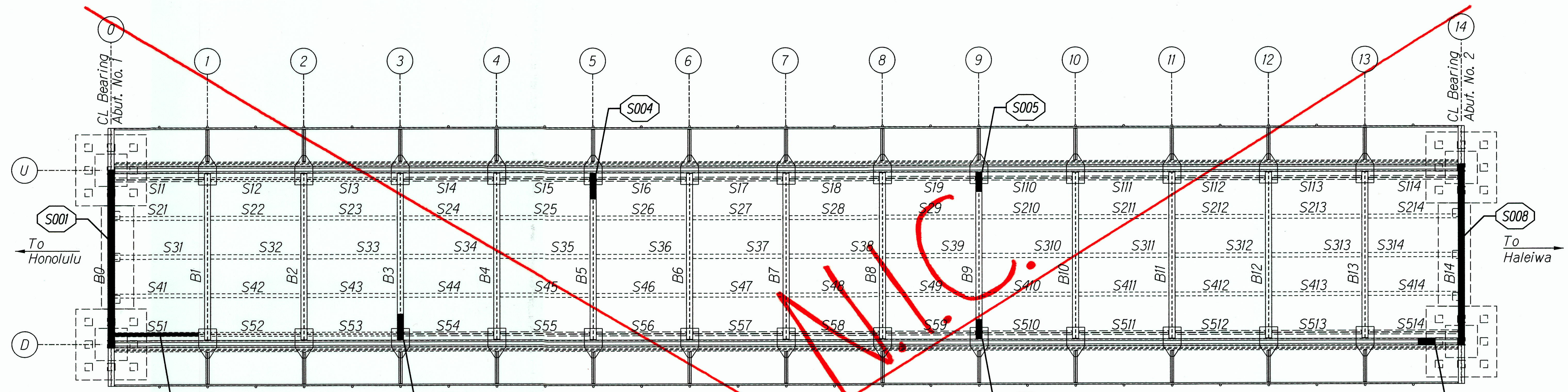


FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	62	82



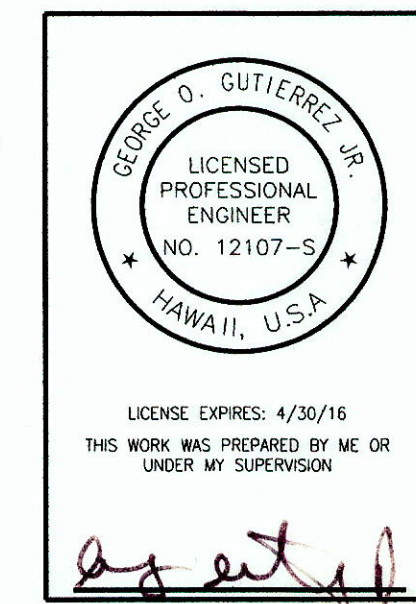
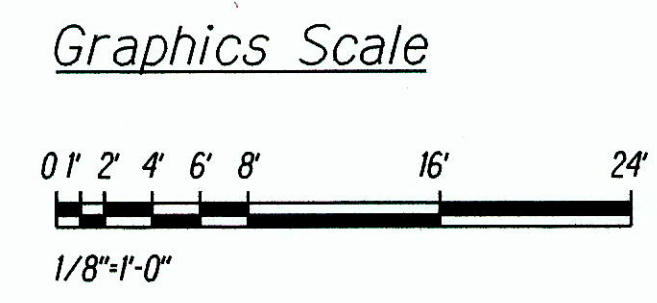
Note:
Lower Lateral X-Bracing Not Shown for Clarity.

A PLAN - STRINGER AND FLOOR BEAM REPAIRS
S6.1/S6.1 SCALE: 1/8" = 1'-0"

DECK STRINGER AND FLOOR BEAM REPAIR SCHEDULE		
Repair Number	Repair Length (Ft)	Repair Detail or Type
S001	27'-0"	Type 1/S6.10
S002	15'-0"	Type 1/S6.10
S003	2'-0"	Type 1/S6.10
S004	2'-0"	Type 1/S6.10
S005	2'-0"	Type 1/S6.10
S006	2'-0"	Type 1/S6.10
S007	3'-0"	Type 1/S6.10
S008	27'-0"	Type 1/S6.10

SURVEY PLOTTED BY _____ DATE _____
 DRAWN BY _____
 DESIGNED BY _____
 NOTED BY _____
 QUANTITIES BY _____
 CHECKED BY _____
 No. _____

