


INDEX OF STRUCTURE PLANS

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REVISIONS DATE BY DESCRIPTION		INITIAL DRAWN BY M.C. CHECKED BY J.S. DESIGN BY M.C. DATE 4/20/15		ENGINEER OF RECORD: JOHN F. SLIGER, II, P.E. P.E. #20588				REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 2692 FL 32-308 3370 CANYON BLVD. SUITE 200 PHOENIX (602) 994-4521 - FAX (602) 244-0505 PROJECT NUMBER: 120		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 608-1500 * FAX (850) 608-1801		INDEX OF SHEETS PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. B-2	
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GENERAL NOTES

- A. **GENERAL SPECIFICATIONS:**
 - 1. Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction (July, 2017 Edition) and supplements thereto.
 - 2. Leon County Supplemental Specifications to FDOT Road and Bridge Construction Standard Specifications.
- B. **DESIGN SPECIFICATIONS:**
 - 1. FDOT Structures Manual dated January, 2017.
 - 2. American Association of State Highway and Transportation Officials. (AASHTO) LRFD Bridge Design Specifications (7th Edition) and all subsequent interims.
 - 3. FDOT Plans Preparation Manual, dated January 2017.
- C. **VERTICAL DATUM:**

All elevations refer to North American Vertical Datum of 1988 (NAVD 88).
- D. **ENVIRONMENT:**

Superstructure – Moderately Aggressive
Substructure – Moderately Aggressive
- E. **DESIGN LOADINGS:**
 - 1. Live Loads: HL-93 With Dynamic Load Allowance
 - 2. Dead Loads:
 - 32" F-Shape Traffic Railing 420 plf
 - Reinforced Concrete 150 pcf
 - Future Wearing Surface 15 psf
 - Asphalt Overlay 15 psf
 - 3. Utilities: No allowance for utility loads has been included in the design.
- F. **CONSTRUCTION LOADING:**

It is the construction Contractor's responsibility to provide for supporting construction loads that exceed AASHTO HL-93.
- G. **DESIGN METHODOLOGY:**

Load Resistance and Factor Design (LRFD) method using strength, service, and fatigue limit states.
- H. **MATERIALS:**
 - 1. Concrete: All concrete shall be in accordance with FDOT Standard Specifications Section 346.

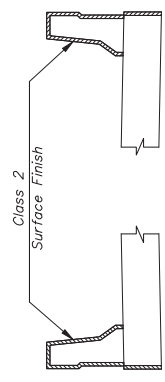
Concrete Class	Min. 28-day Compressive Strength	Location of Concrete in Structure
II	f'c = 3,400 PSI.	Traffic Railing Barrier
II (Bridge Deck)	f'c = 4,500 PSI.	Approach Slabs
IV	f'c = 5,500 PSI.	Superstructure and Bent Caps
IV (Drilled Shaft)	f'c = 4,000 PSI.	Concrete for Pipe Piles

2. Concrete Cover:

Cast-In-Place Superstructure (Top of Deck)	2 1/2"
Cast-In-Place Superstructure (Except Top of Deck)	2"
Cast-In-Place Substructure (Cast Against Earth)	4"
Cast-In-Place Substructure (Formed Surfaces)	3"

Concrete cover dimensions shown in the plans do not include reinforcement placement and fabrication tolerances unless shown as "minimum cover". See FDOT Standard Specifications Section 415 for allowable tolerances. All dimensions pertaining to the location of reinforcing steel are to centerline of bar except where clear dimensions is noted to face of concrete.

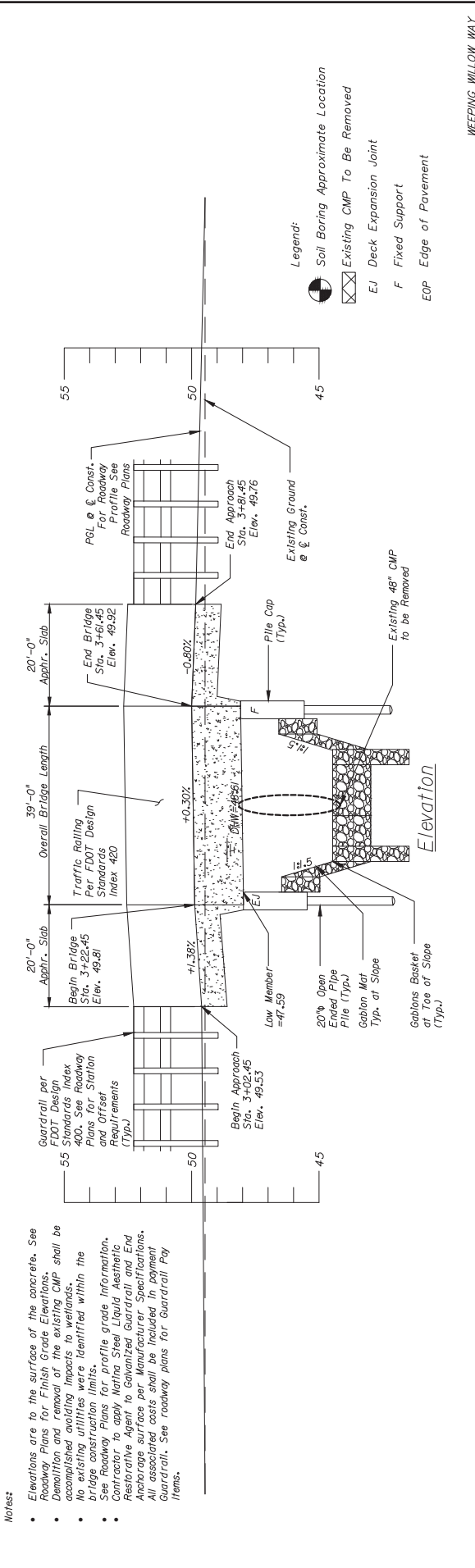
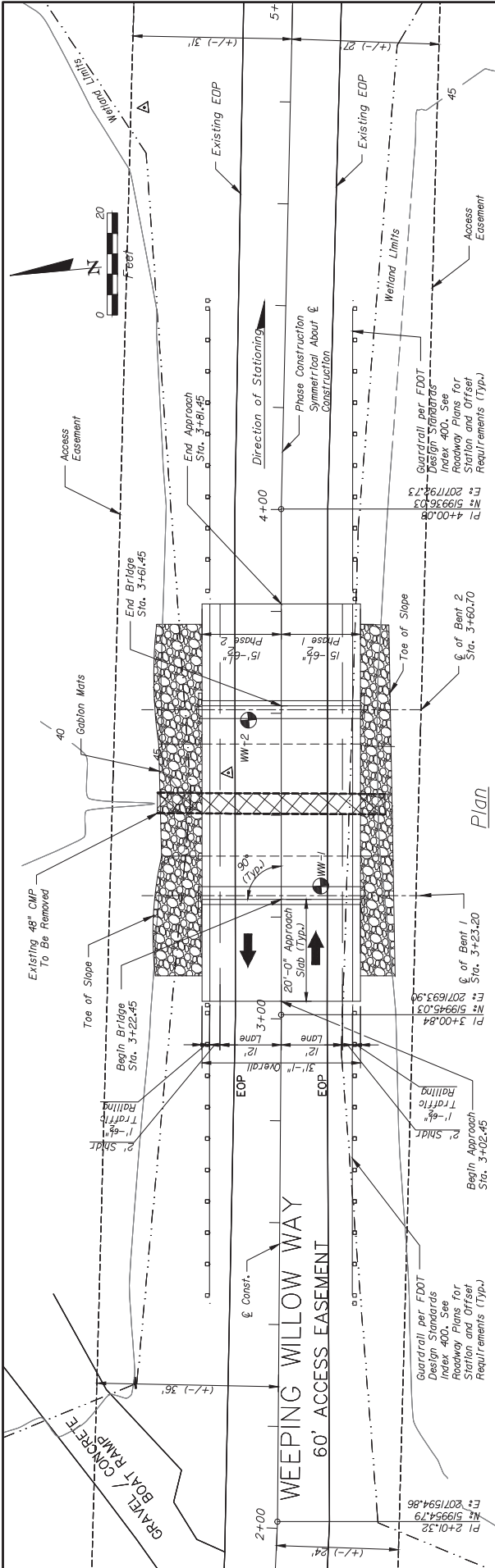
3. Reinforcing Steel: All reinforcing steel shall be ASTM A615, grade 60 steel.



SURFACE FINISH DETAIL

DATE	BY	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	GENERAL NOTES	SHEET NO.	
				REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 3692 FL 36308 3370 CORP. AVENUE, SUITE 204 PALM BEACH, FLORIDA 33409 PHONE (561) 894-4521 - FAX (561) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 608-1500 * FAX (850) 608-1801	PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS	B-3

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



- Legend:
- Soil Boring Approximate Location
 - Existing CMP To Be Removed
 - EJ Deck Expansion Joint
 - F Fixed Support
 - EOP Edge of Pavement

- Notes:
- Elevations are to the surface of the concrete. See Roadway Plans for Finish Grade Elevations.
 - Demolition and removal of the existing CMP shall be accomplished avoiding impacts to wetlands.
 - No existing utilities were identified within the bridge construction limits.
 - See Roadway Plans for profile grade information.
 - Contractor to apply Nafina Steel Liquid Aesthetic Restorative Agent to galvanized Guardrail and End Postage surfaces per manufacturer's specifications.
 - All roadway plans shall be in accordance with the Guardrail. See roadway plans for Guardrail Pay Items.

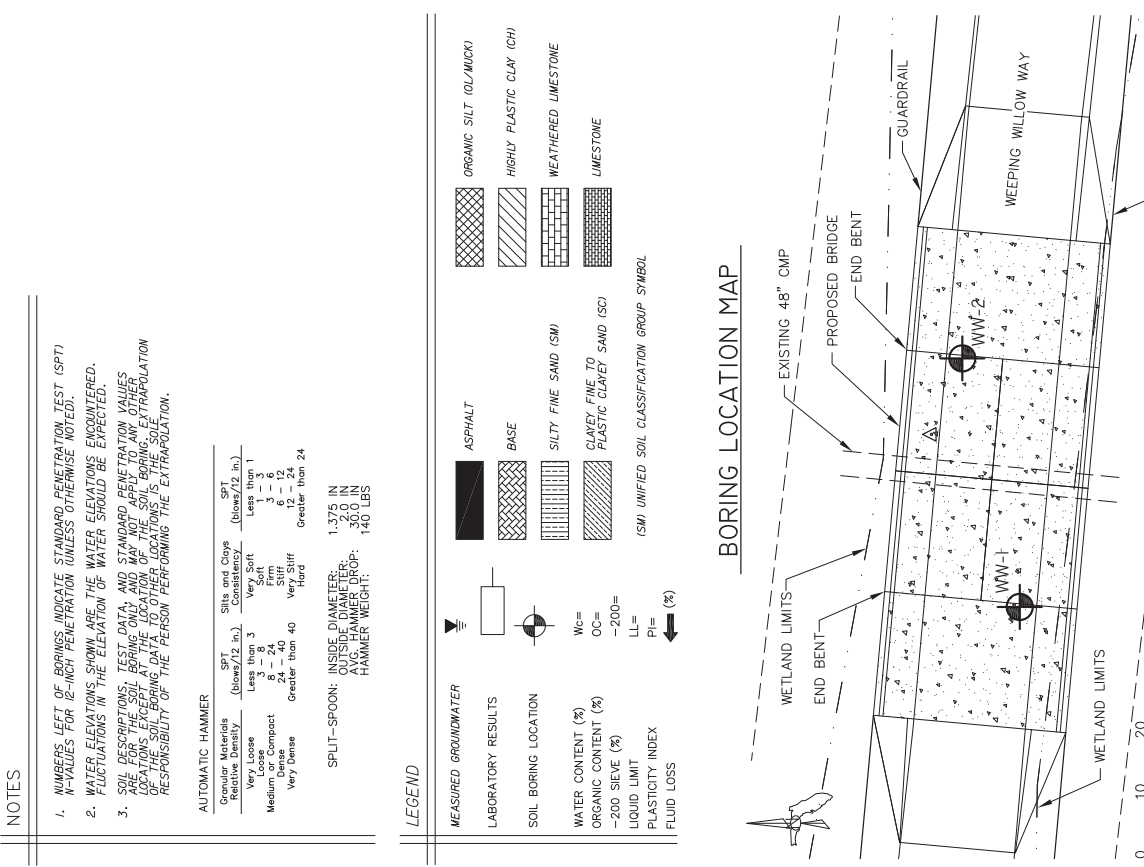
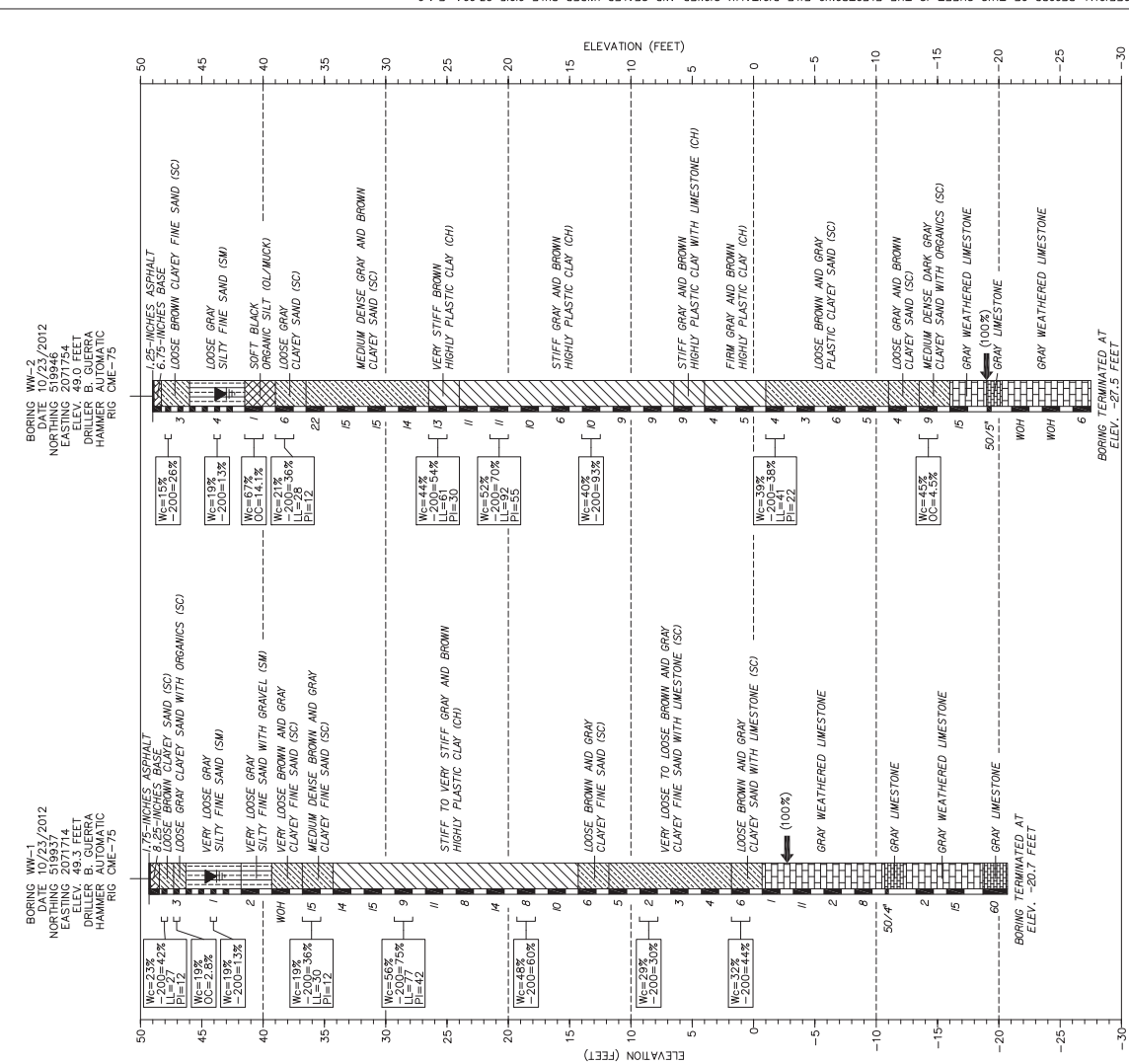
REVISIONS		DATE	BY	DESCRIPTION

INITIAL	M.S.	
DRAWN BY	M.S.	
CHECKED BY	M.S.	
DESIGN BY	M.S.	
DATE	7/20/15	

ENGINEER OF RECORD:		REGISTE: SLIGER ENGINEERING, INC.
		CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
		CERT. OF AUTHORIZATION # 9692 EL 32-308
		3770 Capt. # 894-4521 - FAX: (850) 224-0505
		PHONE: (850) 894-4521 - FAX: (850) 224-0505
		PROJECT NUMBER: 120
		JOHN F. SLIGER, II, P.E.
		P.E. #20588

PLAN AND ELEVATION		WEeping WILLOW WAY
PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. BI-1

LEON COUNTY DEPARTMENT OF PUBLIC WORKS		2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE: (850) 808-1500 * FAX: (850) 808-1501		



NOTES

- NUMBERS LEFT OF BORINGS INDICATE STANDARD PENETRATION TEST (SPT) VALUES FOR 6-INCH PENETRATION (UNLESS OTHERWISE NOTED).
- WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED. FLUCTUATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
- SOIL DESCRIPTIONS, TEST DATA, AND STANDARD PENETRATION VALUES LOCATIONS EXCEPT AT THE LOCATION OF THE SOIL BORING - EXTRAPOLATION OF SOIL BORING DATA TO OTHER CONDITIONS IS THE SOLE RESPONSIBILITY OF THE PERSON PERFORMING THE EXTRAPOLATION.

AUTOMATIC HAMMER

Granular Materials	SPT (blows/12 in.)	Sits and Clogs Consistency	SPT (blows/12 in.)
Very Loose	Less than 3	Very Soft	Less than 1
Loose	3 - 6	Firm	3 - 6
Medium or Compact	6 - 10	Stiff	10 - 15
Dense	10 - 15	Very Stiff	15 - 24
Very Dense	Greater than 15	Hard	Greater than 24

SPLIT-SPOON: INSIDE DIAMETER: 1.375 IN
 LENGTH: 3.00 IN
 AVG. HAMMER DROP: 140 LBS

LEGEND

MEASURED GROUNDWATER

LABORATORY RESULTS

SOIL BORING LOCATION

ASPHALT

BASE

SILTY FINE SAND (SM)

CLAYEY FINE TO PLASTIC CLAYEY SAND (SC)

ORGANIC SILT (OL/MUCK)

HIGHLY PLASTIC CLAY (CH)

WEATHERED LIMESTONE

LIMESTONE

(SM) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

Wc=

Oc=

Ll=

-200=

LIQUID LIMIT

PLASTICITY INDEX

FLUID LOSS

PI=

REPORT OF CORE BORINGS

LEON COUNTY

PROJECT TITLE
 WEEPING WILLOW WAY - CULVERT REPLACEMENT

Environmental & Geotechnical Specialists, Inc.
 104 NORTH MAGNOLIA DRIVE
 TALLAHASSEE, FLORIDA 32301
 OFFICE: (850) 846-6233
 FAX: (850) 846-6068

Cert. of Auth.: 6222

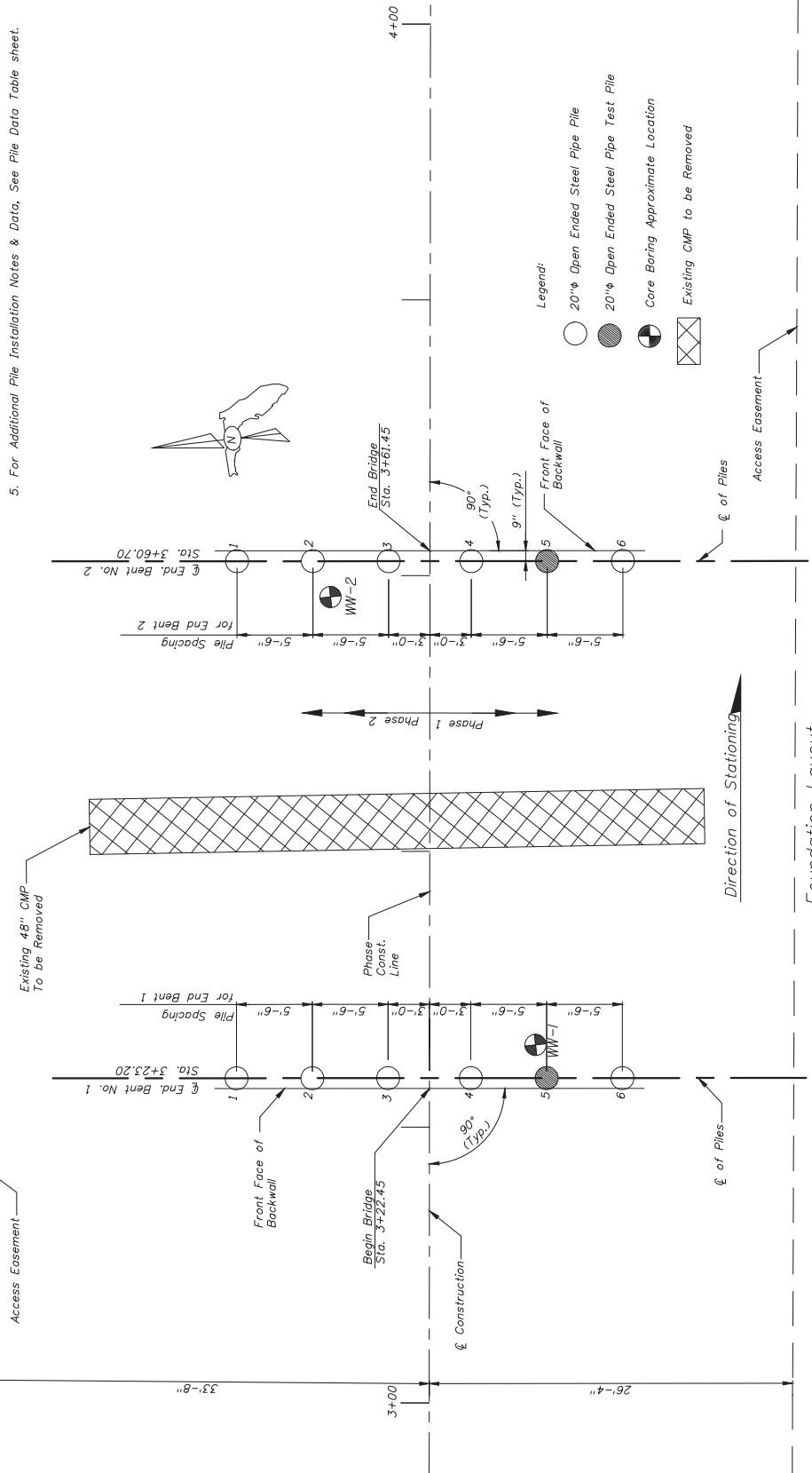
SEAL:
 JOSHUA M. JENKINS, P.E.
 P.E. NO.: 77686

SHEET NO.
 B1-2

REVISIONS

NOTES:

1. All piles are 20"Ø Open Ended Steel Pipe Piles.
2. All Piles are Plumb.
3. For the Pile Cutoff Elevations, see Pile Data Table sheet.
4. For Test Pile Lengths See Pile Data Table sheet.
5. For Additional Pile Installation Notes & Data, See Pile Data Table sheet.



- Legend:
- 20"Ø Open Ended Steel Pipe Pile
 - 20"Ø Open Ended Steel Pipe Test Pile
 - ◐ Core Boring Approximate Location
 - ⊗ Existing CMP to be Removed

FOUNDATION LAYOUT
 PROJECT NAME: **RAYMOND TUCKER DRAINAGE IMPROVEMENTS**

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 808-1500 * FAX (850) 808-1801

REGISTER: SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9692 FL 32308
 3370 CORP. CENTER BLVD. - TALLAHASSEE, FLORIDA 32308
 PHONE (850) 894-4321 - FAX (850) 824-0505
 PROJECT NUMBER: 120

ENGINEER OF RECORD:
 JOHN F. SLIGER II, P.E.
 P.E. #20588

DATE	BY	DESCRIPTION

INITIAL	DATE
ALC	
JLS	
ALC	
JLS	
DATE	
	4/20/15

WEEPING WILLOW WAY

SHEET NO.

BI-3

DESIGN NOTE:

The Pipe Piles with reinforced concrete fill are designed such that the steel pipe shell can corrode completely. The pile capacity is based upon the remaining concrete core acting as a cast-in-place reinforced pile column, after corrosion of the steel pipe shell.

STEEL PIPE PILES:

Pipe for piles shall be new, straight steel pipe conforming to FDOT Standard Specifications Section 962 welded and seamless steel pipe piles. Ends of pipe section shall be perpendicular to the longitudinal axis. Pipe wall thickness to be 1/2".

SPLICES:

The ends of all pile sections to be spliced shall be beveled and full butt-welded as shown on the plans. All splices shall be watertight.

INSPECTION:

The Contractor shall have available at all times a suitable drop light for inspecting the entire length of the driven pipe pile before placing reinforcing steel and concrete.

PILE CUT OFF:

Steel Pipe Piles shall be cut off at the required elevations along a plane normal to the axis of the pile. Methods used in cutting off piles shall meet with the approval of the Engineer.

REINFORCING STEEL:

All reinforcing steel shall conform to ASTM A615, Grade 60.

CONCRETE:

Concrete for piles and columns shall be CLASS \square (Drilled Shaft) $f'_c = 4,000$ psi, and shall conform to Section 346 of FDOT Standard Specifications. The final installed pile piles shall be clean and free of water before placing reinforcing steel and concrete. Concrete placement shall conform to section 455-7.4 of FDOT Standard Specifications.

MILL TEST REPORTS:

Notarized mill test report shall be required for all steel pipe piles, and submitted to Leon County for Approval.

WELDINGS:

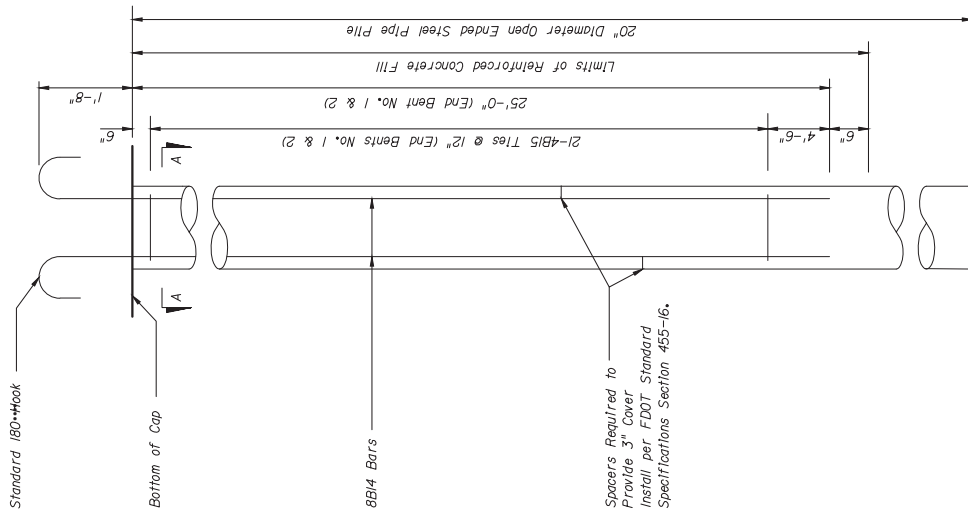
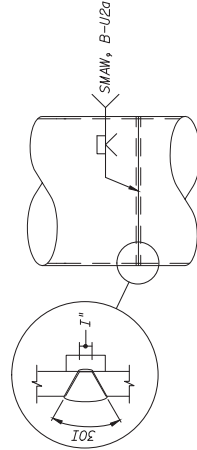
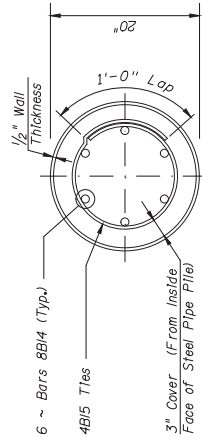
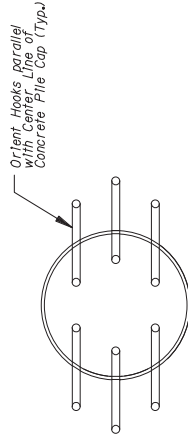
All welding shall conform to AMERICAN WELDING SOCIETY (AWS) Bridge Welding Code.

OPEN ENDED DRIVING TIPS/CUTTING SHOES:

Open ended driving tips shall be provided for all piles. The contractor shall submit pile tip protection shop drawings to Leon County Public Works for Review. Pile Tips/Cutting shoes shall be provided by Associated Pile & Piling LLC (APF) or approved equal. APF can be contacted at www.associatedpile.com or at 1-800-526-9047. The pile tip protection shall be included in the cost of the steel pipe piles.

PAYMENT NOTE:

All costs associated with furnishing and installing the Steel Pipe Piles are to be included in the Contract Unit Price for STEEL PILING, (455-35-21) or TEST PILES STEEL (455-44-21), whichever applies. Cost shall include but not be limited to furnishing and driving the steel pipe piles with pile tip protection, removing soil from inside of the pile, furnishing and placing the concrete and reinforcing steel.

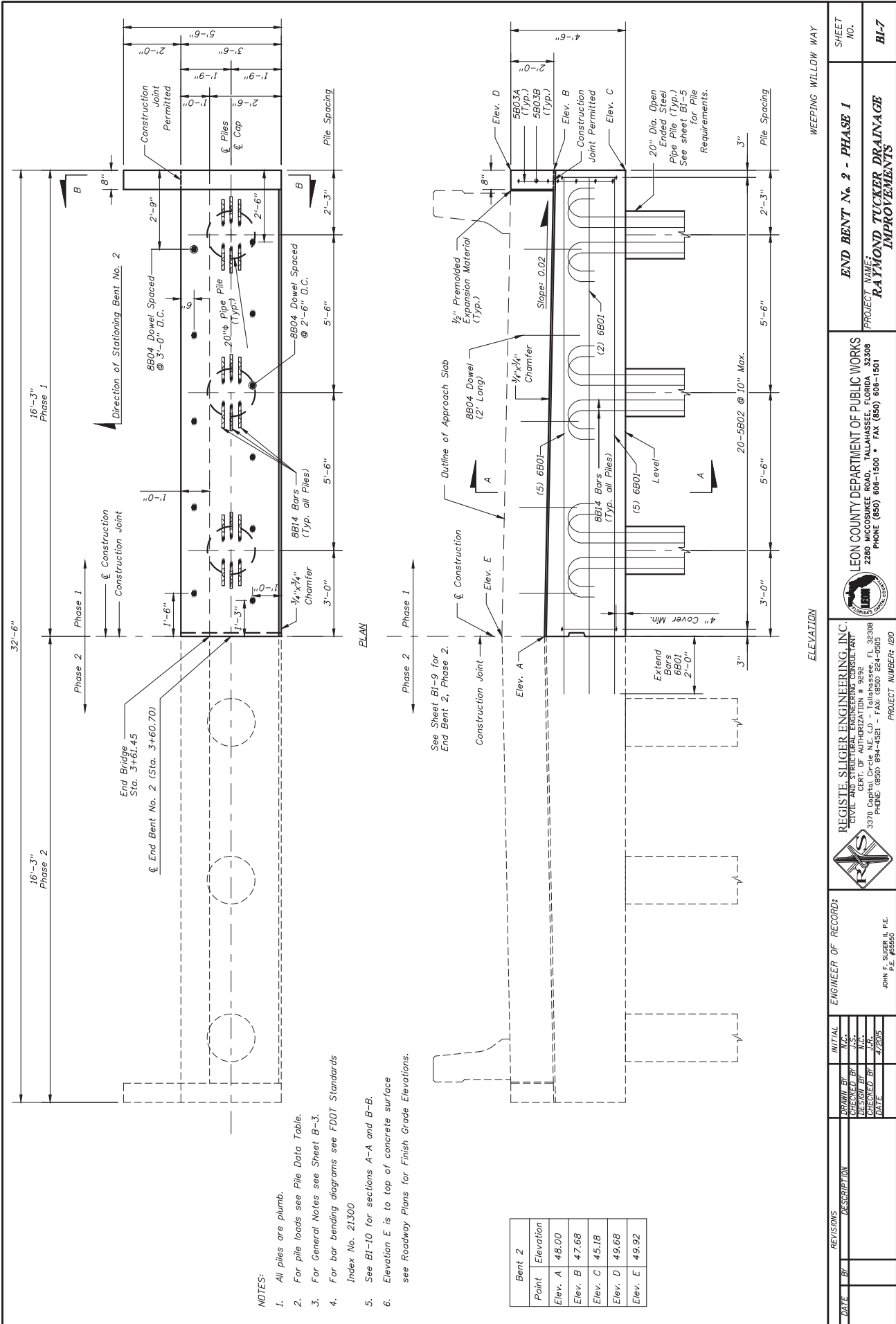


ELEVATION OF PIPE PILE

PIPE PILE SPLICE DETAIL

WEERING WILLOW WAY

DATE		BY	REVISIONS	DESCRIPTION	INITIAL	DATE	ENGINEER OF RECORD:	PROJECT NUMBER: 120	<p>REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9692 FL 32-308 3370 CORP. CENTER BLVD. SUITE 204 PALM BEACH GARDENS, FL 33418 PHONE (561) 994-4321 FAX (561) 254-0505</p>	<p>LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 608-1500 * FAX (850) 608-1801</p>	STEEL PIPE PILE DETAIL	SHEET NO.
							JOHN F. SLIGER, II, P.E. P.E. #20558	RAYMOND TUCKER DRAINAGE IMPROVEMENTS			BI-5	



- NOTES:
1. All piles are plumb.
 2. For pile loads see Pile Data Table.
 3. For General Notes see Sheet B-3.
 4. For bar bending diagrams see FDOT Standards Index No. 21300
 5. See B1-10 for sections A-A and B-B.
 6. Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.

