

NAME Euclid Ave

Class _____ Course _____ Party _____

1886

246

FIELD NOTES

No. 403P

ESPECIALLY ADAPTED

TO THE USE OF

ENGINEERING STUDENTS

EUGENE DIETZGEN Co.

MANUFACTURERS

DRAWING MATERIALS

MATHEMATICAL AND SURVEYING INSTRUMENTS

MEASURING TAPES

CHICAGO SAN FRANCISCO NEW YORK
NEW ORLEANS PITTSBURGH

MICROFILMED

DÉC 30 1964

70
39
18
39

1460
434

158 62060
39

43
774

344
18
43

40.25
39.63
158.09 .6204

- Note -
All Slope stakes
& X-sections set
to Shoulder grade
(of fill side -
All of cuts or
fills are from
Finished par -
or (Profile grade)
JG

Euclid Ave. Alignment

88+65.18 Fwd.

88+51.22 Back 21-02.5'

+50 20-57.37

+25 19-09.6 ✓

88 17-22.57

+75 15-34.8 ✓

+50 13-47.65

+25 12-00 ✓

87 POC 10-12.79

+25 8-25.2 ✓

+50 6-37.83

+25 4-50.4 ✓

86 3-02.97

+75 1-15.7 ✓

85+57.42 B.C. 0-00'

81+30.39 Fwd:

81+25.32 BK 11-05

81 10-23 ✓

+75 9-41.5 ✓

80+50 9-00 ✓

+25 8-18 ✓

80 7-37.1 ✓

+75 6-55.1 ✓

79+50 6-13.5 ✓

+25 5-31 ✓

79 4-50.4 ✓

+75 4-08.9 ✓

78+50 3-27.3 ✓

+25 2-45.7 ✓

78 2-04.18 ✓

+75 1-22.6 ✓

77+50 0-41.06

77+25.31 0-00'

Dec. 18-19.26
 O.J. Thompson
 Anderson
 de la Vaux
 H. Thompson

P.I. = 87+11.30

$\Delta = 42^{\circ}05'$
 $R = 400'$
 $T = 153.88$
 $L = 293.80$
 $C'' = 14.324^{\circ}$
 $1' = 4.297$
 $50' = 3^{\circ}34.86'$
 $25' = 1^{\circ}47.43'$

P.I. = 79+27.85

$\Delta = 22^{\circ}10'$
 $R = 1033.94$
 $T = 202.54$
 $L = 400.01$
 $C = 5.541$
 $1' = 16.623$
 $50' = 1^{\circ}23.12$
 $25' = 41.56'$

Euclid Ave. Alignment

(2)

101+89.89 P.C. End.
 101+82.21 " BK 15°38'
 +100
 101+00 110-20.5
 +50 8°44'
 100+ 6°07.68
 +50 3°31.22
 99+00 0°55.00
 98+82.47

95+21.30 P.O.T. End.
 95+57.44 P.C. BK 17°53'
 +25
 12-44.21
 95+00 9°09.05
 +75 5-34.49
 +50 1°53.63
 74+36.98 B.C. 0°-00'

~~96+08.26 P.C. End.
 96+01.54 = 17°23'
 +75 15°-1.4 ✓
 +50 = 13°-09.5 ✓
 +25 11°20.6 ✓
 95 = 9°-0.4 ✓
 +75 7°-00.5 ✓
 +50 = 4°-58.6 ✓
 +25 2°-55.8 ✓
 94 = 0°-53' ✓~~
 New Dope out.

93+89.12

New Alignment
 dope -
 Old Tang. dist. Wrong
 P.I. = 100+36.18
 JF

$\Delta = 319.16'$
 $R = 549.29$
 $T = 153.71$
 $L = 299.74$
 $C = 10.431$
 $1' = 1' = 3.129$
 $50' = 2-36.46$

~~94+98.69
 $\Delta = 340-46'$
 $R = 350'$
 $T = 109.57$
 $L = 212.40$
 $C = 16.37$
 $1' = 4.911$
 $50' = 4-05.55$~~

~~$\Delta = 340-46'$
 $R = 200'$
 $T = 62.61$
 $L = 121.36$
 $C = 28.648$
 $1' = 8.594$
 $25' = 3-34.86$~~

Euchl. A/c. Abament

105 + 96.25 EC. Fwd.

105 + 75.04 EC. Bl. 22-48

(24.42 and 25.66)

100 21-21.4 ✓

19-52.7

105 18-23.4

16-54.5

100 15-25.5 ✓

13-56.4

104 12-27.4 ✓

10-58.4

100 9-29.4

8-00.5

103 6-31.5 ✓

5-02.5

100 3-33.5 ✓

2-04.9

102 0-35.9

(9.85 and 10.35)

101 + 89.89 0-00.

