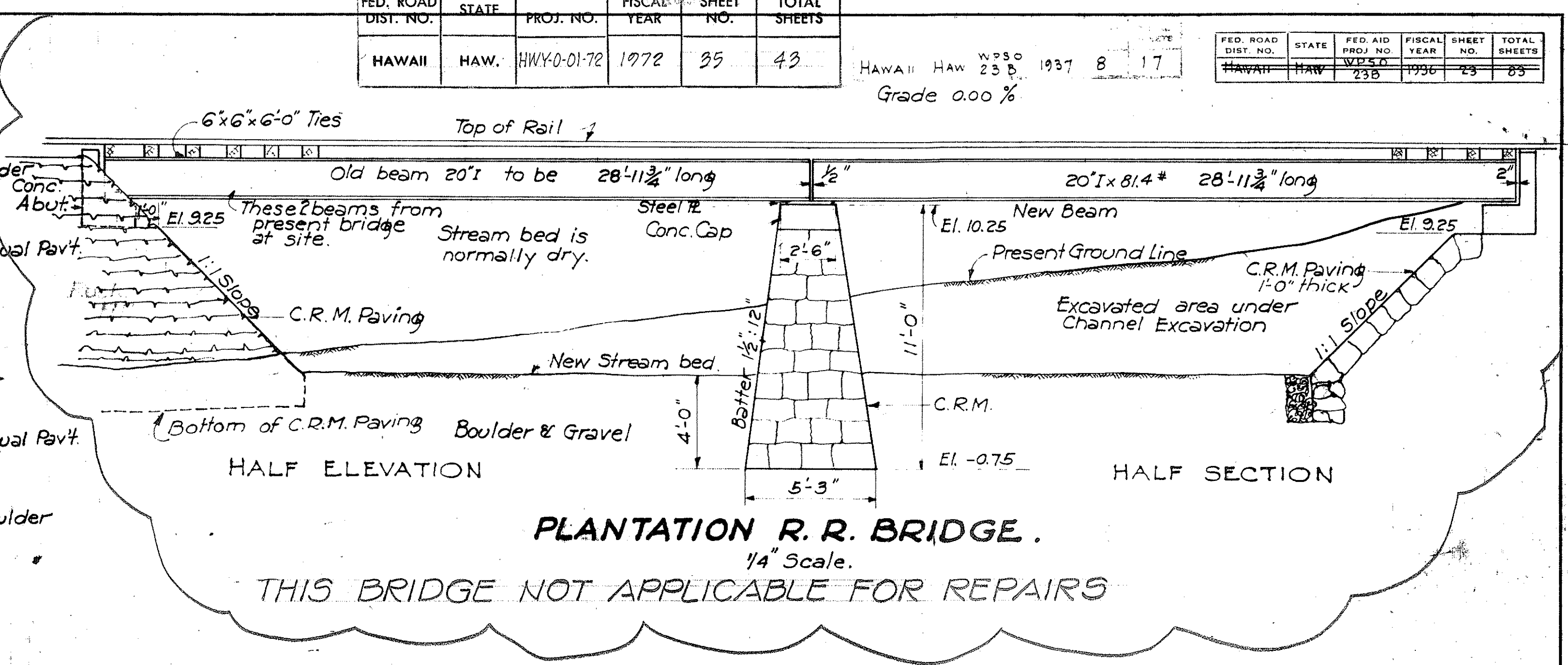