Bent 2	Point	Elevation
	Elev. A	48.00
	Elev. B	47.68
	Elev. C	45.18
	Elev. D	49.68
	Elev. E	49.92

END BENT No. 2 - PHASE 1
 PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 608-1500 * FAX (850) 608-1801

REGISTERED ENGINEERING CONSULTANT
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 3692 EL 32308
 3370 CORP. CENTER BLVD. SE, TALLAHASSEE, FL 32308
 PHONE (850) 894-4321 - FAX (850) 224-0505
 PROJECT NUMBER: 120

ENGINEER OF RECORD:
 JOHN F. SLIGER, II, P.E.
 P.E. #20558

DATE	BY	DESCRIPTION

REVISIONS

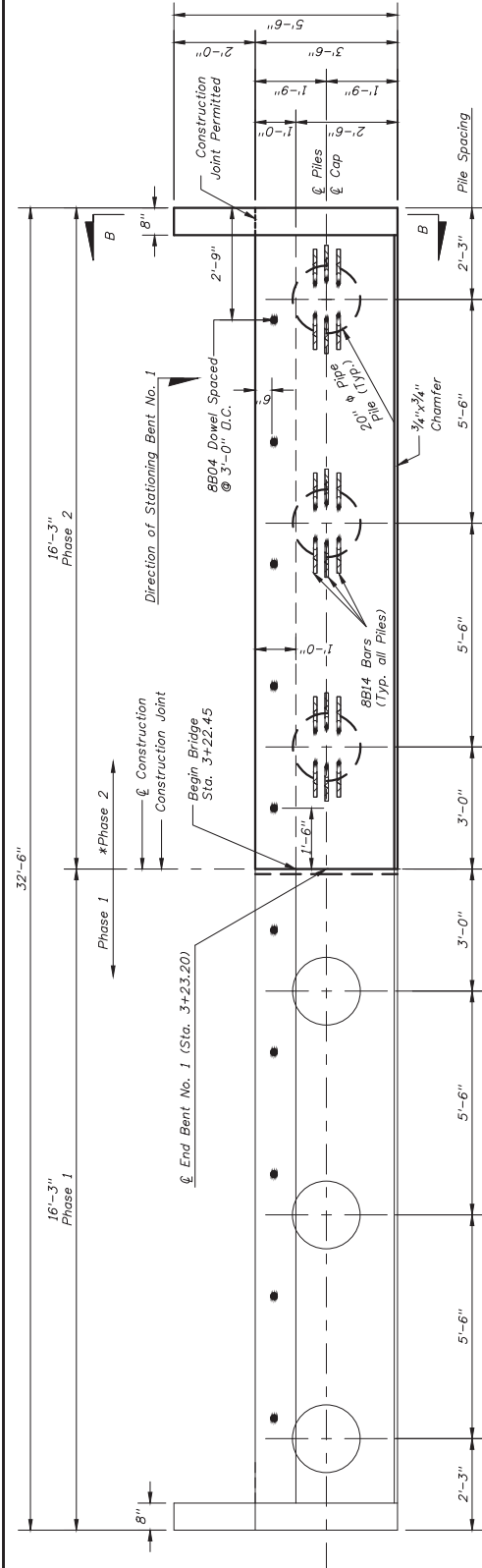
DATE	BY	DESCRIPTION

WEEPING WILLOW WAY

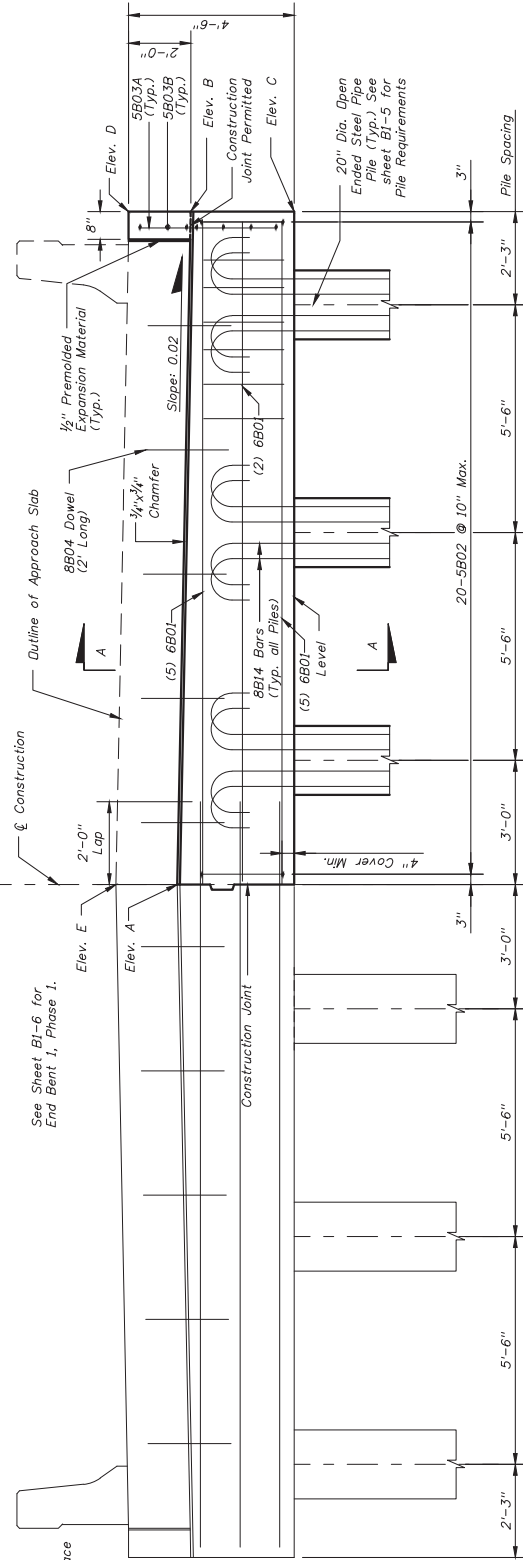
ELEVATION

SHEET NO.
BI-7

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PLAN



ELEVATION

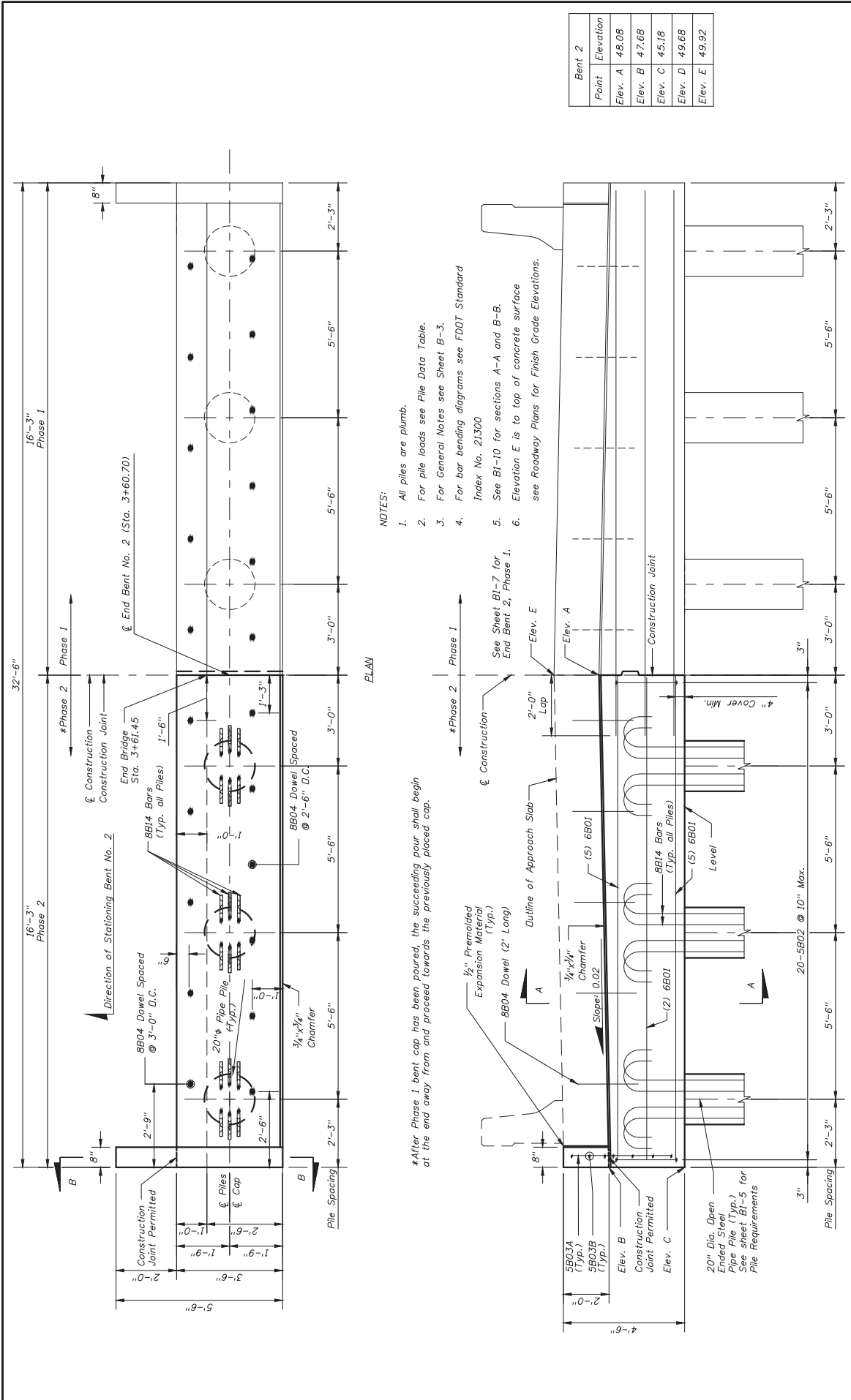
*After Phase 1 bent cap has been poured, the succeeding pour shall begin at the end away from and proceed towards the previously placed cap.

See Sheet BI-6 for End Bent 1, Phase 1.

- All piles are plumb.
- For pile loads see Pile Data Table.
- For General Notes see Sheet B-3.
- For bar bending diagrams see FDOT Standard Index No. 21300
- See BI-10 for sections A-A and B-B.
- Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.

Bent 1	
Point	Elevation
Elev. A	47.89
Elev. B	47.57
Elev. C	45.07
Elev. D	49.57
Elev. E	49.81

<table border="1" style="width:100%;"> <tr><th>DATE</th><th>BY</th><th>REVISIONS</th></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	DATE	BY	REVISIONS										<p style="text-align: center;">ENGINEER OF RECORD:</p> <p style="text-align: center;">REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9692 EL 36208 3370 CORTI (850) 894-4321 - FAX (850) 224-0505 PHONE (850) 894-4321 - FAX (850) 224-0505 PROJECT NUMBER: 120</p>	 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 608-1500 * FAX (850) 608-1501	<p style="text-align: center;">END BENT No. 1 - PHASE 2</p> <p style="text-align: center;">PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS</p>	SHEET NO. BI-8
	DATE	BY	REVISIONS													
<p>WEERING WILLOW WAY</p>																
<p>CONSTRUCTION DATE: 4/20/15</p>																



NOTES:

- All piles are plumb.
- For pile loads see Pile Data Table.
- For General Notes see Sheet B-3.
- For bar bending diagrams see FDOT Standard Index No. 21300
- See Sheet BI-7 for End Bent 2, Phase 1.
- Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.

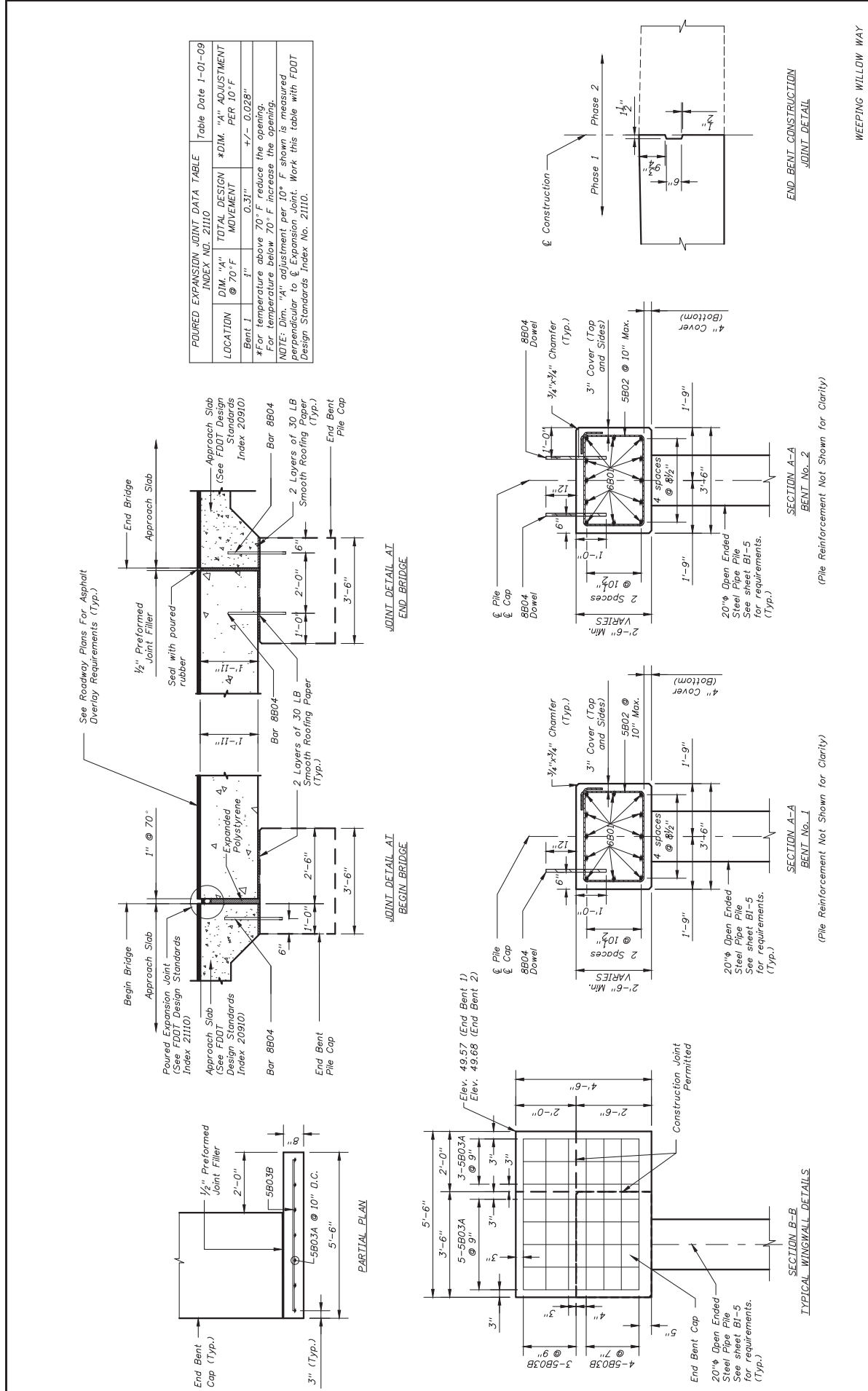
*After Phase 1 bent cap has been poured, the succeeding pour shall begin at the end away from and proceed towards the previously placed cap.

DATE	BY	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	REGISTERED ENGINEERING CONSULTANT	PROJECT NAME	SHEET NO.
				JOHN F. SLIGER, II, P.E. P.E. #25588	REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9692 EL 32-308 3370 CORP. CENTER BLVD. SUITE 200 PHOENIX, AZ 85018-4521 FAX (602) 954-9505	END BENT No. 2 - PHASE 2 RAYMOND TUCKER DRAINAGE IMPROVEMENTS	BI-9

WEERING WILLOW WAY

ELEVATION

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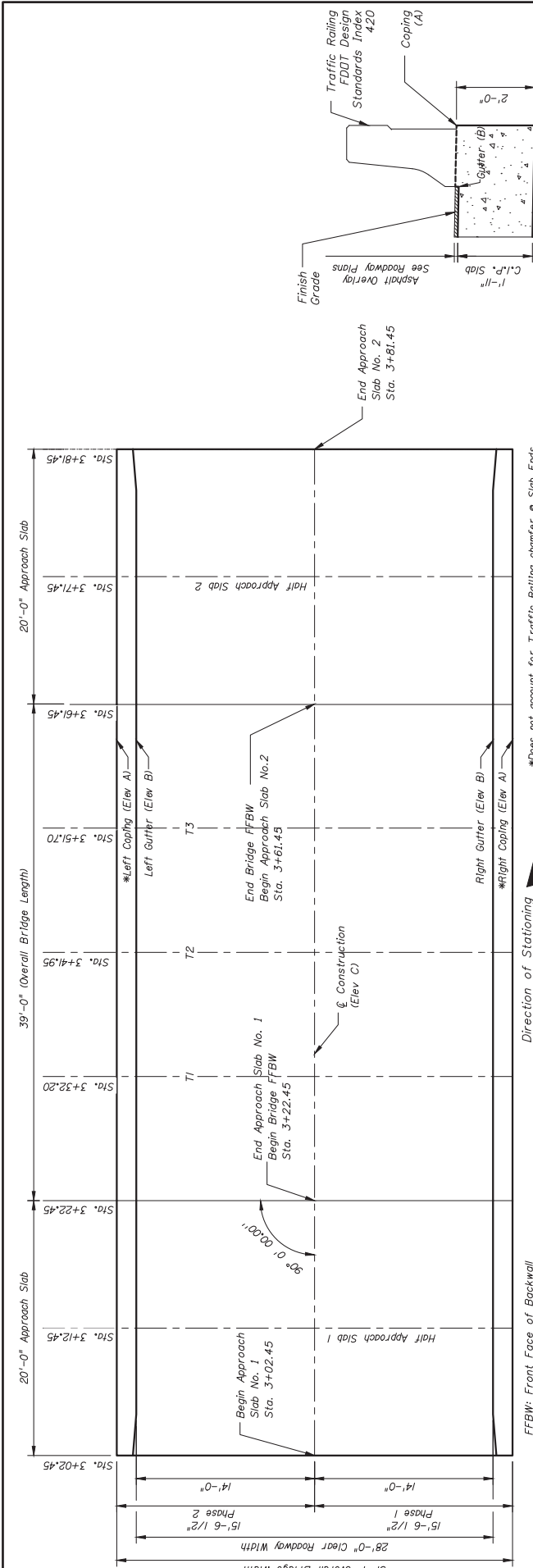
POURED EXPANSION JOINT DATA TABLE Table Date 1-01-09

INDEX NO.	2110	TOTAL DESIGN MOVEMENT @ 70° F	*DIM. "A" ADJUSTMENT PER 10° F
Bent 1	3"	0.31"	+/- 0.028"

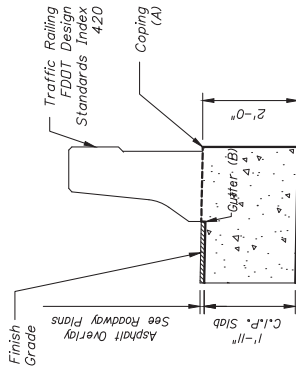
*For temperature above 70° F reduce the opening.
 For temperature below 70° F increase the opening.
 NOTE: Dim. "A" adjustment per 10° F shown is measured perpendicular to Expansion Joint. Work this table with FDOT Design Standards Index No. 2110.

DATE	BY	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	SUBSTRUCTURE/SUPERSTRUCTURE DETAILS	SHEET NO.
				JOHN F. SLIGER II, P.E. P.E. #25588	RAYMOND TUCKER DRAINAGE IMPROVEMENTS		BI-10
				REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9692 FL 32-308 3370 CORP. CENTER BLVD. - TALLAHASSEE, FLORIDA 32308 PHONE (850) 894-4521 - FAX (850) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 808-1500 * FAX (850) 808-1801		

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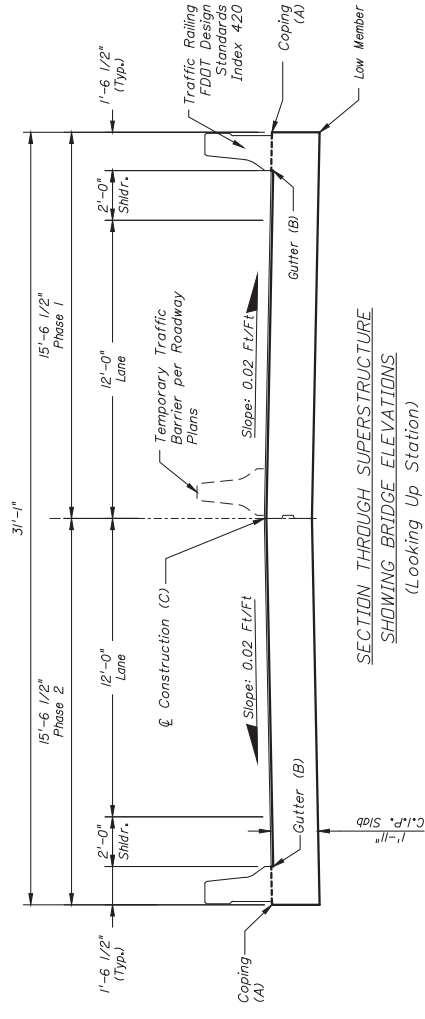
SLAB END DETAIL



BRIDGE ELEVATION TABLE

Location	Approach Slab 1			Span No. 1			Approach Slab 2		
	Begin	Mid.	End	T1	T2	T3	Mid.	End	
Station	3+02.45	3+12.45	3+22.45	3+32.20	3+41.95	3+51.70	3+61.45	3+71.45	
Elev. A	49.30	49.44	49.58	49.61	49.63	49.66	49.69	49.53	
Elev. B	49.25	49.39	49.53	49.55	49.58	49.61	49.64	49.48	
Elev. C	49.53	49.67	49.81	49.83	49.86	49.89	49.92	49.76	

Note: Bridge elevations are to the surface of the concrete slab. See Roadway Plans for Finish Grade Elevations.



DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
 JOHN F. SLIGER, P.E.
 P.E. #2558

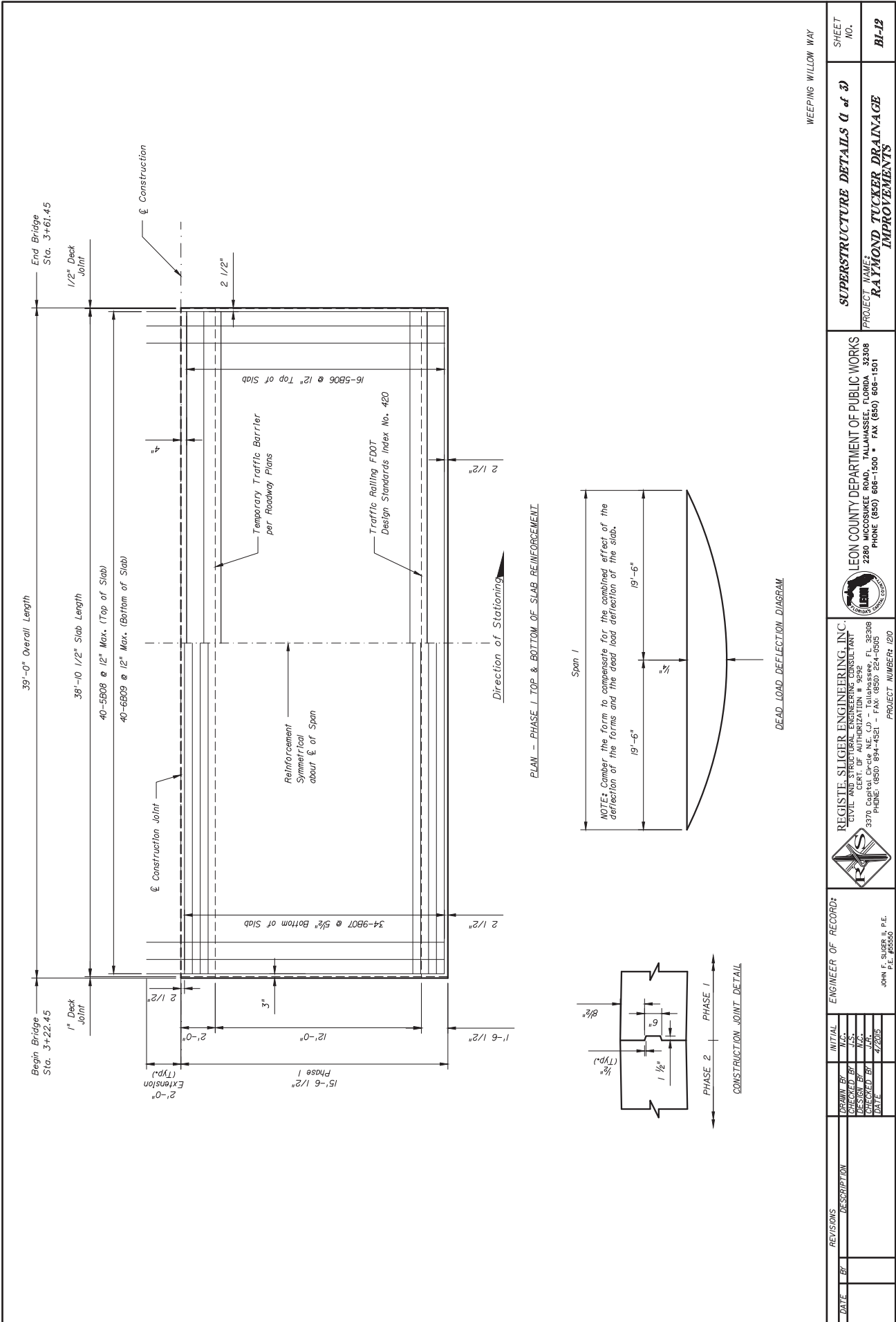
REGISTE: SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 3692 FL 32-308
 3370 CORAL RIDGE BLVD. SUITE 200
 PALM BEACH GARDENS, FL 33408
 PHONE: (561) 994-4321 - FAX: (561) 224-0505
 PROJECT NUMBER: 120

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 808-1500 * FAX (850) 808-1801

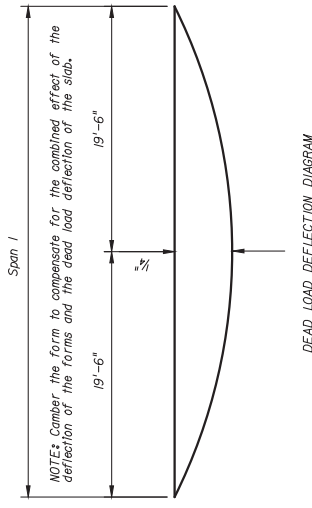
BRIDGE ELEVATIONS
 PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS

SHEET NO.
BI-1

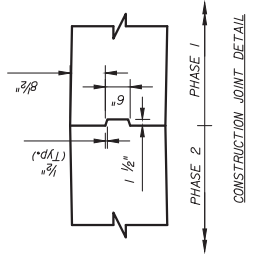
WEeping Willow Way



PLAN - PHASE 1 TOP & BOTTOM OF SLAB REINFORCEMENT



DEAD LOAD DEFLECTION DIAGRAM



CONSTRUCTION JOINT DETAIL

WEAVING WILLOW WAY

SUPERSTRUCTURE DETAILS 1 of 3		SHEET NO.
PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		BI-12

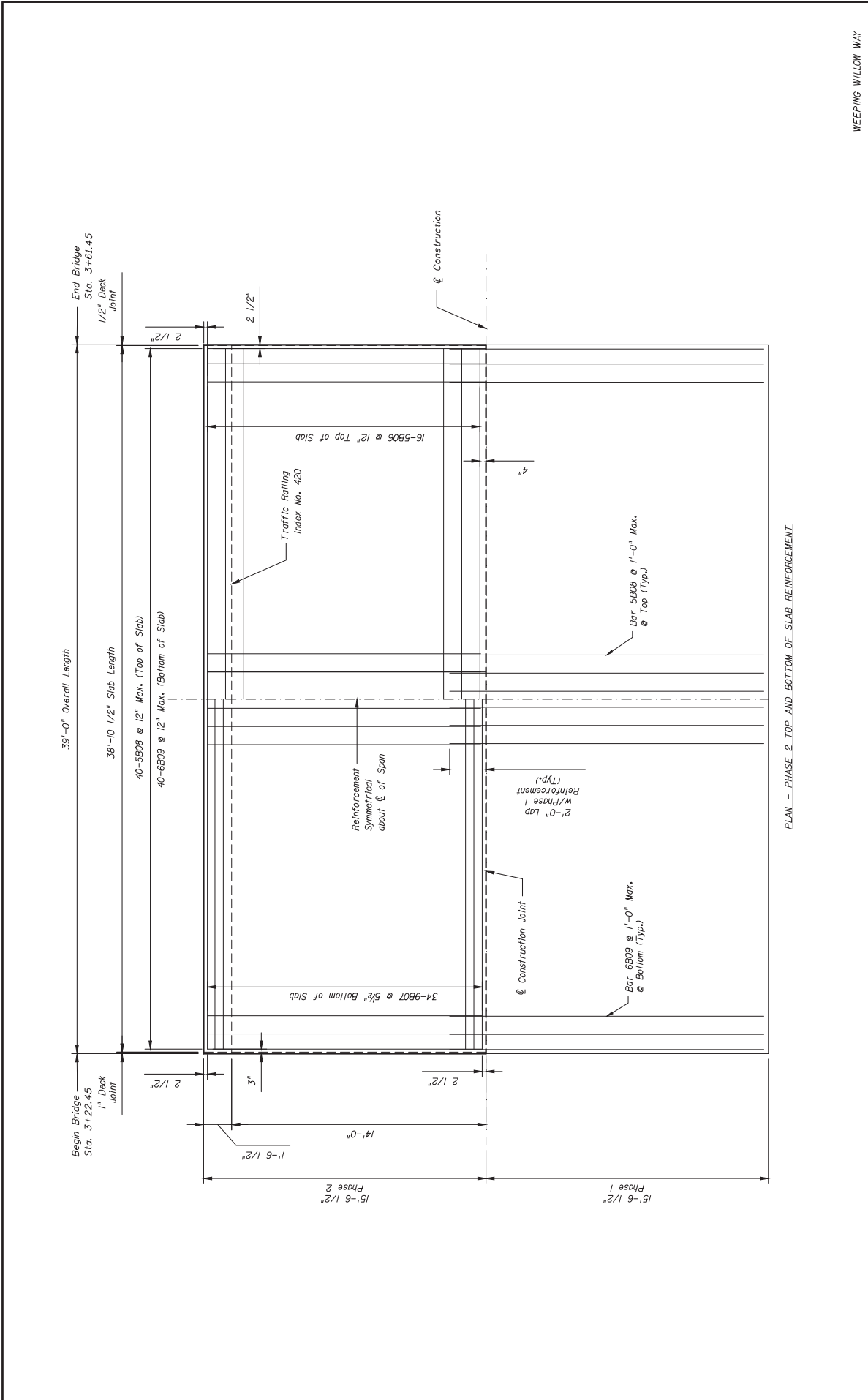
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 608-1500 * FAX (850) 608-1801

REGISTE: SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9692 FL 36308
 3370 CORP. CENTER BLVD. SE, TALLAHASSEE, FL 32308
 PHONE (850) 894-4521 - FAX (850) 824-0505
 PROJECT NUMBER: 120

ENGINEER OF RECORD:
 JOHN F. SLIGER, II, P.E.
 P.E. #25558

DATE	BY	REVISIONS	DESCRIPTION

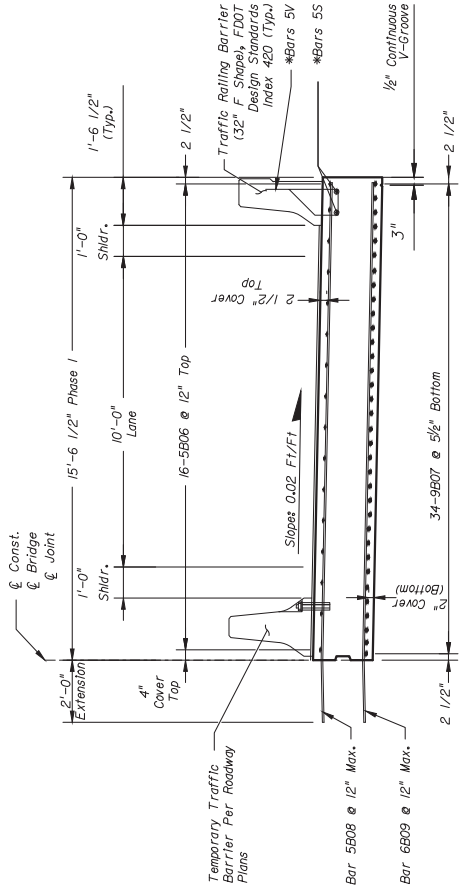
INITIAL	DATE



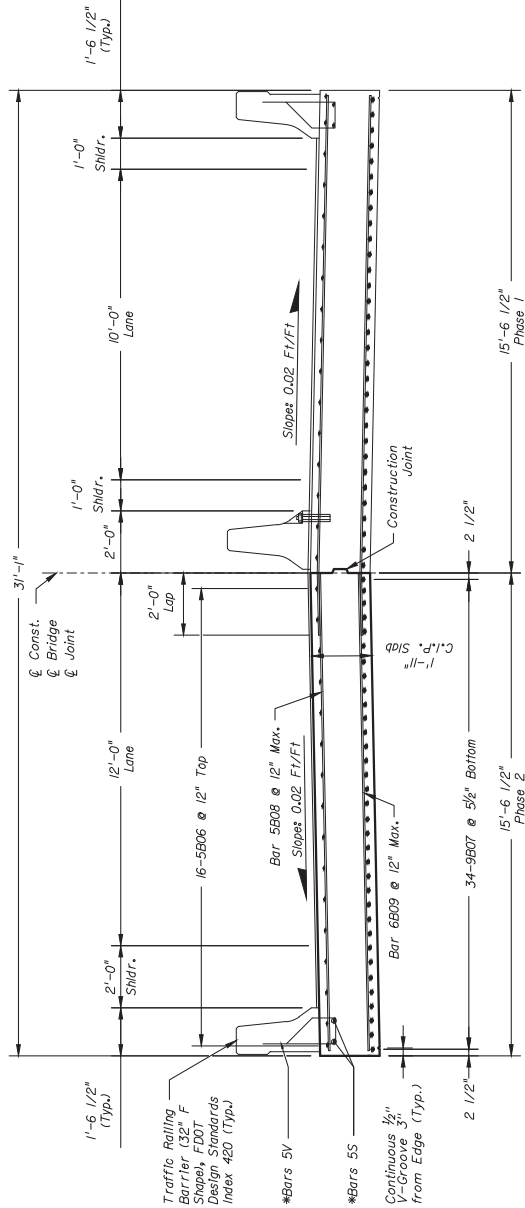
PLAN - PHASE 2, TOP AND BOTTOM OF SLAB REINFORCEMENT

REVISIONS		ENGINEER OF RECORD:		REGISTERED ENGINEERING CONSULTANT		LEON COUNTY DEPARTMENT OF PUBLIC WORKS		SUPERSTRUCTURE DETAILS 2 of 3		SHEET NO.	
DATE	BY	INITIAL	DATE	CERT. NO.	EXPIRES	PROJECT NAME	PROJECT NO.	RAYMOND TUCKER DRAINAGE IMPROVEMENTS		BL-13	
				3770	05/01/2015	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308	32308	PHONE (850) 608-1500 * FAX (850) 608-1801			
				3370	05/01/2015	3370 CORP. BLVD., TALLAHASSEE, FLORIDA 32308	120	PHONE (850) 894-4321 - FAX (850) 224-0505			
								PROJECT NUMBER: 120			
				JOHN F. SLIGER II, P.E. P.E. #25558							

WEEPING WILLOW WAY



PHASE 1 - TYPICAL SUPERSTRUCTURE SECTION



PHASE 2 - TYPICAL SUPERSTRUCTURE SECTION

*Bars 5S and 5V are included in the cost of the Traffic Railing.

