



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

March 11, 2022

Addendum No. 2

RE: Contract # C204507

WBS # 44369.3.2

STATE FUNDED

Cumberland County (U-5798A)

SR-1102 FROM NORTH OF SR-1112 TO US-401 AND REPLACE BRIDGE
250075 OVER LITTLE ROCKFISH CREEK.

March 15, 2022 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Structures plans.

Sheet No.	Revision
S1-3	Updated to reflect quantity changes.
S1-33	Updated to reflect quantity changes.
S1-39	Updated to reflect quantity changes.
S2-3	Updated to reflect quantity changes.
S2-33	Updated to reflect quantity changes.
S2-39	Updated to reflect quantity changes.

Please void the above listed Sheets in your plans and staple the revised Sheets thereto.

The following revisions have been made to the proposal.

Page No.	Revision
Proposal Cover	Note added that reads "Includes Addendum No. 2 Dated 3-11-2022".

Please void the above listed existing Page in your proposal and staple the revised Page thereto.

On the item sheets the following pay item revisions have been made:

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
0240-8328200000-E-450	PILE DRIVING EQUIPMENT SETUP FOR HP 14 X 73 STEEL PILES	40 EA	44 EA
0242-8384000000-E-450	HP 14X73 STEEL PILES	2,580 LF	2,840 LF

The Contractor's bid must include these pay item revisions.

The electronic bidding file has been updated to reflect these revisions. Please download the Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

The contract will be prepared accordingly.

Sincerely,

DocuSigned by:

 F81B6038A47A442...

Ronald E. Davenport, Jr., PE
 State Contract Officer

RED/cms
 Attachments

cc:	Mr. Lamar Sylvester, PE	Mr. Forrest Dungan, PE
	Mr. H.L. "Drew" Cox, PE	Ms. Jaci Kincaid
	Mr. Boyd Tharrington, PE	Ms. Lori Strickland
	Mr. Jon Weathersbee, PE	Mr. Mike Gwyn
	Mr. Ken Kennedy, PE	Ms. Penny Higgins
	Project File (2)	Mr. Kyle Kempf

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No. 2 DATED 03-11-2022

DATE AND TIME OF BID OPENING: **MARCH 15, 2022 AT 2:00 PM**

CONTRACT ID C204507

WBS 44369.3.2

FEDERAL-AID NO. STATE FUNDED

COUNTY CUMBERLAND

T.I.P. NO. U-5798A

MILES 1.125

ROUTE NO. SR 1102

LOCATION SR-1102 FROM NORTH OF SR-1112 TO US-401 AND REPLACE BRIDGE
250075 OVER LITTLE ROCKFISH CREEK.

TYPE OF WORK GRADNG, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES.

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING, REGARDLESS OF FUNDING SOURCES.

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (76+80.00 -L- LT)	Lump Sum	L.S.	
0004	0028000000-N	SP	TYPE I STANDARD APPROACH FILL STATION ***** (76+80.00 -L- RT)	Lump Sum	L.S.	
0005	0036000000-E	225	UNDERCUT EXCAVATION	4,400 CY		
0008	0134000000-E	240	DRAINAGE DITCH EXCAVATION	1,270 CY		
0009	0192000000-N	260	PROOF ROLLING	20 HR		
0010	0194000000-E	265	SELECT GRANULAR MATERIAL, CLASS III	2,740 CY		
0011	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	18,525 SY		
0012	0241000000-E	SP	GENERIC GRADING ITEM GEOTEXTILE FOR EMBANKMENT STABILIZATION	710 SY		
0013	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	1,080 TON		
0014	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	3,299 SY		
0015	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (15", V)	312 LF		
0016	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (18", V)	352 LF		
0017	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (24", V)	124 LF		
0018	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (48", V)	88 LF		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0019	0448000000-E	310	***** RC PIPE CULVERTS, CLASS IV (48")	48 LF		
0020	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	4,380 LF		
0021	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	1,068 LF		
0022	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	2,024 LF		
0023	0448500000-E	310	30" RC PIPE CULVERTS, CLASS IV	1,104 LF		
0024	0448600000-E	310	36" RC PIPE CULVERTS, CLASS IV	52 LF		
0025	0594000000-E	310	24" CS PIPE CULVERTS, 0.064" THICK	68 LF		
0026	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (24", 0.064")	2 EA		
0027	0995000000-E	340	PIPE REMOVAL	1,425 LF		
0028	1077000000-E	SP	#57 STONE	10 TON		
0029	1099500000-E	505	SHALLOW UNDERCUT	4,010 CY		
0030	1099700000-E	505	CLASS IV SUBGRADE STABILIZATION	10,500 TON		
0031	1111000000-E	SP	CLASS IV AGGREGATE STABILIZATION	500 TON		
0032	1121000000-E	520	AGGREGATE BASE COURSE	216 TON		
0033	1220000000-E	545	INCIDENTAL STONE BASE	200 TON		
0034	1308000000-E	607	MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 3")	2,510 SY		
0035	1330000000-E	607	INCIDENTAL MILLING	200 SY		
0036	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	13,300 TON		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0037	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	11,000 TON		
0038	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	9,150 TON		
0039	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	1,680 TON		
0040	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	230.8 TON		
0041	2022000000-E	815	SUBDRAIN EXCAVATION	112 CY		
0042	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	500 SY		
0043	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	84 CY		
0044	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	500 LF		
0045	2070000000-N	815	SUBDRAIN PIPE OUTLET	1 EA		
0046	2077000000-E	815	6" OUTLET PIPE	6 LF		
0047	2209000000-E	838	ENDWALLS	6 CY		
0048	2253000000-E	840	PIPE COLLARS	1.55 CY		
0049	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	94 EA		
0050	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	35.4 LF		
0051	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	6 EA		
0052	2366000000-N	840	FRAME WITH TWO GRATES, STD 840.24	8 EA		
0053	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	18 EA		
0054	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	7 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0055	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	25 EA		
0056	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	26 EA		
0057	2396000000-N	840	FRAME WITH COVER, STD 840.54	1 EA		
0058	2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	14 EA		
0059	2538000000-E	846	***-*** CONCRETE CURB & GUTTER (2'-9")	1,100 LF		
0060	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	4,550 LF		
0061	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	11,770 LF		
0062	2591000000-E	848	4" CONCRETE SIDEWALK	6,540 SY		
0063	2605000000-N	848	CONCRETE CURB RAMPS	15 EA		
0064	2612000000-E	848	6" CONCRETE DRIVEWAY	430 SY		
0065	2655000000-E	852	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	1,700 SY		
0066	2845000000-N	858	ADJUSTMENT OF METER BOXES OR VALVE BOXES	2 EA		
0067	3001000000-N	SP	IMPACT ATTENUATOR UNITS, TYPE TL-3	2 EA		
0068	3030000000-E	862	STEEL BEAM GUARDRAIL	2,325 LF		
0069	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	5 EA		
0070	3210000000-N	862	GUARDRAIL END UNITS, TYPE CAT-1	2 EA		
0071	3215000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE III	8 EA		
0072	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	2 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0073	3360000000-E	863	REMOVE EXISTING GUARDRAIL	584		LF
0074	3380000000-E	862	TEMPORARY STEEL BEAM GUARDRAIL	687.5		LF
0075	3389150000-N	SP	TEMPORARY GUARDRAIL END UNITS, TYPE ***** (TL-3)	3		EA
0076	3595000000-E	869	RELAPPING GUARDRAIL	525		LF
0077	3628000000-E	876	RIP RAP, CLASS I	1,000		TON
0078	3649000000-E	876	RIP RAP, CLASS B	5		TON
0079	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	3,000		SY
0080	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	370		LF
0081	4096000000-N	904	SIGN ERECTION, TYPE D	2		EA
0082	4102000000-N	904	SIGN ERECTION, TYPE E	29		EA
0083	4108000000-N	904	SIGN ERECTION, TYPE F	3		EA
0084	4116100000-N	904	SIGN ERECTION, RELOCATE TYPE **** (GROUND MOUNTED) (D)	4		EA
0085	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U- CHANNEL	31		EA
0086	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	1,028		SF
0087	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	32		SF
0088	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	92		SF
0089	4415000000-N	1115	FLASHING ARROW BOARD	4		EA
0090	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	4		EA
0091	4430000000-N	1130	DRUMS	244		EA

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0092	4445000000-E	1145	BARRICADES (TYPE III)	104 LF		
0093	4455000000-N	1150	FLAGGER	576 DAY		
0094	4480000000-N	1165	TMA	4 EA		
0095	4510000000-N	1190	LAW ENFORCEMENT	96 HR		
0096	4520000000-N	1266	TUBULAR MARKERS (FIXED)	12 EA		
0097	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	1,685 EA		
0098	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	28,679 LF		
0099	4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	3,512 LF		
0100	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	46 EA		
0101	4726110000-E	1205	HEATED-IN-PLACE THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	37 EA		
0102	4770000000-E	1205	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (IV)	2,045 LF		
0103	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	51,557 LF		
0104	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	4,943 LF		
0105	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	715 LF		
0106	4840000000-N	1205	PAINT PAVEMENT MARKING CHARACTER	8 EA		
0107	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	63 EA		
0108	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	22,045 LF		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0109	4891000000-E	1205	GENERIC PAVEMENT MARKING ITEM THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	605 LF		
0110	4892000000-N	1205	GENERIC PAVEMENT MARKING ITEM HEATED-IN-PLACE PAVEMENT MARK- ING CHARACTERS 90 MILS	37 EA		
0111	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	445 EA		
0112	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0113	5325600000-E	1510	6" WATER LINE	100 LF		
0114	5325800000-E	1510	8" WATER LINE	2,654 LF		
0115	5326200000-E	1510	12" WATER LINE	18 LF		
0116	5326600000-E	1510	16" WATER LINE	5,035 LF		
0117	5327400000-E	1510	24" WATER LINE	527 LF		
0118	5329000000-E	1510	DUCTILE IRON WATER PIPE FITTINGS	21,045 LB		
0119	5540000000-E	1515	6" VALVE	7 EA		
0120	5546000000-E	1515	8" VALVE	4 EA		
0121	5558600000-E	1515	16" VALVE	15 EA		
0122	5571800000-E	1515	8" TAPPING SLEEVE & VALVE	3 EA		
0123	5572200000-E	1515	12" TAPPING SLEEVE & VALVE	1 EA		
0124	5572600000-E	1515	16" TAPPING SLEEVE & VALVE	2 EA		
0125	5606000000-E	1515	2" BLOW OFF	7 EA		
0126	5648000000-N	1515	RELOCATE WATER METER	3 EA		
0127	5666000000-N	1515	FIRE HYDRANT	6 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0128	5672000000-N	1515	RELOCATE FIRE HYDRANT	1 EA		
0129	5673000000-E	1515	FIRE HYDRANT LEG	56 LF		
0130	5686500000-E	1515	WATER SERVICE LINE	40 LF		
0131	5691300000-E	1520	8" SANITARY GRAVITY SEWER	1,523 LF		
0132	5768500000-E	1520	SEWER SERVICE LINE	82 LF		
0133	5775000000-E	1525	4' DIA UTILITY MANHOLE	10 EA		
0134	5776000000-E	1525	5' DIA UTILITY MANHOLE	1 EA		
0135	5781000000-E	1525	UTILITY MANHOLE WALL 4' DIA	72 LF		
0136	5801000000-E	1530	ABANDON 8" UTILITY PIPE	1,074 LF		
0137	5804000000-E	1530	ABANDON 12" UTILITY PIPE	15 LF		
0138	5810000000-E	1530	ABANDON 16" UTILITY PIPE	4,697 LF		
0139	5815500000-N	1530	REMOVE FIRE HYDRANT	4 EA		
0140	5816000000-N	1530	ABANDON UTILITY MANHOLE	6 EA		
0141	5835700000-E	1540	16" ENCASMENT PIPE	351 LF		
0142	5836200000-E	1540	30" ENCASMENT PIPE	472 LF		
0143	5872500000-E	1550	BORE AND JACK OF *** (16")	223 LF		
0144	5872500000-E	1550	BORE AND JACK OF *** (30")	257 LF		
0145	5872600000-E	1550	DIRECTIONAL DRILLING OF *** (24")	527 LF		
0146	5882000000-N	SP	GENERIC UTILITY ITEM 2" COMBINATION AIR RELEASE VALVE	5 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0147	5882000000-N	SP	GENERIC UTILITY ITEM ADJUSTMENT OF PRECAST MANHOLE	1 EA		
0148	6000000000-E	1605	TEMPORARY SILT FENCE	13,165 LF		
0149	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	560 TON		
0150	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	1,835 TON		
0151	6012000000-E	1610	SEDIMENT CONTROL STONE	1,590 TON		
0152	6015000000-E	1615	TEMPORARY MULCHING	12.5 ACR		
0153	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	600 LB		
0154	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEED- ING	4 TON		
0155	6024000000-E	1622	TEMPORARY SLOPE DRAINS	520 LF		
0156	6029000000-E	SP	SAFETY FENCE	1,960 LF		
0157	6030000000-E	1630	SILT EXCAVATION	3,460 CY		
0158	6036000000-E	1631	MATTING FOR EROSION CONTROL	49,105 SY		
0159	6037000000-E	SP	COIR FIBER MAT	100 SY		
0160	6042000000-E	1632	1/4" HARDWARE CLOTH	3,370 LF		
0161	6043000000-E	SP	LOW PERMEABILITY GEOTEXTILE	75 SY		
0162	6070000000-N	1639	SPECIAL STILLING BASINS	8 EA		
0163	6071012000-E	SP	COIR FIBER WATTLE	3,460 LF		
0164	6071014000-E	SP	COIR FIBER WATTLE BARRIER	730 LF		
0165	6071020000-E	SP	POLYACRYLAMIDE (PAM)	985 LB		
0166	6071030000-E	1640	COIR FIBER BAFFLE	840 LF		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0167	6071050000-E	SP	*** SKIMMER (1-1/2")	2 EA		
0168	6071050000-E	SP	*** SKIMMER (2")	1 EA		
0169	6084000000-E	1660	SEEDING & MULCHING	12 ACR		
0170	6087000000-E	1660	MOWING	12 ACR		
0171	6090000000-E	1661	SEED FOR REPAIR SEEDING	150 LB		
0172	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	0.25 TON		
0173	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	275 LB		
0174	6108000000-E	1665	FERTILIZER TOPDRESSING	8 TON		
0175	6111000000-E	SP	IMPERVIOUS DIKE	40 LF		
0176	6114500000-N	1667	SPECIALIZED HAND MOWING	10 MHR		
0177	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	100 EA		
0178	6117500000-N	SP	CONCRETE WASHOUT STRUCTURE	6 EA		
0179	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE CLEANOUT	132 EA		
0180	6132000000-N	SP	GENERIC EROSION CONTROL ITEM FABRIC INSERT INLET PROTECTION DEVICE	44 EA		
0181	7048500000-E	1705	PEDESTRIAN SIGNAL HEAD (16", 1 SECTION W/COUNTDOWN)	4 EA		
0182	7060000000-E	1705	SIGNAL CABLE	13,070 LF		
0183	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	50 EA		
0184	7132000000-E	1705	VEHICLE SIGNAL HEAD (12", 4 SECTION)	13 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0185	7144000000-E	1705	VEHICLE SIGNAL HEAD (12", 5 SECTION)	10 EA		
0186	7252000000-E	1710	MESSENGER CABLE (1/4")	5,285 LF		
0187	7264000000-E	1710	MESSENGER CABLE (3/8")	3,130 LF		
0188	7279000000-E	1715	TRACER WIRE	1,915 LF		
0189	7288000000-E	1715	PAVED TRENCHING (***** (1, 2"))	88 LF		
0190	7288000000-E	1715	PAVED TRENCHING (***** (2, 2"))	20 LF		
0191	7300000000-E	1715	UNPAVED TRENCHING (***** (1, 2"))	1,206 LF		
0192	7300000000-E	1715	UNPAVED TRENCHING (***** (2, 2"))	1,378 LF		
0193	7300000000-E	1715	UNPAVED TRENCHING (***** (4, 2"))	6 LF		
0194	7300000000-E	1715	UNPAVED TRENCHING (***** (5, 2"))	15 LF		
0195	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	23 EA		
0196	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	8 EA		
0197	7360000000-N	1720	WOOD POLE	8 EA		
0198	7372000000-N	1721	GUY ASSEMBLY	28 EA		
0199	7408000000-E	1722	1" RISER WITH WEATHERHEAD	1 EA		
0200	7420000000-E	1722	2" RISER WITH WEATHERHEAD	7 EA		
0201	7432000000-E	1722	2" RISER WITH HEAT SHRINK TUBING	6 EA		
0202	7444000000-E	1725	INDUCTIVE LOOP SAWCUT	3,352 LF		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0203	7456000000-E	1726	LEAD-IN CABLE (***** (14-2)	16,880 LF		
0204	7481000000-N	SP	SITE SURVEY	2 EA		
0205	7481200000-N	SP	LUMINAIRE ARM FOR VIDEO SYSTEM	12 EA		
0206	7481240000-N	SP	CAMERA WITHOUT INTERNAL LOOP EMULATOR PROCESSING UNIT	11 EA		
0207	7481260000-N	SP	EXTERNAL LOOP EMULATOR PRO- CESSING UNIT	3 EA		
0208	7481280000-N	SP	RELOCATE CAMERA SENSOR UNIT	2 EA		
0209	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (24)	7,255 LF		
0210	7528000000-E	1730	DROP CABLE	1,295 LF		
0211	7540000000-N	1731	SPLICE ENCLOSURE	3 EA		
0212	7552000000-N	1731	INTERCONNECT CENTER	3 EA		
0213	7566000000-N	1733	DELINEATOR MARKER	5 EA		
0214	7575160000-E	1734	REMOVE EXISTING COMMUNICATIONS CABLE	6,390 LF		
0215	7576000000-N	SP	METAL STRAIN SIGNAL POLE	10 EA		
0216	7613000000-N	SP	SOIL TEST	10 EA		
0217	7614100000-E	SP	DRILLED PIER FOUNDATION	100 CY		
0218	7636000000-N	1745	SIGN FOR SIGNALS	3 EA		
0219	7642200000-N	1743	TYPE II PEDESTAL WITH FOUND- ATION	4 EA		
0220	7684000000-N	1750	SIGNAL CABINET FOUNDATION	3 EA		
0221	7696000000-N	1751	CONTROLLERS WITH CABINET (***** (TYPE ASC/3, BASE MOUNTED)	3 EA		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0222	7696000000-N	1751	CONTROLLERS WITH CABINET (***** (TYPE ASC/3, POLE MOUNTED)	1 EA		
0223	7744000000-N	1751	DETECTOR CARD (TYPE 170)	27 EA		
0224	7901000000-N	1753	CABINET BASE EXTENDER	3 EA		
0225	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL CCTV CAMERA ASSEMBLY	1 EA		
0226	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	3 EA		
0227	7980000000-N	SP	GENERIC SIGNAL ITEM REMOVE EXISTING CCTV CAMERA	1 EA		
0228	7990000000-E	SP	GENERIC SIGNAL ITEM BACK PULL FIBER OPTIC CABLE	970 LF		
0254	0001000000-E	200	CLEARING & GRUBBING .. ACRE(S)	Lump Sum	L.S.	
0255	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUB- BING	1 ACR		
0256	0022000000-E	225	UNCLASSIFIED EXCAVATION	19,700 CY		
0257	0106000000-E	230	BORROW EXCAVATION	41,400 CY		
0258	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	5,300 SY		
0259	0177000000-E	250	BREAKING OF EXISTING ASPHALT PAVEMENT	3,700 SY		
0260	1011000000-N	500	FINE GRADING	Lump Sum	L.S.	

