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340

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Pages.

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Continued over here →

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Mar 18, 1932
 Converse, Chief, Calculations
 Elliott, T. Notes
 Soper, P. H. Ch.
 Walton R. Ch.

B.M.	0.82	750.31		749.49		
T.P. N 4140 E 5080	1.41	739.67	12.05	738.26		
			11.8	727.9	Toe	of slope
B.M.	0.34	700.34		700.00		
T.P. N 4120 E 5184.7 N 4100 E 5202.4	1.36	689.00	12.70	687.64		
			4.6	684.4	Toe	of slope
			11.7	677.3	Toe	of slope
T.P.	1.72	677.72	13.00	676.00		
T.P. N 4080 E 5239.5	1.14	666.58	12.28	665.44		
			4.1	662.5	Toe	of slope
T.P. N 4060 E 5266.4	0.22	656.02	10.78	655.80		
			4.3	651.7	Toe	of slope
T.P.	0.24	643.37	12.89	643.13		
T.P. N 4040 E 5334.9 N 4020 E 5343.7 N 4000 E 5351.2	0.93	631.74	12.56	630.81		
			3.4	628.3	Toe	of slope
			6.9	624.8	Toe	of slope
			9.9	621.8	Toe	of slope
T.P. N 3980 E 5365.4 N 3960 E 5376.7 N 3940 E 5386.5	0.29	619.80	12.23	619.51		
			3.7	616.1	Toe	of slope
			8.2	611.6	Toe	of slope
			12.1	607.7	Toe	of slope
T.P. N 3920 E 5390.4	2.07	609.61	12.26	607.54		
			3.5	606.1	Toe	of slope

100

609.61

N3900
E5428.6
B.M.

13.9 595.7
9.61 600.00
Record
600.00

of slope

Mar 19, 1932

Elliott, K, Notes
Soper, P, Hd. Ch.
Walton, F. Ch.

B.M.
N3440
E5462.8

12.83 587.83

575.00
3.5 584.3
0.72 587.11
6.6 592.9
6.6 592.9

of slope

T.P.
N3420
E5437.0

12.35 599.46

T.P.
N3400
E5401.2

8.79 607.68

5.9 601.8
Record
600.00

of slope

B.M.
N3380
E5482.2

12.38 612.38

7.64 600.04
3.0 609.4
0.39 611.99

of slope

Mar 21, 1932

Same Party

T.P.
N3360
E5362.2
N3340
E5346.2

13.20 625.19

7.8 617.4
1.4 623.8
0.31 624.88

of slope

T.P.
N3320
E5329.4
N3300
E5316.2

13.16 638.04

7.5 630.5
2.2 635.8

of slope

T.P.
B.M.
N3280
E5303.4
N3260
E5291.7
N3240
E5281.9

13.03 650.82

0.25 637.79
0.90 649.92
Record
650.00

of slope

10.0 640.9
5.3 645.6
1.4 649.5

of slope

of slope

7102

B.M.	8.09	658.09		650.00		
N3220						
E5266.4			6.4	651.7	Toe	of slope ✓
N3200						
E5262.2			4.7	653.4	Toe	of slope ✓
N3180				655.7		
E5256.4			2.4	657.7	Toe	of slope ✓
T.P.	12.36	669.92	0.53	657.56		
N3160						
E5226.4			2.2	667.7	Toe	of slope ✓
T.P.	13.11	682.66	0.37	669.55		
N3140						
E5203.9			6.0	676.7	Toe	of slope ✓
T.P.	12.53	695.03	0.16	682.50		
N3120						
E5181.7			9.4	685.6	Toe	of slope ✓
T.P.	12.53	707.36	0.20	694.83		
E3100						
E5157.4			12.1	695.3	Toe	of slope ✓
B.M.	11.87	711.87	7.39	699.97	Record	700.00
N3080						
E5123.1			5.6	706.3	Toe	of slope ✓
T.P.	11.86	723.34	0.39	711.48		
N3060						
E5096.1			3.5	719.8	Toe	of slope ✓
T.P.	11.69	734.70	0.33	723.01		
N3040						
E5070.1			1.9	732.8	Toe	of slope ✓
T.P.	12.66	747.19	0.17	734.53		
T.P.	10.40	757.40	0.19	747.00		
N3020						
E5025.4			5.1	752.3	Toe	of slope ✓
B.M.	7.38	757.38	7.38	750.02	Record	750.00
T.P.	6.23	763.25	0.36	757.02		
N3020						
E4964.5			4.9	758.4		

MM

March 23, 1932.
 Converse - chief
 Simpson - notes
 Loudon - Rod
 Bailey - level

B.M.	7.30	753.75		746.45 = Hub on	AXIS N 3040 E 5000
N 3040 E 4954			1.8	752.0	Toe slope ✓
N 3060 E 4937			8.3	745.5	Toe slope ✓
T.P.	1.04	742.05	12.74	741.01	
N 3080 E 4918			6.3	735.8 735.7	Toe slope ✓
T.P.	1.18	730.52	12.71	729.34	
N 3100 E 4898			4.7	725.8	Toe slope ✓
N 3120 E 4884			11.6	718.9	Toe slope ✓
T.P.	0.41	717.95	12.98	717.54	
N 3140 E 4865			8.5	709.5	Toe slope ✓
T.P.	0.42	705.32	13.05	704.90	
			5.33	699.99 = check on	Berm Point E 1.700
N 3160 E 4837			8.1	697.2	= Toe slope ✓
T.P.	0.33	693.08	12.57	692.75	
N 3180 E 4805			9.0	684.1	Toe slope ✓
T.P.	0.24	680.27	13.05	680.03	
N 3200 E 4781			8.0	672.3	Toe slope ✓
T.P.	0.36	667.96	12.67	667.60	
N 3220 E 4761			5.8	662.2	Toe slope ✓
T.P.	0.35	655.48	12.83	655.13	
B.M. S-3			6.13	649.35 check on	B.M. S-3 E 1.649.37
	6.13	655.50		649.37	
T.P.	1.13	643.58	13.05	642.45	
N 3240 E 4687			9.5	634.1	Toe slope ✓

(70)

6
 643.58

N 3260 E 46832			11.0	632.6	⊙
N 3280 E 46742			14.5	629.1	⊙
T.P.	0.82	631.31	13.09	630.49	
N 3300 E 46522			11.2	620.1	⊙
T.P.	0.03	619.49	11.85	619.46	
N 3320 E 46252			10.0	609.5	⊙
T.P.	0.60	607.02	13.07	606.42	
N 3340 E 46112			3.0	604.0	⊙
N 3360 E 45882			8.2	598.8	⊙
N 3380 E 45932			13.3	593.7	⊙
T.P.	0.95	595.44	12.53	594.49	
N 3400 E 45475			10.2	585.8	⊙
T.P.	1.58	584.66	12.36	583.08	
N 3420 E 45332			4.1	580.6	⊙
N 3440 E 45235			7.5	577.2	
B.M. 5-1			6.80	577.86	

Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 Toe slope ✓
 = check on B.M. 5-1 E1 577.89

N 4140	6.50	765.81		759.01 ✓ = Hub on
E 4983 ²				765.0 ?
N 4120				
E 4968 ²		4.2		761.3 ✓
N 4100				
E 4964 ¹		7.4		758.1 ✓
N 4080				
E 4958 ²		11.3		754.2 ✓
N 4060				
E 4950 ²				750.0 ?
T.P.	5.60	758.72	12.39	753.12 ✓
N 4040				
E 4939 ²			12.2	746.5 ✓
N 4020				
E 4920			22.2	736.5 ✓
T.P.	2.23	747.83	13.12	745.60 ✓
T.P.	0.79	735.80	12.82	735.01 ✓
T.P.	5.00	731.59	9.21	726.59 ✓
N 4000				
E 4908 ²			0.9	730.7 ✓
N 3980				
E 4888 ²			10.9	720.7 ✓
N 3960				
E 4860 ²	Void		24.8	706.8 Void
T.P.	2.34	722.33	11.60	719.99 ✓
T.P.	0.23	710.27	12.32	710.01 ✓
N 3960				
E 4831 ²			12.7	697.5 ✓
T.P.	0.70	698.01	12.93	697.31 ✓
T.P.	1.50	686.64	12.87	685.14 ✓
T.P.	1.00	674.52	13.12	673.52 ✓
T.P.	0.16	662.02	12.66	661.86 ✓
N 3940				
E 4753 ²			3.6	658.4 ✓
B.M. N-2			7.22	654.80 ✓ = check
	7.22	662.05		654.83

(112)

March, 23, 1932

Simpson - Notes

Louden - ch. Rod

Barley - level

Axis N 4140
E 5000

Toe slope ✓

Toe slope ✓

Toe slope ✓

Toe slope ✓

on Berm. ✓

Toe slope ✓

Toe slope ✓

Toe slope ✓

Toe slope ✓

Toe slope ✓

Toe slope ✓

on B.M. N-2 E1. 654.83

		662.05			
T.P.	0.65	649.74	12.96	649.09	
T.P.	0.85	638.35	12.24	637.50	
N 3920 E 46912			2.4	636.0	⊗
T.P.	1.22	626.66	12.91	625.44	
N 3900 E 46562			4.7	622.0	⊗
T.P.	0.66	614.50	12.82	613.84	
N 3880 E 46232			5.9	608.6	⊗
T.P.	1.03	602.63	12.90	601.60	
T.P.	0.45	590.31	12.77	589.86	
N 3860 E 45542			2.9	587.4	⊗
T.P.	0.96	580.57	10.70	579.61	
N 3840 E 45192			4.6	576.0	
			5.59	574.98	

End Math. 23

Toe slope

Toe slope

Toe slope

Toe slope

Toe slope

check on Hub N 3836⁴⁵
E 4516⁹² El. 575.00

March 24, 1932

Simpson - notes

Louden - Rod, ch.

Bailey - Level

Clear, worm.