- Notes:
1. See Roadway Plans For Asphalt Overlay Requirements.
 2. Bolt Temporary Traffic Barrier per FDOT Design Standards Index 414 (Typ.)

DATE	BY	REVISIONS

ENGINEER OF RECORD:
 JOHN F. SLIGER, II, P.E.
 P.E. #25558

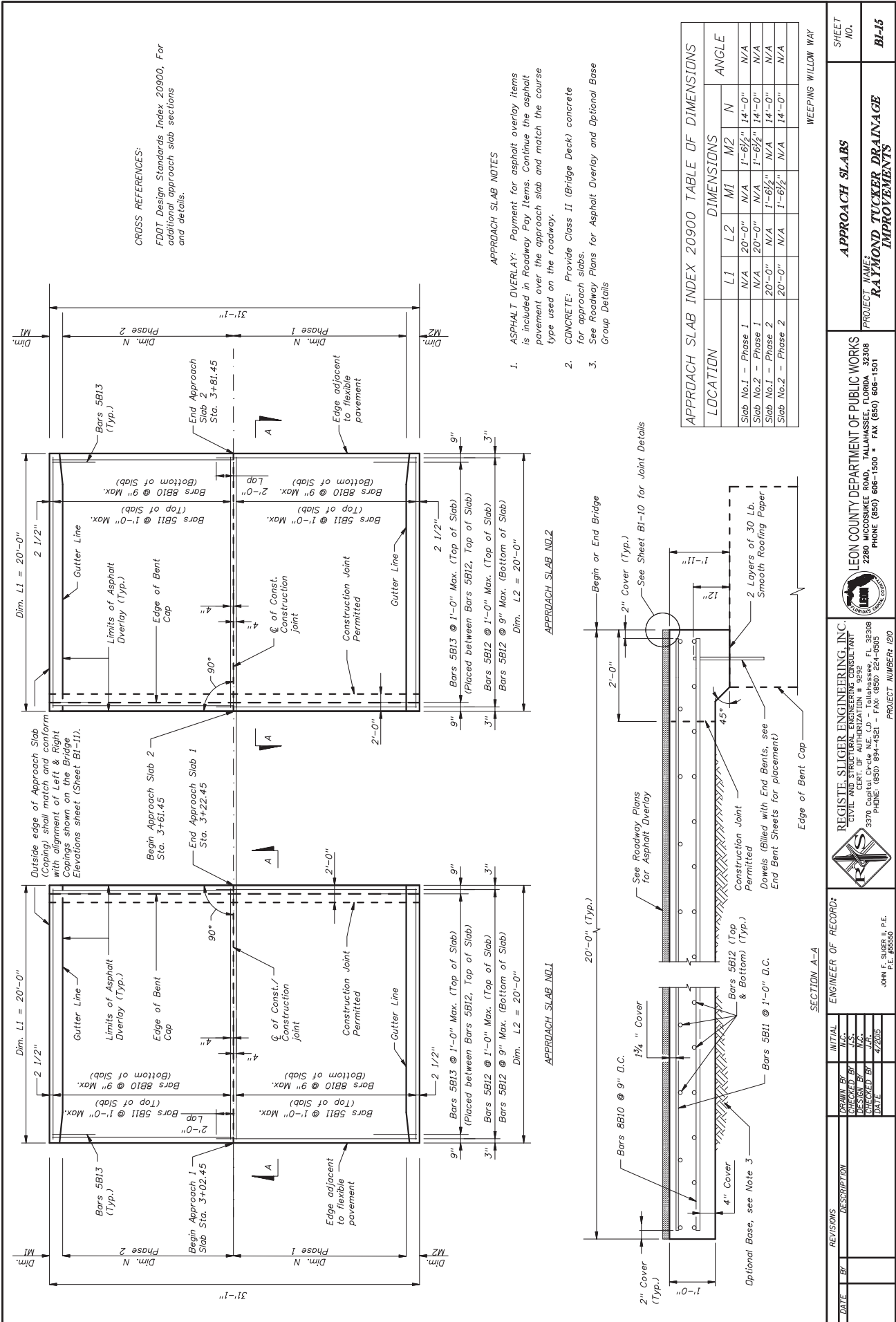
REGISTE: SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9692 FL 32308
 3370 CORP. BLVD. #421 - FAK (850) 224-0505
 PHONE (850) 894-4521 - FAK (850) 224-0505
 PROJECT NUMBER: 120

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 608-1500 * FAX (850) 608-1801

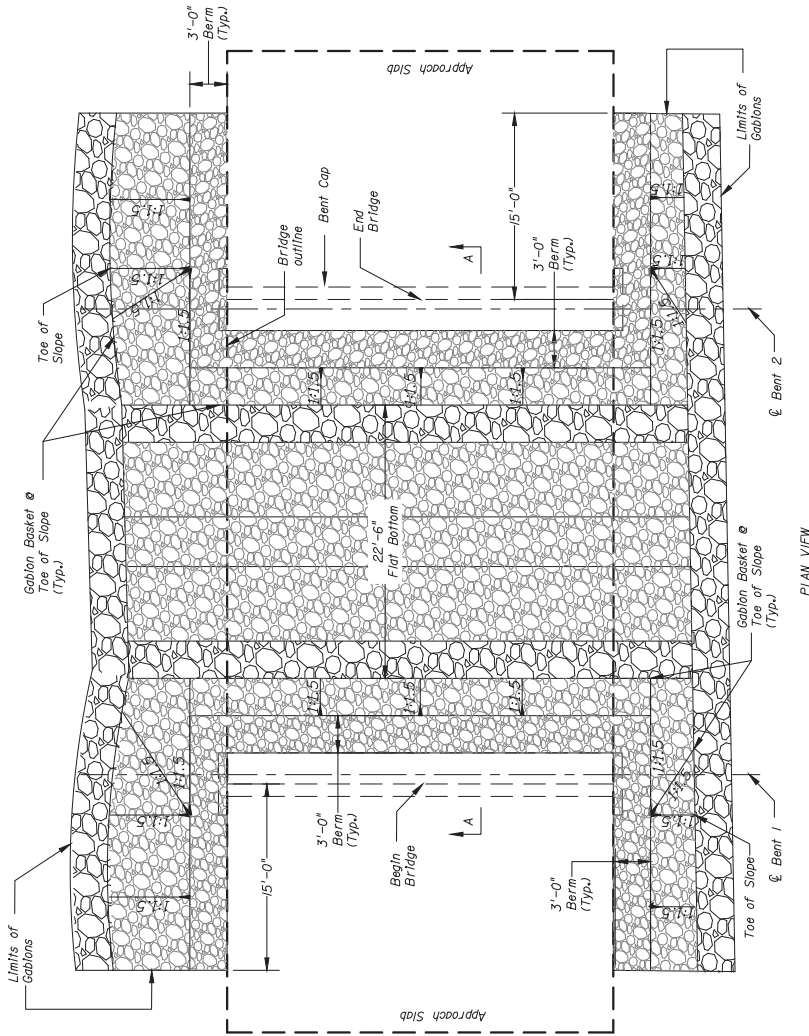
SUPERSTRUCTURE DETAILS 6 of 8
 PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS

SHEET NO.
BL-14

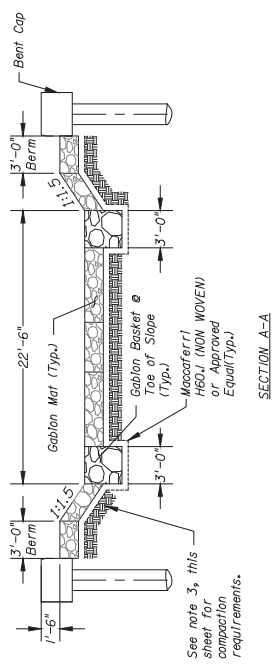
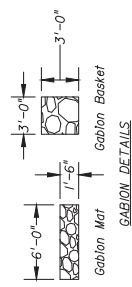
WEeping WILLOW WAY



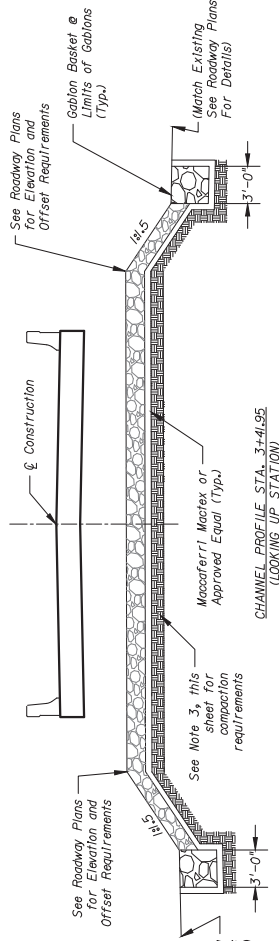
- Notes:**
- All Gabions shall be Maccoferrri or approved equal.
 - Maccoferrri can be contacted at www.maccoferrri-usa.com or by phone at 301-223-6910
 - Compact the soil below gabions to a minimum density of 90% of the soils Modified Proctor maximum dry density (ASTM D-1557) for a depth of at least 24 inches.
 - Gabions components shall be in accordance with FOOT Standard Specification Section 530-2.3. Install Gabions in accordance to FOOT Standard Specification Section 530-3.5 and the manufacturer's specifications and recommendations.



PLAN VIEW



SECTION A-A



WEEPING WILLOW WAY



REVISIONS		ENGINEER OF RECORD:		REGISTERED ENGINEERING, INC.		LEON COUNTY DEPARTMENT OF PUBLIC WORKS		GABION BANK PROTECTION DETAILS		SHEET NO.	
DATE	BY	DESCRIPTION	INITIAL	M.C.S.	CIVIL AND STRUCTURAL ENGINEERING CONSULTANT	3770 CAPITAL AUTHORIZATION # 9692	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308	PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		BI-16	
					PHONE: (850) 894-4321 - FAX: (850) 224-0505	PHONE: (850) 608-1500 * FAX: (850) 608-1801					
					PROJECT NUMBER: 120						
					JOHN F. SLIGER II, P.E.						
					P.E. #20588						

MARK SIZE DES	LENGTH		NO. TYP	STY BAR	B		C		D		E		F		H		J		K		N NO	LANG
	FT	IN			FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT		
<p>LOCATION: APPROACH SLAB NO. 1 & 2 PHASE 1</p>																						
8	B10	19-6	21	1	19-6																	
5	B11	19-6	16	1	19-6																	
5	B12	17-4	48	1	17-4																	
5	B13	7-8	20	1	7-8																	
<p>LOCATION: APPROACH SLAB NO. 1 & 2 PHASE 2</p>																						
8	B10	19-6	21	1	19-6																	
5	B11	19-6	16	1	19-6																	
5	B12	15-4	48	1	15-4																	
5	B13	7-8	20	1	7-8																	
<p>LOCATION: PIPE PILE PHASE 1</p>																						
8	B14	26-8	6	17	1	26-8																
4	B15	4-5	21	24	1-0	0-6 1/2																
<p>LOCATION: PIPE PILE PHASE 2</p>																						
8	B14	27-11	6	17	1	26-8																
4	B15	4-5	21	24	1-0	0-6 1/2																
<p>END OF LIST</p>																						

MARK SIZE DES	LENGTH		NO. TYP	STY BAR	B		C		D		E		F		H		J		K		N NO	LANG
	FT	IN			FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT		
<p>LOCATION: END BENT NO. 1 PHASE 1</p>																						
6	B01	18-0	12	1	18-0																	
5	B02	10-10	20	4	4	1-11	3-0															
5	B03A	3-10	8	1	3-10																	
5	B03B	5-0	7	1	5-0																	
8	B04	2-0	5	1	2-0																	
<p>LOCATION: END BENT NO. 2 PHASE 1</p>																						
6	B01	18-0	12	1	18-0																	
5	B02	10-10	20	4	4	1-11	3-0															
5	B03A	3-10	8	1	3-10																	
5	B03B	5-0	7	1	5-0																	
8	B04	2-0	11	1	2-0																	
<p>LOCATION: END BENT NO. 1 PHASE 2</p>																						
6	B01	16-0	12	1	16-0																	
5	B02	10-10	20	4	4	1-11	3-0															
5	B03A	3-10	8	1	3-10																	
5	B03B	5-0	7	1	5-0																	
8	B04	2-0	5	1	2-0																	
<p>LOCATION: END BENT NO. 2 PHASE 2</p>																						
6	B01	16-0	12	1	16-0																	
5	B02	10-10	20	4	4	1-11	3-0															
5	B03A	3-10	8	1	3-10																	
5	B03B	5-0	7	1	5-0																	
8	B04	2-0	11	1	2-0																	
<p>LOCATION: SUPERSTRUCTURE PHASE 1</p>																						
5	B06	38-7	16	1	38-7																	
9	B07	38-7	34	1	38-7																	
5	B08	17-4	40	1	17-4																	
6	B09	17-4	40	1	17-4																	
<p>LOCATION: SUPERSTRUCTURE PHASE 2</p>																						
5	B06	38-7	16	1	38-7																	
9	B07	38-7	34	1	38-7																	
5	B08	15-4	40	1	15-4																	
6	B09	15-4	40	1	15-4																	

NOTES:
 1. Work this sheet with FDOT Design Standards Index 21300.
 2. Reinforcement for pipe piles is to be included in the payment for pipe piles. See sheet BI-5 for details.

WEERING WILLOW WAY

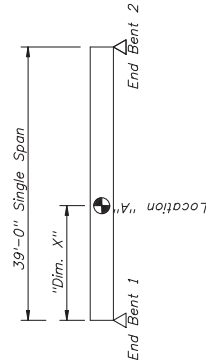
REVISIONS DATE BY DESCRIPTION		INITIAL M.C. / J.S. CHECKED BY / DATE DESIGN BY / DATE M.C. / J.S. 4/20/05		ENGINEER OF RECORD: JOHN F. SLIGER, II, P.E. P.E. #2058				REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 2692 FL 26-308 3370 CORP. BLVD. SUITE 200 PALM BEACH GARDENS, FL 33418 PHONE (561) 894-4521 - FAX (561) 224-0505 PROJECT NUMBER: 120		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 608-1500 * FAX (850) 608-1801				REINFORCING BAR LIST PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. BI-7
----------------------------------	--	---	--	---	--	---	--	---	--	---	--	---	--	--	--	--------------------------

General Notes:
 1. This table is based on the requirements established in the January 2017 "Structures Manual".

- Table 2 Notes:
 1. Permit capacity is determined by using the permit vehicle in all lanes.
 2. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? Yes No
 3. Load Rating Performed by RSE in house MathCad Sheet.
 4. Slab Bridge design for moment in accordance with LRFD 4.6.2.3 are satisfactory for shear (LRFD 5.1.4.1).

Load Rating Summary Details for Reinforced Concrete Bridges											Table Date 01-01-11							
Level	Limit State	Vehicle	Weight (tons)	Load Factors			Moment (Strength)			Shear (Strength)			Comments:					
				LL	DC	DW	Rating Factor	Distribution Factor (DF)	Tons	Location	Dimension	Rating Factor		Distribution Factor (DF)	Tons	Location	Dimension	
Design Load Rating	Strength I (Inv)	HL-93	N/A	1.75	1.25	1.50	0.091	0.091	1.21	N/A	A	18.00'	0.091	N/A	N/A	N/A	N/A	See Note 4
	Strength I (Op)	HL-93	N/A	1.35	1.25	1.50	0.091	0.091	1.57	N/A	A	18.00'	0.091	N/A	N/A	N/A	N/A	See Note 4
Permit Load Rating	Strength II	FL120	60.0	1.35	1.25	1.50	0.091	0.091	1.19	71.4	A	16.34'	0.091	N/A	N/A	N/A	N/A	See Note 4

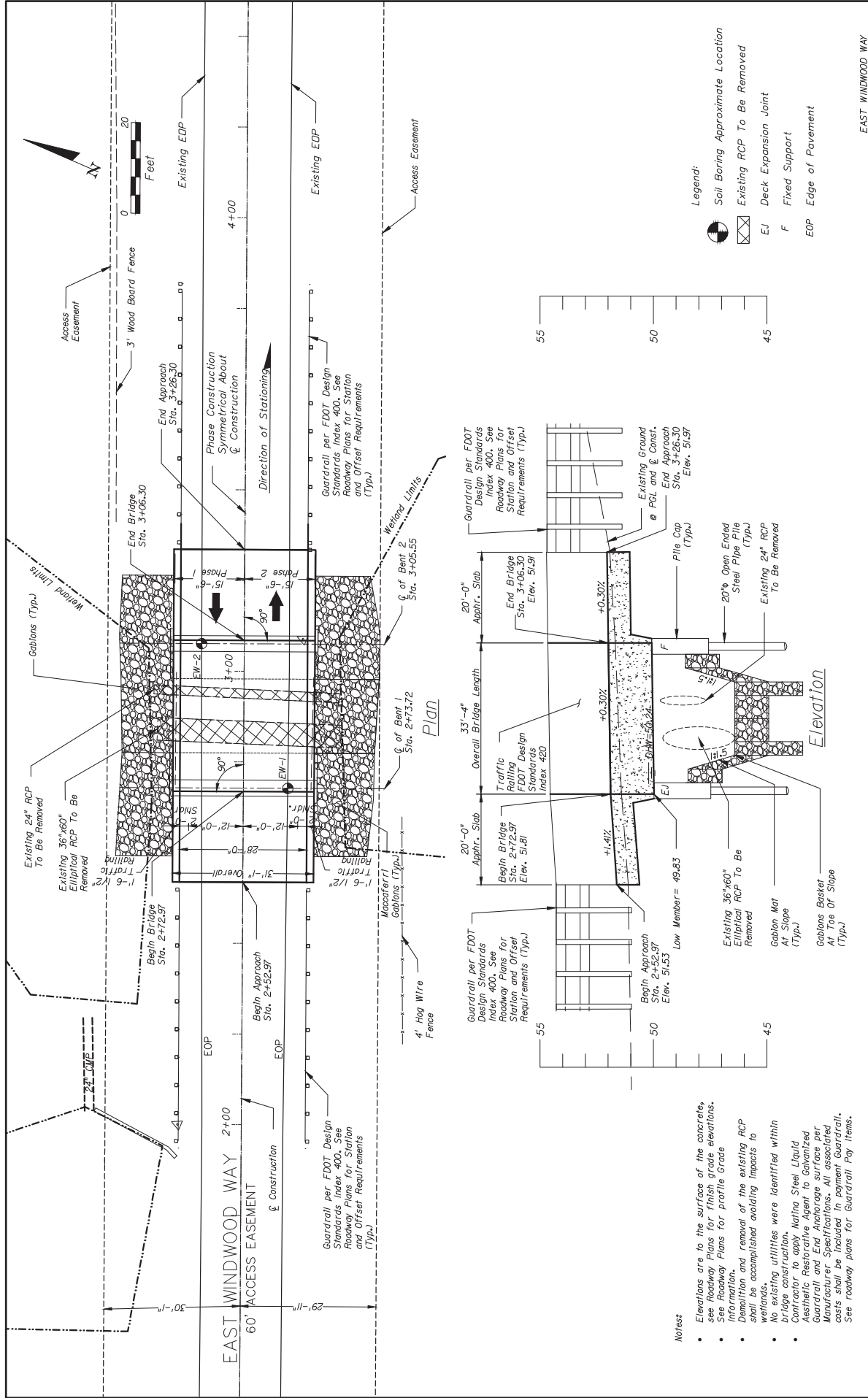
Abbreviations:
 Inv - Inventory
 Op - Operating



RATING LOCATIONS

WEEPING WILLOW WAY

DATE	BY	REVISIONS	DESCRIPTION	INITIAL	DATE	ENGINEER OF RECORD:	PROJECT NUMBER: 120
				M.C.		REGISTE: SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 2692 FL 32-308 3370 CORP. PHONE (850) 894-4521 - FAX (850) 224-0505	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 808-1500 * FAX (850) 808-1801
				J.S.		JOHN F. SLIGER, II, P.E. P.E. #2058	PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS
				M.C.			LOAD RATING CHART
				7/2015			PROJECT NO. BI-18



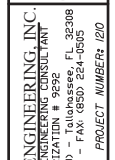
- Notes:**
- Elevations are to the surface of the concrete, see Roadway Plans for finish grade elevations.
 - Information.
 - Demolition and removal of the existing RCP shall be accomplished avoiding impacts to existing utilities.
 - No existing utilities were identified within bridge construction.
 - Contractor to apply Natina Steel Liquid Asesihic Restorative Agent to Galvanized Guardrail and End Anchorage surface per Manufacturer Specifications. All associated costs shall be included in payment Guardrail. See roadway plans for Guardrail Pay Items.

- Legend:**
- Soil Boring Approximate Location
 - Existing RCP To Be Removed
 - Deck Expansion Joint
 - Fixed Support
 - Edge of Pavement

DATE	BY	REVISIONS DESCRIPTION	INITIAL	DESIGNED BY	CHECKED BY	DATE
						4/2005

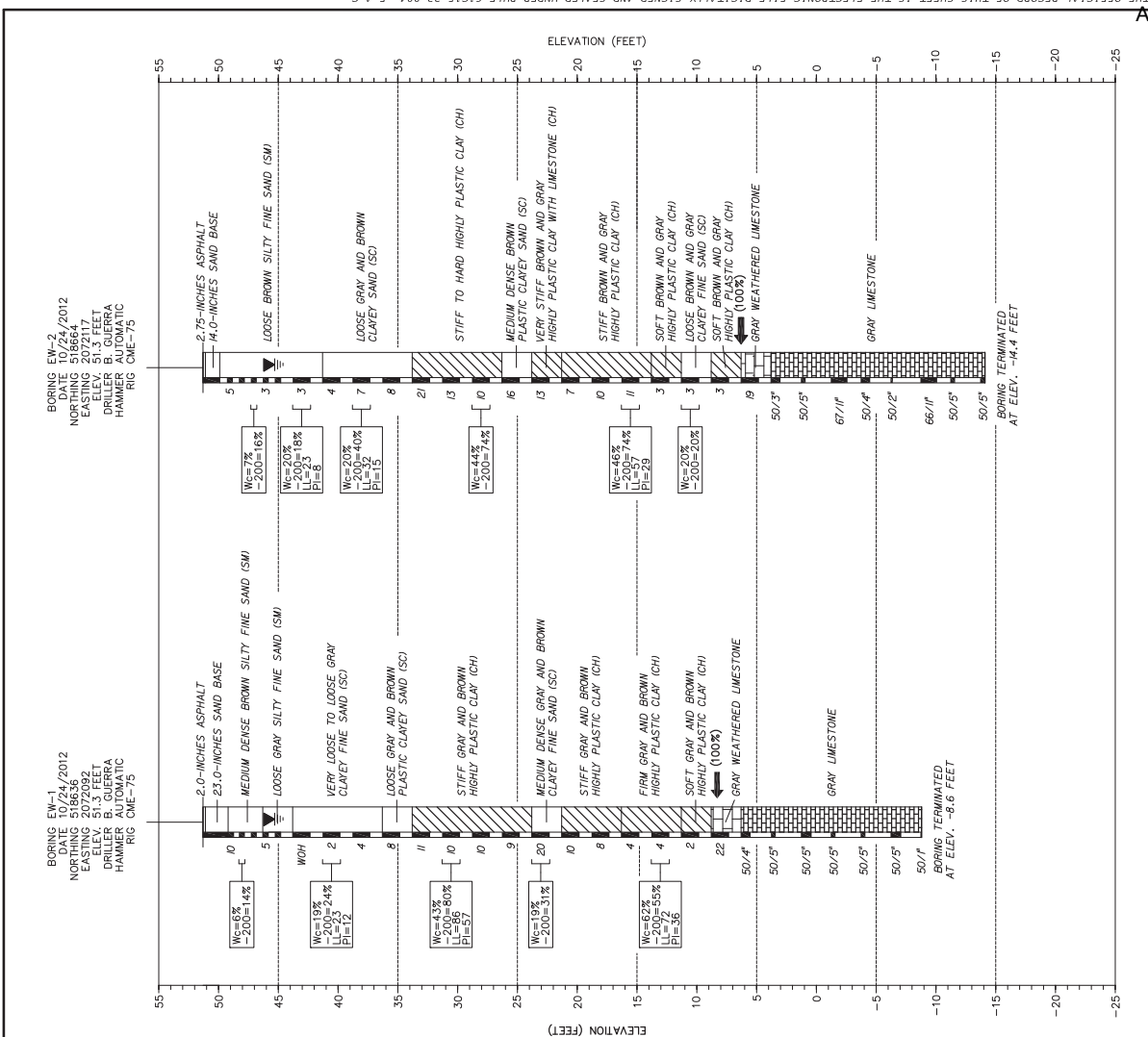
<p>ENGINEER OF RECORD:</p> <p>REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-1905</p> <p>JOHN F. SLIGER II, P.E. P.E. #5550</p>	<p>PROJECT NAME:</p> <p>RAYMOND TUCKER DRAINAGE IMPROVEMENTS</p>	<p>PLAN AND ELEVATION</p>	<p>SHEET NO.</p> <p>B9-1</p>
---	--	----------------------------------	--

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICROBUCKE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (905) 800-1500 - FAX (905) 800-1501



PROJECT NUMBER: 120

EAST WINDWOOD WAY



NOTES

- NUMBERS LEFT OF BORINGS INDICATE STANDARD PENETRATION TEST (SPT) N-VALUES FOR 2-INCH PENETRATION UNLESS OTHERWISE NOTED.
- WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED. FLUCTUATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
- SOIL DESCRIPTIONS, TEST DATA AND STANDARD PENETRATION VALUES ARE FOR THE SOIL BORING ONLY AND MAY NOT APPLY TO ANY OTHER LOCATIONS EXCEPT AT THE LOCATION OF THE SOIL BORING. EXTRAPOLATION RESPONSIBILITY OF THE PERSON PERFORMING THE EXTRAPOLATION.

AUTOMATIC HAMMER

Regular Materials	SPT (blows/12 in.)	Silt and Clays	(blows/12 in.)
Very Loose	Less than 3	Consistency	Less than 1
Loose	3 - 8	Soft	1 - 3
Medium or Compact	8 - 24	Stiff	3 - 8
Very Dense	Greater than 24	Very Stiff	12 - 24
		Hard	Greater than 24

SPLIT-SPOON: INSIDE DIAMETER: 1.375 IN
 OUTSIDE DIAMETER: 1.75 IN
 A.V.G. HAMMER DROP: 30.0 IN
 HAMMER WEIGHT: 140 LBS

LEGEND

MEASURED GROUNDWATER

LABORATORY RESULTS

SOIL BORING LOCATION

WATER CONTENT (%)
 Wc = -200 =

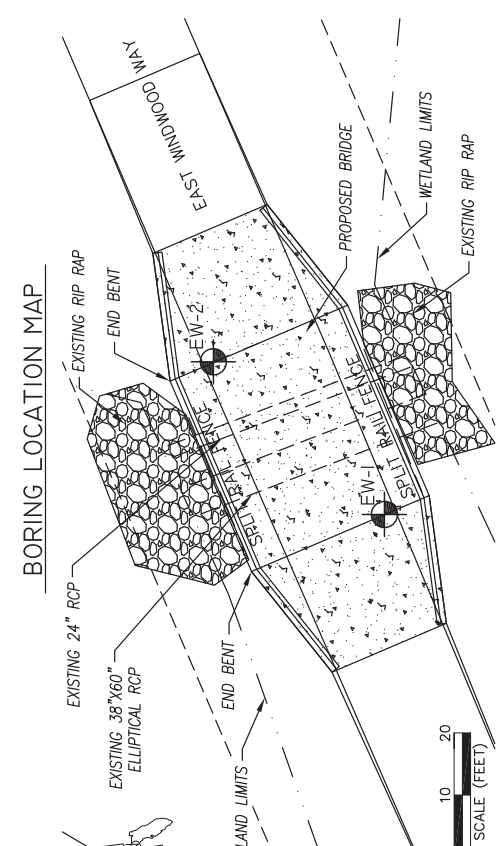
LIQUID LIMIT (%)
 Ll =

PLASTICITY INDEX
 Pi = (%)

FLUID LOSS

CSM UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

ASPHALT
 BASE
 SILTY FINE SAND (SM)
 CLAYEY FINE SAND (SC)
 SANDY CLAY (CL)
 HIGHLY PLASTIC CLAY (CH)
 WEATHERED LIMESTONE
 LIMESTONE



REPORT OF CORE BORINGS

LEON COUNTY
 PROJECT TITLE
 EAST WINDWOOD WAY - CULVERT REPLACEMENT

Environmental & Geotechnical Specialists, Inc.
 104 NORTH MAGNOLIA DRIVE
 TALLAHASSEE, FLORIDA 32301
 OFFICE: (850) 386-1253
 FAX: (850) 386-8060

EGS
 Cert. of Auth.: 6322

JOSHUA M. JENKINS, P.E.
 P.E. NO.: 77686

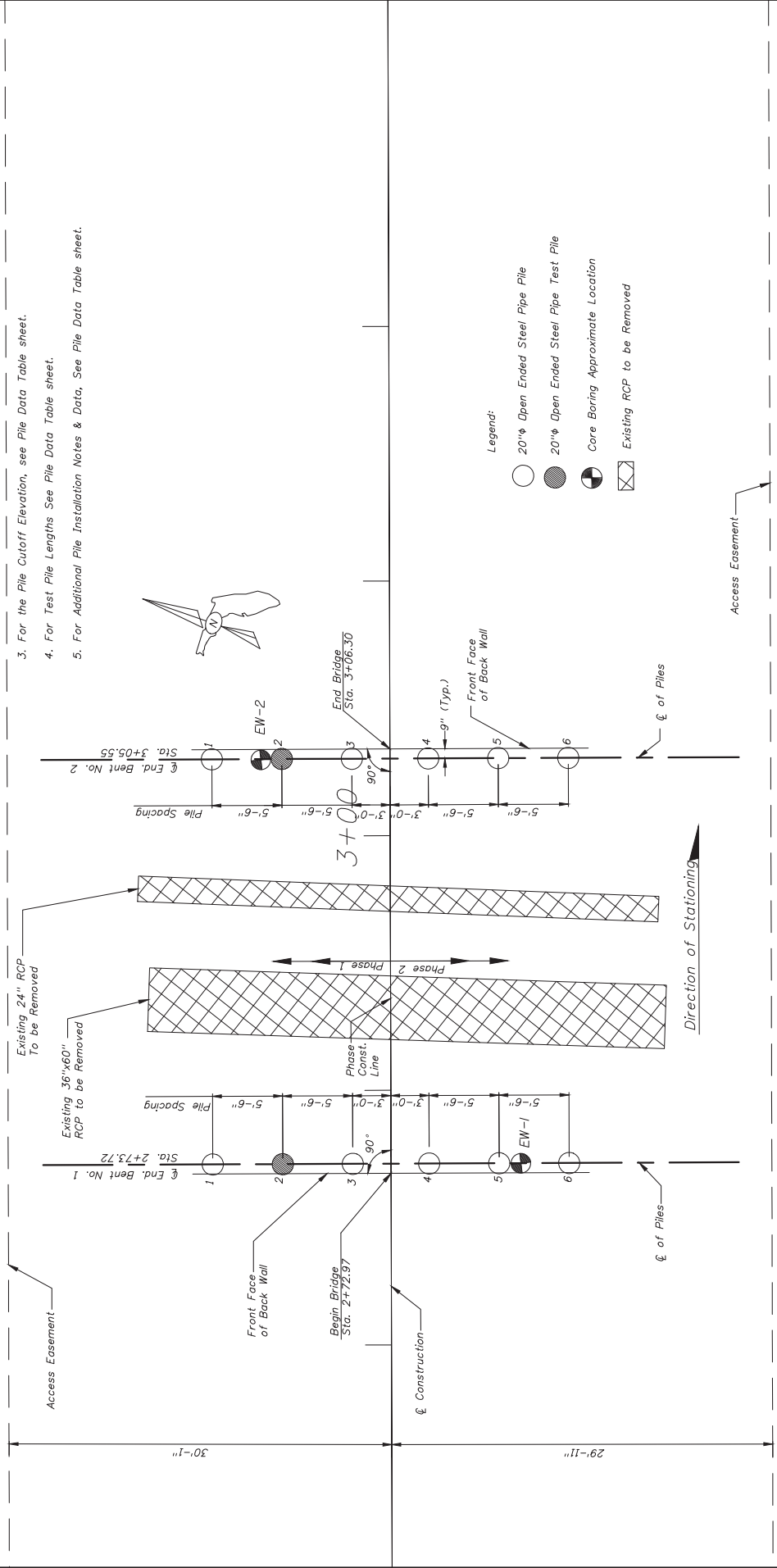
REVISIONS

SEAL:

SHEET NO. **B2-2**

NOTES:

1. All piles are 20" Dia. Open Ended Steel Pipe Piles.
2. All Piles are Plumb.
3. For the Pile Cutoff Elevation, see Pile Data Table sheet.
4. For Test Pile Lengths See Pile Data Table sheet.
5. For Additional Pile Installation Notes & Data, See Pile Data Table sheet.



