

Scale: 3" = 1'-0"

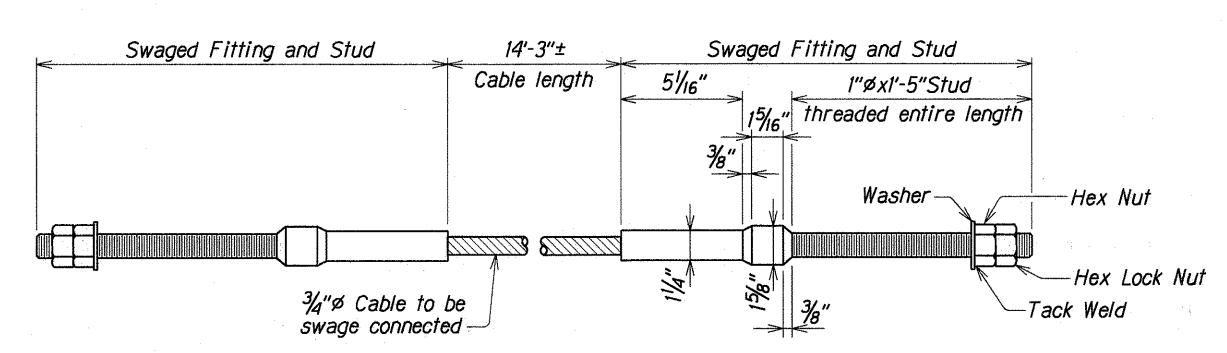
FISCAL SHEET TOTAL YEAR NO. SHEETS FED. ROAD PROJ. NO. DIST. NO. SHEETS BR-0300(42) 1997 HAW.

(Type 2B) Precast Girder for #4 dowel @9"o.c. Epoxy shall be "Premixed Type". Clean hole thoroughly prior to placing → 4-#6cont. as shown epoxy into hole. See Note below.-**⊈** Restrainer Assembly # Hole — NOTE: Payment for drilling holes in the existing End Diaphragm will -Ref. bottom of Exist. End not be made separately, and shall Diaphragm be considered incidental to *8*" Restrainer Item. CONCRETE BOLSTER DETAIL

Scale: 3/4" = 1'-0"

RESTRAINER ASSEMBLY NOTES

- Before commencing with drilling operation through existing concrete, the Contractor shall verify the location of each hole to be drilled so that it will clear the girder located on an adjacent span. The Contractor will use access doors to enter the back of abutments.
- 2. Prior to drilling holes through the existing concrete, the Contractor shall use a metal detecting device to locate and avoid the cutting of existing reinforcing bars as much as possible.
- Where restrainer cables bend and contact existing concrete, edges of drilled holes shall be chipped to a smooth curved surface with a radius of four (4) inches.
- 4. All cut and/or exposed reinforcing shall be embedded into the concrete a minimum of two (2) inches below the existing concrete surface. The surface shall be finished by applying mortar cement.
- 5. The anchor nuts shall be snug tightened to take up any slack in the restrainer cables. After that, tighten the nuts by one (1) turn per 5 foot length of cable. The nuts shall then be loosened to ½" from the upper anchor plate only, and the nuts be tightened with the lock nuts.
- 6. Anchor bolts for plates shall be 3/4" diameter and shall meet the requirements of ASTM A 307. All anchor bolts placed into the concrete shall be 6" in depth measured from the concrete surface. Where drilled hole is made, the diameter of the hole shall be anchor bolt diameter plus 1/8". Epoxy shall be premixed type. Adhesive anchors shall be installed in accordance with the manufacturer's recommendation.
- 7. Drilling of holes through existing concrete structure shall be done in such a manner as to avoid any damage to the existing structure. Any damage incurred throughout the work shall be borne by the Contractor and shall be repaired at the Contractor's expense, to the satisfaction of the Engineer.
- 8. Payment for drilled holes will not be made separately and shall be considered incidental to Restrainer Item.
- 9. Cable length shown is approximate. The Contractor shall verify actual cable length in the field.



CABLE END ANCHORAGE--RESTRAINER UNITS TYPE I AND II Scale: 3" = 1'-0"

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION RESTRAINER ASSEMBLY AND INTERSTATE ROUTE H-1
SEISMIC RETROFIT FOR PEARL HARBOR I.C. STRUCTURE NO. 6 AND HALAWA I.C. STRUCTURE NO. 2
Project No. BR-0300(42) Date: Apr., 1997 Scale: As Noted

SHEET No. S5 OF 5 SHEETS

NOTES:

APR 1997 APR 1997 APR 1997 APR 1997

388

SURVEY PLOTTI
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY

- Existing 54" (Type 2B) Precast Girders are referred to on the original drawings as "AASHTO Type IV Precast Beams".
 Existing 36" (Type 2C) Precast Girders are referred to on the original drawings as "AASHTO Type II Precast Beams".
 Existing C.I.P. Girder (Type 2G) are referred to on the original drawings as "C.I.P. Box Girders".

HALAWA INTERCHANGE STRUCTURE NO. 2