FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW	6-S	1931	11	18

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

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

Exc.= 54.0 C.Y.
Emb.= 18.9 C.Y.
Gr.= 111.34
El.= 111.6
F=12.0 #
C=60.0 #
C= 108.0 #
F= 20.4 #
175+50

Exc.= 66.0 C.Y.
Emb.= 33.0 C.Y.
Gr.= 114.94
El.= 115.7
F=8.4 #
C=48.0 #
C= 71.2 #
F= 35.6 #
175+00

Exc.= 71.9 C.Y.
Emb.= 30.8 C.Y.
Gr.= 117.94
El.= 117.6
F=27.2 #
C=23.2 #
C= 77.6 #
F= 33.2 #
174+50

Exc.= 106.9 C.Y.
Emb.= 13.4 C.Y.
Gr.= 120.94
El.= 121.5
F=6.0 #
C=54.4 #
C= 115.4 #
F= 14.4 #
174+00

Exc.= 102.1 C.Y.
Emb.= 11.5 C.Y.
Gr.= 123.94
El.= 124.4
F=8.4 #
C=61.0 #
C= 110.2 #
F= 12.4 #
173+50

Exc.= 89.7 C.Y.
Emb.= 10.4 C.Y.
Gr.= 126.92
El.= 127.0
F=4.0 #
C=49.2 #
C= 96.8 #
F= 11.2 #
173+00

Exc.= 89.0 C.Y.
Emb.= 9.7 C.Y.
Gr.= 129.94
El.= 130.6
F=7.2 #
C=47.6 #
C= 99.2 #
F= 10.8 #
172+50

Exc.= 126.6 C.Y.
Emb.= 3.5 C.Y.
Gr.= 132.85
El.= 132.7
F=3.6 #
C=51.6 #
C= 132.6 #
F= 3.6 #
(133.55)
Excavation
RC.172+01.55
32
Gr.= 135.94
El.= 137.4
C=81.0 #
C= 155.4 #
F= 2.0 #
172+00

Exc.= 143.9 C.Y.
Emb.= 1.9 C.Y.
Gr.= 138.94
El.= 140.0
C=74.4 #
C= 162.8 #
F= 2.0 #
171+50

Exc.= 150.8 C.Y.
Emb.= 1.9 C.Y.
Gr.= 141.92
El.= 143.1
F=2.0 #
C=88.4 #
C= 173.4 #
F= 0
171+00

Exc.= 160.6 C.Y.
Emb.= 0
Gr.= 144.94
El.= 145.8
C=85.0 #
C= 185.8 #
F= 0
170+50

Exc.= 172.1 C.Y.
Emb.= 0
Gr.= 147.94
El.= 149.4
C=100.8 #
C= 211.8 #
F= 0
170+00

Exc.= 196.1 C.Y.
Emb.= 0
Gr.= 150.94
El.= 153.4
C=111.0 #
169+50

Exc.=
Emb.=

169+00

Gr.= 69.94
El.= 70.8
C=70.0 #
C= 101.0 #
F= 67.0 #
F=24.8 #
182+50

Exc.= 93.5 C.Y.
Emb.= 62.1 C.Y.
Gr.= 72.94
El.= 71.1
C=91.0 #
C= 48.2 #
F= 95.0 #
F=42.2 #
182+00

Exc.= 44.6 C.Y.
Emb.= 87.9 C.Y.
Gr.= 75.94
El.= 74.8
C=17.2 #
C= 95.2 #
F= 53.8 #
F=52.8 #
181+50

Exc.= 88.2 C.Y.
Emb.= 49.8 C.Y.
Gr.= 78.94
El.= 80.4
C=78.0 #
C= 170.0 #
F= 2.5 #
F=1.0 #
181+00

Exc.= 157.4 C.Y.
Emb.= 2.3 C.Y.
Gr.= 81.94
El.= 84.2
C=92.0 #
C= 196.0 #
F= 5.1 #
F=1.5 #
180+50

Exc.= 181.5 C.Y.
Emb.= 4.7 C.Y.
Gr.= 84.94
El.= 86.6
C=104.0 #
C= 217.2 #
F= 6.4 #
F=3.6 #
180+00

Exc.= 201.1 C.Y.
Emb.= 5.9 C.Y.
Gr.= 87.94
El.= 90.0
C=113.2 #
C= 178.0 #
F= 12.0 #
F=2.8 #
179+50

Exc.= 164.8 C.Y.
Emb.= 11.1 C.Y.
Gr.= 90.94
El.= 91.2
C=64.8 #
C= 103.2 #
F= 66.0 #
F=9.2 #
179+00

Exc.= 95.5 C.Y.
Emb.= 61.1 C.Y.
Gr.= 93.94
El.= 92.1
C=38.4 #
(88.57)
C= 81.6 #
F= 91.8 #
F=36.8 #
178+50

Exc.= 75.6 C.Y.
Emb.= 85.0 C.Y.
Gr.= 96.94
El.= 96.7
C=43.2 #
C= 100.4 #
F= 47.0 #
F=35.0 #
178+00

Exc.= 92.9 C.Y.
Emb.= 43.5 C.Y.
Gr.= 99.94
El.= 99.2
C=57.2
C= 101.2 #
F= 29.2 #
F=12.0 #
177+50

Exc.= 93.7 C.Y.
Emb.= 27.1 C.Y.
Gr.= 102.94
El.= 103.1
C=44.0 #
C= 98.4 #
F= 23.2 #
F=17.2 #
177+00

Exc.= 91.1 C.Y.
Emb.= 21.5 C.Y.
Gr.= 105.94
El.= 106.7
C=54.4 #
C= 113.4 #
F= 10.4 #
F=6.0 #
176+50

Exc.= 105.0 C.Y.
Emb.= 9.7 C.Y.
Gr.= 108.94
El.= 109.8
C=59.0 #
C= 119.0 #
F= 16.4 #
F=4.4 #
176+00

Exc.= 110.2 C.Y.
Emb.= 15.2 C.Y.

