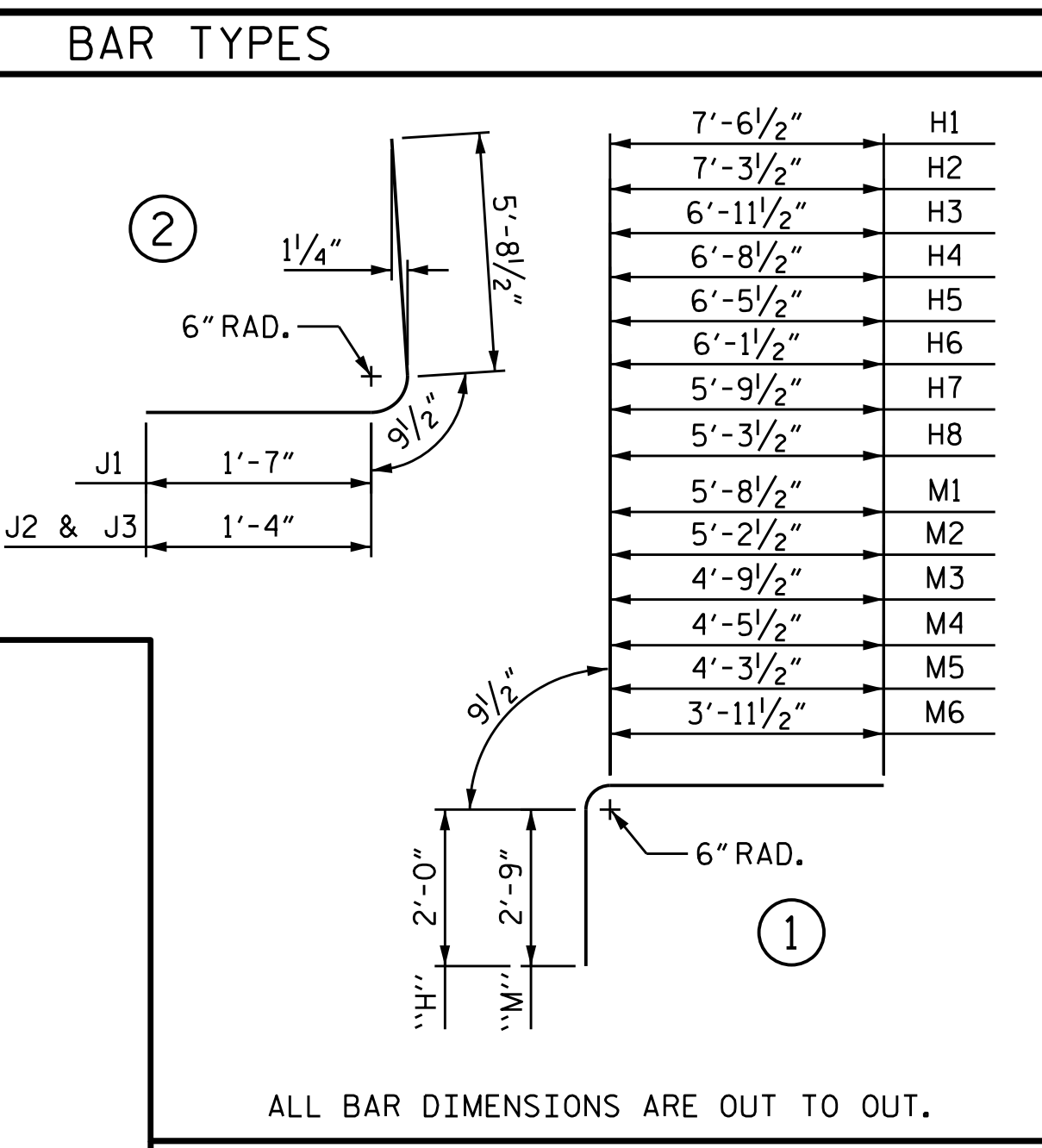
