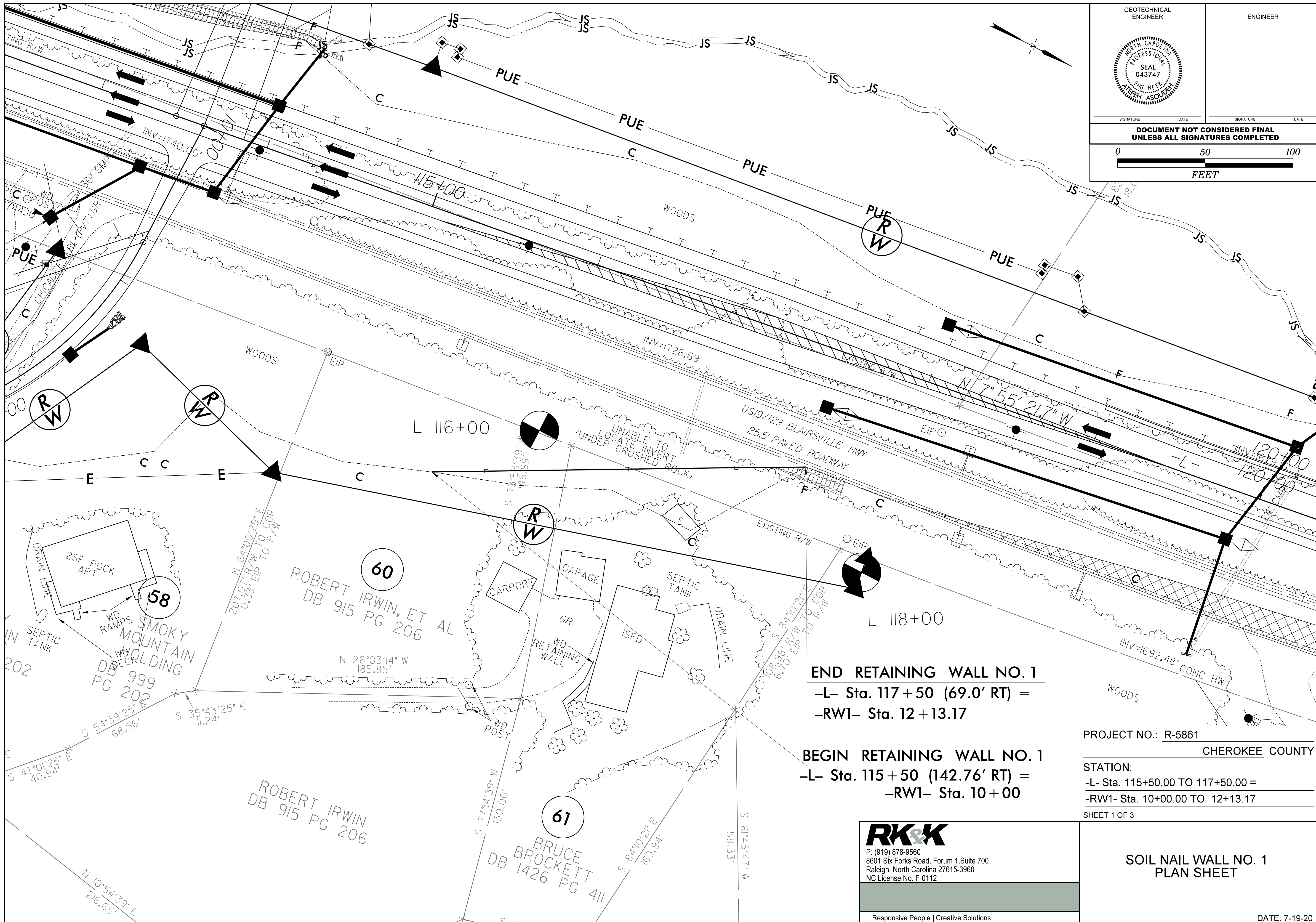


GEOTECHNICAL ENGINEER
 ENGINEER
 NORTH CAROLINA PROFESSIONAL SEAL 043747
 ENGINEER JEFF ASOUBER

SIGNATURE _____ DATE _____
 SIGNATURE _____ DATE _____

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



END RETAINING WALL NO. 1
 -L- Sta. 117 + 50 (69.0' RT) =
 -RW1- Sta. 12 + 13.17

BEGIN RETAINING WALL NO. 1
 -L- Sta. 115 + 50 (142.76' RT) =
 -RW1- Sta. 10 + 00

PROJECT NO.: R-5861
 CHEROKEE COUNTY
 STATION:
 -L- Sta. 115+50.00 TO 117+50.00 =
 -RW1- Sta. 10+00.00 TO 12+13.17
 SHEET 1 OF 3

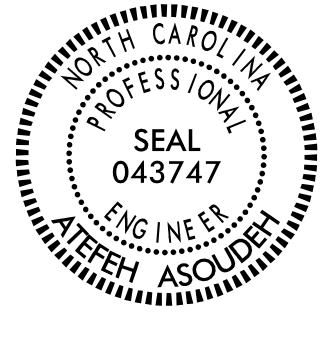
RK&K
 P: (919) 878-9560
 8601 Six Forks Road, Forum 1, Suite 700
 Raleigh, North Carolina 27615-3960
 NC License No. F-0112

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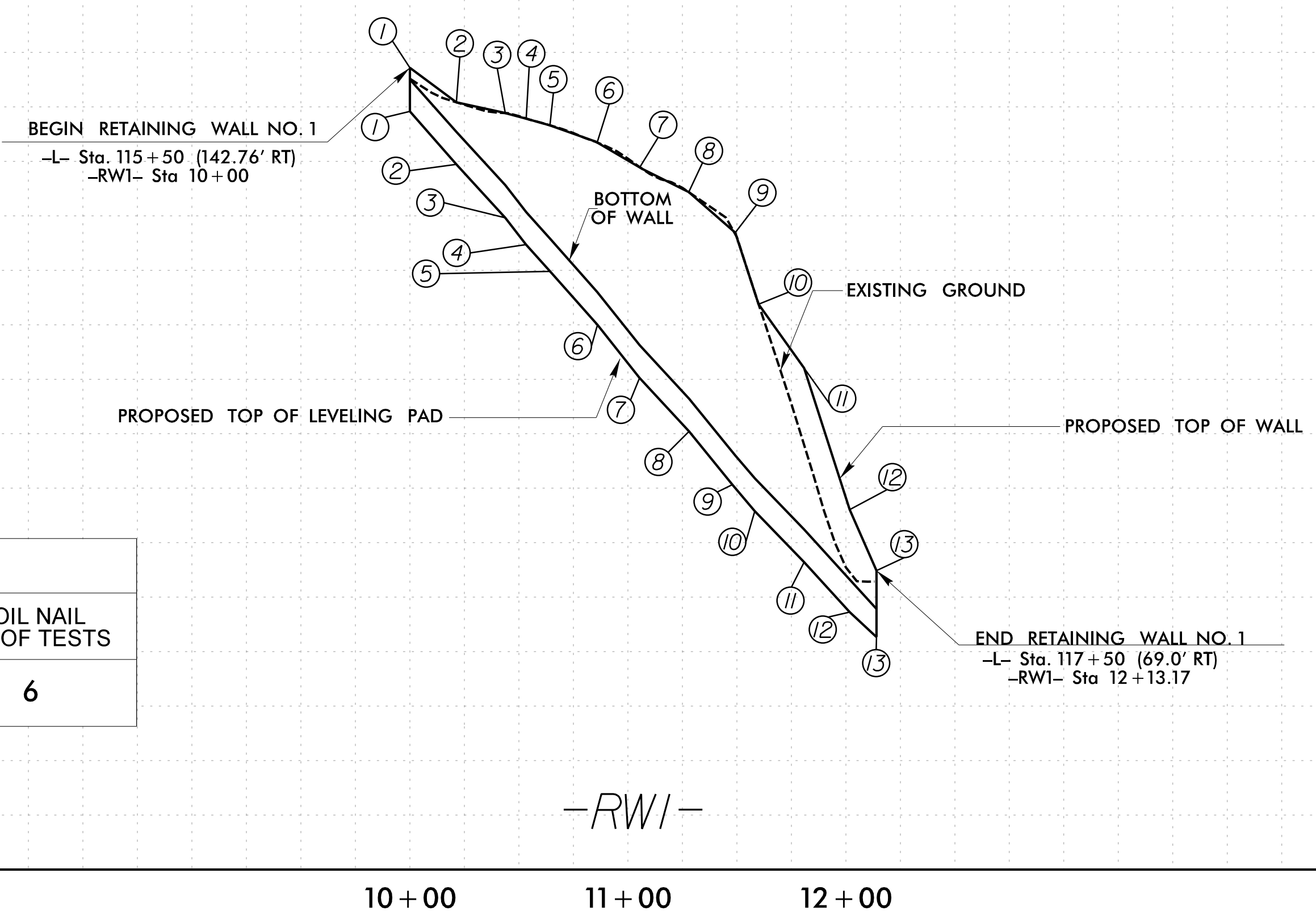
**SOIL NAIL WALL NO. 1
 PLAN SHEET**