STRUCTURE ITEMS

0229	8035000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (76+80.00 -L- LT)	Lump Sum	L.S.	
------	--------------	-----	--	----------	------	--

County : Cumberland

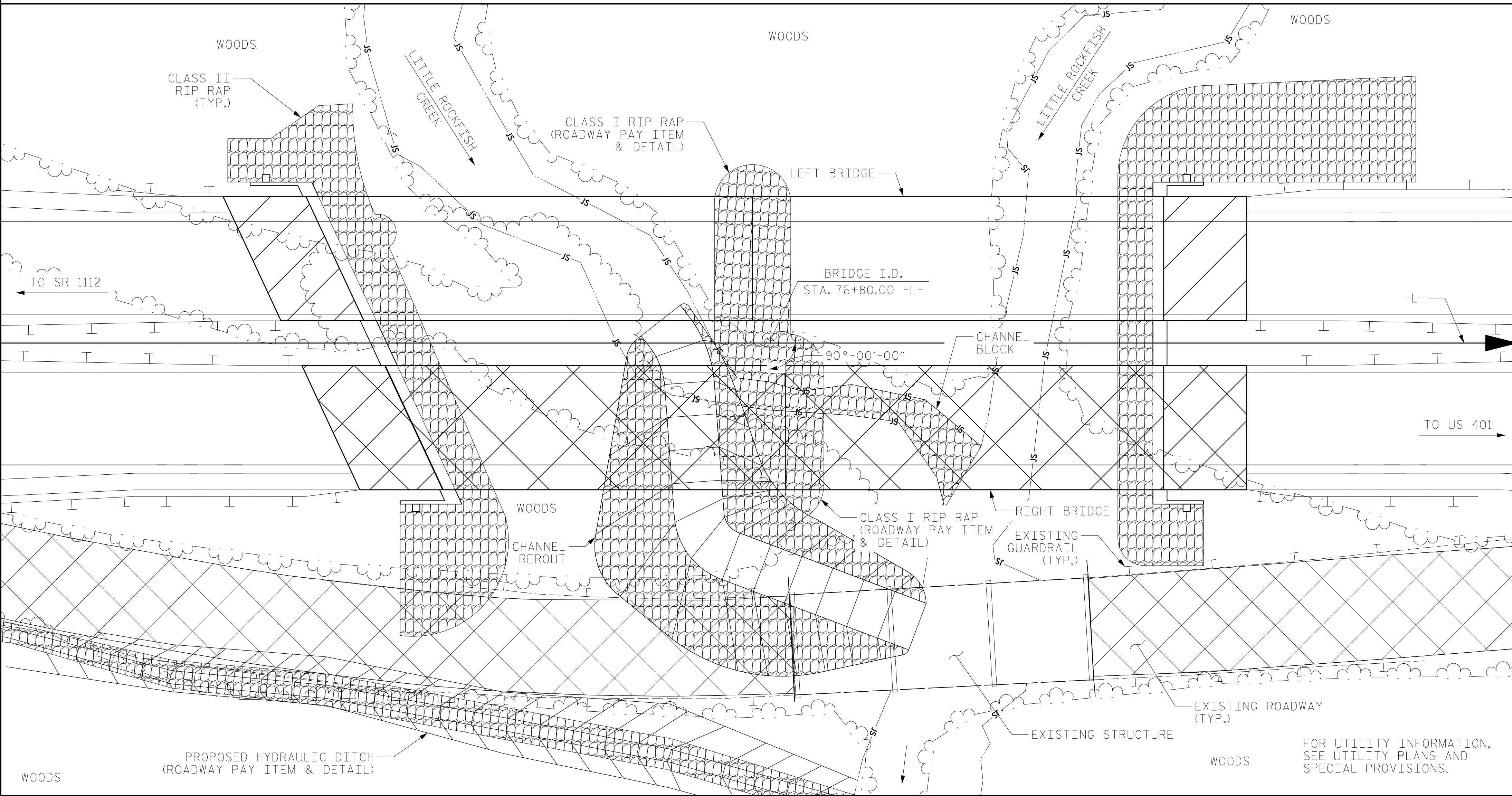
Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0230	8065000000-N	SP	ASBESTOS ASSESSMENT	Lump Sum	L.S.	
0231	8112730000-N	450	PDA TESTING	4 EA		
0232	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVATION AT STATION ***** (76+80.00 -L- LT)	Lump Sum	L.S.	
0233	8121000000-N	412	UNCLASSIFIED STRUCTURE EXCAVATION AT STATION ***** (76+80.00 -L- RT)	Lump Sum	L.S.	
0234	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	19,225 SF		
0235	8161000000-E	420	GROOVING BRIDGE FLOORS	16,655 SF		
0236	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	344 CY		
0237	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (76+80.00 -L- LT)	Lump Sum	L.S.	
0238	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (76+80.00 -L- RT)	Lump Sum	L.S.	
0239	8217000000-E	425	REINFORCING STEEL (BRIDGE)	41,908 LB		
0240	8328200000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (HP 14 X 73)	44 EA		
0241	8328400000-E	450	PILE DRIVING EQUIPMENT SETUP FOR *** GALVANIZED STEEL PILES (PP 36 X 0.5)	10 EA		
0242	8384000000-E	450	HP14X73 STEEL PILES	2,840 LF		
0243	8385200000-E	450	PP ** X **** GALVANIZED STEEL PILES (36 X 0.5)	1,250 LF		
0244	8393000000-N	450	PILE REDRIVES	28 EA		
0245	8475000000-E	460	TWO BAR METAL RAIL	460.2 LF		
0246	8503000000-E	460	CONCRETE BARRIER RAIL	516.8 LF		

County : Cumberland

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0247	8517000000-E	460	1'-***X ***** CONCRETE PARA-PET (1'-2" X 3'-3")	475.8	LF	
0248	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	862	TON	
0249	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	957	SY	
0250	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0251	8706000000-N	SP	EXPANSION JOINT SEALS	Lump Sum	L.S.	
0252	8867000000-E	SP	GENERIC STRUCTURE ITEM 54" F.I.B. PRESTRESSED CONCRETE GIRDERS	893.7	LF	
0253	8867000000-E	SP	GENERIC STRUCTURE ITEM 63" F.I.B. PRESTRESSED CONCRETE GIRDERS	988.2	LF	
			Total Amount Of Bid For Entire Project :			

1358/Mar10/Q593575.7/D1248805806000/E258

BENCH MARK #9: 239.95' RT. OF -L- STA. 75+65.88, EL. 163.00'



LOCATION SKETCH

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.
- REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE BRIDGE 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. 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.
- PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18 - EVALUATING SCOUR AT BRIDGES."
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
- FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.
- 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 OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR INTERIOR BENT NO. 1, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR REQUIRED GALVANIZING LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.
- THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET S1-1 SHALL BE EXCAVATED FOR A DISTANCE OF 47 FT LEFT AND 26 FT RIGHT 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.
- THE EXISTING STRUCTURE CONSISTING OF THREE SPANS, ONE SPAN AT 30'-2", ONE SPAN AT 30'-1" AND ONE SPAN AT 30'-2" ON PRESTRESSED CONCRETE CORED SLABS, 32'-0" CLEAR ROADWAY WIDTH ON STEEL PILES AND LOCATED APPROXIMATELY 100' DOWNSTREAM FROM THE PROPOSED BRIDGE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT 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.

HYDRAULIC DATA

DESIGN DISCHARGE	= 710 CFS
FREQUENCY OF DESIGN DISCHARGE	= 25 YRS
DESIGN HIGH WATER ELEVATION	= 152.1'
DRAINAGE AREA	= 16.1 SQ. MI.
BASE DISCHARGE (Q100)	= 970 CFS
BASE HIGH WATER ELEVATION	= 153.6'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 1,300+ CFS
FREQUENCY OF OVERTOPPING	= 500+ YRS
* OVERTOPPING ELEVATION	= 163.44'
	* SAG @ STA. 80+55.33 -L-

PROJECT NO. U-5798A
CUMBERLAND COUNTY
 STATION: 76+80.00 -L-

SHEET 3 OF 3

TOTAL BILL OF MATERIALS

	REMOVAL OF EXISTING STRUCTURE @ STA. 76+80.00 -L-	ASBESTOS ASSESMENT	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	63" F.I.B. PRESTRESSED CONCRETE GIRDERS	PILE DRIVING EQUIPMENT SETUP FOR HP 14X73 STEEL PILES	
	LUMP SUM	LUMP SUM	EACH	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	EACH
SUPERSTRUCTURE					10,090	8,635				8	988.2	12
END BENT NO. 1							68.7		9,183			
BENT NO. 1							45.3		5,056			
END BENT NO. 2							56.4		7,552			10
TOTAL	LUMP SUM	LUMP SUM	2	LUMP SUM	10,090	8,635	170.4	LUMP SUM	21,791	8	988.2	22

	PILE DRIVING EQUIPMENT SETUP FOR PP 36" Ø X 0.5" GALVANIZED STEEL PILES	HP 14X73 STEEL PILES	PP 36" Ø X 0.5" GALVANIZED STEEL PILES	PILE REDRIVES	TWO BAR METAL RAIL	CONCRETE BARRIER RAIL	1'-2" X 3'-3" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	EXPANSION JOINT SEAL
	EACH	NO.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE											
END BENT NO. 1		12	720.0					167	185		
BENT NO. 1	5			3	650.0						
END BENT NO. 2		10	700.0	5				365	405		
TOTAL	5	22	1,420.0	14	650.0	251.0	260.8	532	590	LUMP SUM	LUMP SUM



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 LEFT LANE BRIDGE ON SR 1102
 OVER LITTLE ROCKFISH CREEK
 BETWEEN SR 1112 AND US 401
LEFT LANE

DRAWN BY : NSC DATE : 03/2022
 CHECKED BY : MKO DATE : 04/2021
 DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

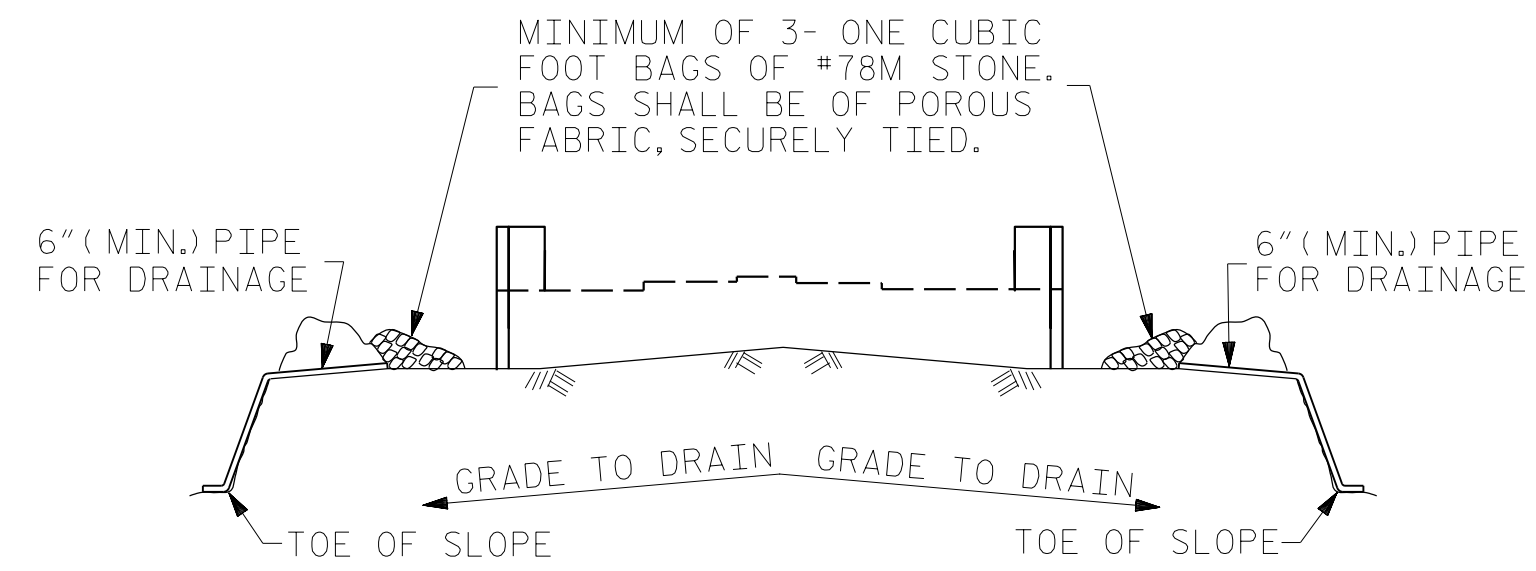
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1	NSC	03/2022	3		
2			4		

SHEET NO.

SHEET NO.	TOTAL SHEETS
S1-3	43

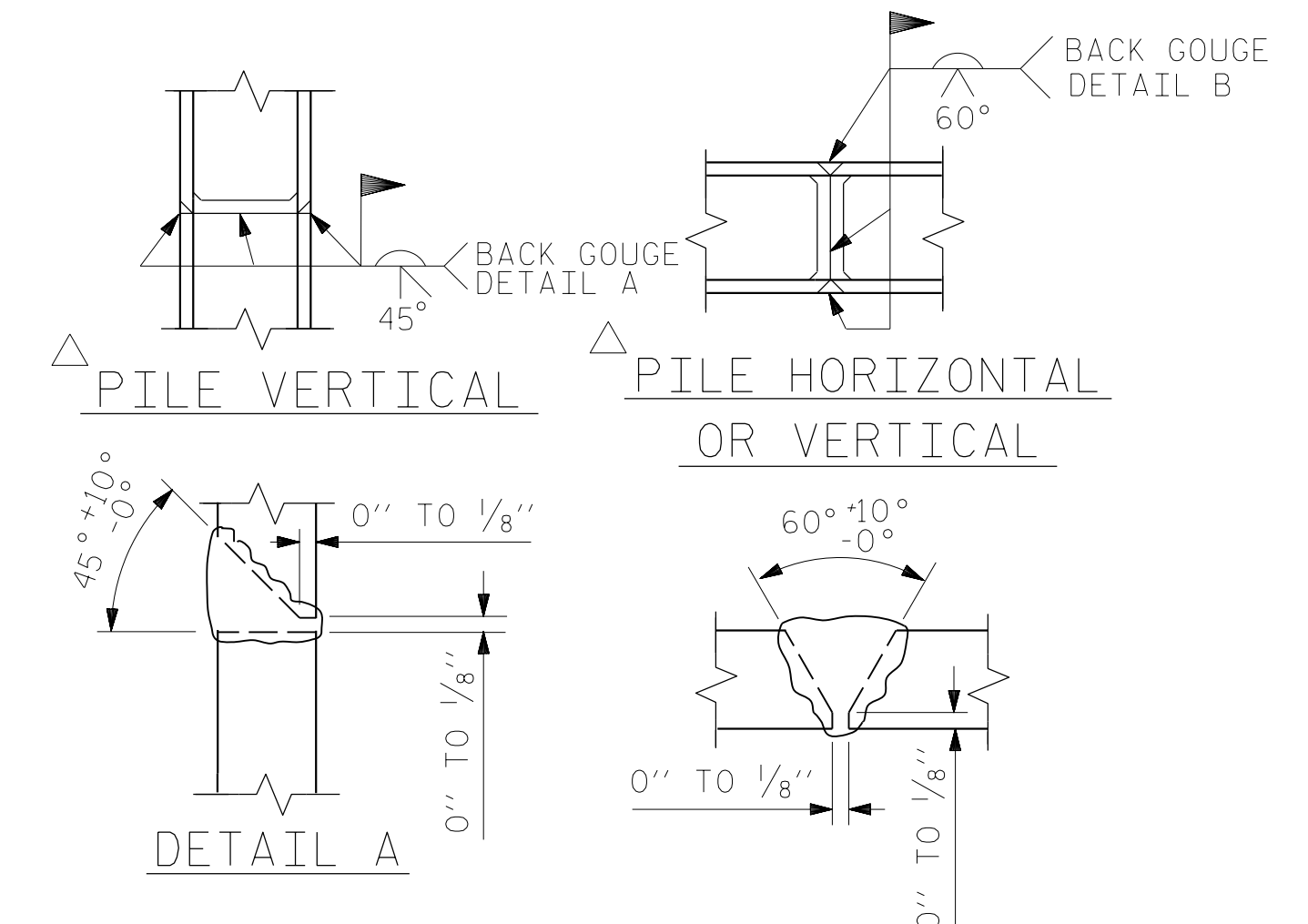


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

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.

