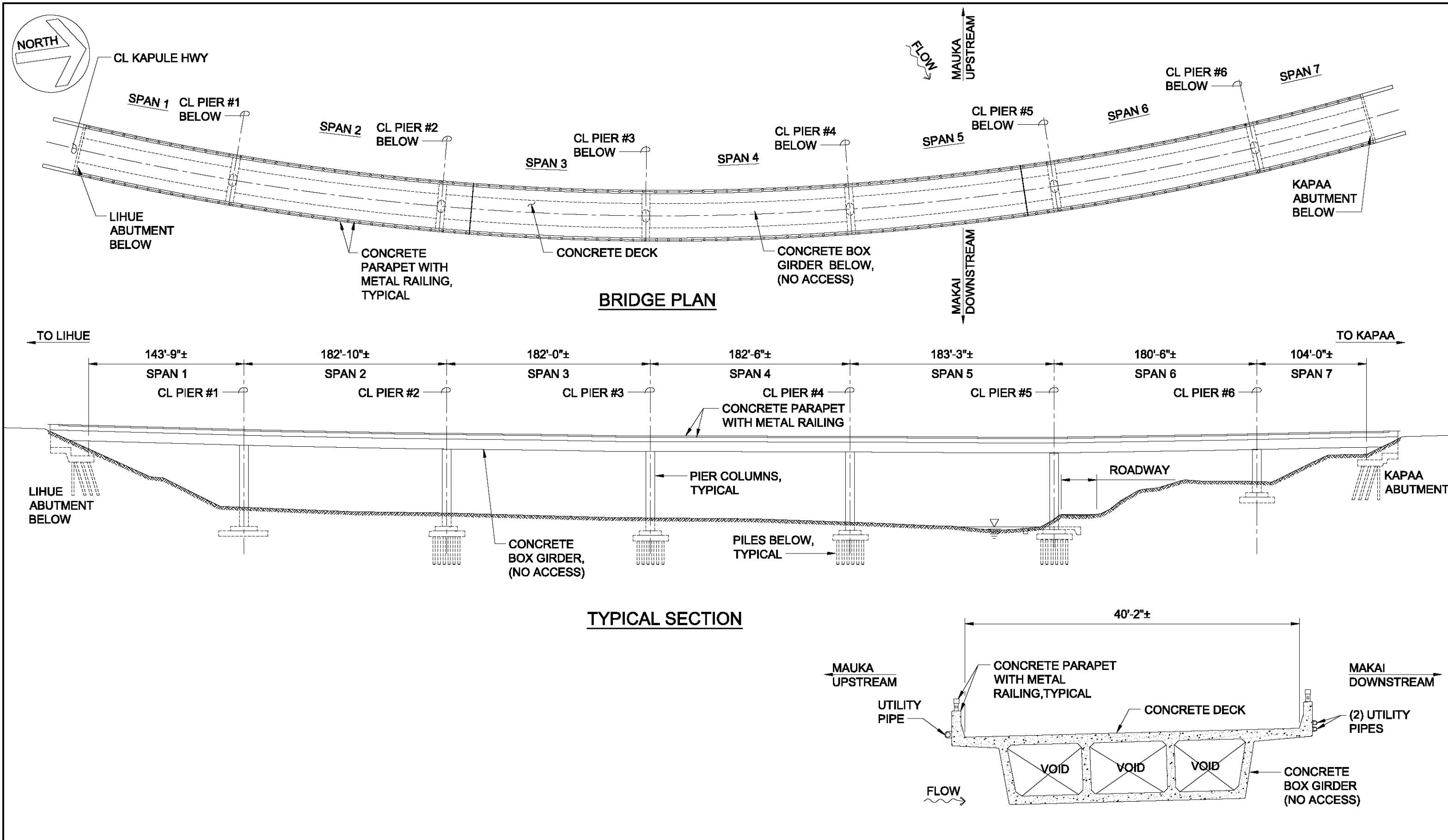

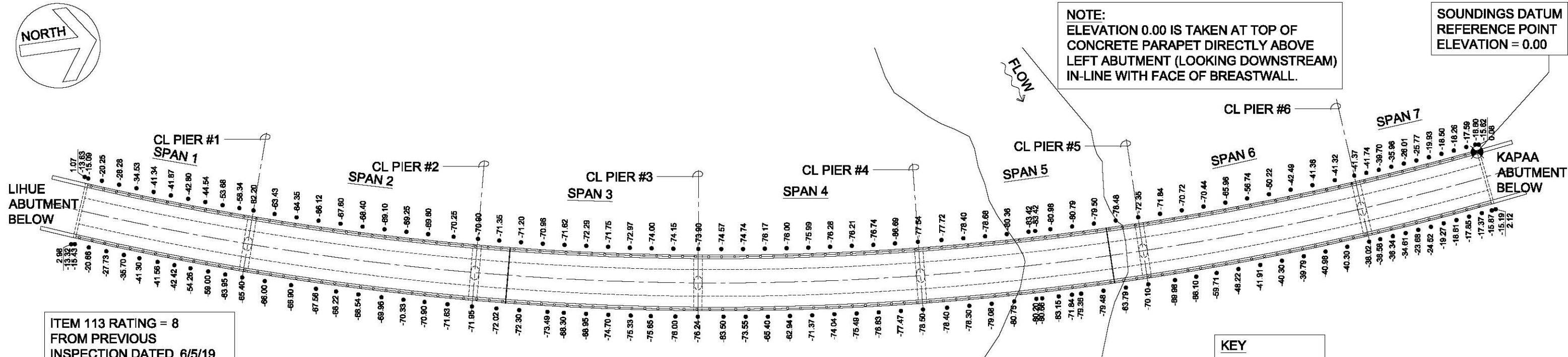
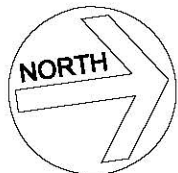


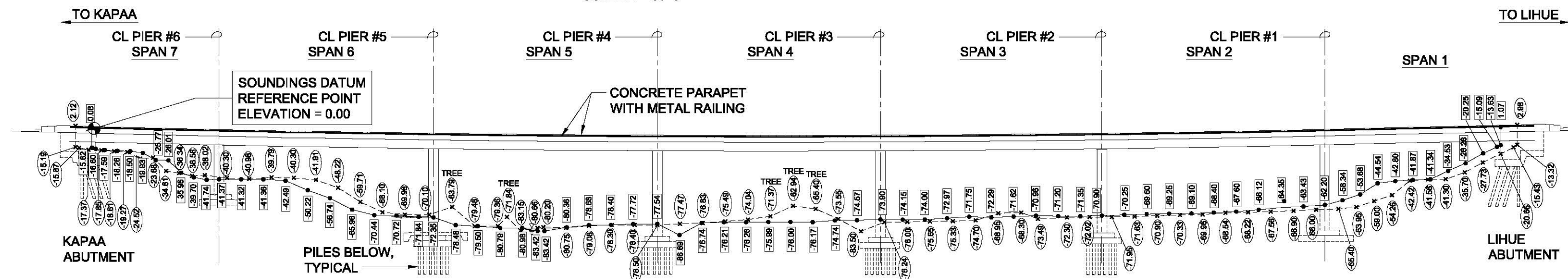
APPENDIX B: FIGURES



 <p>NAGAMINE OKAWA ENGINEERS INC. 1003 Bishop Street, SUITE 2025 Honolulu, Hawaii 96813</p>	BRIDGE PLAN, TYPICAL SECTION & TRANSVERSE SECTION Bridge Name: HANAMAULU RIVER (VIADUCT) BRIDGE			State of Hawaii Department of Transportation Highways Division, Kauai District	RAILING NOTE: RAILING HEIGHT WAS TAKEN AT AN ARBITRARY LOCATION AND MAY VARY ALONG BRIDGE LENGTH.	DIMENSION(S): METAL RAILING HEIGHT = 1'-5" CONCRETE PARAPET HEIGHT = 3'-2"	TRANSVERSE SECTION
	Structure No. : 007000510200281	Route No: 00051	Mile Post: 2.810				
	Date of Inspection: 6/10/2021	Scale: NTS					



