12D

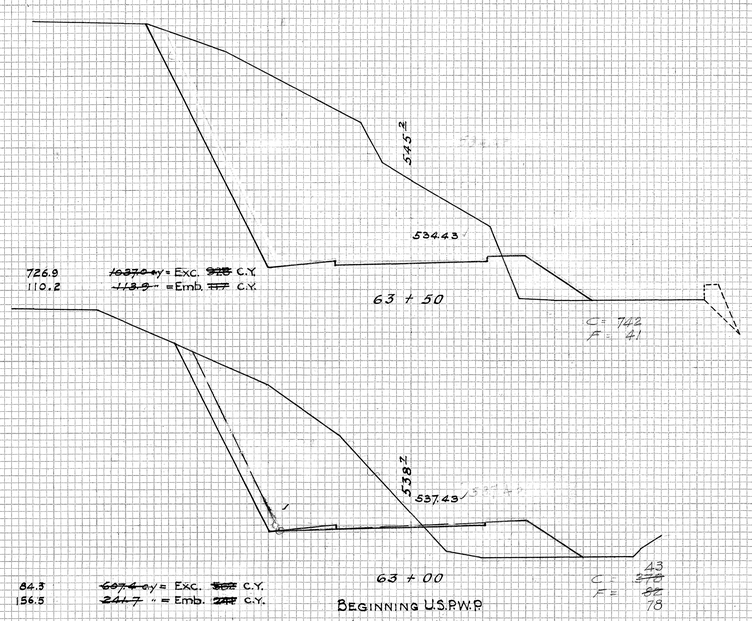
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H. 12C	1934	14	14

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1935)	1935	26	35

This sheet is common to both N.R.H. 12-D & N.R.H. 12-C.

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

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED R.L.G. — PLOTTED " — TEMPLATE " — AREAS E.E.S. — AREAS CHECKED — BY — DATE 4-36

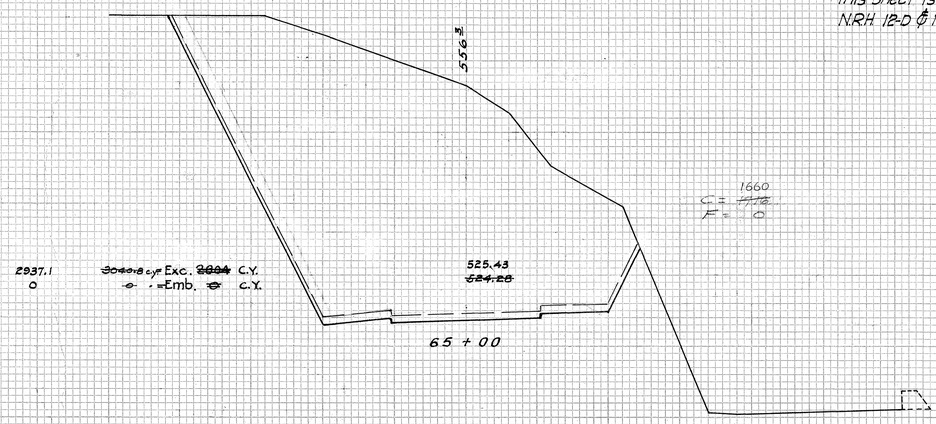


726.9 — ~~1037.0~~ c.y. = Exc. ~~925~~ C.Y.
110.2 — ~~113.9~~ " = Emb. ~~117~~ C.Y.

84.3 — ~~6074~~ c.y. = Exc. ~~5611~~ C.Y.
156.5 — ~~2417~~ " = Emb. ~~2412~~ C.Y.

C = 43 ~~744~~
F = ~~85~~ 78

C = 742
F = 41

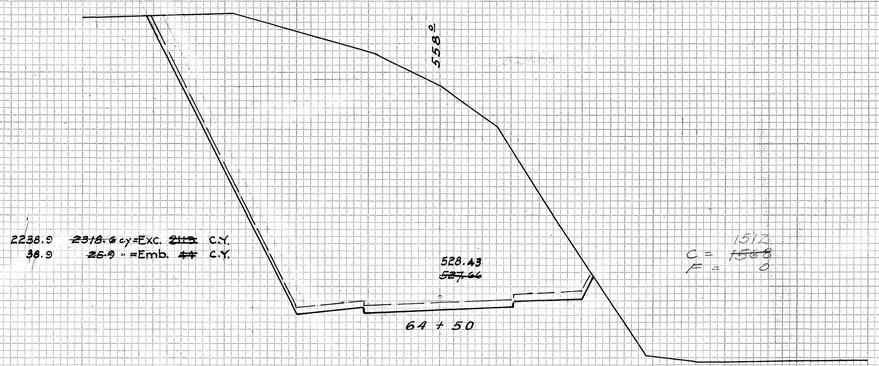


2937.1 — ~~3040.8~~ c.y. Exc. ~~2804~~ C.Y.
0 — ~~0~~ " = Emb. ~~0~~ C.Y.

C = 1660 ~~1712~~
F = ~~0~~

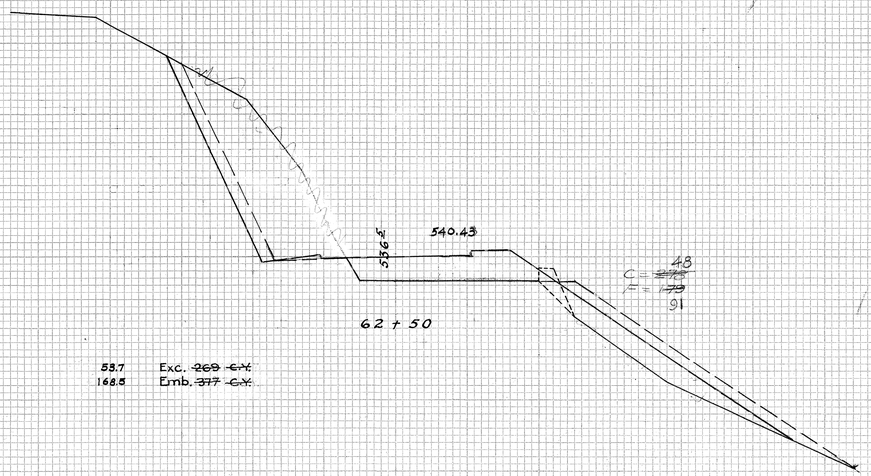
NOTE!

In All cross sections showing two sections the dotted section is the correct section. Where two ground lines are shown the dotted ground line is correct.



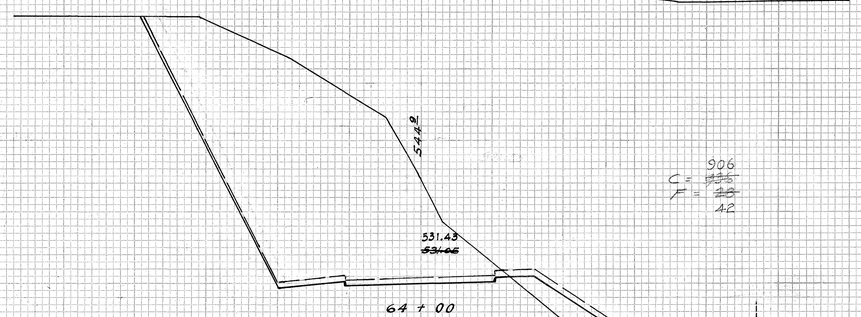
2238.9 — ~~2318.5~~ c.y. = Exc. ~~2113~~ C.Y.
38.9 — ~~26.9~~ " = Emb. ~~44~~ C.Y.

C = 1512 ~~1568~~
F = ~~0~~



53.7 — Exc. ~~269~~ C.Y.
168.5 — Emb. ~~377~~ C.Y.

