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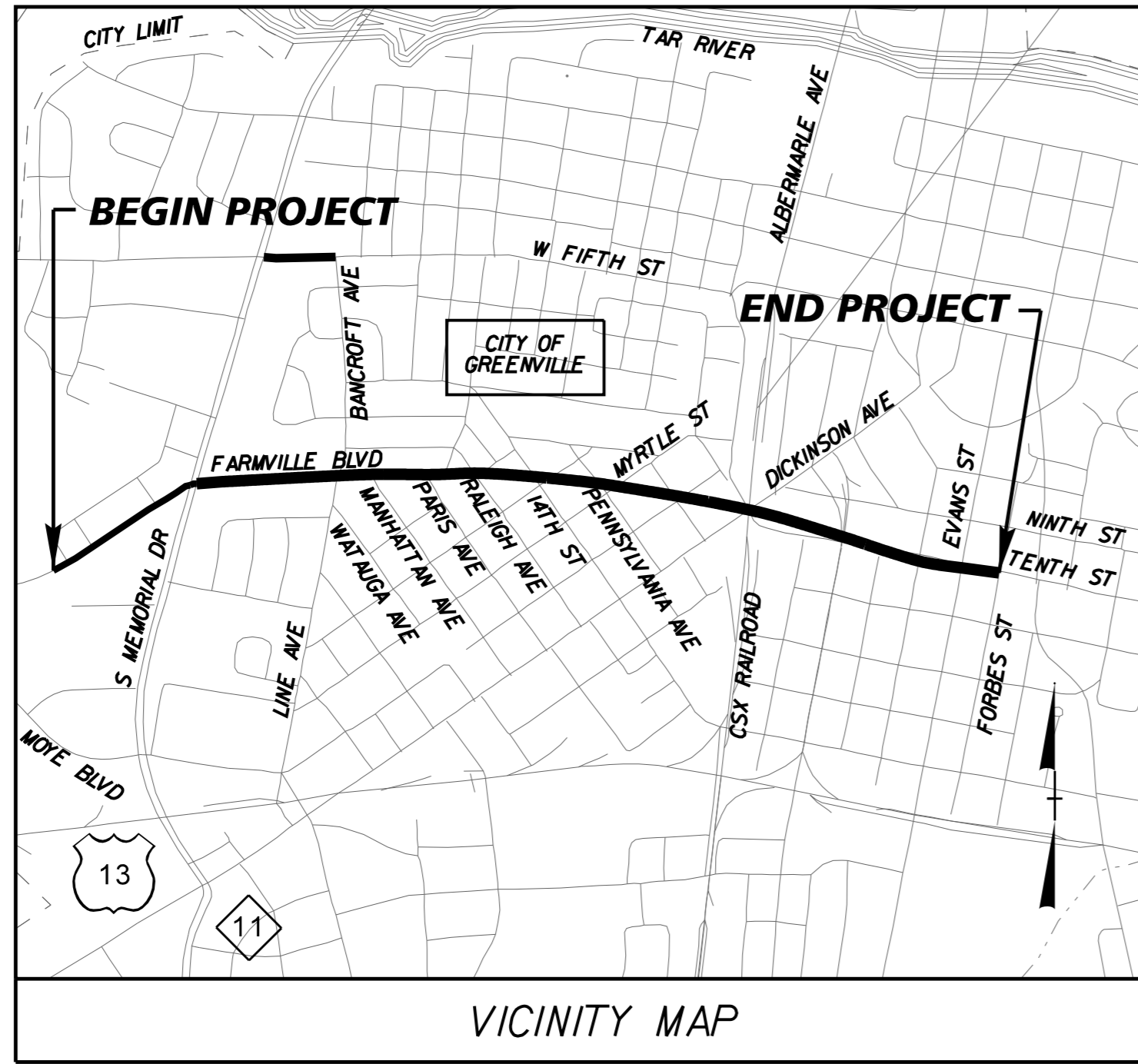
TIP PROJECT: U-3315

CONTRACT: C203513

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PITT COUNTY

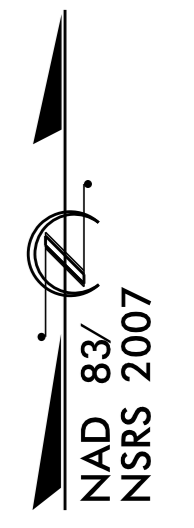
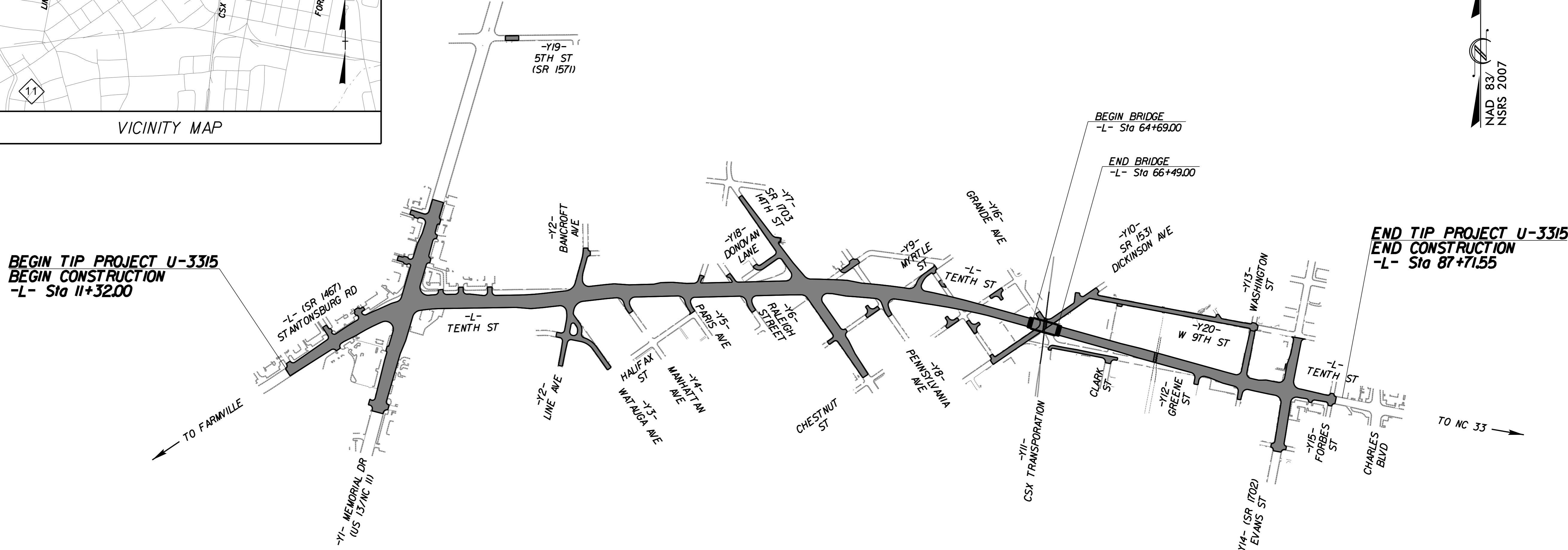
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3315		
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35781.1.2	HPPSTP-0220(53)	P.E.	
35781.2.1	MULTIPLE	RIGHT-OF-WAY	
35781.2.1	MULTIPLE	UTILITIES	
35781.3.FD1	STP-0220(72)	CONSTRUCTION	



LOCATION: STANTONSBURG ROAD - TENTH STREET CONNECTOR
FROM US 13/NC 11 (MEMORIAL DRIVE) TO SR 1702 (EVANS STREET)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS, AND STRUCTURES

STRUCTURE



DESIGN DATA

ADT 2014	=	22,900 VPD
ADT 2034	=	30,500 VPD
K	=	9%
D	=	65%
T	=	8% *
V	=	40 mph

* (TTST 4% + DUAL 4%)

FUNCTIONAL CLASSIFICATION:
URBAN ARTERIAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-3315	=	1.413 MILES
LENGTH STRUCTURE TIP PROJECT U-3315	=	0.034 MILES
TOTAL LENGTH TIP PROJECT U-3315	=	1.447 MILES

PLANS PREPARED FOR THE NCDOT BY:

Kimley»Horn

© 2015 Post Office Box 33068
Raleigh, North Carolina 27636
PE NO. F-102

2012 STANDARD SPECIFICATIONS

CECIL L. NARRON, P.E.
PROJECT ENGINEER

JOSEPH J. PICCIRILLI, P.E.
PROJECT DESIGN ENGINEER

LETTING DATE:
AUGUST 18, 2015

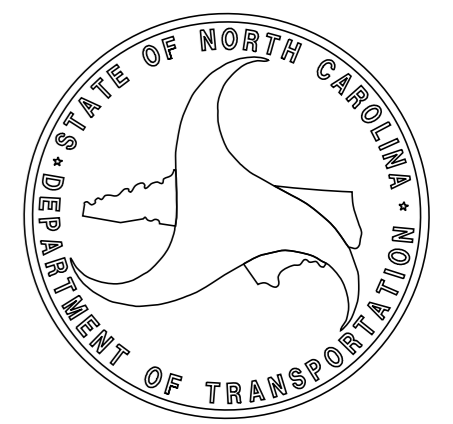
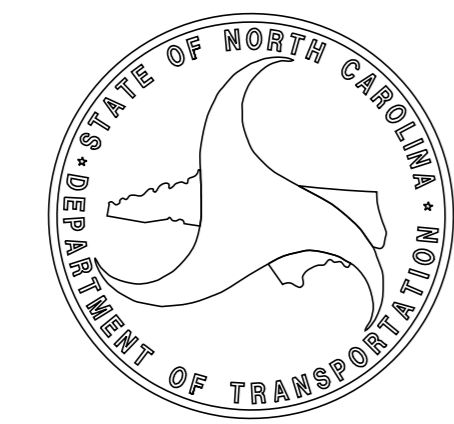
STRUCTURAL DESIGN ENGINEER

CECIL L. NARRON, P.E.

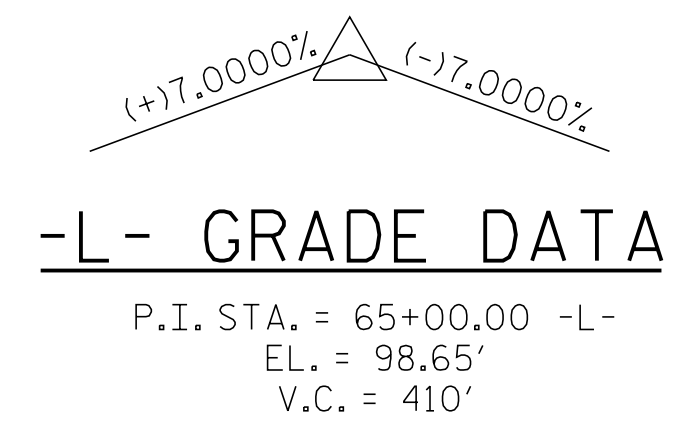
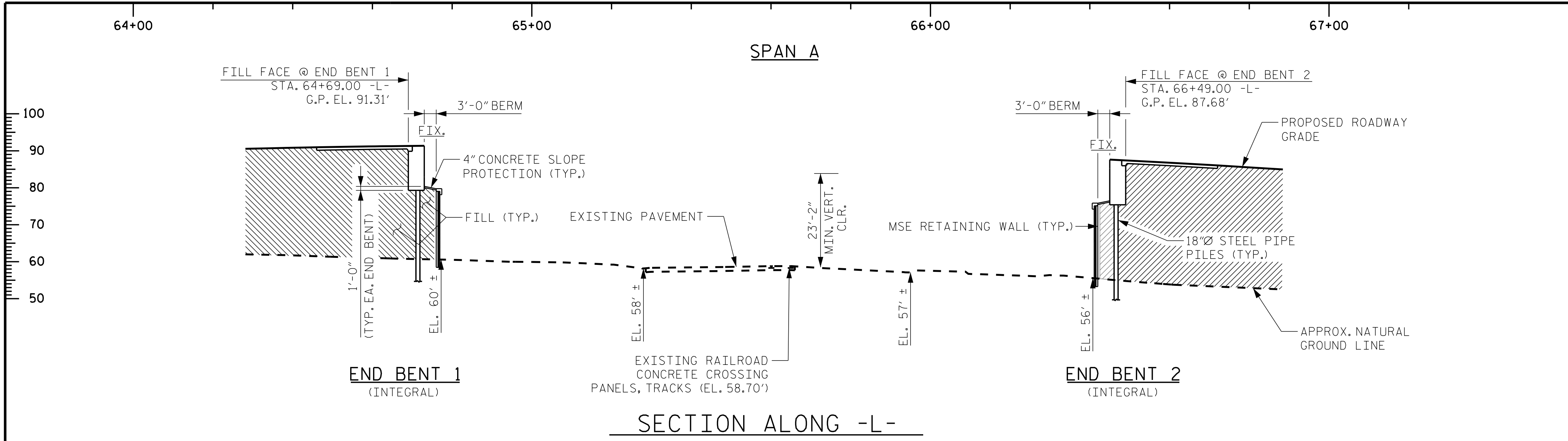
DocuSigned by:
Cecil L. Narron
C169A3D645024D0

6/22/2015

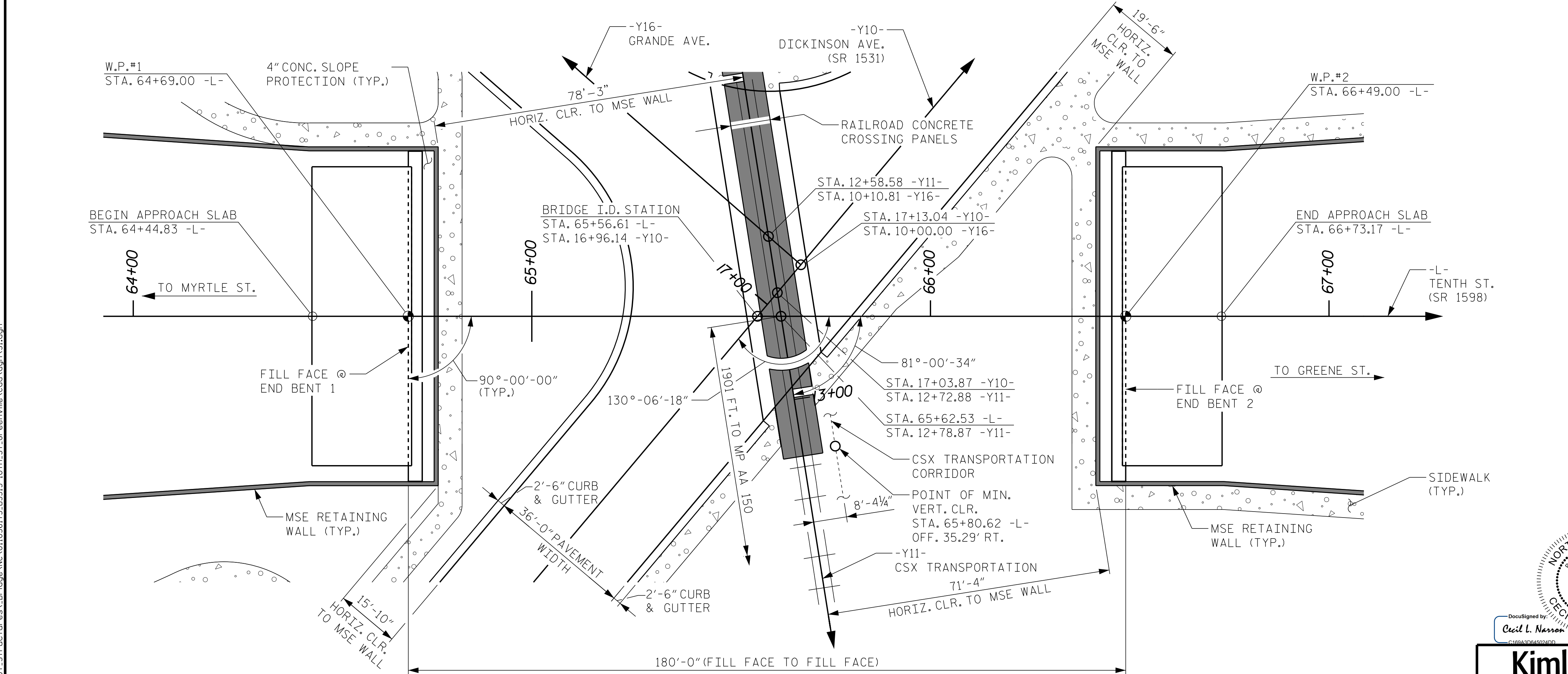
SIGNATURE: _____ P.E.



6/22/2015 K:\RDT_Structures\Bridge\NC\01036175_U3315-10th-St-Greenville\Cad\vdgn\SD.dgn



TOP OF RAIL ELEVATIONS		
TRACK STATION (Y11)	LEFT RAIL	RIGHT RAIL
12+20	58.58	58.56
12+40	58.63	58.63
12+60	58.66	58.65
12+80	58.68	58.67
13+00	58.70	58.70
13+20	58.69	58.70



PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 MILE POST AA 149.6
 BRIDGE #488

SHEET 1 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE OVER DICKINSON
 AVE. (SR 1531) AND
 CSX TRANSPORTATION
 ON TENTH ST. CONNECTOR

DocuSigned by:
Cecil L. Narron
 9/25/2014

Kimley»Horn
 333 Fayetteville Street, Suite 600
 Raleigh, NC 27601-1772
 Phone (919) 835-1494

NC LICENSE # F-3102

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
1			3			TOTAL SHEETS
2			4			33

9/25/2014
 DRAWN BY: J. I. KIMBLE DATE: 9/14
 CHECKED BY: J. C. WILSON DATE: 9/14
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 9/14

PLAN
 (PILES NOT SHOWN IN PLAN VIEW)

NOTES

FOR PILES, SEE SECTION 450 OF STANDARD SPECIFICATIONS.

PILES AT END BENTS 1 AND 2 ARE DESIGNED FOR A FACTORED STRUCTURAL LOAD OF 130 TONS PER PILE.

DRIVE PILES AT END BENT 1 TO A REQUIRED DRIVING RESISTANCE OF 363 TON PER PILE. THIS RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWN DRAG.

DRIVE PILES AT END BENT 2 TO A REQUIRED DRIVING RESISTANCE OF 273 TON PER PILE. THIS RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWN DRAG.

TESTING THE FIRST PRODUCTION PILE OR TEST PILE WITH THE PILE DRIVING ANALYZER (PDA) DURING DRIVING, RESTRIKING OR REDRIVING IS REQUIRED AT END BENT 1 AND END BENT 2. SEE SECTION 450 OF THE STANDARD SPECIFICATION.

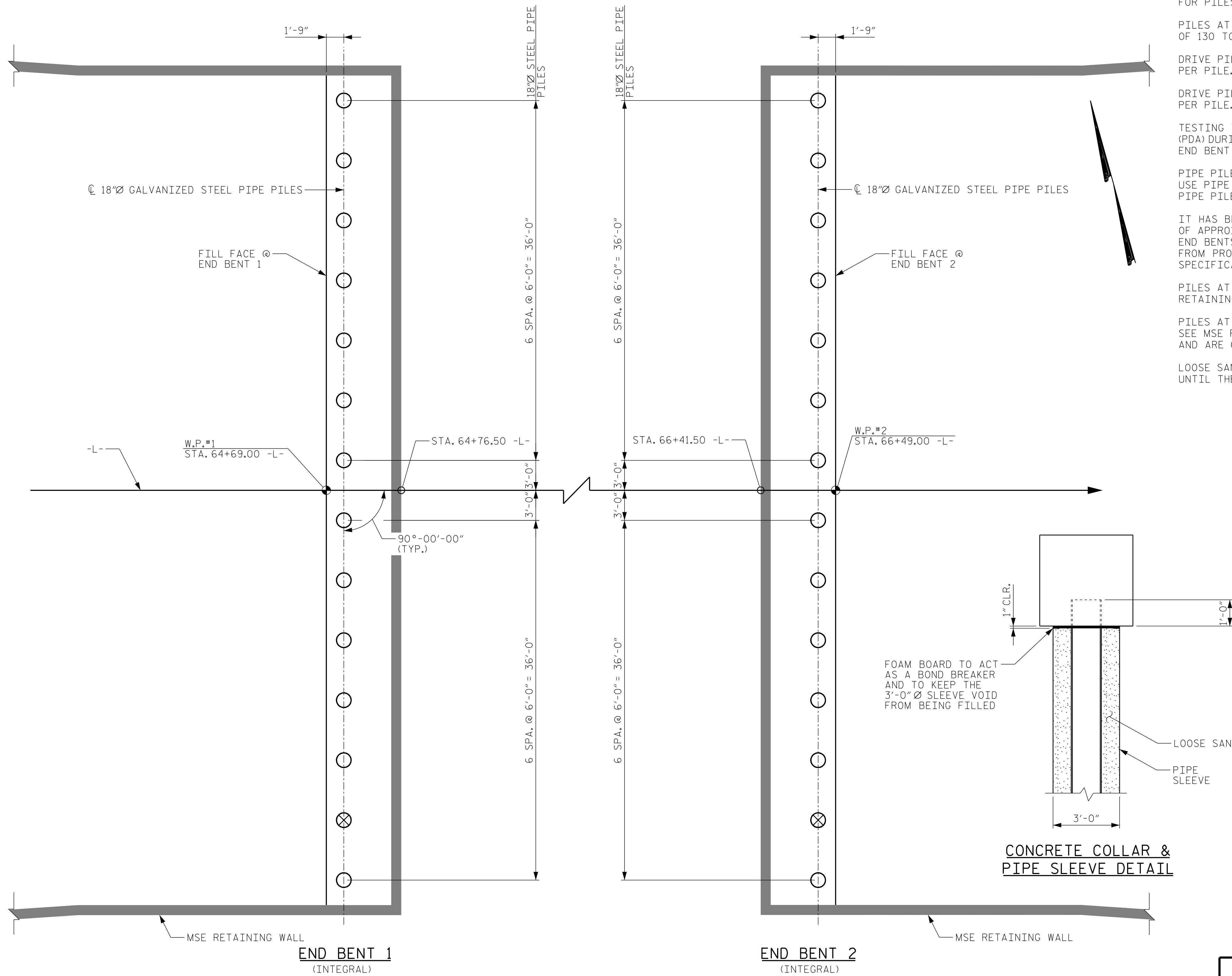
PIPE PILE PLATES ARE REQUIRED FOR THE STEEL PIPE PILES AT END BENTS 1 AND 2. USE PIPE PILE PLATES WITH A DIAMETER EQUAL TO THE PIPE DIAMETER. FOR STEEL PIPE PILE PLATES, SEE SECTION 450 OF THE STANDARD SPECIFICATION.

IT HAS BEEN ESTIMATED THAT A HAMMER WITH A MINIMUM EQUIVALENT RATED ENERGY OF APPROXIMATELY 70,000 FT-LBS PER BLOW WILL BE REQUIRED TO DRIVE PILES AT END BENTS 1 AND 2. THIS MINIMUM ENERGY DOES NOT RELEASE THE CONTRACTOR FROM PROVIDING DRIVING EQUIPMENT IN ACCORDANCE WITH THE PILES STANDARD SPECIFICATIONS.

PILES AT END BENTS 1 AND 2 ARE TO BE DRIVEN BEFORE CONSTRUCTION OF MSE RETAINING WALL.

PILES AT END BENTS 1 AND 2 ARE TO BE SLEEVED IN MSE REINFORCED BACKFILL ZONE. SEE MSE RETAINING WALL PLANS. NO SEPARATE PAYMENT WILL BE MADE FOR PILE SLEEVES AND ARE CONSIDERED INCIDENTAL TO OTHER CONTRACT UNITS.

LOOSE SAND TO FILL VOID BETWEEN PIPE PILE AND PIPE SLEEVE SHALL NOT BE ADDED UNTIL THE MSE WALL FILL IS TO GRADE FOR END BENT CONSTRUCTION.



⊗ = DENOTES FIRST PDA TEST PILE LOCATION

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-

SHEET 2 OF 3



DocuSigned by:
 Cecil L. Narron
 C169A3D64924D0... 5/12/2015

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 NC LICENSE # F-0102

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE OVER DICKENSON
 AVE. (SR 1531) AND
 CSX TRANSPORTATION
 ON TENTH ST. CONNECTOR

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			33

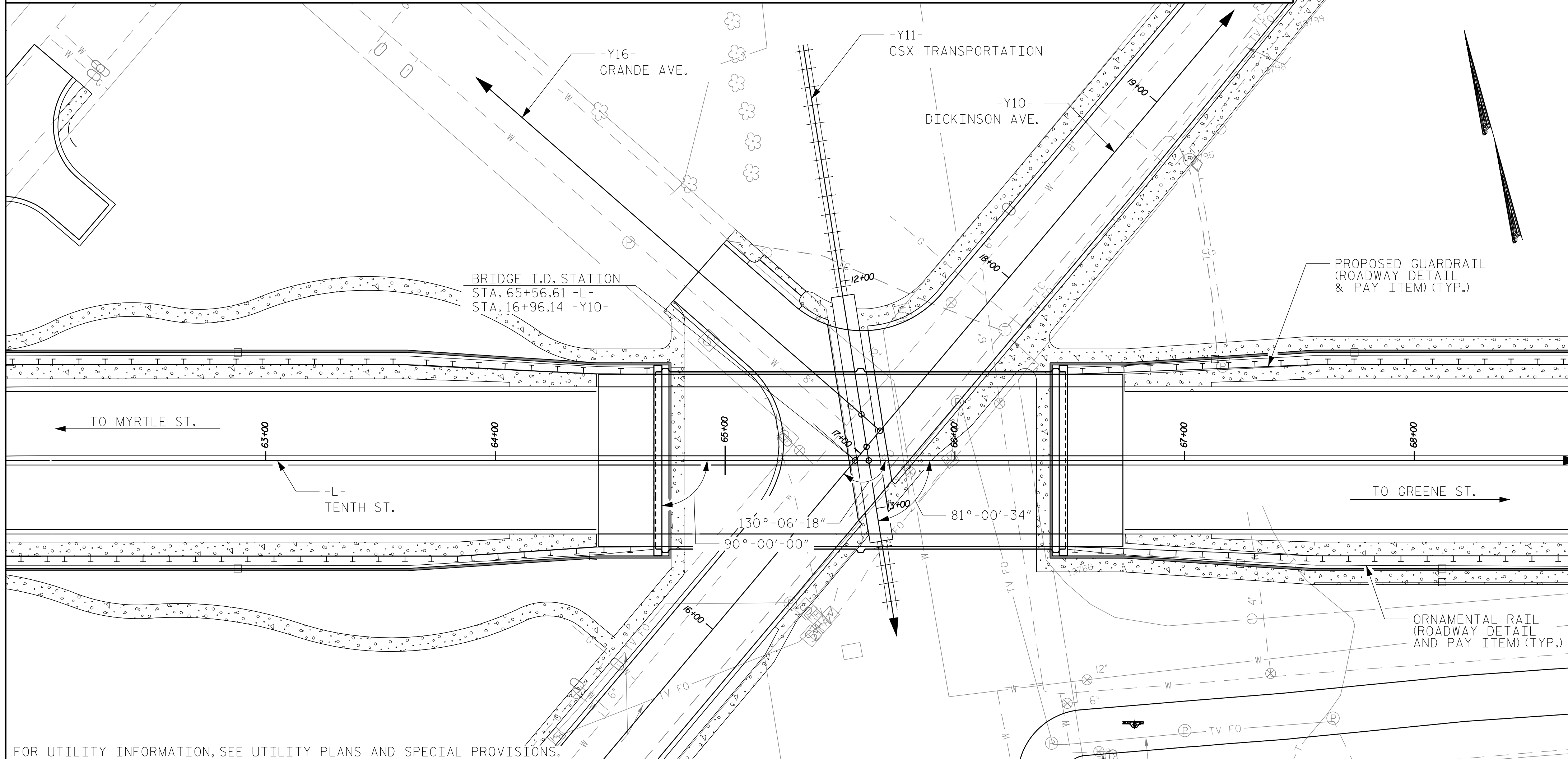
FOUNDATION LAYOUT

(DIMENSIONS LOCATING PILES ARE SHOWN TO THE PILE CENTERLINE AT BOTTOM OF CAP)

DRAWN BY: J. I. KIMBLE DATE: 5/15
 CHECKED BY: J. C. WILSON DATE: 5/15
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 5/15

K:\BIDI_Structures\Bridges\N.C. 011036175_U3315-10th.St.-Greenville.Cad\egm\S2.dgn 5/12/2015

BENCHMARK: #9 LAG BOLT IN UTILITY POLE (-L- STA 66+03.82, 181.72' RT, ELEV = 58.77')



FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

NOTES

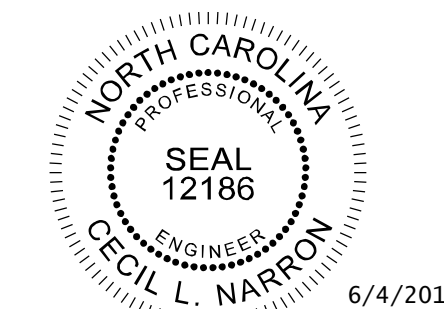
- ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
- THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.
- FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH PROPOSED STRUCTURE, SEE SPECIAL PROVISIONS.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- THE RAILROAD TRACK TOP OF RAIL ELEVATIONS SHOWN ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE TOP OF RAIL ELEVATIONS AND REPORT ANY VARIATIONS TO THE ENGINEER. ANY PLAN REVISIONS NECESSARY TO ACHIEVE THE MINIMUM VERTICAL CLEARANCE WILL BE PROVIDED BY THE DEPARTMENT.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 AND PAINTED IN ACCORDANCE WITH SYSTEM 1 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS, EXCEPT THE TOPCOAT SHALL BE BLACK, FEDERAL # FS17038.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- FOR ORNAMENTAL FENCE DETAILS, SEE "ORNAMENTAL FENCE DETAILS" SHEET AND SPECIAL PROVISIONS.
- FOR PLACING OF LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	STRUCTURAL STEEL (APPROX.)	PDA TESTING	PP 18x0.50 GALVANIZED STEEL PILES	PIPE PILE PLATES	PILE REDRIVES	VERTICAL CONCRETE BARRIER RAIL	4" SLOPE PROTECTION	ELASTOMERIC BEARINGS	ORNAMENTAL FENCE	ELECTRICAL CONDUIT SYSTEM @ STA. 65+56.61 -L-	APPLICATION OF BRIDGE COATING
	SQ. FT.	SQ. FT.	C. Y.	LUMP SUM	LBS.	LBS.	EACH	NO. LIN. FT.	EACH	EACH	LIN. FT.	SQ. YDS.	LUMP SUM	LIN. FT	LUMP SUM	LUMP SUM
SUPERSTRUCTURE	13,932	12,330				661,800					356.7			356.7		
END BENT 1			36.2		5,889		1	14 1,470	14	14		27				
END BENT 2			36.2		5,889		1	14 1,330	14	14		27				
TOTAL	13,932	12,330	72.4	LUMP SUM	11,778	661,800	2	28 2,800	28	28	356.7	54	LUMP SUM	356.7	LUMP SUM	LUMP SUM

NOTE: LIGHT POLES WILL BE PROVIDED BY THE CITY OF GREENVILLE.

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 3 OF 3



DocuSigned by:
Cecil Narron
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NC LICENSE # F-0102

STATE OF NORTH CAROLINA
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 BRIDGE OVER DICKENSON
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REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO.

S-3
 TOTAL SHEETS
 33

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DRAWN BY: J. I. KIMBLE DATE: 5/15
 CHECKED BY: J. C. WILSON DATE: 5/15
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 5/15

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LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ_{DC}	γ_{DW}
	STRENGTH I	1.25	1.50
	SERVICE II	1.00	1.00

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR STEEL GIRDERS

LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE II LIMIT STATE					COMMENT NUMBER			
						LIVE-LOAD FACTORS (γ_{LL})	MOMENT					SHEAR					LIVE-LOAD FACTORS (γ_{LL})	MOMENT						
							DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)		DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.31	--	1.75	0.868	1.42	A	EL	88.25	0.957	1.76	A	I	42.12	1.30	0.868	1.31	A	EL	88.25		
	HL-93 (OPERATING)	N/A		1.70	--	1.35	0.868	1.84	A	EL	88.25	0.957	2.29	A	I	42.12	1.00	0.868	1.70	A	EL	88.25		
	HS-20 (INVENTORY)	36.00	②	2.13	77.68	1.75	0.868	2.34	A	EL	88.25	0.868	3.06	A	EL	42.12	1.30	0.868	2.13	A	EL	88.25		
	HS-20 (OPERATING)	36.00		2.77	99.72	1.35	0.868	3.04	A	EL	88.25	0.868	3.97	A	EL	42.12	1.00	0.868	2.77	A	EL	88.25		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		5.41	73.04	1.40	0.868	7.34	A	EL	88.25	0.868	9.68	A	EL	42.12	1.30	0.868	5.41	A	EL	88.25	
		SNGARBS2	20.000		3.74	74.80	1.40	0.868	5.14	A	EL	88.25	0.868	6.69	A	EL	42.12	1.30	0.868	3.74	A	EL	88.25	
		SNAGRIS2	22.000		3.43	75.46	1.40	0.868	4.75	A	EL	88.25	0.868	6.14	A	EL	42.12	1.30	0.868	3.43	A	EL	88.25	
		SNCOTTS3	27.250		2.69	73.30	1.40	0.868	3.64	A	EL	88.25	0.868	4.81	A	EL	42.12	1.30	0.868	2.69	A	EL	88.25	
		SNAGGRS4	34.925		2.16	75.44	1.40	0.868	2.92	A	EL	88.25	0.868	3.86	A	EL	42.12	1.30	0.868	2.16	A	EL	88.25	
		SNS5A	35.550		2.12	75.37	1.40	0.868	2.86	A	EL	88.25	0.868	3.85	A	EL	42.12	1.30	0.868	2.12	A	EL	88.25	
		SNS6A	39.950		1.91	76.30	1.40	0.868	2.57	A	EL	88.25	0.868	3.46	A	EL	42.12	1.30	0.868	1.96	A	EL	88.25	
		SNS7B	42.000		1.84	77.28	1.40	0.868	2.45	A	EL	88.25	0.868	3.34	A	EL	42.12	1.30	0.868	1.84	A	EL	88.25	
	TRUCK TRACTOR SEMI-TRAILER (TTS1)	TNAGRIT3	33.000		2.32	76.56	1.40	0.868	3.13	A	EL	88.25	0.868	4.16	A	EL	42.12	1.30	0.868	2.38	A	EL	88.25	
		TNT4A	33.075		2.29	75.74	1.40	0.868	3.13	A	EL	88.25	0.868	4.11	A	EL	42.12	1.30	0.868	2.29	A	EL	88.25	
		TNT6A	41.600		1.90	79.04	1.40	0.868	2.51	A	EL	88.25	0.868	3.45	A	EL	42.12	1.30	0.868	1.90	A	EL	88.25	
		TNT7A	42.000		1.85	77.70	1.40	0.868	2.50	A	EL	88.25	0.868	3.41	A	EL	42.12	1.30	0.868	1.85	A	EL	88.25	
		TNT7B	42.000		1.84	77.28	1.40	0.868	2.53	A	EL	88.25	0.868	3.31	A	EL	42.12	1.30	0.868	1.84	A	EL	88.25	
		TNAGRIT4	43.000		1.79	76.97	1.40	0.868	2.45	A	EL	88.25	0.868	3.22	A	EL	42.12	1.30	0.868	1.79	A	EL	88.25	
TNAGT5A	45.000		1.74	78.30	1.40	0.868	2.33	A	EL	88.25	0.868	3.13	A	EL	42.12	1.30	0.868	1.74	A	EL	88.25			
TNAGT5B	45.000		③	1.71	76.95	1.40	0.868	2.32	A	EL	88.25	0.868	3.07	A	EL	42.12	1.30	0.868	1.71	A	EL	88.25		
FATIGUE	HL-93 (INVENTORY)	$\gamma_{LL}=0.75$																						

NOTES:

MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE II LIMIT STATES.

ALLOWABLE STRESS FOR SERVICE II LIMIT STATE ARE AS REQUIRED FOR DESIGN.

COMMENTS:

- 1.
- 2.
- 3.
- 4.

CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93) **

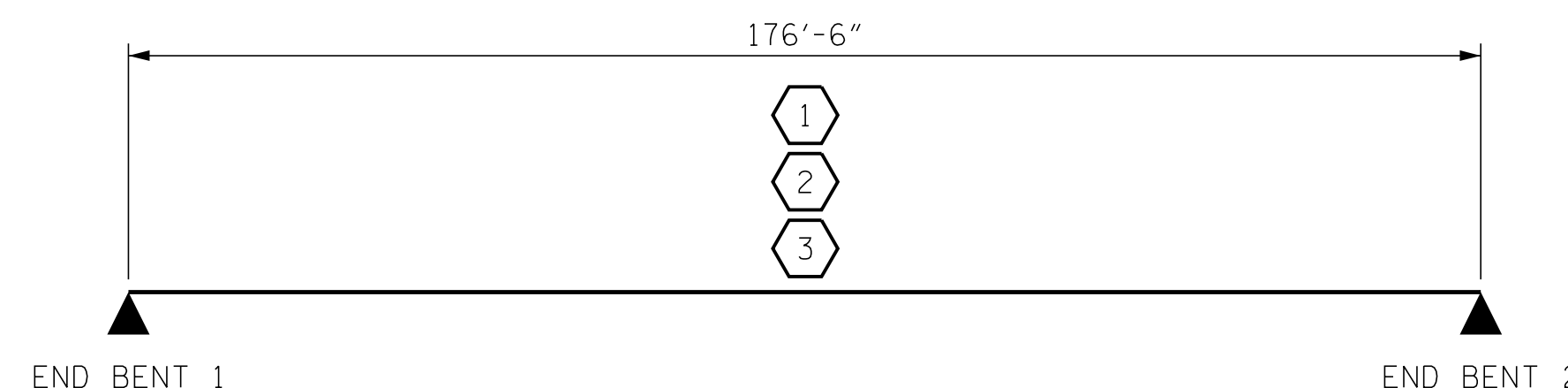
② DESIGN LOAD RATING (HS-20) **

③ LEGAL LOAD RATING **

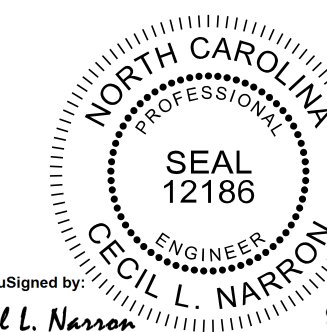
** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER



PROJECT NO. U-3315
PITT COUNTY
STATION: 65+56.61 -L-
16+96.14 -Y10-



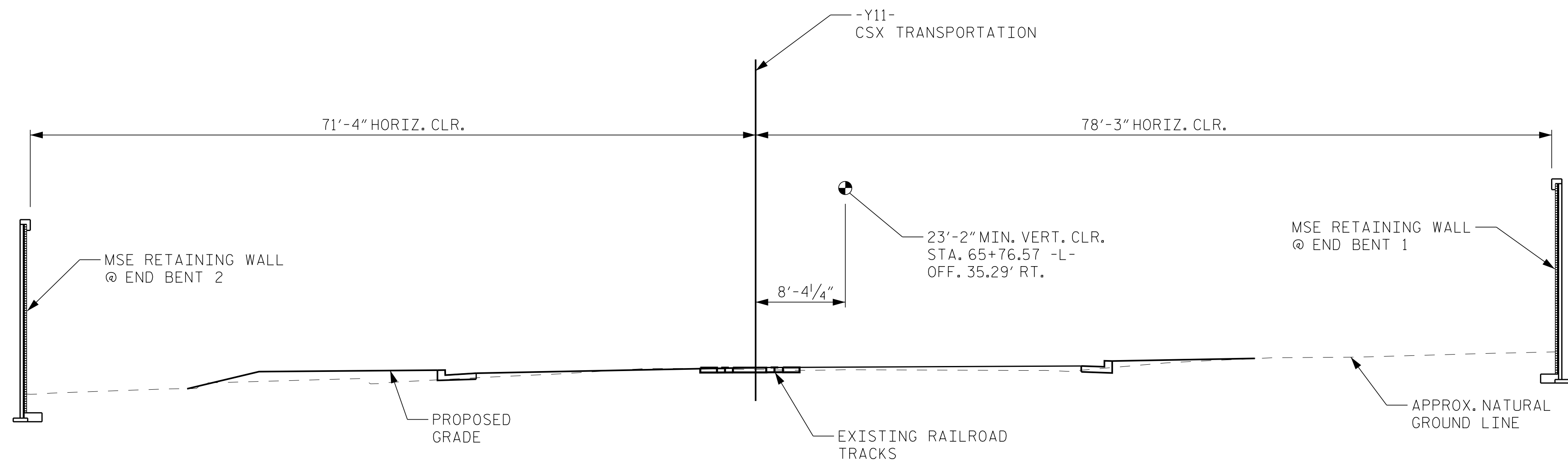
Kimley»Horn
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Phone (919) 835-1494
NC LICENSE # F-0102

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
LRFR SUMMARY FOR STEEL GIRDERS
(NON-INTERSTATE TRAFFIC)

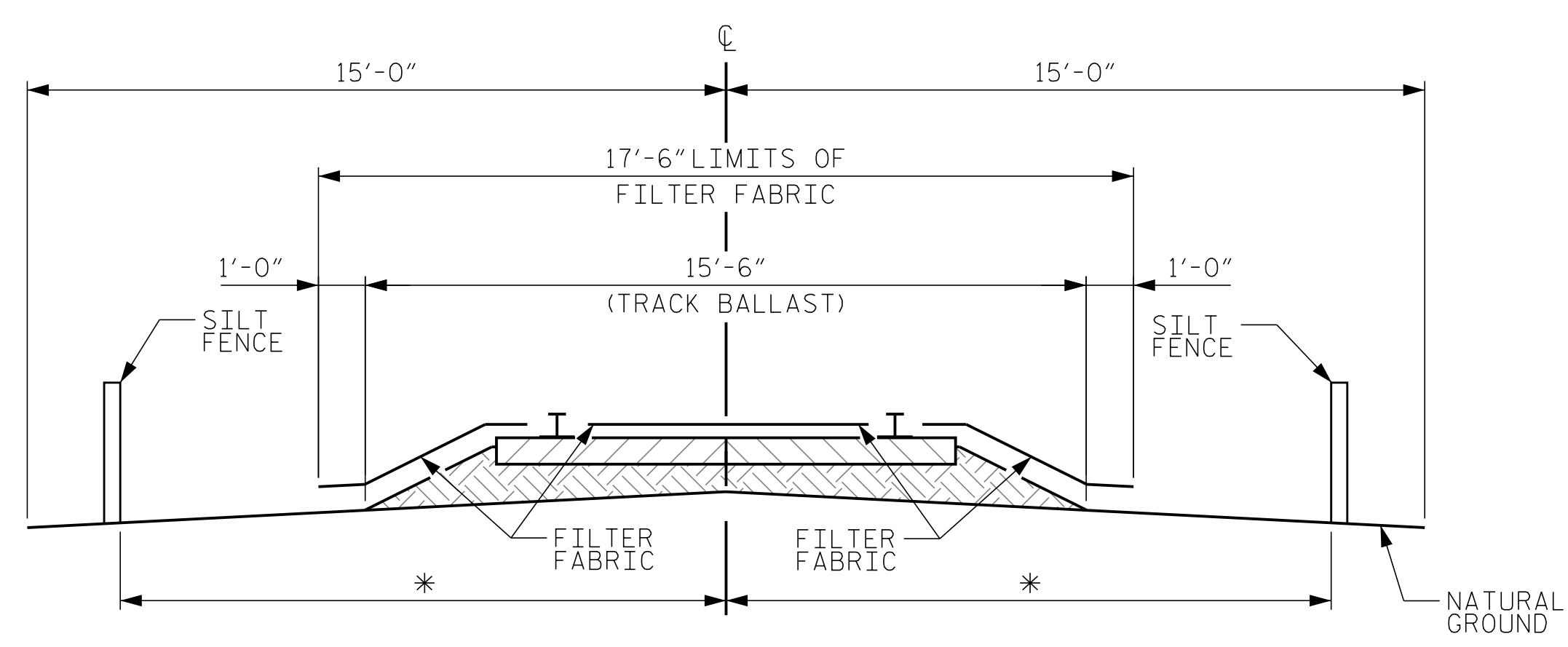
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			33

K:\BIDI_Structures\Bridges\NC\01036175_U3315-10th.St-Greenville.Cad\egm.S4.dgn 9/12/2014

ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : MAA 1/08	REV. 11/2/08RR MAA/GM
CHECKED BY : GM/DI 2/08	REV. 10/1/11 MAA/GM



RAILROAD TYPICAL SECTION
(LOOKING STATION AHEAD ALONG RAILROAD)



RAILROAD EROSION CONTROL DETAIL
(OUTSIDE OF RAILROAD AND ROADWAY INTERSECTION)

* SHALL BE PLACED AT A DISTANCE APPROVED BY CSXT OR ITS CONSTRUCTION REPRESENTATIVE.

NOTES:
RAILROAD EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.

NO SEPARATE PAYMENT WILL BE MADE FOR RAILROAD EROSION CONTROL MEASURES.

LIMITS OF SILT FENCE AND FILTER FABRIC PARALLEL TO RAILROAD SHALL EXTEND A MINIMUM OF 25'-0" OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTER FABRIC MAY BE REQUIRED IF SO DIRECTED BY THE ENGINEER.

FILTER FABRIC TO BE NAILED TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. FILTER FABRIC ON SHOULDER TO BE SECURED AS DIRECTED BY THE ENGINEER AND RAILROAD.

TOP OF RAIL ELEVATIONS		
TRACK STATION (Y11)	LEFT RAIL	RIGHT RAIL
12+20	58.58	58.56
12+40	58.63	58.63
12+60	58.66	58.65
12+80	58.68	58.67
13+00	58.70	58.70
13+20	58.69	58.70

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-



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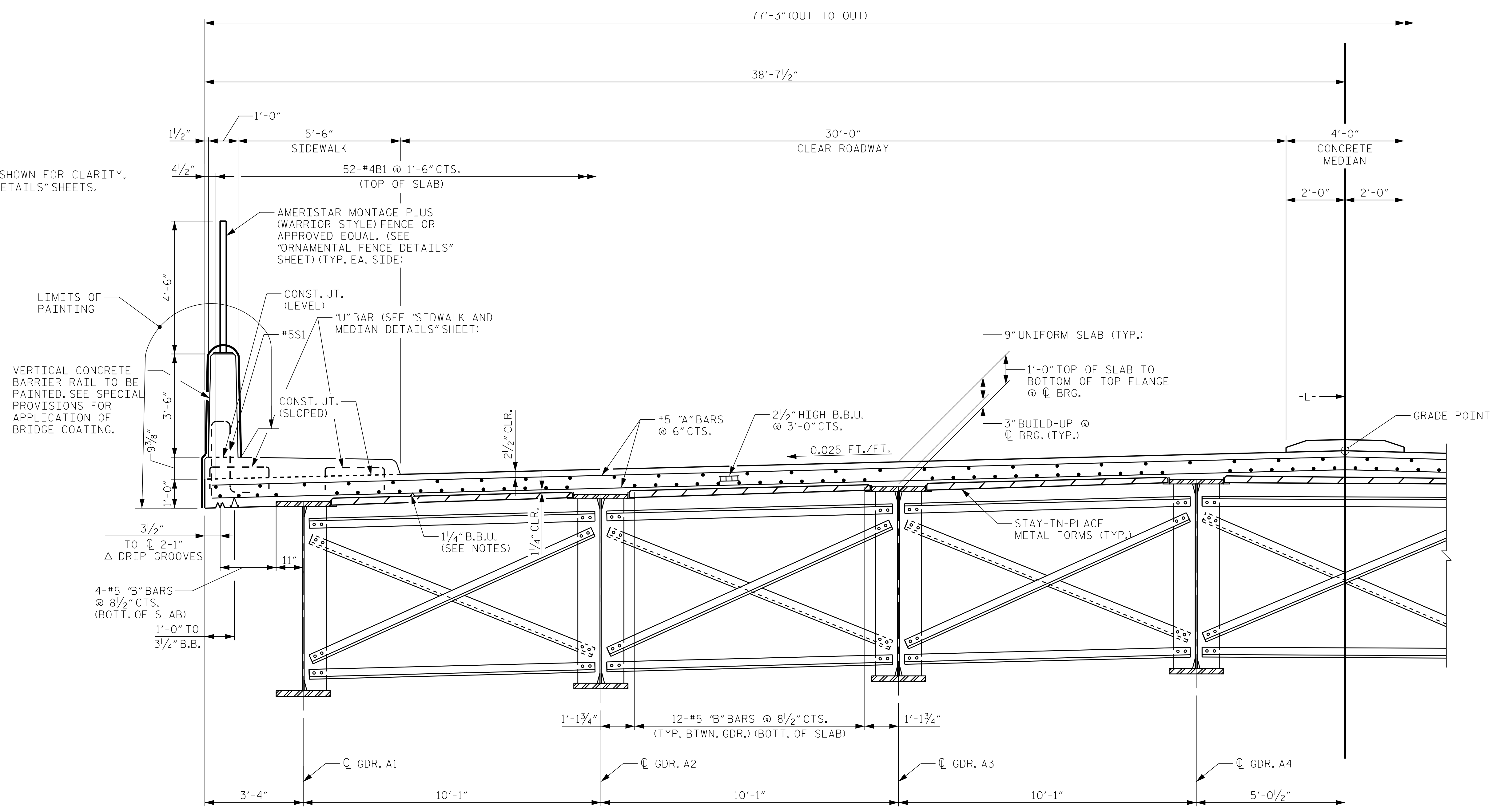
RAILROAD DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			33

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>9/14</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>9/14</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>9/14</u>

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NOTE:
LIGHT POLES NOT SHOWN FOR CLARITY,
SEE "LIGHT POLE DETAILS" SHEETS.

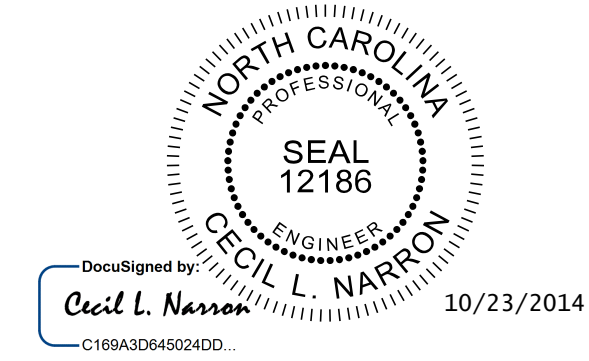


TYPICAL HALF SECTION
(SHOWING INTERMEDIATE DIAPHRAGM)

NOTES

- PROVIDE 1/4" HIGH BEAM BOLSTER UPPER AT 4'-0" CTS. ATOP THE METAL STAY-IN-PLACE FORMS TO SUPPORT THE BOTTOM MAT OF "A" BARS, WHEN USING REMOVEABLE FORMS, PROVIDE CONTINUOUS HIGH CHAIRS FOR METAL DECK (C.H.C.M.) @ 4'-0" CTS. WITH A HEIGHT TO SUPPORT THE BOTTOM MAT OF "A" BARS A CLEAR DISTANCE OF 2 1/2" ABOVE THE TOP OF THE REMOVEABLE FORM.
- METAL STAY-IN-PLACE FORMS SHALL NOT BE WELDED TO GIRDER FLANGES IN THE ZONES REQUIRING CHAMPY V-NOTCH TEST. SEE STRUCTURAL STEEL DETAIL SHEETS.
- PREVIOUSLY CAST CONCRETE IN THE SPAN SHALL HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI BEFORE ADDITIONAL CONCRETE IS CAST IN THE SPAN.
- THE CONTRACTOR MAY, WHEN NECESSARY, PROPOSE A SCHEME FOR AVOIDING INTERFERENCE BETWEEN METAL STAY-IN-PLACE FORM SUPPORTS OR FORMS AND GIRDER STIFFENERS OR CONNECTOR PLATES. THE PROPOSAL SHALL BE INDICATED, AS APPROPRIATE, ON EITHER THE STEEL WORKING DRAWINGS OR THE METAL STAY-IN-PLACE FORM WORKING DRAWINGS.
- BRIDGE IS SYMMETRICAL ABOUT -L-.
- FOR LIGHT POLE DETAILS, SEE "LIGHT POLE DETAILS" SHEETS.