Establishing outside of Berm Points

8

April 14, 1932
 Simpson -
 Louder -
 Bailey -
 Walton -

	5.49	605.35	599.86	B.M. N-2	
N 3871.60 E 4591.92			5.35	600.00	set Hub on outside Berm.
	3.22	658.06	654.84	B.M. N-3	
N 3937.00 E 4726.92			8.06	650.00	set Hub on outside Berm.
	7.12	705.88	698.76	B.M. N-4	
N 3964.40 E 4836.92			5.88	700.00	set Hub on outside of Berm.
N 3946.00 E 4846.92			5.88	700.00	inside Berm on face of Large Boulder X
N 4058.15 E 4946.92				750.00	cut cross in face of Boulder on outside of Berm.
	6.20	755.69	749.49	Hub on Axis	N 4120 E 5000
N 4153.60 E 5035.67			5.69	750.00	set Hub on outside Berm.

N 4141.10
E 5145.67

4.19 704.19

700.00 Hub

4.19 700.00 set Hub on outside Berm ↓

2.47 660.41

657.94 "B.M. N-

N 4061.25
E 5280.67

10.41

650.00 set Hub

on out side Berm ↓

4.22 611.60

607.38 "B.M. N-

N 3904.70
E 5415.67

11.60

600.00 set Hub

on outside Berm. ↓

N 3403.30 E 3415.67	1.83	606.98	605.15 = B.M. 5-9	
		6.98	600.00	set Hub on outside of Berm ✓
	1.42	659.94	658.52 B.M. 5-8	
N 3236.70 E 3280.67		9.94	650.00	set Hub on outside of Berm ✓
	1.14	709.67	708.33 = B.M. 5-7	
N 3090.75 E 5145.67		9.67	700.00	set Hub on outside of Berm ✓
	10.25	756.50	746.45 = Hub on	Axis N 3040 E 5000
N 3026.70 E 5035.67		6.50	750.00	Set Hub on outside of Berm, (upstream) ✓
N 3048.50 E 4946.92		6.50	750.00	Set Hub on outside of Berm (Downstream) ✓
	2.03	707.21	705.18 = B.M. 5-4	
N 3156.60 E 4836.92		7.21	700.00	set Hub on outside of Berm, ✓

Limits of Stripping Bottom of Rock
Embankment - Nov. 23, 1932 -

Elliott - Notes
Simpson - Level
Soper - Rod
Remmen - Tape

12

B.M.	13.10	613.10		600.00	
N 3844 E 4676 ⁹²			13.1	600.0	Bottom of Rock
N 3861E E 4700			2.6	610.5	Bottom of Rock
T.P.	12.94	625.50	0.54	612.56	
N 3876 E 4720			5.9	619.6	Bottom of Rock
T.P.	10.3	633.9	1.9	623.6	
N 3890 E 4740			5.2	628.7	Bottom of Rock
N 3898 E 4760			+ 3.9	637.8	
B.M.	1.72	601.72		600.00	
T.P.	0.76	590.21	12.27	589.45	
N 3806 E 4690			3.3	586.9	Bottom of Rock
B.M.	1.76	576.81		575.05	
N 3760 E 47152			5.6	571.2	Bottom of Rock
B.M.	4.65	554.02		649.37	
N 3257 E 4770			11.7	642.3	Bottom of Rock
T.P.	1.33	542.36	12.97	541.03	
N 3275 E 4750			7.2	633.2	Bottom of Rock
T.P.	0.27	630.09	12.54	627.82	
N 3295 E 4730			6.0	624.1	Bottom of Rock
T.P.	1.96	619.80	12.25	617.84	
N 3352 E 4700			9.3	610.5	Bottom of Rock
N 3315 E 4720			0.2	619.6	Bottom of Rock

Limits of Stripping
Bottom of Rock Cont.

619.80

T.P.	0.86	607.72	12.94	606.86	
B.M.	7.75	607.95	7.75	599.97	Record
N 3370					600.00
E 4676 ²²			7.8	600.00	Bottom of Rock
T.P.	0.52	595.94	12.33	595.42	
N 3430					
E 4690			9.0	586.92	Bottom of Rock
T.P.	1.10	584.13	12.91	583.03	

Continued Nov. 26 - 1932

P.M.	6.86	606.86		600.00	
T.P.	0.69	594.56	12.99	593.87	
N 3368					
E 5185			4.6	590.0	Bottom of Rock
N 3410					
E 5176 ²²			13.4	581.2	" " "
T.P.	13.08	613.79		600.71	
N 3322					
E 5200			8.8	605.0	Bottom of Rock
T.P.	12.76	626.25	0.30	613.49	
N 3295					
E 5210			11.25	615.0	Bottom of Rock
N 3258					
E 5220			1.2	625.0	Bottom of Rock
T.P.	12.87	638.32	0.80	625.45	
N 3245					
E 5210				631.4	" " "
N 3234					
E 5200			0.6	637.7	" " "
T.P.	12.87	650.73	0.46	637.86	
N 3196					
E 5180			0.2	650.5	" " "

Profile Levels on E Upstream
Toe Wall.

B.M.			607.38
	0.52	607.90	
T.P.		13.01	594.89
	0.34	595.23	
0+10		2.8	592.4
0+00		6.5	588.7
+12		11.6	583.6
T.P.		12.21	583.02
	0.91	583.93	
+22		4.7	579.2
+24		8.9	575.0
+25		9.6	574.3
+27.5		12.9	571.0
T.P.		12.91	571.02
	0.71	571.73	
+36		7.3	564.4
+42		9.5	562.2
+50		12.2	559.5
T.P.		10.84	560.89
	10.82	571.71	
+56		11.5	560.2
+65		13.4	558.3
+75		12.1	559.6

May 16, 1932.
Simpson
Soper
Remmen.

14

North end curved section of Toe Wall.

Start of Granite outcrop.

End of granite outcrop.

571.71

0+84	13.7	558.0
+95	14.9	556.8
1+00	14.8	556.9
+25	14.8	556.9
+40	14.7	557.0
+50	11.7	560.0
+60	9.9	561.8
+66	10.3	561.4
+75	10.3	561.4
+80	9.2	562.5
+93	10.3	561.4
2+00	9.1	562.6
+05	7.3	564.4
+25	3.5	568.2
+50	7.6	564.1
+63	7.7	564.0
+75	8.6	563.1
3+00	8.2	563.5
+17	8.2	563.5
+25	8.5	563.2
+28	7.9	563.8
+50	8.2	563.5
+61	7.8	563.9
+75	8.5	563.2
+84	8.1	563.6

	571.71		
3+86		5.4	566.3
T.P		1.39	570.32
	9.44		579.76
195		7.7	572.1
4+00		7.5	572.3
+25		5.7	574.1
+37		4.8	575.0
+50		4.6	575.2
+55.02		4.6	575.2
+70		0.2	579.6

South end curved section of Toe Wall

Slope stakes, Upstream Toe Wall

	Stake	El.	Grade
		565.84	B.M.
	4.78	570.62	
T.P.		5.22	568.40
	2.51	567.91	

0+00 = North end of Upstream Toe Wall Arch

Station	Stake	El.	Grade
0+25		565.0	
+50	8.5	559.4	559.0
+75	8.3	559.6	553.0
1+00	11.1	556.8	547.0
+25	9.2	558.7	541.0
+50	8.2	559.7	535.0
+75	8.0	559.9	535.0
2+00	5.3	562.6	535.0
+25	1.5	566.4	535.0
+50	4.1	568.8	535.0

5/17/32
Converse
Simpson
Elliott
Seber
Remmen

Upstream
Downstream
Lf. Rt.



Station	Upstream	Grade	Downstream	Area Sq. ft.
0+00				
+50	6.7 C-2.2 20.6	C-0.4	5 C-3.8 22.7	59.99
+75	9.1 C-5.8 28.0	C-6.6	9.1 C-5.8 25.7	282.48
1+00	10.4 C-10.5 37.0	C-9.8	11.0 C-9.9 32.0	534.57
+25	8.8 C-18.1 50.4	C-17.7	9.7 C-17.2 42.8	1181.88
+50	8.5 C-29.4 61.9	C-24.7	8.8 C-24.1 53.2	1936.20
+75	6.9 C-26.0 64.3	C-24.9	8.2 C-24.7 54.0	2011.69
2+00	5.9 C-27.0 65.8	C-27.6	1.9 C-31.0 63.5	2389.39
+25	4.0 C-28.9 68.6	C-31.4	C-30.3 62.4	2679.83
+50	3.7 C-29.2 69.1	C-28.8	4.0 C-28.7 60.0	2472.37

	567.91		
2+75		563.1	535.0
3+00		563.5	535.0
3+25		563.2	535.0
+50		563.5	535.0
+75		563.2	535.0
T.P.	4.30	563.61	

11.97 575.38

4+00			535.0
+25			546.0
+50			557.0

0.62 574.96 = check on Hub Elev. 575.0

Contd. on Page 19.