Decimal = 9.75

11025

25' = 24.38 and 25.62

P.I. = 103 + 93.32

$\Delta = 45^{\circ} 36'$

$R = 483.94$

$T = 203.43$

$L = 385.15$

$C = 11.838$

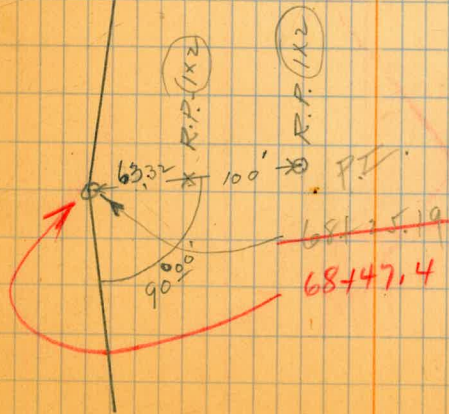
$I' = 3.551$

$50' = 2^{\circ} 57.57$

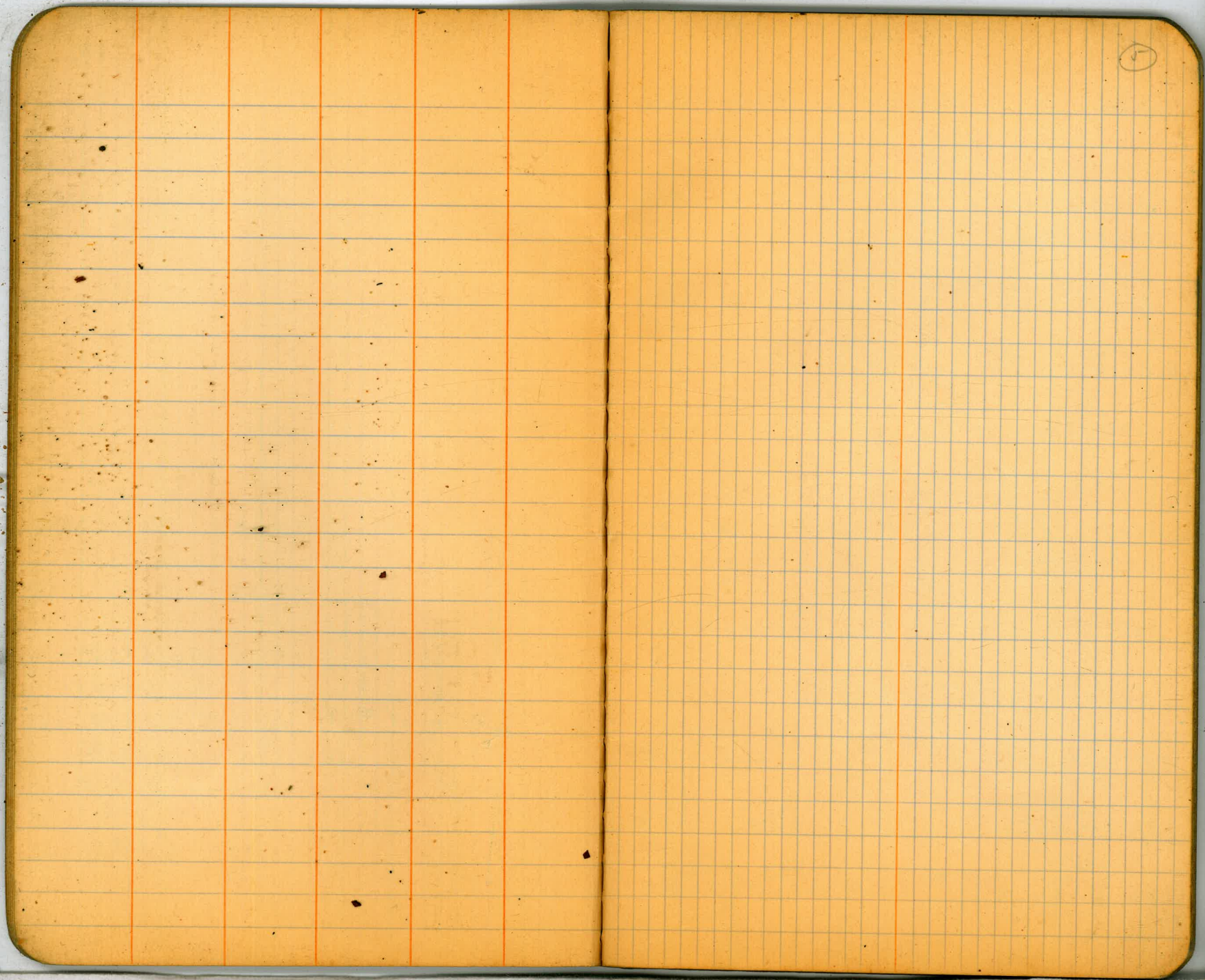
Euclid Arc Alignment

(4)

69+37.29 Fwd.	
69+37.29 BK	30.125
69	2242.6
+50	1257.7
68	1214.7
+50	0231.8
67+13.09	00-00



$\Delta = 6825$
$R = 2000'$
$T = 12.18$
$L = 223.98$
$C = 2.865$
$I' = .859$
$50' = 0.4295$



Euclid Ave

(6)

Sta. + H.I. - Grade Rod

Left E Right

See Book 256 - Pg. 15 for

Slope dope - 81+25.32 - Back

81+25.32 BK	182.20 186.5 -12.08	77.2	9.4
81+30.39 Fwd.	174.51 +0.84		
+50	75.5 73.4	77.4	9.2
82	71.90 71.55 -0.35	77.9	8.7
+50		78.1	8.5
83		77.7	8.9
+39		77.2	9.4
50		76.9	9.7
84	86.20	76.1	10.8
+50		75.3	00
85		74.8	0.6
85+57.42		74.8	11.4
86		75.1	11.1

$\frac{+62}{22.9}$	$\frac{+5.7}{17.9}$	+4.1	$\frac{+3.5}{16.8}$	$\frac{+3.6}{21.8}$
$\frac{+5.1}{22.5}$	$\frac{+5.0}{17.5}$	+3.6	$\frac{+3.2}{16.6}$	$\frac{+2.9}{21.6}$
$\frac{+4.8}{22.3}$	$\frac{+4.5}{17.3}$	+3.3	$\frac{+3.3}{16.7}$	$\frac{+3.1}{21.7}$
$\frac{+4.8}{22.2}$	$\frac{+4.4}{17.2}$	+3.3	$\frac{+3.0}{16.5}$	$\frac{+2.8}{21.5}$
$\frac{-1.8}{22.6}$	$\frac{+3.2}{16.5}$	+2.4	$\frac{+3.0}{16.5}$	$\frac{-0.4}{21.5}$
$\frac{-6.9}{30.5}$	$\frac{-7.0}{25.5}$	-7.4	$\frac{-6.6}{24.9}$	$\frac{-6.1}{29.9}$
$\frac{-6.2}{29.6}$	$\frac{-6.4}{24.6}$	-8.4	$\frac{-7.4}{26.1}$	$\frac{-7.5}{31.1}$
$\frac{-5.3}{27.6}$	$\frac{-5.1}{22.6}$	-6.7	$\frac{-7.1}{25.6}$	$\frac{-7.6}{30.6}$
$\frac{-3.5}{25.7}$	$\frac{-3.8}{20.7}$	-5.8	$\frac{-6.8}{25.2}$	$\frac{-8.4}{30.2}$
$\frac{+3.6}{22.0}$	$\frac{+4.0}{17.0}$	+2.8	$\frac{+2.6}{16.3}$	$\frac{2.4}{21.3}$

Euclid Ave

(7)

Sta.	+ H.I.	-	Grade	Red	Left	±	Right			
86+00	182.70 +10.16 ----- 192.86 11.22 181.64 +2.64 ----- 183.78		75.4	10.8	+10.7 25.7	+10.4 20.2	+8.4 18.6	+7.1 23.6		
87			75.8	16.5	+13.2 26.5	+13.0 21.5	+10.0 19.2	+8.4 24.2		
87			76.1	16.3	+17.8 28.3	+16.6 23.3	+9.3 17.2	+4.4 22.2		
88			76.5	16.0	+15.6 26.6	+13.2 21.6	+3.7 15.9	-0.6 20.9		
88+51.2 ~ BK. ✓			76.7	15.7	+11.3 24.7	+9.4 19.7	+3.6 15.0	0.0 20.0		
88+65.18 Fwd.			76.7							
89			76.9	15.5	+7.8 23.0	+6.0 18.0	+1.0 16.5	-1.0 21.5		
89			77.2	6.6	+4.0 21.6	+3.1 16.6	-0.4 20.3	-3.5 25.3		
90			78.2	5.6	-0.3 23.0	-2.0 18.0	-7.7 10-15	-10-10 27.3	-8.2 32.3	
89			79.2	4.6	-8.1 35.2	-10.1 30.2	-9.5 9.0	-9.0 18.0	-4.5 21.8	-4.5 26.8
91			80.2	3.6	+5.7 28.3	-5.8 23.3	-3.8 11	0.0 16.0	+1.6 16.0	
89			81.2	14.0	-2.9 23.0	-1.9 18.0	+2.1 19.9	+9.8 19.9	+11.4 24.9	

998
67
65

(8)

Sta.		H.I.		Grade	Red
92		195.19 8.23 <u>186.96</u>		82.2	13.0
93		186.96 12.25 <u>199.21</u> 0.25	Temp B.M.	83.3	11.9
93+50		191.49 10.45 <u>201.94</u>		84.5	14.7
94				86.8	12.4
94+36.88				89.8	9.4
95				92.0	17.4
95				92.8	16.6
94+75				94.3	15.1
95				95.8	13.6
92.5				92.2	22.7
95+57.44	Back			95.3	20.6
95+61.30	Fwd				

See Page # 2 for Alignment
 See Page # 15 for New Dope
 X-sec. Dope OUT

$\frac{-4.4}{24.5}$	$\frac{-3.0}{19.5}$	+3.7	$\frac{+11.7}{20.8}$	$\frac{+12.9}{25.8}$
$\frac{-2.1}{21.5}$	$\frac{+1.0}{16.5}$	+4.0	$\frac{+11.3}{20.7}$	$\frac{+13.2}{25.7}$
$\frac{-0.5}{20.5}$	$\frac{+1.0}{15.5}$	+7.9	$\frac{+16.8}{23.4}$	$\frac{+18.5}{28.4}$
$\frac{-0.5}{20.7}$	$\frac{+1.4}{15.7}$	+8.1	$\frac{+19.4}{24.7}$	$\frac{+21.5}{29.7}$
$\frac{-4.2}{25.0}$	$\frac{-3.3}{20.0}$	+6.1	$\frac{+17.0}{23.5}$	$\frac{+19.4}{28.5}$
$\frac{-3.2}{22.4}$	$\frac{-1.6}{17.4}$	+5.0	$\frac{+14.5}{22.3}$	$\frac{16.8}{27.3}$
$\frac{-3.2}{23.0}$	$\frac{-2.0}{18.0}$	+3.3	$\frac{+11.0}{20.5}$	$\frac{+13.8}{25.5}$
$\frac{+0.8}{21.3}$	$\frac{+2.5}{16.3}$	+9.0	$\frac{+20.4}{25.2}$	$\frac{+21.7}{30.2}$
$\frac{+2.9}{22.6}$	$\frac{+5.2}{17.6}$	+11.1	$\frac{+21.6}{25.4}$	$\frac{+23.6}{30.8}$
$\frac{+1.4}{21.3}$	$\frac{+2.6}{16.3}$	+10.0	$\frac{+21.8}{25.9}$	$\frac{+24.9}{30.9}$
$\frac{-1.4}{20.0}$	$\frac{0.0}{15.0}$	+6.7	$\frac{+17.2}{23.6}$	$\frac{19.8}{28.6}$

