

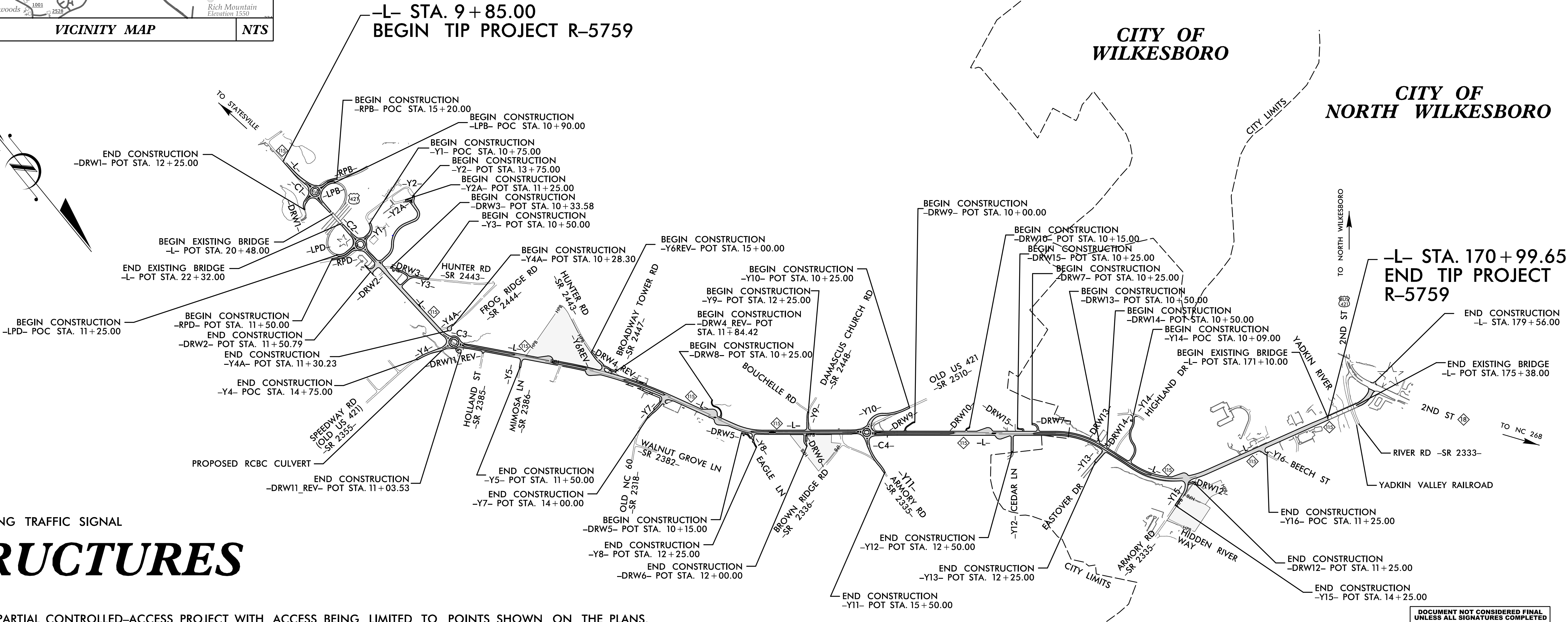
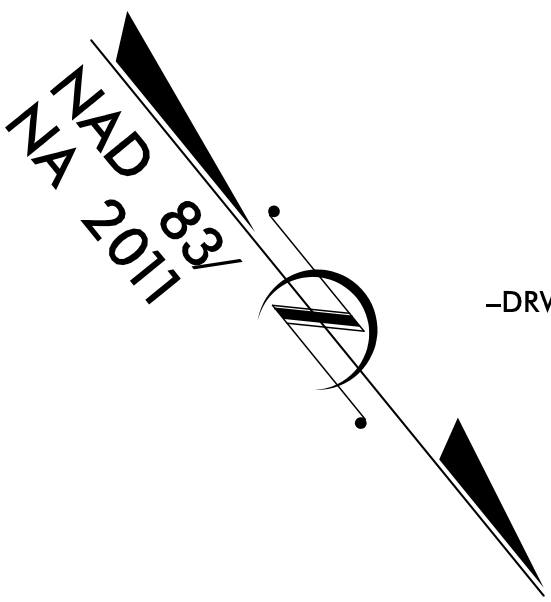
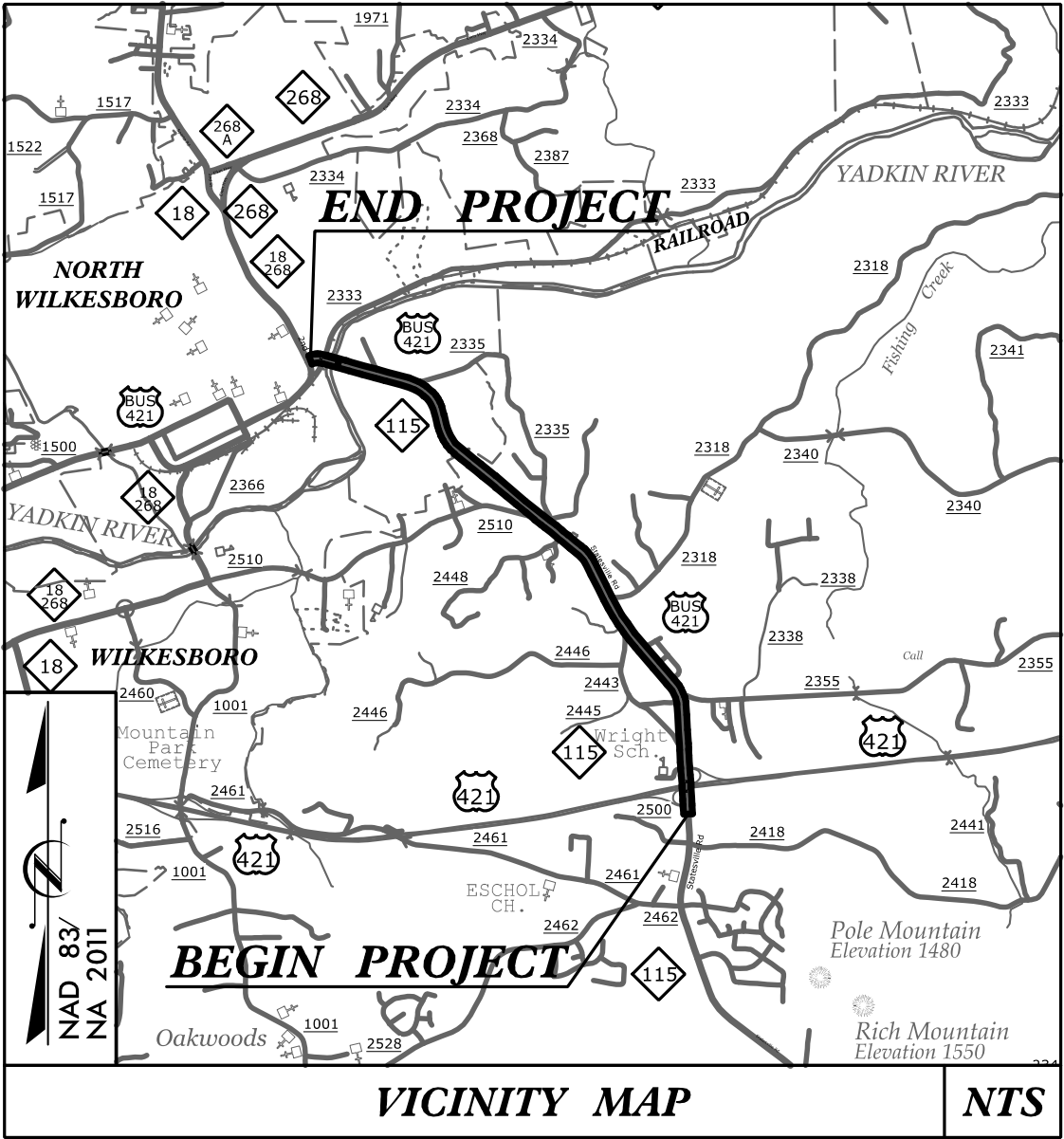
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5759	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44691.1.1		PE	
44691.2.1		RW	
44691.2.2		UTIL	
44691.3.1		CONSTRUCTION	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WILKES COUNTY

LOCATION: NC 115 /US 421 BUSINESS (STATESVILLE ROAD) FROM US 421 TO NC 18 (2ND STREET) IN NORTH WILKESBORO.

TYPE OF WORK: CULVERT, DRAINAGE, GRADING, PAVING, SIGNALS, STRUCTURE, WALLS



EXISTING TRAFFIC SIGNAL

STRUCTURES

NOTES:

1. THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS SHOWN ON THE PLANS.

DESIGN DATA

ADT 2018 = 9,100
ADT 2040 = 11,200
K = 10 %
D = 55 %
T = 8 % *
V = 50 MPH
* TTST = 4% DUAL 4%
FUNC CLASS = MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT R-5759 = 3.052 MILES
LENGTH OF EXISTING STRUCTURE TIP PROJECT R-5759 = 0.000 MILES
TOTAL LENGTH OF TIP PROJECT R-5759 = 3.052 MILES
TOTAL LENGTH BASED ON -L- CENTERLINE

Prepared In the Office of:
HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

FOR NCDOT DIVISION 11

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 22, 2022

LETTING DATE:
NOVEMBER 17, 2026

DAVID W. HAWKINS, PE
STRUCTURES ENGINEER

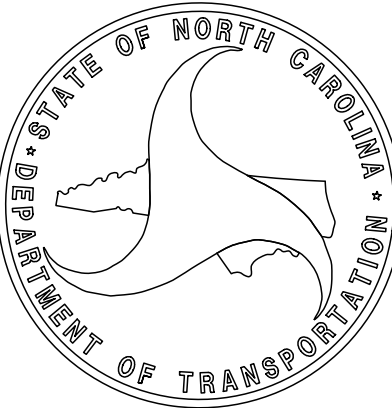
RAMIE SHAW, PE
NCDOT PROJECT TEAM LEAD

STRUCTURES ENGINEER



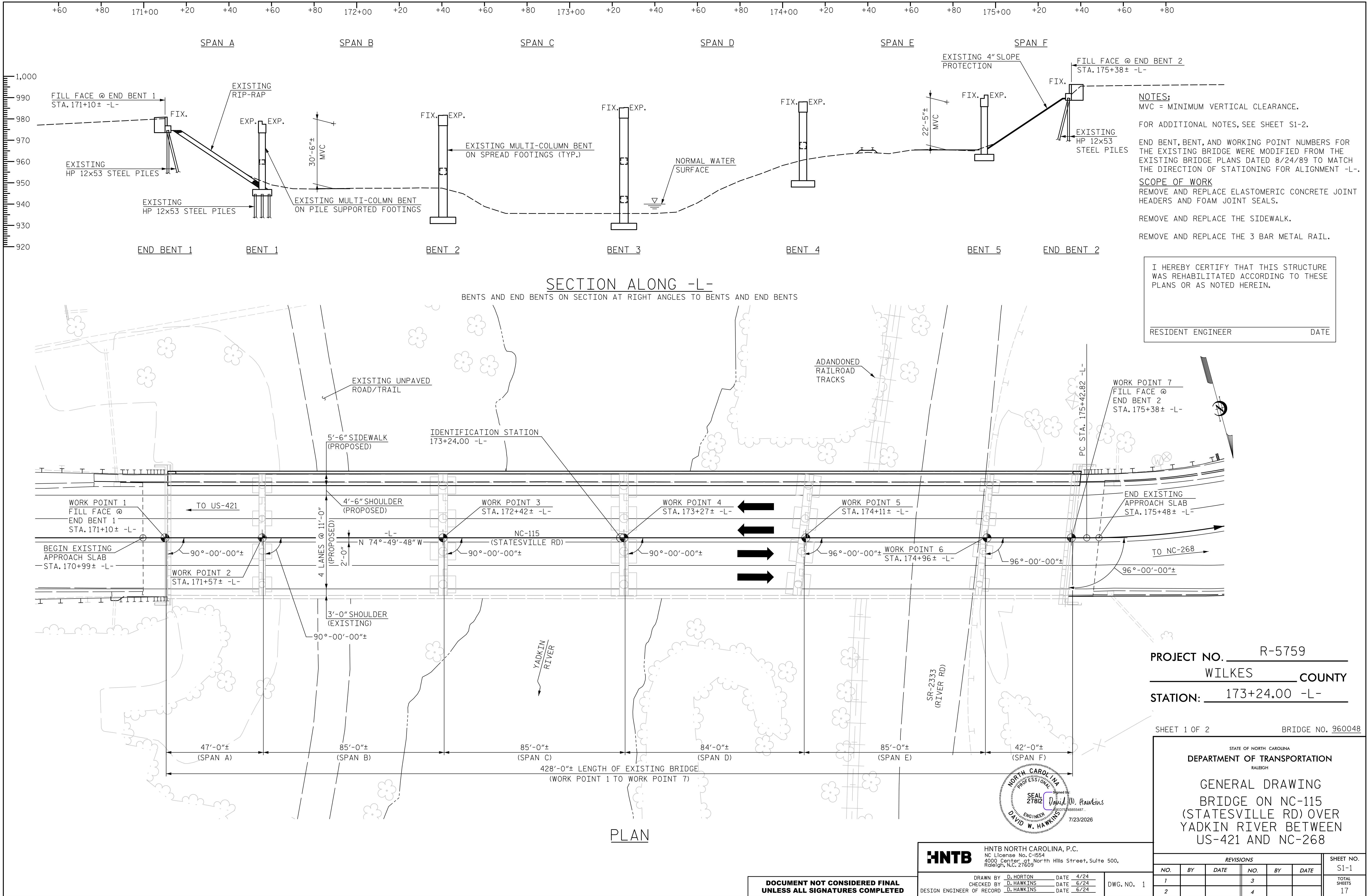
Signed by:
David W. Hawkins
27812/248855487
SIGNATURE:

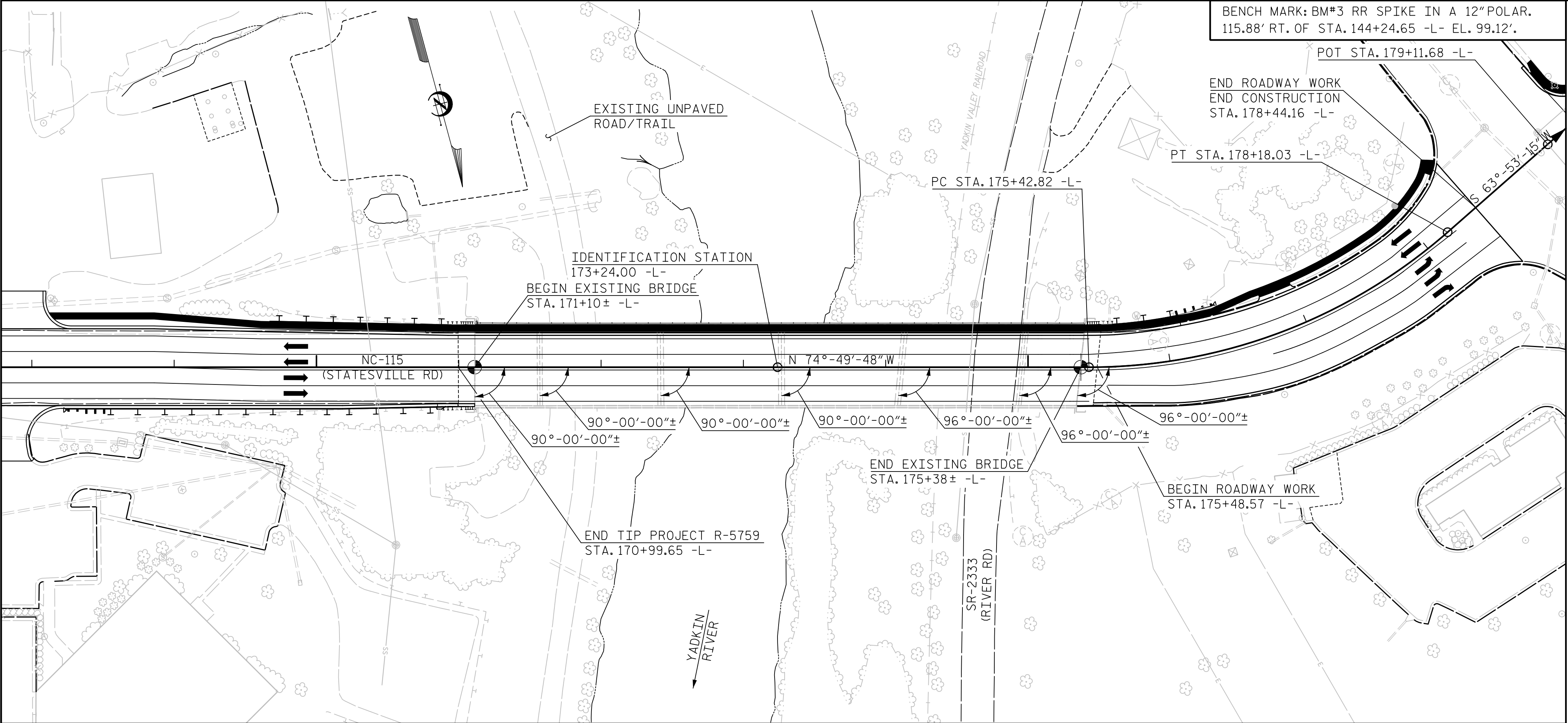
P.E.



TIP PROJECT: R-5759

CONTRACT: C204976





LOCATION SKETCH

NOTE: FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

BRIDGE COORDINATES

BRIDGE NO.	LATITUDE	LONGITUDE
960048	36°-09'-57.7"	81°-08'-06.64"

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE AT STATION 173+24.00 -L-	REINFORCED CONCRETE SIDEWALK	THREE BAR METAL RAIL	FOAM JOINT SEALS FOR PRESERVATION	BRIDGE JOINT DEMOLITION	ELASTOMERIC CONCRETE FOR PRESERVATION
	LS	SF	LF	LF	SF	CF
SUPERSTRUCTURE	LS	3,078	421.5	405.5	402.7	90.6

PAYMENT FOR 3 BAR METAL RAIL REINFORCED CONCRETE END POSTS SHALL BE INCLUDED IN THE UNIT COST FOR REINFORCED CONCRETE SIDEWALK.

REMOVAL OF EXISTING STRUCTURE SHALL BE TO THE LIMITS SHOWN IN THE PLANS.

GENERAL NOTES

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.

INFORMATION SHOWN FOR EXISTING BRIDGE STRUCTURE IS FROM THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY/OBTAIN INFORMATION PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY BETWEEN PLANS AND ACTUAL FIELD CONDITIONS PRIOR TO CONSTRUCTION.

EXISTING ASSUMED LIVE LOAD = HS 20-44 OR ALTERNATE LOADING.

PROPOSED ASSUMED LIVE LOAD = HS 20-44 OR ALTERNATE LOADING.

FOR REINFORCED CONCRETE SIDEWALK, SEE SPECIAL PROVISIONS.

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.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.

REMOVAL OF THE EXISTING SIDEWALK, RAIL AND JOINTS TO THE LIMITS SHOWN IN THE PLANS SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE EXISTING SIDEWALK, RAIL AND JOINTS IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

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

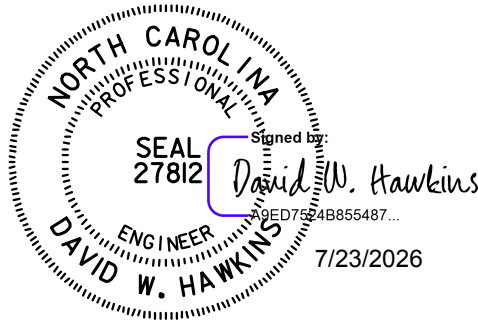
FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

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.