Lf.	E	Rt.	Area Sq. ft.
$\begin{array}{r} 3.8 \\ c-29.1 \\ \hline 68.9 \end{array}$	c-28.1	$\begin{array}{r} 4.7 \\ c-28.2 \\ \hline 59.3 \end{array}$	2409.03
$\begin{array}{r} 4.5 \\ c-28.4 \\ \hline 67.9 \end{array}$	c-28.5	$\begin{array}{r} 4.7 \\ c-28.2 \\ \hline 59.3 \end{array}$	2516.49
$\begin{array}{r} 4.5 \\ c-28.4 \\ \hline 67.9 \end{array}$	c-28.2	$\begin{array}{r} 4.8 \\ c-28.1 \\ \hline 59.1 \end{array}$	2388.81 2411.1
$\begin{array}{r} 4.4 \\ c-28.5 \\ \hline 68.0 \end{array}$	c-28.5	$\begin{array}{r} 4.3 \\ c-28.6 \\ \hline 59.9 \end{array}$	2426.20
$\begin{array}{r} 4.4 \\ c-28.8 \\ \hline 68.5 \end{array}$	c-28.2	$\begin{array}{r} c-33.0 \\ \hline 66.5 \end{array}$	2548.30

1/2 : 1 Slopes from Here ON

$\begin{array}{r} 10.0 \\ c-30.6 \\ \hline 40.6 \end{array}$	c-37.3	$\begin{array}{r} 2.6 \\ c-38.0 \\ \hline 36.0 \end{array}$	1954.37
$\begin{array}{r} 1.8 \\ c-27.8 \\ \hline 35.6 \end{array}$	c-28.1	$\begin{array}{r} 0.9 \\ c-28.7 \\ \hline 31.3 \end{array}$	1484.81
$\begin{array}{r} 0.6 \\ c-18.0 \\ \hline 27.0 \end{array}$	c-18.2	$\begin{array}{r} c-24.8 \\ \hline 29.4 \end{array}$	886.04

Sta.	Grade	End Area	Pr. End Area	Co. Ft.	Co. Yds.
0+25		0.0			
			30.0		27.8
0+50		59.99			
			171.24		158.6
0+75		282.48			
			408.52		378.6
1+00		534.57			
			858.22		794.6
+25		1181.88			
			1559.04		1443.6
+50		1936.20			
			1973.94		1827.7
+75		2011.69			
			2200.54		2037.5
2+00		2389.39			
			2534.61		2346.8
+25		2679.83			
			2576.10		2385.3
+50		2472.37			
			2440.70		2259.9
+75		2409.03			
			2462.76		2280.3
3+00		2516.49			

3+00	2576.49		
		2452.65	2271.0
+25	2388.81		
		2407.50	2229.2
+50	2426.20		
		2487.55	2303.3
+75	2548.30		
		2251.34	2084.6
4+00	1954.37		
		1724.59	1596.8
+25	1484.81		
		1185.42	1097.6
+50	886.04		
		443.02	410.2
+75	0		

Total - Sta. 1+25 to 3+50 = 19,081.3

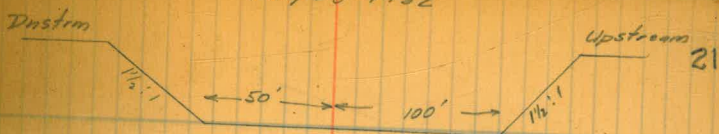
Estimated Total = 27,933 Cu. Yds.

Core Wall

B.M.	4.37	566.22	6 Elev	Grade
N3425 5000			561.85	N3560 E5000
	7.1		559.1	551.0
3450 5000	8.3		557.7	542.0
3500 5000	4.8		561.4	530.0
3550 5000	4.9		561.3	530.0
3600 5000	7.5		558.7	530.0
3650 5000			555.4	530.0
3700 5000				530.0
3710 5000	12.0		554.2	532.0
3750 5000	9.4		556.8	540.0

Hub

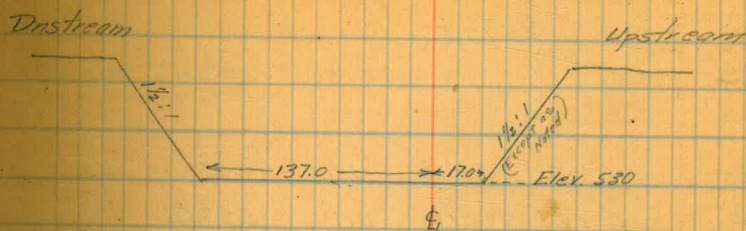
May 28 - 1932



West		East
C. 6.8 60.2		C. 8.1 Not Set
C. 16.0 74.0		C. 15.9 Not Set
C. 32.2 98.3		C. 31.1 146.6
C. 28.2 92.3		C. 31.3 147.8
C. 24.9 87.4		C. 32.8 149.2
C. 24.9 87.4		C. 32.3 148.4
		Not Set
C. 23.1 84.7		C. 22.2 137.2
C. 24.4 86.6		C. 16.8 122.2

Slope Stake Downstream Toe Wall 23

Elliott - Notes
 Simpson - T June 2 - 1932
 Soper - Rod Cold - Rain
 Remmen - Tape



B.M.	1.88	565.53	Elev.	Grade
0+00		0.0	565.5	530.0
0+25		2.5	563.0	530.0
0+50		2.6	562.9	530.0
1+00		4.9	560.6	530.0
1+50		5.4	560.1	530.0
2+00		10.9	554.6	530.0
T.P.		10.43	555.10	
	4.15	559.25		
2+50		6.9	552.3	530.0

C. 30.4 182.6	C. 35.5 6	C. 42.9 38.5	This set on 1/2:1 slope
C. 32.0 185.0	C. 33.0 6	C. 39.2 36.6	This set on 1/2:1 slope
C. 32.2 185.3	C. 32.9 6	C. 40.2 77.3	1/2:1 slope
C. 32.2 185.3	C. 30.6 6	C. 30.3 62.4	
C. 28.2 179.3	C. 30.1 6	C. 30.2 62.3	
C. 21.7 169.5	C. 24.6 6	C. 29.0 60.5	
C. 21.6 167.4	C. 22.3 6	C. 22.4 50.6	

	H.I.		Elev.	Grade	Downstream		Upstream
	559.25						
3+00		6.3	552.9	530.0	C.21.2 168.8	C.22.9 ⊕	C.25.0 54.5
3+25		4.2	555.0	530.0	C.21.2	C.25.0	C.35.8 ← 1/2:1
T.P.	12.65	571.16	0.74	558.51	168.8	⊕	70.7
3+50		8.9	562.3	530.0	C.21.2 168.8	C.32.3 ⊕	C.42.0 ← 1/2:1 38.0
3+75		1.4	569.8	530.0	C.22.1 170.1	C.39.8 ⊕	C.45.6 ← 1/2:1 39.8
4+02 ¹⁴				530.0	C.24.3	⊕	
B.M.		7.52	563.14	Record 563.65	173.4	⊕	

Profile Upstream Toe Wall
For July 1-1932 Estimate.

25

B.M.	0.87	555.87		555.00
0+50			0.0	55.9
1+00			3.7	52.2
+50			9.2	46.7
2+00			11.9	44.0
+50			13.7	42.2
3+00			14.0	41.9
+50			5.7	40.2
T.P.	12.79	568.32	0.34	555.53
4+00			11.3	57.0
+55 end wall			0.0	68.3
B.M.			13.32	555.0

B.M.	12.4	567.4		555.0		
N 3630						
E 5450			14.4	553.0	#1	Top Black Clay
"			15.4	552.0		Bottom "
N 3630			5.2	562.2	#2	Top Yellow deposit (Also Top of Original Ground)
E 5432			7.5	559.9		Bottom " "
B.M.	0.13	562.87		562.74		
N 3620			4.2	558.7	#3	Natural Ground
E 5113			10.0	552.9		Top of Black Clay
"			11.8	551.1		Bottom of Black Clay
B.M.	0.25	562.99		562.74		
N 3520			2.9	560.1	#4	Natural Ground
E 5080			11.9	551.1		Top of Black Clay
"			13.4	549.6		Bottom of Black Clay
T.P.	7.64	568.16	2.47	560.52		
N 3496			5.1	563.1	#5	Ground
E 5410			7.8	560.4		Top of Black Clay
"			9.2	559.0		Bottom " "
B.M.	0.78	563.52		562.74		
N 3520			2.3	561.2	#6	Ground
E 4938			11.5	552.0		Top of Black Clay
"			12.5	551.0		Bottom " " } Mixed with gravel
B.M.	3.5	559.0		555.5		
N 3699			3.5	566.9	#7	Ground
E 4853			11.9	547.1		Top of Black Clay
"			13.0	546.0		Bottom " " } Mostly gravel

Location - Elev. Clay Deposit

51.4

27

B.M.	1.44	564.18	562.74	# 8
N 3690				
E 5020				
"		12.0		
"		12.4	551.8	

Ground

Top Black Clay } Mostly Sand

Bottom Black Clay }

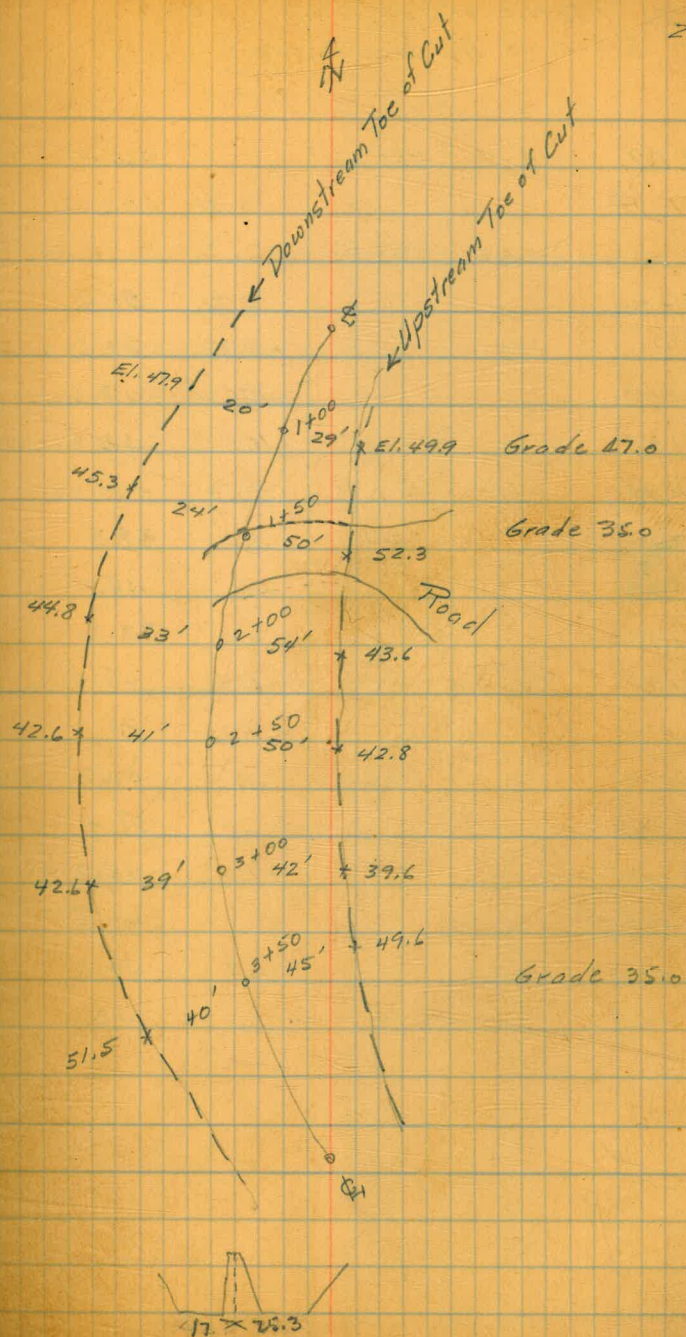
Profile Downstream Toe Wall
For July 1-1932 Estimate

