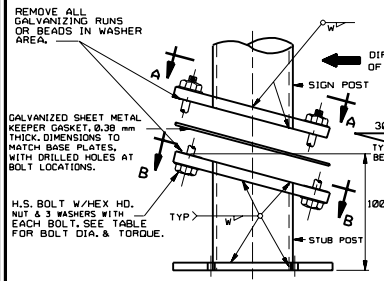
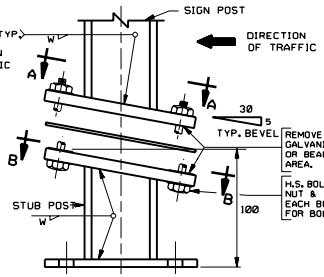


SIGN POST & STUB POST

ELEVATION

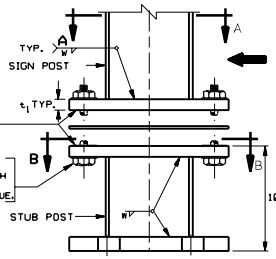
(FOR PIPE COLUMNS)



SIGN POST & STUB POST

ELEVATION

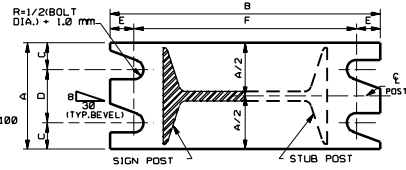
(FOR S75 & S100 SECTIONS)



SIGN POST & STUB POST

ELEVATION

(FOR S150, S200 & W250 SECTIONS)

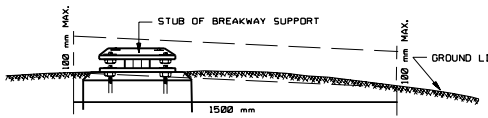


SECTION A-A SECTION B-B

(SEE TABLE FOR DIMENSIONS)

SECTIONS SHOWN ARE FOR INSTALLATIONS ON RIGHT SHOULDER AND IN GORE. PLATE SLOT BEVELS ARE OPPOSITE HAND FROM THAT SHOWN FOR INSTALLATION ON LEFT SHOULDER "S" POST IS SHOWN. PIPE POST SELECTIONS ARE SIMILAR.

BASE CONNECTION DATA TABLE										FUSE PLATE DATA TABLE									
POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	F	t_1	W	M	G	H	J	K	L	N	t_2	d_1	BOLT DIA.
S75 × 8.0	13 DIA.× 64 13.6 N•m TORQUE	76	190	19	38	19	152	16	5	98	57	28	60	38	11	13	6	14	13
S100 × 14.1		89	190	19	51	19	152	16	6	98	57	28	70	38	16	13	8	14	13
S150 × 19.0	16 DIA. × 75 32.5 N•m TORQUE	114	254	29	56	19	216	19	8	112	64	32	86	50	18	16	10	14	13
S150 × 26.0		114	254	29	56	19	216	19	8	112	64	32	92	50	21	16	10	17	16
S200 × 27.0		127	305	29	64	19	267	19	8	112	64	32	102	58	22	16	11	21	20
W250 × 28.0	20 DIA.× 89 51.5 N•m TORQUE	152	368	32	88	22	324	25	8	133	76	38	102	58	22	19	10	21	20
W250 × 33.0		178	381	38	102	22	337	25	8	136	76	38	146	96	25	22	10	24	22
W250 × 39.0		178	381	38	102	22	357	25	8	136	76	38	146	96	25	22	11	24	22
W250 × 45.0	21 DIA.× 89 69.6 N•m TORQUE	178	381	38	102	22	337	29	8	136	76	38	146	96	25	22	13	24	22
75 DIA. STD. PIPE	13 DIA.× 64 13.6 N•m TORQUE	114	190	25	64	19	152	19	6	NO FUSE PLATE REQUIRED ON PIPE COLUMN									
102 DIA. STD. PIPE		140	216	25	90	19	178	19	6										
127 DIA. STD. PIPE	16 DIA.× 89 32.5 N•m TORQUE	145	260	32	102	22	216	25	6										
152 DIA. STD. PIPE		191	292	32	127	22	248	25	8										
203 DIA. STD. PIPE		242	355	32	178	22	316	25	8										



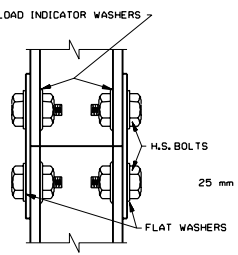
PLACE SIGN SUPPORT FOUNDATION SO IMPACTING VEHICLES DO NOT SNAG ON EITHER FOUNDATION OR ANY SUBSTANTIAL REMAINS OF SIGN SUPPORT. GRADE SURROUNDING TERRAIN TO PERMIT IMPACTING VEHICLES TO PASS OVER FOUNDATION AND PORTIONS OF SIGN SUPPORTS WHICH REMAIN IN THE GROUND OR ARE RIGIDLY ATTACHED TO THE FOUNDATION.

