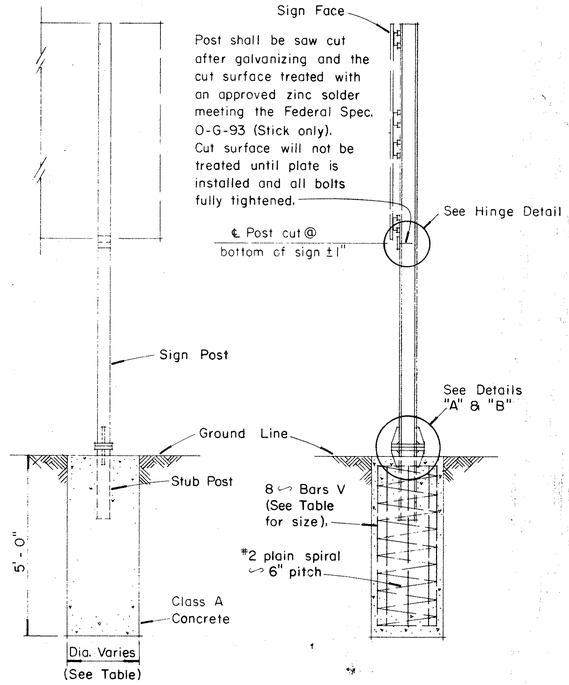
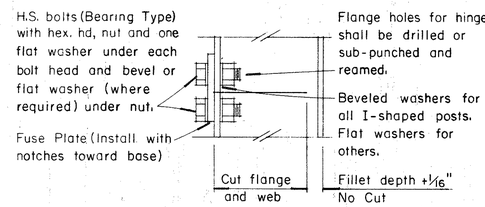
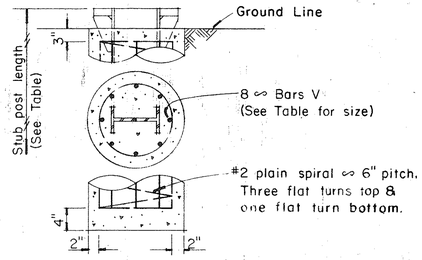
	BASE CONNECTION DATA TABLE									FUSE PLATE DATA TABLE										FOUNDATION DATA			
Post Size	Bolt Size & Torque	A	B	C	D	E	t1	t2	W	R	F	G	H	J	K	L	N	d1	t3	Bolt Dia.	Wt. of each Fuse Pl	Stub Length	Stub Projection	Footing Diameter	Bars V Size
6 B 8.5	5/8"ø x 2 3/4" Torque = 450"#	5"	2"	1 1/4"	2 3/4"	1 1/8"	3/4"	1/2"	1/4"	11/32"	3 5/8"	2"	1 1/8"	4"	2 1/4"	7/8"	1/2"	9/16"	1/4"	1/2"ø	1.09#	2'-0"	3"	2'-0"	#5
6 B 12											3 3/4"	2"	1 1/8"	4"	2 1/4"	7/8"	5/8"	11/16"	3/8"	5/8"ø	1.60#	2'-0"	3"	2'-0"	#5
6 B 15.5											4 1/2"	2 1/2"	1 1/4"	6"	3 1/2"	1 1/4"	3/4"	13/16"	1/2"	3/4"ø	3.75#	2'-6"	3"	2'-0"	#6
8 WF 17											4 1/2"	2 1/2"	1 1/4"	5 1/4"	2 3/4"	1 1/4"	3/4"	13/16"	1/2"	3/4"ø	3.27#	2'-6"	3"	2'-0"	#7
8 WF 20	3/4"ø x 3 1/2" Torque = 750"#	6"	2 1/4"	1 3/8"	3 1/2"	1 1/4"	1"	3/4"	5/16"	13/32"	4 7/8"	2 1/2"	1 1/2"	5 1/4"	2 3/4"	1 1/4"	7/8"	15/16"	9/16"	7/8"ø	3.93#	3'-0"	2 1/2"	2'-0"	#8
10 WF 21											5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	15/16"	9/16"	7/8"ø	4.75#	3'-0"	2 1/2"	2'-0"	#9
10 WF 25											5 3/8"	3"	1 1/2"	5 3/4"	2 3/4"	1 1/2"	7/8"	15/16"	9/16"	7/8"ø	4.79#	3'-0"	2 1/2"	2'-0"	#10
12 WF 27											5 3/8"	3"	1 1/2"	6 1/2"	3 1/2"	1 1/2"	7/8"	15/16"	9/16"	7/8"ø	5.42#	3'-0"	2 1/2"	2'-0"	#11
3 I 5.7	1/2"ø x 2 1/2" Torque = 200"#	SEE DETAIL "A"									3 1/8"	1 1/2"	1 1/8"	2 5/8"	1 1/2"	9/16"	1/2"	9/16"	1/4"	1/2"ø	0.64#	1'-6"	3 1/2"	1'-6"	#5
4 I 7.7											3 1/8"	1 1/2"	1 1/8"	2 5/8"	1 1/2"	9/16"	1/2"	9/16"	1/4"	1/2"ø	0.64#	1'-6"	3 1/2"	1'-6"	#5



