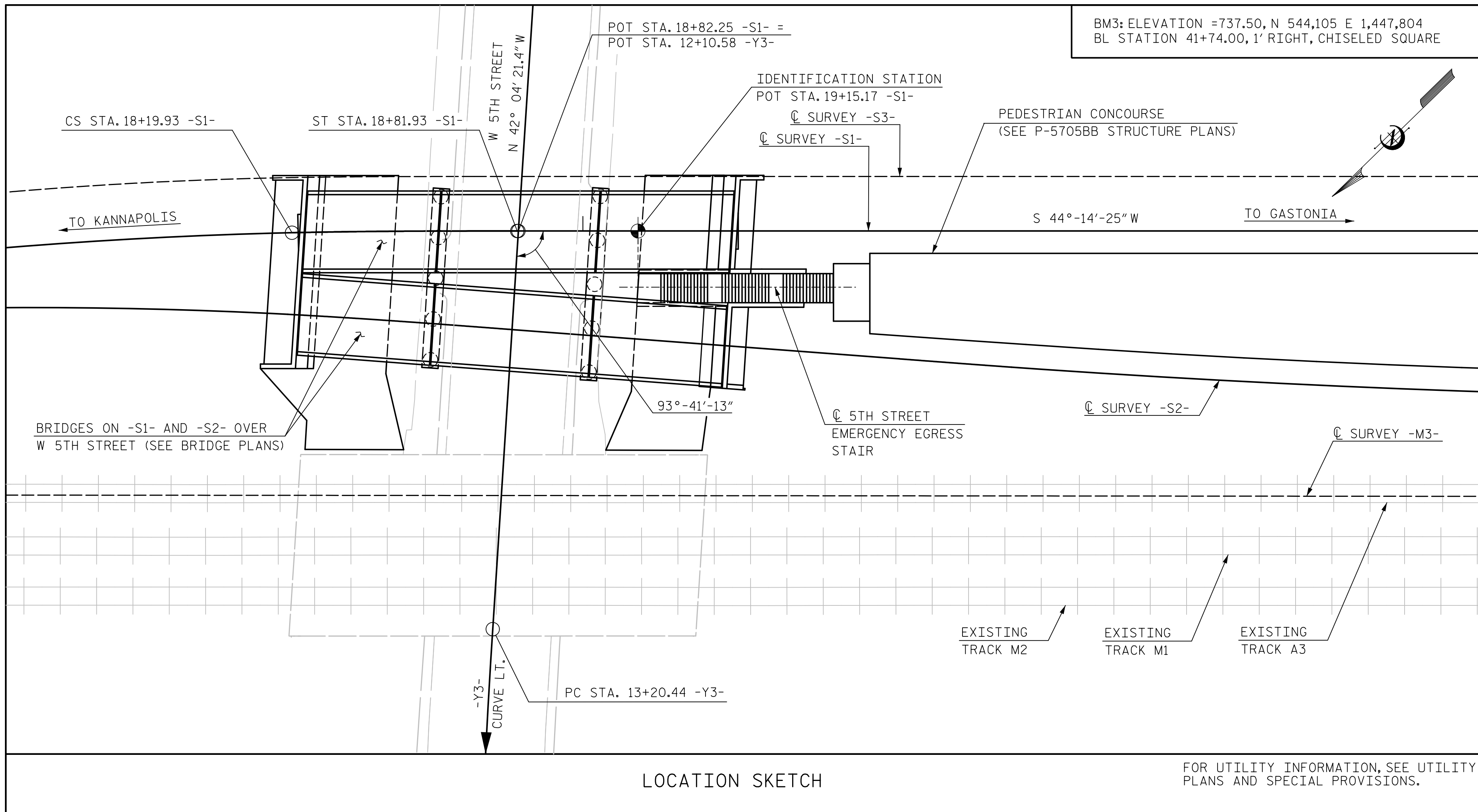


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**



BM3: ELEVATION =737.50, N 544,105 E 1,447,804
BL STATION 41+74.00, 1' RIGHT, CHISELED SQUARE

TOTAL BILL OF MATERIAL		
	APPROX. CLASS AA CONCRETE	REINFORCING STEEL
	CU. YDS.	LBS.
EGRESS STAIR	32.2	3,180

INDEX OF DRAWINGS

- 1 GENERAL DRAWING: 5TH STREET EMERGENCY EGRESS STAIR (SHEET 1 OF 1)
- 2 STAIR DETAILS (SHEET 1 OF 3)
- 3 STAIR DETAILS (SHEET 2 OF 3)
- 4 STAIR DETAILS (SHEET 3 OF 3)

NOTES:

CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARILY BRACING WALLS DURING CURING AND CONSTRUCTION OF WALLS AND STAIR. ANY REQUIRED BACKFILLING SHALL OCCUR AFTER CURING OF WALLS AND STAIR IS COMPLETE.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

REINFORCING STEEL SHALL BE ASTM DESIGNATION A615, GRADE 60. ALL DIMENSIONS RELATING TO BAR SPACING ARE TO BAR CENTERS UNLESS NOTED. FABRICATION TO BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE" A.C.I. 315-80.

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. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.

ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES", JANUARY 2018, NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (HEREIN CALLED STANDARD SPECIFICATIONS), EXCEPT AS NOTED HEREIN, ELSEWHERE ON PLANS, OR IN THE SPECIAL PROVISIONS (STRUCTURAL STEEL IN ACCORDANCE WITH CURRENT AREMA SPECIFICATIONS).

ALL CONCRETE SHALL BE 4,500 PSI CLASS AA CONCRETE PER SECTION 1000 OF THE NCDOT SPECIFICATIONS WITH NO. 57 OR 67 COARSE AGGREGATE AND SHALL BE AIR-ENTRAINED. MINIMUM CEMENT CONTENT PER CUBIC YARD OF CONCRETE SHALL BE 6.5 BAGS. NO SUBSTITUTION OF FLYASH, BLAST FURNACE SLAG OR OTHER MATERIAL WILL BE PERMITTED IN MEETING THIS MINIMUM CEMENT REQUIREMENT. CHAMFER ALL EXPOSED EDGES AND CORNERS 3/4" EXCEPT AS NOTED. THE USE OF GROUND GRANULATED BLAST FURNACE SLAG IS NOT PERMITTED IN THIS STRUCTURE.

CONTROL OF WORK: ALL WORK INVOLVED IN THE CONSTRUCTION OF THE RAILWAY STRUCTURE SHALL BE PERFORMED SATISFACTORY TO THE ENGINEER AND COMPLIANT WITH THE DESIGN STANDARDS OF NORFOLK SOUTHERN RAILWAY COMPANY. ALL METHODS OF HANDLING THE WORK AFFECTING THE SAFETY OF RAIL OPERATIONS MUST BE APPROVED BY THE RAILWAY COMPANY, AS A SUBMITTAL THROUGH THE ENGINEER, AT LEAST TWO WEEKS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. PROCEEDING WITH THAT PORTION OF THE WORK. RAIL TRAFFIC SHALL, AT ALL TIMES, BE MAINTAINED AND PROTECTED. THE CONTRACTOR SHALL NOT AT ANY TIME DELAY OR INTERFERE WITH RAIL OPERATIONS.

FOR PORTLAND CEMENT, SEE SPECIAL PROVISIONS.

