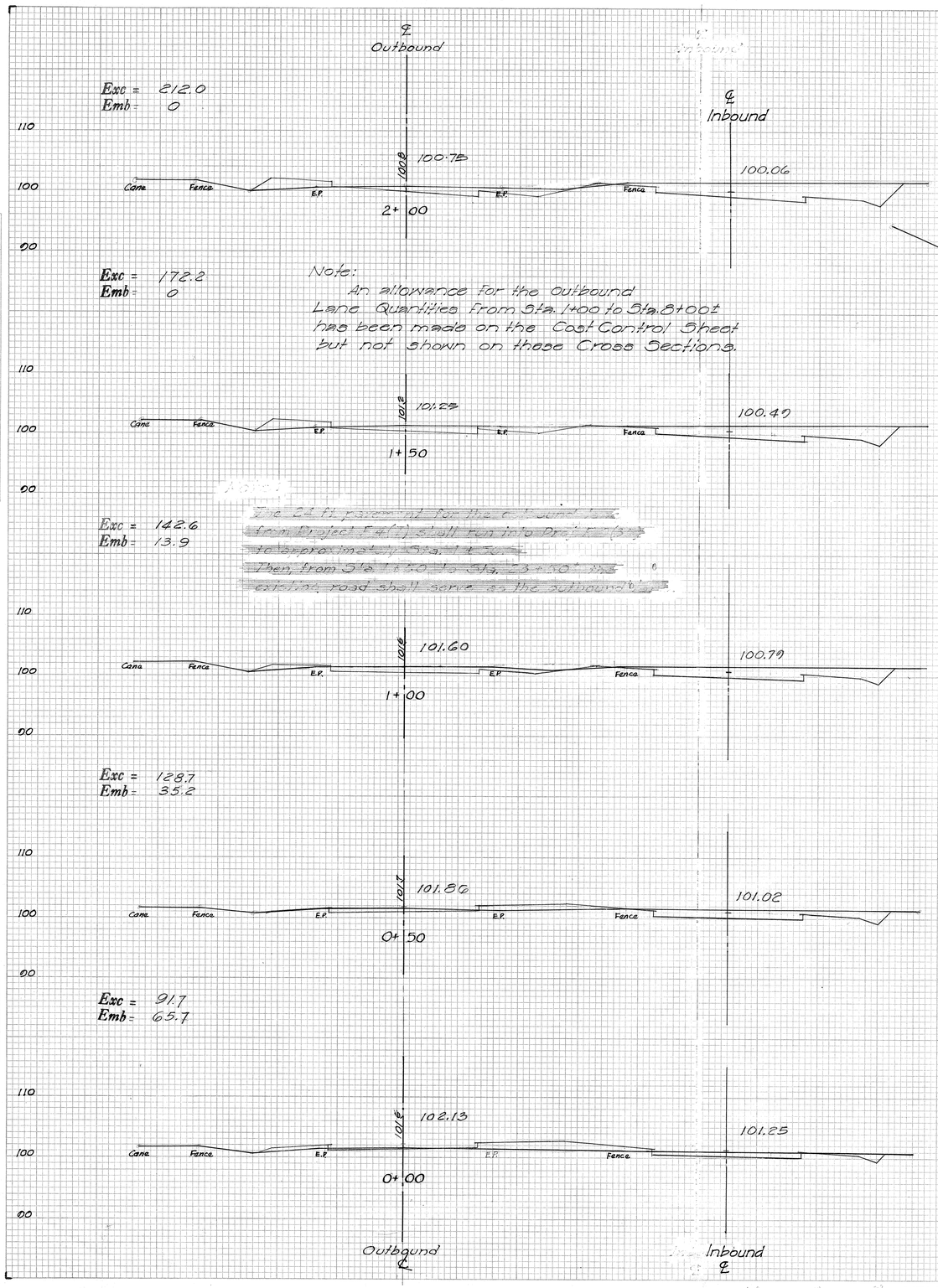
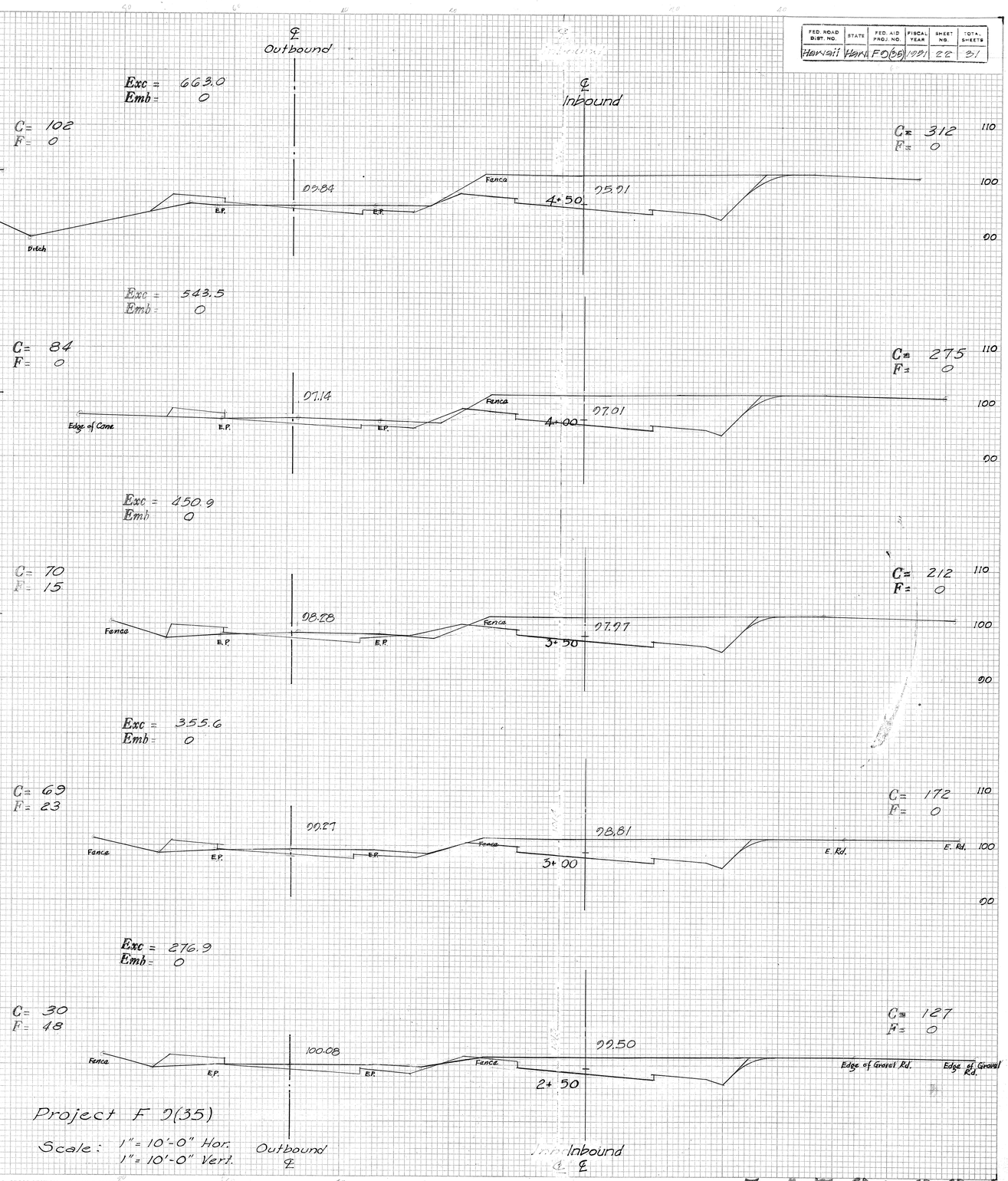
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F 0(35)	1971	22	31