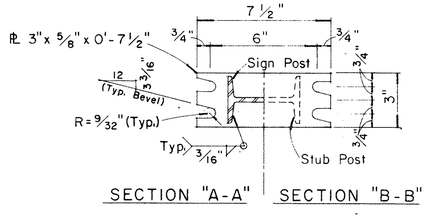
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(97)18	1971	110	171



HINGE DETAIL

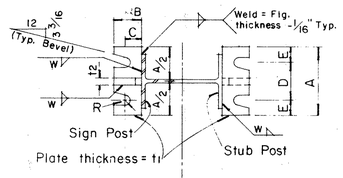


FOUNDATION DETAIL

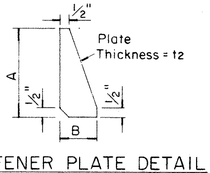


SECTION "A-A" SECTION "B-B"

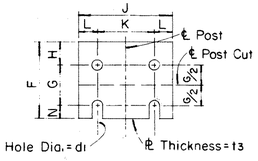
NOTE:
Sections shown are for installations on right shoulder and in gore. Reverse plate slot bevels for installations on left shoulder.



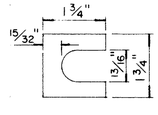
SECTION "C-C" SECTION "D-D"



STIFFENER PLATE DETAIL



FUSE PLATE DETAIL



SHIM DETAIL

Furnish 2 ⌀ .012" ± thick and 2 ⌀ .032" ± thick shims per post. Shims shall be fabricated from brass shim stock or strip conforming to A.S.T.M. - B 36.

GENERAL NOTES

1. Design conforms with AASHO Specifications for the design and Construction of Structural Supports for Highway Signs.
2. Materials and Fabrication shall conform to the requirements of the Standard Specifications and Special Provisions.
3. All holes shall be drilled. All plate cuts shall preferably be saw cuts, however; flame cutting will be permitted provided all edges are ground. Metal projecting beyond the plane of the plate face will not be tolerated.
4. Tighten the high strength bolts in the base connection only to the torque shown, do not overtighten. All bolts other than high strength bolts shall conform to ASTM A 307, Class A.
5. All structural steel, bolts, nuts and washers shall be galvanized as per the Standard Specifications and Special Provisions. Structural steel to be galvanized after fabrication except as noted.
6. Structural steel shall conform with with the requirements of ASTM A 441
7. Galvanizing of all posts shall be projection above concrete plus 6" minimum.
8. All friction fuse bolts shall be tightened in the shop following a method approved by the Engineer. Tightening shall be to such a degree as to obtain the following minimum residual tension in each bolt:

Bolt Size	Min. Tension	Bolt Size	Min. Tension
1/2"ø	12050 Lbs.	3/4"ø	28400 Lbs.
5/8"ø	19200 Lbs.	7/8"ø	36050 Lbs.

APPROVAL RECOMMENDED:
Eiichi Tanaka
TRAFFIC ENGINEER — 12/29/69 DATE

APPROVED:
ASSISTANT CHIEF, ENGINEERING — 12-30-69 DATE

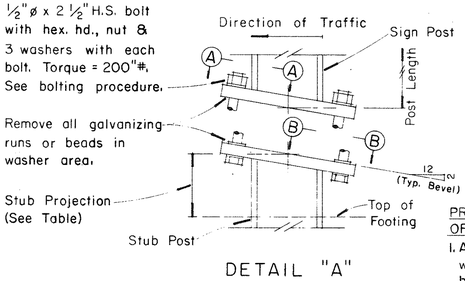
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

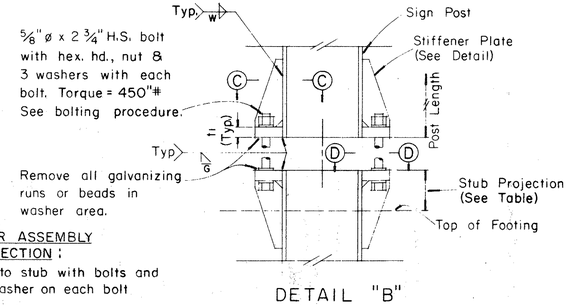
STANDARD DETAILS
BREAK-AWAY SIGN SUPPORTS FOR GROUND MOUNTED GUIDE SIGNS

Not to Scale

SHEET No. 27T OF 32T SHEETS DT 204



DETAIL "A"
SIGN POST & STUB POST
(For 4I7.7 and 3I5.7 Shapes)



DETAIL "B"
SIGN POST & STUB POST
(For WF and B Shapes)

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

1. Assemble post to stub with bolts and with one flat washer on each bolt between plates.
2. Shim as required to plumb post.
3. Tighten all bolts the max. possible with 12" to 15" wrench to bed washers & shims and to clean bolt threads then loosen each bolt in turn & retighten bolts in systematic order to prescribed torque. (See Table)
4. Burr threads at junction with nut using a center punch to prevent nut loosening.

NOTE BOOK | DESIGNED BY | QUANTITIES BY | CHECKED BY | No.

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