Gr.= 43.50
El.= 45.1
C=143.0 #
C= 409.0 #
F= 1.8 #
187+00

Exc.= 378.7 C.Y.
Emb.= 1.7 C.Y.
Gr.= 46.14
El.= 48.8
C=266.0 #
C= 597.0 #
F= 1.8 #
F=1.8 #
186+50

Exc.= 552.8 C.Y.
Emb.= 1.7 C.Y.
Gr.= 48.96
El.= 55.29
C=331.0 #
C= 612.0 #
F= 0
186+00

Exc.= 566.7 C.Y.
Emb.= 0
Gr.= 51.94
El.= 58.2
C=281.0 #
C= 605.0 #
F= 0
185+50

Exc.= 560.2 C.Y.
Emb.= 0
Gr.= 54.94
El.= 61.7
C=324.0 #
C= 626.0 #
F= 0
185+00

Exc.= 579.7 C.Y.
Emb.= 0
Gr.= 57.94
El.= 63.6
C=302.0 #
C= 448.0 #
F= 9.6 #
184+50

Exc.= 414.8
Emb.= 8.9
Gr.= 60.94
El.= 62.8
C=146.0 #
C= 295.0 #
F= 9.6 #
F=9.6 #
184+00

Exc.= 273.2 C.Y.
Emb.= 8.9 C.Y.
Gr.= 63.94
El.= 66.3
C=143.0 #
C= 247.0 #
F= 24.4 #
183+50

Exc.= 229.1 C.Y.
Emb.= 22.6 C.Y.
Gr.= 66.94
El.= 67.7
C=98.4
C= 168.4 #
F= 43.2 #
F=24.4 #
183+00

Exc.= 156.0 C.Y.
Emb.= 45.6 C.Y.

SCALES
HORIZONTAL 1" = 5'
VERTICAL 1" = 5'

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

4200.11 //

Plan File No. 6 | Project No. 13 | Folder No. 3 | Plan No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW	6-G	1931	12	18

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

192+50
Gr= 24.99
El= 21.6
F= 110.4 ℄
C= 67.0 ℄
Cz= 190.4 ℄
Exc.= 62.1 C.Y.
Emb= 176.3 C.Y.

192+00
Gr= 25.18
El= 22.7
F= 80 ℄
C= 60 ℄
Cz= 152.4 ℄
Fz= 140.0 ℄
Exc.= 141.1 C.Y.
Emb= 129.7 C.Y.

191+50
Gr= 25.75
El= 25.0
F= 60 ℄
C= 92.4 ℄
Cz= 205.2 ℄
Fz= 114.0 ℄
Exc.= 190.0 C.Y.
Emb= 105.6 C.Y.

191+00
Gr= 26.7
El= 26.1
F= 54.0 ℄
C= 112.8 ℄
Cz= 167.6 ℄
Fz= 121.6 ℄
Exc.= 155.2 C.Y.
Emb= 112.6 C.Y.

190+50
Gr= 28.03
El= 26.0
F= 67.6 ℄
C= 54.8 ℄
Cz= 199.8 ℄
Fz= 112.8 ℄
Exc.= 185.0 C.Y.
Emb= 104.5 C.Y.

190+00
Gr= 29.75
El= 29.8
F= 45.2 ℄
C= 12
Cz= 298.0 ℄
Fz= 87.6 ℄
Exc.= 276.0 C.Y.
Emb= 81.1 C.Y.

189+50
Gr= 31.85
El= 32.6
F= 42.4 ℄
C= 153.0 ℄
Cz= 248.4 ℄
Fz= 90.4 ℄
Exc.= 291.0 C.Y.
Emb= 83.7 C.Y.

189+00
Gr= 34.14
El= 34.2
F= 48 ℄
C= 96.4 ℄
Cz= 178.2 ℄
Fz= 80.0 ℄
Exc.= 160.4 C.Y.
Emb= 74.1 C.Y.

188+50
Gr= 36.48
El= 35.3
F= 82 ℄
C= 76.8 ℄
Cz= 168.0 ℄
Fz= 84.0 ℄
Exc.= 155.6 C.Y.
Emb= 77.8 C.Y.

188+00
Gr= 38.72
El= 38.2
F= 52 ℄
C= 91.2 ℄
Cz= 191.2 ℄
Fz= 72.0 ℄
Exc.= 121.5 C.Y.
Emb= 66.7 C.Y.

187+50
Gr= 41.03
El= 40.5
F= 20 ℄
C= 40 ℄
Cz= 188.0 ℄
Fz= 20.0 ℄
Exc.= 189.5 C.Y.
Emb= 78.5 C.Y.
Inv= 36.0

197+50
Gr= 24.99
El= 24.8
F= 32 ℄
C= 81.2 ℄
Cz= 38.8 ℄
Fz= 28.6 ℄
Exc.= 36.0 C.Y.
Emb= 21.9 C.Y.

197+00
Gr= 24.99
El= 23.8
F= 20.4 ℄
C= 7.6 ℄
Cz= 21.6 ℄
Fz= 38.8 ℄
Exc.= 20.0 C.Y.
Emb= 36.0 C.Y.

196+50
Gr= 24.99
El= 24.0
F= 18.4 ℄
C= 1.6 ℄
Cz= 20.0 ℄
Fz= 62.4 ℄
Exc.= 18.5 C.Y.
Emb= 57.9 C.Y.

196+00
Gr= 24.99
El= 22.9
F= 32 ℄
C= 5.2 ℄
C.: c= 0.8 ℄
Cz= 14.0 ℄
Fz= 96.4 ℄
Exc.= 13.0 C.Y.
Emb= 89.3 C.Y.

195+50
Gr= 24.99
El= 22.9
F= 32.4 ℄
C= 8 ℄
Cz= 20.0 ℄
Fz= 68.0 ℄
Exc.= 18.5 C.Y.
Emb= 63.0 C.Y.

195+00
Gr= 24.99
El= 23.8
F= 56 ℄
C= 12 ℄
Cz= 12.5 ℄
Fz= 108.6 ℄
Exc.= 16.7 C.Y.
Emb= 144.8 C.Y.

194+28
Gr= 24.99
El= 21.3
F= 93 ℄
C= 0.5 ℄
Cz= 33 ℄
Fz= 165.0 ℄
Exc.= 1.7 C.Y.
Emb= 85.5 C.Y.

194+00
Gr= 24.99
El= 21.8
F= 72 ℄
C= 28 ℄
Cz= 22.8 ℄
Fz= 130.4 ℄
Exc.= 31.4 C.Y.
Emb= 207.1 C.Y.

193+25.64
Gr= 24.99
El= 22.4
F= 78.4 ℄
C= 20 ℄
Cz= 86.0 ℄
Fz= 152.4 ℄
Exc.= 40.8 C.Y.
Emb= 72.4 C.Y.

193+00
Gr= 24.99
El= 23.0
F= 74 ℄
C= 66 ℄
Cz= 73.0 ℄
Fz= 184.4 ℄
Exc.= 67.6 C.Y.
Emb= 170.8 C.Y.

202+00
Gr= 24.99
El= 27.3
C= 106.0 ℄
Cz= 26.6 ℄
Exc.= 246.3 C.Y.
Emb= 0.0 C.Y.

