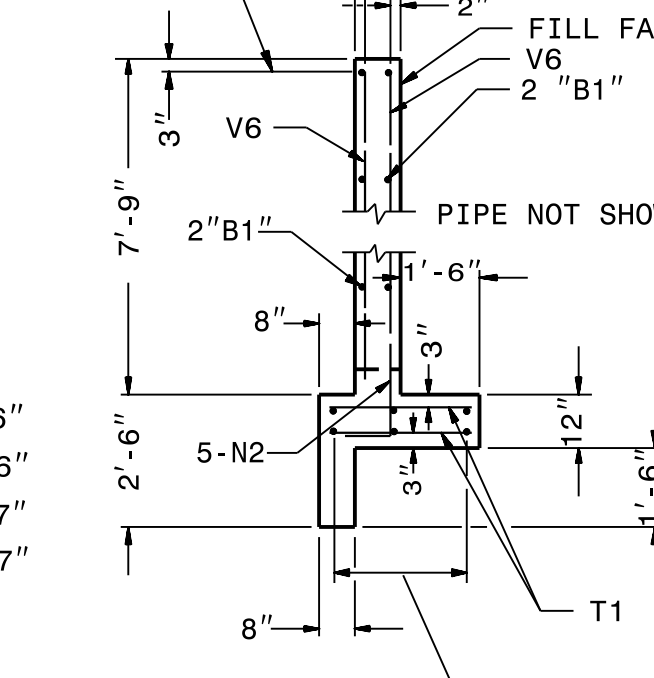
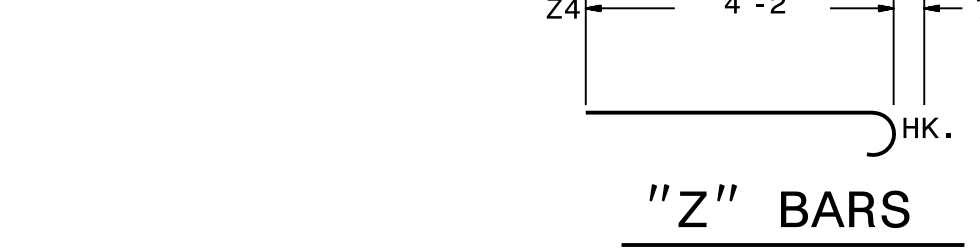