PROJECT NO. U-3315
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 STATION: 65+56.61 -L-
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 SHEET 1 OF 2



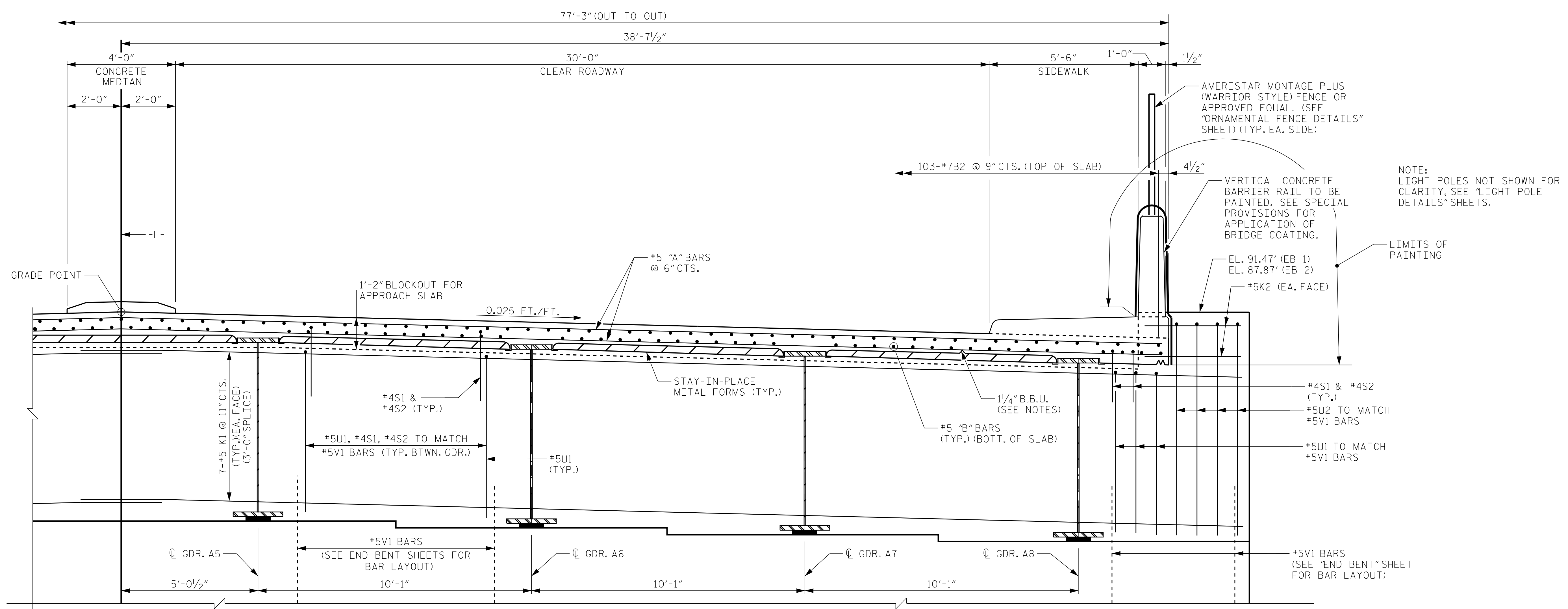
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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 SUPERSTRUCTURE
 TYPICAL SECTION

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2			4			33

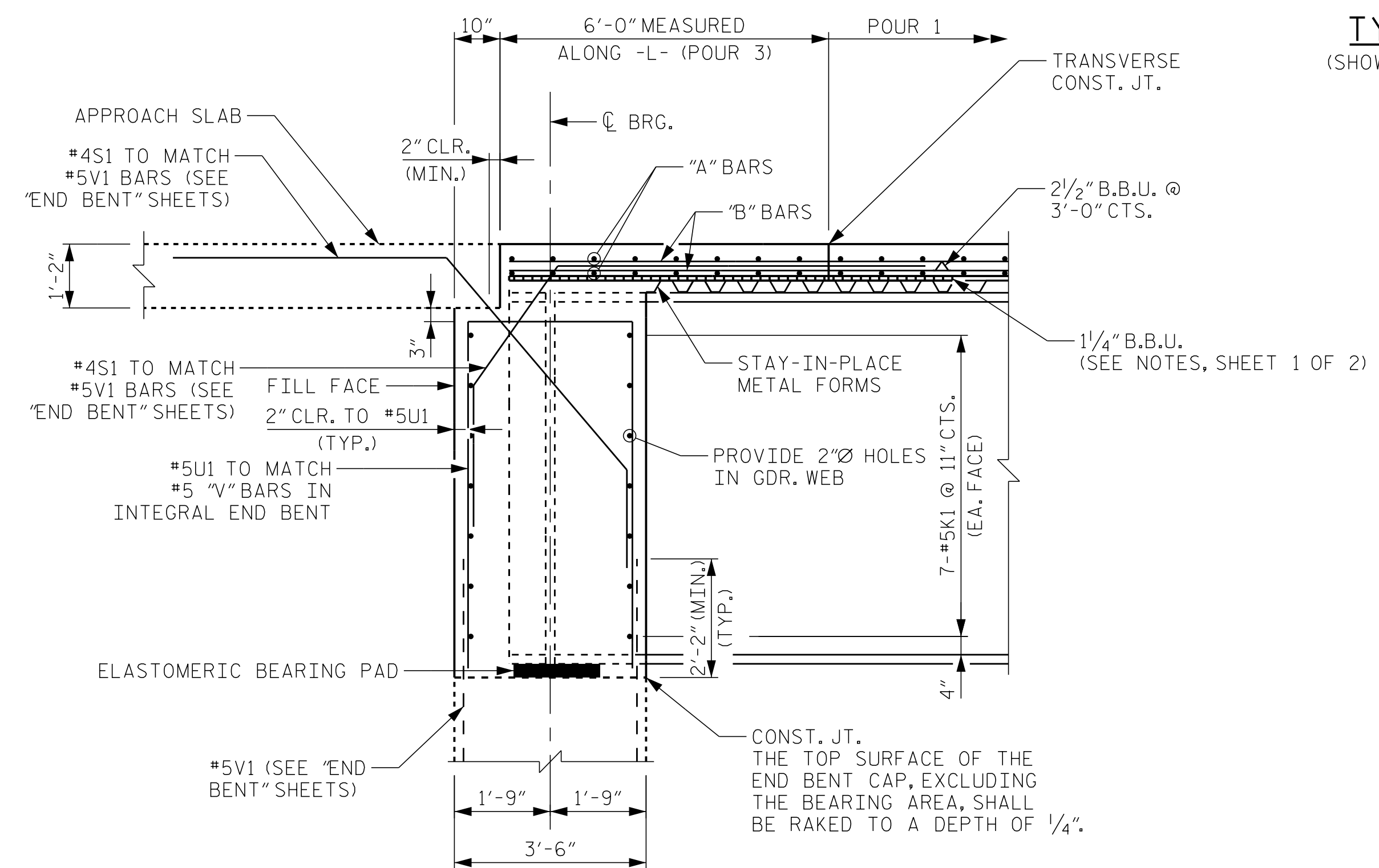
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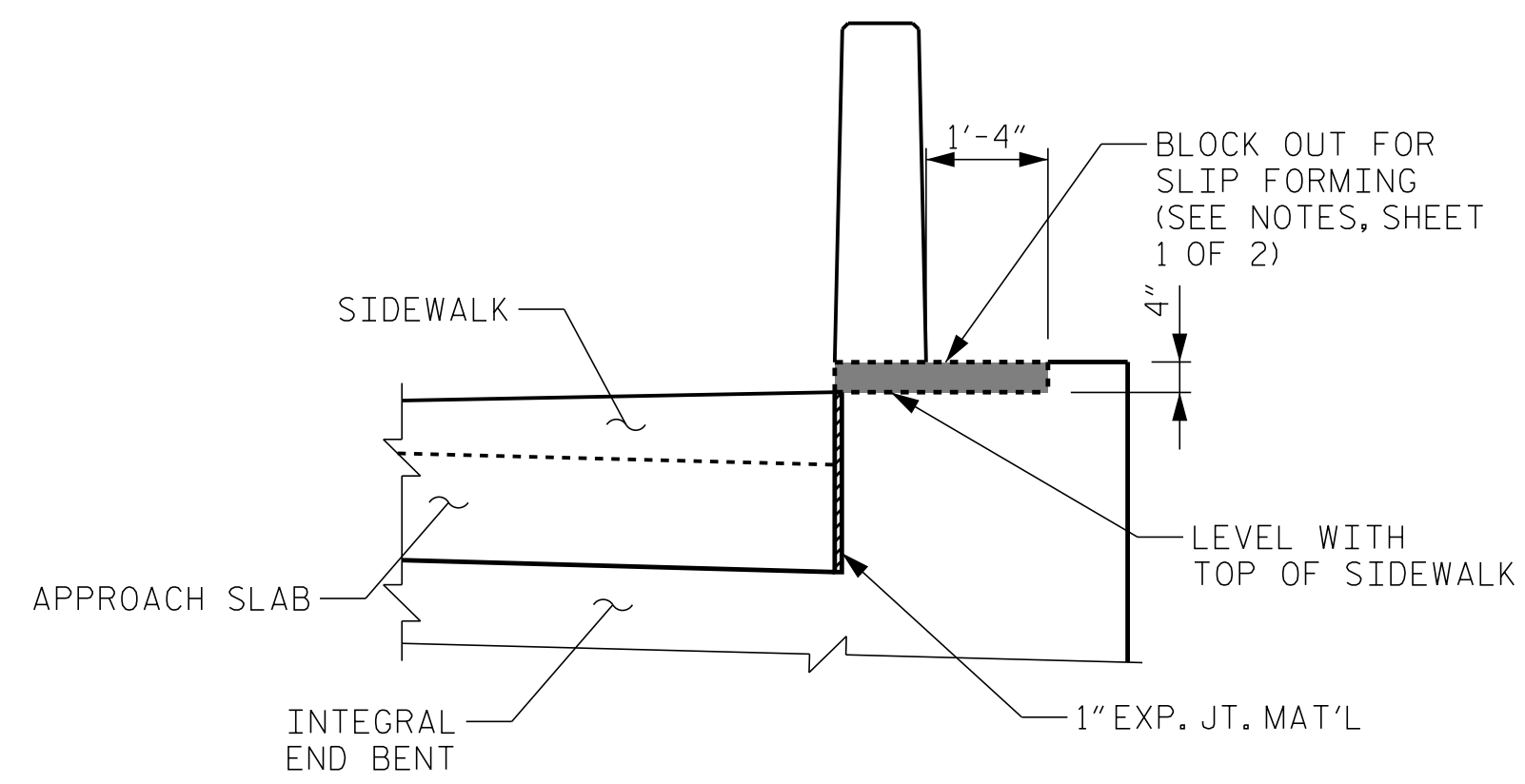


NOTE:
LIGHT POLES NOT SHOWN FOR CLARITY, SEE "LIGHT POLE DETAILS" SHEETS.

TYPICAL HALF SECTION
(SHOWING INTEGRAL END BENT DIAPHRAGM)

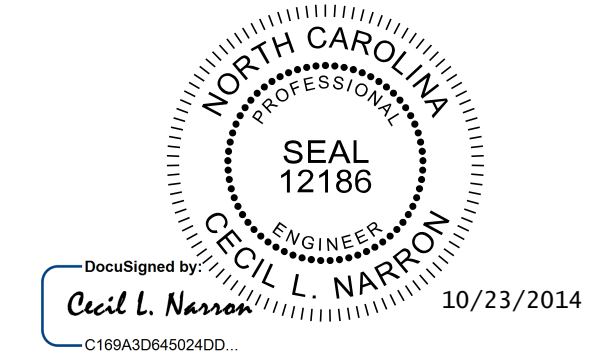


SECTION THRU INTEGRAL END BENT
(END BENT 1 SHOWN, END BENT 2 SIMILAR)



BLOCK OUT DETAIL

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PITT COUNTY
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SHEET 2 OF 2



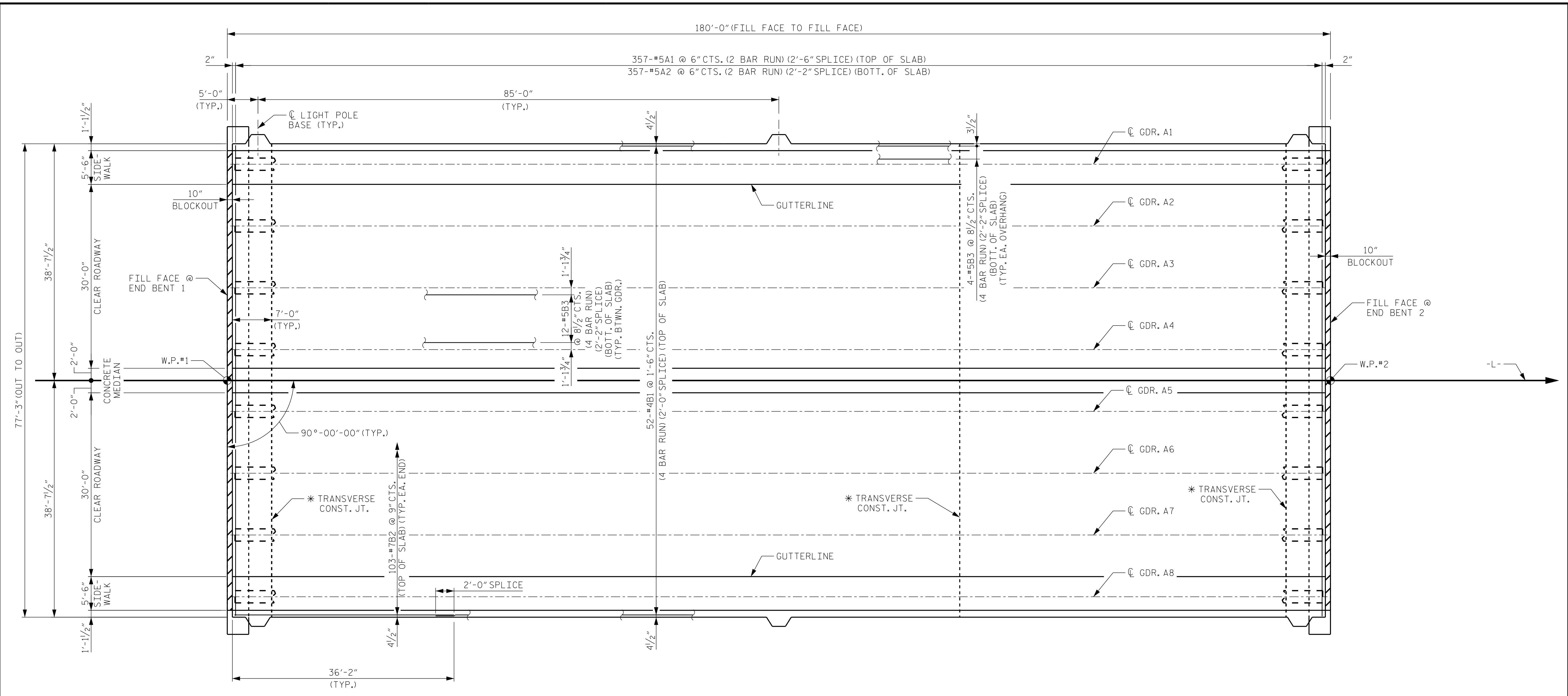
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1			3			TOTAL SHEETS
2			4			33

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PLAN OF SPAN A

NOTES

* FOR TRANSVERSE CONSTRUCTION JOINT LOCATIONS AND DETAILS, SEE "POUR SEQUENCE" SHEET.

FOR BARS IN DECK, SIDEWALKS, MEDIAN, AND BARRIERS, SEE "SIDEWALK AND MEDIAN DETAILS" AND "VERTICAL CONCRETE BARRIER" SHEETS.

FOR BARS IN END BENT DIAPHRAGM, SEE "TYPICAL SECTION" SHEET 2 OF 2.

FOR BARS IN SLAB FOR LIGHT POLE BASE AND BASE DIMENSIONS, SEE "LIGHT POLE DETAILS" SHEET.

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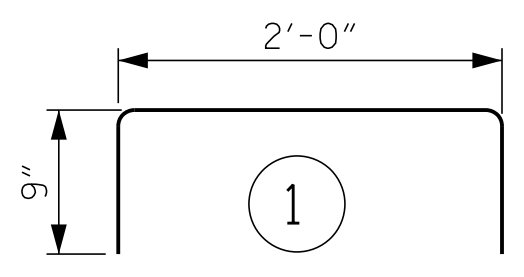
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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE PLAN OF SPAN					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					33

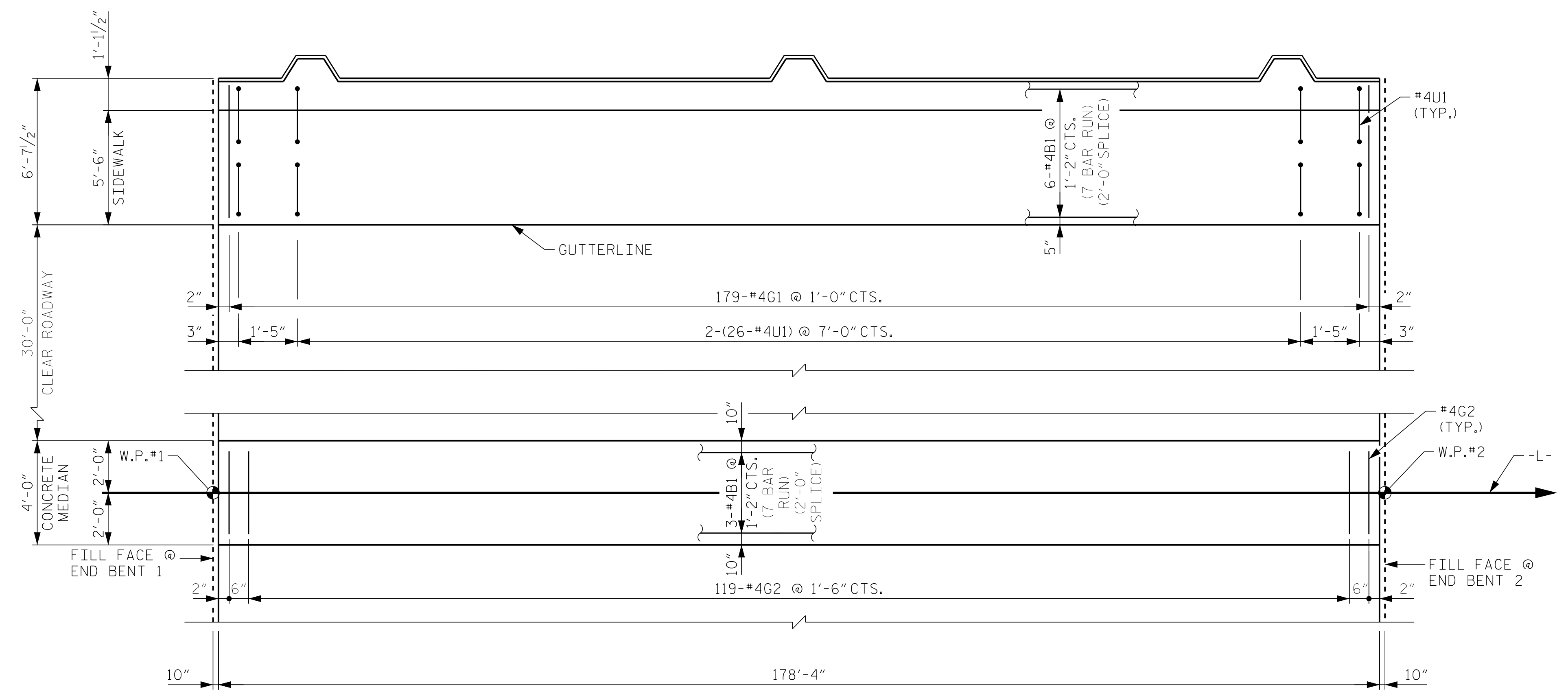
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BAR TYPES				BILL OF MATERIAL			
				SIDEWALK & MEDIAN			
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
*B1	105	4	STR	27'-2"	1,905		
*G1	358	4	STR	6'-2"	1,475		
*G2	121	4	STR	2'-8"	216		
*G3	96	4	STR	4'-8"	299		
*G4	12	4	STR	3'-7"	29		
*G5	12	4	STR	3'-0"	24		
*G6	12	4	STR	2'-5"	19		
*U1	112	4	1	3'-6"	262		
* EPOXY COATED REINFORCING STEEL					4,229	LBS.	
CLASS AA CONCRETE					66.9	C. Y.	



ALL BAR DIMENSIONS ARE OUT TO OUT



PLAN OF SIDEWALK AND MEDIAN
(LEFT SIDE SIDEWALK SHOWN, RIGHT SIDE SIMILAR)

NOTES

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE SIDEWALK AND MEDIAN IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINTS SHALL BE LOCATED AT A SPACING OF 8 FEET TO 10 FEET BETWEEN EXPANSION JOINTS. NO CONTRACTION JOINT WILL BE REQUIRED IN SEGMENTS LESS THAN 10 FEET IN LENGTH.

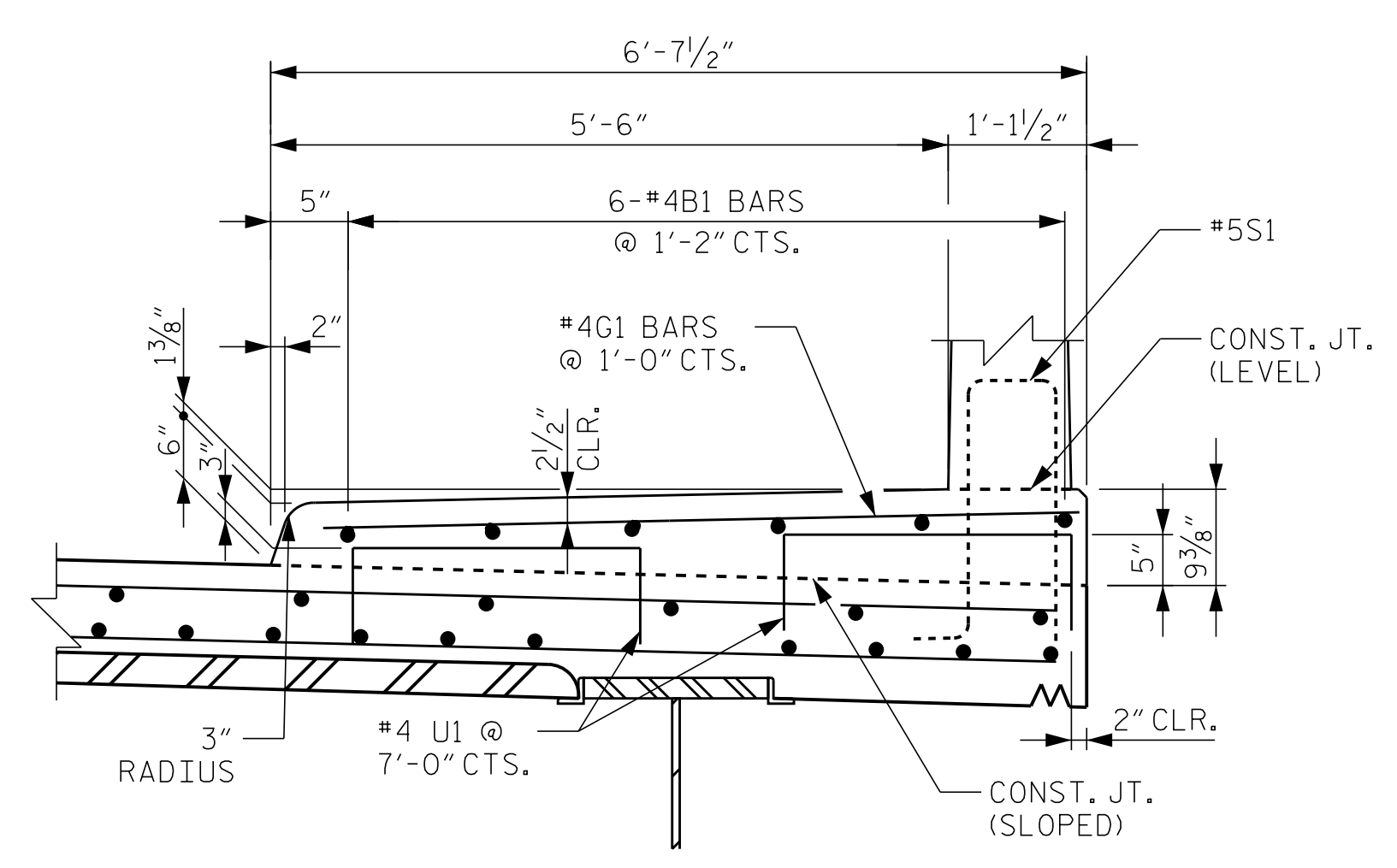
ALL REINFORCING STEEL IN THE SIDEWALK AND MEDIAN SHALL BE EPOXY COATED.

THE #4U1 BARS MAY BE PUSHED INTO GREEN CONCRETE AFTER THE DECK OR APPROACH SLAB HAS BEEN FINISHED.

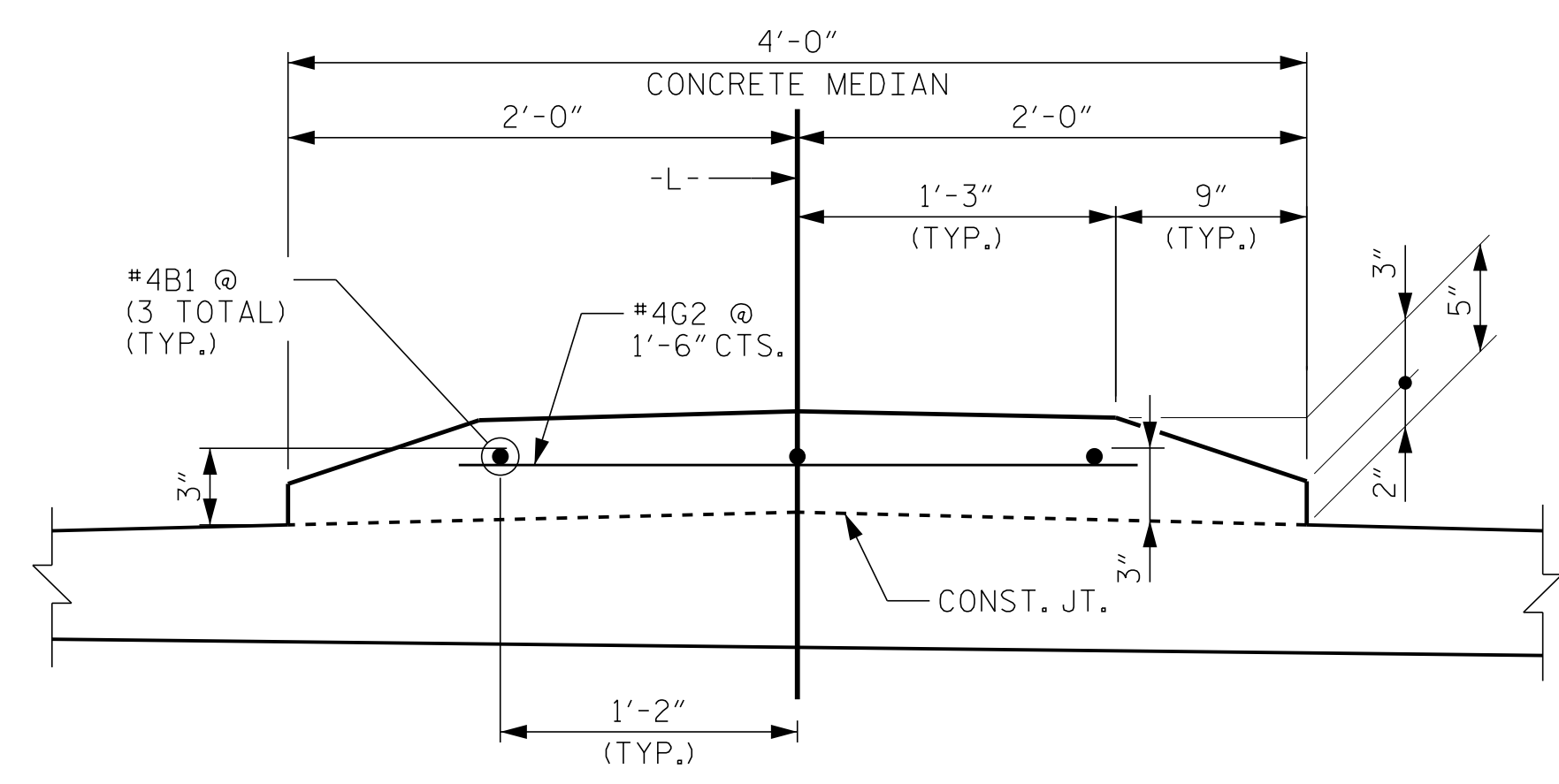
SIDEWALK AND MEDIAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI.

SIDEWALK AND MEDIAN ON BRIDGE SHALL BE PAID FOR IN REINFORCED CONCRETE DECK PAY ITEM.

FOR SIDEWALK AND MEDIAN ON APPROACH SLAB, SEE "APPROACH SLAB" SHEETS. SIDEWALK AND MEDIAN ON APPROACH SLAB SHALL BE PAID FOR IN BRIDGE APPROACH SLAB PAY ITEM.

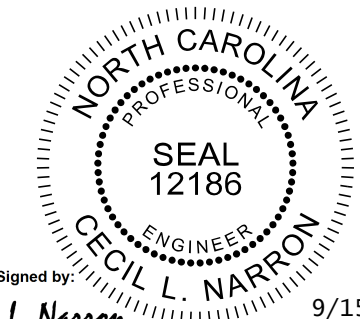


SECTION THRU SIDEWALK
(RIGHT SIDE SIDEWALK SHOWN)



SECTION THRU MEDIAN

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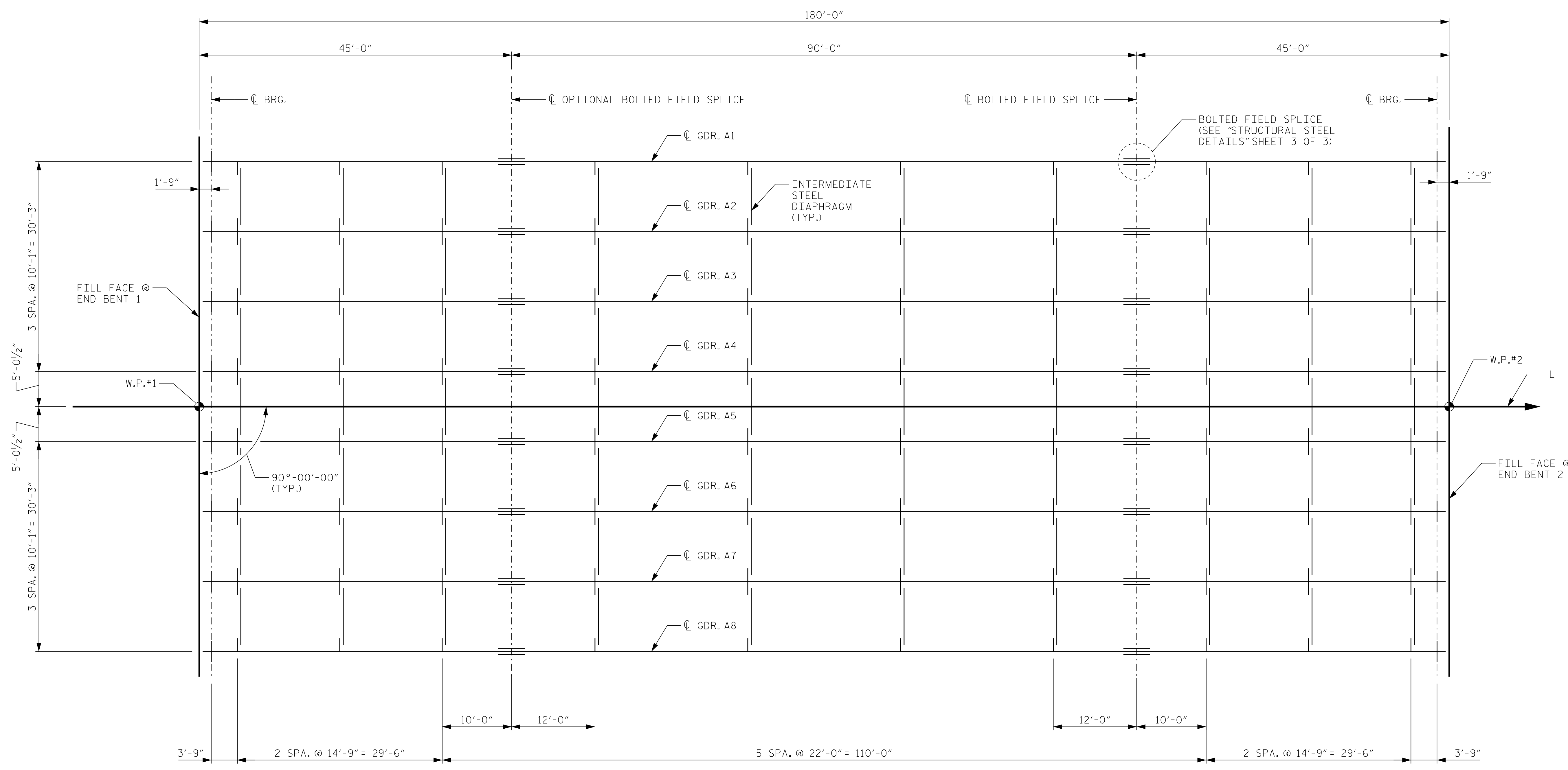
NC LICENSE # F-0102

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
SIDEWALK AND
MEDIAN DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-9
1			3			TOTAL SHEETS
2			4			33

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INTEGRAL
E1

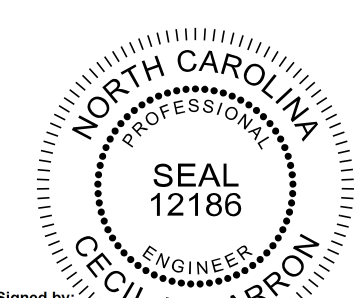
INTEGRAL
E1

FRAMING PLAN

NOTES

AT THE CONTRACTOR'S OPTION, THE OPTIONAL BOLTED FIELD SPLICE MAY BE OMITTED.

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 FRAMING PLAN

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1			3			TOTAL SHEETS
2			4			33

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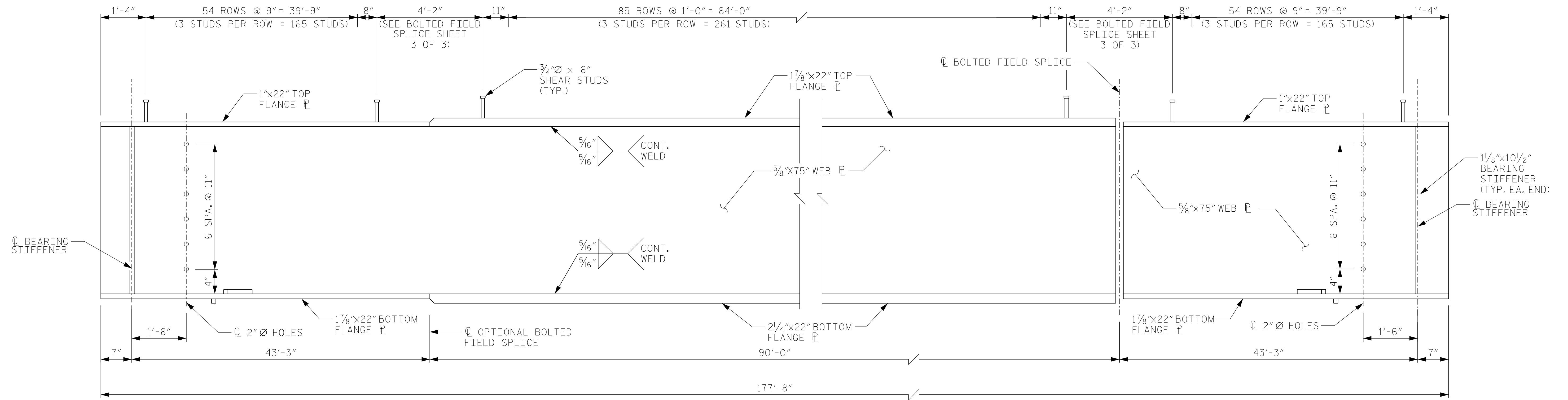
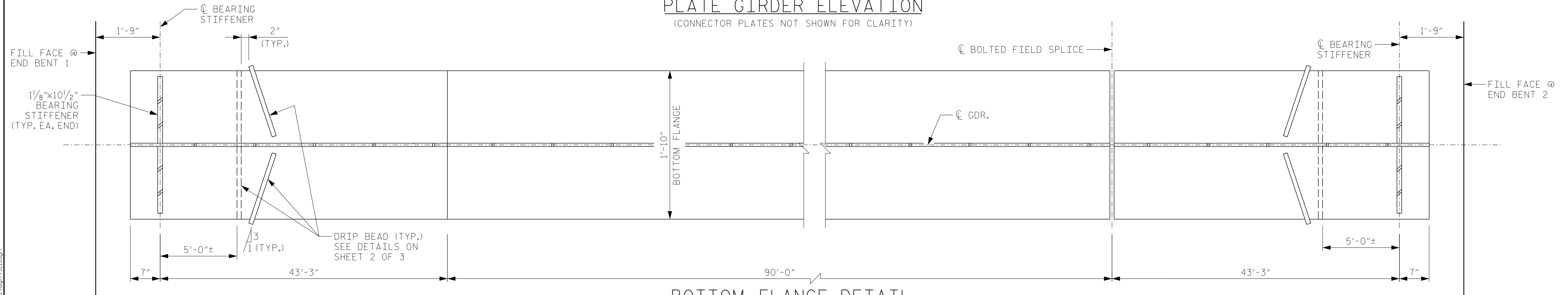
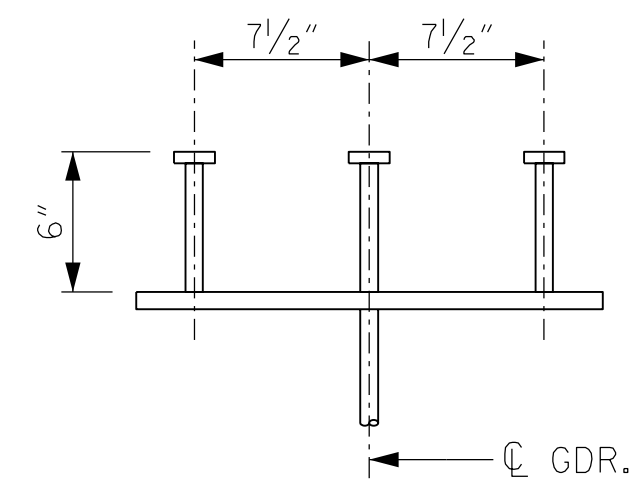


PLATE GIRDER ELEVATION
 (CONNECTOR PLATES NOT SHOWN FOR CLARITY)

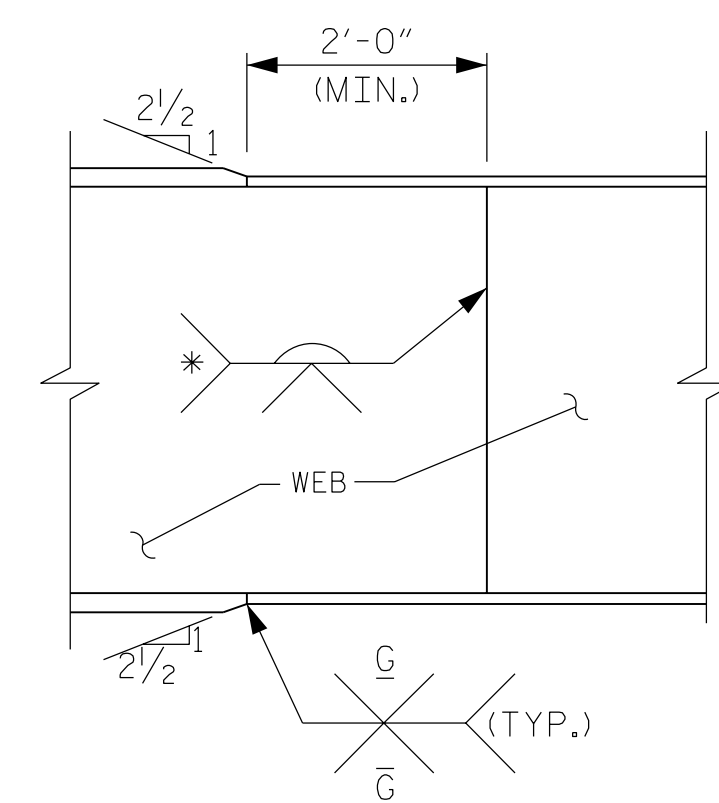


BOTTOM FLANGE DETAIL
 (CONNECTOR PLATES NOT SHOWN FOR CLARITY)



TOP FLANGE SHEAR STUD DETAIL
 (TYP. EA. GDR.)

* GRIND SMOOTH AND FLUSH ON OUTER FACE OF EXTERIOR GIRDERS



TYPICAL FLANGE JOINT WEB BUTT JOINT DETAIL

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PITT COUNTY
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 SHEET 1 OF 3



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STATE OF NORTH CAROLINA
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 SUPERSTRUCTURE
 STRUCTURAL STEEL
 DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-11
1			3			TOTAL SHEETS
2			4			33

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STRUCTURAL STEEL NOTES

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50 AND PAINTED IN ACCORDANCE WITH SYSTEM 1 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS, EXCEPT THE TOPCOAT SHALL BE BLACK, FEDERAL # FS17038.

ALL DIMENSIONS SHOWN ARE HORIZONTAL OR VERTICAL, UNLESS OTHERWISE NOTED.

ALL FIELD CONNECTIONS TO BE 7/8" DIA. HIGH STRENGTH BOLTS UNLESS OTHERWISE NOTED.

BEARING STIFFENERS ARE TO BE PLACED NORMAL TO THE WEB OF THE GIRDERS AND SHALL BE PLUMB.

A CHARPY V-NOTCH TEST IS REQUIRED FOR WEB PLATES, WEB SPLICE PLATES, BOTTOM FLANGE PLATES, BOTTOM FLANGE SPLICE PLATES. A CHARPY V-NOTCH TEST IS REQUIRED FOR TOP FLANGE PLATES WITHIN 36 FEET OF THE ENDS OF GIRDERS. CHARPY V-NOTCH TESTS SHALL BE IN ACCORDANCE WITH ARTICLE 1072-7 OF THE STANDARD SPECIFICATIONS.

NO WELDING OF FORMS OR FALSEWORK TO THE TOP FLANGE WILL BE PERMITTED WITHIN 36 FEET OF THE ENDS OF GIRDER.

PERMITTED FLANGE AND WEB SHOP SPLICES SHALL NOT BE LOCATED WITHIN 15 FEET OF MAXIMUM DEAD LOAD DEFLECTION. KEEP 2 FEET MINIMUM BETWEEN WEB AND FLANGE SHOP SPLICES. KEEP 6" MINIMUM BETWEEN CONNECTOR PLATE OR TRANSVERSE STIFFENER WELDS AND WEB OR FLANGE SHOP SPLICES.

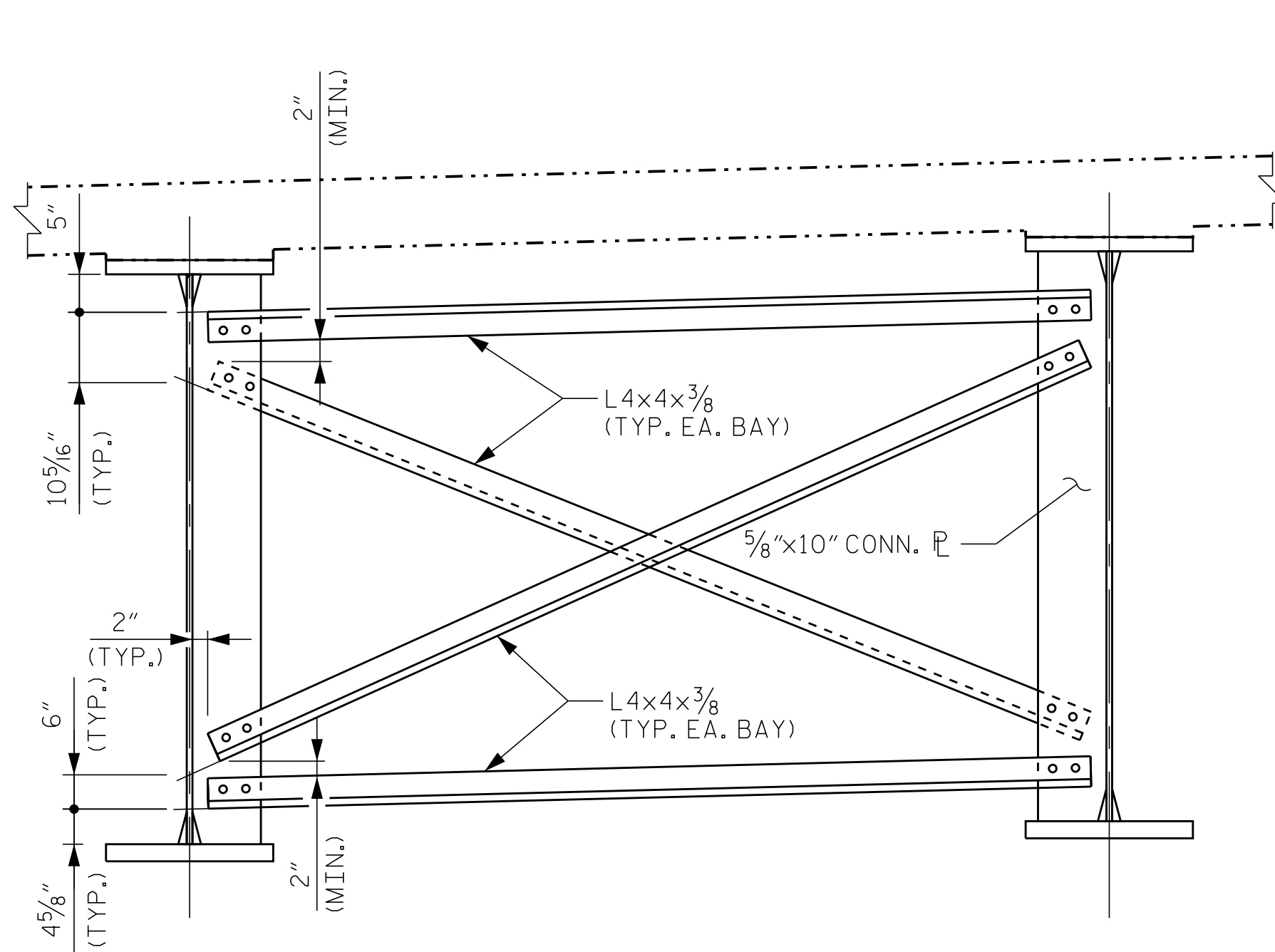
STUDS ON GIRDERS MAY BE SHIFTED UP TO 1" IF NECESSARY TO CLEAR FLANGE SPLICE WELD.

TENSION ON THE AASHTO M164 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS.

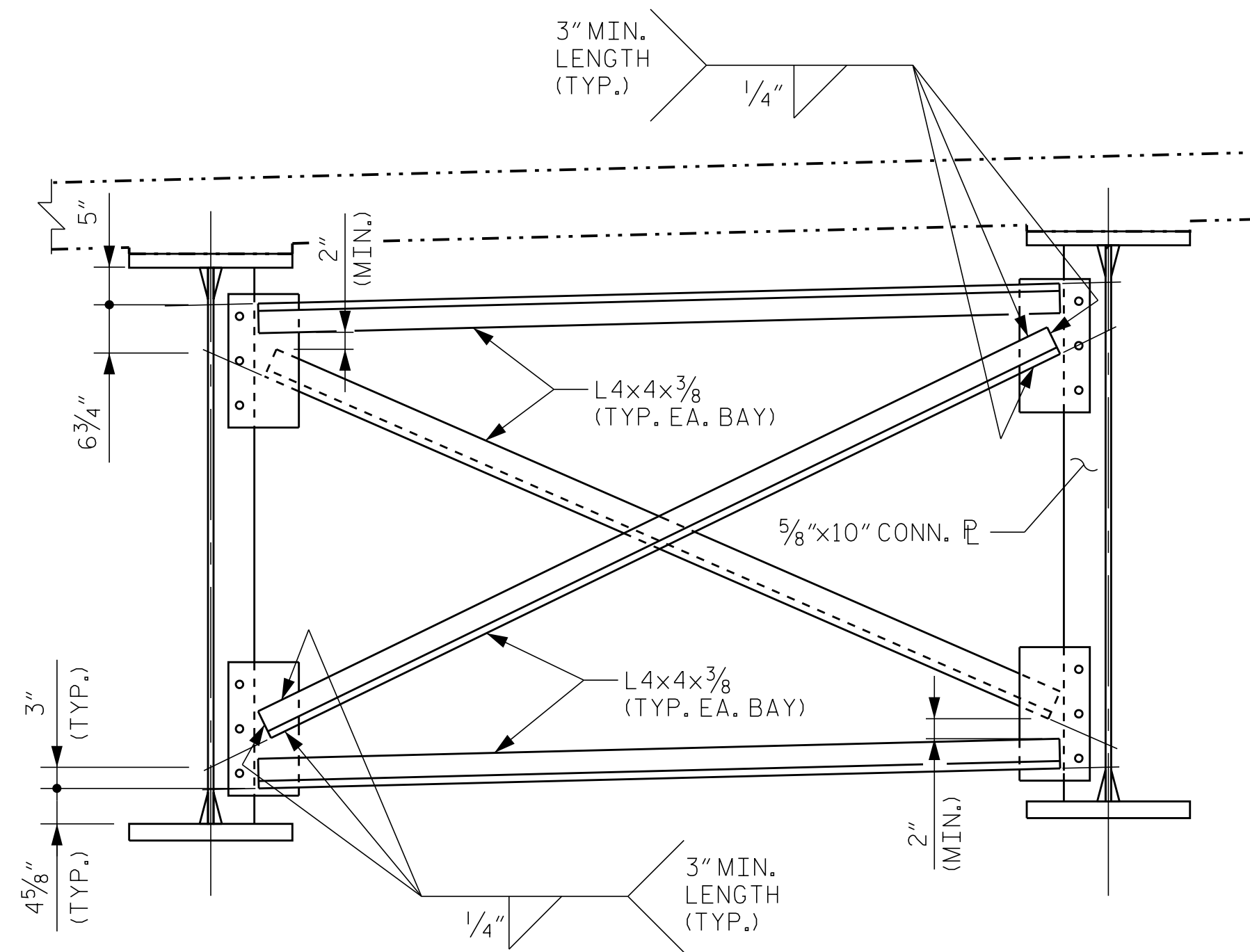
END OF GIRDERS SHALL BE PLUMB.

