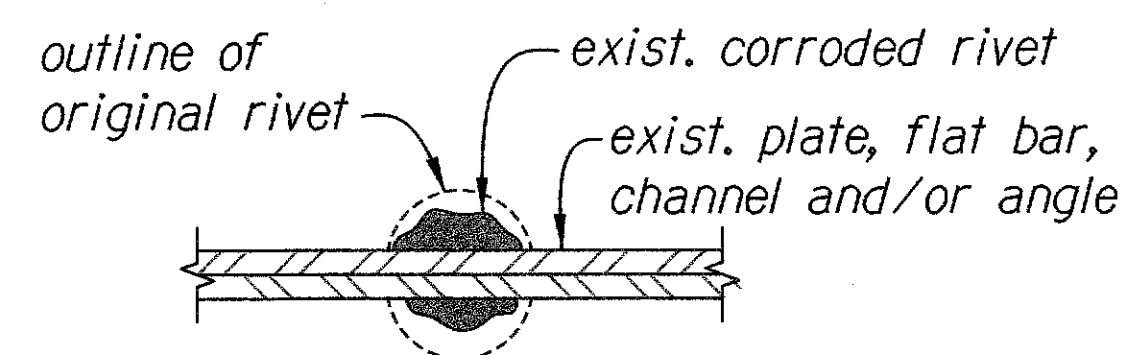
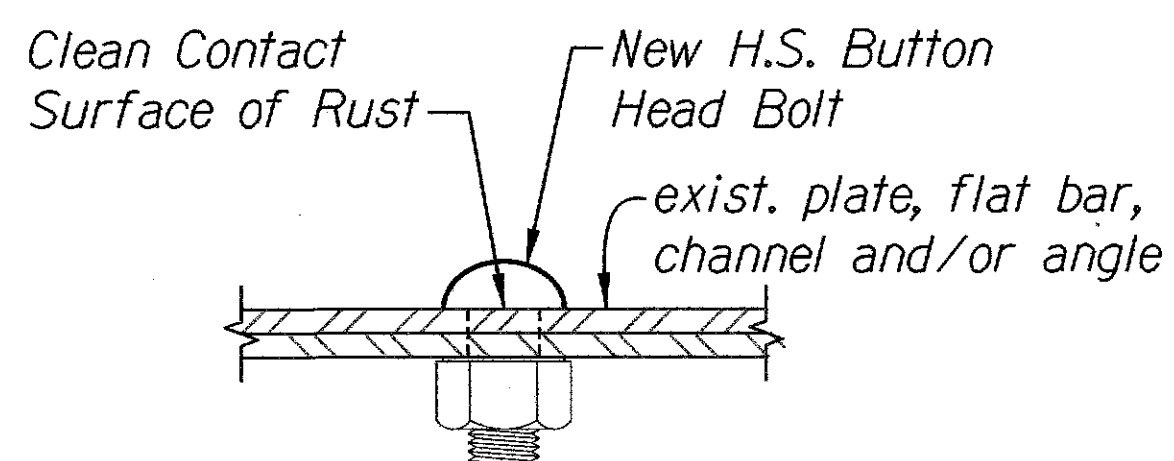


FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	70	82



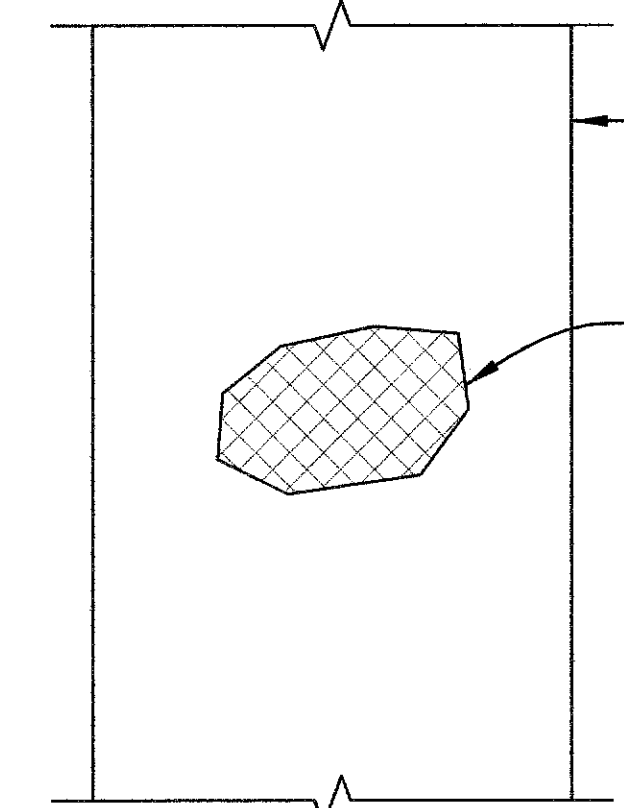
EXISTING CORRODED RIVET



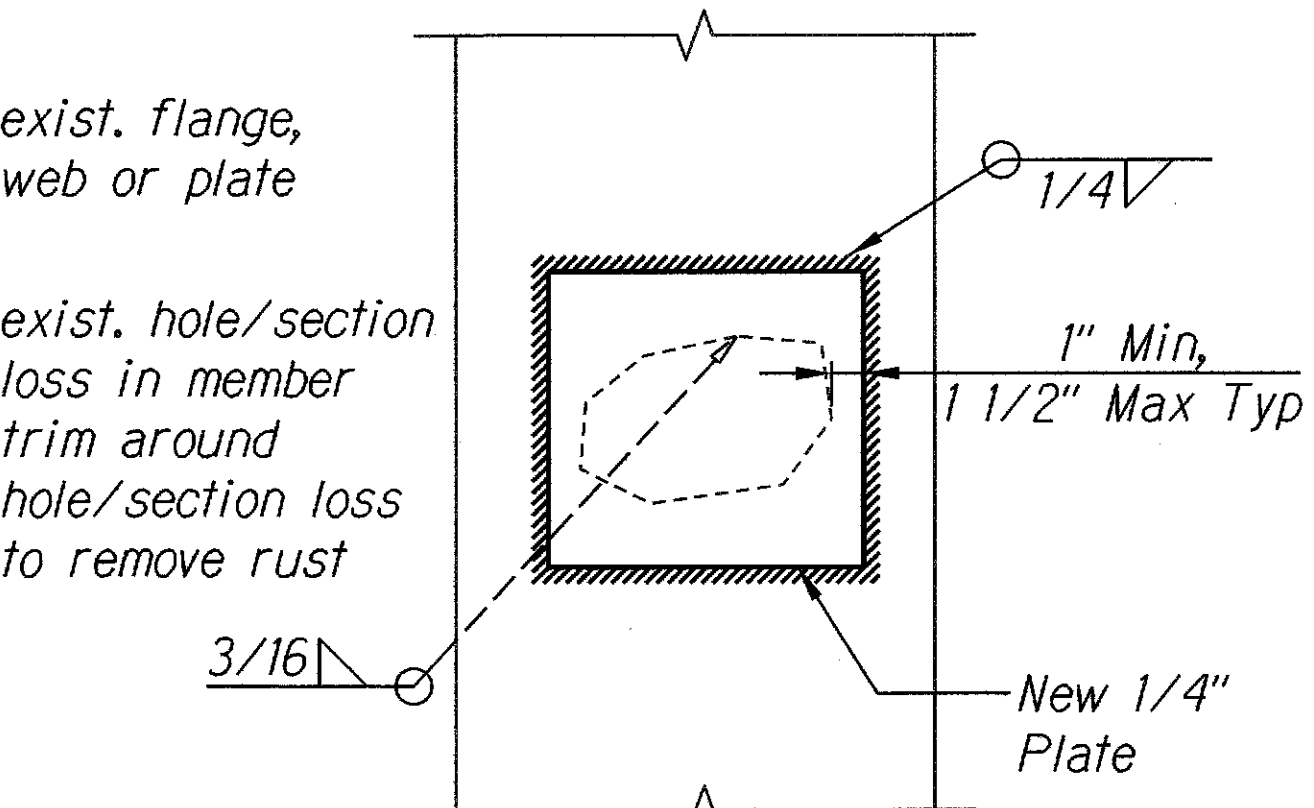
Similar for Condition with Standard H.S. Bolt