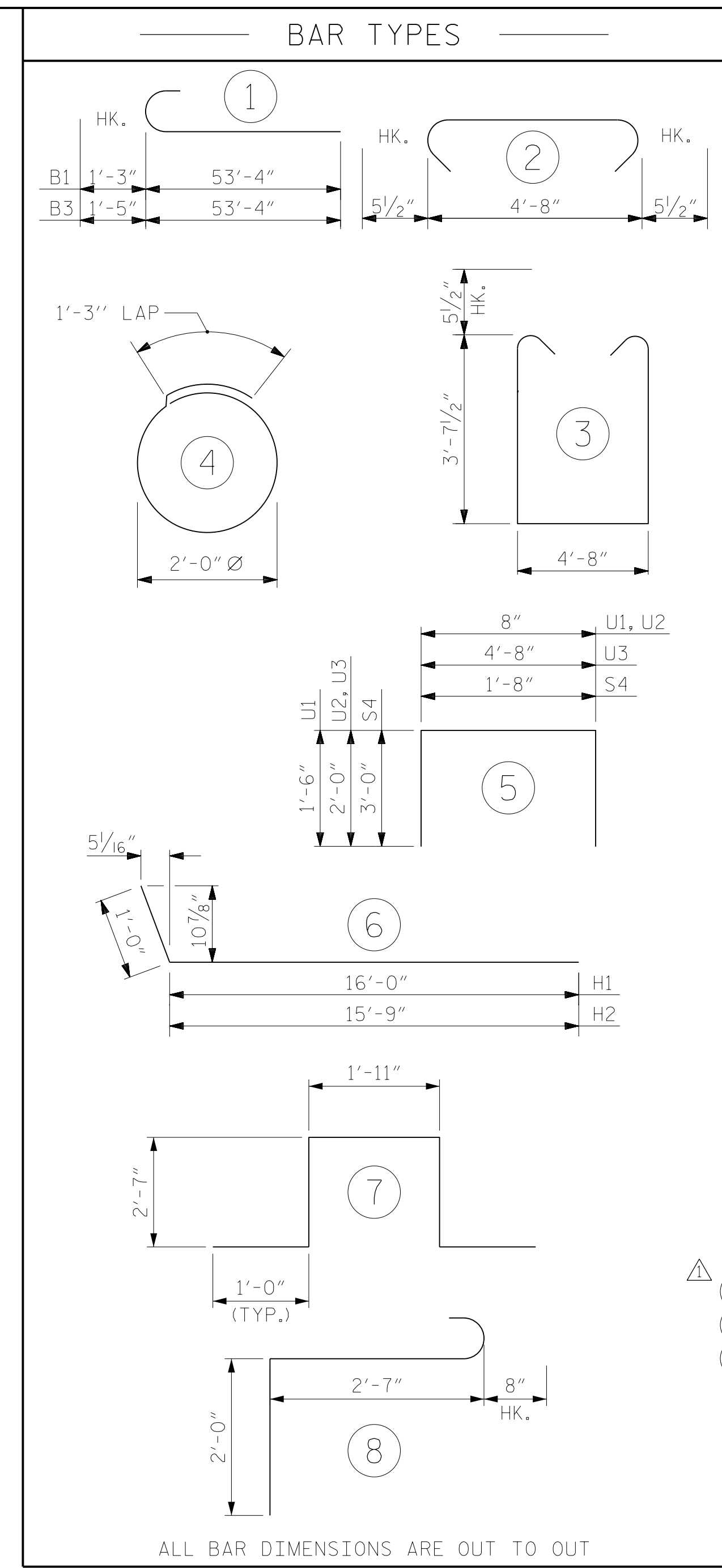
NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.

TEMPORARY DRAINAGE AT END BENT



POSITION OF PILE DURING WELDING.

PILE SPLICE DETAILS



BILL OF MATERIAL					
END BENT NO. 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	7	#9	1	54'-7"	1299
B2	7	#9	STR	13'-1"	311
B3	7	#10	1	54'-9"	1649
B4	7	#10	STR	11'-7"	349
B5	18	#4	STR	40'-0"	481
B6	18	#4	STR	20'-8"	248
B7	14	#4	STR	4'-8"	44
B8	7	#4	STR	40'-0"	187
B9	4	#4	STR	11'-3"	30
H1	14	#4	6	17'-0"	159
H2	14	#4	6	16'-9"	157
K1	12	#4	STR	40'-0"	321
K2	12	#4	STR	20'-9"	166
K3	6	#4	STR	4'-3"	17
S1	88	#5	3	12'-10"	1178
S2	88	#5	2	5'-7"	512
S3	12	#4	4	7'-7"	61
S4	32	#4	5	7'-8"	164
S5	3	#6	7	9'-1"	41
S6	3	#6	8	5'-3"	24
U1	44	#4	5	3'-8"	108
U2	8	#4	5	4'-8"	25
U3	25	#4	5	8'-8"	145
V1	104	#5	STR	9'-0"	976
V2	41	#5	STR	12'-5"	531

REINFORCING STEEL 9,183 LBS.
CLASS A CONCRETE

POUR #1
CAP, COLLARS AND LOWER PART OF WINGS 50.9 C.Y.

POUR #2
UPPER PART OF WINGS AND BACKWALL 17.8 C.Y.

TOTAL CLASS A CONCRETE 68.7 C.Y.

HP 14 X 73 STEEL PILES NO. 12 720.0 LIN. FT.

PILE DRIVING EQUIPMENT SETUP NO. 12 FOR HP 14X73 STEEL PILES

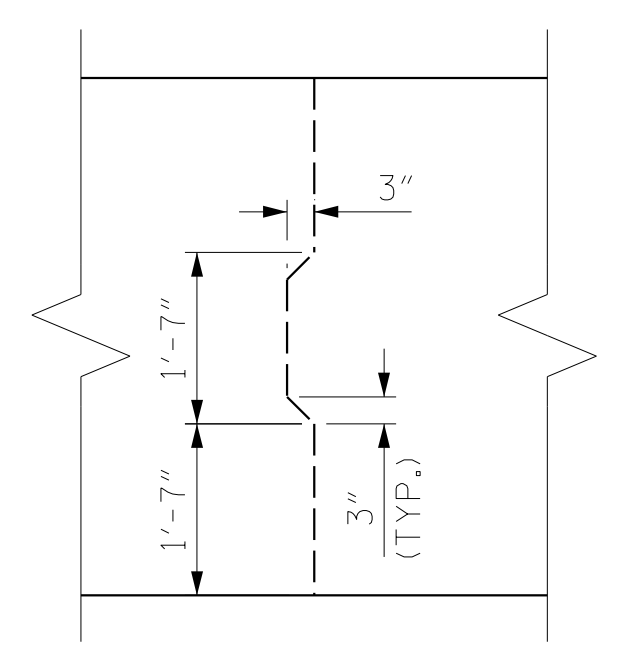
PILE REDRIVES (FOR ONE END BENT) NO. 6

PROJECT NO. U-5798A
CUMBERLAND COUNTY
STATION: 76+80.00 -L-

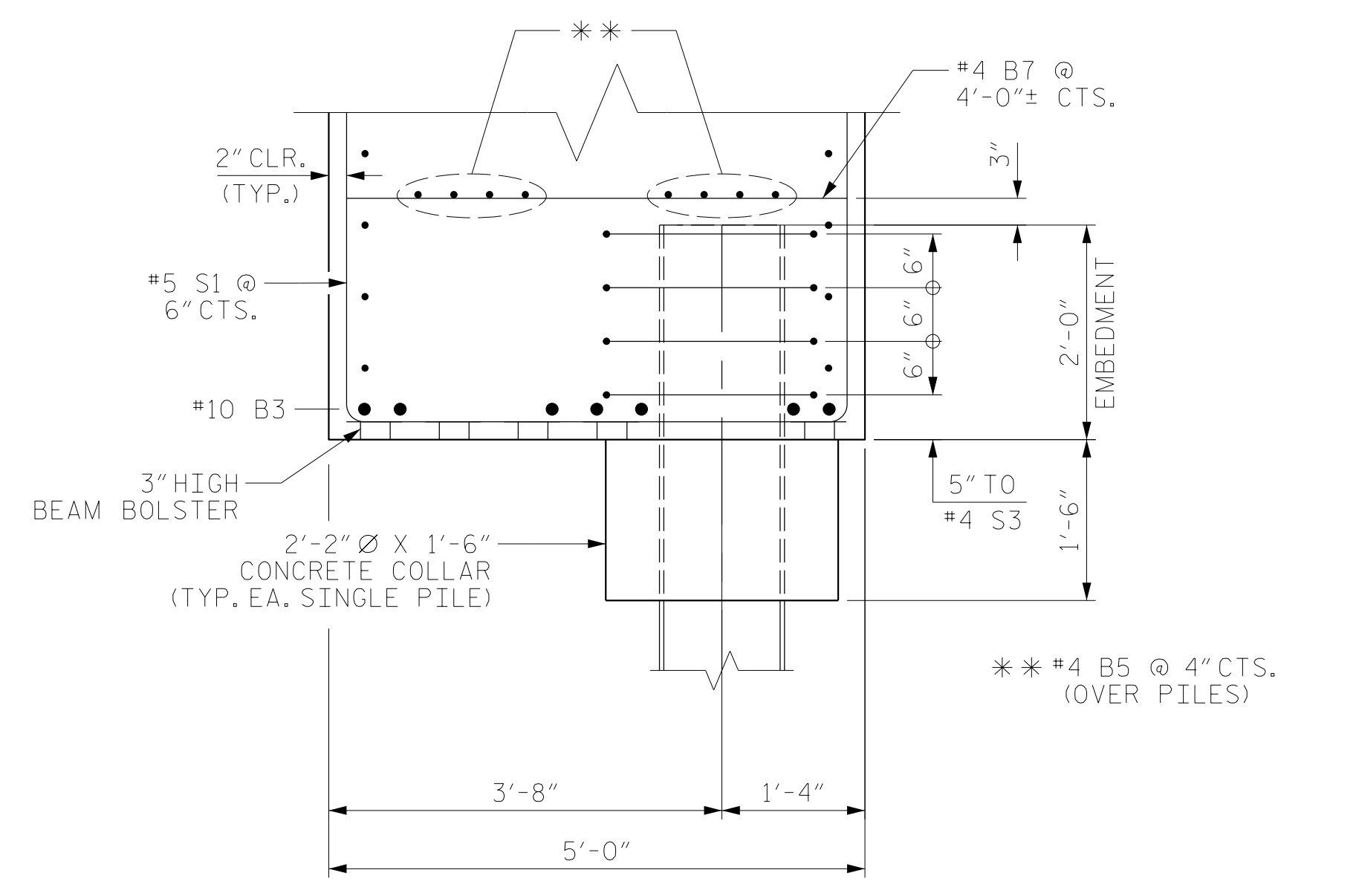
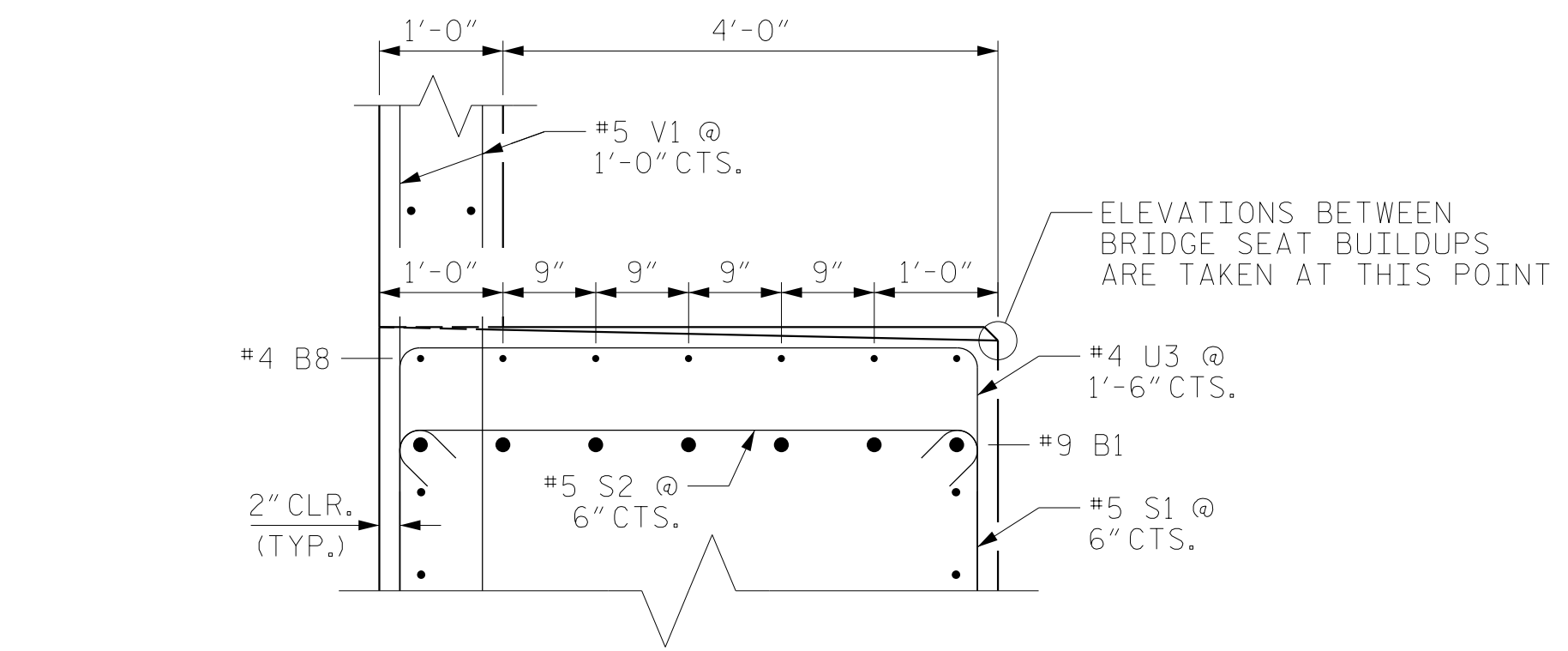
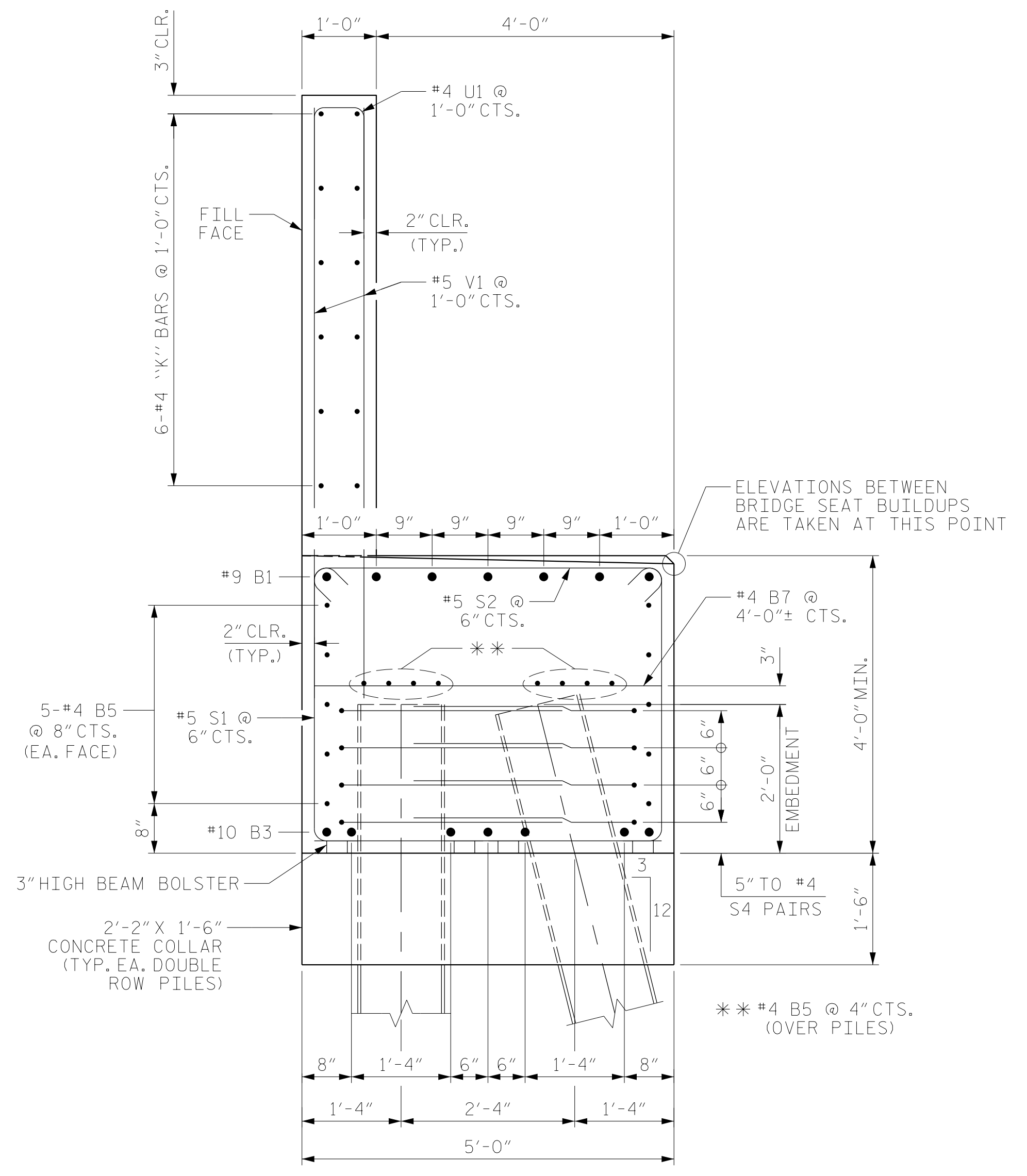
SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
END BENT 1
DETAILS
LEFT LANE