Euclid Ave

Sta	+	H.I.	-	Grade	Red
96		209.45 03.2 209.13 10.7 219.90		01.6	18.3
+50				04.6	15.3
97		00.4		07.6	12.3
+50				10.6	19.3
98		27.4 20.8 6.6 10.6 10.2 20.8		13.6	22.2
+50		233.68 9.92 243.60		16.6	19.2
98+82.47				18.6	17.2
99				19.6	16.2
+50				22.5	13.3
100				25.4	10.4
+50				28.3	17.3
101				31.2	14.4

Left	±	±	±	Right
6.5 26.6	-4.4 22.6	+5.0	+14.0 22.0	+16.4 27.0
-1.3 20.0	00 15.0	+7.4	+17.6 23.8	19.3 28.8
11.1 32.7	-8.5 27.7	+4.0	+12.0 21.0	14.3 26.0
7.8 29.0	-6.0 24.0	+1.0	+7.8 18.9	+10.2 23.9
1.7 21.3	+2.6 16.3	+7.0	+14.4 22.2	15.4 27.2
12.4 22.3	+4.5 17.3	+8.5	+13.5 21.8	14.2 26.8
11.2 21.5	+2.9 16.5	8.0	+13.9 22.0	15.3 27.0
+00	+1.8 15.9	+7.3	+14.3 22.2	+14.4 27.0
-1.4 20.7	+1.4 15.9	+7.2	+14.0 22.0	+14.0 27.0
+2.4 21.9	+3.7 16.9	+7.9	+11.2 20.8	+12.0 25.8
+8.3 24.4	+8.7 19.4	+9.0	+11.2 20.6	+11.0 25.6
+5.9 23.2	+6.4 16.2	+7.4	+8.4 19.2	+8.6 24.2

200.4

Euclid Ave

(11)

Sta.	+	H.I.	-	Grade	Rod	Left	±	Right
106		252.61 1.94 250.70 1.90 252.60		46.2				
100				46.5	6.1	$\frac{+0.1}{20.2}$	$\frac{+0.3}{15.2}$	$\frac{+1.4}{15.7}$ $\frac{-0.9}{20.7}$
107				46.8	5.8	$\frac{-0.1}{20.0}$	$\frac{0.0}{15.0}$	$\frac{+0.2}{15.1}$ $\frac{+0.6}{20.1}$
+50				47.1	5.5	$\frac{-0.9}{21.8}$	$\frac{-1.2}{16.8}$	$\frac{-0.2}{15.3}$ $\frac{-0.1}{20.5}$
108				47.4	5.2	$\frac{-2.1}{23.5}$	$\frac{-2.3}{18.5}$	$\frac{-1.3}{17.0}$ $\frac{-1.1}{22.0}$
+50				47.7	4.9	$\frac{-2.0}{23.0}$	$\frac{-2.0}{18.0}$	$\frac{-1.4}{17.1}$ $\frac{-1.3}{22.1}$
109				48.0	4.6	$\frac{0.0}{20.2}$	$\frac{+0.4}{15.2}$	$\frac{+1.2}{15.6}$ $\frac{+1.2}{20.6}$
+50				47.9	4.7	$\frac{+2.2}{21.2}$	$\frac{+2.4}{16.2}$	$\frac{+2.8}{16.4}$ $\frac{+2.9}{21.4}$
110				47.6	5.0	$\frac{+1.5}{20.7}$	$\frac{+1.4}{15.7}$	$\frac{+1.6}{15.8}$ $\frac{+1.7}{20.8}$
+50				47.7	5.4	$\frac{-0.9}{20.8}$	$\frac{-0.5}{15.8}$	$\frac{+0.7}{15.4}$ $\frac{+0.5}{20.4}$
111				46.8	5.8	$\frac{-2.7}{25.1}$	$\frac{-2.7}{19.1}$	$\frac{-1.6}{17.4}$ $\frac{-1.4}{22.4}$
+50				46.6	6.2	$\frac{-1.5}{23.5}$	$\frac{-2.3}{18.5}$	$\frac{-2.4}{18.6}$ $\frac{-1.8}{23.6}$

Fuchs Ave

(12)

Sta	+	H.I.	-	Grade	Rod	Left	±	Right		
		252.60								
		7.55								
112		245.05		46.0	6.6	- 1.1 22.0	- 1.3 17.0	- 3.2	- 2.5 18.7	- 2.1 23.7
		9.65								
		254.70								
150				45.6	7.0	+ 2.2 23.0	- 1.9 18.0	- 2.7	- 2.6 18.9	- 2.7 23.9
113				45.2	7.4	- 0.2 20.5	- 0.3 15.5	- 1.4	+ 0.6 15.3	+ 0.3 20.3
150				45.0	7.6	+ 2.1 20.8	+ 1.7 15.9	0.0	- 0.8 16.2	- 0.8 21.2
114				44.7	7.9	+ 4.0 21.9	+ 3.7 16.9	+ 2.2	+ 0.5 15.3	+ 0.3 20.3
150				44.4	10.3	+ 6.2 22.3	+ 4.6 17.3	+ 2.8	+ 1.5 15.8	+ 1.0 20.8
115				44.4	10.5	+ 5.3 22.4	+ 4.8 17.4	+ 3.3	+ 2.5 16.3	+ 2.1 21.3
150				43.9	10.8	+ 0.8 20.2	+ 0.3 15.2	- 0.6	0.0 15.0	- 0.3 20.0
116				43.7	11.0	+ 0.2 20.0	0.0 15.0	- 1.7	- 3.0 19.5	- 3.3 24.5
150				43.4	11.3	+ 7.3 22.7	+ 5.4 17.7	+ 1.5	+ 1.4 17.1	- 2.4 22.1
117				43.2	11.5	+ 7.3 23.2	+ 6.3 18.2	+ 2.7	+ 1.2 15.6	+ 0.8 20.6
150				42.9	11.8	+ 10.6 24.7	+ 9.4 19.7	+ 4.6	+ 2.4 16.2	+ 1.6 21.2

Euclid Ave

(13)

Sta.	+	H.I.	-	Grade	Rod	Left	±	Right	
118		254.70 10.89 243.81 4.88 248.69		42.7	12.0	+11.2 24.8	+9.5 19.8 +5.2	+2.3 16.5	+1.2 21.5
119		248.32 25 248.60 11.43 237.17 1.29 238.46 11.56 249.02		42.0	12.7	+11.7 25.3	+10.6 20.3 +7.2	+4.7 17.4	3.4 22.4
119		248.32 25 248.60 11.43 237.17 1.29 238.46 11.56 249.02		40.6	14.1	+13.3 26.1	+12.2 21.1 +8.5	+6.4 18.2	+5.4 23.2
120		248.60 11.43 237.17 1.29 238.46 11.56 249.02		38.5	10.2	+10.1 24.6	+9.2 19.6 +5.9	+4.6 17.3	+3.7 22.3
120		248.60 11.43 237.17 1.29 238.46 11.56 249.02		36.0	12.6	+5.9 22.5	+5.2 17.6 +3.0	+2.0 16.3	+2.2 21.3
120		248.60 11.43 237.17 1.29 238.46 11.56 249.02		33.5	15.1	+3.6 21.4	+3.3 16.7 +1.1	+0.3 15.2	0.0 20.2
121		248.60 11.43 237.17 1.29 238.46 11.56 249.02		31.0	7.9	+2.3 20.9	+1.8 15.9 +0.3	-0.3 15.5	-0.6 20.5
121		248.60 11.43 237.17 1.29 238.46 11.56 249.02		28.5	10.4	+3.1 21.4	+2.8 16.4 +1.3	+1.1 15.6	+0.5 20.6
122 +02.50		248.60 11.43 237.17 1.29 238.46 11.56 249.02		26.5	12.4	+5.4 22.7	+5.3 17.7 +3.3	+3.7 16.9	+3.4 21.9
122		248.60 11.43 237.17 1.29 238.46 11.56 249.02		26.0	12.9	+2.8 21.3	+2.5 16.3 +1.0	+1.7 15.9	+1.6 20.9
123 +02.90		248.60 11.43 237.17 1.29 238.46 11.56 249.02		25.5	1.1	-0.4 20.8	-0.5 15.8 -2.2	-1.6 17.4	-1.4 22.4
123		248.60 11.43 237.17 1.29 238.46 11.56 249.02		23.1	4.5	-2.1 23.0	-2.0 18.0 -2.9	-2.6 18.9	-2.9 23.9