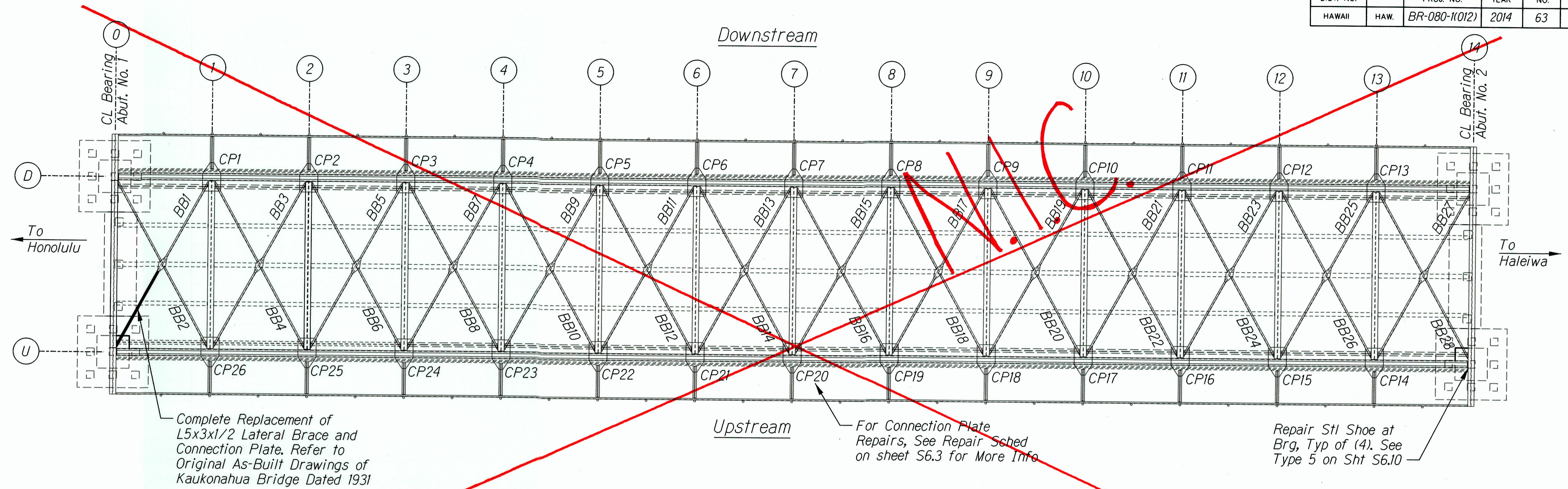
Note:
The exact amount and location of rivet replacement and new bolt installation shall be confirmed based on actual field conditions.



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
DECK STRINGER AND FLOOR BEAM REPAIRS
 KAMEHAMEHA HIGHWAY
 Repair and Repaint Karsten Thot Bridge
 Federal Aid Project No. BR-080-1(012)
 Scale: 1/8" = 1'-0" Date: Sept 2014
 SHEET No. S6.1 OF 10 SHEETS

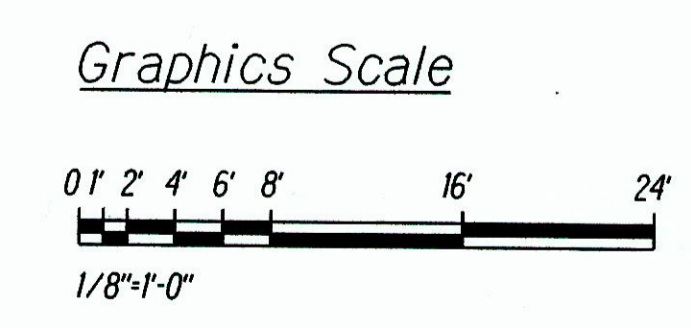
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	63	82



A PLAN - LOWER LATERAL X-BRACING AND CONNECTION PLATES
 S6.2 | S6.2 SCALE: 1/8" = 1'-0"

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	



Note:
 The exact amount and location of rivet replacement and new bolt installation shall be confirmed based on actual field conditions.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

