

INDEX OF STRUCTURE PLANS

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ROOKERY ENTRANCE ROAD BRIDGE OVER CSX RAILROAD

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D. R. HORTON

ROOKERY DEVELOPMENT

CONTRACT PLANS

CLAY COUNTY

PEARCE BLVD. BRIDGE OVER CSX RR

BRIDGE NO. 714054

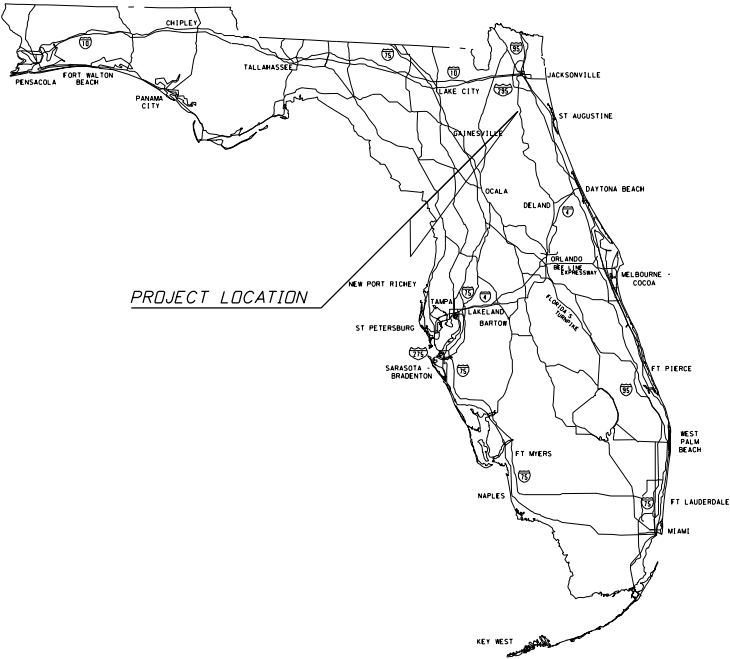
STRUCTURE PLANS

All Construction Shall comply with  
CSX Public Project Manual.

FDOT STANDARD PLANS FOR BRIDGE CONSTRUCTION (FY 2021-22)

400-090	APPROACH SLABS (30 FT.) FLEXIBLE PAVEMENT APPROACHES
400-510	COMPOSITE ELASTOMERIC BEARING PADS - PRESTRESSED FLORIDA-I AND AASHTO TYPE II BEAMS
415-001	BAR BENDING DETAILS (STEEL)
450-010	FLORIDA-I BEAM - TYPICAL DETAILS AND NOTES
450-036	FLORIDA-I 36 BEAM - STANDARD DETAILS
450-054	FLORIDA-I 54 BEAM - STANDARD DETAILS
450-199	PRESTRESSED I-BEAMS BUILD-UP & DEFLECTION DATA
450-511	BEARING PLATES (TYPE 1) - PRESTRESSED FLORIDA-I AND AASHTO TYPE II BEAMS
455-001	SQUARE PRESTRESSED CONCRETE PILES - TYPICAL DETAILS AND NOTES
455-024	24" SQUARE PRESTRESSED CONCRETE PILE
458-110	EXPANSION JOINT SYSTEM - POURED JOINT WITH BACKER ROD
520-020	TRAFFIC SEPARATOR (TYPE "F" CURB)
521-427	TRAFFIC RAILING - (36" SINGLE-SLOPE)
521-428	TRAFFIC RAILING - (42" SINGLE-SLOPE)
521-660	LIGHT POLE PEDESTAL - BRIDGE
521-825	PEDESTRIAN/BICYCLE RAILING (42" CONCRETE)
548-020	MSE RETAINING WALL SYSTEMS (PERMANENT)
550-013	BRIDGE FENCING (OVER RAILROAD)
630-010	CONDUIT DETAILS - EMBEDDED

RELEASED FOR CONSTRUCTION



STRUCTURE PLANS  
ENGINEER OF RECORD:

DUANE MERRELL, P.E.  
FL LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

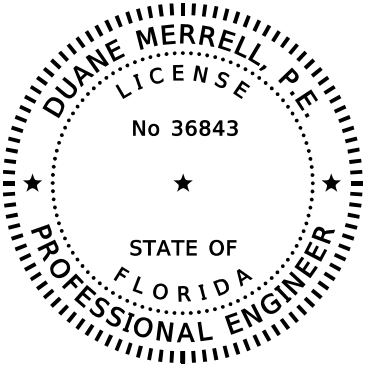
CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
N/A	N/A	B-1

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

SUMMARY OF STRUCTURE QUANTITIES - BRIDGE NO. 714054										
SECTION	PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
					P	F	P	F		
FOUNDATION	455-34-5	Prestressed Concrete Piling, 24" SQ	End Bent 1	LF	440		1,520			
			Int. Bent 2	LF	360					
			Int. Bent 3	LF	360					
			End Bent 4	LF	360					
	455-143-5	Test Piles-Prestressed Concrete 24" SQ	End Bent 1	LF	70		250			
			Int. Bent 2	LF	60					
			Int. Bent 3	LF	60					
			End Bent 4	LF	60					
	459-71	Polyethylene Sheeting on Concrete Piles	End Bent 1	SY	60		120			
			End Bent 4	SY	60					
WALLS	548-12	Retaining Wall System, Permanent, Excluding Barrier	Wall 1	SF	7,138		28566			
			Wall 2	SF	21,428					
SUBSTRUCTURE	400-4-5	Concrete Class IV, Bridge Substructure	End Bent 1	CY	36.5		164			
			Int. Bent 2	CY	45.3					
			Int. Bent 3	CY	45.3					
			End Bent 4	CY	36.5					
	415-1-5	Reinforcing Steel - Bridge Substructure	End Bent 1	LB	2,591		39,870			
			Int. Bent 2	LB	17,303					
			Int. Bent 3	LB	17,303					
			End Bent 4	LB	2,673					
APPROACH SLABS	400-2-10	Concrete Class II, Approach Slabs	Approach Slab 1	CY	77.5		155			
			Approach Slab 2	CY	77.5					
	415-1-9	Reinforcing Steel - Approach Slabs	Approach Slab 1	LB	6,317		12,634			
			Approach Slab 2	LB	6,317					
SUPERSTRUCTURE	400-2-4	Concrete Class II, Bridge Superstructure	Spans 1 & 2	CY	408.5		408.5			
	415-1-4	Reinforcing Steel - Bridge Superstructure	Spans 1 & 2	LB	48,559		48559.0			
	400-9	Bridge Deck Grooving & Planing, Deck 8.5" and Greater	Bridge Deck & App. Slabs	SY	1393		1393.0			
	400-147	Composite Neoprene Pads	All Spans	CF	7.6		7.6			
	450-2-36	Prestressed Beams, Florida I-Beam 36"	Span 1	LF	288		576			
			Span 3	LF	288					
	450-2-54	Prestressed Beams, Florida I-Beam 54"	Span 2	LF	1152		1,152			
RAILING/ BARRIERS	521-5-13	Concrete Traffic Railing - Bridge, 36" Single-Slope	Begin Bridge	LF	27		54			
			End Bridge	LF	27					
			Approach Slab 1	LF	30					
	521-5-14	Concrete Traffic Railing - Bridge, 42" Single-Slope	Bridge Deck	LF	192		252			
			Approach Slab 2	LF	30					
			Approach Slab 1	LF	30		252			
	521-6-12	Concrete Parapet, Pedestrian/Bicycle, 42" Height	Bridge Deck	LF	192					
			Approach Slab 2	LF	30					
			Approach Slab 1	LF	30					
CONDUIT	630-2-16	Conduit F&I Embedded Concrete Barriers and Traffic Railings	36" Single-Slope Traffic Railing	LF	756		756			
			42" Single-Slope Traffic Railing	LF	0					
JUNCTION BOXES	635-3-13	Junction Box F&I Embedded	36" Single-Slope Traffic Railing	EA	6		6			
			42" Single-Slope Traffic Railing	EA	0					

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				SUMMARY OF STRUCTURE QUANTITIES		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		BQ1-01

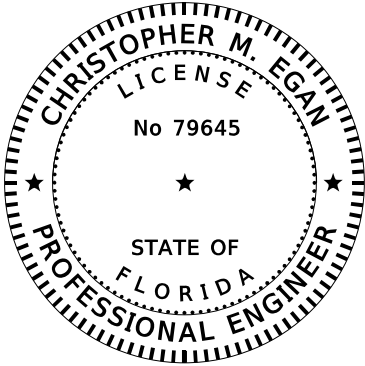


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**Duane R Merrell**  
**2022.06.28 10:24:07 -04'00'**  
ON THE DATE ADJACENT TO THE SEAL.  
  
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POND & COMPANY  
1200 RIVERPLACE BLVD., STE. 600  
JACKSONVILLE, FL 32207  
DUANE MERRELL, P.E. NO. 36843

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE  
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

STRUCTURE PLANS

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>	<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
B-1	KEY SHEET	BW-01	MSE WALL CONTROL PLAN
BQ1-01	SUMMARY OF STRUCTURE QUANTITIES (BRIDGE NO. XXXXXX)	BW-02	MSE WALL 1 PLAN & ELEVATION
B-2	SIGNATURE SHEET	BW-03	MSE WALL 2A PLAN & ELEVATION
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B1-31	REINFORCING BAR LIST (2 OF 2)		
B1-32	LOAD RATING SUMMARY SHEET		



THIS DOCUMENT HAS BEEN DIGITALLY  
SIGNED AND SEALED BY:  
  
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ON THE DATE ADJACENT TO THE SEAL.  
  
PRINTED COPIES OF THIS DOCUMENT ARE  
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ON ANY ELECTRONIC DOCUMENTS.  
  
ECS FLORIDA, LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CHRISTOPHER M. EGAN, P.E. NO. 79645

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE  
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STRUCTURE PLANS

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B-14	REPORT OF CORE BORING (7 OF 9)
B-15	REPORT OF CORE BORING (8 OF 9)
B-16	REPORT OF CORE BORING (9 OF 9)
B1-33	FIELD INSTRUMENTATION LOCATION PLAN

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  SIGNATURE SHEET	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B-2
						DESIGNED BY: D.M. 1-21					
						CHECKED BY: R.K. 1-21	N/A	CLAY	N/A		

SPECIAL NOTES

1.

All work on, over, under, or adjacent to CSX right-of-way shall be done in accordance with the CSX Special Provisions, which can be found within the CSX Public Projects Manual, available at: <https://www.csx.com/index.cfm/about-us/property/>.
2.

No work shall take place within 50 feet of the centerline of the CSX track without a railroad flagman being present. Provide the CSX field representative with at least thirty (30) business days advance notice of beginning work within this area to allow for the scheduling of the railroad flagman.
3.

Construction clearances shall be subject to approval by CSX. Typically, reduction in clearance for construction is not permitted.
4.

Contractor shall maintain all ditches and drainage structures free of silt or other obstructions that may result from their operations. Contractor, upon completion of the Project, shall leave CSX Property in neat a condition, satisfactory to the CSX Representative.
5.

The Contractor shall provide, install and maintain a geotextile fabric ballast protection system to prevent debris and fines from fouling the ballast. The ballast protection system shall extend 25' beyond the outer limits of the bridge on both sides.
6.

The Contractor may not use CSX right-of-way for storage of materials or equipment during construction without prior approval from CSX.
7.

CSX shall be furnished as-built drawings showing actual clearances as constructed prior to project completion and close-out.
8.

The Contractor shall reference the CSX Construction Submission Criteria for construction related submittal requirements while working on, over, under or adjacent to CSX right-of-way. The Construction Submission Criteria can be found within the Public Project Manual. The Contractor(s) is required to submit a detailed work plan for review and approval by CSX, including but not limited to the below items:

a) Foundation Installation

b) Girder Erection and Stabilization

c) Protective Fencing Detail
9.

The Contractor shall notify and coordinate their work with the on-site CSX Representative.
10.

“One Call” services do not locate buried railroad signal and communications lines. The contractor shall contact the railroad's representative two (2) days in advance of those places where excavation, pile driving, or heavy loads may damage railroad underground lines on railroad property. Upon request from the contractor or agency, railroad signal forces will locate and paint mark or flag railroad underground signal, communication, and power lines in the area to be disturbed for the contractor. The contractor shall avoid excavation or other disturbance of these lines which are critical to the safety of the railroad and the public. If disturbance or excavation is required near a buried railroad signal, communication, or power line, the line shall be potholed manually with careful hand excavation by the contractor and protected by the contractor during the course of the disturbance under the supervision and direction of a railroad signal representative.
11.

All soils excavated within CSX's railroad right-of-way shall remain on CSX's right-of-way. For any excavated soil that requires off-site disposal, the licensee is required to use only CSX approved laboratories, transporters, and disposal facility that are in compliance with all applicable environmental laws and CSX's policies and procedures. Soil resulting from excavation outside of CSX's railroad right-of-way or railroad owned property shall not be brought onto CSX's property and therefore must be stored off CSX property. CSX shall not incur any costs related to the disposal of soils generated due to construction activity related to this project.

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  SPECIAL NOTES		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21						
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		B - 3



GENERAL NOTES

- A.

Design Specifications:

1) *FDOT Structures Manual* dated January 2022.

2) *American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor (LRFD) Bridge Design Specifications*, 9th Edition and all subsequent interims.

3) *FDOT 2022 FDM* and subsequent *Roadway and Structures Design Bulletins*.
- B.

Governing Standards and Construction Specifications:

Florida Department of Transportation, FY 2022–23 *Standard Plans* and revised *Index Drawings* as appended herein, and January 2022 *Standard Specifications for Road and Bridge Construction*, as amended by *Contract Documents*.
- C.

Vertical Datum: All elevations are referenced from the North American Vertical Datum dated 1988 (NAVD 88).
- D.

Environment:

	Substructure	
Superstructure	Concrete	Steel
Slightly	Moderately	Moderately
- E.

Design Methodology: Load and Resistance Factor Design (LRFD) method using strength (extreme event), service and fatigue limit states.
- F.

Design Loading:

1) Live Loads:

HL-93 with Dynamic Load Allowance

2) Dead Loads:

a. 36" Single Slope Traffic Railing:

430 plf

b. 42" Single Slope Traffic Railing:

580 plf

c. Stay-In-Place Forms:

20 pcf

d. Reinforced Concrete:

150 pcf

e. Future Wearing Surface:

Design does not include an allowance for future wearing surface

f. The 8½" deck thickness includes a one- half inch sacrificial thickness included in the dead load of the deck but omitted from the section properties used for design.

g. 4" Wide Type "F" Traffic Separator

292 plf

h. Bridge Fencing (Curved Top):

40 plf

i. 42" Concrete Pedestrian/Bicycle Railing:

320 plf

3) Construction Loads:

a. Finishing Machine Load:

7 kips

b. Finishing Machine Wheel Location beyond the edge of deck overhang:

6"

c. Construction Live Load:

20 psf extended over the entire bridge width and 50-feet in longitudinal length centered on the finishing machine.

d. Removable Deck Cantilever Timber Forms with Overhang Brackets:

15 psf

e. Live load at or near the outside edge of deck during deck casting :

75 psf applied as a moving load over a length of 20 feet.

f. Construction Inactive Design Wind Speed:

90 MPH

g. Velocity Pressure Exposure Coefficient (kz):

1.14

h. Construction Active Design Wind Speed:

30 MPH

4) Vehicle Collision Force:Not Applicable
- 5) Utilities: No allowance for utility loads has been included in the design.

G.

Materials:

1) Reinforcing Steel: Grade 60 Carbon Steel per Specification 931.

2) Concrete:

Class	Min. 28-Day Compressive Strength (psi)	Location
II	3400	Traffic Railing
II (Bridge Deck)	4500	Bridge Deck & Approach Slabs
IV	5500	C.I.P. Substructure
VI	8500	Prestressed Concrete Beams
V (Special)	6000	Prestressed Concrete Piles

- 3) Concrete Cover:

C.I.P. Superstructure (Top of Deck)	2½"
C.I.P. Superstructure (Except Top of Deck)	2"
C.I.P. Substructure (Cast Against Earth)	4"
C.I.P. Substructure (Formed Surfaces)	3"
C.I.P. Substructure (Top of Beam Pedestals)	2"
Precast Prestressed Beams (Except Top Surface)	2"
Top Surface of Beam Top Flange	¾"

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

Provide ¾" chamfers on all exposed edges unless otherwise noted.

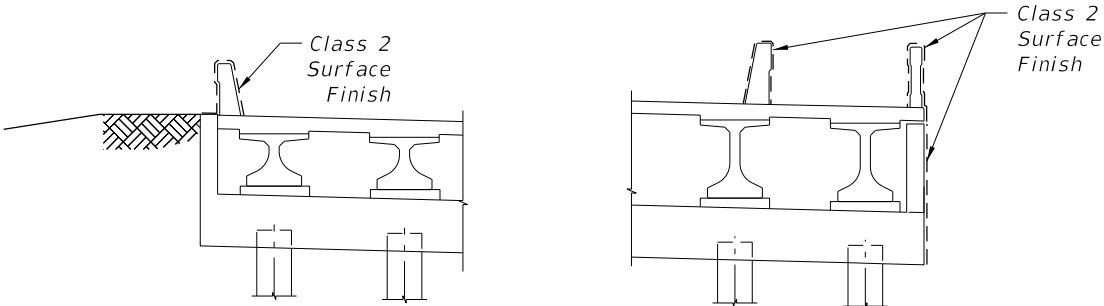
- H.
- Surface Finish: A Class 2 Surface Finish shall be applied to top and sides of all railings, bridge deck coping, and ends of intermediate bent caps as shown in the Finish Detail on this sheet.
- I.
- Plan Dimensions: All dimensions in these plans are measured in feet either horizontally or vertically unless otherwise noted.
- J.
- Utilities: For plan locations of existing utilities, see Plan and Elevation sheet. Locations of utilities shown in the plans are approximate. For disposition of utilities, see the Utility Adjustment sheet in the Roadway plans.
- K.
- Bridge Name and Number: Place the following bridge name and number on the traffic railings in accordance with the Traffic Railing Design Standards:

Name:

CSX RR

Number:

714054
- L.
- Screeding Deck: Screed the riding surface of the Bridge Deck and Approach slabs to achieve the Finish Grade Elevations shown in the plans. Account for the theoretical deflections due to self weight, deck casting sequence, deck forming systems, construction loads and temporary shoring, etc., as required.
- M.
- Stay-In-Place Deck Forms: Design includes allowance for 20 psf over the projected plan area of the metal forms for the unit weight of the metal forms and the concrete required to fill the form flutes. Stay-in-place forms are not allowed at deck cantilevers.
- N.
- Joints In Concrete: Construction joints will be permitted only at the locations indicated in the plans. Additional construction joints or alterations to those shown shall require approval of the Engineer.



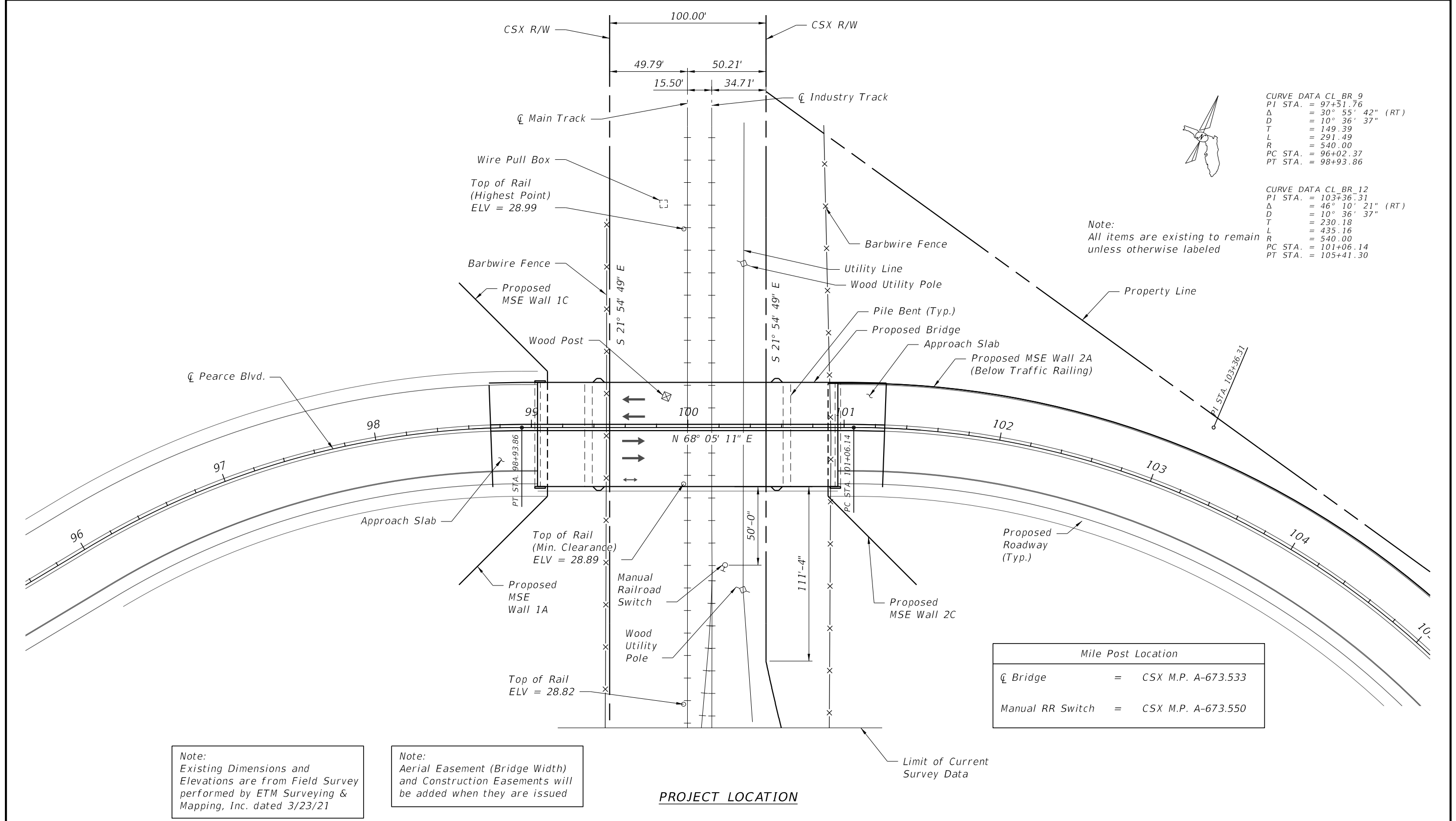
END BENTS 1 & 4

INTERMEDIATE BENTS 2 & 3

FINISH DETAIL

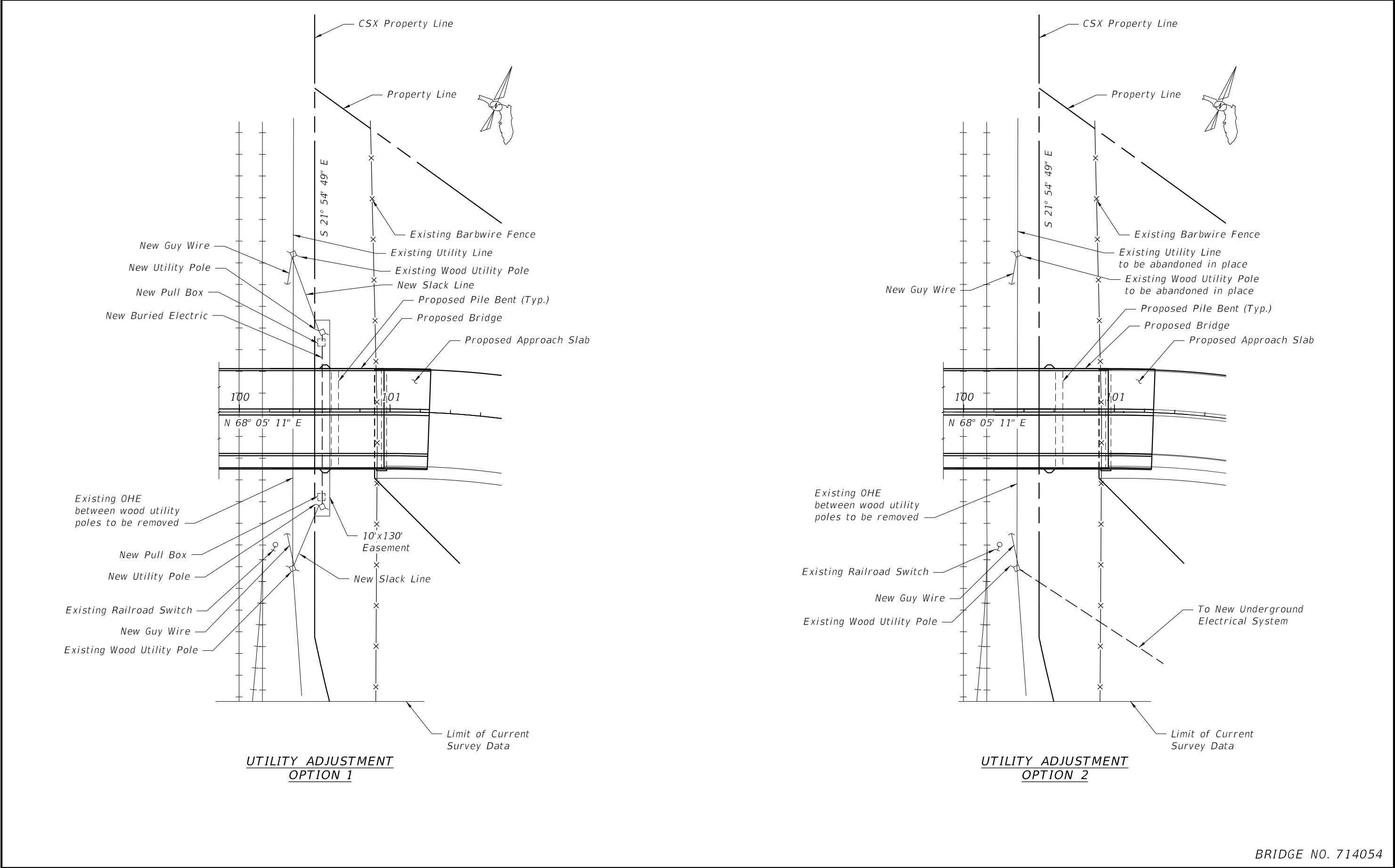
BRIDGE NO. 714054

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21						REF.
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A		B - 4	



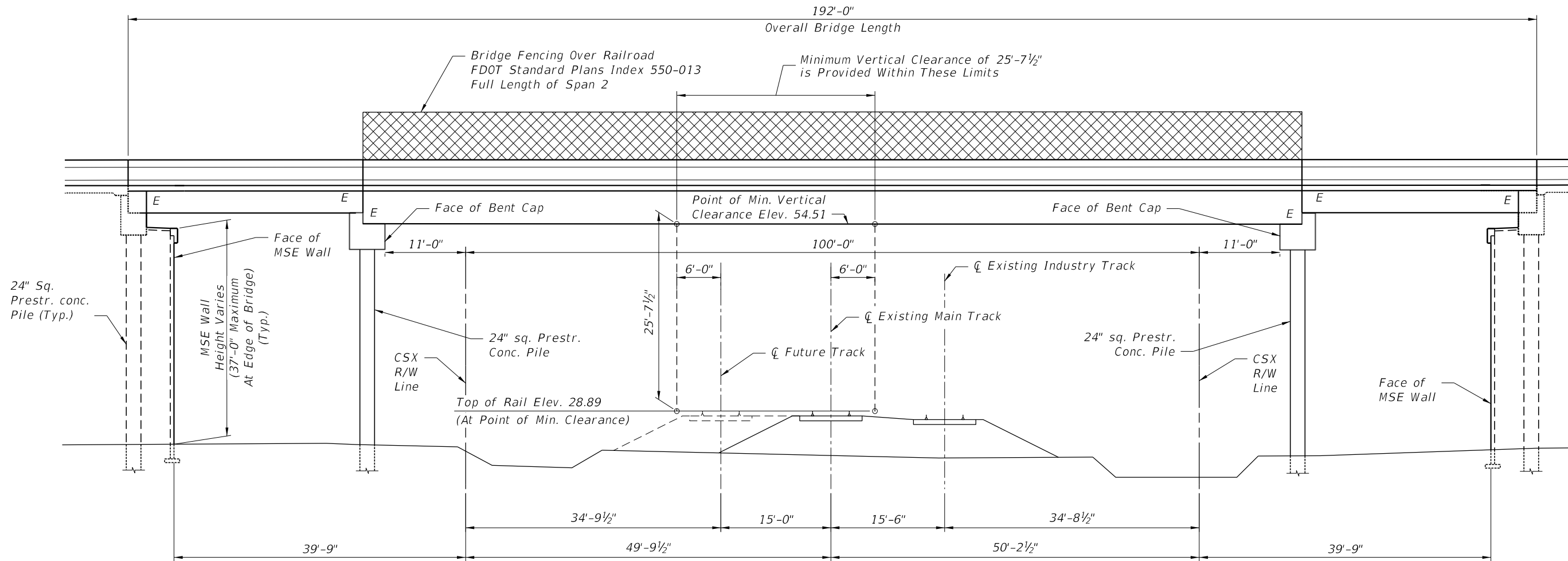
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207			DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				ROAD NO.	COUNTY	FINANCIAL PROJECT ID						SHEET NO.
									N/A	CLAY	N/A						B-5

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REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  UTILITY ADJUSTMENT		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		B-6

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



RAILROAD CLEARANCE DIAGRAM

Note:  
Existing Dimensions and Elevations are from Field  
Survey performed by ETM Surveying & Mapping, Inc.  
dated 3/23/21

Note:  
Future Track Top of Rail Elevation will be no higher  
than Main Track Top of Rail Elevation at Point of Min.  
Vertical Clearance

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  RAILROAD CLEARANCE DIAGRAM	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO. B-7

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LEGEND

- Fine SAND (SP)
- Fine SAND With Silt (SP-SM)
- Fine SAND With Clay (SP-SC)
- Clayey Fine SAND (SC)
- CLAY (CH)
- Weathered Limestone
- N

Standard Penetration Resistance  
in Blows per 12" inches
- Estimated Seasonal High  
Groundwater Level
- Groundwater Level at Time of Drilling
- 200

Percent Passing No. 200  
U.S. Standard Sieve
- w

Natural Moisture Content (%)
- LL

Liquid Limit (%)
- PI

Plasticity Index (%)
- (SP)

Unified Soil Classification System
- 50/5"

Number of Blows to Drive Split Spoon  
Sample in Inches
- Approximate Location of Standard  
Penetration Test (SPT) Boring
- BT

Boring Terminated

NOTES:

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2. Each boring location was determined in the field by using global positioning system (GPS).
3. Elevations were estimated from the provided plan and should be considerate approximate.

Drill Rig Type - 101A (Auto Hammer)

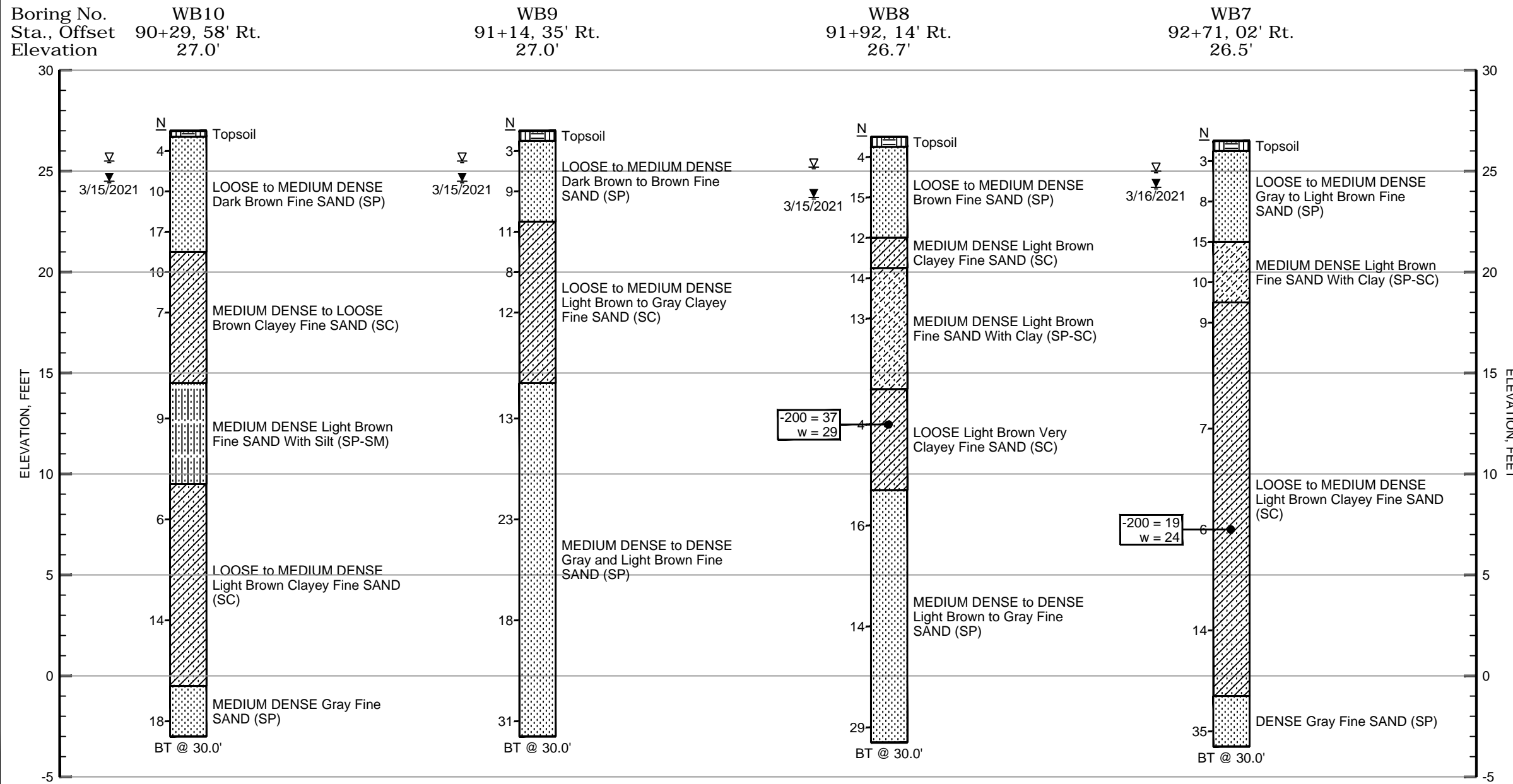
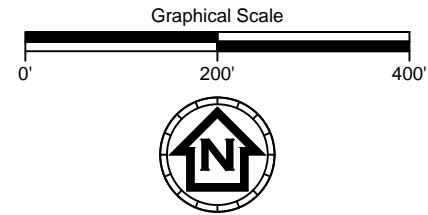
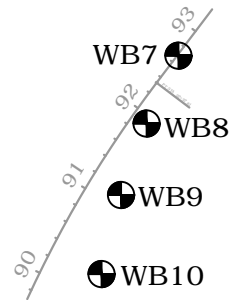
DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24



JAS - 35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



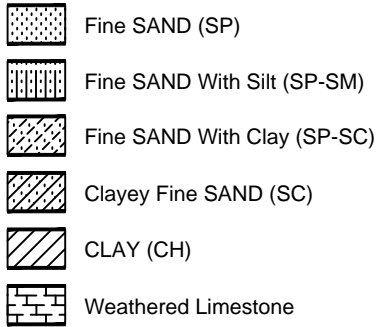
PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (1 OF 9)

Sheet No.  
B-8

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

LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- ▽ Estimated Seasonal High Groundwater Level
- ▽ Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

NOTES:

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Drill Rig Type - 101A (Auto Hammer)

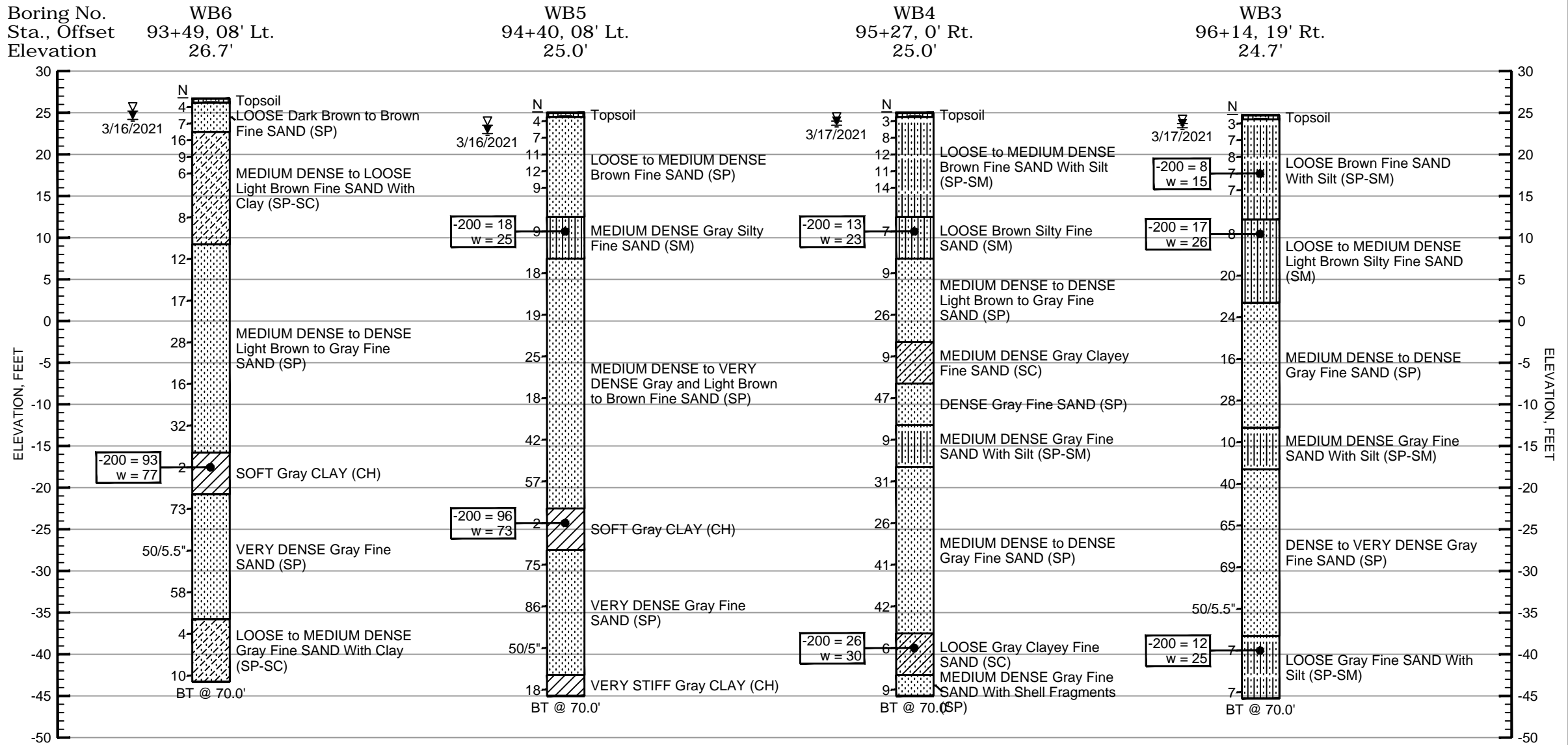
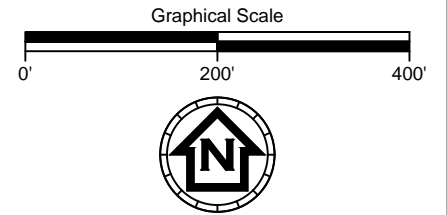
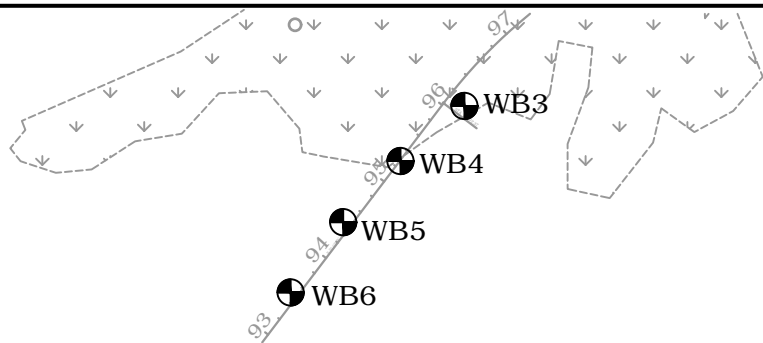
DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24



JAS - 35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

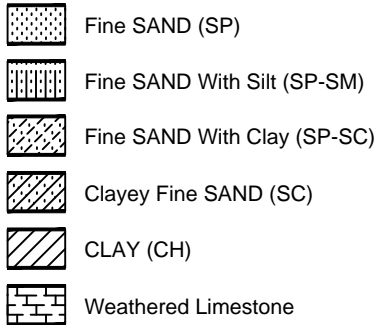
REPORT OF CORE BORING (2 OF 9)

Sheet  
No.  
B-9

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LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- ▽ Estimated Seasonal High Groundwater Level
- ▽ Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- ⊙ Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

NOTES:

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Drill Rig Type - 101A (Auto Hammer)

DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

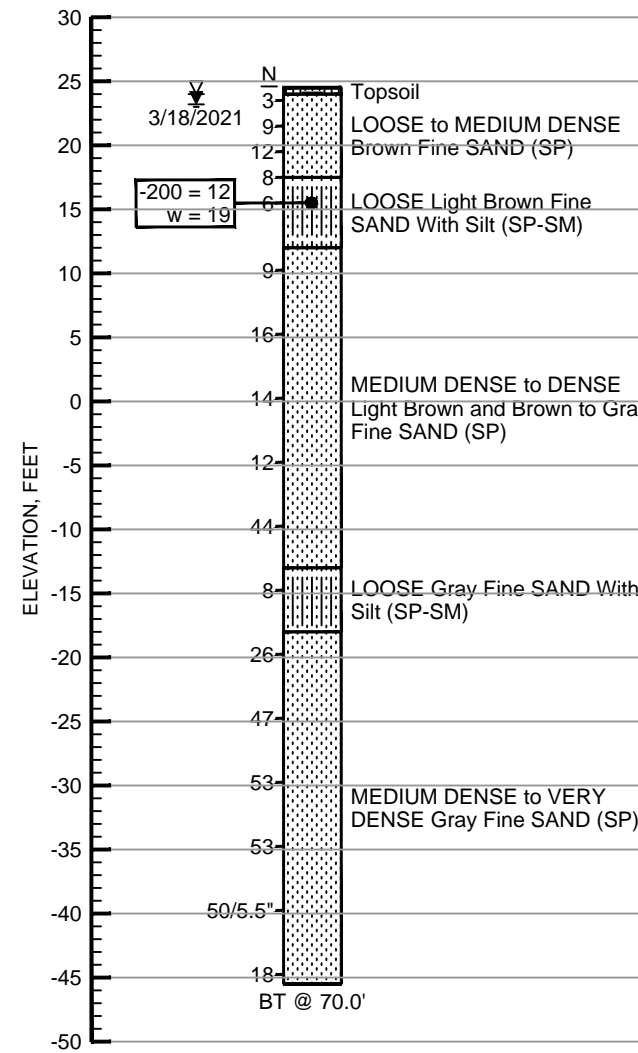
COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

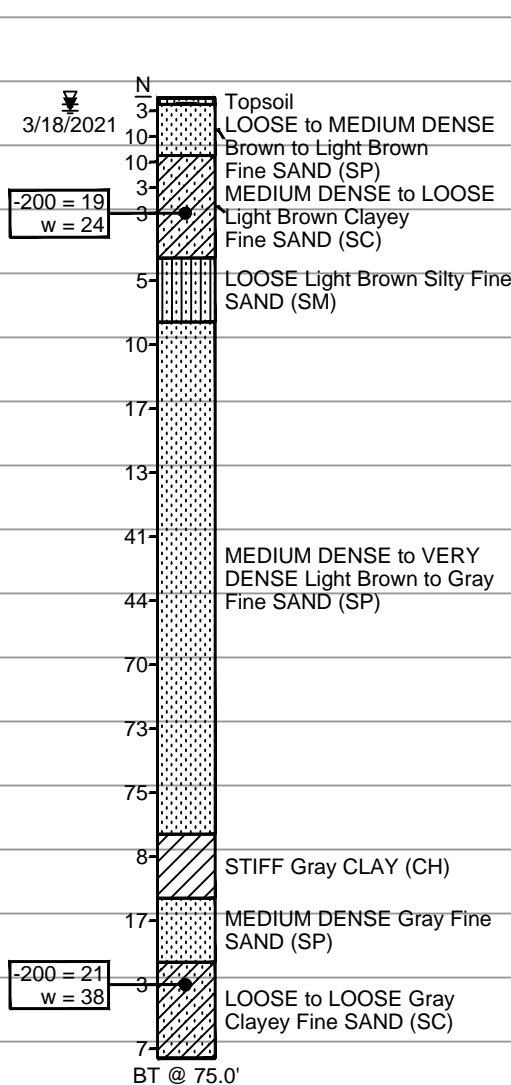
FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24

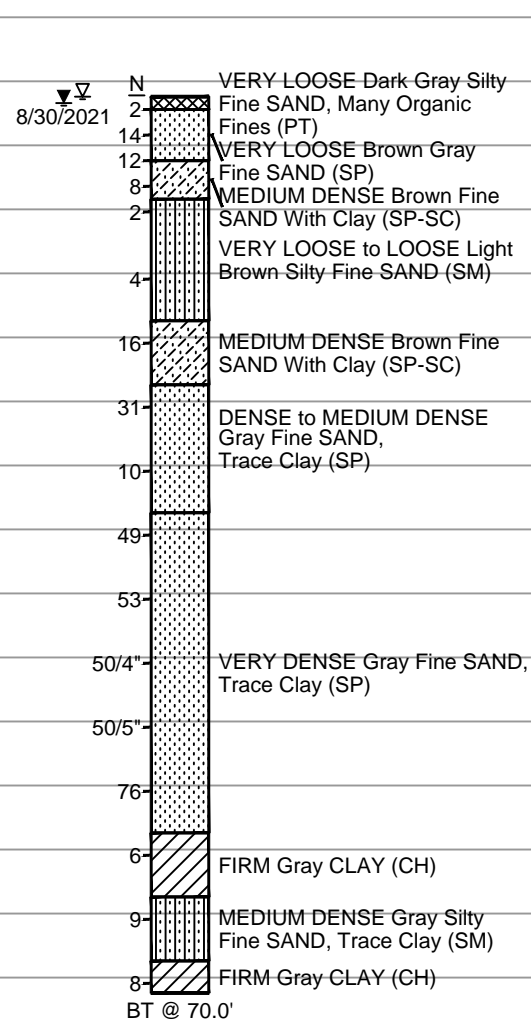
Boring No. WB2  
Sta., Offset 97+14, 39' Rt.  
Elevation 24.5'



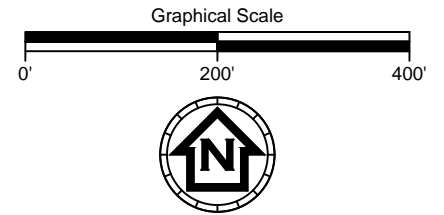
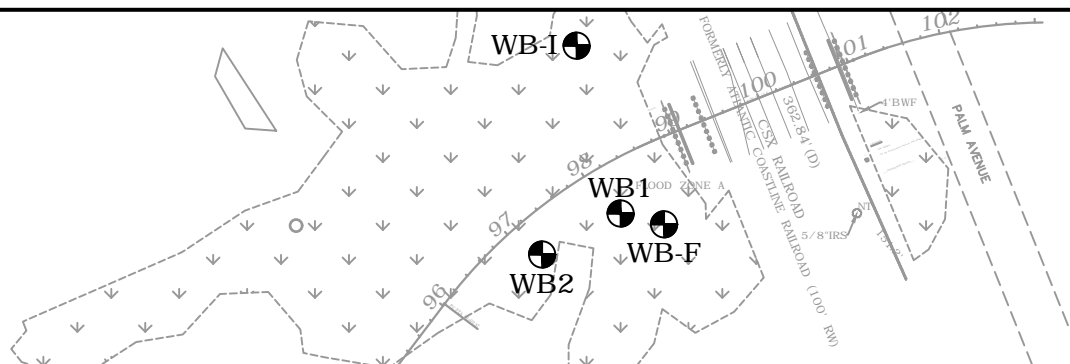
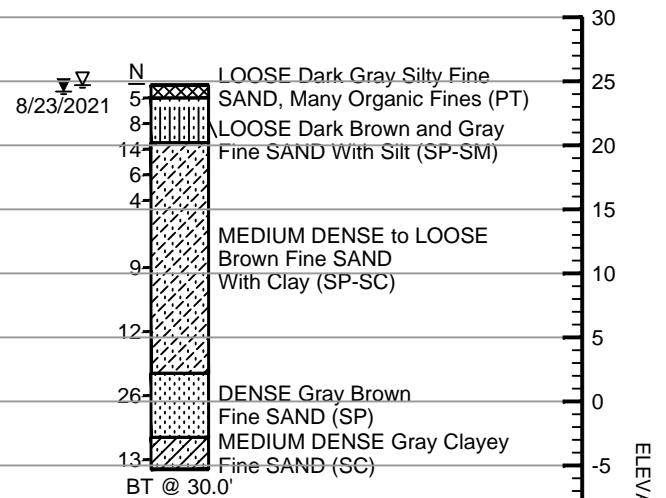
Boring No. WB1  
Sta., Offset 98+14, 53' Rt.  
Elevation 23.7'



Boring No. WB-F  
Sta., Offset 98+13, 94' Rt.  
Elevation 23.8'



Boring No. WB-I  
Sta., Offset 98+14, 123' Lt.  
Elevation 24.7'



JAS - 35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (3 OF 9)

Sheet No.  
B-10

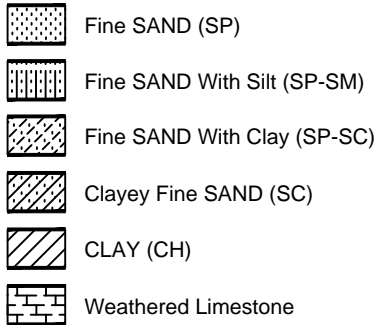
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Jeff Slansky

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Figure 4

LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- Estimated Seasonal High Groundwater Level
- Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

NOTES:

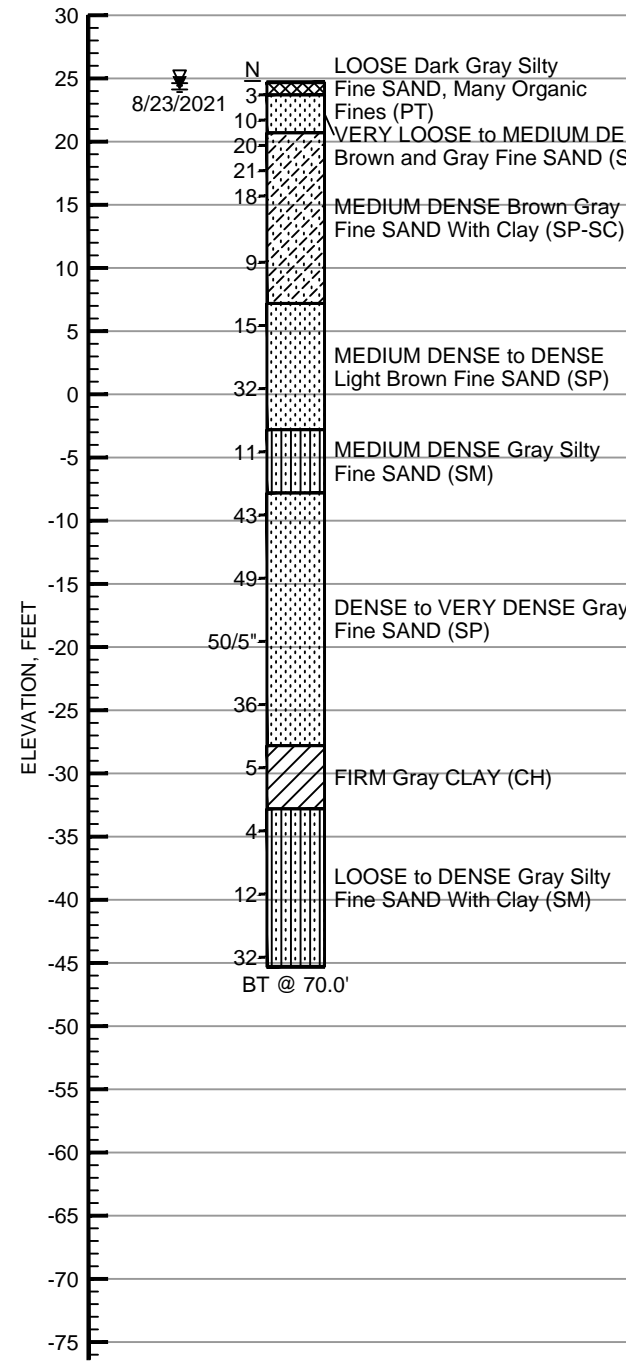
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Drill Rig Type - 101A (Auto Hammer)

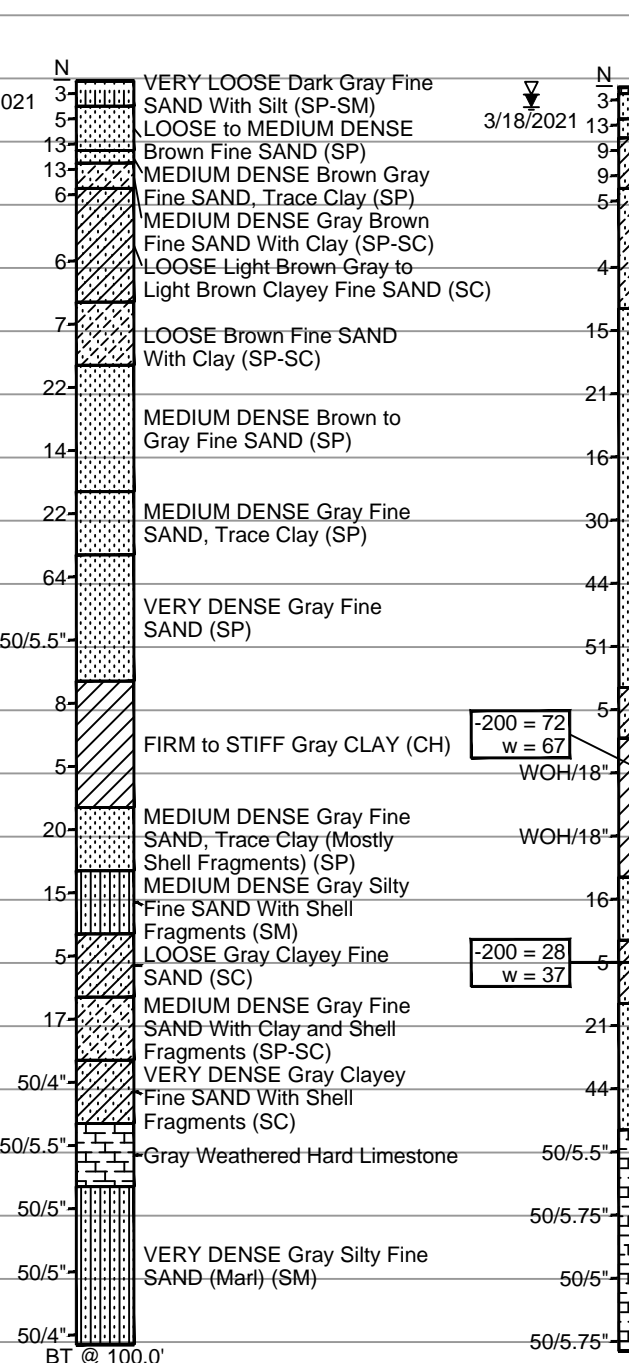
DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

COARSE GRAINED SOILS -	
RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40
FINE GRAINED SOILS -	
CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24

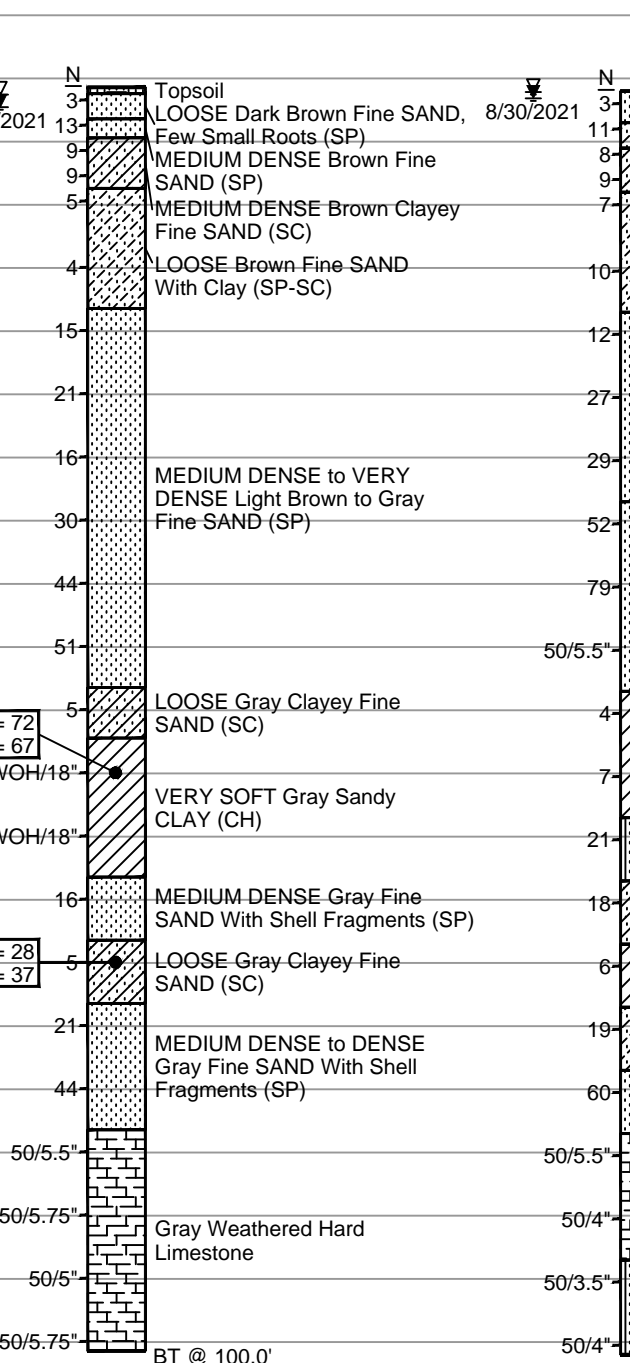
Boring No. WB-E  
Sta., Offset 98+19, 75' Lt.  
Elevation 24.7'



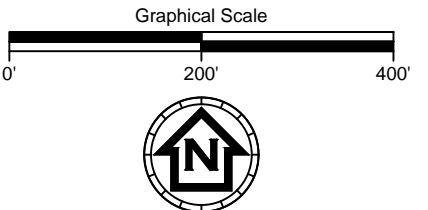
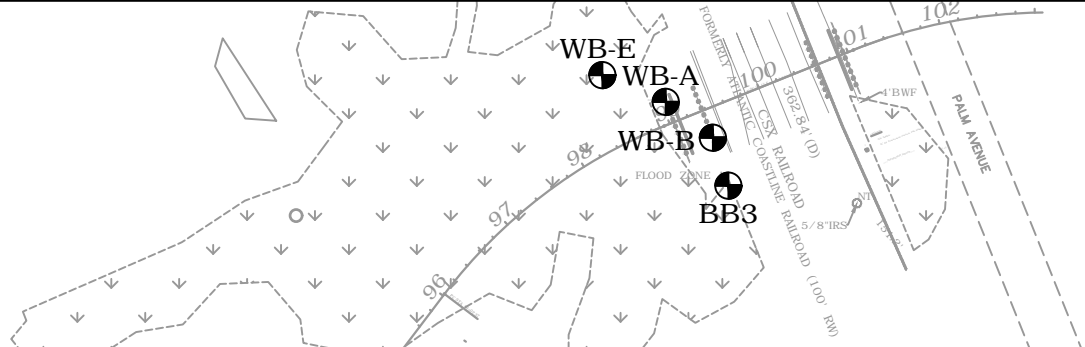
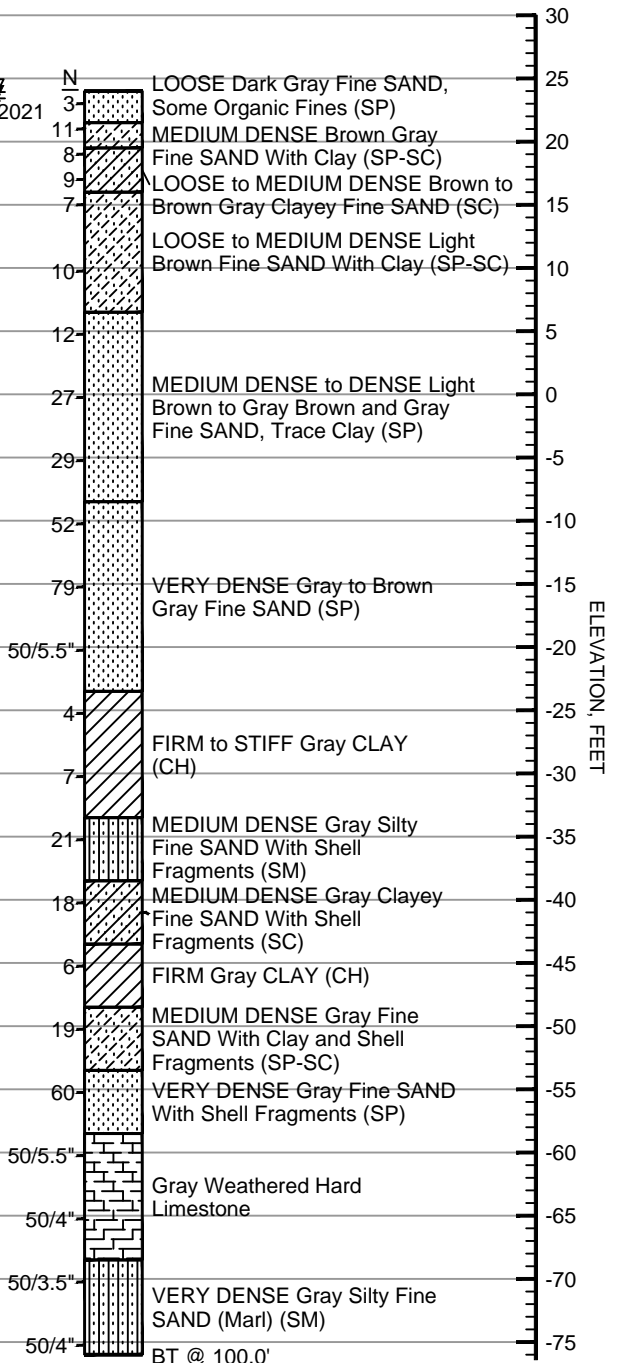
Boring No. WB-A  
Sta., Offset 99+05, 23' Lt.  
Elevation 24.8'



Boring No. BB3  
Sta., Offset 99+33, 83' Rt.  
Elevation 24.3'



Boring No. WB-B  
Sta., Offset 99+37, 29' Rt.  
Elevation 24.0'



JAS - 35-31217

REVISIONS	
DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

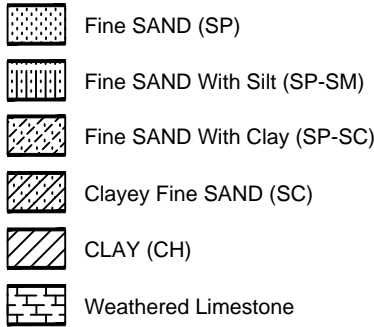
REPORT OF CORE BORING (4 OF 9)

Sheet No.  
B-11

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LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- Estimated Seasonal High Groundwater Level
- Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

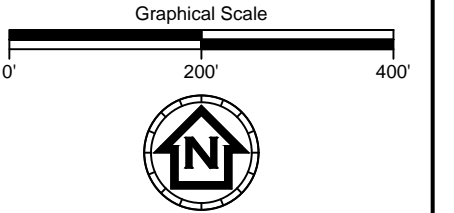
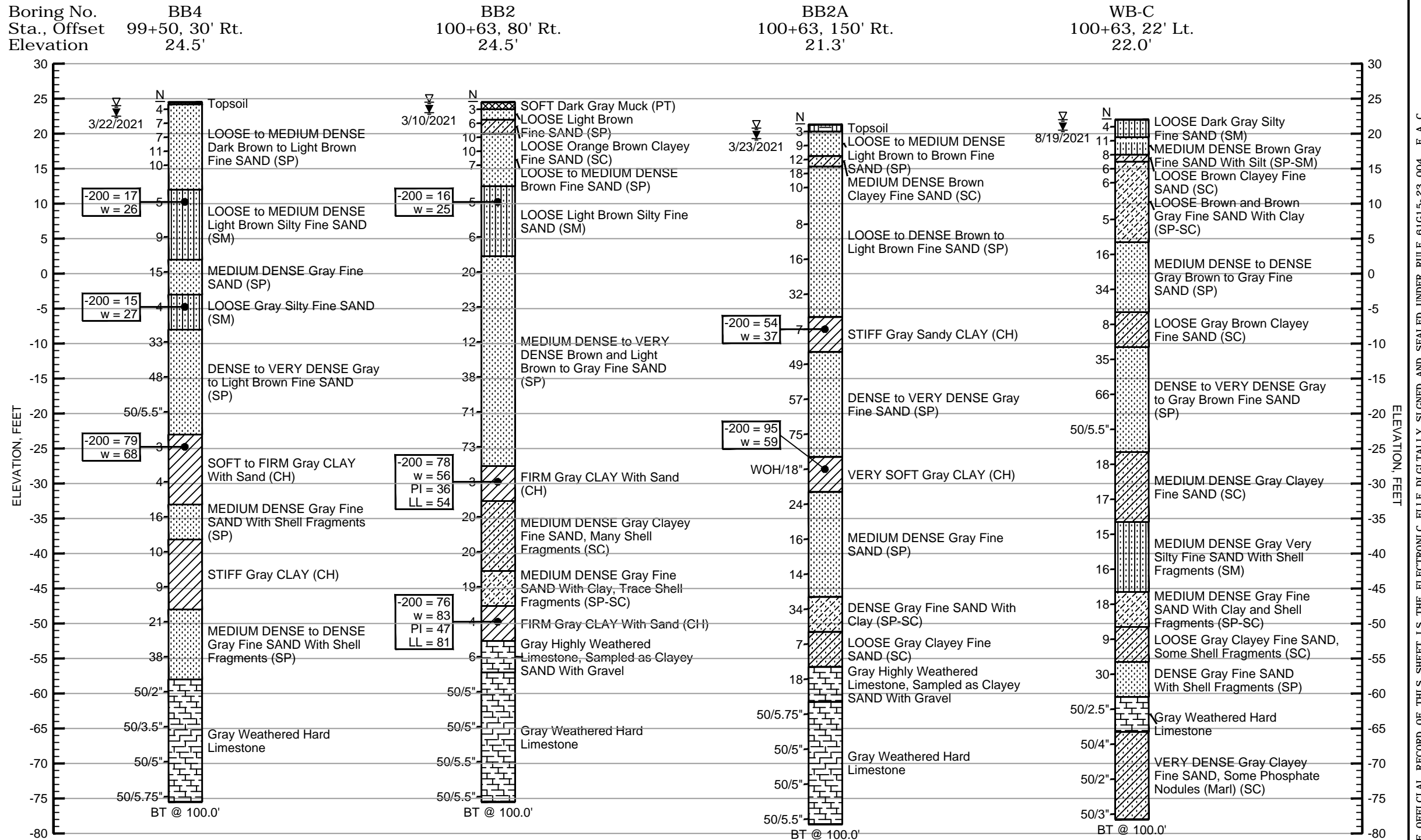
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Drill Rig Type - 101A (Auto Hammer)

DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

COARSE GRAINED SOILS -	
RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40
FINE GRAINED SOILS -	
CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24



JAS-35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (5 OF 9)

Sheet  
No.

B-12

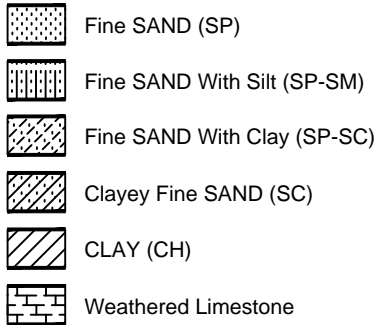
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Jeff Slansky

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Figure 6

LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- Estimated Seasonal High Groundwater Level
- Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

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Drill Rig Type - 101A (Auto Hammer)

DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

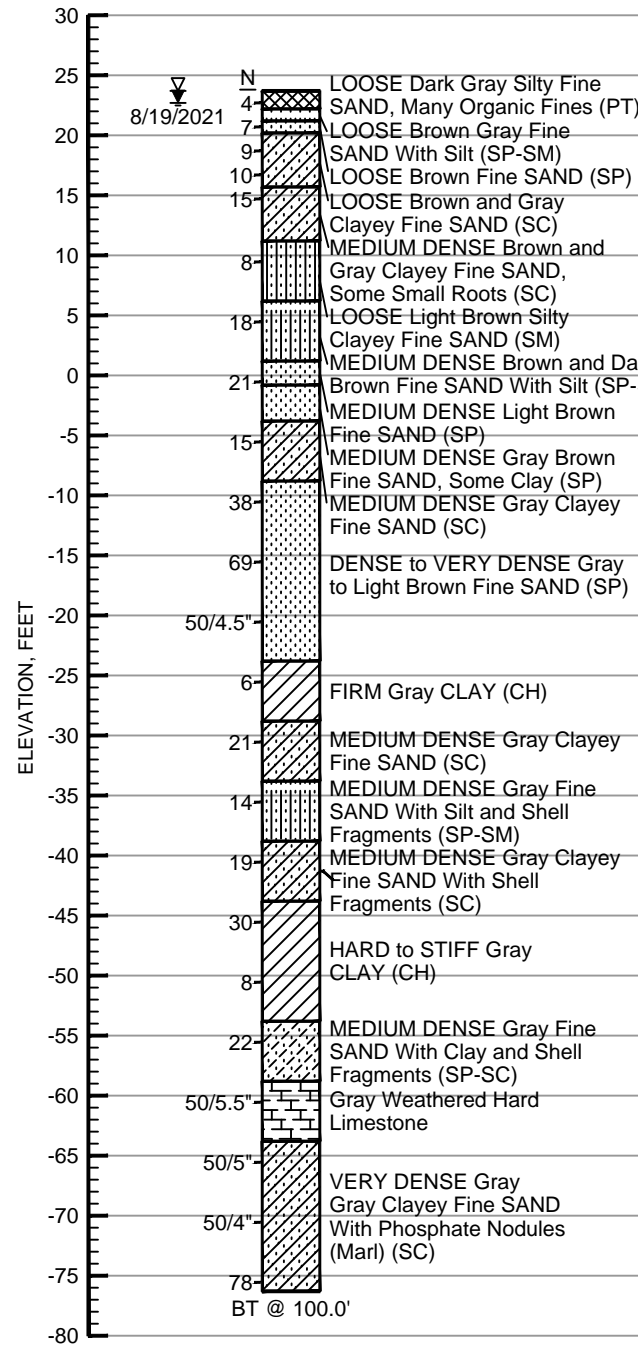
COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

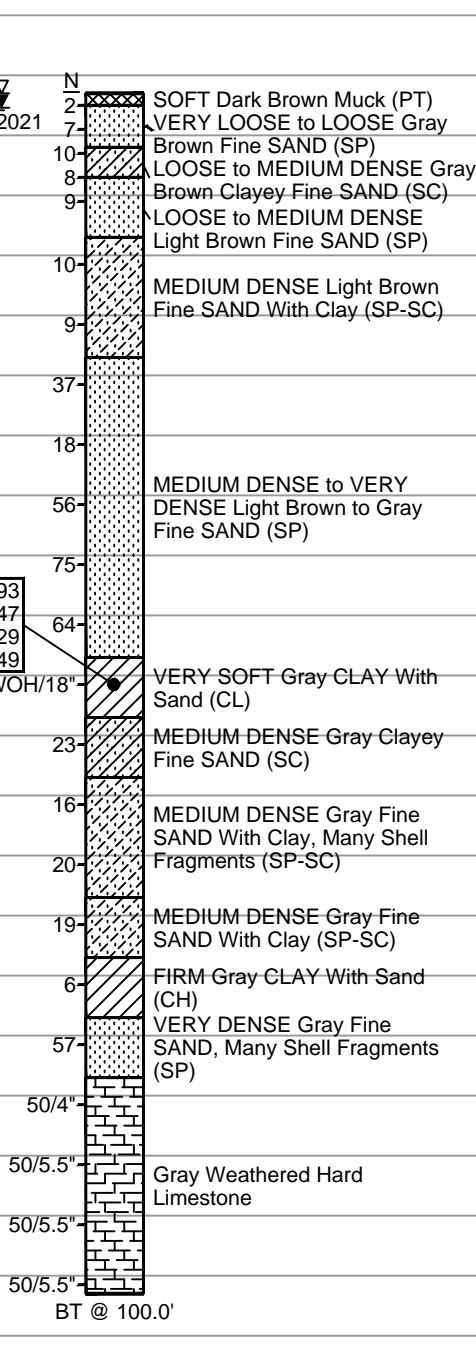
FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24

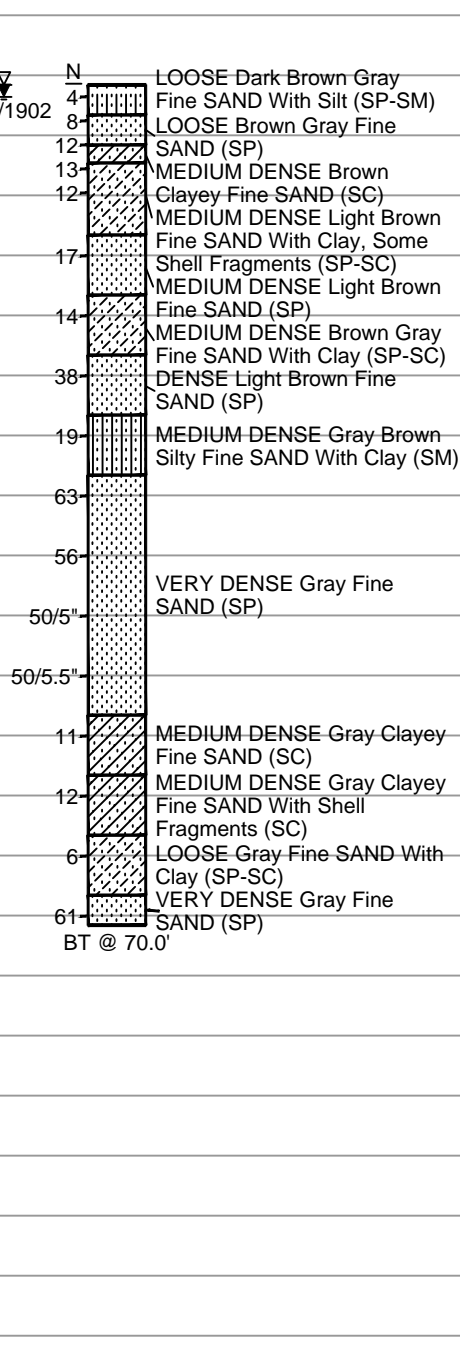
Boring No. WB-D  
Sta., Offset 100+94, 30' Rt.  
Elevation 23.7'



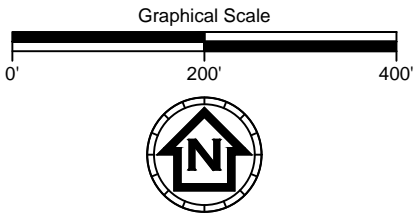
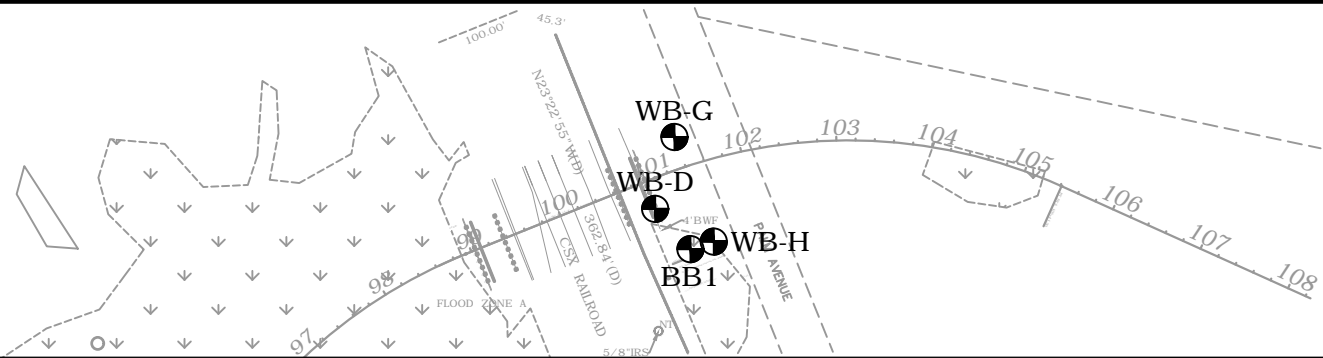
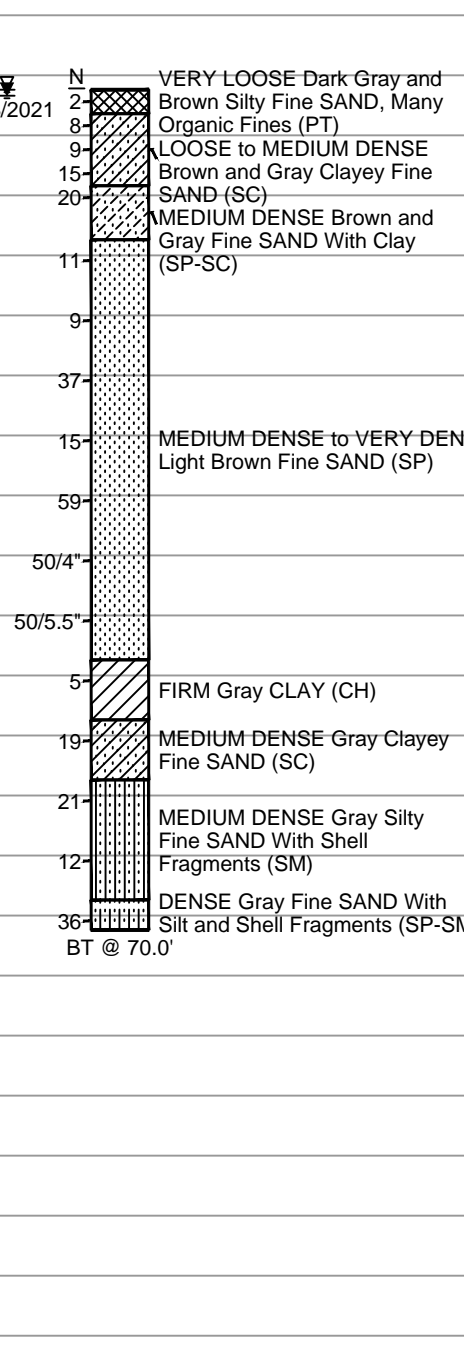
Boring No. BB1  
Sta., Offset 101+14, 83' Rt.  
Elevation 23.5'



Boring No. WB-G  
Sta., Offset 101+39, 33' Lt.  
Elevation 24.2'



Boring No. WB-H  
Sta., Offset 101+44, 83' Rt.  
Elevation 23.8'



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



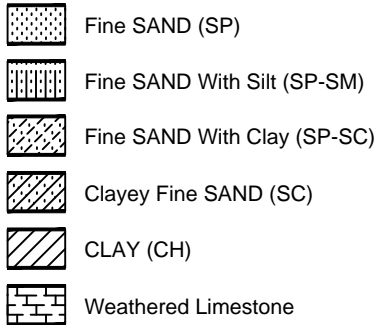
PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (6 OF 9)

Sheet No.  
B-13



LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- ▽ Estimated Seasonal High Groundwater Level
- ▽ Groundwater Level at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- ⊙ Approximate Location of Standard Penetration Test (SPT) Boring
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Drill Rig Type - 101A (Auto Hammer)

DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

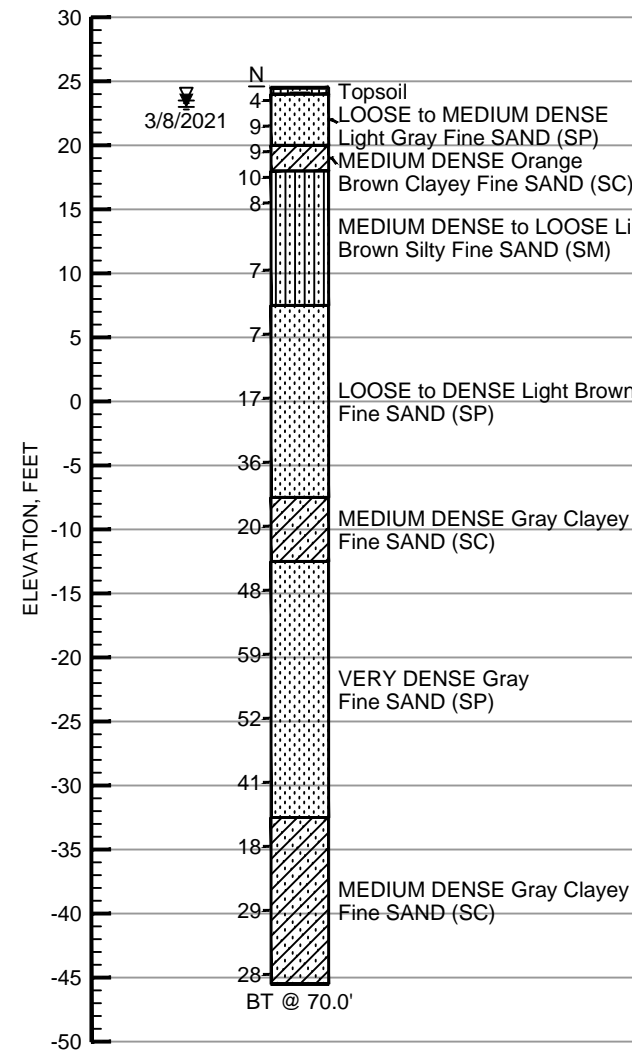
COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

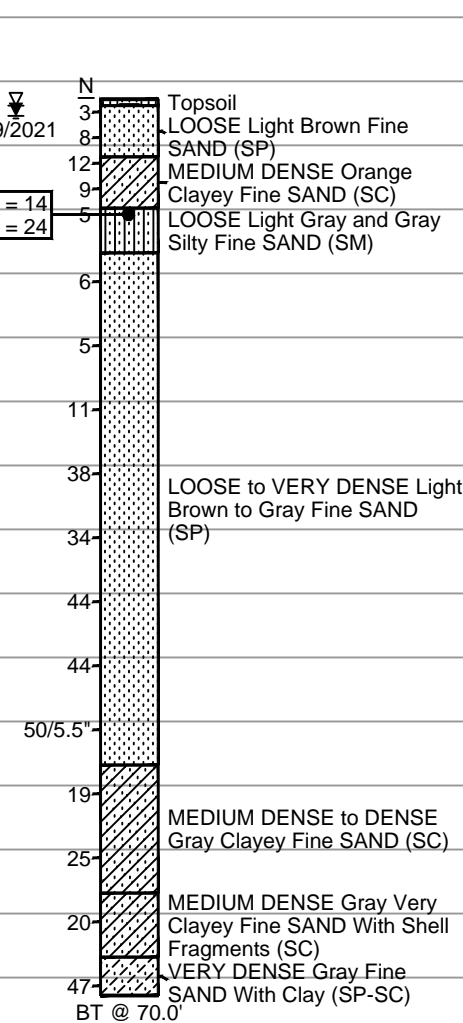
FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24

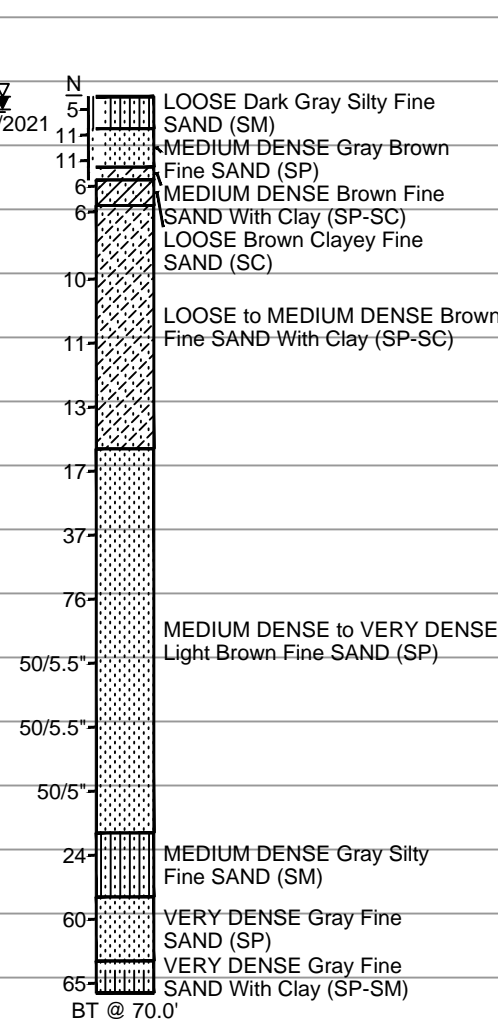
Boring No. WB12  
Sta., Offset 102+10, 57' Rt.  
Elevation 24.5'



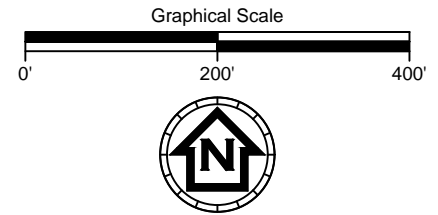
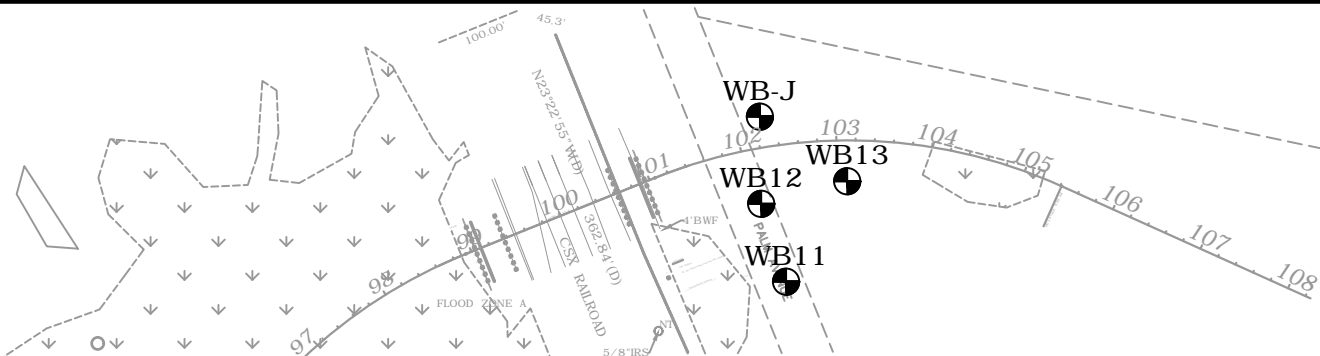
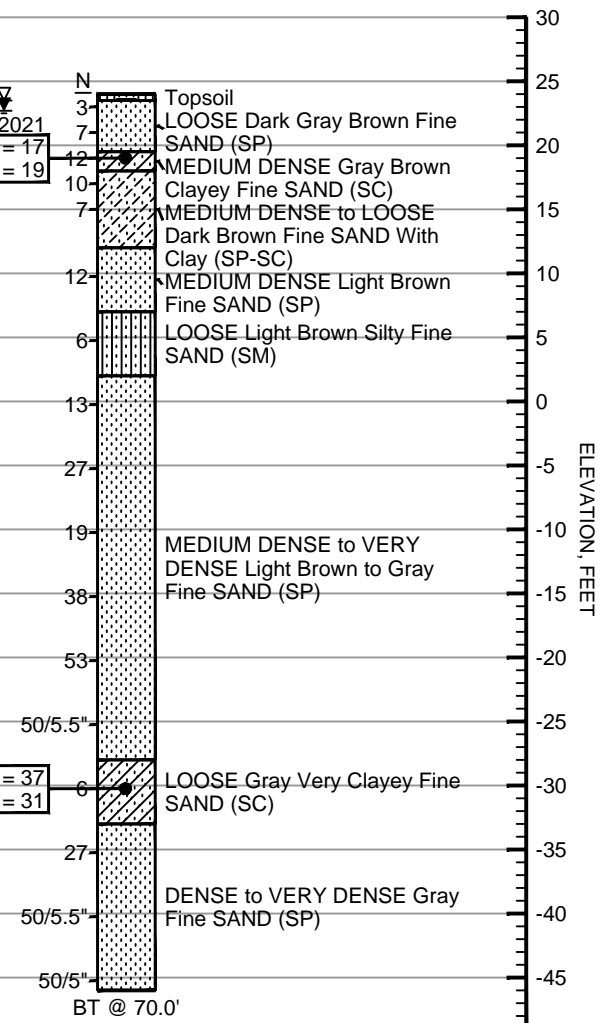
Boring No. WB11  
Sta., Offset 102+24, 142' Rt.  
Elevation 23.6'



Boring No. WB-J  
Sta., Offset 102+25, 32' Lt.  
Elevation 23.8'



Boring No. WB13  
Sta., Offset 103+11, 43' Rt.  
Elevation 24.0'



JAS - 35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



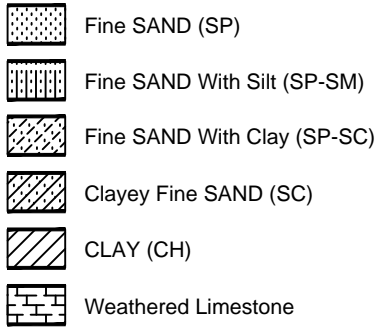
PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (7 OF 9)

Sheet No.  
B-14

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

LEGEND



- N Standard Penetration Resistance in Blows per 12" inches
- ▽ Estimated Seasonal High Groundwater Level
- ▽ Groundwater Level at Time of Drilling
- NM Groundwater Level Not Measured at Time of Drilling
- 200 Percent Passing No. 200 U.S. Standard Sieve
- w Natural Moisture Content (%)
- LL Liquid Limit (%)
- PI Plasticity Index (%)
- (SP) Unified Soil Classification System
- 50/5" Number of Blows to Drive Split Spoon Sample in Inches
- Approximate Location of Standard Penetration Test (SPT) Boring
- BT Boring Terminated

NOTES:

- Strata descriptions, measured groundwater levels and strata boundaries represent our interpretation of subsurface conditions at the boring location only, and do not reflect the actual variation in subsurface conditions between samples and adjacent to the boring locations.
  - Each boring location was determined in the field by using global positioning system (GPS).
  - Elevations were estimated from the provided plan and should be considerate approximate.
- Drill Rig Type - 101A (Auto Hammer)

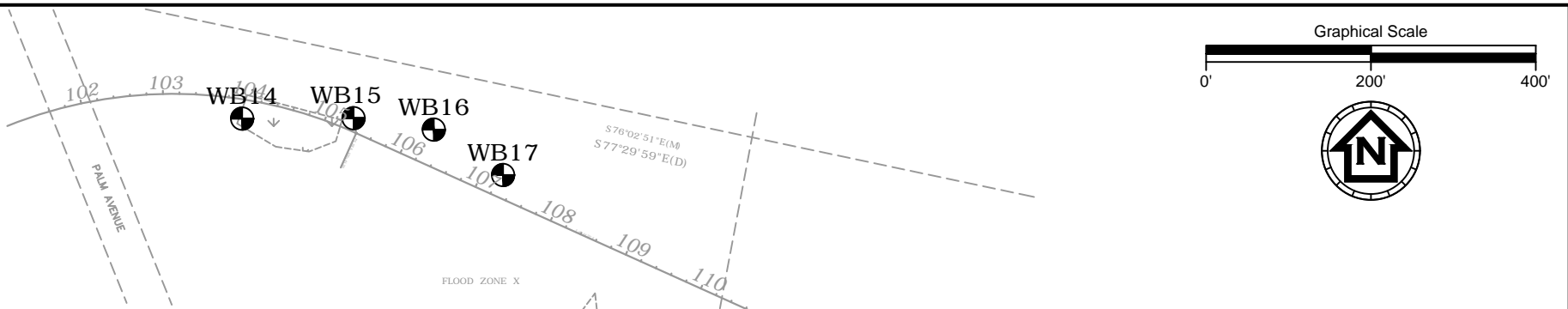
DESCRIPTION OF RELATIVE DENSITY OR CONSISTENCY

COARSE GRAINED SOILS -

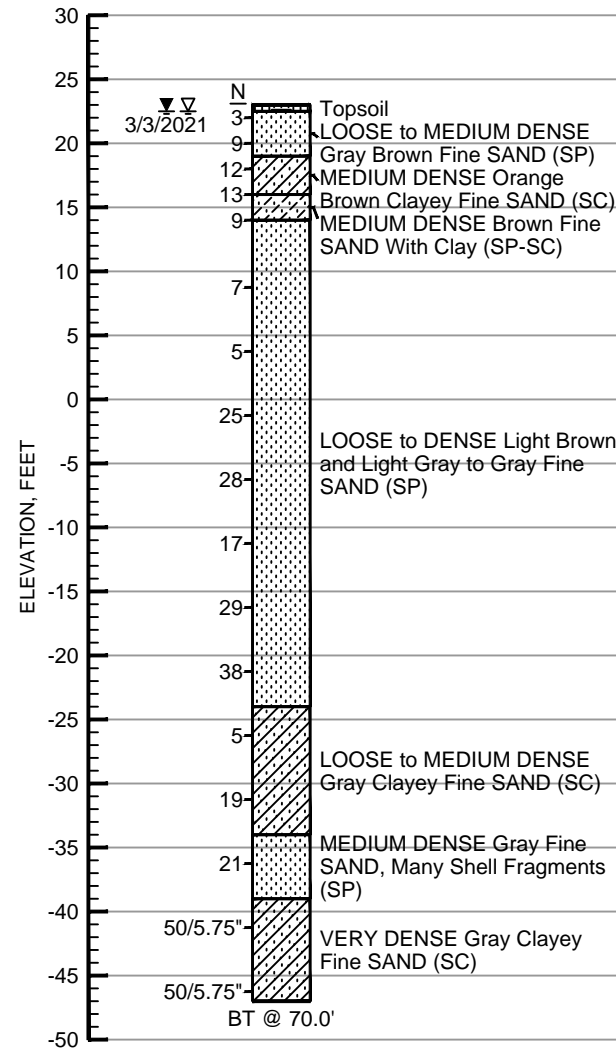
RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

FINE GRAINED SOILS -

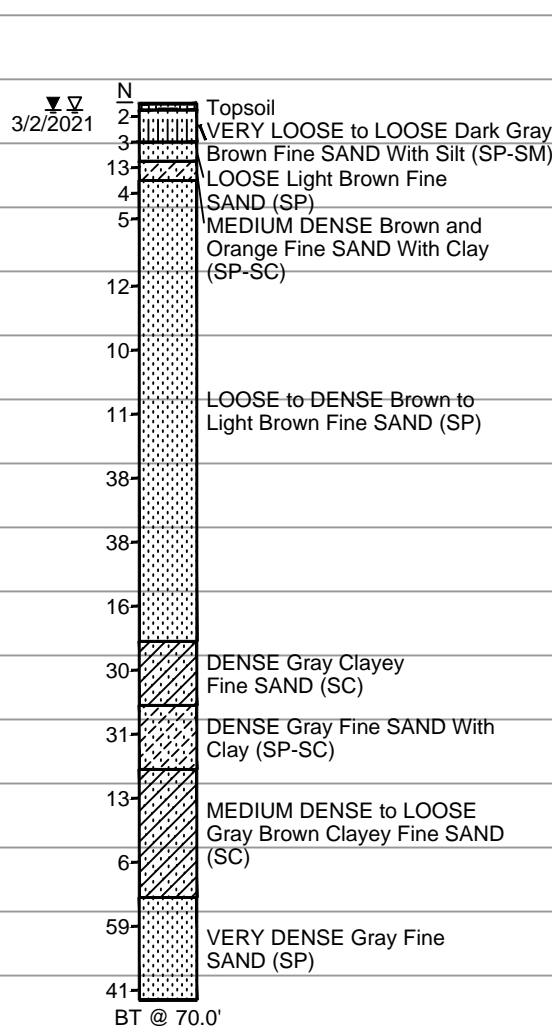
CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24



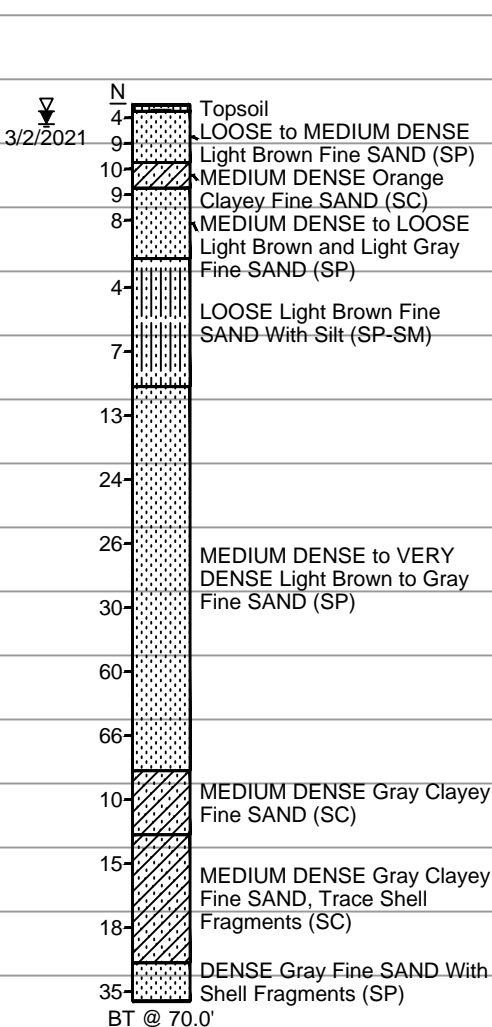
Boring No. WB14  
Sta., Offset 104+00, 23' Rt.  
Elevation 23.0'



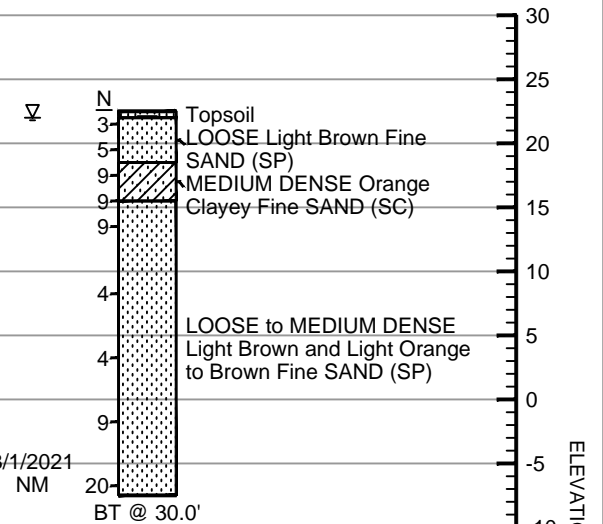
Boring No. WB15  
Sta., Offset 105+31, 15' Lt.  
Elevation 23.1'



Boring No. WB16  
Sta., Offset 106+25, 43' Lt.  
Elevation 23.0'



Boring No. WB17  
Sta., Offset 107+25, 27' Lt.  
Elevation 22.5'



REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

REPORT OF CORE BORING (8 OF 9)

Sheet No.

B-15

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

JAS-35-31217

Jeff Slansky

C:\Users\j slansky\Downloads\35-31217.dwg

Figure 9

LEGEND

- Fine SAND (SP)
- Fine SAND With Silt (SP-SM)
- Fine SAND With Clay (SP-SC)
- Clayey Fine SAND (SC)
- CLAY (CH)
- Weathered Limestone
- N

Standard Penetration Resistance  
in Blows per 12" inches
- Estimated Seasonal High  
Groundwater Level
- Groundwater Level at Time of Drilling
- 200

Percent Passing No. 200  
U.S. Standard Sieve
- w

Natural Moisture Content (%)
- LL

Liquid Limit (%)
- PI

Plasticity Index (%)
- (SP)

Unified Soil Classification System
- 50/5"

Number of Blows to Drive Split Spoon  
Sample in Inches
- Approximate Location of Standard  
Penetration Test (SPT) Boring
- BT

Boring Terminated

- NOTES:
1. Strata descriptions, measured groundwater levels and strata boundaries represent our interpretation of subsurface conditions at the boring location only, and do not reflect the actual variation in subsurface conditions between samples and adjacent to the boring locations.
  2. Each boring location was determined in the field by using global positioning system (GPS).
  3. Elevations were estimated from the provided plan and should be considerate approximate.

Drill Rig Type - 101A (Auto Hammer)

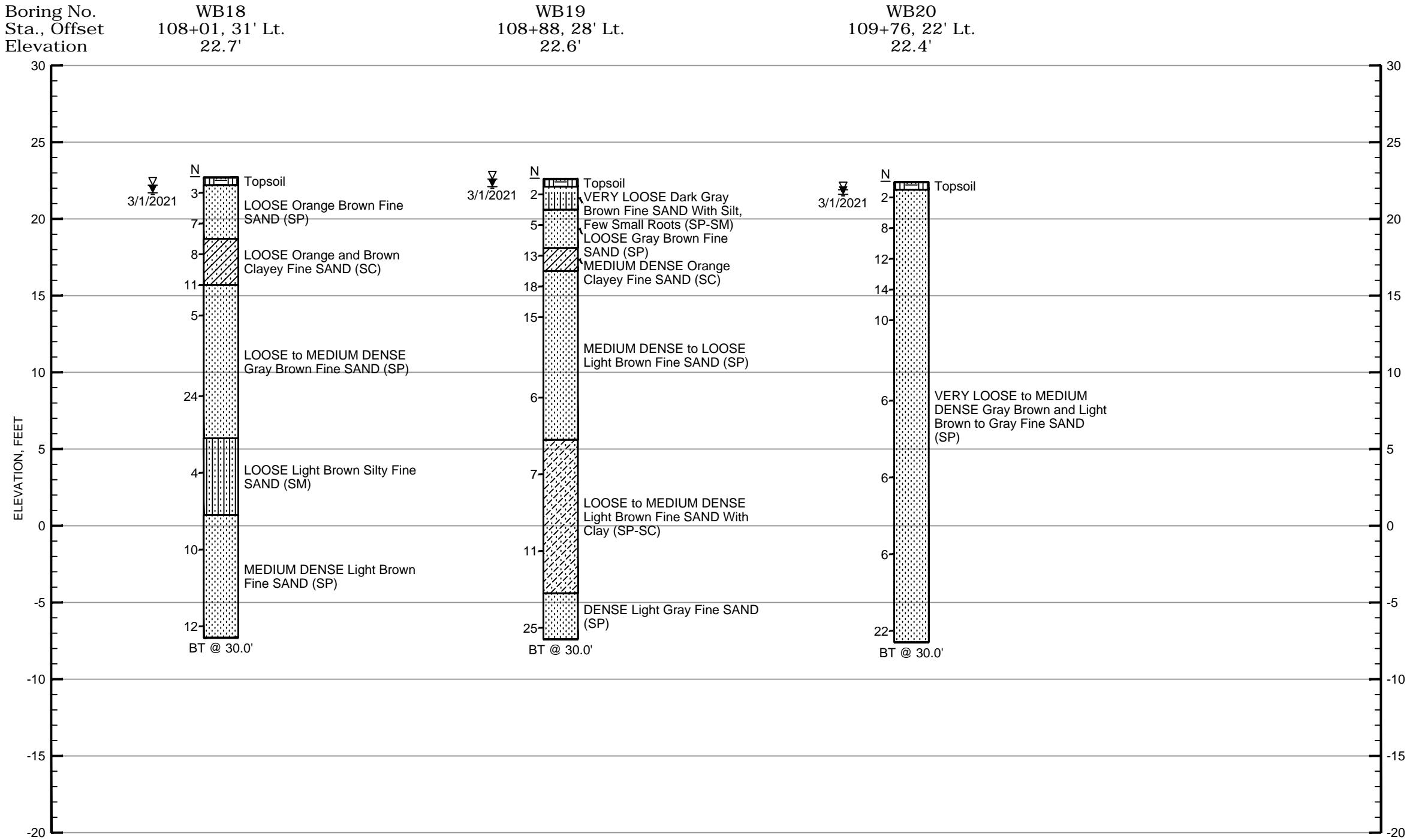
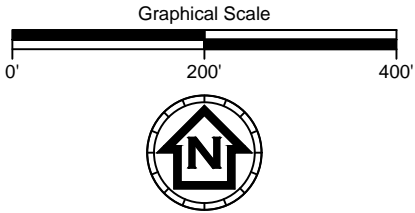
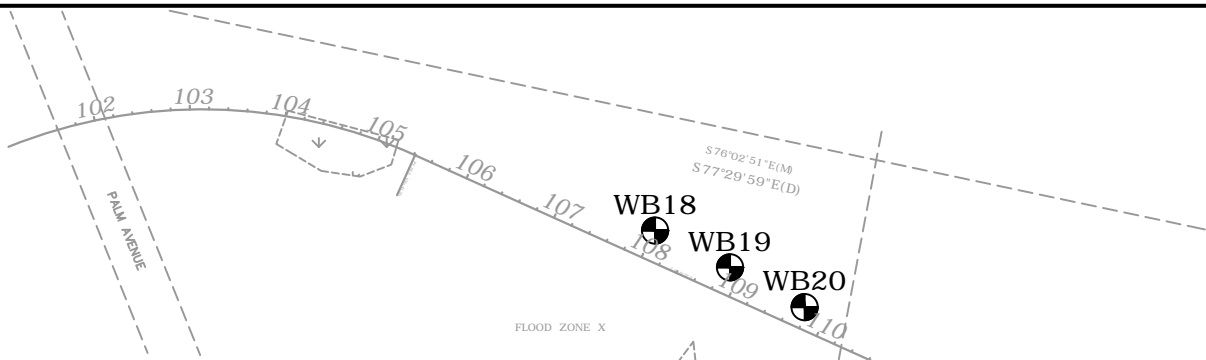
DESCRIPTION OF RELATIVE DENSITY  
OR CONSISTENCY

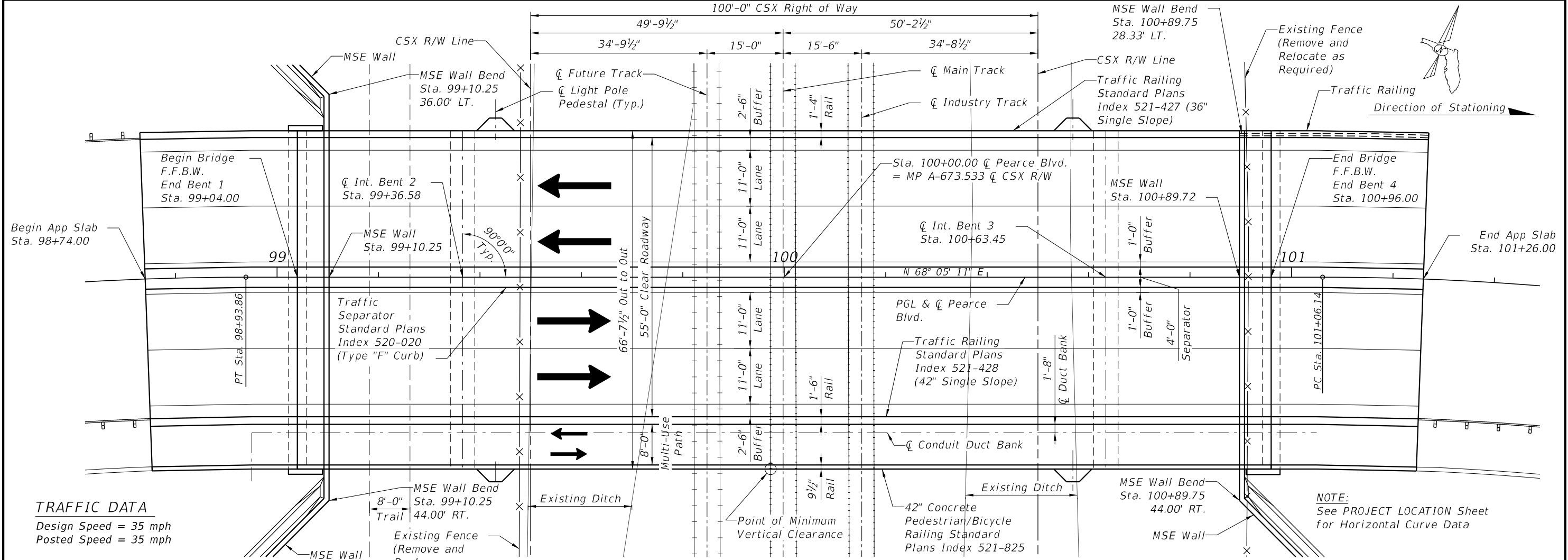
COARSE GRAINED SOILS -

RELATIVE DENSITY	SPT (BLOWS/Ft.)
VERY LOOSE	LESS THAN 3
LOOSE	3 - 8
MEDIUM DENSE	9 - 24
DENSE	25 - 40
VERY DENSE	GREATER THAN 40

FINE GRAINED SOILS -

CONSISTENCY	SPT (BLOWS/Ft.)
VERY SOFT	LESS THAN 1
SOFT	1 - 3
FIRM	4 - 6
STIFF	7 - 12
VERY STIFF	13 - 24
VERY HARD	GREATER THAN 24

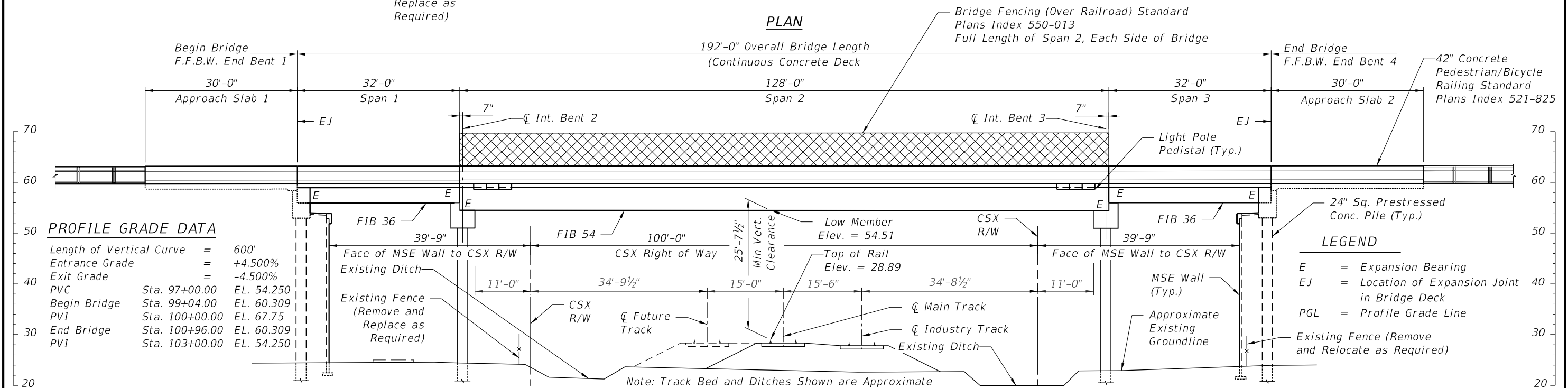




**TRAFFIC DATA**  
Design Speed = 35 mph  
Posted Speed = 35 mph

**NOTE:**  
See PROJECT LOCATION Sheet  
for Horizontal Curve Data

**PLAN**



**PROFILE GRADE DATA**

Length of Vertical Curve	=	600'
Entrance Grade	=	+4.500%
Exit Grade	=	-4.500%
PVC	Sta. 97+00.00	EL. 54.250
Begin Bridge	Sta. 99+04.00	EL. 60.309
PVI	Sta. 100+00.00	EL. 67.75
End Bridge	Sta. 100+96.00	EL. 60.309
PVI	Sta. 103+00.00	EL. 54.250

**LEGEND**

- E = Expansion Bearing
- EJ = Location of Expansion Joint in Bridge Deck
- PGL = Profile Grade Line
- Existing Fence (Remove and Relocate as Required)

**ELEVATION**

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  PLAN AND ELEVATION	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO. B1-01

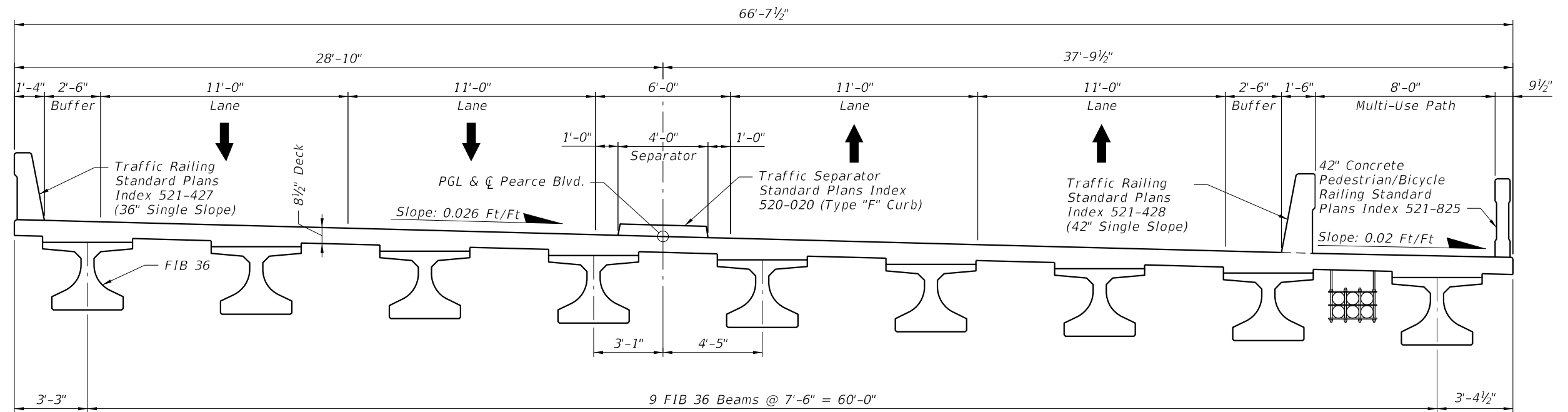
DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

MerrellID 6/27/2022 5:53:09 PM

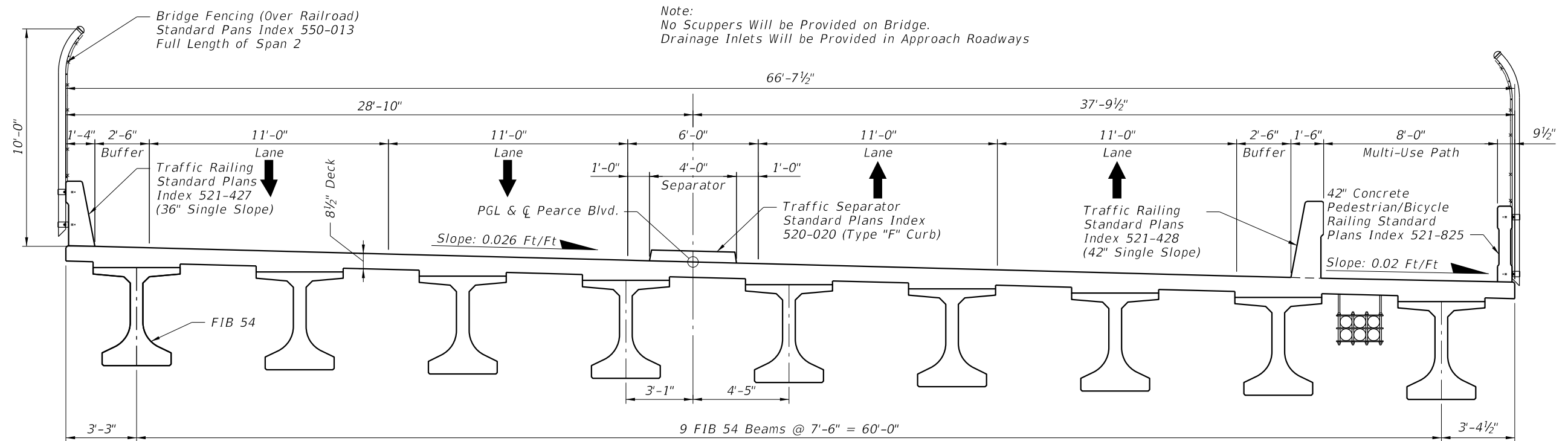
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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TYPICAL SECTION - SPANS 1 & 3

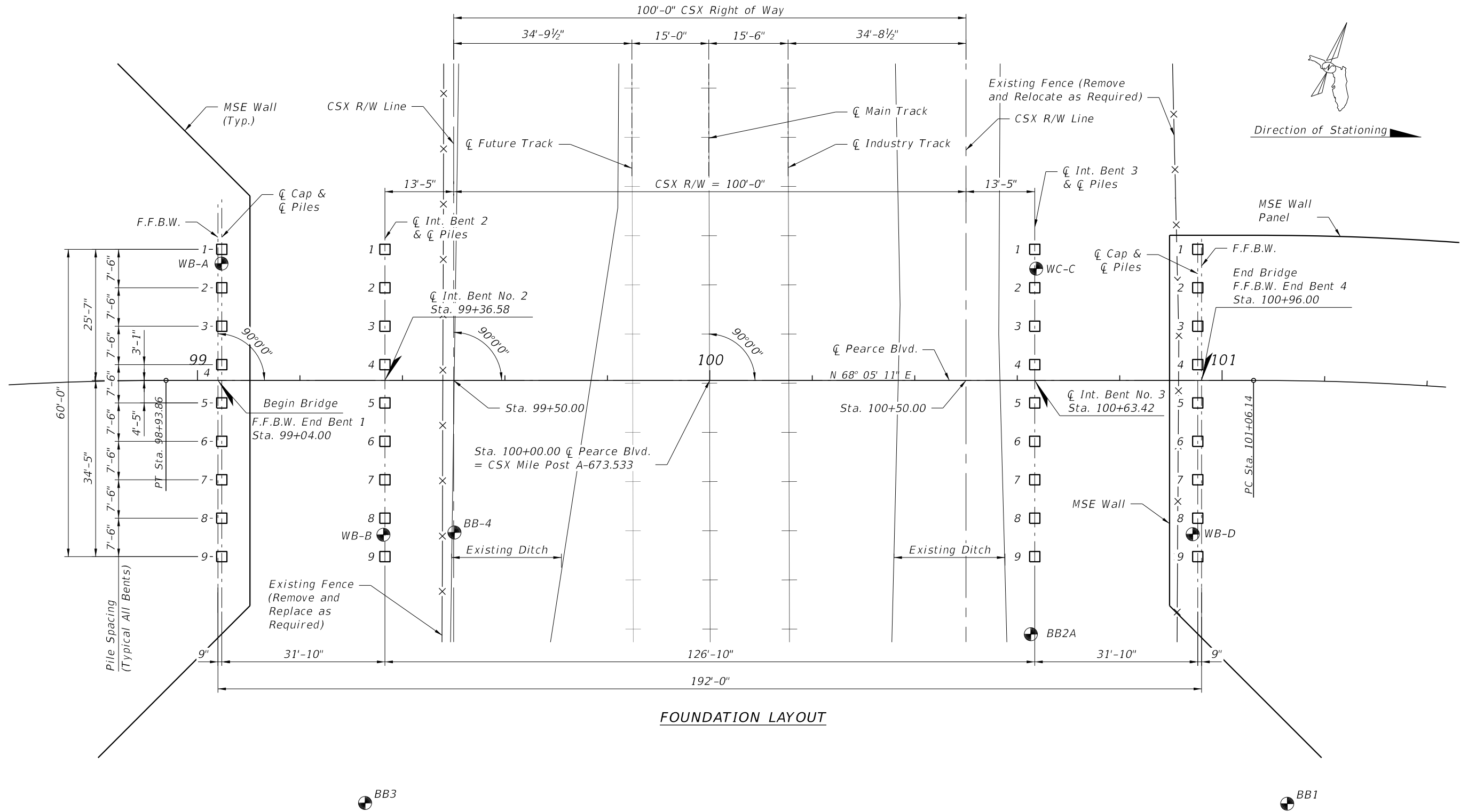


TYPICAL SECTION - SPAN 2

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				TYPICAL SECTIONS		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-02	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A			

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FOUNDATION LAYOUT

LEGEND

- 1 Pile Number
- 24" Sq. Prestressed Concrete Pile (Plumb)
- Boring Location

BRIDGE NO. 714054

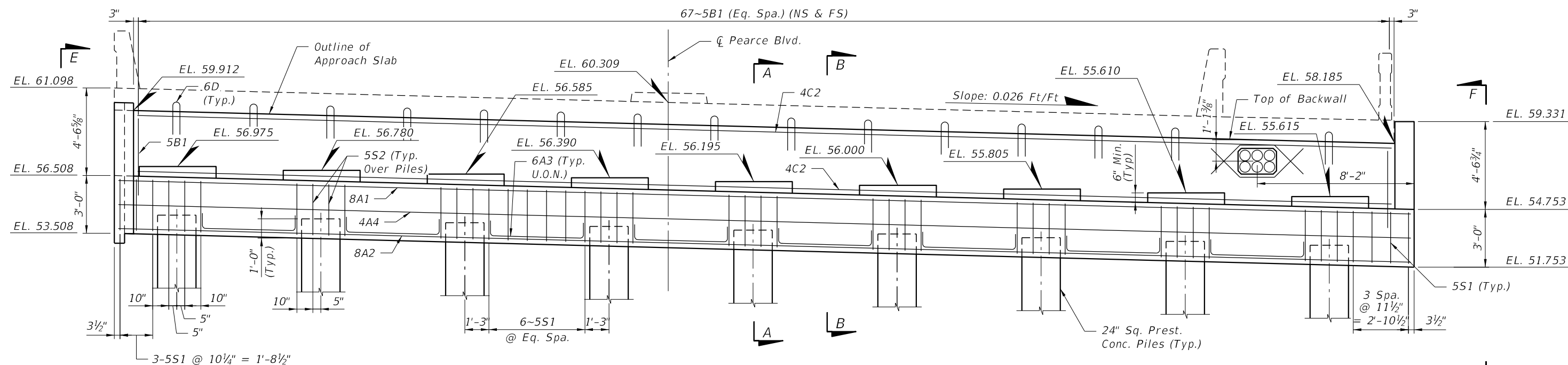
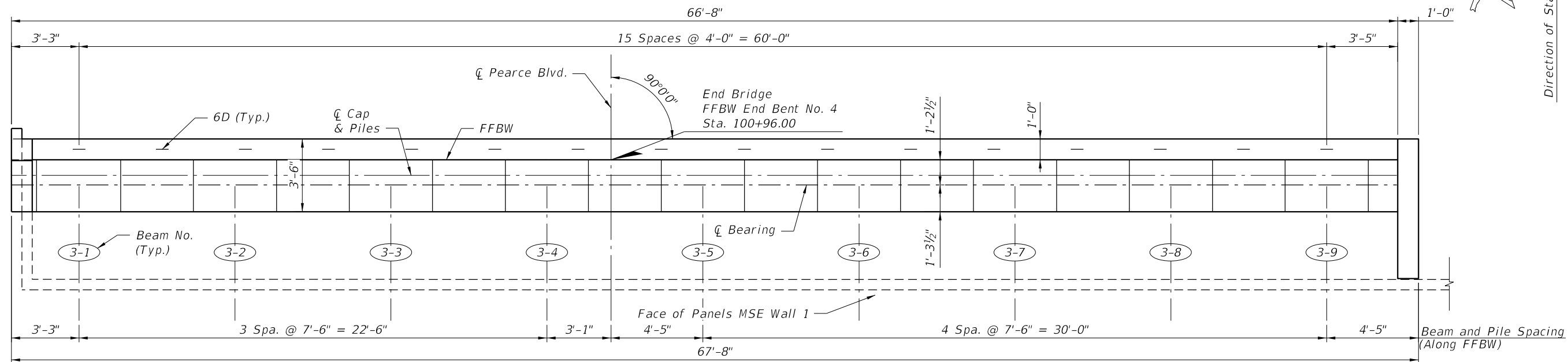
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  FOUNDATION LAYOUT		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD		SHEET NO.
								ROAD NO.	COUNTY	FINANCIAL PROJECT ID			B1-03
								N/A	CLAY	N/A			

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





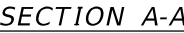




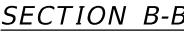
- Notes:
1. For Sections A-A & B-B See END BENT DETAILS (1 of 4).
  2. For View F-F See END BENT DETAILS (2 of 4).
  3. For View E-E See END BENT DETAILS (3 of 4).
  4. For Pedestal Details See END BENT DETAILS (4 of 4).
  5. Dimensions of Utility Block-Out in backwall and treatment of conflicting reinforcement shall be similar to Utility Block-Outs in diaphragms. See SUPERSTRUCTURE SECTIONS (2 of 2).

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  END BENT 4		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		
							DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		SHEET NO.
							CHECKED BY: R.K. 1-21						B1-06



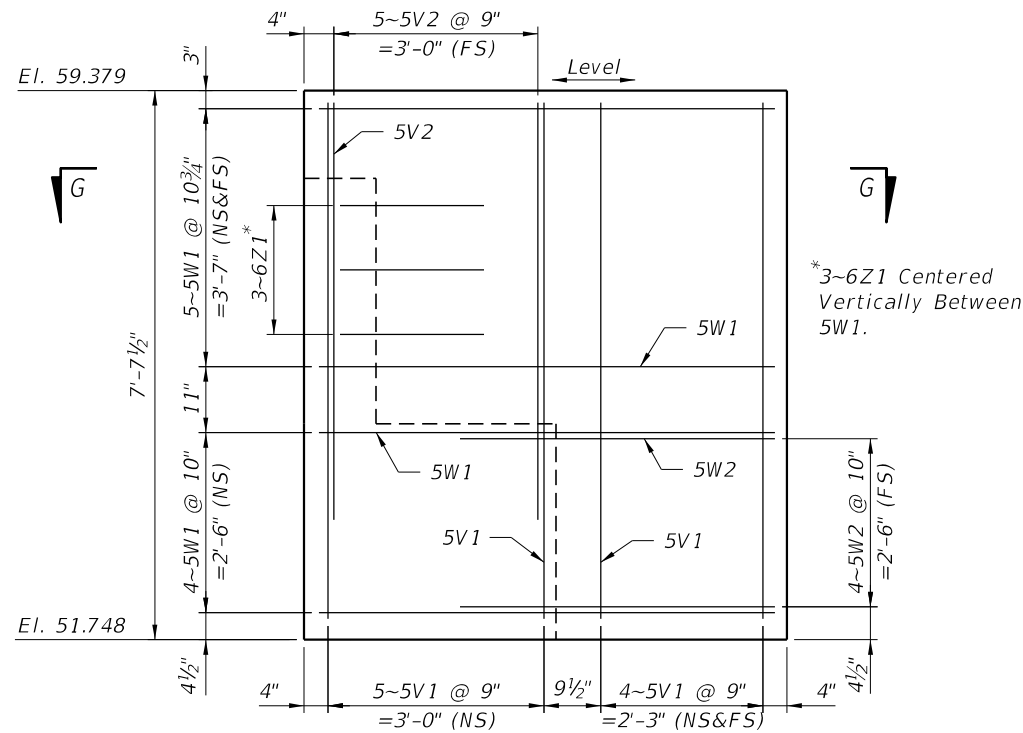
Note:  
See Section B-B for  
Reinforcing & Dimensions not shown.



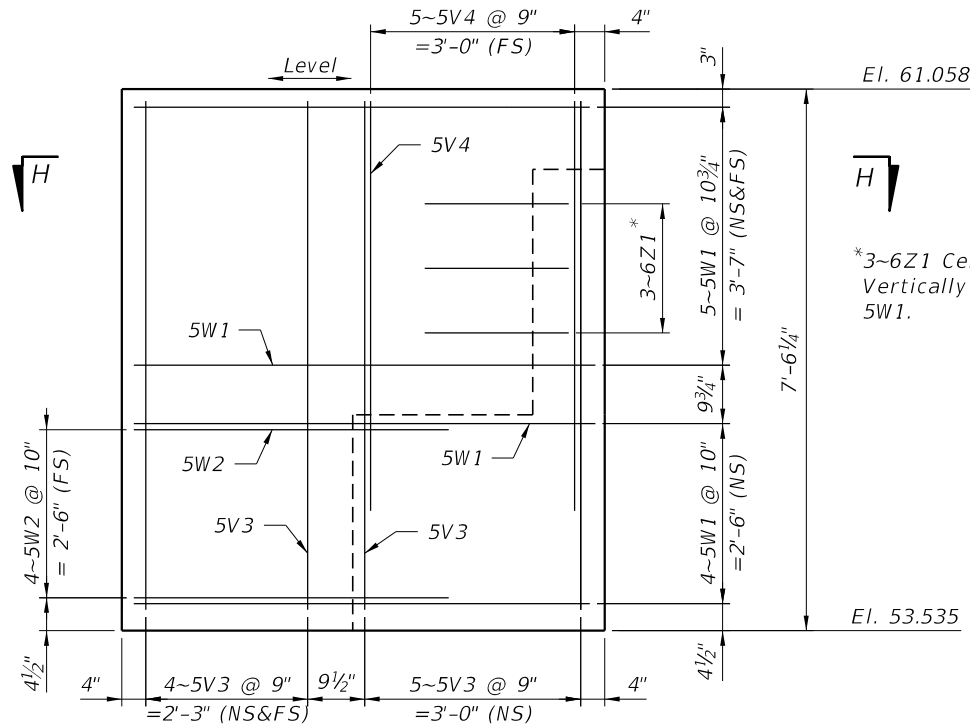
BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				PROJECT NAME:		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	B1-07	

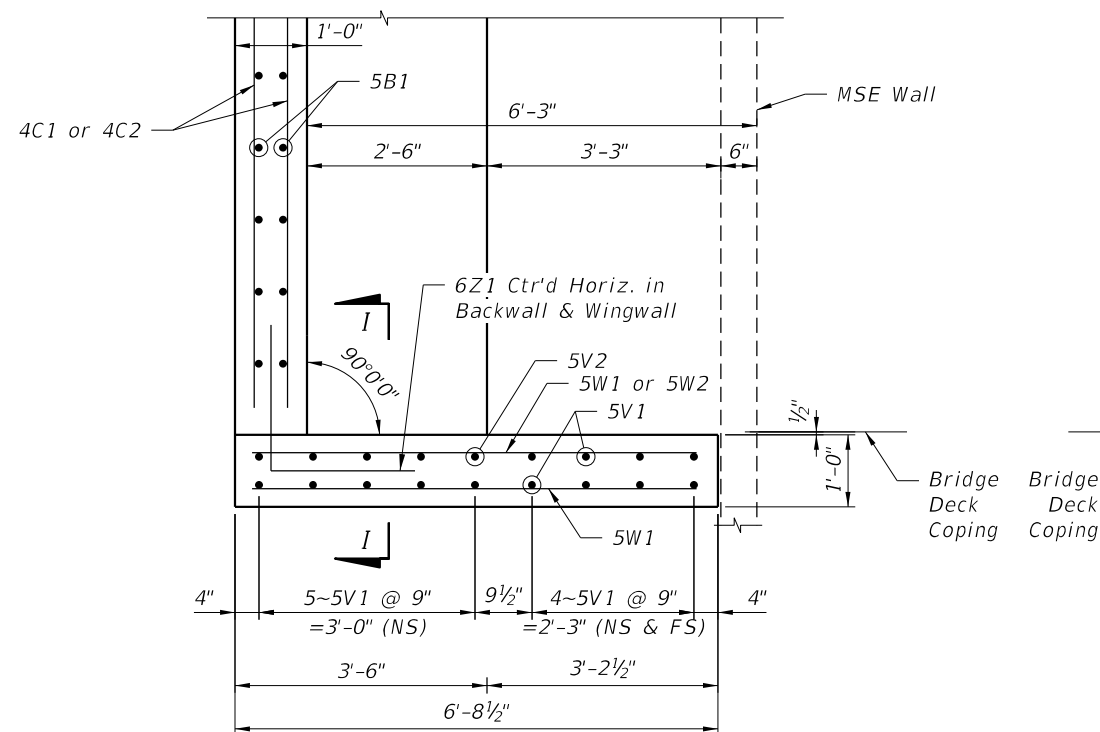
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



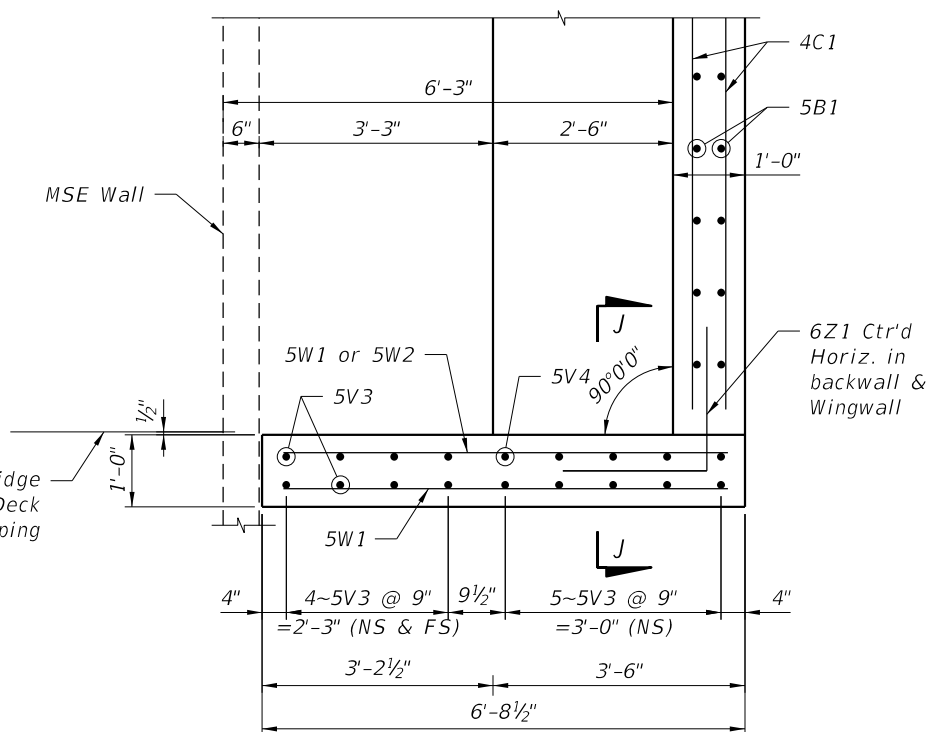
VIEW C-C  
(VIEW F-F OPPOSITE HAND)



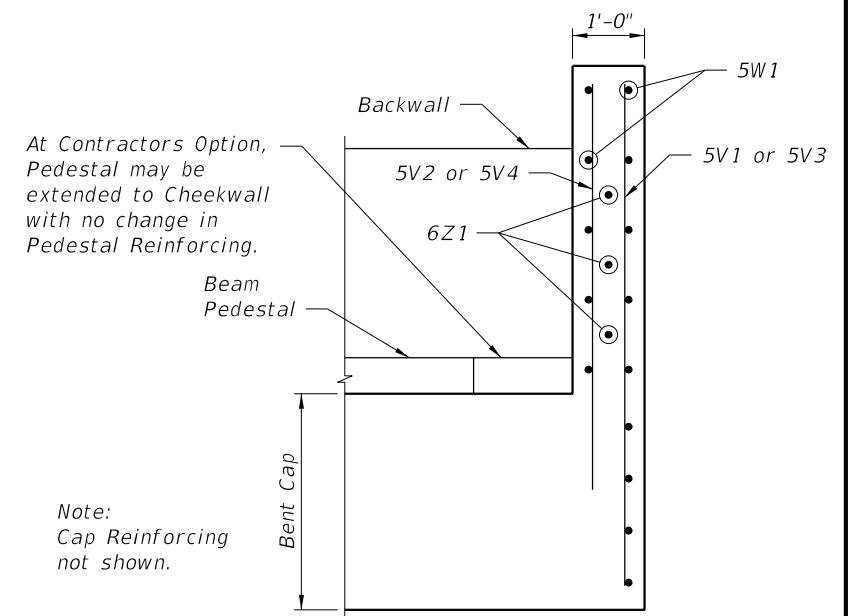
VIEW D-D



SECTION G-G



SECTION H-H



SECTION J-J  
(SECTION I-I OPPOSITE HAND)

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  END BENT DETAILS (2 OF 4)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-08
						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		
						CHECKED BY: R.K. 1-21					

DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

DRAWN BY:  
J.F. 1-21  
CHECKED BY:  
R.K. 1-21  
DESIGNED BY:  
D.M. 1-21  
CHECKED BY:  
R.K. 1-21

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

ROAD NO.  
N/A  
COUNTY  
CLAY  
FINANCIAL PROJECT ID  
N/A

SHEET TITLE:

END BENT DETAILS (2 OF 4)

PROJECT NAME:

PEARCE BLVD. BRIDGE OVER CSX RAILROAD

REF. DWG. NO.

SHEET NO.

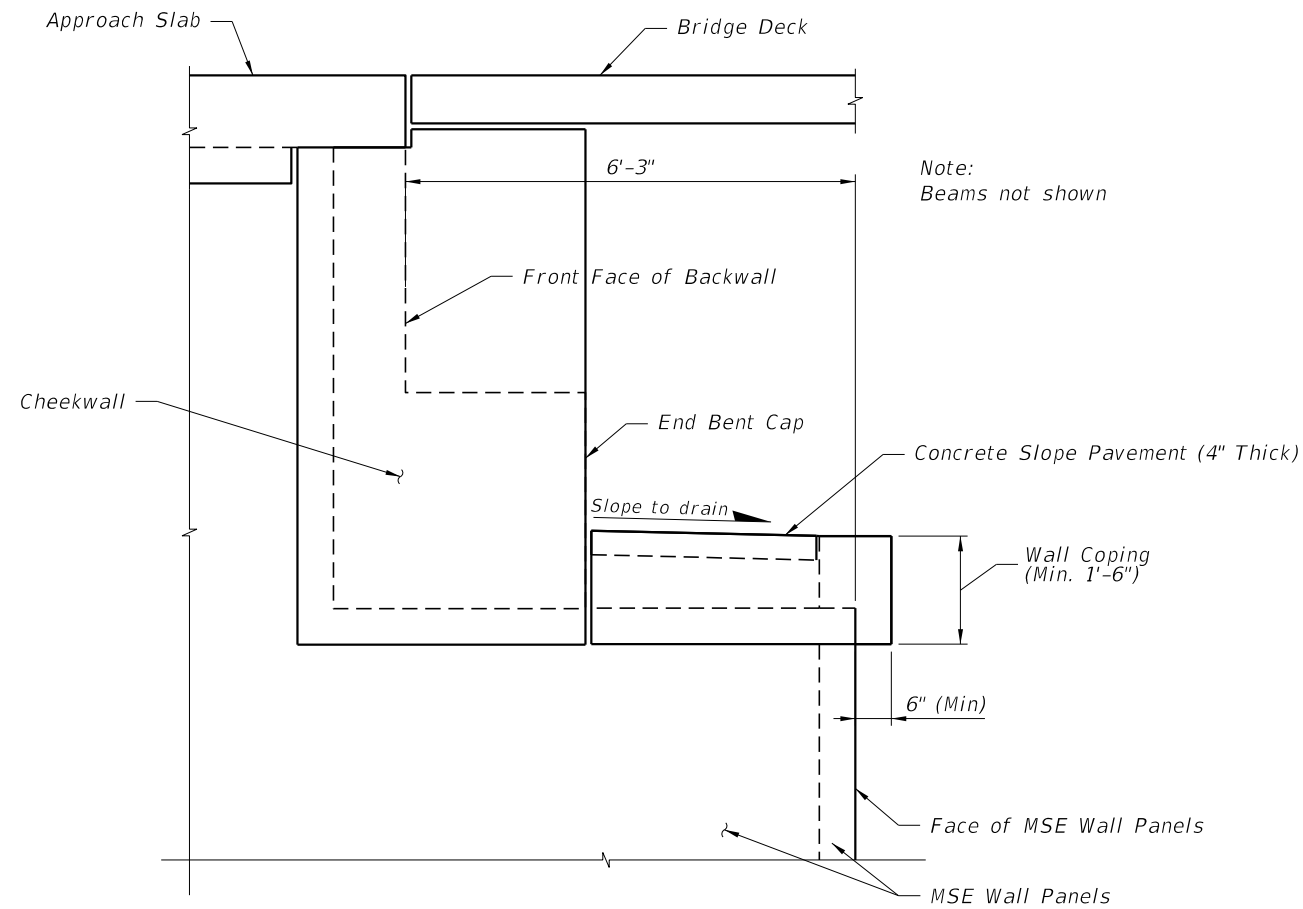
B1-08

Merrell/D

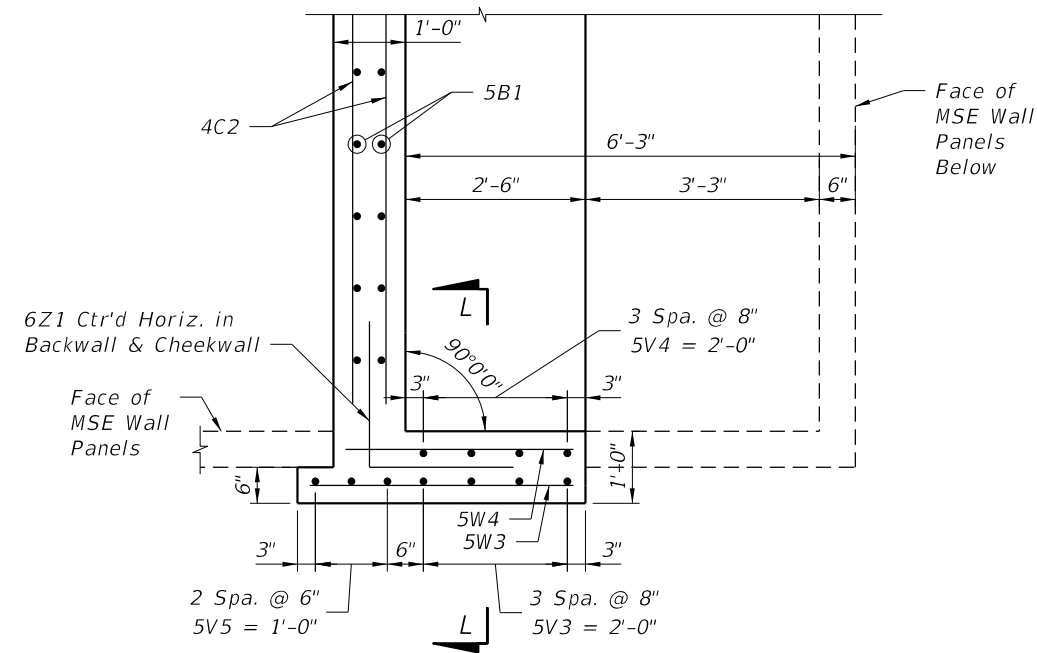
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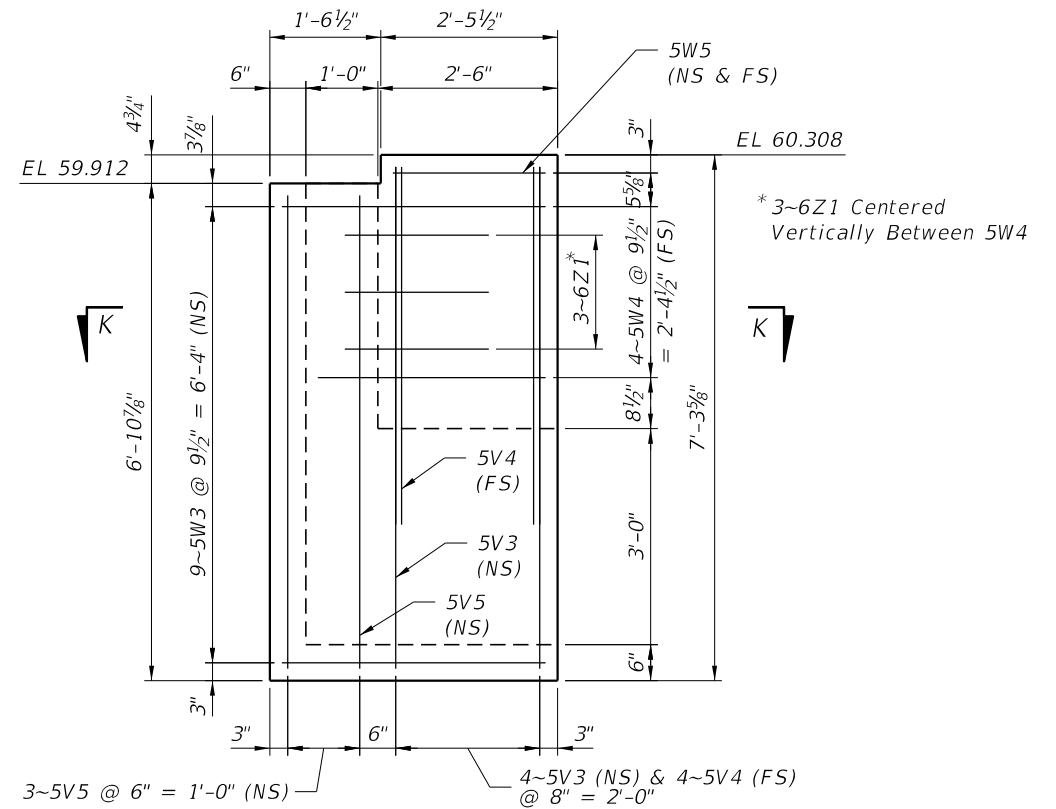
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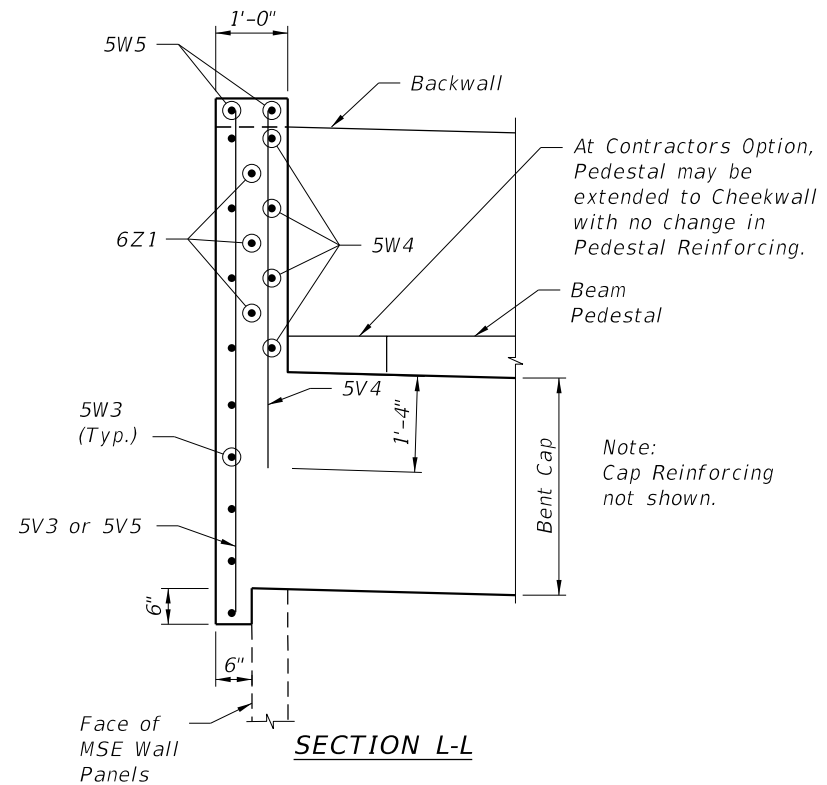
**ELEVATION OF CHEEKWALL  
AT NORTH END OF END BENT 4**



**SECTION K-K**



**VIEW E-E**



**SECTION L-L**

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	SHEET TITLE:  END BENT DETAILS (3 OF 4)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				
						CHECKED BY: R.K. 1-21	ROAD NO.	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.
						DESIGNED BY: D.M. 1-21	COUNTY CLAY		
						CHECKED BY: R.K. 1-21	FINANCIAL PROJECT ID N/A		B1-09

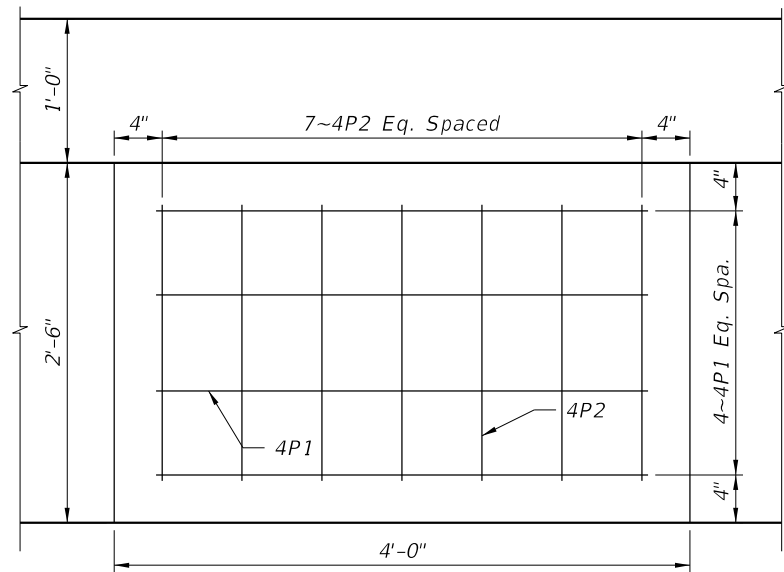
DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

DRAWN BY:  
J.F. 1-21  
CHECKED BY:  
R.K. 1-21  
DESIGNED BY:  
D.M. 1-21  
CHECKED BY:  
R.K. 1-21

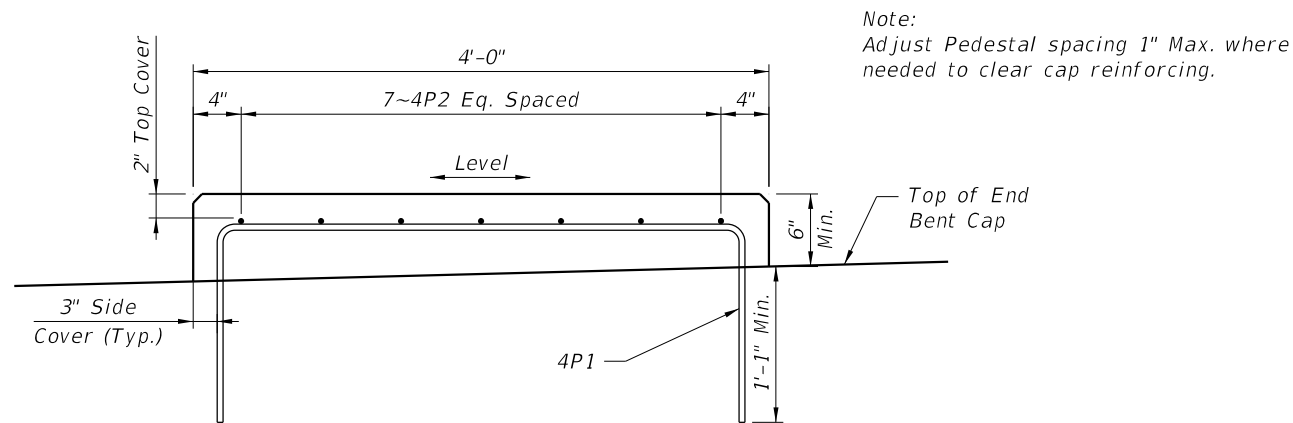
STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO.  
N/A  
COUNTY  
CLAY  
FINANCIAL PROJECT ID  
N/A

SHEET TITLE:  
  
END BENT DETAILS (3 OF 4)  
PROJECT NAME:  
  
PEARCE BLVD. BRIDGE OVER CSX RAILROAD

REF. DWG. NO.  
  
SHEET NO.  
B1-09

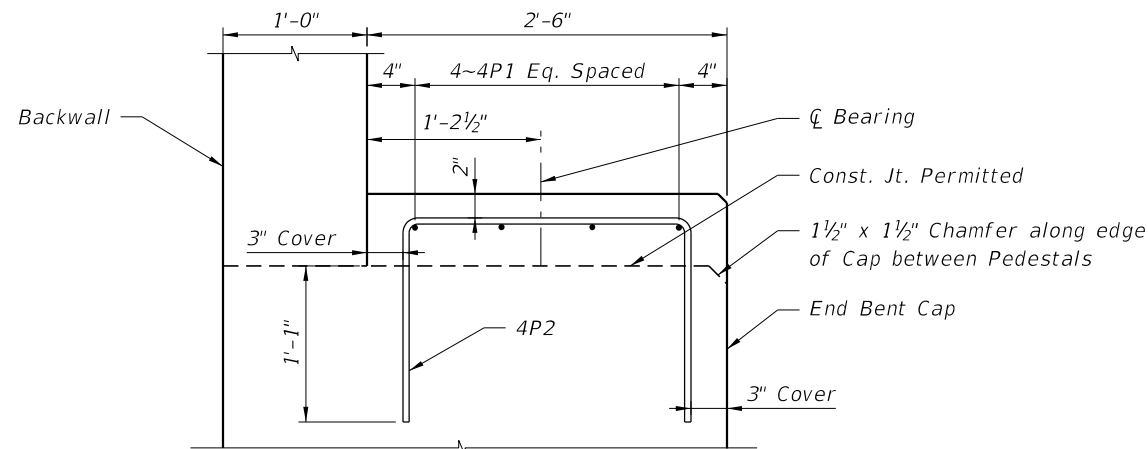


PEDESTAL REINFORCING PLAN



PEDESTAL LONGITUDINAL SECTION

End Bent 1 - All Beams  
End Bent 3 - Beams 1 & 6



PEDESTAL TRANSVERSE SECTION

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  END BENT DETAILS (4 OF 4)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-10
						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		
						CHECKED BY: R.K. 1-21					

DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

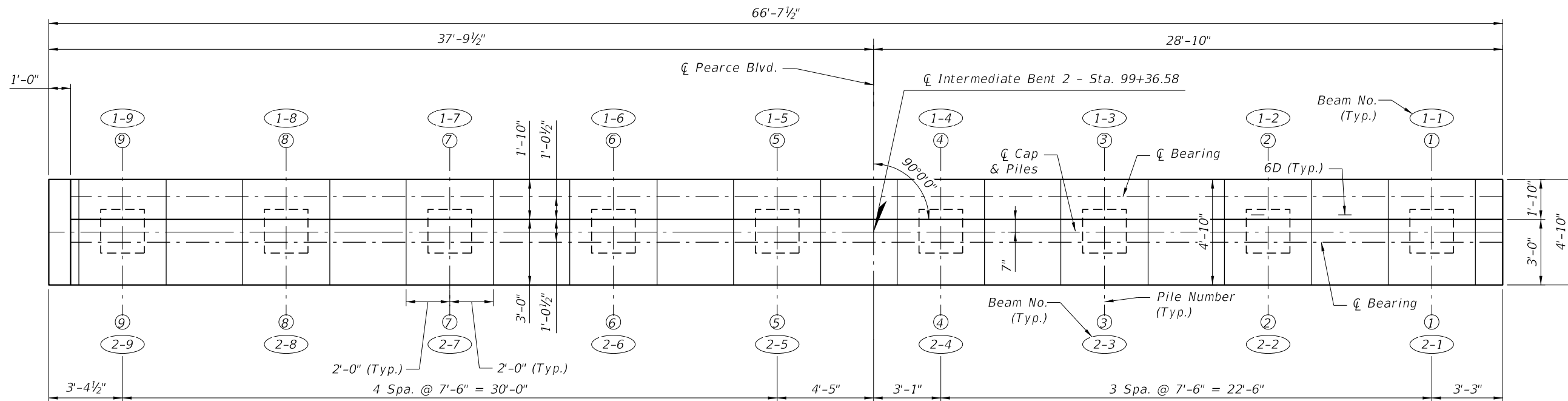
DRAWN BY:  
J.F. 1-21  
CHECKED BY:  
R.K. 1-21  
DESIGNED BY:  
D.M. 1-21  
CHECKED BY:  
R.K. 1-21

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO.  
COUNTY  
FINANCIAL PROJECT ID

SHEET TITLE:  
  
END BENT DETAILS (4 OF 4)  
PROJECT NAME:  
  
PEARCE BLVD. BRIDGE OVER CSX RAILROAD  
REF. DWG. NO.  
  
SHEET NO.  
  
