FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	SDR 3(11)	1950	4	57

May 7, 1950
6-7-50
6-20-50
11-20-50

Install Additional No. Plate SDR 3(11)

Sta 0+00 Construct Easy Riding Connection to Existing Road Exc. 2996 c.y. 360 Part 420 s.y. BC 498 s.y.

Make proper Connection to Existing Highway.

TO NONOKAA

18' Guard Rail.

Sta. 0+00 45.0 Rt. of ℄ Install 24" Circ. Conc. Culvt. 48 Lin. Ft. 1-C.H.W. (Outlet) Str. Ex. 35 c.y.

BEG. PROJ. NO. SDR 3(11)
STATION 0+00

BEG. PROJ. FAP 26-A Sta. 6+76.00
BEG. EXCEPTION PROJ. NO. SDR 2(3)
Sta 97+50

BM Brass Plug in Concrete Mon. Sta. 0+00 PROJ. SDR 3(11) 40' North of Telephone Pole #176 ELEV. 813.78

T.B.M. 3(11) 1A Elev. 827.79 3/4" Pipe - 50± ft of ℄ Sta. 11+38

Channel Outlet 2.5% Slope Chann. Exc. 2225 c.y. 216.7

R/W Boundary Line

AZ. 287° 50'

Sta. 0+10 to 5+00 45' Rt. Diversion Ditch 2.1% Slope.

Sta 12+00 Install 24" Circ. Conc. Culvt. 40 Lin. Ft. 1-CO. 1-C.H.W. Str. Ex. 46 c.y. 42.6 Pave backslope at inlet 15 c.y. CEM 7.5 c.y. Str. Ex. Backslope 73.5 c.y.

NOTE: All Approach Roads unless otherwise indicated shall have 3-Centered returns with radii of 120'-38'-120'

NOTE: All Existing Buildings within Highway Right-of-Way shall be moved by others

MANALAHOA HIGHWAY

POWER LINES

TEL. LINE

FENCE

℄ DITCH

℄ CURVE DATA
Δ = 9°15'
D = 10°
R = 572.96
T = 46.95
L = 92.50

℄ CURVE DATA
Δ = 78°00'
D = 97°17'45"
R = 100
T = 79.96
L = 129.19

Sta 17+90 to Sta 18+90 47 ft. Construct Earth Dike, Emb. 39 c.y. Hand Lead Riprap 75 c.y. See Typical Section below.

Sta 17+00 to Sta 22+45 50 ft. Construct Diversion Ditch, 3.3% Slope Exc. 200 c.y. See Typical Section Below.

Construct Temporary Detour
Exc. = 6,060 c.y. 2,885
Emb. = 1,250 c.y.
Select Mat. = 1,200 c.y.
Pavt. = 1,738 c.y.

105.2 c.y. Widen Existing Road During Detour Const. Exc. 3860 c.y. 910 c.y.

KUKAIAU BRIDGE
See Details

Beg. Bridge Sta. 23+17.04

End Bridge Sta. 27+00.66

Metal Guard Railing 50 lin. ft. See Br. Detail

TO HILO

KUKAIAU STREAM

BC Sta 22+41.71

℄ CURVE DATA
Δ = 12°02'
D = 1°00'
R = 5729.58'
L = 1203.33'
T = 603.69'
SE = 0.024

Origin of AZIMUTH is KOHOLALELE △

C.G. Sta 11+00

PROFILE OF GROUND AT ℄

FINISHED GRADE AT ℄

+2.06%

-4.506%

-3.667%

-8.667%

-1.268%

RT. INV. 816.2
LT. INV. 815.8
Sta 12+00 24" Circ. Conc. Culvt.

BVC. Sta 3+00

EVC. Sta 23+00

PVC. Sta 19+00

CG Sta 21+00

1600' V.C.

400' V.C.

Gr. Profile 50' R. of ℄

Inv. 824.0

Ditch Inv.

Inv. 819.0

KUKAIAU BRIDGE

Beg. Bridge Sta. 23+17.04

End Bridge Sta. 27+00.66

818.58

799.01

790.00

812.40

787.46

BEG. PROJ. NO. SDR 3(11)
STATION 0+00

Waste = 14,830.1 c.y.
Exc. = 14,847.3 c.y.
Emb. = 0

See Overhaul Summary
Exc. = 34,052.0 c.y.
Emb. = 0

See OH Summary
Exc. = 613.6 c.y.
Emb. = 0

BRIDGE

FH = 11.0 c.y.
Exc. = 280.6 c.y.
Emb. = 110.7 c.y.

