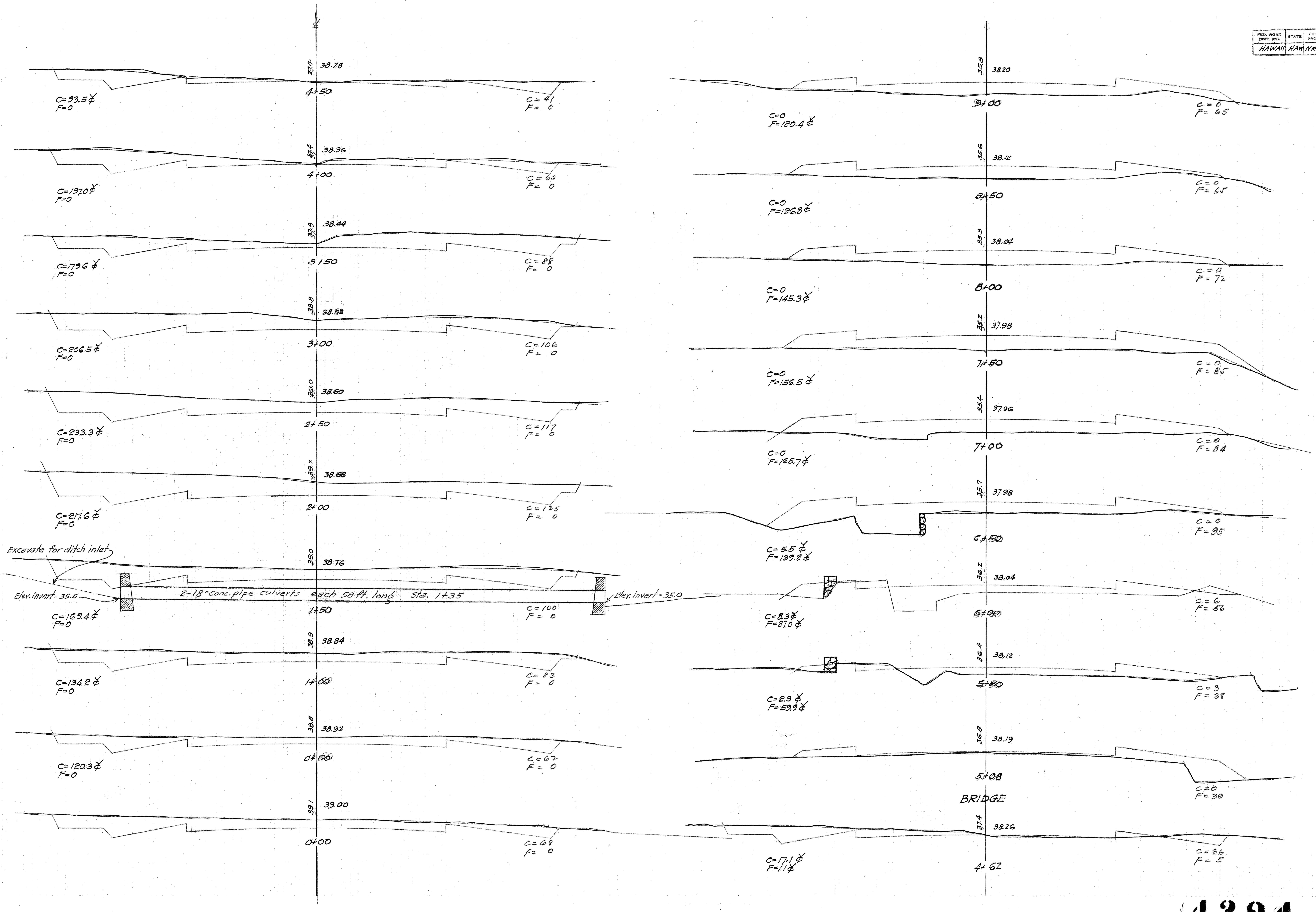
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	30	51

Feb/33
Oct/33
Oct/33

H.Y.
E.S.C.
U.M.Jr.

F.A.P. 6-I
H. Young
E. Stone

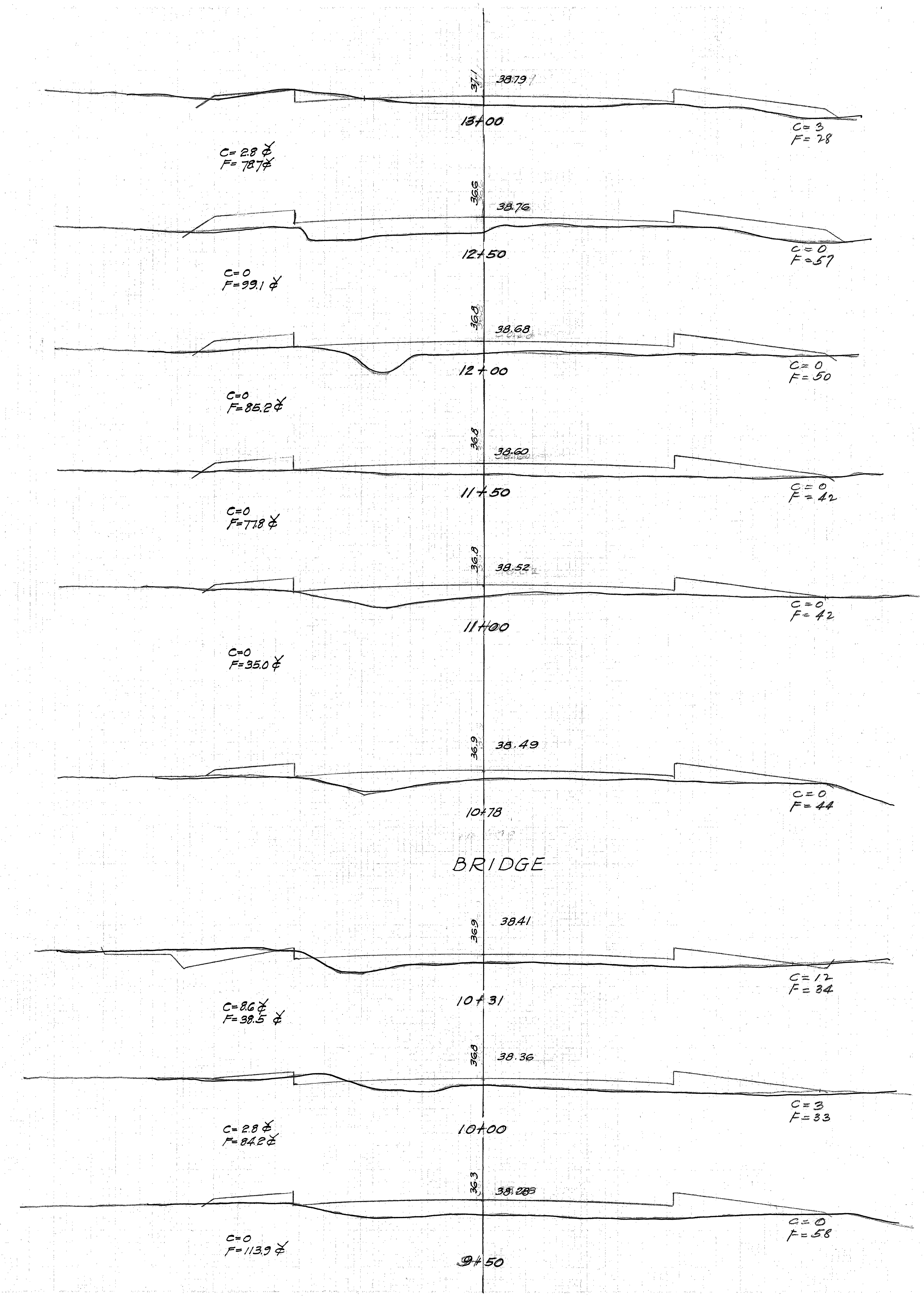


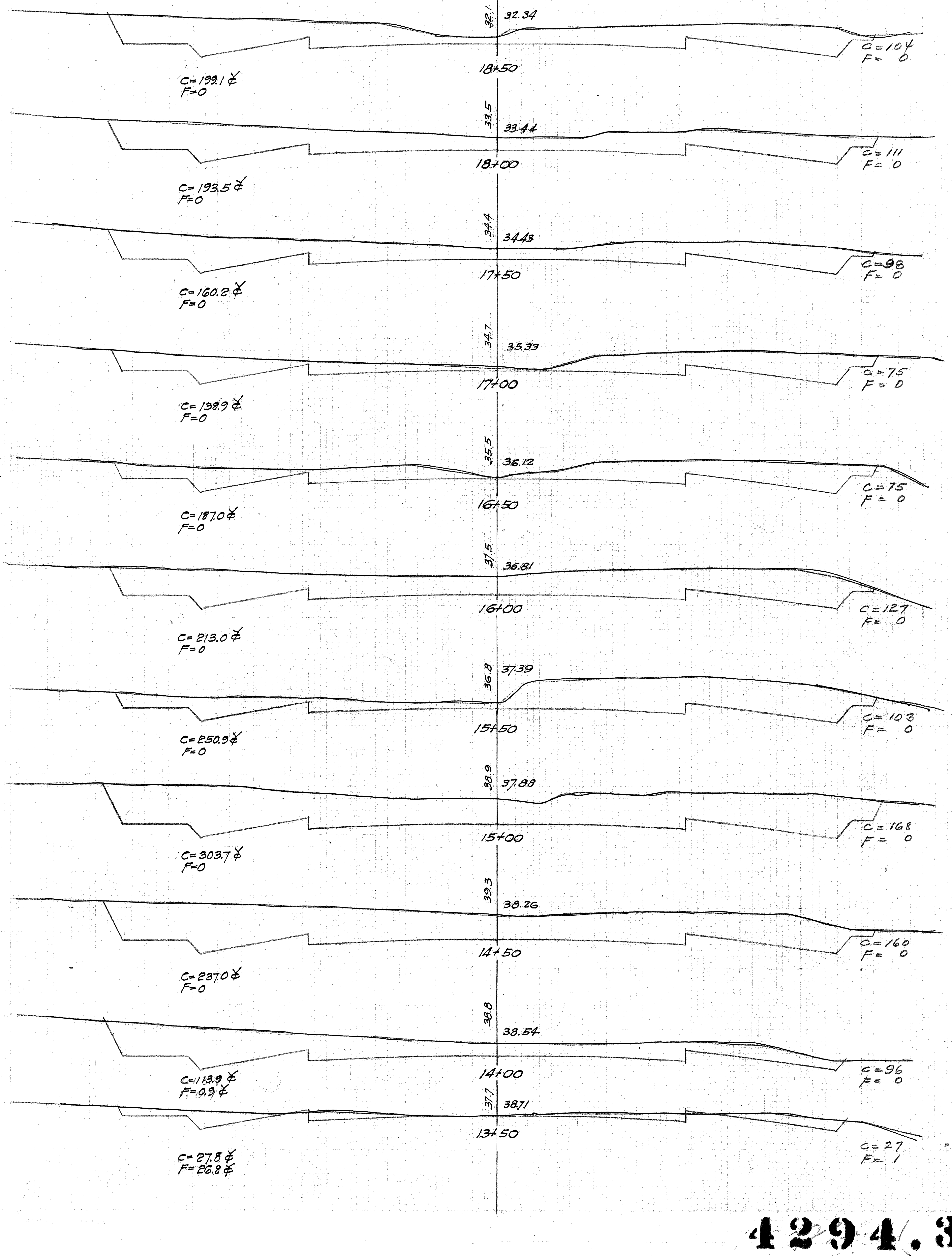
℄
37.4 38.28
4+50
C=93.5¢
F=0
C=41
F=0
37.4 38.36
4+00
C=137.0¢
F=0
C=60
F=0
37.9 38.44
3+50
C=179.6¢
F=0
C=88
F=0
38.8 38.52
3+00
C=206.5¢
F=0
C=106
F=0
39.0 38.60
2+50
C=233.3¢
F=0
C=117
F=0
39.2 38.68
2+00
C=217.6¢
F=0
C=135
F=0
Excavate for ditch inlet
39.0 38.76
Elev. Invert=35.5
2-18" Conc. pipe culverts each 58 ft. long Sta. 1+35
Elev. Invert=35.0
1+50
C=169.4¢
F=0
C=100
F=0
38.9 38.84
1+00
C=134.2¢
F=0
C=83
F=0
38.8 38.92
0+50
C=120.3¢
F=0
C=67
F=0
39.1 39.00
0+00
C=68
F=0
35.8 38.20
9+00
C=0
F=120.4¢
C=0
F=65
35.6 38.12
8+50
C=0
F=126.8¢
C=0
F=65
35.3 38.04
8+00
C=0
F=145.3¢
C=0
F=72
35.2 37.98
7+50
C=0
F=156.5¢
C=0
F=85
35.4 37.96
7+00
C=0
F=165.7¢
C=0
F=84
35.7 37.98
6+50
C=5.5¢
F=139.8¢
C=0
F=95
36.2 38.04
6+00
C=8.3¢
F=87.0¢
C=6
F=56
36.4 38.12
5+50
C=2.3¢
F=59.9¢
C=3
F=38
36.8 38.19
5+08
C=0
F=39
BRIDGE
37.4 38.26
4+62
C=17.1¢
F=1.1¢
C=36
F=5