B1-10



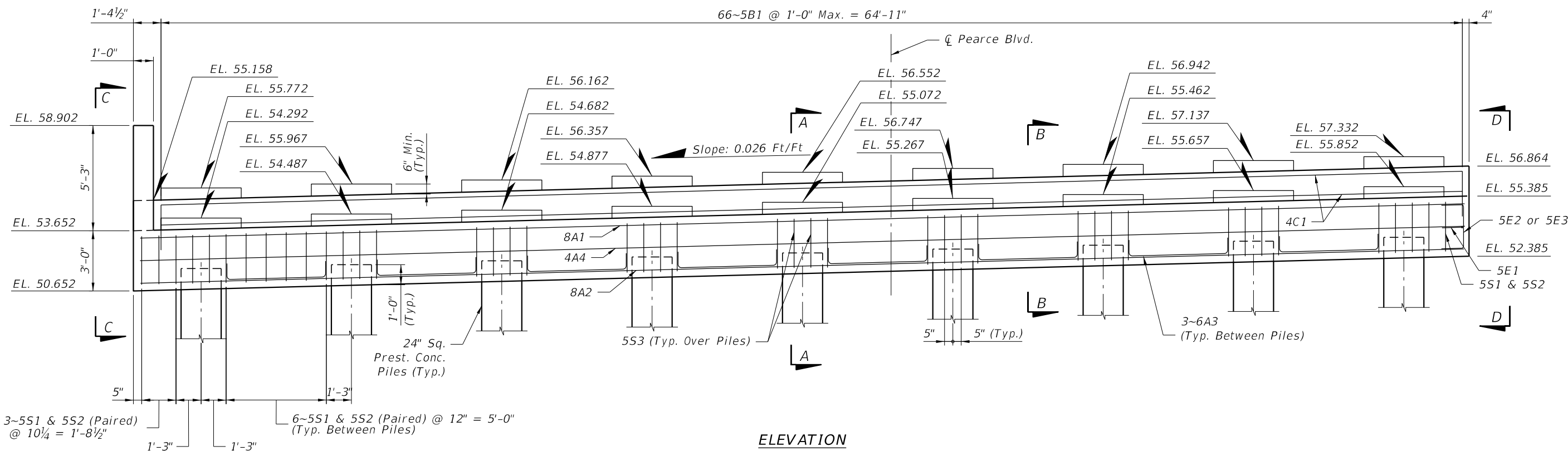
Direction of Stationing  
Int. Bent 2



PLAN

Note:  
Cheekwall Reinf. Not Shown

Note:  
For Sections, see INTERMEDIATE BENT DETAILS (1 OF 3) &  
INTERMEDIATE BENT DETAILS (2 OF 3)



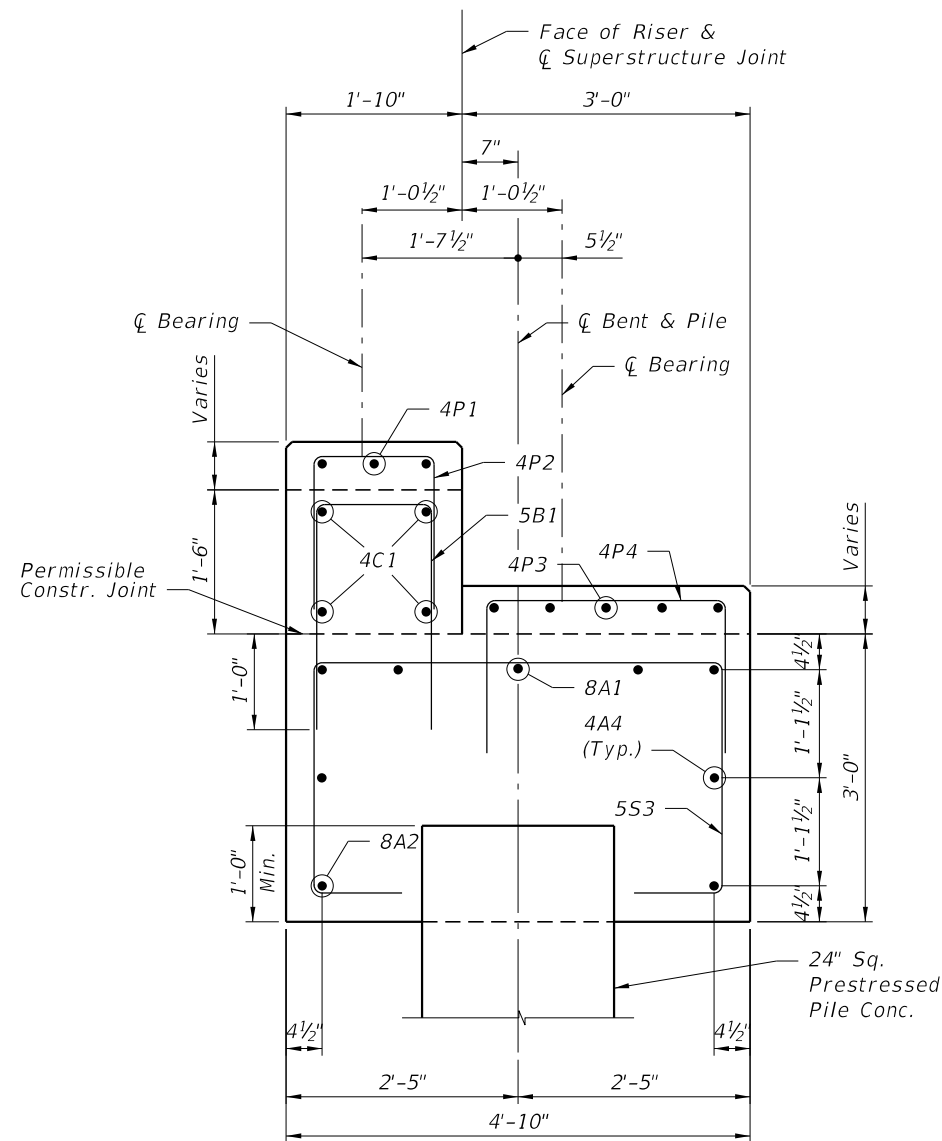
ELEVATION

BRIDGE NO. 714054

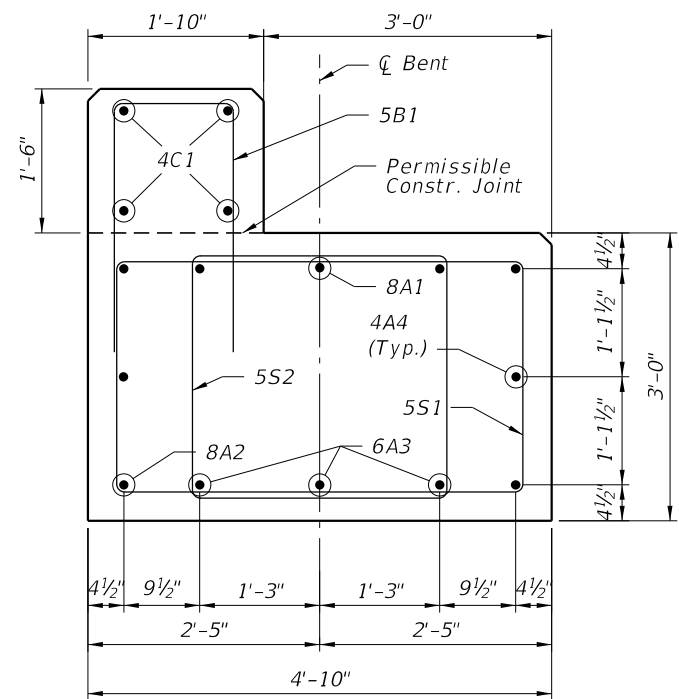
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  INTERMEDIATE BENT 2			REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21							PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD
							DESIGNED BY: D.M. 1-21	ROAD NO.  N/A	COUNTY  CLAY	FINANCIAL PROJECT ID  N/A				
							CHECKED BY: R.K. 1-21							







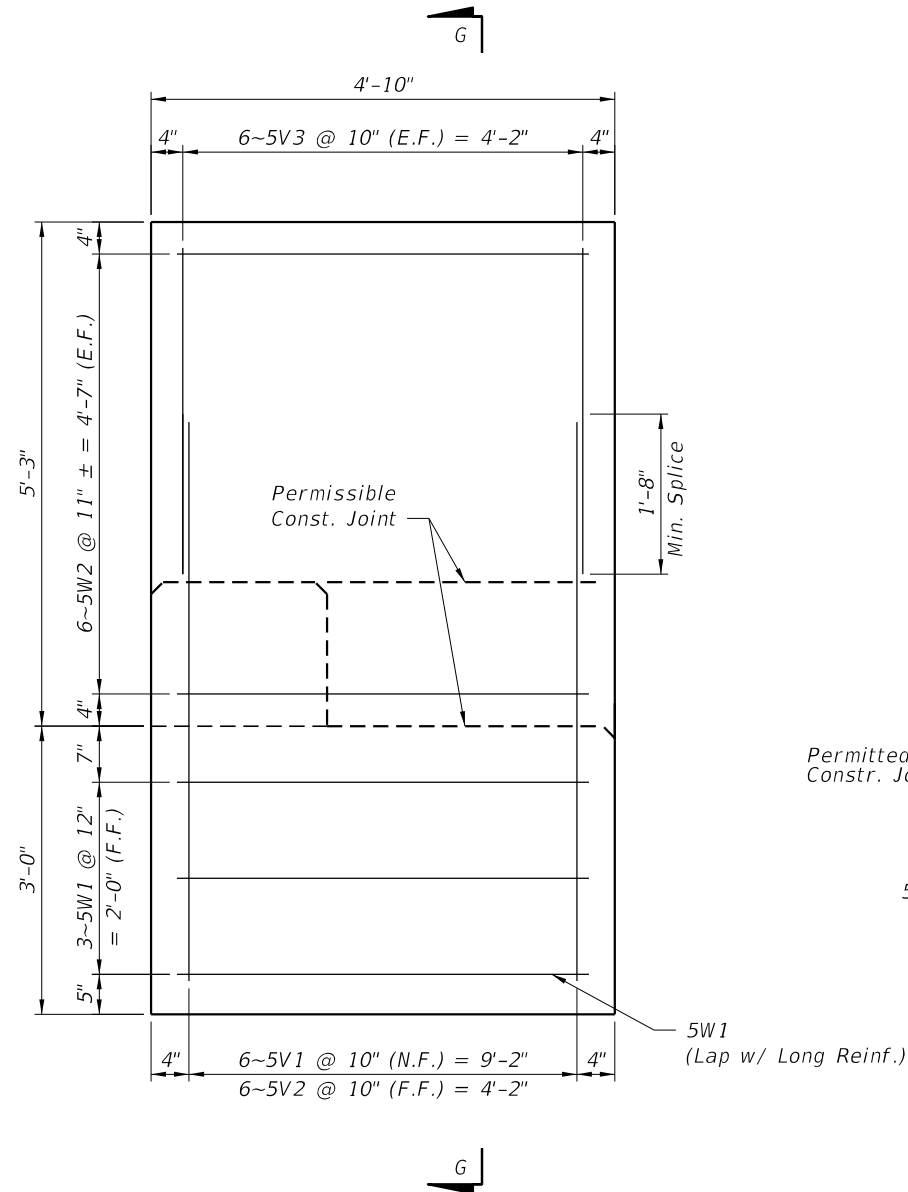
SECTION A-A



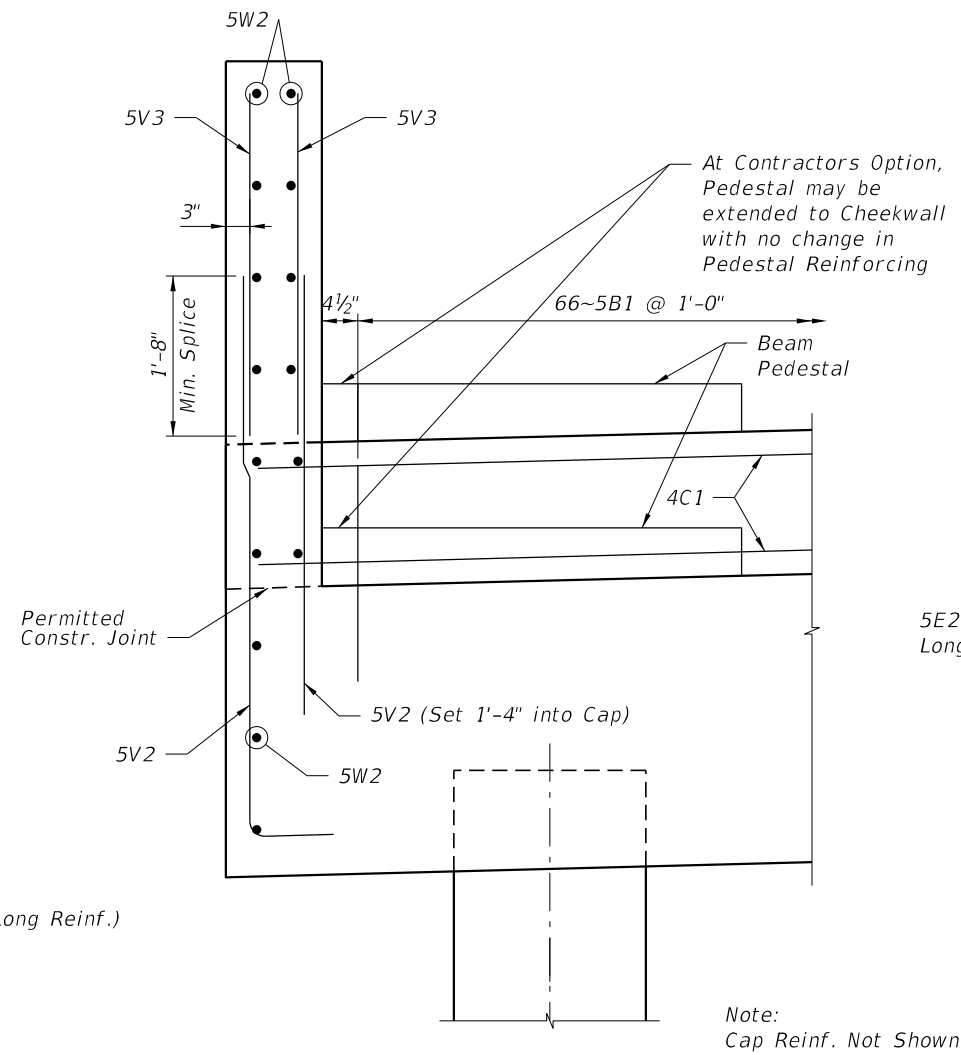
SECTION B-B

BRIDGE NO. 714054

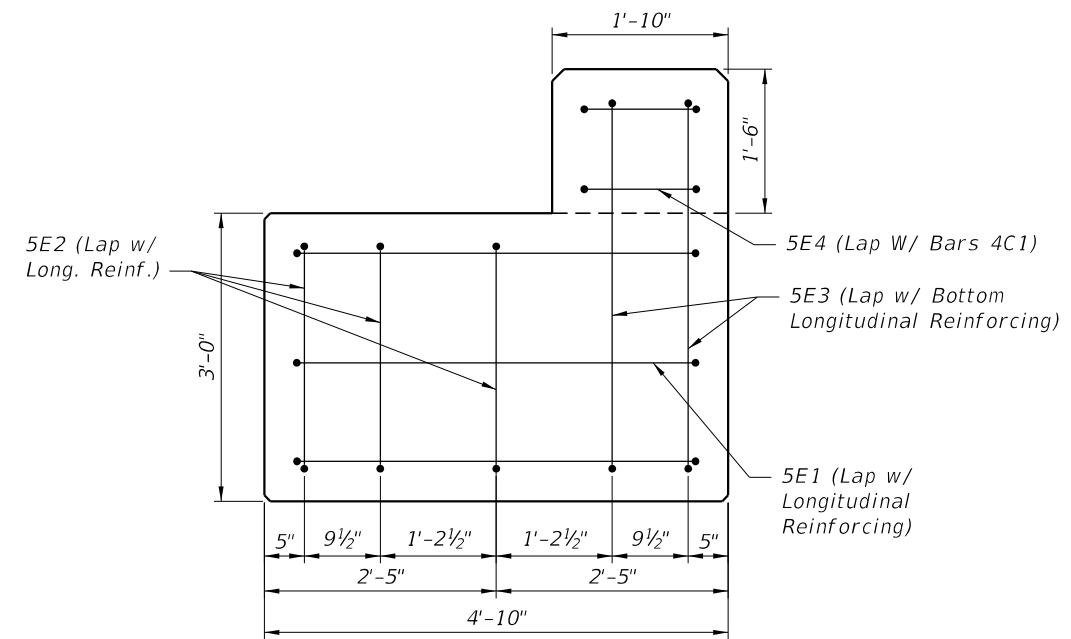
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: INTERMEDIATE BENT DETAILS (1 OF 3)		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION								
								ROAD NO. N/A	COUNTY CLAY	FINANCIAL PROJECT ID N/A	PROJECT NAME: PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.	
												B1-13	



VIEW C-C  
(VIEW F-F OPPOSITE HAND)



SECTION G-G



VIEW D-D  
(VIEW E-E OPPOSITE HAND)

BRIDGE NO. 714054

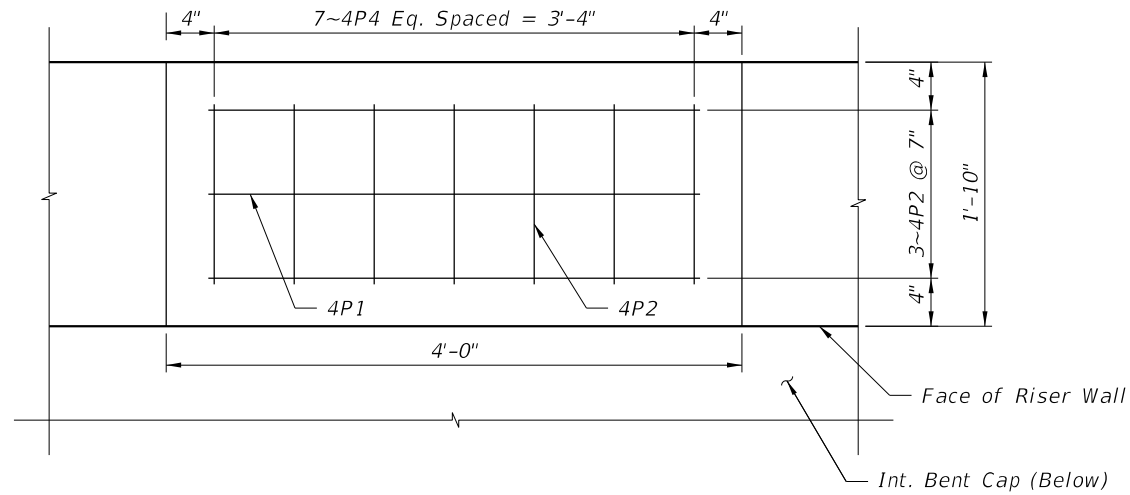
REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  INTERMEDIATE BENT DETAILS (2 OF 3)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-14
						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		
						CHECKED BY: R.K. 1-21					

DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

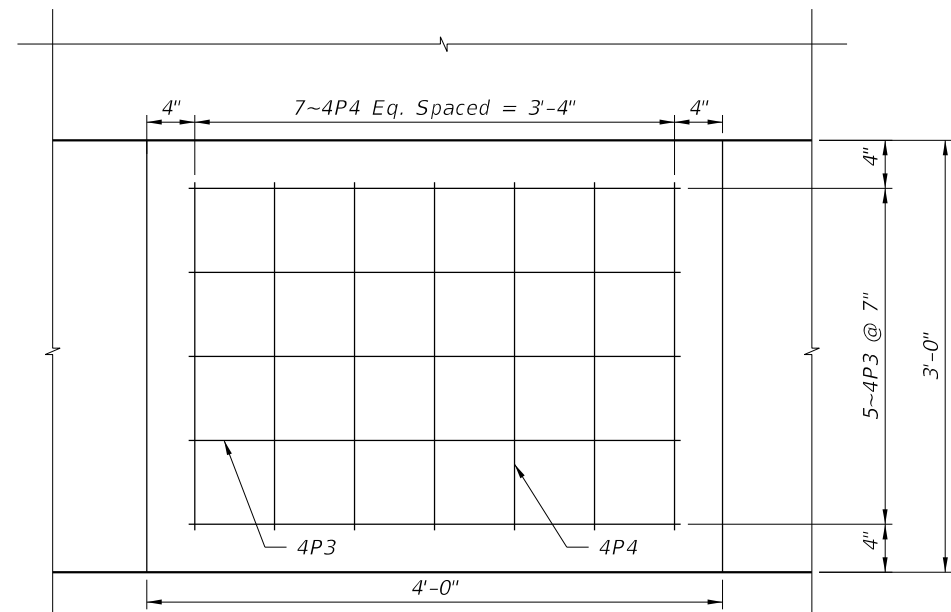
DRAWN BY:  
J.F. 1-21  
CHECKED BY:  
R.K. 1-21  
DESIGNED BY:  
D.M. 1-21  
CHECKED BY:  
R.K. 1-21

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO.  
COUNTY  
FINANCIAL PROJECT ID

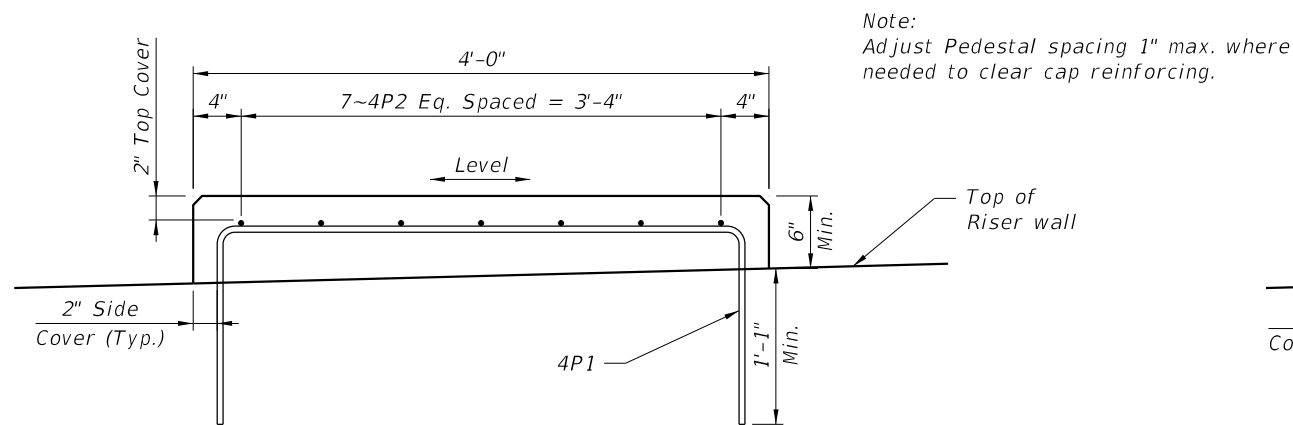
SHEET TITLE:  
  
INTERMEDIATE BENT DETAILS (2 OF 3)  
PROJECT NAME:  
  
PEARCE BLVD. BRIDGE OVER CSX RAILROAD  
SHEET NO.  
  
B1-14



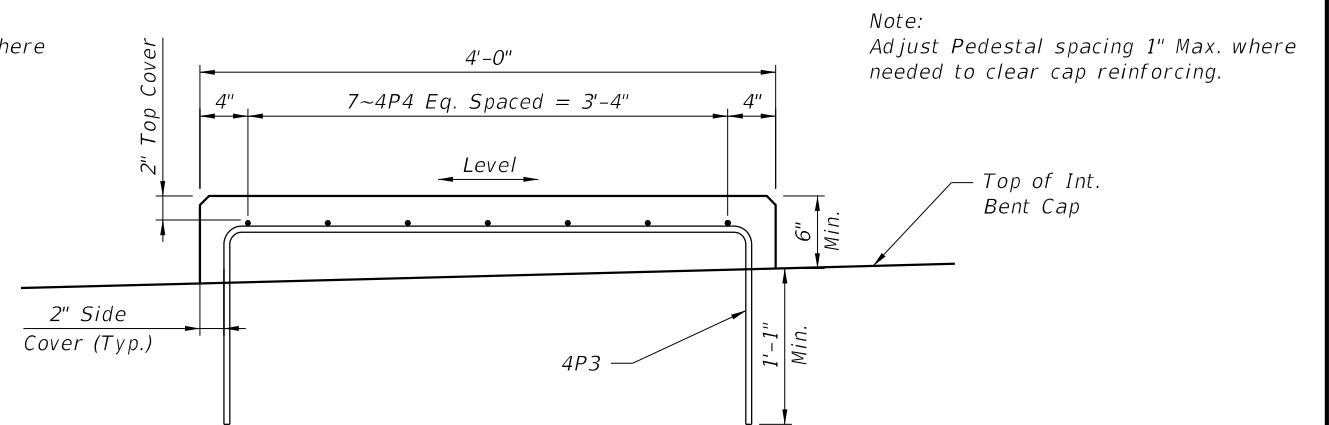
PEDESTAL REINFORCING PLAN



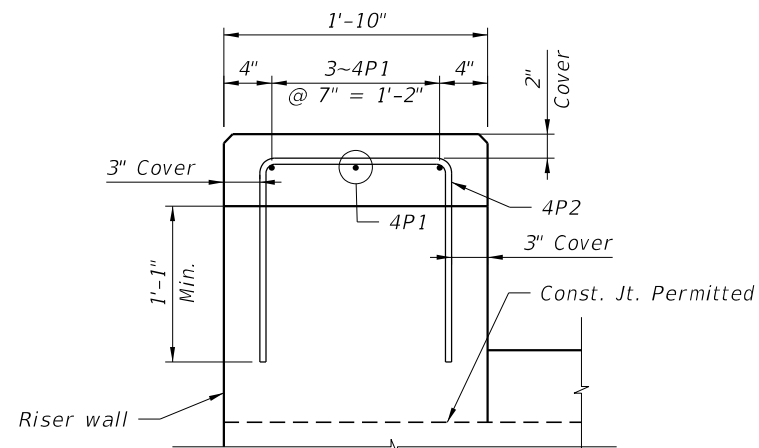
PEDESTAL REINFORCING PLAN



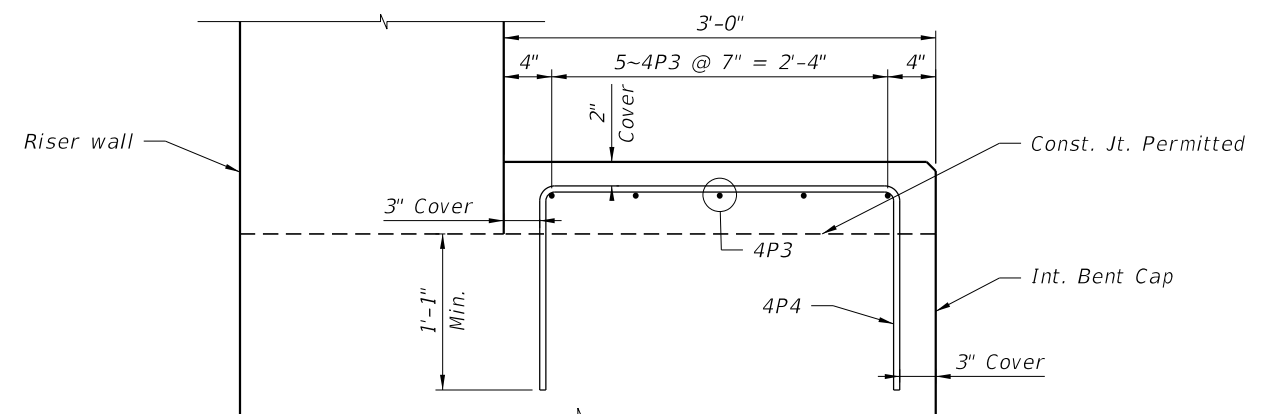
PEDESTAL LONGITUDINAL SECTION



PEDESTAL LONGITUDINAL SECTION



PEDESTAL TRANSVERSE SECTION



PEDESTAL TRANSVERSE SECTION

BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: INTERMEDIATE BENT DETAILS (3 OF 3)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME: PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.
						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		B1-15
						CHECKED BY: R.K. 1-21					

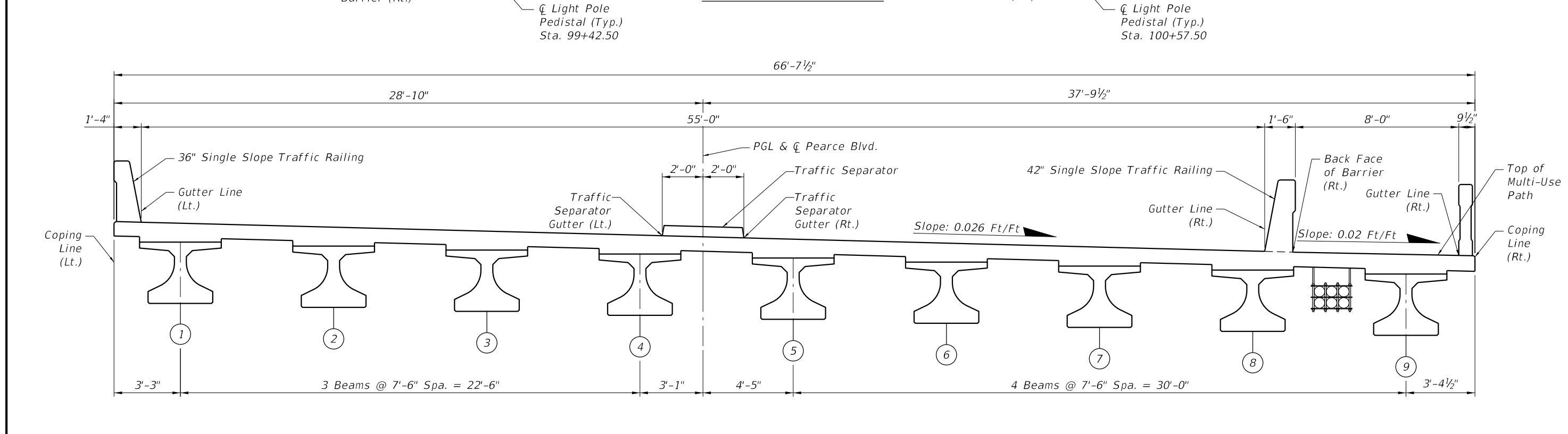
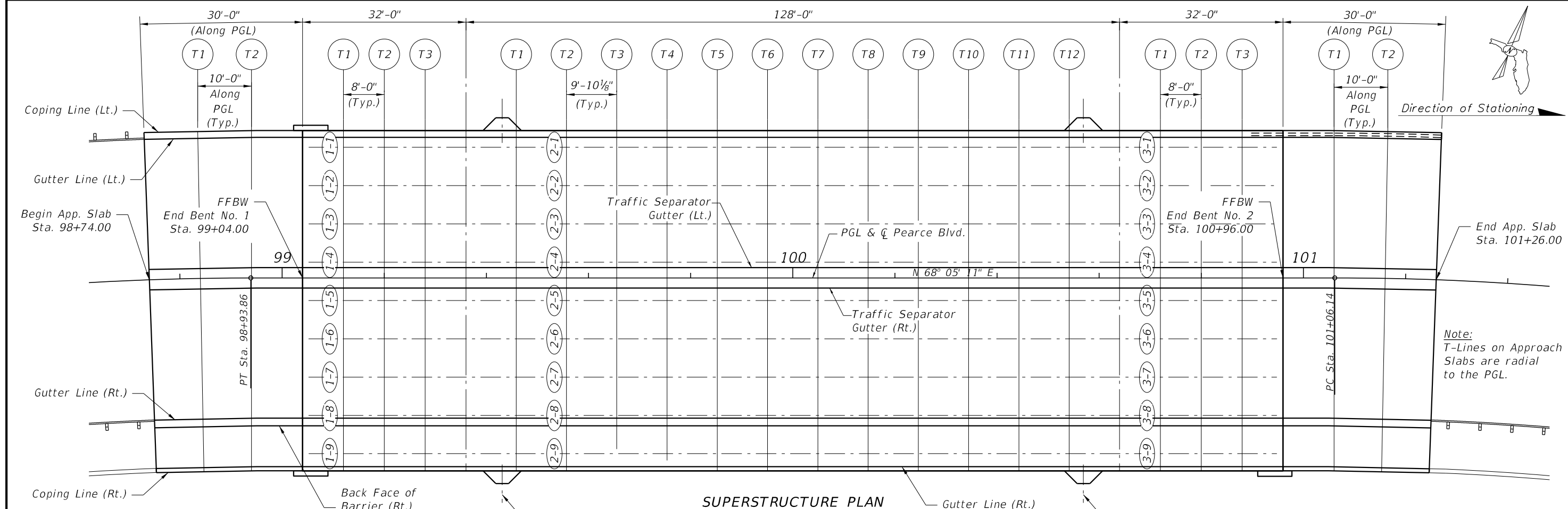
DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

DRAWN BY:  
J.F. 1-21  
CHECKED BY:  
R.K. 1-21  
DESIGNED BY:  
D.M. 1-21  
CHECKED BY:  
R.K. 1-21

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION  
ROAD NO.  
COUNTY  
FINANCIAL PROJECT ID

SHEET TITLE:  
INTERMEDIATE BENT DETAILS (3 OF 3)  
PROJECT NAME:  
PEARCE BLVD. BRIDGE OVER CSX RAILROAD  
REF. DWG. NO.  
SHEET NO.





**BRIDGE NO. 714054**

REVISIONS						DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  FINISH GRADE ELEVATIONS (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: R.K. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-17
						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		
						CHECKED BY: R.K. 1-21					

MerrellID

6/27/2022 5:53:49 PM

X:\FY21\1210023\04.CAD\struct\B1FinishGrElev01.DGN

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

APPROACH SLAB BEGIN				
	Begin Slab	T-1	T-2	End Bent 1
Coping Line (Lt.)	60.559	60.740	60.907	61.058
Gutter Line (Lt.)	60.524	60.706	60.872	61.024
Traffic Separator Gutter (Lt.)	59.861	60.043	60.209	60.361
PGL	59.809	59.991	60.157	60.309
Traffic Separator Gutter (Rt.)	59.757	59.939	60.105	60.257
Traffic Railing Gutter Line (Rt.)	59.094	59.276	59.442	59.594
Back Face of Traffic Railing	59.055	59.237	59.403	59.555
Gutter Line (Rt.)	58.895	59.077	59.243	59.395
Coping Line (Rt.)	58.879	59.061	59.227	59.379

SPAN 1					
	End Bent 1	T-1	T-2	T-3	IB-2
Coping Line (Lt.)	61.058	61.169	61.270	61.361	61.442
Gutter Line (Lt.)	61.024	61.134	61.235	61.326	61.408
Beam 1	60.974	61.084	61.185	61.276	61.358
Beam 2	60.779	60.889	60.990	61.081	61.163
Beam 3	60.584	60.694	60.795	60.886	60.968
Beam 4	60.389	60.499	60.600	60.691	60.773
Traffic Separator Gutter (Lt.)	60.361	60.471	60.572	60.663	60.745
PGL	60.309	60.419	60.520	60.611	60.693
Traffic Separator Gutter (Rt.)	60.257	60.367	60.468	60.559	60.641
Beam 5	60.194	60.304	60.405	60.496	60.578
Beam 6	59.999	60.109	60.210	60.301	60.383
Beam 7	59.804	59.914	60.015	60.106	60.188
Beam 8	59.609	59.719	59.820	59.911	59.993
Gutter Line (Rt.)	59.594	59.704	59.805	59.896	59.978
Back Face of Traffic Railing	59.555	59.665	59.766	59.857	59.939
Beam 9	59.446	59.557	59.658	59.749	59.830
Gutter Line (Rt.)	59.395	59.505	59.606	59.697	59.779
Coping Line (Rt.)	59.379	59.489	59.590	59.681	59.763

SPAN 2														
	IB-2	T-1	T-2	T-3	T-4	T-5	T-6	T-7	T-8	T-9	T-10	T-11	T-12	IB-3
Coping Line (Lt.)	61.442	61.530	61.602	61.661	61.704	61.733	61.748	61.748	61.733	61.704	61.661	61.602	61.530	61.442
Gutter Line (Lt.)	61.408	61.495	61.568	61.626	61.670	61.699	61.713	61.713	61.699	61.670	61.626	61.568	61.495	61.408
Beam 1	61.358	61.445	61.518	61.576	61.620	61.649	61.663	61.663	61.649	61.620	61.576	61.518	61.445	61.358
Beam 2	61.163	61.250	61.323	61.381	61.425	61.454	61.468	61.468	61.454	61.425	61.381	61.323	61.250	61.163
Beam 3	60.968	61.055	61.128	61.186	61.230	61.259	61.273	61.273	61.259	61.230	61.186	61.128	61.055	60.968
Beam 4	60.773	60.860	60.933	60.991	61.035	61.064	61.078	61.078	61.064	61.035	60.991	60.933	60.860	60.773
Traffic Separator Gutter (Lt.)	60.745	60.832	60.905	60.963	61.007	61.036	61.050	61.050	61.036	61.007	60.963	60.905	60.832	60.745
PGL	60.693	60.780	60.853	60.911	60.955	60.984	60.998	60.998	60.984	60.955	60.911	60.853	60.780	60.693
Traffic Separator Gutter (Rt.)	60.641	60.728	60.801	60.859	60.903	60.932	60.946	60.946	60.932	60.903	60.859	60.801	60.728	60.641
Beam 5	60.578	60.665	60.738	60.796	60.840	60.869	60.883	60.883	60.869	60.840	60.796	60.738	60.665	60.578
Beam 6	60.383	60.470	60.543	60.601	60.645	60.674	60.688	60.688	60.674	60.645	60.601	60.543	60.470	60.383
Beam 7	60.188	60.275	60.348	60.406	60.450	60.479	60.493	60.479	60.450	60.450	60.406	60.348	60.275	60.188
Beam 8	59.993	60.080	60.153	60.211	60.255	60.284	60.298	60.298	60.284	60.255	60.211	60.153	60.080	59.993
Traffic Railing Gutter Line (Rt.)	59.978	60.065	60.138	60.196	60.240	60.269	60.283	60.283	60.269	60.240	60.196	60.138	60.065	59.978
Back Face of Traffic Railing	59.939	60.026	60.099	60.157	60.201	60.230	60.244	60.244	60.230	60.201	60.157	60.099	60.026	59.939
Beam 9	59.830	59.918	59.990	60.049	60.092	60.121	60.136	60.136	60.121	60.092	60.049	59.990	59.918	59.830
Gutter Line (Rt.)	59.779	59.866	59.939	59.997	60.041	60.070	60.084	60.084	60.070	60.041	59.997	59.939	59.866	59.779
Coping Line (Rt.)	59.763	59.850	59.923	59.981	60.025	60.054	60.068	60.068	60.054	60.025	59.981	59.923	59.850	59.763

SPAN 3					
	IB-3	T-1	T-2	T-3	End Bent 4
Coping Line (Lt.)	61.442	61.361	61.270	61.169	61.058
Gutter Line (Lt.)	61.408	61.326	61.235	61.134	61.024
Beam 1	61.358	61.276	61.185	61.084	60.974
Beam 2	61.163	61.081	60.990	60.889	60.779
Beam 3	60.968	60.886	60.795	60.694	60.584
Beam 4	60.773	60.691	60.600	60.499	60.389
Traffic Separator Gutter (Lt.)	60.745	60.663	60.572	60.471	60.309
PGL	60.693	60.611	60.520	60.419	60.309
Traffic Separator Gutter (Rt.)	60.641	60.559	60.468	60.367	60.257
Beam 5	60.578	60.496	60.405	60.304	60.194
Beam 6	60.383	60.301	60.210	60.109	59.999
Beam 7	60.188	60.106	60.015	59.914	59.804
Beam 8	59.993	59.911	59.820	59.719	59.609
Traffic Railing Gutter Line (Rt.)	59.978	59.896	59.805	59.704	59.594
Back Face of Traffic Railing	59.939	59.857	59.766	59.665	59.555
Beam 9	59.830	59.749	59.658	59.557	59.446
Gutter Line (Rt.)	59.779	59.697	59.606	59.505	59.395
Coping Line (Rt.)	59.763	59.681	59.590	59.489	59.379

APPROACH SLAB END				
	End Bent 4	T-1	T-2	End Slab
Coping Line (Lt.)	61.058	60.907	60.740	60.559
Gutter Line (Lt.)	61.024	60.872	60.706	60.524
Traffic Separator Gutter (Lt.)	60.361	60.209	60.043	59.861
PGL	60.309	60.157	59.991	59.809
Traffic Separator Gutter (Rt.)	60.257	60.105	59.939	59.757
Traffic Railing Gutter Line (Rt.)	59.607	59.455	59.289	59.107
Back Face of Traffic Railing	59.555	59.442	59.276	59.094
Gutter Line (Rt.)	59.395	59.282	59.116	58.934
Coping Line (Rt.)	59.379	59.266	59.100	58.918

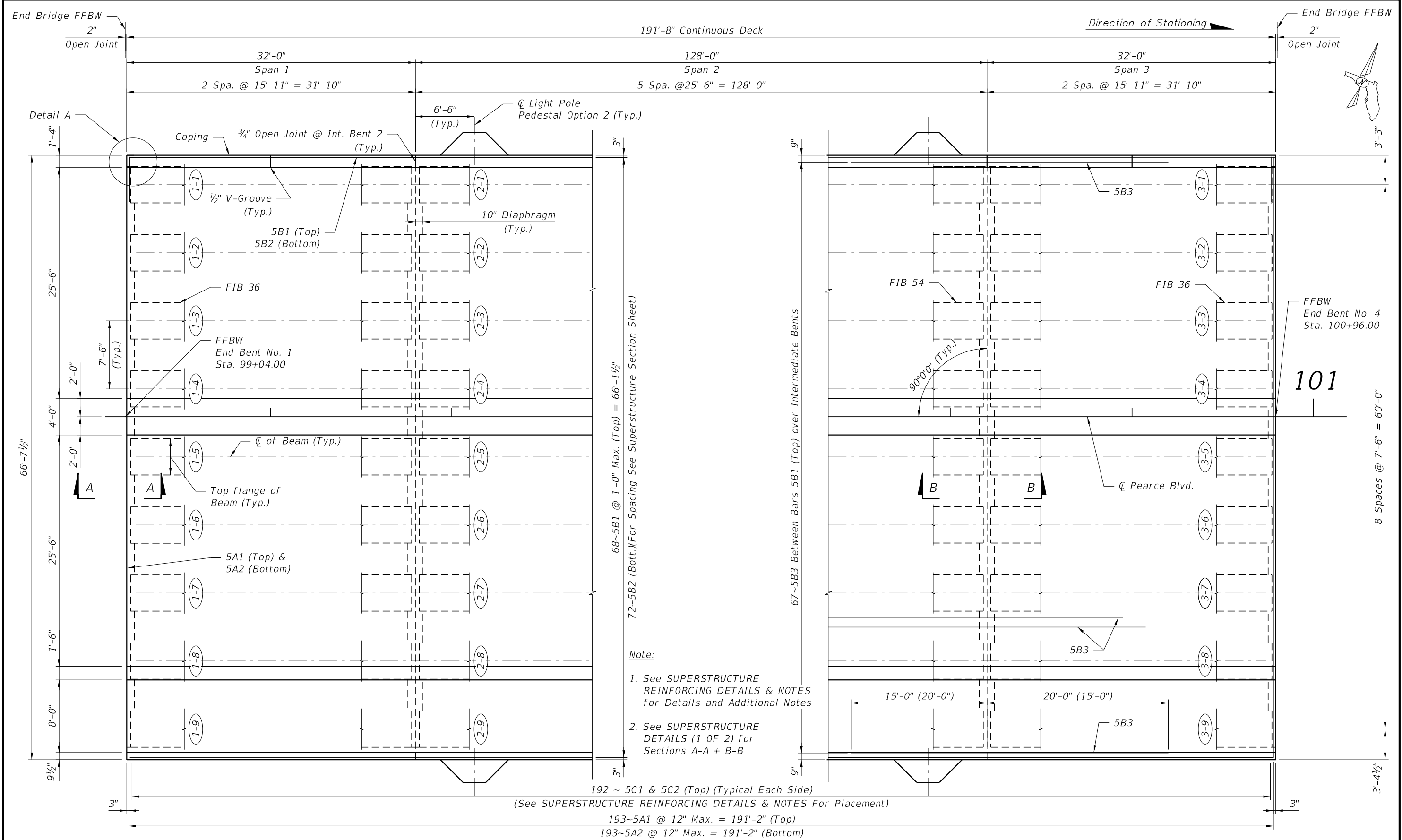
Note:  
See FINISH GRADE ELEVATIONS (1 OF 2) for Elevation Locations.

FINISH GRADE ELEVATIONS

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  FINISH GRADE ELEVATIONS (2 OF 2)		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		B1-18

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



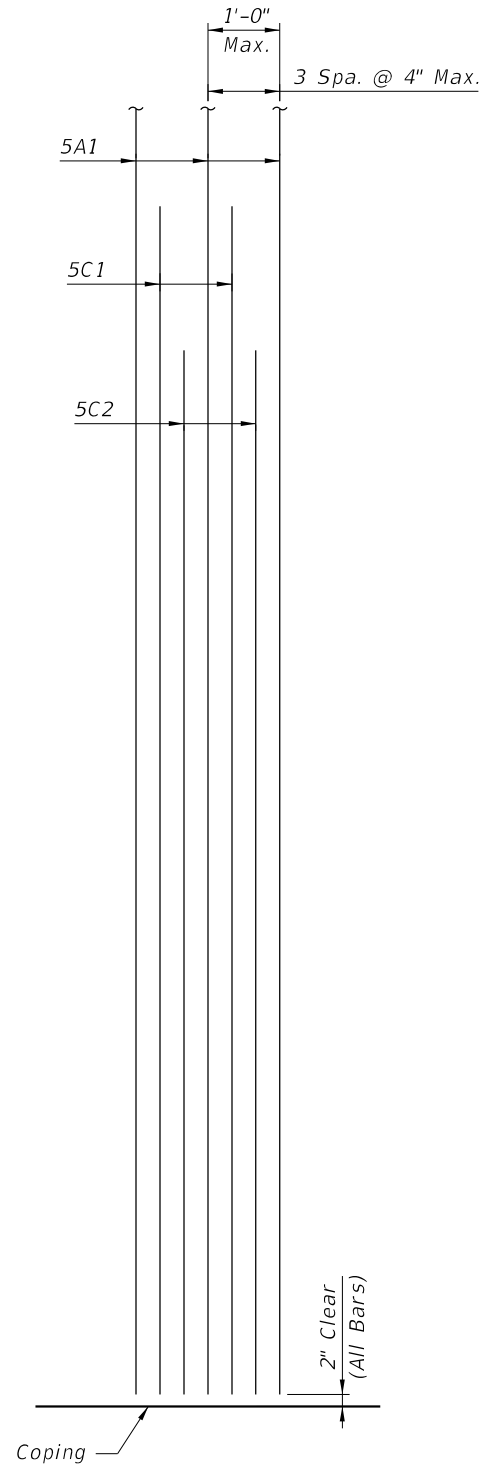
SUPERSTRUCTURE PLAN

BRIDGE NO. 714054

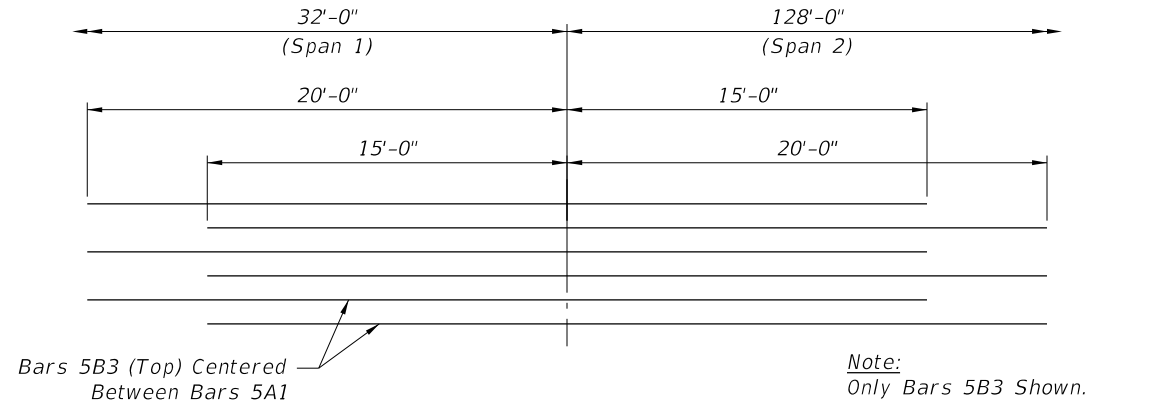
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  SUPERSTRUCTURE PLAN		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION								
											PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD		SHEET NO.  B1-19
								ROAD NO.	COUNTY	FINANCIAL PROJECT ID			

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



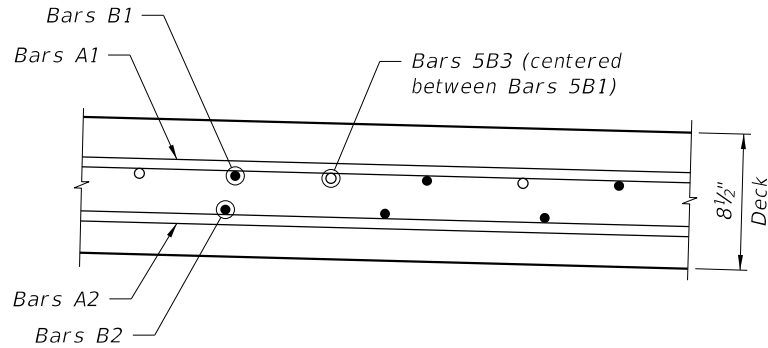


PLACEMENT OF BARS 5C1 & 5C2



PLAN VIEW SHOWING  
 PLACEMENT OF BARS 5B3
   
 (Shown at Int. Bent 2, Similar at Int Bent 3)

*Note:*  
 Only Bars 5B3 Shown.  
 See Superstructure Plan for  
 complete deck reinforcing.



SECTION THROUGH DECK SHOWING  
 PLACEMENT OF BARS 5B3

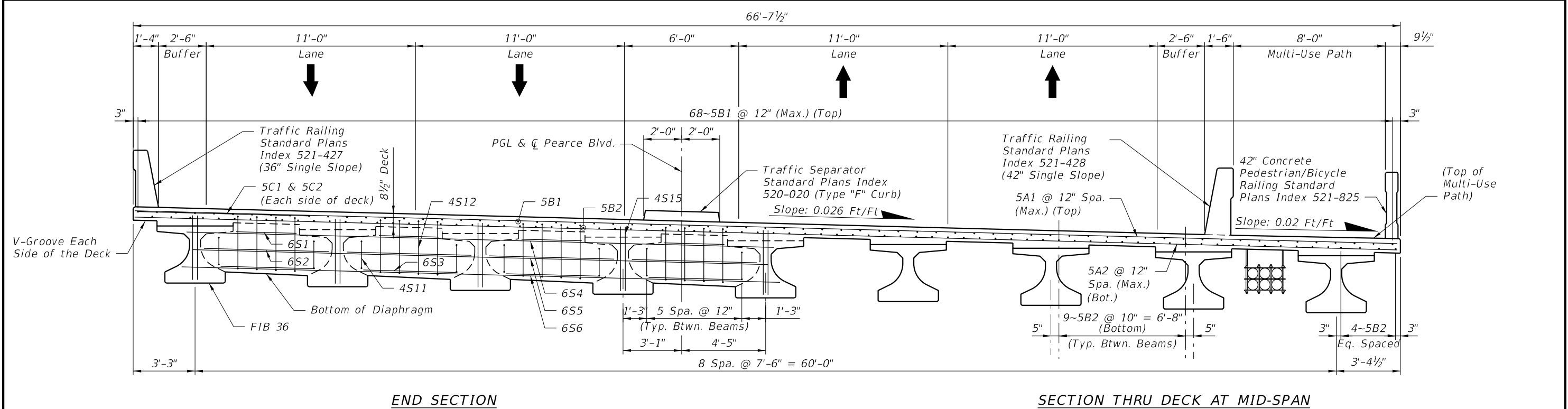
Reinforcing Notes:

- Provide 1'-6" Lap Splice in top and bottom longitudinal reinforcing.
- Provide 2'-0" Lap in top and bottom longitudinal reinforcing.
- Stagger Splice locations in adjacent longitudinal bars.
- For placement of 5B2 bars, see SUPERSTRUCTURE SECTIONS (1 OF 2).

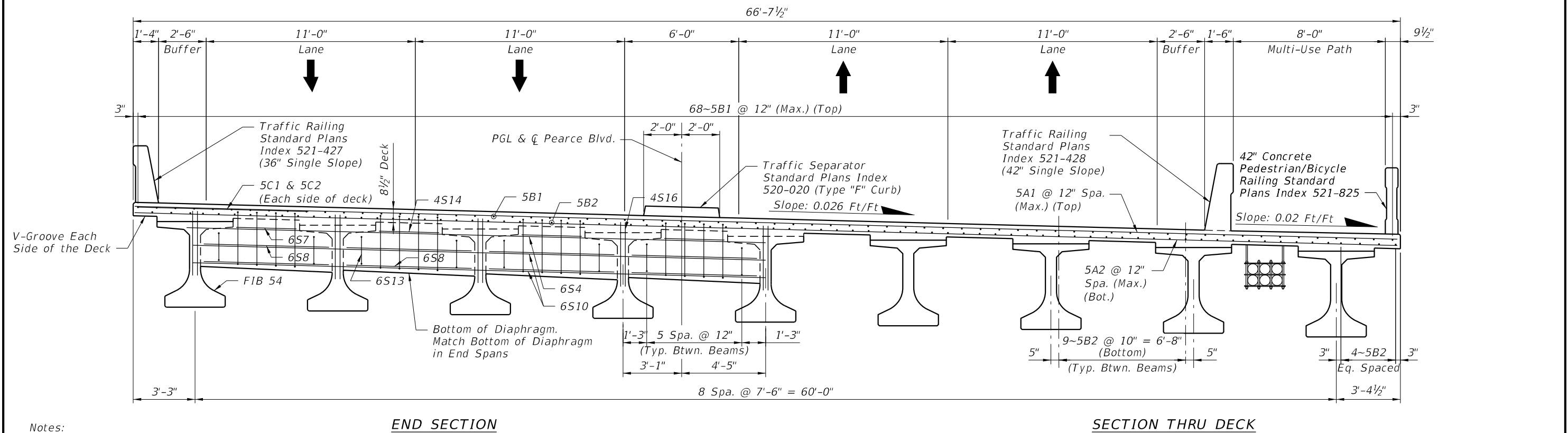
BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: SUPERSTRUCTURE REINFORCING DETAILS & NOTES	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21					
							DESIGNED BY: D.M. 1-21	ROAD NO. N/A	COUNTY CLAY	FINANCIAL PROJECT ID N/A	PROJECT NAME: PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.
							CHECKED BY: R.K. 1-21					B1-20

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



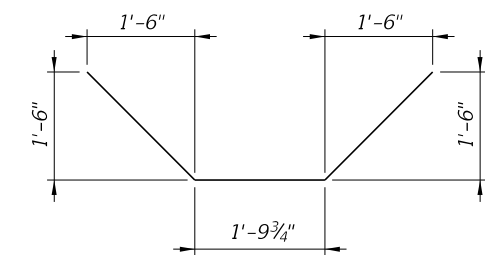
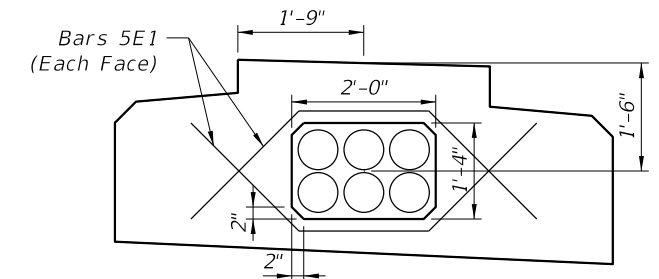
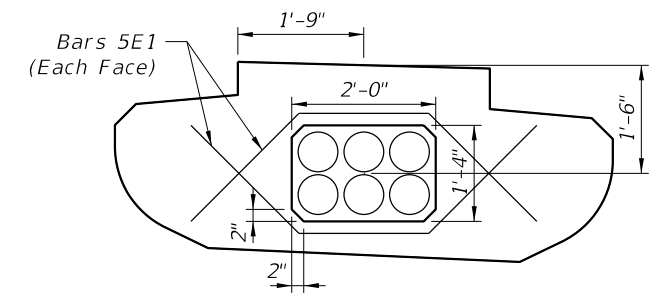
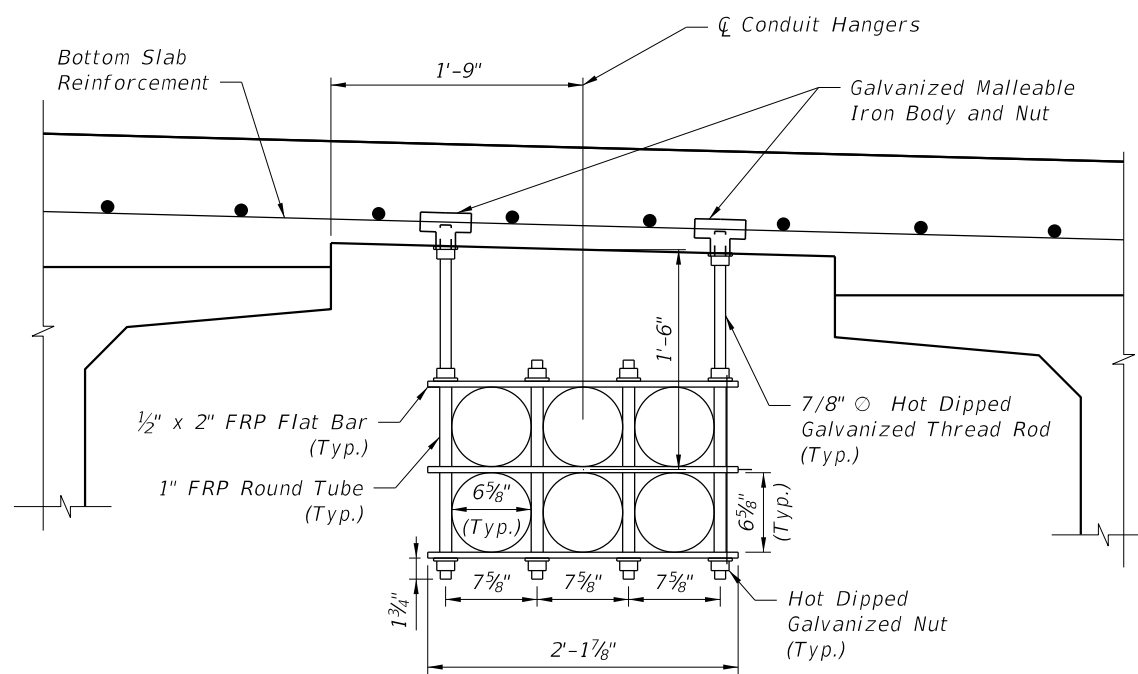
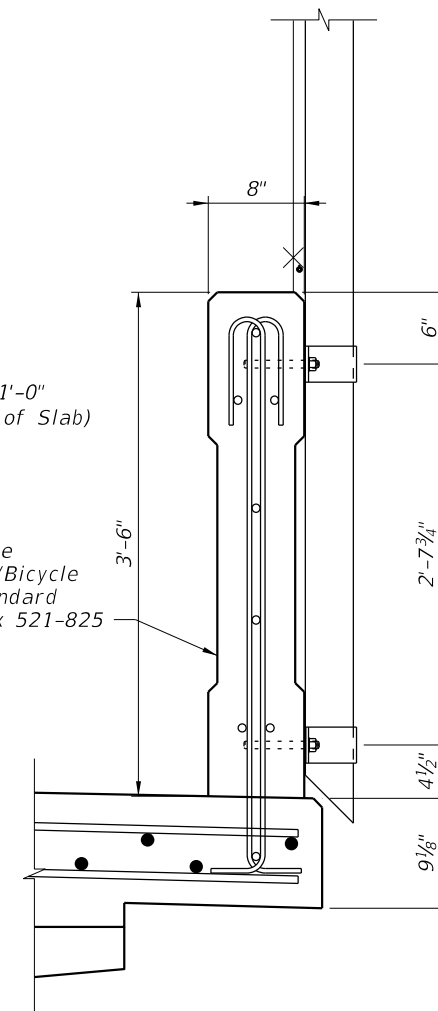
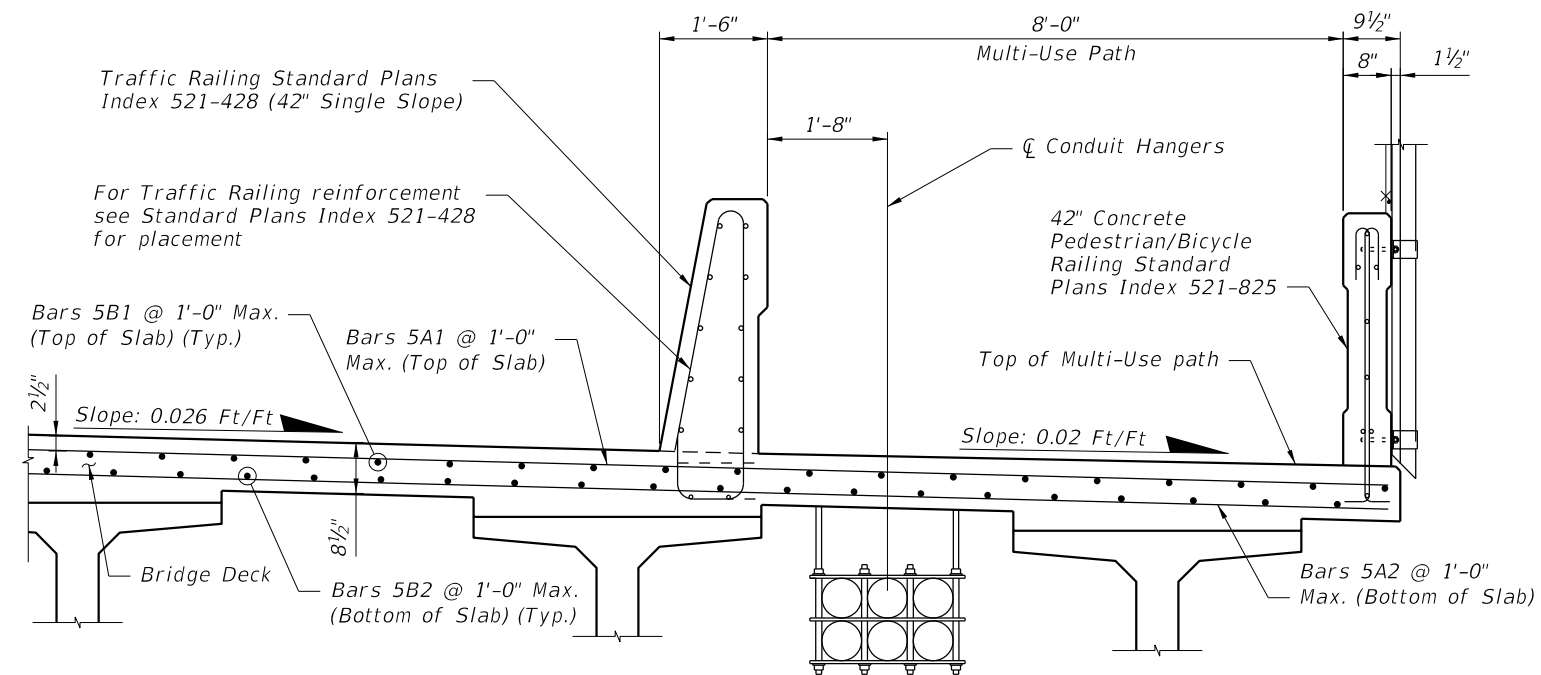
Notes:  
Bars 5B3 Not Shown in End Sections



Notes:  
1. For Sections thru diaphragm, see SUPERSTRUCTURE DETAILS (1 OF 2)  
2. For Details at Multi-Use Path, see SUPERSTRUCTURE DETAILS (2 OF 2)

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				SUPERSTRUCTURE SECTIONS (1 OF 2)		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A		PEARCE BLVD. BRIDGE OVER CSX RAILROAD	B1-21

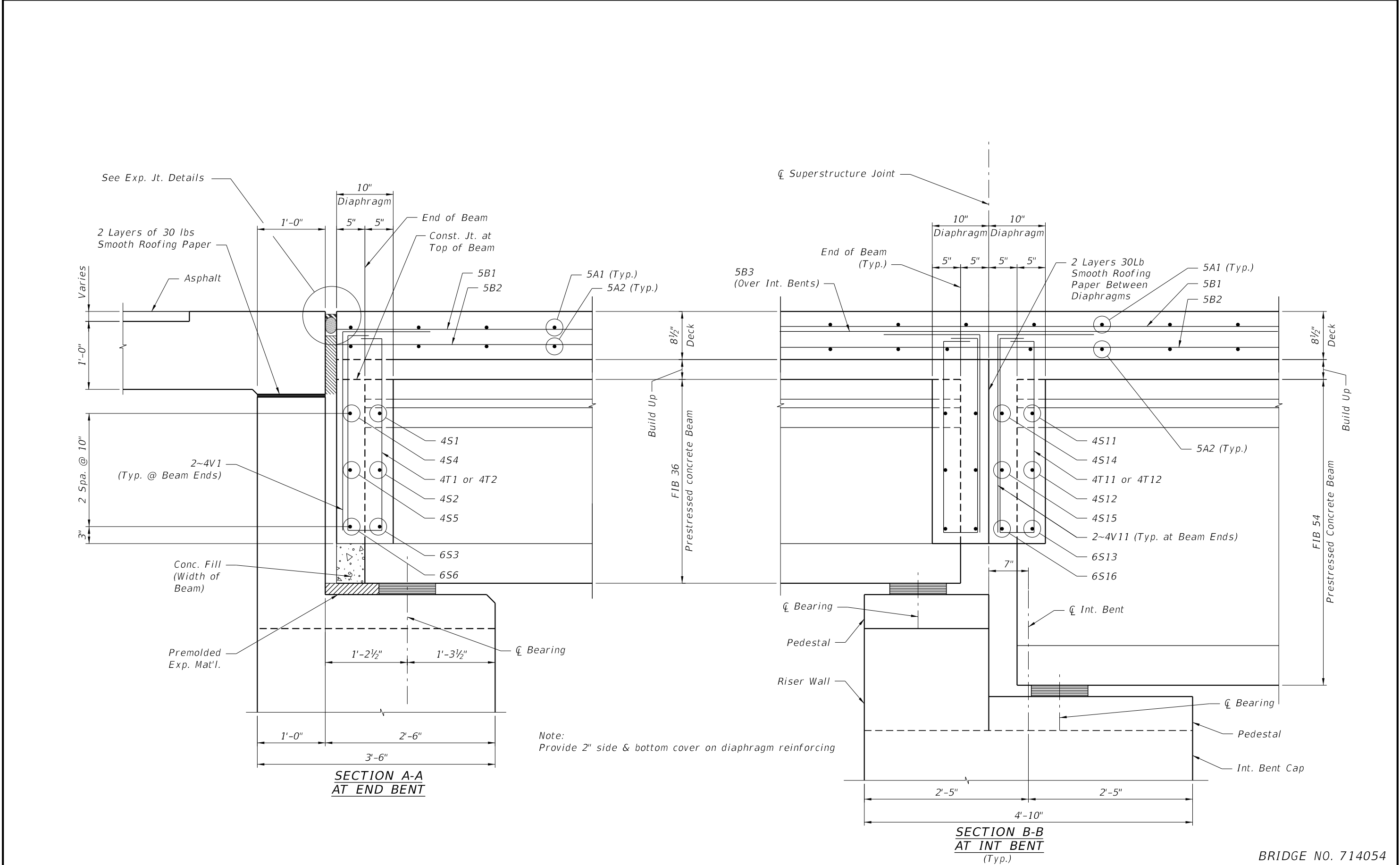
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Utility Block-Out at each backwall  
and at each diaphragm will  
require 4 bars (2 bars in each  
face).  
Total of 24 bars required.

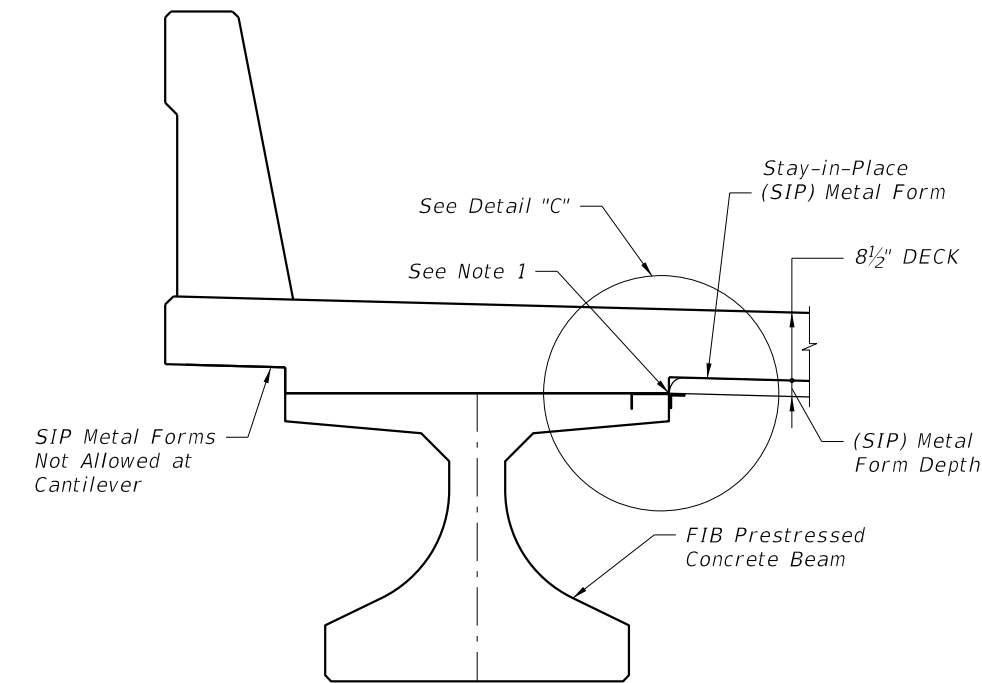
BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  SUPERSTRUCTURE SECTIONS (2 OF 2)		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21						SHEET NO.
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	B1-22	



REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  SUPERSTRUCTURE DETAILS (1 OF 2)  PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	REF. DWG. NO.   SHEET NO. B1-23
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								N/A	CLAY	N/A		

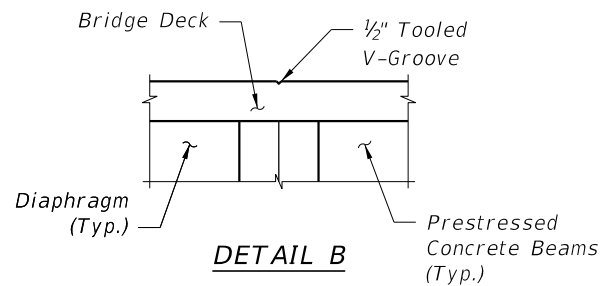
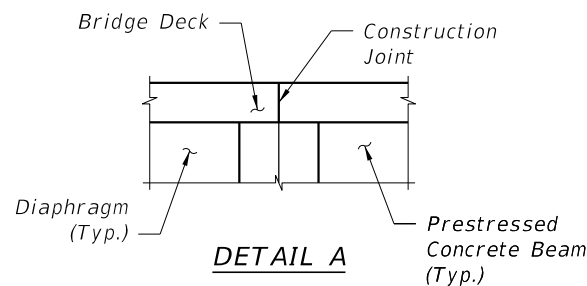
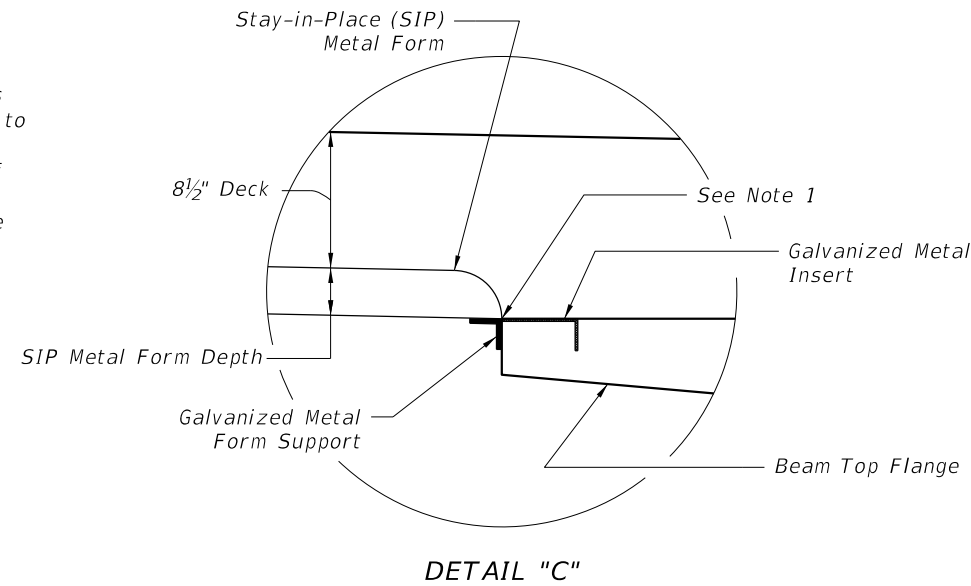
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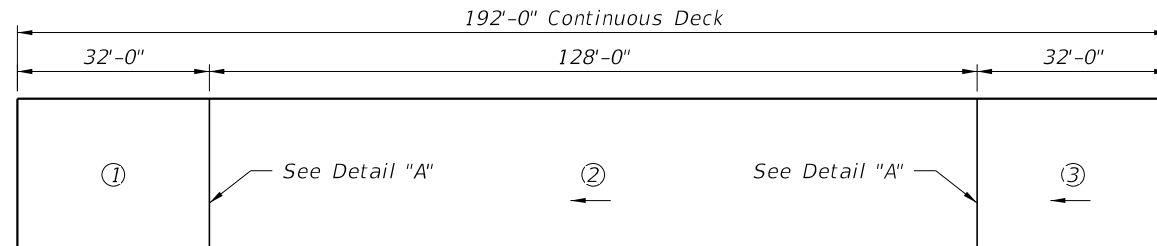
**PARTIAL SECTION THRU SUPERSTRUCTURE**  
(FIB 36 Shown, FIB 54 Similar)

**STAY-IN-PLACE METAL FORM NOTES**

1. See Specifications Section 400 for installation requirements for sip forms and support components. Electrical grounding to reinforcing steel is prohibited.
2. All embedded items and accessories required for the use of stay-in-place forms shall be clearly shown in the shop drawing submittal. Shop drawing submittal shall also include details showing means of support of free end of deck.

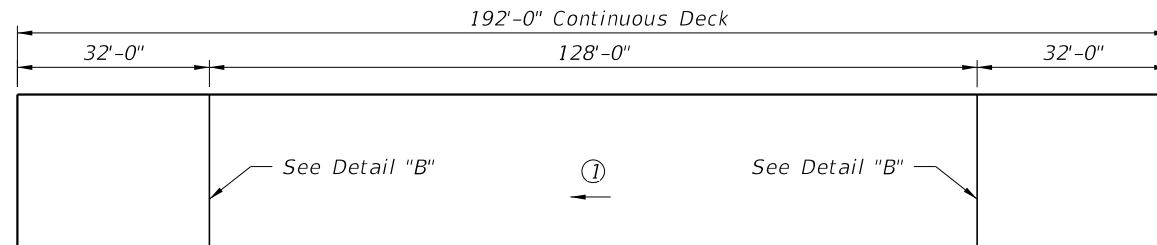


**LEGEND:**  
① = Pour Number  
← = Direction of Pour



**PLACING DECK SLAB CONCRETE:**

1. At the contractors option, either Deck Casting Sequence may be used.
2. A minimum of 72 hours is required between adjacent pours in a given continuous deck unit.
3. Fill Tooled V-Groove with Type D sealant per Specification Section 932. Groove shall be clean and free of grease and debris before filling



BRIDGE NO. 714054

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21						
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.  B1-24	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A			



NOTES: 1. Work this sheet with Standard Plans Index 450-199.  
2. All dimensions shown in this Table are in inches.

BUILD-UP & DEFLECTION DATA TABLE FOR PRESTRESSED I-BEAMS							Table Date 07/01/17	
LOCATION		REQUIRED THEORETICAL BUILD-UP OVER $\bar{C}$ BEAM			NET BEAM CAMBER (PRESTRESS - DEAD LOAD OF BEAM) @ RELEASE	NET BEAM CAMBER (PRESTRESS - DEAD LOAD OF BEAM) @ 120 DAYS	DEAD LOAD DEFLECTION DURING DECK POUR @ 120 DAYS DIM A	BUILD-UP CASE NO.
SPAN NO.	BEAM NO.	AT BEGIN SPAN DIM B	AT $\bar{C}$ SPAN DIM C	AT END SPAN DIM D				
1	1	1.15	1.12	1.15	0.14	0.28	0.02	3
1	9	1.15	1.12	1.15	0.14	0.28	0.02	3
1	2-8	1.15	1.12	1.15	0.14	0.28	0.03	3
2	1	1.12	3.67	1.12	1.67	3.91	2.79	4
2	9	1.12	3.67	1.12	1.67	3.91	2.79	4
2	2-8	1.12	3.88	1.12	1.67	3.91	3.00	4
3	1	1.15	1.12	1.15	0.14	0.28	0.02	3
3	9	1.15	1.12	1.15	0.14	0.28	0.02	3
3	2-8	1.15	1.12	1.15	0.14	0.28	0.03	3

POURED EXPANSION JOINT DATA TABLE INDEX 458-110				Table Date 1-01-09
LOCATION	DIM. "A" @ 70°F	TOTAL DESIGN MOVEMENT	DIM. "A" ADJUSTMENT PER 10°F	
End Bent 1	2"	$\frac{5}{8}"$	$\frac{1}{16}"$	
End Bent 4	2"	$\frac{5}{8}"$	$\frac{1}{16}"$	
NOTE: Dim. "A" adjustment per 10°F shown is measured perpendicular to $\bar{C}$ Expansion Joint. Work this table with Standard Plans Index 458-110.				

BEARING PAD DATA TABLE					Table Date 7-01-13
SPAN NO(s).	BEAM NO(s).	PAD TYPE	BEAM TYPE	BEAM END *	
1	1 Thru 9	F	FIB 36	1 & 2	
2	1 Thru 9	F	FIB 54	1 & 2	
3	2 Thru 9	F	FIB 36	1 & 2	

NOTE [Notes Date 07-01-14]:  
Work this table with Index 400-510 for Pad Types AA, AB, D, E, F, G, H, J & K,  
and/or any project specific bearing pads.  
\* END 1 = Begin Bridge end of beam (Back station).  
END 2 = End Bridge end of beam (Ahead station).

BEARING PLATE DATA TABLE - TYPE 1																	Table Date 7-01-13	
GENERAL BEARING PLATE DATA								EMBEDDED PLATE DIMENSIONS (PLATE A) (inches)		BEVELED PLATE REQUIRED (Yes/No)	BEVELED PLATE DIMENSIONS (PLATE B) (inches)							
BRG. PLATE MARK ***	SPAN NO(s).	BEAM NO(s).	PAD TYPE	BEAM END	PLAN VIEW CASE	SLOPE (%) **	ANGLE Ø *				C	D	E	F	W	X	Y	Z
1-1	1	1-9	F	1 & 2	1	< 2.0	90	13½	36	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2-1	2	1-9	F	1 & 2	1	< 2.0	90	13½	36	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
3-1	3	1-9	F	1 & 2	1	< 2.0	90	13½	36	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

NOTES:  
See Standard Plans Index 450-511 for additional notes and details.  
\*  $\emptyset$  = Acute angle (  $\leq 90^\circ$  ) measured from left or right side of  $\bar{C}$  Beam as required.  
\*\* Slope measured along  $\bar{C}$  of Beam at  $\bar{C}$  of Bearing.  
\*\*\* See "TABLE OF BEAM VARIABLES" and Standard Plans Index 450-010 for Florida-I Beams  
or Index 450-120 for AASHTO Type II Beams.

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:	REF. DWG. NO.
DATE	BY	DESCRIPTION			DATE	BY	DESCRIPTION				TABLE OF BEAM VARIABLES (2 OF 2)	
								ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	SHEET NO.
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	B1-26

PRESTRESSED BEAM STABILITY AND TEMPORARY BRACING NOTES:

1. Ensure beam stability and design temporary beam bracing, including connections, in accordance with the Specifications and the FDOT Structures Manual.
2. Construction:

a. Evaluate the beam stability and bracing requirements against the design assumptions including:

i. Loadings given in the plans.

ii. Beam Camber (less than 6 inches) and Beam Sweep (in compliance with Specification 450 requirements).

iii. Bearings given in the plans.

b. Securely connect bracing to each beam. Do not allow the bracing to exert any vertical force on the outer edge of the top flange. Preform all bolt holes in beams and fill after use in accordance with the Specifications.

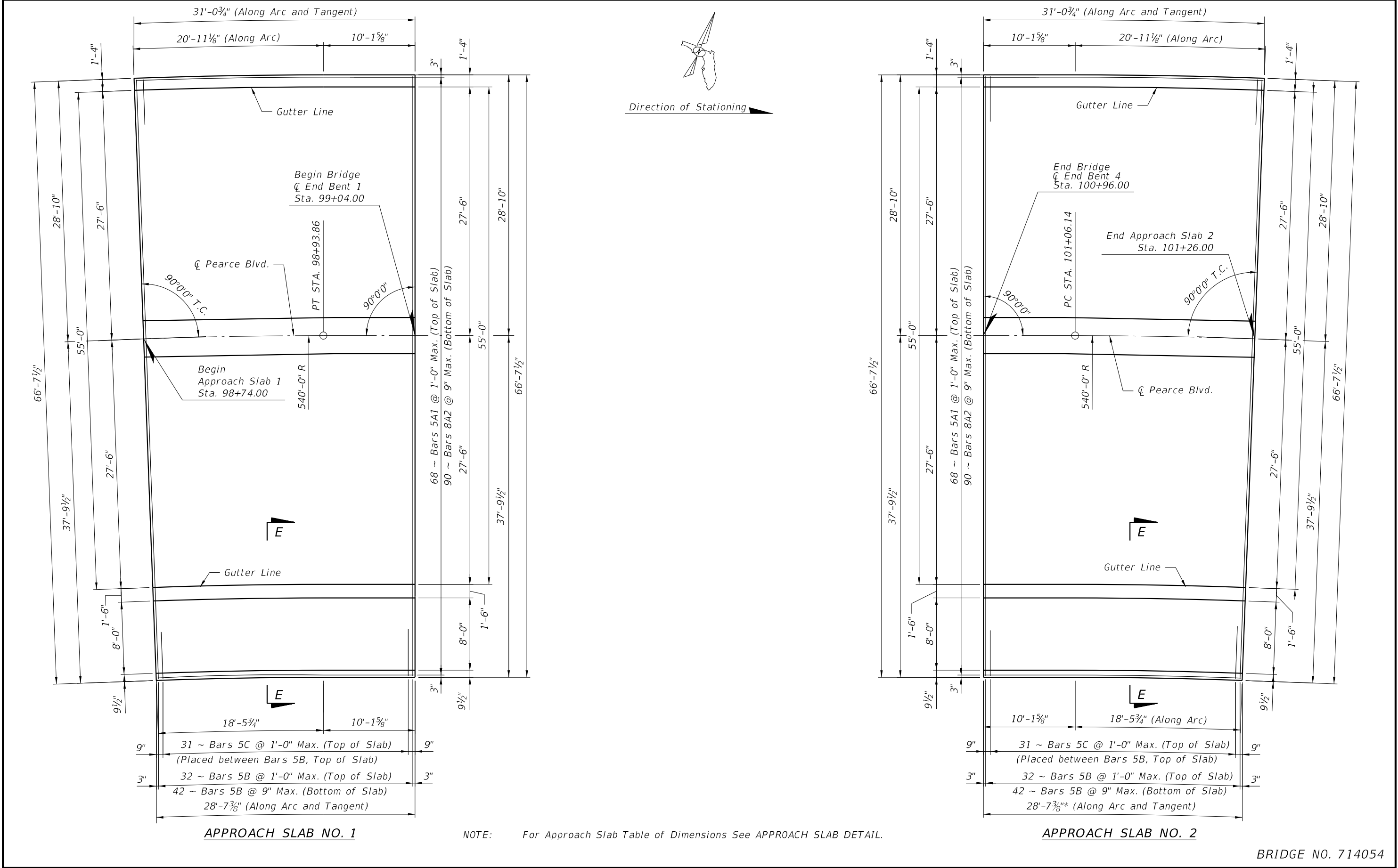
TABLE OF PRESTRESSED I-BEAM TEMPORARY BRACING MINIMUM REQUIREMENTS AND LOADS						Table Date 8-05-15	
SPAN NO.	BEAM NO.	STAGE 1	STAGE 2			STAGE 3	
		BRACE ENDS PRIOR TO CRANE RELEASE? <sup>1</sup> (YES/NO)	TOTAL LINES OF BRACING <sup>2,3,7</sup>	MINIMUM NUMBER OF ADJACENT BEAMS ERECTED	HORIZONTAL LOAD AT EACH BRACE <sup>4</sup> (KIP)	TOTAL LINES OF BRACING <sup>3,5,7</sup>	OVERTURNING MOMENT AT EACH BRACE <sup>6</sup> (KIP-FT)
1	1-9	Yes	2	5	2.64	2	22.82
2	1-9	Yes	2	5	18.51	2	34.89
3	1-9	Yes	2	5	2.64	2	22.82

1. Anchor Bracing loads to be determined by the Contractor.
2. Total lines of Stage 2 bracing, including end bracing, are required to be installed within 24 hours after initial beam placement.
3. Equally space bracing along the length of the beams allowing for variations due connection conflicts and skew.
4. LRFD Strength III loads applied to beam at brace point (see SDG 11.6).
5. Total lines of Stage 3 bracing, including end bracing, are required to be installed prior to deck placement.
6. LRFD Strength I overturning moment applied to beam at brace point (see SDG 11.6).
7. Submit shop drawings for temporary bracing plan including locations of preformed beam holes/inserts.