AT THE CONTRACTOR'S OPTION, THE DIAPHRAGM WITH THE WELDED GUSSET PLATES MAY BE USED IN LIEU OF THE DIAPHRAGM WITH BOLTED ANGLES AT NO ADDITIONAL COST TO THE DEPARTMENT.

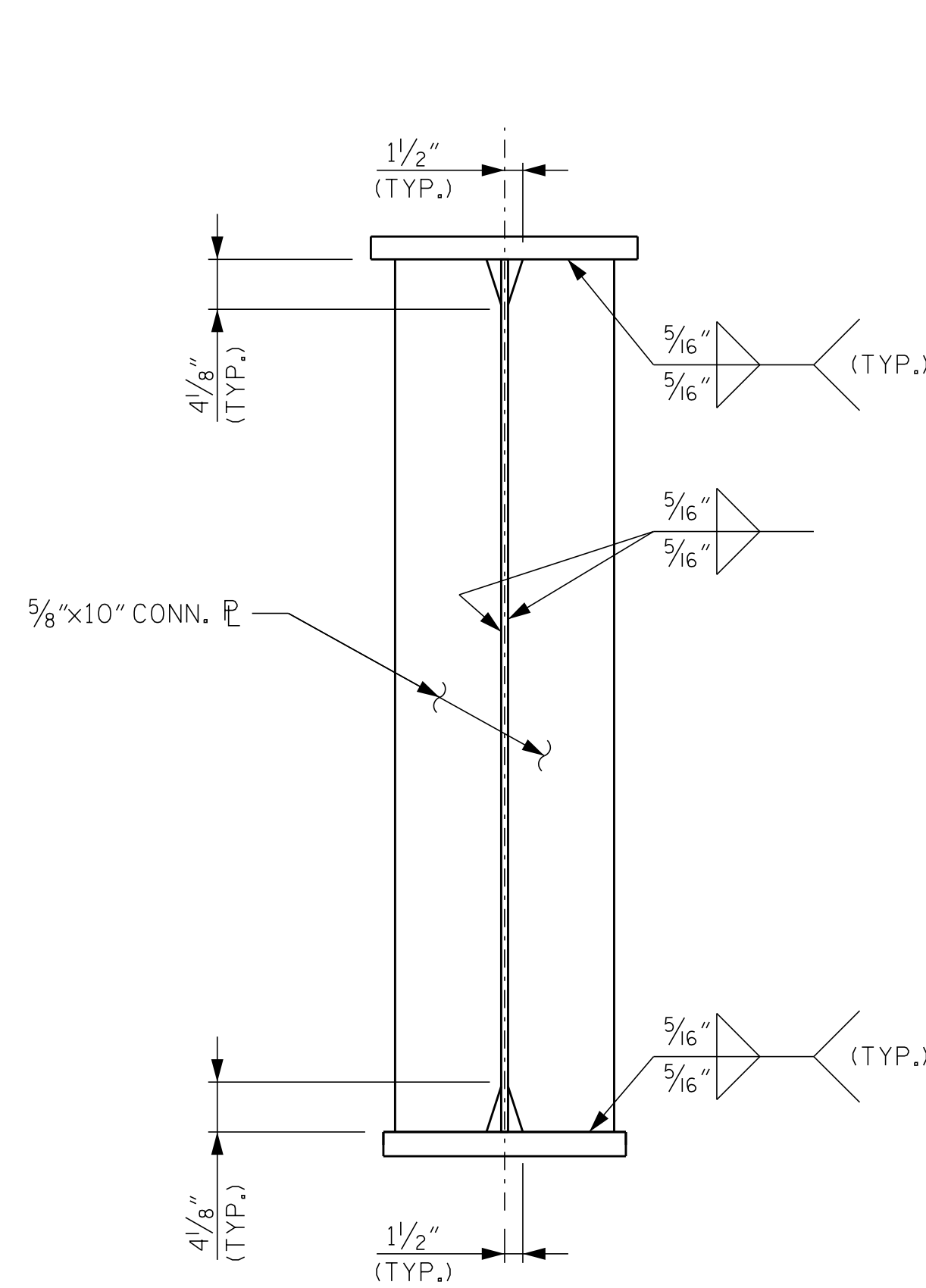
FABRICATORS SHALL DETAIL DIAPHRAGM MEMBERS AND CONNECTIONS FOR STEEL DEAD LOAD FIT UP.



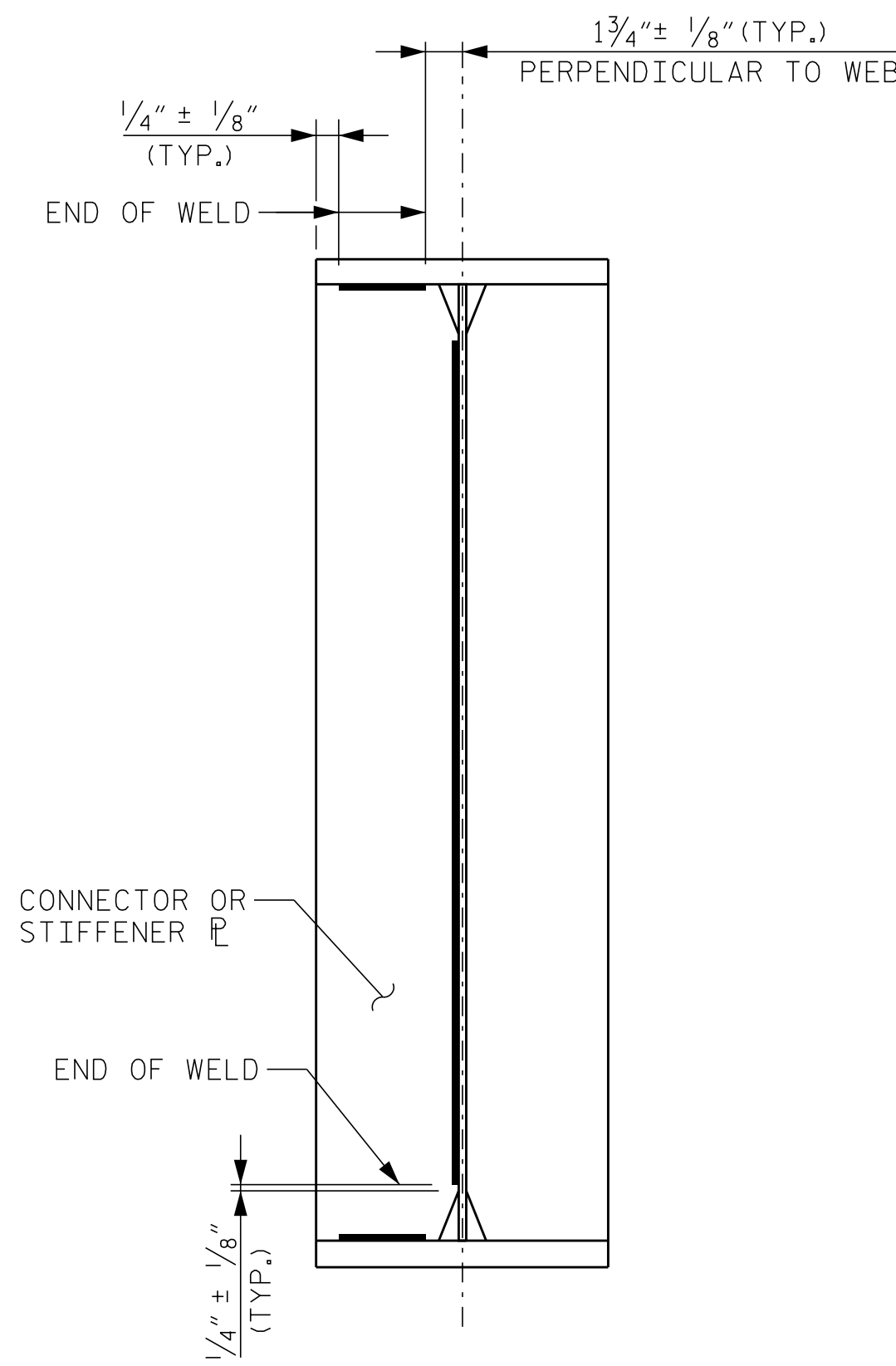
INTERMEDIATE DIAPHRAGM



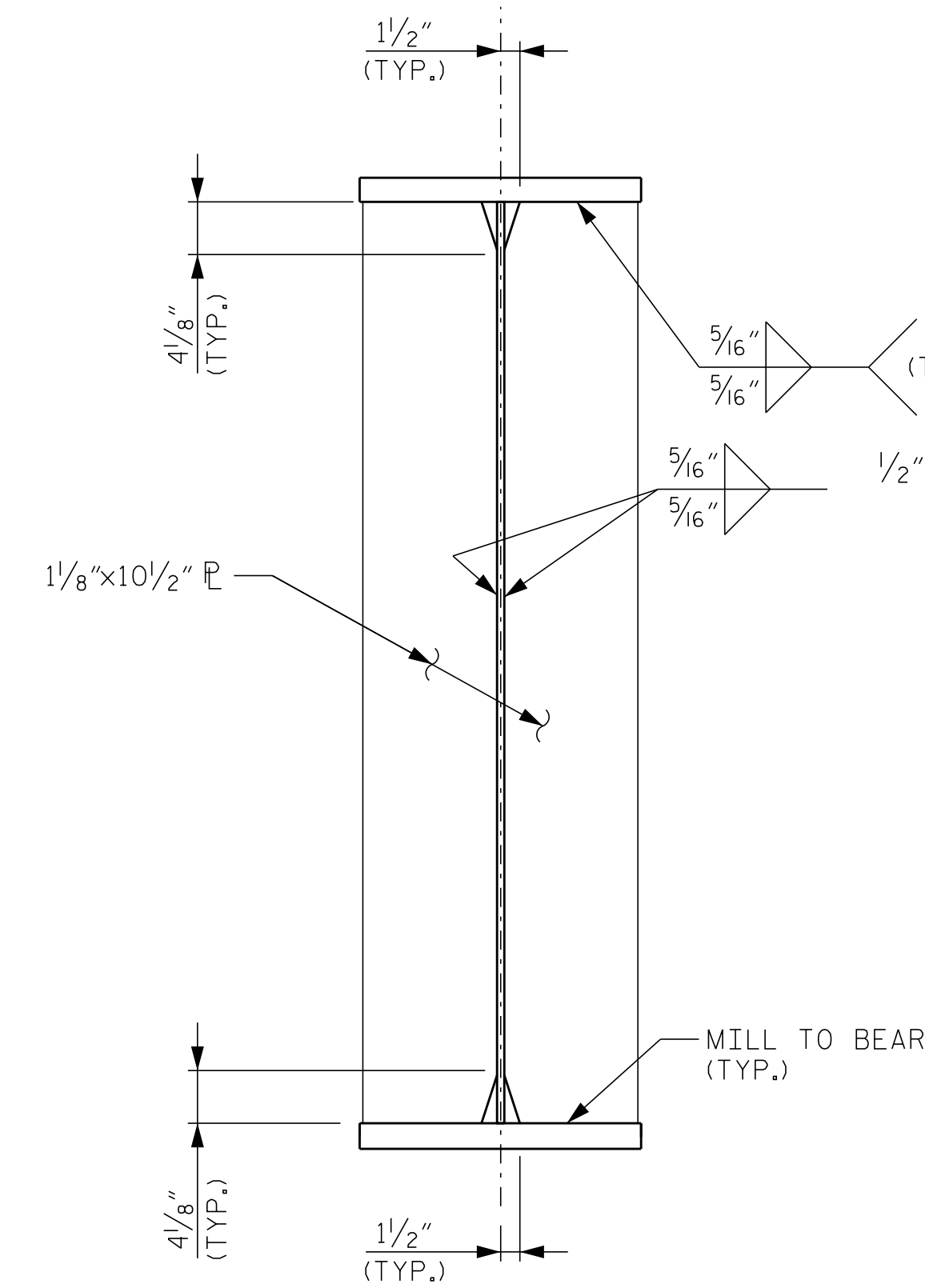
OPTIONAL INTERMEDIATE DIAPHRAGM



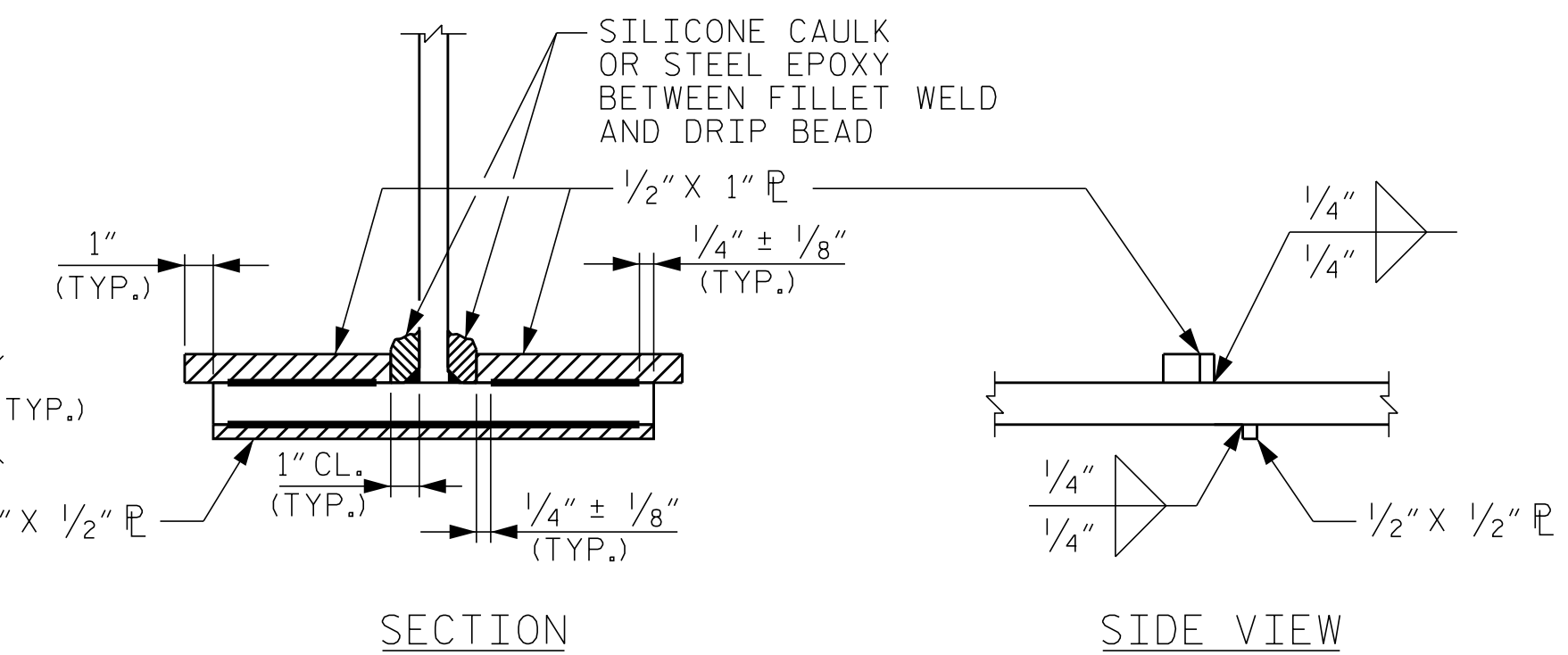
CONNECTOR PLATE DETAIL



WELD TERMINATION DETAIL



BEARING STIFFENER DETAIL



SECTION

SIDE VIEW

DRIP BEAD DETAILS

PROJECT NO. U-3315

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SHEET 2 OF 3



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STRUCTURAL STEEL
DETAILS

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1			3		
2			4		

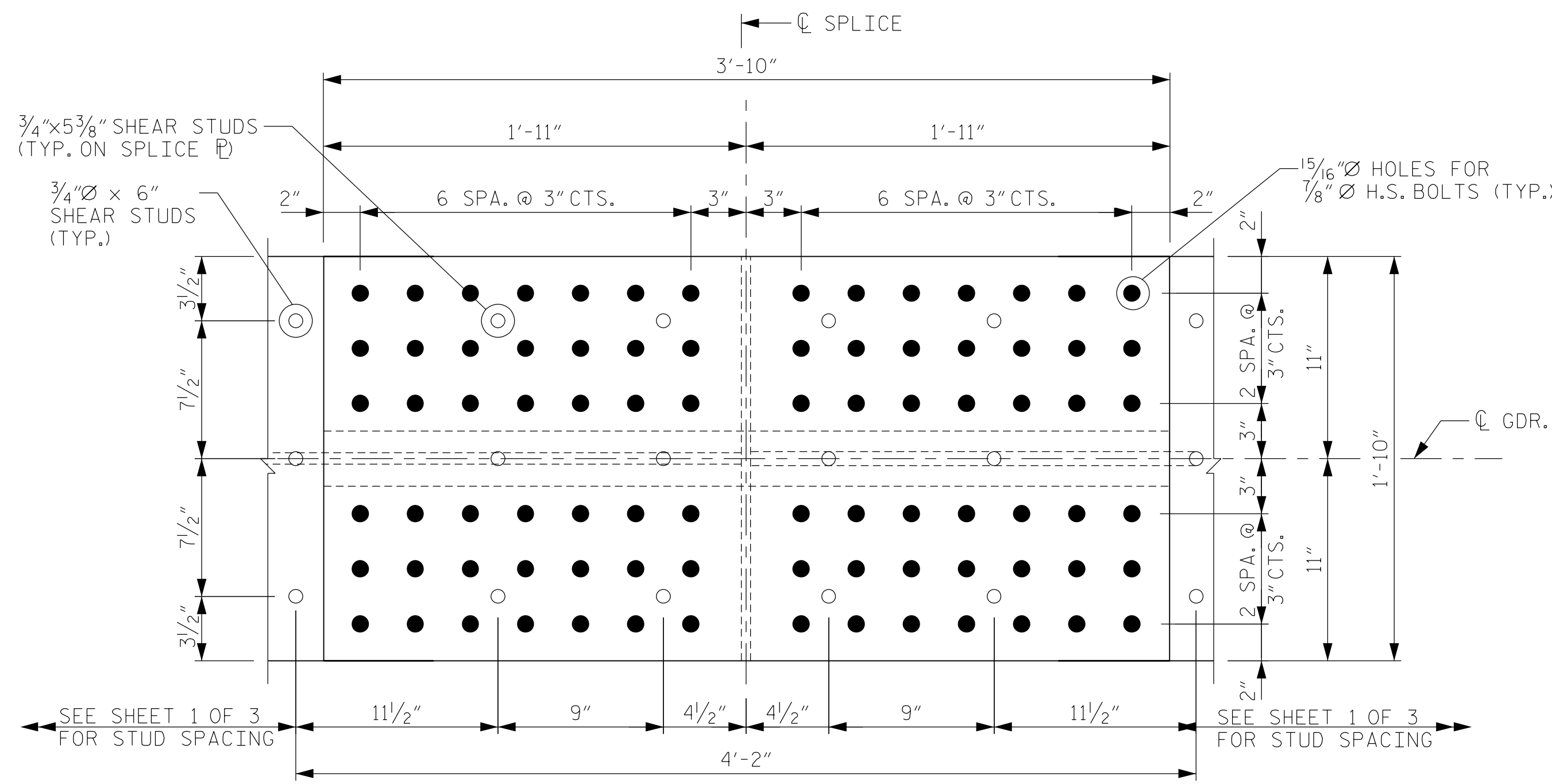
SHEET NO.

S-12

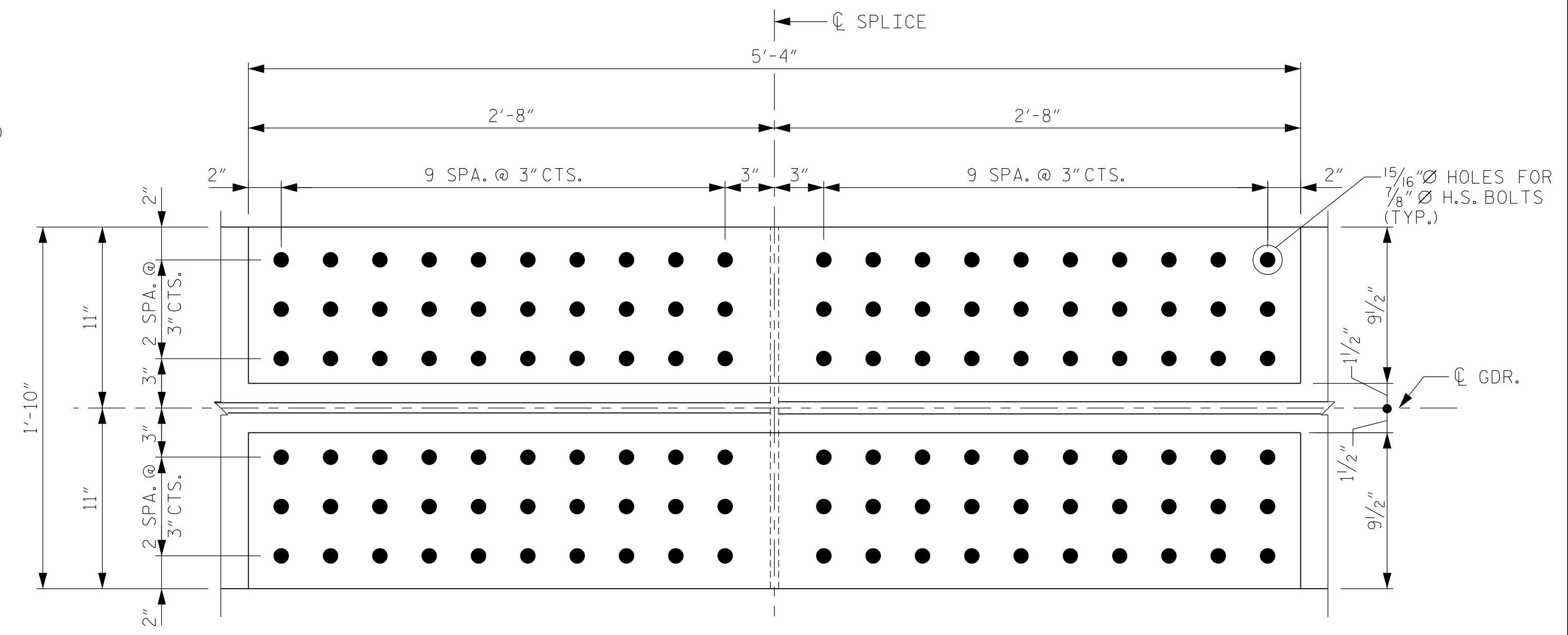
TOTAL SHEETS

33

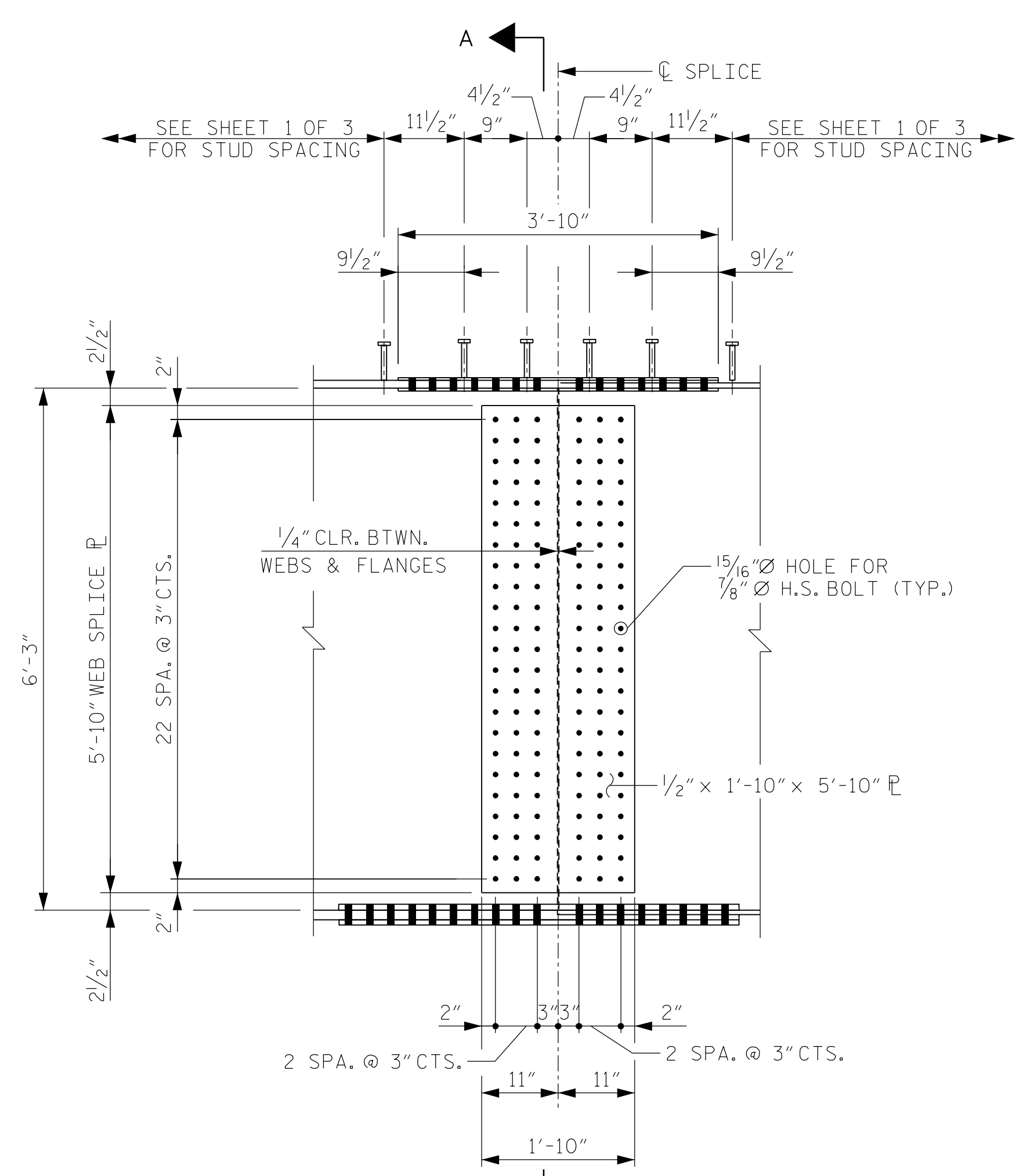
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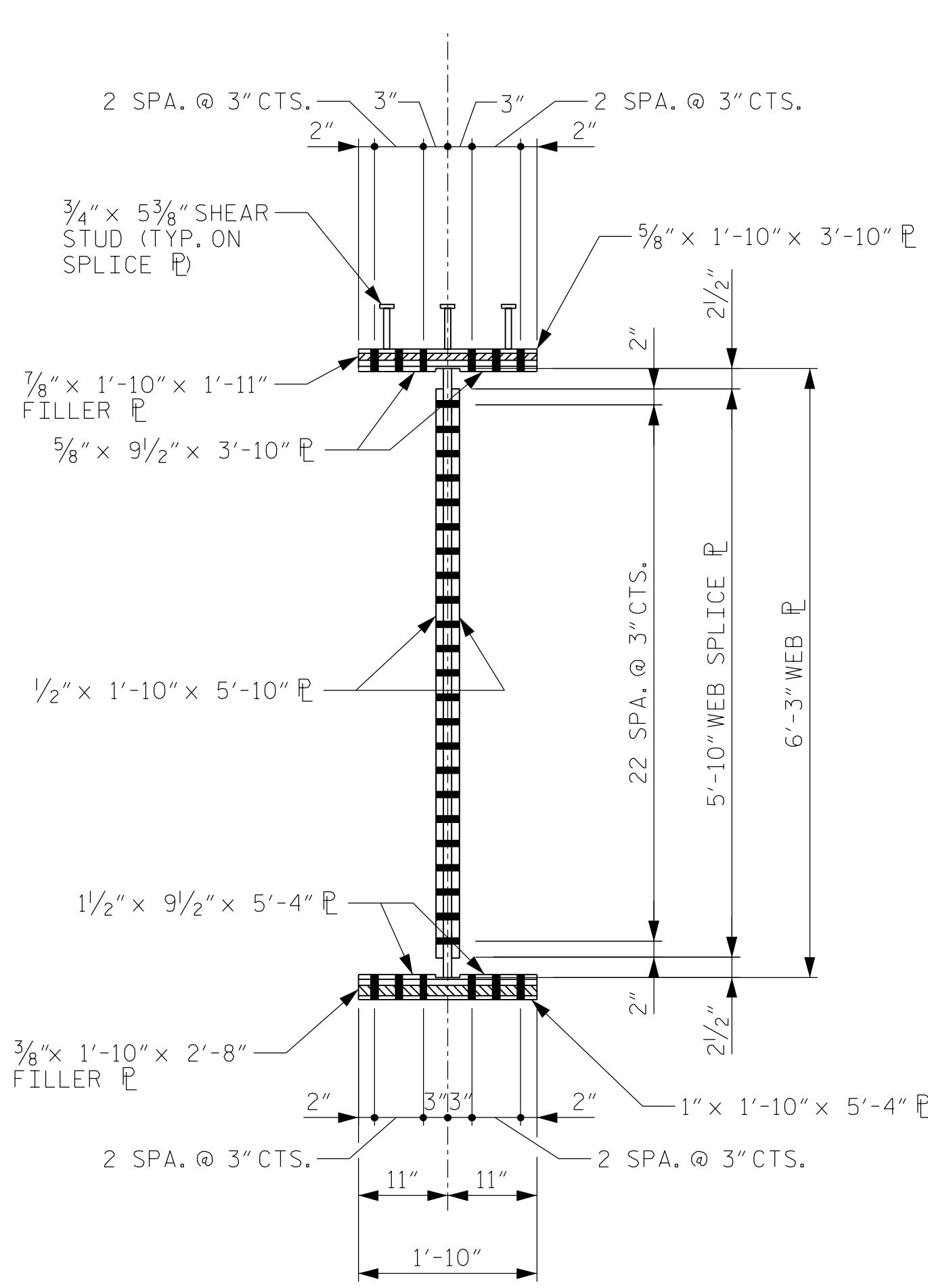
PLAN (TOP OF TOP FLANGE)



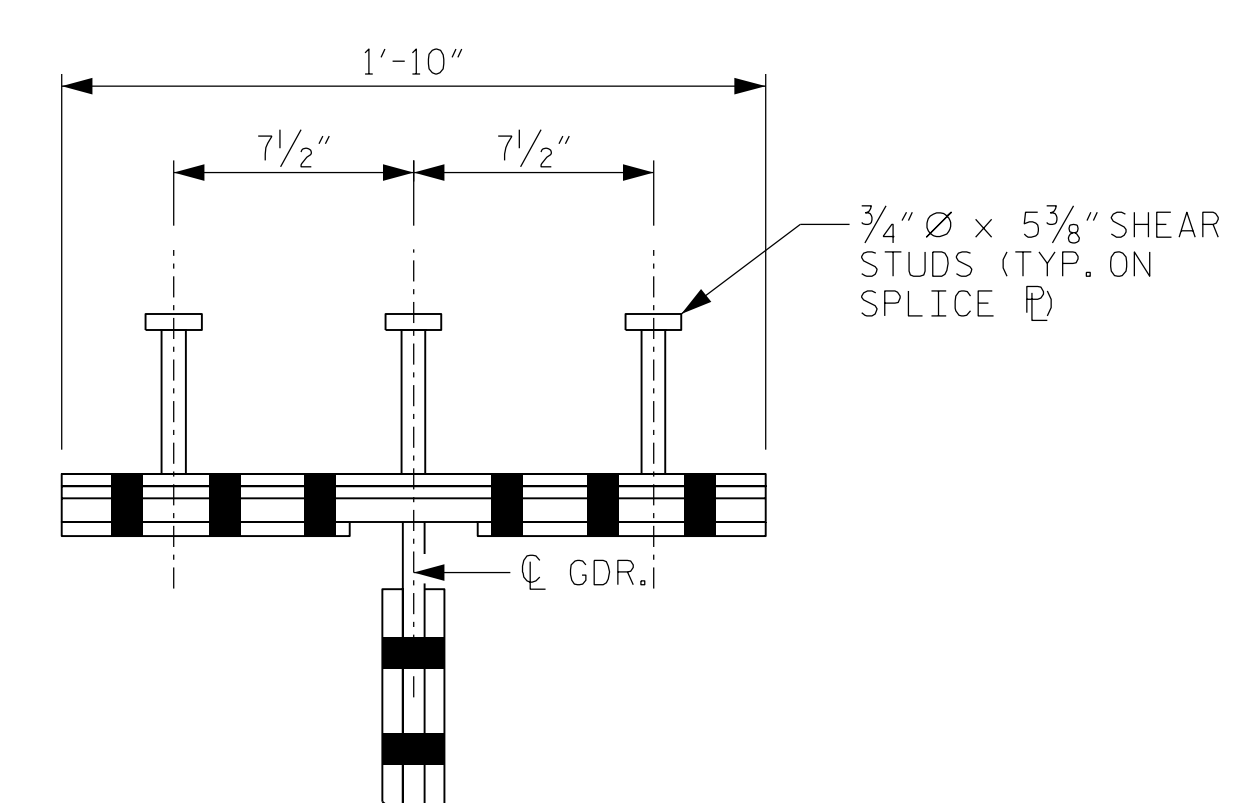
PLAN (TOP OF BOTTOM FLANGE)



ELEVATION



SECTION A-A



SHEAR STUD DETAIL FOR TOP FLANGE SPLICE PLATE
(SHEAR STUDS ARE TO BE SHOP WELDED ON TOP OF PLATE BEFORE FIELD ASSEMBLY)

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
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 SHEET 3 OF 3



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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE STRUCTURAL STEEL DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-13
TOTAL SHEETS 33

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DEAD LOAD DEFLECTION TABLE

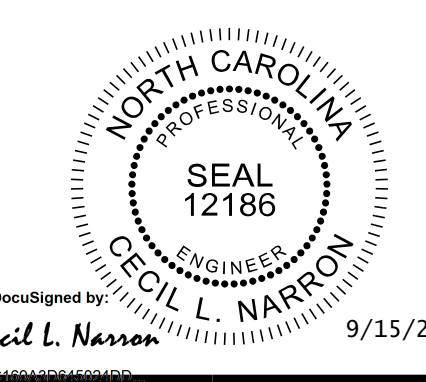
SPAN A

GIRDER A1 & A8																					
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0.00	0.036	0.071	0.103	0.131	0.155	0.174	0.189	0.200	0.207	0.209	0.207	0.200	0.189	0.174	0.155	0.131	0.103	0.071	0.036	0.00
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0.00	0.079	0.177	0.268	0.347	0.413	0.467	0.510	0.541	0.561	0.567	0.561	0.541	0.510	0.467	0.413	0.347	0.268	0.177	0.079	0.00
DEFLECTION DUE TO WEIGHT OF RAIL ↓	0.00	0.013	0.025	0.036	0.047	0.055	0.062	0.068	0.072	0.074	0.075	0.074	0.072	0.068	0.062	0.055	0.047	0.036	0.025	0.013	0.00
DEFLECTION DUE TO WEIGHT OF SIDEWALK ↓	0.00	0.012	0.024	0.035	0.045	0.053	0.060	0.065	0.069	0.072	0.073	0.072	0.069	0.065	0.060	0.053	0.045	0.035	0.024	0.012	0.00
DEFLECTION DUE TO WEIGHT OF MEDIAN ↓	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
TOTAL DEAD LOAD DEFLECTION ↓	0.00	0.140	0.297	0.442	0.570	0.676	0.763	0.832	0.883	0.914	0.924	0.914	0.883	0.832	0.763	0.676	0.570	0.442	0.297	0.140	0.00
VERTICAL CURVE ORDINATE ↑	0.00	0.253	0.479	0.678	0.851	0.997	1.117	1.210	1.277	1.316	1.330	1.316	1.276	1.210	1.117	0.997	0.851	0.678	0.479	0.253	0.00
REQUIRED CAMBER ↑	0	4 ¹¹ / ₁₆	9 ³ / ₁₆	13 ¹ / ₁₆	17 ¹ / ₁₆	20 ¹ / ₁₆	22 ³ / ₁₆	24 ¹ / ₂	25 ¹⁵ / ₁₆	26 ³ / ₄	27 ¹ / ₁₆	26 ³ / ₄	25 ¹⁵ / ₁₆	24 ¹ / ₂	22 ³ / ₁₆	20 ¹ / ₁₆	17 ¹ / ₁₆	13 ¹ / ₁₆	9 ³ / ₁₆	4 ¹¹ / ₁₆	0
GIRDER A2 & A7																					
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0.00	0.036	0.071	0.103	0.131	0.155	0.174	0.189	0.200	0.207	0.209	0.207	0.200	0.189	0.174	0.155	0.131	0.103	0.071	0.036	0.00
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0.00	0.080	0.179	0.271	0.351	0.418	0.472	0.516	0.547	0.567	0.573	0.567	0.547	0.516	0.472	0.418	0.351	0.271	0.179	0.080	0.00
DEFLECTION DUE TO WEIGHT OF RAIL ↓	0.00	0.009	0.018	0.026	0.034	0.040	0.045	0.049	0.052	0.054	0.055	0.054	0.052	0.049	0.045	0.040	0.034	0.026	0.018	0.009	0.00
DEFLECTION DUE TO WEIGHT OF SIDEWALK ↓	0.00	0.009	0.017	0.025	0.033	0.039	0.043	0.047	0.050	0.052	0.053	0.052	0.050	0.047	0.043	0.039	0.033	0.025	0.017	0.009	0.00
DEFLECTION DUE TO WEIGHT OF MEDIAN ↓	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
TOTAL DEAD LOAD DEFLECTION ↓	0.00	0.135	0.286	0.426	0.549	0.651	0.734	0.801	0.850	0.880	0.890	0.880	0.850	0.801	0.734	0.651	0.549	0.426	0.286	0.135	0.00
VERTICAL CURVE ORDINATE ↑	0.00	0.253	0.479	0.678	0.851	0.997	1.117	1.210	1.277	1.316	1.330	1.316	1.276	1.210	1.117	0.997	0.851	0.678	0.479	0.253	0.00
REQUIRED CAMBER ↑	0	4 ⁵ / ₈	9 ³ / ₁₆	13 ¹ / ₄	16 ¹³ / ₁₆	19 ³ / ₄	22 ³ / ₁₆	24 ¹ / ₈	25 ¹ / ₂	26 ³ / ₈	26 ³ / ₈	26 ³ / ₈	25 ¹ / ₂	24 ¹ / ₈	22 ³ / ₁₆	19 ³ / ₄	16 ¹³ / ₁₆	13 ¹ / ₄	9 ³ / ₁₆	4 ⁵ / ₈	0
GIRDER A3 & A6																					
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0.00	0.036	0.071	0.103	0.131	0.155	0.174	0.189	0.200	0.207	0.209	0.207	0.200	0.189	0.174	0.155	0.131	0.103	0.071	0.036	0.00
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0.00	0.081	0.182	0.274	0.355	0.422	0.477	0.521	0.553	0.573	0.580	0.573	0.553	0.521	0.477	0.422	0.355	0.274	0.182	0.081	0.00
DEFLECTION DUE TO WEIGHT OF RAIL ↓	0.00	0.006	0.013	0.018	0.024	0.028	0.032	0.034	0.037	0.038	0.038	0.038	0.037	0.034	0.032	0.028	0.024	0.018	0.013	0.006	0.00
DEFLECTION DUE TO WEIGHT OF SIDEWALK ↓	0.00	0.006	0.012	0.018	0.023	0.027	0.030	0.033	0.035	0.036	0.037	0.036	0.035	0.033	0.030	0.027	0.023	0.018	0.012	0.006	0.00
DEFLECTION DUE TO WEIGHT OF MEDIAN ↓	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
TOTAL DEAD LOAD DEFLECTION ↓	0.00	0.130	0.277	0.413	0.533	0.632	0.713	0.778	0.825	0.854	0.864	0.854	0.825	0.778	0.713	0.632	0.533	0.413	0.277	0.130	0.00
VERTICAL CURVE ORDINATE ↑	0.00	0.253	0.479	0.678	0.851	0.997	1.117	1.210	1.277	1.316	1.330	1.316	1.276	1.210	1.117	0.997	0.851	0.678	0.479	0.253	0.00
REQUIRED CAMBER ↑	0	4 ⁵ / ₈	9 ³ / ₁₆	13 ¹ / ₈	16 ⁵ / ₈	19 ¹ / ₁₆	21 ⁵ / ₁₆	23 ⁷ / ₈	25 ¹ / ₄	26 ¹ / ₁₆	26 ¹ / ₁₆	26 ¹ / ₁₆	25 ¹ / ₄	23 ⁷ / ₈	21 ⁵ / ₁₆	19 ¹ / ₁₆	16 ⁵ / ₈	13 ¹ / ₈	9 ³ / ₁₆	4 ⁵ / ₈	0
GIRDER A4 & A5																					
TWENTIETH POINTS	0	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	0
DEFLECTION DUE TO WEIGHT OF GIRDER ↓	0.00	0.036	0.071	0.103	0.131	0.155	0.174	0.189	0.200	0.207	0.209	0.207	0.200	0.189	0.174	0.155	0.131	0.103	0.071	0.036	0.00
DEFLECTION DUE TO WEIGHT OF SLAB * ↓	0.00	0.081	0.182	0.274	0.355	0.422	0.477	0.521	0.553	0.573	0.580	0.573	0.553	0.521	0.477	0.422	0.355	0.274	0.182	0.081	0.00
DEFLECTION DUE TO WEIGHT OF RAIL ↓	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
DEFLECTION DUE TO WEIGHT OF SIDEWALK ↓	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00
DEFLECTION DUE TO WEIGHT OF MEDIAN ↓	0.00	0.006	0.013	0.018	0.024	0.028	0.032	0.034	0.036	0.038	0.038	0.038	0.036	0.034	0.032	0.028	0.024	0.018	0.013	0.006	0.00
TOTAL DEAD LOAD DEFLECTION ↓	0.00	0.124	0.265	0.395	0.510	0.605	0.682	0.745	0.790	0.818	0.827	0.818	0.790	0.745	0.682	0.605	0.510	0.395	0.265	0.124	0.00
VERTICAL CURVE ORDINATE ↑	0.00	0.253	0.479	0.678	0.851	0.997	1.117	1.210	1.276	1.316	1.330	1.316	1.276	1.210	1.117	0.997	0.851	0.678	0.479	0.253	0.00
REQUIRED CAMBER ↑	0	4 ¹ / ₂	8 ¹⁵ / ₁₆	12 ⁷ / ₈	16 ⁵ / ₁₆	19 ¹ / ₄	21 ⁵ / ₁₆	23 ¹ / ₁₆	24 ¹³ / ₁₆	25 ⁵ / ₈	25 ⁵ / ₈	25 ⁵ / ₈	24 ¹³ / ₁₆	23 ¹ / ₁₆	21 ⁵ / ₁₆	19 ¹ / ₄	16 ⁵ / ₁₆	12 ⁷ / ₈	8 ¹⁵ / ₁₆	4 ¹ / ₂	0

* INCLUDES SLAB, BUILDUPS, AND STAY-IN-PLACE FORMS.
ALL VALUES ARE SHOWN IN FEET, EXCEPT 'FINAL CAMBER,' WHICH IS SHOWN IN INCHES



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PITT COUNTY
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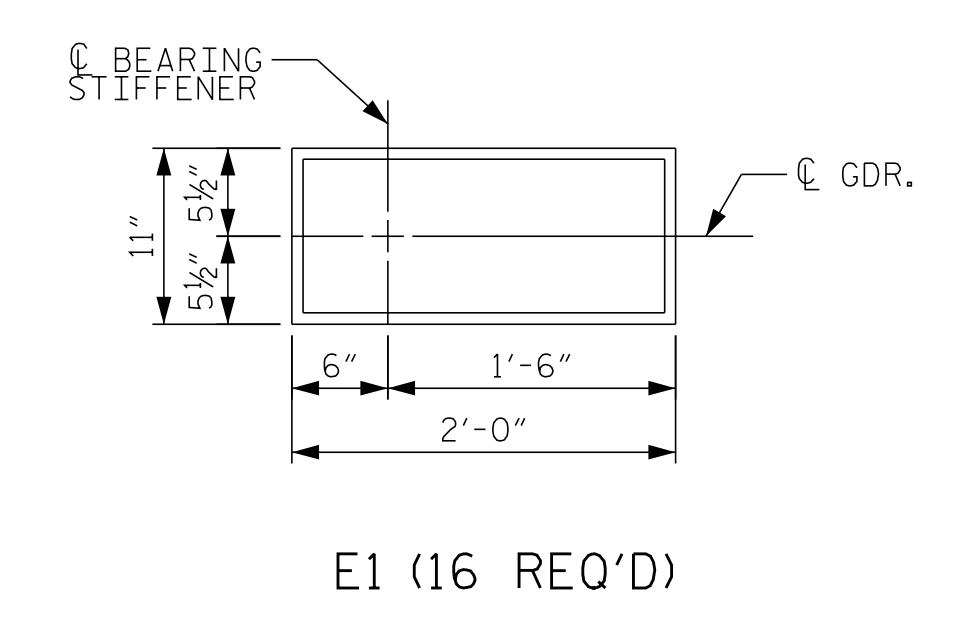
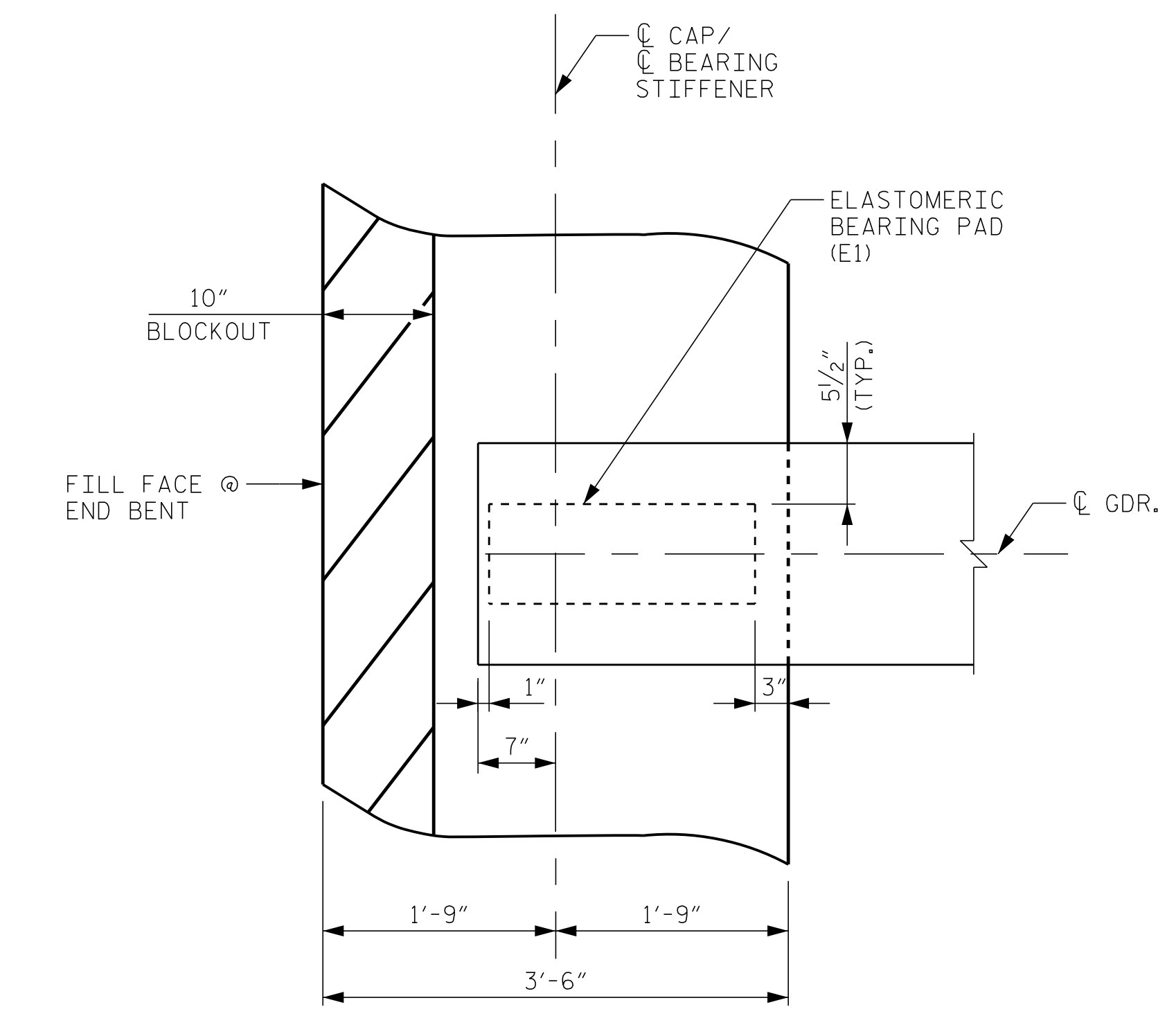
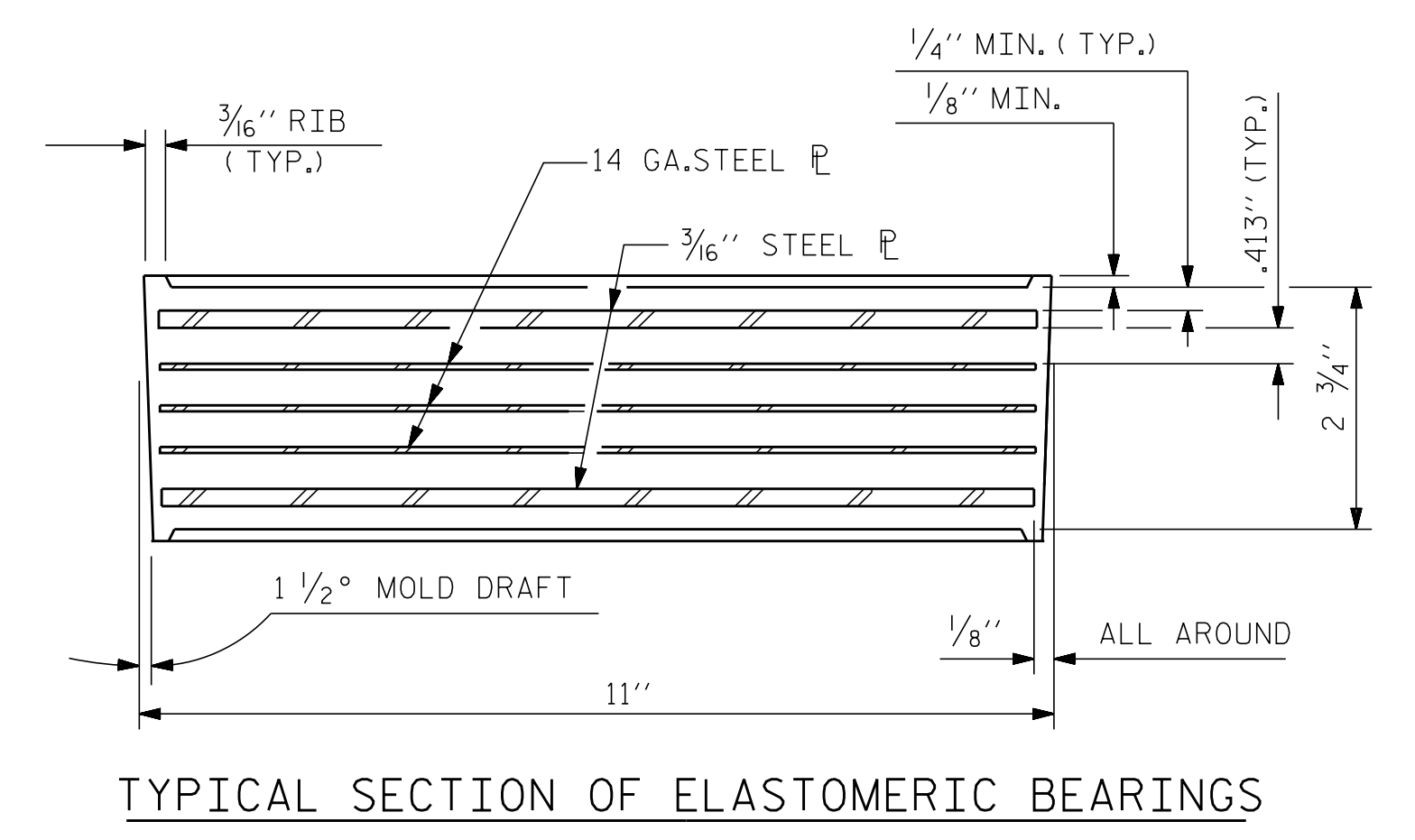
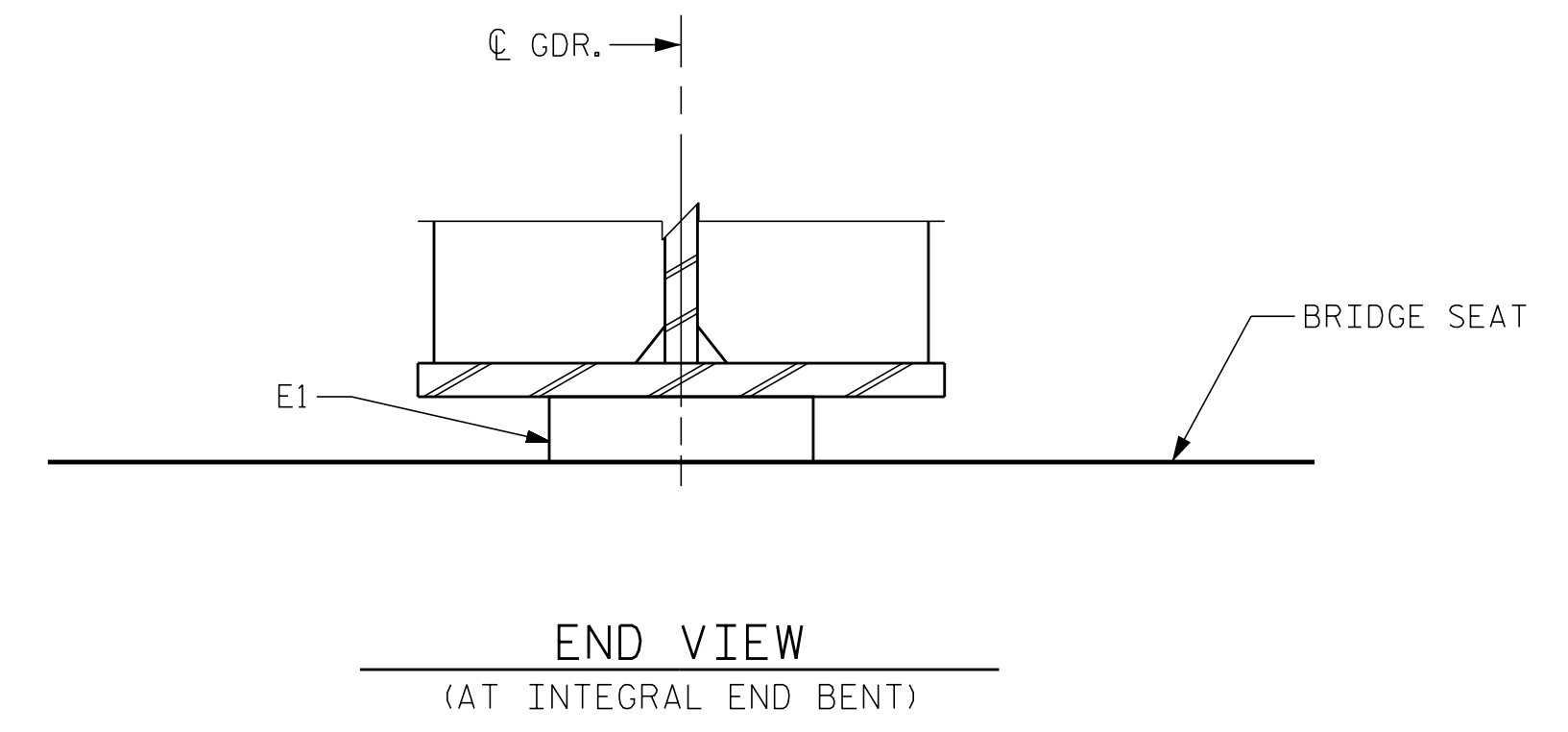
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE DEAD LOAD DEFLECTIONS					
REVISIONS					SHEET NO. S-14
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 33

K:\BIDI-Structures\Bridges\NC\011036175_U3315-10th-St-Greenville-Cov\egm\sl4.dgn 9/12/2014

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>9/14</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>9/14</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>9/14</u>

NOTES

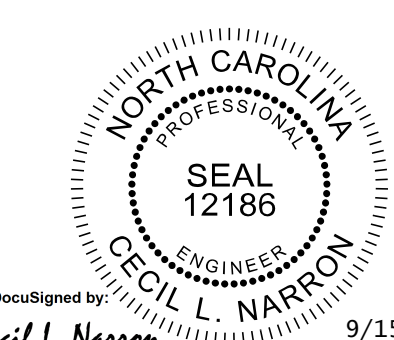
THE ELASTOMER IN THE STEEL REINFORCED BEARINGS SHALL HAVE A SHEAR MODULUS OF 0.160 KSI, IN ACCORDANCE WITH AASHTO M251.
 FOR STEEL REINFORCED ELASTOMERIC BEARINGS, SEE SPECIAL PROVISIONS.