FOR FINE AND COARSE AGGREGATE, SEE SPECIAL PROVISIONS.

FOR BACKFILL AROUND STRUCTURE, SEE SPECIAL PROVISION "BACKFILLING AROUND STRUCTURES".

STAIR CONSTRUCTION IS IMMEDIATELY ADJACENT TO BRIDGE ABUTMENTS. CONTRACTOR SHALL PROTECT ALL COMPONENTS OF IN PLACE ABUTMENTS INCLUDING SUPPORTING SOILS AND SLOPE PAVING DURING CONSTRUCTION AND SHALL NOT EXPOSE IN PLACE PILING. CONTRACTOR SHALL PROVIDE APPROPRIATE TEMPORARY SHORING FOR IN PLACE ABUTMENTS DURING ALL CONSTRUCTION.

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

PROJECT NO. P-5705BB
MECKLENBURG COUNTY
STATION: POT STA. 19+15.17 -S1-

SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
5TH. STREET EMERGENCY
EGRESS STAIR

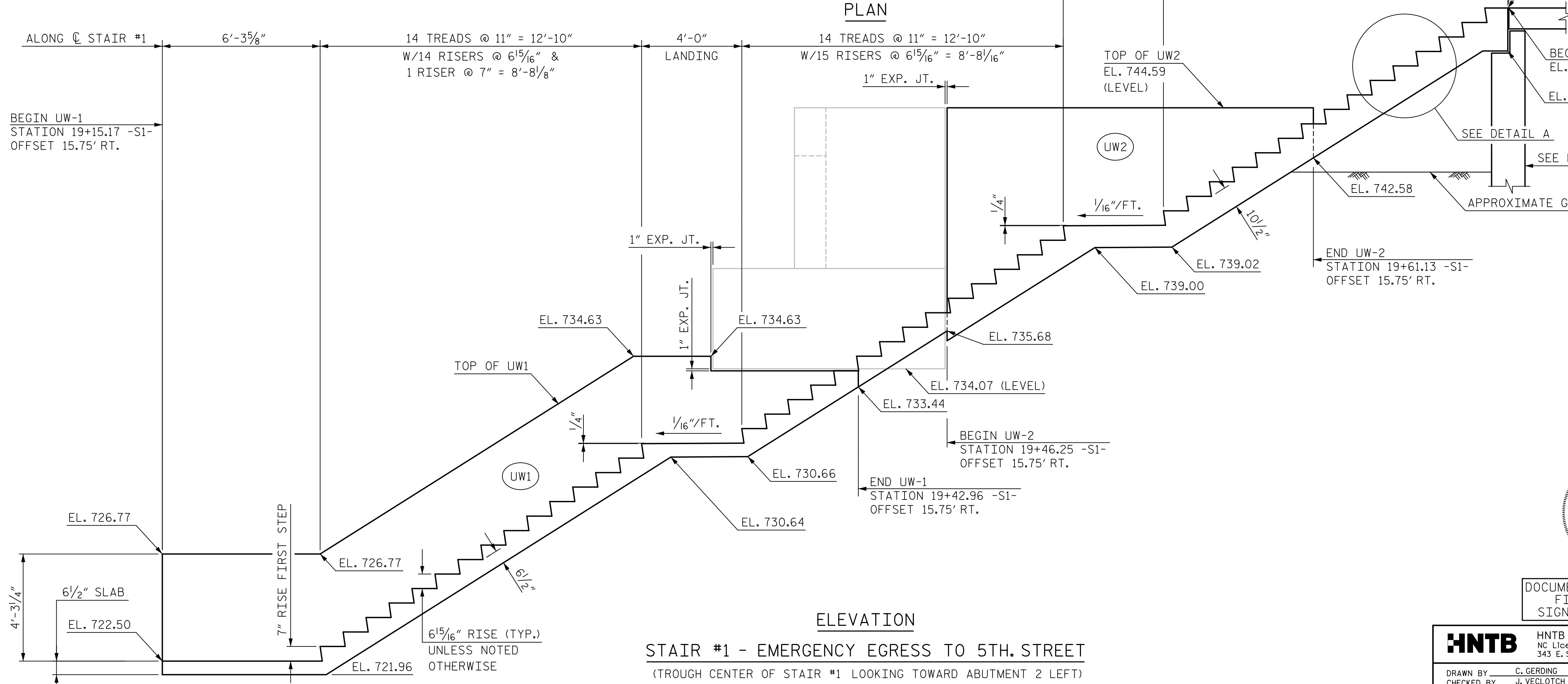
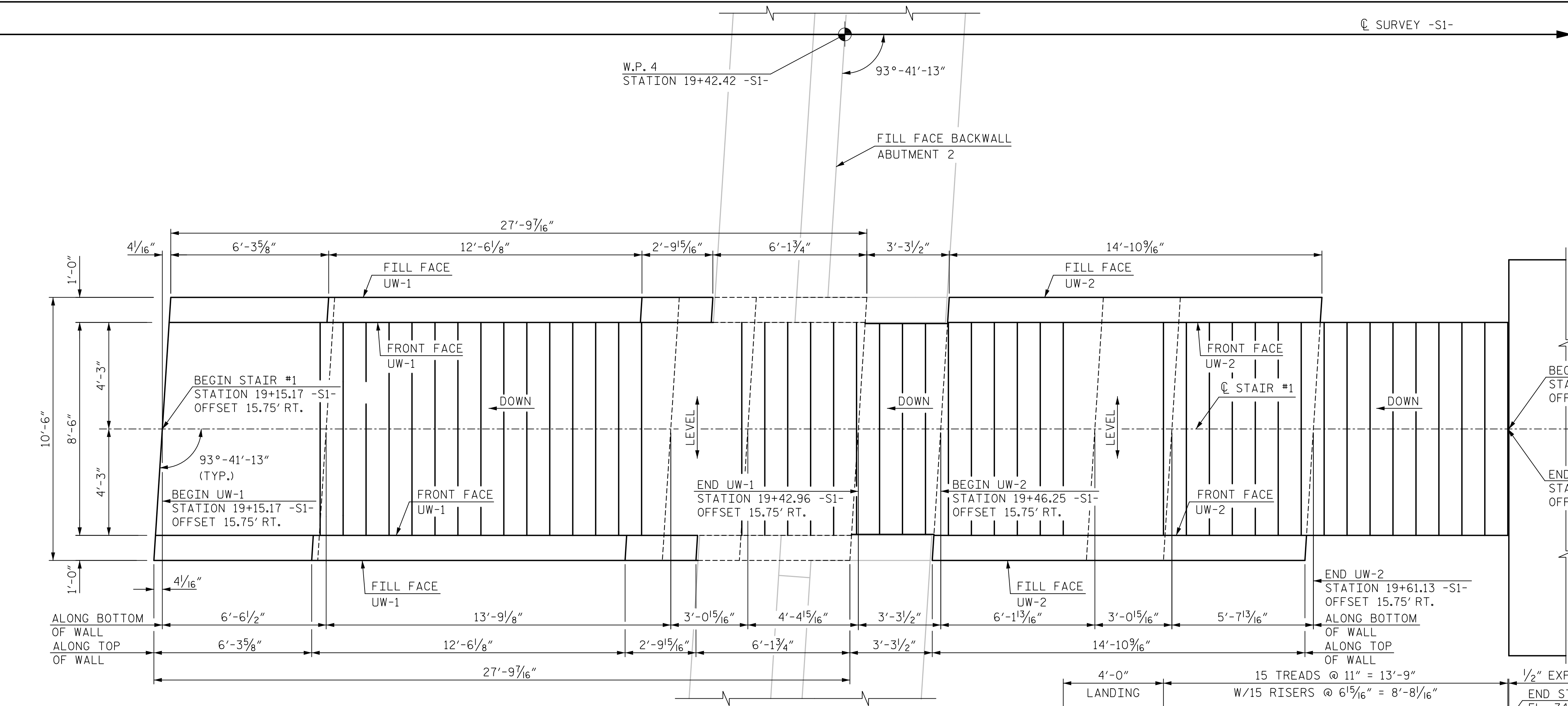
3/27/2018