BRIDGE NO. 714054

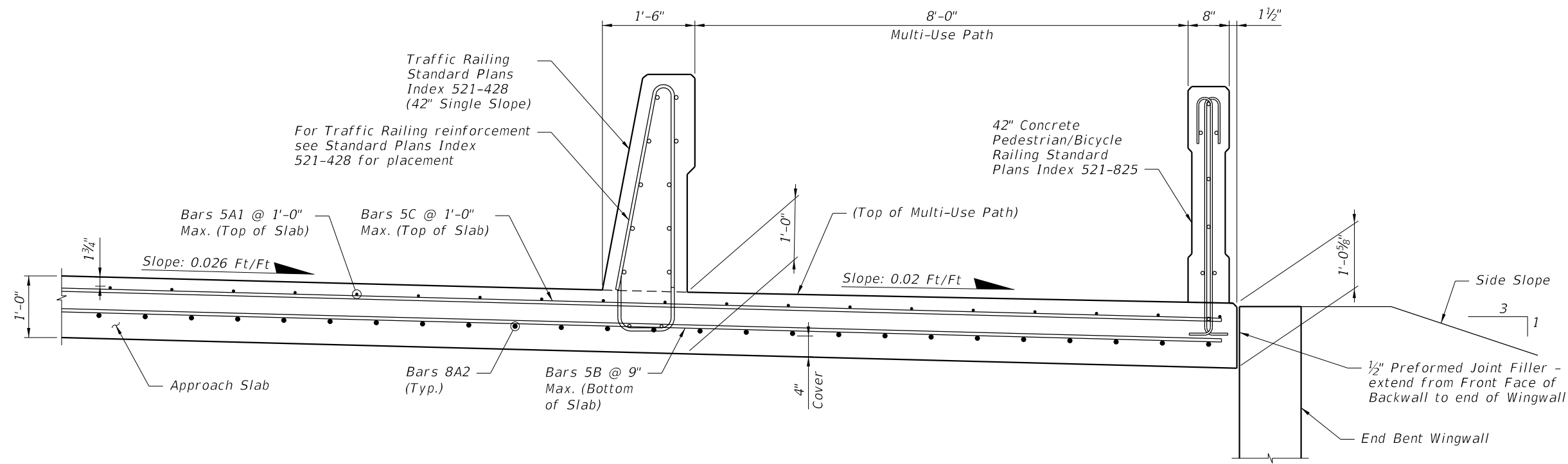
REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE: PRESTRESSED BEAM TEMPORARY BRACING DATA TABLES		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				PROJECT NAME: PEARCE BLVD. BRIDGE OVER CSX RAILROAD		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A		B1-27	





REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				PROJECT NAME:		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A		B1 - 28	

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SECTION E-E

APPROACH SLAB TABLE OF DIMENSIONS						Table Date 11-01-16
LOCATION	DIMENSIONS					ANGLE Ø
	L1	L2	M1	M2	N	
Approach Sab No. 1	31'-0 <sup>1</sup> / <sub>8</sub> "	28'-7 <sup>5</sup> / <sub>8</sub> "	1'-4"	9 <sup>1</sup> / <sub>2</sub> "	64'-6"	0°
Approach Slab No. 2	31'-0 <sup>1</sup> / <sub>8</sub> "	28'-7 <sup>5</sup> / <sub>8</sub> "	1'-4"	9 <sup>1</sup> / <sub>2</sub> "	64'-6"	0°
<b>Dimension Notes:</b> Dimensions L1 & L2 are measured along gutter line, inside face of parapet or inside face of railing on raised sidewalks. Dimensions L1 & L2 are arc dimensions within curved alignments.  Work this Data Table with Standard Plans Index 400-090.						

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  APPROACH SLAB DETAIL	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO. B1 - 29

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø		
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG	
LOCATION							END BENT 1										NO. REQUIRED = 1																	
8	A1	72-	2	60	41			32-	5		39-	9																						
8	A2	71-	2	2	41			35-	8		35-	6																						
6	A3	6-10		32	11			4-10			1-	0		1-	0																			
5	B1	4-	5	134	1			4-	5																									
5	B2	68-	3	8	2			2-	0		66-	2 1/2																						
6	D1	3-10		17	23			1-	6		0-	3		1-	6																			
4	P1	6-	8	45	11			3-	6		1-	7		1-	7																			
4	P2	5-	2	63	11			2-	0		1-	7		1-	7																			
5	S1	10-10		54	4			2-	5		3-	0																						
5	S2	6-	8	54	4			2-	5		0-11																							
5	S3	8-	6	18	5			2-	5		3-	0		0-	4		0-	4																
5	V1	3-11		12	1			3-11																										
5	W1	5-	6	10	1			5-	6																									
LOCATION							END BENT 4										NO. REQUIRED = 1																	
8	A1	72-	2	60	41			32-	5		39-	9																						
8	A2	71-	2	2	41			35-	8		35-	6																						
6	A3	6-10		32	11			4-10			1-	0		1-	0																			
5	B1	4-	5	134	1			4-	5																									
5	B2	66-	3	8	2			2-	0		66-	2 1/2																						
6	D1	3-10		17	23			1-	6		0-	3		1-	6																			
4	P1	6-	8	45	11			3-	6		1-	7		1-	7																			
4	P2	5-	2	63	11			2-	0		1-	7		1-	7																			
5	S1	10-10		54	4			2-	5		3-	0																						
5	S2	6-	8	54	4			2-	5		0-11																							
5	S3	8-	6	18	5			2-	5		3-	0		0-	4		0-	4																
5	V1	3-11		12	1			3-11																										
5	W1	5-	6	10	1			5-	6																									
LOCATION							INTERMEDIATE BENT 2 & 3										NO. REQUIRED = 2																	
8	A1	69-	8	7	41			31-	0		38-	8																						
8	A2	69-	8	2	41			27-	3		42-	5																						
6	A3	6-11		24	11			4-11			1-	0		1-	0																			
5	B1	6-	6	66	11			1-	4		2-	7		2-	7																			
4	C1	67-	9	4	2			1-	9		66-	0																						
5	E1	7-	2	3	11			4-	2		1-	6		1-	6																			
5	E2	5-	4	3	11			2-	4		1-	6		1-	6																			
5	E3	6-10		2	11			3-10			1-	6		1-	6																			
5	E4	4-	2	2	11			1-	2		1-	6		1-	6																			
4	P1	6-	8	27	11			3-	6		1-	7		1-	7																			
4	P2	4-	6	63	11			1-	4		1-	7		1-	7																			
4	P3	6-	8	45	11			3-	6		1-	7		1-	7																			
4	P4	5-	8	63	11			2-	6		1-	7		1-	7																			
5	S1	14-	8	54	4	4	4	2-	6		4-	4																						
5	S2	11-	8	54	4	4	4	2-	6		2-10																							
5	S3	11-	0	18	5			2-	6		4-	4		0-10		0-10																		
5	V1	7-	5	6	10			5-11			1-	6																						
5	V2	4-	7	6	1			4-	7																									
5	V3	5-	0	12	1			5-	0																									
5	W1	7-	2	3	11			4-	2		1-	6		1-	6																			
5	W2	4-11		12	0		1	4-	4																									
5	W2	4-11		12	0		1	4-	4																									

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY:	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:			REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		J.F. 1-21				REINFORCING BAR LIST (1 OF 2)			
							CHECKED BY:	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	SHEET NO.		
							R.K. 1-21	N/A	CLAY	N/A			PEARCE BLVD. BRIDGE OVER CSX RAILROAD	B1-30
							DESIGNED BY:	D.M. 1-21	CHECKED BY:	R.K. 1-21				

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø	
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION				SUPERSTRUCTURE				NO. REQUIRED = 1																									
5	A1	68-	4	193	41			30-	4		38-	0																			1		
5	A2	68-	4	193	41			26-	7		41-	9																			1		
5	B1	199-	4	68	41			8-	0		60-	0	11-	4	60-	0	60-	0													4		
5	B2	199-	4	68	41			40-	0		60-	0	19-	4	60-	0	20-	0													4		
5	B3	35-	0	134	1			35-	0																								
5	C1	16-	8	384	1			16-	8																								
5	C2	14-	8	384	1			14-	8																								
5	E1	6-	4	24	13			1-	9 ¾		2-	3	2-	3																	45	45	
4	S1	3-	2	32	1			3-	2																								
4	S2	6-	6	32	1			6-	6																								
6	S3	4-11		32	1			4-11																									
4	S4	62-10		4	2			2-	0		60-10																				1		
4	S5	62-	4	4	2			2-	0		60-	3 ½																			1		
6	S6	63-	6	4	2			2-	0		61-	5 ½																			1		
4	S11	3-	2	16	1			3-	2																								
4	S12	6-	7	16	1			6-	7																								
6	S13	6-	7	16	1			6-	7																								
6	S14	62-10		2	2			2-	0		60-10																				1		
6	S15	62-	3	2	2			2-	0		60-	3																			1		
6	S16	62-	3	2	2			2-	0		60-	3																			1		
4	T1	4-	1	64	7			1-	6 ½		0-	4	0-	4	0-	4																	
4	T2	6-	6	128	7			2-	9		0-	4	0-	4	0-	4																	
4	T11	4-	4	64	7			1-	8		0-	4	0-	4	0-	4																	
4	T12	6-	6	128	7			2-	9		0-	4	0-	4	0-	4																	
4	V1	3-	3	72	10			2-	9		0-	6																					
4	V11	3-	3	72	10			2-	9		0-	6																					
LOCATION				APPROACH SLAB 1 & 2				NO. REQUIRED = 2																									
5	A1	VARY		68	36			10-	0		502-	5																				2	
		28-	9	0	36			10-	0		568-	7																				2	
8	A2	VARY		90	36			10-	0		502-	5																				2	
		28-	9	0	36			10-	0		568-	7																				2	
5	B	68-	3	74	2			2-	0		66-	3																			1		
5	C	5-	0	31	1			5-	0																								
END OF LIST																																	

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY:	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:			REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION				REINFORCING BAR LIST (2 OF 2)			
							CHECKED BY:	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:			
							R.K. 1-21	N/A	CLAY	N/A				
							DESIGNED BY:							
						D.M. 1-21								
						CHECKED BY:								
						R.K. 1-21								

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

**Table 2 Notes [Notes Date 07-01-15]:**

1. Permit capacity is determined by using the permit vehicle in all lanes.
2. Service III Design Inventory tensile stress limits =  $3\sqrt{f'_c}$ .
3. Has the AASHTO LRFD Specifications Article 5.8.3.5 longitudinal reinforcement been satisfied? ☒ Yes ☐ No

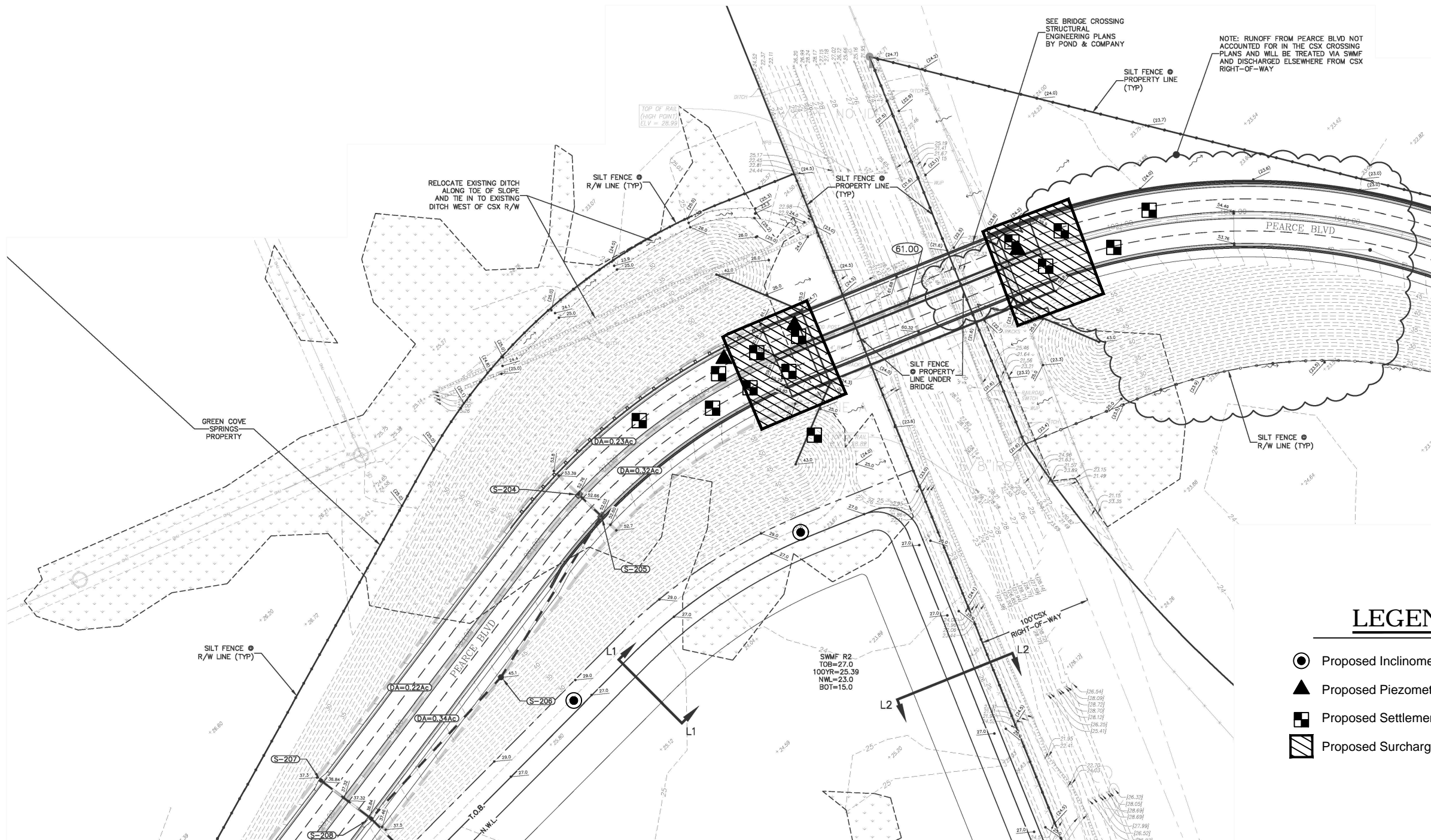
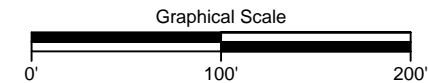
Note:  
Load Rating was performed using  
FDOT LRFD Prestressed Beam v5.1

Inv - Inventory  
Op - Operating



BRIDGE NO. 714054

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## LEGEND

- Proposed Inclinator Location
- Proposed Piezometer Location
- Proposed Settlement Plate Location
- Proposed Surcharge Location

JAS - 35-31217

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ECS FLORIDA LLC  
11554 DAVIS CREEK COURT  
JACKSONVILLE, FL 32256  
CERTIFICATE OF AUTHORIZATION 26152  
CHRISTOPHER M. EGAN P.E. 79645



PEARCE BLVD. BRIDGE  
CLAY COUNTY, FLORIDA

Field Instrumentation Location Plan

Sheet  
No.

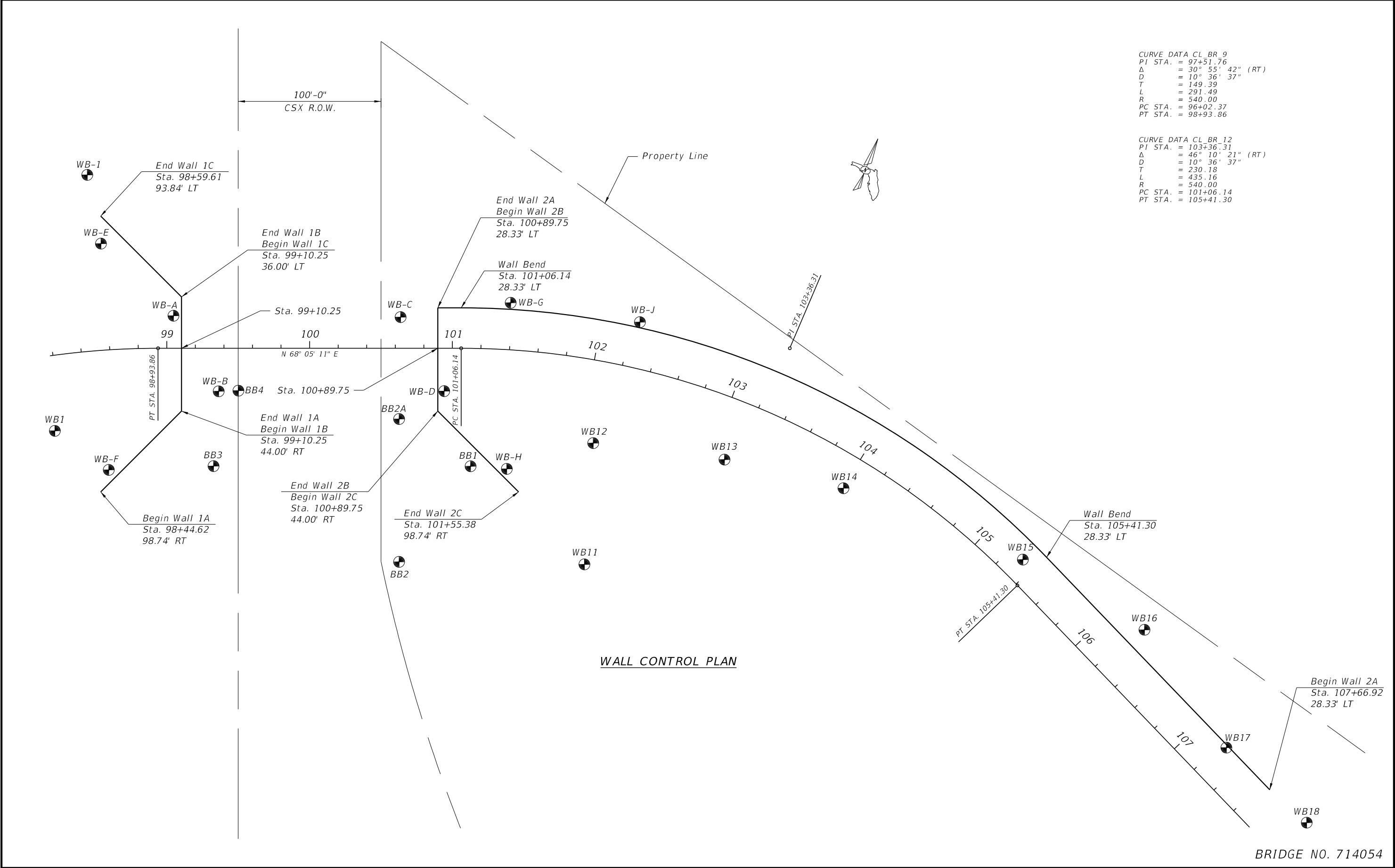
B1-33

Jeff Slansky

C:\Users\j\slansky\Downloads\35-31217.dwg

Plate 3

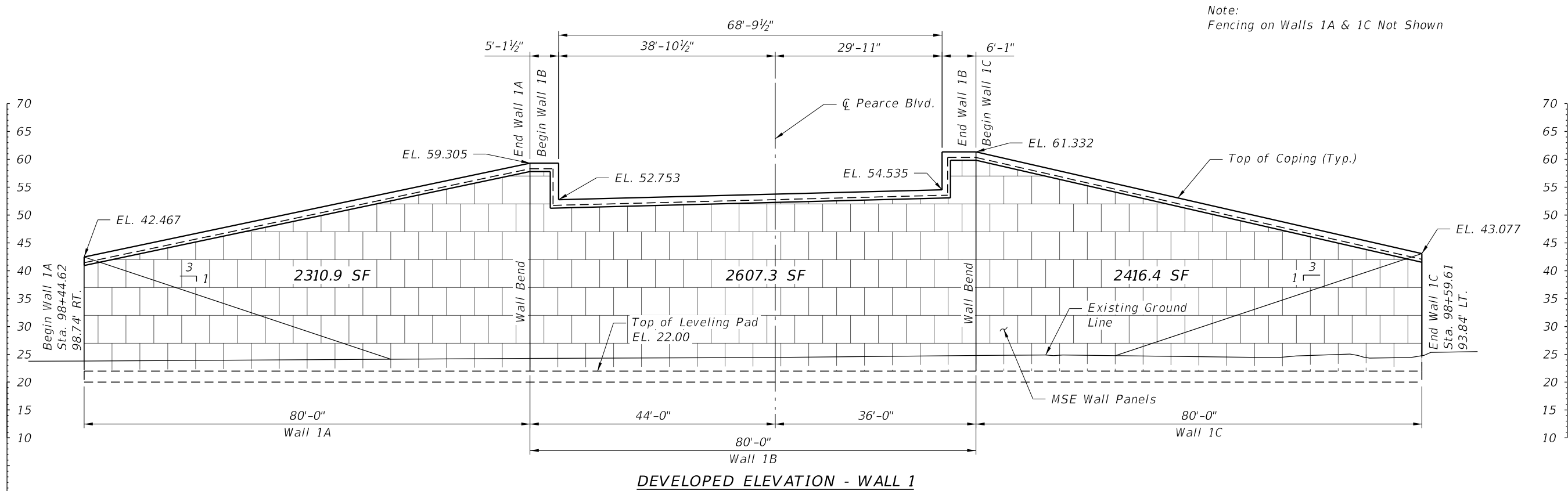
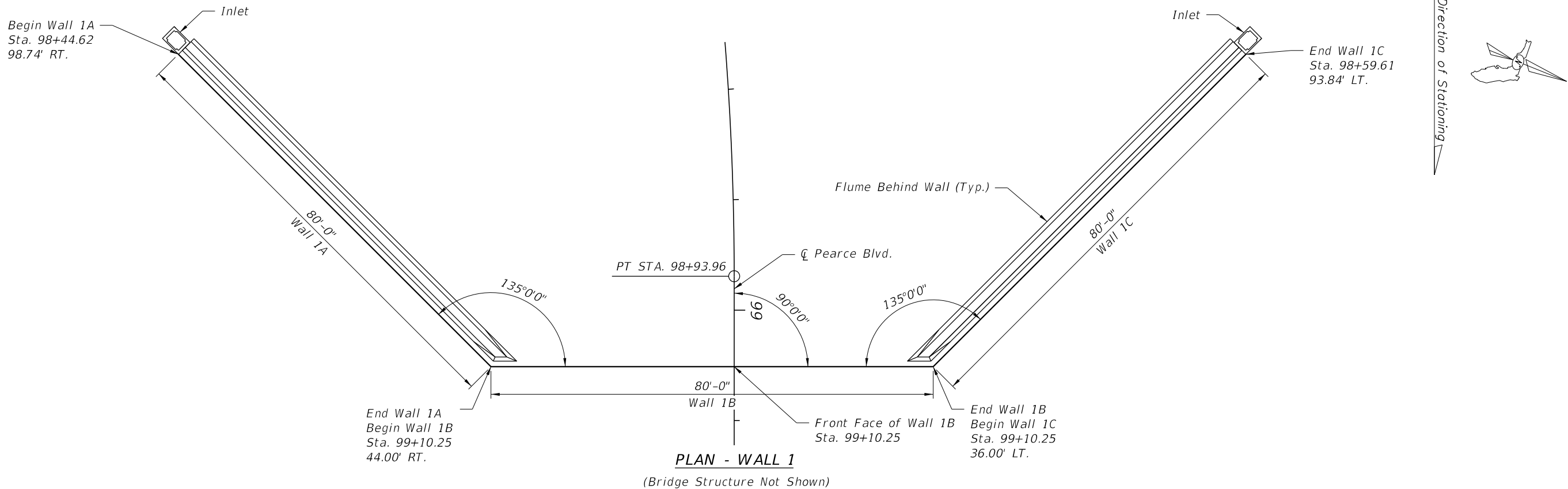
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WALL CONTROL PLAN

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				WALL CONTROL PLAN		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:	SHEET NO.	
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD	BW - 01	

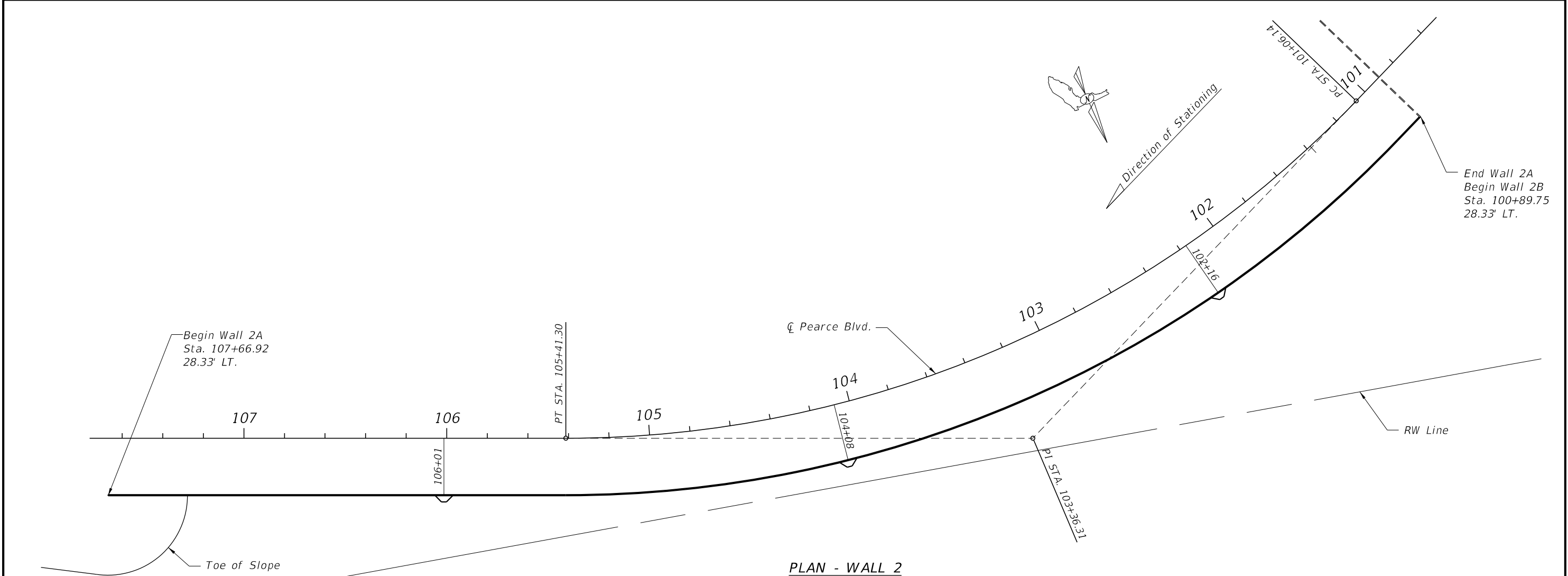


BRIDGE NO. 714054

REVISIONS						DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  MSE WALL 1 PLAN & ELEVATION		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD		SHEET NO.
							ROAD NO.	COUNTY	FINANCIAL PROJECT ID			BW - 02
							N/A	CLAY	N/A			

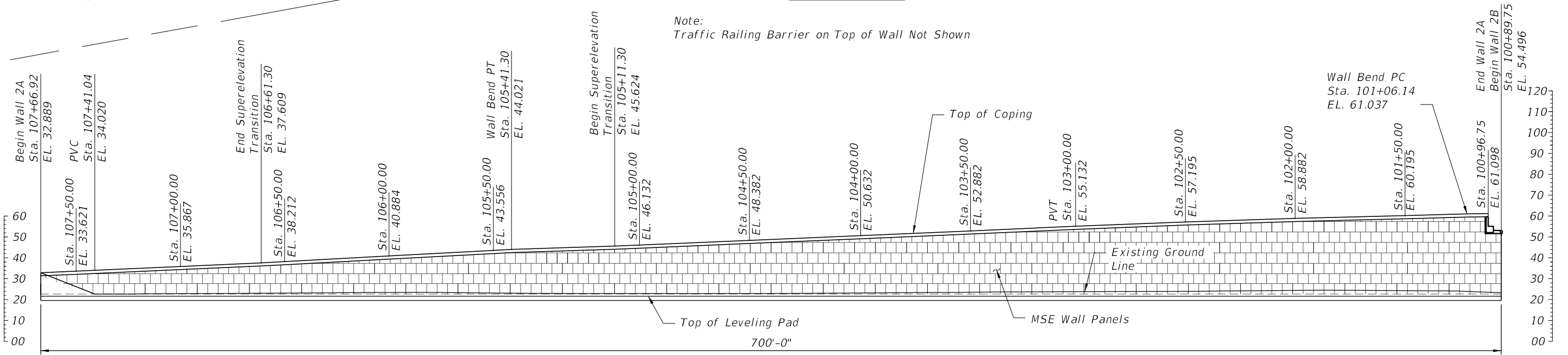
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PLAN - WALL 2

Note:  
Traffic Railing Barrier on Top of Wall Not Shown



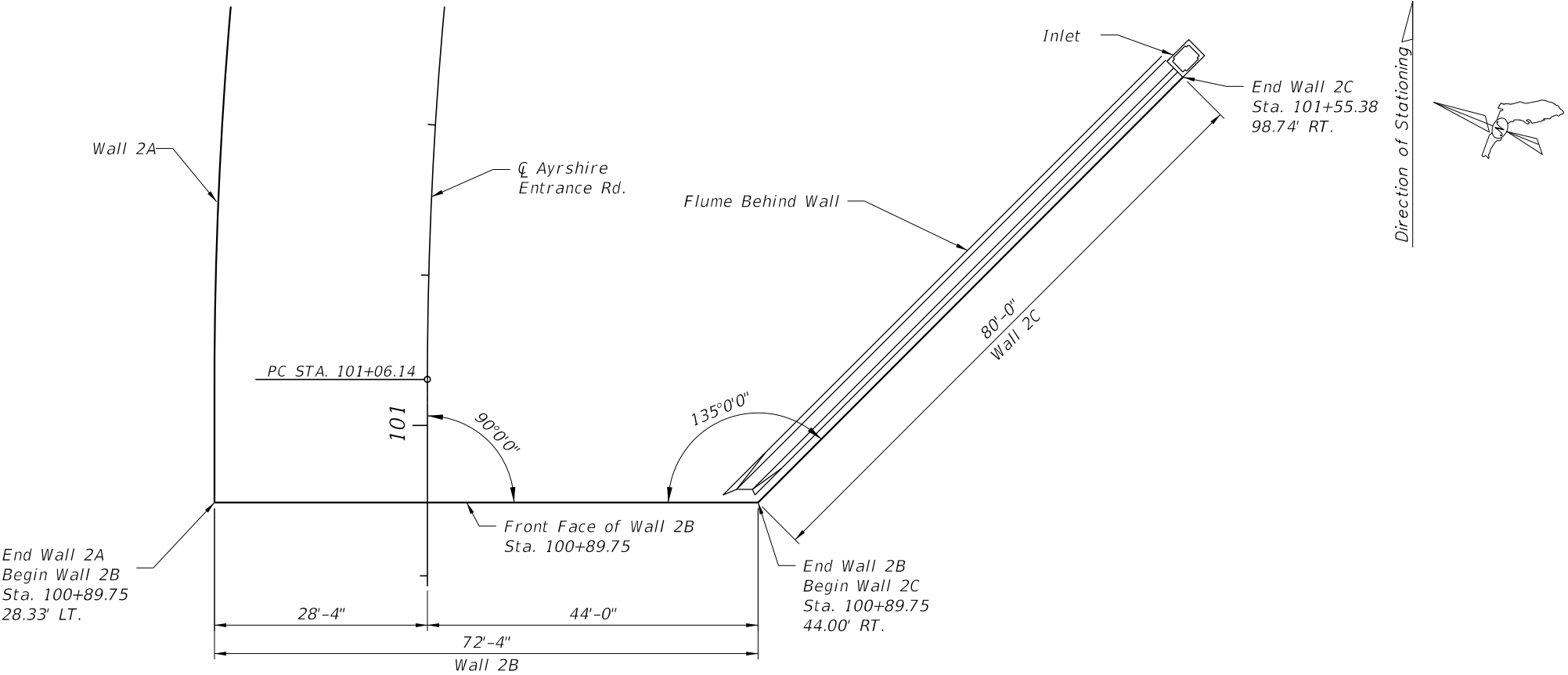
DEVELOPED ELEVATION - WALL 2

BRIDGE NO. 714054

REVISIONS						DUANE MERRELL, FL P.E. P.E. LICENSE NUMBER 36843 POND & COMPANY 1200 RIVERPLACE BLVD. STE 600 JACKSONVILLE, FL 32207	DRAWN BY: J.F. 1-21 CHECKED BY: R.K. 1-21 DESIGNED BY: D.M. 1-21 CHECKED BY: R.K. 1-21	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  MSE WALL 2A PLAN & ELEVATION		REF. DWG. NO.
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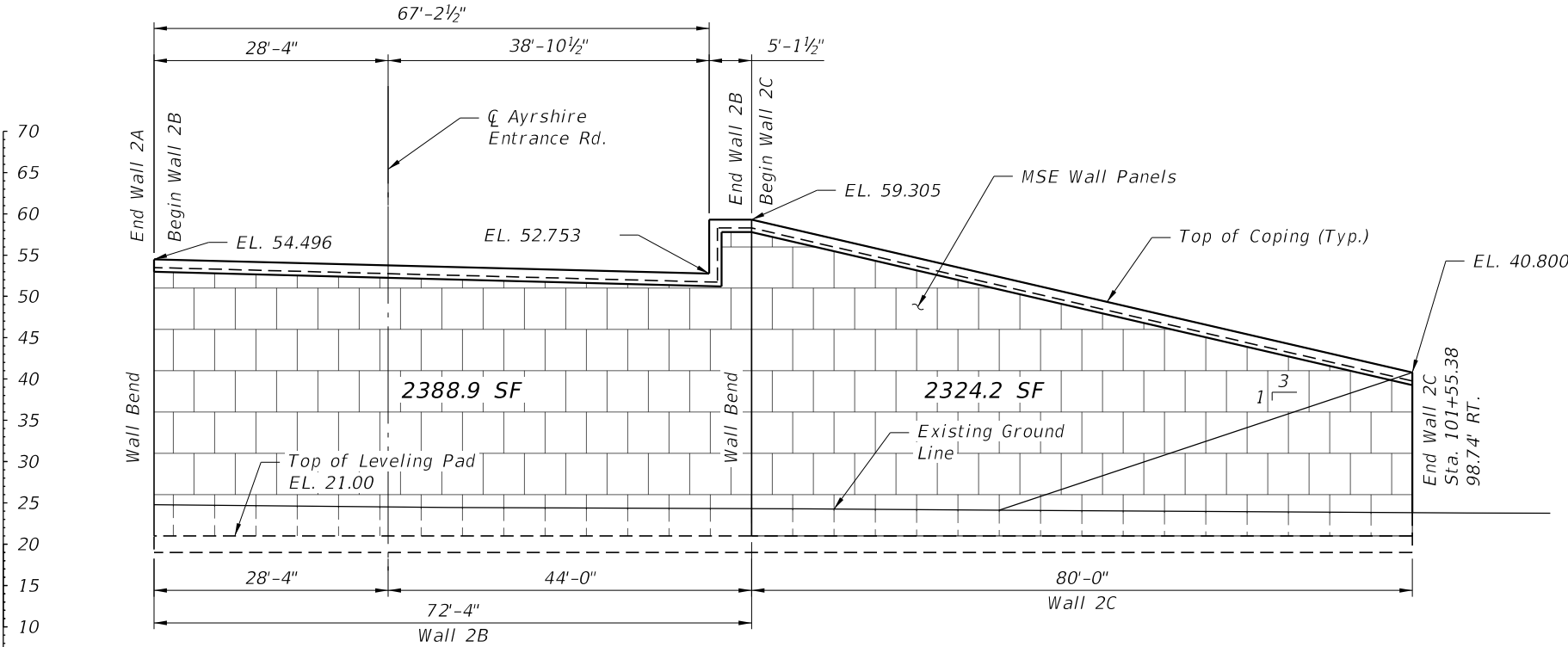
Note:  
For Plan and Elevation of Wall 2A see  
MSE WALL 2A PLAN & ELEVATION



**PLAN - WALL 2**

(Bridge Structure Not Shown)

Note:  
Fencing on Wall 2C Not Shown



**DEVELOPED ELEVATION - WALL 2**

BRIDGE NO. 714054

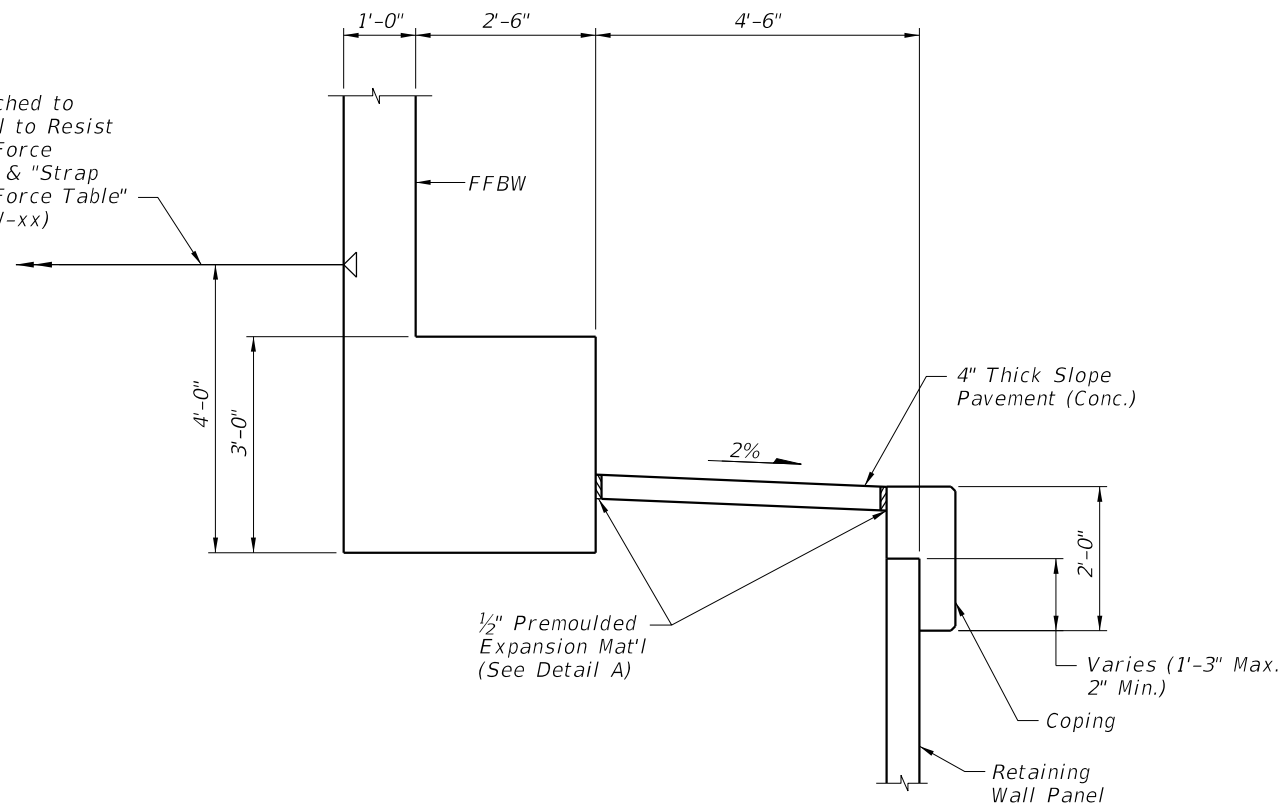
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						DESIGNED BY: D.M. 1-21	N/A	CLAY	N/A		
						CHECKED BY: R.K. 1-21					

DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

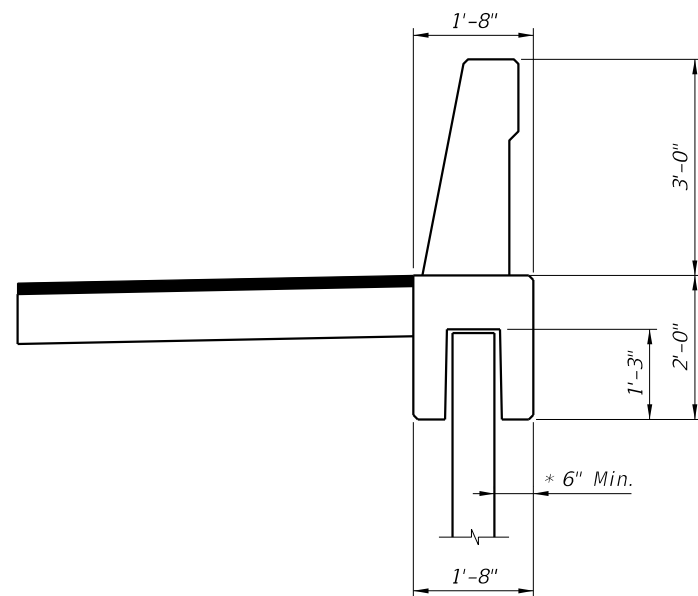
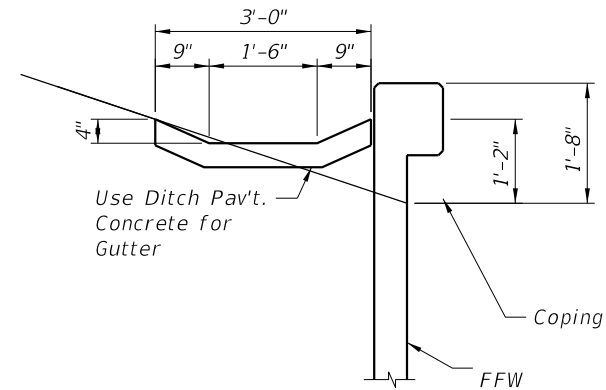
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Straps Attached to the Backwall to Resist Horizontal Force (See Note 2 & "Strap Horizontal Force Table" on Sheet BW-xx)



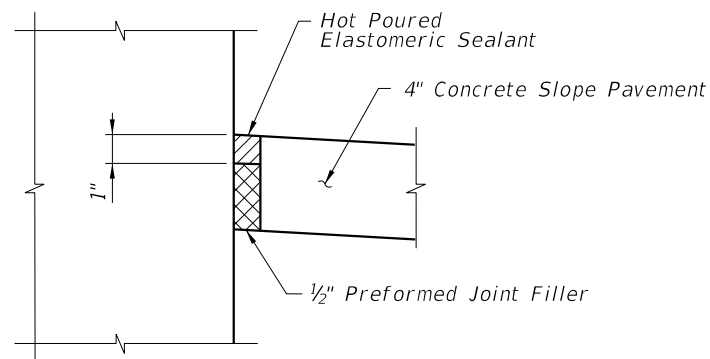
SECTION A-A



SECTION B-B

Typical Section Thru Precast Coping, C.I.P. Traffic Railing & Junction Box, See Index 6110

\* Actual Width Varies Depending on Type of Retaining Wall Used



JOINT DETAIL

BRIDGE NO. 714054

REVISIONS						DRAWN BY: G.S.V. R.21-124	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE:  MSE WALL DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						CHECKED BY: G.J.M. R.21-124	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:  PEARCE BLVD. BRIDGE OVER CSX RAILROAD	SHEET NO.
						DESIGNED BY: G.J.M. R.21-124	N/A	CLAY	N/A		BW-05
						CHECKED BY: D.T.M. R.21-124					

DUANE MERRELL, FL P.E.  
P.E. LICENSE NUMBER 36843  
POND & COMPANY  
1200 RIVERPLACE BLVD. STE 600  
JACKSONVILLE, FL 32207

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STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

PEARCE BLVD. BRIDGE OVER CSX RAILROAD

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PERMANENT MSE RETAINING WALL SYSTEM DATA TABLES

GEOTECHNICAL INFORMATION									Table Date 5-20-22
		Reinforced Soil & Random Backfill	Loose (N=4) Fine Sand	Firm (N=10) Fine Sand	Dense (N=15) Fine Sand	Hard (N=35) Fine Sand	Loose (N=5) Clayey Sand	Firm (N=10) Clayey Sand	Soft (WOH) Clay
Depth Below Existing Ground Line (ft.)	Wall No. 1	—	0	2, 67	22, 57	37, 77, 87	N/A	82	47
	Wall No. 2	—	12	0, 27	17	32, 57, 77, 87	72	47, 82	N/A
Effective Unit Weight (pcf)		110	38	48	53	63	43	53	38
Cohesion (psf)		0	0	0	0	0	0	0	100
Internal Friction Angle		30	28	30	31	37	26	28	0

NOTE:  
If the unit weight and/or internal friction angle of the fill proposed by the Contractor differs from that shown above, the Project Engineer will contact both the District Geotechnical Engineer and the Wall Designer for a possible redesign.

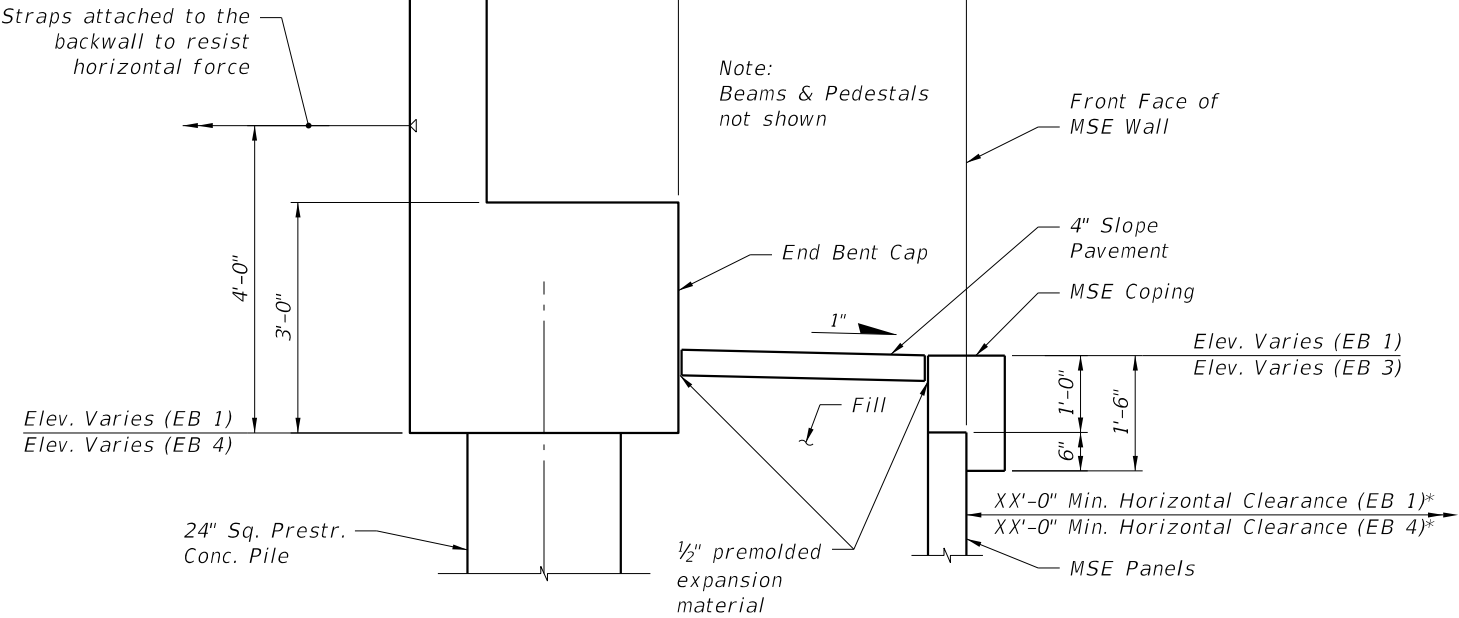
RETAINING WALL VARIABLES					Table Date 7-01-13
Wall No.	Wall Settlement				Design High Water Elevation (ft.)
	Long Term Settlement (in.)	Short Term Settlement (in.)	Differential Settlement		
			Longitudinal (%) (ft./100ft.)	Transverse (in.)	
1	14.3	6.7	0.01	N/A	24
2	11.5	8.9	0.0004	N/A	24

NOTE:  
Design walls for the settlements noted in the table.  
Long term settlement is measured from the end of wall fill placement.  
Transverse differential settlement is measured from the face of wall to the end of the soil reinforcement.

SOIL REINFORCEMENT LENGTHS FOR EXTERNAL STABILITY										Table Date 1-01-11	
Wall No. 1	Wall Height (ft.)	5	10	15	20	25	30	35	37	--	--
	Reinforcement Length (ft.)	7	14	20	27	34	40	46	47	--	--
	Factored Bearing Resistance (psf)	2860	4342	5554	7029	8503	9720	10937	11063	--	--
Wall No. 2	Wall Height (ft.)	5	10	15	20	25	30	35	37	--	--
	Reinforcement Length (ft.)	6	14	20	24	29	37	45	46	--	--
	Factored Bearing Resistance (psf)	2569	4342	5554	6240	7193	8941	10679	10871	--	--

NOTES:  
1. The reinforcement strap lengths shown above are the minimum lengths required for external stability. The reinforcement lengths used in the construction of the retaining walls will be the longer of that required for external or internal stability (determined by proprietary wall companies).  
2. The Factored Bearing Resistances shown above are the critical (lowest) values from all the load cases analyzed using LRFD methodology.

SOIL REINFORCEMENT		
Location	Soil Reinforcement Load (kip/ft)	
	Factored	Unfactored
End Bent 1	3.75	2.17
End Bent 4	3.75	2.17



SECTION AT END BENT

NOTES [Notes Date 09-01-19]:

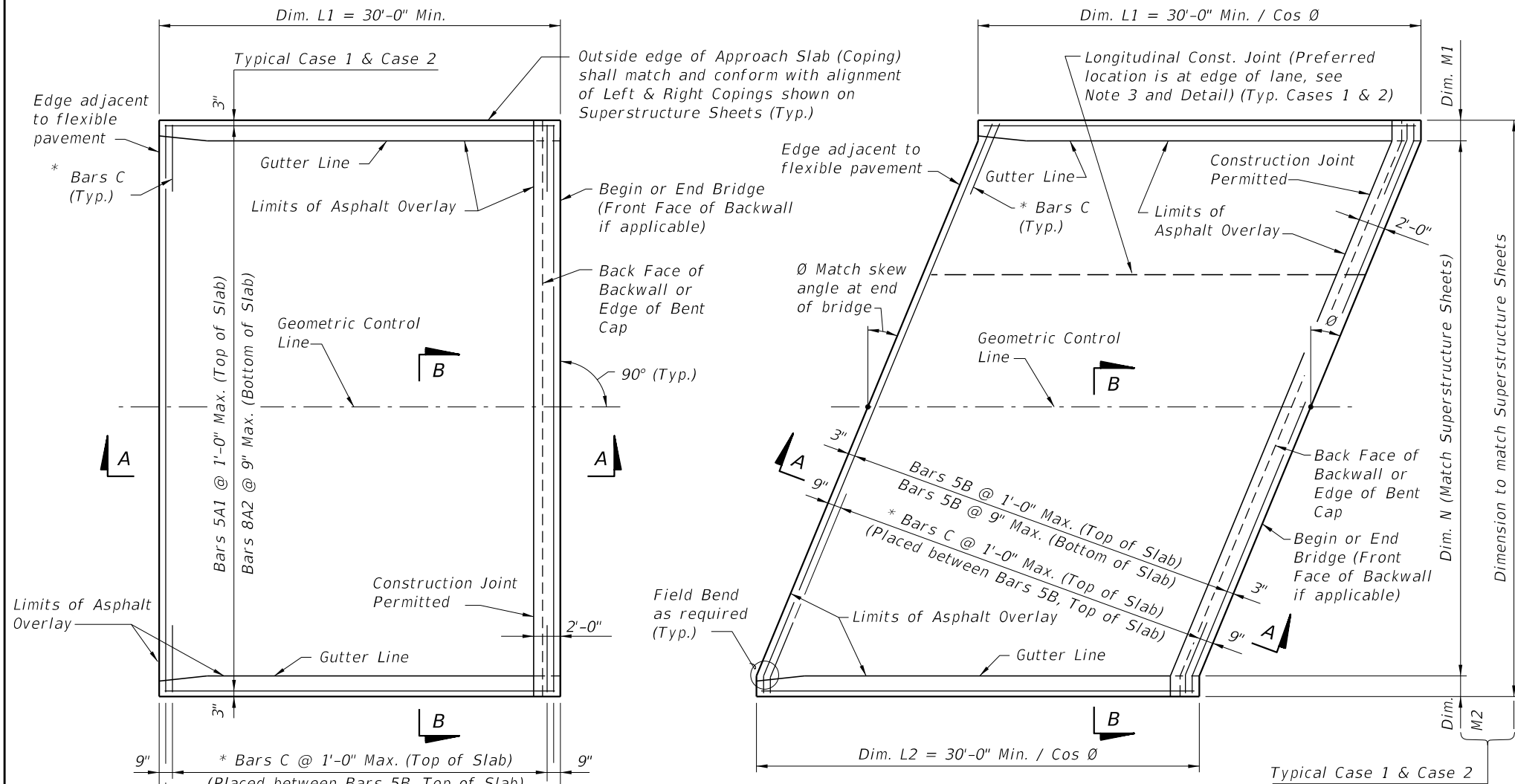
- Concrete facing panel surfaces treatment will be Smooth Class II Finish.
- If required, the soil reinforcement and fasteners for the abutment back wall will be designed and furnished by the proprietary wall company. The soil reinforcement will be designed to resist a factored horizontal load of 3.75 kips/ft. of back wall width. The cost of soil reinforcement and fasteners (if required) will be included in the cost of the Retaining Wall System.
- Applicable FDOT Wall Types for each wall location are listed below. See the Approved Products List for approved Wall Systems and Standard Plans Index 548-020 for allowable Wall Type substitutions.  
Wall No. 1 - FDOT Wall Type 2A  
Wall No. 2 - FDOT Wall Type 2A
- Concrete for Coping and/or Junction Slab shall be Class II ( $f'c = 3400$  psi) without highly reactive pozzolans.
- See Standard Plans Index 548-020 for General Notes and Details.

BRIDGE NO. 714054

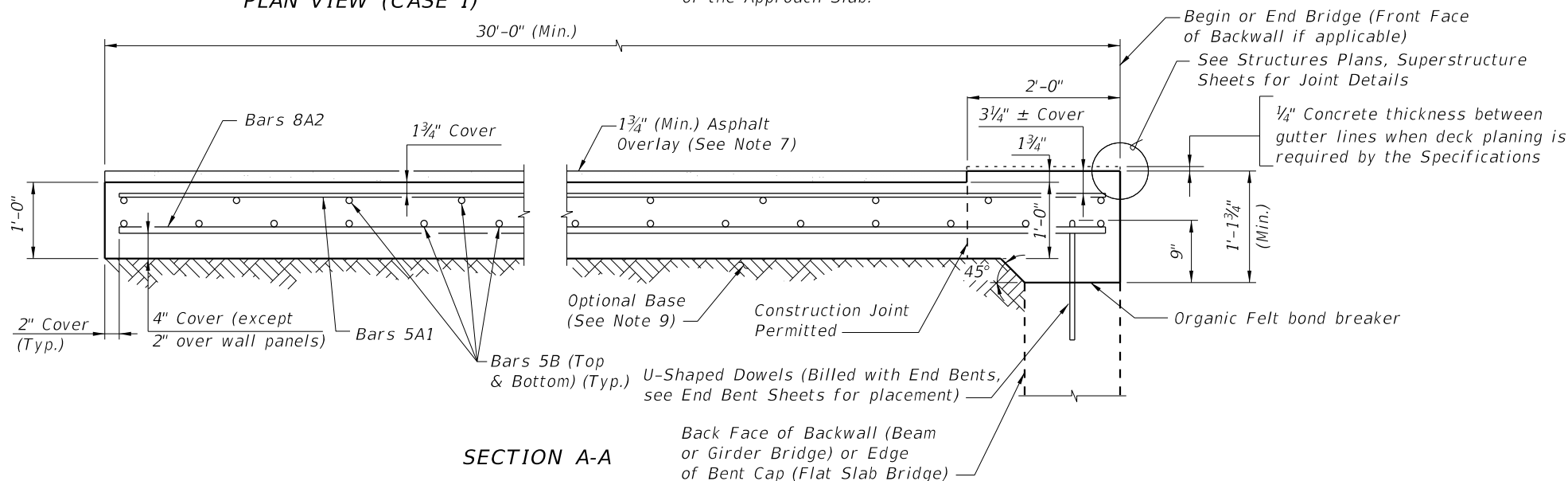
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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		CHECKED BY: R.K. 1-21				MSE WALL DATA TABLES		
							DESIGNED BY: D.M. 1-21	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME:		SHEET NO.
							CHECKED BY: R.K. 1-21	N/A	CLAY	N/A	PEARCE BLVD. BRIDGE OVER CSX RAILROAD		
													BW - 06

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\* NOTE: Bars C are required as shown when the 36" or 42" Single-Slope Traffic Railings, or the Traffic Railing/Noise Wall, are used at the edge of the Approach Slab.



## GENERAL NOTES

1. SURFACE TREATMENT: As an option to Class 4 Floor Finish (Bridge Floor Grooving) per Section 400 a hand tined or heavy broomed finish may be permitted on the concrete portion of the riding surface. Sidewalk areas shall receive a broomed finish. The top surface of the concrete beneath the asphalt overlay shall be raked.
2. CONDUIT: If required, see Structures Plans for Conduit Details.
3. When a longitudinal construction joint is necessary or allowed by the Engineer, the transverse steel shall be extended as shown in the Longitudinal Construction Joint Detail.
4. The plan view for CASE 1 applies when the skew angle ( $\theta$ ) = 0°.
5. The plan view for CASE 2 applies where the skew angle ( $\theta$ ) is > 0°. The slab shown represents a skew to the right for an approach slab at begin bridge; approach slab at the end of bridge or a left skew shall be treated similarly.
6. Deformed WWR must meet the requirements of Specification Section 931.
7. Continue the asphalt pavement over the approach slab and match the friction course type used on the roadway.
8. Approach slabs shown in Plan View Cases 1 and 2 represent a typical approach slab with edge barriers and no sidewalks. Provide railings, parapets and raised sidewalks as detailed in the Contract Plans.
9. PAYMENT: Deformed WWR for the edge of Approach Slabs on retaining walls is not included in the estimated quantity for reinforcing steel and is considered incidental to the work. See Roadway Plans for Asphalt Overlay and Optional Base details and quantities.

## CROSS REFERENCES:

For Section B-B, Longitudinal Construction Joint Detail and Approach Slab Details see Sheet 2.



FY 2022-23  
STANDARD PLANS

APPROACH SLABS (30 FT.)  
(FLEXIBLE PAVEMENT APPROACHES)

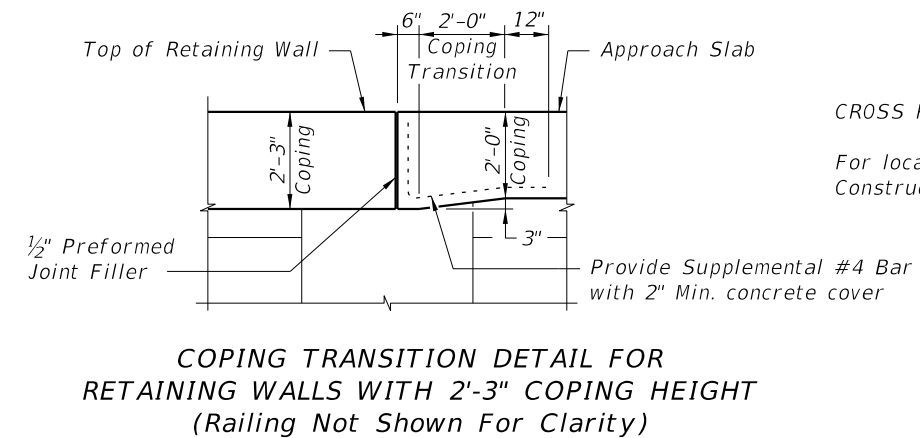
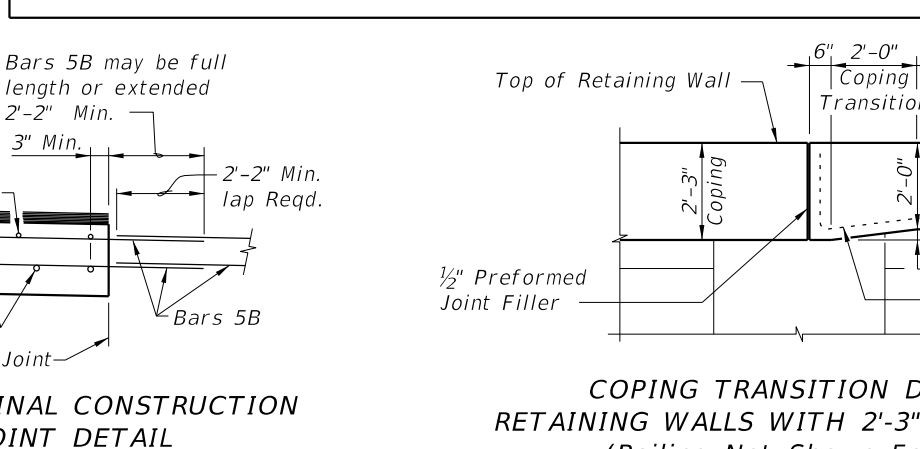
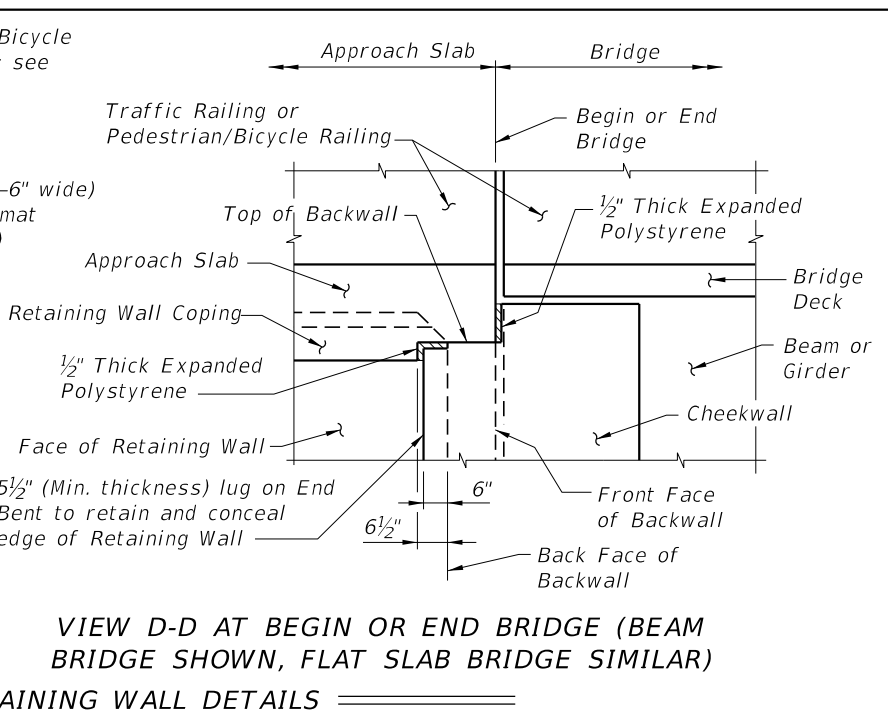
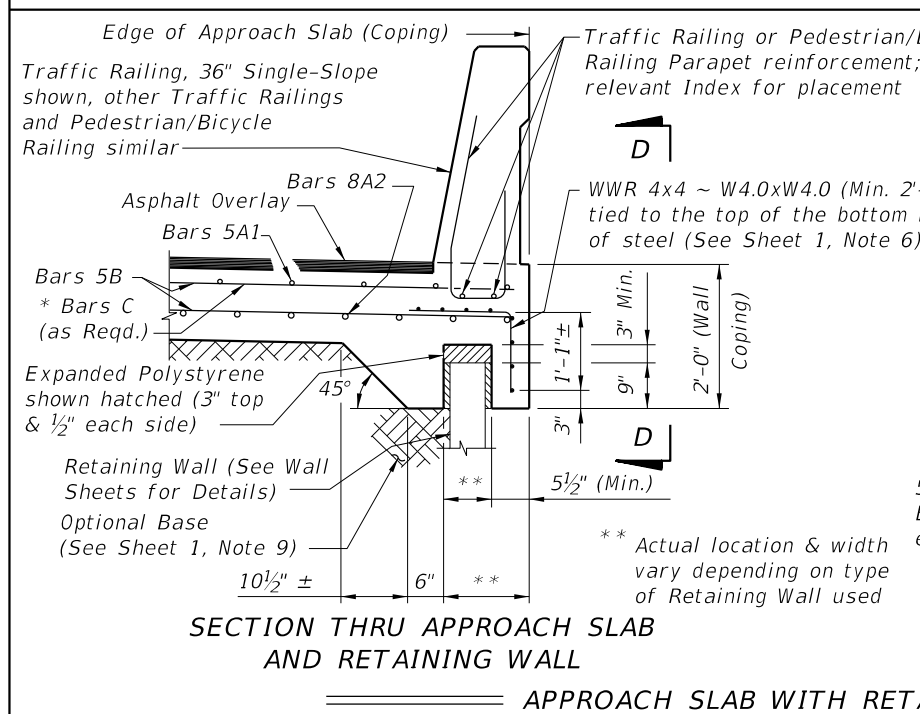
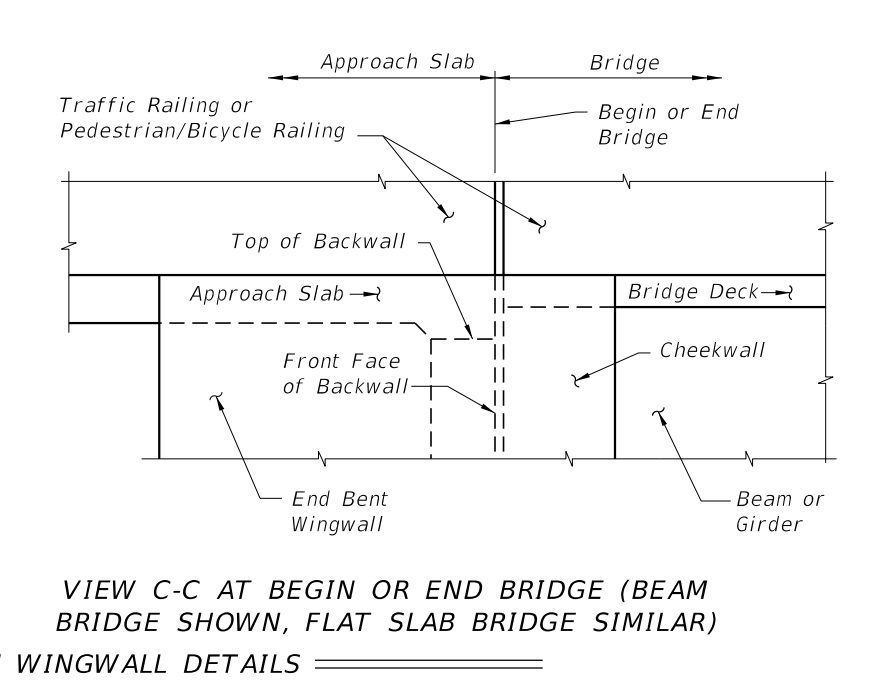
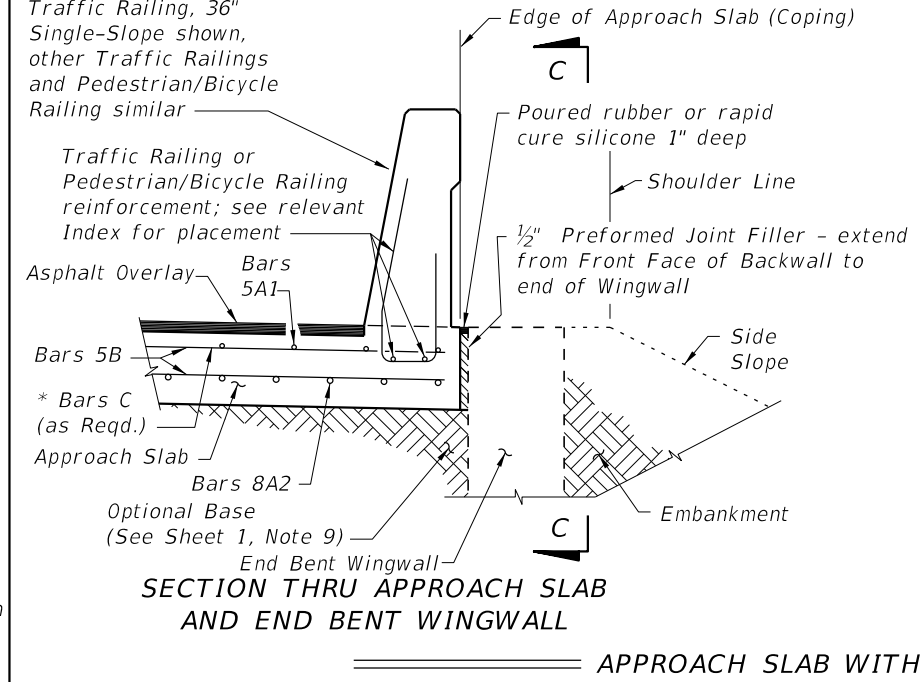
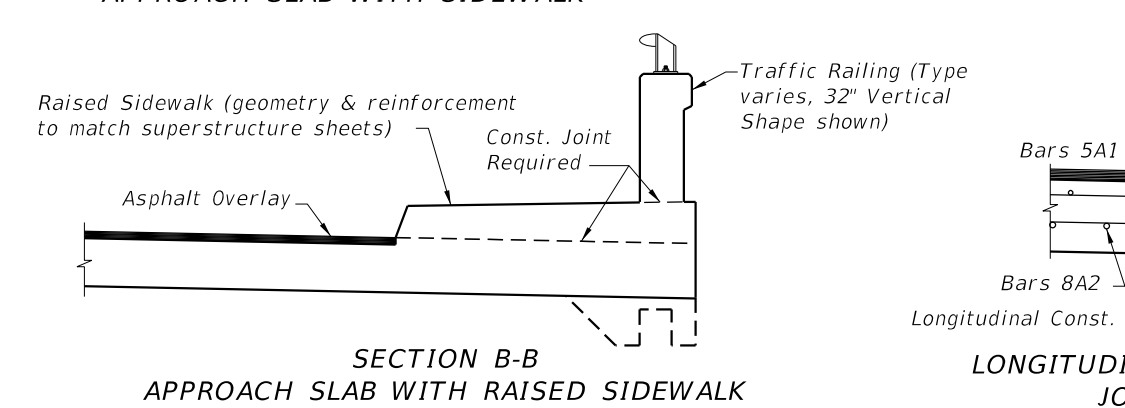
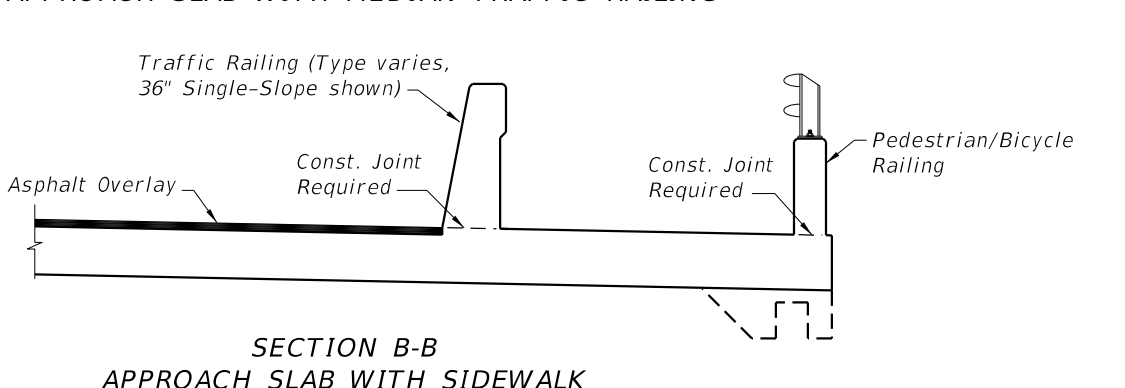
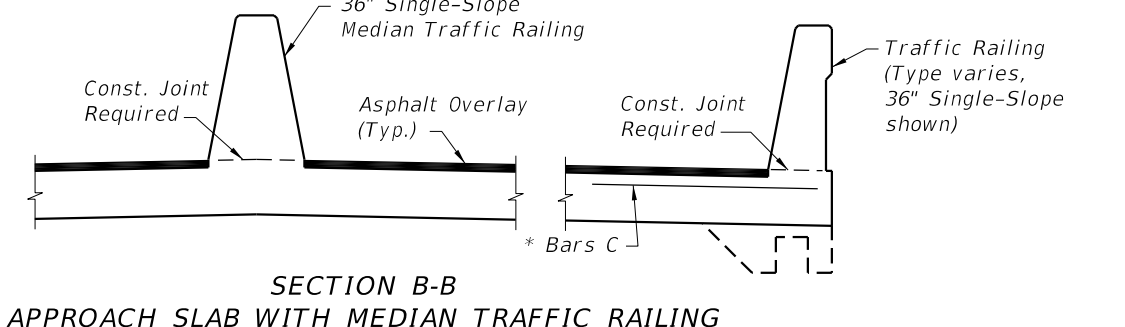
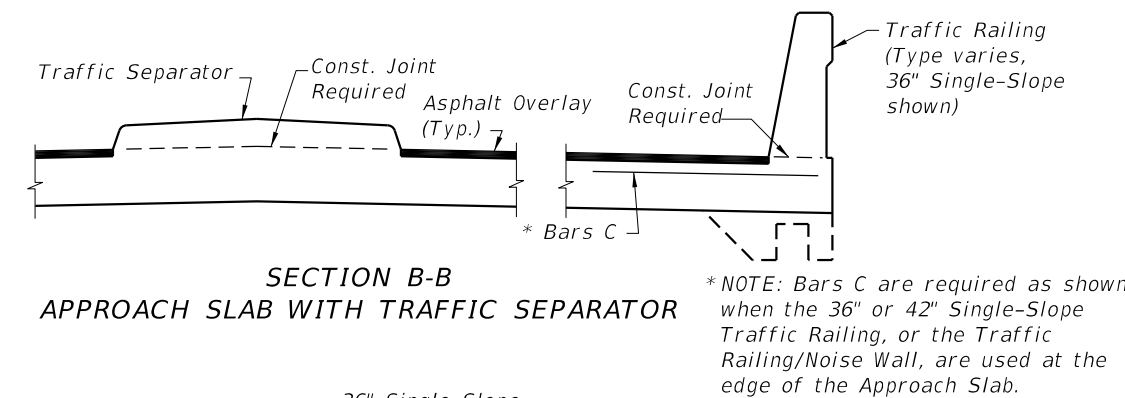
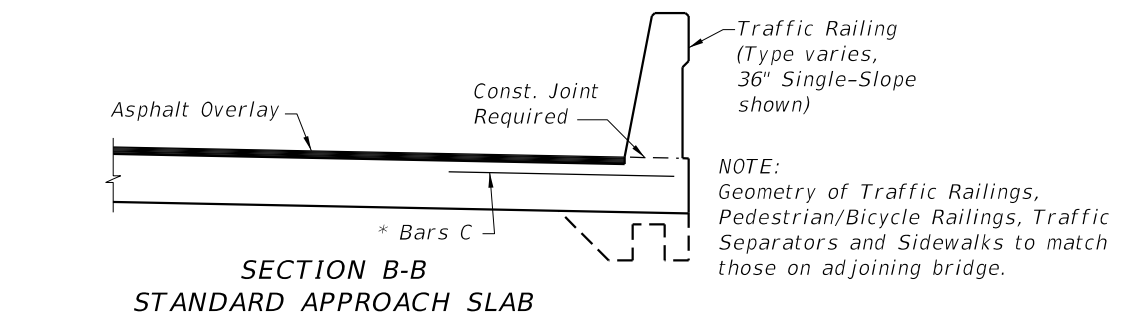
INDEX  
400-090

SHEET  
1 of 2

LAST  
REVISION  
11/01/17

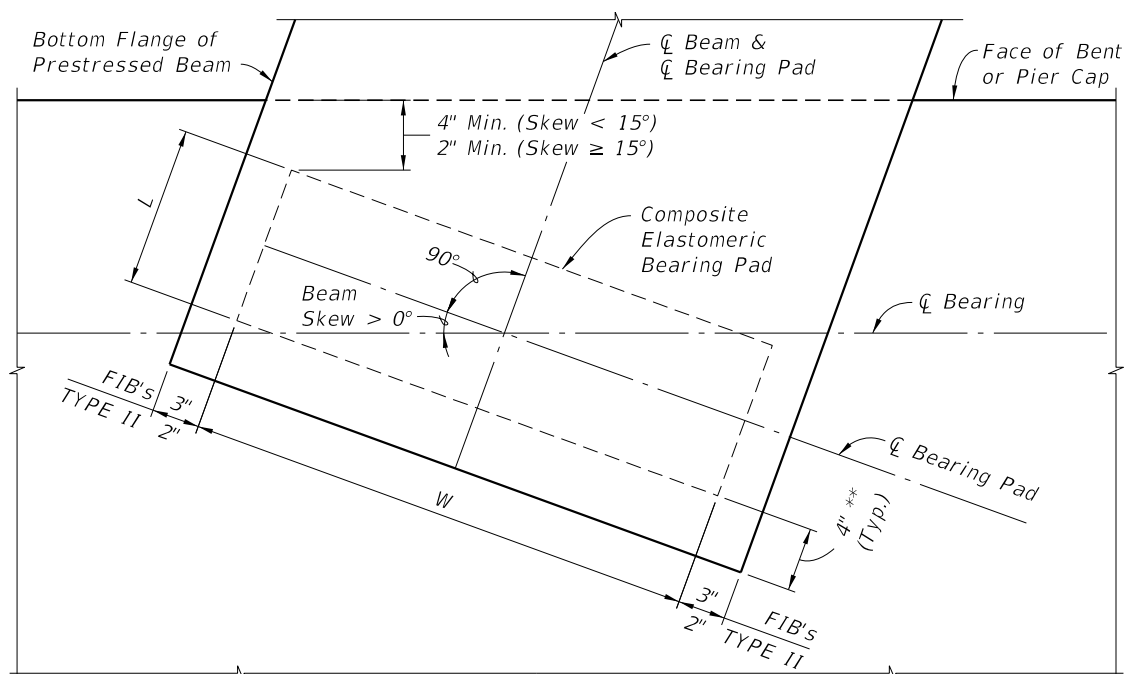
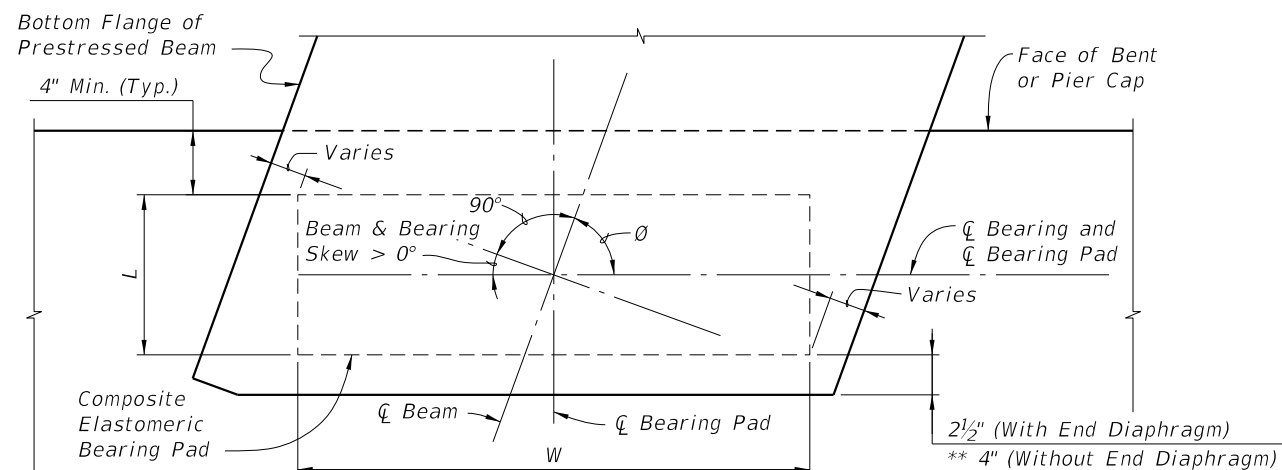
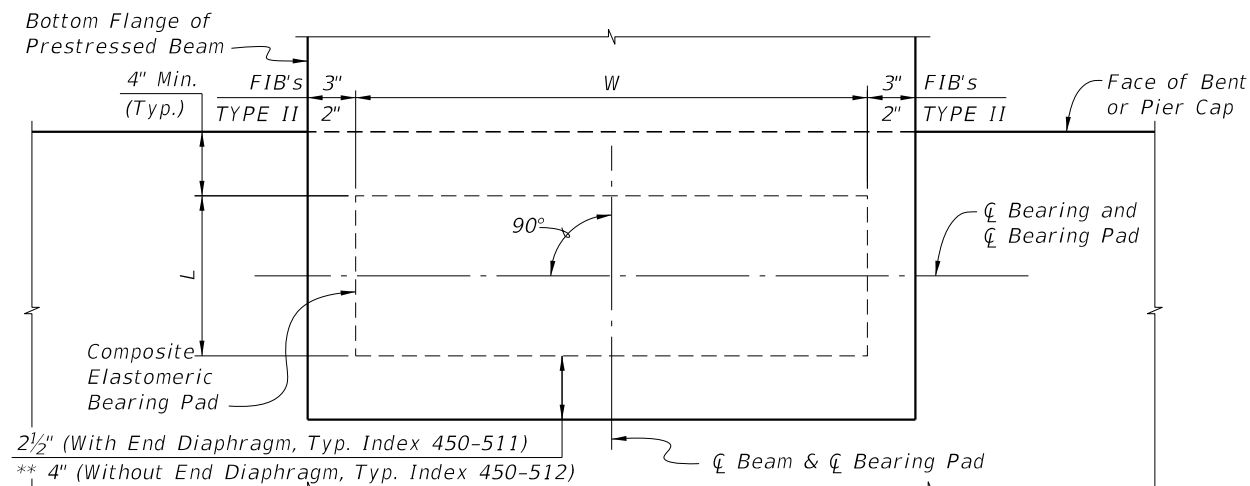
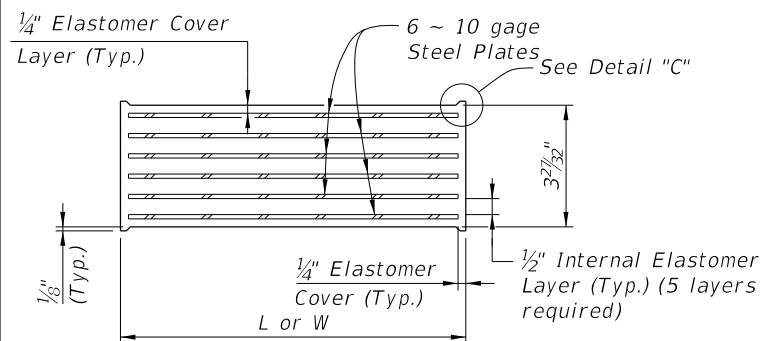
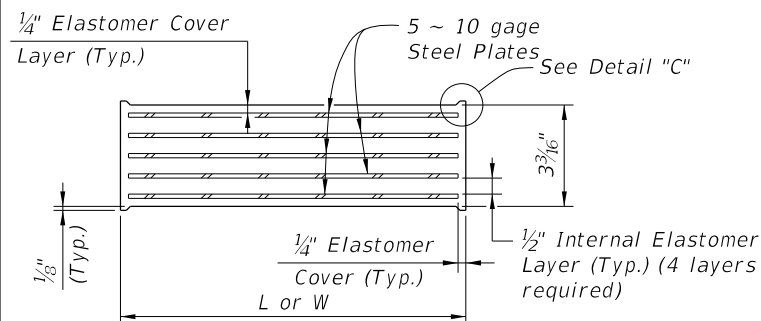
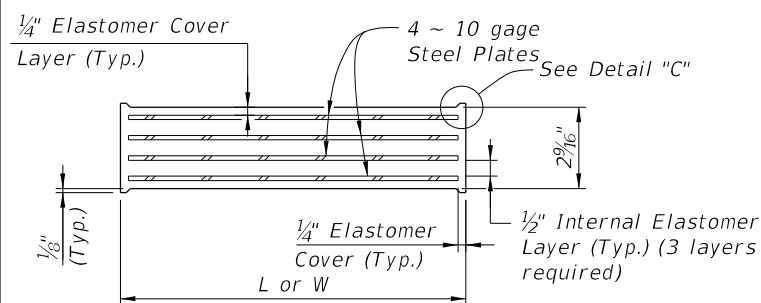
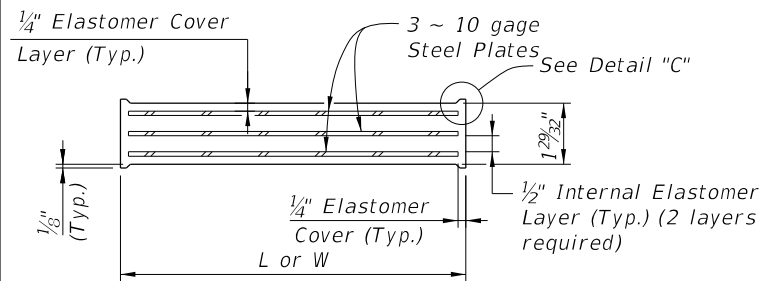
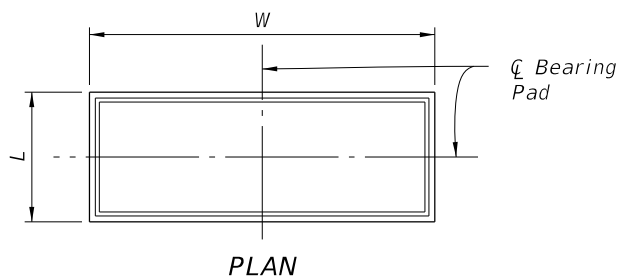
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CROSS REFERENCES:  
For location of Section B-B and Longitudinal Construction Joint see Sheet 1.