FOUNDATION LAYOUT

EAST WINDWOOD WAY

DATE	REVISIONS	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	INITIALS	ENGINEER OF RECORD:	PROJECT NUMBER	PROJECT NAME:	SHEET NO.
					4/2/05	J.F.	<p>REGISTER SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0505</p>	120	<p>LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501</p>	B2-3

DESIGN NOTE:

The Pipe Piles with reinforced concrete fill are designed such that the steel pipe shell can corrode completely. The pile capacity is based upon the remaining concrete core acting as a cast-in-place reinforced pile column, after corrosion of the pipe shell.

STEEL PIPE PILES:

Pipe for piles shall be new, straight steel pipe conforming to Section 962 of FDOT Standard Specifications for Road and Bridge Construction welded and seamless steel pipe piles. Ends of pipe section shall be perpendicular to the longitudinal axis. Pipe wall thickness to be 1/2".

SPLICES:

The ends of all pile sections to be spliced shall be beveled and full butt-welded as shown on the plans. All splices shall be watertight.

INSPECTION:

The Contractor shall have available at all times a suitable drop light for inspecting the entire length of the driven pipe pile before placing reinforcing steel and concrete.

PILE CUT OFF:

Steel Pipe Piles shall be cut off at the required elevations along a plane normal to the axis of the pile. Methods used to cut piles shall meet with the approval of the Engineer.

REINFORCING STEEL:

All reinforcing steel shall conform to ASTM A615, Grade 60.

CONCRETE:

Concrete for piles and columns shall be CLASS IV (Drilled Shaft) f'c = 4,000 psi, and shall conform to Section 346 of the Specifications. The final installed pipe piles shall be clean and free of water before placing reinforcing steel and concrete.

MILL TEST REPORTS:

Notarized mill test report shall be required for all steel pipe piles, and submitted to Leon County for Approval.

WELDING:

All welding shall conform to AMERICAN WELDING SOCIETY (AWS) Bridge Welding Code.

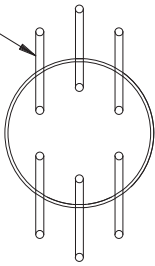
OPEN ENDED DRIVING TIPS/CUTTING SHOES:

Open ended driving tips shall be provided for all piles. The contractor shall submit pile tip protection shop drawings to Leon County Public Works for Review. Pile Tips/Cutting shoes shall be provided by Associated Pile & Fitting LLC (APF) or approved equal. APF can be contacted at www.associatedpile.com or at 1-800-526-9047. The pile tip protection shall be included in the cost of the steel pipe piles.

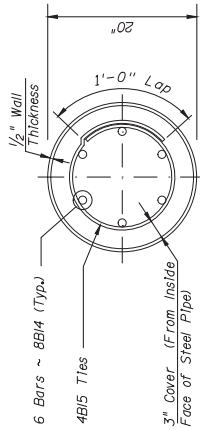
PAYMENT NOTE:

All costs associated with furnishing and installing the Steel Pipe Piles are to be included in the Contract Unit Price for STEEL PILING, (455-35-21) or TEST PILES STEEL (455-144-21), whichever applies. Cost shall include but not be limited to furnishing and driving the steel pipe piles, removing soil from inside of the pile, furnishing and placing the concrete and reinforcing steel.

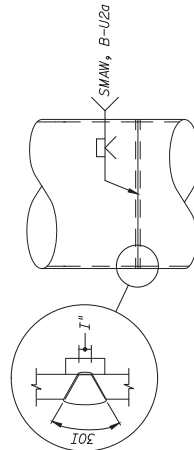
Orient Hooks parallel with Center Line of Concrete Pile Cap (Typ.)



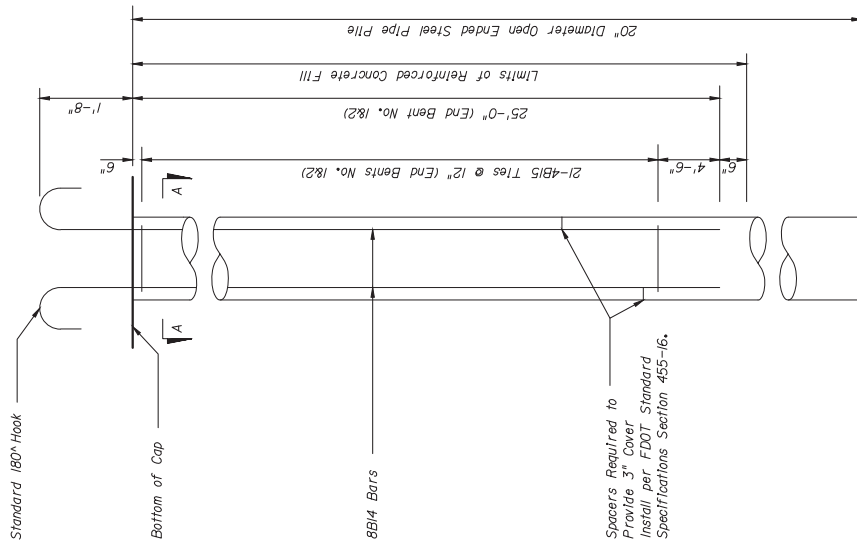
PLAN VIEW OF PIPE PILE
(Showing Orientation of Bars 8B14)



SECTION A-A



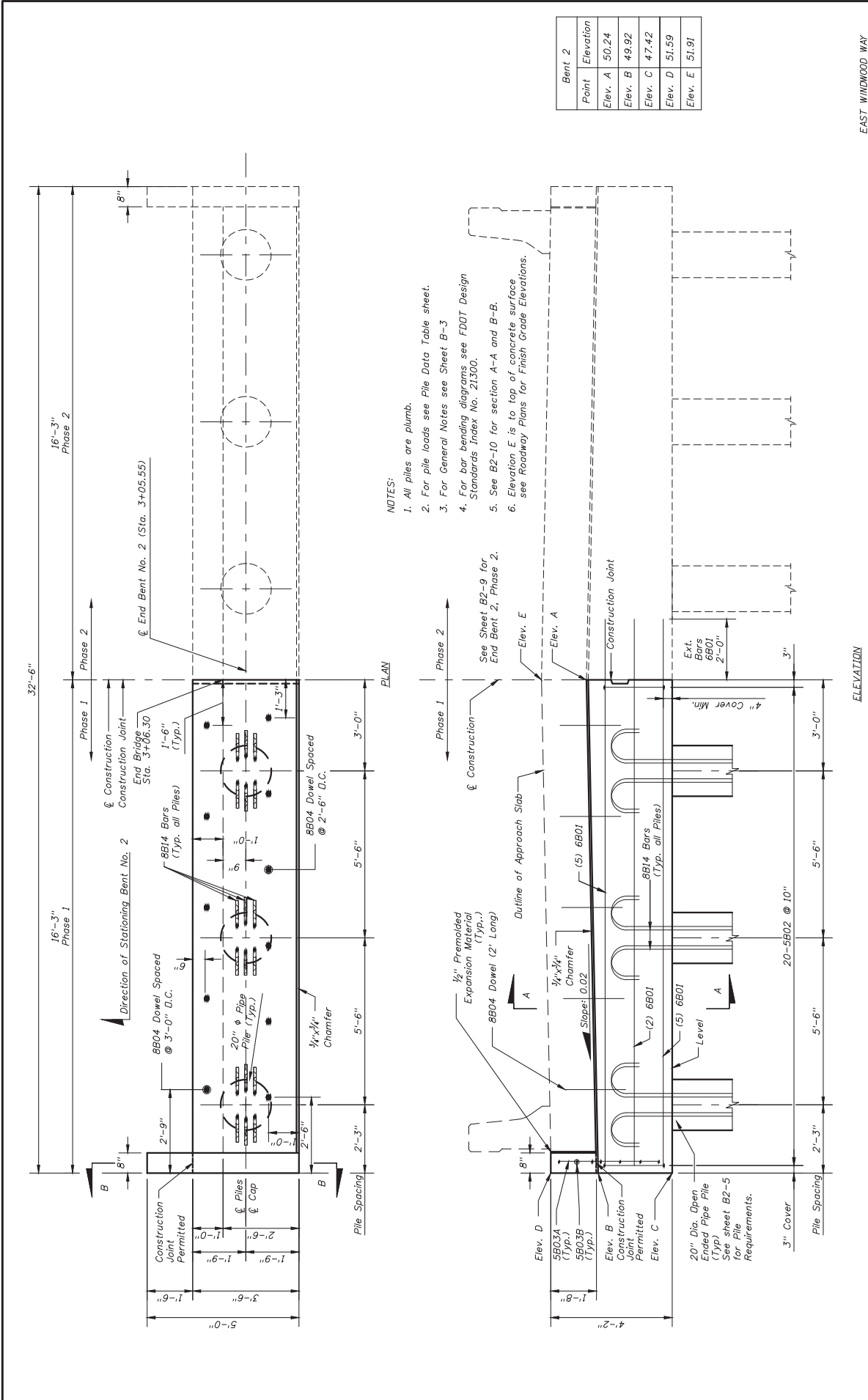
PIPE PILE SPLICE DETAIL



ELEVATION OF PIPE PILE

EAST WINDWOOD WAY

DATE	REVISIONS	DESCRIPTION	INITIAL	DESIGNED BY	CHECKED BY	DATE	ENGINEER OF RECORD:	PROJECT NUMBER	PROJECT NAME	SHEET NO.
							JOHN F. SUGER II, P.E. P.E. #5550	120	RAYMOND TUCKER DRAINAGE IMPROVEMENTS	B2-5
							REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-0505	32308	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501	

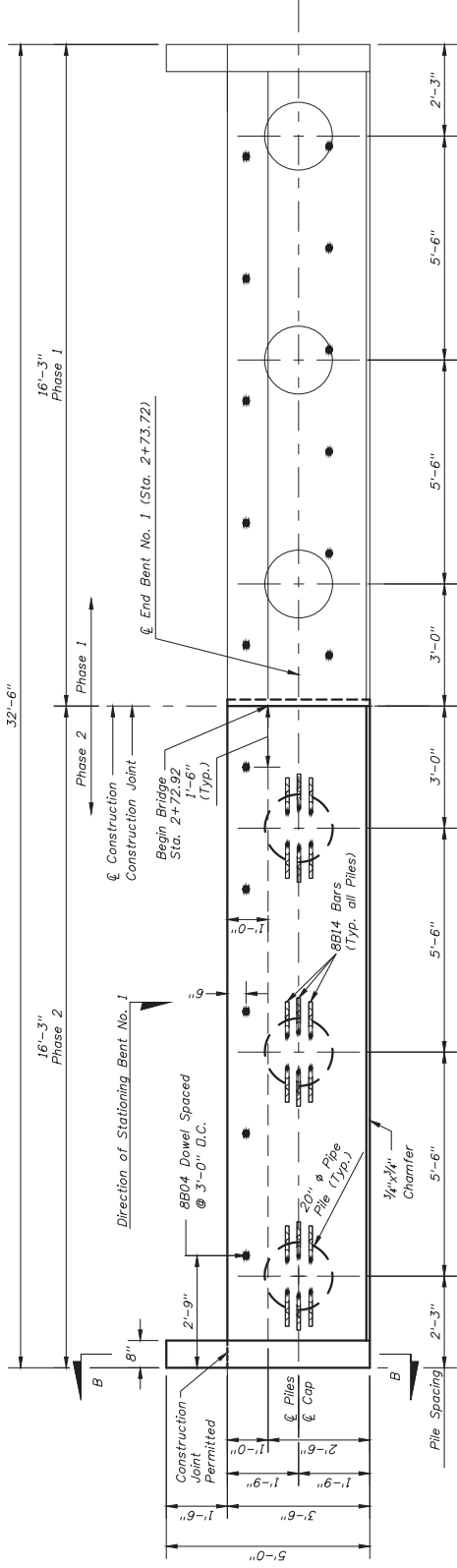


NOTES:

1. All piles are plumb.
2. For pile loads see File Data Table sheet.
3. For General Notes see Sheet B-3
4. For bar bending diagrams see FDDT Design Standards Index No. 21300.
5. See B2-10 for section A-A and B-B.
6. Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.

Bent 2	
Point	Elevation
Elev. A	50.24
Elev. B	49.92
Elev. C	47.42
Elev. D	51.59
Elev. E	51.91

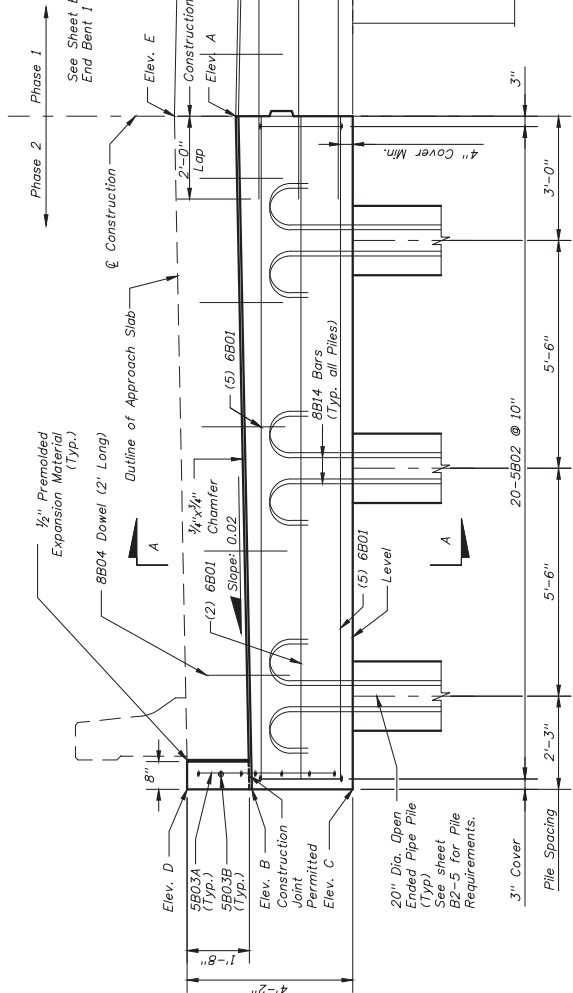
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REVISIONS</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS	DATE	BY	DESCRIPTION					<p>ENGINEER OF RECORD:</p> <p>REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0505</p> <p>JOHN F. SLIGER II, P.E. P.E. #5550</p>	<p>LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501</p>	<p>EAST WINDWOOD WAY</p> <p>END BENT No. 2 - PHASE 1</p> <p>PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS</p> <p>SHEET NO. B2-7</p>
REVISIONS	DATE	BY	DESCRIPTION								



PLAN

NOTES:

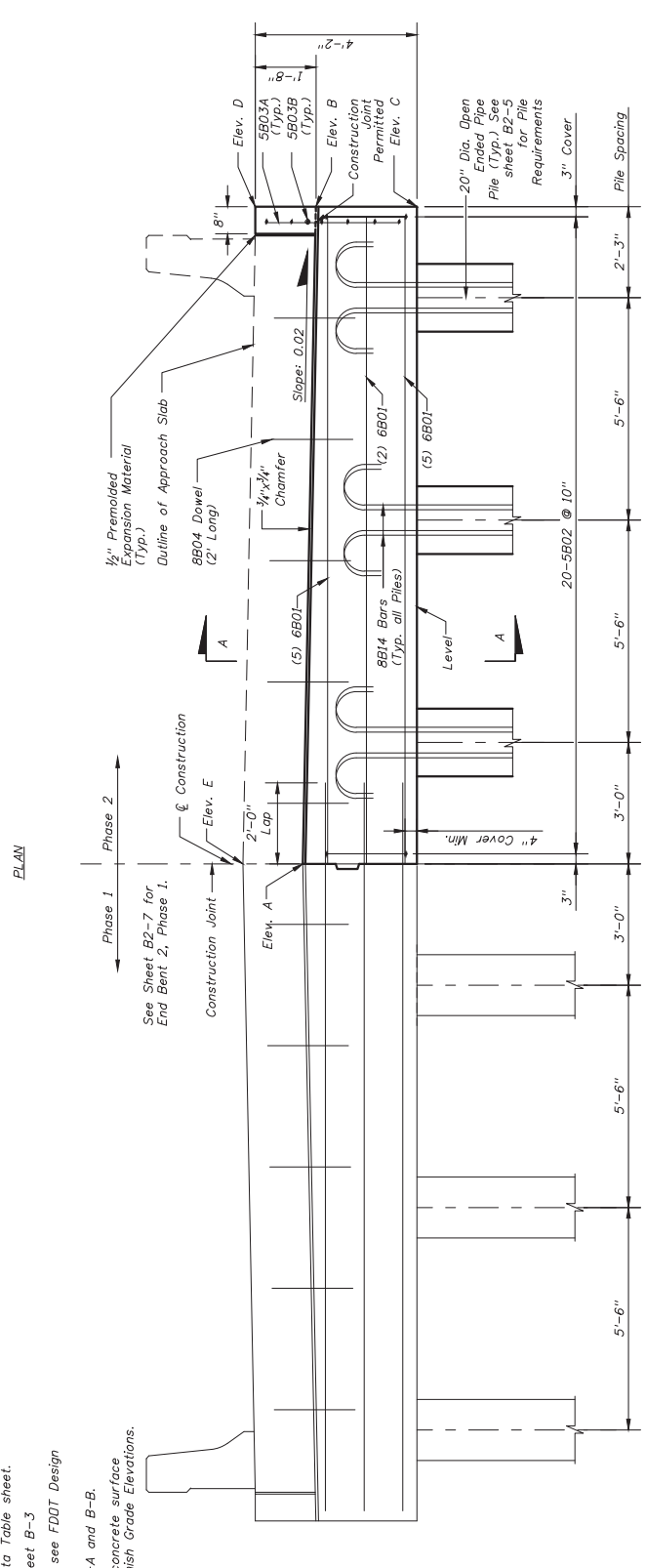
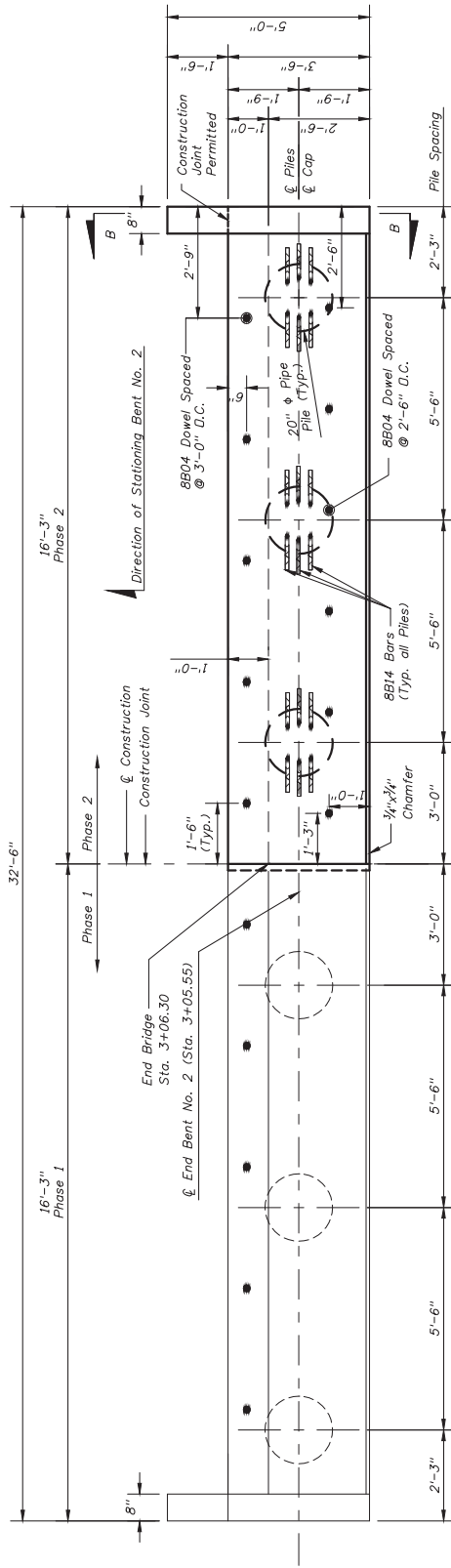
1. All piles are plumb.
2. For pile loads see File Data Table sheet.
3. For General Notes see Sheet B-3
4. For bar bending diagrams see FDOT Design Standard Index No. 21300.
5. See B2-10 for section A-A and B-B.
6. Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.



ELEVATION

Bent 1	
Point	Elevation
Elev. A	50.14
Elev. B	49.82
Elev. C	47.32
Elev. D	51.49
Elev. E	51.81

REVISIONS DATE: _____ BY: _____ DESCRIPTION: _____		ENGINEER OF RECORD: REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-1005		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 600-1500 - FAX (905) 600-1501		EAST WINDWOOD WAY END BENT No. 1 - PHASE 2 PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. B2-8
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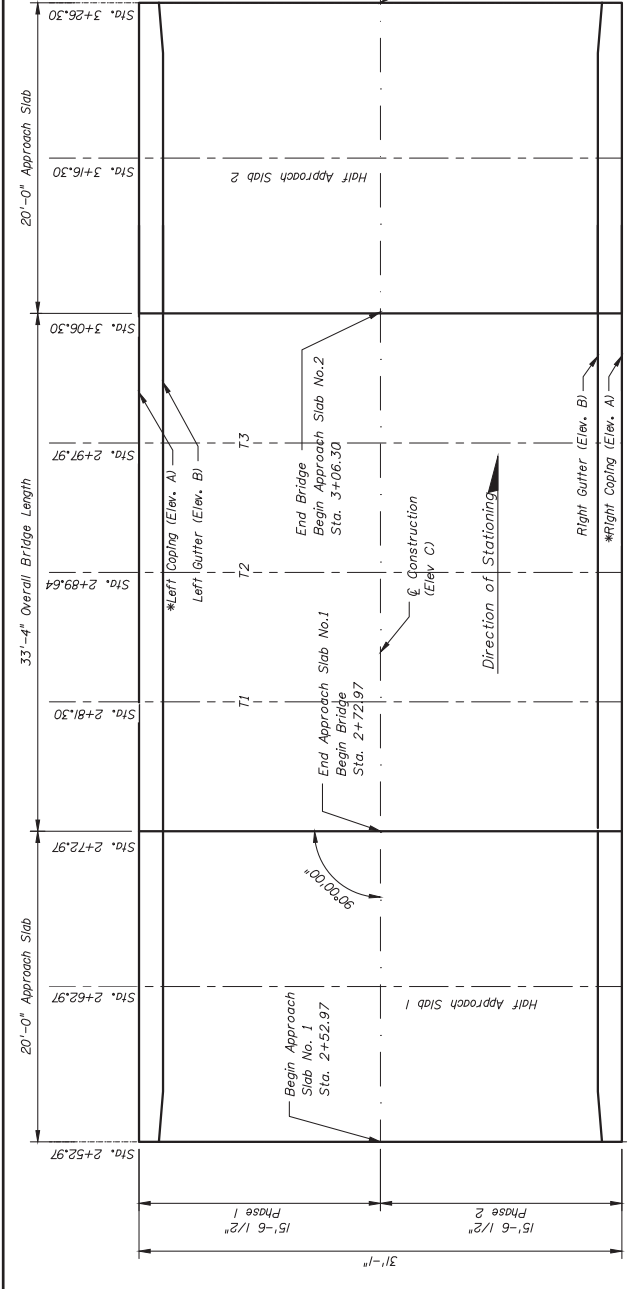


- NOTES:
1. All piles are plumb.
 2. For pile loads see Pile Data Table sheet.
 3. For General Notes see Sheet B-3
 4. For bar bending diagrams see FDOT Design Standard Index No. 21500.
 5. See B2-10 for section A-A and B-B.
 6. Elevation E is to top of concrete surface see Roadway Plans for Finish Grade Elevations.

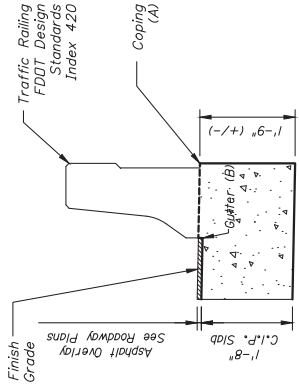
Bent 2	Point	Elevation
	Elev. A	50.24
	Elev. B	49.92
	Elev. C	47.42
	Elev. D	51.59
	Elev. E	51.91

REVISIONS DATE BY DESCRIPTION		ENGINEER OF RECORD: JOHN F. SLIGER II, P.E. P.E. #5550		REGISTERED ENGINEERING CONSULTANT: REGISTRE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0505		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 600-1500 - FAX (905) 600-1501		PROJECT NUMBER: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. B2-9	
						EAST WINDWOOD WAY				END BENT No. 2 - PHASE 2	

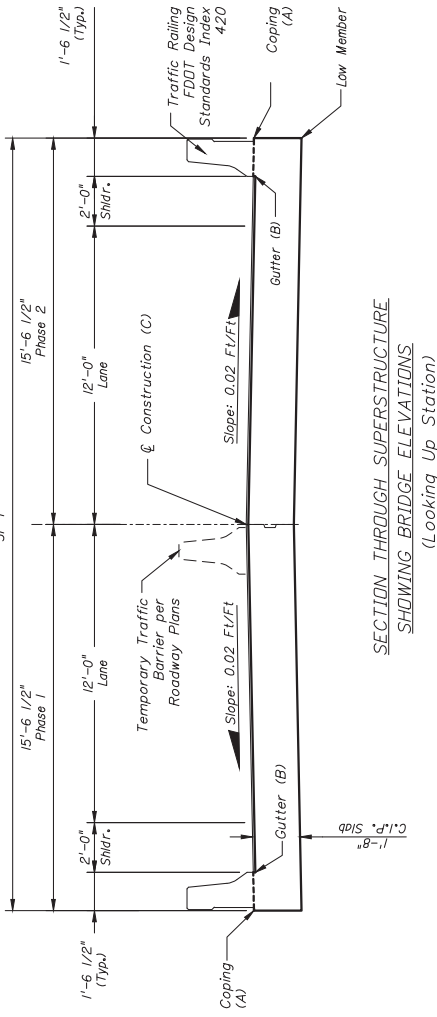
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



PLAN - BRIDGE ELEVATIONS
 *Does Not Account For Traffic Railing Chamfer @ Slab Ends,
 See FDOT Design Standards Index 420.



SLAB END DETAIL



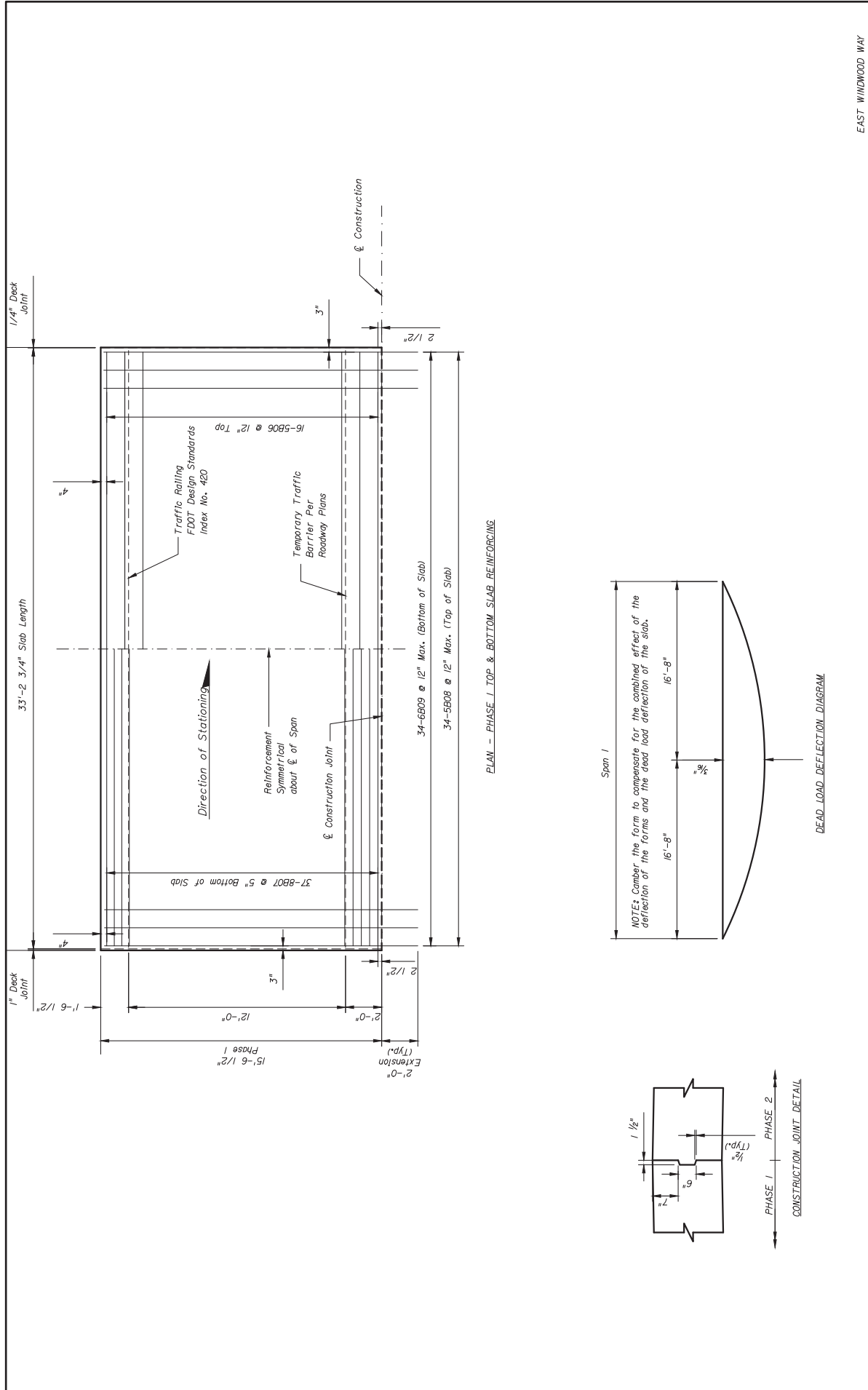
SECTION THROUGH SUPERSTRUCTURE
 SHOWING BRIDGE ELEVATIONS
 (Looking Up Station)

BRIDGE ELEVATION TABLE

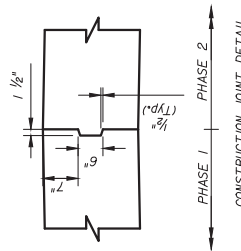
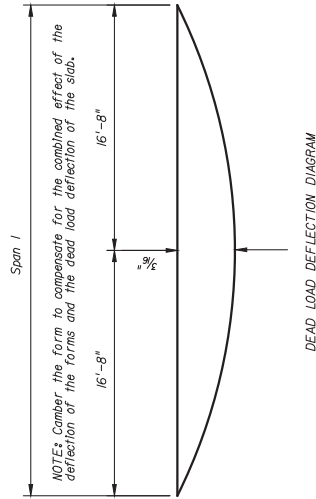
Location	Approach Slab 1			Span No. 1			Approach Slab 2			
	Begin	Half	End	Begin	T1	T2	T3	End	Half	Begin
Station	2+52.97	2+62.97	2+72.97	2+72.97	2+81.30	2+89.64	2+97.97	3+06.30	3+16.30	3+26.30
Elev. A	51.30	51.44	51.58	51.60	51.63	51.65	51.65	51.68	51.71	51.74
Elev. B	51.25	51.39	51.53	51.55	51.58	51.60	51.60	51.63	51.66	51.69
Elev. C	51.53	51.67	51.81	51.83	51.86	51.88	51.88	51.91	51.94	51.97

Note: Bridge Elevations are to the Surface of the Concrete Slab. See Roadway Plans for Finish Grade Elevations.