C = ~~2554~~ 48
F = ~~1779~~ 91



1525.9 — ~~1553.7~~ c.y. = Exc. ~~1395~~ C.Y.
76.9 — ~~63.9~~ " = Emb. ~~86~~ C.Y.

C = 906 ~~1136~~
F = ~~48~~ 42

62+00

C = 10
F = 91

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

61+50 - 65+00

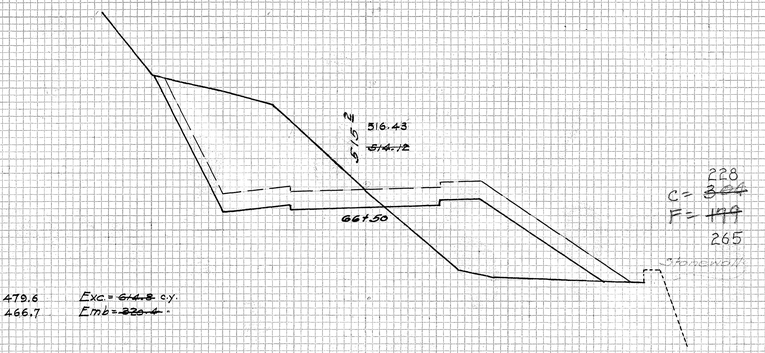
4333.26
4314.14

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	N.R.H. 12-D(995)	1935	27	35

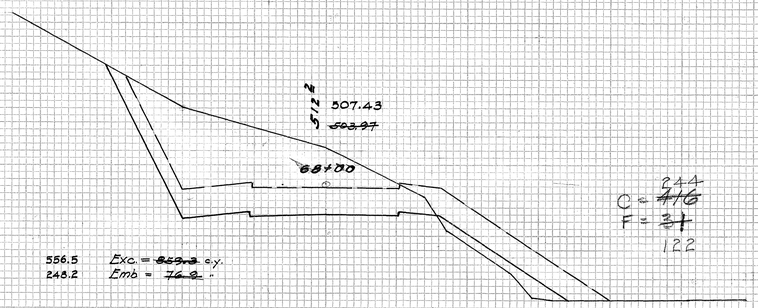
FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

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



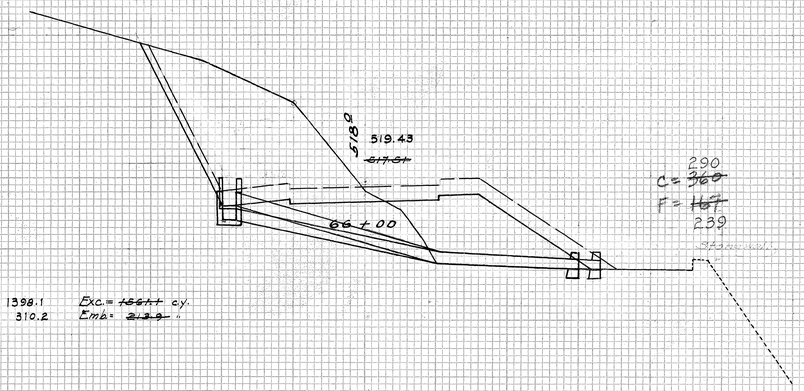
228
C = ~~304~~
F = ~~199~~
265

479.6 Exc. = ~~614.8~~ c.y.
466.7 Emb = ~~820.4~~ "



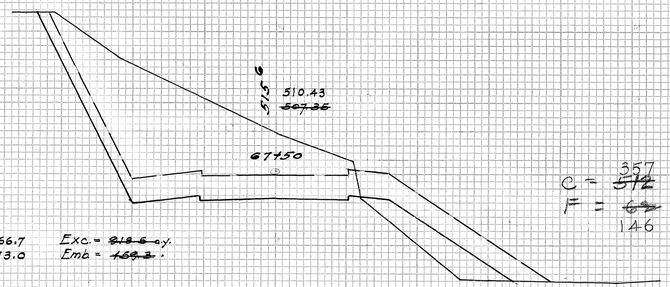
244
C = ~~446~~
F = ~~37~~
122

556.5 Exc. = ~~859.3~~ c.y.
248.2 Emb = ~~76.2~~ "



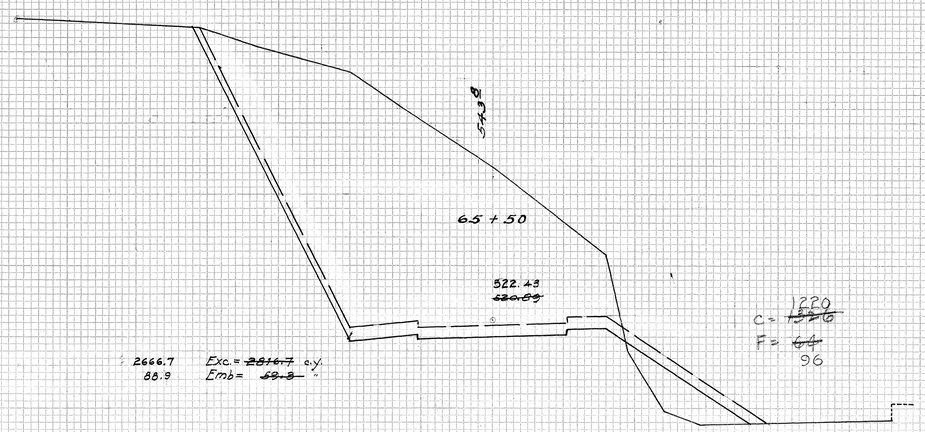
290
C = ~~360~~
F = ~~167~~
239

1398.1 Exc. = ~~1561.1~~ c.y.
310.2 Emb = ~~213.9~~ "



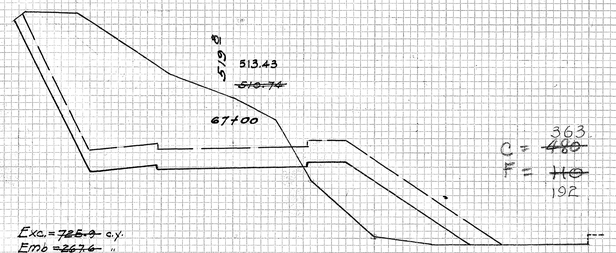
357
C = ~~512~~
F = ~~67~~
146

666.7 Exc. = ~~818.6~~ c.y.
313.0 Emb = ~~159.3~~ "



1220
C = ~~1526~~
F = ~~64~~
96

2666.7 Exc. = ~~2816.7~~ c.y.
88.9 Emb = ~~58.3~~ "



363
C = ~~460~~
F = ~~110~~
192

547.2 Exc. = ~~726.9~~ c.y.
423.2 Emb = ~~267.6~~ "

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

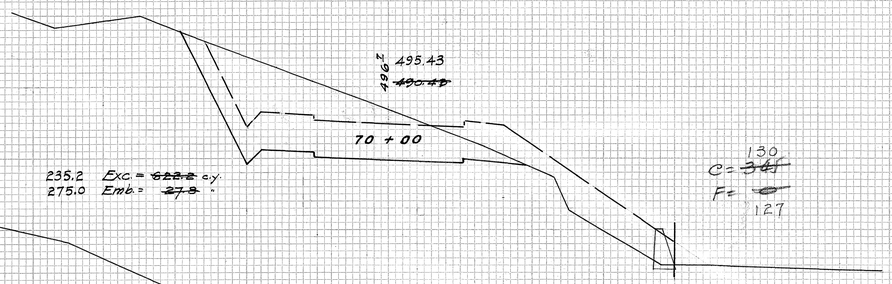
67+50 — 69+00

4333.27
~~4333.28~~

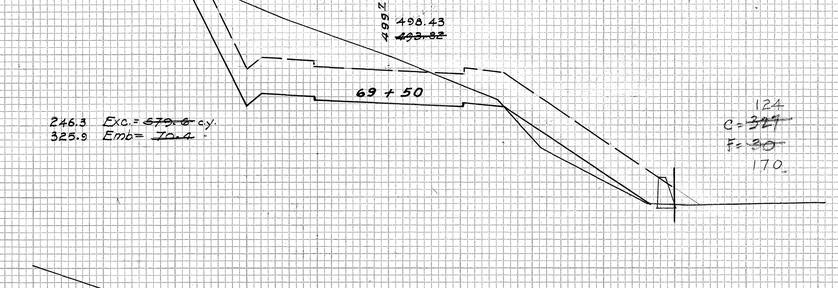
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(935)	1935	28	35

