

W
474

WITTING
TRANSIT BOOK

MICROFILMED
JAN 13 1965

13.3
11
133
133
146.3
20.0

~~13.3~~
~~13.3~~
~~20~~
~~146.3~~

474

672.3
644.9
27.4

11.5
633.4
644.9

INDEX

Spillway Construction

Subgrade	1-2
Side Walls	3
Working Points Sketch	4
R.P.s to $\frac{1}{4}$ Stat. + Anchor Stakes	5
Original Slope Stakes + $\frac{1}{4}$ Cuts 7+40 to 15+5222	6-8 12-24
Original Slope Stakes + $\frac{1}{4}$ Cuts 15+5222 to 24+5085	25-
Stations of Original X Sections Sta 7+40 to 15+5222	6-
Original Slope stakes + $\frac{1}{4}$ cuts 15+5222 to river	34-37
Set Slope Stakes, Cut Stakes, Top nail points, Finish gr. etc	9-66 68-71
Stakes at E. end. Spillway equs in warped sec	67

Note: Add 1.05 for finish conc.
7+40 to 11+00²⁹

SPILLWAY Subgrades

7+40	667.96	9+50	601.99
+50	664.81	+60	598.85
+60	661.67	+70	595.71
+70	658.53	+75	594.14
+75	656.95	+80	592.57
+80	655.38	+90	589.43
+90	652.24	10+00	586.29
8+00	649.10	+10	583.15
+10	645.96	+20	580.01
+20	642.82	+23 ²	578.75
+25	641.25	+25	578.44
+25	641.25	+30	576.87
+30	639.68	+37 ²	573.95
+40	636.54	+40	573.73
+40	636.54	+50	570.58
+50	633.40	+60	567.44
+60	630.26	+70	564.30
+70	627.12	+75	562.73
+75	625.55	cut off 10+80 ²⁹	561.97
+80	623.98	+90	558.02
+90	620.84	B.V.C. 11+00 ²⁹	554.79
9+00	617.69		
+10	614.55		
+20	611.41		
+25	609.84		
+30	608.27		
+40	605.13		

Slope = 31.41%

start of 150' width

Start 2' floor

31.46
5
31.70

31.4
5.3
942
1570
16.642
570
7.41

627.62

97.26
96.21
2.05

668.96
642.25
26.71

Spillway Subgrades

Note: 11+00²⁹ to 15+52²⁹
 to subgrade 1 lower 10+80²⁹ to 12+35²⁹

Station	Subgrade	Height	Subgrade	Height
B.V.C. 11+00 ²⁹	554.79	13+25	541.72	15+30 541.08
+10	551.76	+30	541.70	+40 541.05
+20	549.46	+40	541.67	+52 ²⁹ 541.00
+30	547.22	+50	541.64	
+40	545.43	+60	541.61	
+50	544.03	+70	541.58	
+60	543.01	+75	541.57	
+70	542.29	+80	541.55	
E.V.C. 11+80 ²⁹	542.16	+90	541.52	
+90	542.13	14+00	541.48	
12+00	542.10	+10	541.45	
+10	542.07	+20	541.42	
+20	542.04	+25	541.40	
+25	542.02	+30	541.39	
End of Pier 2 130	542.01	+40	541.36	
+40	541.98	+50	541.33	
+50	541.95	+60	541.30	
+60	541.92	+70	541.27	
+70	541.89	+75	541.25	
+75	541.88	+80	541.24	
+80	541.86	+90	541.21	
+90	541.83	15+00	541.17	
13+00	541.77	+10	541.14	
+10	541.76	+20	541.11	
+20	541.73	+25	541.10	

Slope = 0.003

Slope = 0.001

Grades of Side Wall

Note: 20' wall parallel to finish floor grade from 7+40 to 10+23³⁶

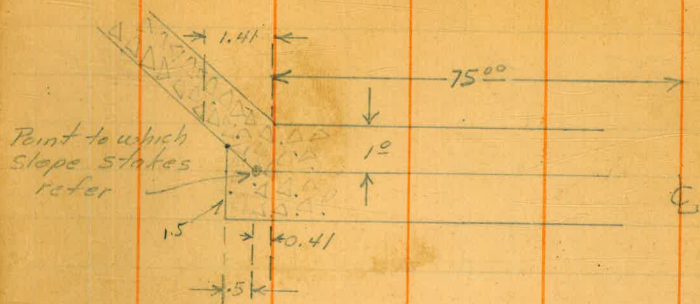
10+23 ³⁶	600.00	12 +50	582.88	14+80	565.46
+30	599.50	+60	582.12	+90	564.71
139 ²²	598.80	+70	581.37	15+00	563.95
+50	598.00	+80	580.61	+10	563.20
+60	597.24	+90	579.85	+20	562.44
+70	596.48	13 +00	579.09	+30	561.68
+80	595.73	+10	578.34	+40	560.93
+90	594.97	+20	577.58	+50	560.17
11+00 ²³	594.19	+30	576.82	15+52 ²⁹	560.00
+10	593.46	+40	576.07		
+20	592.71	+50	575.31		
+30	591.95	+60	574.55		
+40	591.19	+70	573.79		
+50	590.44	+80	573.04		
+60	589.68	+90	572.28		
+70	588.92	14 +00	571.52		
+80 ²³	588.15	+10	570.76		
+90	587.41	+20	570.00		
12+00	586.65	+30	569.25		
+10	585.90	+40	568.49		
+20	585.15	+50	567.73		
+30	584.40	+60	566.98		
+40	583.64	+70	566.22		

Slope .0756

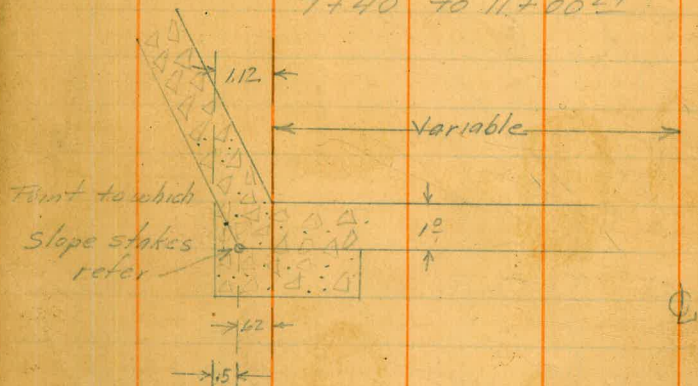
Slope .0756

Slope .0756

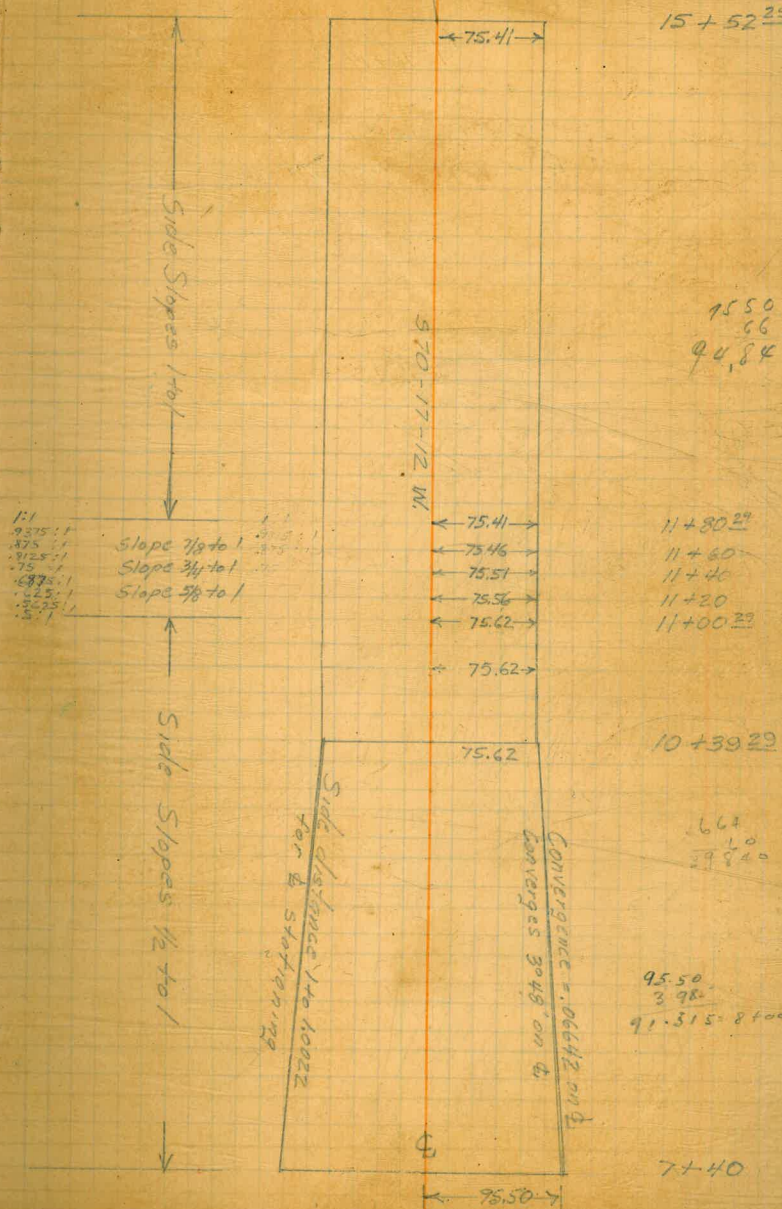
Working Point of Toe
 $11+80^{29}$ to $15+52^{29}$

