

SIGN BRACKETS	
SIGN HT. (IN.)	MAX. LIN. FT. OF SIGN WIDTH PER BRACKET
	1 CLAMP TYPE
42	16
48	13
60	8
72	5
84	3

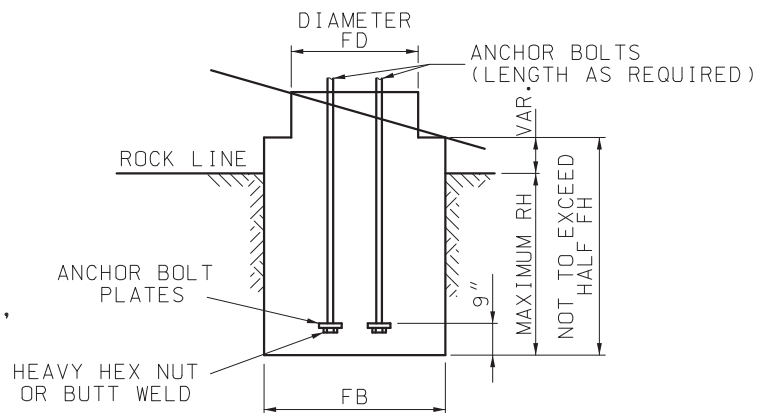
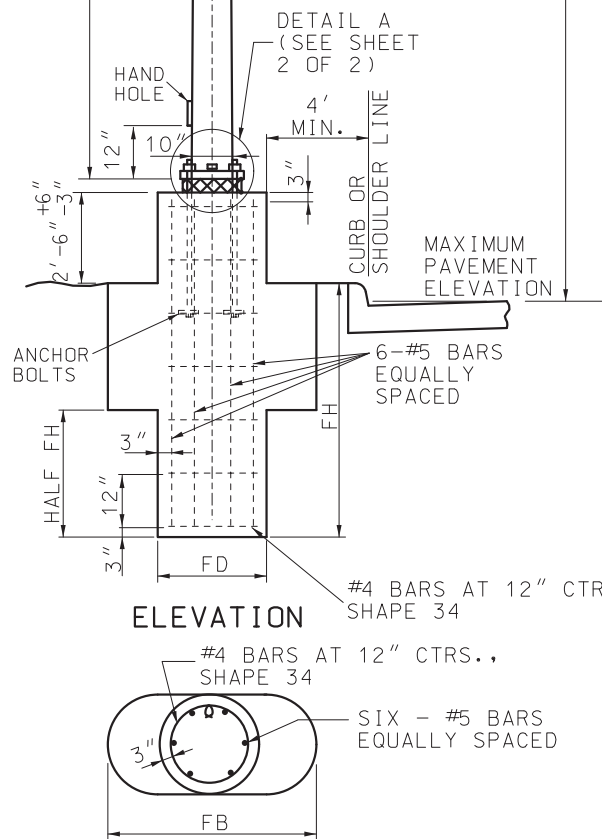
ARM = 35 000 PSI

TYPE NUMBER	ARM DIMENSIONS		POST		MAX SIGN AREA SQ. FT.	MAX. B WITH MAX. SIGN AREA
	LENGTH	DIA. / THK	GA	DIA.		
C-1710-12	12'	6" STD				
C-1710-18	18'	0.280" THK	7	10"	41	8'-0"
C-1310-12	12'	6" EX HVY				
C-1310-18	18'	0.432" THK	3	10"	59	8'-9"

* FOR SIGNS WITH SIGN AREAS LESS THAN THE MAXIMUM LISTED IN THE TABLE ABOVE, B CAN BE RECALCULATED USING THE FOLLOWING EQUATION:

$$\left(\frac{\text{MAX. B FOR TRUE SIGN AREA}}{\text{TRUE SIGN AREA}} \right) \leq \left(\frac{\text{MAX SIGN AREA} \times \left(\frac{\text{MAX. B WITH MAX. SIGN AREA}}{\text{TRUE SIGN AREA}} \right)}{\text{TRUE SIGN AREA}} \right)$$

** THE CALCULATED VALUE OF B CANNOT RESULT IN A DISTANCE GREATER THAN 1/4 OF THE SIGN WIDTH



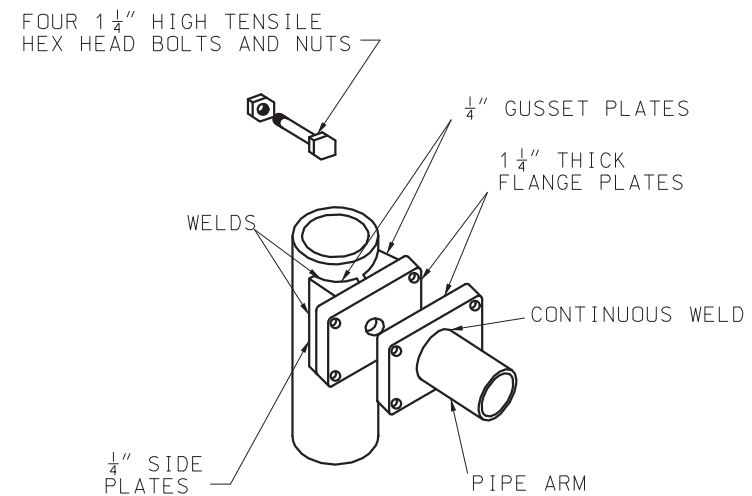
NOTE: REINFORCEMENT PLACED SAME AS STANDARD FOOTING. CONCRETE TO BE POURED TO EXCAVATED FACE OF ROCK.

MODIFIED FOOTING IN SOLID ROCK

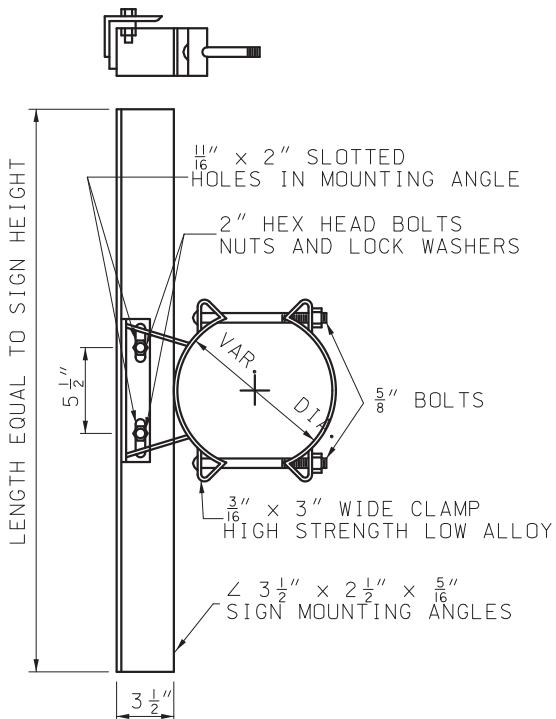
TYPE NUMBER	DIAMETER	ESTIMATED QUANTITIES				REINFORCING STEEL			
		CU YD CLASS B CONCRETE FOOTING							
		FD SECTION		FB SECTION		#5	#4 (1)	TOTAL	
		1' DEPTH	1" DEPTH	1' DEPTH	1" DEPTH	NO. FT-IN	NO. FT-IN	LBS	
C-1710	2'	4'	0.11635	0.0097	0.2645	0.0220	6 7'-6"	9 5'-7"	81
C-1310	2'	4'	0.11635	0.0097	0.2645	0.0220	6 7'-6"	9 5'-7"	81

(1) ESTIMATED QUANTITY FOR REINFORCING STEEL IS BASED ON A 2:1 (H:V) SLOPE.

TYPE NUMBER	ANCHOR BOLT DIA.	ANCHOR BOLT PLATE	MODIFIED FOOTING IN SOLID ROCK			CLASS B CONCRETE FOOTING FB SECTION CU. YD.	
			FOOTING			1' DEPTH	1" DEPTH
			RH	FD	FB		
C-1710 & C-1310	1 1/2"	3 1/2" x 3 1/2" x 3/4"	2'-6"	2'-0"	3'-0"	0.1904	0.0159
C-2315	2"	3 1/2" x 3 1/2" x 3/4"	3'-0"	3'-0"	3'-6"	0.3173	0.0264
C-2318	2"	3 1/2" x 3 1/2" x 3/4"	3'-6"	3'-6"	3'-6"	0.3563	0.0297
C-2018	2 1/4"	4 1/2" x 4 1/2" x 3/4"	3'-6"	3'-6"	3'-6"	0.3563	0.0297



FOR POLE DIAMETER UNDER 12" ARM ATTACHMENT



GENERAL NOTE:
 ALL SIGNS SHALL BE CENTERED VERTICALLY ABOUT THE HORIZONTAL CL OF THE ARM.
 ALL ANCHOR BOLTS SHALL BE FULLY GALVANIZED HIGH STRENGTH ANCHOR BOLTS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
 NICOLE A. KOLB HOOD
 NUMBER PE-2001018754
 PROFESSIONAL ENGINEER

HIGHWAY SIGNING TUBULAR SUPPORT STEEL TYPE C

DATE EFFECTIVE: 10/01/2022
 DATE PREPARED: 10/6/2022

903.07L

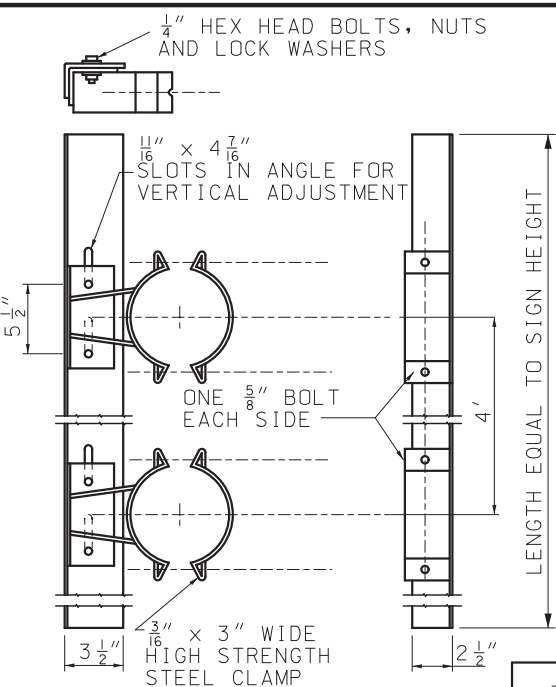
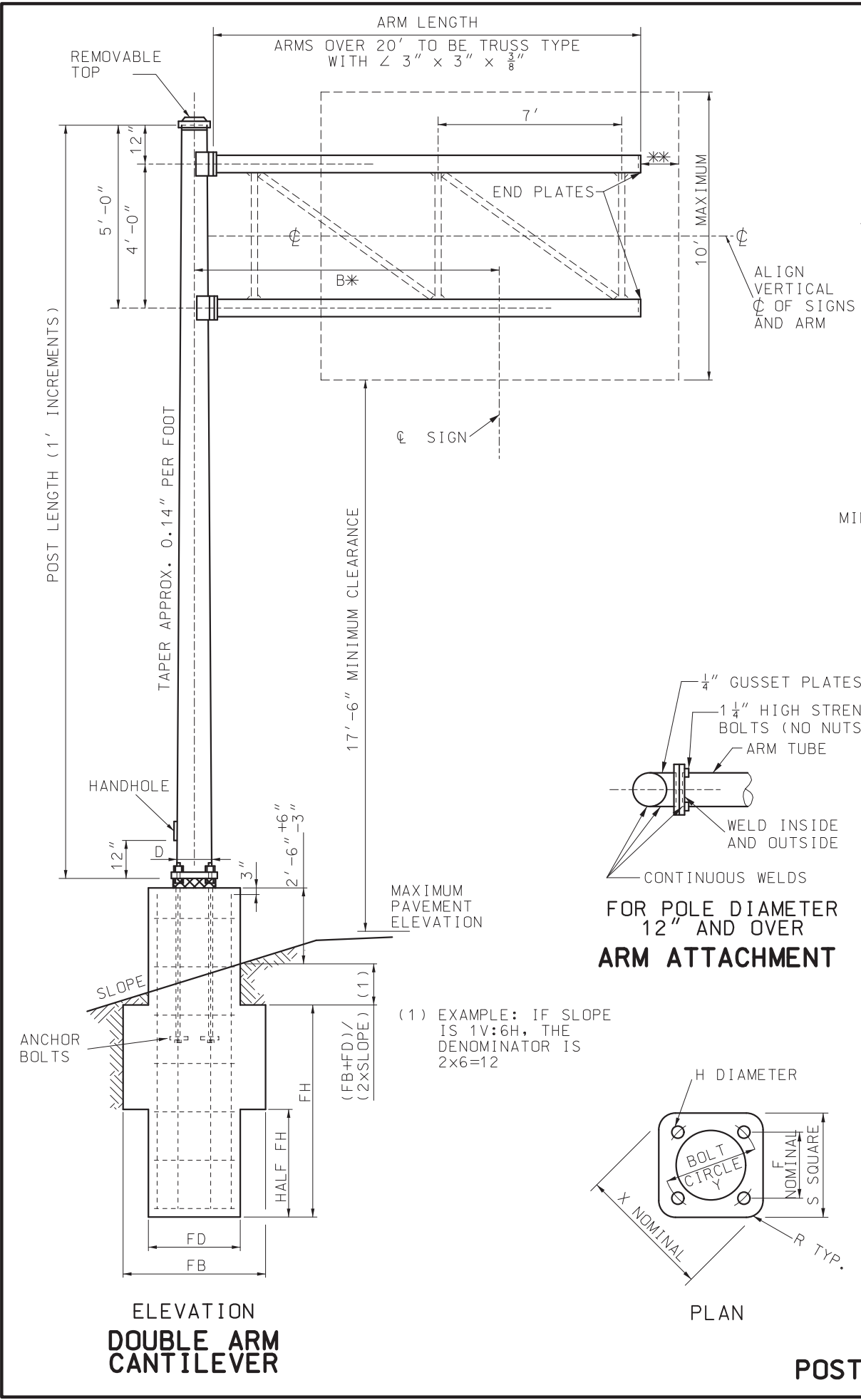
SHEET NO. 1 OF 2