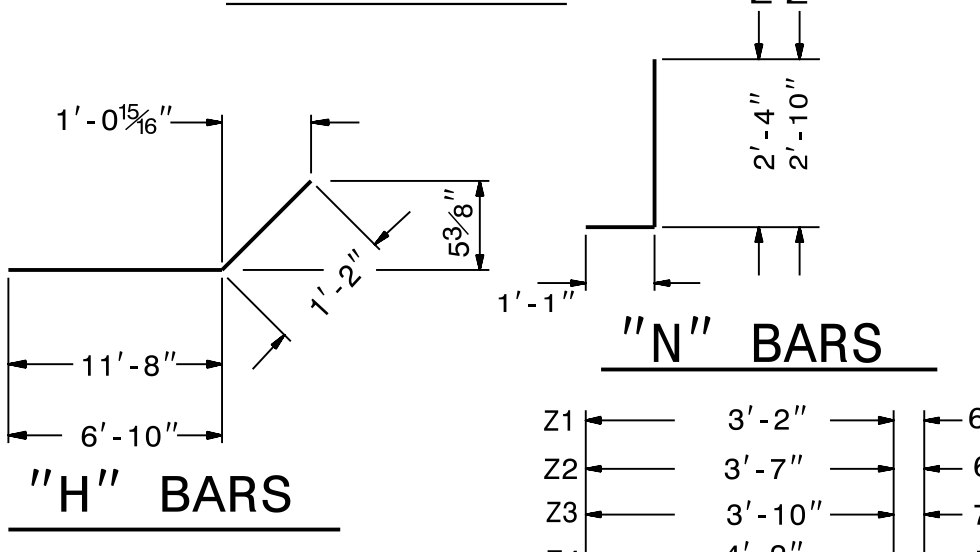
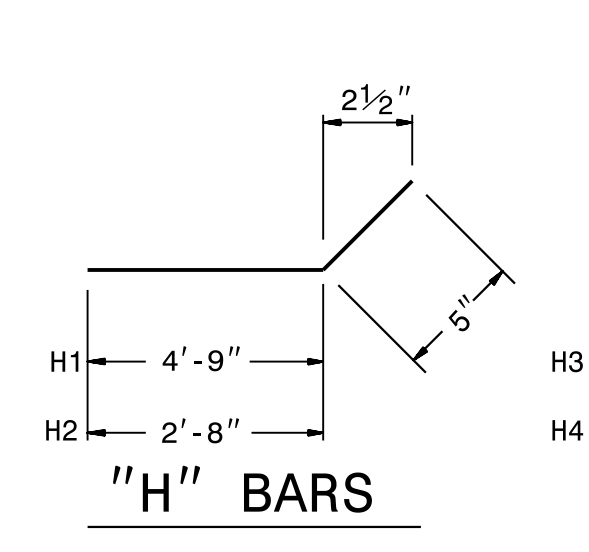