LOWER LATERAL X-BRACING AND CONNECTION PLATE REPAIR

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

Scale: 1/8" = 1'-0" Date: Sept 2014

SHEET No. S6.2 OF 10 SHEETS

GEORGE D. 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

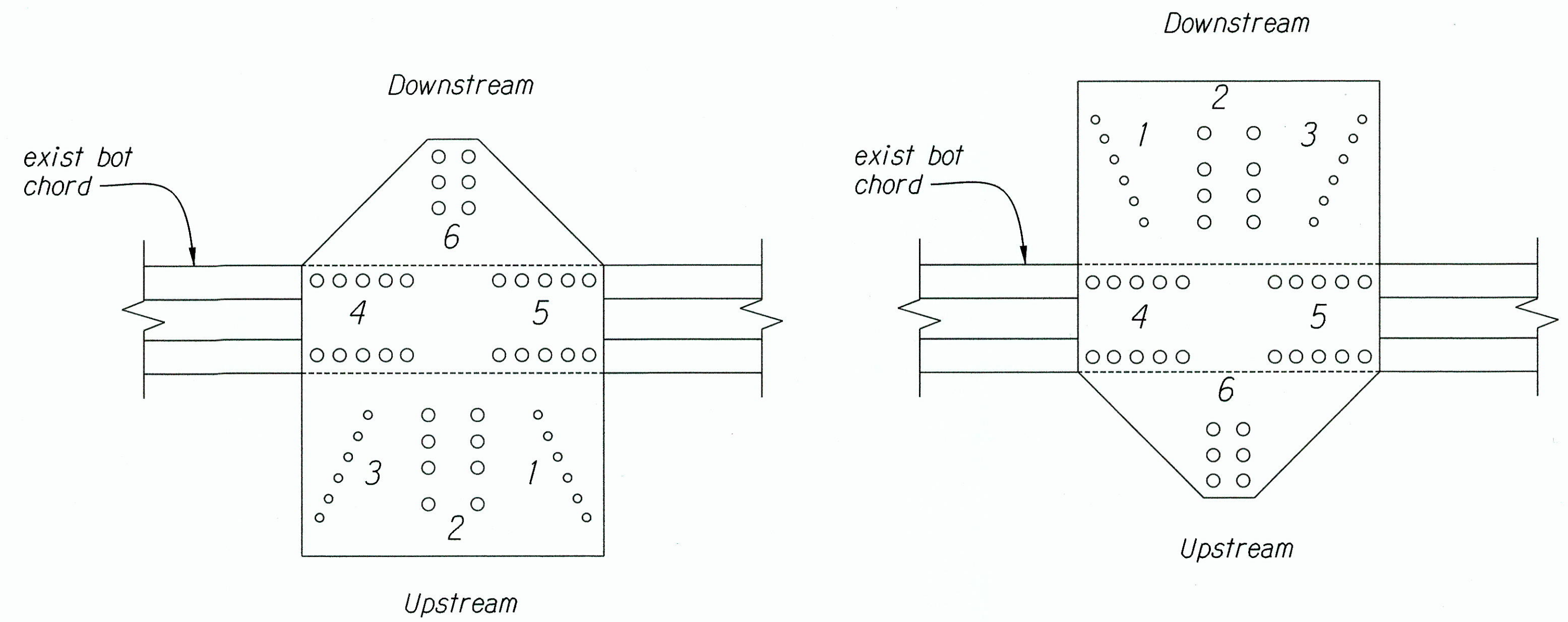
aj atsl

"AS-BUILT"

LOWER LATERAL X-BRACING CONNECTION
PLATE REPAIR SCHEDULE

Label	No. of Rivets to be Replaced Per Rivet Group						Repair Detail	Comment
	1	2	3	4	5	6		
CP1	6	0	6	0	0	6	N.I.C. Type 1/S6.9	
CP2	2	0	4	0	0	6		
CP3	6	8	0	0	0	6		
CP4	6	5	0	4	4	6		
CP5	5	8	0	4	4	6		
CP6	0	3	3	3	3	0		
CP7	0	5	5	3	3	0		
CP8	0	4	5	2	2	2		
CP9	5	6	5	0	0	6		
CP10	5	0	5	0	0	0		
CP11	5	8	5	0	0	6		
CP12	5	0	6	0	0	3		
CP13	6	8	6	0	0	6		
CP14	5	4	0	2	2	6		
CP15	0	0	0	3	3	6		
CP16	0	0	0	2	2	6		
CP17	0	0	0	2	3	6		
CP18	0	0	0	2	4	6		
CP19	0	0	0	0	2	0		
CP20	0	0	0	2	2	0		
CP21	0	0	0	2	0	6		
CP22	6	8	6	2	2	6		
CP23	2	0	2	4	4	0		
CP24	6	0	6	0	0	0		
CP25	0	0	0	0	0	6		
CP26	2	2	0	0	0	6		

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	64	82



BOTTOM CHORD HORIZONTAL CONNECTION PLATE KEYPLAN

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
No.	_____

Notes:

- The exact amount and location of rivet replacement and new bolt installation shall be confirmed based on actual field conditions.
- For rivet repair information and details, see sheet S4.1.