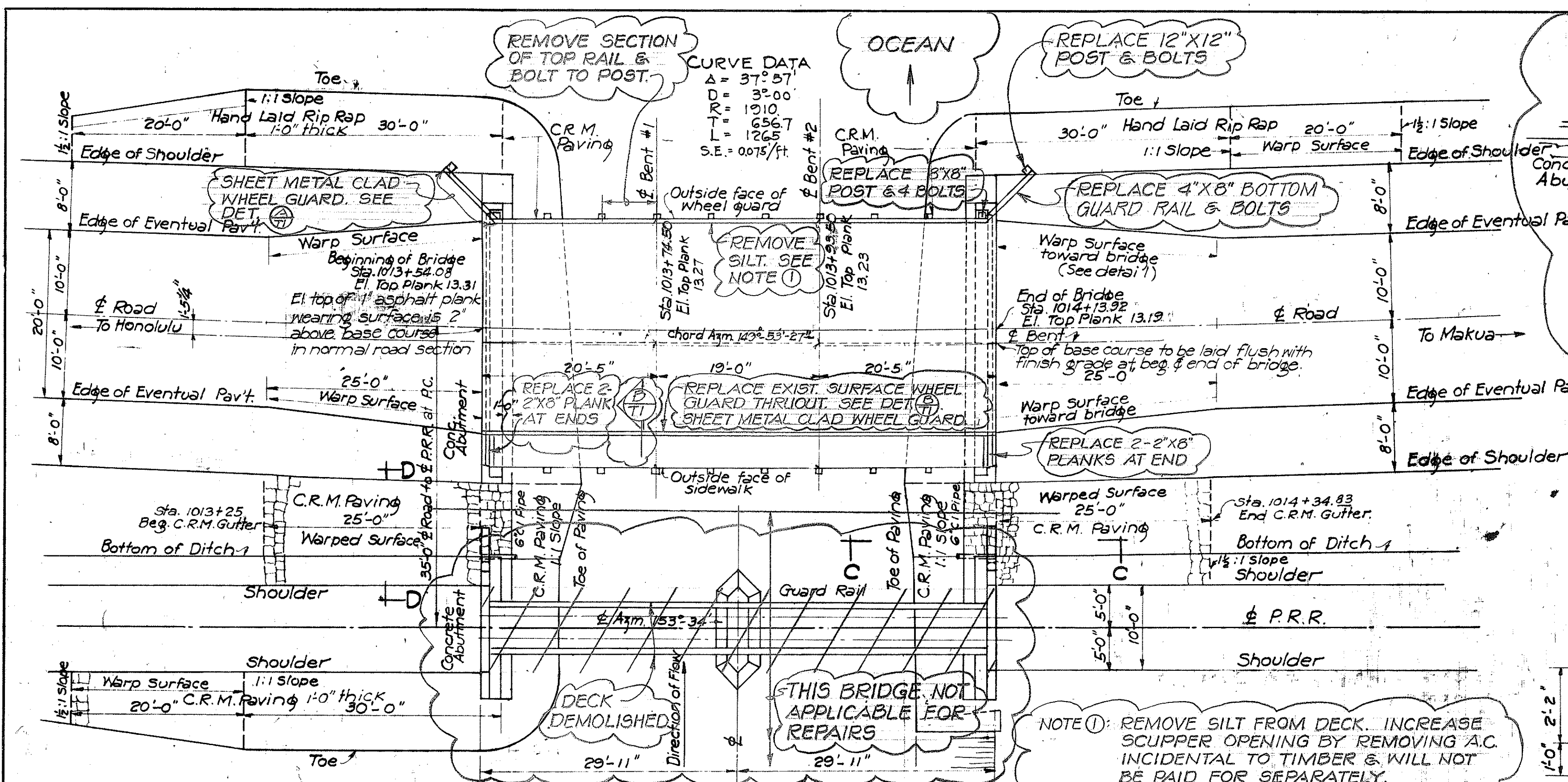


