

BRIDGE GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-019-2(58)	2008	7	26

1. General Specifications: Hawaii Department of Transportation, Standard Specifications for Road and Bridge Construction, 1994, together with Special Provisions prepared for this contract.

2. Design Specifications: AASHTO LRFD Bridge Design Specifications (Third Edition - 2004) and its subsequent interim specifications with interim supplements and modifications by the Highways Division, Department of Transportation, State of Hawaii.
California Department of Transportation Seismic Retrofit Specifications and Methodology.

3. Loads:
(A) Dead Load: An allowance of 25 PSF for future wearing surface of asphalt concrete has been provided for in the design.

(B) Seismic Loads: Acceleration coefficient - 0.42
Seismic Performance Zone - 4
Importance Category - Critical
Soil Profile - Type 1

4. Materials:
(A) Except as noted all concrete strengths shall have 28-day compressive strength $f'_c = 4,000$ psi.

All concrete with the exception of Class A concrete shall have a maximum W/C Ratio of 0.45. The W/C Ratio for Class A concrete shall follow the Standard Specifications.

- (1) The use of any calcium chloride in any concrete is prohibited.
- (2) All reinforcing steel shall be ASTM A 615 Grade 60 unless otherwise noted.
- (3) All structural steel shapes and plates shall meet the requirements of ASTM A36 and be hot-dip galvanized after fabrication unless noted otherwise.
- (4) Steel pipes shall conform to ASTM A53 Type E or S, Grade B.
- (5) All anchor bolts, washers and nuts shall be ASTM A449 hot-dip galvanized after fabrication, unless otherwise noted.
- (6) High strength threaded bars shall be ASTM A722, Type II, Grade 150. For additional information, refer to sheets S1.9 and G1.9.

5. Structural Steel:
(A) Workmanship shall be in accordance with the latest AASHTO and AWS codes.

(B) Unless shown otherwise, all embedded bolts, anchors, plates, inserts, nuts, washers, etc., shall be hot-dip galvanized after fabrication.

(C) No holes other than those specially detailed shall be allowed through structural steel members.

(D) All new or existing structural steel members which has unpainted surfaces due to work under this contract (welding, drilling holes, etc.) shall be repainted to the satisfaction of the Engineer.

5. Structural Steel: (Cont.)
(F) Repair of damaged paint or areas where structural steel is unpainted due to the work involved in this project shall be done in accordance with the Hawaii Department of Transportation, Standard Specifications for Road and Bridge Construction, 1994, together with Special Provisions prepared for this contract.

6. Reinforcement:
(A) The minimum cover measured from the surface of the concrete to the face of any reinforcing bars shall be 3", except as otherwise shown.

(B) Reinforcing bars shall be detailed in accordance with the latest edition of the A.C.I. Detailing Manual unless otherwise noted.

(C) Minimum clear spacing between parallel bars shall be 1-1/2 times the diameter of bars (for non-bundled bars). In no case shall the clear distance between the bars be less than 1-1/2 times the maximum size of the coarse aggregate or 1 1/2".

(D) All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.

(F) Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of intersections is less than one foot in each direction, in which case alternate intersections shall be tied.

7. Construction Notes:
(A) See Standard Specifications and Special Provisions.

(B) The Contractor shall verify all dimensions and site conditions and shall report any discrepancies in writing to the Engineer before commencing work or ordering materials.

(C) The Contractor shall verify all site conditions and not rely upon these plans for existing stream channel location, roads, sidewalks, dimensions, etc.. Conditions may differ from those shown.

(D) The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.

(E) The Contractor shall verify the location of all utility lines and notify the respective owners before commencing with excavation, and any temporary piling or sheeting.

(F) Large impacting or vibratory type of equipment will not be permitted in the drilling of holes.

(G) The concrete surfaces which new concrete is poured against shall be roughened to a full amplitude of 1/4 of an inch and cleaned.

(H) Unless otherwise noted all finish grades shall match existing grades.

(J) Except as otherwise noted, all vertical dimensions are measured plumb.

(K) For concrete finish see Standard Specifications and Special Provisions.

(L) Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4" x 3/4".

(M) The Contractor shall refer to the existing drawings for the approximate location and size of all existing reinforcing bars prior to drilling.

9. General:
(A) All items noted incidental will not be paid for separately.

(B) Standard detail drawings refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

(C) The Contractor shall provide adequate traffic signage and warning devices for motorist throughout the work.

(D) Construction of footings may be complicated by the presence of water and cobbles or boulders. Shoring for excavation may be required for the construction of these footings.

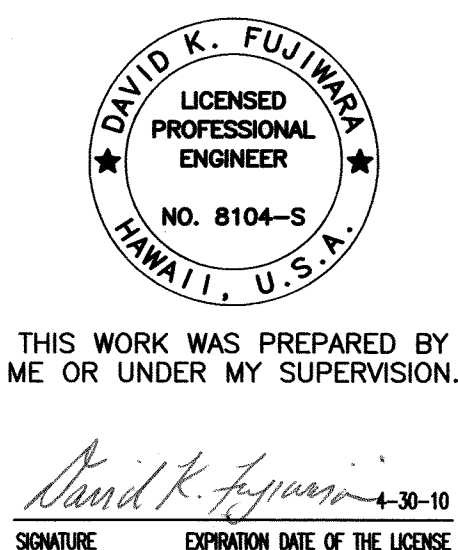
(E) The Contractor should be aware that conditions exist where the excavation of a footing located lower than an adjacent footing may undermine the higher footing. The Contractor shall take precautions not to detrimentally affect the higher footings.

(F) The Contractor shall be aware of work being done on steep slopes. Temporary measures may be required to stabilize the slopes

(G) The Contractor shall follow the requirements of Section 209 - Water Pollution and Erosion Control and the requirements of the Conservation District Use Application and the Stream Channel Alteration Permit including submitting a Best Management Plan, replanting of native trees, etc. as applicable.

(H) As-built plans for the existing structures, and the foundation report are available from the Highways Design Branch located at the Department of Transportation, Highways Division, Kakuhihewa Building 688, 601 Kamokila Boulevard, Kapolei, HI 96707. The phone number is 692-7546.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	CHECKED BY	
	QUANTITIES BY	
	CHECKED BY	
	No.	



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
BRIDGE GENERAL NOTES
HAWAII BELT ROAD SEISMIC RETROFIT OF VARIOUS BRIDGES Vicinity Of Papaikou, Phase 2 Federal-aid Project No. Br-019-2(58) Scale: NONE Date: Mar. 2007
SHEET No. 50.2 OF 12 SHEETS