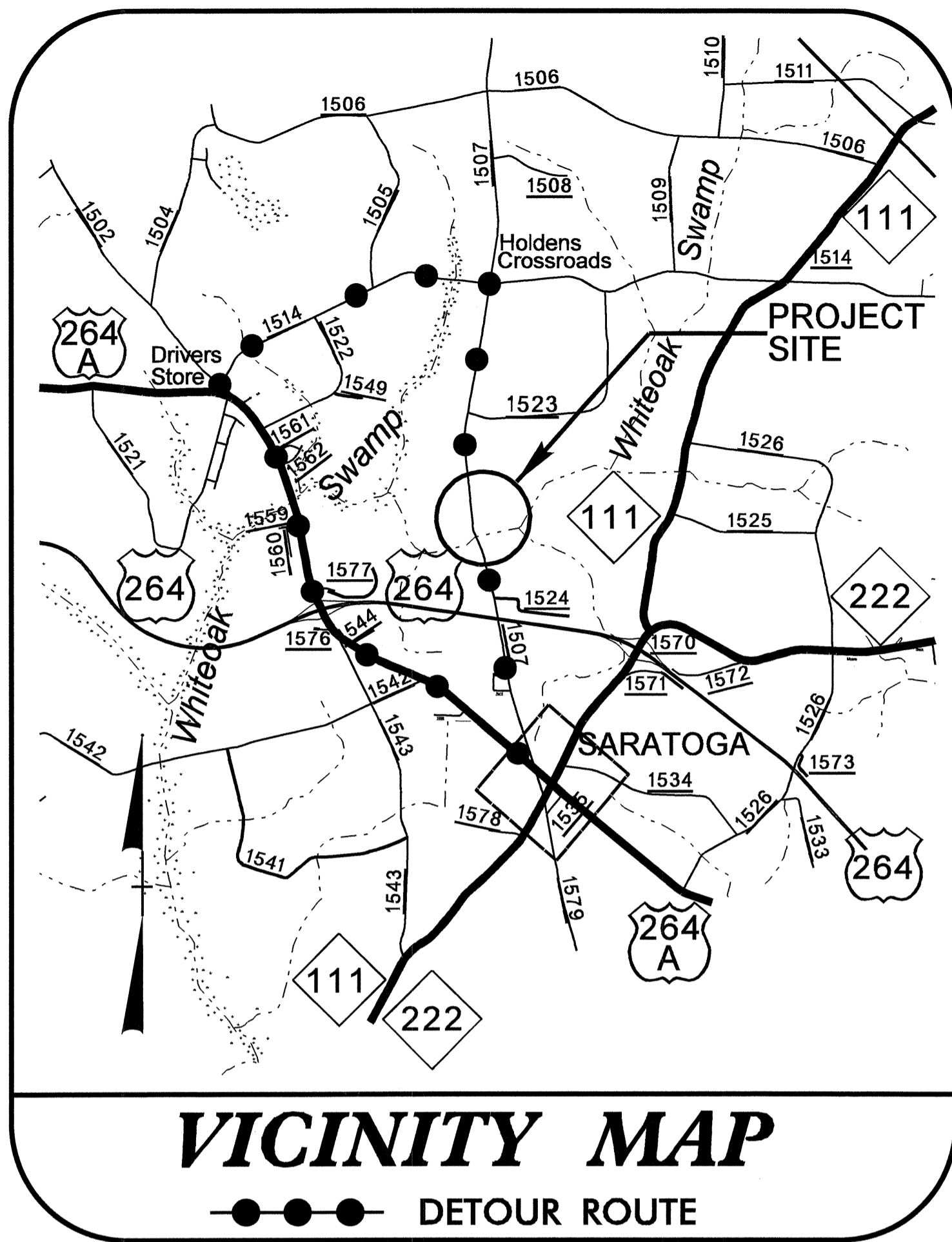


CONTRACT: C202330 TIP PROJECT: B-4680



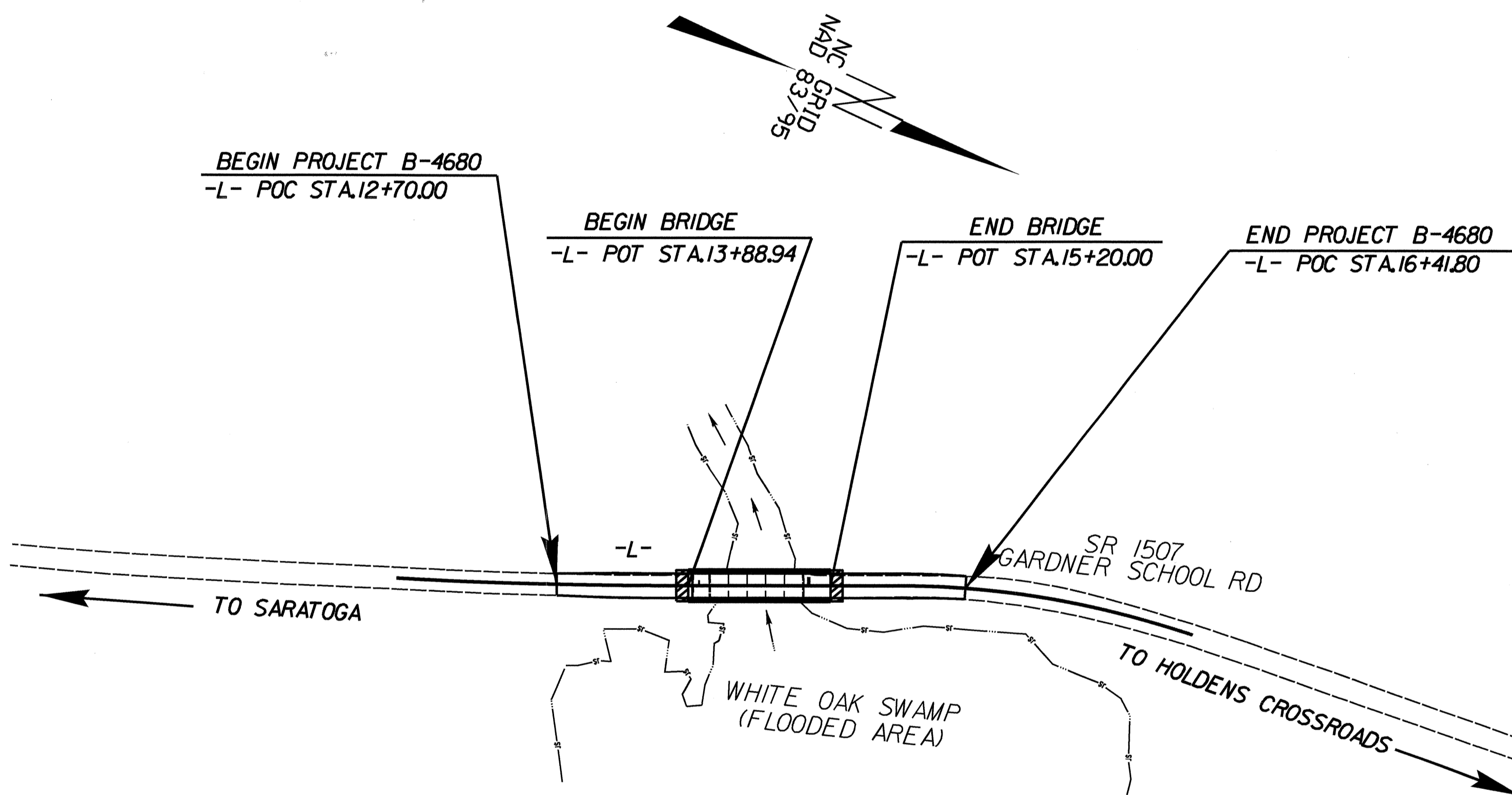
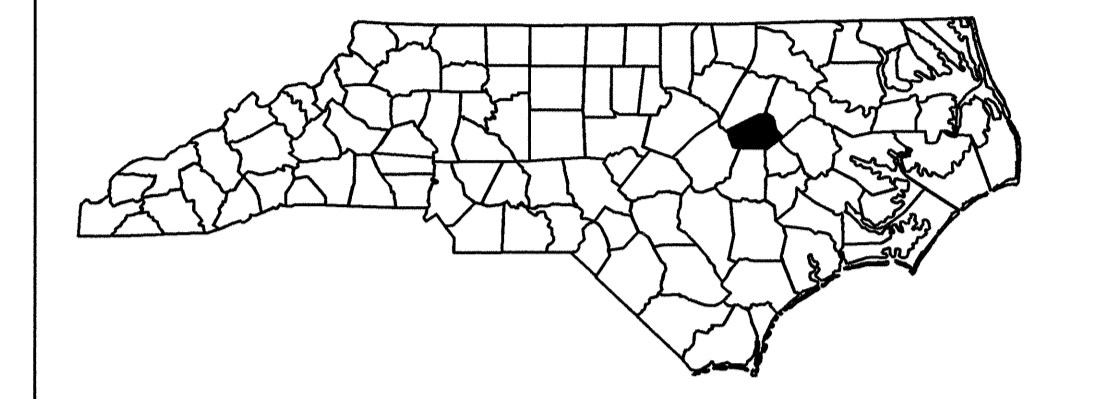
NEAREST SHIPPING POINT: WILSON ON SEABOARD COASTLINE RR
APPROX. 9.8 MILES FROM PROJECT

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

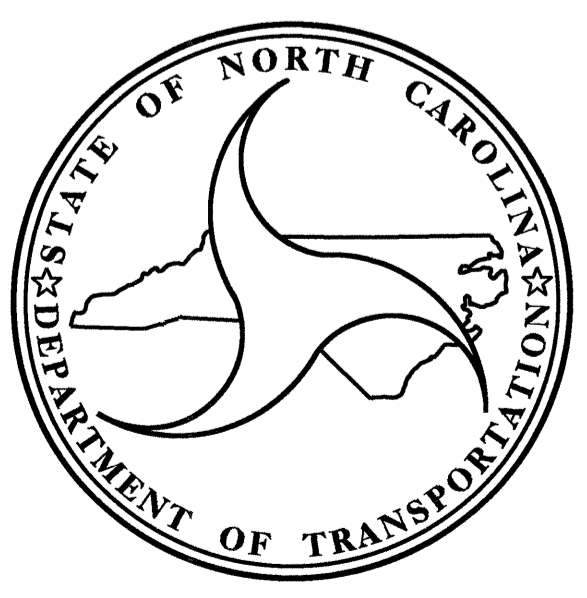
WILSON COUNTY

LOCATION : BRIDGE No.122 ON SR 1507 OVER WHITEOAK SWAMP
TYPE OF WORK : GRADING, DRAINAGE, PAVING, STRUCTURE, AND GUARDRAIL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4680		
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33834.1.1	BRZ-1507 (3)	PE	
33834.2.1	BRZ-1507 (3)	RW & UTIL.	
33834.3.1	BRZ-1507 (3)	CONST.	



STRUCTURE



DESIGN DATA

ADT 2010 =	1,107
ADT 2030 =	1,700
DHV =	10 %
D =	60 %
T =	3 % *
V =	60 MPH
* TTST 1% DUAL 2%	
FUNC CLASS =	LOCAL

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4680 =	0.045 MI.
LENGTH OF STRUCTURE TIP PROJECT B-4680 =	0.025 MI.
TOTAL LENGTH OF TIP PROJECT B-4680 =	0.070 MI.

Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 BIRCH RIDGE DR. RALEIGH, NC 27610

2006 STANDARD SPECIFICATIONS

LETTING DATE:
 FEBRUARY 16, 2010

N. N. BULLOCK, PE
 PROJECT ENGINEER

A. K. PASCHAL, PE
 PROJECT DESIGN ENGINEER

STRUCTURE DESIGN UNIT

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER _____ P.E.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____
 DIVISION ADMINISTRATOR

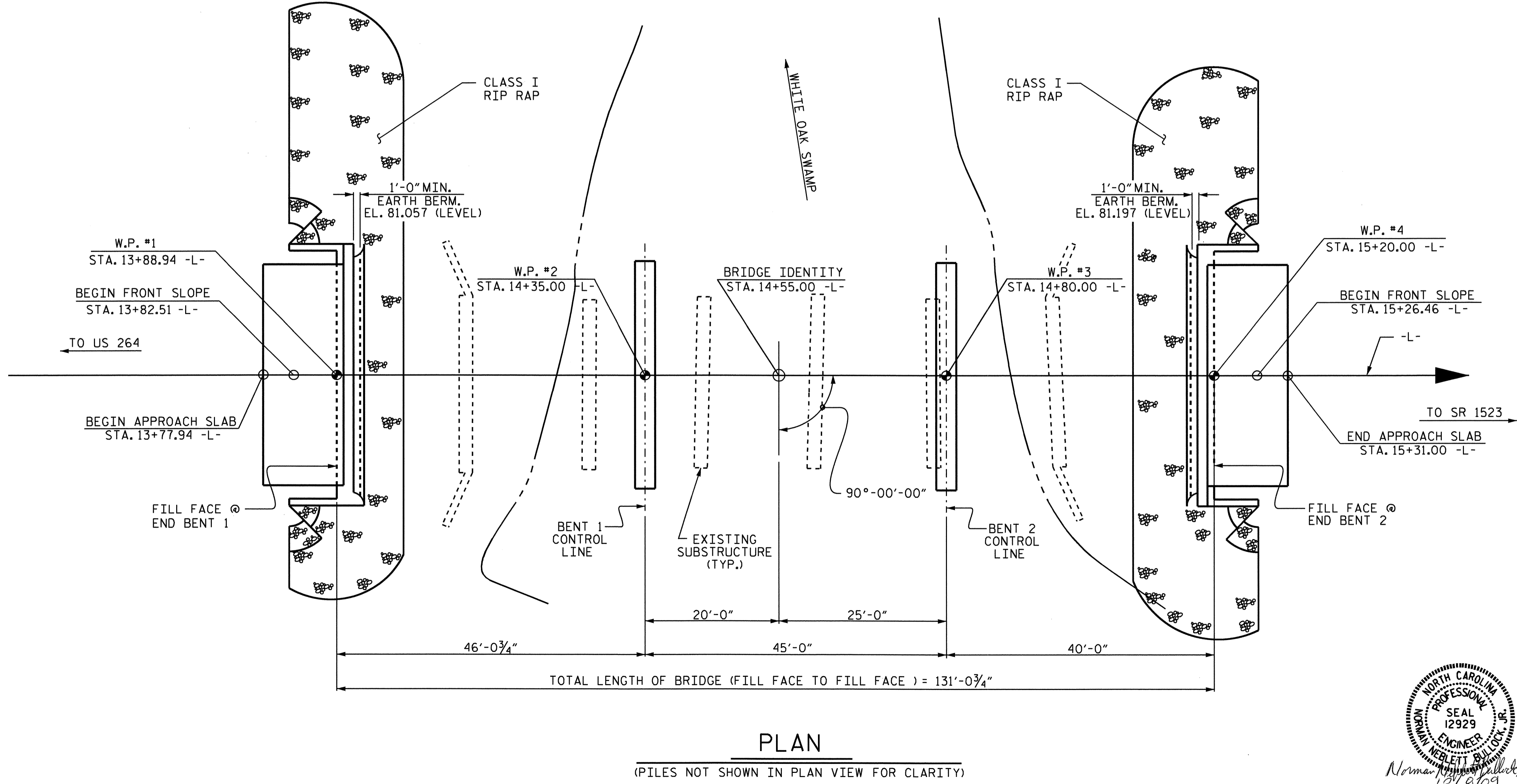
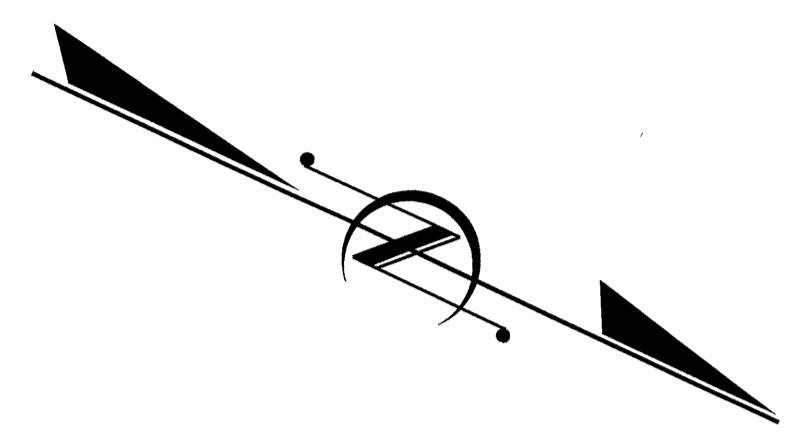
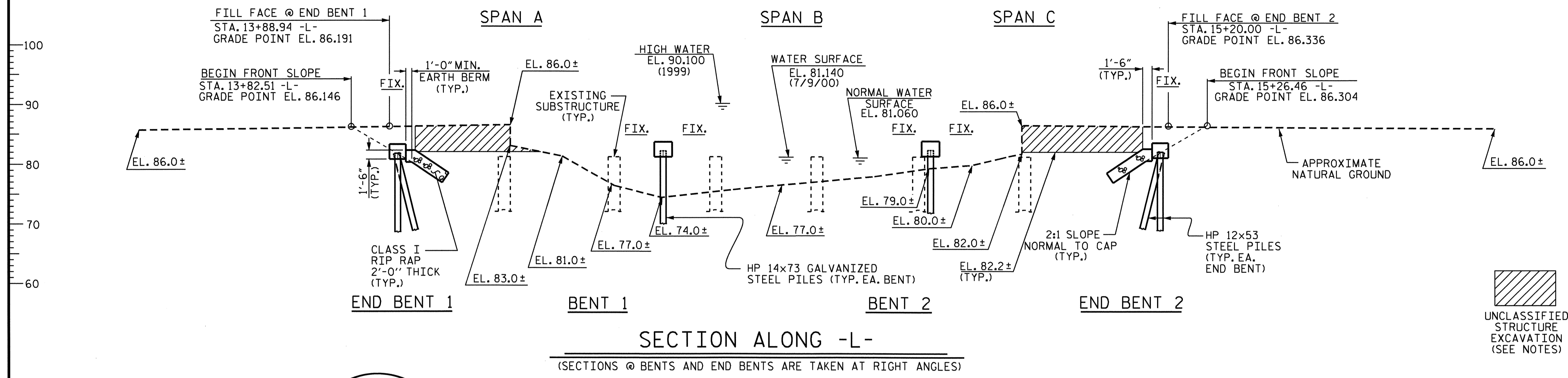
DATE _____

09-NOV-2009 15:29
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 jshawk

13+50 14+00 14+50 15+00 15+50

GRADE DATA

1.0000% Δ -0.7017%
 PI = 14+50.00 -L-
 EL = 86.860'
 VC = 195'



PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 1 OF 3 REPLACES BRIDGE #122

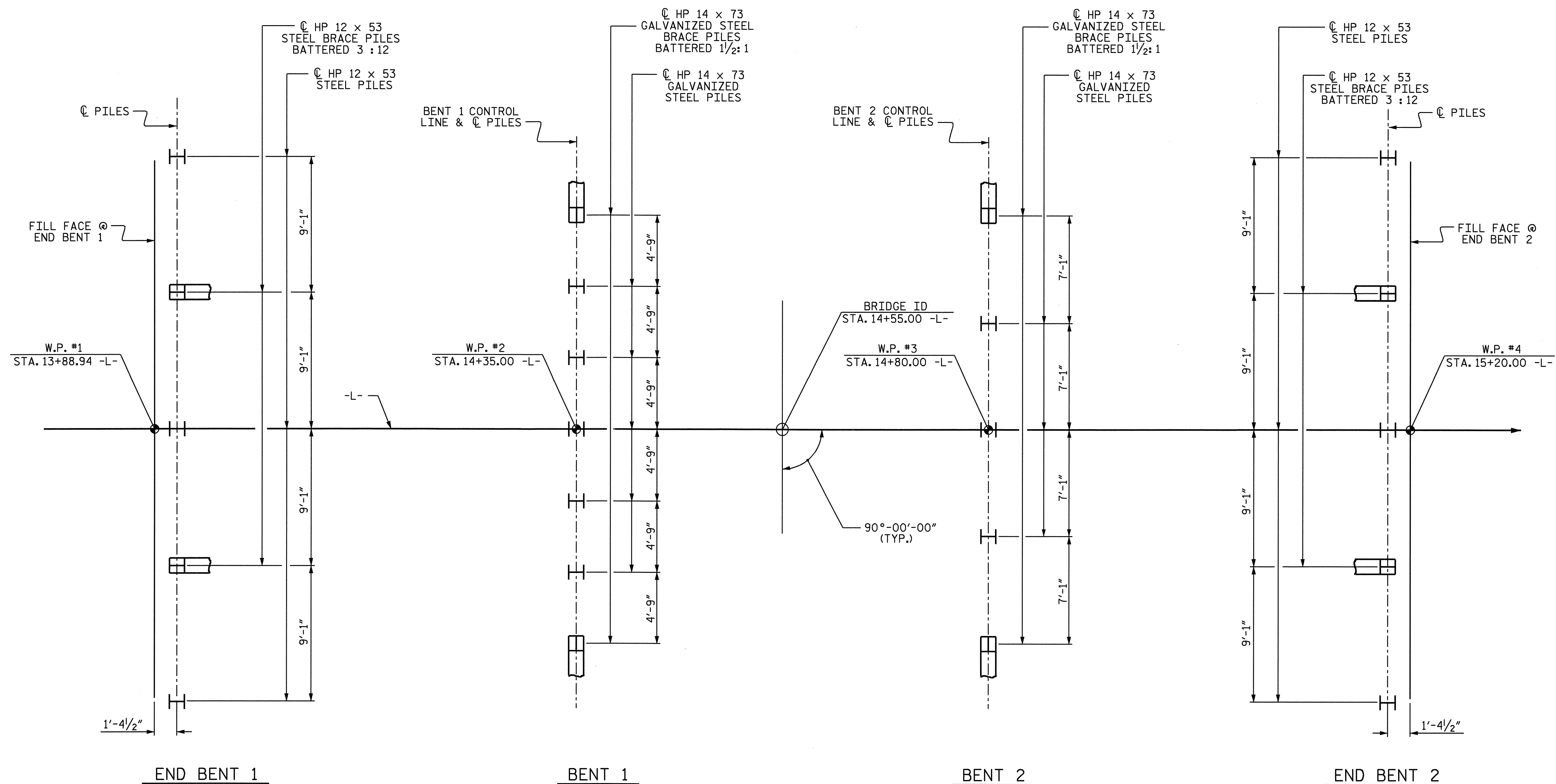
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
GENERAL DRAWING					
BRIDGE OVER WHITE OAK SWAMP ON SR 1507 BETWEEN US 264 AND SR 1523					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 21

DRAWN BY : J. G. KHARVA DATE : 12/10/08
 CHECKED BY : J. D. HAWK DATE : 7/20/09

08-DEC-2009 14:44
 r:\structures\final plans\b-4680.sd.gdn
 jdnawk

Professional Engineer Seal: NORTH CAROLINA, SEAL 12929, ENGINEER, NORMAN M. BELLETT, JR., 12/8/09

Professional Engineer Seal: NORTH CAROLINA, SEAL 28005, ENGINEER, W. HEITH PASCHALL, 12/8/09



FOUNDATION LAYOUT

(DIMENSIONS LOCATING END BENT & BENT PILES ARE SHOWN TO CENTERLINE PILES)

FOUNDATION NOTES :

FOR PILES, SEE SPECIAL PROVISIONS.

PILES AT END BENTS 1 AND 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 85 TONS PER PILE. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 145 TONS PER PILE.

PILES AT BENT NO.1 ARE DESIGNED FOR A FACTORED RESISTANCE OF 95 TONS PER PILE. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAW OR SCOUR.

INSTALL PILES AT BENT 1 TO A TIP ELEVATION NO HIGHER THAN 50.5 FT.

THE SCOUR CRITICAL ELEVATION FOR BENT 1 IS ELEVATION 64 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PILES AT BENT 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 125 TONS PER PILE. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 225 TONS PER PILE. THIS REQUIRED DRIVING RESISTANCE INCLUDES ADDITIONAL RESISTANCE FOR DOWNDRAW OR SCOUR.

INSTALL PILES AT BENT 2 TO A TIP ELEVATION NO HIGHER THAN 55.5 FT.

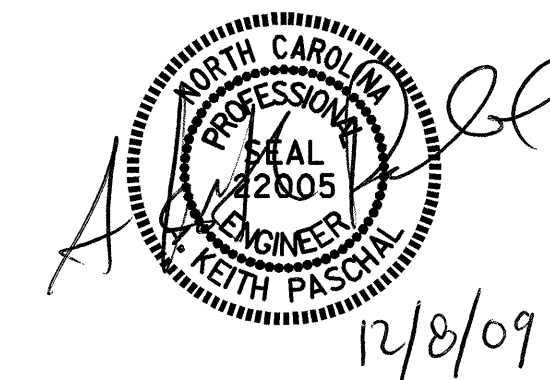
THE SCOUR CRITICAL ELEVATION FOR BENT 2 IS ELEVATION 70 FT. SCOUR CRITICAL ELEVATIONS ARE USED TO MONITOR POSSIBLE SCOUR PROBLEMS DURING THE LIFE OF THE STRUCTURE.

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

SHEET 2 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 BRIDGE OVER WHITE OAK SWAMP
 ON SR 1507 BETWEEN
 US 264 AND SR 1523

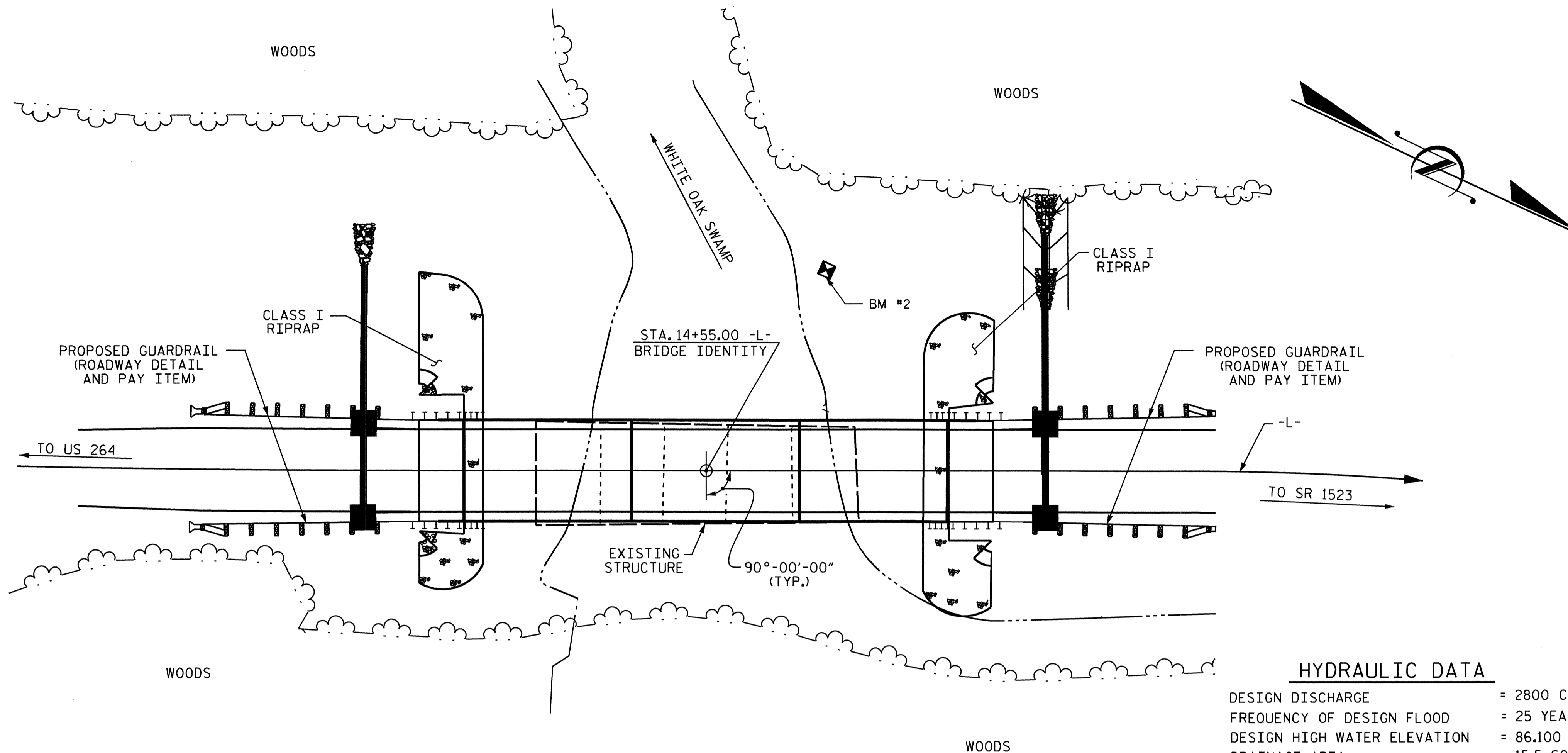


DRAWN BY : J. G. KHARVA DATE : 6/04/09
 CHECKED BY : J. D. HAWK DATE : 7/20/09

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 kpaschal

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-2
1			3			TOTAL SHEETS
2			4			21

BM #2 : RR SPIKE SET IN BASE OF POWER POLE, 53.72 LT. OF STA. 14+87.49 -L-, EL. 84.430.



LOCATION SKETCH

HYDRAULIC DATA

DESIGN DISCHARGE	= 2800 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 25 YEARS
DESIGN HIGH WATER ELEVATION	= 86.100 FT.
DRAINAGE AREA	= 15.5 SQ. ML.
BASIC DISCHARGE (Q100)	= 4100 C.F.S.
BASIC HIGH WATER ELEVATION	= 86.600 FT.
OVERTOPPING DISCHARGE	= 2050 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 10 YEARS
OVERTOPPING FLOOD ELEVATION	= 85.000 FT.

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

NOTES:

ASSUMED LIVE LOAD = HL 93 OR ALTERNATE LOADING.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

THE EXISTING STRUCTURE CONSISTING OF FIVE (1 @ 18', 3 @ 17' & 1 @ 18') REINFORCED CONCRETE DECK SPANS ON TIMBER JOISTS WITH A CLEAR ROADWAY WIDTH OF 24'-0" ON TIMBER CAP AND PILE END BENTS AND BENTS (WITH STEEL CROSS CAPS ADDED AT BENT 2) AND LOCATED AT THE PROPOSED STRUCTURE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY POSTED BELOW THE LEGAL LOAD LIMIT. SHOULD THE INTEGRITY OF THE BRIDGE FURTHER DETERIORATE, THIS LOAD LIMITATION MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT. SEE SPECIAL PROVISION FOR "REMOVAL OF EXISTING STRUCTURE".

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.

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.

THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 40 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.

THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR SEISMIC DESIGN FOR SEISMIC PERFORMANCE ZONE 1.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH HEC 18, "EVALUATING SCOUR AT BRIDGES", MAY, 2001.

ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.

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 PRESTRESSED CONCRETE MEMBERS, SEE SPECIAL PROVISIONS.

FOR CURING CONCRETE, SEE SPECIAL PROVISIONS.

FOR INTERIOR BENTS 1 & 2, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR DETAILS.

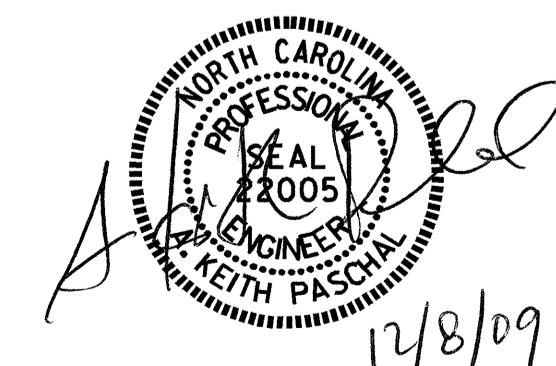
THIS BRIDGE SHALL BE CONSTRUCTED USING TOP-DOWN CONSTRUCTION METHODS. THE USE OF A TEMPORARY CAUSEWAY OR WORK BRIDGE WILL NOT BE PERMITTED.