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.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

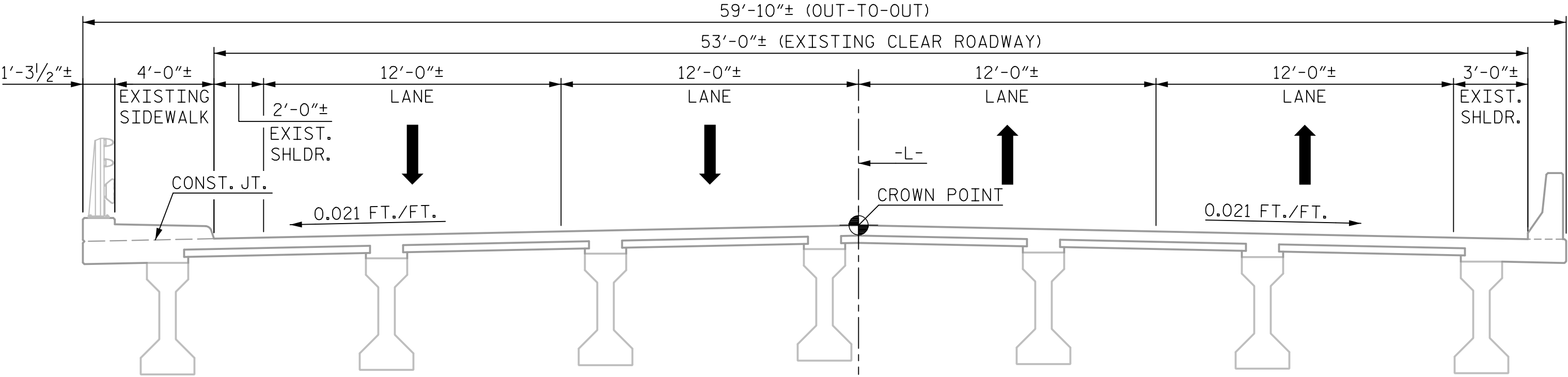
SHEET 2 OF 2



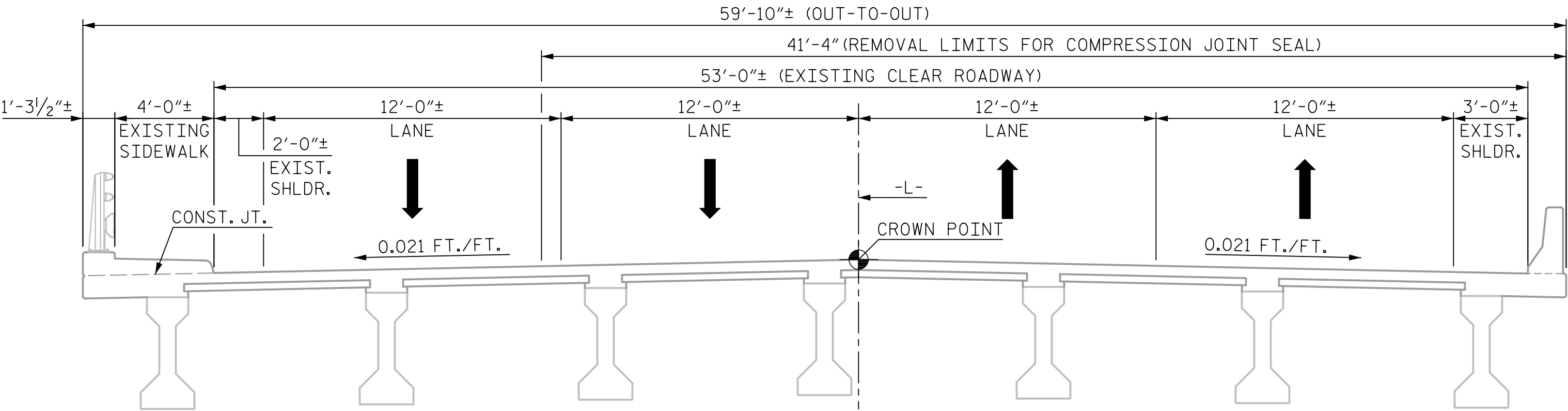
HNTB		HNTB NORTH CAROLINA, P.C. NC License No. C-1554 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609	
DRAWN BY	D. HORTON	DATE	4/24
CHECKED BY	D. HAWKINS	DATE	6/24
DESIGN ENGINEER OF RECORD	D. HAWKINS	DATE	6/24
DWG. NO. 2			

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-2
1			3			TOTAL SHEETS
2			4			17

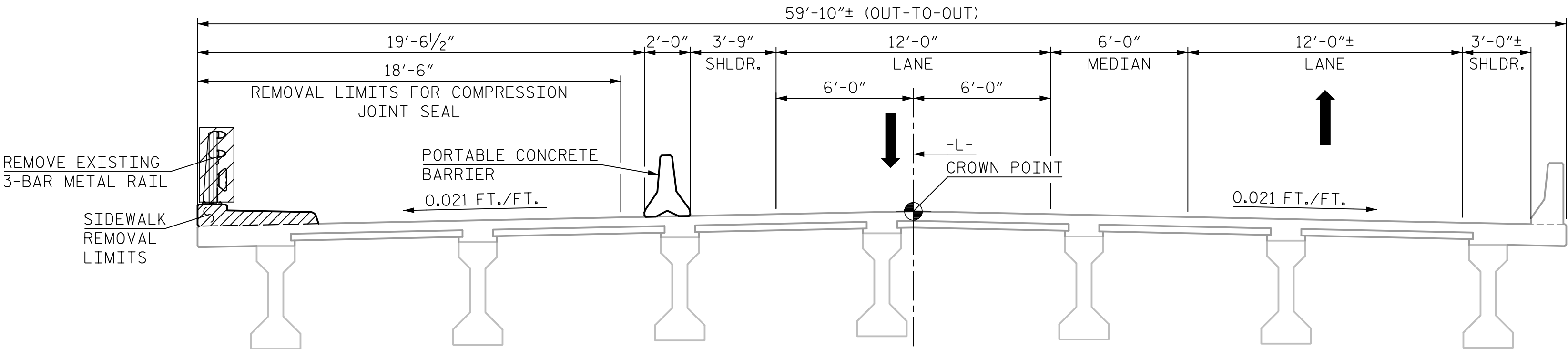
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



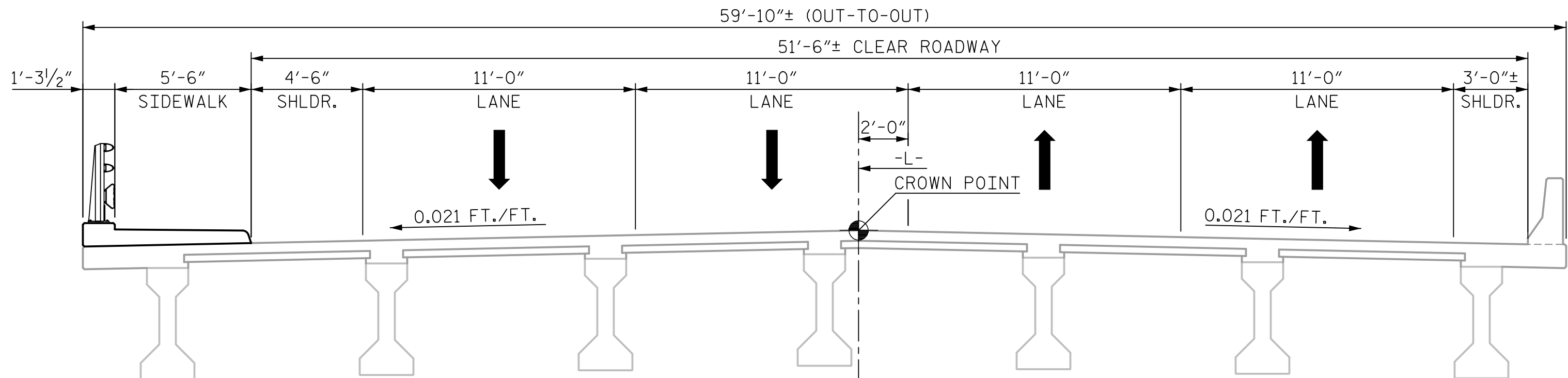
EXISTING TYPICAL SECTION



STAGE I TYPICAL SECTION



STAGE II TYPICAL SECTION



FINAL TYPICAL SECTION

GENERAL CONSTRUCTION SEQUENCE

STAGE I

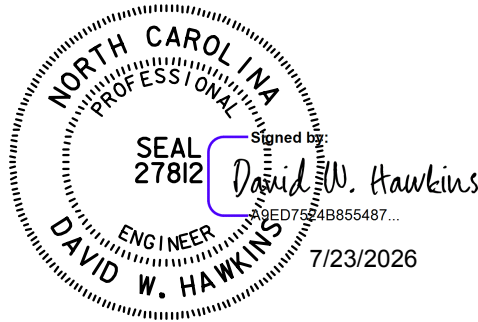
NOTE: STAGE I WORK WILL BE ACCOMPLISHED WITH NIGHTTIME CLOSURES.

1. REMOVE EXISTING COMPRESSION JOINT SEAL WITHIN LIMITS SHOWN IN STAGE I TYPICAL SECTION. THIS OCCURS AT EACH BENT AND END BENT.
2. PLACE PROPOSED FOAM JOINTS.

STAGE II

1. SHIFT TRAFFIC AS SHOWN IN STAGE II TYPICAL SECTION. INSTALL PORTABLE CONCRETE BARRIER.
2. REMOVE EXISTING SIDEWALK, RAIL PARAPET, 3 BAR METAL RAIL AND END POSTS. PLUG EXISTING DRAINS ON LEFT SIDE.
3. DRILL AND INSTALL SIDEWALK DOWELS.
4. REMOVE EXISTING COMPRESSION JOINT SEAL WITHIN LIMITS SHOWN IN STAGE II TYPICAL SECTION. THIS OCCURS AT EACH BENT AND END BENT. THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO CASTING SIDEWALK.
5. AFTER SAWING THE JOINTS IN THE DECK, CAST NEW SIDEWALK WITH NEW METAL RAIL ANCHOR ASSEMBLY. CAST END POSTS. INSTALL PROPOSED 3 BAR METAL RAIL.
6. PLACE PROPOSED FOAM JOINTS AND SIDEWALK COVER PLATE ASSEMBLY.
7. REMOVE PORTABLE CONCRETE BARRIER AND SHIFT TRAFFIC TO FINAL LANE DESIGNATIONS.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-



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Raleigh, N.C. 27609

DRAWN BY	D. HORTON	DATE	4/24
CHECKED BY	D. HAWKINS	DATE	6/24
DESIGN ENGINEER OF RECORD	D. HAWKINS	DATE	6/24

DWG. NO. 3

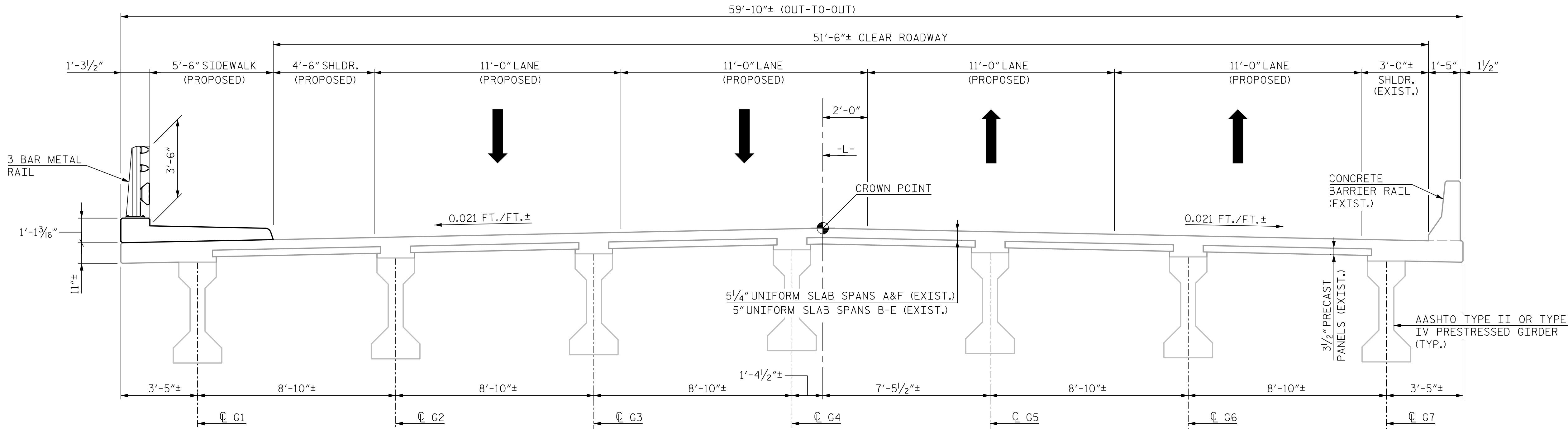
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			17

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
CONSTRUCTION
SEQUENCE

S1-3

DOCUMENT NOT CONSIDERED FINAL
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BRIDGE TYPICAL SECTION

NOTES:

FOR SIDEWALK REINFORCEMENT DETAILS AND RAIL POST SPACING, SEE "SIDEWALK PLAN" SHEETS.

COST OF REINFORCING STEEL IS CONSIDERED INCIDENTAL TO THE COST OF REINFORCED CONCRETE SIDEWALK.

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

ADJUST SIDEWALK REINFORCEMENT AS NECESSARY TO AVOID CONFLICTS WITH METAL RAIL ANCHOR ASSEMBLY.

THE JOINT IN THE DECK SHALL BE SAWED PRIOR TO CASTING THE SIDEWALK. SEE "CONSTRUCTION SEQUENCE" SHEET FOR DETAILS.

ALL REINFORCING STEEL IN THE SIDEWALK SHALL BE EPOXY COATED.

THE CONTRACTOR SHALL USE AN ADHESIVE ANCHORING SYSTEM FOR #4D1 DOWELS. NO FIELD TESTING IS REQUIRED. FOR ADHESIVELY ANCHORED DOWELS, SEE SECTION 420-13 OF THE STANDARD SPECIFICATIONS.

FOR SIDEWALK DETAILS AT JOINTS, SEE "TYPICAL DETAILS".

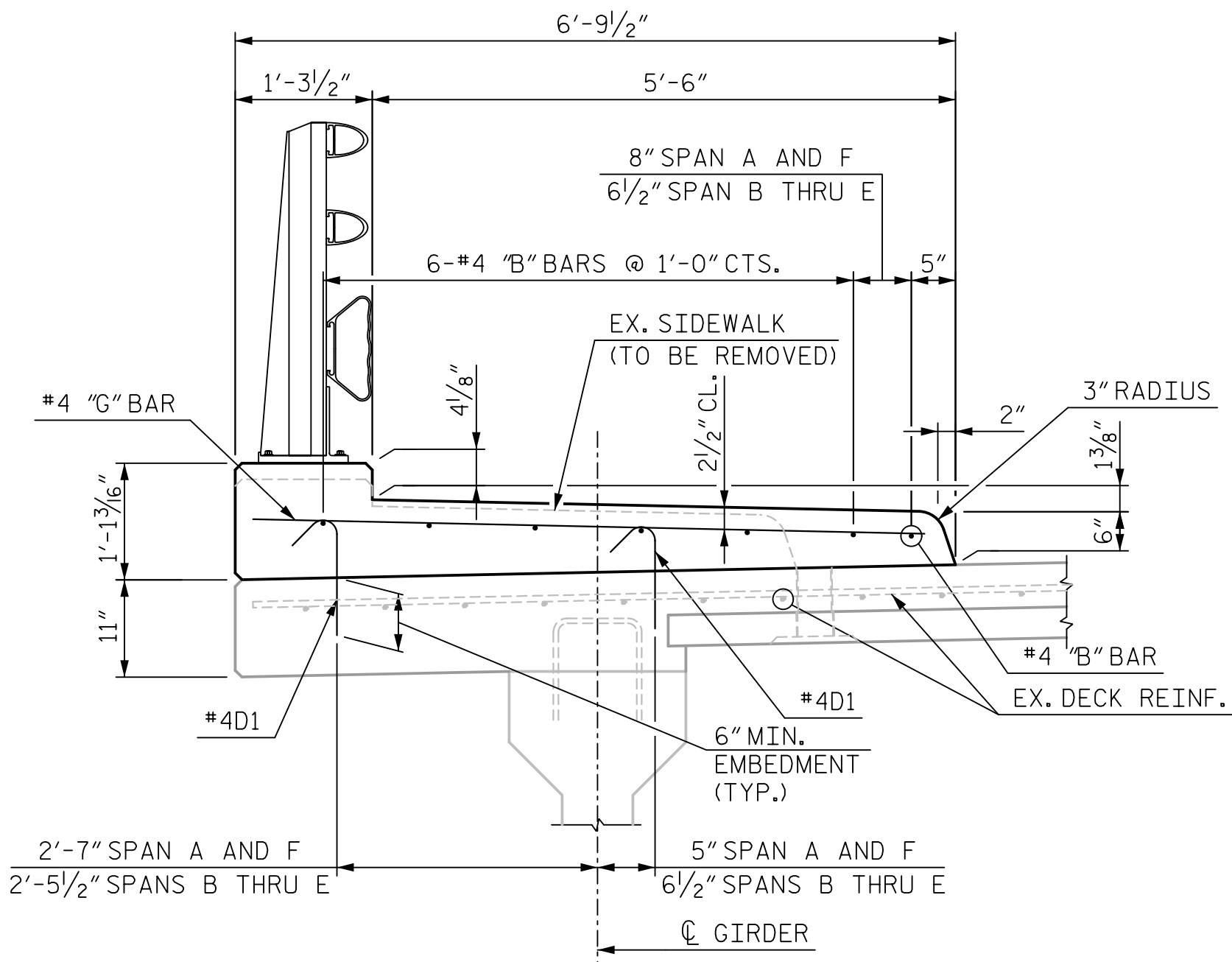
GROOVED CONTRACTION JOINTS SHALL BE LOCATED A MINIMUM OF 1'-0" FROM CENTERLINE OF RAIL POSTS.

CONCRETE IN SIDEWALK SHALL BE CLASS AA.

ALL HORIZONTAL DIMENSIONS SHOWN NORMAL TO ℄ SURVEY -L- UNLESS NOTED OTHERWISE.

FOR 3 BAR METAL RAIL CONNECTION DETAILS, SEE "3 BAR METAL RAIL" SHEETS.

CONTRACTOR TO VERIFY LOCATION OF ALL REINFORCING BARS PRIOR TO DRILLING FOR DOWELS AND POST INSTALLED ANCHORS. REINFORCING BARS SHALL NOT BE DRILLED THROUGH OR DAMAGED IN ANY WAY.



SECTION THRU SIDEWALK

NOTE: RAIL ANCHOR ASSEMBLY AND BOLTS NOT SHOWN FOR CLARITY.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

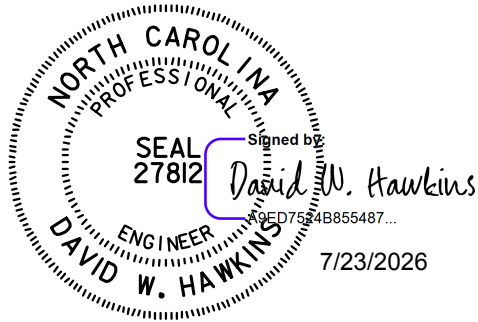
SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

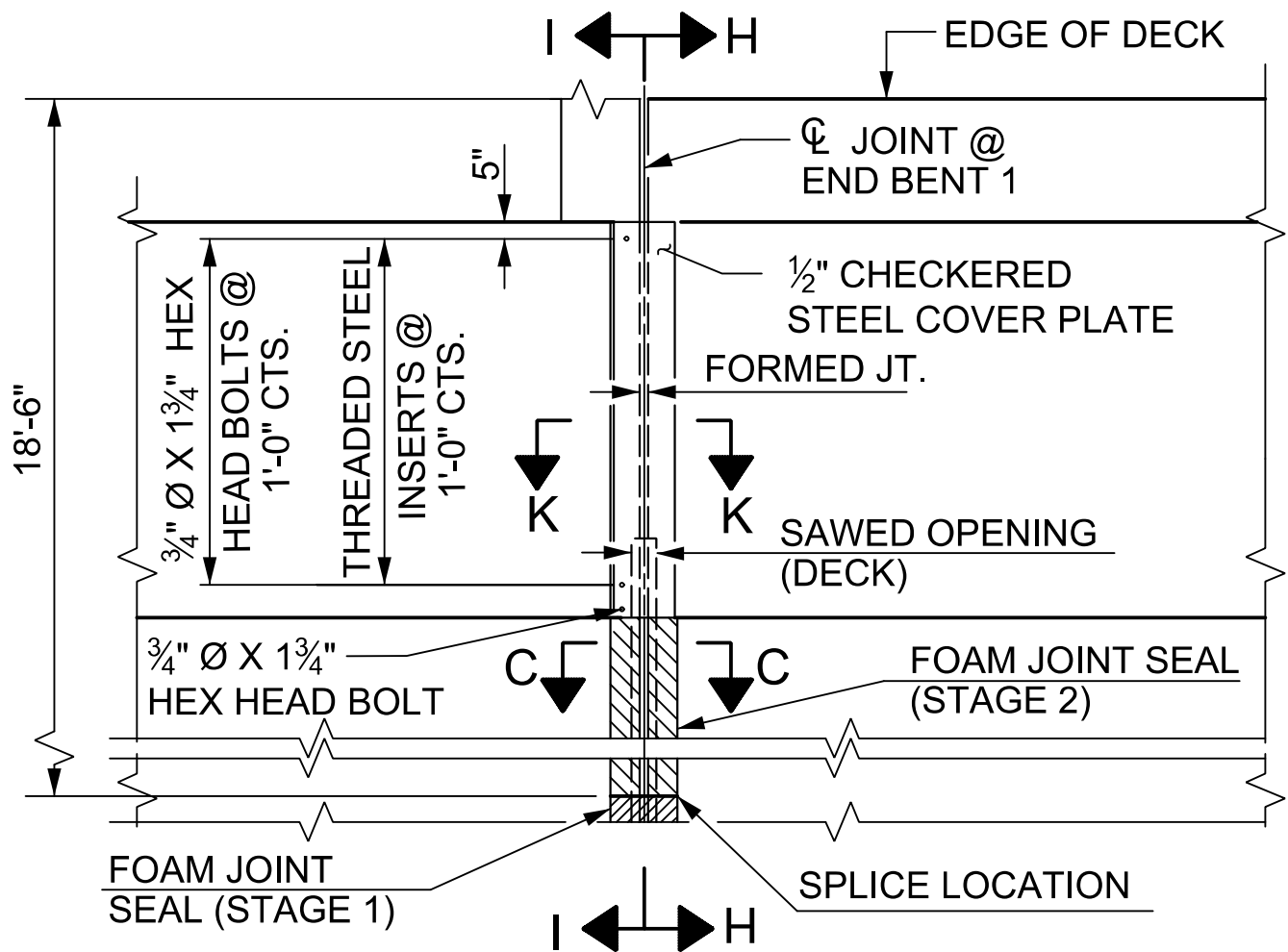
TYPICAL SECTION

HNTB		HNTB NORTH CAROLINA, P.C. NC License No. C-1554 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609	
DRAWN BY	M. WRIGHT	DATE	6/24
CHECKED BY	D. HAWKINS	DATE	6/24
DESIGN ENGINEER OF RECORD	D. HAWKINS	DATE	6/24
DWG. NO. 4			



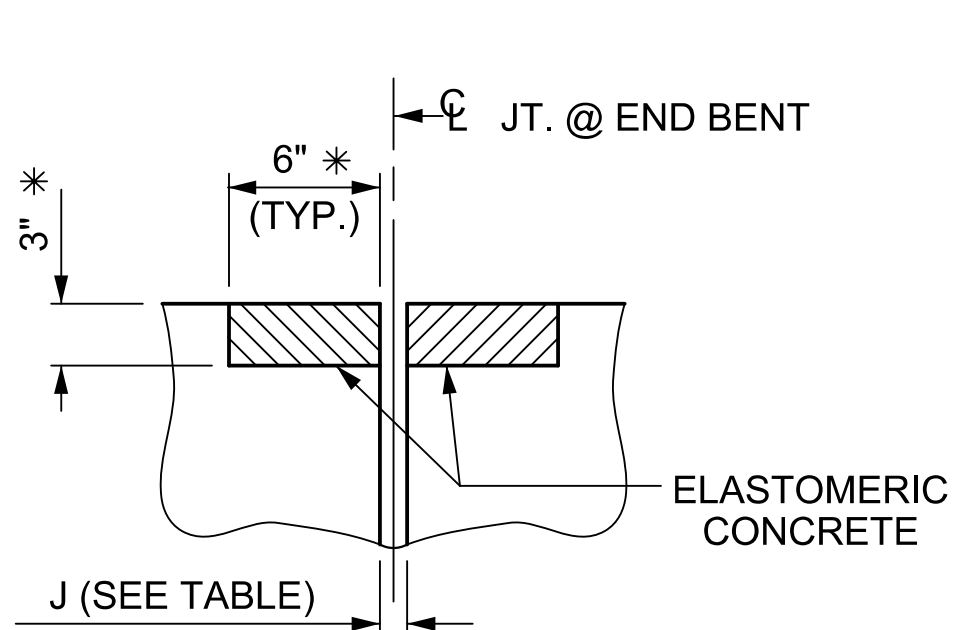
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UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-4
1			3			TOTAL SHEETS
2			4			17