RS&H Architects-Engineers-Planners, Inc.
8521 Six Forks Road, Suite 400
919-926-4100 FAX 919-846-9080
www.rsandh.com
North Carolina License No. 50737-0403-1-C28

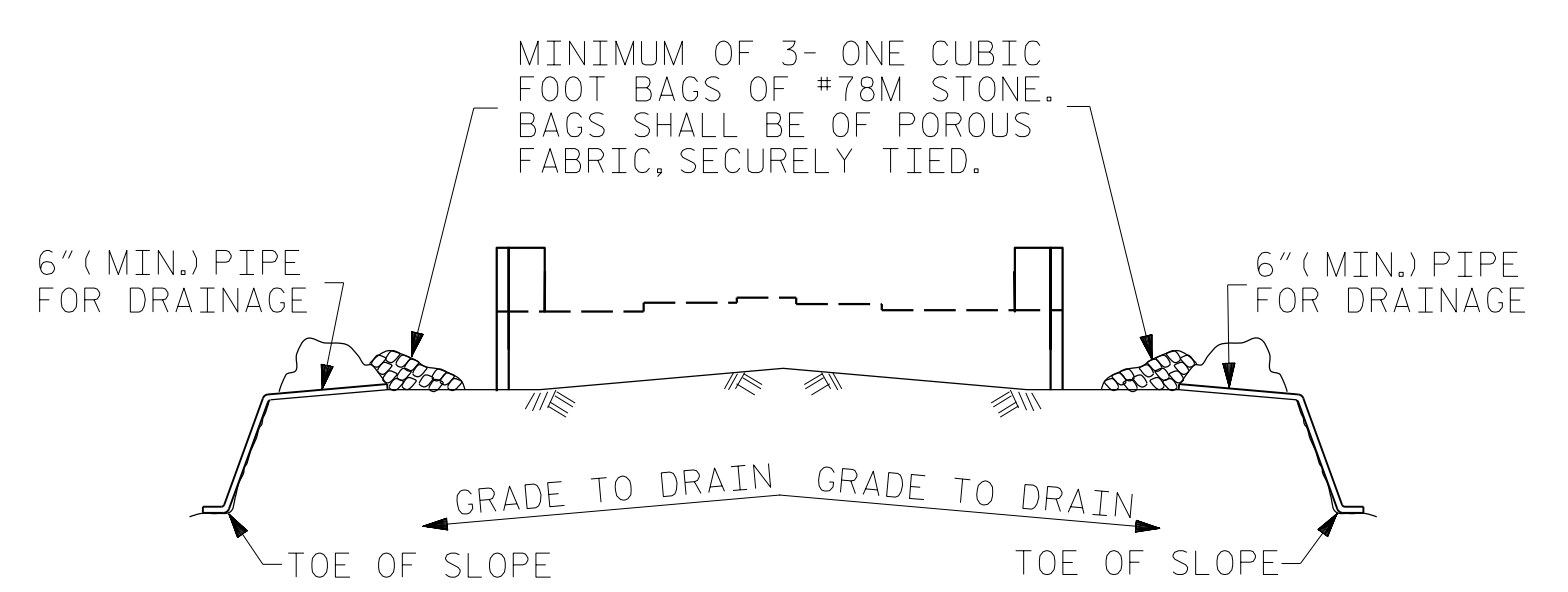


DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DRAWN BY : NSC DATE : 03/2020
CHECKED BY : MKO DATE : 04/2021
DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

REVISD HP 14X73 STEEL PILE COUNT AND LENGTH

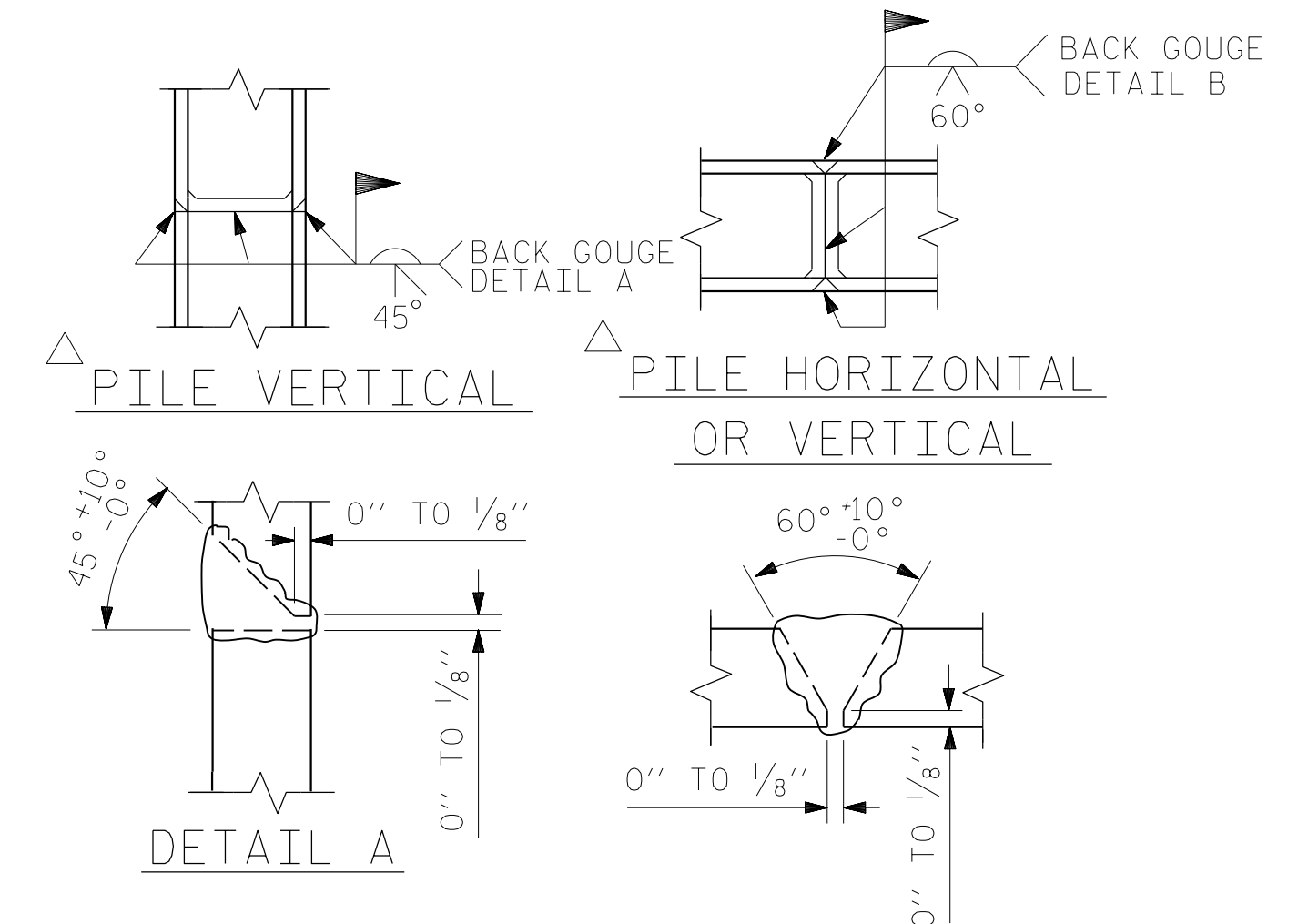


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

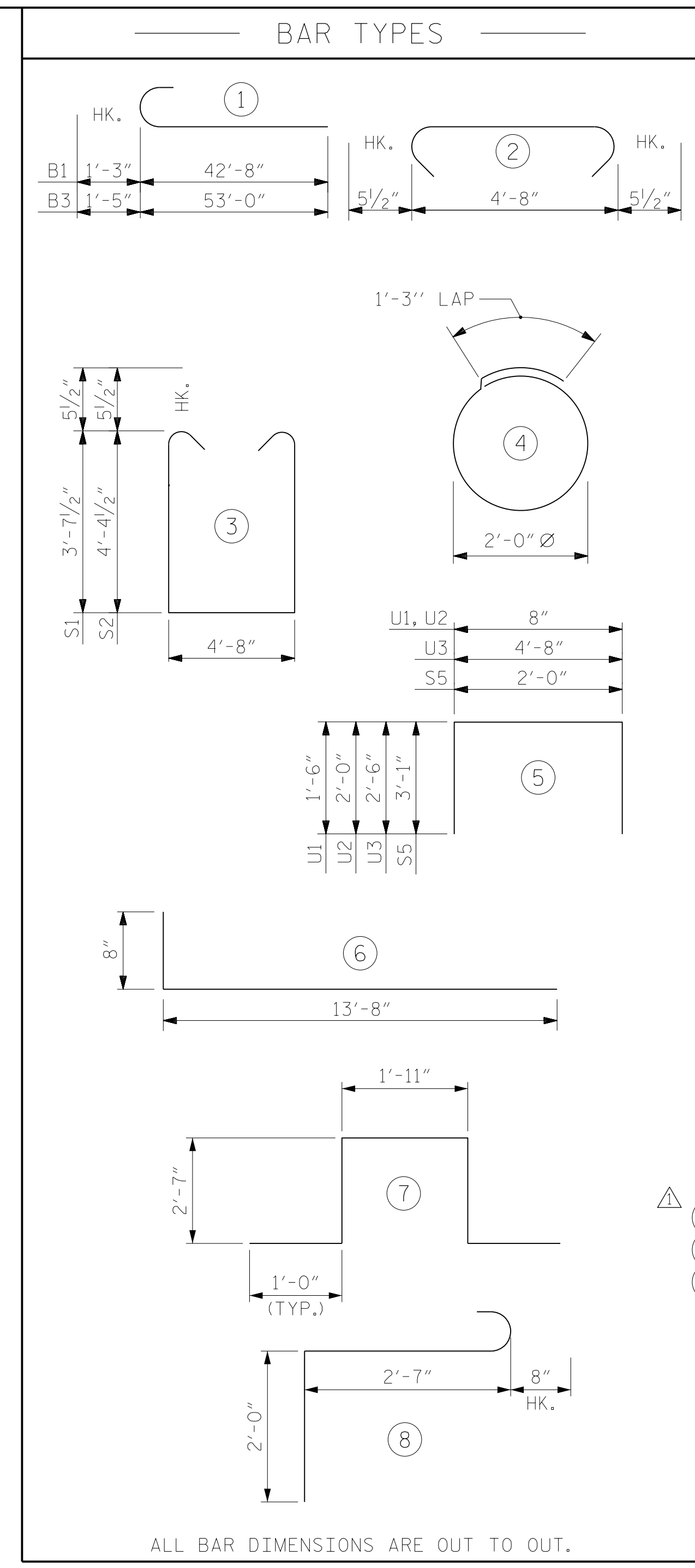
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