REPLACEMENT BOLT

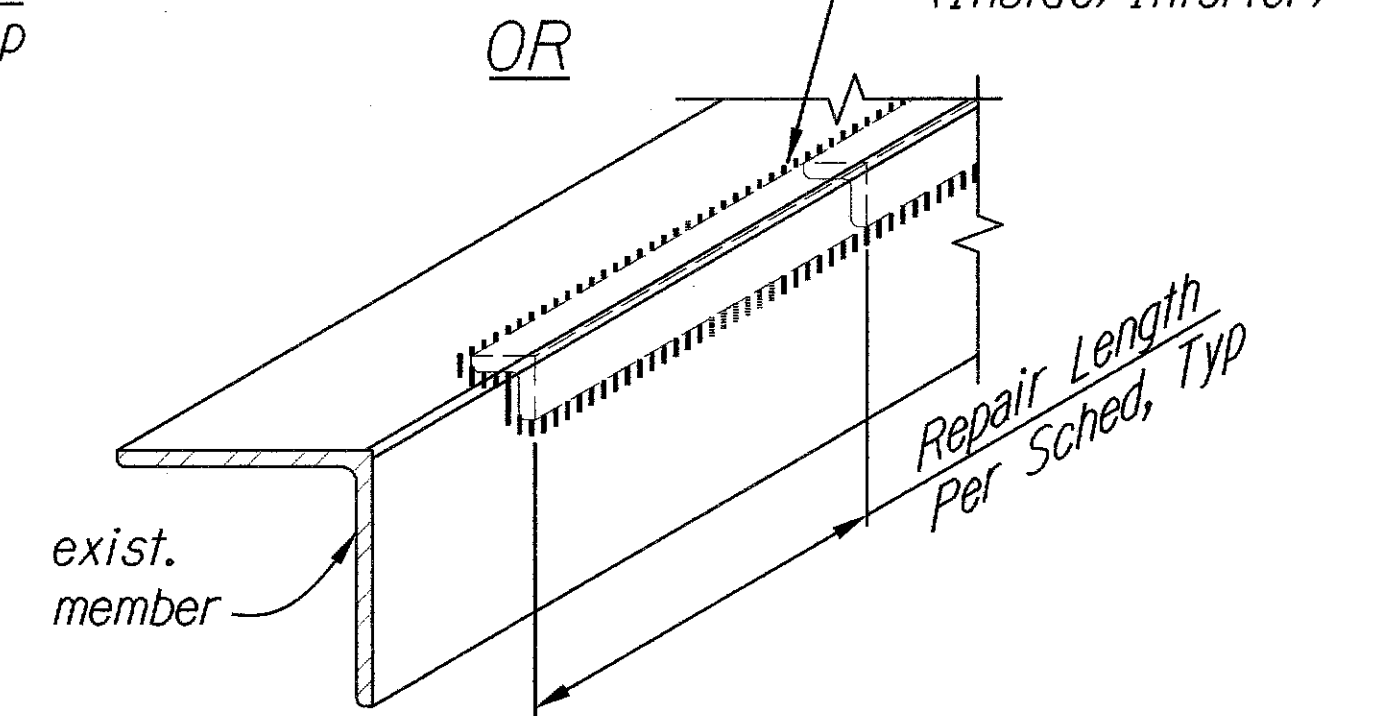
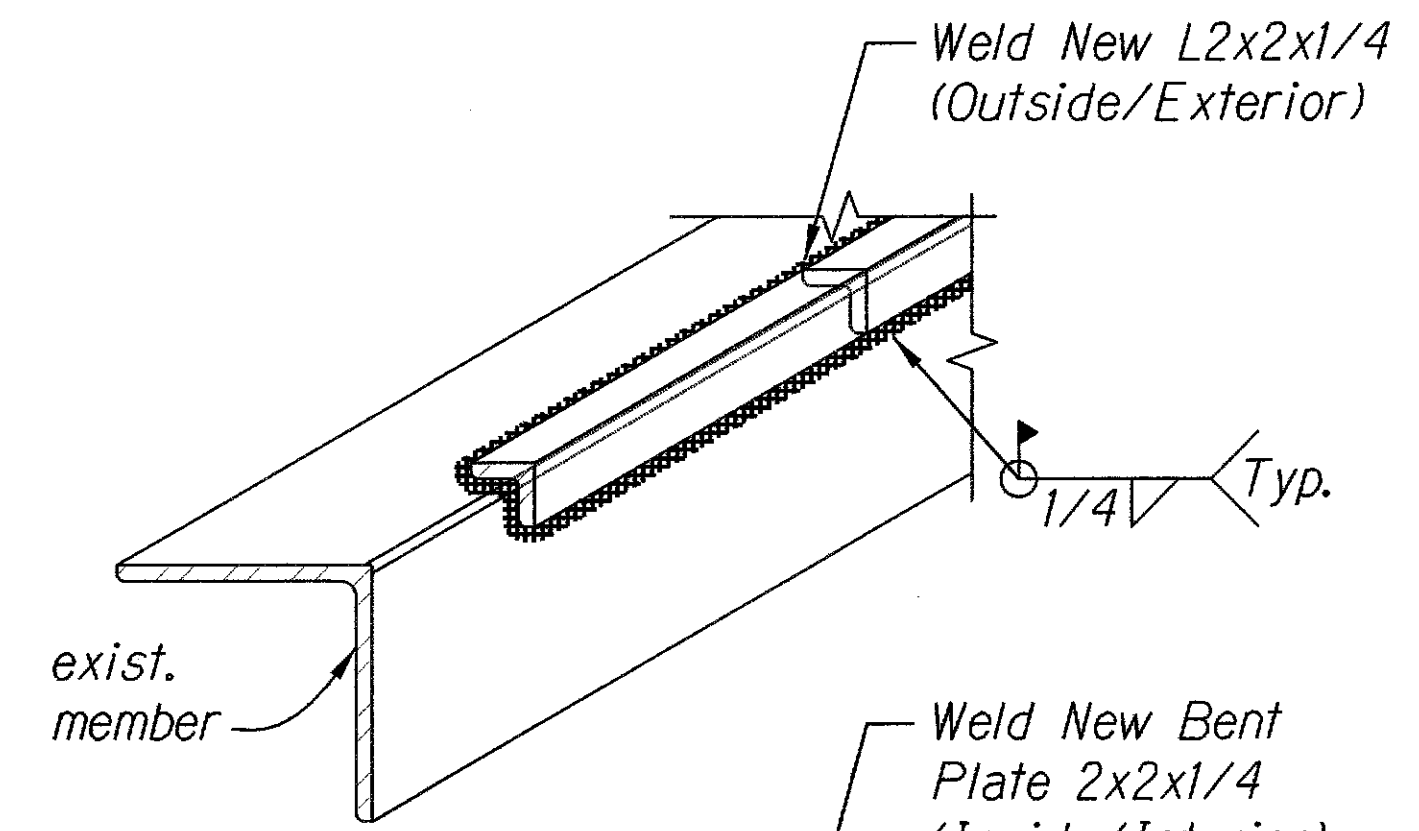
- Repair Notes:
1. Remove and replace corroded rivets one at a time. Alternate sequence of replacement about centerline of member, starting from center-most rivet and proceeding toward outer-most rivets.
 2. Refer to rivet replacement guidelines on sheet S4.1 for additional information.