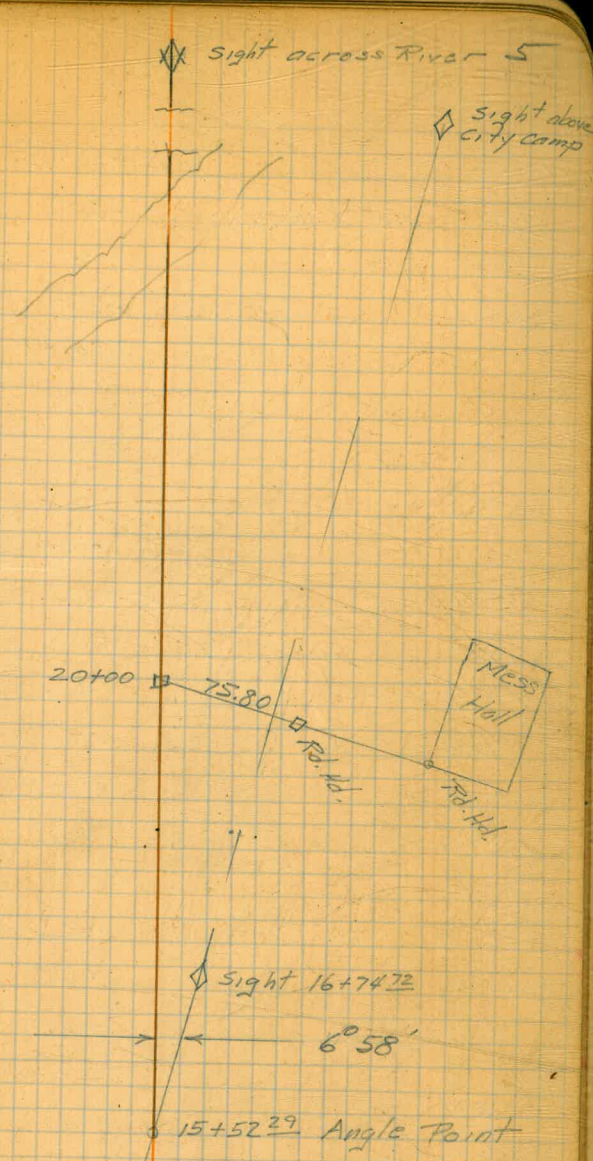
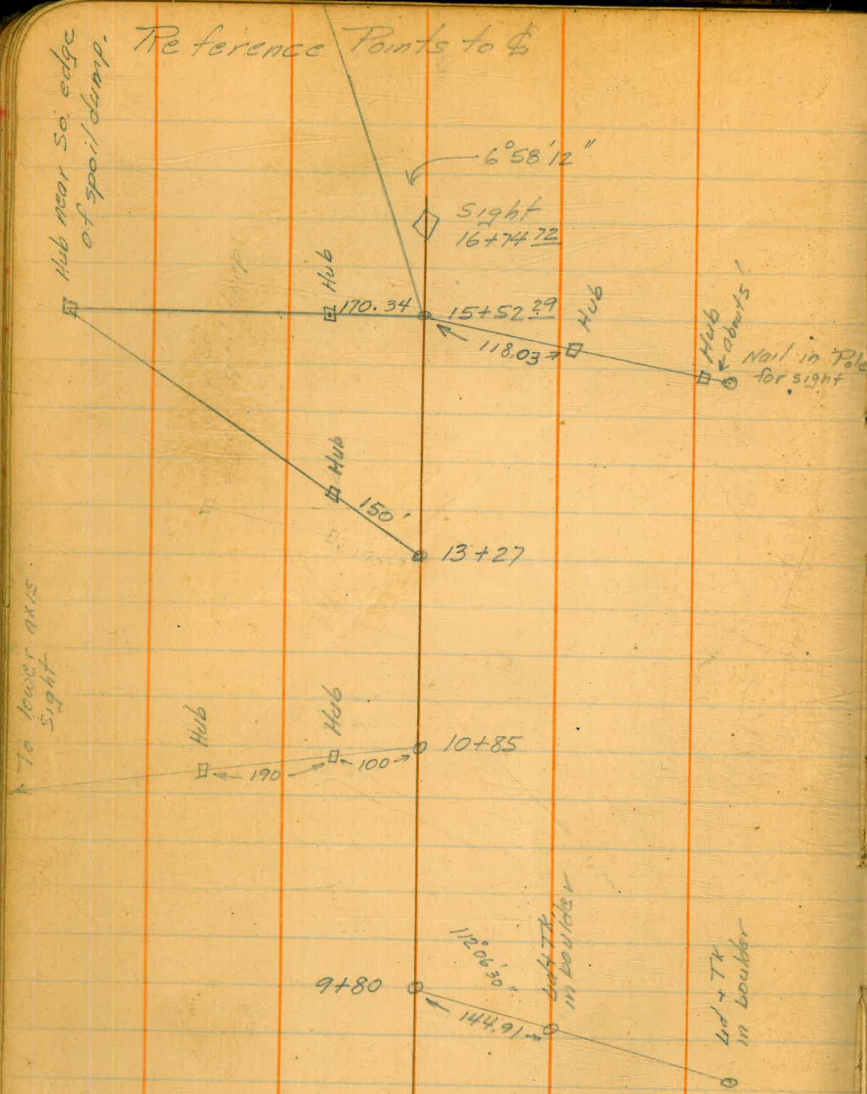


Working Point of Toe
 $7+40$ to $11+00^{29}$



Lines to which slope stakes
 are set $6^{\circ}58''$





Stations of Original X Sections
 as taken by Bob Loudon from contour
 map.

7+43	11+00 ²⁹
148	+20
150	+40
160	+60
175	+80 ²⁹
8+00	12+00
+10	+25
+15	+50
+25	+75
+35	13+00
+50	+10
+55	+25
+60	+40
+75	+50
9+00	+75
+25	14+00
+50	+25
+65	+50
+75	+60
10+00	+75
+10	15+00
+25	+25
+39 ²⁹ #1	15+52 ²⁹
50 Here to 15+50	From 15+52 ²⁹ to
75	River are on 25
85	stations.

Spillway Extension
Bench Marks.

May-7-1934

Simpson
Soper
Remmen.

B.M.			655.80	
	2.95	658.75		
T.P.			12.72	646.03
	0.46	646.49		
T.P.			12.77	633.72
	0.17	633.89		
Set B.M.			1.47	632.42 on Boulder
T.P.			13.09	620.80
	0.39	621.19		
T.P.			11.14	610.05
	1.74	611.79		
B.M.			7.83	603.96
				Rec. Elev. 603.82
B.M.	2.42	658.22		655.80
T.P.			12.20	646.02
	0.68	646.70		
T.P.			13.01	633.69
	1.20	634.89		
B.M.			2.50	632.39 on Boulder
T.P.			12.265	622.625
	0.555	623.180		
T.P.			11.61	611.570
	0.755	612.325		
B.M. check.			8.490	603.835
				Rec. Elev. 603.82

North Side of Spillway
40' N. of 10+25 Slope Stake

North Side of Spillway
40' N. of 10+25 Slope Stake

Stations of Anchors on
sides. First anchor 3' from subg. on slope

15+46 13+96 12+46

+40 +90 +40

+34 +84 +34

+28 +78 +28

+22 +72 +22

+16 +66 +16

+10 +60 +10

+04 +54 +04

14+98 +48 - 11+98

+92 +42 +92

+86 +36 +86

+80 +30 +80

+74 +24 +74

+68 +18 +68

+62 +12 +62

+56 +06 +56

+50 13+00 - +50

+44 12+94 +44

+38 +88 +38

+32 +82

+26 +76

+20 +70

+14 +64

+08 +58

+02 +52

+60 = Angle = $41^{\circ}11' - 1^{\circ}50' + 4^{\circ}51'$

Angle = $39^{\circ}07' - 1^{\circ}56' + 4^{\circ}05'$

+40 = angle $34^{\circ}31' - 1^{\circ}64' + 74'$

Cuts to finish grades at anchors

1.41

1

5.65

2

9.89

3

14.13

4

18.37

5

22.61

6

26.85

7

31.09

8

35.33

9

39.57

10

43.81

11

42.3 16.7
37.1 43.5
3.1

8/3/34

Elevs. of Top of Wall, For Setting
Anchor Holes

6.90

595.05

588.15

11+74

6.4

588.6

11+68

5.9

589.1

11+62

5.5

589.5

11+56

5.05

590.0

11+50

4.61

590.44

11+44

4.15

590.90

11+38

3.71

591.34

11+32

3.25

591.80

11+26

2.80

592.25

11+20

2.34

592.71

Reset slope stakes
Move 15+52²⁹ to 15+50

Aug. 10-1934

Simpson
Super
Isabelle

9

B.M.	5.27	579.53		574.26
				<u>Subgrade</u>
15+50		3.11	576.42	541.02
"		17.31	562.22	541.02
15+50		8.1	571.4	541.02

C-35⁴ out 25⁴ No. Side Orig. Ground.

C-21² out 21²

C-30⁴ out 30⁴ So. Side Orig. Ground.

Slope stakes - So. Side

Aug. -14-1934

B.M.				633.90
	1.26	635.16		
T.P.			13.01	622.45
	0.40	622.55		
T.P.			12.93	609.62
	0.40	610.02		
10+50		9.84	600.18	570.58
+39 ²⁹		10.37	599.65	573.95
+25		11.38	598.64	578.44
10+00		12.93	597.09	586.29
9+75		9.08	600.94	594.14
+50		3.63	606.39	601.99
T.P.	12.72	622.45	0.29	609.73
+25			9.41	613.04
9+00			1.86	620.59
T.P.			0.66	621.79
T.P.	12.57	634.36	0.24	634.12
T.P.	7.15	641.27	3.02	638.25

C-29⁶ out 14⁸

C-25² out 12⁸³

C-20² out 10¹

C-10⁸ out 5²

C-6² out 3²

C-4⁴ out 2²

638.40-

C-3² out 1⁶

C-2⁹ out 1⁴⁵

641.27
7.57
633.73

Vertical cuts to Bottom of Footing
along North Side. - Aug. 14-1934

B.M.	7.54	641.44	633.90
T.P.		12.76	628.68
	0.44	629.12	
		8.50	620.62
			slope stake 9+00
T.P.		12.89	616.23
	0.52	616.75	
		3.69	613.06
			slope stake 9+20
		10.34	606.41

Vertical Cut Points - No Side

B.M.	0.55	634.45	633.90
8+75		8.40	626.05
T.P.		12.92	621.53
	0.66	622.19	
9+00		4.00	618.19
Set B.M.		1.61	620.58
T.P.		12.98	609.21
	0.71	609.92	
9+30		1.15	608.77
+50		7.43	602.49
Set B.M.		10.66	599.26
		3.49	606.43

Aug. -16-1934

Slope Stake 10+75 - No. Side	12.09	581.62	569.53
10+50		10.54	571.08
10+39 ⁹		7.17	574.45
10+25		2.68	578.94

Simpson.
Saper
Isabelle

No. Side wall
Sta. 9+00

No. Side Elev. 606.39

		581.62		
T.P.	12.33	591.26	2.69	578.93
9+75			2.90	588.36
T.P.	9.97	600.45	0.78	590.48
9+70			4.24	596.21
B.M.			1.19	599.26

Finish Grades Floor
Aug. - 16 - 1934

10+80 ²⁹	1.19	570.72	569.53	Slope Stake at
			8.60	562.12
11+00 ²⁹ ♀	2.16	564.29		562.13
" 60 N. of ♀			7.2	557.1 553.8
T.P.			8.6	555.7 553.8
	0.50	552.27	12.52	551.77
				Subgrade
11+20 ♀			2.87	549.40 548.40
+40			6.07	546.20 544.4
+60			6.7	545.6 542.0
+80 ²⁹			8.0	544.3 541.2
			3.18	549.09 ^{2100.566} 11+80 ²⁹
Slope Stake 12+25 So. side	2.43	547.65		545.22
o 12+30 ²⁹ Finish Grade			4.69	543.01
	1.72	546.94		545.22
12+30 ²⁹			3.93	543.01
12+70			4.05	542.89
Vertical cut 12+75 So. side	4.47	546.69		542.22
12+70			3.80	542.89
13+00			3.90	542.79

10+75 - No. Side
Cut 6⁰⁰

C-3³
C-1²

Set Pin C-1²
cut 1⁸
cut 3⁶
cut 3¹

So. Side Elev. 549.06

Finish Grades - Aug. - 16 - 1934

Vertical cut 12+60 No. side	4.46	546.60		542.14
13+00			3.81	542.79
+50			3.96	542.64
Vertical cut 14+00 No. side	4.70	546.68		541.98
			4.17	543
13+50			4.04	542.64
14+00			4.20	542.48
14+40			4.32	542.36
+50			4.35	542.33
15+00			4.51	542.17

So. side line cuts & slope stakes.

B.M.	9.86	706.22		696.36		
T.P.			1.25	704.97		
	2.47	707.44				
				<u>Subgrade</u>		
7+50	Side Line		2.5	704.9	664.8	
7+50	Slope stake		2.8	704.6	664.8	✓
7+75	Side Line		3.5	703.9	657.0	✓
"	Slope stake		3.5	703.9	"	
8+00	Side Line		9.3	698.1	649.1	✓
"	Slope stake		4.3	703.1	"	
8+25	Side Line		13.5	693.9	641.2	³
"	Slope stake		3.2	704.2	"	
T.P.			12.67	694.77		
	0.20	694.97				
8+50	Slope stake		8.3	686.7	633.4	⁵
T.P.			12.79	682.18		
	1.39	683.57				
8+50	Side Line		14.1	669.5	633.4	

March 24, 1934

Simpson

Soper

Rammert.

