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PROJECT: B-6034

CONTRACT: DN01144

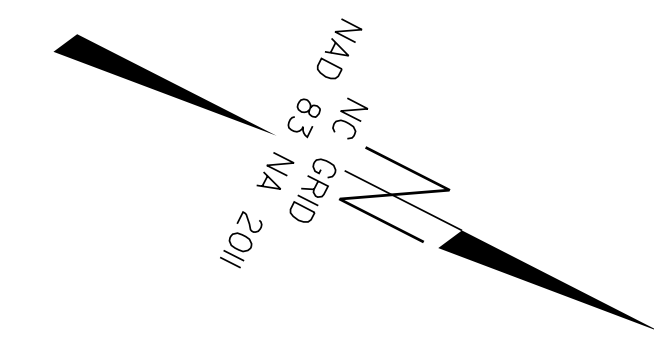
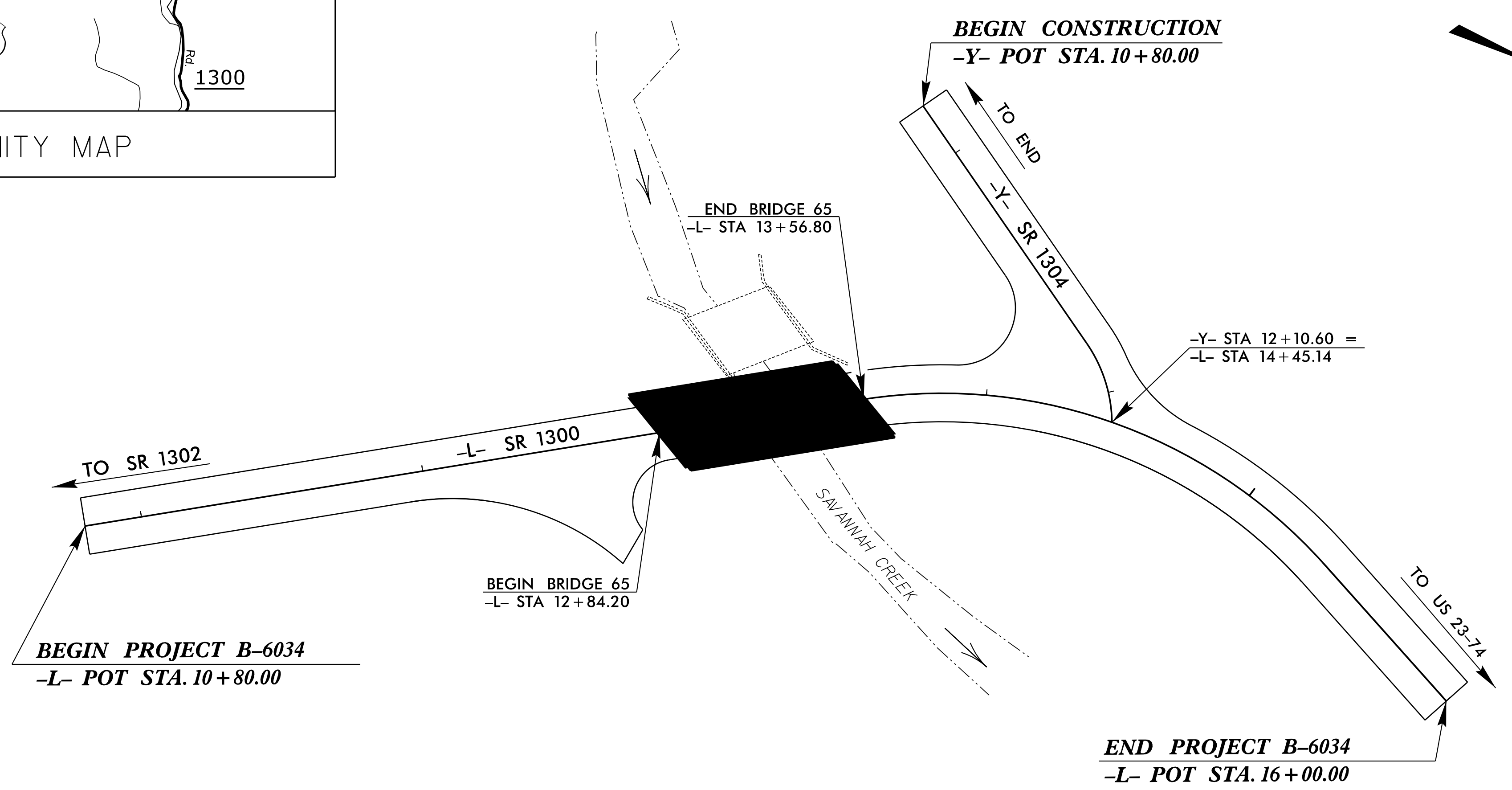
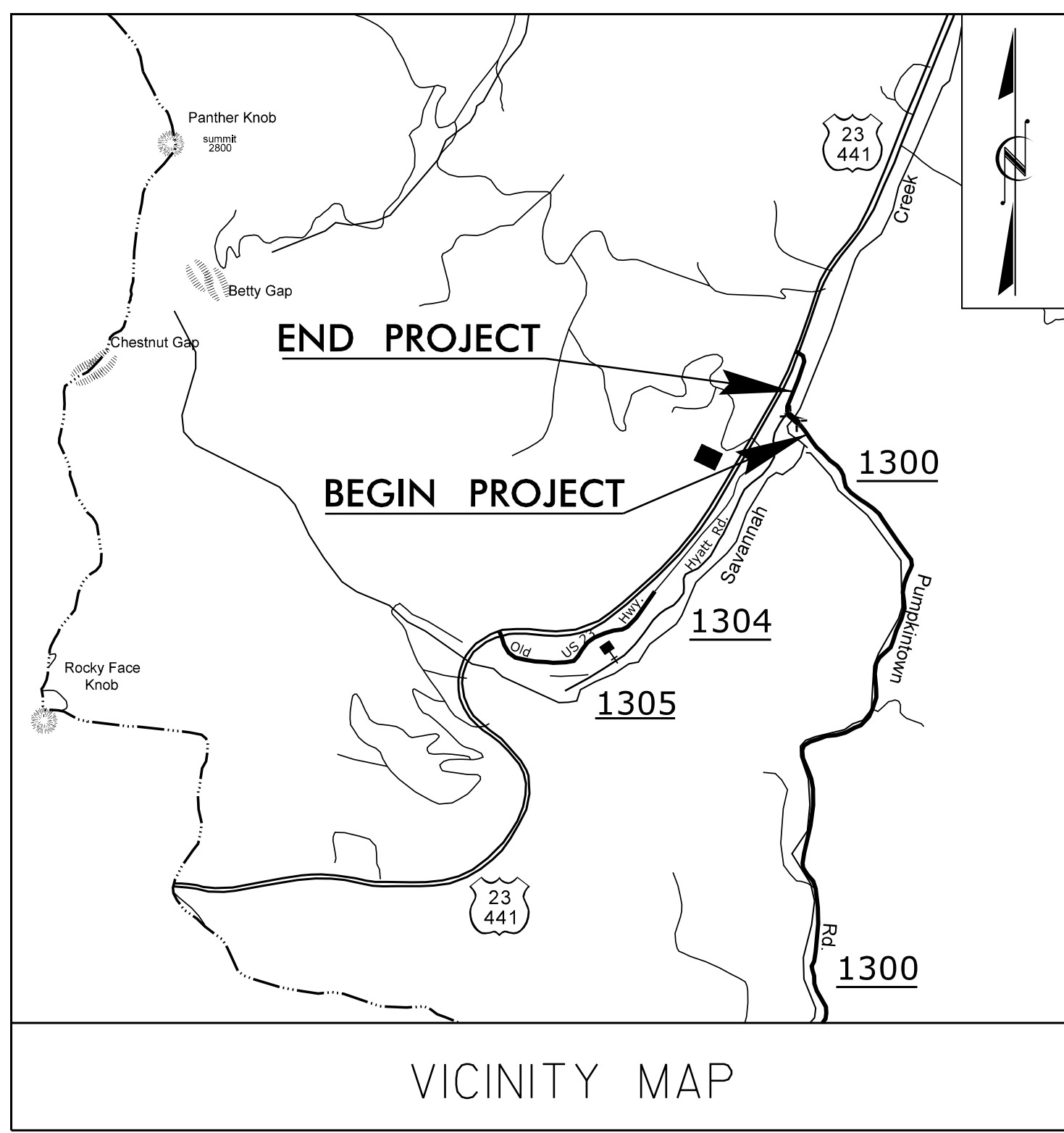
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JACKSON COUNTY

**LOCATION: BRIDGE NO. 490065 OVER SAVANNAH CREEK
ON SR 1300 (PUMPKINTOWN RD)**

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-6034		
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48229.1.1	BRZ-1300(018)	P.E.	
48229.2.1	BRZ-1300(018)	R/W	
48229.3.1	BRZ-1300(018)	CONST.	



STRUCTURE

DESIGN DATA

ADT 2025 = 1060
ADT 2045 =
T = 6 % *
V = 35 MPH

FUNC CLASS =
RURAL LOCAL
SUBREGIONAL

PROJECT LENGTH

LENGTH ROADWAY PROJECT B-6034 -L- = 0.085 MI
LENGTH STRUCTURE PROJECT B-6034 -L- = 0.014 MI
TOTAL LENGTH PROJECT B-6034 -L- = 0.099 MI

Prepared in the Office of:
Johnson, Mirmiran, & Thompson Inc.
4700 Falls of Neuse Rd, Suite 100,
Raleigh, NC, 27609

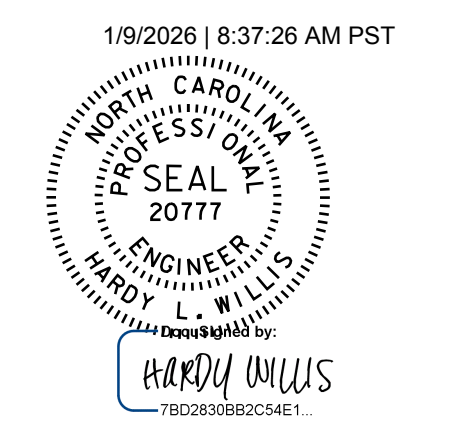
FOR THE NORTH CAROLINA DIVISION OF HIGHWAYS

2024 STANDARD SPECIFICATIONS

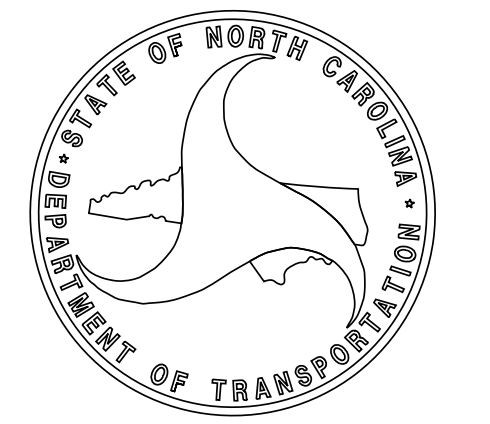
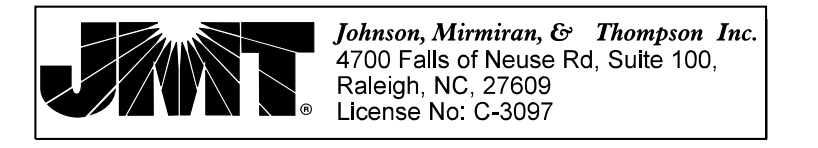
LETTING DATE:
FEBRUARY 10, 2026

HARDY WILLIS, PE
PROJECT ENGINEER

ALBERT OUTLAW, PE
PROJECT DESIGN ENGINEER



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



SUMMARY OF PILE INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Number of Piles per Line	Factored Resistance per Pile KIPS	Pile Cut-Off (Top of Pile) Elevation FT	Estimated Pile Length per Pile FT	Scour Critical Elevation FT	Driven Piles			Predrilling for Piles **			Drilled-In Piles		
						Minimum Pile Tip (Tip No Higher Than) Elevation FT	Required Driving Resistance (RDR)* per pile KIPS	Pile Redrives Quantity EACH	Predrilling Length per Pile LIN FT	Predrilling Elevation (Elevation Not To Predrill Below) FT	Maximum Predrilling Diameter INCHES	Pile Excavation (Bottom of Hole) Elevation FT	Pile Excavation Not In Soil per Pile LIN FT	Pile Excavation In Soil per Pile LIN FT
End Bent 1, Piles 1-3	3	195		35			325					2431	2	6
End Bent 1, Piles 4-5	2	195		20			325					2431	2	6
End Bent 2, Piles 1-3	3	195		30			325							
End Bent 2, Piles 4-5	2	195		20			325							
TOTAL QUANTITY:													10	30

* RDR = $\frac{\text{Factored Resistance} + \text{Factored Drag Load} + \text{Factored Dead Load}}{\text{Dynamic Resistance Factor}} + \text{Nominal Drag Load Resistance} + \text{Nominal Resistance from Scourable Material}$

** Predrilling for Piles is required for end bents/bents with a predrilling length and at the Contractor's option for end bents/bents with predrilling information but no predrilling length.

PILE DESIGN INFORMATION

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Factored Axial Load per Pile KIPS	Factored Drag Load per Pile KIPS	Factored Dead Load * per Pile KIPS	Dynamic Resistance Factor	Nominal Drag Resistance per Pile KIPS	Nominal Scour Resistance per Pile KIPS
End Bent 1, Piles 1-3	194			0.6		
End Bent 1, Piles 4-5	194			0.6		
End Bent 2, Piles 1-3	194			0.6		
End Bent 2, Piles 4-5	194			0.6		

* Factored Dead Load is factored weight of pile above the ground line.

SUMMARY OF PILE ACCESSORIES

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Pipe Pile Plates EACH	Steel Pile Points		
		Pipe Pile Cutting Shoes EACH	Pipe Pile Conical Points EACH	H-Pile Points EACH
End Bent 1, Piles 1-5				5
End Bent 2, Piles 1-5				5
TOTAL QUANTITY:				10

NOTES:


- The Pile Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Shiping Yang, #031361) on 06-20-2025.
- Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number of driven piles, i.e., the number of piles with a Required Driving Resistance.
- The Engineer may adjust the quantity for DPT Testing and Pipe Pile Plates when necessary.

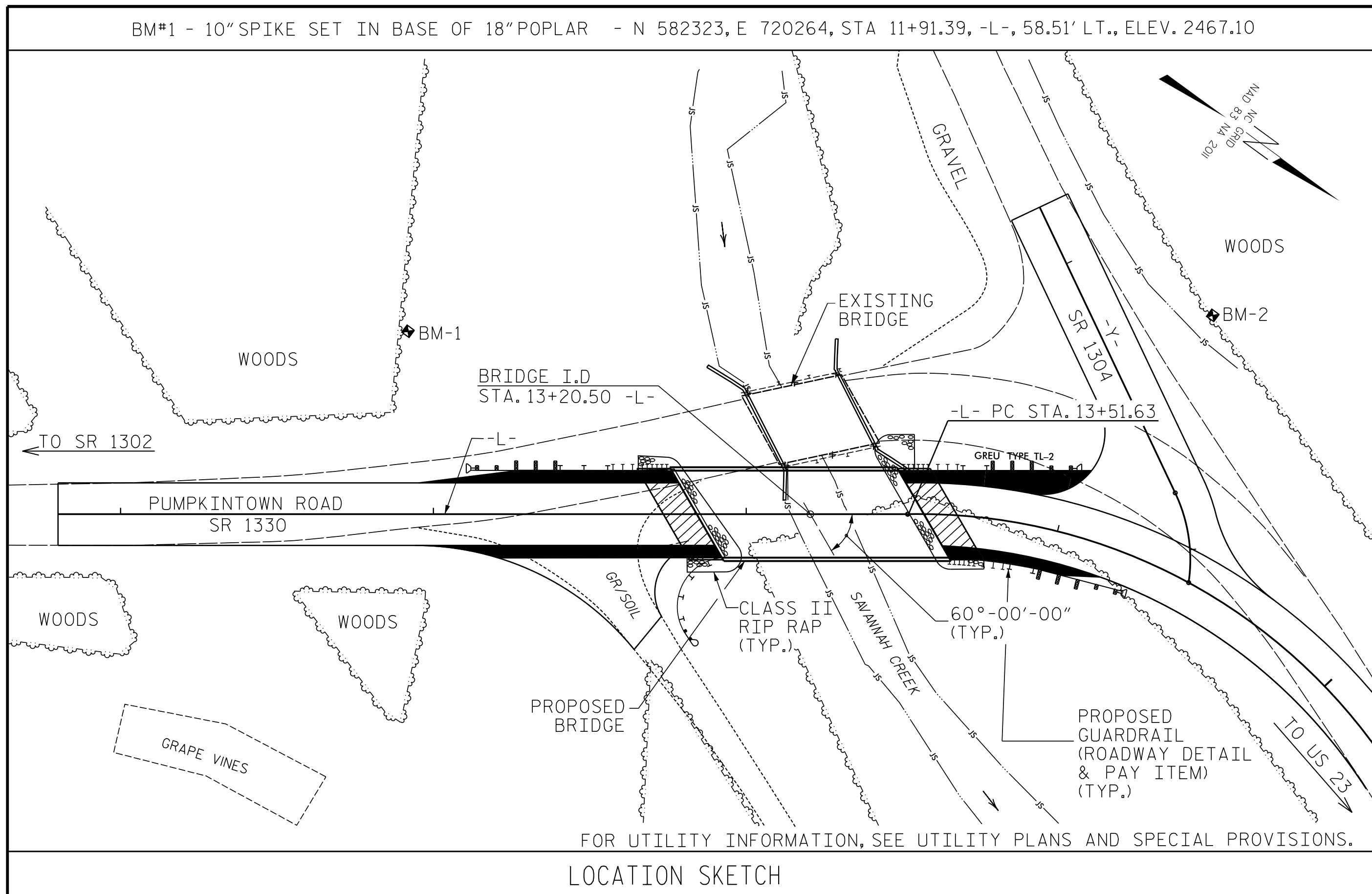
PROJECT NO. B-6034

Jackson COUNTY

STATION: 13+20.50 -L-

SHEET 2 OF 3 Bridge #65

	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH		<p style="text-align: center;">PILE FOUNDATION TABLES</p>			SHEET NO. S1-a
	DocuSigned by: Hardy Willis 1/6/2026 6:49:09 AM PST SIGNATURE DATE					
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	NO. 1	BY:	DATE:	NO. 3	BY:	DATE:
	NO. 2			NO. 4		
						TOTAL SHEETS 20



LOCATION SKETCH

HYDRAULIC DATA			
DESIGN DISCHARGE	= 2000	CFS	
DESIGN FREQUENCY	= 25	YRS	
DESIGN HW ELEVATION	= 2445.6	FT	
BASE DISCHARGE	= 2800	CFS	
BASE FREQUENCY	= 100	YRS	
BASE HW ELEVATION	= 2446.9	FT	
OVERTOPPING FLOOD DATA			
OVERTOPPING DISCHARGE	= 3700(+)	CFS	
OVERTOPPING FREQUENCY	= 500 (+)	YRS	
OVERTOPPING ELEVATION	= 2450.4	FT	
DRAINAGE AREA	= 9.0	SO MI	

GENERAL NOTES:

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF 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.

FOUNDATION NOTES:

FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

CONCRETE IS REQUIRED TO FILL HOLES FOR PILE EXCAVATION AT END BENT NO. 1.

SAMPLE BAR REPLACEMENT					
SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
#3	6'-2"	#6	9'-8"	#9	13'-2"
#4	7'-4"	#7	10'-10"	#10	14'-6"
#5	8'-6"	#8	12'-0"	#11	15'-10"

NOTE: SAMPLE BAR REPLACEMENT LENGTHS BASED ON 30" (SAMPLE LENGTH) PLUS TWO SPLICE LENGTHS AND $f_y = 60\text{ksi}$

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 SAMPLE BARS SHOULD COME FROM STEEL ACTUALLY USED IN THE PROJECT AND THE SAMPLE BARS SHOULD BE REPLACED BY SPLICED BARS AS SPECIFIED IN THE SAMPLE BAR REPLACEMENT CHART. PAYMENT FOR THE SAMPLE BARS AND REPLACEMENT REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

WEARING SURFACE WILL BE PLACED BY THE DIVISION OF HIGHWAYS.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS, ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR REMOVAL OF EXISTING STRUCTURE AT STATION 13+20.50 -L-.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 25 FT. EACH SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.

FOR LIMITS OF TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS. FOR PAY ITEM FOR TEMPORARY SHORING FOR MAINTENANCE OF TRAFFIC, SEE ROADWAY PLANS.

AFTER SERVING AS A TEMPORARY STRUCTURE, THE EXISTING STRUCTURE CONSISTING OF 1 SPAN AT 31 FT. LONG WITH TIMBER FLOOR AND I-BEAMS, 24 FT. CLEAR ROADWAY, ON CONCRETE ABUTMENTS, AND LOCATED AT THE EXISTING STRUCTURE, SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, A LOAD LIMIT MAY BE POSTED AND MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT.

THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES".

FOR ASBESTOS ASSESSMENT, SEE SPECIAL PROVISIONS.

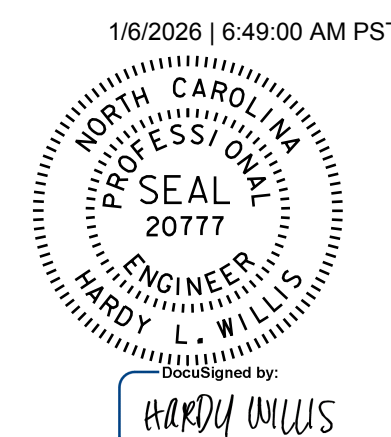
FOR CORED SLAB AND BOX BEAM POST TENSIONING, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

	REMOVAL OF EXISTING STRUCTURE	ASBESTOS ASSESSMENT	PILE EXCAVATION IN SOIL	PILE EXCAVATION NOT IN SOIL	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES	HP 12 X 53 STEEL PILES		STEEL PILE POINTS	DYNAMIC PILE TESTING	VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" x 2'-0" PRESTRESSED CONCRETE CORED SLABS	
										NO.	LIN. FT.							NO.	LIN. FT.
SUPERSTRUCTURE	LUMP SUM	LUMP SUM	LIN. FT.	LIN. FT.	LUMP SUM	CU. YARDS	LUMP SUM	LBS.	EACH	NO.	LIN. FT.	EACH	EACH	LIN. FT.	TONS	SO. YARDS	LUMP SUM	NO.	LIN. FT.
END BENT 1			30.0	10.0		22.6		2801	5	5	145	5			70	78			
END BENT 2						22.6		2801	5	5	130	5			110	122			
TOTAL	LUMP SUM	LUMP SUM	30.0	10.0	LUMP SUM	45.2	LUMP SUM	5602	10	10	275	10	1	140.29	180	200	LUMP SUM	10	700.00

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

SHEET 3 OF 3



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER
 SAVANNAH CREEK ON SR 1330
 (PUMPKINTOWN RD.) BETWEEN
 CHESTNUT COVE RD. (1302
 AND US 23

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 UNLESS ALL SIGNATURES COMPLETED**

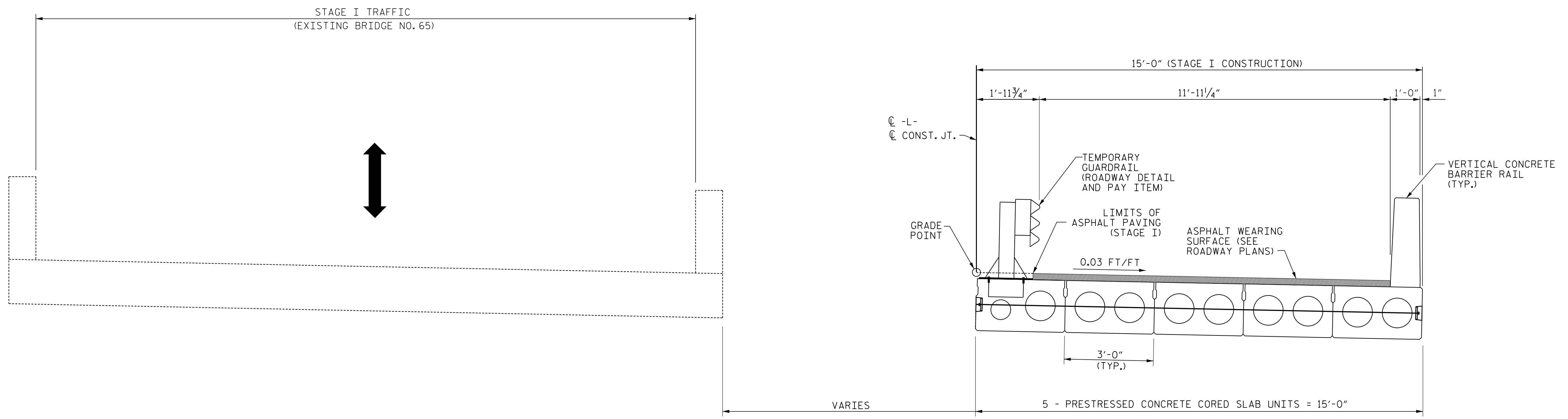
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 4700 Falls of Neuse Rd, Suite 100,
 Raleigh, NC, 27609
 License No: C-3097

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

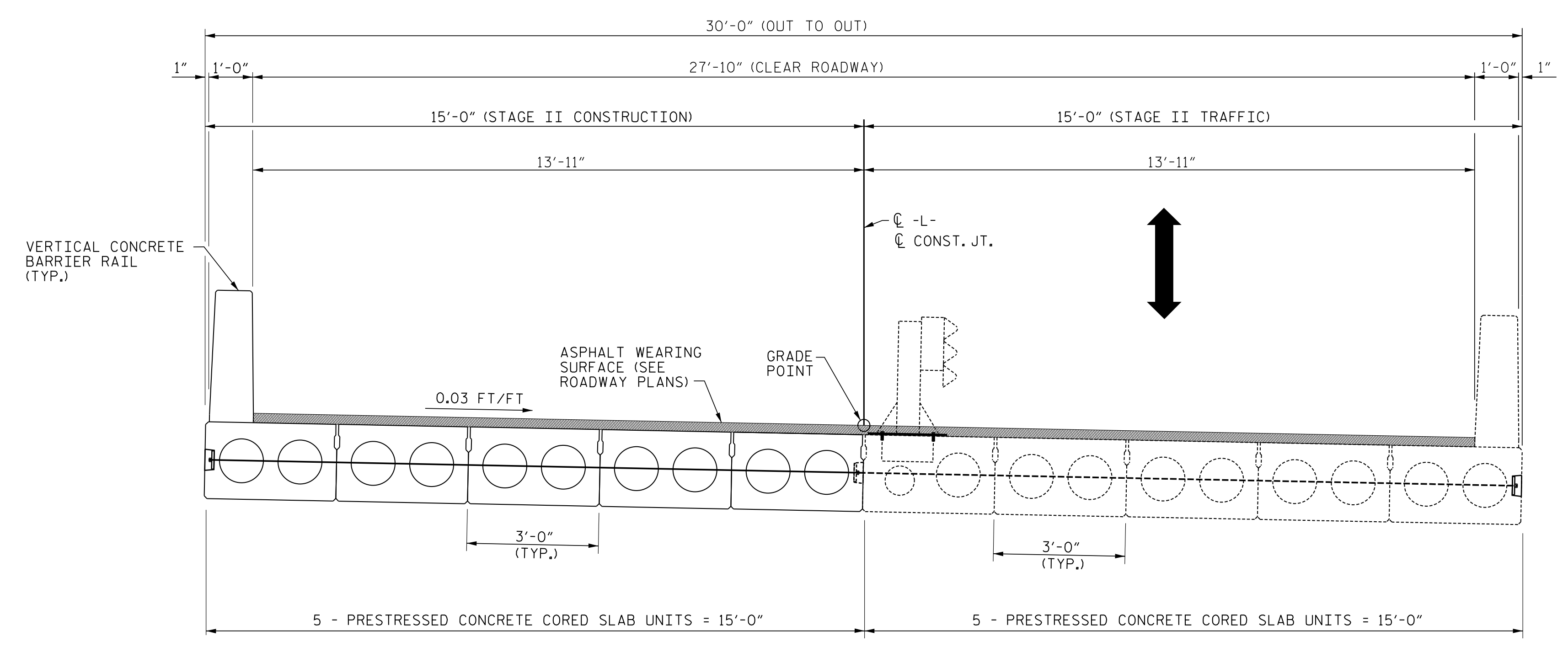
DWN. BY: WDC DATE: 5/2025
 CHKD. BY: HLW DATE: 5/2025
 DES. EGR. OF RECORD: ACO DATE: 1/2016

NOTES

FOR TEMPORARY GUARDRAIL DETAILS, SEE "ANCHORAGE DETAILS FOR TEMPORARY GUARDRAIL ANCHOR ASSEMBLY FOR TYPE III CORED SLAB UNIT" SHEET.
 FOR PHASING OF TRAFFIC AND OTHER DETAILS, SEE TRAFFIC MANAGEMENT PLANS.
 CONTRACTOR IS RESPONSIBLE FOR TEMPORARY GUARDRAILS, SUBMIT TO THE ENGINEER FOR APPROVAL.



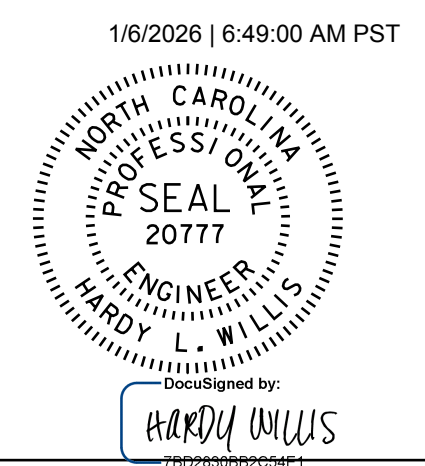
STAGE I



STAGE II

STAGING SEQUENCE

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER
 SAVANNAH CREEK ON SR 1330
 (PUMPKINTOWN RD.) BETWEEN
 CHESTNUT COVE RD. (1302
 AND US 23

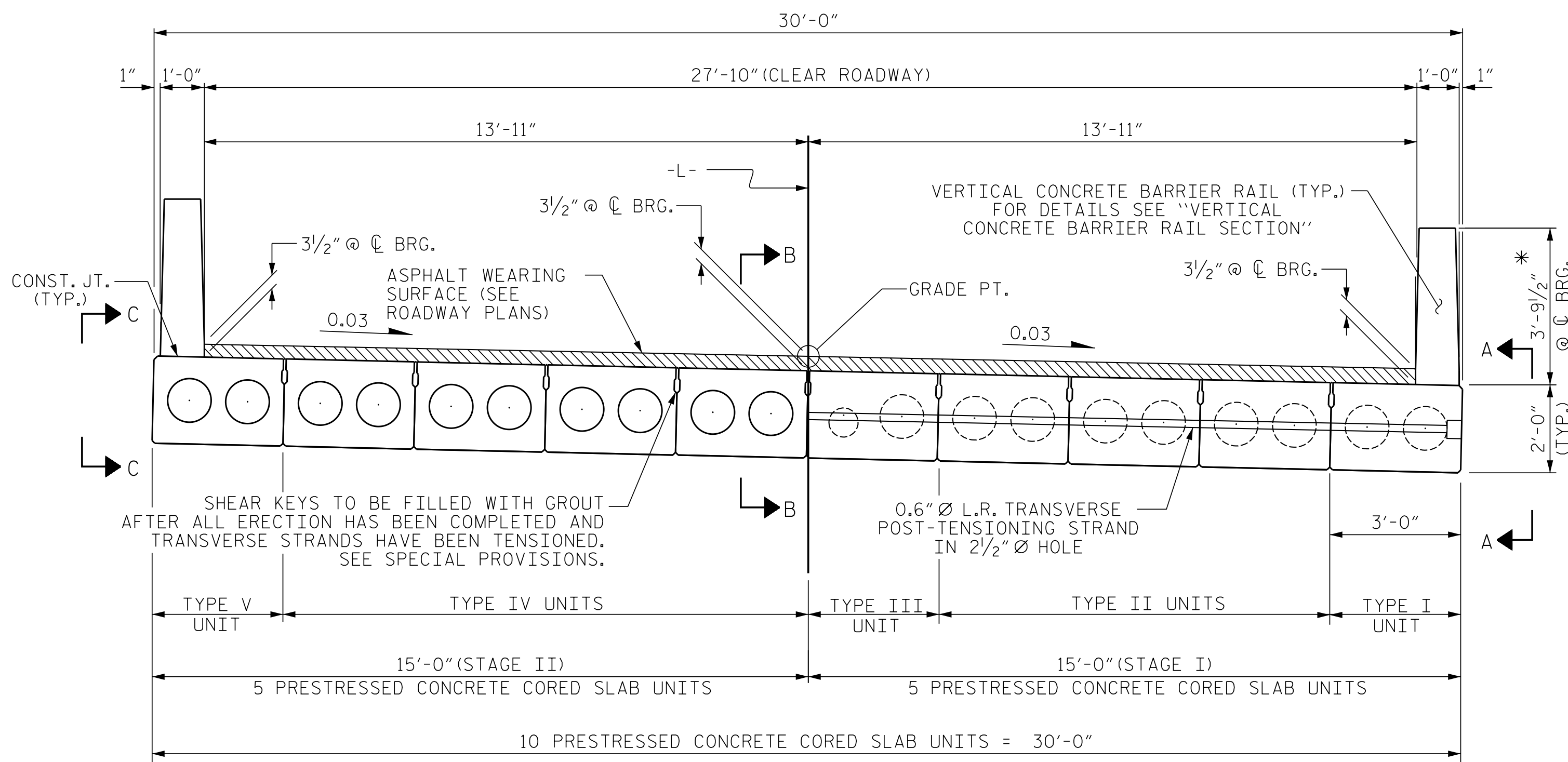
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1			3			TOTAL SHEETS
2			4			20