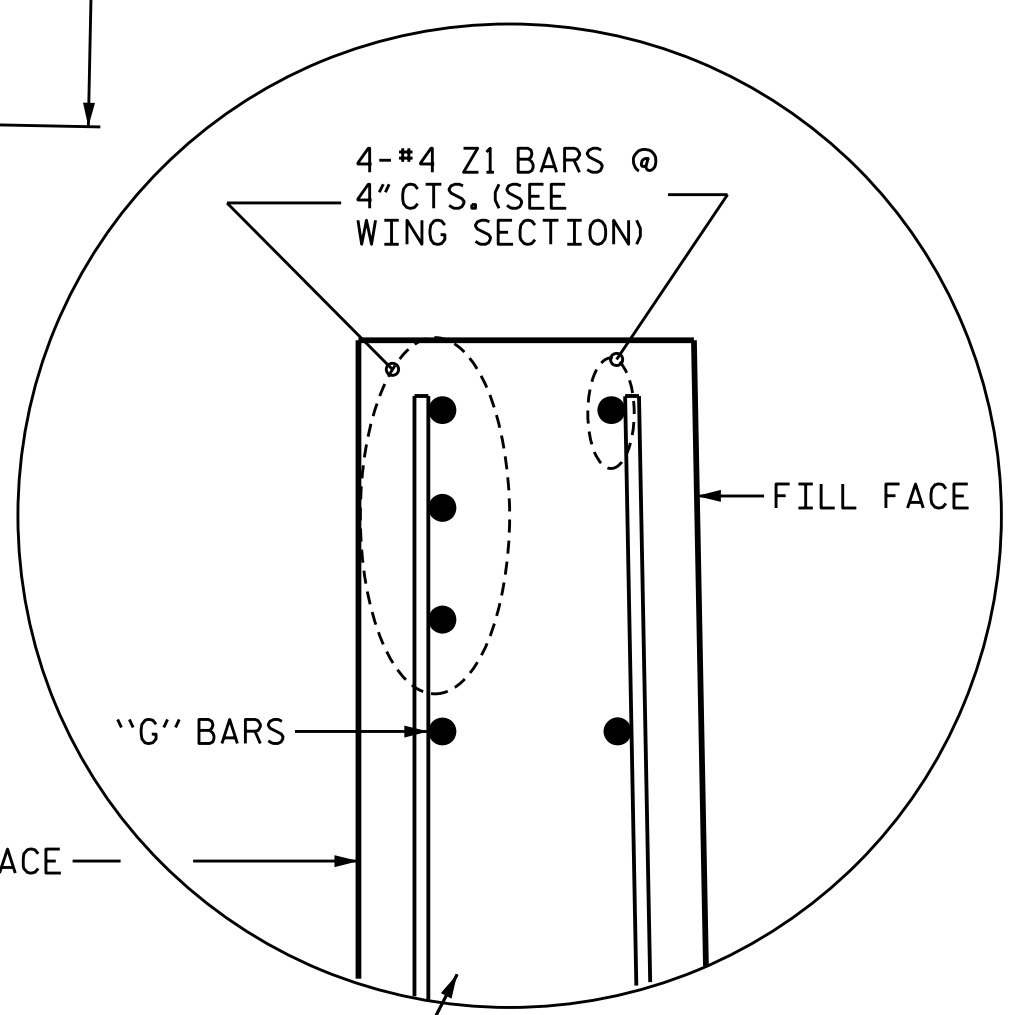