PLAN VIEW OF ELASTOMERIC BEARING
 NCDOT- TYPE VII
 INTEGRAL END BENT

PLAN VIEW AT INTEGRAL END BENT
 (END BENT 1 SHOWN, END BENT 2 SIMILAR)

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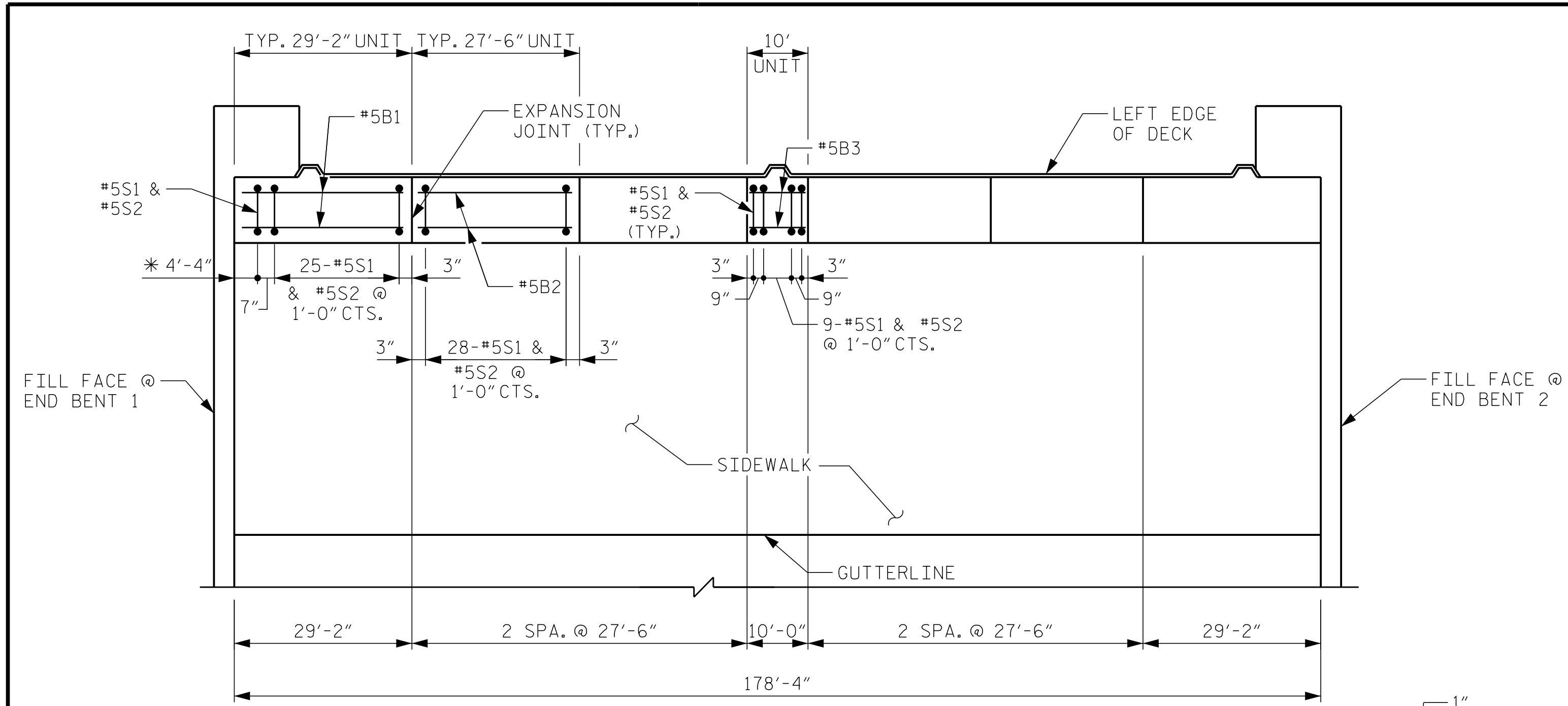
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

ELASTOMERIC BEARING DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			33

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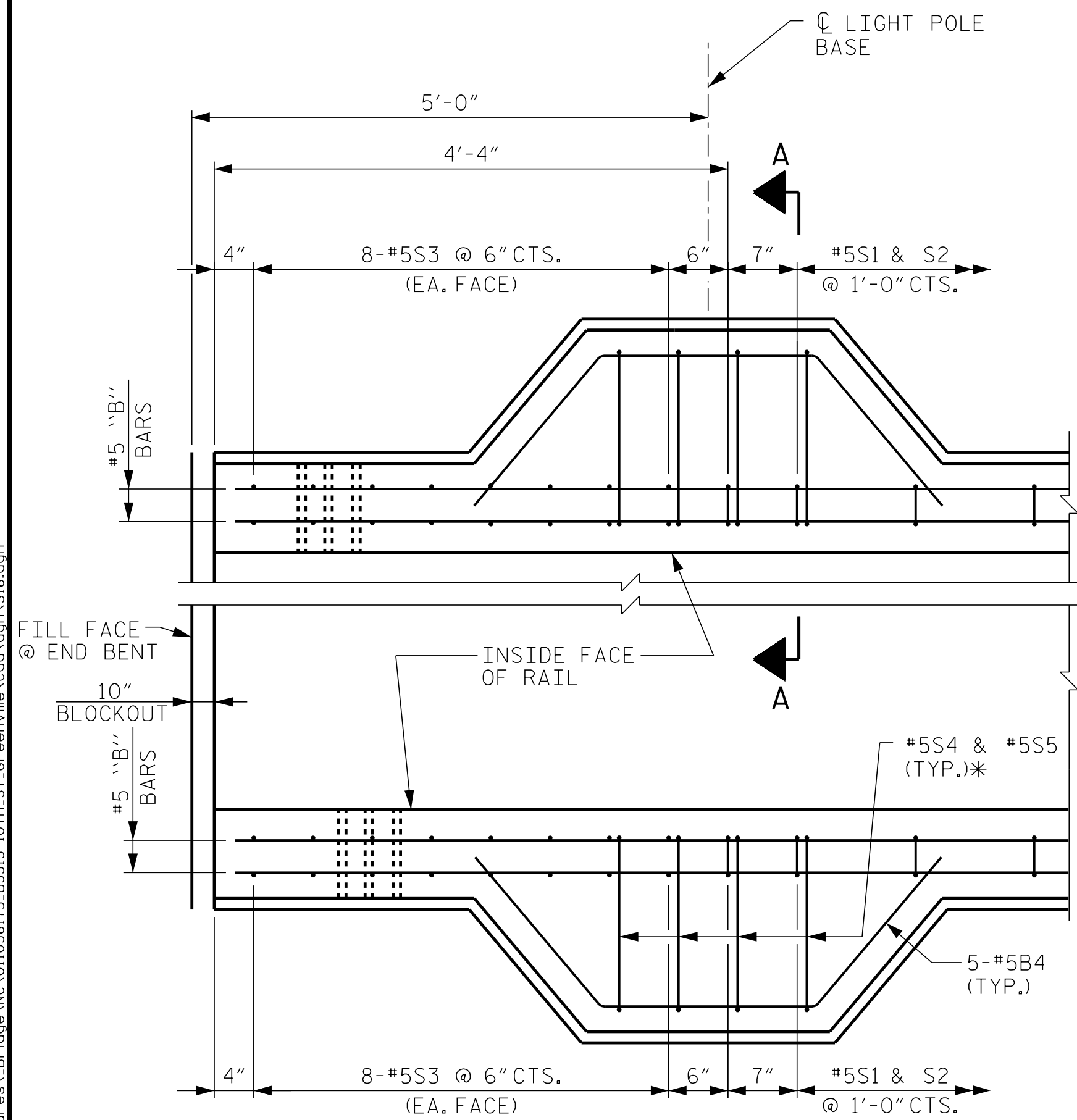
DRAWN BY: J. I. KIMBLE DATE: 9/14
 CHECKED BY: J. C. WILSON DATE: 9/14
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 9/14



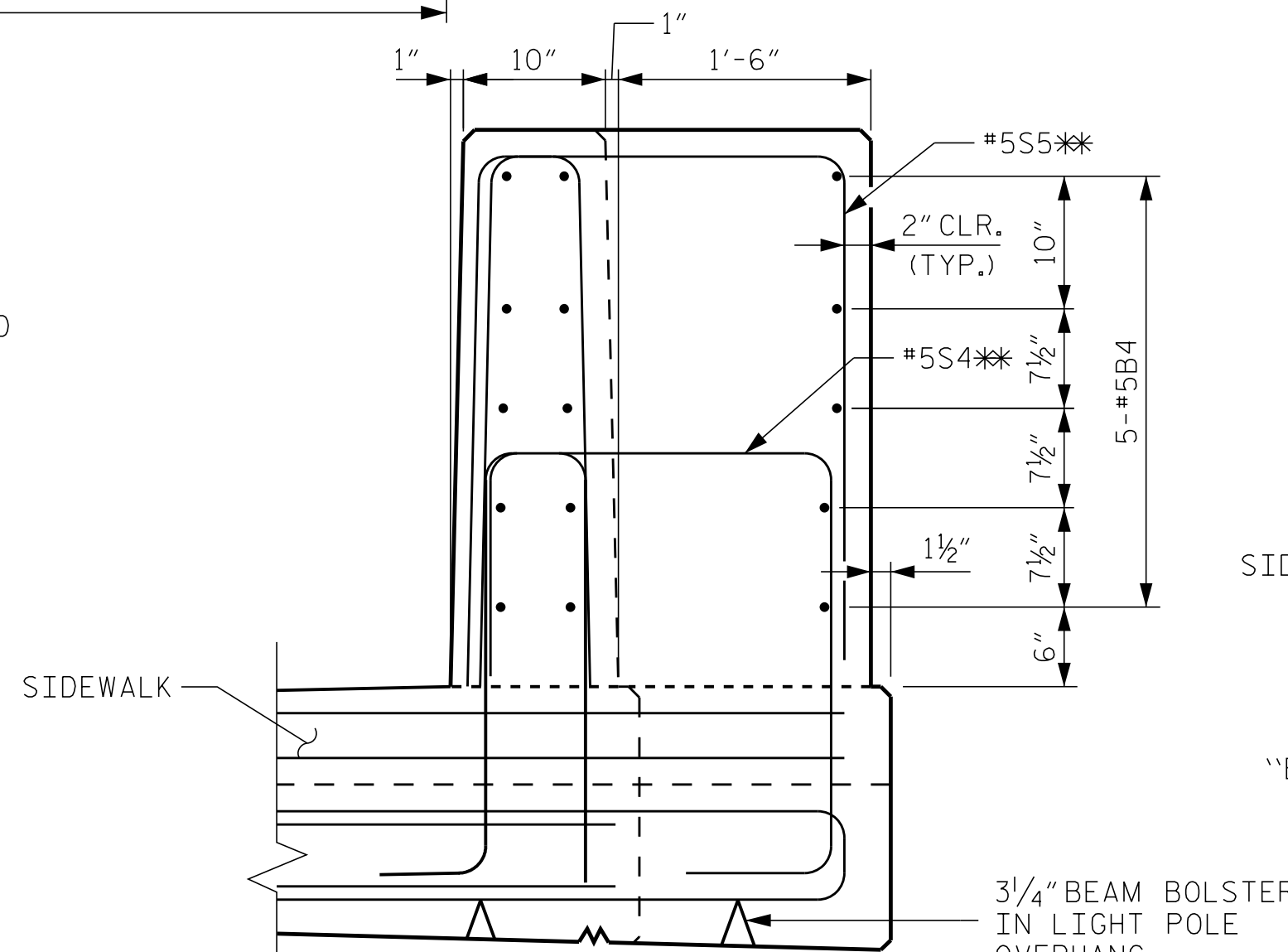
* SEE END OF RAIL DETAILS FOR REINFORCING @ RAIL ENDS.

PLAN OF BARRIER RAIL

TRANSVERSE SCALE OF BARRIER RAIL IS EXAGGERATED

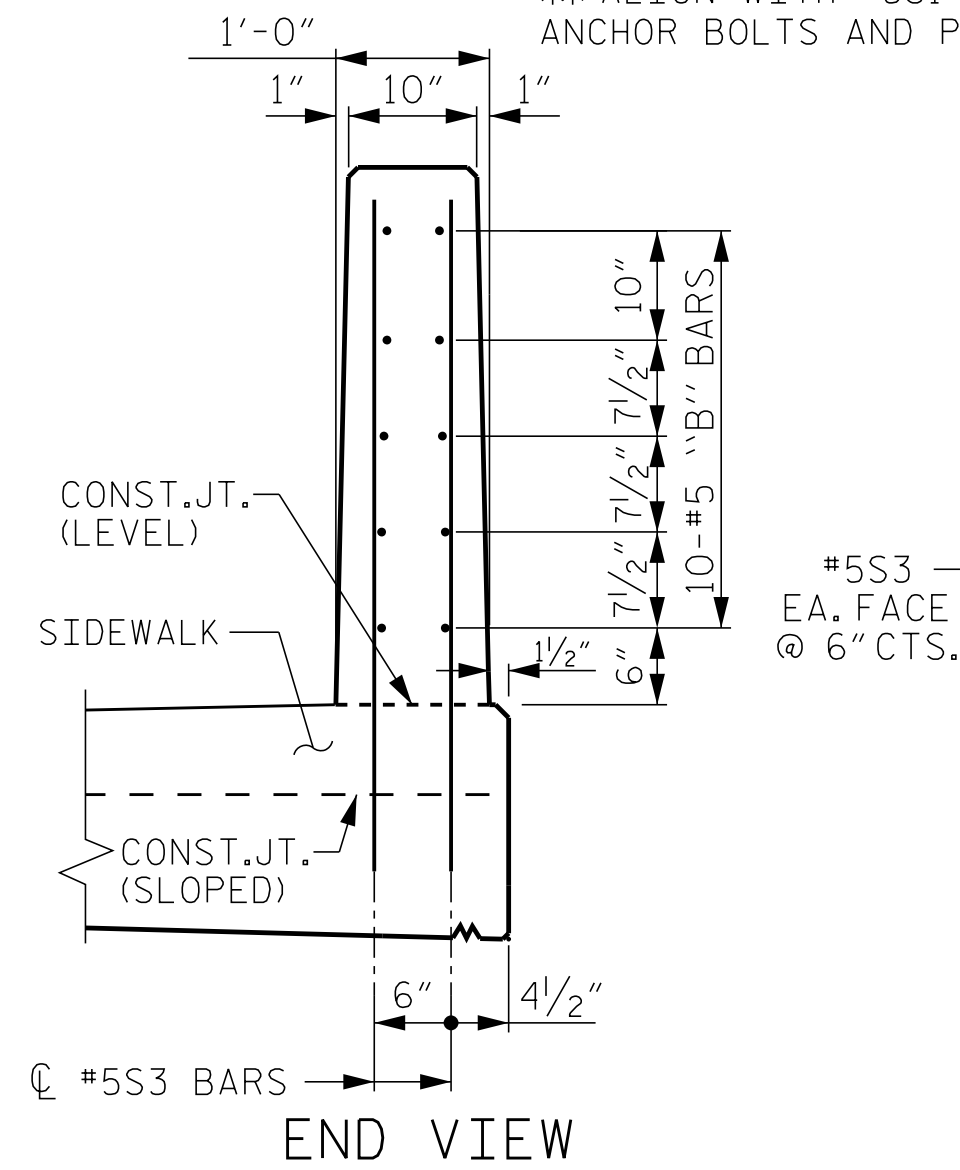


PLAN
* SPACED AS SHOWN

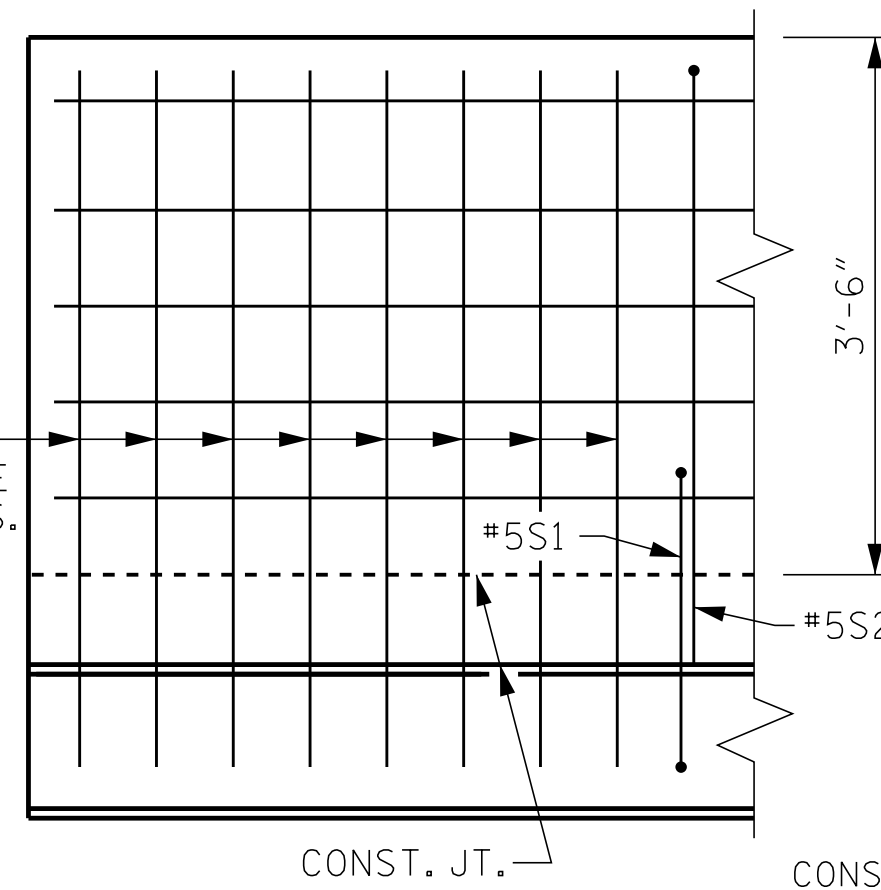


SECTION A-A

* ALIGN WITH #5S1 & #5S2 BARS IN BARRIER ANCHOR BOLTS AND PVC CONDUIT NOT SHOWN FOR CLARITY.



END VIEW



SIDE VIEW

NOTES

THE BARRIER RAIL IN THE SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THE SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

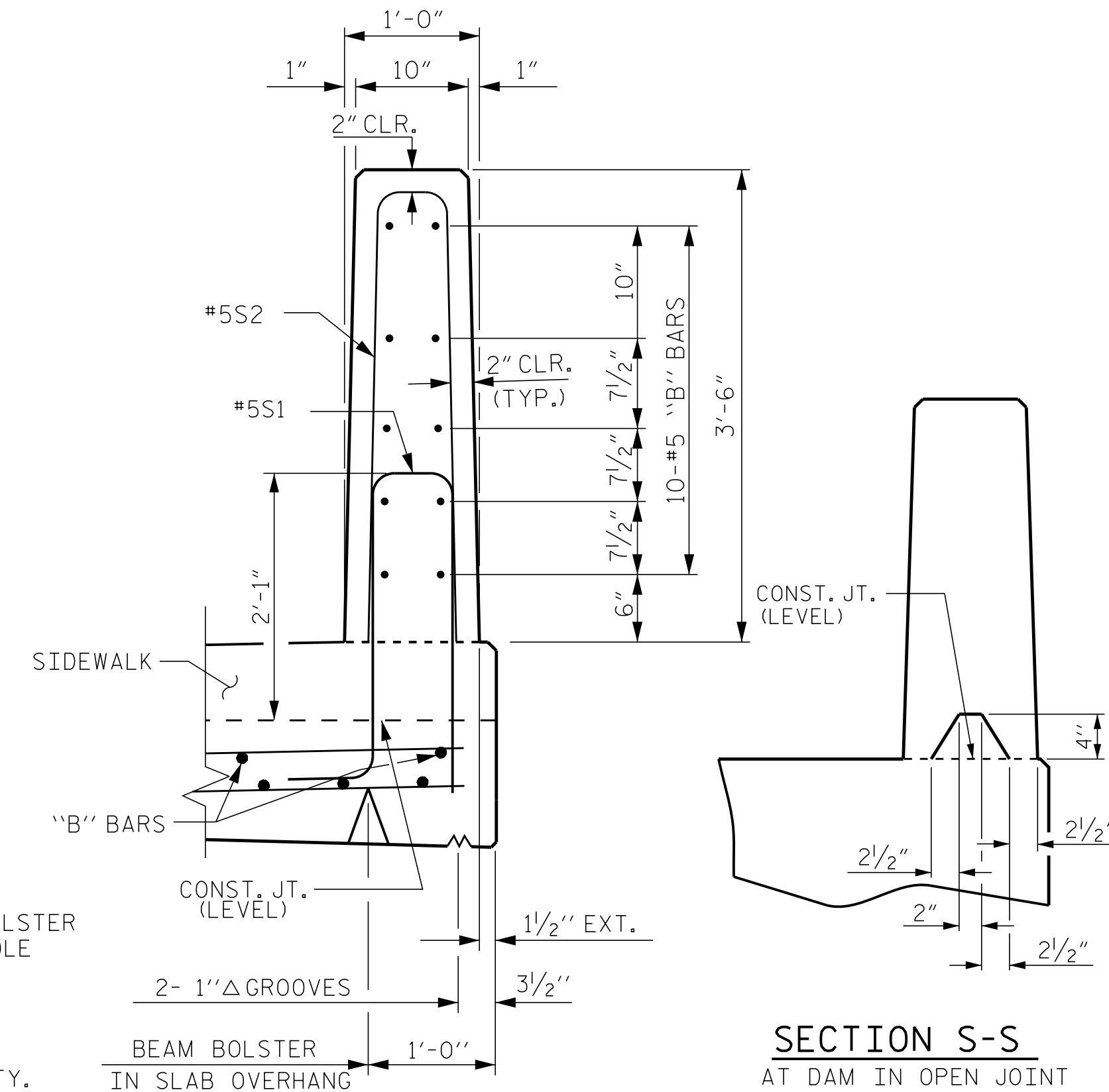
ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5 S3 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOoled IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

ORNAMENTAL FENCE AND LIGHT POLES NOT SHOWN ON THIS SHEET FOR CLARITY. SEE "ORNAMENTAL FENCE DETAILS" SHEET FOR FENCE DETAILS, AND "LIGHT POLE DETAILS" SHEETS FOR DETAILS.

THE BARRIER RAIL AND EDGE OF SUPERSTRUCTURE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND "APPLICATION OF BRIDGE COATING" SPECIAL PROVISION.



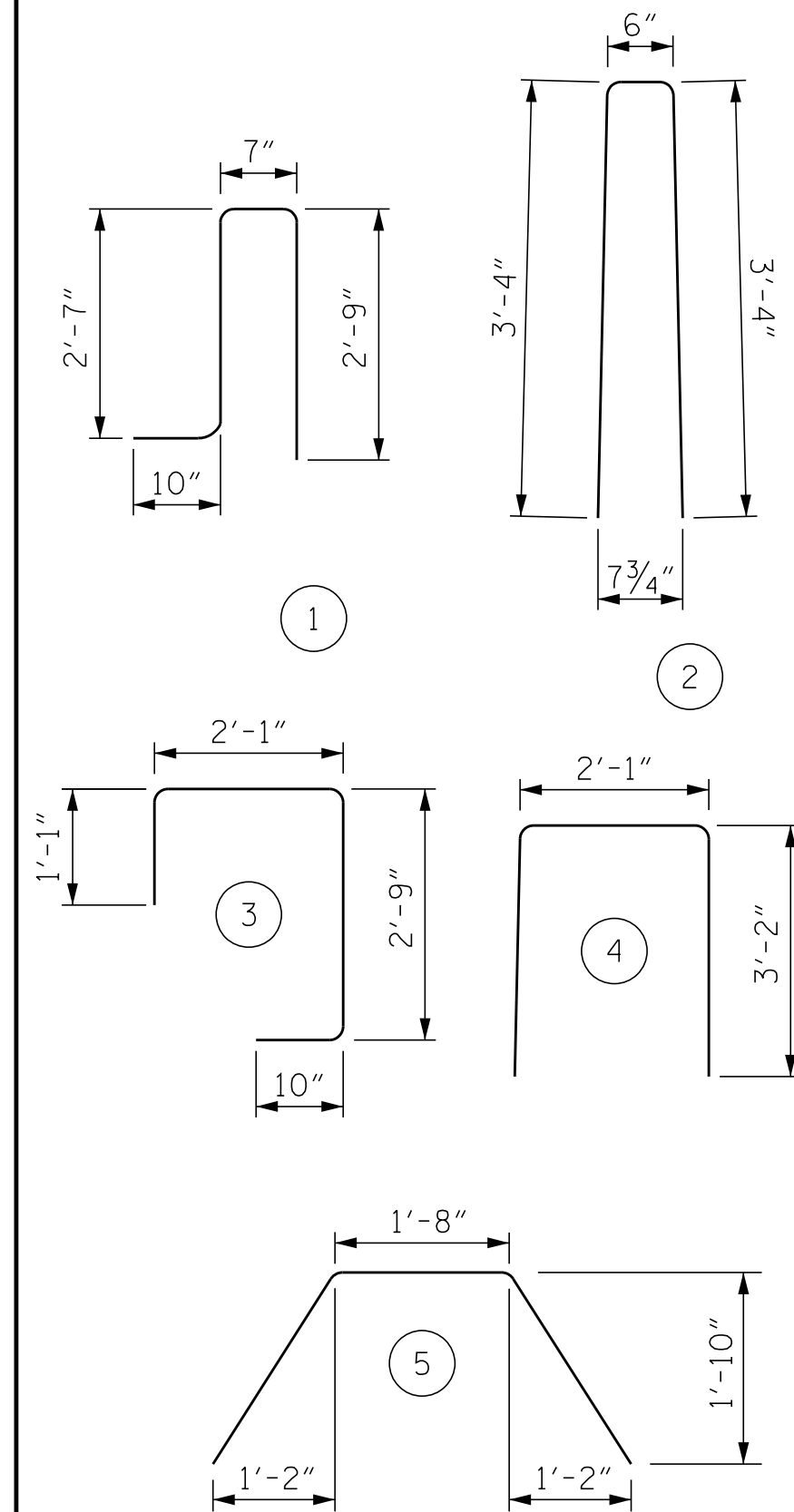
SECTION THRU RAIL

SECTION S-S

AT DAM IN OPEN JOINT (THIS IS TO BE USED ONLY WHEN SLIP FORM IS USED)

1/2" EXP. JT. MAT'L HELD IN PLACE WITH GALVANIZED NAILS. (NOTE: OMIT EXP. JT. MAT'L WHEN SLIP FORM IS USED.)

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

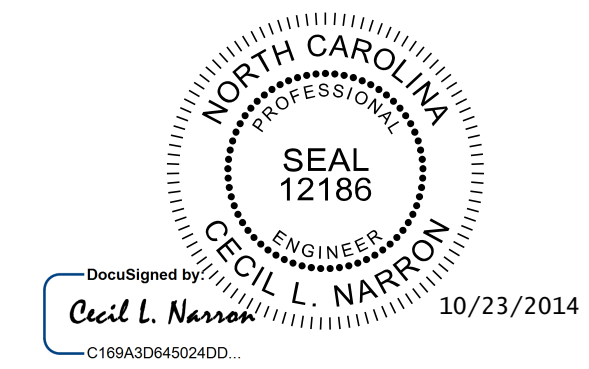
BILL OF MATERIAL

FOR VERTICAL CONCRETE BARRIER RAIL ONLY

BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	40	#5	STR	28'-9"	1,199
* B2	80	#5	STR	27'-1"	2,260
* B3	10	#5	STR	9'-7"	100
* B4	30	#5	5	6'-0"	188
* S1	350	#5	1	6'-9"	2,464
* S2	350	#5	2	7'-2"	2,616
* S3	64	#5	STR	4'-9"	317
* S4	22	#5	3	6'-9"	155
* S5	22	#5	4	8'-5"	193

* EPOXY COATED REINFORCING STEEL	9,492 LBS.
CLASS AA CONCRETE	45.8 C.Y.
VERTICAL CONCRETE BARRIER RAIL	356.7 LIN. FT.

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REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS
2			4			33

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ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : MAA 5/10	REV. 10/17/11 MAA/GM
CHECKED BY : GM 5/10	REV. 12/5/11 MAA/GM
	REV. 6/13 MAA/GM

END OF RAIL DETAILS
 FOR ADHESIVE ANCHORING AT SAWED JOINTS

ELEVATION AT EXPANSION JOINTS
 BARRIER RAIL DETAILS

NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A 1/4" HOLD DOWN PLATE AND 7 - 7/8" Ø BOLTS WITH NUTS AND WASHERS.

THE HOLD-DOWN PLATE SHALL CONFORM TO AASHTO M270 GRADE 36. AFTER FABRICATION, THE HOLD-DOWN PLATE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111.

BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M291. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION, STAINLESS STEEL BOLTS, NUTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 7/8" Ø GALVANIZED BOLTS, NUTS AND WASHERS. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.)

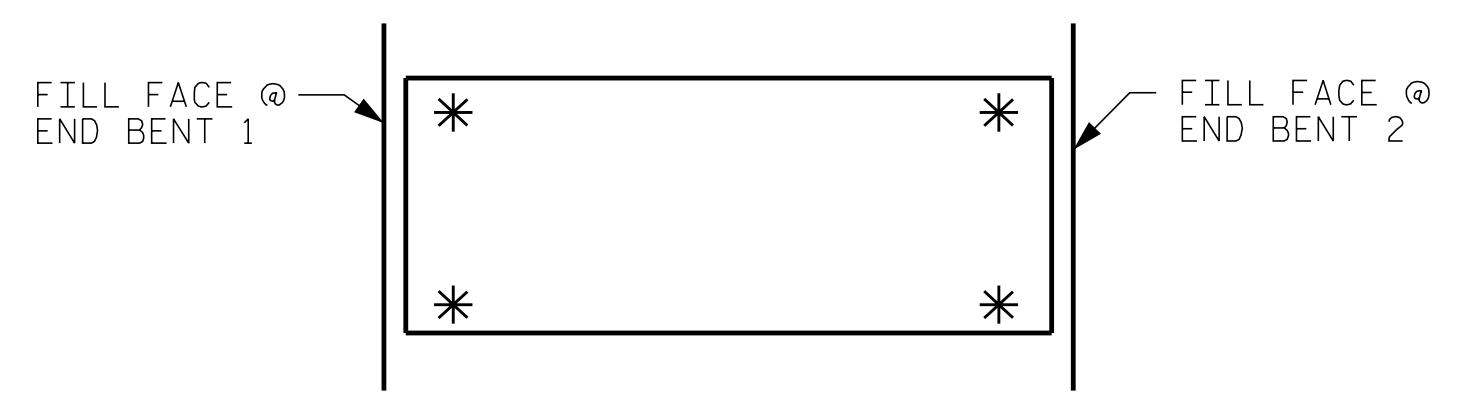
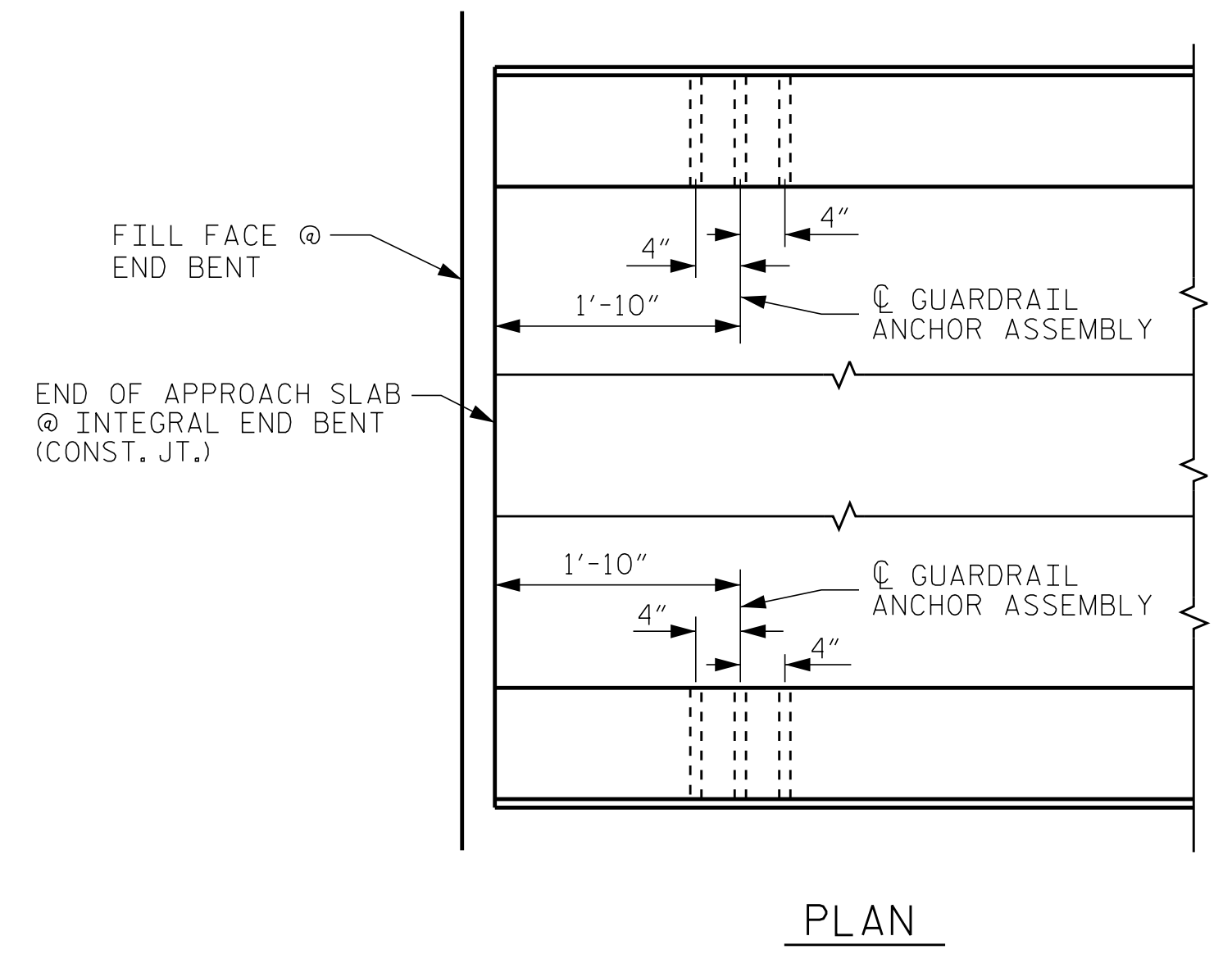
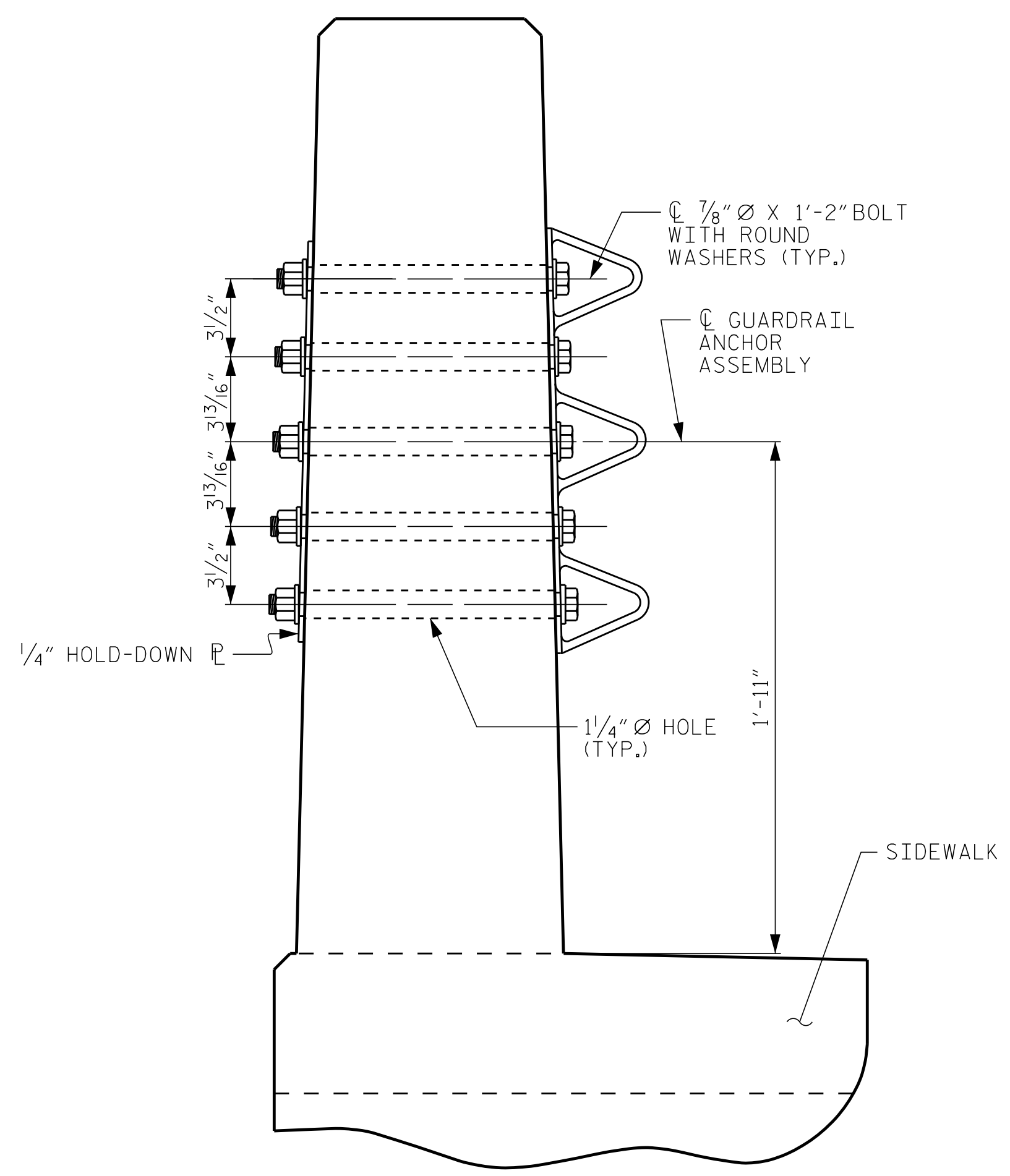
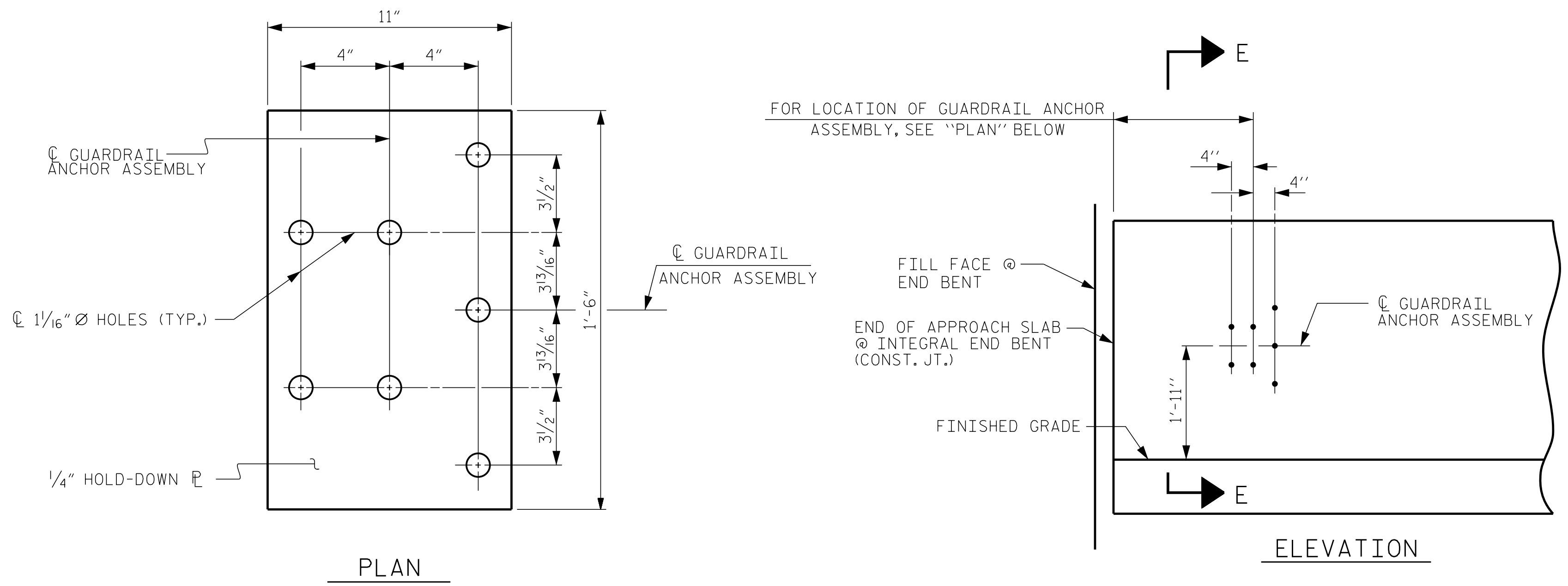
THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF BARRIER RAIL. FOR POINTS OF ATTACHMENT, SEE SKETCH.

AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL.

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR VERTICAL CONCRETE BARRIER RAIL.

THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE VERTICAL CONCRETE BARRIER RAIL TO CLEAR ASSEMBLY BOLTS.

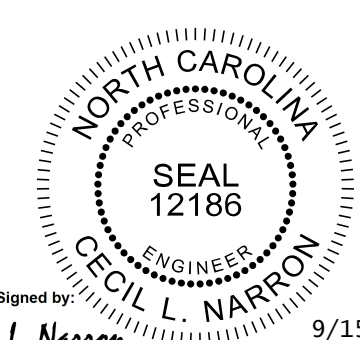
THE 1 1/4" Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.