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, ISSUED, AREAS CHECKED, NOTE BOOK, NO. — BY — DATE — V.C.M. — Aug 31

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



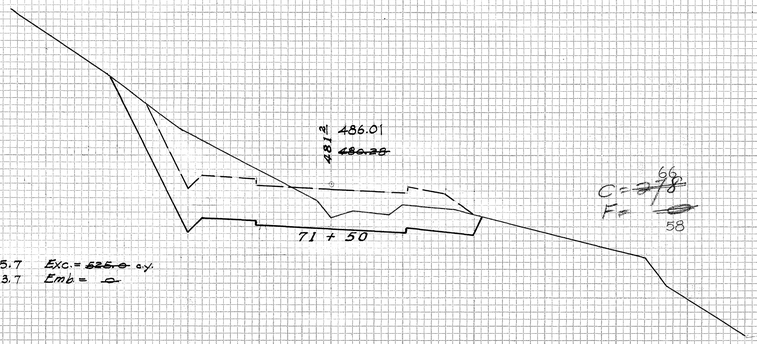
235.2 Exc. = ~~622.2~~ c.y.
275.0 Emb. = ~~27.5~~ "



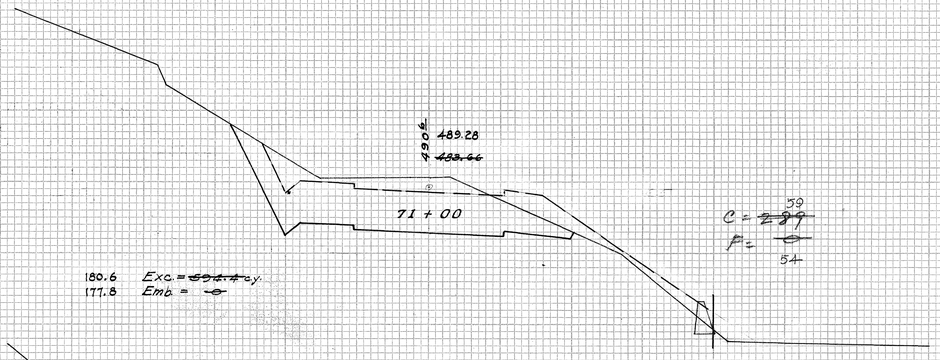
246.3 Exc. = ~~579.6~~ c.y.
325.9 Emb. = ~~10.4~~ "

301.9 Exc. = ~~593.3~~
311.1 Emb. = ~~78.7~~

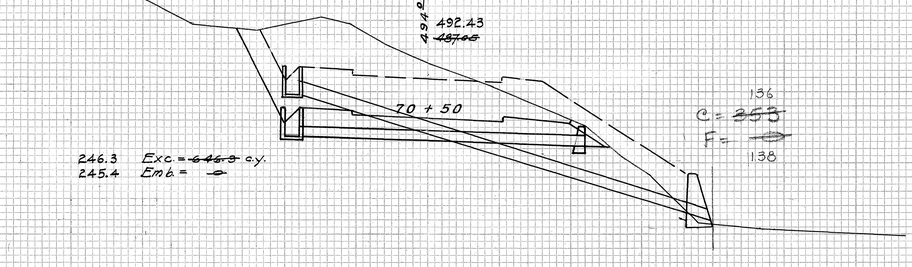
396.3 Exc. = ~~704.6~~ c.y.
255.6 Emb. = ~~64.8~~ "



115.7 Exc. = ~~525.0~~ c.y.
103.7 Emb. = ~~0~~



180.6 Exc. = ~~504.4~~ c.y.
177.8 Emb. = ~~0~~



246.3 Exc. = ~~646.0~~ c.y.
245.4 Emb. = ~~0~~

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

68 - 50 — 71+50

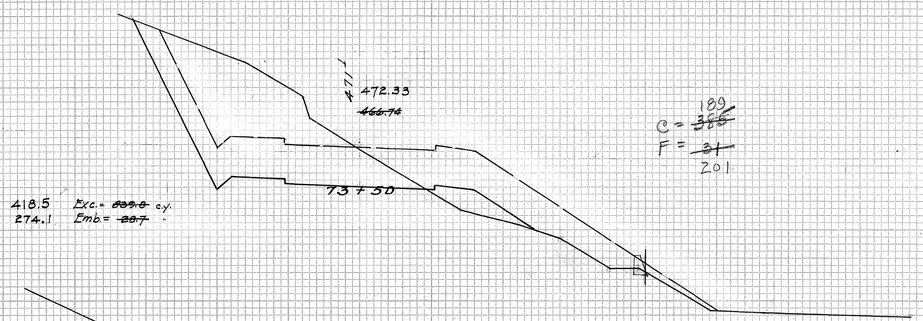
4333.28
4333.28

12 D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NRH 12-D(1935)	1935	29	35

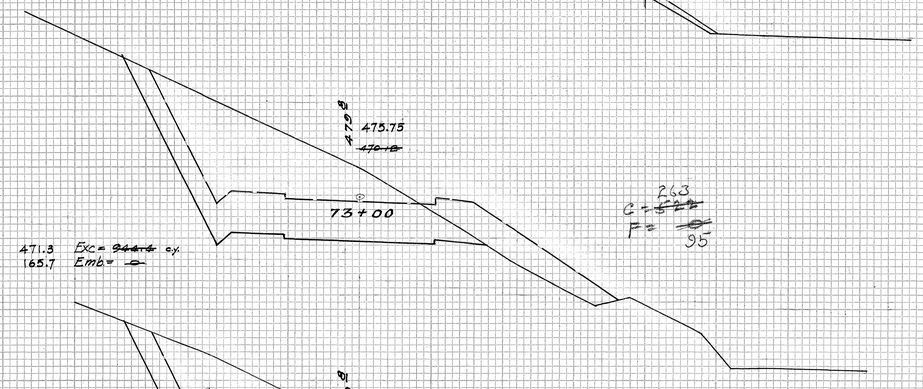
FINAL SURVEY — NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY K.I. K.I. K.I. J.C.N. 4/43

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



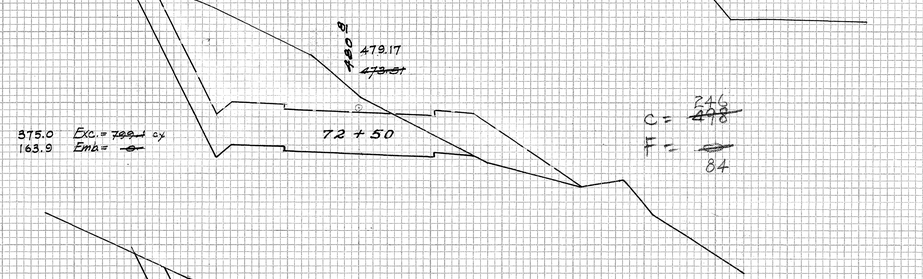
418.5 Exc.= ~~889.6~~ c.y.
274.1 Emb= ~~287~~ "

