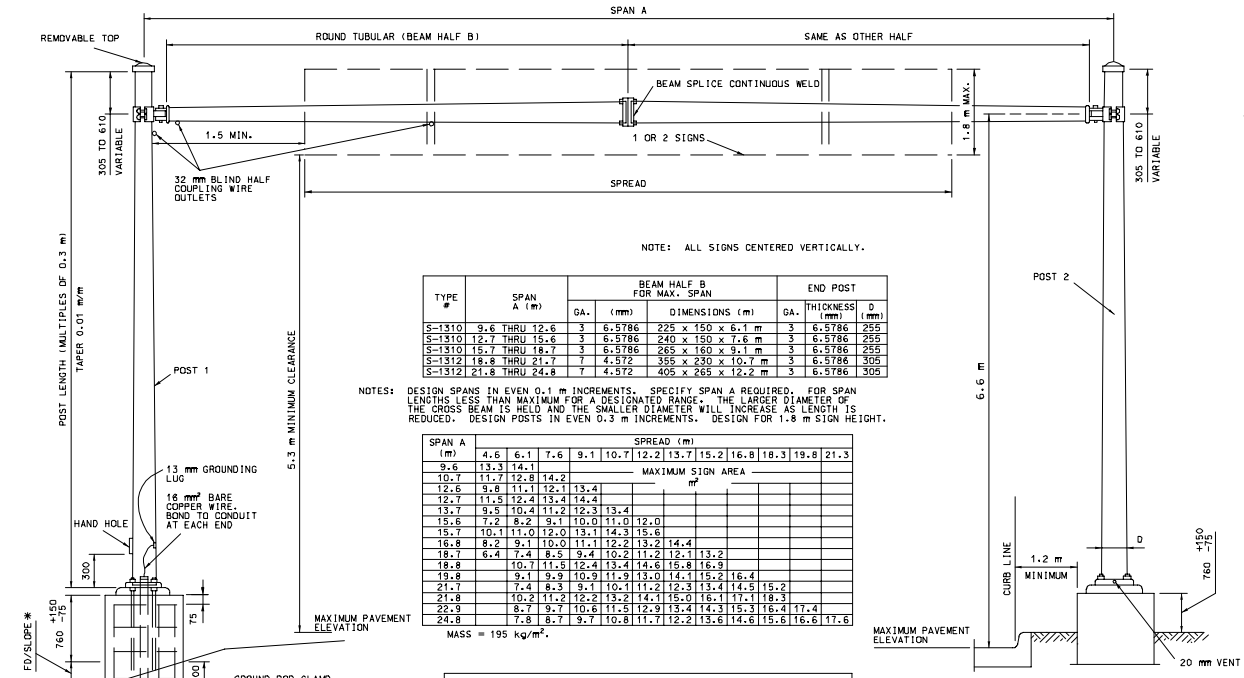


NOTE: ALL SIGNS CENTERED VERTICALLY.

TYPE #	SPAN A (m)	BEAM HALF B FOR MAX. SPAN			END POST		
		GA.	(mm)	DIMENSIONS (m)	GA.	THICKNESS (mm)	D (mm)
S-1310	9.6 THRU 12.6	3	6.5786	225 x 150 x 6.1 m	3	6.5786	255
S-1310	12.7 THRU 15.6	3	6.5786	240 x 150 x 7.6 m	3	6.5786	255
S-1310	15.7 THRU 18.7	3	6.5786	265 x 160 x 9.1 m	3	6.5786	255
S-1312	19.8 THRU 21.7	7	4.572	355 x 230 x 10.7 m	3	6.5786	305
S-1312	21.8 THRU 24.8	7	4.572	405 x 265 x 12.2 m	3	6.5786	305

NOTES: DESIGN SPANS IN EVEN 0.1 m INCREMENTS. SPECIFY SPAN A REQUIRED. FOR SPAN LENGTHS LESS THAN MAXIMUM FOR A DESIGNATED RANGE. THE LARGER DIAMETER OF THE CROSS BEAM IS HELD AND THE SMALLER DIAMETER WILL INCREASE AS LENGTH IS REDUCED. DESIGN POSTS IN EVEN 0.3 m INCREMENTS. DESIGN FOR 1.8 m SIGN HEIGHT.

SPAN A (m)	SPREAD (m)										
	4.6	6.1	7.6	9.1	10.7	12.2	13.7	15.2	16.8	18.3	19.8	21.3
9.6	13.3	14.1		MAXIMUM SIGN AREA m²								
10.7	11.7	12.8	14.2									
12.6	9.8	11.1	12.1	13.4								
12.7	11.5	12.4	13.4	14.4								
13.7	9.5	10.4	11.2	12.3	13.4							
15.6	7.2	8.2	9.1	10.0	11.0	12.0						
15.7	10.1	11.0	12.0	13.1	14.3	15.6						
16.8	8.2	9.1	10.0	11.1	12.2	13.2	14.4					
18.7	6.4	7.4	8.5	9.4	10.2	11.2	12.1	13.2				
18.8		10.7	11.5	12.4	13.4	14.6	15.8	16.9				
19.8		9.1	9.9	10.9	11.9	13.0	14.1	15.2	16.4			
21.7		7.4	8.3	9.1	10.1	11.2	12.3	13.4	14.5	15.2		
21.8		10.2	11.2	12.2	13.2	14.1	15.0	16.1	17.1	18.3		
22.9		8.7	9.7	10.6	11.5	12.9	13.4	14.3	15.3	16.4	17.4	
24.8		7.8	8.7	9.7	10.8	11.7	12.2	13.6	14.6	15.6	16.6	17.6

MASS = 195 kg/m².