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-01-72	1972	35	43

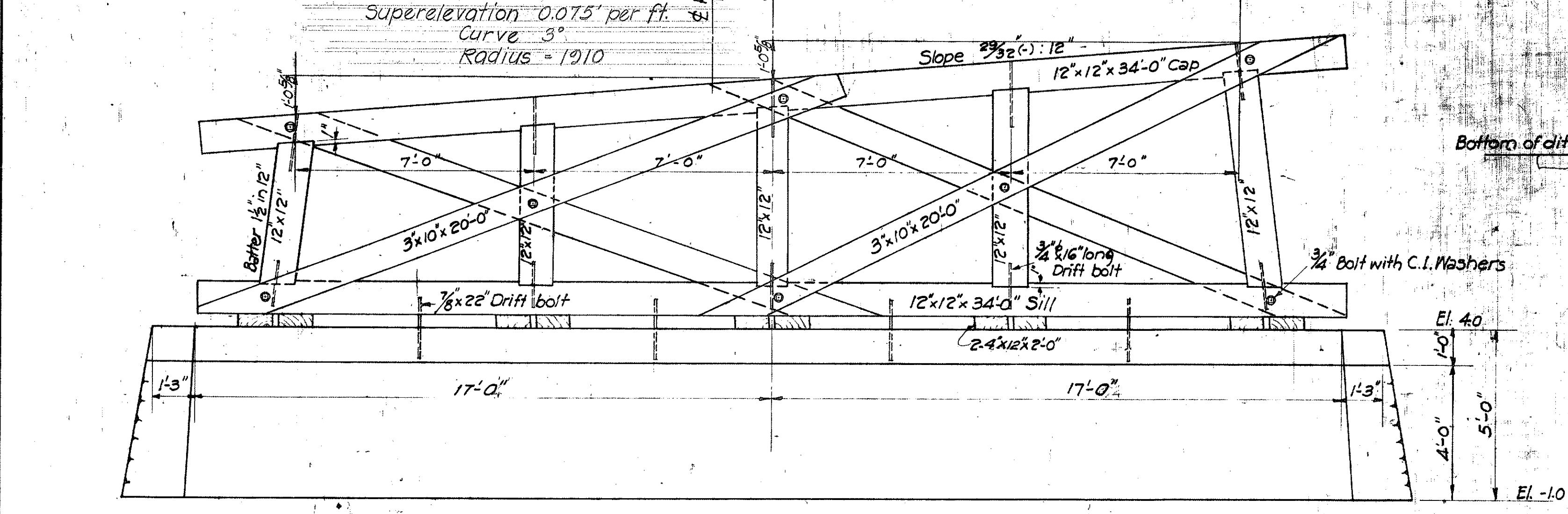
HAWAII HWY-0-01-72
Grade 0.00%

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	235	1956	23	83



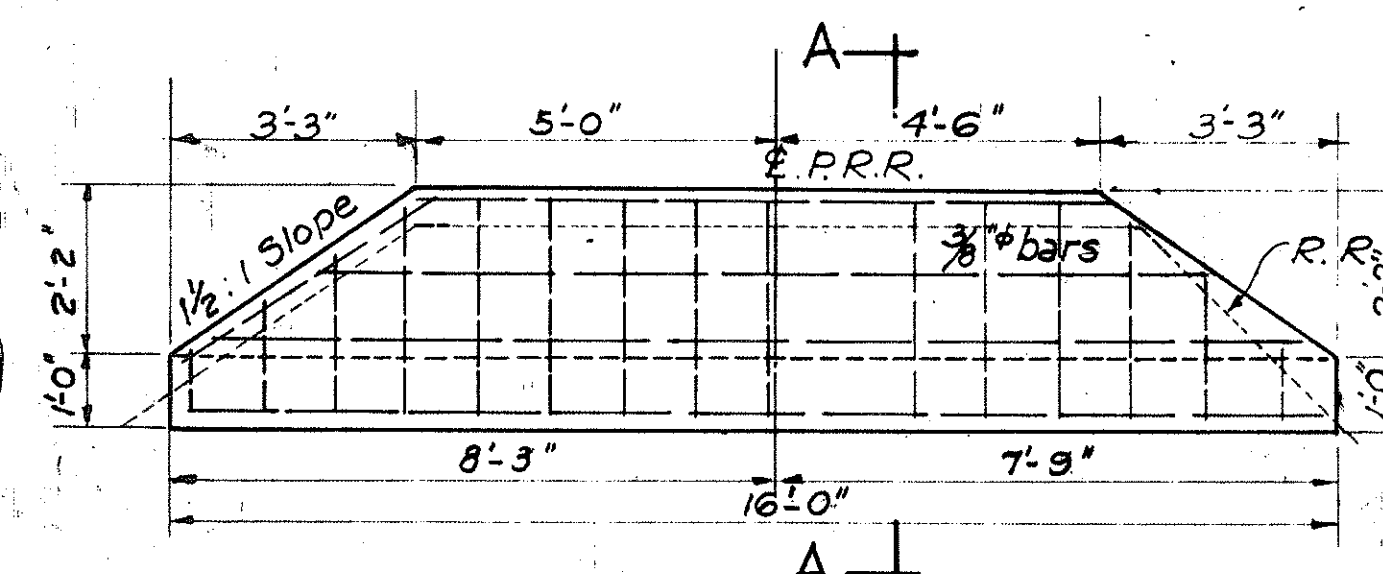
LAYOUT PLAN OF BRIDGE No. 3 AND PLANTATION R.R. BRIDGE
Scale: 1" = 10'-0"