12

cut 40⁺

cut 39[±] out 19[±]

cut 46[±]

cut 46[±] out 23[±]

cut 49[±]

cut 54[±] out 27[±]

cut 52[±]

cut 63[±] out 31[±]

cut 53[±] out 26[±]

cut 36⁺

South

	683.57			Subgrade
8+75 slope stake	16.4	667.2	625.6	✓
T.P.	8.62	674.95	674.85	Rec. Elev.
B.M. 9.89	642.53	632.64		
8+75 side line	+6.4	648.9	625.6	
9+00 side line	6.9	635.6	617.7	⁸
" slope stake	4.0	638.5	"	
9+25 side line	6.9	635.6	609.8	⁹
" slope stake	5.2	637.3	"	
9+50 side line	7.5	635.0	602.0	✓
" slope stake	7.1	635.4	"	
9+65 side line	8.0	634.5	597.3	✓
" slope stake	7.5	635.0	"	

March 24, 1934

.13

cut 41⁸ out 20⁸

check on T.P. - Book 466 - P. 65

cut 23³

cut 17²

cut 20² out 10²

cut 25²

cut 27² out 13²

cut 33²

cut 33² out 16²

cut 37²

cut 37² out 18²

Mar 26-1934

Elliott
Simpson
Soper
Remmen

14

Slope + Cut Stakes South Side - Subgrade

	2.08	634.72		632.64		
9+75	Side		10.0	624.7	594.7	C 30.6
9+75	Slope Stake		9.9	624.8	"	C 30.7 out 15.4
T.P.	0.62	622.41	12.93	621.79		
10+00	Side		15.6	606.8	586.3	C 20.5
"	Slope Stake		6.7	615.7	"	C 29.4 out 14.7
T.P.	0.43	610.20	12.64	609.77		
10+25	Side		9.1	601.1	578.4	C 22.7
"	Slope Stake		2.8	607.4	"	C 29.0 out 14.5
10+39 ²⁹	Side		10.7	599.5	574.0	C 25.5
"	Slope Stake		8.8	601.4	"	C 27.4 out 13.7
10+50	Side		10.6	599.6	570.6	C 29.0
"	Slope Stake		11.6	598.6	"	C 28.0 out 14.0
10+75	Side		12.6	597.6	562.7	C 34.9
"	Slope Stake		13.4	596.8	"	C 34.1 out 17.1
B.M.			6.26	603.94	603.82	
	6.26	610.08				
T.P.			12.63	597.45		
	0.70	598.15				

Slope + Side Cuts So. Side

Station	Description	Dist	598.15	Subgrade	554.8	Notes
11+00 ²⁹	Side	14.2	584.0	554.8 ✓	629.2	
	T.P.	6.50	591.65			
		1.77	593.42			
11+00 ²⁹	Slope stake	9.0	584.4 ✓	554.8 ✓	Cut 29 ¹ / ₂ out 14.8	
11+20	side	10.6	582.8	549.4	C 33.4	
"	Slope stake	0.3	593.1 ✓	"	C 43.7 out 27.3 3/8 tol	
11+40	Side	13.8	579.6	545.4	C 34.2	
"	Slope stake	0.2	593.2	"	C 47.8 out 35.8 3/4 tol	
11+60	side	15.0	578.4	543.0	C 35.4	
"	Slope stake	2.7	590.7	"	C 47.7 out 41.7 7/8 tol	
11+80 ²⁹	Side	13.1	580.3	542.2	C 38.1	
"	Slope stake	2.1	591.3	"	C 49.1 out 49.1 1/4 tol	
12+00	side	12.6	580.8	542.1 ✓	C 38.7	
"	Slope Stake	3.4	590.0	"	C 47.9 out 47.9	
12+25	Side	13.3	580.1	542.0 ✓	C 38.1	
"	Slope Stake	5.5	587.9	"	C 45.9 out 45.9	

Slope + Side Cuts So. Side

593.43

12+50	Side	13.1	580.3	542.0	C. 38.3 ✓
"	Slope Stake	6.7	586.7	"	C. 44.7 out 44.7
12+75	Side	13.2	580.2	541.9 ✓	C. 38.3
"	Slope Stake	8.3	585.1	"	C. 43.2 out 43.2
13+00	Side	15.4	578.0	541.8 ✓	C. 36.2
"	Slope stake	16.9	576.5	"	C. 34.7 out 34.7
T.P.		11.97	581.46		
	0.55	582.01			
13+25	Side	0.9	581.1	541.7 ✓	C. 39.4
"	Slope Stake	7.4	574.6	"	C. 32.9 out 32.9
13+50	Side	2.8	579.2	541.6 ✓	C. 37.6
"	Slope Stake	8.0	574.0	"	C. 32.4 out 32.4
13+75	Side			541.6 ✓	
"	Slope Stake	5.7	576.3	"	C. 34.7 out 34.7
14+00	Side	5.4	576.6	541.5 ✓	C. 35.1
"	Slope Stake	5.5	576.5	"	C. 35.9 out 35.0
14+25	Slope Stake	5.2	576.8	541.4 ✓	C. 35.4

Slope & side cuts South Side

	582.01			Subgrade	
14+50 Side		6.4	575.6	541.3 ✓	6.34.3 ✓
" Slope Stake		4.9	577.1	"	6.35.8 out 35.8
14+75 Slope Stake		6.9	575.1 ✓	541.3 ²	6.33.8 out 33.8
15+00 Side		7.6	574.4	541.2 ✓	6.33.2
" Slope Stake		8.5	573.5	"	6.32.3 out 32.3
15+25 Slope Stake		10.5	571.5	541.1 ✓	6.30.5 ¹⁰ out 30.5 ¹
15+52.27 Side		11.6	570.4	541.0 ✓	6.29.4
" Slope Stake		12.1	569.9	"	6.28.9 out 28.9

Q Cuts

582.01

15+52 ²⁹	13.3	562.7	✓	541.0	C 27.7
15+25	16.0	66.0	✓	41.1	C 24.9
15+00	12.4	69.6	✓	41.2	C 28.4
14+75	13.0	69.0	✓	41.2	C 27.8
+50	13.2	68.8	✓	41.3	C 27.5
+25	10.2	71.8	✓	41.4	C 30.4
14+00	6.9	75.1	✓	41.5	C 33.6
13+75	1.8	80.2	✓	41.6	C 38.6
+50	0.1	81.9	✓	41.6	C 40.3
T.P.	1.14	580.87	✓		

11.68 592.55

13+00	11.1	81.5	✓	41.8	C 37.7
12+75	12.1	80.5	✓	41.9	C 38.6
+50	13.3	79.3	✓	42.0	C 37.3
+30 ² End 2' floor					
+25	13.6	79.0	✓	41.0	C 38.0
12+00	14.0	78.6	✓	41.1	C 37.5
11+80 ²⁹	13.6	79.0	✓	41.2	C 37.8
+60	14.1	78.5	✓	42.0	C 36.5
+40	13.0	79.6	✓	44.4	C 35.2
+20	13.5	79.1	✓	48.4	C 30.7
11+00 ²⁹	4.3	88.3	✓	53.8	C 34.5
T.P.	0.86	591.69			

§ Cuts

Mar 27 - 1934
Elliott - Simpson
Seper - Remney

B.M.	12.06	615.88		603.82		
10+75			9.8	606.1 ✓	562.7	C 43.4
10+50			9.9	606.0 ✓	570.6	C 35.4
+25			9.0	606.9 ✓	578.4	C 28.5
10+00			+0.1	616.0 ✓	586.3	C 29.7
B.M.	6.73	639.37		632.64		
9+80			8.4	631.0 ✓	592.6	C 38.4
+50			7.3	632.1 ✓	602.0	C 30.1
+25			7.0	632.4 ✓	609.8	C 22.6
9+00			6.3	633.1 ✓	617.7	C 15.4
8+75			3.8	635.6 ✓	625.6	C 10.0
+62			4.7	634.7 ✓	629.6	C 5.1
B.M.	10.11	684.96		674.85		
8+36 ⁸			22.3	662.7 ✓	637.5	C 25.2
8+13 ⁵			5.0	680.0 ✓	644.8	C 35.2
8+00			4.4	680.6 ✓	649.1	C 31.5
7+75			4.7	680.3 ✓	657.0	C 23.3
7+50			+4.0	689.0 ✓	664.8	C 24.2

Mar 27-1934

20

Side & Slope Cuts No. Side

684.96

7+75	Side	6.6	678.4	657.0	621.4
"	Slope Stake	9.4	675.6	"	618.6 out 9.3
T.P.	0.09	672.65	12.40	672.56	
8+00	Side	2.6	670.0	649.1	620.9
"	Slope Stake	3.7	668.9	"	619.8 out 9.9
8+25	Side	4.3	668.3	644.2	627.1
8+35	Slope Stake	6.8	665.8	638.1	627.7 out 13.9
T.P.	0.17	659.87	12.95	659.70	
8+50	Side	5.5	654.4	633.4	621.0
"	Slope Stake	4.5	655.4	"	622.0 out 11.0
8+75	Slope Stake	8.9	651.0	625.6	625.4 out 12.7
B.M.		4.10	655.77	655.80	

Mar 27 - 1934

21

Side + Slope Stakes		No.	Side			
B.M.	12.42	645.06		632.64		
8+75	Side	8.0	637.1	625.6	C 11.5	
9+00	Side	12.1	633.0	617.7	C 15.3	
"	Slope Stake	6.8	638.3	"	C 20.6 out 10.3	
9+25	Slope Stake	1.0	644.1	609.8	C 34.3 out 17.2	
9+50	Slope Stake	13.1	632.0	602.0	C 30.0 out 15.0	
B.M.	2.04	634.68		632.64		
10+00	Side	4.6	630.1	586.3	C 43.8	
"	Slope Stake	4.6	630.1	"	C 43.8 out 21.9	
10+25	Side	5.6	629.1	578.4	C 50.7	
"	Slope Stake	5.1	629.6	"	C 51.2 out 25.6	
10+39 ²⁹	Slope Stake	5.1	629.6	574.0	C 55.6 out 27.8	
"	Side	14.7	620.0	"	C 46.0	
10+50	Slope Stake	5.4	629.3	570.6	C 58.7 out 29.4	
T.P.	0.42	622.47	12.63	622.05		

Side & Slope Stakes No. Side

10+50	Side	622.47	6.3	616.2	570.6	C 45.6	
10+75	Side		9.7	612.7	562.7	C 50.0	
"	Slope Stake		4.9	617.6	562.7	C 54.9	out 27.4
11+00 ²⁹	Side		8.2	614.3	554.8	C 59.5	
"	Slope Stake		4.7	617.8	"	C 63.0	out 31.5 1/2 to 1
11+20	Side		7.2	615.3	549.4	C 65.9	
"	Slope Stake		2.7	619.8	"	C 70.4	out 44.0 9/8 to 1
11+40	Side		12.2	610.3	545.4	C 64.9	
"	Slope Stake		3.1	619.4	"	C 74.0	out 55.5 3/4 to 1
11+60	Slope Stake		8.0	614.5	543.0	C 71.5	out 62.6 7/8 to 1
T.P.		610.05	13.09	609.38			
11+80 ²⁹	Slope Stake		10.6	599.5	542.2	C 57.3	out 57.3
12+00	"	"	12.4	597.7	542.1	C 55.6	out 55.6
12+25	"	"	13.7	596.3	542.0	C 54.3	out 54.3
T.P.			13.02	597.03			