**PLAN**  
W3 OR W4

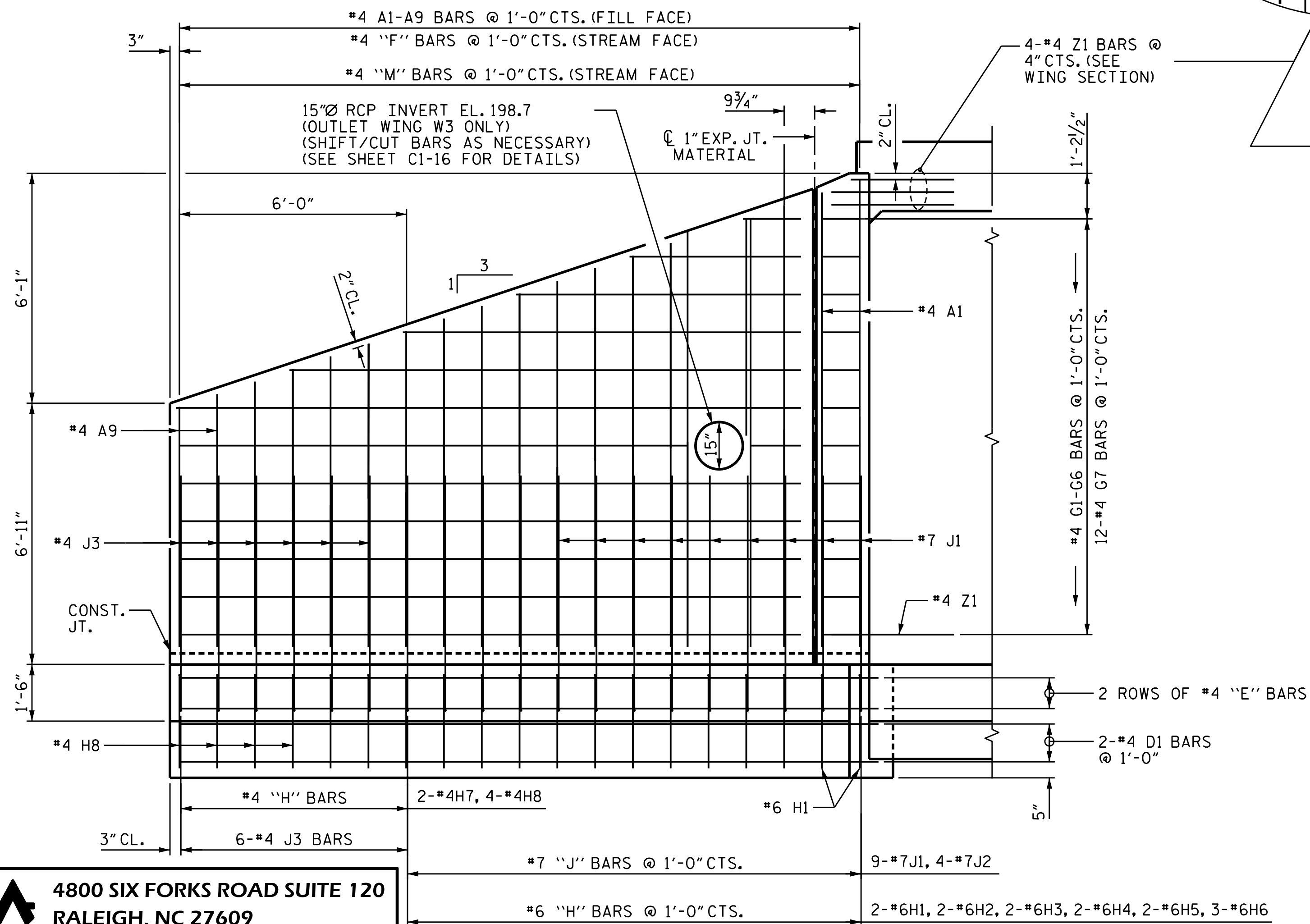


ALL BAR DIMENSIONS ARE OUT TO OUT.