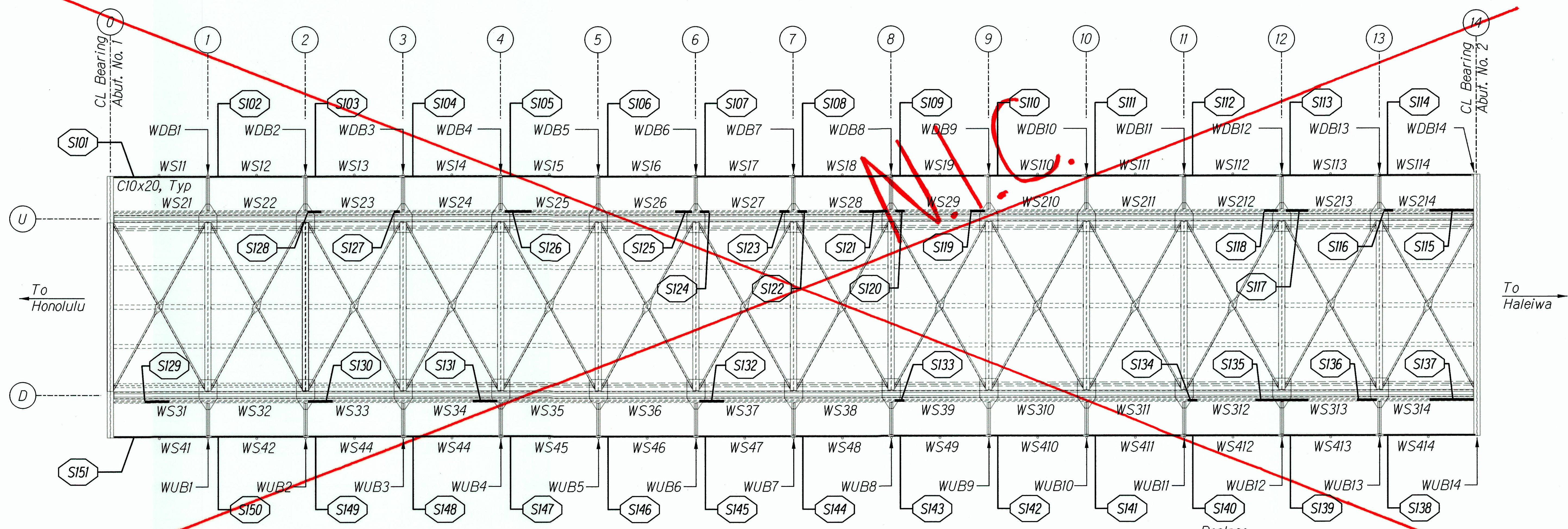
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
	LOWER LATERAL X-BRACING AND CONNECTION PLATE REPAIR
	KAMEHAMEHA HIGHWAY Repair and Repaint Karsten Thot Bridge Federal Aid Project No. BR-080-1(012)
	Scale: No Scale Date: Sept 2014

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

agutierrez

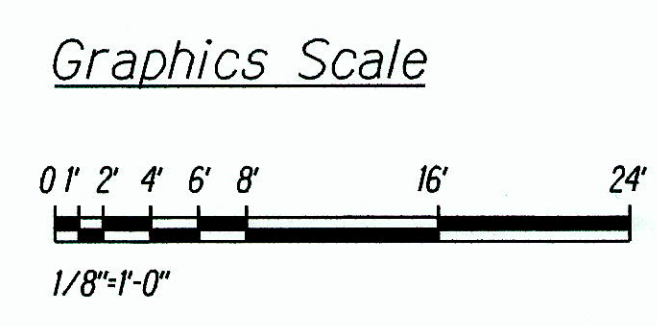
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	65	82



A PLAN - WALKWAY STRINGER REPAIR
 S6.4 | S6.4 SCALE: 1/8" = 1'-0"

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



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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

WALKWAY STRINGERS REPAIRS

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

Scale: 1/8" = 1'-0" Date: Sept 2014

SHEET No. S6.4 OF 10 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	66	82

WALKWAY STRINGER REPAIR SCHEDULE

Repair Number	Repair Length (Ft)	Repair Detail or Type	Comment
SI01	15'-0"	-	Replace * Stringer
SI02	15'-0"	-	Replace * Stringer
SI03	15'-0"	-	Replace * Stringer
SI04	15'-0"	-	Replace * Stringer
SI05	15'-0"	-	Replace * Stringer
SI06	15'-0"	-	Replace * Stringer
SI07	15'-0"	-	Replace * Stringer
SI08	15'-0"	-	Replace * Stringer
SI09	15'-0"	-	Replace * Stringer
SI10	15'-0"	-	Replace * Stringer
SI11	15'-0"	-	Replace * Stringer
SI12	15'-0"	-	Replace * Stringer
SI13	15'-0"	-	Replace * Stringer
SI14	15'-0"	-	Replace * Stringer
SI15	4'-0"	Type 1/S6.10	
SI16	1'-0"		
SI17	2'-0"		
SI18	1'-0"		
SI19	1'-0"		
SI20	1'-0"		
SI21	3'-0"		
SI22	1'-0"		
SI23	1'-0"		
SI24	1'-0"		
SI25	1'-0"		
SI26	5'-0"		