28

B.M.	3.5	559.0	555.5
0+20.5		+12.0	571.0
0+00		0.7	58.3
+50		10.7	48.3
1+00		14.7	44.3
+50		14.8	44.2
2+00		17.9	41.1
+50		19.3	39.7
3+00		16.9	42.1
+25		7.2	51.8
4+02	Excavated to Elev. 554.		54.0

B.M. 2.53 557.5 555.0

1+00 Lt. out 29'	7.6	549.9
1+00 Rt. out 20'	9.6	47.9
1+50 Lt. out 50' Road	5.2	52.3
1+50 Rt. out 24'	12.2	45.3
2+00 Lt. out 54'	13.9	43.6
2+00 Rt. out 33'	12.7	44.8
2+50 Lt. out 50'	14.7	42.8
2+50 Rt. out 41'	14.9	42.6
3+00 Lt. out 42'	17.9	39.6
3+00 Rt. out 39'	14.9	42.6
3+50 Lt. out 45'	7.9	49.6
3+50 Rt. out 40'	6.1	51.5



Profile of Upstream Toe Wall
Elevs. of Top of Granite

B.M.	0.11	566.58		566.47
T.P.			12.91	553.67
	0.09	553.76		
1	0+50		2.2	51.6
1	"		+3.8	57.6
1	1+00		5.6	48.2
2	1+50		11.0	42.8
2	T.P.	3.41	13.06	540.70
2	2+00		5.6	38.5
2	2+00		0.0	44.1
3	2+50		6.9	37.2
3	2+50		+0.9	45.0
3	3+00		7.2	36.9
3	3+00		1.4	42.7
4	3+40		6.7	37.4
	3+40		+1.2	45.3
	3+00		2.6	41.5
	2+50		1.9	42.2
	2+25		1.0	43.1

July 2, 1932
Elliott - Notes
Simpson Level
Soper - Rod
Kemper - Tape

30

Note: Not Excavated from 0+00 to 0+50

Top of decomposed granite at Rt.

In construction road-

Additional cleaning up to do at this point

Top of decomposed granite lit.

Top of decomposed granite at Rt.

Top of decomposed granite at Rt.

Top of decomposed granite at Lt.

" " " at Lt.

" " " at Lt.

" " " at Lt.

Downstream Toe Wall
Slope stakes for toe trench

				Trench Grade (-6%)
B.M.	1.04	553.04		552.00
T.P.	6.14	547.70	11.48	541.56
1+50			10.1	537.6 531.6
2+00			9.7	538.0 532.0
T.P.	3.05	547.79	2.96	544.74
2+50			10.4	537.4 531.4
3+00			10.2	537.6 531.6
B.M.	0.72	552.72		552.00
0+50			13.3	539.4 533.4
1+00			14.7	538.0 532.0
0+00				541.5 535.5

July 5-1932
Ellicott - Notes
Simpson - A
Soper - P
Remmen - Topc



G. 102	114.2	from to wall	C. 6.5	29.2	from toe stake
G. 105	113.0	" "	C. 6.2	29.1	" "
G. 102	114.8	" "	C. 6.2	29.4	" "
G. 103	114.2	" "	C. 6.2	29.3	" "
G. 8.3	108.8	" "			
G. 9.7	113.0				
G. 9.8	102.5				

Profile of Ends Upstr. Toe Wall

B.M.	2.54	569.01		566.47
T.P.	12.29	580.98	0.32	568.69
4+75			5.8	575.2
4+55			12.5	568.5
T.P.	1.42	570.11	12.29	568.69
+35			6.7	563.4
4+00			12.8	557.3
T.P.	0.38	558.65	11.84	558.27
3+74			5.7	553.0
3+68			13.5	545.2
3+55			19.5	539.2

B.M.	2.60	569.07		566.47
0+32			2.8	566.3
0+22			+10.2	579.3
0+00			+11.3	580.4
			+13.2	582.3

July 5 - 1932
 Elliott - Notes
 Simpson - Level
 Soper - Rod
 Kemmen - Tape

32

Also Top of decomposed granite

Top of decomposed granite

Top of decomposed granite

Top of decomposed granite

				Grade	Let		RT
B.M.	11.75	580.44		568.69			
4+5502				563.33	C 4L	C 5L	C 17.9
T.P	1.38	570.07	11.75	568.69	172		252
4+25			4.4	565.7	C 60	C 124	C 116
B.M.	0.45	566.92		566.47	228		22.8
4+00			9.7	557.2	C 105	C 122	C 20.5
				545.00	272		272
3+75				541.8			
3+50				538.5			
B.M.	0.45	566.92		566.47			

Neat Line Upstream Toe Wall Elev. for neat line -
5' above bottom grade
Shown on detail drawing
dated 7-2-32
Elev. for Neat Line Grade

Elliott - Notes
Simpson - I
June 6 - 1932 Soper - Hd. Ch.
Kemmer - R. Ch.

34

					Upstream Stake	Downstream Stake
0+50				552.0	547.0	
0+75	4.36	554.47	12.3	550.11	544.7	
1+00				549.9	542.7	
1+25				547.7	542.7	
1+50				545.5	540.5	
1+75				543.3	538.3	
2+00	9.37	551.40	2.88	541.2	536.2	
2+25				542.03	534.0	
2+50				539.0	532.0	
2+75				538.0	533.0	
3+00				537.0	532.0	
3+25				537.0	532.0	
3+50				537.0	532.0	
	2.87	544.91	12.67	542.04		
	0.56	554.71	12.98	554.15		
B. M.	0.66	567.13		566.47		

Levels Thus. ↑

Upstream Stake	Downstream Stake
Cut 5 ⁶ Out 9 ⁶⁶ from 6 ⁶	Cut 4 ³ Out 2 ⁰ from 6 ⁶
3 ⁶ 10 ³⁶	3 ⁸ "
5 ⁴ 11 ²⁰	5 ⁶ "
6 ⁸ 11 ⁶³	6 ⁵ "
8 ¹ 12 ⁵⁶	7 ⁶ "
8 ¹ 13 ²⁶	5 ⁷ "
8 ¹ 14 ⁰	4 ⁷ "
6 ² 14 ³³	5 ¹ "
6 ⁴ 14 ⁶⁶	5 ⁶ "
6 ⁴ 14 ⁶⁶	5 ⁴ "
6 ⁶ 14 ⁶⁶	5 ² "
6 ⁶ 14 ⁶⁶	5 ⁸ "
Cut 6 ² 14 ⁶⁶	Cut 6 ² "

July 6 - 1932

Slope stakes Distr. Toe wall

35

			Elev.	Grade
B.M.	0.53	552.59	552.00	
1+00	2.6	549.9	530.00	
1+50	+ 3.0	555.5	530.0	
2+00	11.5	541.0	530.0	

East Side 1 1/2 to 1 Slopes

17.9
46.9
0.255
55.2
0.112
33.5

July 7-1932

Neat Lines Downstream Toe Wall

B.M.	1.75	553.75		552.00
T.P.	2.96	544.00	12.71	541.04
3+00			8.5	535.5
2+50			7.9	536.1
2+00			6.5	537.5
1+50			5.5	538.5

36

Upstr. Stake.

Downstr. Stake

	2°	15°
out	2°	15°
	2°	14.5°
	2°	14.2°

July 7 - 1932

Sams Crew

Profile of Downstream Toe Wall - Elev. of
Decomposed Granite & Coarse Gravel

37

B.M.	0.25	600.12		599.87	
T.P.	0.32	587.50	12.94	587.18	
0-68			6.9	80.6	
0-65			11.4	76.1	Road
0-30			11.6	75.9	Road
T.P.	0.60	575.39	12.71	574.79	
0-16			4.2	71.2	
T.P.	0.61	563.41	12.59	562.80	
0-02			3.7	59.7	Top of decomposed granite
0+20			13.1	50.3	
T.P.	0.56	551.10	12.87	550.54	
0+50			2.7	48.4	
0+50			+1.2	52.3	Top of decomposed granite on lot 23'
0+50			7.6	43.5	" " " on Rt. 135'
0+100			6.8	44.3	On construction road
1+00			10.0	41.1	About average bottom of excavation
1+00			6.4	44.7	Top of decomposed granite on lot 33'
1+00		12.5		38.6	" " " " on Rt. 85'
1+00		9.2		41.9	Top of coarse sand + rock on Rt.
1+50		9.7		41.4	Top of decomposed granite on lot 28'
0+1+50			12.6	38.5	
1+25			13.4	37.7	" " " " Rt 100'
1+50			8.1	43.0	Top of coarse sand + rock
0+2+00			13.6	37.5	
2+00			10.7	40.4	Top of decomposed granite lot 20'

Profile of Downstream Toe Wall Continued

38

551.10

42+50			15.0	536.1
2+80			12.9	38.2
3+00			15.7	35.4
3+00			11.1	40.0
3+25			12.6	38.5
3+07			15.2	35.9
T.P.	11.24	561.14	12.0	549.90
3+42			1.0	560.1
3+50			7.6	553.5
3+75			8.3	552.8
4+02 ¹⁴			7.0	554.1
4+02			+ 7.0	568.1

Top of decomposed granite Lit. 12'

" " " 4+13'

" " " RT 20'

July 8-1932

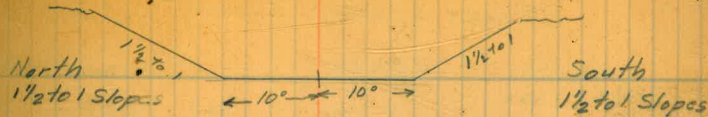
Top of Decomposed Granite Lit.