End Mar 27-1934

Mar. 28 - 1934

Side + Slope Stakes No. Side

T.P.	0.21	577.24		577.03	
12+50	Slope Stake		1.7	575.5	542.0
					Subj ✓ C 53.5 out 53.5
12+75	"	"	3.4	572.8	541.9
					✓ C 51.9 out 51.9
13+00	"	"	4.4	572.8	541.8
					✓ C 51.0 out 51.0
13+25	"	"	4.0	573.2	541.7
					✓ C 51.5 out 51.5
13+50	"	"	11.2	586.0	541.6
					✓ C 44.4 out 44.4
T.P.	0.19	584.41	13.02	584.22	
13+75	Side		4.5	577.9	541.6
					C 38.3
13+50	"		3.4	581.0	541.6
					C 39.4
13+25	"		4.9	579.5	541.7
					C 37.8
13+00	"		4.8	579.6	541.8
					C 37.8
12+75	"		5.2	579.2	541.9
					C 37.3
11+8029	"		3.6	580.8	542.2
					C 38.6

Mar 28 - 1934

Side	Slope Cuts	No.	Side			
	584.41					
13+75	Slope Stake	4.7	579.7	541.6	C38.1	out 38.1
14+00	Side	5.7	578.7	541.5	C37.2	
"	Slope Stake	5.4	579.0	"	C37.5	out 37.5
14+25	Side	9.7	577.7	541.4	C33.3	
"	Slope Stake	12.6	571.8	"	C30.4	out 30.4
14+50	Side	12.3	572.1	541.3	C30.8	
"	Slope Stake	11.3	573.1	"	C31.8	out 31.8
T.P.	4.88	578.12	11.17	573.24		
14+75	Side	10.2	567.9	541.2	C26.7	
"	Slope Stake	10.6	567.5	"	C26.3	out 26.3
15+00	Side	11.8	566.3	541.2	C25.1	
"	Slope Stake	9.8	568.3	"	C27.1	out 27.1
15+25	Side	1.8	576.3	541.1	C35.2	
T.P.	1.52	578.08	1.56	576.56		
15+25	Slope Stake	0.5	577.6	541.7	C36.5	out 36.5
15+52.29	"	1.4	576.7	541.0	C35.7	out 35.7
B.M.		7.99	570.09	569.75		

Gr Cuts on Spillway Extension
April 5 - 1934

25

B.M.	5.96	575.91		569.95		
16+00			4.9	571.0	542.0	C 29.0
+50			5.8	70.1	"	C 28.1
17+00			10.8	65.1	"	C 23.1
T.P.	1.73	567.35	10.29	565.62		
+50			2.0	65.4	"	C 23.4
18+00	Voided by		2.0	65.4	"	C 23.4
+50	Line Change		1.5	62.9	"	C 20.9
19+00			6.6	60.8	"	C 18.8
+50			6.2	61.2	"	C 19.2
20+00			7.5	59.9	"	C 17.9
T.P.	4.41	564.24	7.52	559.83	Hub at Sta 20+00	
+50			4.4	59.8	"	C 17.8
21+00			3.5	60.7	"	C 18.7
+50			4.5	59.7	"	C 17.7
22+00			6.4	57.8	"	C 15.8
+50			6.3	57.9	"	C 15.9
23+00			7.9	56.3	"	C 14.3
+50			10.0	54.2	"	C 12.2
24+00			16.1	48.1	"	C 6.1
+50 ⁸⁵			20.3	543.9	542.0	C 1.9

Orig. Slope Stakes on Spillway Extension
 April 6 - 1934 Elliott-Soper-Treiman
 Grade

Note: 50' bottom
 Side slopes 1:1

26

B.M.		6.22	576.17		569.95		
16+00	So.			6.5	69.7	542.0	C 27.7 out 52.2 (From E)
+50	"			8.0	68.2	"	C 26.2 51.2
17+00	"			7.4	68.8	"	C 26.8 51.8
17+00	No.			4.1	72.1	"	C 30.1 55.1
17+50	"			4.6	71.6	"	C 29.6 54.6
17+50	So.			11.0	65.2	"	C 23.2 48.2
18+00	"			12.7	63.5	"	C 21.5 46.5
18+50	"			12.9	63.3	"	C 21.3 46.3
18+00	No.			6.3	69.9	"	C 27.9 52.9
18+50	"			6.7	69.5	"	C 27.5 52.5
B.M.		5.71	575.64		569.95		
19+00	No.			8.2	67.5	"	C 25.5 50.5
+50	"			7.7	68.0	"	C 26.0 51.0
20+00	"			6.9	68.8	"	C 26.8 51.8
+50	"			7.6	68.1	"	C 26.1 51.1
21+00	"			6.8	68.9	"	C 26.9 51.9
21+50	"			6.5	69.2	"	C 27.2 52.2
T.P.		2.42	569.97	8.11	567.55		
22+00	No.			1.6	68.4	"	C 26.4 51.4
+50	"			3.9	66.1	"	C 24.1 49.1
19+00	So.			7.2	62.8	"	C 20.8 45.8
+50	"			7.9	62.1	"	C 20.1 45.1
20+00	"			13.1	56.9	"	C 14.9 39.9
+50	"			14.3	55.7	"	C 13.7 38.7

Voided by
 line change

Orig. Slope Stakes April 6 - 1934

569.97

21+00 So.			10.9	559.1	542.0	C 17.1	out 42' (from Φ)
+50 "			12.9	57.1	"	C 15.1	40'
T.P.	4.83	663.30	11.50	558.47			
22+00 So.			6.4	56.9	"	C 14.9	39.9
+50 "			10.9	52.4	"	C 10.4	35.4
23+00 No.			0.1	63.2	"	C 21.2	46.2
23+00 So.			8.7	54.6	"	C 12.6	37.6
23+50 So.			13.8	47.5	"	C 7.5	32.5
23+50 No.			5.7	57.6	"	C 15.6	40.6
T.P.	3.04	558.29	8.05	555.25			
24+00 No.			2.6	55.7	"	C 13.7	38.7
24+00 So.			13.5	44.8	"	C 2.8	27.8
24+50 ⁸⁵ No.			7.8	48.8	"	C 6.5	31.5
24+50 ⁸⁵ So.			9.4	48.7	"	C 6.9	31.9

Voided by line change

Cut Stakes on Spillway Extension
 April 12-1934
 Elliott-Soper-Remmen

B.M.	5.69	575.64	569.95	Grade
16+00	4.6	71.0	✓ 542.0	
"	So.	5.9	69.7 ✓ "	
"	No.	2.8	72.8 ✓ "	
16+50	4.5	571.1	✓ "	
"	So.	7.2	68.4 ✓ "	
"	No.	4.6	71.0 ✓ "	
17+00	7.0	68.6	✓ "	
"	So.	7.2	68.4 ✓ "	
"	No.	6.6	69.0 ✓ "	
17+50	10.0	65.0	✓ "	
"	So.	10.6	65.0 ✓ "	
"	No.	10.0	65.6 ✓ "	
T.P.	2.90	568.40	10.14	565.50
18+00	4.2	64.2	✓ "	
"	So.	4.2	64.2 ✓ "	
"	No.	2.0	66.4 ✓ "	
18+50	5.8	62.6	✓ "	
"	So.	4.8	63.6 ✓ "	
"	No.	7.4	61.0 ✓ "	

Note: 50' bottom

28

Slopes 1/2 to 1
 Area

C 290'	18811
C 277' out 382	
C 308' out 404	
C 291'	
C 264' out 382	
C 292' out 395	
C 266'	
C 264' out 382	
C 272' out 385	
C 232'	
C 230' out 365	
C 235' out 368	
C 223'	
C 222' out 361	
C 244' out 372	
C 204'	
C 216 out 358	
C 192 out 345	

Cut Stakes Continued

29

		568.40		Grade		
19+00	☒		6.5	561.9	542.0	C192 ✓
"	So.		6.5	61.9	"	C192 ✓ out 352
"	No.		7.3	61.1	"	C192 ✓ out 346
19+50	☒		5.9	62.5	"	C202 ✓
"	So.		7.7	60.7	"	C182 ✓ out 344
"	No.		7.2	61.2	"	C192 ✓ out 346
20+00	☒		11.4	57.0	"	C150 ✓
"	So.		8.9	59.5	"	C175 ✓ out 338
"	No.		8.8	59.6	"	C175 ✓ out 338
20+50	☒		12.6	55.8	"	C138 ✓
"	So.		10.2	58.2	"	C162 ✓ out 332
"	No.		8.7	59.7	"	C172 ✓ out 332
21+00	☒		9.3	59.1	"	C172 ✓
"	So.		12.1	56.3	"	C143 ✓ out 322
"	No.		8.3	60.1	"	C182 ✓ out 342
T.P.	4.68	564.51	8.53	559.87	559.83	
21+50	☒		9.2	55.3	542.0	C132 ✓
"	So.		10.2	54.3	"	C123 ✓ out 312
"	No.		5.6	58.9	"	C167 ✓ out 335

Cut stakes continued.

30

564.5

22+00	Φ ₁		12.0	552.5	542.0	C 105'
"	So.		11.9	52.6	"	C 103' out 30 ³
"	No.		5.9	58.6	"	C 162' out 33 ³
22+50	Φ ₁		14.2	50.3	"	C 83'
"	So.		14.5	50.0	"	C 80' out 29 ⁰
"	No.		8.0	56.5	"	C 145' out 32 ³
T.P.	1.39	561.33		559.94		
23+00	Φ ₁		12.8	48.5	"	C 65'
"	So.		15.9	45.4	"	C 34' out 26 ³
"	No.		7.0	54.3	"	C 123' out 31 ²
T.P.	1.84	551.86	11.31	550.02		
23+50	Φ ₁		5.7	46.2	"	C 42'
"	So.		7.2	44.7	"	C 22' out 26 ⁴
"	No.		3.1	48.8	"	C 63' out 28 ⁴
23+75	Φ ₁		7.2	44.7	"	C 22'
"	So.		5.4	46.5	"	C 45' out 27 ³
"	No.		5.2	46.7	"	C 42' out 27 ⁴

Reset Slope stakes

North Side

May-7-1934.

