FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	N.R.S. 21-A	1935	29	43

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., BY, DATE

B.B.M. S.E. S.E. ENG.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., BY, DATE

Dup 10-36

Exc = 658.3 cy.
Emb = 0.0 "

9632

963.49

3+50

C=316 ℄
C=312

Exc = 615.7 cy.
Emb = 0.0 "

9624

962.62

3+00

C=349
C=341

Exc = ~~491.4 cy.~~ 487.0 c.y.
Emb = 0.0 "

9653

962.06

2+50

C=185

RR Exc. 35.2 c.y.

Exc = 240.7 c.y.
Emb = 1.0 "
Exc RR = 35.2 c.y.

9630

960.42

2+00

C=75 Rdy.
F=1 "

C=38 ℄ R.R.
RR Exc. 73.2 c.y.

Exc = 96.3 c.y.
Emb = 1.0 "
Exc RR = 73.2 "

9611

961.23

1+50

C=79 Rdy.

C=41 RR
RR Exc. = 64.8 c.y.

Exc = ~~30.8 cy.~~ 30.6 c.y.
Emb = 7.4 "
Exc RR = 64.8 "

9606

960.81

1+00

C=4 Rdy
F=5 "

C=79 RR
RR Exc = 46.3 cy

Exc = ~~5.5 cy.~~ 5.6 c.y.
Emb = 12.0 "
Exc RR = 46.3 "

9604

0+50

C=7 ℄ Rdy.
F=✓ "

C=21 RR
RR Exc. 28.7 cy

Exc = 1.9 c.y.
Emb = 4.6 "
Exc RR = 28.7 c.y.

9598

0+00

RR Exc = 18.5 cy
C=10 ℄ RR

Exc = ~~0.0 cy.~~ 89.0 cy. 19.1 c.y.
Emb = ~~144.4~~ ~~22.0~~, 38.3 c.y.

9824

982.44
~~984.08~~

12+00

F=~~45~~ 43
C=
C=9.5
F=8.2

Exc = ~~0.0 cy.~~ 800 cy
Emb = ~~305.6~~ " 570 "

9814

982.72
~~984.64~~

11+00

F=~~177~~ 78
C=0
F=39.0

Exc = ~~0.0 cy.~~ 00 cy
Emb = ~~153.7~~ " 128 cy. 178.2 c.y.

9810

982.57
~~984.18~~

10+00

F=~~178~~ 41
C=0
F=51.2

Exc = ~~1.9 cy.~~ 44.0 cy. 28.2 c.y.
Emb = ~~259.3~~ " 82.0 cy 118.5 c.y.

9816

981.81
~~982.72~~

9+00

C=~~7~~ 74
F=~~47~~ 3
C=15.2
F=6.8

Exc = ~~1111~~ cy. 1830 cy. 142.5 c.y.
Emb = ~~315~~ " ~~60~~ " 12.6 c.y.

9809

979.84
~~980.24~~

8+00

C=~~59~~ 75
C=6.5

Exc = ~~1574~~ cy. 487.0 cy. 45.7.4 c.y.
Emb = 0.0 " 1.0 c.y.

9805

976.75 976.25

7+00

C=188
C=182

Exc = 924.1 c.y. 905.5 c.y.
Emb = 0.0 "

9789

972.26

6+00

C=311
C=307

Exc = 1312.9 cy. 1298.1 c.y.
Emb = 0.0 "

9767

967.86

5+00

C=398
C=394

Exc = ~~1468.5 cy.~~ 1438.7 c.y.
Emb = 0.0 "

9724

964.64

4+00

C=~~395~~ ℄
C=383

PLATE 2 - CROSS SECTION - O. P. R. & R. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

Exc = ~~24.1 cy.~~ 370 cy. 36.1 c.y.
Emb = ~~20.4~~ " 370 cy. 26.3 c.y.

9617

961.77
962.07

23+00

C=~~73~~ ℄ 20
F=1
C=18.5
F=0

Exc = ~~98.2 cy.~~ 132.0 cy. 133.9 c.y.
Emb = ~~1.9~~ " 20 " 20

9662

965.39
965.88

22+00

C=~~40~~ 51
C=53.8
F=0

Exc = ~~88.9~~ c.y. 148.0 cy. 137.6 c.y.
Emb = ~~7.4~~ " 0.

9626

968.55
969.26

21+00

C=~~F~~ 29
F=~~H~~ 0
C=20.5
F=3.8

Exc = ~~14.8~~ c.y. 570 cy. 58.8 c.y.
Emb = ~~122.2~~ " 370 " 66.7 c.y.

9701

971.26
972.22

Excavate ditch

18" Conc. Pipe Culv. 42'-0" long

Exc = ~~0.0 cy.~~ 4.0 cy. 0.0 c.y.
Emb = ~~363.0~~ " 1700 " 215.2 c.y.

9711

973.50
974.76

20+00

F=~~6~~ 20
C=15
C=20.0
F=32.2

Exc = 0.0 c.y. 19+00
Emb = ~~185.2~~ " 2280 cy. 278.2 c.y.

9734

973.33
976.88

F=~~84~~
F=~~137~~ 72

Exc = ~~0.0 cy.~~ 60 cy. 18+00 Exc = 0.0
Emb = ~~111.1~~ " 1240 " 161.1 c.y.

9757

976.37
978.58

F=~~178~~ 51
F=~~63~~

Exc = ~~0.0~~ cy. 150 cy. 17+00
Emb = ~~28.1.5~~ " ~~460~~ " 63.6 c.y.

9738

978.41
979.84

C=3
F=~~4~~ 16
C=10
F=24

16+00

F=~~44~~ 9
C=~
C=2.5
F=10.0

Exc = ~~0.0~~ cy. 110 cy. 7.6 c.y.
Emb = ~~200.0~~ " ~~370~~ " 58.5 c.y.

9792

979.95
980.90

15+00

F=~~50~~ 11
C=~ 1
C=0
F=20.5

Exc = ~~0.0~~ cy. 20.0 cy. 4.6 c.y.
Emb = ~~140.7~~ " ~~30.0~~ " 65.4 c.y.