EXISTING DETAIL



REPAIR DETAIL



REPAIR DETAIL - TYPE 3

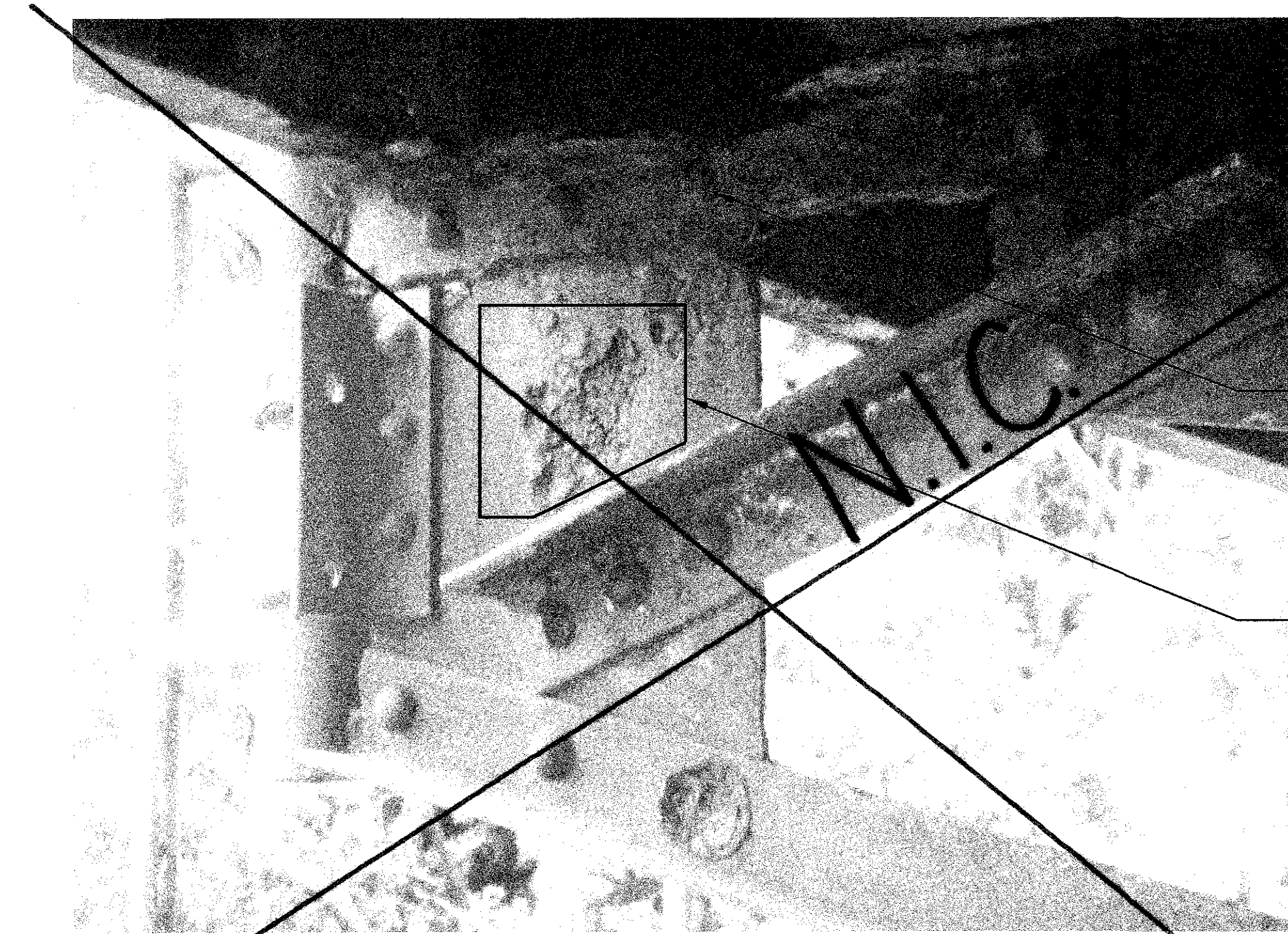
1 REPAIR DETAIL - TYPE 1

S6.9/S6.9 Not To Scale

2 REPAIR DETAIL - TYPE 2

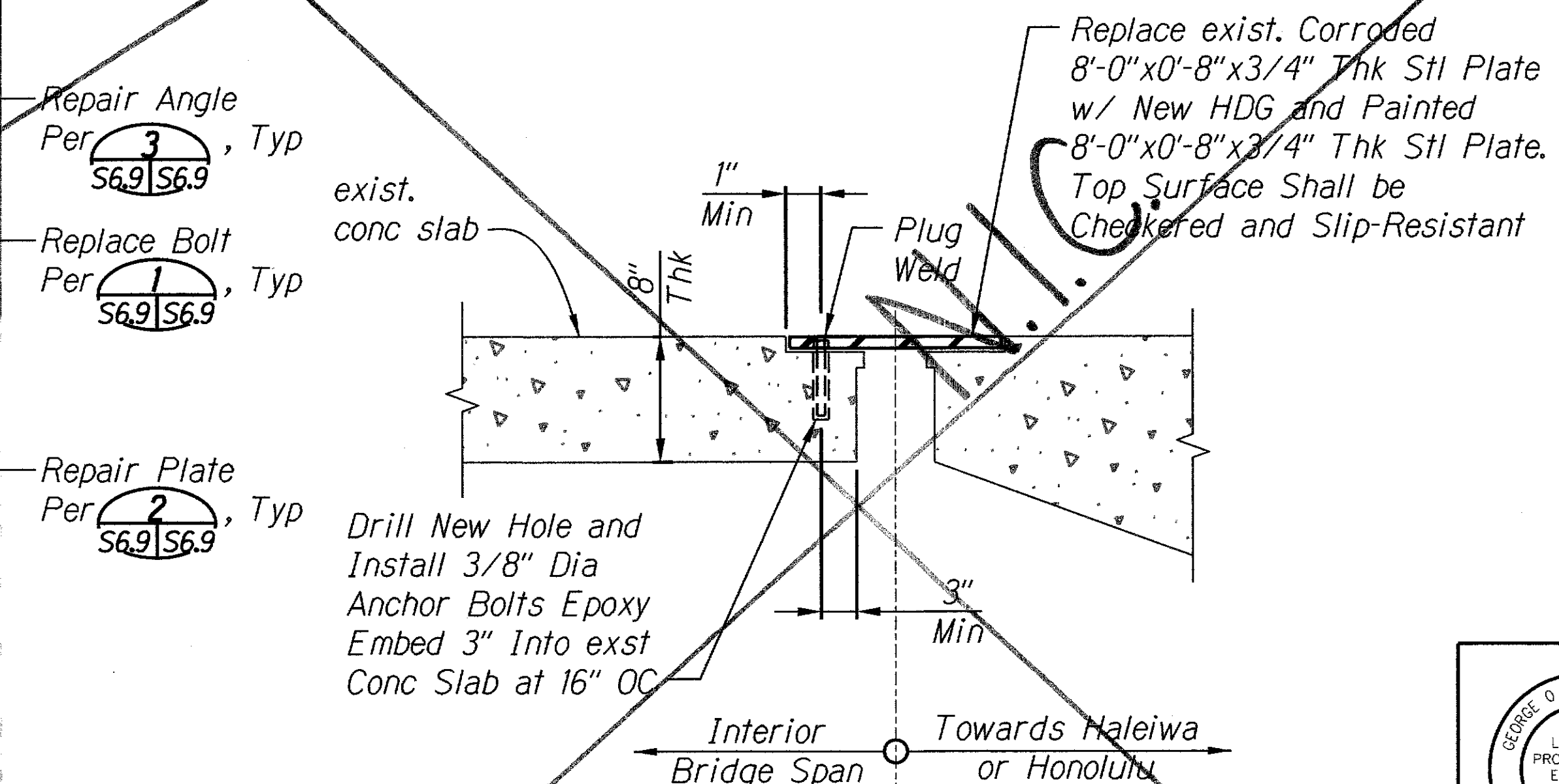
S6.9/S6.9 Not To Scale

S6.9/S6.9 Not To Scale