C= ~~189~~ 366
F= ~~31~~
201



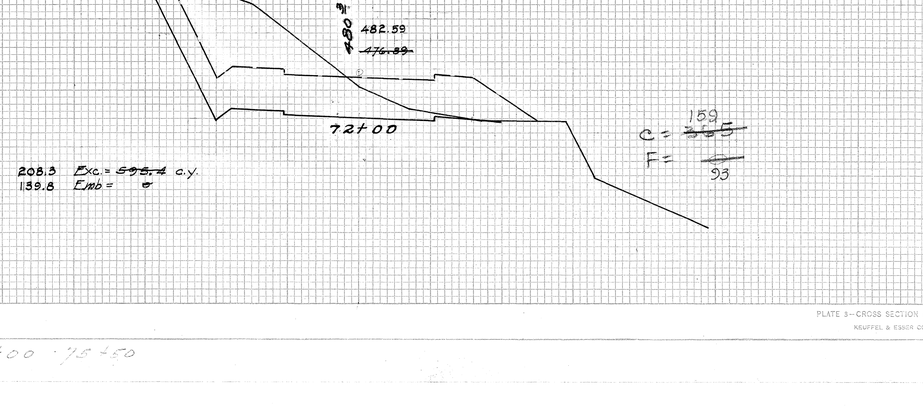
471.3 Exc= ~~944.4~~ c.y.
165.7 Emb= ~~0~~

C= ~~263~~
F= ~~10~~
95



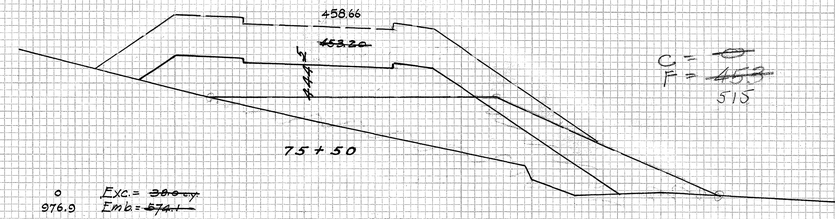
375.0 Exc.= ~~788.1~~ c.y.
163.9 Emb= ~~0~~

C= ~~246~~ 498
F= ~~17~~
84



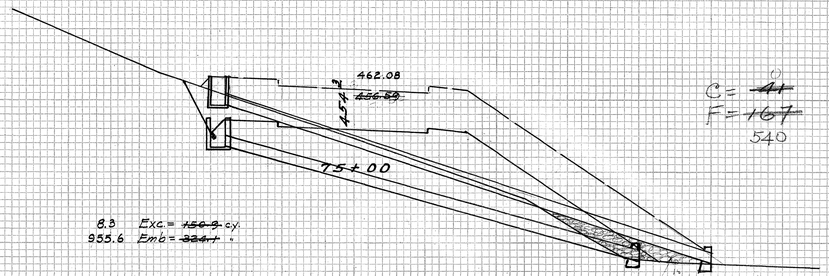
208.3 Exc.= ~~595.4~~ c.y.
139.8 Emb= ~~0~~

C= 159 ~~355~~
F= ~~22~~
93



0 Exc.= ~~389 c.y.~~
976.9 Emb= ~~574.1~~

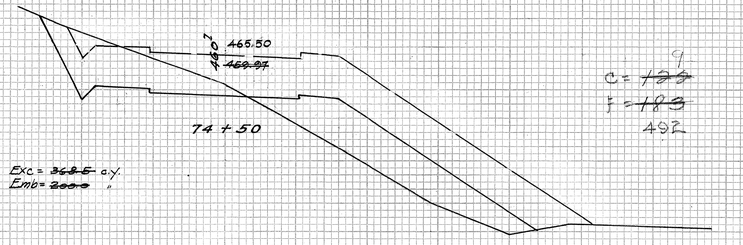
C= ~~0~~
F= ~~45~~ 515



8.3 Exc.= ~~156.9~~ c.y.
955.6 Emb= ~~334.1~~ "

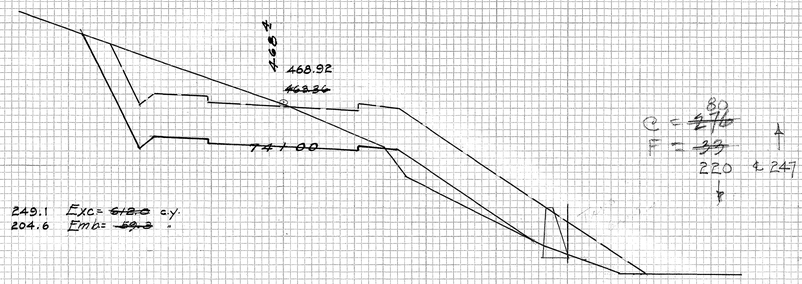
C= ~~0~~ ~~41~~
F= 167
540

Spec. rock fill



82.4 Exc= ~~368.5~~ c.y.
684.3 Emb= ~~200.0~~ "

C= ~~9~~ ~~125~~
F= ~~183~~
492



249.1 Exc= ~~618.0~~ c.y.
204.6 Emb= ~~59.3~~ "

C= ~~80~~ ~~276~~
F= ~~33~~
220 & 247

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

77+00 - 75+50

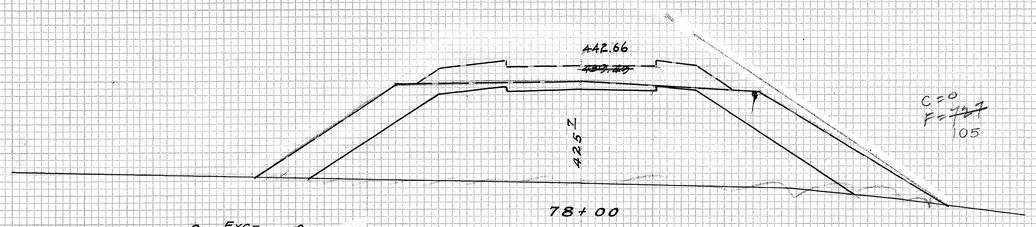
4333.29

12D

FED. ROAD DIV. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(938)	1935	30	35

FINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO. — BY J.C.M. — DATE July 3.

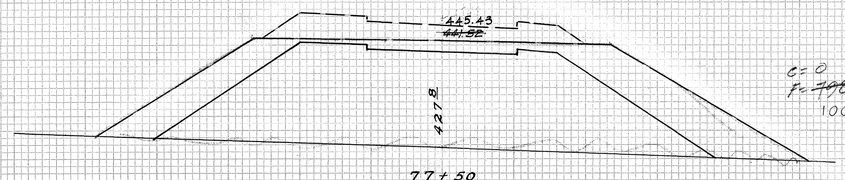
ORIGINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO. — BY — DATE



C=0
F=~~727~~ 105

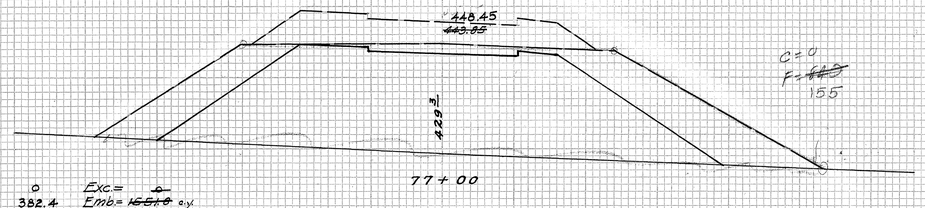
0 Exc.= ~~0~~
205.7 Emb= ~~15931~~ c.y.

