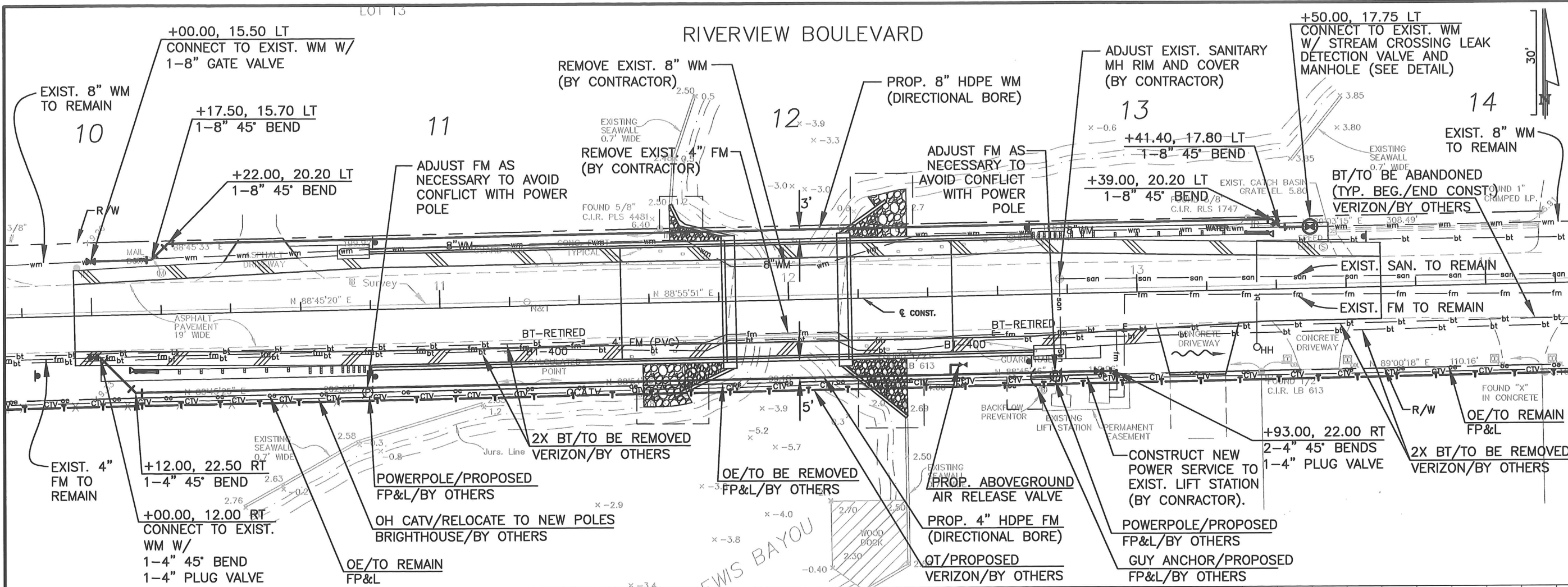
SHEET 18 OF 23





LOT 13

# RIVERVIEW BOULEVARD



PREPARED BY:

**WADE TRIM**  
www.wadetrtrim.com  
6745 Henderson Road, Suite 220  
Tampa, FL 33634  
813.882.6300 FAX 813.884.6800  
Certificate of Authorization No. 3952

**RIVERVIEW BOULEVARD BRIDGE OVER MCLEWIS BAYOU**  
BRIDGE No. 134019  
MANATEE COUNTY, FLORIDA

**WATERMAIN & FORCEMAIN RELOCATIONS AND UTILITY ADJUSTMENTS**

### CONTRACTOR NOTES:

1. ALL DIRECTIONAL BORES SHALL BE DONE AFTER ALL SHEETING INSTALLATIONS.
2. ALL POTABLE WATER MAIN AND SANITARY SANITARY FORCEMAIN CONSTRUCTION AND REMOVAL WILL BE PERFORMED BY THE CONTRACTOR.

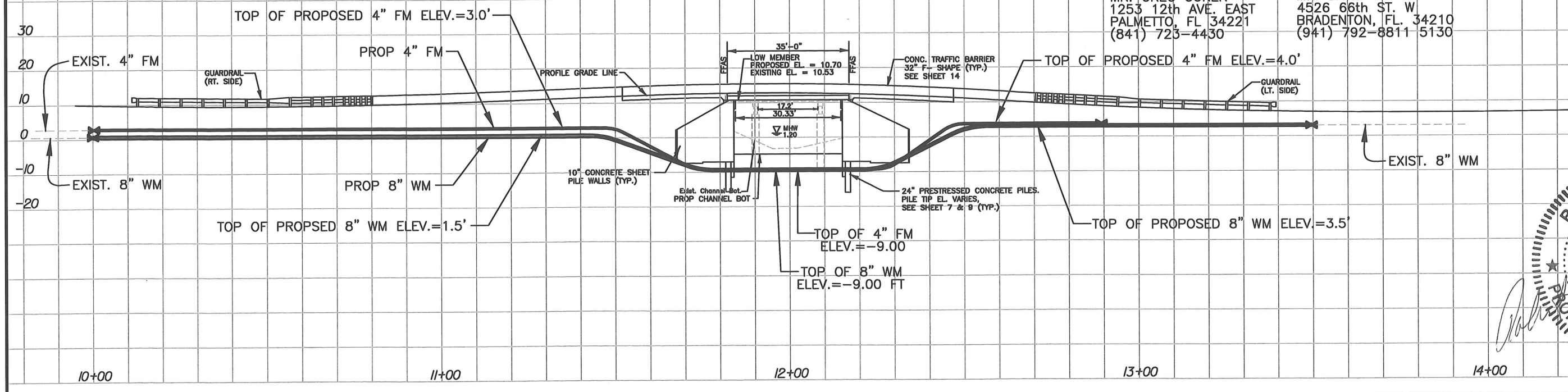
**BIGHOUSE NETWORKS**  
MR. TOM WRIGHT  
5413 SR 64 EAST  
BRADENTON, FL. 34208  
(941) 748-3816

**CITY OF BRADENTON**  
MR. ARLAN CUMMINGS  
1411 9th ST. W  
BRADENTON, FL. 34205  
(941) 708-6300

**VERIZON FLORIDA INC.**  
MS. DENISE HUTTON  
1701 RINGLING BLVD MC FLSS 4113  
TAMPA, FL. 33619  
(941) 906-6722

**FLORIDA POWER & LIGHT**  
MR. GREG COKER  
1253 12th AVE. EAST  
PALMETTO, FL 34221  
(841) 723-4430

**MANATEE COUNTY UTILITY OPERATIONS**  
MR. DAVID SCHOFIELD  
4526 66th ST. W  
BRADENTON, FL. 34210  
(941) 792-8811 5130



REVISION	DATE

SEAL

STATE OF FLORIDA

PROFESSIONAL ENGINEER

ROBERT R. BREEN, PE No.61064

SHEET 21 OF 23

P:\MTE2047\02m\CADD\cadd\Converted files\PLR\RW.dwg, 2/2/2011 2:07:54 PM, jkelley, 11x17



