

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

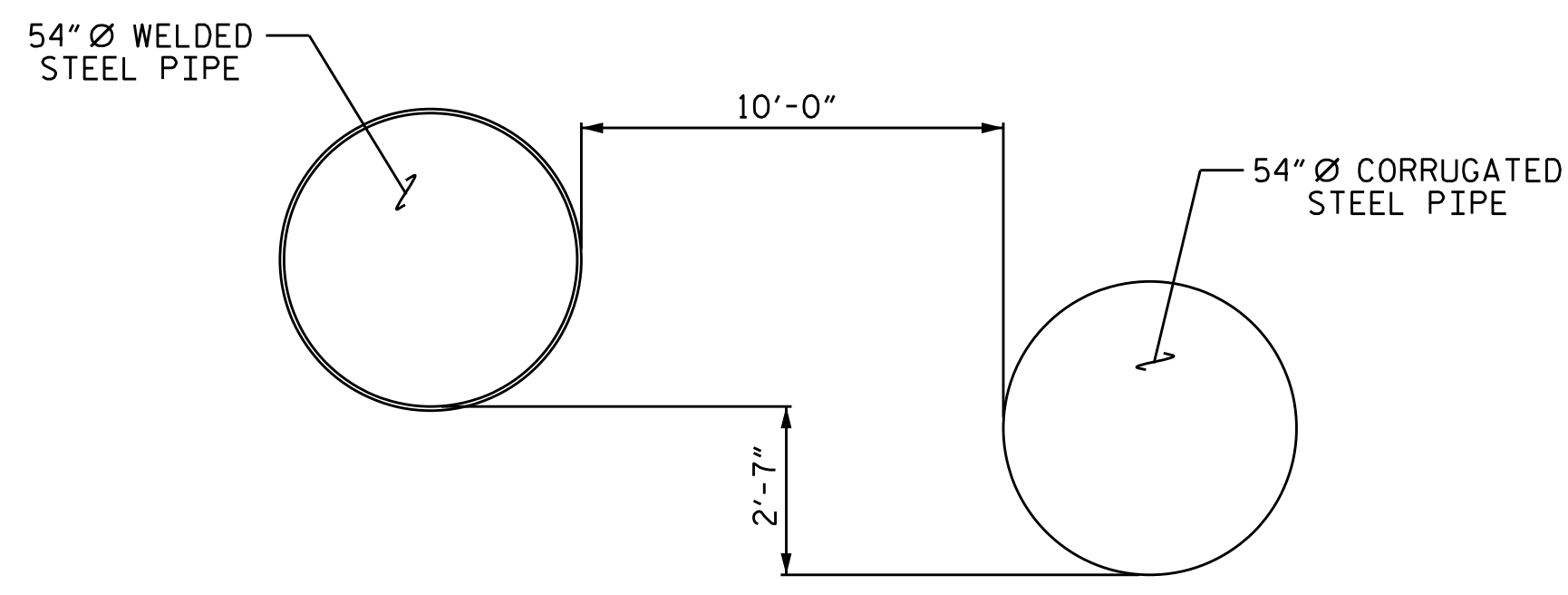
TGS ENGINEERS
706 HILLSBOROUGH STREET
SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

