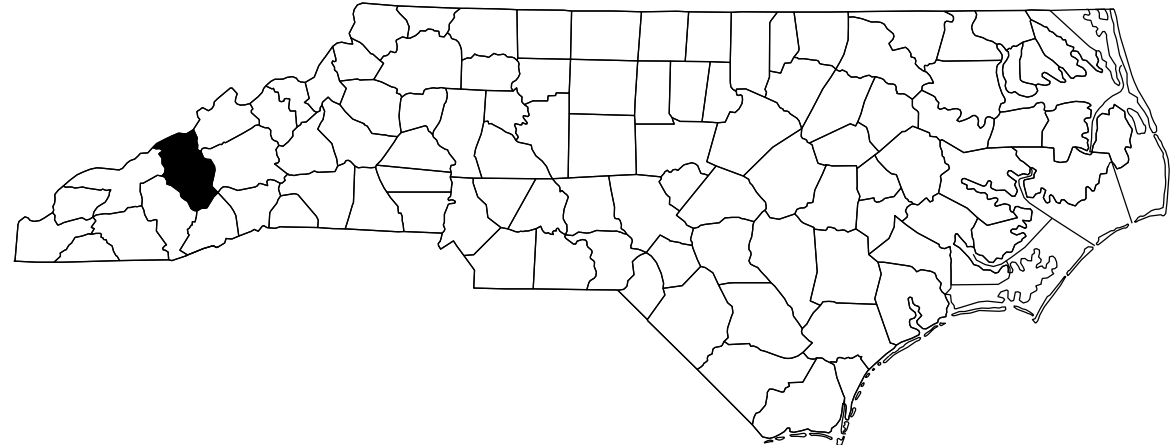


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CONTRACT NO: DN01167 PROJECT: 18314.1044067.PR



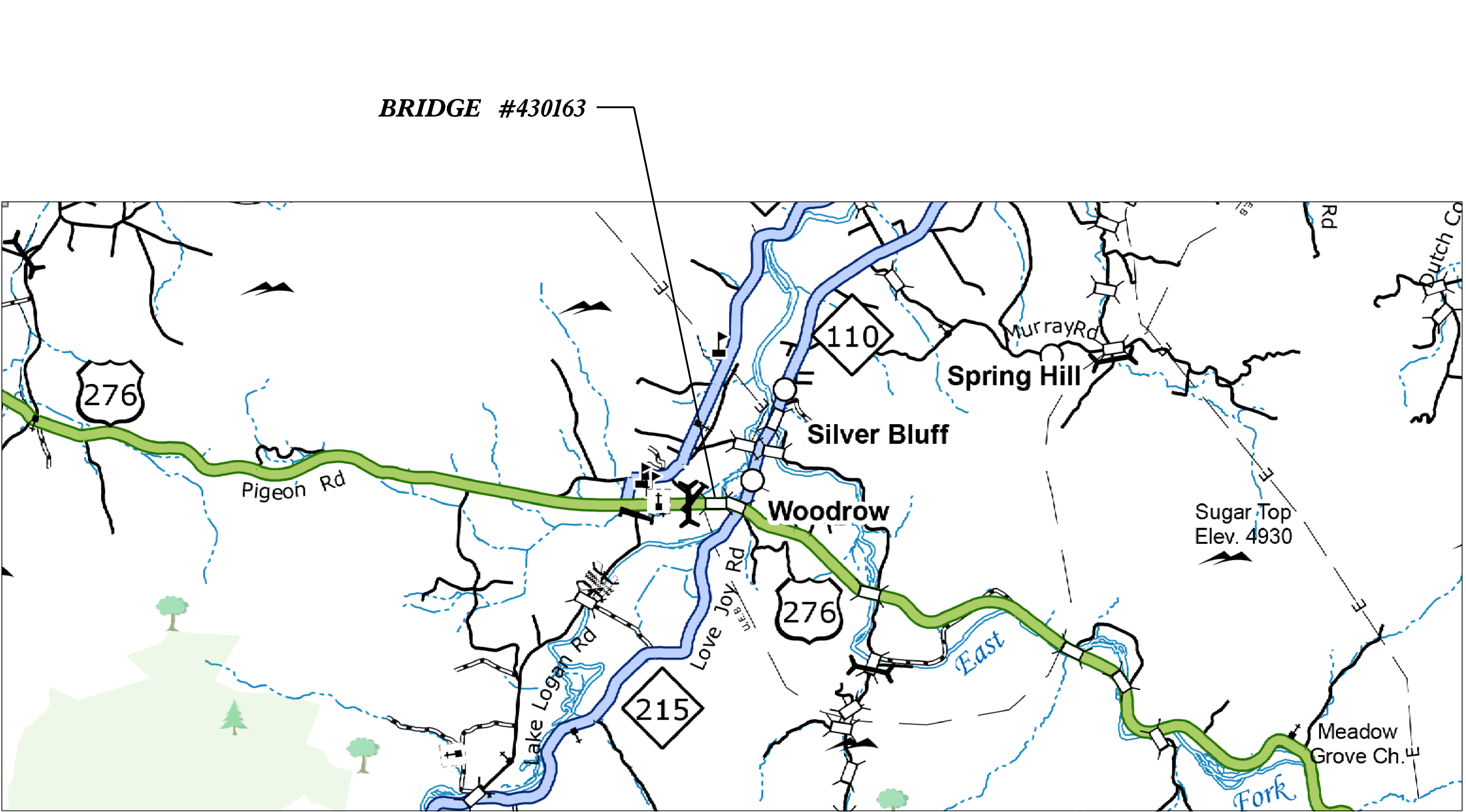
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HAYWOOD COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	18314.1044067.PR	1	14
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
---	---	P.E. CONST.	

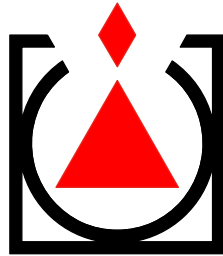
LOCATION: BRIDGE #430163 ON US 276 (PIGEON ROAD) OVER WEST FORK PIGEON RIVER OVERFLOW

TYPE OF WORK: BRIDGE REHABILITATION – APPROACH FILL REPAIR, STEEL PILE REPAIR, APPROACH SLAB REPLACEMENT, PAVING OF APPROACH ROADWAY



DESIGN DATA
HAYWOOD COUNTY
#430163 ADT 2015 = 6,500

PROJECT LENGTH
HAYWOOD COUNTY
#430163 = 0.014 MILE



**GANNETT
FLEMING**

*One Glenwood Avenue
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270*

ZACH SHULER, P.E.
NCDOT PROJECT ENGINEER

2024 STANDARD SPECIFICATIONS

LETTING DATE:
AUGUST 25, 2026

DocuSigned by:
John A. Yannaccone
78136172-678456

NORTH CAROLINA
PROFESSIONAL
ENGINEER
JOHN A. YANNACONE

SEAL
032492

7/8/2026

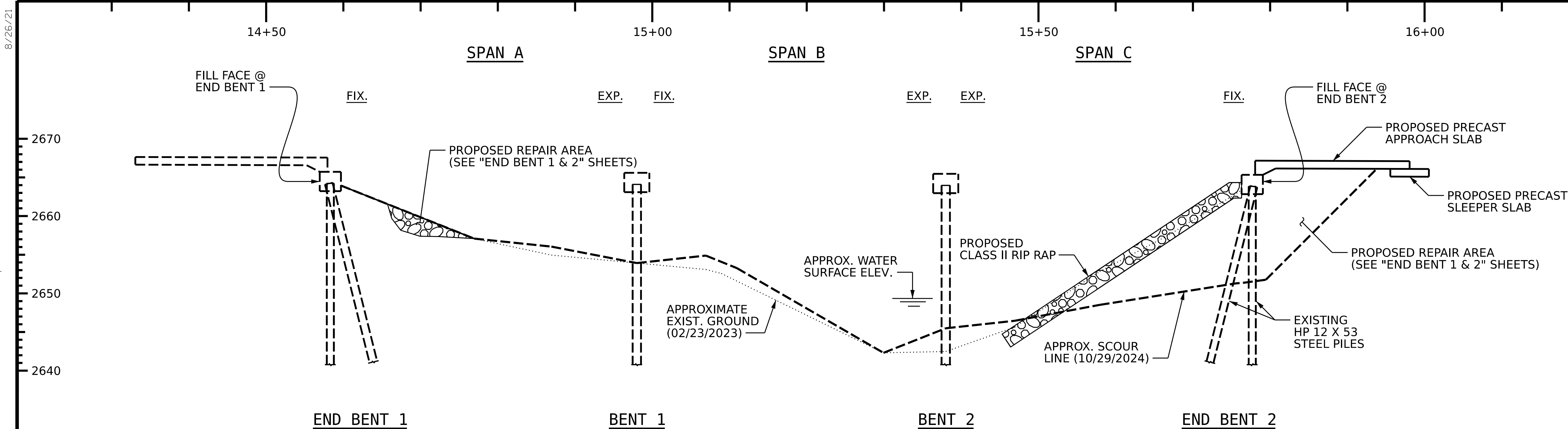
JOHN A. YANNACONE, P.E.
PROJECT DESIGN ENGINEER

8/26/24

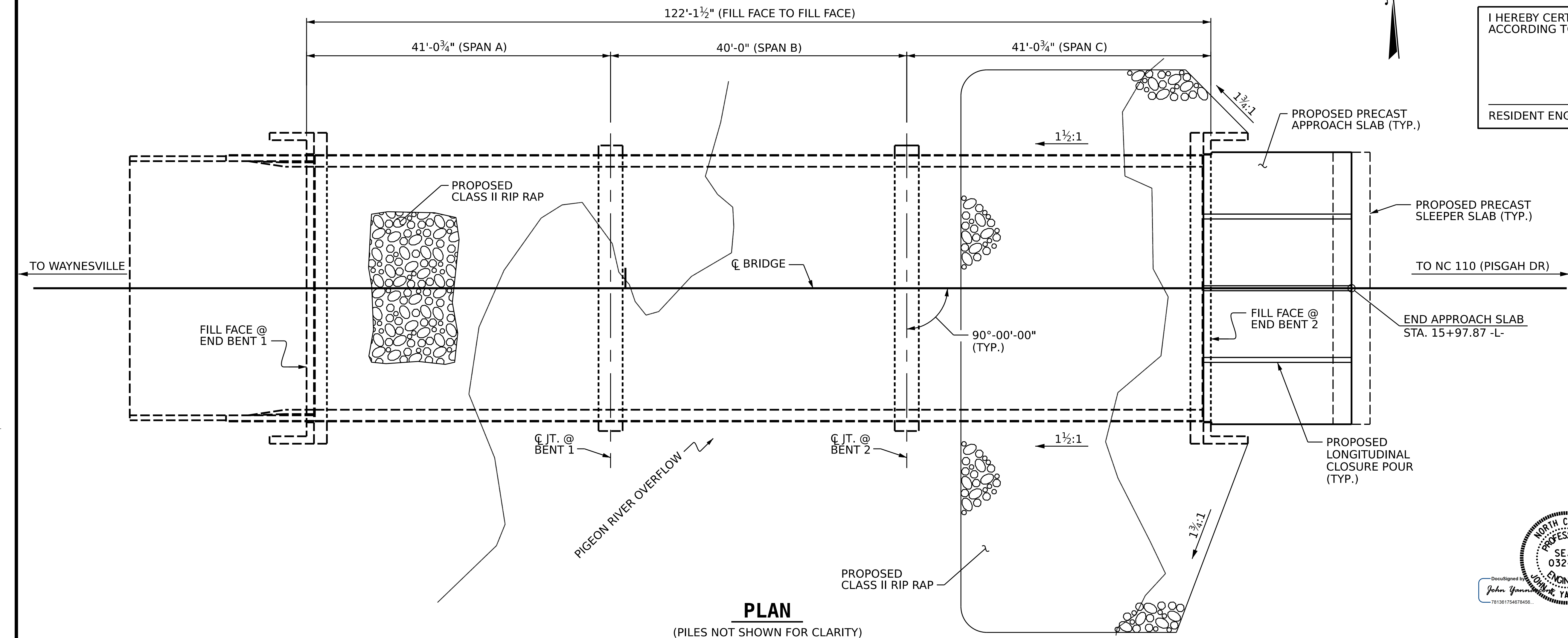
+

+

DRAWN BY : J. MYA DATE : 4/2025
CHECKED BY : J. YANNACCONE DATE : 4/2025



SECTION ALONG C BRIDGE



NOTES:

PROFILE INFORMATION IS TAKEN FROM THE ORIGINAL PLANS, THE ROUTINE INSPECTION REPORT DATED 01/08/2025, AND THE HIGH WATER SUPPLEMENTAL REPORT DATED 10/29/2024.

BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS AND ROUTINE INSPECTION REPORT.

SCOPE OF WORK:

REMOVE REMAINING PORTIONS OF EXISTING APPROACH SLAB AND EXISTING CONCRETE BARRIER RAIL.

REMOVE RIP RAP FROM AROUND EXISTING STEEL PILES DOWN TO APPROXIMATE SCOUR LINE.

CLEAN, REPAIR AND PAINT EXISTING STRUCTURAL STEEL PILES.

RESTORE ROADWAY FILL AROUND STEEL PILES.

INSTALL RIP RAP AT BOTH END BENTS TO MATCH AS-BUILT END SLOPE.

REMOVE AND RESET EXISTING GUARDRAIL.

INSTALL GUARDRAIL ANCHOR UNITS ON EXISTING BRIDGE RAIL.

INSTALL PRECAST APPROACH SLABS AND SLEEPER SLABS WITH LONGITUDINAL CLOSURE POURS.

REMOVE EXISTING JOINT AND INSTALL ASPHALT PLUG JOINTS.

MILL AND REPAVE ASPHALT APPROACH ROADWAY.

I HEREBY CERTIFY YHAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN.

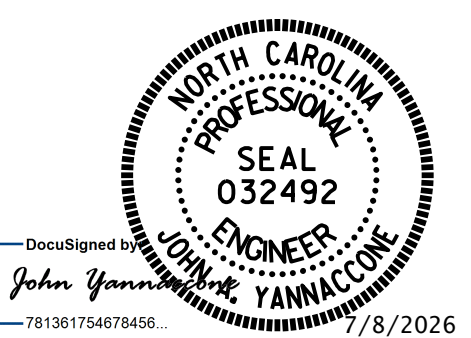
RESIDENT ENGINEER DATE

PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY
BRIDGE: **430163**

SHEET 1 OF 4

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON US 276
(PIGEON RD) OVER WEST FORK
PIGEON RIVER OVERFLOW

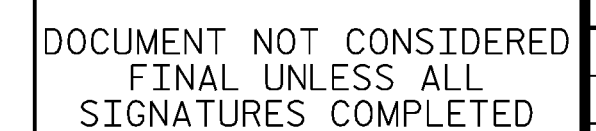


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2			4			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED						TOTAL SHEETS 14



PROJECT NO. 18314.1044067.PR
HAYWOOD COUNTY
 BRIDGE: 430163

GENERAL DRAWING
FOR BRIDGE ON US 276
(PIGEON RD) OVER WEST FORK
PIGEON RIVER OVERFLOW



REVISIONS						SHEET NO. S-2 TOTAL SHEETS 14
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			
2			4			

8/26/21



LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

BRIDGE COORDINATES	
LATITUDE	LONGITUDE
35° - 28 ' - 16.5"	82° - 53 ' - 13.8"

TOTAL BILL OF MATERIAL									
AGGREGATE BASE COURSE	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B	ASPHALT BINDER FOR PLANT MIX	FLOWABLE FILL	STEEL BEAM GUARDRAIL	GUARDRAIL ANCHOR UNITS TYPE B-77	REMOVE AND RESET EXISTING GUARDRAIL	REMOVE EXISTING GUARDRAIL	CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS AT STA. 15+50 -L-
TONS	SQ. YDS.	TONS	TONS	CU. YDS.	LIN. FT.	EA.	LIN. FT.	LIN. FT.	LUMP SUM
160	290	40	3	5.0	50.0	2	100.0	50.0	LUMP SUM
RIP RAP CLASS A	CLASS II RIP RAP (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	PARTIAL REMOVAL OF EXISTING STRUCTURE	PRECAST APPROACH SLABS	VOLUMETRIC MIXER	ASPHALT PLUG JOINT FOR PRESERVATION	LONGITUDINAL CLOSURE POUR	STEEL PILE REPAIRS	
TONS	TONS	SQ. YDS.	LUMP SUM	LUMP SUM	LUMP SUM	LIN. FT.	CU. YDS.	LBS.	
420	265	305	LUMP SUM	LUMP SUM	LUMP SUM	33.0	3.0	4,760	

GENERAL NOTES

SEE CONTRACT DOCUMENTS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF FOR INSTALLATION OF THE PRECAST SLEEPER SLABS AND APPROACH SLABS.

FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT DUE TO THE NATURE OF PRESERVATION PROJECTS, THE EXTENT OF WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO COMMENCEMENT OF WORK. REPAIR LOCATIONS AND ESTIMATES OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

WORK ON THE BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW, EXCEPT WHERE THE CONTRACTOR'S PLAN USES PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES TO CATCH THE MATERIAL. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY, 2024, ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED PART OF THESE PLANS:

STD. NO. TITLE

DIVISION 8 - INCIDENTALS

862.01 GUARDRAIL PLACEMENT
862.02 GUARDRAIL INSTALLATION
862.03 STRUCTURE ANCHOR UNITS

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL A PLAN SHOWING THE MEANS FOR POSITIVE PROTECTION OF THE ENDS OF THE BRIDGE BARRIER RAIL DURING THE TIME PERIOD BETWEEN CONSTRUCTION PHASE I AND PHASE II.

ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE CONTRACT DOCUMENTS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

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 GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

FOR FLOWABLE FILL, SEE SPECIAL PROVISIONS.

FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS, SEE SPECIAL PROVISIONS.

FOR PARTIAL REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOR PRECAST APPROACH SLABS AND LONGITUDINAL CLOSURE POUR, SEE PRECAST APPROACH SLABS SPECIAL PROVISIONS.

FOR ASPHALT PLUG JOINT FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR STEEL PILE REPAIRS, SEE SPECIAL PROVISIONS.