DATE: 7-19-20

RETAINING WALL NO. 1 ENVELOPE

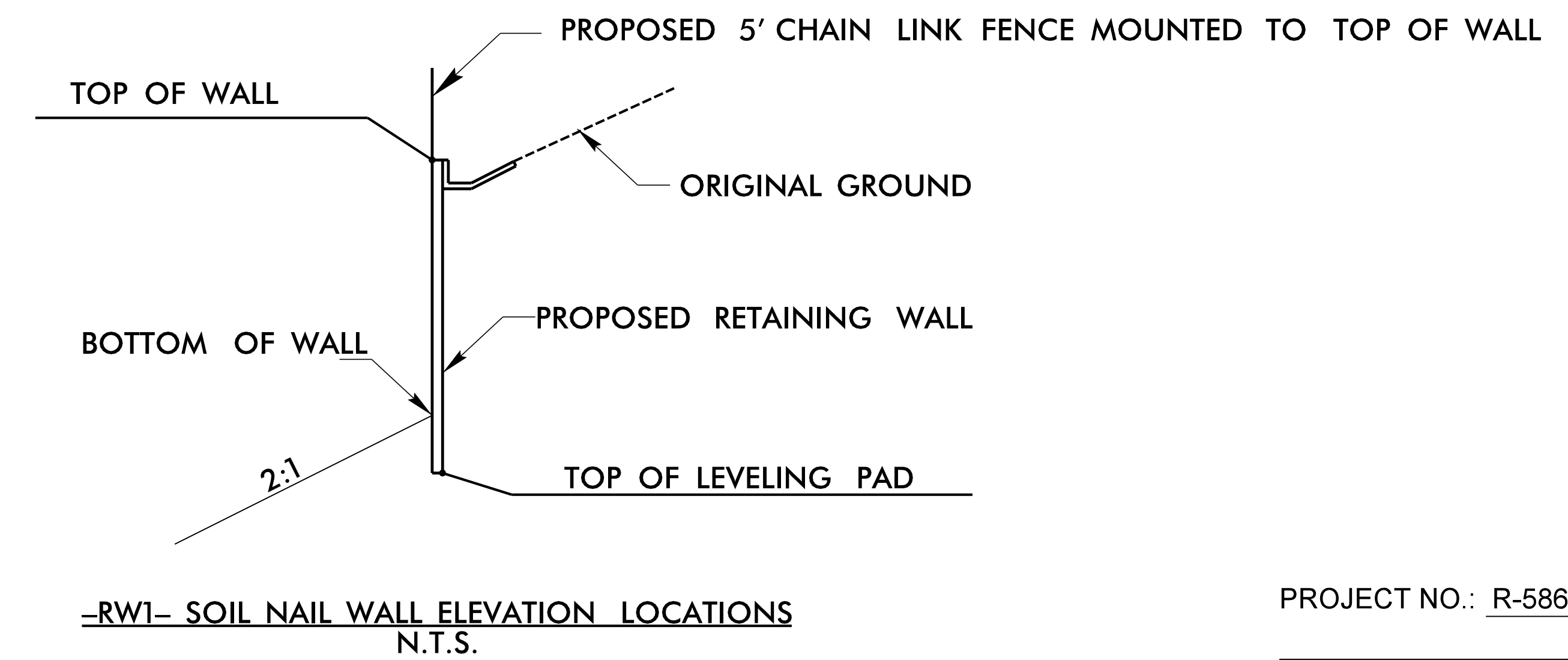
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GEOTECHNICAL ENGINEER 		ENGINEER _____ SIGNATURE DATE	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

1,790
1,780
1,770
1,760
1,750
1,740
1,730
1,720
1,710
1,700



ESTIMATED QUANTITIES			
RETAINING WALL NO.	SOIL NAIL RETAINING WALLS (SQUARE FEET)	SOIL NAIL WALL VERIFICATION TESTS	SOIL NAIL PROOF TESTS
1	3,130	2	6

POINT NO.	WALL STATION	TOP OF WALL ELEVATION (FT)	BOTTOM OF WALL ELEVATION (FT)	TOP OF LEVELING PAD ELEVATION (FT)
1	10+00.00	1773.58	1772.58	1769.58
2	10+21.33	1770.42	1767.71	1764.71
3	10+42.65	1769.44	1762.81	1759.81
4	10+53.31	1768.92	1760.35	1757.35
5	10+63.98	1768.32	1757.90	1754.90
6	10+85.30	1766.80	1753.01	1750.01
7	11+06.62	1764.30	1748.12	1745.12
8	11+27.95	1762.17	1743.22	1740.22
9	11+49.27	1758.46	1738.33	1735.33
10	11+59.94	1751.89	1735.89	1732.89
11	11+80.85	1746.02	1731.21	1728.21
12	12+01.77	1733.03	1726.62	1723.62
13	12+13.17	1727.43	1724.33	1721.33



PROJECT NO.: R-5861
CHEROKEE COUNTY

STATION: _____
-L- Sta. 115+50.00 TO 117+50.00 = _____
-RW1- Sta. 10+00.00 TO 12+13.17 = _____

SHEET 2 OF 3

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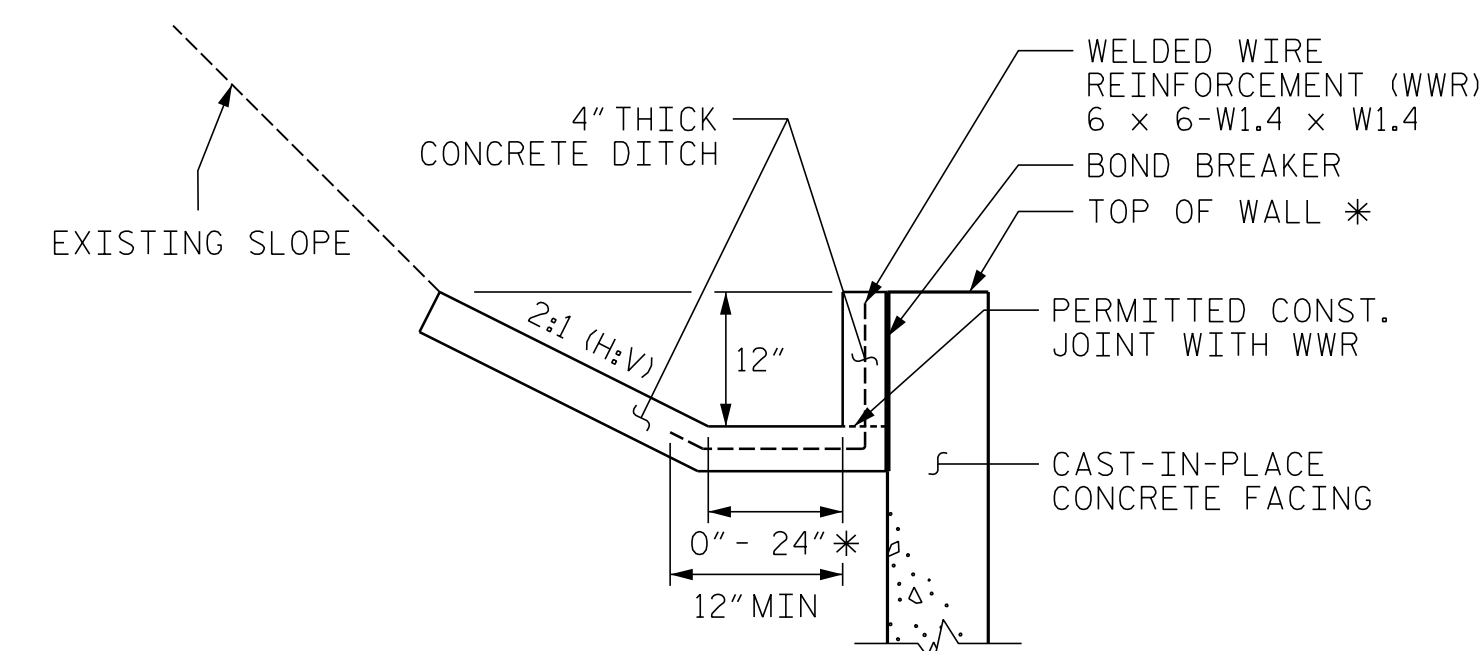
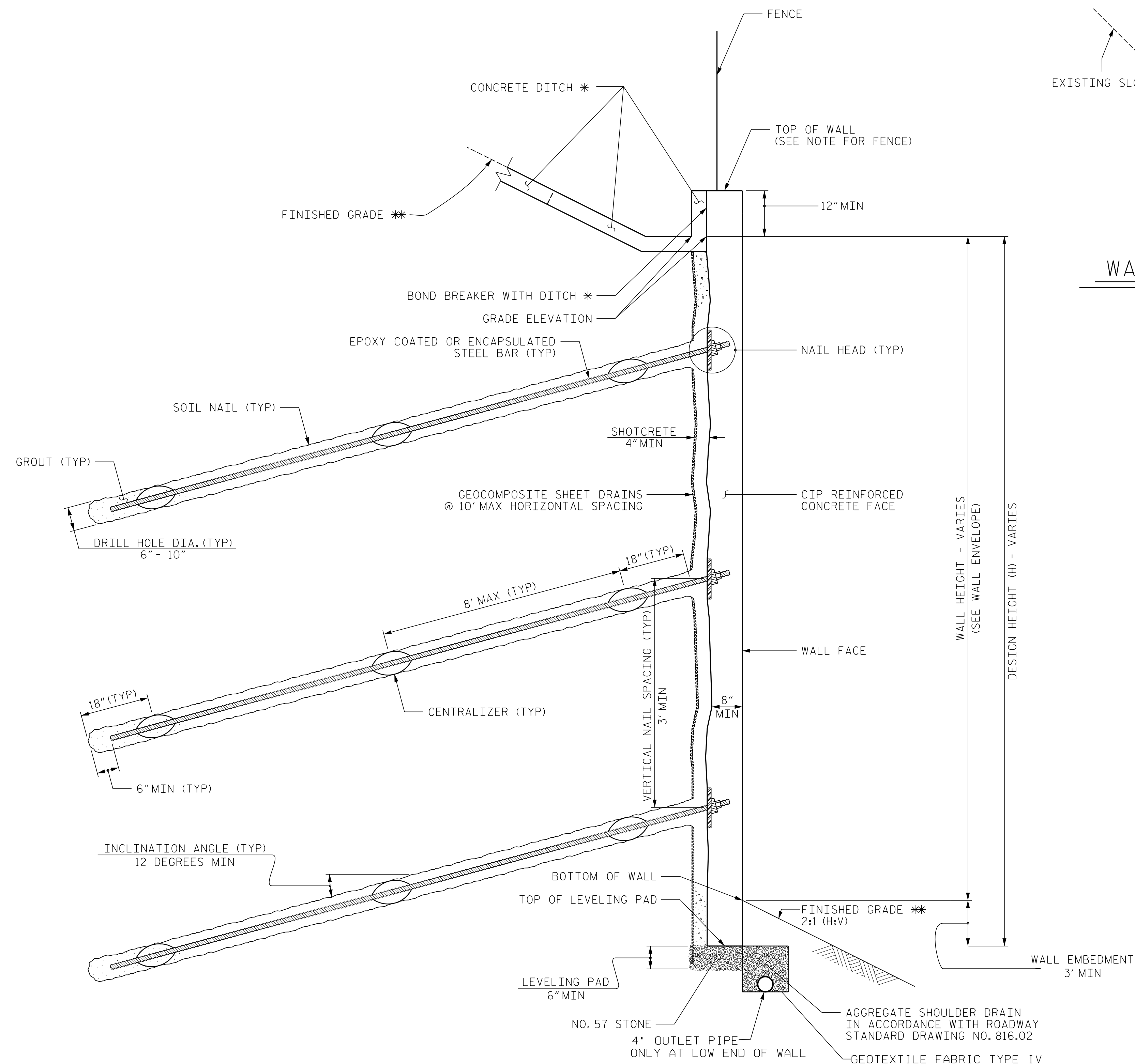
SOIL NAIL WALL NO. 1 WALL PROFILE (ENVELOPE)