SEAL
045797

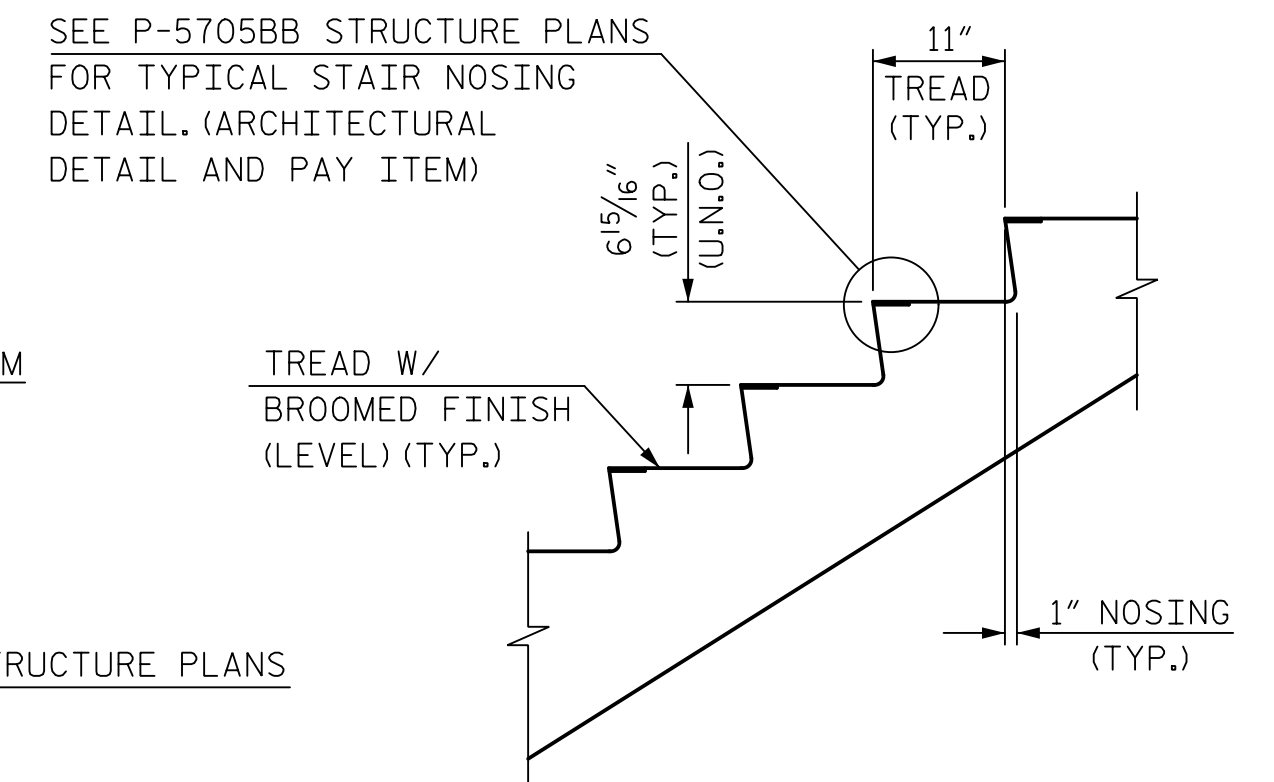
ENGINEER
LAWRENCE D. PRESCOTT, JR.

DOCUMENT NOT TO BE CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609	REVISIONS					SHEET NO. S10-1
	DRAWN BY <u>C. GERDING</u> DATE <u>L/18</u> CHECKED BY <u>J. VECLITCH</u> DATE <u>L/18</u>	NO.	BY	DATE	NO.	
DWG. NO. 1	1			3		
	2			4		
	TOTAL SHEETS					4



NOTES:
 FOR PLATFORM DETAILS, SEE P-5705BB STRUCTURE PLANS.
 FOR ABUTMENT 2 LAYOUT AND DIMENSIONS, SEE ABUTMENT 2 SHEET 1 OF 4.
 FOR FENCING AND HANDRAIL DETAILS, SEE P-5705BB STRUCTURE PLANS.
 FOR ADDITIONAL STAIR DETAILS AND REINFORCING SEE SHEET 2 OF 3.



PROJECT NO. P-5705BB
 MECKLENBURG COUNTY
 STATION: POT STA. 19+15.17 -S1-

SHEET 1 OF 3

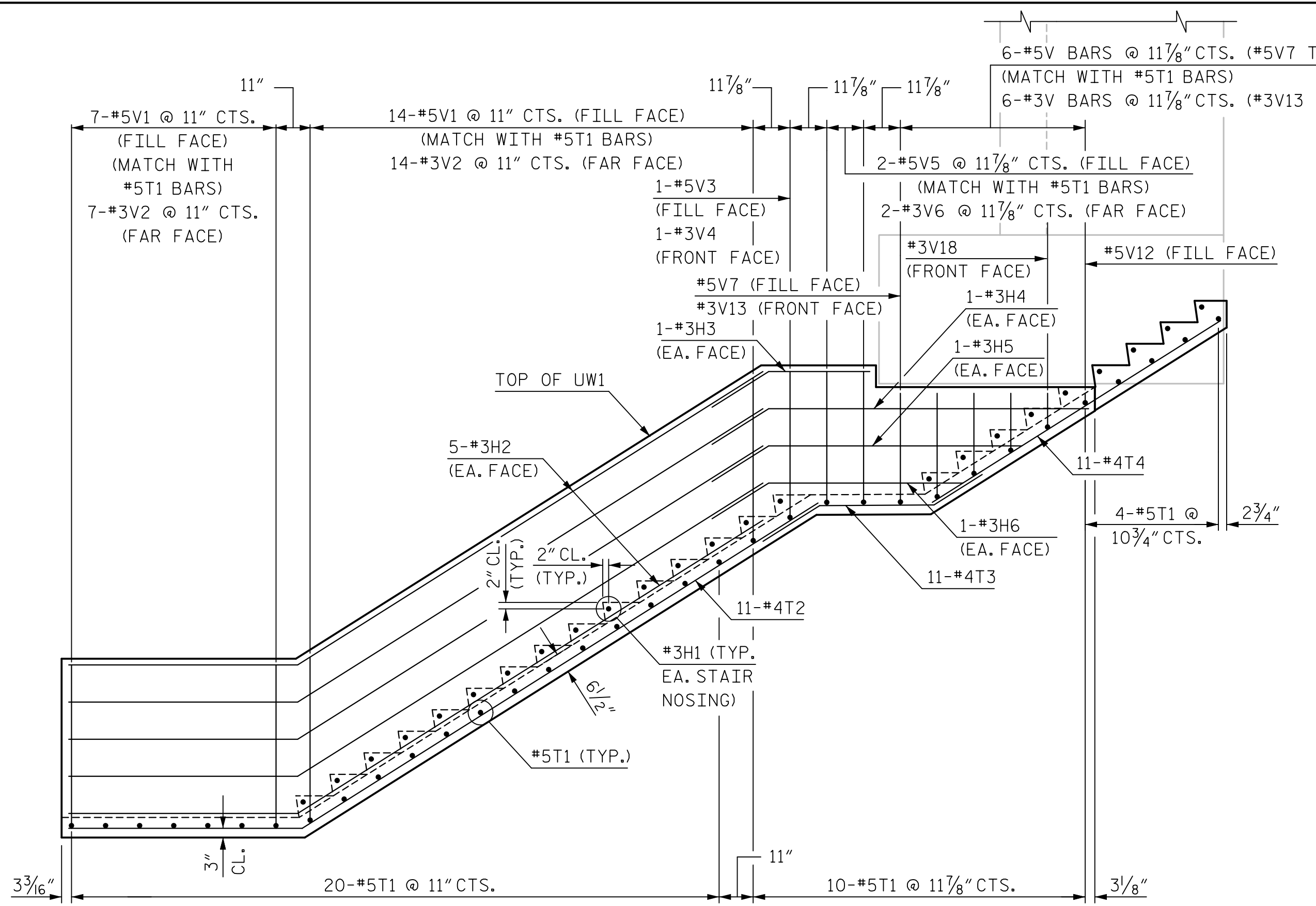
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
STAIR DETAILS