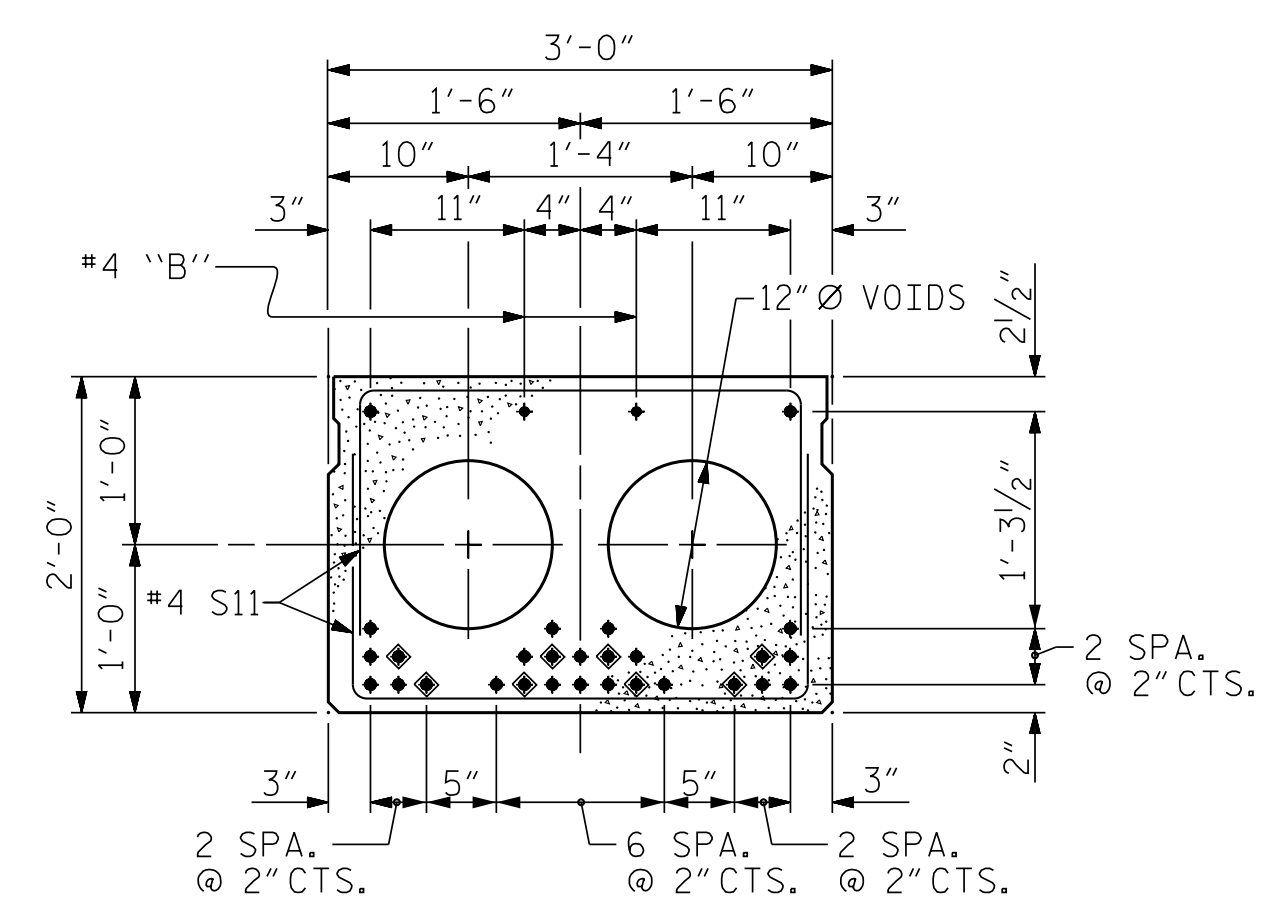
WDC/HLW/ACO
 25616 / 1/16/2026
 25616 / 1/16/2026
 TIME: 1/6/2026
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 Jackson 65 - B-6034-Structures\Final Plans\Current Plans_2024\401_005_BB6034_L_SMU_ST_503.dgn

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 CHKD. BY: HLW DATE: 5/2025
 DES. EGR. OF RECORD: ACO DATE: 1/2016

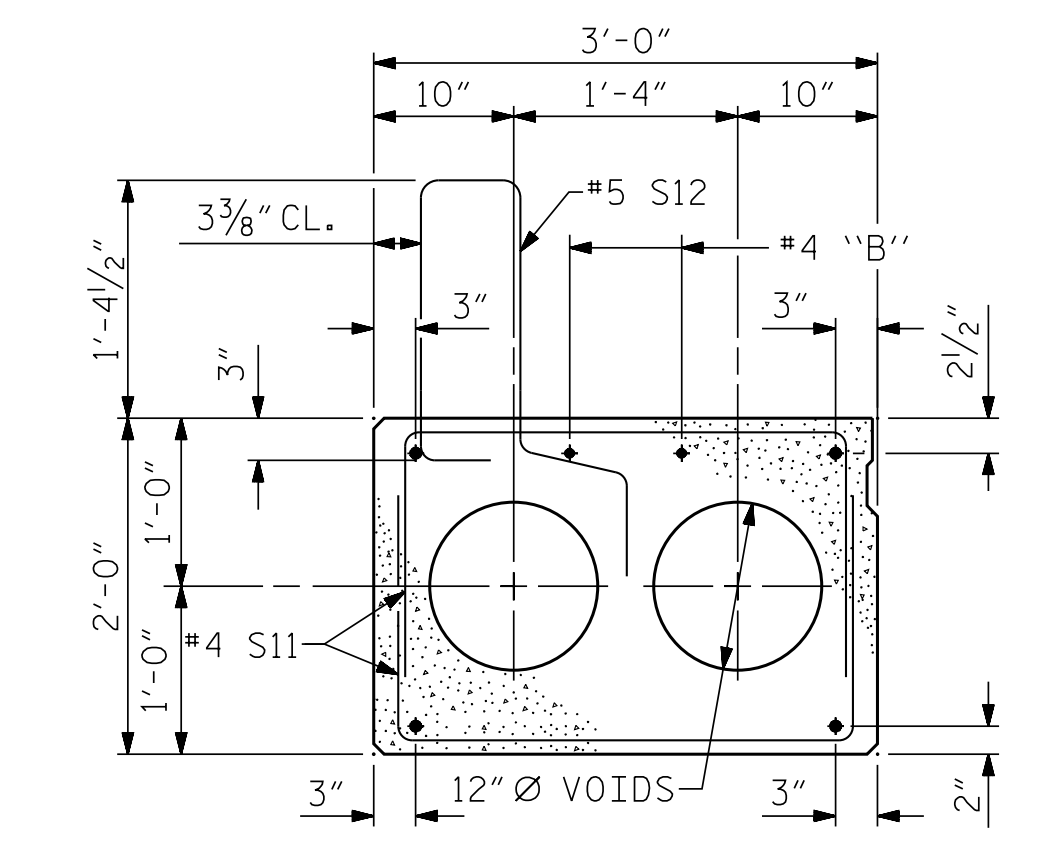


HALF SECTION AT INTERMEDIATE DIAPHRAGMS
TYPICAL SECTION
 HALF SECTION THROUGH VOIDS

* - THE MAXIMUM BARRIER RAIL HEIGHT AND ASPHALT THICKNESS IS SHOWN, THE HEIGHT OF THE BARRIER RAIL AND ASPHALT THICKNESS VARIES WHILE THE TOP OF THE BARRIER RAIL FOLLOWS THE PROFILE OF THE GUTTERLINE. FOR RAIL HEIGHT DETAILS AND ASPHALT THICKNESS, SEE THE "VERTICAL CONCRETE BARRIER RAIL SECTION" DETAIL.



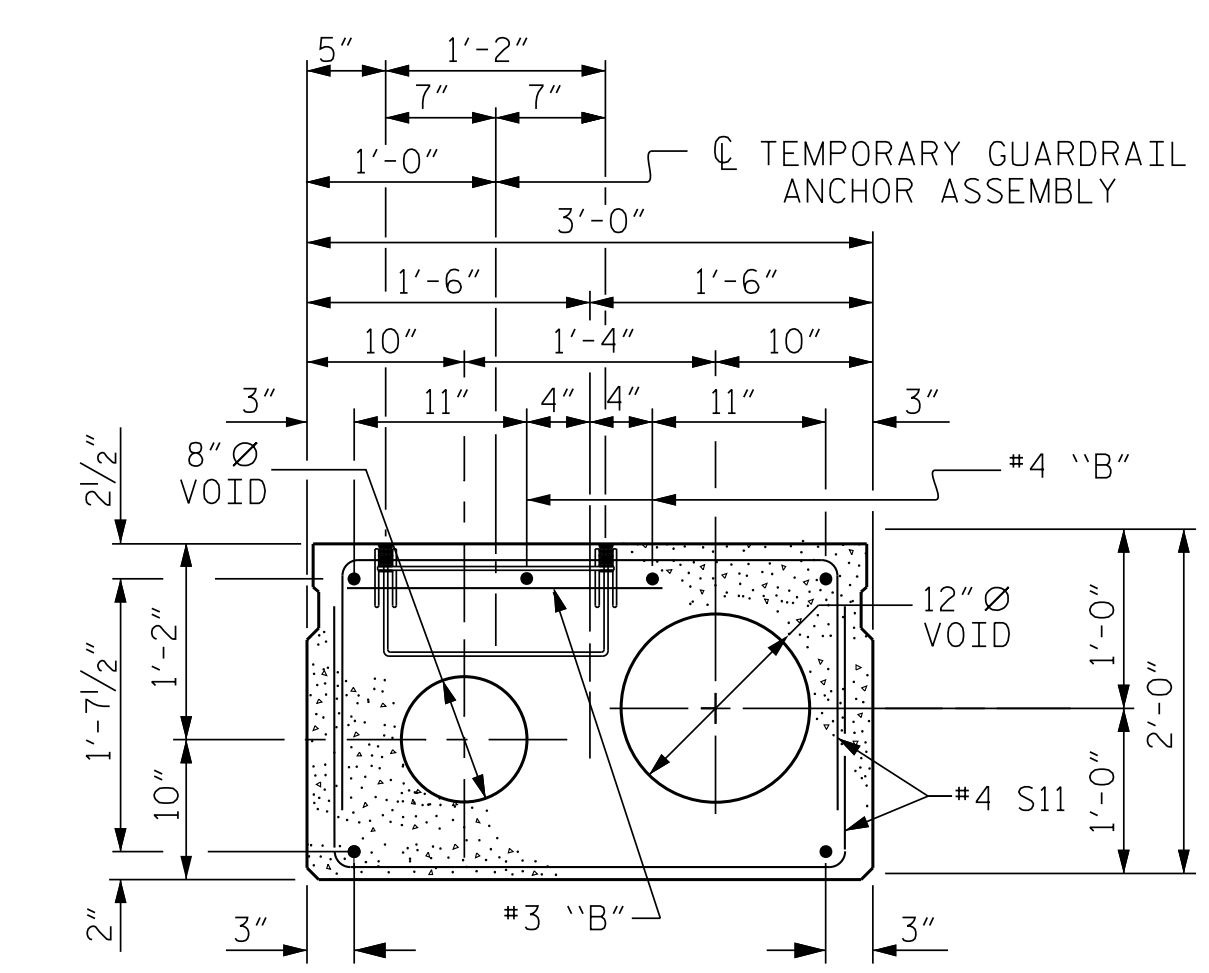
INTERIOR SLAB SECTION (TYPE II & IV)
 (28 STRANDS REQUIRED)



EXTERIOR SLAB SECTION (TYPE I & V)
 (FOR PRESTRESSED STRAND LAYOUT, SEE INTERIOR SLAB SECTION.)

◆ BOND SHALL BE BROKEN ON THESE STRANDS FOR A DISTANCE OF 12'-0" FROM END OF CORED SLAB UNIT. SEE STANDARD SPECIFICATIONS, ARTICLE 1078-7.

DEBONDING LEGEND

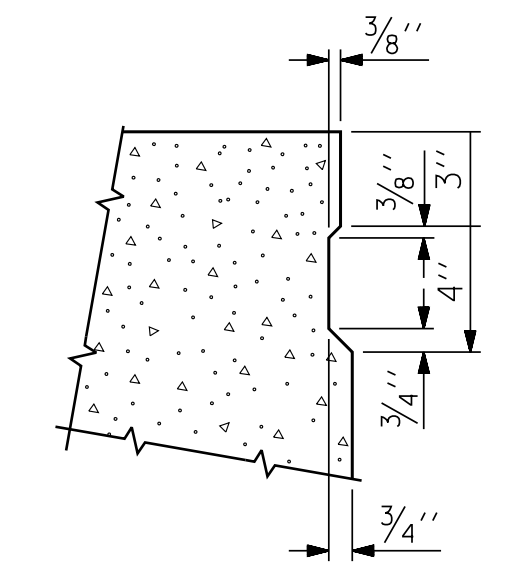


INTERIOR SLAB SECTION (TYPE III)

(FOR PRESTRESSED STRAND LAYOUT, SEE "0.6" Ø LOW RELAXATION STRAND LAYOUT" (TYPE I, II, IV AND V))

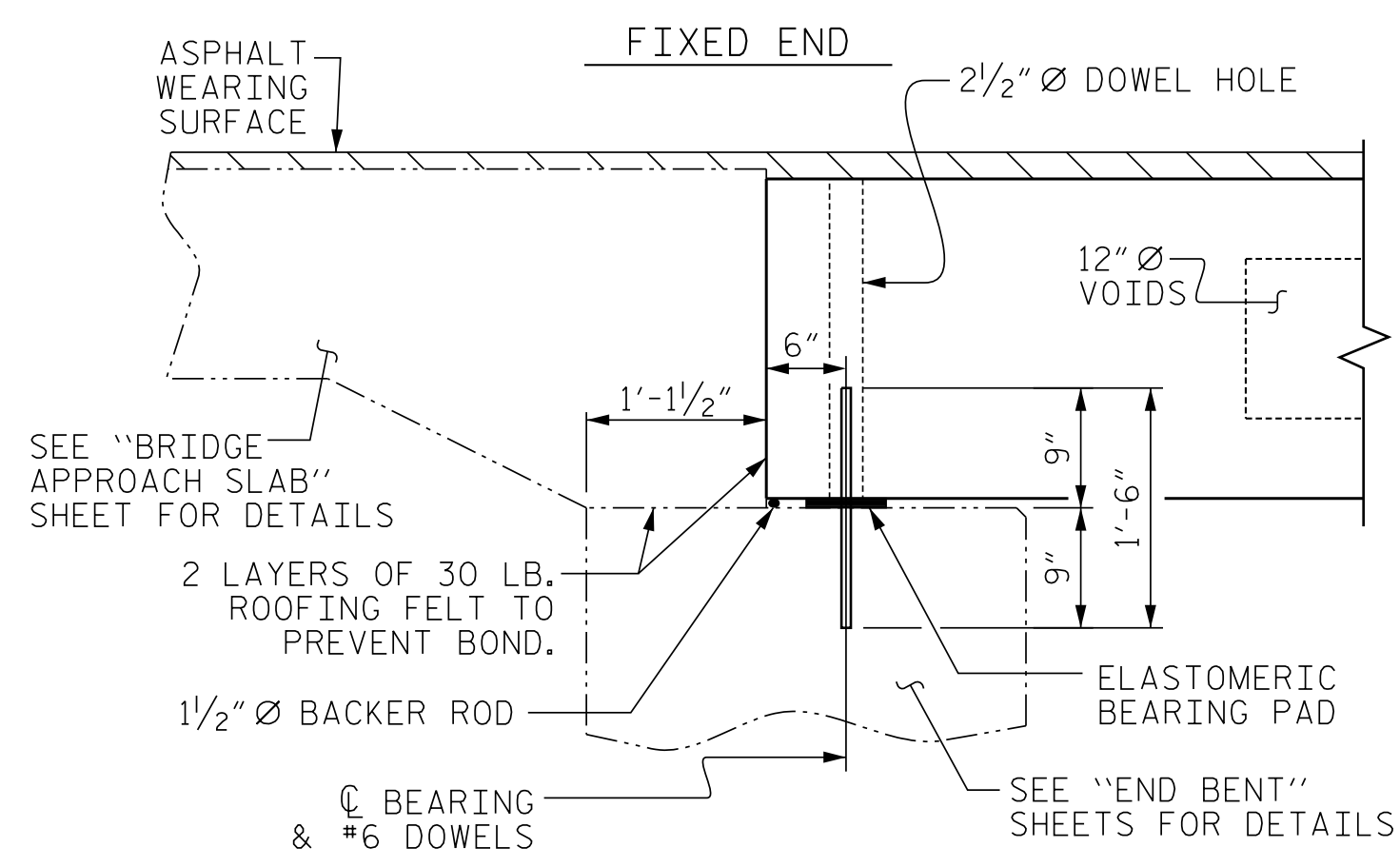
FOR TEMPORARY GUARDRAIL ANCHOR ASSEMBLY LOCATION, SEE SECTION ON "ANCHORAGE DETAILS FOR TEMPORARY GUARDRAIL ANCHOR ASSEMBLY FOR TYPE III CORED SLAB UNIT" SHEET.

0.6" Ø LOW RELAXATION STRAND LAYOUT



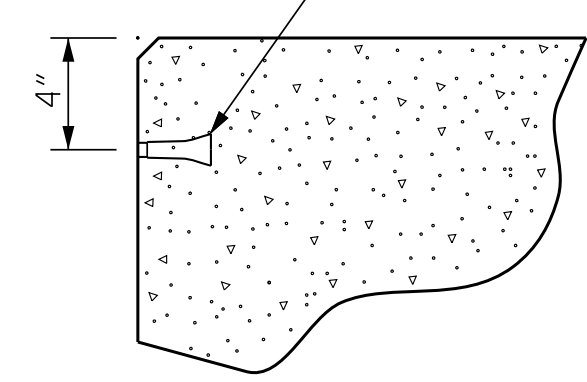
SHEAR KEY DETAIL

NOTE: OMIT SHEAR KEY ON OUTSIDE FACE OF EXTERIOR CORED SLABS.

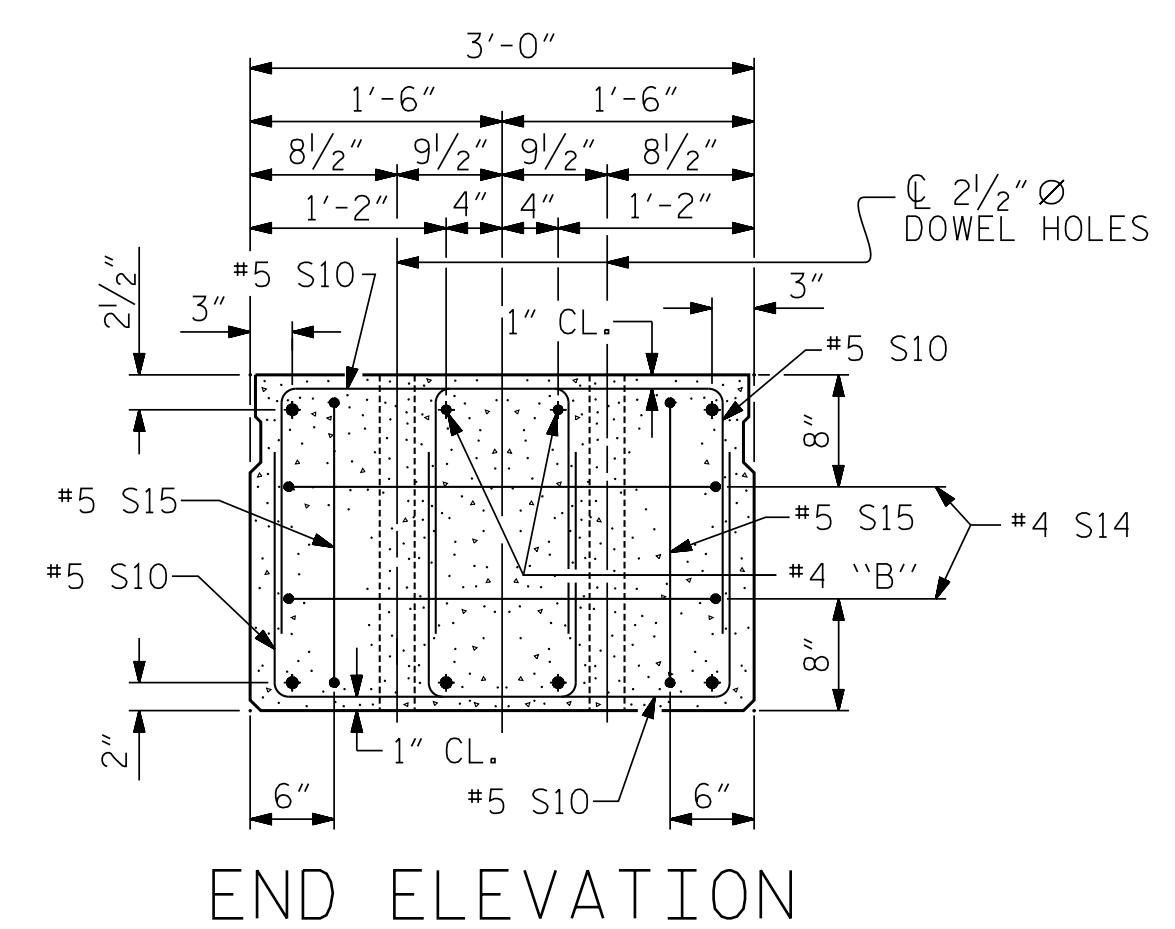


SECTION AT END BENT

PERMITTED THREADED INSERT CAST IN OUTSIDE FACE OF EXTERIOR UNIT AND RECESSED 3/8" SIZE TO BE DETERMINED BY CONTRACTOR.



THREADED INSERT DETAIL

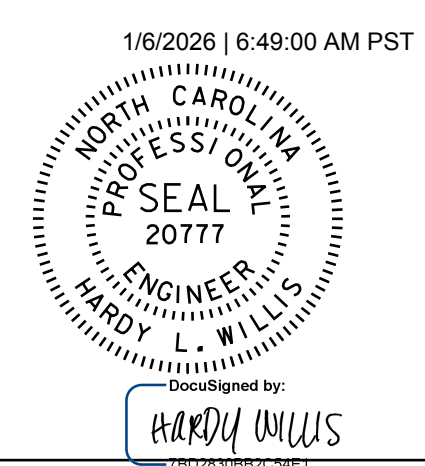


END ELEVATION

SHOWING PLACEMENT OF DOUBLE STIRRUPS AND LOCATION OF DOWEL HOLES. (STRAND LAYOUT NOT SHOWN.) INTERIOR SLAB UNIT SHOWN-EXTERIOR SLAB UNIT SIMILAR EXCEPT SHEAR KEY LOCATION.

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

SHEET 1 OF 5



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 3'-0" X 2'-0"
 PRESTRESSED CONCRETE
 CORED SLAB UNIT

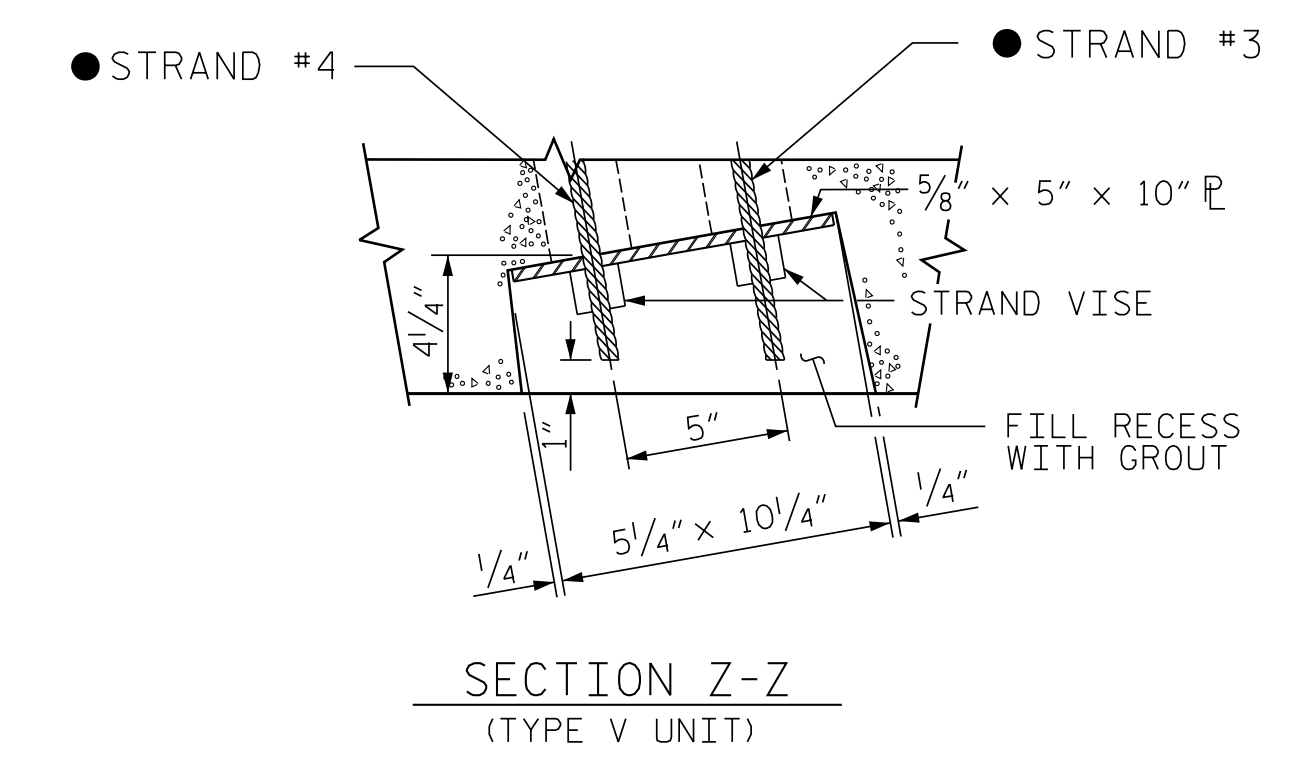
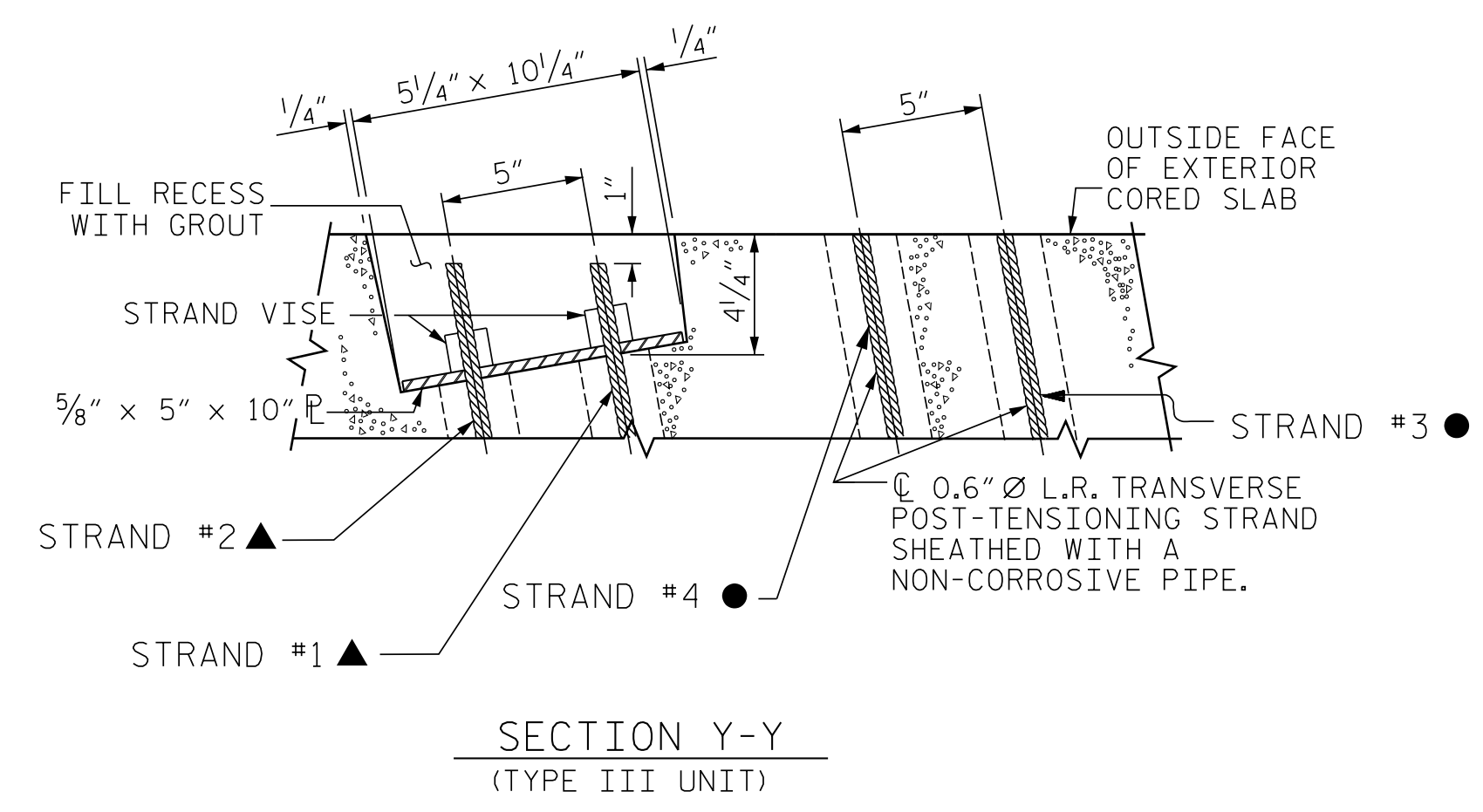
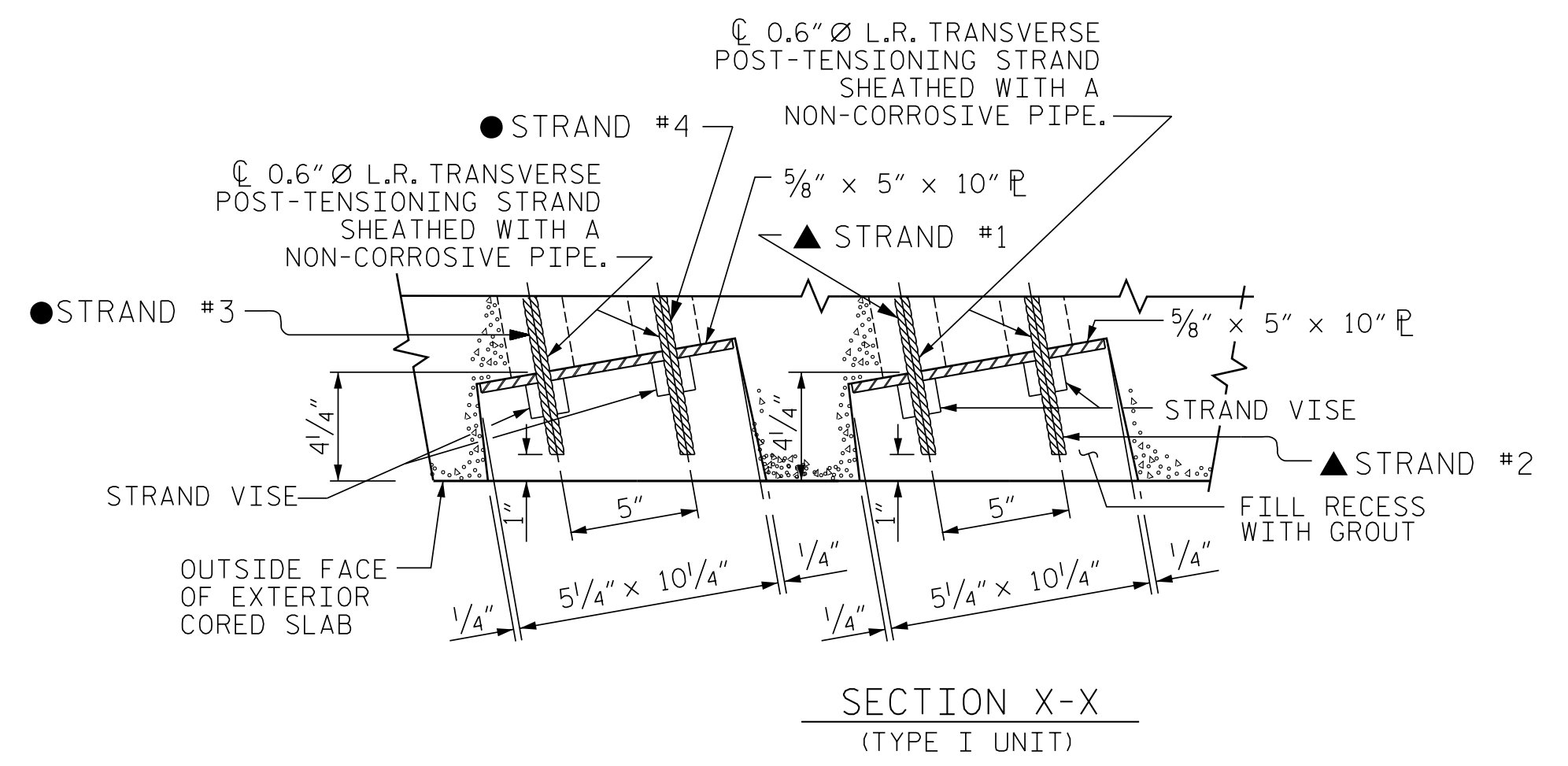
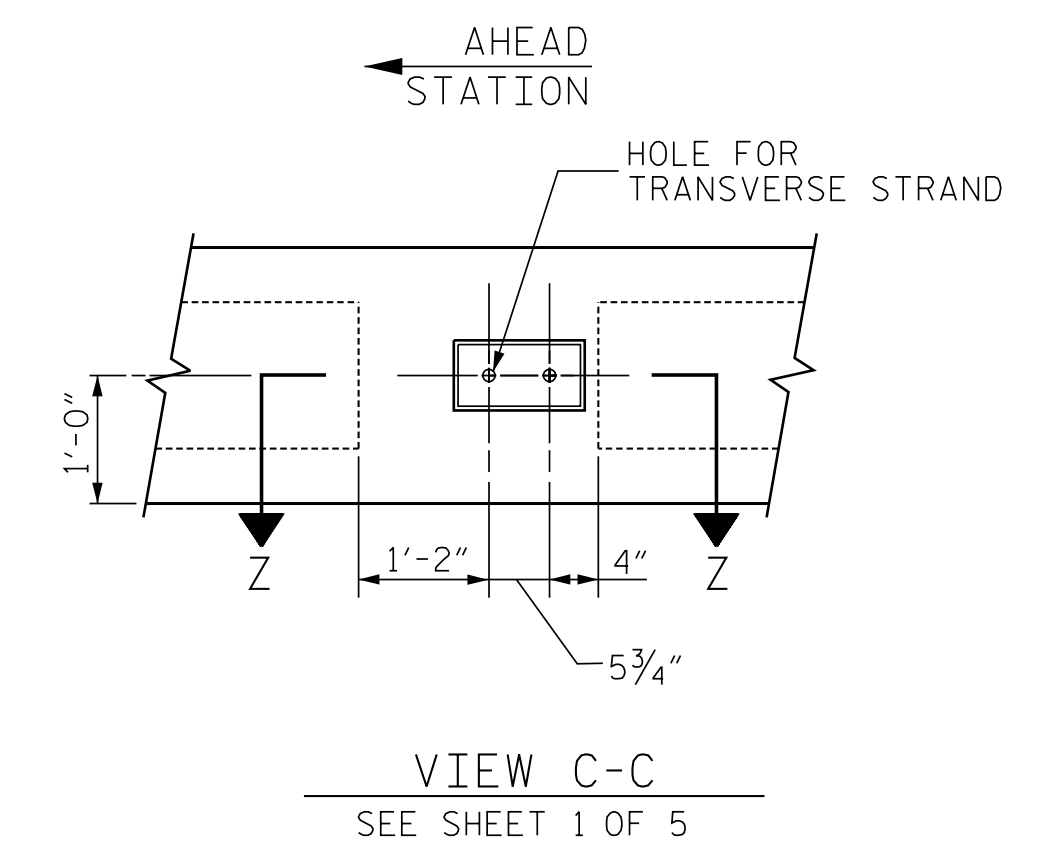
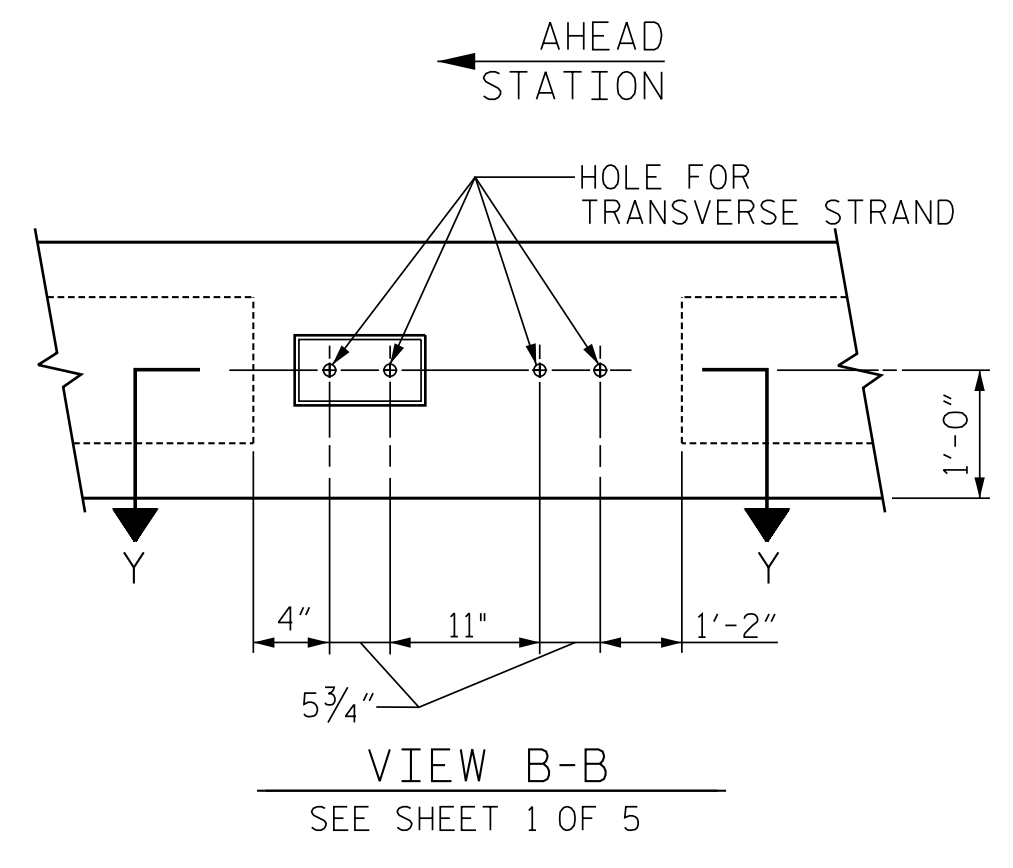
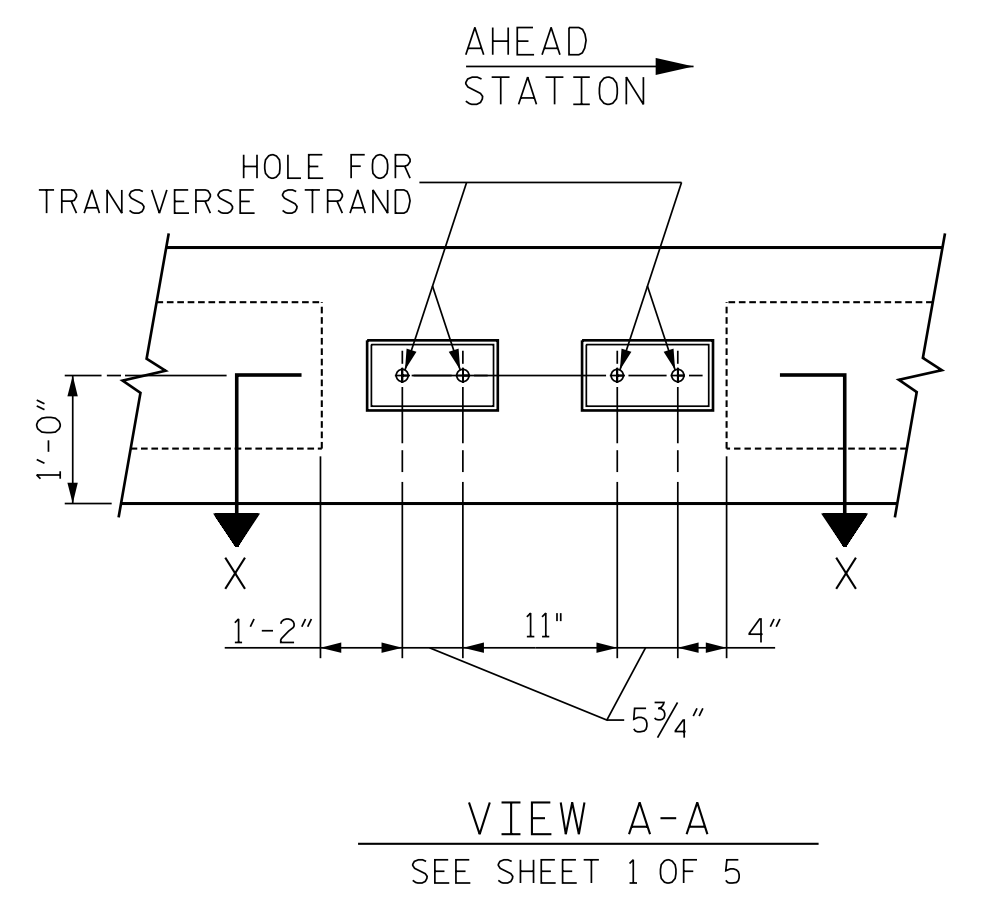
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REVISIONS						SHEET NO.
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1			3			TOTAL SHEETS 20
2			4			