BREAKAWAY SUPPORT STUB

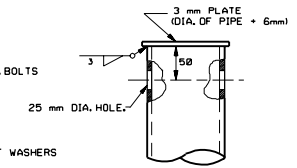
HEIGHT MEASUREMENT

NOTES:

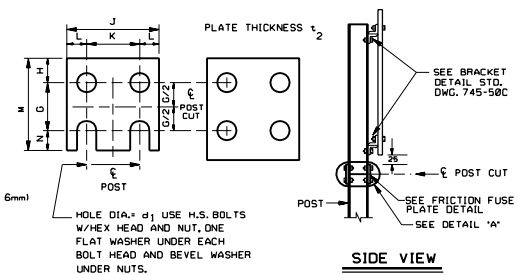
1. DESIGN SHALL CONFORM TO THE LATEST EDITION OF AASHTO STD. SPEC. FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
2. BASE, SLIP AND FUSE PLATES SHALL BE FABRICATED FROM STEEL MEETING THE REQUIREMENTS SPECIFIED FOR THE SIGN POST TO WHICH THEY ARE ATTACHED EXCEPT WHERE PIPE POST ARE USED, IN WHICH CASE THEY SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 36.
3. STRUCTURAL STEEL SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO THE FOLLOWING A.S.T.M. DESIGNATIONS: STD. PIPE 75 mm - 200 mm DIA. ASTM A 53 GRADE "B". W & S SHAPES ASTM A 36M.
4. ALL BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A 325 AND SHALL BE CADMIUM ELECTRO PLATED CONFORMING TO ASTM A 165 NS.
5. WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO STD. SPECS. FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES.
6. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS, HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLATE FACE WILL NOT BE TOLERATED.
7. ALL STRUCTURAL STEEL SHALL BE GALVANIZED AFTER FABRICATION IN CONFORMANCE TO AASHTO SPECIFICATION M-111 (ASTM A 123).
8. HIGH STRENGTH BOLTS IN THE BASE CONNECTION SHALL BE TIGHTENED ONLY TO THE TORQUE LIMITS SHOWN IN THE TABLE. DO NOT OVER TIGHTEN.
9. ALL HIGH STRENGTH FRICTION FUSE BOLTS SHALL BE TIGHTEND IN THE SHOP. USE DIRECT-TENSION INDICATOR WASHERS TO TIGHTEN THE BOLTS. SEE SECTION 510 OF THE SPECIFICATIONS.
10. ALL SIGNS DESIGNATED FOR MOUNTING WITH BREAKAWAY BASES ON UNDIVIDED HIGHWAYS OR ON DIVIDED HIGHWAYS OF LESS THAN FOUR LANES SHALL BE MOUNTED WITH BREAKAWAY PLATES PARALLEL TO THE BASE PLATES.



DETAIL "A" HINGE



TOP OF PIPE DETAIL



FACE PLATE

REAR PLATE

(USE SAME DIMENSIONS)

SIDE VIEW

FUSE PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

ALL DIMENSIONS ARE SHOWN IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

REVISIONS

NO.	DATE	APPR.	REMARKS
1	12/15/98	G.S.	STEEL POST AND STUB POST ELEVATION AND BREAKAWAY HEIGHT MEASUREMENT
2	02/25/99	G.S.	REVISED DETAILS.
3	06/25/01	GFS	REVISED BREAKAWAY SUPPORT DETAIL.
4	11/27/01	F.L.	CHANGED SHEET TITLE.

UTAH DEPARTMENT OF TRANSPORTATION

STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION

SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL DEC.11,2001 DATE

CHAIRMAN STANDARDS COMMITTEE

APPROVED DEC.11,2001 DATE

DEPUTY DIRECTOR

(METRIC)

STANDARD DRAWING TITLE

GROUND MOUNTED SIGNS INSTALLATION DETAILS

STD. DWG. NO.

745-50B