3/27/2018
 NORTH CAROLINA PROFESSIONAL SEAL
 045797
 LAWRENCE D. PRESCOTT, JR.
 ENGINEER
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

HNTB HNTB NORTH CAROLINA, P.C.
 NC License No. C-1554
 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609
 DRAWN BY: C. GERDING DATE: 10/17
 CHECKED BY: J. VECLITCH DATE: 10/17 DWG. NO. 2

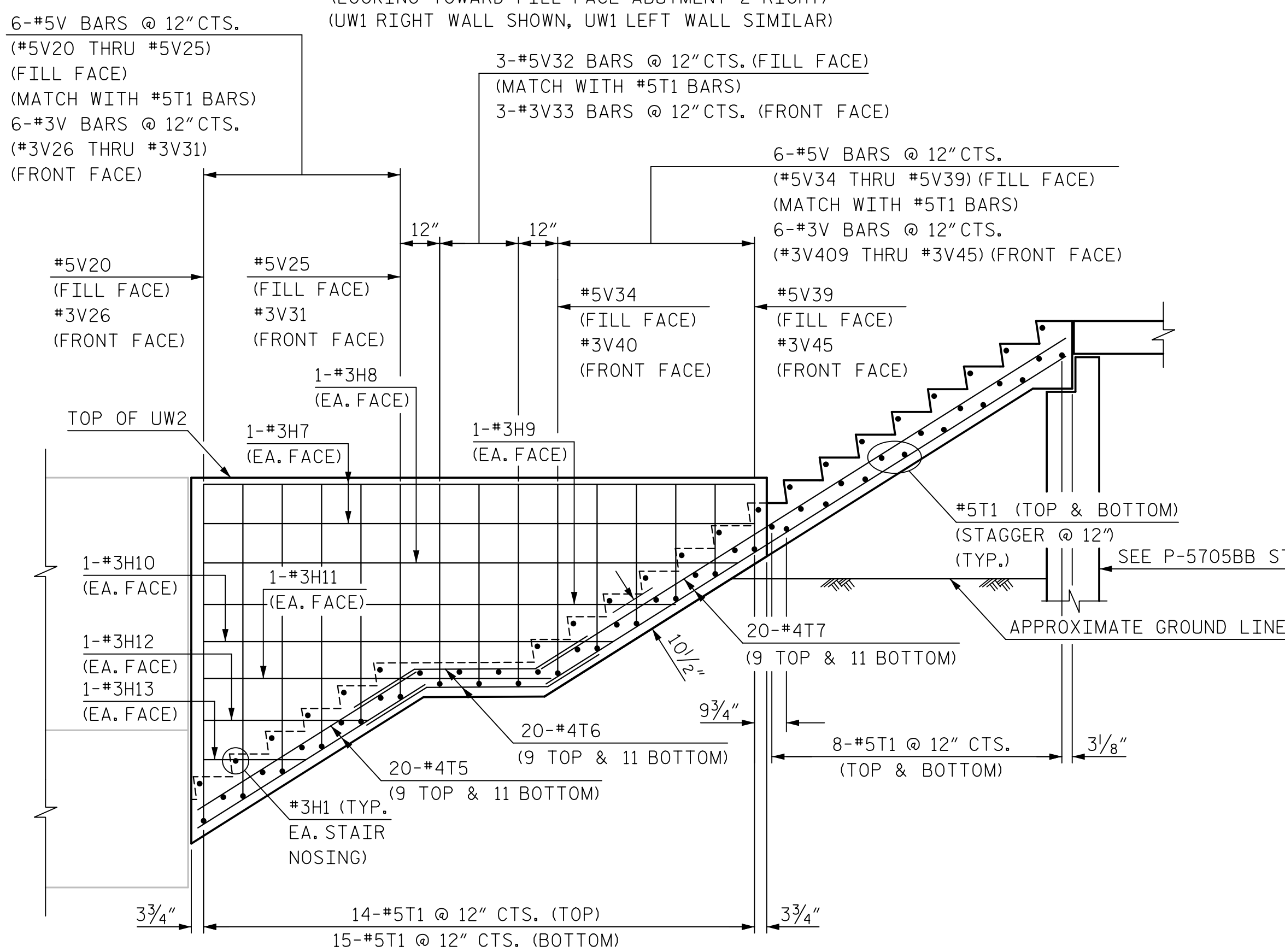
REVISIONS						SHEET NO. S10-2
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 4
2			4			

STAIR #1 - EMERGENCY EGRESS TO 5TH. STREET
 (TROUGH CENTER OF STAIR #1 LOOKING TOWARD ABUTMENT 2 LEFT)