DATE: 6-23-20

5/28/2023 R:\Tech\InvestigationDesign\CADD_GEO\TECH\EngineeringDgn\F5861_GEO_RWAL_Soil_Nail_Wall_Detail.sh01.m02.WL_P2.dgn



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CONCRETE DITCH BEHIND WALL WITH CONCRETE FACING

* SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

NOTES:

FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.

A FENCE IS REQUIRED ON TOP OF RETAINING WALL NO. 1. SEE ROADWAY PLANS FOR FENCE ATTACHMENT DETAILS.

A STAINED SIMULATED STONE MASONRY ARCHITECTURAL FINISH IS REQUIRED FOR THE CAST-IN-PLACE REINFORCED CONCRETE FACE FOR RETAINING WALL NO. 1. SEE ARCHITECTURAL FINISH SPECIAL PROVISION.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO. 1, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO. 1 FOR THE FOLLOWING:

- 1) H = WALL HEIGHT + EMBEDMENT
- 2) DESIGN LIFE = 75 YEARS
- 3) MINIMUM EMBEDMENT DEPTH = 3 FT
- 4) IN-SITU ASSUMED MATERIAL PARAMETERS:
 UNIT WEIGHT, $\gamma = 125$ LB/CF
 FRICTION ANGLE, $\phi = 35$ DEGREES
 COHESION, $c = 0$ LB/SF

EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL NO. 1.

AGGREGATE SUBDRAIN SHOULD DRAIN AT THE END OF THE WALL. RIPRAP OUTLET PROTECTION SHOULD BE PLACED, SEE ROADWAY PLANS FOR OUTLET DETAIL.

SOIL NAIL WALL - TYPICAL SECTION

* SEE CONCRETE DITCH BEHIND WALL.
 ** SEE ROADWAY PLANS FOR FINISHED GRADE DETAILS.

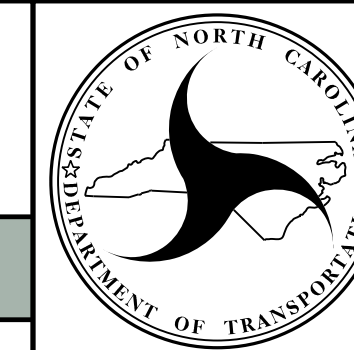
PROJECT NO.: R-5861
 CHEROKEE COUNTY

STATION:
 -L- Sta. 115+50.00 TO 117+50.00 =
 -RW1- Sta. 10+00.00 TO 12+13.17

SHEET 3 OF 3



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NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