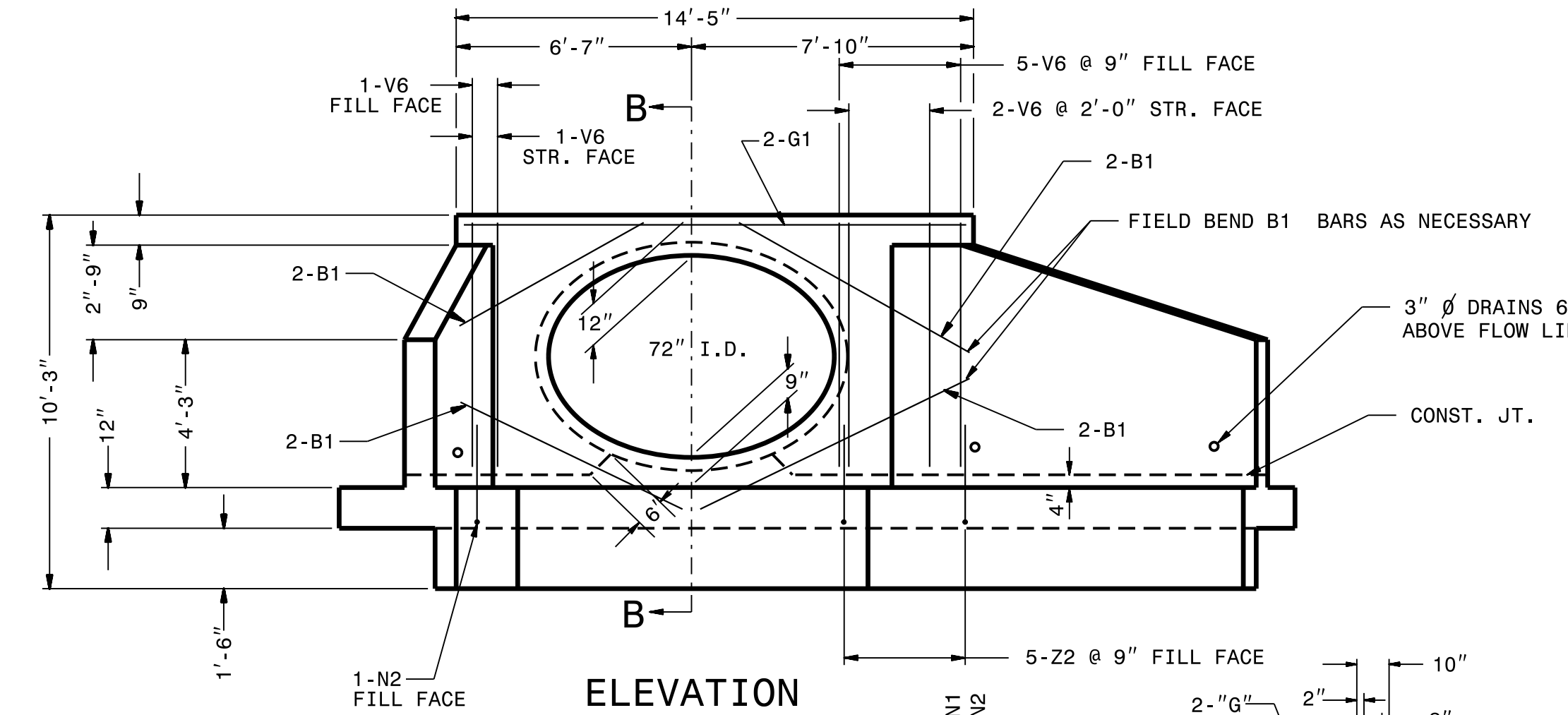
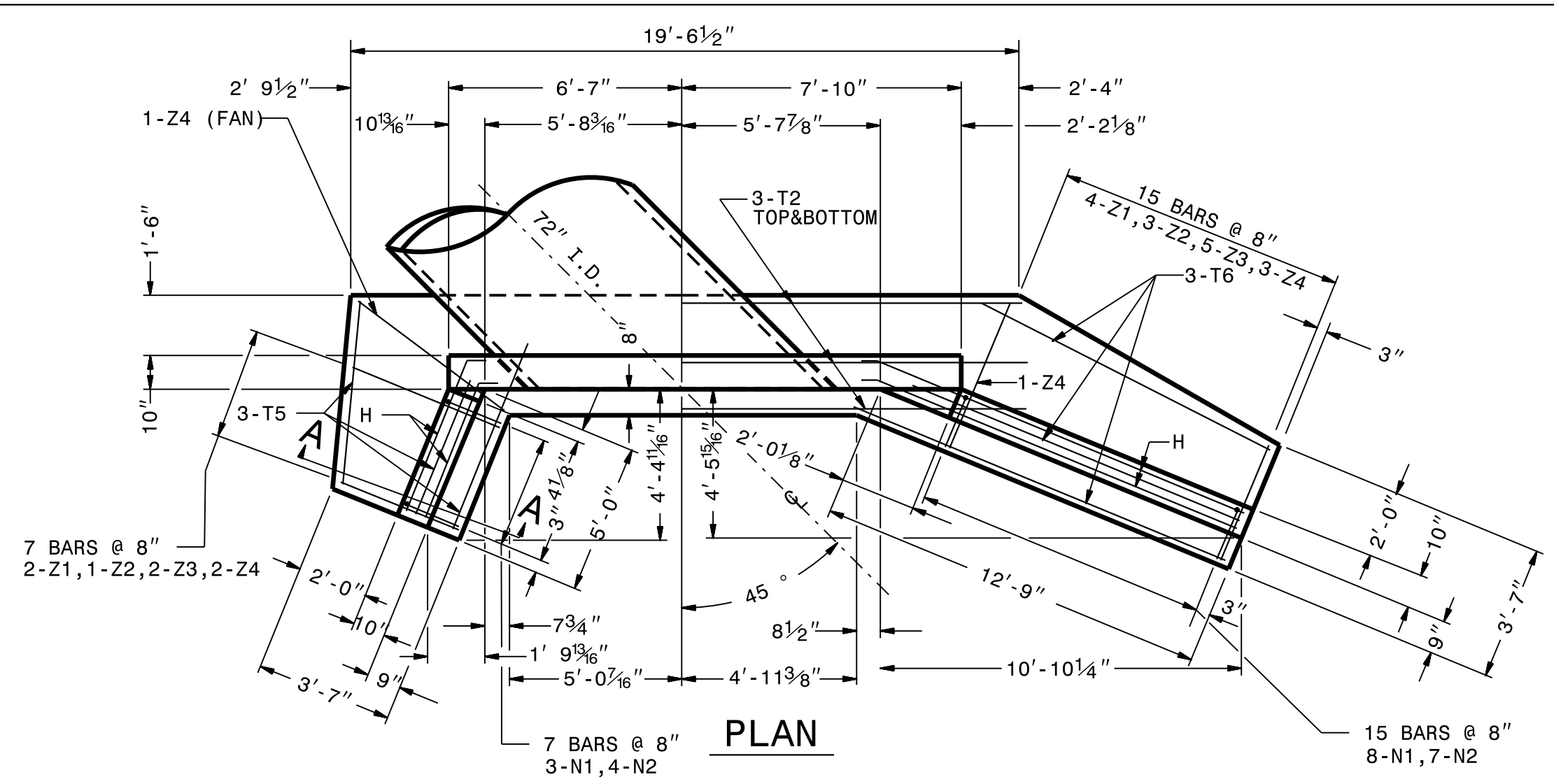