TOTAL BILL OF MATERIAL															
	REMOVAL OF EXISTING STRUCTURE	UNCLASSIFIED STRUCTURE EXCAVATION	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	HP 12 x 53 STEEL PILES		HP 14 x 73 GALVANIZED STEEL PILES		VERTICAL CONCRETE BARRIER RAIL	RIP RAP CLASS I	FILTER FABRIC FOR DRAINAGE	ELASTOMERIC BEARINGS	3'-0" x 1'-6" PRESTRESSED CONCRETE CORED SLABS	
	LUMP SUM	LUMP SUM	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	TONS	SO. YDS.	LUMP SUM	NO.	LIN. FT.
SUPERSTRUCTURE				LUMP SUM						257.63			LUMP SUM	11	1414.19
END BENT 1		LUMP SUM	12.8		1958	5	250.0				135	150			
BENT 1			10.0		2099			7	420.0						
BENT 2			11.9		2186			5	300.0						
END BENT 2		LUMP SUM	12.8		1958	5	250.0				155	172			
TOTAL	LUMP SUM	LUMP SUM	47.5	LUMP SUM	8201	10	500.0	12	720.0	257.63	290	322	LUMP SUM	11	1414.19

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 BRIDGE OVER WHITE OAK SWAMP
 ON SR 1507 BETWEEN
 US 264 AND SR 1523



DRAWN BY : J. G. KHARVA DATE : 12/10/08
 CHECKED BY : J. D. HAWK DATE : 07/20/09

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-3
1			3			TOTAL SHEETS
2			4			21

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR PRESTRESSED CONCRETE GIRDERS

LEVEL	VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING #	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE III LIMIT STATE					COMMENT NUMBER			
						MOMENT					SHEAR					MOMENT								
						LIVE-LOAD FACTORS (LL)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	LIVE-LOAD FACTORS (LL)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN		GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	
DESIGN LOAD RATING	HL-93 (INVENTORY)	N/A	①	1.10	--	1.75	0.279	1.31	C	ER	18.906	0.549	1.23	C	ER	1.891	0.80	0.276	1.10	A	ER	21.938		
	HL-93 (OPERATING)	N/A		1.60	--	1.35	0.279	1.69	C	ER	18.906	0.549	1.60	C	ER	1.891	N/A	----	----	--	--	----		
	HS-20 (INVENTORY)	36.000	②	1.08	38,880	1.80	0.279	1.61	C	ER	18.906	0.549	1.39	C	ER	1.891	0.80	0.276	1.08	A	ER	21.938		
	HS-20 (OPERATING)	36.000		1.85	66,600	1.35	0.279	2.15	C	ER	18.906	0.549	1.85	C	ER	1.891	N/A	----	----	--	--	----		
LEGAL LOAD RATING	SINGLE VEHICLE (SV)	SNSH	13.500		2.64	35,640	1.40	0.279	3.77	C	ER	18.906	0.549	3.80	C	ER	1.891	0.80	0.276	2.64	A	ER	21.938	
		SNGARBS2	20.000		2.13	42,600	1.40	0.279	3.13	C	ER	15.125	0.549	2.84	C	ER	1.891	0.80	0.276	2.13	A	ER	21.938	
		SNAGRIS2	22.000		2.09	45,980	1.40	0.279	3.06	C	ER	15.125	0.549	2.69	C	ER	1.891	0.80	0.276	2.09	A	ER	21.938	
		SNCOTTS3	27.250		1.31	35,698	1.40	0.279	1.89	C	ER	18.906	0.549	1.91	C	ER	1.891	0.80	0.276	1.31	A	ER	21.938	
		SNAGGRS4	34.925		1.16	40,513	1.40	0.279	1.71	C	ER	18.906	0.549	1.68	C	ER	1.891	0.80	0.276	1.16	A	ER	21.938	
		SNS5A	35.550		1.13	40,172	1.40	0.279	1.66	C	ER	18.906	0.549	1.76	C	ER	1.891	0.80	0.276	1.13	A	ER	21.938	
		SNS6A	39.950		1.06	42,347	1.40	0.279	1.58	C	ER	18.906	0.549	1.65	C	ER	1.891	0.80	0.276	1.06	A	ER	21.938	
		SNS7B	42.000	③	1.01	42,420	1.40	0.279	1.51	C	ER	18.906	0.549	1.68	C	ER	1.891	0.80	0.276	1.01	A	ER	21.938	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	TNAGRIT3	33.000		1.31	43,230	1.40	0.279	1.95	C	ER	18.906	0.549	1.93	C	ER	1.891	0.80	0.276	1.31	A	ER	21.938	
		TNT4A	33.075		1.33	43,990	1.40	0.279	1.98	C	ER	18.906	0.549	1.83	C	ER	1.891	0.80	0.276	1.33	A	ER	21.938	
		TNT6A	41.600		1.11	46,176	1.40	0.279	1.68	C	ER	18.906	0.549	1.80	C	ER	1.891	0.80	0.276	1.11	A	ER	21.938	
		TNT7A	42.000		1.13	47,460	1.40	0.279	1.73	C	ER	18.906	0.549	1.66	C	ER	1.891	0.80	0.276	1.13	A	ER	21.938	
		TNT7B	42.000		1.18	49,560	1.40	0.279	1.75	C	ER	18.906	0.549	1.60	C	ER	1.891	0.80	0.276	1.18	A	ER	21.938	
		TNAGRIT4	43.000		1.13	48,590	1.40	0.279	1.72	C	ER	15.125	0.549	1.53	C	ER	1.891	0.80	0.276	1.13	A	ER	21.938	
TNAGT5A	45.000		1.04	46,800	1.40	0.279	1.59	C	ER	18.906	0.549	1.59	C	ER	1.891	0.80	0.276	1.04	A	ER	21.938			
TNAGT5B	45.000	③	1.01	45,450	1.40	0.279	1.54	C	ER	18.906	0.549	1.45	C	ER	1.891	0.80	0.276	1.01	A	ER	21.938			

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ _{DC}	γ _{DW}
	STRENGTH I	1.25	1.50
	SERVICE III	1.00	1.00

	YEAR	ADTT
CURRENT	2010	20
FUTURE	2030	31

NOTES:

COMMENTS:

-
-
-
-

CONTROLLING LOAD RATING

① DESIGN LOAD RATING (HL-93)

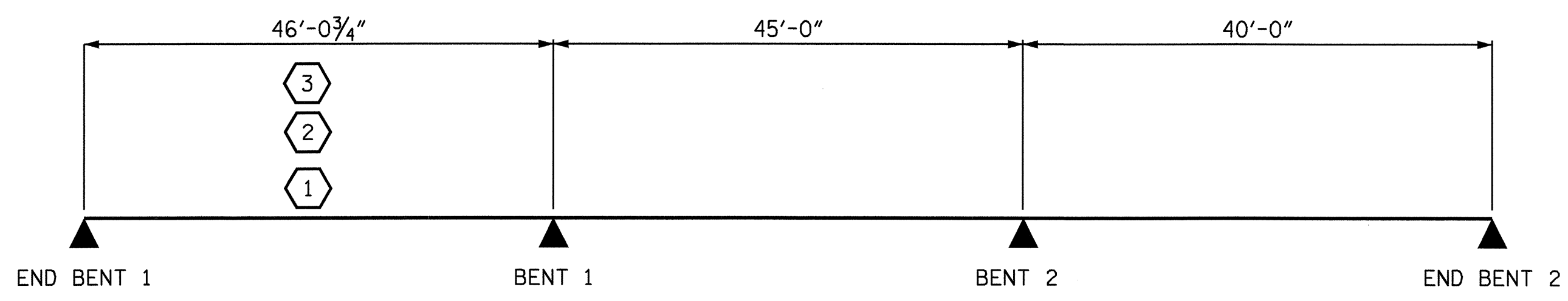
② DESIGN LOAD RATING (HS-20)

③ LEGAL LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

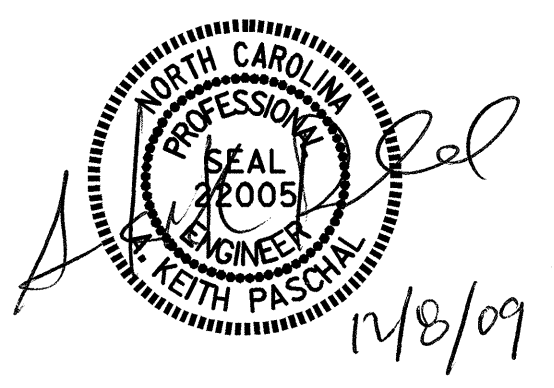
GIRDER LOCATION

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



LRFR SUMMARY

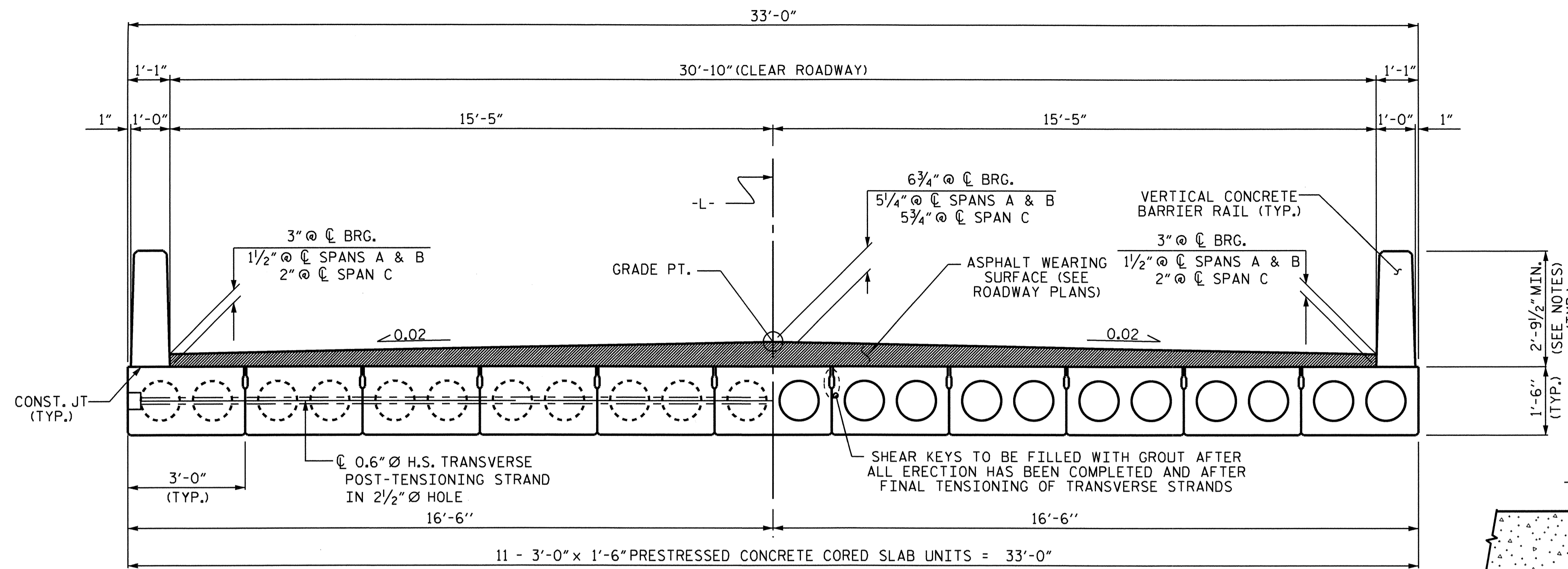
PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-



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

ASSEMBLED BY : J.D. HAWK DATE : 8-8-09
 CHECKED BY : O. PUIGCERVER DATE : 8-10-09
 DRAWN BY : MAA 1/08 REV. 11/2/08RR MAA/GM
 CHECKED BY : GM/DI 2/08

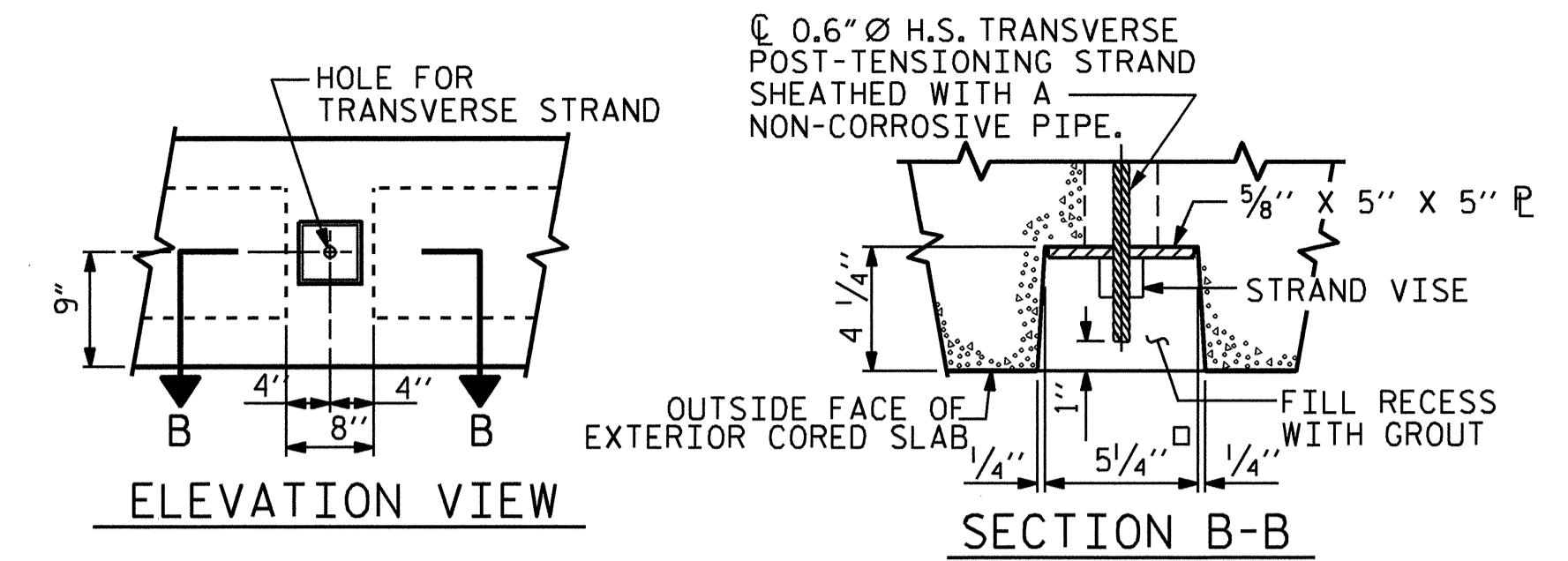
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-4
1			3			TOTAL SHEETS
2			4			21



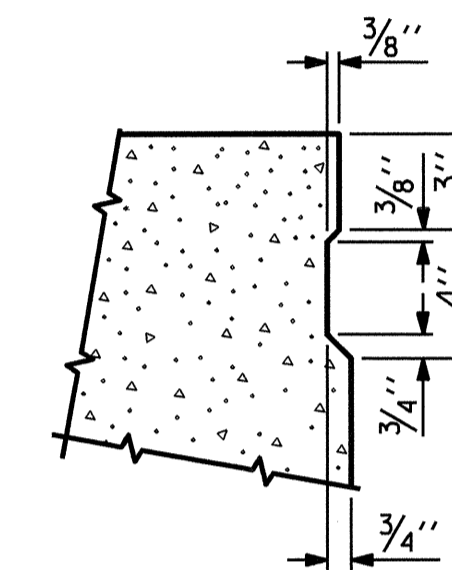
HALF SECTION @ DIAPHRAGMS

HALF SECTION @ VOIDS

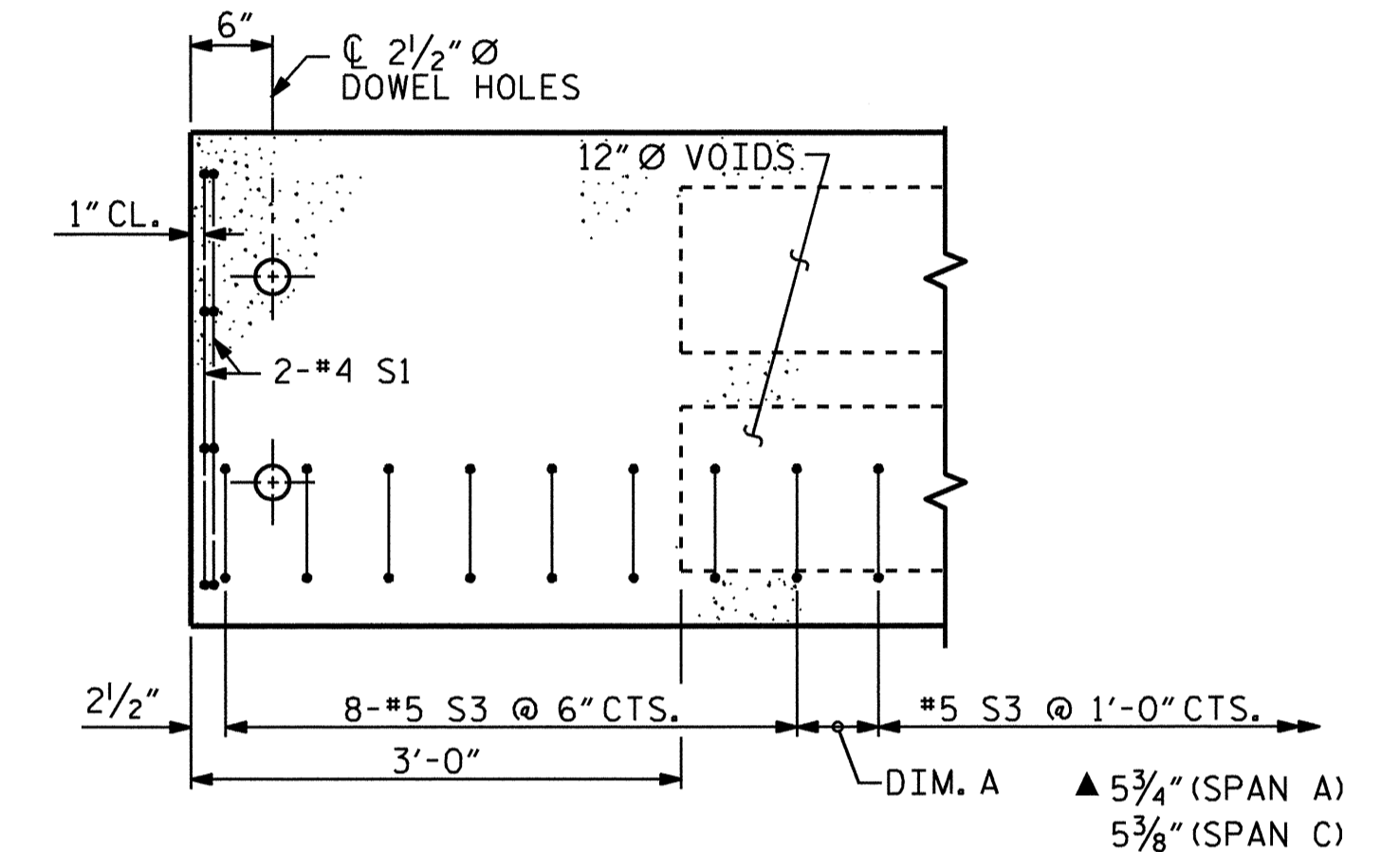
TYPICAL SECTION



GROUTED RECESS AT END OF POST-TENSIONED STRAND CORED SLABS

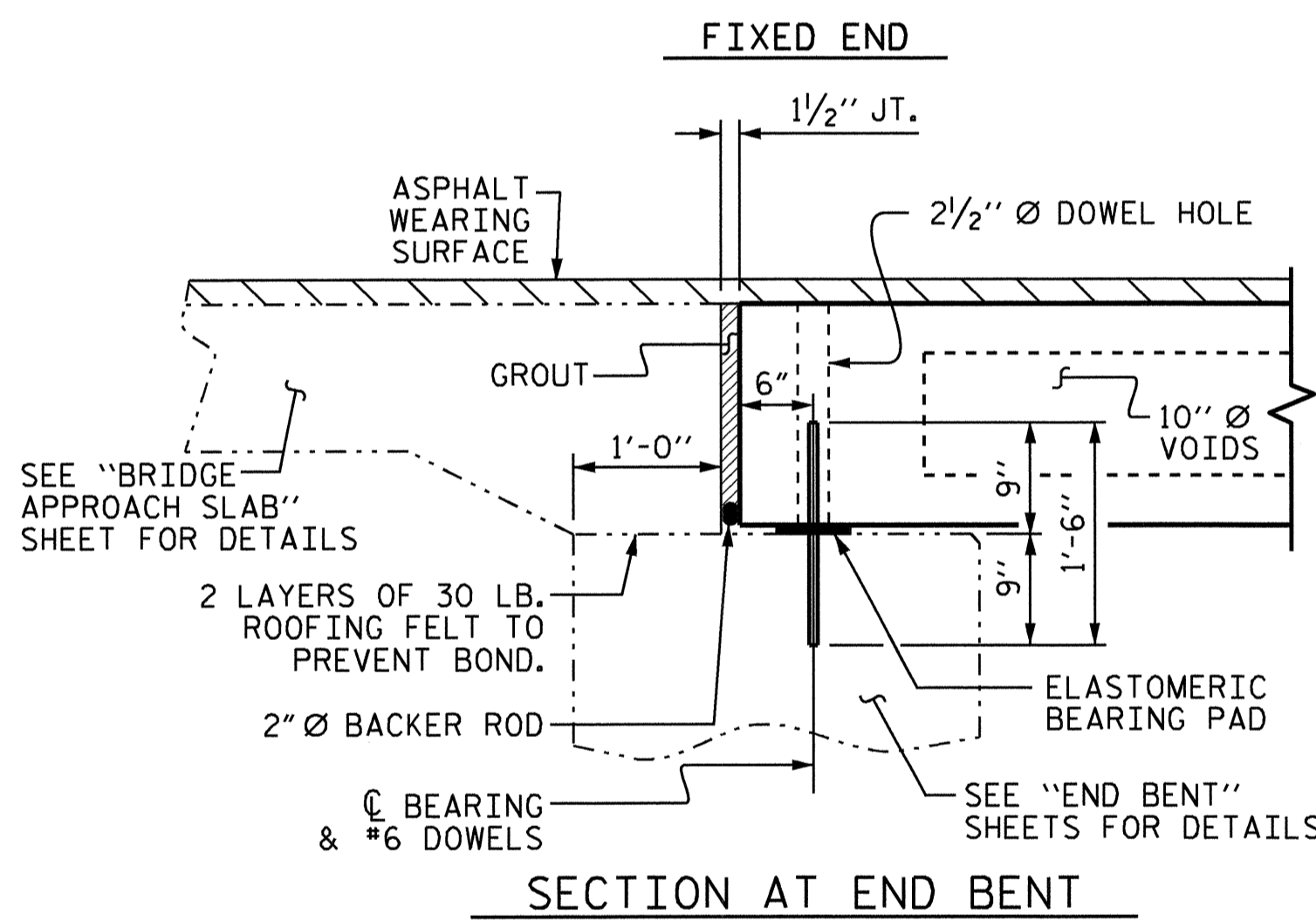


SHEAR KEY DETAIL

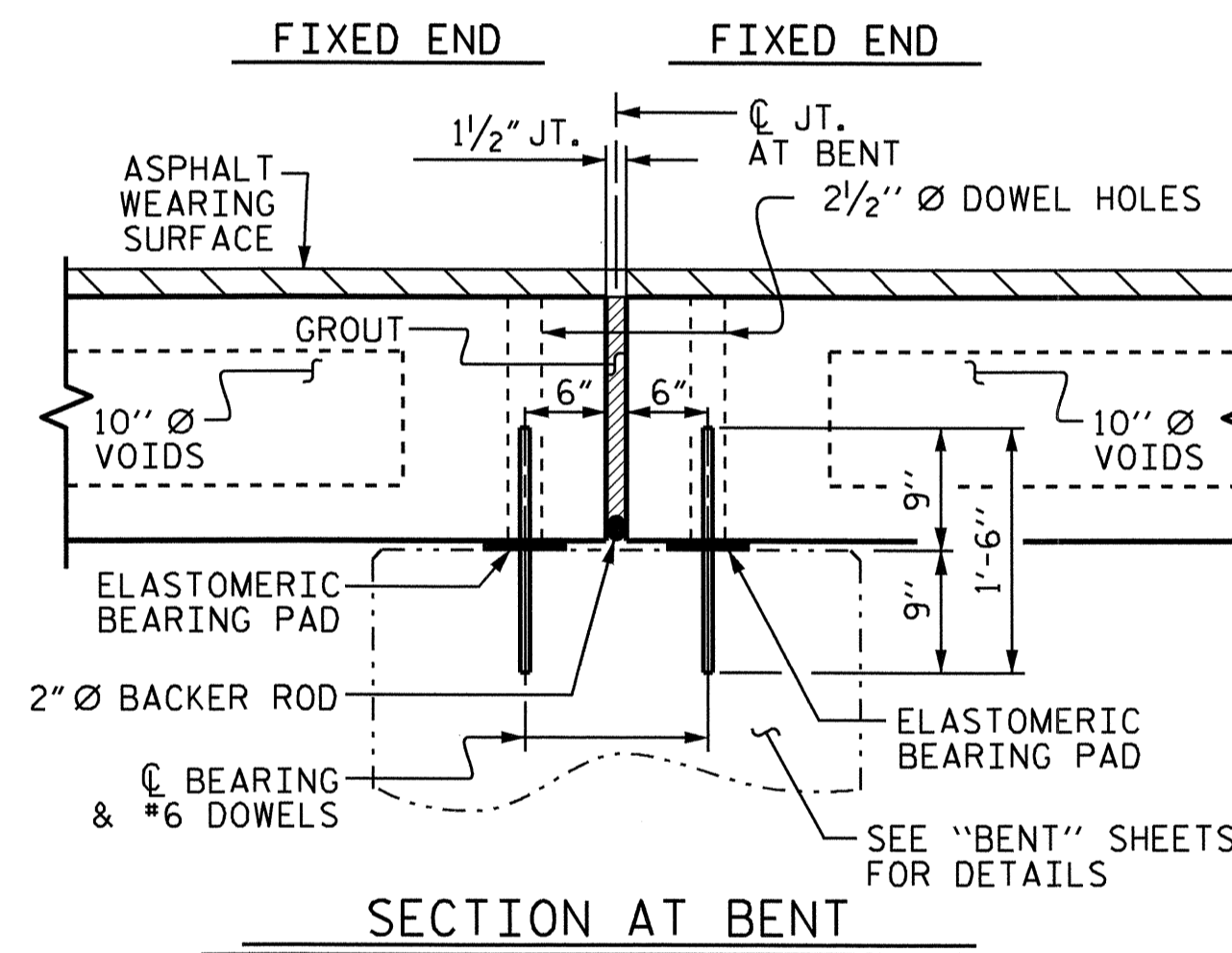


PART PLAN-EXTERIOR SECTION

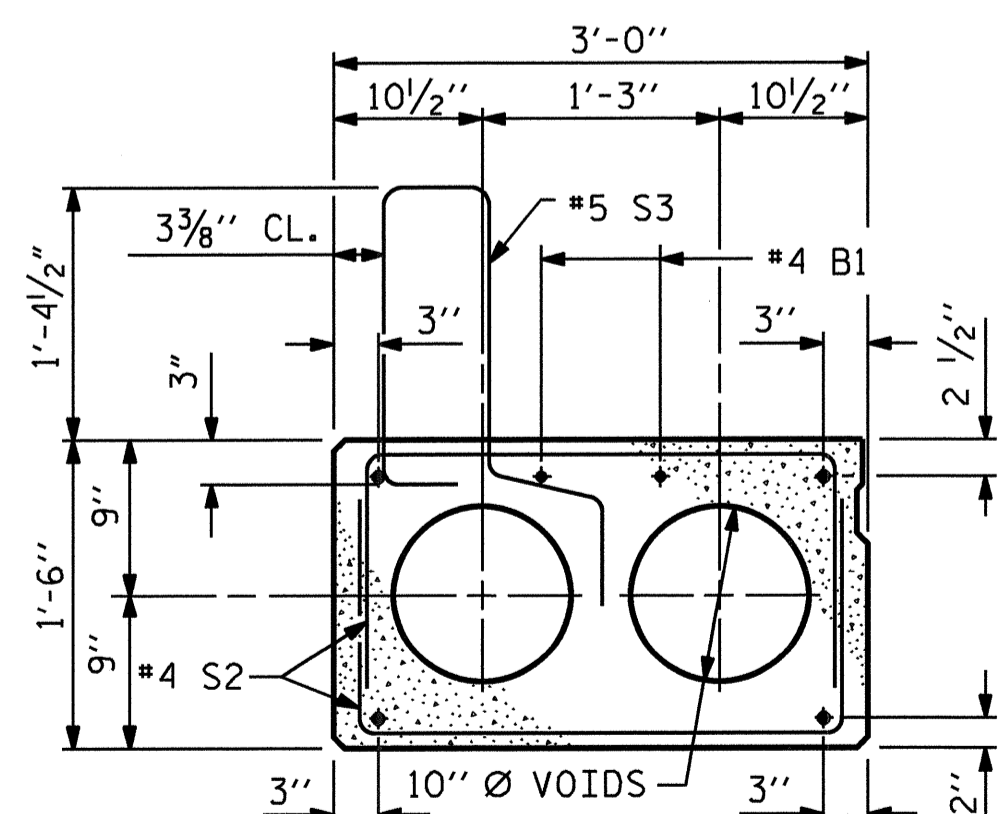
NOTE: EXTERIOR SECTION SHOWN-INTERIOR SECTION SIMILAR EXCEPT OMIT S3 BARS. (AT END BENTS SPANS A & C ONLY)



SECTION AT END BENT

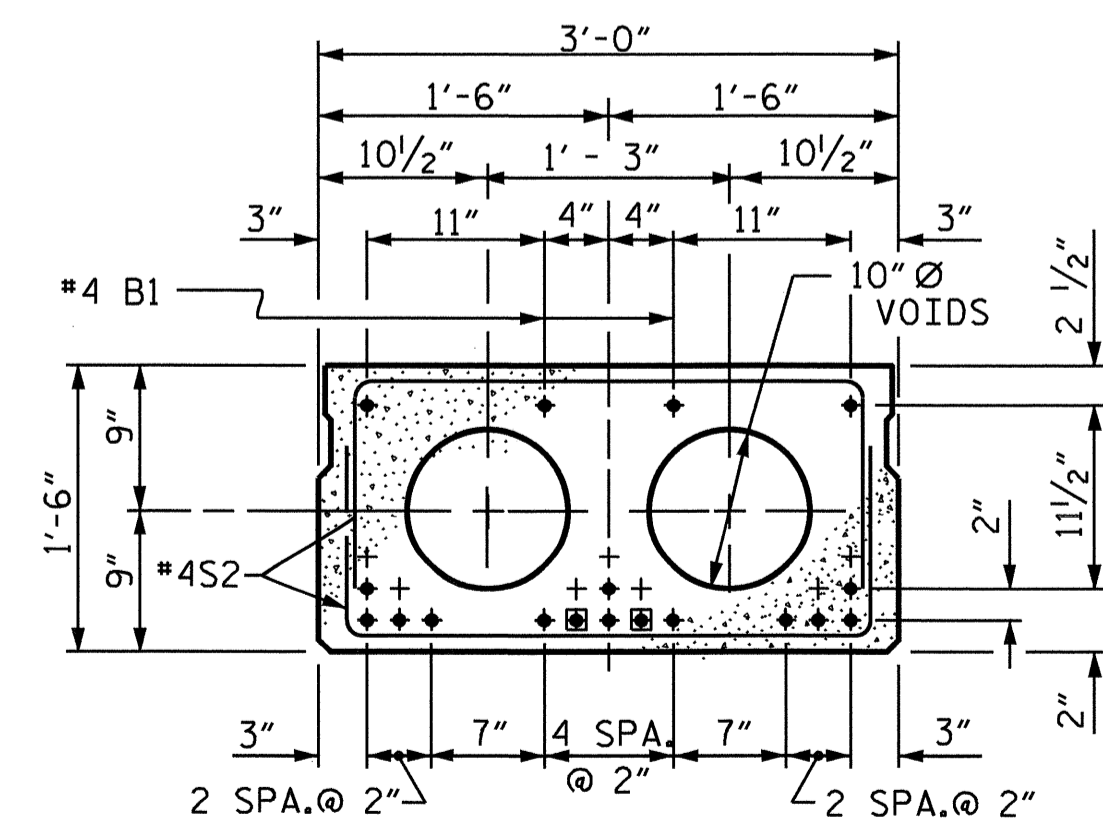


SECTION AT BENT



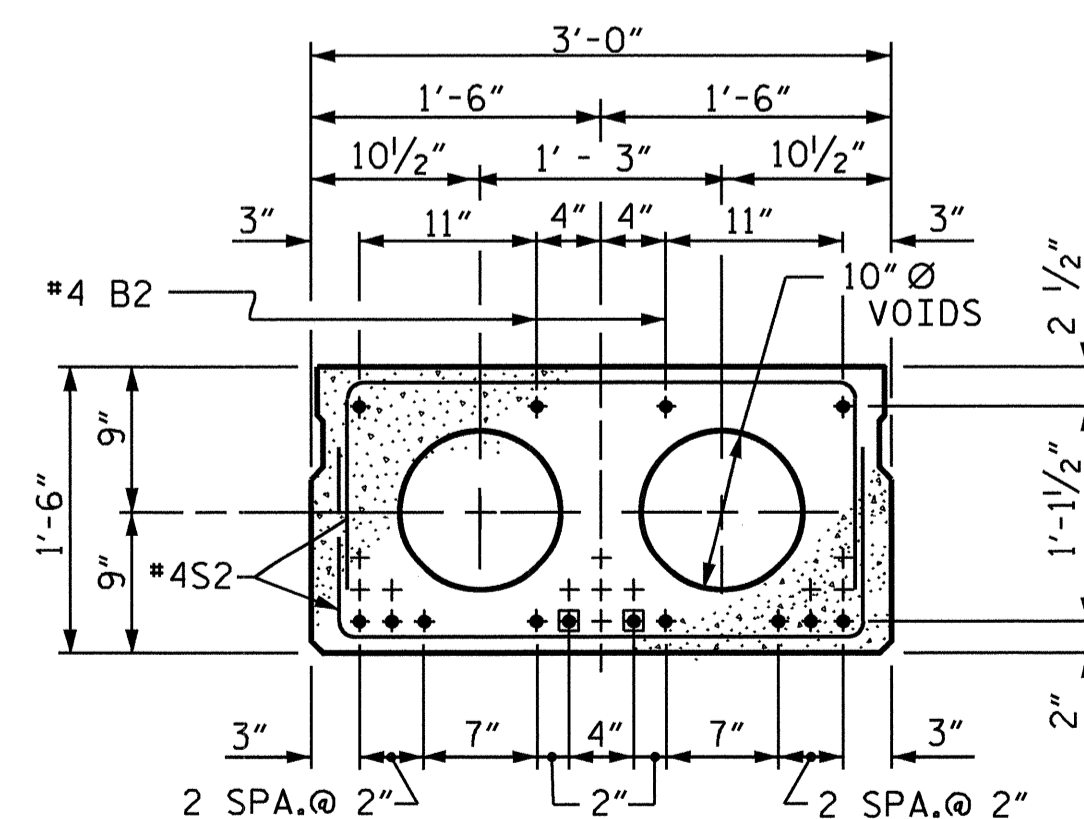
EXTERIOR SLAB SECTION

(FOR PRESTRESSED STRAND LAYOUT, SEE INTERIOR SLAB SECTION.)



SPAN A & B INTERIOR SLAB SECTION

(16 STRANDS)

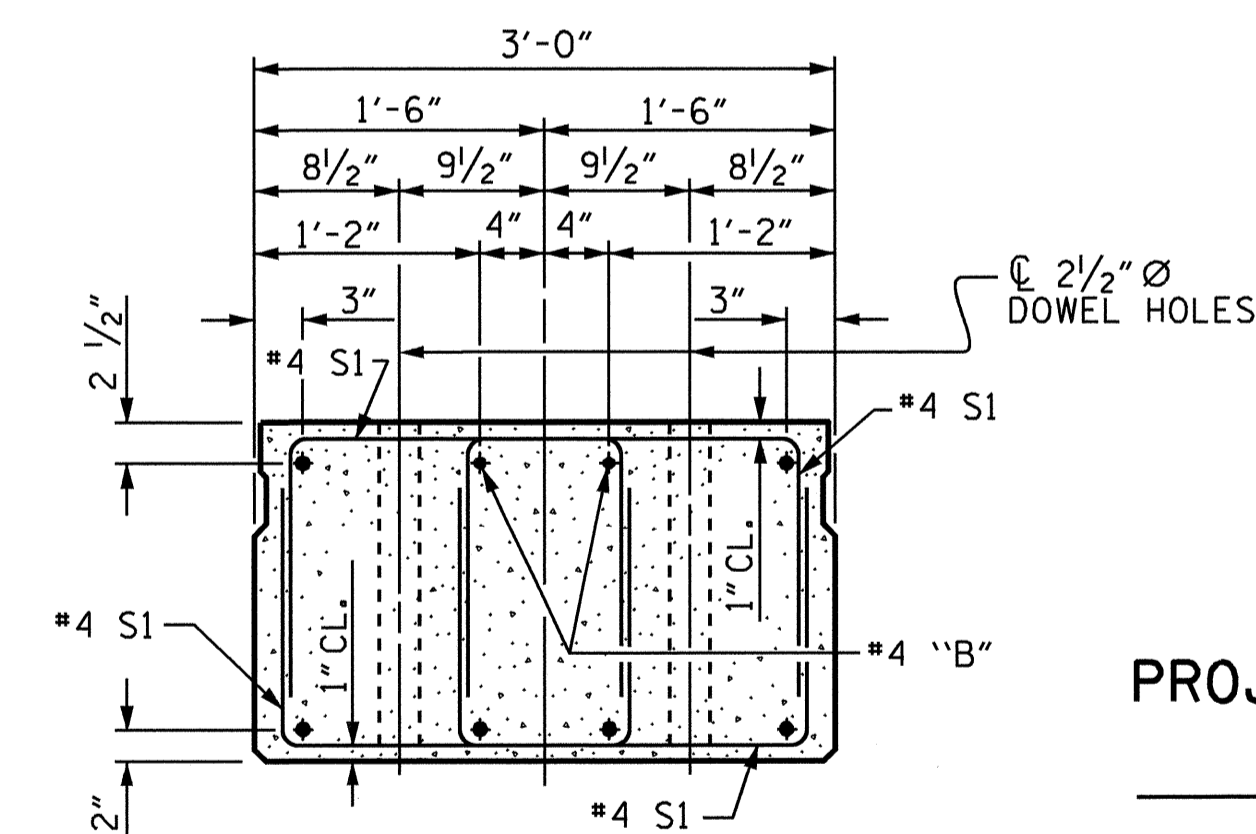


SPAN C INTERIOR SLAB SECTION

(12 STRANDS)

0.6" Ø LOW RELAXATION STRAND LAYOUT

⊗ BOND SHALL BE BROKEN ON THESE STRANDS FOR A DISTANCE OF 2'-0" FROM THE END OF THE CORED SLAB UNIT. SEE STANDARD SPECIFICATION ARTICLE 1078-7.