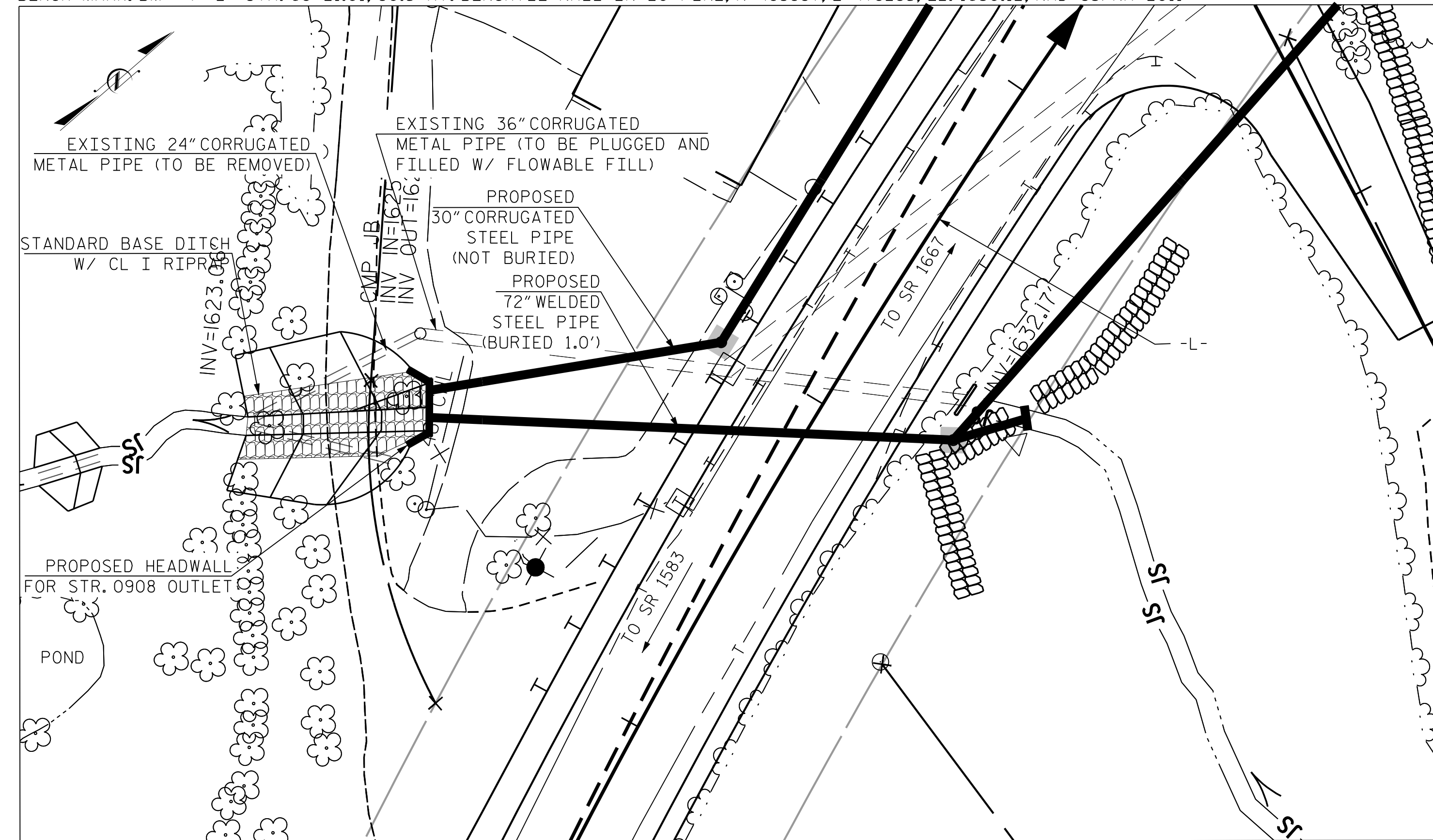
GEOTECHNICAL
 ENGINEERING UNIT

STD CELL Wall_SoilNail

SOIL NAIL WALL NO. 1
 TYPICAL SECTION AND NOTES

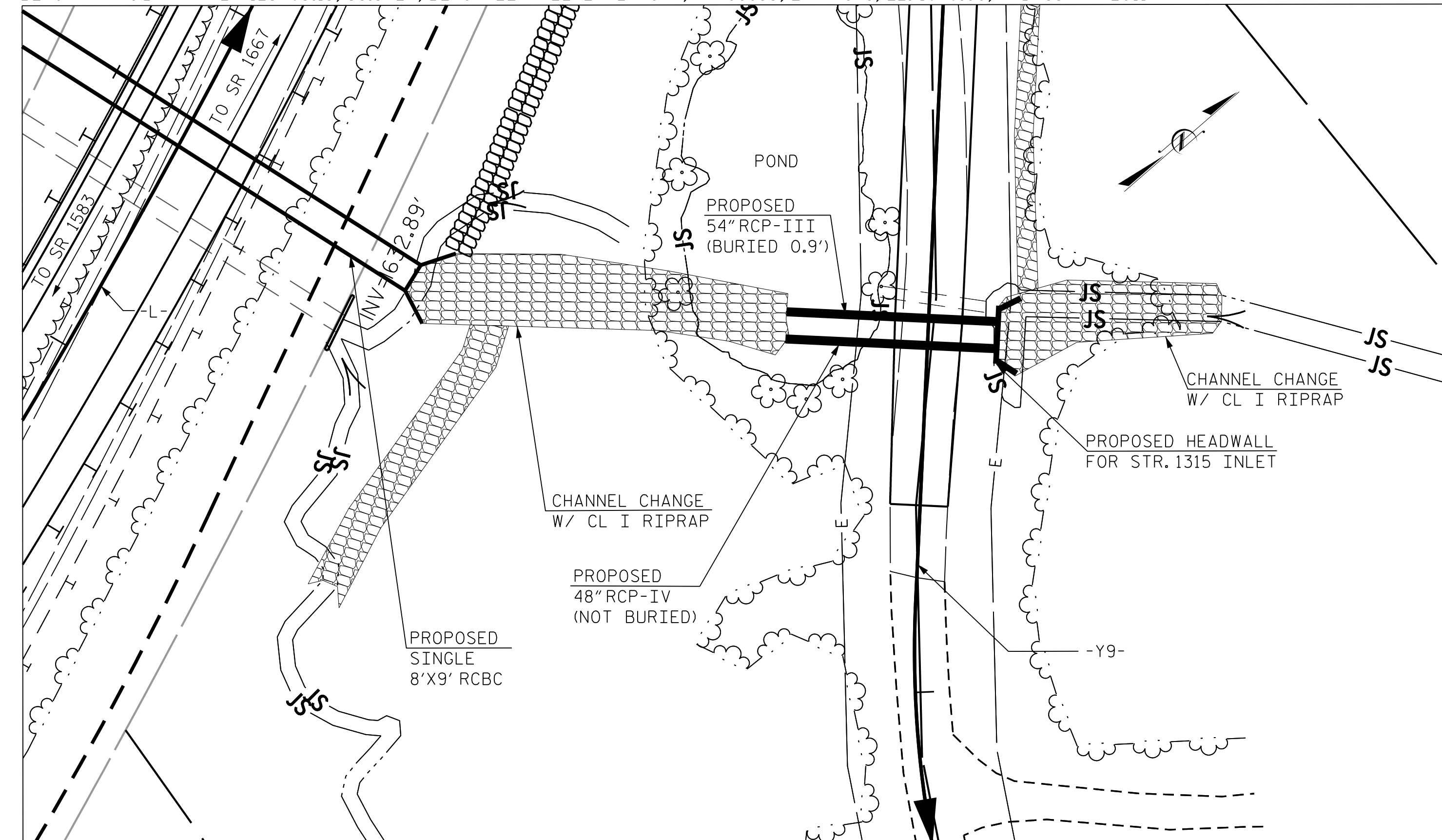
DATE: 10-19-21

BENCH MARK: BM #4 -L- STA. 69+21.01, 80.5' RT. BENCHTIE NAIL IN 20" PINE, N 493887, E 479285; EL. 1630.12, NAD 83/NA 2011



STR. 0908 LOCATION SKETCH (STA. 81+90.44 -L-)

BENCH MARK: BM #7 -L- 123+65.15, 38.3' LT. BENCHTIE NAIL IN 24" OAK, N 498955, E 477848; EL. 1676.09, NAD 83/NA 2011



STR. 1315 LOCATION SKETCH (STA. 13+04.00 -Y9-)

TOTAL STR. 0908 QUANTITIES (OUTLET)		
CLASS A CONCRETE		
TOTAL	10.0	C.Y.
REINFORCING STEEL		
TOTAL	858	LBS.

TOTAL STR. 1315 QUANTITIES (INLET)		
CLASS A CONCRETE		
TOTAL	9.9	C.Y.
REINFORCING STEEL		
TOTAL	835	LBS.

NOTES:

3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

FOR OTHER DESIGN DATA AND NOTES, SEE STANDARD NOTE SHEET.

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WINGS COVERING THE ENTIRE LENGTH OF THE CONSTRUCTION JOINT.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

FOR MAINTENANCE OF TRAFFIC, SEE TRAFFIC CONTROL PLANS.

CONCRETE AT OUTLET (STR. 0908) TO BE POURED IN THE FOLLOWING ORDER:

1. WING FOOTINGS AND HEADWALL FOOTING AND WINGS/HEADWALL TO CONSTRUCTION JOINT.
2. THE REMAINING PORTION OF THE WINGWALLS AND HEADWALL TO CONSTRUCTION JOINT.

CONCRETE AT INLET (STR. 1315) TO BE POURED IN THE FOLLOWING ORDER:

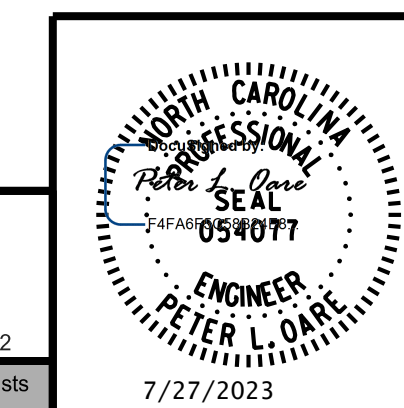
1. WING FOOTINGS AND HEADWALL FOOTING AND WINGS/HEADWALL TO CONSTRUCTION JOINT.
2. THE REMAINING PORTION OF THE WINGWALLS AND HEADWALL TO CONSTRUCTION JOINT.

PROJECT NO. R-5861
CHEROKEE COUNTY
 STATION: 81+90.44 -L- & 13+04.00 -Y9-

SHEET 1 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SPECIAL HEADWALL EXTENSIONS
 GENERAL NOTES
 & LOCATION SKETCHES



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7/27/2023

REVISIONS

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

SHEET NO.