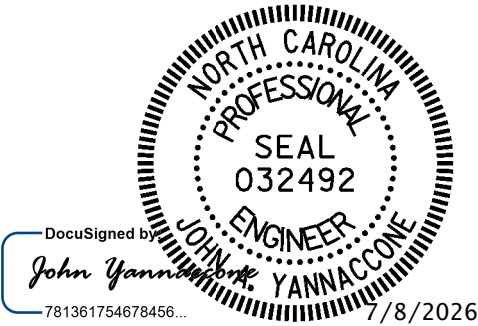
FOR VOLUMETRIC MIXER, SEE SPECIAL PROVISIONS.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY

BRIDGE: **430163**

SHEET 3 OF 4



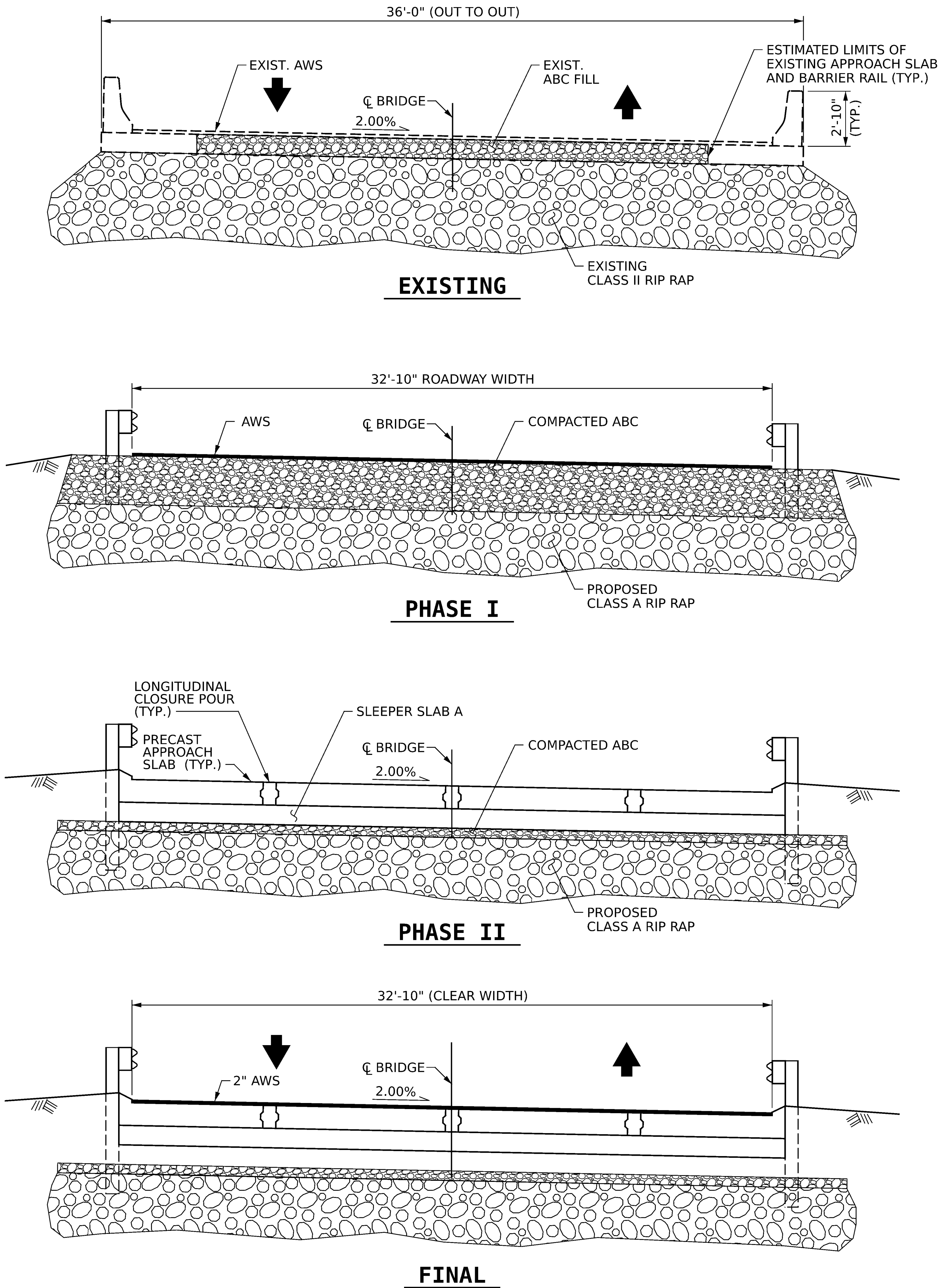
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING
FOR BRIDGE ON US 276
(PIGEON RD) OVER WEST FORK
PIGEON RIVER OVERFLOW

DRAWN BY : J. MYA DATE : 4/2025
CHECKED BY : J. YANNACCONE DATE : 4/2025



DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-3 TOTAL SHEETS 14
2			4			



END BENT 2 REHABILITATION PHASING

PHASE I:

1. CONSTRUCT TEMPORARY CONSTRUCTION ACCESS AS SHOWN IN THE PLANS.
2. DETOUR TRAFFIC AS DIRECTED IN THE CONTRACT DOCUMENTS.
3. REMOVE THE GUARDRAIL AND GUARDRAIL POSTS WITHIN THE LIMITS OF THE EXISTING APPROACH SLAB AT END BENT 2.
4. REMOVE ASPHALT SURFACING AND ALL REMAINING PORTIONS OF EXISTING APPROACH SLAB INCLUDING THE ATTACHED BARRIER RAIL AT END BENT 2.
5. EXCAVATE THE TEMPORARY REPAIR FILL AT END BENT 2 AS NEEDED TO ACCESS THE EXISTING STEEL PILES AND PERFORM PILE REPAIRS.
6. CLEAN, PAINT AND REPAIR THE EXISTING STEEL PILES AT END BENT 2.
7. BACKFILL AROUND THE STEEL PILES WITH CLASS A RIP RAP AND AGGREGATE BASE COURSE. RESTORE CLASS II RIP RAP SLOPES AT BOTH END BENTS.
8. PLACE TEMPORARY ASPHALT WEARING SURFACE ON AGGREGATE BASE COURSE AT END BENT 2.
9. RETURN TWO-WAY TRAFFIC TO THE BRIDGE AS DIRECTED IN THE CONTRACT DOCUMENTS.
10. REMOVE TEMPORARY CONSTRUCTION ACCESS.

PHASE II:

1. DETOUR TRAFFIC AS DIRECTED IN THE CONTRACT DOCUMENTS.
2. REMOVE ASPHALT SURFACING AND EXCAVATE AGGREGATE BASE COURSE TO LIMITS REQUIRED FOR PLACEMENT OF APPROACH SLAB.
3. DRILL DOWELS INTO END BENT CAP AND WINGWALLS. CONSTRUCT WINGWALL EXTENSIONS AS SHOWN IN THE PLANS.
4. SET PRECAST SLEEPER SLABS.
5. SET PRECAST APPROACH SLABS AND PLACE LONGITUDINAL CLOSURE POURS BETWEEN SLAB SECTIONS.
6. PLACE BRIDGE APPROACH ROADWAY PAVEMENT.
7. ATTACH GUARDRAIL ANCHORAGE UNIT TO EXISTING BRIDGE BARRIER RAIL AND RESET GUARDRAIL.
8. RETURN TWO-WAY TRAFFIC TO THE BRIDGE AS DIRECTED IN THE CONTRACT DOCUMENTS.

FINAL:

1. USE LANE CLOSURES AS DIRECTED IN THE CONTRACT DOCUMENTS.
2. CHECK FOR VOIDS UNDER THE PRECAST APPROACH SLABS AND PLACE FLOWABLE FILL AS NEEDED.
3. INSTALL ASPHALT PLUG JOINT AT END BENT 2.
4. COMPLETE REMAINING WORK REQUIRED INCLUDING PAVEMENT MARKINGS, AND SEEDING AND MULCHING.

PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY
BRIDGE: **430163**

SHEET 4 OF 4



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING
FOR BRIDGE ON US 276
(PIGEON RD) OVER WEST FORK
PIGEON RIVER OVERFLOW

DRAWN BY : **J. HARRIS** DATE : **4/2025**
CHECKED BY : **J. YANNACONE** DATE : **4/2025**

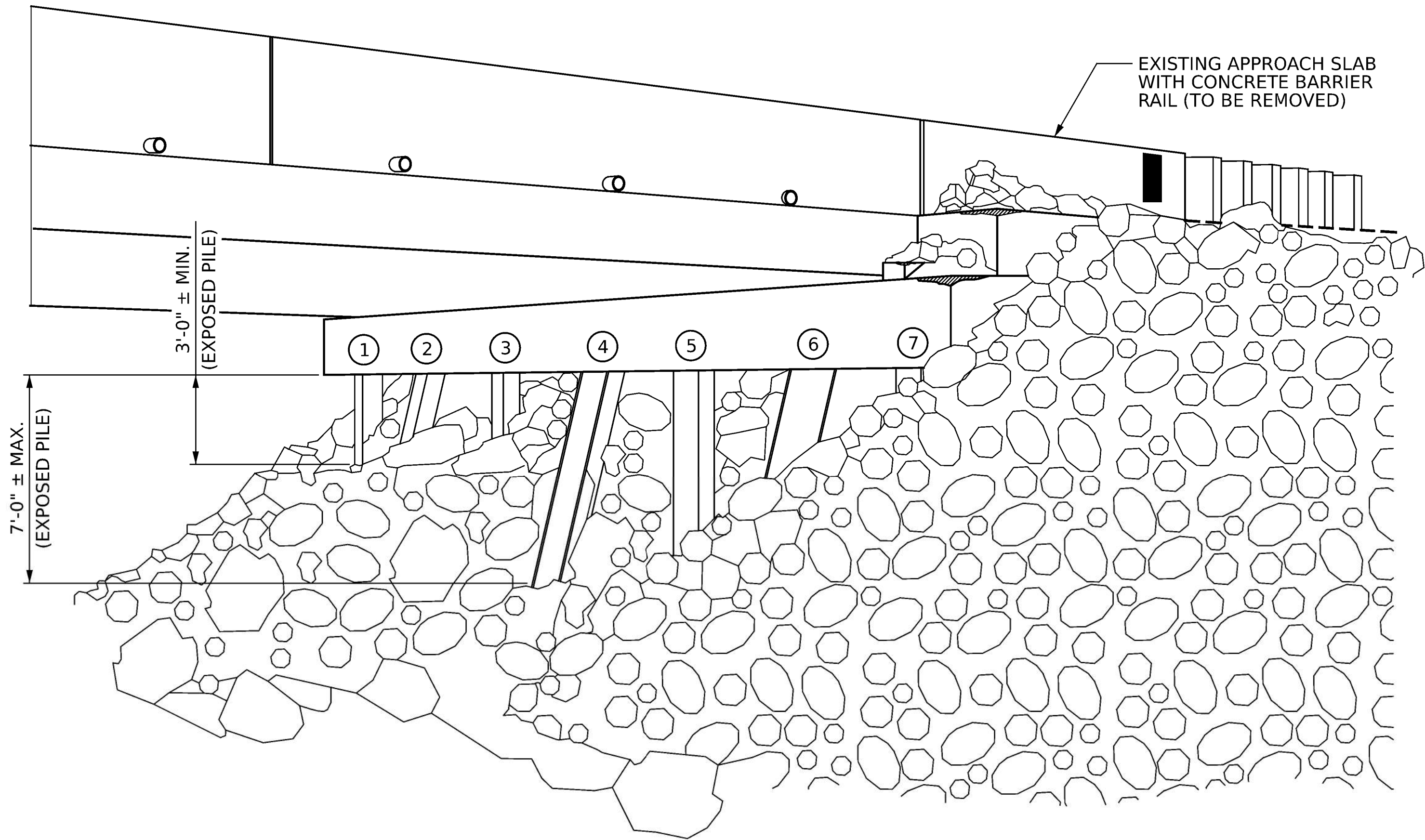


One Glenwood Avenue
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

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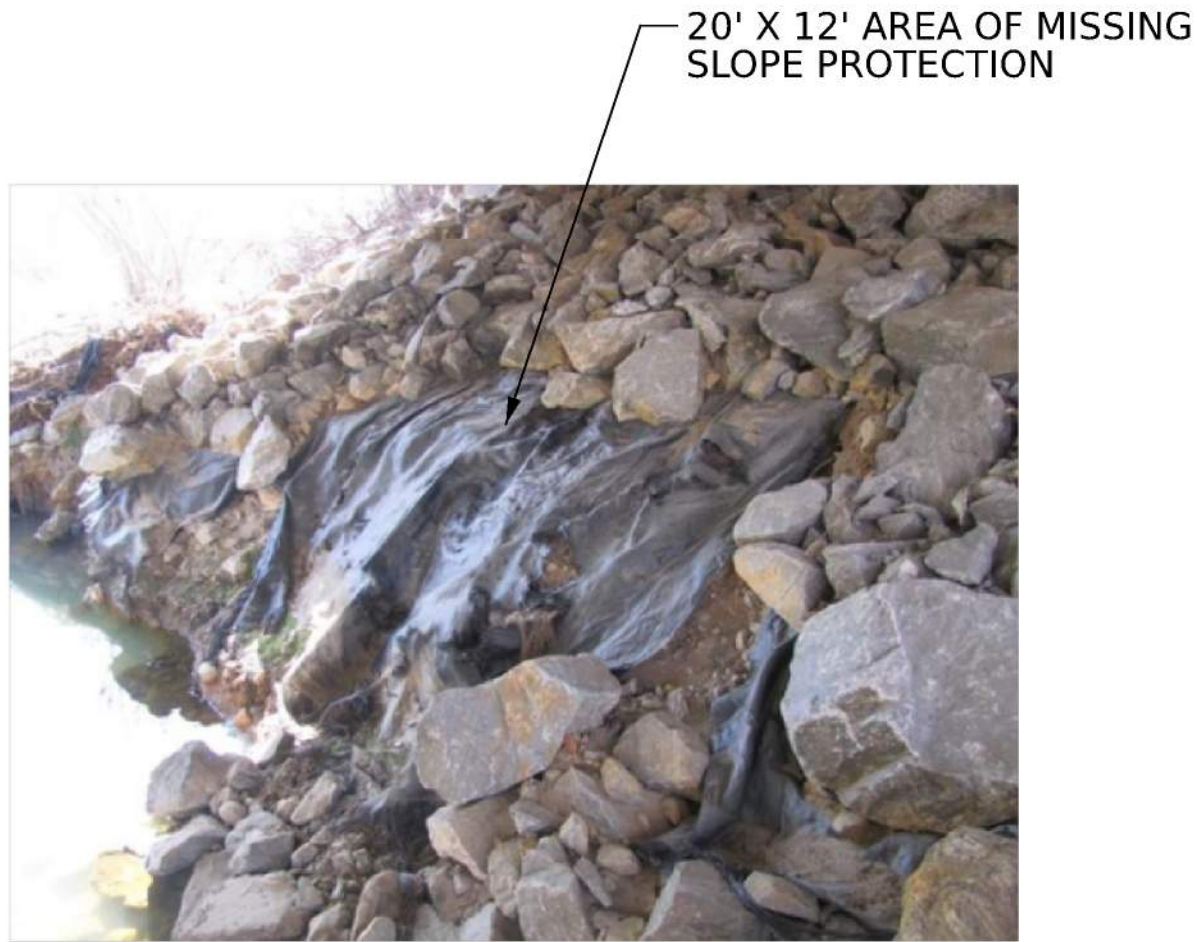
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1			3			S-4
2			4			
TOTAL SHEETS						14

NOTES:
FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS. SEE SPECIAL PROVISIONS.
FOR PARTIAL REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.
FOR STEEL PILE REPAIRS, SEE SPECIAL PROVISIONS AND "STEEL PILE REPAIR DETAILS" SHEET.



LEGEND:
① EXISTING PILE NUMBER

END BENT 2 - EXISTING

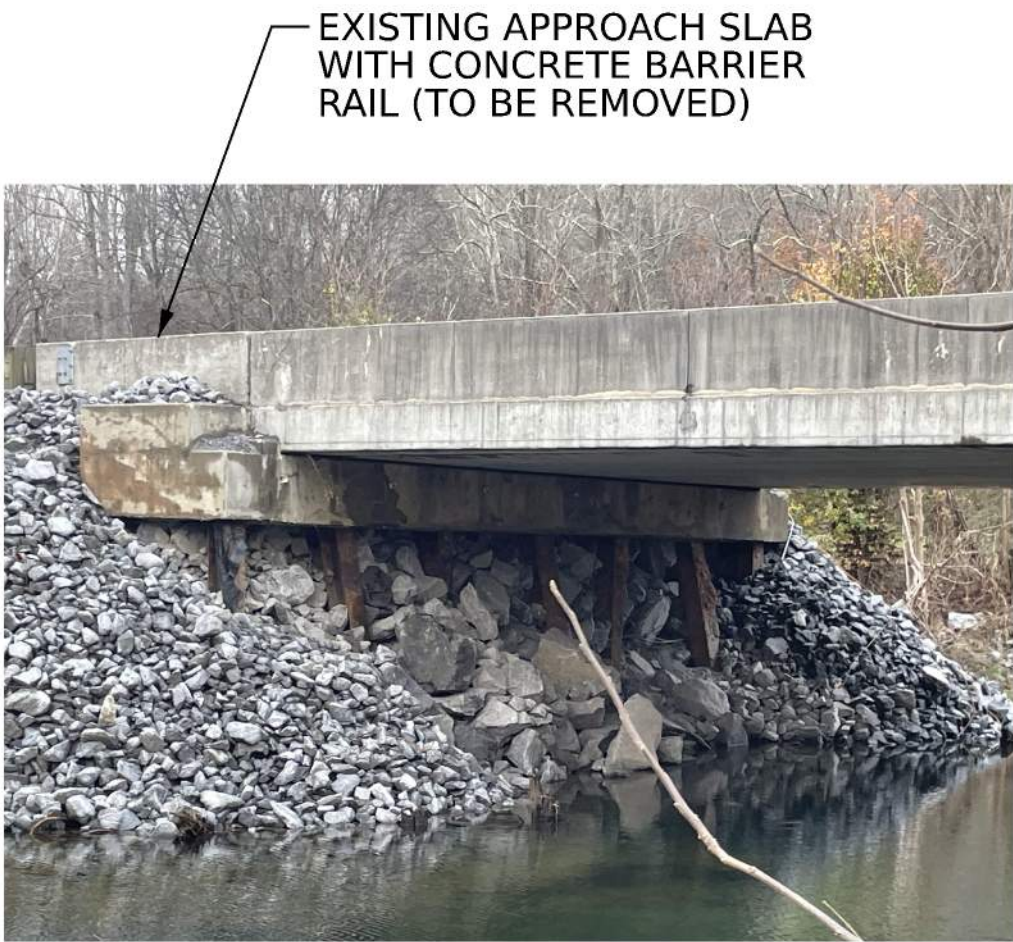


UPSTREAM VIEW

END BENT 1 - EXISTING



UPSTREAM VIEW



DOWNSTREAM VIEW

END BENT 2 - EXISTING



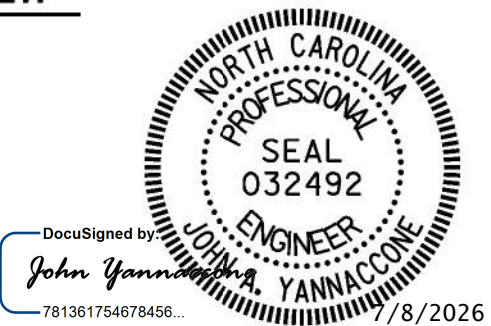
ELEVATION VIEW

PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY
BRIDGE: **430163**

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1 & 2



DRAWN BY : J. MYA DATE : 4/2025
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NOTES:

FOR PRECAST APPROACH SLABS AND LONGITUDINAL CLOSURE POUR, SEE SPECIAL PROVISIONS.