9807

981.25
981.96

14+00

C=10
F=~~46~~ 5
C=2.5
F=14.8

Exc = ~~0.0~~ c.y. 280 cy. 8.0 c.y.
Emb = ~~113.0~~ " ~~260~~ " 50.6 c.y.

9815

982.18
983.02

13+00

C=~5
F=~~29~~ 9 ℄
C=1.8
F=12.5

4346.29

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	NRS 21-A	1935	30	43

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED — DATE, BY, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED — DATE, BY, NOTE BOOK, NO.

B.B.M. F.L. ENG'S. J.L. ENG'S.

Exc = 1.9 c.y. 23 c.y.
Emb = 922.2 "

9323
934.95
28+50
C=2.5 C= 7 sf
F=58 sf

Exc = 92.8 c.y. 93.0 c.y.
Emb = 26.0 "

9404
936.00
28+25.8
C=70 sf

Exc = 232.7 c.y.
Emb = 0.0 "

9430
937.15
28+00
C=78 sf

Exc = ~~746.3~~ c.y. ~~726.0 Cy~~ 727.8 c.y.
Emb = 0.0 "

9446
~~942.63~~
~~942.62~~
27+00

Exc = ~~229.6~~ c.y. ~~206.0 Cy~~ 207.6 c.y.
Emb = ~~7.4~~ " 17.0 "

9473
~~948.09~~
~~948.12~~
26+00
C=~~7~~ 110
C= 111.0
C= ~~7~~ 1 C=1.1
F= ~~4~~ 9

Exc = ~~5.6~~ c.y. ~~2.0 Cy~~ 1.9 c.y.
Emb = ~~46.3~~ " 63.0 " 72.6 c.y.

9520
~~953.12~~
~~953.20~~
25+00
F=25.0
F= ~~7~~ 1 sf

Exc = 0.0 c.y.
Emb = ~~57.4~~ " 82.0

9568
~~957.67~~
~~957.84~~
24+00
F=40 sf 19
C=0.0
F=14.2

Exc = 21.3 c.y. 14.4 c.y.
Emb = 1252.8 "

931.86
9318
29+50
F=147 sf
F=104 sf

Exc = 0.0 c.y.
Emb = 1011.6 "

932.50
9112
29+25
F=88 sf
F=100 sf

Exc = 0.0 c.y.
Emb = 940.3 "

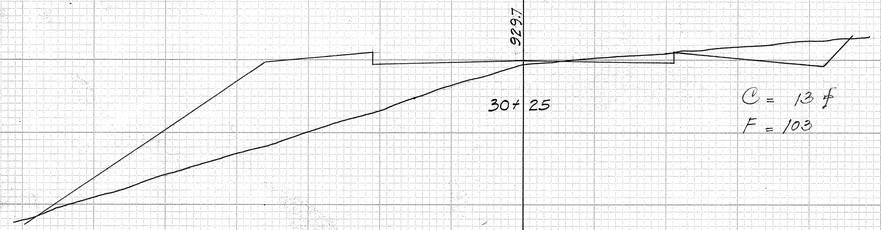
933.18
9162
29+00
F=73.0 sf
F=108 sf

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

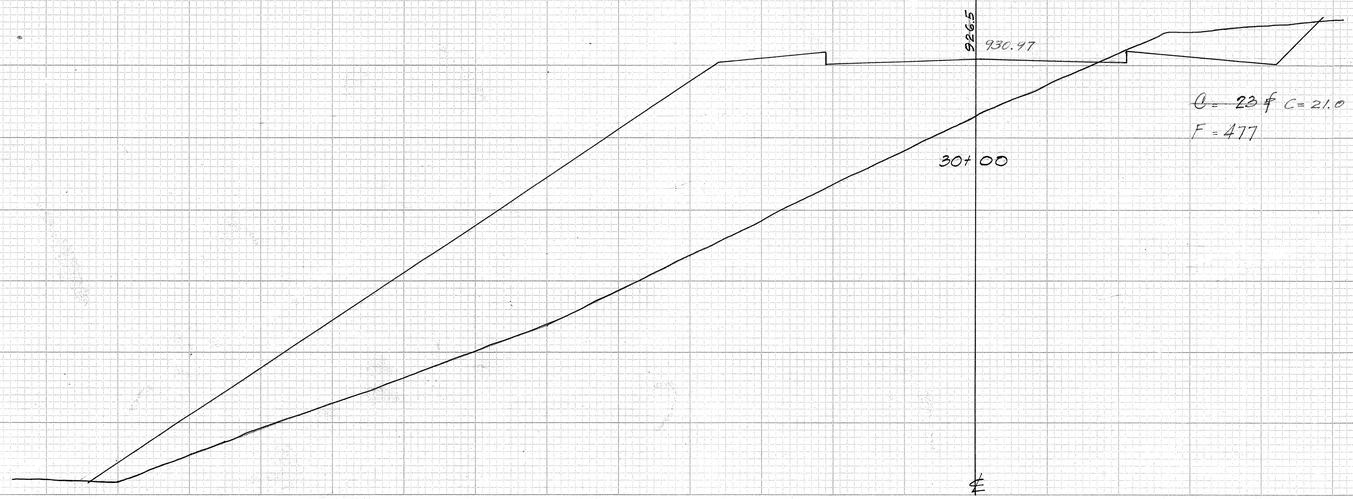
4346.30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRS 2(A)	1955	31	43

Exc = 7.0 cy.
Emb = 93.0 "



Exc = ~~16.7 cy.~~ 15.7 c.y.
Emb = 268.5 "

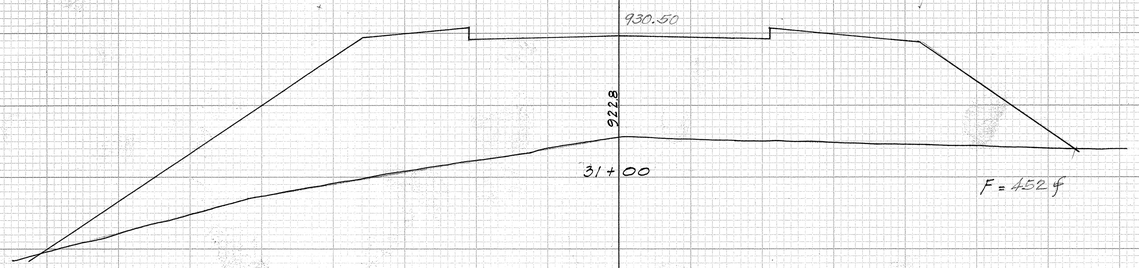


Surveyed by B.B.M.
Plotted by R.L.
Areas ! E.N.C.
Areas chk. E.N.C.