31

B.M.	2.91	635.33	632.42	Subgrade	
10+00	Toe	5.2	630.1	586.3	C-43 ^B
9+75	Toe	5.3	630.0	594.1	C-35 ^A
"	Slope Stake	5.9	629.4	"	C-35 ^B out 17 ^E
9+50	Toe	4.9	630.4	602.0	C-28 ^A
"	Slope Stake	3.9	631.4	"	C-29 ^A out 14 ^Z
9+25	Toe	3.3	632.0	609.8	C-22 ^F

Reset Slope Stakes, South side

May-12-1934

B.M.			603.82	
	1.74	605.56		
T.P.			12.15	593.41
	0.57	693.98		
T.P.			9.19	584.79
	2.26	587.05		
12+50		0.75	586.30	592.0
12+75		2.15	584.90	541.9
13+00		10.5	576.5	541.8
13+25		10.9	576.1	541.7
13+50		9.3	577.7	541.6
11+40		2.4	584.6	545.4
11+60		2.7	584.3	543.0
11+80 ²⁹		2.6	584.4	542.2

Simpson
Soper
Remmen,

32

C-44³ out 44³

C-43⁰ out 43⁰

C-34² out 34²

C-34⁴ out 34⁴

C-36¹ out 36¹

C-39² out 29¹ - 3/4:1

C-41³ out 36² - 7/8:1

C-42² out 42² 1:1

Top of So. Wall May 15-1934

33

B.M.			Top of wall	Subgrade	Dist. out from toe
8.49	595.63		587.14		
11+00 ²⁹		-1.44	594.19	554.79	19.70
+20		-2.92	592.71	549.40	27.07
+40		-4.44	591.19	545.43	34.32
+60		-5.95	589.68	543.01	40.84
+80 ²⁹		-7.48	588.15	542.16	45.99
12+00		-8.98	586.65	542.10	44.55
+25		-10.85	584.78	542.02	42.76
+50		-12.75	582.88	541.95	40.93

Original Slope States
 Superceding all previous states

May 19 1934

34

Grade

B.M. 3.11 577.37

574.26

15+52 ²⁹ E.	8.7	568.7	546.0	C 227
" No.	8.0	69.4	"	C 23.4 out 112
15+75 No.	4.0	73.4	"	C 27.4 out 137
16+00 E.	6.4	571.0	"	C 25.0
" No.	4.5	572.9	"	C 26.9 out 135
16+50 E.	7.4	570.0	"	C 24.0
" No.	5.9	571.5	"	C 25.5 out 128
17+00 E.	12.3	565.1	"	C 19.1
" No.	6.6	570.8	"	C 24.8 out 124

May 22 - 1934

B.M. 0.91 575.17

574.26

15+52 ²⁹ So.	5.2	570.0	"	C 24.0 out 24.0
16+00 So.	5.8	569.4	"	C 23.4 out 23.4
16+50 So.	5.7	569.5	"	C 23.5 out 23.5
17+00 So.	8.4	566.8	"	C 20.8 out 20.8
17+50 So.	9.7	565.5	"	C 19.5 out 19.5
" E.	9.4	565.8	"	C 19.8
" No.	6.0	569.2	546.0	C 23.2 out 11.6

Original Slope stakes

575.17

18+00	So.	11.4	563.8	546.0	C 17.8 out 17.8
"	☉	9.8	565.4	546.0	C 19.4
"	No.	8.0	567.2	546.0	C 21.2 out 10.6
18+50	So.	12.7	562.5	546.0	C 16.5 out 16.5
"	☉	13.1	562.1	546.0	C 16.1
"	No.	6.8	568.4	546.0	C 22.4 out 11.2
B.M.	11.92	571.75	559.83		
19+00	So.	9.2	562.6	546.0	C 16.6 out 16.6
"	☉	10.6	561.2	"	C 15.2
"	No.	5.4	566.4	"	C 20.4 out 10.2
19+50	So.	10.8	561.0	546.0	C 15.0 out 15.0
"	☉	10.8	561.0	"	C 15.0
"	No.	6.9	564.9	"	C 18.9 out 9.5
20+00	So.	15.0	556.8	546.0	C 10.8 out 10.8
"	☉	12.0	559.8	"	C 13.8
"	No.	4.8	567.0	"	C 21.0 out 10.5
20+50	So.	15.1	556.7	546.0	C 10.7 out 10.7
"	☉	11.9	559.9	"	C 13.9
"	No.	5.4	566.4	"	C 20.4 out 10.2

May 26 - 1934

Original Slope Stakes

B.M.	9.54	569.37	559.83		
21+00	So.	9.9	559.5	546.0	C 13.5 out 13.5
"	Φ	8.7	560.7	"	C 14.7
"	No.	2.4	567.0	"	C 21.0 out 10.5
21+50	So.	11.4	558.0	546.0	C 12.0 out 12.0
"	Φ	9.7	559.7	"	C 13.7
"	No.	2.2	567.2	"	C 21.2 out 10.6
22+00	So.	11.8	557.6	546.0	C 11.6 out 11.6
"	Φ	11.6	557.8	"	C 11.8
"	No.	4.2	565.2	"	C 19.2 out 9.6
22+50	So.	15.4	554.0	546.0	C 8.0 out 8.0
"	Φ	11.6	557.8	"	C 11.8
"	No.	6.8	562.6	"	C 16.6 out 8.3
T.P.	4.99	562.89	11.47	557.90	
23+00	So.	8.7	554.2	546.0	C 8.2 out 8.2
"	Φ	6.8	556.1	"	C 10.1
"	No.	3.8	559.1	"	C 13.1 out 6.6
23+50	So.	12.1	550.8	546.0	C 4.8 out 4.8
"	Φ	8.8	554.1	"	C 8.1
"	No.	5.5	557.4	"	C 11.4 out 5.7

Original Slope Stakes
May 28 - 1934

B.M.	0.49	560.43		559.94	
T.P.			6.03	554.40	
	3.81	558.21			
24+00	So.		12.2	546.0	546.0
"	⊥		10.2	548.0	"
"	No.		4.0	554.2	"
24+25	⊥		12.2	546.0	"
24+50	No.		12.2	546.0	"

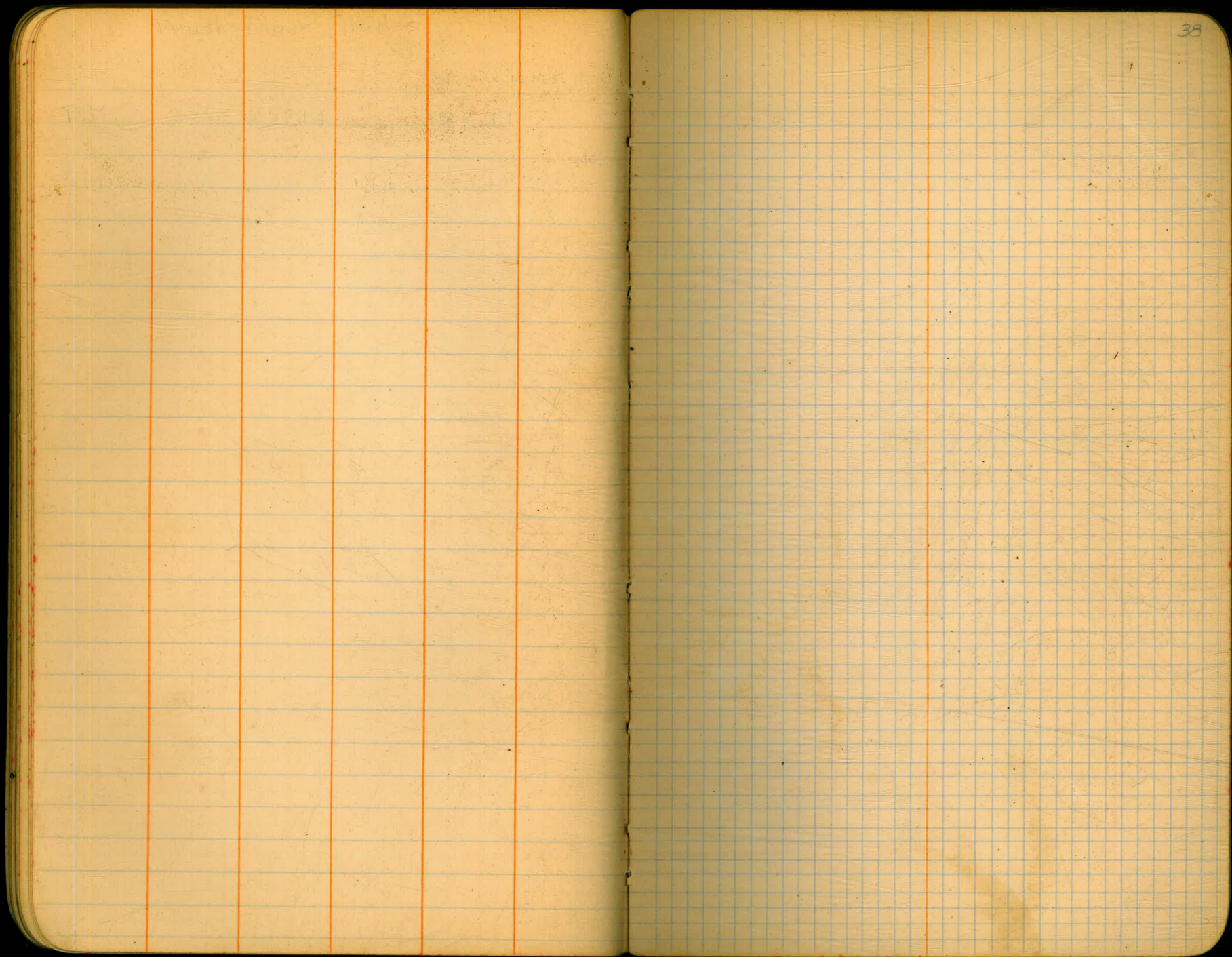
Grade at 20.2 from ⊥

6.29

68.2 out 4.1

Grade at ⊥

Grade at 25.0



May 21-1933
 Reset of slope stakes No. side

B.M.	7.98	582.24		574.26	
Set B.M.			0.20	582.04	
	6.79	588.83			
13+50			7.9	580.9	541.6 C.392
13+25			7.1	581.7	541.7 C.405
13+00			6.7	582.1	541.8 C.418
12+75			3.4	585.4	541.9 C.435
12+50			0.6	588.2	542.0 C.448
B.M.	11.37	593.41		582.04	
T.P.			0.56	592.85	
	12.41	605.26			
11+60			4.4	600.9	543.0 C.572 78.1
11+40			0.5	604.8	545.4 C.594 74.1
T.P.			0.26	605.0	
	11.66	616.66			
11+20			7.5	609.2	549.4 C.598 98.1
11+00 ²⁹			5.8	610.9	554.8 C.561 12.1
10+75					562.7

May 25 - 1934
Slope stakes So. Side

B.M. 1.55 588.69 587.14

T.P. 12.64 576.05

1.23 577.28

13+00 Check 0.73 576.55 541.8

12+75 4.0 573.3 541.9

12+50 3.8 573.5 541.95

12+25 4.0 573.3 542.0

12+00 3.7 573.6 542.1

T.P. 5.33 571.95

9.36 581.31

11+80²⁹ 3.4 577.9 542.2

11+60 2.8 578.5 543.0

11+40 1.1 580.2 545.4

South Side

B.M. 1.27 583.31 582.04

T.P. 11.54 571.77

5.06 576.83

14+25 Check 5.0 571.8 541.4

14+00 5.0 571.8 541.5

13+75 3.6 573.2 541.6

13+50 6.4 570.4 541.6

13+25 5.0 571.8 541.7

13+00 3.7 573.1 541.8

12+75 7.0.8 577.6 541.9

T.P. 0.23 576.60

11.33 587.93

Elliott
Soper
Remmen

40

C 34.7 out 34.7

C 31.4 out 31.4

C 31.5 out 31.5

C 31.3 out 31.3

C 31.5 out 31.5

C 35.7 out 35.7

C 35.5 out 31.1 (7/8 to 1)

C 34.8 out 26.1 (3/4 to 1)