S-1

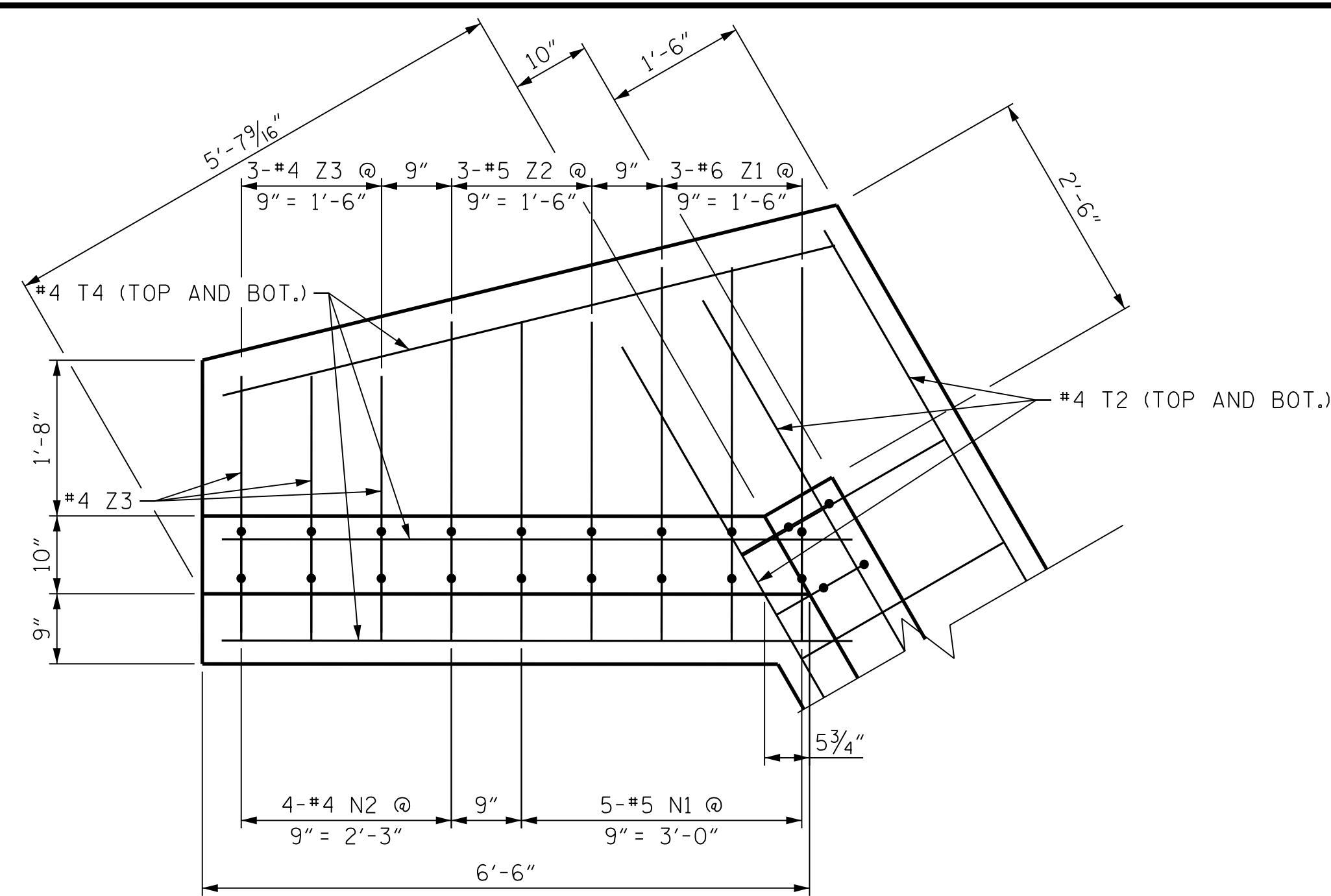
TOTAL SHEETS

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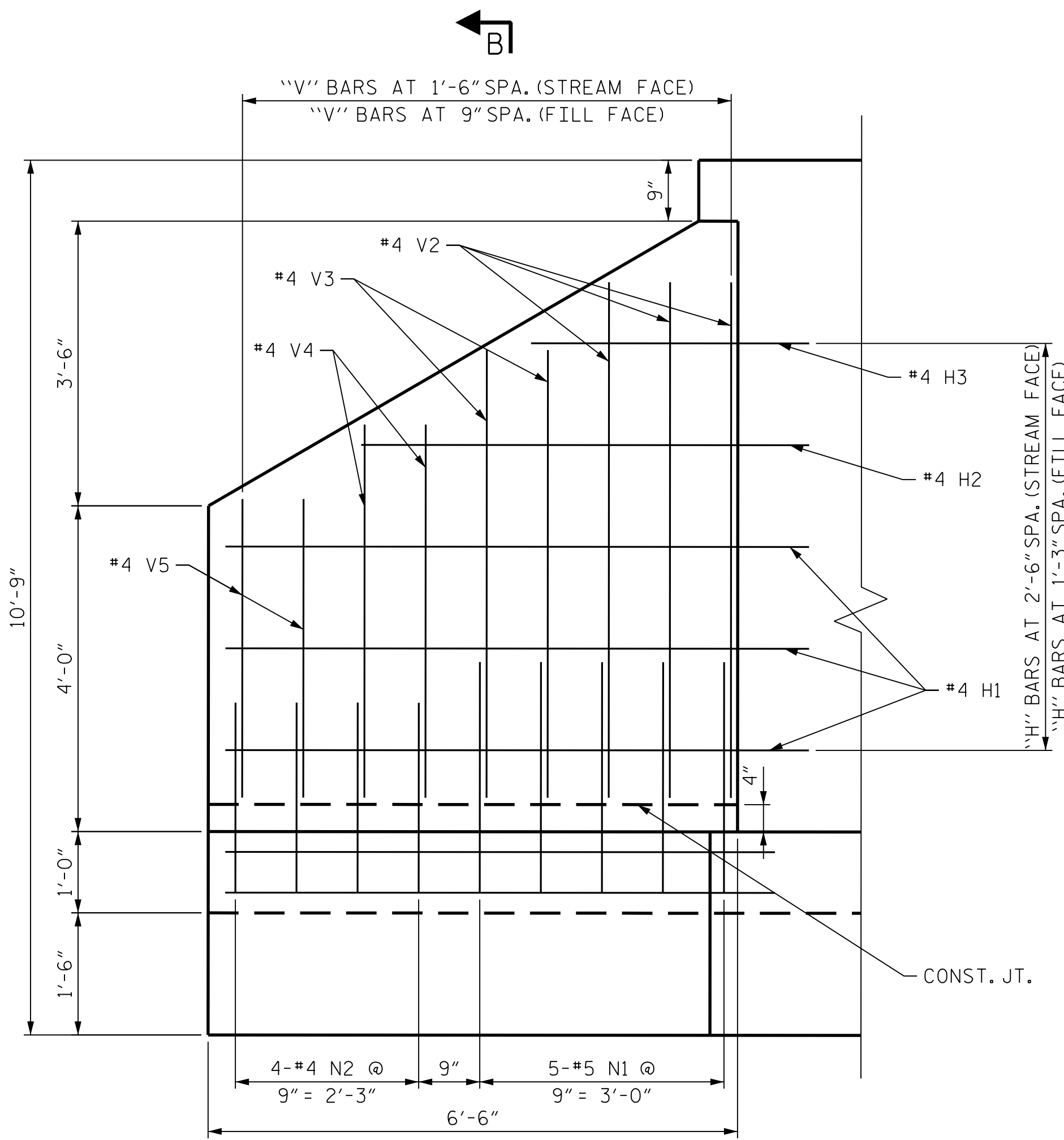
**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

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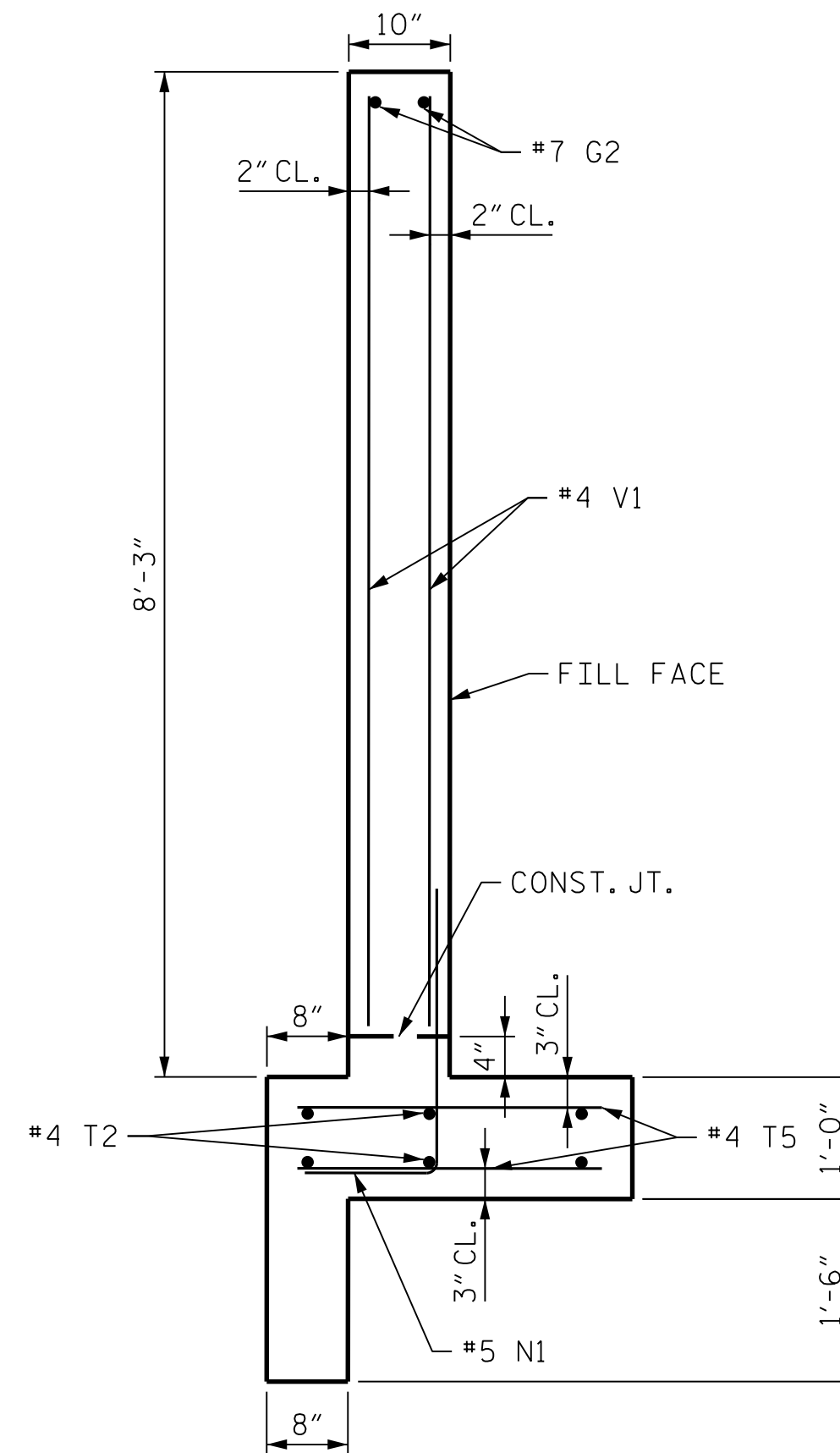
DRAWN BY : A. J. WOLCOTT DATE : JUL 2023
 CHECKED BY : P. L. OARE DATE : JUL 2023
 DESIGN ENGINEER OF RECORD : P. L. OARE DATE : JUL 2023