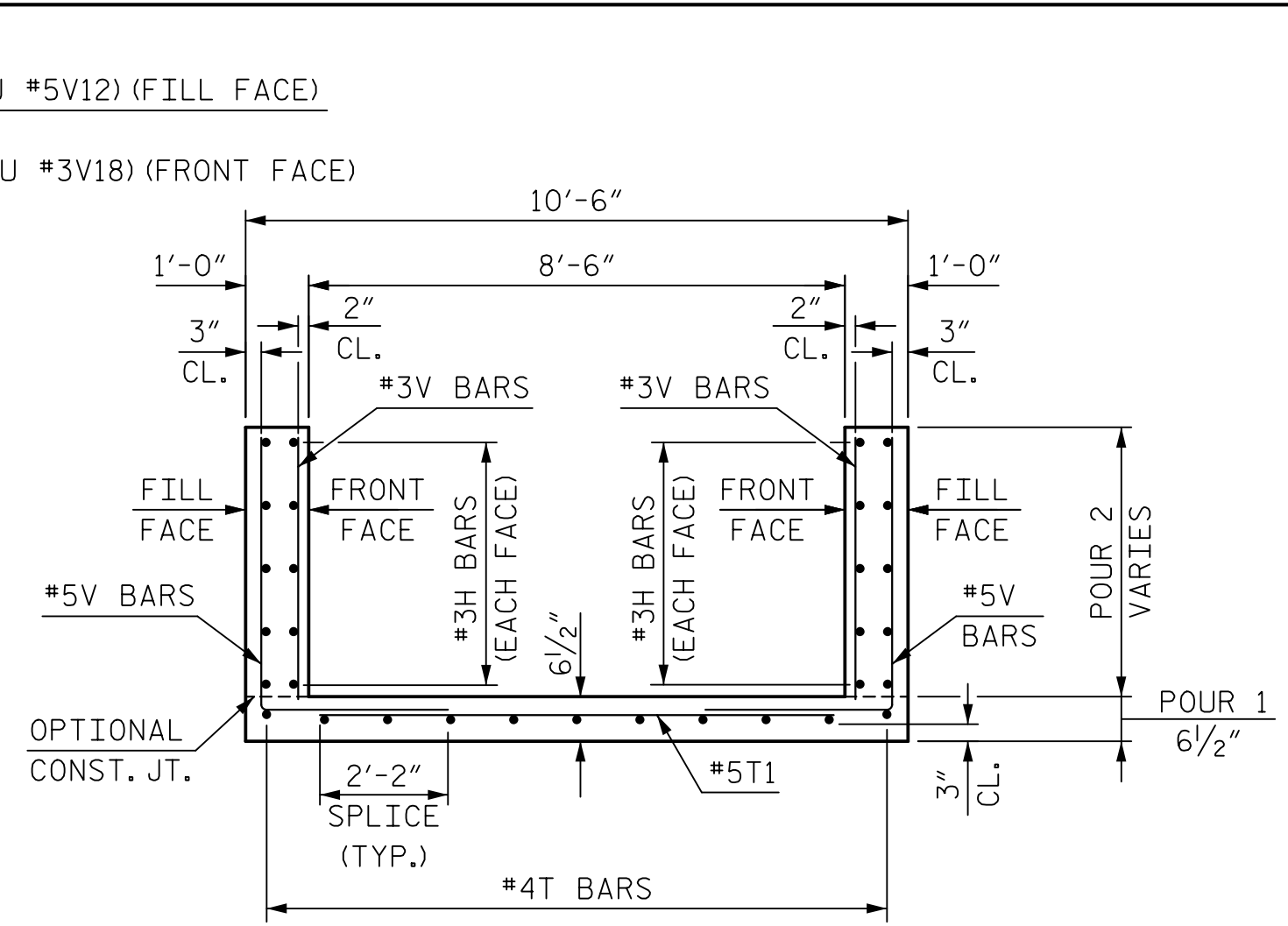
**REINFORCING ELEVATION - UW1
& STAIR BETWEEN ABUTMENTS**

(LOOKING TOWARD FILL FACE ABUTMENT 2 RIGHT)
(UW1 RIGHT WALL SHOWN, UW1 LEFT WALL SIMILAR)