Project F 0(35)

Scale: 1" = 10'-0" Hor.
1" = 10'-0" Vert.

PLATE 3 - CROSS SECTION O.P.R. & R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E CO. No. 345-3

5478.22

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F0(66)1991	22	31	

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

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

Outbound lane to run on the existing road Sta. 1+50 – 23+50 +

Exc = 1150
Emb = 0

℄ Inbound

C = 608
F = 0

Exc = 1603.7
Emb = 0

℄ Inbound

C = 800
F = 0

Exc = 1097.2
Emb = 0

C = 577
F = 0

Exc = 1569.4
Emb = 0

C = 895
F = 0

Exc = 1025
Emb = 0

C = 530
F = 0

Exc = 1473.1
Emb = 0

C = 696
F = 0

Exc = 907.4
Emb = 0

C = 450
F = 0

Exc = 1288
Emb = 0

C = 695
F = 0

Exc = 790.7
Emb = 0

C = 404
F = 0

Exc = 1230.6
Emb = 0

C = 634
F = 0

℄ Inbound

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

K & E CO. No. 345-3 MADE IN U.S.A. 46700 2

5478.23

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F 0(65)	1971	24	31

Exc = 1163.0
Emb = 228.7

℄ Inbound

65.97

C = 548
F = 171

Exc = 386.1
Emb = 0

℄ Inbound

54.17

C = ~~548~~ 195
F = 0

Exc = 2000.9
Emb = 158.3

11+50

68.33

C = ~~200~~ 1613
F = 0

~~200~~ 255

14+00

56.53

C = ~~141~~ 287
F = 0

Exc = 446.3
Emb = 0

Exc = 2642.6
Emb = 0

11+00

70.63

C = ~~157~~ 1241
F = 0

~~157~~ 308

15+50

58.89

C = ~~282~~ 216
F = 0

Exc = 465.7
Emb = 0

Exc = 2084.3
Emb = 0

10+68

70.14

C 10+68 { C = 645, F = 45

C = 1010
F = 0

Exc = 305.6
Emb = 0

10+50

72.99

13+00

61.25

C = ~~231~~ 774
F = 0

Exc = 761.1
Emb = 70.4

Exc = 1798.1
Emb = 0

10+00

75.35

C = 932
F = 0

12+50

63.61

C = 708
F = 76

Inbound ℄

Inbound ℄

Fence

E.P.

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

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

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

K & E CO. No. 345-3 MADE IN U.S.A. 44768 2

5478.24

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F 050(5)	1971	20	21

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

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

Station 15+00

Exc = 0
Emb = 547.2

℄ Inbound

49.45
45.6

C = 0
F = 300

Fence

Station 15+50

Exc = 205.6
Emb = 277.8

51.81
54.6

C = 222 ~~167~~
F = 0
5

Fence

Station 16+00

Exc = 0
Emb = 504.6

47.09
41.2

C = 0
F = 201

Fence

Station 16+50

Exc = 0
Emb = 420.4

44.73
39.5

C = 0
F = 254

Fence

Station 17+00

Exc = 0
Emb = 307.4

42.37
38.9

C = 0
F = 200

Station 17+50

Exc = 48.1
Emb = 48.1

C = 5
F = ~~8~~ 24
27

35.78
35.44
33.8

Station 18+00

Exc = 7.4
Emb = 101.9

C = 0
F = 300

37.78
~~37.65~~
35.1

Fence

Top Bank

Station 18+50

Exc = 0
Emb = 201.9

C = ~~222~~ 30
F = ~~0~~ 44
28
43

34.08
~~33.51~~
32.6

Station 19+00

Exc = 143.5
Emb = 43.5

C = ~~111~~ 88
F = ~~12~~ 35

35.50
~~31.88~~
31.8

E.P.

E.P.

Station 19+50

Exc = 201.9
Emb = 26.9

℄ Inbound

C = 0
F = 86

37.78
~~37.65~~
35.1

Fence

Station 17+00

C = 0
F = 132

40.01
35.1

E.P.

Fence

Top of Bank

Edge Rd.

Station 17+50

℄ Inbound

PLATE 3 - CROSS SECTION - U.S.B.R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

K & E CO. No. 345-3 MADE IN U.S.A. 44960 2

5478.25

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F-0(65)	1971	26	31

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

℄ Inbound

Exc = 0
Emb = 1097.2

28.20
~~28.09~~
12.3
22+00
Rock Fill = 121

C = 0
F = ~~521~~ 567

Exc = 0
Emb = 782.4

28.88
~~28.27~~
22.6
21+50
CRM Paving up to Elev. + 25.00
Rock Fill to firm Strata. Approx. Elev. = 1.9
Rock Fill = 165

C = 0
F = ~~324~~ 356

Exc = 0
Emb = 332.4

29.41
~~28.74~~
27.6
21+00

C = 0
F = ~~35~~ 37

Exc = 122.2
Emb = 39.8

C = ~~92~~ 132
F = 8

30.22
~~29.50~~
29.3
20+50

Exc = 221.3
Emb = 16.7

C = ~~107~~ 85
F = ~~10~~ 33

31.22
~~30.55~~
30.4
20+00

Inbound ℄

Exc = 0
Emb = 1442.1

Exc = 0
Emb = 1325.9

Note:
See sheets 5478.30 & 5478.31 for outbound lane cross-sections Sta. 20+00 — Sta. 28+00

Exc = 0
Emb = BRIDGE

Note:
Rockfill exc. not shown here but is included in the cost control.