END ELEVATION

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

PROJECT NO. B-4680
WILSON COUNTY
STATION: 14+55.00 -L-

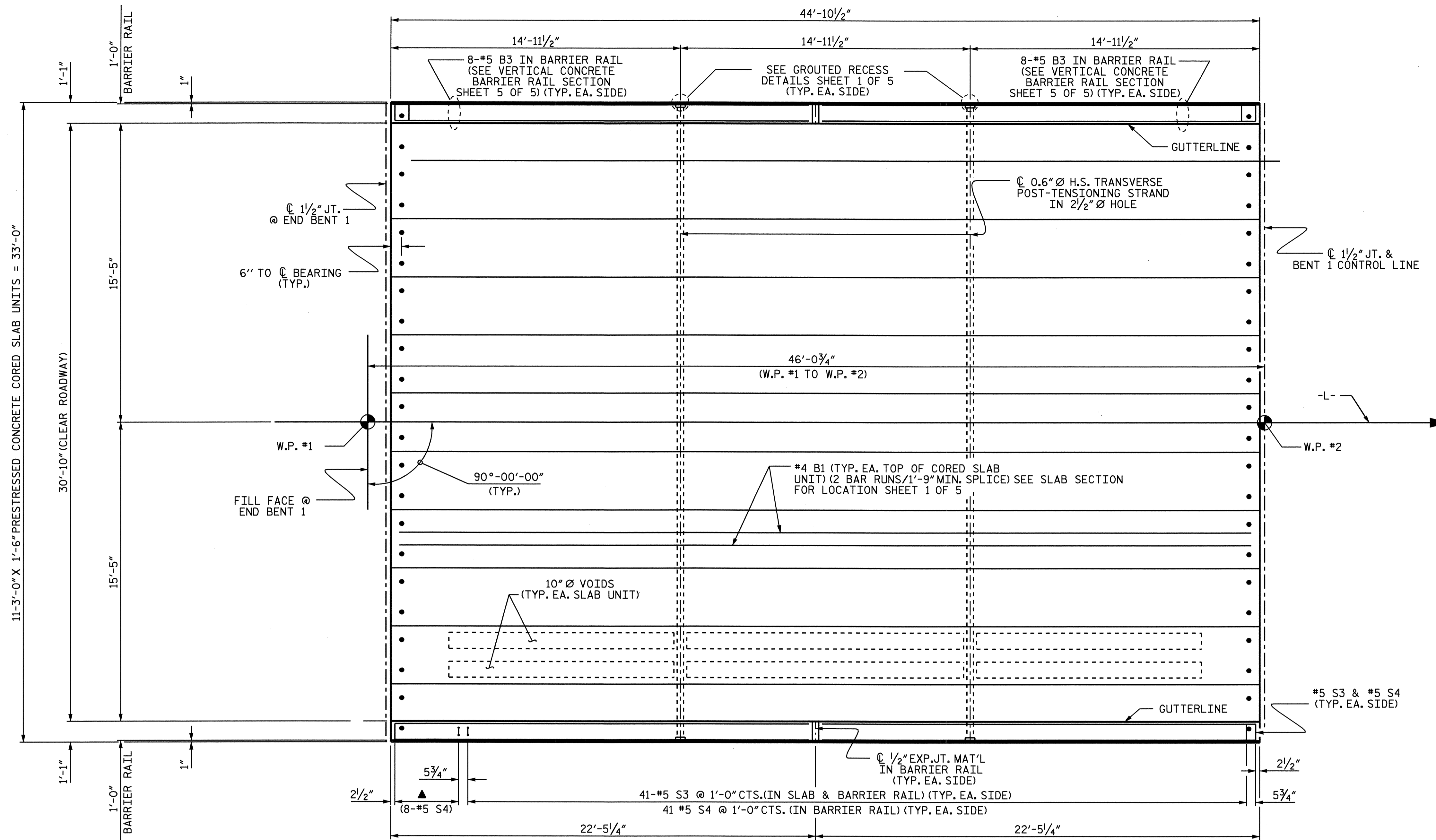
SHEET 1 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
3'-0" X 1'-6"
PRESTRESSED CONCRETE
CORED SLAB UNIT



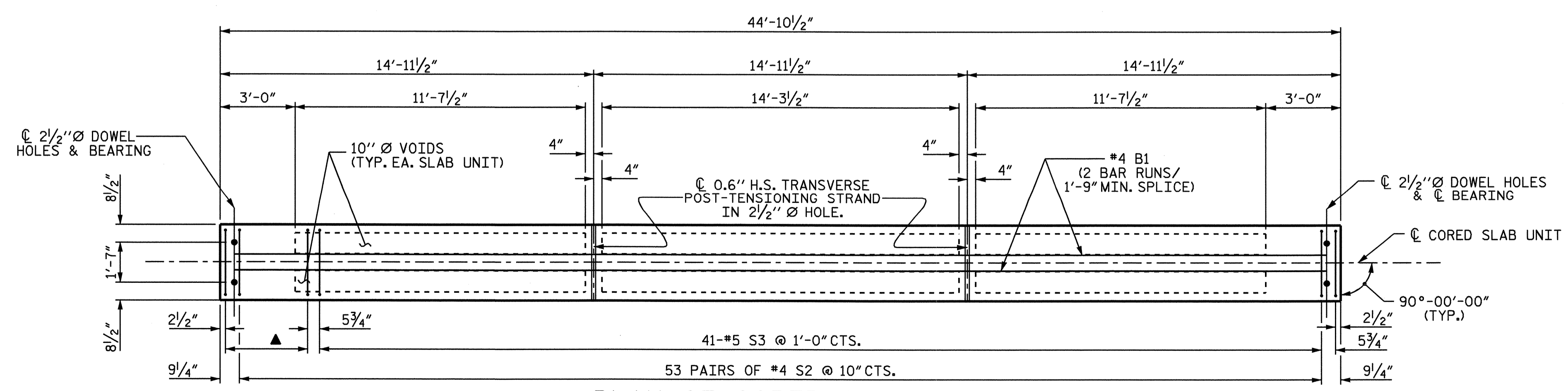
ASSEMBLED BY: M.FOWLER	DATE: 4/7/09
CHECKED BY: J.D HAWK	DATE: 6/29/09
DRAWN BY: WJH 4/89	REV. 10/17/00 RWW/LES
CHECKED BY: FCJ 5/89	REV. 7/10/01RR RWW/LES
	REV. 5/1/06 TLA/GM

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-5
1			3			TOTAL SHEETS
2			4			21



PLAN OF SPAN A

▲ SEE PART PLAN-EXTERIOR SECTION ON SHEET 1 OF 5 FOR ADDITIONAL #5 S3 BARS



PLAN OF CORED SLAB UNIT

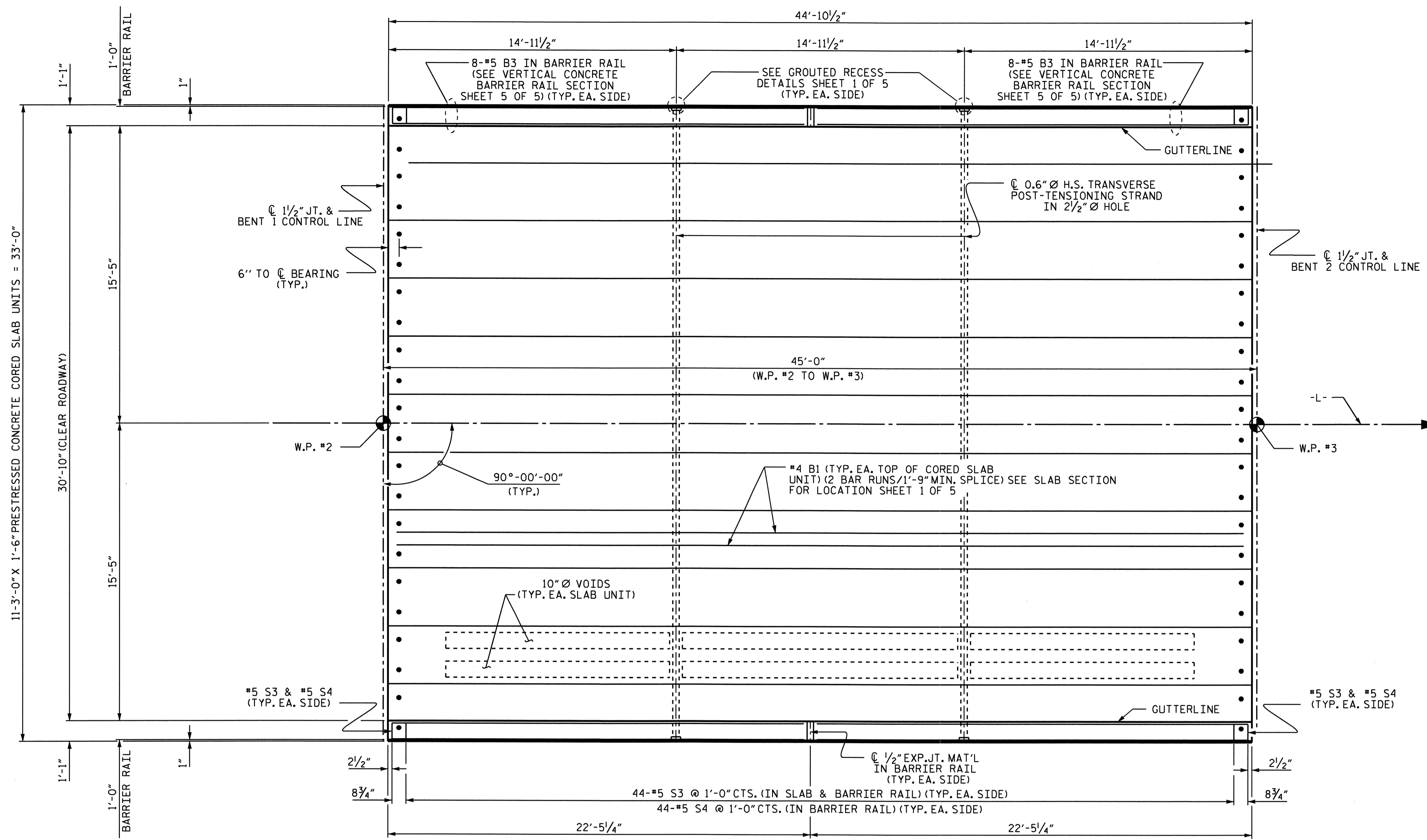
EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S3 BARS. FOR LOCATION OF ADDITIONAL REINFORCING STEEL AT END OF SLAB UNIT, SEE "PART-PLAN EXTERIOR SECTION" SHEET 1 OF 5.

PROJECT NO. B-4680
 WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 2 OF 5

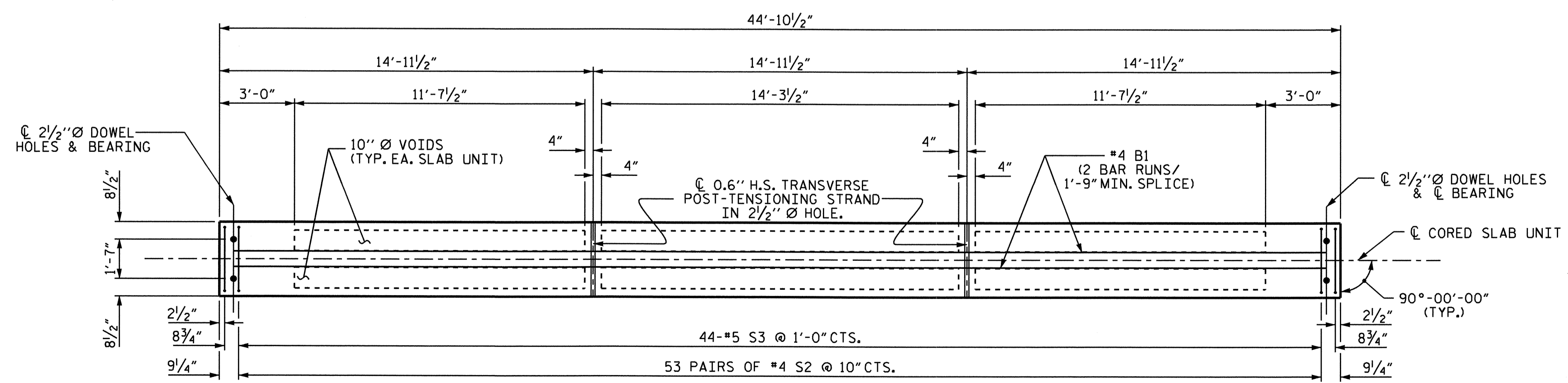
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE PLAN OF SPAN A					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS 21



DRAWN BY : M.FOWLER DATE : 4/6/09
 CHECKED BY : J.D. HAWK DATE : 6/29/09



PLAN OF SPAN B



PLAN OF CORED SLAB UNIT

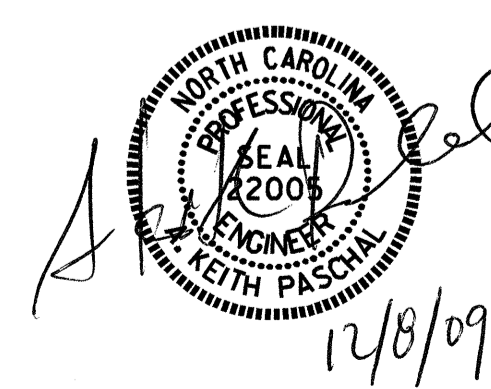
EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S3 BARS. FOR LOCATION OF ADDITIONAL REINFORCING STEEL AT END OF SLAB UNIT, SEE "PART-PLAN EXTERIOR SECTION" SHEET 1 OF 5.

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 3 OF 5

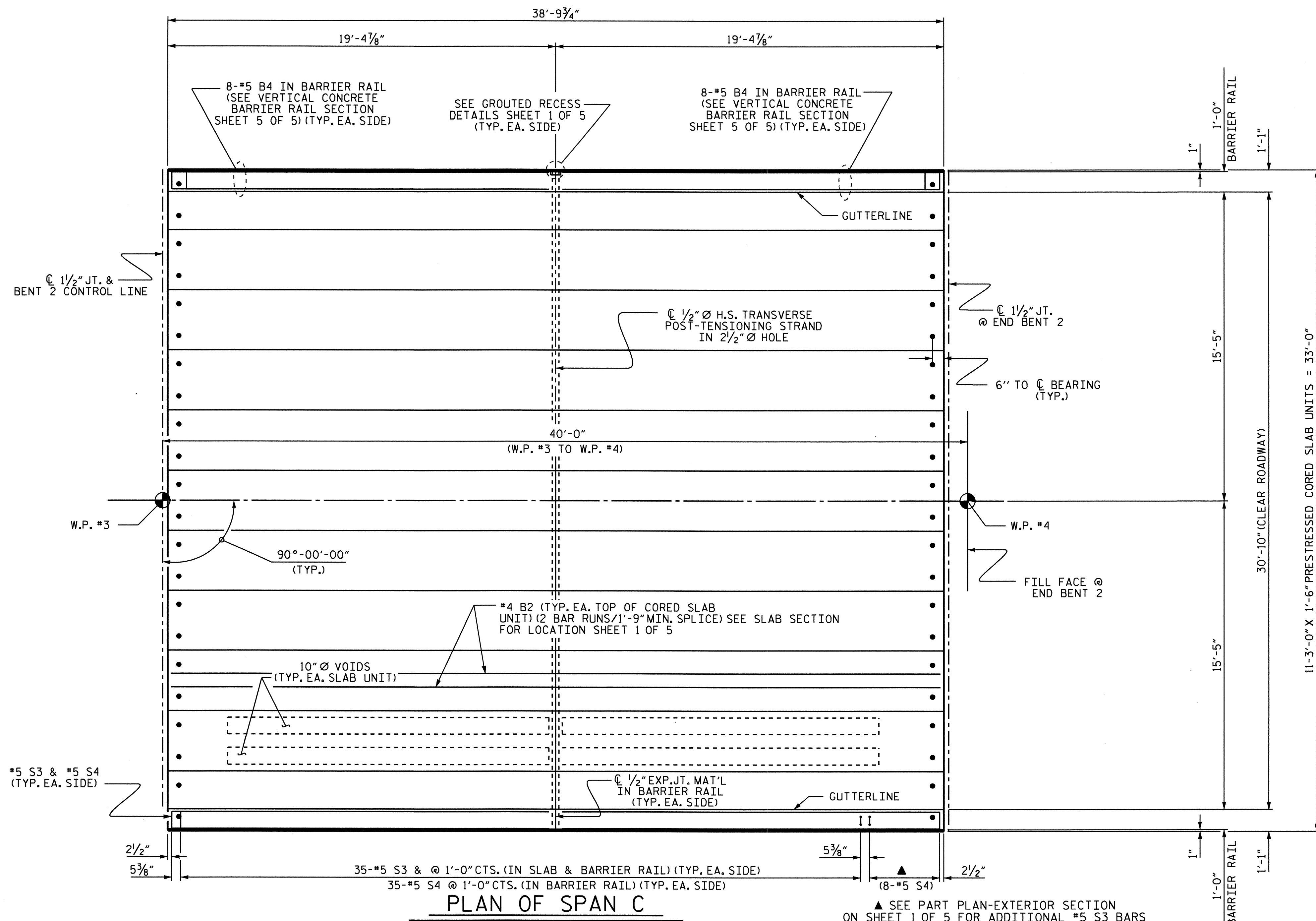
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUPERSTRUCTURE
 PLAN OF SPAN B

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-7
1			3			TOTAL SHEETS
2			4			21

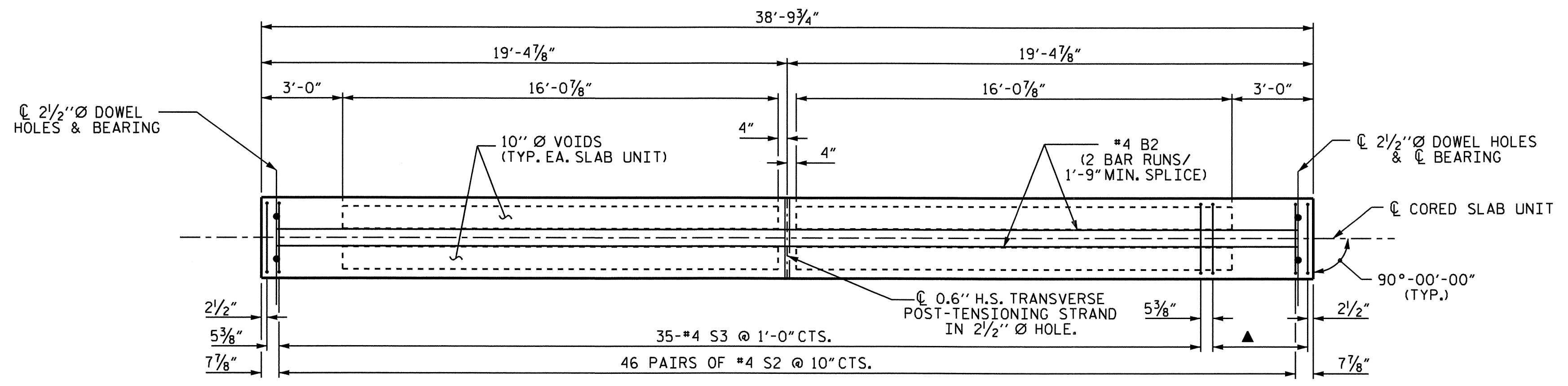


DRAWN BY: M.FOWLER DATE: 4/6/09
 CHECKED BY: J.D. HAWK DATE: 6/29/09



PLAN OF SPAN C

▲ SEE PART PLAN-EXTERIOR SECTION ON SHEET 1 OF 5 FOR ADDITIONAL #5 S3 BARS

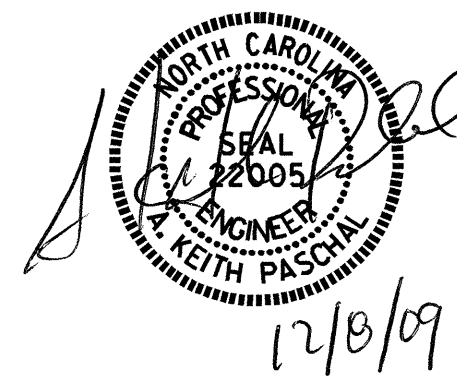


PLAN OF CORED SLAB UNIT

EXTERIOR UNIT SHOWN, INTERIOR UNIT SIMILAR EXCEPT OMIT #5 S3 BARS. FOR LOCATION OF ADDITIONAL REINFORCING STEEL AT END OF SLAB UNIT, SEE "PART-PLAN EXTERIOR SECTION" SHEET 1 OF 5.

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 4 OF 5

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SUPERSTRUCTURE PLAN OF SPAN C					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					21



DRAWN BY : M.FOWLER DATE : 4/7/09
 CHECKED BY : J.D. HAWK DATE : 6/29/09

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 2" Ø BACKER ROD SHALL CONFORM TO THE REQUIREMENTS OF TYPE M BOND BREAKER. SEE SECTION 1028 OF THE STANDARD SPECIFICATIONS.

WHEN CORED SLABS ARE CAST, A POSITIVE HOLD-DOWN SYSTEM SHALL BE EMPLOYED TO PREVENT VOIDS FROM RISING OR MOVING SIDEWAYS. THIS SYSTEM SHALL BE DESIGNED TO BE LEFT IN PLACE UNTIL THE CONCRETE HAS REACHED RELEASE STRENGTH. AT LEAST THREE 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 6400 PSI FOR SPANS A & B AND 4000 PSI FOR SPAN C.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

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

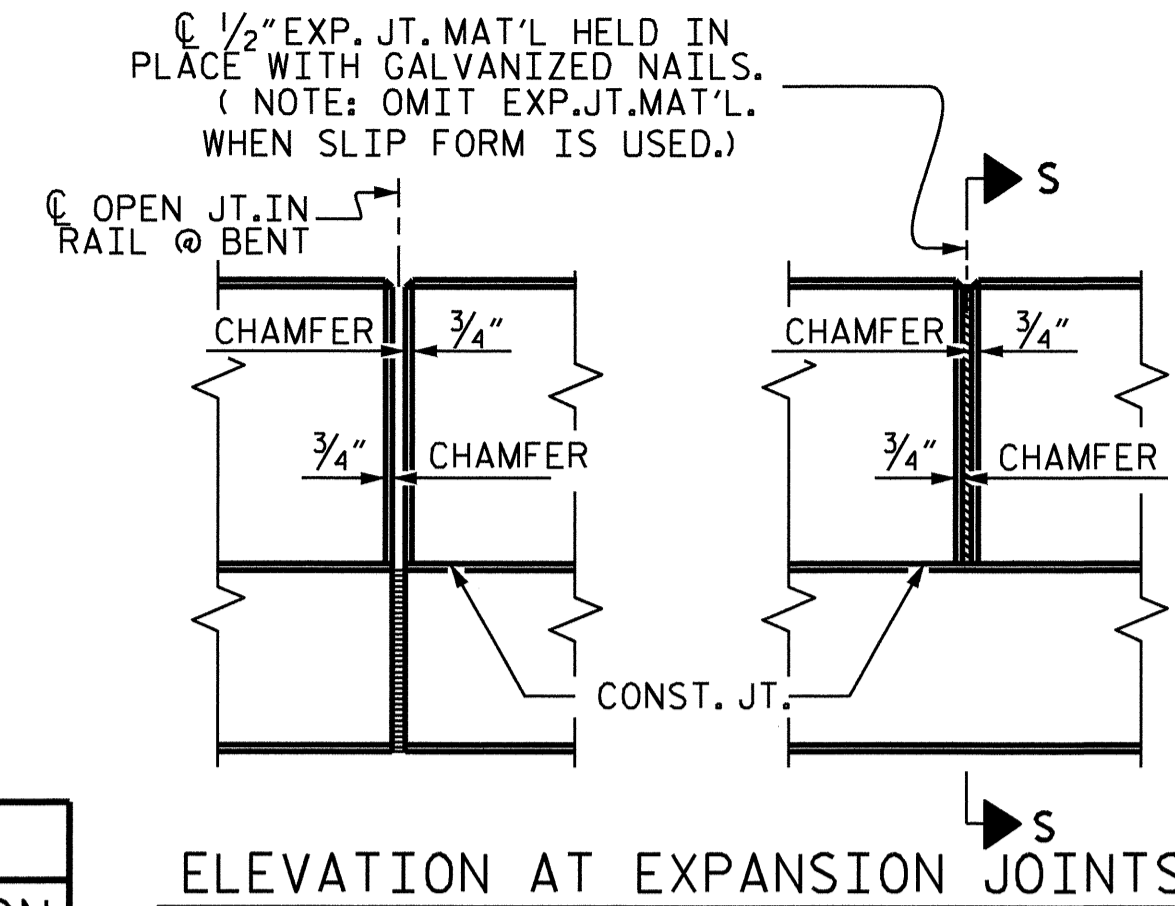
APPLY EPOXY PROTECTIVE COATING TO CORED SLAB UNIT ENDS.

VERTICAL 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 VERTICAL 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.

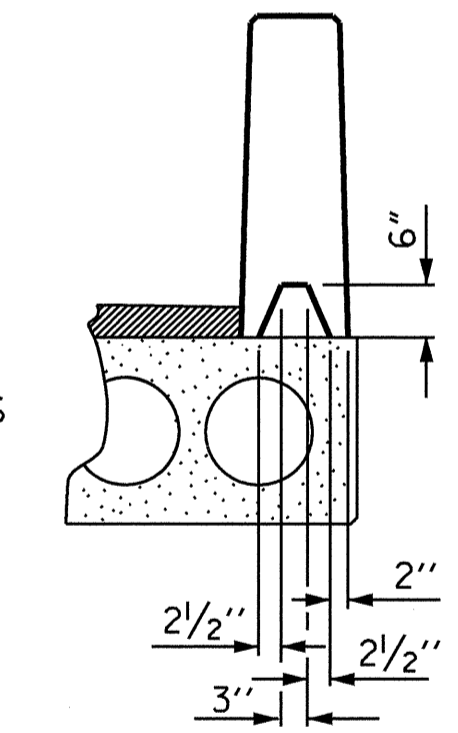
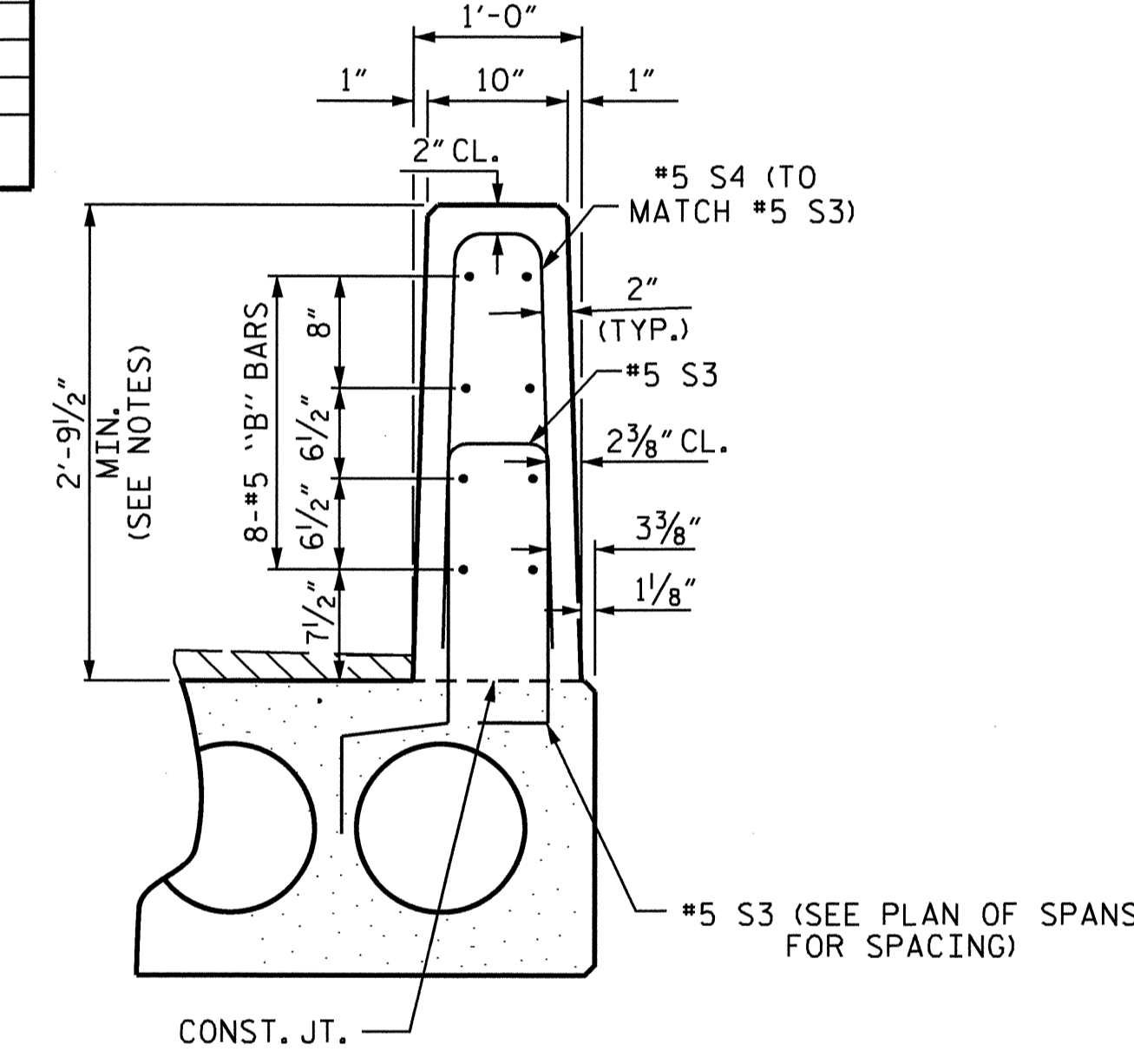
FOR PRESTRESSED CONCRETE MEMBERS SEE SPECIAL PROVISIONS.

FOR VERTICAL CONCRETE BARRIER RAIL, SEE SPECIAL PROVISIONS.

THE MINIMUM HEIGHT OF THE BARRIER RAIL IS SHOWN. THE HEIGHT OF THE BARRIER RAIL VARIES WHILE THE TOP OF THE RAIL FOLLOWS THE PROFILE OF THE GUTTER LINE.



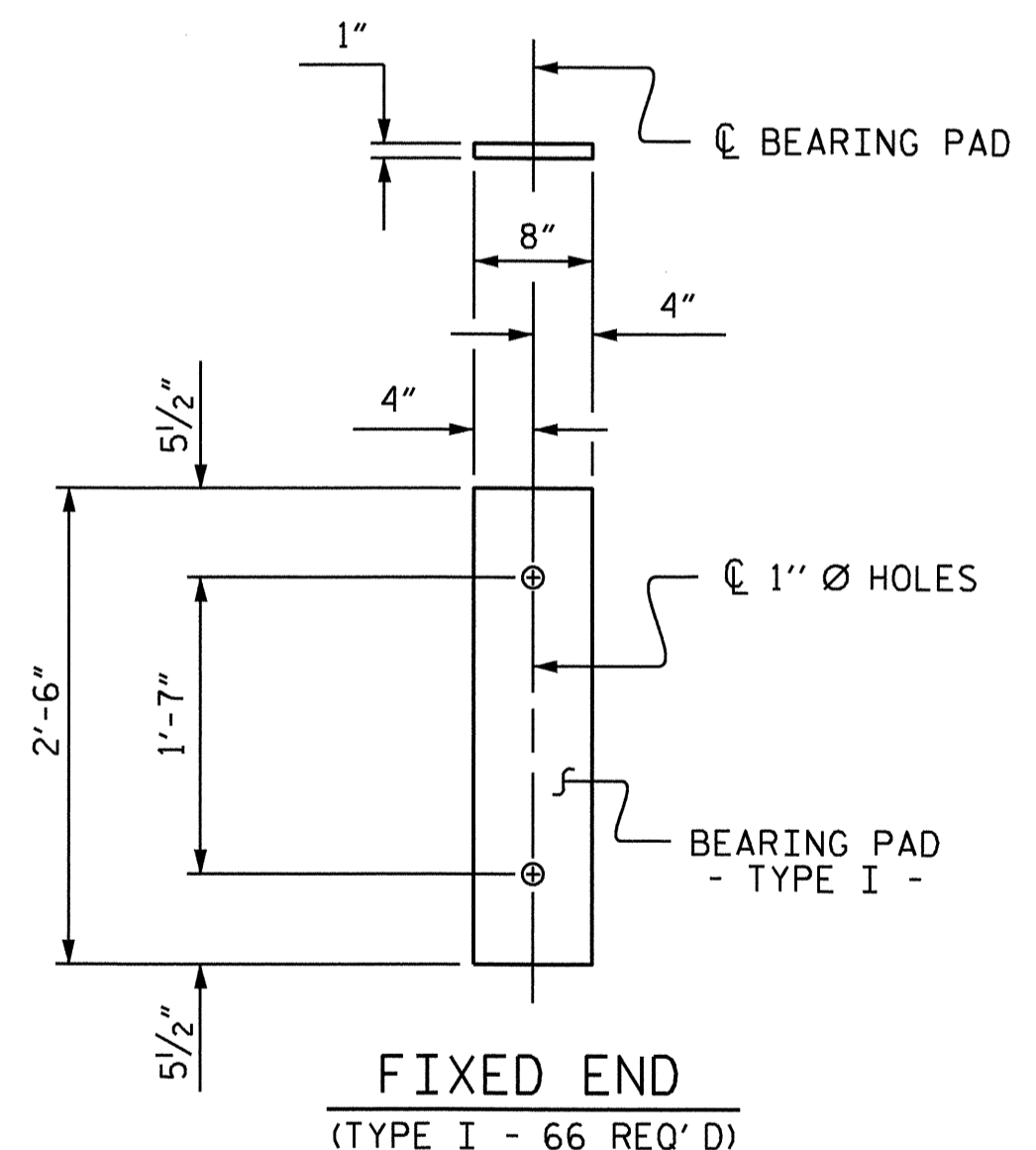
BARRIER RAIL DETAILS



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

CORED SLABS REQUIRED			
	NUMBER PER SPAN	LENGTH	TOTAL LENGTH
EXTERIOR C.S. - SPAN A	2	44'-10 1/2"	89'-9"
INTERIOR C.S. - SPAN A	9	44'-10 1/2"	403'-10 1/2"
EXTERIOR C.S. - SPAN B	2	44'-10 1/2"	89'-9"
INTERIOR C.S. - SPAN B	9	44'-10 1/2"	403'-10 1/2"
EXTERIOR C.S. - SPAN C	2	38'-9 3/4"	77'-7 1/2"
INTERIOR C.S. - SPAN C	9	38'-9 3/4"	349'-3 3/4"
TOTAL			1414'-2 1/4"

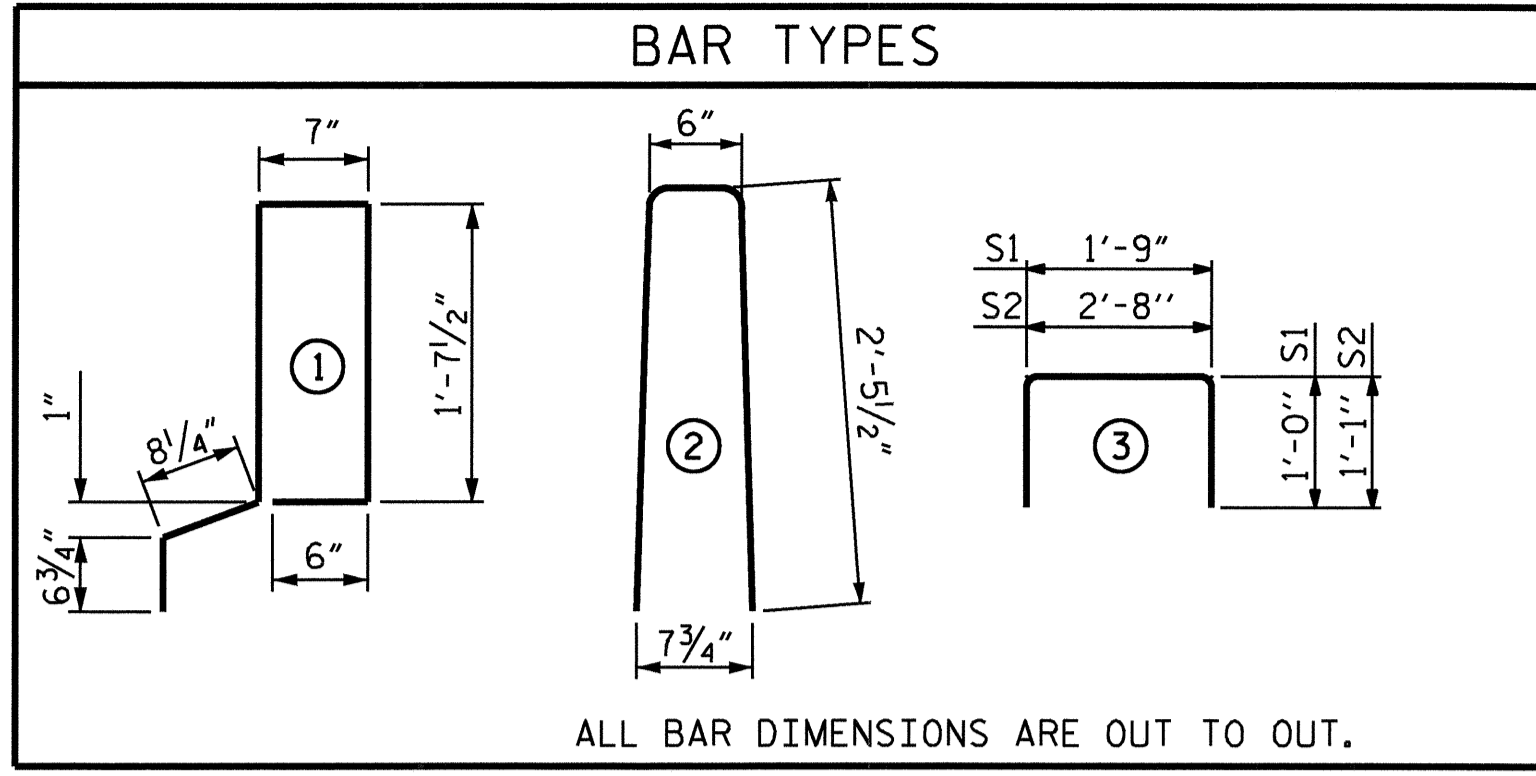
SPAN B							
BILL OF MATERIAL FOR ONE CORED SLAB SECTION							
BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT LENGTH	EXTERIOR UNIT WEIGHT	INTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT
B1	4	#4	STR	23'-2"	62	23'-2"	62
S1	8	#4	3	3'-9"	20	3'-9"	20
S2	106	#4	3	4'-10"	342	4'-10"	342
*S3	46	#5	1	5'-7"	268		
REINFORCING STEEL				LBS.	424		424
* EPOXY COATED REINFORCING STEEL				LBS.	268		
5,000 P.S.I. CONCRETE				CU. YDS.	5.9		5.9
0.6" Ø L.R. STRANDS No. : 16							



ELASTOMERIC BEARING DETAILS

GRADE 270 STRANDS	
AREA (SQUARE INCHES)	0.6" Ø L.R.
ULTIMATE STRENGTH (LBS. PER STRAND)	58,600
APPLIED PRESTRESS (LBS. PER STRAND)	43,950

BILL OF MATERIAL FOR VERTICAL CONCRETE BARRIER RAIL								
BAR	BARS PER SPAN			TOTAL NO.	SIZE	TYPE	LENGTH	WEIGHT
	SPAN A	SPAN B	SPAN C					
*B3	32	32		64	#5	STR	22'-1"	1474
*B4			32	32	#5	STR	19'-0"	634
*S4	100	92	88	280	#5	2	5'-5"	1582
* EPOXY COATED REINFORCING STEEL							LBS.	3690
CLASS AA CONCRETE							CU. YDS.	24.9
TOTAL LIN. FT. OF VERTICAL CONCRETE BARRIER RAIL							LIN. FT.	257.63



ALL BAR DIMENSIONS ARE OUT TO OUT.