REVISIONS	DESCRIPTION	DATE	BY	INITIAL	ENGINEER OF RECORD:
SECTION THROUGH SUPERSTRUCTURE SHOWING BRIDGE ELEVATIONS (Looking Up Station)					
REGISTERED ENGINEERING INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle N.E., Tallahassee, FL 32308 PHONE: (904) 894-4521 - FAX: (904) 894-1905 PROJECT NUMBER: 120					
LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (904) 600-1500 * FAX (904) 600-1501					
BRIDGE ELEVATIONS					
EAST WINDWOOD WAY					
PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS					SHEET NO. B2-II



PLAN - PHASE 1 TOP & BOTTOM SLAB REINFORCING

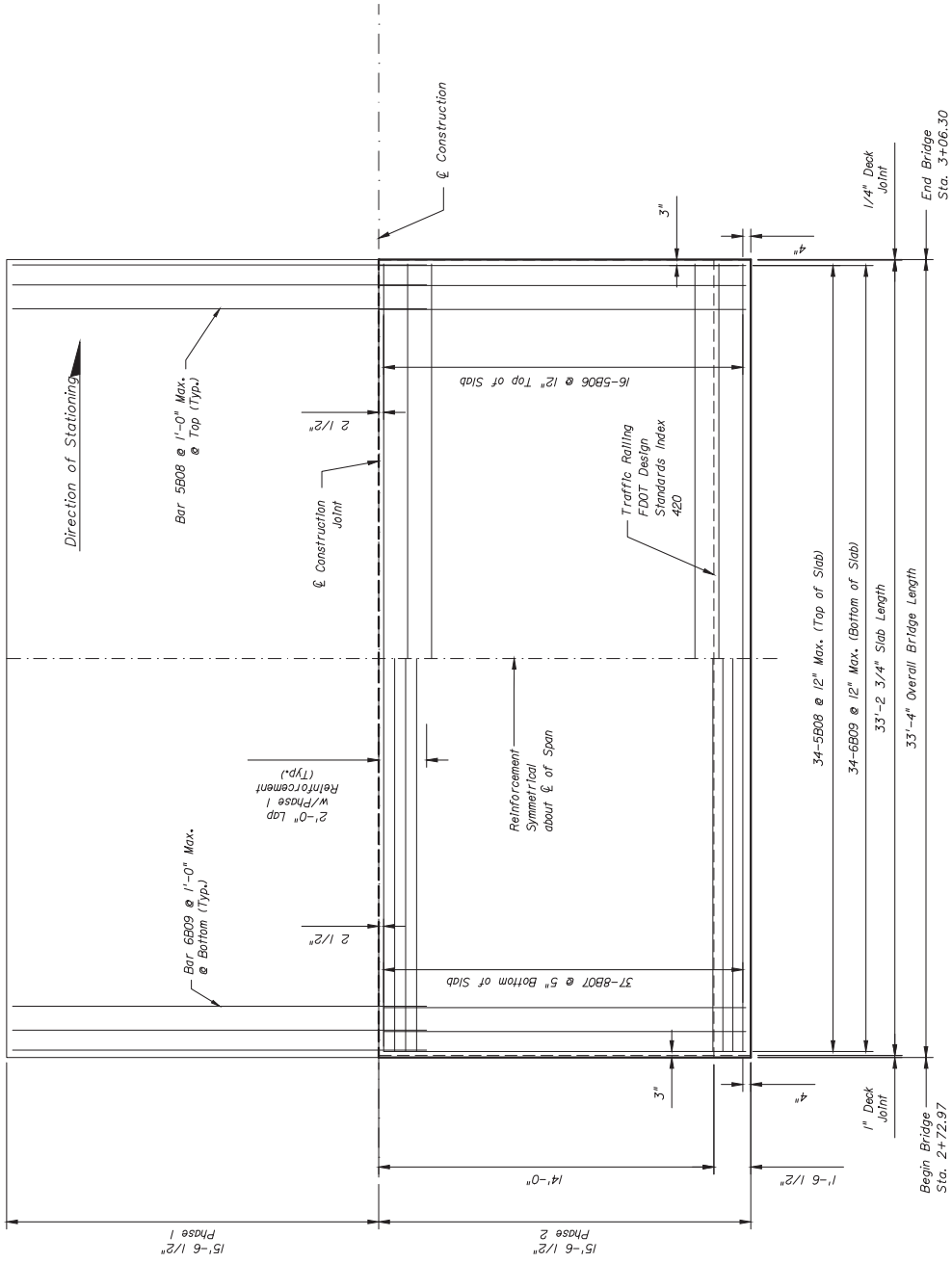


EAST WINDWOOD WAY

DATE	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	REGISTERED ENGINEERING CONSULTANT	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	SHEET NO.
				JOHN F. SLIGER II, P.E. P.E. #5550	REGISTE-SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle N.E., J.D. - Tallahassee, FL 32308 PHONE: (904) 894-4521 - FAX: (904) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (904) 600-1500 - FAX (904) 600-1501	B2-19
							82-19

SUPERSTRUCTURE DETAILS (1 of 3)

PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS



PLAN - PHASE 2 TOP AND BOTTOM SLAB REINFORCING

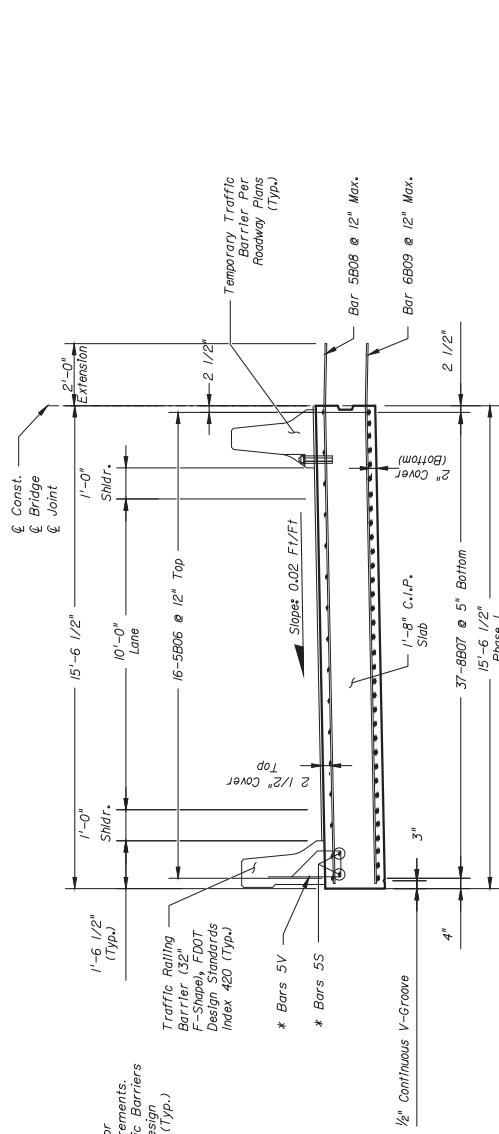
EAST WINDWOOD WAY

DATE	REVISIONS	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE	INITIALS	ENGINEER OF RECORD:	REGISTERED ENGINEERING CONSULTANT	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	PROJECT NAME:	SHEET NO.
							REGISTERED ENGINEERING CONSULTANT JOHN F. SUGER, II, P.E. P.E. #5550	REGISTERED ENGINEERING CONSULTANT CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle N.E., C.D. - Tallahassee, FL 32308 PHONE: (904) 894-4521 - FAX: (904) 224-0505	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (904) 600-1500 - FAX (904) 600-1501	SUPERSTRUCTURE DETAILS 2 of 3 RAYMOND TUCKER DRAINAGE IMPROVEMENTS	B2-13

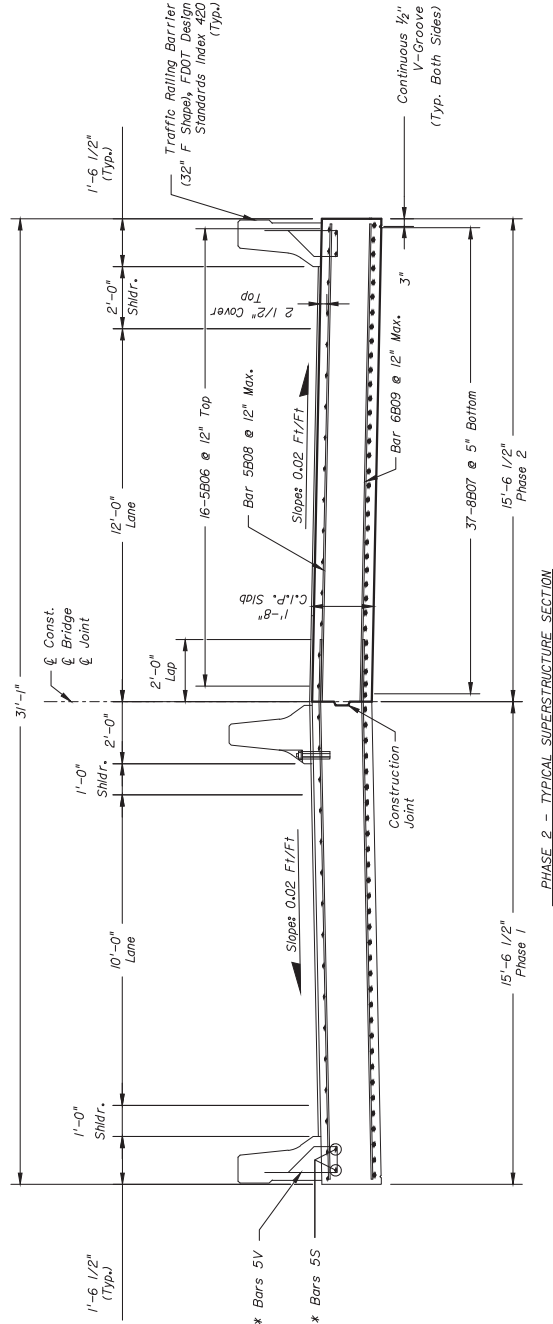
*Bars 5S and 5V are included in the cost of the Traffic Railing.

Notes:

1. See Roadway Plans for Asphalt Overlay Requirements.
2. Bolt Temporary Traffic Barriers According to FDOT Design Standards Index 414 (Typ.).

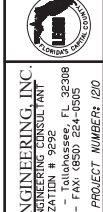


PHASE 1 - TYPICAL SUPERSTRUCTURE SECTION



DATE	REVISIONS	INITIAL	SHEET NO.
			B2-14

PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS



LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 600-1500 • FAX (850) 600-1501

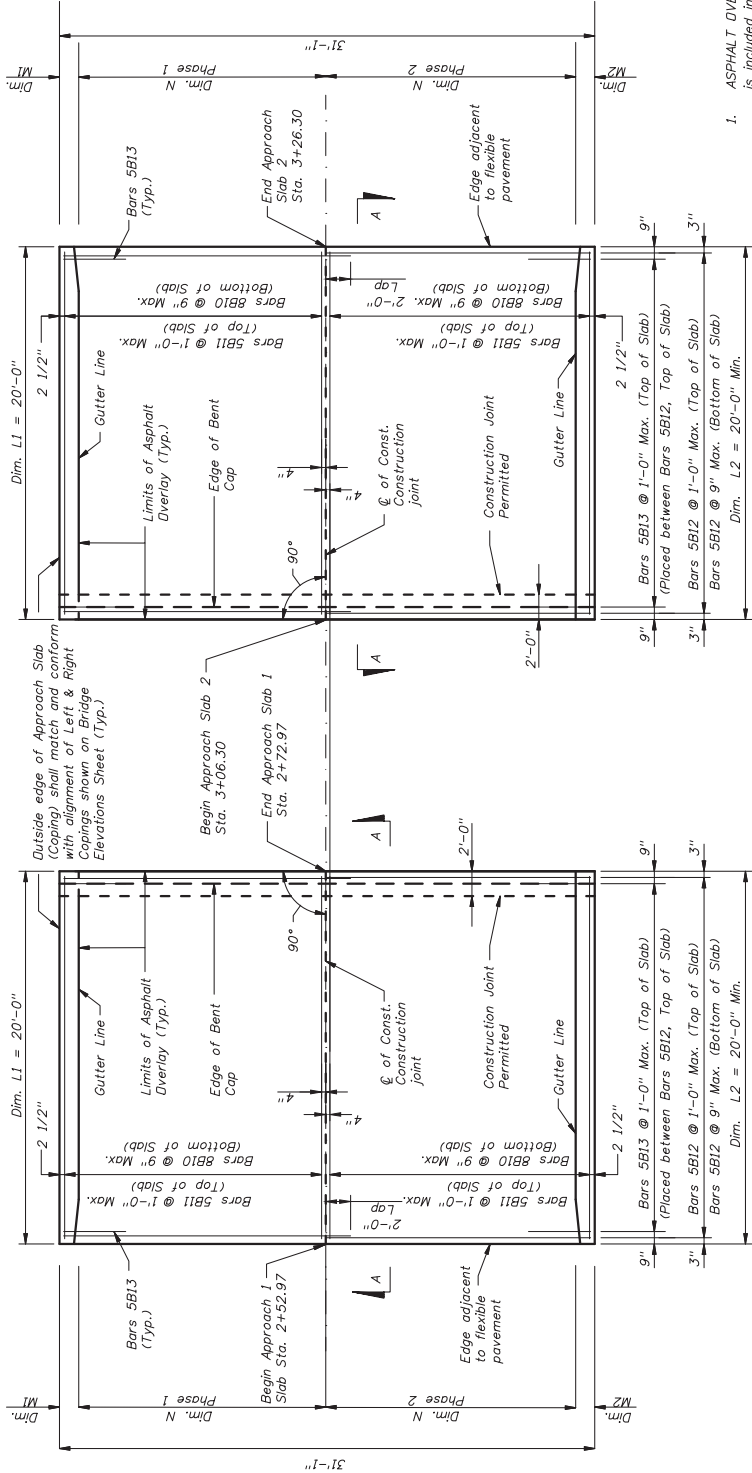
REGISTERED ENGINEERING INC.
CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
CERT. OF AUTHORIZATION # 9292
3370 Capital Circle N.E., C.D. - Tallahassee, FL 32308
PHONE: (850) 894-4521 - FAX: (850) 224-1505
PROJECT NUMBER: 120

ENGINEER OF RECORD:
JOHN F. SUGER II, P.E.
P.E. #5550

EAST WINDWOOD WAY

CROSS REFERENCES:

FDDT Design Standards Index 20900, For additional approach slab sections and details.

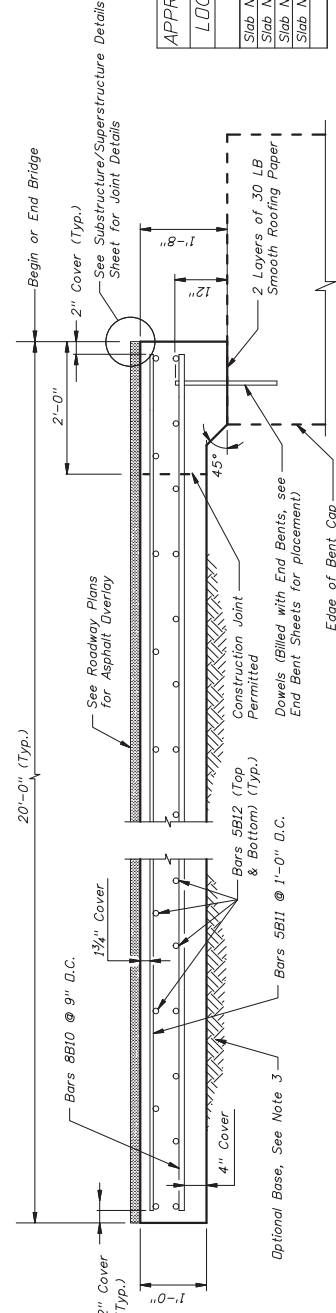


APPROACH SLAB NOTES

1. ASPHALT OVERLAY: Payment for asphalt overlay items is included in Roadway Pay Items. Continue the asphalt pavement over the approach slab and match the course type used on the roadway.
2. CONCRETE: Provide Class II (Bridge Deck) concrete for approach slabs.
3. See Roadway Plans for Asphalt Overlay and Optional Base Group Details

LOCATION	DIMENSIONS			ANGLE
	L1	L2	M2	
Slab No.1 - Phase 1	20'-0"	N/A	1'-6 1/2"	N/A
Slab No.2 - Phase 1	20'-0"	N/A	1'-6 1/2"	14'-0"
Slab No.1 - Phase 2	N/A	20'-0"	N/A	N/A
Slab No.2 - Phase 2	N/A	20'-0"	N/A	1'-6 1/2" / 14'-0"

APPROACH SLAB NO.2



SECTION A-A

DATE	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	PROJECT NO.
				REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICROSOFT ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 * FAX (905) 800-1501	B2-15

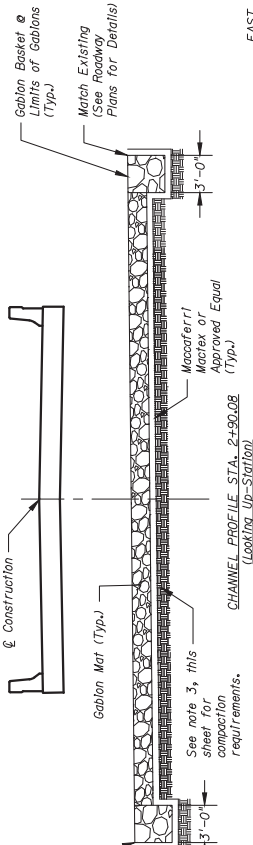
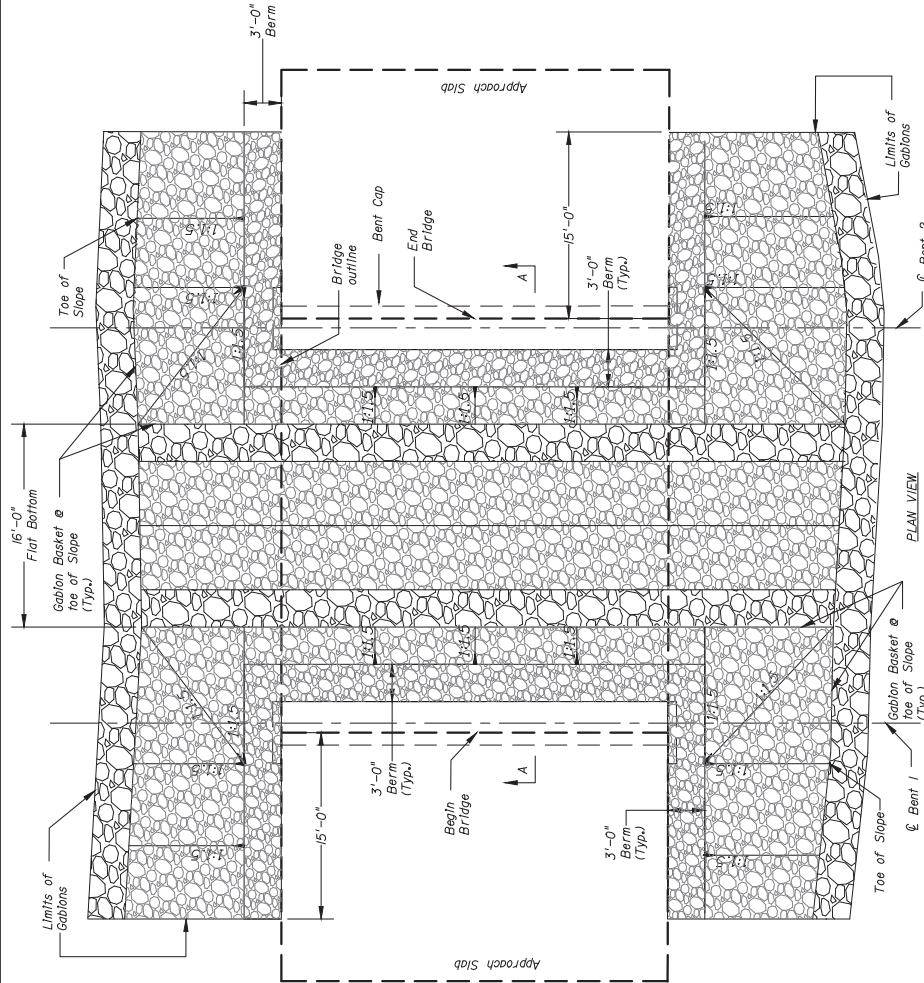
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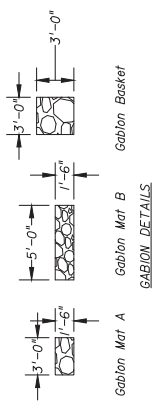
DATE	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	PROJECT NO.
				REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICROSOFT ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 * FAX (905) 800-1501	B2-15

DATE	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	PROJECT NO.
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DATE	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	PROJECT NO.
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- Notes**
- All Gabions shall be Maccaferri or approved equal.
 - Maccaferri can be contacted at www.maccaferri-usa.com or by phone at 301-223-6910
 - Compact the soil below gabions to a minimum density of 90%. The soil shall be compacted to a minimum density (ASTM D-1557) for a depth of at least 24 inches.
 - Gabions components shall be in accordance with FDOT Standard Specification Section 530-2.3, install Gabions in accordance to FDOT Standard Specification Section 530-3.5 and the manufacturer's specifications and recommendations.



DATE	BY	REVISIONS DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NUMBER:	SHEET NO.
			DESIGN BY: J.S. CHECKED BY: A.C. DESIGN BY: J.R. CHECKED BY: J.R. DATE: 4/2015	<p>REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0505</p> <p>LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501</p>	GABION BANK PROTECTION DETAILS	B2-16
				<p>JOHN F. SLIGER II, P.E. P.E. #5550</p>	RAYMOND TUCKER DRAINAGE IMPROVEMENTS	

EAST WINDWOOD WAY

CHANNEL PROFILE STA. 2+50.08
(Looking Up-Station)

See note 3, this sheet for compaction requirements.

Match Existing (See Remarks Plans for Details)

See note 3, this sheet for compaction requirements.

Match Existing (See Remarks Plans for Details)

See note 3, this sheet for compaction requirements.

MARK	LENGTH	NO.	TYP	STY	B	C	D	E	F	H	J	K	N	O		
SIZE	DES	FT	IN	BAR	AIG	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION: END BENT NO. 1 PHASE 1																
6	B01	18-0	12	1	18-0											
5	B02	10-10	20	4 #4	1-11	3-0										
5	B03A	3-6	10	1	3-6											
5	B03B	4-6	7	1	4-6											
8	B04	2-0	5	1	2-0											
LOCATION: END BENT NO. 2 PHASE 1																
6	B01	18-0	12	1	18-0											
5	B02	10-10	20	4 #4	1-11	3-0										
5	B03A	3-6	10	1	3-6											
5	B03B	4-6	7	1	4-6											
8	B04	2-0	11	1	2-0											
LOCATION: END BENT NO. 1 PHASE 2																
6	B01	16-0	12	1	16-0											
5	B02	10-10	20	4 #4	1-11	3-0										
5	B03A	3-6	10	1	3-6											
5	B03B	4-6	7	1	4-6											
8	B04	2-0	11	1	2-0											
LOCATION: END BENT NO. 2 PHASE 2																
6	B01	16-0	12	1	16-0											
5	B02	10-10	20	4 #4	1-11	3-0										
5	B03A	3-6	10	1	3-6											
5	B03B	4-6	7	1	4-6											
8	B04	2-0	11	1	2-0											
LOCATION: SUPERSTRUCTURE PHASE 1																
5	B06	32-10	16	1	32-10											
8	B07	32-10	37	1	32-10											
5	B08	17-0	34	1	17-0											
6	B09	17-0	34	1	17-0											
LOCATION: SUPERSTRUCTURE PHASE 2																
5	B06	32-10	16	1	32-10											
8	B07	32-10	37	1	32-10											
5	B08	15-0	34	1	15-0											
6	B09	15-0	34	1	15-0											
LOCATION: APPROACH SLAB NO. 1&2 PHASE 1																
8	B10	19-6	21	1	19-6											
5	B11	19-6	16	1	19-6											
5	B12	17-4	48	1	17-4											
5	B13	7-8	20	1	7-8											
LOCATION: APPROACH SLAB NO. 1&2 PHASE 2																
8	B10	19-6	21	1	19-6											
5	B11	19-6	16	1	19-6											
5	B12	15-4	48	1	15-4											
5	B13	7-8	20	1	7-8											
LOCATION: PIPE PILE PHASE 1																
8	B14	26-8	6	17 I	26-8											
4	B15	4-5	21	24	1-0	0-6 1/2										
LOCATION: PIPE PILE PHASE 2																
8	B14	26-8	6	17 I	26-8											
4	B15	4-5	21	24	1-0	0-6 1/2										
LOCATION: PIPE PILE PHASE 1																
8	B14	26-8	6	17 I	26-8											
4	B15	4-5	21	24	1-0	0-6 1/2										
LOCATION: PIPE PILE PHASE 2																
8	B14	26-8	6	17 I	26-8											
4	B15	4-5	21	24	1-0	0-6 1/2										

END OF LIST

NOTES:

- 1) Work this sheet with Design Standards Index 21300.
- 2) Reinforcement for pipe piles is to be included in Pay Item STEEL PIPE PILING, 20" DIA. PIPE. See Sheet B2-5 for details.

EAST WINDWOOD WAY

DATE	REVISIONS	DESCRIPTION	INITIAL	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY
<p>ENGINEER OF RECORD:</p> <p>REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0505</p>										<p>PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS</p>		<p>PROJECT NUMBER: 32308</p>		<p>PROJECT NUMBER: 120</p>			
<p>LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA PHONE (905) 800-1500 * FAX (905) 800-1501</p>										<p>REINFORCING BAR LIST</p>		<p>SHEET NO. B2-17</p>					

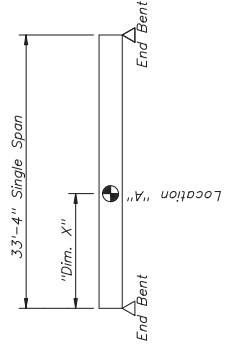
Table 2 - LRFBR
 Load Rating Summary Details for Reinforced Concrete Bridges

Permit Load Rating Level	Limit State	Vehicle	Weight (tons)	Load Factors			Moment (Strength)			Shear (Strength)			Comments:			
				LL	DC	DW	Distribution Factor (DF)	Rating Factor	Tons	Location	Dimension	Distribution Factor (DF)		Rating Factor	Tons	Location
Design	Strength I (Inv)	HL-93	N/A	1.75	1.25	1.50	0.094	1.20	N/A	A	15.00'	0.094	N/A	N/A	N/A	See Note 4
	Strength I (Op)	HL-93	N/A	1.35	1.25	1.50	0.094	1.56	N/A	A	15.00'	0.094	N/A	N/A	N/A	See Note 4
Permit	Strength II	FL120	60.0	1.35	1.25	1.50	0.094	1.26	75.6	A	12.32'	0.094	N/A	N/A	N/A	See Note 4

General Notes:
 1. This table is based on the requirements established in the January 2017 "Structures Manual".

Table 2 Notes:
 1. Permit capacity is determined by using the permit vehicle in all lanes.
 2. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? Yes No
 3. Load Rating Performed Utilizing RSE in house MathCad Sheet.
 4. Slab Bridge design for moment in accordance with LRFD 4.6.2.3 are satisfactory for shear (LRFD 5.14.4.1).

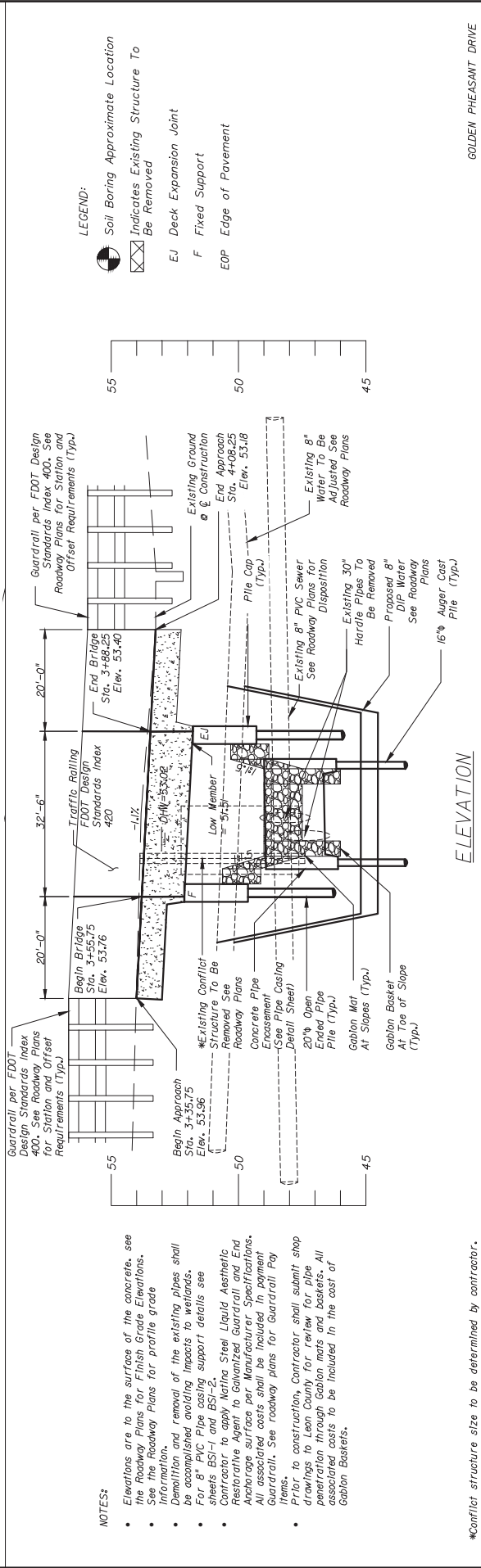
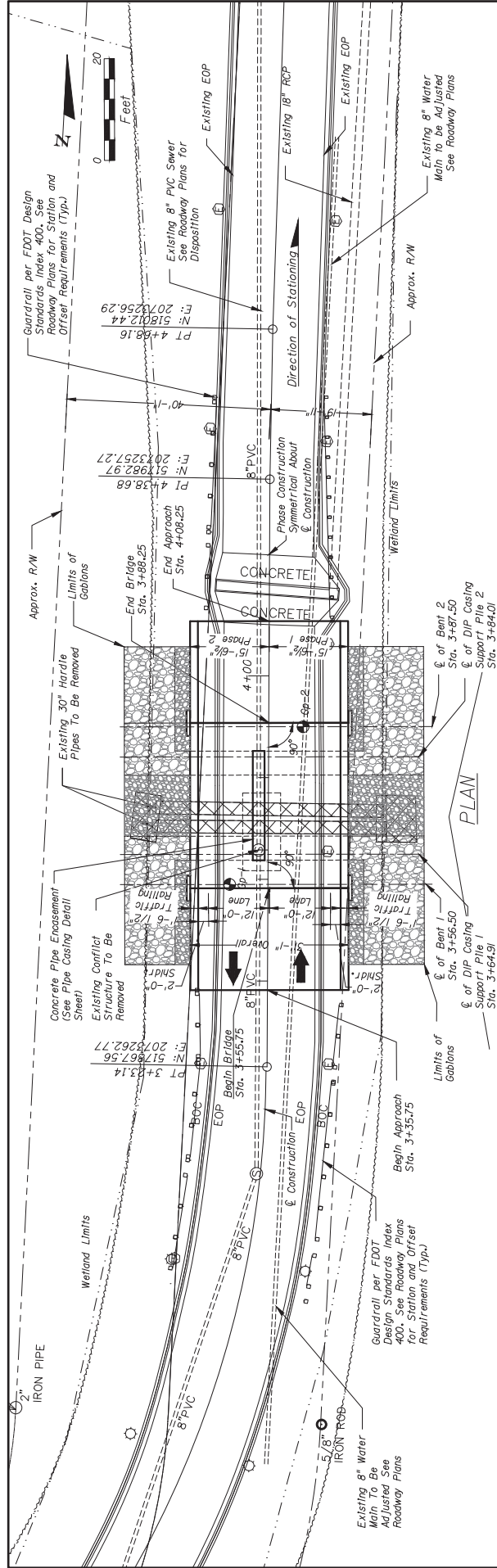
Abbreviations:
 Inv - Inventory
 Op - Operating



RATING LOCATIONS

DATE		REVISIONS	INITIAL	DATE	ENGINEER OF RECORD:	REGISTERED ENGINEERING CONSULTANT	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	LOAD RATING CHART	SHEET NO.
					JOHN F. SUGER II, P.E. P.E. #5550	CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, CJ - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-0505	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501	PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS	B2-18

EAST WINDWOOD WAY



- LEGEND:**
- Soil Boring Approximate Location
 - Indicates Existing Structure To Be Removed
 - EJ Deck Expansion Joint
 - F Fixed Support
 - EOP Edge of Pavement

- NOTES:**
- Elevations are to the surface of the concrete, see the roadway plans for finish grade elevations.
 - See roadway plans for profile grade.
 - Demolition and removal of the existing pipes shall be accomplished avoiding impacts to wetlands.
 - For 8" PVC Pipe casing supports details see sheets BS1-1 and BS1-2.
 - Contractor to apply Metha Steel Liquid Aesthetic Restorative Agent to Galvanized Guardrail and End Anchorage surface per Manufacturer Specifications. All associated costs shall be included in payment Guardrail. See roadway plans for Guardrail Pay Items.
 - Prior to construction, Contractor shall submit shop drawings to Leon County for review for pipe penetration through Gabion mats and baskets. All associated costs to be included in the cost of Gabion Baskets.