201+50
Gr= 24.99
El= 27.9
160 ℄
Cz= 34.8 ℄
Exc.= 322.2 C.Y.
Emb= 0.0 C.Y.

201+00
Gr= 24.99
El= 28.6
C= 188 ℄
Cz= 37.2 ℄
Exc.= 344.5 C.Y.

200+50
Gr= 24.99
El= 27.8
C= 184 ℄
Cz= 32.4 ℄
Exc.= 300.0 C.Y.

200+00
Gr= 24.99
El= 27.5
C= 140 ℄
Cz= 16.6 ℄
Fz= 18.4 ℄
Exc.= 153.7 C.Y.
Emb= 17.1 C.Y.

199+50
Gr= 24.99
El= 25.0
F= 8.4 ℄
C= 26 ℄
Cz= 26.0 ℄
Fz= 97.2 ℄
Exc.= 24.1 C.Y.
Emb= 90.0 C.Y.

199+00
Gr= 24.99
El= 22.1
F= 78.8 ℄
Cz= 37.2 ℄
Fz= 84.4 ℄
Exc.= 48.2 C.Y.
Emb= 108.9 C.Y.

198+30
Gr= 24.99
El= 25.3
F= 5.2 ℄
C= 37.2 ℄
Cz= 45.2 ℄
Fz= 47.2 ℄
Exc.= 25.1 C.Y.
Emb= 26.2 C.Y.

198+00
Gr= 24.99
El= 23.3
F= 42 ℄
C= 8 ℄
Cz= 16.0 ℄
Fz= 82.0 ℄
Exc.= 3.6 C.Y.
Emb= 18.2 C.Y.

197+88
Gr= 24.99
El= 23.3
F= 40 ℄
C= 8 ℄
25.32
Cz= 39.2 ℄
Fz= 43.2 ℄
Exc.= 27.6 C.Y.
Emb= 30.4 C.Y.

SCALES
VERTICAL 1"= 5'
HORIZONTAL 1"= 5'

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

4200.12 IV

Plan 6 | Sec. 13 | Fol. | Pl.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW	6-G	1931	13	18

6/7/11 SSA
Lin 1227.6

Gr= 24.99
El= 22.8
F= 43.0 #
203+00
C= 9.6 #
F= 49.8 #
Exc.= 5.0 C.Y.
Emb= 23.8 C.Y.

Gr= 24.99
El= 24.5
F=4.8 #
C= 6.4 #
C=3.2 #
204+72
C= 9.6 #
F= 90.8 #
Exc.= 2.8 C.Y.
Emb= 26.9 C.Y.

Gr= 24.99
El= 21.7
F= 86.0 #
204+56
C= 23.0 #
F= 93.4 #
Exc.= 7.7 C.Y.
Emb= 31.1 C.Y.

Gr= 24.99
El= 24.7
C= 23.0 #
F=7.4 #
204+38
C= 23.0 #
F= 62.4 #
Exc.= 8.5 C.Y.
Emb= 23.1 C.Y.

Gr= 24.99
El= 22.8
F= 55.0 #
204+18
C= 3.8 #
F= 72.0 #
Exc.= 1.3 C.Y.
Emb= 24.0 C.Y.

Gr= 24.99
El= 23.5
F=1.0 #
C=2.8 #
C=1.0 #
204+00
C= 23.8 #
F= 20.6 #
Exc.= 26.5
Emb= 22.9

Gr= 24.99
El= 24.8
C=20.0 #
F=3.6 #
P.C. 203+40
C= 20.7 #
F= 48.6 #
Exc.= 111.1 C.Y.
Emb= 26.1 C.Y.

Gr= 24.99
El= 22.4
F=45.0 #
C=0.7 #
203+11
C= 1.9 #
F= 109.5 #
Exc.= 0.4 C.Y.
Emb= 22.3 C.Y.

Gr= 24.99
El= 22.0
C=0.2 #
F=0.4 #
C=1.0 #
F= 64.0 #
203+00
C= 18.8 #
F= 65.5 #
Exc.= 15.2 C.Y.
Emb= 18.2 C.Y.

Gr= 24.99
El= 24.3
F=1.0 #
C=17.6 #
202+85
C= 55.6 #
F= 4.2 #
Exc.= 36.1 C.Y.
Emb= 2.7 C.Y.

Gr=
El= 25.3
F=3.2 #
C=38.0 #
202+50
C= 144.0 #
F= 3.2 #
Exc.= 133.4 #
Emb= 3.0 #

Gr= 24.69
El= 23.6
F= 29.6 #
C=0.7 #
208+50
C= 11.5 #
F= 37.9 #
Exc.= 10.7 C.Y.
Emb= 35.1 C.Y.

Gr= 24.82
El= 24.7
F=0.8 #
F= 8.0 #
C= 7.6 #
C=3.2 #
208+00
C= 10.8 #
F= 90.3 #
Exc.= 10.0 C.Y.
Emb= 83.6 C.Y.

Gr= 24.91
El= 22.2
F= 82.0 #
207+50
Exc.= 0
Emb= 174.3 C.Y.
F= 188.4 #

Gr= 24.97
El= 21.6
F= 105.4 #
207+00
C= 4.5 #
F= 112.2 #
Exc.= 4.2 C.Y.
Emb= 103.9 C.Y.

Gr= 24.99
El= 24.5
F=1.0 #
F=4.8 #
C= 8.5 #
C=2.0 #
206+50
C= 4.5 #
F= 105.8 #
Exc.= 4.2 C.Y.
Emb= 38.0 C.Y.

Gr=
El= 21.7
F= 100.0 #
206+00
Emb= 71.5 C.Y.
F= 241.2 #

Gr= 24.99
El= 20.8
F= 141.2 #
205+84
Emb= 40.8 C.Y.
F= 367.2 #

Gr= 24.99
El= 18.7
F= 226.0 #
205+78
Emb= 161.4 C.Y.
F= 311.2 #

Gr= 24.99
El= 21.6
F= 85.2 #
205+50
Emb= 74.1 C.Y.
F= 200.0 #

Gr= 24.99
El= 21.0
F= 114.8 #
205+30
Emb= 88.8 C.Y.
F= 159.8 #

Gr= 22.71
El= 20.9
F= 38.0 #
F=1.5 #
C=1.5 #
213+00
C= 31.5 #
F= 33.5 #
Exc.= 29.2 C.Y.
Emb= 32.9 C.Y.

Gr= 22.96
El= 22.8
F=2.0 #
C=30.0 #
212+50
C= 65.0 #
F= 4.5 #
Exc.= 60.2 C.Y.
Emb= 4.2 C.Y.