4 TYPICAL MEMBER DETERIORATION

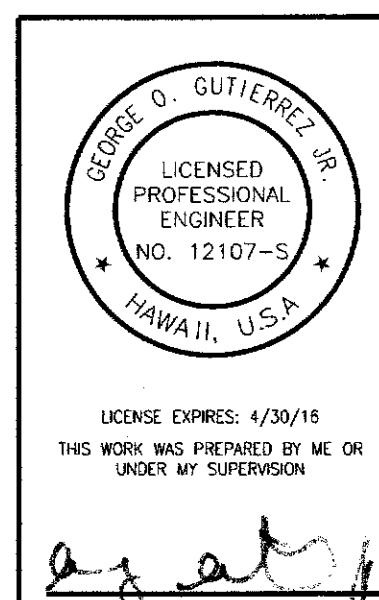
S6.9/S6.9 Not To Scale



5 STEEL PLATE AT EXPANSION JOINT

S7.1/S6.9 Not To Scale

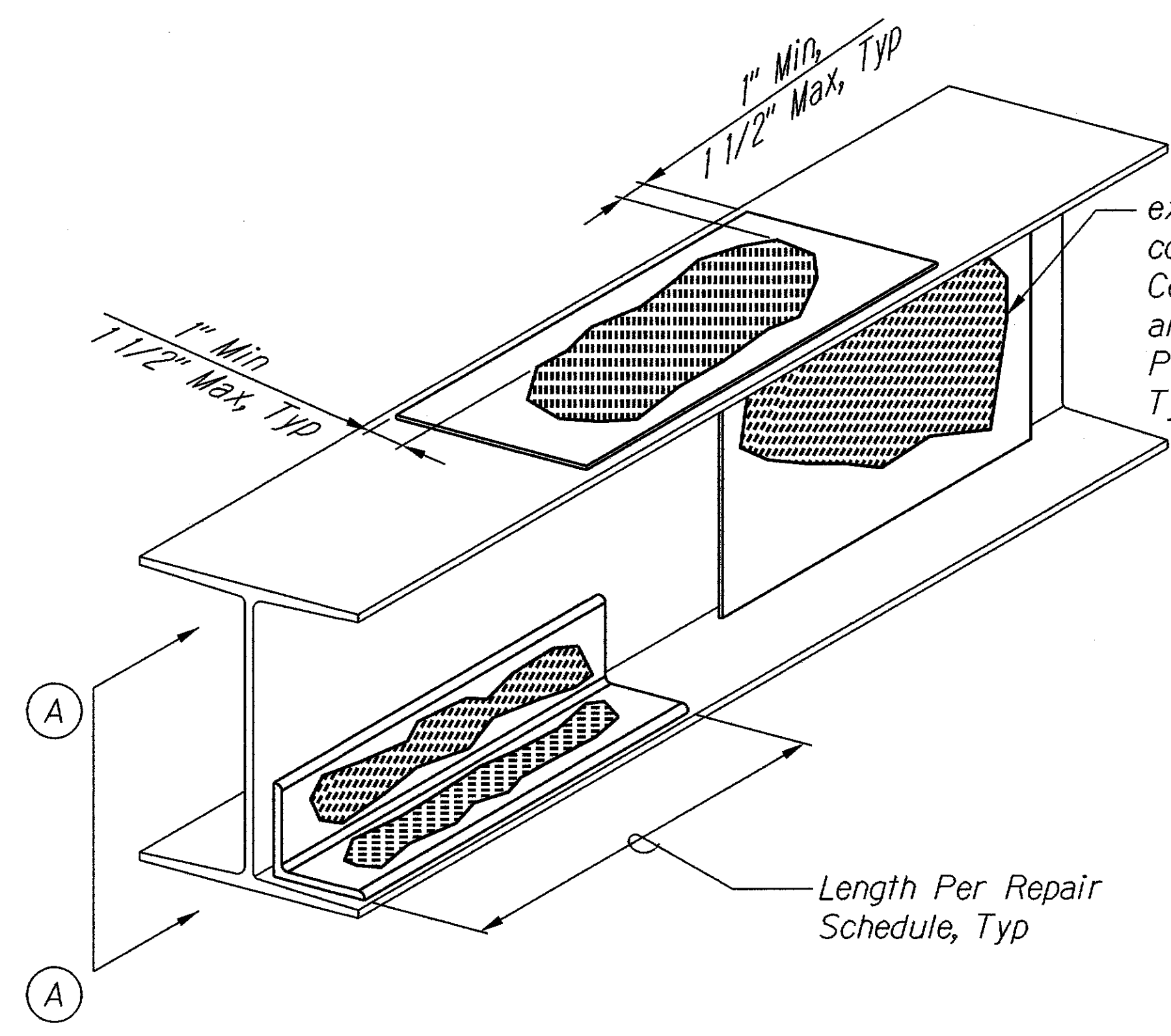
Note:
Contractor shall field verify all dimensions and conditions prior to construction.