BRIDGE PLAN (WITH SOUNDINGS)
SCALE: 1"=80'-0"



SOUNDINGS AT UPSTREAM AND DOWNSTREAM SIDES OF BRIDGE LOOKING DOWNSTREAM
SCALE: NTS

BASED ON 1986 AS-BUILTS
SUBSTRUCTURE BOTTOM OF
FOUNDATION FOOTING:

LIHUE ABUTMENT (PILE TIP) = - 63.14
PIER 1 (SPREAD FTG) = - 91.77
PIER 2 (PILE TIP) = - 180.20
PIER 3 (PILE TIP) = - 190.33
PIER 4 (PILE TIP) = - 210.64
PIER 5 (PILE TIP) = - 132.37
PIER 6 (SPREAD FTG) = - UNKWN
KAPAA ABUTMENT (PILE TIP) = - 56.88

NOTE:

1. DOWNSTREAM POINTS ARE
ADJUSTED TO FIT WITHIN
UPSTREAM ELEVATION.

2. ADDITIONAL HISTORIC
SOUNDING POINTS LOCATED
IN CAD FILE WITH KAUAI
DOT, HIGHWAYS DIVISION.

KEY

0.00 UPSTREAM ELEVATION IN FEET
0.00 DOWNSTREAM ELEVATION IN FEET



NAGAMINE OKAWA ENGINEERS INC.
1003 Bishop Street, SUITE 2025
Honolulu, Hawaii 96813