SPAN A							
BILL OF MATERIAL FOR ONE CORED SLAB SECTION							
BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT LENGTH	EXTERIOR UNIT WEIGHT	INTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT
B1	4	#4	STR	23'-2"	62	23'-2"	62
S1	8	#4	3	3'-9"	20	3'-9"	20
S2	106	#4	3	4'-10"	342	4'-10"	342
*S3	50	#5	1	5'-7"	291		
REINFORCING STEEL				LBS.	424		424
* EPOXY COATED REINFORCING STEEL				LBS.	291		
8,000 P.S.I. CONCRETE				CU. YDS.	5.9		5.9
0.6" Ø L.R. STRANDS No. : 16							

DEAD LOAD DEFLECTION AND CAMBER	
SPANS A & B	
0.6" Ø L.R. STRAND	
CAMBER (SLAB ALONE IN PLACE) ↓	1 13/16"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD** ↓	5/16"
FINAL CAMBER ↑	1 1/2"

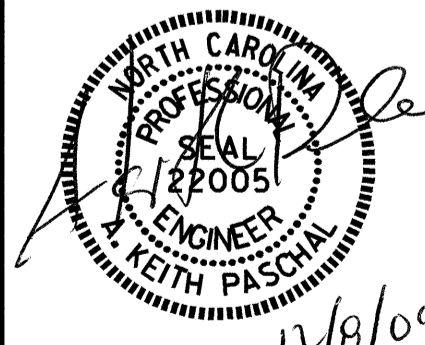
SPAN C							
BILL OF MATERIAL FOR ONE CORED SLAB SECTION							
BAR	NUMBER	SIZE	TYPE	EXTERIOR UNIT LENGTH	EXTERIOR UNIT WEIGHT	INTERIOR UNIT LENGTH	INTERIOR UNIT WEIGHT
B2	4	#4	STR	20'-2"	54	20'-2"	54
S1	8	#4	3	3'-9"	20	3'-9"	20
S2	92	#4	3	4'-10"	297	4'-10"	297
*S3	44	#5	1	5'-7"	256		
REINFORCING STEEL				LBS.	371		371
* EPOXY COATED REINFORCING STEEL				LBS.	256		
5,000 P.S.I. CONCRETE				CU. YDS.	5.1		5.1
0.6" Ø L.R. STRANDS No. : 12							

DEAD LOAD DEFLECTION AND CAMBER	
SPAN C	
0.6" Ø L.R. STRAND	
CAMBER (SLAB ALONE IN PLACE) ↓	1 3/16"
DEFLECTION DUE TO SUPERIMPOSED DEAD LOAD** ↓	3/16"
FINAL CAMBER ↑	1"

PROJECT NO. B-4680
WILSON COUNTY
STATION: 14+55.00 -L-

SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STANDARD
3'-0" X 1'-6"
PRESTRESSED CONCRETE
CORED SLAB UNIT



REVISIONS						SHEET NO. S-9
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 21
2			4			

ASSEMBLED BY: M.FOWLER DATE: 8/11/09
CHECKED BY: J.D.HAWK DATE: 8/13/09
DRAWN BY: WJH 4/89 REV. 7/10/01 RWW/LJS
CHECKED BY: FCJ 5/89 REV. 5/7/03RRR RWW/JTE
REV. 5/1/06R TLA/GM

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.

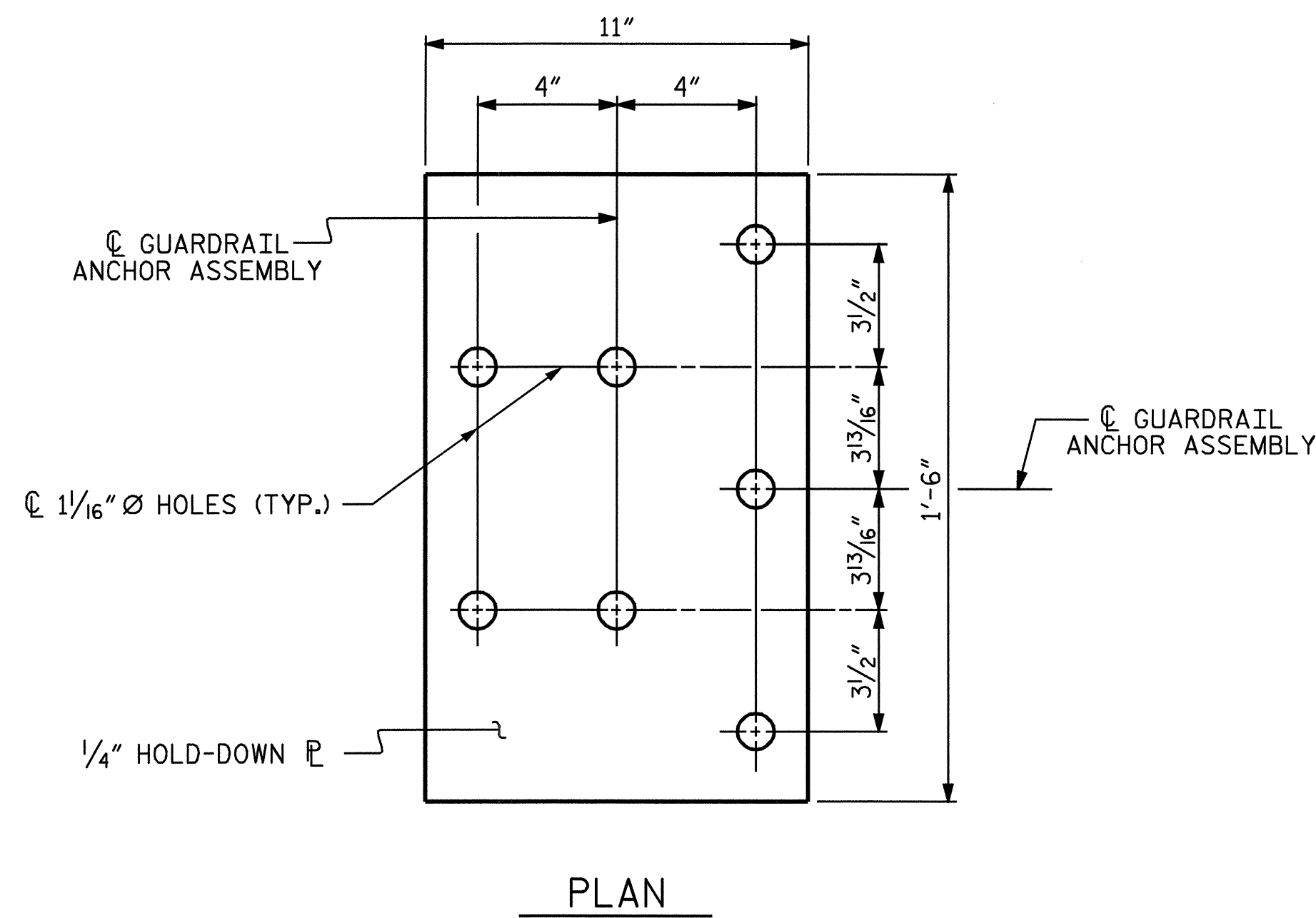
AFTER INSTALLATION, THE EXPOSED THREAD OF THE BOLT SHALL BE BURRED WITH A SHARP POINTED TOOL.

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

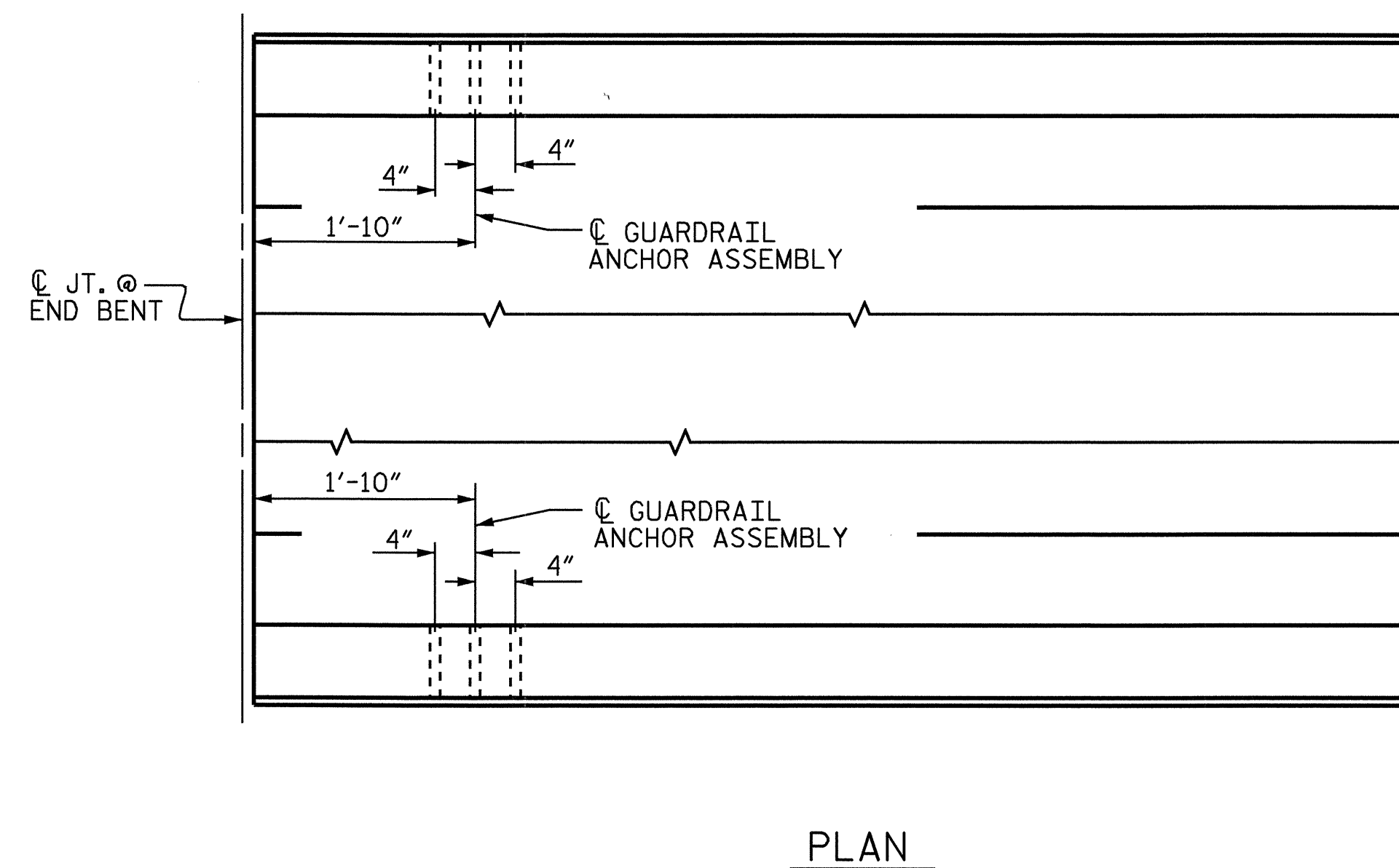
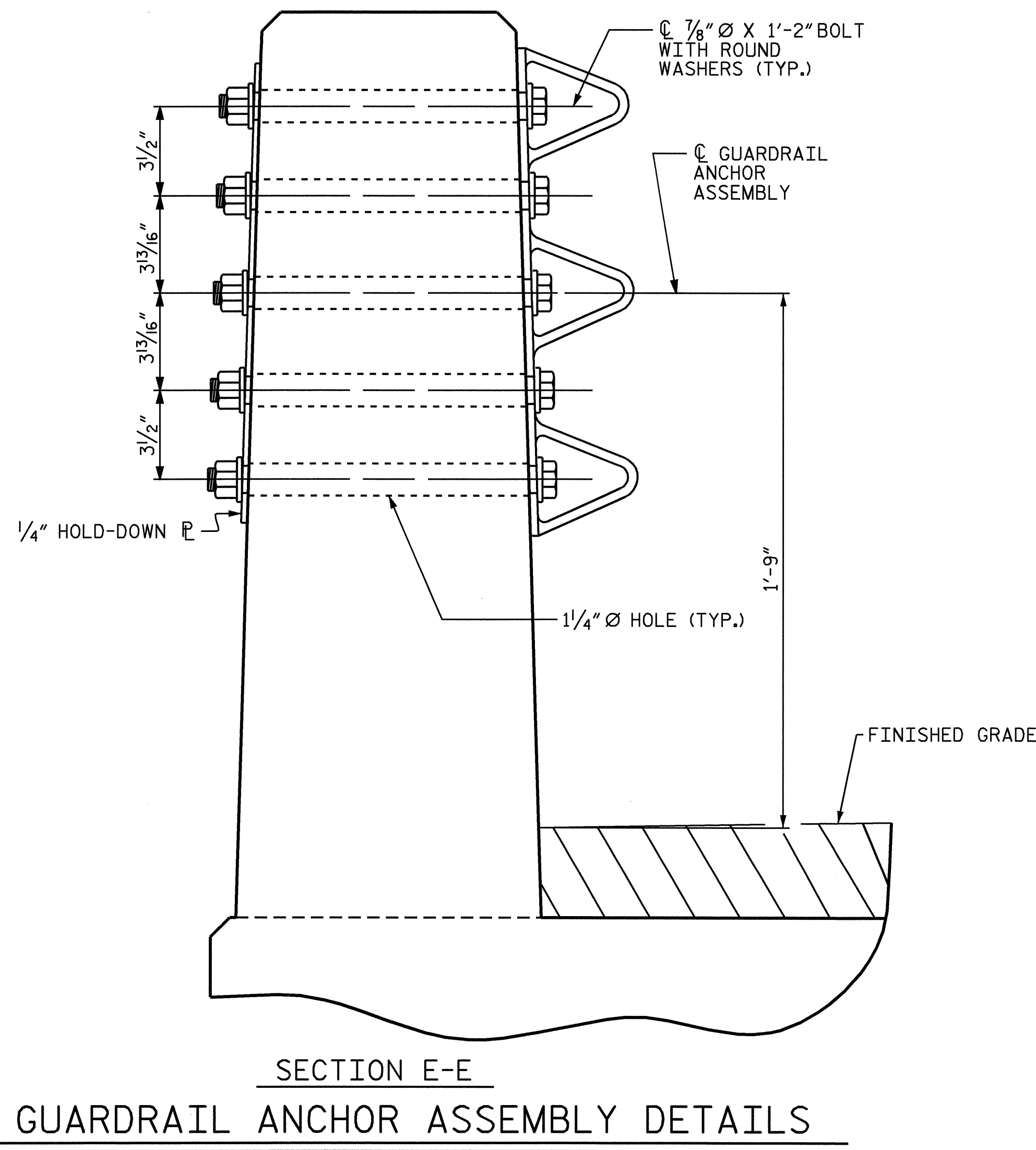
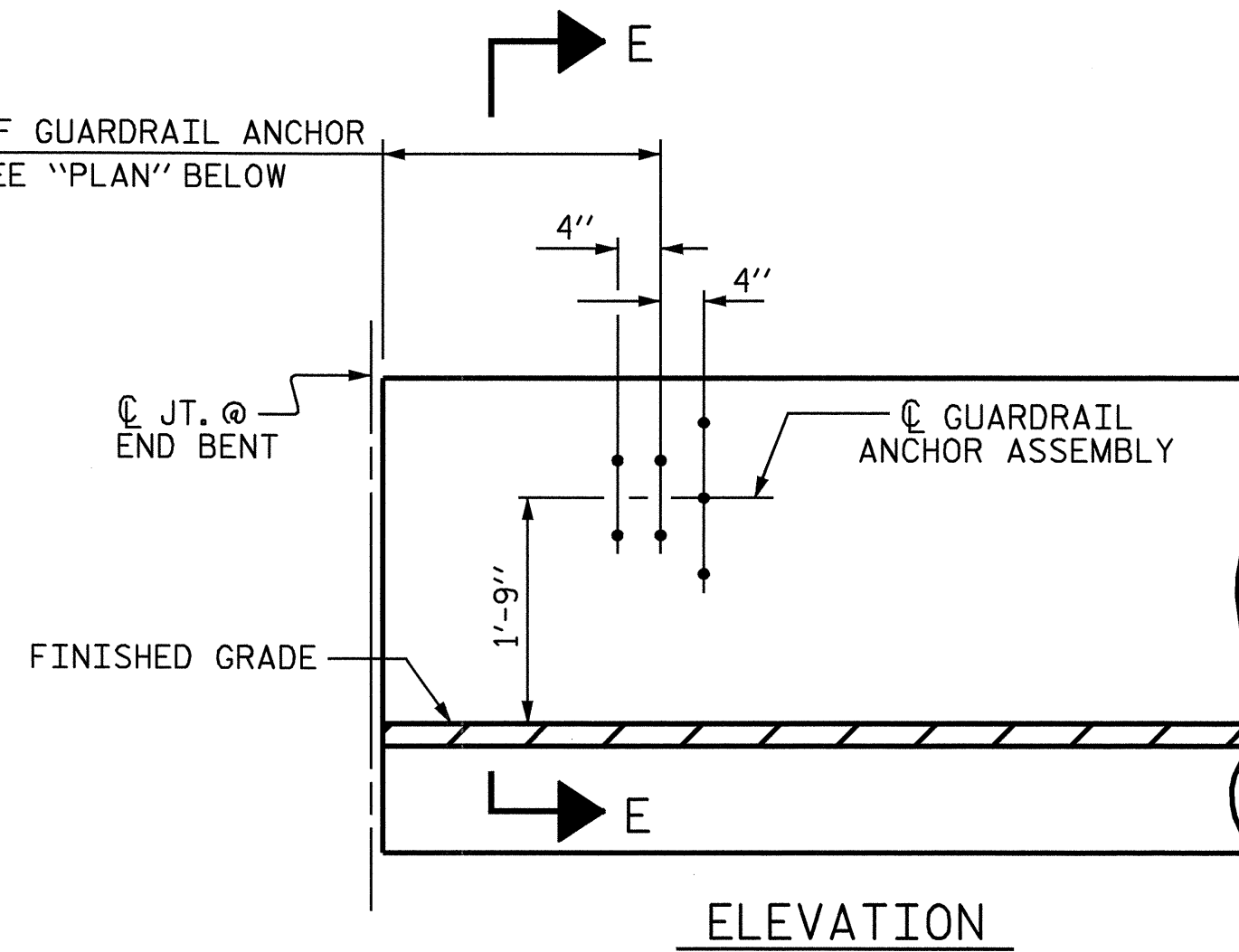
THE VERTICAL REINFORCING BARS MAY BE SHIFTED SLIGHTLY IN THE VERTICAL CONCRETE BARRIER RAIL TO CLEAR ASSEMBLY BOLTS.

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

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.

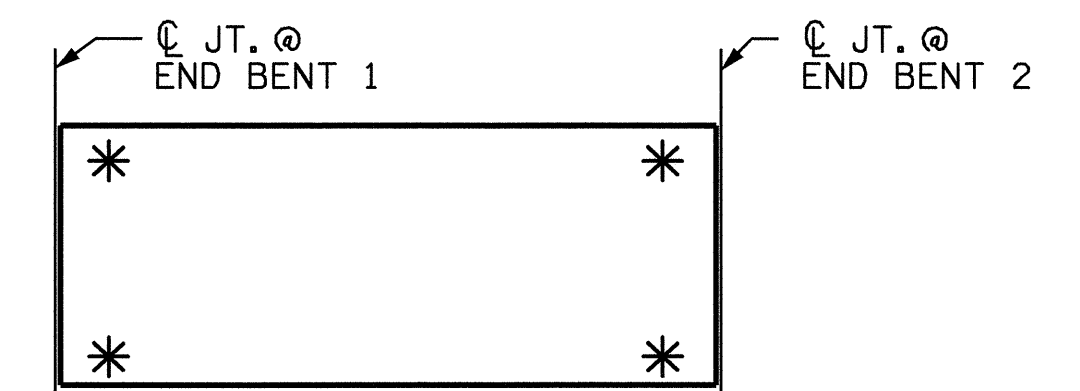


FOR LOCATION OF GUARDRAIL ANCHOR ASSEMBLY, SEE "PLAN" BELOW



LOCATION OF ANCHORS FOR GUARDRAIL

END BENT 1 SHOWN, END BENT 2 SIMILAR.

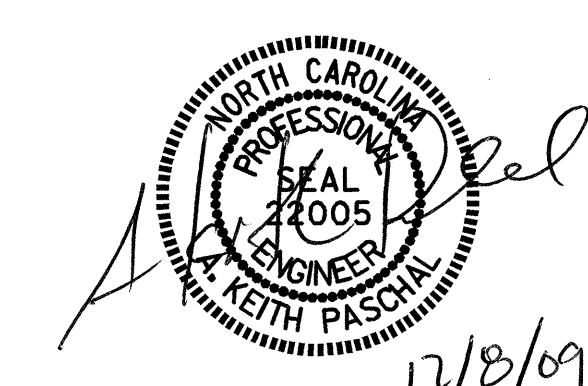


SKETCH SHOWING POINTS OF ATTACHMENTS

* DENOTES GUARDRAIL ANCHOR ASSEMBLY

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

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



ASSEMBLED BY : M.FOWLER	DATE : 4/8/09
CHECKED BY : J.G. KHARVA	DATE : 8/14/09
DRAWN BY : MAA 12/06	ADDED 12/15/06
CHECKED BY : GM 12/06	

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REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					21

NOTES

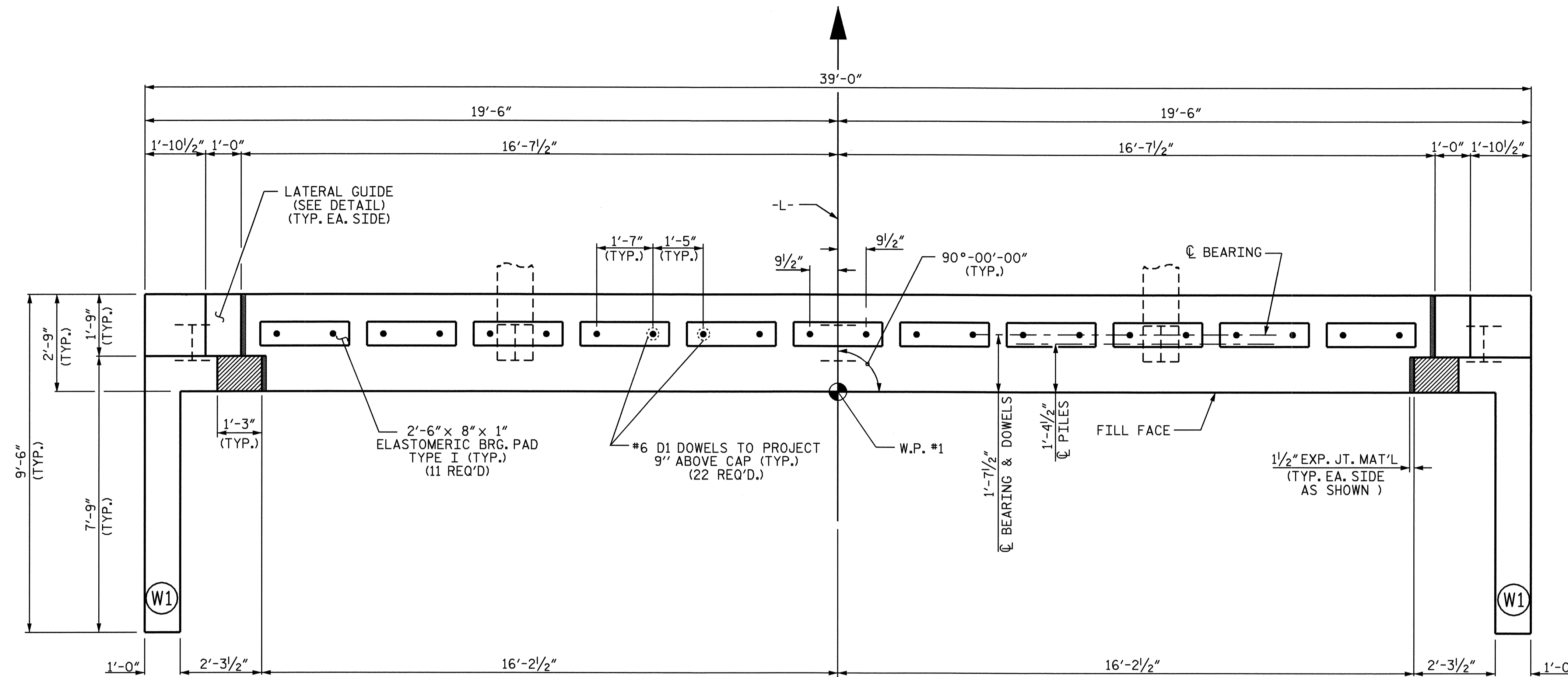
STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

THE LATERAL GUIDE AT EACH END OF THE CAP IS NOT TO BE POURED UNTIL AFTER THE CORED SLAB UNITS ARE IN PLACE.

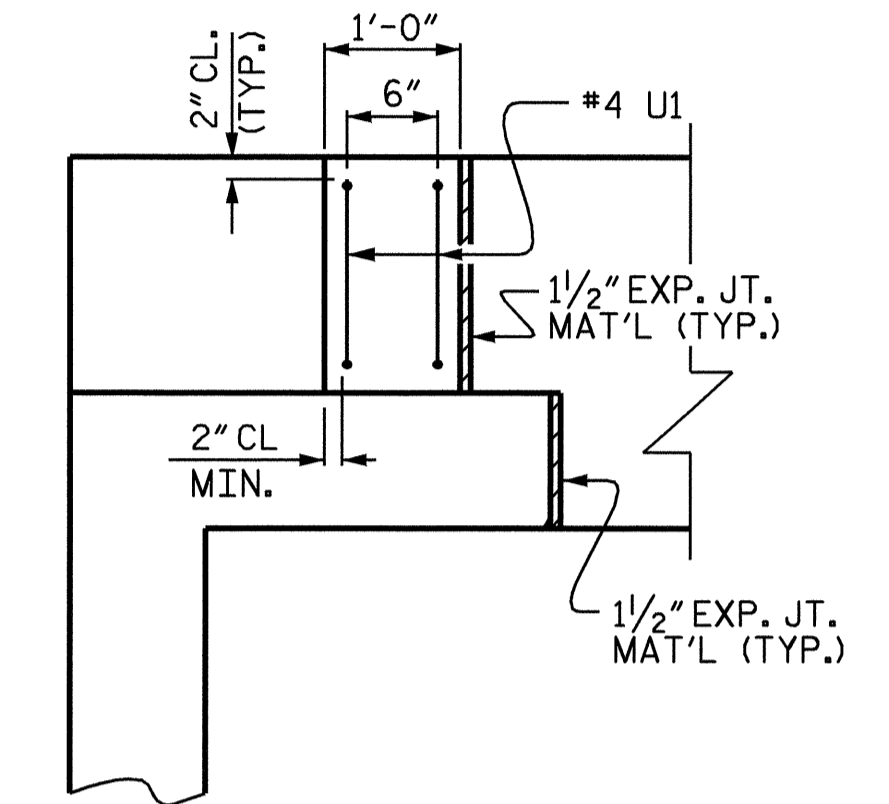
THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.

THE CONTRACTOR SHALL PROVIDE FOR INSTALLATION OF THE 4" DIAMETER DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

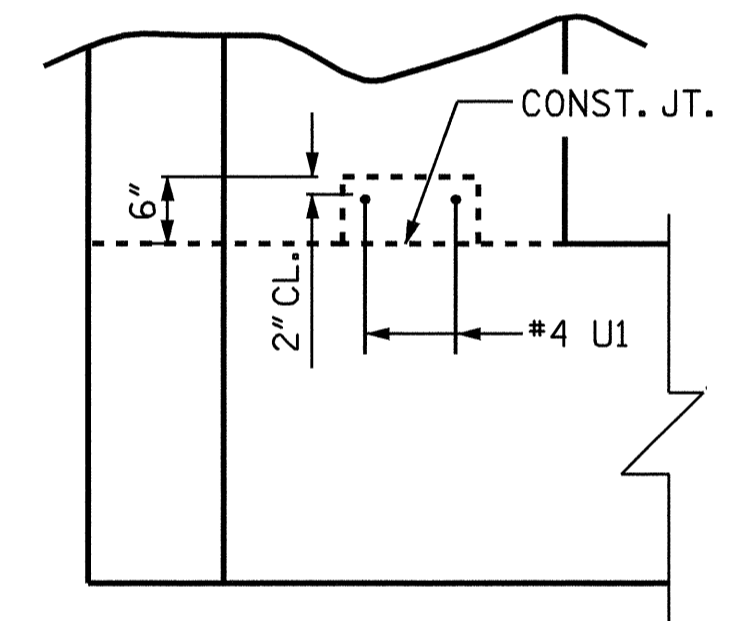
FOR PILE SPLICE DETAILS, SEE END BENT 2.



PLAN



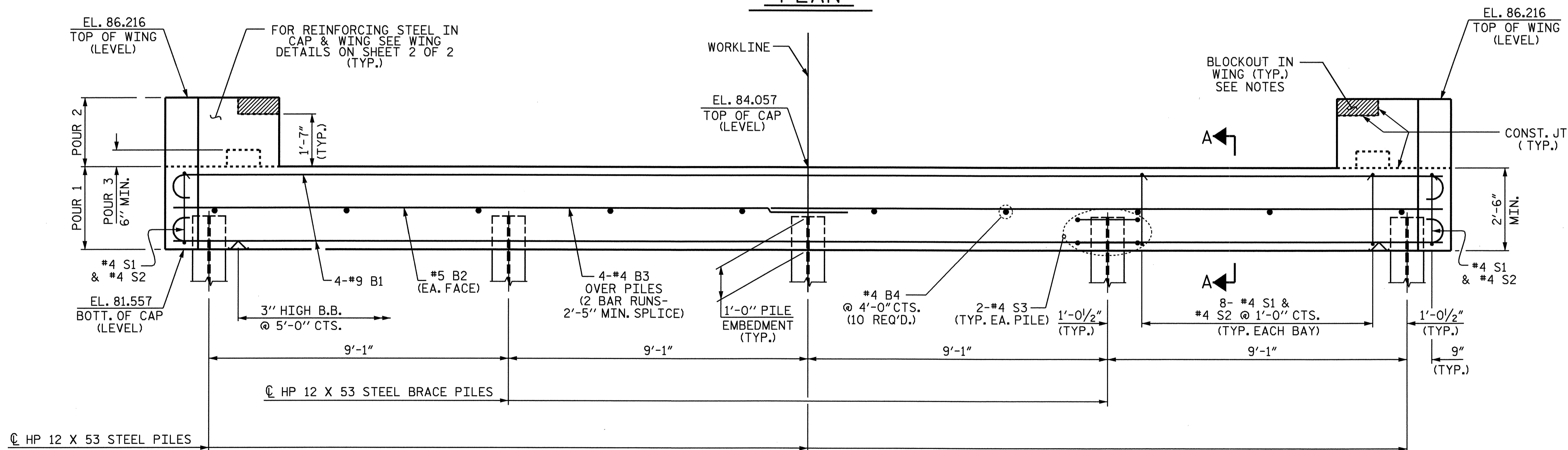
PLAN



ELEVATION

LATERAL GUIDE

(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)



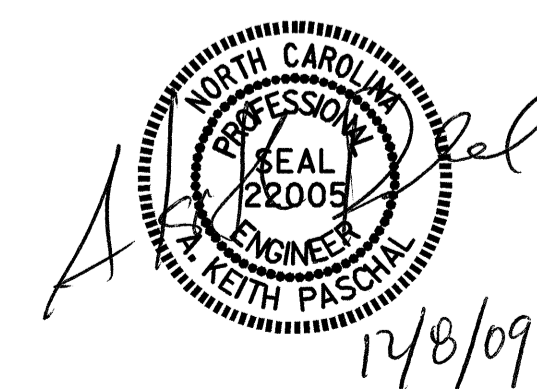
ELEVATION

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 END BENT 1

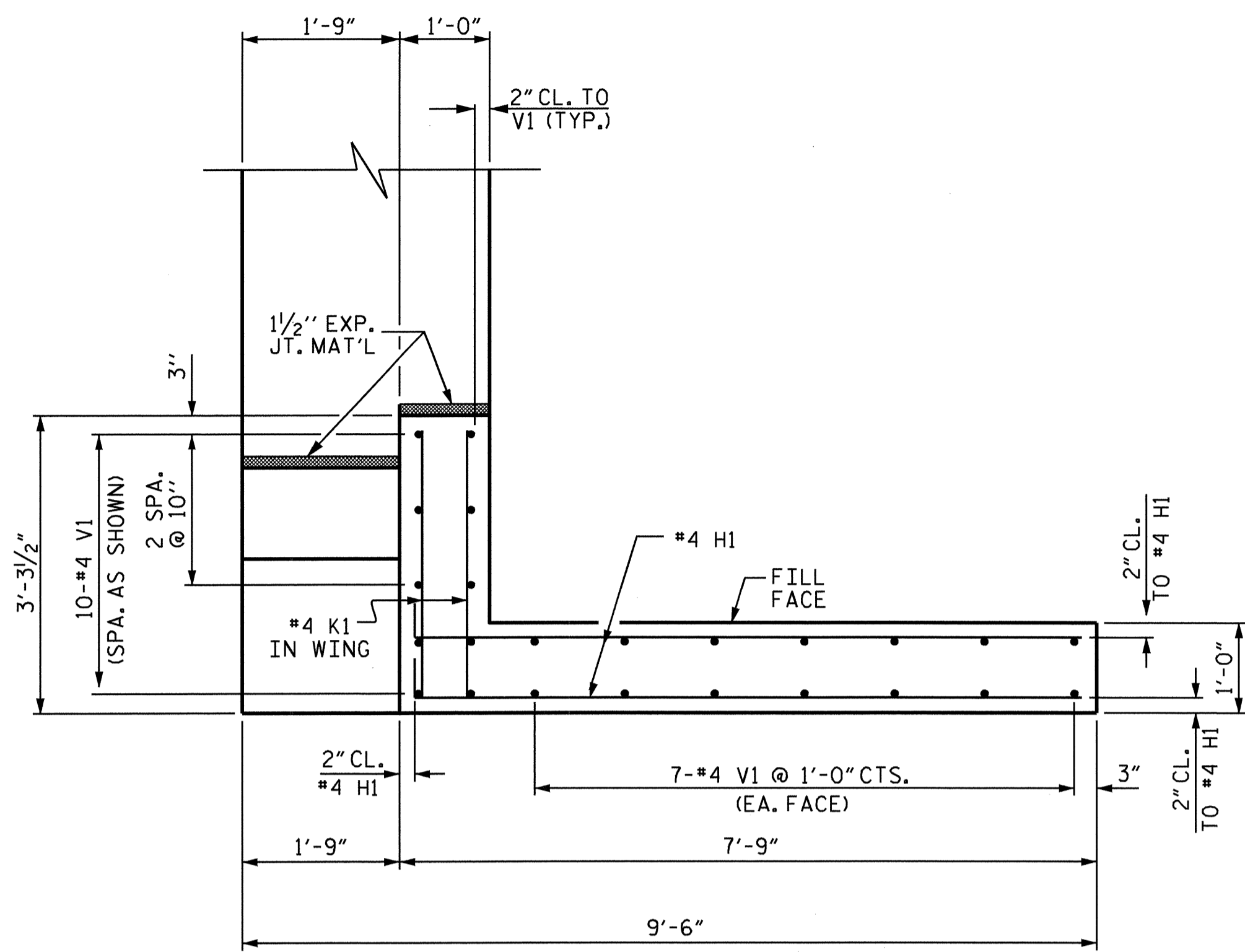


DRAWN BY: J. G. KHARVA DATE: 5/28/09
 CHECKED BY: J. D. HAWK DATE: 7/20/09

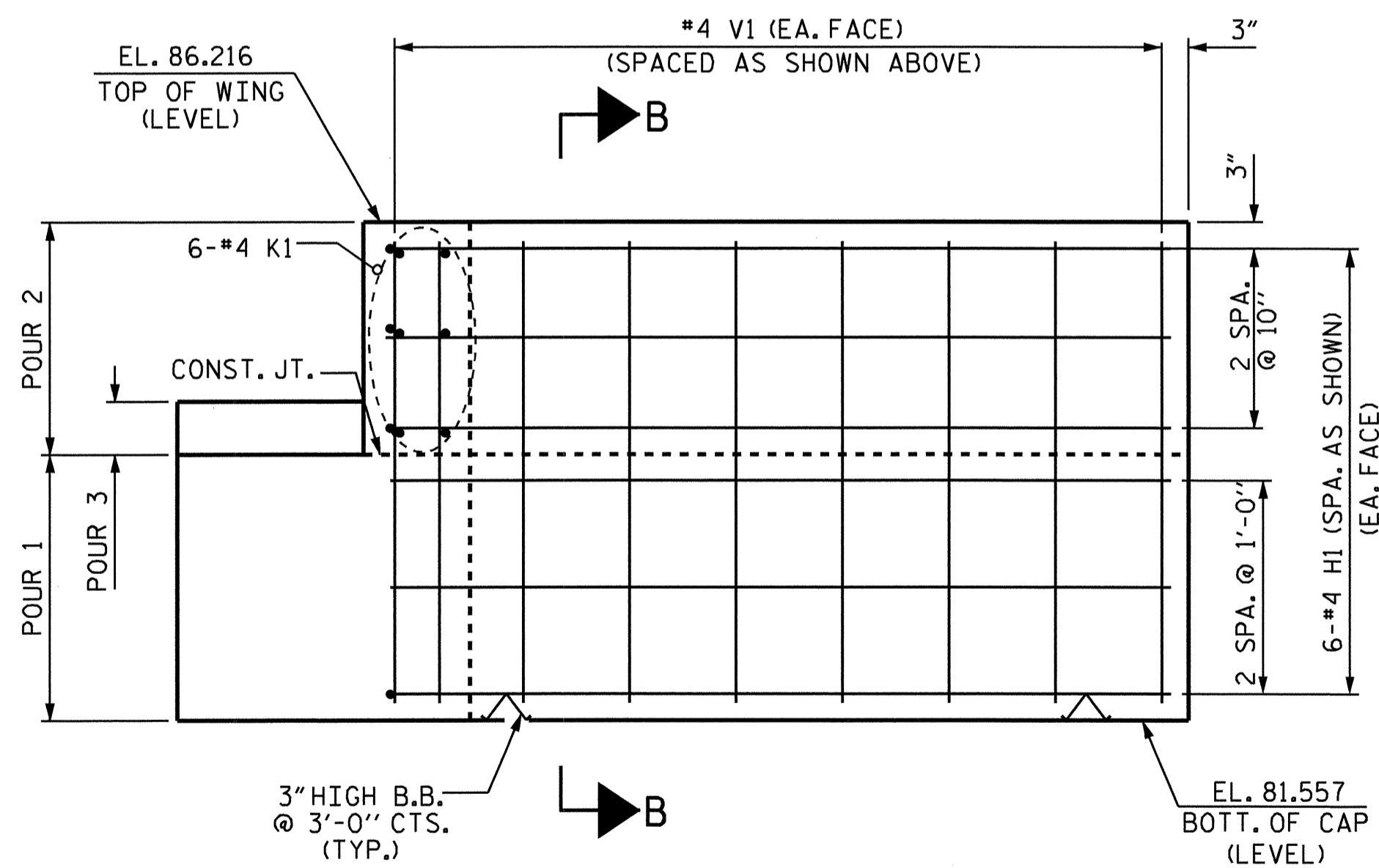
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 kpaschal