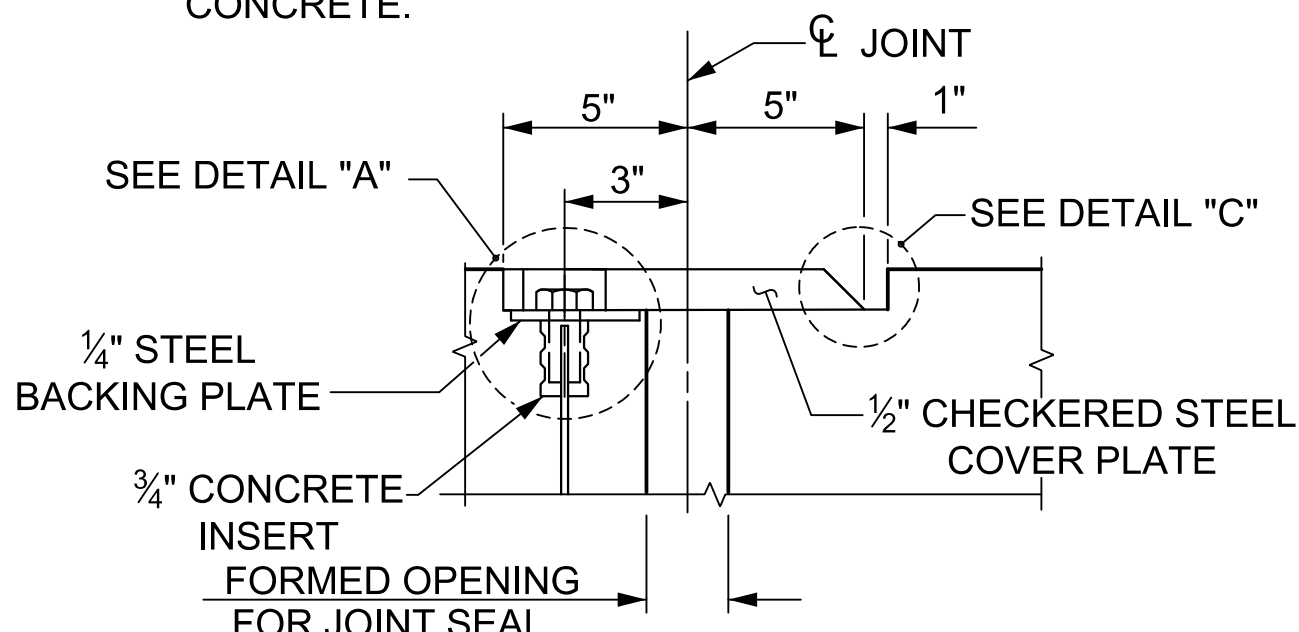
PLAN OF FOAM JOINT SEAL
@ END BENT 1 FOR SIDEWALK

(END BENT 2 & BENTS SIMILAR)

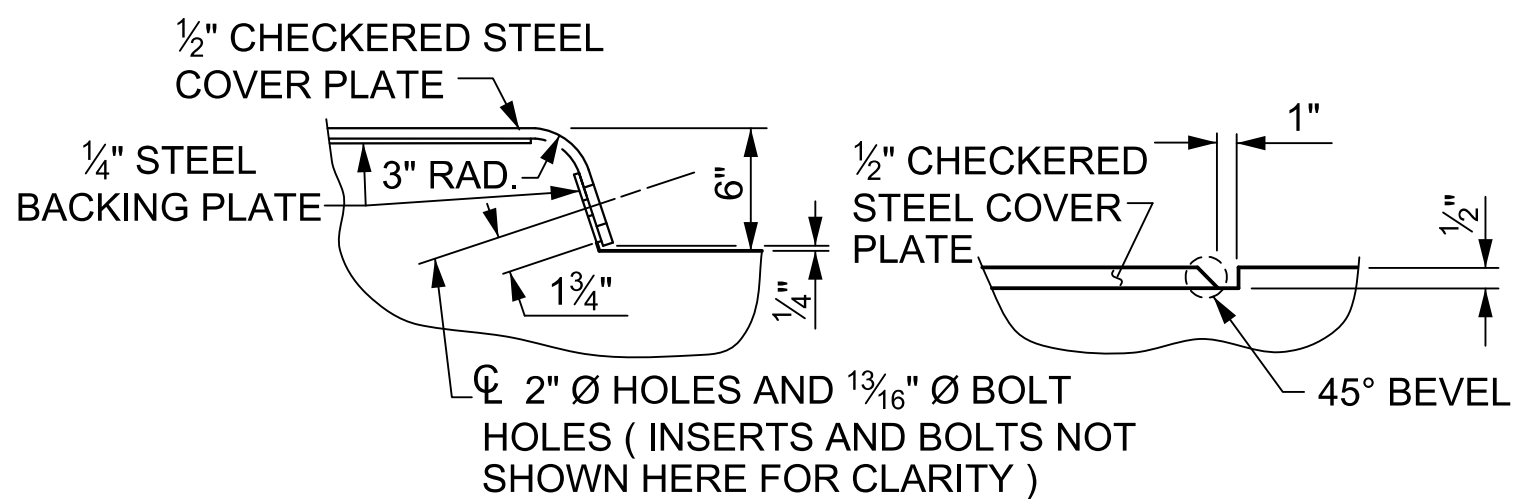


SECTION C-C
FOAM JOINT SEAL
(PRE-SAWED ELASTOMERIC
CONCRETE DIMENSIONS)

* EXISTING CONCRETE AND ELASTOMERIC CONCRETE IN DECK AND APPROACH SLABS TO BE REMOVED WITHIN JOINT REMOVAL LIMITS TO THE MINIMUM DIMENSIONS SHOWN AND TO THE EXTENTS NECESSARY TO REMOVE ALL THE EXISTING JOINT HEADER MATERIAL PRIOR TO THE PREPARATION AND INSTALLATION OF NEW ELASTOMERIC CONCRETE.



SECTION K-K

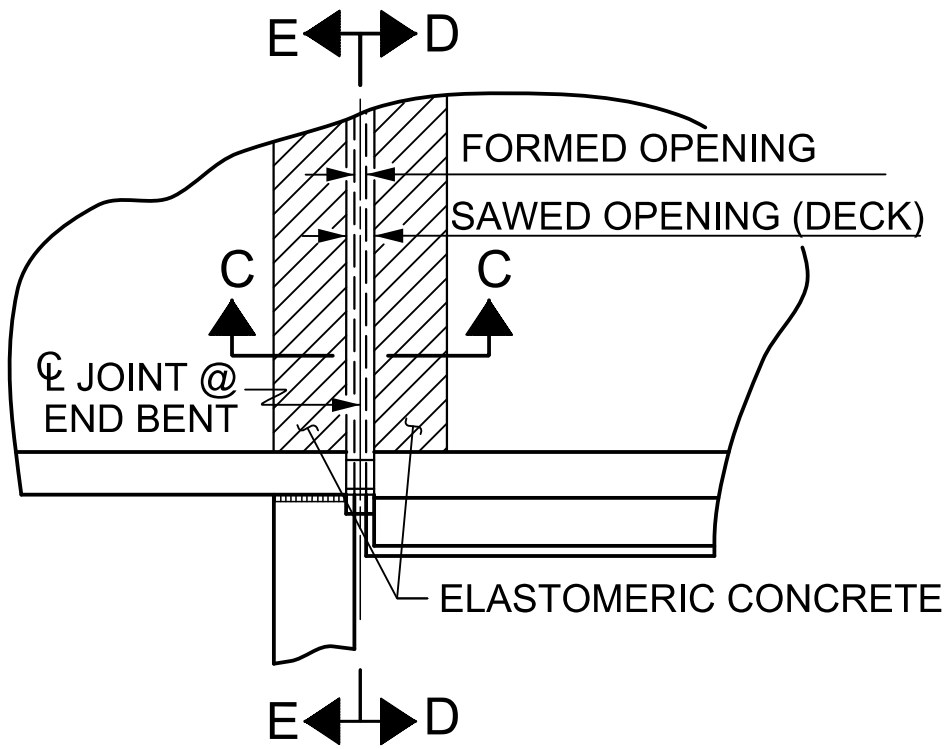


DETAIL "B"

DETAIL "C"

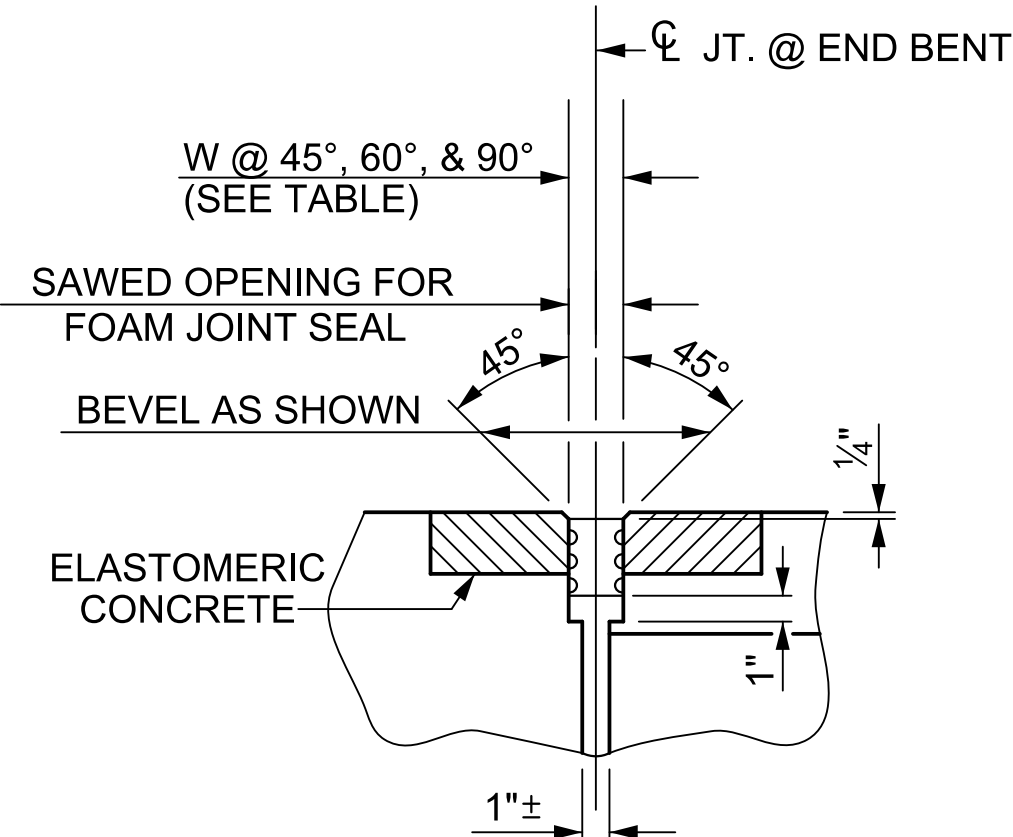
JOINT SEAL DETAILS

END BENT 1 SHOWN, END BENT 2 AND BENTS SIMILAR

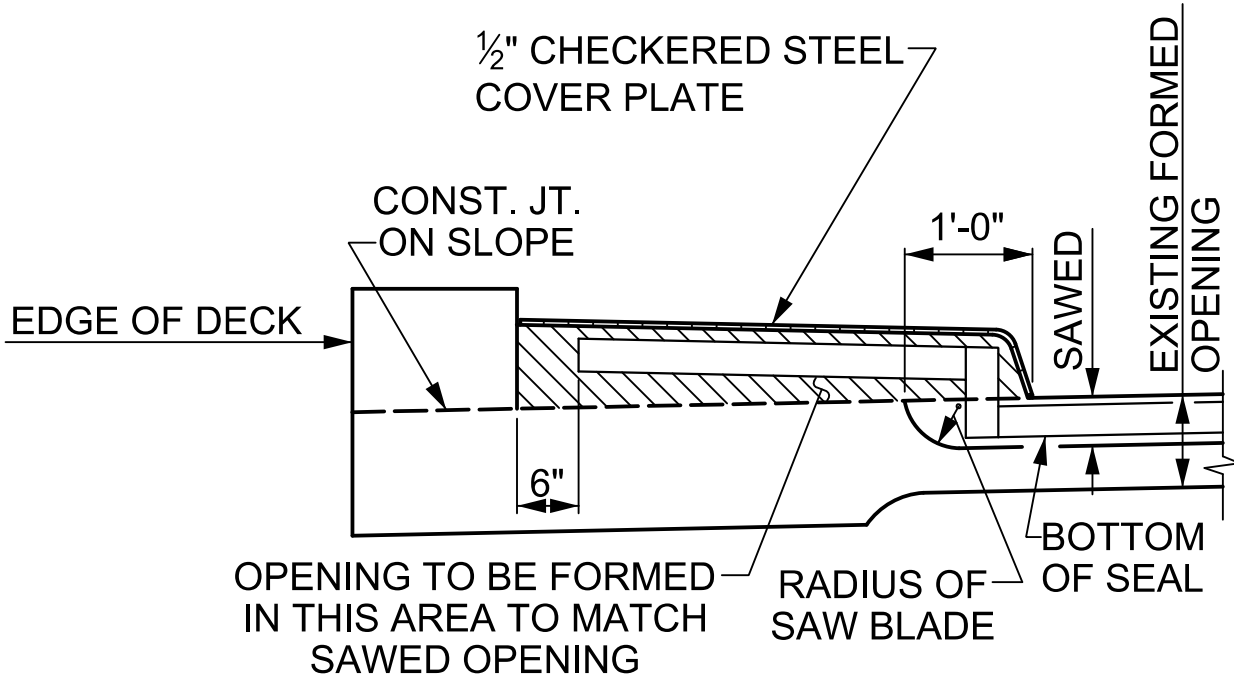


PLAN OF FOAM JOINT SEAL
@ END BENT 1 FOR BARRIER RAIL

(END BENT 2 & BENTS SIMILAR)



SECTION C-C
FOAM JOINT SEAL
(EXPANSION)

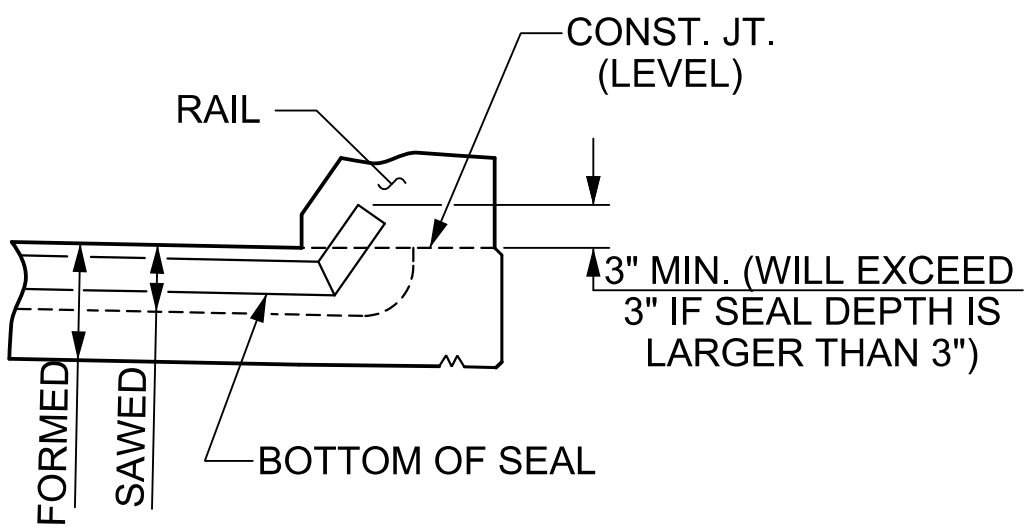


SECTION H-H

LOCATION	SAWED JOINT OPENING (in), W		
	@ 45° F	@ 60° F	@ 90° F
END BENTS	2"	2"	2"
BENT 1	2 1/8"	2"	1 1/16"
BENTS 2-4	2 1/16"	2"	1 13/16"
BENT 5	2 1/16"	2"	1 15/16"

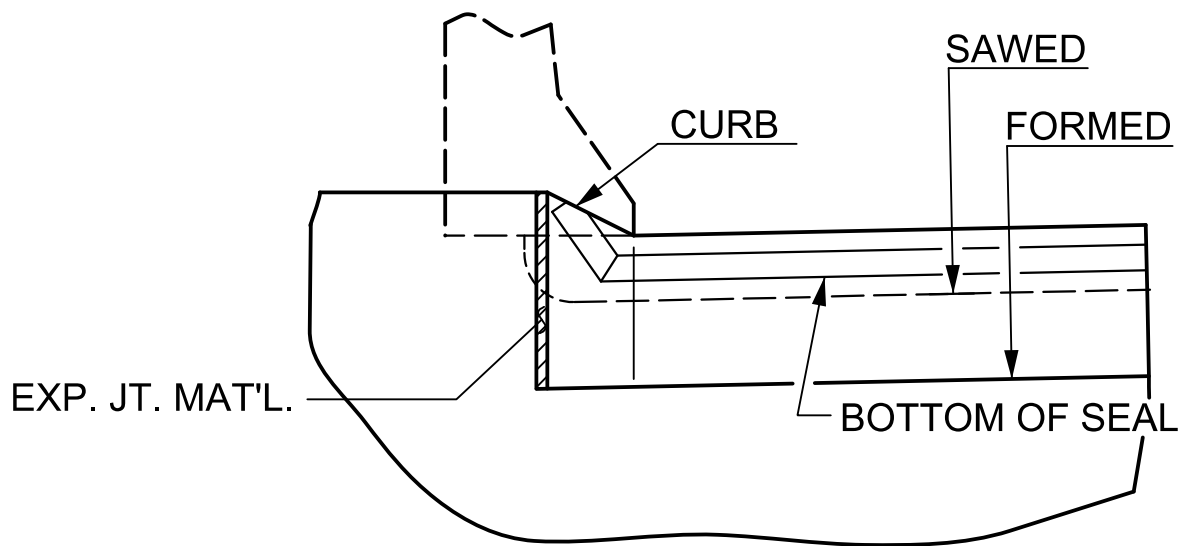
JOINT REPAIR QUANTITY TABLE			
LOCATION	FOAM JOINT SEAL FOR PRESERVATION (LF)	BRIDGE JOINT DEMOLITION (SF)	ELASTOMERIC CONCRETE FOR PRESERVATION (CF)
* BENTS 4-5, END BENT 2	58.1	57.7	13.0
* OTHER	57.8	57.4	12.9
TOTAL	405.5	402.7	90.6

* QUANTITIES ARE FOR EACH JOINT.



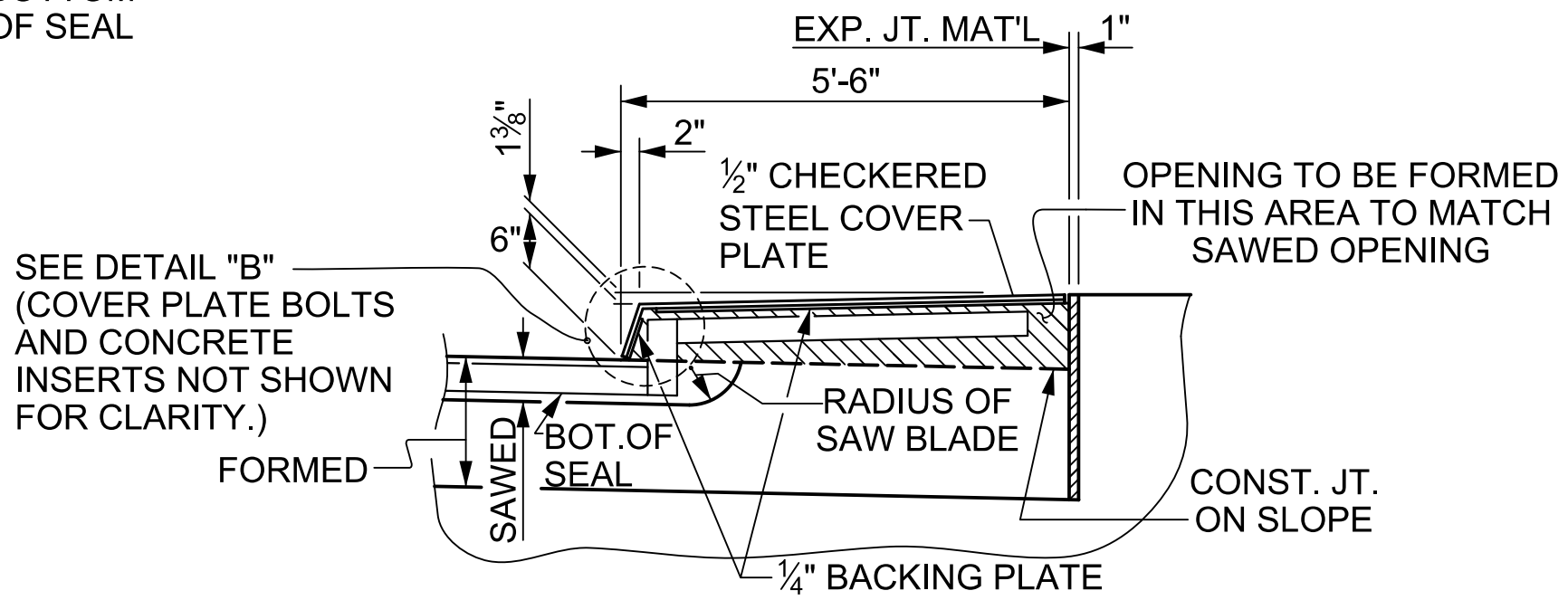
SECTION D-D

FOAM JOINT SEAL TO BE CUT, HEAT WELDED AND TURNED UP PARALLEL TO SLOPED FACE OF THE BARRIER RAIL.