BILL OF MATERIAL FOR ONE HEADWALL

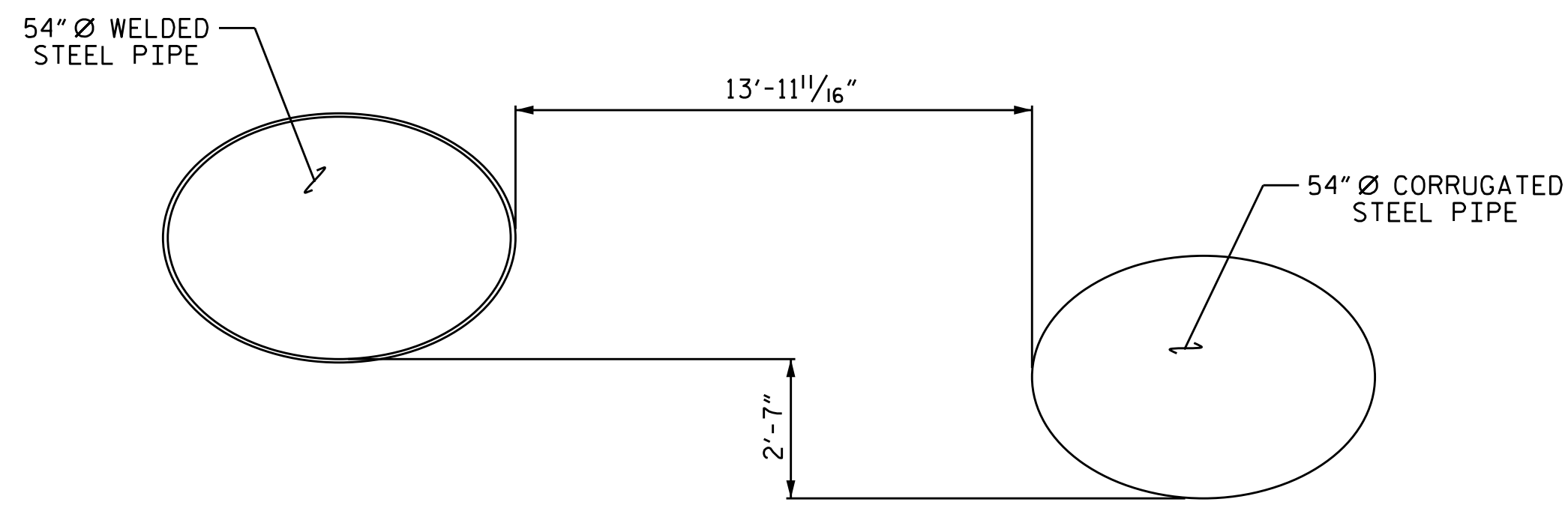
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
B1	16	#4	STR	6'-4"	68
G1	2	#7	STR	33'-0"	135
H1	14	#4	1	5'-6"	51
H2	4	#4	1	3'-6"	9
N1	24	#4	2	10'-1"	162
N2	4	#4	2	8'-8"	23
N3	4	#4	2	7'-4"	20
N4	4	#4	2	6'-1"	16
T1	6	#4	STR	36'-10"	148
T2	6	#4	STR	5'-0"	20
T3	132	#4	STR	2'-6"	220
V1	12	#4	STR	8'-0"	64
V2	2	#4	STR	6'-11"	9
V3	2	#4	STR	5'-6"	7
V4	2	#4	STR	4'-1"	5
Z1	6	#4	3	3'-11"	16
Z2	4	#4	3	3'-6"	9
Z3	4	#4	3	3'-1"	8

REINFORCING STEEL FOR ONE HEADWALL 990 LBS

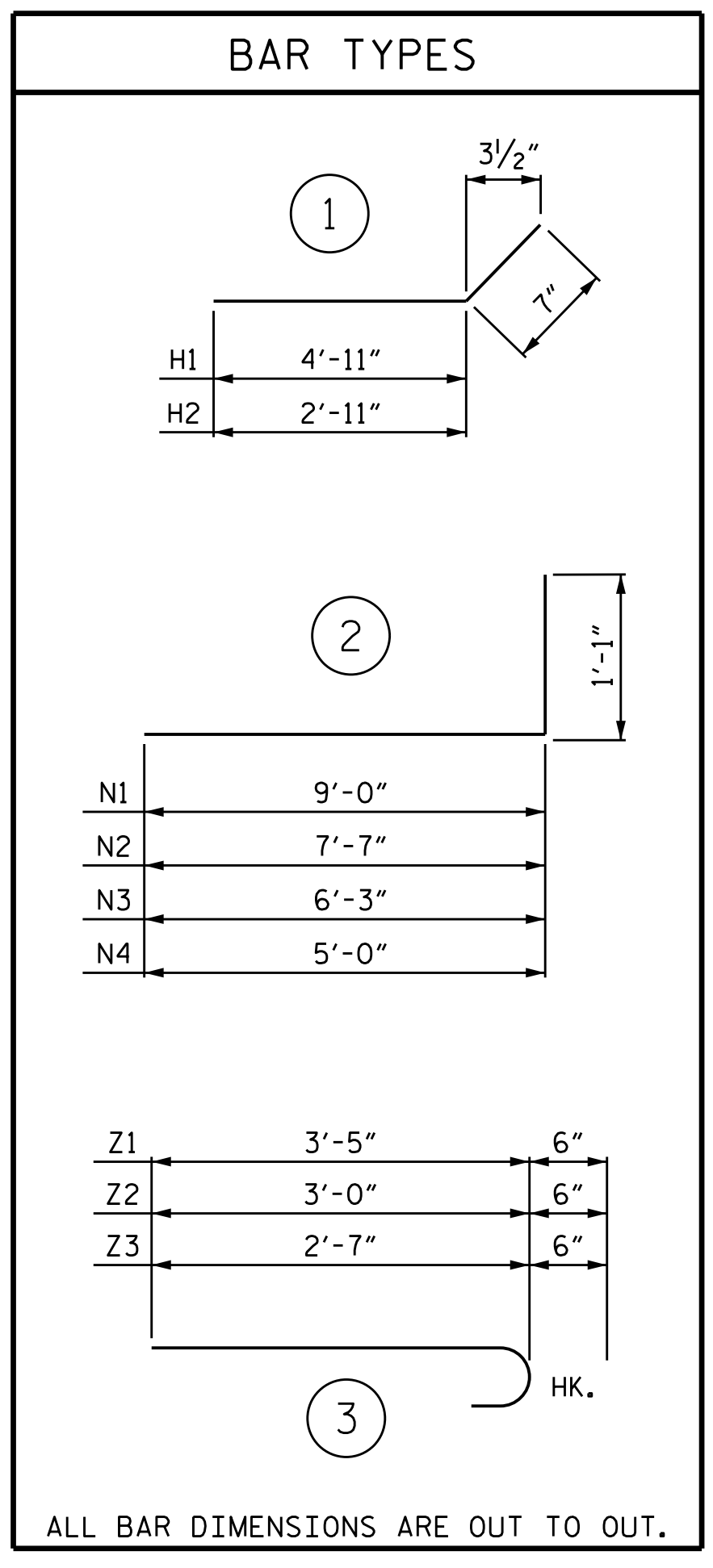
CLASS A CONCRETE FOR ONE HEADWALL 18.2 CY