4294.30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	31	51

H.K.Y Feb/33
E.F.C. Oct/33
J.M.Jr. Oct/33

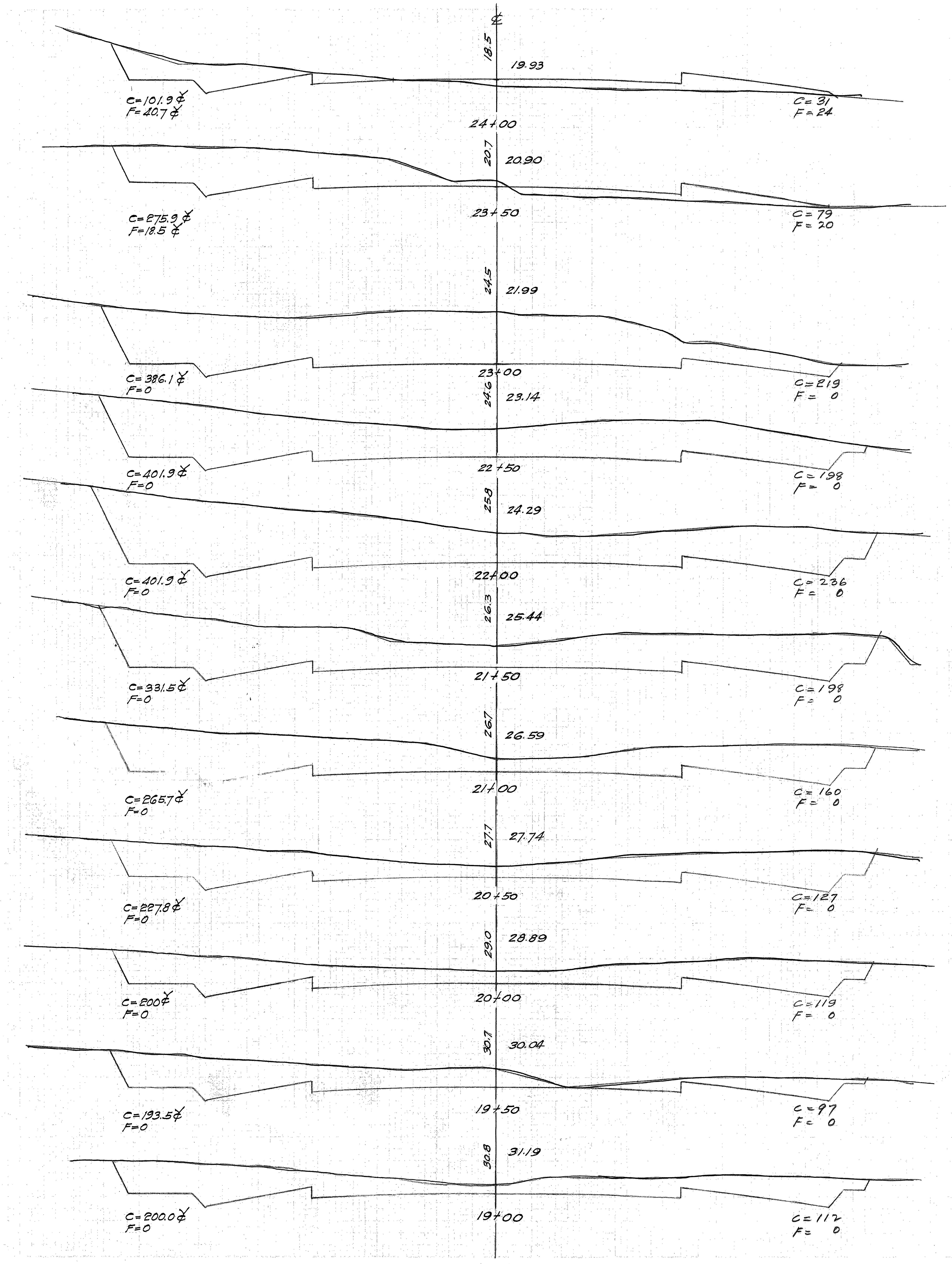

37.1
38.79
13+00
C=3
F=28
C=2.8 ¢
F=78.7 ¢
36.6
38.76
12+50
C=0
F=57
C=0
F=99.1 ¢
36.8
38.68
12+00
C=0
F=50
C=0
F=85.2 ¢
36.8
38.60
11+50
C=0
F=42
C=0
F=77.8 ¢
36.8
38.52
11+00
C=0
F=42
C=0
F=35.0 ¢
36.9
38.49
10+78
C=0
F=44
BRIDGE
36.9
38.41
10+31
C=12
F=34
C=8.6 ¢
F=38.5 ¢
36.8
38.36
10+00
C=3
F=33
C=2.8 ¢
F=84.2 ¢
36.3
38.283
9+50
C=0
F=58
C=0
F=113.9 ¢

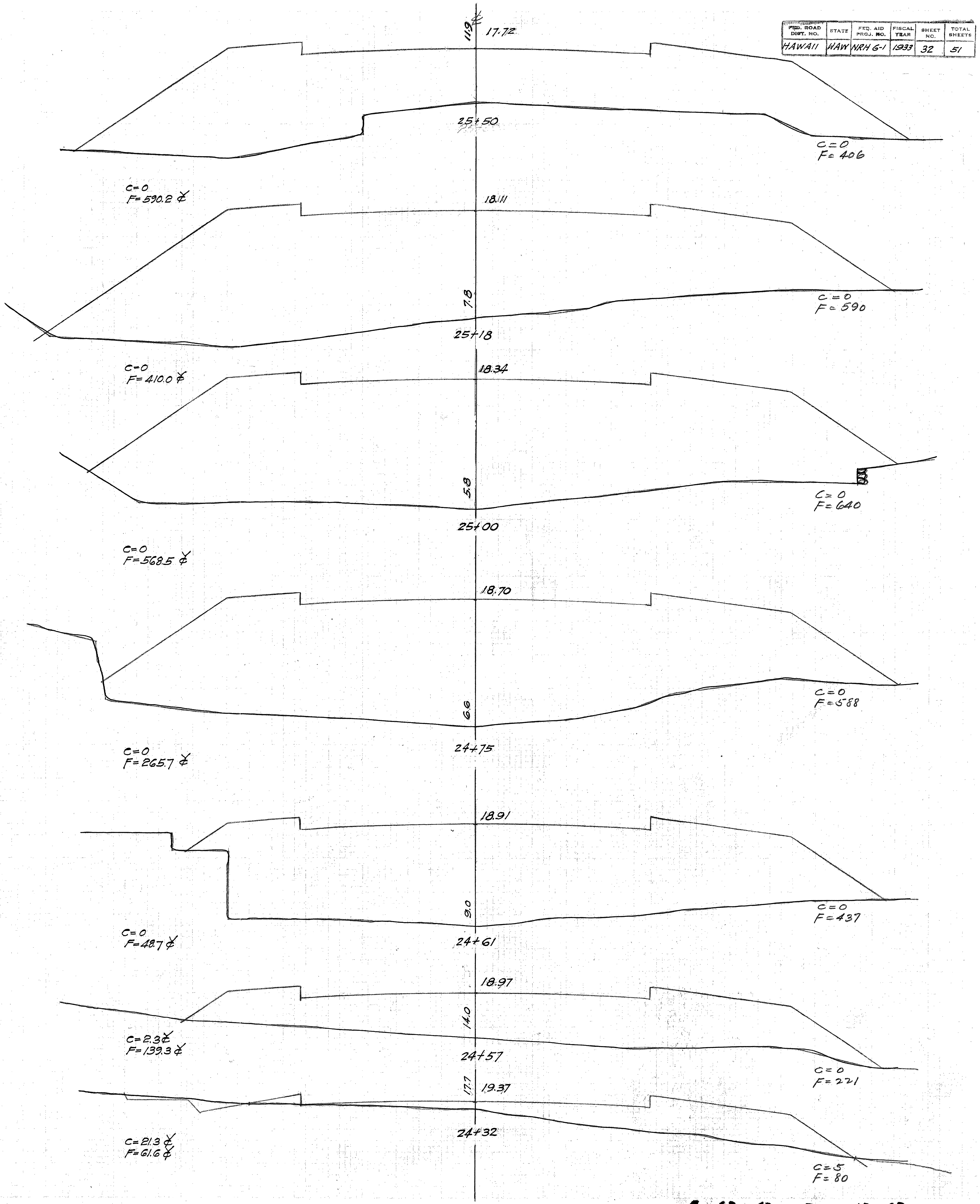

32.1
32.34
18+50
C=104
F=0
C=199.1 ¢
F=0
33.5
33.44
18+00
C=111
F=0
C=193.5 ¢
F=0
34.4
34.43
17+50
C=98
F=0
C=160.2 ¢
F=0
34.7
35.33
17+00
C=75
F=0
C=138.9 ¢
F=0
35.5
36.12
16+50
C=75
F=0
C=187.0 ¢
F=0
37.5
36.81
16+00
C=127
F=0
C=213.0 ¢
F=0
36.8
37.39
15+50
C=103
F=0
C=250.9 ¢
F=0
38.9
37.88
15+00
C=168
F=0
C=303.7 ¢
F=0
39.3
38.26
14+50
C=160
F=0
C=237.0 ¢
F=0
38.8
38.54
14+00
C=96
F=0
C=113.9 ¢
F=0.9 ¢
37.7
38.71
13+50
C=27
F=1
C=27.8 ¢
F=26.8 ¢

4294.31

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	32	51

H.K.Y. Feb/33
H.F.C. Oct/33
J.M.Jr. Oct/33


℄
18.5
19.93
C=101.9¢
F=40.7¢
C=31
F=24
24+00
20.7
20.90
C=275.9¢
F=18.5¢
23+50
C=79
F=20
24.5
21.99
C=386.1¢
F=0
23+00
C=219
F=0
24.6
23.14
C=401.9¢
F=0
22+50
C=198
F=0
25.8
24.29
C=401.9¢
F=0
22+00
C=236
F=0
26.3
25.44
C=331.5¢
F=0
21+50
C=198
F=0
26.7
26.59
C=265.7¢
F=0
21+00
C=160
F=0
27.7
27.74
C=227.8¢
F=0
20+50
C=127
F=0
29.0
28.89
C=200¢
F=0
20+00
C=119
F=0
30.7
30.04
C=193.5¢
F=0
19+50
C=97
F=0
30.8
31.19
C=200.0¢
F=0
19+00
C=112
F=0


11.9
17.72
25+50
C=0
F=406
C=0
F=590.2¢
18.11
7.8
25+18
C=0
F=590
C=0
F=410.0¢
18.34
5.8
25+00
C=0
F=640
C=0
F=568.5¢
18.70
6.9
24+75
C=0
F=588
C=0
F=265.7¢
18.91
9.0
24+61
C=0
F=437
C=0
F=48.7¢
18.97
14.0
24+57
C=2.3¢
F=139.3¢
C=0
F=221
17.7
19.37
24+32
C=21.3¢
F=61.6¢
C=5
F=80

4294.32

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH G-1	1933	33	51

H.K.Y. Feb/33
H.E.S.
H.F.C. Oct/33
J.M. Jr. Oct/33

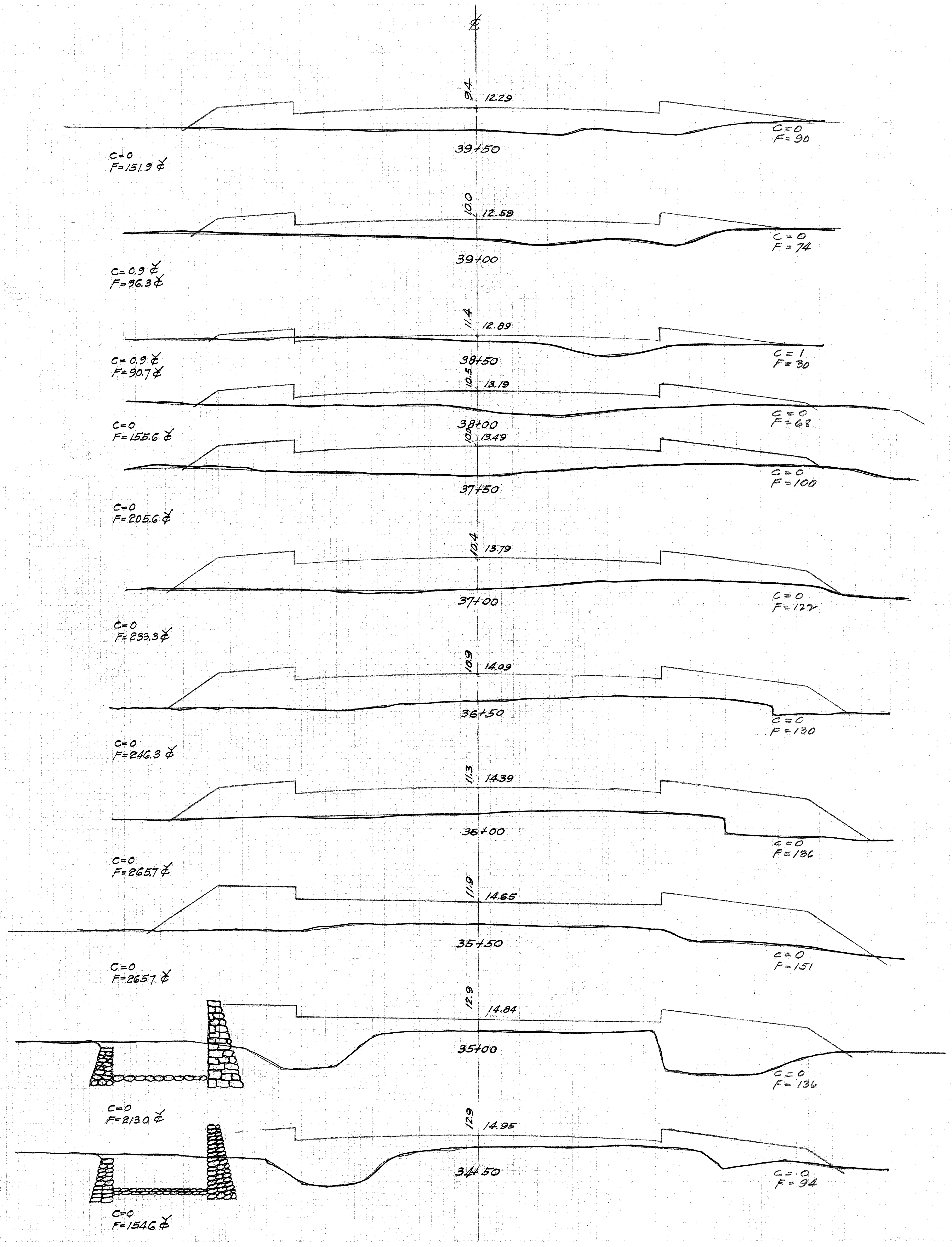
℄
15.79
9.5
29+00
C=0
F=579.6 ¢
C=0
F=294
15.99
9.4
28+50
C=0
F=628.7 ¢
C=0
F=337
16.19
9.1
28+00
C=0
F=696.3 ¢
C=0
F=347
16.39
8.4
27+50
C=0
F=788.0 ¢
C=0
F=405
16.59
Elev. Invert = 9.0
24" conc. pipe culvert
8.2
64 ft. long
Elev. Invert = 8.0
27+00
C=0
F=820.4 ¢
C=0
F=446
16.85
8.1
26+50
C=0
F=846.3 ¢
C=0
F=440
17.23
8.4
26+00
C=0
F=402.8 ¢
C=0
F=474
17.47
10.5
25+75
C=0
F=371.3 ¢
C=0
F=396
℄
13.2
14.99
34+00
C=0
F=99.1 ¢
C=0
F=73
13.6
14.99
33+50
C=3.7 ¢
F=42.6 ¢
C=0
F=34
13.8
14.99
33+00
C=3.7 ¢
F=74.1 ¢
C=4
F=12
13.5
14.99
32+50
C=15.7 ¢
F=91.7 ¢
C=0
F=68
13.3
14.99
32+00
C=15.7 ¢
F=67.6 ¢
C=17
F=31
13.3
15.02
31+50
C=0
F=84.3 ¢
C=0
F=42
13.3
15.09
31+00
C=0
F=101.9 ¢
C=0
F=49
13.8
15.22
30+50
C=0
F=215.7 ¢
C=0
F=61
15.39
11.8
30+00
C=0
F=334.3 ¢
C=0
F=172
15.59
11.3
29+50
29+50
C=0
F=447.2 ¢
C=0
F=189