*Conflict structure size to be determined by contractor.

DATE	REVISIONS	DESCRIPTION	INITIAL	DESIGNED BY	CHECKED BY	DATE	ENGINEER OF RECORD:	PROJECT NUMBER:	PLAN AND ELEVATION	SHEET NO.
						4/2005	 REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-0905	GOLDEN PHEASANT DRIVE	B3-1	
							 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICROSHREE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501	PROJECT NUMBER: RAYMOND TUCKER DRAINAGE IMPROVEMENTS	PLAN AND ELEVATION	B3-1

NOTES

- NUMBERS LEFT OF BORINGS INDICATE STANDARD PENETRATION TEST (SPT) VALUES FOR 14-INCH PENETRATION UNLESS OTHERWISE NOTED.
- WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED. VARIATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
- SOIL DESCRIPTIONS, BORING DATA AND STANDARD PENETRATION VALUES LOCATIONS EXCEPT AT THE LOCATION OF THE SOIL BORING, EXTRAPOLATION OF DATA TO OTHER LOCATIONS IS THE RESPONSIBILITY OF THE PERSON PERFORMING THE EXTRAPOLATION.

AUTOMATIC HAMMER

Granular Materials	SPT (blows/12 in.)	Sills and Grays Consistency (blows/12 in.)	SPT
Very Loose	Less than 3	Very Soft	Less than 1
Loose	3 - 6	Soft	1 - 2
Medium or Compact	6 - 24	Firm	3 - 6
Very Dense	Greater than 24	Very Stiff	6 - 15
		Hard	15 - 30
		Very Hard	30 or more

**SPLIT-SPOON: INSIDE DIAMETER: 1.375 IN
AVG. HAMMER DROP: 30.0 IN
HAMMER WEIGHT: 140 LBS**

LEGEND

MEASURED GROUNDWATER

LABORATORY RESULTS

SOIL BORING LOCATION

WATER CONTENT (%)
ORGANIC CONTENT (%)
-200 SIEVE (%)
LIQUID LIMIT
PLASTICITY INDEX
FLUID LOSS (%)

ASPHALT

BASE

SILTY FINE SAND (SM)

CLAYEY FINE TO MEDIUM DENSE GRAY CLAY SAND (SC)

ORGANIC SILT (OL/WICK)

HIGHLY PLASTIC CLAY (CH)

WEATHERED LIMESTONE

LIMESTONE

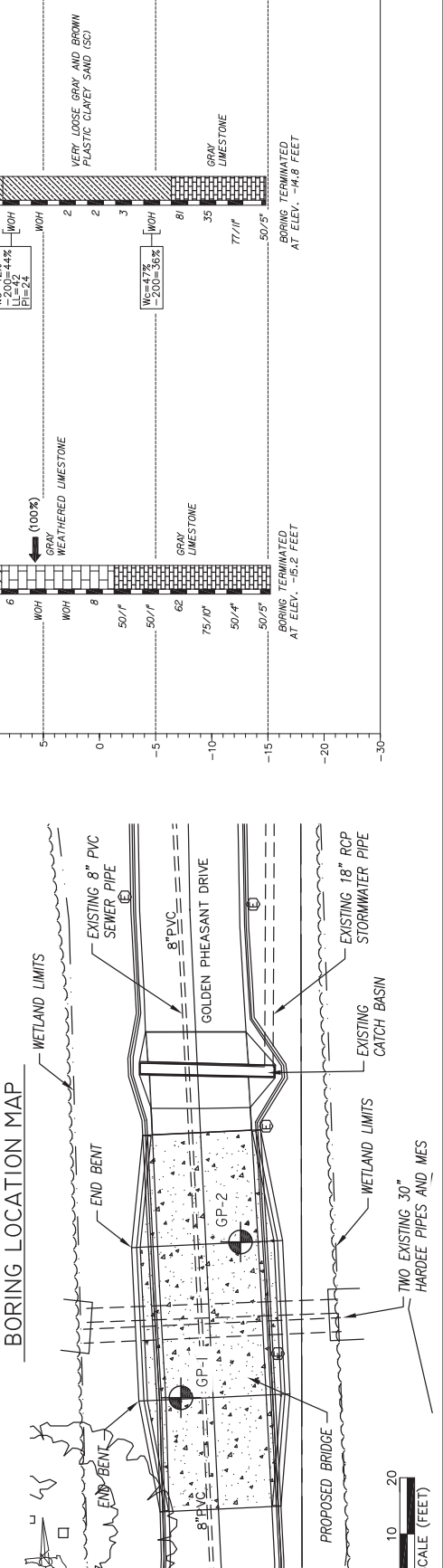
Wc=

Oc=

Ll=

Pi=

(SM) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL



NOTES

- NUMBERS LEFT OF BORINGS INDICATE STANDARD PENETRATION TEST (SPT) VALUES FOR 14-INCH PENETRATION UNLESS OTHERWISE NOTED.
- WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED. VARIATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
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Medium or Compact	6 - 24	Firm	3 - 6
Very Dense	Greater than 24	Very Stiff	6 - 15
		Hard	15 - 30
		Very Hard	30 or more

**SPLIT-SPOON: INSIDE DIAMETER: 1.375 IN
AVG. HAMMER DROP: 30.0 IN
HAMMER WEIGHT: 140 LBS**

LEGEND

MEASURED GROUNDWATER

LABORATORY RESULTS

SOIL BORING LOCATION

WATER CONTENT (%)
ORGANIC CONTENT (%)
-200 SIEVE (%)
LIQUID LIMIT
PLASTICITY INDEX
FLUID LOSS (%)

ASPHALT

BASE

SILTY FINE SAND (SM)

CLAYEY FINE TO MEDIUM DENSE GRAY CLAY SAND (SC)

ORGANIC SILT (OL/WICK)

HIGHLY PLASTIC CLAY (CH)

WEATHERED LIMESTONE

LIMESTONE

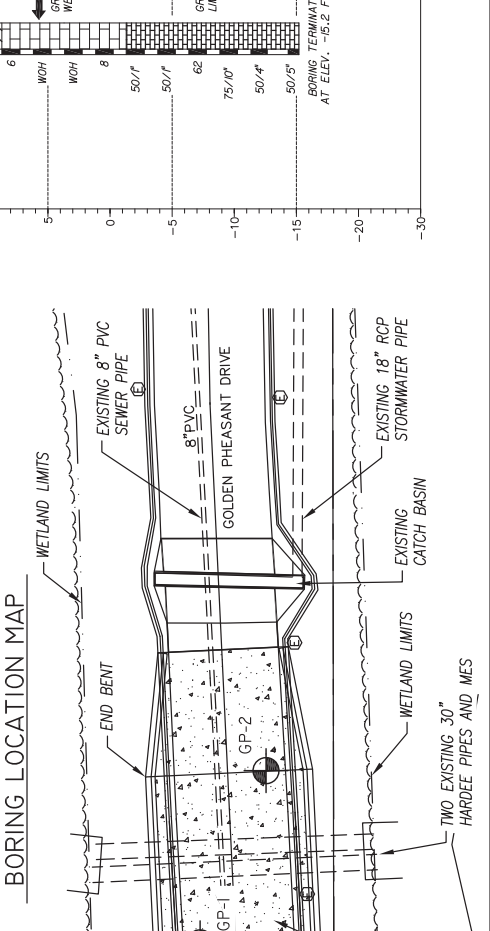
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NOTES

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- WATER ELEVATIONS SHOWN ARE THE WATER ELEVATIONS ENCOUNTERED. VARIATIONS IN THE ELEVATION OF WATER SHOULD BE EXPECTED.
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Granular Materials	SPT (blows/12 in.)	Sills and Grays Consistency (blows/12 in.)	SPT
Very Loose	Less than 3	Very Soft	Less than 1
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		Very Hard	30 or more

**SPLIT-SPOON: INSIDE DIAMETER: 1.375 IN
AVG. HAMMER DROP: 30.0 IN
HAMMER WEIGHT: 140 LBS**

LEGEND

MEASURED GROUNDWATER

LABORATORY RESULTS

SOIL BORING LOCATION

WATER CONTENT (%)
ORGANIC CONTENT (%)
-200 SIEVE (%)
LIQUID LIMIT
PLASTICITY INDEX
FLUID LOSS (%)

ASPHALT

BASE

SILTY FINE SAND (SM)

CLAYEY FINE TO MEDIUM DENSE GRAY CLAY SAND (SC)

ORGANIC SILT (OL/WICK)

HIGHLY PLASTIC CLAY (CH)

WEATHERED LIMESTONE

LIMESTONE

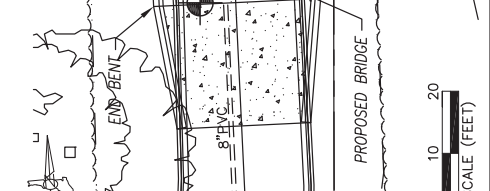
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Oc=

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Pi=

(SM) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL



REPORT OF CORE BORINGS

LEON COUNTY

GOLDEN PHEASANT DRIVE- CULVERT REPLACEMENT

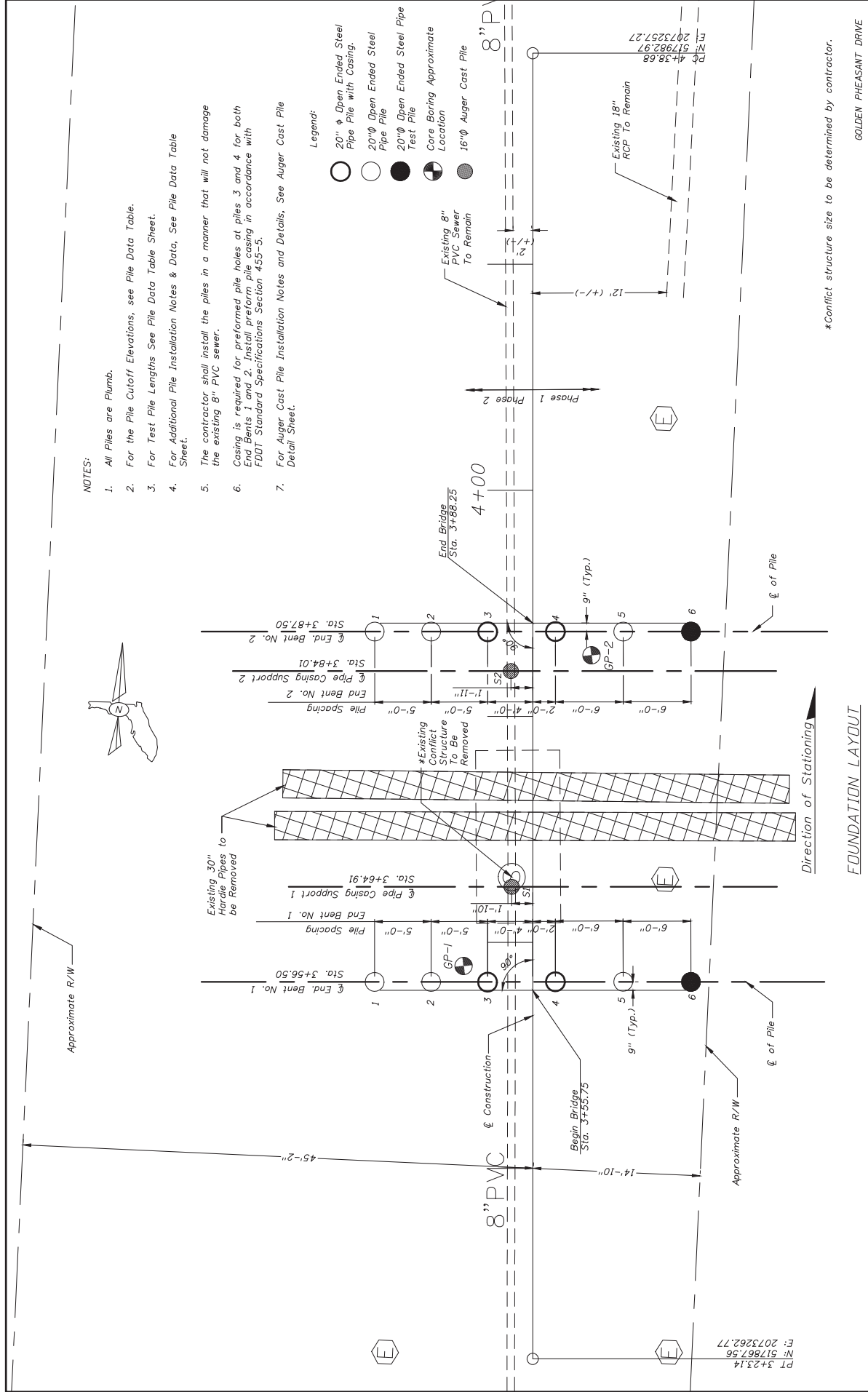
SHEET NO. **B3-2**

Environmental & Geotechnical Specialists, Inc.
EGS
104 NORTH MAGNOLIA DRIVE
TALLAHASSEE, FLORIDA 32301
OFFICE: (850) 386-1253
Cert. of Auth.: 6222

JOSHUA W. JENKINS, P.E.
P.E. NO.: 77686

REVISIONS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



- NOTES:**
- All Piles are Plumb.
 - For the Pile Cutoff Elevations, see Pile Data Table.
 - For Test Pile Lengths See Pile Data Table Sheet.
 - For Additional Pile Installation Notes & Data, See Pile Data Table Sheet.
 - The contractor shall install the piles in a manner that will not damage the existing 8" PVC sewer.
 - Casing is required for preformed pile holes at piles 3 and 4 for both End Bents 1 and 2. Install casing in accordance with FDOT Standard Specifications Section 455-5.
 - For Auger Cast Pile Installation Notes and Details, See Auger Cast Pile Detail Sheet.

- Legend:**
- 20" ϕ Open Ended Steel Pipe Pile with Casing.
 - 20" ϕ Open Ended Steel Pipe Pile
 - 20" ϕ Open Ended Steel Pipe Test Pile
 - ⊕ Core Boring Approximate Location
 - ⊙ 16" ϕ Auger Cast Pile

*Conflict structure size to be determined by contractor.

FOUNDATION LAYOUT

DATE	REVISIONS	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	SHEET NO.
PT 3+23.14 N: 517867.56 E: 2073262.77			REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle N.E., J - Tallahassee, FL 32308 PHONE: (905) 894-4521 - FAX: (905) 224-1005	FOUNDATION LA YOUT	B3-3
			LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 * FAX (905) 800-1501	RAYMOND TUCKER DRAINAGE IMPROVEMENTS	
			JOHN F. SLIGER II, P.E. P.E. #5550	GOLDEN PHEASANT DRIVE	

PILE DATA TABLE												Table Date 07-01-14									
INSTALLATION CRITERIA						DESIGN CRITERIA						PILE CUT-OFF ELEVATIONS									
PIER BENT NUMBER	PILE SIZE (in.)	NOMINAL RESISTANCE (tons)	TENSION RESISTANCE (tons)	MINIMUM ELEVATION (ft.)	TEST LENGTH (ft.)	REQUIRED ELEVATION (ft.)	#REQUIRED ELEVATION (ft.)	FACTORED LOAD (tons)	DOWN DRAG (tons)	TOTAL RESISTANCE (tons)	NET CAP RESISTANCE (tons)	100-YEAR SCOUR ELEVATION (ft.)	LONG TERM SCOUR ELEVATION (ft.)	RESISTANCE FACTOR-φ	PILE 1	PILE 2	PILE 3	PILE 4	PILE 5	PILE 6	
End Bent 1	20	79	N/A	20.3	65	N/A	38	51	0	N/A	N/A	N/A	N/A	0.65	49.3	49.3	49.3	49.3	49.3	49.3	49.3
End Bent 2	20	79	N/A	20.3	65	N/A	38	51	0	N/A	N/A	N/A	N/A	0.65	49.0	49.0	49.0	49.0	49.0	49.0	49.0

#PERFORM ELEVATION REQUIRED AT PILES 3 AND 4 FOR END BENTS 1 AND 2.

Factored Design Load + Net Scour Resistance + Down Drag ≤ 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 performed 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 loading.

PILE INSTALLATION NOTES:

- Contractor to verify location of all utilities prior to any pile driving.
- Minimum Tip Elevation is required for lateral stability.
- Under no circumstance shall pile be driven above the minimum tip elevation specified.
- No jetting will be allowed without the approval of the Engineer.
- Tip Protection shall be provided for all piles. The point protection shall be commercially available weld-on open type pile protector.
- All pipe piles shall be driven open ended. Remove the existing soil inside of the pipe pile and fill with reinforced concrete down to the limits shown on sheet B3-5. In the event that the pile pile plugs and the top soil within the pipe is below the limits of the reinforced concrete, the void shall be filled with unreinforced concrete.
- To prevent a loss of soil confinement around the existing utility, casing or slurry shall be used to prevent cave-off of the performed excavation. Casing shall not be installed by a driven method. All casing shall be left in place as to not impact the existing Sanitary Sewer Main.
- Performed Pile Holes shall be constructed and backfilled in accordance with the Standard Specifications for Highway Construction, Section 655.0. Performed Pile Holes, including the cost of slurry and/or casing, shall be included in the cost of the piles.

PILE DYNAMIC ANALYSIS NOTES:

- A Dynamic Load Test shall be performed at the test pile locations.
- A dynamically load test relative of each test pile will be required following the removal of soil inside the pile and prior to concrete placement.
- If the pile driving equipment is different in Phase II than in Phase I, the contractor shall conduct an additional test for each bent at the location of Pile 2, prior to any other pile driving activities in order to reestablish driving criteria.

REVISIONS				ENGINEER OF RECORD:				LEON COUNTY DEPARTMENT OF PUBLIC WORKS				PROJECT NAME:				
DATE	BY	DESCRIPTION		INITIAL	DESIGN BY	CHECKED BY	DATE	REGISTERED PROFESSIONAL ENGINEER CONSULTANT	CERT. OF AUTHORIZATION # 9292	3370 Capital Circle NE, C.J. - Tallahassee, FL 32308	PHONE: (905) 894-4261 - FAX: (850) 224-0905	2280 MICROSOFT ROAD, TALLAHASSEE, FLORIDA 32308	PHONE (905) 800-1500 - FAX (850) 800-1501	PILE DATA TABLE		SHEET NO.
								RAYMOND TUCKER DRAINAGE IMPROVEMENTS				B3-4				

GOLDEN PHEASANT DRIVE

DESIGN NOTE:

The Pipe Piles with reinforced concrete fill are designed such that the steel pipe shell can corrode completely. The pile capacity is based upon the remaining concrete core acting as a cast-in-place reinforced pile column, after corrosion of the pipe shell.

STEEL PIPE PILES:

Pipe for piles shall be new, straight steel pipe conforming to Section 962 of the FDOT Standard Specifications welded and seamless steel pipe piles. Ends of pipe section shall be perpendicular to the longitudinal axis. Pipe wall thickness to be 1/2".

SPLICES:

The ends of all pile sections to be spliced shall be beveled and full butt-welded as shown on the plans. All splices shall be watertight.

INSPECTION:

The Contractor shall have available at all times a suitable drop light for inspecting the entire length of the driven pipe pile before placing reinforcing steel and concrete.

PILE CUT OFF:

Steel Pipe Piles shall be cut off at the required elevations along a plane normal to the axis of the pile. Methods used in cutting off piles shall meet with the approval of the Engineer.

REINFORCING STEEL:

All reinforcing steel shall conform to ASTM A615, Grade 60.

CONCRETE:

Concrete for piles and columns shall be CLASS IV (Drilled Shaft) f'c = 4,000 psi, and shall conform to Section 346 of the Specifications. The final installed pipe piles shall be clean and free of water before placing reinforcing steel and concrete.

MILL TEST REPORTS:

Notarized mill test report shall be required for all steel pipe piles, and submitted to Leon County for Approval.

WELDING:

All welding shall conform to AMERICAN WELDING SOCIETY (AWS) Bridge Welding Code.

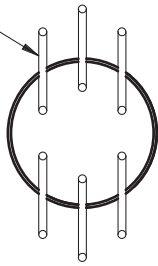
OPEN ENDED DRIVING TIPS/CUTTING SHOES:

Open ended driving tips shall be provided for all piles. The contractor shall submit pile tip protection shop drawings to Leon County Public Works for Review. Pile Tips/Cutting shoes shall be provided by Associated Pile & Fitting LLC (APF) or approved equal. APF can be contacted at www.associatedpile.com or at 1-800-526-5047. The pile tip protection shall be included in the cost of the steel pipe piles.

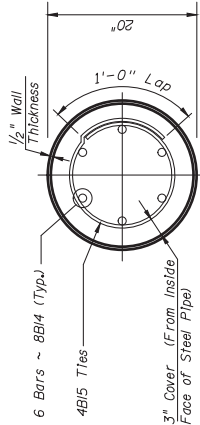
PAYMENT NOTE:

All cost associated with furnishing and installing the Steel Pipe Piles are to be included in the Contract Unit Price for STEEL PILING. Cost shall include but not be limited to furnishing and driving the steel pipe piles, removing soil from inside of the pile, furnishing and placing the concrete and reinforcing steel.

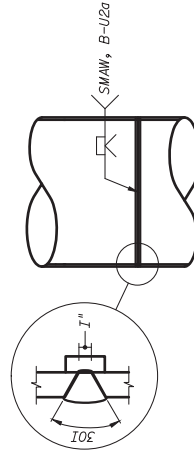
Orient Hooks parallel with Centerline of Concrete Pile Cap (Typ.)



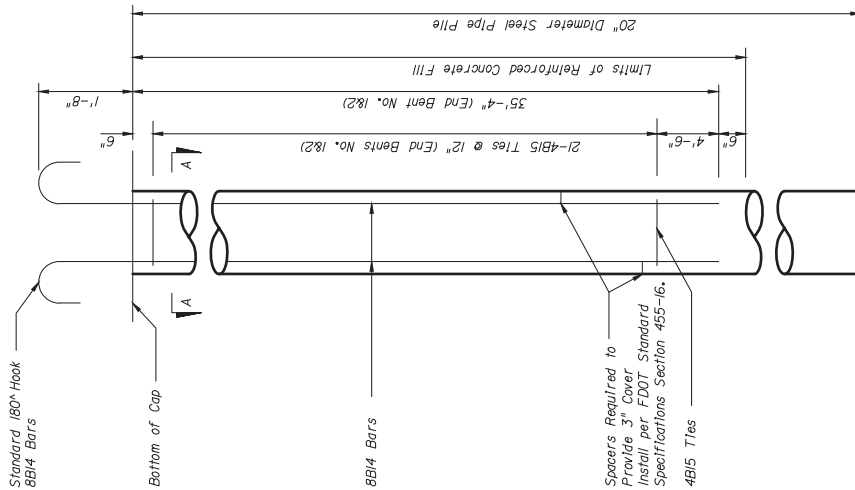
PLAN VIEW OF PIPE PILE (Showing Orientation of Bars 8B14)



SECTION A-A



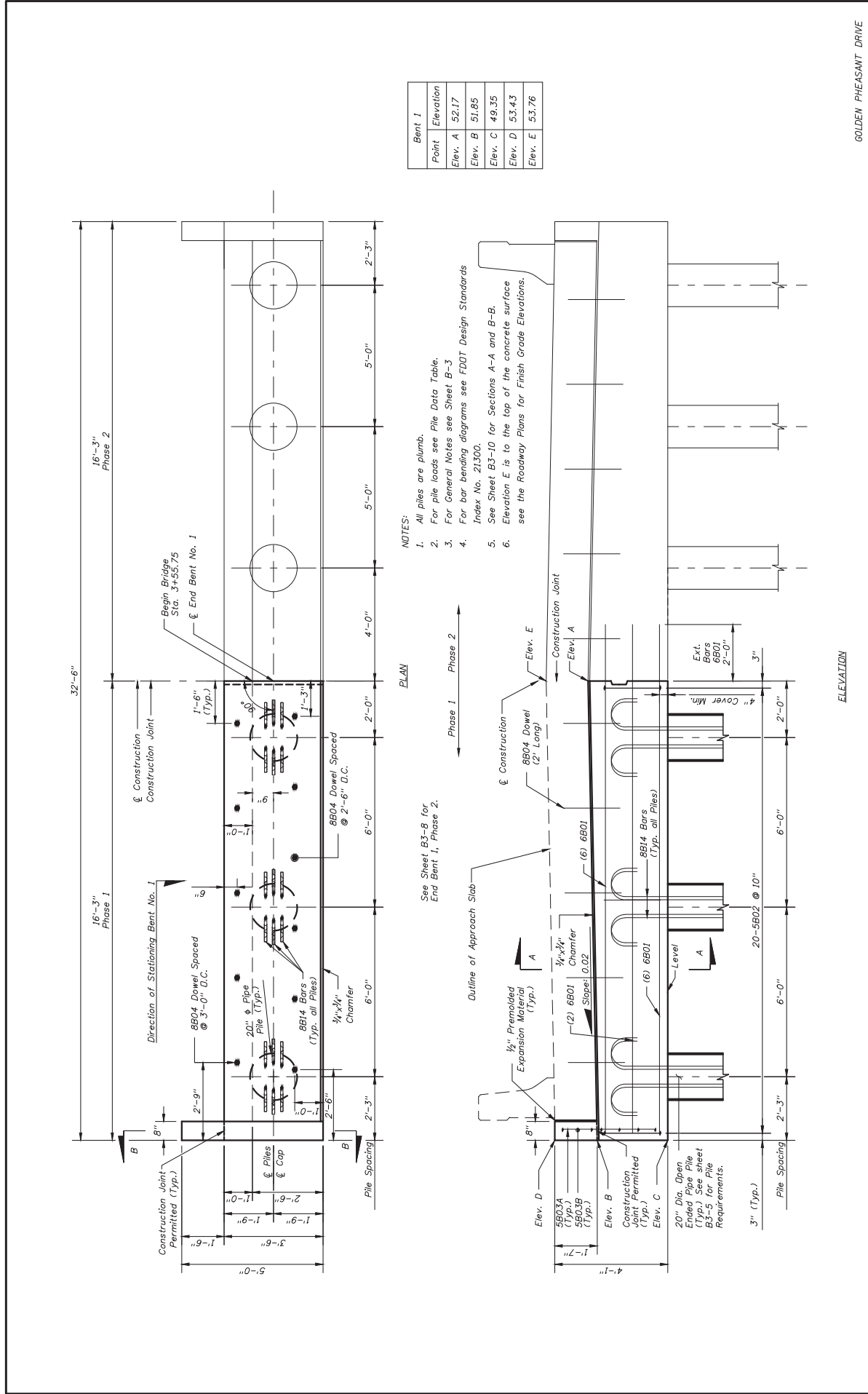
PIPE PILE SPLICE DETAIL



ELEVATION OF PIPE PILE

GOLDEN PHEASANT DRIVE

DATE	REVISIONS	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY	INITIAL	DATE	ENGINEER OF RECORD:	PROJECT NUMBER	PROJECT NAME:	SHEET NO.
								JOHN F. SUGER II, P.E. P.E. #5550	120	RAIMOND TUCKER DRAINAGE IMPROVEMENTS	B3-3
REGISTERE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4561 - FAX: (905) 224-0505									LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501		



Bent 1	
Point	Elevation
Elev. A	52.17
Elev. B	51.85
Elev. C	49.35
Elev. D	53.43
Elev. E	53.76

- NOTES:
1. All piles are plumb.
 2. For pile loads see *Pile Data Table*.
 3. For General Notes see *Sheet B-3*.
 4. For bar bending diagrams see *FDOT Design Standards Index No. 21300*.
 5. See *Sheet B3-10* for Sections A-A and B-B.
 6. Elevation E is to the top of the concrete surface see the *Roadway Plans for Finish Grade Elevations*.

GOLDEN PHEASANT DRIVE

SHEET NO.

END BENT No. 1 - PHASE 1

PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (904) 600-1500 • FAX (904) 600-1501

REGISTER: SLIGER ENGINEERING, INC.
CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
CERT. OF AUTHORIZATION # 9292
3370 Capital Circle NE, C.J. - Tallahassee, FL 32308
PHONE: (904) 894-4521 - FAX: (904) 224-0505

ENGINEER OF RECORD:
JOHN F. SLIGER II, P.E.
P.E. #5550

REVISIONS

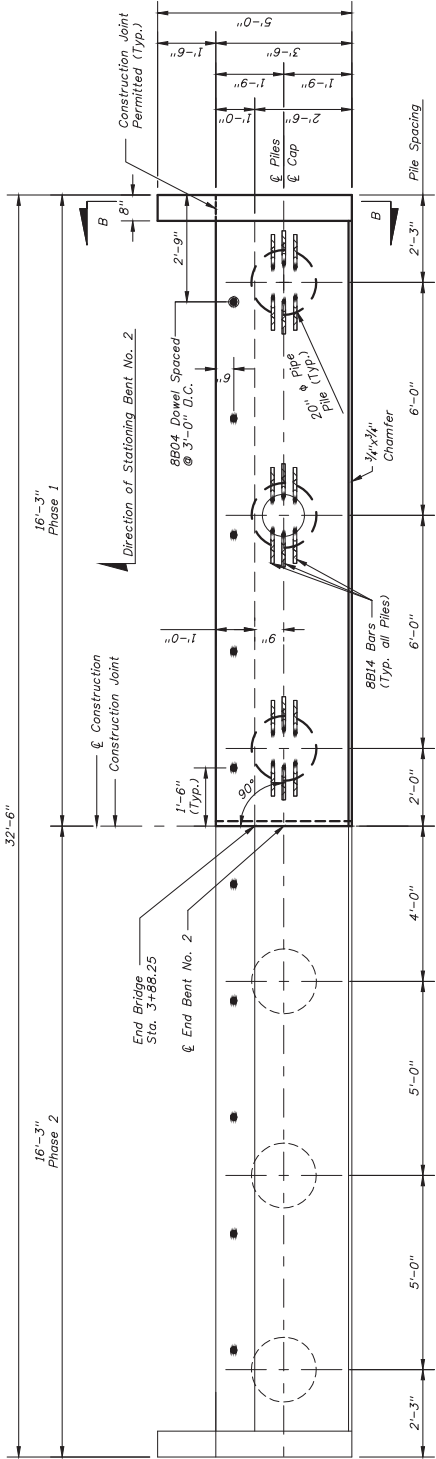
DATE	BY	DESCRIPTION

INITIAL

DESIGNED BY	CHECKED BY	DATE

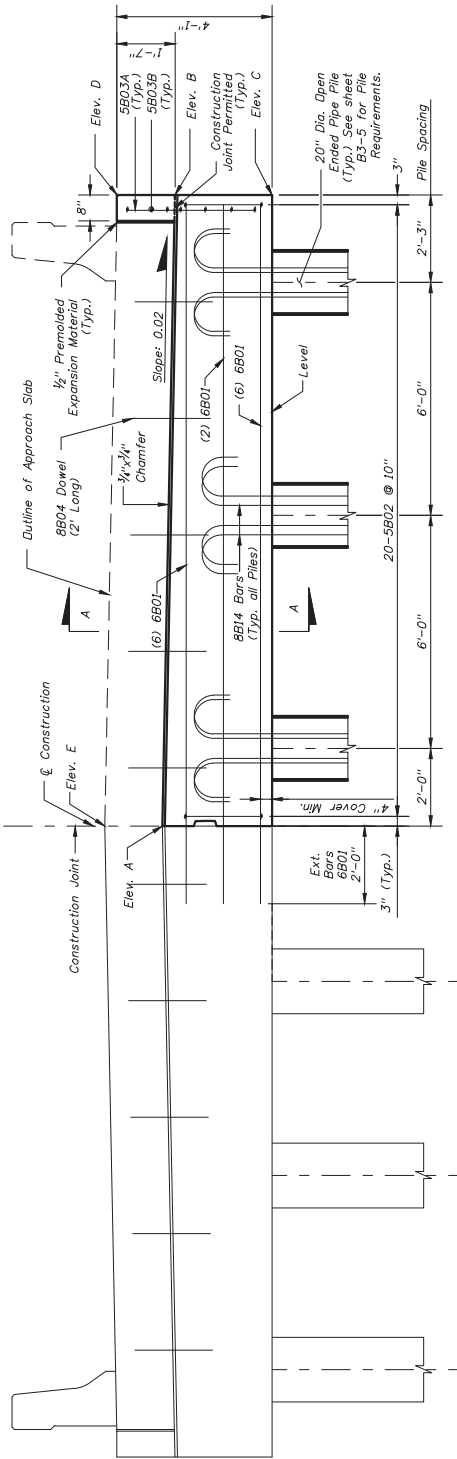
PROJECT NUMBER: 120

83-6



PLAN

See Sheet B3-9 for
End Bent 2, Phase 2.