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

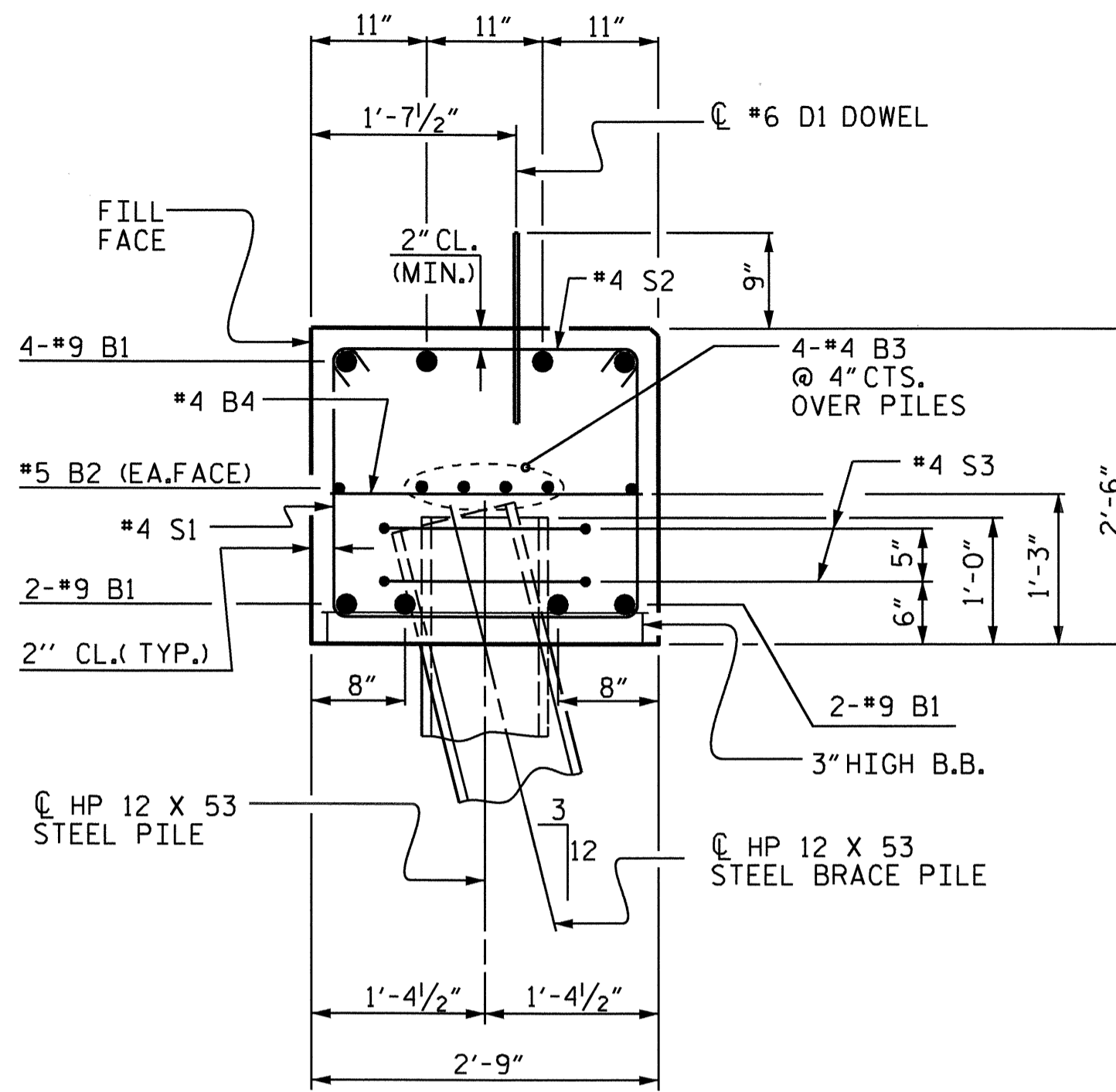
TOTAL SHEETS: 21



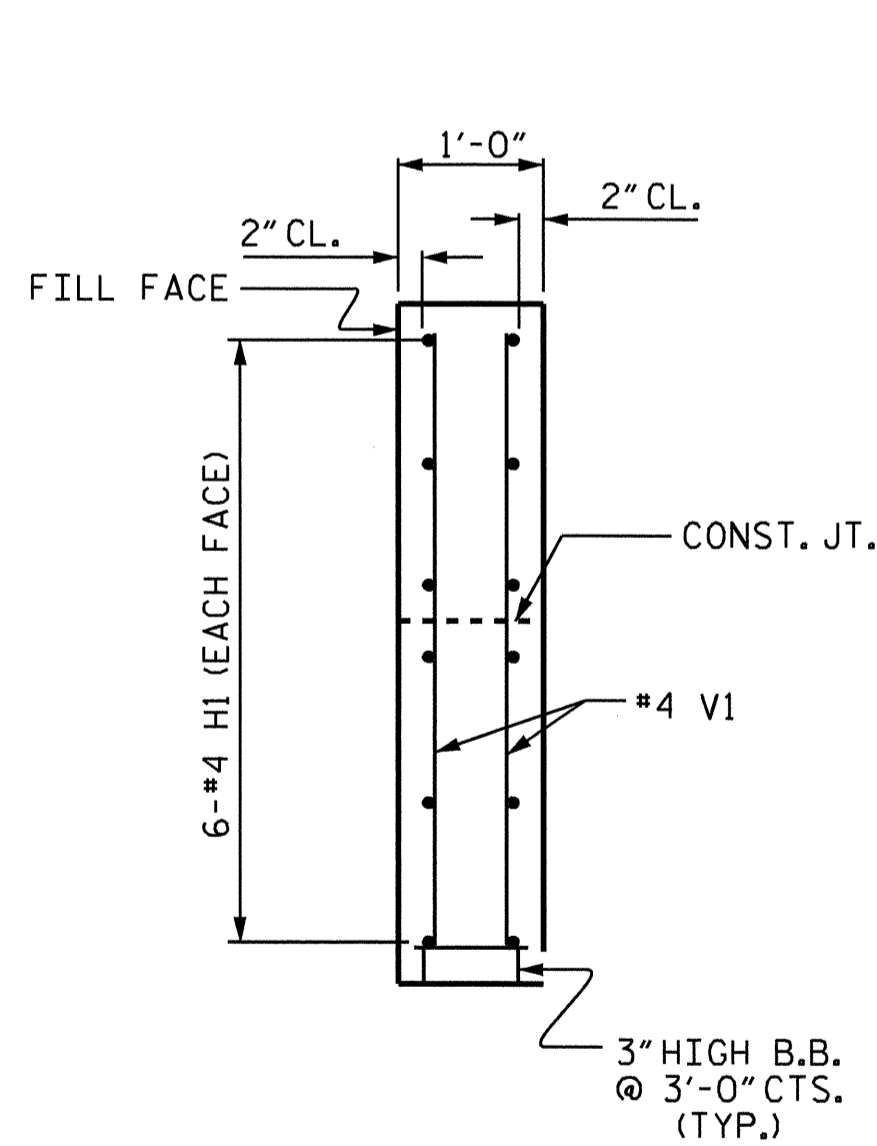
PLAN OF WING - W1
(LEFT WING SHOWN RIGHT WING SIMILAR)



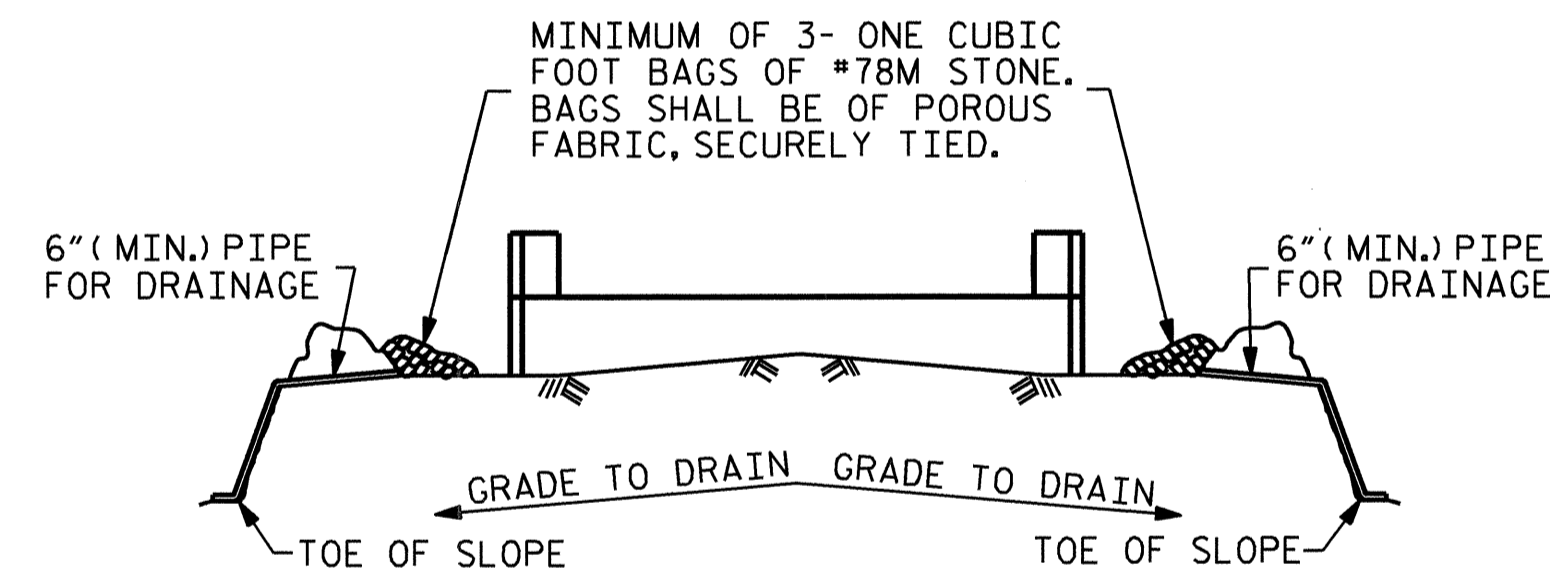
ELEVATION OF WING - W1
(LEFT WING SHOWN RIGHT WING SIMILAR)



SECTION A-A



SECTION B-B

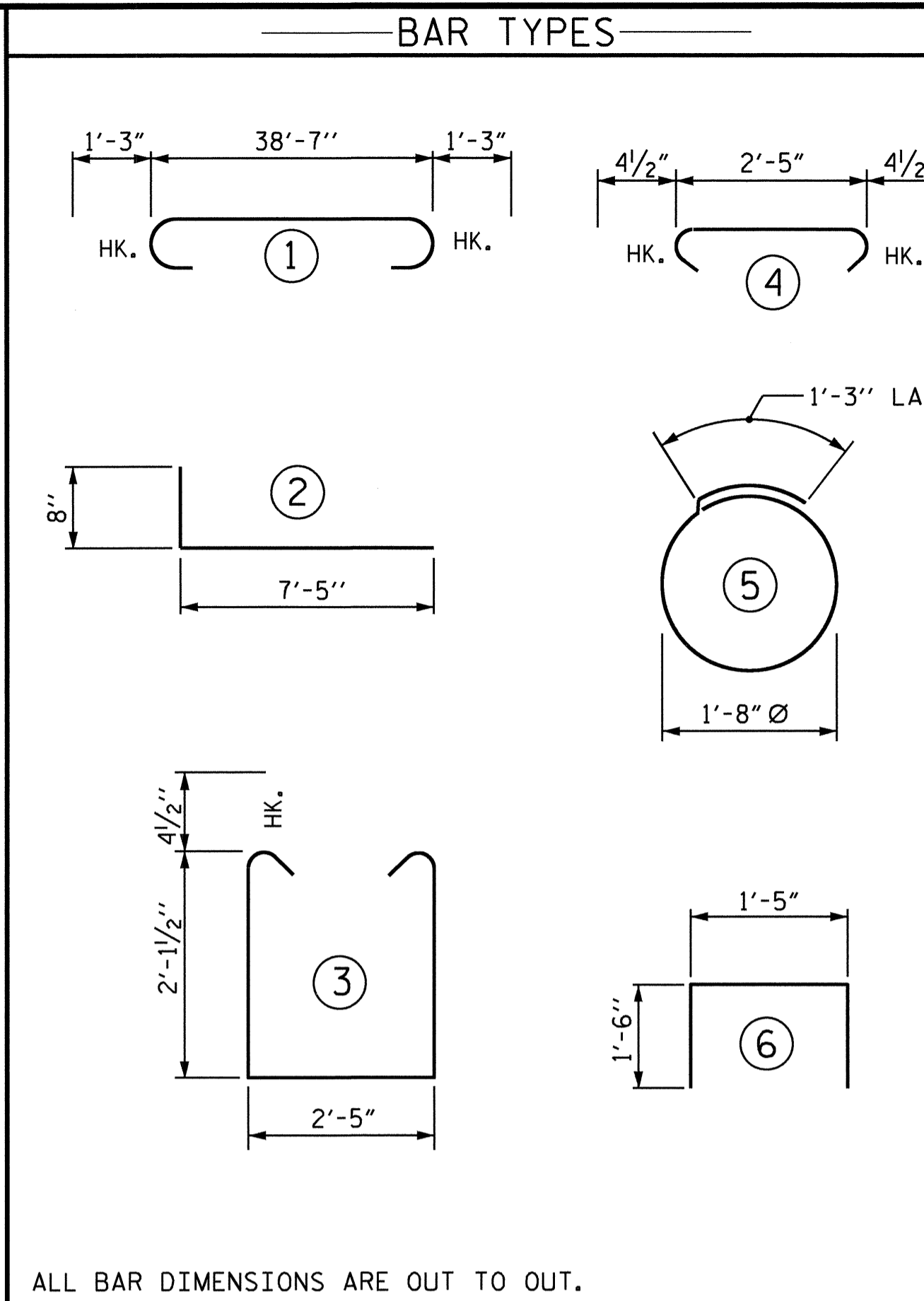


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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



ALL BAR DIMENSIONS ARE OUT TO OUT.

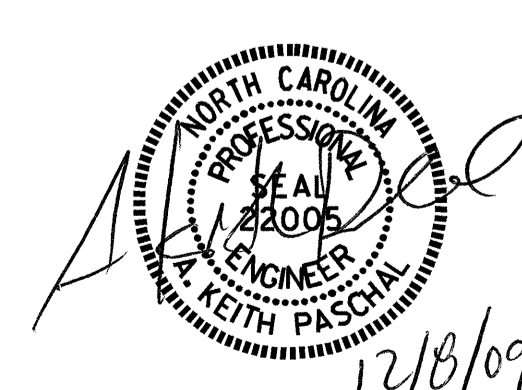
BILL OF MATERIAL

END BENT 1

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	#9	1	41'-1"	1117
B2	#5	STR	38'-8"	81
B3	#4	STR	20'-7"	110
B4	#4	STR	2'-5"	16
D1	#6	STR	1'-6"	50
H1	#4	2	8'-1"	130
K1	#4	STR	2'-11"	23
S1	#4	3	7'-5"	168
S2	#4	4	3'-2"	72
S3	#4	5	6'-6"	43
U1	#4	6	4'-5"	12
V1	#4	STR	4'-3"	136
REINFORCING STEEL			LBS	1958
CLASS A CONCRETE BREAKDOWN				
POUR 1 (CAP & LOWER PART OF WINGS)			C.Y.	11.2
POUR 2 (UPPER PART OF WINGS)			C.Y.	1.5
POUR 3 (LATERAL GUIDES)			C.Y.	0.1
TOTAL			C.Y.	12.8
12 X 53 STEEL PILES :				
NO. : 5			LIN. FT. :	250

DRAWN BY : J. G. KHARVA DATE 05/28/09
CHECKED BY : J. D. HAWK DATE 05/28/09

08-DEC-2009 14:43
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jdnowk



PROJECT NO. B-4680
WILSON COUNTY
STATION: 14+55.00 -L-
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT 1

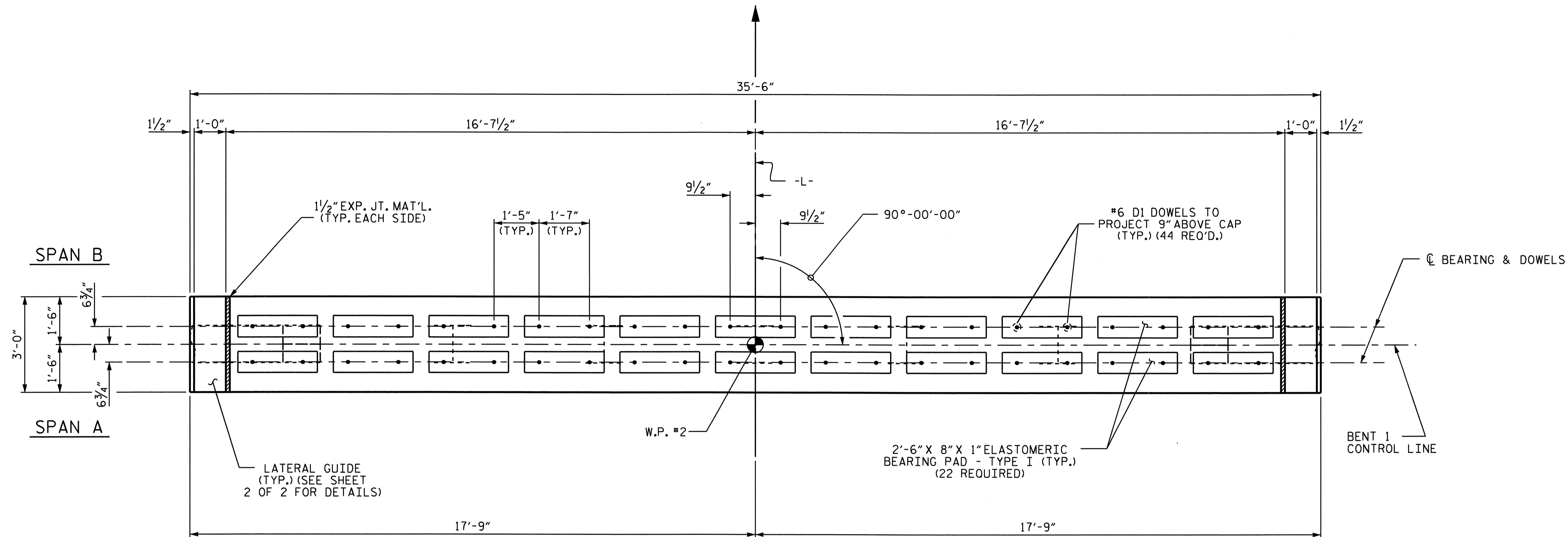
REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					21

NOTES

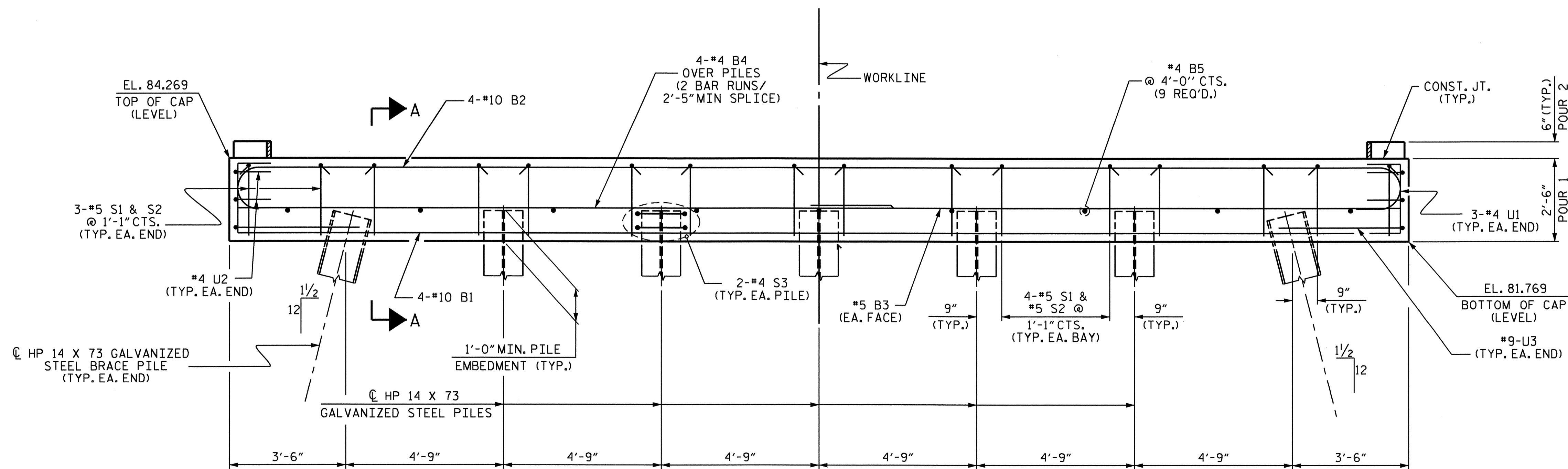
STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

THE LATERAL GUIDE AT EACH END OF THE CORED SLAB IS NOT TO BE POURED UNTIL AFTER THE CORED SLAB UNITS ARE IN PLACE.

GALVANIZE THE TOP 28'-0" FEET OF EACH INTERIOR BENT PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.



PLAN



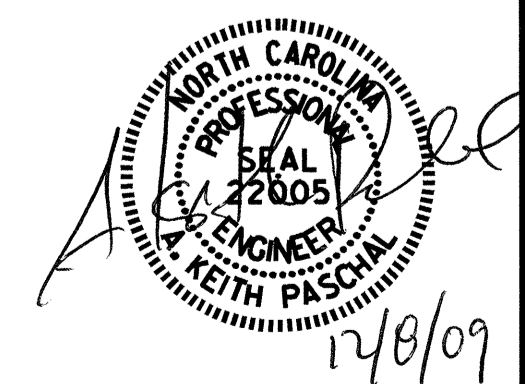
ELEVATION

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

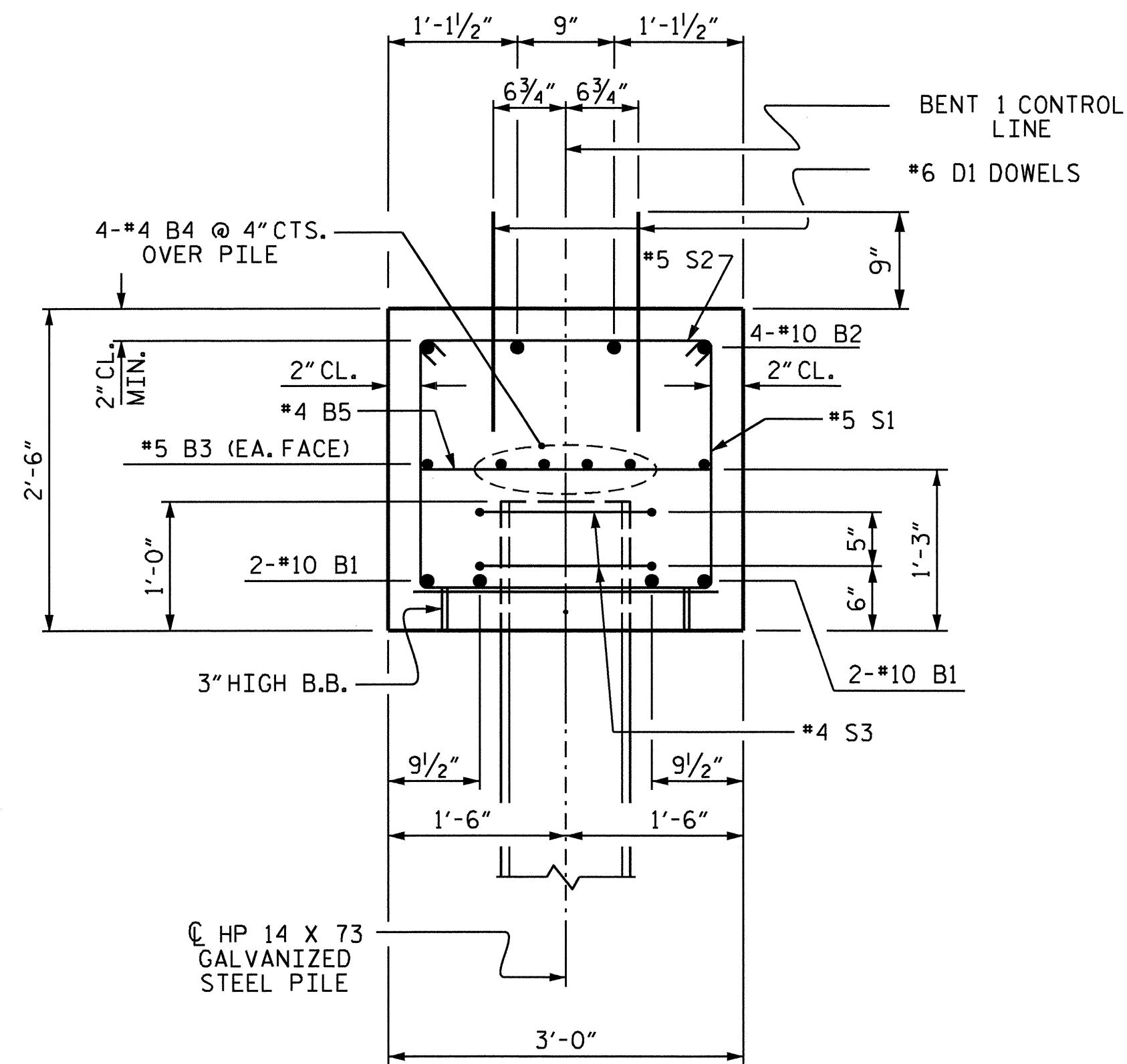
SUBSTRUCTURE
 BENT 1



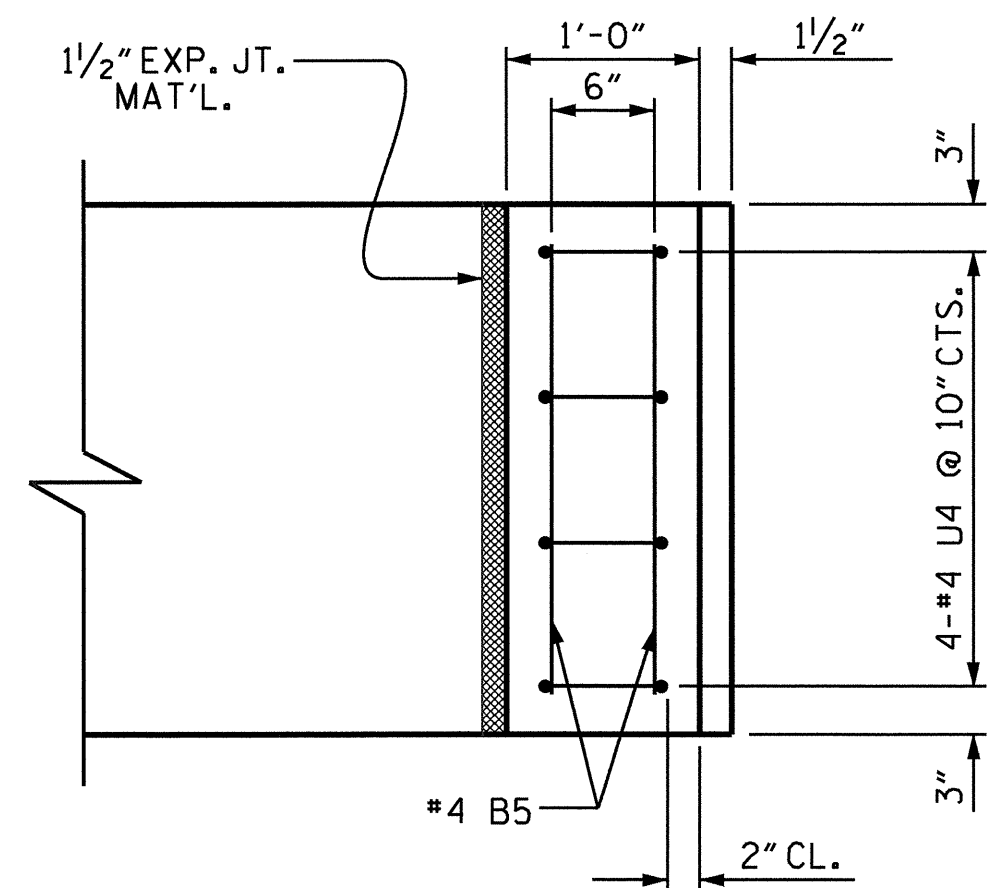
DRAWN BY : M.FOWLER DATE : 5/29/09
 CHECKED BY : J.D. HAWK DATE : 7/1/09

08-DEC-2009 14:42
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 jdhawk

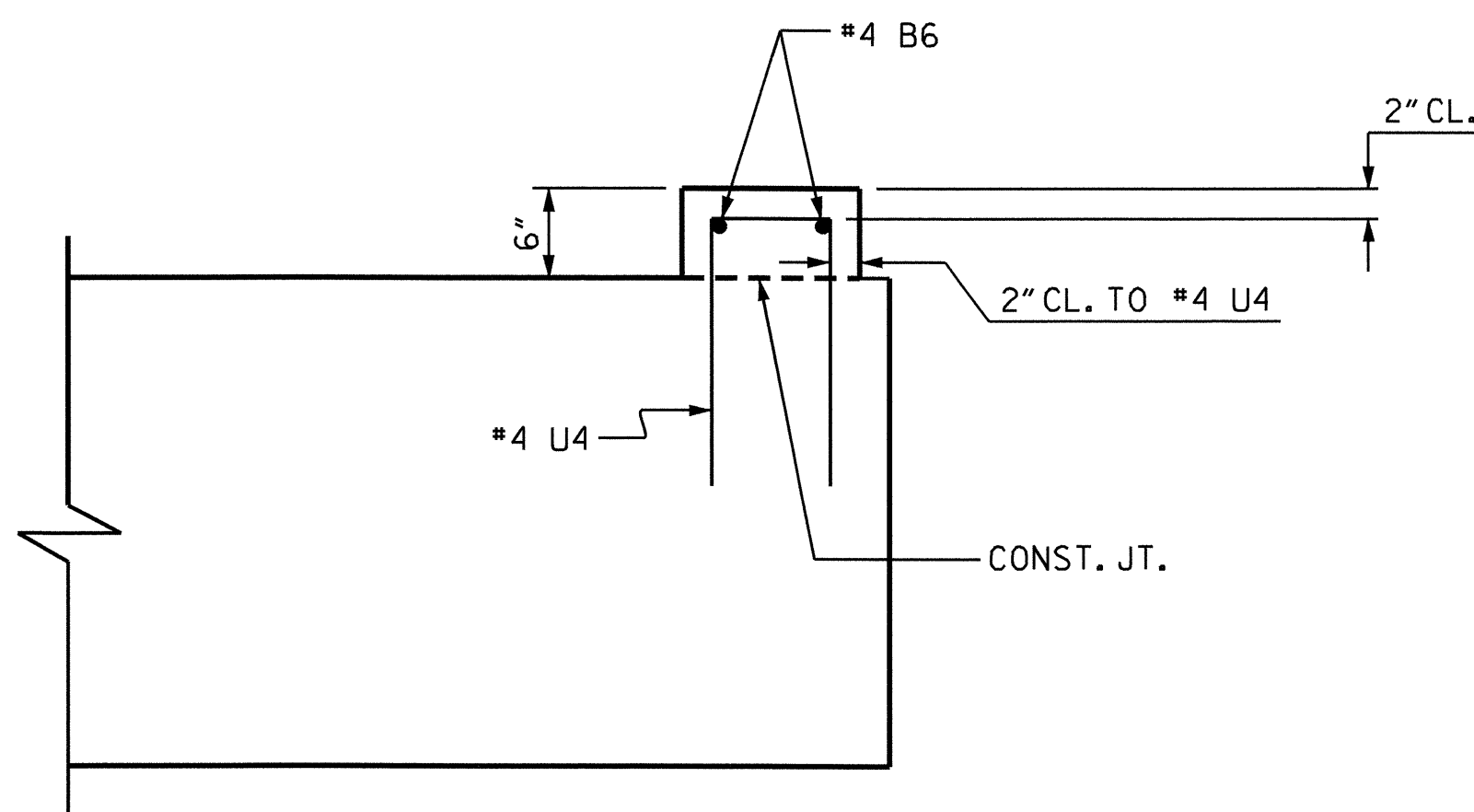
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-13	
1			3			TOTAL SHEETS	21
2			4				