Gr= 23.18
El= 23.4
F=2.5 #
C= 35.0 #
212+00
C= 162.0 #
F= 2.5 #
Exc.= 150.0 C.Y.
Emb= 21.3 C.Y.

Gr= 23.41
El= 25.4
C= 127.0 #
211+50
C= 254.2 #
Exc.= 235.4 C.Y.

Gr= 23.63
El= 26.5
C= 127.2 #
211+00
C= 303.6 #
Exc.= 281.1 C.Y.

Gr= 23.86
El= 27.1
C= 176.4 #
210+50
C= 289.2 #
Exc.= 267.8 C.Y.

Gr= 24.08
El= 26.7
C= 112.8 #
210+00
C= 195.2 #
Exc.= 189.1 C.Y.

Gr= 24.28
El= 25.7
C= 82.4 #
PT. 209+55.96
C= 107.8 #
F= 1.5 #
Exc.= 111.8 C.Y.
Emb= 1.6 C.Y.

Gr= 24.52
El= 24.7
F=1.5 #
C= 25.4 #
209+00
C= 26.1 #
F= 31.1 #
Exc.= 24.2 C.Y.
Emb= 28.8 C.Y.

SCALES
HORIZONTAL 1"= 5'
VERTICAL 1"= 5'

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

4200.13

Plan File No. 6 | Pocket 13 | Folder 2 | Plan No. 1

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

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW	6-G	1931	14	18

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

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

Gr.= 15.01
Ele.= 16.9
Exc.= 136.3 C.Y.
Emb.= 0
C = 84.8 #
221+00
Ele.= 16.3
Gr.= 15.51
C = 147.2 #
C = 62.4 #
Exc.= 108.2 C.Y.
Emb.= 0
220+50
Ele.= 17.1
Gr.= 16.01
C = 116.8 #
C = 52.4 #
Exc.= 57.8 C.Y.
Emb.= 5.6 C.Y.
220+00
Gr.= 16.51
Ele.= 16.0
C = 62.4 #
F = 6.0 #
C = 2.0 #
C = 6.0 #
F = 6.0 #
Exc.= 7.4 C.Y.
Emb.= 24.6 C.Y.
219+50
Gr.= 17.01
Ele.= 15.9
C = 8.0
F = 26.5 #
F = 20.5 #
Exc.= 0
Emb.= 19.9 C.Y.
219+00
Gr.= 17.28
Elev.= 15.4
F = 56.5 #
F = 36.0 #
Exc.= 0
Emb.= 38.6 C.Y.
218+81
Gr.= 17.51
Ele.= 16.1
F = 66.4 #
F = 36.4 #
Exc.= 0
Emb.= 68.9 C.Y.
218+50
Gr.= 18.01
Ele.= 16.0
F = 74.4 #
F = 44.0 #
Exc.= 0
Emb.= 83.9 C.Y.
218+00
Gr.= 18.31
El.= 16.5
Ele.= 16.2
F = 90.4 #
F = 46.4 #
Exc.= 0
Emb.= 70.4 C.Y.
217+50
Gr.= 19.01
Elev.= 17.5
F = 76.0 #
F = 27.6 #
Exc.= 0
Emb.= 51.1 C.Y.
217+00
Gr.= 19.51
Ele.= 18.1
F = 55.2 #
F = 28.6 #
Exc.= 0.5 C.Y.
Emb.= 40.8 C.Y.
216+50
Gr.= 20.01
Ele.= 18.8
C = 0.5 #
F = 44.0 #
F = 18.4 #
C = 0.5 #
Exc.= 0.5 C.Y.
Emb.= 70.0 C.Y.
216+00
Gr.= 20.51
El.= 18.0
Ele.= 18.0
C = 0.5 #
F = 75.6 #
F = 37.2 #
Exc.= 0
Emb.= 130.4 C.Y.
215+50
Gr.= 21.01
Ele.= 17.2
F = 162.4 #
F = 105.2 #
Exc.= 0
Emb.= 216.0 C.Y.
215+00
Gr.= 21.51
Ele.= 17.0
F 239.2 #
F = 128.0 #
Exc.= 0
Emb.= 200.0 C.Y.
214+50
Gr.= 21.98
Ele.= 18.6
F 216.0 #
F = 88.0 #
Exc.= 0
Emb.= 126.9 C.Y.
214+00
Gr.= 22.33
Ele.= 19.5
F = 156.0 #
F = 68.4 #
P.C. 213+56.1
Exc.= 1.6 C.Y.
Emb.= 103.5 C.Y.
C = 1.3 #
F = 101.5 #

Gr.= 12.00
Ele.= 10.8
F = 18.4 #
226+50
Exc.= 0
Emb.= 57.6 C.Y.
F = 62.2 #
Gr.= 12.00
Ele.= 10.1
F = 43.8 #
226+00
Exc.= 0
Emb.= 73.9 C.Y.
F = 79.8 #
Gr.= 12.00
Ele.= 10.2
F = 36.0 #
225+50
Exc.= 0
Emb.= 64.3 C.Y.
F = 69.6 #
Gr.= 12.00
Ele.= 10.4
F = 33.6 #
225+00
Exc.= 0
Emb.= 69.7 C.Y.
F = 75.2 #
Gr.= 12.06
Ele.= 10.1
F = 41.6 #
Std. Conc. H.W.
Inv. 8.15
224+50 18' Culvert 32° long at 224+40 Inv. 8.15
C = 10.0 #
F 56.4 #
Exc.= 9.3 C.Y.
Emb.= 52.2 C.Y.
Gr.= 12.25
Ele.= 12.7
F = 9.2 #
C = 10.0 #
F = 5.6 #
224+00
Exc.= 10.4 C.Y.
Emb.= 21.8 C.Y.
Gr.= 12.56
Ele.= 11.8
C = 11.2 #
F 23.5 #
F = 7.2 #
F = 1.5 #
C = 0.5 #
C = 0.5 #
223+50
Exc.= 18.2 C.Y.
Emb.= 8.1 C.Y.
C = 19.6 #
F 8.7 #
Gr.= 13.00
Ele.= 12.7
C = 4.0 #
C = 12.0 #
C = 12.4 #
223+00
Exc.= 44.5 C.Y.
Emb.= 0 C.Y.
C = 48.0 #
Gr.= 13.51
Ele.= 13.8
C = 29.6 #
222+50
Exc.= 66.7 C.Y.
Emb.= 0 C.Y.
C = 72.0 #
Gr.= 14.01
Ele.= 14.5
C = 42.4 #
222+00
Exc.= 115.0 C.Y.
Emb.= 0
C = 122.4 #
Gr.= 14.50
Ele.= 16.2
C = 80.0 #
Exc.= 152.6 C.Y.
Emb.= 0
221+50
C = 164.8 #