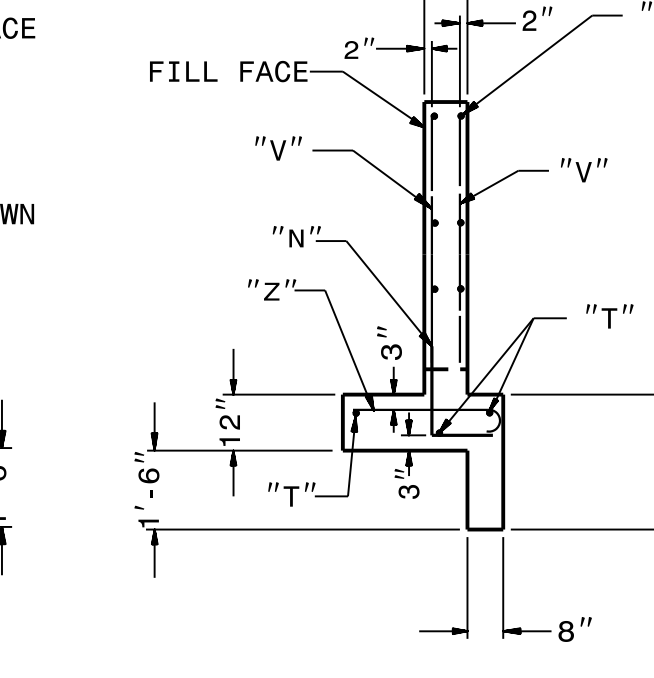
STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR SINGLE 72" PIPE 45° OR 135° SKEW