ELEVATION

Bent	Point	Elevation
2	Elev. A	51.82
	Elev. B	51.50
	Elev. C	49.00
	Elev. D	53.08
	Elev. E	53.40

NOTES:

1. All piles are plumb.
2. For pile loads see Pile Data Table.
3. For General Notes see Sheet B-3
4. For bar bending diagrams see FDOT Design Standards Index No. 21300.
5. See Sheet B3-10 for Sections A-A and B-B.
6. Elevation E is to the top of the concrete surface see the Roadway Plans for Finish Grade Elevations.

GOLDEN PHEASANT DRIVE

SHEET NO.

END BENT No. 2 - PHASE 1

PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS



LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (904) 600-1500 • FAX (904) 600-1501

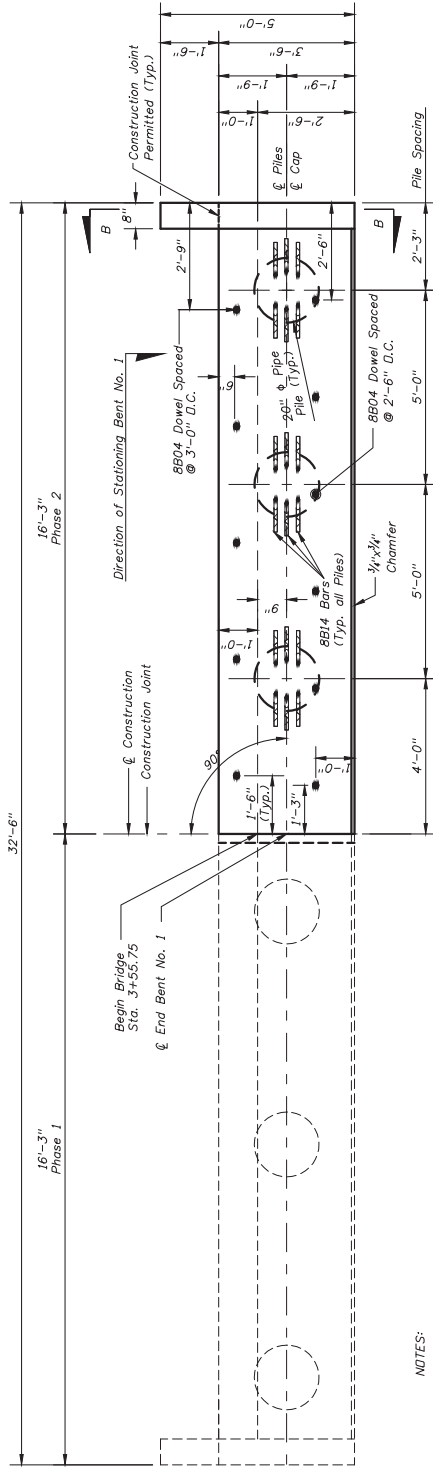


REGISTER SLIGER ENGINEERING, INC.
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CERT. OF AUTHORIZATION # 9292
3370 Capital Circle NE, C.J. - Tallahassee, FL 32308
PHONE: (904) 894-4521 - FAX: (904) 224-0505
PROJECT NUMBER: 120

ENGINEER OF RECORD:
JOHN F. SLIGER II, P.E.
P.E. #5550

DATE	REVISIONS	DESCRIPTION	INITIAL	DATE
	DESIGNED BY			
	CHECKED BY			
	APPROVED BY			
	DATE			4/2/2015

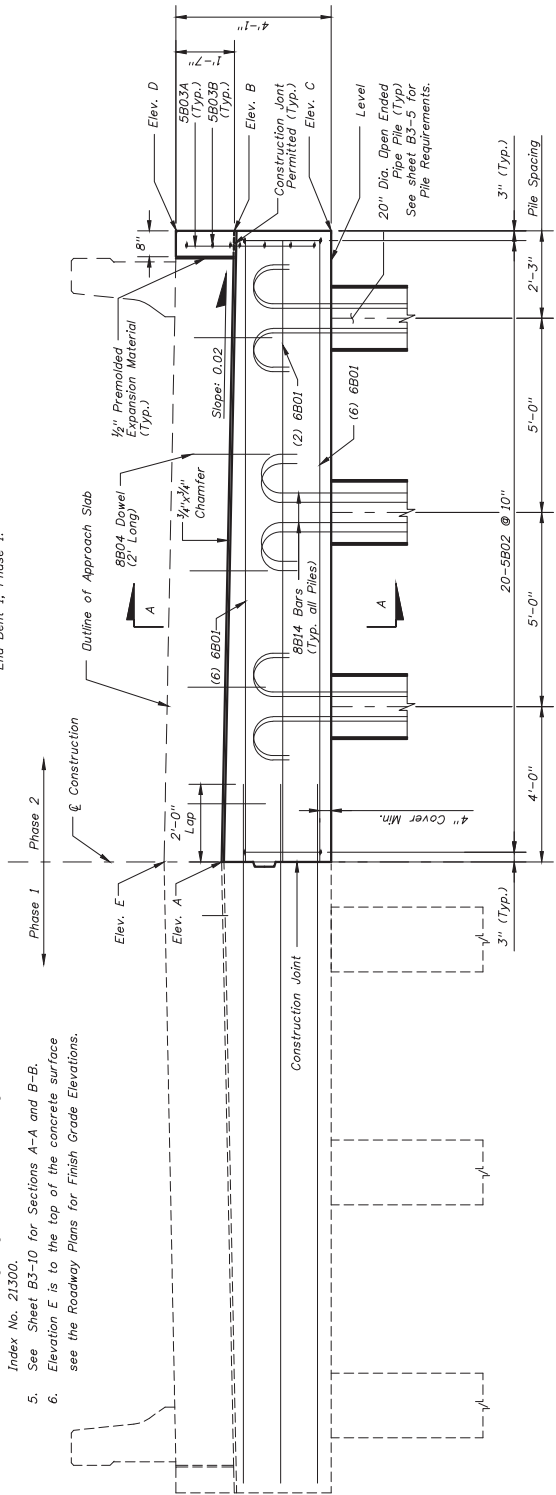
B3-7



PLAN

- NOTES:
1. All piles are plumb.
 2. For pile loads see Pile Data Table.
 3. For General Notes see Sheet B-3.
 4. For bar bending diagrams see FDOT Design Standards Index No. 21300.
 5. See Sheet B3-10 for Sections A-A and B-B.
 6. Elevation E is to the top of the concrete surface see the Roadway Plans for Finish Grade Elevations.

See Sheet B3-6 for End Bent 1, Phase 1.

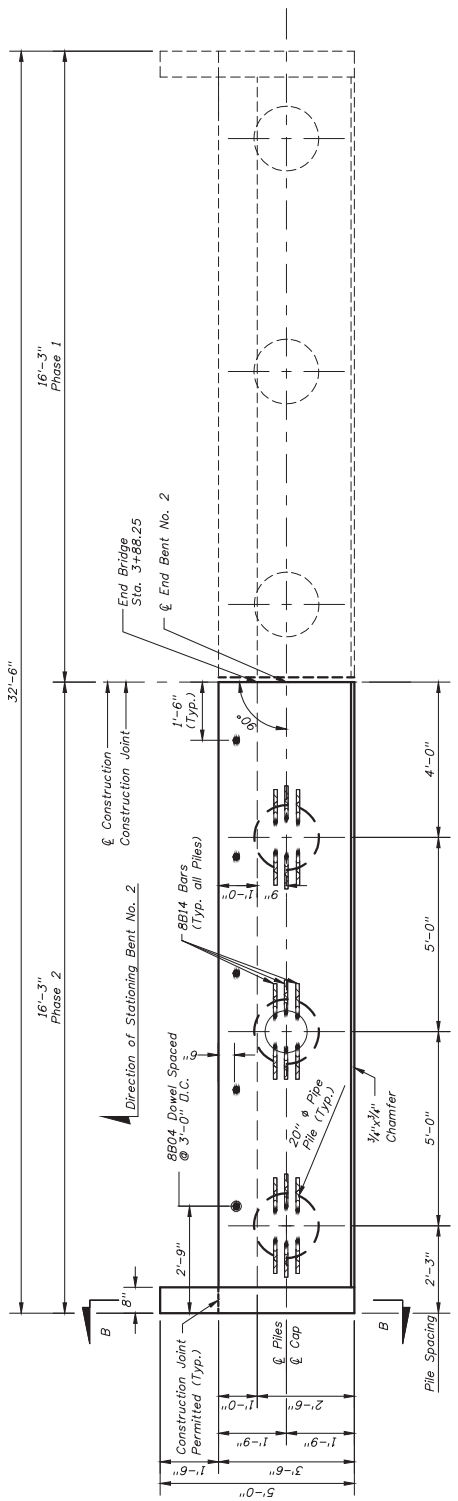


ELEVATION

Bent 1	
Point	Elevation
Elev. A	52.17
Elev. B	51.85
Elev. C	49.35
Elev. D	53.43
Elev. E	53.76

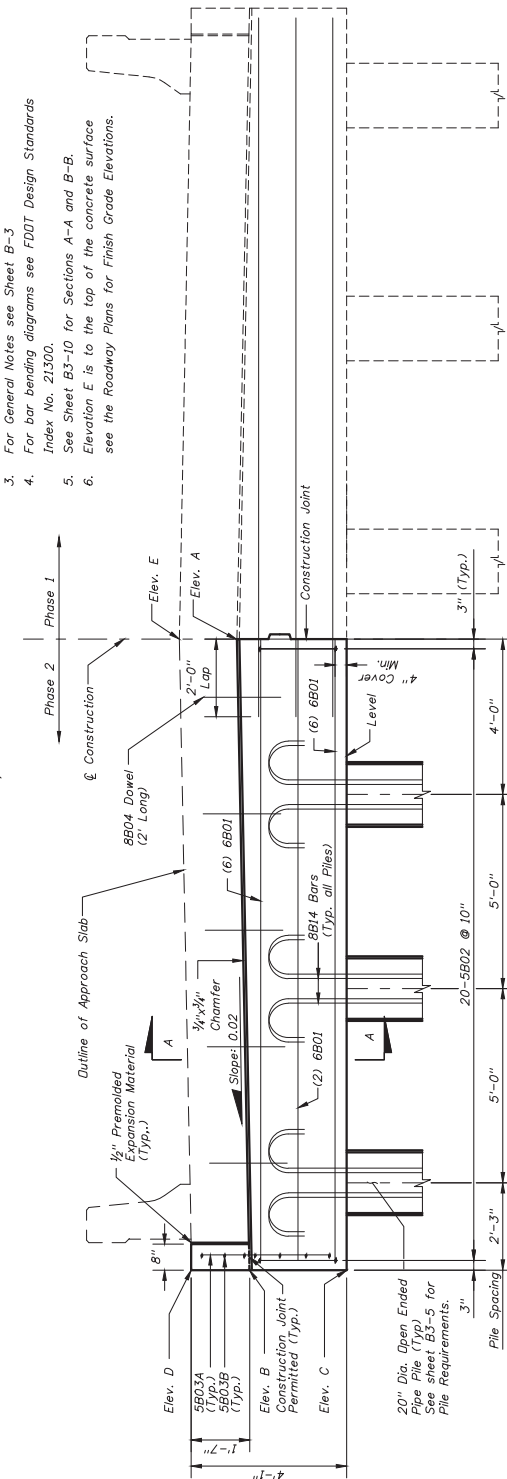
DATE	REVISIONS	INITIAL	ENGINEER OF RECORD:	PROJECT NUMBER:	SHEET NO.
			REGISTE SLIGER ENGINEERING, INC.	END BENT No. 1 - PHASE 2	B3-8
			CIVIL AND STRUCTURAL ENGINEERING CONSULTANT	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	
			CERT. OF AUTHORIZATION # 9292	2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308	
			3370 Capital Circle NE, C.J. - Tallahassee, FL 32308	PHONE (904) 800-1500 - FAX (904) 800-1501	
			PHONE: (904) 894-4321 - FAX (904) 224-0505		
			JOHN F. SLIGER II, P.E.		
			P.E. #5550		
			PROJECT NUMBER 120		

GOLDEN PHEASANT DRIVE



- NOTES:**
- All piles are plumb.
 - For pile loads see Pile Data Table.
 - For General Notes see Sheet B-3
 - For bar bending diagrams see FDOT Design Standards Index No. 21300.
 - See Sheet B3-10 for Sections A-A and B-B.
 - Elevation E is to the top of the concrete surface see the Roadway Plans for Finish Grade Elevations.

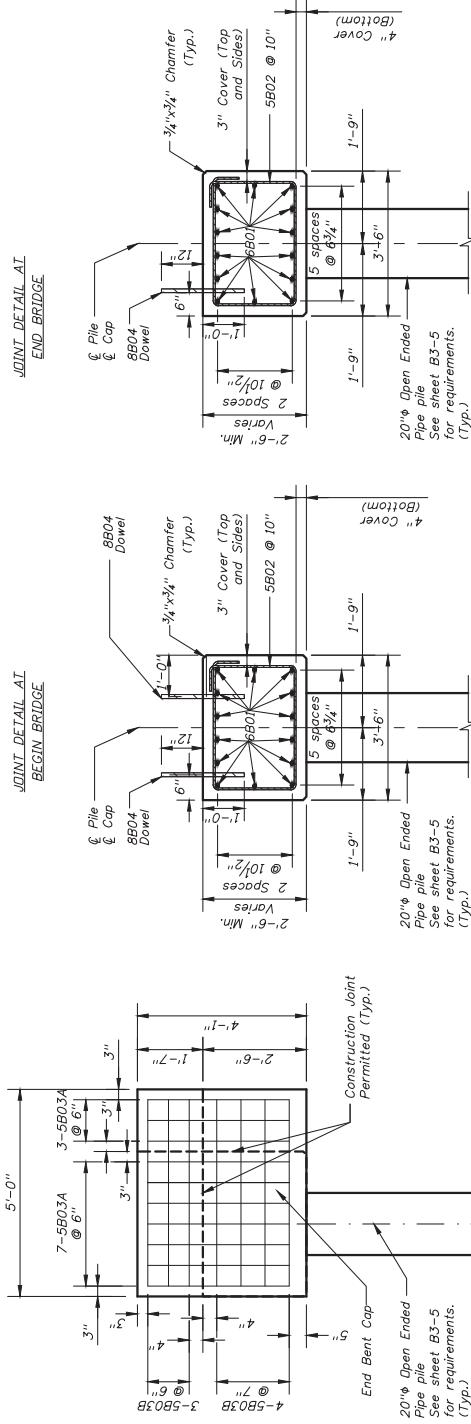
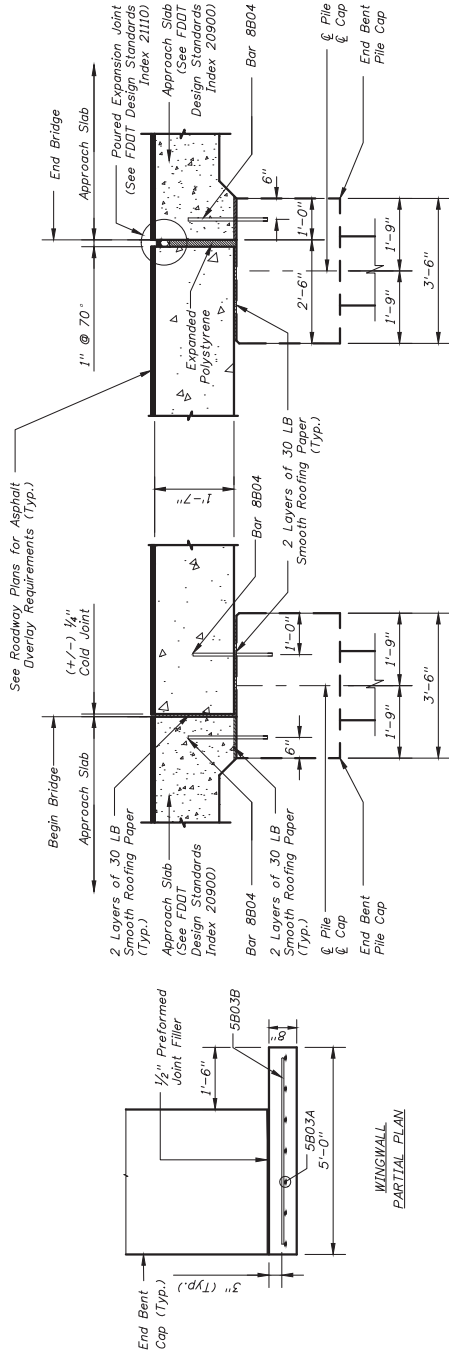
See Sheet B3-7 for End Bent 2, Phase 1.



Bent 2	
Point	Elevation
Elev. A	51.82
Elev. B	51.50
Elev. C	49.00
Elev. D	53.08
Elev. E	53.40

ELEVATION

DATE	REVISIONS	INITIAL	ENGINEER OF RECORD:	PROJECT NUMBER:	GOLDEN PHEASANT DRIVE	SHEET NO.
			REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (850) 894-4561 - FAX: (850) 224-0505	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 800-1500 - FAX (850) 800-1501	END BENT No. 2 - PHASE 2	B3-9
			JOHN F. SLIGER II, P.E. P.E. #5550	RAYMOND TUCKER DRAINAGE IMPROVEMENTS		



CONSTRUCTION JOINT DETAIL

REVISIONS	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
 JOHN F. SUGER II, P.E.
 P.E. #5550

REGISTERED CONSULTANT
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9292
 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308
 PHONE: (905) 894-4561 - FAX: (905) 224-0505

PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS

PROJECT NO.:
B3-10

GOLDEN PHEASANT DRIVE

SUBSTRUCTURE/SUPERSTRUCTURE DETAILS

SHEET NO.

B3-10

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (905) 800-1500 • FAX (905) 800-1501

PROJECT NUMBER: 120

SECTION B-B
 TYPICAL WINGWALL DETAILS

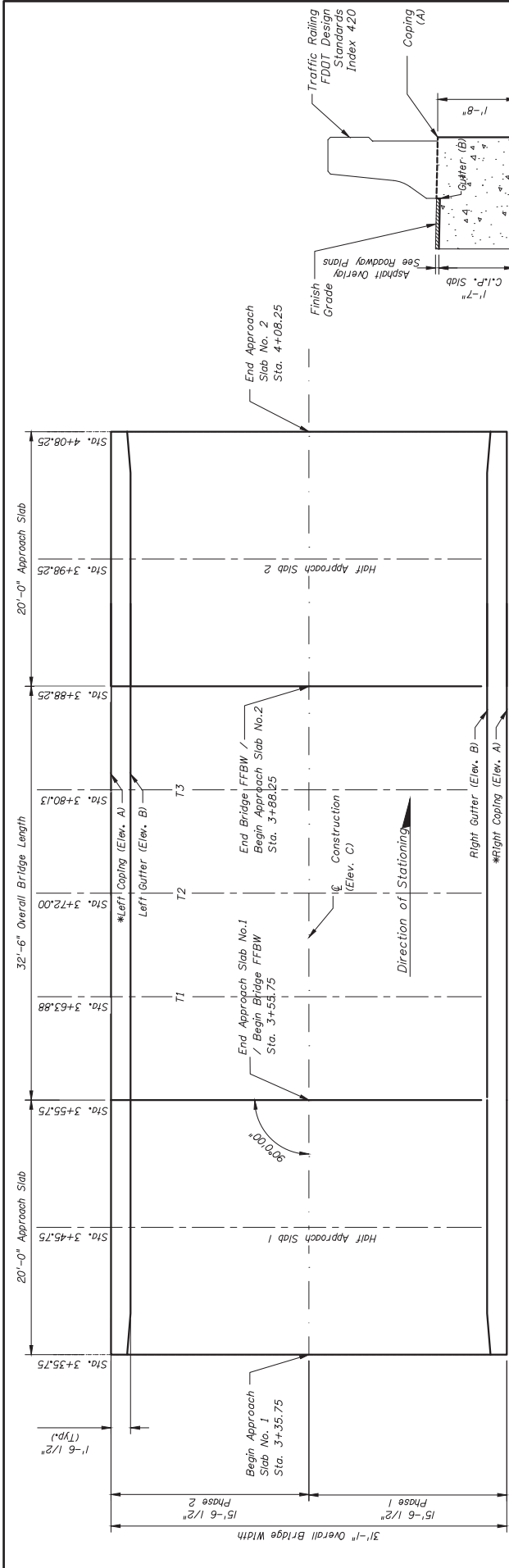
SECTION A-A
 BENT No. 1

SECTION A-A
 BENT No. 2

JOINT DETAIL AT
 END BRIDGE

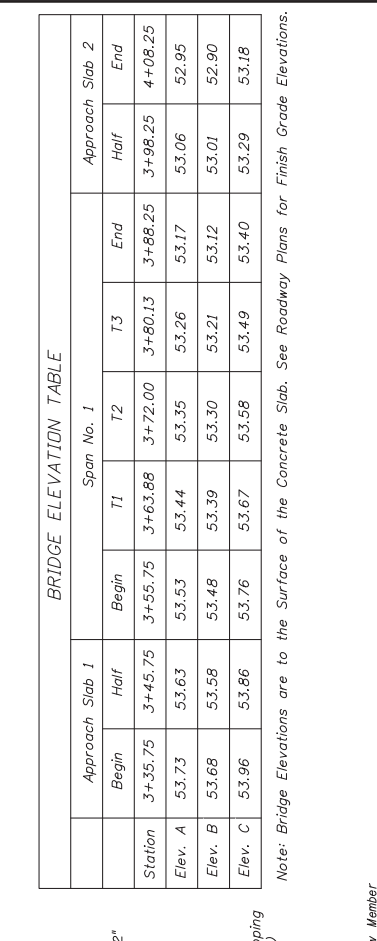
JOINT DETAIL AT
 END BRIDGE

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



PLAN - BRIDGE ELEVATIONS

FFBW: Front Face of Backwall

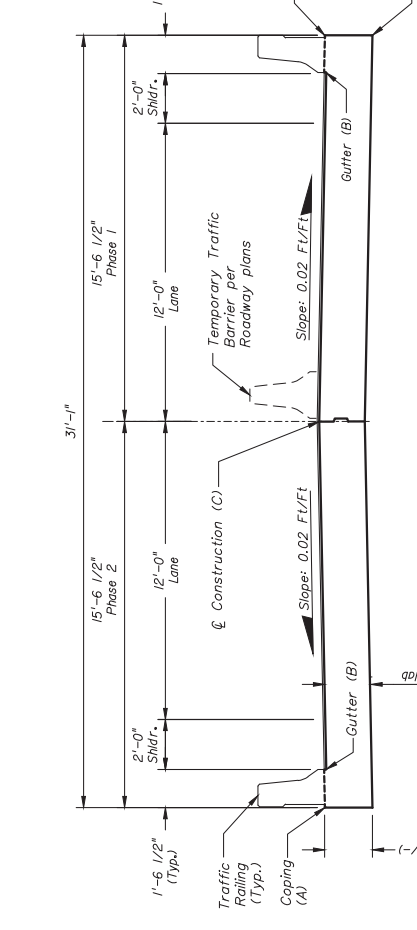


SECTION THROUGH SUPERSTRUCTURE SHOWING BRIDGE ELEVATIONS (Looking Up Station)

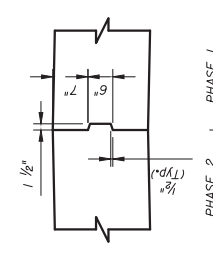
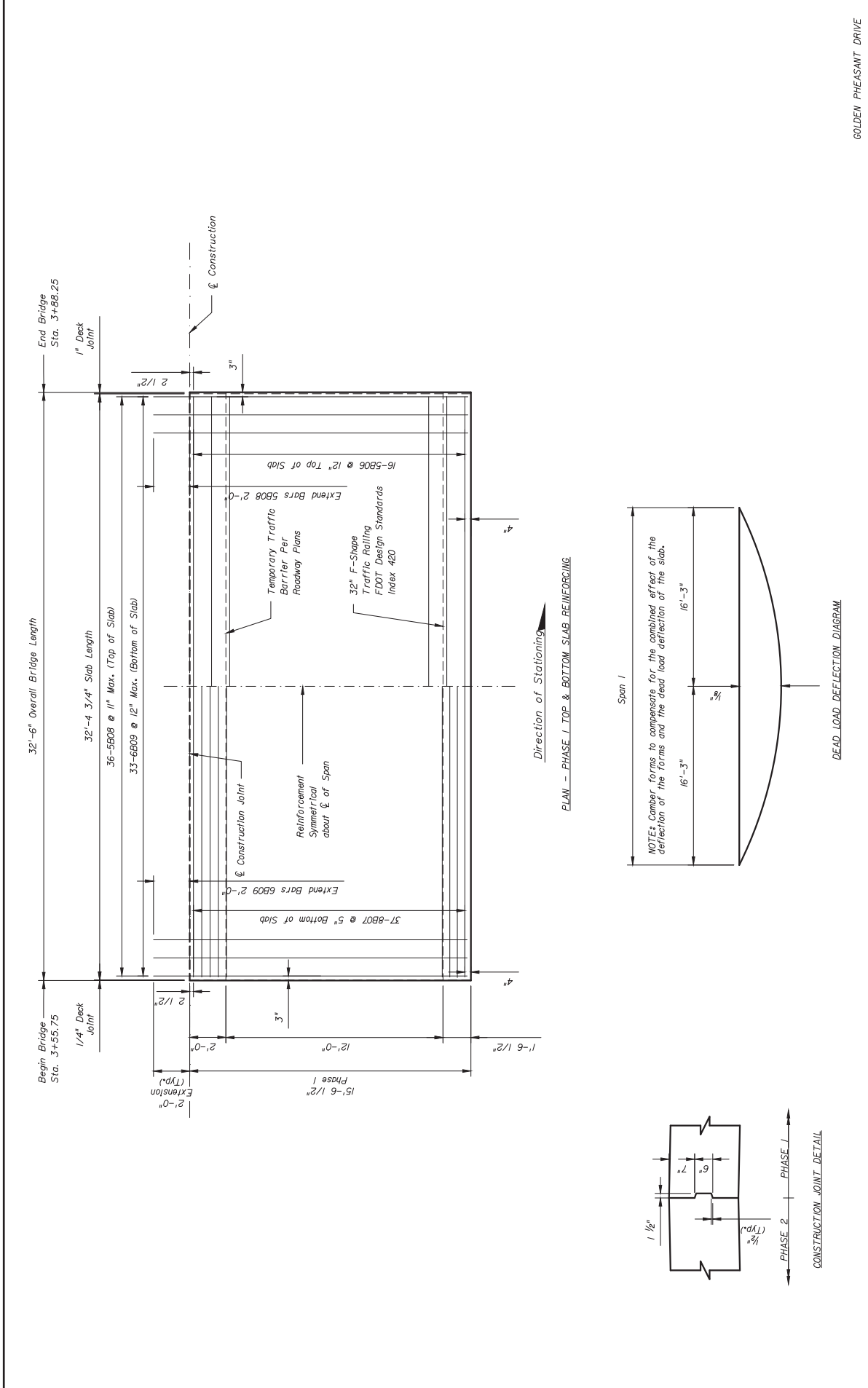
Station	Approach Slab 1			Span No. 1			Approach Slab 2		
	Begin	Half	End	T1	T2	T3	End	Half	End
Elev. A	3+35.75	3+45.75	3+88.25	3+63.88	3+72.00	3+80.13	3+86.25	3+98.25	4+08.25
Elev. B	53.73	53.63	53.53	53.44	53.35	53.26	53.17	53.06	52.95
Elev. C	53.68	53.58	53.48	53.39	53.30	53.21	53.12	53.01	52.90
Elev. D	53.96	53.86	53.76	53.67	53.58	53.49	53.40	53.29	53.18

Note: Bridge Elevations are to the Surface of the Concrete Slab. See Roadway Plans for Finish Grade Elevations.