Gr.= 12.00
Ele.= 14.4
Exc.= 247.0 C.Y.
Emb.= 0 C.Y.
C = 110.4 #
230+00
Gr.= 12.00
Ele.= 15.4
C = 266.8 #
C = 136.4 #
Exc.= 259.7 C.Y.
Emb.= 0 C.Y.
229+50
Gr.= 12.00
Ele.= 14.9
C = 280.4 #
C = 124.0 #
Exc.= 341.7 C.Y.
Emb.= 0
229+00
Ele.= 17.8
Gr.= 12.00
C = 369.0 #
C = 245.0 #
Exc.= 602.8 C.Y.
Emb.= 0
228+50
C = 651.0 #
Ele.= 21.0
Gr.= 12.00
C = 406.0 #
Exc.= 389.5 C.Y.
Emb.= 0
228+00
C = 939.0 #
Ele.= 23.3
Gr.= 12.00
C = 533.0 #
Exc.= 400.0 C.Y.
Emb.= 0
C = 782.6 #
227+77.6
Ele.= 17.7
Gr.= 12.00
C = 249.6
Exc.= 103.8 C.Y.
Emb.= 0
227+50
C = 373.6 #
Ele.= 14.8
Gr.= 12.00
Exc.= 105.0 C.Y.
Emb.= 0
C = 124.0 #
227+35
C = 162.0 #
Ele.= 12.4
Gr.= 12.00
C = 38.0 #
227+00
Exc.= 35.2 C.Y.
Emb.= 17.1 C.Y.
C = 38.0 #
F = 18.4 #

SCALES
HORIZONTAL 1" = 5'
VERTICAL 1" = 5'

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

4200.14

PRS. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW 6-G	1931	15	18	

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

F = 372.0 ♯
Grs. = 11.33
Ele. = 2.5
284+00
Exc. = 0
Emb. = 657.4 C.Y.
F = 338.0 ♯
F = 710.0 ♯
Grs. = 11.33
Ele. = 3.0
283+50
Exc. = 0
Emb. = 617.6 C.Y.
F = 329.0 ♯
F = 667.0 ♯
Grs. = 12.00
Ele. = 3.3
283+00
Exc. = 0
Emb. = 601.7 C.Y.
F = 320.8 ♯
F = 649.8 ♯
Grs. = 12.00
Ele. = 3.6
282+50
Exc. = 0
Emb. = 620.0
F = 348.8 ♯
F = 669.6 ♯
Grs. = 12.00
Ele. = 2.9
282+00
Exc. = 0
Emb. = 575.2 C.Y.
F = 272.4 ♯
F = 621.2 ♯
Grs. = 12.00
Ele. = 4.2
281+50
Exc. = 0
Emb. = 172.1 C.Y.
F = 170.0 ♯
F = 442.4 ♯
Grs. = 12.00
Ele. = 7.1
281+29
Exc. = 1.2 C.Y.
Emb. = 103.2 C.Y.
C = 2.2 ♯
F = 192.2 ♯
Grs. = 12.00
Ele. = 11.3
281+00
F = 21.4 ♯
C = 1.2 ♯
F = 0.8 ♯
C = 1.0 ♯
Exc. = 137.2 C.Y.
Emb. = 20.3 C.Y.
C = 148.2 ♯
F = 22.2 ♯
Grs. = 12.00
Ele. = 15.3
C = 146.0 ♯
Exc. = 237.4 C.Y.
Emb. = 0
280+50
C = 256.4 ♯

Grs. = 10.92
Ele. = 20.6
C = 390.0 ♯
Exc. = 414.8 C.Y.
Emb. = 0
286+50
Ele. = 21.9
Grs. = 11.01
C = 772.4 ♯
C = 382.4 ♯
Exc. = 24.4 C.Y.
Emb. = 0
286+21
Ele. = 12.3
Grs. = 11.07
C = 439.2 ♯
C = 56.8 ♯
286+18
Exc. = 18.9 C.Y.
Emb. = 35.5 C.Y.
C = 56.8 ♯
F = 106.4 ♯
F = 106.4 ♯
Grs. = 11.16
Ele. = 7.4
286+00
Exc. = 0
Emb. = 141.2 C.Y.
F = 331.4 ♯
F = 225.0 ♯
Grs. = 11.27
Ele. = 4.2
285+77
Exc. = 0
Emb. = 283.5
F = 567.0 ♯
F = 342.0 ♯
Grs. = 11.40
Ele. = 3.0
285+50
Exc. = 0
Emb. = 754.4 C.Y.
F = 712.0 ♯
F = 370.0 ♯
Grs. = 11.66
Ele. = 2.8
P.C. 284+92.78
Exc. = 0
Emb. = 605.2 C.Y.
F = 764.0 ♯
F = 394.0 ♯
Grs. = 11.81
Ele. = 2.4
284+50
Exc. =
Emb. =

Bridge Section

Grs. = 8.58
Ele. = 7.9
F = 21.0 ♯
C = 20.0 ♯
243+00
Exc. = 44.8 C.Y.
Emb. = 35.0 C.Y.
C = 48.4 ♯
F = 37.8 ♯
Grs. = 8.69
Ele. = 8.4
F = 16.8 ♯
C = 28.4 ♯
242+50
Emb. = 67.8 C.Y.
Exc. = 20.7 C.Y.
C = 73.2 ♯
F = 22.4 ♯
Grs. = 8.80
Ele. = 9.1
F = 5.6 ♯
C = 41.8
242+00
Exc. = 82.9 C.Y.
Emb. = 5.2 C.Y.
Ele. = 9.3
Grs. = 8.91
C = 89.6 ♯
F = 56 ♯
C = 1.8 ♯
C = 43.0 ♯
241+50
Exc. = 74.8 C.Y.
Emb. = 2.8 C.Y.
C = 80.8 ♯
F = 3.0 ♯
Grs. = 9.02
Ele. = 9.0
F = 3.0 ♯
C = 34.0 ♯
241+00
Exc. = 55.4 C.Y.
Emb. = 6.3 C.Y.
C = 57.6 ♯
F = 7.0 ♯
Grs. = 9.15
Ele. = 8.9
F = 4.0 ♯
C = 21.6 ♯
240+50
Exc. = 38.9 C.Y.
Emb. = 12.2 C.Y.
C = 42.0
F = 13.2
Ele. = 8.7
Grs. = 9.31
F = 9.2 ♯
C = 20.4 ♯
240+00
Exc. = 40.4 C.Y.
Emb. = 14.3 C.Y.
C = 43.6 ♯
F = 15.6 ♯
Ele. = 9.8
Grs. = 9.50
F = 6.4 ♯
C = 29.2 ♯
239+50
Exc. = 44.8 C.Y.
Emb. = 11.5 C.Y.
C = 48.4 ♯
F = 12.4 ♯
Ele. = 9.6
Grs. =
F = 6.0 ♯
C = 25.2 ♯
239+00
Exc. = 53.2 C.Y.
Emb. = 7.8 C.Y.
C = 59.6 ♯
F = 8.5 ♯
Ele. = 10.2
Grs. = 9.96
F = 2.5 ♯
C = 34.4 ♯
238+50
Exc. = 110.2 C.Y.
Emb. = 2.3 C.Y.
C = 119.0
F = 2.5
Ele. = 11.7
Grs. = 10.20
C = 84.6 ♯
238+00
Exc. = 160.2 C.Y.
Emb. = 0
C = 173.8 ♯
Ele. = 12.2
Grs. = 10.44
C = 89.2 ♯
237+50
Exc. = 210.4 C.Y.
Emb. = 0
C = 227.2 ♯
Grs. = 10.68
Ele. = 13.8
C = 138.0 ♯
237+00
Exc. = 488.9 C.Y.
Emb. = 0
C = 528.0