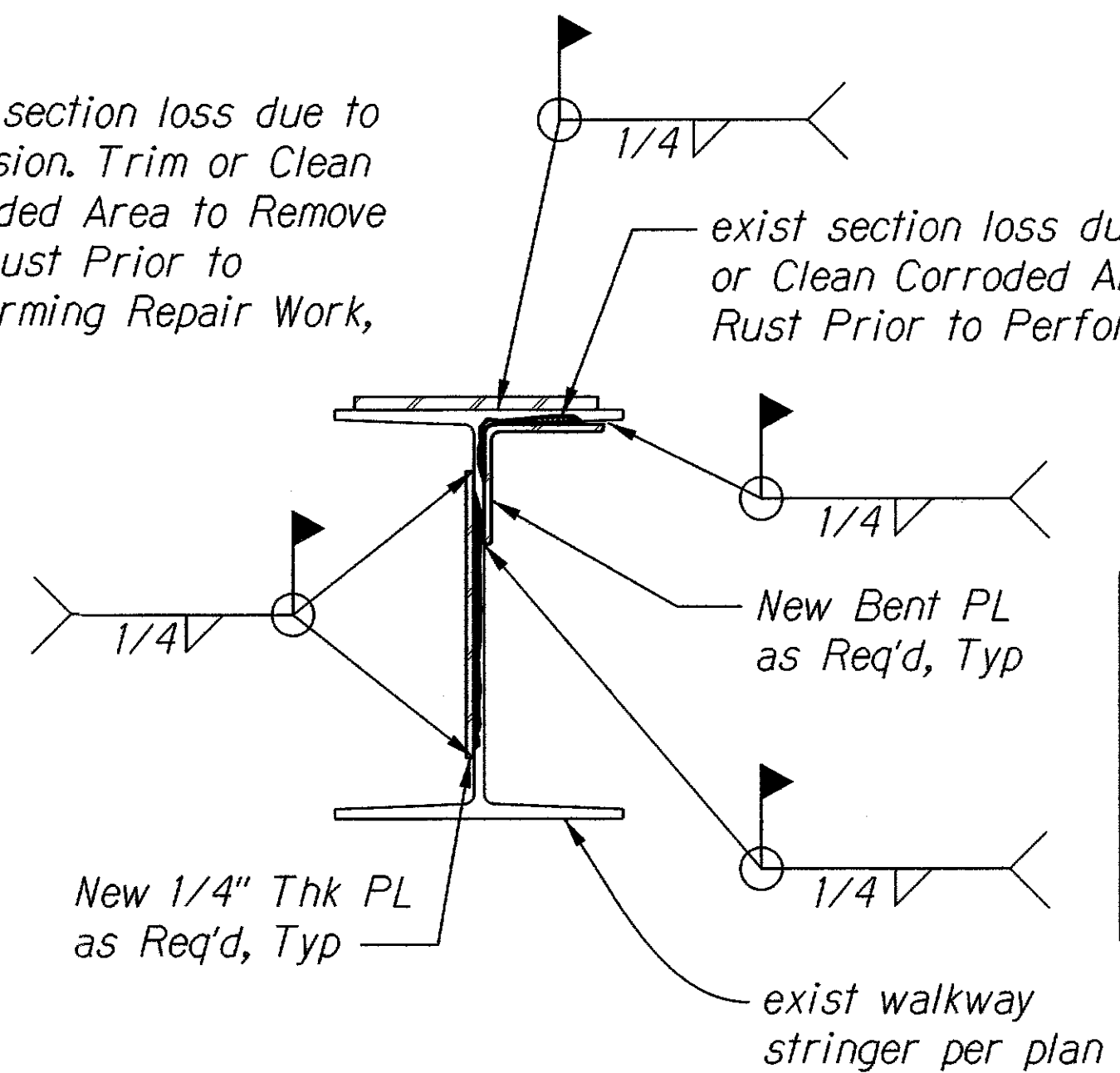
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STEEL REPAIR DETAILS
KAMEHAMEHA HIGHWAY
Repair and Repair Karsten Thot Bridge
Federal Aid Project No. BR-080-1(012)
Scale: No Scale Date: Sept 2014
SHEET No. S6.9 OF 10 SHEETS

DATE	
DESIGNED BY	
CHECKED BY	
QUANTITIES BY	
NOTED BY	
TRACED BY	
PLANNED BY	
ORIGINAL PLAN	

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	71	82



exist section loss due to corrosion. Trim or Clean Corroded Area to Remove any Rust Prior to Performing Repair Work, Typ