SKETCH SHOWING POINTS OF ATTACHMENT

* DENOTES GUARDRAIL ANCHOR ASSEMBLY

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PITT COUNTY
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16+96.14 -Y10-



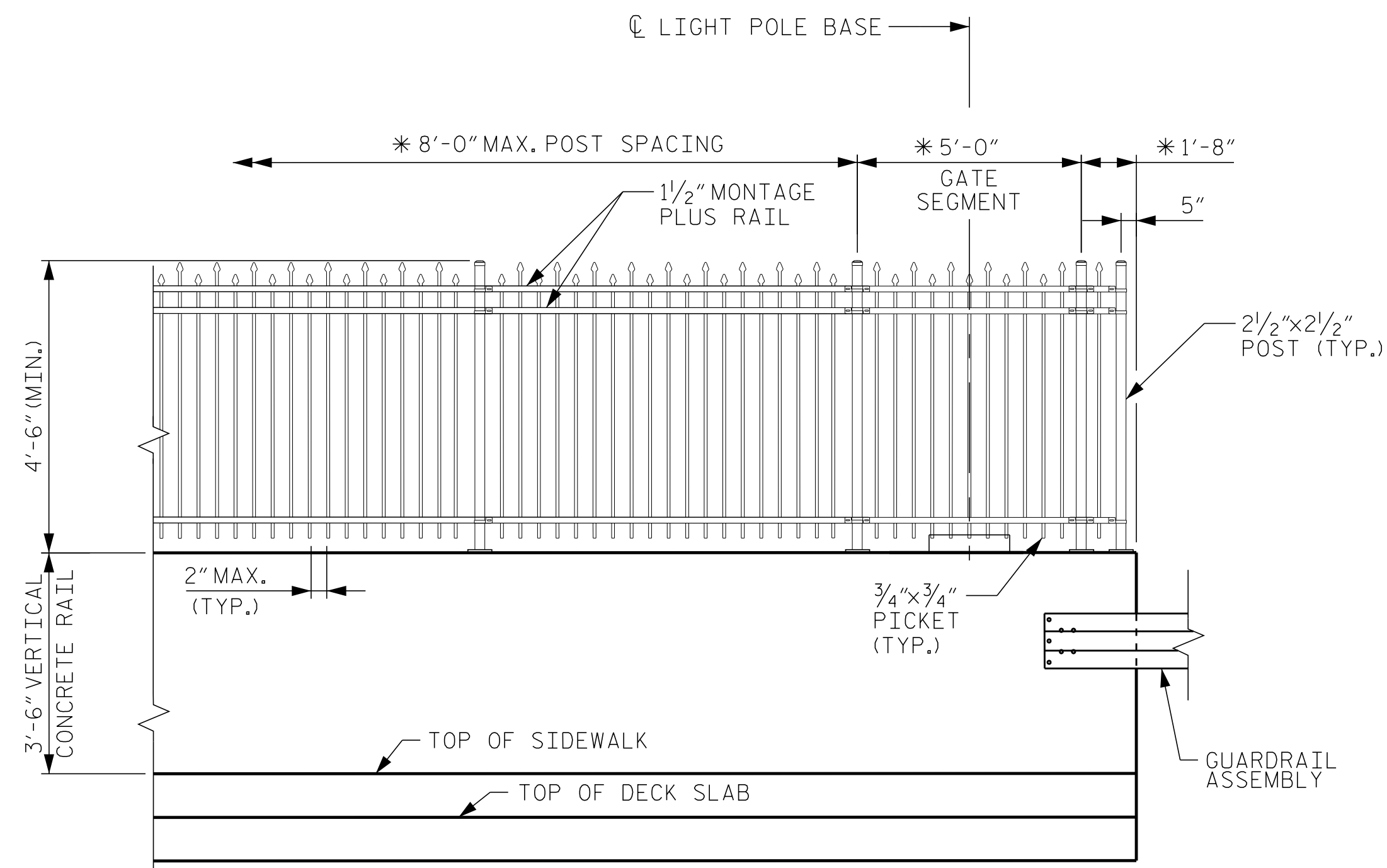
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 Phone (919) 835-1494
 N.C. LICENSE # F-0102

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 GUARDRAIL ANCHORAGE
 FOR VERTICAL
 CONCRETE BARRIER RAIL

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			33

9/12/2014 K:\BID_Structures\Bridges\NC\01036175_U3315-10th.St-Greenville\ConcVgnm\ST.dgn

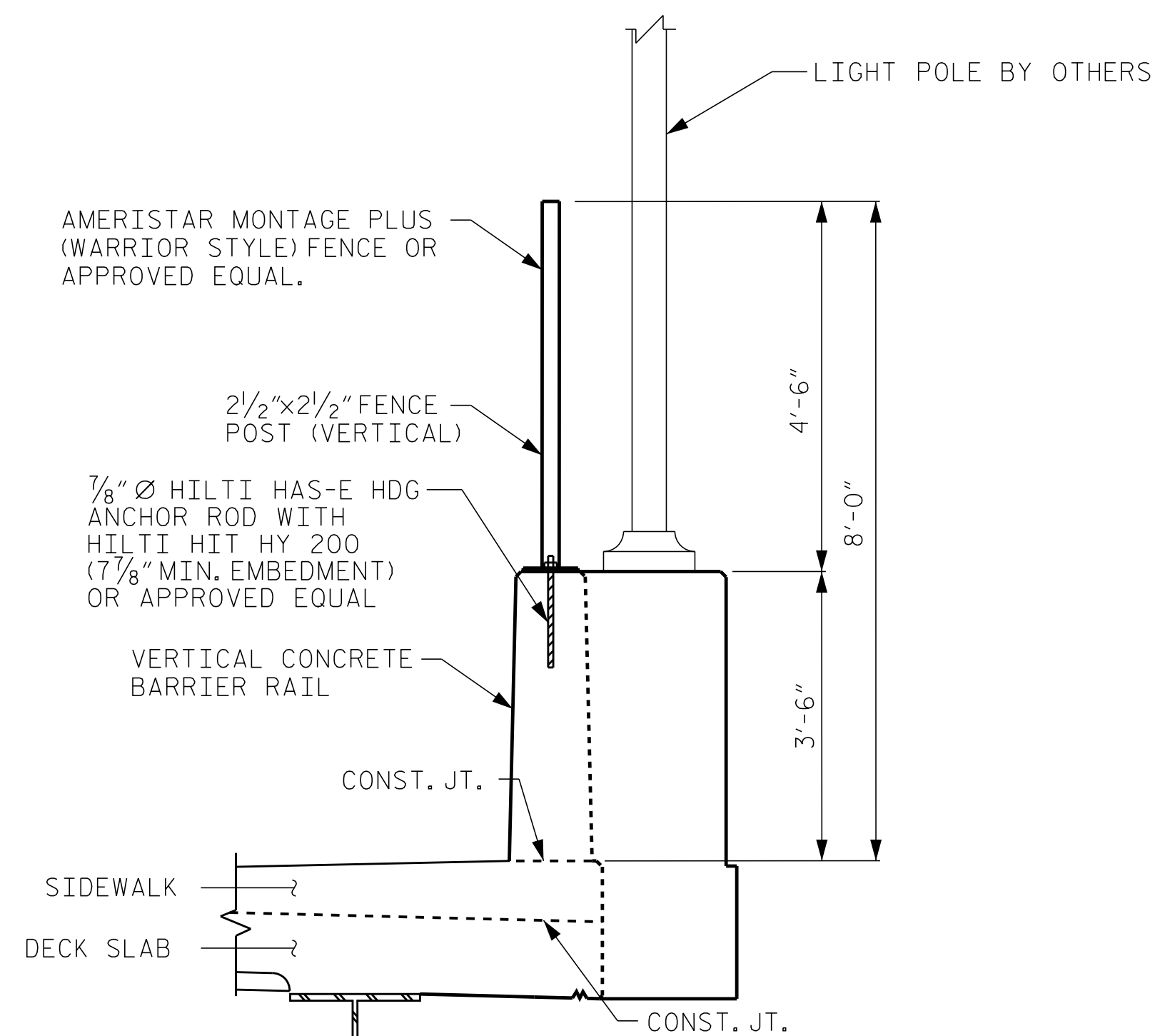
ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : MAA 5/10	REV. 10/1/11 MAA/GM
CHECKED BY : GM 5/10	REV. 12/5/11 MAA/GM
	REV. 6/13 MAA/GM



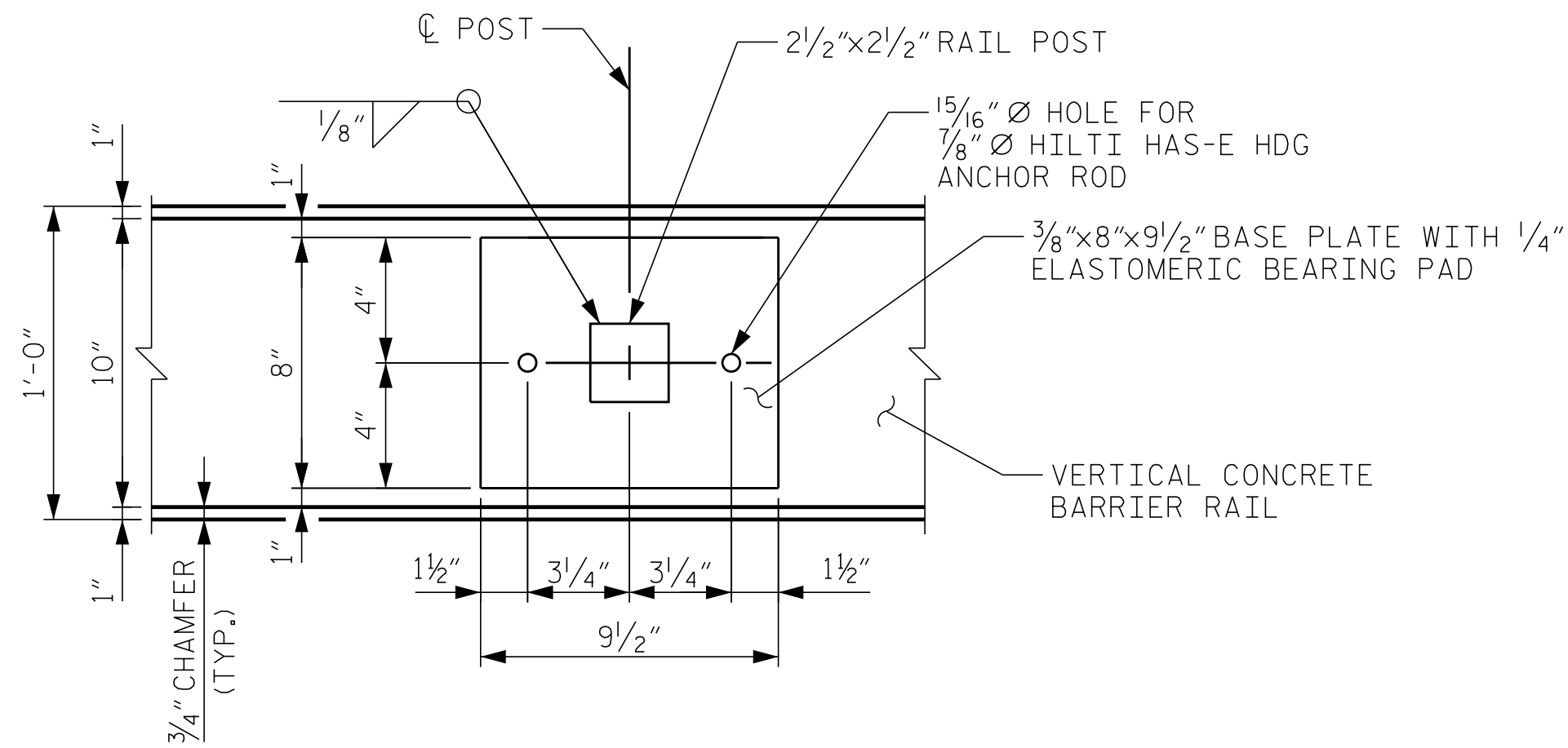
PARTIAL ELEVATION

- NOTES**
- ORNAMENTAL STEEL FENCE SHALL BE AMERISTAR MONTAGE PLUS (WARRIOR STYLE) OR APPROVED EQUAL.
 - ORNAMENTAL STEEL FENCE SHALL BE BLACK.
 - ALL BOLTS SHALL BE HILTI $\frac{7}{8}$ " \varnothing HAS-E HDG ANCHOR ROD WITH HILTI HIT HY 200 ($\frac{7}{8}$ " MIN. EMBEDMENT) OR APPROVED EQUAL.
 - POST SHALL BE SPACED TO BE A MINIMUM OF 1'-6" FROM BARRIER RAIL EXPANSION JOINT.
 - * GATE SHALL BE CENTERED ABOUT EACH LIGHT POLE. VERIFY POST SPACING WITH MANUFACTURER'S RECOMMENDATIONS.
 - GATE SHALL BE LOCKABLE.
 - FOR ORNAMENTAL FENCE DETAILS, SEE SPECIAL PROVISIONS.

PAY LENGTH = 356.7 LIN. FT.



SECTION THRU FENCE



BASE PLATE DETAIL

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-

Cecil L. Narron
 NORTH CAROLINA PROFESSIONAL ENGINEER
 SEAL 12186
 9/25/2014
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 Phone (919) 835-1494
 NC LICENSE # F-0102

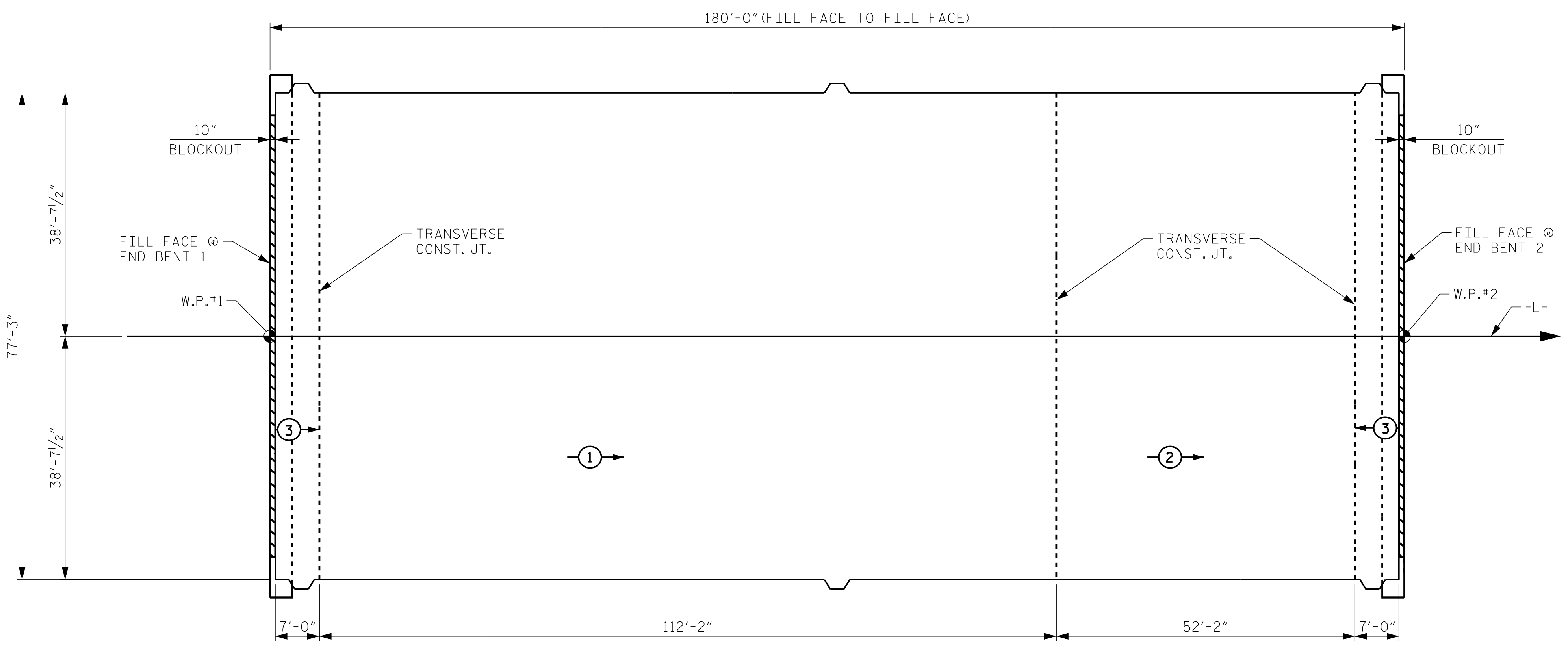
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUPERSTRUCTURE ORNAMENTAL FENCE DETAILS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					33

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DRAWN BY: J. I. KIMBLE DATE: 9/14
 CHECKED BY: J. C. WILSON DATE: 9/14
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 9/14

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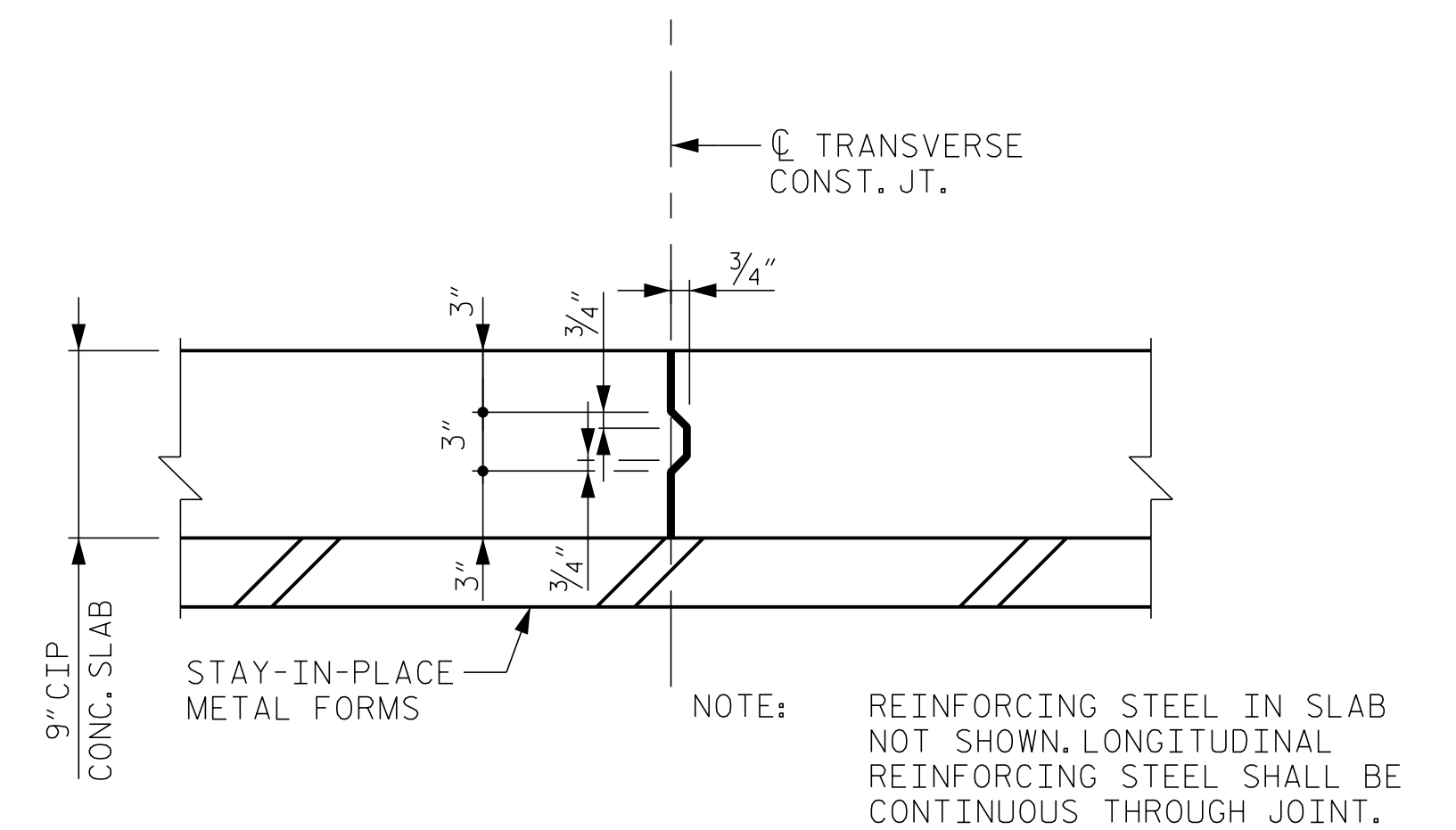
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POURING SEQUENCE

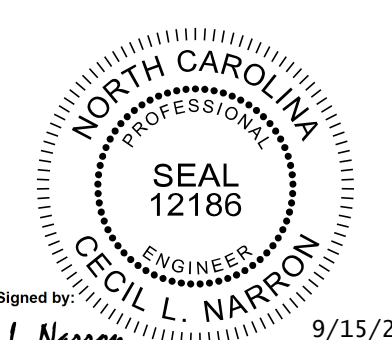
(SEE TRANSVERSE CONSTRUCTION JOINT DETAIL.)
 ← ⊙ → INDICATES POUR NUMBER AND DIRECTION

NOTE: THE UPPER PORTION OF THE END BENT CAPS SHALL BE Poured WITH THE SUPERSTRUCTURE.



TRANSVERSE CONSTRUCTION JOINT

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-



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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-19
SUPERSTRUCTURE POUR SEQUENCE						TOTAL SHEETS 33
REVISIONS						
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>9/14</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>9/14</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>9/14</u>

SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS

BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	2'-0"	1'-9"	2'-0"	1'-9"	2'-9"
#5	2'-6"	2'-2"	2'-6"	2'-2"	3'-5"
#6	3'-0"	2'-7"	3'-10"	2'-7"	4'-4"
#7	5'-3"	3'-6"			
#8	6'-10"	4'-7"			

GROOVING BRIDGE FLOORS

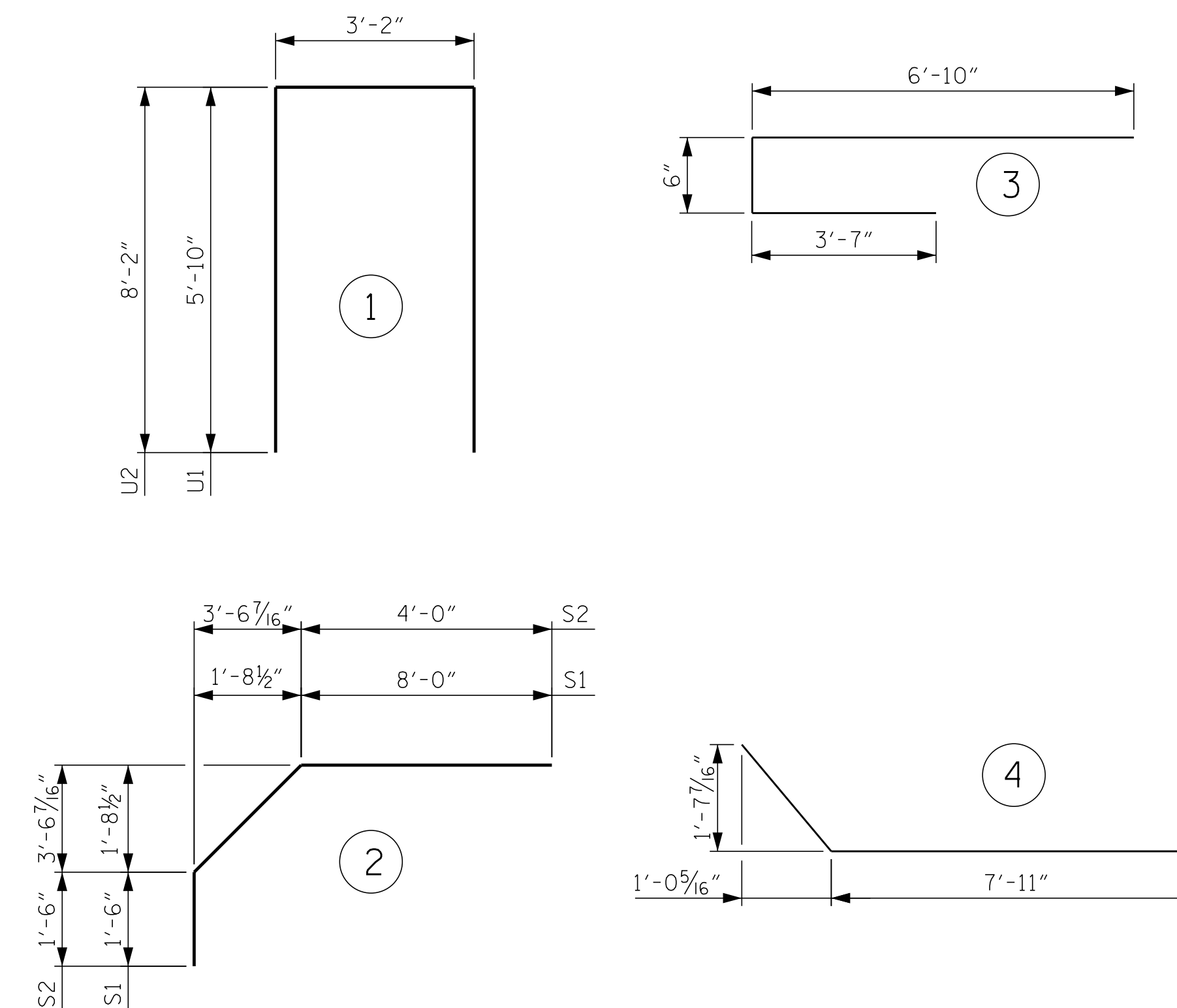
APPROACH SLABS	2,700 SQ.FT.
BRIDGE DECK	9,630 SQ.FT.
TOTAL	12,330 SQ.FT.

BILL OF MATERIAL SUPERSTRUCTURE

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
*A1	714	5	STR	39'-9"	29,602
A2	714	5	STR	39'-7"	29,478
*B1	208	4	STR	29'-1"	4,041
*B2	206	7	STR	36'-0"	15,158
B3	368	5	STR	46'-2"	17,720
P1	48	6	3	10'-11"	787
P2	24	6	4	9'-10"	354
P3	12	5	STR	3'-7"	45
*P4	12	5	STR	3'-0"	38
*P5	12	5	STR	2'-5"	30
K1	28	5	STR	42'-10"	1,251
K2	8	5	STR	4'-2"	35
S1	148	4	2	11'-11"	1,178
S2	148	4	2	10'-6"	1,038
U1	152	5	1	14'-10"	2,352
U2	16	5	1	19'-6"	325

* = EPOXY COATED REINFORCING STEEL

BAR TYPES

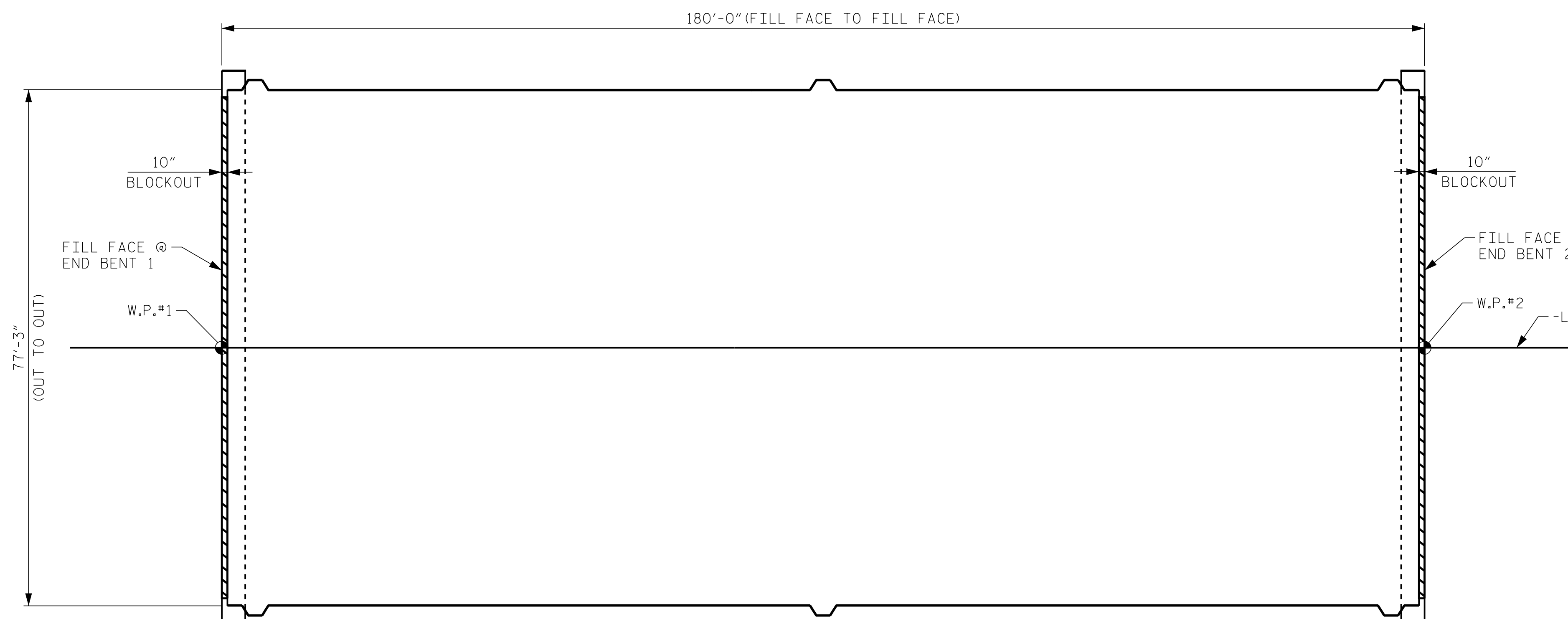


ALL BAR DIMENSIONS ARE OUT TO OUT

SUPERSTRUCTURE BILL OF MATERIAL

	CLASS AA CONCRETE (CU.YDS.)	REINFORCING STEEL (LBS.)	EPOXY COATED REINFORCING STEEL (LBS.)
SPAN A		51,161	52,271
POUR #1	256.3		
POUR #2	119.0		
POUR #3	178.2		
TOTALS**	553.5	51,161	52,271

**QUANTITIES FOR BARRIER RAIL, SIDEWALK, & MEDIAN ARE NOT INCLUDED



LAYOUT FOR COMPUTING AREA REINFORCED CONCRETE DECK SLAB (SQ. FT. = 13,932)

NOTE: THE COST OF THE UPPER PORTION OF THE INTEGRAL END BENTS ABOVE THE CONSTRUCTION JOINT SHALL BE INCLUDED IN THE UNIT PRICE FOR REINFORCED CONCRETE DECK SLAB.



DocuSigned by: Cecil L. Narron 9/15/2014

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Phone (919) 835-1494

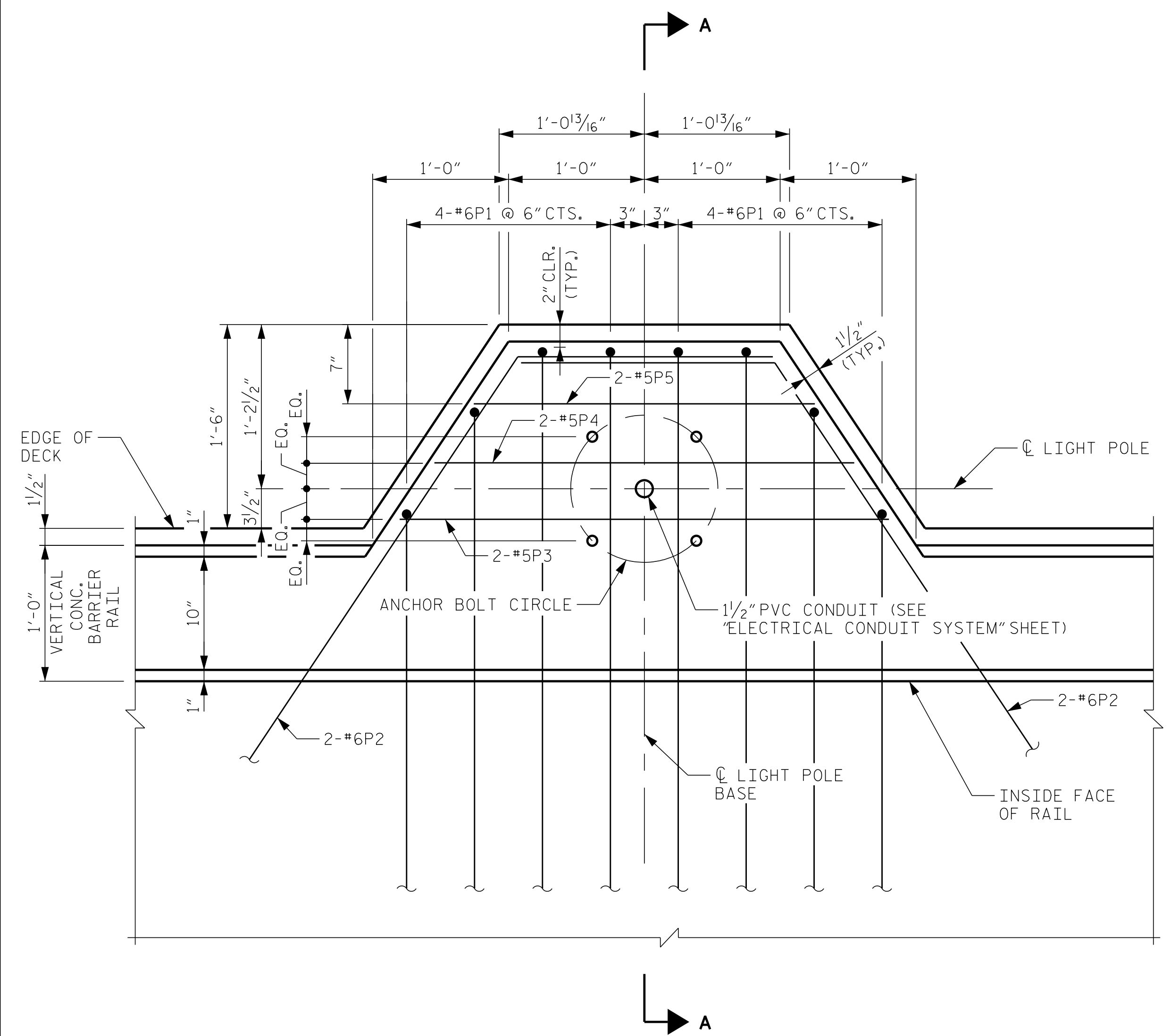
NC LICENSE # F-0102

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
SUPERSTRUCTURE
BILL OF MATERIAL

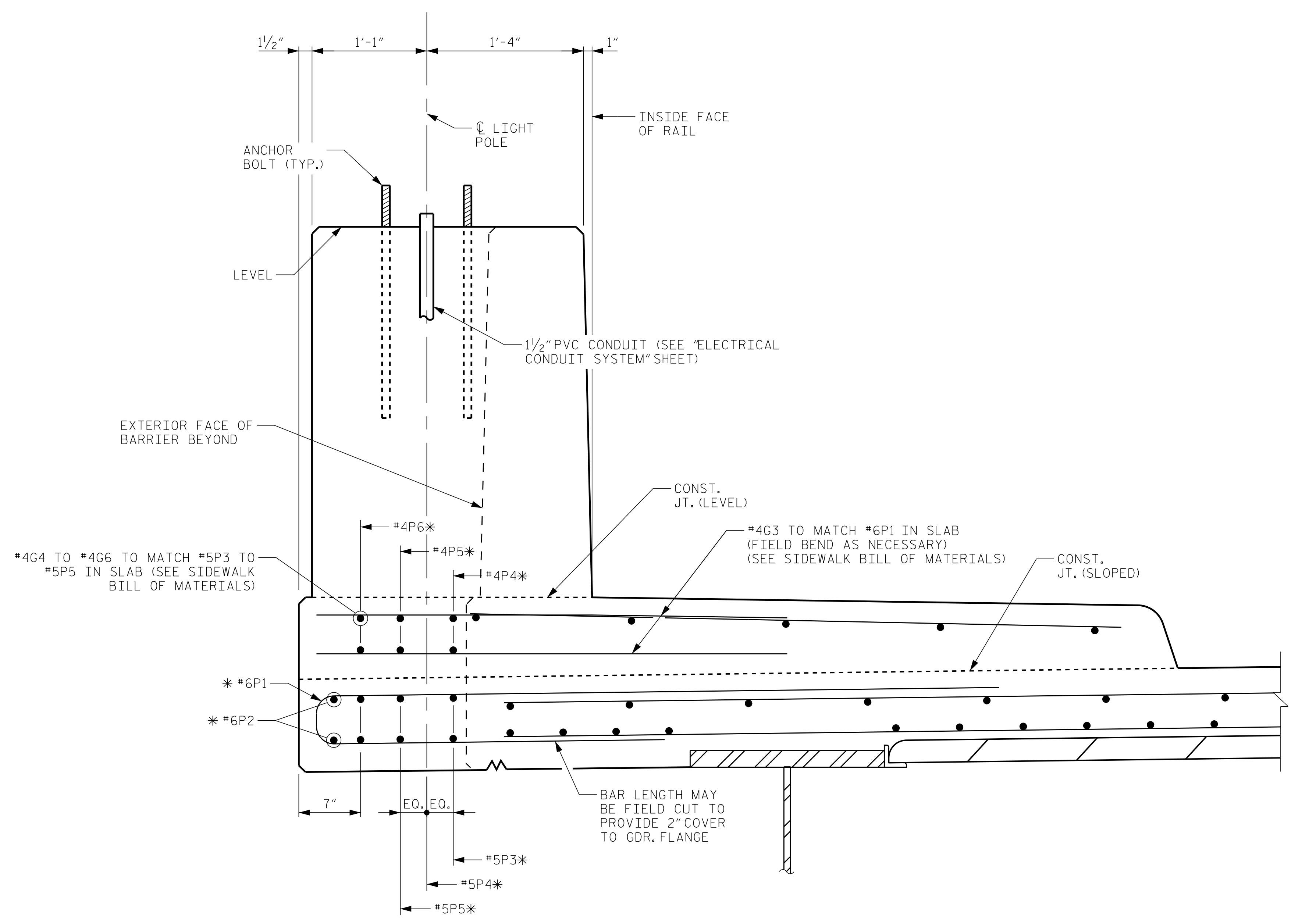
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-20
1			3			TOTAL SHEETS
2			4			33

STD. NO. BOM1

ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : JMB 5/87	REV. 8/16/99 RWW/LES
CHECKED BY : SJD 9/87	REV. 5/1/06 TLA/GM
	REV. 10/11/11 MAA/GM



LIGHT POLE BASE PLAN



SECTION A-A

NOTES

- TYPICAL DECK, SIDEWALK, AND VERTICAL CONCRETE BARRIER RAIL REINFORCING NOT SHOWN FOR CLARITY.
- CONTRACTOR SHALL COORDINATE WITH THE CITY TO DETERMINE LIGHT POLE ANCHOR BOLT CONFIGURATION REQUIRED. SUBMIT LIGHT POLE SHOP DRAWINGS SHOWING ANCHOR BOLT CONFIGURATION AND LIGHT POLE DETAILS TO ENGINEER FOR APPROVAL.
- * FOR "P" BARS IN LIGHT POLE BASE, SEE SUPERSTRUCTURE BILL OF MATERIALS.

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 1 OF 2



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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE LIGHT POLE DETAILS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-21
					TOTAL SHEETS
					33

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DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>9/14</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>9/14</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>9/14</u>

NOTES

ANCHOR BOLT DIAMETER: PER LIGHT POLE MANUFACTURER

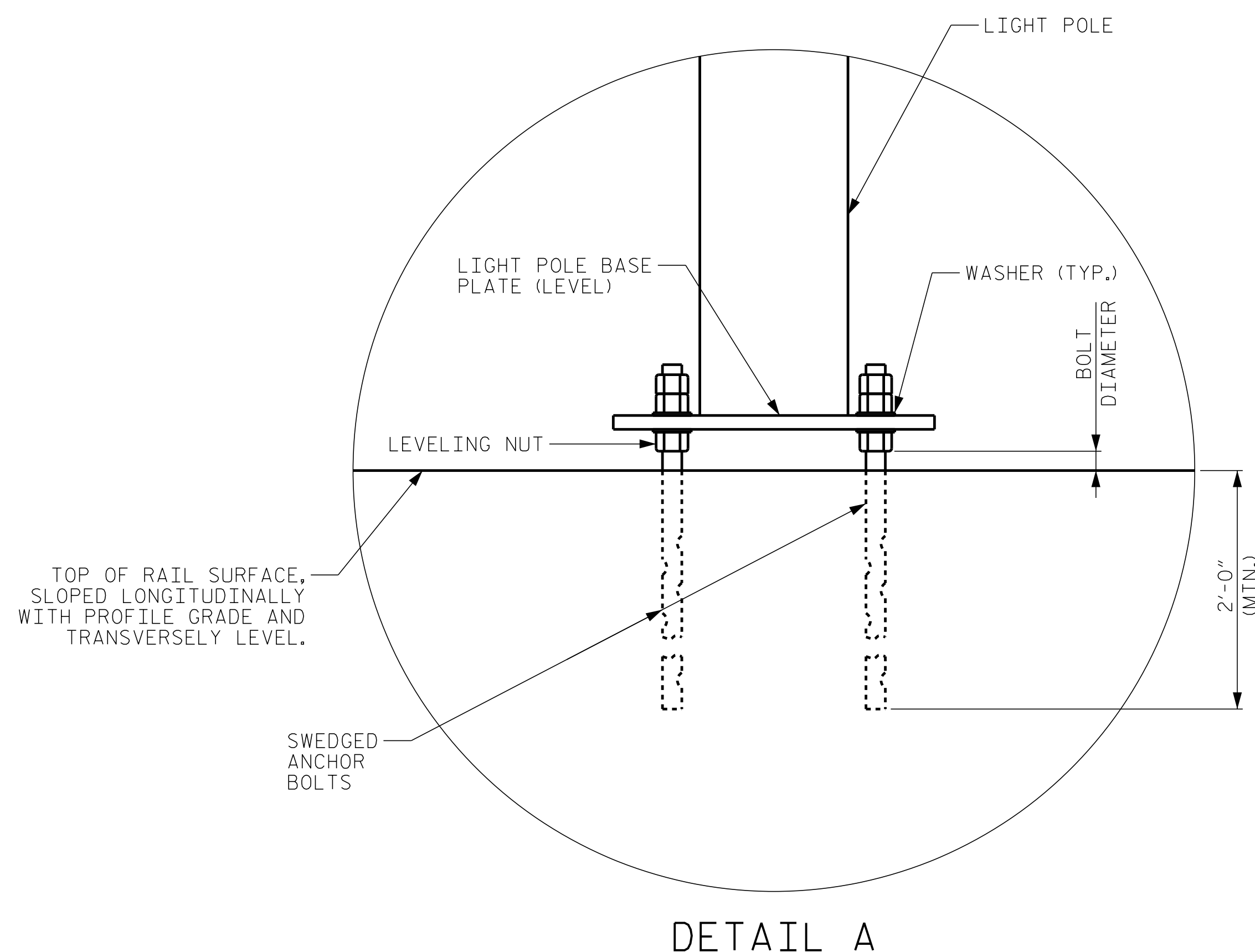
ANCHOR BOLTS: ASTM F1554 GRADE 55.
 NUTS: ASTM A563 GRADE A, HEAVY-HEX.
 WASHERS: ASTM F436 TYPE 1.
 ALL NUTS, BOLTS, AND WASHERS SHALL BE GALVANIZED BY ASTM F2329.

CONTRACTOR SHALL COORDINATE WITH THE CITY TO DETERMINE LIGHT POLE ANCHOR BOLT CONFIGURATION REQUIRED. SUBMIT LIGHT POLE SHOP DRAWINGS SHOWING ANCHOR BOLT CONFIGURATION AND LIGHT POLE DETAILS TO ENGINEER FOR APPROVAL.

ANCHOR BOLTS MUST BE INSTALLED PLUMB.

FOR CONDUIT, PULL BOX, AND EXPANSION/DEFLECTION FITTING DETAILS, SEE "ELECTRICAL CONDUIT SYSTEM DETAIL" SHEETS.

THE COST OF ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE INCIDENTAL TO THE PAY ITEM FOR VERTICAL CONCRETE BARRIER RAIL.



PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
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SHEET 2 OF 2



DocuSigned by:
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 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 LIGHT POLE
 DETAILS

REVISIONS

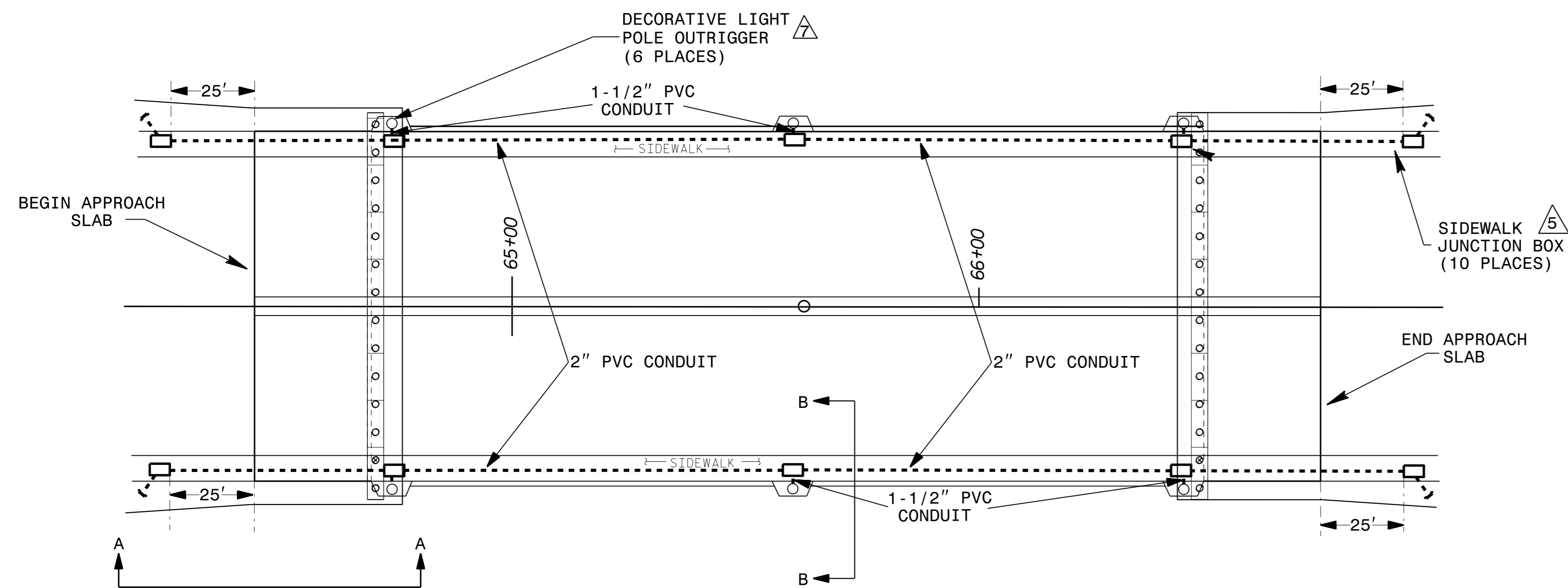
NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S-22
2			4			TOTAL SHEETS
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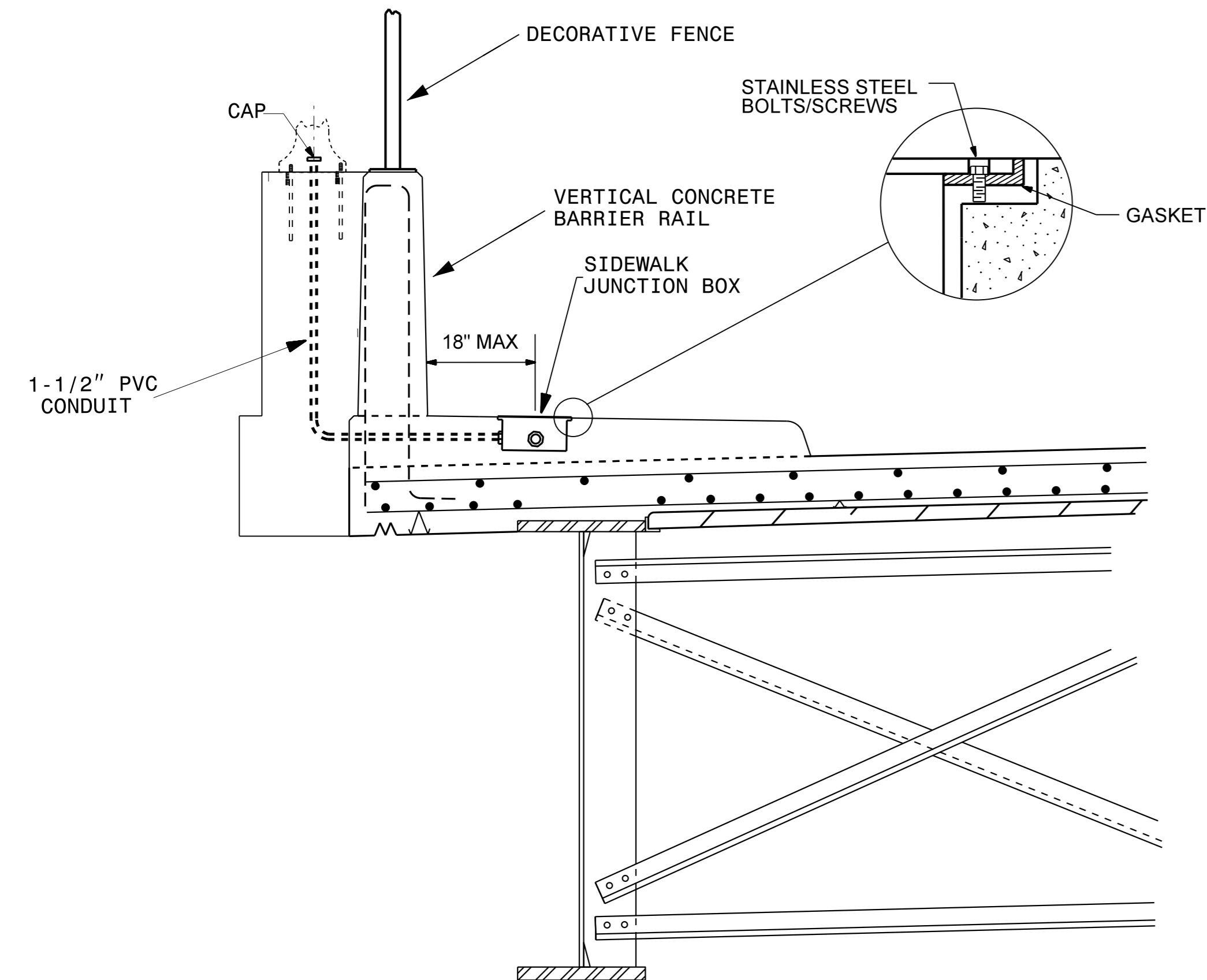
DRAWN BY: J. I. KIMBLE DATE: 9/14
 CHECKED BY: J. C. WILSON DATE: 9/14
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 9/14

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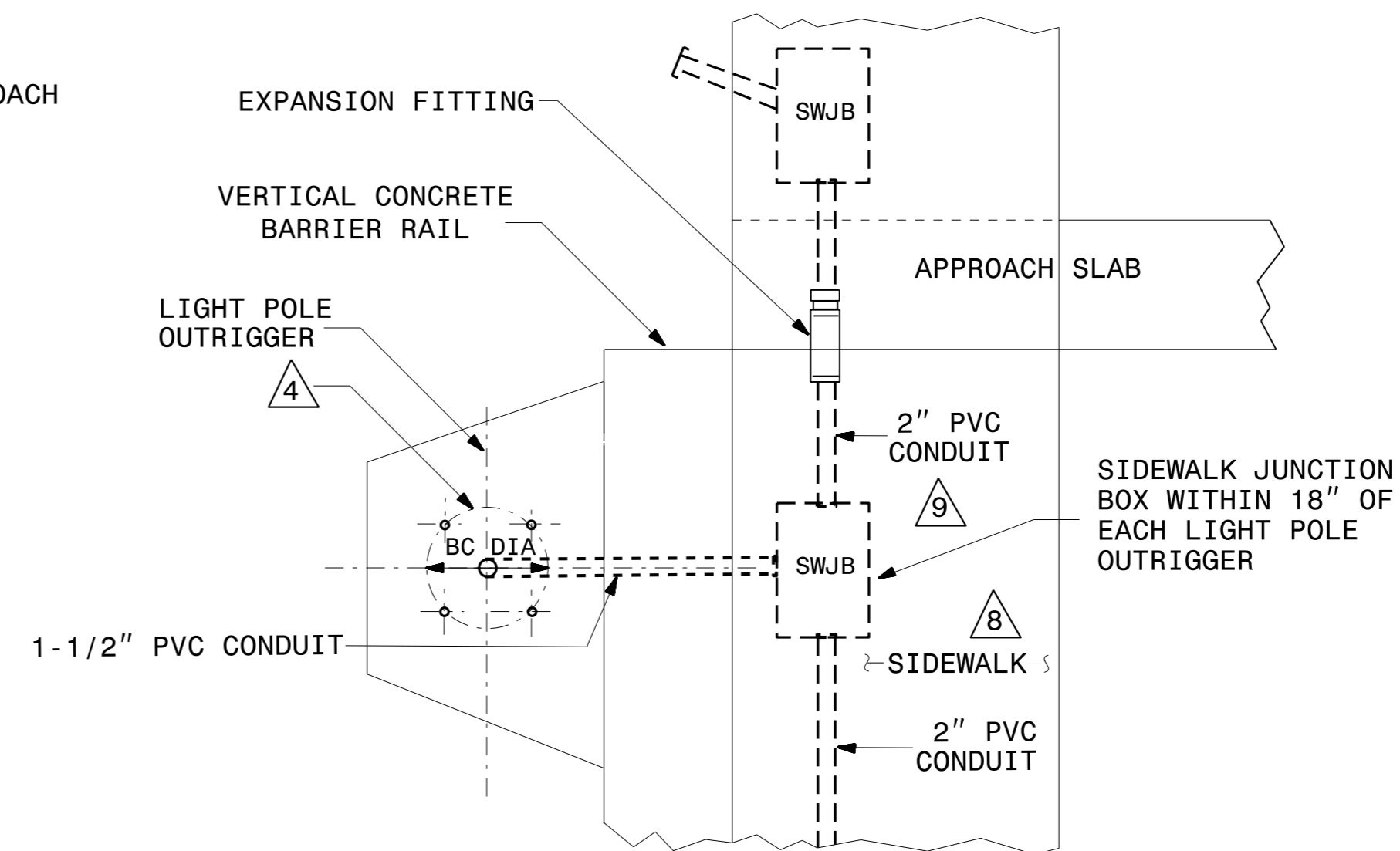
USE FOR LIGHTING CONSTRUCTION ONLY



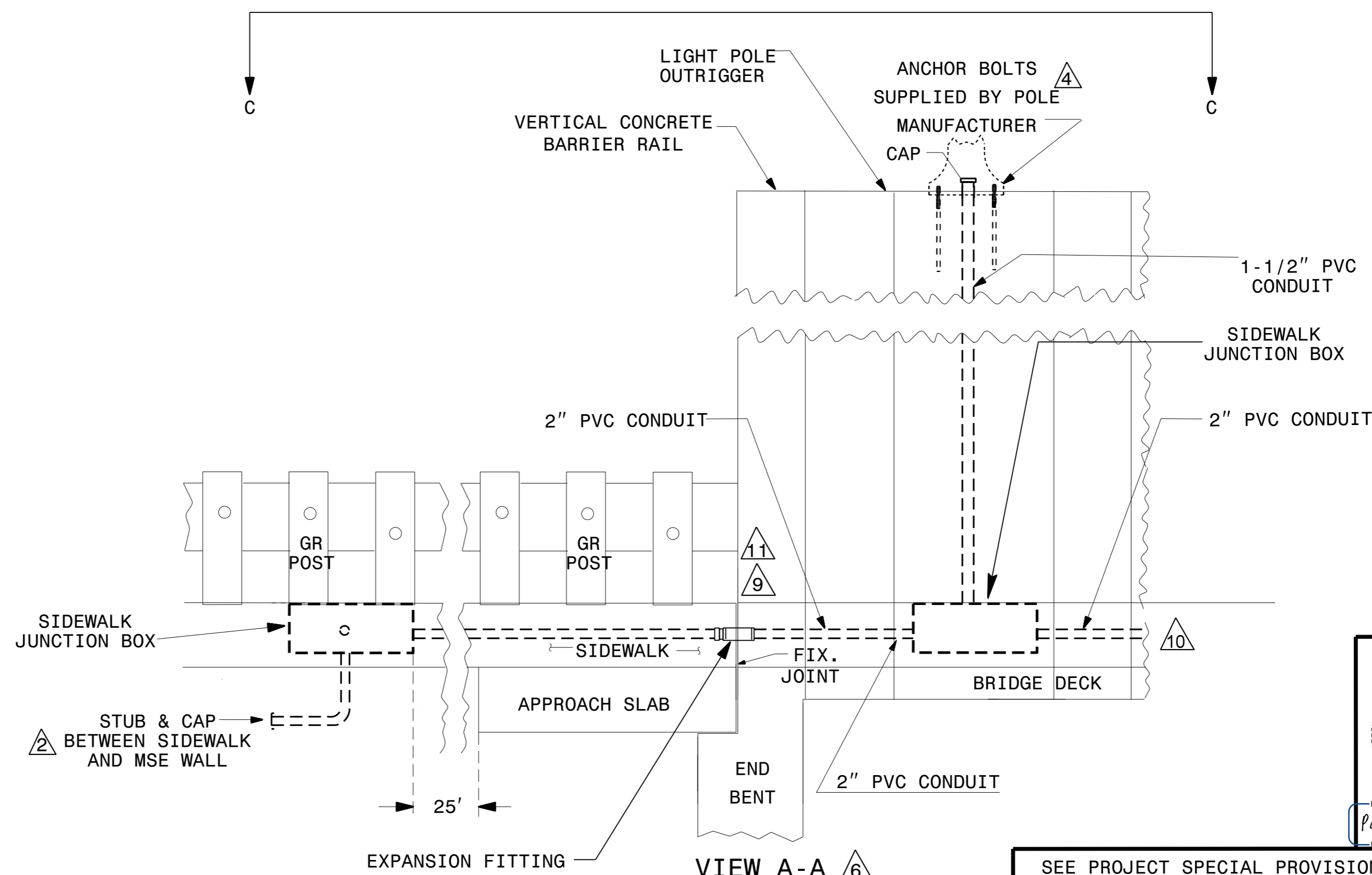
CONDUIT SYSTEM LAYOUT
NTS



VIEW B-B



VIEW C-C



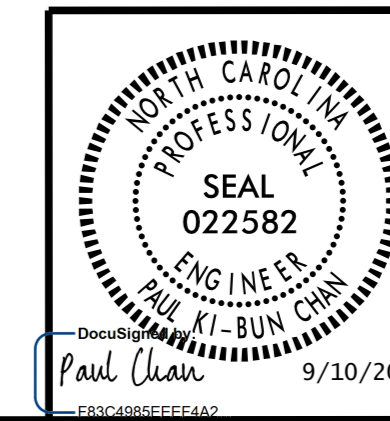
VIEW A-A
FENCE, ON AND OFF THE BRIDGE,
NOT SHOWN FOR CLARITY

NOTES

1. COORDINATE POWER SERVICE WITH GREENVILLE UTILITIES.
2. COORDINATE CONNECTION OF CONDUIT WITH OTHERS.
3. SEE STRUCTURE PLANS FOR LOCATION OF LIGHT POLE OUTRIGGER.
4. CONTACT GREENVILLE UTILITIES FOR ANCHOR BOLT PATTERN FOR DECORATIVE POLE.
5. SIDEWALK JUNCTION BOX, SIZE 18"X12"X6", CAST IRON, WATER TIGHT
6. MIRROR DESIGN AT FOUR CORNERS OF STRUCTURE
7. LIGHT POLE OUTRIGGER SHOWN ON THIS SHEET IS FOR SCHEMATIC PURPOSES ONLY. SEE STRUCTURES PLANS FOR LIGHT POLE OUTRIGGER DESIGN.
8. REFER TO STRUCTURE PLANS FOR REBAR IN SIDEWALK.
9. PROVIDE EXPANSION FITTINGS WHERE APPROACH SLAB MEETS INTEGRAL END BENT.
10. MAINTAIN A MINIMUM CONCRETE ENCASED COVER OF 2.5" FOR CONDUIT
11. PROVIDE SUFFICIENT COVER TO ENSURE CONDUIT WILL NOT BE DAMAGED WHEN THE SIDEWALK IS SAW CUT.