Sta.	+	Height	-	Grade	Rod	Left	±	Right
		227.59 1119						(11)
124		$\sqrt{1640}$ - 0.06		20.6	7.0	$\frac{-6.1}{29.0}$	$\frac{-6.0}{24.0}$	$\frac{-3.7}{20.6}$
125		216.34 11.76		18.1	1.8	$\frac{-5.9}{29.2}$	$\frac{-6.1}{24.2}$	$\frac{-5.5}{24.3}$
125		204.58 1.11		15.6	0.7	$\frac{-5.5}{29.0}$	$\frac{-6.0}{24.0}$	$\frac{-6.5}{24.8}$
125		205.69		13.1	3.2	$\frac{-4.9}{28.1}$	$\frac{-5.6}{23.1}$	$\frac{-6.2}{24.3}$
126				10.6	5.7	$\frac{-5.0}{28.1}$	$\frac{-5.4}{23.1}$	$\frac{-6.7}{24.3}$
127				08.0	42.3	$\frac{-6.1}{29.0}$	$\frac{-6.4}{24.0}$	$\frac{-4.4}{21.6}$
127				05.8	40.1	$\frac{-7.1}{30.0}$	$\frac{-7.1}{25.6}$	$\frac{-5.6}{21.0}$
127				04.2	1.5	$\frac{-8.2}{32.6}$	$\frac{-8.4}{27.6}$	$\frac{-4.6}{21.9}$
128				03.3	1.4	$\frac{-9.5}{35.3}$	$\frac{-10.2}{30.3}$	$\frac{-6.3}{24.5}$

Euclid Arc See Page (8)

Refer Back to Page (8)

(15)

Sta.	+	H.I.	-	Grade	Point
		186.96			
		11.54			
93450		198.50		86.8	11.7
		9.2			
		8			
93489.12 BC		197.35		89.1	19.8
		11.35			
		3			
94		208.9		89.8	19.1
		3			
202				92.8	16.1
95				95.8	13.1
100				98.8	10.1
96 John BK				01.7	7.2
Equation -					
964.08.3.6 End					

Left	±	Right
$\frac{-2.5}{22.4}$	$\frac{-1.6}{17.4}$	$\frac{+18.2}{24.1}$
$\frac{+6.7}{24.1}$	$\frac{+19.8}{29.1}$	
$\frac{-3.8}{24.5}$	$\frac{3.0}{19.5}$	$\frac{+17.0}{23.5}$
$\frac{+5.8}{23.5}$	$\frac{+18.7}{28.5}$	
$\frac{-6.5}{27.5}$	$\frac{-5.0}{22.5}$	$\frac{+9.6}{19.8}$
$\frac{+11.5}{24.8}$		
$\frac{+0.1}{20.4}$	$\frac{+0.8}{15.4}$	$\frac{+8.7}{23.9}$
$\frac{+17.8}{23.9}$	$\frac{+20.2}{28.9}$	
$\frac{-4.5}{21.8}$	$\frac{-1.2}{16.8}$	$\frac{+15.4}{22.7}$
$\frac{+18.4}{27.7}$		
$\frac{-2.9}{21.8}$	$\frac{-1.2}{16.8}$	$\frac{+14.6}{22.3}$
$\frac{+16.8}{27.3}$		

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H

Euclid Arc

(16)

Sta.	+	H.I.	-	Grade	Rot.	Left.	±	Right				
1284.50		205.69 - 0.90 204.79 9.50 214.29		02.6	3.1	(-10.7) 37.4	-11.6 32.4	11.5 4.0	-9.6 28.5	(-9.0) 28.5	(8.2) 33.5	
12.9				03.0	2.7	(10.5) 35.0	(-10.0) 30.0	-5.1	(2.5) 130	(-1.9) 179	(0.9) 22.9	
7.50				03.9	10.4	(-1.0) 20.0	00 150	+0.8	+1.0 100	+1.8 11.0	+3.0 16.5	(+3.3) 21.5
130				04.8	9.5	(+2.0) 21.2	+2.4 16.2	+3.0	+3.0 11.0	+5.3 17.7	(+5.0) 22.7	
130				05.6	8.7	(+2.1) 21.2	+2.3 16.2	+2.8	+4.0 17.0		(+4.4) 22.0	
131				05.9	8.4	(+3.7) 21.9	+3.8 16.9	+4.3	+5.4 17.7		(+5.6) 22.7	
130		214.29 6.35 207.94 4.57 212.51		05.7	8.6	(+2.9) 21.5	+3.0 16.5	+4.1	+5.3 17.7		(+5.4) 22.7	
132				05.0	9.3	(+2.0) 21.2	+2.3 16.2	+4.8	+5.7 17.4		(-0.4) 22.4	
130				03.7	8.8	(+3.6) 21.9	+3.7 16.9	+5.0	+6.3 18.2		(+6.6) 23.2	
133				02.4	10.1	(+4.6) 22.4	+4.7 17.4	+5.2	+6.0 18.0		(+5.9) 23.0	
130				01.1	11.4	(+3.9) 21.9	+3.8 16.9	+3.6	+3.0 16.5		(+4.0) 21.5	
134				99.8	14.7	(+1.0) 20.8	+1.1 15.8	+1.0	+1.7 15.9		(+1.3) 20.9	

Euclid Arc

Sta	+	High	-	Grade	Rsd	Left	Right
		212.51					
		-11.66					
		<u>200.85</u>					
150		201.82		98.5	3.3		
		-11.84					
		<u>190.04</u>					
135				97.2	4.6		
150				95.9	5.9		
136				94.6	7.2		
125		Put it in		94.0	7.8		
150		190.01		93.0	9.8		
		-0.28					
		<u>190.29</u>					
137				91.0	10.8		
150				89.0	1.3		
138				87.0	3.3		
150				85.0	5.3		
139				83.0	7.3		

$\frac{-1.2}{21.5}$	$\frac{-1.0}{16.5}$	-1.5	$\frac{-0.7}{16.1}$	$\frac{-0.5}{21.1}$
$\frac{-1.5}{22.6}$	$\frac{-1.7}{17.6}$	-2.3	$\frac{-1.5}{17.3}$	$\frac{-1.5}{22.3}$
$\frac{-1.9}{22.7}$	$\frac{-1.8}{17.7}$	-1.8	$\frac{-0.8}{16.2}$	$\frac{-0.7}{21.2}$
$\frac{-1.1}{20.6}$	$\frac{-0.6}{15.6}$	-0.6	$\frac{+0.1}{15.5}$	$\frac{+1.2}{20.5}$
$\frac{0.0}{20.0}$	$\frac{0.0}{15.0}$	-0.7	$\frac{+1.2}{15.6}$	$\frac{+1.4}{20.6}$
$\frac{+1.0}{20.3}$	$\frac{+0.6}{15.3}$	+0.5	$\frac{+1.6}{15.8}$	$\frac{+1.8}{20.8}$
$\frac{-0.9}{20.9}$	$\frac{-0.6}{15.9}$	-0.5	$\frac{+1.4}{15.7}$	$\frac{+1.7}{20.7}$
$\frac{-0.8}{21.5}$	$\frac{-1.0}{16.5}$	-1.4	$\frac{-0.6}{15.9}$	$\frac{-0.5}{20.9}$
$\frac{0.7}{20.3}$	$\frac{-0.7}{15.3}$	-0.9	$\frac{-0.6}{15.9}$	$\frac{-0.5}{20.9}$
$\frac{+1.0}{20.4}$	$\frac{+0.8}{15.4}$	0.0	$\frac{+1.2}{15.0}$	$\frac{+1.1}{20.0}$
$\frac{-0.8}{20.3}$	$\frac{+0.6}{15.3}$	+0.2	$\frac{+0.5}{15.3}$	$\frac{+0.2}{20.3}$