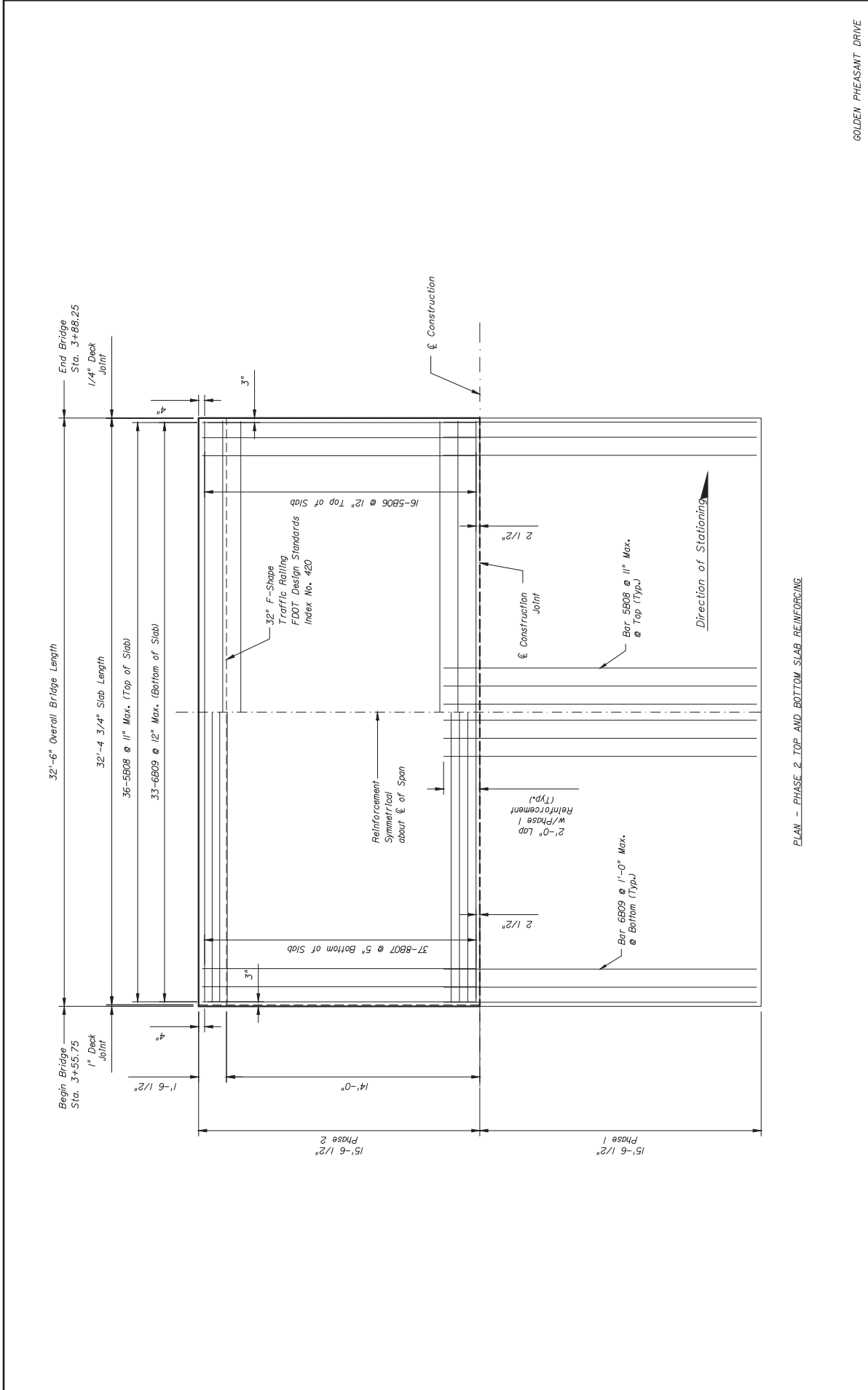
SLAB END DETAIL



REVISIONS DATE BY DESCRIPTION		INITIAL ENGINEER OF RECORD: JOHN F. SLIGER, P.E. P.E. #55530		PROJECT NUMBER: 120
DRAWN BY: J.C. CHECKED BY: J.S. DATE: 4/22/05	REGISTERED PROFESSIONAL ENGINEER CIVIL ENGINEER LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 694-4521 - FAX: (850) 224-0905		PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS	
GOLDEN PHEASANT DRIVE				




GOLDEN PHEASANT DRIVE		SUPERSTRUCTURE DETAILS (1 of 3)		SHEET NO.	
LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 WICCOSSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501		PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		PROJECT NUMBER: B3-19	
REGISTER: SLIGER ENGINEERING, INC. CIVIL AND MECHANICAL ENGINEERING CONSULTANT 1001 W. UNIVERSITY BLVD., SUITE 200 TALLAHASSEE, FLORIDA 32308 PHONE: (850) 894-4321 - FAX: (850) 224-0905		ENGINEER OF RECORD: JOHN F. SLIGER II, P.E. P.E. #25550		INITIAL	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
			4/20/05	JRS	CHECKED BY
				JRS	DATE




PLAN - PHASE 2 TOP AND BOTTOM SLAB REINFORCING

GOLDEN PHEASANT DRIVE	
PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS	SHEET NO. B3-13

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 • FAX (850) 606-1501

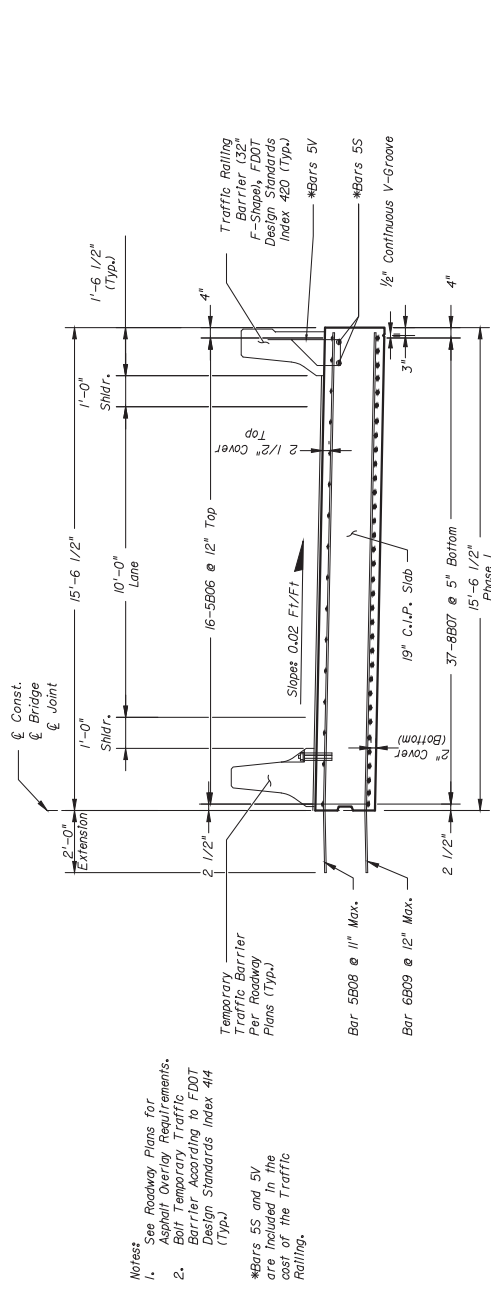


REGISTER: SLIGER ENGINEERING, INC.
 CIVIL AND MECHANICAL ENGINEERING CONSULTANT
 3370 Capota, Circle NE, C.D. - Tallahassee, FL 32308
 PHONE: (850) 894-4321 - FAX: (850) 224-0505
 PROJECT NUMBER: 120

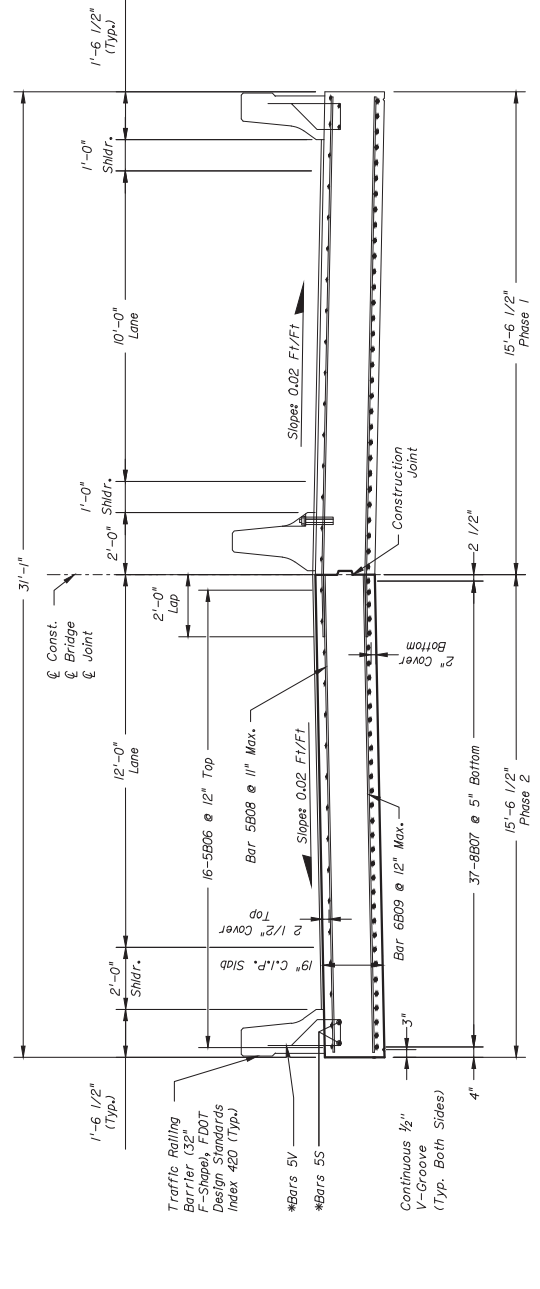


ENGINEER OF RECORD:
 JOHN F. SLIGER II, P.E.
 F.E.#5550

DATE	BY	REVISIONS	INITIAL



- Notes:**
- See Roadway Plans for Asphalt Overlay Requirements.
 - Bar Temporary Traffic Barrier According to FDOT Design Standards Index 414 (Typ.)
- *Bars 5S and 5V are included in the Traffic Railing.



DATE	BY	REVISIONS

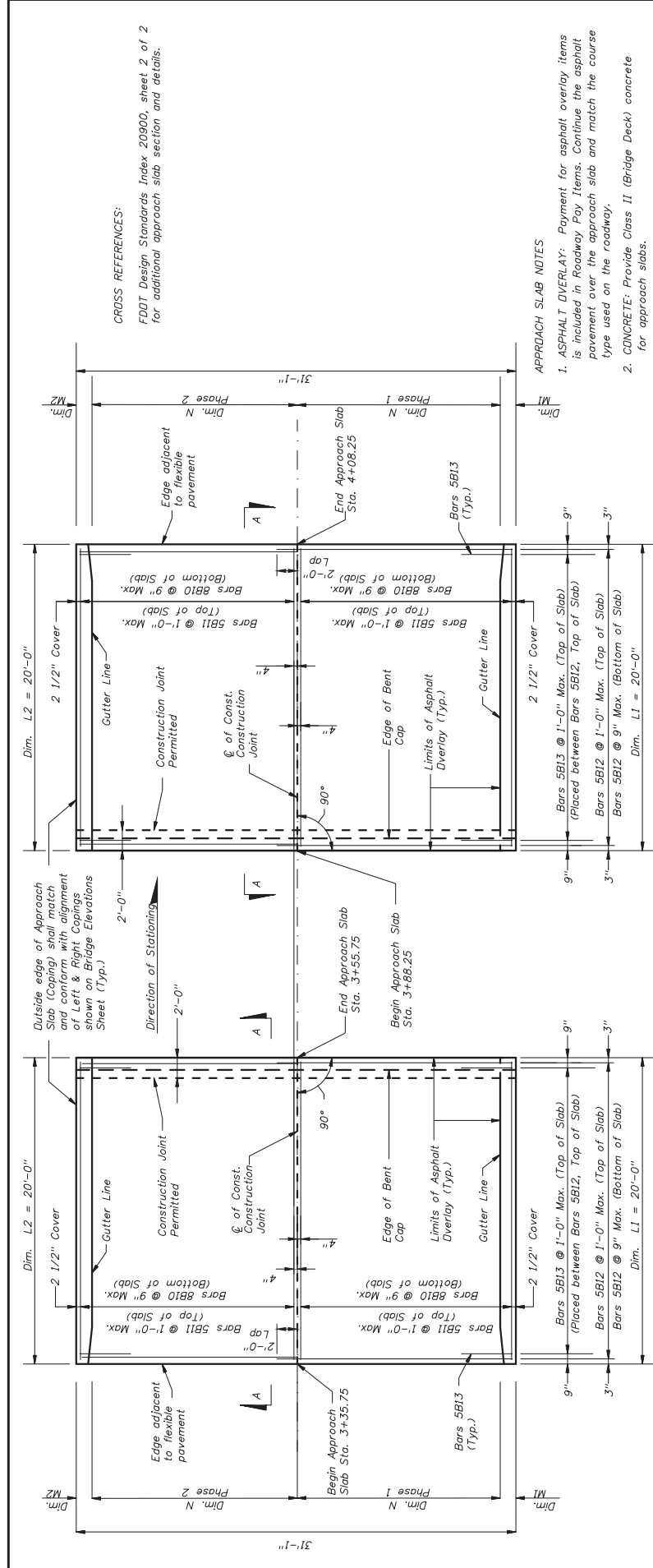
ENGINEER OF RECORD:
 JOHN F. OLIVER II, P.E.
 P.E. #65550

REGISTERED ENGINEERING CONSULTANT:
 CIVIL ENGINEER
 STATE OF FLORIDA
 3370 Coastal Circle NE, C.D. - Tallahassee, FL 32308
 PHONE: (850) 994-4321 - FAX: (850) 224-0905
 PROJECT NUMBER: 120

LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 WICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

SUPERSTRUCTURE DETAILS (3 of 3)
 PROJECT NAME:
RAYMOND TUCKER DRAINAGE IMPROVEMENTS

GOLDEN PHEASANT DRIVE
 SHEET NO.
B3-14



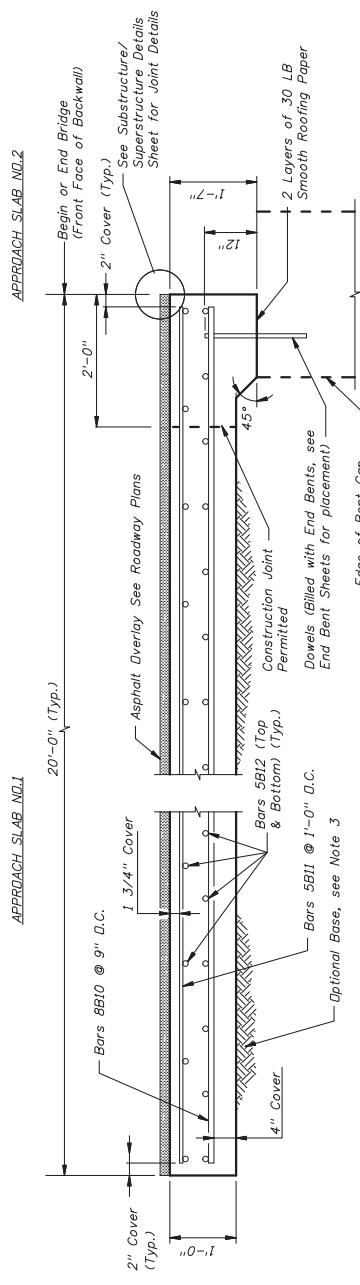
CROSS REFERENCES:
 FDOT Design Standards Index 20900, sheet 2 of 2
 for additional approach slab section and details.

APPROACH SLAB NOTES

1. ASPHALT OVERLAY: Payment for asphalt overlay items is included in Roadway Pay Items. Continue the asphalt pavement over the approach slab and match the course type used on the roadway.
2. CONCRETE: Provide Class II (Bridge Deck) concrete for approach slabs.
3. See Roadway Plans for Asphalt Overlay and Optional Base Group details.

APPROACH SLAB INDEX 20900 TABLE OF DIMENSIONS

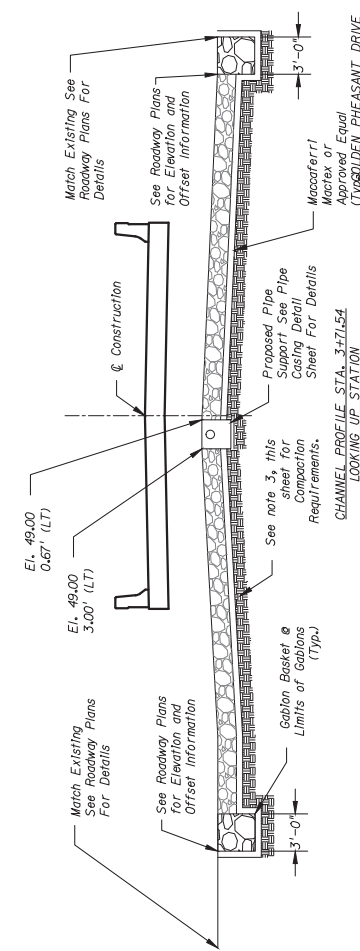
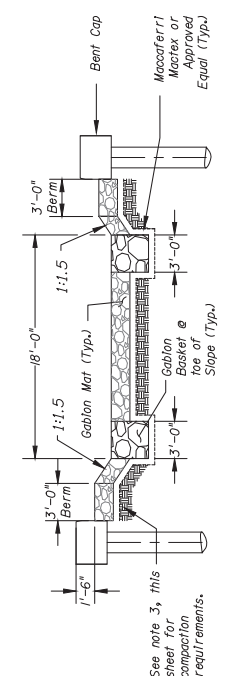
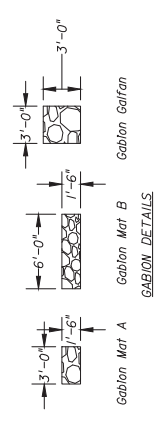
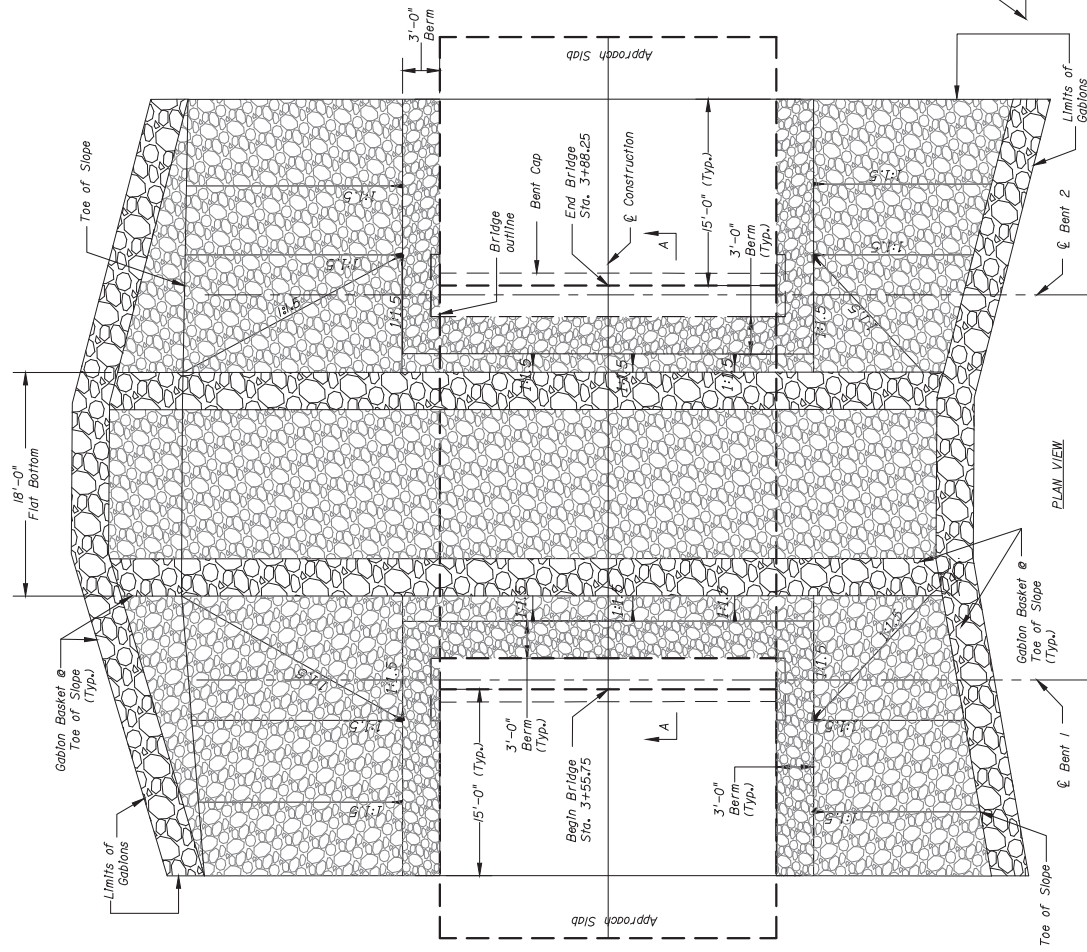
LOCATION	DIMENSIONS				ANGLE
	L1	L2	M1	M2	
Slab No.1 - Phase 1	20'-0"	N/A	1'-6 1/2"	N/A	14'-0"
Slab No.2 - Phase 1	20'-0"	N/A	1'-6 1/2"	N/A	14'-0"
Slab No.1 - Phase 2	N/A	20'-0"	1'-6 1/2"	14'-0"	N/A
Slab No.2 - Phase 2	N/A	20'-0"	1'-6 1/2"	14'-0"	N/A



REVISIONS		DATE		DESCRIPTION	
SECTION A-A					
ENGINEER OF RECORD:					
REGISTER SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (904) 894-4561 - FAX: (904) 224-0905					
JOHN F. SLIGER II, P.E. P.E. #5550					
PROJECT NUMBER: 120					
LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (904) 800-1500 - FAX (904) 800-1501					
GOLDEN PHEASANT DRIVE APPROACH SLABS PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS SHEET NO. B3-15					

Notes:

1. All Gabions shall be Maccaferri or approved equal.
2. Maccaferri can be contacted at www.maccaferri-usa.com or by phone at 301-223-6910
3. Compact the soil below gabions to a minimum density of 90% of the soils Modified Proctor maximum dry density (ASTM D-1557) for a depth of at least 24 inches.
4. Gabions components shall be in accordance with FDOT Standard Specification Section 530-2.3. Install Gabions in accordance to FDOT Standard Specification Section 530-3.5 and the manufacturer's specifications and recommendations.



DATE	BY	REVISIONS	DESCRIPTION	INITIAL	ENGINEER OF RECORD:	PROJECT NAME:	SHEET NO.
				DESIGNED BY: J.S.	REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (905) 894-4321 - FAX: (905) 224-0505 PROJECT NUMBER: 120	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501	GABION BANK PROTECTION DETAILS RAYMOND TUCKER DRAINAGE IMPROVEMENTS
			CHECKED BY: A.C.				
			DESIGNED BY: J.S.				
			CHECKED BY: J.R.				
			DATE: 4/20/15	JOHN F. SLIGER II, P.E. P.E. #5550			

MARK SIZE	DES I	FT	IN	TP	STY	B	C	D	E	F	H	J	K	N	ANG
LOCATION APPROACH SLAB NO. 1&2 PHASE 2															
8	B10	19-6	21	1	1	19-6									
5	B11	19-6	16	1	1	19-6									
5	B12	15-4	48	1	1	15-4									
5	B13	7-8	20	1	1	7-8									
LOCATION PIPE PILE PHASE 1															
8	B14	27-7	6	17	1	26-8									
4	B15	4-2	21	24	1	0-6									
LOCATION PIPE PILE PHASE 2															
8	B14	27-7	6	17	1	26-8									
4	B15	4-2	21	24	1	0-6									

END OF LIST

MARK SIZE	DES I	FT	IN	TP	STY	B	C	D	E	F	H	J	K	N	ANG
LOCATION END BENT NO. 1 PHASE 1															
6	B01	18-0	14	1	1	18-0									
5	B02	10-10	20	4	4	1-11	3-0								
5	B03A	3-5	10	1	1	3-5									
5	B03B	4-6	7	1	1	4-6									
8	B04	2-0	11	1	1	2-0									
LOCATION END BENT NO. 2 PHASE 1															
6	B01	18-0	14	1	1	18-0									
5	B02	10-10	20	4	4	1-11	3-0								
5	B03A	3-5	10	1	1	3-5									
5	B03B	4-6	7	1	1	4-6									
8	B04	2-0	11	1	1	2-0									
LOCATION END BENT NO. 1 PHASE 2															
6	B01	16-0	14	1	1	16-0									
5	B02	10-10	20	4	4	1-11	3-0								
5	B03A	3-5	10	1	1	3-5									
5	B03B	4-6	7	1	1	4-6									
8	B04	2-0	11	1	1	2-0									
LOCATION SUPERSTRUCTURE PHASE 1															
5	B06	32-0	16	1	1	32-0									
8	B07	32-0	37	1	1	32-0									
5	B08	17-3	36	1	1	17-2 1/2									
6	B09	17-3	33	1	1	17-2 1/2									
LOCATION SUPERSTRUCTURE PHASE 2															
5	B06	32-0	16	1	1	32-0									
8	B07	32-0	37	1	1	32-0									
5	B08	15-3	36	1	1	15-2 1/2									
6	B09	15-3	33	1	1	15-2 1/2									
LOCATION APPROACH SLAB NO. 1&2 PHASE 1															
8	B10	19-6	21	1	1	19-6									
5	B11	19-6	16	1	1	19-6									
5	B12	17-4	48	1	1	17-4									
5	B13	7-8	20	1	1	7-8									

END OF LIST

NOTES:

1. Work this sheet with FDOT Design Standard Index 21300.
2. Reinforcement for pipe piles to be included in the payment for pipe piles. See Steel Pipe Pile Detail Sheet.

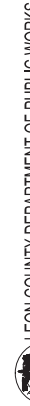
GOLDEN PHEASANT DRIVE

REINFORCING BAR LIST

PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS

LEON COUNTY DEPARTMENT OF PUBLIC WORKS

2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (904) 600-1500 * FAX (904) 600-1501



REGISTERED PROFESSIONAL ENGINEER CONSULTANT
CIVIL AND STRUCTURAL ENGINEERING
3370 Capital Circle NE, (J) - Tallahassee, FL 32308
PHONE: (904) 894-4561 - FAX (904) 224-0505

PROJECT NUMBER: 120



REGISTERED PROFESSIONAL ENGINEER CONSULTANT
CIVIL AND STRUCTURAL ENGINEERING
3370 Capital Circle NE, (J) - Tallahassee, FL 32308
PHONE: (904) 894-4561 - FAX (904) 224-0505

PROJECT NUMBER: 120

ENGINEER OF RECORD:

JOHN F. SIGER, P.E.
P.E. #15550

DATE

REVISIONS

DESCRIPTION

INITIAL

DATE

DESIGNED BY

CHECKED BY

DATE

DATE

DATE

DESCRIPTION

INITIAL

DATE

DATE

DESCRIPTION

INITIAL

DATE

DATE

DESCRIPTION

INITIAL

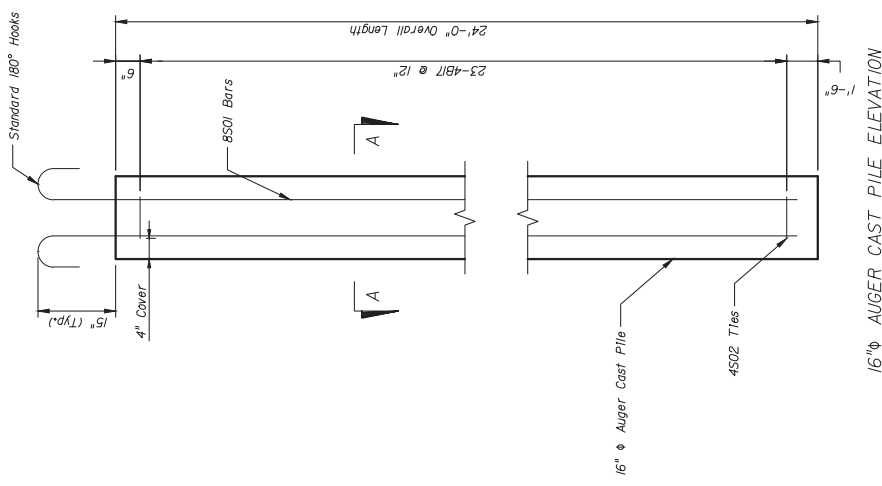
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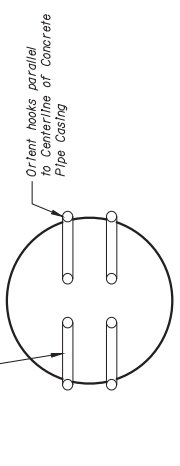
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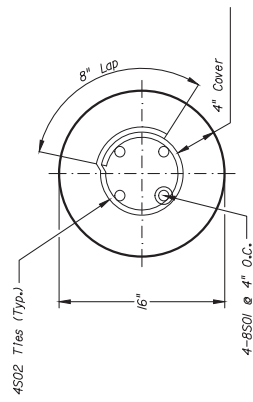
DATE



16" ϕ AUGER CAST PILE ELEVATION



PLAN VIEW OF AUGER CAST PILE
(Showing Bars B516)



SECTION A-A

Pile Installation:
Install Piles in accordance with FDOT Standard Specifications Section 455-44. Prior to installation, the Contractor shall submit an Auger cast Pile Installation Plan in accordance with FDOT Standard Specifications Section 455-47 to Leon County Department of Public Works for the approval of the Engineer of Record.

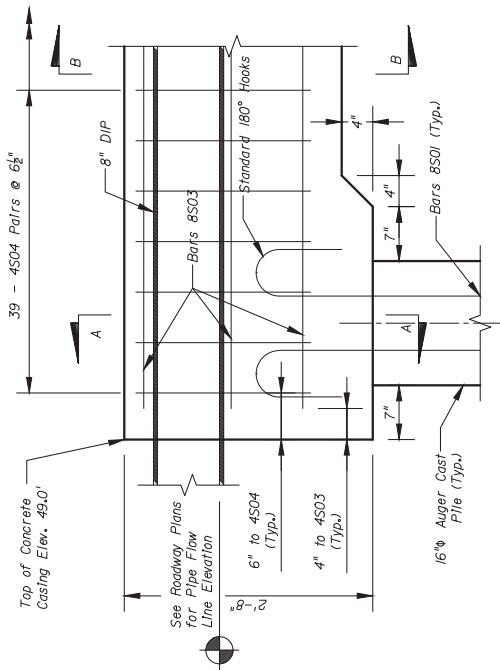
Grout:
Grout mixture materials shall be in accordance with Section 455-40 of the FDOT Standard Specifications. Proportion grout mixture to provide a minimum 28 day strength of 5000 psi. Grout shall be placed in the annular space within 30 minutes of placement. Spigot holes 455-41 & 455-42 shall be covered with a minimum 2 inch diameter of 1/2 hour or prior to installation of 20% Open Ended Steel Pipe Piles within 4 pile diameters.

Reinforcing Steel:
All reinforcing steel shall conform to ASTM A615, Grade 60.
Payment:
All costs associated with furnishing and installing of Auger Cast piles are to be included in the contract unit price for AUGER GROUTED PILES.

Pile No.	Size	Top Elevation	Tip Elevation
1	16"	46.3	22.3
2	16"	46.4	22.4

NOTES:
For Pipe Casing Details see Sheet BSI-2
For Auger Cast Pile Location, see sheet B3-3.

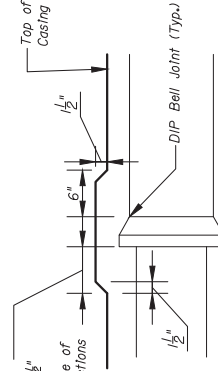
REVISIONS DATE: BY: DESCRIPTION:		INITIAL DESIGNED BY: CHECKED BY: DATE: 4/2005		ENGINEER OF RECORD: JOHN F. SUGER II, P.E. P.E. #5550		RKS ENGINEERING CONSULTANTS, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE: (904) 894-4561 - FAX: (904) 224-0505		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (904) 800-1500 • FAX (904) 800-1501		PROJECT NAME: RAYMOND TUCKER DRAINAGE IMPROVEMENTS		SHEET NO. BSI-1	
GOLDEN PHEASANT DRIVE													



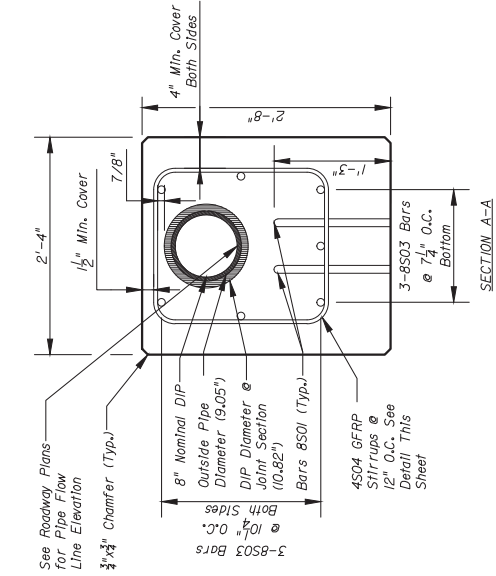
PARTIAL PLAN VIEW
PIPE CASING

For Auger Cast Pile Details, See Sheet 6S1-1.

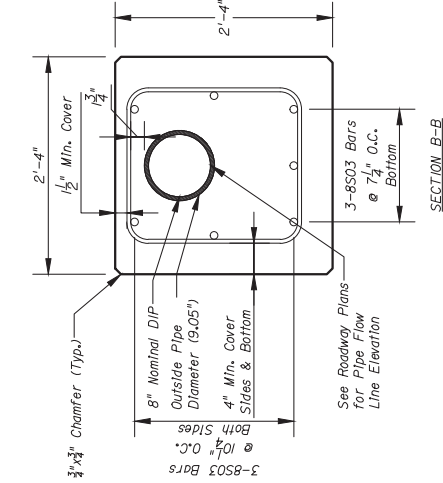
Bevel Top of Concrete
Pipe Casing Outward 1/8"
for a Minimum of 6"
Before and After Edge of
Joint at DIP Joint Sections



DIP JOINT SECTION
DETAIL



SECTION A-A



SECTION B-B

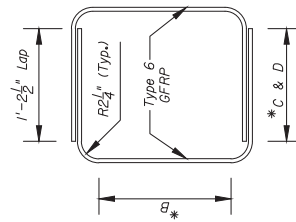
NOTES:

DIP: Locate joints in proposed DIP beyond the limits concrete pipe encasement whenever possible. When joints are required within the concrete pipe casing, center joints over Auger cast Pile Supports. Payment for DIP is included with the Roadway Pay Items.

Concrete: Concrete Shall Be Class IV with a minimum 28 day compressive strength f'c=5,500 psi. All concrete shall be in accordance with FDOT Standard Specifications Section 346. All costs associated with placement, forming and construction of Pipe Casing shall be included in Pay Item CONCRETE CLASS IV, SUBSTRUCTURE.

Reinforcing Steel: All reinforcing steel shall be in accordance with ASTM A615, Grade 60. For Standard bar Bending Details See FDOT Design Standards Index 21500. All Costs Associated with Furnishing and Installing Reinforcing Steel are to be included in Pay Item CONCRETE CLASS IV, SUBSTRUCTURE.

GFRP Reinforcement: Use only GFRP bars manufactured using glass fibers classified as E-GFR or R that meet the requirements of ASTM D578. GFRP bars shall be #4, having a Minimum Guaranteed Ultimate Tensile Strength of 10,000 psi. No Tied Fabrication of GFRP reinforcing bars is permitted except tying and field cutting per ACI 440.5. Do not bend or straighten, couple or thermal or shear cut GFRP Reinforcing bars. Use plastic, polymer or nylon coated wire for tying GFRP bars. All costs associated with fabrication and placement of GFRP bars are to be included in Pay Item FIBER REINFORCED POLYMER REINFORCING, #4 GFRP BAR.



GFRP STIRRUP
DETAILS

GFRP = Glass Fiber Reinforced Polymer
*See Reinforcing Bar List for Dimensions and Quantities

Work GFRP STIRRUP DETAIL with FDOT Developmental Design Standard Index D21310

MARK	SIZE	DES	LENGTH	NO	TYP	AUGER CAST PILES	PIPE CASING																	
							B	C	D	E	F	G	H	I	J	K	L	M	N					
LOCATION							FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	
8	S01	25-10	4	17	I	24-10																		
4	S02	2-9	23	24	O	8-4																		
LOCATION							NO. REQUIRED = 2																	
LOCATION							NO. REQUIRED = 1																	
8	S03	20-11	7	1	I	20-11																		
4	S04	4-10	78	6	I	5-4																		

END OF LIST

GOLDEN PHEASANT DRIVE

DATE	REVISIONS	INITIAL	ENGINEER OF RECORD:	PROJECT NUMBER:	SHEET NO.
			REGISTE SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 3370 Capital Circle NE, C.J. - Tallahassee, FL 32308 PHONE (905) 894-4521 - FAX (905) 224-1905	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICROSHUKE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (905) 800-1500 - FAX (905) 800-1501	BSI-2
			JOHN F. SLIGER II, P.E. P.E. #5550	RAYMOND TUCKER DRAINAGE IMPROVEMENTS	