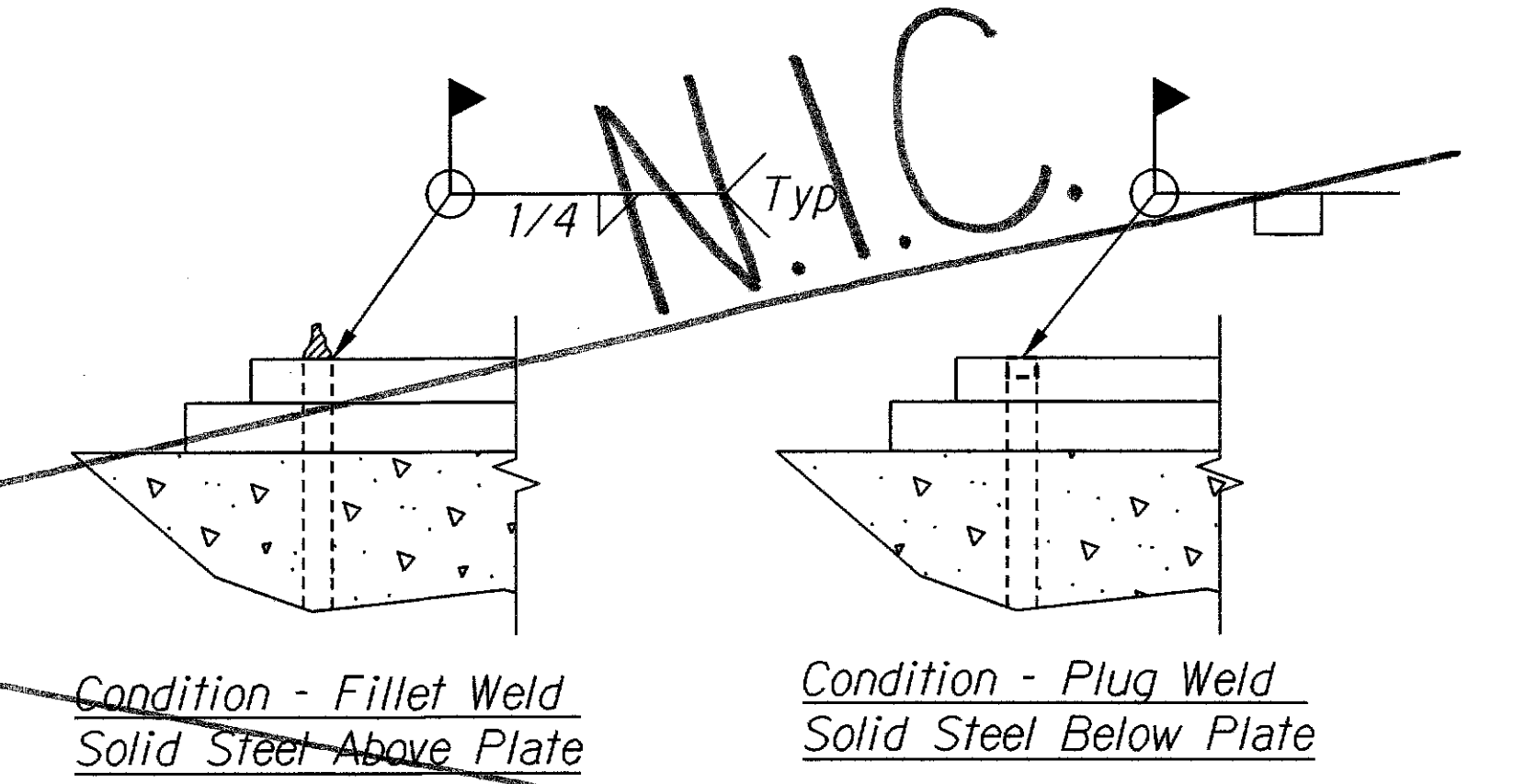
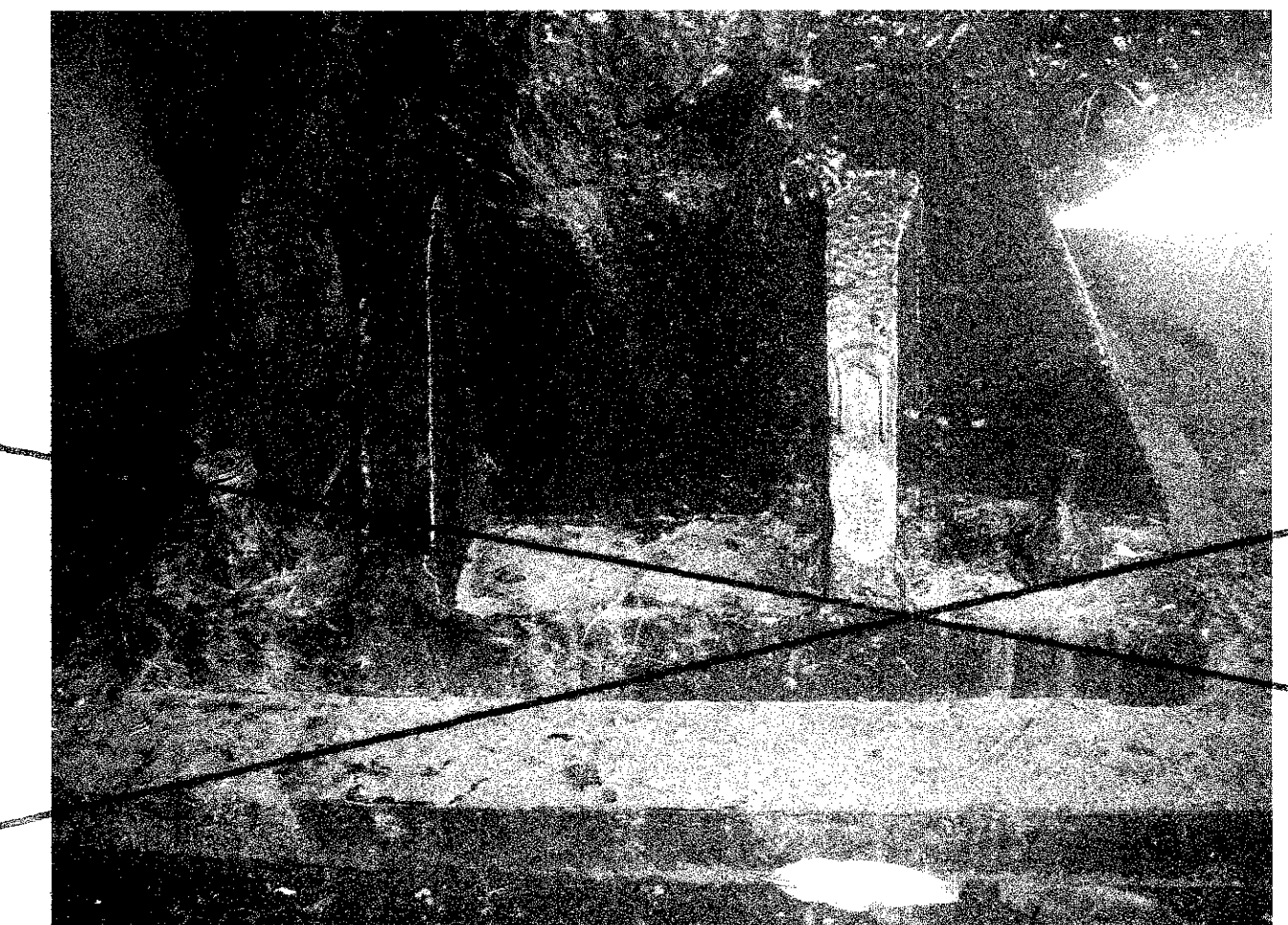
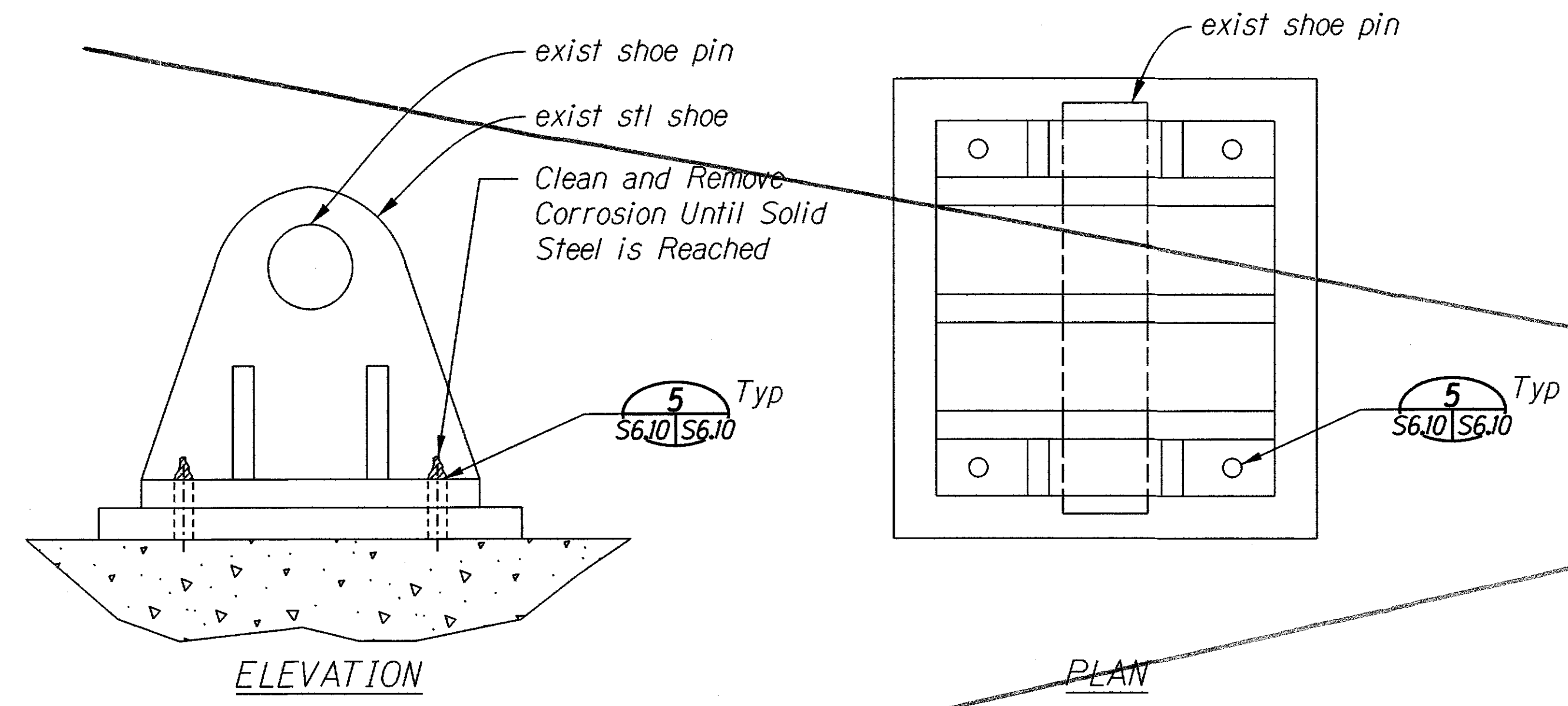