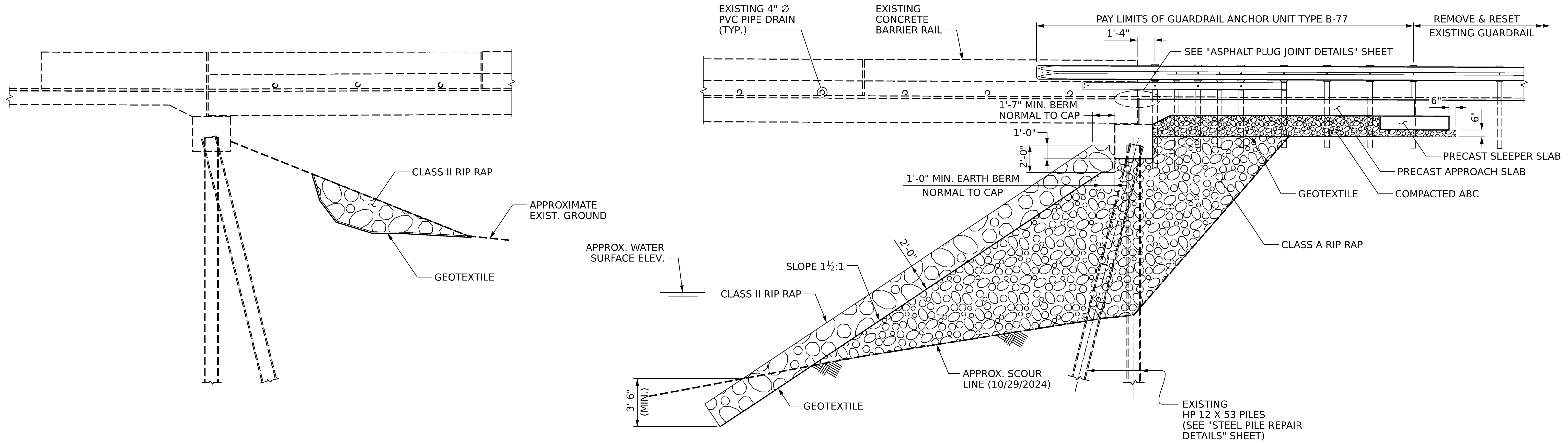
FOR ASPHALT PLUG JOINT FOR PRESERVATION, SEE PRECAST APPROACH SLABS SPECIAL PROVISION.

FOR STEEL PILE REPAIRS, SEE SPECIAL PROVISIONS.

SEE ROADWAY STANDARD DRAWING 862.01 FOR GUARDRAIL PLACEMENT DETAILS.

SEE ROADWAY STANDARD DRAWING 862.02 FOR GUARDRAIL INSTALLATION DETAILS.

SPACE GUARDRAIL POSTS AS DIMENSIONED IN THE ROADWAY STANDARD DRAWINGS, EXCEPT AS NOTED. SEE ROADWAY STANDARD DRAWING 862.03 FOR GUARDRAIL ANCHOR UNIT TYPE B-77 DETAILS.



END BENT 1 - PROPOSED

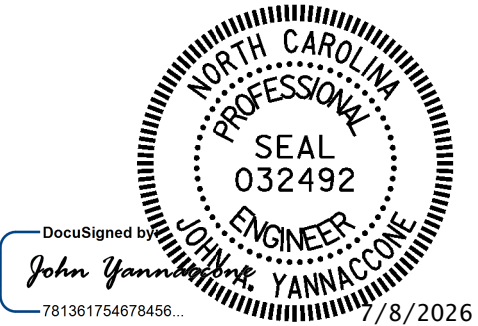
END BENT 2 - PROPOSED

PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY
BRIDGE: **430163**

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1 & 2



DRAWN BY : J. MYA DATE : 4/2025
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NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			5-6
2			4			TOTAL SHEETS 14

NOTES:

CLASS AA CONCRETE SHALL BE USED IN THE PRECAST APPROACH SLABS AND SLEEPER SLABS.

THE #6D1 DOWELS SHALL BE ADHESIVELY ANCHORED. NO FIELD TESTING IS REQUIRED. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS.

THE EMBEDMENT DEPTH OF THE #6D1 DOWELS SHALL BE A MINIMUM OF 9" OR THE DEPTH RECOMMENDED BY THE ADHESIVE MANUFACTURER TO ATTAIN THE PULL-OUT STRENGTH OF THE DESIGN LOAD SHOWN BELOW, WHICHEVER IS GREATER.

ANCHOR DESIGN YIELD LOAD: 20 KIPS.

FILL 2½" DIAMETER DOWEL HOLES WITH GROUT. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

A MINIMUM OF FOUR LIFTING LOOPS SHALL BE REQUIRED IN EACH PRECAST APPROACH SLAB AND SLEEPER SLAB IN ACCORDANCE WITH ARTICLE 1077-10 OF THE STANDARD SPECIFICATIONS. THE LIFTING LOOPS IN THE PRECAST APPROACH SLABS SHALL BE BURNED OFF AND THE RECESSES FILLED WITH GROUT PRIOR TO PLACEMENT OF TRAFFIC ON THE APPROACH SLAB (SEE DETAIL FOR GROUTED RECESS FOR LIFTING LOOPS). GROUT SHALL BE NON-METALLIC AND NON-SHRINK IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. PROPOSED DEVICES FOR LIFTING LOOPS AND THEIR LOCATION ON THE PRECAST APPROACH SLABS AND SLEEPER SLABS SHALL BE DETAILED IN THE SHOP DRAWINGS.

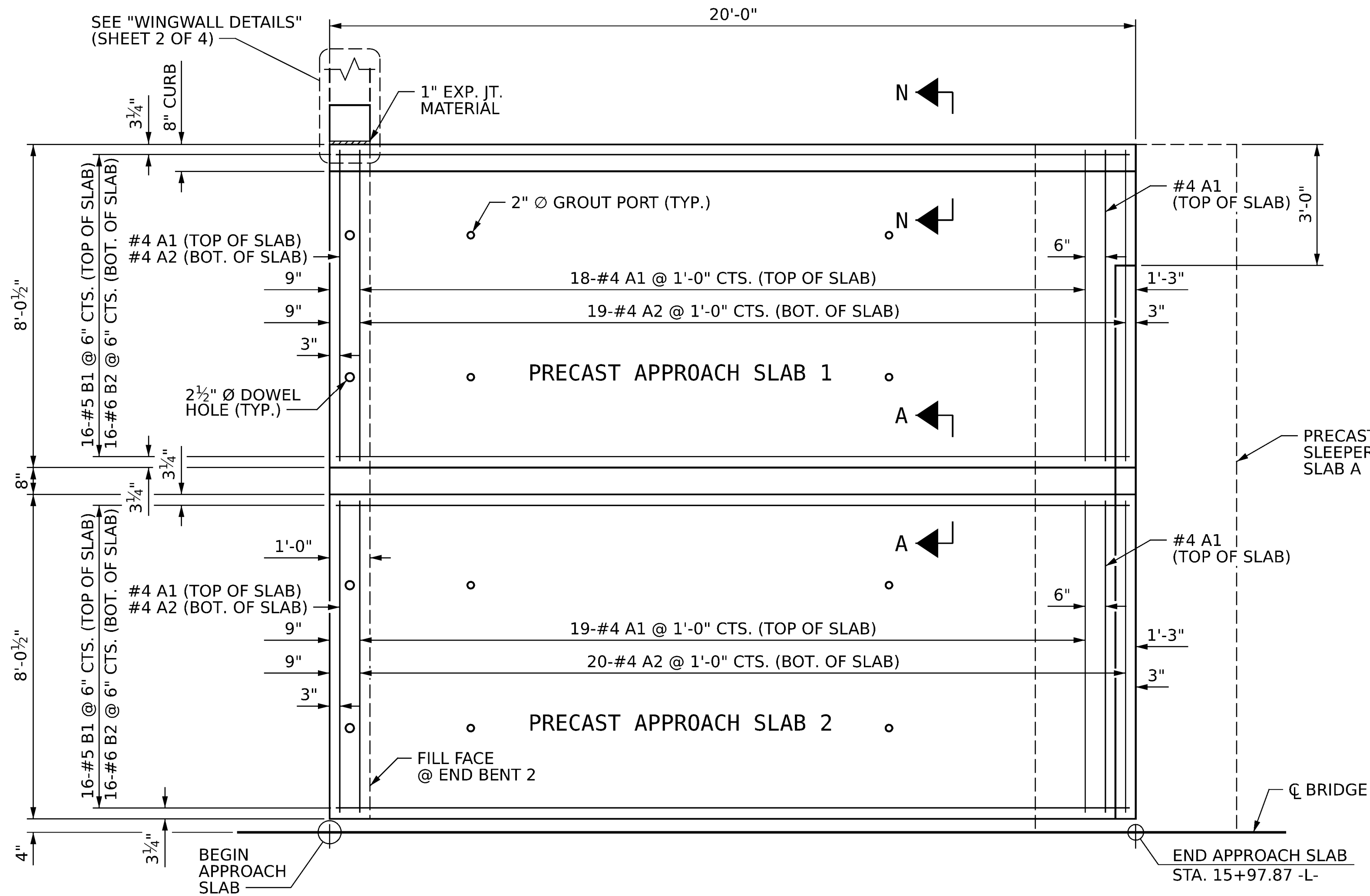
TWO INCH DIAMETER GROUT PIPES SHALL BE PROVIDED FOR PLACEMENT OF FLOWABLE FILL. THE TWO INCH DIAMETER GROUT PIPES SHALL BE CUT FROM SCHEDULE 40 PVC PIPE.

FOR GUARDRAIL ANCHOR ASSEMBLY DETAILS, SEE "ANCHORAGE DETAILS FOR GUARDRAIL ANCHOR ASSEMBLY FOR APPROACH SLAB" SHEET.

FOR PRECAST APPROACH SLABS AND LONGITUDINAL CLOSURE POUR, SEE PRECAST APPROACH SLABS SPECIAL PROVISIONS.

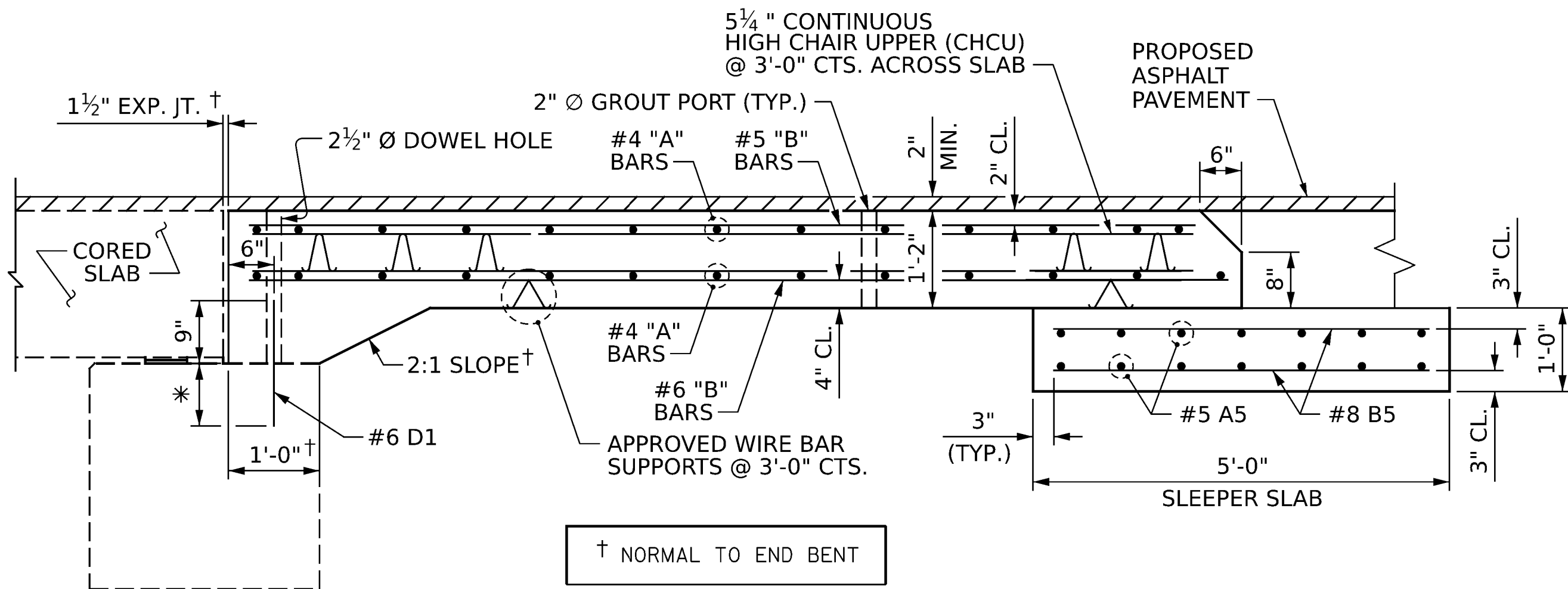
FOR SECTION A-A AND LONGITUDINAL CLOSURE POUR REINFORCEMENT, SEE SHEET 3 OF 5.

APPROACH SLAB GROOVING IS NOT REQUIRED.



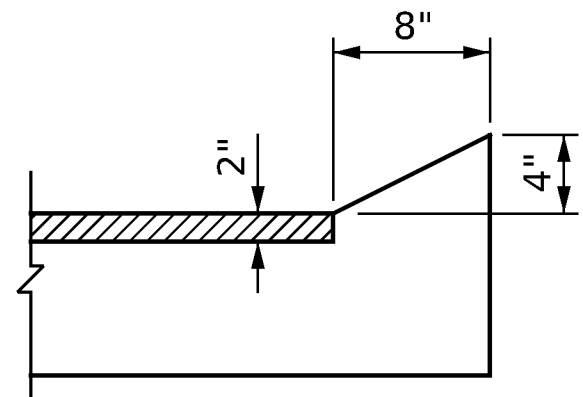
PARTIAL PLAN @ END BENT 2

(PRECAST APPROACH SLABS 1 AND 2, AND SLEEPER SLAB A SHOWN.
PRECAST APPROACH SLABS 3 AND 4, AND SLEEPER SLAB B SIMILAR
MIRRORED ABOUT C BRIDGE.)
(#5 U1 BARS NOT SHOWN FOR CLARITY)