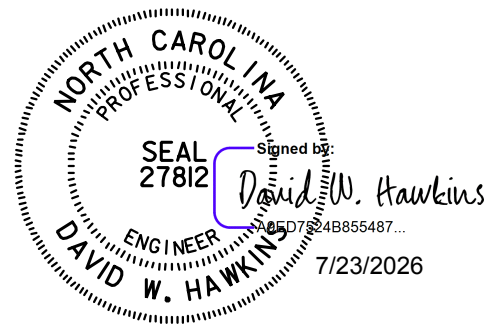


SECTION E-E

FOAM JOINT SEAL TO BE CUT, HEAT WELDED AND TURNED UP PARALLEL TO SLOPED FACE OF THE BARRIER RAIL.



SECTION I-I



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4000 Center at North Hills Street, Suite 500,
Raleigh, N.C. 27609

DRAWN BY M. WRIGHT DATE 5/24
CHECKED BY D. HAWKINS DATE 6/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 5

NOTES:

THE CONTRACTOR SHALL FIELD VERIFY OPENINGS PRIOR TO ORDERING FOAM JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING IN THE DETAILS BY MORE THAN 1/4", NOTIFY THE ENGINEER.

THE INSTALLED FOAM JOINT SEALS SHALL BE WATER TIGHT.

FOR SPLICING FOAM JOINT SEALS, SEE FOAM JOINT SEALS FOR PRESERVATION SPECIAL PROVISION.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

DURING THE JOINT INSTALLATION PROCEDURE, THE JOINT AND SURROUNDING AREA SHALL BE KEPT CLEAN AND FREE OF DEBRIS.

THE STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 36 OR APPROVED EQUAL. AFTER FABRICATION, THE PLATES SHALL BE COMMERCIALY BLAST CLEANED AND EITHER COATED WITH A MINIMUM THICKNESS OF 4 MILS (DRY) OF ZINC-RICH PAINT, GALVANIZED OR METALLIZED TO A MINIMUM THICKNESS OF 6 MILS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.

THE 3/4" DIAMETER HEX HEAD BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304 STAINLESS STEEL.

NO SEPARATE PAYMENT WILL BE MADE FOR FURNISHING AND INSTALLING THE COVER PLATE. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR "FOAM JOINT SEALS FOR PRESERVATION".

THE 3/4" CONCRETE INSERTS SHALL BE CLOSED-END FERRULES WITH LOOPED WIRE STRUTS ATTACHED TO THEM. THE INSERTS SHALL CONFORM TO AASHTO M169, GRADE 12L14 AND SHALL HAVE A TENSILE WORKING LOAD CAPACITY OF 3000 LBS.

THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SHALL BE 2 1/2" AT ALL BENTS AND END BENTS.

DURING CONSTRUCTION, THE CONTRACTOR SHALL PREVENT DAMAGE TO ANY INSTALLED FOAM JOINT SEAL SUSCEPTIBLE TO DAMAGE FROM CONSTRUCTION ACTIVITIES.

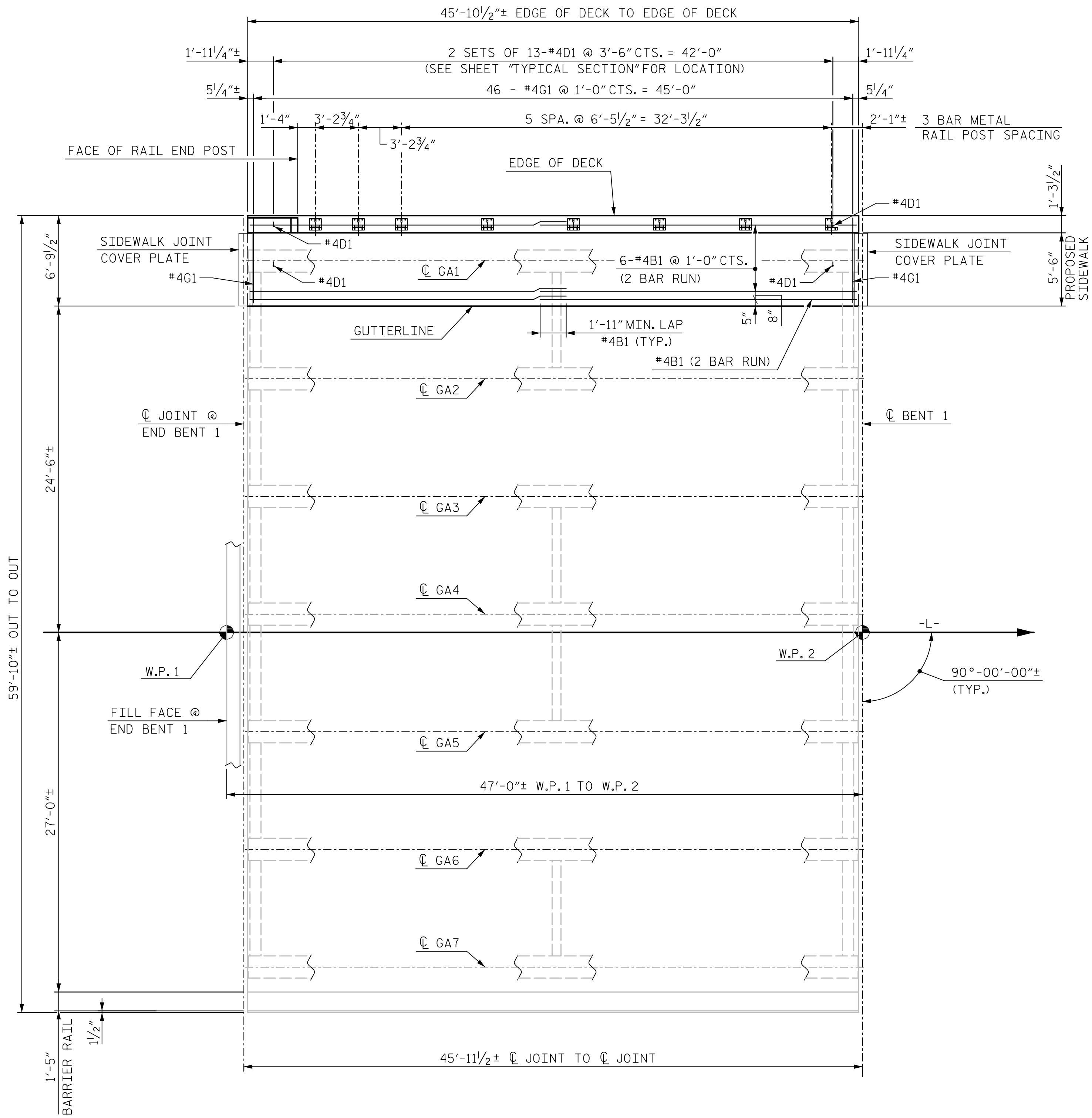
PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

SHEET 2 OF 2

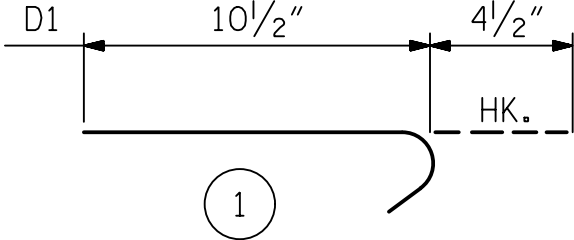
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
TYPICAL DETAILS

REVISIONS					SHEET NO.
NO.	BY	DATE	NO.	BY	
1			3		TOTAL SHEETS
2			4		17

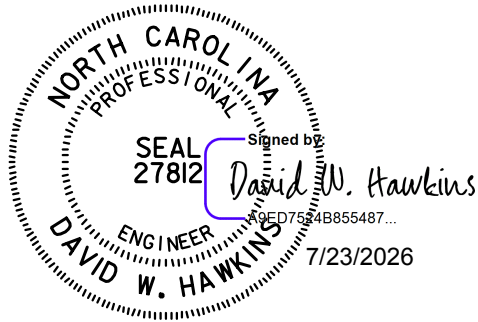


PLAN OF SPAN A

BILL OF MATERIAL						
SPAN A						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B1	14	#4	STR	23'-9"	222	
* D1	26	#4	1	1'-3"	22	
* G1	46	#4	STR	6'-3"	192	
* EPOXY COATED REINFORCING STEEL					LBS.	436
CLASS AA CONCRETE					C. Y.	8.2
BAR TYPE						
						
ALL BAR DIMENSIONS ARE OUT TO OUT						

NOTES:
FOR NOTES AND SIDEWALK DETAILS AT BENTS AND END BENTS AND APPROACH SLABS, SEE SHEETS S1-4 AND S1-5.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-



HNTB

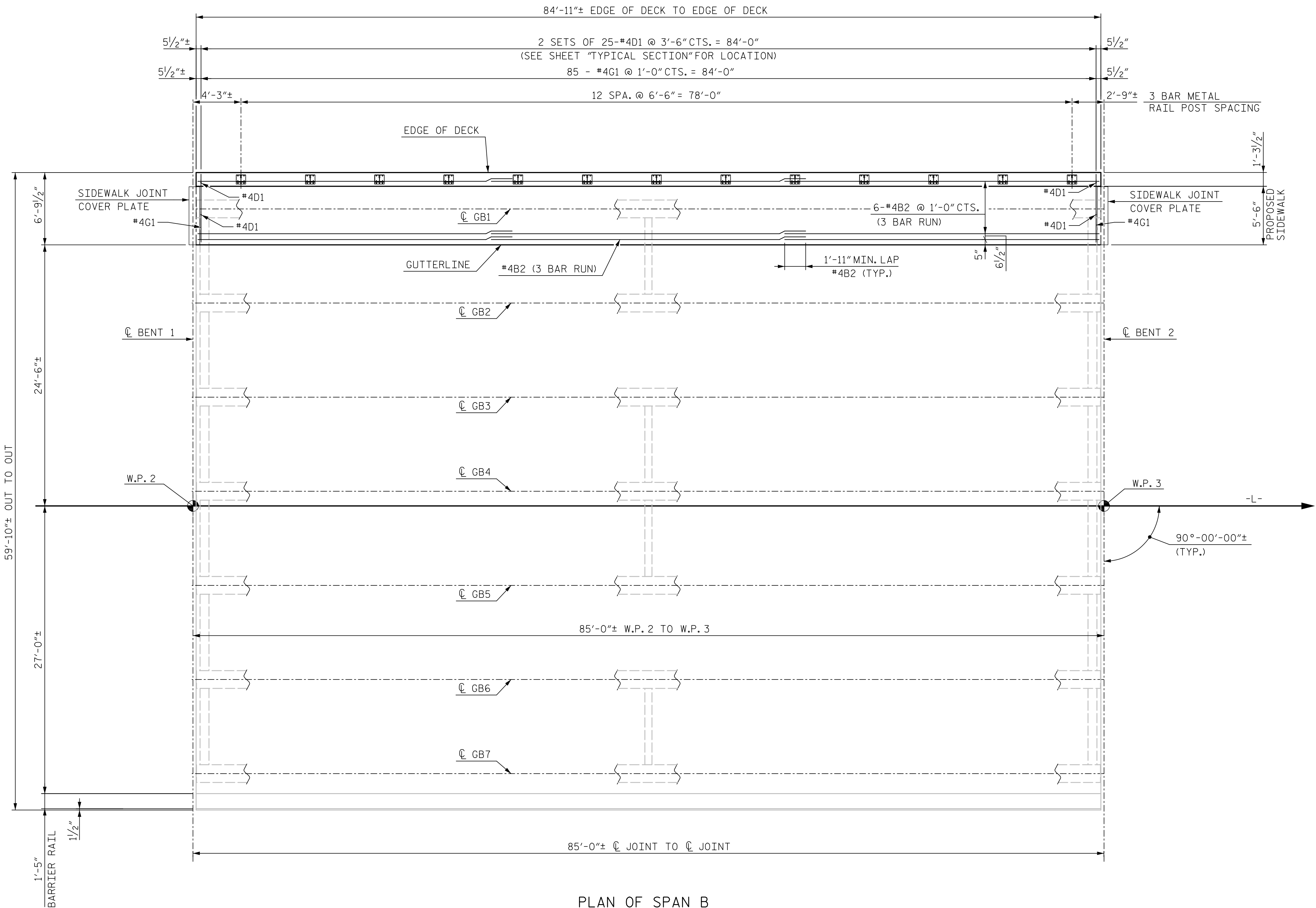
HNTB NORTH CAROLINA, P.C.
NC License No. C-1554
4000 Center at North Hills Street, Suite 500,
Raleigh, N.C. 27609

DRAWN BY M. WRIGHT DATE 5/24
CHECKED BY S. SULLIVAN DATE 5/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 6

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UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						
SUPERSTRUCTURE						
SIDEWALK PLAN SPAN A						
REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-6
1			3			TOTAL SHEETS
2			4			17



PLAN OF SPAN B

BILL OF MATERIAL						
SPAN B						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B2	21	#4	STR	29'-6"	414	
* D1	50	#4	1	1'-3"	42	
* G1	85	#4	STR	6'-3"	355	
* EPOXY COATED REINFORCING STEEL					LBS.	811
CLASS AA CONCRETE					C. Y.	15.1
BAR TYPE						
D1 10 1/2" 4 1/2" HK. 1						
ALL BAR DIMENSIONS ARE OUT TO OUT						

NOTES:
FOR NOTES, SEE SHEET S1-6.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

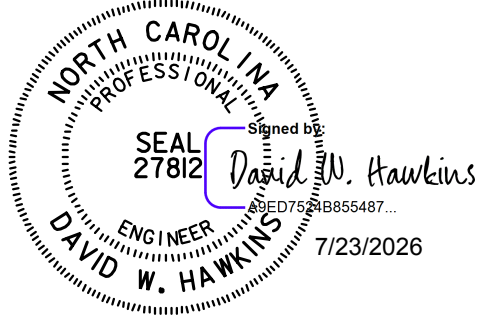
SHEET 2 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

SIDEWALK PLAN
SPAN B

REVISIONS						SHEET NO. S1-7
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 17
2			4			



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CHECKED BY
DESIGN ENGINEER OF RECORD

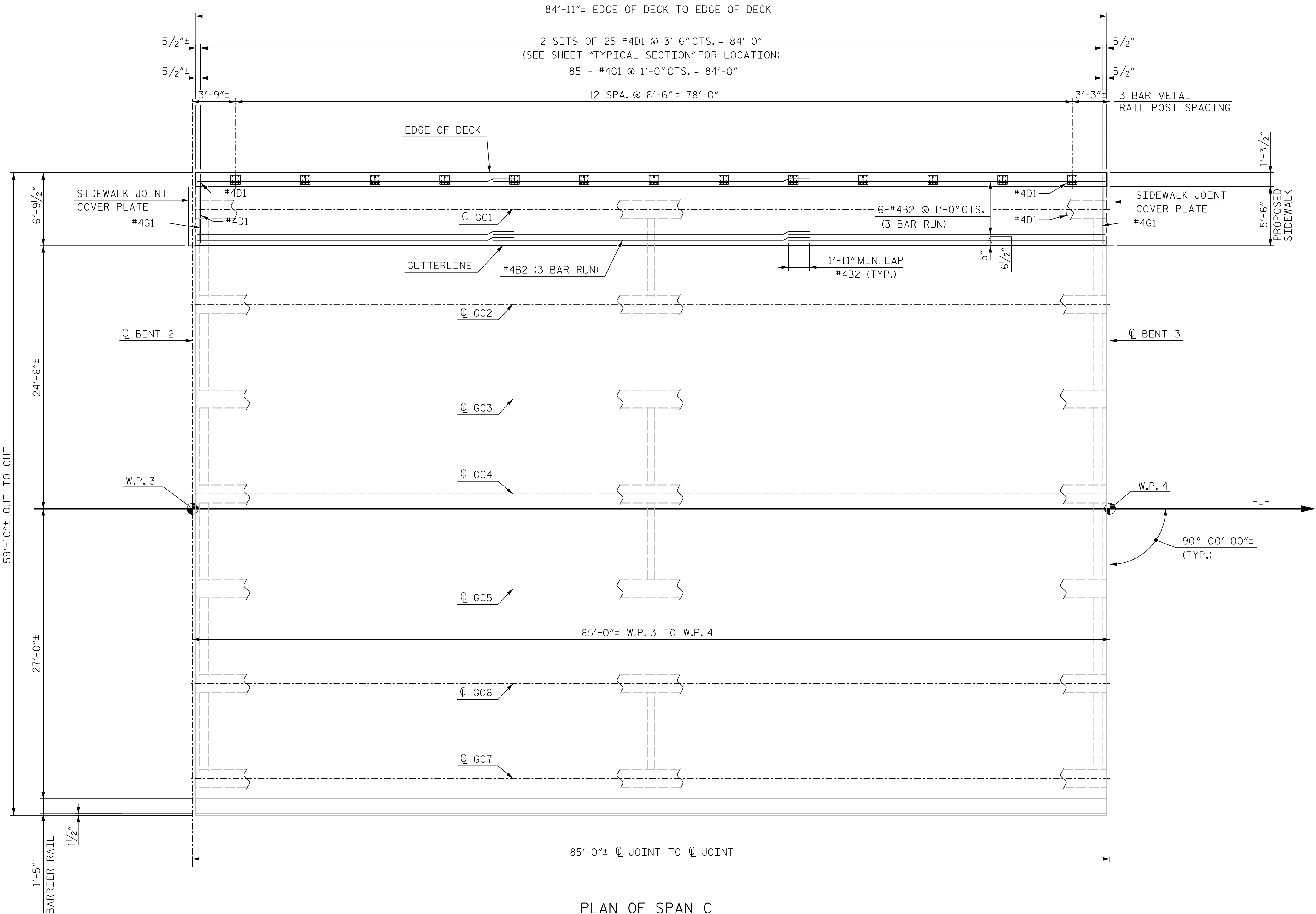
M. WRIGHT
S. SULLIVAN
D. HAWKINS

DATE
DATE
DATE

5/24
5/24
6/24

DWG. NO. 7

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PLAN OF SPAN C

BILL OF MATERIAL						
SPAN C						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B2	21	#4	STR	29'-6"	414	
* D1	50	#4	1	1'-3"	42	
* G1	85	#4	STR	6'-3"	355	
* EPOXY COATED REINFORCING STEEL					LBS.	811
CLASS AA CONCRETE					C. Y.	15.1
BAR TYPE						
D1 10 1/2" 4 1/2" HK. 1						
ALL BAR DIMENSIONS ARE OUT TO OUT						

NOTES:
FOR NOTES, SEE SHEET S1-6.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

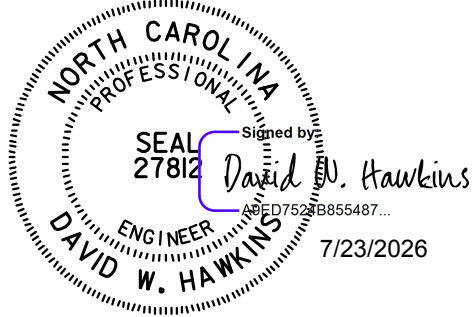
SHEET 3 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

SIDEWALK PLAN
SPAN C

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-8
1			3			TOTAL SHEETS
2			4			17



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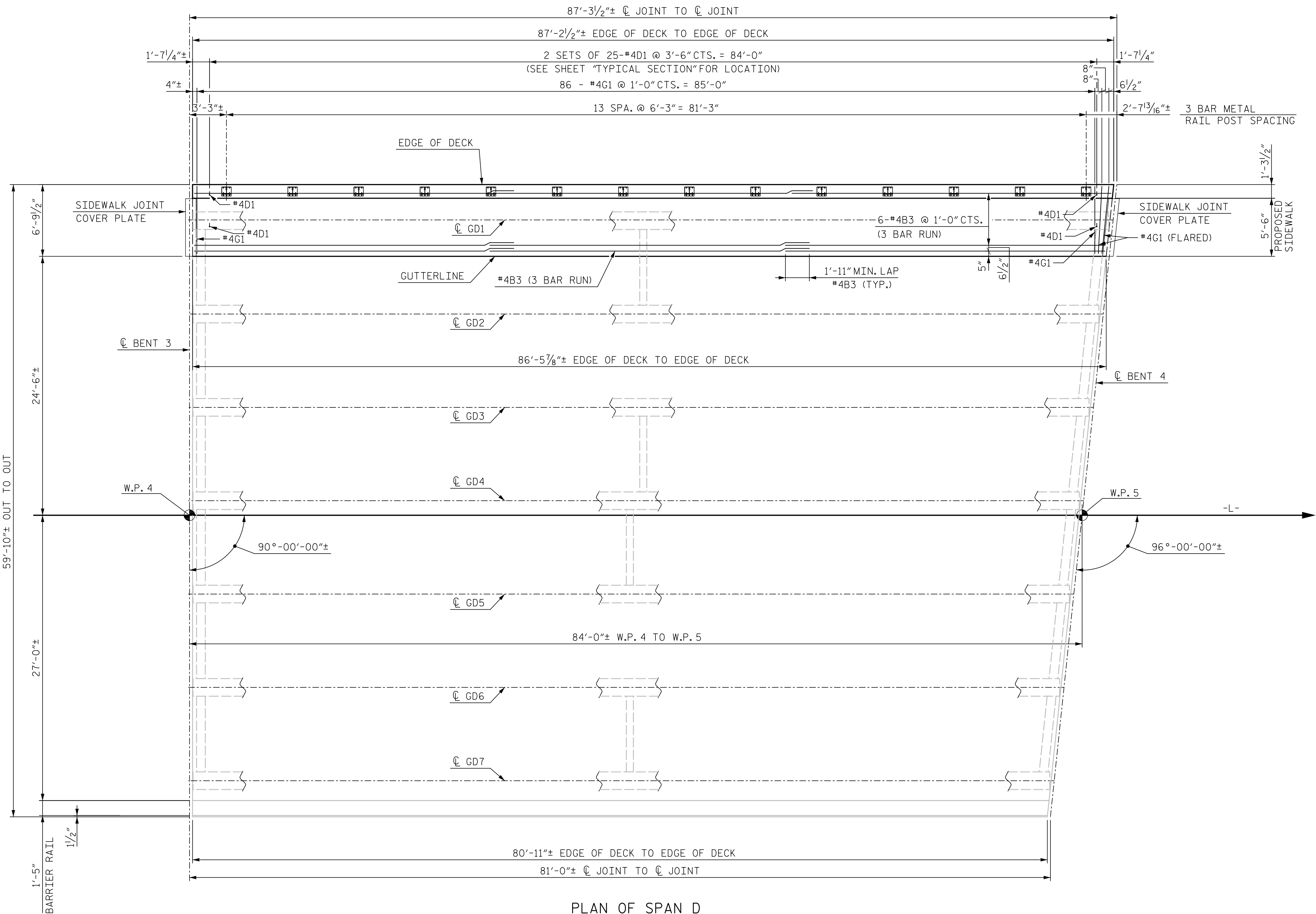
DRAWN BY M. WRIGHT DATE 5/24