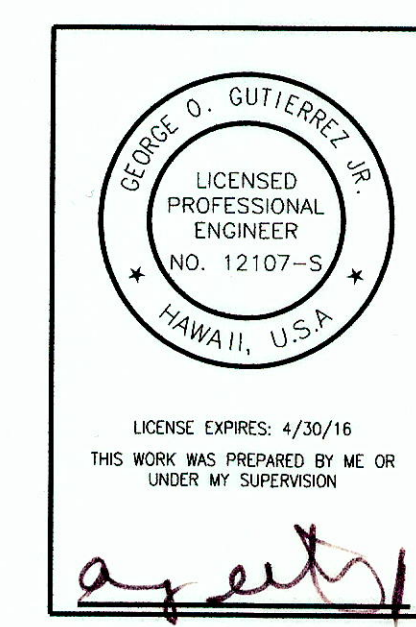
WALKWAY STRINGER REPAIR SCHEDULE

Repair Number	Repair Length (Ft)	Repair Detail or Type	Comment
SI27	1'-0"	Type 1/S6.10	
SI28	2'-0"		
SI29	4'-0"		
SI30	3'-0"		
SI31	4'-0"		
SI32	4'-0"		
SI33	1'-0"		
SI34	1'-0"		
SI35	6'-0"		
SI36	3'-0"		
SI37	3'-0"		
SI38	15'-0"		-
SI39	15'-0"	-	Replace * Stringer
SI40	15'-0"	-	Replace * Stringer
SI41	15'-0"	-	Replace * Stringer
SI42	15'-0"	-	Replace * Stringer
SI43	15'-0"	-	Replace * Stringer
SI44	15'-0"	-	Replace * Stringer
SI45	15'-0"	-	Replace * Stringer
SI46	15'-0"	-	Replace * Stringer
SI47	15'-0"	-	Replace * Stringer
SI48	15'-0"	-	Replace * Stringer
SI49	15'-0"	-	Replace * Stringer
SI50	15'-0"	-	Replace * Stringer
SI51	15'-0"	-	Replace * Stringer

Note:

* Refer to original As-Built drawings of Kaukonahua Bridge dated 1931 for more information.

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NO.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WALKWAY STRINGERS REPAIRS

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

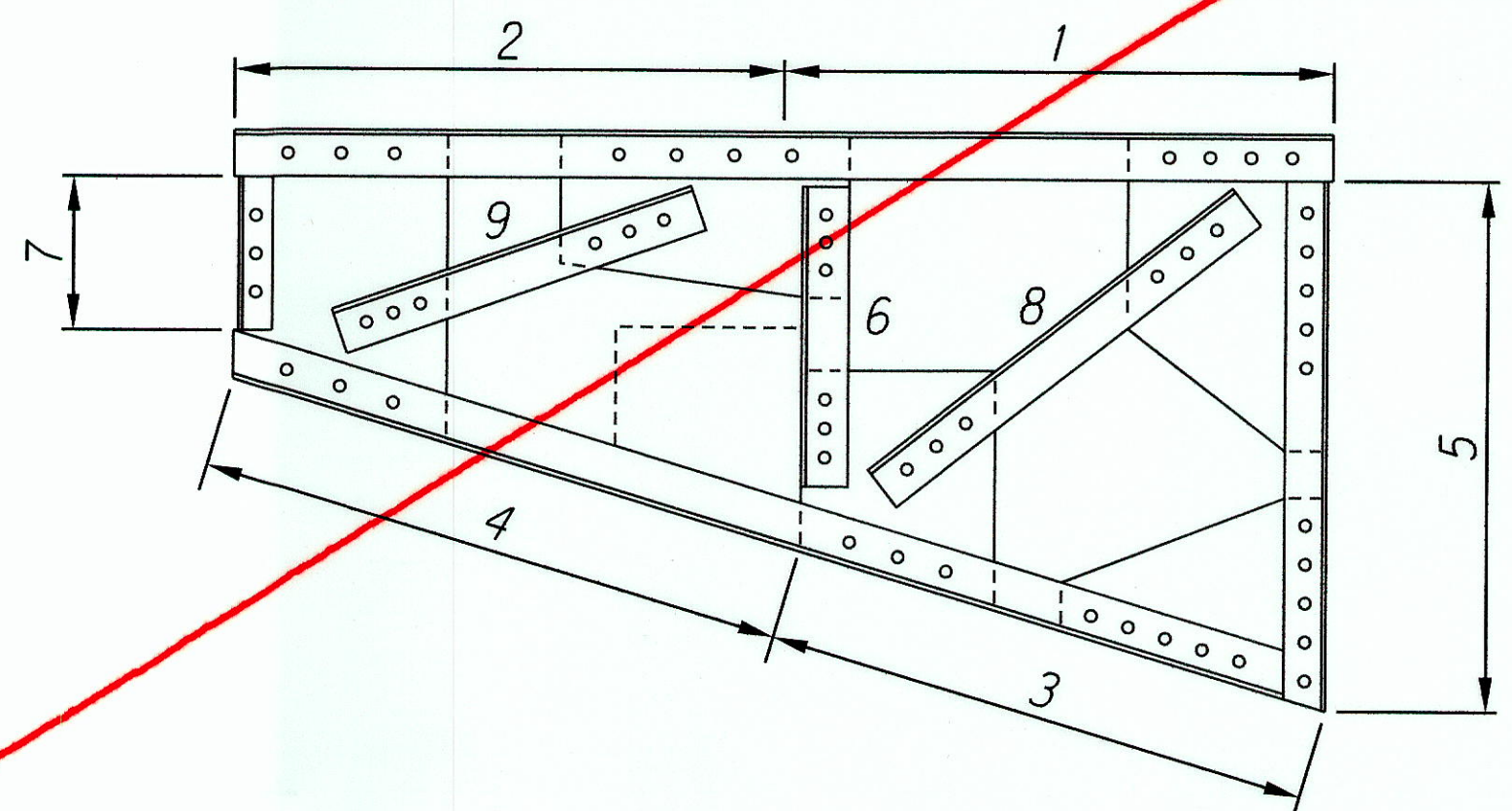
Scale: No Scale Date: Sept 2014

SHEET No. S6.5 OF 10 SHEETS

"AS-BUILT"