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
640.12	Timber for repair or rehabilitation of Makaha Bridge #3	MBM	0.45
640.22	Preservative treatment of Makaha Bridge #3	L.S.	Lump Sum
640.32	Painting of Makaha Bridge #3	L.S.	Lump Sum

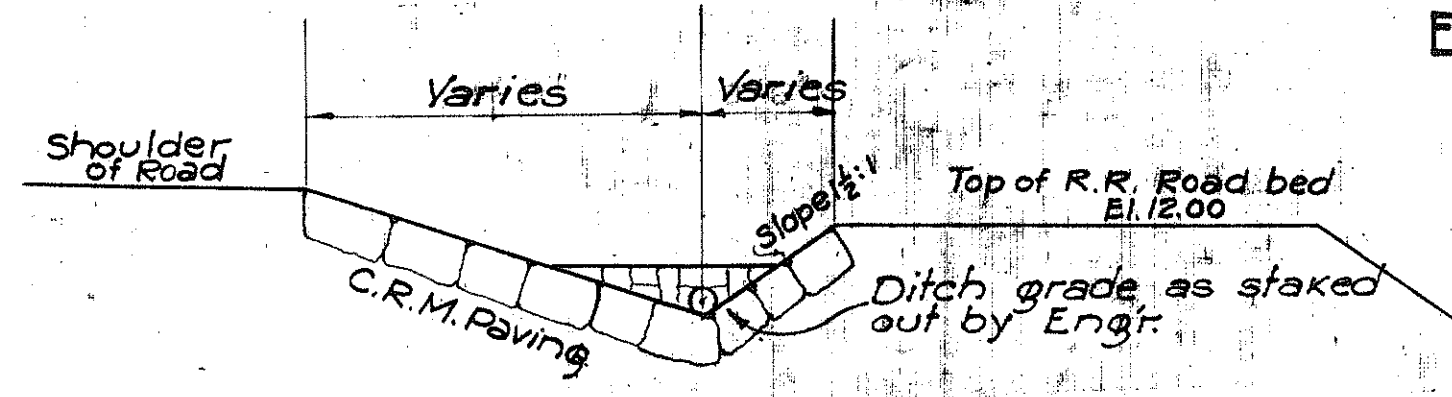


SECTION OF BENT #1
Scale: 3/8" = 1'-0"

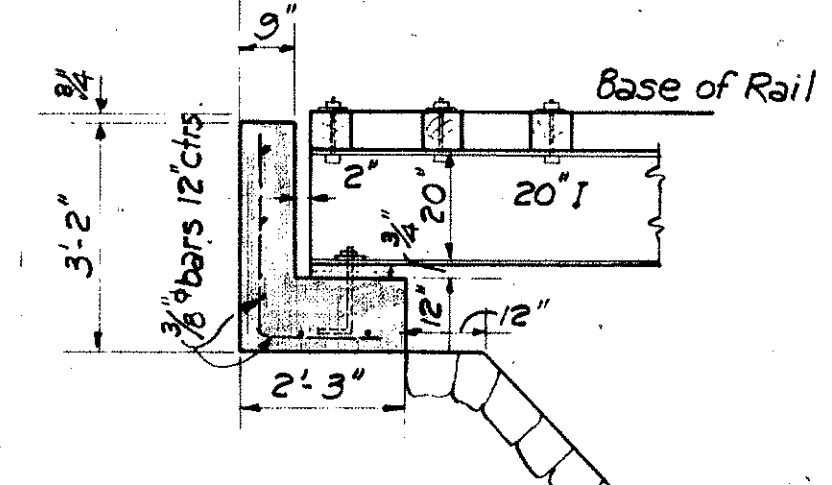
NOTE: Bent #2 similar. For elev. of Bent #2 Footing, see ELEVATION.