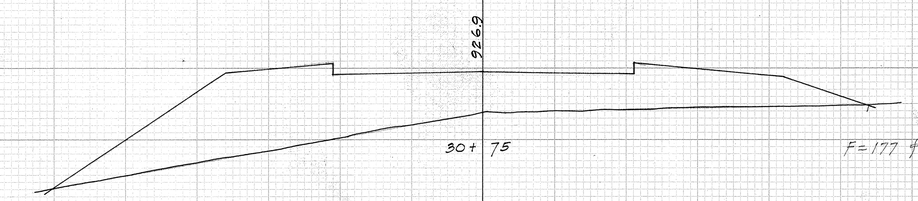
4346.31

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw	WRS 21-A	1935	32	43

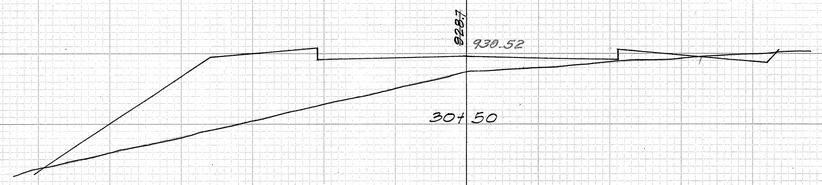
Exc =
Emb =



Exc = 0.0 c.y.
Emb = 291.2 "



Exc = 1.0 c.y.
Emb = 127.3 "



Surveyed by B.B.M.
Plotted " T.L.
Areas " E.N.C.
Areas chk. " E.N.C.

KEUFFEL & ESSER CO. NEW YORK
TRADE STANDARD MARK REG. U.S. PAT. OFF. CROSS SECTION 10 X 10 100% RAG PAPER PRINTED IN U.S.A.

4346.32

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw	N.RS2(4)	1935	33	43

FINAL SURVEY — NOTE BOOK NO.___ — SURVEYED ___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___ — BY B.E.M. J.L. — DATE

ORIGINAL SURVEY — NOTE BOOK NO.___ — SURVEYED ___ PLOTTED ___ TEMPLATE ___ AREAS ___ AREAS CHECKED ___ — BY B.E.M. J.L. ENG. — DATE

21-A

C = 696 ft

9346.6

9324

35+60

Exc = 206.3 c.y.
Emb = 0.0 "

C = 418 ft

941.0

932.83

35+50

Exc = 373.6 c.y.
Emb = 0.0 "

C = 387 ft

9407

9322

35+25

Exc = 184.3 c.y.
Emb = 0.0 "

C = 114 ft

9359

932.1

35+07

Exc = 3442.6 c.y.
Emb = 0.0 "

9540

C956 ft

935.46

39+00

Exc = 3581.5 c.y.
Emb = 0.0 "

9536

C978 ft

934.42

38+00

Exc = 3614.8 c.y.
Emb = 0.0 "

9526

C974 ft

37+00 933.41

Exc = 3326.0 c.y.
Emb = 0.0 "

9489

C = 1?

932.68

36+00

Exc = 1124.4 c.y.
Emb = 00 "

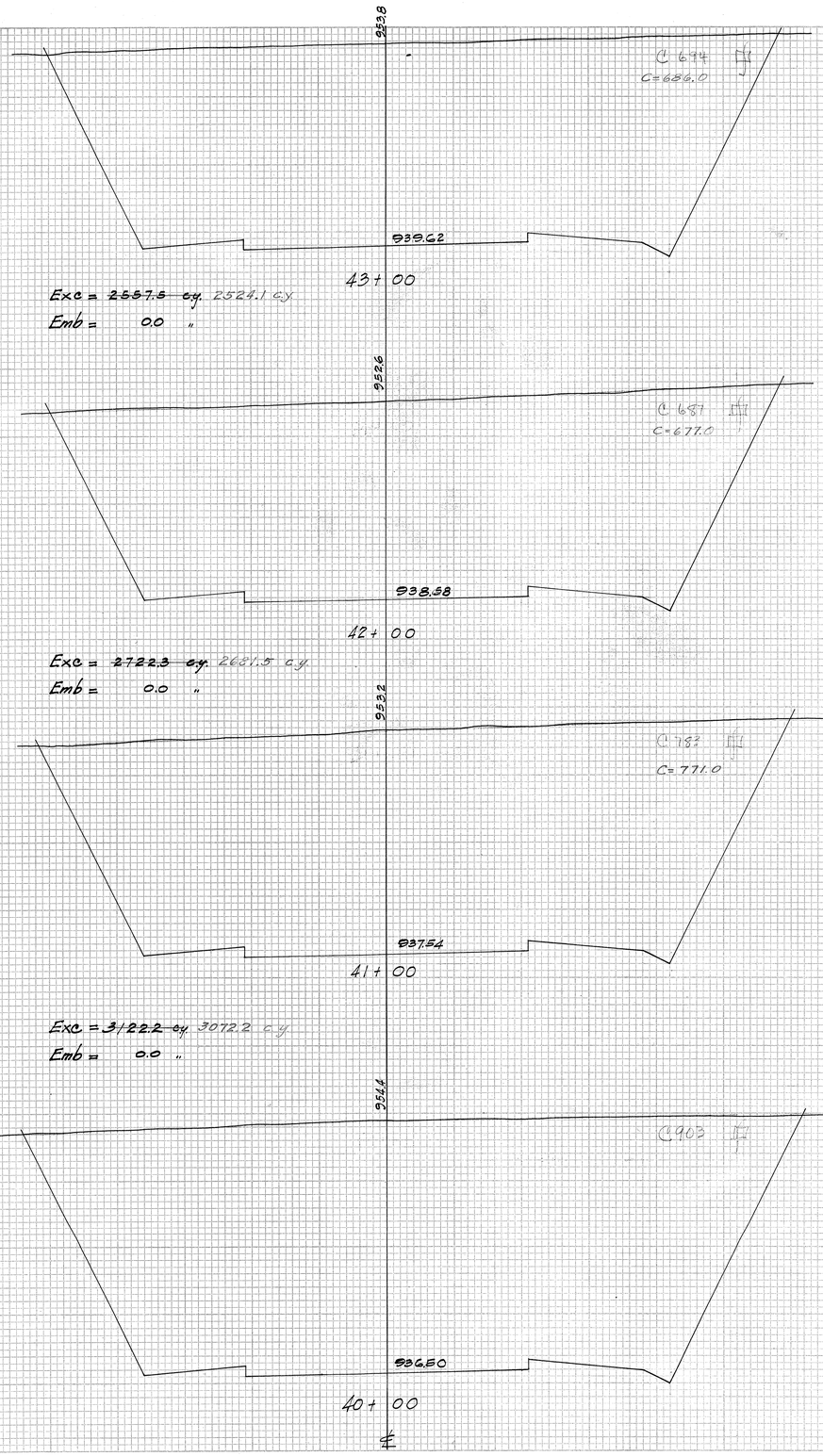
PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.33