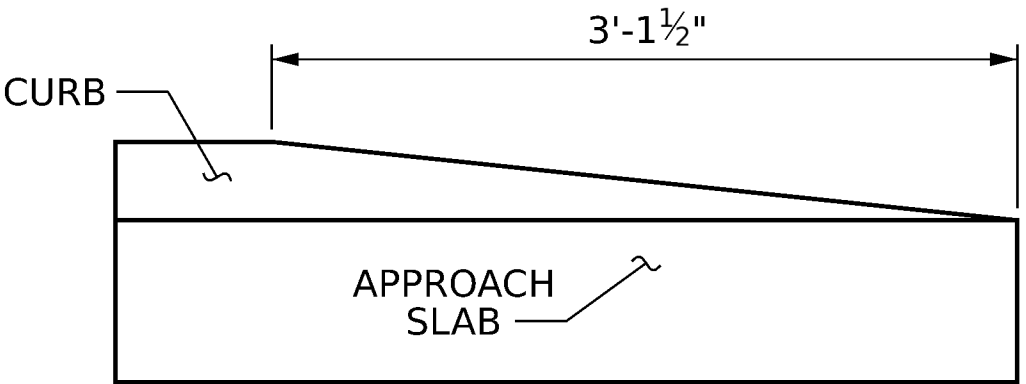


SECTION THRU SLAB

DRAWN BY : J. HARRIS DATE : 4/2025
CHECKED BY : J. YANNACCONE DATE : 4/2025



SECTION N-N



END OF CURB WITHOUT
SHOULDER BERM GUTTER

CURB DETAILS

PROJECT NO. 18314.1044067.PR

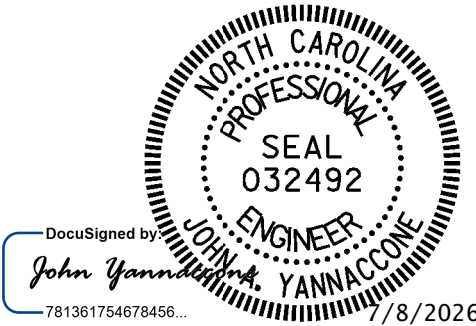
HAYWOOD COUNTY

BRIDGE: 430163

SHEET 1 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

PRECAST CONCRETE BRIDGE APPROACH SLAB DETAILS



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	2			4			14



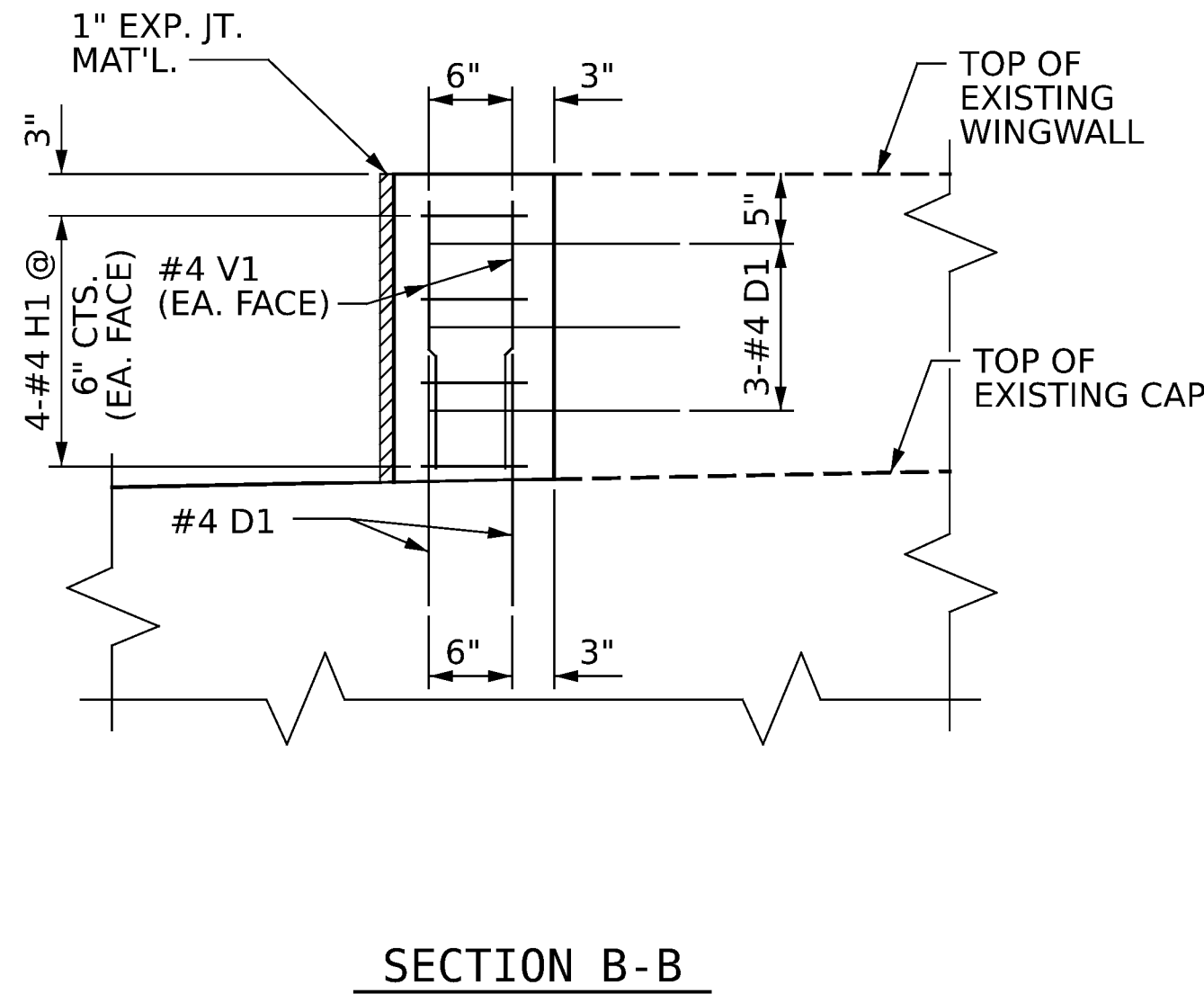
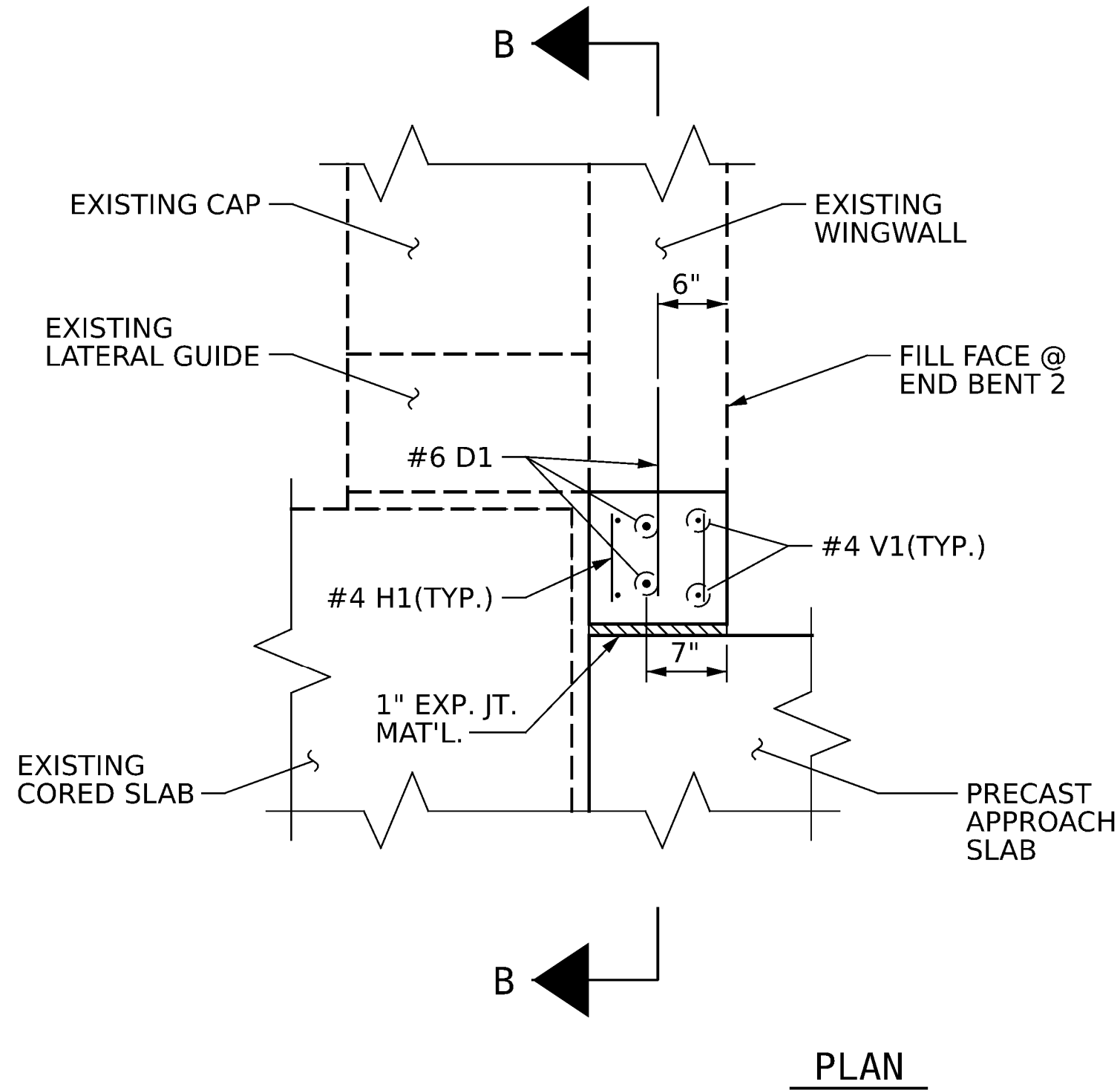
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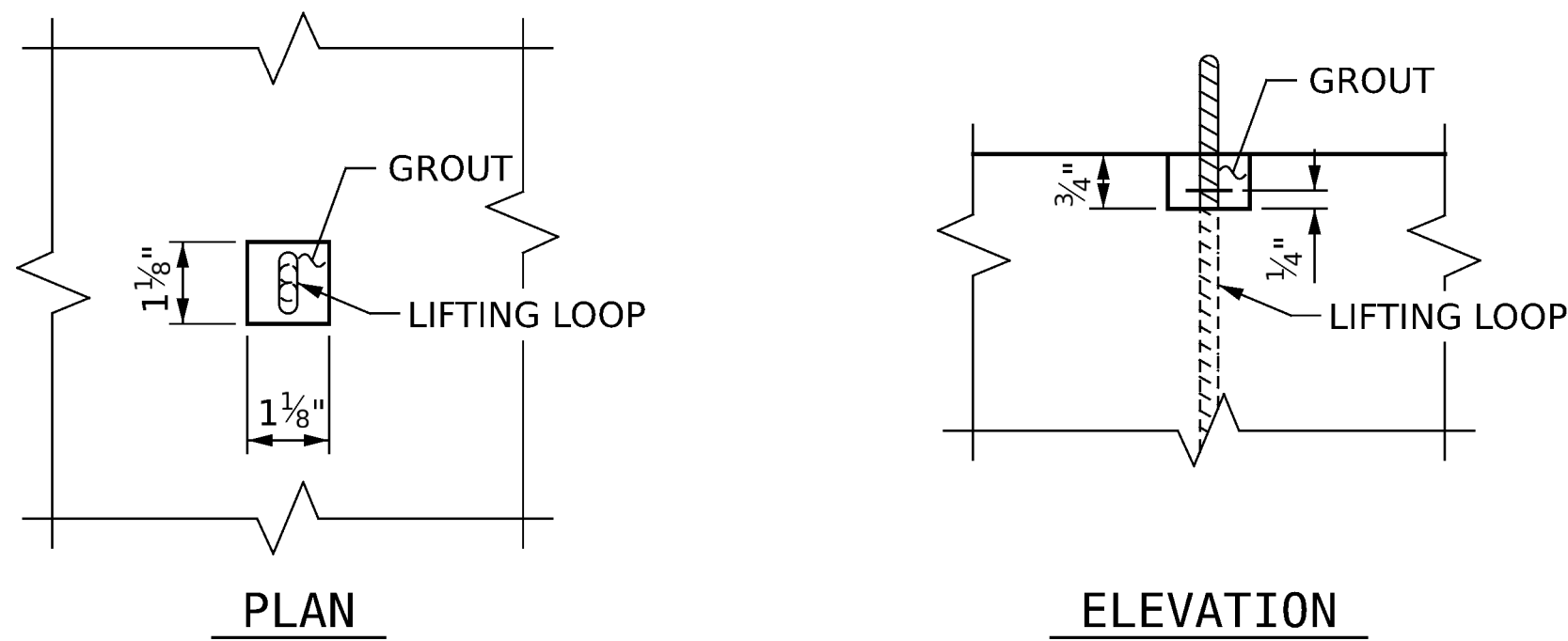
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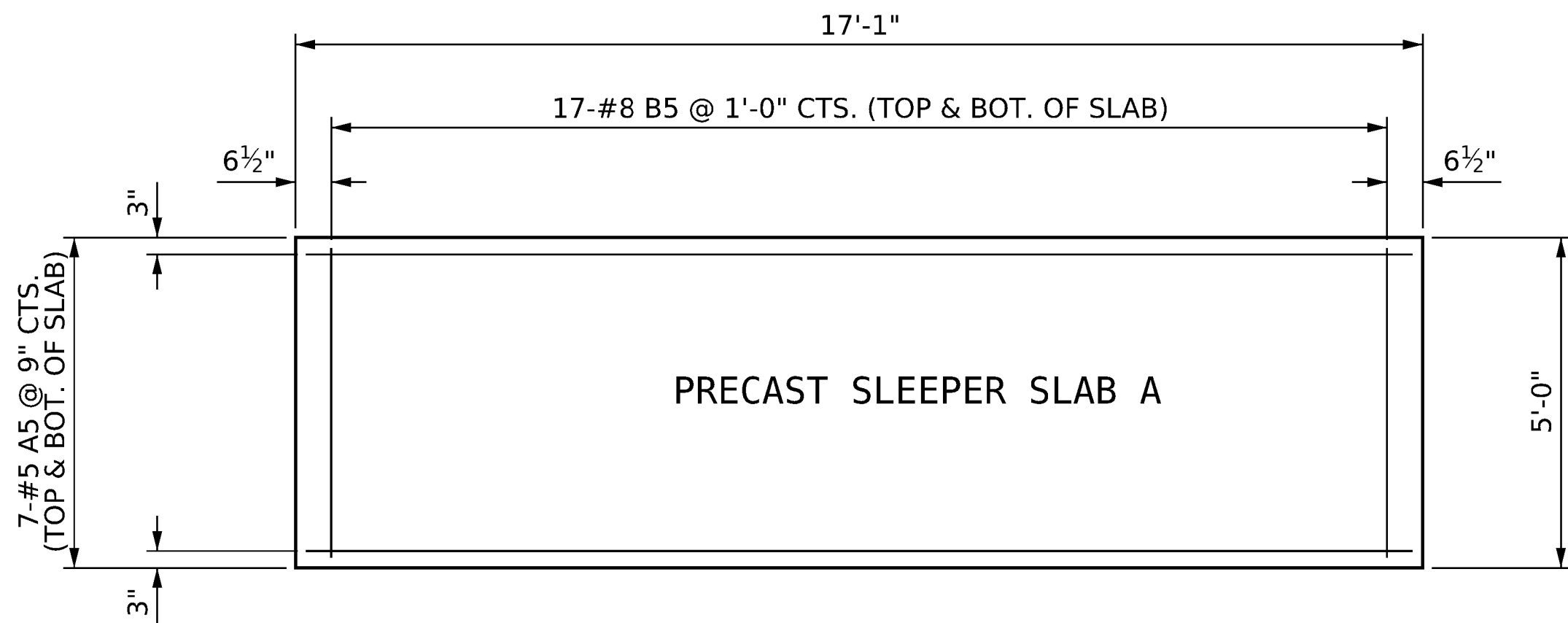
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CHECKED BY : J. YANNACCONE DATE : 4/2025



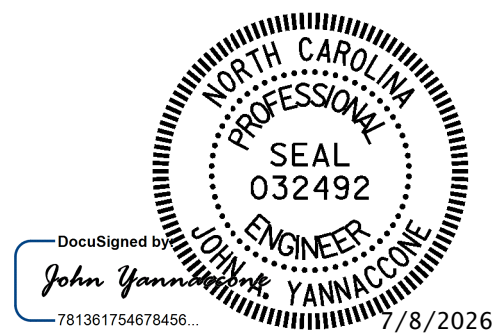
WINGWALL DETAILS
(TYP. FOR EACH WINGWALL AT END BENT 2)



GRAUTED RECESS FOR LIFTED LOOPS
LIFTING LOOPS TO BE CUT 1/4" ABOVE BOTTOM OF RECESS.



PRECAST SLEEPER SLAB PLAN
(PRECAST SLEEPER SLAB A SHOWN. PRECAST SLEEPER SLAB B SIMILAR)



PROJECT NO. **18314.1044067.PR**
HAYWOOD COUNTY
BRIDGE: **430163**

SHEET 2 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**PRECAST CONCRETE
BRIDGE APPROACH
SLAB DETAILS**

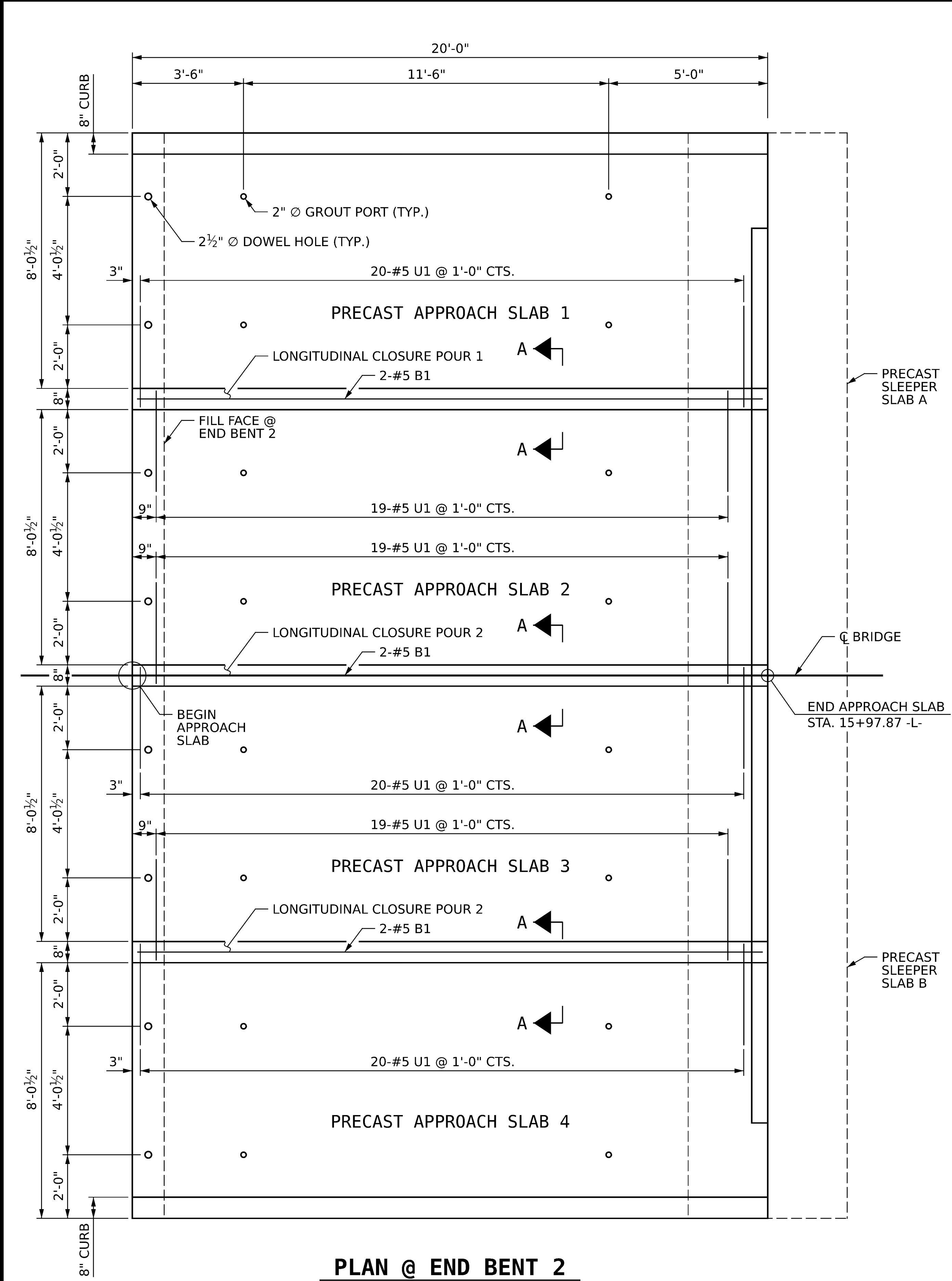


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2			4			
TOTAL SHEETS						14