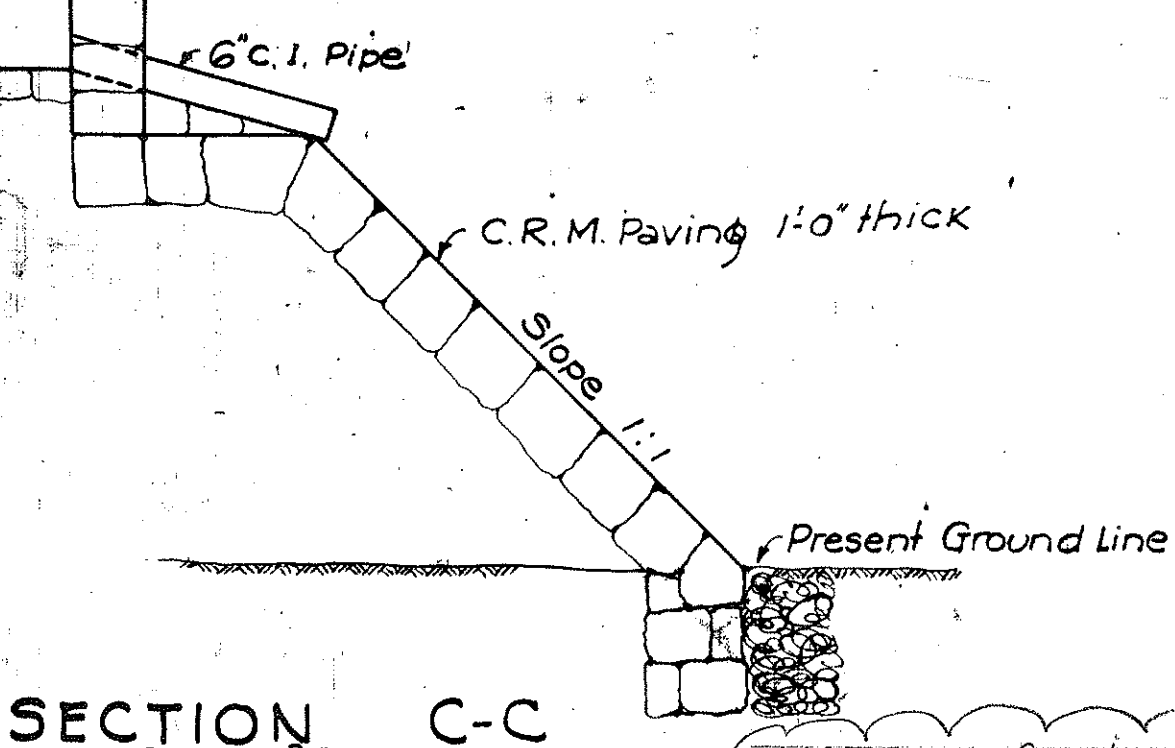
ELEVATION OF CONCRETE ABUTMENT PLANTATION R. R. BRIDGE
Scale: 3/8" = 1'-0"



SECTION D-D
Scale: 1/4" = 1'-0"



SECTION A-A
Scale: 3/8" = 1'-0"



SECTION C-C
Scale: 3/8" = 1'-0"