CHECKED BY S. SULLIVAN DATE 5/24

DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 8

DOCUMENT NOT CONSIDERED FINAL
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PLAN OF SPAN D

BILL OF MATERIAL						
SPAN D						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B3	21	#4	STR	30'-3"	424	
* D1	50	#4	1	1'-3"	42	
* G1	88	#4	STR	6'-3"	367	
* EPOXY COATED REINFORCING STEEL					LBS.	833
CLASS AA CONCRETE					C. Y.	15.4
BAR TYPE						
ALL BAR DIMENSIONS ARE OUT TO OUT						

NOTES:
FOR NOTES, SEE SHEET S1-6.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

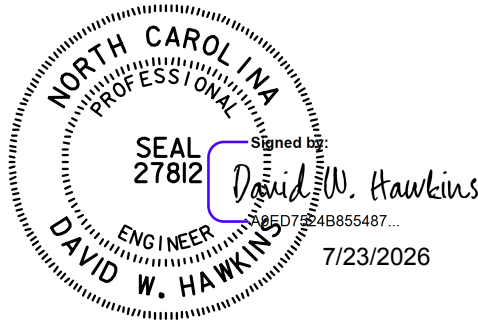
SHEET 4 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

SIDEWALK PLAN
SPAN D

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-9
1			3			TOTAL SHEETS
2			4			17



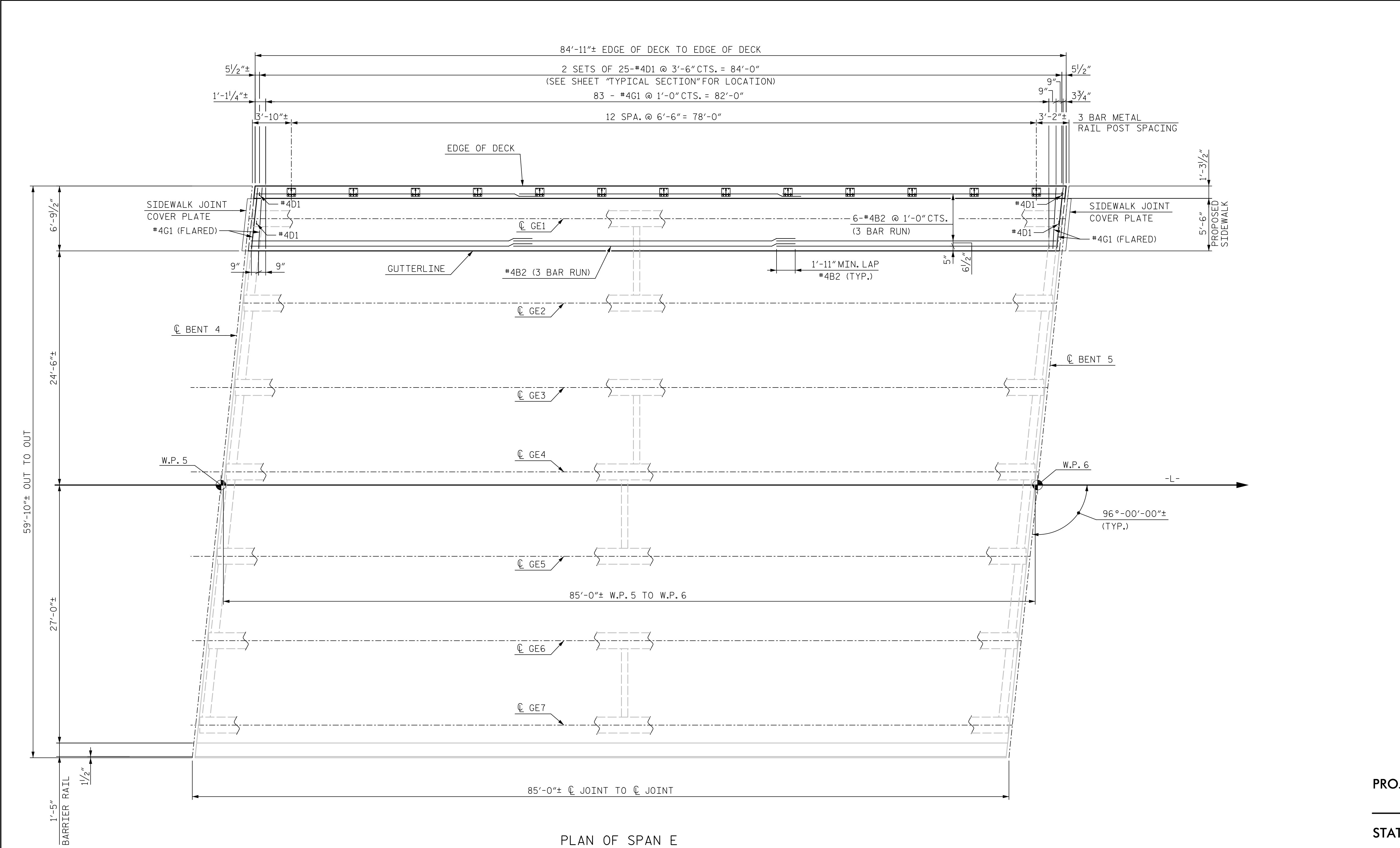
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DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 9

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PLAN OF SPAN E

BILL OF MATERIAL					
SPAN E					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B2	21	#4	STR	29'-6"	414
* D1	50	#4	1	1'-3"	42
* G1	87	#4	STR	6'-3"	363
* EPOXY COATED REINFORCING STEEL				LBS.	819
CLASS AA CONCRETE				C. Y.	15.1
BAR TYPE					
D1 10 1/2" 4 1/2" HK. 1					
ALL BAR DIMENSIONS ARE OUT TO OUT					

NOTES:
FOR NOTES, SEE SHEET S1-6.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

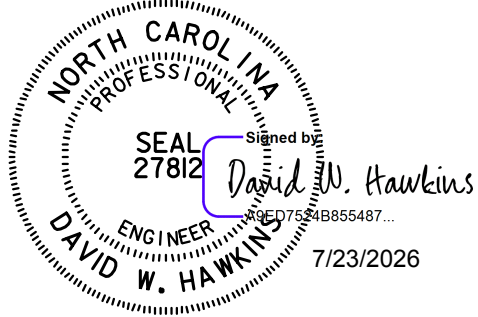
SHEET 5 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

SIDEWALK PLAN
SPAN E

REVISIONS						SHEET NO. S1-10
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 17
2			4			



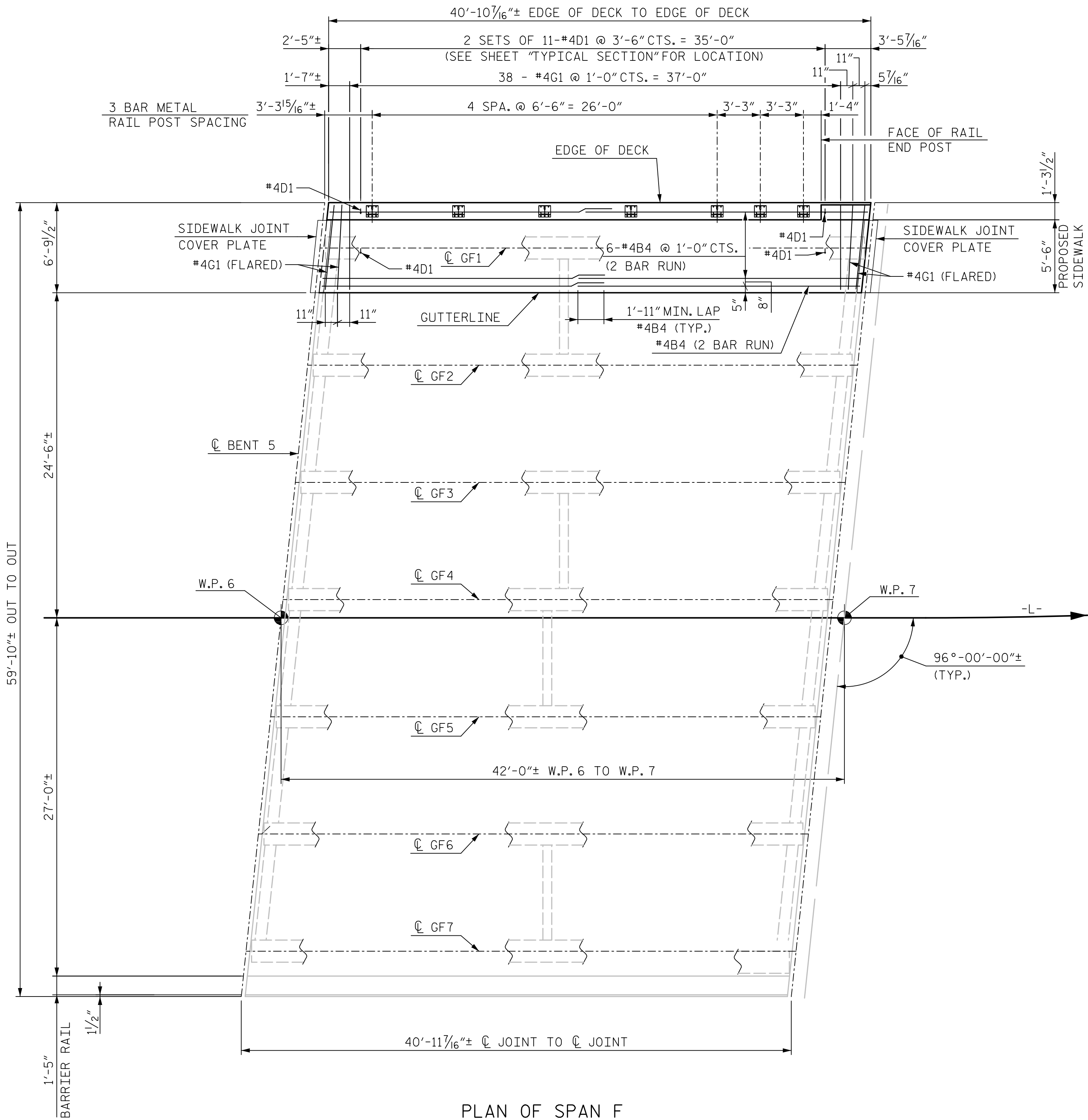
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DRAWN BY M. WRIGHT DATE 5/24
CHECKED BY S. SULLIVAN DATE 5/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 10

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



BILL OF MATERIAL						
SPAN F						
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	
* B4	14	#4	STR	21'-3"	199	
* D1	22	#4	1	1'-3"	18	
* G1	42	#4	STR	6'-3"	175	
* EPOXY COATED REINFORCING STEEL				LBS.	392	
CLASS AA CONCRETE				C. Y.	7.2	
BAR TYPE						
D1 10½" 4½" HK. 1 ALL BAR DIMENSIONS ARE OUT TO OUT						

NOTES:
FOR NOTES, SEE SHEET S1-6.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

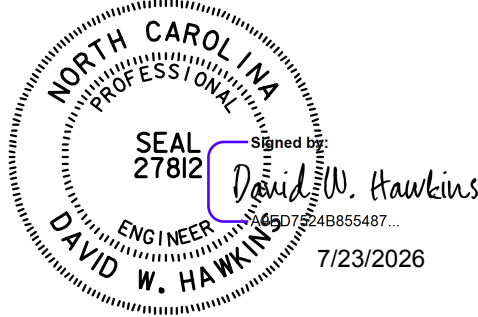
SHEET 6 OF 6

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

SIDEWALK PLAN
SPAN F

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-11
1			3			TOTAL SHEETS
2			4			17



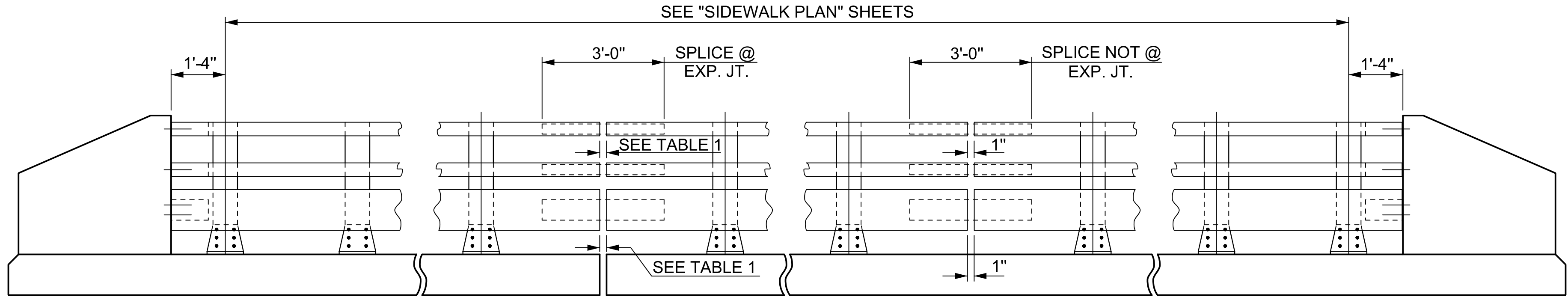
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CHECKED BY S. SULLIVAN DATE 5/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

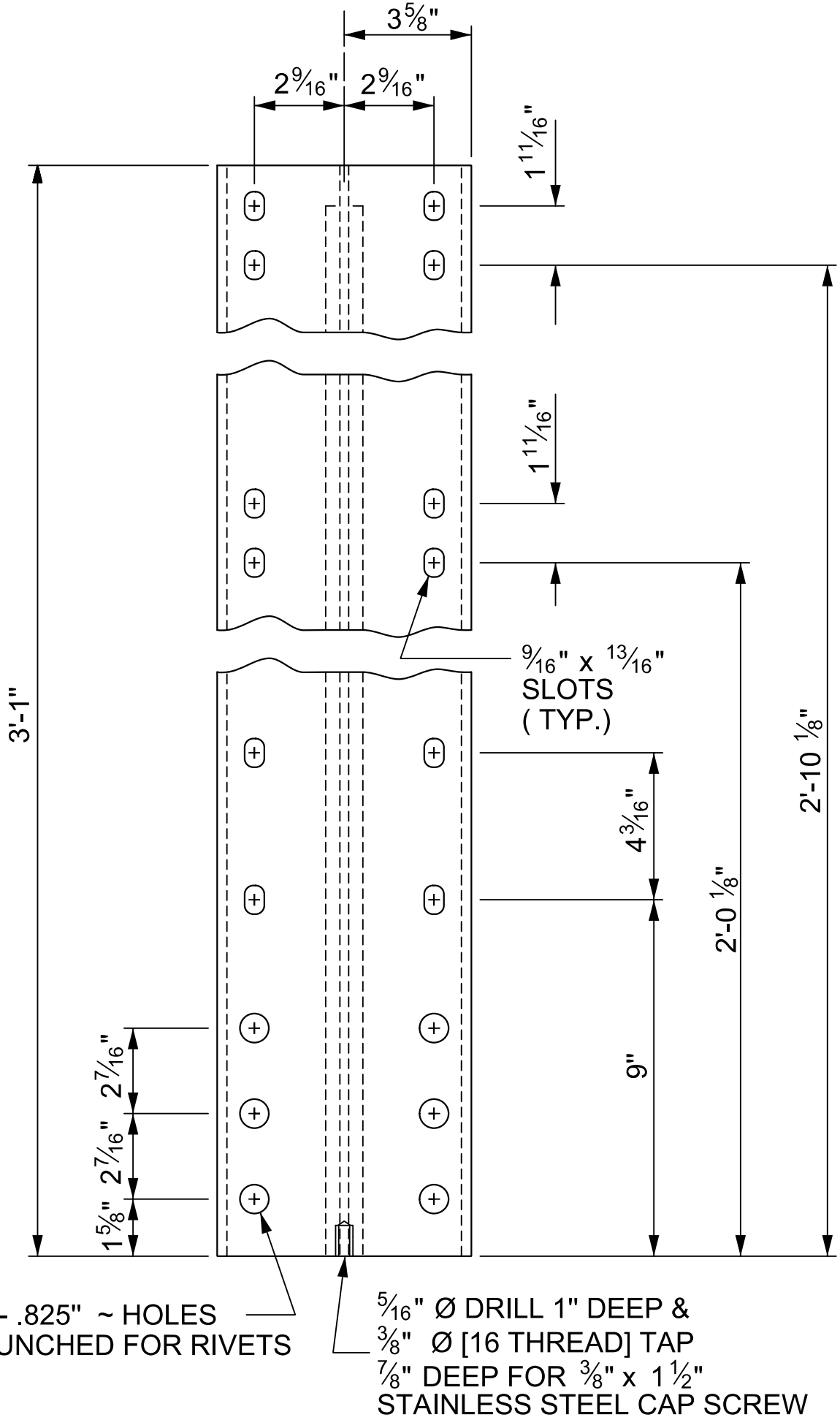
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DOCUMENT NOT CONSIDERED FINAL
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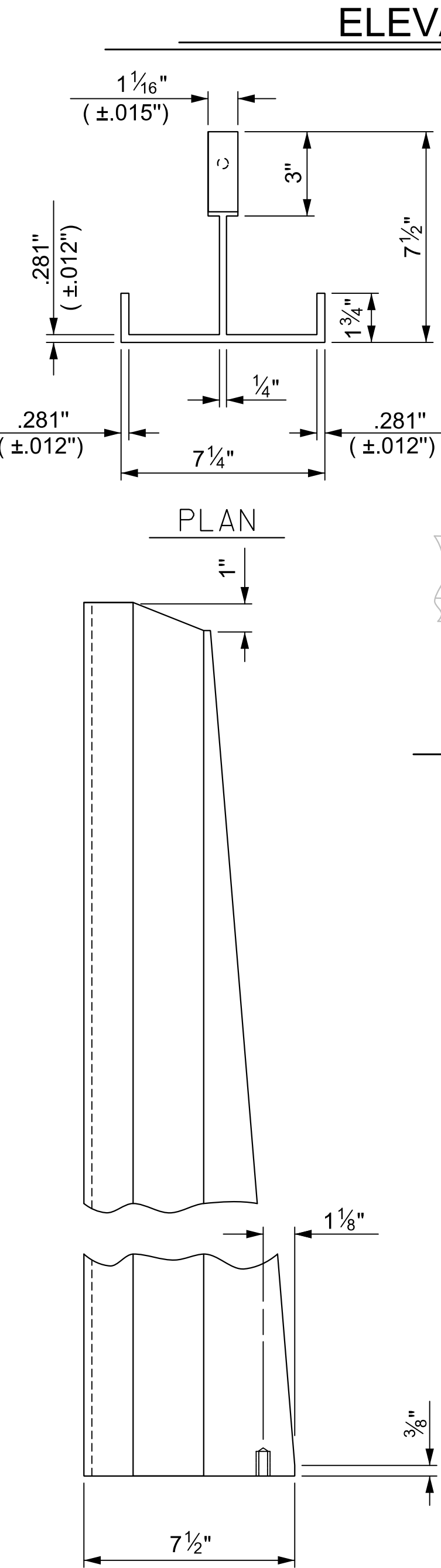


NOTE:
FOR ATTACHMENT OF METAL RAIL TO END
POST, SEE STANDARD NO. BMR7.