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii		HAW NRS 21-A	1935	34	43

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED, NOTE BOOK, NO., DATE, BY

B.B.M. Surv.
B.M.C. Comp.

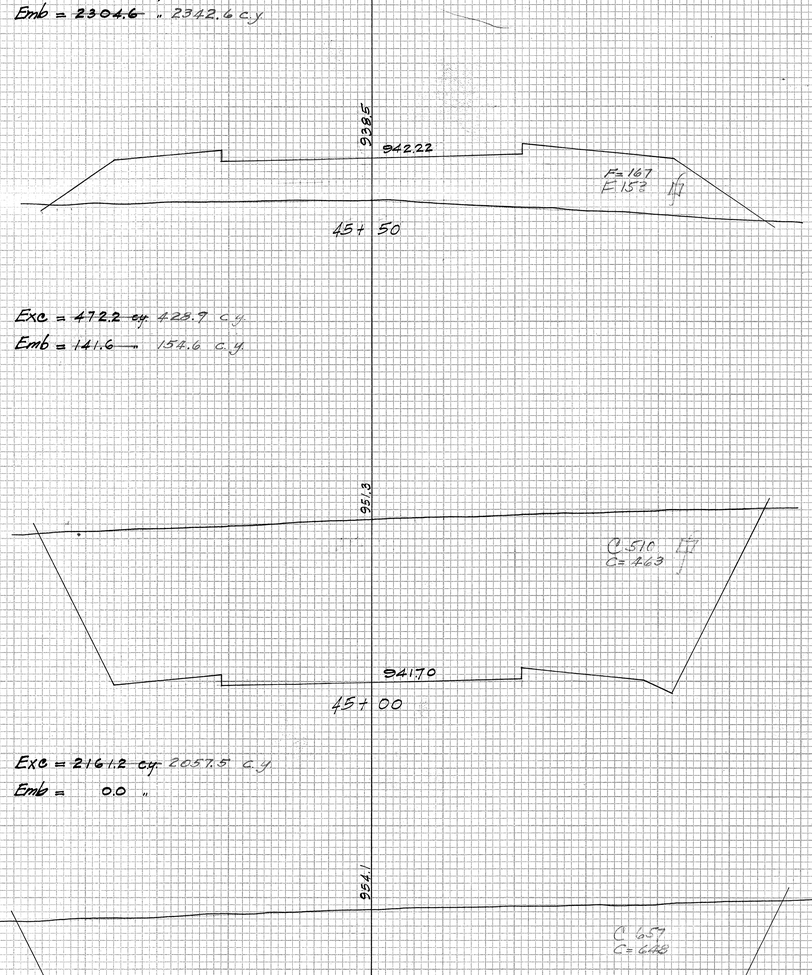


Exc = ~~2557.5 c.y.~~ 2524.1 c.y.
Emb = 0.0 "

Exc = ~~2722.3 c.y.~~ 2681.5 c.y.
Emb = 0.0 "

Exc = ~~3122.2 c.y.~~ 3072.2 c.y.
Emb = 0.0 "

Exc = 0.0 c.y.
Emb = ~~2304.6~~ " 2342.6 c.y.



Exc = ~~4722 c.y.~~ 4223.7 c.y.
Emb = ~~141.6~~ " 154.6 c.y.

Exc = ~~2161.2 c.y.~~ 2057.5 c.y.
Emb = 0.0 "

Exc = ~~2501.9 c.y.~~ 2476.4
Emb = 0.0 "

PLATE 3—CROSS SECTION D. P. R. & R. E. STANDARDS
KEUFFEL & ESSER CO., NEW YORK

4346.34

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw	NRS 21-A	1935	35	43

ORIGINAL SURVEY		BY
SURVEYED		B.B.H.
PLOTTED		V.L.
TRIANGULATE		
NOTE BOOK	AREAS	E.B.M.
NO.	AREAS CHECKED	E.W.C.

FINAL SURVEY		BY	DATE
SURVEYED			
PLOTTED			
TRIANGULATE			
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

21-A

Exc = 0.0 c.y.
Emb = ~~5085.2~~ 5166.6

9444.80

F 1443 ft

F=2444

9111.3

47+00

942.95

Exc = 0.0 c.y.
Emb = ~~55528~~ " 5621.3

F 3054 ft

F=3077

9036

46+50

942.86

Exc = 0.0 c.y.
Emb = ~~49807~~ " 5037.0 c.y.

F 1336 ft

F=2363

9130

46+00

℄

PLATE 5—CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.35 (7)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawk	NRS 24-A	1965	36	43

FINAL SURVEY
SURVEYED
PLOTTED
TRACED
NOTE BOOK AREAS
NO. AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
SURVEYED B.B.M.
PLOTTED S.F.L.
TRACED
NOTE BOOK AREAS E.N.C.
NO. AREAS CHECKED E.N.C.
BY
DATE

21-A

Exc = 0.0 c.y.
Emb = 868.0 " 886.5 c.y.