ESTIMATED QUANTITIES FOOTING									
TYPE NO.	DIA. FD	CLASS B CONCRETE		REINFORCING STEEL					
		0.3 m DEPTH	25 mm DEPTH	#16		#13✱		TOTAL
		m³	m³	NO.	LENGTH	NO.	LENGTH	kg
S-1310	760	0.132	0.011	6	2665	10	2180	47
S-1312	760	0.132	0.011	6	3120	12	2180	55

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

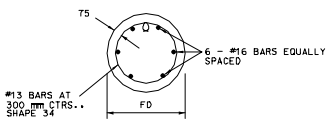
✱ EXAMPLE: IF SLOPE IS 1:6, THE DENOMINATOR IS 6

ELEVATION

POST BASE DIMENSIONS AND DATA												
TYPE NO.	BOLT CIRCLE	C	F	H	S	R	P	T	E	ANCHOR BOLT	FOOTING	
											FH	FD
S-1310	345	445	245	45	360	80	95	38	180	38 x 1525	1525	760
S-1312	405	535	285	55	430	95	115	50	190	44 x 2285	1980	760

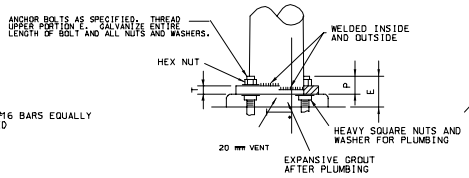
MODIFIED FOOTING IN SOLID ROCK		
TYPE NO.	(1) ANCHOR BOLT (mm)	ANCHOR BOLT PLATE (mm)
S-1310	38 DIA.	90 x 90 x 20
S-1312	44 DIA.	90 x 90 x 20

(1) ANCHOR BOLT LENGTH AS REQUIRED

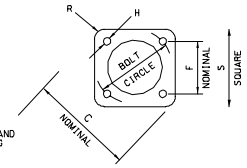


PLAN

FOOTINGS

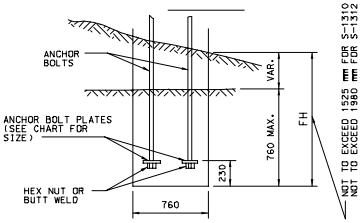


ELEVATION



PLAN

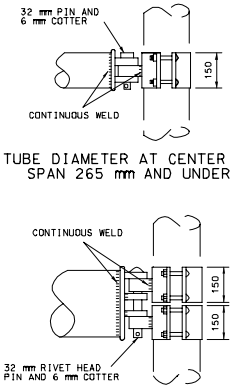
POST BASE DETAILS



REINFORCEMENT PLACED SAME AS STANDARD FOOTING.

CONCRETE TO BE POURED TO EXCAVATED FACE OF ROCK.

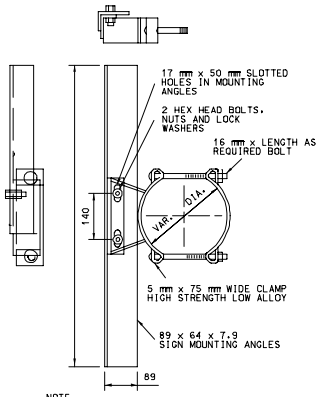
MODIFIED FOOTING IN SOLID ROCK



TUBE DIAMETER AT CENTER OF SPAN 265 mm AND UNDER

TUBE DIAMETER AT CENTER OF SPAN OVER 265 mm

BEAM CLAMP DETAIL

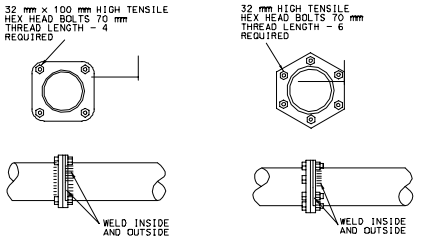


NOTE
MINIMUM OF TWO BRACKETS ARE REQUIRED FOR SIGNS OVER 1050 mm IN LENGTH.

SIGN HEIGHT (m)	MAXIMUM METER OF SIGN WIDTH PER BRACKET
≤ 1.2	4.0
1.5	2.4
1.8	1.5

(GALVANIZED)

SIGN BRACKET ASSEMBLY



TUBE DIAMETER 240 mm AND UNDER

TUBE DIAMETER OVER 240 mm

BEAM SPLICE DETAIL

GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

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 S

ONE TUBE

DATE:_____ | EFFECTIVE: 01-01-2003 | M903.05G | 1/1