4294.33

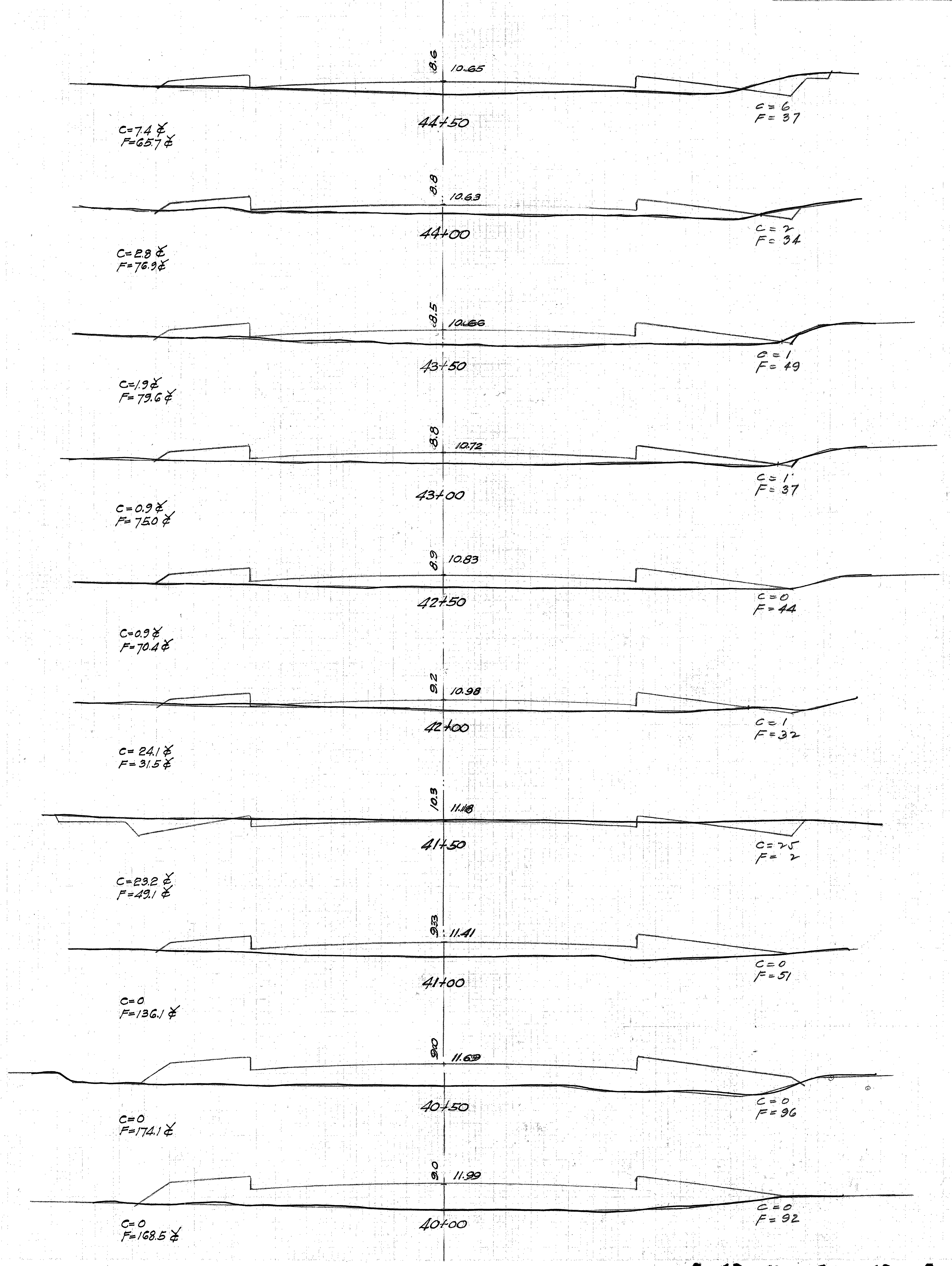
4294.33

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HA11	NRH 6-1	1933	34	51

H.K.Y. Feb/33
E.S.
H.F.C. Oct/33
J.M. Jr. Oct 33



℄
9.4
12.29
39+50
C=0
F=151.9 ¢
C=0
F=90
10.0
12.59
39+00
C=0.9 ¢
F=96.3 ¢
C=0
F=74
11.4
12.89
38+50
C=0.9 ¢
F=90.7 ¢
C=1
F=30
10.5
13.19
38+00
C=0
F=155.6 ¢
C=0
F=68
10.0
13.49
37+50
C=0
F=205.6 ¢
C=0
F=100
10.4
13.79
37+00
C=0
F=233.3 ¢
C=0
F=127
10.9
14.09
36+50
C=0
F=246.3 ¢
C=0
F=130
11.3
14.39
36+00
C=0
F=265.7 ¢
C=0
F=136
11.9
14.65
35+50
C=0
F=265.7 ¢
C=0
F=151
12.9
14.84
35+00
C=0
F=213.0 ¢
C=0
F=136
12.9
14.95
34+50
C=0
F=154.6 ¢
C=0
F=94



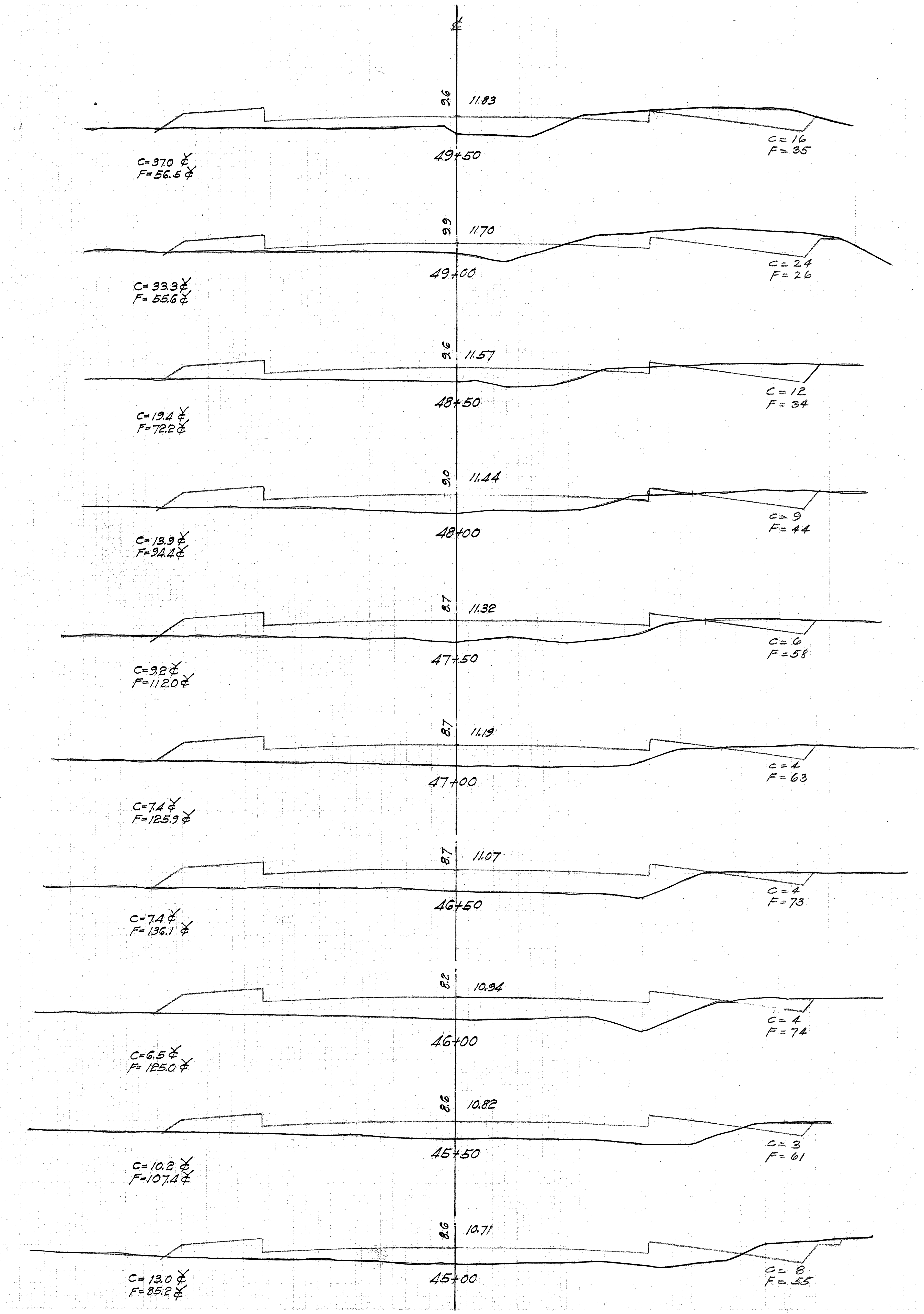
℄
8.6
10.65
44+50
C=7.4 ¢
F=65.7 ¢
C=6
F=37
8.8
10.63
44+00
C=2.8 ¢
F=76.9 ¢
C=2
F=34
8.5
10.66
43+50
C=1.9 ¢
F=79.6 ¢
C=1
F=49
8.8
10.72
43+00
C=0.9 ¢
F=75.0 ¢
C=1
F=37
8.9
10.83
42+50
C=0.9 ¢
F=70.4 ¢
C=0
F=44
9.2
10.98
42+00
C=24.1 ¢
F=31.5 ¢
C=1
F=32
10.9
11.18
41+50
C=23.2 ¢
F=49.1 ¢
C=25
F=2
9.3
11.41
41+00
C=0
F=136.1 ¢
C=0
F=51
9.0
11.69
40+50
C=0
F=174.1 ¢
C=0
F=96
9.0
11.99
40+00
C=0
F=168.5 ¢
C=0
F=92

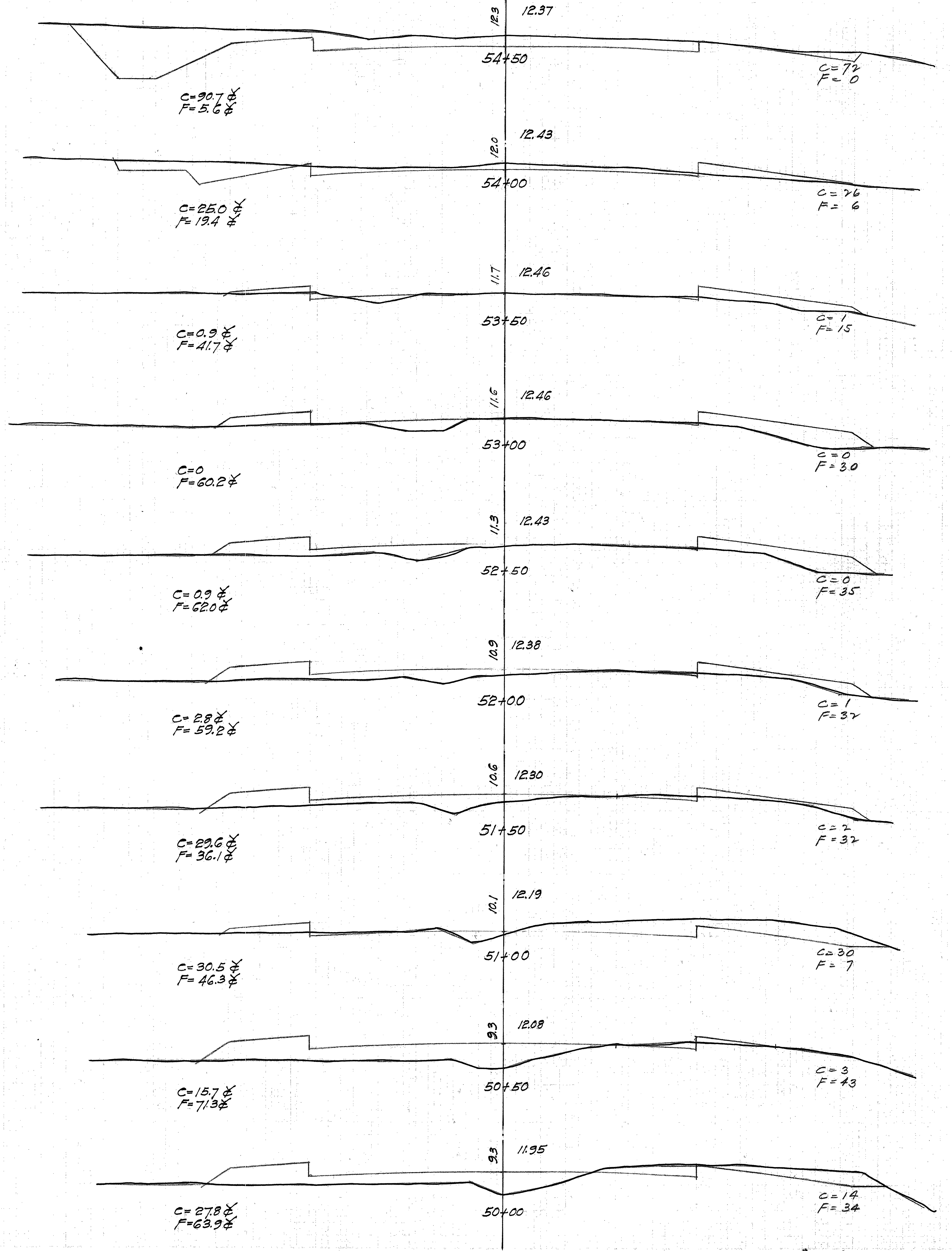
4294.34

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH G-1	1933	35	51

Feb/33
Oct/33
Oct/33

H.K.Y.
F.F.C.
J.M.Jr.