943.1

F 1426
F = 1460

9259

48+33

Exc = 0.0 c.y.
Emb = 2042.3 " 2082.1 c.y.

947.93

F 1914
F = 1947

9206

48+00

Exc = 0.0 c.y.
Emb = 4132.4 " 4197.2 c.y.

946.29

F 2549
F = 2586

9164

47+50

℄

PLATE 3—CROSS SECTION O. P. R. & R. C. STANDARD
KRUPPEL & BISSER CO., NEW YORK

4346.36 (8)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	W.25.2A	1935	37	43

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — DATE

ORIGINAL SURVEY — BY B.B.M. S.L. EMC EMC — DATE

Exc = ~~614.8 c.y.~~ 580.0 c.y.
Emb = 0.0 "

970.3
966.89
C 174
C=166
F=0
52+00

Exc = ~~733.3 c.y.~~ 700.0 c.y.
Emb = 0.0 "

963.3
962.36
C 220
C=212
F=0
51+00

Exc = ~~374.1 c.y.~~ 367.4 c.y.
Emb = 0.0 "

958.0
955.73
C 182
C=174
F=0
50+50

Exc = ~~218.5 c.y.~~ 207.4 c.y.
Emb = ~~5.6~~ " 15.7 c.y.

956.97
50+00

Exc = ~~50.0 c.y.~~ 46.3 c.y.
Emb = ~~218.5~~ " 249.1 c.y.

954.96
954.34
F 230
C=50
F=17
49+50

Exc = 0.0 c.y.
Emb = ~~800.9~~ " 837.0 c.y.

951.95
F 625
F=252
49+00

Exc = 0.0 c.y.
Emb = ~~1815.8~~ " 1866.7 c.y.

949.81
F 1326
F=1356
48+50

Exc = 0.0 c.y.
Emb = ~~303.7~~ " 227.6 c.y.

971.8
980.44
~~980.82~~
F 102
F=63
61+00

Exc = 0.0 c.y.
Emb = ~~438.9~~ " 403.1 c.y.

976.9
974.71
~~974.90~~
F 125
60+00

Exc = 0.0 c.y.
Emb = ~~564.8~~ " 535.2 c.y.

974.7
978.83
F 170
F=152
59+00

Exc = 0.0 c.y.
Emb = ~~509.3~~ " 479.6 c.y.

974.5
977.76
F 105
58+00

Exc = 0.0 c.y.
Emb = 290.7 "

974.5
976.69
F=52
57+00

Exc = 18.5 c.y.
Emb = 187.0 "

975.0
975.62
C=10
F=19
56+00

Contractor to fill all abandoned ditch areas

Exc = ~~127.8 c.y.~~ 130.7 c.y.
Emb = 90.7 "

974.55
C=59
C=66.6
55+00

Exc = ~~735.3 c.y.~~ 704.1
Emb = 0.0 "

973.2
970.56
~~970.50~~
C 144
C=134
53+04.4

PLATE 3—CROSS SECTION C. P. R. & R. E. STANDARD
KRUFFEL & ESSER CO., NEW YORK.

21-9

4346.37

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawi	NRS21-A	1985	38	43

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY — BSW JL — 7-1-82

Duplicate

Exc = 0.0 c.y.
Emb = ~~262.5~~ " 244.4 c.y.
982.3 — 986.66 — ~~986.71~~
70+50
F=179 ℄
F=159.0

Exc = 0.0 c.y.
Emb = ~~355.1~~ " 333.2 c.y.
981.4 — 985.34 — ~~985.23~~
69+91
F=146

Exc = 0.0 c.y.
Emb = ~~487.0~~ " 470.2 c.y.
980.2 — 983.24 — ~~983.35~~
69+00
F=143
F=133

Exc = 0.0 c.y.
Emb = ~~363.0~~ " 328.7 c.y.
980.0 — 981.83 — ~~982.02~~
68+00
F=53
F=44.5

~~Exc = 5.6 c.y.~~ 9.3 c.y.
Emb = ~~113.0~~ " 97.2 c.y.
980.4 — 981.13 — ~~981.43~~
67+00
C=3
F=8
C=5
F=8

~~Exc = 5.6 c.y.~~ 9.8 c.y.
Emb = ~~107.4~~ " 70.4 c.y.
979.6 — 981.02 — ~~981.48~~
66+00
F=50
C=0.3
F=30

~~Exc = 0.0 c.y.~~ 2.4 c.y.
Emb = ~~164.8~~ " 88.9 c.y.
979.9 — 981.01 — ~~981.62~~
65+00
F=39
C=1
F=18

~~Exc = 44.4 c.y.~~ 98.2 c.y.
Emb = ~~77.8~~ " 33.3 c.y.
981.6 — 981.00 — ~~981.76~~
64+00
C=24
F=3
C=52
F=0

~~Exc = 63.0 c.y.~~ 163.0 c.y.
Emb = ~~11.1~~ " 0.0 c.y.
981.2 — 980.99 — ~~981.75~~
63+00
C=10
F=3
C=36

~~Exc = 18.5 c.y.~~ 66.7 c.y.
Emb = ~~120.4~~ " 74.1 c.y.
979.4 — 980.85 — ~~981.44~~
62+00
F=62 ℄
F=40

Exc = 0.0 c.y.
Emb = 340.7 "
1001.2 — 1003.88 — ~~1003.87~~
80+00
F=97 ℄

Exc = 0.0 c.y.
Emb = 377.8 "
1001.1 — 1004.09
79+00
F=107

Exc = 0.0 c.y.
Emb = 244.4 "
1002.4 — 1003.80
78+00
F=75

Exc = ~~833~~ c.y. 84.3 c.y.
Emb = 46.3 "
1003.4 — 1003.02
77+00
C=45

Exc = 313.0 c.y. 306.5 c.y.
Emb = 0.0 "
1004.0 — 1001.74
76+00
C=174
C=120

Exc = 438.9 c.y. 427.8 c.y.
Emb = 0.0 "
1002.1 — 999.96
75+00
C=113
C=111

Exc = 400.0 c.y. 392.6 c.y.
Emb = 0.0 "
999.6 — 997.68
74+00
C=103
C=101

Exc = 190.7 c.y. 187.0 c.y.
Emb = 33.3 "
998.8 — 994.90
73+00
F=18

Exc = 0.0 c.y.
Emb = 237.0 "
998.0 — 991.63
72+00
F=110

Exc = 0.0 c.y.
Emb = 398.2 "
985.2 — 988.22 — ~~988.20~~
71+00
F=105 ℄

Exc = 0.0 c.y.
Emb = 166.7
999.6 — 999.85
90+00
F=53 ℄

Exc = 0.0 c.y.
Emb = 324.1 "
996.5 — 999.85
89+00
F=177

Exc = 0.0 c.y.
Emb = 803.7 "
993.0 — 1000.15
88+00
F=317

Exc = 0.0 c.y.
Emb = 1148.2 "
993.5 — 1000.63 — ~~1000.61~~
87+00
F=308

Exc = 0.0 c.y.
Emb = 829.6 "
997.4 — 1001.10 — ~~1001.08~~
86+00
F=140

Exc = 0.0 c.y.
Emb = 340.7 "
999.7 — 1001.56 — ~~1001.54~~
85+00
F=44

Exc = 16.7 c.y.
Emb = 85.2 "
1001.4 — 1002.00
84+00
C=9
F=2

Exc = 18.5
Emb = 42.6
1001.4 — 1002.49 — ~~1002.47~~
83+00
C=1
F=21

Exc = 1.9 c.y.
Emb = 137.0 "
1001.0 — ~~1002.94~~ — ~~1002.95~~
82+00
F=53

Exc = 0.0 c.y.
Emb = 259.3 "
1000.8 — 1003.42 — ~~1003.40~~
81+00
F=87 ℄

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.38

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Haw.	N.R.S.21A)	1935	39	43

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

BSH
Aug 8 '41
END 8 '41

Exc= 1922.3 c.y.
Emb= 0.0 "
1009.0
C 57.4 ft
98+00 997.18
Exc= 2011.2 c.y.
Emb= 0.0 "
1005.3
C 57.2 ft
997.45
97+00
Exc= 1640.8 c.y.
Emb= 0.0 "
1003.6
C 37.4 ft
997.75
96+00
Exc = 1109.8 c.y.
Emb = 0.0 "
1002.8
C 32.5 ft
998.05
95+00
Exc= 611.1 c.y.
Emb= 0.0 "
1000.1
998.35
C 10.5 ft
94+00
Exc = 213.0 c.y.
Emb = 7.4 "
998.2
998.65
C 1.0 ft
F 4 ft
93+00
Exc= 18.5 c.y.
Emb= 37.0 "
997.8
998.95
92+00
F=16
Exc= 0.0 c.y.
Emb= 38.2 "
997.7
999.25
91+00
F=37
℄

Exc= 887.0 c.y. 674.1 c.y.
Emb= 0.0 "
1003.0
C = 31.5 ft
996.39
100+00
Exc = 1442.6 c.y.
Emb = 0.0 "
1002.3
C = 46.4 ft
℄ 996.85
99+00

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.39

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	HAW	NRS 2(A)	1935	40	43

Exc = 0.0 c.y.
Emb = 348.2 "

98.11 | 983.75 | 109+00 | F=106

Exc = 0.0 c.y.
Emb = 224.1 "

98.29 | 984.55 | 108+00 | F=57

Exc = 0.0 c.y.
Emb = 105.6 "

98.47 | 985.75 | 107+00 | F=77

Exc = 0.0 c.y.
Emb = 166.7 "

98.51 | 987.35 | 106+00 | F=87

Exc = 0.0 c.y.
Emb = 368.5 "

98.59 | 989.35 | 105+00 | F=136

Exc = 0.0 c.y.
Emb = 575.9 "

98.66 | 991.34 | 104+00 | F=187

Exc = 0.0 c.y.
Emb = 675.9 "

98.86 | 993.12 | 103+00 | F=183

Exc = 1.9 c.y.
Emb = 361.1 "

99.34 | 994.53 | 102+~~00~~ 68 | C=7 F=28 +1

Exc = 305.6 c.y.
Emb = 27.8 "

99.87 | 995.62 | 101+00 | C=1

Exc = 16.7 c.y.
Emb = 70.4 "

98.39 | 984.65 | 118+00 | C=6 F=18

Exc = 92.6 c.y.
Emb = 11.5 "

98.48 | 984.55 | 117+00 | C=36 F=7

Exc = 253.7 c.y.
Emb = 0.0

98.60 | 984.35 | 116+00 | C=95

Exc = 316.7 c.y.
Emb = 0.0 "

98.53 | 984.15 | 115+00 | C=76

Exc = 205.0 c.y.
Emb = 1.9 "

98.41 | 983.95 | 114+00 | C=25 F=3

Exc = 100.0 c.y.
Emb = 11.1 "

98.33 | 983.75 | 113+00 | C=15 F=9

Exc = 37.0 c.y.
Emb = 79.6 "

98.19 | 983.55 | 112+00 | C=3 F=47

Exc = 1.9 c.y.
Emb = 281.5 "

98.04 | 983.35 | 111+00 | F=124

Exc = 0.0 c.y.
Emb = 409.3 "

98.04 | 983.35 | 110+00 | F=~~143~~ 130

Exc = 0.0 c.y.
Emb = 294.4 "

96.05 | 962.87 | 128+00 | F=91 ~~84~~ 83

Exc = 127.8 c.y.
Emb = 150.0 "

96.35 | 964.46 | 127+00 | C=71 68

Exc = 350.0 c.y.
Emb = 0.0 "

96.89 | 966.68 | 126+00 | C=145 121

Exc = 366.7 c.y.
Emb = 0.0 "

97.05 | 969.42 | 125+00 | C=79 73

Exc = 246.3 c.y.
Emb = 0.0 "

97.29 | 972.27 | 124+00 | C=64 58

Exc = 120.4 c.y.
Emb = 18.5 "

97.41 | 975.11 | 123+00 | C=64 F=28

Exc = 18.5 c.y.
Emb = 135.2 "

97.59 | 977.95 | 122+00 | F=74

Exc = 0.0 c.y.
Emb = 185.2 "

97.92 | 980.70 | 121+00 | F=47

Exc = 0.0 c.y.
Emb = 140.7 "

98.12 | 982.78 | 120+00 | F=53

Exc = 1.9 c.y.
Emb = 131.5 "

98.26 | 984.10 | 119+00 | C=4 F=43

Superseded

Superseded

Duplicate Sheet

START

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTED — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTED — TEMPLATE — AREAS — AREAS CHECKED — DATE — BY

BBM ENC — ENG'R. J.L.

PLATE 3 — CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.40

R-21-B- Line No. 21A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	HAW	W.R.S.2(4)	1935	41	43

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.

DATE, BY

BBN ENG. CO. ENG. ENG.

Exc = 296.3 c.y.
Emb = 00 "
9685 966.25
136+00 C = 178

Exc = 587.0 c.y.
Emb = 0.0 "
9688 965.85
135+00 C = 222

Exc = 818.5 c.y.
Emb = 0.0 "
9686 964.45
134+00 C = 247

Exc = 763.0 c.y.
Emb = 0.0 "
9670 963.55
133+00 C = 191

Exc = 483.3 c.y.
Emb = 0.0 "
9640 962.65
132+00 C = 86

Exc = 242.6 c.y.
Emb = 0.0 "
9621 961.83
131+00 C = 39

Exc = 120.4 c.y.
Emb = 5.6 "
9612 961.55
130+00 C = 14 F = 6

Exc = 37.0 c.y.
Emb = 150.0 "
9586 961.90
129+00 F = 94

Exc = 18.5 c.y.
Emb = 181.9 "
9542 956.54
145+00 F = 86

Exc = 0.0 c.y.
Emb = 446.3 "
9562 960.07
144+00 F = 159

Exc = 0.0 c.y.
Emb = 624.1 "
9590 962.97
143+00 F = 167

Exc = 0.0 c.y.
Emb = 513.0 "
9625 965.23
142+00 F = 107

Exc = 00 c.y.
Emb = 235.2 "
9658 966.87
141+00 C = 47 F = 30

Exc = 107.4 c.y.
Emb = 44.4 "
9687 967.87
140+00 C = 57

Exc = 279.6 c.y.
Emb = 0.0 "
9698 968.23
139+00 C = 95

Exc = 268.5 c.y.
Emb = 00 "
9682 967.96
138+00 C = 42

Exc = 185.2 c.y.
Emb = 00 "
9676 967.15
137+00 C = 45

Superseded

Exc = 13.0 c.y.
Emb = 392.6 "
9158 918.85
153+00 C = 6 F = 143

Construct Drainage Ditch

Exc = 20.4 c.y.
Emb = 574.1 "
9184 923.65
152+00 C = 7 F = 171

Exc = 9.3 c.y.
Emb = 572.2 "
9247 928.45
151+00 F = 164

Exc = 0.0 c.y.
Emb = 374.1 "
9310 933.25
150+00 F = 75

Exc = 5.6 c.y.
Emb = 133.3 "
9374 938.05
149+00 C = 3 F = 14

Exc = 185.2 c.y.
Emb = 18.5 "
9447 942.85
148+00 C = 101

Exc = 346.3 c.y.
Emb = 0.0 "
9498 947.65
147+00 C = 97

Exc = 185.2 c.y.
Emb = 7.4 "
9519 952.37
146+00 C = 91 F = 8

PLATE 3—CROSS SECTION U. S. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK

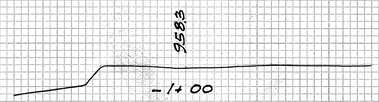
4346.41 (13)

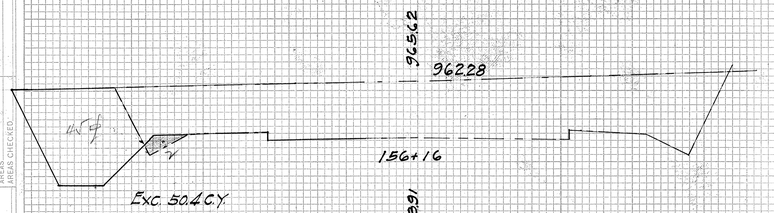
2-21-B-Line N

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawn.	NRS 21A	1995	42	43

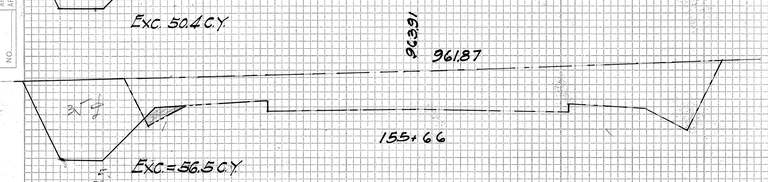
FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS CHECKED, NO., BY, DATE — JL, EKC & JL

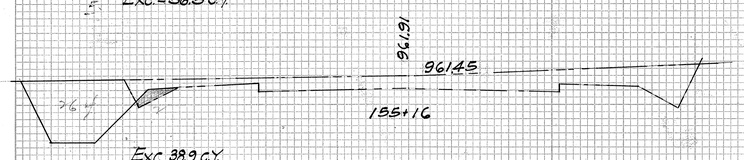




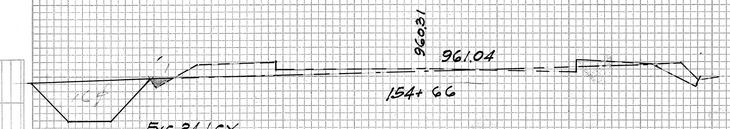
Exc. 50.4 C.Y.



Exc.=86.5 C.Y.



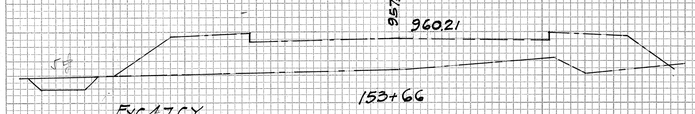
Exc. 38.9 C.Y.



Exc. 24.1 C.Y.



Exc. 13.9 C.Y.