TIMBER - BILL OF MATERIAL

MEMBER	No. REQD	SIZE & LENGTH	KIND OF LUMBER	MILL WORK	Ft. B.M.
Sill	2	12"x12"x34'-0"	Douglas Fir Coast Region	SIS	816
Post	4	12"x12"x16'-0"	"	Rough	768
Cap	2	12"x12"x34'-0"	"	SIS	816
Solid Bridging	4	4"x18"x24'-0"	No. 1 dimension	SIE	576
Stringer	36	6"x18"x20'-0"	1600°F Joist & Plank	Ends sized for 12"	6,480
Splice Blocks	4	6"x18"x3'-0"	1200°F Joist & Plank	SIE	108
Decking (Floor)	1	1"x6"x26'-0"	1600°F Joist & Plank	SISIE	13
Decking (Floor)	426	2"x6"x26'-0"	"	SISIE	11,076
Bearing Blocks	20	4"x12"x2'-0"	1200°F Joist & Plank	SIS	160
Wheel Guard	3	8"x8"x20'-0"	1600°F Joist & Plank	SISIE	320
Wheel Guard	3	10"x12"x20'-0"	"	SISIE	600
Deck Starter	2	6"x6"x26'-0"	1600°F Joist & Plank	SISIE	156
Railing Post	10	8"x8"x10'-0"	1600°F Joist & Plank	S4S	520
Sidewalk Joist block	1	12"x14"x8'-0"	1100°F Joist & Plank	SIS	112
"	1	8"x14"x8'-0"	"	SIS	72
Railing	6	4"x8"x20'-0"	1600°F Joist & Plank	S4S	320
"	6	3"x8"x20'-0"	"	S4S	240
Guard Rail	1	3"x8"x18'-0"	"	S4S	36
Guard Rail	1	10"x12"x18'-0"	"	S4S	180
"	1	4"x8"x18'-0"	"	S4S	48
Guard Post	2	12"x12"x10'-0"	"	S4S	240
Cross Bridging	10	2"x4"x16'-0"	Nat. Dimension	Rough	102
"	1	2"x4"x18'-0"	"	Rough	12
Bracing	8	3"x10"x20'-0"	1200°F Joist & Plank	Rough	400
Corner Blocking	1	2"x6"x10'-0"	1100°F Joist & Plank	SIE	10
Splice Blocks	2	8"x18"x3'-0"	1200°F Joist & Plank	SISIE (beveled)	72
Posts	3	12"x12"x18'-0"	1200°F Joist & Plank	Rough	648
Railroad Guard Rail	6	6"x6"x20'-0"	1600°F Joist & Plank	Rough	360
Railroad Ties	40	6"x6"x6'-0"	"	Rough	720
Sidewalk end timber	1	8"x8"x8'-0"	1100°F Joist & Plank	SISIE	42
Railing post blocks	8	8"x8"x15'-0"	1600°F Joist & Plank	SISIE (beveled)	64
Wall plate	4	5"x8"x16'-0"	1200°F Joist & Plank	SIS	128
Splice block	4	6"x8"x3'-0"	1200°F Joist & Plank	SIS	48
Sidewalk plank	22	2"x8"x18'-0"	Nat. Dimension	SIS	268
"	1	2"x8"x18'-0"	"	SIS	16
TOTAL					26,769

NOTE: Refer to Typical Detail sht. # T-1 for notes and additional details.