EQUATION PLUS 4.18



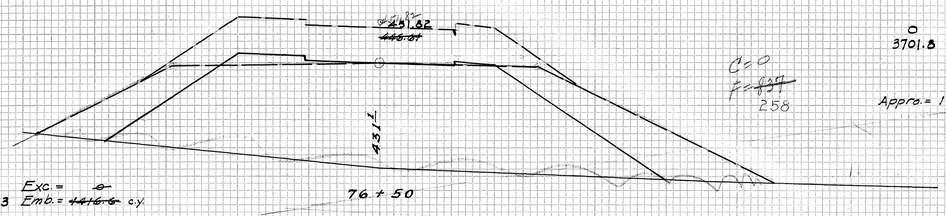
C=0
F=~~496~~ 100

0 Exc.= ~~0~~
236.1 Emb= ~~1701.8~~ c.y.



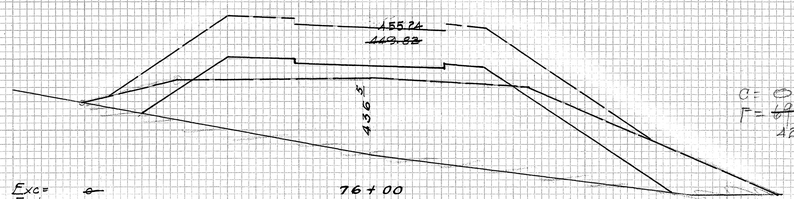
C=0
F=~~443~~ 155

0 Exc.= ~~0~~
382.4 Emb= ~~1551.8~~ c.y.



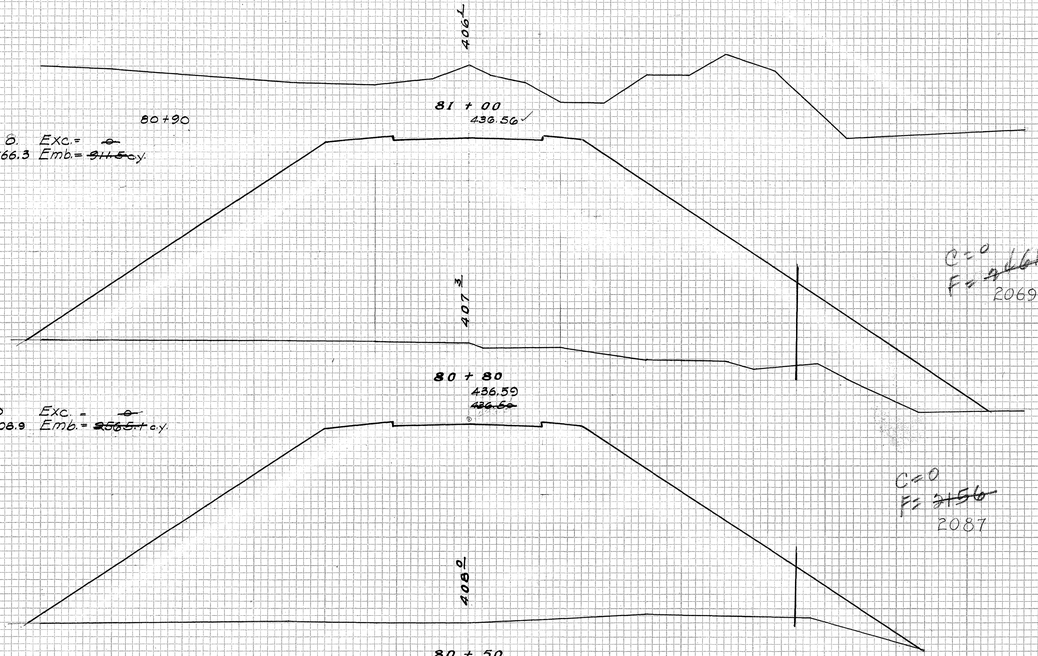
C=0
F=~~694~~ 258

0 Exc.= ~~0~~
634.3 Emb= ~~4416.6~~ c.y.



C=0
F=~~699~~ 427

0 Exc.= ~~0~~
872.2 Emb= ~~10811~~ c.y.



0 Exc.= ~~0~~
766.3 Emb= ~~911.5~~ c.y.

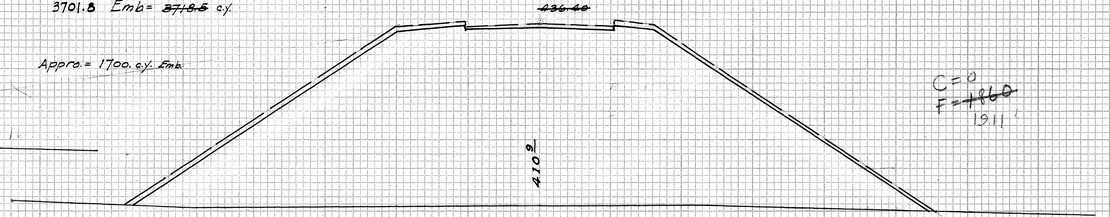
C=0
F=~~2466~~ 2069

0 Exc.= ~~0~~
2308.9 Emb= ~~2565.1~~ c.y.

C=0
F=~~2156~~ 2087

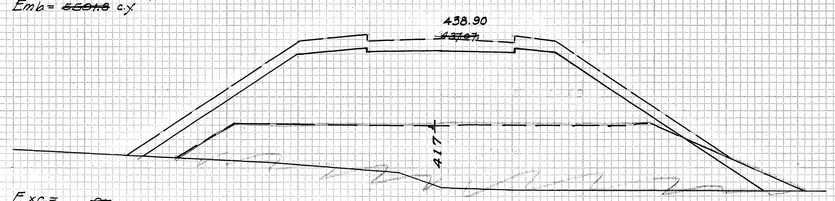
0 Exc.= ~~0~~
3701.8 Emb= ~~3718.5~~ c.y.

Approx.= 1700. c.y. Emb.



C=0
F=~~1460~~ 1911

0 Exc.= ~~0~~
4794.4 Emb= ~~5501.6~~ c.y.



C=0
F=~~1111~~ 678

0 Exc.= ~~0~~
1450.0 Emb= ~~3408.7~~ c.y.

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

76+00 - 81+00

4333.30

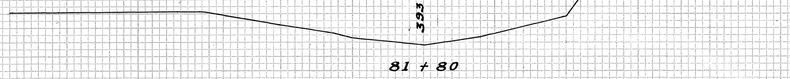
~~4333.30~~

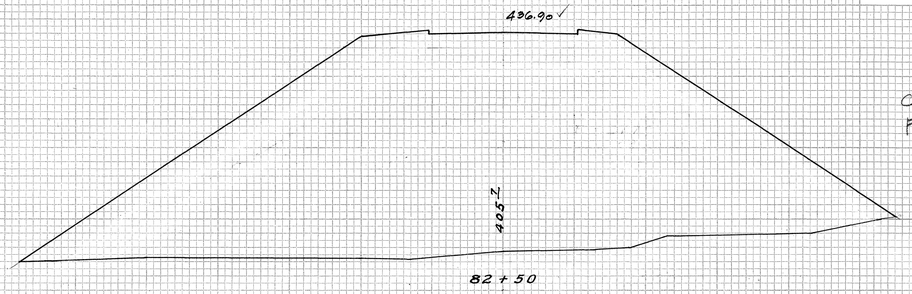
12 D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	
HAWAII	HAW.	N.H.H. 12-D(935)	1935	31	35