WALKWAY TRUSS MEMBERS										
Walkway Truss	Truss Member Number									
	1	2	3	4	5	6	7	8	9	10
	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail
WU0 Detail	2'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU1 Detail	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	0	0	0	0	1'-0" Type 3/S6.9	0
WU2 Detail	0	2'-0" Type 3/S6.9	3'-0" Type 3/S6.9	0	0	0	2'-0" Type 3/S6.9	0	0	0
WU3 Detail	0	2'-0" Type 3/S6.9	1'-0" Type 3/S6.9	0	0	0	1'-6" Type 3/S6.9	0	0	0
WU4 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU5 Detail	0	2'-0" Type 3/S6.9	1'-0" Type 3/S6.9	0	0	0	1'-6" Type 3/S6.9	0	0	0
WU6 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU7 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU8 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU9 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	2'-6" Type 3/S6.9	0
WU10 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WU11 Detail	2'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	2'-0" Type 3/S6.9	0	0	0	0	0
WU12 Detail	1'-0" Type 3/S6.9	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	1'-0" Type 3/S6.9	0	0	0	0	0
WU13 Detail	1'-0" Type 3/S6.9	0	1'-0" Type 3/S6.9	0	0	0	0	0	0	0
WU14 Detail	3'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0

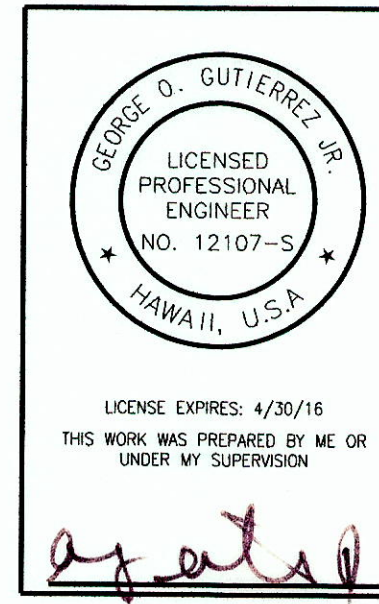
WALKWAY TRUSS MEMBERS										
Walkway Truss	Truss Member Number									
	1	2	3	4	5	6	7	8	9	10
	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail	Repair Length Detail
WD0 Detail	0	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0
WD1 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD2 Detail	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	1'-0" Type 3/S6.9	0	0	0	0	0
WD3 Detail	0	0	0	0	0	0	0	0	0	0
WD4 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD5 Detail	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	0	0	0	3'-0" Type 3/S6.9	0	0
WD6 Detail	0	0	0	0	0	0	0	0	0	0
WD7 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD8 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD9 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD10 Detail	0	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0
WD11 Detail	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	1'-0" Type 3/S6.9	0	0	0	0	0
WD12 Detail	1'-0" Type 3/S6.9	1'-0" Type 3/S6.9	0	0	1'-0" Type 3/S6.9	0	0	0	0	0
WD13 Detail	1'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	1'-0" Type 3/S6.9	0	0	0	0	0
WD14 Detail	3'-0" Type 3/S6.9	2'-0" Type 3/S6.9	0	0	0	0	0	0	0	0



KEY ELEVATION - WALKWAY TRUSS (WU#/WD#) MEMBERS

Notes:

1. WU# - Represent upstream walkway truss. See sheet S6.4 for walkway truss location.
2. WD# - Represent downstream walkway truss. See sheet S6.4 for walkway truss location.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**REPAIR TABLES -
WALKWAY TRUSS MEMBERS**

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

Scale: No Scale Date: Sept 2014

SHEET No. S6.6 OF 10 SHEETS

"AS-BUILT"

SURVEY PLOTTED BY _____ DATE _____
DRAWN BY _____
CHECKED BY _____
REVISIONS BY _____
QUANTITIES BY _____
NOTES BY _____
ORIGINAL PLAN _____
NO. _____

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1012	2014	68	82

WALKWAY TRUSS CONNECTION PLATES						
Walkway Truss	Connection Plate Repair Area Size Connection Plate Repair Detail					
	1 Repair Length Detail	2 Repair Length Detail	3 Repair Length Detail	4 Repair Length Detail	5 Repair Length Detail	6 Repair Length Detail
WU0 Detail	0	0	0	0	0	0
WU1 Detail	0	0	0	0	0	0
WU2 Detail	0	0	0	0	0	0
WU3 Detail	0	0	0	0	0	0
WU4 Detail	0	0	0	0	0	0
WU5 Detail	0	0	0	0	0	0
WU6 Detail	0	0	0	0	0	0
WU7 Detail	0	0	0	0	0	0
WU8 Detail	0	0	0	0	0	0
WU9 Detail	0	0	0	0	0	0
WU10 Detail	0	0	0	0	0	0
WU11 Detail	0	0	0	0	0	0
WU12 Detail	0	0	0	0	0	0
WU13 Detail	0	0	0	0	0	0
WU14 Detail	0	0	0	0	0	0