STD. NO. 24PCS4-30-60S

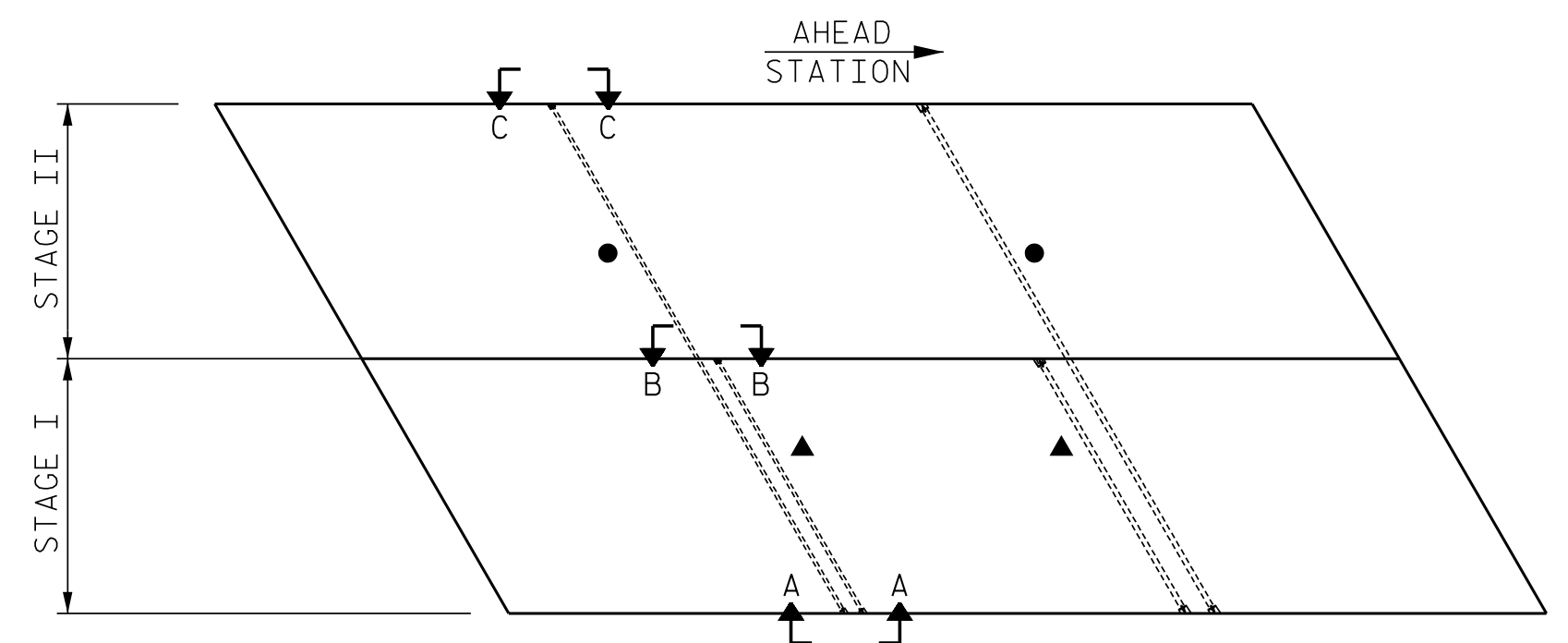
DWN. BY: WDC	DATE: 5/2025	DRAWN BY: MAA	6/10	REV. 8/14	MAA/TMG
CHKD. BY: HLW	DATE: 5/2025	CHECKED BY: MKT	7/10		
DES. EGR. OF RECORD: ACO	DATE: 1/2016				



- ▲ STRANDS #1 & #2 GO THROUGH 5 CORED SLAB UNITS (TO BE TENSIONED DURING STAGE I CONSTRUCTION).
- STRANDS #3 & #4 GO THROUGH ALL 10 CORED SLAB UNITS (TO BE TENSIONED DURING STAGE II CONSTRUCTION).

GROUTED RECESS AT END OF POST-TENSIONED STRANDS

DETAILS SHOWN ARE FOR STRAND PAIR AT NEAR END OF SPAN.



PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-
SHEET 2 OF 5



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
3'-0" X 2'-0"
PRESTRESSED CONCRETE
CORED SLAB UNIT

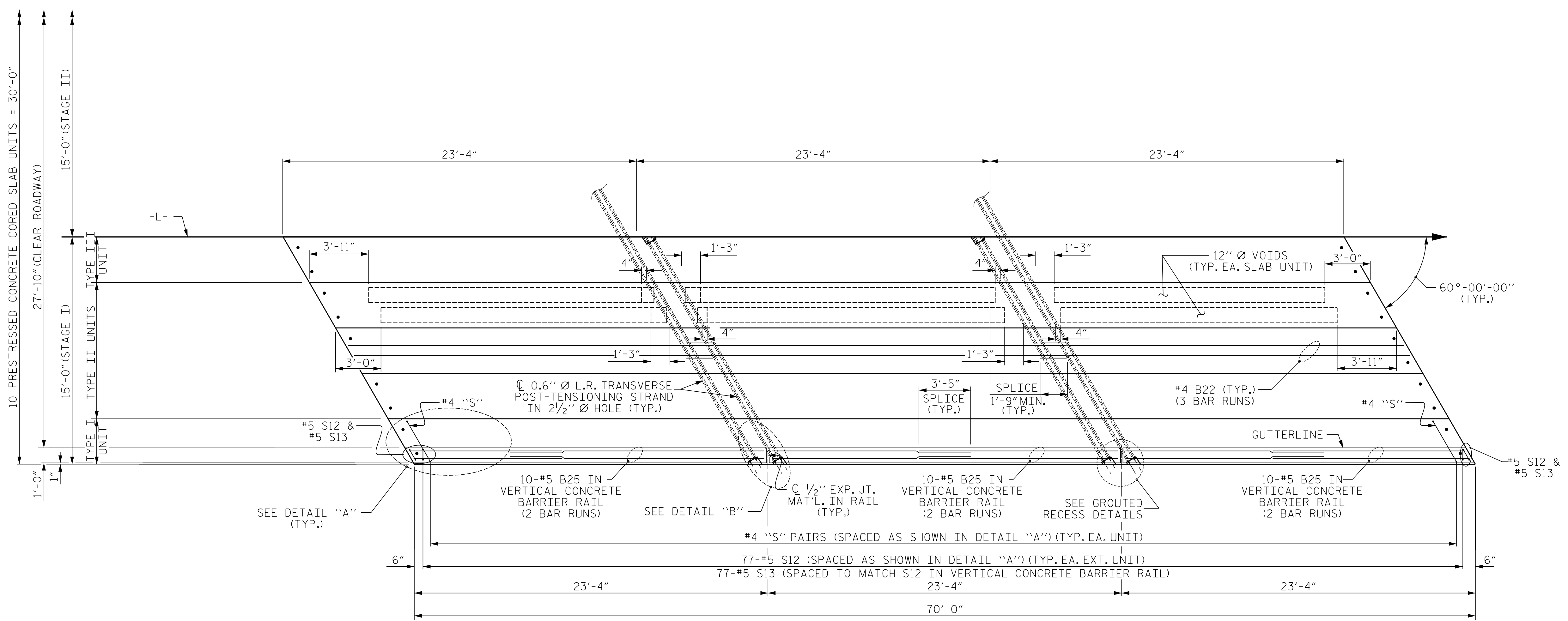
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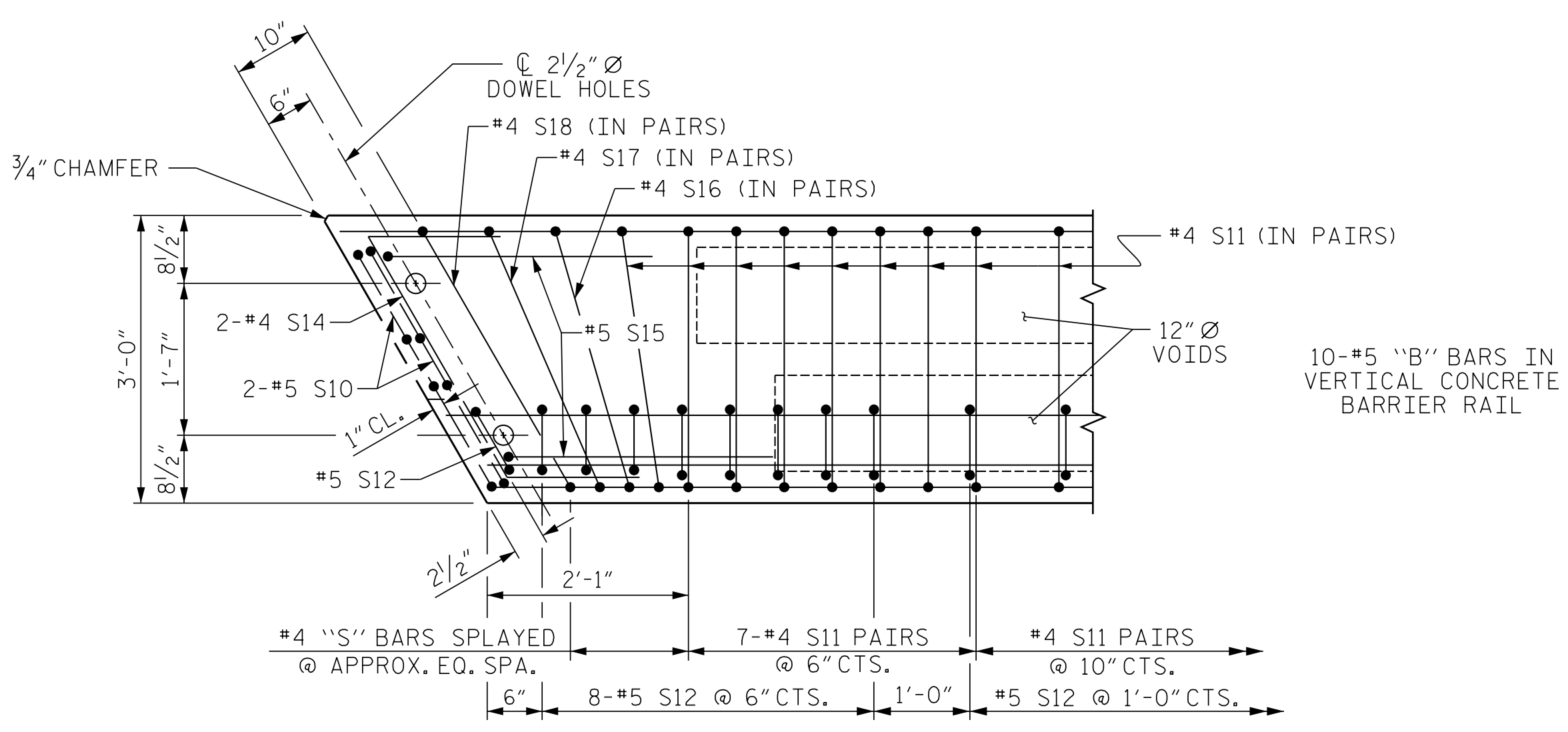
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NO.	BY:	DATE:	NO.	BY:	DATE:	S-6
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2			4			20

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CHKD. BY: HLW DATE: 5/2025
DES. EGR. OF RECORD: ACO DATE: 1/2016

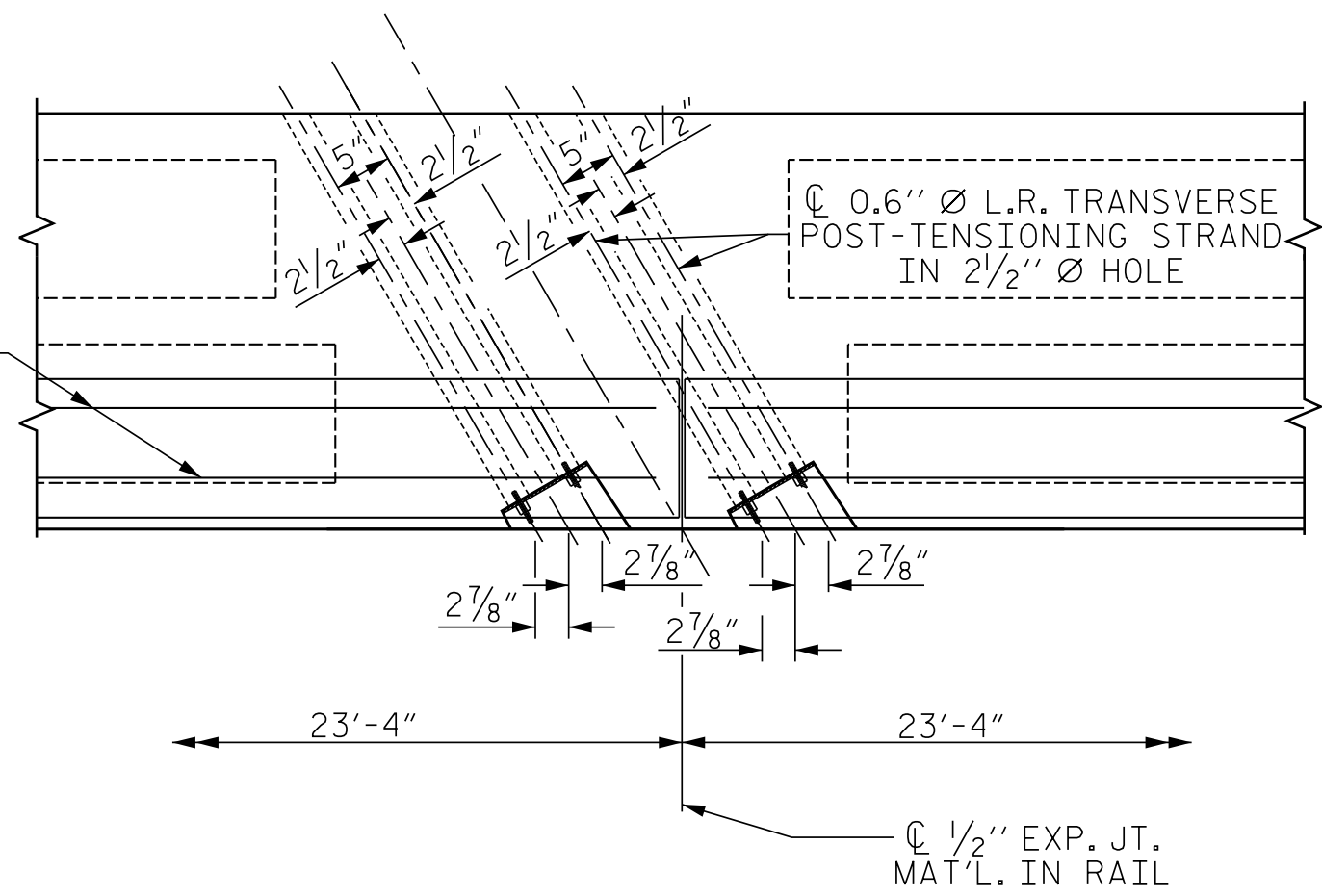


PLAN OF UNIT
(STAGE I)



DETAIL "A"

(SIMILAR EACH END OF UNIT)
NOTE: EXTERIOR UNIT SHOWN - INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S12 BARS.



DETAIL "B"

#4 S11 BARS MAY BE SHIFTED AS NECESSARY TO MAINTAIN 1" CLEAR TO GROUDED RECESS AND 2 1/2" Ø TRANSVERSE POST-TENSIONING STRAND HOLES

PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-
SHEET 3 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
PLAN OF 70' UNIT
27'-10" CLEAR ROADWAY
60° SKEW
STAGE I

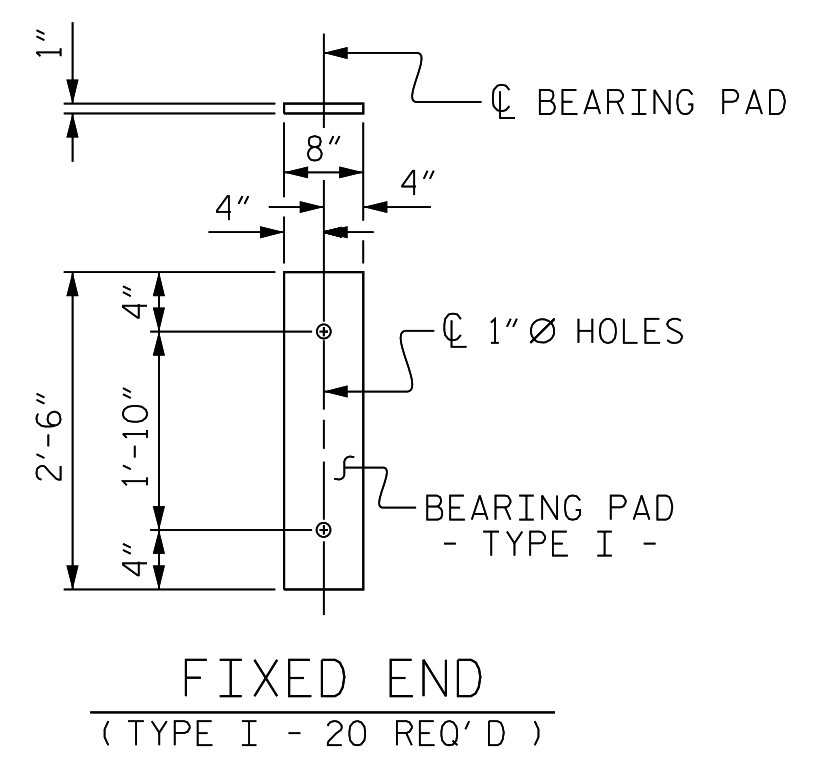


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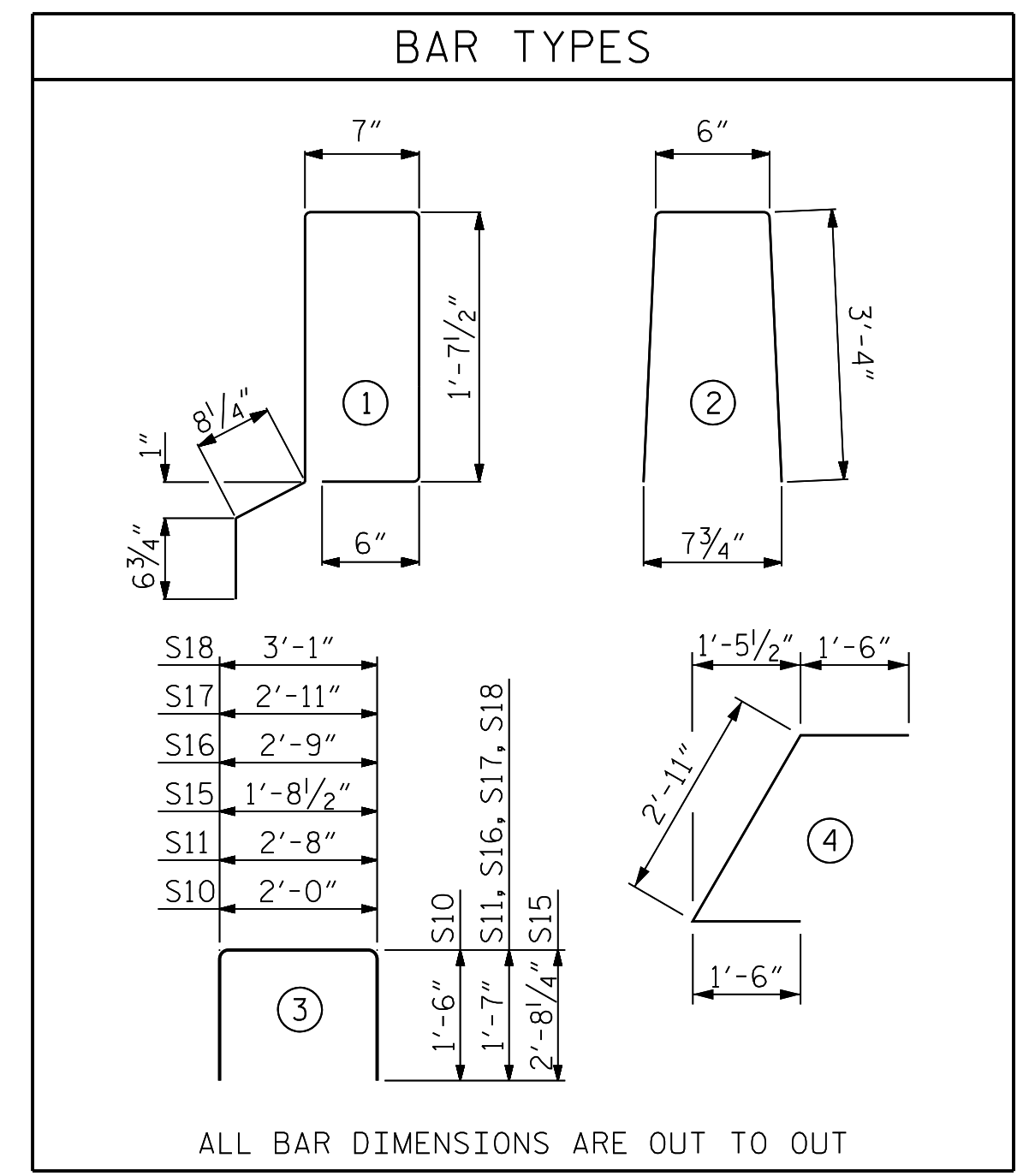
ELASTOMERIC BEARING DETAILS
ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.

CORED SLABS REQUIRED			
	NUMBER	LENGTH	TOTAL LENGTH
TYPE I	1	70'-0"	70'-0"
TYPE II	3	70'-0"	210'-0"
TYPE III	1	70'-0"	70'-0"
TYPE IV	4	70'-0"	280'-0"
TYPE V	1	70'-0"	70'-0"
TOTAL	10		700'-0"

BILL OF MATERIAL FOR ONE 70' CORED SLAB UNIT							
BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT		INTERIOR UNIT	
				LENGTH	WEIGHT	LENGTH	WEIGHT
B22	6	#4	STR	24'-6"	98	24'-6"	98
S10	8	#5	3	5'-0"	42	5'-0"	42
S11	170	#4	3	5'-10"	662	5'-10"	662
*S12	79	#5	1	5'-7"	460		
S14	4	#4	4	5'-11"	16	5'-11"	16
S15	4	#5	3	7'-1"	30	7'-1"	30
S16	4	#4	3	5'-11"	16	5'-11"	16
S17	4	#4	3	6'-1"	16	6'-1"	16
S18	4	#4	3	6'-3"	17	6'-3"	17
REINFORCING STEEL				LBS.	897		897
*EPOXY COATED REINFORCING STEEL				LBS.	460		
7000 P.S.I. CONCRETE				CU. YDS.	12.0		12.0
0.6" Ø L.R. STRANDS				No.	28		28

DEAD LOAD DEFLECTION AND CAMBER	
70' CORED SLAB UNIT	3'-0" x 2'-0" 0.6" Ø L.R. STRAND
CAMBER (SLAB ALONE IN PLACE)	2 1/4" ↑
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD**	3/4" ↓
FINAL CAMBER	1 1/2" ↑

** INCLUDES FUTURE WEARING SURFACE



NOTES

ALL PRESTRESSING STRANDS SHALL BE 7-WIRE LOW RELAXATION GRADE 270 STRANDS AND SHALL CONFORM TO AASHTO M203 EXCEPT FOR SAMPLING REQUIREMENTS WHICH SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL REINFORCING STEEL CAST WITH THE CORED SLAB SECTIONS SHALL BE GRADE 60 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE CORED SLABS.

RECESSES FOR TRANSVERSE STRANDS SHALL BE GROUTED AFTER THE TENSIONING OF THE STRANDS.

THE 2 1/2" Ø DOWEL HOLES AT FIXED ENDS OF SLAB SECTIONS SHALL BE FILLED WITH NON-SHRINK GROUT.

THE BACKER RODS SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, AN INTERNAL HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. AT LEAST SIX WEEKS PRIOR TO CASTING CORED SLABS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW AND COMMENT, DETAILED DRAWINGS OF THE PROPOSED HOLD-DOWN SYSTEM. IN ADDITION TO STRUCTURAL DETAILS, LOCATION AND SPACING OF THE HOLD-DOWNS SHALL BE INDICATED.

THE TRANSFER OF LOAD FROM THE ANCHORAGES TO THE CORED SLAB UNIT SHALL BE DONE WHEN THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF NOT LESS THAN THE REQUIRED STRENGTH SHOWN IN THE "CONCRETE RELEASE STRENGTH" TABLE.

ALL REINFORCING STEEL IN VERTICAL CONCRETE BARRIER RAILS SHALL BE EPOXY COATED.

PRESTRESSING STRANDS SHALL BE CUT FLUSH WITH THE CORED SLAB UNIT ENDS.