July 8-1932

Drain Slope Stakes

39

Drain #3 (North) Grade



B.M.	10.79	562.79	552.00
N 3700			
E 4600		15.3	547.5
E 4570		8.0	554.8
E 4600		2.5	560.3
E 4630		2.5	560.3
E 4660		3.0	559.8
N 3690			
E 4686		3.0	559.8
N 3710			
E 4686		3.0	559.8
T.P.	3.61	557.62	8.78 554.01

Bottom of Shovel Excavation Now

North	Center	South
C 162 342	C 172 342	C 164 342
C 162 350	C 172 342	C 162 342
C 165 330	C 172 342	C 162 342
Cut 172		Cut 172

Drain #2 = (Center)

N 3620						
E 4535		17.6	540.0	540.0	0° 10°	0° 10°
N 3620						
E 4570		4.2	553.4	540.0	C 145 312	C 123 292
N 3620						
E 4600		3.7	553.9	540.0	C 185 372	C 107 260
N 3620						
E 4630		6.0	551.6	540.0	C 184 376	C 116 275
N 3620						
E 4660		6.0	551.6	540.0	C 182 375	C 114 271
N 3610						
E 4677L		6.2	551.4	540.0	→ C 114	
N 3630						
E 4677R		6.1	551.5	540.0	→ C 115	

July 8 - 1932

40

Slope Stakes Drain # 1. (South)

	557.62		Ground	Grade	North		South
N 3550 E 4520		19.6	538.0	538.0	1 1/2 to 1 slope	0.0 \$	1 to 1 slope
E 4556		13.1	544.5	538.0		0.65 \$	
E 4571		6.2	551.4	538.0	C 142 313	C 134 \$	C 144 244
E 4600		5.1	552.5	538.0	C 142 313	C 145 \$	C 158 258
E 4630		4.9	552.7	538.0	C 142 320	C 147 \$	C 160 260
E 4660		4.6	553.0	538.0	C 142 310	C 152 \$	C 148 248
N 3540 E 46824 N 3560 E 4682 E		4.7	552.9	538.0	Cut 142		
		4.6	553.0	538.0	Cut 152		
T. P.		7.73	549.89	549.89	Check		

Drain #3 Cuts

				Grade	
B.M.	0.34	552.34		552.00	
N 3700 E 4540				542.5	
N 3700 E 4580				542.5	
N 3700 E 4620				542.5	
N 3700 E 4660				542.5	
T.P.	9.40	556.09	5.65	546.69	
			4.09	552.00	= check on B.M.

Drain #3 542.5
#2 540.0

41

North

South

C-0 ⁹ 10°	C-1 ⁵ 10°	C-3 ³ 10°
C-0 ³ 10°	F-0 ² 10°	C-2 ² 10°
C-0 ⁴ 10°	set Ginnie at Grade F-0 ² 10°	C-0 ⁵ 10°
C-3 ⁴ 10°	C-1 ⁶ 10°	C-1 ⁵ 10°

Drain #2 Cuts
 July 14, 1932

42

B.M.	0.35	552.35	552.00
N 3620 E 4660			540.0
N 3620 E 4620			540.0
N 3620 E 4580			540.0
N 3620 E 4540			540.0

North	Q	South
G09 10°	G06 E	G12 10°
Setgrade F04 10°	F06 E	G02 10°
G00 10°	F03 E	G03 10°
G15 10°	F05 E	F08 10°

July, 13, 1932

43

Profile of Core Wall
Decomposed Granite

5.30	557.30		552.00 = B.M.	
1.52	547.86	10.96	546.34	
10.69	550.08	8.47	539.39	set T.P. on Boulder, west side of core wall excavation
7.28	556.11	1.25	548.83	
		4.09	552.02 = check on B.M.	
3.80	543.19		539.39	

N3450 E5000	+1.5	544.7
N3490 E4970	7.2	536.0
N3584 E4950	6.7	536.5

= Top of Decomposed granite

" " " "

" " " "

Slope stakes to revised grade
Core Wall Excavation

July 14, 1932



T.P. N 3580	9.89	549.28		539.39
B.M.	3.07	565.81		562.74
T.P. N 3500	5.29	558.64	12.46	553.35
				536.0
N 3540				536.2
N 3580				536.4
N 3620				536.6
N 3660				536.8
N 3700				537.0
N 3740				537.2
N 3780				537.4
N 3800				537.5
N 3730				537.2

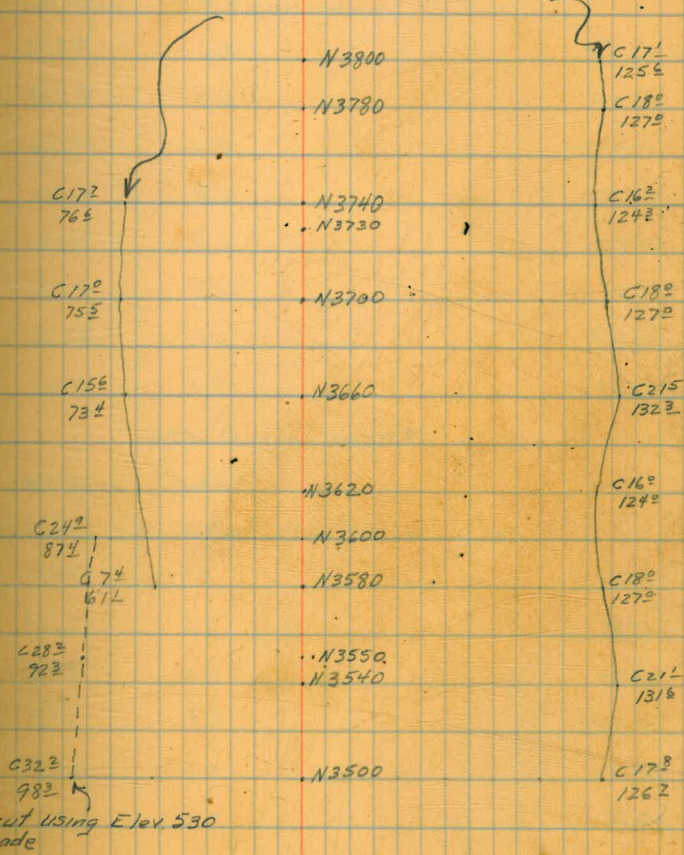
C 7 1/2 61 L			
C 17 1/2 126 1/2			
C 21 L 131 1/2			
C 18 1/2 127 1/2			
C 16 1/2 124 1/2			
C 21 1/2 132 1/2			
C 15 1/2 73 1/2			
C 17 1/2 75 1/2			
C 18 1/2 127 1/2			
C 16 1/2 124.3			
C 18 1/2 127 1/2			
C 17 1/2 125 1/2			
C 17 1/2 76 1/2			

July 14-1932

45

Plan Showing stakes Set On Core Wall
(From Notes on Page 44)

Top of cut using revised
grades as shown on page 44



Drain #3 - N 3700

B.M.	0.96	552.96		552.00
T.P.	4.53	547.81	9.68	543.28
			13.5	34.3
			8.8	39.0
E 4525			8.6	39.2
4535			5.5	42.3
4540			5.2	42.6
4580			5.8	42.0
4620			6.2	41.6
4658			5.8	42.0
4660			5.2	42.6
4567			0.0	47.8

Bottom of toe trench

Ave. elev. of toe wall excavation

End of drain

Drain #2 - N 3620

			14.1	33.7
			10.4	37.4
E 4540			8.7	39.1
4580			8.0	39.8
4620			8.2	39.6
4657			8.3	39.5
4660			6.6	41.2
4666			2.5	45.3

Bottom of toe trench

Ave. elev. of toe wall excavation

End of drain

Drain #1 - N 3560

			14.2	33.6
			12.1	35.7

Bottom of toe trench

Ave. elev. of toe wall excavation

Profile of Drain² Continued

547.81

E 4540	10.2	537.6
4560	10.2	37.6
4620	10.1	37.7
4650	9.8	38.0
4660	2.6	45.2
4662	2.1	45.7
T.P.	2.02	545.79

7.20 552.99

B.M.	1.00	551.99	Record
			552.00

End of drain

Check on levels

Profile Downstream Toe Wall
and Neat Line Stakes

July 21-1932

48

			Profile	Bottom Trench Grade	Grade %	Grade for Calc. of neat line	Downstream Stake on Neatline	Upstream Stake on Neat Line
B.M.	1.08	553.08	552.00					
T.P.	2.15	543.33	541.18	21.90				
3 + 00			535.9	7.4	530.0	535.0	C. 58 out 15.33	C. 65 out 20
T.P.	2.24	543.42	541.18	2.15				
2 + 75			535.7	7.7	530.5	535.5	C. 56 out 15.17	C. 52 out 20
2 + 50			535.9	7.5	531.0	536.0	C. 48 out 15.00	C. 51 out 20
2 + 25			536.4	7.0	531.5	536.5	C. 32 out 14.83	C. 48 out 20
2 + 00			537.0	6.4	532.0	537.0	C. 55 out 14.62	C. 51 out 20
1 + 75			537.4	6.0	532.5	537.5	C. 55 out 14.50	C. 53 out 20
1 + 50			538.6	4.8	533.0	538.0	C. 60 out 14.33	C. 56 out 20
1 + 25			539.9	3.5	534.5	539.5	C. 58 out 13.80	C. 53 out 20
1 + 00			541.7	1.7	536.0	541.0	C. 57 out 13.30	C. 58 out 20
T.P.			542.07	1.35				
	10.74	552.81						
B.M.			552.00	0.81	552.00	552.00	Check	

Continued on Next Page

Profile and Neat Line Stakes
Downstream Toe Wall

Elliott
Simpson
Soper
Kemper

July 23 - 1932

49

B. M.			Profile	Bottom of trench Gr.	Grade %	Grade for Calc. Neat Line	Downstr. Stake on neat line	Upstr. Stake on neat line
	8.05	560.05	552.00					
0+00				553.0		558.0	C 2 ² out 7 ²	C 6 ³ out 2 ⁰
0+25		10.2	549.8	545.0		550.0	C 4 ⁹ out 10 ³³	C 4 ² out 2 ⁰
0+50				542.0		547.0	C 6 ¹ 11 ³³	C 5 ⁷ 2 ⁰
0+75				539.0	12%	544.0	C 5 ⁴ 12 ³³	C 5 ¹ 2 ⁰
1+00			541.7	536.0		541.0		

Upstream Toe Wall - Neat Line

Aug 3 - 1932
These Cuts Increased $2\frac{1}{2}$ Ft.