BRIDGE PLAN AND ELEVATIONS

Bridge Name: HANAMAULU RIVER (VIADUCT) BRIDGE

Structure No. : 007000510200281

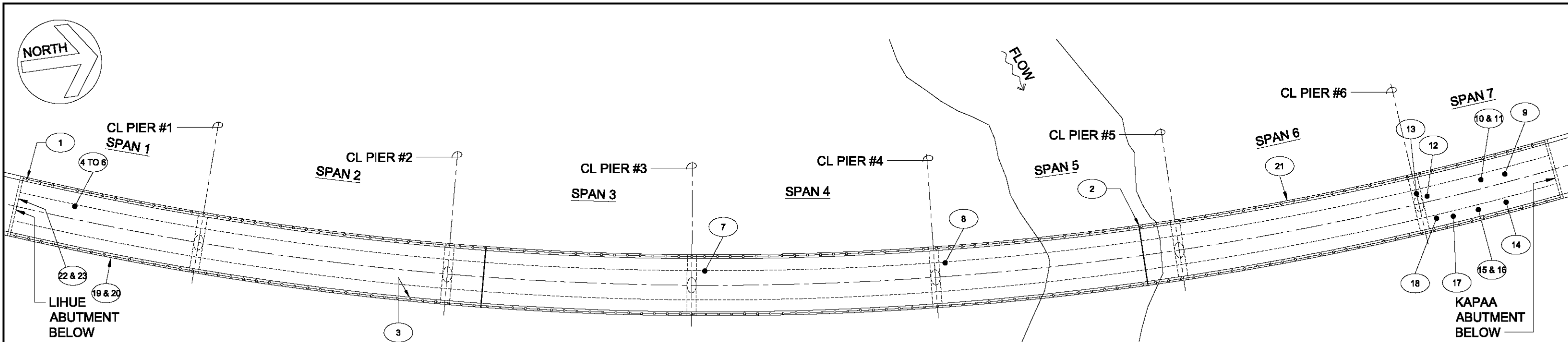
Route No: 00051

Mile Post: 2.810

Date of Inspection: 6/10/2021

Scale: AS NOTED

State of Hawaii
Department of Transportation
Highways Division,
Kauai District



CS3 AND/OR CS4 DEFECT TABLE				
DEFECT NO.	DEFECT TYPE	SIZE	LOCATION	PHOTO CAPTION NO.
1	CRACK WELD	-	UPSTREAM RAILING, 1ST POST FROM LIHUE END OF BRIDGE	7
2	SPALL WITH EXPOSED REBAR	3"x1'-6"x4"	UPSTREAM PARAPET, AT DECK JOINT IN SPAN 5, NEAR PIER 5	9
3	SPALL WITH EXPOSED REBAR, SECTION LOSS	4"x4"x1/2"	DOWNSTREAM PARAPET, SPAN 2, KAPAA END	14
4	SPALL WITH EXPOSED REBAR, SECTION LOSS	2"x4"x1/4"	UPSTREAM BRIDGE DECK, BICYCLE LANE, SPAN1 LIHUE END	24
5		2"x4"x1/4"		25
6		(4) 2"x4"x1/4"		26
7	SPALL WITH EXPOSED REBAR, SECTION LOSS	2"x9"x1/4"	BRIDGE DECK, SPAN 4 AT PIER 3	30
8	SPALL WITH EXPOSED REBAR, SECTION LOSS	(2) 2"x9"x1/4"	BRIDGE DECK, SPAN 5 NEAR PIER 4	32
9	SPALL WITH EXPOSED REBAR, SECTION LOSS	2"x10"x1/4"	BRIDGE DECK, UPSTREAM LANE IN SPAN 7	33
10	SPALL WITH EXPOSED REBAR, SECTION LOSS	7'-6"x1'-2"x1/4"	BRIDGE DECK, UPSTREAM LANE IN SPAN 7	34
11		2"x3"x1/4"		

CS3 AND/OR CS4 DEFECT TABLE				
DEFECT NO.	DEFECT TYPE	SIZE	LOCATION	PHOTO CAPTION NO.
12	SPALL WITH EXPOSED REBAR, SECTION LOSS	3"x4"x1/4"	BRIDGE DECK, UPSTREAM LANE IN SPAN 7	35
13	SPALL WITH EXPOSED REBAR, SECTION LOSS	4"x2"x1/4"	BRIDGE DECK, UPSTREAM LANE IN SPAN 7	36
14	SPALL WITH EXPOSED REBAR, SECTION LOSS	3"x5"x1/4"	BRIDGE DECK, DOWNSTREAM LANE IN SPAN 7	37
15	SPALL WITH EXPOSED REBAR, SECTION LOSS	2"x4"x1/8"	BRIDGE DECK, DOWNSTREAM LANE IN SPAN 7	38
16		(3) 2"x1'-2"x1/8"		
17	SPALL WITH EXPOSED REBAR, SECTION LOSS	(2) 2"x6"x1/4"	BRIDGE DECK, DOWNSTREAM LANE IN SPAN 7	39
18	SPALL WITH EXPOSED REBAR, SECTION LOSS	2"x8"x1/4"	BRIDGE DECK, DOWNSTREAM LANE IN SPAN 7	40
19	SPALL	4"x8"x1"	BOX GIRDER, DOWNSTREAM SIDE IN SPAN 1	45
20	DELAMINATION	2'-3"x1'-2'		
21	SPALL, HONEYCOMBING	1'-0"x1'-0"x1'-0"	BOX GIRDER SOFFIT, UPSTREAM EDGE IN SPAN 6	59
22	SPALL	1'-4"x1'-0"x6"	LIHUE ABUTMENT, 2ND BEARING FROM UPSTREAM SIDE OF BRIDGE	65
23		1'-3"x10"x3"		