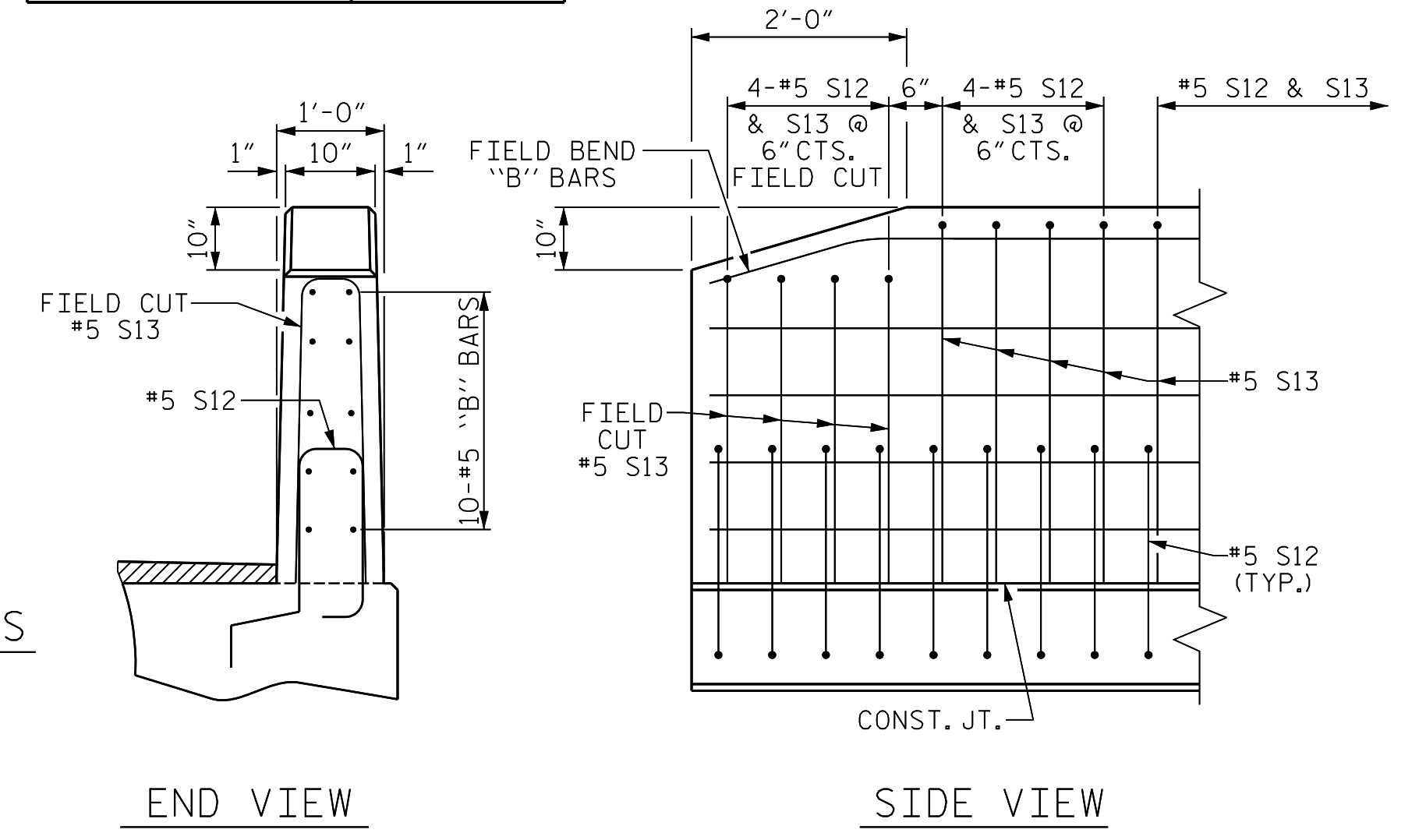
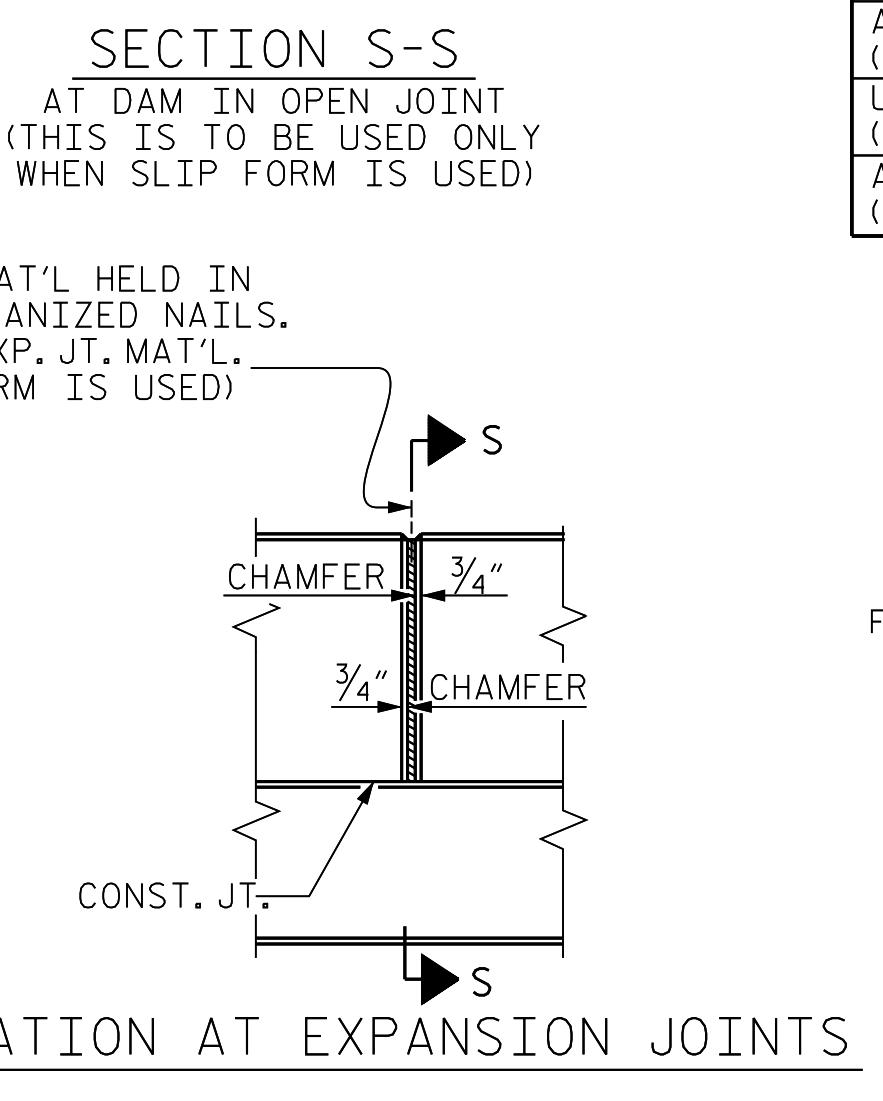
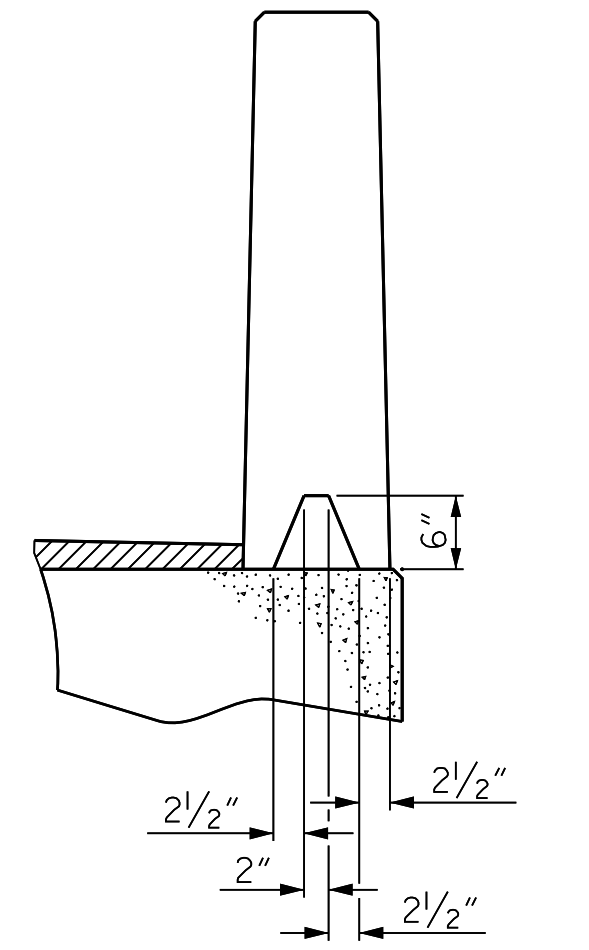
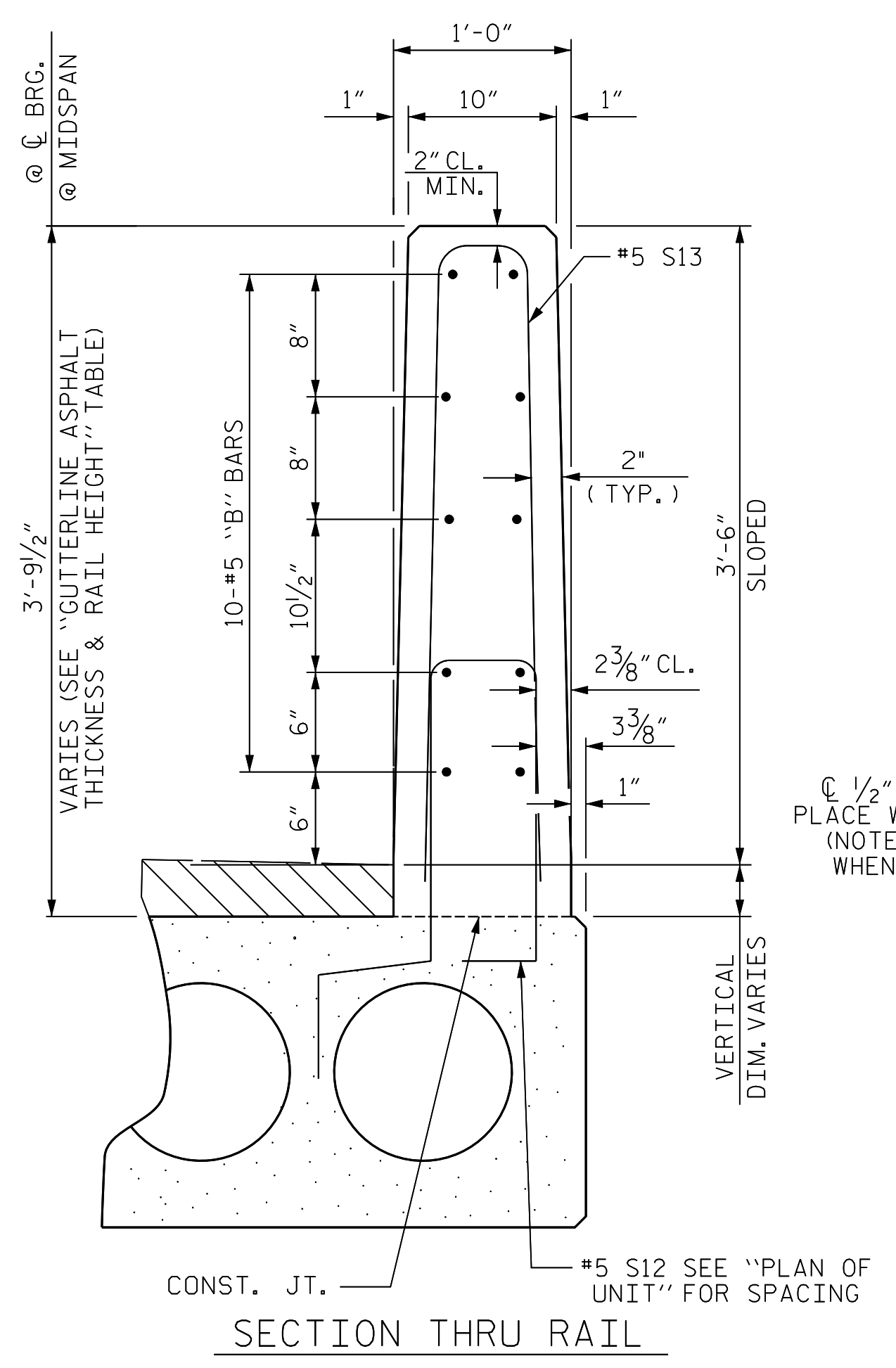
APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS.

BILL OF MATERIAL FOR VERTICAL CONCRETE BARRIER RAIL						
BAR	BARS PER PAIR OF EXTERIOR UNITS	TOTAL NO.	SIZE	TYPE	LENGTH	WEIGHT
*B25	120	120	#5	STR	13'-8"	1711
*S13	158	158	#5	2	7'-2"	1181
*EPOXY COATED REINFORCING STEEL				LBS.		2892
CLASS AA CONCRETE				CU. YDS.		18.1
TOTAL VERTICAL CONCRETE BARRIER RAIL				LN. FT.		140.29

GUTTERLINE ASPHALT THICKNESS & RAIL HEIGHT		
	ASPHALT OVERLAY THICKNESS @ MID-SPAN	RAIL HEIGHT @ MID-SPAN
70' UNITS	2"	3'-8"

GRADE 270 STRANDS	
AREA (SQUARE INCHES)	0.217
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950

CONCRETE RELEASE STRENGTH	
UNIT	PSI
70' UNITS	5500



VERTICAL CONCRETE BARRIER RAIL DETAILS

END OF RAIL DETAILS

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. A 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.

FLAME CUTTING OF THE TRANSVERSE POST-TENSIONING STRAND IS NOT ALLOWED.

MAINTAIN A SYMMETRIC TENSION FORCE BETWEEN EACH PAIR OF TRANSVERSE POST TENSIONING STRANDS IN THE DIAPHRAGM.

THE #4 S11 STIRRUPS MAY BE SHIFTED AS NECESSARY TO MAINTAIN 1" CLEAR TO THE GROUTED RECESS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE PERMITTED THREADED INSERTS ARE DETAILED AS AN OPTION FOR THE CONTRACTOR TO ATTACH FALSEWORK AND FORMWORK DURING CONSTRUCTION.

THE PERMITTED THREADED INSERTS IN THE EXTERIOR UNITS SHALL BE SIZED BY THE CONTRACTOR, SPACED AT 4'-0" CENTERS AND GALVANIZED IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS. STAINLESS STEEL THREADED INSERTS MAY BE USED AS AN ALTERNATE.

THE PERMITTED THREADED INSERTS SHALL BE GROUTED BY THE CONTRACTOR IMMEDIATELY FOLLOWING REMOVAL OF THE FALSEWORK.

THE COST OF THE PERMITTED THREADED INSERTS SHALL BE INCLUDED IN THE PRICE BID FOR THE PRECAST UNITS.

PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-

SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
3'-0" X 2'-0"
PRESTRESSED CONCRETE
CORED SLAB UNIT



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NOTES

THE GUARDRAIL ANCHOR ASSEMBLY SHALL CONSIST OF A ¼" 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.)

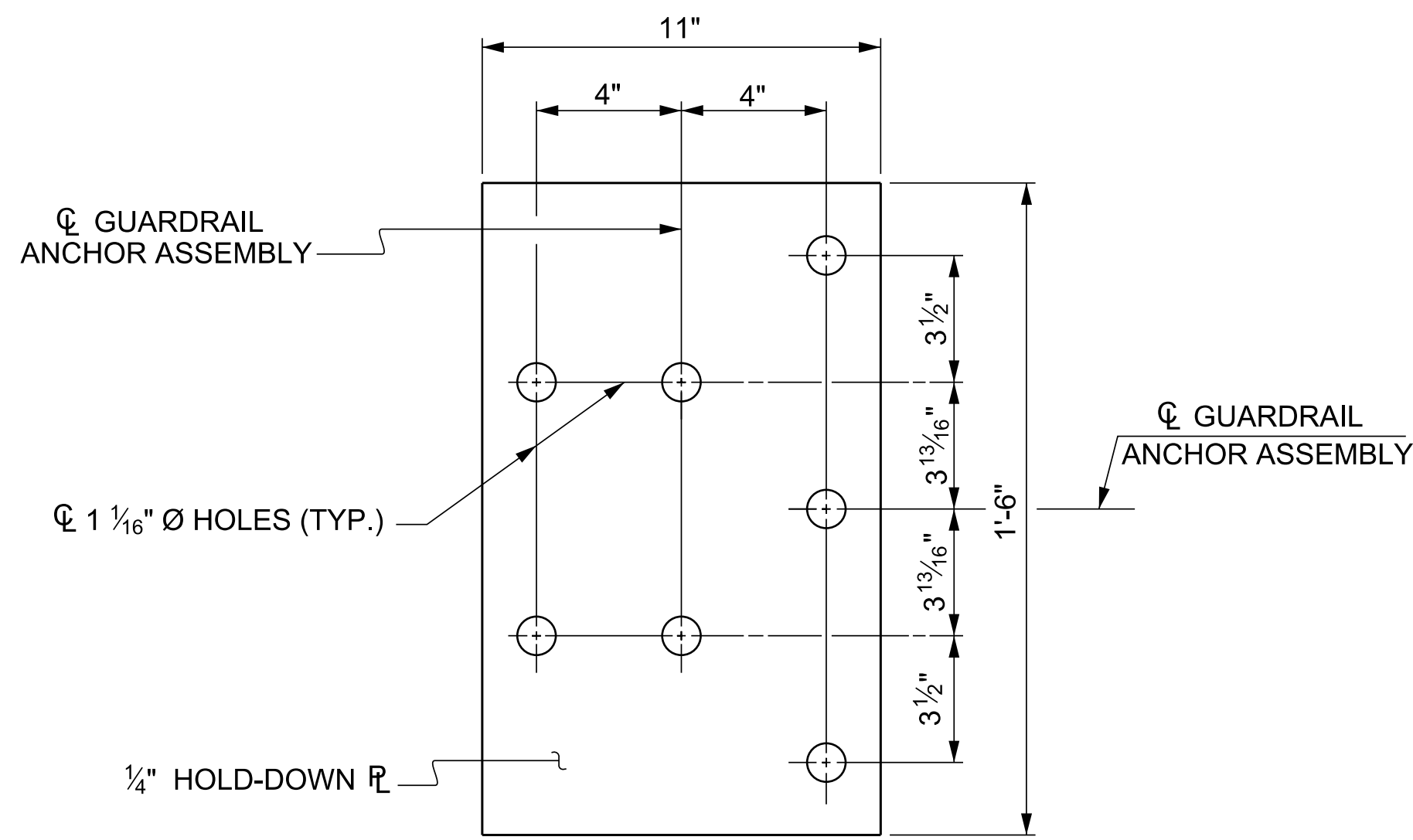
THE GUARDRAIL ANCHOR ASSEMBLY IS REQUIRED AT ALL POINTS WHERE APPROACH GUARDRAIL IS TO BE ATTACHED TO THE END OF BARRIER RAIL. FOR POINTS OF ATTACHMENT, SEE SKETCH.

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

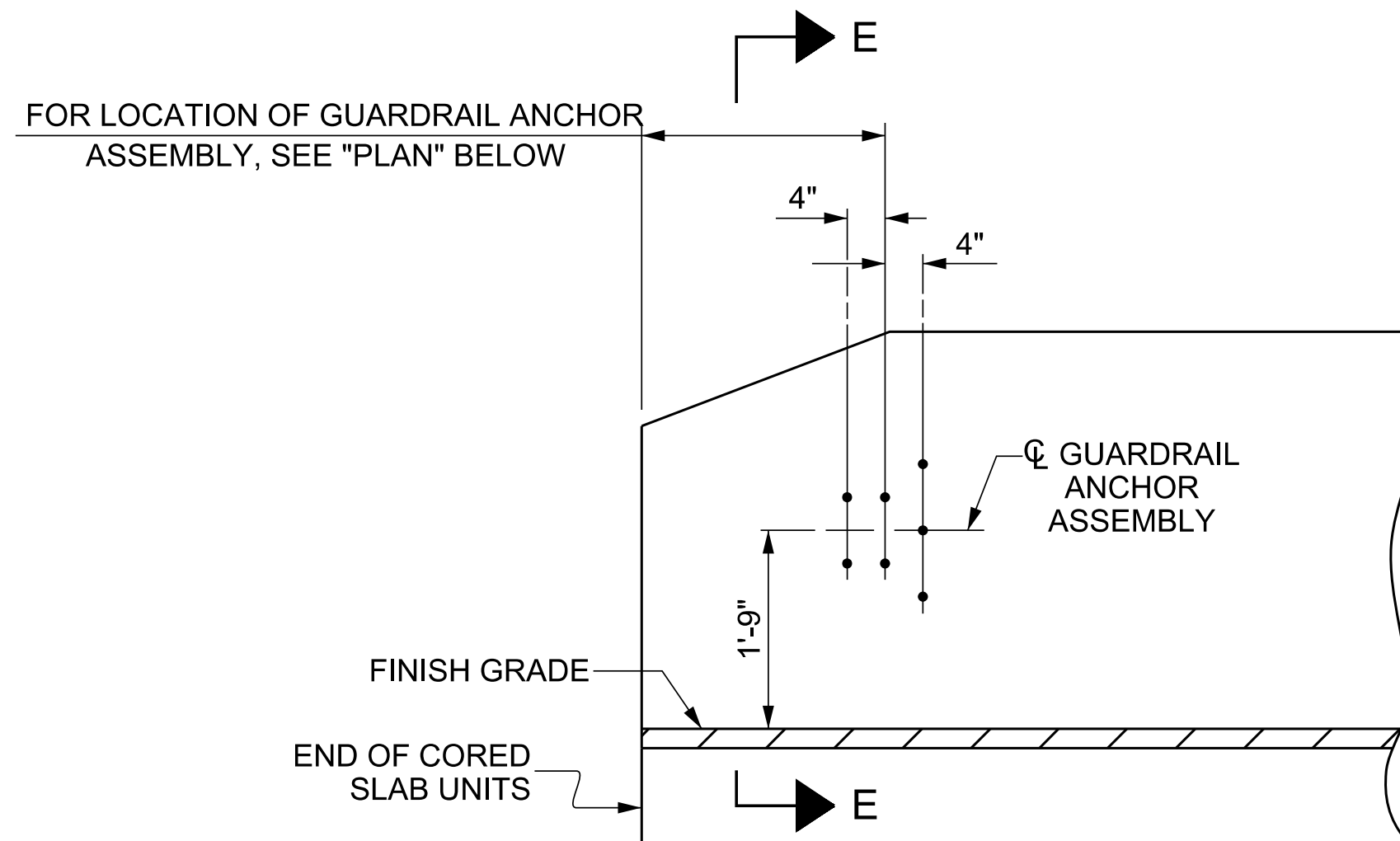
THE COST OF THE GUARDRAIL ANCHOR ASSEMBLY SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR VERTICAL CONCRETE BARRIER RAIL.

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

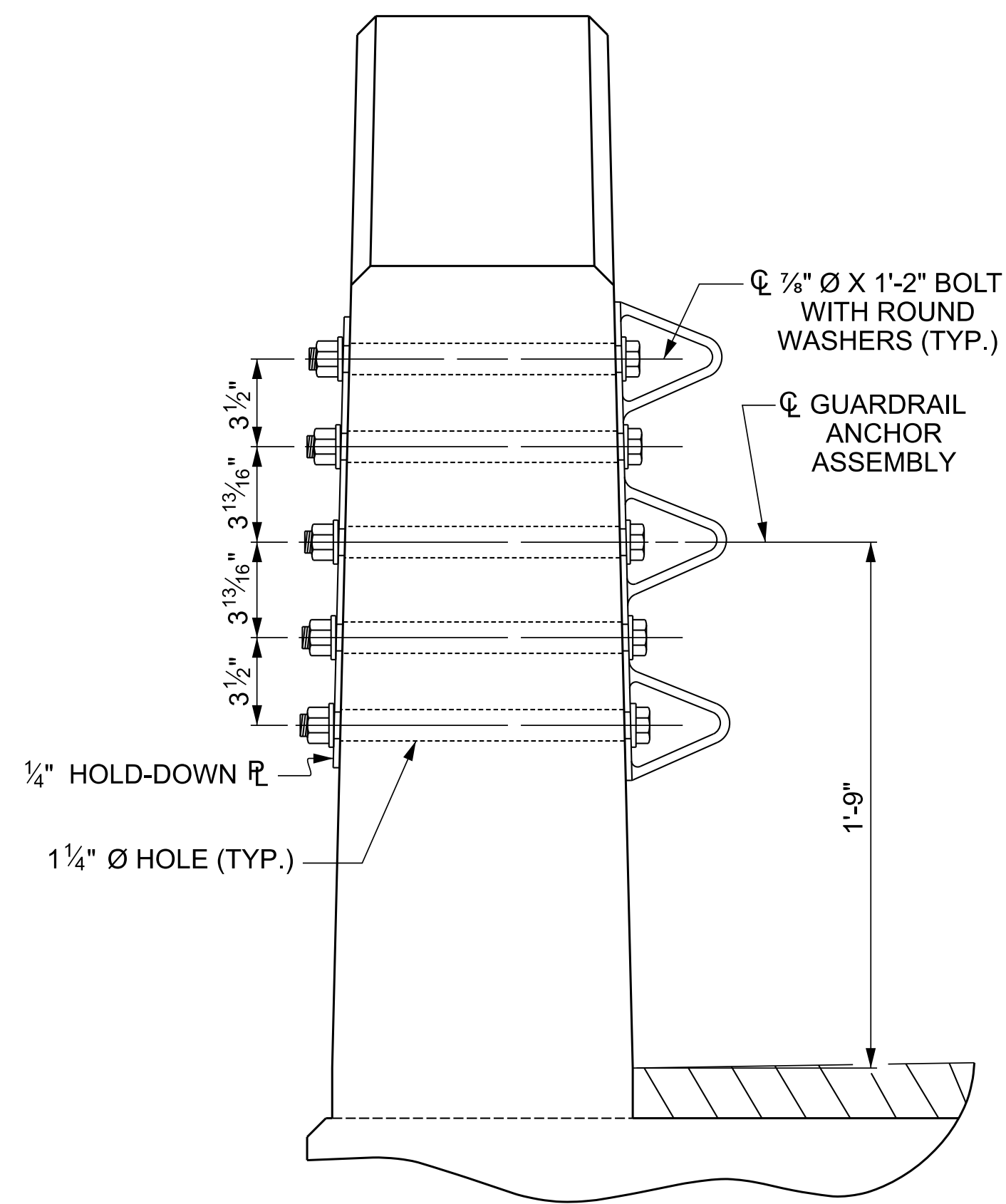
THE 1 ¼" Ø HOLES SHALL BE FORMED OR DRILLED WITH A CORE BIT. IMPACT TOOLS WILL NOT BE PERMITTED. ANY CONCRETE DAMAGED BY THIS WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER.



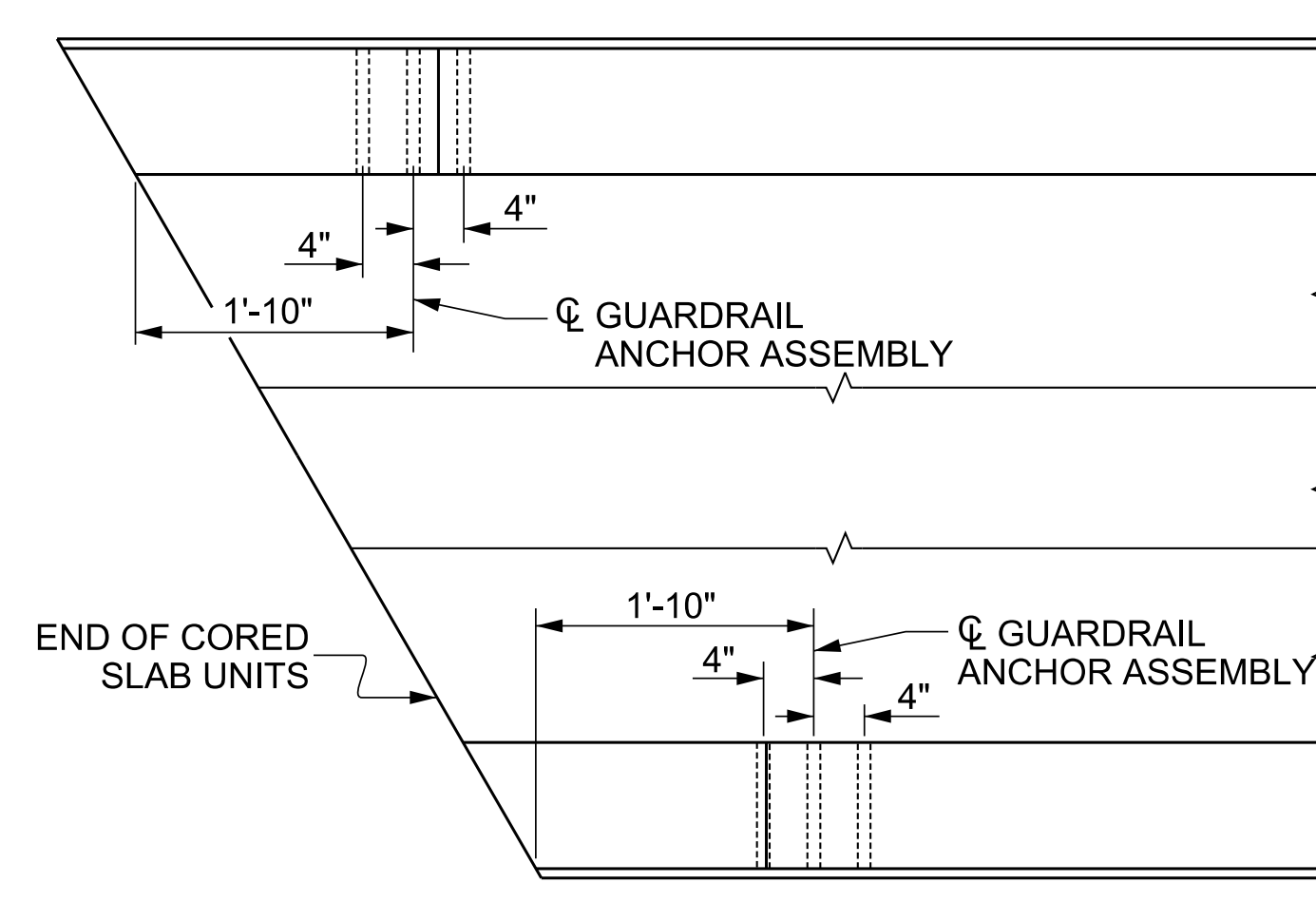
PLAN



ELEVATION



**SECTION E-E
GUARDRAIL ANCHOR ASSEMBLY DETAILS**



**LOCATION OF
ANCHORS FOR GUARDRAIL**



**SKETCH SHOWING
POINTS OF ATTACHMENT**

* DENOTES GUARDRAIL ANCHOR ASSEMBLY

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

1/6/2026 | 6:49:00 AM PST



DocuSigned by:
HARRY WILLIS
 782030082025421

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

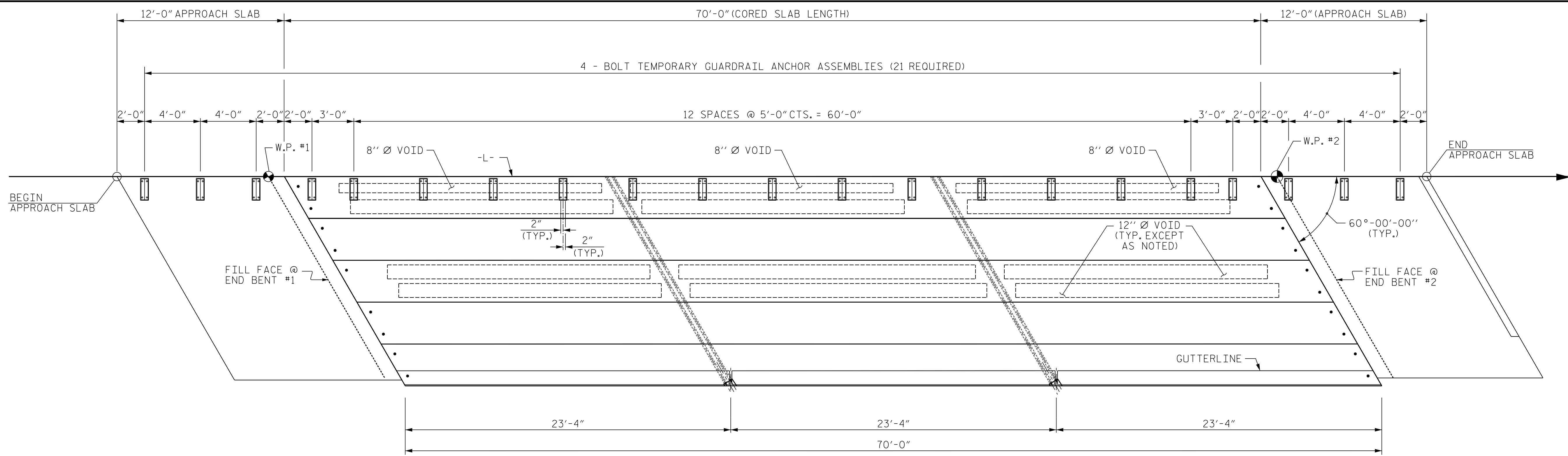
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		REV. 5/18	MAA/THC



RAIL POST SPACING FOR TEMPORARY GUARDRAIL - STAGE I

NOTES

THE TEMPORARY GUARDRAIL ANCHOR 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 2 1/2".
- B. 4 - 1" Ø X 2 1/4" BOLTS WITH WASHERS. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307. BOLTS AND WASHERS SHALL BE GALVANIZED. (AT THE CONTRACTOR'S OPTION STAINLESS STEEL BOLTS AND WASHERS MAY BE USED AS AN ALTERNATE FOR THE 1" Ø X 2 1/4" GALVANIZED BOLTS 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.)
- C. WIRE STRUTS SHOWN IN THE TEMPORARY GUARDRAIL ANCHOR ASSEMBLY DETAIL ARE THE MINIMUM ALLOWABLE SIZE AND SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100,000 PSI.

TEMPORARY GUARDRAIL ANCHOR ASSEMBLY WITH BOLTS SHALL BE ASSEMBLED IN THE SHOP. BOLT THREADS MAY BE RECUT AS NECESSARY TO ENSURE FIT.

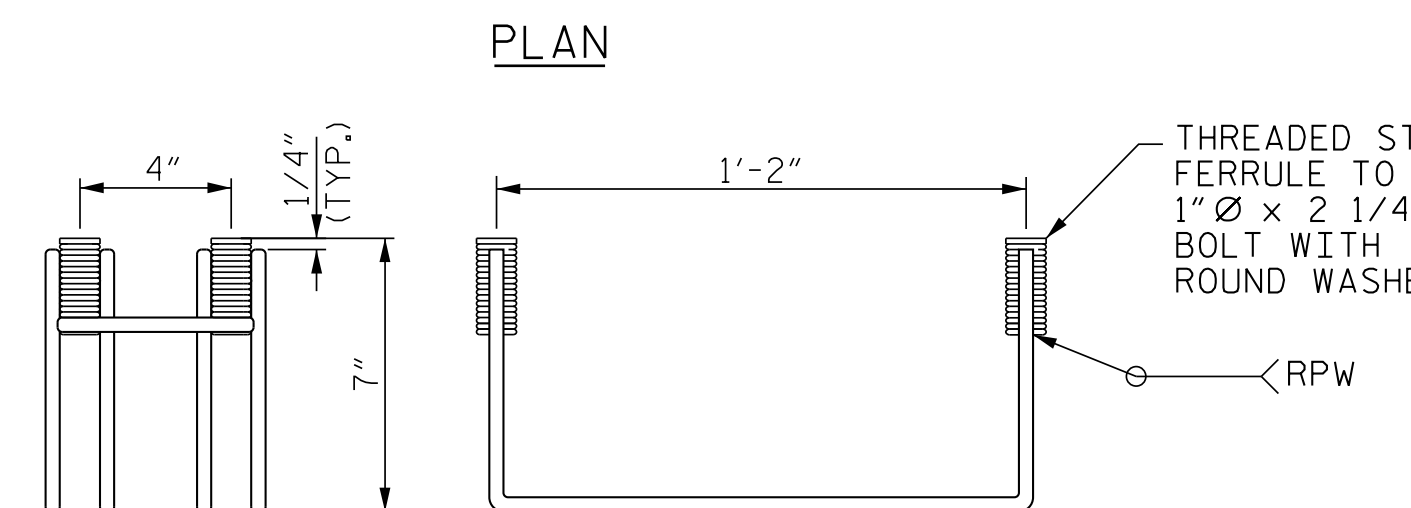
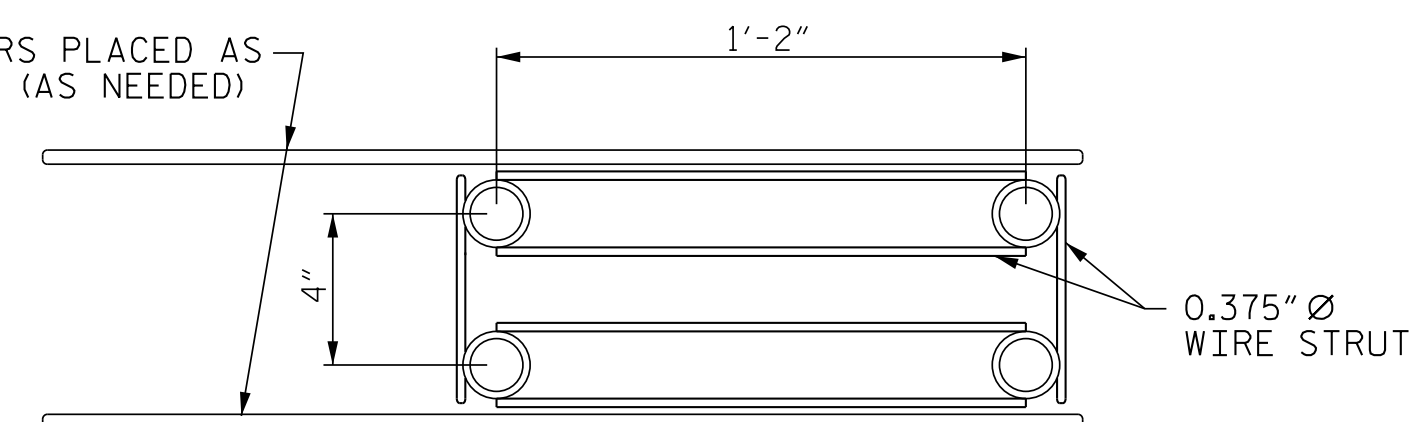
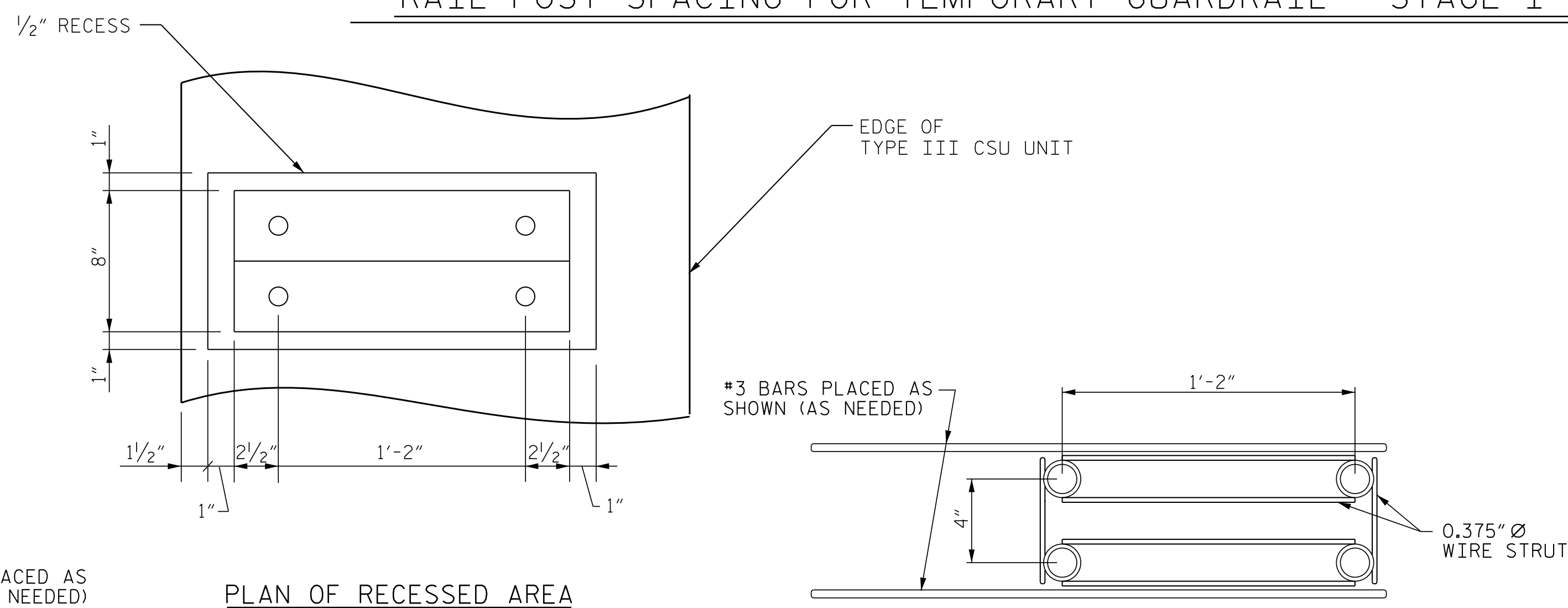
THE COST OF THE TEMPORARY GUARDRAIL ANCHOR ASSEMBLY COMPLETE IN PLACE SHALL BE INCLUDED, AS APPLICABLE, IN THE UNIT CONTRACT PRICE BID FOR 3'-0" X 2'-0" PRESTRESSED CONCRETE CORED SLAB OR LUMP SUM PRICE BID FOR APPROACH SLABS.

