

GENERAL NOTES FOR SIGN SUPPORT STRUCTURES

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(246)	2004	73	105

1. Design Specifications

2001 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Current Edition.

2. Design Data

Wind Loading: Design Wind Speed = 105 MPH with Gust Factor of 1.14 for wind load normal to face of sign and transverse to face of sign, See Design Specifications

Wind importance factor shall be based on a recurrence interval of 100 years.

Fatigue importance factor shall be based on Fatigue Category I. The effects due to truck induced gust (based on vehicle speed of 65 mph) and natural wind gust shall be considered in fatigue design.

Walkways: See Note on Sheet No. S8.

Ice Load: None

Structural Steel: ASTM A36

High Strength Bolts: ASTM A325 (Friction Type - Connection)

Aluminum Members: Aluminum Alloy 6061-T6

Steel Pipe: ASTM A53 Type E Grade B

3. Welding

All welding to be continuous welds as noted on the plans. All welding shall conform to the requirements of ANSI/AASHTO/AWS D1.5M/D1.5:2002, "Bridge Welding Code".

4. Materials

- A. Sign support box truss members and supporting posts; sheet metal siding and edgings; connection bolts; nut and washers; to be structural steel. All surfaces shall be hot-dipped galvanized after fabrication prior to painting. See specifications and "Ribbed Sheet Metal Notes" on sheet No. S6.
- B. Galvanized surfaces of overhead sign support structures (Note A. above) shall be painted to warm gray color. See Specifications.
- C. Contact surfaces in high strength (H.S.) bolt connections shall not be painted. The galvanizing on these surfaces shall be lightly scored by wire brushing prior to assembly.
- D. High strength bolts shall be galvanized, furnished and installed in conformance with current ASTM A325 with lubricated nuts.
- E. Anchor bolts shall be galvanized.
- F. Aluminum members and surfaces in contact with structural steel, See Note A on sheet S7.

5. Construction Method

See Hawaii Standard Specifications for Road and Bridge Construction, 1985 Edition, 2001 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Current Edition and Special provisions for this project.

6. General

- A. Prior to fabrication of the sign support structures, the Contractor shall verify in the field the exact location of each of the anchor bolts installed and the post elevation at the top of the supporting concrete.
- B. Payment for the overhead sign support structure shall be made as described in the Special Provisions.
- C. All sign support structures are viewed in the direction of traffic, unless noted otherwise.
- D. The Contractor shall probe to locate the existing utilities and shall notify the respective owners prior to commencing with foundation work.

7. Legend and Abbreviations

¢	And	LT.	Left
@	At	Min.	Minimum
Alum.	Aluminum	O.C.	On Center
¢	Baseline	O.D.	Outside Diameter
BOT.	Bottom	OPNG.	Opening
BRG.	Bearing	O/S	Offset
¢	Centerline	¢	Plate
CL, CLR.	Clear	PVMT.	Pavement
Conc.	Concrete	RECT.	Rectangular
Conn.	Connection	RELOC.	Relocated
Cont.	Continuous	REQ'D	Required
Dia.	Diameter	RT.	Right
Diag.	Diagonal	SECT.	Section
DO.	Ditto	SHT.	Sheet
E.F.	Each Face	S.S.	Stainless Steel
EMS	Electronic Message Sign	STD.	Standard
EQ.	Equal	STIFF	Stiffener
EQ. SPC.	Equal Spaces	SYMM.	Symmetrical
Exist.	Existing	t, THK.	Thick
Flex.	Flexible	Typ.	Typical
FM	Fixed Message	ULT	Ultimate
FMS	Fixed Message Sign	VERT.	Vertical
Galv.	Galvanized	WP	Weatherproof
GR.	Ground	W/	With
Hex.	Hexagonal		
H.S.	High Strength		
JT.	Joint		

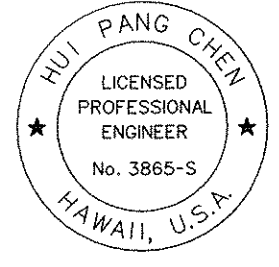
8. Foundation

- A. The capacities of 5'-0" diameter drilled shafts are as follows:

<u>Working Capacity (KIPS)</u>	<u>Ultimate Capacity (KIPS)</u>
85	255

DESIGNED BY	DATE
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

INTERSTATE ROUTE H-1 ZIPPER LANE EXTENSION/STRUCT/SS04dgn

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. <i>Hui Pang Chen</i>	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION  <b>GENERAL NOTES</b>  INTERSTATE ROUTE H-1 ZIPPER LANE EXTENSION RADFORD DRIVE OVERPASS TO KEEHI INTERCHANGE FEDERAL AID PROJECT NO. NH-H1-1(246) Scale: None Date: Mar. 2, 2004

SHEET No. 51 OF 13 SHEETS