C 30.4

C 30.3 out 30.3

C 31.6 out 31.6

C 28.8 out 28.8

C 30.1 out 30.1

C 31.3 out 31.3

C 35.7 out 35.7

587.93

12+25

2.0 585.9 542.0

C 43.9 out 43.9

Slope Stakes So. Side

June 5-1934

B.M. 1.06 588.20 587.14

T.P. 12.83 575.37

3.08 578.45

13+00 12.40 566.05 541.3

C-24³ out 24²⁶

13+25 11.53 566.92 541.72

C-25² out 25²¹

13+50 1.86 576.59 541.64

C-35⁰ out 34⁹⁵

13+75 4.26 574.19 541.57

C-32⁶ out 32⁶²

13+25 2.24 576.21 541.7

North Side June 6-1934

Cutstake 6.8 616.0 609.2

11+00²⁹ 9.4 606.6 554.8

C 51⁸ out 25²

B.M. 1.98 584.02 582.04

T.P. 3.57 576.55 572.98

14+75 9.1 567.4 541.2

C 26² out 26²

15+00 8.3 568.2 541.1

C 27¹ out 27¹

June 6 - 1934
Slope Stakes So. side

B.M.	0.90	588.04		587.14	
T.P.			12.67	575.37	
	3.09	578.46			
13+50			10.6	567.8	541.64
13+75			10.0	568.5	541.57
14+00			11.2	567.3	541.48
14+25			11.9	566.6	541.40
14+50			11.9	566.5	541.33
14+75			12.1	566.3	541.25
15+00			12.3	566.2	541.17
Check			6.9	571.6	541.1

C 26² out 26²
C 26² out 26⁹
C 25² out 25²
C 25² out 25²
C 25² out 25²
C 25¹ out 25⁴
C 25⁰ out 25⁰
C 30⁵

June 9 - 1934
Slope Stakes No. side

B.M.	1.66	634.05		632.39	
T.P.	0.87	622.01	12.91	621.14	
Set B.M.	11.50	624.99	8.52	613.49	
9+25			+1.6	626.6	609.84
+50			3.5	621.5	601.99
+75			5.1	621.8	594.14
10+00			10.3	614.7	586.29
+25			9.8	615.2	578.44
+39 ²⁹			11.8	613.2	573.95
+50			13.1	611.9	570.58
+75	check on orig. stake		7.3	617.7	617.6

C 16.8 out 8.4
C 19.5 out 9.8
C 25.7 out 12.9
C 28.4 out 14.2
C 36.8 out 18.4
C 39.2 out 19.6
C 41.3 out 20.7

No. Side

B.M. 12.15 625.64 613.49

T.P. 1.10 624.54

7.60 632.14

8+69 3.7 628.4 627.4

C 12.0 at Φ

June 11

B.M. 12.92 626.41 613.49

9+50 2.8 623.6 601.99

C 21.6 out 10.8

9+75 4.2 622.2 594.14

C 28.1 out 14.0

10+00 9.3 617.1 586.29

C 30.8 out 15.4

Check cut stake 10+25 19.0 607.4 607.4

June 12 - 1934

B.M. 1.87 615.36 613.49

10+50 Cut stake 8.6 606.8 606.6

10+75 562.73

June 13 - 1934

Slope Stakes So. Side

B.M.	0.63	582.67		582.04
11+00 ²⁹	Check		42.0	584.7 554.79
11+20			2.7	580.0 549.40
T.P.			12.66	570.01
B.M.	0.83	575.09		574.26
T.P.			5.08	570.01
	2.01	572.02		
11+60			2.14	569.9 543.01
11+80 ²⁹			4.2	567.8 542.16
12+00 ⁰⁰			7.0	565.0 542.10
12+25			9.1	562.9 542.02
12+50			9.1	562.9 541.95
12+75			8.4	563.6 541.88
T.P.	12.12	582.13		570.01
			2.12	580.01
	7.81	587.82		
11+00 ²⁹			3.3	584.5 554.79

C 29.9

C 30.6 out 19.1 5/8:1

C 26.9 out 23.5 7/8:1

C 25.6 out 25.6

C 22.9 out 22.9

C 21.0 out 21.0

C 21.7 out 21.7

C 29.7 out 14.85 1/2:1

Cuts June 15-1934

Cut stake 9+25 Marked C. 168 626.6
 0.0 626.6

609.8
 16.8
 626.6

31.4
 7.2
 45

9+00 5.4 621.2 617.7 C 35
 9+25 13.2 613.4 609.8 C 36
 9+50 19.2 606.4 602.0 C 4.4

June 16-1934

Slope stakes So. Side

B.M. 1.19 575.45 574.26

T.P. 5.49 569.96

9.61 579.57

11+70 10.6 569.0 542.39 C 26.6 out 24.9 $\frac{15}{16}$ 11

11+50 5.6 574.0 544.03 C 30.0 out 24.4 $\frac{13}{16}$ 11

11+30 1.2 578.4 547.22 C 31.2 out 21.5 $\frac{11}{16}$ 11

T.P. B.M. 1.15 578.42 ^{Cut stake} 11+30 "

8.29 586.71

11+10 2.6 584.1 551.96 C 32.1 out 18.1 $\frac{9}{16}$ 11

Slope Stakes No. Side
June 16 - 1934

B.M.	12.84	591.26		578.42	
T.P.			0.13	591.13	
	12.76	604.09			
T.P.			0.54	603.55	
	13.05	616.60			
10+39.29			14.0	602.6	573.95
10+25			13.4	603.2	578.44
10+00			13.3	603.3	586.29
9+75			9.3	607.3	594.14
9+50			4.6	612.0	602.0
T.P. Slope Stake 9+25			4.60	612.00	
	12.83	624.83			
9+25			6.0	618.8	609.84
9+00			+1.1	626.7	617.69

No. Side June 18 - 1934

T.P. Slope Stake			612.00	9+50	
	1.00	613.00			
T.P.	2.79	603.10	12.69	600.31	
11+00.29			6.5	596.6	554.79
11+10			3.7	599.4	551.96
11+20			6.7	596.4	549.40
11+30			5.1	598.0	547.22
11+40			9.7	593.4	545.43
11+50			10.4	592.7	544.03
					C 41.8 out 20.9 5.1
					C 47.4 out 26.7 .562511
					C 47.0 out 29.4 .62511
					C 50.8 out 34.9 .6875
					C 48.0 out 36.0 .75
					C 48.7 out 39.1 .8125

Continued Next Page

Continued from previous page
Cut Stakes No. Side

	603.10			
11+60		11.1	592.0	543.01
T.P. B.M.		11.09	592.01	
	2.67		594.68	
11+70		1.5	593.2	542.39
11+80 ²⁹		3.5	591.2	542.16
12+00		8.8	585.9	542.10
Check		8.8	585.9	

B.M. 11.50 603.51 592.01

10+50		3.9	599.6	570.58
10+75		4.9	598.6	562.73

So. Side June 20, 1934

B.M. 3.26 699.62 696.36

8+25		6.4	693.2	641.25
------	--	-----	-------	--------

No. Side

B.M. 5.21 597.22 592.01

11+00 ²⁹		4.1	593.1	554.79
11+10		4.5	592.7	551.96

47

C 49.0 out 42.9 .875 to 1
Cut Stake at 11+60 marked C.49^o

C 50.8 out 47.6 9375 to 1

C 49.0 out 49.0

C 43.8 out 43.8

C 29.0 out 14.5

C 35.9 out 18.0

C 52.0 out 26.0

C 38.3 out 19.15 .5 to 1

C 40.8 out 22.95 5625 to 1

JUNE 20 - 1934

So. Side

Elliott
Simpson
Soper
Remmen

48

B. M.	0.94	575.20		574.26	
T. P.			12.79	562.41	
	1.11	563.52			
14+75			1.8	561.7	541.25
14+50			3.6	559.9	541.33
14+25			4.9	558.6	541.40
14+00			6.5	557.0	541.48
13+75			7.0	556.5	541.57
13+50			7.8	555.7	541.64
13+25			8.2	555.3	541.72
13+00			8.2	555.3	541.79
12+75			8.5	555.0	541.88
					C 20.5 out 20.5
					C 18.6 out 18.6
					C 17.2 out 17.2
					C 15.5 out 15.5
					C 15.0 out 15.0
					C 14.1 out 14.1
					C 13.6 out 13.6
					C 13.5 out 13.5
					C 13.1 out 13.1

Top of No. 11 Wall
June 21-1934

			Grade Top of wall	Subgrade	Height of Wall	Dist. out	Slope	
B.M.	2.92	594.93	592.01					
11+00 ²⁹			0.74	594.19	554.79	39.40	19.70	.5 to 1
11+10			1.47	593.46	551.96	41.50	23.34	.5625
11+20			2.22	592.71	549.40	43.31	27.07	.625
11+30			2.98	591.95	547.22	44.73	30.75	.6875
B.M.	5.11	597.12	592.01					
11+40			5.93	591.19	545.43	45.76	34.32	.75
11+50			6.68	590.44	544.03	46.41	37.71	.8125
11+60			7.44	589.68	543.01	46.67	40.84	.875
B.M.	0.37	592.38	592.01					
11+70			3.46	588.92	542.39	46.53	43.62	.9375
11+80 ²⁹			4.25	588.15	542.16	45.99	45.99	1. to 1
11+90			4.97	587.44	542.13	45.28	45.28	
12+00			5.73	586.65	542.10	44.55	44.55	1 to 1
12+25			7.61	584.77	542.02	42.75	42.75	
B.M.	5.11	597.12	592.01					
10+8764			1.97	595.15	558.76	36.39	18.20	.5 to 1
10+75			1.01	596.11	562.73	33.38	16.69	.5 to 1
10+625			0.07	597.05	566.65	30.40	15.20	.5 to 1

Slope Stakes No. Side

B.M.	2.07	584.11	582.04				
			11.89	572.22			
	1.19	573.41					
14+00			8.7	564.7	541.48	023.2	
14+25			10.8	562.6	541.40	021.2	
14+50			13.2	560.2	541.33	018.9	

Top of N. Wall
June 22 - 1934

			Top of wall	Subgrade	High	Dist. out
			Grade			
B.M.	0.42	612.42	612.00			
			10.87	601.55		
	0.78	602.33				
10+50			4.33	598.00	570.58	27.42
						13.71
10+39.29			3.53	598.80	573.95	24.85
						12.42
10+23 ³⁶			2.33	600.00	578.95	21.05
						10.52
B.M.	0.45	612.45	612.00			
10+00			5.11	607.34	586.29	C 21.05
						10.52
B.M.	7.10	619.10	612.00			
9+75			3.91	615.19	594.14	C 21.05
						10.52
B.M.	12.58	624.58	612.00			
9+50			1.54	623.04	601.99	C 21.05
						10.52
T.P.	8.25	632.57	0.26	624.32		
9+25			1.68	630.89	609.84	C 21.05
						10.52
T.P.	8.92	640.29	1.20	631.37		
9+00			1.55	638.74	617.69	C 21.05
						10.52

Top of N. Wall
June 22 - 1934

			Top of Wall	Subgrade	High	Dist Out
B.M.	2.01	584.05	582.04			
12+50			1.17 582.88	541.95	40.93	
B.M.	1.72	583.76	582.04			
12+75			2.77 580.99	541.88	39.11	
13+00			579.09	541.79	37.30	