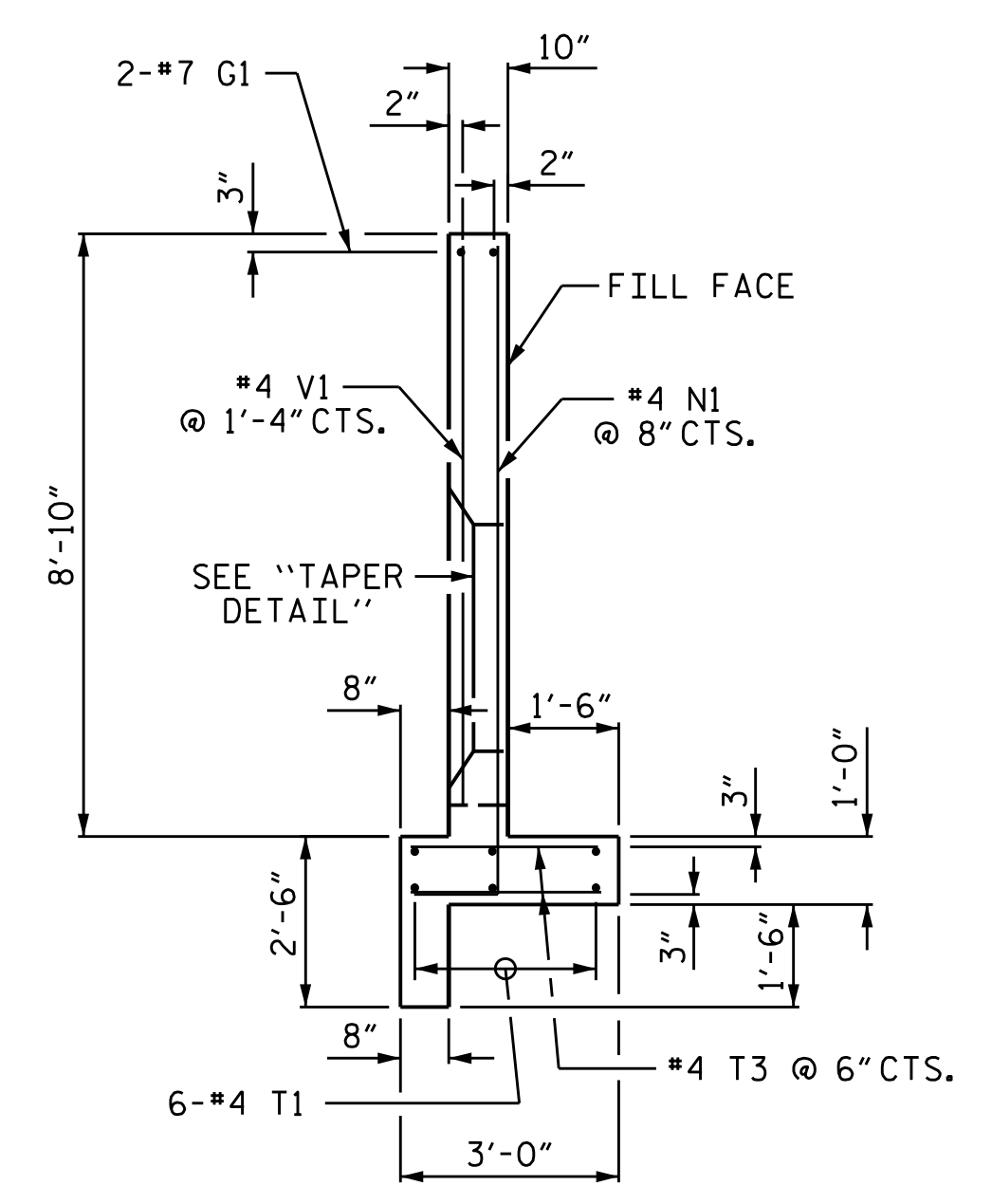
LOOKING DOWNSTREAM
NORMAL TO PIPES



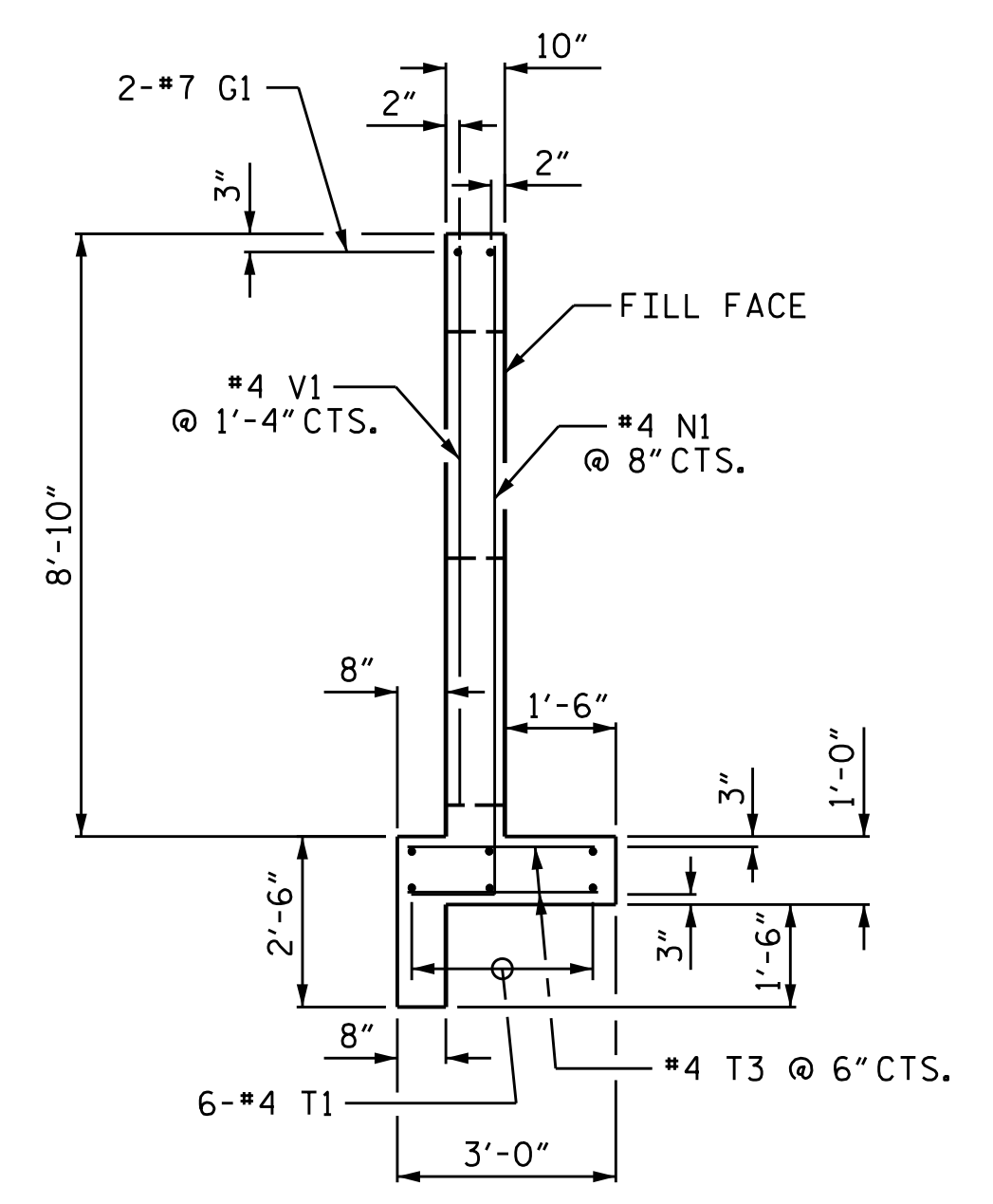