SCALES
HORIZONTAL 1" = 5'
VERTICAL 1" = 5'

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

4200.15

Plan File No.	Drawer	Folder No.	Plan No.
6	13	2	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW.	6-G	1931	16	18

Gr= 8.45
El= 8.5
F = 108.0 ℄
248+00
Emb.= 197.3 C.Y.
Gr= 8.19
El= 2.8
F= 158.4 ℄
F= 266.4 ℄
6' x 10' Box Culvert
248+60
Gr= 8.06
El= 3.5
Emb.= 113.9 C.Y.
F= 109.0 ℄
F= 267.4 ℄
248+87
F= 148.2 ℄
Gr= 7.91
El= 5.6
Emb.= 101.5 C.Y.
F= 39.2 ℄
248+00
F= 70.4 ℄
Emb.= 65.2 C.Y.
Gr= 7.78
El= 5.7
F= 31.2 ℄
247+50
Exc.= 0.6 C.Y.
Emb.= 41.4 C.Y.
C= 0.6 ℄
F= 44.7 ℄
Gr= 7.75
El= 6.4
F= 12.0 ℄
F= 1.5 ℄
C= 0.6 ℄
247+00
Exc.= 3.2 C.Y.
Emb.= 22.9 C.Y.
C= 3.4 ℄
F= 24.7 ℄
Gr= 7.81
El= 6.7
F= 10.4 ℄
F= 0.8 ℄
C= 1.6 ℄
C= 1.8 ℄
246+50
Exc.= 18.2 C.Y.
Emb.= 12.2 C.Y.
C= 19.6 ℄
F= 13.0 ℄
Gr= 7.92
El= 7.8
F= 1.8 ℄
C= 16.8 ℄
246+00
Exc.= 30.4 C.Y.
Emb.= 3.2 C.Y.
Gr= 8.03
El= 7.5
C= 32.8 ℄
F= 3.4 ℄
F= 1.6 ℄
C= 16.0 ℄
245+50
Exc.= 21.5 C.Y.
Emb.= 5.0 C.Y.
Gr= 8.14
El= 7.7
C= 23.2 ℄
F= 5.4 ℄
F= 2.0 ℄
F= 1.8 ℄
C= 7.2 ℄
245+00
Exc.= 41.1 C.Y.
Emb.= 3.5 C.Y.
C= 44.4 ℄
F= 3.8 ℄
Gr= 8.25
El= 8.8
C= 37.2 ℄
244+50
Exc.= 70.0 C.Y.
Emb.=
Gr= 8.36
El= 8.9
C= 75.6 ℄
C= 38.4 ℄
244+00
Exc.= 53.5 C.Y.
Emb.= 22.3 C.Y.
C= 48.0 ℄
F= 20.0 ℄
Gr= 8.47
El= 7.7
F= 20.0 ℄
C= 9.6 ℄
AT 243+89.79
Exc.= 21.8 C.Y.
Emb.= 30.2 C.Y.
C= 29.6 ℄
F= 41.0 ℄

Gr= 10.70
El= 10.7
C= 27.4 ℄
256+00
Exc.= 33.9 C.Y. (including 12.2 C.Y. Rock)
Emb.= 14.2 C.Y.
C= 34.6 ℄
F= 15.3 ℄
Gr= 11.28
El= 10.7
C= 7.2 ℄
F= 0.7 ℄
C= 2.0 ℄
255+50
Exc.= 13.2 C.Y.
Emb.= 17.2 C.Y. (including 13.0 C.Y. Rock)
C= 14.2 ℄
F= 18.5 ℄
Gr= 11.85
El= 11.2
F= 1.2 ℄
C= 4.2 ℄
C= 0.8 ℄
255+00
Exc.= 25.4 C.Y.
Emb.= 10.4 C.Y.
C= 27.4 ℄
F= 11.2 ℄
Gr= 12.30
El= 12.3
F= 2.0 ℄
C= 22.4 ℄
254+50
Exc.= 55.6 C.Y.
Emb.= 1.9 C.Y.
C= 60.0 ℄
F= 2.0 ℄
Gr= 12.98
El= 13.0
C= 37.6 ℄
254+00
Exc.= 73.7 C.Y.
Emb.= 0
C= 79.6 ℄
Gr= 12.41
El= 13.0
C= 42.0 ℄
253+50
Exc.= 68.1 C.Y.
Emb.= 0
C= 73.5 ℄
Gr= 12.08
El= 12.6
C= 1.5 ℄
C= 30.0 ℄
253+00
Exc.= 59.6 C.Y.
Emb.= 0
C= 64.3 ℄
Gr= 11.62
El= 11.9
C= 32.8 ℄
252+50
Exc.= 64.7 C.Y.
Emb.= 0
C= 69.8 ℄
Gr= 11.16
El= 11.6
C= 37.0 ℄
252+00
Exc.= 63.4 C.Y.
Emb.= 2.6 C.Y.
C= 61.8 ℄
F= 2.5 ℄
Gr= 10.70
El= 10.8
C= 24.8 ℄
F= 2.5 ℄
AC. 251+64.35
Exc.= 25.4 C.Y.
Emb.= 12.3 C.Y.
C= 30.8 ℄
F= 14.3 ℄
Gr= 10.24
El= 9.8
F= 12.4 ℄
C= 2.8 ℄
C= 3.2 ℄
251+00
Exc.= 27.8 C.Y.
Emb.= 12.9 C.Y.
C= 30.0 ℄
F= 13.9 ℄
Gr= 9.78
El= 9.8
F= 1.8 ℄
C= 22.0 ℄
250+50
Exc.= 54.7 C.Y.
Emb.= 1.4 C.Y.
C= 59.0 ℄
F= 1.5 ℄
Gr= 9.32
El= 9.6
C= 35.0 ℄
250+00
Exc.= 32.4 C.Y.
Emb.= 26.0 C.Y.
C= 35.0 ℄
F= 28.0 ℄
Gr= 8.86
El= 7.2
C= 28.0 ℄
249+50
Exc.= 0 C.Y.
Emb.= 126.0 C.Y.
F= 136.0 ℄