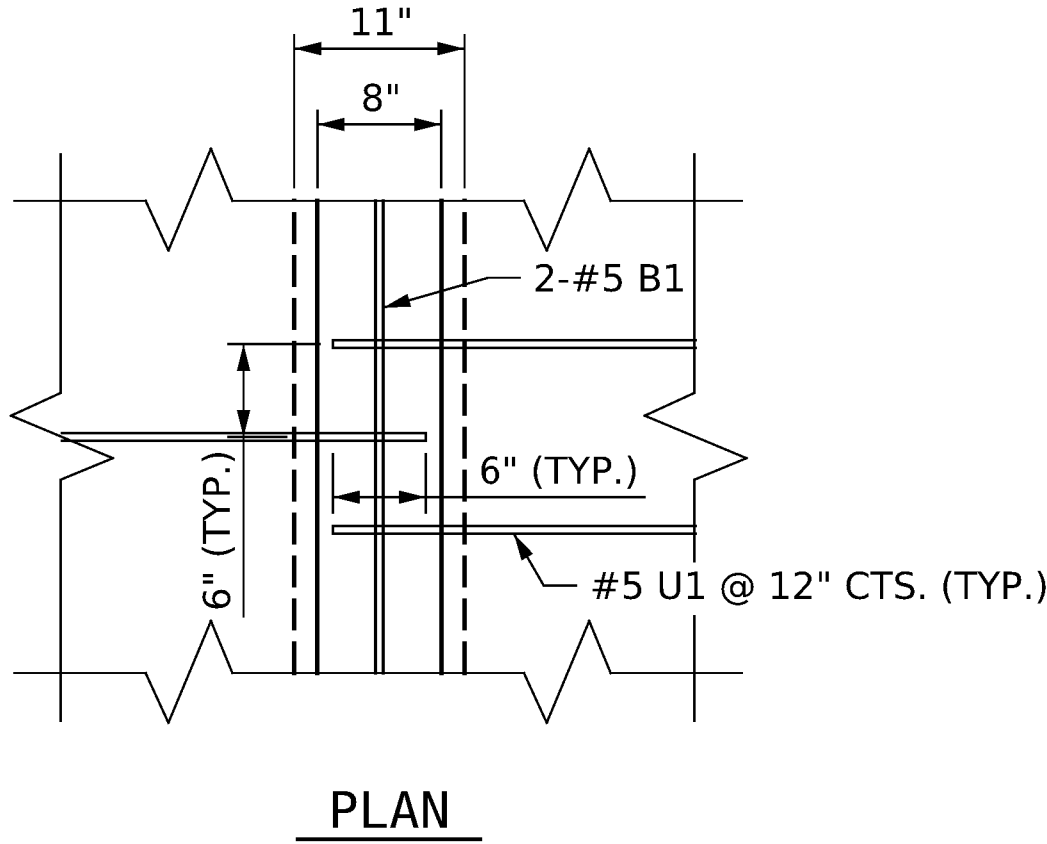
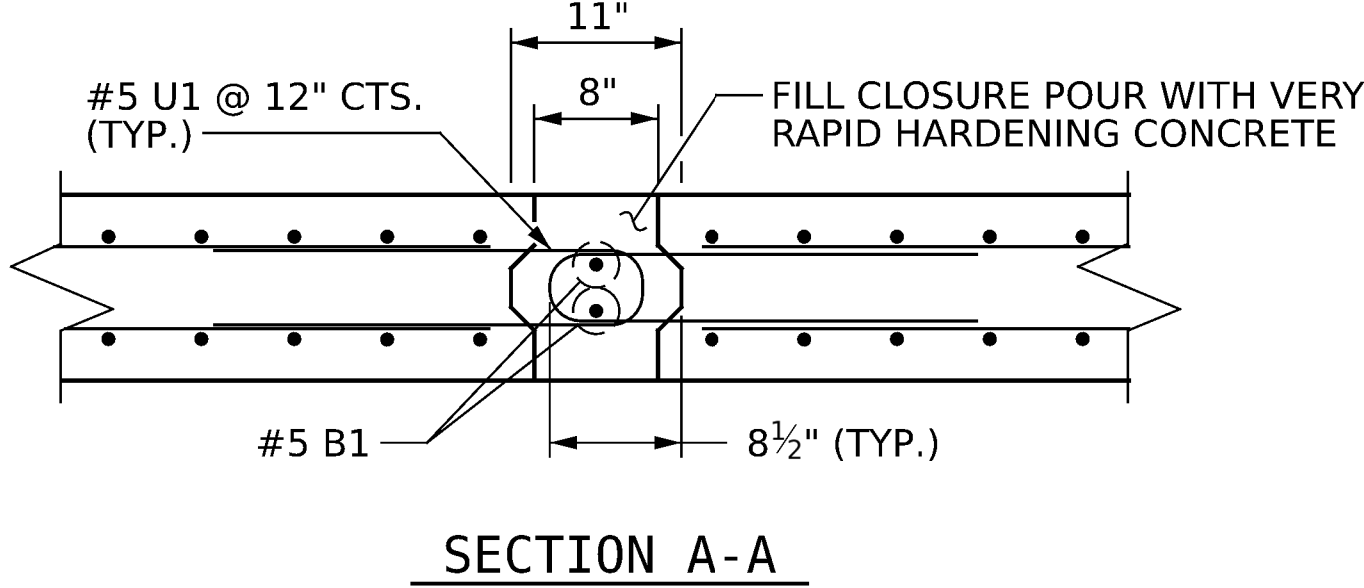
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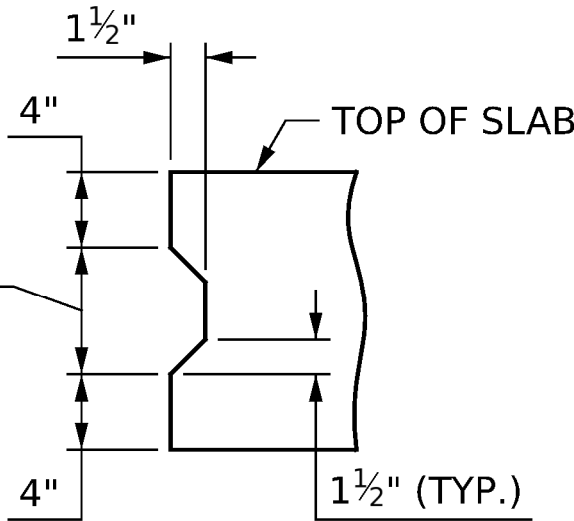
REINFORCING BAR SCHEDULE																							
FOR ONE SLEEPER SLAB (2 REQ'D) (SLEEPER SLAB 1 & 2)						FOR ONE APPROACH SLAB (2 REQ'D) (APPROACH SLAB 1 & 4)						FOR ONE APPROACH SLAB (1 REQ'D) (APPROACH SLAB 2)						FOR ONE APPROACH SLAB (1 REQ'D) (APPROACH SLAB 3)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A5	14	#5	STR	18'-0"	263	* A1	21	#4	STR	8'-4"	117	* A1	21	#4	STR	8'-4"	117	* A1	21	#4	STR	8'-4"	117
B5	34	#8	STR	4'-8"	424	A2	21	#4	STR	8'-4"	117	A2	21	#4	STR	8'-4"	117	A2	21	#4	STR	8'-4"	117
						* B1	16	#5	STR	19'-3"	321	* B1	16	#5	STR	19'-3"	321	* B1	16	#5	STR	19'-3"	321
						B2	16	#6	STR	19'-8"	473	B2	16	#6	STR	19'-8"	473	B2	16	#6	STR	19'-8"	473
REINFORCING STEEL						LBS. 687																	
BAR TYPES																							
						* D1	2	#6	STR	1'-6"	5	* D1	2	#6	STR	1'-6"	5	* D1	2	#6	STR	1'-6"	5
						* U1	20	#5	1	9'-7"	200	* U1	38	#5	1	9'-7"	380	* U1	39	#5	1	9'-7"	390
						REINFORCING STEEL						LBS. 590						REINFORCING STEEL					
						* EPOXY COATED REINFORCING STEEL						LBS. 643						* EPOXY COATED REINFORCING STEEL					
ALL BAR DIMENSIONS ARE OUT TO OUT																							

FOR ONE LONGITUDINAL CLOSURE POUR (3 REQ'D) (LONGITUDINAL CLOSURE POUR 1, 2 & 3)						FOR ONE WINGWALL (2 REQ'D)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
D1	5	#4	STR	1'-6"	5	H1	8	#4	STR	8"	4
* B1	2	#5	STR	19'-3"	40	V1	4	#4	STR	1'-7"	4
* EPOXY COATED REINFORCING STEEL						REINFORCING STEEL					
LBS. 40						LBS. 13					

APPROACH SLAB BILL OF MATERIAL				
	CLASS AA CONCRETE	LONGITUDINAL CLOSURE POUR	REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
	(CU. YDS.)	(CU. YDS.)	(LBS.)	(LBS.)
SLEEPER SLAB A	3.2	--	687	--
SLEEPER SLAB B	3.2	--	687	--
APPROACH SLAB 1	7.4	--	590	643
LONGITUDINAL CLOSURE POUR 1	--	1.0	--	40
APPROACH SLAB 2	7.3	--	590	823
LONGITUDINAL CLOSURE POUR 2	--	1.0	--	40
APPROACH SLAB 3	7.3	--	590	833
LONGITUDINAL CLOSURE POUR 3	--	1.0	--	40
APPROACH SLAB 4	7.4	--	590	643
WINGWALL 1	--	0.1	18	--
WINGWALL 2	--	0.1	18	--



LONGITUDINAL CLOSURE POUR



LONGITUDINAL JOINT DETAIL

PROJECT NO. **18314.1044067.PR**

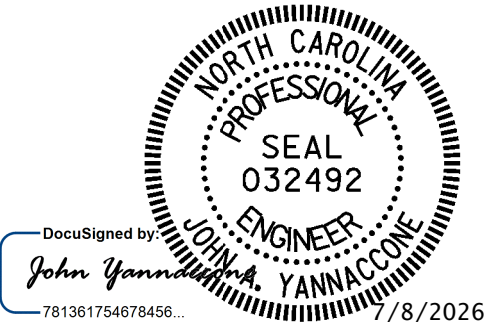
HAYWOOD COUNTY

BRIDGE: **430163**

SHEET 3 OF 5

STATE OF NORTH CAROLINA
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**PRECAST CONCRETE
BRIDGE APPROACH
SLAB DETAILS**



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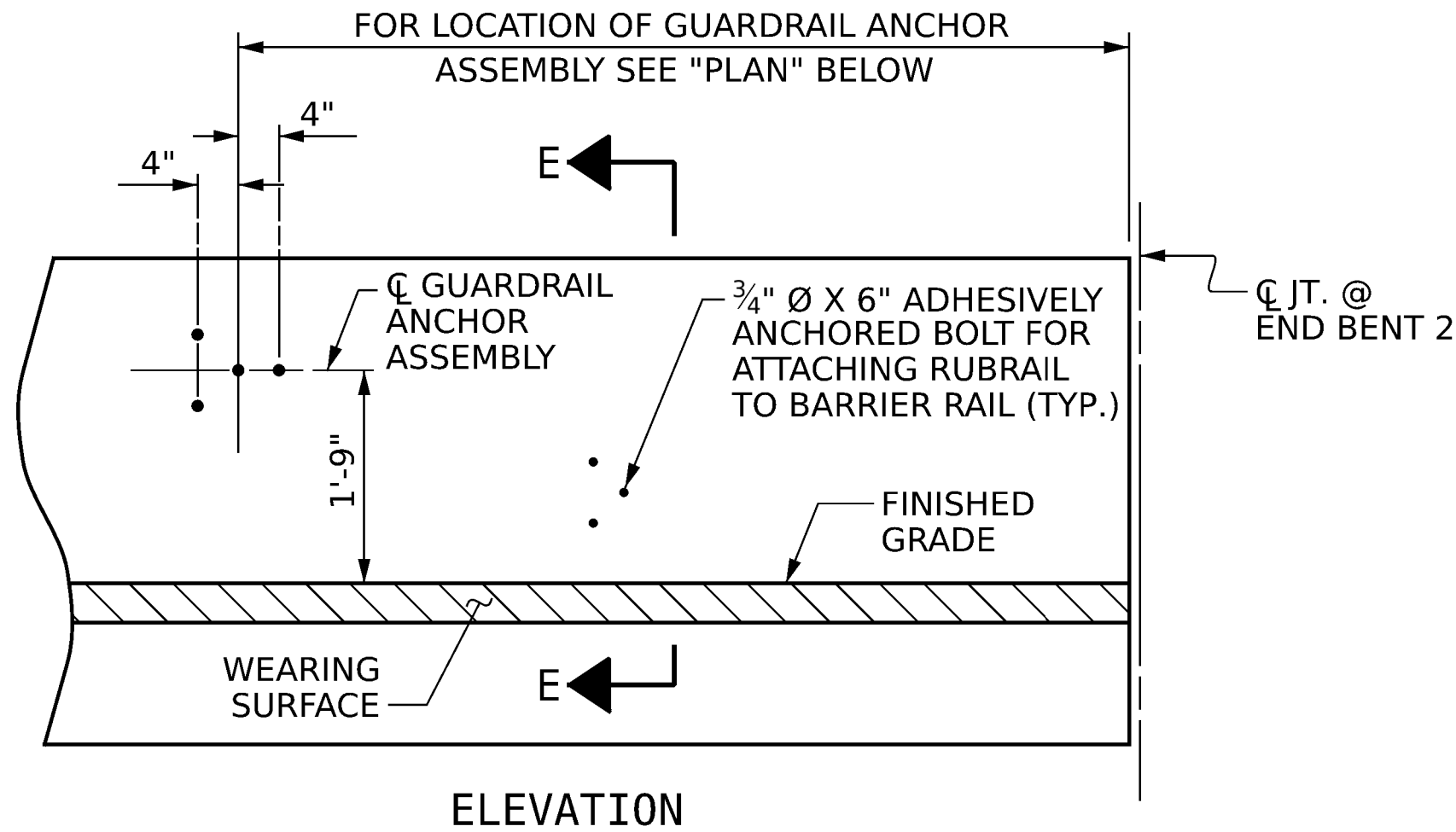
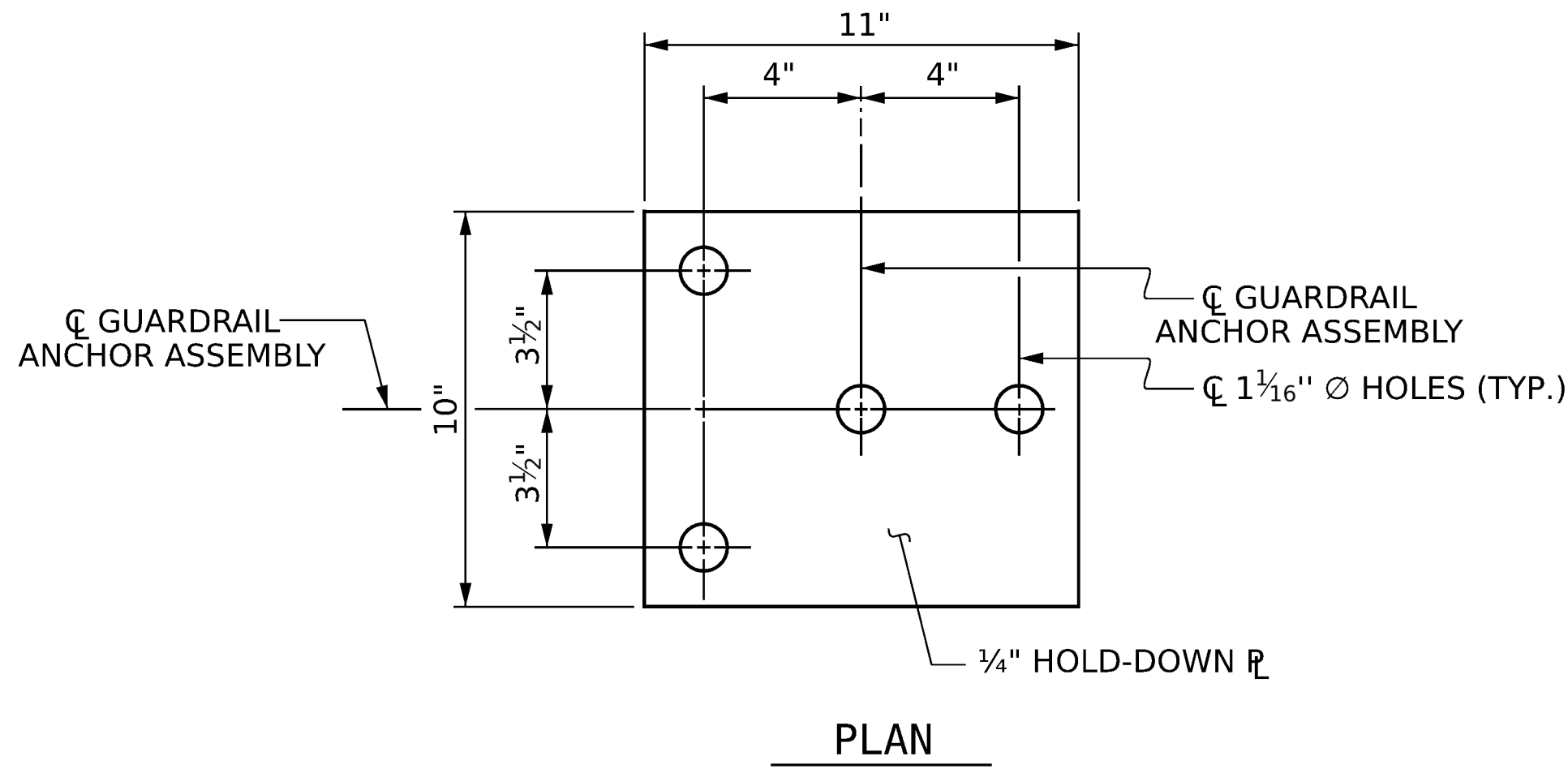