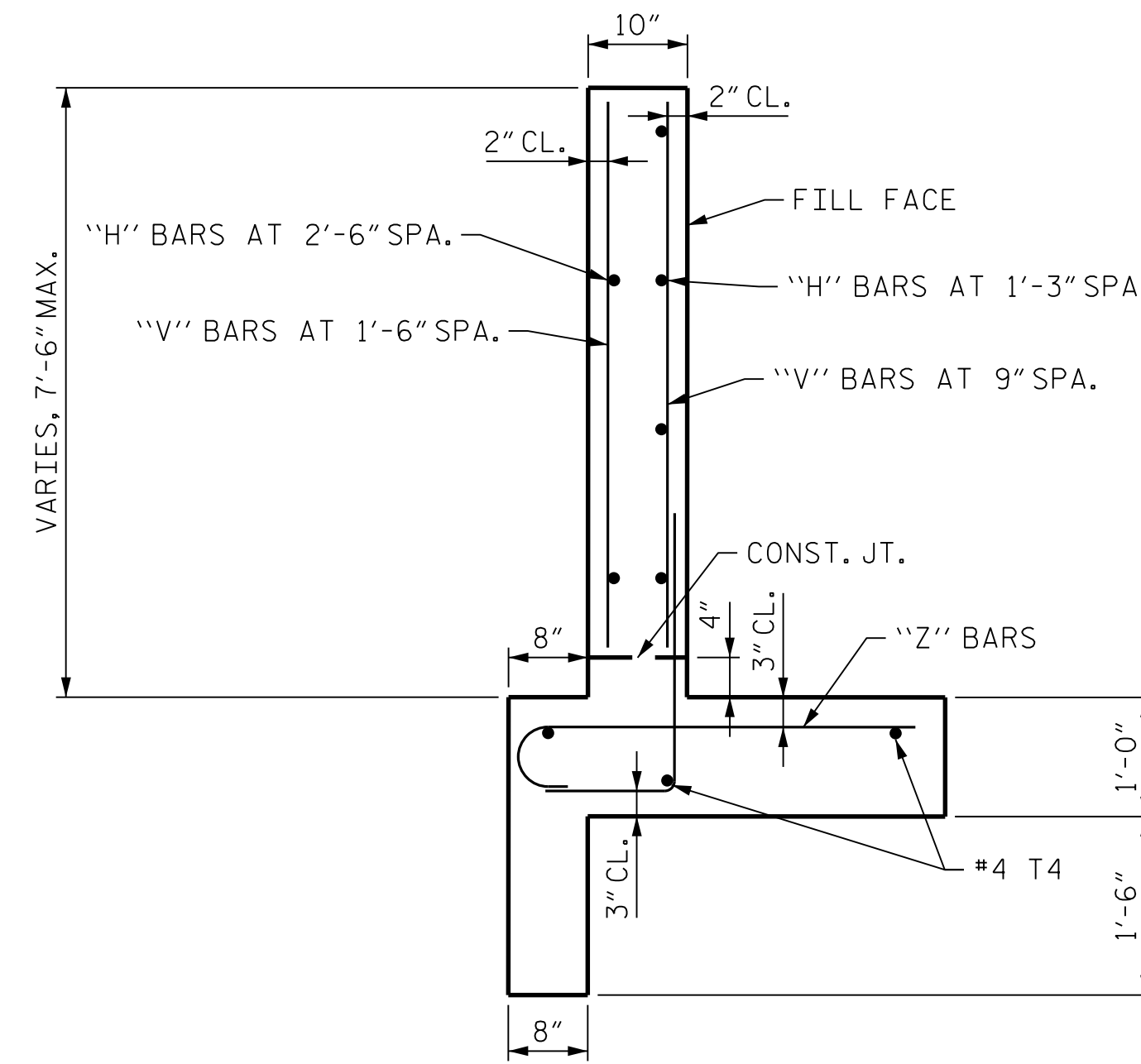
PLAN W1



ELEVATION W1



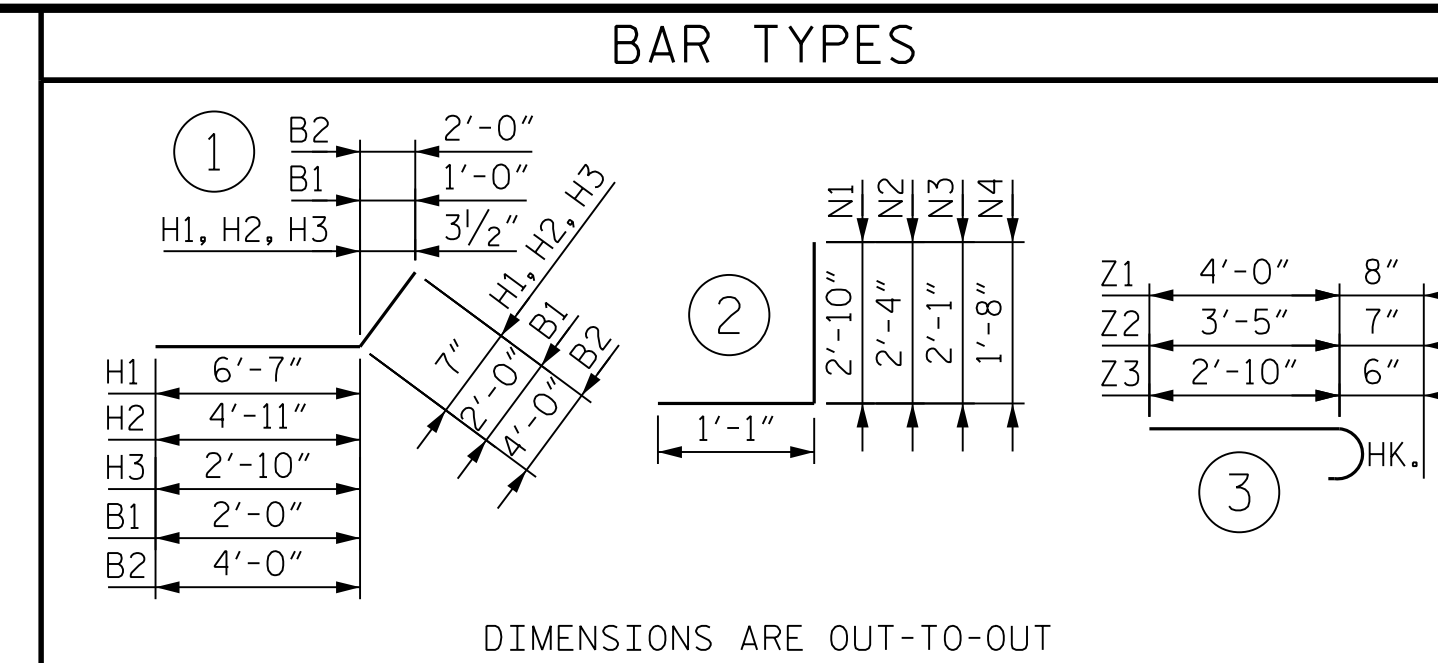
SECTION A-A
(HEADWALL)



SECTION B-B
(WING)

NOTES

WING 1 SHOWN, WING 2 SIMILAR.



DIMENSIONS ARE OUT-TO-OUT

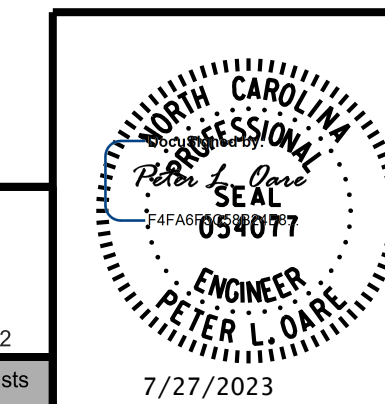
BILL OF MATERIALS					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	#4		4'-0"	21	
B2	#4		8'-0"	43	
G2	#7	STR.	15'-2"	62	
H1	#4		7'-2"	48	
H2	#4		5'-6"	7	
H3	#4		3'-5"	9	
H4	#4	STR.	6'-8"	9	
H5	#4	STR.	7'-4"	10	
H6	#4	STR.	8'-1"	11	
N1	#5		3'-11"	86	
N2	#4		3'-5"	18	
N3	#5		3'-2"	10	
N4	#5		2'-9"	6	
T2	#4	STR.	20'-2"	81	
T4	#4	STR.	6'-9"	27	
T5	#4	STR.	2'-6"	104	
V1	#4	STR.	7'-9"	93	
V2	#4	STR.	6'-4"	42	
V3	#4	STR.	5'-6"	22	
V4	#4	STR.	4'-7"	18	
V5	#4	STR.	3'-8"	15	
V6	#4	STR.	2'-11"	8	
V7	#4	STR.	2'-0"	5	
V8	#4	STR.	1'-7"	4	
V9	#4	STR.	1'-2"	2	
V10	#4	STR.	1'-0"	9	
V11	#4	STR.	0'-9"	1	
V12	#4	STR.	3'-5"	7	
Z1	#6		4'-8"	42	
Z2	#5		4'-0"	25	
Z3	#4		3'-4"	13	
REINFORCING STEEL				858	LBS.
CLASS "A" CONCRETE				10.0	C.Y.

