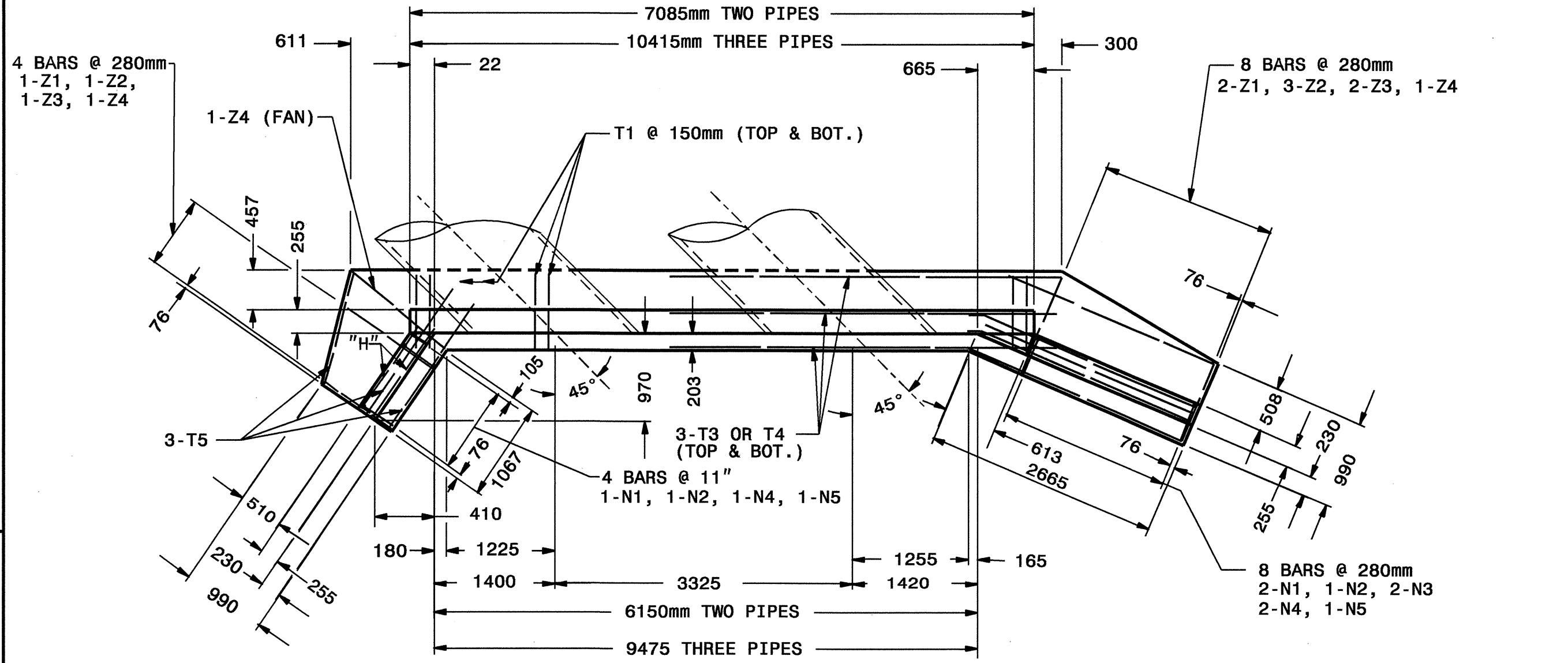




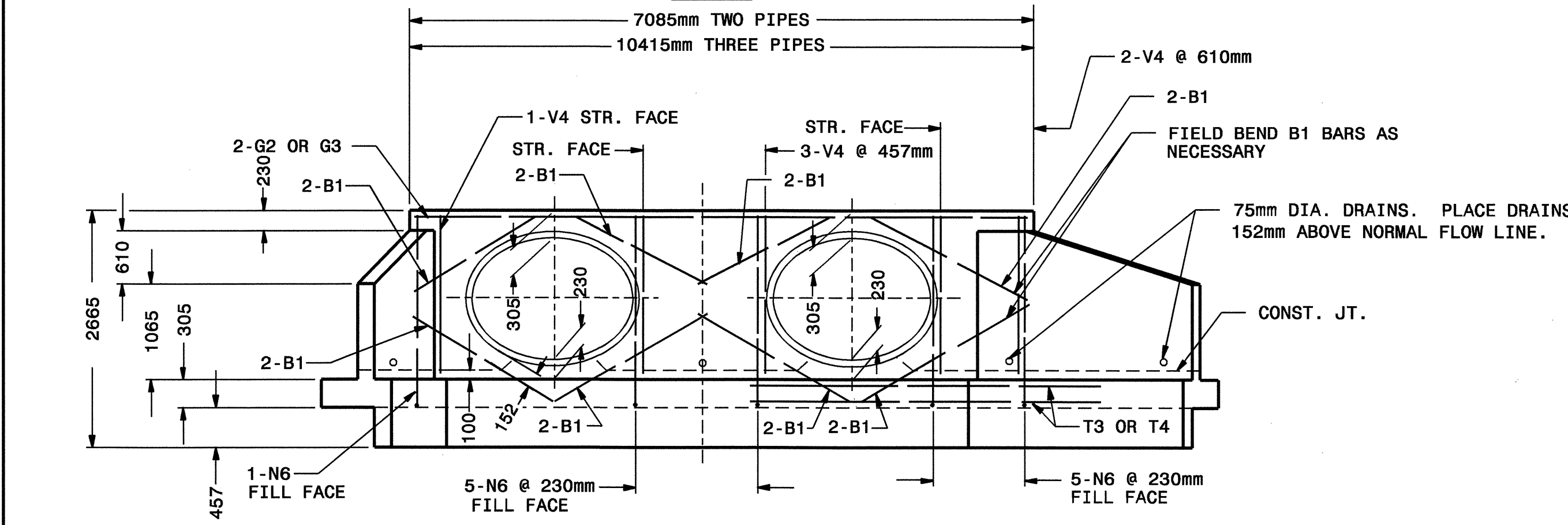
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

METRIC DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR DOUBLE & TRIPLE 1350mm PIPE  
45° OR 135° SKEW