PROJECT NO. U-3315
PITT COUNTY
STATION: 65+56.61 -L-
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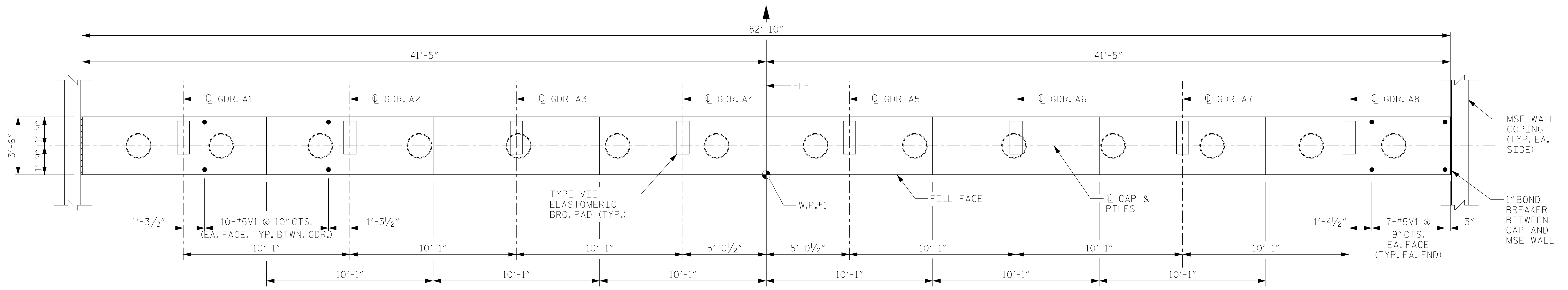
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
DESIGN SERVICES - LIGHTING & ELECTRICAL
ELECTRICAL CONDUIT SYSTEM
10TH STREET BRIDGE
IN GREENVILLE



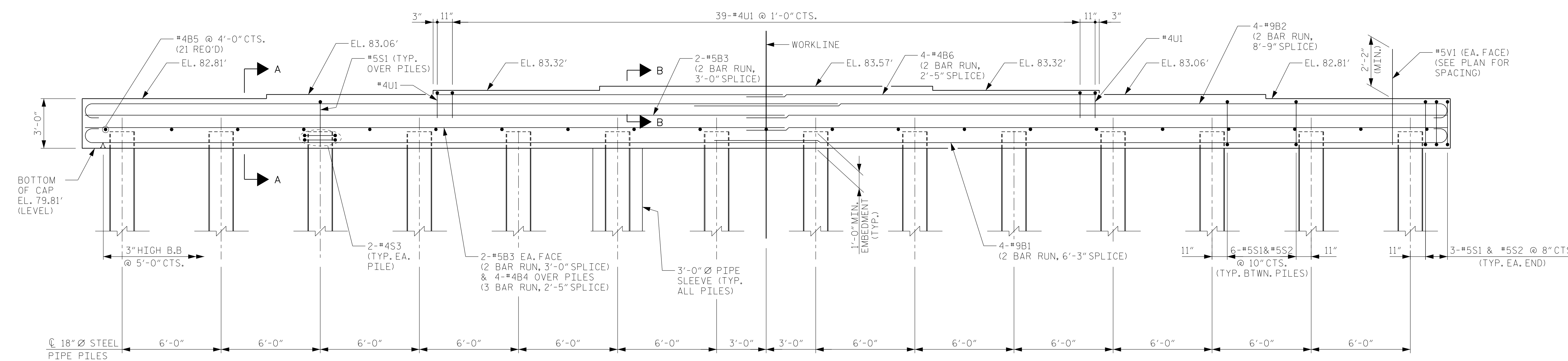
DRAWN BY: A. BROWN DATE: _____
CHECKED BY: _____ DATE: _____

SEE PROJECT SPECIAL PROVISIONS TITLED "ELECTRICAL CONDUIT SYSTEM" FOR MATERIALS, CONSTRUCTION METHOD AND PAYMENT.

REVISIONS						SHEET NO. S23
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 33
2			4			



PLAN

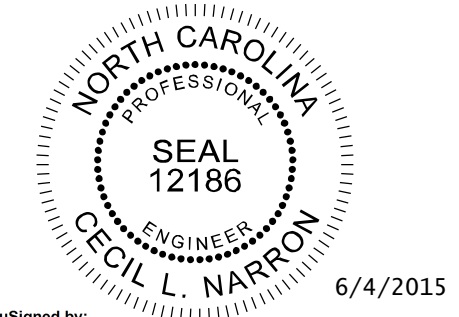


ELEVATION

NOTES

- FOR PILE SPLICE DETAILS, SEE "END BENT 1 (INTEGRAL)" SHEET 3 OF 3.
- SEE SUPERSTRUCTURE SHEETS FOR UPPER PORTION OF INTEGRAL END BENT DETAILS.
- THE TOP SURFACE OF THE END BENT CAP, EXCEPT THE BEARING AREA, SHALL BE RAKED TO A DEPTH OF 1/4".
- FOR PIPE SLEEVE DETAIL, SEE "GENERAL DRAWING" SHEET 2 OF 3.

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 1 OF 3

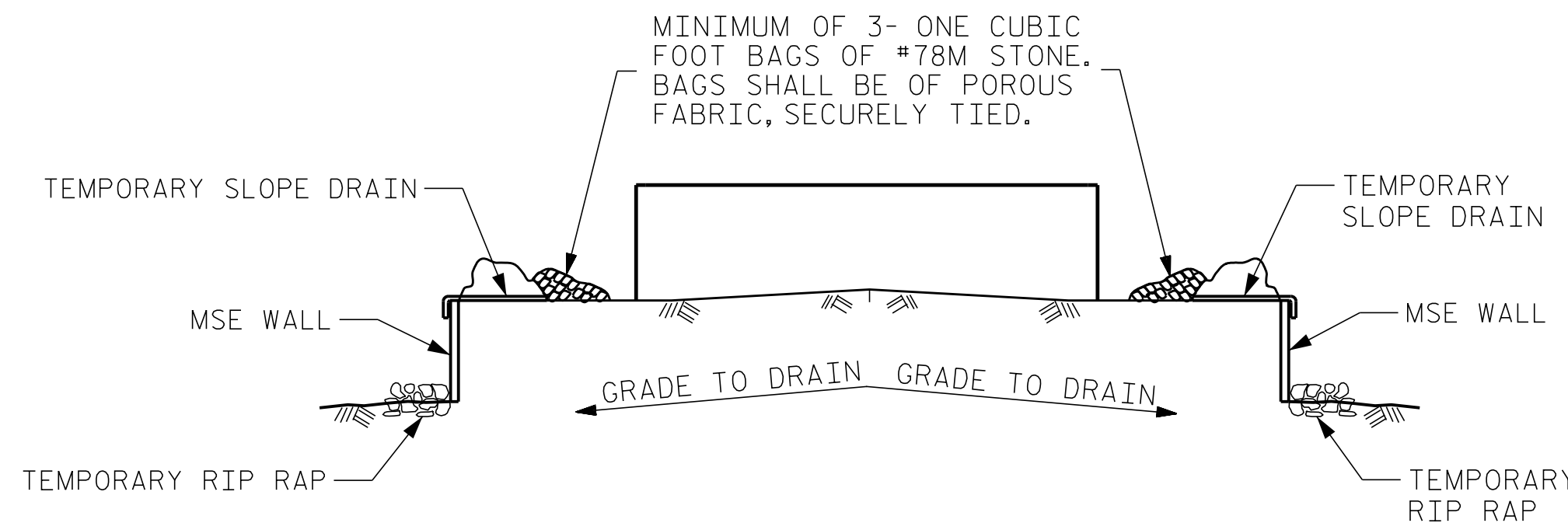


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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-24
SUBSTRUCTURE END BENT 1 (INTEGRAL)						
REVISIONS						TOTAL SHEETS 33
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

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DRAWN BY: J. I. KIMBLE DATE: 5/15
 CHECKED BY: J. C. WILSON DATE: 5/15
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 5/15



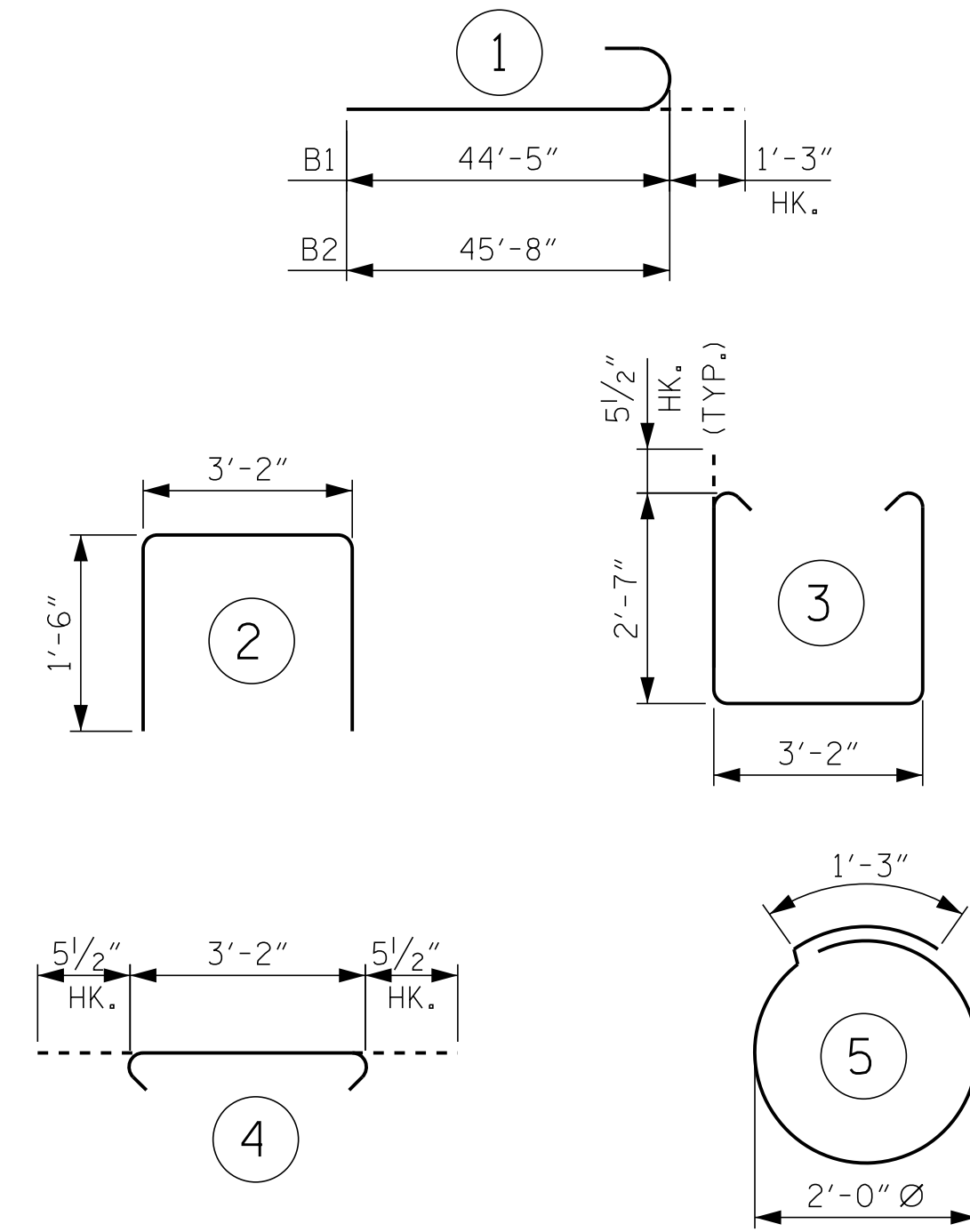
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

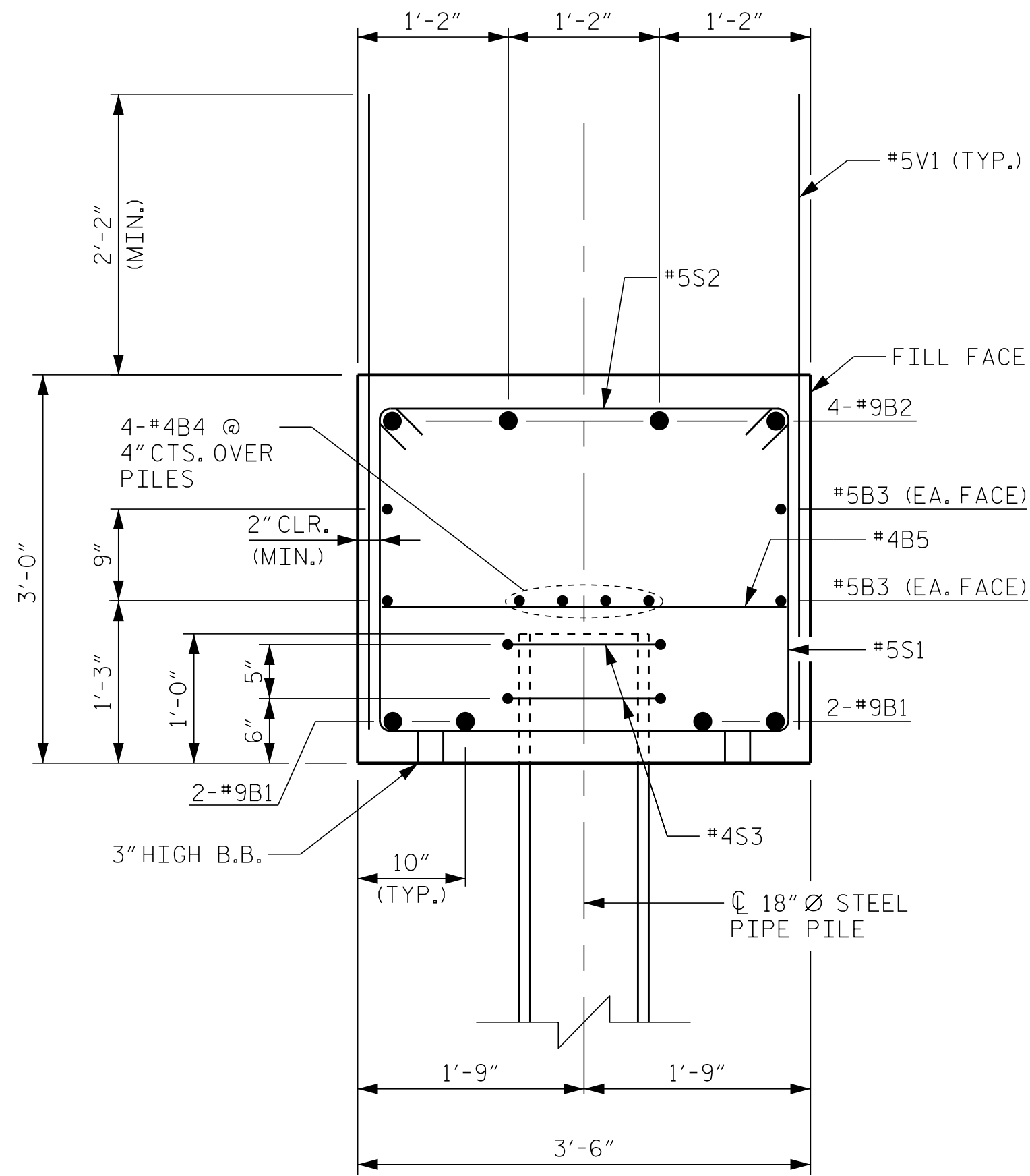
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT

BAR TYPES						BILL OF MATERIAL					
END BENT 1											
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT						
B1	8	9	1	45'-8"	1,242						
B2	8	9	1	46'-11"	1,276						
B3	8	5	STR	42'-9"	357						
B4	12	4	STR	29'-2"	234						
B5	21	4	STR	3'-2"	44						
B6	8	4	STR	21'-3"	114						
S1	98	5	3	9'-3"	945						
S2	84	5	4	4'-1"	358						
S3	28	4	5	7'-7"	142						
U1	41	4	2	6'-2"	169						
V1	168	5	STR	5'-9"	1,008						
REINFORCING STEEL					5,889 LBS.						
CLASS A CONCRETE					36.2 C. Y.						
18" Ø STEEL PIPE PILES: NO. 14					1,470 LIN. FT.						
PIPE PILE PLATES:					NO. 14						
PILE REDRIVES:					NO. 17						

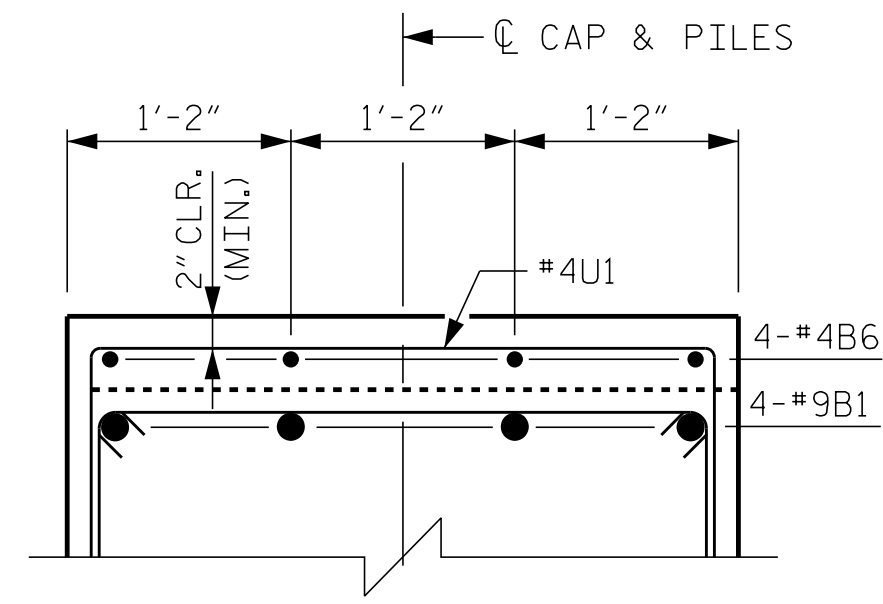


ALL BAR DIMENSIONS ARE OUT TO OUT



NOTE:
PIPE SLEEVE AND CONCRETE PLUG AND REINF.
NOT SHOWN FOR CLARITY.

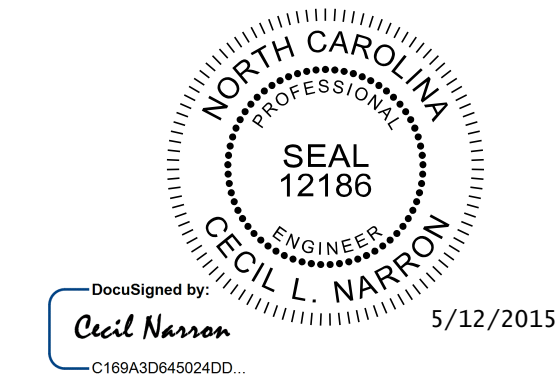
SECTION A-A



SECTION B-B

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-

SHEET 2 OF 3



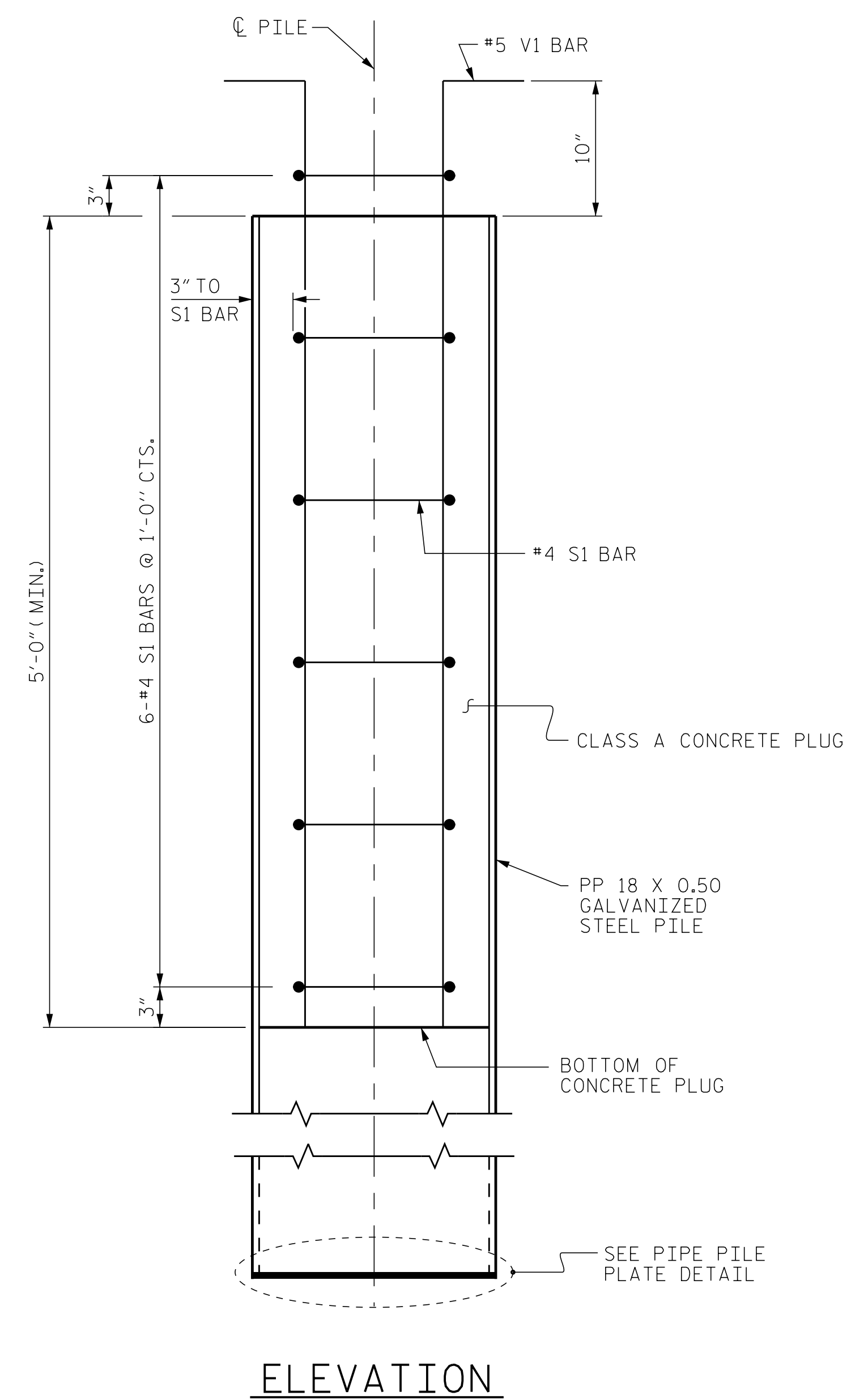
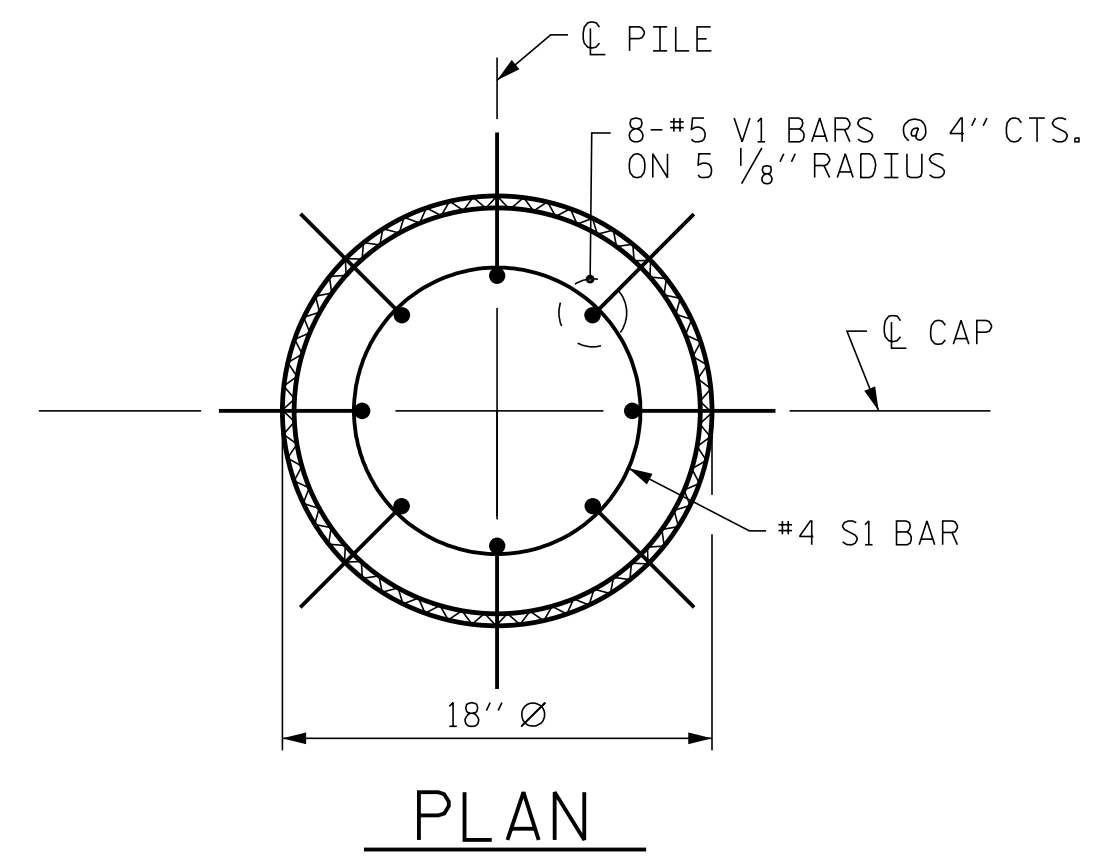
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT 1
 (INTEGRAL)

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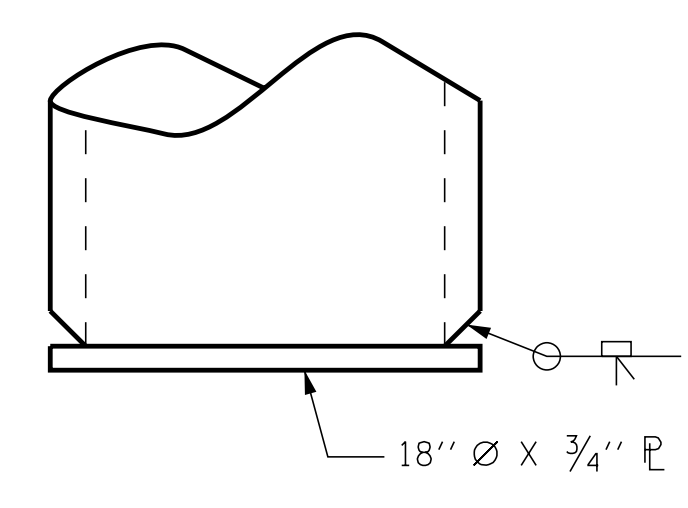
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-25
1			3			TOTAL SHEETS
2			4			33

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>5/15</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>5/15</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>5/15</u>

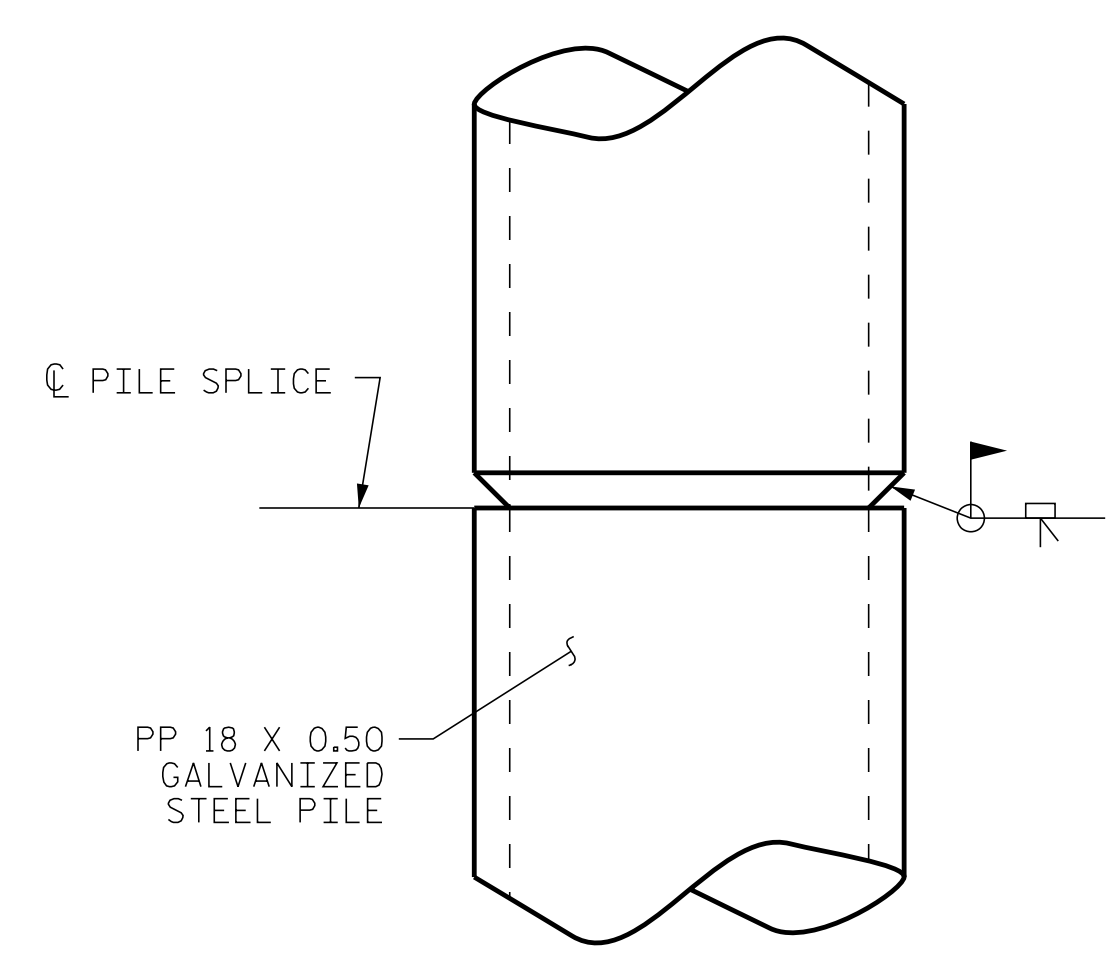
K:\BID1-Structures\Bridges\NA\01036175_U3315-10th.St.-Greenville.Cad\egm\SS2.dgn 5/12/2015



PP 18 X 0.50 GALVANIZED STEEL PILE



PIPE PILE PLATE DETAIL



PIPE PILE SPLICE DETAIL

NOTES

PIPE PILES SHALL BE IN ACCORDANCE WITH SECTION 1084 OF THE STANDARD SPECIFICATIONS.

GALVANIZE STEEL PIPE PILES IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS UNLESS METALLIZING IS REQUIRED. GALVANIZING OR METALLIZING PIPE PILE PLATES IS NOT REQUIRED.

PIPE PILE PLATES, IF REQUIRED, SHALL BE IN ACCORDANCE WITH SECTION 450 OF THE STANDARD SPECIFICATIONS.

REMOVE AND REPLACE OR REPAIR TO THE SATISFACTION OF THE ENGINEER PILES THAT ARE DAMAGED, DEFORMED OR COLLAPSED DURING INSTALLATION OR DRIVING.

PILE SPLICES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AWS D1.1.

FOR CLOSED END PIPE PILES, REMOVE ALL SOIL AND WATER FROM INSIDE THE PILES JUST PRIOR TO PLACING REINFORCING STEEL AND CONCRETE FOR THE CONCRETE PLUG.

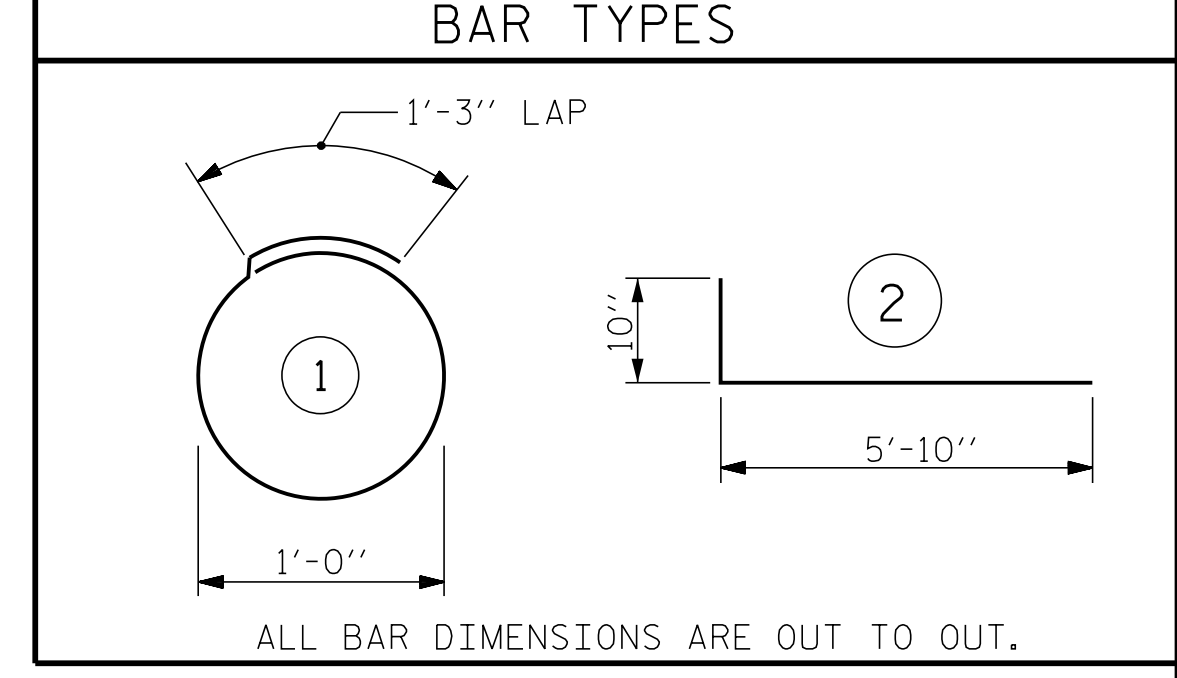
FORM THE CONCRETE PLUG SUCH THAT THE REINFORCING STEEL OR CONCRETE DOES NOT MOVE AND THE CLEARANCE FROM THE REINFORCING STEEL TO THE INSIDE OF THE PILE IS MAINTAINED AFTER CONCRETE PLACEMENT. DO NOT PLACE CONCRETE IN THE BENT CAP UNTIL THE CONCRETE PLUG HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.

THE REINFORCING STEEL, CLASS A CONCRETE, AND GALVANIZING ARE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR PP 18 X 0.50 GALVANIZED STEEL PILES.

BILL OF MATERIAL FOR ONE PP 18 X 0.50 GALVANIZED STEEL PILE

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
S1	6	#4	1	4'-5"	18
V1	8	#5	2	6'-8"	56
REINFORCING STEEL =				74	LBS

CLASS A CONCRETE
5'-0" MINIMUM PLUG 0.3 CY



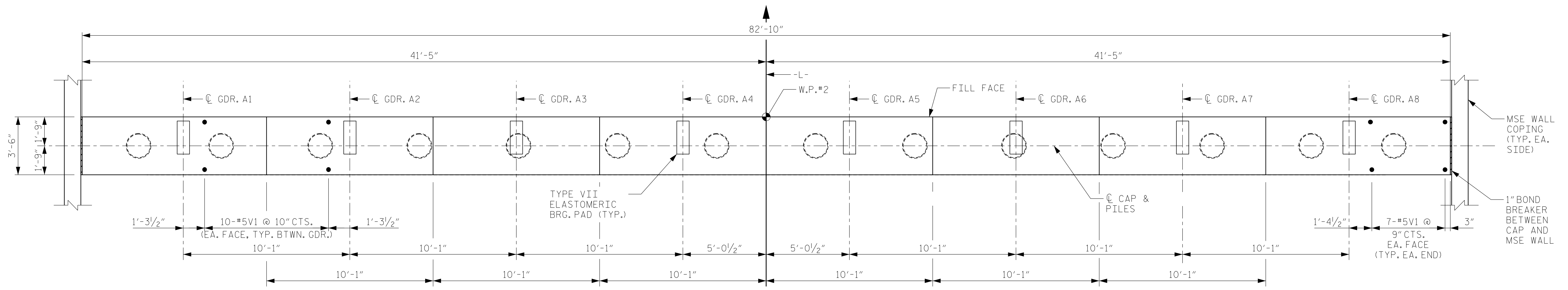
9/12/2014 K:\BID1-Structures\Bridges\NA\011036175-U3315-10th.St-Greenville\ConVegm\SS26.dgn

ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : RWW 1/01	REV. 10/1/05 LBG/TLA
CHECKED BY : LES 1/01	REV. 5/1/06R MAA/KMM
	REV. 10/1/11 MAA/GM

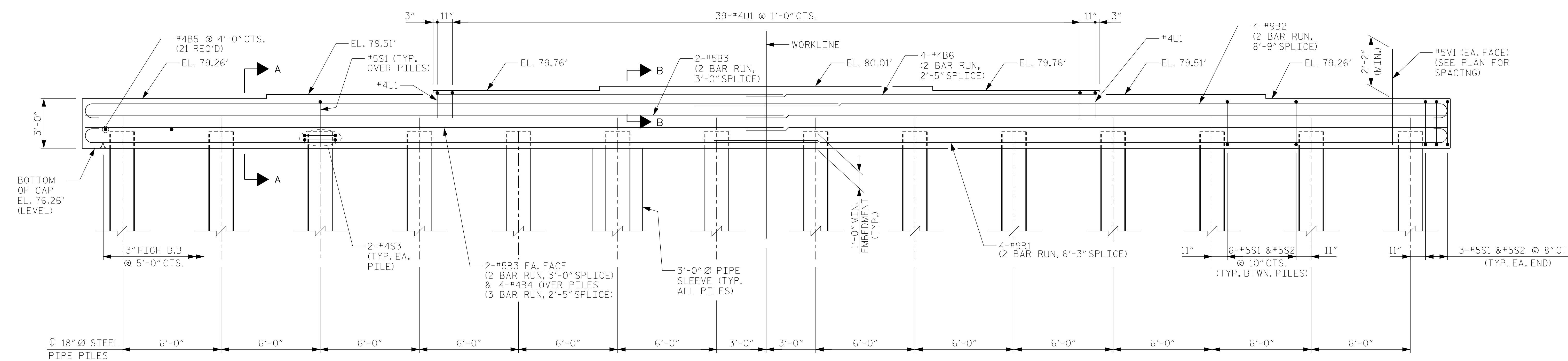
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PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE END BENT 1 (INTEGRAL) 18" STEEL PIPE PILE					
REVISIONS					SHEET NO. S-26
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 33



PLAN



ELEVATION

NOTES

- SEE NOTES ON "END BENT 1 (INTEGRAL)" SHEET 1 OF 2.
- FOR TEMPORARY DRAINAGE DETAILS SEE "END BENT 1 (INTEGRAL)" SHEET 2 OF 3.
- FOR 18" STEEL PILE DETAILS SEE "END BENT 1 (INTEGRAL)" SHEET 3 OF 3.

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 1 OF 2

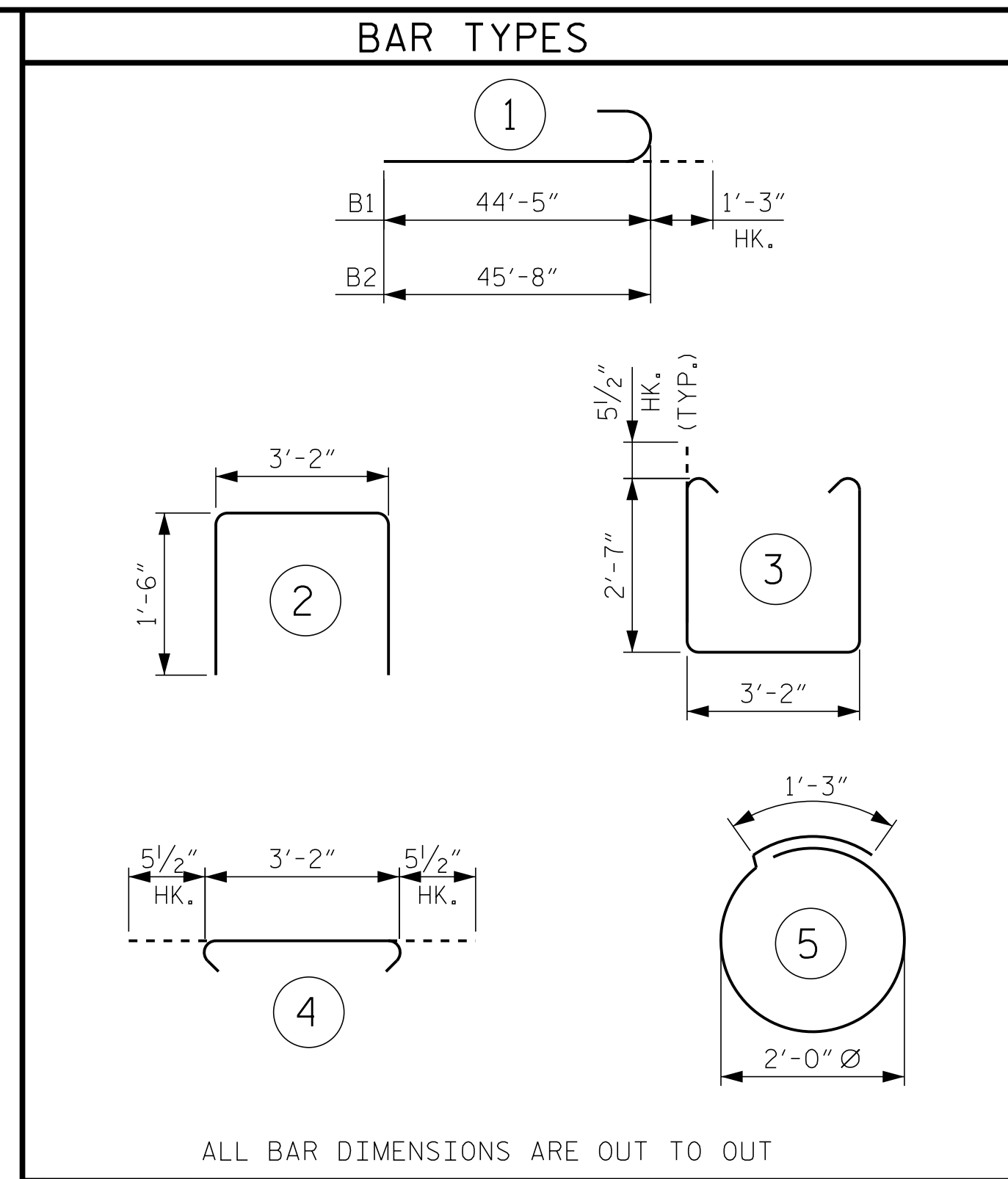


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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-27
SUBSTRUCTURE END BENT 2 (INTEGRAL)						
REVISIONS						TOTAL SHEETS 33
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

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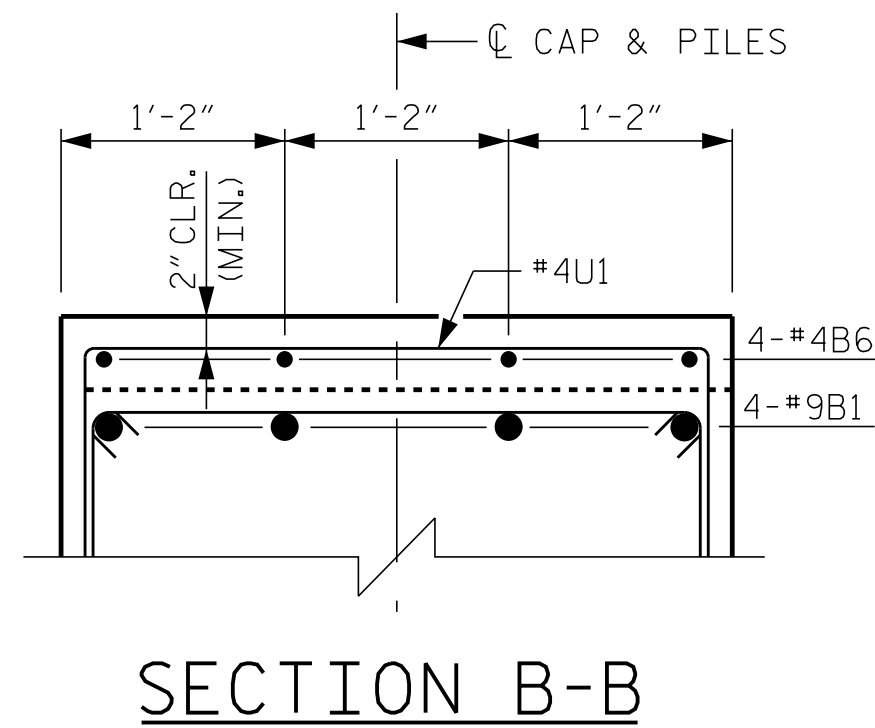
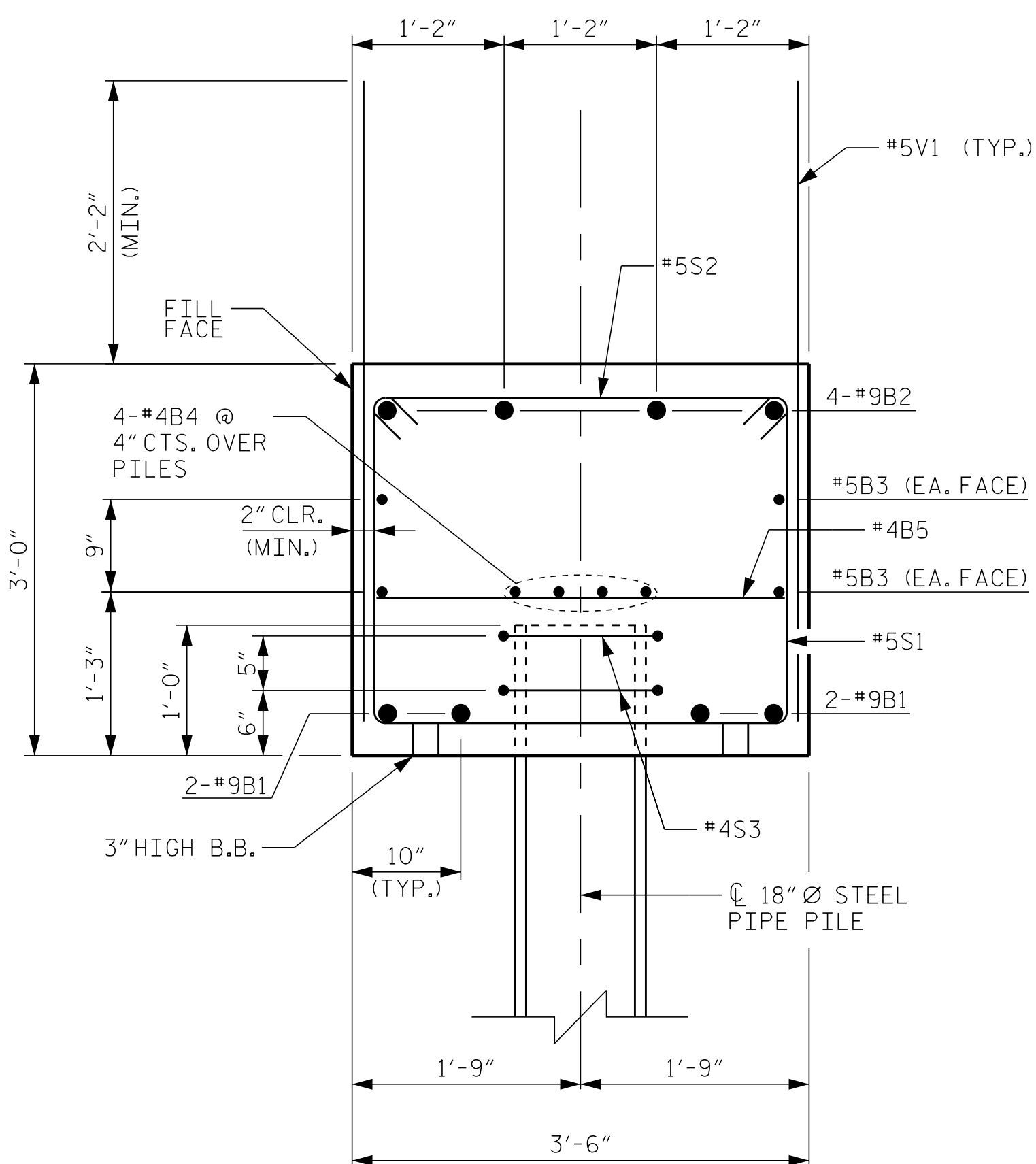
DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>5/15</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>5/15</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>5/15</u>



BILL OF MATERIAL

END BENT 2

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	9	1	45'-8"	1,242
B2	8	9	1	46'-11"	1,276
B3	8	5	STR	42'-9"	357
B4	12	4	STR	29'-2"	234
B5	21	4	STR	3'-2"	44
B6	8	4	STR	21'-3"	114
S1	98	5	3	9'-3"	945
S2	84	5	4	4'-1"	358
S3	28	4	5	7'-7"	142
U1	41	4	2	6'-2"	169
V1	168	5	STR	5'-9"	1,008
REINFORCING STEEL					5,889 LBS.
CLASS A CONCRETE					36.2 C. Y.
18" Ø STEEL PIPE PILES: NO. 14					1,330 LIN. FT.
PIPE PILE PLATES:					NO. 14
PILE REDRIVES:					NO. 17



NOTE:
PIPE SLEEVE AND CONCRETE PLUG AND REINF.
NOT SHOWN FOR CLARITY.