Gr= 8.93
El= 9.3
F= 2.0 ℄
C= 32.0 ℄
AT 262+47.36
Exc.= 44.2 C.Y.
Emb.= 12.3 C.Y.
C= 50.4 ℄
F= 1.4 ℄
Gr= 9.00
El= 8.5
F= 12.0 ℄
C= 18.4 ℄
262+00
Exc.= 19.6 C.Y.
Emb.= 48.2 C.Y.
C= 21.1 ℄
F= 45.6 ℄
Gr= 9.06
El= 7.6
F= 39.8 ℄
F= 0.4 ℄
C= 0.7 ℄
C= 2.0 ℄
261+50
Exc.= 27.0 C.Y.
Emb.= 37.8 C.Y.
C= 29.1 ℄
F= 40.8 ℄
Gr= 9.11
El= 9.0
F= 7.2 ℄
C= 26.4 ℄
261+00
Exc.= 41.5 C.Y.
Emb.= 14.1 C.Y.
C= 44.8 ℄
F= 15.2 ℄
Gr= 9.17
El= 8.8
F= 8.2 ℄
C= 18.4 ℄
260+50
Exc.= 45.8 C.Y.
Emb.= 12.2 C.Y.
C= 49.4 ℄
F= 13.2 ℄
Gr= 9.22
El= 9.2
F= 5.2 ℄
C= 31.0 ℄
260+00
Exc.= 56.5 C.Y.
Emb.= 12.2 C.Y.
C= 61.0 ℄
F= 13.2 ℄
Gr= 9.28
El= 9.3
F= 8.0 ℄
C= 30.0 ℄
259+50
Exc.= 40.4 C.Y.
Emb.= 26.3 C.Y.
C= 43.6 ℄
F= 28.4 ℄
Gr= 9.33
El= 8.8
C= 13.6 ℄
259+00
C= 46.0 ℄
F= 43.6 ℄
Exc.= 45.9 C.Y.
Emb.= 43.5 C.Y. (including 28.7 C.Y. Rock)
Gr= 9.39
El= 8.8
C= 32.4 ℄
C= 59.6 ℄
F= 30.2 ℄
RC 258+46.07
Gr= 9.44
El= 9.5
(including 19.4 C.Y. Rock)
Exc.= 50.9 C.Y.
Emb.= 23.8 C.Y.
C= 27.2 ℄
258+00
C= 71.8 ℄
F= 7.0 ℄
Exc.= 47.6 C.Y.
Emb.= 4.8 C.Y. (including 4.0 C.Y. Rock)
Gr= 9.52
El= 10.0
C= 1.8 ℄
C= 42.8 ℄
C= 193.6 ℄
P.T. 257+64.18
Exc.= 230.1 C.Y.
Emb.= 0
Gr= 9.81
El= 18.4
C= 149.0 ℄
257+00
C= 265.0 ℄
Exc.= 245.4 C.Y.
Gr= 10.19
El= 13.0
C= 116.0 ℄
256+50
C= 143.4 ℄
F= 6.0 ℄
Exc.= 132.8 C.Y.
Emb.= 5.6 C.Y. (including 4.8 C.Y. Rock)

SCALES
HORIZONTAL 1" = 5'
VERTICAL 1" = 5'

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

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

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

4200.16

Plan File No.	Pocket	Folder	Plan No.
6	13	2	1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW	HAW	6-G	1931	17	18

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

Gr.= 8.40
El.= 7.8
F=7.6 ϕ
267+50
C=
F= 98.8 ϕ
Exc.=
Emb.= 9.1 C.Y. (including 19.5 C.Y. Rock)
Gr.= 8.55
El.= 5.4
F = 84.0 ϕ
267+00
C=
F= 191.2 ϕ
Exc.=
Emb.= 70.8 C.Y. (including 10.4 C.Y. Rock)
Gr.= 8.47
El.= 4.8
F= 107.2 ϕ
266+80
C=
F= 276.4 ϕ
Emb.= 51.2 C.Y. (including 6.9 C.Y. Rock)
Gr.= 8.48
El.= 3.0
266+70
C=
F= 295.2 ϕ
Emb.= 49.2 C.Y. (including 35.9 C.Y. Rock)
Gr.= 8.49
El.= 4.8
F= 126.0 ϕ
266+61
C=
F= 208.0 ϕ
Emb.= 42.4 C.Y. (including 6.5 C.Y. Rock)
Gr.= 8.51
El.= 5.8
F= 82.0 ϕ
266+50
C= 0.8 ϕ
F= 105.6 ϕ
Exc.= 0.7 C.Y.
Emb.= 97.8 C.Y. (including 14.1 C.Y. Rock)
Gr.= 8.56
El.= 7.3
F= 2.9 ϕ
C= 0.8 ϕ
F= 21.2 ϕ
266+00
C= 22.0 ϕ
F= 23.6 ϕ
Exc.= 20.4 C.Y.
Emb.= 21.8 C.Y.
Gr.= 8.62
El.= 8.7
C= 21.2 ϕ
265+50
C= 40.8 ϕ
F= 1.4 ϕ
Exc.= 37.8 C.Y.
Emb.= 1.3 C.Y.
Gr.= 8.67
El.= 8.8
F= 1.4 ϕ
C= 19.6 ϕ
265+00
C= 30.8 ϕ
F= 6.2 ϕ
Exc.= 28.5 C.Y.
Emb.= 3.8 C.Y.
Gr.= 8.73
El.= 8.4
C= 11.8 ϕ
F= 4.8 ϕ
264+50
C= 56.0 ϕ
F= 4.8 ϕ
Exc.= 51.8 C.Y.
Emb.= 4.5 C.Y.
Gr.= 8.78
El.= 9.4
C= 46.8 ϕ
264+00
C= 100.4 ϕ
F=
Exc.= 93.0 C.Y.
Gr.= 8.84
El.= 9.8
C= 55.6 ϕ
263+50
C= 101.2 ϕ
F=
Exc.= 93.7 C.Y.
Gr.= 8.89
El.= 9.5
C= 45.6 ϕ
263+00
C= 77.6 ϕ
F= 2.0 ϕ
Exc.= 73.8 C.Y.
Emb.= 1.8 C.Y.