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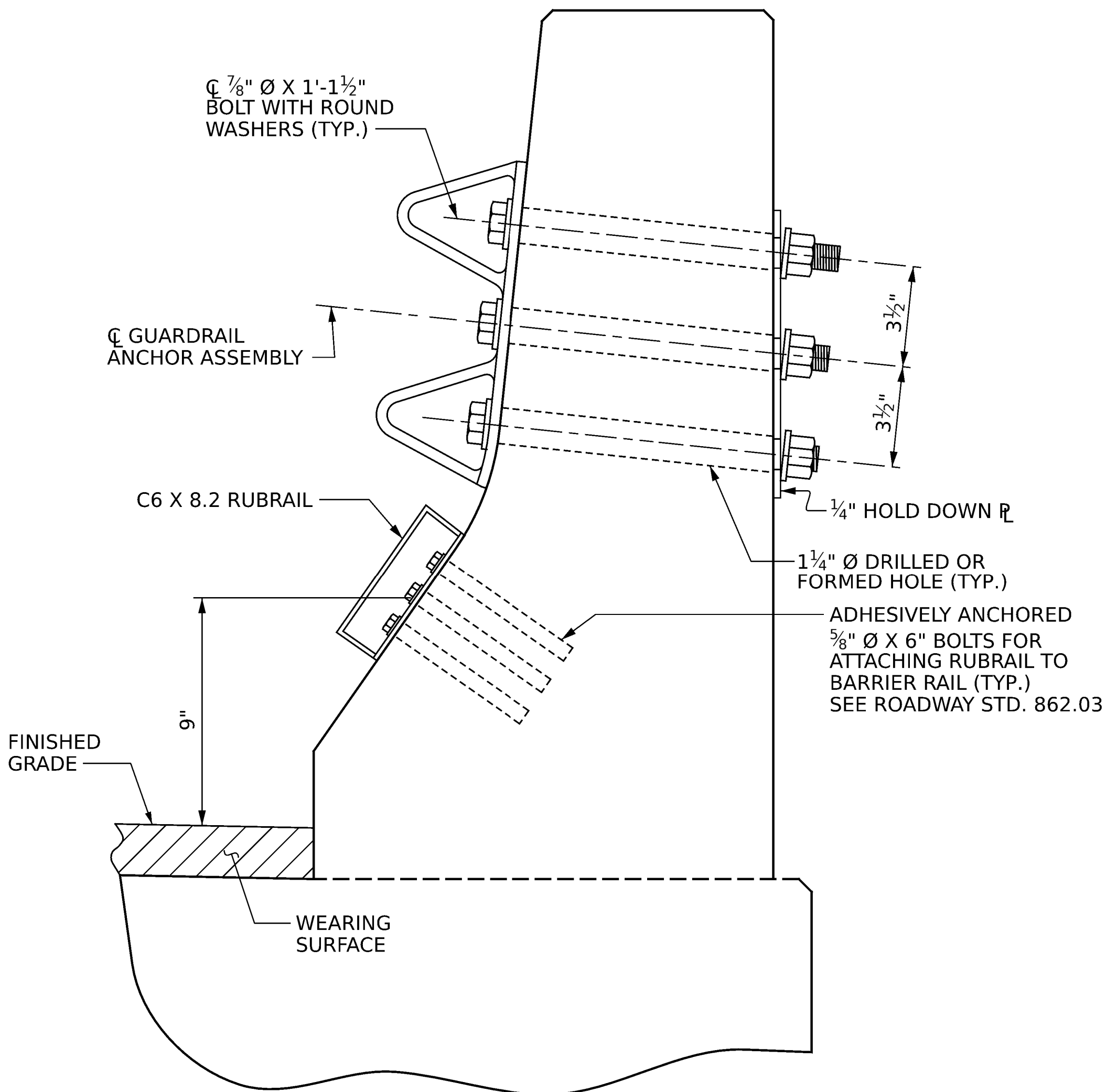
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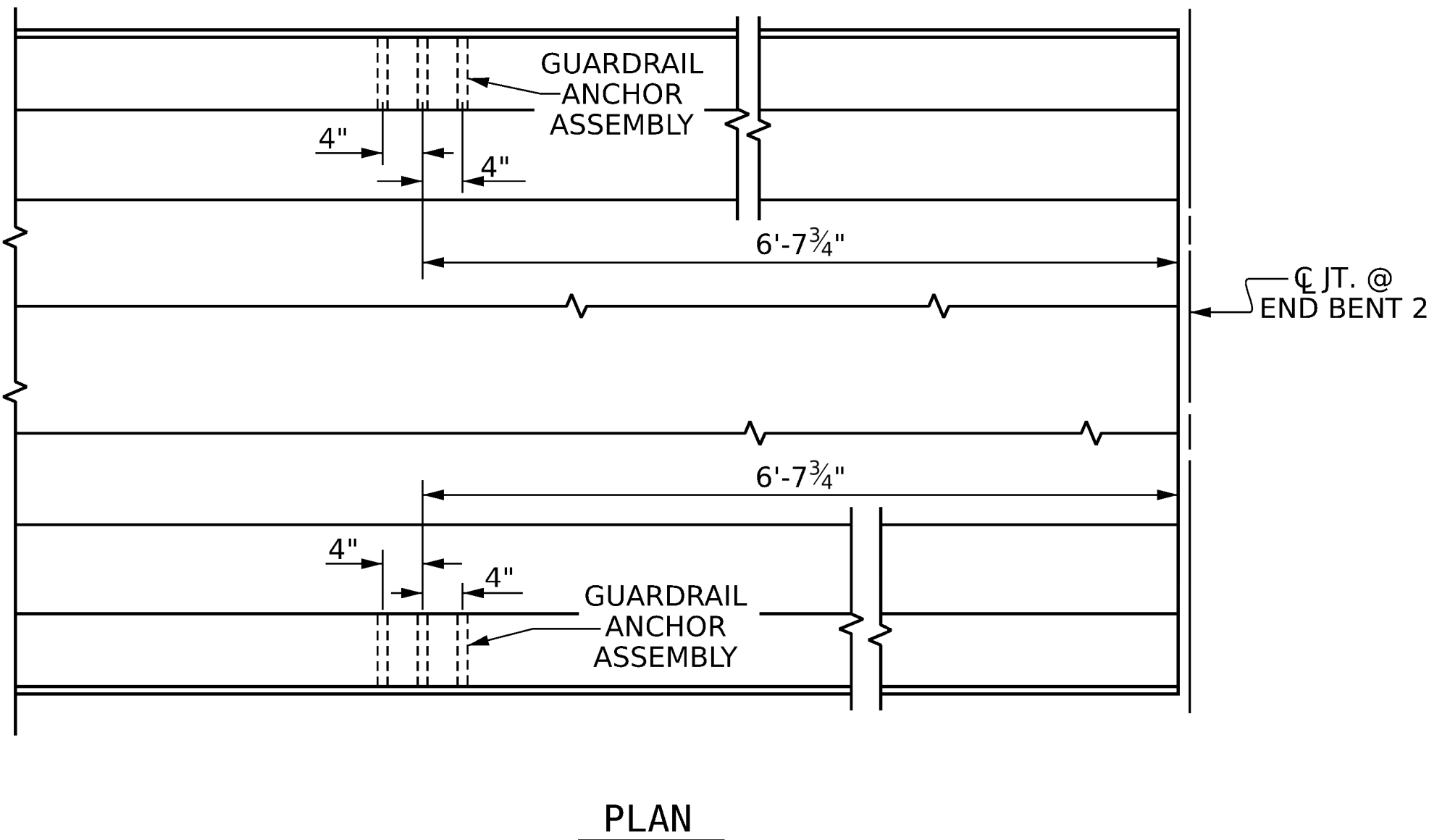
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FOR LOCATION OF RUBRAIL SEE ROADWAY STD.862.03

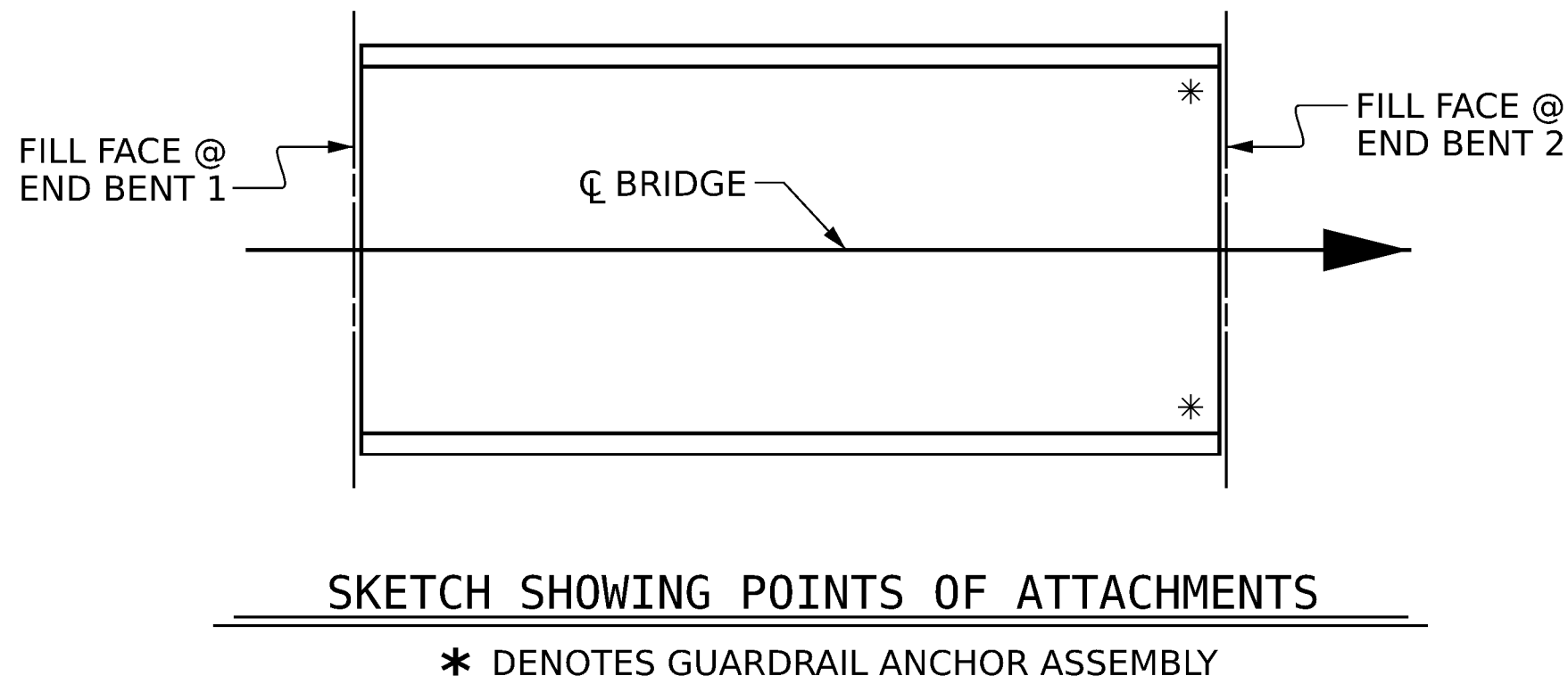


SECTION E-E
GUARDRAIL ANCHOR ASSEMBLY DETAILS



LOCATION OF ANCHORS FOR GUARDRAIL

(END BENT #2)



NOTES

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

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 GUARDRAIL ANCHOR UNITS, TYPE B-77.

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.

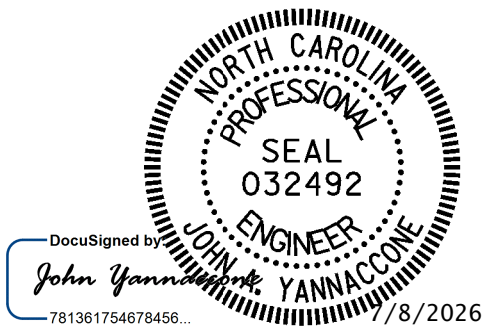
THE C6 X 8.2 RUBRAIL IS TO BE ADHESIVELY ANCHORED TO THE RAIL USING THREE 5/8" Ø X 6" BOLTS WITH WASHERS. LEVEL ONE FIELD TESTING IS REQUIRED, AND THE YIELD LOAD OF THE 5/8" Ø BOLT IS 12 KIPS. FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS. SEE ROADWAY STANDARD 862.03 FOR DETAILS AND LOCATION OF THE RUBRAIL.

DRAWN BY : J. HARRIS DATE : 4/2025
CHECKED BY : J. YANNACCONE DATE : 4/2025



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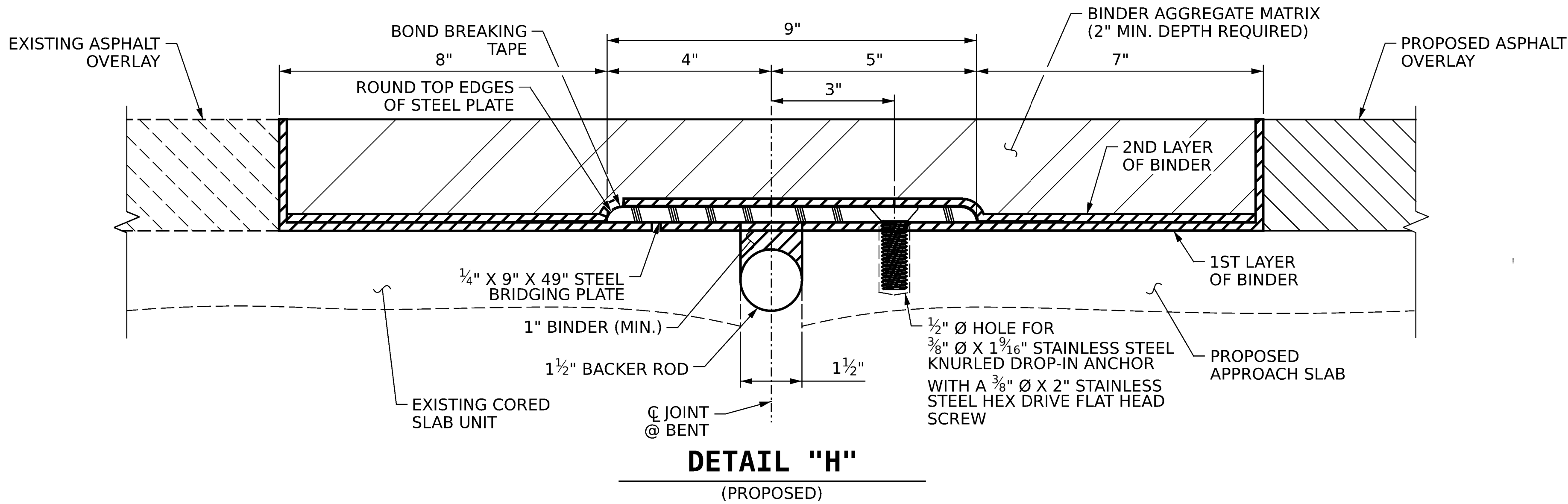
SHEET 4 OF 5

STATE OF NORTH CAROLINA
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GUARDRAIL ANCHORS FOR BARRIER RAIL

REVISIONS						SHEET NO. S-10
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8/26/21



AS-BUILT SUMMARY OF QUANTITIES	
LOCATION	ASPHALT PLUG JOINT FOR PRESERVATION (LIN. FT.)
APPROACH SLAB @ END BENT 2	33.0

NOTES :

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT MATERIALS.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE BACKER ROD FOR THE EXISTING JOINT SIZE AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

ONLY ASPHALTIC PLUG JOINTS THAT ARE APPROVED ON NCDOT'S APPROVED PRODUCTS LIST SHALL BE USED. CONTACT SMU PRESERVATION AND REPAIR AT LEAST 3 DAYS PRIOR TO JOINT INSTALLATION.

ASPHALTIC PLUG JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

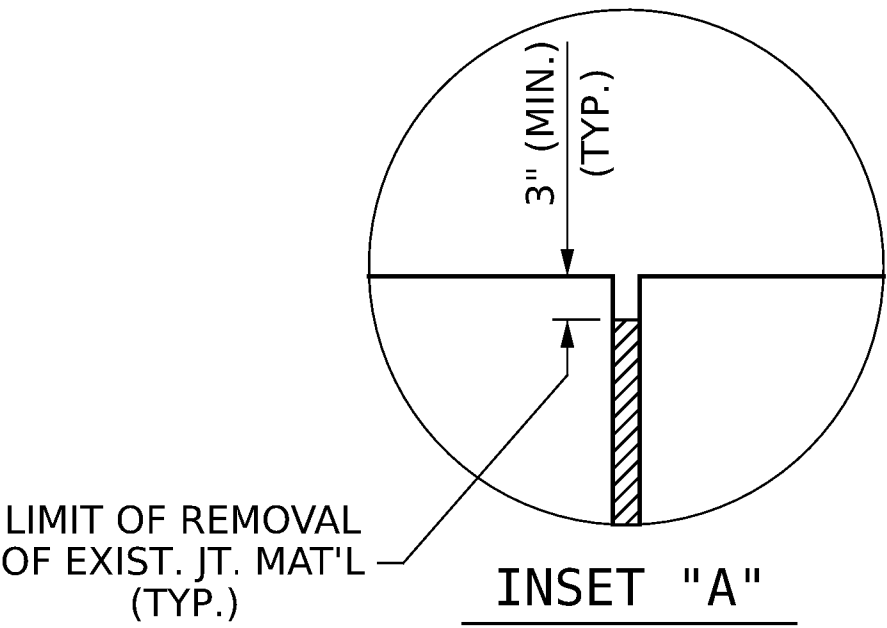
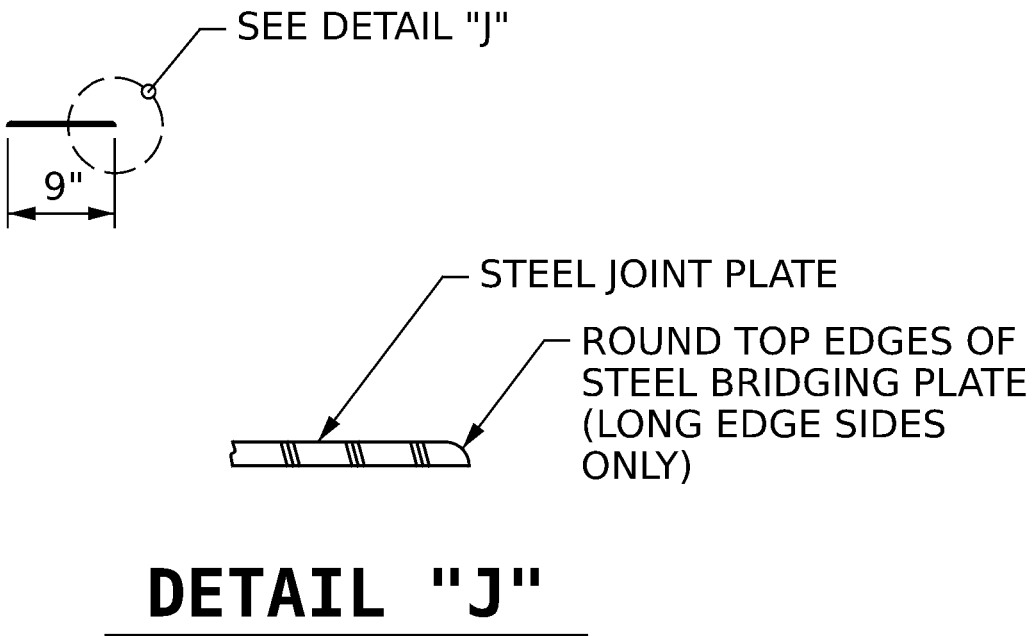
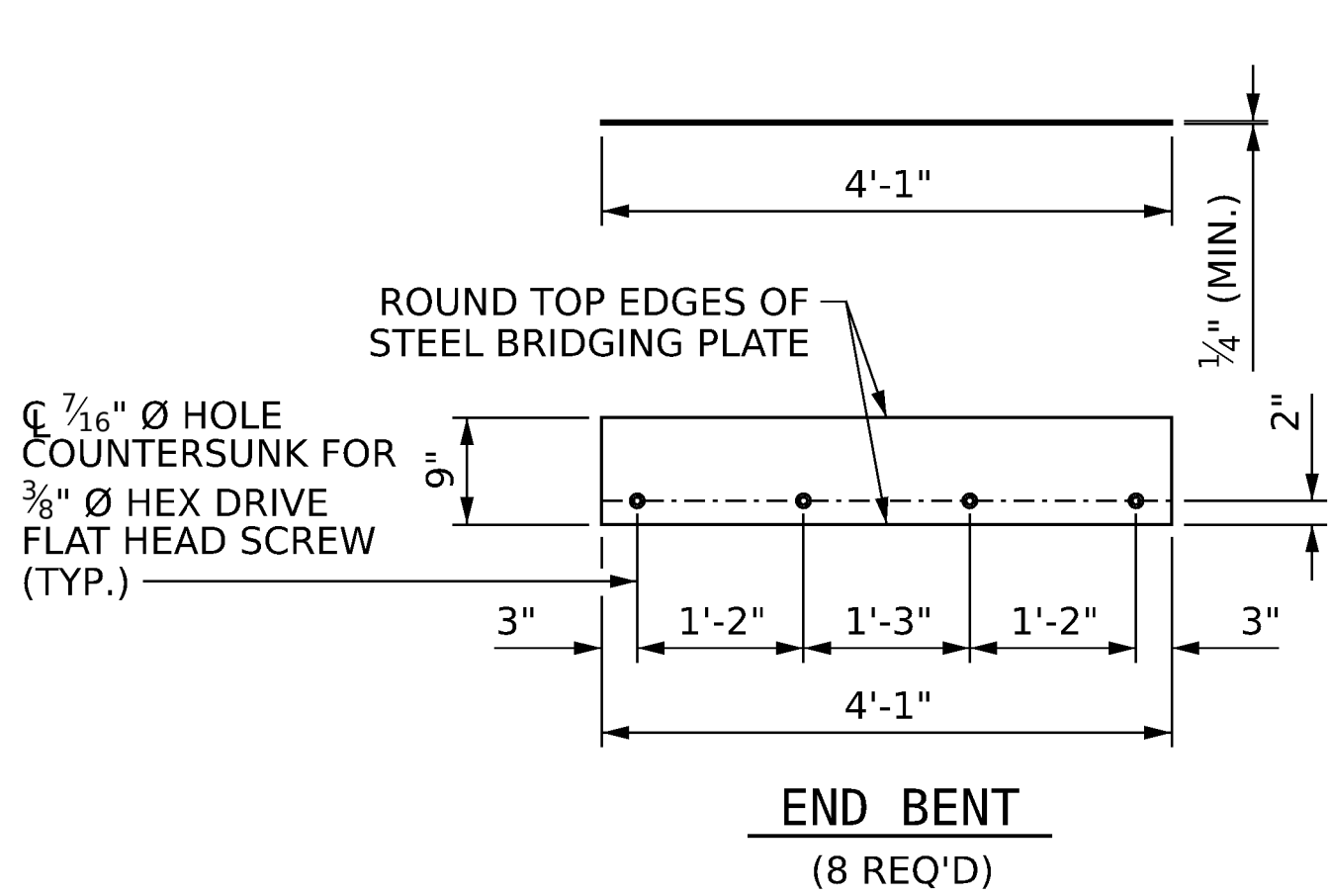
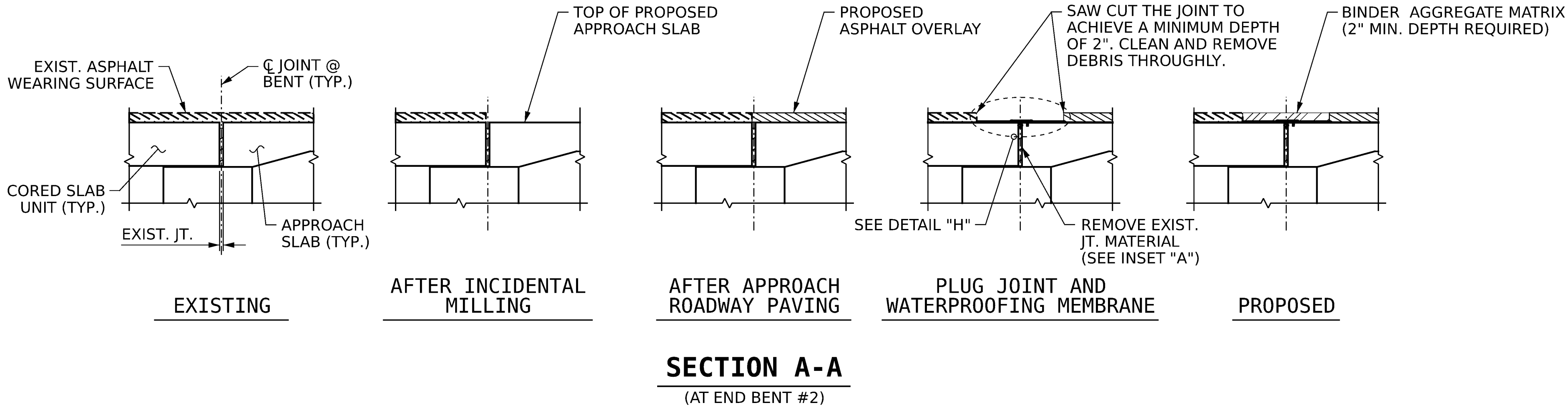
A MANUFACTURER'S CERTIFIED TRAINED REPRESENTATIVE SHALL BE PRESENT DURING THE INSTALLATION OF THE JOINT.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO ALLOW ANY MATERIAL TO FALL BELOW THE BRIDGE. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE STEEL BRIDGE PLATE SHALL BE A MINIMUM OF 36 KSI STEEL. THE STEEL BRIDGE PLATE THICKNESS SHALL BE A MINIMUM OF 1/4".