℄
9.6
11.83
49+50
C=37.0 ¢
F=56.5 ¢
C=16
F=35
9.9
11.70
49+00
C=33.3 ¢
F=55.6 ¢
C=24
F=26
9.6
11.57
48+50
C=19.4 ¢
F=72.2 ¢
C=12
F=34
9.0
11.44
48+00
C=13.9 ¢
F=94.4 ¢
C=9
F=44
8.7
11.32
47+50
C=9.2 ¢
F=112.0 ¢
C=6
F=58
8.7
11.19
47+00
C=7.4 ¢
F=125.9 ¢
C=4
F=63
8.7
11.07
46+50
C=7.4 ¢
F=136.1 ¢
C=4
F=73
8.2
10.94
46+00
C=6.5 ¢
F=125.0 ¢
C=4
F=74
8.6
10.82
45+50
C=10.2 ¢
F=107.4 ¢
C=3
F=61
8.6
10.71
45+00
C=13.0 ¢
F=85.2 ¢
C=8
F=55


℄
12.3
12.37
54+50
C=90.7 ¢
F=5.6 ¢
C=72
F=0
12.0
12.43
54+00
C=25.0 ¢
F=19.4 ¢
C=76
F=6
11.7
12.46
53+50
C=0.9 ¢
F=41.7 ¢
C=1
F=15
11.6
12.46
53+00
C=0
F=60.2 ¢
C=0
F=30
11.3
12.43
52+50
C=0.9 ¢
F=62.0 ¢
C=0
F=35
10.9
12.38
52+00
C=2.8 ¢
F=59.2 ¢
C=1
F=37
10.6
12.30
51+50
C=29.6 ¢
F=36.1 ¢
C=2
F=32
10.1
12.19
51+00
C=30.5 ¢
F=46.3 ¢
C=30
F=7
9.3
12.08
50+50
C=15.7 ¢
F=71.3 ¢
C=3
F=43
9.3
11.95
50+00
C=27.8 ¢
F=63.9 ¢
C=14
F=34

4294.35

4294.35

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6 ⅠⅠ	1933	36	51

HKY Feb/33
HSE Oct/33
J.M.Jr. Oct/33

℄
9.4
11.39
59+50
C=19.4 ¢
F=140.7 ¢
C=9
F=86
10.0
11.49
59+00
C=23.1 ¢
F=159.2 ¢
C=12
F=66
9.2
11.59
30" Con. pipe culvert
58 ft. long Sta. 58+60
Elev. Invert = 7.0
Elev. Invert = 7.0
Excavate for ditch
58+50
C=17.6 ¢
F=192.6 ¢
C=13
F=106
9.6
11.69
58+00
C=13.9 ¢
F=137.0 ¢
C=6
F=102
9.7
11.79
57+50
C=18.5 ¢
F=83.3 ¢
C=9
F=46
9.8
11.89
57+00
C=32.4 ¢
F=55.6 ¢
C=11
F=44
10.6
11.99
56+50
C=54.6 ¢
F=20.3 ¢
C=24
F=16
11.2
12.09
56+00
C=92.6 ¢
F=6.5 ¢
C=35
F=6
10.9
12.19
55+50
C=130.5 ¢
F=0.9 ¢
C=65
F=1
12.6
12.29
55+00
C=137.1 ¢
F=0
C=76
F=0
℄
8.6
10.39
64+50
C=0
F=99.1 ¢
C=0
F=47
8.4
10.49
64+00
C=0
F=103.7 ¢
C=0
F=60
9.0
10.59
63+50
C=12.9 ¢
F=75.0 ¢
C=0
F=52
9.7
10.69
63+00
C=27.8 ¢
F=66.7 ¢
C=14
F=29
9.4
10.79
62+50
C=14.8 ¢
F=123.1 ¢
C=16
F=43
8.8
10.89
62+00
C=0
F=154.6 ¢
C=0
F=90
9.1
10.99
61+50
C=0
F=177.8 ¢
C=0
F=77
8.6
11.09
61+00
C=0
F=218.5 ¢
C=0
F=115
8.6
11.19
60+50
C=0
F=224.1 ¢
C=0
F=121
8.7
11.29
60+00
C=8.3 ¢
F=191.6 ¢
C=0
F=121

4294.36

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH6-1	1933	37	51

H.K.Y. Feb/33
E.K.C. Oct/33
J.M.W. Oct/33

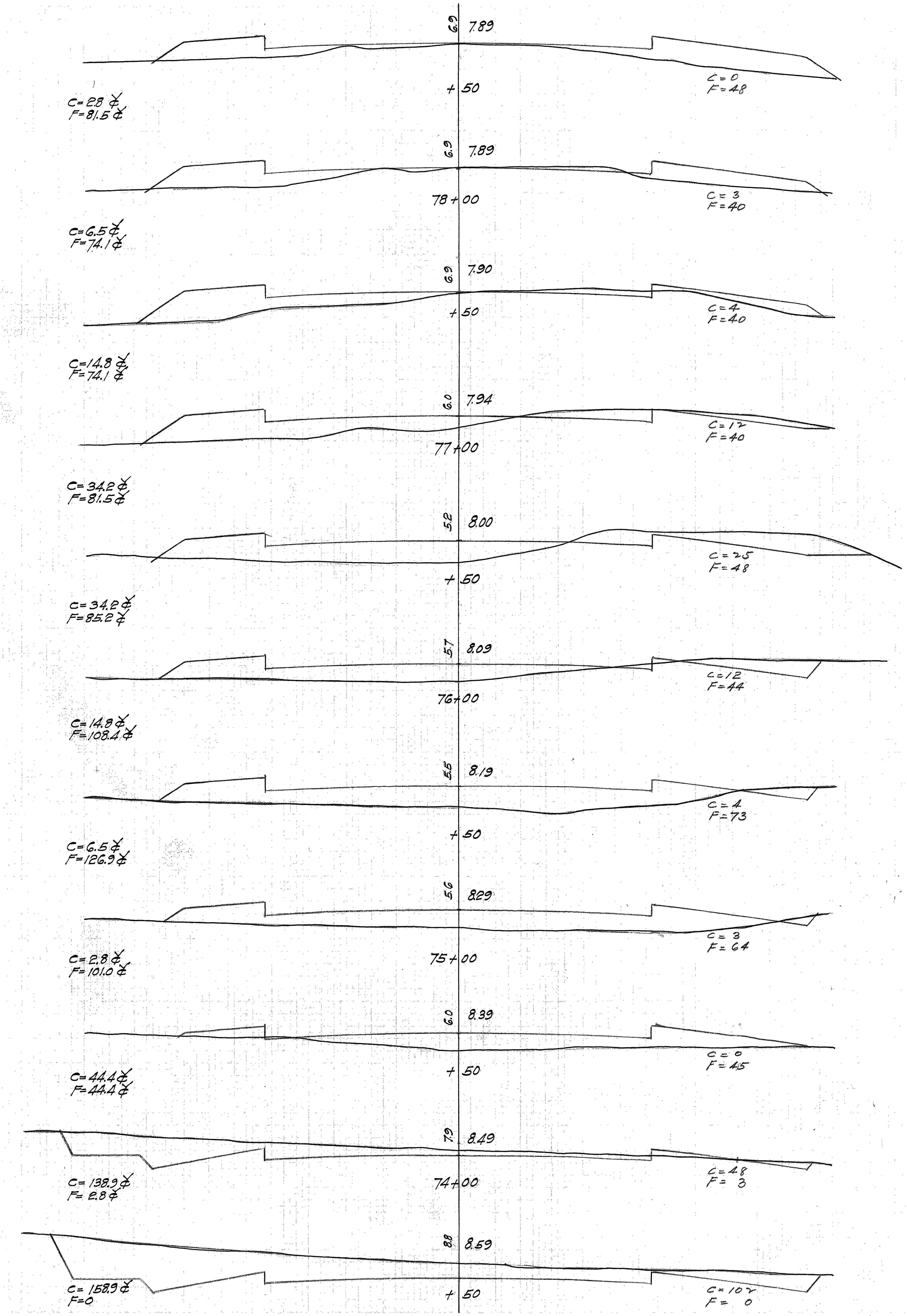
9.5
9.39
+50
C=140
F= 0
C=260.2 ¢
F=0
10.9
9.49
69+00
C=141
F= 0
C=203.7 ¢
F=2.8 ¢
10.9
9.59
+50
C=79
F= 3
C=134.3 ¢
F=8.3 ¢
10.5
9.69
68+00
C=66
F= 6
C=90.7 ¢
F=39.8 ¢
10.4
9.79
Excavate for ditch
Elev. Invert= 5.5
30" con. pipe culvert - 53 ft. long
Excavate ditch
Elev. Invt= 5.5
+50
C=86.1 ¢
F=44.4 ¢
C=32
F=37
10.2
9.89
67+00
C=61
F=11
C=103.7 ¢
F=15.7 ¢
8.5
9.99
+50
C=51
F=6
C=83.3 ¢
F=8.3 ¢
8.0
10.09
66+00
C=39
F=3
C=50.0 ¢
F=13.9 ¢
8.4
10.19
+50
C=15
F=12
C=24.1 ¢
F=28.7 ¢
8.8
10.29
65+00
C=11
F=19
C=10.2 ¢
F=61.1 ¢
9.6
8.66
73+13
C=130
F= 0
C=86.6 ¢
F=51.8 ¢
5.0
8.72
+85
C=37
F=100
C=44.7 ¢
F=160.1 ¢
8.79
9.6
+50
C=32
F=147
C=48.2 ¢
F=206.5 ¢
6.2
8.89
72+00
C=70
F=76
C=76.7 ¢
F=127.4 ¢
5.5
8.97
+62
C=89
F=105
C=123.1 ¢
F=46.6 ¢
12.7
9.01
+38
C=188
F= 0
C=96.5 ¢
F=0
11.6
9.04
+25
C=213
F= 0
C=177.8 ¢
F=0
10.9
9.09
71+00
C=171
F= 0
C=252.8 ¢
F=0.9 ¢
9.3
9.19
Exc. for ditch.
Elev. Invt.= 5.6
18" conc. pipe culvert - 39 Ft. long Sta 70+40
Lower existing 18" pipe
Elev. Invt.= 5.0
+50
C=102
F= 1
C=210.2 ¢
F=0.9 ¢
10.1
9.29
70+00
C=125
F= 0
C=245.4 ¢
F=0

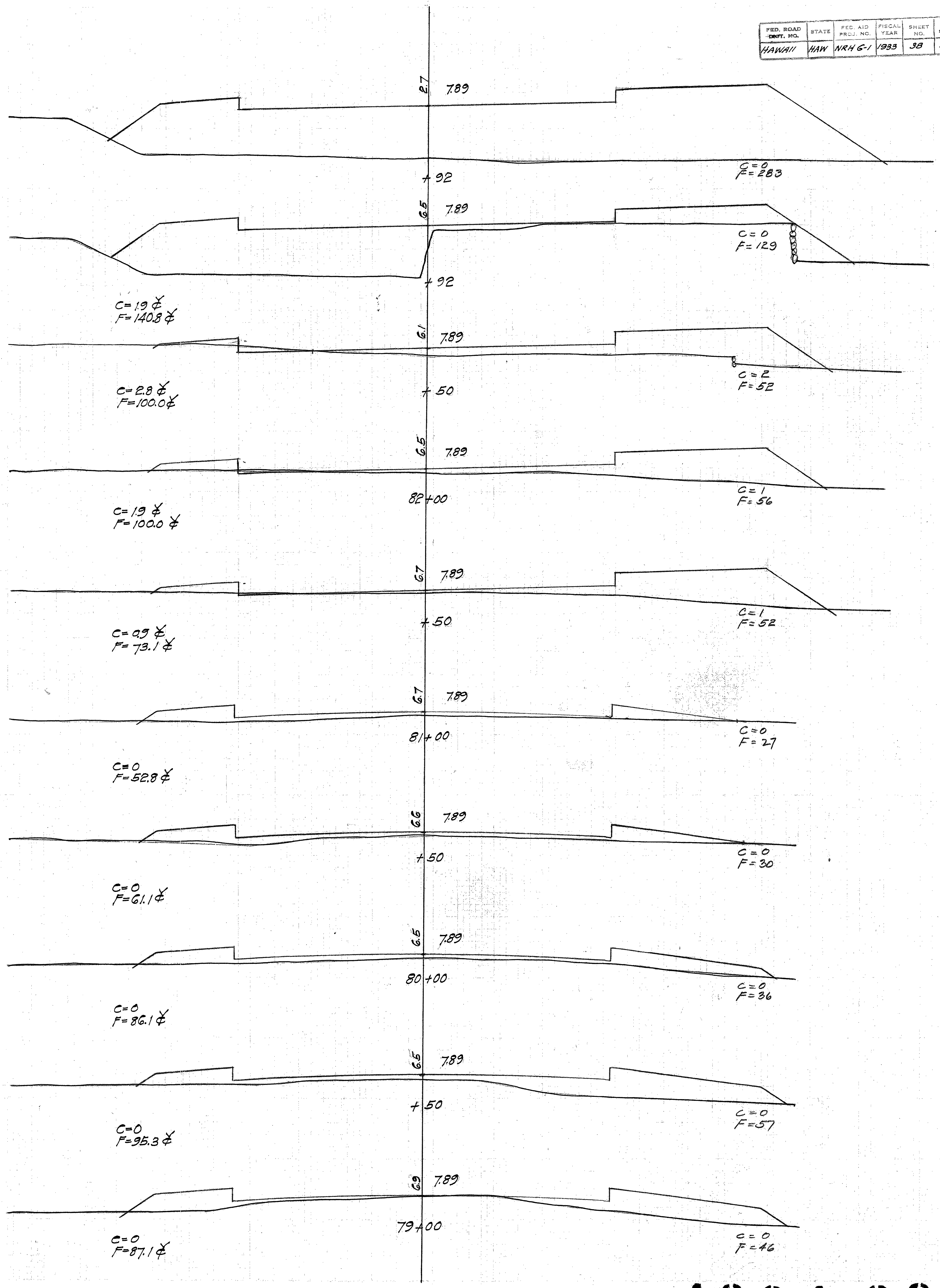
4294.37

4294.37

FED. ROAD ~~DIST.~~ NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH G-1	1933	38	51