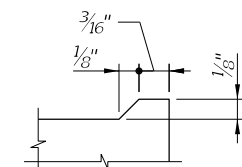
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11/01/17					400-090	2 of 2



PAD TYPE (See Note 1)	BEAM TYPE	BEARING PAD DIMENSIONS		*BEVELED BEARING PLATE DIMENSIONS	
		L	W	C	D
D (G=110psi)	FLORIDA I-BEAM	8"	2'-8"	1'-0"	3'-0"
E (G=110psi)		10"	2'-8"	1'-0"	3'-0"
F (G=110psi)		10"	2'-8"	1'-0"	3'-0"
G (G=150psi)		10"	2'-8"	1'-0"	3'-0"
H (G=150psi)		10"	2'-8"	1'-0"	3'-0"
J (G=150psi)		10"	2'-8"	1'-0"	3'-0"
K (G=150psi)		1'-0"	2'-8"	1'-1 1/2"	3'-0"
AA (G=110psi)	AASHTO TYPE II	10"	1'-2"	1'-0"	1'-4"
AB (G=150psi)		10"	1'-2"	1'-0"	1'-4"

\* Work this sheet with the appropriate type Bearing Plate Detail (See Bearing Plate Data Table) and BEARING PAD DATA TABLE in the Structures Plans. See TABLE OF BEAM VARIABLES and BEARING PLATE DATA TABLE in the Structures Plans for locations where beveled bearing plates are required.

\*\* Offset to End of Beam is reduced to 2" for Type K Pad.

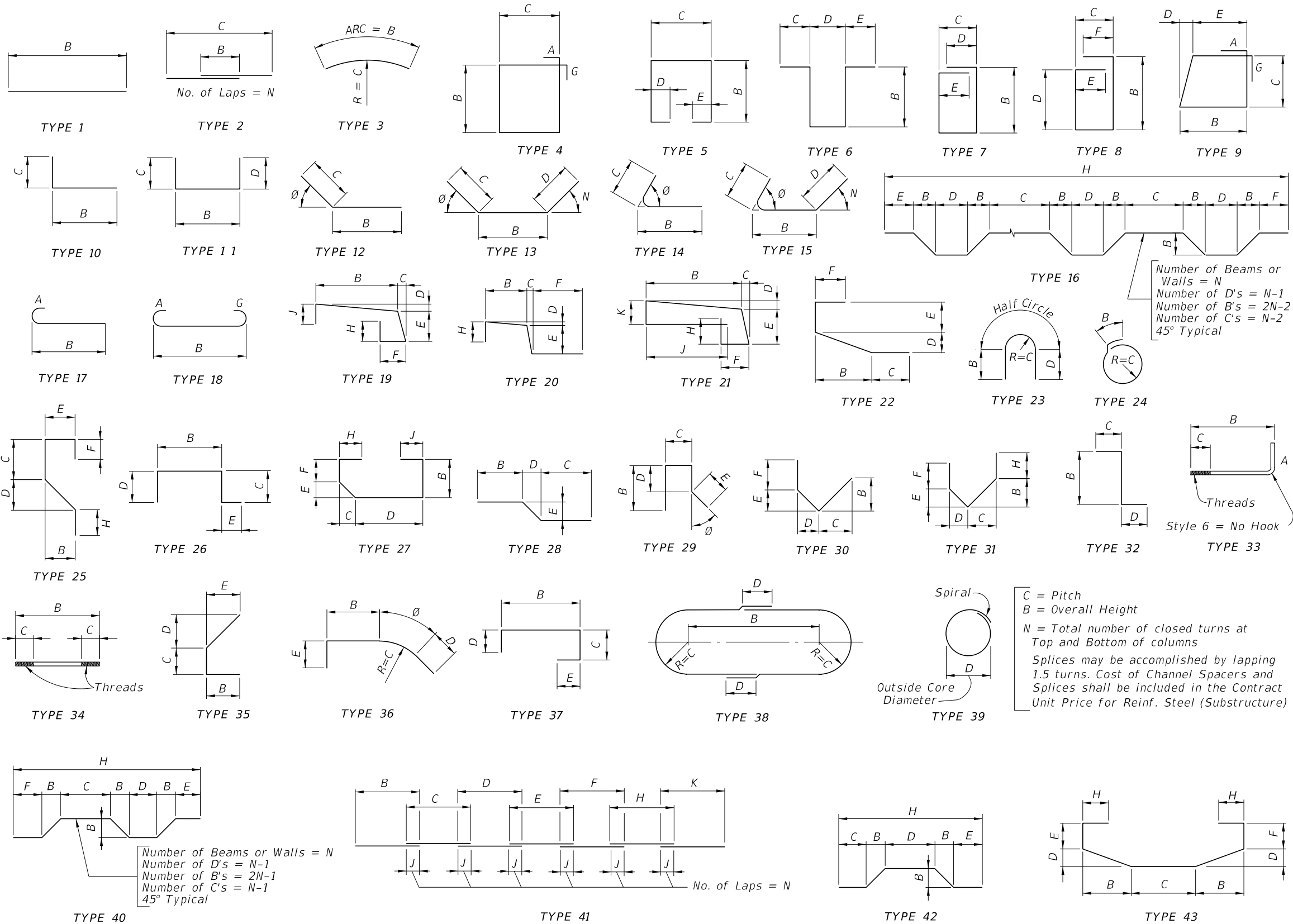


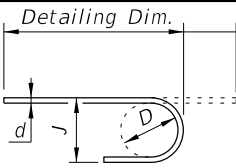
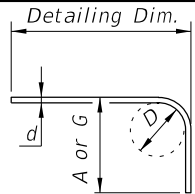
DETAIL "C"

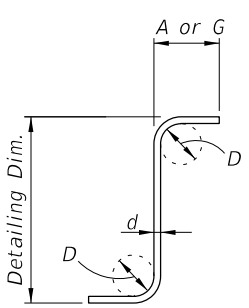
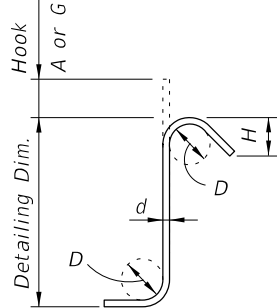
#### BEARING PAD NOTES:

1. Neoprene in Type D, E, F & AA bearing pads shall have a shear modulus (G) of 110 psi. Neoprene in Type G, H, J, K & AB bearing pads shall have a shear modulus (G) of 150 psi.
2. Steel Plates in bearing pads shall conform to ASTM A1011 Grade 36, Type 1.
3. See Bearing Pad Data Table in Structures Plans for quantities of Type D, E, F, G, H, J, K, AA and/or AB Bearing Pads.





HOOK DETAILS				
				
180°		90°		
BAR SIZE	D	180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#3	2¼"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	1'-0"
#7	5¼"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"
#9	9½"	1'-3"	11¾"	1'-7"
#10	10¾"	1'-5"	1'-1¼"	1'-10"
#11	12"	1'-7"	1'-2¾"	2'-0"
#14	18¼"	2'-3"	1'-9¾"	2'-7"
#18	24"	3'-0"	2'-4½"	3'-5"
STYLE		1		3

			
90°		135°	
STIRRUPS (TIES SIMILAR)			

STIRRUP & TIE HOOK DIMENSIONS					
BAR SIZE	D	90° HOOKS		135° HOOKS	
		A or G		A or G	H *
#3	1½"	4"		4"	2½"
#4	2"	4½"		4½"	3"
#5	2½"	6"		5½"	3¾"
#6	4½"	1'-0"		8"	4½"
#7	5¼"	1'-2"		9"	5¼"
#8	6"	1'-4"		10½"	6"
STYLE		4		5	
STYLE 6 = NO HOOK					

\* Dimension is approximate.  
Hook Styles Detailed on this sheet are for Illustration Only.  
Actual Hook Style for any particular bar will be shown under A or G Heading on REINFORCING BAR LIST sheet(s) in Structures Plans.  
All Dimensions are out-to-out.

NOTE: For Bar Dimensions See REINFORCING BAR LIST Sheet(s) in Structures Plans.



FY 2022-23  
STANDARD PLANS

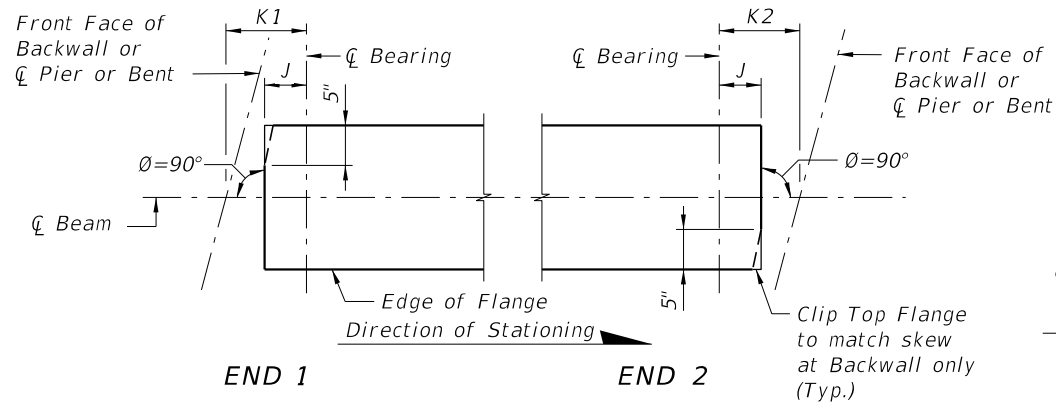
BAR BENDING DETAILS (STEEL)

INDEX  
415-001

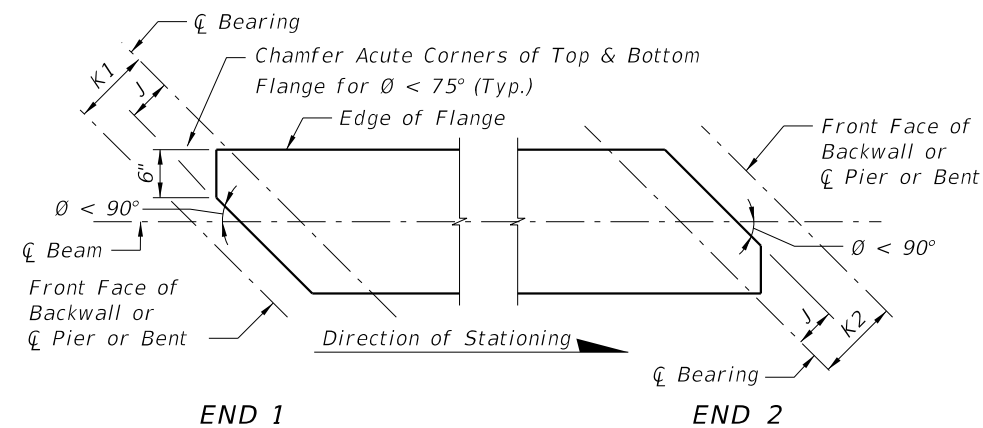
SHEET  
1 of 1

LAST  
REVISION  
11/01/20

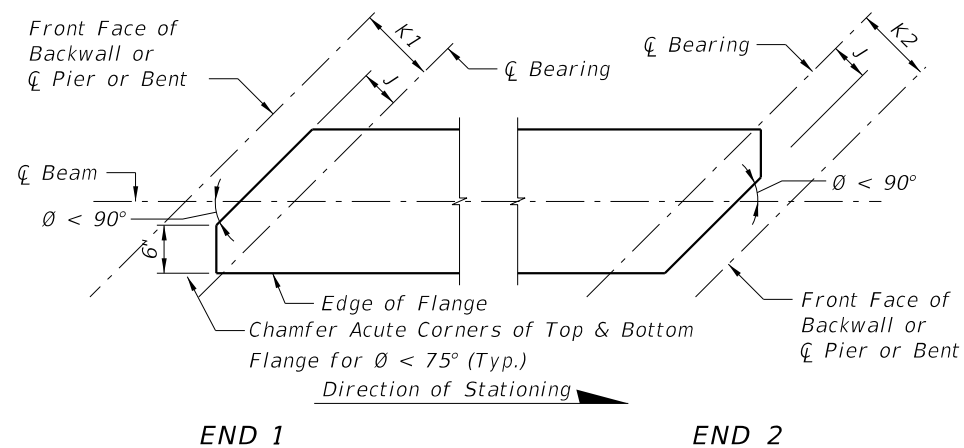
DESCRIPTION:



**CASE 1**  
(Standard Orientation for New Construction)

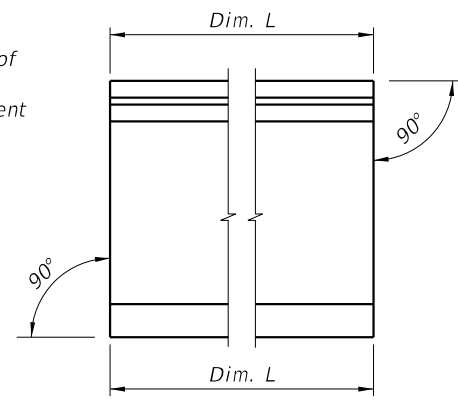


**CASE 2**  
(Special Orientation for Widening)

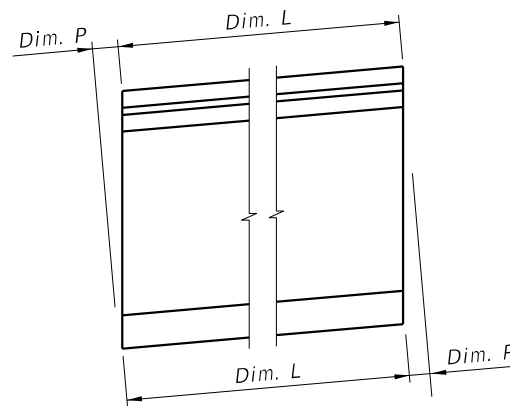


**CASE 3**  
(Special Orientation for Widening)

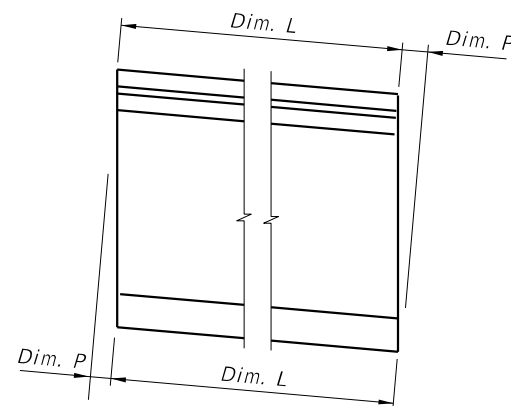
**SCHEMATIC PLAN VIEWS AT BEAM ENDS**



**CONDITION 1**  
(Dim P = 0.0)



**CONDITION 2**



**CONDITION 3**

**SCHEMATIC END ELEVATIONS OF BEAMS**  
(Showing Vertical Bevel of Beam End)

**BEAM NOTES**

- Work this Index with the Florida-I Beam Standard Details (Index 450-036 thru 450-096) and the Table of Beam Variables in Structures Plans.
- All bar bend dimensions are out-to-out.
- Concrete cover: 2 inches minimum.
- Stress Strands N to 10 kips each.
- Place one (1) Bar 5K or 5Z at each location. Alternate the direction of the ends for each bar (see "ELEVATION AT END OF BEAM" in Standard Details).
- Tie Bars 5K and 5Z to the fully bonded strands in the bottom or center row (see "STRAND PATTERN" on the Table of Beam Variables sheet in Structures Plans).
  - At the Contractor's option, the length of the bottom legs of Bars 5K and 5Z may be extended to facilitate tying to the exterior strands.
  - For deformed WWR, supplemental transverse #4 bars are permitted to support Pieces K & S under the cross wires on the bottom row of strands.
- Place Bars 3C1, 3D1 and 4M1 in beam END 1, and Bars 3C2, 3D2 and 4M2 in beam END 2. END 1 and END 2 are shown on the Standard Details "ELEVATION".
- For Beams with vertically beveled end conditions: Place first row of Bars 3C1, 3C2, 3D1, 3D2, 5K, 5Y and 5Z parallel to the end of the beam. Progressively rotate remaining bars within the limits of Bars 5Z until vertical by adjusting the spacing at the top of beam up to a maximum of 1". For deformed WWR, cut top cross wire and rotate bars as required or reduce end cover at top of the beam to 1" minimum.
- For beams with skewed end conditions:
  - Place end reinforcement parallel to the skewed end of the beam. End reinforcement is defined as Bars 3C1, 3C2, 3D1, 3D2, 5K, 4M1, 4M2, 5Y and 5Z placed within the limits of the spacing for Bars 3C in "ELEVATION AT END OF BEAM".
  - Beyond the limits of the spacing for Bars 3C, place Bars 3D3, 5K and 4M3 perpendicular to the longitudinal axis of the beam. Fan Bars as needed to avoid overlapping bars at the transition to Bars 3D3 and 4M3, and field cut to maintain minimum cover. Provide additional Bars 4M1, 4M2, 3D1 and 3D2 as required; additional bars are not included in the "BILL OF REINFORCING STEEL". For placement locations see Skewed Beam End Details for Widening Existing Bridges.
  - Adjust the dimensions of Bars 3C1, 3C2, 3D1, 3D2, 4M1 and 4M2 as shown on the Bending Diagram.
  - WWR is not permitted for end reinforcement Bars 3D1, 3D2, 4M1 and 4M2; use bar reinforcement.
- Contractor Options:
  - Deformed WWR may be used in lieu of Bars 3D, 5K, 4M, and 5Z as shown on the Standard Details; except at skewed ends (see Note 9).
  - Bars 3D1, 3D2 and 3D3 may be fabricated as a single bar with a 1'-0" minimum lap splice of the top legs, or the length of the bottom legs may be extended to facilitate tying to the exterior strands.
- Embedment of Safety Line Anchorage Devices are permitted in the top flange to accommodate fall protection systems. See shop drawings for details and spacing of any required anchorage devices.
- For beams with ends that will not be permanently encased in concrete diaphragms, cut wedges and recess Prestressing strands at the end of the beam without damaging the surrounding concrete. See "STRAND CUTTING AND PROTECTING DETAIL" on Sheet 2. Protect end of wedged recessed strands in accordance with Specification Section 450.
- Holes in the beam web for temporary bracing or shipping devices must be formed prior to casting. Fill holes not meeting all the following criteria in accordance with Specification Section 450.
  - The superstructure environmental classification is slightly or moderately aggressive
  - Clear cover to adjacent steel reinforcing is 1" or greater
  - Hole inside diameter is 2" maximum
  - Non-metallic, non-water absorbing forming materials such as PVC, may be left in place permanently.

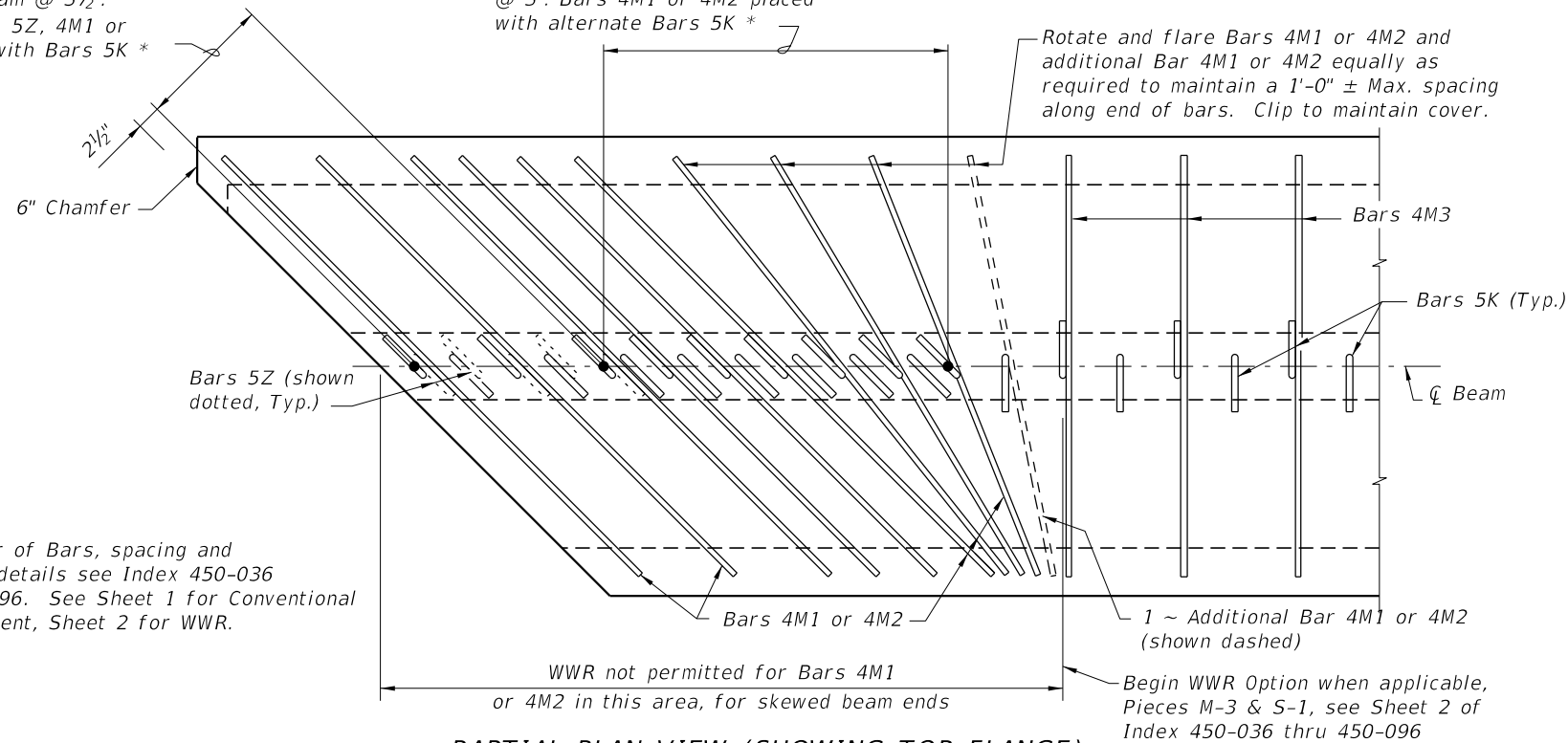
LAST REVISION 11/01/21	DESCRIPTION:	 FY 2022-23 STANDARD PLANS	FLORIDA-I BEAM - TYPICAL DETAILS & NOTES	INDEX 450-010	SHEET 1 of 2
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Bars 5K spaced perpendicular to end of beam @  $3\frac{1}{2}$ ". Skewed Bars 5Z, 4M1 or 4M2 placed with Bars 5K \*

Bars 5K spaced along  $\phi$  Beam @ 3". Bars 4M1 or 4M2 placed with alternate Bars 5K \*

Rotate and flare Bars 4M1 or 4M2 and additional Bar 4M1 or 4M2 equally as required to maintain a 1'-0"  $\pm$  Max. spacing along end of bars. Clip to maintain cover.

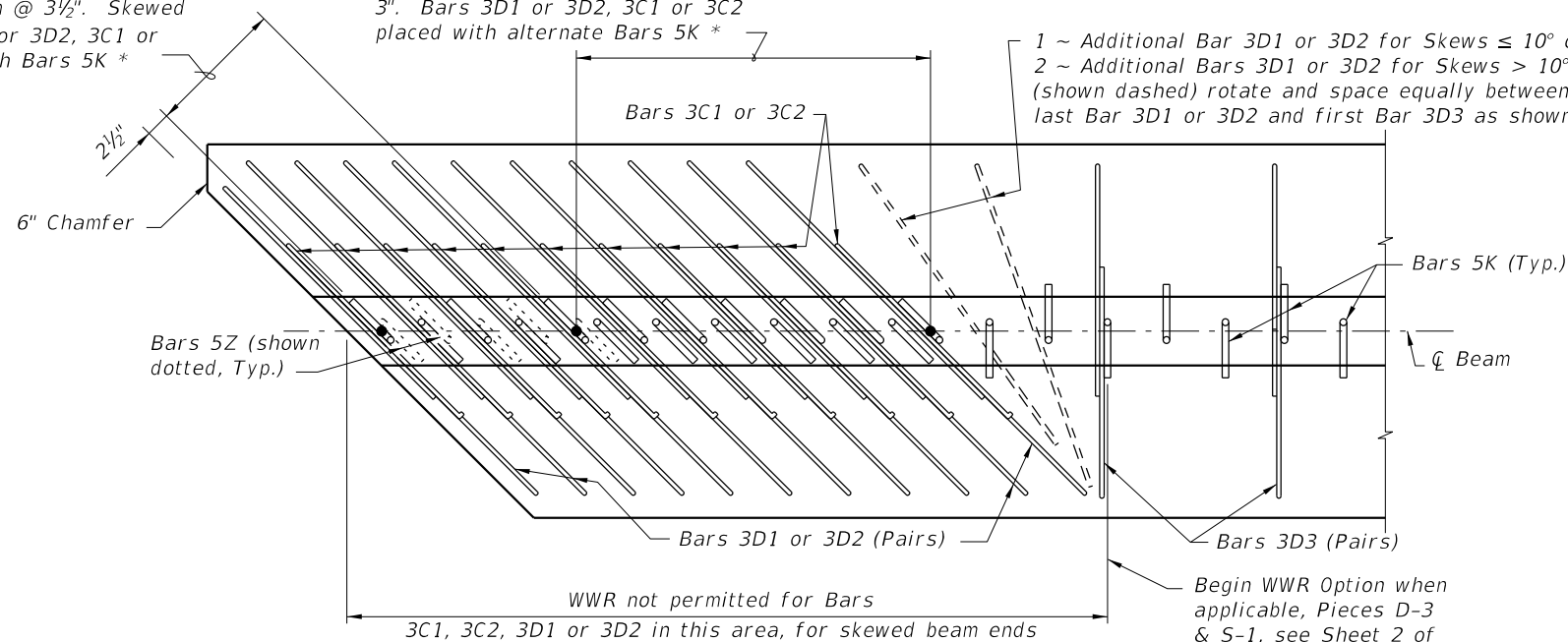


**PARTIAL PLAN VIEW (SHOWING TOP FLANGE)**  
(End 1 Shown, End 2 Similar)  
(Bars 5A, 5Y & Strands N not shown for clarity)

Bars 5K spaced perpendicular to end of beam @  $3\frac{1}{2}$ ". Skewed Bars 5Z, 3D1 or 3D2, 3C1 or 3C2 placed with Bars 5K \*

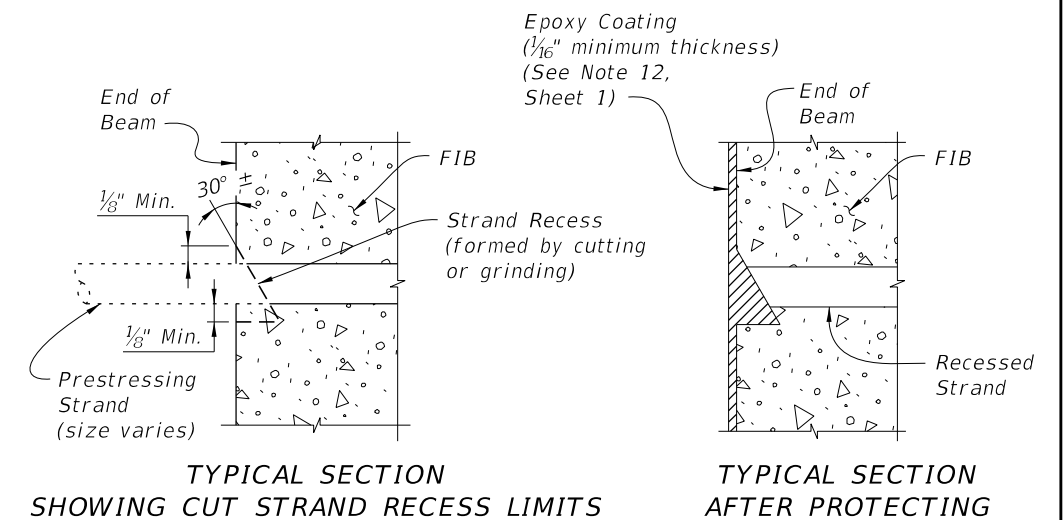
Bars 5K spaced along  $\phi$  Beam @ 3". Bars 3D1 or 3D2, 3C1 or 3C2 placed with alternate Bars 5K \*

1 ~ Additional Bar 3D1 or 3D2 for Skews  $\leq 10^\circ$  or 2 ~ Additional Bars 3D1 or 3D2 for Skews  $> 10^\circ$  (shown dashed) rotate and space equally between last Bar 3D1 or 3D2 and first Bar 3D3 as shown



**PARTIAL SECTION THRU WEB (SHOWING BOTTOM FLANGE)**  
(END 1 Shown, END 2 Similar)  
(Bars 5Y, Strands, and Embedded Bearing Plate "A" not shown for clarity)

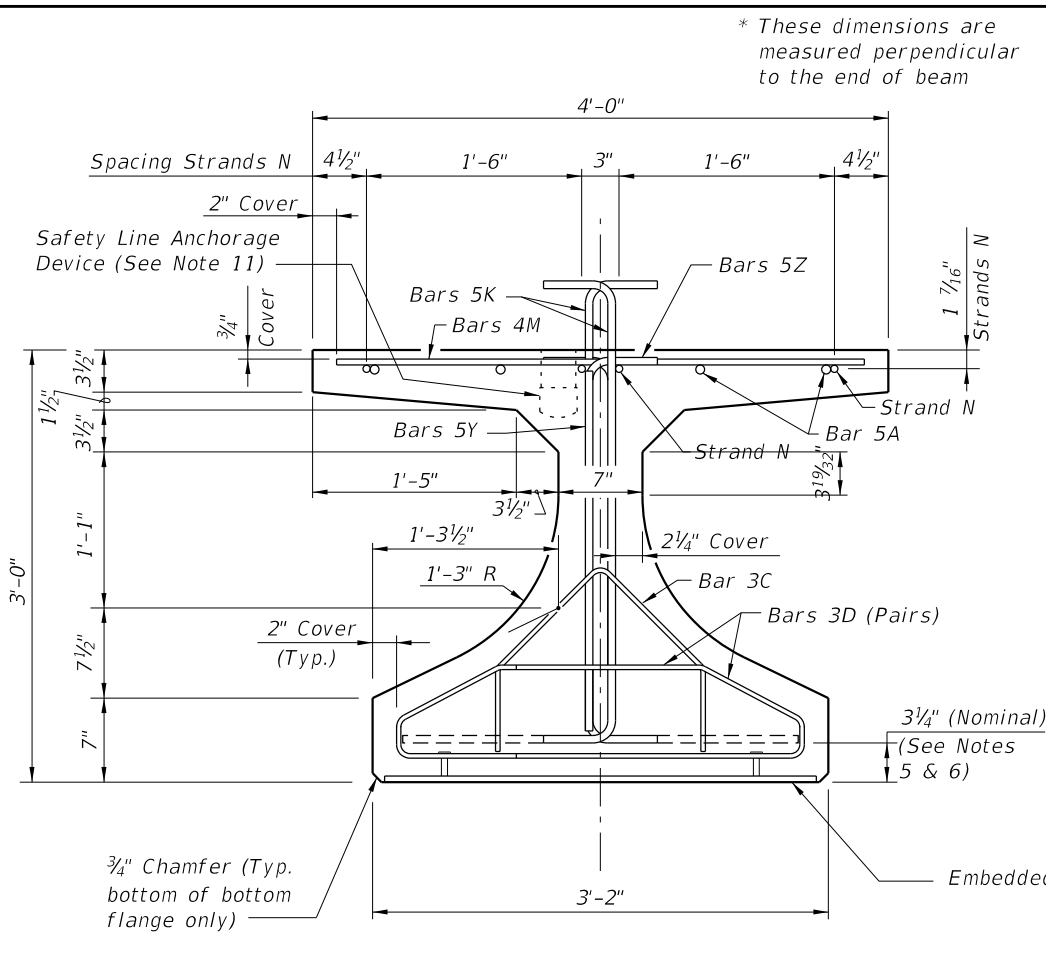
**SKEWED BEAM END DETAILS FOR WIDENING EXISTING BRIDGES**  
(Florida-I 36 Beam shown, others similar)



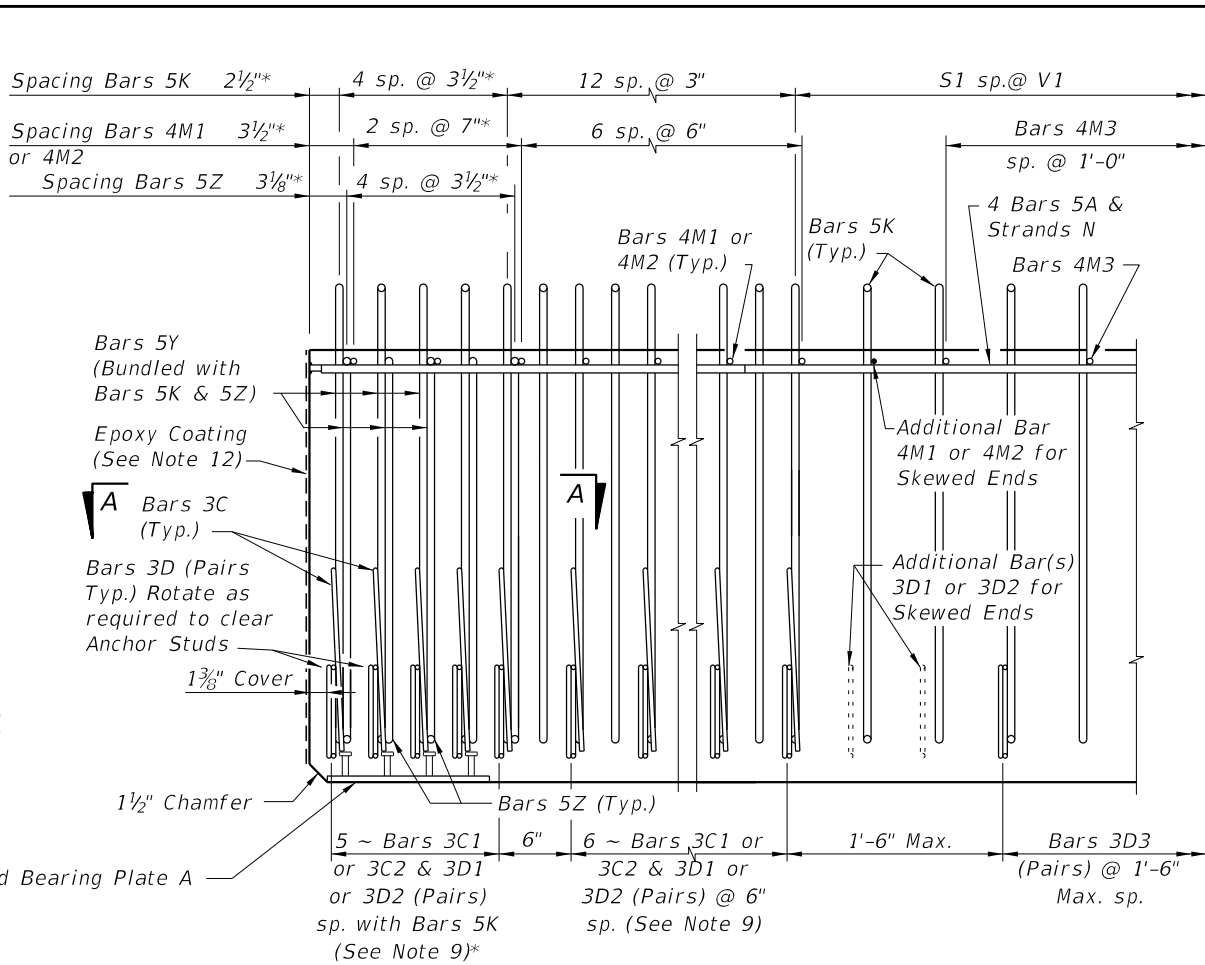
**STRAND CUTTING AND PROTECTING DETAIL**

LAST REVISION 11/01/19	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	FLORIDA-I BEAM - TYPICAL DETAILS & NOTES	INDEX 450-010	SHEET 2 of 2
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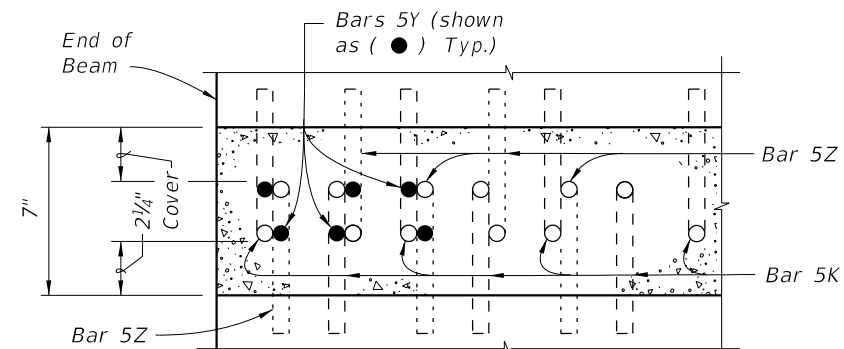
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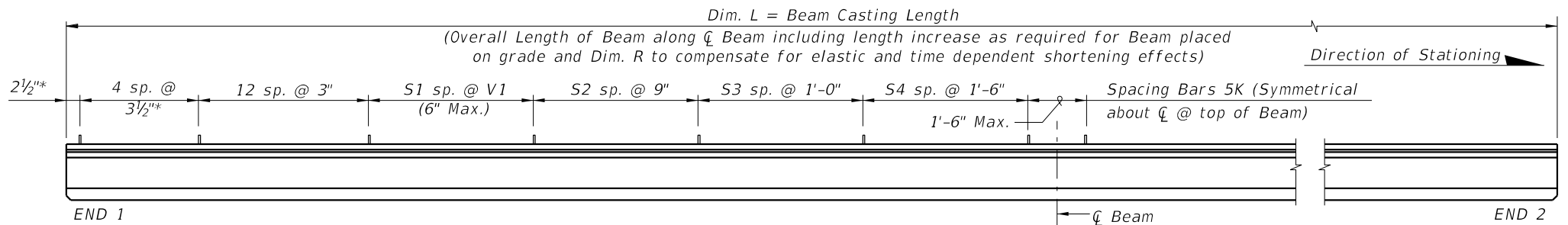
END VIEW



ELEVATION AT END OF BEAM  
(Flanges Not Shown For Clarity)  
(End 1 Shown, End 2 Similar)



SECTION A-A FOR CONVENTIONAL REINFORCING  
(Showing Bars 5K, 5Y & 5Z Only)



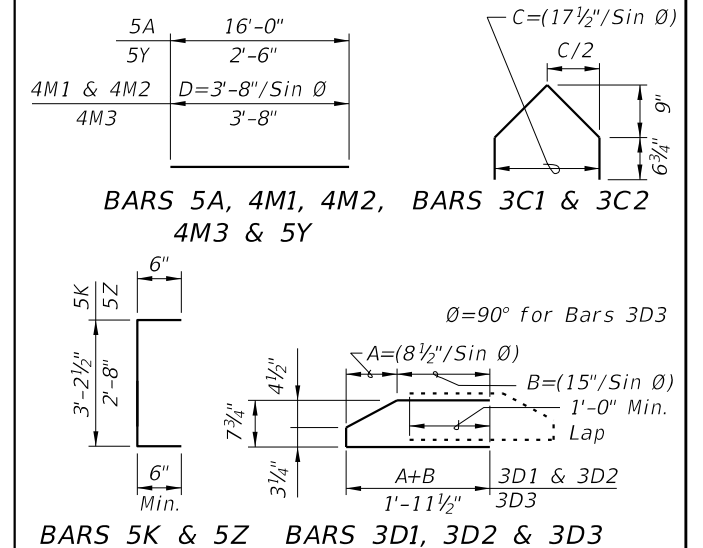
ELEVATION

CONVENTIONAL REINFORCING  
BAR BENDING DETAILS

BILL OF REINFORCING STEEL

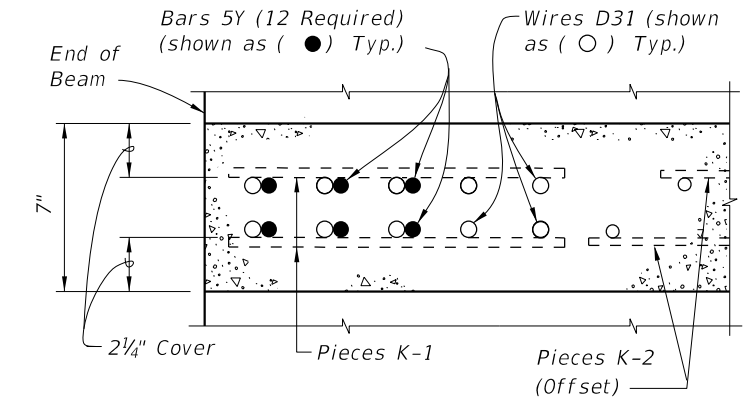
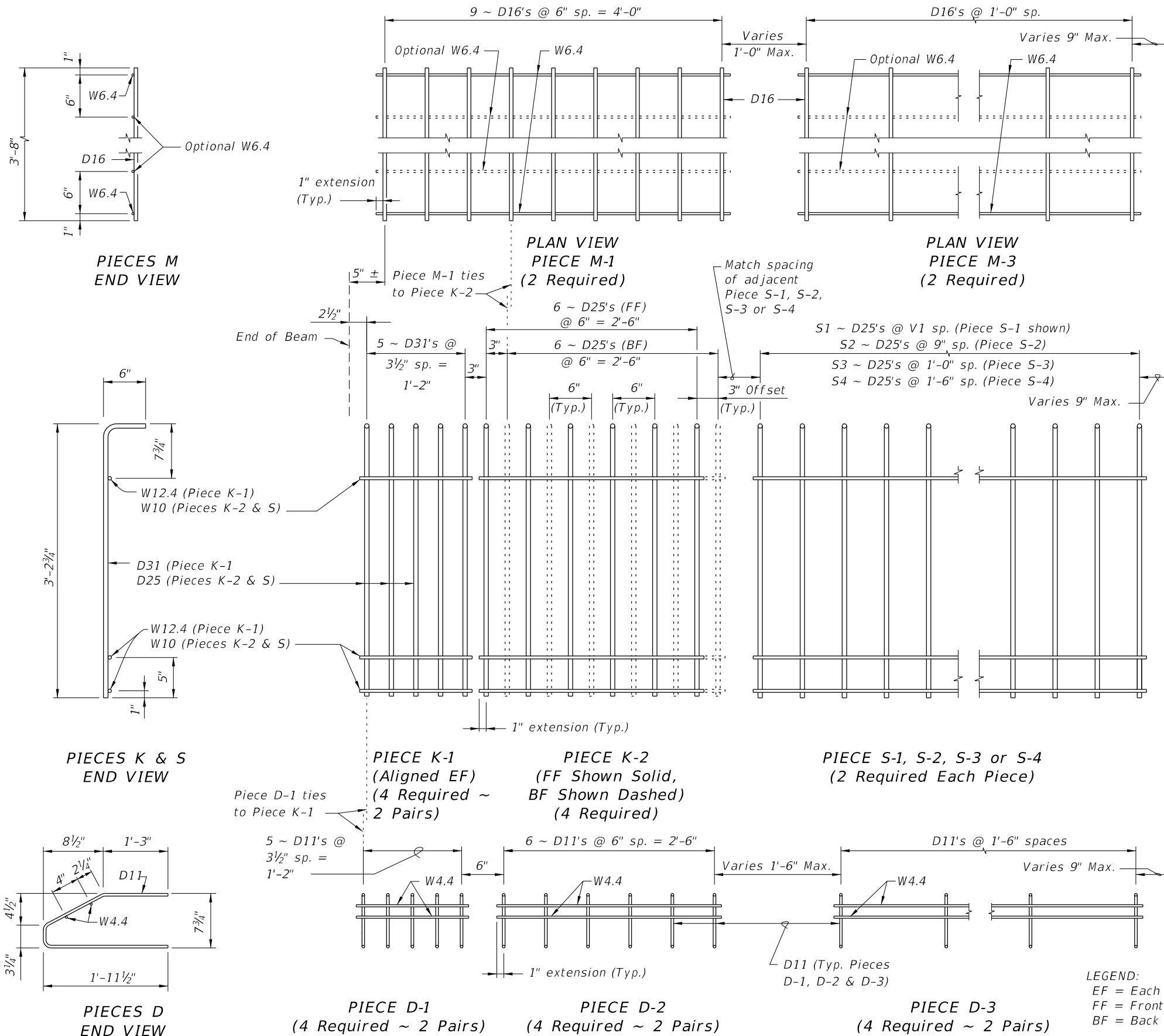
MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	16'-0"
C1	7, 8 & 9	3	11 (End 1)	Varies
C2	7, 8 & 9	3	11 (End 2)	Varies
D1	7, 8, 9 & 10	3	22 (End 1)	Varies
D2	7, 8, 9 & 10	3	22 (End 2)	Varies
D3	9 & 10	3	See Table	4'-3"
K	5, 6, 8, 9 & 10	5	See Table	4'-2"
M1	7 & 9	4	9 (End 1)	Varies
M2	7 & 9	4	9 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	4 & 12	3/8" Ø Strand	4	Dim. L
Y	8 & 9	5	12	2'-6"
Z	5, 6, 8, 9 & 10	5	10	3'-8"

BENDING DIAGRAMS (See Note 2)

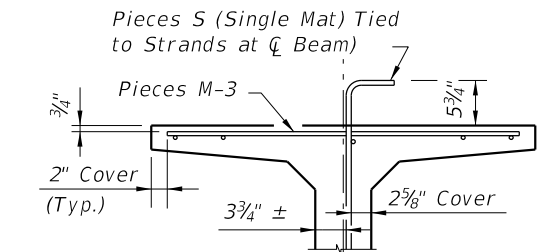


- NOTES:
- A. Work this Index with Index 450-010 - Typical Florida-I Beam Details and Notes and the Florida-I Beam - Table of Beam Variables in Structures Plans.
- B. For referenced notes, see Index 450-010.
- C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam - Table of Beam Variables in Structures Plans.

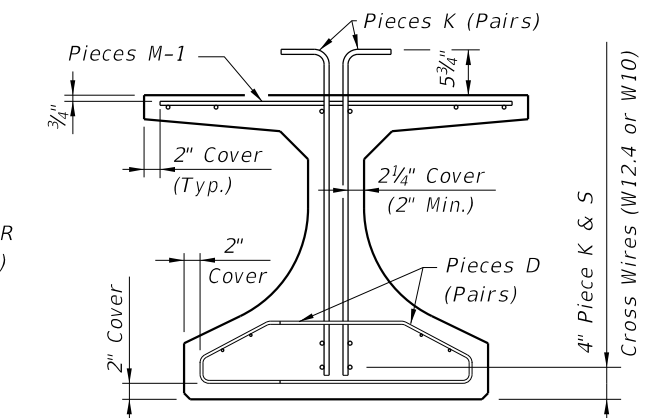
# ALTERNATE REINFORCING STEEL (WWR) DETAILS



SECTION A-A FOR WELDED WIRE REINFORCEMENT



PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW (Conventional Reinforcing Bars A, C, Y and Strands not Shown for Clarity)

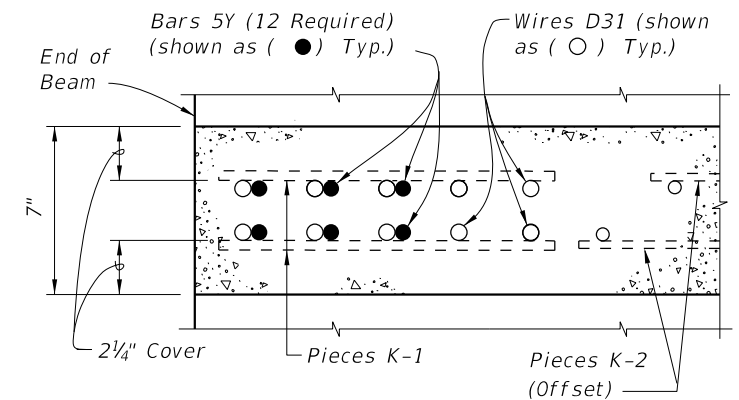
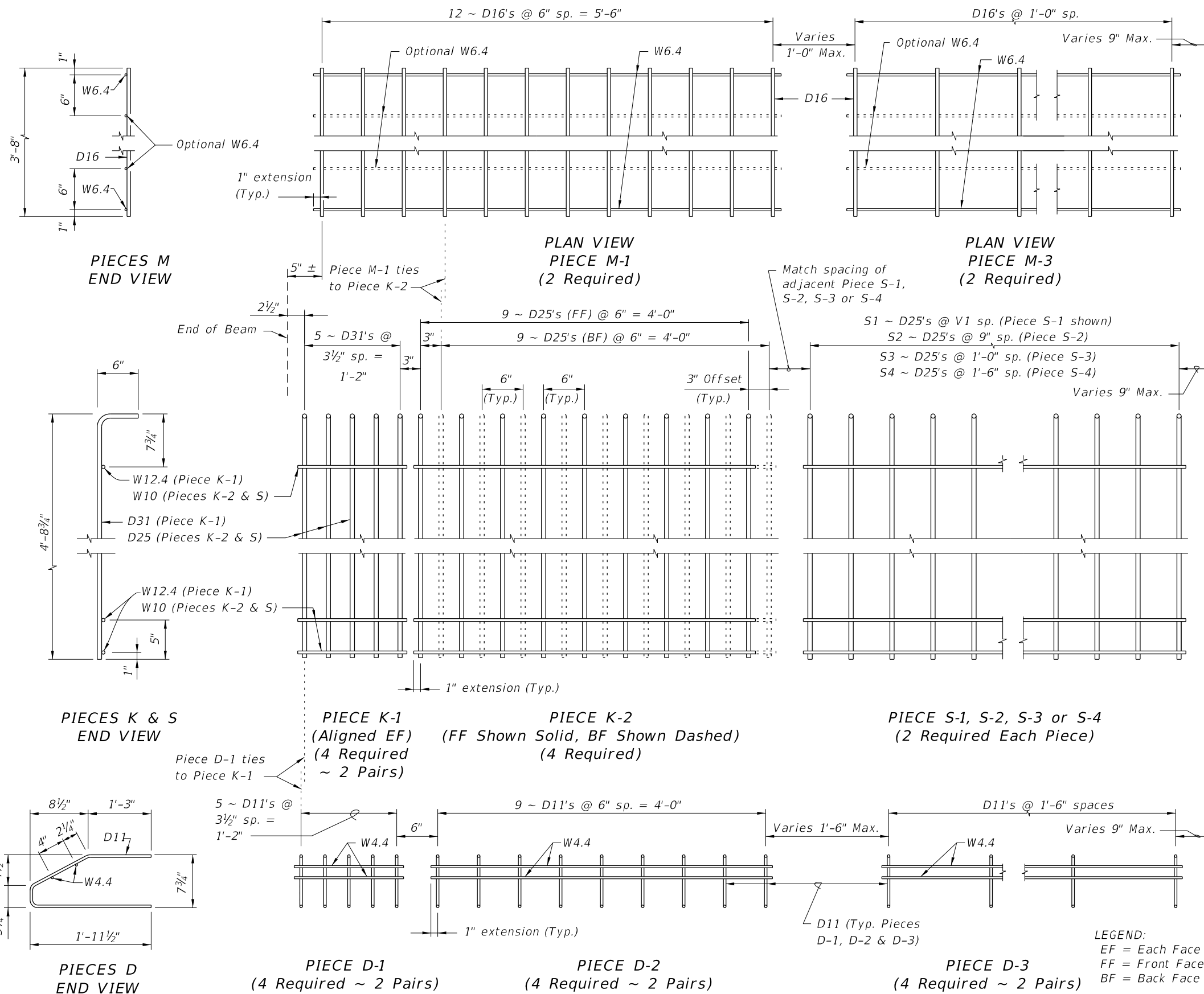
- NOTES:**
- See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
  - Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
  - Pieces may be fabricated in multiple length sections.
  - For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 450-010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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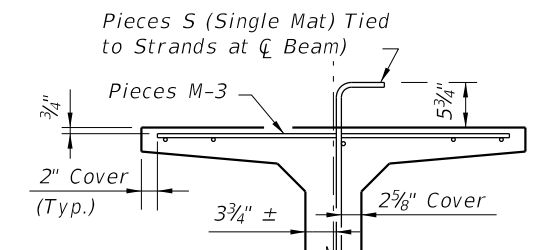
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DESCRIPTION:	
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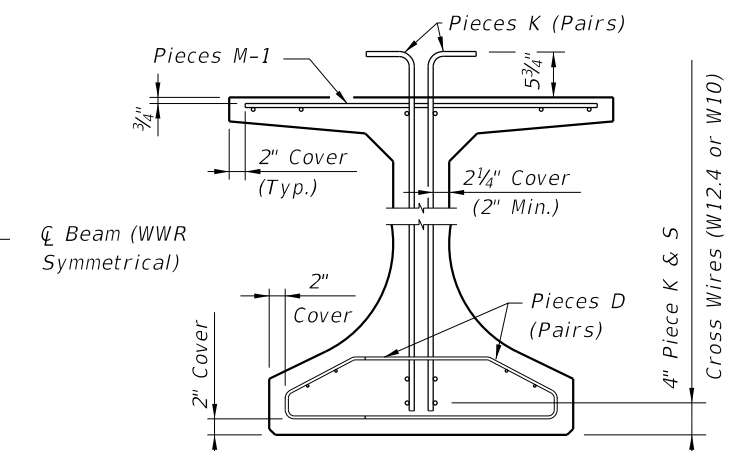
### ALTERNATE REINFORCING STEEL (WWR) DETAILS



SECTION A-A  
FOR WELDED WIRE REINFORCEMENT



PARTIAL SECTION AT CENTER BEAM

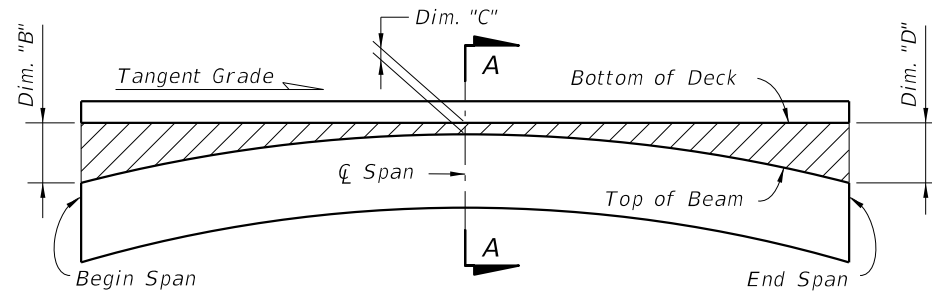


PARTIAL BEAM END VIEW  
(Conventional Reinforcing Bars A, C, Y  
and Strands not Shown for Clarity)

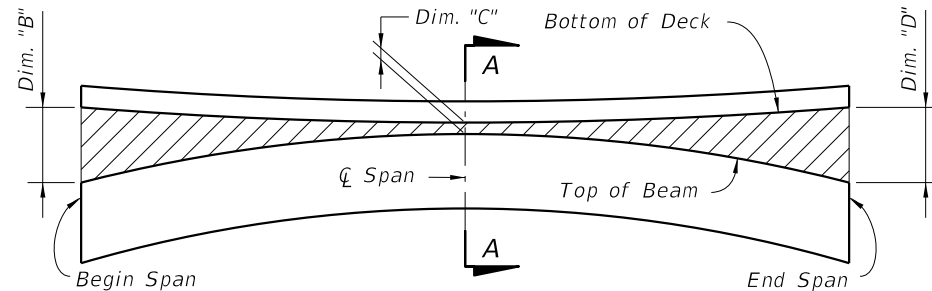
NOTES:

- a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
- b. Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
- c. Pieces may be fabricated in multiple length sections.
- d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 450-010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

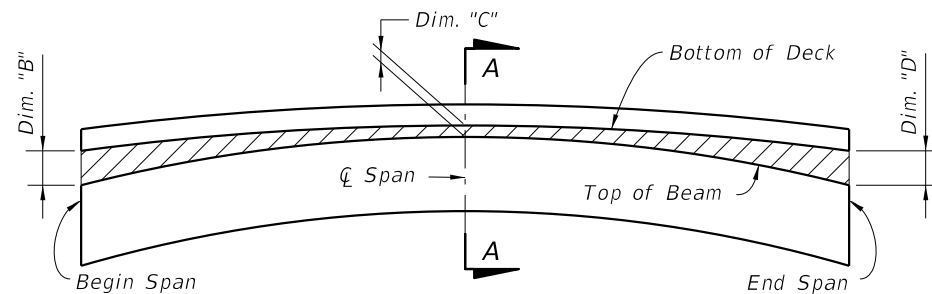




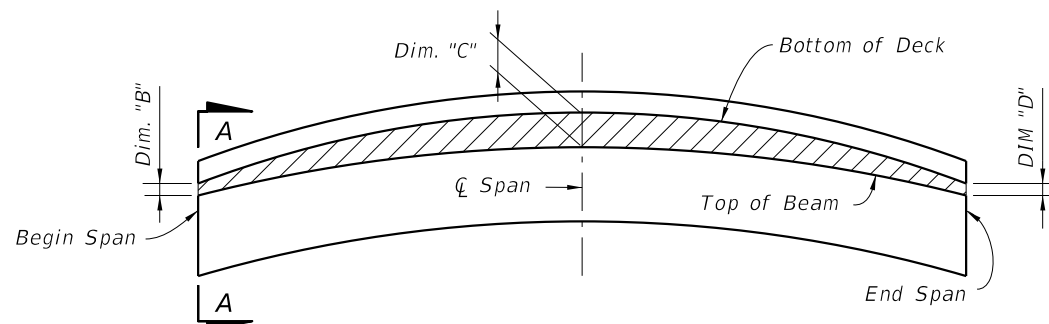
**BUILD-UP DIAGRAM FOR TANGENT SPANS  
(ALONG CL BEAM) (CASE 1)**



**BUILD-UP DIAGRAM FOR SAG VERTICAL CURVE & HORIZONTAL CURVE SPANS  
(ALONG CL BEAM) (CASE 2)**



**BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS  
- CONTROL AT CL SPAN  
(ALONG CL BEAM) (CASE 3)**

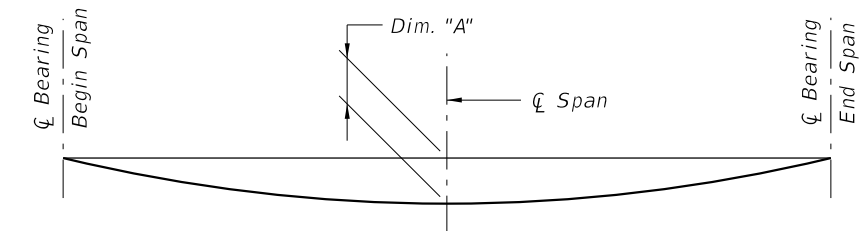


**BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS  
- CONTROL AT BEGIN OR END SPAN  
(ALONG CL BEAM) (CASE 4)**

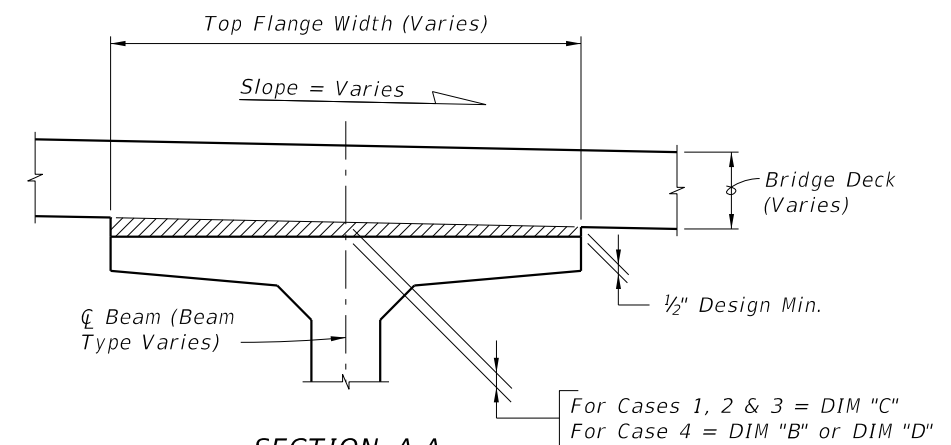
### BEAM CAMBER AND BUILD-UP NOTES:

The build-up values given in the Data Table\* are based on theoretical beam cambers. The Contractor shall monitor beam cambers for the purpose of predicting camber values at the time of the deck pour. If the predicted cambers based on field measurements differ more than +/- 1" from the theoretical "Net Beam Camber @ 120 Days" shown in the Data Table\*, obtain approval from the Engineer to modify the build-up dimensions as required. When the measured beam cambers create a conflict with the bottom mat of deck steel, notify the Engineer a minimum of 21 days prior to casting.

Dim. "A" includes the weight of the Stay-In-Place Formwork.



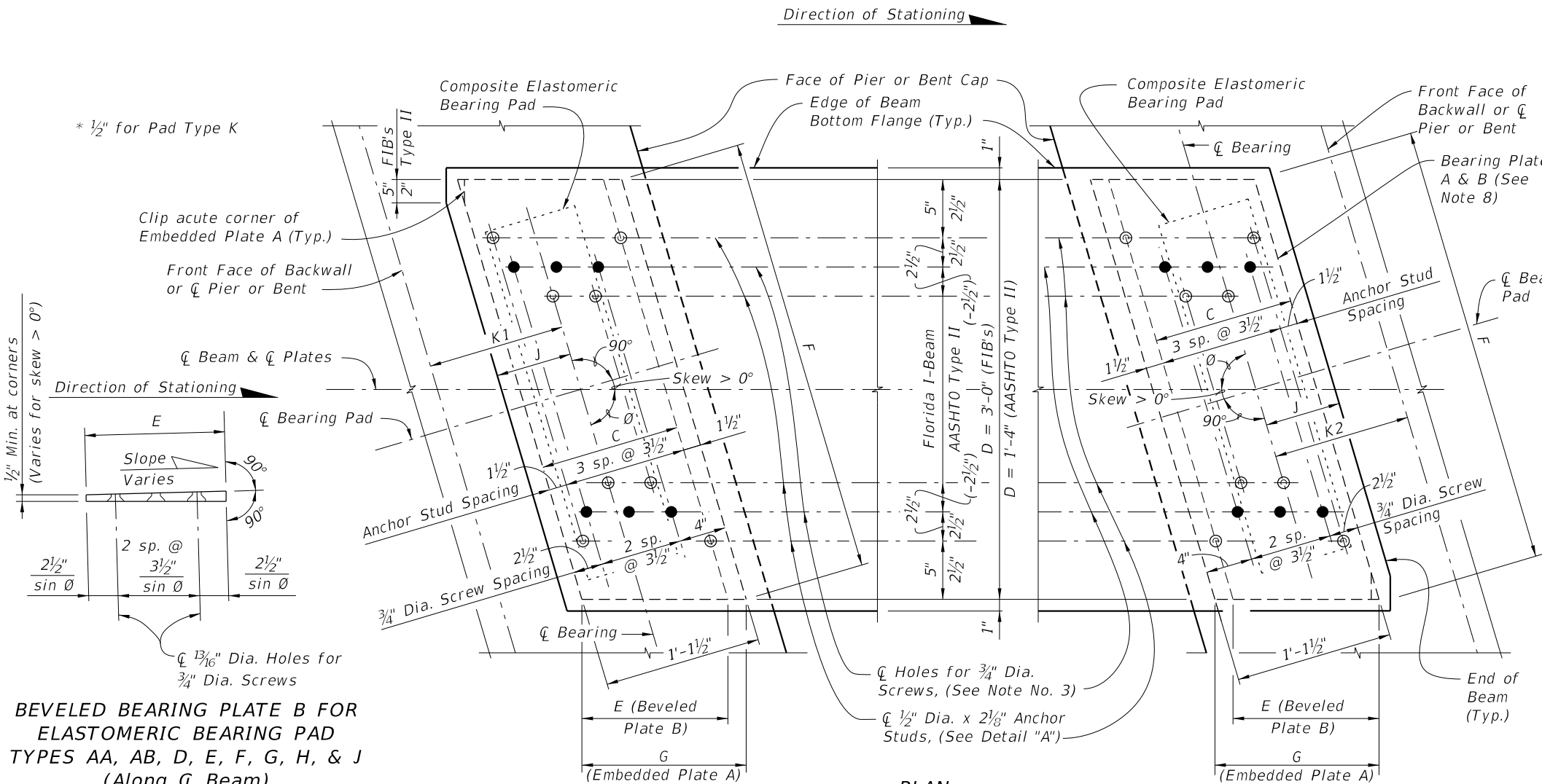
**DEAD LOAD DEFLECTION DIAGRAM**



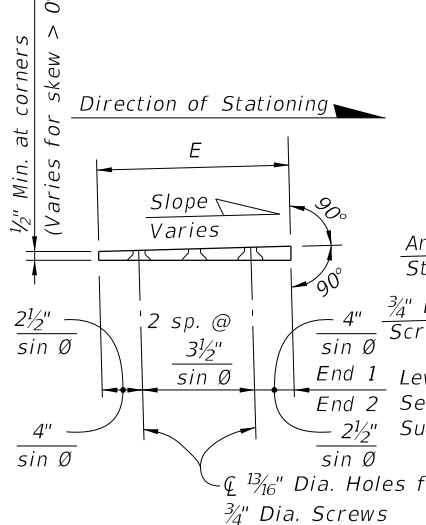
**SECTION A-A  
BUILD-UP OVER BEAMS  
(Florida-I Beam Shown  
AASHTO Type II Similar)**

\* NOTE:  
Work this Index with the Build-up and Deflection Data Table for Florida-I and AASHTO Type II Beams in Structures Plans.

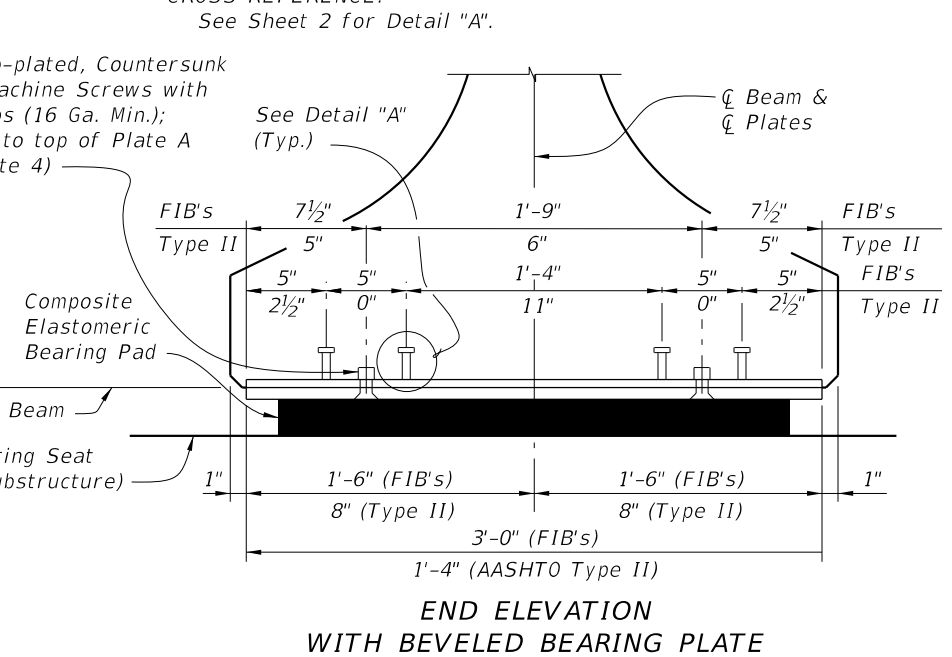
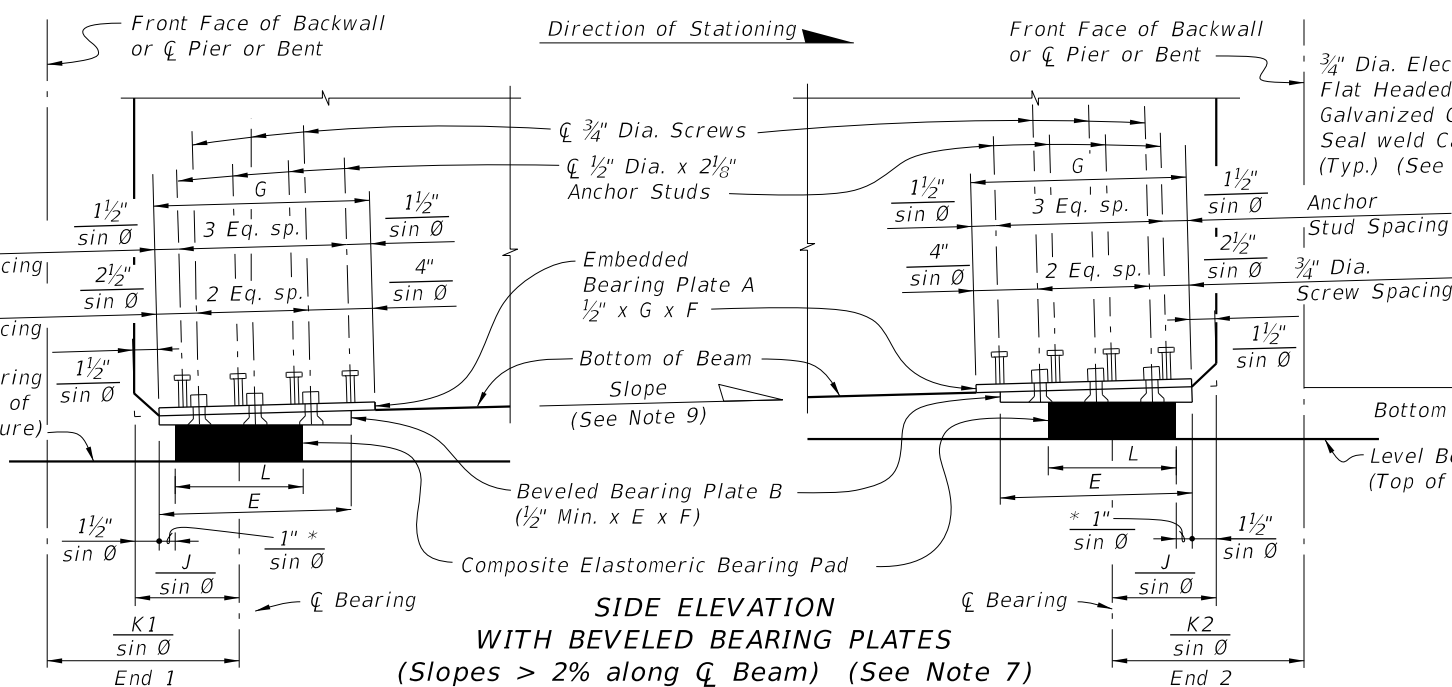
LAST REVISION	DESCRIPTION:	FY 2022-23 STANDARD PLANS	PRESTRESSED I-BEAMS BUILD-UP & DEFLECTION DATA	INDEX	SHEET
11/01/21				450-199	1 of 1



**BEVELED BEARING PLATE B FOR ELASTOMERIC BEARING PAD TYPES AA, AB, D, E, F, G, H, & J (Along  $\bar{C}$  Beam)**  
(Positive Slope shown; Negative Slope similar)



**BEVELED BEARING PLATE B FOR ELASTOMERIC BEARING PAD TYPE K (Along  $\bar{C}$  Beam)**



NOTES:

1. Work this sheet with Index 400-510 - Composite Elastomeric Bearing Pads, and the 'BEARING PLATE DATA TABLE' in the Structures Plans.
2. Embedded Bearing Plates A are required for all Florida-I beams. Beveled Bearing Plates B with Embedded Bearing Plates A are required for beams as scheduled in the 'BEARING PLATE DATA TABLE' in the Structures Plans.
3. Bearing plate material shall conform to ASTM A36 or ASTM A709 (Grade 36 or 50). Headed Concrete Anchor Studs shall conform to Specification Section 502. Hot-dip galvanize Bearing Plates A & B after fabrication except that Galvanized Caps may be welded in place after hot-dip galvanizing. Drill Bearing Plates A and B as an assembled unit, thread Bearing Plate A only. Holes are not required in Plate A when Plate B is not required. Drill and thread holes perpendicular to Embedded Plate A and prior to plates being galvanized (ASTM A 123).
4. Provide Electroplated, Flat Head Cap Screws in accordance with ASTM F 835. Electroplating shall be ASTM B633, SC 2, Type 1. Provide screws long enough to maintain a  $\frac{3}{4}$ " minimum embedment into Embedded Bearing Plate A and Galvanized Cap. Provide steel Galvanized Caps with  $\frac{1}{2}$ " Min. to  $1\frac{1}{2}$ " Max. height and nominal 1" inside diameter.
5. Include the cost of Bearing Plates in the pay item for Prestressed Beams.
6. For Pad Type and Dimensions C, D, E, F and G, see the 'BEARING PLATE DATA TABLE' in the Structures Plans. For Dimensions J, K1 and K2, see 'TABLE OF BEAM VARIABLES' in the Structures Plans.
7. All details and dimensions shown are along  $\bar{C}$  Beam, except for dimensions to  $\frac{3}{4}$ " Dia. Screws and  $\frac{1}{2}$ " Dia. x  $2\frac{1}{8}$ " Anchor Studs, which are along  $\bar{C}$  Screws or  $\bar{C}$  Anchor Studs. Positive Slope shown, Negative Slope similar.
8. When Skew =  $0^\circ$ , F = D = 3'-0" (Florida-I Beams) or 1'-4" (AASHTO Type II Beams) E = C, and G = 1'-1 $\frac{1}{2}$ ".
9. Slope is determined along  $\bar{C}$  Beam at  $\bar{C}$  Bearing. See 'BEARING PLATE DATA TABLE' in the Structures Plans for Slope and Angle  $\theta$ .