Euclid Arc

(18)

Sta.	4	H.I.	Grade	Rod	Left	±	Right	
139.50		190.29 11.44 <hr/> 178.85 17.23	81.0	9.3	$\frac{+0.2}{20.2}$	$\frac{+0.3}{15.2}$	$\frac{+0.7}{15.0}$	$\frac{-0.2}{20.0}$
140		18.11 <hr/> 6.26 174.85 Temp BM	79.0	11.3	$\frac{+1.3}{20.5}$	$\frac{+1.0}{15.8}$	$\frac{-1.3}{16.0}$	$\frac{-0.7}{21.0}$
1450		7.15 <hr/> 175.90 11.61 Elev = 164.29 2.08 H.I. = 166.37	77.0	4.1	$\frac{+0.3}{20.0}$	$\frac{0.0}{15.9}$	$\frac{-0.8}{15.0}$	$\frac{-0.1}{16.0}$
141			75.0	0.9	$\frac{-0.2}{21.0}$	$\frac{0.0}{15.0}$	$\frac{-0.6}{15.1}$	$\frac{+0.2}{20.1}$
1450			73.0	2.9	$\frac{0.0}{20.0}$	$\frac{0.0}{15.0}$	$\frac{-0.4}{15.3}$	$\frac{+0.5}{20.3}$
142			71.0	4.9	$\frac{-0.2}{20.1}$	$\frac{+0.2}{15.1}$	$\frac{-0.5}{15.2}$	$\frac{+0.6}{20.2}$
1450			69.0	6.9	$\frac{+0.8}{20.3}$	$\frac{+0.6}{15.3}$	$\frac{-0.2}{15.2}$	$\frac{+0.7}{20.2}$
143			67.6	8.3	$\frac{-0.4}{20.8}$	$\frac{-0.5}{15.8}$	$\frac{-1.2}{16.0}$	$\frac{-1.0}{21.5}$
1450			66.2	9.7	$\frac{+1.4}{20.7}$	$\frac{+1.4}{15.7}$	$\frac{-0.4}{15.6}$	$\frac{-0.4}{20.6}$
144			64.2	11.2	$\frac{+0.3}{20.2}$	$\frac{+0.4}{15.2}$	$\frac{0.0}{15.5}$	$\frac{+1.2}{20.5}$
1450			63.1	12.8	$\frac{+1.1}{20.6}$	$\frac{+1.2}{15.6}$	$\frac{+0.9}{15.9}$	$\frac{+1.5}{20.9}$

Euclid Arc

(19)

Sta.	+	H.I.	-	Grade	Pod	Left		Right
144+55	BC	166.37 11.35 155.02 Elev		63.1	3.3			
145+05.08	Ext.	155.56 7.54 155.56 H.I.	4.1	61.7	4.7	$\frac{+3.2}{21.6}$	$\frac{+3.2}{16.6}$	$\frac{+3.4}{16.7}$ $\frac{+3.3}{21.7}$
145+55.16	PRC.	144.80 0.29 144.89 H.I.		60.3	6.1	$\frac{+3.5}{21.9}$	$\frac{+3.7}{16.9}$	$\frac{+3.3}{16.6}$ $\frac{+2.8}{21.6}$
146+05.24	Ext.	132.95 1.94 132.95 Elev.		58.9	7.5	$\frac{+4.6}{22.4}$	$\frac{+4.7}{17.4}$	$\frac{+2.8}{16.4}$ $\frac{+2.8}{21.4}$
146+55.02	EC - Back			56.7	9.7	$\frac{+1.8}{21.2}$	$\frac{+2.9}{16.2}$	$\frac{+4.8}{17.4}$ $\frac{+4.7}{22.4}$
146+53.99	Fwd.							
147.				53.2	13.2	$\frac{+2.0}{21.5}$	$\frac{+3.0}{16.5}$	$\frac{+7.6}{18.8}$ $\frac{+8.0}{23.8}$
+50				48.5	17.9	$\frac{+3.8}{22.3}$	$\frac{+4.6}{17.3}$	$\frac{+11.9}{21.0}$ $\frac{+12.6}{26.0}$
148.				42.8	22.6	$\frac{+3.1}{21.7}$	$\frac{+3.4}{16.7}$	$\frac{+11.3}{20.7}$ $\frac{+12.8}{25.7}$
+50			5.8	39.1	16.5	$\frac{-2.0}{22.1}$	$\frac{-1.4}{17.1}$	$\frac{+2.6}{16.3}$ $\frac{+3.1}{21.3}$
149.				24.4	10.5	$\frac{-6.3}{29.3}$	$\frac{-6.2}{24.3}$	$\frac{-1.3}{17.0}$ $\frac{-0.7}{22.0}$
+50				29.7	3.8	$\frac{-3.7}{25.6}$	$\frac{-3.7}{20.6}$	$\frac{-3.2}{19.8}$ $\frac{-2.8}{24.8}$

Euclid Ave

(20)

Sta	+	H.I.	-	Grade	Dist	Left	α	Right
		133.46						
		17.48						
		122.03						
		7.37						
150		123.40	H.I.	250	8.5	$\frac{+0.2}{20.2}$	$\frac{+0.3}{15.2}$	-0.9
		70.34						$\frac{0.0}{15.0}$
		113.06	Elev					$\frac{+0.4}{20.0}$
		5.85						
150		118.91	H.I.	209	12.6	$\frac{+1.6}{21.0}$	$\frac{+2.0}{16.0}$	+3.1
		6.96						$\frac{+3.4}{16.7}$
		111.95	Temp BM					$\frac{+3.5}{21.7}$
			1 inch pipe					
151			sta 155150	18.3	5.1	$\frac{+0.2}{20.0}$	$\frac{0.0}{15.0}$	-1.0
								$\frac{+0.7}{15.4}$
								$\frac{+0.9}{21.4}$
150				16.8	6.6	$\frac{+1.1}{20.6}$	$\frac{+1.2}{15.6}$	+0.1
								$\frac{+0.5}{15.3}$
								$\frac{-1.7}{20.3}$
152				16.1	7.3	$\frac{+0.1}{20.0}$	$\frac{0.0}{15.0}$	0.0
								$\frac{+0.4}{15.2}$
								$\frac{+0.3}{20.2}$
150				15.4	8.0	$\frac{-0.2}{21.2}$	$\frac{-0.8}{16.2}$	-0.2
								$\frac{-1.2}{16.8}$
								$\frac{-0.0}{21.8}$
153				14.7	8.7	$\frac{-1.7}{22.6}$	$\frac{-1.2}{17.6}$	+0.2
								$\frac{+0.3}{15.2}$
								$\frac{0.0}{20.2}$
150				14.0	9.4	$\frac{+0.9}{20.3}$	$\frac{+0.6}{15.3}$	+0.5
								$\frac{+0.8}{15.4}$
								$\frac{+0.7}{20.4}$
154				13.3	10.1	$\frac{+0.8}{20.5}$	$\frac{+1.0}{15.3}$	0.0
								$\frac{+0.6}{15.3}$
								$\frac{+0.3}{20.3}$
150				6.2 12.7	10.7	$\frac{+0.2}{20.2}$	$\frac{+0.4}{15.2}$	-1.8
								$\frac{-0.3}{15.5}$
								$\frac{-0.5}{20.0}$
155				12.5	6.4	$\frac{+0.3}{20.1}$	$\frac{+0.2}{15.1}$	+0.3
								$\frac{+0.4}{15.2}$
								$\frac{+0.5}{20.2}$
150				12.9	6.0			

Euclid Ave

(2)