WALKWAY TRUSS CONNECTION PLATES						
Walkway Truss	Connection Plate Repair Area Size Connection Plate Repair Detail					
	1 Repair Length Detail	2 Repair Length Detail	3 Repair Length Detail	4 Repair Length Detail	5 Repair Length Detail	6 Repair Length Detail
WD0 Detail	0	0	0	0	1'-0"x1'-0" Type 2/S6.9	0
WD1 Detail	0	0	0	0	0	0
WD2 Detail	0	0	0	0	0	0
WD3 Detail	0	0	0	0	0	0
WD4 Detail	0	0	0	0	0	0
WD5 Detail	0	0	0	0	0	0
WD6 Detail	0	0	0	0	0	0
WD7 Detail	0	1'-0"x1'-0" Type 2/S6.9	0	0	0	0
WD8 Detail	0	0	0	0	0	0
WD9 Detail	0	0	0	0	0	0
WD10 Detail	0	0	0	0	0	0
WD11 Detail	0	0	0	0	0	0
WD12 Detail	0	0	0	0	0	0
WD13 Detail	0	0	0	0	0	0
WD14 Detail	0	0	0	0	0	0

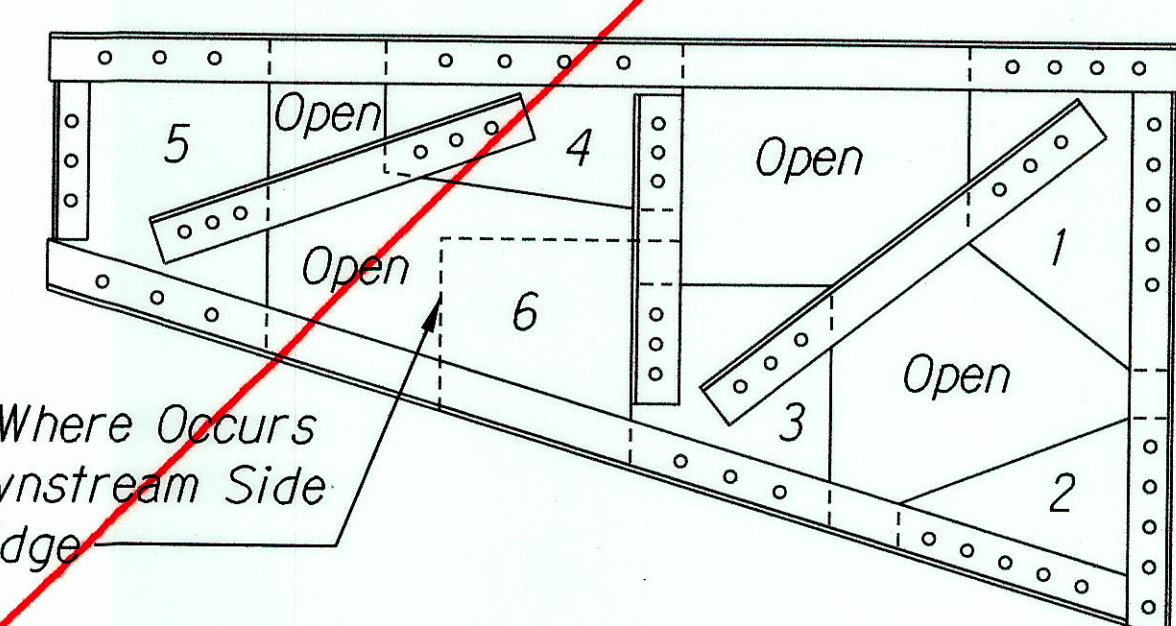


Plate Where Occurs at Downstream Side of Bridge

KEY ELEVATION - WALKWAY TRUSS (WU#/WD#) CONNECTION PLATES

Notes:

1. WU# - Represent upstream walkway truss. See sheet S6.4 for walkway truss location.
2. WD# - Represent downstream walkway truss. See sheet S6.4 for walkway truss location.

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

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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

REPAIR TABLES - WALKWAY TRUSS CONNECTION PLATES

KAMEHAMEHA HIGHWAY
 Repair and Repaint Karsten Thot Bridge
 Federal Aid Project No. BR-080-1012