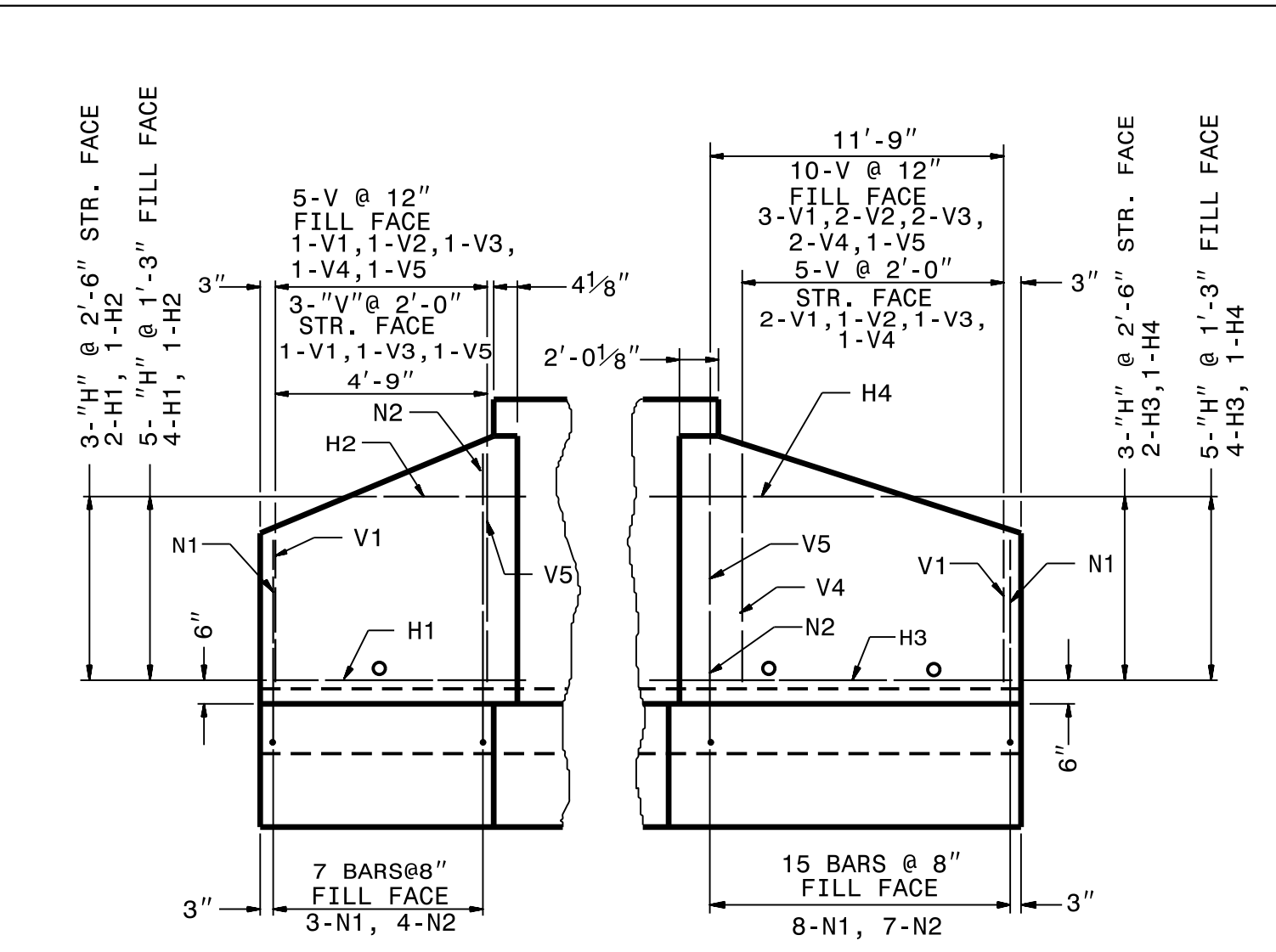
SHEET 1 OF 1  
**838D43**



SECTION - BB



SECTION - AA



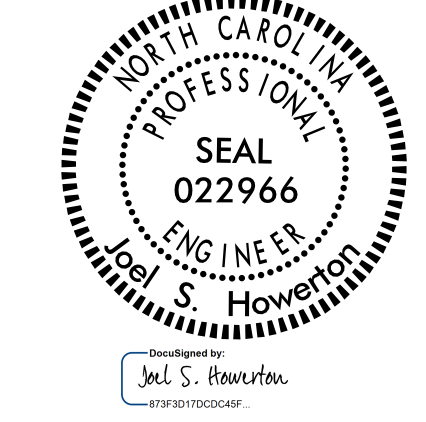
WING ELEVATION

**NOTES:**  
ALL CONCRETE TO BE CLASS "A".  
ALL REINFORCING STEEL TO BE ASTM A615-GRADE 60.  
ALL REINFORCING STEEL TO BE DEFORMED BARS. WHERE SPLICING OF REINFORCEMENT IS NECESSARY, BARS ARE TO BE LAPPED 45 DIAMETERS. ALL DIMENSIONS RELATIVE TO REINFORCEMENT ARE TO CENTERS OF BARS.  
THE FOOTING, CURTAIN WALL AND 4" OF WALL ARE TO BE POURED IN ONE OPERATION ALLOWING NO TIME FOR INITIAL SET TO TAKE PLACE BETWEEN THEM. THE REMAINING WALL SHALL THEN BE POURED IN ONE OPERATION.  
ALL EXPOSED CORNERS ARE TO BE CHAMFERED 1".  
3" DIAMETER DRAINS TO BE PLACED IN WALL AS SHOWN AND BE 6" ABOVE NORMAL FLOW LINE.  
ALL MATERIAL AND WORKMANSHIP AS PER N.C. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

BILL OF MATERIAL FOR ENDWALL				
REINFORCING STEEL			PIPES	
BAR	SIZE	LENGTH	NO.	WEIGHT
Z1	#4	3'-8"	6	15
Z2	#4	4'-1"	4	11
Z3	#5	4'-5"	7	32
Z4	#5	4'-9"	6	30
N1	#4	3'-5"	11	25
N2	#5	3'-11"	17	69
V1	#4	3'-10"	7	10
V2	#4	4'-6"	4	12
V3	#4	5'-1"	5	17
V4	#4	5'-8"	4	15
V5	#4	6'-3"	3	13
V6	#4	7'-3"	9	44
H1	#4	5'-3"	6	21
H2	#4	3'-2"	2	4
H3	#4	12'-10"	6	51
H4	#4	8'-0"	2	11
G1	#7	14'-1"	2	58
T1	#4	2'-6"	56	94
T2	#4	19'-2"	6	77
T5	#4	5'-3"	3	11
T6	#4	10'-0"	3	20
B1	#4	6'-6"	8	35
REINFORCING STEEL LBS.			683	
CONC./C.M. CU. YDS.			10.0	
CONC./R.C. CU. YDS.			9.4	

DRAWING NOT TO SCALE

12/15/2020 11:58:18 EST



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ENGLISH DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR SINGLE 72" PIPE 45° OR 135° SKEW

SHEET 1 OF 1  
**838D43**

CONTRACT STANDARDS & DEVELOPMENT UNIT  
STANDARDS AND SPECIAL DESIGN  
Office 919-707-6950 FAX 919-250-4119

**DETAIL OF REINFORCED CONCRETE ENDWALL FOR 72" DIAMETER PIPE - 45° SKEW**

ORIGINAL BY: R.S.WICKER DATE: 6-46  
MODIFIED BY: nbritt DATE: 05-28-10  
CHECKED BY: DATE:  
FILE SPEC.: details/nbritt/english/hydro/72endwall1,45sk.dgn

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED