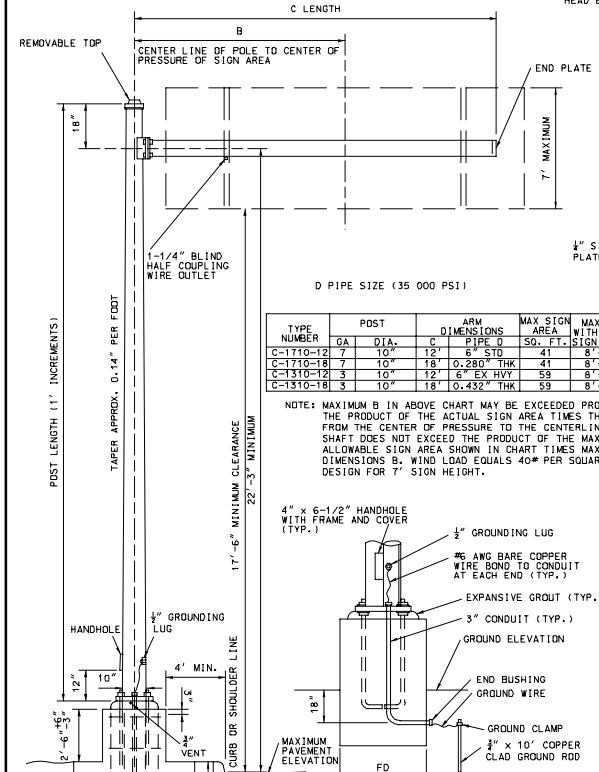
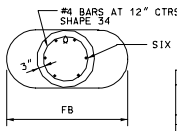


GROUNDING DETAIL

ELEVATION



PLAN

SINGLE ARM CANTILEVER

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

D PIPE SIZE (35 000 PSI)

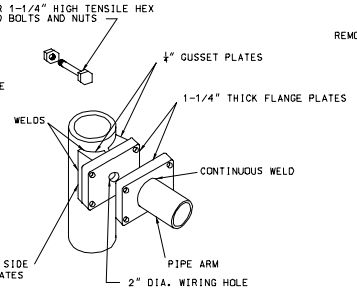
NOTE: MAXIMUM B IN ABOVE CHART MAY BE EXCEEDED PROVIDING THE PRODUCT OF THE ACTUAL SIGN AREA TIMES THE DISTANCE FROM THE CENTER OF PRESSURE TO THE CENTERLINE OF SHAFT DOES NOT EXCEED THE PRODUCT OF THE MAXIMUM ALLOWABLE SIGN AREA SHOWN IN CHART TIMES MAXIMUM DIMENSIONS B. WIND LOAD EQUALS 40# PER SQUARE FOOT . DESIGN FOR 7' SIGN HEIGHT.

TYPE NUMBER	ANCHOR BOLT DIA.	ANCHOR BOLT PLATE	FOOTING			CLASS B CONCRETE FOOTING FB SECTION CU. YD.	
			RH	FD	FB	1' DEPTH	1" DEPTH
C-1710 & C-1310	1-1/2"	3-1/2" x 3-1/2" x 3/8"	2'-6"	2'-0"	3'-0"	1904	0159
C-2315	2"	3-1/2" x 3-1/2" x 3/8"	3'-0"	3'-0"	3'-6"	3173	0264
C-2318	2"	3-1/2" x 3-1/2" x 3/8"	3'-6"	3'-6"	3'-6"	3563	0297
C-2018	2-1/4"	4-1/2" x 4-1/2" x 3/8"	3'-6"	3'-6"	3'-6"	3563	0297

MODIFIED FOOTING IN SOLID ROCK

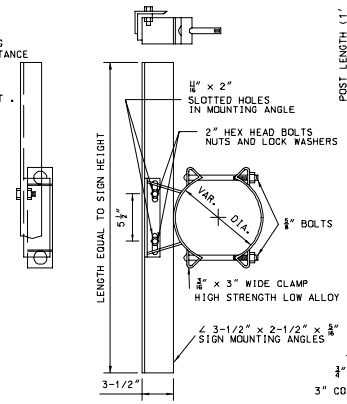
TYPE NUMBER	DIAMETER		CU. YD CLASS B CONCRETE FOOTING				REINFORCING STEEL				TOTAL LBS
			FD SECTION		FB SECTION		#5		#4 *		
	FD	FB	1' DEPTH	1" DEPTH	1' DEPTH	1" DEPTH	NO.	FT-IN	NO.	FT-IN	
C-1710	2'	4'	0.11635	0.0097	0.2645	0.0220	6	7'-6"	9	5'-7"	81
C-1310	2'	4'	0.11635	0.0097	0.2645	0.0220	6	7'-6"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

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

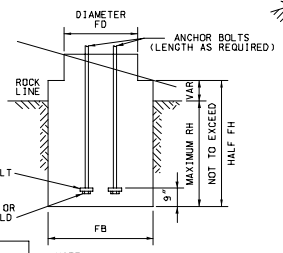


FOR POLE DIAMETER UNDER 12"

ARM ATTACHMENT

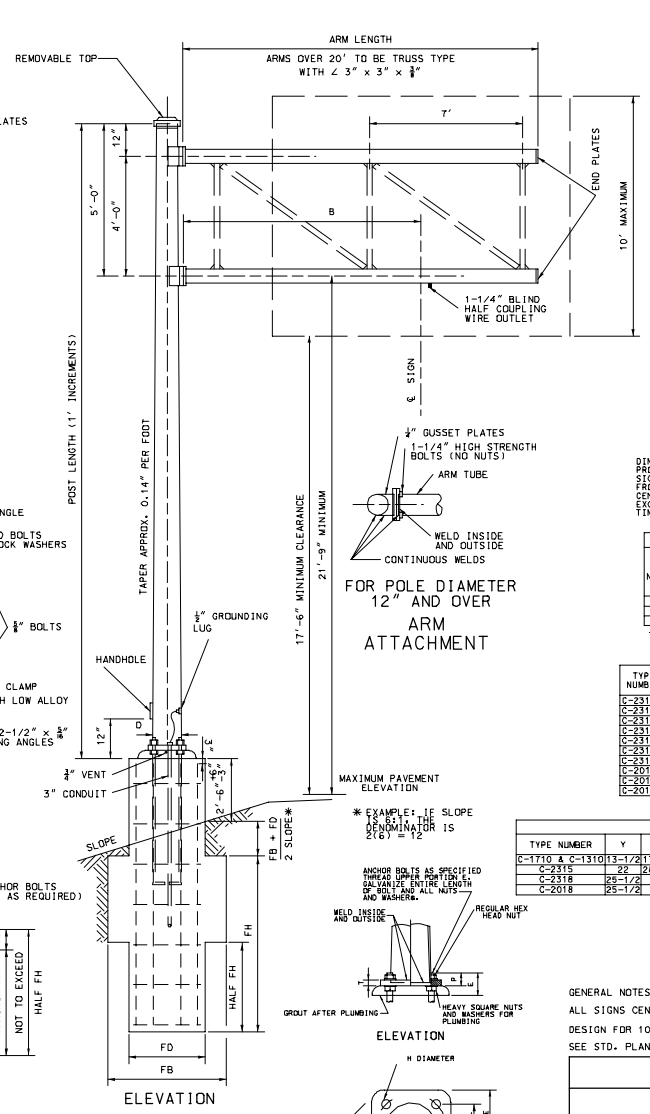


GALVANIZED SIGN BRACKET ASSEMBLY



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

MODIFIED FOOTING IN SOLID ROCK



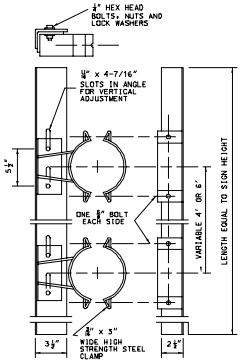
FOR POLE DIAMETER 12" AND OVER

ARM ATTACHMENT

* EXAMPLE: IF SLOPE IS 6:1, THE DENOMINATOR IS 2(6) = 12

ELEVATION

DOUBLE ARM CANTILEVER



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

GALVANIZED SIGN BRACKET ASSEMBLY

DIMENSION B MAY BE EXCEEDED PROVIDED THE PRODUCT OF ACTUAL SIGN AREA TIMES THE DISTANCE FROM CENTERLINE OF POST TO CENTERLINE OF SIGN DOES NOT EXCEED MAXIMUM SIGN AREA TIMES B.

TYPE NUMBER	DIAMETER		CU. YD. CLASS B CONCRETE FOOTING				REINFORCING STEEL				TOTAL LBS.
			FD SECTION		FB SECTION		#5		#4 *		
	FD	FB	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

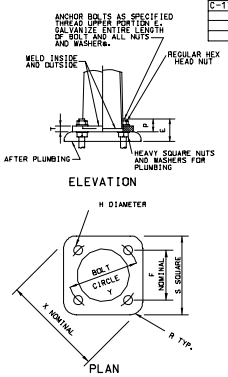
*ESTIMATED QUANTITY FOR REINFORCING STEEL IS BASED ON A 2:1 (H:V) SLOPE.

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 6.78" 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	12.9" 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	
	1 CLAMP TYPE	2 CLAMP TYPE
42	18	18
48	13	16
60	8	16
72	5	15
84	3	11
96	3	6
108	3	4
120	3	3

TYPE NUMBER	Y	X	E	F	H	P	R	S	T	ANCHOR BOLTS	FOOTING		
											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	28-5/8	8-1/2	15-1/2	2-3/8	4-3/4	4-5/8	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'

POST BASE DIMENSIONS (INCHES)



ELEVATION

PLAN

POST BASE DETAIL

GENERAL NOTES:

ALL SIGNS CENTERED VERTICALLY ON ARM.

DESIGN FOR 10' SIGN HEIGHT.

SEE STD. PLAN 903.09 FOR LIGHTING DETAILS IF LIGHTING THE SIGN IS NECESSARY.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

HIGHWAY SIGNING

TUBULAR SUPPORT

STEEL-TYPE C

DATE:_____ EFFECTIVE: 01-01-2003 903.07G 1/1