Sta.	+	H.I.	-	Grade	Pod	Left		Right	
155+50		118.91 29 118.62 Elev.	13.5	5.4	(-5.5) 28.4	-5.6 23.4	-6.7	(-2.6) 18.9	(-2.8) 23.9
156+22.5		11.40 130.02 1.8 129.84 Elev.	14.0	4.9	(-3.9) 26.8	(-4.5) 21.8	-5.2	(-5.5) 23.3	(-6.6) 28.3
156+50		2.91 138.60 Elev. 9.60 148.20 H.I.	14.8	4.1	(-4.6) 27.2	(-4.8) 22.2	-5.6	(-5.8) 23.7	(-5.9) 28.7
157			16.4	2.5	(0.0) 23.3	(-2.2) 19.3	(-3.5) 11.0	(-7.0) 6.0	(-7.7)
+50			17.9	12.1	(+20.1) 29.4	(+18.7) 24.4	+19.1	(+4.8) 17.4	(+3.7) 22.4
158			19.5	21.5	(+20.3) 29.7	(+19.3) 24.7	+13.8	(+9.5) 19.8	(+9.0) 24.8
+50			20.1	20.9	(+22.7) 30.8	(+21.5) 25.8	+16.1	(+13.6) 21.8	(+12.9) 26.8
159									
159+04.52 Bc			18.8	22.2	(+27.0) 33.1	(+26.2) 28.1	+20.4	(+18.0) 24.0	(+15.9) 29.0
159+54.60 Ext.			15.9	32.3 25.1	(28.0) 33.9	27.8 28.9	+22.0	(+18.0) 24.0	(+16.2) 29.0

Euclid Ave.

(22)

Sta.	+	H.I.	-	Grade	Roll	Left		Right
		148.20						
		17.04						
		137.19 Elev-						
160 to 4.68 PRC.		0.40		12.9	24.7	(+30.1)	+30.0	+18.3
		137.59 H.I.			28.1	35.0	30.0	24.2
		11.51						(+17.3)
		126.08						29.2
160 to 5.4.76 EXT.		6.1		10.0	27.6	(+22.9)	+22.3	+13.1
		126.75				31.2	26.2	21.6
		11.08						(+11.3)
		115.67						26.6
161 to 4.84 EC (BK)		6.3		09.3	17.5	(+11.6)	+11.0	+4.0
		116.30				25.5	20.5	17.0
		11.05						(+2.5)
		105.25 Elev Temp						22.0
161 to 3.51 E.C. (Fwd)		5.28						
		108.53						
		161+50						
		11.05						
		105.25						
		5.28						
		108.53						
		161+50						
		11.05						
		105.25						
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		108.53						
		161+50						
		11.05						
		105.25						

Euclid Ave

(23)

Sta.	+	H.I.	-	Grade	Pod.	Left		Right
165+00		108.53 4.02 104.51 Elev- 4.83 109.34 H.I.		03.5	5.0	$\frac{-6.3}{29.0}$	$\frac{-6.0}{24.0}$	-8.0 $\frac{-8.0}{27.0}$ $\frac{-7.4}{32.0}$
165+30		103.88 2.06 105.94 13 105.81 Elev- 11.55 117.36 H.I.		03.5	5.0	$\frac{-8.4}{32.6}$	$\frac{-8.4}{27.6}$	-9.2 $\frac{-8.8}{28.2}$ $\frac{-8.8}{33.2}$
165+50				03.8				
165+68 = P.I.				Top Rail 04.55				
166				03.8	2.1	$\frac{-6.1}{33.8}$	$\frac{-7.2}{25.8}$	-7.4 $\frac{-7.6}{26.4}$ $\frac{-7.5}{31.4}$
167				03.5	2.4	$\frac{-3.9}{26.0}$	$\frac{-4.0}{21.0}$	-5.0 $\frac{-7.2}{25.8}$ $\frac{-6.9}{30.8}$
168				03.3	2.6	$\frac{-4.2}{26.9}$	$\frac{-4.6}{21.9}$	-5.1 $\frac{-5.0}{22.5}$ $\frac{-5.2}{27.5}$
169				03.0	2.9	$\frac{-2.6}{24.5}$	$\frac{-3.0}{19.5}$	-4.1 $\frac{-2.6}{18.9}$ $\frac{-2.6}{23.9}$
170				02.9	3.0	$\frac{-1.1}{22.3}$	$\frac{-1.5}{17.3}$	-2.2 $\frac{-1.2}{16.8}$ $\frac{-0.8}{21.8}$
171				03.9	2.0	$\frac{-0.8}{21.5}$	$\frac{-1.0}{16.5}$	-1.8 $\frac{-1.4}{17.1}$ $\frac{-1.3}{22.1}$
172				06.5	+10.6	$\frac{-2.6}{24.5}$	$\frac{-2.9}{19.5}$	-3.8 $\frac{-3.6}{20.4}$ $\frac{-4.0}{25.4}$

Euclid Ave

(24)

Sta.	+	H.I.	-	Grade	Pod	Left		Right
169+50		117.36 H.I. 116.47 Elev. 11.35 127.82	10.0	7.4		$\frac{-3.4}{25.4}$	$\frac{-3.6}{21.4}$ -3.8	$\frac{-3.0}{19.5}$ $\frac{-3.0}{24.5}$
170		126.66 Elev. 11.37 138.03 H.I. 7.48	14.8	2.6		$\frac{-0.8}{21.4}$	$\frac{-0.9}{16.4}$ -0.2	$\frac{-0.2}{15.3}$ $\frac{-0.2}{20.3}$
150		130.56 B.M. 10.29 140.85 11.12	19.8	8.0		$\frac{-0.8}{21.4}$	$\frac{-0.9}{16.4}$ -0.4	$\frac{+2.2}{16.1}$ $\frac{+3.2}{21.1}$
171		129.71 Elev. 5.39 135.10 H.I.	24.8	13.2		$\frac{+4.3}{22.3}$	$\frac{+4.6}{17.3}$ +5.5	$\frac{+8.3}{19.2}$ $\frac{+9.1}{24.2}$
150		145.60 H.I.	29.5	8.5		$\frac{+6.7}{23.2}$	$\frac{+6.3}{18.2}$ +6.2	House
172			31.7	9.2		$\frac{+3.6}{21.6}$	$\frac{+3.2}{16.6}$ +2.0	$\frac{+2.6}{16.3}$ $\frac{+2.6}{21.3}$
150			32.6	8.3		$\frac{-2.0}{23.0}$	$\frac{-2.0}{18.0}$ -3.3	$\frac{-5.7}{23.6}$ $\frac{-6.2}{28.6}$
173			33.7	7.7		$\frac{-3.1}{24.7}$	$\frac{-3.1}{19.7}$ -4.1	$\frac{-3.5}{20.3}$ $\frac{-3.8}{25.3}$
150			33.8	7.1		$\frac{+2.9}{21.0}$	$\frac{+2.0}{16.0}$ +2.0	$\frac{+0.9}{15.5}$ $\frac{+0.6}{20.5}$
174			34.4	6.5		$\frac{+4.2}{22.3}$	$\frac{+4.5}{17.3}$ +4.0	$\frac{+4.1}{17.1}$ $\frac{+4.1}{22.1}$
150			35.0	5.9		$\frac{+4.1}{22.1}$	$\frac{+4.1}{17.1}$ +4.3	$\frac{+5.2}{17.6}$ $\frac{+5.2}{22.6}$
175			35.6	5.3		$\frac{-6.1}{29.0}$	$\frac{-6.0}{24.0}$ -6.2	$\frac{-5.5}{23.3}$ $\frac{-5.6}{28.3}$

Eusled. Arc

(25)