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

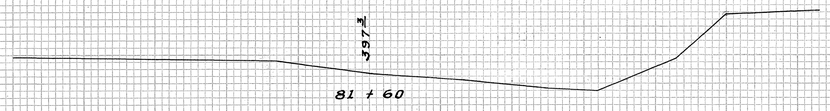


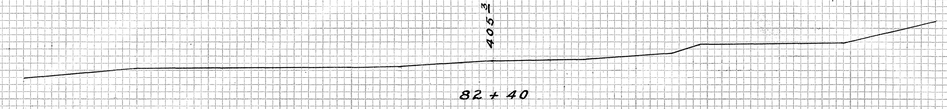


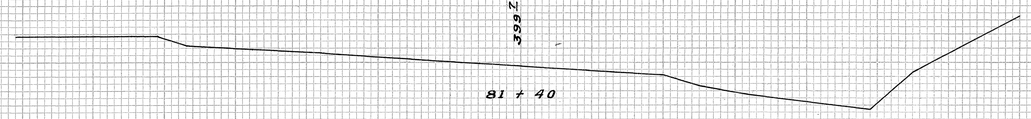
C = 0
F = ~~2447~~
2478

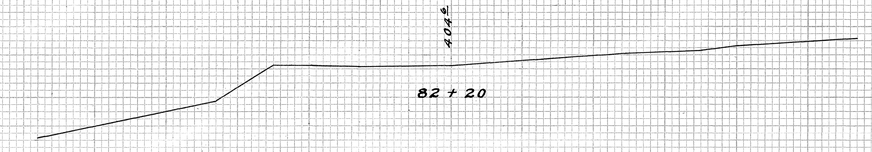
0 Exc. = 0
917.8 Emb. = ~~3087~~ c.y.

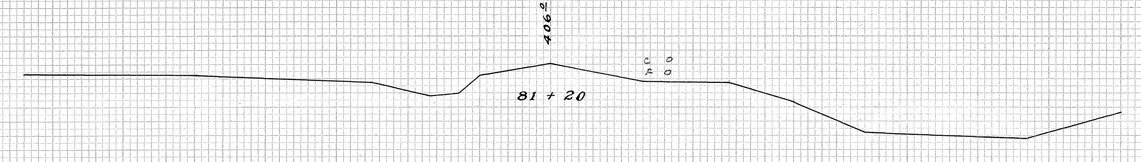
82+40











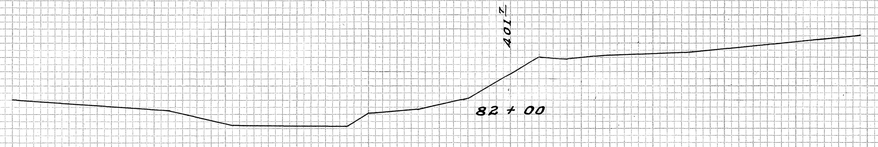


PLATE 3--CROSS SECTION C. P. P. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

4333.31

81+70 - 87+50

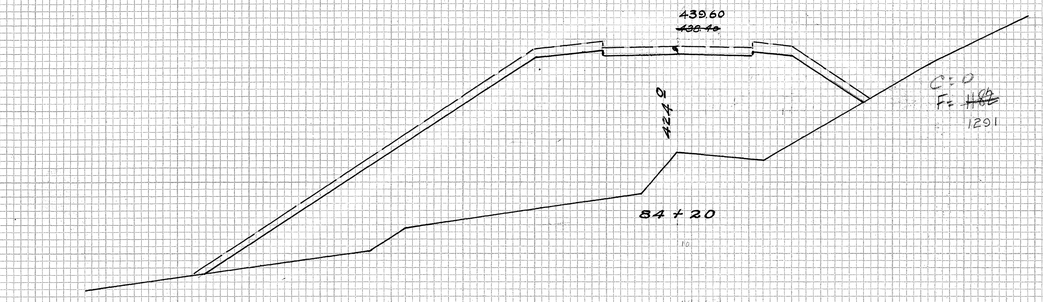
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N-RH 12-D(958)	1935	32	35

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

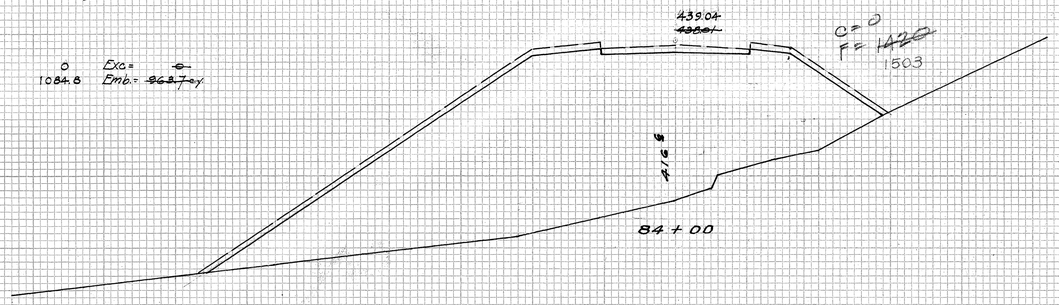
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, NO., AREAS CHECKED

BY V.C.M. V.C.M. V.C.M.

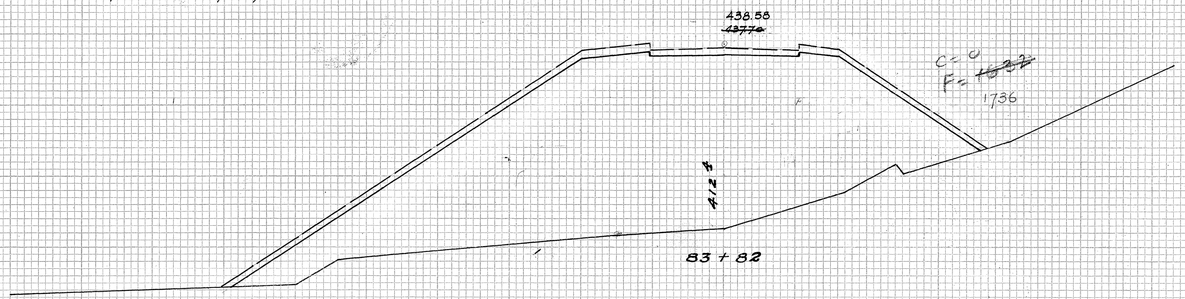
DATE



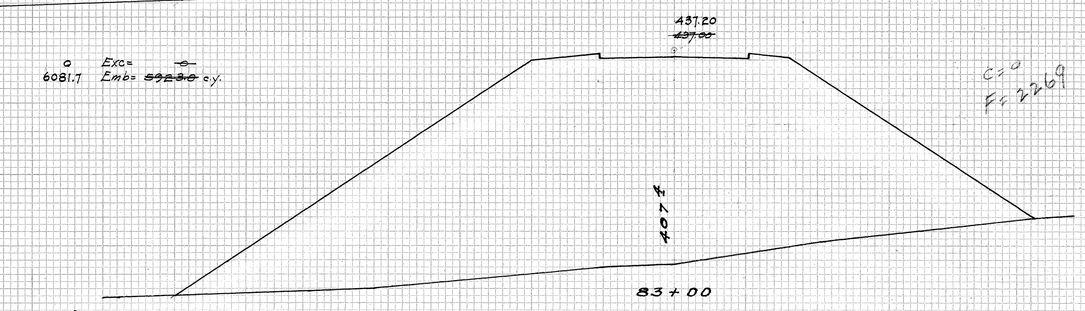
0 Exc.= ~~0~~
1084.8 Emb.= ~~963.7~~ c.y.



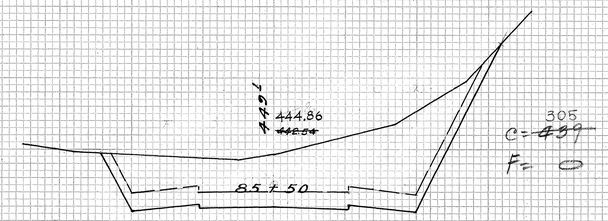
0 Exc.= ~~0~~
1079.6 Emb.= ~~1017.3~~ c.y.