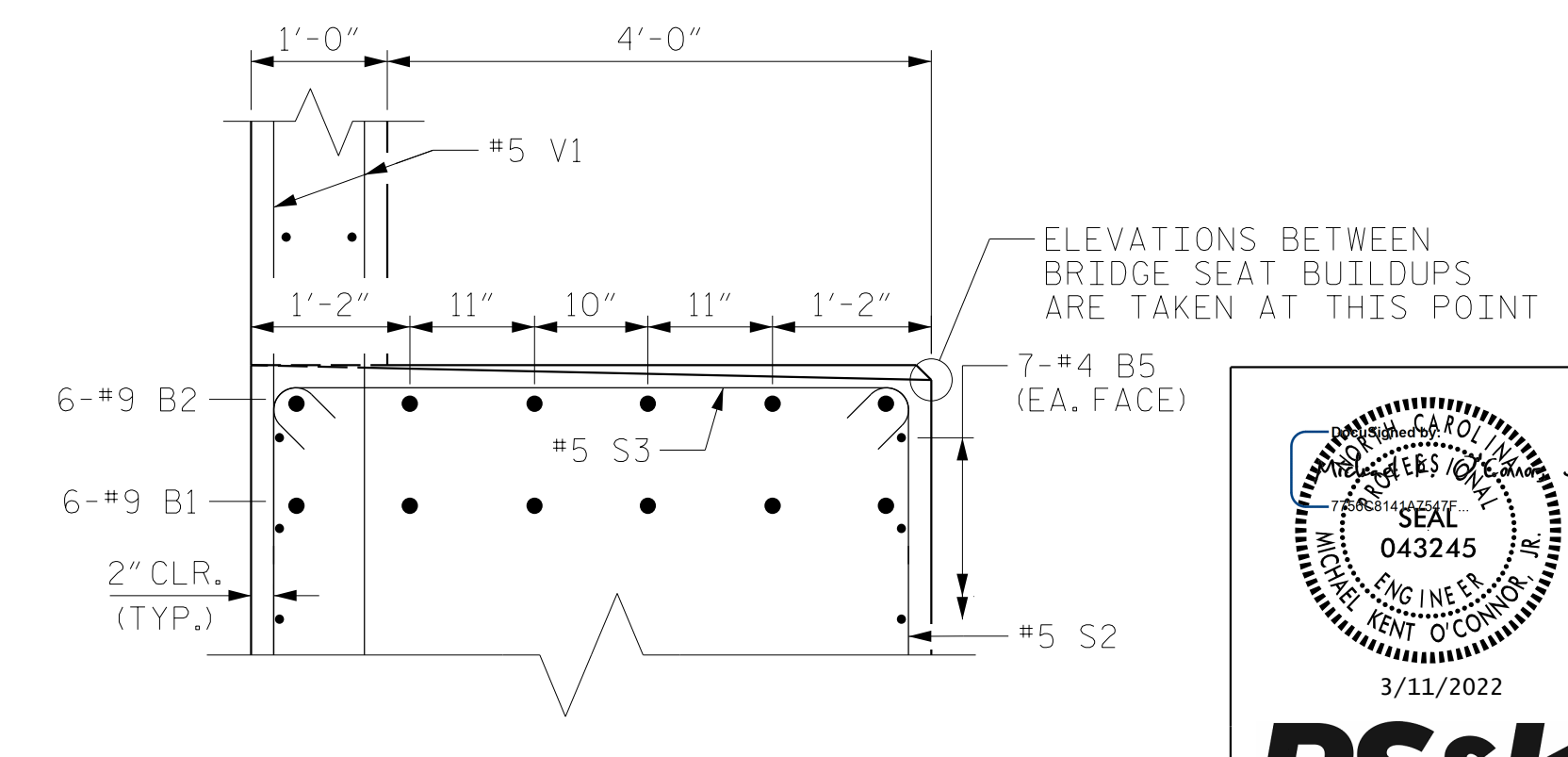
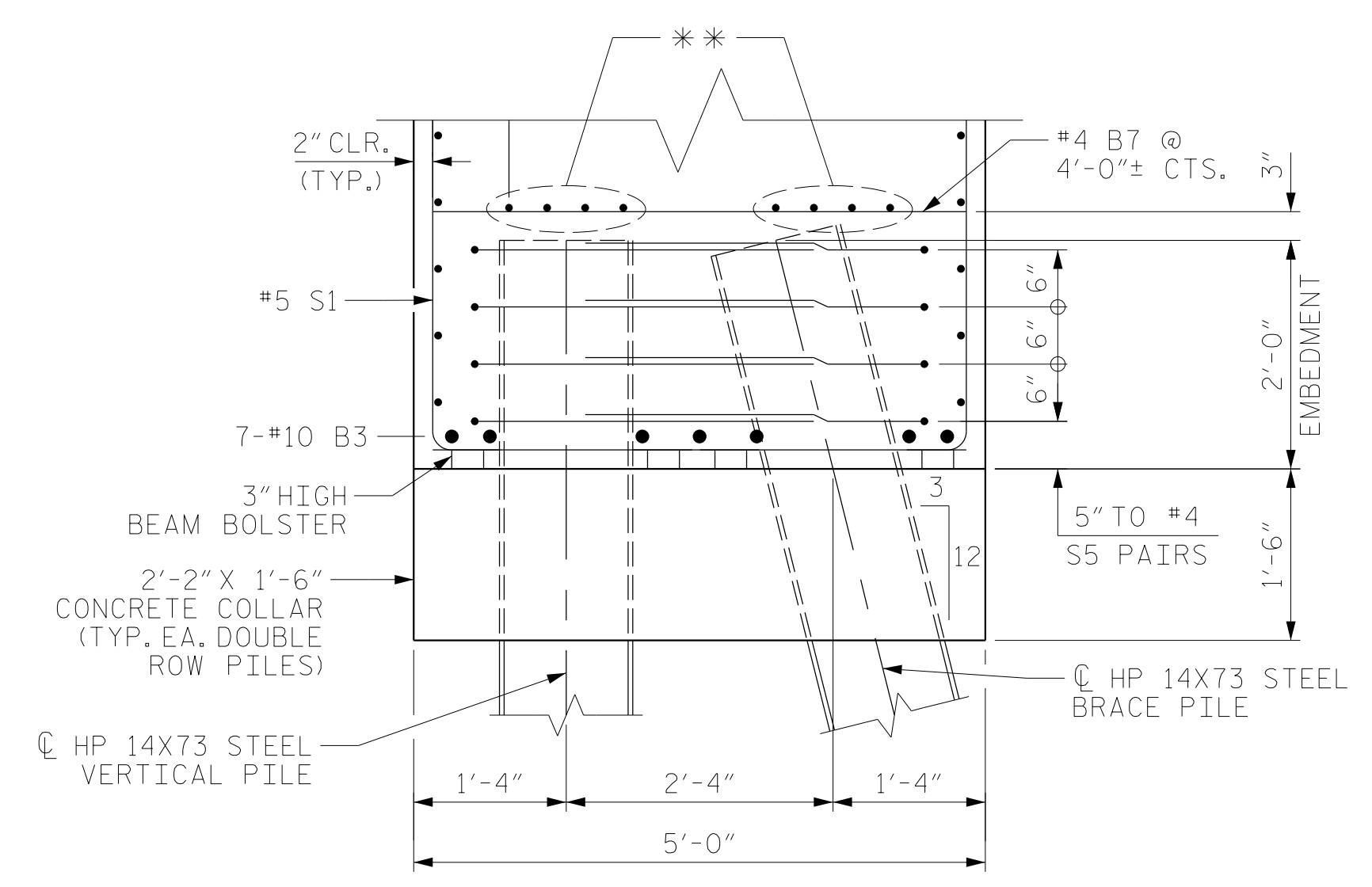
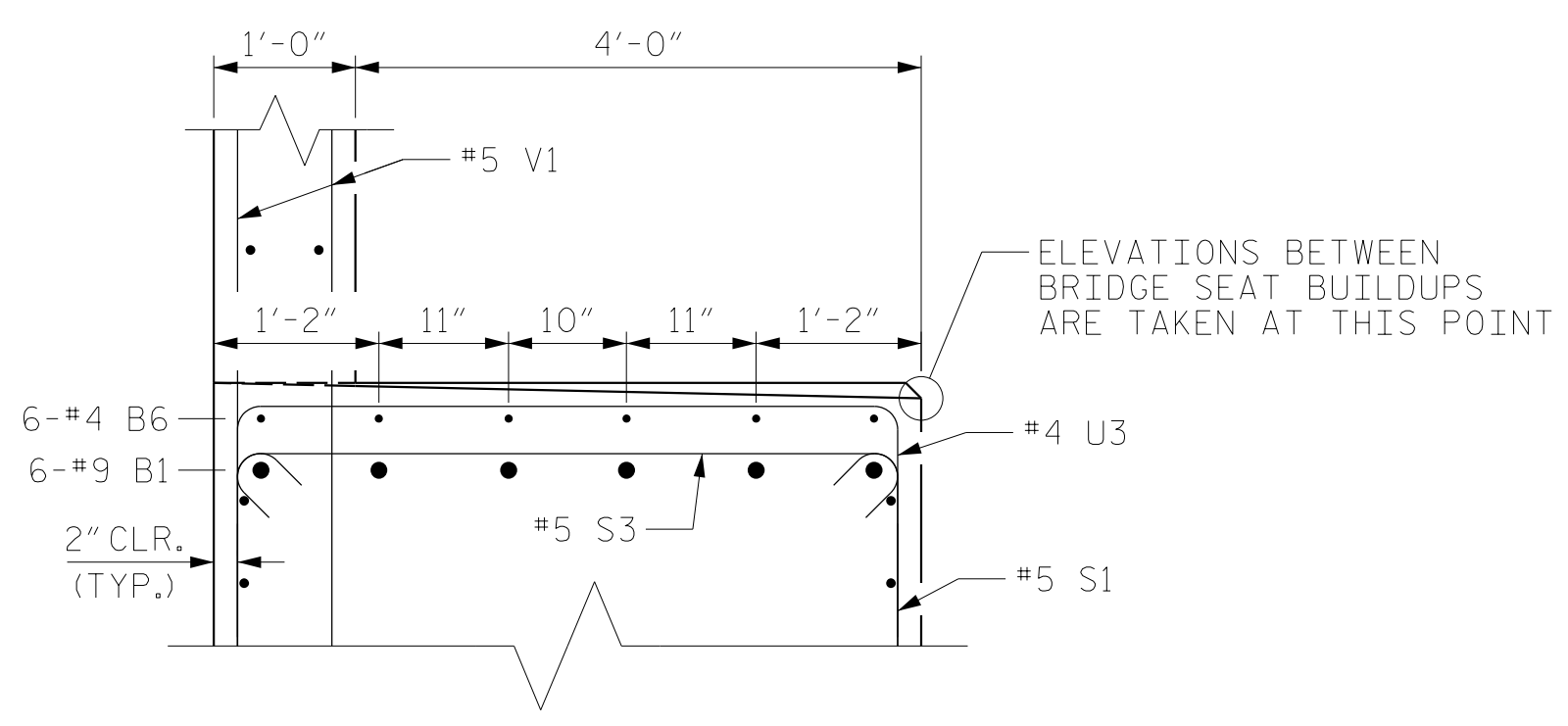
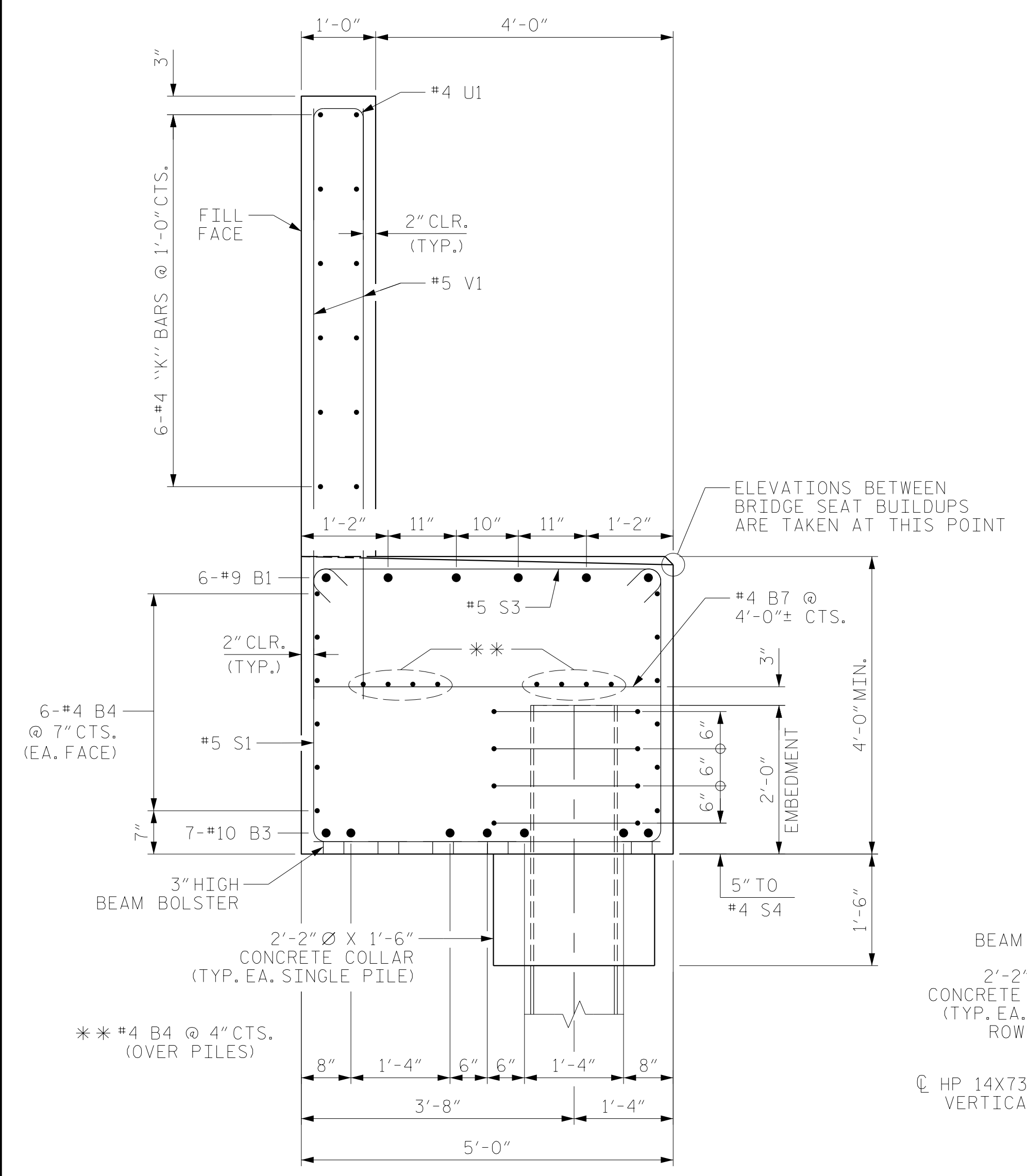
TEMPORARY DRAINAGE AT END BENT



PILE SPLICE DETAILS



BILL OF MATERIAL					
END BENT NO. 2					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	6	#9	1	43'-11"	896
B2	6	#9	STR	16'-5"	335
B3	7	#10	1	54'-5"	1639
B4	20	#4	STR	40'-0"	534
B5	22	#4	STR	13'-3"	195
B6	12	#4	STR	13'-6"	108
B7	13	#4	STR	4'-8"	41
B8	4	#4	STR	9'-9"	26
H1	24	#4	6	14'-4"	230
K1	12	#4	STR	40'-0"	321
K2	12	#4	STR	13'-5"	108
K3	4	#4	STR	3'-10"	10
S1	52	#5	3	12'-10"	696
S2	17	#5	3	14'-4"	254
S3	69	#5	2	5'-7"	402
S4	12	#4	4	7'-7"	61
S5	24	#4	5	8'-2"	131
S6	3	#6	7	9'-1"	41
S7	3	#6	8	5'-3"	24
U1	40	#4	5	3'-8"	98
U2	5	#4	5	4'-8"	16
U3	16	#4	5	9'-8"	103
V1	80	#5	STR	9'-0"	751
V2	46	#5	STR	11'-1"	532
REINFORCING STEEL				7,552 LBS.	
CLASS A CONCRETE					
POUR #1					
CAP AND LOWER PART OF WINGS				42.0 C.Y.	
POUR #2					
UPPER PART OF WINGS AND BACKWALL				14.4 C.Y.	
TOTAL CLASS A CONCRETE				56.4 C.Y.	
HP 14 X 73 STEEL PILES NO. 10				700.0 LIN. FT.	
PILE DRIVING EQUIPMENT SETUP FOR HP 14X73 STEEL PILES				NO. 10	
PILE REDRIVES (FOR ONE END BENT)				NO. 5	



PROJECT NO. U-5798A

CUMBERLAND COUNTY

STATION: 76+80.00 -L-

SHEET 3 OF 3

RS&H Architects-Engineers-Planners, Inc.

8521 Six Forks Road, Suite 400

919-926-4100 FAX 919-846-9080

www.rsandh.com

North Carolina License No. 50737-F-0403-C-28

STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
SUBSTRUCTURE					
END BENT 2					
LEFT LANE					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1	NSC	03/2022	3		
2			4		

SHEET NO.	S1-39
TOTAL SHEETS	43

DRAWN BY : NSC DATE : 03/2020

CHECKED BY : MKO DATE : 04/2021

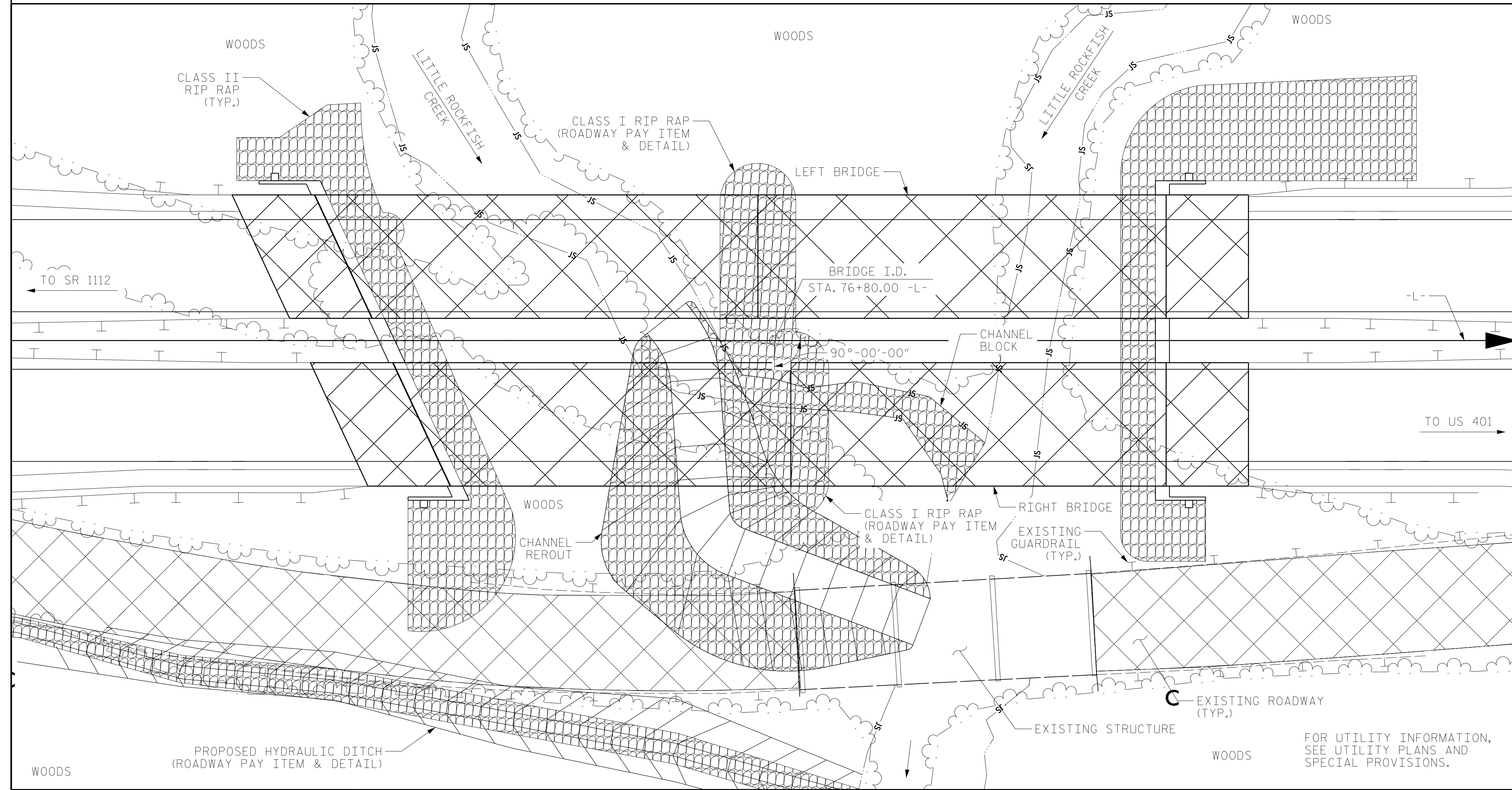
DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

** #4 B4 @ 4" CTS. (OVER PILES)

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISD HP 14X73 STEEL PILE COUNT AND LENGTH

BENCH MARK #9: 239.95' RT. OF -L- STA. 75+65.88, EL. 163.00'



LOCATION SKETCH

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.
- THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. 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.
- PRESTRESSED CONCRETE DECK PANELS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
- NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.
- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18 - EVALUATING SCOUR AT BRIDGES."
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL 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 OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
- FOR INTERIOR BENT NO. 1, ONLY PARTIAL GALVANIZING OF THE PILES IS REQUIRED. SEE INTERIOR BENT SHEETS FOR REQUIRED GALVANIZING LENGTHS. PAYMENT FOR PARTIALLY GALVANIZED PILES WILL BE MADE UNDER THE CONTRACT UNIT PRICE FOR GALVANIZED STEEL PILES.
- THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA ON SHEET S2-1 SHALL BE EXCAVATED FOR A DISTANCE OF 26 FT LEFT AND 52 FT RIGHT 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.
- THE EXISTING STRUCTURE CONSISTING OF THREE SPANS, ONE SPAN AT 30'-2", ONE SPAN AT 30'-1" AND ONE SPAN AT 30'-2" ON PRESTRESSED CONCRETE CORED SLABS, 32'-0" CLEAR ROADWAY WIDTH ON STEEL PILES AND LOCATED APPROXIMATELY 60' DOWNSTREAM FROM THE PROPOSED BRIDGE SHALL BE REMOVED. THE EXISTING BRIDGE IS PRESENTLY NOT 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.
- FOR REMOVAL OF EXISTING STRUCTURE AND ASBESTOS ASSESSMENT, SEE LEFT LANE BRIDGE.
- FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