SINGLE ARM CANTILEVER

GALVANIZED SIGN BRACKET ASSEMBLY

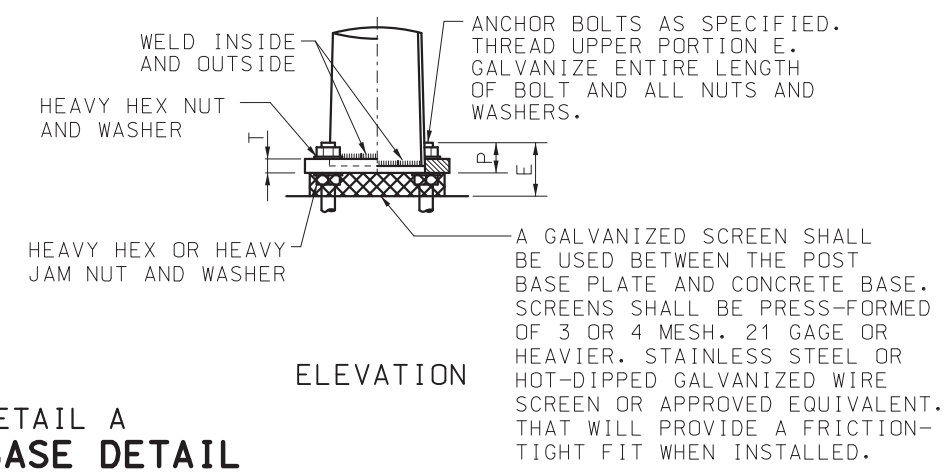
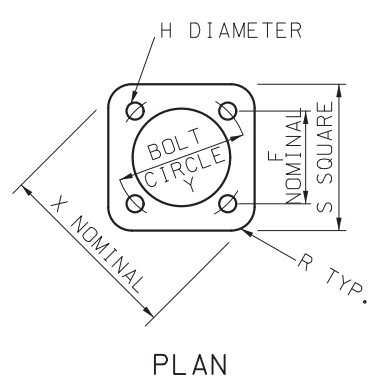
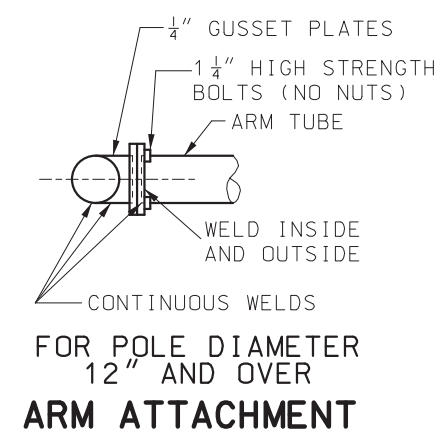
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