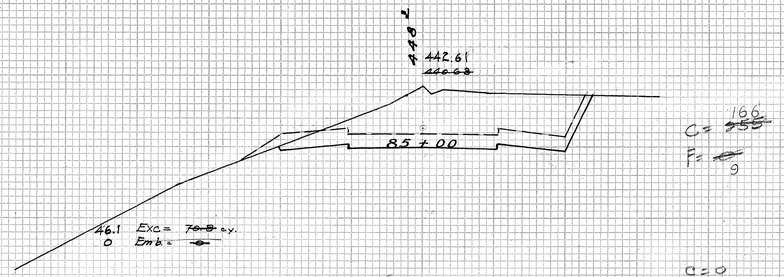
0 Exc.= ~~0~~
6081.7 Emb.= ~~5923.0~~ c.y.



0 Exc.= ~~0~~
4395.4 Emb. ~~4379.1~~ c.y.



436.1 Exc.= ~~642.8~~ c.y.
8.3 Emb.= ~~0~~

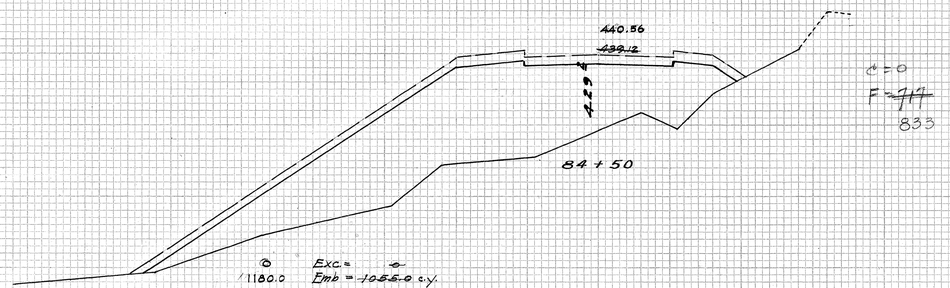


46.1 Exc.= ~~70.8~~ c.y.
0 Emb.= ~~0~~

84+85

C=0
F=0

0 Exc.= ~~0~~
779.6 Emb.= ~~444.7~~ c.y.



0 Exc.= ~~0~~
1180.0 Emb.= ~~1056.0~~ c.y.

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

4333.32

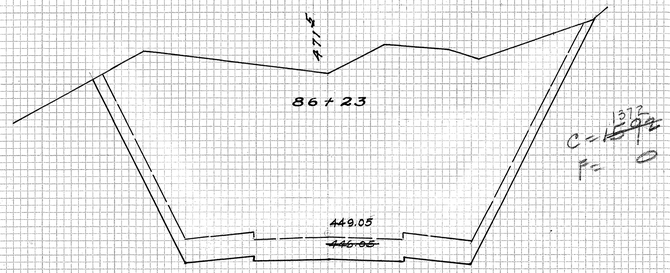
83+00 — 85+50

12D

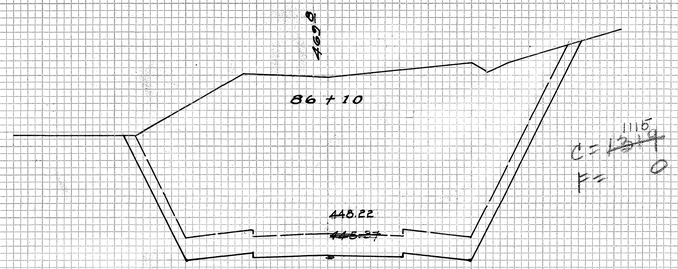
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NRH 12-D(933)	1935	33	35

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, AREAS, NO., DATE, BY, AREAS CHECKED — J.C.M. 4-9-35

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



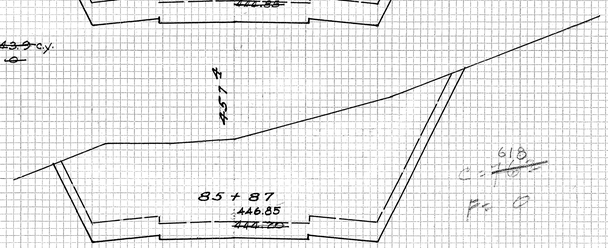
598.7 Exc.= ~~700.8~~ c.y.
0 Emb.= ~~0~~



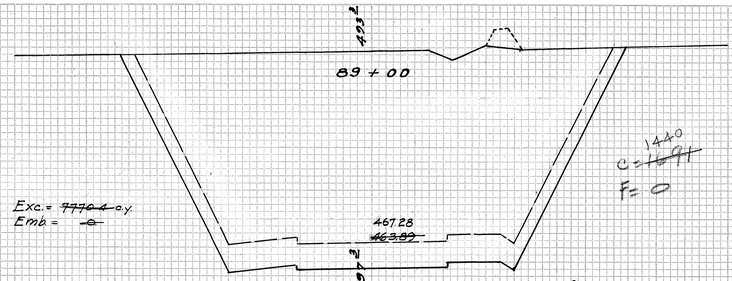
373.5 Exc.= ~~464.6~~ c.y.
0 Emb.= ~~0~~



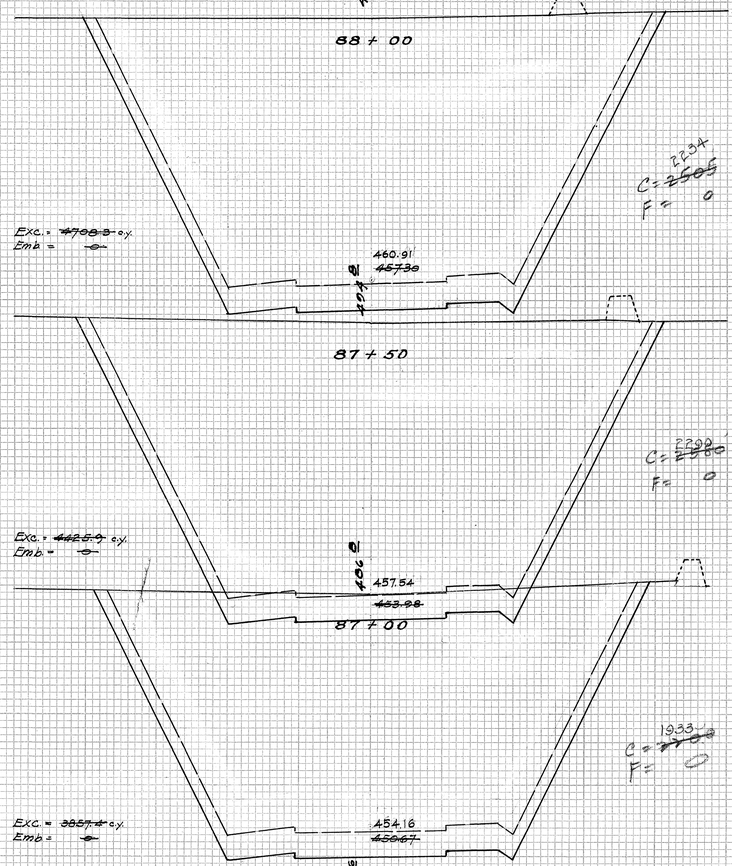
365.9 Exc.= ~~443.9~~ c.y.
0 Emb.= ~~0~~