50

	Cr. Rod	Trench Grade	Grade for Gate Neatline	Downstr. Neatline	Upstream Neatline	
T.P.			581.21			
0+35	0.35	554.56				
0+50			547.0 2.5	550.0 552.0	C. 3 ² out 2 ⁰	C. 4 ⁶ out 9 ⁶⁶ 97
0+75			9.9 12.52	544.66 549.16	C. 4 ¹ "	C. 4 ⁵ 10 ⁴⁵ 77
1+00			12.2	542.33 547.33	C. 5 ⁵ "	C. 4 ³ 11.22
1+25			14.6	540.00 545.0	C. 3 ² "	C. 5 ² 12.00
1+50			16.9	537.66 542.66	C. 2 ⁴ "	C. 6 ⁵ 12.78
T.P.	2.58	544.62	12.52	542.04		
1+75				535.33 540.33	C. 3 ⁹ "	C. 5 ² 13.56
2+00			11.6	533.0 538.0	C. 5 ⁴ "	C. 8 ² 14 ³³
2+25			12.1	532.5 537.5	C. 5 ⁶ "	C. 6 ² 14 ⁵⁰
2+50			12.6	532.0 537.0	C. 5 ⁸ "	C. 4 ⁴ 14 ⁶⁷
2+75				532.0 537.0	C. 2 ⁵ "	C. 4 ⁷ 14.67 2.5 7.2
3+00				532.0 537.0	C. 2 ⁹ "	C. 6 ⁰ 14 ⁶⁷

Continued Next Page

Slope Stake on Core Wall

B.M. 0.94 567.41 566.47
 13.03 554.38
 0.30 554.68

536.0

536.5

537.0

17.6	18.1	12.5	18.7	52
4.1	4.9	6.2	8.7	
	13.2		13.0	
13.5	6.6		6.8	
6.7	19.8			
20.2				

36.8
 13.2 52.5

C 13² out 1195 on E,

C 13² out 1198 "

C 13⁵ out 1202 "

B.M.	0.39	600.26		599.87	
	0.52	587.92	12.86	587.40	
EO-90			0.5	587.4	
EO-68			7.5	589.4	
EO-65			11.8	576.1	Road
EO-30			12.5	575.4	Road
T.P.			12.80	575.12	
	0.24	575.36			
EO-25			2.8	572.6	
O-22			14.1	561.3	Top of D.G. on 4
O-18			16.9	559.5	Top of D.G. 4
O-12			13.0	562.4	Top of D.G. 3' RT
O+00			14.9	560.5	Top of D.G. 5' RT
EO+00			19.0	556.4	end of wall

Puddle Core - Slope stakes on Trench
 Revised Grade to Fit Excavation

Grade Rod Exc. Grade Trench Grade Grade %

B.M. 4.72 544.11 539.39

N 3500 18.7 536.0 526.0

3540 16.9 537.2 527.2

3580 15.7 538.4 528.4

3620 14.5 539.6 529.6

3660 13.3 540.8 530.8

3680 12.7 541.4 531.4

B.M. 11.62 551.01 539.39

3700 16.3 544.7 534.7

3720 13.0 548.0 538.0

3740 11.5 549.5 539.5

3760 10.0 551.0 541.0

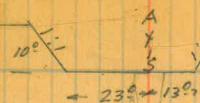
3.9%
13.2%
7.5%

July 30 - 1932

54

downstream

upstream



Hole ave. 15 elev 536

C 7⁵
30.6 C 10²
23.7

C 8⁵
31.5 C 10²
23.2

C 8.5
31.5 C 10²
23.2

C 9.4
32.4 C 9.5
22.5

C 11.4
34.1 C 8.8
21.8

C 13.4
36.1 C 10.2
23.0

Aug 1 - 1932

C 12.9
35.9 C 10.2
23.2

C 12.4
35.1 C 9.3
22.3

C 12.2
35.2 C 10.2
23.2

C 13.4
36.4 C 10.2
23.2

Upstream Toe Wall - Neat Line Cuts
 with Additional $2\frac{1}{2}$ ft. Depth from
 2+75 to 1+00 - 1+00 back O.K.

AUG. 3 - 1932

55

B.M.	1.03	567.50	566.47	Grade	Grade Red	Cut
			12.76	554.74		
	0.15	554.89				
			9.95	544.94		
	1.04	545.98				
0+50				544.5		
0+75				542.16		
1+00			1.18	537.82	6.15	0.52
1+25			7.48	537.50	8.48	0.12
1+50			9.81	535.16	10.82	0.12
1+75			10.12	532.83	13.15	0.32
2+00			9.48	530.57	15.48	0.62
2+25			10.98	530.0	15.98	0.52
2+50			12.48	529.5	16.48	0.42
2+75			12.48	529.5	16.48	0.42
3+00				529.5	16.48	
3+25				529.5	16.48	
3+50				529.5	16.48	

Aug 3 - 1932
Profile N. End Upstr. Toe Wall

56

B.M.	9.87	576.34	566.47
0 - 04.5		+14.4	590.7
0 - 02		+8.0	584.3
0 + 00		+4.0	580.3
0 + 16		+3.2	579.5
0 + 22.5		1.34	575.00
0 + 23.5		2.3	574.0
0 + 29		8.8	567.5
T.P.		12.08	564.26
	6.77	571.03	
0 + 33.5		14.1	556.9
0 + 50		21.4	549.6

Top of Road cut

Top of D.G.

Road

Road

Top of D.G.

Top of D.G.

D.G. (Already excavated some)

Loose stuff

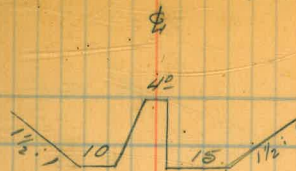
571.
19.5
51.2
4.6
46.9

Slope Stakes for Shovel Exc.
Upstream Toe Wall

3+85		539.0
3+75		545.0
4+00		552.5
4+25		560.0
4+55		567.8
4+75		575.0
	1.50	567.97
B.M.		566.47

Upstream

Downstream 57



← 24 → 17 →

← 22 → 17 →

C 54
27E ← 195 → 17 → C 10L
32L

C 08
18E ← 172 → 17 → C 14
19L

30%

AUG 4 - 1932

58

175

576

Gr. Rod

Grade

12.33 554.37

542.04

0+50

9.9

544.5

0+40

6.1

548.3

0+30

12.1

552.0

0+25

555.0
567.0

0+10

567.0

0+00

567.0

Void

~~C66 -2° - 12.15 → C91~~

11000 250

~~C74 -2° - 10.30 → C75~~

9.67

7.23

~~C71 5° - 9.67 → C78~~

+2° 8.67 →

+2° +2°

+2° +2°

Aug 5-1932

Upstr. Toe Wall Profile
For Final X section

By G.W. Converse

59

B.M.			542.04
	0.28	542.32	
1+00		3.6	538.7
+25		5.1	537.2
+50		7.5	534.8
+75		9.8	532.5
2+00		11.3	531.0
T.P.		10.90	531.47
	4.69	536.11	
+75		6.7	529.9
+50		6.1	530.0
+75		6.2	529.9
check		2.60	533.5
B.M.	9.34	551.38	542.04
0+75		9.2	542.2

Top Cut stake at Sta. 2+75. Elev. 533.5 (C.L.O.)

Aug 8

B.M.			Grade	Elev.	Grade
	10.12	576.59		566.47	
			0.40	576.19	
	4.15	580.34			
			Grade	Elev.	Grade
0+00			13.3	567.0	
0+10			13.3	567.0	
0+25			13.3	567.0	
0+25			25.3	555.0	
T.P.			11.79	568.55	
	2.60	571.15			
0+30			16.2	555.0	
0+30			19.2	552.0	
T.P.	0.65	558.91	12.89	558.26	
0+50				544.5	
0+40				548.0	
B.M.		571.15	4.66	566.47	566.47

Upstr.

Downstr.

C 13⁵ out 2°C 14⁴ out 2°

C 12° out 2°

C 12° out 2°

30 ft Slope

C 4⁶ out 3¹⁰↑
Same PlaceC 16⁶ out 3¹⁰C 5³ out 2°↑
Same PlaceC 17³ out 2°C 8⁸ out 2°↑
Same PlaceC 11⁸ out 2°for M line
550.0 C 7⁴ out 10³³

C out 2°

for M line
552.0 C 6² out 9⁶⁷

C 6° out 2°

Drain #1 - N3560

B.M.	0.74	556.17	555.43
T.P.		11.73	544.44
	1.93	546.37	
E 4660			
E 4650			
E 4620			
E 4580			
E 4540			
E 4515			

North		South
12 544.6	23 544.1	20 544.4
55	55	55
82 538.2	84 538.0	82 538.2
55	55	55
86 537.8	86 537.8	86 537.8
55	55	55
86 538.3	86 537.8	86 537.8
55	55	55
86 538.1	86 537.8	86 537.9
55	55	55
103 536.1	103 536.1	103 535.2
55	55	55

Drain #2 - N 3620

546.37

E 4660

North

61

South

541.5
49
55541.2
52541.0
54
55

4620

539.3
71
55539.7
62539.5
69
55

4580

539.8
66
55539.9
65539.6
68
55

4540

539.2
72
55539.2
72539.2
72
55

4525

536.9
75
55536.7
72537.2
72
55

Drain #3 - N3700

546.37

E 4660

North

Φ

South

31
55

38

32
55

541.7

4620

42
55

42

46
55

542.1

4580

41
55

43

42
55

542.8

4540

33
55

36

36
55

539.4

4520

66
55

70

73
55

T.F.