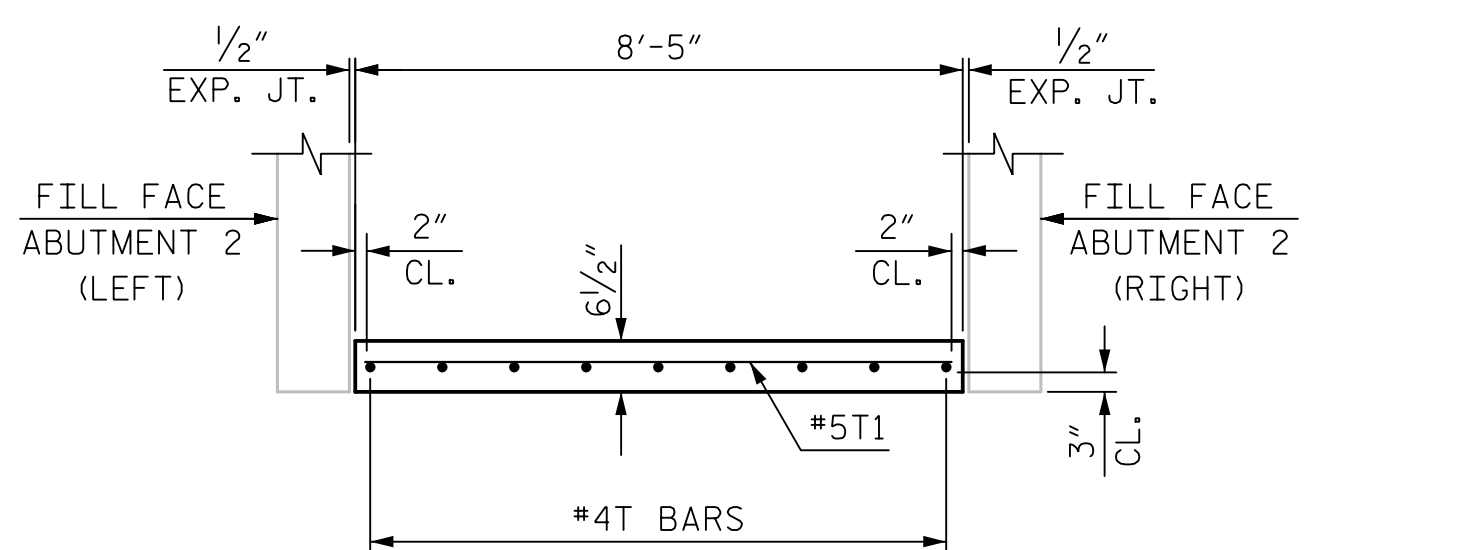


**REINFORCING ELEVATION - UW2
& TOP STAIR - NO WALL**

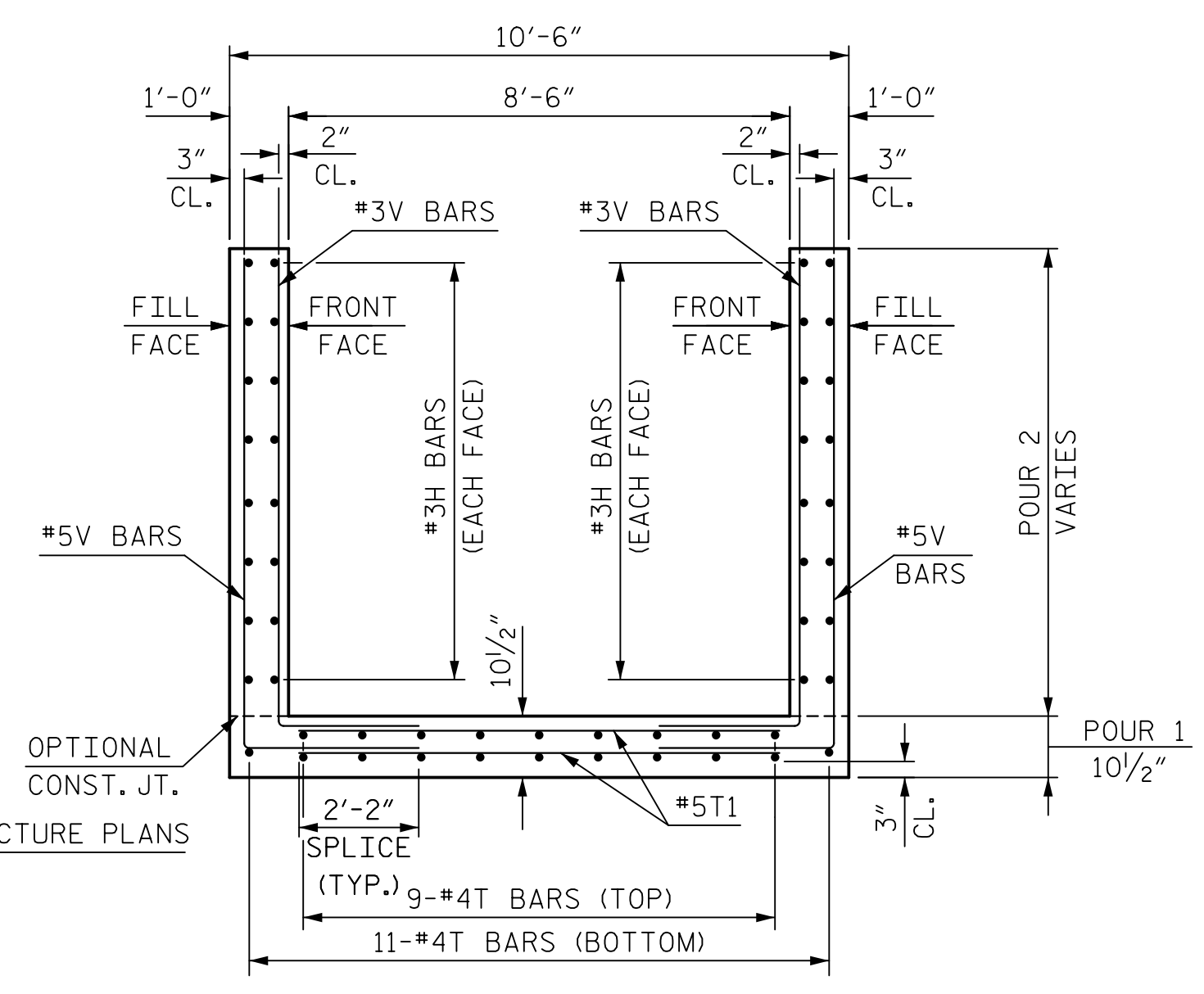
(LOOKING TOWARD FILL FACE ABUTMENT 2 RIGHT)
(UW2 RIGHT WALL SHOWN, UW1 LEFT WALL SIMILAR)