PROJECT NO. R-5861
 CHEROKEE COUNTY
 STATION: 81+90.44 -L-

SHEET 3 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

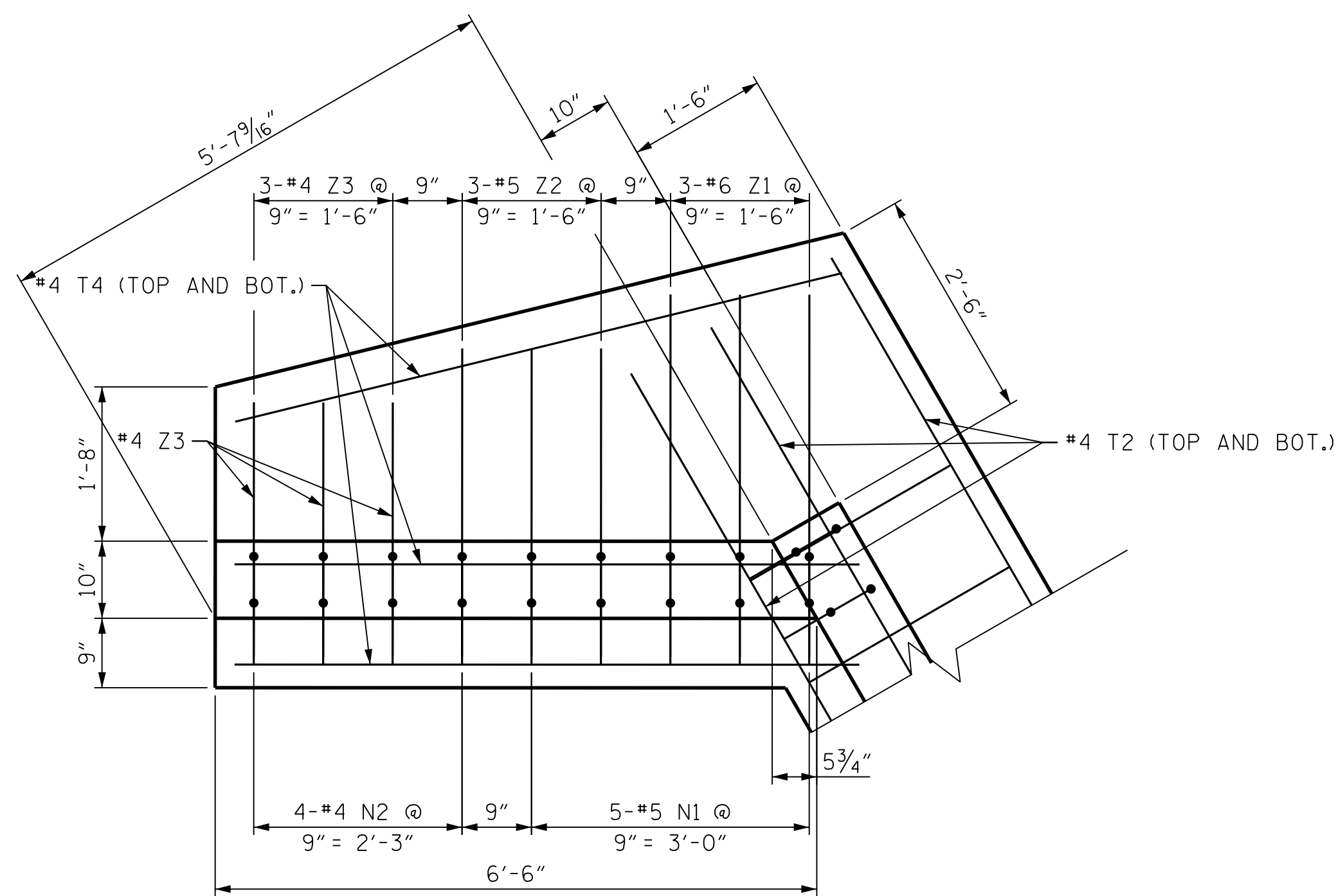
SPECIAL HEADWALL EXTENSION
 STR. 0908
 WINGS, SECTIONS,
 AND BILL OF MATERIALS



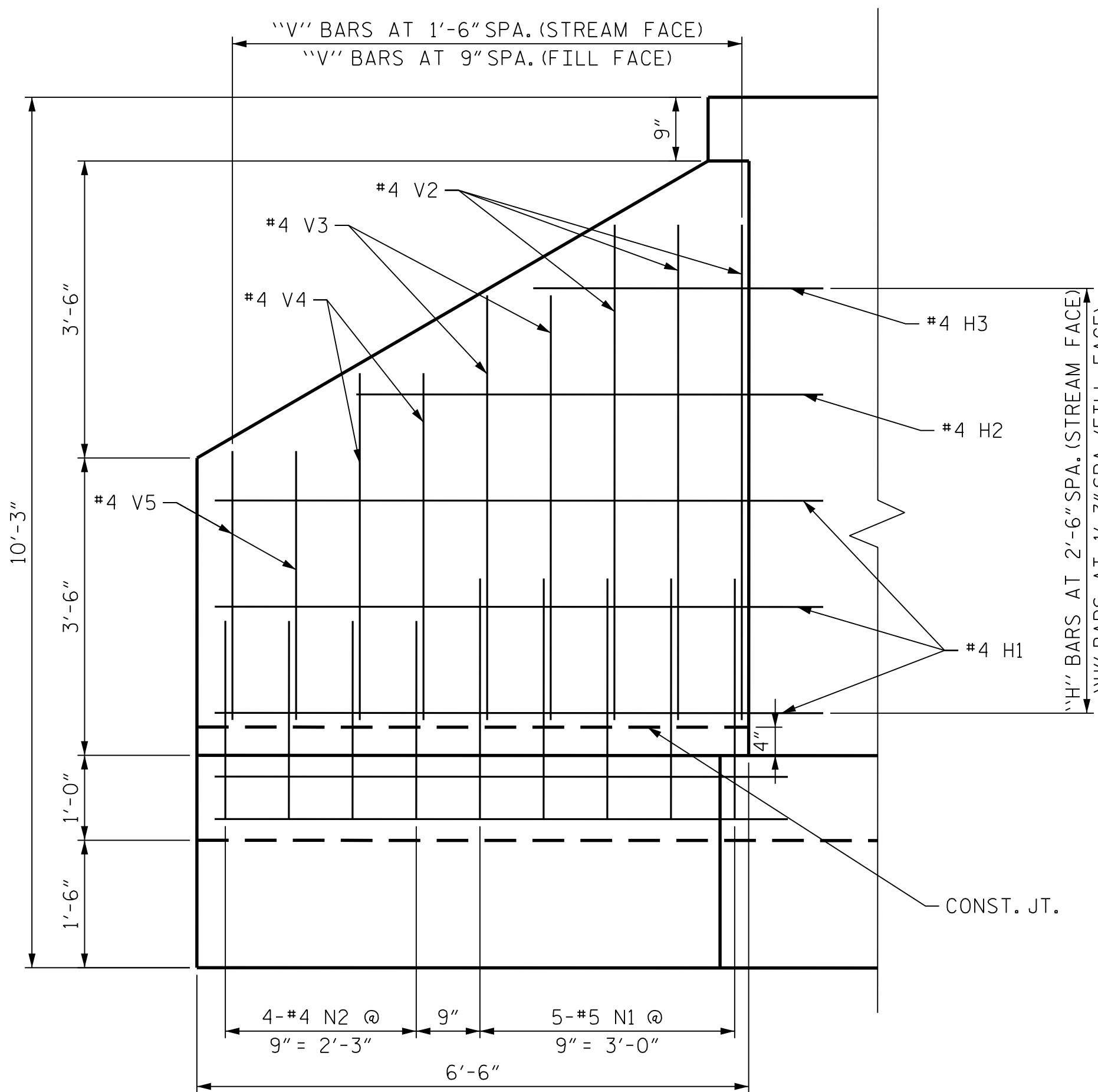
DOCUMENT NOT CONSIDERED FINAL
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REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