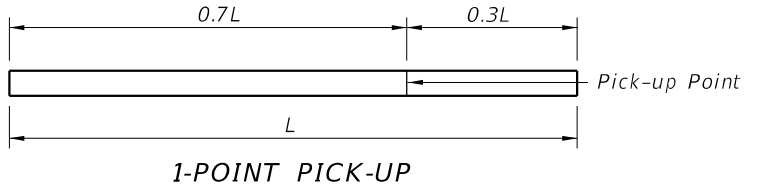
CROSS REFERENCE:  
See Sheet 2 for Detail "A".

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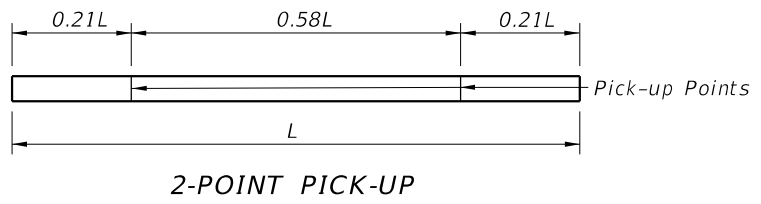
LAST REVISION 07/01/14	DESCRIPTION: <div data-bbox="1006 1911 1131 1977" data-label="Image"> </div> FY 2022-23 STANDARD PLANS	BEARING PLATES (TYPE 1) - PRESTRESSED FLORIDA-I AND AASHTO TYPE II BEAMS	INDEX 450-511	SHEET 1 of 2
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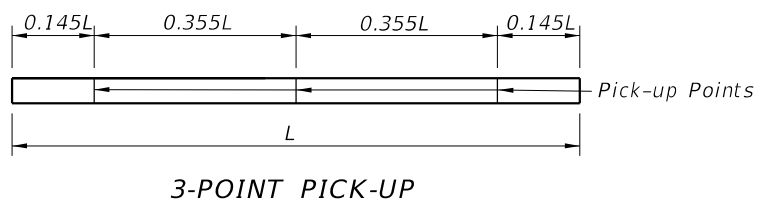
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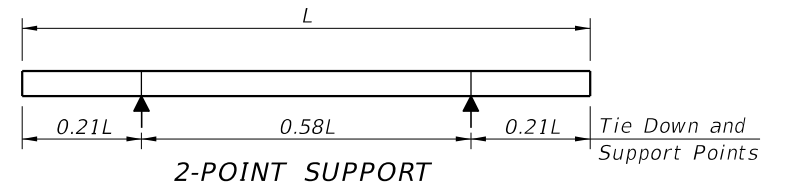
1-POINT PICK-UP



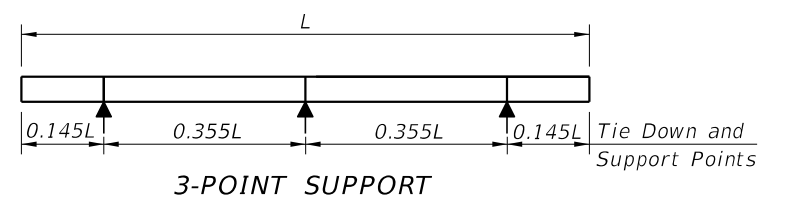
2-POINT PICK-UP



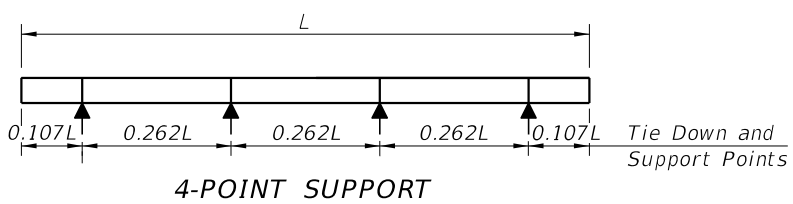
3-POINT PICK-UP  
PILE PICK-UP DETAILS



2-POINT SUPPORT



3-POINT SUPPORT

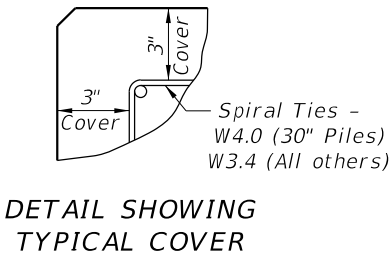
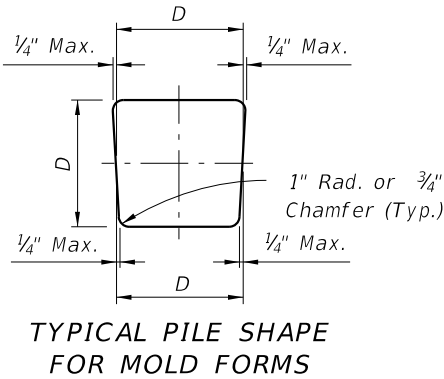


4-POINT SUPPORT  
STORAGE AND TRANSPORTATION SUPPORT DETAILS

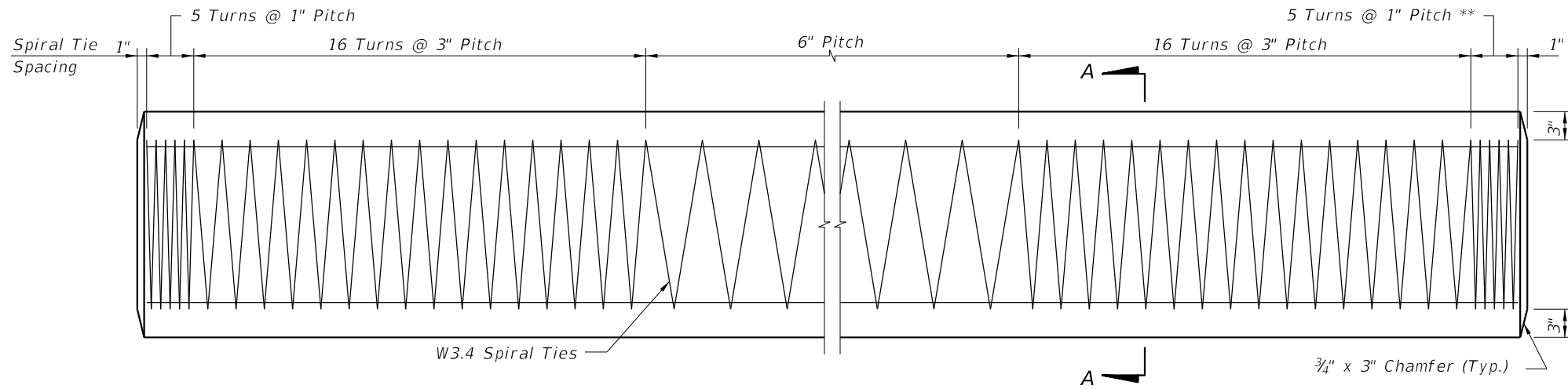
PRESTRESSED CONCRETE PILE NOTES:

1. Work this Index with the Square Prestressed Concrete Pile Splices (Index 455-002), the Prestressed Concrete Pile Standards (Index 455-012 thru 455-030), the High Moment Capacity Square Prestressed Concrete Pile (Index 455-031) and the Pile Data Table in the Structures Plans.
2. Concrete:
  - A. Piles: Class V (Special), except use Class VI for High Moment Capacity Pile (Index 455-031).
  - B. High Capacity Splice Collar: Class V (Special).
  - C. See "GENERAL NOTES" in the Structures Plans for locations where the use of Highly Reactive Pozzolans is required.
3. Concrete strength at time of prestress transfer:
  - A. Piles: 4,000 psi minimum.
  - B. High Moment Capacity Piles: 6,500 psi minimum.
4. Carbon-Steel Reinforcing:
  - A. Bars: Meet the requirements of Specification Section 415.
  - B. Prestressing Strands: Meet the requirements of Specification Section 933.
  - C. Protect all strands permanently exposed to the environment and not embedded under final conditions in accordance with Specification Section 450.
5. Spiral Ties:
  - A. Tie each wrap of the spiral strand to a minimum of two corner strands.
  - B. One full turn required for spiral splices.
6. Pile Splices: Fill dowel holes and form the joint between pile sections with a Type AB Epoxy Compound in accordance with Specification Section 962. Use an Epoxy Bonding Compound or an Epoxy Mortar as recommended by the Manufacturer.

TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS							
	D = Square Pile Size (inches)					Required Storage and Transportation Detail	Pick-Up Detail
	12	14	18	24	30		
Maximum Pile Length (Feet)	48	52	59	68	87	2, 3, or 4 point	1 Point
	69	75	85	98	124	2, 3, or 4 point	2 Point
	99	107	121	140	178	3 or 4 point	3 Point

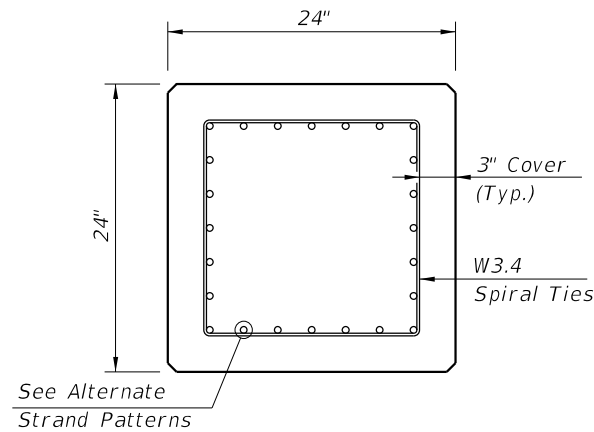


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ELEVATION

\*\* See Note 4 on Index 455-002



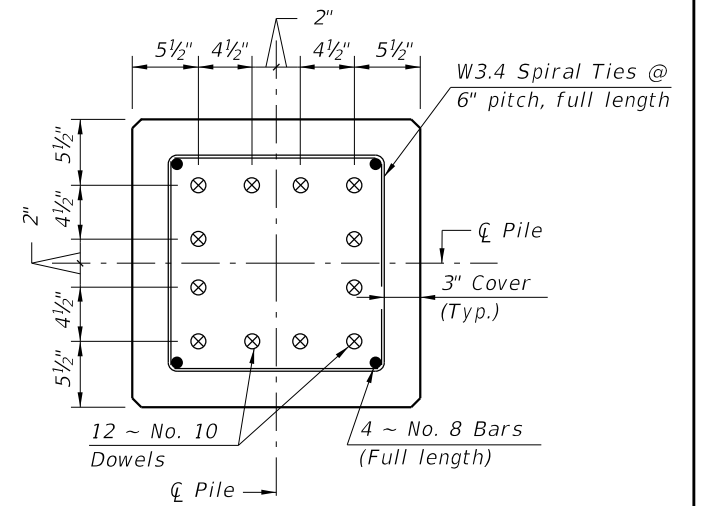
SECTION A-A

ALTERNATE STRAND PATTERNS

- 16 ~ 0.6" Ø, Grade 270 LRS, at 44 kips
- 20 ~ 1/2" Ø (Special), Grade 270 LRS, at 34 kips
- 24 ~ 1/2" Ø, Grade 270 LRS, at 31 kips

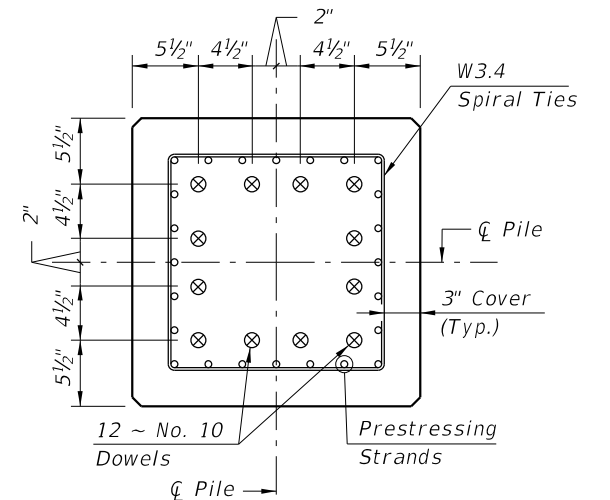
NOTES:

- Work this Index with Index 455-001 - Typical Details and Notes for Square Prestressed Concrete Piles and Index 455-002 - Square Prestressed Concrete Pile Splices.
- Any of the given Alternate Strand Patterns may be utilized. The strands shall be located as follows:  
Place one strand at each corner and place the remaining strands equally spaced between the corner strands.  
The total strand pattern shall be concentric with the nominal concrete section of the pile.



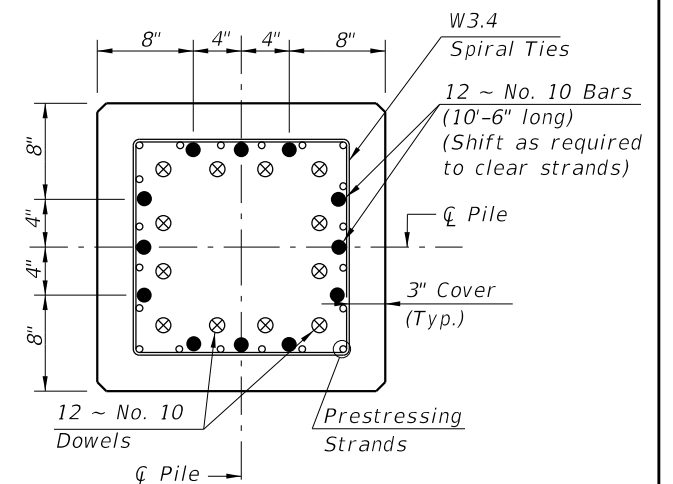
SECTION D-D

(See Non-Drivable Unforeseen Reinforced Precast Pile Splice Detail)



SECTION E-E

(See Drivable Prestressed Precast Pile Splice Detail)



SECTION F-F

(See Drivable Preplanned Pile Splice Detail)

LAST  
REVISION  
01/01/12

REVISION

DESCRIPTION:

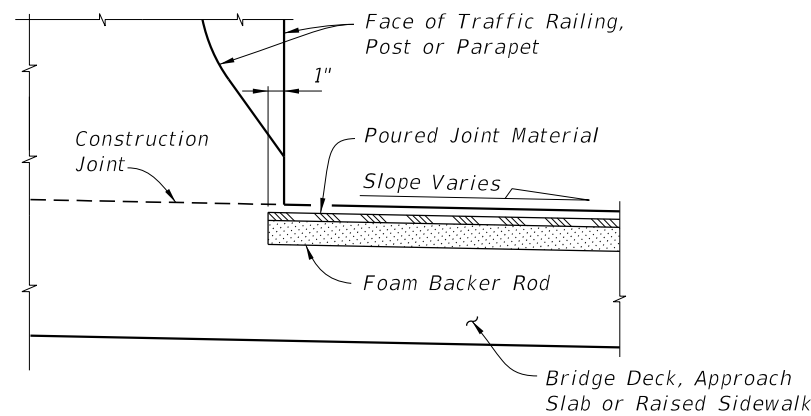


FY 2022-23  
STANDARD PLANS

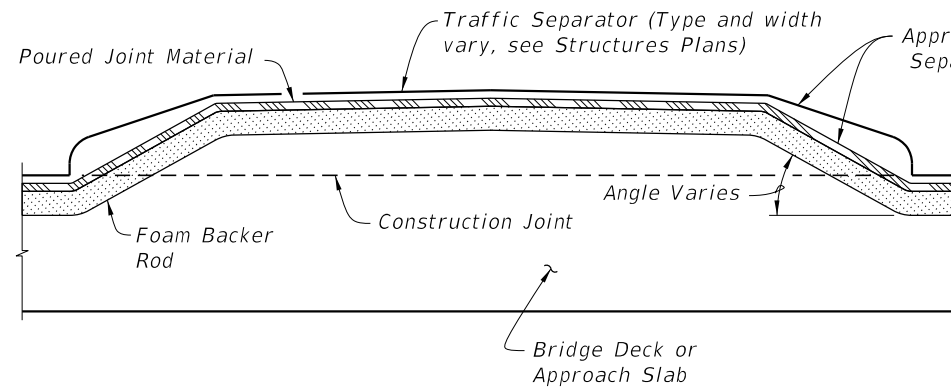
24" SQUARE PRESTRESSED CONCRETE PILE

INDEX  
455-024

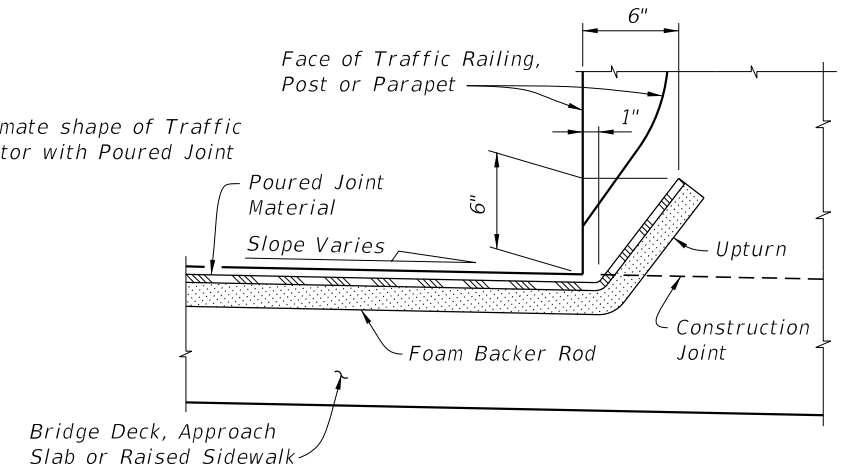
SHEET  
1 of 1



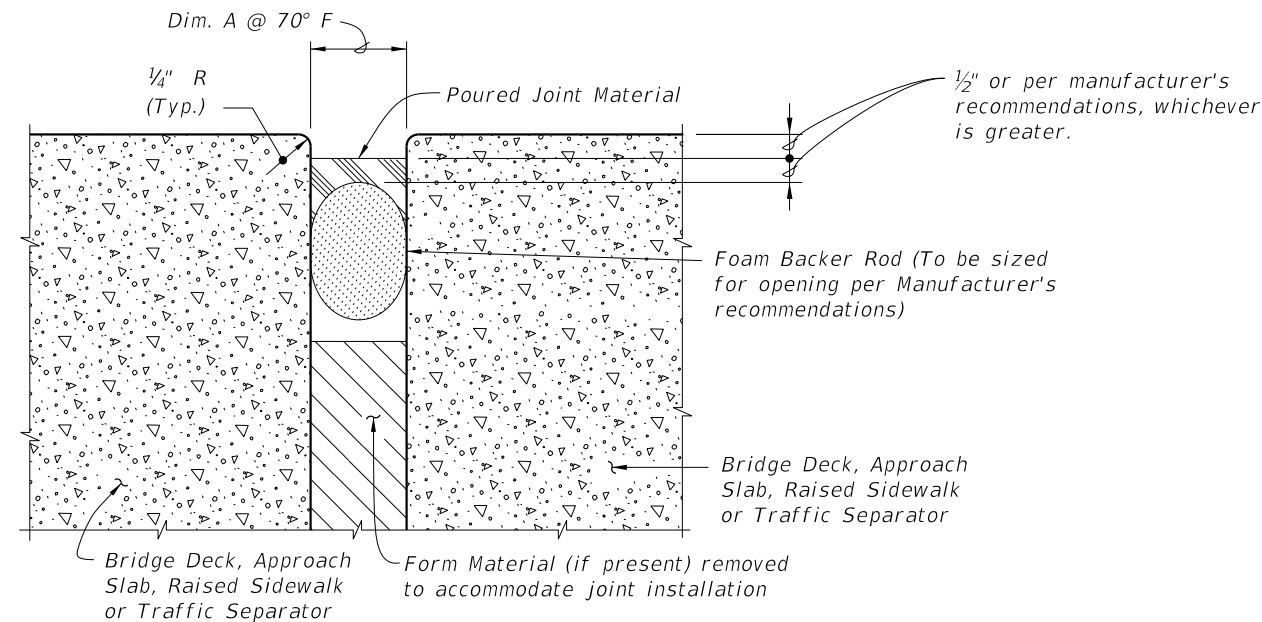
PARTIAL SECTION ALONG Q JOINT  
JOINT TREATMENT AT HIGH SIDE OF  
DECK WITH SLOPES 1% OR GREATER



PARTIAL SECTION ALONG Q JOINT,  
JOINT TREATMENT AT TRAFFIC SEPARATOR



PARTIAL SECTION ALONG Q JOINT  
JOINT TREATMENT AT LOW SIDE OF DECK OR  
HIGH SIDE OF DECK WITH SLOPES < 1%



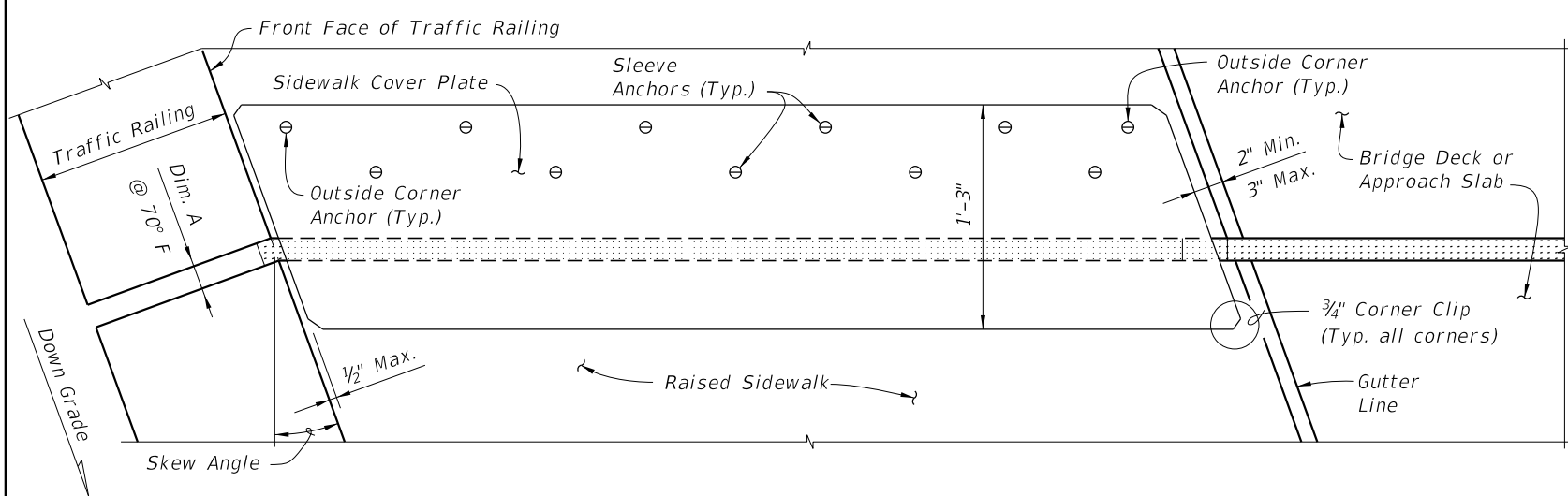
TYPICAL SECTION THRU JOINT

GENERAL NOTES:

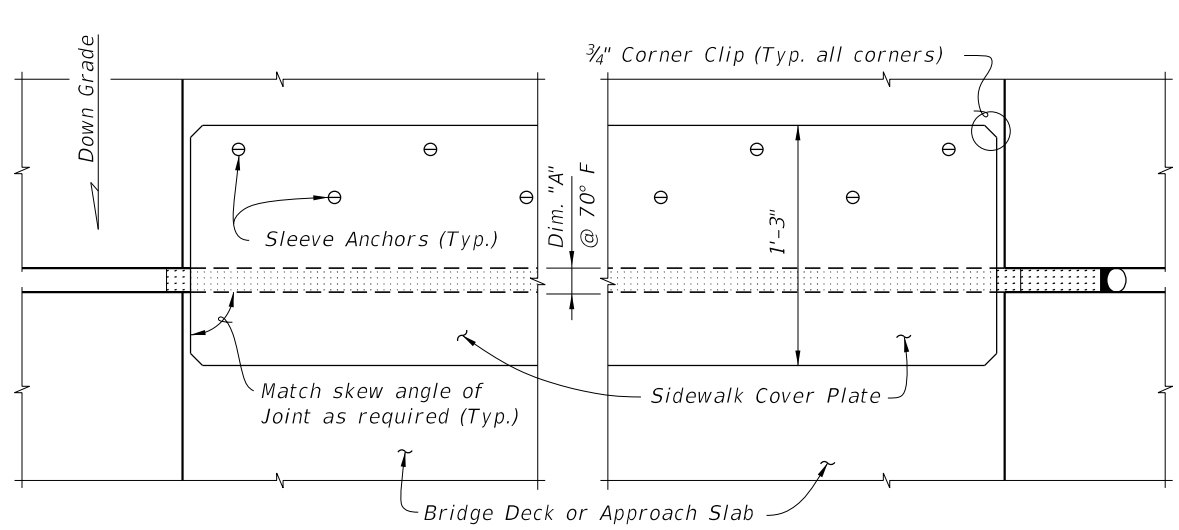
1. Furnish and install Poured Joint With Backer Rod Expansion Joint Systems in accordance with Specification Sections 458 and 932 using Type D silicone sealant material.
2. Refer to the Structures Plans, Poured Expansion Joint Data Table for Dim. A @ 70° F.

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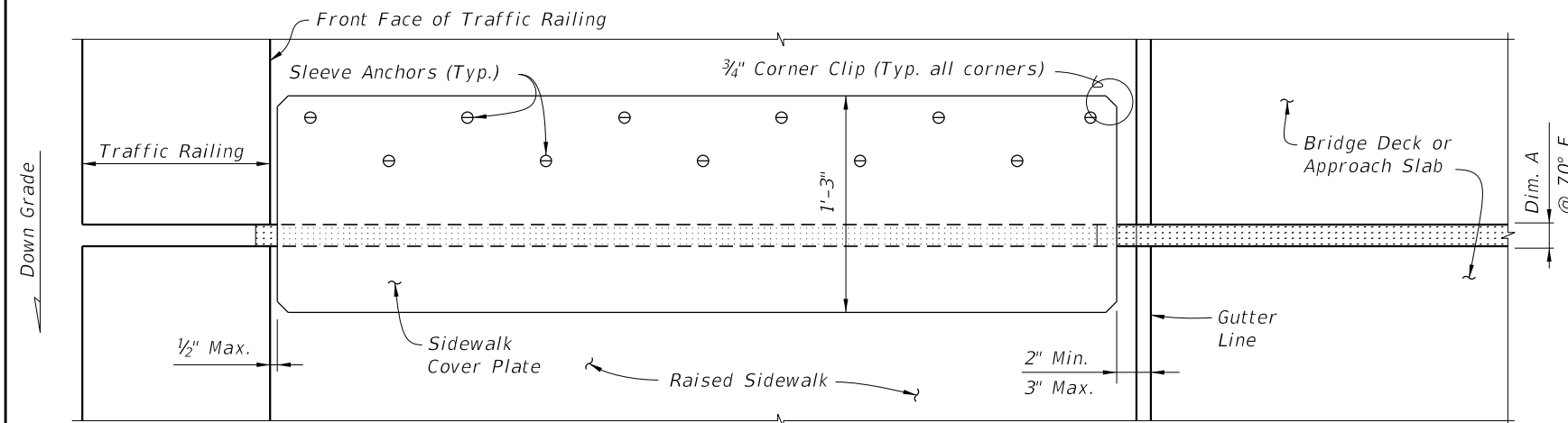
LAST REVISION 07/01/14	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	EXPANSION JOINT SYSTEM - POURED JOINT WITH BACKER ROD	INDEX 458-110	SHEET 1 of 2
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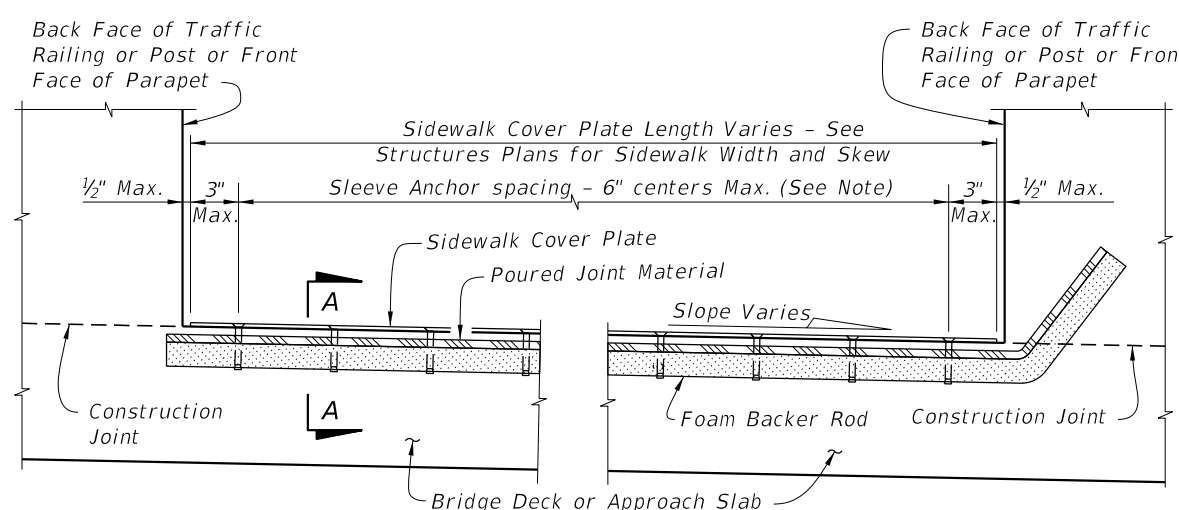
PARTIAL PLAN VIEW OF SKEWED JOINTS



PARTIAL PLAN VIEW

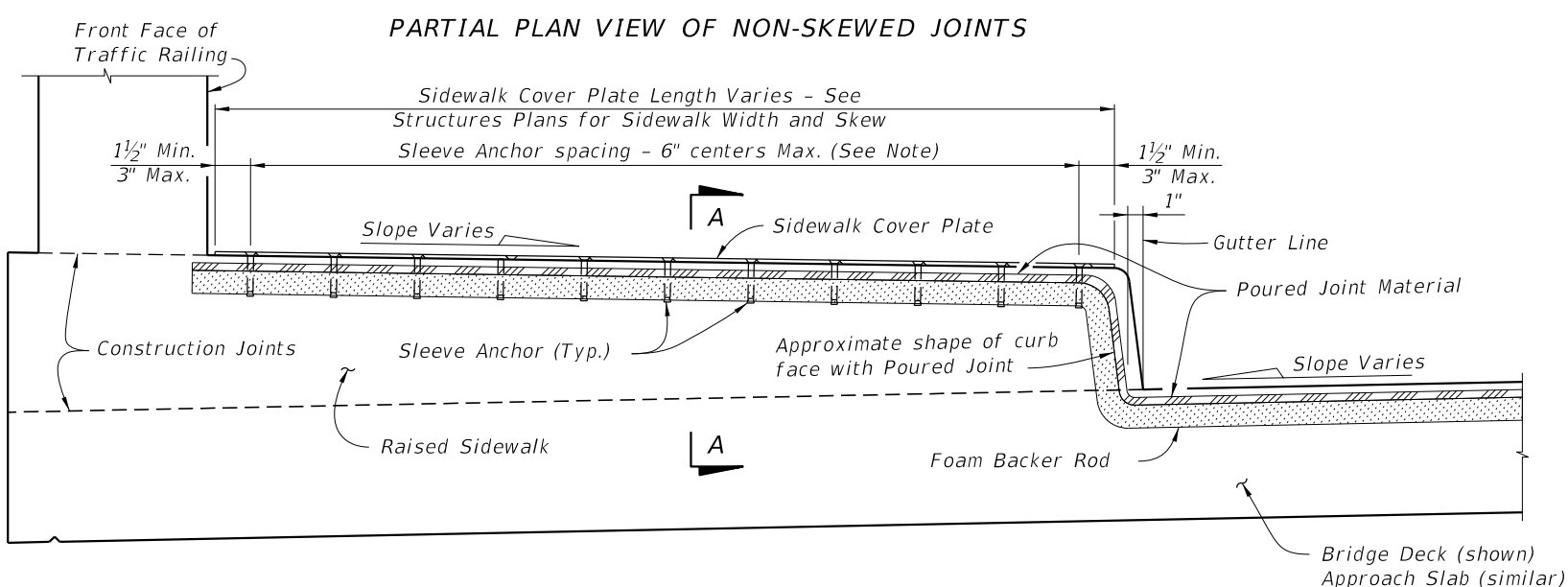


PARTIAL PLAN VIEW OF NON-SKEWED JOINTS



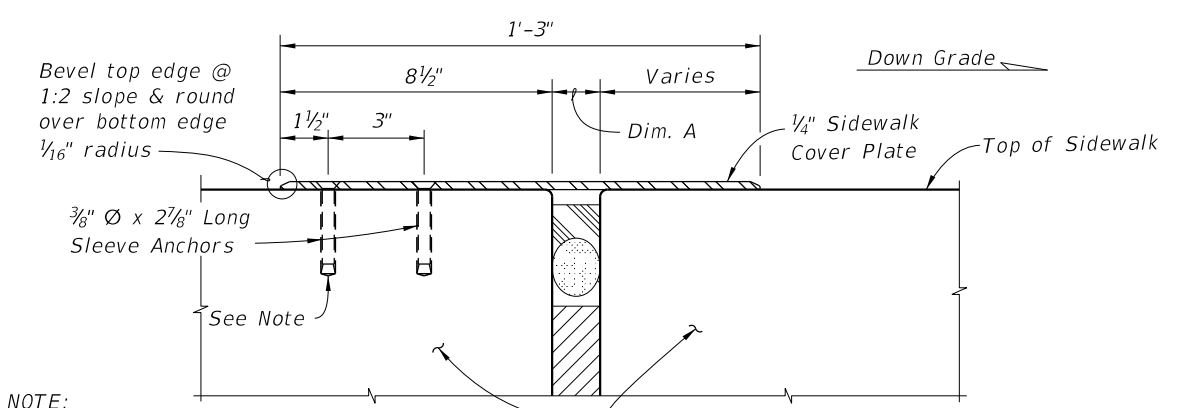
PARTIAL SECTION ALONG Q JOINT

FLUSH SIDEWALK DETAIL



PARTIAL SECTION ALONG Q JOINT

RAISED SIDEWALK DETAIL

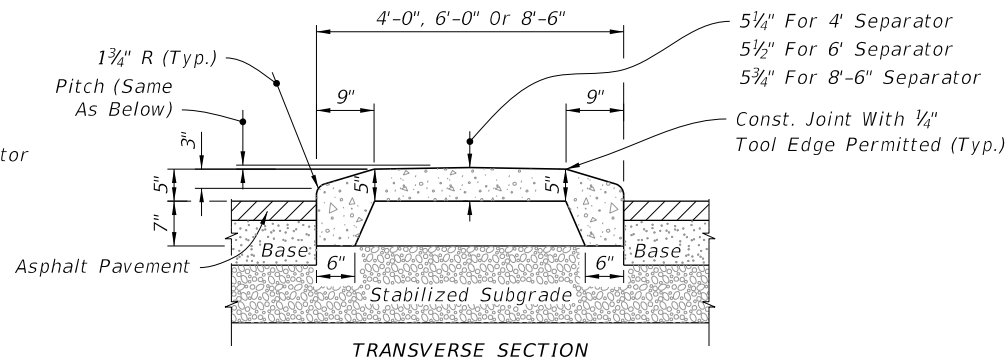
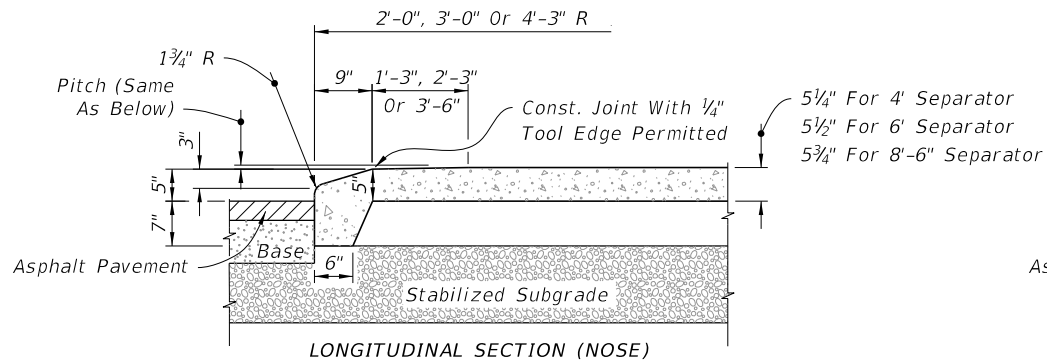


NOTE:  
Sleeve Anchors are required at the two outside corners of the Sidewalk Cover Plate. Space Sleeve Anchors uniformly between the corner anchors.

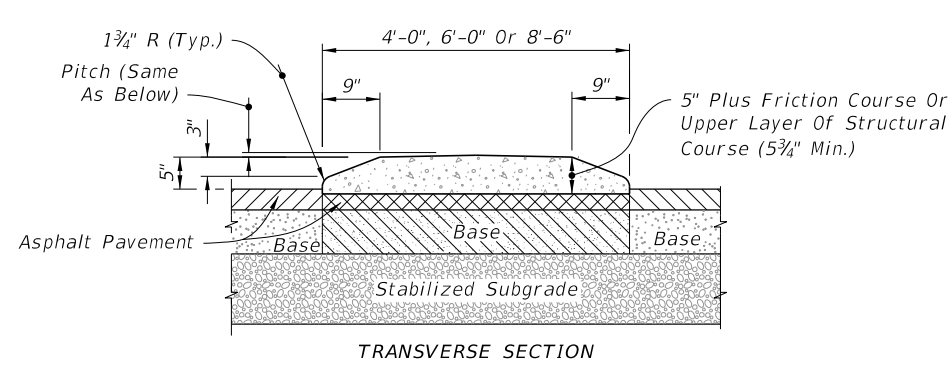
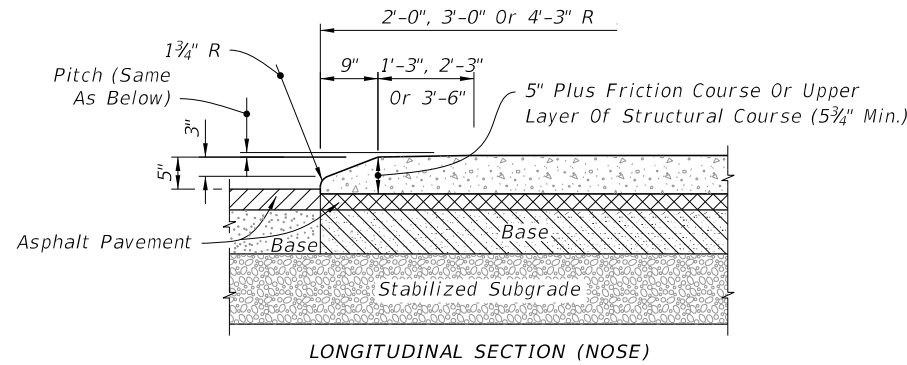
SECTION A-A

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<p>LAST REVISION 07/01/13</p>	<p>DESCRIPTION:</p>	<p>FY 2022-23 STANDARD PLANS</p>	<p>EXPANSION JOINT SYSTEM - POURED JOINT WITH BACKER ROD</p>	<p>INDEX 458-110</p>	<p>SHEET 2 of 2</p>
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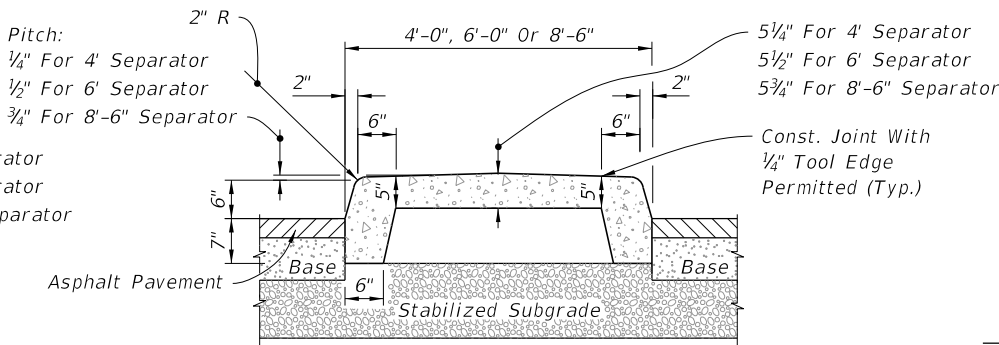
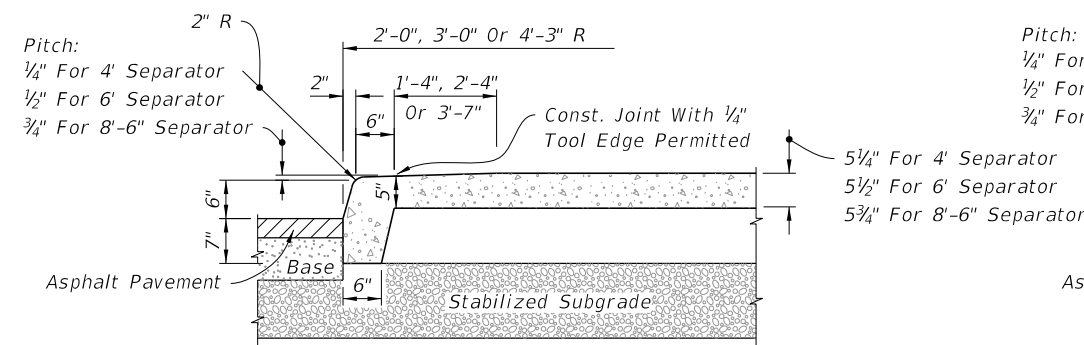


OPTION I

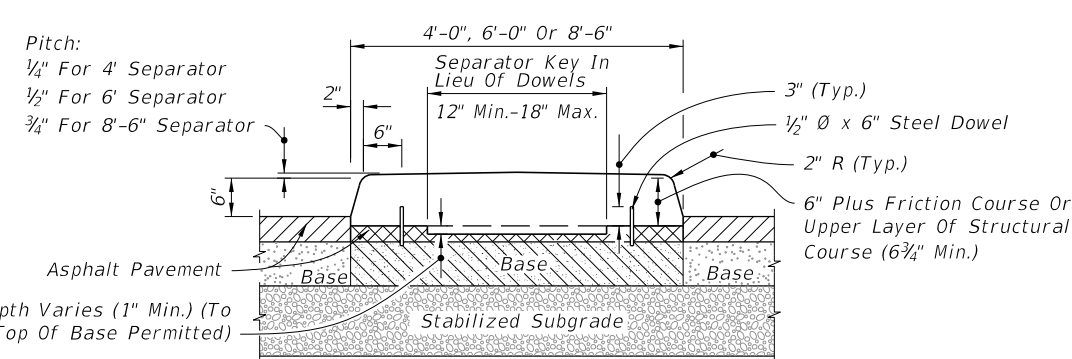
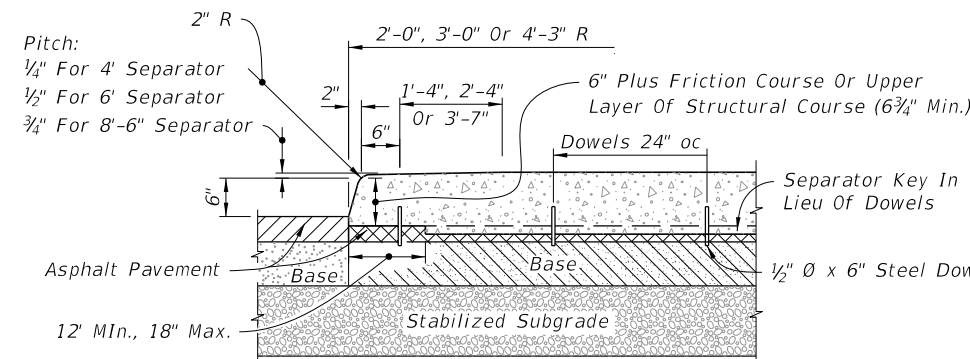


OPTION II

TYPE I - CONCRETE TRAFFIC SEPARATOR

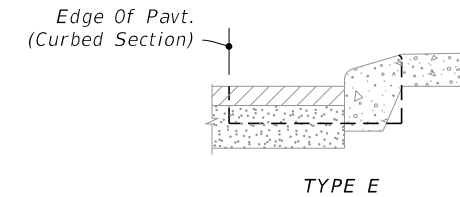


OPTION I

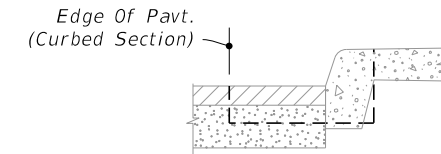


OPTION II

TYPE IV - CONCRETE TRAFFIC SEPARATOR

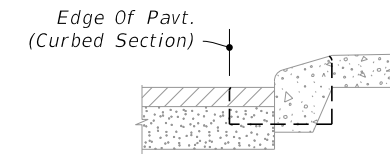


TYPE E

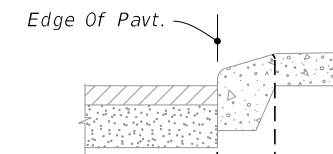


TYPE F

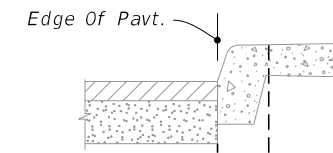
CURB AND GUTTER



TYPE A



TYPE B



TYPE D

CURB

MEDIAN CURB AND TRAFFIC SEPARATOR JUNCTURE DETAILS

(Option I Separator Shown, For Curb Details see Index 520-001)

NOTES:

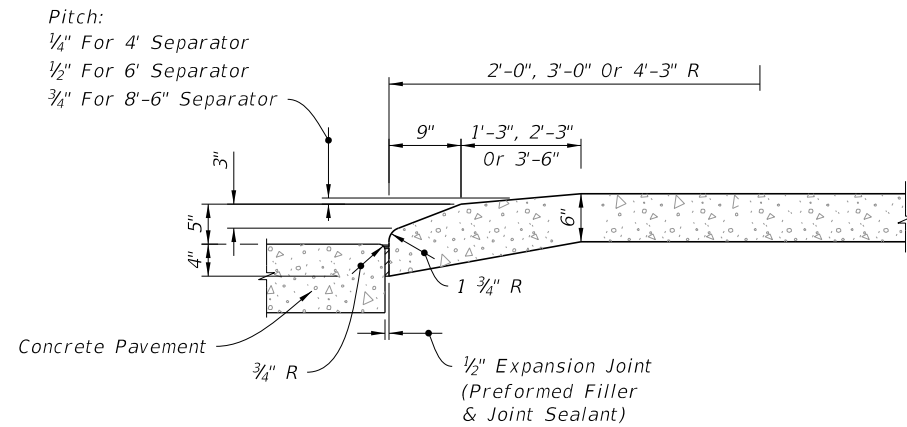
1. Separators Type I and IV are to be used with flexible pavement. Separators Types II and V are to be used with rigid pavement.
2. Either Option I or Option II may be used for Types I and IV separators except when a specific option is called for in the Plans.
3. For all separators provide 1/8"- 1/4" contraction joints at 10' centers (max.). Contraction joints adjacent to concrete pavement on tangents and flat curves to match the pavement joints, with intermediate joints not to exceed 10' center.

ROADWAY INSTALLATIONS - FLEXIBLE PAVEMENT

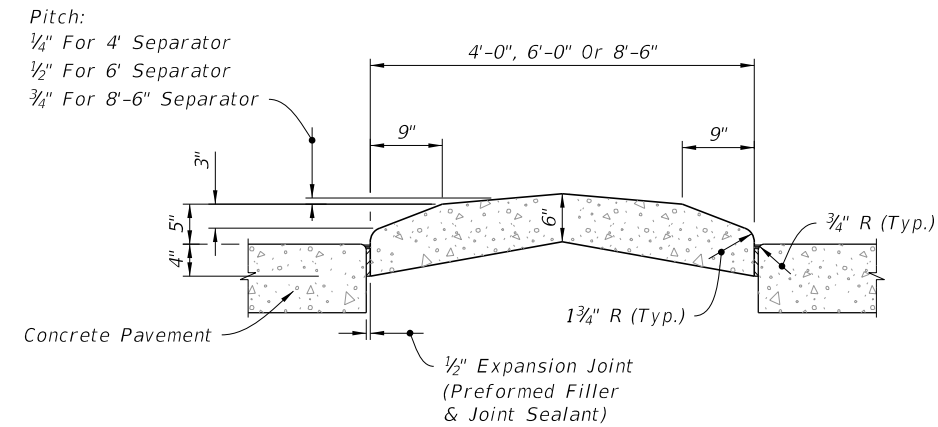
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LAST REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	TRAFFIC SEPARATORS	INDEX	SHEET
11/01/17					520-020	1 of 5



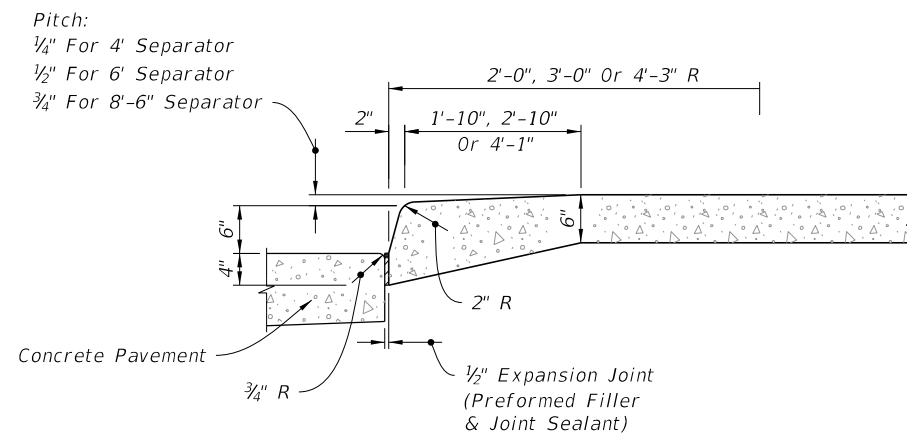


LONGITUDINAL SECTION (NOSE)

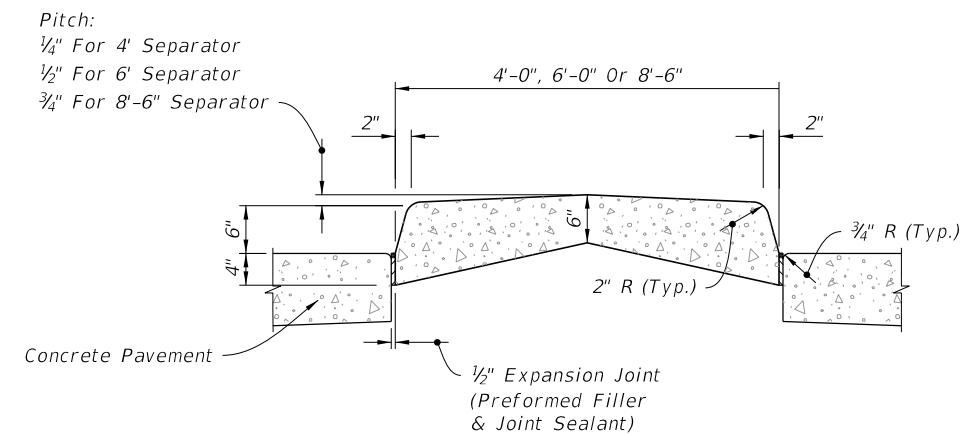


TRANSVERSE SECTION

TYPE II - CONCRETE TRAFFIC SEPARATOR



LONGITUDINAL SECTION (NOSE)



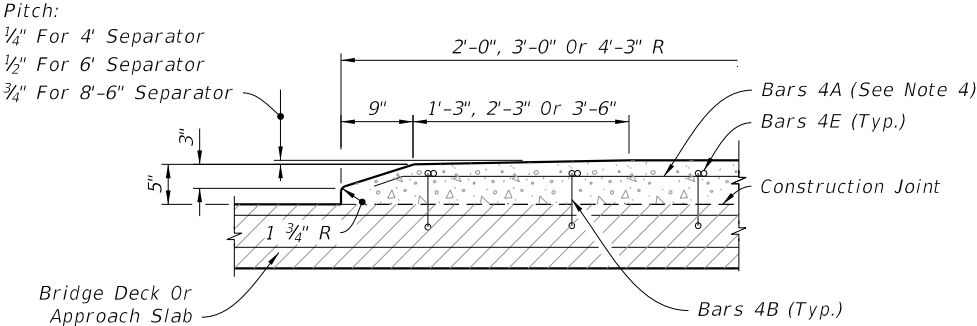
TRANSVERSE SECTION

TYPE V - CONCRETE TRAFFIC SEPARATOR

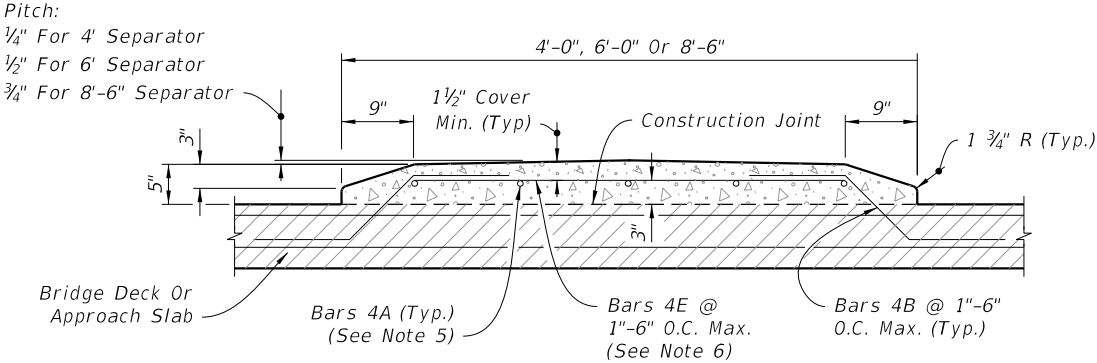
ROADWAY INSTALLATIONS - RIGID PAVEMENT

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LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	TRAFFIC SEPARATORS	INDEX 520-020	SHEET 2 of 5
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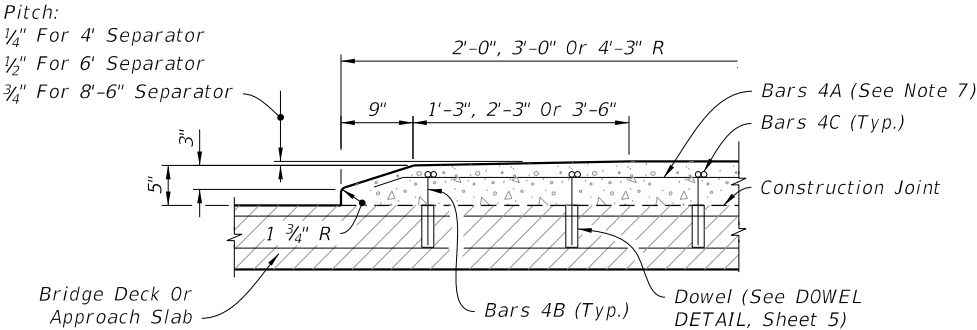


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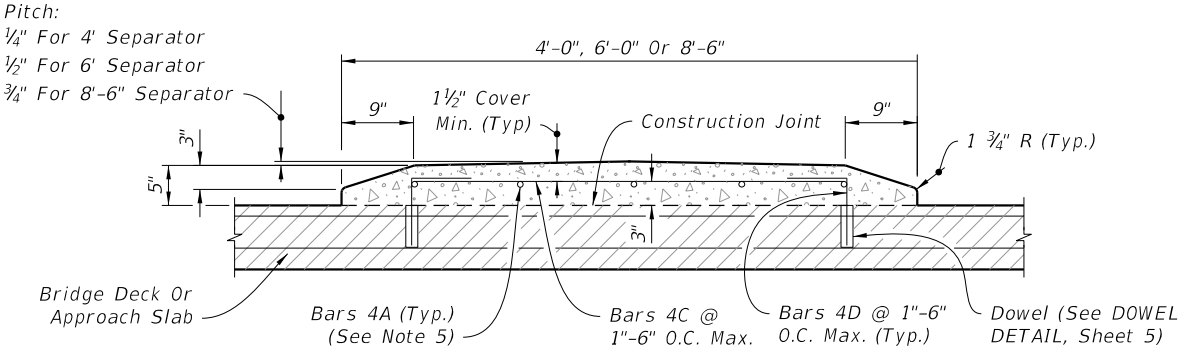


TRANSVERSE SECTION

OPTION I



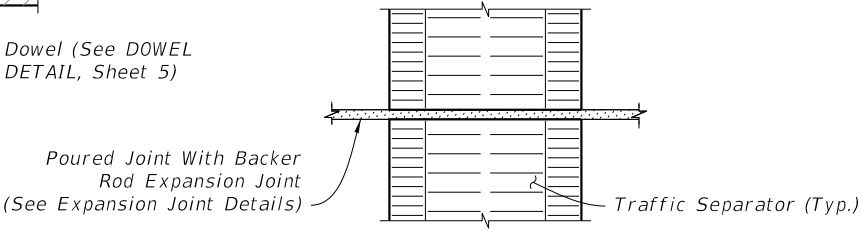
LONGITUDINAL SECTION (NOSE)



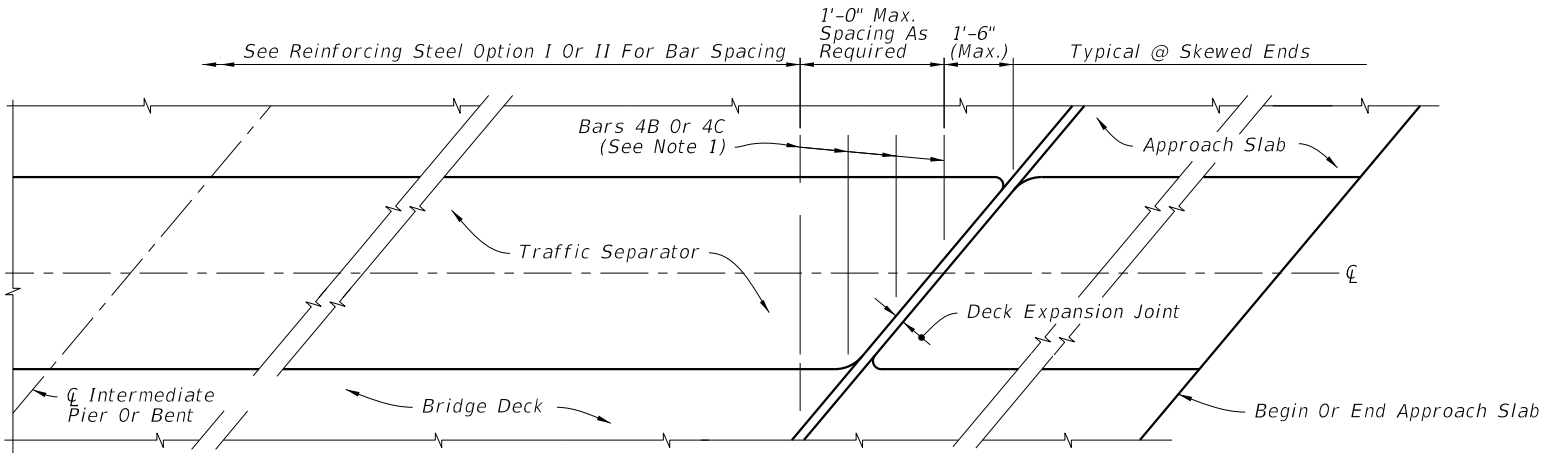
TRANSVERSE SECTION

OPTION II

- NOTES:**
1. Traffic Separator transverse reinforcement adjacent to deck expansion joints shall be field adjusted to maintain clearance and spacing. Bars shall be field cut as shown, bars may be rotated to maintain clearance.
  2. Traffic Separator ends at deck expansion joints shall follow the deck joint limits. Drainage joints and b" V-Grooves shall be placed perpendicular or radial to the  $\text{CL}$  of the Traffic Separator. See Structures Plans, Superstructure and Approach Slab Sheets for details.
  3. See Structures Plans, Superstructure Sheets for actual dimensions and joint orientation.
  4. Option II is not permitted on bridge decks with prestressing steel.
  5. Bar Spacing:  
4'-0" @ 3 equal spaces (continuous)  
6'-0" @ 5 equal spaces (continuous)  
8'-6" @ 7 equal spaces (continuous)
  6. At the Contractor's option, a one piece bar may be substituted for Bars 4B and 4E.
  7. Field bend and cut rebar as required to maintain cover.

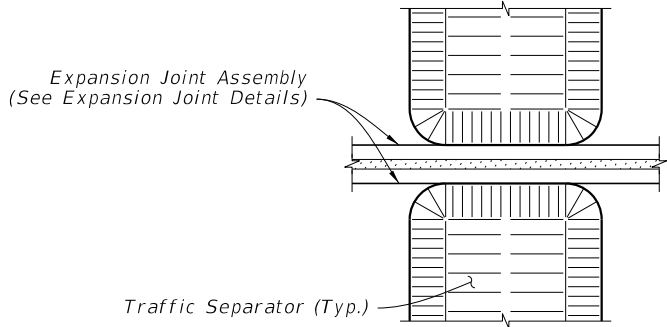


**REINFORCING STEEL**  
(Bridge Deck Shown, Approach Slab Similar)



**SKEWED BRIDGE DECK AND APPROACH SLAB WITH TRAFFIC SEPARATOR**  
(Deck Expansion Joint at Begin or End Bridge Shown, Expansion Joint at  $\text{CL}$  Pier or Intermediate Bents Similar)

**DETAIL AT POURED JOINT WITH BACKER ROD EXPANSION JOINTS**



**DETAIL AT EXPANSION JOINTS**  
(Strip Seal Shown, Other Armored Joint Types Similar)

**BRIDGE INSTALLATIONS - TYPE "E" CURB**

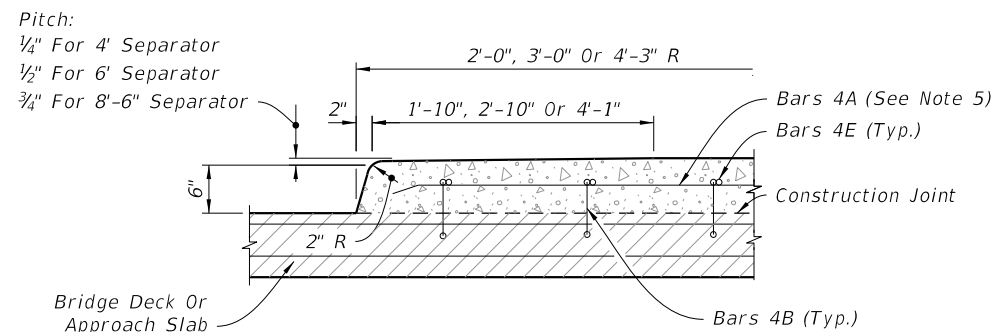


FY 2022-23  
STANDARD PLANS

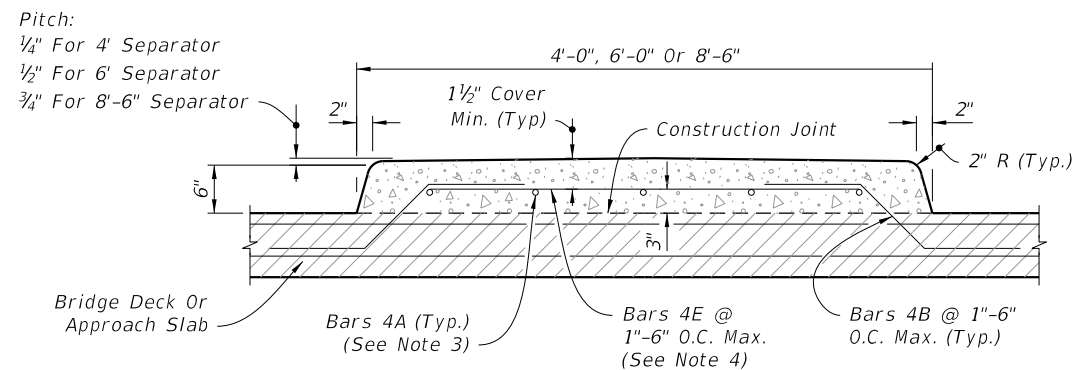
TRAFFIC SEPARATORS

INDEX  
520-020

SHEET  
3 of 5

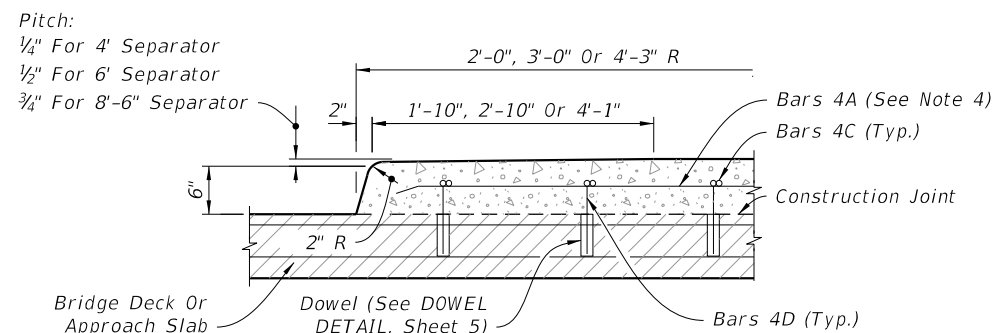


LONGITUDINAL SECTION (NOSE)

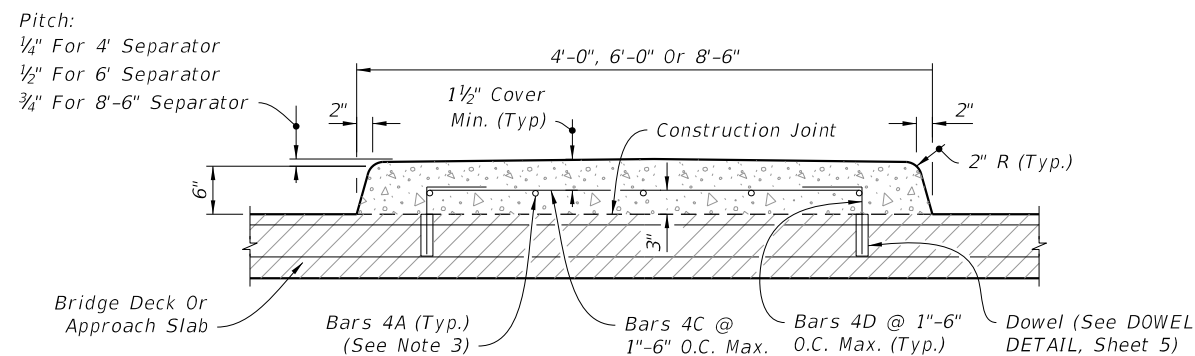


TRANSVERSE SECTION

OPTION I



LONGITUDINAL SECTION (NOSE)

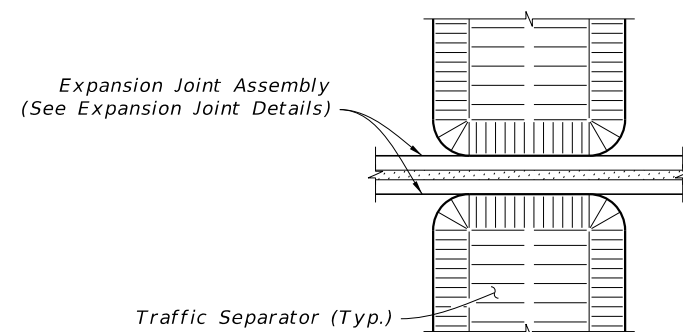


TRANSVERSE SECTION

OPTION II

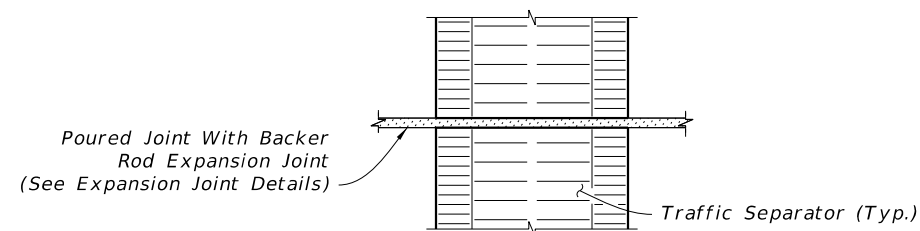
REINFORCING STEEL

(Bridge Deck Shown, Approach Slab Similar)



DETAIL AT EXPANSION JOINTS

(Strip Seal Shown, Other Armored Joint Types Similar)



DETAIL AT POURED JOINT WITH

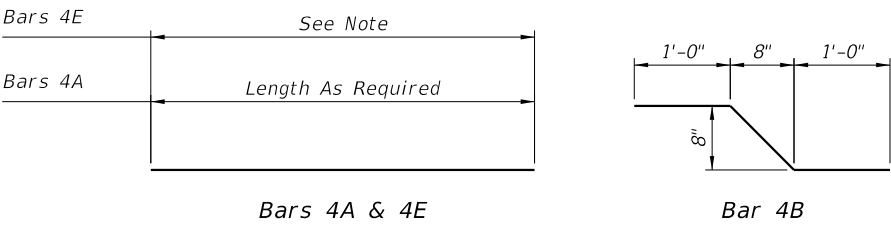
BACKER ROD EXPANSION JOINTS

NOTES:

1. Treatment of separators on straight bridges shown. For additional notes and treatment of separators on skewed bridges, see Sheet 2.
2. Option II is not permitted on bridge decks with prestressing steel.
3. Bar Spacing:  
4'-0" @ 3 equal spaces (continuous)  
6'-0" @ 5 equal spaces (continuous)  
8'-6" @ 7 equal spaces (continuous)
4. At the Contractor's option, a one piece bar may be substituted for Bars 4B and 4E.
5. Field bend and cut rebar as required to maintain cover.

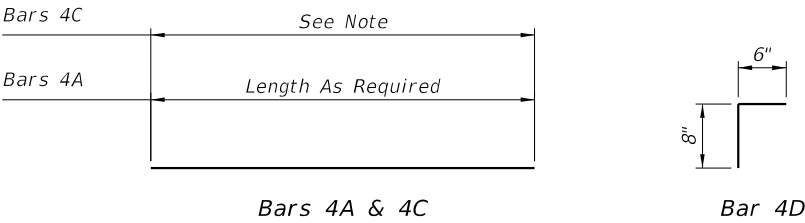
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LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2022-23 STANDARD PLANS	BRIDGE INSTALLATIONS - TYPE "F" CURB  TRAFFIC SEPARATORS	INDEX 520-020	SHEET 4 of 5
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NOTE:  
Length of Bars 4E is 2'-5" for 4'-0" Separator.  
Length of Bars 4E is 4'-5" for 6'-0" Separator.  
Length of Bars 4E is 6'-11" for 8'-6" Separator.

OPTION I



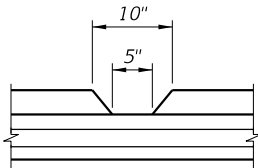
NOTE:  
Length of Bars 4C is 2'-4 1/2" for 4'-0" Separator.  
Length of Bars 4C is 4'-4 1/2" for 6'-0" Separator.  
Length of Bars 4C is 6'-10 1/2" for 8'-6" Separator.

OPTION II

REINFORCING STEEL NOTES:

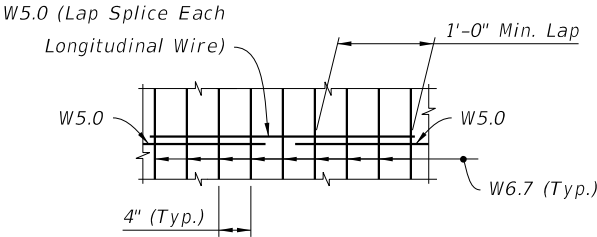
1. All dimensions are out to out.
2. The 8" vertical dimension shown for Bars 4B and 4D are based on a slab 8 1/2" thick or greater without a wearing surface. If slab thickness is less than 8 1/2", decrease this dimension by an amount equal to the difference in thickness. If a wearing surface is to be provided, increase this dimension by an amount equal to the wearing surface thickness.

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAM



See Structures Plans, Superstructure Sheets for location(s) of drainage joints. Locations for drainage joints shall be limited to the constant width section of separator.

DRAINAGE JOINT DETAIL  
(For 5" Opening Or Less)



SPLICE DETAIL

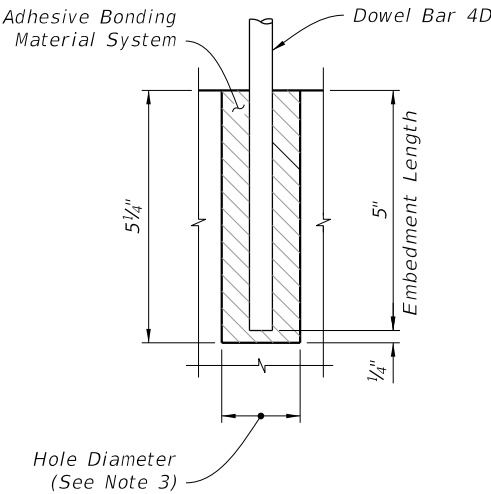
(Between WWR 3 x 4 - W5.0 x W6.7 Sections)

OPTION A: Use Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A, 4B and 4E. Bend the Welded Wire Reinforcement to the dimensions of Bar 4B shown in the Bending Diagram for Reinforcing Steel Option I.

OPTION B: Use Welded Wire Reinforcement 3 x 4 - W5.0 x W6.7 as required by plans in place of Bars 4A and 4C shown in Reinforcing Steel Option II.

NOTE: Welded Wire Reinforcement to consist of smooth wire meeting the requirements of Specification 931.

ALTERNATE REINFORCING STEEL DETAILS  
(Welded Wire Reinforcement)



DOWEL NOTES:

1. Shift Dowel Holes to clear if existing reinforcement is encountered.
2. Provide and install an adhesive bonding material system in accordance with Specifications 416 and 937.
3. The dowel hole diameter is to meet adhesive bonding material system manufacturer's requirements.

DOWEL DETAIL

ESTIMATED TRAFFIC SEPARATOR QUANTITIES:

CONCRETE:

CONSTANT WIDTH OF SEPARATOR:

	TYPE "E"	TYPE "F"
4'-0"	Width = 0.056 CY per Ft.	- 0.072 CY per Ft.
6'-0"	Width = 0.089 CY per Ft.	- 0.112 CY per Ft.
8'-6"	Width = 0.132 CY per Ft.	- 0.164 CY per Ft.

NOSE:

	TYPE "E"	TYPE "F"
4'-0"	Width = 0.080 CY	- 0.109 CY
6'-0"	Width = 0.193 CY	- 0.257 CY
8'-6"	Width = 0.403 CY	- 0.536 CY

REINFORCING STEEL:

(All quantities are based on an 8 1/2" slab.)

OPTION I:

4'-0"	Width - 6.37 Lbs. per Ft.
6'-0"	Width - 8.60 Lbs. per Ft.
8'-6"	Width - 11.05 Lbs. per Ft.

OPTION II:

4'-0"	Width - 4.77 Lbs. per Ft.
6'-0"	Width - 7.00 Lbs. per Ft.
8'-6"	Width - 9.45 Lbs. per Ft.