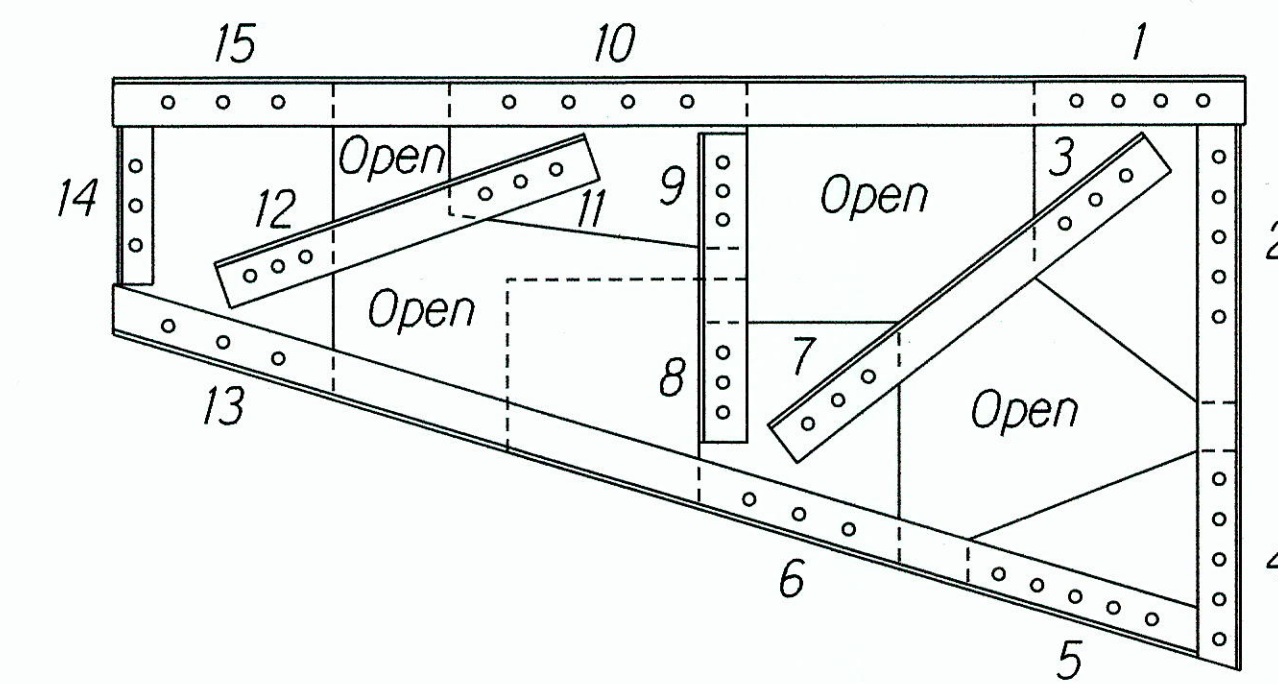
Scale: No Scale Date: Sept 2014

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-080-1(012)	2014	69	82

WALKWAY TRUSS RIVET GROUPS

Sidewalk Truss	No. of Rivets to be Replaced Per Walkway Truss Rivet Group														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
WD0	4	5	3	5	5	0	0	0	0	0	3	3	3	3	3
WD1	0	0	0	2	5	0	0	0	0	0	0	3	0	3	3
WD2	0	0	0	0	1	0	0	0	0	0	0	3	0	0	3
WD3	1	0	0	2	5	0	0	0	0	0	0	3	0	1	3
WD4	0	0	0	1	3	1	0	0	0	0	0	0	0	0	3
WD5	0	0	0	3	5	1	0	0	0	0	0	3	0	3	3
WD6	0	0	0	1	3	0	0	0	0	0	0	3	0	3	3
WD7	0	0	0	3	5	3	0	0	0	0	0	0	0	0	3
WD8	0	0	0	3	0	0	0	0	0	0	0	3	1	0	3
WD9	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
WD10	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
WD11	1	0	0	1	3	0	0	0	0	0	2	0	3	0	3
WD12	0	0	0	2	1	0	0	0	0	0	0	0	3	0	3
WD13	0	0	0	0	4	0	0	0	0	0	0	3	0	0	3
WD14	0	5	0	5	3	0	0	0	0	0	0	0	0	3	3



KEY ELEVATION - WALKWAY TRUSS RIVET GROUPS

Note:

See Sht S4.1 and Type 1 Detail on Sht S6.9 for Rivet Replacement Information.

WALKWAY TRUSS RIVET GROUPS

Sidewalk Truss	No. of Rivets to be Replaced Per Walkway Truss Rivet Group														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
WU0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1
WU1	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
WU2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
WU3	0	0	0	1	3	0	0	0	0	0	3	3	1	0	3
WU4	0	0	0	2	5	2	0	0	0	0	0	0	3	3	0
WU5	0	0	0	2	5	0	0	0	0	0	3	3	3	3	3
WU6	0	0	0	0	0	3	0	0	0	3	3	3	0	3	3
WU7	0	0	0	0	5	0	0	0	0	0	3	3	1	0	3
WU8	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0
WU9	0	0	0	1	2	0	0	0	0	0	3	3	1	3	3
WU10	0	0	0	0	0	0	0	0	0	0	0	3	0	2	3
WU11	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2
WU12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
WU13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WU14	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0

DESIGNED BY	DATE
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

GEORGE D. 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

REPAIR TABLES - WALKWAY TRUSS RIVET GROUPS

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

Scale: No Scale Date: Sept 2014