Sta	+ H.I. -	Grade	Pod	Left	±	Right
175	135.10 11 <u>134.99</u> Elev. 10.50 145.49	36.2	+1.1	$\frac{-15.6}{43.9}$ $\frac{-15.6}{38.4}$	-16.0	$\frac{-18.2}{42.3}$ $\frac{-18.4}{47.3}$
176	144.98 51 <u>145.49</u> 10.69 155.17	36.8	+1.7	$\frac{-5.3}{27.8}$ $\frac{-5.2}{22.8}$	-5.6	$\frac{-4.6}{21.9}$ $\frac{-4.4}{26.9}$
179	155.53 Elev. 10.63 166.16	37.4	8.1	$\frac{+3.8}{21.9}$ $\frac{+3.3}{16.9}$	+3.3	$\frac{+3.0}{16.5}$ $\frac{+2.4}{21.5}$
177		38.0	7.5	$\frac{+3.0}{21.6}$ $\frac{+3.1}{16.6}$	+3.0	$\frac{+3.8}{16.9}$ $\frac{+3.8}{21.9}$
175		38.6	6.9	$\frac{+2.4}{21.2}$ $\frac{+2.4}{16.2}$	+2.0	$\frac{+1.4}{15.7}$ $\frac{+1.1}{20.7}$
178		39.2	6.3	$\frac{+2.5}{21.2}$ $\frac{+2.3}{16.2}$	+0.7	$\frac{+1.3}{15.7}$ $\frac{+0.9}{20.7}$
179		39.8	5.7	$\frac{+3.7}{21.7}$ $\frac{+3.4}{16.7}$	+2.7	$\frac{+1.8}{15.9}$ $\frac{+1.3}{20.9}$
179		40.4	5.1	$\frac{+1.6}{20.5}$ $\frac{+1.0}{15.5}$	0.0	$\frac{-1.1}{16.7}$ $\frac{-1.6}{21.7}$
179		41.6	3.9	$\frac{-4.3}{28.3}$ $\frac{-5.5}{23.3}$	-7.6	$\frac{-6.2}{24.3}$ $\frac{-6.1}{29.3}$
180		43.6	1.9	$\frac{-1.3}{21.8}$ $\frac{-1.2}{16.8}$	0.0	$\frac{+1.9}{16.0}$ $\frac{+2.2}{21.0}$
179		47.1	8.6	$\frac{+3.6}{22.2}$ $\frac{+4.4}{17.2}$	+6.0	$\frac{+8.0}{19.0}$ $\frac{+8.6}{24.0}$
181		52.1	3.6	$\frac{+0.6}{20.7}$ $\frac{+1.4}{15.7}$	+4.5	$\frac{+7.0}{18.5}$ $\frac{+7.7}{23.5}$

Eucalyptus Arc

Feb. 25 1927
O.S. Thompson

(27)

Sta.	+	H.I.	-	Grade	Rob	Left	Right
		111.95					
		6.68					
		118.63					
		1.65					
		116.98					
154+00		11.37		13.3	5.3	+0.8 20.5	+0.3 20.3
		128.35					
450		1.10		12.7	5.9	-0.5 20	-1.3 22.0
		127.25					
		11.28					
		138.53					
155				12.5	6.1	+0.3 20.1	-1.7 22.0
150				12.9	5.7	-0.6 20.9	-0.9 22.6
155+92.50				13.5	5.1	4.4 26.6	-3.9 22.4
153							
156+00				14.0	4.6	4.2 26.3	4.8 22.5
156+00				14.8	3.8	4.6 26.9	6.4 30.5
159				16.4	2.2	0.4 23.3	-2.6 32.5
450				17.9	20.6	+17.5 20.0	+3.7 22.4

Euclid Ave

Sta.	+	H.I.	-	Grade	Red	Left
158		138.53 0.40 ----- 138.13 10.91 ----- 149.04		19.5	19.0	+188 ----- 20
100				20.1	28.9	+198 ----- 20
159 to 4.52 BC.				18.8	30.2	+206 ----- 20
				15.9	33.1	+238 ----- 20

(28)

Right

+91

251

+123

264

+159

290

Header Grades
Header Grades

Sta.	Left	Right
76+00	76.28	76.78
77+00	76.17	76.47
77+25.31	75.80	76.40
+40	75.57	76.17
+75	75.34	75.94
78+00	75.10	75.70
+25	74.90	75.50
+50	74.80	75.40
+75	74.90	75.50
79+00	75.10	75.70
+25	75.35	75.95
+50	75.60	76.20
+75	75.85	76.45
80+00	76.10	76.70
+25	76.35	76.95
+50	76.61	77.21
+75	76.86	77.46
81+00	77.10	77.70
+25.32	77.40	78.00
81+30.39		
End.		

① Dropped profile Grade 0.3' for inside of Curve.

② Raised profile Grade 0.3' for outside of Curve

This makes -0.2 and +0.4

March 6-1917
 ogy

— Rods —

Left	Right
4.87 ✓	4.57 ✓
5.24 ✓	4.64 ✓
5.47 ✓	4.87 ✓
5.70 ✓	5.10 ✓
5.94 ✓	5.34 ✓
6.14 ✓	5.54 ✓
6.24 ✓	5.64 ✓
6.14 ✓	5.54 ✓
5.94 ✓	5.34 ✓
6.00 ✓	5.40 ✓
5.75 ✓	5.15 ✓
5.50 ✓	4.90 ✓
5.25 ✓	4.65 ✓
5.00 ✓	4.40 ✓
4.74 ✓	4.14 ✓
4.49 ✓	3.89 ✓
4.23 ✓	3.63 ✓
3.95 ✓	3.35 ✓

181.35 = H.I.
 3.08
 178.27
 4.56
 182.83

1.50 fill

Hand Grades

Sta.	E	Left	Right
82+00	178.40	78.28	78.28
+25	178.55	78.43	78.43 ✓
+50	178.60	78.48	78.48 ✓
+75	178.50	78.38	78.38 ✓
83+00	178.20	78.08	78.08
+25	77.40	77.28	77.28
+50	76.60	76.48	76.48
84+00	175.80	75.68	75.68
+25	175.50	75.38	75.38
+50	175.30	75.18	75.18
+75	175.20	75.00	75.40
85+00	175.30	75.00	75.70
+25	175.44	75.11 ✓	75.82 ✓
86+00	175.58	75.28	75.98
+25	175.74	75.44	76.14
+50	175.90	75.60	76.30
+75	176.07	75.77	76.47
87+00	176.23	75.93	76.63
+25	176.39	76.09	76.79
+50	176.56	76.26	76.96
+75	176.72	76.42	77.12
88+00	176.89	76.59	77.29
+25	177.05	76.75	77.45
88+50	177.20	76.90	77.60 ✓
88+65	177.35		

.7 dipper across
 Pavement
 920

Lowered inside .3 below Profile
 Paved outside .4 above

(30)

Rod
Left Right

4.55 ✓	4.55 ✓
4.40 ✓	4.40 ✓
4.35 ✓	4.35 ✓
4.45 ✓	4.45 ✓
4.75 ✓	4.75 ✓
5.55 ✓	5.55 ✓
6.35 ✓	6.35 ✓
7.15 ✓	7.15 ✓
7.45 ✓	7.45 ✓
7.65 ✓	7.65 ✓
7.83 ✓	7.43 ✓
7.83 ✓	7.13 ✓
5.65 ✓	4.95 ✓
5.49 ✓	4.79 ✓
5.33 ✓	4.63 ✓
5.17 ✓	4.47 ✓
5.00 ✓	4.30 ✓
4.84 ✓	4.14 ✓
4.68 ✓	3.98 ✓
4.51 ✓	3.81 ✓
4.35 ✓	3.65 ✓
4.18 ✓	3.48 ✓
4.02	3.32 ✓
3.87	3.17 ✓

H.I.
 80.77
 4.81
 175.96
 ✓
 Turn
 8.11

Header Grades

Sta.	E	Left	Right
	83.02		
88+65.18 EC		76.90	77.60
89		77.30	77.65
89+50		77.70	77.70
90+00		78.70	78.70
+00		79.70	79.70
91+00		80.70	80.70
91+50		81.70	81.70
92+00		82.70 82.70	82.70
92+50	183.80	94.70	183.70
+75	184.20	84.10	84.10
93	185.00	84.90	84.90
+25	186.00	85.80	86.00
+50	187.37	87.07	87.47
93+89.22	189.80	89.40	90.20
+75		90.03	90.83
+25		91.49	92.29
+50		92.95	93.75
+75	209.85	94.41	95.21
95		95.87	96.67
+25		97.33	98.13
+50		98.79	99.59
+75		200.25	201.05
96		201.71	202.51
96+01.52	202.20	201.80	202.60
96+08.26 EC			

Used 0.8' Super across Flat

83.0
72
5.8

Rod

(31)