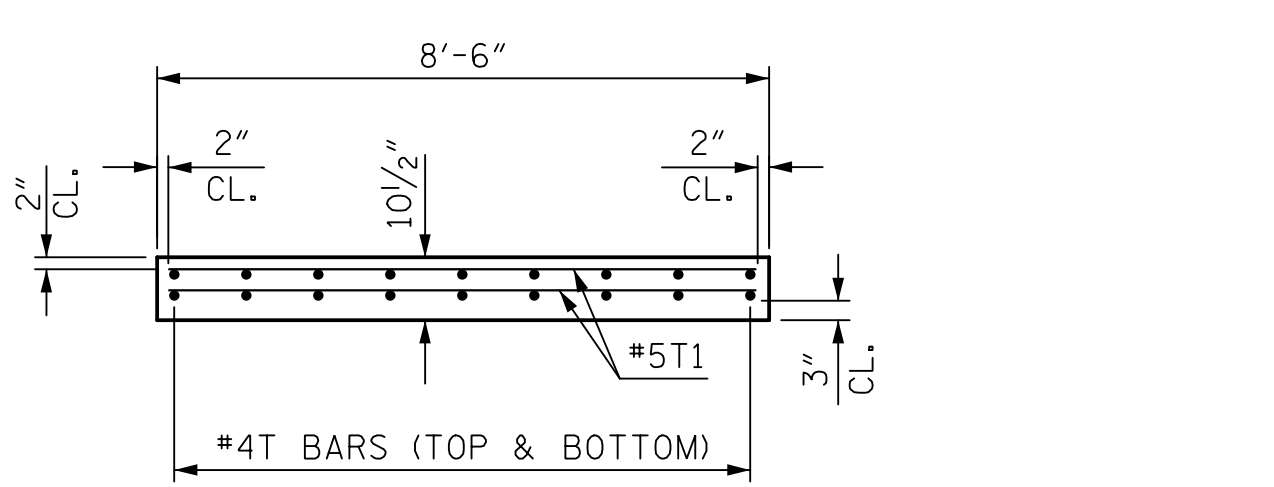
**TYPICAL REINFORCEMENT
SECTION - UW1**



**TYPICAL REINFORCEMENT
STAIR BETWEEN ABUTMENTS**

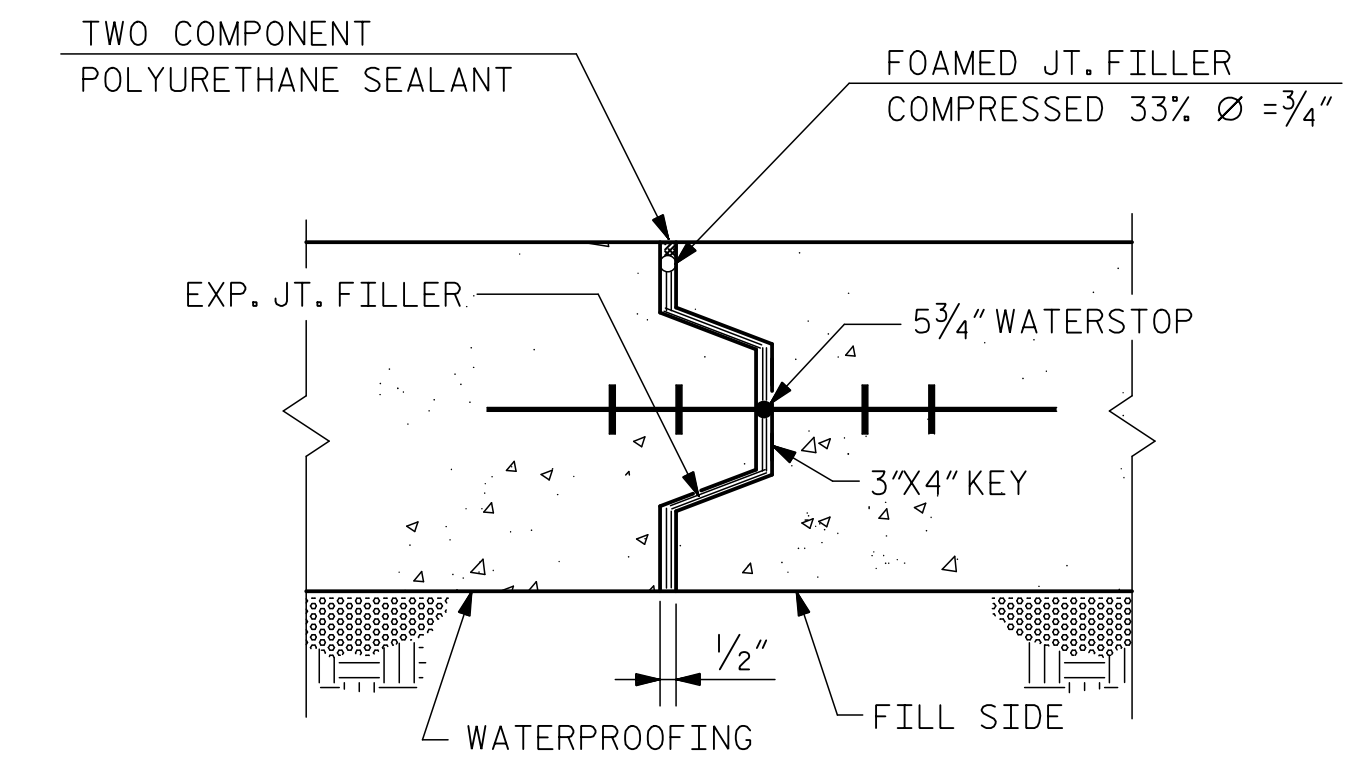


**TYPICAL REINFORCEMENT
SECTION - UW2**

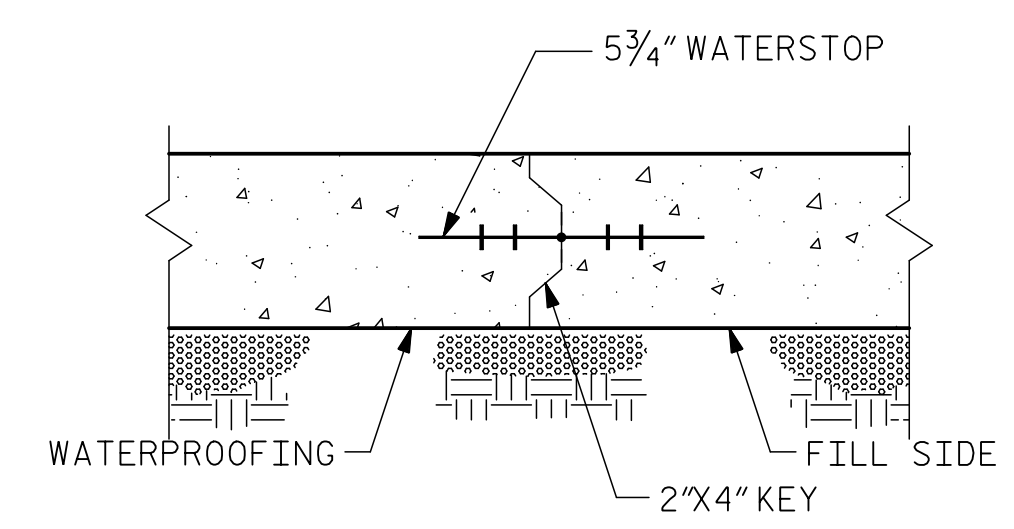


**TYPICAL REINFORCEMENT
TOP STAIR NO WALL**

NOTES:
FOR STAIR LAYOUT DETAILS, SEE SHEET 1 OF 3.
FOR STAIR REINFORCING BILL OF MATERIAL, BAR TYPES AND QUANTITIES, SEE SHEET 2 OF 3.
FOR ABUTMENT 2 LAYOUT AND DIMENSIONS, SEE ABUTMENT 2 SHEET 1 OF 4.
FOR FENCING AND HANDRAIL DETAILS, SEE P-5705BB STRUCTURE PLANS.
EXPANSION JOINTS TO BE SEALED WITH COMPRESSIBLE MATERIAL, (TYP.).



TYPICAL EXPANSION JOINT

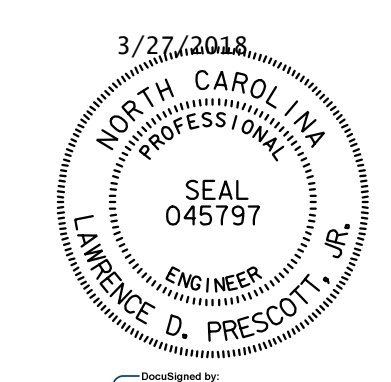


TYPICAL CONSTRUCTION JOINT

JOINTS IN U-WALL

PROJECT NO. P-5705BB
MECKLENBURG COUNTY
STATION: POT STA. 19+15.17 -S1-

SHEET 2 OF 3

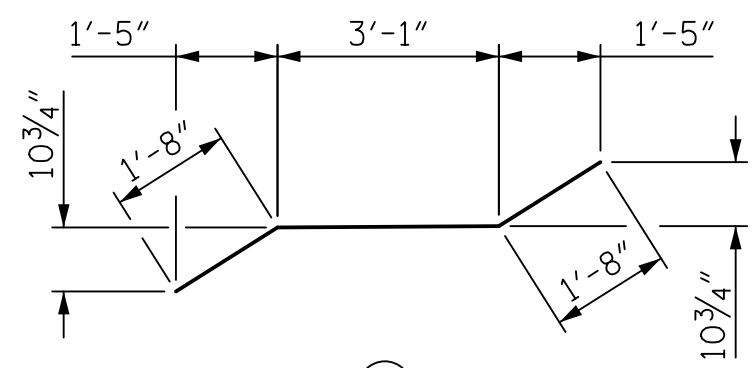
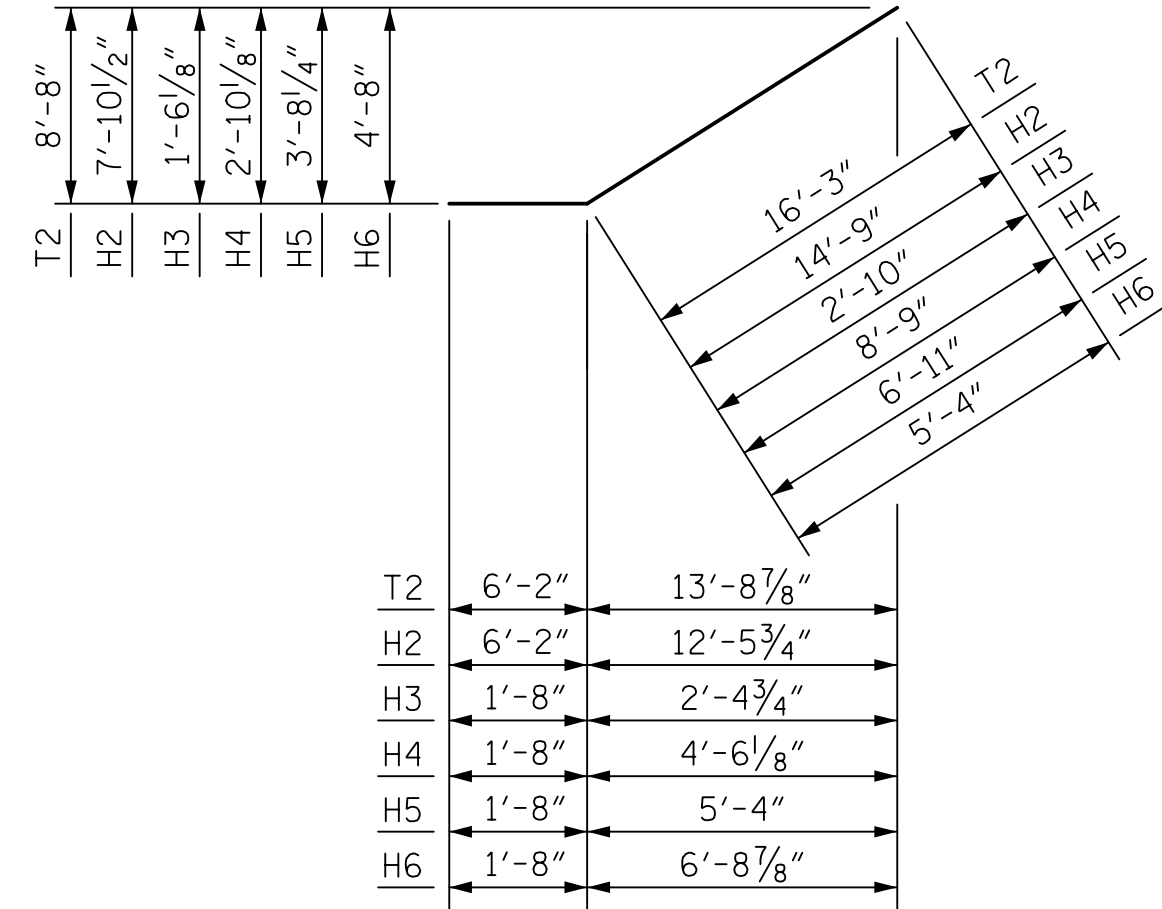