Toro Patch

℄ Inbound

30.25
8.2
24+50

C =
F =

29.70
11.5
24+00

C = 0
F = 960

BEG OF BRIDGE STA. 23+72.25

Exc = 0
Emb = 817.6

CRM Paving & Rockfill to abut new Waiawa Bridge Wingwall.

29.15
11.8
23+50
CRM Paving up to Elev. 25.00
Rock Fill = 86

C = 0
F = 797

28.73
~~28.61~~
12.2
23+00
Rock Fill = 88

C = 0
F = 768

Toro Patch

28.54
~~28.21~~
15.3
22+50
Rock Fill = 101

C = 0
F = ~~664~~ 605

Toro Patch

Inbound ℄

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

K & E CO. No. 345-3 MADE IN U.S.A.

5478.26

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F.O(33)	1971	27	91

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

Exc = 0
Emb = 171.3

℄ Inbound

C = 0
F = 92

32.8
33.00

27+00

Exc = 0
Emb = 424.1

℄ Inbound

32.8
35.74

29+50

Bldg.

C = 0
F = 208

Exc = 0
Emb = 160.2

Exc = 0
Emb = 297.2

C = 0
F = 81

30°
32.45

26+50

32.8
35.19

29+00

Bldg.

C = 0
F = 113

Exc = 486.1
Emb = 78.7

Exc = 30.6
Emb = 176.9

42°

26+00.14
31.90

Fence

END OF BRIDGE
STA. 25+12.75

C = 525
F = 4

5.8
34.64

28+50

C = 33
F = 78

Exc = 45.4
Emb = 141.7

Exc = 291.7
Emb = 301.1

31.57

20.0

25+70

C = 0
F = 700

Stream

5.7
34.10

28+00

C = 16
F = 75

Exc = 14.8
Emb = 155.6

Exc =
Emb =

30.80

C =
F =

6.8
33.55

27+50

C = 0
F = 93

Xtream

25+00

Inbound ℄

Inbound ℄

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

K & E CO. No. 345-3 MADE IN U.S.A. 44766 3

5478.27

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F 0(35)	1971	28	31

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

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

Exc = 25.9
Emb = 63.0

℄ Inbound

Curb Curb
E.P. E.P. E.P. E.P. Fence E.P.
30.5 38.42
32+00

C = 4
F = 48

Exc = 113.0
Emb = 0

Exc = 3.7
Emb = 143.5

Exc = 119.4
Emb = 6.5

E.P. E.P. Fence E.P. E.P.
36.2 37.94
31+50

C = 0
F = 107

Exc = 0
Emb = 210.2

Exc = 113.9
Emb = 11.1

E.P. E.P. E.P. E.P. Fence E.P.
34.8 37.39
31+00

C = 0
F = 120

Exc = 0
Emb = 451.9

Curb Fence
29.8 36.84
30+50

C = 0
F = 368

Exc = 78.7
Emb = 23.1

Exc = 0
Emb = 572.2

Fence Conc. Driveway Bldg.
30.5 36.29
30+00

C = 0
F = 250

℄ Inbound

℄ Inbound

E.P. E.P. E.P. E.P. Fence E.P.
41.6 40.68
34+00

C = 67
F = 0

E.P. E.P. E.P. E.P. Fence E.P.
40.8 40.13
33+50

C = 62
F = 7

Curb Curb
E.P. E.P. E.P. E.P. Fence E.P.
40.8 39.59
33+00

C = 61
F = 5

END OF PROJ. No. F 0(35)
℄ INB. STA. 32+80.57

Curb Curb
E.P. E.P. E.P. E.P. E.P.
39.3 39.04
32+50

C = 24
F = 20

5478.28

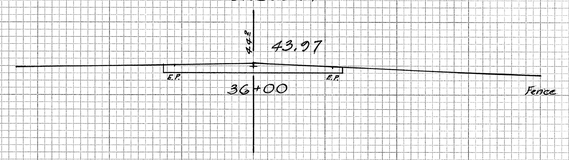
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawn	F0(35)	1971	29	37