H.K.Y. Feb. 1933
E.S. Oct. 1933
H.F.C.
J.M. Jr. Oct. 1933

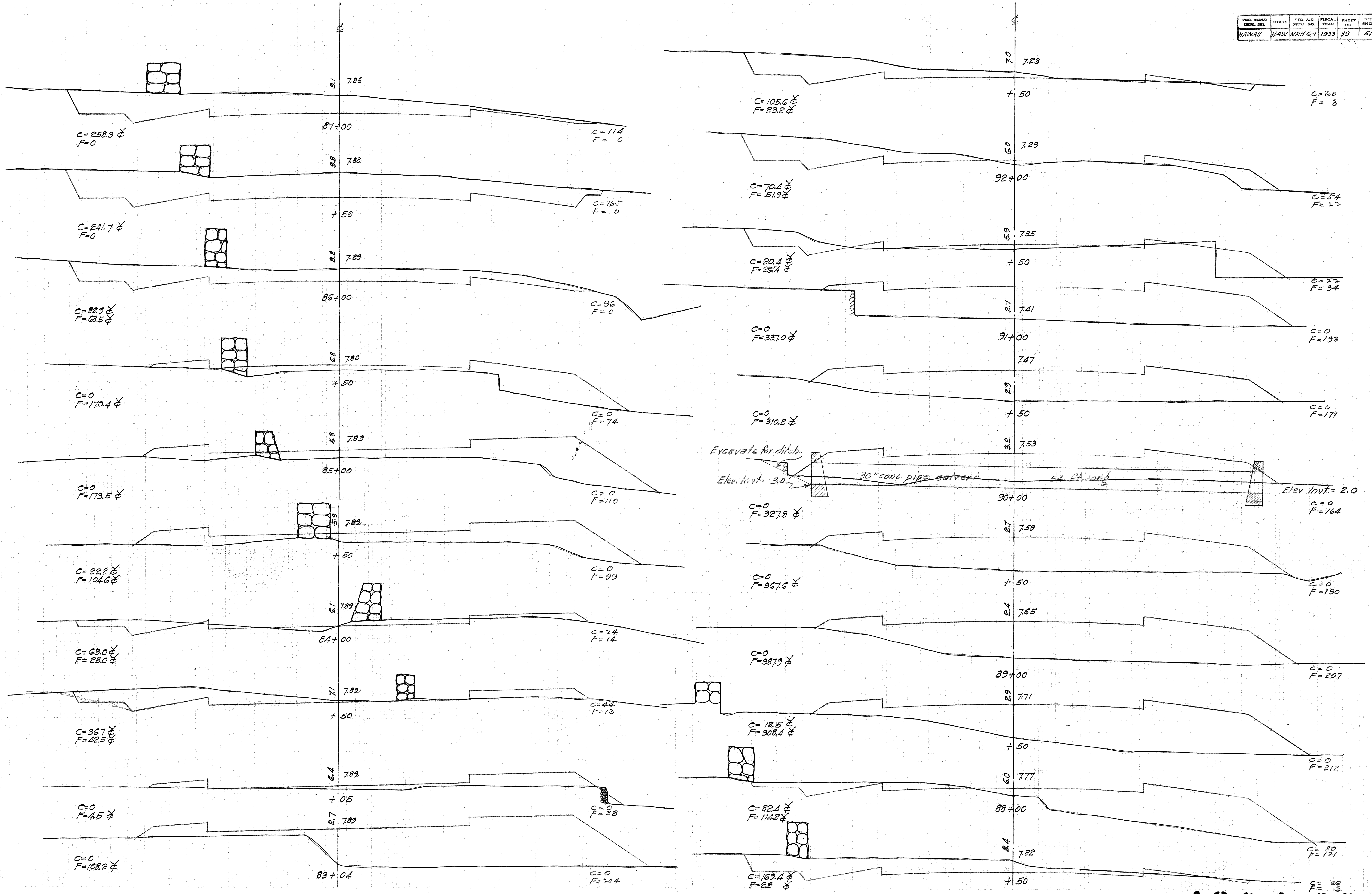

6.9
7.89
+50
C=0
F=4.8
C=2.8¢
F=81.5¢
6.9
7.89
78+00
C=3
F=40
C=6.5¢
F=74.1¢
6.9
7.90
+50
C=4
F=40
C=14.8¢
F=74.1¢
6.0
7.94
77+00
C=17
F=40
C=34.2¢
F=81.5¢
5.2
8.00
+50
C=25
F=48
C=34.2¢
F=85.2¢
5.7
8.09
76+00
C=12
F=44
C=14.8¢
F=108.4¢
5.5
8.19
+50
C=4
F=73
C=6.5¢
F=126.9¢
5.6
8.29
75+00
C=3
F=64
C=2.8¢
F=101.0¢
6.0
8.39
+50
C=0
F=45
C=44.4¢
F=44.4¢
7.9
8.49
74+00
C=48
F=3
C=138.9¢
F=2.8¢
8.8
8.59
+50
C=107
F=0
C=158.9¢
F=0


2.7
7.89
+92
C=0
F=283
6.5
7.89
+92
C=0
F=129
C=19¢
F=140.8¢
6.1
7.89
+50
C=2
F=52
C=2.8¢
F=100.0¢
6.5
7.89
82+00
C=1
F=56
C=19¢
F=100.0¢
6.7
7.89
+50
C=1
F=52
C=0.9¢
F=73.1¢
6.7
7.89
81+00
C=0
F=27
C=0
F=52.8¢
6.6
7.89
+50
C=0
F=30
C=0
F=61.1¢
6.5
7.89
80+00
C=0
F=36
C=0
F=86.1¢
6.5
7.89
+50
C=0
F=57
C=0
F=95.3¢
6.9
7.89
79+00
C=0
F=46
C=0
F=87.1¢

4294.38

FED. ROAD DEPT. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	39	51

HKY Feb/33
ES Oct/33
FFC
CMdr. Oct/33

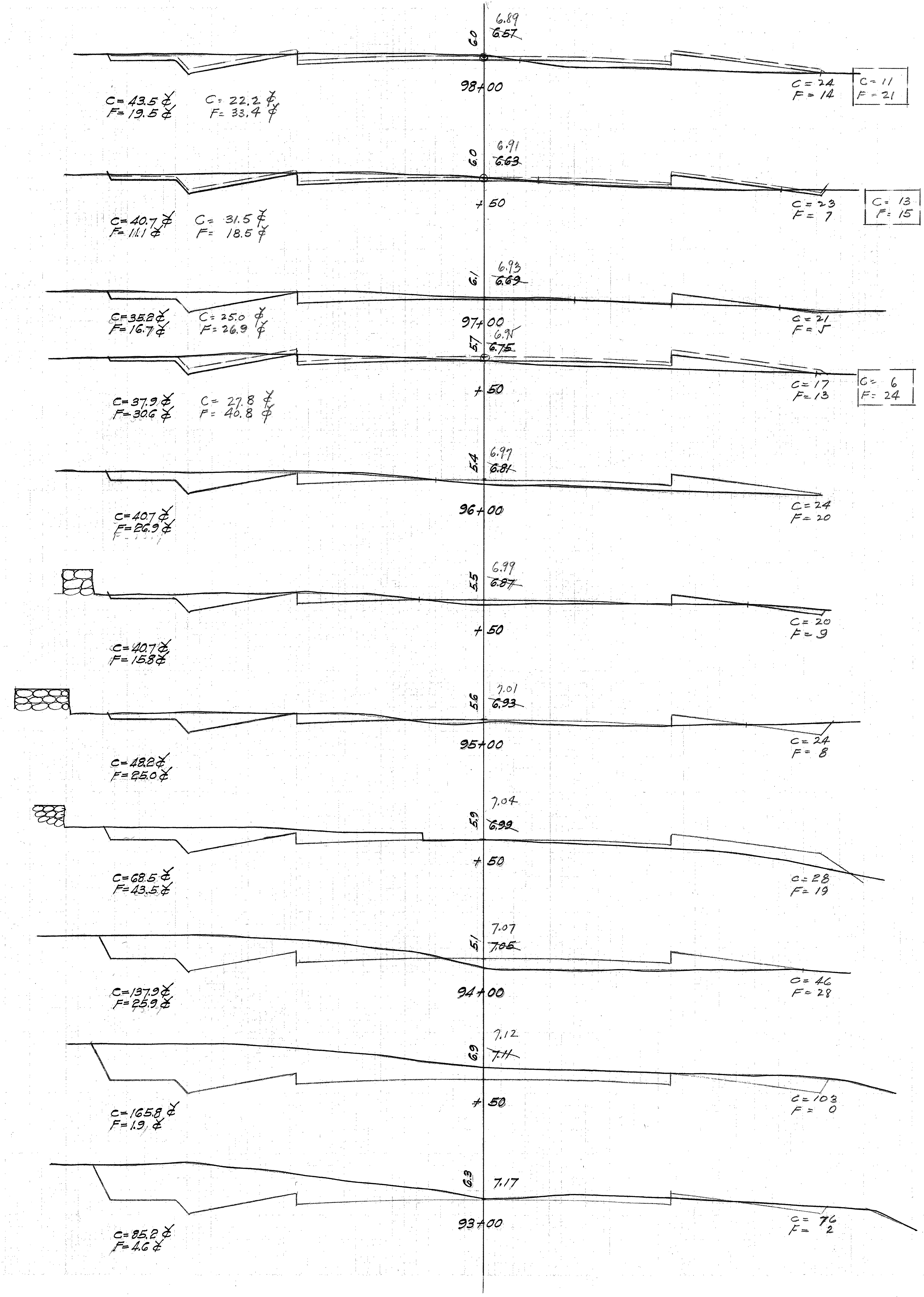


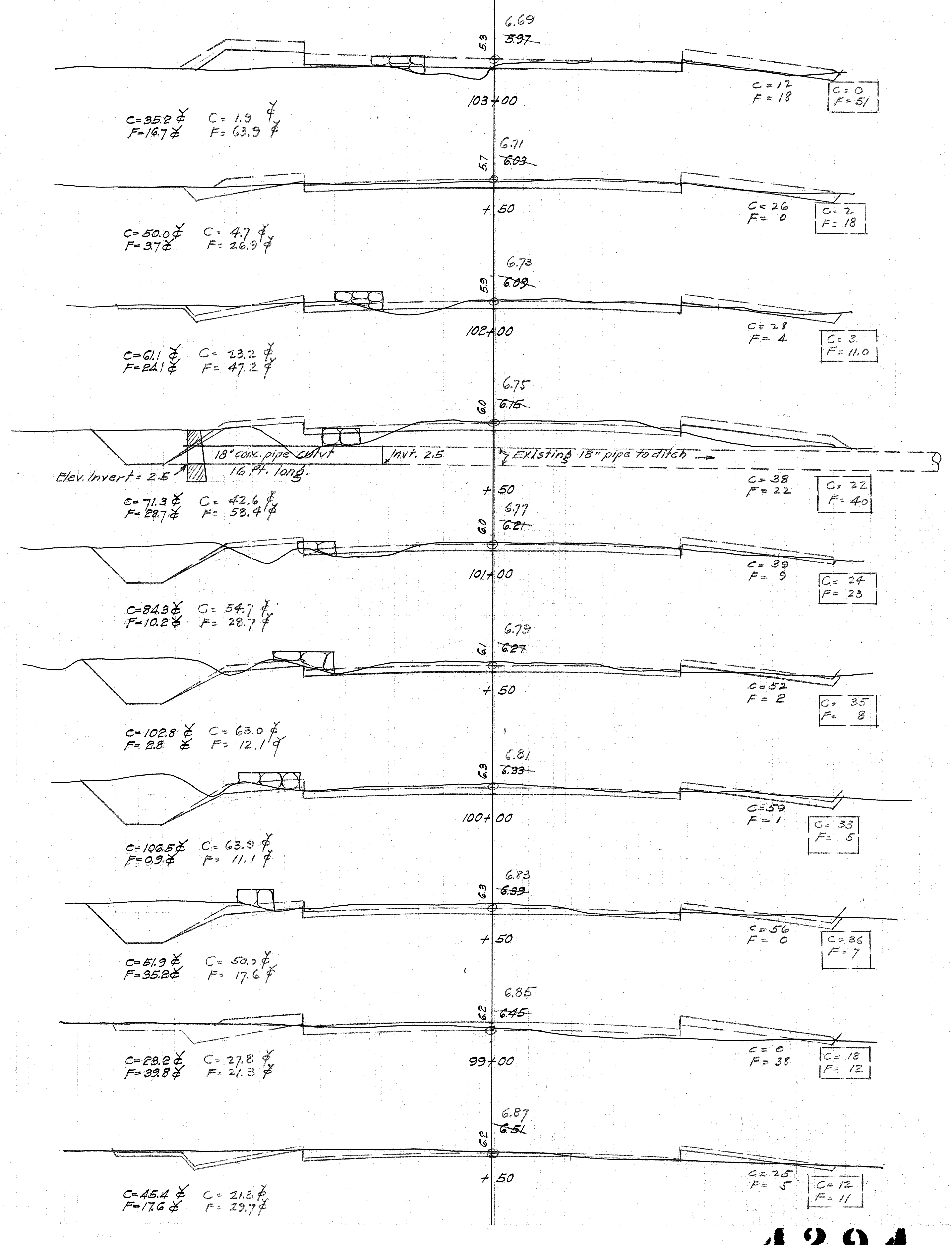
℄
9.1 7.86
87+00
C=258.3 ¢
F=0
C=114
F=0
9.8 7.88
+50
C=241.7 ¢
F=0
C=165
F=0
8.8 7.89
86+00
C=88.9 ¢
F=62.5 ¢
C=96
F=0
6.8 7.80
+50
C=0
F=170.4 ¢
C=0
F=74
5.8 7.89
85+00
C=0
F=173.5 ¢
C=0
F=110
5.9 7.82
+50
C=22.2 ¢
F=104.6 ¢
C=0
F=99
6.1 7.89
84+00
C=63.0 ¢
F=25.0 ¢
C=24
F=14
7.1 7.89
+50
C=36.7 ¢
F=42.5 ¢
C=44
F=13
6.4 7.89
+05
C=0
F=4.5 ¢
C=0
F=38
2.7 7.89
83+04
C=0
F=108.2 ¢
C=0
F=204
℄
7.0 7.23
+50
C=105.6 ¢
F=23.2 ¢
C=60
F=3
6.0 7.29
92+00
C=70.4 ¢
F=51.9 ¢
C=54
F=22
5.9 7.35
+50
C=20.4 ¢
F=20.4 ¢
C=22
F=34
2.7 7.41
91+00
C=0
F=337.0 ¢
C=0
F=193
2.9 7.47
+50
C=0
F=310.2 ¢
C=0
F=171
3.2 7.53
Excavate for ditch
Elev. Invt.= 3.0
30" conc. pipe culvert
54 ft. long
Elev. Invt.= 2.0
90+00
C=0
F=327.8 ¢
C=0
F=164
2.7 7.59
+50
C=0
F=367.6 ¢
C=0
F=190
2.4 7.65
89+00
C=0
F=387.9 ¢
C=0
F=207
2.9 7.71
+50
C=18.5 ¢
F=308.4 ¢
C=0
F=212
6.0 7.77
88+00
C=82.4 ¢
F=114.8 ¢
C=20
F=121
8.4 7.82
+50
C=169.4 ¢
F=2.8 ¢
C=69
F=3

4294.39

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	40	51

U.M.Jr. Oct/33


6.0
6.89
~~6.57~~
98+00
C=43.5¢ F=19.5¢
C=22.2¢ F=33.4¢
C=24 F=14
C=11 F=21
6.0
6.91
~~6.63~~
+50
C=40.7¢ F=11.1¢
C=31.5¢ F=18.5¢
C=23 F=7
C=13 F=15
6.1
6.93
~~6.69~~
97+00
C=35.2¢ F=16.7¢
C=25.0¢ F=26.9¢
C=21 F=5
5.7
6.95
~~6.75~~
+50
C=37.9¢ F=30.6¢
C=27.8¢ F=40.8¢
C=17 F=13
C=6 F=24
5.4
6.97
~~6.81~~
96+00
C=40.7¢ F=26.9¢
C=24 F=20
5.5
6.99
~~6.87~~
+50
C=40.7¢ F=15.8¢
C=20 F=9
5.6
7.01
~~6.93~~
95+00
C=48.2¢ F=25.0¢
C=24 F=8
5.9
7.04
~~6.99~~
+50
C=68.5¢ F=43.5¢
C=28 F=19
5.1
7.07
~~7.05~~
94+00
C=137.9¢ F=25.9¢
C=46 F=28
6.9
7.12
~~7.11~~
+50
C=165.8¢ F=1.9¢
C=103 F=0
6.3
7.17
93+00
C=85.2¢ F=4.6¢
C=76 F=2