HYDRAULIC DATA

DESIGN DISCHARGE	= 710 CFS
FREQUENCY OF DESIGN DISCHARGE	= 25 YRS
DESIGN HIGH WATER ELEVATION	= 152.1'
DRAINAGE AREA	= 16.1 SQ. MI.
BASE DISCHARGE (Q100)	= 970 CFS
BASE HIGH WATER ELEVATION	= 153.6'

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE	= 1,300+ CFS
FREQUENCY OF OVERTOPPING	= 500+ YRS
* OVERTOPPING ELEVATION	= 163.44'
* SAG @ STA. 80+55.33 -L-	

PROJECT NO. U-5798A
CUMBERLAND COUNTY
 STATION: 76+80.00 -L-

TOTAL BILL OF MATERIALS

	PDA TESTING	UNCLASSIFIED STRUCTURE EXCAVATION	REINFORCED CONCRETE DECK SLAB	GROOVING BRIDGE FLOORS	CLASS A CONCRETE	BRIDGE APPROACH SLABS	REINFORCING STEEL	54" F.I.B. PRESTRESSED CONCRETE GIRDERS		PILE DRIVING EQUIPMENT SETUP FOR HP 14X73 STEEL PILES	PILE DRIVING EQUIPMENT SETUP FOR PP 36" Ø X 0.5" GALVANIZED STEEL PILES
	EACH	LUMP SUM	SQ. FT.	SQ. FT.	CU. YDS.	LUMP SUM	LBS.	NO.	LIN. FT.	EACH	EACH
SUPERSTRUCTURE			9,135	8,020				8	893.7	12	
END BENT NO. 1					67.3		7,856				
BENT NO. 1					45.3		5,056				5
END BENT NO. 2					61.0		7,205			10	
TOTAL	2	LUMP SUM	9,135	8,020	173.6	LUMP SUM	20,117	8	893.7	22	5

	HP 14X73 STEEL PILES	PP 36" Ø X 0.5" GALVANIZED STEEL PILES	PILE REDRIVES	TWO BAR METAL RAIL	CONCRETE BARRIER RAIL	1'-2" X 3'-3" CONCRETE PARAPET	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE	ELASTOMERIC BEARINGS	EXPANSION JOINT SEAL
	NO.	LIN. FT.	NO.	LIN. FT.	LIN. FT.	LIN. FT.	TONS	SQ. YDS.	LUMP SUM	LUMP SUM
SUPERSTRUCTURE	22	1,420.0	5	600.0	209.2	256.0	216.8			
END BENT NO. 1	12	720.0					214	238		
BENT NO. 1			5	600.0						
END BENT NO. 2	10	700.0					116	129		
TOTAL	22	1,420.0	5	600.0	14	209.2	256.0	216.8	LUMP SUM	LUMP SUM

DRAWN BY : NSC DATE : 03/2020
 CHECKED BY : MKO DATE : 04/2021
 DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

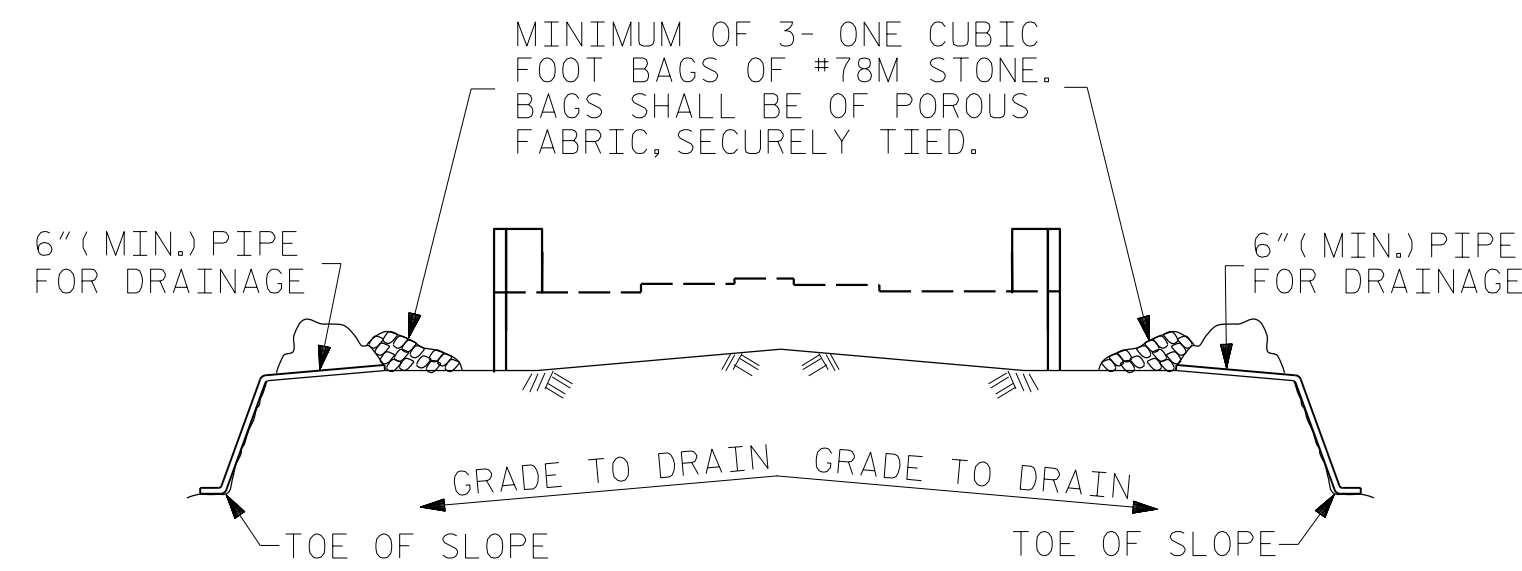
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 RIGHT LANE BRIDGE ON SR 1102 OVER LITTLE ROCKFISH CREEK BETWEEN SR 1112 AND US 401
 RIGHT LANE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-3
1	NSC	03/2022	3			TOTAL SHEETS 43
2			4			

△ REVISED HP 14X73 STEEL PILE COUNT AND LENGTH

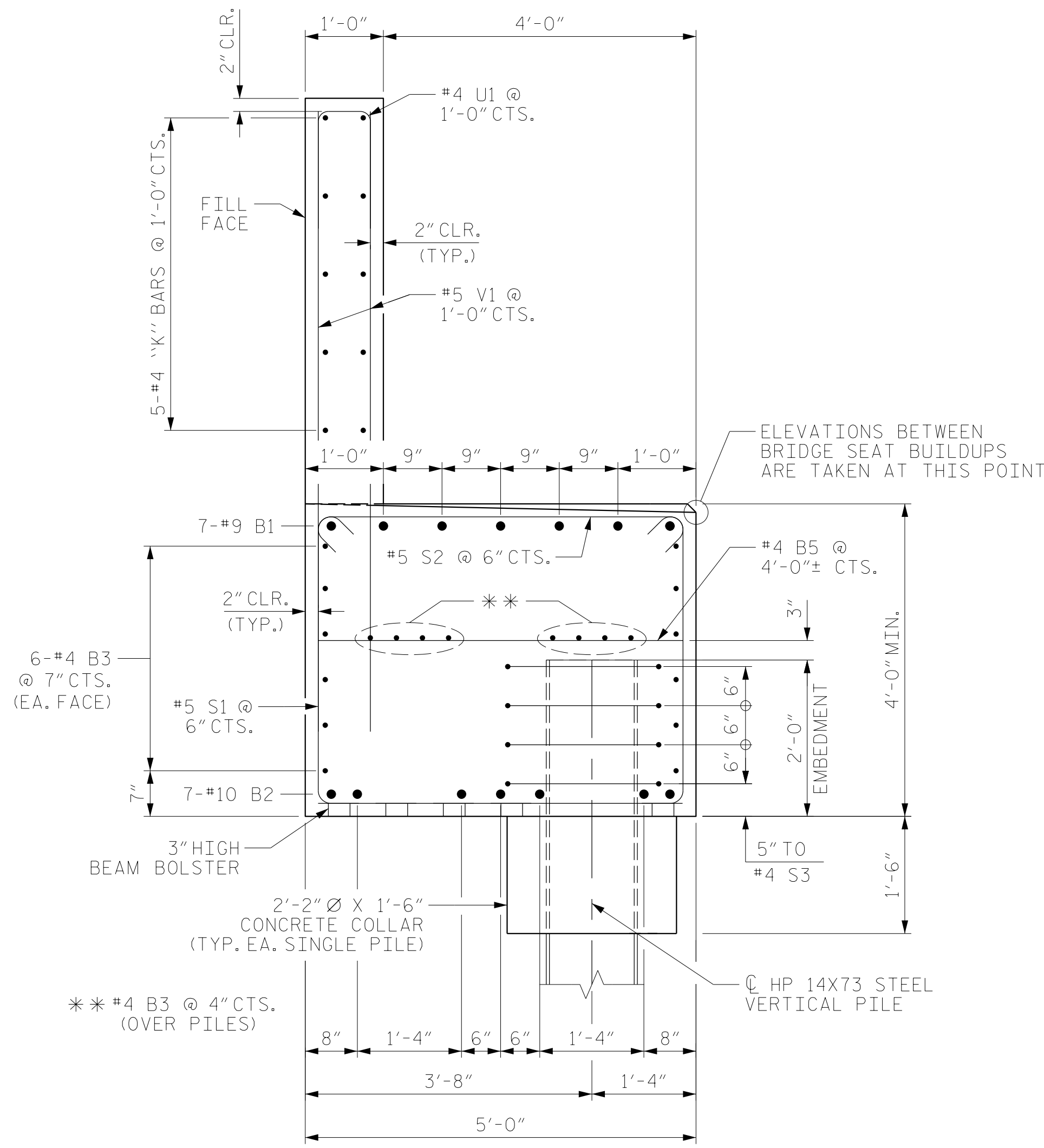


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

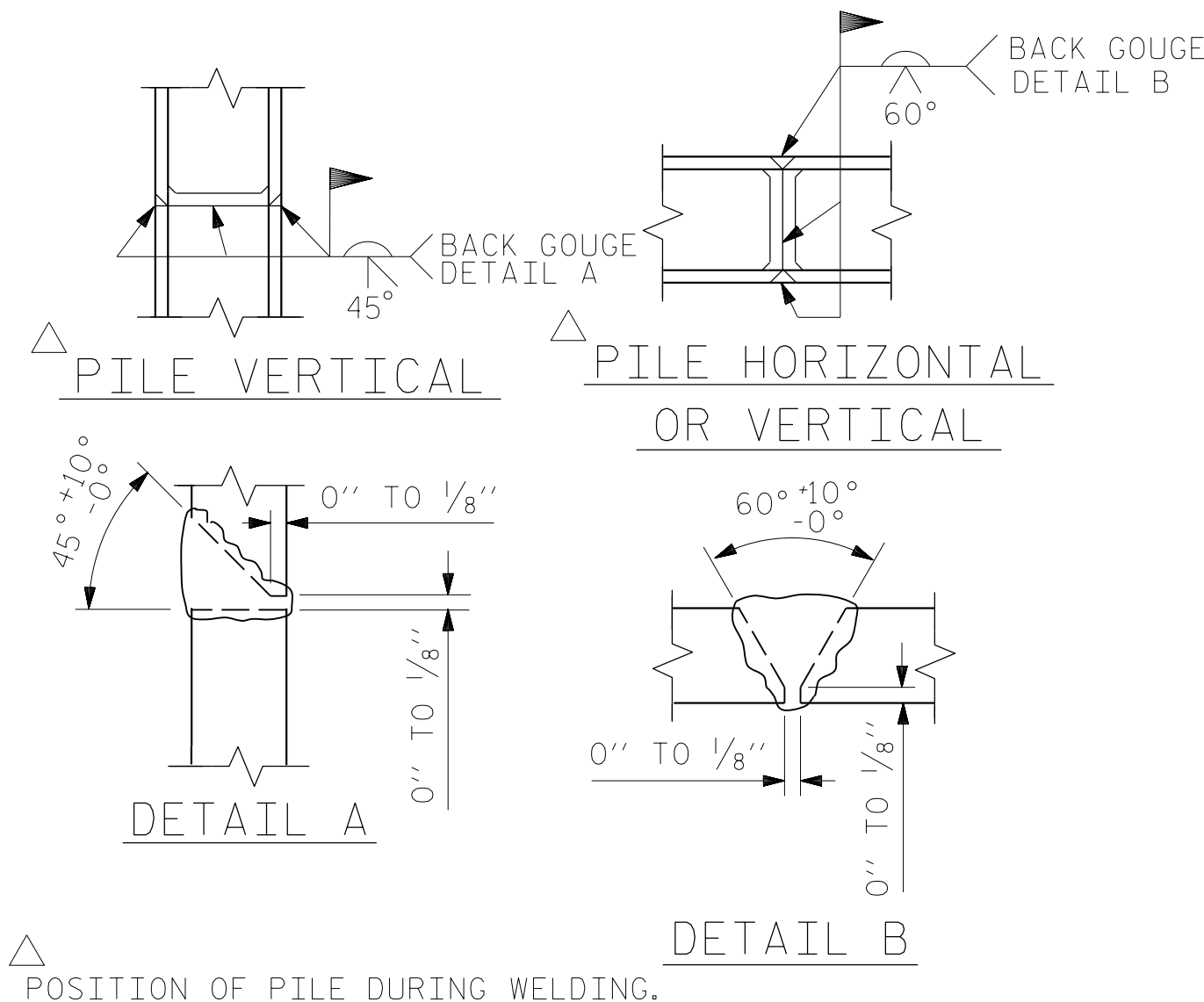
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