Designed by: Lawrence D. Prescott, Jr.
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

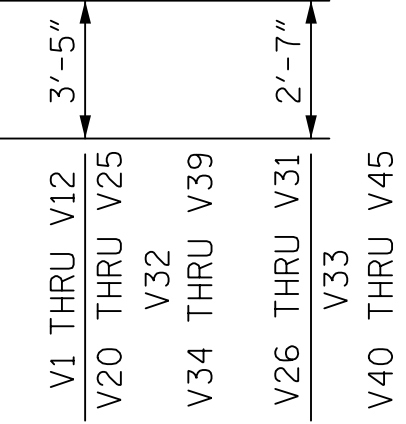
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
STAIR DETAILS

HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609	REVISIONS				SHEET NO. S10-3 TOTAL SHEETS 4		
	NO.	BY	DATE	NO.		BY	DATE
	1		10/17	3			
2		10/17	4				

BAR TYPES



V1	4'-5"
V3	4'-0"
V5	3'-7"
V7	3'-0"
V8	2'-10"
V9	2'-3"
V10	1'-7"
V11	1'-0"
V12	0'-4"
V20	8'-8"
V21	8'-0"
V22	7'-4"
V23	6'-9"
V24	6'-1"
V25	5'-6"
V26	8'-3"
V27	7'-7"
V28	6'-11"
V29	6'-4"
V30	5'-8"
V31	5'-1"
V32	5'-2"
V33	4'-9"
V34	4'-10"
V35	4'-4"
V36	3'-7"
V37	3'-0"
V38	2'-4"
V39	1'-9"
V40	4'-5"
V41	3'-11"
V42	3'-2"
V43	2'-7"
V44	1'-11"
V45	1'-4"



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF REINFORCING

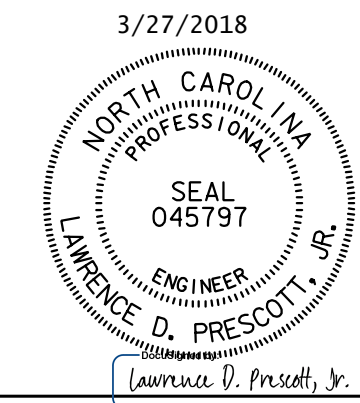
MARK	NO.	SIZE	TYPE	LENGTH	WEIGHT	MARK	NO.	SIZE	TYPE	LENGTH	WEIGHT
STAIR #1						STAIR #1 (CONTINUED)					
H1	45	3	STR	8'-1"	137	V11	4	5	3	4'-5"	18
H2	20	3	1	20'-11"	157	V12	4	5	3	3'-9"	16
H3	4	3	1	4'-6"	7	V13	4	3	STR	2'-7"	4
H4	4	3	1	10'-5"	16	V14	4	3	STR	2'-5"	4
H5	4	3	1	8'-7"	13	V15	4	3	STR	1'-10"	3
H6	4	3	1	7'-0"	11	V16	4	3	STR	1'-2"	2
H7	8	3	STR	14'-0"	42	V17	4	3	STR	0'-7"	1
H8	4	3	STR	13'-7"	20	V18			NOT USED		
H9	4	3	STR	12'-0"	18	V19			NOT USED		
H10	4	3	STR	10'-5"	16	V20	4	5	3	12'-1"	50
H11	4	3	STR	8'-10"	13	V21	4	5	3	11'-5"	48
H12	4	3	STR	4'-2"	6	V22	4	5	3	10'-9"	45
H13	4	3	STR	2'-7"	4	V23	4	5	3	10'-2"	42
						V24	4	5	3	9'-6"	40
T1	79	5	STR	8'-1"	666	V25	4	5	3	8'-11"	37
T2	11	4	1	22'-5"	165	V26	4	3	3	10'-10"	16
T3	11	4	2	6'-5"	47	V27	4	3	3	10'-2"	15
T4	11	4	STR	9'-2"	67	V28	4	3	3	9'-6"	14
T5	20	4	STR	6'-7"	88	V29	4	3	3	8'-11"	13
T6	20	4	2	6'-5"	86	V30	4	3	3	8'-3"	12
T7	20	4	STR	15'-9"	210	V31	4	3	3	7'-8"	12
						V32	12	5	3	8'-7"	107
V1	42	5	3	7'-10"	343	V33	12	3	3	7'-4"	33
V2	42	3	STR	4'-1"	64	V34	4	5	3	8'-3"	34
V3	4	5	3	7'-5"	31	V35	4	5	3	7'-9"	32
V4	4	3	STR	3'-8"	10	V36	4	5	3	7'-0"	29
V5	8	5	3	7'-0"	58	V37	4	5	3	6'-5"	27
V6	8	3	STR	6'-9"	36	V38	4	5	3	5'-9"	24
V7	4	5	3	6'-5"	27	V39	4	5	3	5'-2"	22
V8	4	5	3	6'-3"	26	V40	4	3	3	7'-0"	11
V9	4	5	3	5'-8"	24	V41	4	3	3	6'-6"	10
V10	4	5	3	5'-0"	21	V42	4	3	3	5'-9"	9
						V43	4	3	3	5'-2"	8
						V44	4	3	3	4'-6"	7
						V45	4	3	3	3'-11"	6
										TOTAL	3,180

QUANTITIES	
ITEM	TOTAL
REINFORCING STEEL	LBS. 3,180
CLASS AA CONCRETE	CU. YDS 32.2

NOTES:
 FOR STAIR LAYOUT DETAILS, SEE SHEET 1 OF 3.
 FOR REINFORCING ELEVATIONS AND SECTIONS, SEE SHEET 2 OF 3.

PROJECT NO. P-5705BB
MECKLENBURG COUNTY
 STATION: POT STA. 19+15.17 -S1-

SHEET 3 OF 3



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

STAIR DETAILS

HNTB HNTB NORTH CAROLINA, P.C. NC License No. C-1554 343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609	REVISIONS					SHEET NO. S10-4 TOTAL SHEETS 4	
	NO.	BY	DATE	NO.	BY		DATE
	1		10/17	3			
	2		10/17	4			
DRAWN BY: C. GERDING CHECKED BY: J. VECLITCH	DATE: 10/17 DATE: 10/17	DWG. NO. 4					