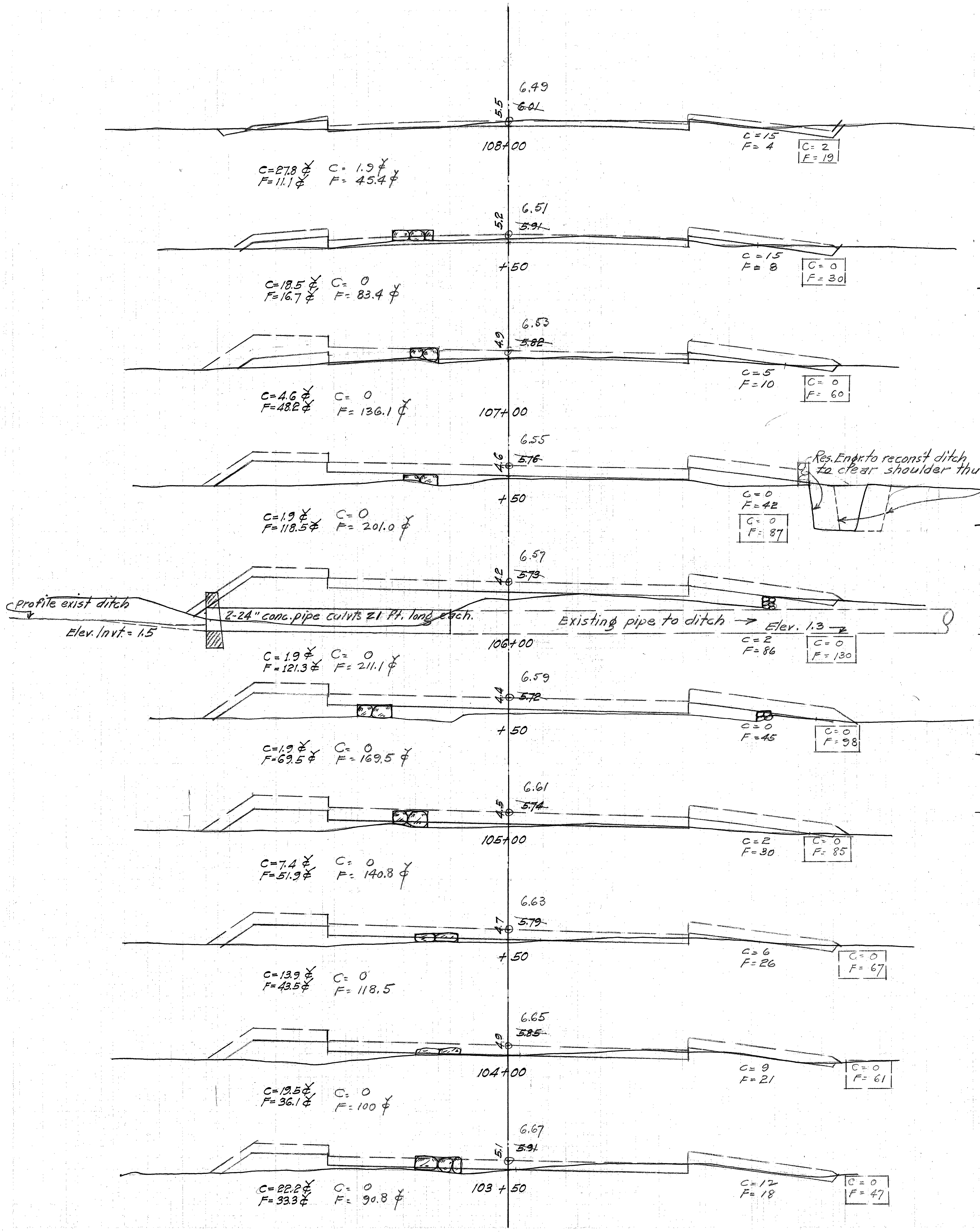

5.3
6.69
~~5.97~~
103+00
C=35.2¢ F=16.7¢
C=1.9¢ F=63.9¢
C=12 F=18
C=0 F=51
5.7
6.71
~~6.03~~
+50
C=50.0¢ F=3.7¢
C=4.7¢ F=26.9¢
C=26 F=0
C=2 F=18
5.9
6.73
~~6.09~~
102+00
C=61.1¢ F=24.1¢
C=23.2¢ F=47.2¢
C=28 F=4
C=3. F=11.0
6.0
6.75
~~6.15~~
18" conc. pipe culvt 16 ft. long
Invt. 2.5
Existing 18" pipe to ditch
Elev. Invert = 2.5
+50
C=71.3¢ F=28.7¢
C=42.6¢ F=58.4¢
C=38 F=22
C=22 F=40
6.0
6.77
~~6.21~~
101+00
C=84.3¢ F=10.2¢
C=54.7¢ F=28.7¢
C=39 F=9
C=24 F=23
6.1
6.79
~~6.27~~
+50
C=102.8¢ F=2.8¢
C=63.0¢ F=12.1¢
C=52 F=2
C=35 F=8
6.3
6.81
~~6.33~~
100+00
C=106.5¢ F=0.9¢
C=63.9¢ F=11.1¢
C=59 F=1
C=33 F=5
6.3
6.83
~~6.39~~
+50
C=51.9¢ F=35.2¢
C=50.0¢ F=17.6¢
C=56 F=0
C=36 F=7
6.2
6.85
~~6.45~~
99+00
C=23.2¢ F=39.8¢
C=27.8¢ F=21.3¢
C=0 F=38
C=18 F=12
6.2
6.87
~~6.51~~
+50
C=45.4¢ F=17.6¢
C=21.3¢ F=29.7¢
C=25 F=5
C=12 F=11

4294.40

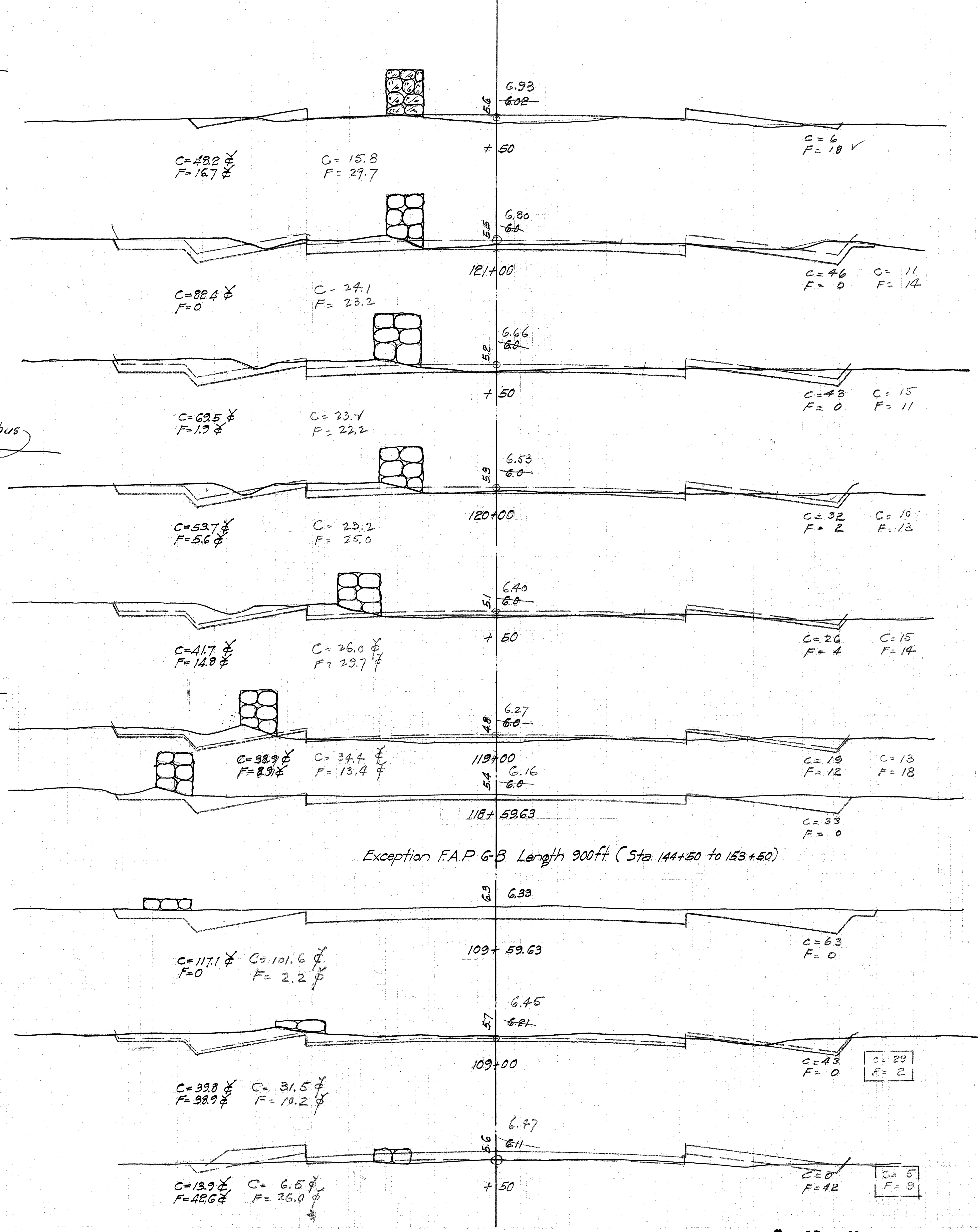
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	41	51

Feb/33
Oct/33
Oct/1/33

H.K.Y.
E.S.
H.F.C.
U.M. W.



6.49
~~6.01~~
5.5
108+00
C=15
F=4
C=2
F=19
C=27.8 ¢
F=11.1 ¢
C=1.9 ¢
F=45.4 ¢
6.51
~~5.91~~
5.2
+50
C=15
F=8
C=0
F=30
C=18.5 ¢
F=16.7 ¢
C=0
F=83.4 ¢
6.53
~~5.82~~
4.9
107+00
C=5
F=10
C=0
F=60
C=4.6 ¢
F=48.2 ¢
C=0
F=136.1 ¢
6.55
~~5.76~~
4.6
+50
Res. Engr. to reconst ditch to clear shoulder thus
C=0
F=42
C=0
F=87
C=1.9 ¢
F=118.5 ¢
C=0
F=201.0 ¢
6.57
~~5.73~~
4.2
Profile exist ditch
Elev. Invt. = 1.5
2-24" conc. pipe culvts 21 Ft. long each.
Existing pipe to ditch →
Elev. 1.3
106+00
C=2
F=86
C=0
F=130
C=1.9 ¢
F=121.3 ¢
C=0
F=211.1 ¢
6.59
~~5.72~~
4.4
+50
C=0
F=45
C=0
F=98
C=1.9 ¢
F=69.5 ¢
C=0
F=169.5 ¢
6.61
~~5.74~~
4.5
105+00
C=2
F=30
C=0
F=85
C=7.4 ¢
F=51.9 ¢
C=0
F=140.8 ¢
6.63
~~5.79~~
4.7
+50
C=6
F=26
C=0
F=67
C=13.9 ¢
F=43.5 ¢
C=0
F=118.5
6.65
~~5.85~~
4.9
104+00
C=9
F=21
C=0
F=61
C=19.5 ¢
F=36.1 ¢
C=0
F=100 ¢
6.67
~~5.91~~
5.1
103+50
C=12
F=18
C=0
F=47
C=22.2 ¢
F=33.3 ¢
C=0
F=90.8 ¢



6.93
~~6.02~~
5.6
+50
C=6
F=18 ✓
C=48.2 ¢
F=16.7 ¢
C=15.8
F=29.7
6.80
~~6.0~~
5.5
121+00
C=46
F=0
C=11
F=14
C=82.4 ¢
F=0
C=24.1
F=23.2
6.66
~~6.0~~
5.2
+50
C=43
F=0
C=15
F=11
C=69.5 ¢
F=1.9 ¢
C=23.4
F=22.2
6.53
~~6.0~~
5.9
120+00
C=32
F=2
C=10
F=13
C=53.7 ¢
F=5.6 ¢
C=23.2
F=25.0
6.40
~~6.0~~
5.1
+50
C=26
F=4
C=15
F=14
C=41.7 ¢
F=14.8 ¢
C=26.0 ¢
F=29.7 ¢
6.27
~~6.0~~
4.8
119+00
C=19
F=12
C=13
F=18
C=38.9 ¢
F=8.9 ¢
C=34.4 ¢
F=13.4 ¢
6.16
~~6.0~~
5.4
118+59.63
C=33
F=0
Exception F.A.P. 6-B Length 900 ft (Sta 144+50 to 153+50)
6.33
6.3
109+59.63
C=63
F=0
C=117.1 ¢
F=0
C=101.6 ¢
F=2.2 ¢
6.45
~~6.21~~
5.7
109+00
C=43
F=0
C=29
F=2
C=39.8 ¢
F=38.9 ¢
C=31.5 ¢
F=10.2 ¢
6.47
~~6.11~~
5.6
+50
C=0
F=42
C=5
F=9
C=13.9 ¢
F=42.6 ¢
C=6.5 ¢
F=26.0 ¢

4294.41

4294.41

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	42	51

J.M.Jr. oct/33

8.27
~~8.12~~
8.2
+50
C=96.3 ¢
F=8.4 ¢
C= 120.4 ¢
F= 2.8 ¢
C=42
F= 8
C= 90
F= 0
8.12
~~7.86~~
7.9
126+00
C=88.9 ¢
F=2.8 ¢
C= 54.7 ¢
F= 8.4 ¢
C=62
F= 1
C= 40
F= 3
7.99
~~7.59~~
7.6
+50
C=56.5 ¢
F=5.6 ¢
C= 22.8 ¢
F= 18.5 ¢
C=34
F= 2
C= 19
F= 6
7.86
~~7.33~~
7.0
125+00
C=35.2 ¢
F=11.1 ¢
C= 5.2 ¢
F= 51.0 ¢
C= 27
F= 4
C= 5.6
F= 14
7.72
~~7.06~~
6.3
+50
C=19.5 ¢
F=15.8 ¢
C= 0
F= 83.4 ¢
C= 11
F= 8
C=0
F= 41
7.59
~~6.80~~
5.8
124+00
C=20.4 ¢
F= 20.4 ¢
C= 0
F= 92.6 ¢
C=10
F= 9
C= 0
F= 49
7.46
~~6.55~~
5.6
+50
C=12.1 ¢
F=38.9 ¢
C= 0
F=123.2
C= 12
F= 13
C= 0
F= 51
7.33
~~6.35~~
5.2
123+00
C=4.7 ¢
F=61.1 ¢
C= 0 ¢
F= 155.6 ¢
C= 1
F=29
C= 0
F= 82
Excavate for ditch
Profile exist. ditch
Elev. Invt.= 2.0
7.19
~~6.20~~
5.2
24" conc. pipe Culvert 52 ft. long.
+50
Excavate ditch
Elev. Invt.= 2.0
C=4
F=37
C=0
F= 86
C=30.6 ¢
F= 37.1 ¢
C= 0 ¢
F= 118.5 ¢
7.06
~~6.09~~
5.2
122+00
C=37.9 ¢
F=22.2 ¢
C= 5.6 ¢
F= 50.6 ¢
C= 29
F= 3
C= 0
F= 42
10.2
10.94
131+00
C=67.6 ¢
F=6.5 ¢
C= 21
F= 6
10.1
10.44
Lower exist. 18" pipe
Elev. Invt.= 7.0
18" con. pipe culvt. - 38 ft. long.
+50
C=106.5 ¢
F=0.9 ¢
C=52
F= 1
9.4
10.02
130+00
C=99.1 ¢
F=0
C= 63
F= 0
8.9
9.71
+50
C=128.7 ¢
F=0
C= 44
F= 0
9.2
9.45
129+00
C=145.4 ¢
F=0
C=95
F= 0
8.6
9.18
+50
C=113.0 ¢
F=0
C=62
F= 0
8.92
8.2
128+00
C=119.5 ¢
F=0
C=60
F= 0
12.2
8.66
~~8.65~~
+50
C=169.5 ¢
F=0
C=69
F= 0
8.2
8.45
~~8.39~~
127+00
C=144.5 ¢
F= 7.4 ¢
C= 188.9
F= 0 ¢
C=114
F= 0

4294.42

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	43	51

HKY Feb/33
HES Oct/33
FHC Oct/33
J.M.Jr.