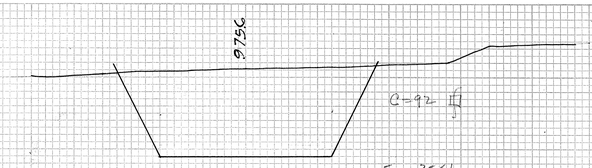


Exc. 4.7 C.Y.

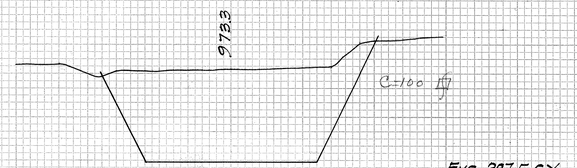


CROSS SECTION OF DITCH RIGHT OF F.A.P. 7-D

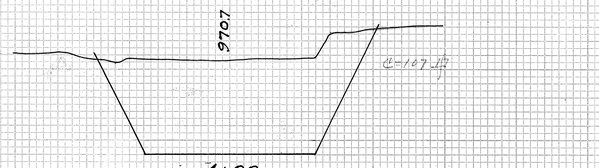
℄



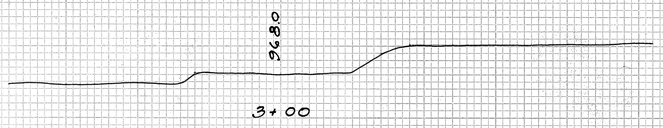
Exc. 355.6 C.Y.



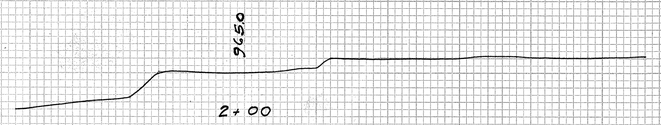
Exc. 287.5 C.Y.



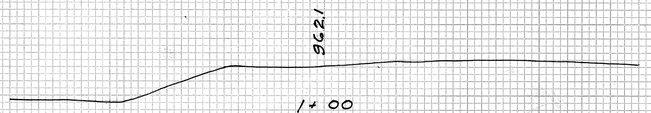
Excavation Quantities Sta. 2+50 Sta. 4+25
in roadway Excavation



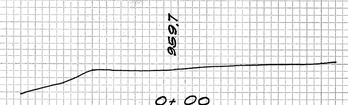
Exc. 352



Exc. 158 C.Y.



Exc = 75.0 C.Y.

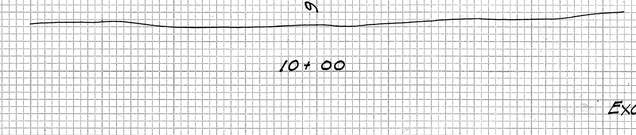


Exc. 18.5

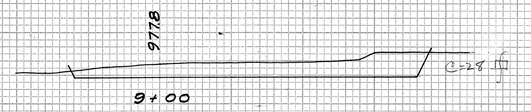
For Excavation Quantities Sta. -1+00 to 2+50
266.7 C.Y. See Sheet No.

CROSS SECTION O.R.&L. R.R. LOWERING

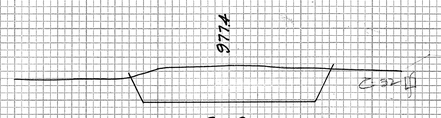
℄



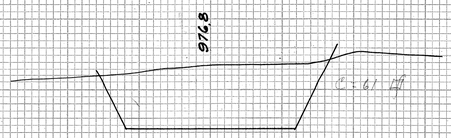
Exc. 5.19 C.Y.



Exc. 111.1 C.Y.



Exc. 172.2 C.Y.



Exc. 283.3 C.Y.

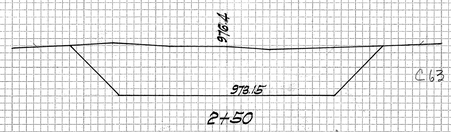
PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.42

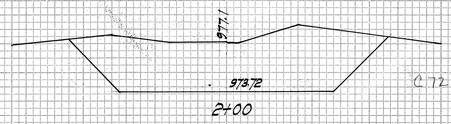
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hanaii	Haw	NRS 21-A	1935	43	43



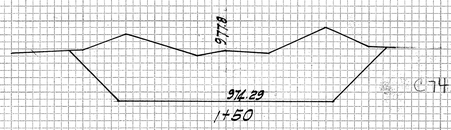
Exc. 81.5 C.Y.



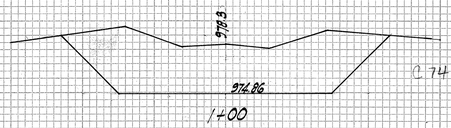
Exc. 125 C.Y.



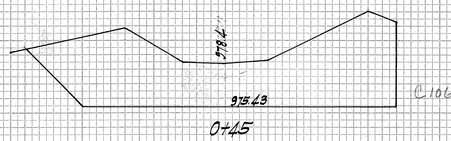
Exc. 135 C.Y.



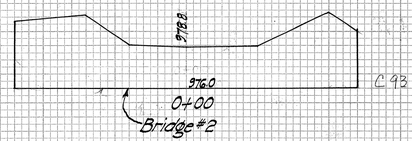
Exc. 137 C.Y.



Exc. 183.0 C.Y.

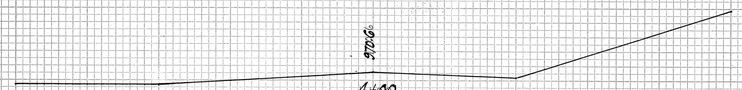


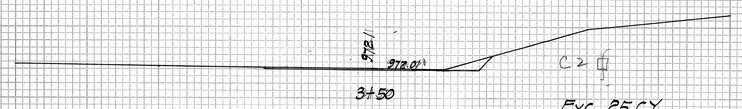
Exc. 158 C.Y.



0+50

C 0 1 4





Exc. 25 C.Y.

Cross Section of Ditch Left of Bridge #2

Ditch Line Crossing Sta. 68+61 = 0+00

PLATE 3—CROSS SECTION O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4346.43

68+61 = 0+00