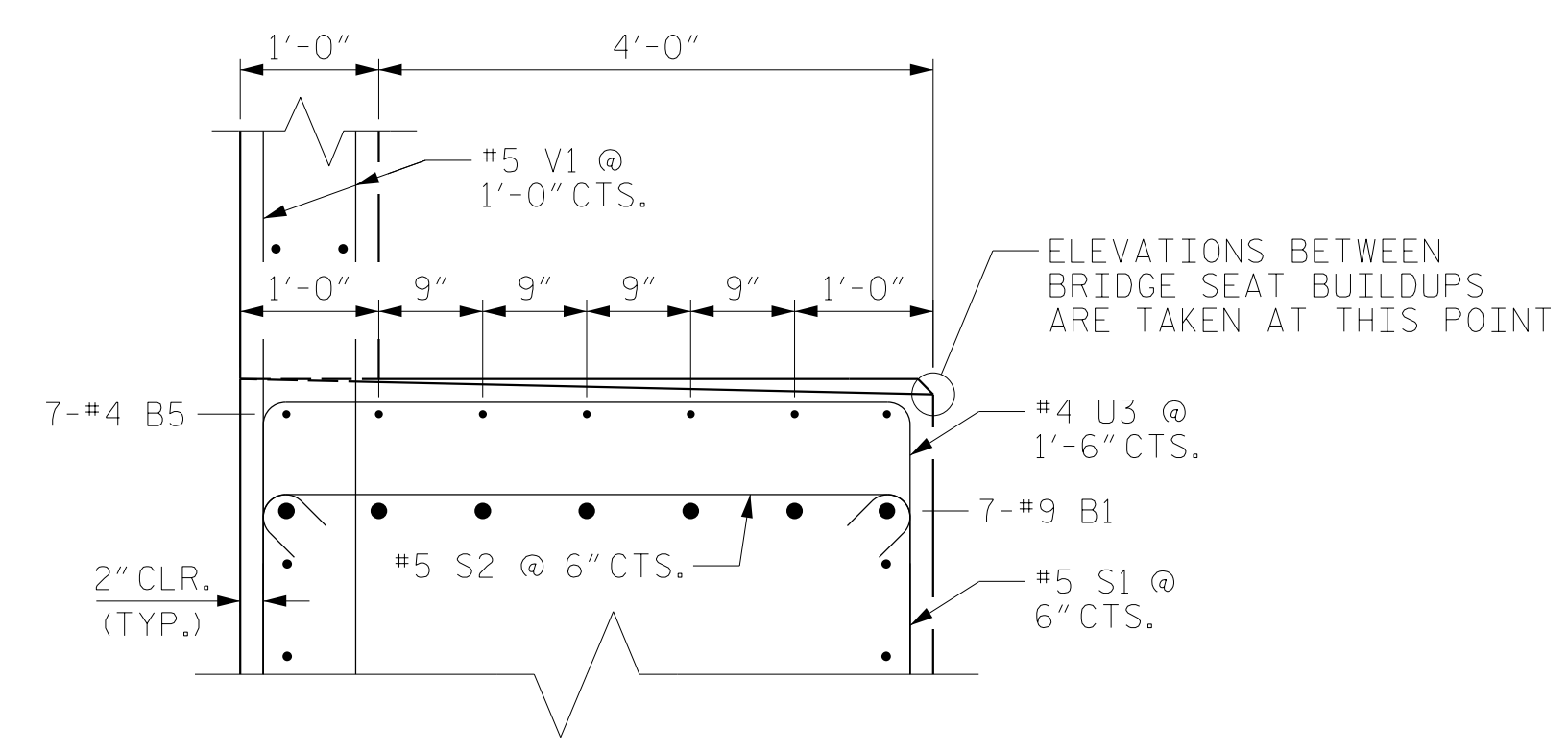
TEMPORARY DRAINAGE AT END BENT



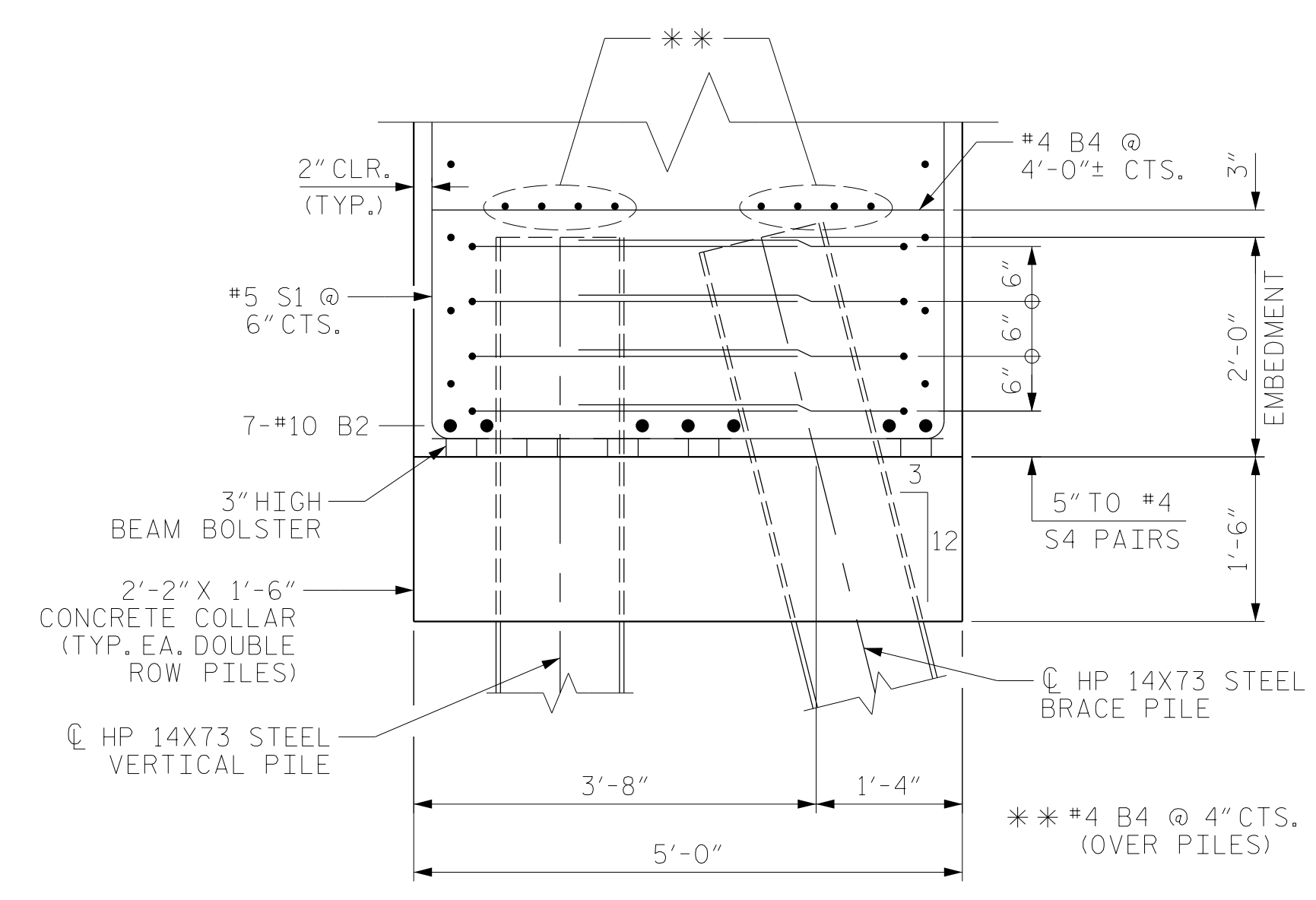
SECTION A-A



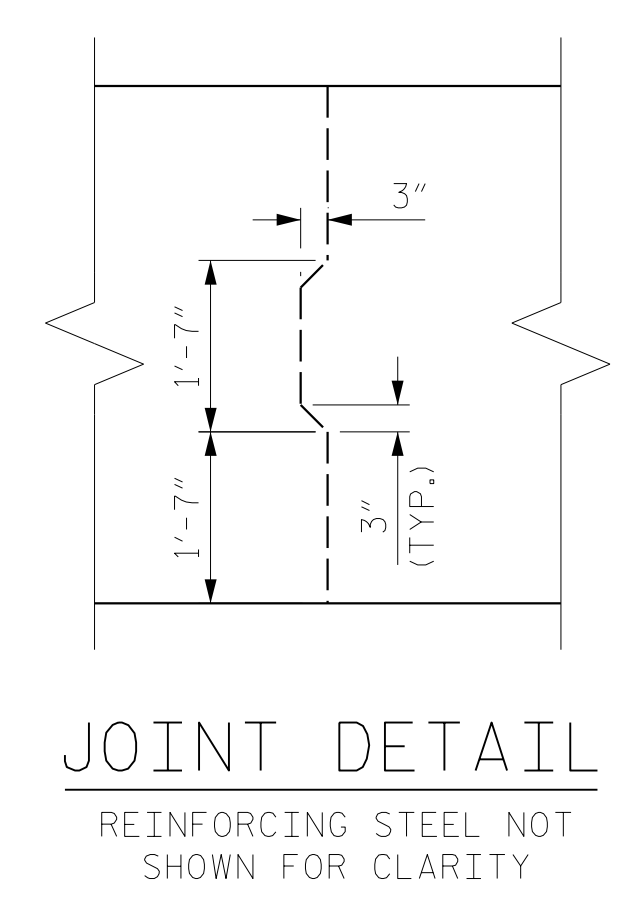
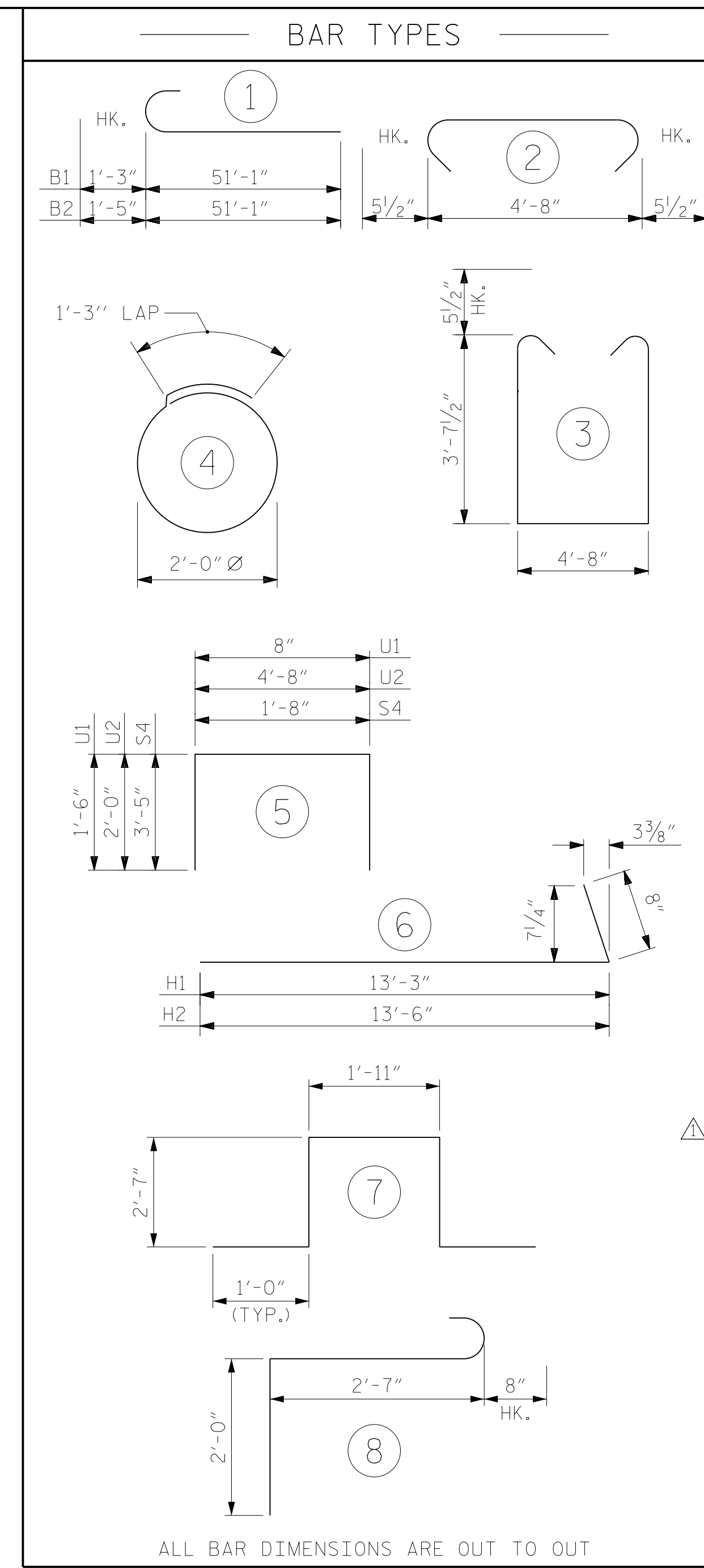
PILE SPLICE DETAILS



PARTIAL SECTION B-B



PARTIAL SECTION C-C



BILL OF MATERIAL					
END BENT NO. 1					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	#9	1	52'-4"	1246	
B2	#10	1	52'-6"	1581	
B3	#4	STR	26'-9"	715	
B4	#4	STR	4'-8"	41	
B5	#4	STR	22'-11"	107	
B6	#4	STR	14'-8"	69	
H1	#4	6	13'-11"	121	
H2	#4	6	14'-2"	123	
K1	#4	STR	26'-10"	358	
K2	#4	STR	4'-3"	17	
S1	#5	3	12'-10"	1124	
S2	#5	2	5'-7"	489	
S3	#4	4	7'-7"	61	
S4	#4	5	8'-6"	182	
S5	#6	7	9'-1"	41	
S6	#6	8	5'-3"	24	
U1	#4	5	3'-8"	118	
U2	#4	5	8'-8"	139	
V1	#5	STR	8'-6"	780	
V2	#5	STR	11'-4"	520	
REINFORCING STEEL				7,856	LBS.
CLASS A CONCRETE					
POUR #1 CAP, COLLARS AND LOWER PART OF WING				52.0	C.Y.
POUR #2 UPPER PART OF WING AND BACKWALL				15.3	C.Y.
TOTAL CLASS A CONCRETE				67.3	C.Y.
HP 14 X 73 STEEL PILES NO. 12				720.0	LIN. FT.
PILE DRIVING EQUIPMENT SETUP FOR HP 14X73 STEEL PILES				NO. 12	
PILE REDRIVES (FOR ONE END BENT)				NO. 6	

PROJECT NO. U-5798A
CUMBERLAND COUNTY
 STATION: 76+80.00 -L-

SHEET 3 OF 3



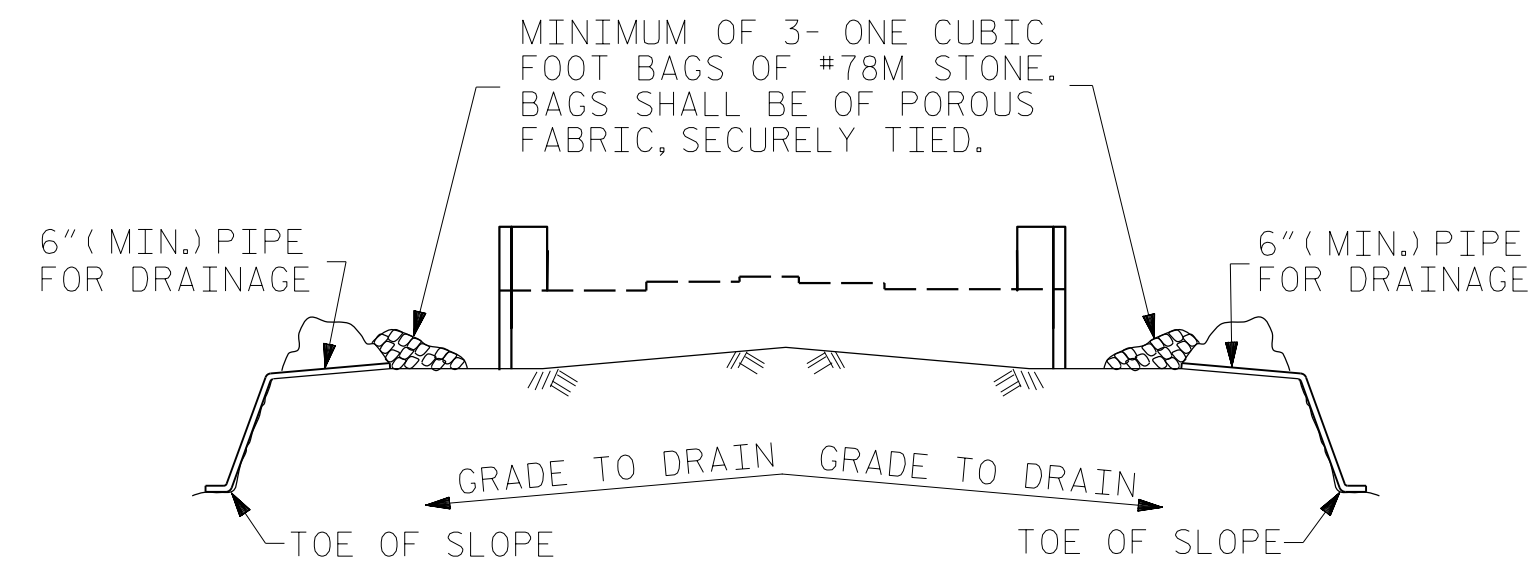
DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT 1
 DETAILS
 RIGHT LANE

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1	NSC	03/2022	3			S2-33
2			4			TOTAL SHEETS 43

DRAWN BY : NSC DATE : 03/2020
 CHECKED BY : MKO DATE : 04/2021
 DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