℄
16.52
13.3
C=64.8 ¢
F=32.6 ¢
C=4
F=88
+70
17.9
16.44
C=289.8 ¢
F=0 ¢
C=171
F=0
+50
17.0
16.08
C=240.7 ¢
F=0 ¢
C=142
F=0
135+00
15.9
15.52
C=118
F=0
+50
C=181.5 ¢
F=2.8 ¢
14.7
14.86
Elev. Invt.=12.0
134+00
18" conc. pipe culvts. 52 ft long.
Excavate ditch
Exist 18" pipe
Elev. Invt.=11.5
C=120.4 ¢
F=3.7 ¢
C=78
F=3
13.4
14.20
C=89.8 ¢
F=1.9 ¢
C=52
F=1
+50
12.7
13.54
C=60.2 ¢
F=13.9 ¢
C=45
F=1
133+00
11.6
12.88
C=23.2 ¢
F=33.3 ¢
C=20
F=14
+50
10.7
12.22
C=8.3 ¢
F=54.C ¢
C=5
F=22
132+00
10.1
11.56
C=23.8 ¢
F=39.8 ¢
C=4
F=37
+50
20.8
13.54
+50
C=384.7 ¢
F=0
C=461
F=0
20.4
16.60
+24
C=248.9 ¢
F=14.2 ¢
C=338
F=0
18.9
16.59
136+00
C=125.5 ¢
F=66.7 ¢
C=222
F=32

4294.43

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	44	51

J.M.Jr. Oct/33

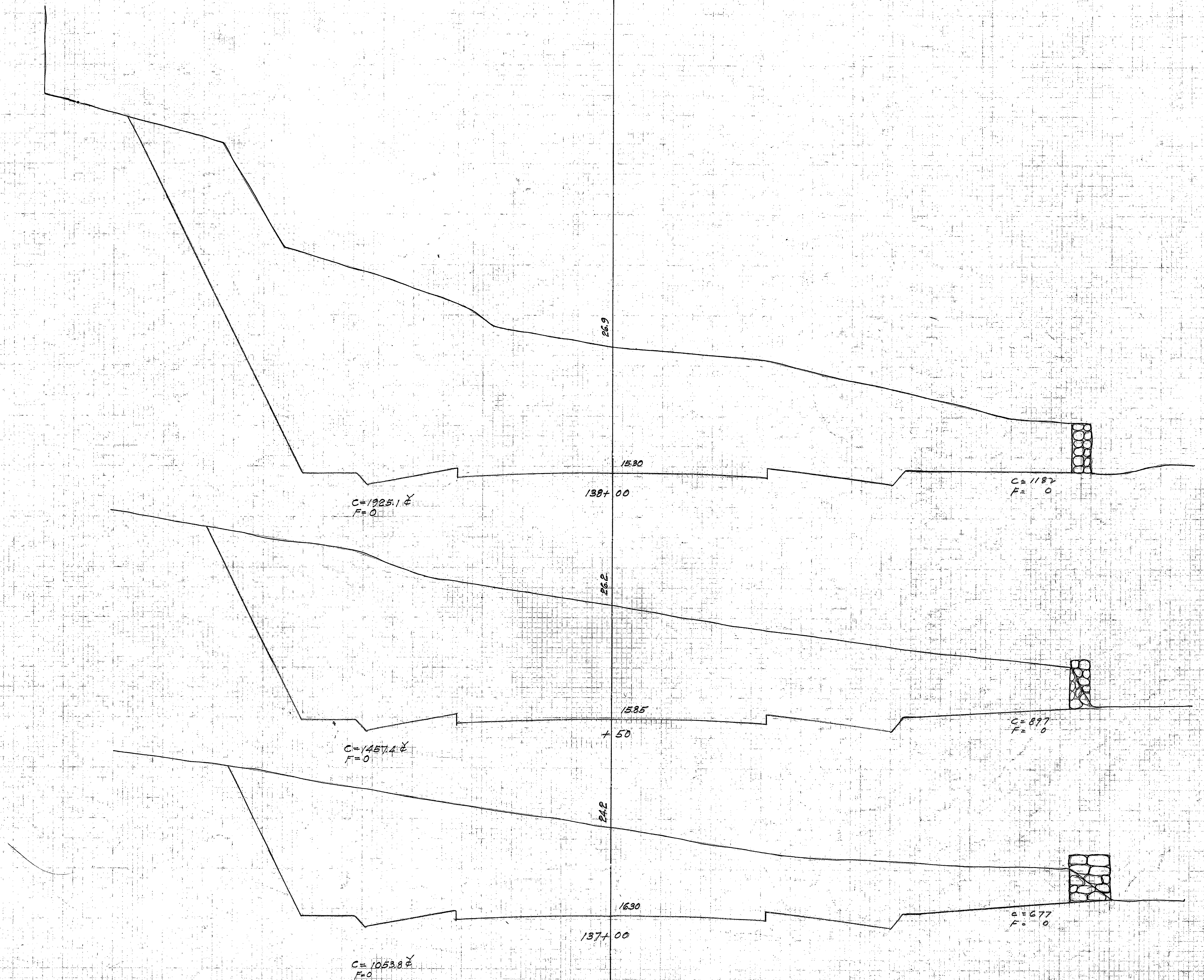
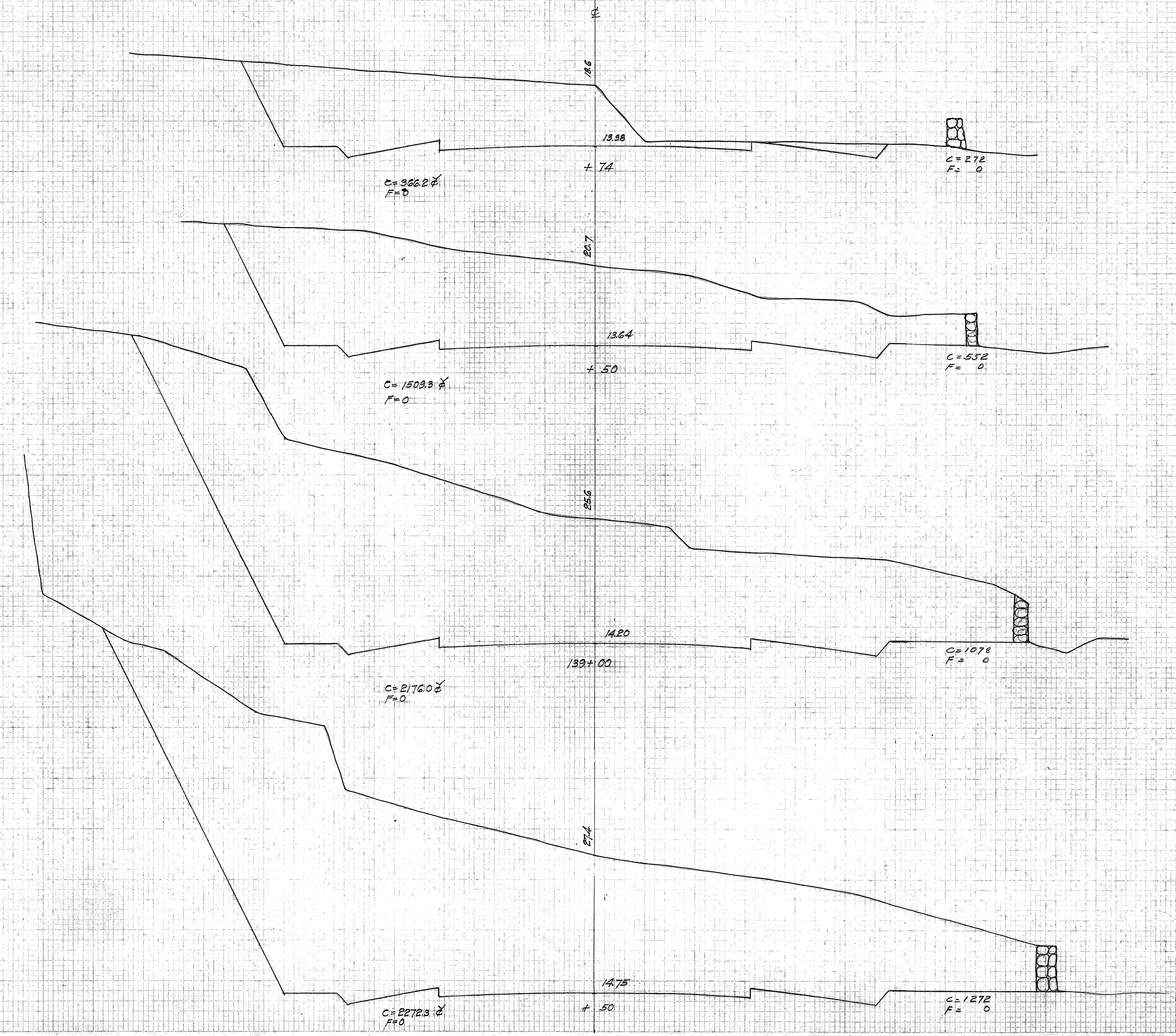

26.9
1530
138+00
C=1925.1¢
F=0
C=1182
F= 0
26.2
1585
+50
C=1457.4¢
F=0
C=897
F= 0
24.2
1630
137+00
C=1053.8¢
F=0
c=677
F= 0

PLATE 3 — CROSS SECTION [illegible] STANDARD
KEUFFEL & ESSER CO. NEW YORK

4294.44

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH G-1	1933	45	51

FINAL SURVEY
NOTE BOOK
SURVEYED
CHECKED
COMPUTED
AREAS
AREAS CHECKED
BY
HKT
E.S.
H.F.C.
J.M.Cr.
DATE
Feb/33
Oct/33
Oct/33



℄
18.6
13.38
+ 74
C=366.2 ¢
F=0
C=272
F= 0
20.7
13.64
+ 50
C=1509.3 ¢
F=0
C=552
F= 0
25.6
14.20
139+00
C=2176.0 ¢
F=0
C=1078
F= 0
27.4
14.75
+ 50
C=2272.3 ¢
F=0
C=1272
F= 0

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

4294.45

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH G-1	1933	46	51

FINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED	HKY	Feb/33
	PLOTTED	ES	
	TEMPLATE	HFC	Oct/33
	AREAS	C.M. Jr.	Oct/33
	AREAS CHECKED		

6.9 ℄ 8.12
+50
C=8
F=10
C=10.2 ℄
F=38.9 ℄
7.1 8.67
144+00
C=3
F=32
C=5.6 ℄
F=56.5 ℄
7.5 9.22
+50
C=3
F=29
C=2.8 ℄
F=62.9 ℄
8.1 9.78
143+00
C=0
F=39
C=5.6 ℄
F=56.5 ℄
8.3 10.39
+50
C=6
F=22
C=9.3 ℄
F=48.7 ℄
8.8 10.73
+14
C=8
F=51
C=5.9 ℄
F=4.4 ℄
11.6 10.77
Elev. Inv. 7.5 2-18" conc. pipe culverts 38 ft. long
Lower exist 2-18" pipes
+10
C=63
F=9
C=160.0 ℄
F=10 ℄
11.9 11.43
+50
C=81
F=0
C=154.7 ℄
F=0
12.4 11.99
141+00
C=86
F=0
C=172.2 ℄
F=0
13.0 12.54
+50
C=100
F=0
C=241.7 ℄
F=0
13.7 13.09
140+00
C=161
F=0
C=208.5 ℄
F=0
℄
6.2 6.33
+50
C=73
F=0
C=108.4 ℄
F=0
5.1 6.35
149+00
C=44
F=0
C=69.5 ℄
F=0
5.3 6.37
+50
C=31
F=0
C=67.6 ℄
F=0
5.8 6.39
148+00
C=42
F=0
C=72.2 ℄
F=4.6 ℄
6.41 5.2
+50
C=36
F=5
C=75.0 ℄
F=4.6 ℄
6.43 5.8
18" conc. pipe culvert. 30 ft. long Sta 147+12
℄ Exist. 18" pipe to sea
147+00
C=45
F=0
C=84.3 ℄
F=0
6.52 5.7
+50
C=46
F=0
C=81.5 ℄
F=0
6.74 5.9
146+00
C=42
F=0
C=61.1 ℄
F=3.7 ℄
7.09 6.5
+50
C=24
F=4
C=31.5 ℄
F=18.5 ℄
7.57 6.5
145+00
C=10
F=16
C=16.7 ℄
F=24.1 ℄

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

4294.46

4294.46

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	47	51

FINAL SURVEY NOTE BOOK NO.		BY	DATE
	SURVEYED	HKY	Feb/33
	PLOTTED	ES	
	TEMPLATE	HEC	
	AREAS	C.M. Jr.	Oct/33
	AREAS CHECKED	J.Y.	Oct/33