SECTION A-A



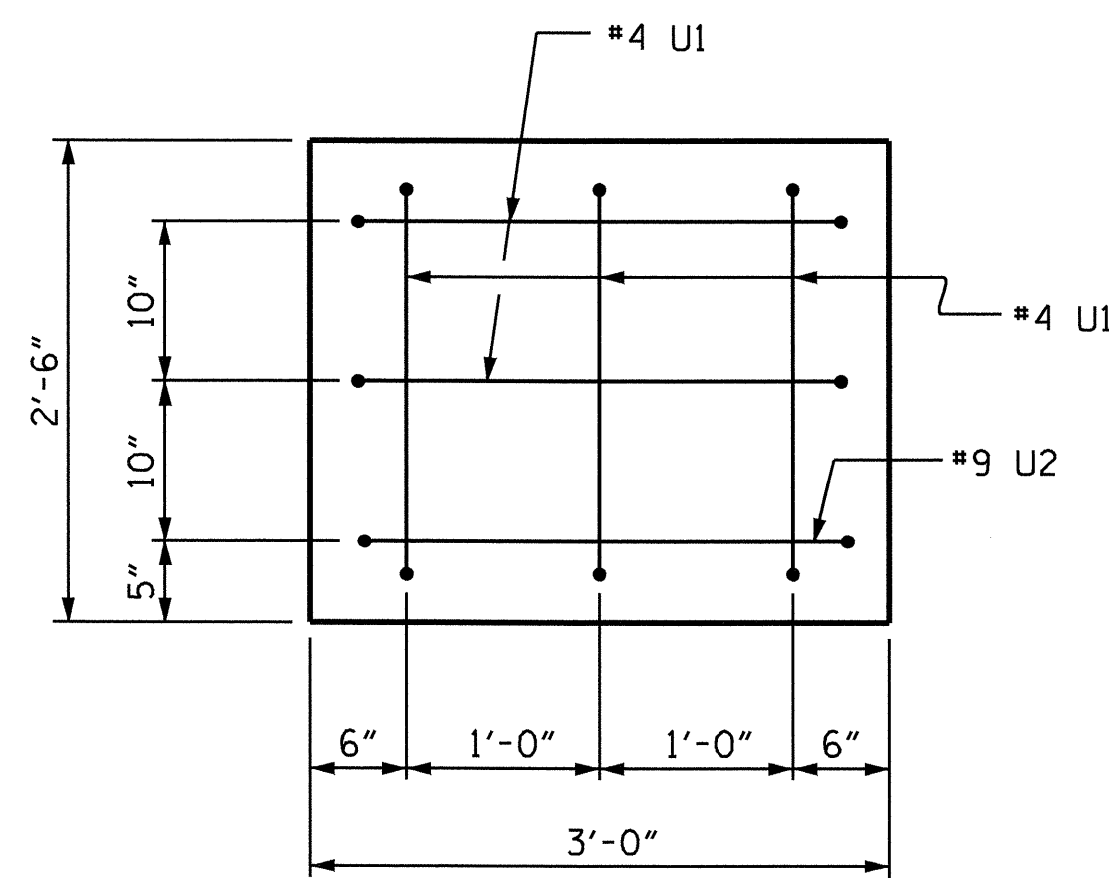
PLAN



ELEVATION

LATERAL GUIDE DETAIL

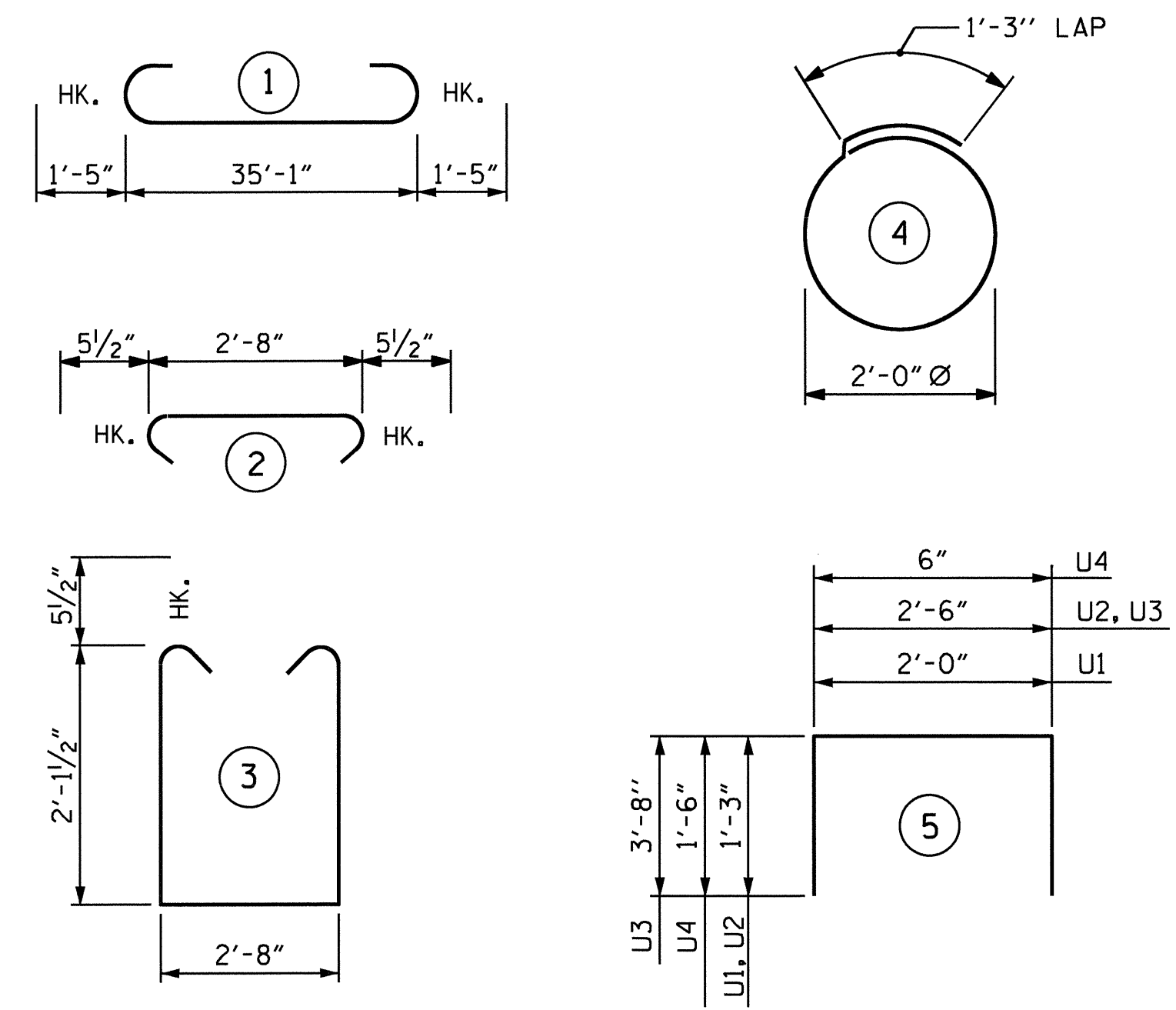
(EACH END SIMILAR)



END VIEW

(TYP. EA. END)

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

BENT 1

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	4	#10	STR	35'-2"	605
B2	4	#10	1	37'-11"	653
B3	2	#5	STR	35'-2"	73
B4	8	#4	STR	18'-10"	101
B5	13	#4	STR	2'-8"	23
D1	44	#6	STR	1'-6"	99
S1	30	#5	3	7'-10"	245
S2	30	#5	2	3'-7"	112
S3	14	#4	4	7'-7"	71
U1	6	#4	5	4'-6"	18
U2	4	#4	5	5'-0"	13
U3	2	#9	5	9'-10"	67
U4	8	#4	5	3'-6"	19

REINFORCING STEEL 2099 LBS.

CLASS A CONCRETE

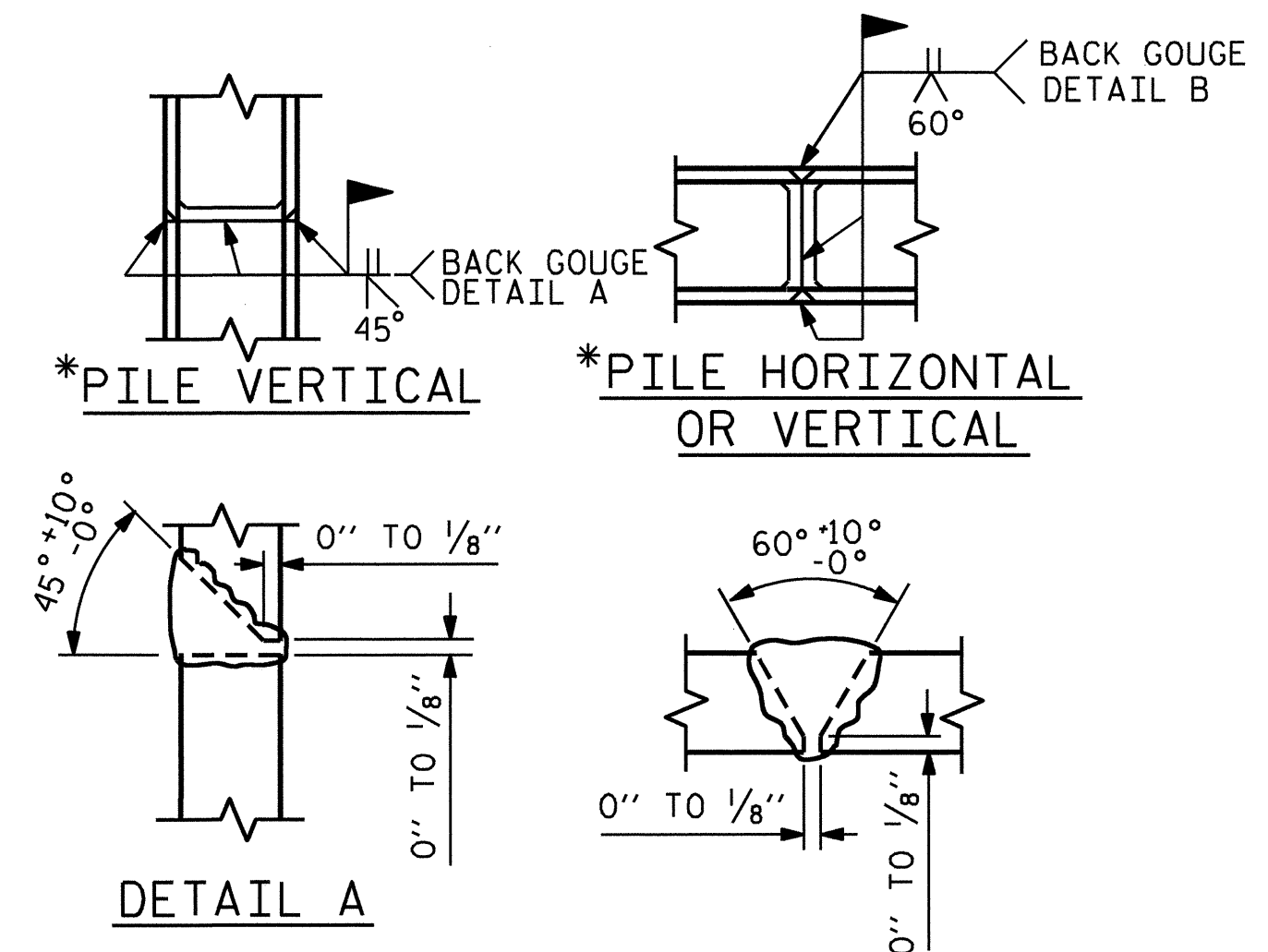
POUR 1 (CAP) C.Y. 9.9

POUR 2 (LATERAL GUIDES) C.Y. 0.1

TOTAL C.Y. 10.0

HP 14 x 73 GALVANIZED STEEL PILES

NO.: 7 LIN. FT. 420



*POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS

PROJECT NO. B-4680

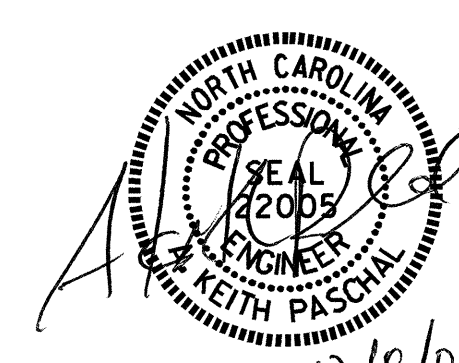
WILSON COUNTY

STATION: 14+55.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 1



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

DRAWN BY: M. FOWLER DATE: 6/1/09
CHECKED BY: J.D. HAWK DATE: 7/1/09

08-DEC-2009 14:42
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jdnowk

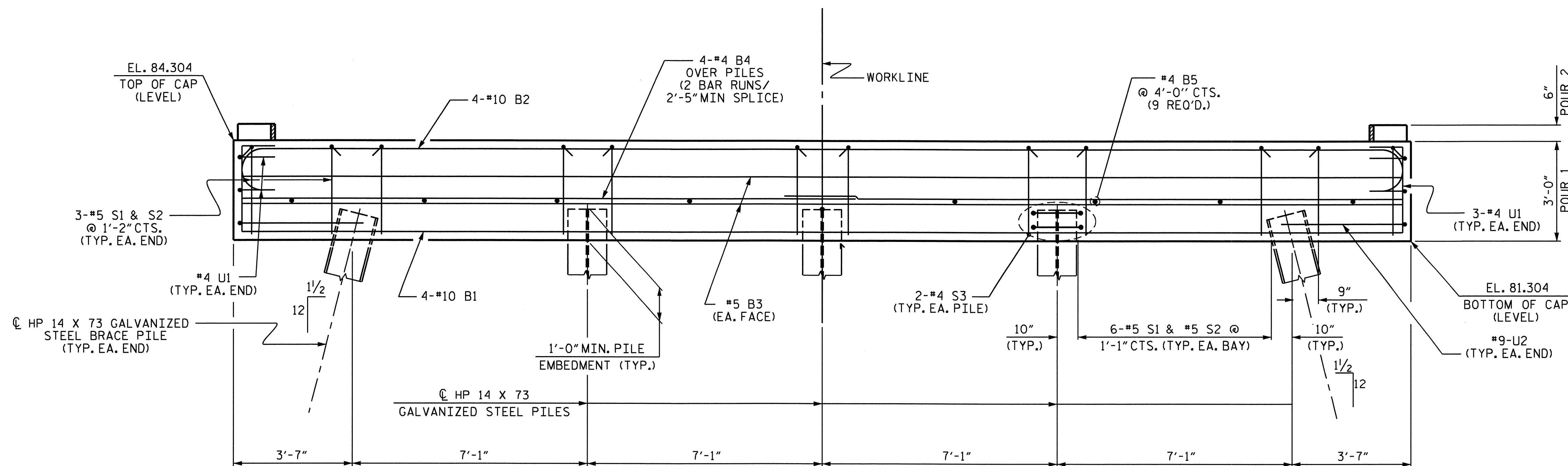
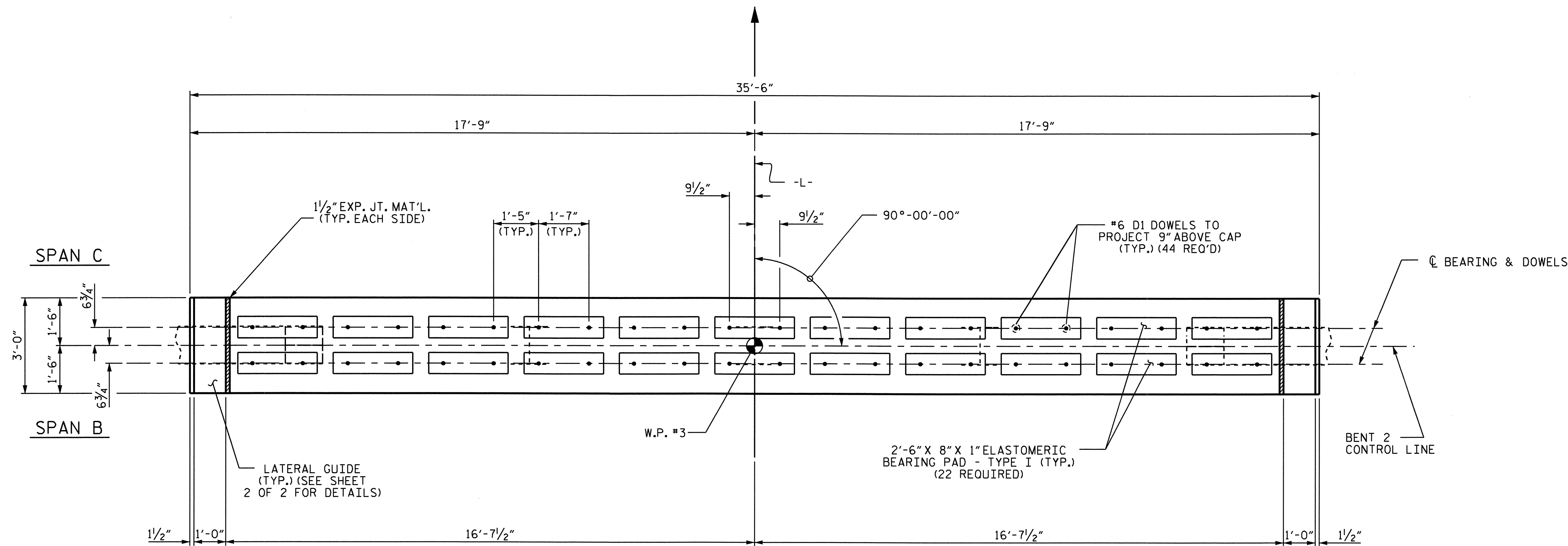
TOTAL SHEETS
21

NOTES

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

THE LATERAL GUIDE AT EACH END OF THE CORED SLAB IS NOT TO BE POURED UNTIL AFTER THE CORED SLAB UNITS ARE IN PLACE.

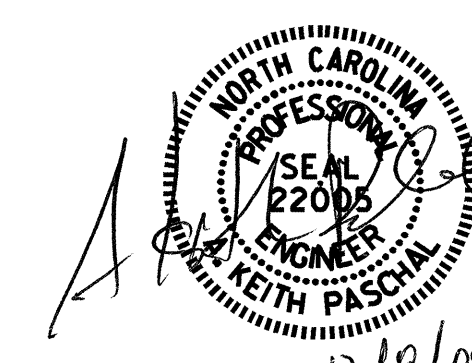
GALVANIZE THE TOP 23'-0" FEET OF EACH INTERIOR BENT PILE IN ACCORDANCE WITH SECTION 1076 OF THE STANDARD SPECIFICATIONS.



PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

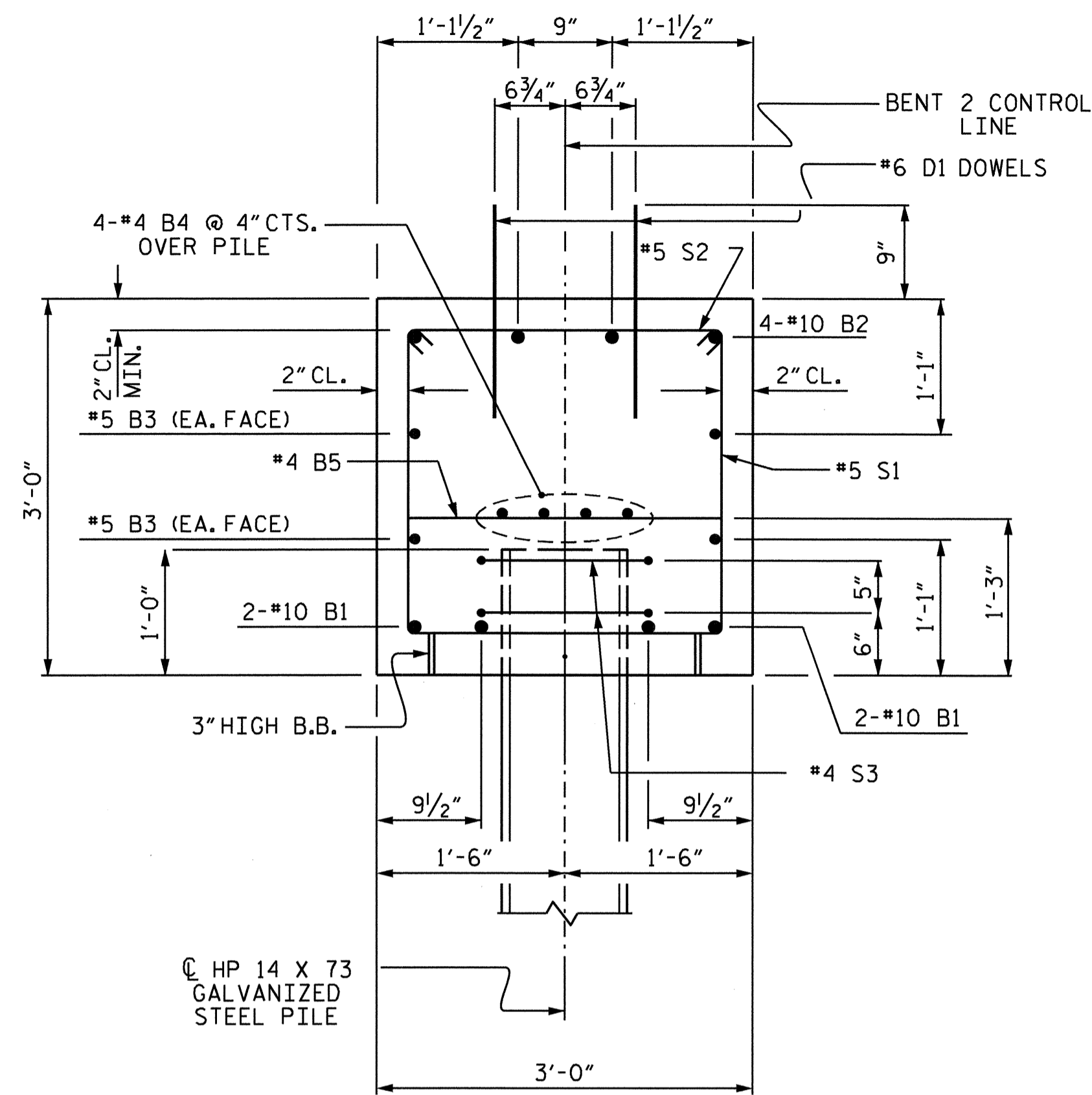
SUBSTRUCTURE
 BENT 2



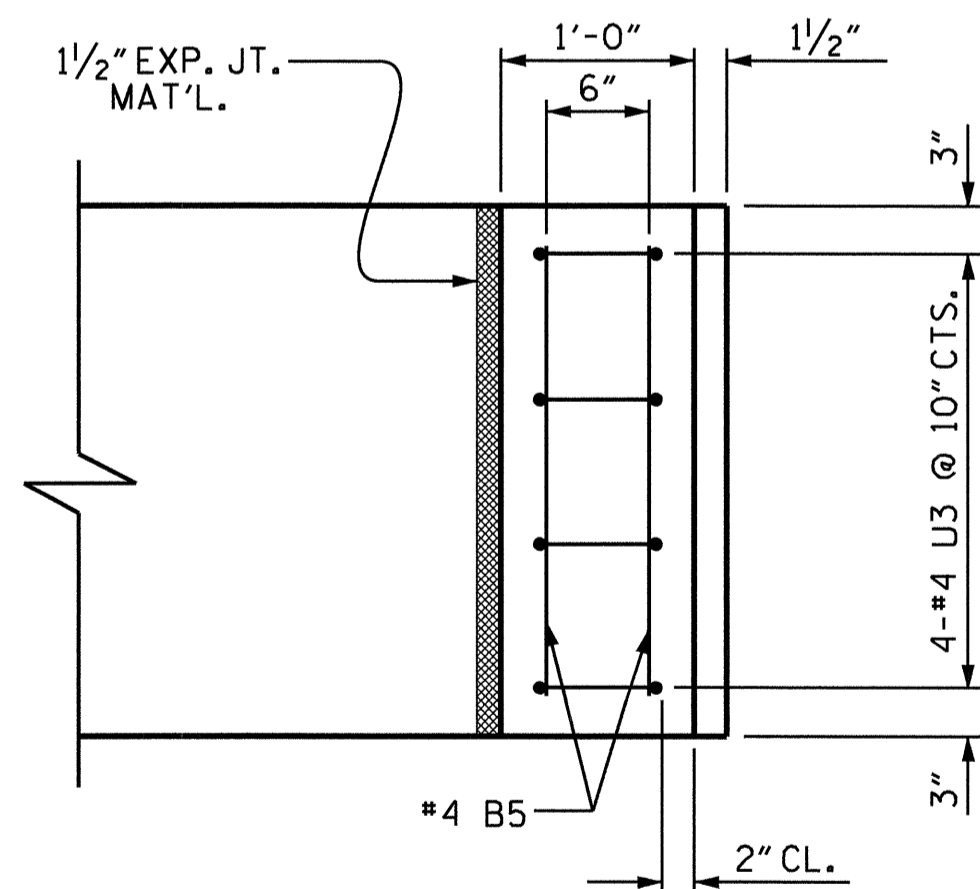
DRAWN BY: M.FOWLER DATE: 5/29/09
 CHECKED BY: J.D.HAWK DATE: 7/1/09

08-DEC-2009 14:42
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 jdhawk

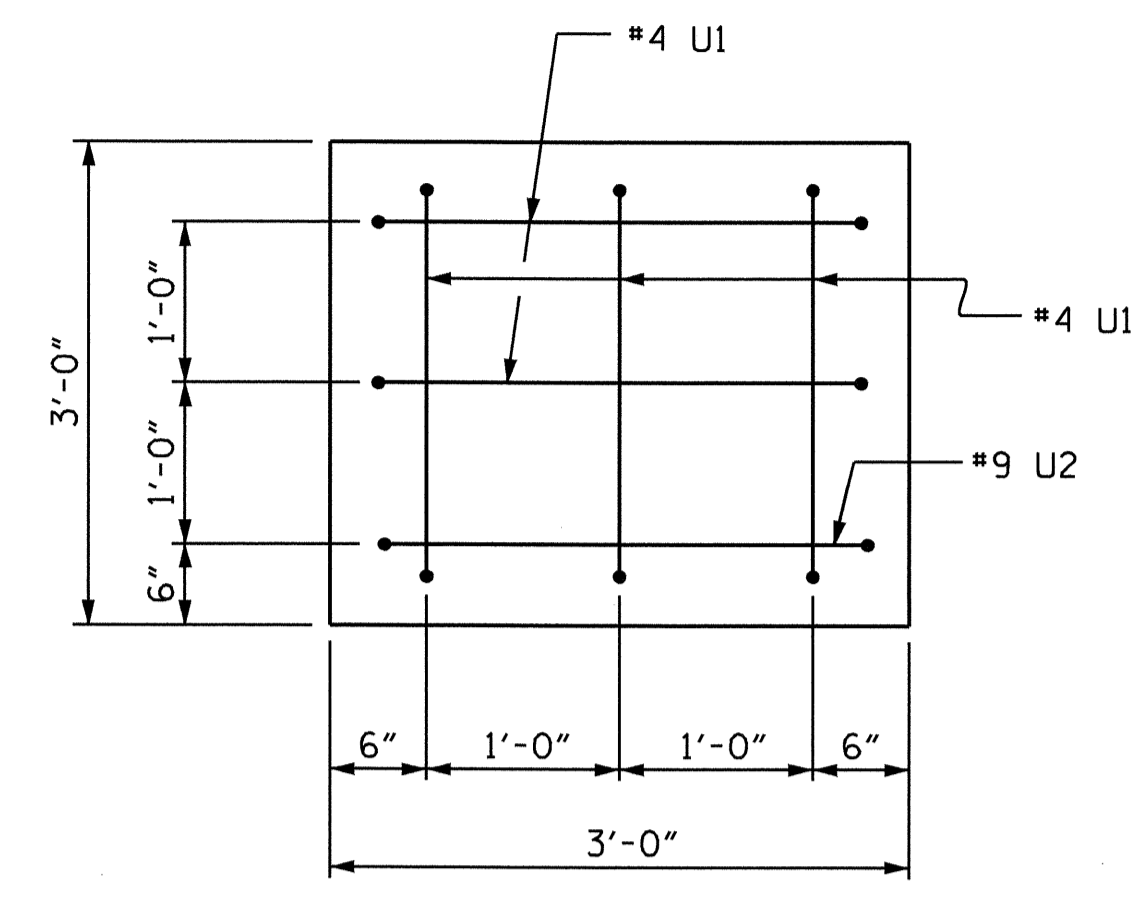
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			21



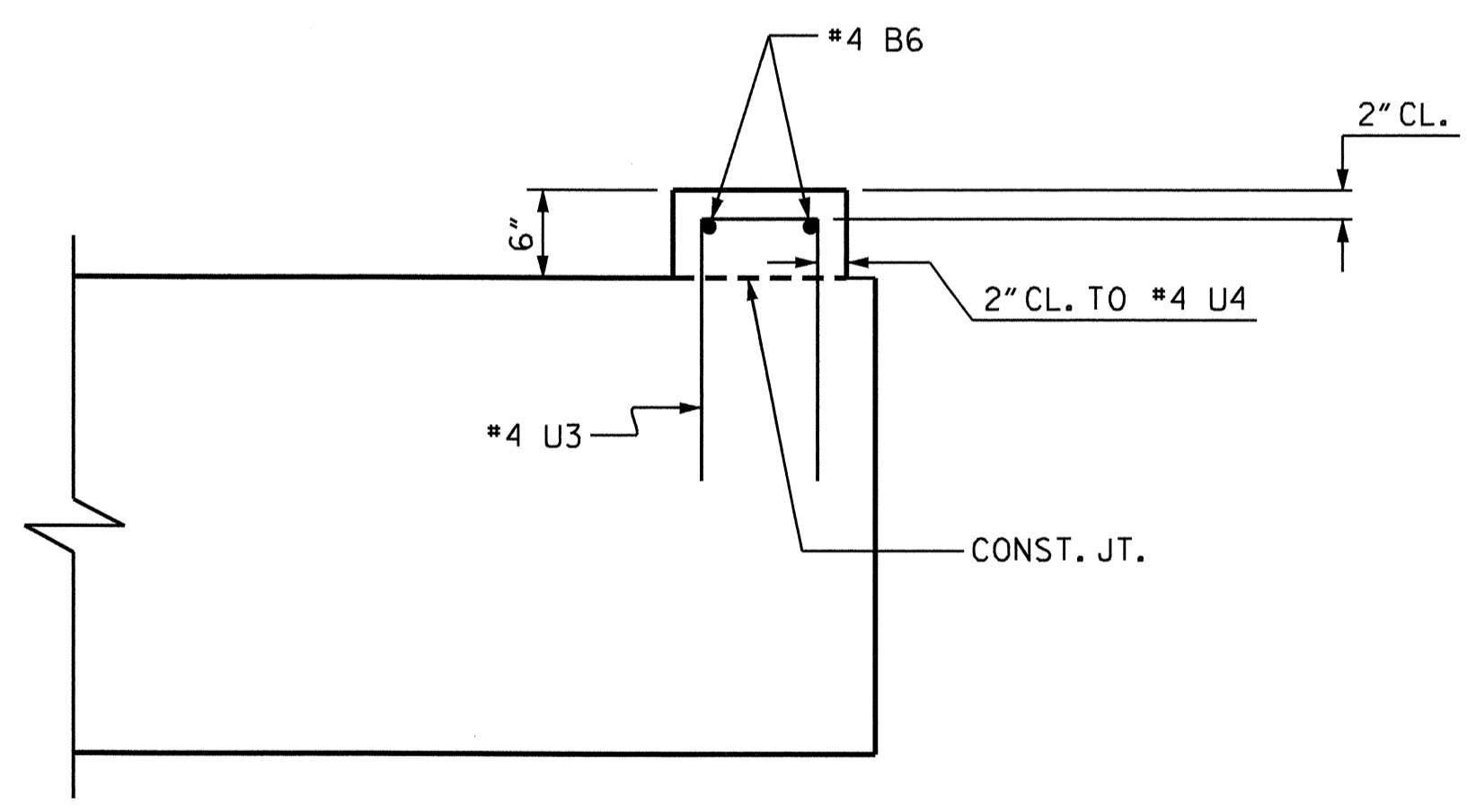
SECTION A-A



PLAN



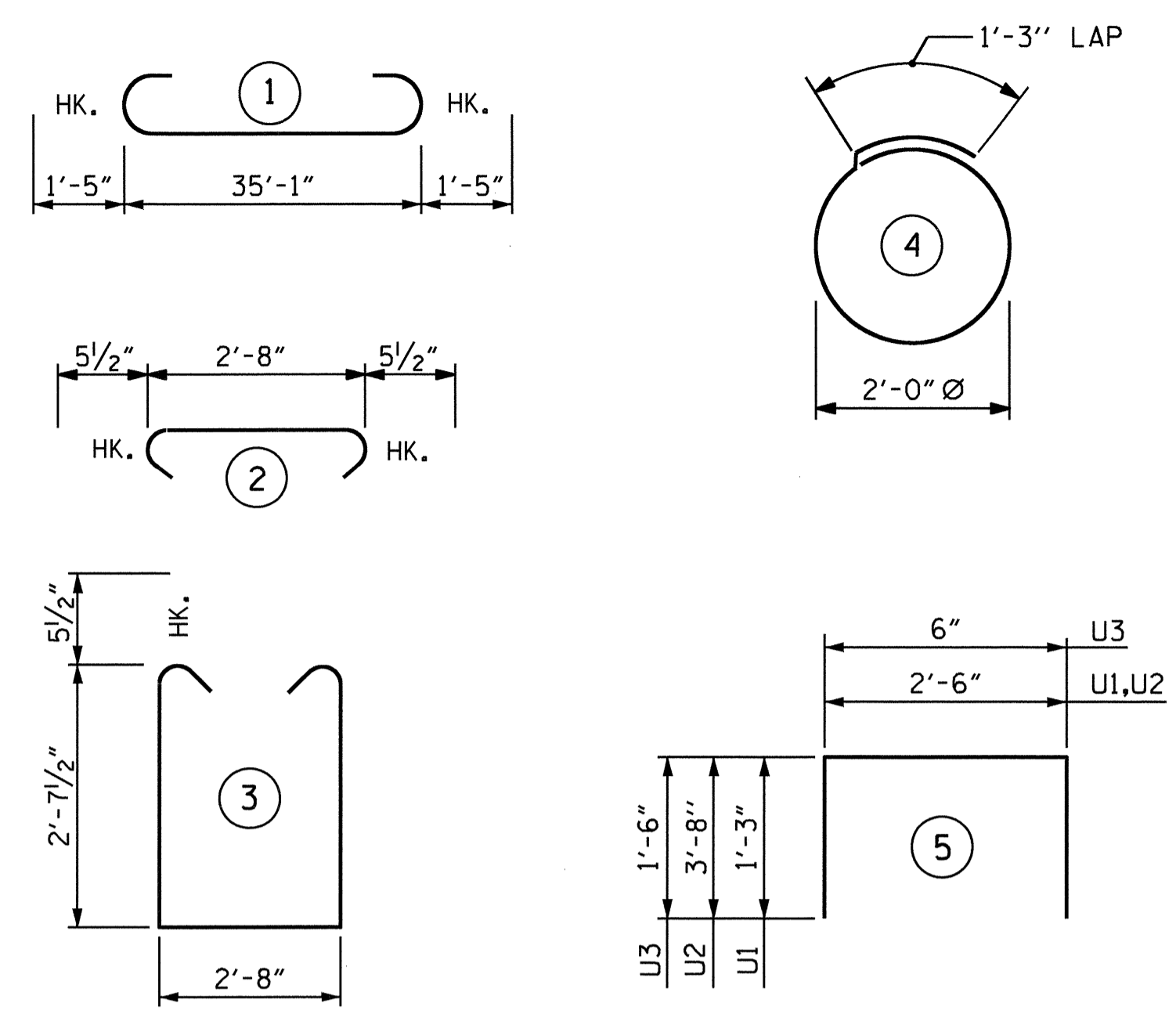
END VIEW
(TYP. EA. END)



ELEVATION

LATERAL GUIDE DETAIL
(EACH END SIMILAR)

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

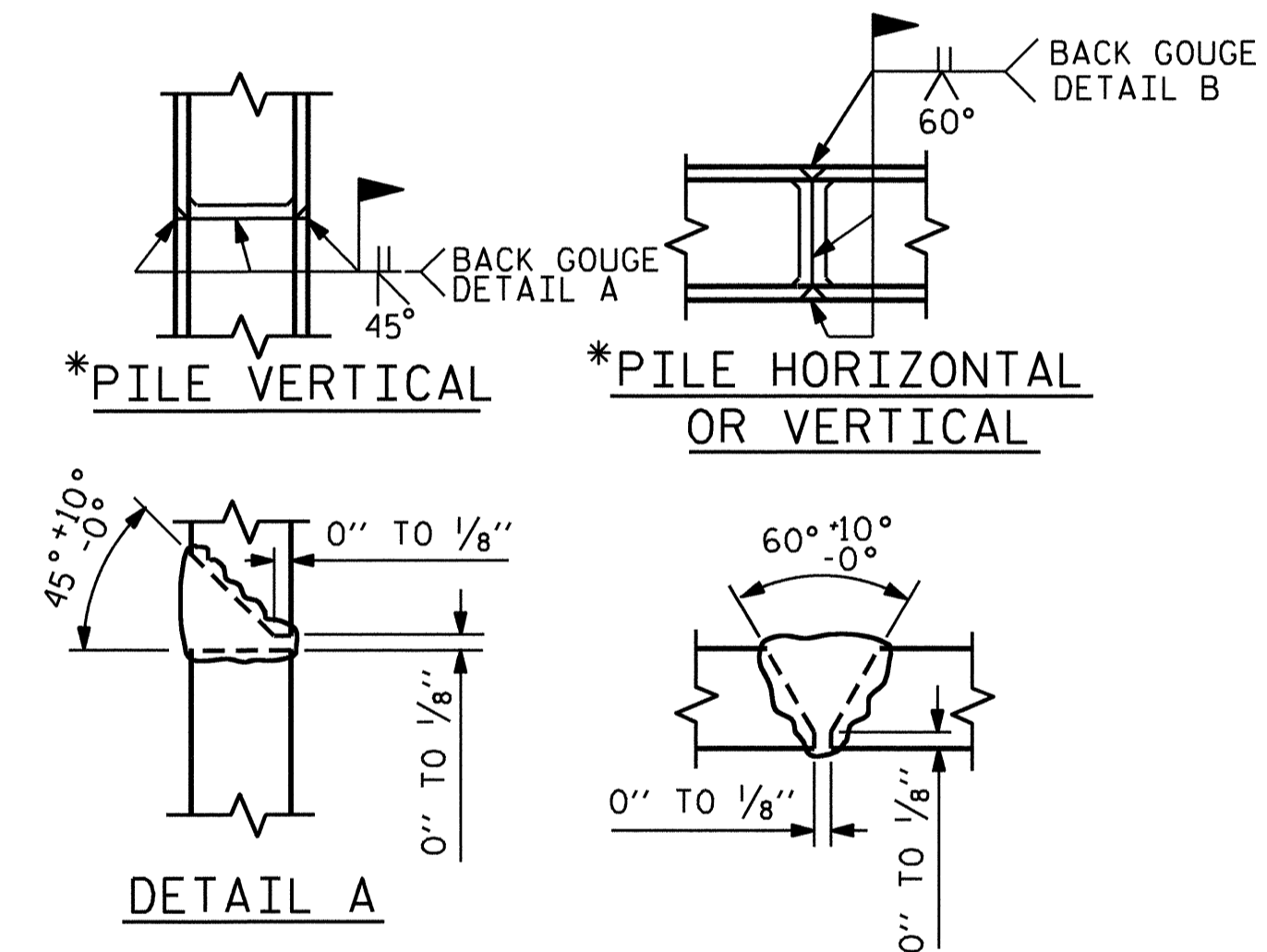
BENT 2

BAR NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	4 #10	STR	35'-2"	605
B2	4 #10	1	37'-11"	653
B3	4 #5	STR	35'-2"	147
B4	8 #4	STR	18'-10"	101
B5	13 #4	STR	2'-8"	23
D1	44 #6	STR	1'-6"	99
S1	30 #5	3	8'-10"	276
S2	30 #5	2	3'-7"	112
S3	10 #4	4	7'-7"	51
U1	10 #4	5	5'-0"	33
U2	2 #9	5	9'-10"	67
U3	8 #4	5	3'-6"	19

REINFORCING STEEL 2186 LBS.