SECTION A-A

SECTION B-B

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 2 OF 2

DocuSigned by:
Cecil Narron
C169A3D64924DD... 5/12/2015

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SUBSTRUCTURE END BENT 2 (INTEGRAL)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-28
					TOTAL SHEETS 33

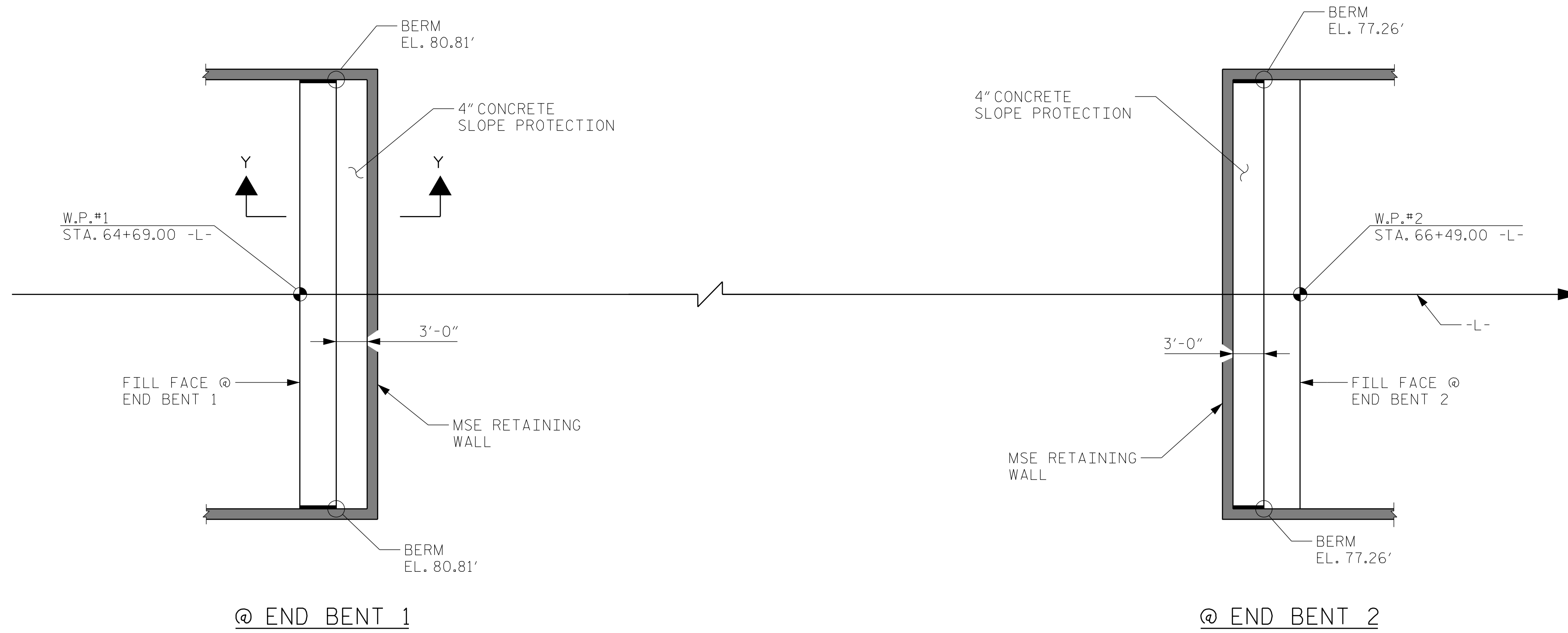
K:\BIDI_Structures\Bridges\NC\01036175_U3315-10th St., Greenville\CapVgn\S28.dgn 5/12/2015

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>5/15</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>5/15</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>5/15</u>

NOTES

SLOPE PROTECTION SHALL BE PLACED UNDER THE ENDS OF THE BRIDGE AS SHOWN IN THE DETAILS. STRAIGHT EDGING WILL NOT BE REQUIRED UNLESS, IN THE OPINION OF THE ENGINEER, VISUAL INSPECTION INDICATES A NEED FOR IT. MEASUREMENT AND PAYMENT SHALL BE AS PRESCRIBED IN SECTION 462 OF THE STANDARD SPECIFICATIONS. FOR BERM WIDTH, SEE GENERAL DRAWING.

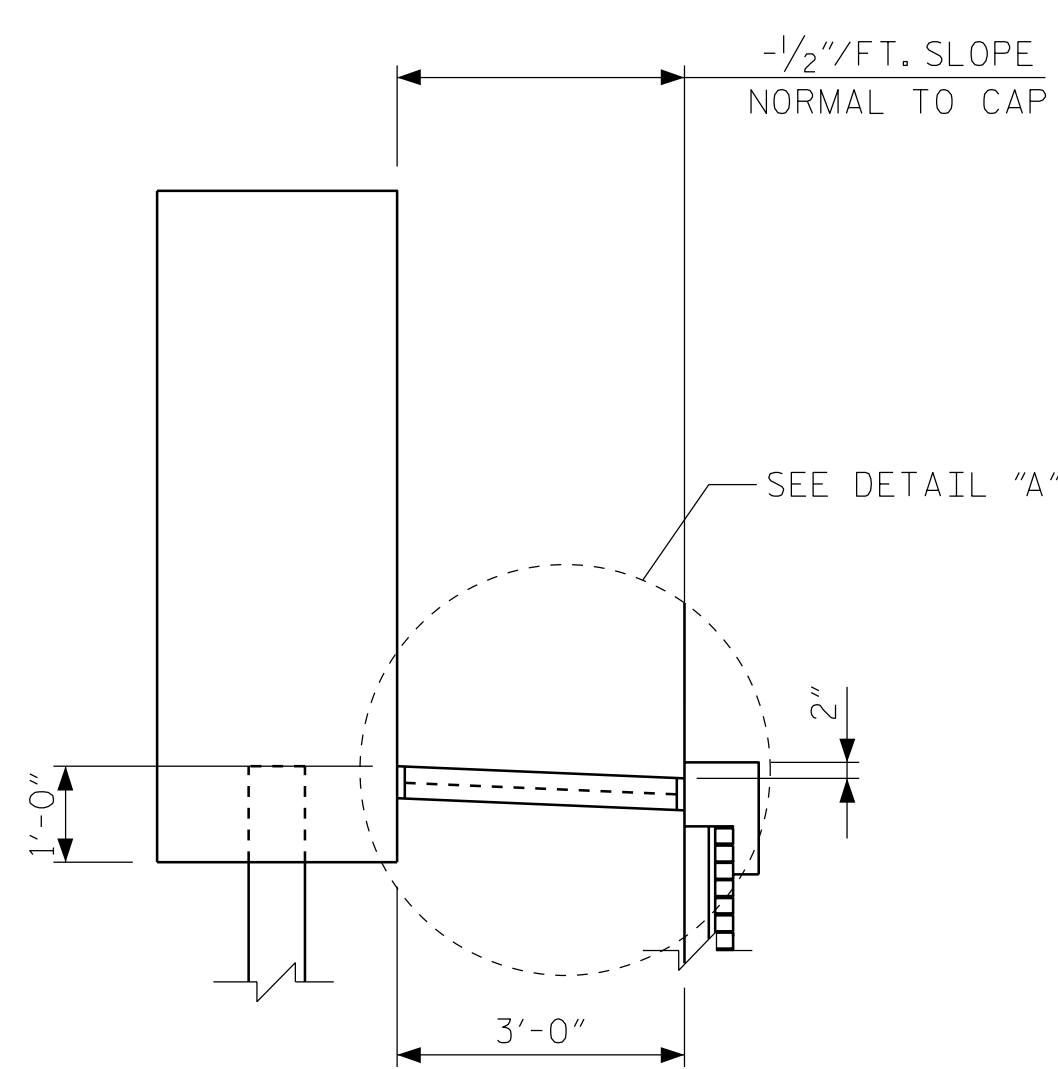
SLOPE PROTECTION SHALL CONSIST OF 4" POURED-IN-PLACE CONCRETE PAVING AS SHOWN IN THE DETAILS ON THIS SHEET. CONCRETE SHALL BE CLASS 'B'. THE CONCRETE SURFACE SHALL BE FLOATED WITH A WOODEN FLOAT AND FINISHED. WELDED WIRE FABRIC REINFORCING SHALL BE 6 X 6 - W1.4 X W1.4, 60" WIDE. THE COST OF THE WELDED WIRE FABRIC SHALL BE INCLUDED IN THE CONTRACT PRICE BID PER SQUARE YARD FOR SLOPE PROTECTION.



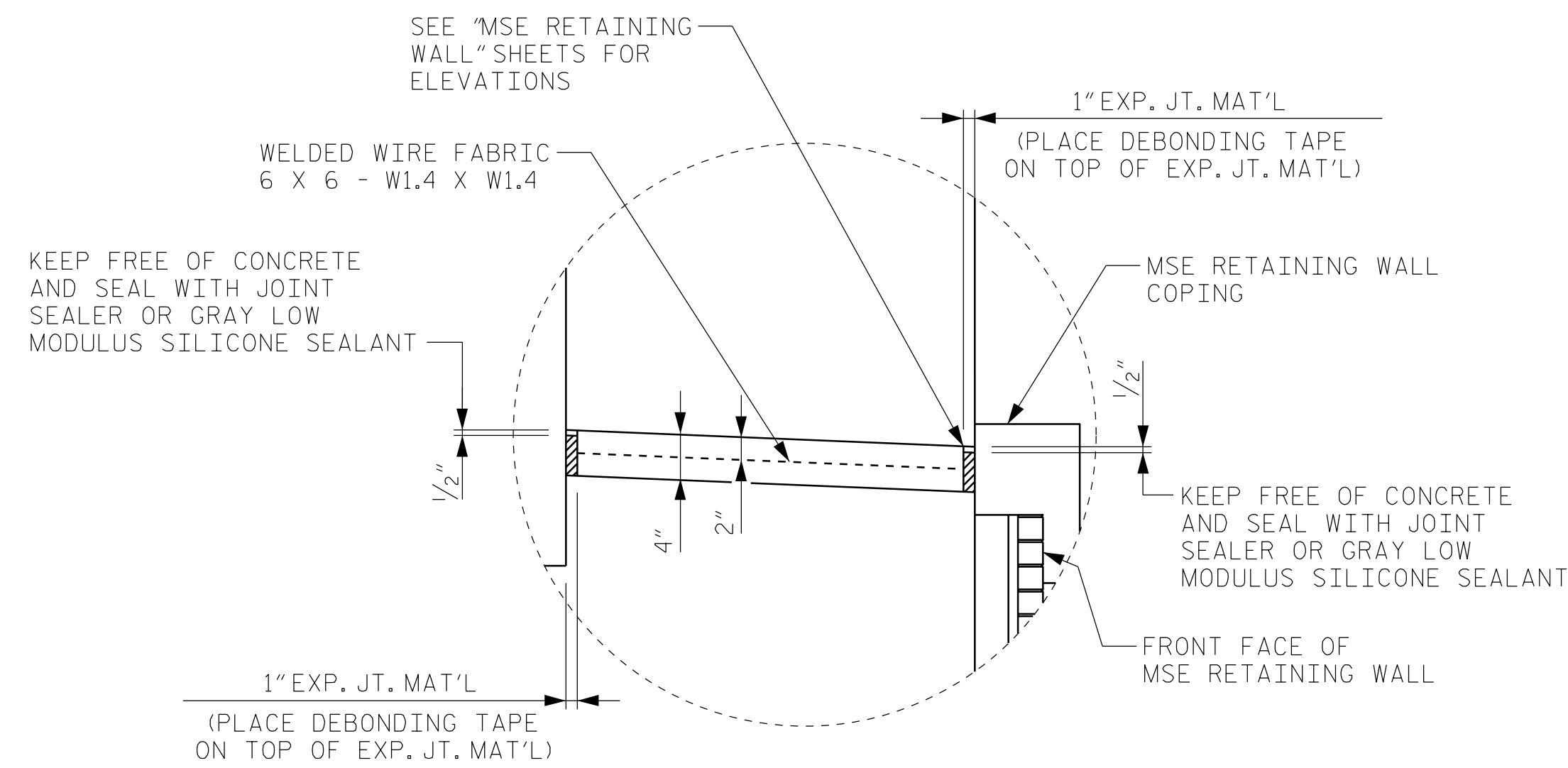
PLAN

BRIDGE @ STA. 65+56.61 -L-	4" INCH SLOPE PROTECTION	* WELDED WIRE FABRIC 60 INCHES WIDE
	SQUARE YARDS	APPROX. L.F.
END BENT 1	27	49
END BENT 2	27	49
TOTAL	54	98

* QUANTITY SHOWN IS BASED ON 5' POURS.



SECTION Y-Y



DETAIL "A"

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-



DocuSigned by:
Cecil Narron
 C198A3D845024DD

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SLOPE PROTECTION DETAILS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					33

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ASSEMBLED BY : JIK	DATE : 5/15
CHECKED BY : JCW	DATE : 5/15
DRAWN BY : ELR 5/92	REV. 5/1/06 TLA/GM
CHECKED BY : GRP 6/92	REV. 10/1/11 MAA/GM
	REV. 12/21/11 MAA/GM

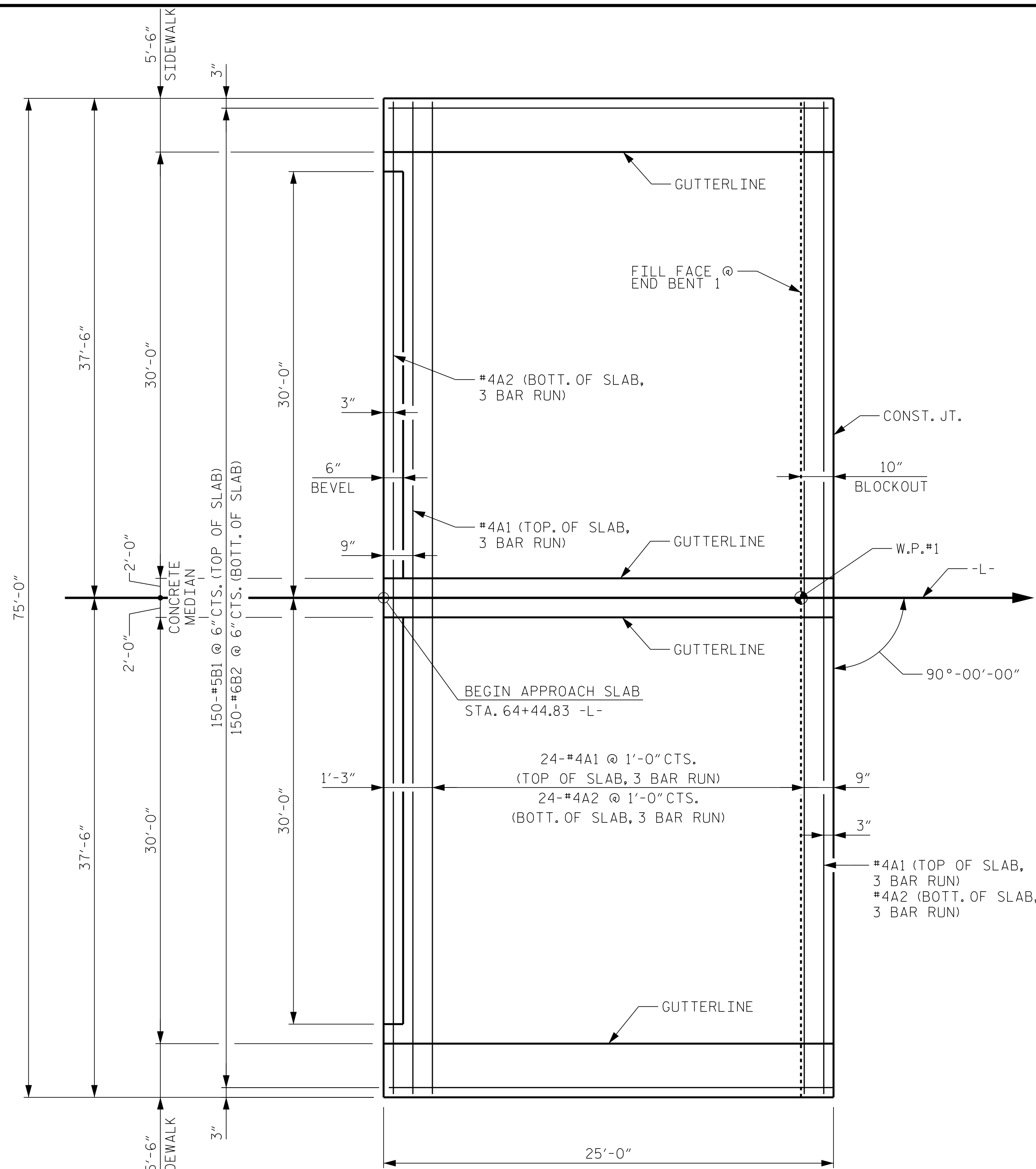
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BILL OF MATERIAL					
FOR ONE APPROACH SLAB (2 REQ'D)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	78	4	STR	26'-3"	1,368
A2	78	4	STR	26'-1"	1,359
* B1	150	5	STR	24'-2"	3,781
B2	150	6	STR	24'-8"	5,557
REINFORCING STEEL					6,916 LBS.
* EPOXY COATED REINFORCING STEEL					5,149 LBS.
CLASS AA CONCRETE					80.7 C. Y.

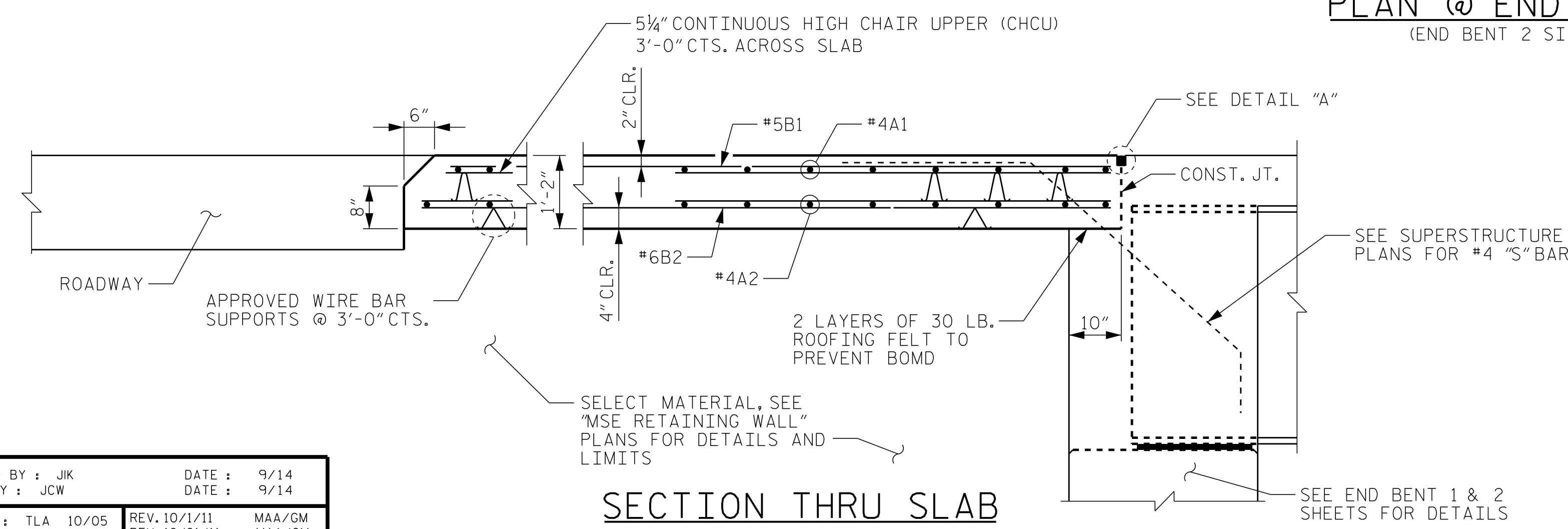
NOTES

APPROACH SLAB SHALL NOT BE CONSTRUCTED PRIOR TO COMPLETION OF THE BRIDGE DECK.

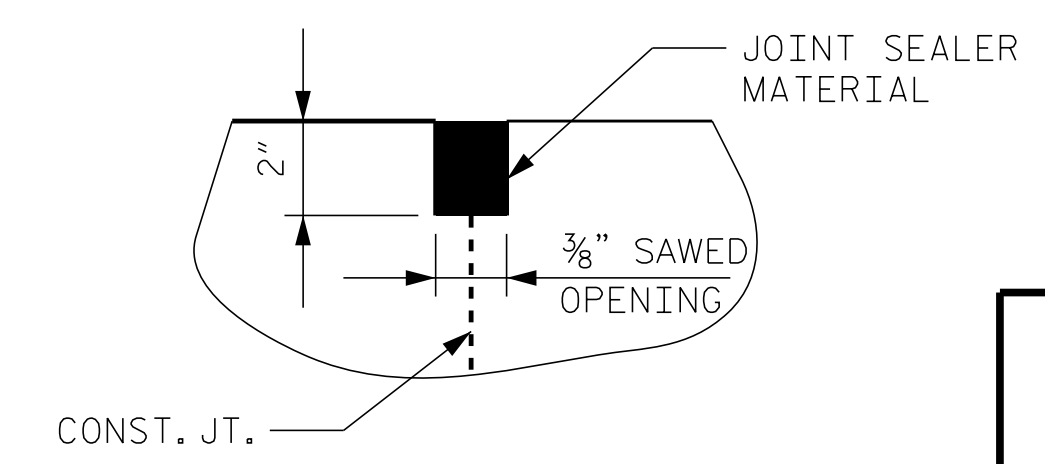
THE JOINT OPENING AT THE APPROACH SLAB/DECK INTERFACE SHALL BE SAWED NO MORE THAN 12 HOURS AFTER THE APPROACH SLAB IS CAST. THE JOINT SHALL BE CLEANED OF ALL DEBRIS BEFORE THE SEALANT IS APPLIED. THE JOINT SEALER MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1028-3 OF THE STANDARD SPECIFICATIONS.



PLAN @ END BENT 1
(END BENT 2 SIMILAR)

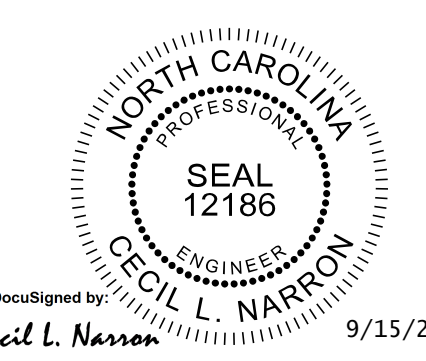


SECTION THRU SLAB



DETAIL "A"

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 1 OF 3

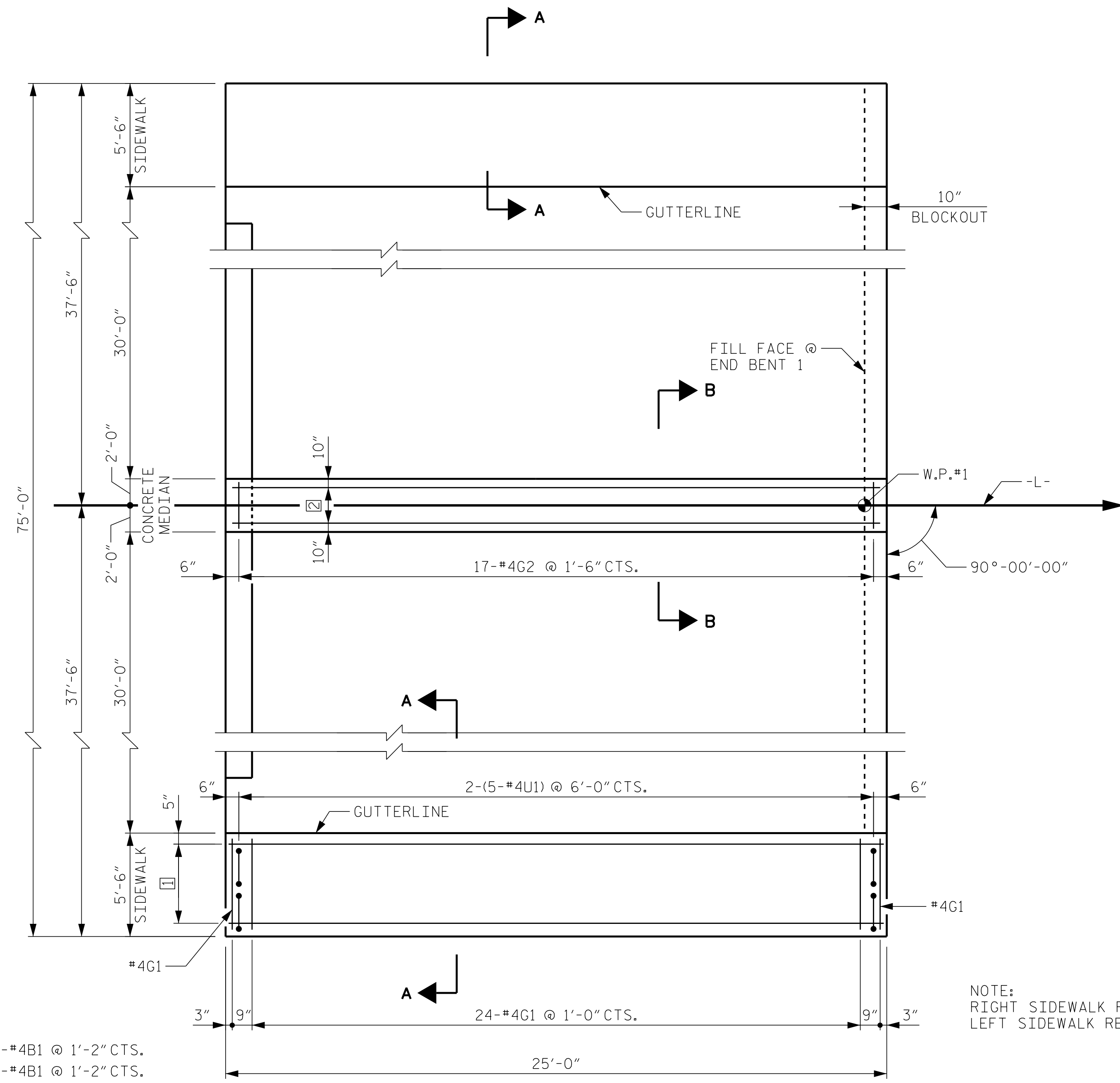


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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STANDARD BRIDGE APPROACH SLAB FOR INTEGRAL ABUTEMENT					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					S-30
					TOTAL SHEETS
					33

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ASSEMBLED BY : JJK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : TLA 10/05	REV. 10/1/11 MAA/GM
CHECKED BY : GM 5/06	REV. 12/21/11 MAA/GM
	REV. 6/13 MAA/GM



PLAN @ END BENT 1
(END BENT 2 SIMILAR)

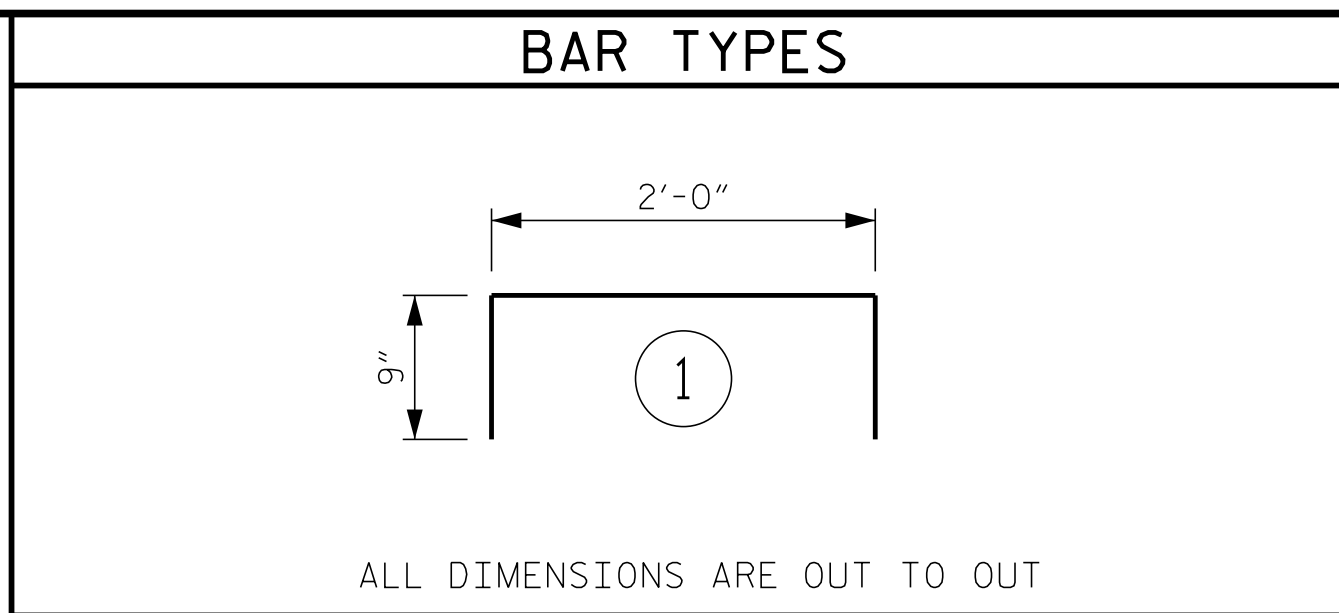
- 1 5-#4B1 @ 1'-2" CTS.
- 2 3-#4B1 @ 1'-2" CTS.

NOTE:
RIGHT SIDEWALK REINFORCING SHOWN.
LEFT SIDEWALK REINFORCING SIMILAR.

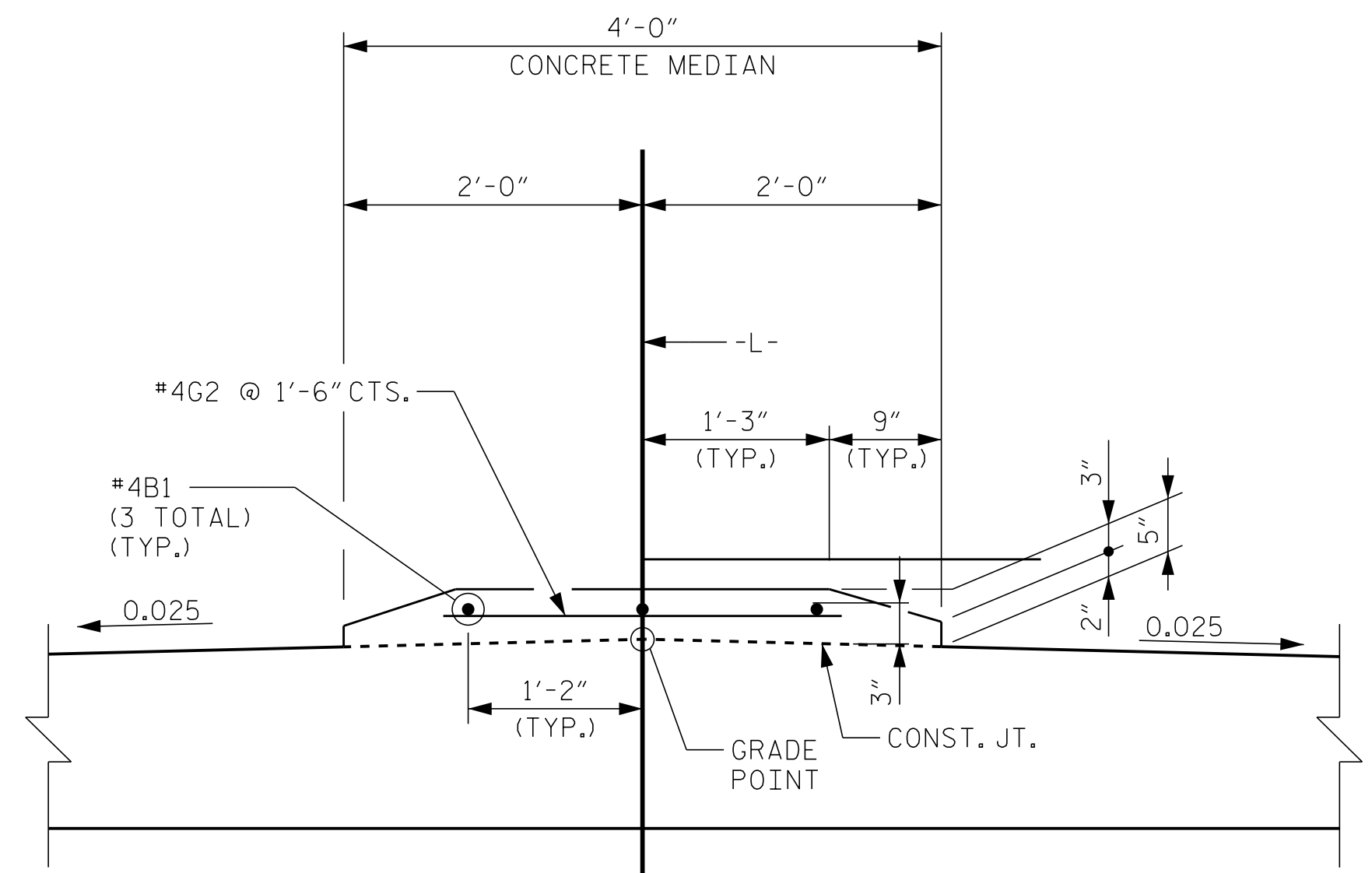
NOTES

SIDEWALK AND MEDIAN ON APPROACH SLAB SHALL BE PAID FOR IN BRIDGE APPROACH SLAB PAY ITEM.

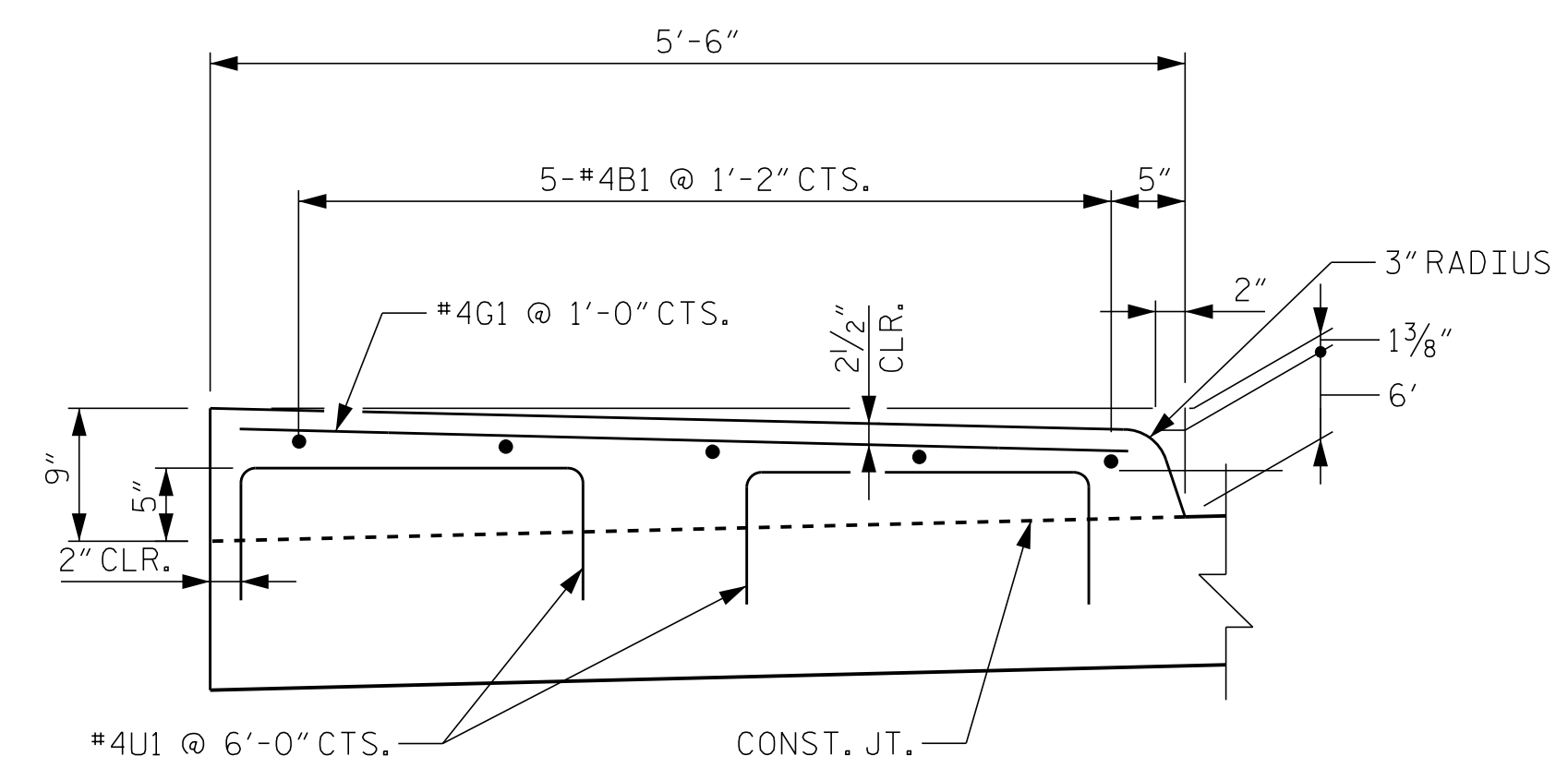
THE #4U1 BARS MAY BE PUSHED INTO GREEN CONCRETE AFTER THE APPROACH SLAB HAS BEEN FINISHED.



BILL OF MATERIAL					
SIDEWALKS & MEDIAN FOR ONE APPROACH SLAB (2 REQ'D)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	13	4	STR	24'-8"	214
* G1	52	4	STR	5'-0"	174
* G2	17	4	STR	2'-8"	30
* U1	20	4	1	3'-6"	47
* EPOXY COATED REINFORCING STEEL					465 LBS.
CLASS AA CONCRETE					7.5 C. Y.



SECTION B-B



SECTION A-A

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-
 SHEET 2 OF 3



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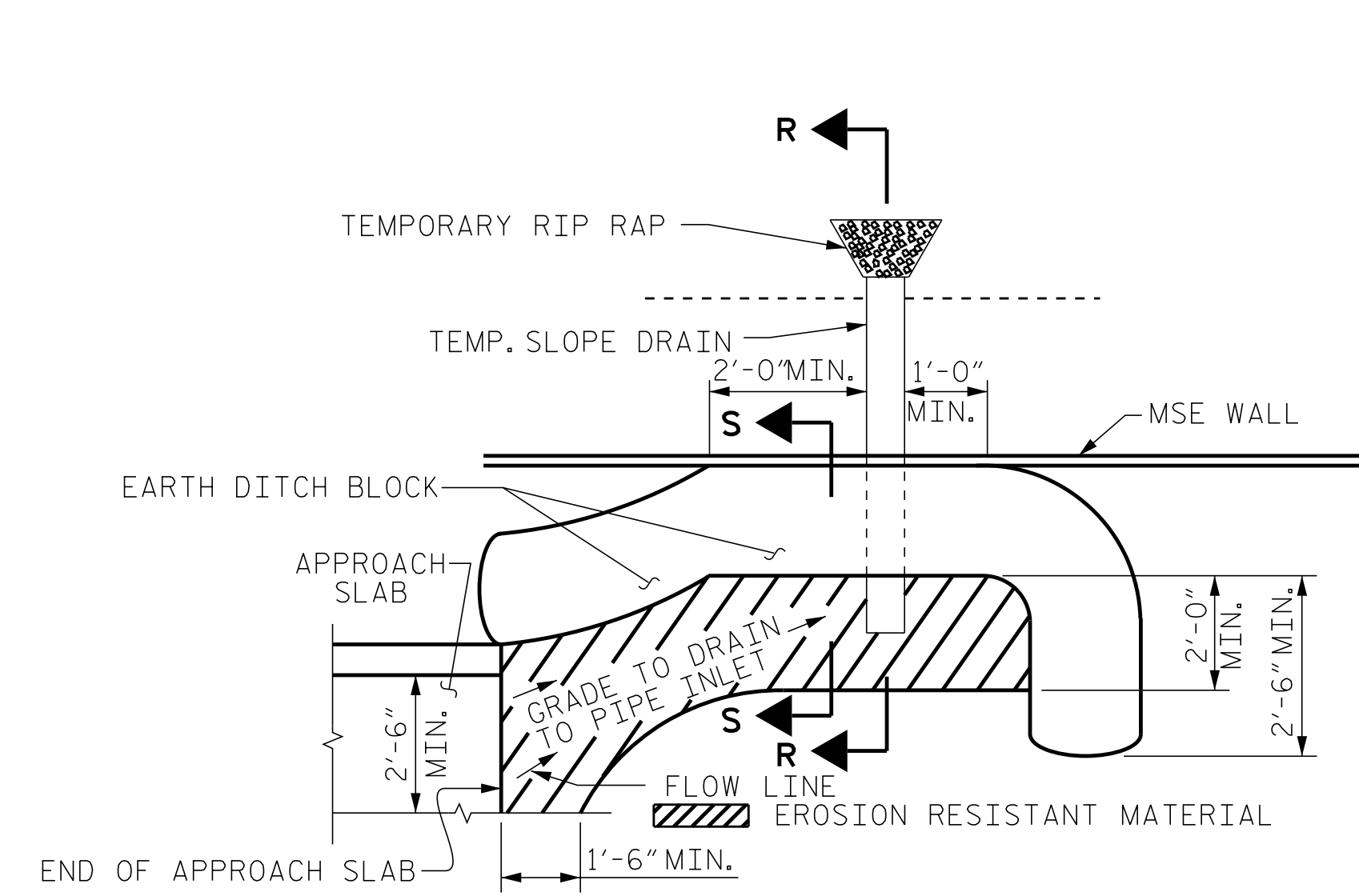
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**BRIDGE APPROACH SLAB
 SIDEWALK AND MEDIAN
 DETAILS**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-31
1			3			TOTAL SHEETS
2			4			33

DRAWN BY: <u>J. I. KIMBLE</u>	DATE: <u>9/14</u>
CHECKED BY: <u>J. C. WILSON</u>	DATE: <u>9/14</u>
DESIGN ENGINEER OF RECORD: <u>C.L. NARRON</u>	DATE: <u>9/14</u>

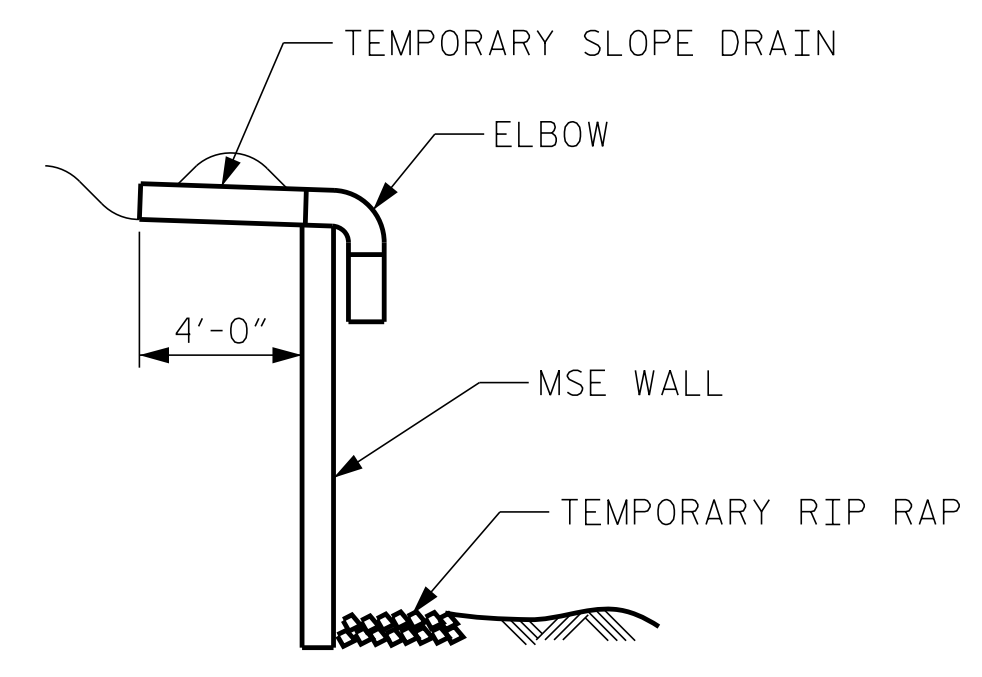
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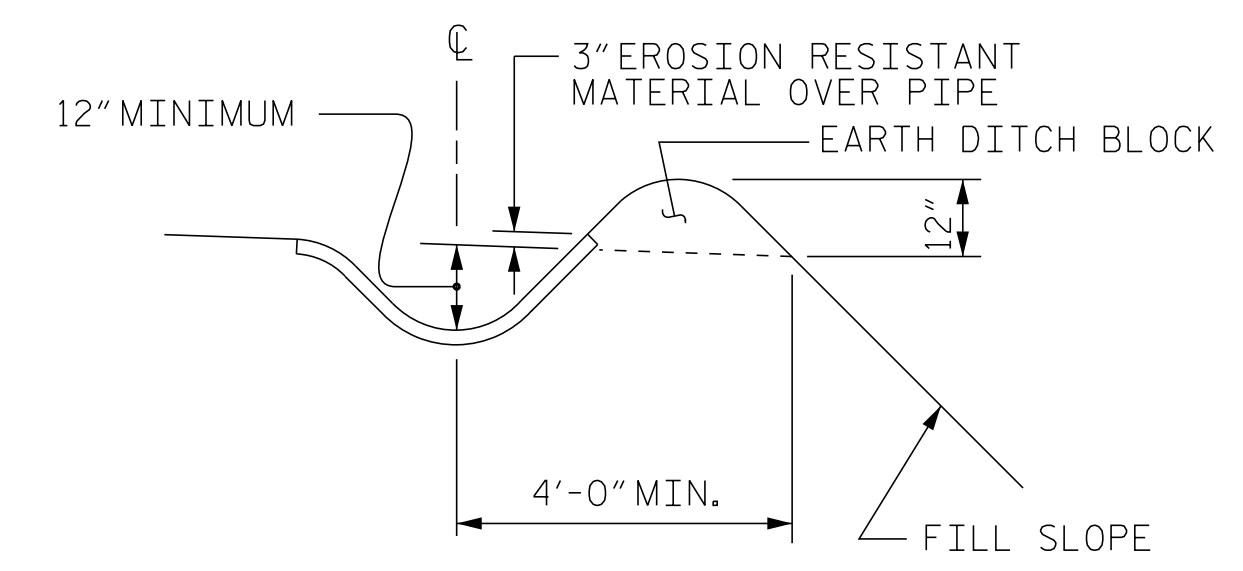


NOTE: IMMEDIATELY AFTER THE CONSTRUCTION OF THE APPROACH SLAB, THE CONTRACTOR SHALL PROVIDE TEMPORARY BERM AND SLOPE DRAIN. CONTRACTOR SHALL GRADE TO PIPE INLET AND PROVIDE EROSION RESISTANT MATERIAL AS SHOWN. THE EROSION RESISTANT MATERIAL SHALL BE EITHER 1) ASPHALT PLANT MIX, TYPE 1 OR TYPE 2, MIN. 2" DEPTH, 2) EROSION CONTROL MAT, OR 3) CONCRETE, AS DIRECTED BY THE ENGINEER. THE SLOPE DRAIN SHALL CONSIST OF A NON-PERFORATED TEMPORARY DRAINAGE PIPE, 12 INCHES IN DIAMETER.