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

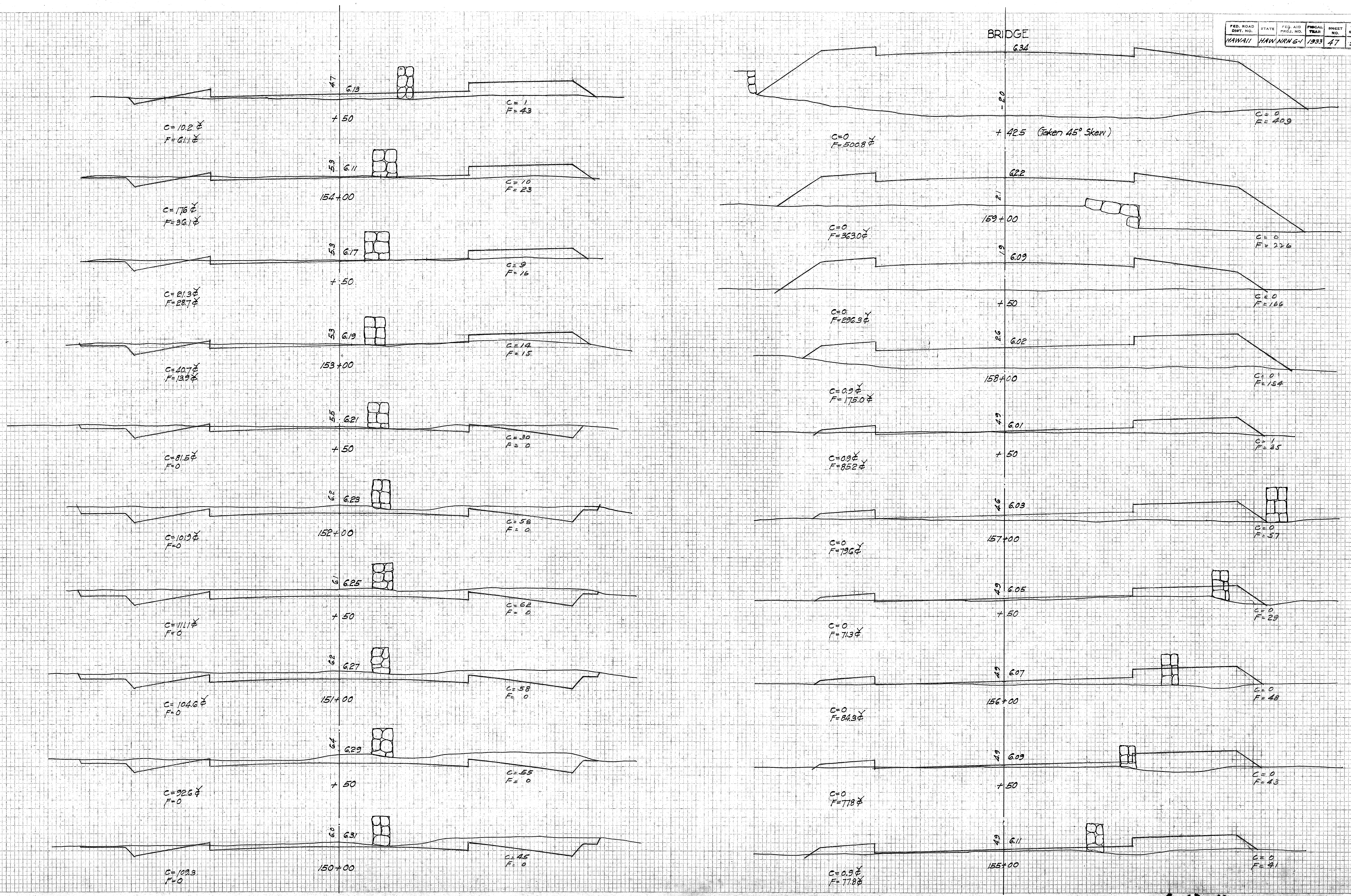

4.7
6.13
C= 1
F= 43
+ 50
C= 10.2 ¢
F= 61.1 ¢
5.3
6.11
C= 10
F= 23
154+00
C= 17.6 ¢
F= 36.1 ¢
5.3
6.17
C= 9
F= 16
+ 50
C= 81.3 ¢
F= 28.7 ¢
5.3
6.19
C= 14
F= 15
153+00
C= 40.7 ¢
F= 13.9 ¢
5.5
6.21
C= 30
F= 0
+ 50
C= 81.5 ¢
F= 0
6.2
6.23
C= 58
F= 0
152+00
C= 101.9 ¢
F= 0
6.1
6.25
C= 62
F= 0
+ 50
C= 111.1 ¢
F= 0
6.2
6.27
C= 58
F= 0
151+00
C= 104.6 ¢
F= 0
6.4
6.29
C= 55
F= 0
+ 50
C= 92.6 ¢
F= 0
6.0
6.31
C= 45
F= 0
150+00
C= 109.3
F= 0
BRIDGE
6.34
-2.0
C= 0
F= 409
+ 42.5 (Taken 45° Skew)
C=0
F=500.8 ¢
6.22
2.1
159+00
C=0
F=363.0 ¢
C= 0
F= 226
1.9
6.09
C= 0
F= 166
+ 50
C=0
F=296.3 ¢
2.6
6.02
158+00
C= 0
F= 154
C= 0.9 ¢
F= 175.0 ¢
4.9
6.01
C= 1
F= 35
+ 50
C= 0.9 ¢
F= 85.2 ¢
4.6
6.03
157+00
C= 0
F= 57
C=0
F=79.6 ¢
4.9
6.05
+ 50
C= 0
F= 29
C=0
F= 71.3 ¢
4.9
6.07
156+00
C= 0
F= 48
C=0
F=84.3 ¢
4.9
6.09
+ 50
C= 0
F= 43
C=0
F=77.8 ¢
4.9
6.11
155+00
C= 0
F= 41
C= 0.9 ¢
F= 77.8 ¢

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

4294.47

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	48	51

FINAL SURVEY
NOTE BOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
HKY
E.S.
H.E.C.
J.M.V.
DATE
Feb/33
Oct/33
Oct/33

ORIGINAL SURVEY
NOTE BOOK NO.

2.8
5.98
C=0
F=100
+ 50
C=0
F=235.2¢
2.0
5.98
C=0
F=154
163+00
C=0
F=293.5¢
1.9
5.98
C=0
F=163
+ 50
C=0
F=324.1¢
1.4
5.98
C=0
F=187
162+00
C=0
F=326.9¢
2.0
6.02
+ 50
C=0
F=166
C=0
F=306.5¢
2.0
6.10
C=0
F=165
161+00
C=0
F=320.4¢
2.0
6.26
C=0
F=181
+50
C=0
F=219.1¢
2.0
6.34
C=0
F=183
160+17.5
BRIDGE
4.7
5.98
+ 45
C=16.7¢
F=56.7¢
C=16
F=20
3.7
5.98
C=4
F=48
168+00
C=5.6¢
F=79.6¢
4.0
5.98
C=2
F=38
+ 50
C=2.8¢
F=77.8¢
4.0
5.98
C=1
F=46
167+00
C=1.9¢
F=84.3¢
4.0
5.98
C=1
F=45
+ 50
C=.9¢
F=92.6¢
3.8
5.98
C=0
F=55
166+00
C=0
F=101.9¢
3.9
5.98
C=0
F=55
+ 50
C=0
F=170.4¢
2.4
5.98
C=0
F=129
165+00
C=0
F=218.5¢
2.8
5.98
C=0
F=107
+ 50
C=0
F=213.9¢
2.7
5.98
C=0
F=124
164+00
C=0
F=207.4¢

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

4294.48

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	49	51

FINAL SURVEY
NOTE BOOK NO.
SURVEYED HKY Feb/33
PLOTTED FS
TEMPLATE H/FC Oct/33
AREAS U.M.Jr. Oct/33
AREAS CHECKED

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

℄
5.98
0.8
C=6
F=182
171+00
C=0.8℄
F=58.8℄
0.3
5.98
Elev. Invt. = 0.5
36" con. pipe culvert.
55 ft. long
Elev. Invt. = -0.5
C=0
F=272
+93
C=1.4℄
F=101.6℄
5.98
1.7
C=6
F=150
+80
C=1.7℄
F=36.3℄
3.4
5.98
C=4
F=68
+71
C=3.1℄
F=42.8℄
3.8
5.98
C=4
F=36
+50
C=9.3℄
F=67.6℄
4.4
5.98
C=6
F=31
170+00
C=11.1℄
F=75.0℄
3.6
5.98
C=6
F=50
+50
C=16.3℄
F=60.6℄
4.2
5.98
C=15
F=28
+08
C=4.3℄
F=18.5℄
2.2
5.98
C=14
F=97
169+00
C=27.8℄
F=159.3℄
3.1
5.98
C=16
F=75
+50
C=3.0℄
F=8.8℄
℄
3.8
5.98
+50
C=1
F=47
C=2.8℄
F=82.4℄
3.8
5.98
175+00
C=2
F=42
C=5.6℄
F=71.3℄
4.1
5.98
+50
C=4
F=35
C=8.3℄
F=63.9℄
4.2
5.98
174+00
C=5
F=34
C=8.3℄
F=64.8℄
4.1
5.98
+50
C=4
F=36
C=5.6℄
F=77.8℄
3.9
5.98
173+00
C=2
F=48
C=4.6℄
F=86.1℄
4.2
5.98
+50
C=3
F=45
C=6.5℄
F=82.4℄
4.2
5.98
172+00
C=4
F=44
C=8.3℄
F=99.1℄
3.9
5.98
+50
C=5
F=63
C=5.1℄
F=73.6℄
2.4
5.98
+25
C=6
F=96
C=5.6℄
F=128.7℄

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

4294.49

4294.49

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	50	51

FINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS	U.M.Jr.	Oct/33
NO.	AREAS CHECKED	M.B.	

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

℄
6.3
5.99
C= 84
F= 8
181+00
C=163.9¢
F=7.4¢
6.1
5.98
+50
C=134.3¢
F=0
C=93
F= 0
5.6
5.98
180+00
C=70.4¢
F=0.9¢
C=52
F= 0
5.1
5.98
+50
C=26.8¢
F=37.0¢
C=24
F= 1
4.3
5.98
179+00
C=9.3¢
F=85.2¢
C= 5
F=39
4.0
5.98
+50
C=8.3¢
F=110.2¢
C=5
F=53
3.8
5.98
178+00
C=4.6¢
F=118.5¢
C=4
F=66
3.9
5.98
+50
C=1.9¢
F=115.7¢
C=1
F=62
3.8
5.98
177+00
C=0.9¢
F=135.2¢
C=1
F=63
3.7
5.98
+50
C=0
F=134.3¢
C=0
F=83
3.7
5.98
176+00
C=0.9¢
F=100.9¢
C=0
F=67
℄
12.1
6.10
C=723.4¢
F=0
C=468
F= 0
+88
11.8
6.08
C=1040.0¢
F=0
C=560
F= 0
+50
13.3
6.06
C=966.7¢
F=0
C=564
F= 0
183+00
12.0
6.04
C=777.8¢
F=0
C=480
F= 0
+50
10.4
6.02
C=508.4¢
F=1.9¢
C=360
F= 0
182+00
7.7
6.00
C=252.8¢
F=9.3¢
C=189
F=2
+50

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

4294.50

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NRH 6-1	1933	51	51

FINAL SURVEY
NOTE BOOK
NO.

	BY	DATE
SURVEYED	HKY	Feb/33
PLOTTED	ES	
TEMPLATE	HFC	Oct/33
AREAS	L.M. Jr.	Oct./33
AREAS CHECKED	J.V.	Oct/33

ORIGINAL SURVEY
NOTE BOOK
NO.

SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
AREAS CHECKED	

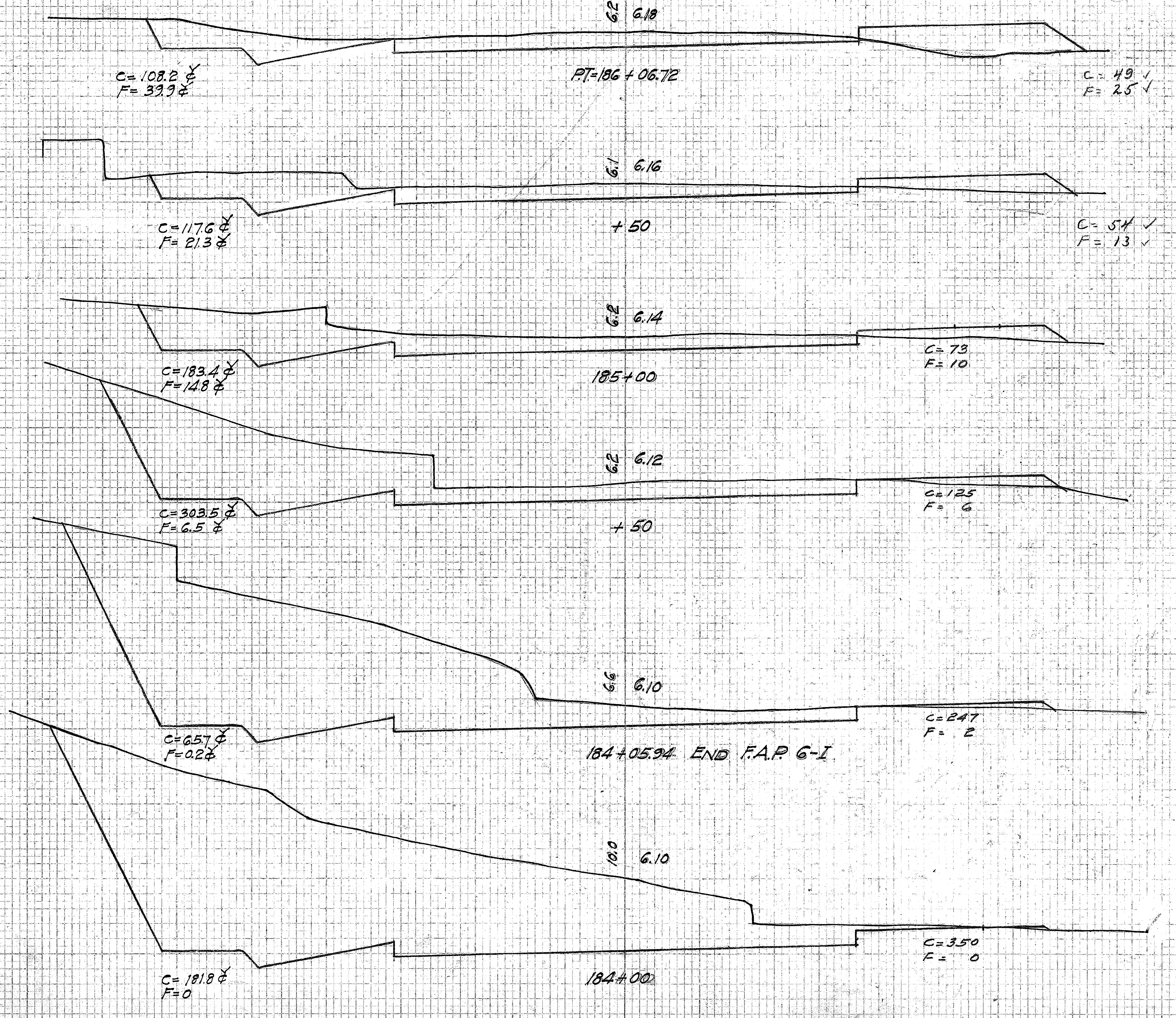

6.2 6.18
C= 108.2 ¢
F= 39.9 ¢
P.T.=186+06.72
C= 49 ✓
F= 25 ✓
6.1 6.16
C=117.6 ¢
F= 21.3 ¢
+50
C= 54 ✓
F= 13 ✓
6.2 6.14
C=183.4 ¢
F=14.8 ¢
185+00
C= 73
F= 10
6.2 6.12
C=303.5 ¢
F=6.5 ¢
+50
C=125
F= 6
6.6 6.10
C=6.57 ¢
F=0.2 ¢
184+05.94 END F.A.P. 6-I
C=247
F= 2
10.0 6.10
C= 181.8 ¢
F=0
184+00
C=350
F= 0

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

4294.51