CLASS A CONCRETE	
POUR 1 (CAP)	C.Y. 11.8
POUR 2 (LATERAL GUIDES)	C.Y. 0.1
TOTAL	C.Y. 11.9

HP 14 x 73 GALVANIZED STEEL PILES
NO.: 5 LIN. FT. 300



DETAIL A

DETAIL B

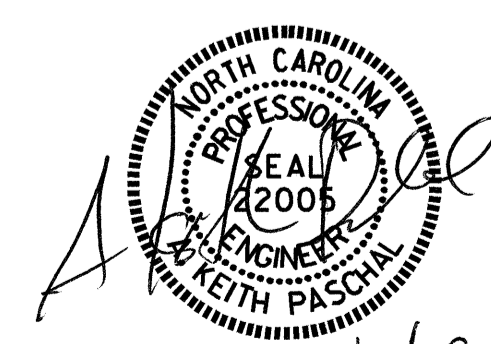
PILE SPLICE DETAILS

PROJECT NO. B-4680
WILSON COUNTY
STATION: 14+55.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 2



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

DRAWN BY: M. FOWLER DATE: 6/1/09
CHECKED BY: J.D. HAWK DATE: 7/1/09

NOTES

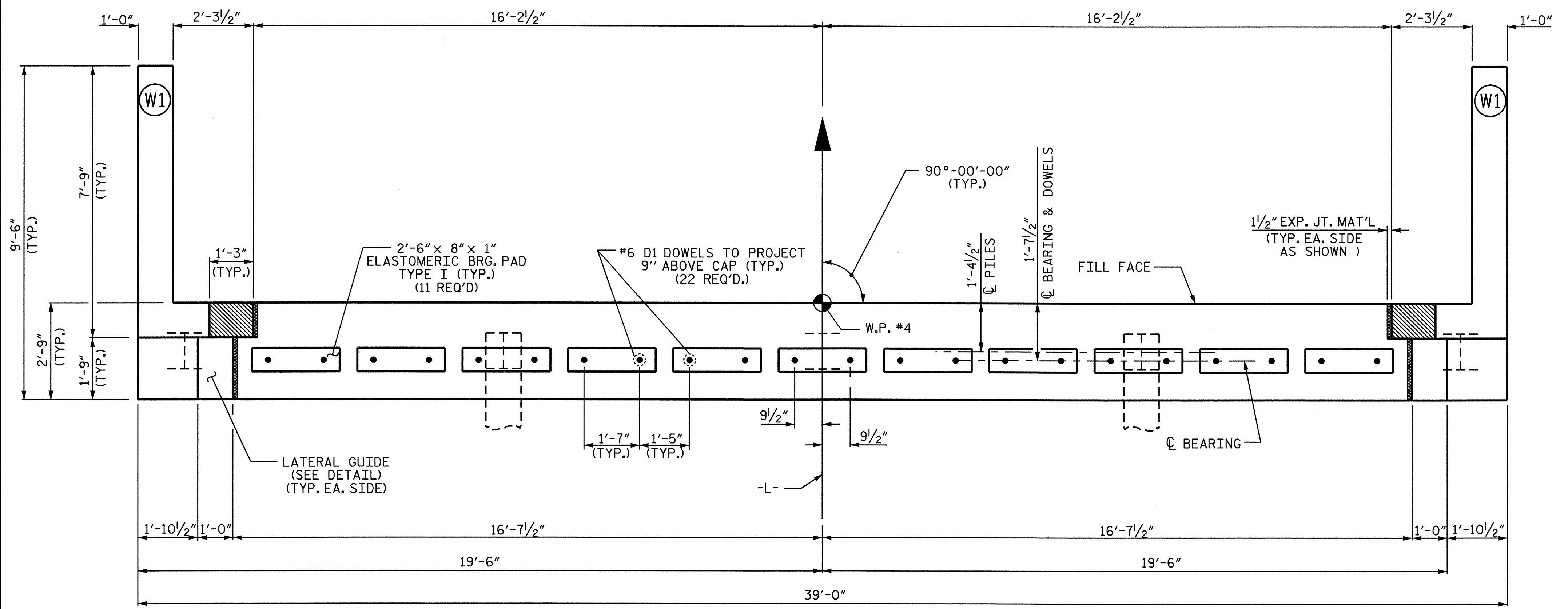
STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR DOWELS.

THE LATERAL GUIDE AT EACH END OF THE CAP IS NOT TO BE POURED UNTIL AFTER THE CORED SLAB UNITS ARE IN PLACE.

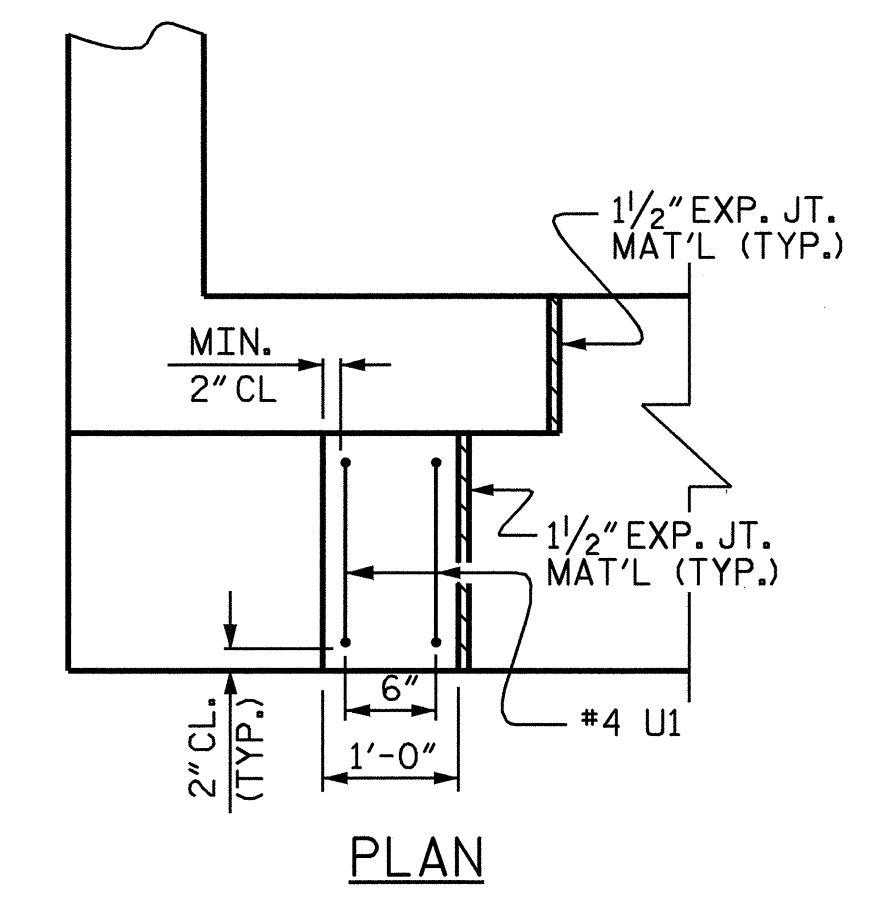
THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE BARRIER RAIL IS CAST IF SLIP FORMING IS USED.

THE CONTRACTOR SHALL PROVIDE FOR INSTALLATION OF THE 4" DIAMETER DRAIN PIPE THROUGH THE WING WALL AS REQUIRED FOR REINFORCED BRIDGE APPROACH FILLS, SEE THE ROADWAY PLANS. REINFORCING STEEL IN THE WING WALL MAY BE SHIFTED AS NECESSARY TO CLEAR THE DRAIN PIPE.

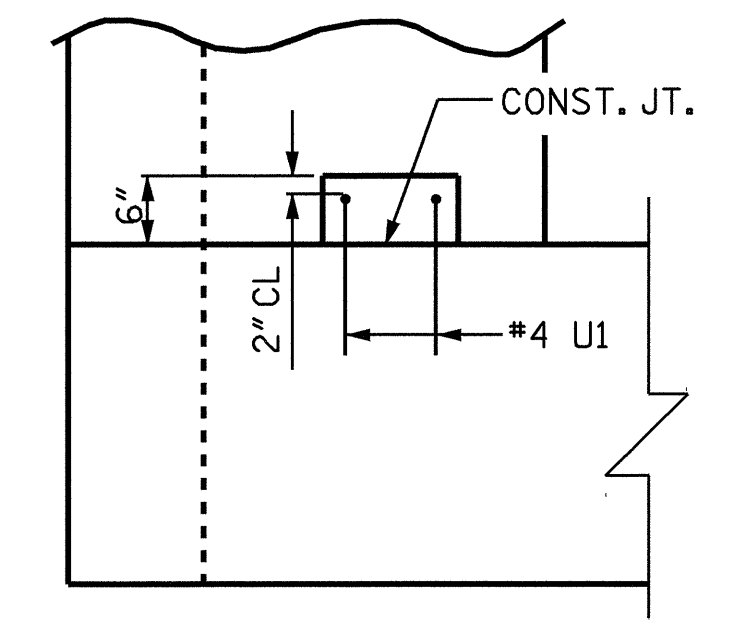
FOR TEMPORARY DRAINAGE AT END BENT, SEE END BENT 1.



PLAN

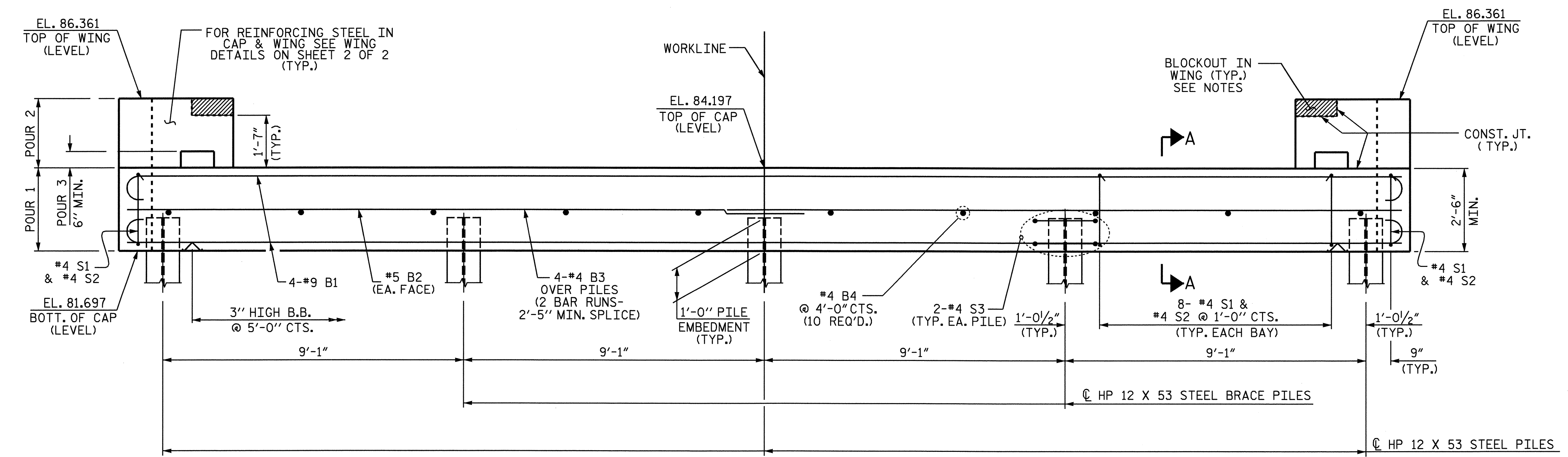


PLAN



ELEVATION

LATERAL GUIDE
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)



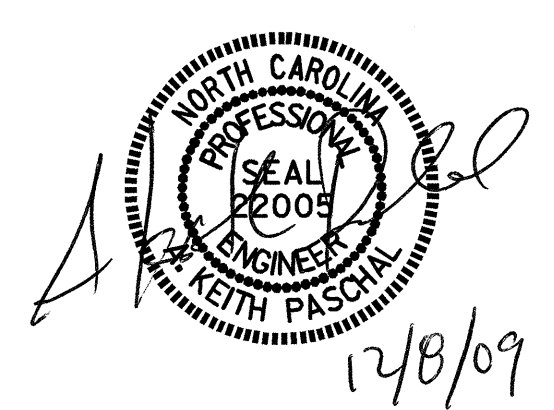
ELEVATION

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-
 SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

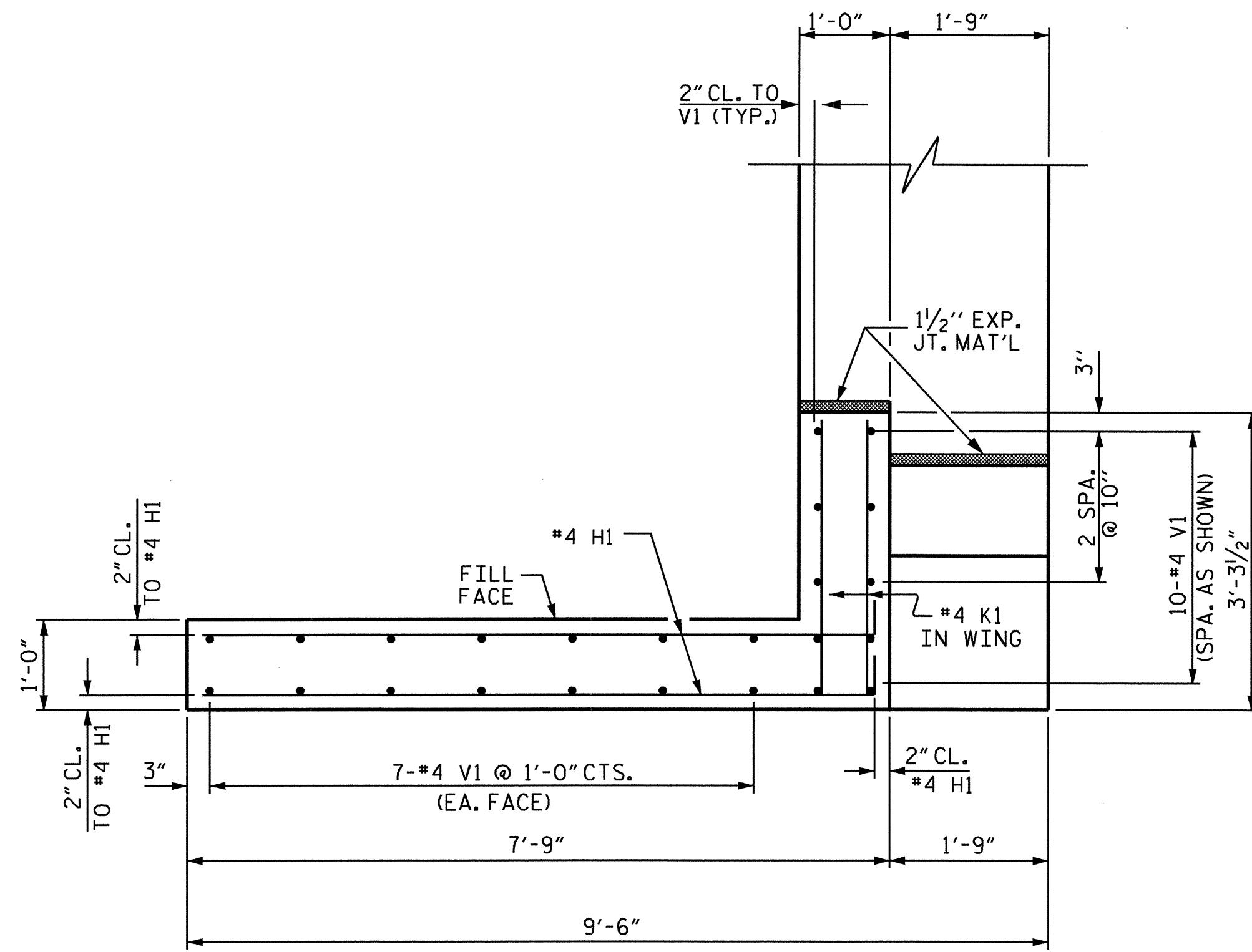
**SUBSTRUCTURE
 END BENT 2**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-17
1			3			TOTAL SHEETS
2			4			21



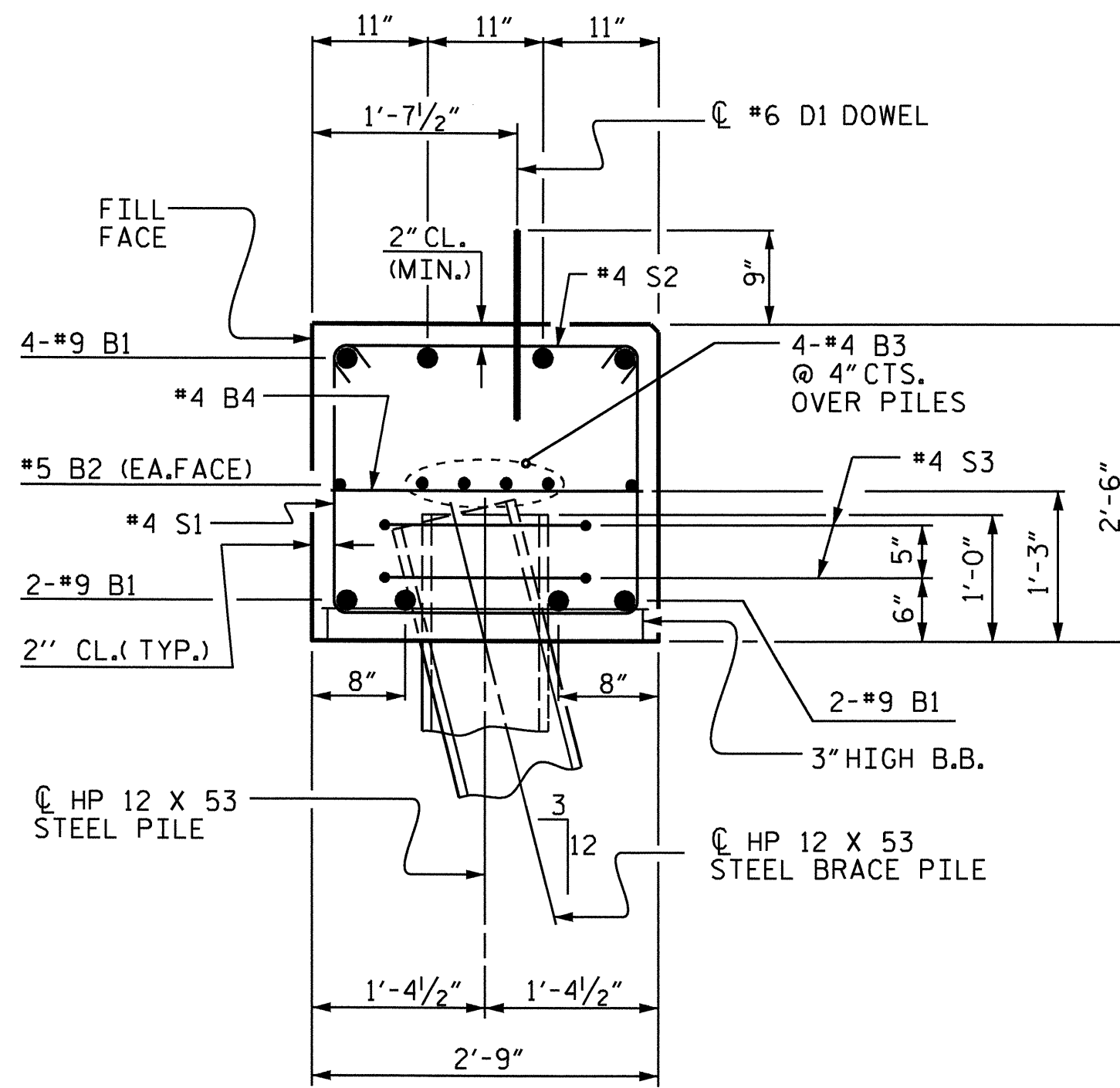
DRAWN BY: J. G. KHARVA DATE: 5/28/09
 CHECKED BY: J. D. HAWK DATE: 7/20/09

09-NOV-2009 15:19
 H:\Structures\FINAL PLANS\B-4680_SD_EB1.2.dgn
 kpaschal

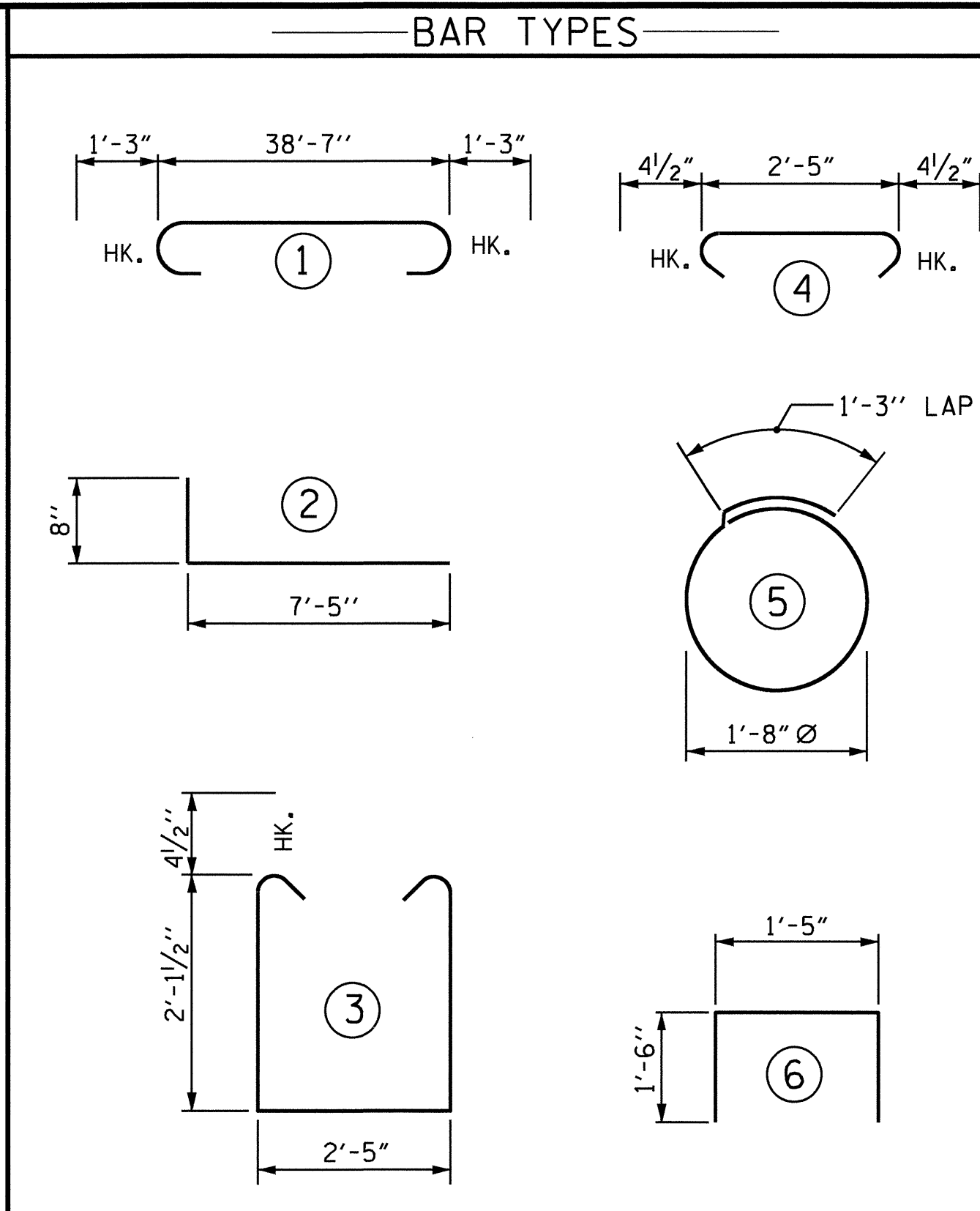


PLAN OF WING - W1

(LEFT WING SHOWN RIGHT WING SIMILAR)



SECTION A-A



ALL BAR DIMENSIONS ARE OUT TO OUT.

BILL OF MATERIAL

END BENT 2

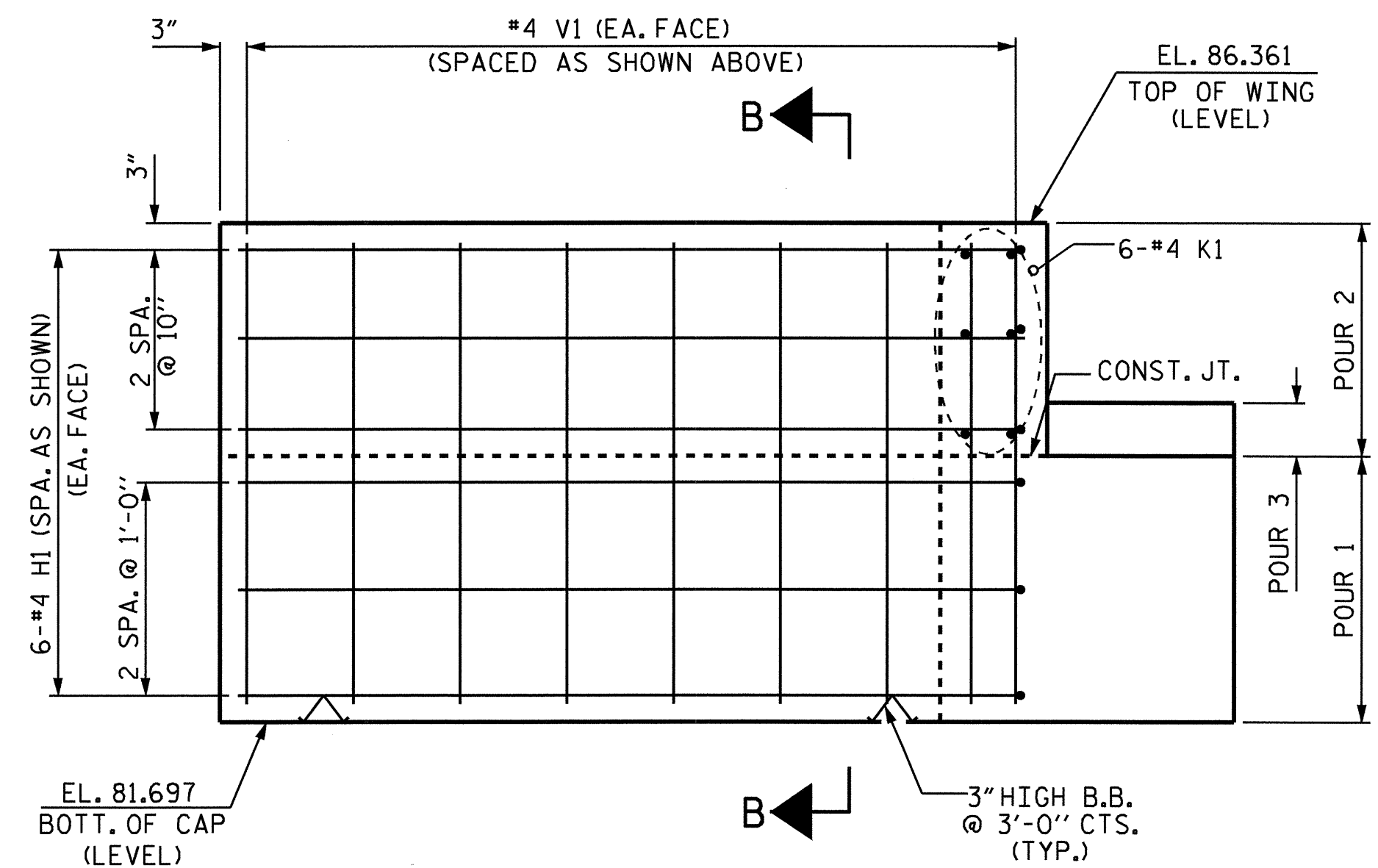
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	8	#9	1	41'-1"	1117
B2	2	#5	STR	38'-8"	81
B3	8	#4	STR	20'-6"	110
B4	10	#4	STR	2'-5"	16
D1	22	#6	STR	1'-6"	50
H1	24	#4	2	8'-1"	130
K1	12	#4	STR	2'-11"	23
S1	34	#4	3	7'-5"	168
S2	34	#4	4	3'-2"	72
S3	10	#4	5	6'-6"	43
U1	4	#4	6	4'-5"	12
V1	48	#4	STR	4'-3"	136

REINFORCING STEEL LBS 1958

CLASS A CONCRETE BREAKDOWN

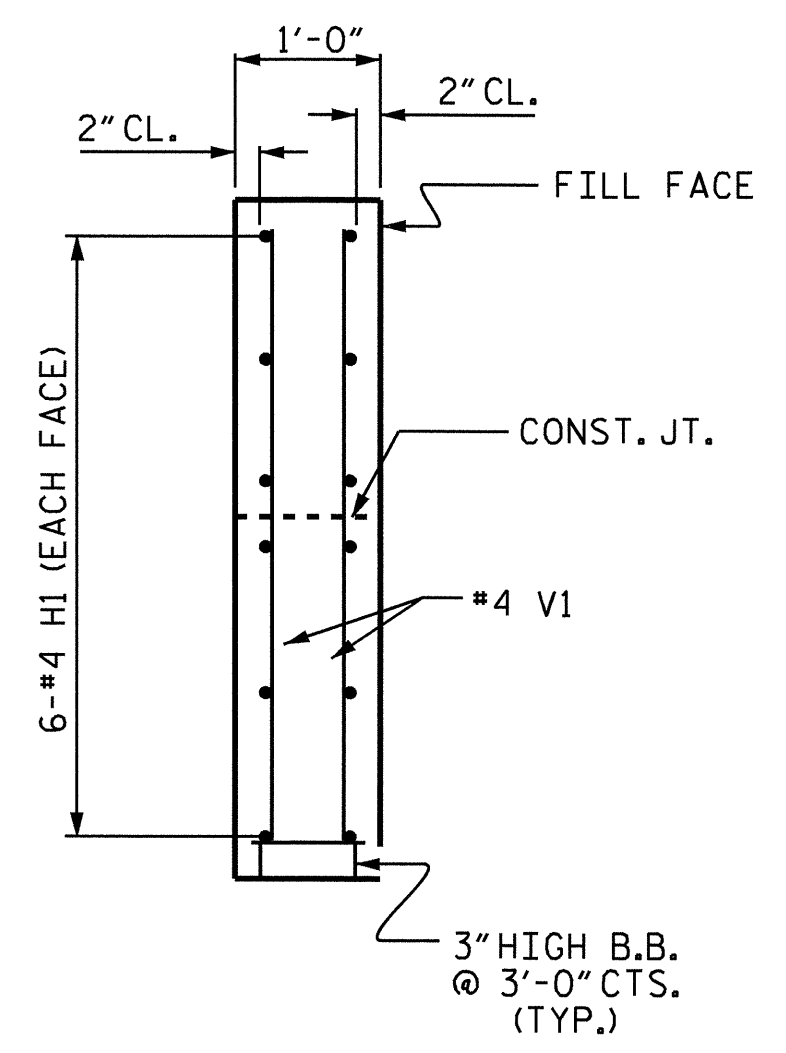
POUR	DESCRIPTION	C.Y.	WEIGHT
POUR 1	(CAP & LOWER PART OF WINGS)	C.Y.	11.2
POUR 2	(UPPER PART OF WINGS)	C.Y.	1.5
POUR 3	(LATERAL GUIDES)	C.Y.	0.1
TOTAL		C.Y.	12.8

12 X 53 STEEL PILES :
NO. : 5 LIN. FT. : 250

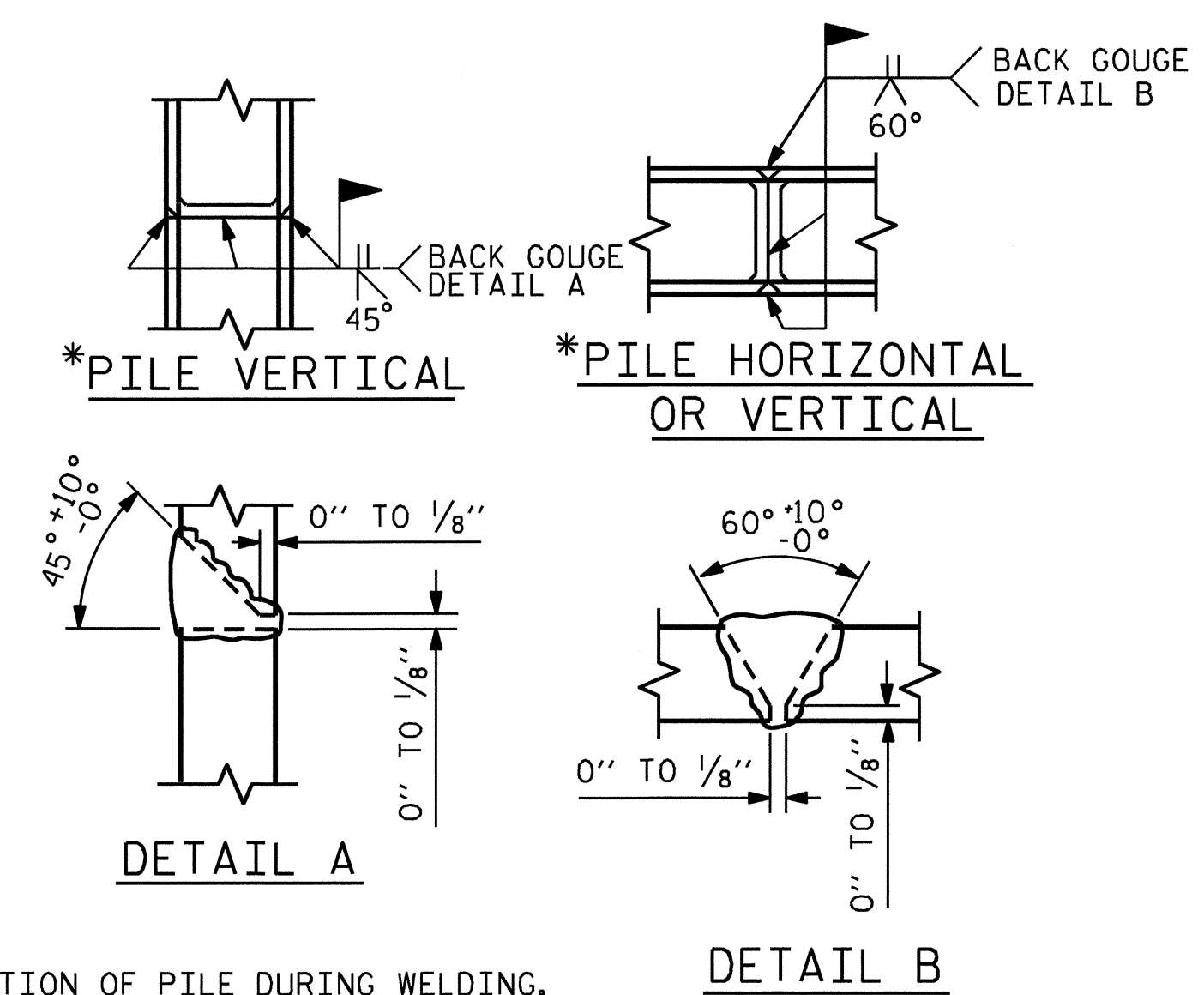


ELEVATION OF WING - W1

(LEFT WING SHOWN RIGHT WING SIMILAR)



SECTION B-B



*POSITION OF PILE DURING WELDING.