Notes:
Repairs are Typical and may be Req'd at Stringer Flanges or Web. Refer to Walkway Stringer Repair Schedule for More Information.



1 REPAIR DETAIL - TYPE 4
S6.10/S6.10 SCALE: 3" = 1'-0"

2 PHOTO - EXISTING TYPICAL STRINGER DETERIORATION
S6.10/S6.10

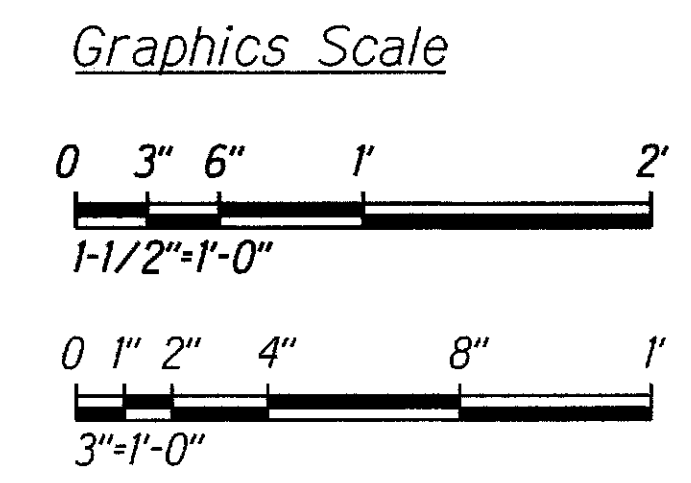


3 REPAIR DETAIL - TYPE 5
S6.10/S6.10 SCALE: 1-1/2" = 1'-0"

4 PHOTO - EXISTING STEEL SHOE BEARING CONNECTION
S6.10/S6.10

5 ELEVATION DETAIL
S6.10/S6.10 SCALE: 1-1/2" = 1'-0"

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	



GEORGE O. GUTIERREZ, JR.
LICENSED PROFESSIONAL ENGINEER
NO. 12107-S
HAWAII, U.S.A.

LICENSE EXPIRES: 4/30/16
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDITIONAL STEEL REPAIRS

KAMEHAMEHA HIGHWAY
Repair and Repaint Karsten Thot Bridge
Federal Aid Project No. BR-080-1(012)

Scale: No Scale Date: Sept 2014

SHEET No. S6.10 OF 10 SHEETS