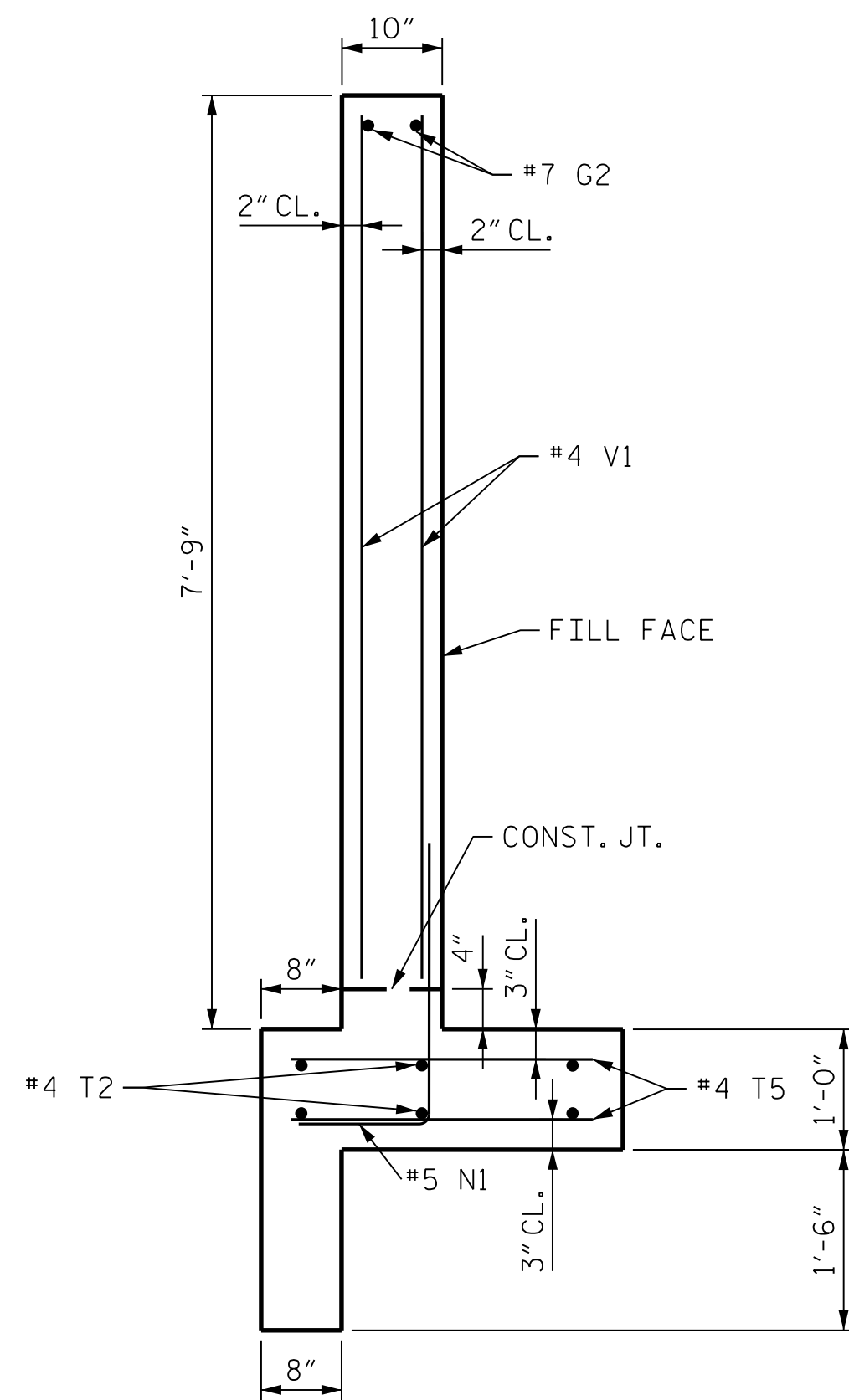
SHEET NO.	
S-3	TOTAL SHEETS 6



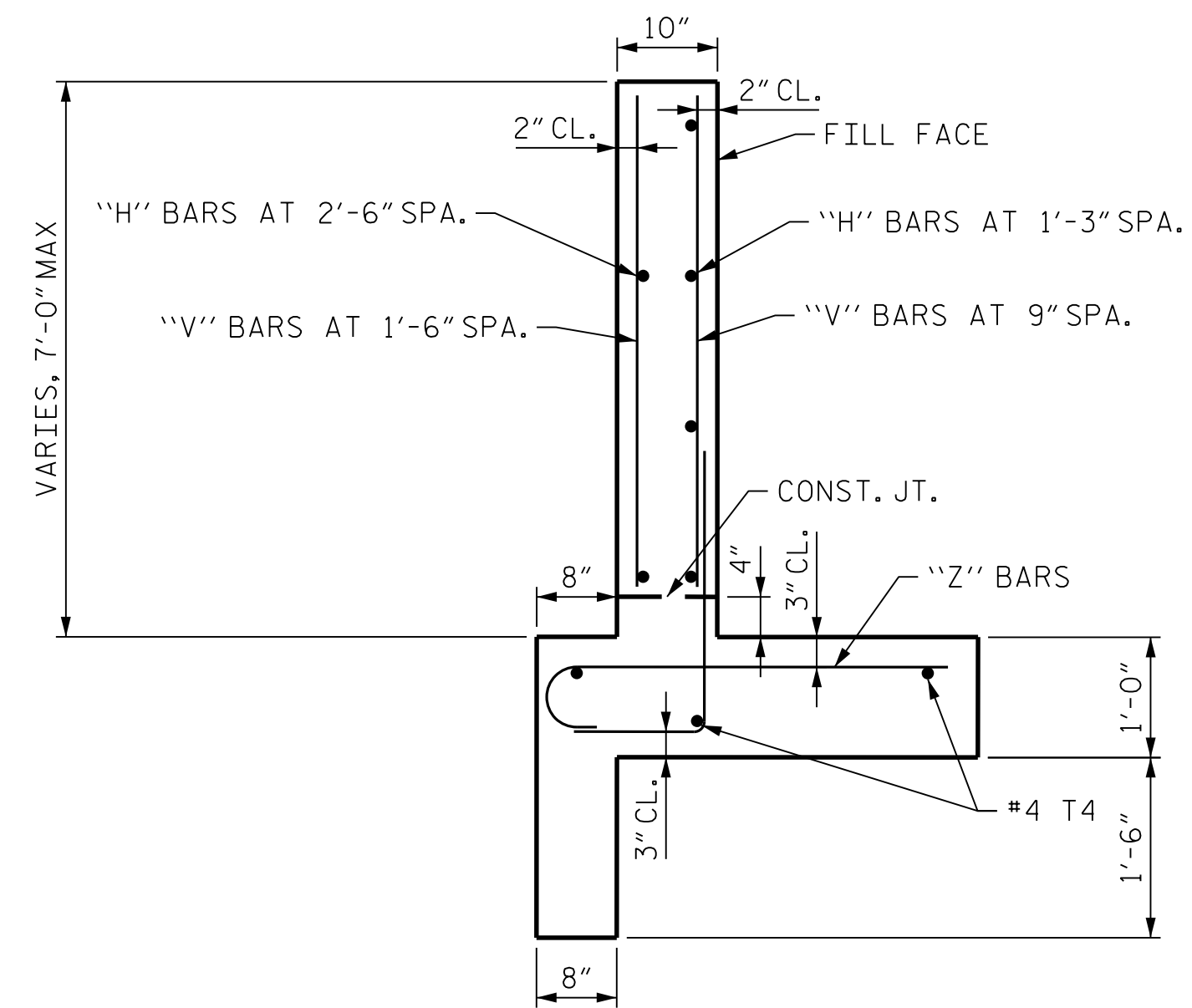
PLAN W1



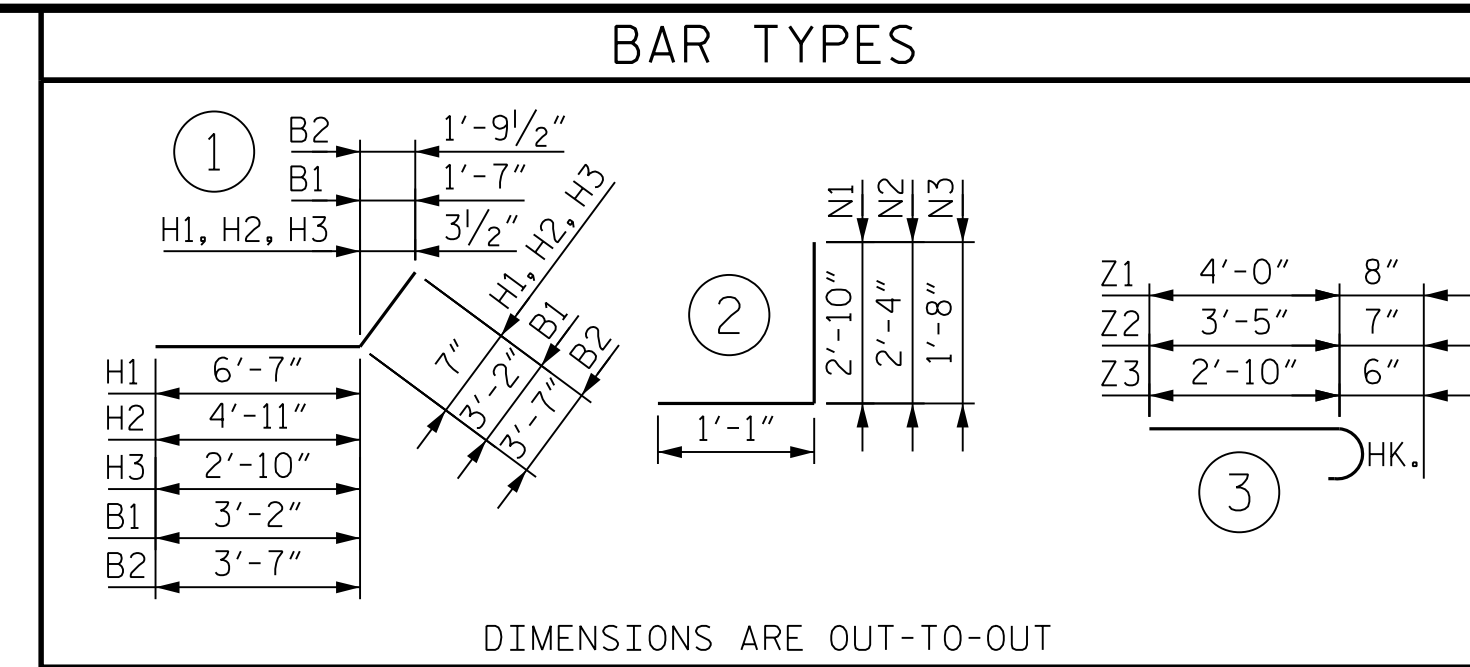
ELEVATION W1



SECTION A-A
(HEADWALL)



SECTION B-B
(WING)



DIMENSIONS ARE OUT-TO-OUT

BILL OF MATERIALS					
BAR NO.	SIZE	TYPE	LENGTH	WEIGHT	
B1	#4	1	6'-4"	34	
B2	#4	1	7'-2"	38	
G2	#7	STR.	15'-2"	62	
H1	#4	1	7'-2"	48	
H2	#4	1	5'-6"	7	
H3	#4	1	3'-5"	9	
H4	#4	STR.	6'-9"	18	
H5	#4	STR.	8'-9"	12	
N1	#5	2	3'-11"	98	
N2	#4	2	3'-5"	18	
N3	#5	2	2'-9"	6	
T2	#4	STR.	20'-2"	81	
T4	#4	STR.	6'-9"	27	
T5	#4	STR.	2'-6"	104	
V1	#4	STR.	7'-3"	68	
V2	#4	STR.	5'-10"	39	
V3	#4	STR.	5'-0"	20	
V4	#4	STR.	4'-1"	16	
V5	#4	STR.	3'-2"	13	
V6	#4	STR.	3'-1"	8	
V7	#4	STR.	2'-6"	7	
V8	#4	STR.	1'-10"	6	
V9	#4	STR.	1'-7"	15	
V10	#4	STR.	0'-10"	1	
Z1	#6	3	4'-8"	42	
Z2	#5	3	4'-0"	25	
Z3	#4	3	3'-4"	13	
REINFORCING STEEL				835	LBS.
CLASS "A" CONCRETE				9.9	C.Y.

NOTES:

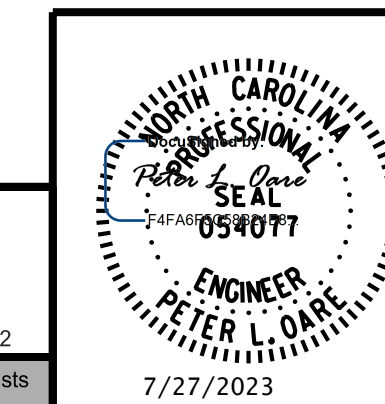
WING 1 SHOWN, WING 2 SIMILAR

PROJECT NO. R-5861
 CHEROKEE COUNTY
 STATION: 13+04.00 -Y9-

SHEET 5 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SPECIAL HEADWALL EXTENSION
 STR. 1315
 WINGS, SECTIONS,
 AND BILL OF MATERIALS



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1			3			TOTAL SHEETS
2			4			6

7/27/2023 R:\Structures\Headwall\Ind\R-5861_SMJ_HW_S5.dgn

DRAWN BY : A. J. WOLCOTT DATE : JUL 2023
 CHECKED BY : P. L. OARE DATE : JUL 2023
 DESIGN ENGINEER OF RECORD : P. L. OARE DATE : JUL 2023

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 2018 "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 3/16" 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 SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

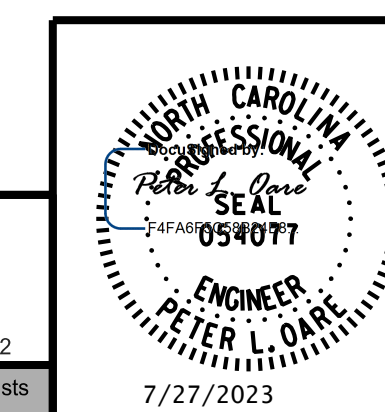
GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

PROJECT NO. R-5861
CHEROKEE COUNTY
 STATION: 81+90.44 -L- &
13+04.00 -Y9-

SHEET 6 OF 6

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STANDARD
 NOTES



REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					5-6
					TOTAL SHEETS 6

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

7/27/2023 R:\Structures\Headwalls\DGNN\Final\R-5861_SMJ_HW_S6.dgn tboyd

DRAWN BY : <u>A. J. WOLCOTT</u>	DATE : <u>JUL 2023</u>
CHECKED BY : <u>P. L. OARE</u>	DATE : <u>JUL 2023</u>
DESIGN ENGINEER OF RECORD : <u>P. L. OARE</u>	DATE : <u>JUL 2023</u>