TABLE 1	
EXP. JT. BENT	RAIL OPENING
BENT 1	1"
BENT 2	1"
BENT 3	1"
BENT 4	1"
BENT 5	1"

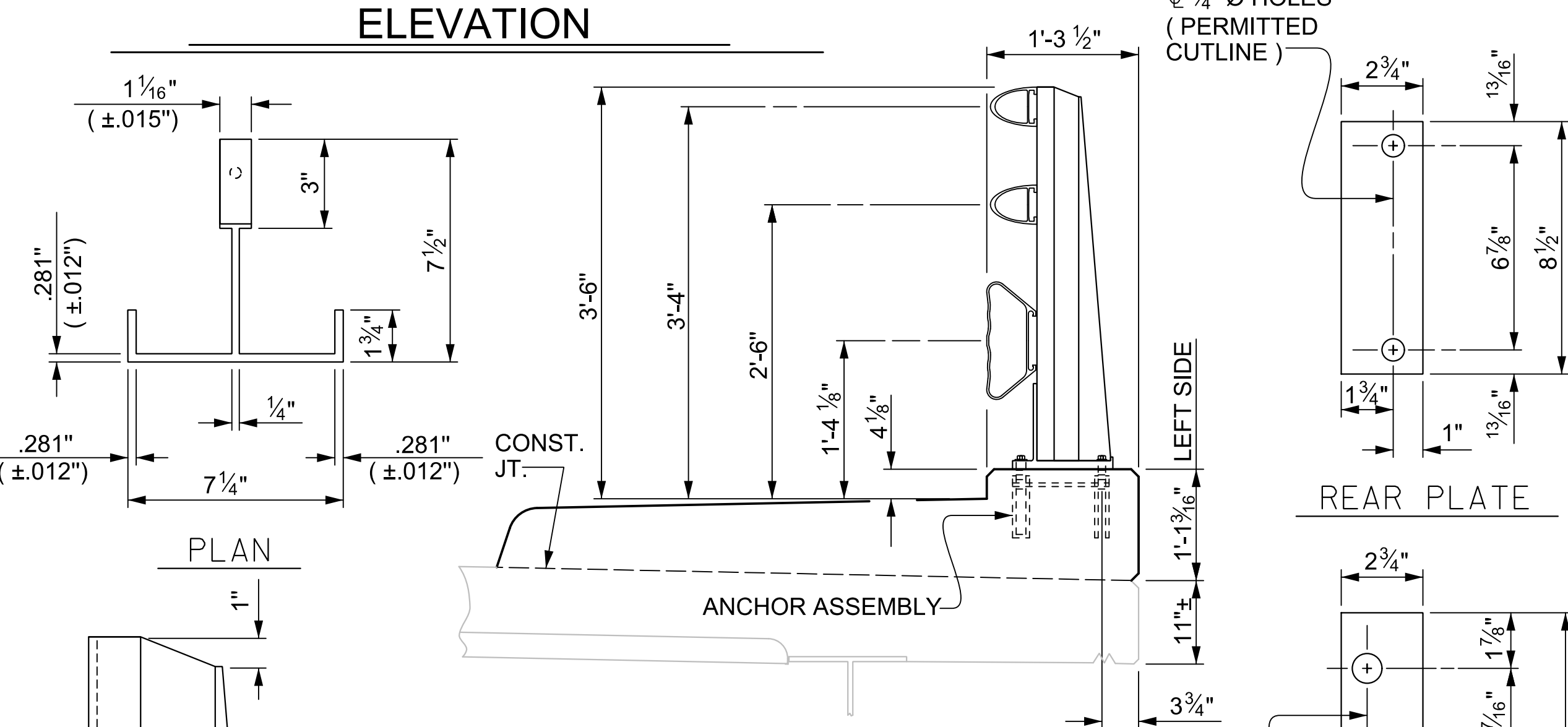


FRONT ELEVATION



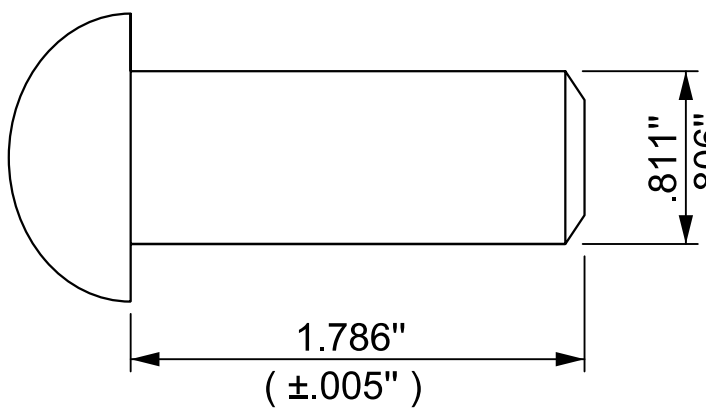
SIDE ELEVATION

DETAILS OF POST

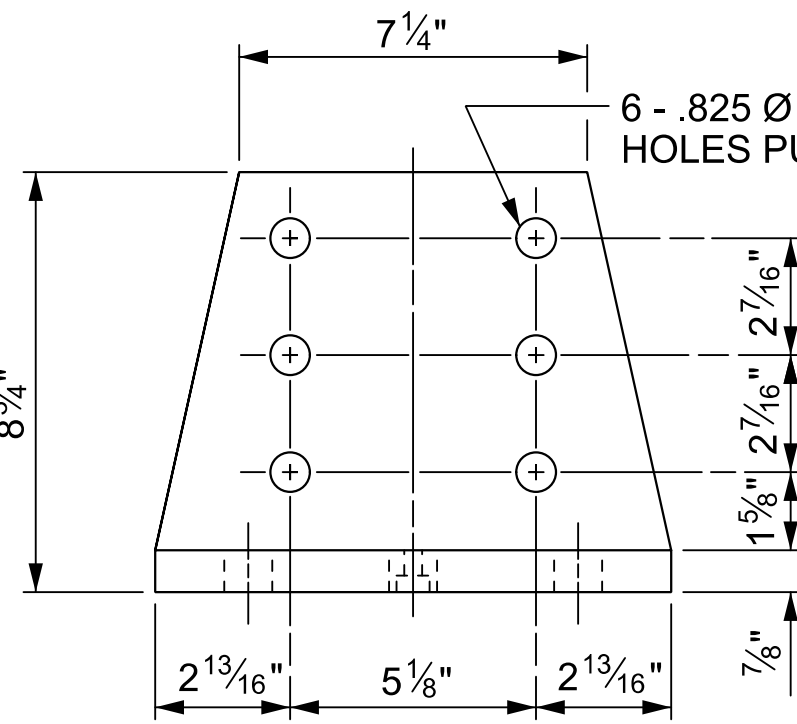


SECTION THRU RAIL

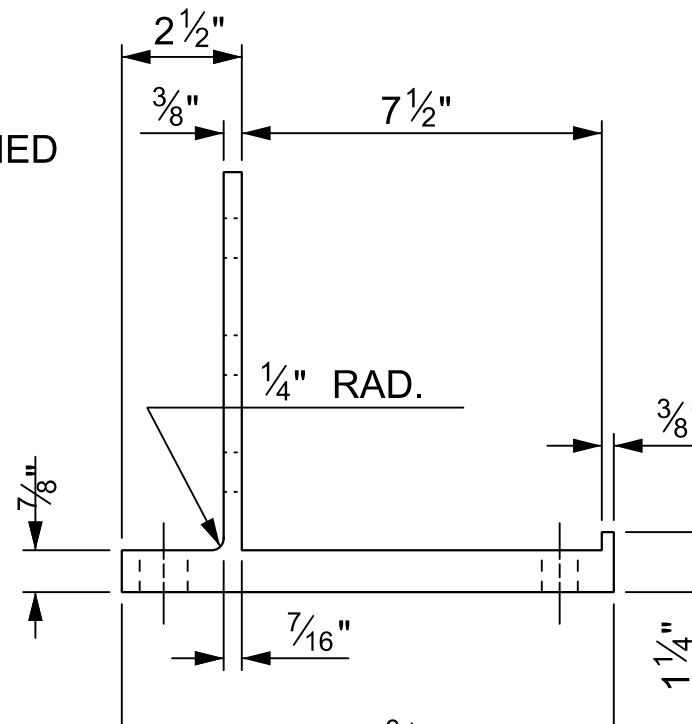
FOR ANCHOR ASSEMBLY, SEE "3 BAR METAL RAIL"
STD.No.BMR6



RIVET DETAIL



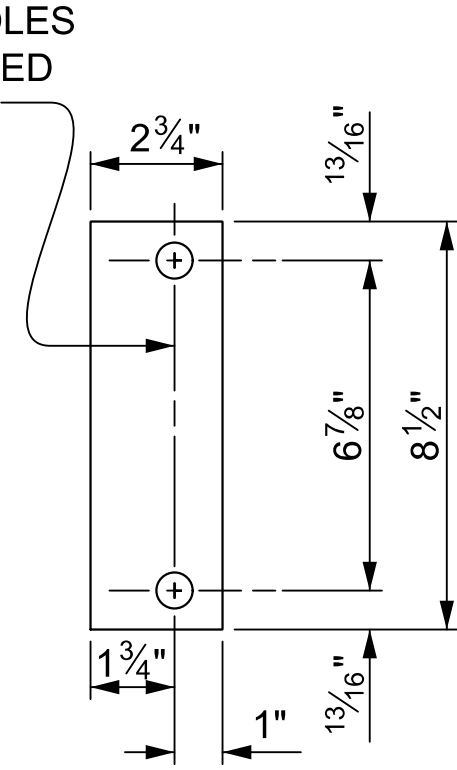
FRONT ELEVATION



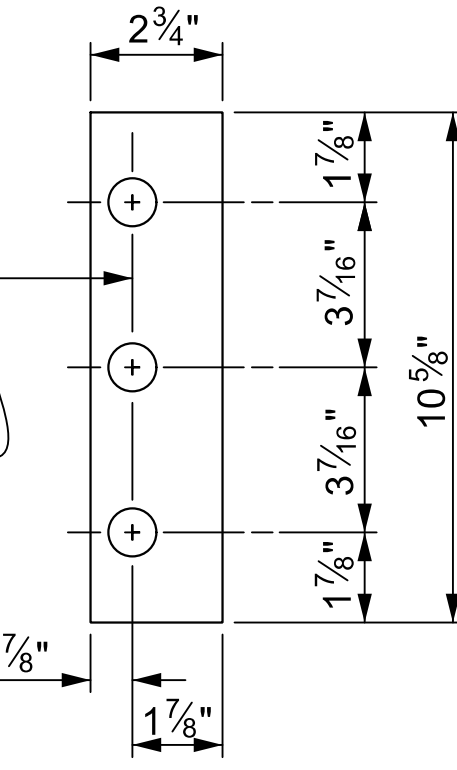
SIDE ELEVATION

POST BASE DETAILS

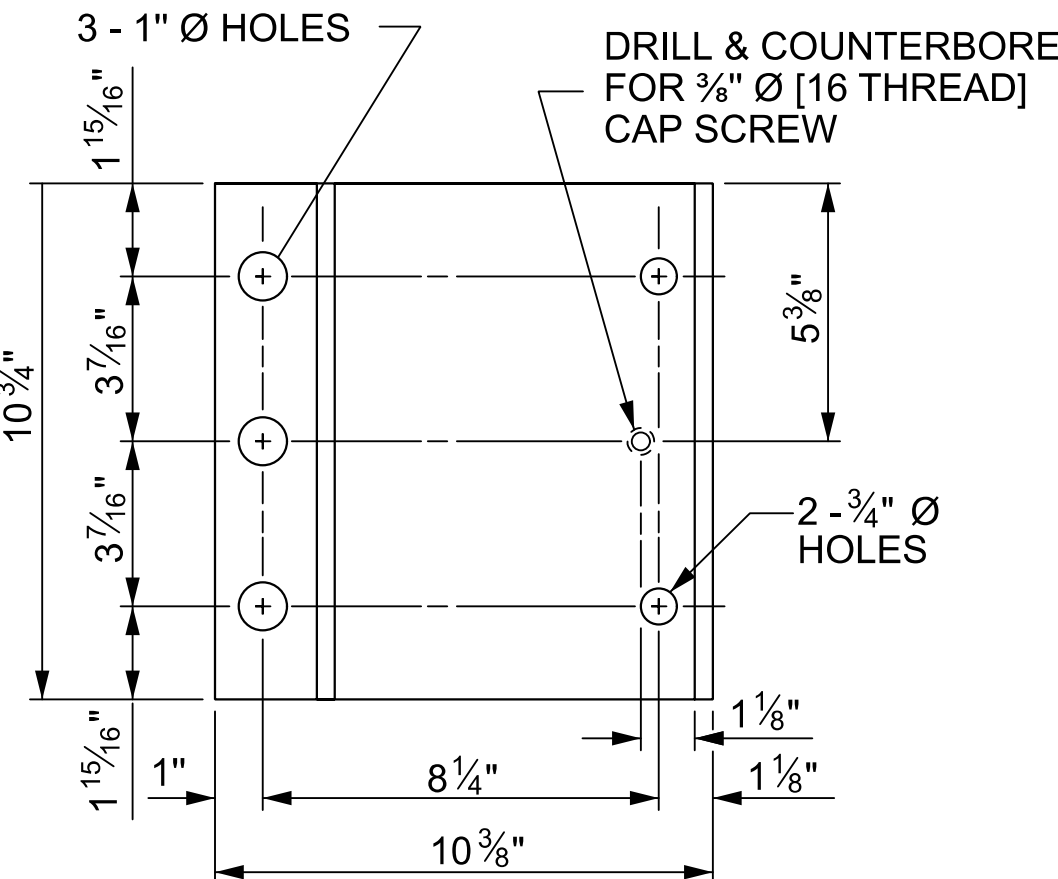
NOTE :
SHIMS MAY BE CUT ALONG PERMITTED CUTLINE OR
SLOTTED TO EDGE OF PLATE TO FACILITATE PLACEMENT.



REAR PLATE



SHIM DETAILS



PLAN

NOTES

AT THE CONTRACTOR'S OPTION, METAL RAIL MAY BE EITHER ALUMINUM OR GALVANIZED STEEL IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL NOTES AND THE FOLLOWING SPECIFICATIONS FOR THE ALTERNATE MATERIALS; HOWEVER, THE CONTRACTOR WILL BE REQUIRED TO USE THE SAME RAIL MATERIAL ON ALL STRUCTURES ON THE PROJECT FOR WHICH METAL RAIL IS DESIGNATED.

ALUMINUM RAILS

MATERIAL FOR POSTS, BASES AND RAILS, EXPANSION BARS AND CLAMP BARS SHALL BE ASTM B221 ALLOY 6061-T6.

MATERIAL FOR RIVETS SHALL BE ASTM B316 ALLOY 6061-T6. RIVETS SHALL BE STANDARD BUTTON HEAD AND CONE POINT COLD DRIVEN AS PER DRAWING.

THE BASE OF RAIL POSTS, OR ANY OTHER ALUMINUM SURFACE IN CONTACT WITH CONCRETE SHALL BE THOROUGHLY COATED WITH AN ALUMINUM IMPREGNATED CAULKING COMPOUND OF APPROVED QUALITY.

MATERIAL FOR SHIMS TO BE ASTM B209 ALLOY 6061-T6.

GALVANIZED STEEL RAILS

MATERIALS AND GALVANIZING ARE TO CONFORM TO THE FOLLOWING SPECIFICATIONS:

POST, POST BASES, RAILS, EXPANSION BARS AND CLAMP BARS: ASTM A36 GRADE 36 STRUCTURAL STEEL - GALVANIZED TO ASTM A123.

RIVETS: RIVETS SHALL MEET THE REQUIREMENTS OF ASTM A502 FOR GRADE 1 RIVETS.

THE CUT ENDS OF GALVANIZED STEEL RAILING, AFTER GRINDING SMOOTH SHALL BE GIVEN TWO COATS OF ZINC RICH PAINT MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION MIL-P-26915 USAF TYPE 1, OR OF FEDERAL SPECIFICATIONS TT-P-641.

SHIMS: SHIMS SHALL MEET THE REQUIREMENTS OF ASTM A1011 FOR GRADE 36, 40, 45 OR ASTM A1008 FOR GRADE C AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

RAIL CAPS: RAIL CAPS SHALL MEET THE REQUIREMENTS OF ASTM A1011 FOR GRADE 36, 40, 45 OR ASTM A1008 FOR GRADE C AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.

GENERAL NOTES

RAILING SHALL BE CONTINUOUS FROM END POST TO END POST OF BRIDGE. EACH JOINT IN RAIL LENGTH SHALL BE SPLICED AS DETAILED. PANEL LENGTHS OF RAIL SHALL BE ATTACHED TO A MINIMUM OF THREE POSTS. PLACE ONE JOINT SPLICE JUST BEYOND THE 3RD RAIL POST FROM EACH END, TYPICALLY 14' FROM THE END. PLACE OTHER JOINTS AS NEEDED.

FOR END OF RAIL TO CLEAR FACE OF CONCRETE END POST DIMENSION, SEE STANDARD NO. BMR7.

CAP SCREWS SHALL BE ASTM F593 ALLOY 305 STAINLESS STEEL. WASHERS FOR RAIL ATTACHMENT SHALL MEET THE REQUIREMENTS OF ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.

CERTIFIED MILL REPORTS ARE REQUIRED FOR RAILS AND POSTS. SHOP INSPECTION IS NOT REQUIRED.

METAL RAIL POSTS SHALL BE SET NORMAL TO CURB GRADE.

METHOD OF MEASUREMENT FOR METAL RAILS: FOR LENGTH OF METAL RAILS TO BE PAID FOR, SEE THE STANDARD SPECIFICATIONS.

CURVED RAIL USAGE: WHERE RAILS ARE TO BE USED ON BRIDGES ON HORIZONTAL AND/OR VERTICAL CURVATURE THE CONTRACTOR MAY, AT HIS OPTION, HAVE THE REQUIRED CURVATURE IN THE RAIL FORMED IN THE SHOP OR IN THE FIELD. IN EITHER EVENT, THE RAIL SHALL CONFORM WITHOUT BUCKLING OR KINKING TO THE REQUIRED CURVATURE IN A UNIFORM MANNER ACCEPTABLE TO THE ENGINEER.

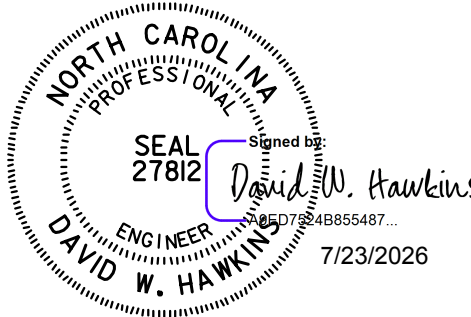
TO INSURE FUTURE IDENTIFICATION OF THE FABRICATOR, A PERMANENT IDENTIFYING MARK SHALL BE PLACED ON EACH POST. THE METHOD OF MARKING AND LOCATION SHALL BE SUCH THAT IT DOES NOT DETRACT FROM THE APPEARANCE OF THE POST, BUT REMAIN VISIBLE AFTER RAIL PLACEMENT.

SHIMS SHALL BE USED AS NECESSARY FOR POST ALIGNMENT.

ALLOY 6351-T5 MAY BE SUBSTITUTED FOR ALLOY 6061-T6 WHERE APPLICABLE.

MINOR VARIATIONS IN DETAILS OF METAL RAIL WILL BE CONSIDERED. DETAILS OF SUCH VARIATIONS, IF DESIRED, SHALL BE SUBMITTED FOR APPROVAL.

PAY LENGTH = 421.5 LIN.FT.



PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

SHEET 1 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

3 BAR METAL RAIL

ASSEMBLED BY : D. HORTON DATE : 6/24
CHECKED BY : D. HAWKINS DATE : 6/24

DRAWN BY : JMB 1/88 REV. 10/1/11 MAA/GM
CHECKED BY : CGH 1/88 REV. 12/1/17 MAA/THC
REV. 10/23 BNB/SNM

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CHECKED BY D. HAWKINS DATE 6/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 12

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REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			17

STD. NO. BMR6

NOTES

METAL RAIL TO END POST CONNECTION

THE METAL RAIL TO END POST CONNECTION SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- A. 1/2" PLATES SHALL CONFORM TO ASTM A36 GRADE 36 AND SHALL BE GALVANIZED AFTER FABRICATION.
- B. 3/4" STRUCTURAL CONCRETE INSERT SHALL HAVE A WORKING LOAD SHEAR CAPACITY OF 4800 LBS. THE FERRULES SHALL ENGAGE A 3/4" Ø x 1 5/8" BOLT WITH 2" O.D. WASHER IN PLACE. THE 3/4" Ø x 1 5/8" BOLT SHALL HAVE N.C. THREADS.
- C. CAP SCREWS FOR RAIL ATTACHMENT TO ANGLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM F593 ALLOY 305 STAINLESS STEEL. CAP SCREWS TO BE CENTERED IN SLOTS AT 60°F. WASHERS FOR RAIL ATTACHMENT SHALL MEET THE REQUIREMENTS OF ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.
- D. STANDARD CLAMP BARS (STD. No. BMR6).

THE COST OF THE STANDARD CLAMP BARS AND CAP SCREWS USED IN THE METAL RAIL TO END POST CONNECTION SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR LINEAR FEET OF 3 BAR METAL RAIL.

THE 3/4" STRUCTURAL CONCRETE INSERT WITH BOLT SHALL BE ASSEMBLED IN THE SHOP.

THE COST OF THE 3/4" STRUCTURAL CONCRETE INSERT ASSEMBLY, AND THE 1/2" PLATES COMPLETE IN PLACE SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

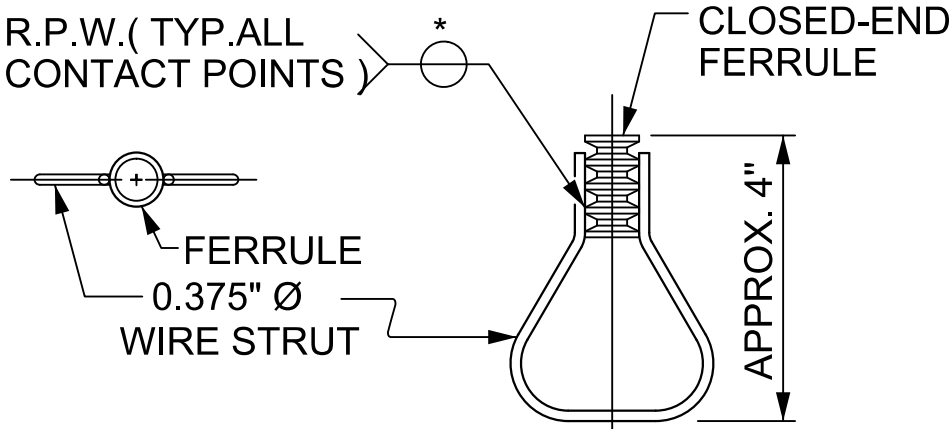
THE CONTRACTOR, AT HIS OPTION, MAY USE AN ADHESIVE BONDING SYSTEM IN LIEU OF THE STRUCTURAL CONCRETE INSERT EMBEDDED IN THE END POST. IF THE ADHESIVE BONDING SYSTEM IS USED, THE 3/4" Ø x 1 5/8" BOLT WITH WASHER SHALL BE REPLACED WITH A 3/4" Ø x 6 1/2" BOLT AND 2" O.D. WASHER. ALL SPECIFICATIONS THAT APPLY TO THE 3/4" Ø x 1 5/8" BOLT SHALL APPLY TO THE 3/4" Ø x 6 1/2" BOLT. FIELD TESTING OF THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

NOTES

STRUCTURAL CONCRETE INSERT

THE STRUCTURAL CONCRETE INSERT ASSEMBLY SHALL CONSIST OF THE FOLLOWING COMPONENTS:

- A. FERRULES SHALL BE MADE FROM STEEL MEETING THE REQUIREMENTS OF AASHTO M169, GRADE 12L14 AND SHALL HAVE A MINIMUM LENGTH OF THREADS OF 1 1/2".
- B. 1 - 3/4" Ø x 1 5/8" BOLT WITH WASHER. BOLT SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLT AND WASHER SHALL BE GALVANIZED. AT THE CONTRACTORS OPTION, STAINLESS STEEL BOLT AND WASHER MAY BE USED AS AN ALTERNATE FOR THE 3/4" Ø x 1 5/8" GALVANIZED BOLT AND WASHER. THEY SHALL CONFORM TO OR EXCEED THE MECHANICAL REQUIREMENTS OF ASTM A307. THE USE OF THIS ALTERNATE SHALL BE APPROVED BY THE ENGINEER.
- C. WIRE STRUT SHOWN IN THE CONCRETE INSERT ASSEMBLY DETAIL IS THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 PSI. AS AN OPTION, A 7/16" Ø WIRE STRUT WITH A MINIMUM TENSILE STRENGTH OF 90,000 PSI IS ACCEPTABLE.