FOR ASPHALT PLUG JOINTS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR DROP-IN ANCHOR AND BOLT INSTALLATION.



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STATE OF NORTH CAROLINA
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RALEIGH

ASPHALT PLUG JOINT DETAILS

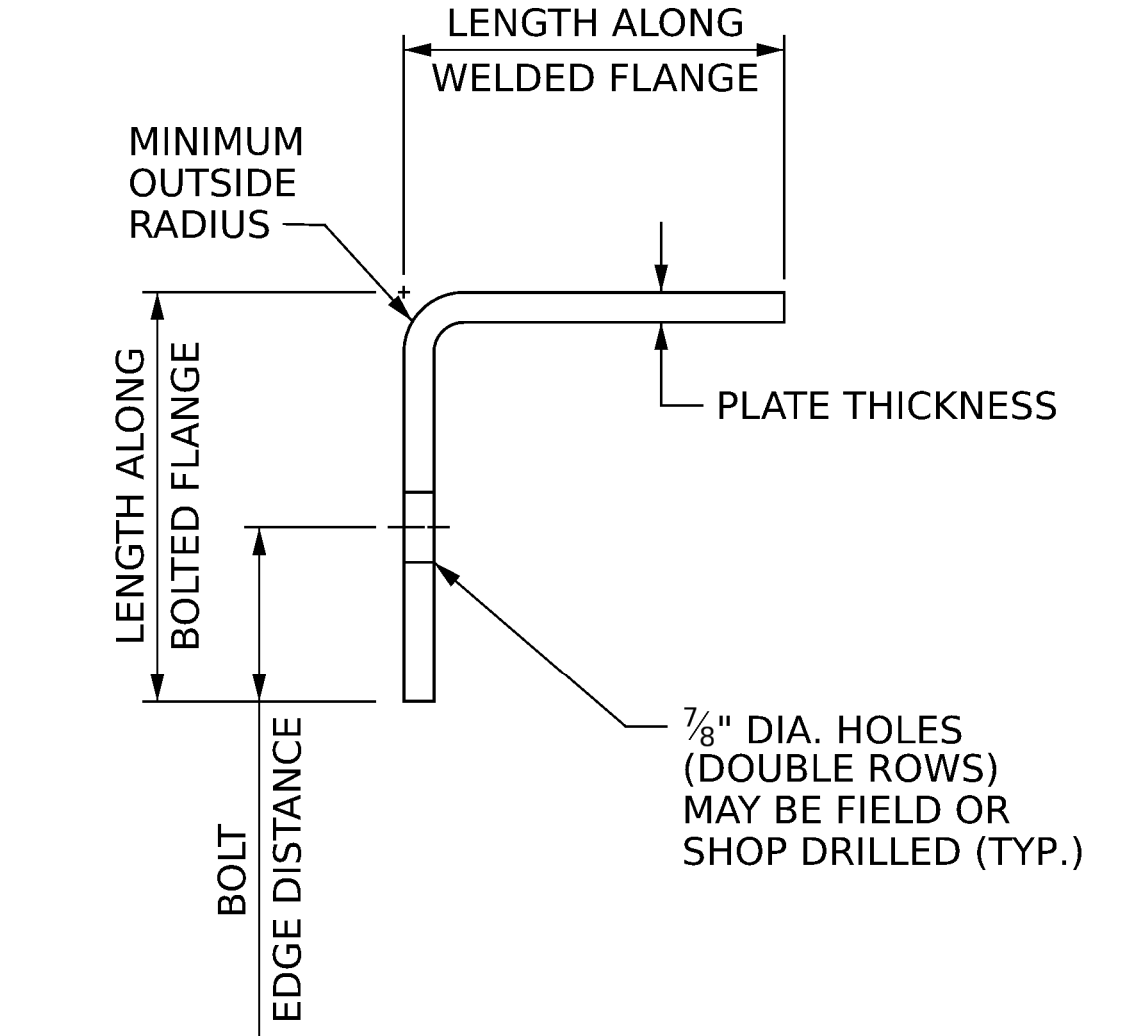
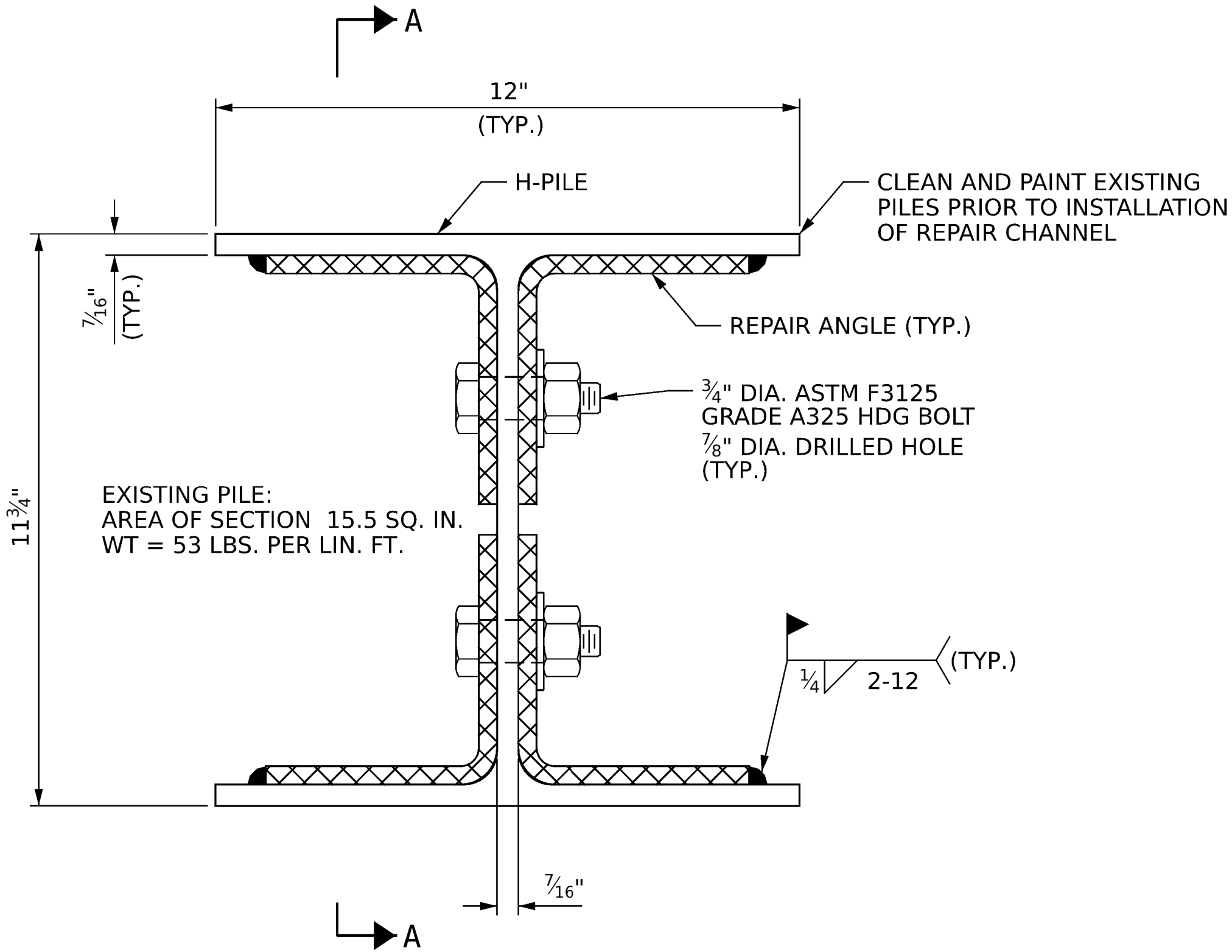
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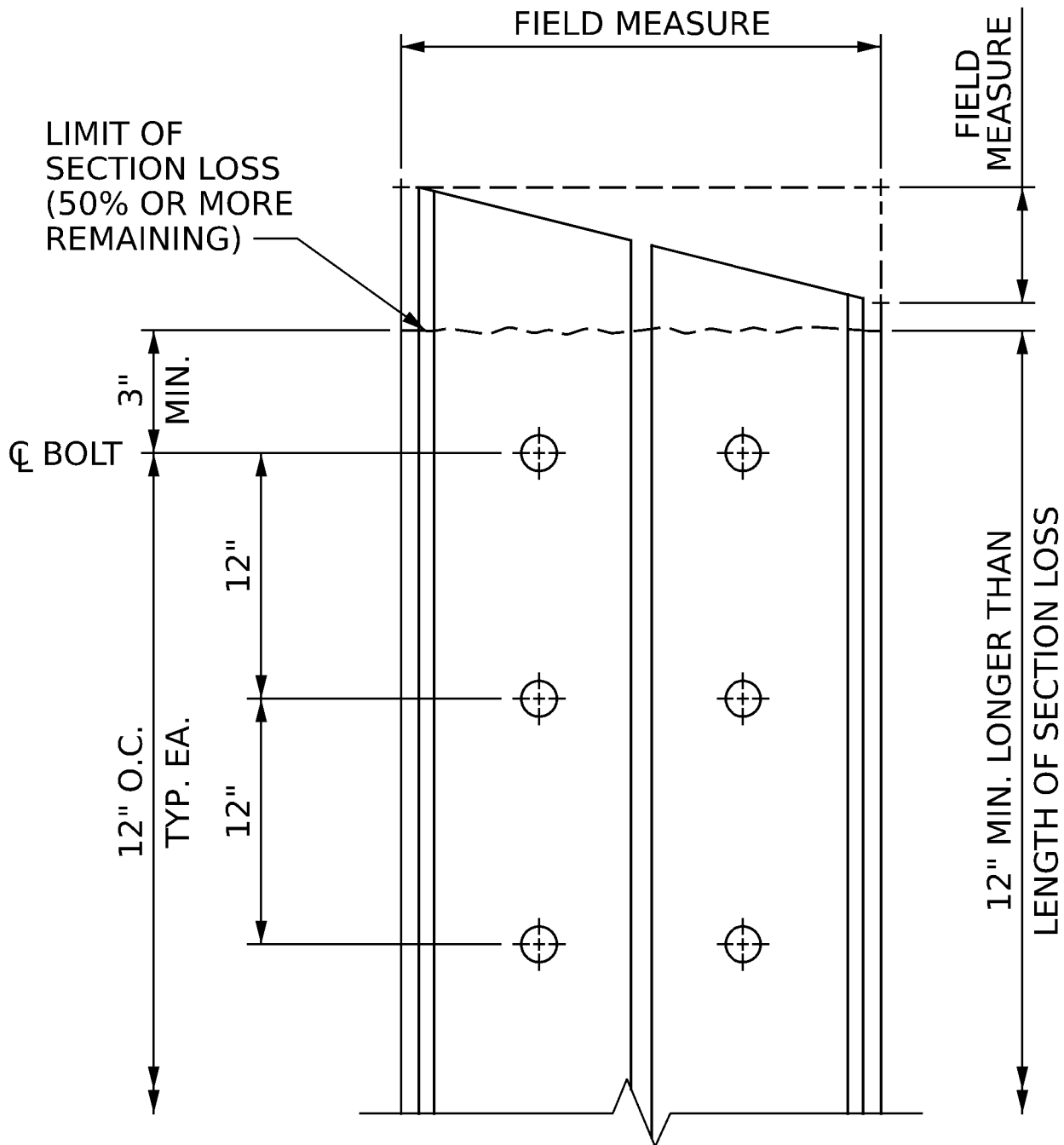
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EXISTING H-PILE & REPAIR ANGLE DIMENSIONS						
PILE SIZE	PLATE THICKNESS	MINIMUM OUTSIDE RADIUS	LENGTH ALONG WELDED FLANGE	LENGTH ALONG BOLTED FLANGE	VERTICAL BOLT SPACING	BOLT EDGE DISTANCE
HP12x53	3⁄8"	1"	4¾"	5⅛"	1'-0"	2"

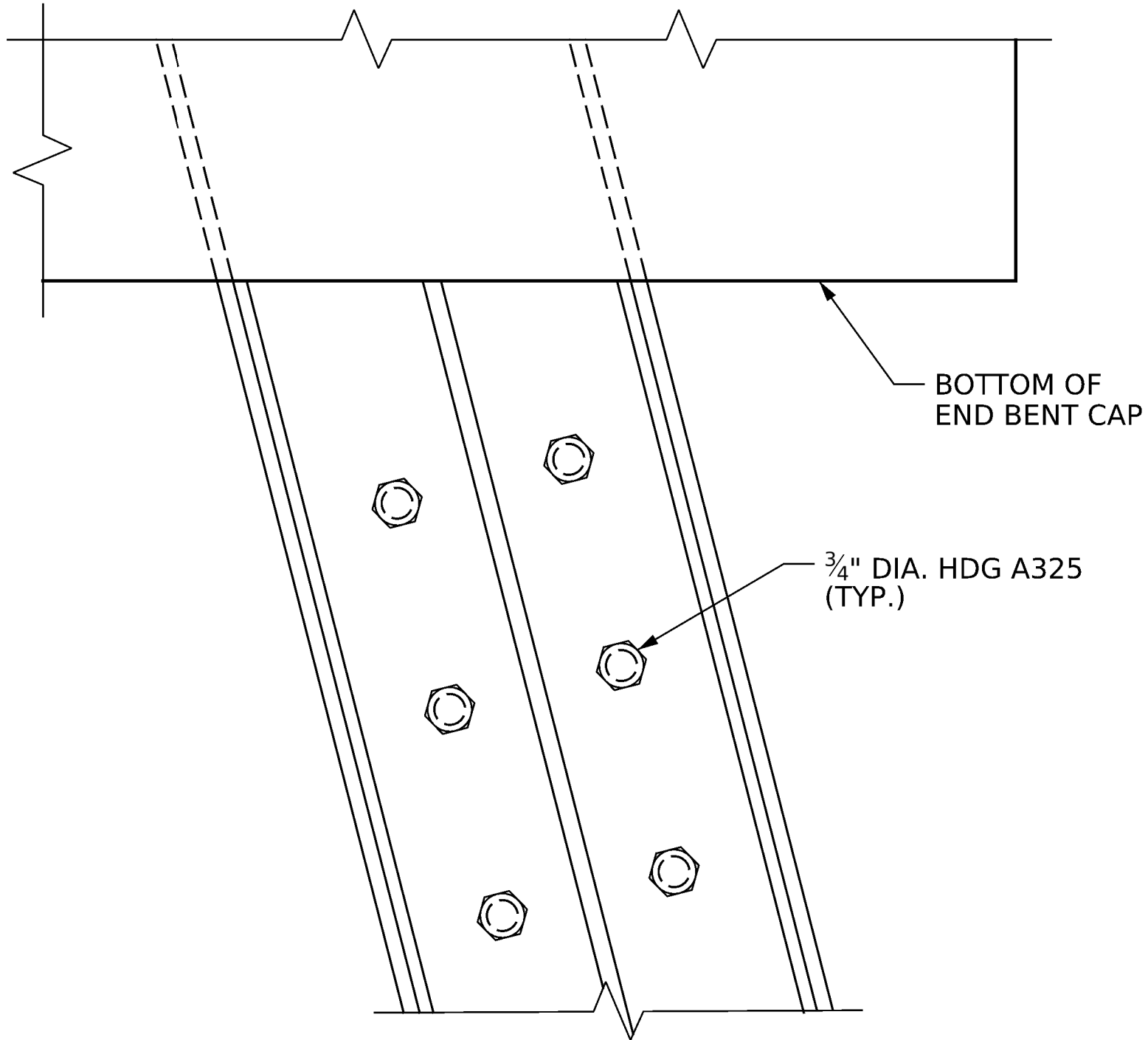


REPAIR ANGLE SECTION
(SEE EXISTING H-PILE & REPAIR ANGLE DIMENSIONS TABLE)

REPAIR SECTION THROUGH PILE



SECTION A-A



ELEVATION

LONGITUDINAL BATTER

NOTES:

THE CONTRACTOR SHALL FIELD VERIFY EXISTING PILE DIMENSIONS PRIOR TO THE FABRICATION OF ANY REPAIR ANGLES.