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MINIMUM OF TWO BRACKETS REQUIRED ON SIGNS OVER 42" IN LENGTH

GALVANIZED SIGN BRACKET ASSEMBLY



TYPE NUMBER	DIAMETER		CU. YD. CLASS B CONCRETE FOOTING				REINFORCING STEEL				
	FD	FB	FD SECTION		FB SECTION		#5		#4 (2)		TOTAL LBS.
			1' DEPTH	1" DEPTH	1' DEPTH	1" DEPTH	NO.	FT-IN	NO.	FT-IN	
C-2315	3'	4'	0.2618	0.0218	0.3729	0.0311	6	11'-3"	13	8'-9"	146
C-2318	3'-6"	5'	0.3563	0.0297	0.5507	0.0459	6	12'-2"	13	10'-4"	166
C-2018	3'-6"	5'	0.3563	0.0297	0.5507	0.0459	6	12'-8"	14	10'-4"	176

(2) ESTIMATED QUANTITY FOR REINFORCING STEEL IS BASED ON A 2:1 (H:V) SLOPE.

TYPE NUMBER	POST		ARM				B *	MAX. AREA SQ FT
	GA	DIA.	GA	DIMENSIONS				
C-2315-12	3	15"	7	7.5" x 5.82" x 12'			8'	130
C-2315-16	3	15"	7	9.0" x 6.76" x 16'			12'	120
C-2315-20	3	15"	3	10" x 7.2" x 20'			16'	115
C-2315-24	3	15"	3	11" x 7.64" x 24'			20'	100
C-2318-18	3	18"	7	9.0" x 6.48" x 18'			10'	145
C-2318-22	3	18"	7	11" x 7.92" x 22'			14'	150
C-2318-26	3	18"	7	12.5" x 8.86" x 26'			18'	150
C-2018-24	0	18"	7	12.5" x 9.14" x 24'			14'	205
C-2018-28	0	18"	3	12.5" x 8.58" x 28'			18'	215
C-2018-34	0	18"	0	13" x 8.24" x 34'			24'	190


SIGN HT. (IN.)	MAX. LIN. FT. OF SIGN WIDTH PER BRACKET	
	2 CLAMP TYPE	
42	16	
48	16	
60	16	
72	15	
84	11	
96	6	
108	4	
120	3	

* FOR SIGNS WITH SIGN AREAS LESS THAN THE MAXIMUM LISTED IN THE TABLE ABOVE, B CAN BE RECALCULATED USING THE FOLLOWING EQUATION:

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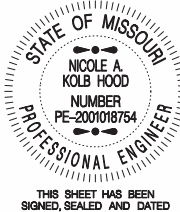
** THE CALCULATED VALUE OF B CANNOT RESULT IN A DISTANCE GREATER THAN 1/4 OF THE SIGN WIDTH

TYPE NUMBER	POST BASE DIMENSIONS										FOOTING		
	Y	X	E	F	H	P	R	S	T	ANCHOR BOLTS	FH	FD	FB
C-1710 & C-1310	13 1/2"	17 1/2"	7"	9 9/16"	1 3/4"	3 3/4"	3 1/8"	14 1/8"	1 1/2"	1 1/2" x 60"	5'	2'	4'
C-2315	22"	28 1/8"	8 1/2"	15 1/2"	2 3/8"	4 3/4"	4 3/8"	23"	2"	2" x 96"	7'	3'	4'
C-2318	25 1/2"	33"	8 1/2"	18"	2 3/8"	4 3/4"	5 1/2"	26 1/2"	2"	2" x 96"	7'-6"	3'-6"	5'
C-2018	25 1/2"	33"	9 1/2"	18"	2 5/8"	5 1/2"	5 1/2"	26 1/2"	2 1/2"	2 1/4" x 96"	8'	3'-6"	5'



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STATE OF MISSOURI
NICOLE A. KOLB HOOD
NUMBER PE-2001018754
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

HIGHWAY SIGNING TUBULAR SUPPORT STEEL TYPE C

DATE EFFECTIVE: 10/01/2022	903.07L	SHEET NO. 2 OF 2
DATE PREPARED: 7/19/2022		