Top of So. Wall
June 23 - 1934

B.M.	0.68	587.82	587.14			
12+75			6.83 580.99	541.88	39.11	
13+00			8.73 579.09	541.79	37.30	
13+25			10.62 577.20	541.72	35.48	
13+50			12.51 575.31	541.64	33.67	
T.P.	3.46	579.53	11.75 576.07			
13+75			6.11 573.42	541.57	31.85	
14+00			8.01 571.52	541.48	30.04	

Top of Wall So. Side
 June 25-1934

52

		Wall	Subgrade	Dist. out	
B.M.	2.08	576.34	574.26		40.88 8.84 32.04
14+25		6.72	569.62	541.40	28.22
14+50		8.61	567.73	541.33	26.40
14+75		10.50	565.84	541.25	24.59

North Wall

B.M.	0.56	582.60	582.04		
13+00		3.51	579.09	541.79	37.30
13+25		5.40	577.20	541.72	35.48
B.M.	0.68	582.72	582.04		
13+50		7.41	575.31	541.64	33.67
13+75		9.30	573.42	541.57	31.85
14+00		11.20	571.52	541.48	30.04

Slope Cut Stakes No. Side
June 28 - 1934

B.M.	6.84	585.26		578.42	
10+75			1.73	583.53	562.73
B.M.	7.00	585.42		578.42	
10+87 ⁶⁴					558.76
11+00 ²⁹					554.79

6.31²
cut stake
on so. side

C 20.8 out 10.4 .5 to 1

June 29

B.M.	11.35	589.77		578.42	
10+50			0.79	588.98	570.58
10+62 ⁵			5.22	584.55	566.65
10+75					562.73
10+87 ⁶⁴			8.11	581.66	558.76
B.M.	6.09	584.51		578.42	
11+00 ³⁹			5.12	579.39	554.79
+10			4.65	579.86	551.96
+20			6.01	578.50	549.40
+30			4.79	579.72	547.22
+40			5.98	578.53	545.43
+50			7.58	576.93	544.03
B.M.			2.47	582.04	582.04
+60			8.70	575.81	543.01
+70			9.52	575.19	542.39

C 18.40 out 9.20

C 17.90 out 8.95

C 22.90 out 11.45

C 24.60 out 12.30 .511

C 27.9 out 15.69 .5625

C 29.1 out 18.19 .625

C 32.5 out 22.34 .6875

C 33.1 out 24.83 .75

C 32.9 out 26.73 .8125

C 32.8 out 28.70 .875

C 32.8 out 30.75 .9375

Slope Stakes No. Side
 June 30 - 1934

Elliott
 Soper
 Remmick

584.51

B.M. 0.85 579.27 578.42

11+80²⁹ 3.31 575.96 542.16 C 33.80

12+00 6.60 572.67 542.10 C 30.57

Cut stakes No. side
 July 5 - 1934

B.M. 1.64 577.45 575.81

12+25 7.13 570.32 542.02 C 28.30

12+50 7.70 569.75 541.95 C 27.80

12+75 9.07 568.38 541.88 C 26.50

29.2
 14.7
 14.5

July 7 - 1934

B.M. 0.95 575.21 574.26

14.7 560.5 546.0 C 14.5 out 7.3.

July 7 - 1934
 & Cuts

	2.07	581.46		579.39	Mix C246 Stake 11.00	
11+00 ³			15.5	66.0	554.8	C 11.2
10+75			12.1	69.4	562.7	C 6.7
+50			7.0	74.5	570.6	C 3.9
+39			4.6	76.9	574.0	C 2.9
+25			1.5	80.0	578.4	C 1.6
T.P.	13.01	594.21	0.26	581.20		
10+00			7.0	87.2	586.2	C 1.0
T.P.			0.34	593.87		
	12.90	606.77				
9+75			10.8	596.0	594.1	C 1.9
9+50			2.0	604.8	602.0	C 2.8
T.P.			0.40	606.37		
	12.87	619.24				
9+25			6.2	613.0	609.8	C 3.2
9+00			+ 2.3	621.5	617.7	C 3.8
Checks			0.4	618.8	618.8	

So. Side Slopes
 July 11-1934

Elliot
 Simpson
 Remmen

56

B.M.	12.89	600.03		587.14			
10+75			2.5	597.5	562.73	C 34.8	out 17.4
B.M.	1.28	575.54		574.26			
			12.74	562.80			
Sta 13+25 Set B.M.	0.34	563.14					
	11.39	566.72		7.81	555.33		
11+10			1.96	564.76	551.96	C 12.8	out 7.20 5625 to 1
11+20			4.32	562.40	549.40	C 13.0	out 8.13 .625
11+30			5.60	561.12	547.22	C 13.9	out 9.56 168.75
11+40			7.49	559.23	545.43	C 13.8	out 10.35 .75
11+50			8.49	558.23	544.03	C 14.2	out 11.54 .8125
11+60			8.81	557.91	543.01	C 14.9	out 13.04 .875
11+70			9.23	557.49	542.39	C 15.1	out 14.16 .9375
11+80 ²⁹			10.06	556.66	542.16	C 14.5	out 14.5 1.000 to 1.000
12+00			10.72	556.00	542.10	C 13.9	out 13.9
B.M.	3.35	558.68		555.33			
12+25			5.46	553.22	542.02	C 11.20	out 11.20
12+50			5.23	553.45	541.95	C 11.50	out 11.50
July 14-							
B.M.	0.73	574.99		574.26			
15+52 ²⁹			3.4	571.6	541.00	C 30.6	

Cuts about 40' N. of ♀
July 17-1934

Sta	Dist	Elev	Dist	Elev	Dist	Elev	Notes
Sta 13+25				555.33			
B.M.	12.60	567.93					
11+00 ²⁹			8.3	559.6	2' floor	553.8	C 58
10+75			2.8	565.1		562.7	C 24
T.P.	12.12	579.89	0.16	567.77			
10+50			8.1	571.8		570.6	C 12
10+25			0.9	579.0		578.4	C 06
T.P.	13.13	592.65	0.37	579.52			
10+00			6.3	586.3		586.3	grade
9+75			+1.3	593.9		594.1	Fill 02
9+75 ♀			+3.6	596.2		594.1	C 21

Slope Stakes No. Side

Sta	Dist	Elev	Dist	Elev	Dist	Elev	Notes
B.M.	0.72	556.05		555.33			
13+75			0.98	555.07		541.57	C 13.5
14+00			5.94	550.11		541.48	C 8.63
+25			6.15	549.9		541.40	C 8.5
+50			5.82	550.23		541.33	C 8.9
+75			5.90	550.15		541.25	C 8.9
15+00			3.08	552.97		541.17	C 11.8
+25			2.45	553.60		541.10	C 12.5

Slope States No. Side
 July 19-1934
 July 20

B.M.	10.06	565.39		555.33
11+00 ²⁹			+0.60	565.99 554.79
+10			+0.17	565.56 551.96
+20			+0.31	565.70 549.40
+30				547.22
+40			1.96	563.43 545.43
B.M.	10.80	566.13	1.30	564.83 544.03
+50				
+60			+0.58	566.71 543.01
+70			+0.46	566.57 542.39
11+80 ²⁹			0.7	566.06 542.16

July 20-1934

B.M.	1.17	556.50		555.33
15+00			7.13	549.37 541.17
14+75			8.25	548.25 541.25
+50			7.87	548.63 541.33
+25			9.40	547.10 541.40

58

				.5401
C 13.6	out	9.65		.5625
C 16.3	out	10.19		.625
				.6875
C 18.0	out	13.50		.75
C 20.0	out	16.90		.8125
C 23.7	out	20.74		.875
C 24.2	out	22.69		.9375
C 23.9				1.01

July 24 - 1934
Slope Stakes So. Side

B.M.	2.58	698.94	696.36
8+25	check	5.7	693.2 641.25
8+40		4.40	694.54 636.54
8+65		24.6	674.3 628.69

Same Day N. Side

B.M.	12.94	668.74	655.80
8+00		0.74	668.00 649.10
8+25		0.59	668.15 641.25
8+50		10.54	658.20 633.40

B.M.	0.53	555.86	555.33
2nd B.M.		8.88	546.98

in South slope Sta. 14+10

15+25		11.16	544.70	541.1
-------	--	-------	--------	-------

		7.62	548.24	548.25
--	--	------	--------	--------

C 52.0 (old stake)

C 58.0

C 45.6

C 18.90

C 26.90

C 24.80

C-3⁶ out 3⁶

check.

July 25-1934
Cutson So. Side

B.M.	B125		555.33			
	0.34	555.67				
15+00			8.50	547.17	541.17	C.62
14+75			8.42	547.25	541.25	"
+50			8.34	547.33	541.33	"
+25			8.27	547.40	541.40	"
14+00			8.19	547.48	541.48	"
13+75			8.10	547.57	541.57	"
+50			8.03	547.64	541.64	"
+25			7.95	547.72	541.72	"
13+00			7.88	547.79	541.79	"
12+75			7.79	547.88	541.88	"
12+50			7.72	547.95	541.95	"
12+30 ³			7.66	548.01	542.01	"
"	Start 2 nd floor		8.66	547.01	541.01	"
12+00			8.57	547.10	541.10	"

555.7
543.0

547.6
542.0

60

12.7

7.3

3.4

5.5

No. Side
July 25-1934

B.M. 7.62 562.95 555.33

13+50 4.91 558.04 541.64

13+25 9.83 553.12 541.72

13+00 9.76 553.19 541.79

12+75 541.88

12+50 8.40 554.55 541.95

C 16.4

C 11.4

C 11.4

Not set

C 12.6

Cuts to subgrade
at $\frac{1}{2}$ and 50' each side of $\frac{1}{2}$

July 26-1934
Elliott
Soper
Remmen

62

B.M.	Cut state				
	113+25			555.33	
	9.58	564.91			
11+40	Lt	15.2	49.7	44.4	C 5.3
+30	Lt.	15.0	49.9	46.2	C 3.7
+20	Lt	13.5	51.4	48.4	C 3.0
+10	Lt	12.2	52.7	51.0	C 1.7
11+00 ²⁹	Lt.	9.7	55.2	53.8	C 1.4
11+30	$\frac{1}{2}$	13.5	51.4	46.2	C 5.2
+20	$\frac{1}{2}$	11.9	53.0	48.4	C 4.6
+10	$\frac{1}{2}$	10.3	54.6	51.0	C 3.6
11+00 ²⁹	$\frac{1}{2}$	7.8	57.1	53.8	C 3.3
10+75	$\frac{1}{2}$	0.0	64.9	62.7	C 2.2
11+30	Rt.	12.4	52.5	46.2	C 6.3
+20	"	11.5	53.4	48.4	C 5.0
+10	"	7.8	57.1	51.0	C 6.1
11+00 ²⁹	"	5.1	59.8	53.8	C 6.0
10+75	"	0.1	64.8	62.7	C 2.1
T.P.		0.78	564.13		
	12.62	576.75			
10+50	Rt.	5.5	71.3	70.6	C 0.7
10+50	$\frac{1}{2}$	5.8	71.0	70.6	C 0.4
10+75	Lt.	10.1	66.7	62.7	C 4.0
10+50	Lt.	2.8	74.0	70.6	C 3.4
T.P.		0.40	576.35		
	12.75	589.10			

Continued from previous page.