△ REVISED HP 14X73 STEEL PILE COUNT AND LENGTH

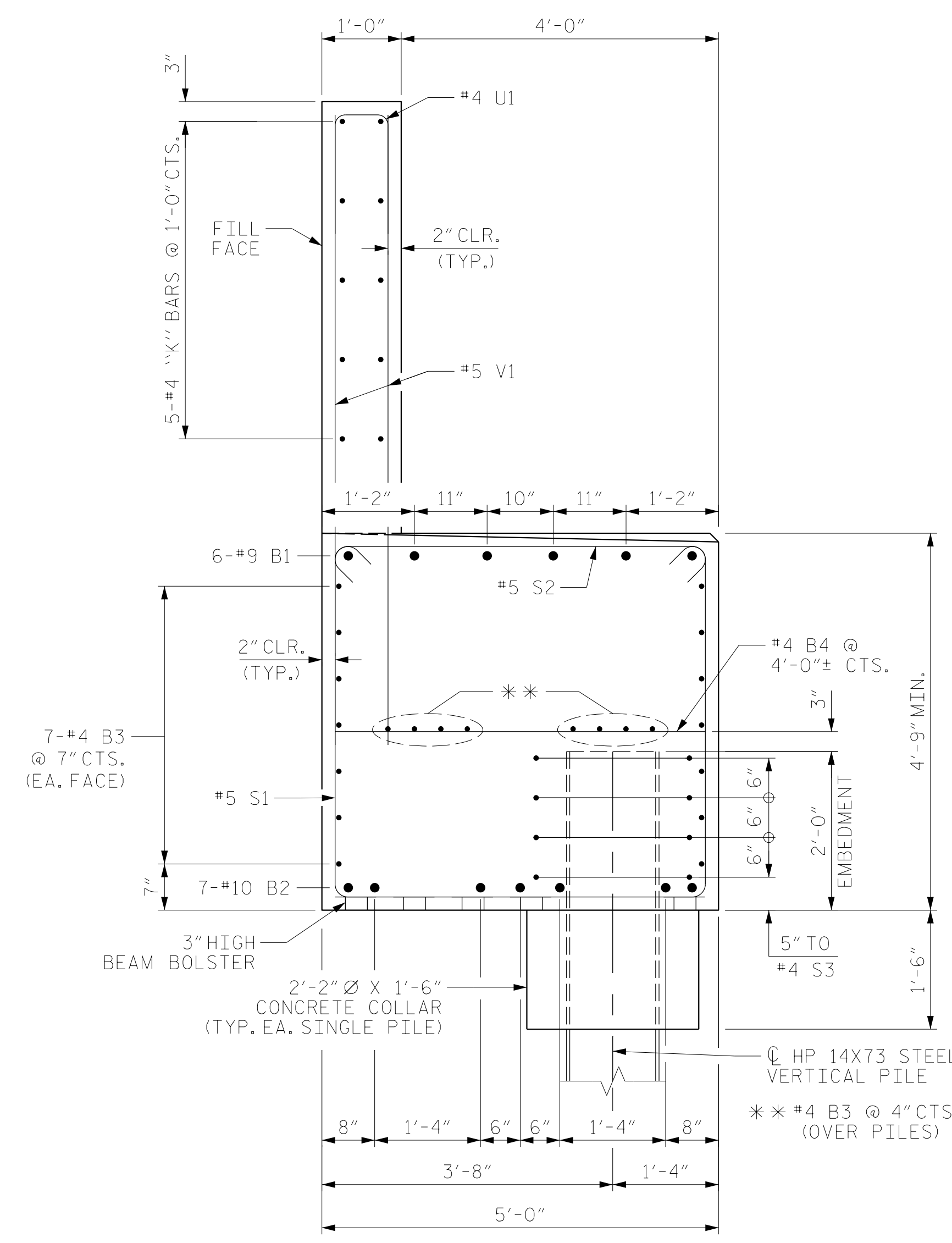


BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

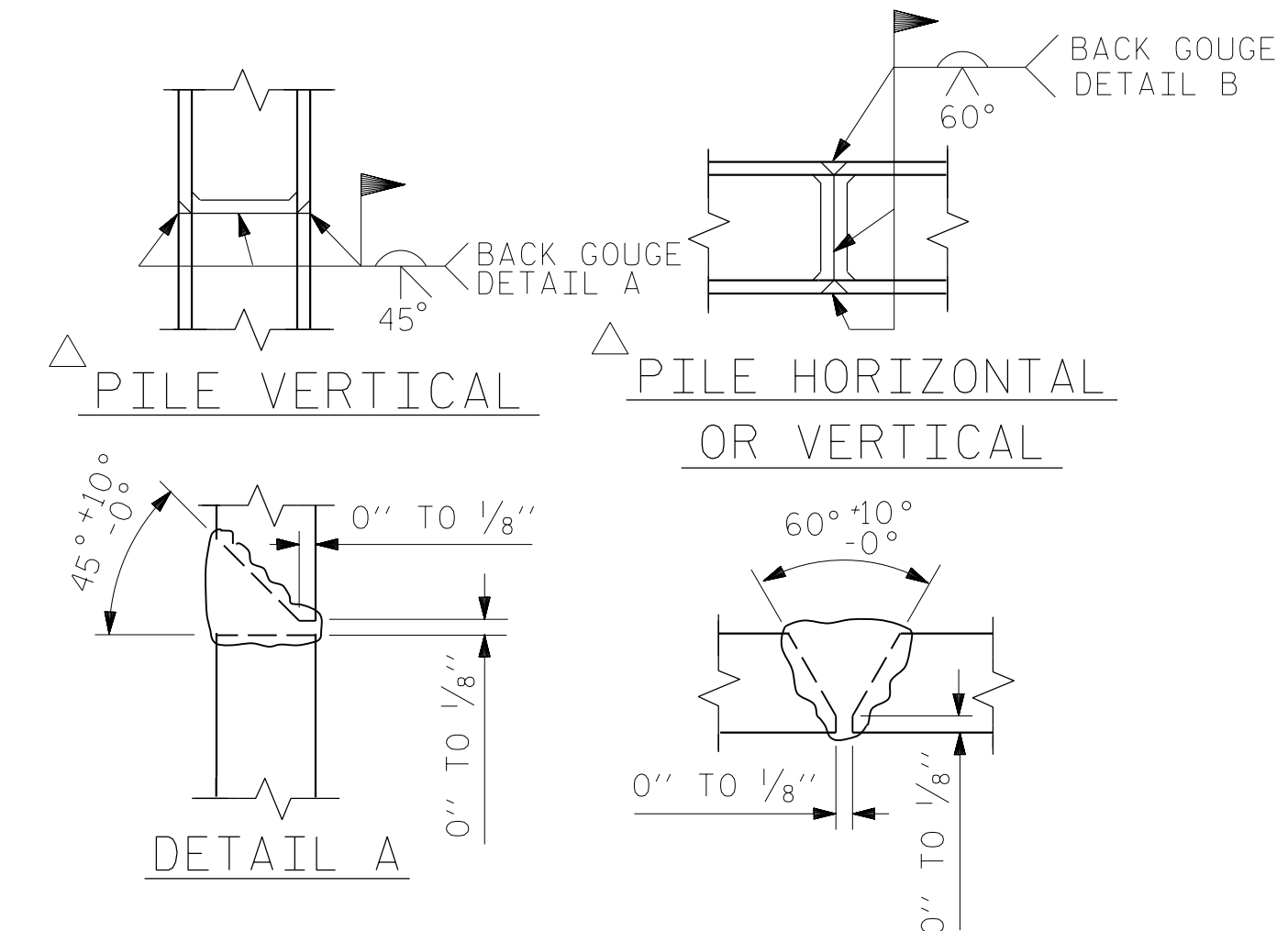
BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR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

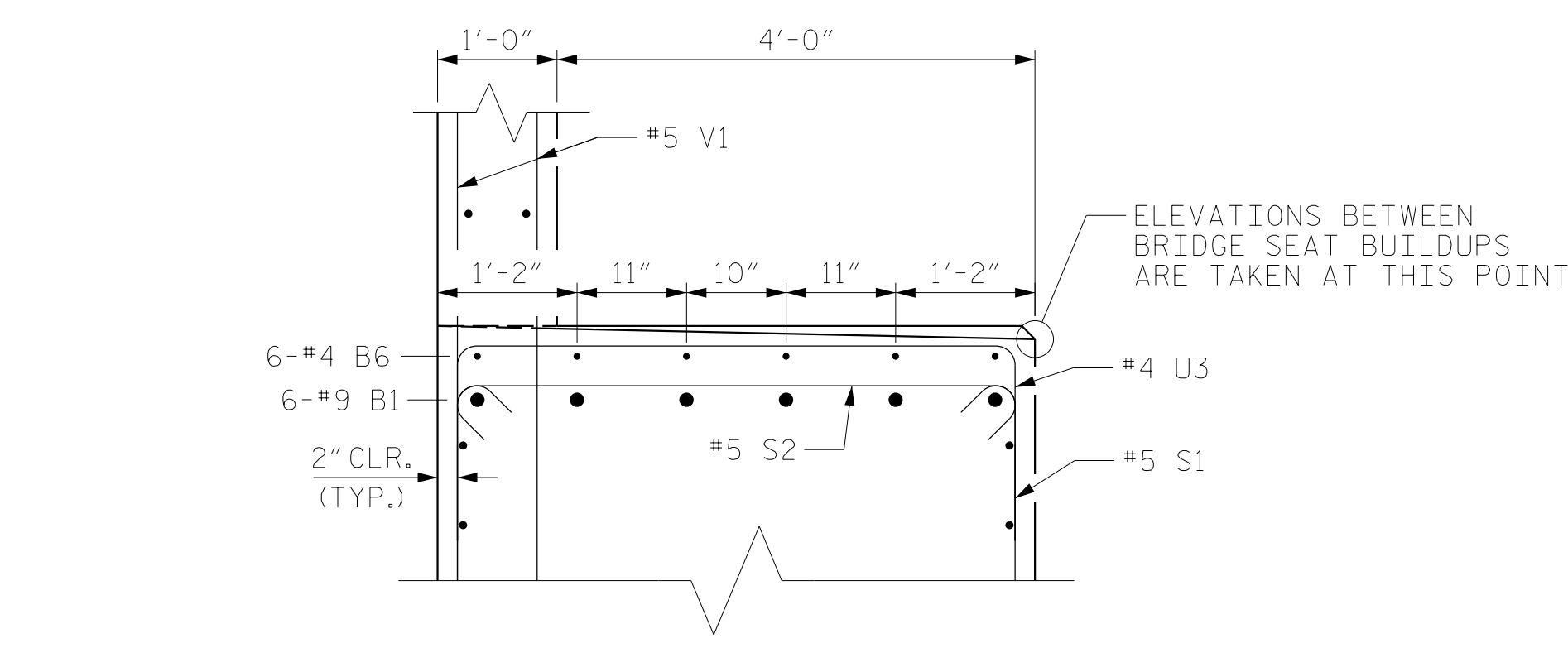


SECTION A-A

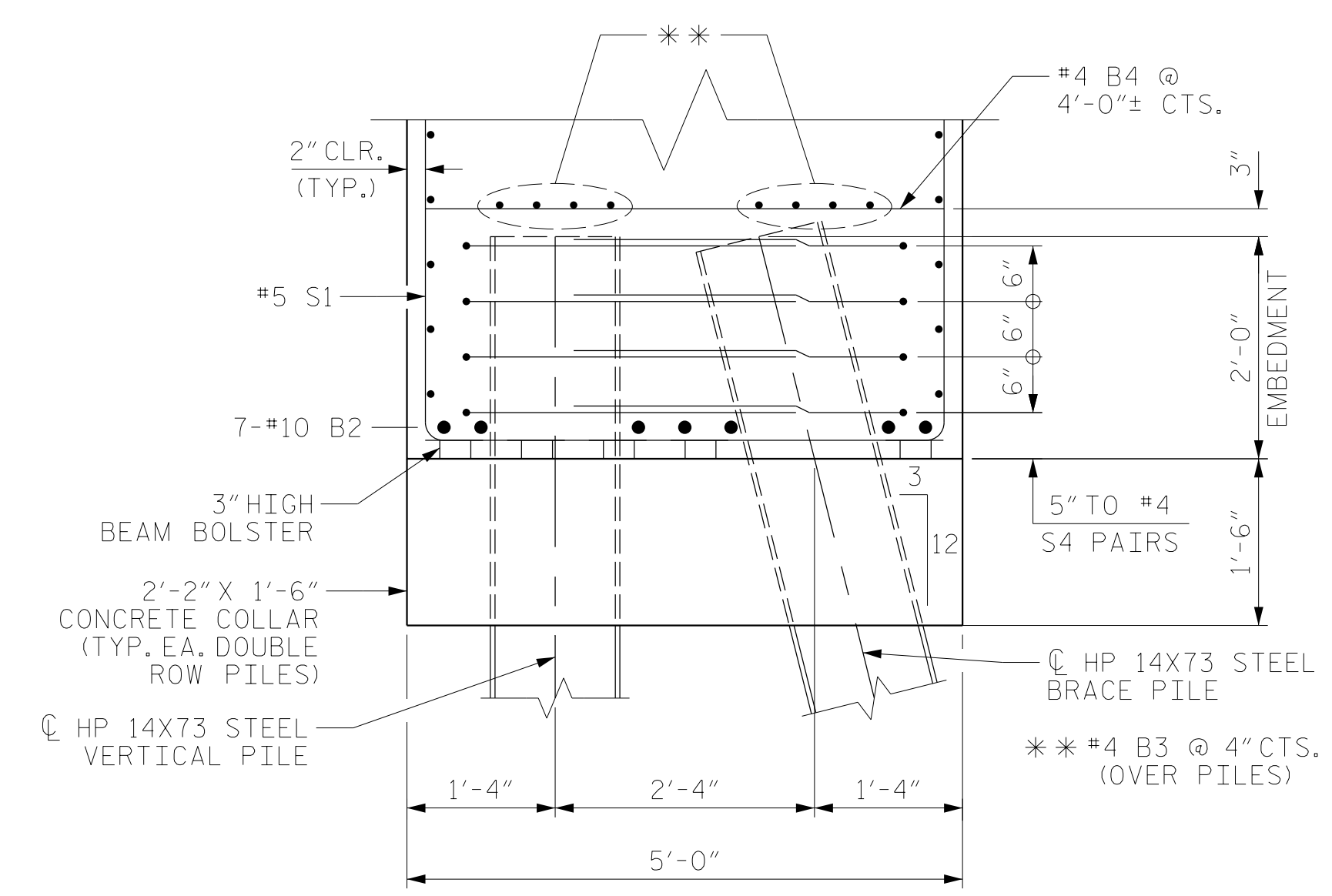


△ POSITION OF PILE DURING WELDING.

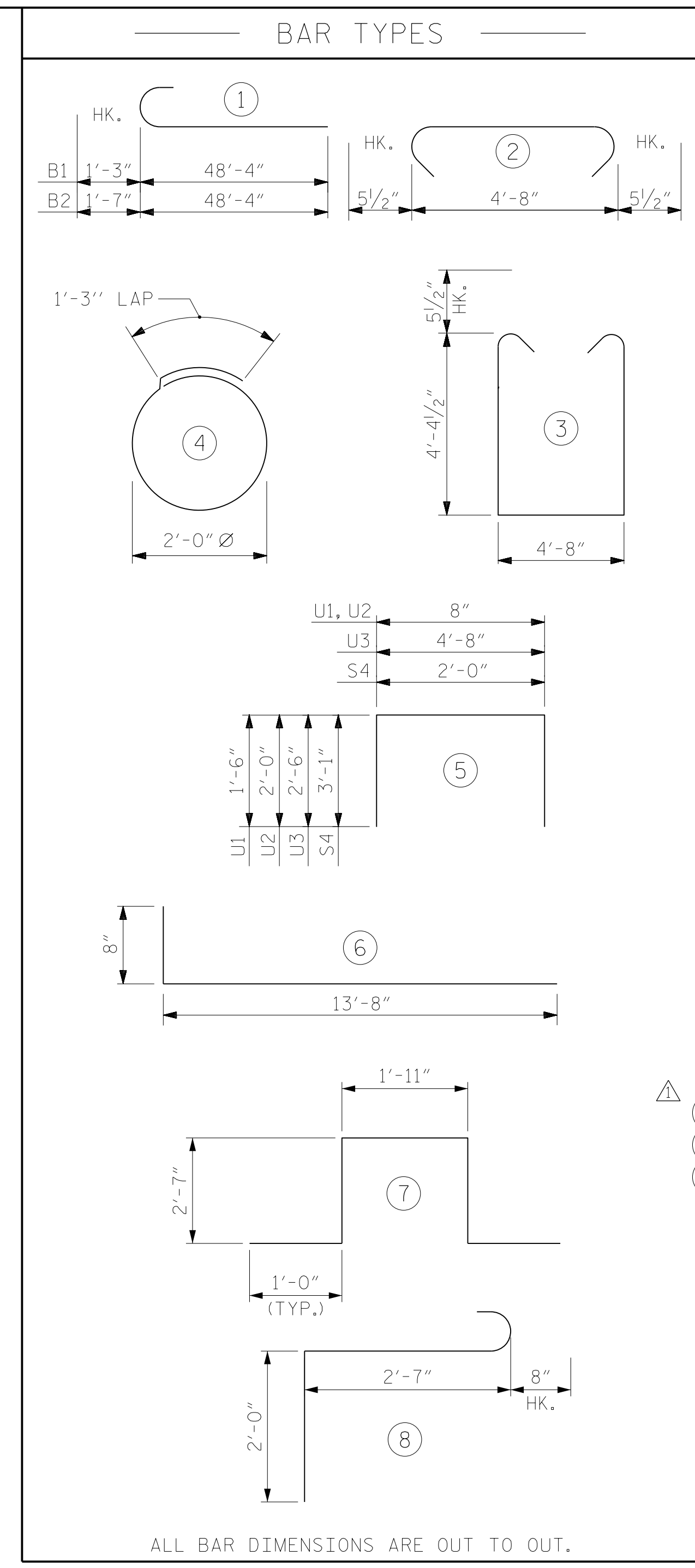
PILE SPLICE DETAILS



PARTIAL SECTION B-B



PARTIAL SECTION C-C



BILL OF MATERIAL					
END BENT NO. 2					
BAR NO.	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	6	#9	1	49'-7"	1012
B2	7	#10	1	49'-9"	1499
B3	44	#4	STR	25'-5"	747
B4	13	#4	STR	4'-8"	41
B5	6	#4	STR	15'-9"	63
B6	6	#4	STR	13'-6"	54
H1	24	#4	6	14'-4"	230
K1	20	#4	STR	25'-4"	338
K2	4	#4	STR	3'-10"	10
S1	69	#5	3	14'-4"	1032
S2	69	#5	2	5'-7"	402
S3	12	#4	4	7'-7"	61
S4	24	#4	5	8'-2"	131
S5	3	#6	7	9'-1"	41
S6	3	#6	8	5'-3"	24
U1	40	#4	5	3'-8"	98
U2	5	#4	5	4'-8"	16
U3	19	#4	5	9'-8"	123
V1	80	#5	STR	9'-0"	751
V2	46	#5	STR	11'-1"	532

REINFORCING STEEL	7,205 LBS.
CLASS A CONCRETE	
POUR #1 CAP AND LOWER PART OF WING	48.0 C.Y.
POUR #2 UPPER PART OF WING AND BACKWALL	13.0 C.Y.
TOTAL CLASS A CONCRETE	61.0 C.Y.
HP 14 X 73 STEEL PILES NO. 10	700.0 LIN. FT.
PILE DRIVING EQUIPMENT SETUP FOR HP 14X73 STEEL PILES	NO. 10
PILE REDRIVES (FOR ONE END BENT)	NO. 5

PROJECT NO. U-5798A
CUMBERLAND COUNTY
 STATION: 76+80.00 -L-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 END BENT 2
 DETAILS
 RIGHT LANE

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:
1	NSC	03/2022	3		
2			4		

SHEET NO. S2-39
 TOTAL SHEETS 43

RS&H Architects-Engineers-Planners, Inc.
 8521 Six Forks Road, Suite 400
 919-926-4100 FAX 919-846-9080
 www.rsandh.com
 North Carolina License No. 50737-5403-1-C28

DRAWN BY : NSC DATE : 03/2020
 CHECKED BY : MRA DATE : 04/2021
 DESIGN ENGINEER OF RECORD: RLB DATE : 09/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

△ REVISED HP 14X73 STEEL PILE COUNT AND LENGTH