632.4 Exc.= ~~600.5~~ c.y.
0 Emb.= ~~0~~



6808.7 Exc.= ~~7776.4~~ c.y.
0 Emb.= ~~0~~

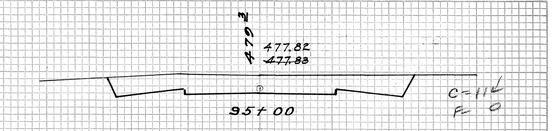


4188.9 Exc.= ~~4708.3~~ c.y.
0 Emb.= ~~0~~

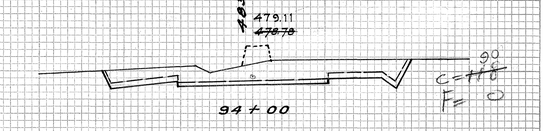
3910.2 Exc.= ~~4425.9~~ c.y.
0 Emb.= ~~0~~

3377.8 Exc.= ~~3857.4~~ c.y.
0 Emb.= ~~0~~

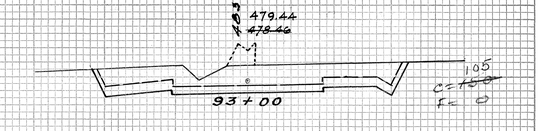
1543.5 Exc.= ~~1774.0~~
0 Emb.= ~~0~~



377.8 Exc.= ~~429.6~~ c.y.
0 Emb.= ~~0~~



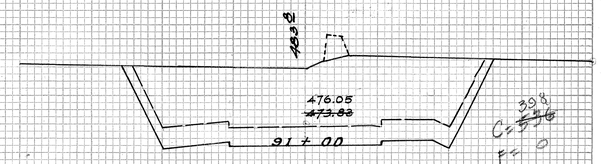
361.1 Exc.= ~~426.3~~ c.y.
Emb.= ~~0~~



570.4 Exc.= ~~732.6~~ c.y.
0 Emb.= ~~0~~



1113.0 Exc.= ~~1507.4~~ c.y.
0 Emb.= ~~0~~



2233.4 Exc.= ~~2844.5~~ c.y.
0 Emb.= ~~0~~



4163.0 Exc.= ~~4983.3~~ c.y.
0 Emb.= ~~0~~

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

4333.33

33

17D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	N.R.H. 12-D(1938)	1935	34	35

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

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

467.9 468.44 C = 22 S.W.A. = 11
102+00
Exc. = 63 c.y.
Emb. = 167 c.y.

468.3 469.78 C = 12 F = 9 S.W.A. = 11
101+00
Exc. = 22 c.y.
Emb. = 78 c.y.

468.4 471.12 F = 33 S.W.A. = 13
100+00
Exc. = 0 c.y.
Emb. = 187 c.y.

468.7 472.46 F = 66 S.W.A. = 12
99+00
Exc. = 0 c.y.
Emb. = 307 c.y.

469.7 473.80 F = 98 S.W.A. = 14
18" Conc. Pipe 38' long
4698 4705
98+00
Exc. = 0 c.y.
Emb. = 287 c.y.

472.3 475.14 F = 57 S.W.A. = 14
97+00
Exc. = 68 c.y.
Emb. = 106 c.y.

476.4 476.48 C = 34
96+00
Exc. = 274.1 c.y.
Emb. = 0 "

457.5 462.88 F = 182
107+50
Exc. = 0 c.y.
Emb. = 326 c.y.

458.2 463.07 F = 166
107+00
Exc. = 0 c.y.
Emb. = 256 c.y.

459.5 463.33 F = 110
106+50
Exc. = 0 c.y.
Emb. = 122 c.y.

462.2 463.67 F = 22
106+00
Exc. = 148 c.y.
Emb. = 41 c.y.

464.2 464.59 464.59 S.W.A. = 12 C = 80
105+00
Exc. = 285 c.y.
Emb. = 0 c.y.

466.2 465.76 C = 74 S.W.A. = 12
104+00
Exc. = 265 c.y.
Emb. = 0 c.y.

467.3 467.10 C = 69 S.W.A. = 11
103+00
Exc. = 168 c.y.
Emb. = 0 c.y.

460.2 462.21 C = 6 F = 8
111+44
Exc. = 1 c.y.
Emb. = 2.6 c.y.

461.4 462.22 C = 1 F = 10
111+39
Exc. = 11 c.y.
Emb. = 29 c.y.

459.2 462.28 F = 30
111+00
Exc. = 0 c.y.
Emb. = 103 c.y.

459.4 462.36 F = 81
110+50
Exc. = 0 c.y.
Emb. = 194 c.y.

458.3 462.44 F = 128
110+00
Exc. = 0 c.y.
Emb. = 255 c.y.

458.4 462.52 F = 145
109+50
Exc. = 0 c.y.
Emb. = 292 c.y.

457.2 462.60 F = 170
109+00
Exc. = 0 c.y.
Emb. = 359 c.y.

456.6 462.68 F = 218
108+50
Exc. = 6 c.y.
Emb. = 429 c.y.

456.6 462.76 F = 245
435.5 456.3
18" Conc. Pipe 48' long
25 23
108+00
Exc. = 0 c.y.
Emb. = 399 c.y.

462.2 461.64 C = 40
115+00
Exc. = ~~Emb. = 356~~ c.y.
Emb. ~~Exc.~~ = 0 c.y.

464.2 461.80 C = 152
114+00
Exc. = 685 c.y.
Emb. = 0 c.y.

467.5 461.95 C = 220
113+08
Exc. = 76 c.y.
Emb. = 0 c.y.

466.2 461.96 C = 263
113+00
Exc. = 435 c.y.
Emb. = 0 c.y.

466.2 462.04 C = 205
112+50
Exc. = 290 c.y.
Emb. = 0 c.y.

464.5 462.12 C = 103
112+00
Exc. = 107 c.y.
Emb. = 6 c.y.

462.2 462.20
111+50
Exc. = 2 c.y.
Emb. = 2 c.y.

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

96-00 — 115+00

4333.34

12D

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHTS.
HAWAII	HAW	N.H.H. 12-D(1935)	1935	35	35

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

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

℄

453.54
455.4
1+70[81]
C=69
F=4
Exc= 49 c.y.
Emb= 6 "

455.21
~~455.17~~
455.9
1+50
C=18
F=17
111 Exc= 188 c.y.
34 Emb= 28 "

458.21
~~458.15~~
460.3
1+00
62
C=~~110~~
F=~~1~~
25
66 Exc= ~~263~~ c.y.
36 Emb= ~~11~~ "

462.35
~~458.14~~
462.0
0+60[29]
28
C=~~214~~
F=~~0~~
24
18 Exc= 114 c.y.
55 Emb= 8 "

463.05
457.92
463.3
0+41[60]
25
C=~~104~~
F=~~3~~
35
9 Exc= ~~69~~ c.y.
76 Emb= 8 "

462.84
457.41
459.2
0+22[90]
C=~~4~~
F=~~0~~
84

462.78
~~458.26~~
460.6
0+11[00]

Wahiawa Gulch Side Road Sta 0+00 on Side Rd = Sta 75+00 on Highway

℄

430.56
430.42
4+58[43]
C=17
F=4
Exc= 40 c.y.
Emb= 8 "

435.22
434.7
4+00
C=20
F=3
Exc= 28 c.y.
Emb= 4 "

439.22
439.0
3+50
C=21
F=1
Exc= 18 c.y.
Emb= 1 "

440.90
441.7
3+29[02]
C=26
F=10
Exc= 31 c.y.
Emb= 1 "

443.22
443.6
3+00
C=31
F=1
Exc= 18 c.y.
Emb= 6 "

443.22
448.3
2+75
C=7
F=10
Exc= 3 c.y.
Emb= 21 "

447.22
445.8
442.2
2+50
C=0
F=35
Exc= 0 c.y.
Emb= 36 "

449.22
446.4
2+25
C=0
F=43
Exc= 5 c.y.
Emb= 24 "

451.22
450.9
2+00
C=15
F=43
Exc= 42 c.y.
Emb= 6 "

Total Exc= 887
Total Emb= 165

℄

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

4333.35