589.10

10+25 ϕ r		11.3	577.8	578.4
10+00 ϕ		2.4	86.7	86.3
10+25 Rt.		10.7	78.4	78.4
10+00 Rt.		3.1	86.0	86.3
T.P.	13.04	601.76	0.38	588.72
9+75 Rt.		6.5	95.3	94.1
9+75 ϕ		5.6	96.2	94.1
10+25 Lt.		10.4	91.4	78.4
10+00 Lt.		7.6	94.2	86.3
9+75 Lt.		1.2	600.6	94.1
T.P.		0.90	600.86	

12.96 613.82

9+50 ϕ		8.9	04.7	02.0
9+25 ϕ		0.6	13.2	09.8
9+50 Rt.		9.6	04.2	02.0
9+25 Rt.		0.7	13.1	09.8
T.P.		0.55	613.27	

11.17 624.44

9+00 Rt.		3.5	20.9	17.7
9+00 ϕ		2.9	21.5	17.7

F 0.6

C 0.4

Grade

F 0.3

C 1.2

C 2.1

C 13.0

C 7.9

C 6.5

C 2.9

C 3.4

C 2.2

C 3.3

C 3.2

C 3.8

Check on old cut

Cuts to bottom of footing
along So. side July 22 - 1934
75.91 out from E

B.M.	0.00	555.33	555.33
T.P.		10.73	544.60
	3.54	548.14	
14+25		6.24	541.90
14+00		6.16	541.98
15+00		6.47	541.67 set
14+75		6.39	541.75 set
14+50		6.31	541.83

Aug. 8 - 1934

B.M.	3.05	549.98	546.93
		8.24	541.74 = check
14+50		8.15	541.83 set
+25		8.08	541.90 set
14+00		8.00	541.98 set
13+75		7.91	542.07 set
+50		7.84	542.14 set
+25		7.76	542.22 set
13+00		7.69	542.29 set
12+25	Slope Stake	4.76	545.22 542.02
12+00	" "	3.78	546.20 542.10

on vertical cut at Sta. 14+75
Elev. 541.75

c-3²⁰ out 3²⁰
c-4¹ out 4¹

Slope Stakes - So. Side
Aug-1-1934

B.M. 8.26 640.65 632.39
Set B.M. 10.35 630.30

9+50 4.8 635.8 602.0

9+25 3.05 637.6 607.8

T.P. 0.88 639.77

12.99 652.76

9+00 3.3 649.5 617.7

Aug.-2-1934

B.M. 6.66 662.46 655.80

8+75 +0.5 663.0 625.6

Slope Stakes No. Side

Aug.-4-1934

B.M. 6.77 637.07 630.30

8+50 1.37 635.70 633.40

8+75 6.72 630.35 625.55

B.M. 5.19 660.99 655.80

8+50 7.70 653.27 633.40

Simpson
Super
Remmen

65

Subgrade

C-33⁸ out 16²

C-27⁸ out 13²

C-31⁸ out 15²

C-37⁴ out 18²

C-2³ out 1¹⁵

C-4⁸ out 2⁴⁰

C-19⁹ out 9²

Slope Stakes - No Side
 Aug. - 2-1934

B.M.	5.24	660.62		655.38		
7+75			1.27	659.35	656.95	C-2 ⁴ out 1 ³
8+00			7.22	653.40	649.10	C-4 ³ out 2 ¹⁵
T.P.			12.89	647.73		
	0.77	648.50				
8+25			3.25	645.25	641.25	C-4 ⁰ out 2 ⁰
B.M.	6.76	662.14		655.38		
						Sub-Grade
7+60	30' N. of So. Toe Line		1.10	661.1	661.7	6 ⁶ Below Subgrade
8+00	30' N. of So. Toe Line		12.7	649.4	649.1	Cut 0 ³
T.P.			12.89	649.25		
	1.25	650.50				
8+50	30' N. of So. Toe Line		11.9	638.6	638.4	cut 5 ²
			5.24	645.26		check on slope stake 8+25 (No. Side) Elev. 645.25

East End Spillway
Whin Dig

B.M. 10.24 780.24 770.0
5.50 774.74
127⁴ So. of Face
of Wier 2.70 777.54 756.22

Aug. - 9 - 1934

B.M. 6.63 776.63 770.00
1.36 No. of Face
of Wier 1.33 775.30 770.0
127⁴ So. of Face
of Wier 11.5 765.1 756.23

742.45

Aug. - 11 - 1934

B.M. 11.09 760.98 749.89
25⁹⁸ So. of Face
of Wier 3.63 757.35 742.45
127⁴ So. of Face
of Wier + 0.25 761.23 756.23
25⁹⁸ So. of Face
of Wier on toe line 8.5 752.5 741.0
45⁹⁸ So. of Face
of Wier 10.53 750.45 740.45

cut 21³ out 10⁶⁵

cut 5³ out 2⁶⁵

cut 8⁹ out 4⁴⁵

C-14⁹ out 7⁴⁵

C-5⁰⁰ out 2⁵⁰

cut 11⁵

cut 10⁰ out 5⁰

Slope stakes - No. Side

68

B.M.	1.06	631.36		630.30
T.P.			12.72	618.64
	0.29	618.93		
T.P.			12.66	606.27
	0.74	607.01		
T.P.			12.84	594.17
	0.58	594.75		
10+00			2.46	592.29 586.29
+25			8.81	585.94 578.44
T.P.			12.81	581.94
	0.14	582.08		
10+39 ²⁹			3.13	578.95 573.95
+50			4.20	577.88 570.58
+75 @ T.P.			12.55	569.53 562.73
	0.33	569.86		
11+00 ²⁹			4.17	565.69 554.79
+10			2.00	567.86 551.96
+20			5.46	564.40 549.40
			5.04	564.82

c-6⁰⁰ out 3⁰⁰c-7⁵⁰ out 3⁷⁵c-5⁰⁰ out 2⁵⁰c-7³⁰ out 3⁶⁵c-6⁸⁰ out 3⁴c-10⁹⁶ out 5⁴⁵c-15⁹⁰ out 8⁹⁰ 5625:1c-15⁰⁰ out 9³⁸ 625:1Slope stake 11+50
Rec. Elev. 564.83

Slope Stakes - So. Side

B.M.	3.67	633.97	630.30
9+00		3.58	630.39 617.69
+25		8.38	625.64 609.84
+50 & T.P.		12.68	621.29 601.99
	1.38	622.67	
+75		4.87	617.80 594.14
		7.04	615.63 check on

Aug. 8-1934

11+60 Slope Stake	1.21	559.12	557.91
11+10		1.76	557.36 551.96
+20		6.22	552.90 547.40
+30		4.10	555.02 547.22
+40		4.79	554.33 545.43
+50		5.49	553.63 544.03
+80 ²⁹		10.06	549.06 542.16
T.P.		12.19	546.93
	3.05	549.98	
Slope Stake 9+00	11.63	642.02	630.39
8+75		9.17	632.85 625.55
+50			633.40
+25		43.93	645.95 641.25

Aug. - 7-1934

Simpson
Soper
Isabella

69

C-12 ²⁰	out 6 ³⁵
C-15 ⁵⁰	out 7 ⁹⁰
C-19 ³⁰	out 7 ⁶⁵
C-23 ⁶⁶	out 7 ⁵³

original slope stake 10+00 - C-29⁴
Elev. 6152

C-5 ⁴⁰	out 3 ⁰⁴	.5625:1
C-3 ⁵⁰	out 2 ¹⁷	.625:1
C-7 ⁵⁰	out 5 ³⁶	.6875:1
C-8 ⁹⁰	out 6 ⁶⁸	.75:1
C-9 ⁶⁰	out 7 ⁸⁰	.8125:1
C-6 ²⁰	out 6 ²⁰	1:1

C-7 ³⁰	out 3 ⁶⁵
C-47	out 2 ³⁵

Slope Stakes - So. Side

B.M.	2.70	658.50	655.80
Set B.M.		2.48	656.02 Spike in
T.P.		12.85	645.65
	0.49	646.14	
8+25 slope stake		0.21	645.93 Rec. Elev. 645.95
+50		7.74	638.40 638.40

North side wall
Sta. 7+85±756.90
50
757.45C-5⁰⁰ out 250Vertical cut Points on N. Side
0⁵ Above Subgrade.

B.M.			656.02
	3.58	659.60	
7+75		2.15	657.45 C-1 ⁵ Vertical
8+00		10.00	649.60 C-1 ⁵
T.P.	1.55	648.99	12.16 647.44
8+25		7.24	641.75 C-1 ⁵
B.M.	13.05	669.07	656.02
7+40		0.61	668.46 C-1 ⁵

See Page 9

Finish Grades - 1st Above Subgrade
Aug. - 9 - 1934

B.M.	10.37	666.39	656.02
7+60			3.67 662.72
T.P.			12.74 653.65
	0.31	653.96	
8+00			3.81 650.15

Aug. - 13 - 1934

B.M.	0.58	656.60	656.02
T.P.			12.93 643.67
	0.84	644.51	
Set B.M.			10.61 633.90
	4.97	638.87	

on vertical cut 8+50 Elev. 633.90

8+50			4.42 634.45
------	--	--	-------------

Aug. - 15 - 1934

B.M.	2.74	623.32	620.58
9+00			4.58 618.74
B.M.	2.92	623.50	620.58
9+00			4.76 618.74

IMPROVED TABLES FOR USE OF TABLES

45.3

17.4

TABLE No. 1

Distance of slope stake from side or shoulder stake for any width roadway, slope 1st to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in this table and top row of the number in foot of table in same row and column gives distance level estimate the distance in elevation between the side stake and the level stake by the amount it cut or fill at the side stake.

IMPROVED TABLES

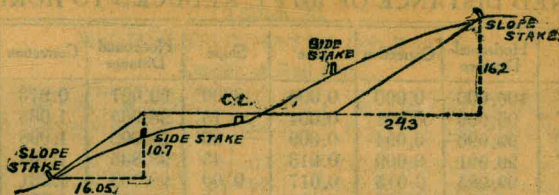
AND

INFORMATION

No. 5, de

TABLE No. 2

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections. Degree of curve with a given T may be found by dividing tangent (or external) opposite T by given tangent (or external). The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

SLOPE 1½ TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

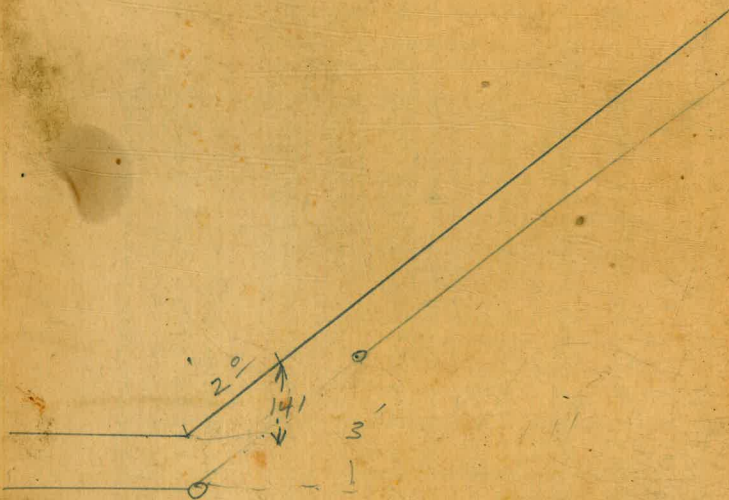
Computed by L. Leland Locke.

546.00
 5.99
 551.99
 2.03
 549.96
 7.04
 557.00
 5.00
 552
 46
 6000

39.11
-15

24.11

15 + 44



14.14
3

4.242

602
20

635.4
622.0

13.4

20

.7071

2

1.4142

3.