Left	Right
6.12	5.42 ✓
5.72	5.37 ✓
5.72	5.37 ✓
5.32	5.32 ✓
4.32	4.32 ✓
3.32 ✓	3.32 ✓
2.32 ✓	2.32 ✓
1.32 ✓	1.32 ✓
.32 ✓	.32 ✓
11.00 ✓	11.00 ✓
10.60 ✓	10.60 ✓
9.80 ✓	9.80 ✓
8.90 ✓	8.70 ✓
7.63 ✓	7.23 ✓
5.30 ✓	4.50 ✓
4.67 ✓	3.87 ✓
3.21 ✓	2.51 ✓ ← 241
1.75 ✓	.95 ✓
10.44 ✓	9.64 ✓
8.98 ✓	8.18 ✓
7.52 ✓	6.72 ✓
6.06 ✓	5.26 ✓
4.60 ✓	3.80 ✓
?	
3.05	2.25 ✓

Header Grades

Sta.	£		Left	Right
		214.75		
96+50	204.74		204.48	204.91
97	207.83		207.70	207.70
+50	210.91		210.82	210.82
98	214.01		213.91	213.91
+50	217.10	224.97	217.23	216.75
98+82.47	RC. 219.10		219.40	218.60
99	220.14	231.66	20.42	19.62
+50	221.58		21.88	21.08
+50	223.04		23.34	22.54
+75	224.50		24.80	24.00
+50	225.96		26.26	25.46
+50	227.42		27.72	26.92
+50	228.88		29.18	28.38
+75	230.34		30.64	29.84
+50	231.80	239.58	32.10	31.30
+50	233.26		33.56	32.76
+50	234.72		35.02	34.22
101+82.21	RC. 236.80		37.10	36.30
101+89.89	End.	246.27		
102+00	37.40		37.70	36.90
+25	38.90		39.20	38.40
+50	40.10		40.40	39.60
+75	40.90		41.20	40.40
103+00	41.60		41.90	41.10

Roll

(32)

Left Right

10.27 ✓	9.84 ✓
7.05 ✓	7.05 ✓
3.93 ✓	3.93 ✓
.84 ✓	.84 ✓
7.74 ✓	8.22 ✓
5.57 ✓	6.37 ✓
11.24 ✓	12.04 ✓
9.78 ✓	10.58 ✓
8.32 ✓	9.12 ✓
6.86 ✓	7.66 ✓
5.40 ✓	6.20 ✓
3.94 ✓	4.74 ✓
2.48 ✓	3.28 ✓
1.02 ✓	1.82 ✓
7.48 ✓	8.28 ✓
6.02 ✓	6.82 ✓
4.56 ✓	5.36 ✓
2.48 ✓	3.28 ✓
8.57 ✓	9.37 ✓
7.07 ✓	7.87 ✓
5.87 ✓	6.67 ✓
5.07 ✓	5.87 ✓
4.37 ✓	5.17 ✓

T.P. F.M.
237.98
RC.C.
1017 89.89

5.30

Header Grades

Sta.	±		Left	Right
103+125	42.2✓	246.27	42.5✓	41.7✓
+50	42.66		42.96	42.16
+75	43.10		43.40	42.60
104+100	43.54		43.84	43.04
+25	43.99	246.40	44.29	43.49
+50	44.43		44.73	43.93
+75	44.88		45.18	44.38
105+100	45.32		45.62	44.82
+25	45.77	252.38	46.07	45.27
+50	46.21		46.51	45.71
105+75 E.C. Equation 249.75	246.70		47.00	46.20
106				
+50	47.0✓	252.28	47.00	46.90
+75	47.3✓		47.20	47.20
+50	47.63		47.51	47.51
108	47.93		47.81	47.81
+50	48.14		48.12	48.1✓
+75 B.C.	48.40		48.30	48.30
109	48.47		48.37	48.37
+25	48.50		48.40	48.40
+50	48.43		48.33	48.33
109+75 E.C.	48.20		48.20	48.20

See Book - 256 - pg - 26

for Continuation

Roll

33

Left	Right
3.88	4.68
3.75✓	4.55✓
3.44	4.29
3.31✓	4.11✓
3.00	3.80
2.87✓	3.67✓
2.56	3.31
2.43✓	3.23
2.11✓	2.91✓
1.67✓	2.47✓
1.22✓	2.02✓
.78✓	1.58✓
6.31✓	7.11✓
5.81✓	6.67✓
5.28✓	6.08✓
5.28✓	5.38✓
5.08✓	5.08✓
4.77✓	4.77✓
4.47✓	4.47✓
4.16✓	4.16✓
3.98✓	3.98✓
3.91✓	3.91✓
3.88✓	3.88✓
3.95✓	3.95✓
4.08✓	4.08✓

Header Grades

Sta.		Left	Right
		118.62	
15492.5	N. Brq. Face	114.00	113.90
4.75		113.71	113.61
4.50		113.35	113.25
4.25		113.11	113.01
154700		113.05	112.95
154775		113.04	112.94
154400		113.01	113.11
154325		113.50	113.40
154400		113.85	113.75
153450		114.54	114.44
153400		115.23	115.13
152450	126.21	115.95	115.85
152400	126.21	116.61	116.51
151450		117.30	117.20
151425		118.00	117.90
151400		118.80	118.70
150425		120.00	119.90
150450	126.11	121.40	121.30
150425		123.30	123.20
150400		125.50	125.40
149450	135.26	130.20	130.10
149400		134.90	134.80
148450	146.50	139.60	139.50
148400		144.30	144.20

Rods

(34)

Left	Right
472 ✓	472 ✓
501 ✓	501 ✓
537 ✓	537 ✓
560 ✓	560 ✓
567 ✓	567 ✓
568 ✓	568 ✓
551 ✓	551 ✓
522 ✓	522 ✓
487 ✓	487 ✓
418 ✓	418 ✓
349 ✓	349 ✓
1039 ✓	1039 ✓
970 ✓	970 ✓
901 ✓	901 ✓
831 ✓	831 ✓
751 ✓	751 ✓
631 ✓	631 ✓
481 ✓	481 ✓
291 ✓	291 ✓
071 ✓	071 ✓
516 ✓	516 ✓
046 ✓	046 ✓
700 ✓	700 ✓
230 ✓	230 ✓

Elev = 124.59
Sta 150450

Header Grades

Sta. ± Left Right

147+50	157.45	149.00	148.90	148.90
147+00		153.70	153.60	153.60
146+75		155.80	155.60	155.80

Deflection

{
 Decent - 1.024
 25.64 - Long Side
 24.44 - Short

146+53.89 Fwd. E.C.				
146+55.30 5°44'10"	157.20	156.90	157.30	
146+30.28 4°18'	158.40	158.10	158.50	166.67
146+05.24 2°52'	159.40	159.10	159.50	
145+80.20 1°26' P.C. 02.00	160.10	159.90	60.10	
145+55.16 5°44'10"	160.80	160.70	160.70	
145+30.14 4°18'	161.50	161.50	161.30	
145+05.08 2°52'	162.20	162.30	161.90	
144+80.04 1°26'	162.90	163.00	162.60	
144+55 = B.C. 0°00'	163.60	163.70	163.30	
144+00	165.18	165.08	165.08	

Should check with
 previous work
 893

(25)

Rods
 Left Right

8.55 ✓	8.55 ✓
3.85 ✓	3.85 ✓
1.85 ✓	1.65 ✓

0.55 ✓	15 ✓	$\Delta = 112.28 - 40$ $R = 500'$ $T = 50.25$ $L = 100.10$
8.67 ✓	8.27 ✓	
7.67 ✓	7.27 ✓	
6.87 ✓	6.67 ✓	
6.07 ✓	6.07 ✓	
5.17 ✓	5.37 ✓	
4.37 ✓	4.77 ✓	
3.67 ✓	4.07 ✓	
2.97	3.37 ✓	
1.59		

924.50
891.50

30.00

186.54
11.38

197.92

10.07

9 29.9

10 48.4

1.29

10 58.4

1.29

12 17.4

1.29

12 27.4

13 56.4

12 27.4

1 29.0

11 8.9

12 27.9

10 48.4

10 39.0