FERRULES SHALL BE PLUGGED DURING CASTING OF THE CORED SLAB UNITS OR POURING OF APPROACH SLAB AS RECOMMENDED BY THE MANUFACTURER.

ONCE THE TEMPORARY GUARDRAIL HAS BEEN REMOVED, THE 1/2" RECESS SHALL BE FILLED WITH GROUT.

AT THE CONTRACTOR'S OPTION, FERRULES WITH OPEN OR CLOSED ENDS MAY BE USED.

PAYMENT FOR TEMPORARY GUARDRAIL, POST, AND POST BASE PLATES IS INCLUDED IN ROADWAY PAY ITEMS.

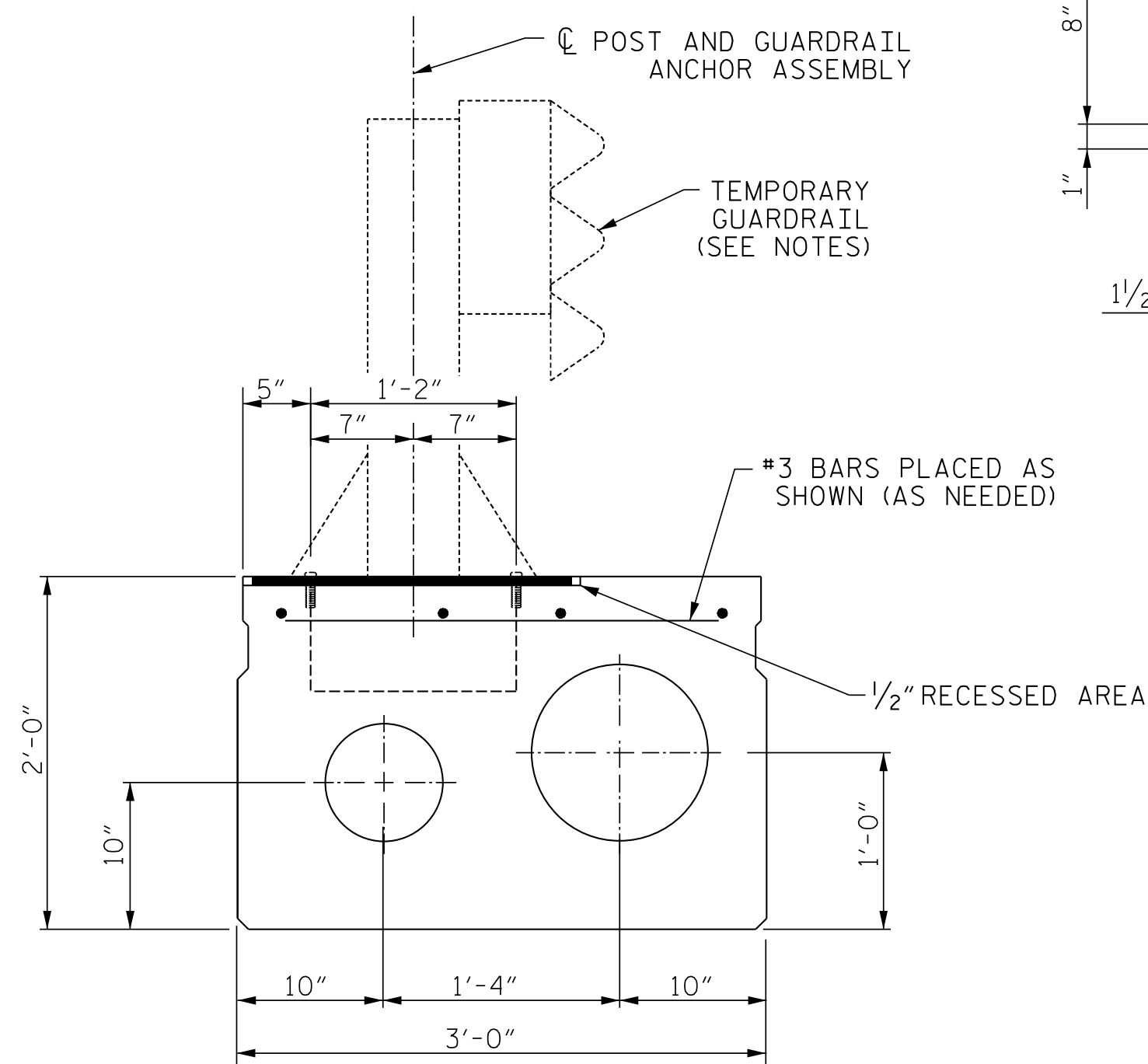


SIDE VIEW ELEVATION

MINIMUM LENGTH OF THREADS IN INSERT (FERRULE) : 2 1/2"

TEMPORARY GUARDRAIL ANCHOR ASSEMBLY

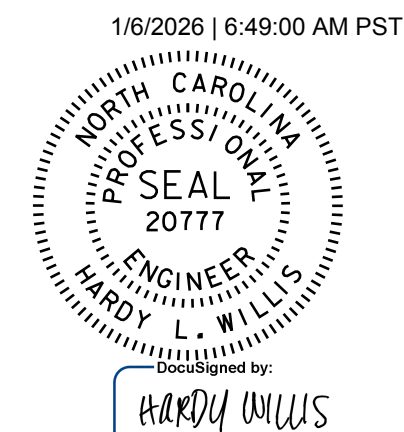
(15 ASSEMBLIES REQUIRED IN THE TYPE III CORED SLAB UNITS)
(6 ASSEMBLIES REQUIRED IN THE APPROACH SLABS)



SECTION OF ANCHOR ASSEMBLY LOCATION

(TYPE III UNIT - STAGE I)
THE #3 BARS ARE INCIDENTAL AND THEIR COST SHALL BE INCLUDED IN THE PRICE BID FOR THE PRESTRESSED CONCRETE CORED SLABS.

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JACKSON COUNTY
STATION: 13+20.50 -L-



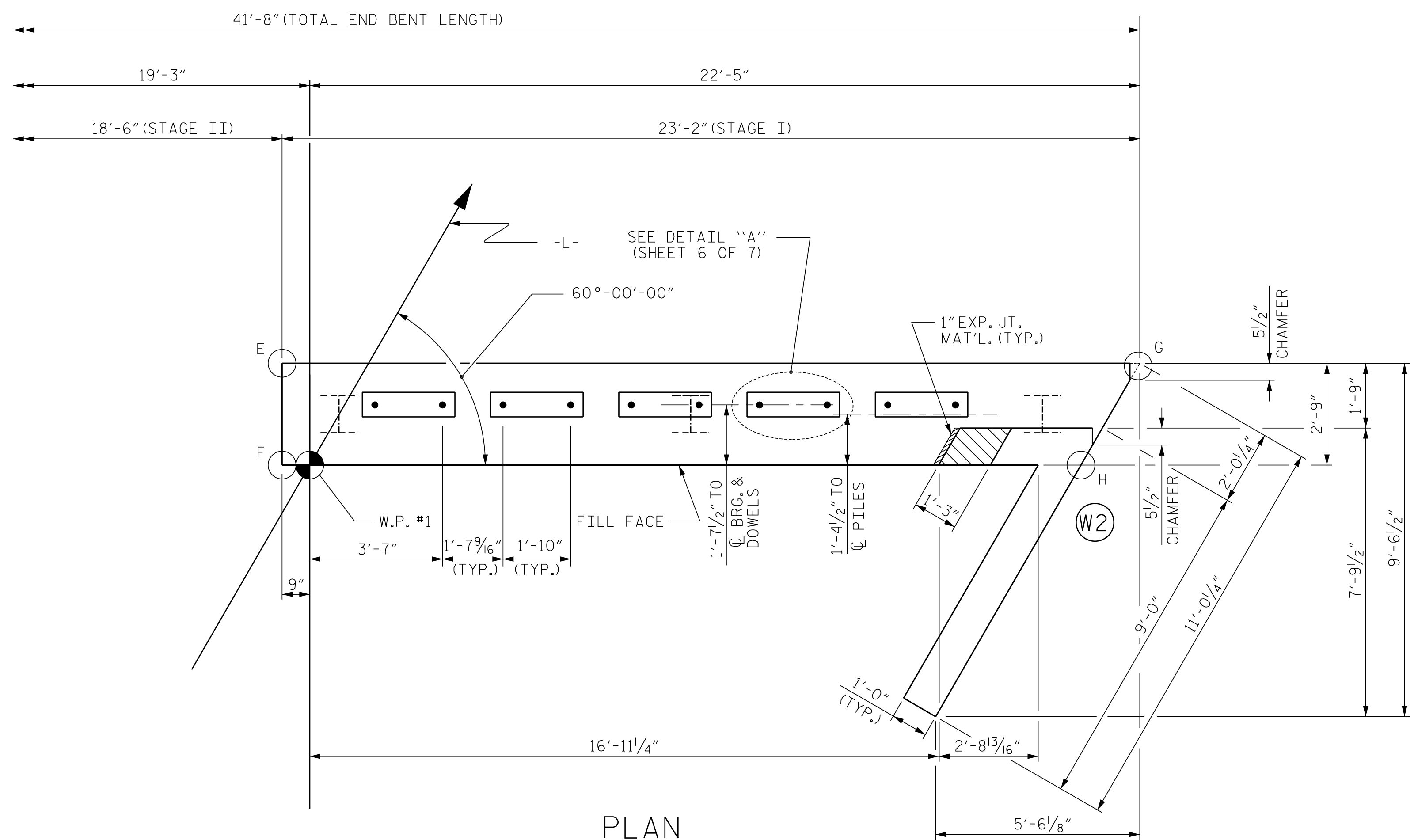
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**ANCHORAGE DETAILS FOR
TEMPORARY GUARDRAIL
ANCHOR ASSEMBLY FOR
TYPE III CORED SLAB
UNIT - STAGE I**

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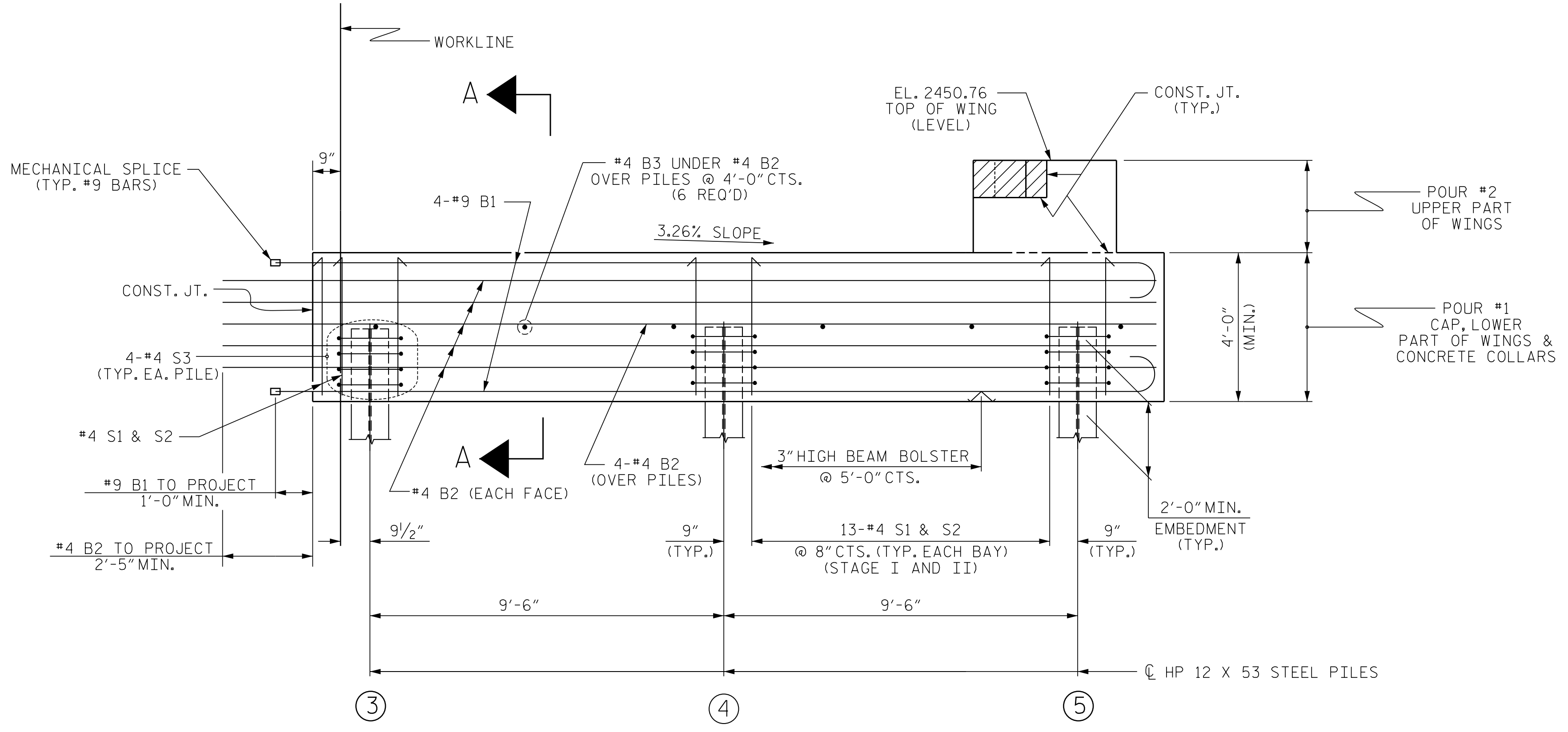
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DES. EGR. OF RECORD: ACO DATE: 1/2016



PLAN



ELEVATION

WINGS NOT SHOWN FOR CLARITY.
 FOR SECTION A-A, SEE SHEET 6 OF 7.
 CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
 SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET 6 OF 7.

NOTES

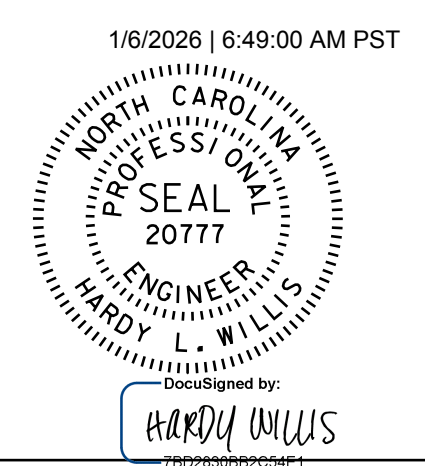
- STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.
- THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE VERTICAL CONCRETE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.
- FOR PILE SPLICE DETAILS, SEE SHEET 6 OF 7.
- FOR WING DETAILS, SEE SHEET 5 OF 7.

CAP ELEVATIONS		
	TOP OF CAP ELEVATION	BOTT. OF CAP ELEVATION
E	2448.72	2444.72
F	2448.71	2444.71
G	2447.96	2443.96
H	2448.01	2444.01

TOP OF PILE ELEVATIONS	
③	2446.67
④	2446.35
⑤	2446.04

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

SHEET 1 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT No. 1
 STAGE I

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STD. NO. EB_30_60S4

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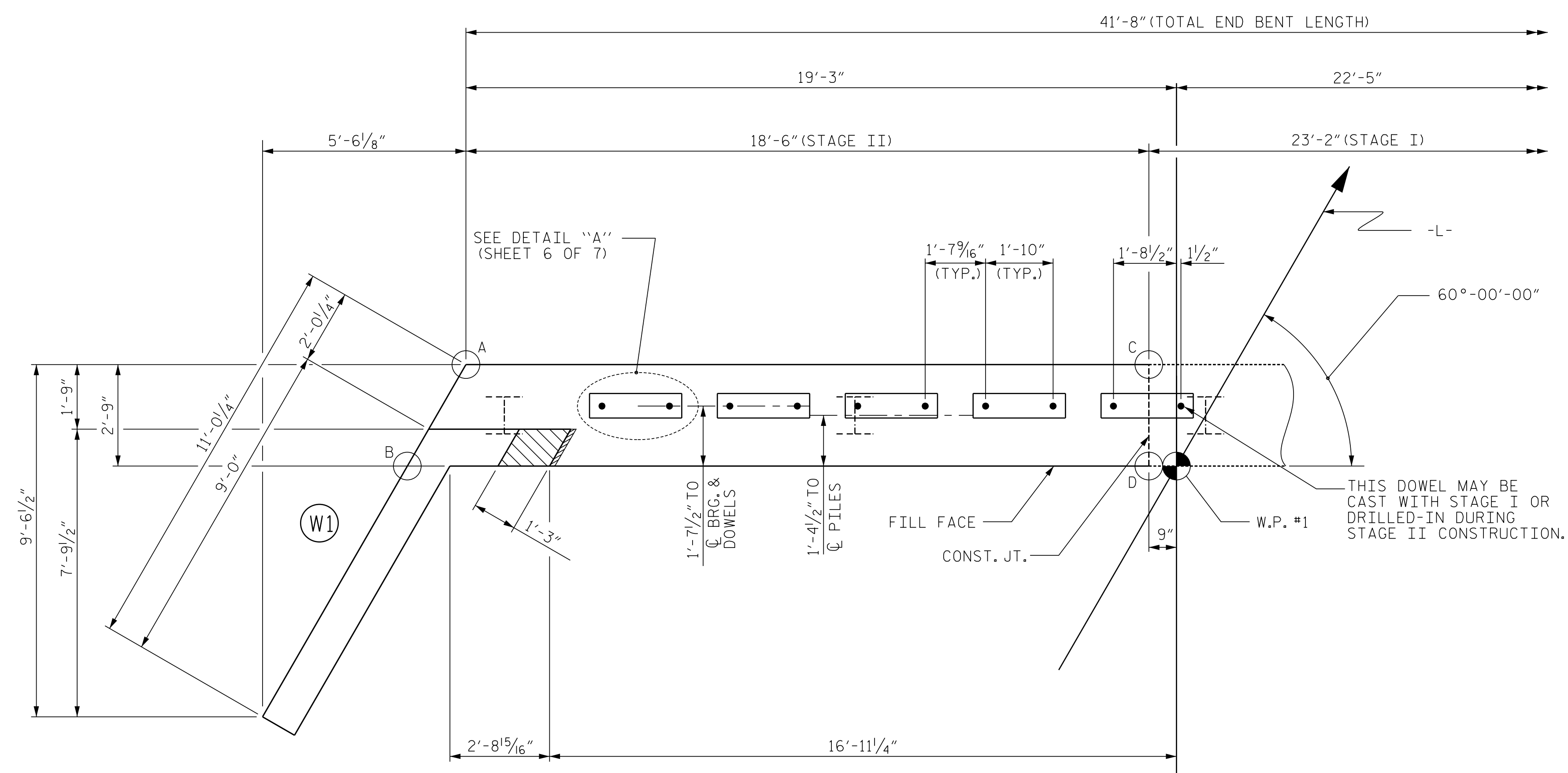
NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE VERTICAL CONCRETE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.

FOR PILE SPlice DETAILS, SEE SHEET 6 OF 7.

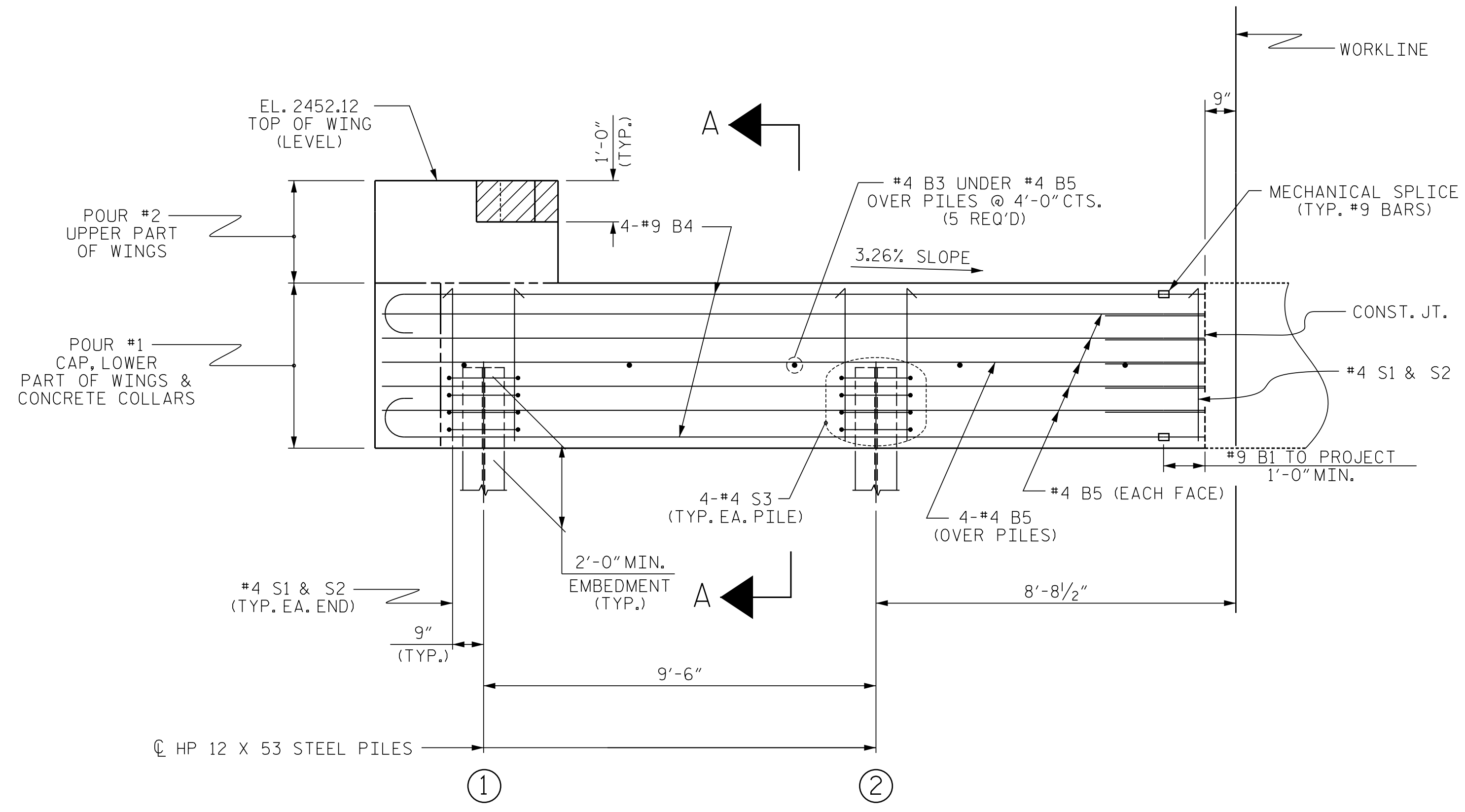
FOR WING DETAILS, SEE SHEET 5 OF 7.



PLAN

CAP ELEVATIONS		
	TOP OF CAP ELEVATION	BOTT. OF CAP ELEVATION
A	2449.32	2445.32
B	2449.37	2445.37
C	2448.72	2444.72
D	2448.71	2444.71

TOP OF PILE ELEVATIONS	
①	2447.29
②	2446.98

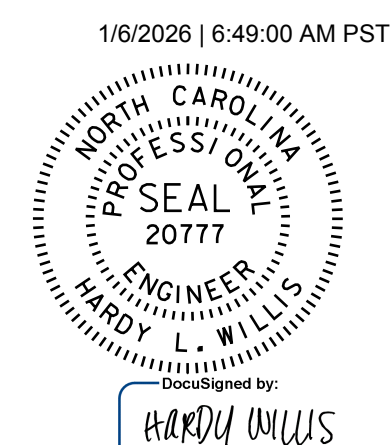


ELEVATION

WINGS NOT SHOWN FOR CLARITY. FOR SECTION A-A, SEE SHEET 6 OF 7.
 CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET 6 OF 7.

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

SHEET 2 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT No. 1
 STAGE II

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 License No: C-3097

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13
1			3			TOTAL SHEETS 20
2			4			

DRAWN BY : WJH 12/11	REV. 4/15	MAA/TMG
CHECKED BY : AAC 12/11		
DWN. BY: WDC	DATE: 5/2025	
CHKD. BY: HLW	DATE: 5/2025	
DES. EGR. OF RECORD: ACO	DATE: 1/2016	

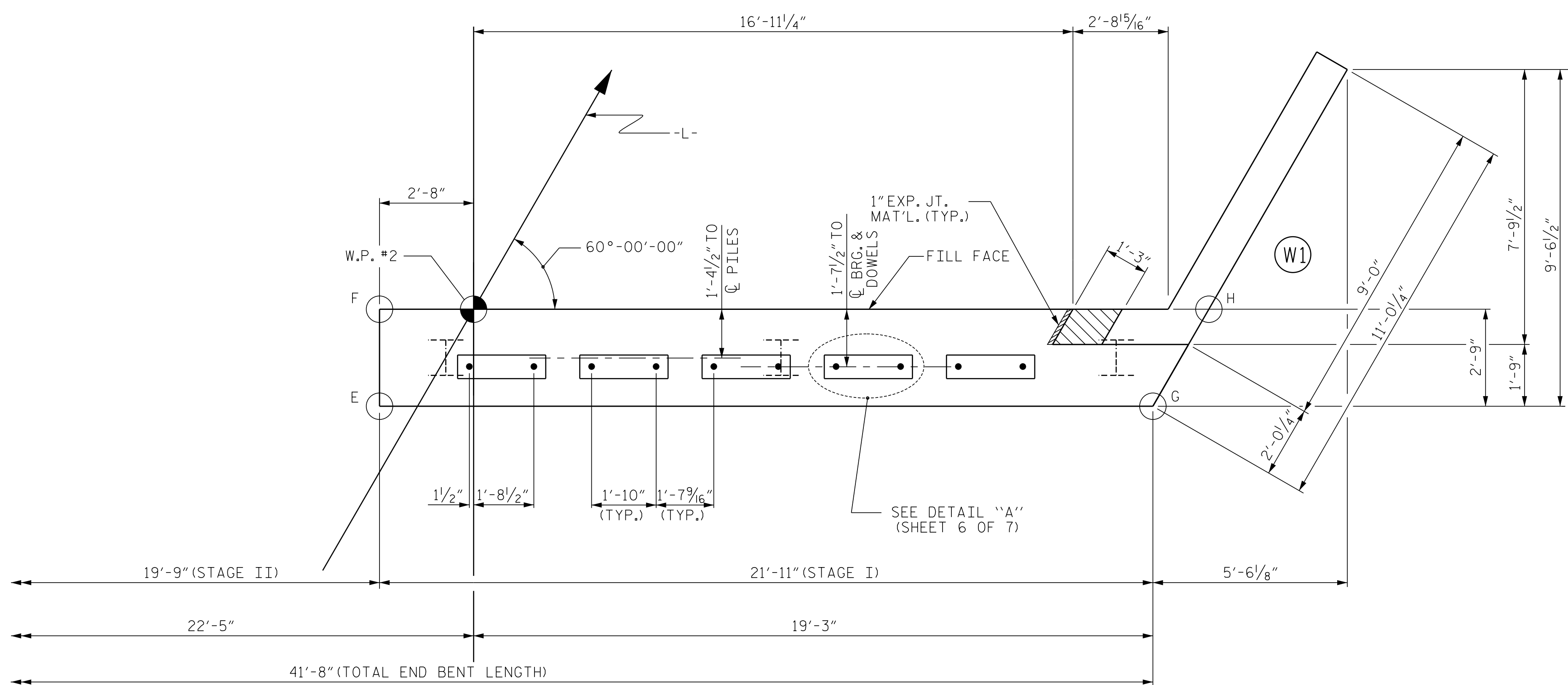
NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE VERTICAL CONCRETE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.

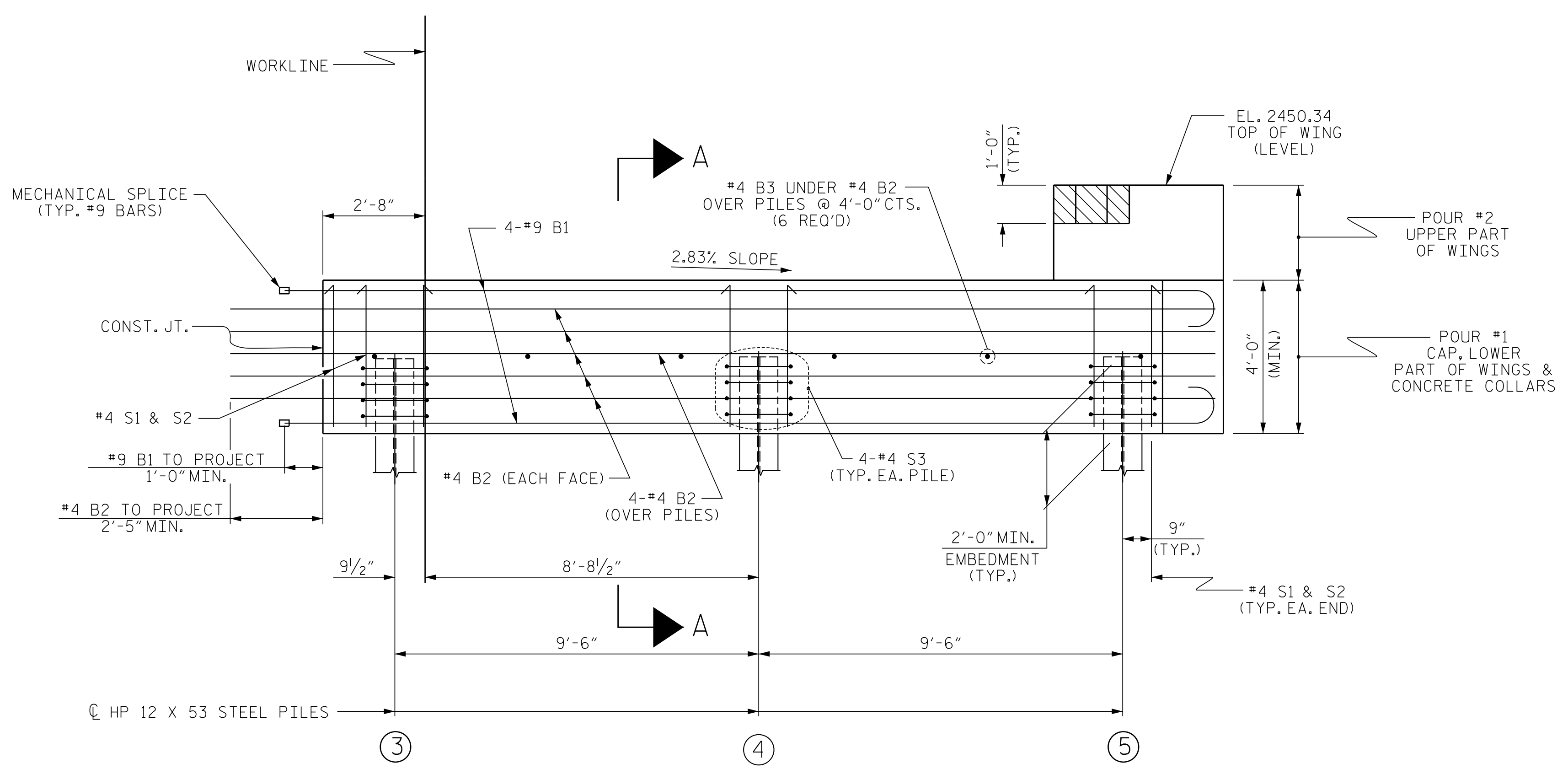
FOR PILE SPLICE DETAILS, SEE SHEET 6 OF 7.

FOR WING DETAILS, SEE SHEET 5 OF 7.



PLAN

CAP ELEVATIONS		
	TOP OF CAP ELEVATION	BOTT. OF CAP ELEVATION
E	2448.22	2444.22
F	2448.26	2444.26
G	2447.60	2443.60
H	2447.59	2443.59

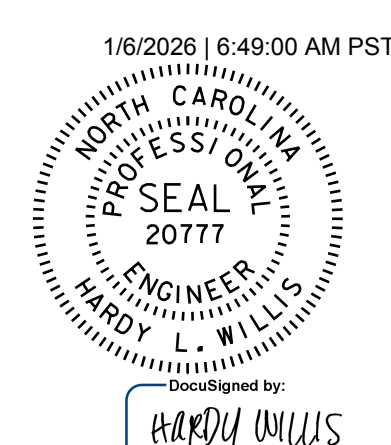


ELEVATION

TOP OF PILE ELEVATIONS	
③	2446.19
④	2445.92
⑤	2445.65

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-

SHEET 3 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT No. 2
 STAGE I

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

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 Raleigh, NC, 27609
 License No: C-3097

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-14
1			3			TOTAL SHEETS 20
2			4			

WINGS NOT SHOWN FOR CLARITY.
 FOR SECTION A-A, SEE SHEET 6 OF 7.
 CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY.
 SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET 6 OF 7.