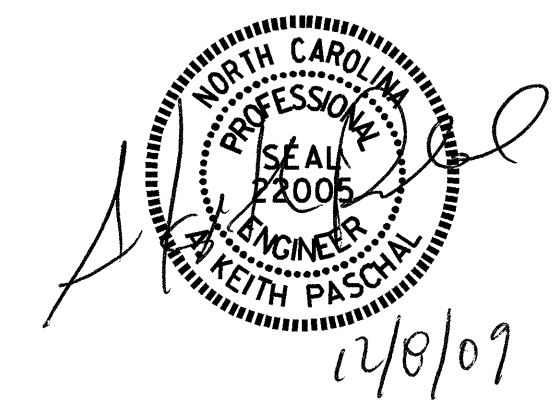
PILE SPLICE DETAILS

PROJECT NO. B-4680
WILSON COUNTY
STATION: 14+55.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

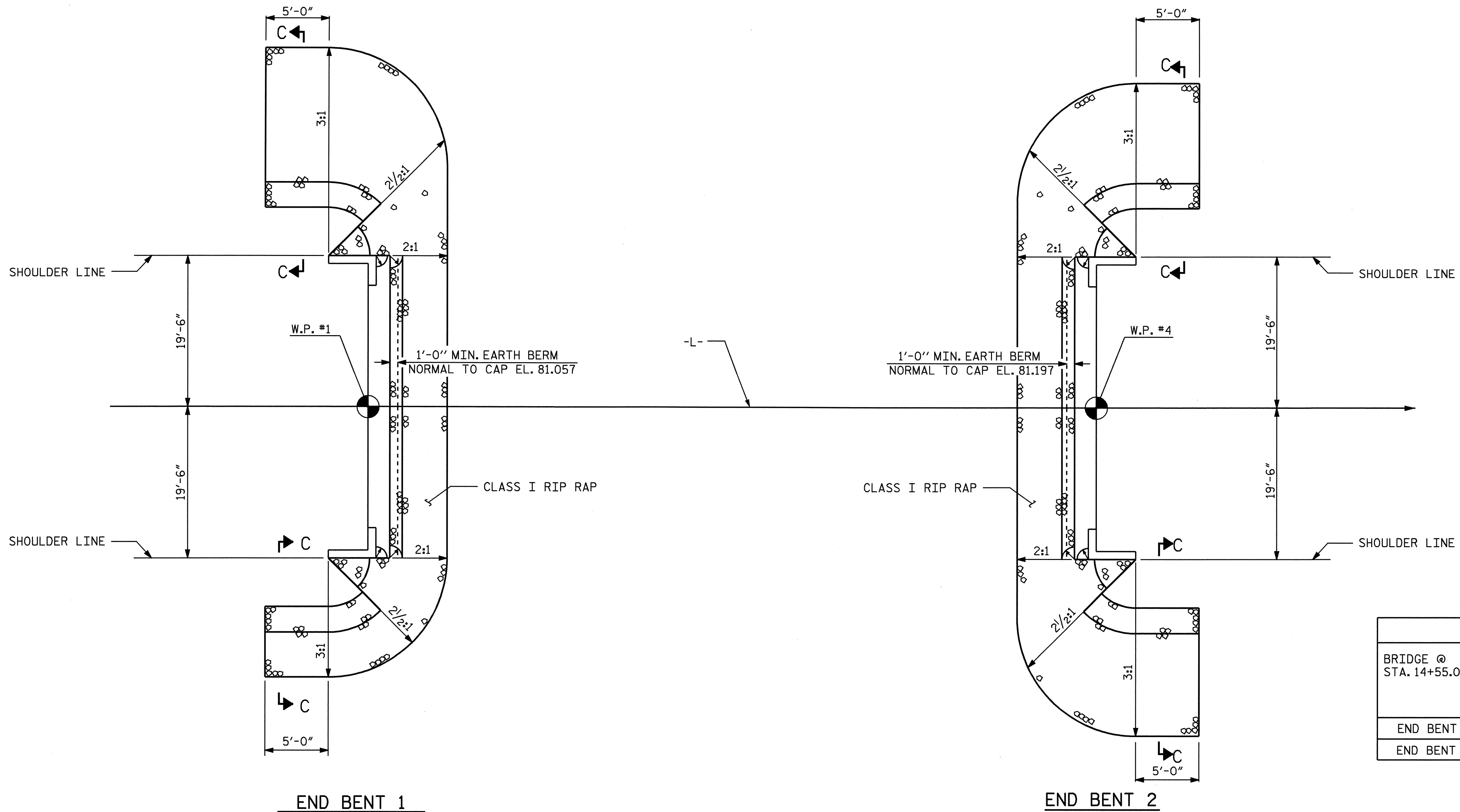
SUBSTRUCTURE
END BENT 2



DRAWN BY : J. G. KHARVA DATE : 05/28/09
CHECKED BY : J. D. HAWK DATE : 05/28/09

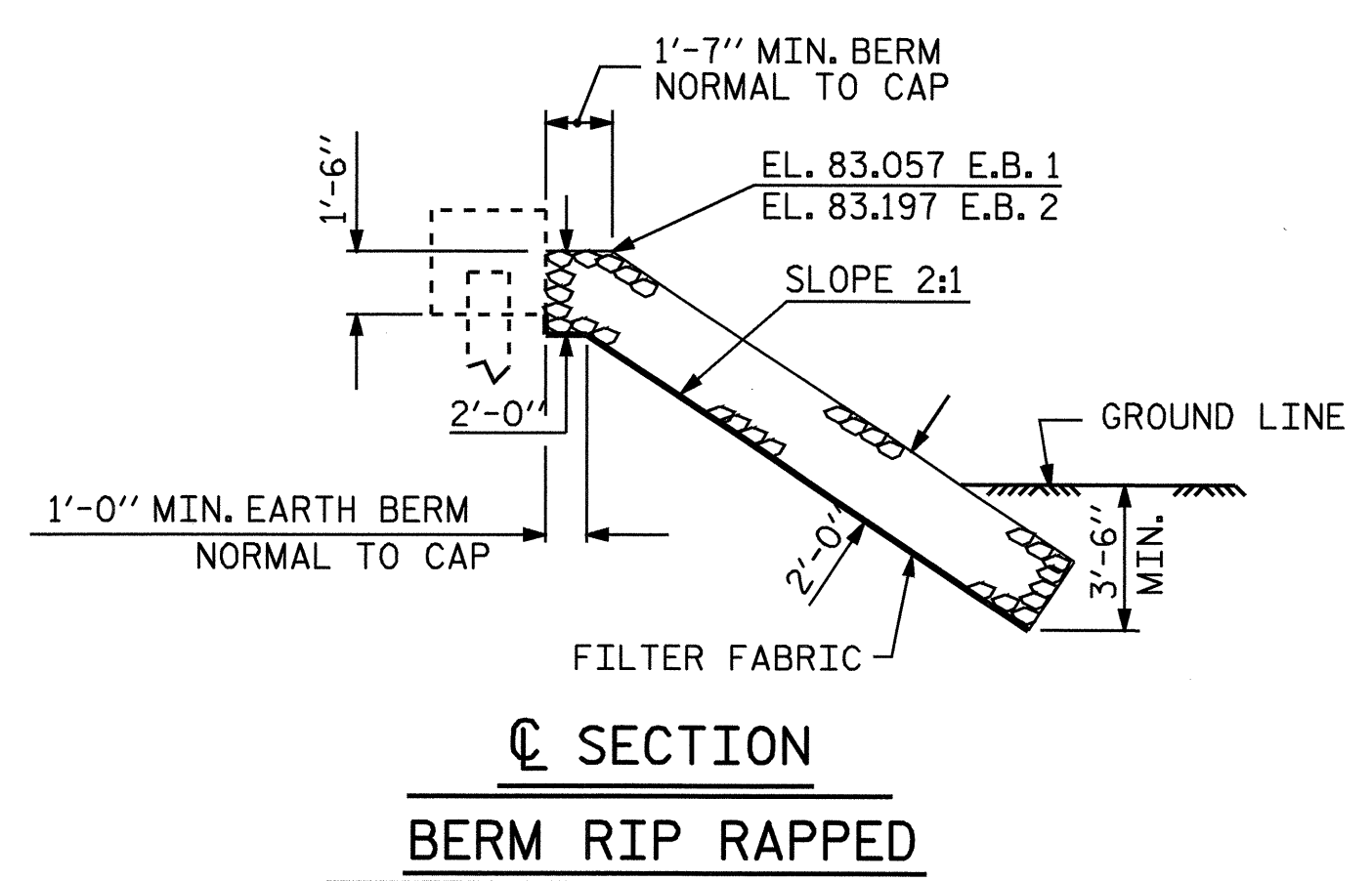
08-DEC-2009 14:42
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jdhawk

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-18
1			3			TOTAL SHEETS
2			4			21

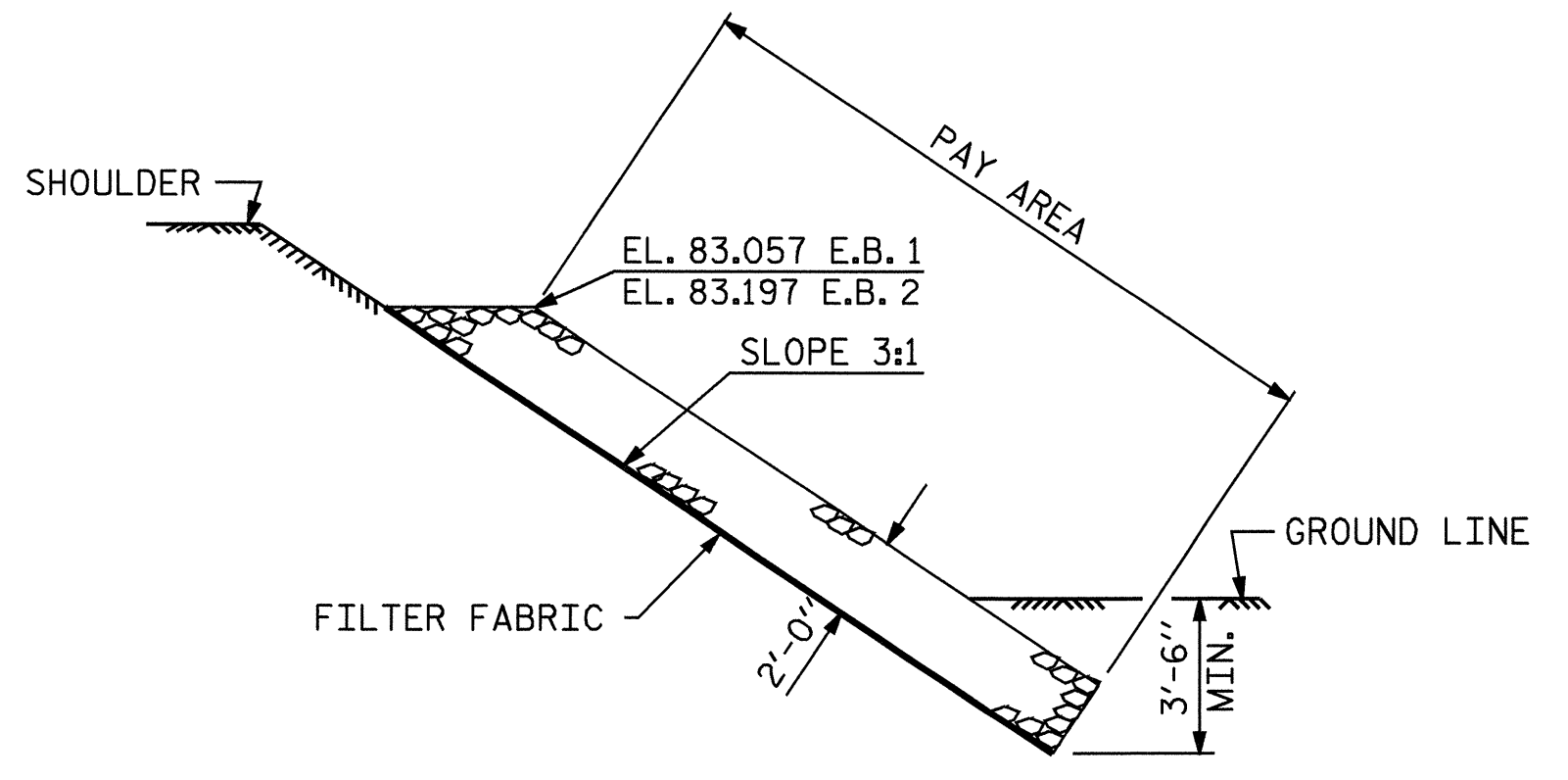


ESTIMATED QUANTITIES		
BRIDGE @ STA. 14+55.00 -L-	RIP RAP CLASS I (2'-0" THICK)	FILTER FABRIC FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	135	150
END BENT 2	155	172

PLAN



SECTION C-C
BERM RIP RAPPED



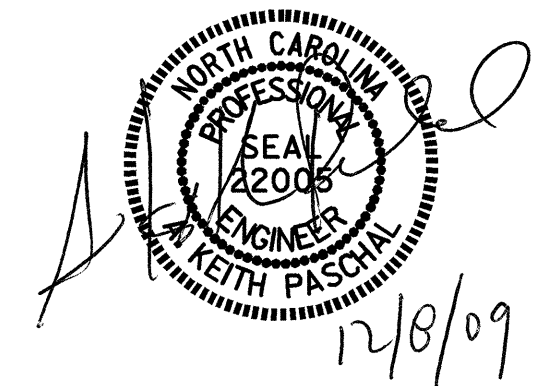
SECTION C-C

PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STANDARD
 — RIP RAP DETAILS —

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-19
1			3			TOTAL SHEETS
2			4			21



ASSEMBLED BY : J. G. KHARVA DATE : 06/02/09
 CHECKED BY : J. D. HAWK DATE : 07/20/09
 DRAWN BY : FCJ 2/88 REV. 8/16/99 RWW/LES
 CHECKED BY : ARB 8/88 REV. 10/17/00 RWW/LES
 REV. 5/1/06 TLA/GM

09-NOV-2009 15:19
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 kpaschal

NOTES

FOR REINFORCED BRIDGE APPROACH FILL INCLUDING FABRIC, IMPERMEABLE GEOMEMBRANE, 4" Ø DRAINAGE PIPE, #78M STONE, AND SELECT MATERIAL, 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.

THE 6" COMP. A.B.C. SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB AND SHALL EXTEND 1'-0" OUTSIDE OF EACH EDGE OF THE APPROACH SLAB.

THE CONTRACTOR MAY USE 4" TYPE B-25.0B ASPHALT CONCRETE BASE COURSE IN LIEU OF 6" COMP. A.B.C. IF THIS OPTION IS USED, THE BASE COURSE SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB, AND THE WIDTH SHALL BE THE SAME AS THAT OF THE APPROACH SLAB.

THE CONTRACTOR MAY USE 5" CLASS "A" CONCRETE BASE IN LIEU OF 6" COMP. A.B.C. IF THIS OPTION IS USED, THE CONCRETE BASE SHALL BE FLUSH WITH THE ROADWAY END OF THE APPROACH SLAB, AND THE WIDTH SHALL BE THE SAME AS THAT OF THE APPROACH SLAB. THE CONCRETE SHALL BE FINISHED TO A SMOOTH SURFACE AND A LAYER OF 30 LB ROOFING FELT SHALL BE PLACED BETWEEN THE CONCRETE BASE AND THE APPROACH SLAB TO PREVENT BOND. THE APPROACH SLAB SHALL NOT BE CAST UNTIL THE CONCRETE BASE HAS REACHED AN AGE OF THREE CURING DAYS.

FOR JOINT DETAILS, SEE "PRESTRESSED CONCRETE CORED SLAB UNIT" SHEETS.

THE JOINT AT THE END BENT SHALL BE GROUTED AS SOON AS PRACTICAL AFTER THE CONSTRUCTION OF THE APPROACH SLABS.

APPROACH SLAB GROOVING IS NOT REQUIRED.

BILL OF MATERIAL

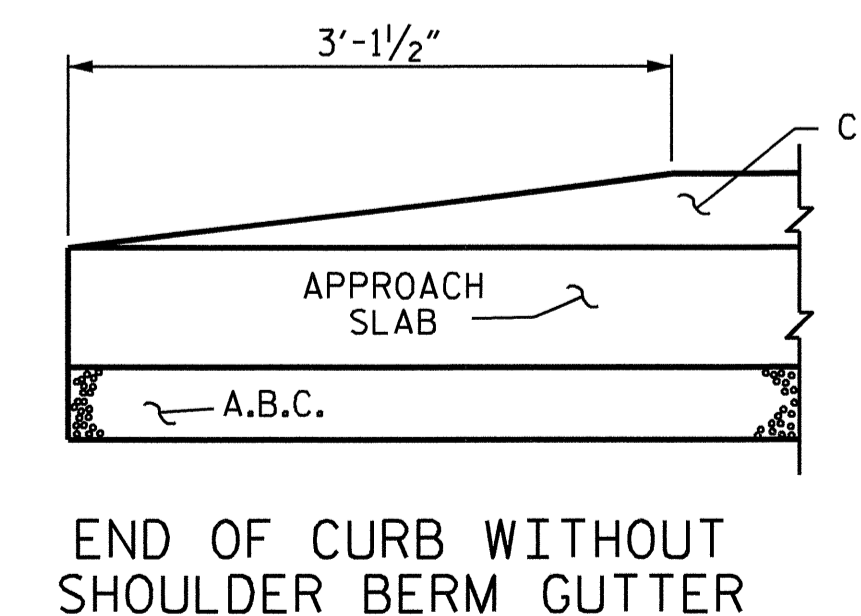
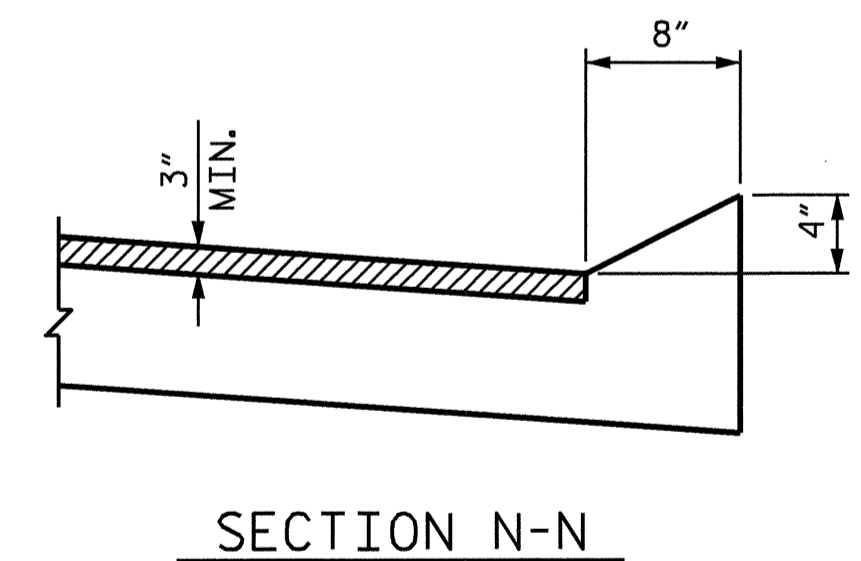
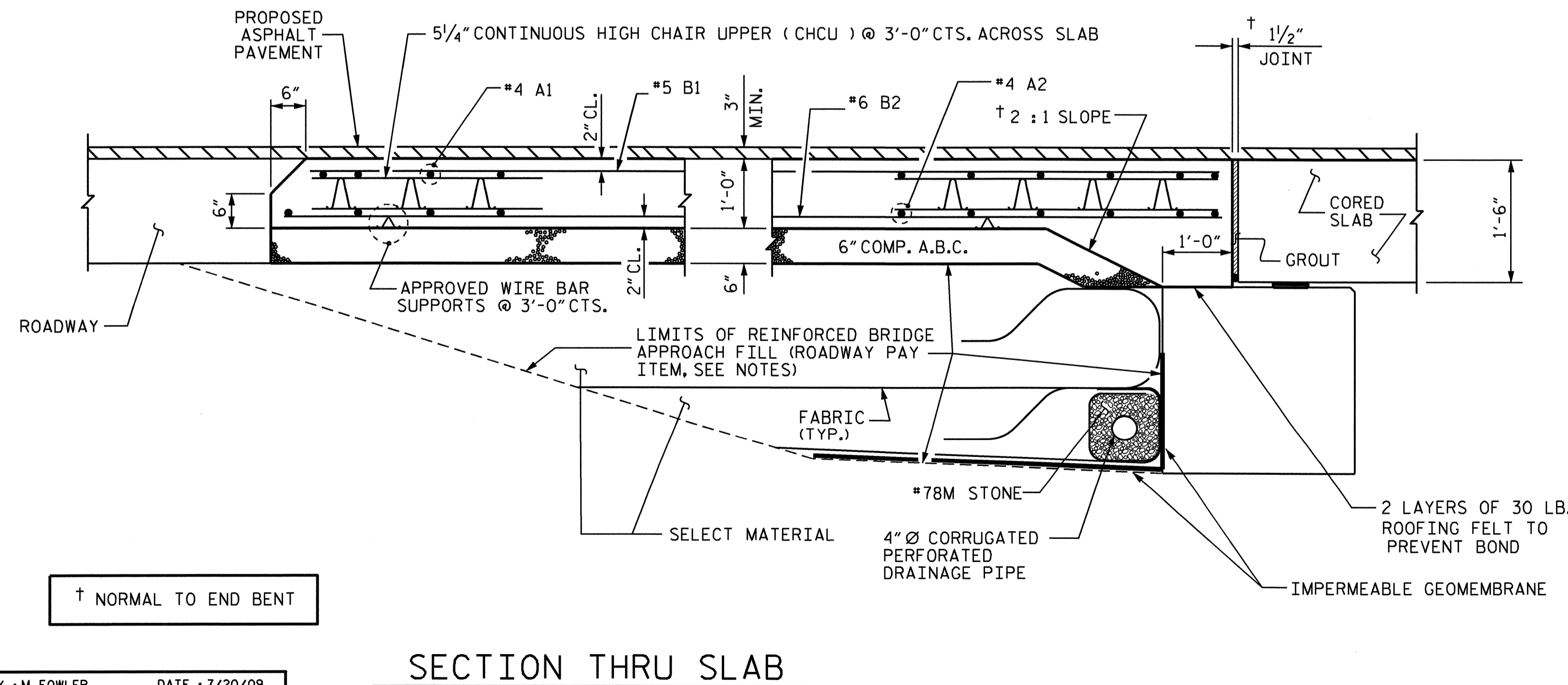
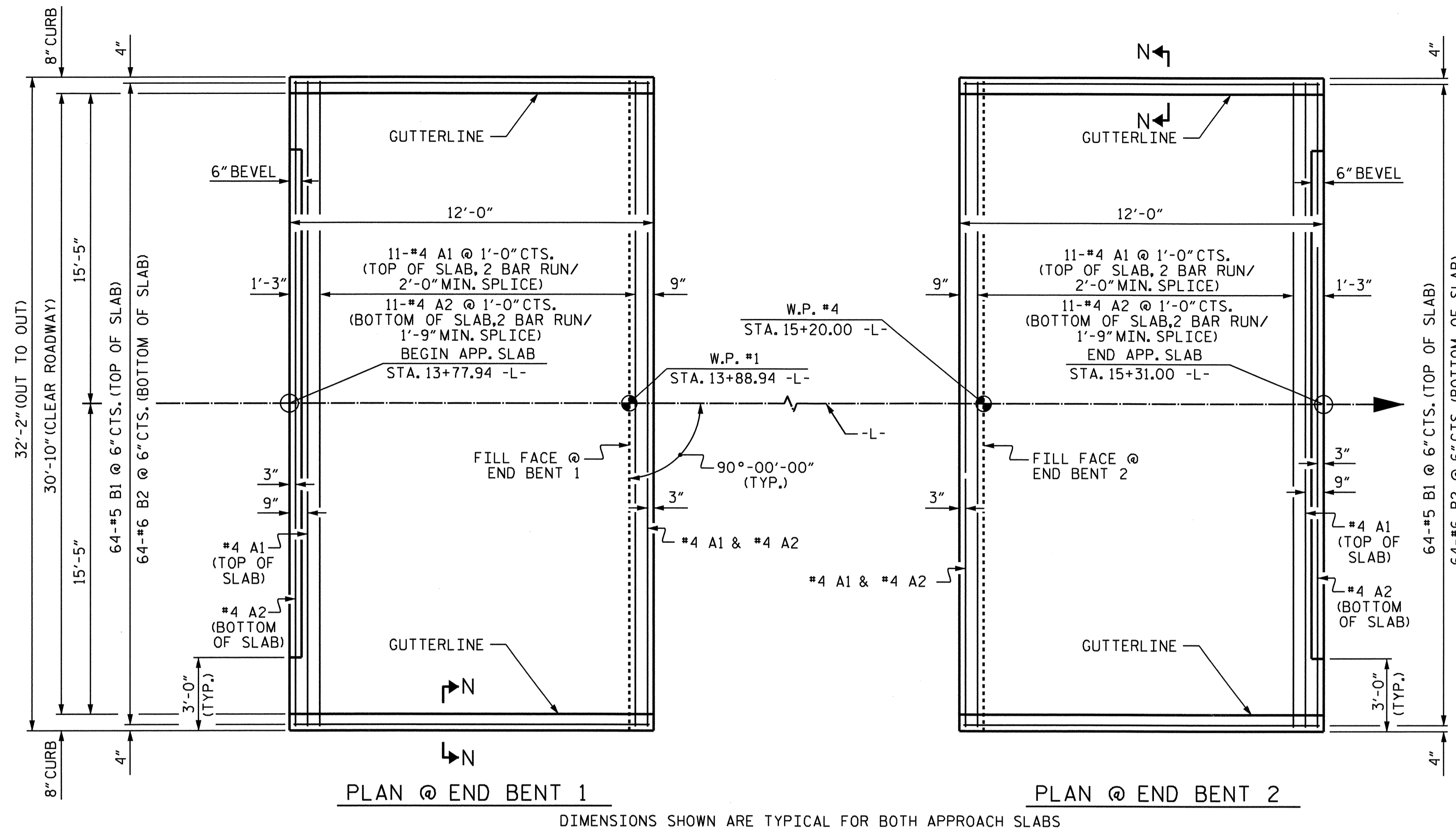
FOR ONE APPROACH SLAB (2 REQ'D)

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* A1	26	#4	STR	16'-11"	294
A2	26	#4	STR	16'-10"	292
* B1	64	#5	STR	11'-4"	757
B2	64	#6	STR	11'-8"	1121

REINFORCING STEEL LBS. 1413

* EPOXY COATED REINFORCING STEEL LBS. 1051

CLASS AA CONCRETE C. Y. 15.4

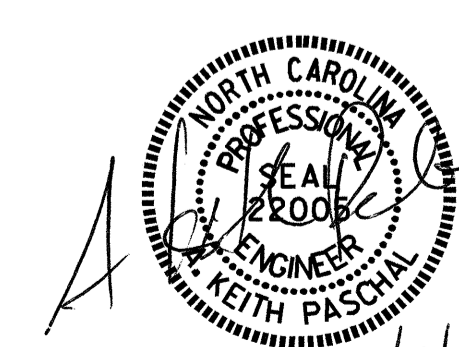


CURB DETAILS
 (OMIT TAPER WHEN SHOULDER BERM GUTTER IS REQUIRED)

PROJECT NO. B-4680
 WILSON COUNTY
 STATION: 14+55.00 -L-

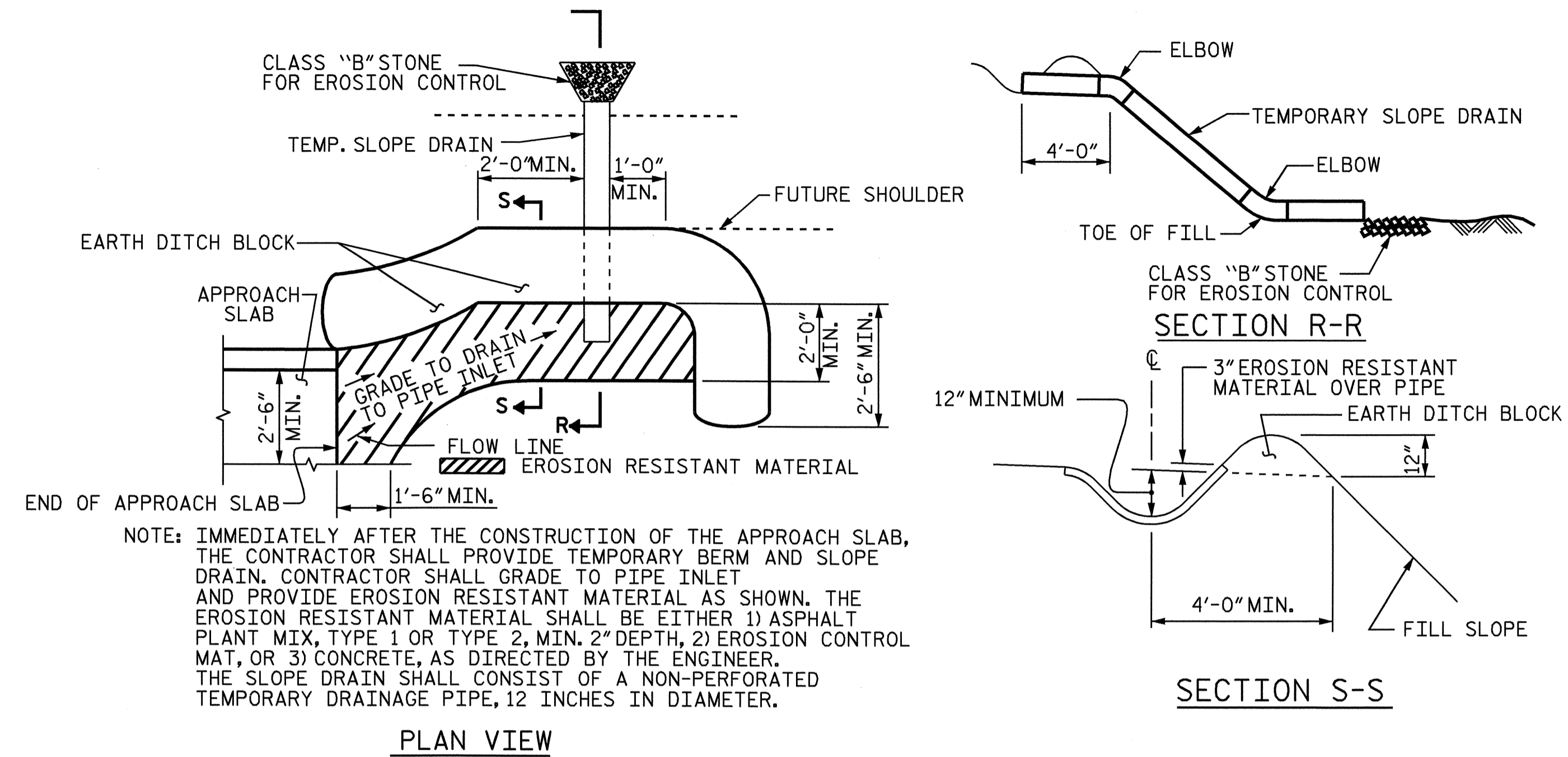
SHEET 1 OF 2

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



ASSEMBLED BY : M. FOWLER	DATE : 7/20/09
CHECKED BY : J.G. KHARVA	DATE : 7/23/09
DRAWN BY : FCJ 6/87	REV. 7/10/01 LES/RDR
CHECKED BY : EGA 6/87	REV. 5/7/03R RWW/JTE
	REV. 5/1/06R KMM/GM

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S-20	
1			3			TOTAL SHEETS 21	
2			4				

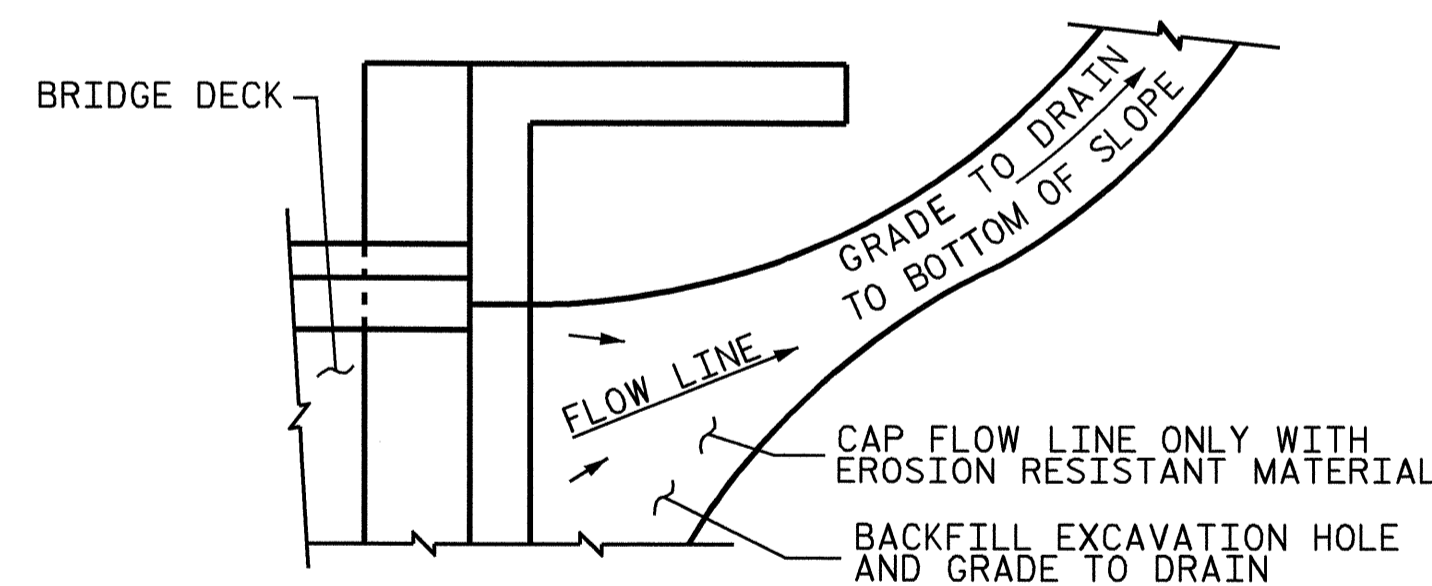


NOTE: IMMEDIATELY AFTER THE CONSTRUCTION OF THE APPROACH SLAB, THE CONTRACTOR SHALL PROVIDE TEMPORARY BERM AND SLOPE DRAIN. CONTRACTOR SHALL GRADE TO PIPE INLET AND PROVIDE EROSION RESISTANT MATERIAL AS SHOWN. THE EROSION RESISTANT MATERIAL SHALL BE EITHER 1) ASPHALT PLANT MIX, TYPE 1 OR TYPE 2, MIN.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

PLAN VIEW

TEMPORARY BERM AND SLOPE DRAIN DETAILS

(TO BE USED WHEN SHOULDER BERM GUTTER IS REQUIRED)



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

TEMPORARY DRAINAGE DETAIL

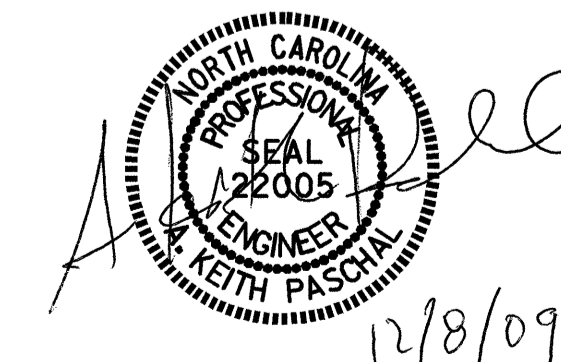
PROJECT NO. B-4680
WILSON COUNTY
 STATION: 14+55.00 -L-

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STANDARD

BRIDGE APPROACH
 SLAB DETAILS



ASSEMBLED BY : M.FOWLER	DATE : 2/5/09
CHECKED BY :	DATE :
DRAWN BY : FCJ 11/88	REV. 10/17/00 RWW/LES
CHECKED BY : ARB 11/88	REV. 5/7/03 RWW/JTE
	REV. 5/1/06R MAA/KMM

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-21
1			3			TOTAL SHEETS
2			4			21

STANDARD NOTES

DESIGN DATA:

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

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2006 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

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

CONCRETE:

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

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

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

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

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

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

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

REINFORCING STEEL:

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

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

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16" INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

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

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

SPECIAL NOTES:

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

ENGLISH

JANUARY, 1990

STD. NO. SN