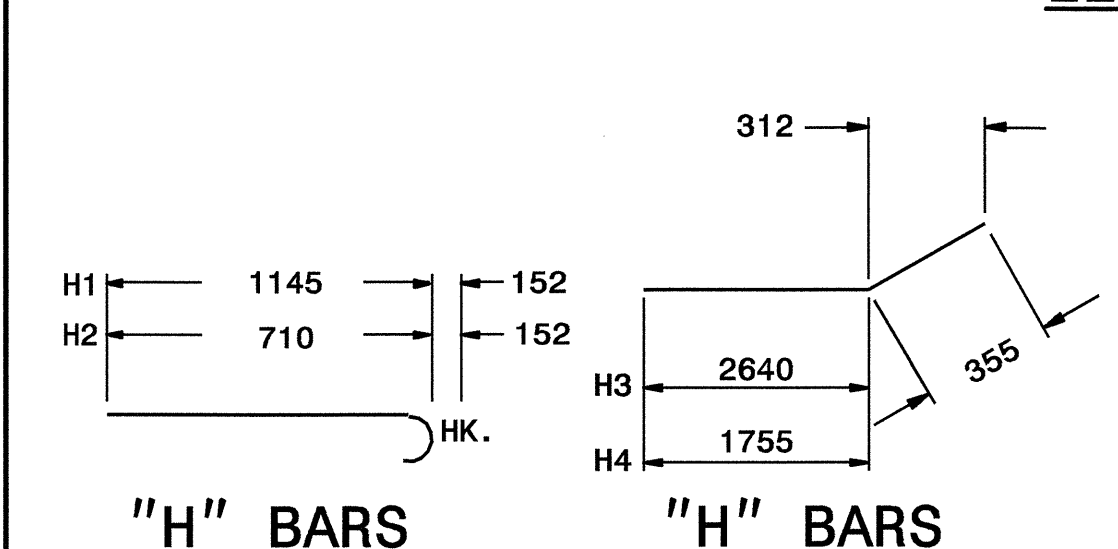
SHEET 1 OF 1  
**838D26**



**PLAN**

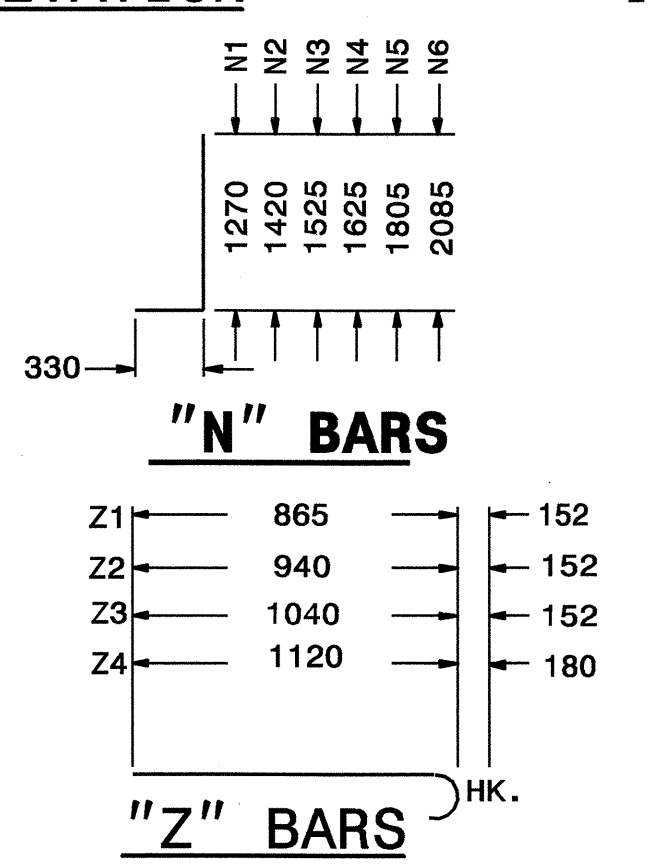


**ELEVATION**

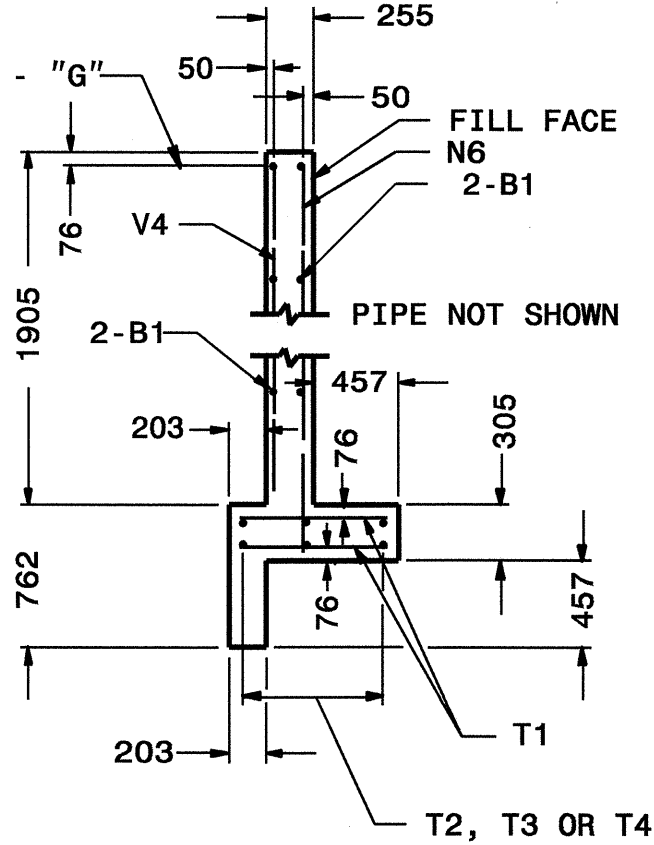