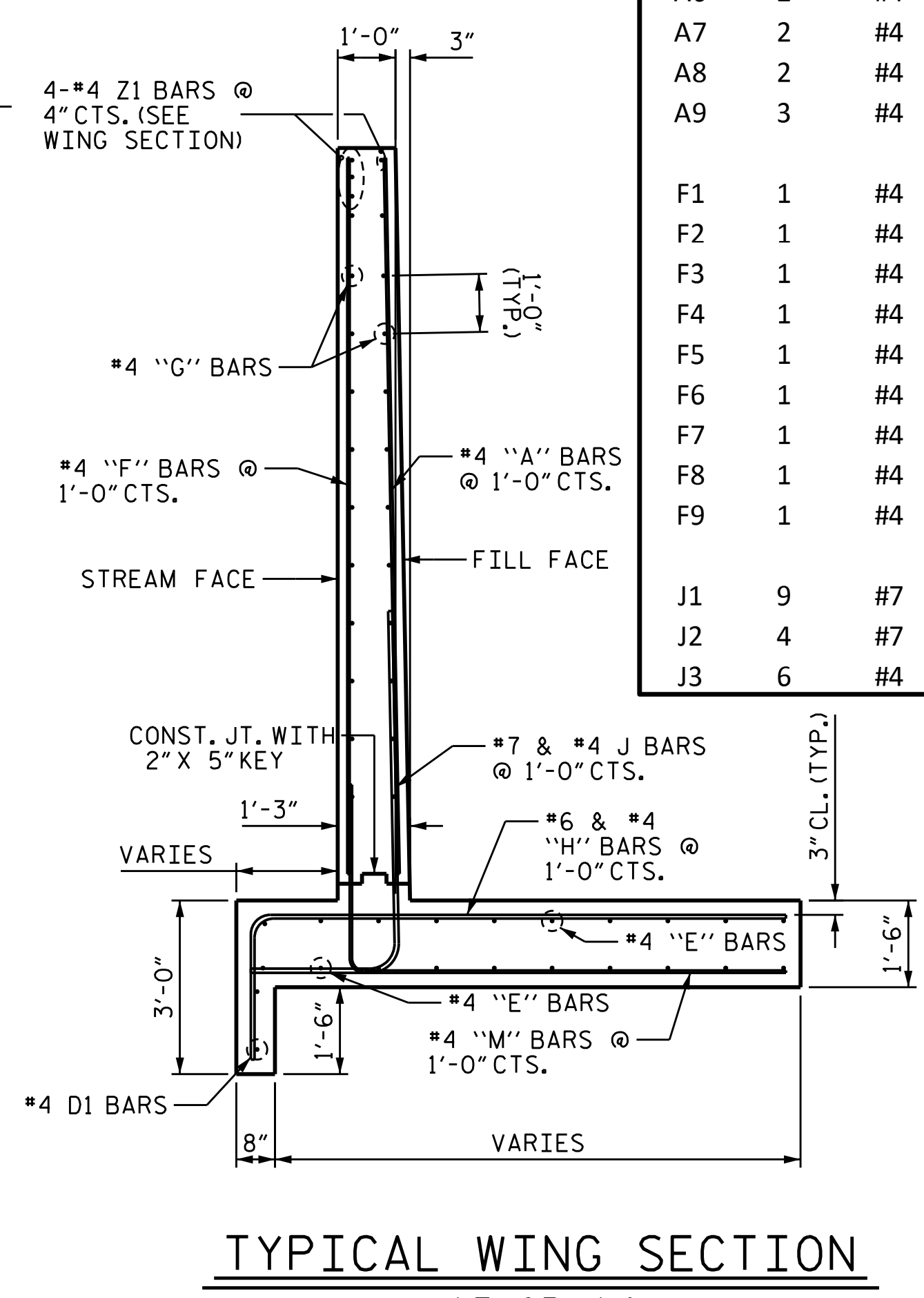
BILL OF MATERIALS					
FOR ONE WING (W3 OR W4)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
A1	2	#4	STR	12'-0"	17
A2	2	#4	STR	11'-4"	16
A3	2	#4	STR	10'-8"	15
A4	2	#4	STR	10'-0"	14
A5	2	#4	STR	9'-4"	13
A6	2	#4	STR	8'-8"	12
A7	2	#4	STR	8'-0"	11
A8	2	#4	STR	7'-4"	10
A9	3	#4	STR	6'-4"	13
F1	1	#4	STR	12'-0"	9
F2	1	#4	STR	11'-4"	8
F3	1	#4	STR	10'-8"	8
F4	1	#4	STR	10'-0"	7
F5	1	#4	STR	9'-4"	7
F6	1	#4	STR	8'-8"	6
F7	1	#4	STR	8'-0"	6
F8	1	#4	STR	7'-4"	5
F9	1	#4	STR	6'-4"	5
J1	9	#7	2	8'-1"	149
J2	4	#7	2	7'-10"	65
J3	6	#4	2	7'-10"	32
S1	3	#6	STR	6'-0"	28
Z1	5	#4	3	3'-3"	11
P1	16	#5	STR	3'-8"	62