PLAN

ELEVATION

STRUCTURAL CONCRETE INSERT

* EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

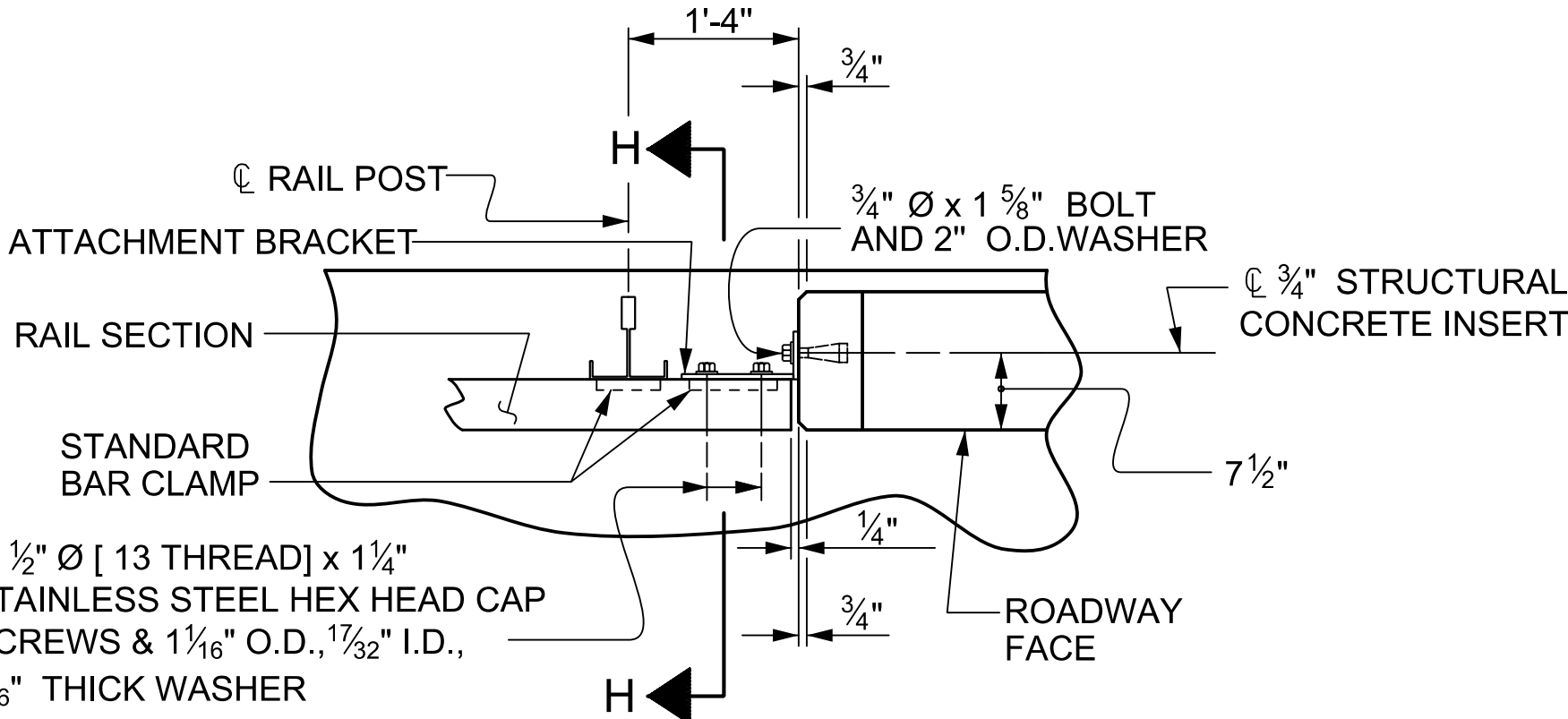
SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD

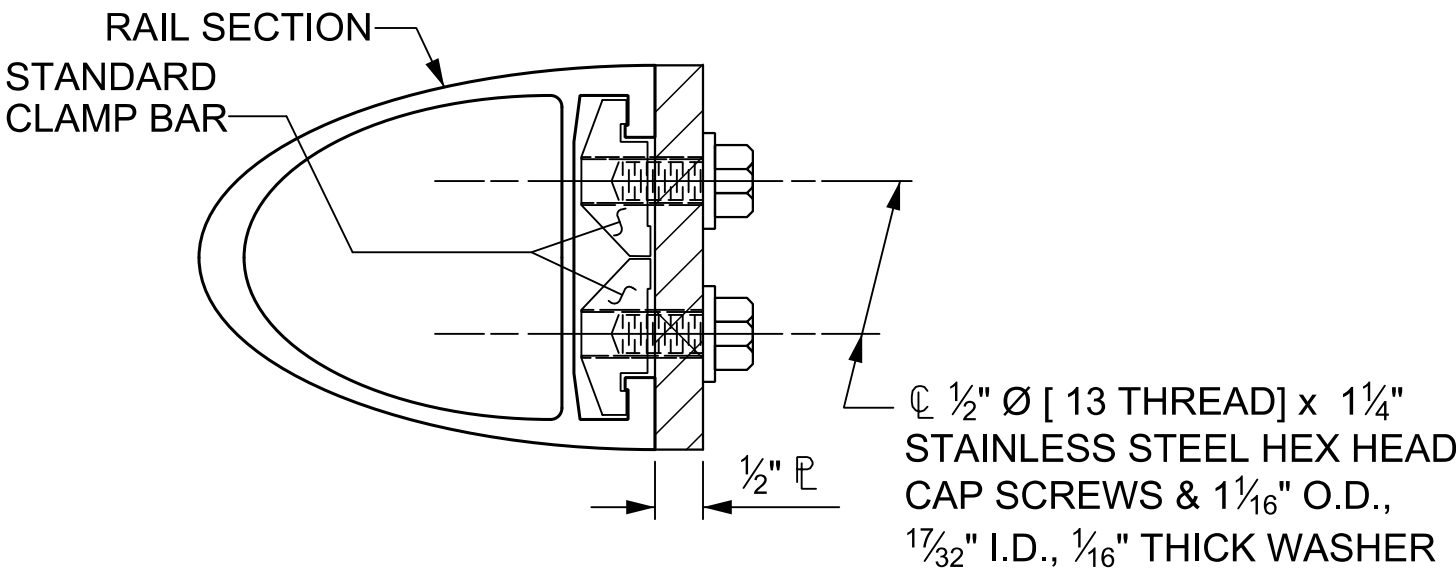
3 BAR METAL RAIL

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S1-14
1			3			TOTAL SHEETS
2			4			17



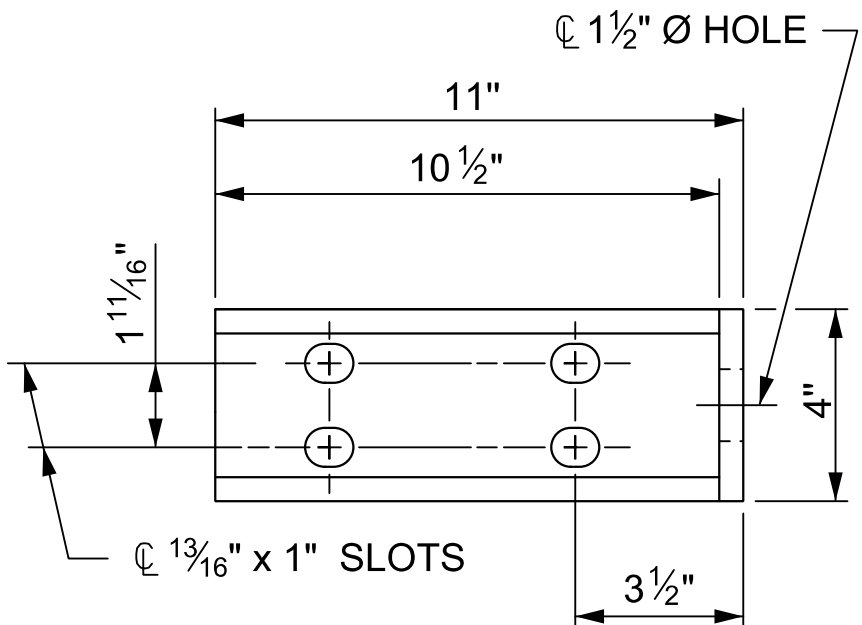
PLAN OF RAIL AND END POST

(STIFFENER ON 1/2" PLATE NOT SHOWN FOR CLARITY)

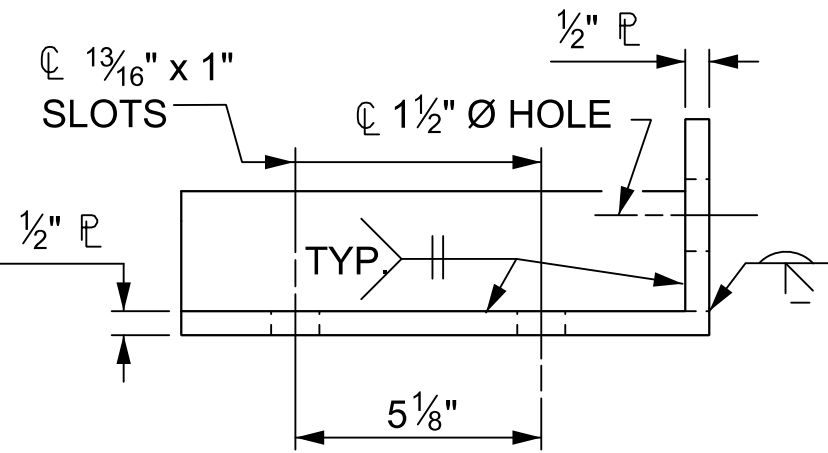


SECTION H-H

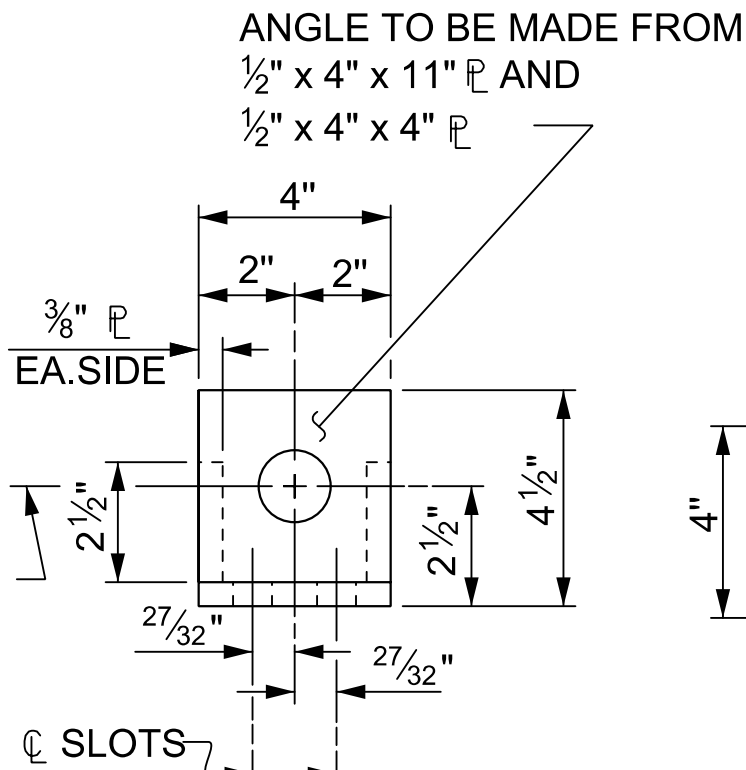
(FOR TOP & MIDDLE RAIL)



ELEVATION



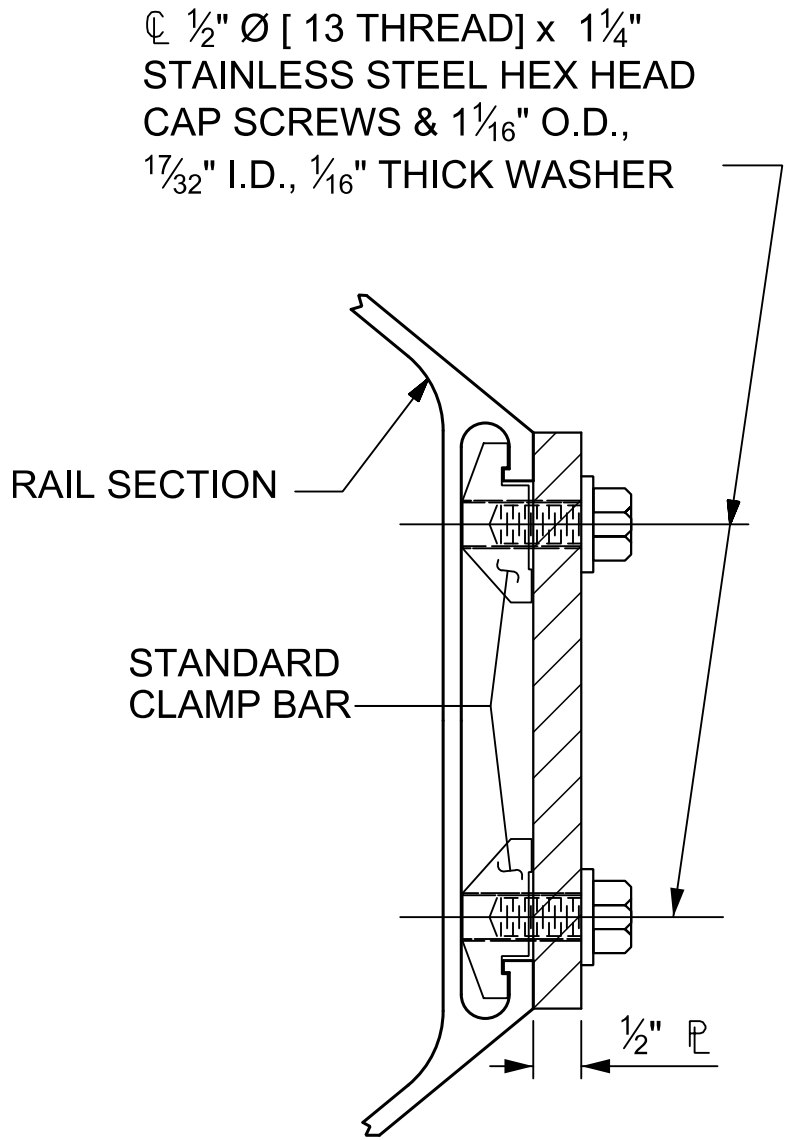
PLAN



END VIEW
(FIX. AND EXP.)

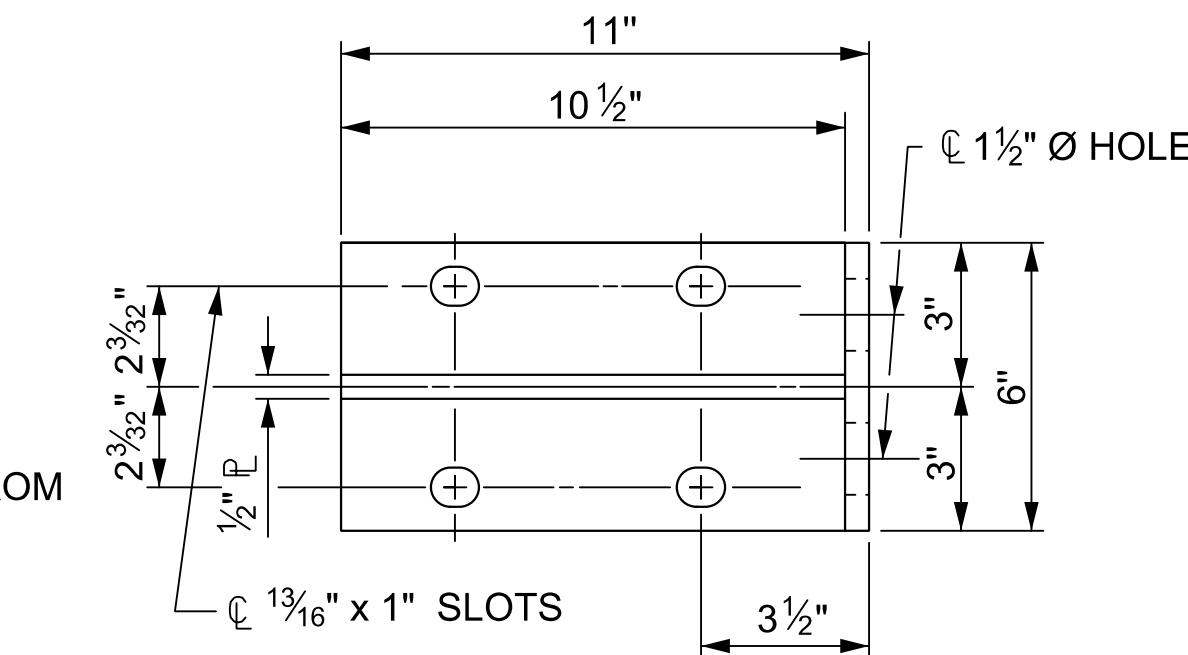
DETAILS FOR ATTACHMENT BRACKET

(TOP & MIDDLE RAIL ONLY)

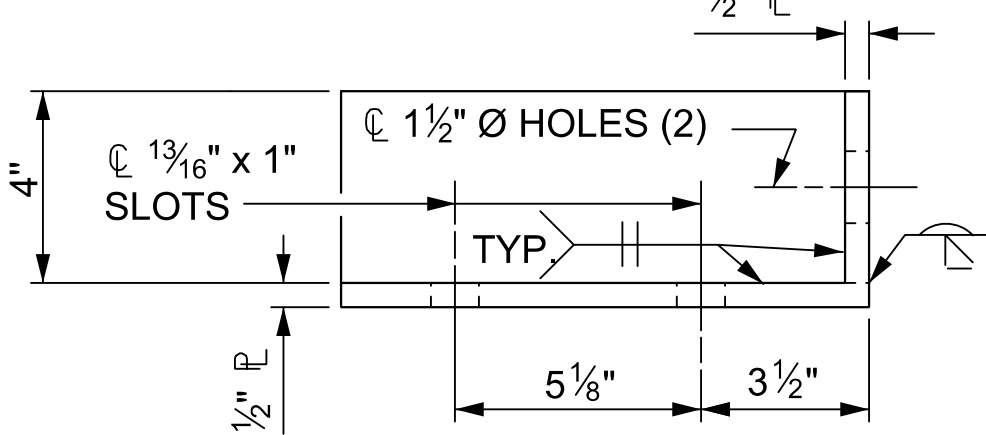


SECTION H-H

(FOR BOTTOM RAIL)



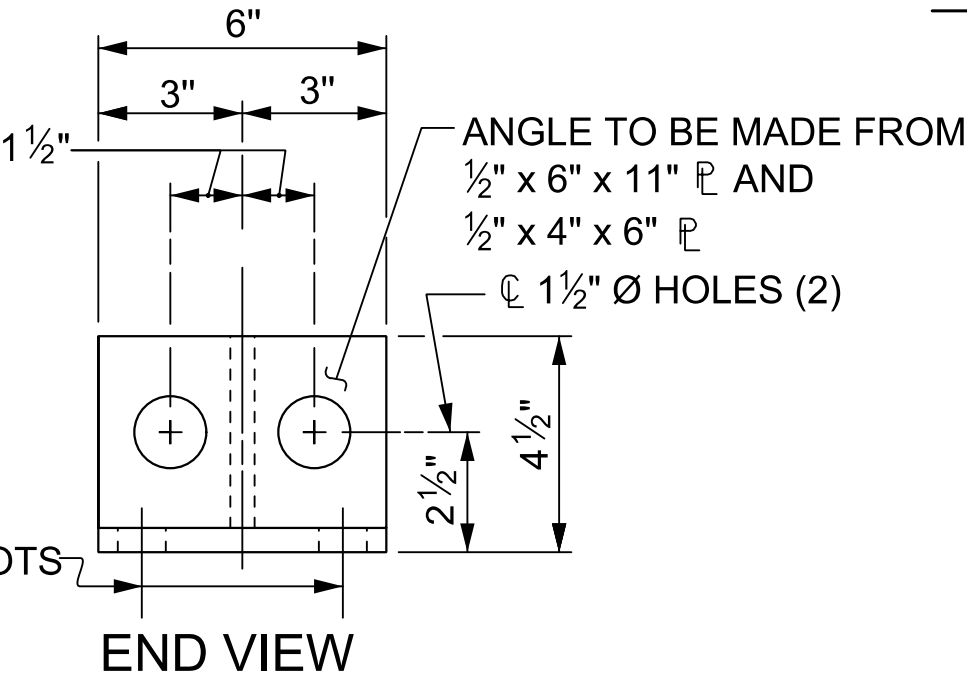
ELEVATION



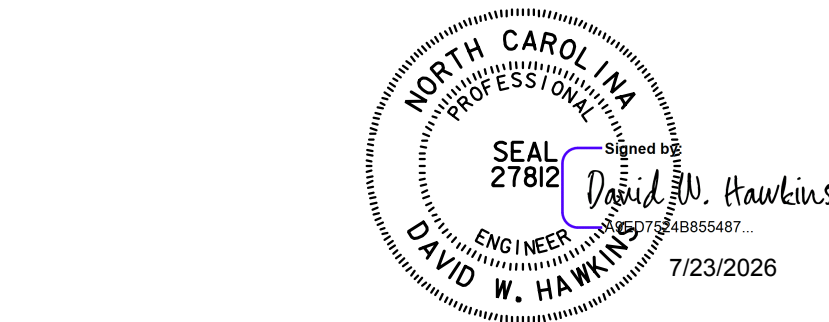
PLAN

DETAILS FOR ATTACHMENT BRACKET

(BOTTOM RAIL ONLY)



END VIEW



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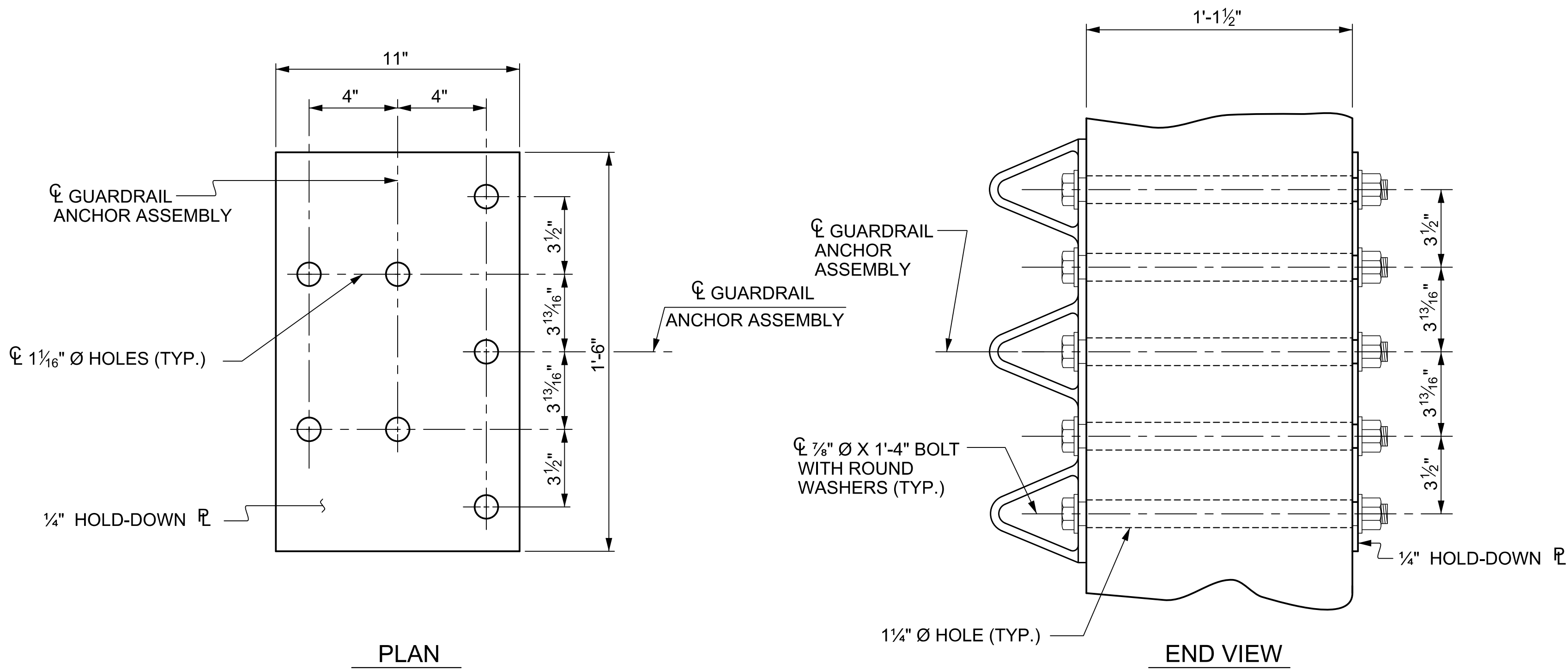
DRAWN BY D. HORTON DATE 6/24
CHECKED BY D. HAWKINS DATE 6/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 14

ASSEMBLED BY : D. HORTON DATE : 6/24
CHECKED BY : D. HAWKINS DATE : 6/24

DRAWN BY : JMB 1/88
CHECKED BY : GGH 1/88
REV. 10/1/11 MAA/GM
REV. 12/1/17 MAA/THC
REV. 10/2/23 BNB/SNM

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GUARDRAIL ANCHOR ASSEMBLY 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.

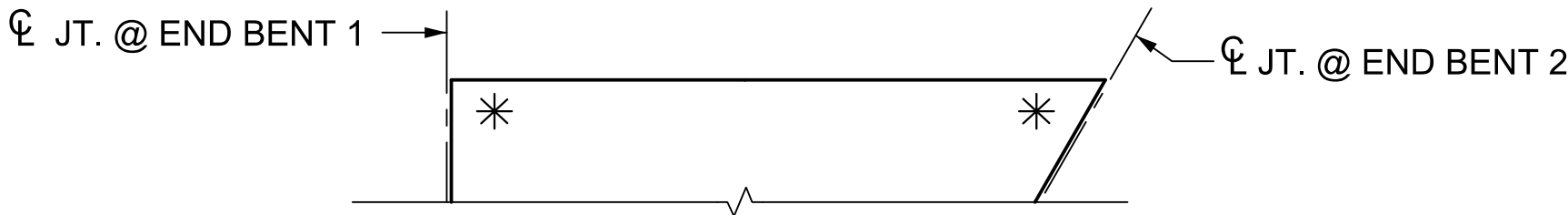
THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF THE PARAPET. FOR POINTS OF ATTACHMENT, SEE SKETCH.

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

THE COST OF THE GUARDRAIL ANCHOR ASSEMBLIES WITH BOLTS, NUTS AND WASHERS COMPLETE IN PLACE, SHALL BE INCLUDED IN THE VARIOUS PAY ITEMS.

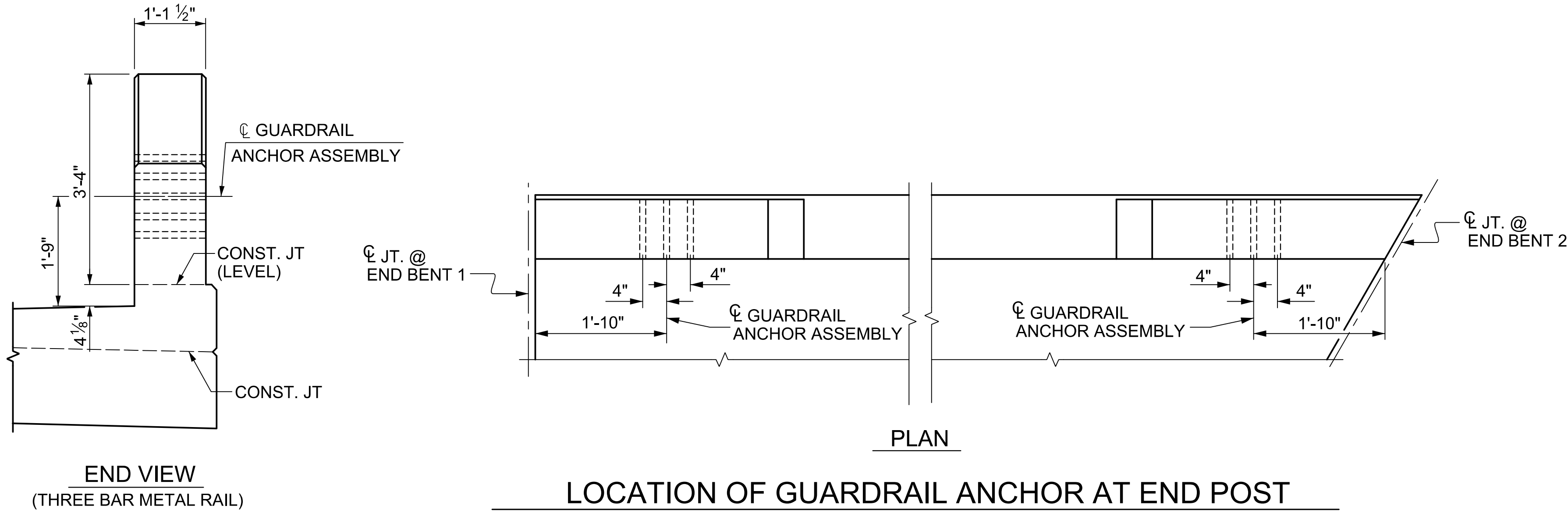
THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE END POST TO CLEAR ASSEMBLY BOLTS.

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

* LOCATION OF GUARDRAIL ATTACHMENT



LOCATION OF GUARDRAIL ANCHOR AT END POST

ASSEMBLED BY : M. WRIGHT
CHECKED BY : D. HAWKINS

DATE : 5/24
DATE : 6/24

DRAWN BY : MAA 5/10
CHECKED BY : CM 5/10

REV. 1/15 MAA/TMG
REV. 12/17 MAA/THC
REV. 5/18 MAA/THC

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

HNTB HNTB NORTH CAROLINA, P.C.
NC License No. C-1554
4000 Center at North Hills Street, Suite 500,
Raleigh, N.C. 27609

DRAWN BY M. WRIGHT DATE 5/24
CHECKED BY D. HAWKINS DATE 6/24
DESIGN ENGINEER OF RECORD D. HAWKINS DATE 6/24

DWG. NO. 16

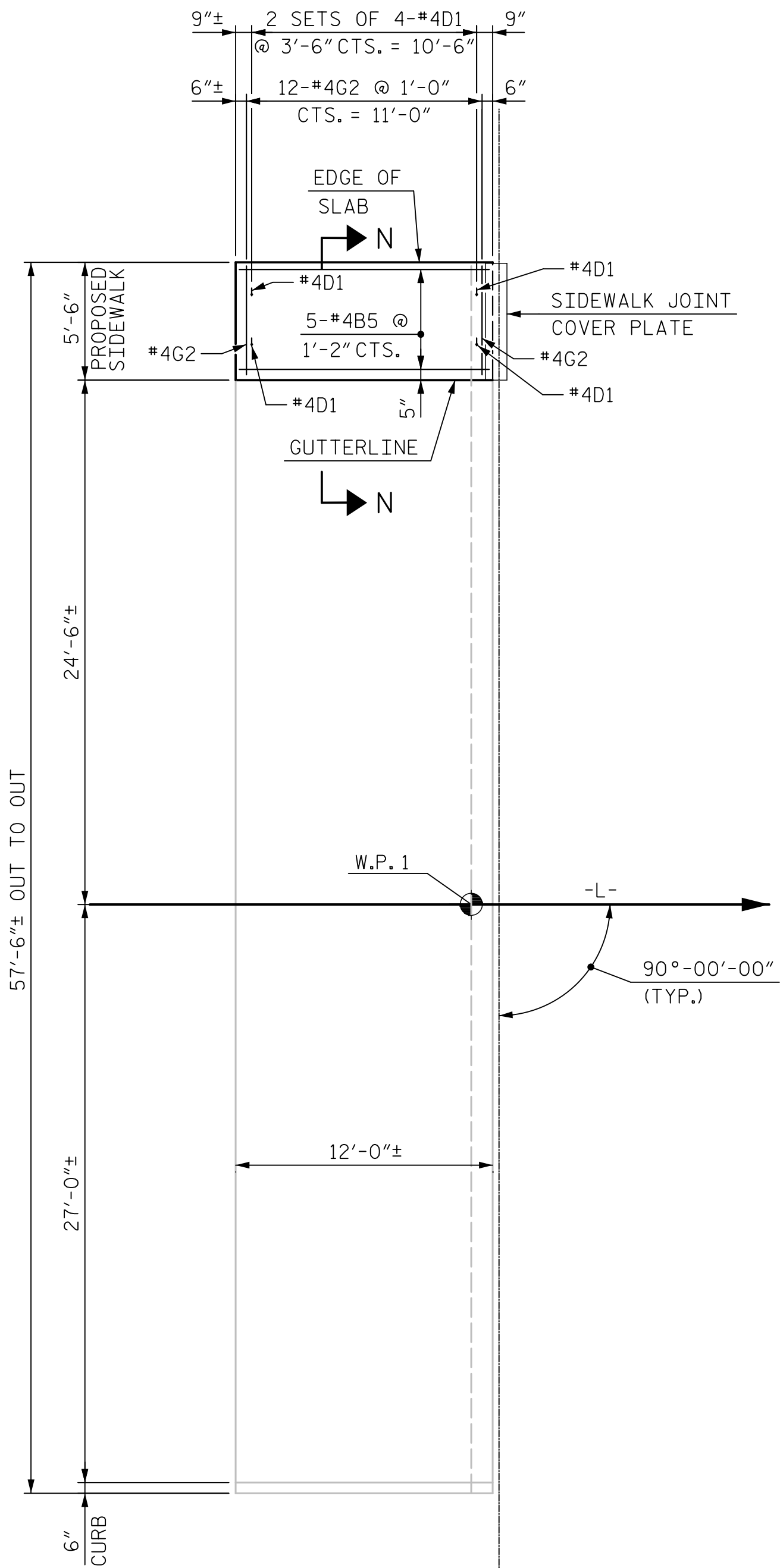
PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

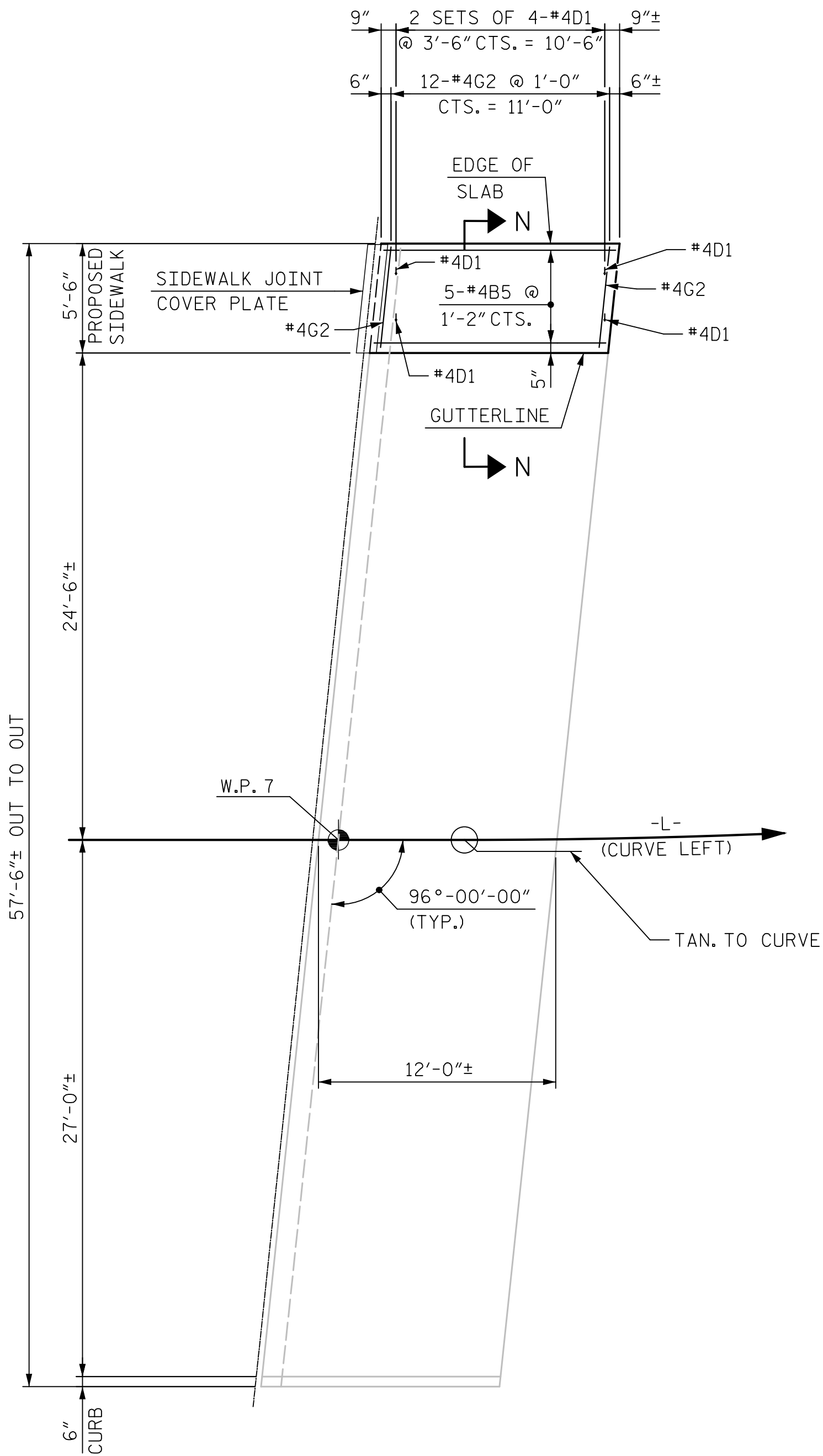
STANDARD

GUARDRAIL ANCHORAGE
DETAILS
FOR METAL RAILS

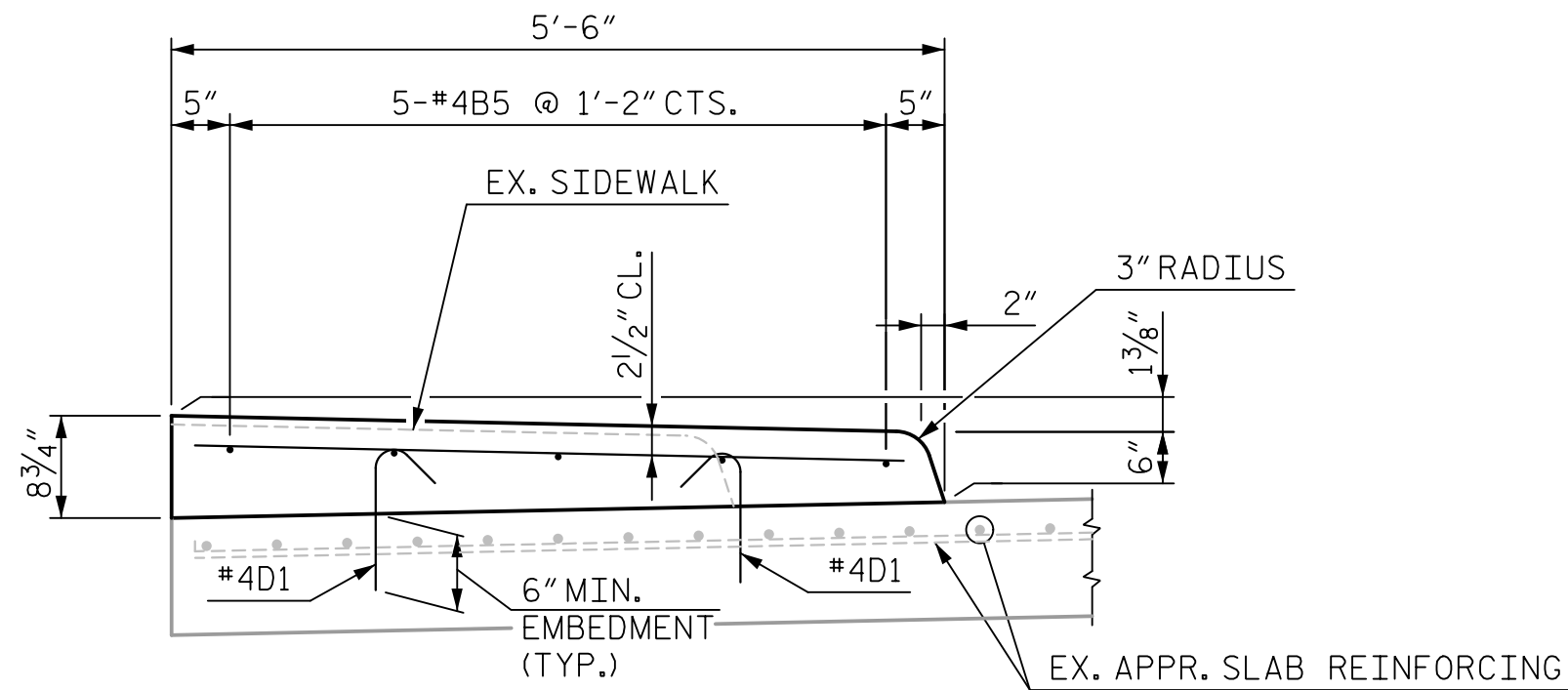
REVISIONS						SHEET NO. S1-16
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 17
2			4			



PLAN AT END BENT 1



PLAN AT END BENT 2



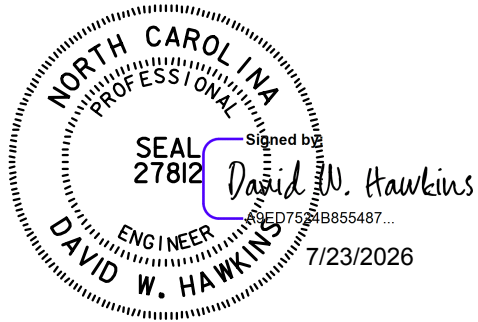
SECTION N-N

BILL OF MATERIAL					
APPROACH SLAB 1					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B5	5	#4	STR	11'-5"	38
* D1	8	#4	1	1'-3"	7
* G2	12	#4	STR	5'-0"	40
* EPOXY COATED REINFORCING STEEL				LBS.	85
CLASS AA CONCRETE				C. Y.	1.5
APPROACH SLAB 2					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B5	5	#4	STR	11'-5"	38
* D1	8	#4	1	1'-3"	7
* G2	12	#4	STR	5'-0"	40
* EPOXY COATED REINFORCING STEEL				LBS.	85
CLASS AA CONCRETE				C. Y.	1.5
BAR TYPE					
ALL BAR DIMENSIONS ARE OUT TO OUT					

NOTES:
FOR NOTES, SEE SHEET S1-6.

PAYMENT OF SIDEWALK ON APPROACH SLABS SHALL BE INCLUDED IN "REINFORCED CONCRETE SIDEWALK".

PROJECT NO. R-5759
WILKES COUNTY
STATION: 173+24.00 -L-



HNTB		HNTB NORTH CAROLINA, P.C. 4000 Center at North Hills Street, Suite 500, Raleigh, N.C. 27609	
DRAWN BY	M. WRIGHT	DATE	5/24
CHECKED BY	S. SULLIVAN	DATE	5/24
DESIGN ENGINEER OF RECORD	D. HAWKINS	DATE	6/24
DWG. NO. 17			

REVISIONS						SHEET NO. S1-17
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 17
2			4			

DOCUMENT NOT CONSIDERED FINAL
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