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

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

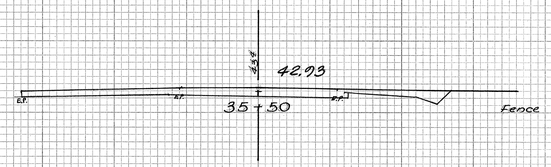
Exc = 21.3
Emb = 0

℄ Inbound



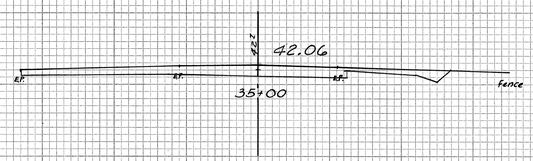
C = 23
F = 0

Exc = 75.9
Emb = 0



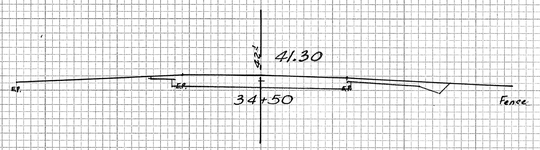
C = 59
F = 0

Exc = 116.7
Emb = 0



C = 67
F = 0

Exc = 113.0
Emb = 0



C = 55
F = 0

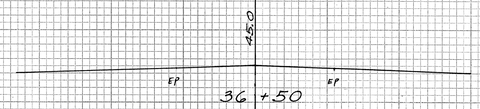
~~Exc =~~
~~Emb =~~



~~C =~~
~~F =~~

INB
Inbound
℄

END OF CONTRACT
℄ INB. STA. 36+50



C = 0
F = 0

Inbound
℄

PLATE 3 - CROSS SECTION C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E CO. No. 345-3 MADE IN U.S.A.

5478.29

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F5(35)	1991	20	21

Exc =
Emb =

℄ Outbound

E.P. 26+/- E.P.

22+00

C =
F =

Exc = 18.5
Emb = 5.6

Exc =
Emb =

E.P. 23+/- E.P.

21+50

C =
F =

Exc = 22.2
Emb = 4.6

Exc =
Emb =

E.P. 25+/- E.P.

21+00

C =
F =

Exc = 14.8
Emb = 4.6

Exc =
Emb =

E.P. 26+/- E.P. Wall 3ft±dm

20+50

C =
F =

Exc = 1.9
Emb = 0

Exc =
Emb =

Guard Rail E.P. 22+/- Guard Rail E.P.

20+00

C =
F =

Exc =
Emb =

Outbound ℄

NOTE:
The Existing Pavement shall serve as the Outbound Lane from the Beginning of Project, Sta. 0+00, to Sta. 23+50±. The Existing 20' Pavement shall be rehabilitated to a 24' Pavement. See Typical Section and Special Provisions for details.

END OF EXISTING BRIDGE
STA. 20 + 20.50

Project F 7(35)

Scale: 1"= 10'-0" Hor.
1"= 10'-0" Vert.

℄ Outbound

E.P. 32.5 E.P. E.P.

25+00

C = 10
F = 0

E.P. 31+/- E.P.

24+50

Underpass pier

C = 14
F = 5

E.P. 30+/- E.P.

24+00

C = 2
F = 0

E.P. 22+/- E.P. Taro Patch

23+50

C = 0
F = 0

E.P. 25+/- E.P.

22+50

C =
F =

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

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

PLATE 3 - CROSS SECTION O.P.R.&R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E CO. No. 345-3 MADE IN U.S.A.

5478.30

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
Hawaii	Hawaii	F0(65)	1971	31	31

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

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

℄ Outbound

Exc = 1.9
Emb = 4.6

C = 1
F = 5

27+00

Exc = 2.8
Emb = 10.2

C = 2
F = 6

26+50

Exc = 4.6
Emb = 12.0

C = 3
F = 7

26+00

Exc = 12.0
Emb = 12.0

C = 10
F = 6

25+50

℄ Outbound

END OF PROJECT
℄ OUTB. STA. 28+14.72

C = 0
F = 0

28+14.72

Exc = 0.5
Emb = 1.1

C = 2
F = 4

28+00

Exc = 2.8
Emb = 3.7

C = 1
F = 0

27+50

℄ Outbound

PLATE 3 - CROSS SECTION O.P.R.&R.E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.
K & E CO. No. 345-3 MADE IN U.S.A. 44768 J

5478.31