TYPICAL SECTION - DETOUR
Scale: 1" = 10'

Fill Cut
4'-0" 10'-0" 10'-0" 4'-0"
6" 1" A.C. Pav't. 12" Parabolic Crown 6"
Select Mat. Sub-base
slope 8" in 18"

Extra 12' Cut Section
50' 12'-0" 12'-0" 50'
2" A.C. Pavement 2% Parabolic Crown
Select Material Sub-Base
O.G. 3%

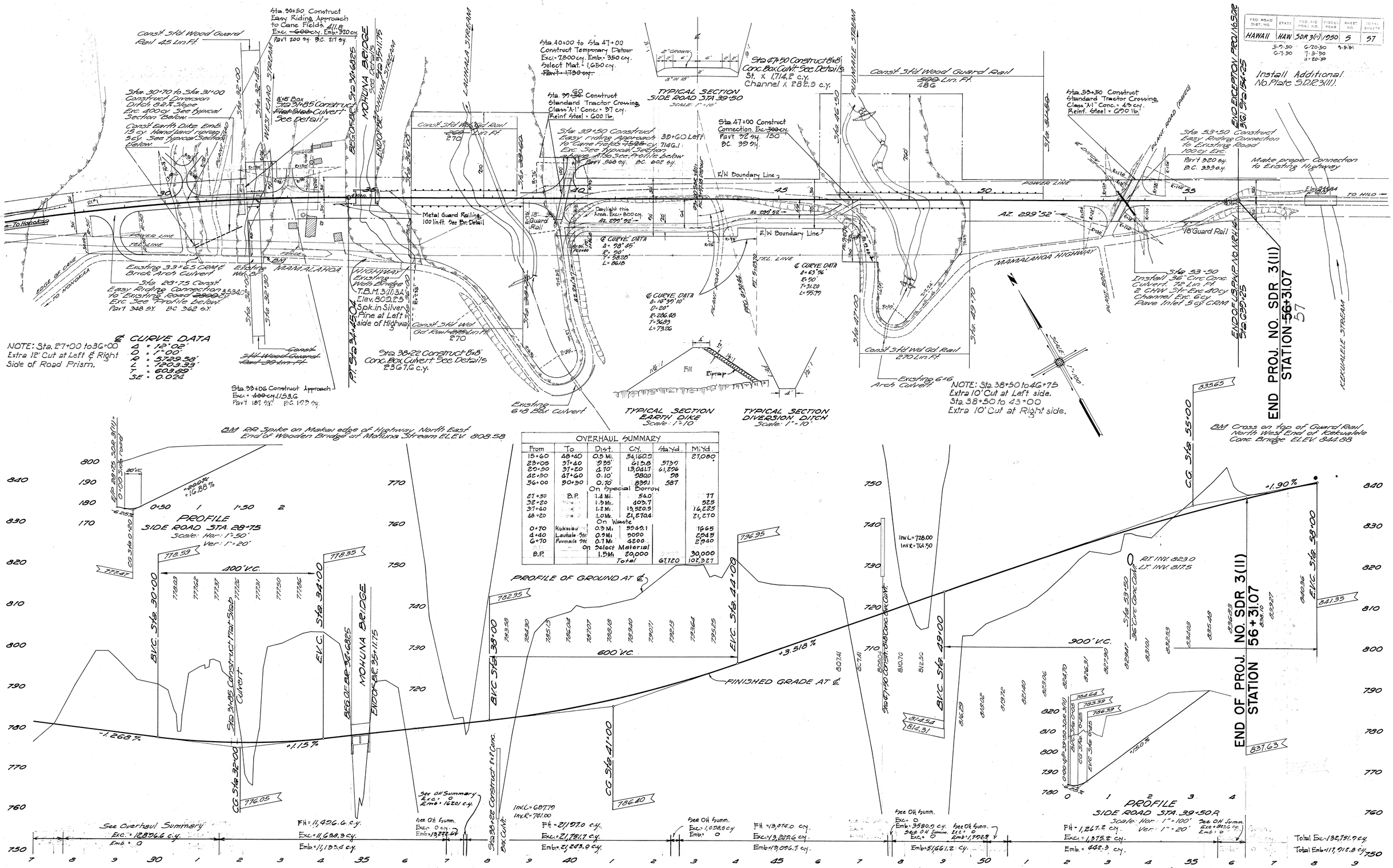
TYPICAL SECTION EARTH DIKE
Scale: 1" = 10'

TYPICAL SECTION DITCH STA. 18+50
Scale: 1" = 10'

5426.4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	SDR 3(11)	1950	5	57

5-9-50 6-20-50 9-5-51
6-7-50 7-5-50
11-20-50



OVERHAUL SUMMARY

From	To	Dist.	CY.	Sta-Yd.	Mi-Yd.
15+60	48+40	0.5 Mi.	54,160.2		27,080
23+05	37+40	9.35'	613.8	57.37	
20+50	37+20	4.70'	13,061.7	61,236	
42+50	47+60	0.10'	5800	58	
56+00	90+30	0.70'	8391	587	
On Special Borrow					
27+50	B.P.	1.4 Mi.	54.0		77
32+20	"	1.3 Mi.	403.7		525
37+40	"	1.2 Mi.	13,520.5		16,225
48+20	"	1.0 Mi.	21,270.4		21,270
On Waste					
0+70	Kukaiau	0.3 Mi.	5542.1		1665
4+40	Lauhala Str.	0.5 Mi.	5050		2,645
6+70	Puumaile Str.	0.7 Mi.	4200		2,940
On Select Material					
B.P.		1.5 Mi.	20,000		30,000
Total			67,120		102,327

5426.5