ALL STRUCTURAL STEEL PLATES SHALL BE AASHTO M270 GRADE 50.

ALL BOLTS SHALL BE ASTM A325 HOT DIPPED GALVANIZED BOLTS WITH A ¾ INCH DIAMETER, UNLESS OTHERWISE NOTED.

ALL HOLES SHALL BE DRILLED ⅛ INCH LARGER THAN THE CORRESPONDING BOLT DIAMETER.

EXPOSED PORTIONS OF THE EXISTING STEEL PILES SHALL BE HAND CLEANED IN ACCORDANCE WITH SUBARTICLE 442-7(B) OF THE STANDARD SPECIFICATIONS. AFTER CLEANING STEEL PILES, PAINT THE PILES WITH PRIMER WITHIN 8 HOURS AFTER CLEANING IS COMPLETE.

STEEL REPAIR ANGLE SECTIONS SHALL BE SHOP PRIMED OR GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

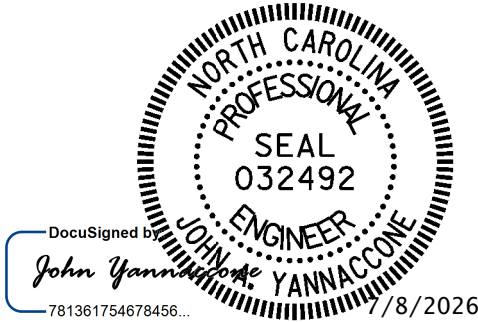
BEND PLATE FOR REPAIR ANGLE SECTION PERPENDICULAR TO THE ROLLING DIRECTION OF THE PLATE.

FOR STEEL PILE REPAIRS, SEE SPECIAL PROVISIONS.

AS-BUILT REPAIR QUANTITY TABLE

NUMBER OF REPAIR ANGLES	LENGTH OF REPAIR ANGLE	WEIGHT OF ONE REPAIR ANGLE (LBS)	STEEL PILE REPAIRS (LBS)
56	7'-0"	85	4760

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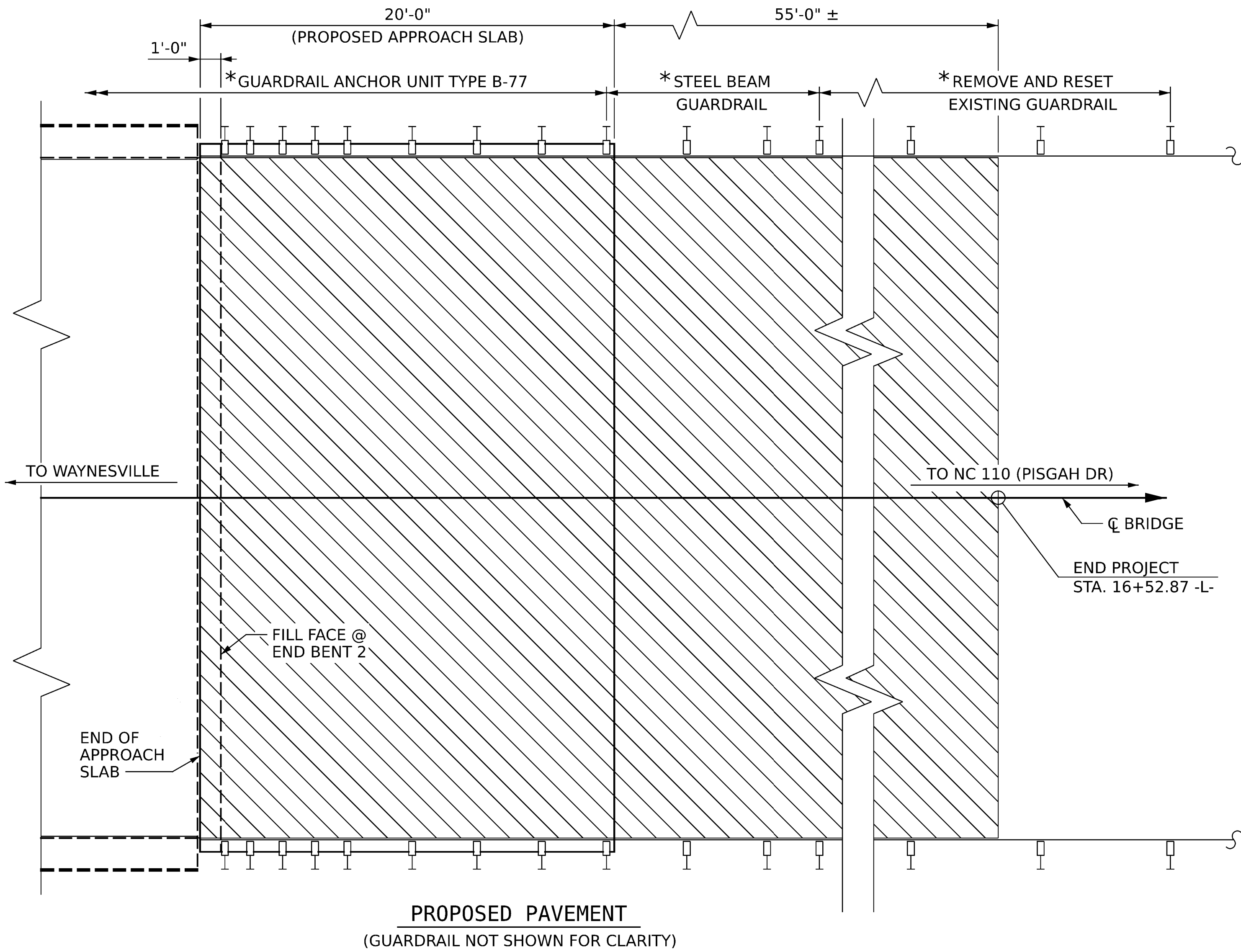
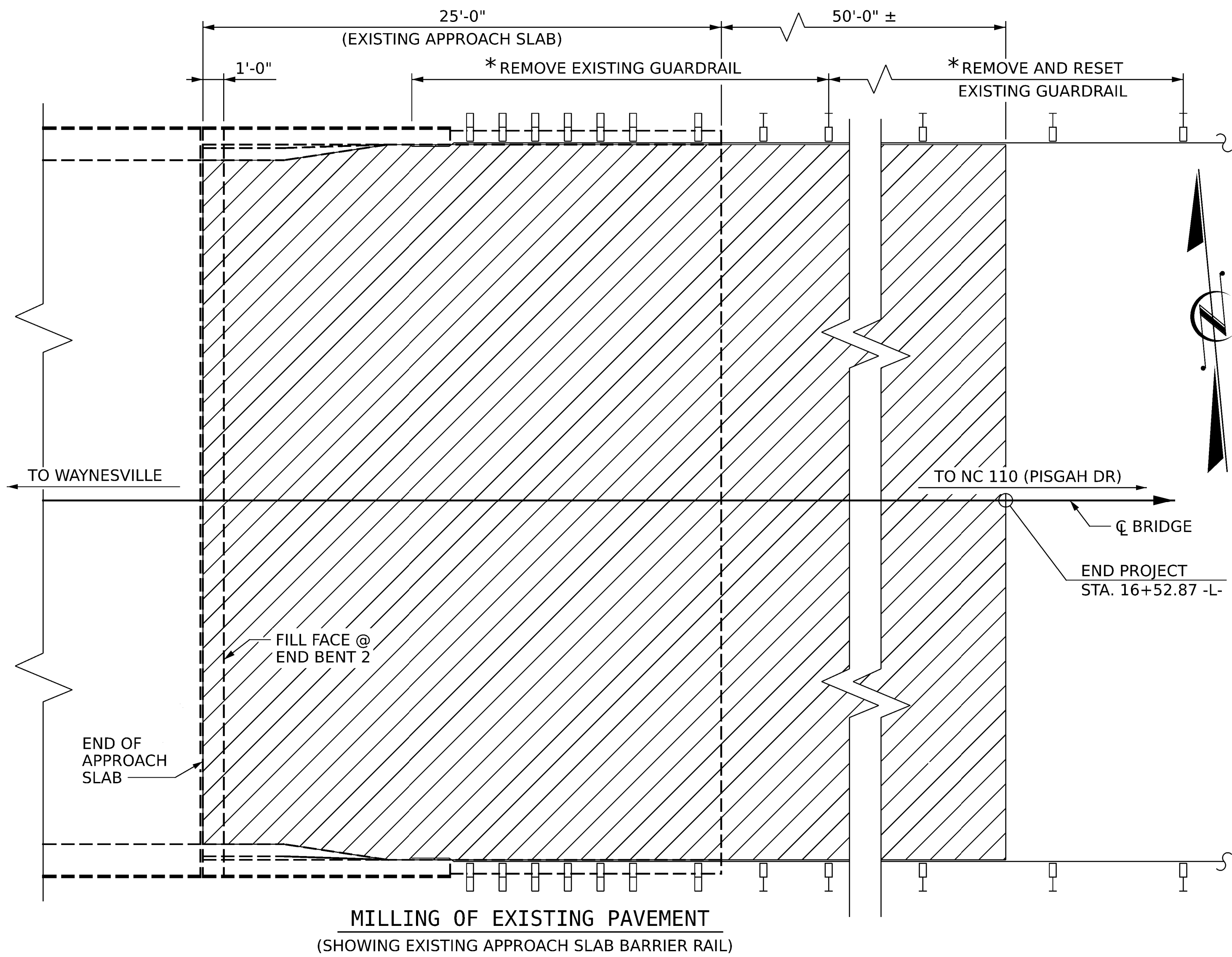
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
STEEL PILE REPAIR DETAILS					
REVISIONS					
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2			4		
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S-12					14

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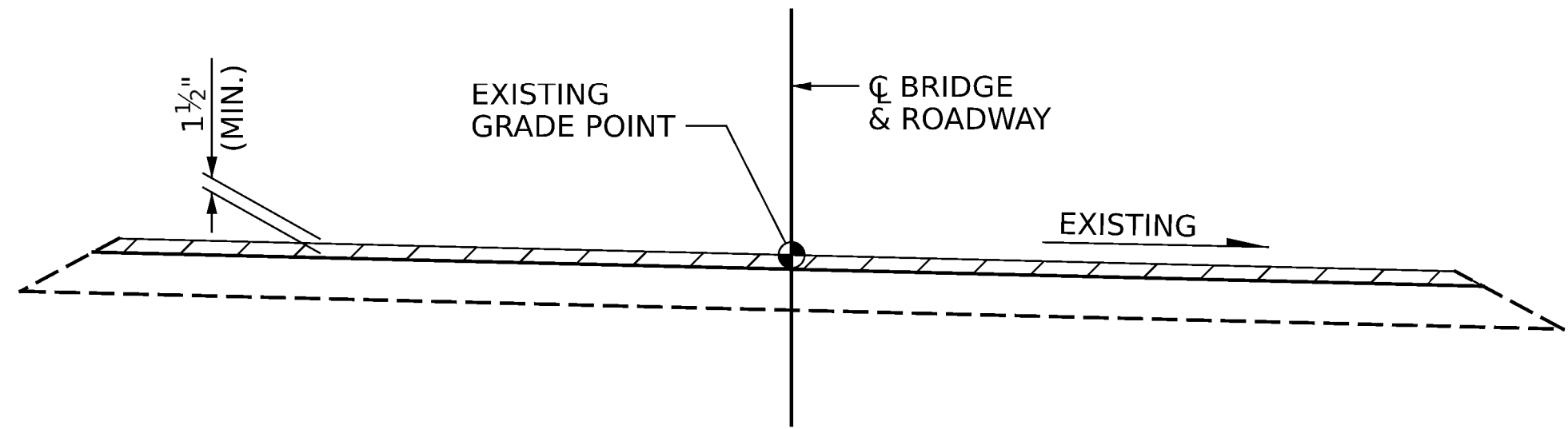


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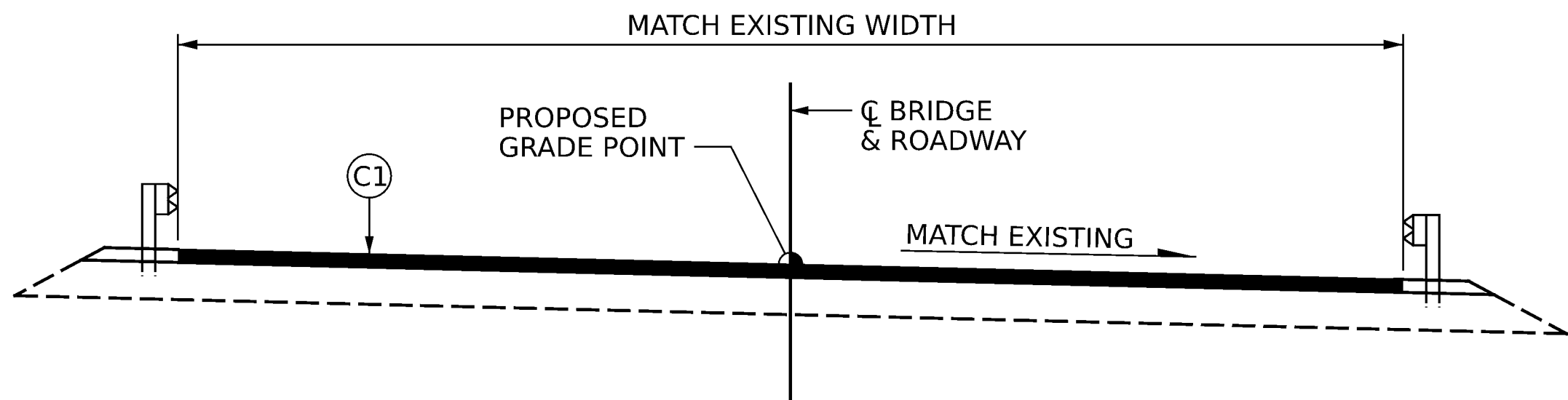


PLAN END BENT 2



TYPICAL ROADWAY MILLING SECTION

(MILLING DEPTH VARIES, SEE NOTES)



TYPICAL FINAL ROADWAY SECTION

(PAVING DEPTH VARIES, SEE NOTES)

NOTES:

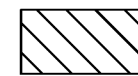
INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1 1/2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO CREATE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK. NEW ASPHALT PAVING THICKNESS MAY EXCEED 1 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH.

AT THE END BENT, MILL APPROXIMATELY TO A 2 1/2" DEPTH AT THE FILL FACE AND TAPER THE DEPTH TO APPROXIMATELY 1 1/2" AT THE END OF THE MILLED AREA.

* GUARDRAIL LIMITS SHOWN ARE TYPICAL FOR BOTH SIDES OF THE APPROACH SLAB. THE LIMITS ARE APPROXIMATE AND NOT TO SCALE. THE CONTRACTOR SHALL FIELD VERIFY EXISTING GUARDRAIL LENGTHS AND POST SPACINGS.



- INCIDENTAL MILLING



- ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B

C1

PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE. TYPE S9.5B AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1 1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH.

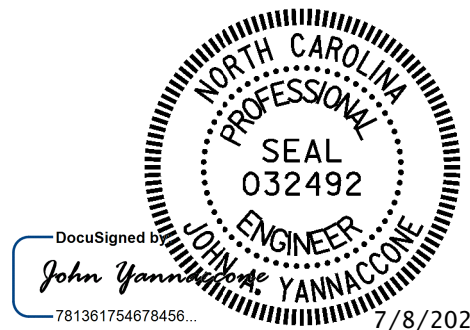
AS-BUILT REPAIR QUANTITY TABLE

DESCRIPTION	ESTIMATE	ACTUAL
INCIDENTAL MILLING	285 SY	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	40 TONS	
ASPHALT BINDER FOR PLANT MIX	3 TONS	

PROJECT NO. **18314.1044067.PR**

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BRIDGE: **430163**



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

APPROACH MILLING AND TYPICAL ROADWAY SECTIONS

DRAWN BY : J. MYA DATE : 4/2025
CHECKED BY : J. YANNACONE DATE : 4/2025



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STANDARD NOTES

DESIGN DATA:		
SPECIFICATIONS	-----	AASHTO (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE AASHTO
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	----	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	---	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	----	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	-----	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE AASHTO
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2024 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED ¾" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1½" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A ¼" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A ¼" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE ⅞" Ø SHEAR STUDS FOR THE ¾" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - ⅞" Ø STUDS FOR 4 - ¾" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF ⅞" Ø STUDS ALONG THE BEAM AS SHOWN FOR ¾" Ø STUDS BASED ON THE RATIO OF 3 - ⅞"Ø STUDS FOR 4 - ¾" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST ⅝" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY ⅛" OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.