**"H" BARS**      **"H" BARS**  
"H", "N", & "Z" BAR DIMENSIONS ARE OUT TO OUT.

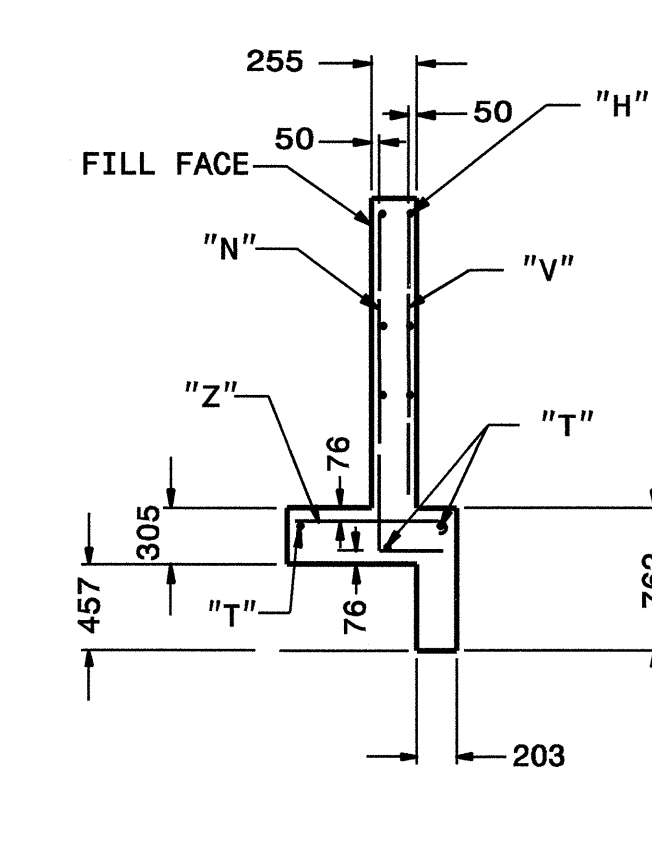
**Note:**  
This drawing is dimensioned in millimeters unless otherwise depicted within the drawing.