BRIDGE INSTALLATIONS - TYPE "E" AND "F" CURB

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FY 2022-23  
STANDARD PLANS

TRAFFIC SEPARATORS

INDEX

520-020

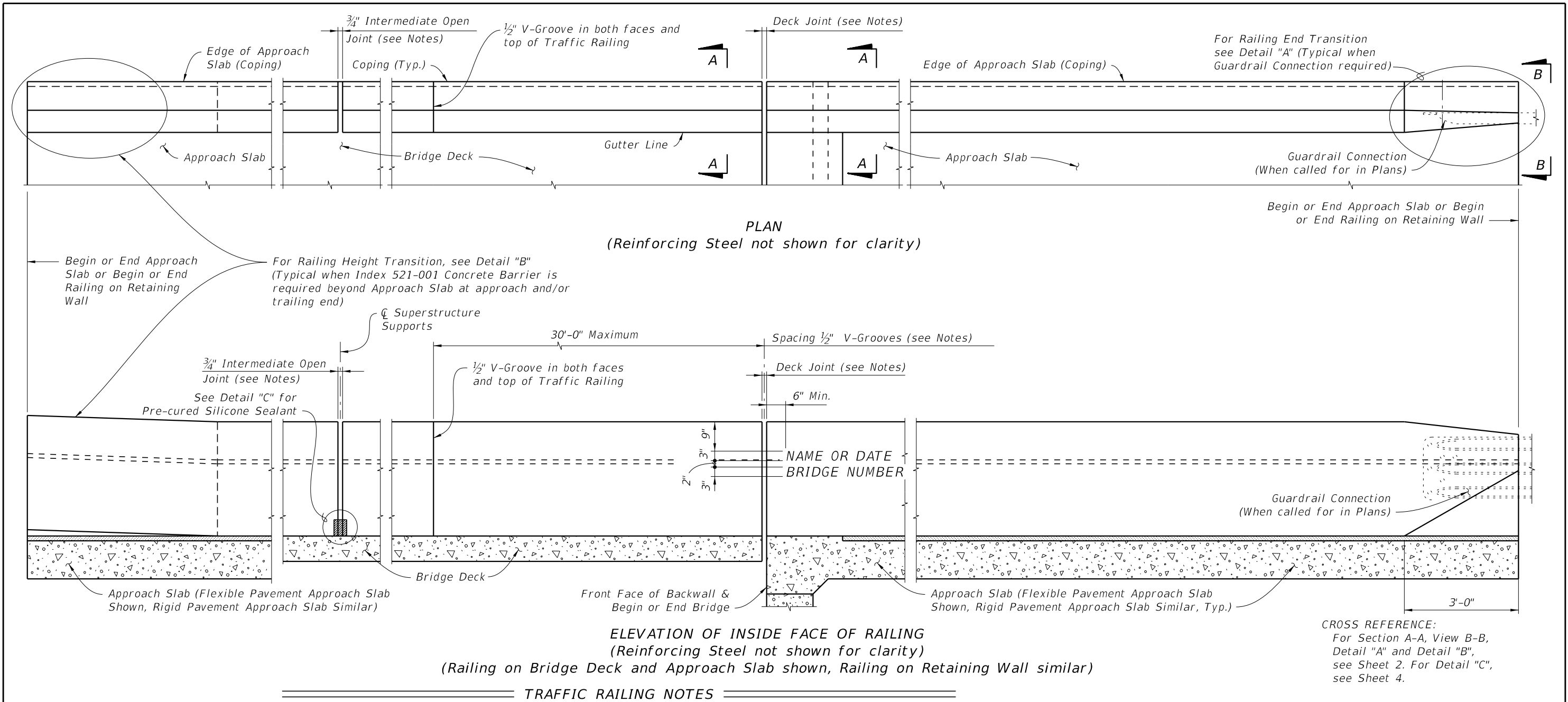
SHEET

5 of 5

LAST  
REVISION  
11/01/17

REVISION

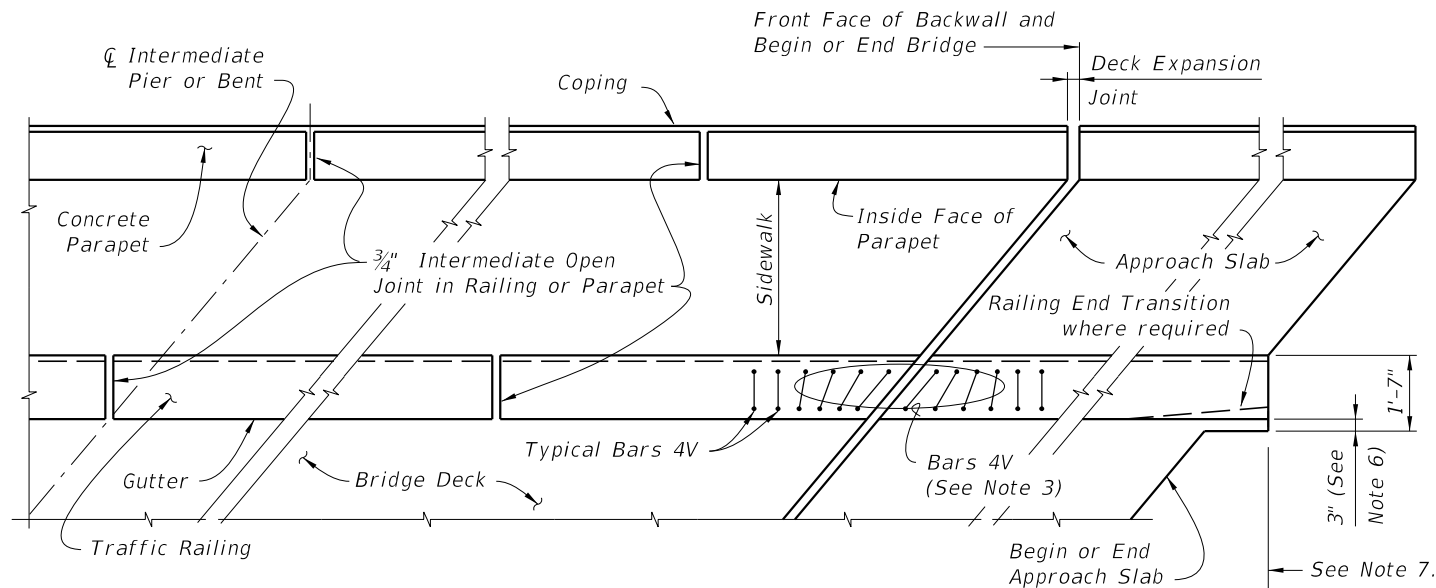
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LAST REVISION 11/01/20	DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS	TRAFFIC RAILING - (36" SINGLE-SLOPE)	INDEX 521-427	SHEET 1 of 5
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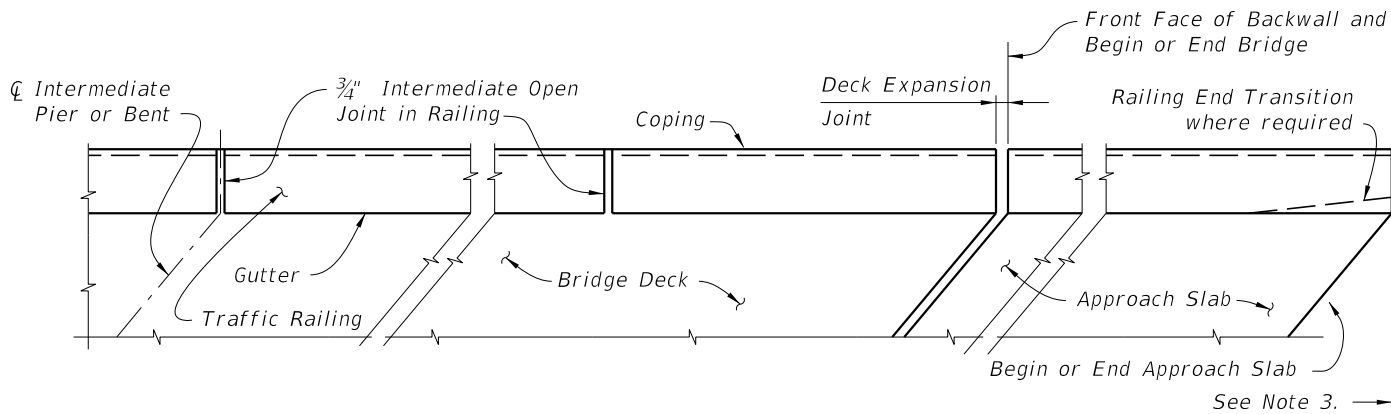




PARTIAL PLAN VIEW OF SKEWED BRIDGE DECK AND APPROACH SLAB WITH SIDEWALK, SINGLE-SLOPE TRAFFIC RAILING AND PEDESTRIAN/BICYCLE RAILING  
INDEX 521-820 or 521-825, OTHER TRAFFIC RAILINGS SIMILAR

NOTES:

- 1) Concrete Parapet reinforcement is not effected by skew angle, see Index 521-820 for details.
- 2) Parapet expansion joint shall match the deck expansion joint which shall be turned perpendicular or radial to the gutter line. See Structures Plans, Superstructure Sheets for details.
- 3) Traffic Railing reinforcement vertical Bars 4V & 4P may be shifted up to 1" (Max.) and rotated up to 10 degrees as required to allow proper placement. Bars 4V adjacent to expansion joints shall be field adjusted to maintain clearance and spacing, extra Bars 4V will be required. Cut bottom horizontal portion of 4V Bars to maintain maximum horizontal length to each vertical leg being placed. Discard the remainder of the bar. Rotate cut bars to maintain clearance.
- 4) Railing ends at deck expansion joints shall follow the deck joint with allowance for joint movement. Expansion joint at the inside face of parapet shall be turned perpendicular or radial to this line. See Structures Plans, Superstructure and Approach Slab Sheets for details.
- 5)  $\frac{3}{4}$ " Intermediate Open Joints and V-Grooves in railing and parapet shall be placed perpendicular or radial to the gutter line or inside face of parapet line. See Structures Plans, Superstructure Sheets for locations.
- 6) At begin or end approach slab extend slab at the railing ends 3" (gutter side or back face of railing as required) as shown to provide a base for casting of the railing. Field trim toe of Bars 4V by 1 inch as required to maintain concrete cover at edge of deck.
- 7) When Guardrail is shown on the approach, begin placing Railing Bars 4P and 4V on Approach Slab at the railing end and proceed toward Begin or End Bridge to ensure placement of guardrail bolt holes. If required, adjustments to the bar spacing for Bars 4P and 4V shall be made immediately adjacent to Begin or End Bridge.



PARTIAL PLAN VIEW OF SKEWED BRIDGE DECK AND APPROACH SLAB WITH SINGLE-SLOPE TRAFFIC RAILING, OTHER TRAFFIC RAILINGS SIMILAR

NOTES:

- 1) Railing expansion joint shall match the deck expansion joint which shall be turned perpendicular or radial to the gutter line. See Structures Plans, Superstructure Sheets for details.
- 2)  $\frac{3}{4}$ " Intermediate Open Joints and  $\frac{1}{2}$ " V-Grooves in railing shall be placed perpendicular or radial to the gutter line. See Structures Plans, Superstructure and Approach Slab Sheets for locations.
- 3) When Guardrail is shown on the approach, begin placing Railing Bars 4P and 4V on Approach Slab at the railing end and proceed toward Begin or End Bridge to ensure placement of guardrail bolt holes. If required, adjustments to the bar spacing for Bars 4P and 4V shall be made immediately adjacent to Begin or End Bridge.

GENERAL NOTES:

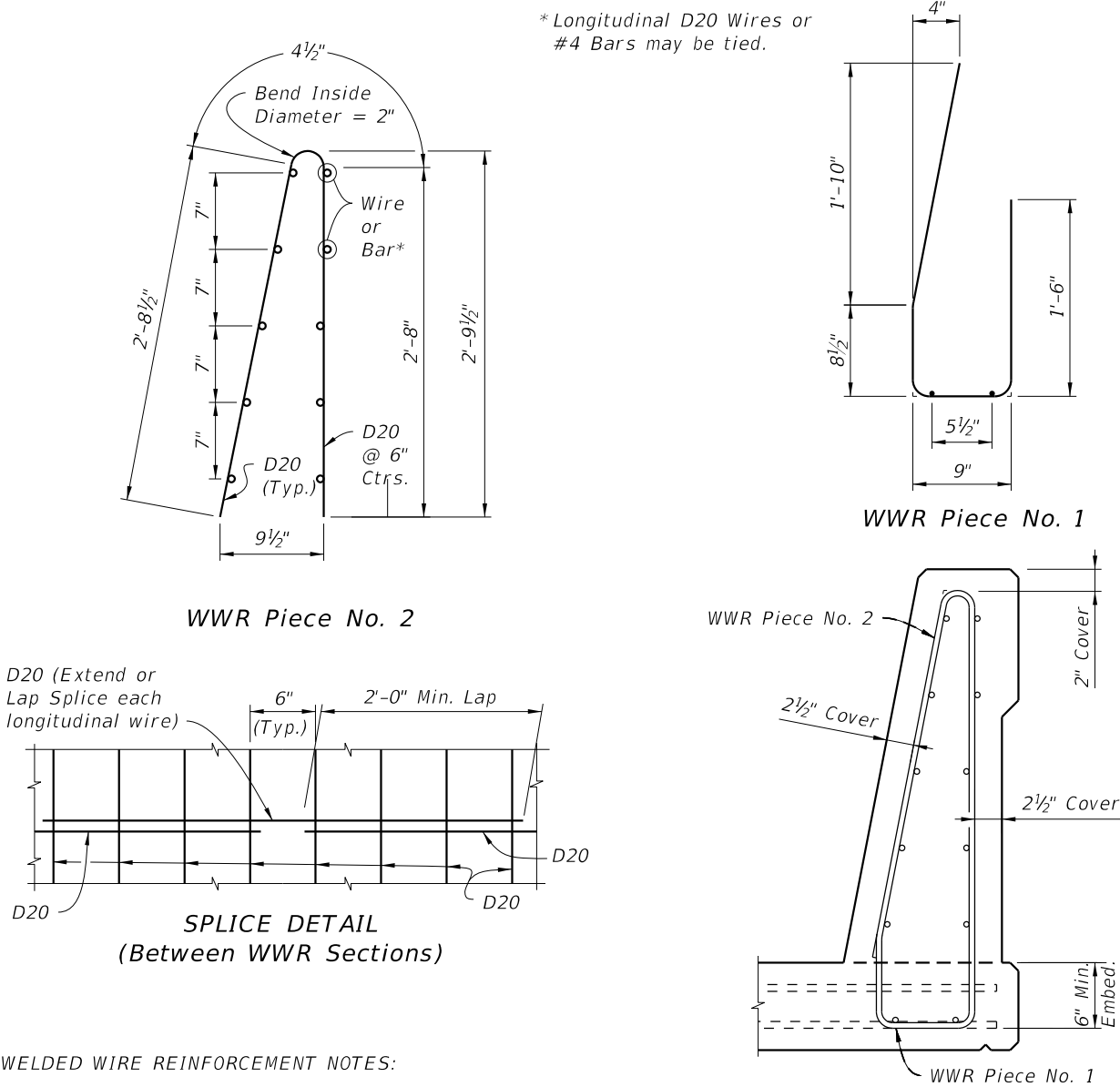
- 1) Work this Sheet with Traffic Railing, Pedestrian/Bicycle Railing, and Approach Slab Indexes as applicable.
- 2) Deck Expansion Joint at begin or end bridge shown. Deck Expansion Joints at  $\frac{1}{4}$ " Pier or Intermediate Bents are similar.
- 3) Partial Plan Views shown are intended as guides only. See Structures Plans, Superstructure and Approach Slab Sheets for skew angles, joint orientation, dimensions and details.
- 4) Railings on Raised Sidewalks shall be treated similar to the Partial Plan View of Bridge Deck with Traffic Railing.
- 5) If Welded Wire Reinforcement is used in lieu of conventional reinforcement, placement of the WWR vertical elements shall be similar to those shown above. Clipping of horizontal elements to facilitate placement shall be minimized where possible. When clipping is required, supplement horizontal elements by lap splicing with deformed bars having an equivalent area of steel.

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11/01/17						

ALTERNATE REINFORCING STEEL (WWR) DETAILS

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

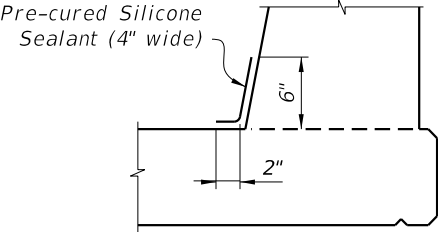


WELDED WIRE REINFORCEMENT NOTES:

- At the option of the Contractor deformed Welded Wire Reinforcement (WWR) may be utilized in lieu of all Bars 4P, 4S and 4V. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.
- WWR at Railing End Transition shall be field bent inward as required (Piece 2) to maintain cover. The bottom of the vertical wires (D20) in Piece 2 shall be cut a maximum of 4 inches and the gutter side portion bent inward as required to allow placement.

INTERMEDIATE JOINT SEAL NOTES:

- At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
- Apply sealant prior to any Class V finish coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
- Include the cost of the Pre-cured Silicone Sealant in the Contract Unit Price for the Traffic Railing.

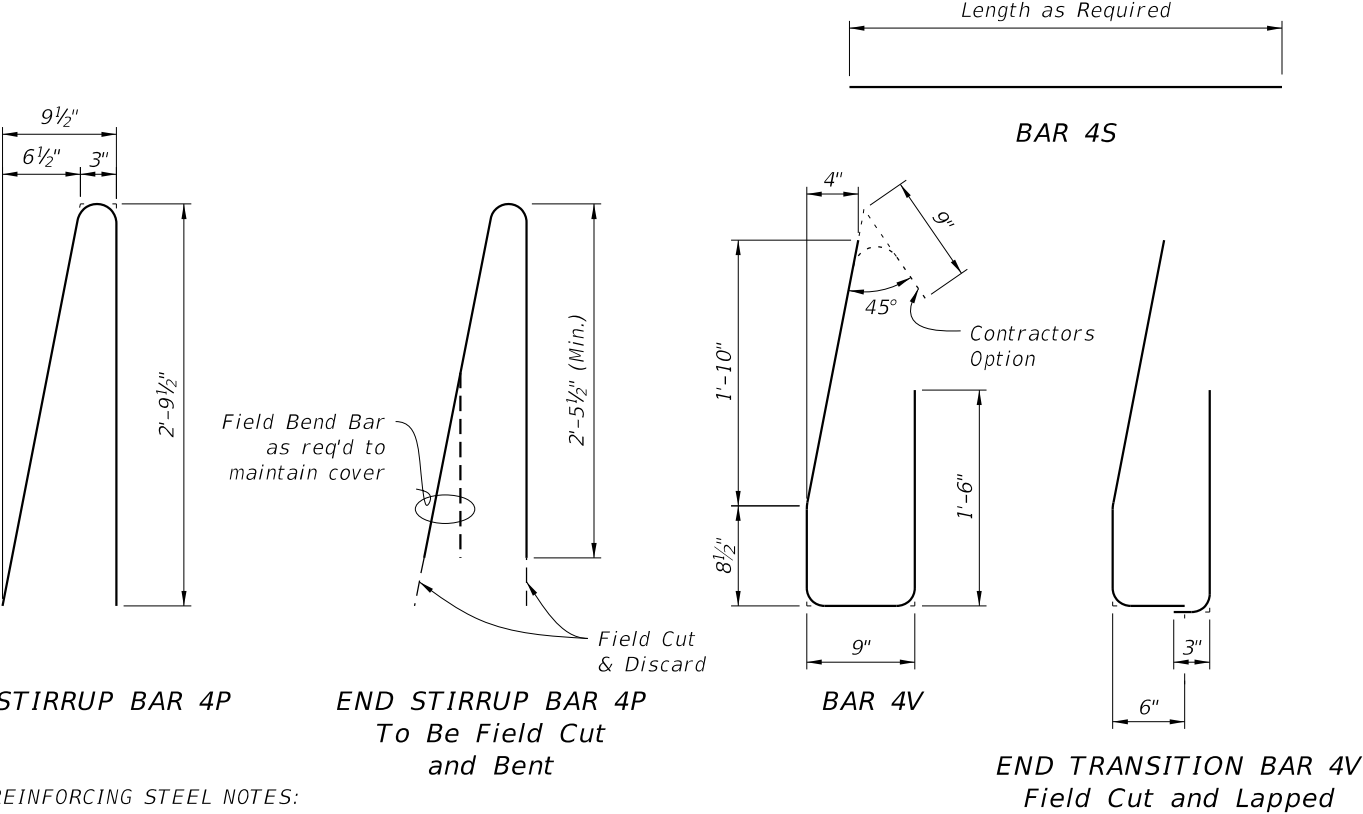


**DETAIL "C" - SECTION  
AT INTERMEDIATE OPEN JOINT**

ROADWAY CROSS-SLOPE	LOW GUTTER	HIGH GUTTER
	ØB	ØB
0% to 2%	90°	90°
2% to 6%	87°	93°
6% to 10%	84°	96°

ØB shall be 90° if Contractor elects to place railing perpendicular to the deck and approach slabs.

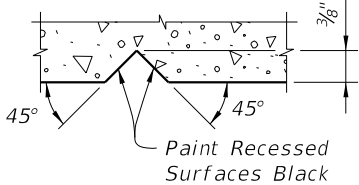
BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
P	4	5'-11"
S	4	As Req'd.
V	4	4'-10"



REINFORCING STEEL NOTES:

- All bar dimensions in the bending diagrams are out to out.
- The 8 1/2" vertical dimensions shown for Bar 4V is based on a 6" embedment into the bridge deck without a raised sidewalk. If a raised sidewalk is to be provided, increase this dimension to achieve a 6" minimum embedment into the bridge deck. See Structures Plans, Superstructure and Approach Slab Sheets.
- All reinforcing steel at the open joints shall have a 2" minimum cover.
- Bars 4S may be continuous or spliced at the construction joints. Bar splices for Bars 4S shall be a minimum of 2'-0".

**SECTION THRU RECESSED  
"V" GROOVE TO FORM INSCRIBED  
LETTERS AND FIGURES**



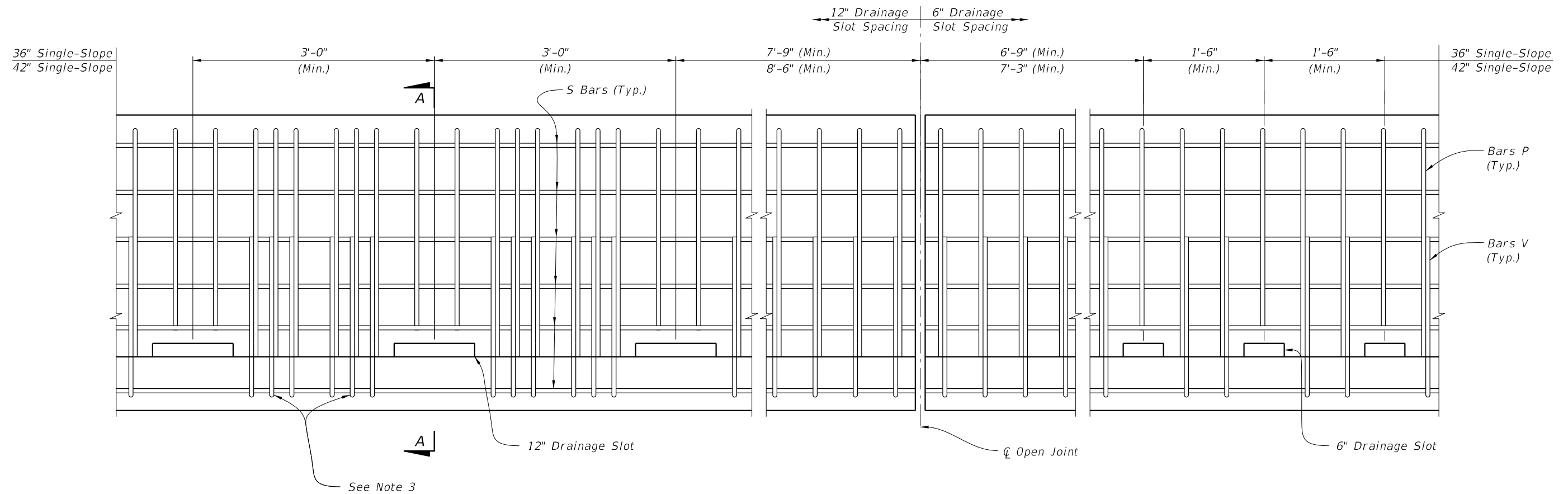
ESTIMATED TRAFFIC RAILING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.107
Reinforcing Steel	LB/LF	24.78

(The above quantities are based on a 2% deck cross slope; railing on low side of deck.)

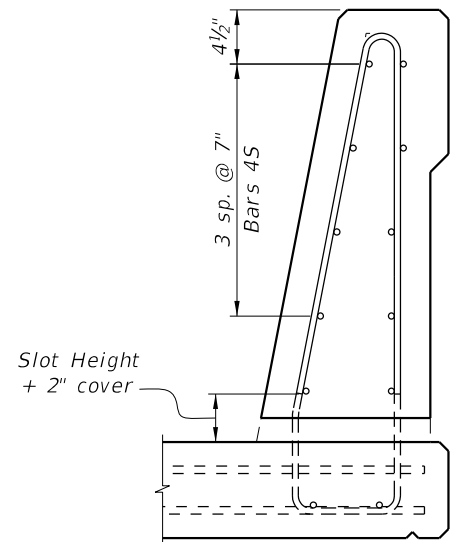
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ELEVATION



SECTION A-A  
36" Single-Slope Shown  
Other traffic railings similar

DRAINAGE SLOT NOTES:

1. Use only when required for safety. See Plans for locations and size of drainage slots.
2. Maintain 2" minimum cover to all reinforcing. Trim P Bars over drainage slots and raise bottom S bars as necessary to maintain cover.
3. For slots greater than 6" in length, add additional vertical bars (V & P) on each side of the opening.
4. Drainage slot heights are 2" or 3". See the plans for size and location details.

LAST  
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DESCRIPTION:

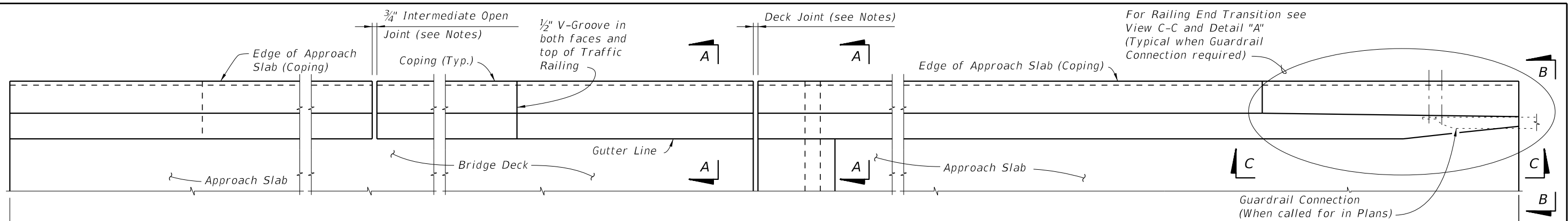


FY 2022-23  
STANDARD PLANS

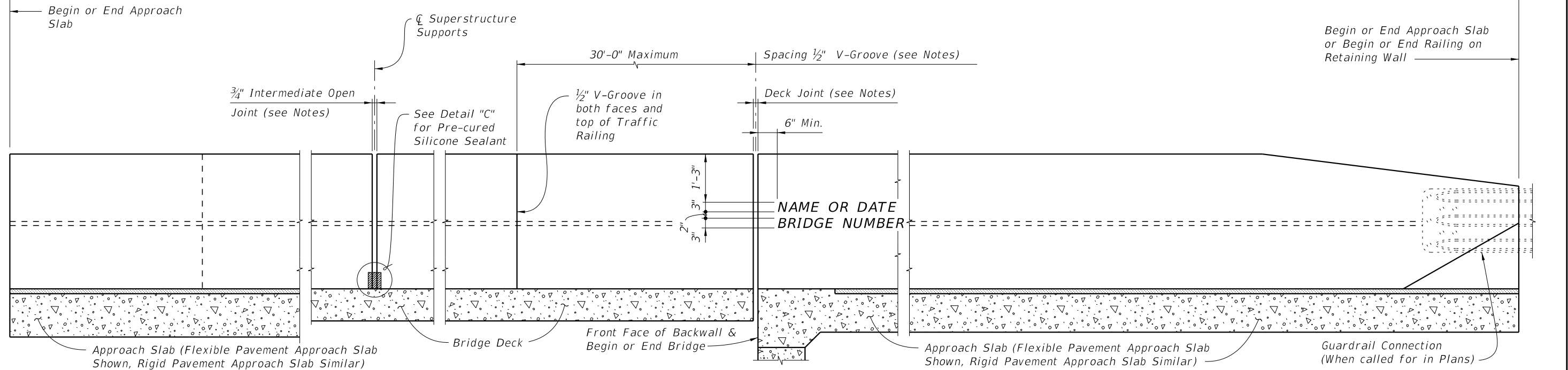
TRAFFIC RAILING - (36" SINGLE-SLOPE)

INDEX  
521-427

SHEET  
5 of 5



PLAN  
(Reinforcing Steel not shown for clarity)



ELEVATION OF INSIDE FACE OF RAILING  
(Reinforcing Steel not shown for clarity)  
(Railing on Bridge Deck and Approach Slab shown, Railing on Retaining Wall similar)

CROSS REFERENCE:  
For Section A-A, End View B-B and Detail "A" see Sheet 2.  
For Detail "B" see Sheet 3.  
For Detail "C" see Sheet 4.

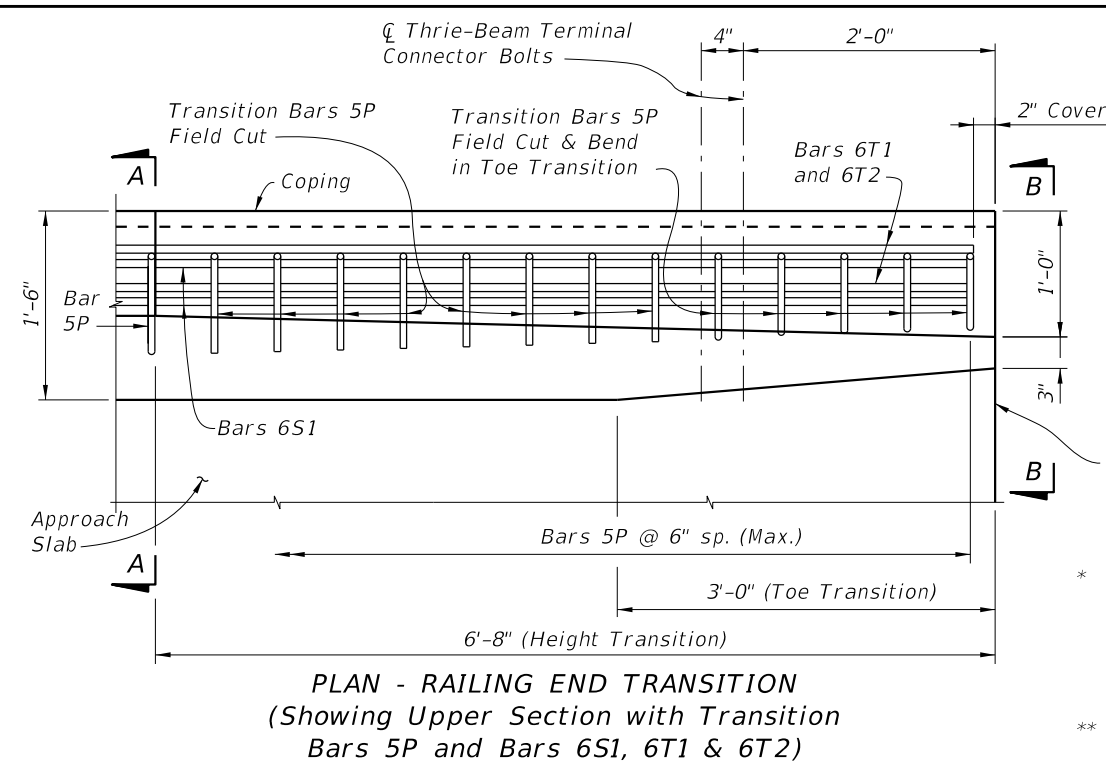
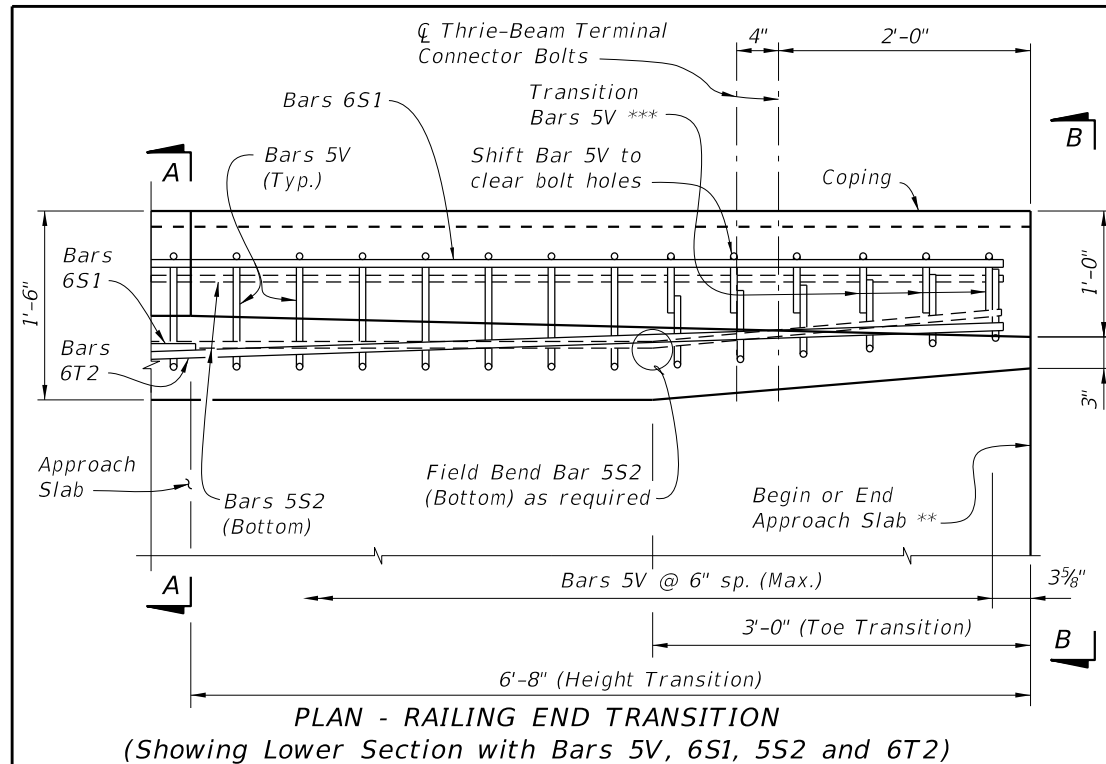
TRAFFIC RAILING NOTES

1. Materials: See Structures Plans, General Notes
2. Guardrail Connection Details: See Index 536-001
3. Superelevation: Traffic Railings on Superelevated bridges may be constructed perpendicular to the roadway surface. If an adjoining railing is constructed plumb, transition the end of the Traffic Railing from perpendicular to plumb over a minimum distance of 20'-0". The cost of all modifications will be at the Contractor's expense.
4. Name, Date & Bridge Number: Place the Name and Bridge Number on the Traffic Railing on the driver's right side when approaching the bridge. Place the Date on the driver's left side when approaching the bridge. Use the Name as shown in the General Notes of the Structures Plans. The Date is the year the bridge is completed. For a widening when the existing railing is removed, use both the date on the removed rail and the year of the widening. Form letters and figures with  $\frac{3}{8}$ " V-Grooves using preformed letters and figures. Black plastic letters and figures 3" tall may be used, if approved by the Engineer.
5. Open Joints: See the Superstructure Plans, Approach Slab and Retaining Wall Sheets for Deck Joint dimensions and orientation. Provide Open Railing Joints matching the dimensions of the Deck Joint at Deck Expansion Joint locations.
  - A. For treatment of railings on skewed bridges see Index 521-427 Sheet 3.
6. Open Joints: Provide  $\frac{3}{4}$ " Open Joints at:
  - A. Superstructure supports where the slab is continuous.
  - B. At ends of approach slabs when adjacent to retaining walls and at expansion joints on retaining wall junction slabs.

7. V-Grooves: Construct  $\frac{1}{2}$ " V-Grooves plumb. Space V-Grooves equally between  $\frac{3}{4}$ " Open Joints and/or Deck Joints and the at V-Groove locations on the Retaining Wall footing/junction slabs.
8. Barrier Delineators: Install Barrier Delineators on top of the Traffic Railing 2" from the face of the traffic side in accordance with Specification Section 705. Match the Barrier Delineator to the color (white or yellow) of the near edgeline.
9. Traffic Railing Transitions: See Plans for type and location
  - A. Transition to guardrail: See Detail "A" and View B-B.
  - B. Transition to 44" Roadway Concrete Barriers. See Detail "B" and View C-C.
  - C. Transitions to 36" or 38" concrete barriers at end of approach slab: See Detail "C", View D-D and Section E-E.
10. Drainage Slots: See Superstructure Plans for drainage slot locations and size (if required). See Index 521-427 Sheet 5 for details.
11. Embedded conduit and junction boxes: See Index 630-010.

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LAST REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	TRAFFIC RAILING - (42" SINGLE-SLOPE)	INDEX	SHEET
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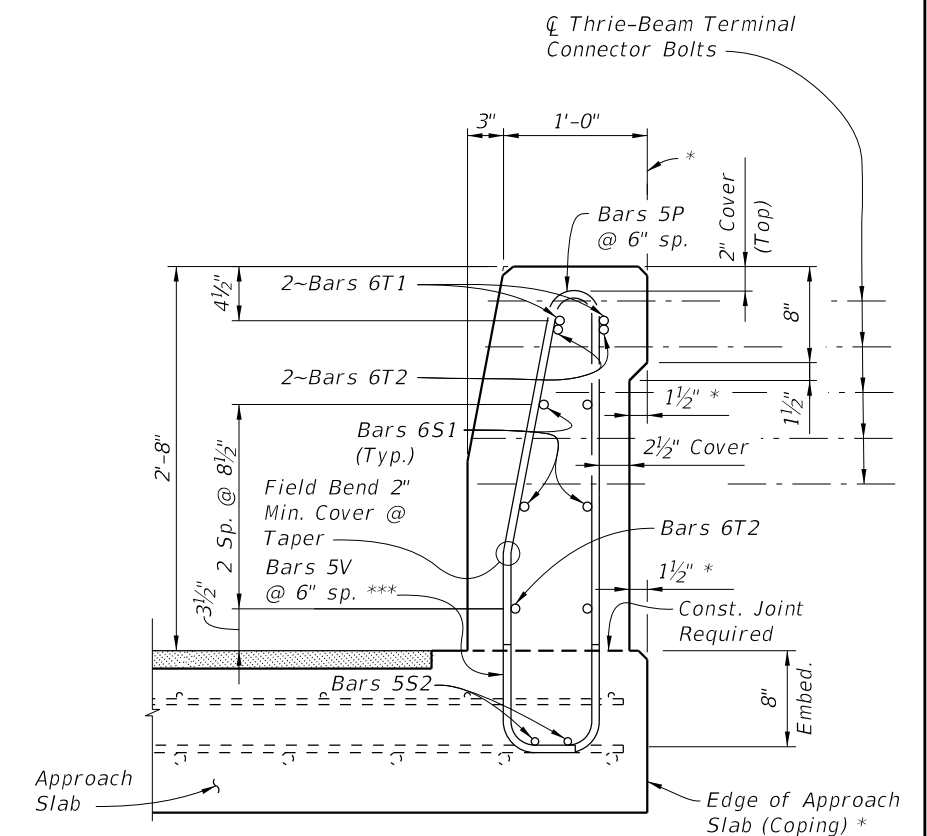
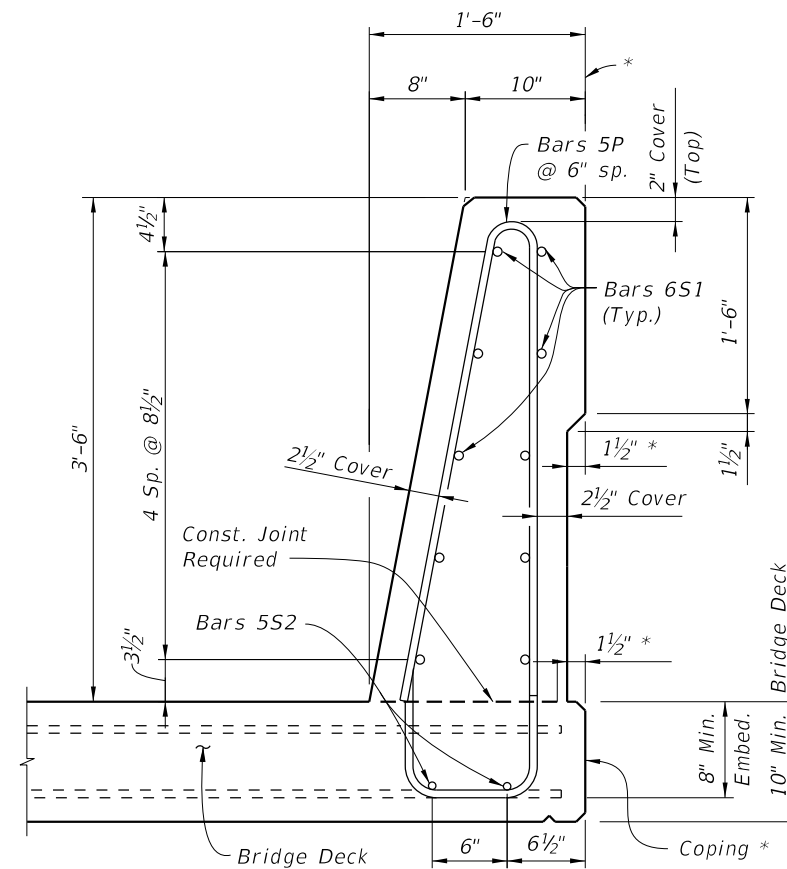
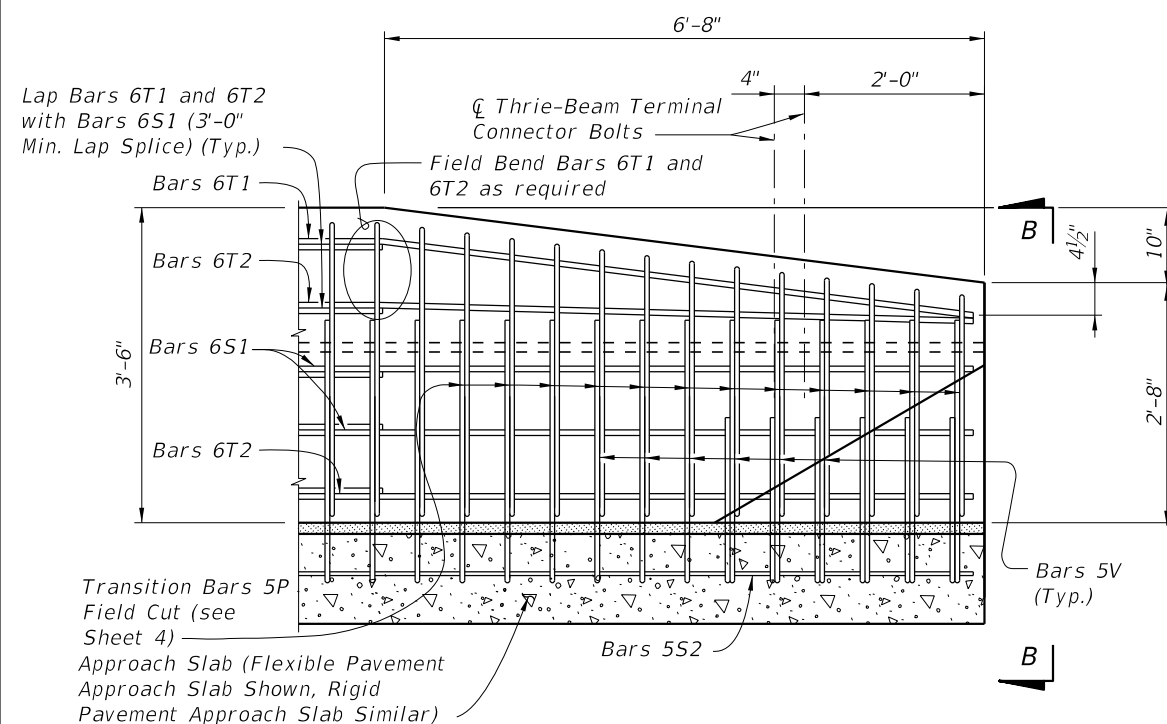
**NOTE:**  
Begin placing Railing Bars 5P and 5V on Approach Slab at the railing end and proceed toward Begin or End Bridge to ensure placement of guardrail bolt holes. If required, adjustments to the bar spacing for Bars 5P and 5V shall be made immediately adjacent to Begin or End Bridge. Shift Bars 5P and 5V (see Detail "A") as required to maintain cover in Railing End Transition.


\* Where railings of adjacent bridges are to be built back to back, the outside vertical plane of the railing and deck may coincide along a plane centered 1'-6" from each gutter line. A bond breaker will be required. See Structures Plans, Superstructure Sheets for Details.

\*\* See joint orientation note on Sheet 1.

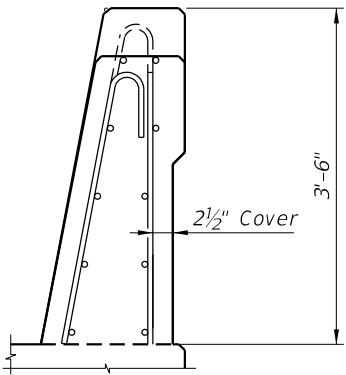
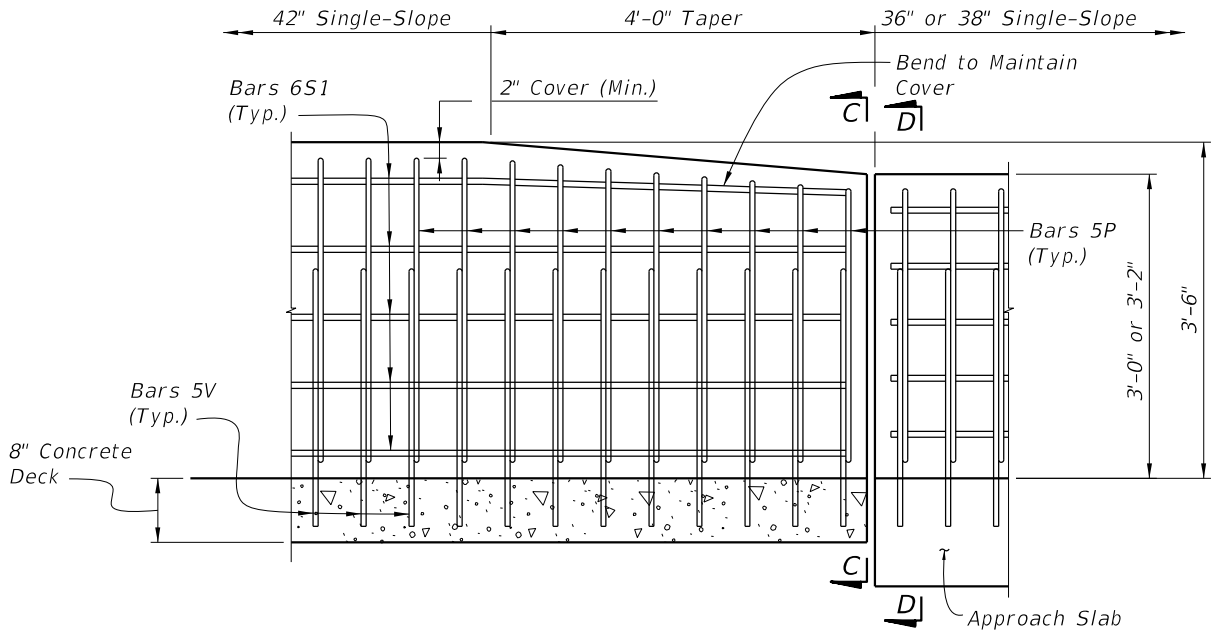
\*\*\* Field Cut & Lap Bars 5V in Toe Transition to maintain clearance.

NOTE:  
Omit Detail "A" and provide Detail "B" if 44" Concrete Barrier or Single-Slope Traffic Railing is used beyond the Approach Slab. See Structures Plan and Elevation Sheet and Roadway Plans. If Transitions are not required, extend Typical Section to end of Approach Slab.

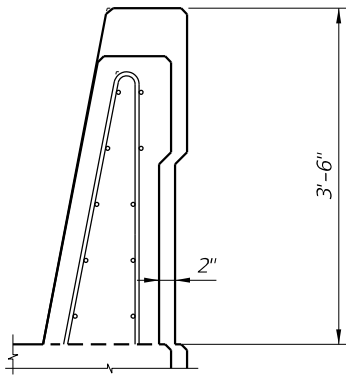


LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2022-23 STANDARD PLANS	TRAFFIC RAILING - (42" SINGLE-SLOPE)	INDEX 521-428	SHEET 2 of 4
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- NOTE:
- 1. Provide Detail "B" height transition where 42" Traffic Railings are required on bridge, and 36" or 38" Barriers are shown on approaches. See Structures Plans for coping details.
  - 2. Work Detail "B" with Indexes 400-090 or 400-091, 521-427, and 521-610 as necessary.
  - 3. Field cut 5P Bars as shown to maintain 2" min. (4" max.) cover at top of traffic railing.



VIEW C-C  
RAILING HEIGHT TRANSITION  
(Begin/End of Bridge)  
(Bars 5V not shown for clarity)



SECTION D-D  
(Index 400-091 Shown, 400-090 Similar)  
(Index 521-427 Bars 4V not shown for Clarity)

DETAIL "B"

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CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

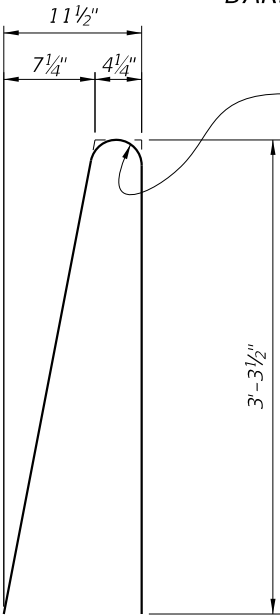
BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
P	5	7'-0"
S1	6	As Reqd.
S2	5	As Reqd.
T1 & T2	6	10'-0"
V	5	5'-9"

ROADWAY CROSS-SLOPE	LOW GUTTER	HIGH GUTTER
	ØB	ØB
0% to 2%	101°	101°
2% to 6%	98°	104°
6% to 10%	95°	107°

ØA and ØB shall be 90° if Contractor elects to place Railing perpendicular to the Deck.

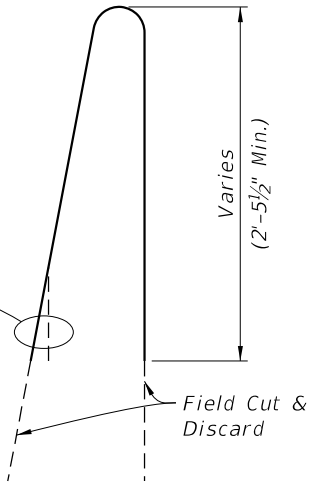
Length as Required

BARS 6S1 & 5S2

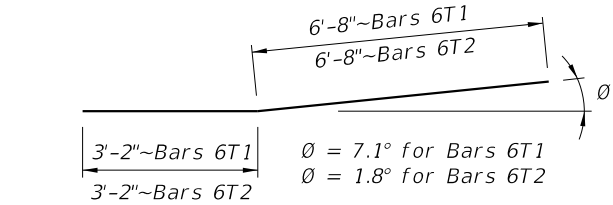


Bend Inside  
Dia. = 3"

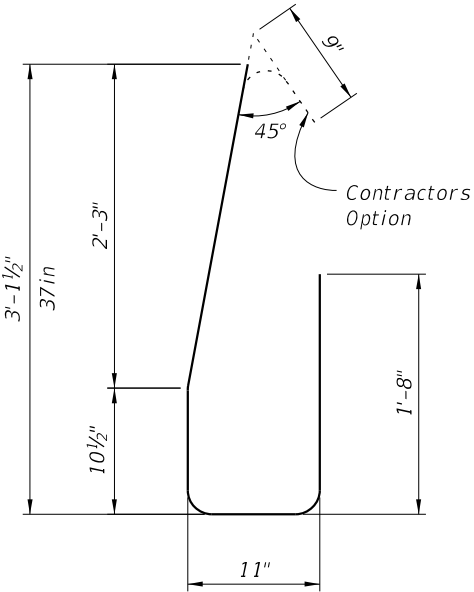
Field Bend  
(as required  
to maintain  
cover)



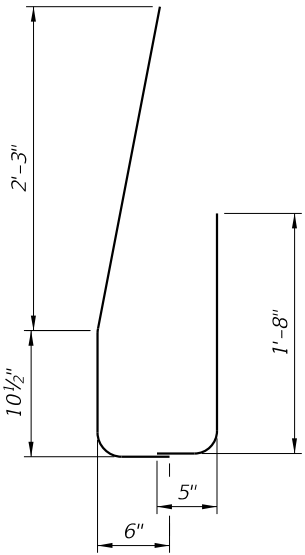
Field Cut &  
Discard



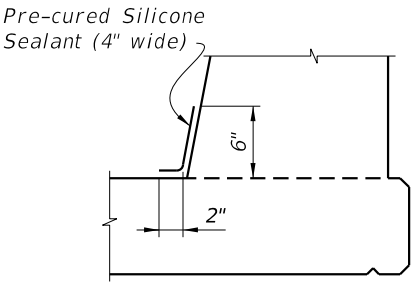
TRANSITION BARS 6T1 & 6T2  
(2~Bars 6T1 & 3~Bars 6T2 required  
per Railing End Transition)



STIRRUP BAR 5V

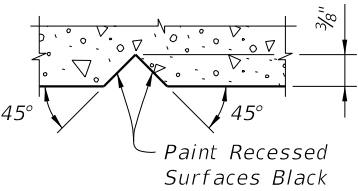


END STIRRUP BAR 5V  
To Be Field Cut  
and Lapped



DETAIL "C" - SECTION  
AT INTERMEDIATE OPEN JOINT

- INTERMEDIATE JOINT SEAL NOTES:
- At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
  - Apply sealant prior to any Class V finish coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
  - The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Traffic Railing.



SECTION THRU RECESSED  
"V" GROOVE TO FORM INSCRIBED  
LETTERS AND FIGURES

ESTIMATED TRAFFIC RAILING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.143
Reinforcing Steel	LB/LF	39.34

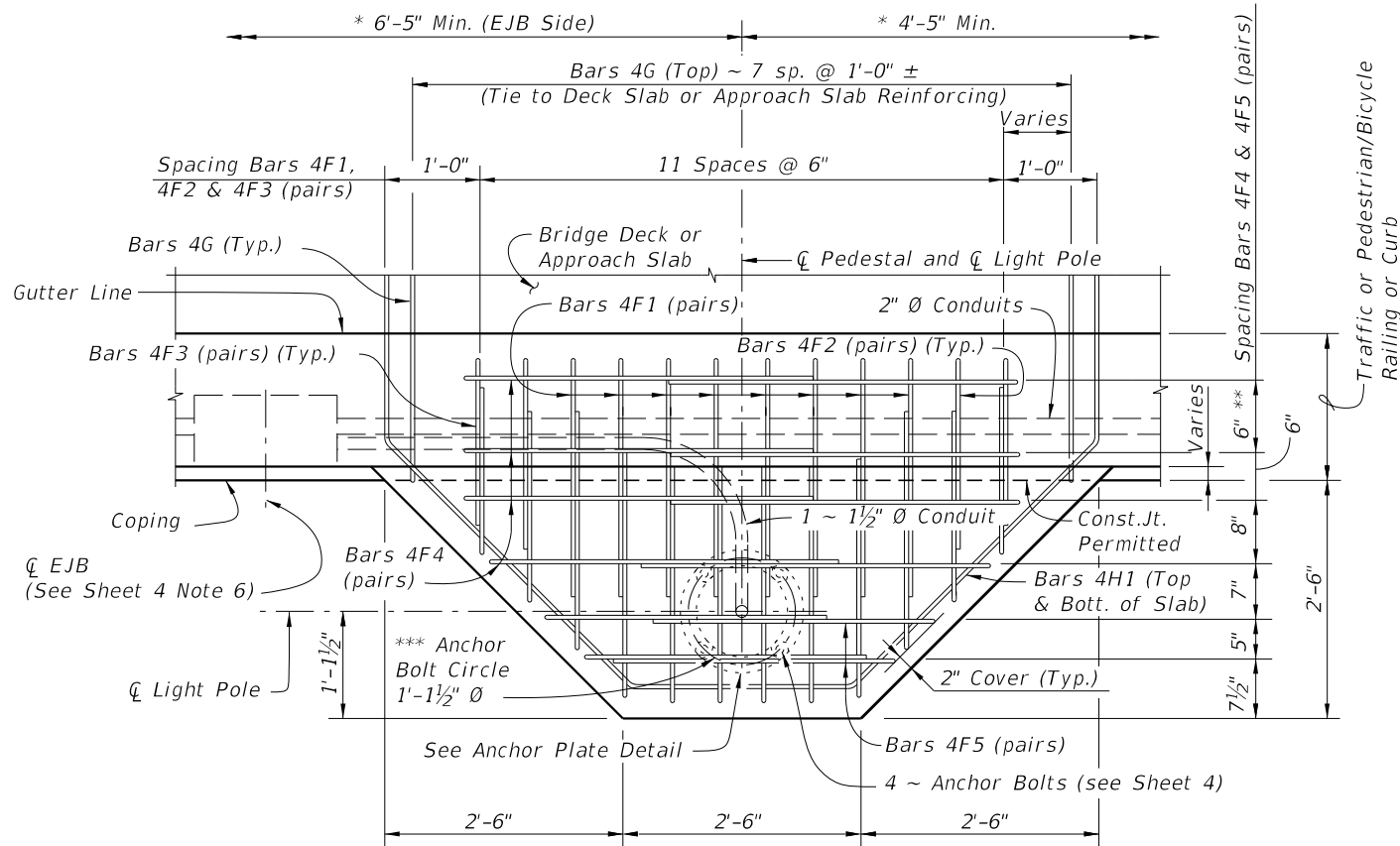
Note:  
The estimated railing quantities are based on a 2% deck cross slope; railing on low side of deck.

STIRRUP BAR 5P

TRANSITION STIRRUP BAR 5P  
To Be Field Cut (10 of each required  
per Railing End Transition)

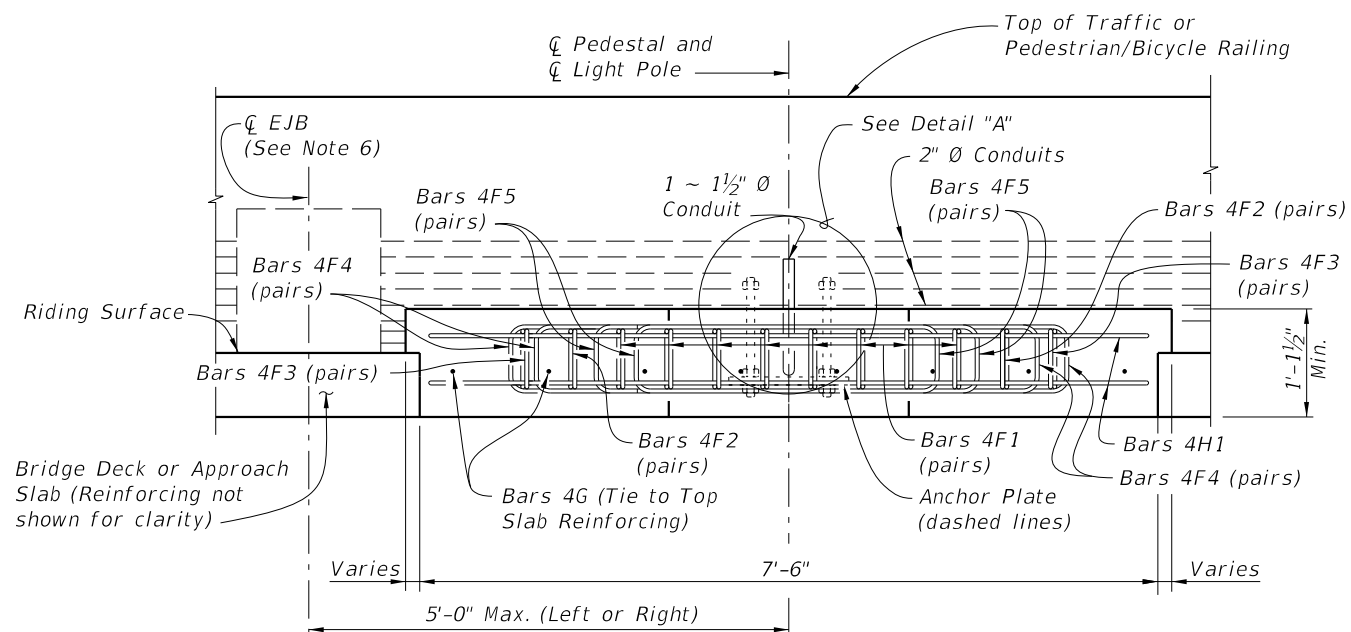
- REINFORCING STEEL NOTES:
- All bar dimensions in the bending diagrams are out to out.
  - All reinforcing steel at the open joints shall have a 2" minimum cover.
  - Bars 6S1 may be continuous or spliced at the construction joints. Lap splices for Bars 6S1 and 5S2 shall be a minimum of 3'-0" and 2'-2", respectively.
  - The Contractor may utilize deformed WWR when approved by the Engineer. WWR must meet the requirements of Specification Section 931.

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\* Slip Forming Method of Construction requires the Engineer's approval within the limits shown.  
 \*\* For Index 521-820 - Pedestrian/Bicycle Railing and concrete curb, this dimension is 3½". For raised sidewalks, this dimension is 1'-0" Max.  
 \*\*\* Anchor Bolt pattern orientation shall be as shown.

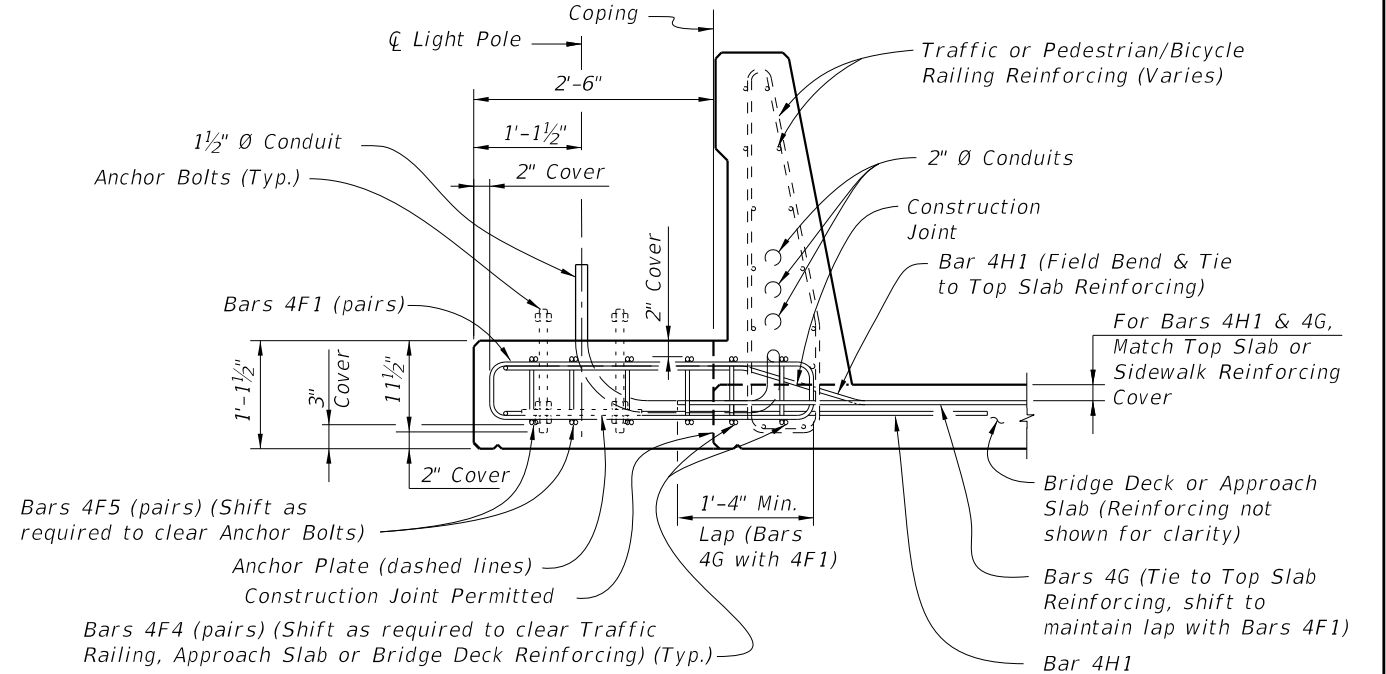
**OPTION 1 & 2  
PLAN VIEW**



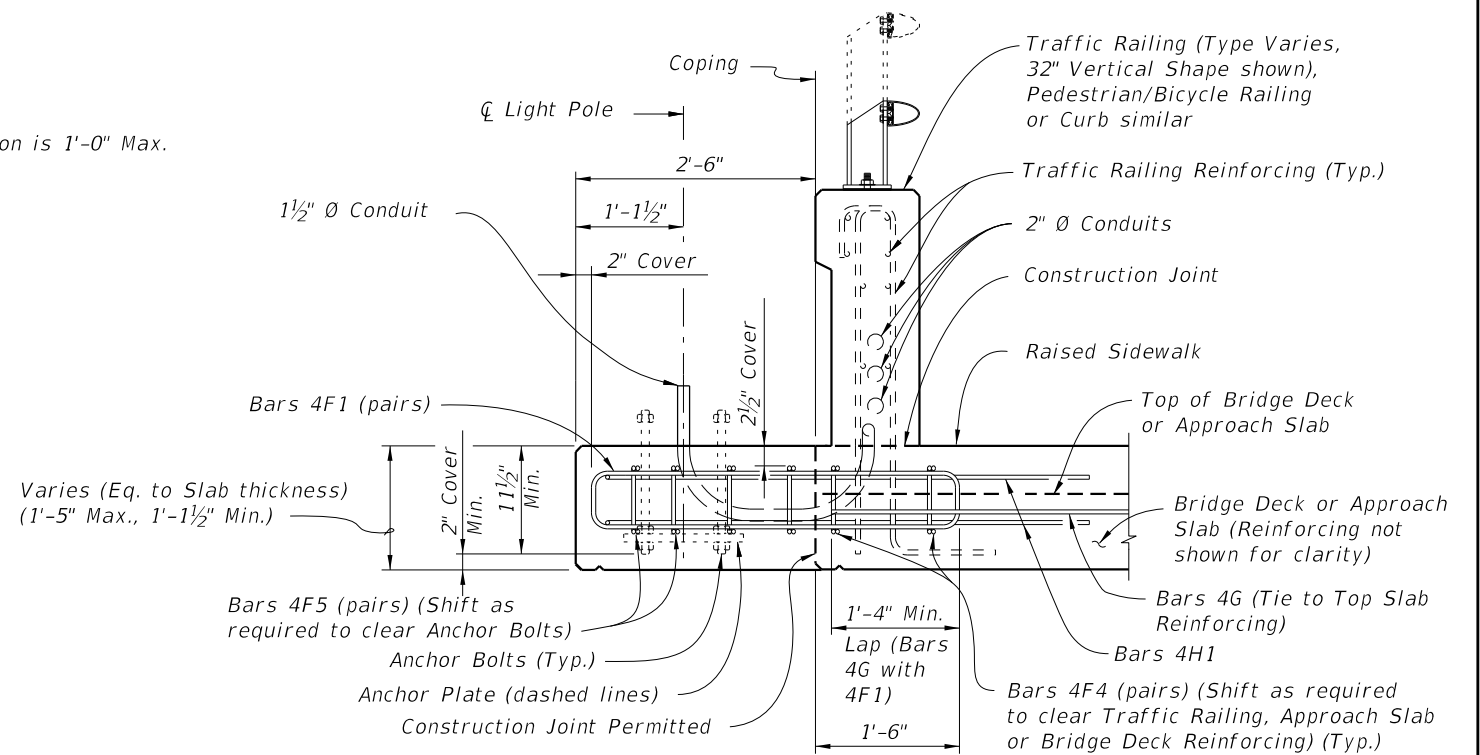
**OPTION 1  
ELEVATION VIEW**

(Without Raised Sidewalk shown, with Raised Sidewalk similar)

**CASE 1 LIGHT POLE PEDESTAL FOR APPROACH SLAB OR BRIDGE DECK THICKNESS LESS THAN 1'-5½" AT COPING**



**OPTION 1  
TYPICAL SECTION AT LIGHT POLE PEDESTAL**




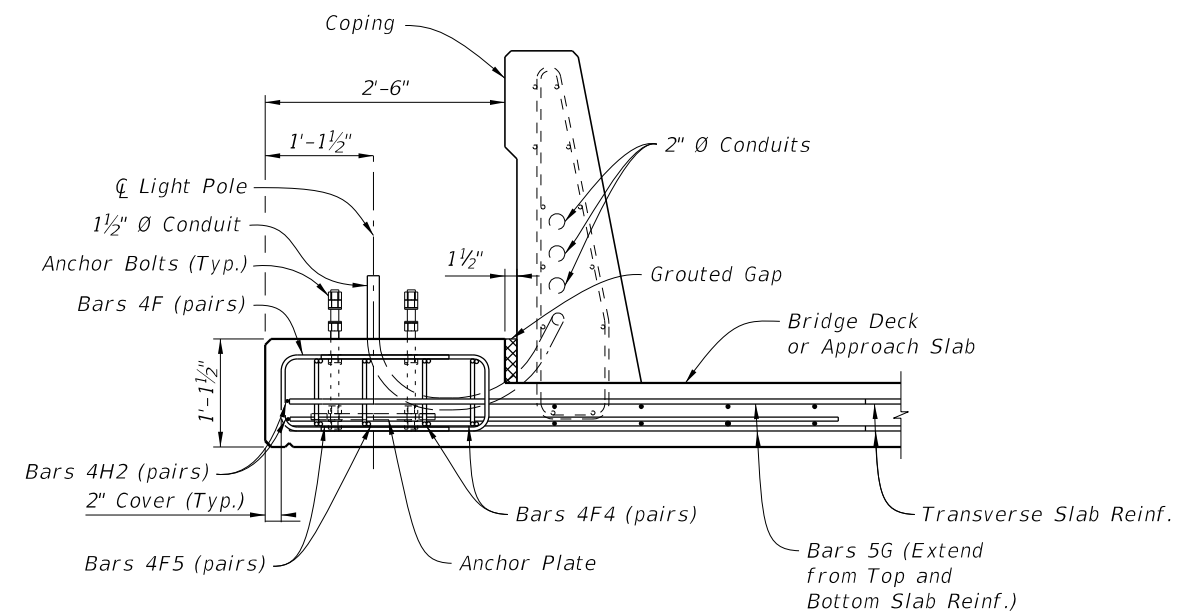
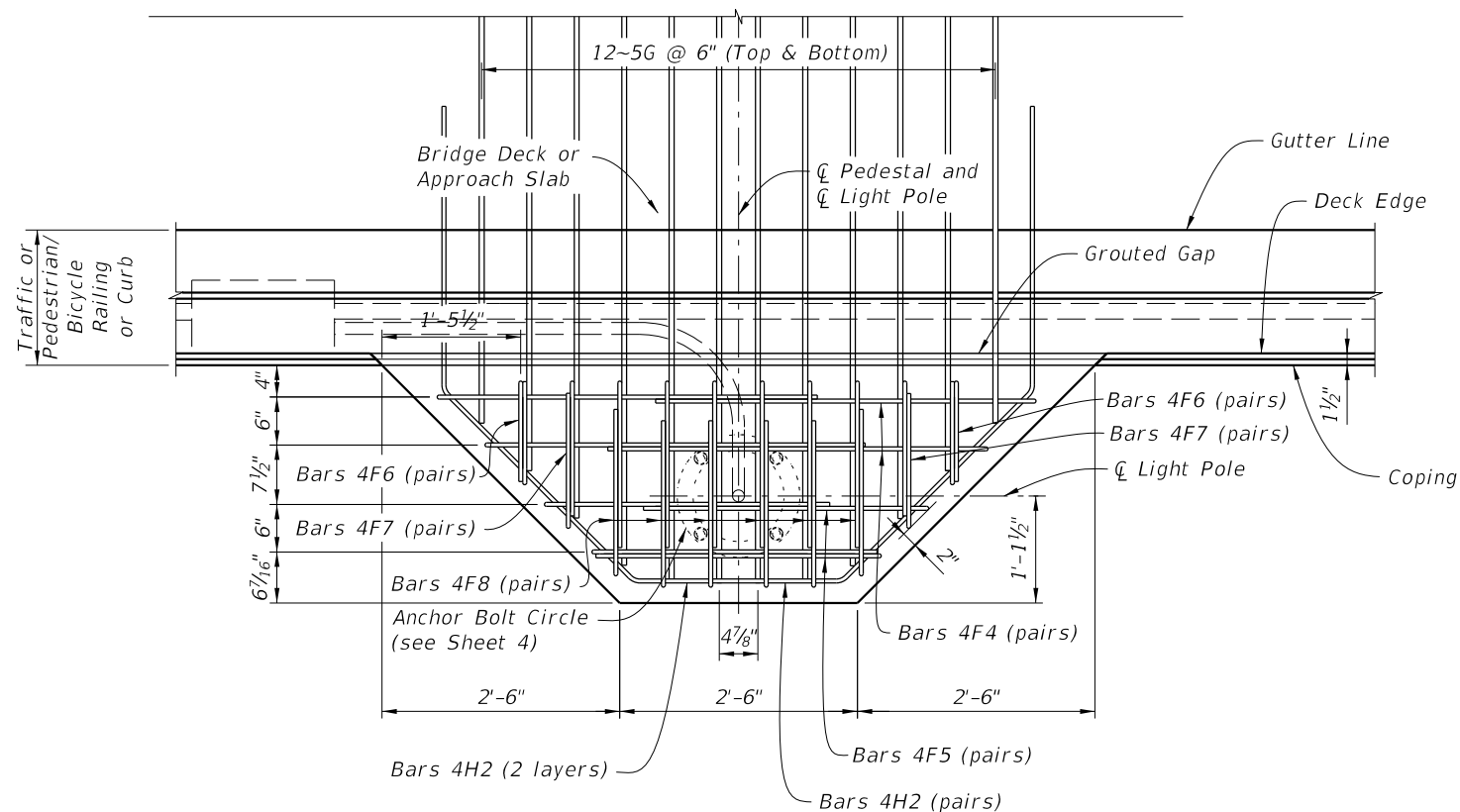
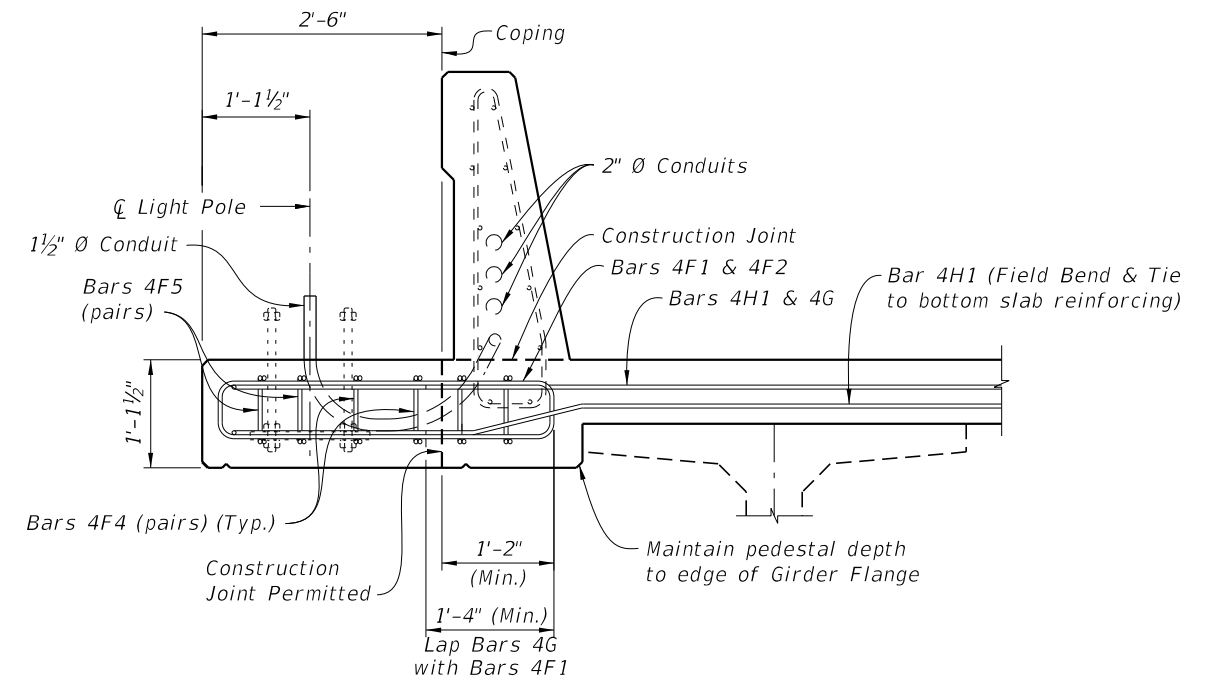
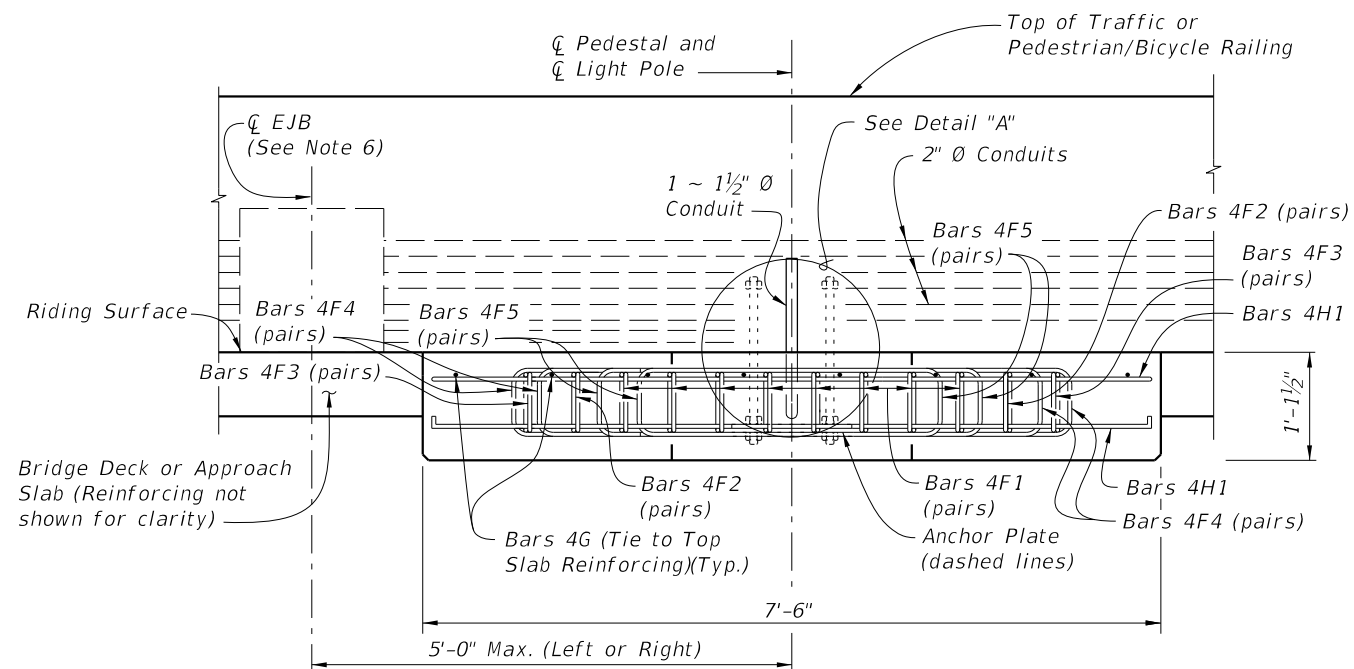
**OPTION 1  
TYPICAL SECTION AT LIGHT POLE PEDESTAL  
WITH RAISED SIDEWALK**

CROSS REFERENCE:  
 For Detail "A", Anchor Plate Detail and Light Pole Pedestal Notes, see Sheet 4.

NOTE: Anchor Bolt, Nuts, Washers and Anchor Plate are dashed for clarity.

9/23/2021 9:38:41 AM

LAST REVISION 11/01/21	DESCRIPTION:	 FY 2022-23 STANDARD PLANS	LIGHT POLE PEDESTAL - BRIDGE	INDEX 521-660	SHEET 1 of 4
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CROSS REFERENCE:

*For Detail "A", Anchor Plate Detail and Light Pole Pedestal Notes, see Sheet 4.*

NOTE: Anchor Bolt, Nuts, Washers and Anchor Plate are dashed for clarity.

*= CASE 1 LIGHT POLE PEDESTAL FOR APPROACH SLAB OR BRIDGE DECK LESS THAN 1'-5½" AT COPING*

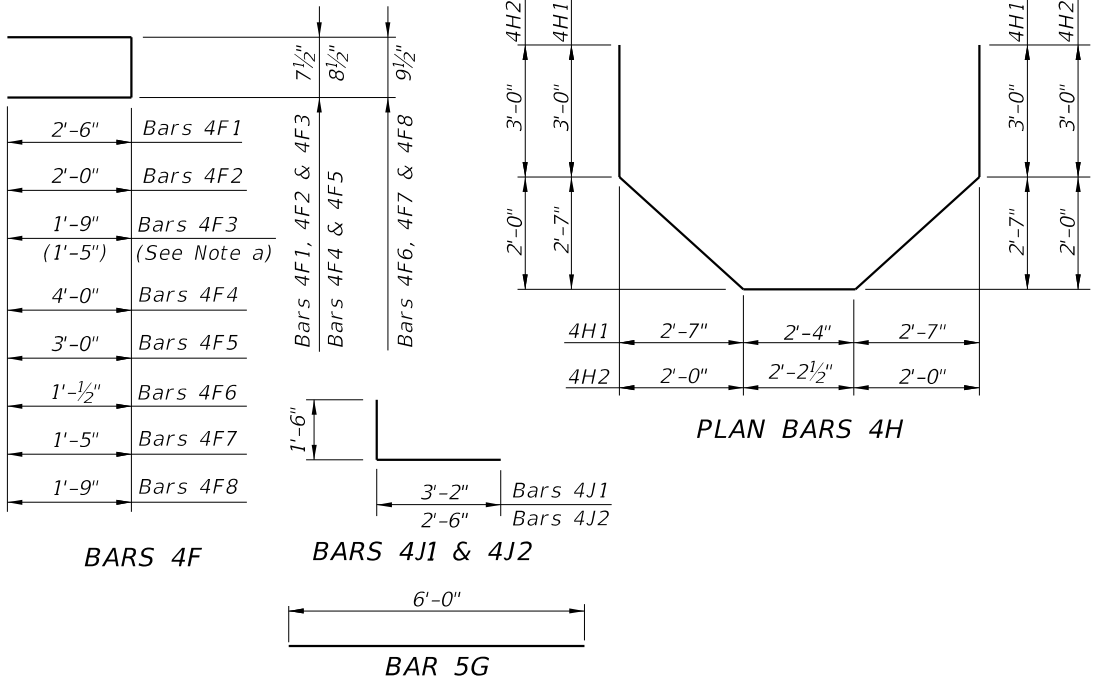




CONVENTIONAL REINFORCING STEEL BENDING DIAGRAM

REINFORCING STEEL NOTES:

- a. When Pedestal is attached to Pedestrian/Bicycle Railing - Index 521-820 or an 8" wide concrete curb and the Bridge Deck or Approach Slab thickness is less than 1'-1½", Bars 4F3 shall have leg length and bar length shown in parentheses.
- b. The number of bars shown in parentheses is for Bars 4F4 when Pedestal is attached to Pedestrian/Bicycle Railing - Index 521-820 or an 8" wide concrete curb, and the Bridge Deck or Approach Slab thickness is less than 1'-1½".
- c. Lap Splices for Bars 4F1, 4F2 & 4F3 shall be a minimum of 1'-4". Lap Splices for Bars 4F4 & 4F5 shall be minimum of 1'-8".
- d. Bars 4J1 and 4J2 are not required when Pedestal thickness is less than 1'-5½". Field trim height of bars to maintain cover when Pedestal thickness is less than 2'-0". Field trim length of Bars 4J2 on Retaining Wall Coping to maintain cover.
- e. All bar dimensions in the bending diagrams are out to out.