PLAN VIEW

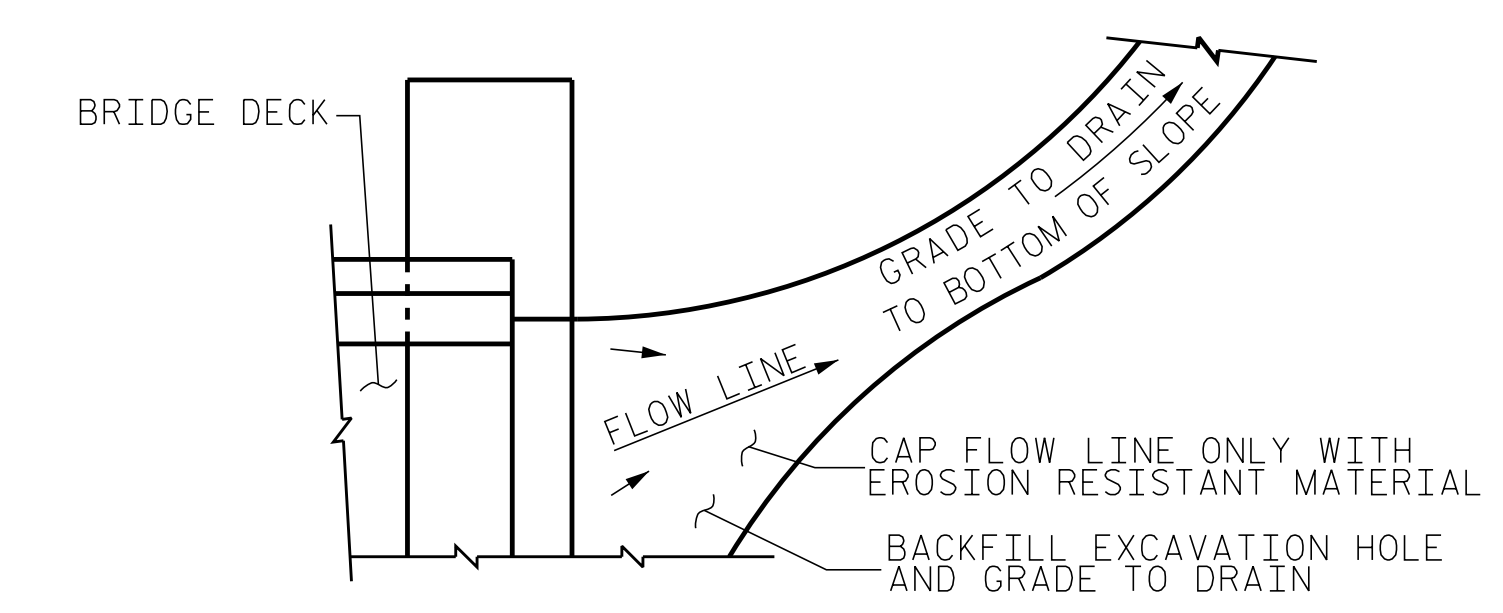


SECTION R-R



SECTION S-S

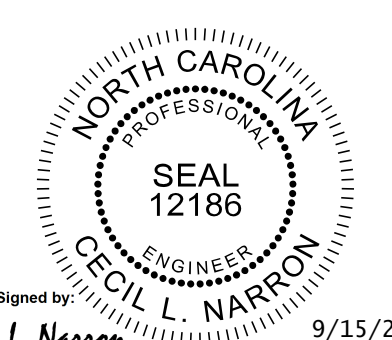
TEMPORARY BERM AND SLOPE DRAIN DETAILS
(TO BE USED WHEN SHOULDER BERM GUTTER IS REQUIRED)



NOTE: IF THE APPROACH SLAB IS NOT CONSTRUCTED IMMEDIATELY AFTER THE BACKFILLING OF THE END BENT EXCAVATION, GRADE TO DRAIN TO THE BOTTOM OF THE SLOPE AND PROVIDE EROSION RESISTANT MATERIAL, SUCH AS FIBERGLASS ROVING OR AS DIRECTED BY THE ENGINEER TO PREVENT SOIL EROSION AND TO PROTECT THE AREA ADJACENT TO THE STRUCTURE. THE CONTRACTOR WILL BE REQUIRED TO REMOVE THESE MATERIALS PRIOR TO CONSTRUCTION OF THE APPROACH SLAB.

TEMPORARY DRAINAGE DETAIL

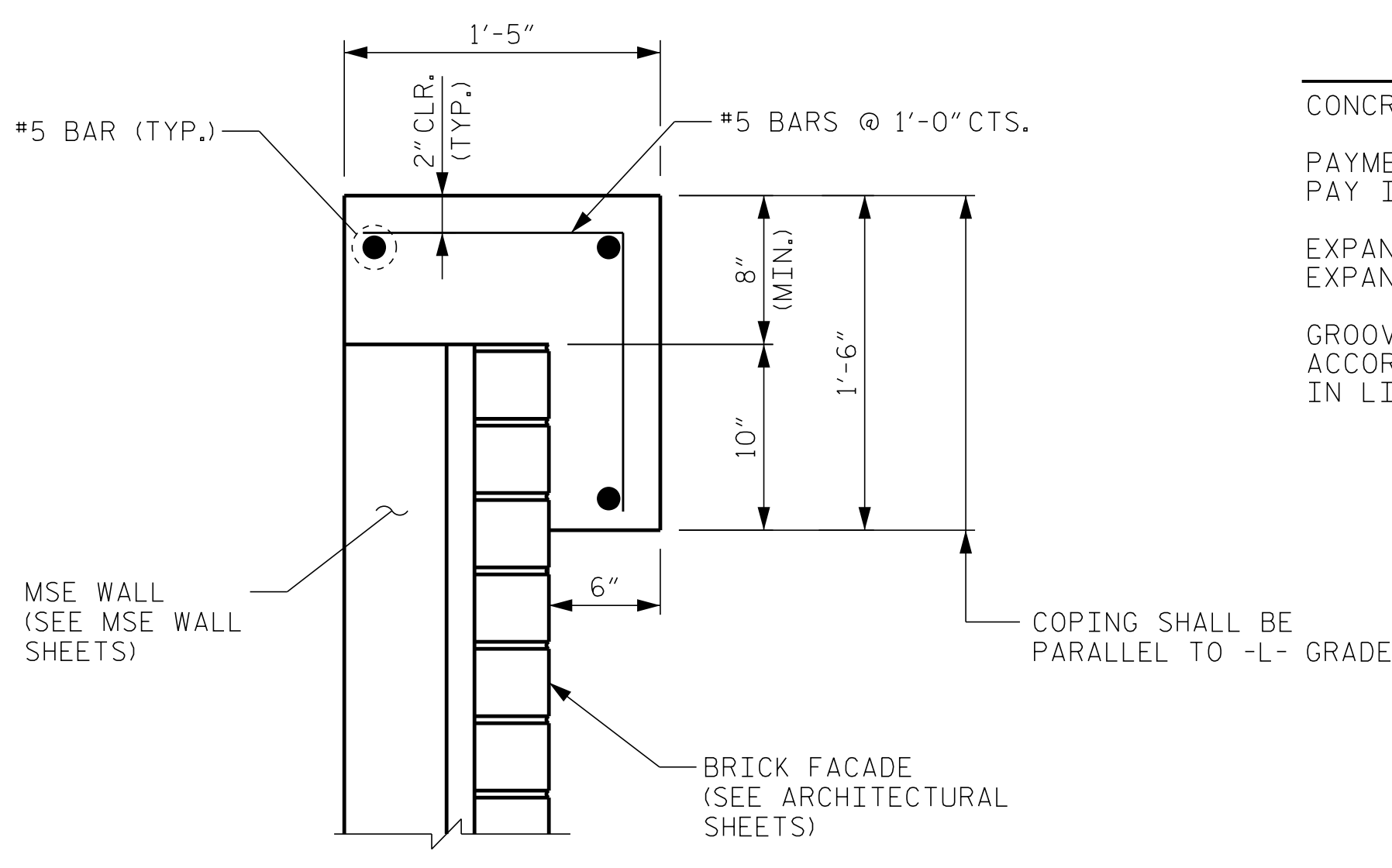
PROJECT NO. U-3315
PITT COUNTY
STATION: 65+56.61 -L-
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SHEET 3 OF 3



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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S-32
STANDARD BRIDGE APPROACH SLAB DETAILS						TOTAL SHEETS 33
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-32
2			4			

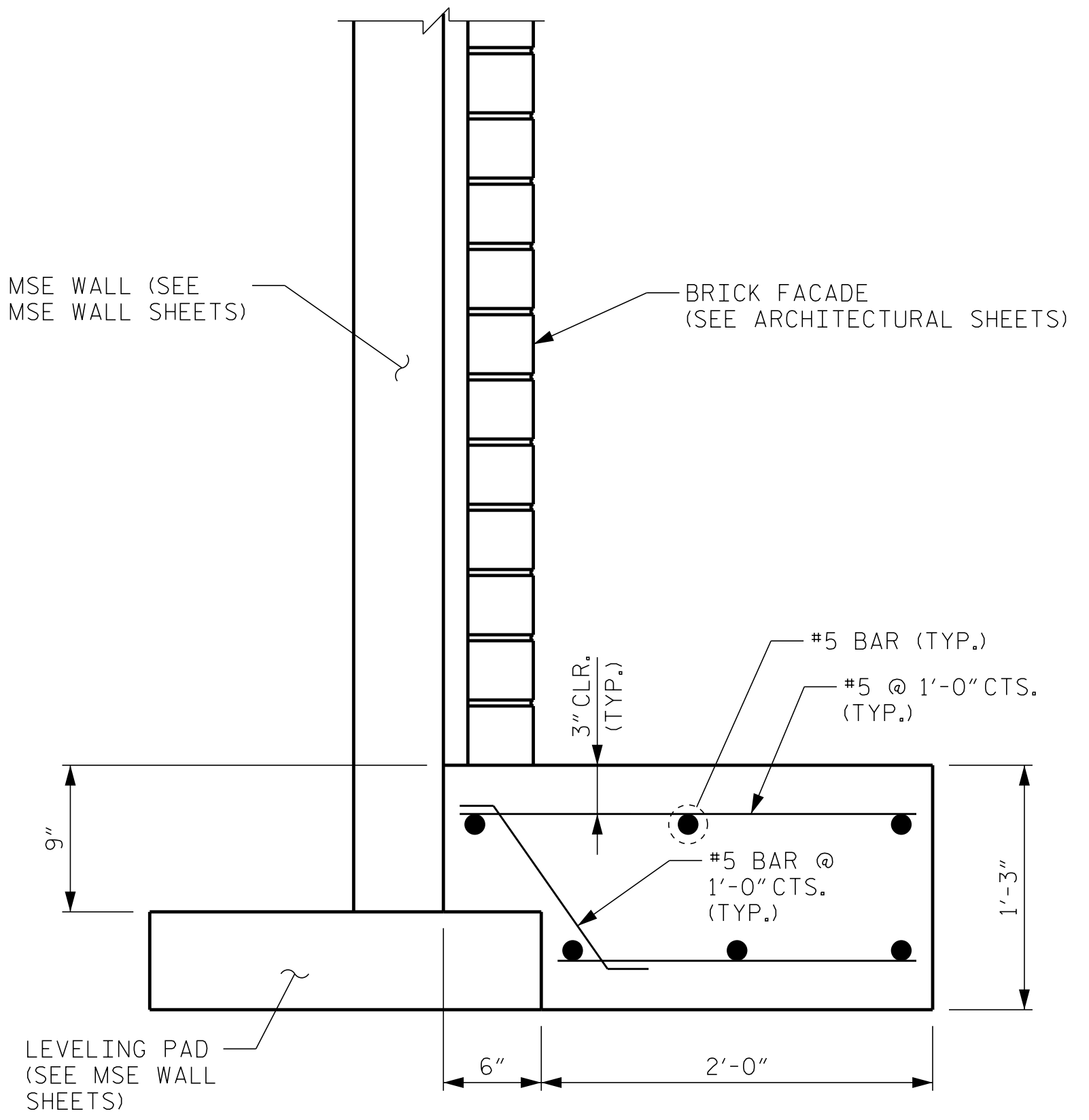
ASSEMBLED BY : JIK	DATE : 9/14
CHECKED BY : JCW	DATE : 9/14
DRAWN BY : FCJ 11/88	REV. 10/11 MAA/GM
CHECKED BY : ARB 11/88	REV. 7/12 MAA/GM
	REV. 6/13 MAA/GM



COPING DETAIL

NOTES

CONCRETE IN COPING SHALL BE CLASS AA.
 PAYMENT FOR THE COPING SHALL BE INCLUDED IN THE BRICK FACADE PAY ITEM. NO SEPARATE PAY ITEM WILL BE MADE FOR COPING.
 EXPANSION JOINTS IN COPING SHALL BE PLACED IN LINE WITH THE EXPANSION JOINTS IN BRICK FACADE.
 GROOVED CONTRACTION JOINTS 1/2" IN DEPTH, SHALL BE TOOLED IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATION IN LINE WITH THE EXPANSION JOINTS IN THE MSE WALL.



BRICK FACADE FOOTING DETAIL

NOTES

CONCRETE IN THE BRICK FACADE FOOTING SHALL BE CLASS A.
 PAYMENT FOR THE BRICK FACADE FOOTING SHALL BE INCLUDED IN THE BRICK FACADE PAY ITEM. NO SEPARATE PAY ITEM WILL BE MADE FOR BRICK FACADE FOOTING.

PROJECT NO. U-3315
PITT COUNTY
 STATION: 65+56.61 -L-
16+96.14 -Y10-



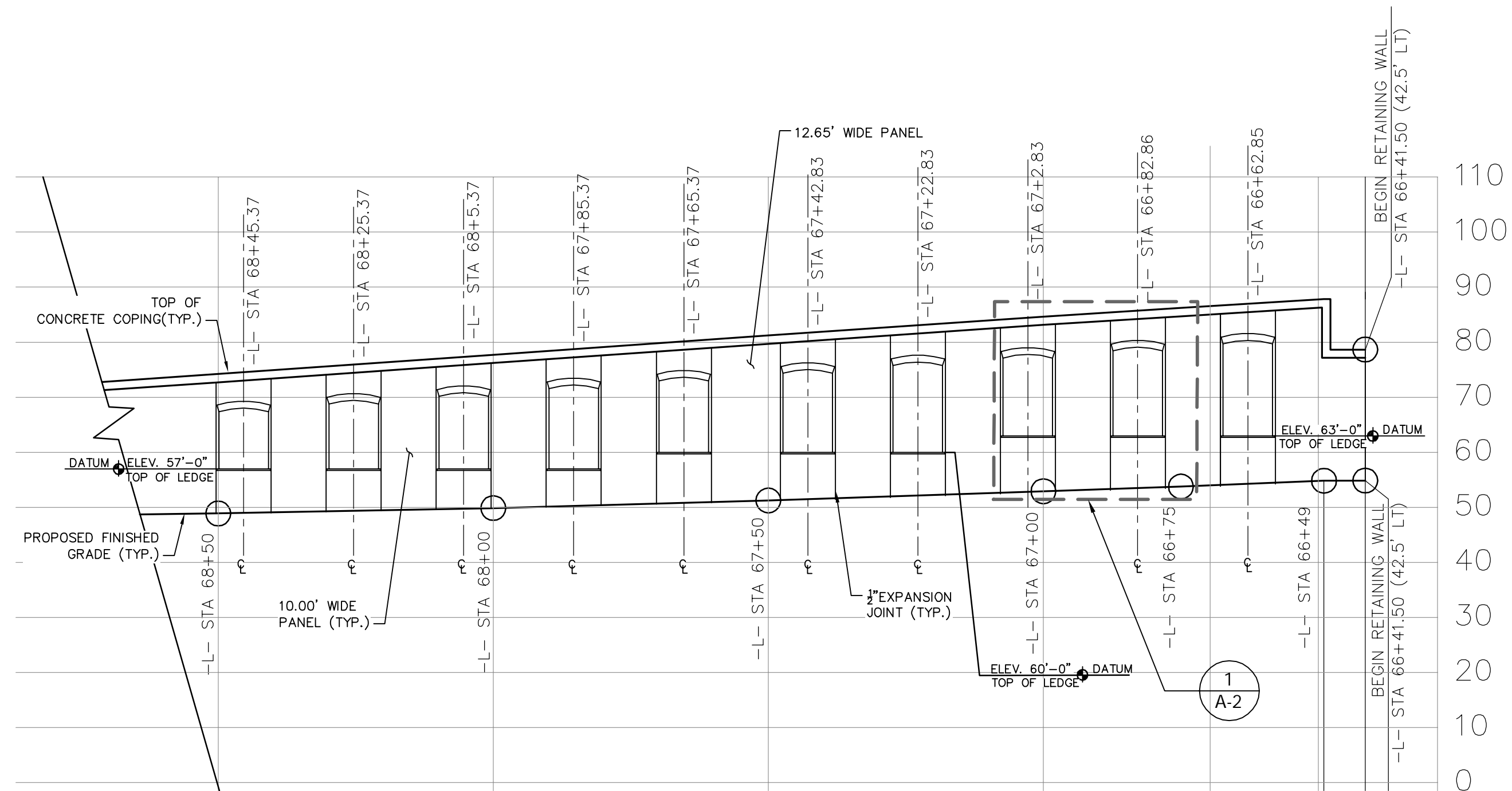
DocuSigned by: Cecil L. Narron 9/15/2014

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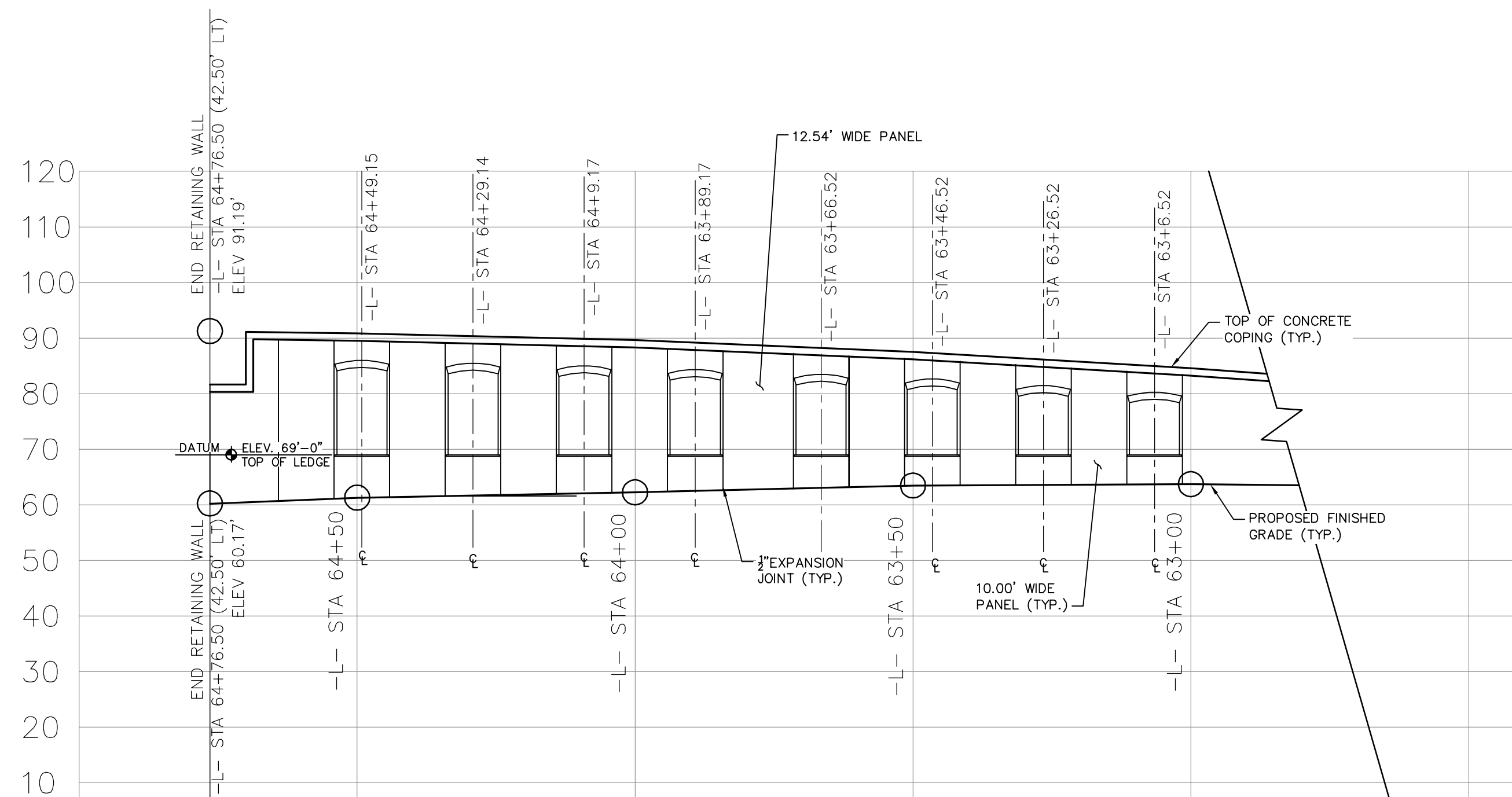
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
BRICK FACADE FOOTING AND COPING DETAILS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					33

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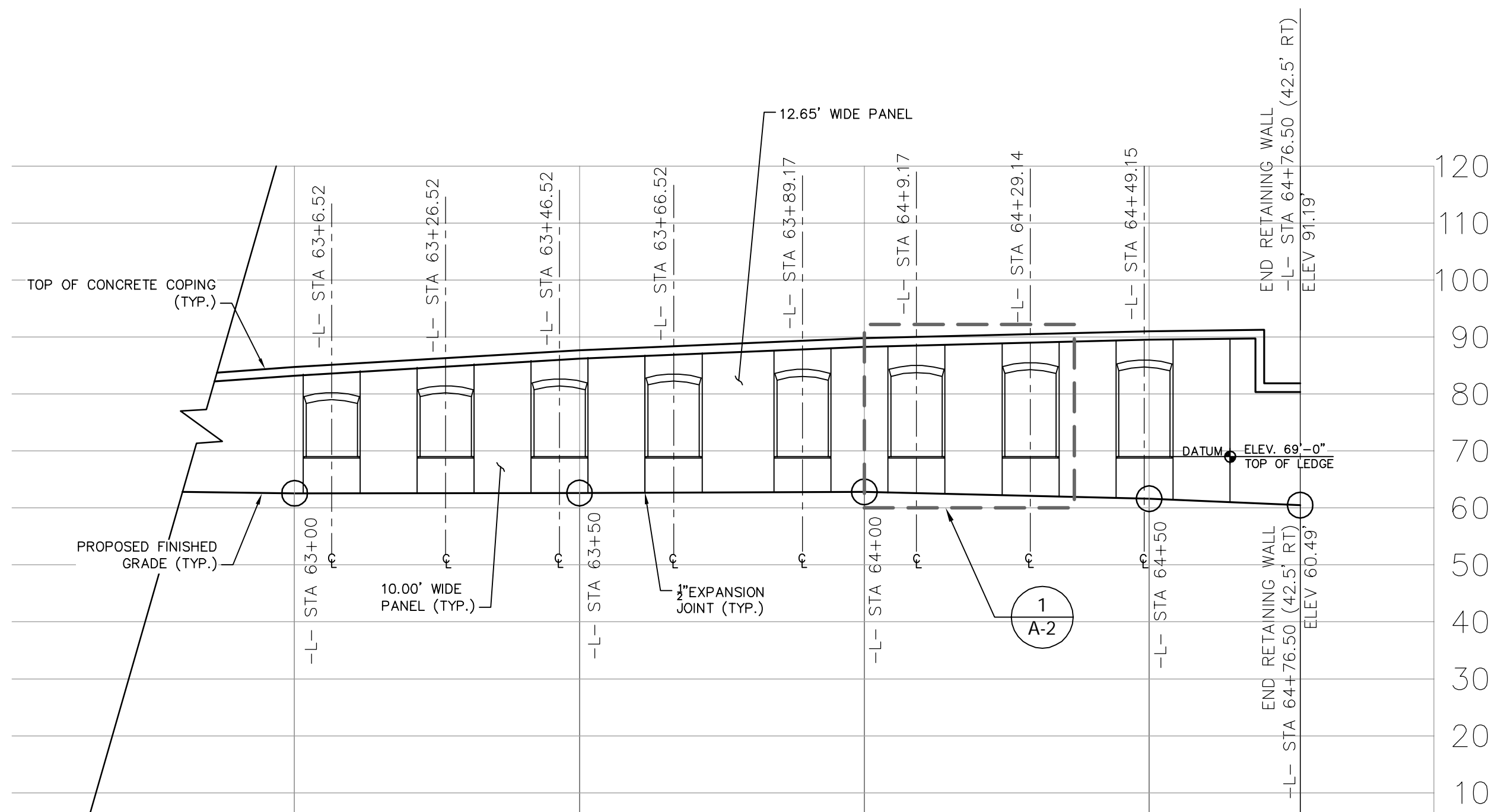
DRAWN BY: J. I. KIMBLE DATE: 9/14
 CHECKED BY: J. C. WILSON DATE: 9/14
 DESIGN ENGINEER OF RECORD: C.L. NARRON DATE: 9/14



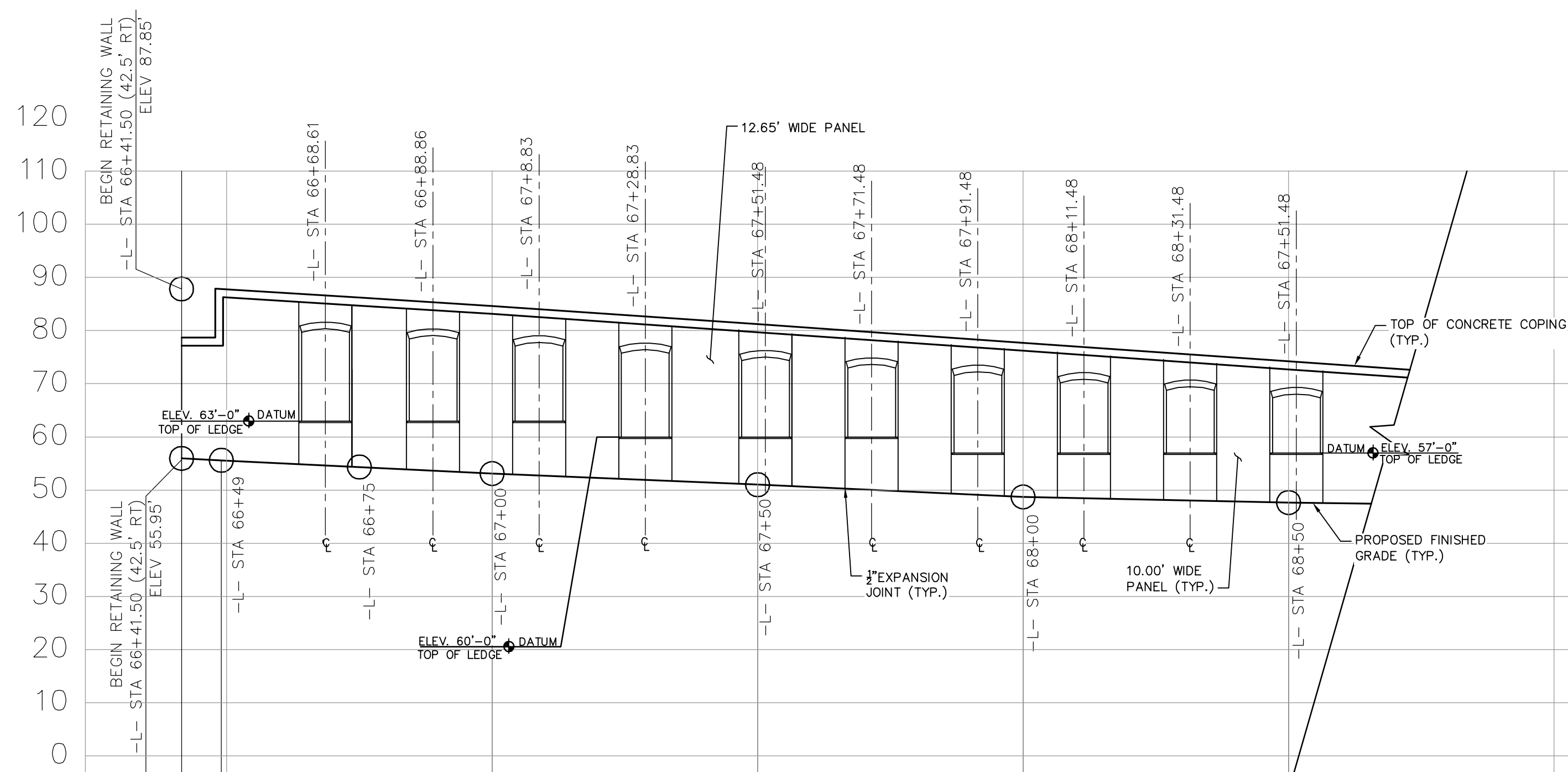
1 ARCHITECTURAL BRICK WINDOW PANEL LOCATIONS @ END BENT 2-LT
A-1 SOUTH ELEVATION SCALE: 1"=20'-0"



2 ARCHITECTURAL BRICK WINDOW PANEL LOCATIONS @ END BENT 1-LT
A-1 SOUTH ELEVATION SCALE: 1"=20'-0"



3 ARCHITECTURAL BRICK WINDOW PANEL LOCATIONS @ END BENT 1-RT
A-1 NORTH ELEVATION SCALE: 1"=20'-0"



4 ARCHITECTURAL BRICK WINDOW PANEL LOCATIONS @ END BENT 2-RT
A-1 NORTH ELEVATION SCALE: 1"=20'-0"

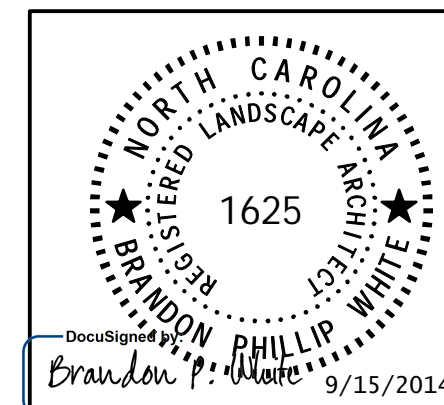
NOTE:

- 1/2" EXPANSION JOINT ON PORTION OF WALL WITHOUT ARCHITECTURAL WINDOW ARCHES SHALL BE SPACED AT 10' O.C.
- BRICK FAÇADE PAY ITEM WILL INCLUDE ALL MATERIALS AND LABOR NECESSARY TO CONSTRUCT THE BRICK FAÇADE AS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL PLANS. PAYMENT WILL BE MADE ON A LUMP SUM BASIS PER MSE WALL.

ARCHITECTURAL PAY ITEMS

BRICK FAÇADE AT MSE WALL NO. 1	LUMP SUM
BRICK FAÇADE AT MSE WALL NO. 2	LUMP SUM

PROJECT NO. U-3315
PITT COUNTY
STATION: 65+55.98 -L-
16+78.24 -Y10-



Kimley»Horn

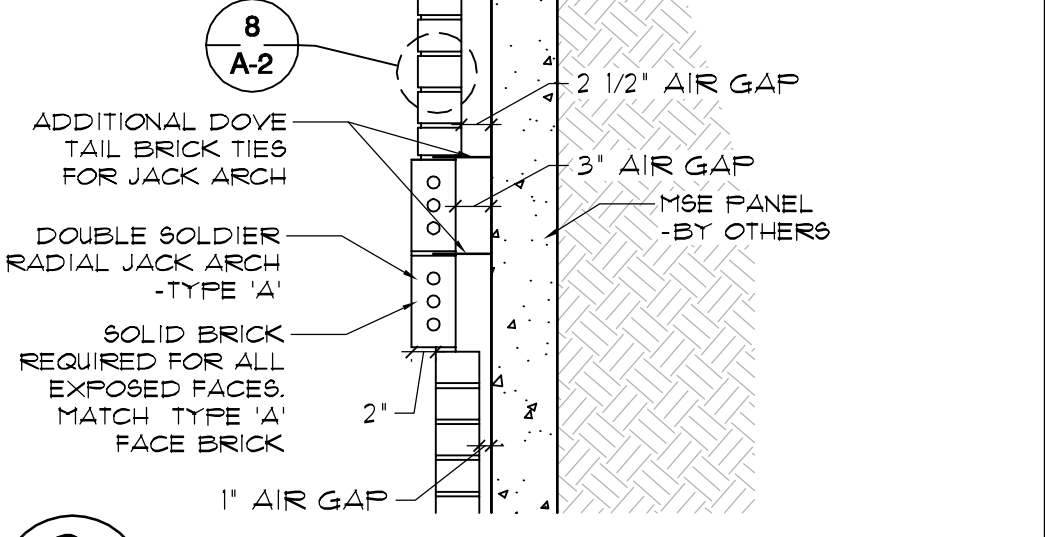
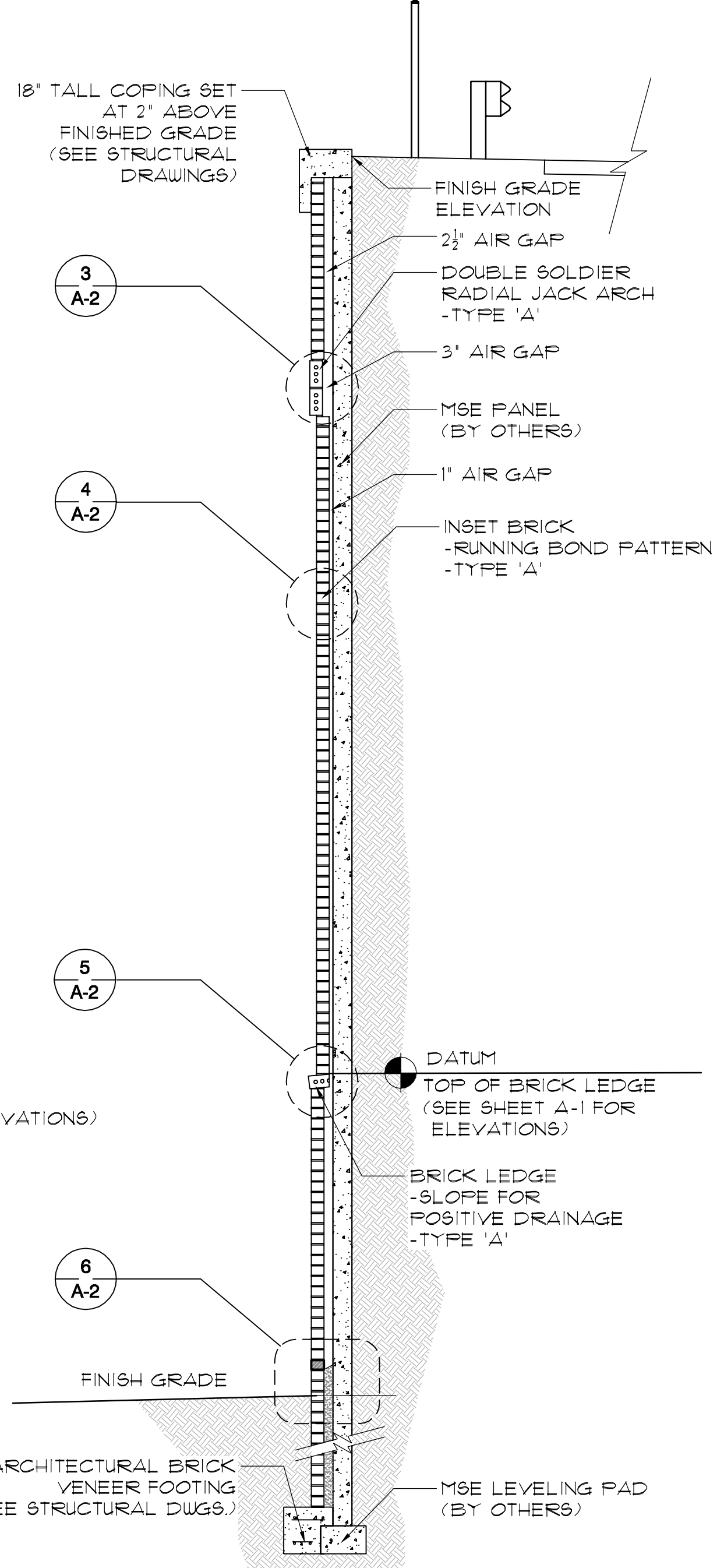
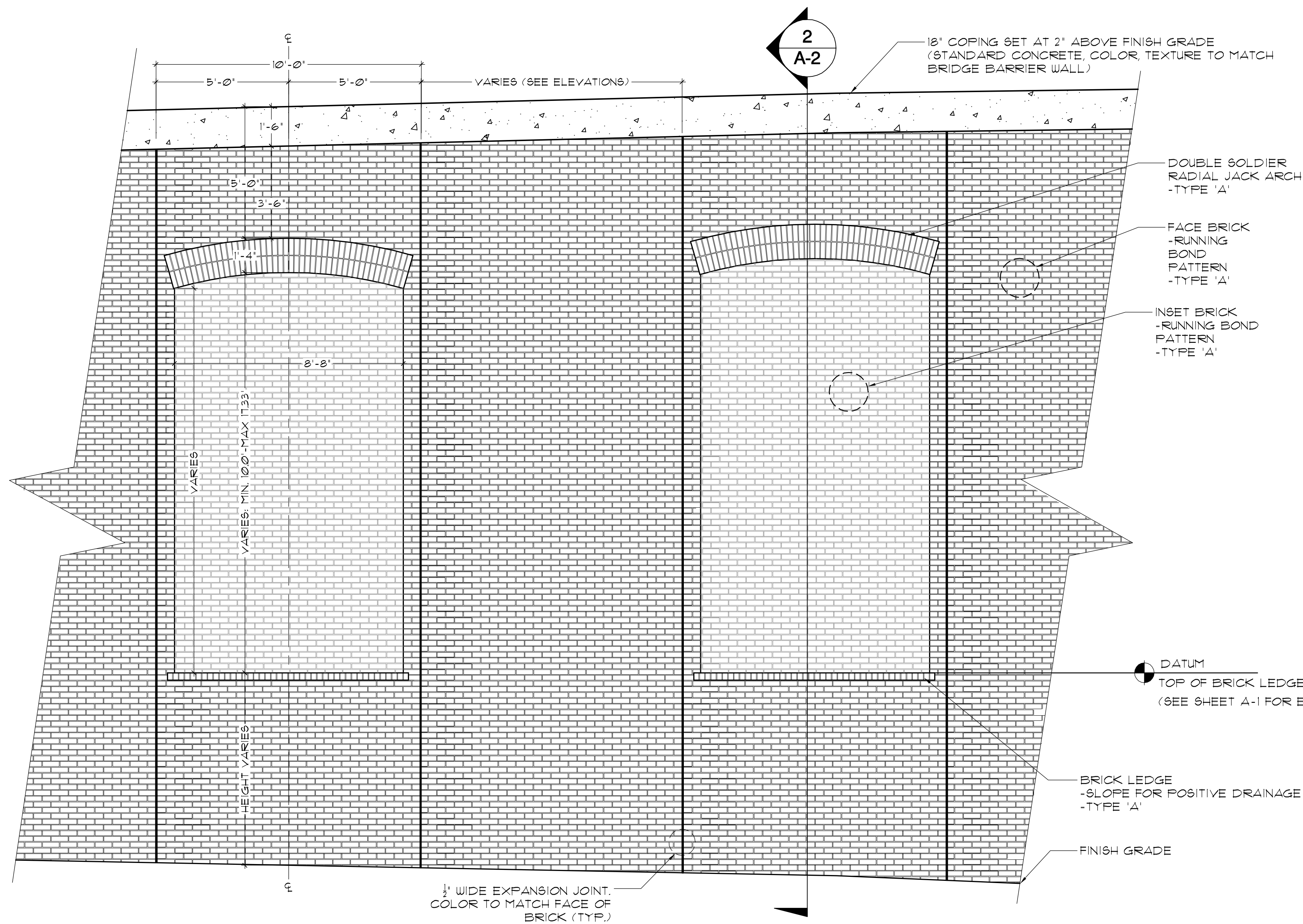
333 Fayetteville Street, Suite 600
Raleigh, NC 27601-1772
Phone (919) 677-2042
Fax (919) 653-5847
NC LICENSE # F-0102

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

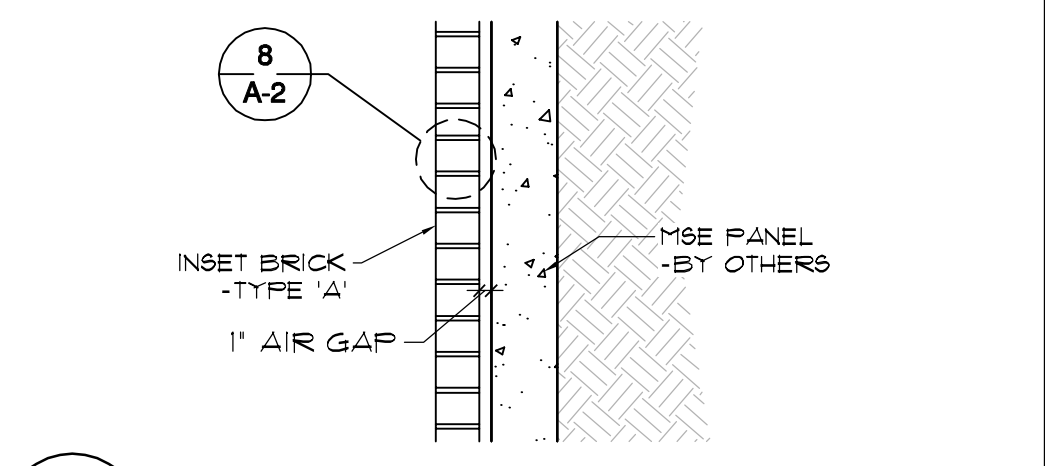
ARCHITECTURAL BRICK WINDOW
PANEL LOCATIONS AND ELEVATIONS

REVISIONS					SHEET NO. A-1
NO.	BY	DATE	NO.	BY	
1			3		
2			4		

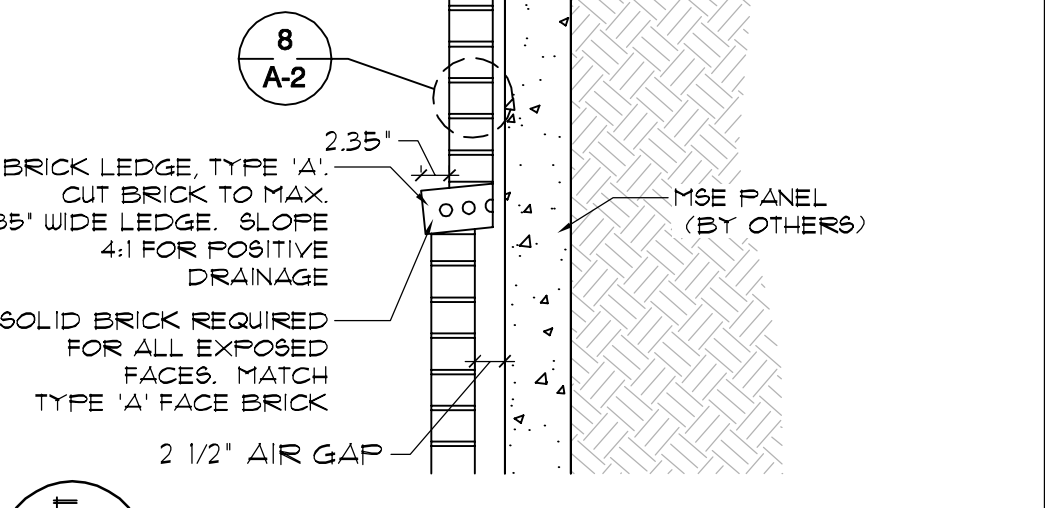
DRAWN BY: H.R. HENDERSON DATE: 8/22/14
CHECKED BY: B.P. WHITE DATE: 8/22/14
DESIGN LANDSCAPE ARCHITECT: B.P. WHITE DATE: 8/22/14



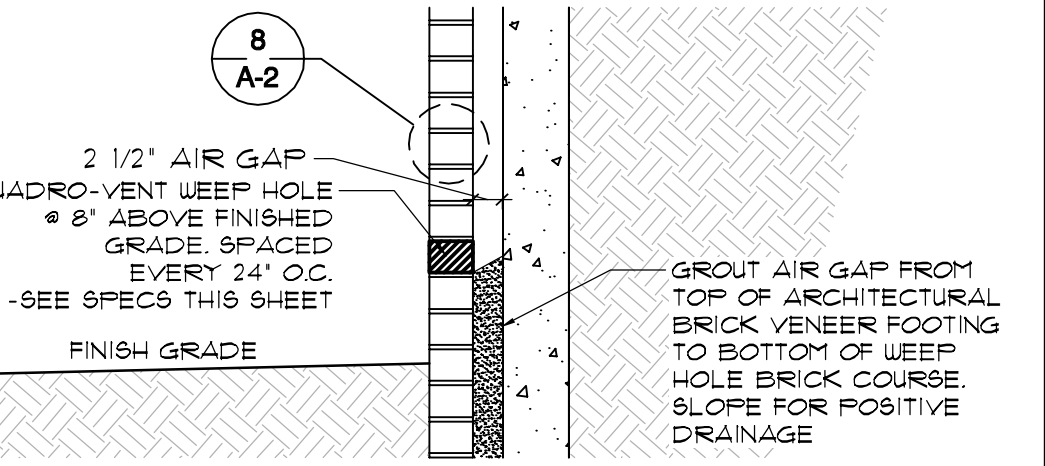
3 JACK ARCH SECTION SCALE: 3/4" = 1'-0"



4 INSET BRICK PANEL SECTION SCALE: 3/4" = 1'-0"



5 BRICK LEDGE SECTION SCALE: 3/4" = 1'-0"

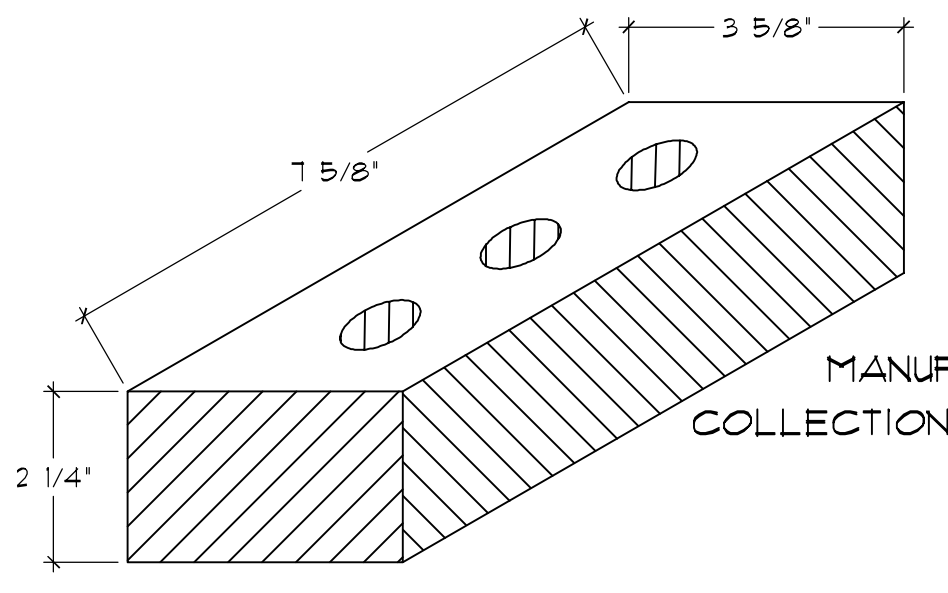


6 WEEP HOLE SECTION SCALE: 3/4" = 1'-0"

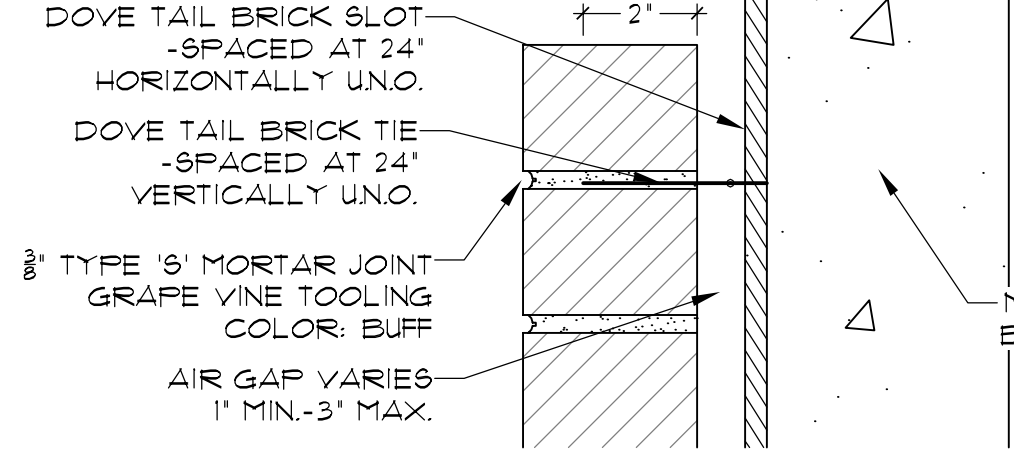
WEEP HOLE TYPE:
MANUFACTURER: HOHMANN & BERNARD, INC
MODEL: QV-QUADRO-VENT
COLOR: BUFF
SIZE: STANDARD 3/8" X 2 1/2" X 3 3/8"

1 ARCHITECTURAL BRICK WINDOWS ELEVATION SCALE: 3/8" = 1'-0"

2 ARCHITECTURAL BRICK WINDOW SECTION SCALE: 3/8" = 1'-0"



7 TYPE 'A' BRICK SCALE: NT5



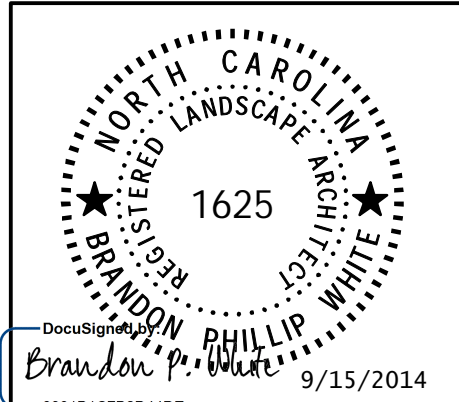
8 TYPE 'S' MORTAR JOINT DETAIL SCALE: 3" = 1'-0"

BRICK TIE:
MANUFACTURER: HOHMANN & BERNARD
MODEL: -315 FLEXIBLE DOVETAIL BRICK TIE
FINISH: HOT DIP GALVANIZED
GAUGE: HEAVYWEIGHT 12 GAUGE
SIZE: 3" (1" AIR GAP)
4 1/2" (2 1/2" AIR GAP)
5" (3" AIR GAP)

BRICK TIE SLOT:
MANUFACTURER: HOHMANN & BERNARD, INC
MODEL: -305 DOVETAIL SLOT
GAUGE: 16 GAUGE
FINISH: HOT DIP GALVANIZED
SIZE: STANDARD 10' LENGTH

8/22/2014
DRAWN BY: H.R. HENDERSON DATE: 8/22/14
CHECKED BY: B.P. WHITE DATE: 8/22/14
DESIGN LANDSCAPE ARCHITECT: B.P. WHITE DATE: 8/22/14

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DEPARTMENT OF TRANSPORTATION
RALEIGH
ARCHITECTURAL BRICK WINDOW
ELEVATIONS, SECTIONS
AND DETAILS

REVISIONS				SHEET NO.
NO.	BY	DATE	NO.	
1			3	A-2
2			4	

TOTAL SHEETS: 2