DRAWN BY : WJH 12/11	REV. 4/15	MAA/TMG
CHECKED BY : AAC 12/11		
DWN. BY: WDC	DATE: 5/2025	
CHKD. BY: HLW	DATE: 5/2025	
DES. EGR. OF RECORD: ACO	DATE: 1/2016	

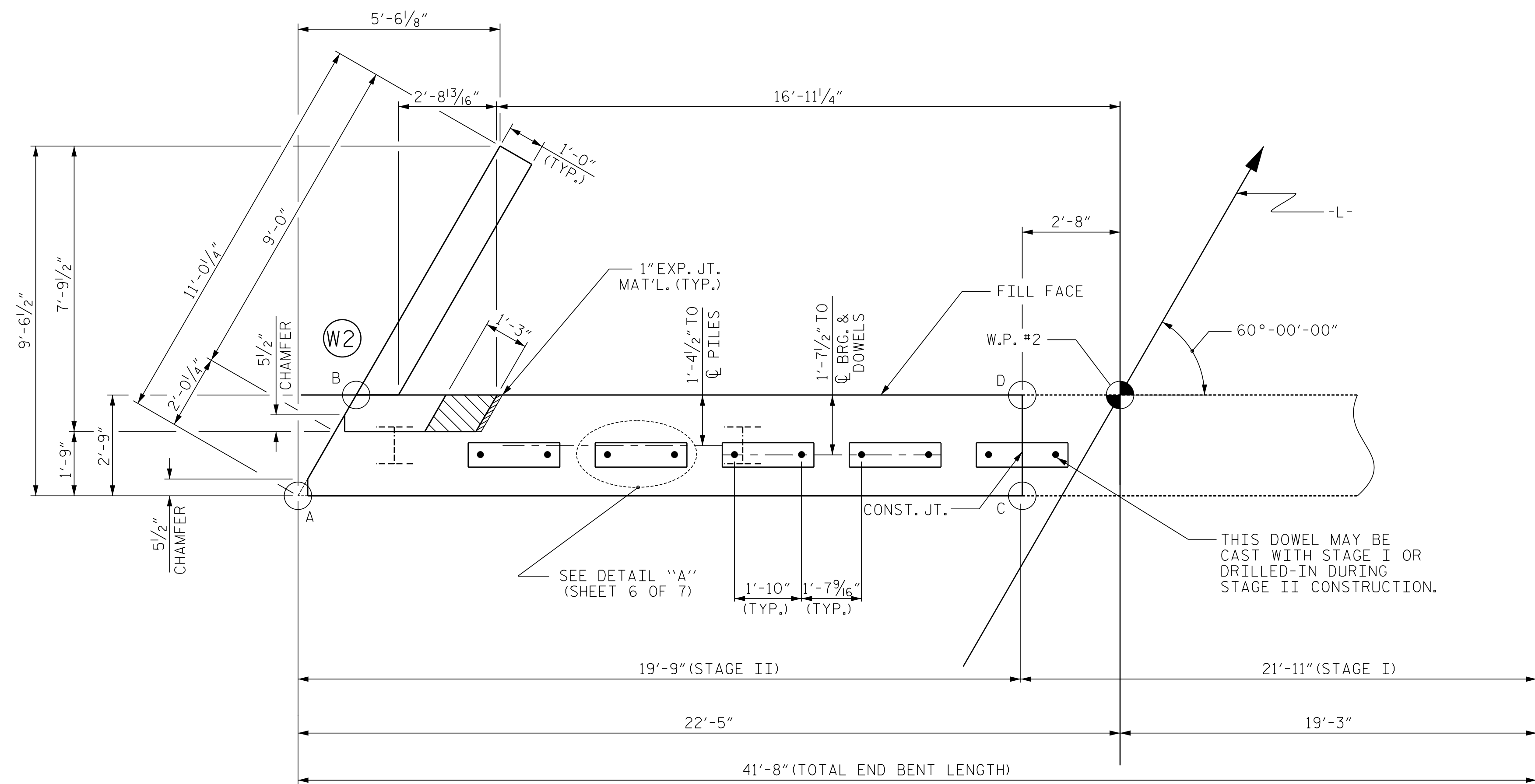
NOTES

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

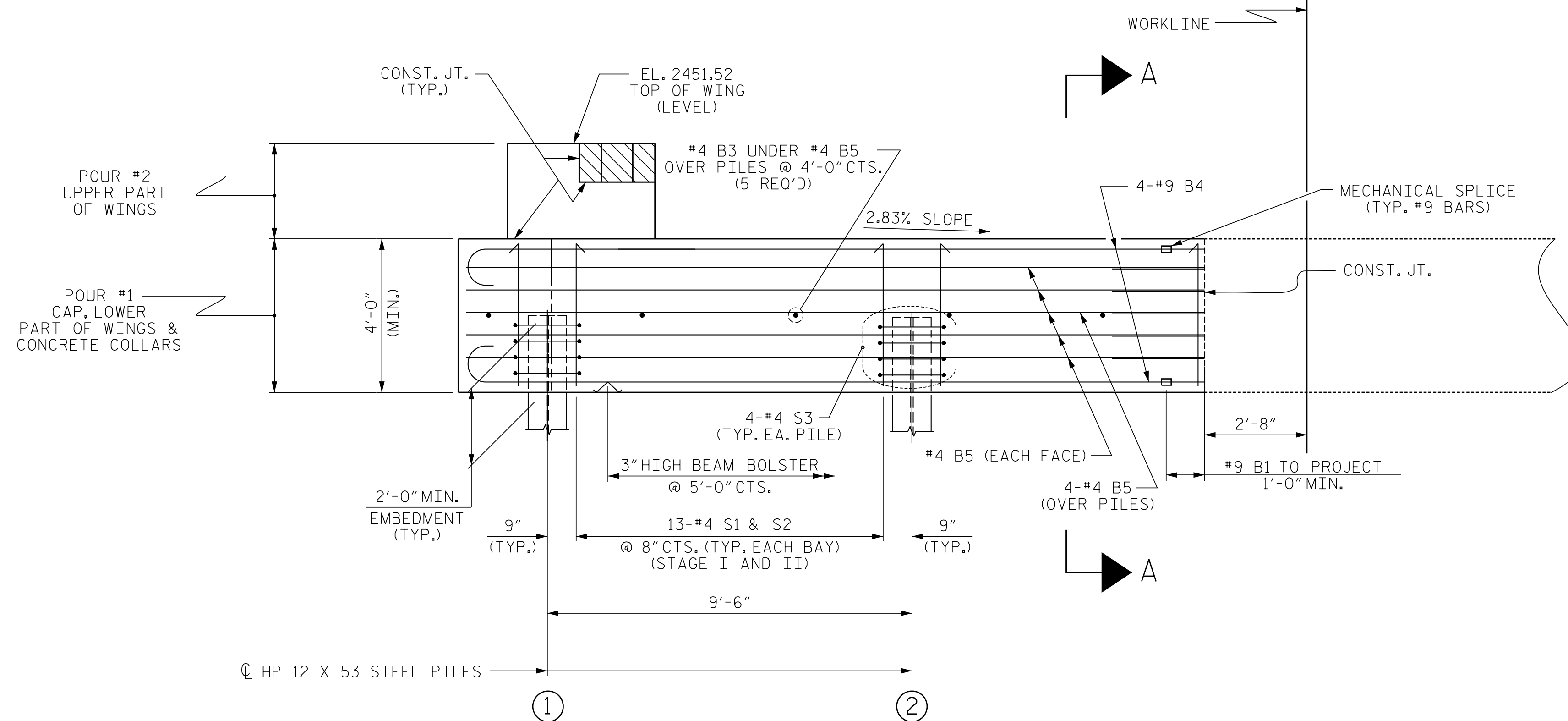
THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE VERTICAL CONCRETE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.

FOR PILE SPLICE DETAILS, SEE SHEET 6 OF 7.

FOR WING DETAILS, SEE SHEET 5 OF 7.



PLAN



ELEVATION

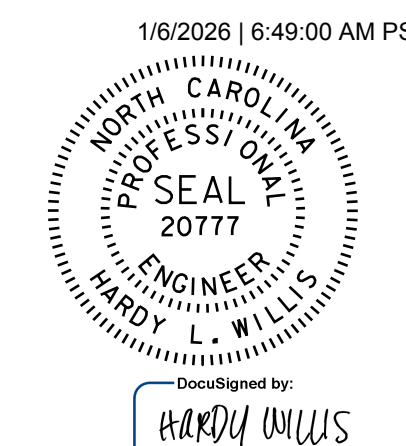
WINGS NOT SHOWN FOR CLARITY. FOR SECTION A-A, SEE SHEET 6 OF 7.
CONCRETE COLLARS FOR STEEL PILES NOT SHOWN IN PLAN AND ELEVATION VIEWS FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL", SHEET 6 OF 7.

CAP ELEVATIONS		
	TOP OF CAP ELEVATION	BOTT. OF CAP ELEVATION
A	2448.78	2444.78
B	2448.77	2444.77
C	2448.22	2444.22
D	2448.26	2444.26

TOP OF PILE ELEVATIONS	
①	2446.72
②	2446.45

PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-

SHEET 4 OF 7



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT No. 2
STAGE II

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

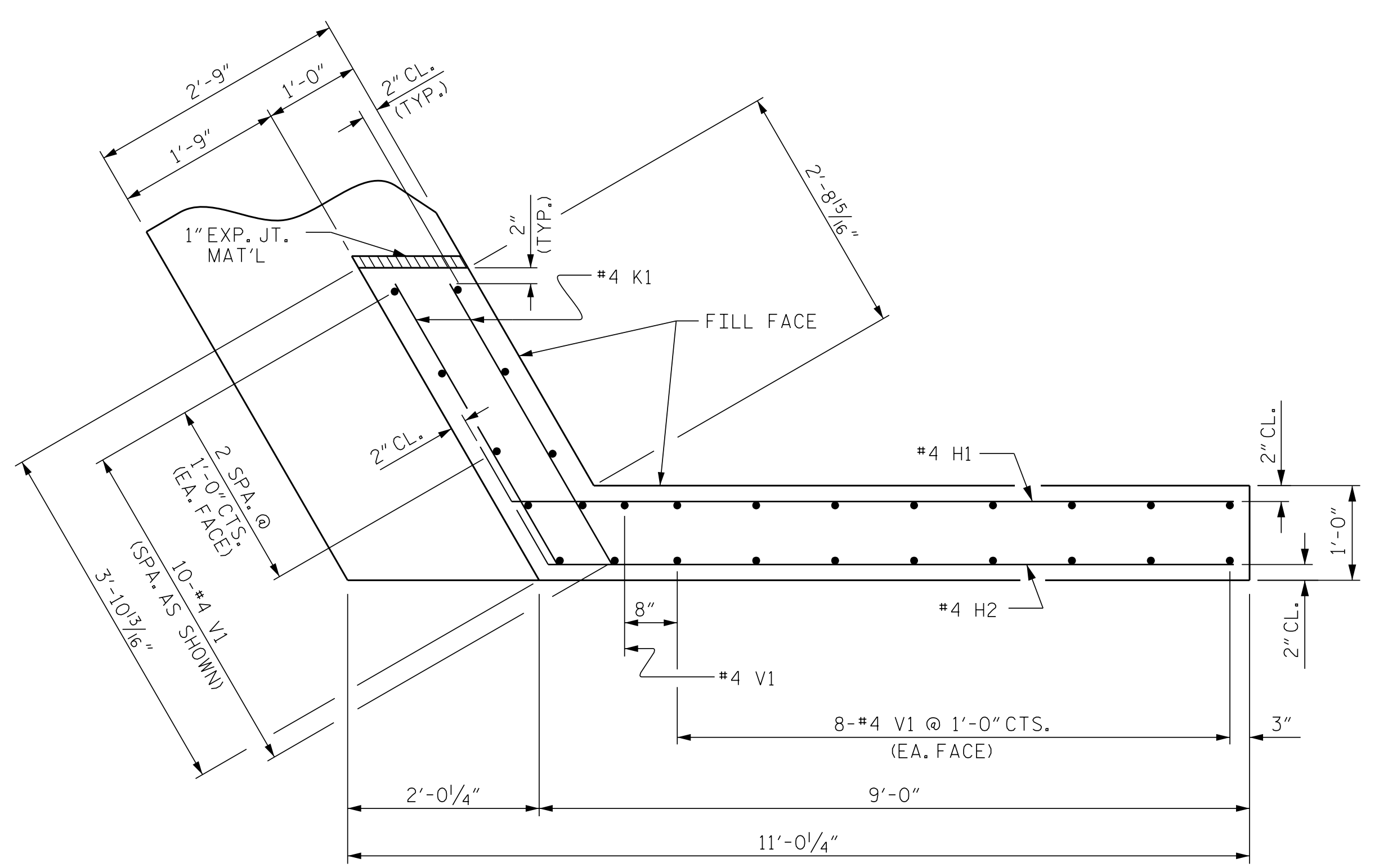
Johnson, Mirmiran, & Thompson Inc.
4700 Falls of Neuse Rd, Suite 100,
Raleigh, NC, 27609
License No: C-3097

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS 20
2			4			

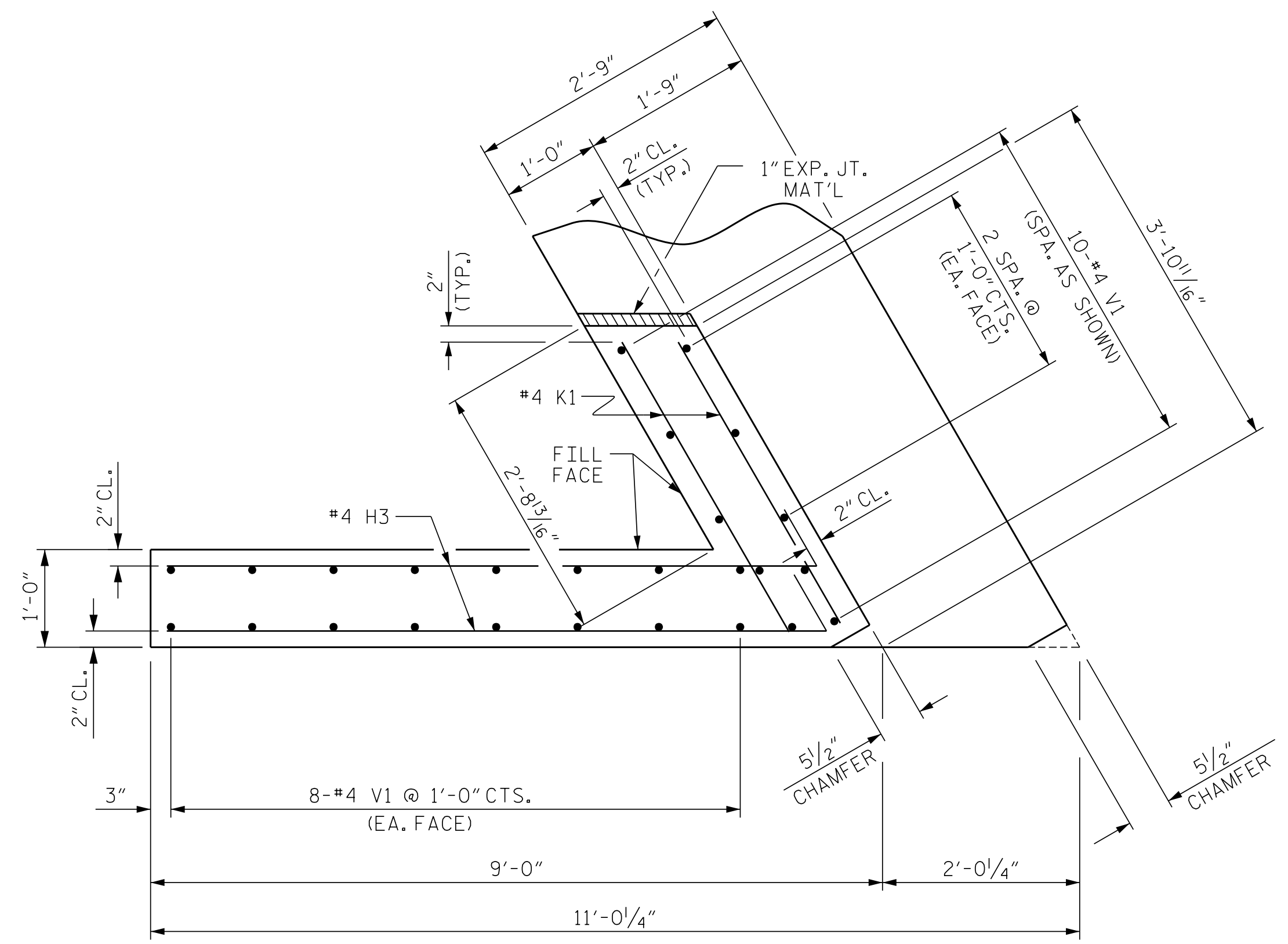
STD. NO. EB_30_60S4

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DATE: 1/6/2026 TIME: 1:16:28 PM

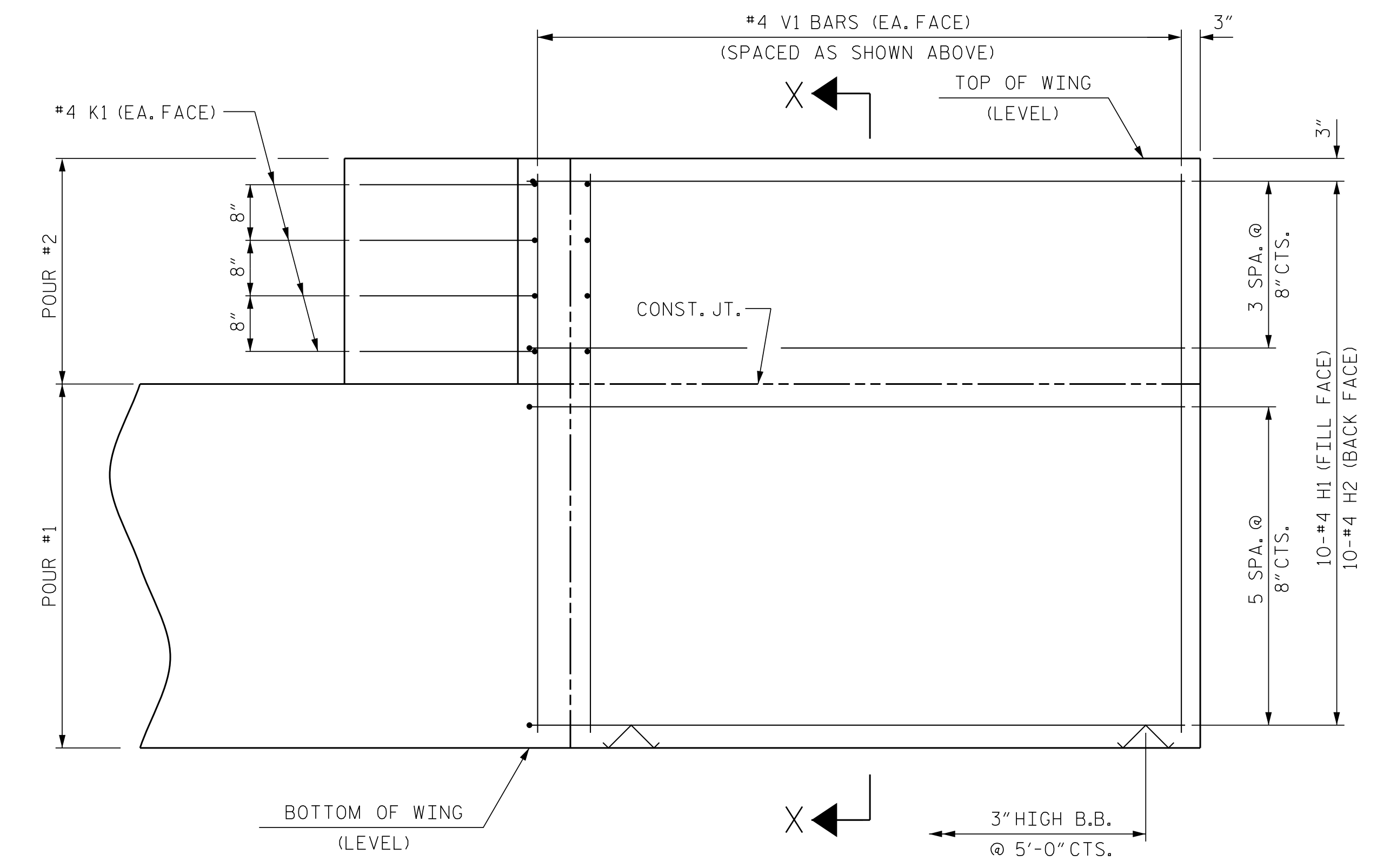
DRAWN BY : WJH	12/11	REV. 4/15	MAA/TMG
CHECKED BY : AAC	12/11		
DWN. BY: WDC	DATE: 5/2025		
CHKD. BY: HLW	DATE: 5/2025		
DES. EGR. OF RECORD: ACO	DATE: 1/2016		



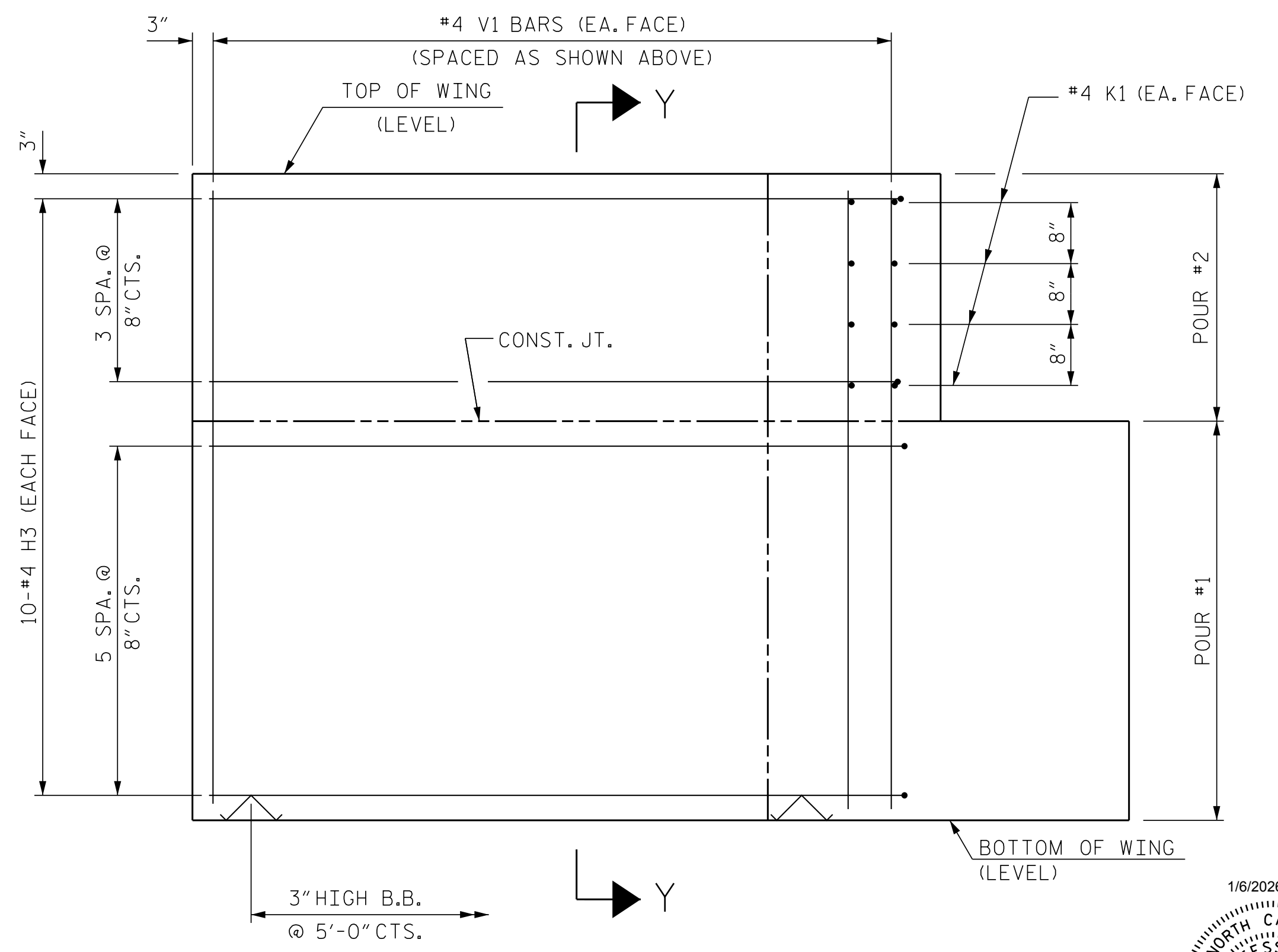
PLAN OF WING (W1)
(STAGE II)



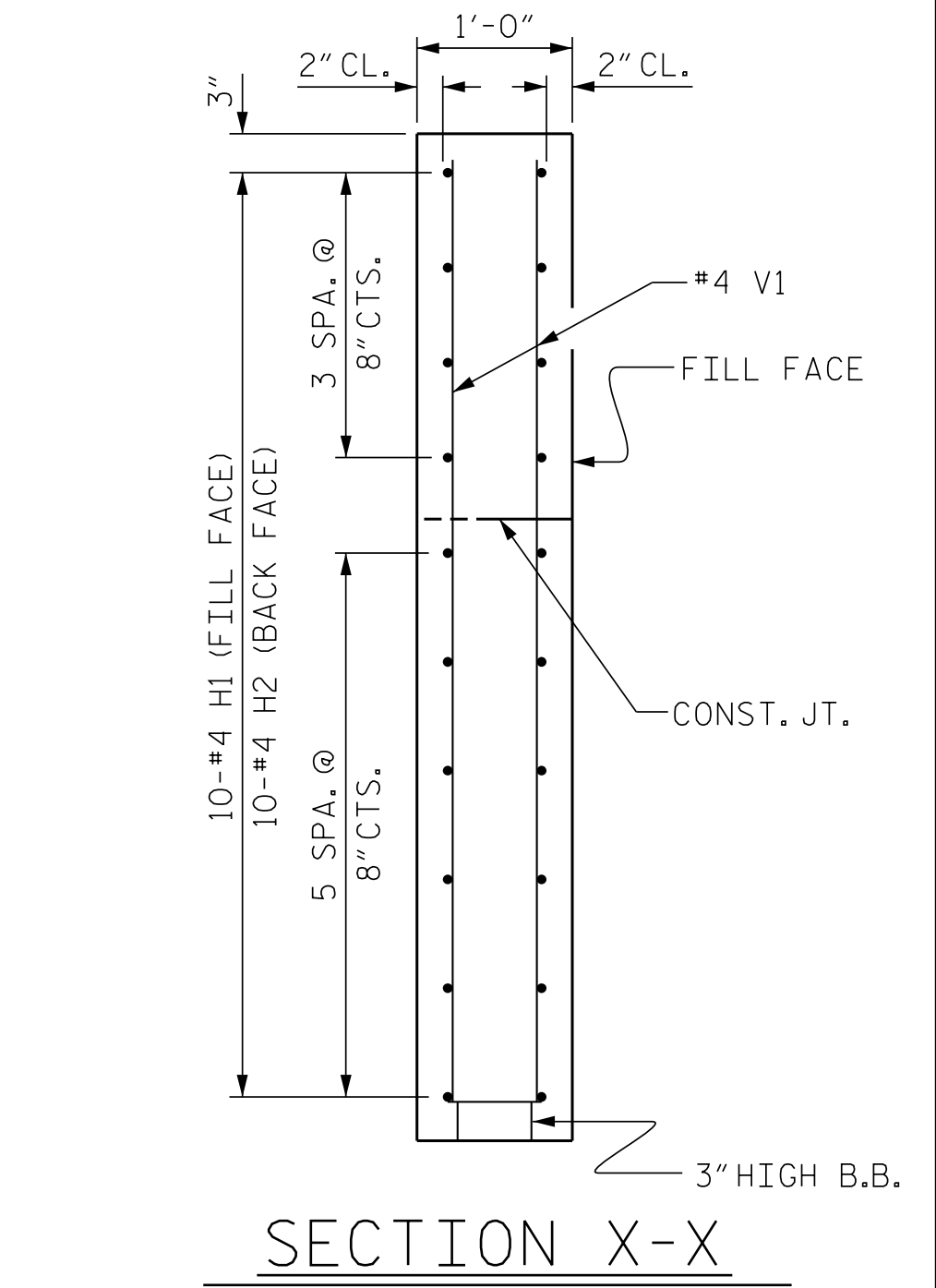
PLAN OF WING (W2)
(STAGE I)



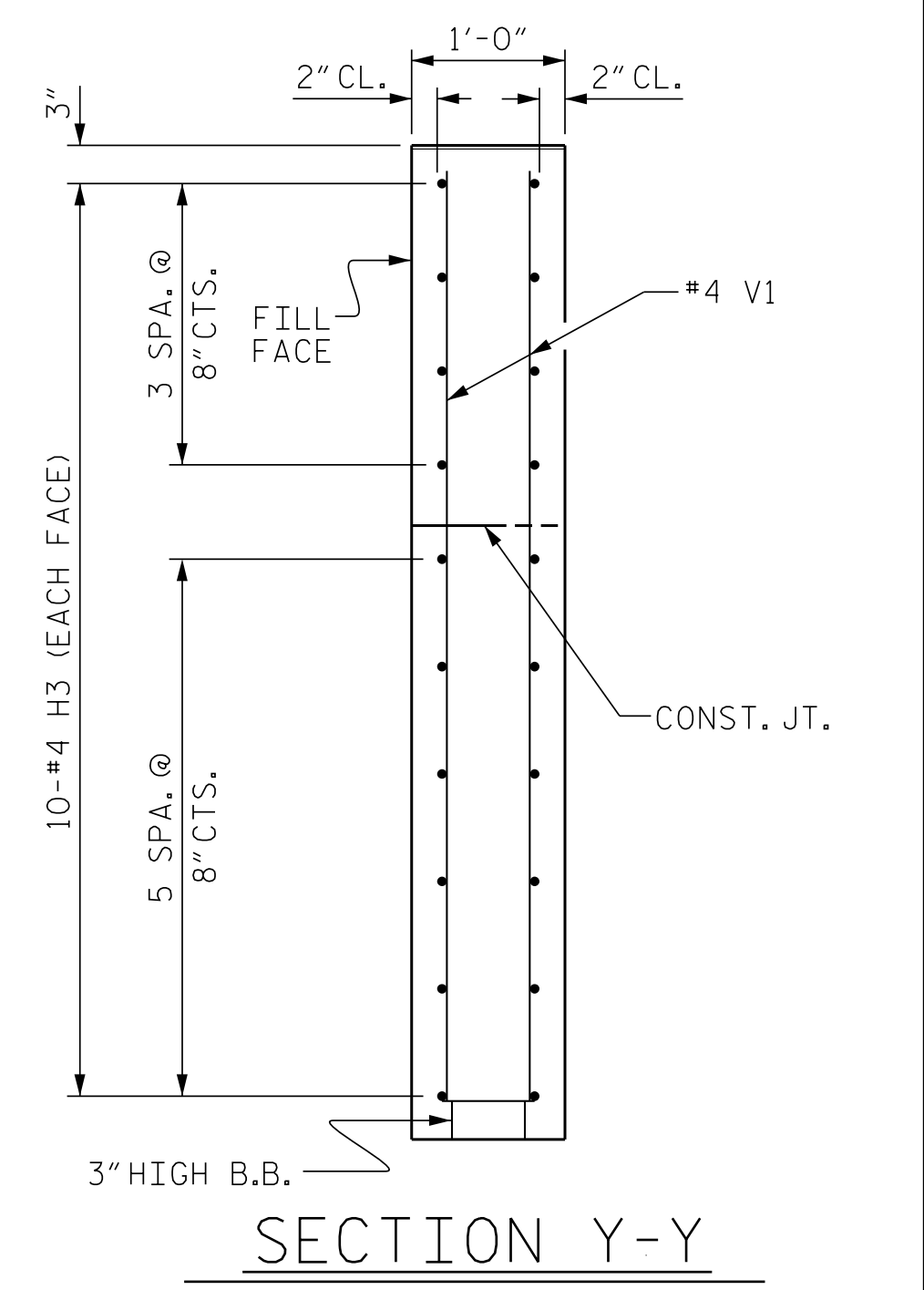
ELEVATION OF WING (W1)
(STAGE II)



ELEVATION OF WING (W2)
(STAGE I)

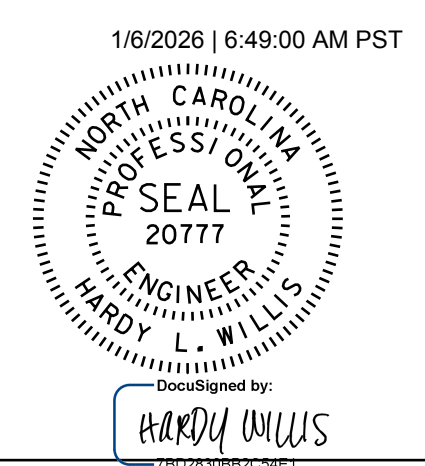


SECTION X-X



SECTION Y-Y

PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-
SHEET 5 OF 7



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

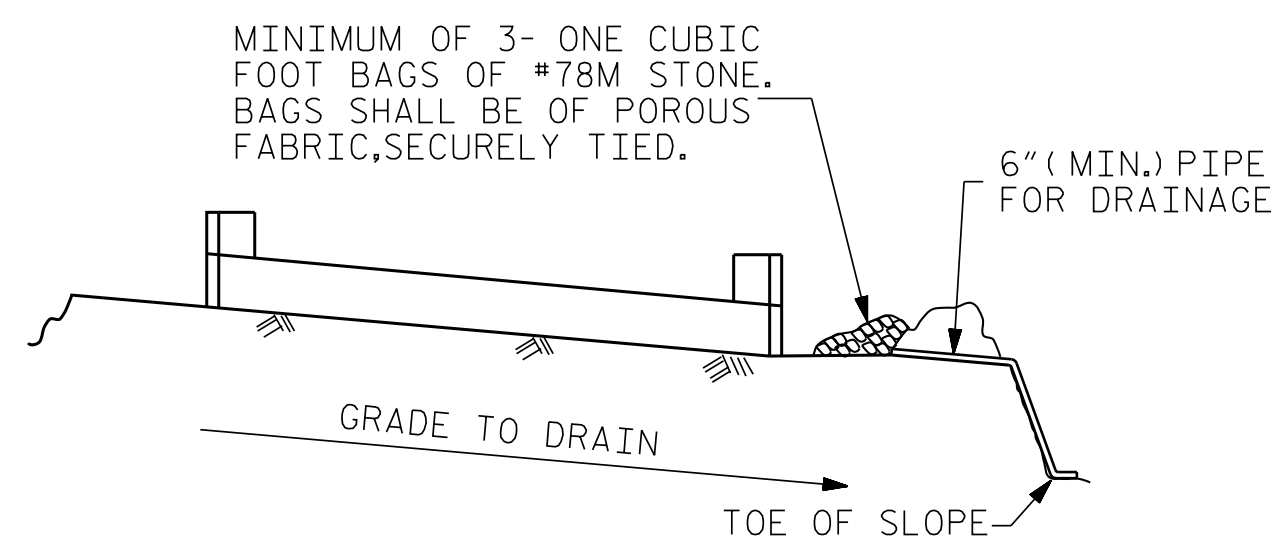
JMT Johnson, Mirmiran, & Thompson Inc.
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Raleigh, NC, 27609
License No: C-3097

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE END BENT WING DETAILS					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

SHEET NO. S-16
TOTAL SHEETS 20

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 TIME: 1/6/2026

DRAWN BY : WJH	12/11	REV. 4/15	MAA/TMG
CHECKED BY : AAC	12/11		
DWN. BY: WDC	DATE: 5/2025		
CHKD. BY: HLW	DATE: 5/2025		
DES. EGR. OF RECORD: ACO	DATE: 1/2016		

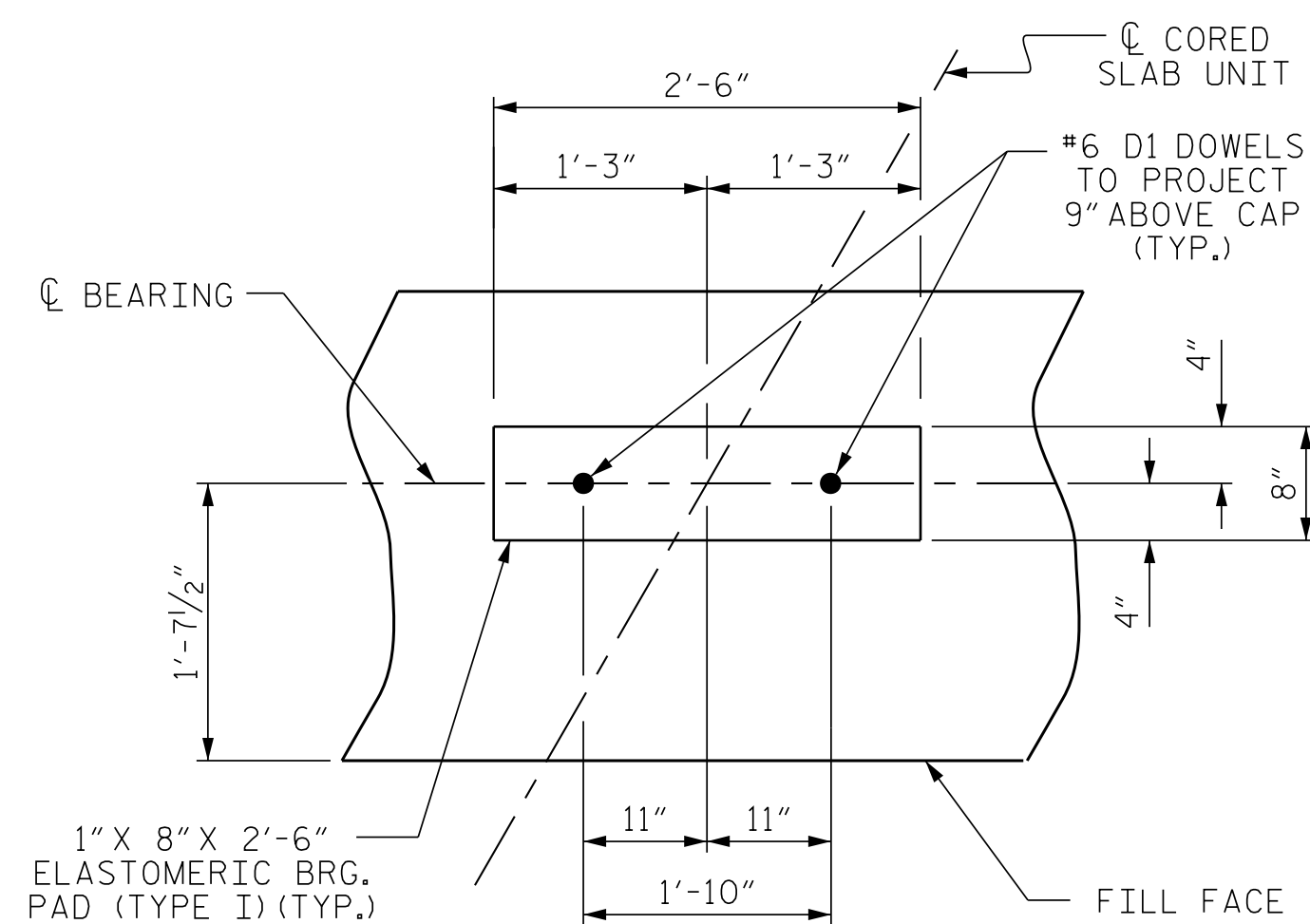


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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 DETEIORATED AND LOST THEIR EFFECTIVENESS.