2.85 543.52

12.80 556.32

0.69 555.63

8.68 564.31

B.M.

0.65 563.66

Record
563.65

Check

Downstream Toe Wall
New Cut stakes on Neat Line

Aug 8-1932

64

B.M.	0.19	544.63	Grade Rod Reading	544.44	Grade	Cut on Upstr. Side 2° out
0+75			5.6	0.5	539.0	C 5'
1+00			8.6	6.4	536.0	C 22'
1+25			10.1	5.1	534.5	C 50'
1+50			11.6	8.9	533.0	C 27'
1+75			12.1	7.1	532.5	C 50'
2+00			12.6	9.1	532.0	C 35'
2+25			13.1	8.7	531.5	C 44'
2+50			13.6	7.1	531.0	C 45'
2+75			14.1	8.9	530.5	C 52'
3+00			14.6	8.5	530.0	C 61'

Final Profile
Downstream Toe Wall.

B.M.	0.16	544.60	544.44
1+25		9.7	534.9
1+50		11.2	533.4
1+75		12.5	532.1
2+00		13.7	530.9
2+25		13.5	531.1

B.M. 0.22 544.66 544.44

1+00		8.0	536.7
2+50		13.7	531.0
2+75		13.7	531.0
2+85		13.3	531.4

AUG 8 - 1932

65

AUG 9 - 1932

Form Points - Upstr. Toe Wall

Aug 8

66

B.M.	5.31	547.25	Grade Rod	542.04	Grade	Grade for Neatline Down.		Upstr.
✓ 1+10			+1.65		549.0	546.40	F 31 out 20	F 32 1153 out
✓ 1+20			+1.65		549.0	545.47	F 44 ↑ Same	F 35 1184 ↑ Same
1+20			1.35		546.0	545.47	F 14 ↓	F 05 1184 ↓
1+30			1.35		546.0	544.54	F 15	F 09 1215
1+40					546.0	543.61	F 22	F 15 1247
1+50					546.0	542.68	F 25	F 18 out 1278 ✓
1+60			1.35		546.0	541.75 542.68	F 35	F 24 1278 13.08
1+70					546.0	540.82 541.75	F 39 ↑ Same	F 30 1300 13.40 ↑ Same
1+70					543.0	540.82	F 09 ↓	F 02 1330 13.40 ↓
1+80					543.0	539.89	F 18	F 05 1370 ✓

	Reading	Elev.	Grade
B.M.	0.50	542.54	
	Up. 0.84	541.70	
1+90	Dn. 2.18	40.36	543.0
	Up. 1.58	40.96	
2+00	Dn. 2.44	40.10	543.0
	Up. 1.63	40.91	
2+10	Dn. 3.05	39.49	543.0
	Up. 2.32	40.22	
2+20	Dn. 3.83	38.71	543.0
Some	Up. 2.32	40.22	
2+20	Dn. 3.83	38.71	543.0
	Up. 3.67	38.87	
2+30	Dn. 4.81	37.73	543.0
	Up. 4.31	38.23	
2+40	Dn. 4.98	37.66	543.0
	Up. 5.17	37.37	
2+50	Dn. 4.53	38.01	543.0

Grade for
Calc. N.H. line

	(Up)			(Dn)
	1-3 3/8"			2-7 3/8"
	F 1 30	out 14.02	F	2.64
	538.93			2.0
	2'0 1/2"			2-10 3/4"
	F 2 2 1/2	14.33	F	2.20
	538.0			2.0
	2'1 1/8"			3'-6 1/8"
	F 2 09	14.40	F	3.51
	537.8			2.0
	2'9 3/8"			4'-3 3/8"
	F 2 28	14.47	F	4.29
	537.6			2.0
Some	2 3/8"			1-3 1/2"
	C 0 22	14.47	F	1.23
	537.6			2.0
	1-1 1/4"			2'-3 3/4"
	F 1 13	14.53	F	2.27
	537.4			2.0
	1-9 1/4"			2-5 1/4"
	F 1 77	14.60	F	2.44
	537.2			2.0
	2-7 1/2"			1'-11 7/8"
	F 2 43	14.67	F	1.79
	537.0			2.0

Upstream Toe Wall Trench.
Final Elevations for determination
Excavation Quantities

B.M.	10.25	552.29	542.04
0+75		Up. 2.7 49.6 Dn. 3.7 48.6	
1+00		Up. 4.5 47.8 Dn. 4.1 48.2	
1+25		Up. 6.9 45.4 Dn. 7.4 44.9	
1+50		Up. 7.4 44.9 Dn. 7.3 43.0	
1+75		Up. 9.3 43.0 Dn. 10.6 41.7	
2+00		Up. 10.8 41.5 Dn. 12.4 39.9	
2+25		Up. 12.2 40.1 Dn. 14.1 38.2	
B.M.	0.51	542.55	10.25 542.04
2+50		Up. 4.1 38.5 Dn. 4.9 37.7	
2+75		Up. 4.0 38.6 Dn. 5.7 36.9	

Width	Bottom	Elev. Top Trench.	
	Elev.	Downstream	Upstream
12.45	542.2	548.6	549.6
13.22	538.7	548.2	547.8
14.00	537.2	544.9	545.4
14.78	534.8	543.0	544.9
15.56	532.5	541.7	543.0
16.33	531.0	539.9	541.5
16.50	529.9	538.2	540.1
16.67	530.0	537.7	538.5
16.67	529.9	536.9	538.6

Continued on Page 72.

Downstream Toe Wall Trench
Final Elevations for Determination
Excavation Quantities

Aug 10-1932

Elliott
Simpson
Soper
Remmen

69

B.M.	3.13	547.57	544.44	Bottom		Elev. Top of Trench	
				Width	Elev.	Downstream	Upstream
0+75				14.75	537.0	544.2	544.2
		Dn. 3.4 Up. 3.4	44.2' 44.2'				
1+00				15.33	536.7	542.1	541.6
		Dn. 5.5 Up. 6.0	42.1' 41.6'				
1+25				15.83	534.9	540.4	540.0
		Dn. 7.2 Up. 7.6	40.4' 40.0'				
1+50				16.33	533.4	539.1	538.4
		Dn. 8.5 Up. 9.2	39.1' 38.4'				
1+75				16.50	532.1	538.3	537.9
		Dn. 9.3 Up. 9.7	38.3' 37.9'				
2+00				16.67	530.9	537.8	537.2
		Dn. 9.8 Up. 10.4	37.8' 37.2'				
2+25				16.83	531.1	537.7	536.4
		Dn. 9.9 Up. 11.2	37.7' 36.4'				
2+50				17.00	531.0	536.2	535.9
		Dn. 11.4 Up. 11.7	36.2' 35.9'				
2+75				17.17	531.0	535.7	535.9
		Dn. 11.9 Up. 11.7	35.7' 35.9'				
3+00				17.33		535.8	536.8
		Dn. 11.8 Up. 10.8	35.8' 36.8'				

Contd. in Book 372. Page 27.

Upstream Toe Wall
Profile for laying grade

Aug 10 - 1932

70

B.M. 8.02 550.06 542.04

3+50 18.3 531.8

3+75 15.3 534.8

3+89 13.6 536.5

4+00 7.1 543.0

T.P. 12.36 562.17 0.25 549.81

4+12 8.6 553.6

4+25 4.9 557.3

4+48 0.0 562.2

4+55⁰² +4.8 567.0

4+62 +5.0 567.2

4+70 +8.8 571.0

4+76 +12.8 575.0

Upstream Toe Wall
Cuts - Grades for Neat Line Calc.

	Grade	Trench Gr	Grade for Calc. Neat Line
B.M.	3.59	545.63	542.04
3+50			529.5
3+75			532.25
4+00			535.0
T.P.	12.14	557.57	0.20 545.43
T.P.	1.79	556.80	2.56 555.01
T.P.	12.05	567.06	1.79 555.01
4+10			552.0
4+15			540.0
↑ 2' vert.			547.0
4+15			547.0
4+25		17.2	549.9
4+30			551.3
4+40			554.12
4+50		10.1	557.0
4+60			559.0
4+75		0.1	567.0

Aug 10 - 1932
G.W. Converse - Grades
Elliott - Notes
Simpson - X
Soper - Remmen

Downstr.	Upstr.
C. 34 20	C. 73 1467
C. 32 20	C. 32 out 1367
C. 102 22	C. 78 1267
	967
C. 83 20	C. 24 967
↑ Same	↑ Same
C. 153 20	C. 94 967
C. 78 20	856
	800
	700
C. 92 22	C. 51 617
	533
C. 103 20	C. 82 467

Upstream Toe Wall Trench
 Final Elevations for Determination
 Excavation Quantities

Aug 11 - 1932

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B.M.	0.40	- Rod Elev.		Bottom		Elev. Top Downstr.	Trench Upstr.
		Up	Dn	Width	Elev.		
	542.44						
		Up 4.0	538.4	16.67	529.8	537.2	538.4
2+75		Dn 5.2	537.2				
		⊕ 12.6	529.8				
		Up 4.2	538.2	16.67	529.7	537.3	538.2
3+00		Dn 5.1	537.3				
		⊕ 12.7	529.7				
		Up 4.1	538.3	16.67	529.6	537.4	538.3
3+25		Dn 5.0	537.4				
		⊕ 12.8	529.6				

B.M. 11:01 553.05 542.04

Aug 12 - 1932

		Up 5.6	547.5	13.22	539.2	548.4	547.5
1+00		Dn 4.7	548.4				
		⊕ 13.9	539.2				
		Up 4.7	548.4	12.45	541.7	548.8	548.4
0+75		Dn 4.3	548.8				
		⊕ 11.4	541.7				
		Up 1.2	551.9	12.33	544.7	550.1	551.9
0+50		Dn 3.0	550.1				
		⊕ 8.4	544.7				