BILL OF REINFORCING STEEL

MARK	SIZE	NO. REQD.	LENGTH	NOTES
F1	4	16	5'-8"	c
F2	4	4	4'-8"	c
F3	4	4	4'-2" (3'-6")	a, c
F4	4	8 (6) [4 for Option 3]	8'-9"	b, c
F5	4	4	6'-9"	c
F6	4	4	2'-11"	-
F7	4	4	3'-8"	-
F8	4	12	4'-4"	-
G	4	8 [5 for Option 3]	6'-0"	-
H1	4	2	15'-8"	-
H2	4	2	13'-10"	-
J1	4	8	4'-8"	d
J2	4	12	4'-0"	d

( ) See Reinforcing Steel Note a & b.

LIGHT POLE PEDESTAL NOTES

1. Concrete and Reinforcing Steel required for the construction of the Pedestal shall meet the same requirements as the Traffic Railing or Pedestrian/Bicycle Railing the Pedestal is attached to.
2. Light Pole Pedestal may be used with the following:  
Index 521-422 - Traffic Railing (42" Vertical Shape),  
Index 521-423 - Traffic Railing (32" Vertical Shape),  
Index 521-427 - Traffic Railing (36" Single-Slope),  
Index 521-428 - Traffic Railing (42" Single-Slope),  
Index 521-820 - Pedestrian/Bicycle Railing,  
Index 515-021 - Pedestrian/Bicycle Bullet Railing for Traffic Railing or  
Index 515-509 - Traffic Railing /Noise Wall - Bridge.
3. Unless otherwise noted, Traffic Railing (36" Single-Slope) is shown in all Views and Sections. The Pedestal details for other Traffic Railings or Pedestrian/Bicycle Railing are similar.

4. ANCHOR BOLTS:

Anchor Bolt design is based on the standard Roadway Aluminum Light Pole configurations shown on Index 715-002.

Anchor Bolt Diameter: See Table 1  
Anchor Bolts: ASTM F1554 Grade 55.  
Nuts: ASTM A563 Grade A, Heavy-Hex.  
Washers: ASTM F436 Type 1.  
Anchor Plate: ASTM A709 (Grade 36) or ASTM A36.  
Coating: Galvanize all Nuts, Bolts Washers, in accordance with ASTM F2329.  
Galvanize plates in accordance with ASTM A123.

The Contractor is responsible for ensuring the anchor bolt configuration is compatible with the light pole base plate. Submit modifications of the anchor bolt design to the Engineer for approval.

5. Install Anchor Bolts plumb.

6. For Conduit, Embedded Junction Boxes (EJB), Expansion/Deflection Fitting and adjacent Reinforcing Steel Details, see Utility Conduit Detail Sheets and Index 630-010.

7. PAYMENT: The cost of Wire Screen, Anchor Bolts, Nuts, Washers and Anchor Plates shall be included in the Bid Price for Light Poles. The cost of all Labor, Concrete and Reinforcing Steel required for the Construction of the Pedestals, and Miscellaneous Hardware required for the completion of the Electrical System, shall be included in the Bid Price for the Traffic Railing or Pedestrian/Bicycle Railing the Pedestal is attached to.

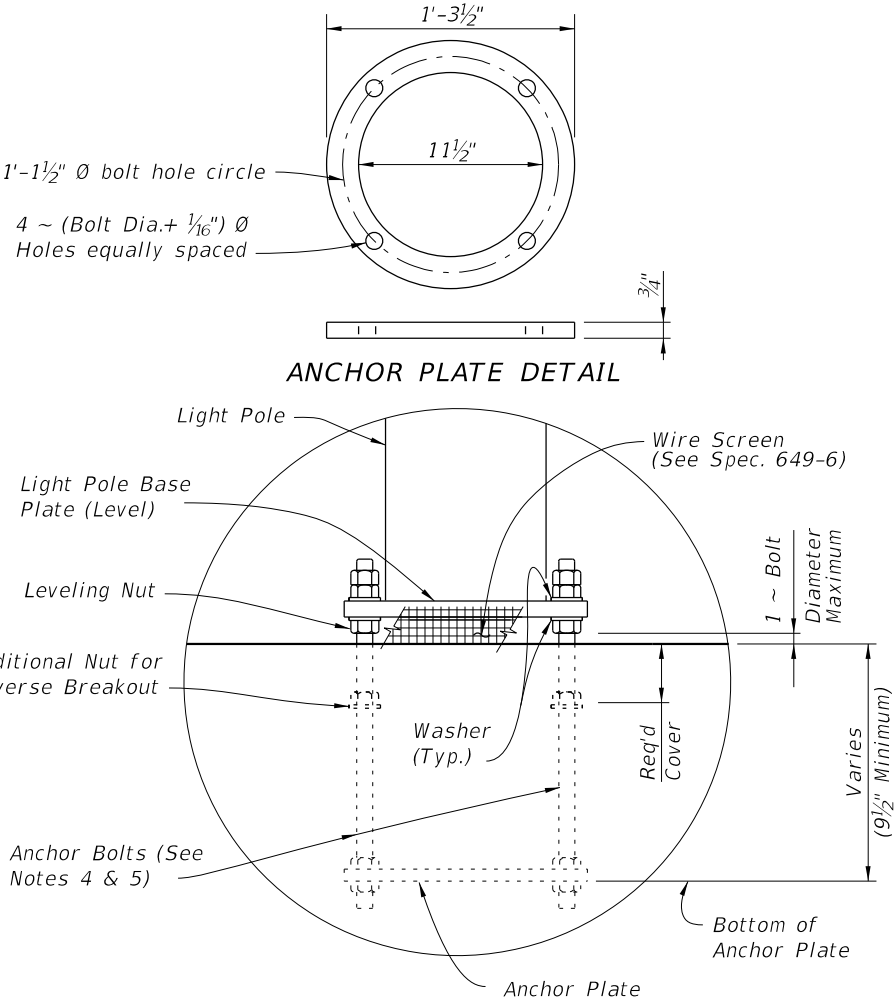
TABLE 1 - DESIGN LIMITATIONS FOR ANCHOR BOLTS (1" Dia.)				
WIND SPEED (MPH)	ARM LENGTH (Ft.)	BRIDGE DECK HEIGHT (Ft.)*		
		DESIGN MOUNTING HEIGHT		
		40 Ft.	45 Ft.	50 Ft.
130	≤ 15	75	75	75
150	≤ 15	75	75	75
170	8 & 10	75	75	45**
170	12 & 15	75	75	25**

\* Above natural ground or MLW.  
\*\* Use 1¼" diameter Anchor Bolt for Bridge Deck Height greater than shown, in Table 1, up to 75'.

ESTIMATED LIGHT POLE PEDESTAL QUANTITIES PER LIGHT POLE PEDESTAL

ITEM	UNIT	QUANTITY
Concrete Per Pedestal Thickness	CY/In.	0.040
Reinforcing Steel	LB	195 (182)

(The Reinforcing Steel quantity shown in parenthesis is for a Pedestal attached to Pedestrian/Bicycle Railing - Index 521-820 with Bridge Deck or Approach Slab thinner than 1'-1½". Add 59 Lbs. for Bars 4J1 & 4J2 when Pedestal Thickness is 1'-5½" or greater)



CROSS REFERENCE:  
For location of Detail "A" see Sheets 1,2 and 3.



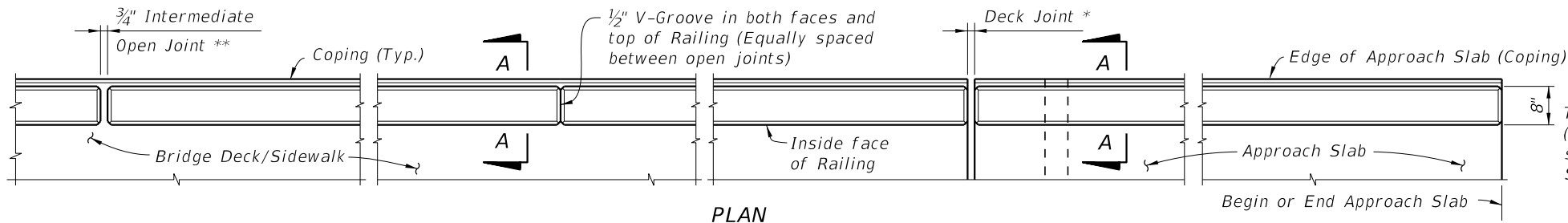
FY 2022-23  
STANDARD PLANS

LIGHT POLE PEDESTAL - BRIDGE

INDEX  
521-660

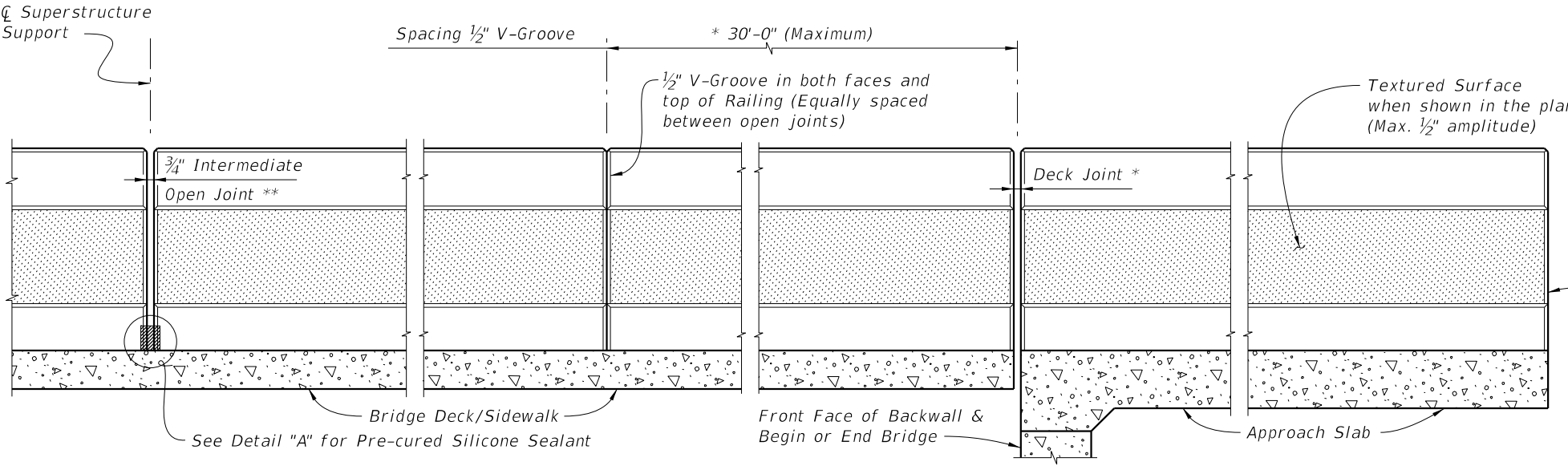
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4 of 4

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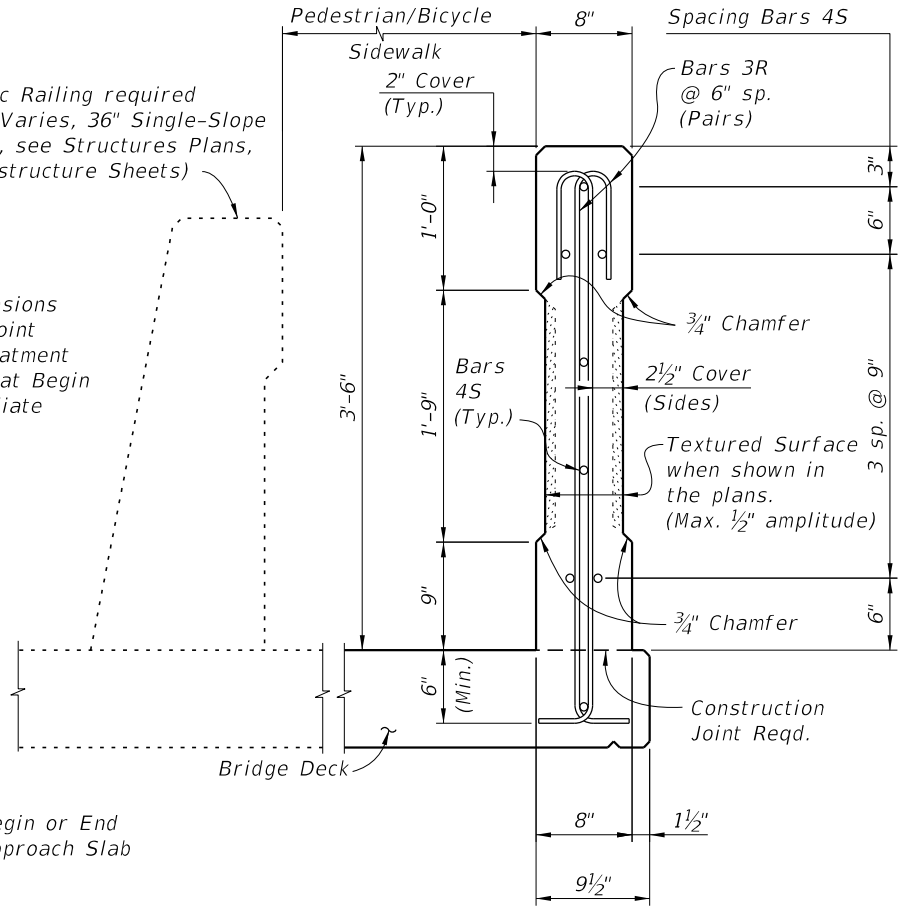


PLAN  
(Reinforcing Steel not shown for clarity)

\* See Structures Plans, Superstructure Sheets for actual dimensions and joint orientation. Open Railing Joints at Deck Expansion Joint locations shall match the dimension of the Deck Joint. For treatment of Railings on skewed bridges see Index 521-427. Deck Joint at Begin Bridge or End Bridge shown. Deck Joint at  $\frac{1}{4}$  Pier or Intermediate Bent similar.



ELEVATION OF INSIDE FACE OF RAILING  
(Reinforcing Steel not shown for clarity)



SECTION A-A  
(Typical C-I-P Section Thru Bridge Deck Shown,  
Section Thru Approach Slab Similar)

- RAILING NOTES:
1. Railing shall be placed vertical and top surface shall be level transversely.
- INTERMEDIATE JOINT SEAL NOTES:
1. At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
  2. Apply sealant prior to any Class 5 Finish Coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
  3. The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Railing.
- REINFORCING STEEL NOTES:
1. All bar dimensions in the bending diagrams are out to out.
  2. The reinforcement for the railing on a retaining wall shall be the same as detailed above for an 8" deck.
  3. All reinforcing steel at the open joints shall have a 2" minimum cover.
  4. Bar splices for Bars 4S shall be a minimum of 1'-8".
  5. At the option of the Contractor deformed WWR may be used in lieu of all Bars 3R and 4S.

ALTERNATE REINFORCING (WELDED WIRE REINF.) DETAILS

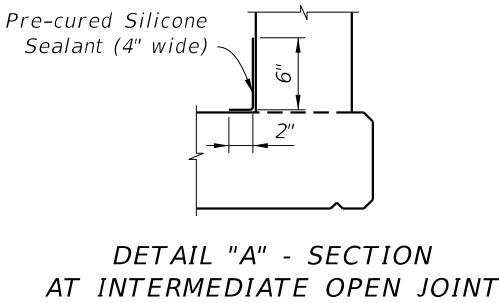
NOTE: Place wire panels to ensure vertical wire is within 4" of open joints.

SPLICE DETAIL (Between WWR Sections)

WELDED WIRE REINFORCEMENT (WWR) (2 Pieces Req'd.)

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS		
BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
R	3	5'-2"
S	4	As Req'd.

BAR 3R	BAR 4S



ESTIMATED CONCRETE RAILING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.079
Reinforcing Steel	LB/LF	13.12

(The above quantities are based on a deck with a 2% cross slope)

NOTES

DESIGN CRITERIA:

1. Design is based on the assumption that the material contained within the reinforced soil volume, methods of construction and quality of prefabricated materials are in accordance with Specification Section 548 and Chapter 3 of the FDOT Structures Design Guidelines.

SOIL PARAMETERS:

1. See Wall Control Drawings for soil characteristics of foundation material to be used in the design of the wall system.
2. The Contractor will provide soil design parameters for backfill material based on the actual soil characteristics utilized at the site.

MATERIALS:

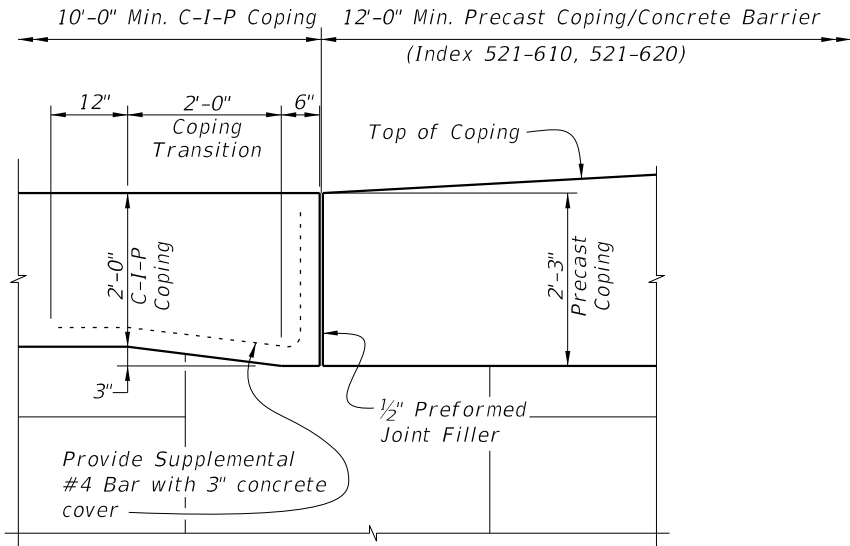
1. See Specification Section 548 for material requirements.

CONSTRUCTION:

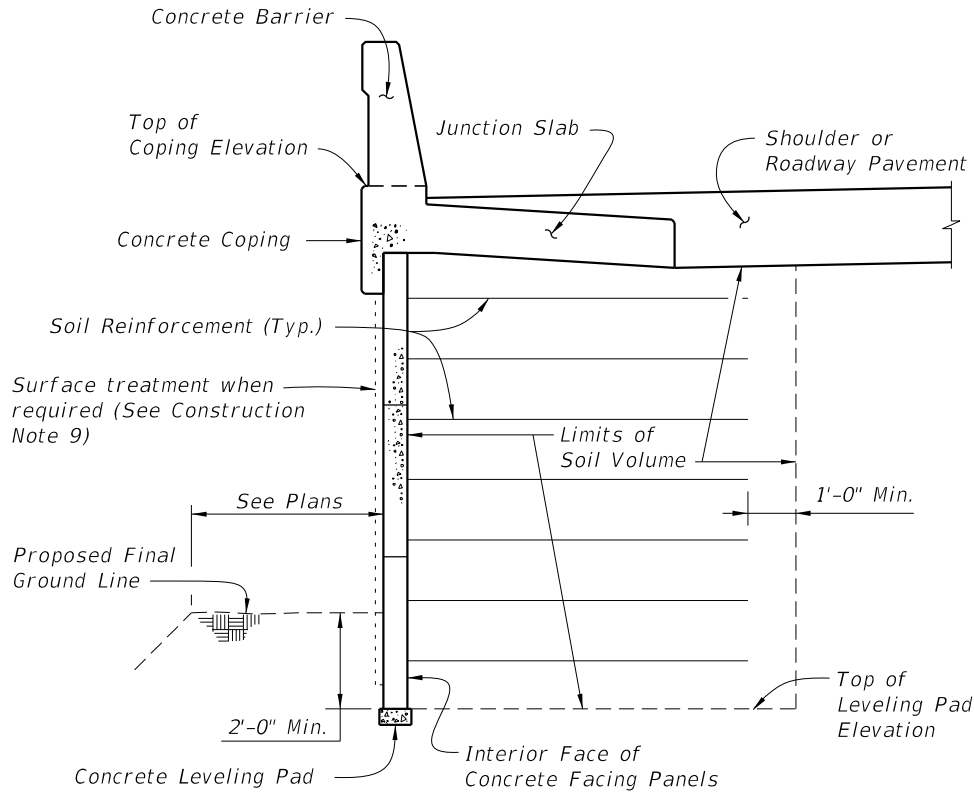
1. Walls will be constructed in accordance with Specification Section 548 and the Wall Company's instructions.
2. For location and alignment of retaining walls, see Wall Control Drawings.
3. If required, locate manholes and drop inlets as shown on wall elevations.
4. Refer to Wall Control Drawings of individual walls for minimum reinforcement strip/mesh length, factored bearing resistance's, minimum wall embedment and anticipated long term and differential settlements.
5. The Contractor is responsible for controlling water during storm events as needed during construction.
6. It is the Contractor's responsibility to determine the location of any guardrail posts behind retaining wall panels. Prior to placement of the top layer of soil reinforcement, individual reinforcing strips/mesh may be skewed (15° maximum) to avoid the post locations if authorized by the Engineer. No cutting of soil reinforcement is allowed unless shown on Shop Drawings and approved by the Engineer. Any damage done to the soil reinforcement due to installation of the guardrail will be repaired by the Contractor at the Contractor's expense. Repair method will be approved by the Engineer.
7. If existing or future structures, pipes, foundations or guardrail posts within the reinforced soil volume interfere with the normal placement of soil reinforcement and specific directions have not been provided on the plans, the Contractor will notify the Engineer to determine what course of action shall be taken.
8. The Contractor is responsible for gradually displacing upper layer(s) of soil reinforcement downward (15° maximum from horizontal) to avoid cutting soil reinforcement and conflicts with paving and subgrade preparation. The Contractor's attention is directed especially to situations where roadway superelevation and/or soil mixing are anticipated.
9. For concrete facing panel surface treatment, see Wall Control Drawings. Extend surface treatment a minimum of 6" below final ground line.
10. Drive piles located within the soil volume prior to construction of the retaining wall, unless a method to protect the structure, acceptable to both the Engineer and Wall Company, is proposed and approved in writing. The portion of piles or drilled shafts extensions within the soil volume will be wrapped with polyethylene sheeting in accordance with Specification Section 459.
11. A structural extension of the connection of the retaining wall panel to soil reinforcement will be used whenever necessary to avoid cutting or excessive skewing (greater than 15°) of the soil reinforcement around obstructions (i.e., piles, pipes, manholes, drop inlets, etc.).
12. Steps in leveling pads will occur at MSE Wall panel interfaces. Panels will not cantilever more than 2" past the end of the upper tier leveling pad.
13. The top of the leveling pad or footing will be 2'-0" minimum below final ground line.
14. Top of leveling pad elevations shown in the Wall Control Drawings are maximum elevations. The constructed leveling pad elevations may be deeper based on the panel layout shown in the shop drawings.
15. The height of panels in the bottom course of MSE Walls must not be less than half the height of a standard panel.
16. Work this Index with Index 521-600 thru 521-650.

SHOP DRAWINGS:

See Specification Section 548 for shop drawing requirements.



ELEVATION VIEW OF  
COPING HEIGHT TRANSITION



TYPICAL MSE RETAINING WALL SECTION  
WITH A CONCRETE BARRIER  
(Showing Limits of the Reinforced Soil Volume)

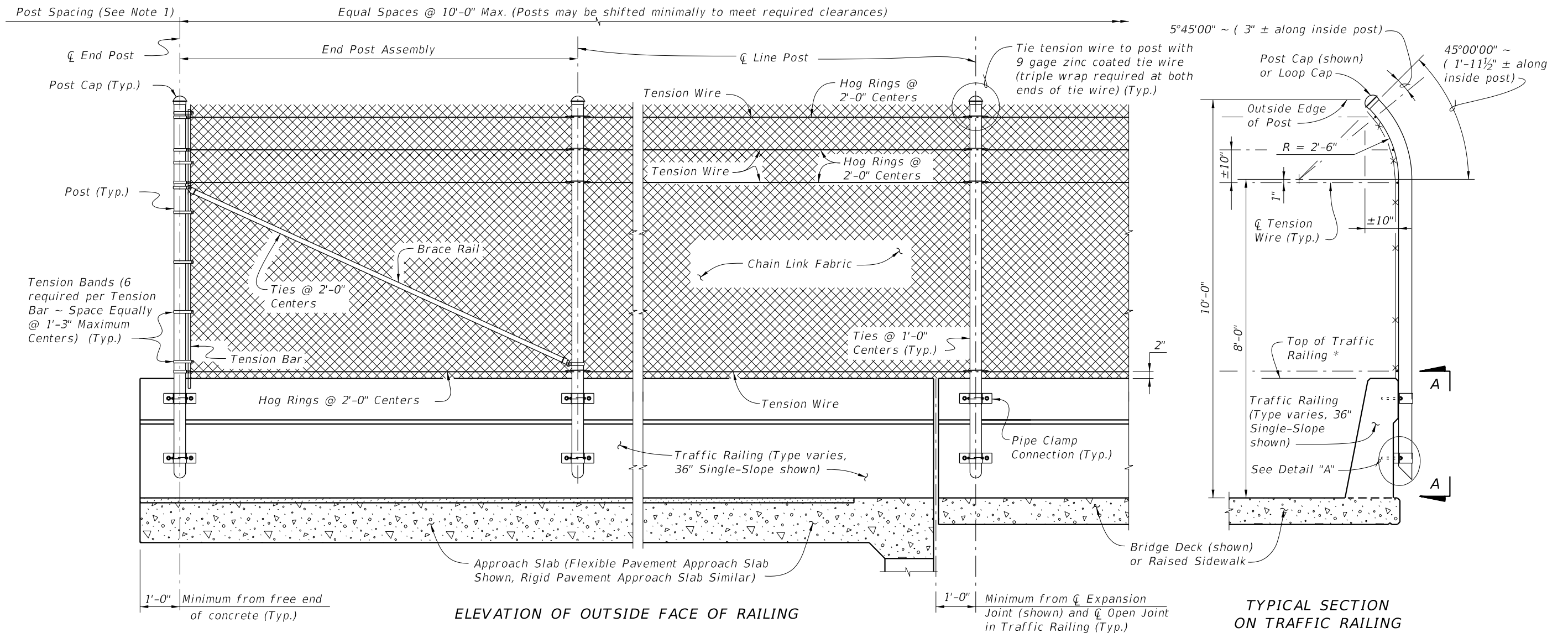
FDOT MSE RETAINING WALL CLASSIFICATION TABLE													
Applicable FDOT Wall Type *	Durability Requirements (Carbon-Steel Reinforcing)			Durability Requirements (FRP Reinforcing)			Soil Reinforcement Type	Other Allowable FDOT Wall Types					
	Concrete Cover (in.)	Concrete Class for Panels	Pozzolan Additions? **	Concrete Cover (in.)	Concrete Class for Panels	Pozzolan Additions? **		2A	2B	2C	2D	2E	2F
Type 2A	2	II	No	1.5	II	No	Metal		✓	✓	✓	✓	✓
Type 2B	2	IV	No	1.5	IV	No	Metal			✓	✓	✓	✓
Type 2C	3	IV	No	1.5	IV	No	Metal				✓	✓	✓
Type 2D	3	IV	Yes	2	IV	No	Metal						✓
Type 2E	3	IV	No	2	IV	No	Plastic						✓
Type 2F	3	IV	Yes	2	IV	No	Plastic						

\* See Data Table in Contract Plans.

\*\* Highly Reactive Pozzolans.

GENERAL NOTES AND DETAILS

LAST REVISION 11/01/21	DESCRIPTION:	FY 2022-23 STANDARD PLANS	MSE RETAINING WALL SYSTEMS - PERMANENT	INDEX 548-020	SHEET 1 of 1
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- NOTES:
1. A Pull Post Assembly is required at maximum intervals of 500'-0". See Sheet 3.

\* Do not anchor Fencing to the top of Traffic Railings.

## FENCING NOTES

### FENCE INSTALLATION:

Install posts plumb (within a tolerance of  $\pm 1\frac{1}{2}$ "). Use shim plates as required to achieve plumb. The required quantity and thickness of shim plates will be determined in the field. Install chain link fence in accordance with ASTM F567 as applicable.

### TRAFFIC RAILING DETAILS:

See Superstructure Sheets for Traffic Railing details.

### LIMITS OF FENCING:

Limits of fencing are from begin of approach slab at Begin Bridge to end of approach slab at End Bridge, unless otherwise shown in the plans.

### PAYMENT:

Payment will be made under Fencing, Type R. Payment includes all materials and labor required to complete installation of the fence.

### CROSS REFERENCE:

For Table of Fence Components, Table of Post Attachment Components, View A-A and Detail "A" see Sheet 2.

For Pull Post Assembly Detail for Traffic Railing see Sheet 3.

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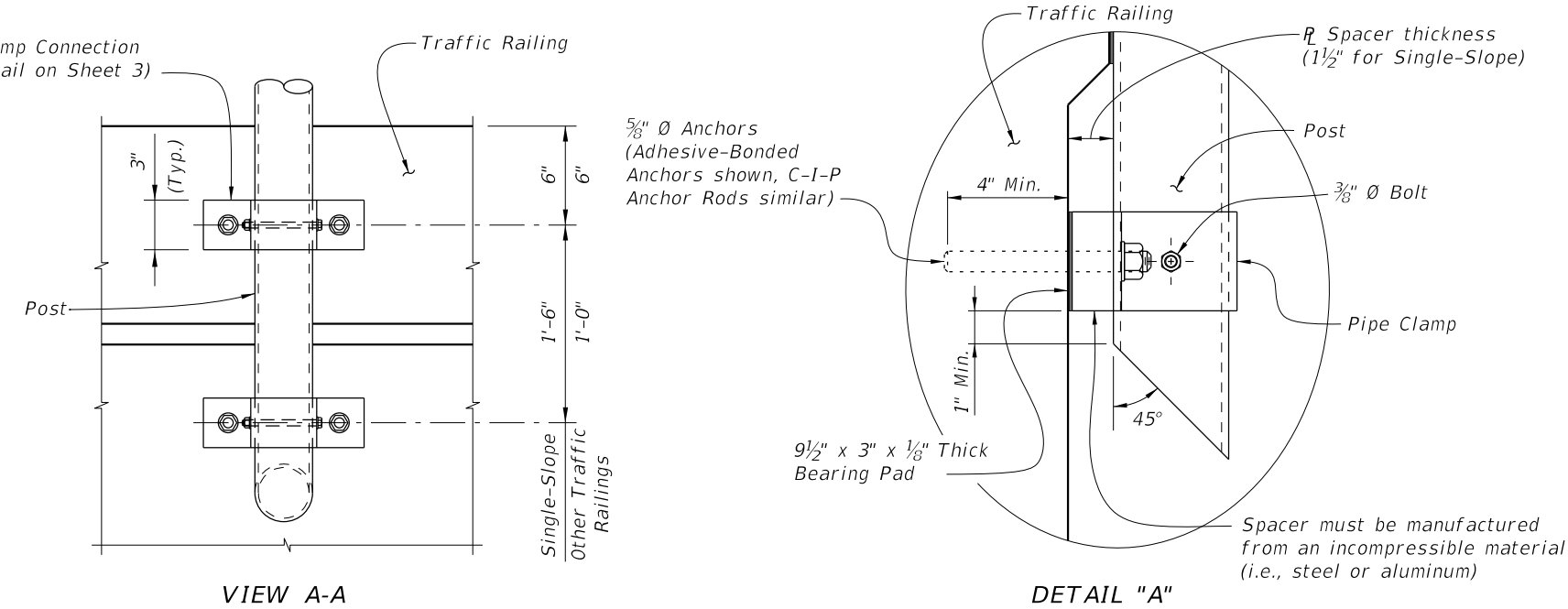
LAST REVISION	DESCRIPTION:	FY 2022-23 STANDARD PLANS	BRIDGE FENCING (OVER RAILROAD)	INDEX	SHEET
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TABLE OF CHAIN LINK FENCE COMPONENTS		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Posts	F1083	Galvanized Steel Pipe – 3½" NPS, Schedule 40 Regular Grade
Chain Link Fabric (2" mesh with twisted top and knuckled bottom selvage)	A392	Zinc Coated Steel – 9 gage (coated wire diameter), Class 2 Coating
	A491	Aluminum Coated Steel – 9 gage (coated wire diameter)
	F668	Polyvinyl Chloride (PVC) Coated Steel – 9 gage Class 2b
Tie Wires	F626	Zinc Coated Steel Wire – 9 gage
Brace Bands	F626	12 Gage (Min. thickness) x ¾" (Min. width) Steel Bands (Beveled or Heavy)
Tension Bars	F626	⅜" (Min. thickness) x ¾" (Min. width) x 6'-10" (Min. height) Steel Bars
Tension Bands	F626	14 Gage (Min. thickness) x ¾" (Min. width) Steel Bands
Miscellaneous Fence Components	F626	Zinc Coated Steel ~ (includes post or loop caps, horizontal and brace rail ends, combination rail ends, boulevard clamps and all other miscellaneous fittings & hardware)
		Type II (Zinc Coated Steel Wire) – 7 gage, Class 4 Coating
Tension Wire	A824 & A817	Type I (Aluminum Coated Steel Wire) – 7 gage
Hog Rings	F626	Zinc Coated Steel Wire – 12 gage
Brace Rails	F1083	Galvanized Steel Pipe – 1¼" NPS, Schedule 40 Regular Grade

TABLE OF POST ATTACHMENT COMPONENTS		
COMPONENT	ASTM DESIGNATION	COMPONENT INFORMATION
Pipe Clamps	A36 or A709 Grade 36	¼" Steel <i>R</i>
Base Plates	A36 or A709 Grade 36	¾" Steel <i>R</i>
Shim Plates	A36 or A709 Grade 36 or B209 Alloy 6061-T6 or B221 Alloy 6063-T5	Plate thicknesses as required; Holes in shim plates will be ¾" Ø
Spacers	-	Plate thickness varies based on traffic railing type (See Detail "A")
Pipe Clamp Connection	Adhesive Anchor Rods	F1554 Grade 36
	C-I-P Anchor Rods	F1554 Grade 36
Bolts	A307	⅜" Ø x 4¾" Hex Head Bolts for Pipe Clamp Connections to Posts
Nuts	A563	Hex Nuts for Pipe Clamp Connections
Washers	F436	Flat Washers for Pipe Clamp Connections
Bearing Pads (Plain Neoprene)	-	In accordance with Specification Section 932 for Ancillary Structures

Pipe Clamp Connection  
(see Detail on Sheet 3)  
(Typ.)



POST ATTACHMENT NOTES

- ANCHOR RODS, NUTS AND WASHERS:  
After the nuts have been tightened, distort the Anchor Rod threads to prevent removal of the nuts. Coat distorted threads and exposed trimmed ends of anchors with a galvanizing compound in accordance with Specification Section 562.
- COATINGS:  
Hot-dip galvanize all Nuts, Washers, Bolts, C-I-P Anchor Rods, Adhesive Anchors and Fence Framework (Posts, Internal Sleeves, Shim Plates, Base Plates, Pipe Clamps and Spacers) in accordance with Specification Section 962. Hot-dip galvanize Fence Framework after fabrication.
- ADHESIVE-BONDED ANCHORS AND DOWELS:  
Adhesive Bonding Material Systems for Anchors and Dowels will comply with Specification Section 937 and be installed in accordance with Specification Section 416. Cutting of reinforcing steel is permitted for drilled hole installation.
- WELDING:  
All welding will be in accordance with the American Welding Society Structural Welding Code (Steel) ANSI/AWS D1.1 (current edition). Weld metal will be E60XX or E70XX. Nondestructive testing of welds is not required.
- CROSS REFERENCE:  
For location of View A-A and Detail "A" see Sheet 1.



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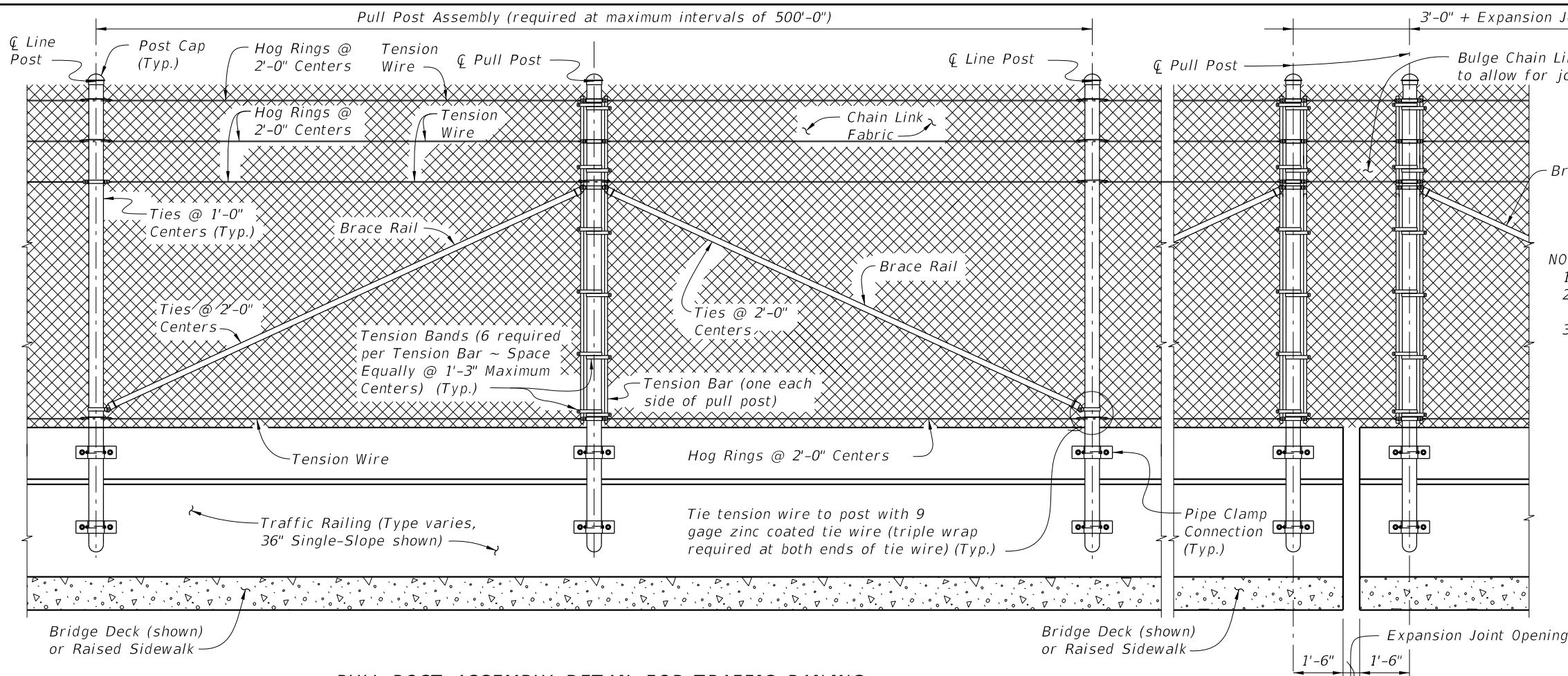
BRIDGE FENCING (OVER RAILROAD)

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550-013

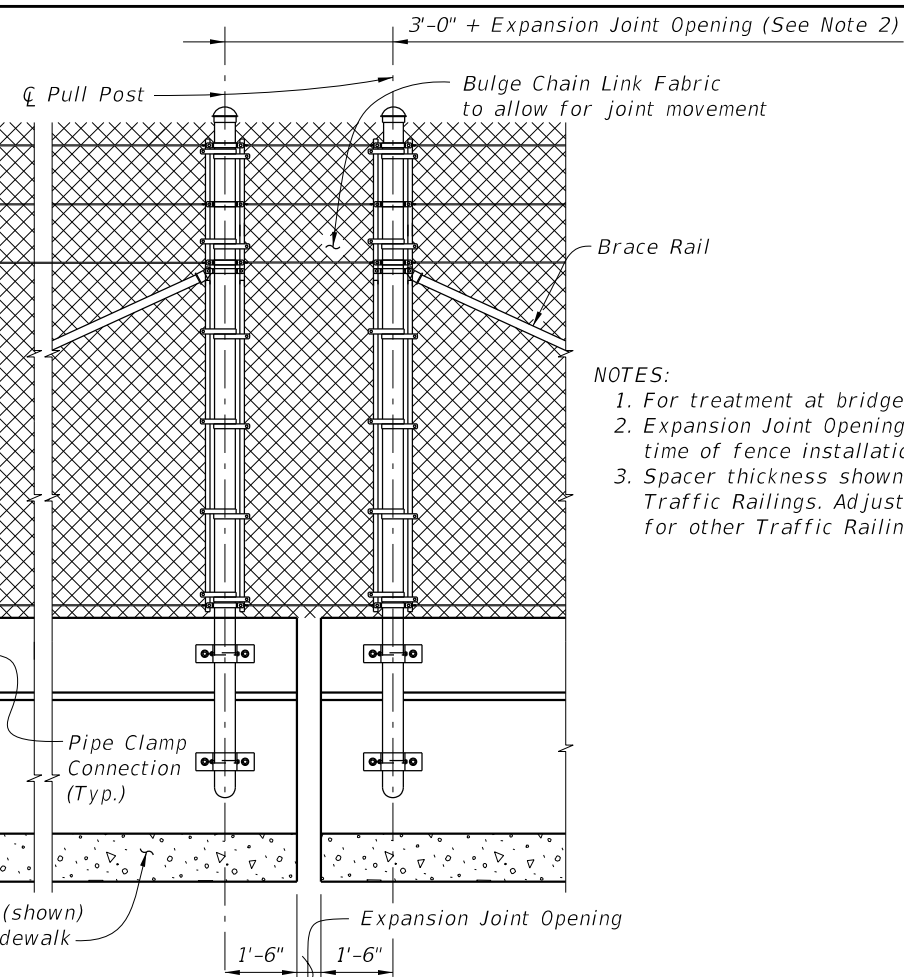
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LAST  
REVISION  
11/01/20

DESCRIPTION:



PULL POST ASSEMBLY DETAIL FOR TRAFFIC RAILING

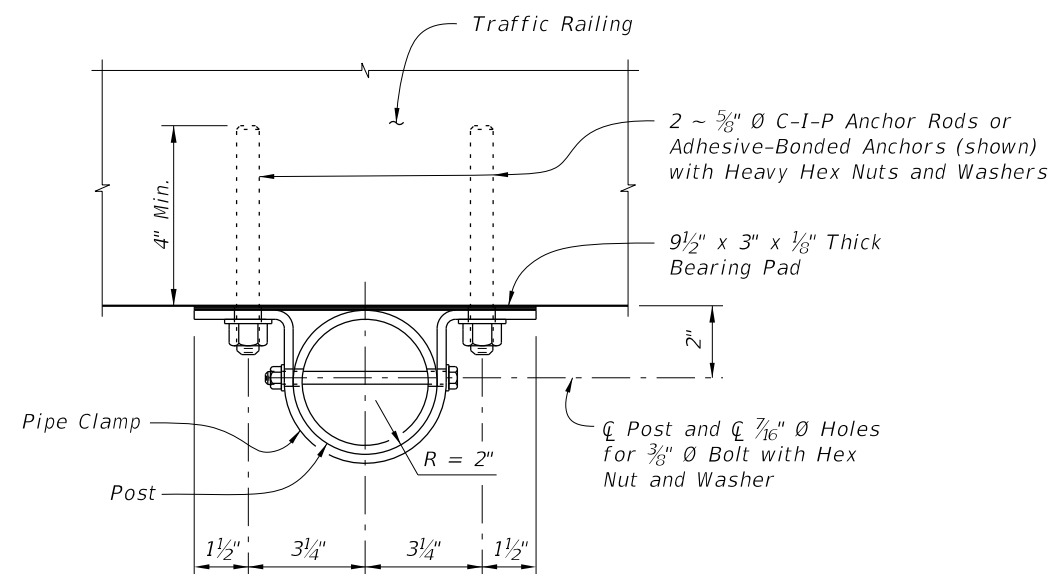


EXPANSION ASSEMBLY DETAIL

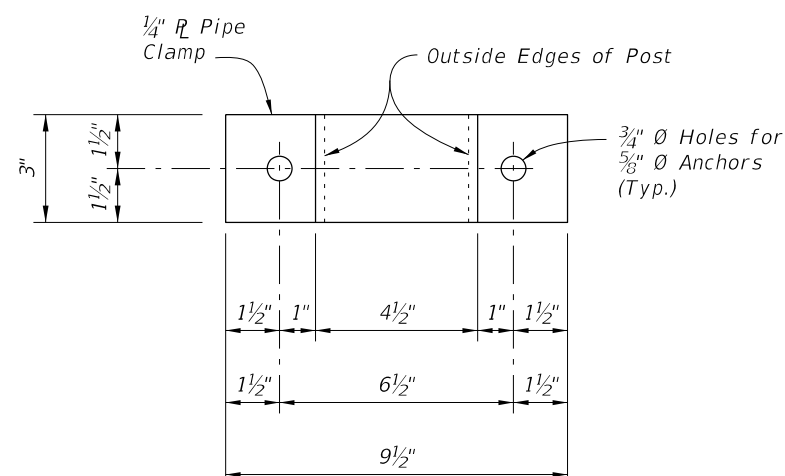
(Required only at expansion joint locations where total movement exceeds 6")

NOTES:

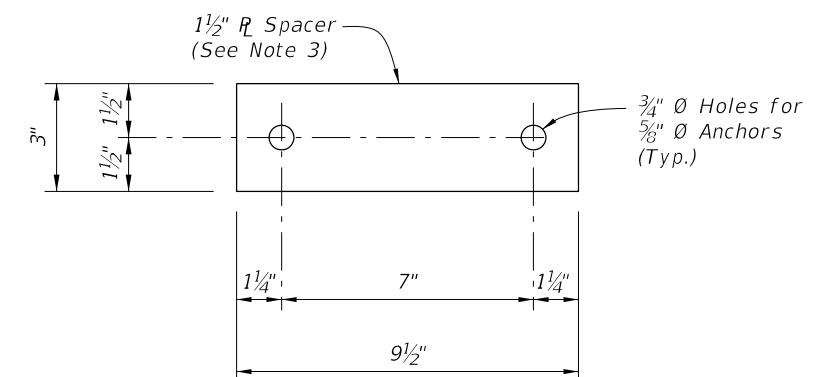
1. For treatment at bridge ends, see Sheet 1.
2. Expansion Joint Opening is the width at the time of fence installation.
3. Spacer thickness shown is for Single-Slope Traffic Railings. Adjust thickness as required for other Traffic Railings.



PIPE CLAMP CONNECTION DETAIL  
(Connection without spacer shown,  
Connection with spacer similar)




PIPE CLAMP DETAIL



SPACER DETAIL

(Must be manufactured from an incompressible material (i.e., steel or aluminum))

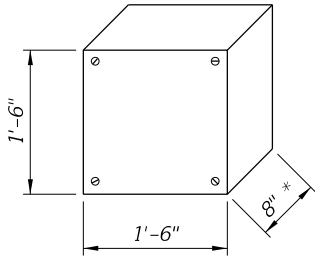
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LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 <b>FY 2022-23 STANDARD PLANS</b>	<b>BRIDGE FENCING (OVER RAILROAD)</b>	INDEX <b>550-013</b>	SHEET <b>3 of 3</b>
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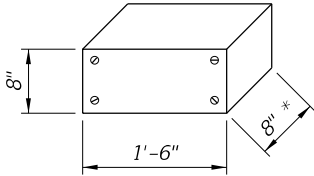
CONDUIT GENERAL NOTES:

1. Furnish and install approved Conduits, Fittings and Embedded Junction Boxes (EBJ's) in accordance with Specification Sections 630 and 635, this Standard, the National Electric Code (NEC) and as directed by the Engineer.
2. Furnish and install Embedded Junction Boxes (EJB) with weatherproof covers sized in accordance with NEC requirements and the maximum size limits shown. Install EJB adjacent to the Begin and End of Bridges, Begin and End of Retaining Walls, (except omit EJB adjacent to the Bridge unless a precast Traffic Railing with junction slab is used), and at other locations as necessary to maintain 300 foot maximum spacing. See Plans for additional locations and details.
3. For Conduit not designated for future use, see Plans for details. For Conduit designated for future use, stub out and cap the Conduit. Drive a 3'-0"± long ¾" (min.) diameter Steel Pipe flush with the ground line adjacent to the end of the Conduit as shown on Sheets 2, 3 or 4. Provide the location of the stub out with Steel Pipe to the Engineer for inclusion on the As-Built Plans.
4. Shift vertical Railing reinforcement symmetrically to provide 2" clearance to EJB. Space shifted vertical reinforcement at minimum 3" centers. Cut horizontal Railing reinforcement to provide 2" clearance to EJB and provide supplemental reinforcement as shown. To facilitate placement of Conduit, Expansion Fittings, and Expansion/Deflection Fittings, shift reinforcing a maximum of 1" but do not cut railing reinforcing to facilitate Conduit or Fittings. Do not bundle Conduits, or Conduit and horizontal reinforcement.
5. Place conduits as indicated in this Standard unless Structures Plans indicate fewer.

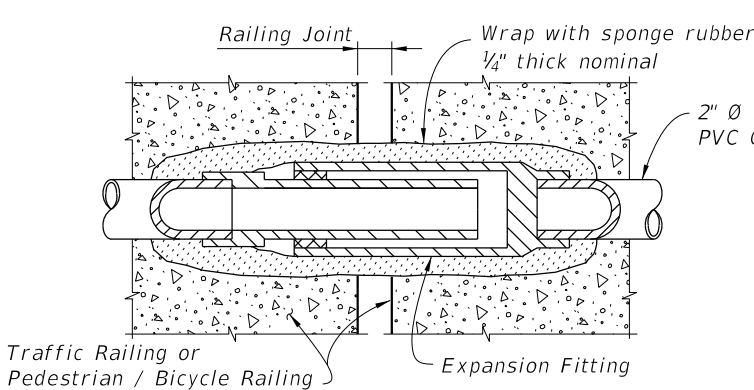
\* Reduce to 6" maximum when installed in Pedestrian/ Bicycle Railings.



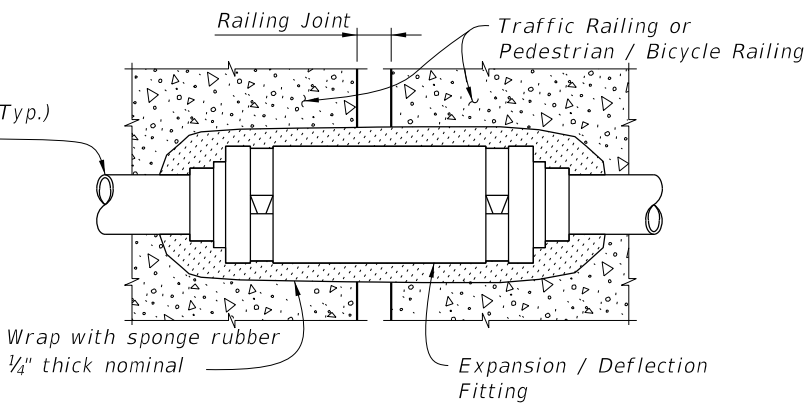
EJB "A"  
Double or Triple Conduit  
(Maximum Dimensions)



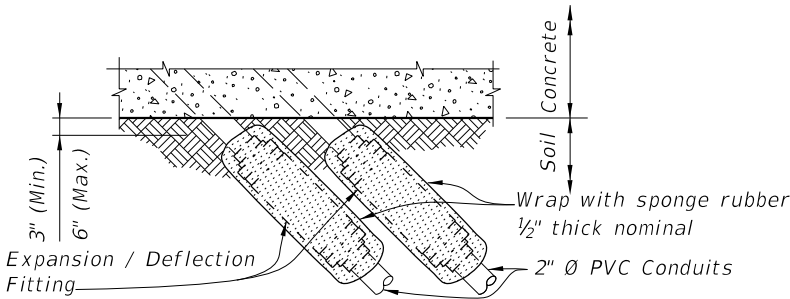
EJB "B"  
Single Conduit  
(Maximum Dimensions)



DETAIL "A"  
EXPANSION FITTING DETAIL



DETAIL "B" EXPANSION / DEFLECTION  
FITTING DETAIL (CONCRETE / CONCRETE)

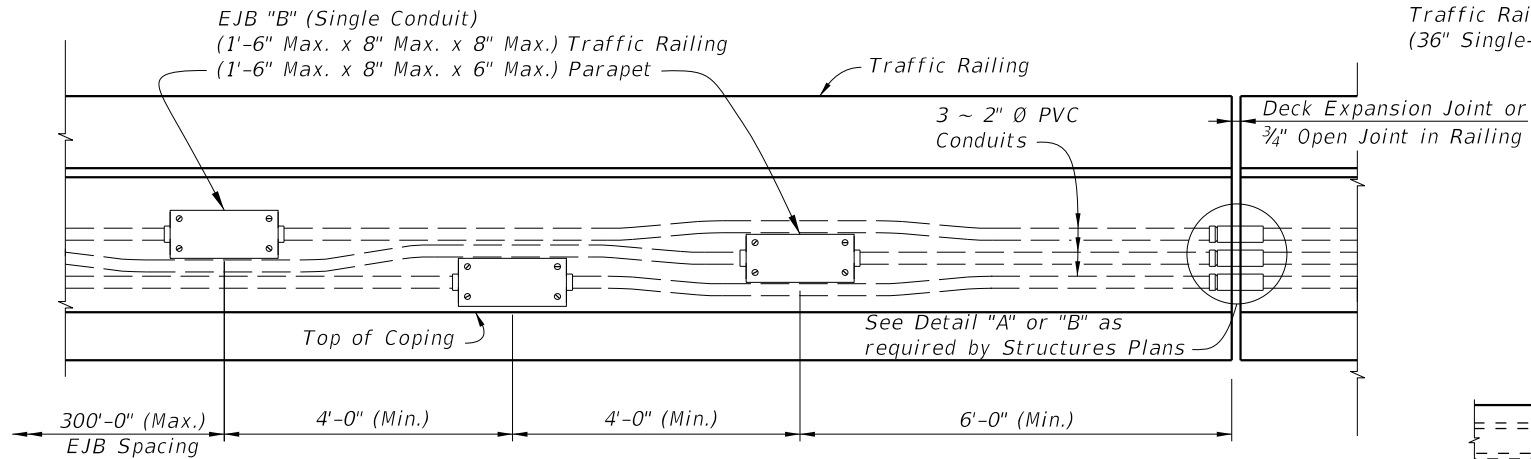


DETAIL "C" EXPANSION / DEFLECTION  
FITTING DETAIL (CONCRETE / SOIL)

GENERAL

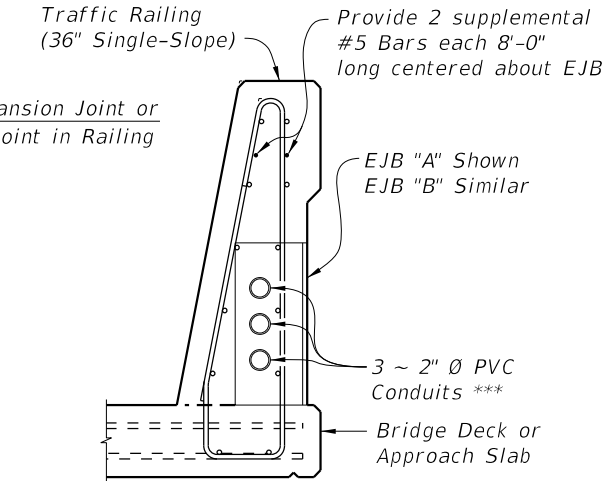
LAST REVISION 11/01/20		DESCRIPTION:	 FY 2022-23 STANDARD PLANS	CONDUIT DETAILS - EMBEDDED	INDEX	SHEET
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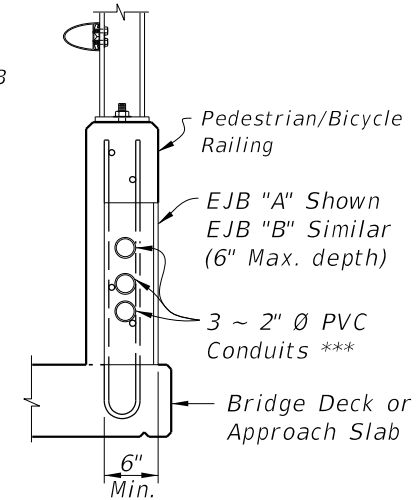


**EJB "B" DETAIL**

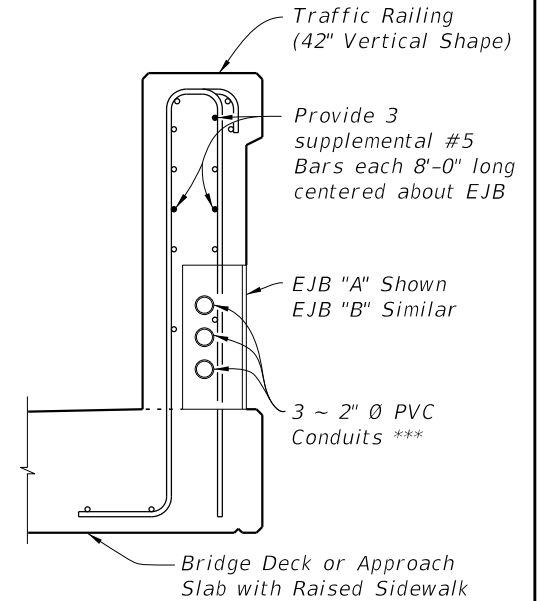
\* 36" Single-Slope Traffic Railing shown, other Traffic Railings and Pedestrian/Bicycle Railings similar.  
 \*\* EJB "A" shown, EJB "B" similar. See EJB "B" Detail.  
 \*\*\* See Sheet 1, Note 5.



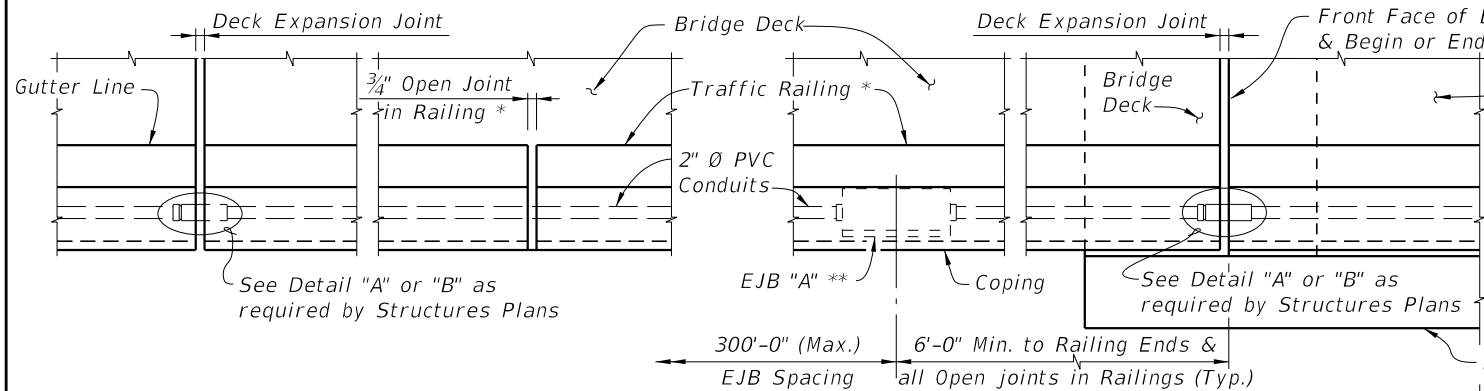
**SECTION THRU TRAFFIC RAILING AT EJB (36" SINGLE-SLOPE SHOWN, 42" SINGLE-SLOPE SIMILAR)**



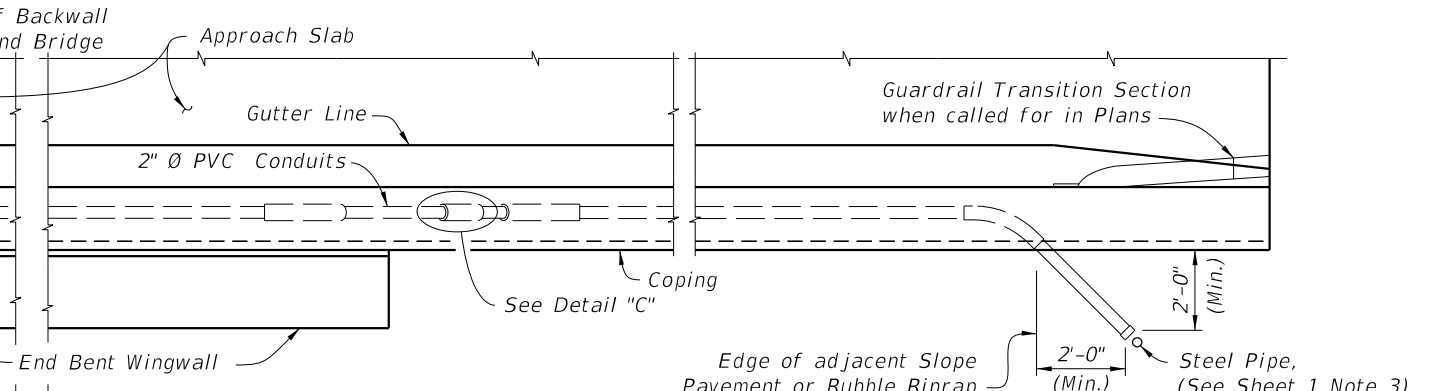
**SECTION THRU PEDESTRIAN / BICYCLE RAILING AT EJB**



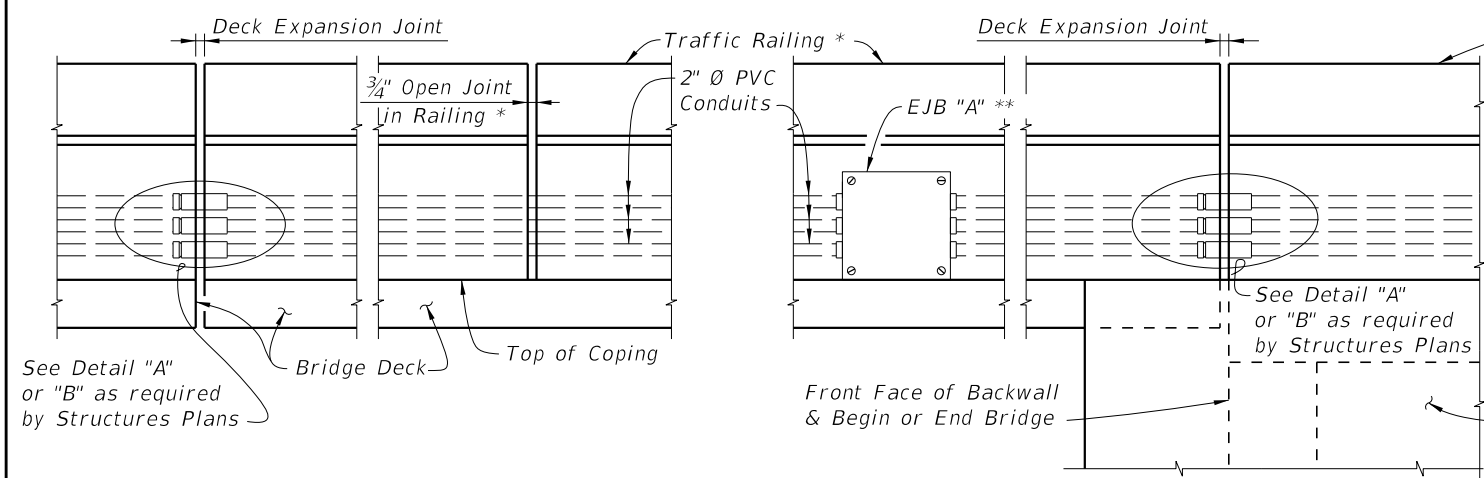
**SECTION THRU TRAFFIC RAILING AT EJB (42" VERTICAL SHAPE SHOWN, 32" VERTICAL SHAPE SIMILAR)**



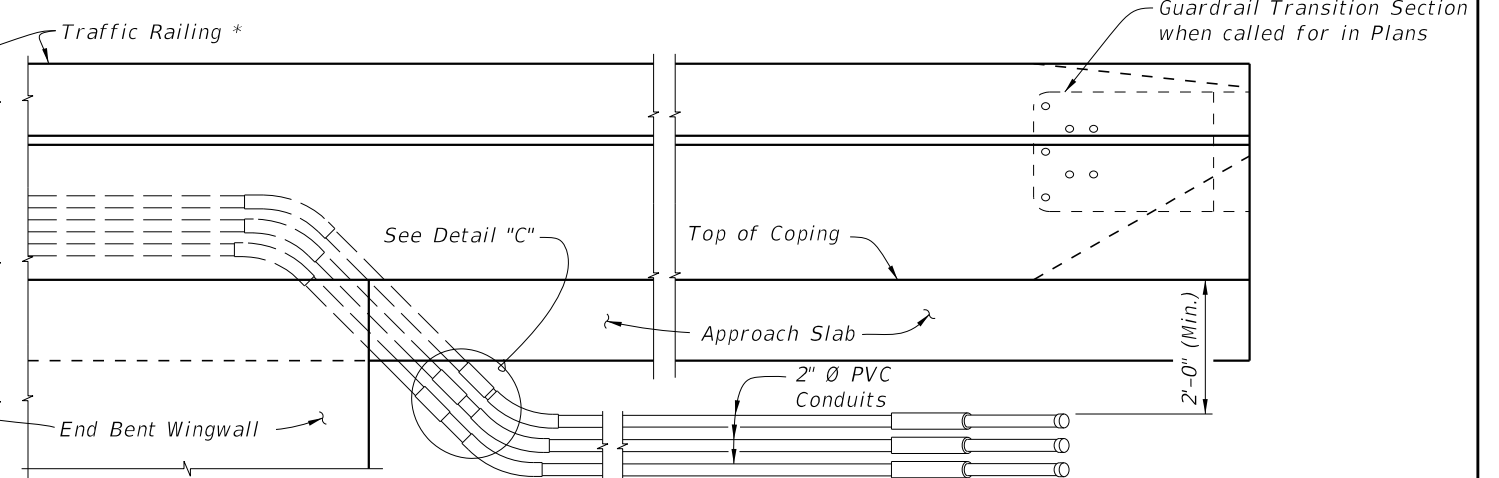
**PARTIAL PLAN VIEW ALONG BRIDGE**



**PARTIAL PLAN VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING**




**PARTIAL ELEVATION VIEW ALONG BRIDGE**

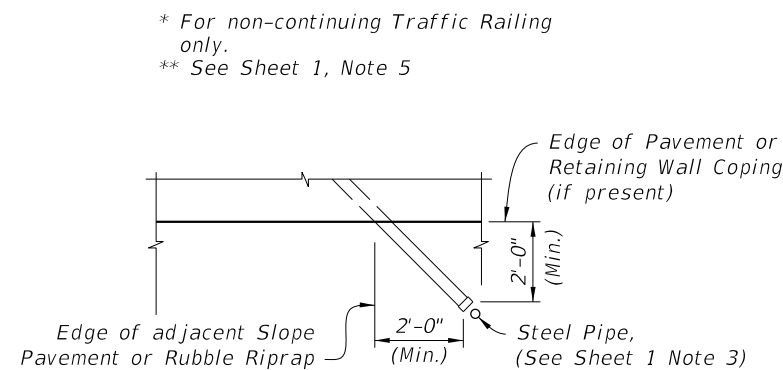
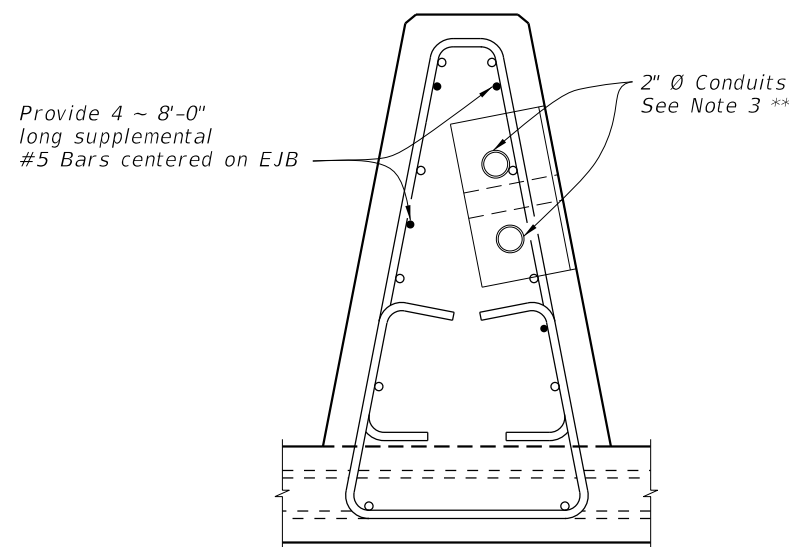
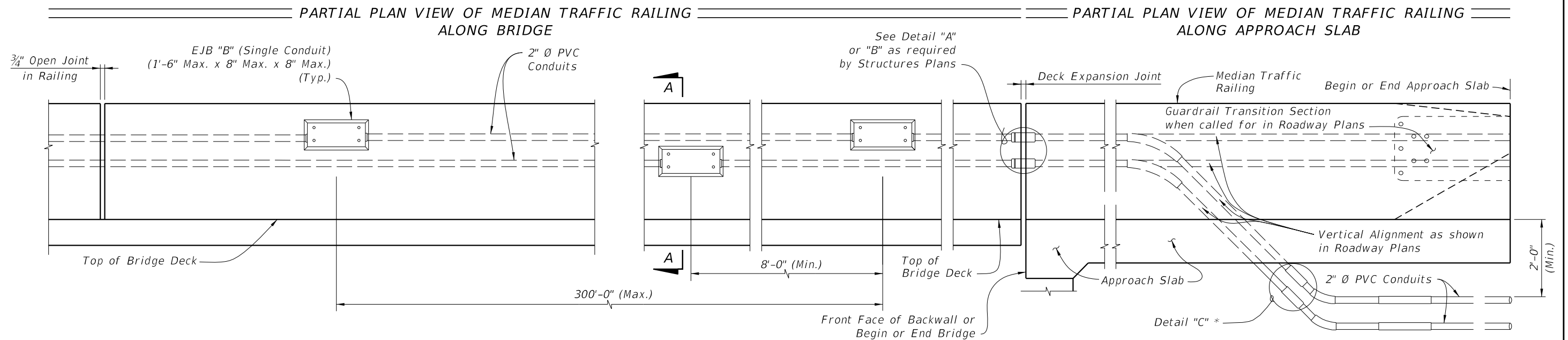
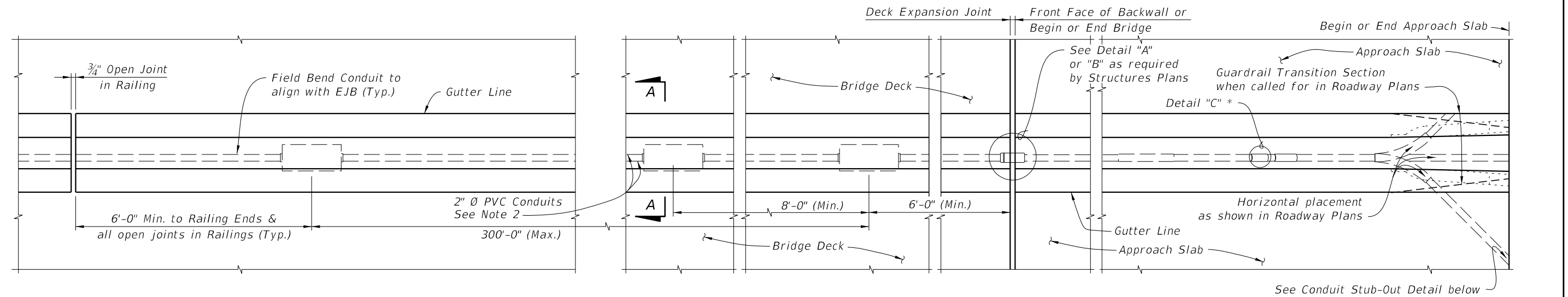


**PARTIAL ELEVATION VIEW ALONG APPROACH SLAB WITHOUT CONTINUING TRAFFIC RAILING**

**BRIDGE AND APPROACH SLAB WITH EDGE RAILING**


LAST REVISION 11/01/17	DESCRIPTION:  	 FY 2022-23 STANDARD PLANS	CONDUIT DETAILS - EMBEDDED	INDEX 630-010	SHEET 2 of 4
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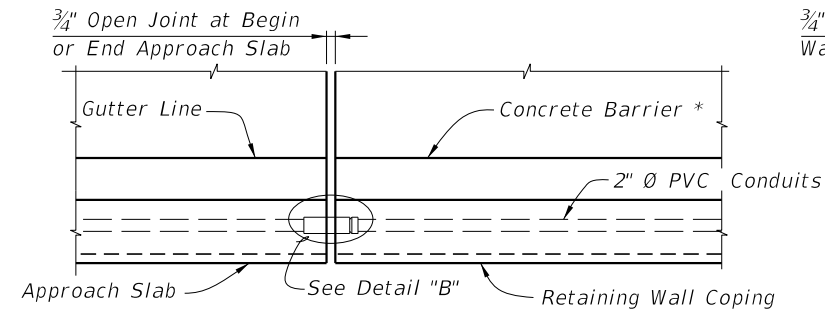


- NOTES:
1. Work this sheet with Index 521-426.
  2. Adjust Conduit horizontally and vertically as necessary to align with EJB "B".
  3. When installed in traffic face of a railing, use EJB "B" with a minimum  $\frac{3}{8}$ " thick galvanized steel cover.
  4. Position EJB such that, with gasket and cover plate secured and in place, cover plate is flush with the railing face. Flush is  $+\frac{1}{8}$ " to  $-\frac{1}{4}$ " measured with a horizontal straightedge.

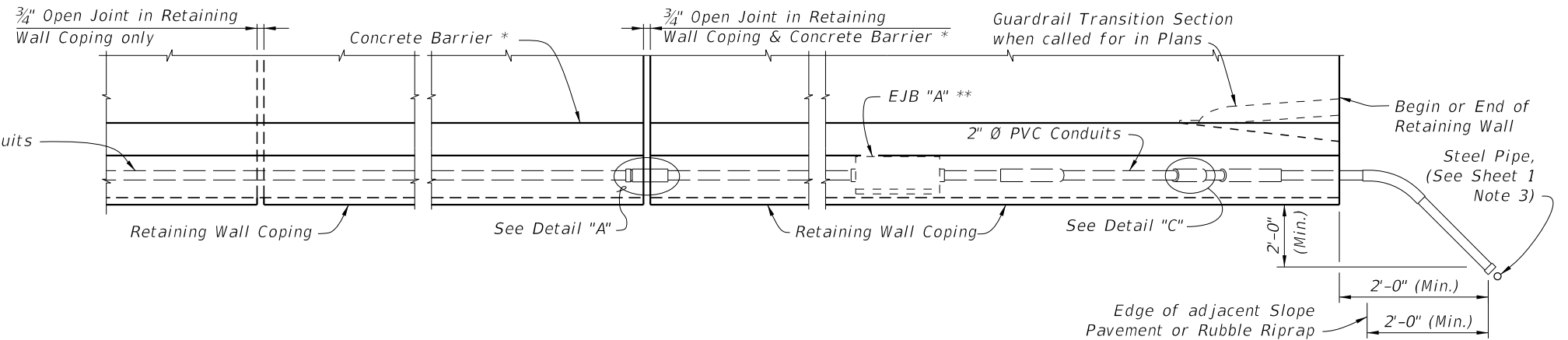
# BRIDGE AND APPROACH SLAB WITH MEDIAN TRAFFIC RAILING

LAST REVISION 11/01/17	DESCRIPTION:	 <p>FY 2022-23 STANDARD PLANS</p>	CONDUIT DETAILS - EMBEDDED	INDEX 630-010	SHEET 3 of 4
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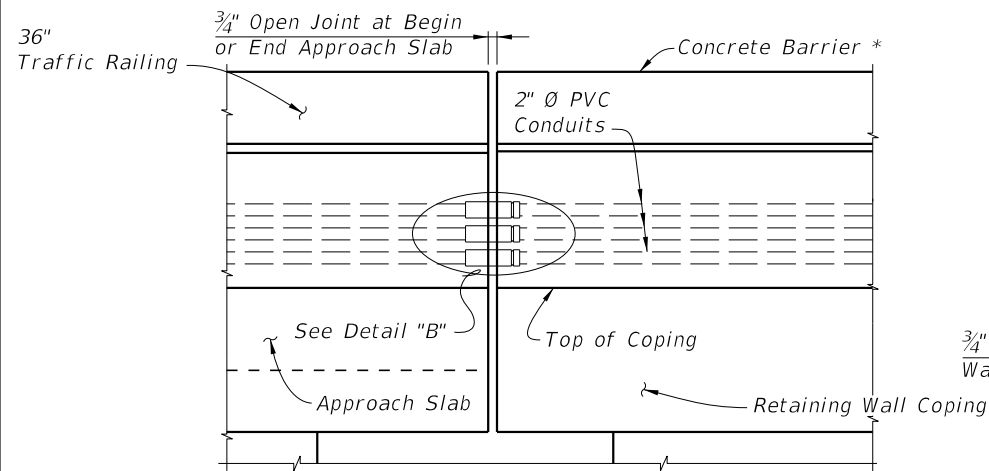
9/23/2021 9:43:43 AM



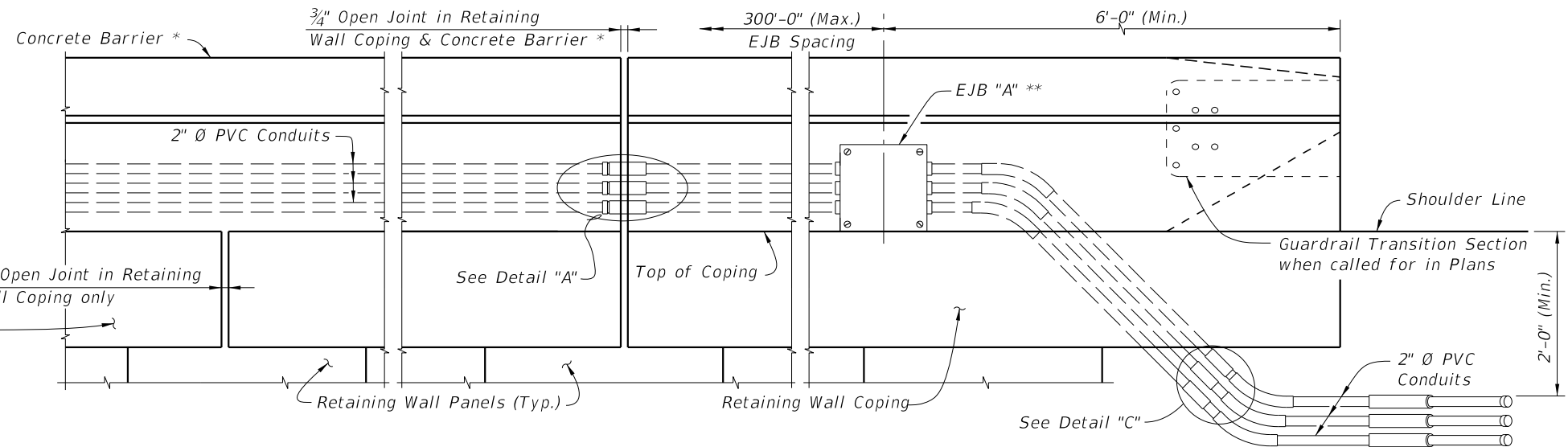
PARTIAL PLAN VIEW ALONG APPROACH SLAB  
WITH CONTINUING CONCRETE BARRIER



PARTIAL PLAN VIEW ALONG RETAINING WALL



PARTIAL ELEVATION VIEW ALONG APPROACH  
SLAB WITH CONTINUING Concrete Barrier  
(Retaining Wall Mounted Concrete Barrier shown,  
Traffic Railing similar)



PARTIAL ELEVATION VIEW ALONG RETAINING WALL

\* Index 521-610 Concrete Barrier/Junction Slab shown, other railings and parapets similar.  
\*\* EJB "A" shown EJB "B" similar. See EJB "B" Detail on Sheet 2.

# APPROACH SLAB AND RETAINING WALL WITH CONCRETE BARRIER

LAST REVISION	DESCRIPTION:	FY 2022-23 STANDARD PLANS	CONDUIT DETAILS - EMBEDDED	INDEX 630-010	SHEET 4 of 4
11/01/18					