LOOKING DOWNSTREAM
NORMAL TO HEADWALL



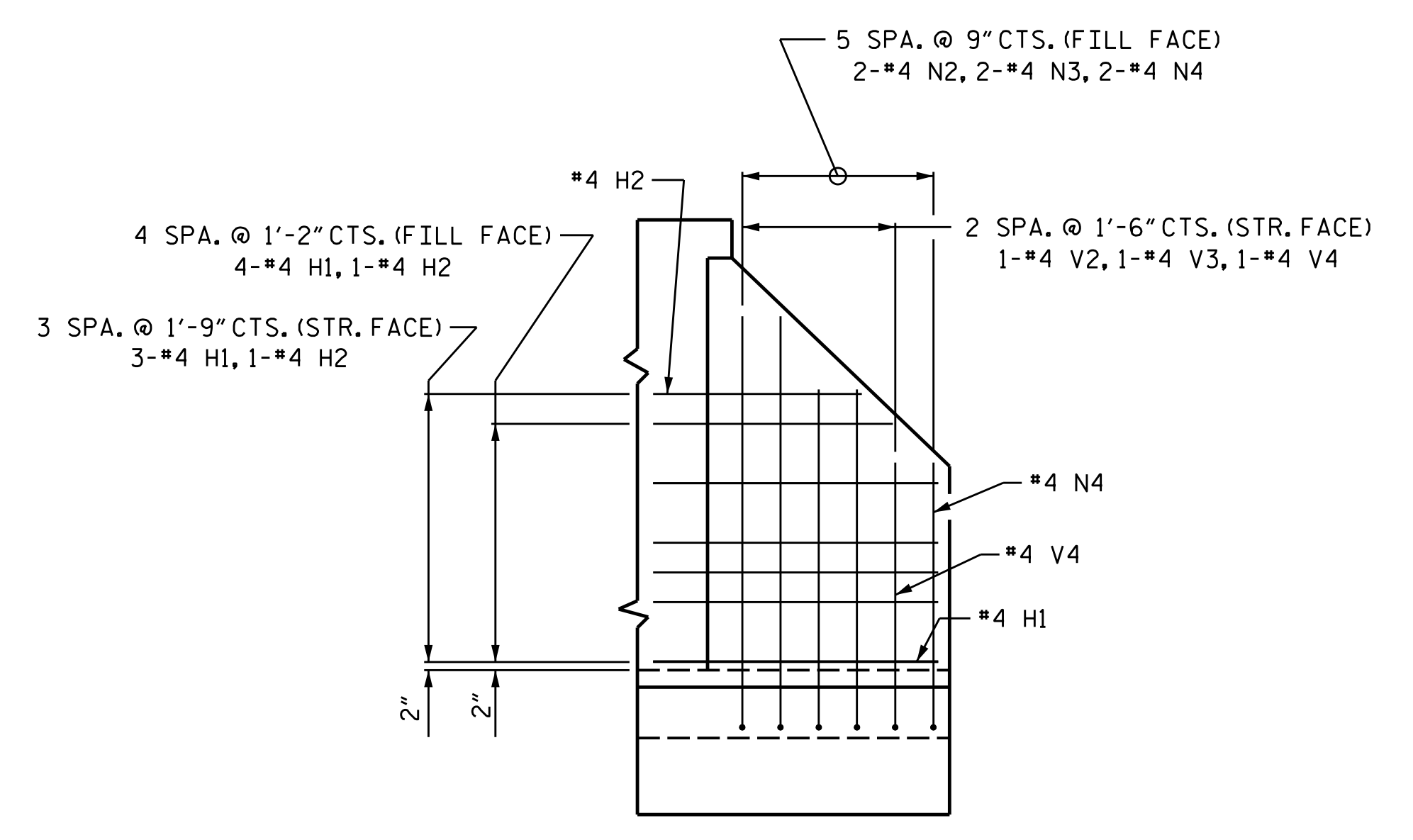
ALL BAR DIMENSIONS ARE OUT TO OUT.



SECTION B-B
FOR 54" Ø CSP



SECTION C-C
FOR 54" Ø WSP



WING ELEVATION

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

CONCRETE HEADWALL