Top of Rock Fill
Elev 625 at E 5220 - 1.1 West

Aug 11 - 1932
Elliott
Simpson
Seper
Remmer

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Location of Stake	Rod	Elev.	Grade
B.M. 0.20 558.98		558.78	
N 3840 E 5151.3	2.7	556.3	625.0 F 11 68 ²
N 3800 E 5148.1	5.9	553.1	625.0 F 11 71 ²
N 3760 E 5144.3	9.7	549.3	625.0 F 75 ²
N 3680 E 5144.2	9.8	549.2	625.0 F 75 ⁸
N 3620 E 5144.8	9.2	549.8	625.0 F 75.2
N 3560 E 5144.2	9.8	549.2	625.0 F 75.8
N 3500 E 5143.0	11.0	548.0	625 F 77 ⁰
9.84 568.62		558.78	
0.25 568.37			
N 3880. 5175.5	12.9 0.8	581.3 580.5	625.0 F 45.5

Downstream Toe Wall
Form Points

Aug 11-1932

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See page 48
Grade for
Calc. N.L. line

Converse
Elliott
Simpson
Soper

Sta.	+ Rod	H.I.	Reading	Elev.	Grade	Upstrm. Stk.	Rainmen	Downstr. Stk.
B.M.	0.56	545.00		544.44				
1+05			Up 4.70 Dn 3.79	40.30 41.21	543.0	540.7	2-8 ³ / ₈ F 2 ⁷⁰ out 2°	1-9 ¹ / ₂ F 1.79 out 13 ⁴³
1+10			Up 4.78 Dn 4.40	40.22 40.60	543.0	540.4	2-7 ³ / ₈ F 2 ⁷⁸ 2°	2-4 ³ / ₄ F 2 ⁴⁰ 13 ⁵³
1+20			Up 4.90 Dn 4.32	40.10 40.68	543.0	539.8	2-10 ⁷ / ₈ F 2 ⁹⁰ 2°	2-3 ³ / ₄ F 2 ³² 13 ⁷²
1+30			Up 5.65 Dn 4.52	39.35 40.98	543.0	539.2	3-7 ³ / ₄ F 3 ⁶⁵ 2°	2-6 ¹ / ₄ F 2 ⁵² 13 ⁹³
1+40			Up 6.29 Dn 5.47	38.71 39.53	543.0	538.6	4-3 ¹ / ₂ F 4 ²⁹ 2°	3-5 ³ / ₄ F 3 ⁴⁷ 14 ¹³
↑ Step							↑ Step	
1+40			Up 6.29 Dn 5.47	38.71 39.53	540.0	538.6	1-3 ¹ / ₄ F 1 ³⁹ 2°	0-5 ³ / ₄ F 0 ⁴⁷ 14 ¹³
1+50			Up 6.94 Dn 5.72	38.66 39.28	540.0	538.0	1-4 ¹ / ₈ F 1 ³⁴ 2°	0-8 ⁵ / ₈ F 0 ⁷² 14 ³³
B.M.	0.28	544.72		544.44				
1+60			Up 6.75 Dn 6.08	37.97 38.64	540.0	537.8	2-0 ³ / ₈ F 2 ⁰³ 2°	1-4 ³ / ₈ F 1 ³⁶ 14 ⁴⁰
1+70			Up 7.11 Dn 6.28	37.61 38.44	540.0	537.6	2-4 ⁵ / ₈ F 2 ³⁹ 2°	1-6 ³ / ₄ F 1 ⁵⁶ 14 ⁴⁷
1+80			Up 7.30 Dn 6.93	37.42 37.79	540.0	537.4	2-7 ¹ / ₈ F 2 ⁵⁸ 2°	2-2 ¹ / ₂ F 2 ²¹ 14 ⁵³
1+90			Up 7.56 Dn 6.77	37.16 37.95	540.0	537.2	2-10 ⁰ / ₈ F 2 ⁸⁴ 2°	2-0 ⁵ / ₈ F 2 ⁰⁵ 14 ⁶⁰
2+00			Up 7.71 Dn 6.88	37.01 37.84	540	537.0	2-11 ⁷ / ₈ F 2 ⁹⁹ 2°	2-2 ¹ / ₂ F 2 ¹⁶ 14 ⁶⁷

Aug 12-1932

	Reading	Elev.	Grade	Grade for Cob. Neat line	Upstream.	Downstream.
	544.72					
2+10	Up 7.92 Dn 7.19	36.80 37.53	540.0	536.8	3-2 ³ / ₈ F 3 ²⁰ out 20	2-5 ⁵ / ₈ F 2 ⁴² out 14.22
2+20	Up 8.35 Dn 7.32	36.37 37.40	540.0	536.6	3-7 ¹ / ₂ F 3 ⁶³ 20	2-7 ¹ / ₄ F 2 ⁶⁰ 14.80
2+30	Up 8.47 Dn 7.80	36.25 36.92	540.0	536.4	3-9" F 3 ⁷⁵ 20	3-1" F 3 ⁰⁸ 14.87
2+40	Up 9.00 Dn 8.53	35.72 36.19	540.0	536.2	4-3 ³ / ₈ F 4 ²⁸ 20	3-9 ³ / ₄ F 3 ⁸¹ 14.93
↑ step				↑ step		↑ step
2+40 ↓	Up 9.00 Dn 8.53	35.72 36.19	537.0	536.2	1-3 ³ / ₈ F 1 ²⁸ 20	0-9 ³ / ₄ F 0 ⁸¹ 14.73
2+50	Up 9.44 Dn 8.82	35.28 35.90	537.0	536.0	1-8 ¹ / ₈ F 1 ⁷² 20	1-1 ¹ / ₄ F 1 ¹⁰ 15.00
2+60	Up 9.11 Dn 8.83	35.61 35.89	537.0	535.8	1-4 ⁵ / ₈ F 1 ³⁹ 20	1-1 ¹ / ₄ F 1 ¹¹ 15.07
2+70	Up 8.84 Dn 8.69	35.88 36.03	537.0	535.6	1-13 ⁵ / ₈ F 1 ¹² 20	0-11 ⁵ / ₈ F 0 ⁹⁷ 15.13
2+80	Up 9.17 Dn 8.96	35.55 35.76	537.0	535.4	1-5 ³ / ₈ F 1 ⁴⁵ 20	1-2 ⁷ / ₈ F 1 ²⁴ 15.20
2+90	Up 8.89 Dn 9.20	35.83 35.52	537.0	535.2	1-2" F 1 ¹⁷ 20	1-5 ³ / ₄ F 1 ⁴⁸ 15.27

Downstream \bar{L} upstream

B.M.	10.41	552.45	542.04
0+40			
+50			
+60		up Dn 3.45	549.00
+70		up Dn 3.45	549.00
+80		up 3.42 Dn. 3.45	549.03 549.00
+90		up 3.45 Dn. 3.45	549.00 549.00
1+00		up. 3.42 Dn. 3.45	549.03 549.00
+10		up. 3.35 Dn. 3.45	549.10 549.00
+20		up. 3.45 Dn. 3.45	549.00 549.00
+30		up. 4.32 Dn. 4.45	548.13 548.00
+40		up. 4.34 Dn. 4.45	548.11 548.00
+50		up. 4.35 Dn. 4.45	548.10 548.00
+60		up. 4.33 Dn. 4.45	548.12 48.00
	10.73	552.77	542.09

Set Nail in Form Elev. 549⁰⁰

" " " " " "

" " " " " "

" " " " " "

" " " " " "

" " " " " "

Set Nail in Form Elev. 549⁰⁰

Set Nail in Form Elev. 548⁰⁰

" " " " " "

" " " " " "

" " " " " "

out

out 10⁶⁶

10⁶⁷

10⁶⁶

10⁶⁴

out 10⁶⁷

out 10⁹⁶

10⁹⁶

10⁹⁷

10⁹⁶

Cross Sections over Road
N. Side of Dam Site

Nov 16-1932

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Elliott
Simpson
Soper
Rammen

N 3935		
E 5000	664.2	Orig. Ground
N 3928.5		
E 5000	653.8	Dec. Granite
N 3922		
E 5000	639.7	
N 3902		
E 5000	639.7	
N 3880		
E 5000		Orig. Ground

N 3898		
E 4880	659.9	Orig. Ground
N 3896.5		
E 4880	654.1	Dec. Granite
N 3894		
E 4880	640.6	
N 3864		
E 4880	640.3	
N 3850		
E 4880	631.6	Orig. Ground

N 3921		
E 4800	663.5	Orig. Ground
N 3917		
E 4800	655.2	Dec. Granite
N 3912		
E 4800	640.8	
N 3878		
E 4800	641.1	
N 3870		
E 4800	639.5	Loose Rock
N 3860		
E 4800	628.4	Orig. Ground

N
E
N
E
N
E
N
E
N
E

N
E
N
E
N
E
N
E
N
E

N
E
N
E
N
E
N
E
N
E

DIRECTIONS FOR USE OF TABLE
TABLE No. 1
Distance of ships taken from side of vessel
make for any other vessel
It should be noted that the cut of the
table is formed by the double line
Job column and top row. The

IMPROVED TABLES

AND

INFORMATION

To find Tangent and Secant for any
any other degree divide by degree of tangent
and secant found in column of tangents
Degree of curve with square of the
by dividing tangent (or secant) degree
given tangent (or secant)
The distance from a point on the surface of
the curve is very nearly the square of the
length divided by twice the radius

1 + 40 12.7
 1 + 50 12.8

 1 + 85 13.9
 1 + 95 14.2

1 + 30
 2 + 70
 2 + 70

²⁰
 575
552
 3 | 23
 7.66

9367.60
 75.0
69.7
 562020
5308
 5.3
 3
 3.12
 3.12
 6.24
 159
 2
 179

4 | 38
 9.5
 2.8
 760
 170
 26.60

4 - 2.8
 3 | 23.0
 7.67

3 | 28
 8.33
 544.44
3.15
 597.59

7 + 20 77.9 32
 8.6 27
 69.3 224
 64
 864