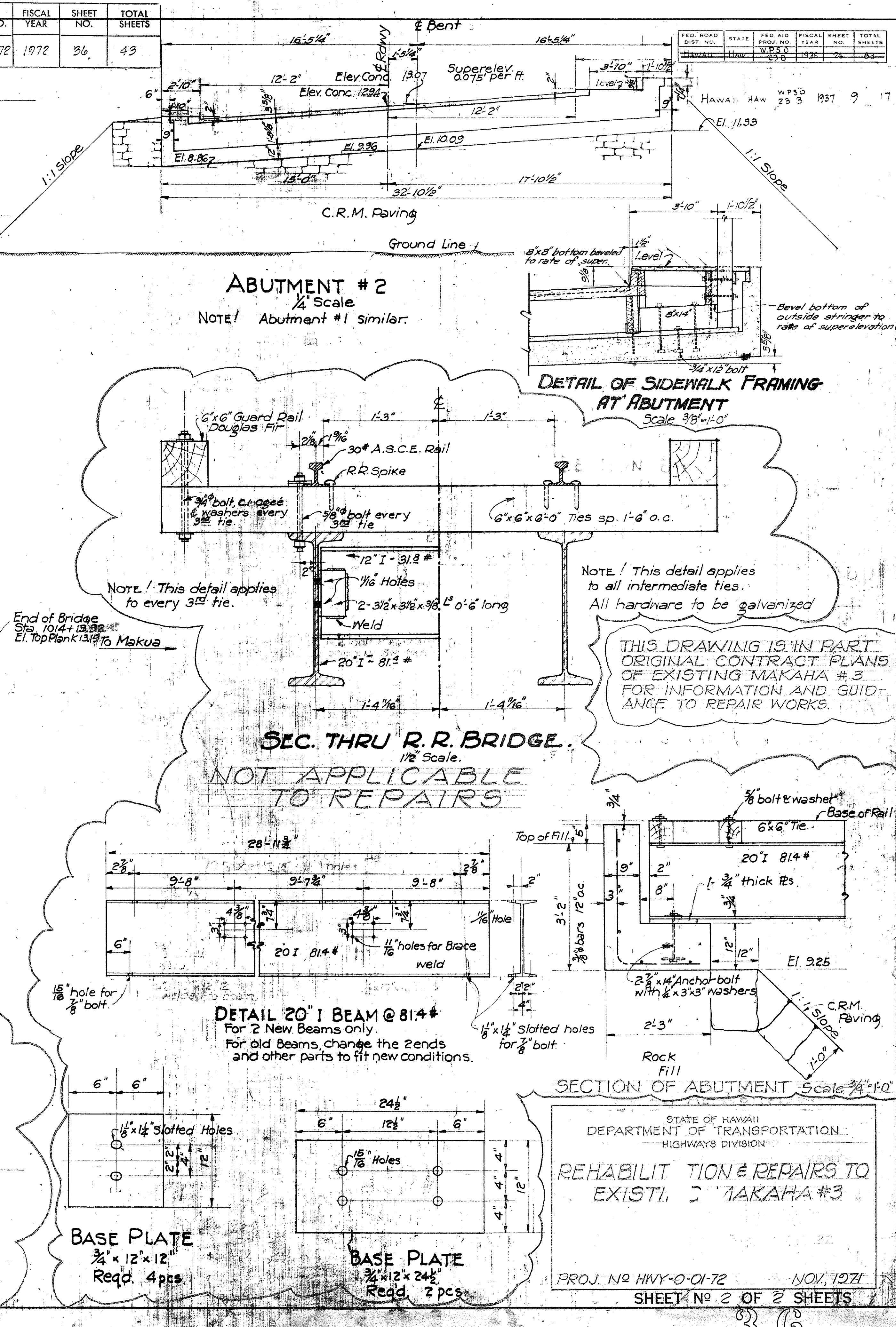
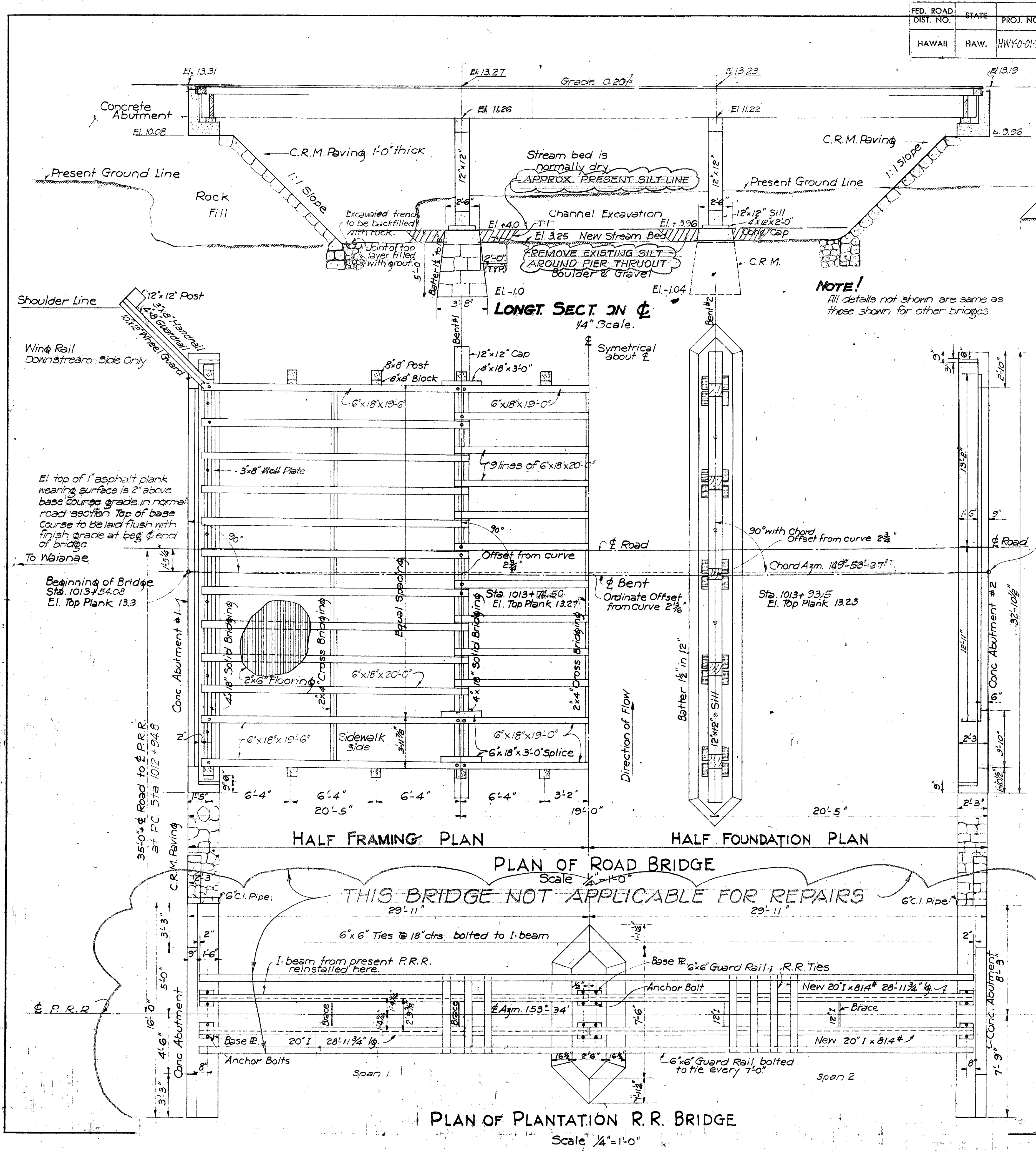
THIS DRAWING IS IN PART ORIGINAL CONTRACT PLANS OF EXISTING MAKAHA #3 FOR INFORMATION AND GUIDANCE TO REPAIR WORKS.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS
REHABILITATION & REPAIRS TO EXISTING MAKAHA #3
PROJ. NO. HWY-0-01-72
NOV. 1971
SHEET NO. 1 OF 2 SHEETS

SURVEY PLOTTED BY: DATE: 1/26/76
DESIGNED BY: M.R. Bartels
DRAWN BY: M.S. Bartels
CHECKED BY: C.F. Bartels
ORIGINAL PLAN: No. 1
NOTE BOOK: No. 1

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-01-72	1972	36	43

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	WPS-0-1036	1937	9	17



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REHABILITATION & REPAIRS TO EXIST. 2 MAKAHA #3

PROJ. NO HWY-0-01-72 NOV, 1971
SHEET NO 2 OF 2 SHEETS

SURVEY PLOTTED BY: DATE: 1/10/72
DRAWN BY: H. S. BARTON
CHECKED BY: C. F. VAGNER
NOTE BOOK: 6-36
QUANTITIES BY: 6-36
CHECKED BY: 6-36