Gr.= 10.33
El.= 10.2
C= 22.0 ϕ
279+00
C= 46.4 ϕ
F= 15.2 ϕ
Exc.= 4.1 C.Y.
Emb.= 14.1 C.Y. (including 11.1 C.Y. Rock)
Gr.= 9.75
El.= 10.0
C= 22.4 ϕ
272+50
C= 38.8 ϕ
F= 22.2 ϕ
Exc.= 33.9 C.Y.
Emb.= 20.6 C.Y. (including 14.8 C.Y. Rock)
Gr.= 9.17
El.= 8.8
C=16.4 ϕ
272+00
C= 18.0 ϕ
F= 64.0 ϕ
Exc.= 18.6 C.Y.
Emb.= 66.1 C.Y. (including 37.2 C.Y. Rock)
Gr.= 8.63
El.= 7.0
F=1.0 ϕ
C=1.6 ϕ
P.C. 271+44.24
C= 1.6 ϕ
F= 100.0 ϕ
Exc.= 1.3 C.Y.
Emb.= 81.9 C.Y. (including 38.0 C.Y. Rock)
Gr.= 8.33
El.= 6.2
F=21.0 ϕ
271+00
C=
F= 154.2 ϕ
Emb.= 94.2 C.Y. (including 32.0 C.Y. Rock)
Gr.= 8.19
El.= 4.6
F=109.2 ϕ
270+67
C=
F= 256.8 ϕ
Emb.= 33.3 C.Y. (including 9.9 C.Y. Rock)
Gr.= 8.18
El.= 2.9
F=236 ϕ
270+60
C=
F= 210.8 ϕ
Emb.= 58.6 C.Y. (including 16.8 C.Y. Rock)
Gr.= 8.18
El.= 6.3
F=37.2 ϕ
270+45
C= 5.2 ϕ
F= 77.2 ϕ
Exc.= 4.3 C.Y.
Emb.= 64.4 C.Y. (including 27.3 C.Y. Rock)
Gr.= 8.12
El.= 7.6
F=0.8 ϕ
C=3.2 ϕ
C=2.0 ϕ
270+00
C= 5.7 ϕ
F= 44.8 ϕ
Exc.= 5.3 C.Y.
Emb.= 41.3 C.Y. (including 21.1 C.Y. Rock)
Gr.= 8.18
El.= 7.2
C=0.5 ϕ
269+50
C= 1.7 ϕ
F= 98.2 ϕ
Exc.= 1.6 C.Y.
Emb.= 33.3 C.Y. (including 16.3 C.Y. Rock)
Gr.= 8.23
El.= 7.4
F=1.4 ϕ
C=1.2 ϕ
269+00
C= 1.9 ϕ
F= 92.2 ϕ
Exc.= 1.8 C.Y.
Emb.= 29.8 C.Y. (including 17.1 C.Y. Rock)
Gr.= 8.29
El.= 7.7
F=0.8 ϕ
C=0.4 ϕ
C=0.9 ϕ
268+50
C= 25.5 ϕ
F= 19.3 ϕ
Exc.= 23.6 C.Y.
Emb.= 17.9 C.Y. (including 10.4 C.Y. Rock)
Gr.= 8.34
El.= 8.5
F=0.5 ϕ
C=22.8 ϕ
C=2.0 ϕ
268+00
C= 24.8 ϕ
F= 15.3 ϕ
Exc.= 22.9 C.Y.
Emb.= 14.2 C.Y. (including 4.7 C.Y. Rock)

Gr.= 12.67
El.= 8.7
F= 114.4 ϕ
278+64.78
C=
F= 257.4 ϕ
Emb.= 173.3 C.Y.
F= 143.0 ϕ
Gr.= 12.49
El.= 7.5
278+28
C=
F= 245.4 ϕ
Emb.= 166.4 C.Y.
Gr.= 12.31
El.= 9.0
F= 102.4 ϕ
P.T. 277+91.38
Gr.= 12.18
El.= 10.4
C=
F= 154.4 ϕ
Emb.= 118.3 C.Y.
F= 52.0 ϕ
277+50
C= 1.8 ϕ
F= 78.0 ϕ
Exc.= 1.7 C.Y.
Emb.= 72.2 C.Y.
Gr.= 11.95
El.= 10.8
F= 25.2 ϕ
F=0.8 ϕ
C=0.8 ϕ
C=1.0 ϕ
277+00
C= 4.3 ϕ
F= 46.2 ϕ
Exc.= 4.0 C.Y.
Emb.= 42.8 C.Y.
Gr.= 11.82
El.= 10.8
F= 20.4 ϕ
F=0.8 ϕ
C=1.5 ϕ
C=1.0 ϕ
276+50
C= 10.5 ϕ
F= 40.2 ϕ
Exc.= 9.7 C.Y.
Emb.= 37.2 C.Y.
Gr.= 11.73
El.= 11.3
F= 19.0 ϕ
C=3.0 ϕ
276+00
C= 15.2 ϕ
F= 39.0 ϕ
Exc.= 14.1 C.Y.
Emb.= 36.1 C.Y.
Gr.= 11.67
El.= 10.9
F= 20.0 ϕ
C=7.2 ϕ
275+50
C= 18.4 ϕ
F= 36.4 ϕ
Exc.= 17.1 C.Y.
Emb.= 33.7 C.Y.
Gr.= 11.61
El.= 11.0
F= 16.4 ϕ
C=11.2 ϕ
275+00
C= 27.2 ϕ
F= 26.4 ϕ
Exc.= 25.2 C.Y.
Emb.= 24.5 C.Y.
Gr.= 11.49
El.= 11.3
F=10.0 ϕ
C=16.0 ϕ
274+50
C= 44.0 ϕ
F= 17.0 ϕ
Exc.= 40.8 C.Y.
Emb.= 13.8 C.Y.
Gr.= 11.23
El.= 11.5
F=7.0
C=28.0 ϕ
274+00
C= 58.0 ϕ
F= 15.0 ϕ
Exc.= 53.7 C.Y.
Emb.= 13.9 C.Y.
Gr.= 10.85
El.= 11.0
F=8.0 ϕ
C=3.0 ϕ
273+50
C= 52.0 ϕ
F= 16.0 ϕ
Exc.= 48.2 C.Y.
Emb.= 14.8 C.Y.

SCALES
HORIZONTAL 1" = 5'
VERTICAL 1" = 5'

PLATE 3—CROSS SECTION O.P.R.R. & H.E. STANDARD
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