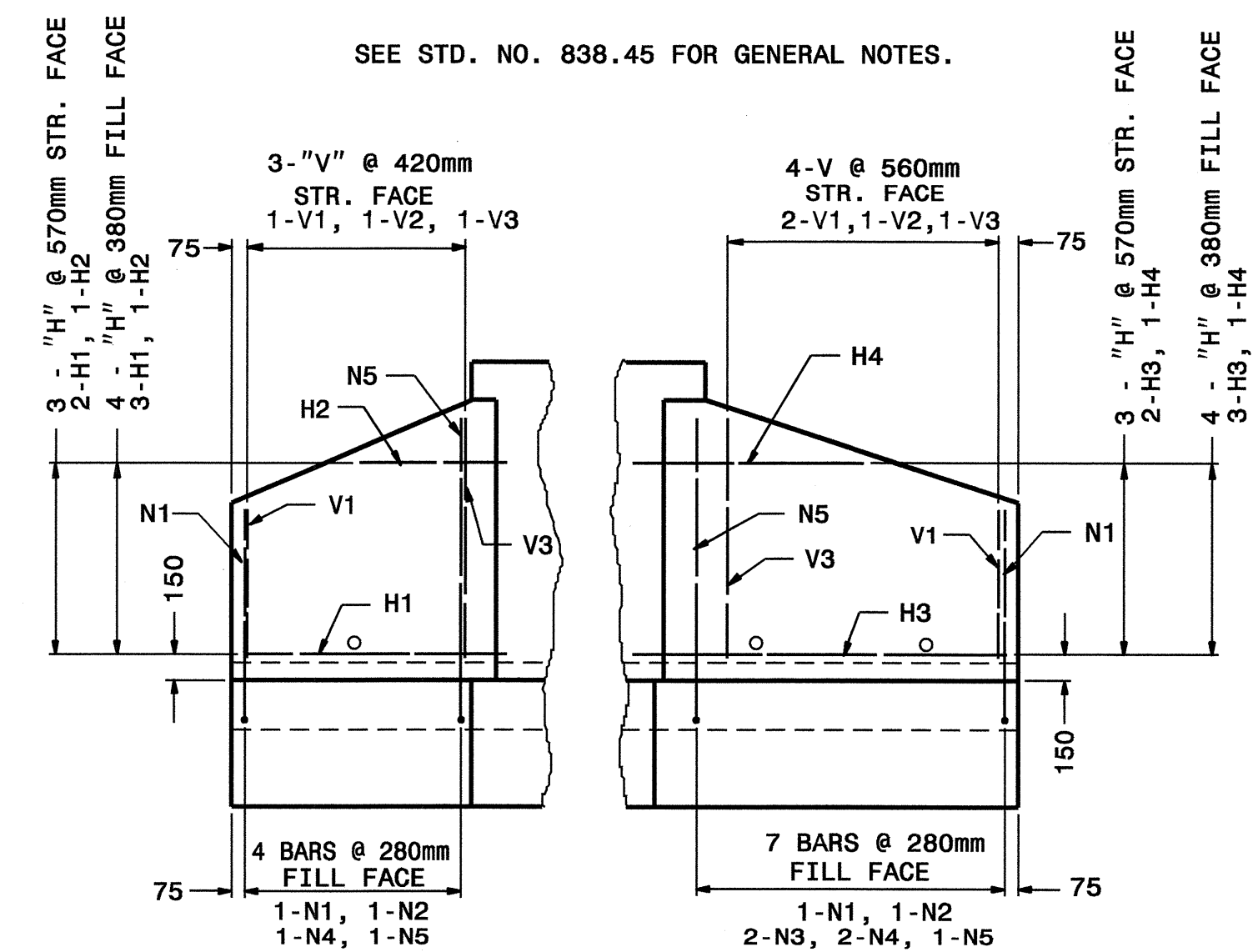
**"Z" BARS**



**SECTION - BB**



**SECTION - AA**



**WING ELEVATION**

SEE STD. NO. 838.45 FOR GENERAL NOTES.

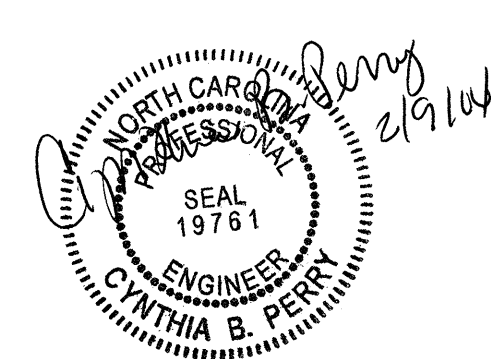
BILL OF MATERIAL FOR ENDWALLS						
REINF. STEEL		2 - PIPES		3 - PIPES		
BAR	SIZE	LENGTH	NO.	WEIGHT	NO.	WEIGHT
Z1	#13	1015	3	3	3	3
Z2	#13	1090	4	4	4	4
Z3	#13	1195	3	4	3	4
Z4	#16	1295	3	4	3	4
N1	#13	1600	3	5	3	5
N2	#13	1755	2	3	2	3
N3	#13	1855	2	4	2	4
N4	#13	1955	3	6	3	6
N5	#16	2135	2	4	2	4
N6	#13	2415	11	26	16	38
V1	#13	940	3	3	3	3
V2	#13	1195	2	2	2	2
V3	#13	1420	2	3	2	3
V4	#13	1755	6	10	9	16
H1	#13	1295	5	6	5	6
H2	#13	865	2	2	2	2
H3	#13	2995	5	15	5	15
H4	#13	2110	2	4	2	4
G2	#22	6985	2	43	-	-
G3	#22	5510	-	-	4	67
T1	#13	760	92	70	-	-
T3	#13	7950	6	47	12	95
T4	#13	5840	-	-	12	70
T5	#13	1295	3	4	3	4
T6	#13	2440	3	7	3	7
B1	#13	1755	16	28	24	42
REINF. STEEL LBS.				307	411	
CONC/C.M. m <sup>3</sup>				7.6	9.9	
CONC/R.C. m <sup>3</sup>				7.1	9.2	

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

METRIC DETAIL DRAWING FOR  
**REINFORCED CONCRETE ENDWALL**  
FOR DOUBLE & TRIPLE 1350mm PIPE  
45° OR 135° SKEW

SHEET 1 OF 1  
**838D26**

16-SEP-2003 10:31 W:\Special\_Details\erj\ward\usr\ds\metric\stand\838d26.dgn erjward A1\_DS212260



DESIGN SERVICES UNIT  
STANDARDS AND SPECIAL DESIGN  
Office 919-250-4128 FAX 919-250-4119

**SEE PLATE FOR TITLE**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
MODIFIED BY: E.E. WARD DATE: 9-16-03  
CHECKED BY: \_\_\_\_\_ DATE: 9-03  
FILE SPEC.: usr\ds9\metric\stand\838d26.dgn