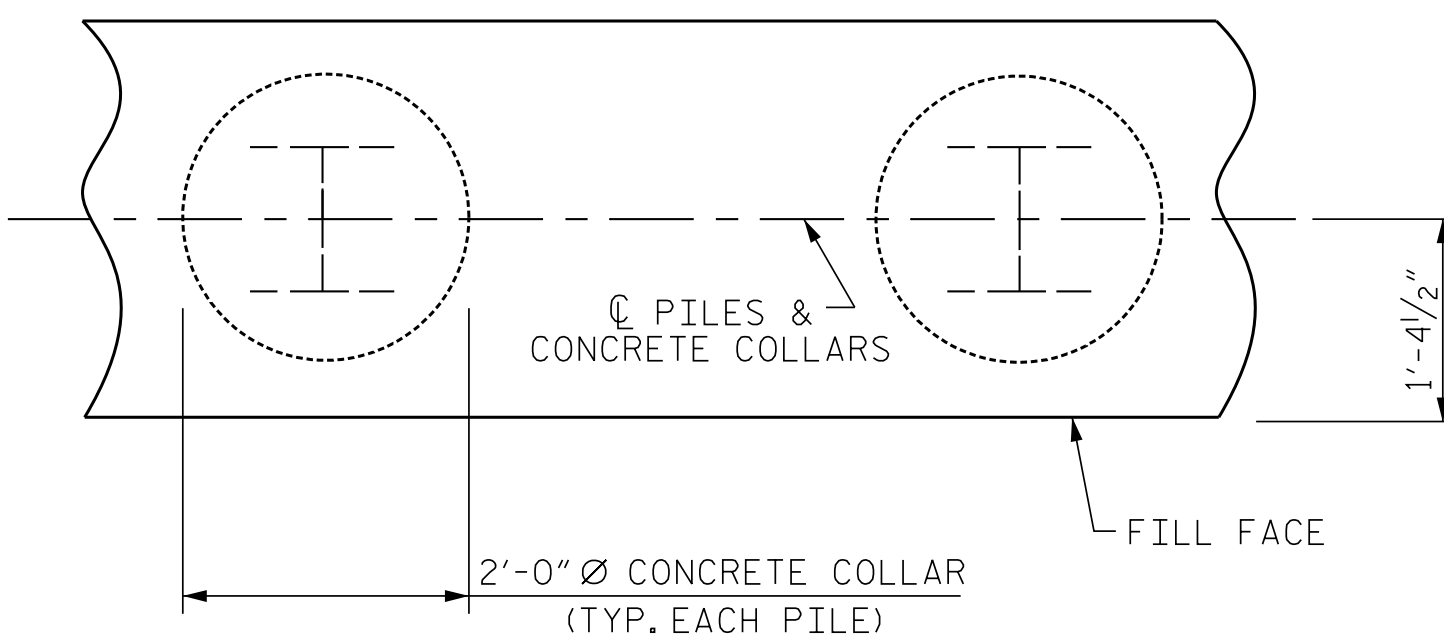
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



DETAIL "A"

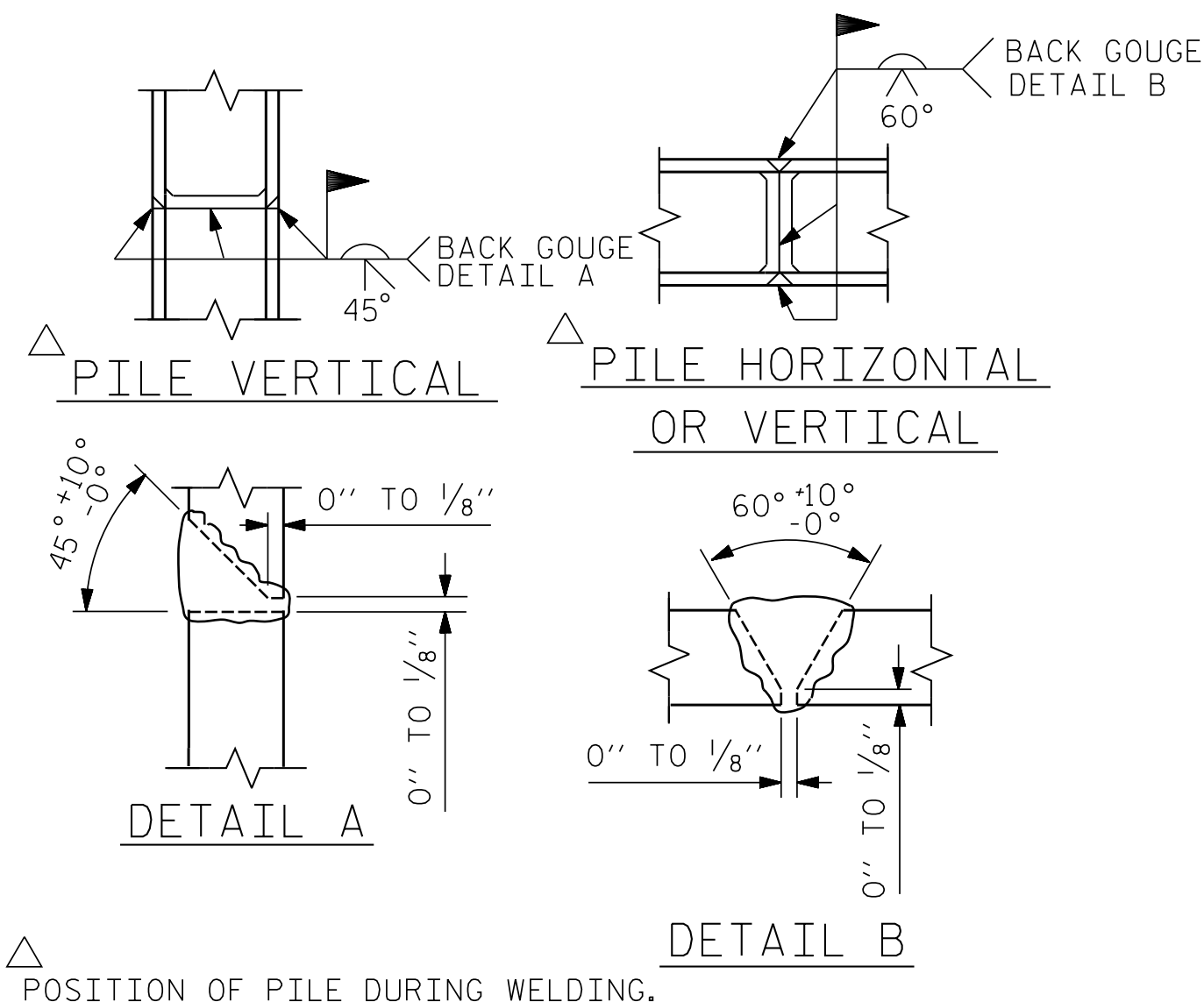
(END BENT No. 1 SHOWN), END BENT No. 2 SIMILAR BY ROTATION)



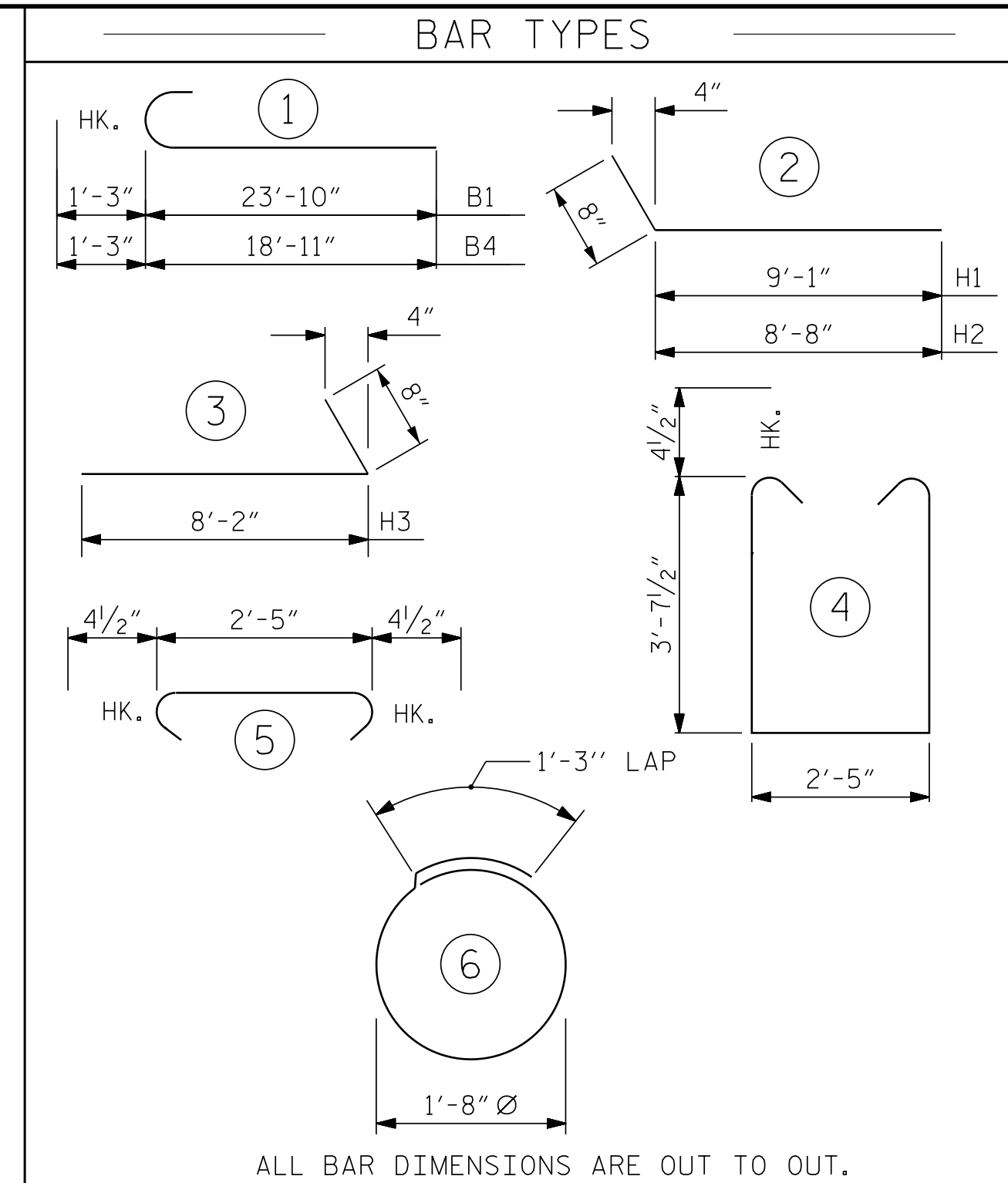
PLAN

CORROSION PROTECTION FOR STEEL PILES DETAIL

(END BENT No. 1 SHOWN), END BENT No. 2 SIMILAR BY ROTATION)

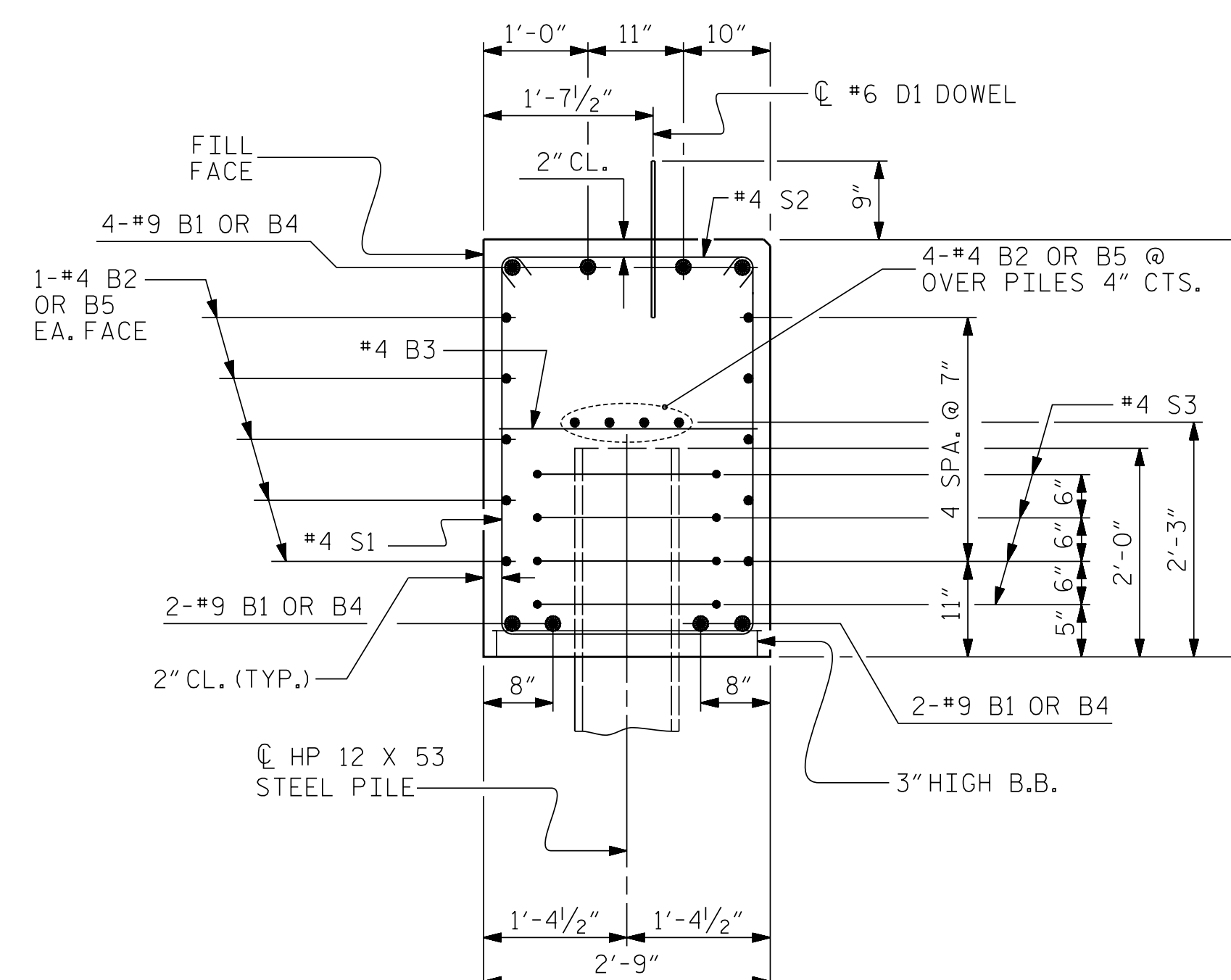


PILE SPLICE DETAILS



END BENT No. 1 - STAGE I		END BENT No. 1 - STAGE II	
HP 12 X 53 STEEL PILES NO: 3 LIN. FT.= 105		HP 12 X 53 STEEL PILES NO: 2 LIN. FT.= 40	
STEEL PILE POINTS EA: 3		STEEL PILE POINTS EA: 2	
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES EA: 3		PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES EA: 2	
PILE EXCAVATION IN SOIL LIN. FT.= 30		PILE EXCAVATION NOT IN SOIL LIN. FT.= 8	

BILL OF MATERIAL FOR END BENT NO. 1									
STAGE I					STAGE II				
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	#9	1	25'-1"	682	B3	#4	STR	2'-5"	8
B2	#4	STR	25'-5"	238	B4	#9	1	20'-2"	549
B3	#4	STR	2'-5"	10	B5	#4	STR	19'-9"	185
D1	#6	STR	1'-6"	23	D1	#6	STR	1'-6"	23
H3	#4	3	8'-10"	118	H1	#4	2	9'-9"	65
					H2	#4	2	9'-4"	62
K1	#4	STR	3'-3"	17	K1	#4	STR	3'-3"	17
S1	#4	4	10'-5"	202	S1	#4	4	10'-5"	174
S2	#4	5	3'-2"	61	S2	#4	5	3'-2"	53
S3	#4	6	6'-6"	52	S3	#4	6	6'-6"	35
V1	#4	STR	6'-5"	111	V1	#4	STR	6'-5"	116
REINFORCING STEEL (FOR STAGE I)					REINFORCING STEEL (FOR STAGE II)				
					1514 LBS.				
CLASS A CONCRETE BREAKDOWN (FOR END BENT NO. 1 STAGE I)					CLASS A CONCRETE BREAKDOWN (FOR END BENT NO. 1 STAGE II)				
POUR #1 CAP, LOWER PART OF WING & COLLARS					POUR #1 CAP, LOWER PART OF WING & COLLARS				
11.9 C.Y.					9.5 C.Y.				
POUR #2 UPPER PART OF WINGS					POUR #2 UPPER PART OF WINGS				
1.2 C.Y.					1.2 C.Y.				
TOTAL CLASS A CONCRETE STAGE I					TOTAL CLASS A CONCRETE STAGE II				
11.9 C.Y.					10.7 C.Y.				



SECTION A-A

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")

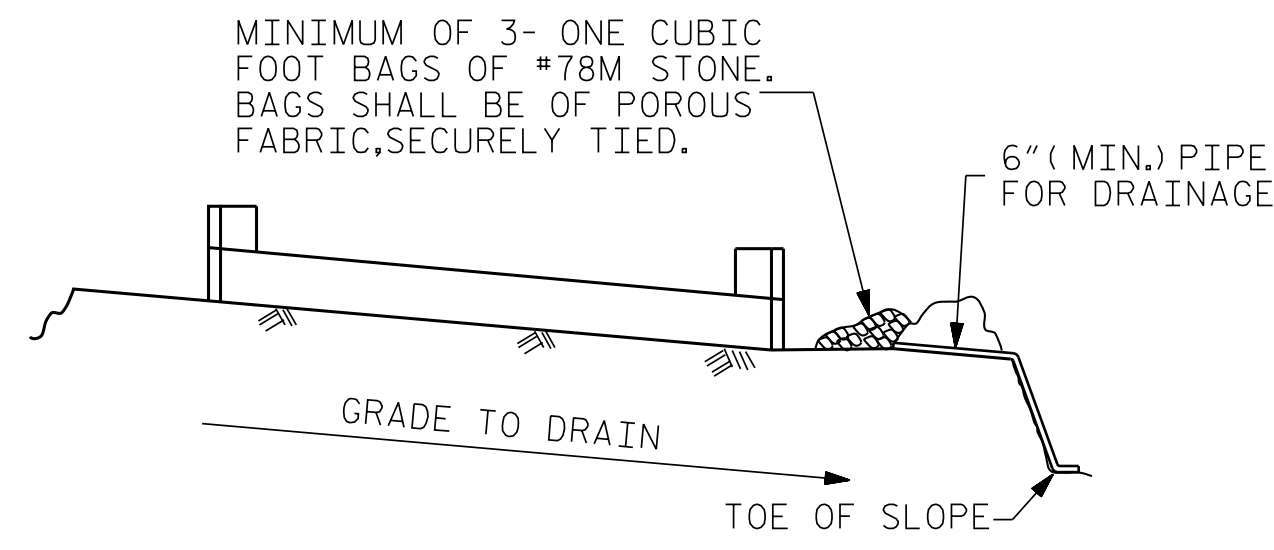
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

1/6/2026 | 6:49:00 AM PST

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-
 SHEET 6 OF 7

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUBSTRUCTURE END BENT No. 1 DETAILS (STAGE I AND STAGE II)					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

DWN. BY: WDC	DATE: 5/2025	DRAWN BY: WJH	I2/II
CHKD. BY: HLW	DATE: 5/2025	CHECKED BY: AAC	I2/II
DES. EGR. OF RECORD: ACO	DATE: 1/2016		

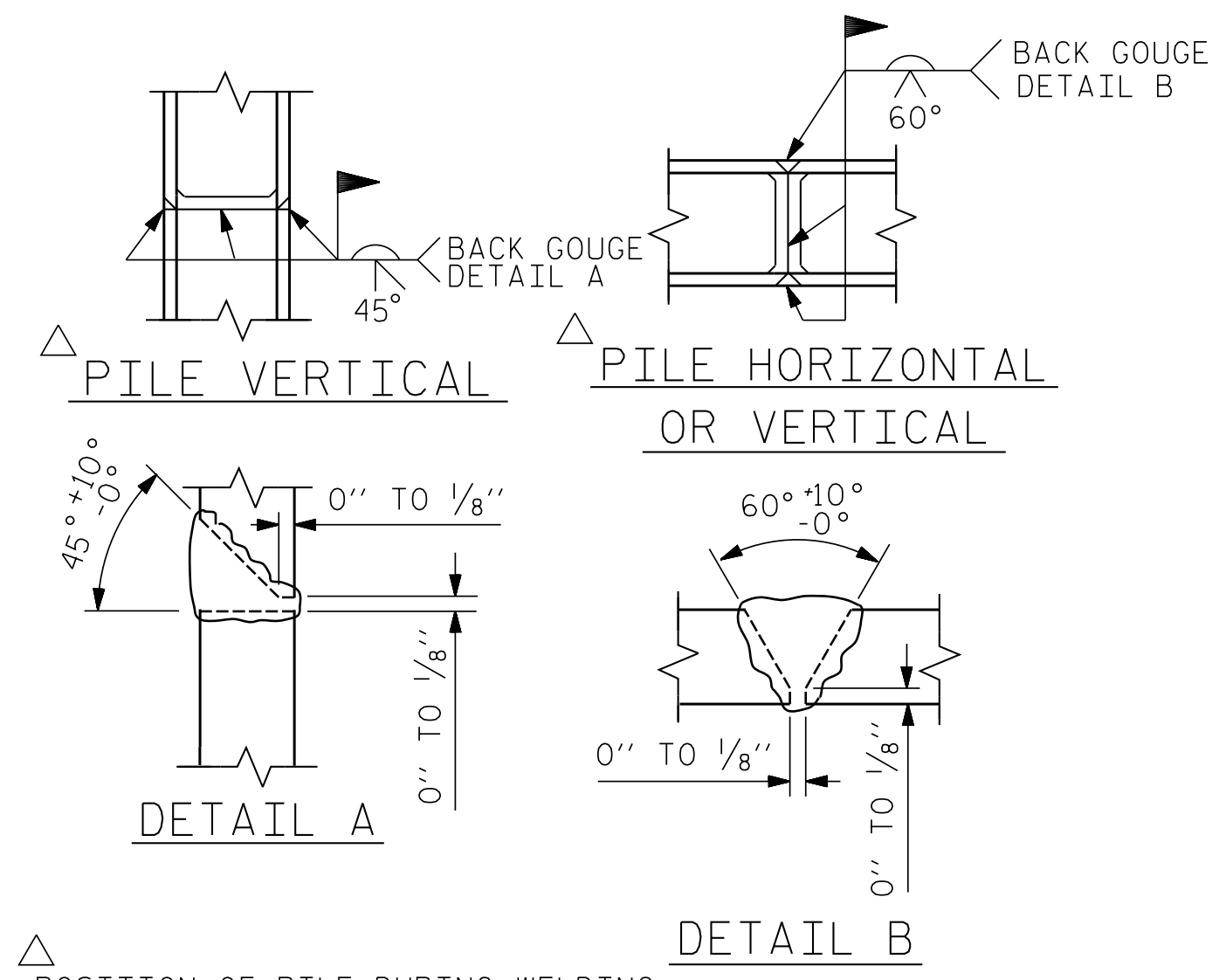


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

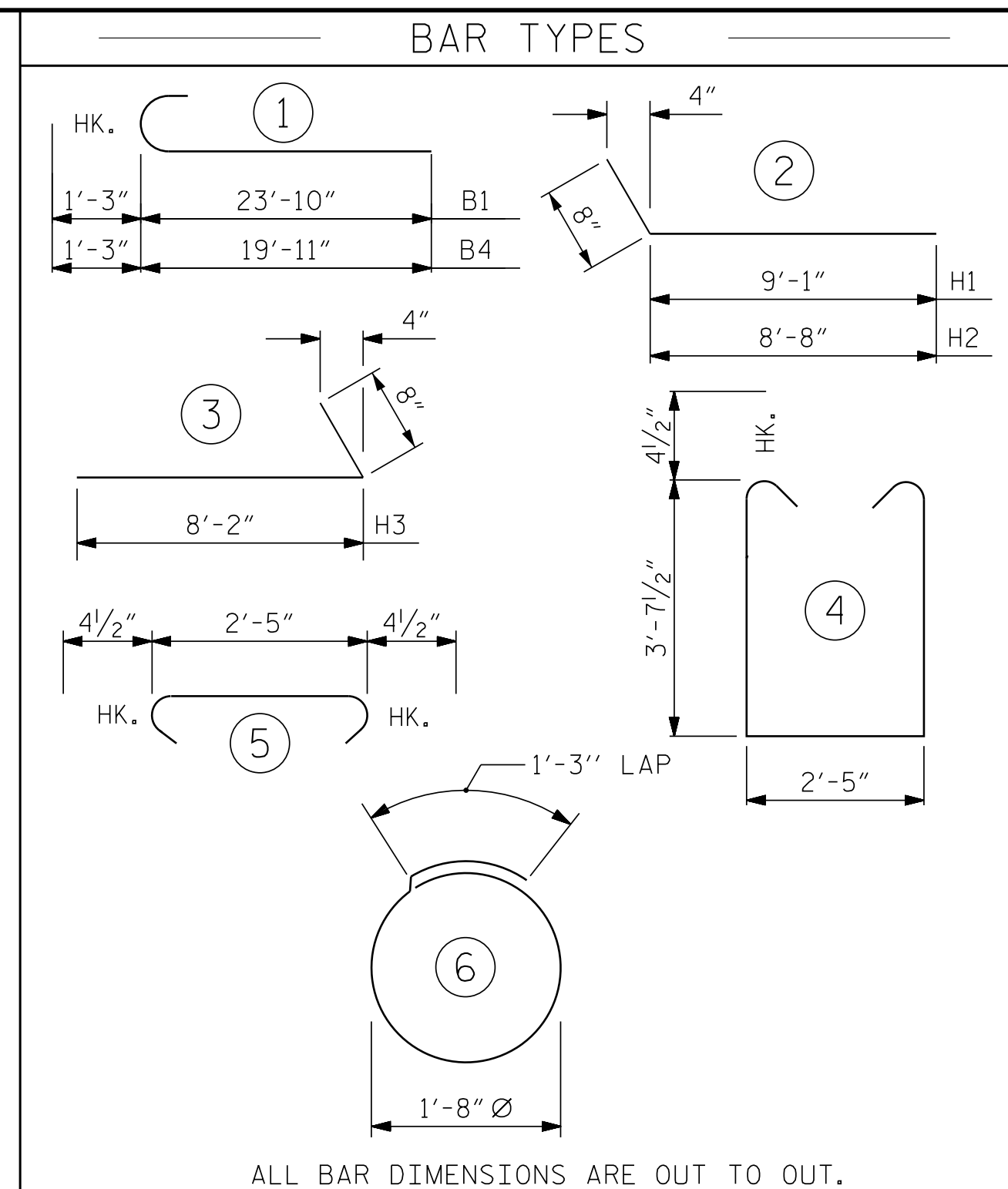
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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



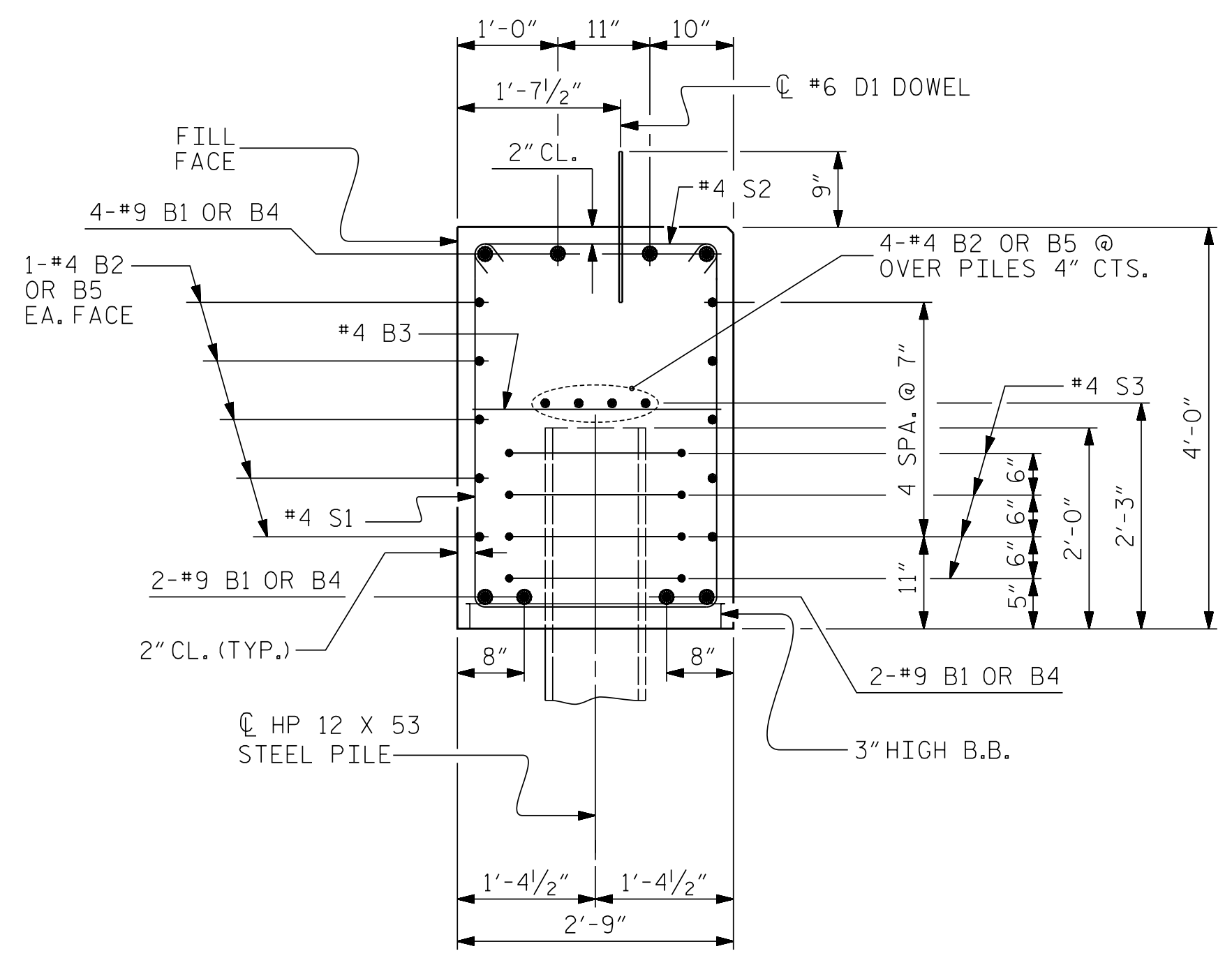
PILE SPLICE DETAILS



ALL BAR DIMENSIONS ARE OUT TO OUT.

END BENT No. 2 - STAGE I	END BENT No. 2 - STAGE II
HP 12 X 53 STEEL PILES NO: 3 LIN. FT. = 90	HP 12 X 53 STEEL PILES NO: 2 LIN. FT. = 40
STEEL PILE POINTS EA: 3	STEEL PILE POINTS EA: 2
PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES EA. 3	PILE DRIVING EQUIPMENT SETUP FOR HP 12 X 53 STEEL PILES EA. 2

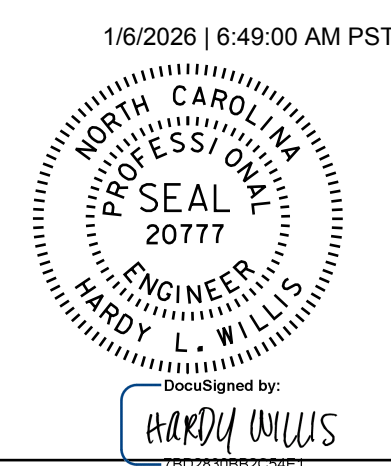
BILL OF MATERIAL FOR END BENT NO. 2											
STAGE I					STAGE II						
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9	1	25'-1"	682	B3	5	#4	STR	2'-5"	8
B2	14	#4	STR	25'-5"	238	B4	8	#9	1	20'-2"	549
B3	6	#4	STR	2'-5"	10	B5	14	#4	STR	19'-9"	185
D1	10	#6	STR	1'-6"	23	D1	10	#6	STR	1'-6"	23
H1	10	#4	2	9'-9"	65	H3	20	#4	3	8'-10"	118
H2	10	#4	2	9'-4"	62						
K1	8	#4	STR	3'-3"	17	K1	8	#4	STR	3'-3"	17
S1	29	#4	4	10'-5"	202	S1	25	#4	4	10'-5"	174
S2	29	#4	5	3'-2"	61	S2	25	#4	5	3'-2"	53
S3	12	#4	6	6'-6"	52	S3	8	#4	6	6'-6"	35
V1	27	#4	STR	6'-5"	116	V1	26	#4	STR	6'-5"	111
REINFORCING STEEL (FOR STAGE I)					1528 LBS.	REINFORCING STEEL (FOR STAGE II)					1273
CLASS A CONCRETE BREAKDOWN (FOR END BENT NO. 2 STAGE I)						CLASS A CONCRETE BREAKDOWN (FOR END BENT NO. 2 STAGE II)					
POUR #1 CAP, LOWER PART OF WING & COLLARS					10.6 C.Y.	POUR #1 CAP, LOWER PART OF WING & COLLARS					9.6 C.Y.
POUR #2 UPPER PART OF WING					1.2 C.Y.	POUR #2 UPPER PART OF WING					1.2 C.Y.
TOTAL CLASS A CONCRETE STAGE I					11.8 C.Y.	TOTAL CLASS A CONCRETE STAGE II					10.8 C.Y.



SECTION A-A

(CONCRETE COLLAR NOT SHOWN FOR CLARITY. SEE "CORROSION PROTECTION FOR STEEL PILES DETAIL.")

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-
 SHEET 7 OF 7



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT No. 2
 DETAILS
 (STAGE I AND STAGE II)

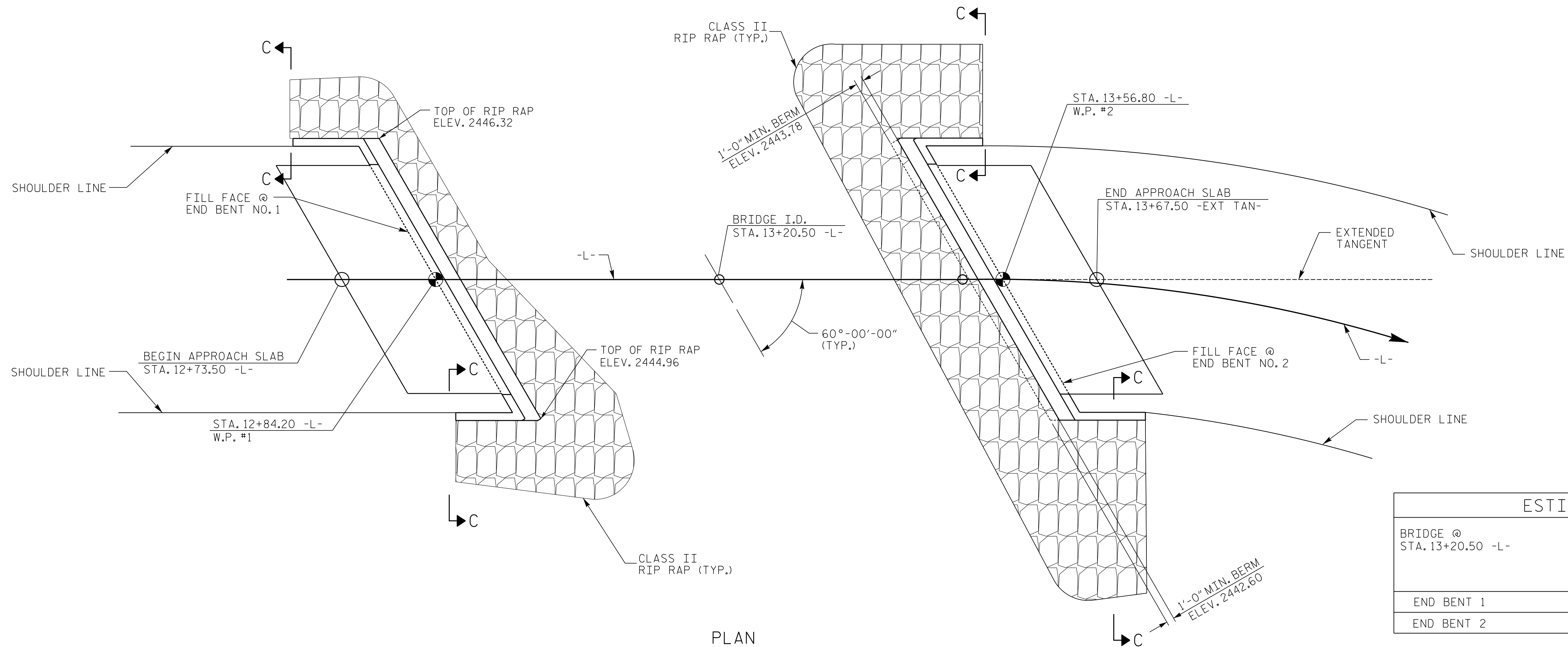
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-18
1			3			TOTAL SHEETS 20
2			4			

STD. NO. EB_30_60S4

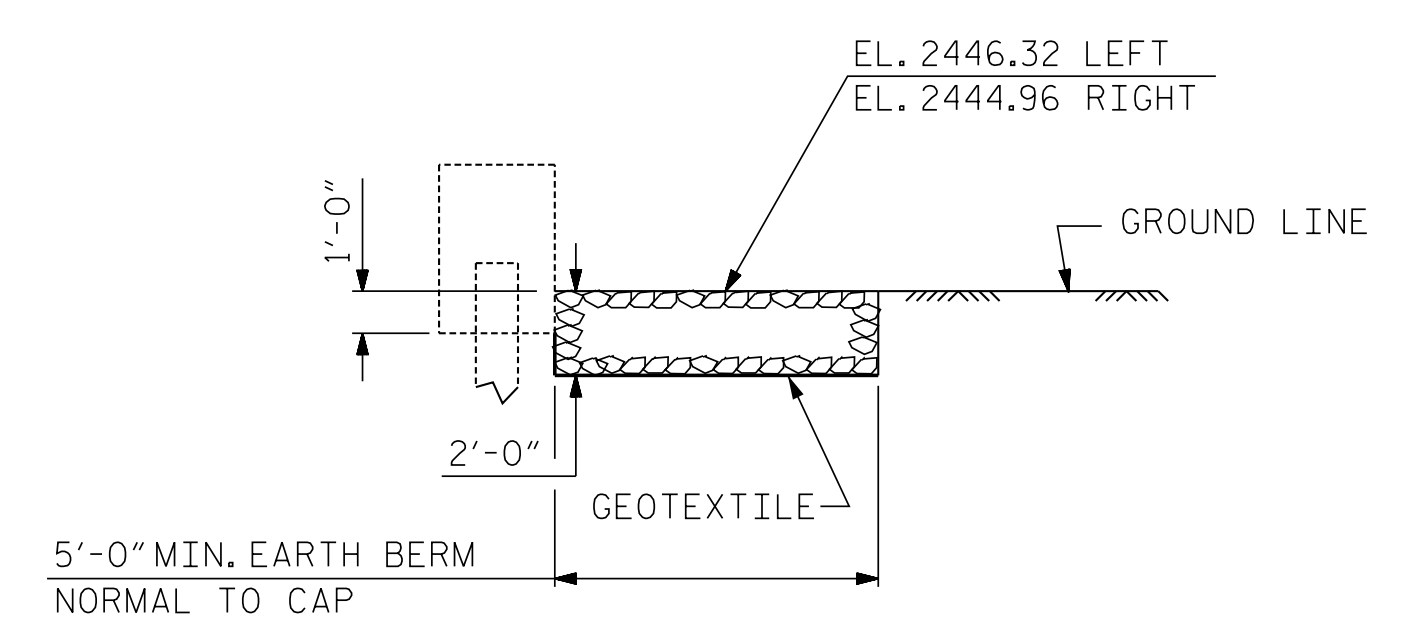
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 TIME: 1:16:28

DWN. BY: WDC	DATE: 5/2025	DRAWN BY: WJH	I2/II
CHKD. BY: HLW	DATE: 5/2025	CHECKED BY: AAC	I2/II
DES. EGR. OF RECORD: ACO	DATE: 1/2016		

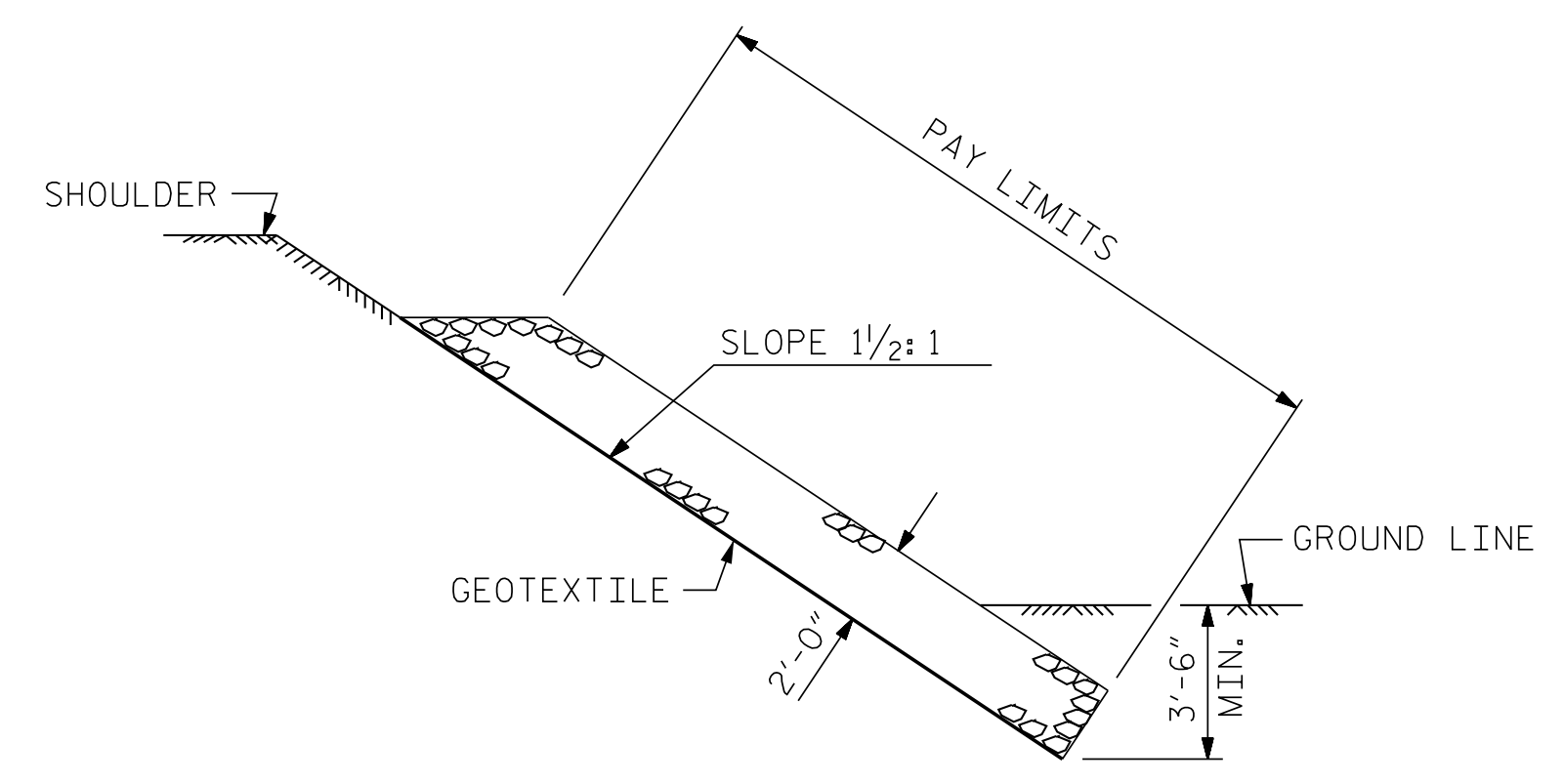


ESTIMATED QUANTITIES		
BRIDGE @ STA. 13+20.50 -L-	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	70	78
END BENT 2	110	122

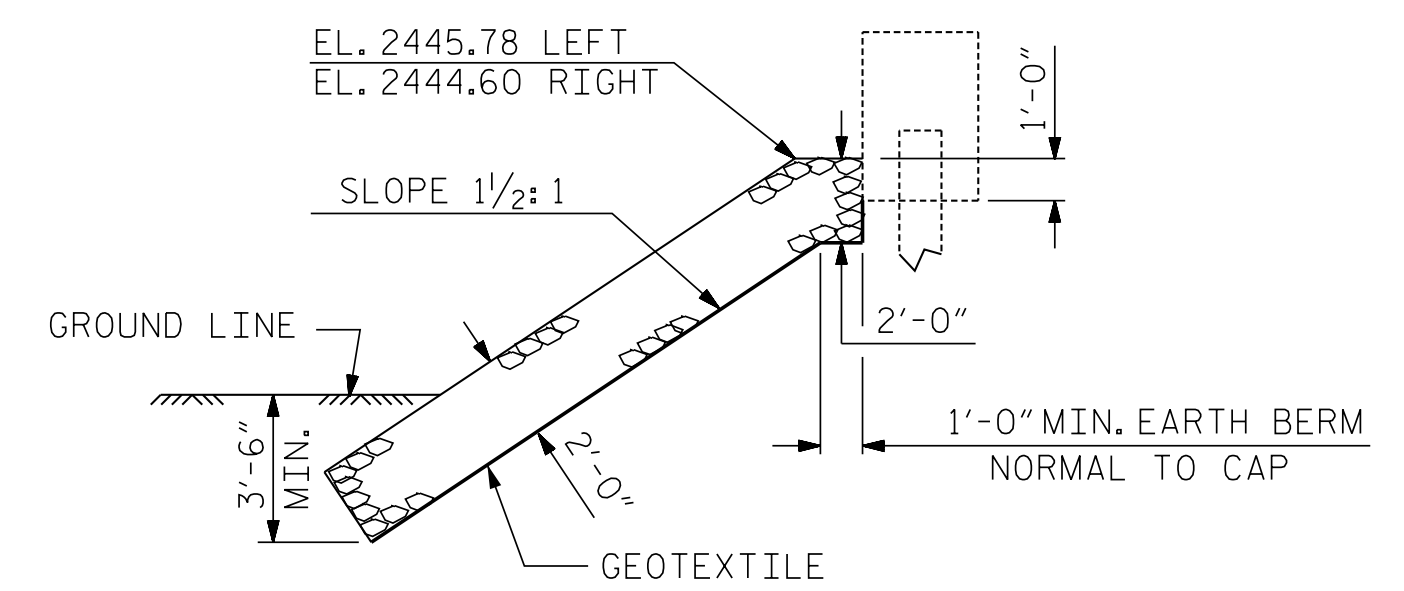
PLAN



SECTION @ END BENT 1



SECTION C-C



SECTION @ END BENT 2

PROJECT NO. B-6034
JACKSON COUNTY
 STATION: 13+20.50 -L-



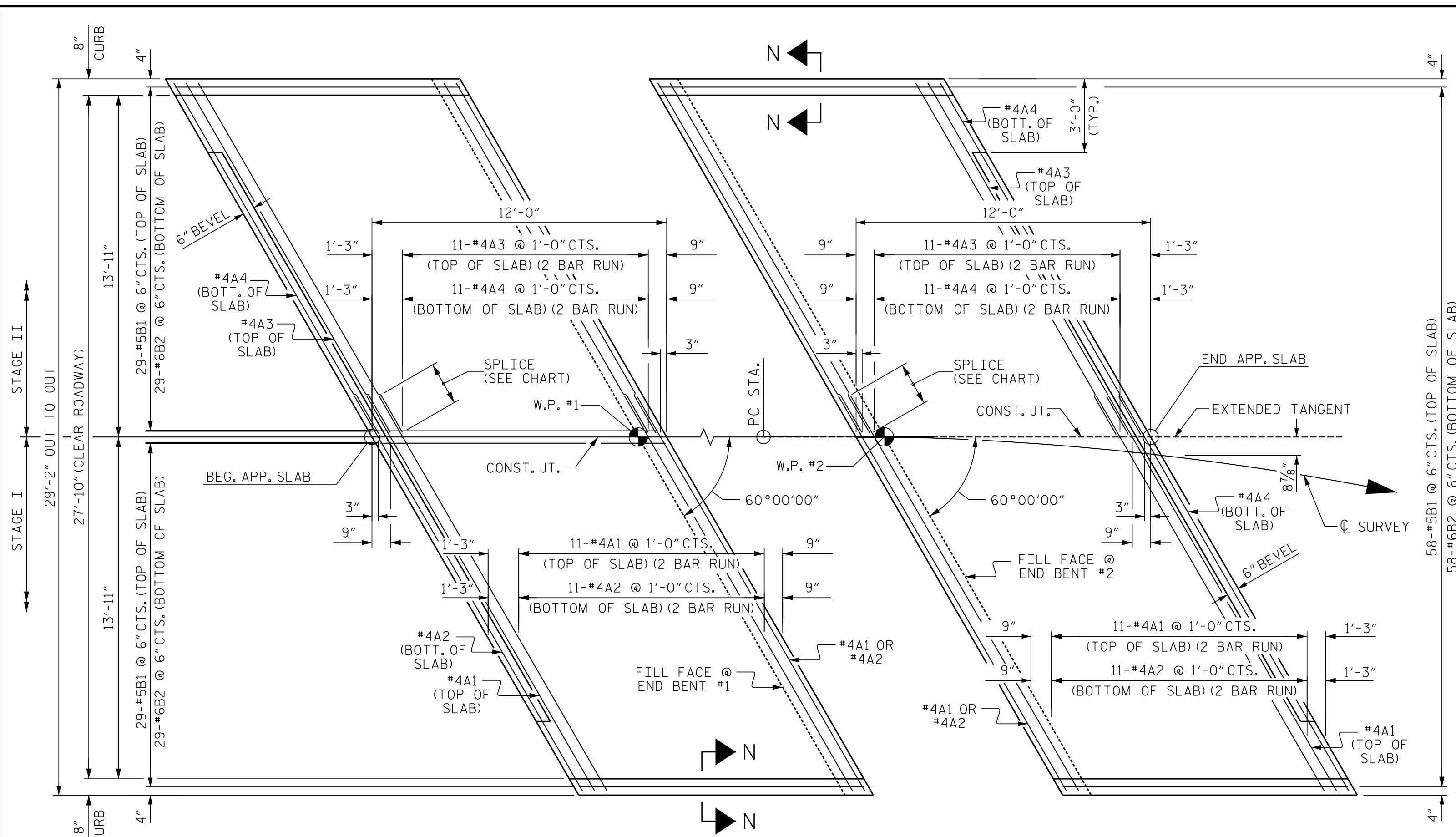
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 STANDARD
 = RIP RAP DETAILS =

**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

JMT Johnson, Mirmiran, & Thompson Inc.
 4700 Falls of Neuse Rd, Suite 100,
 Raleigh, NC, 27609
 License No: C-3097

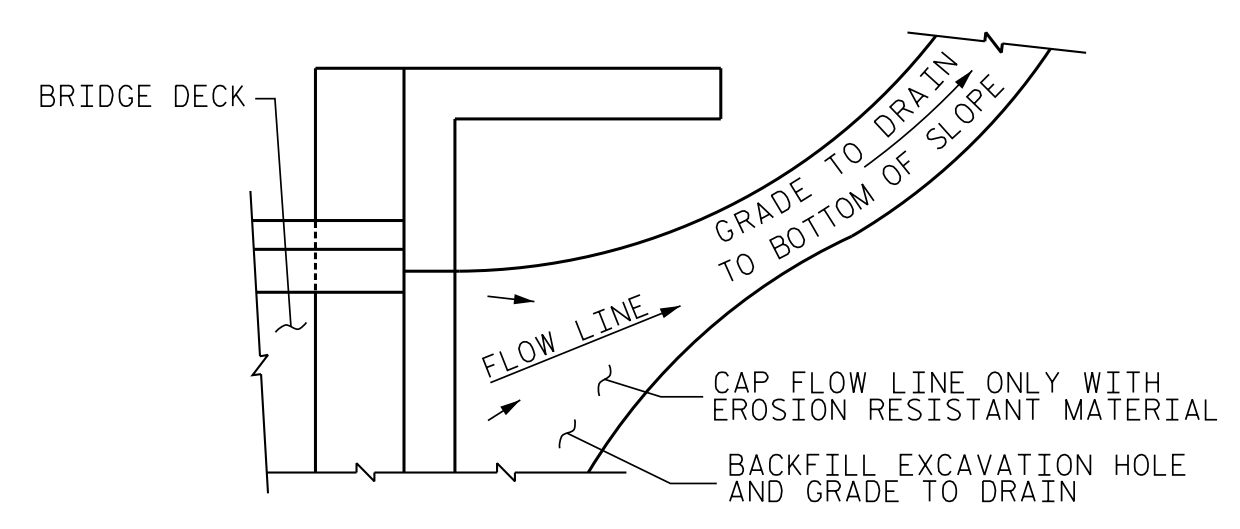
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-19
1			3			TOTAL SHEETS 20
2			4			

WDC:WDC
 DESIGNED BY: WDC
 CHECKED BY: HLW
 DATE: 5/2025
 DATE: 5/2025
 DATE: 1/2016
 DRAWN BY: REK 1/84
 CHECKED BY: RDU 1/84
 REV. 5/1/06R TLA/GM
 REV. 10/1/11 MAA/GM
 REV. 12/21/11 MAA/GM



PLAN @ END BENT #1 PLAN @ END BENT #2
DIMENSIONS SHOWN ARE TYPICAL FOR BOTH APPROACH SLABS

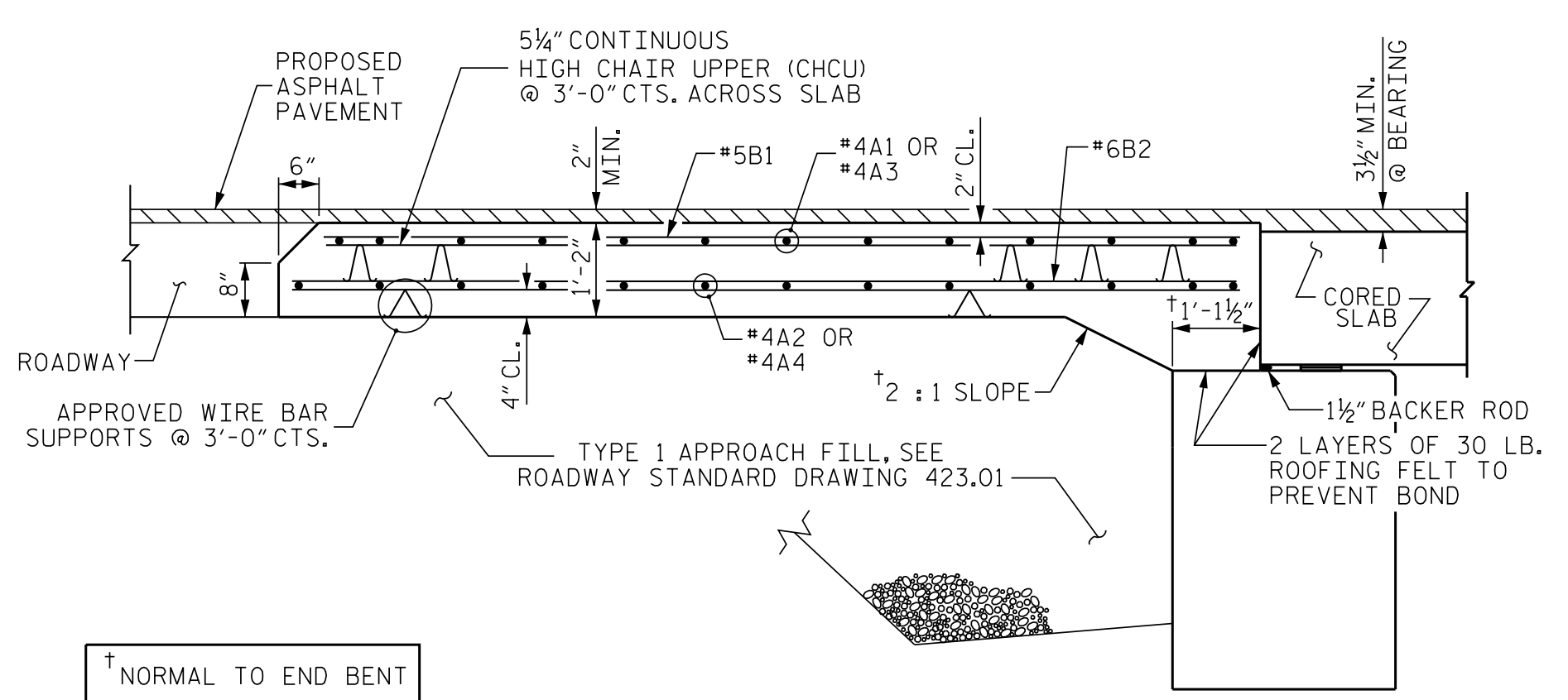
NOTES
FOR BRIDGE APPROACH FILL, SEE ROADWAY PLANS.
AREA BETWEEN THE WINGWALL AND APPROACH SLAB SHALL BE GRADED TO DRAIN THE WATER AWAY FROM THE FILL FACE OF THE BRIDGE AND SHALL BE PAVED. SEE ROADWAY PLANS.
APPROACH SLAB GROOVING IS NOT REQUIRED.



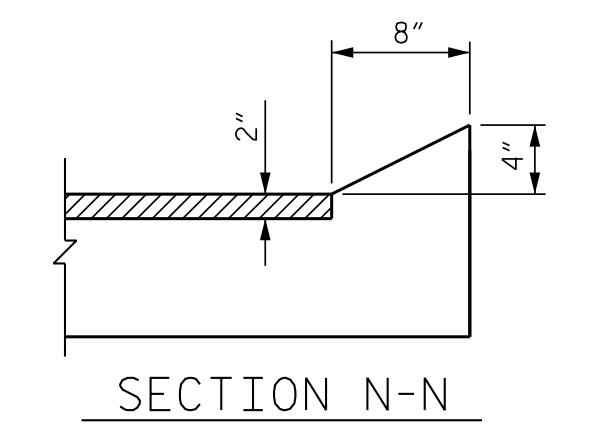
TEMPORARY DRAINAGE DETAIL

BILL OF MATERIAL						BILL OF MATERIAL							
APPROACH SLAB AT EB #1						APPROACH SLAB AT EB #1							
STAGE I						STAGE II							
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
*A1	13	#4	STR	18'-9"	163	*A3	13	#4	STR	16'-6"	143		
A2	13	#4	STR	18'-7"	161	A4	13	#4	STR	16'-6"	143		
*B1	29	#5	STR	11'-1"	335	*B1	29	#5	STR	11'-1"	335		
B2	29	#6	STR	11'-7"	505	B2	29	#6	STR	11'-7"	505		
REINFORCING STEEL					LBS.	666	REINFORCING STEEL					LBS.	648
* EPOXY COATED REINFORCING STEEL					LBS.	498	* EPOXY COATED REINFORCING STEEL					LBS.	478
CLASS AA CONCRETE					C. Y.	9.0	CLASS AA CONCRETE					C. Y.	9.0

APPROACH SLAB AT EB #2						APPROACH SLAB AT EB #2							
STAGE I						STAGE II							
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT	BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
*A1	13	#4	STR	18'-9"	163	*A3	13	#4	STR	16'-6"	143		
A2	13	#4	STR	18'-7"	161	A4	13	#4	STR	16'-6"	143		
*B1	29	#5	STR	11'-1"	335	*B1	29	#5	STR	11'-1"	335		
B2	29	#6	STR	11'-7"	505	B2	29	#6	STR	11'-7"	505		
REINFORCING STEEL					LBS.	666	REINFORCING STEEL					LBS.	648
* EPOXY COATED REINFORCING STEEL					LBS.	498	* EPOXY COATED REINFORCING STEEL					LBS.	478
CLASS AA CONCRETE					C. Y.	9.0	CLASS AA CONCRETE					C. Y.	9.0

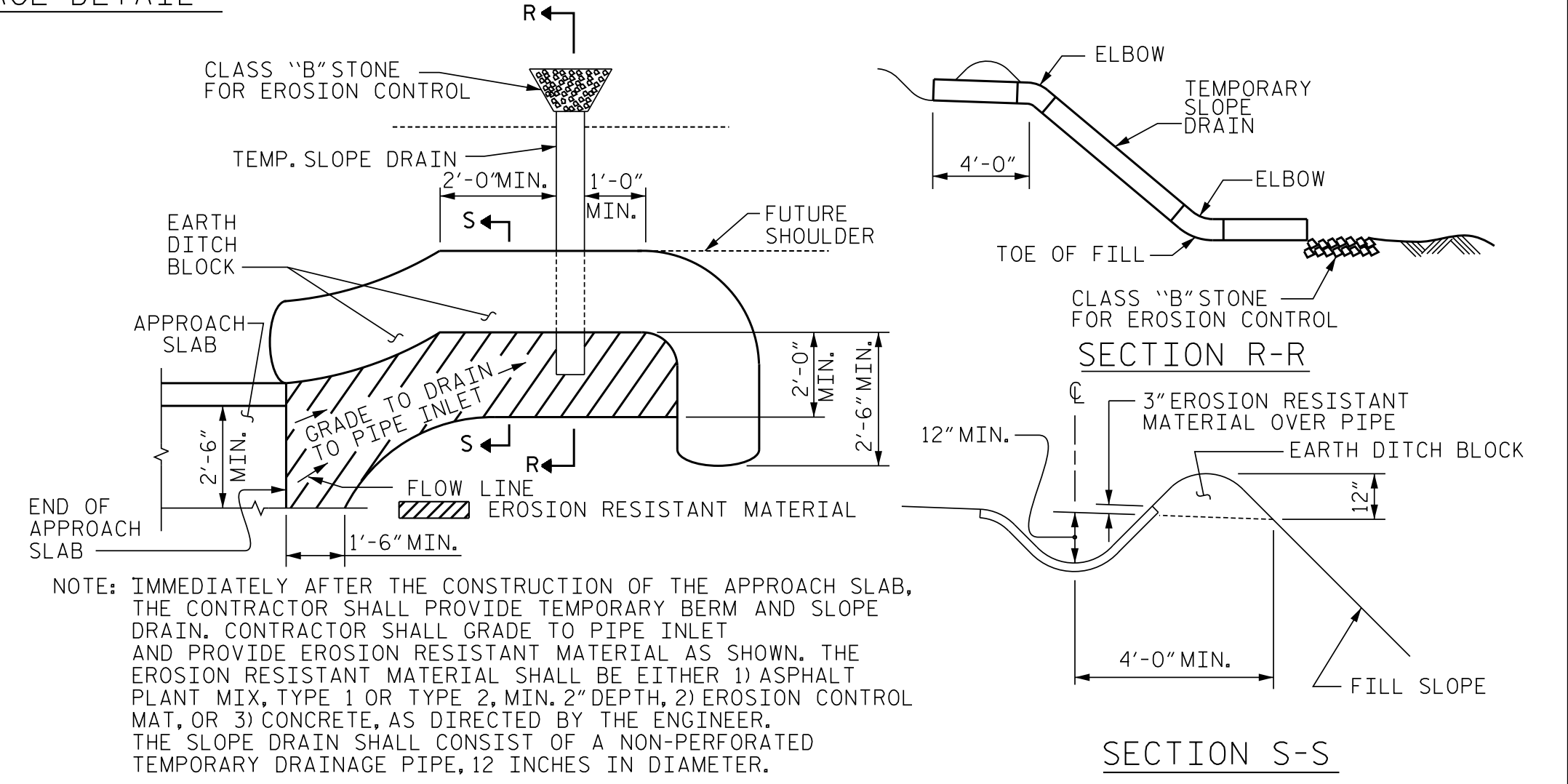


SECTION THRU SLAB



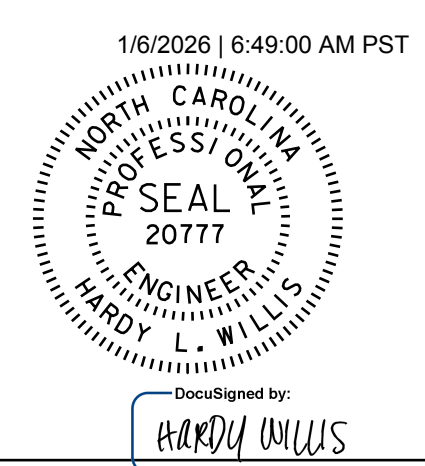
SECTION N-N CURB DETAILS

SPlice LENGTHS		
BAR SIZE	EPOXY COATED	UNCOATED
#4	1'-11"	1'-7"
#5	2'-5"	2'-0"
#6	3'-7"	2'-5"



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

PROJECT NO. B-6034
JACKSON COUNTY
STATION: 13+20.50 -L-



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
BRIDGE APPROACH SLAB
FOR PRESTRESSED CONCRETE
CORED SLAB UNIT
(SUB-REGIONAL TIER)
60° SKEW

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
JOHNSON, MIRMAN, & THOMPSON INC.
4700 Falls of Neuse Rd, Suite 100,
Raleigh, NC, 27609
License No: C-3097

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

WDC/ACD/PL/1/6/2026
 25616 - V:\ashwin\Transportation\31631-05 - Jackson 65 - B-6034\Structures\Final Plans\Current Plans_2024\401_039_BB034_SNU_AS_S20.dgn
 TIME: 1/6/2026

DWN. BY: WDC DATE: 5/2025
 CHKD. BY: HLW DATE: 5/2025
 DES. EGR. OF RECORD: ACO DATE: 1/2016
 DRAWN BY: SHS/MAA 5-09
 CHECKED BY: BCH 5-09
 REV. 08-19
 REV. 01-25
 BNB/THC
 HRS