BILL OF MATERIALS (CONT.)					
FOR ONE WING (W3 OR W4)					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
M1	3	#4		9'-3"	19
M2	4	#4		8'-9"	24
M3	4	#4		8'-4"	23
M4	3	#4		8'-0"	17
M5	2	#4		7'-10"	11
M6	3	#4		7'-6"	16
H1	2	#6		10'-4"	32
H2	2	#6		10'-1"	31
H3	2	#6		9'-9"	30
H4	2	#6		9'-6"	29
H5	2	#6		9'-3"	28
H6	3	#6		8'-11"	41
H7	2	#4		8'-7"	12
H8	4	#4		8'-1"	22
D1	2	#4	STR	16'-8"	23
E1	7	#4	STR	18'-6"	87
E2	1	#4	STR	10'-1"	7
E3	1	#4	STR	1'-11"	2
G1	1	#4	STR	1'-6"	2
G2	1	#4	STR	4'-6"	4
G3	1	#4	STR	7'-6"	6
G4	1	#4	STR	10'-6"	8
G5	1	#4	STR	13'-6"	10
G6	7	#4	STR	16'-6"	78
G7	12	#4	STR	0'-11"	8
S1	3	#6	STR	6'-0"	28
Z1	5	#4	3	3'-3"	11
P1	16	#5	STR	3'-8"	62

REINFORCING STEEL		
WING W3		1,099 LBS
WING W4		1,037 LBS
FOR BOTH WINGS (W3 & W4)		2,136 LBS
CLASS A CONCRETE		
FOR ONE WING (W3 OR W4)		16.1 CY



**ELEVATION**  
W3 OR W4



**TYPICAL WING SECTION**  
W3 OR W4

NOTE: THE 15" PIPE THROUGH THE SIDEWALL OF THE CULVERT SHALL BE LOCATED BY THE ENGINEER. THE REINFORCING STEEL SHALL BE FIELD BENT AS NECESSARY TO CLEAR THE PIPE, SEE SHEET C1-16 FOR DETAILS.

**KCA** 4800 SIX FORKS ROAD SUITE 120  
KISINGER CAMPO & ASSOCIATES RALEIGH, NC 27609  
(919) 882-7839

DRAWN BY : DIEGO A. AGUIRRE DATE : 5-18-18  
CHECKED BY : JACOB H. DUKE DATE : 5-22-18  
DESIGN ENGINEER OF RECORD : JACOB H. DUKE DATE : 5-25-18

Professional Engineer Seal for Jacob H. Duke, State of North Carolina, License No. 043777, dated 6/13/2018.

PROJECT NO. U-4405  
CUMBERLAND COUNTY  
STATION: 137+99.59 -L-

SHEET 13 OF 18

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

CULVERT EXTENSION  
QUADRUPLE 10 FT. X 12 FT.  
CONCRETE BOX CULVERT  
WING W3 & W4

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C1-13
1			3			304 SHEETS
2			4			18

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED