EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning

Roadway 16 feet wide. Side Slopes 1 on 1.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6+(20—16)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

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Page 1-73 Final X Sec Items 3 & 11
Some Semi Finals " "

Final X Sections before Hydr. fill

N3590

B.M.	2.30	554.51		552.21
T.P.	3.01	545.01	12.51	542.00
5003			16.1	528.9
015			15.3	29.7
023			6.4	38.6
030			6.2	38.8
040			5.9	39.1
050			7.0	38.0
060			7.1	37.9
070			7.7	37.3
080			7.5	37.5
090			6.5	38.5
5100			4.7	40.3
	12.51	554.51		542.00
10			8.2	46.3
15			4.2	50.3
20			4.2	50.3
30			4.4	50.1

Jan 31 - 1933
Elliott
Simpson
Soper
Remmen

554.51 ✓ N3600

5130		4.7	49.8 ✓
20		4.2	50.3 ✓
15		4.6	49.9 ✓
10		7.0	47.5 ✓
	3.01 545.01 ✓		542.00
5100		3.5	41.5 ✓
090		6.4	38.6 ✓
080		6.7	38.3 ✓
070		6.7	38.3 ✓
060		6.4	38.6 ✓
050		6.1	38.9 ✓
040		5.7	39.3 ✓
030		5.5	39.5 ✓
023		5.5	39.5 ✓
	1.68 539.29 ✓		537.61
017		7.1	32.2 ✓
014		9.5	29.8 ✓
5003		10.8	28.5 ✓

N3610

	1.68 539.29 ✓		537.61
5003		10.6	28.7 ✓
016		9.0	30.3 ✓
	545.01		
5023		5.5	39.5 ✓
30		6.0	39.0 ✓
40		6.4	38.6 ✓
50		6.2	38.8 ✓
60		6.5	38.5 ✓
70		6.5	38.5 ✓
80		6.7	38.3 ✓
90		6.2	38.8 ✓
5100		2.0	43.0 ✓
	12.51 554.51 ✓		542.00
10		5.8	48.7 ✓
20		5.3	49.2 ✓
30		5.4	49.1 ✓

		554.51	N3620	
5130			6.7	547.8
20			7.7	46.8
10			8.7	45.8
5100			10.8	43.7
	3.01	545.01		542.00
090			5.6	39.4
080			6.4	38.6
070			6.4	38.6
060			6.4	38.6
050			6.6	38.4
040			6.0	39.0
030			6.0	39.0
023			5.2	39.8
	1.68	539.29		537.61
15			9.2	30.1
5003			10.4	28.9

Plotted

ok plotting m

			N3630	
	1.68	539.29		537.61 Cont. from page 46
5003			10.6	28.7
15			9.3	30.0
		545.01		
5023			5.9	39.1
030			6.0	39.0
040			6.1	38.9
050			6.5	38.5
060			6.4	38.6
070			6.5	38.5
080			5.6	39.4
090			4.9	40.1
100			2.7	42.3
	12.51	554.51		542.00
10			10.1	44.4
20			8.9	45.6
30			7.8	46.7

Plotted

ok plotting m

		554.51	N3640		
6130			7.9	46.6	
20			8.7	45.8	
10			9.1	45.4	
100			12.2	42.3	
	3.0	545.0		542.00	
090			4.3	40.7	
080			5.0	40.0	
070			6.2	38.8	
060			5.6	39.4	
050			6.5	38.5	
040			5.8	39.2	
030			5.7	39.3	
022			5.6	39.4	
	1.68	539.29		537.61	
014			9.3	30.0	
5003			10.0	29.3	

Plotted

Plotting ok

		539.29	N3650		3.7
5003			9.4	29.9	
		545.0			
015			13.9	31.1	
022			5.4	39.6	
030			5.6	39.4	
040			5.5	39.5	
050			5.5	39.5	
060			5.4	39.6	
070			6.0	39.0	
080			4.7	40.3	
090			5.7	39.3	
100			4.8	40.2	
110			0.7	44.3	
	12.5	554.5		542.0	
120			8.2	46.3	
130			7.9	46.6	

Plotted

Plotting ok

	554.5 ✓	N3660	
5130		6.3	48.2 ✓
120		8.6	45.9 ✓
110		12.1	42.4 ✓
	3.0 545.0 ✓		542.0
100		4.9	40.1 ✓
090		5.3	39.7 ✓
080		4.7	40.3 ✓
070		5.2	39.8 ✓
060		4.6	40.4 ✓
050		4.4	40.6 ✓
040		4.8	40.2 ✓
030		5.1	39.9 ✓
022		5.0	40.0 ✓
015		13.7	31.3 ✓
5003		15.1	29.9 ✓

Plotted.

& resting N

	545.0 ✓	N3670	
5003		14.3	30.7 ✓
015		13.6	31.4 ✓
022		4.8	40.2 ✓
030		4.6	40.4 ✓
040		4.3	40.7 ✓
050		3.9	41.1 ✓
060		4.0	41.0 ✓
070		4.5	40.5 ✓
080		5.0	40.0 ✓
090		4.0	41.0 ✓
100		4.3	40.7 ✓
110		3.8	41.2 ✓
	12.5 554.5 ✓		542.0
115		7.3	47.2 ✓
120		5.7	48.8 ✓
130		4.6	49.9 ✓

Plotted.

& resting N

	554.5	N3680	
5130		4.1	550.4
120		3.8	50.7
110		11.6	42.9
	3.0	545.0	542.0
100		4.3	40.7
090		4.1	40.9
080		4.3	40.7
070		3.4	41.6
060		3.0	42.0
050		3.3	41.7
040		3.9	41.1
030		4.0	41.0
022		4.7	40.3
015		12.7	32.3
5003		13.8	31.2

Plotted

ok Plotting IN

	545.0	N3690	
5003		13.9	31.1
013		12.4	32.6
022		3.9	41.1
030		3.0	42.0
040		3.1	41.9
050		2.5	42.5
060		1.8	43.2
070		2.0	43.0
080		2.5	42.5
090		2.5	42.5
100		2.7	42.3
110		2.1	42.9
	12.5	554.5	542.0
120		6.2	48.3
125		4.7	49.8
130		5.3	49.2

Plotted

ok Plotting IN

		554.5	N3700
5130			5.6 48.9
120			6.2 48.3
110			10.5 44.0
100			9.6 44.9
090			9.9 44.6
080			10.3 44.2
070			10.2 44.3
060			10.0 44.5
050			10.4 44.1
040			10.5 44.0
030			10.5 44.0
021			11.3 43.2
	3.00	545.00	542.00
013			11.2 33.8
5003			12.5 32.5

		545.0	N3710
5003			11.8 33.2
012			10.7 34.3
	12.5	554.5	542.0
021			9.4 45.1
30			8.3 46.2
40			8.2 46.3
50			8.1 46.4
60			8.3 46.2
70			7.0 45.5
80			9.2 45.3
90			9.3 45.2
100			7.4 47.1
110			7.5 47.0
120			5.6 48.9
130			5.8 48.7

		554.5	N3720	
5130			6.4	48.1
120			6.8	47.7
110			7.3	47.2
100			7.3	47.2
090			7.6	46.9
080			7.9	46.6
070			8.1	46.4
060			7.6	46.9
050			6.9	47.6
040			6.8	47.7
030			6.5	48.0
023			6.4	48.1
	3.0	545.0		542.0
010			10.4	34.6
003			11.2	33.8

Plotted

cl plotting NV

		545.0	N3730	
5003			9.3	35.7
011			8.6	36.4
	12.5	554.5		542.0
023			4.8	49.7
030			5.3	49.2
040			5.6	48.9
050			5.8	48.7
060			6.3	48.2
070			6.7	47.8
080			7.1	47.4
090			7.1	47.4
100			6.6	47.9
110			6.7	47.8
120			6.6	47.9
130			6.5	48.0

Plotted

cl plotting NV

		554.5		N3740	
5130			5.9	548.6	
120			6.3	48.2	
110			6.1	48.4	
100			5.5	49.0	
090			6.5	48.0	
080			6.0	48.5	
070			5.8	48.7	
060			5.7	48.8	
050			5.2	49.3	
040			5.4	49.1	
030			5.0	49.5	
023			4.6	49.9	
	3.0	545.0		542.0	
012			7.3	37.7	
5003			8.4	36.6	

		545.0		N3750	
5003			7.9	37.1	
009			7.6	37.4	
019			1.8	43.2	
	12.5	554.5		5420	
024			5.2	49.3	
030			4.7	49.8	
040			5.3	49.2	
050			5.3	49.2	
060			5.2	49.3	
070			5.4	49.1	
080			5.5	49.0	
090			5.8	48.7	
100			5.2	49.3	
110			5.7	48.8	
120			5.7	48.8	
130			4.8	49.7	

554.5

5130		
120		
110		
100		
090		
080		
070		
060		
050		
040		
030		
020		
	3.0	545.0 ✓
012		
003		

N3760

4.2	50.3 ✓
4.8	49.7 ✓
5.0	49.5 ✓
4.9	49.6 ✓
5.2	49.3 ✓
4.7	49.8 ✓
4.8	49.7 ✓
4.8	49.7 ✓
4.7	49.8 ✓
5.1	49.4 ✓
4.4	50.1 ✓
4.1	50.4 ✓
	542.0
6.9	38.1 ✓
7.3	37.7 ✓

5 shots

of flatting m.

N3770

	3.0	545.0 ✓
		542.0
5003		
	6.6	38.4 ✓
006	6.7	38.3 ✓
	554.5	
018	1.9	52.6 ✓
030	2.6	51.9 ✓
040	3.0	51.5 ✓
050	2.0	52.5 ✓
060	3.4	51.1 ✓
070	3.8	50.7 ✓
080	3.9	50.6 ✓
090	4.0	50.5 ✓
100	3.8	50.7 ✓
110	4.3	50.2 ✓
120	3.8	50.7 ✓
130	3.4	51.1 ✓

5 shots

of flatting m.

554.5 N3780

5130		2.9	51.6 ✓
120		3.2	51.3 ✓
110		3.6	50.9 ✓
100		3.5	51.0 ✓
090		3.1	51.4 ✓
080		3.0	51.5 ✓
070		2.7	51.8 ✓
060		2.4	52.1 ✓
050		1.0	53.5 ✓
040		40.2	54.7 ✓
030		41.0	55.5 ✓
015		41.1	55.6 ✓
007		11.5	43.0 ✓
5003		12.1	42.4 ✓

Plotted

Ck plotting N

554.51 N3790

5130		2.4	52.1 ✓
120		2.6	51.9 ✓
110		2.8	51.7 ✓
100		5.0	49.5 ✓
090		2.7	51.8 ✓
T.P.	12.97	Level ✓ 566.50	0.98 553.53
	7.31	Transit ✓ 573.40	0.41 566.09 ✓
T.P.	12.97	566.50 ✓	553.53
080			13.7 52.8 ✓
070			13.5 53.5 ✓
060			13.7 52.8 ✓
050			12.5 54.0 ✓
040			11.9 54.6 ✓
030			9.0 57.5 ✓
020			8.2 58.3 ✓
014			7.9 58.6 ✓

Plotted

9/12/64 Ck plotting TTM

	566.50	N3800		
5012		2.4	64.1	
020		4.3	62.2	
030		6.6	59.9	
040		10.3	56.2	
050		11.5	55.0	
060		12.0	54.5	
070		12.9	53.6	
080		13.1	53.4	
	560.02			
090		5.8	54.2	
100		6.5	53.5	
110		7.2	52.8	
120		7.8	52.2	
130		7.5	52.5	

Plotted.

pk flattening

5 staves

	560.02		N3810	
5130		6.7	553.3	
120		6.8	53.2	
110		6.2	53.8	
100		5.6	54.4	
090		5.3	54.7	
	566.50			
080		11.5	55.0	
070		11.3	55.2	
060		11.1	55.4	
050		10.1	56.4	
040		6.5	60.0	
030		2.5	64.0	
	7.31	573.40	566.09	
020		4.5	68.9	
010		3.9	69.5	
T.P.	12.86	585.37	0.89	572.51

Plotted.

pk flattening

5 staves

	585.37	N3820	
5011		6.9	78.5 ✓
5020		9.1	76.3 ✓
030		15.1	70.3 ✓
	566.50		
040		1.5	65.0 ✓
050		5.0	61.5 ✓
060		8.9	57.6 ✓
070		10.0	56.5 ✓
080		10.5	56.0 ✓
	560.02		
090		5.5	54.5 ✓
5100		4.1	55.9 ✓
110		4.3	55.7 ✓
120		4.4	55.6 ✓
130		5.6	54.4 ✓

old Hall

ck flatting in

5 to 6 ves

	566.50	N3830	
5130		8.4	58.1 ✓
120		7.2	59.3 ✓
110		6.9	59.6 ✓
100		6.8	59.7 ✓
090		6.6	59.9 ✓
080		7.9	58.6 ✓
070		5.0	61.5 ✓
060		2.5	64.0 ✓
050		+0.8	67.3 ✓
	585.37		
040		16.3	69.1 ✓
030		12.1	73.3 ✓
020		4.2	81.2 ✓
010		4.2	81.2 ✓
B.M. ±		6.84	578.53 578.5

old Hall

ck flatting in

	585.37		N3840
5010		4.5	80.9 ✓
20		4.5	80.9 ✓
30		5.6	79.8 ✓
40		9.2	76.2 ✓
50		9.1	76.3 ✓
53		9.1	76.3 ✓
	566.50		
60		+0.5	67.0 ✓
70		1.4	65.1 ✓
80		3.1	63.4 ✓
90		3.6	62.9 ✓
100		4.0	62.5 ✓
10		5.4	61.1 ✓
20		6.1	60.4 ✓
30		7.0	59.5 ✓

	566.50		N3850
5130		3.3	63.2 ✓
120		3.1	63.4 ✓
110		0.4	66.1 ✓
	13.12 578.87 ✓	0.75	565.75 ✓
100		13.3	65.6 ✓
090		11.2	67.7 ✓
080		9.5	69.4 ✓
070		5.6	73.3 ✓
	585.37		
060		9.1	76.3 ✓
050		6.0	79.4 ✓
040		5.4	80.0 ✓
030		4.3	81.1 ✓
020		3.1	82.3 ✓

	585.37	N3860	
5050		4.5	80.9 ✓
60		4.9	80.5 ✓
70		5.4	80.0 ✓
80		7.2	78.2 ✓
	578.87		
90		4.6	74.3 ✓
5100		7.3	71.6 ✓
10		9.8	69.1 ✓
20		9.9	69.0 ✓
30		13.4	65.5 ✓
		N3870	
5130		7.2	71.7 ✓
5120		7.2	71.7 ✓
110		3.4	75.5 ✓
100		+1.0	79.9 ✓
090		+1.1	80.0 ✓
080		+1.8	80.7 ✓
070		+2.1	81.0 ✓

Plotted

Plotted

Plotted

ok & plotted in pencil

ok for plotting

	578.87	N3880	
5130		+0.9	79.8 ✓
20		+1.1	80.0 ✓
10		+1.3	80.2 ✓
100		+1.6	80.5 ✓
5090		+1.8	80.7 ✓
		N3890	
5130		+1.6	80.5 ✓
120		+1.9	80.8 ✓

ok plotted in pencil

End Jan 31 - 1933

Bottom Final X Sections before Hyd. fill.
All excavation shown by these sections below original ground is schedule Item 11. wasted.

B.M.	10.53	584.58	574.05	
			2.74	581.84
	7.15	588.99		

N3315 is original ground.

N3320

4990	0.7	88.3	
4980	+1.8	90.8	
4980 also	+11.8	600.8	0.6

N3330

4990	2.2	86.8	
80	2.5	86.5	
75	2.3	86.7	
70	+2.8	91.8	
60	+7.1	96.1	0.6
55	+7.1	96.1	0.6
50	+2.9	91.9	
40	+3.6	92.6	
4940 also	+10.6	99.6	0.6

Feb 2 - 1933
Elliott
Simpson
Soper
Remmen

588.99 N3340

4990	6.2	82.8	✓
85	2.9	86.1	✓
80	3.1	85.9	✓
70	3.0	86.0	✓
60	2.8	86.2	✓
50	2.9	86.1	✓
40	3.1	85.9	✓
30	4.2	84.8	✓
20	4.4	84.6	✓
10	4.8	84.2	✓
4900	5.5	83.5	✓
4890	5.4	83.6	✓
80	5.3	83.7	✓
70	6.2	82.8	✓
60	6.3	82.7	✓
50	0.9	88.1	✓
45	+ 5.7	94.7	✓ O.G.

Ck Plotting

		588.99	N3350		9/25/34
4825			+2.9	91.9	0.6
40			8.4	80.6	✓
50			7.9	81.1	✓
60			7.9	81.1	✓
70			7.2	81.8	✓
80			6.4	82.6	✓
90			6.2	82.8	✓
4900			6.7	82.3	✓
10			6.7	82.3	✓
20			4.7	84.3	✓
30			4.4	84.6	✓
40			4.1	84.9	✓
50			3.2	85.8	✓
60			3.9	85.1	✓
70			6.9	82.1	✓
80			11.6	77.4	✓
90			13.8	75.2	✓
	0.56	576.60 ✓	12.95	576.04	✓

		576.60	N3360		
4990			5.0	71.6	✓ m 9/26/84
80			4.5	72.1	✓
70			4.7	71.9	✓
60			3.2	73.4	✓
	12.95	588.99 ✓		576.04	
50			9.2	79.8	✓
40			8.3	80.7	✓
30			8.7	80 3	✓
20			10.6	78. 4	✓
10			12.1	76.9	✓
4900			14.0	75.0	✓ pk Cutting m
4890			14.7	74.3	✓
80			16.2	72.8	✓
70			14.2	74.8	✓
60			9.6	79. 4	✓
50			9.3	79.7	✓
40			10.0	79.0	✓
30			10.4	78.6	✓

		588.99	N3360		
4825			10.4	78.6	✓
20			6.9	82.1	✓
4810			+2.0	91.0	✓ 0.6
			N3370		
4800			+0.2	89.2	✓ 0.6
10			12.7	76.3	✓
20			13.0	76.0	✓
30			12.0	77.0	✓
40			11.2	77.8	✓
50			14.0	75.0	✓
	0.56	576.60 ✓		576.04	
65			10.8	65.8	✓
70			10.1	66.5	✓
80			10.1	66.5	✓
90			9.9	66.7	✓
4900			9.6	67.0	✓
10			8.7	67.9	✓
20			7.9	68.7	✓

576.60

	N3370		
4930	6.9	69.7	✓
40	5.5	71.1	✓
50	5.8	70.8	✓
60	5.4	71.2	✓
70	4.9	71.7	✓
80	5.0	71.6	✓
90	5.1	71.5	✓
	N3380		
4990	13.2	63.4	✓
80	5.8	70.8	✓
70	5.9	70.7	✓
60	5.6	71.0	✓
50	5.8	70.8	✓
40	6.6	70.0	✓
30	7.2	69.4	✓
20	8.3	68.3	✓
10	9.4	67.2	✓
4900	10.1	66.5	✓

Flattening ok
Flattening ok

576.60 N3380

4890	10.9	65.7	✓ m 9/25/34
80	11.6	65.0	✓
70	12.0	64.6	✓
60	12.2	64.4	✓
50	12.3	64.3	✓ 9/25/34 Clothier Reservoir
45	11.8	64.8	✓
30	3.1	73.5	✓
20	1.5	75.1	✓
10	2.0	74.6	✓
4800	2.0	74.6	✓
4790	+7.4	84.0	✓ 0.6

End Feb 2 - 1933

Semi Final Xsections. (Top Item 3)
Material Moved below original ground was wasted and is Contract Item 11. Material, if moved after these sections is Item 3.

B.M.	3.64	591.54	587.90
		N3400	
5150		11.8	79.7
5160		11.9	79.6
		N3390	
5135		12.6	78.9
40		10.5	81.0
50		10.7	80.8
5160		9.4	82.1
		N3380	
5120		12.0	79.5
25		6.7	84.8
30		7.2	84.3
40		7.3	84.2
50		8.3	83.2
60		8.2	83.3

Feb 4 - 1933
Elliott
Simpson
Soper
Remmon

591.54 N3370

5160	8.0	89.5
50	7.7	83.8
40	7.4	84.1
30	6.5	85.0
20	6.2	85.3
10	5.7	85.8 / 86.8
5100	12.6	78.9
5090	18.2	73.3
	N3360	
5080	16.1	75.4
85	12.1	79.4
90	11.7	79.8
5100	8.3	83.2
05	5.5	86.0
20	5.9	85.6
30	6.6	84.9
35	6.5	85.0
45	+0.7	92.2 0.6

591.54 N.3350

5133	+3.0	94.5 0.6.
130	2.0	89.5
125	5.4	86.1
20	5.7	85.8
10	5.3	86.2
5100	4.8	86.7
090	8.7.	82.8
080	10.2	81.3
070	11.6	79.9
060	8.9	82.6
055	16.7	74.8
050	18.3	73.2
040	19.2	72.3
030	15.9	75.6
025	14.4	77.1
020	15.8	75.7
008	16.8	74.7
003	20.8	70.7

591.54 N3340

5003	11.6	79.9
07	5.0	86.5
20	4.9	86.6
30	4.8	86.7
40	8.0	83.5
40 also	12.5	79.0
55	5.1	86.4
60	4.3	87.2
70	3.3	88.2
80	4.1	87.4
90	4.2	87.3
5100	4.4	87.1
10	4.2	87.3
20	3.3	88.2
27		97.1
	+5.6	95.1 O.G

591.54 N3330

5120	+7.8	99.3 O.G
5114	+1.6	93.1
5110	+0.1	91.6
5100	3.6	87.9
5090	3.6	87.9
5080	3.4	88.1
70	3.2	88.3
60	3.5	88.0
50	3.9	87.6
40	4.2	87.3
30	4.3	87.2
20	4.9	86.6
10	4.5	87.0
05	4.7	86.8
5003	12.2	79.3

bottom of w.

591.54 N3320

5003	1.7	89.8	See Book C 422 - 28
10	3.4	88.1	
20	3.9	87.6	
30	3.8	87.7	
40	3.4	88.1	
50	2.8	88.7	
60	3.3	88.2	
70	1.1	90.4	
80	0.0	91.5	
90	+1.2	92.7	
5100	+1.4	92.9	
10	+9.0	600.5	0.G

Vertical

vertical to original ground

N3320 Also

5003	0.G
10	0.G
20	"
30	"
40	"
50	"
60	"
70	"
80	"
90	"
5100	"
10	"

Also

End Feb 4 - See note p. 23

Bottom Final Xsections Under Rock Embankment. Item 3 - Placed in Hydraulic Fill.

B.M.	11.32	599.22		587.90
			0.32	598.90
	15.08	613.98		
			1.53	612.45
	5.99	618.44		
		N3320		
5280			+7.2	25.6
70			+5.8	24.2
60			+1.2	19.6
50			3.4	15.0
40			6.5	11.9
30			7.6	10.8
20			8.0	10.4
5210			12.4	06.0
		N3330		
5280			11.6	20.0
70			2.3	16.1
60			2.0	16.4
50			6.9	11.5

plotted

ok plotting IN

	618.44	N3330	
5240		8.7	09.7
30		11.1	07.3
20		13.1	05.3
TO		17.0	
		N3340	
5210		21.0	597.4
20		19.6	98.8
30		14.6	603.8
40		10.0	08.4
50		9.3	09.1
60		8.4	10.0
70		4.4	14.0
		N3350	
5210		21.4	597.0
20		21.0	97.4
30		18.3	600.1
40		13.1	05.3
50		9.3	09.1
60		8.2	10.2

plotted

ok plotting IN

ok plotting IN

ok plotting not traced see 3395/34

If these sections show excavation below previous finals it is Item 3 also.

Bottom Final X Sections, Item 3, placed in Hydraulic Fill

B.M. 1.48 604.48 603.00

N 3320

5200		+6.0	10.5
190		0.6	03.9
180		2.3	02.2
170		1.9	02.6

N 3330

5160		3.4	011
170		2.2	023
180		4.4	00.1
190		5.8	598.7
200		6.6	97.9
210		4.8	99.7

Pebbled

N 3340

5200		8.2	96.3
190		8.5	960
180		9.1	95.4
170		4.6	99.9
160		5.7	98.8

604.48

N 3350

5170		7.4	97.1
180		9.8	94.7
190		12.7	91.8
200		10.3	94.2

Pebbled

N 3360

190		14.1	90.4
180		15.3	89.2

If these sections show excavation below previous finals that excavation is Item 3 also.

Bottom of final X sections before start of Hyd. fill. Bottom of Item 11 excavation on N3390 all other sections to N3630 are Item 3

N3390

B.M.	8.67	550.92		542.25
T.P.	11.65	562.27 (Transit)	0.30	550.62
T.P.	10.99	572.63 (Level)	0.63	561.64
4780			+10.2	82.8 O.G.
85			+0.4	73.0
90			-0.2	72.4
800			+0.5	73.1
10			+1.3	73.9
15			+2.3	74.9
20			+0.8	73.4
30			9.0	63.6
40			9.2	63.4
50			9.3	63.3
60			10.1	62.5
70			10.2	62.4
80			10.7	61.9
90			10.2	62.4
4900			11.0	61.6

Plotted

Feb 7 - 1933
Elliott
Simpson
Soper
Remmen

Kiernan Notes for Contr. 29

572.63 N3390

4910	12.3	60.3
20	10.3	62.3
30	9.2	63.4
40	5.9	66.7
50	5.8	66.8
60	10.9	61.7
	0.63 562.27	561.64
70	+0.8	63.1
80	4.7	57.6
90	5.9	56.4
97	10.1	52.2

Plotted

From Here North these sections are Bottom Item 3 - Top was previous finals book 325

N3400

10.99 572.63 561.64

4.7 70	+10.1	82.7 O.G.
80	1.9	70.7
90	1.8	70.8
800	0.3	72.3
10	2.8	69.8

572.63 N3400

4820	10.1	62.5
30	10.8	61.8
40	10.6	62.0
50	11.8	60.8
60	12.6	60.0
70	13.0	59.6
0.63 562.27		561.64
80	3.2	59.1
90	3.7	58.6
4900	4.4	57.9
10	4.7	57.6
20	5.0	57.3
30	5.1	57.2
40	3.6	58.7
50	5.7	56.6
60	6.8	55.5
70	7.8	54.5
80	9.2	53.1
85	9,3	53.0

Plotted

562.27 N3400

4990	12.7	49.6
97	13.3	49.0
	N3410	
97	15.9	46.4
92	12.2	50.1
80	11.8	50.5
70	10.4	51.9
60	10.7	51.6
50	10.1	52.2
40	10.2	52.1
30	7.3	55.0
20	7.2	55.1
10	5.9	56.4
4900	4.6	57.7
90	4.5	57.8
80	4.1	58.2
70	4.0	58.3
60	3.9	58.4
50	3.1	59.2

Plotted

Item 3

562.27

N3410

4840		2.0	60.3
30		1.1	61.2
20		1.4	60.9
10		0.1	62.2
	10.99 572.63		561.64
4795		2.2	70.4
80		3.5	69.1
65		19.0	81.6 0.6

N3420

4760		17.4	80.0 0.6
75		4.6	68.0
90		4.1	68.5
4800		10.7	61.9
10		11.9	60.7
20		12.0	60.6
30		11.9	60.7
40		12.2	60.4
	0.63 562.27		561.64
50		3.4	58.9

Plotted

Item 3

562.27

N3420

4860	3.3	59.0
70	3.4	58.9
80	4.0	58.3
90	5.4	56.9
900	7.2	55.1
10	7.5	54.8
20	8.7	53.6
30	10.0	52.3
40	11.0	51.3
50	11.2	50.6
60	12.2	50.1
70	12.7	49.6
80	13.2	49.1
90	12.9	49.4
97	16.2	46.1

N3430

4997	18.9	43.4
92	14.6	47.7
80	14.7	47.6

Plotted

562.27 N3430

4970	14.0	48.3 ✓
60	13.4	48.9 ✓
50	12.7	49.6 ✓
40	12.0	50.3 ✓
30	11.6	50.7 ✓
20	10.7	51.6 ✓
10	9.2	53.1 ✓
4900	7.8	54.5 ✓
90	3.0	59.3 ✓ Dormick
80	4.7	57.6 ✓
70	3.3	59.0 ✓
60	3.1	59.2 ✓
50	2.7	59.6 ✓
40	1.9	60.4 ✓
30	1.9	60.4 ✓
20	2.3	60.0 ✓
10	1.6	60.7 ✓
	10.99 572.62	561.63
4800		
4900	11.4	61.2 ✓

Plotted

pk plotting N

572.62 N3430

4790		
4890	10.8	61.8 ✓
80	4.8	67.8 ✓
70	5.3	67.3 ✓
60	5.5	67.1 ✓
50	4.4	68.2 ✓
40	2.6	70.0 ✓
30	+1.4	74.0 ✓
20	+1.0	73.6 ✓
14	+2.0	74.6 ✓
4710	+10.0	82.6 O.G.
	N3440	
4700	+9.8	8.24 O.G
10	1.7	70.9 ✓
20	3.1	69.5 ✓
30	3.3	69.3 ✓
40	3.8	68.8 ✓
50	5.1	67.5 ✓
60	5.7	66.9 ✓
75	5.3	67.3 ✓

Plotted

pk plotting N

Item 3

572.62 N3440

4780		9.0	63.6 ✓
90		9.8	62.8 ✓
800		11.9	60.7 ✓
10		12.3	60.3 ✓
20		12.9	59.7 ✓
30		12.3	60.3 ✓
40		12.3	60.3 ✓
50		13.1	59.5 ✓
	0.63	562.27	561.64
60		3.3	59.0 ✓
70		4.9	57.4 ✓
80		6.2	56.1 ✓
90		7.3	55.0 ✓
4900		9.0	53.3 ✓
10		10.1	52.2 ✓
20		11.6	50.7 ✓
30		13.3	49.0 ✓
B.M.	5.61	547.86	542.25
40		0.0	47.9 ✓

plotted

ch & plotting ✓

Item 3

547.86 N3440

4950	1.4	46.5 ✓
60	1.7	46.2 ✓
70	2.1	45.8 ✓
80	2.6	45.3 ✓
84	2.8	45.1 ✓
97	9.2	38.7 ✓

plotted

ch & plotting ✓

572.62 N3450

4687	+8.5	81.1 ✓
90	+4.7	77.3 ✓
700	0.4	72.2 ✓
10	1.3	71.3 ✓
20	2.3	70.3 ✓
30	2.7	69.9 ✓
40	4.8	67.8 ✓
50	6.8	65.8 ✓
60	6.5	66.1 ✓
70	8.2	64.4 ✓
80	12.9	59.7 ✓

Plotted

ch & plotting ✓

Item 3

		572.62	N3450		
4790			12.7	59.9 ✓	
	0.63	562.27		561.64	
800			3.1	59.2 ✓	
10			2.6	59.7 ✓	pick 394/36 12/28
20			2.8	59.5 ✓	
30			2.6	59.7 ✓	
40			3.2	59.1 ✓	
50			3.7	58.6 ✓	
60			3.7	58.6 ✓	pk & tie
70			5.6	56.7 ✓	
80			8.0	54.3 ✓	
90			9.6	52.7 ✓	
4900			10.6	51.7 ✓	
10			11.5	50.8 ✓	
20			11.4	50.9 ✓	
B.M.	5.61	547.86		542.25	
30			2.5	45.4 ✓	
40			2.5	45.4 ✓	
50			3.6	44.3 ✓	

Item 3

		547.86	N3450		
4960			4.1	43.8 ✓	
70			4.1	43.8 ✓	ch pecking in
77			5.1	42.8 ✓	
85			8.3	39.6 ✓	
90			13.8	34.1 ✓	
97			14.1	33.8 ✓	
			N3460		
	1.75	539.20		537.45	
4997			8.1	31.1 ✓	
90			8.3	30.9 ✓	
82			6.7	32.5 ✓	
B.M.	5.23	547.48		542.25	91-46 sw ch pecking in
4980			12.8	34.7 ✓	
70			6.2	41.3 ✓	394/37 Lower W
60			6.8	40.7 ✓	
50			6.6	40.9 ✓	
40			6.8	40.7 ✓	
30			3.8	43.7 ✓	

		547.48	N3460	
4920			0.9	46.6
	9.18	559.93		550.25
10			11.0	48.9
900			9.6	50.3
90			7.4	52.5
80			6.2	53.7
70			3.9	56.0
60			2.9	57.0
50			1.8	58.1
40			1.3	58.6
30			1.0	58.9
20			0.7	59.2
10			0.0	59.9
4800			+0.7	60.6
			N3470	
4800			+0.2	60.1
10			0.9	59.0
20			1.6	58.3
30			2.4	57.5

		559.93	N3470	
4840			2.5	57.4
50			2.6	57.3
60			3.2	56.7
70			4.4	55.5
80			6.2	53.7
90			7.4	52.5
900			9.9	50.0
10			12.4	47.5
	5.23	547.48		542.25
20			2.9	44.6
30			7.7	39.8
40			9.6	37.9
50			9.8	37.7
60			9.4	38.1
67			9.5	38.0
	1.75	539.20		537.45
73			8.7	30.5
80			10.5	28.7
90			11.9	27.3
4997			10.1	29.1

Item 3

539.20 N3480

4997			11.9	27.3
90			11.7	27.5
80			11.9	27.3
71			8.7	30.5
	5.23	547.48		542.25
4967			10.9	36.6
60			11.3	36.2
50			11.3	36.2
40			10.7	36.8
30			8.4	39.1
20			3.1	44.4
	9.18	559.93		550.25
10			12.6	47.3
4900			9.9	50.0
90			6.7	53.2
80			5.2	54.7
70			4.4	55.5
60			3.9	56.0

Plotted

used earlier Elev. 377.41

pk flatting

Item 3

559.93 N3480

4850	2.5	57.4
40	2.6	57.3
30	2.6	57.3
20	2.2	57.7
10	1.5	58.4
4800	0.0	59.9
	N3490	
4800	0.6	59.3
10	1.5	58.4
20	2.1	57.8
30	2.5	57.4
40	2.9	57.0
50	3.1	56.8
60	4.3	55.6
70	4.5	55.4
80	5.2	54.7
90	6.1	53.8
4900	9.5	50.4
10	11.6	48.3

Plotted

pk flatting

ck flatting

Item 3

547.48 N3490

4920		2.5	450
30		7.3	402
40		10.7	368
50		11.5	360
60		11.4	361
67		13.3	342
	1.75 539.20		537.45
72		10.3	289
80		11.0	282
90		11.7	275
4997		11.6	276
		N3500	
4997		11.7	275
90		11.5	277
80		11.2	280

Plotted

at plotting in

547.48 N3500

4970		14.2	333
60		11.8	357
50		11.4	361
40		10.7	368
30		7.2	403
20		3.5	440
	9.18 559.93		550.75
10		12.5	474
4900		10.0	499
90		6.2	537
80		5.5	544
70		4.7	552
60		4.6	553
50		3.4	565
40		3.3	566
30		2.5	574
20		1.8	581
10		1.5	584
4800		0.8	591

Plotted

at plotting in

Item 3

	559.93	N3510	
4800		1.2	58.7
10		1.3	58.6
20		1.2	58.7
30		2.3	57.6
40		3.3	56.6
50		3.9	56.0
60		4.5	55.4
70		5.0	54.9
80		5.9	54.0
90		6.6	53.3
4900		10.4	49.5
	5.23 547.48		542.25
10		1.0	46.5
20		3.6	43.9
30		5.6	41.9
40		9.4	38.1
50		11.3	36.2
60		12.5	35.0
70		13.6	33.9

plotted

Patterson &

		N3510	
	2.21 539.66		537.45
4975		10.6	29.1
80		12.0	27.7
90		11.9	27.8
97		11.8	27.9
		N3520	
4997		11.4	28.3
90		11.2	28.5
80		11.6	28.1
75		10.1	29.6
	5.23 547.48		542.25
4968		13.9	33.6
60		11.9	35.6
50		11.5	36.0
40		8.9	38.6
30		5.6	41.9
20		2.5	45.0
10		1.5	46.0

plotted

pk flotting

pk flotting

Item 3.

N3520

	9.18	559.93	550.75
4900		10.8	491 ✓
90		6.7	532 ✓
80		6.1	538 ✓
70		5.4	545 ✓
60		4.6	553 ✓
50		3.6	563 ✓
40		3.2	567 ✓
30		2.4	575 ✓
20		2.0	579 ✓
10		1.7	582 ✓
4800		1.3	586 ✓

N3530

4800		1.1	588 ✓
10		1.7	582 ✓
20		1.9	580 ✓
30		2.5	574 ✓
40		3.0	569 ✓
50		3.7	562 ✓

		559.93	N3530
4860		4.7	552 ✓
70		5.7	542 ✓
80		6.2	537 ✓
90		6.7	532 ✓
4900		11.3	486 ✓
	5.23	547.48	542.25
10		1.0	465 ✓
20		1.9	456 ✓
30		4.9	426 ✓
40		8.7	388 ✓
50		11.5	360 ✓
60		12.2	353 ✓
66		13.5	340 ✓
	2.21	539.66	537.45
70		9.0	307 ✓
80		11.8	279 ✓
90		11.8	279 ✓
97		11.8	279 ✓

Item 3

539.66

N3540

4997	10.8	28.9 ✓
90	10.9	28.8 ✓
80	10.9	28.8 ✓
70	9.4	30.3 ✓
5.23 547.48		542.25
4963	13.8	33.7 ✓
60	13.0	34.5 ✓
50	11.9	35.6 ✓
40	9.0	38.5 ✓
30	5.4	42.1 ✓
20	2.3	45.2 ✓
10	1.0	46.5 ✓
9.18 559.93		550.75
4900	11.3	48.6 ✓
90	7.0	52.9 ✓
80	6.1	53.8 ✓
70	5.4	54.5 ✓
60	4.8	55.1 ✓
50	4.0	55.9 ✓
40	3.2	56.7 ✓

plotted

ph floating N

559.93

N3540

4830	2.5	57.4 ✓
20	2.2	57.7 ✓
10	1.7	58.2 ✓
4800	1.1	58.8 ✓

N3550

4800	1.3	58.6 ✓
10	1.8	58.1 ✓
20	1.9	58.0 ✓
30	2.5	57.4 ✓
40	3.2	56.7 ✓
50	4.0	55.9 ✓
60	4.9	55.0 ✓
70	5.6	54.3 ✓
80	6.2	53.7 ✓
90	6.6	53.3 ✓
4900	10.8	49.1 ✓
10	13.4	46.5 ✓
5.23 547.48		542.25
20	2.6	44.9 ✓

plotted

ph floating N

Item 3

547.48

4930
40
50
60
2.21 539.66
70
80
90
97

4997
90
80
70
5.23 547.48
49.65
60
50
40

N3550

5.0 42.5
9.4 38.1
12.4 35.1
13.9 33.6
537.45
8.0 31.7
9.7 30.0
10.8 28.9
10.8 28.9

N3560

10.6 29.1
10.4 29.3
9.8 29.9
7.5 32.2
542.25
14.9 32.6
13.2 34.3
12.0 35.5
9.5 38.0

547.48

4930
20
9.18 559.93
10
49.00
90
80
70
60
50
40
30
20
10
4800

4800
10
20

N3560

4.9 42.6
2.4 45.1
550.75
13.2 46.7
10.8 49.1
6.7 53.2
6.0 53.9
5.7 54.2
5.0 54.9
4.3 55.6
3.5 56.4
2.8 57.1
2.0 57.9
1.6 58.3
1.2 58.7

N3570

1.1 58.8
1.5 58.4
2.2 57.7

Item 3

		559.93	N 3570	
48.30			2.9	570 ✓
40			3.8	561 ✓
50			4.7	555.2 ✓
60			5.3	54.6 ✓
70			5.8	54.1 ✓
80			6.1	53.8 ✓
T.P.	5.14	559.37	5.70	554.23
90			6.2	553.2 ✓
4900			9.4	500 ✓
10			11.9	47.5 ✓
	5.23	547.48		542.25
20			2.2	45.3 ✓
30			5.0	42.5 ✓
40			8.4	39.1 ✓
50			10.6	36.9 ✓
60			11.4	36.1 ✓
70			14.6	32.9 ✓
	2.21	539.66		537.45
80			9.9	29.8 ✓

Cr Rotting

Located

		539.66	N 3570	
4990			10.9	28.8 ✓
97			10.3	29.4 ✓
			N 3580	
4997			10.4	29.3 ✓
90			11.0	28.7 ✓
80			9.9	29.8 ✓
75			8.0	31.7 ✓
	5.23	547.48		542.25
4970			10.2	37.3 ✓
60			10.8	36.7 ✓
50			10.3	37.2 ✓
40			8.6	38.9 ✓
30			4.9	42.6 ✓
20			2.2	45.3 ✓
10			0.0	47.5 ✓
	5.14	559.37		554.23
4900			10.0	49.4

Located

Cr Rotting

Cr Rotting

Item 3

559.37

4890		
80		
70		
60		
50		
40		
30		
20		
10		
4800		

N 3580

7.5	519
5.8	536
5.3	541
5.0	544
4.2	552
3.3	561
2.3	571
1.5	579
0.8	586
0.5	589

N 3590

0.5	589
0.9	585
1.6	578
2.3	571
3.4	560
4.2	552
4.6	548
6.0	534

4800		
10		
20		
30		
40		
50		
60		
70		

559.37

N 3590

6.7	527
8.0	514
10.0	494
12.0	474

4880		
90		
4900		
10		
	5.23	547.48
		542.25
20		
30		
40		
50		
60		
67		

2.8	447
5.5	420
8.4	391
9.5	380
9.6	379
9.9	376

	2.21	539.66
		537.45
70		
80		
90		
97		

5.7	340
10.1	296
11.0	287
10.9	288

N 3600

10.5	292
11.0	287

4997	
90	

Item 3

	539.66	N3600		
4980		10.0	29.7	✓
70		5.4	34.3	✓
	5.23	547.48	542.25	
4967		9.2	38.3	✓
60		9.1	38.4	✓
50		8.9	38.6	✓
40		8.7	38.8	✓
30		4.8	42.7	✓
20		2.7	44.8	✓
10		0.8	46.7	✓
	5.14	559.37	554.23	
4900		10.3	49.1	✓
90		9.3	50.1	✓
80		5.9	53.5	✓
70		5.6	53.8	✓
60		4.8	54.6	✓
50		4.2	55.2	✓
40		3.5	55.9	✓

	559.37	N3600		
4830		2.6	56.8	✓
20		1.7	57.7	✓
10		1.1	58.3	✓
4800		0.4	59.0	✓
		N3610		
4800		0.5	58.9	✓
10		1.1	58.3	✓
20		1.9	57.5	✓
30		2.5	56.9	✓
40		3.6	55.8	✓
50		4.1	55.3	✓
60		4.6	54.8	✓
70		4.2	55.2	✓
80		5.9	53.5	✓
90		7.6	51.8	✓
4900		9.8	49.6	✓
10		12.3	47.1	✓
	5.23	547.48	542.25	
20		2.6	44.9	✓

Item 3

547.48 N3610

4930	4.4	43.1 ✓
40	6.8	40.7 ✓
50	8.7	38.8 ✓
60	8.7	388 ✓
67	8.5	39.0 ✓
2.21	539.66	537.45
70	5.3	34.4 ✓
75	8.5	31.2 ✓
80	10.0	29.7 ✓
90	10.6	29.1 ✓
97	10.4	29.3 ✓

plotted

ck & plotting ok

N3620

4997	10.4	29.3 ✓
90	10.8	28.9 ✓
80	10.6	29.1 ✓
75	8.5	31.2 ✓
71	5,3	34.4 ✓
5.23	547.48	542.25
4968	8.7	38.8 ✓
60	8.5	39.0 ✓
50	8.5	39.0 ✓

547.48 N3620

4940	7.3	40.2 ✓
30	4.5	43.0 ✓
20	2.1	454 ✓
10	+0.1	47.6 ✓
5.14	559.37	554.23
4900	10.4	49.0 ✓
90	8.8	50.6 ✓
80	5.5	53.9 ✓
70	4.8	54.6 ✓
60	4.0	55.4 ✓
50	4.3	55.1 ✓
40	3.8	55.6 ✓
30	2.8	56.6 ✓
20	2.0	57.4 ✓
10	1.1	58.3 ✓
4800	0.3	59.1 ✓

plotted

ok plotting

N3630

4800	0.7	58.7 ✓
10	1.3	58.1 ✓

Bottom Item 3

	559.37	N 3630	
4820		2.1	57.3
30		2.8	56.6
40		3.5	55.9
50		4.1	55.3
60		4.1	55.3
70		4.5	54.9
80		3.9	55.5
90		6.5	52.9
4900		8.8	50.6
10		10.7	48.7
20		13.0	46.4
	5.23 547.48		542.25
30		3.5	44.0
40		7.6	39.9
50		8.3	39.2
60		8.4	39.1
67		8.2	39.3

plotted

pl plotting

Continued in Book 422 page 5

		N 3630	
	2.21 539.66		537.45
4971		5.4	34.3
75		8.7	31.0
80		10.6	29.1
90		11.0	28.7
97		10.7	29.0

plotted

pl plotting

Cont. page 3

End Feb 2 - 1933

End schedule Item 3

Final X Sections under Hyd. Fill
Bottom Item 11 top Item 3

B.M.	3.14	581.64		578.50
	12.63	586.66	7.61	574.03
	10.90	596.99	0.57	586.09
			N3810	
4700			10.6	86.4 ✓
10			7.1	89.9 ✓
20			8.8	88.2 ✓
30			4.5	92.5 ✓
40			5.4	91.6 ✓
50			5.4	91.6 ✓
60			6.1	90.9 ✓
70			5.5	91.5 ✓
80			1.4	95.6 ✓
90			+2.4	99.4 ✓
4800			+3.3	600.3 ✓
10			+3.8	00.8 ✓
20			+4.7	01.7 ✓
30				0.6
40				0.6
50				0.6

Plotted

pk Lathing N

596.99 N3810

4860			0.6
74	+0.4	97.4 ✓	
80	+1.5	98.5 ✓	pk Lathing N
70	+3.9	00.9 ✓	
4900			0.6
	N3800		
4920	7.7	89.3 ✓	
10	3.3	93.7 ✓	
4900	0.9	96.1 ✓	
90	2.3	94.7 ✓	
80	3.1	93.9 ✓	
70	3.5	93.5 ✓	
60	4.3	92.7 ✓	
50	4.3	92.7 ✓	pk Lathing N
40	4.0	93.0 ✓	
30	4.5	92.5 ✓	
20	5.1	91.9 ✓	
10	5.1	91.9 ✓	
4800	5.3	91.7 ✓	

Plotted

	596.99	N3800	
4790		5.7	91.3
80		5.9	91.1
70		6.0	91.0
60		6.1	90.9
50		6.2	90.8
40		8.2	88.8
30		9.0	88.0
20		9.9	87.1
10		12.6	84.4
4700		10.1	86.9
T.P.		8.81	588.18

Plotted

pk spotting

Continued on Page 50

End Feb 7 - 1933

Night Feb 7 1933 49

Final Xsections under rock
Bottom Item 3 - (Top Item 3 was or previous finals or ground).

N3980

B.M.	2.80	631.43	628.63	
5200			3.2	28.2
10			6.7	24.7
20			8.3	23.1

N3970

5200			7.7	23.7
T.P.	1.07	621.21	11.29	620.14
10			3.3	17.9

N3960

5210			5.6	15.6
5200			0.8	20.4

N3950

5210			6.3	14.9
5200			4.2	17.0
5190			0.5	20.7

N3940

5190			4.9	16.3
200			10.0	11.2
210			7.6	13.6

plotted

	7.60	621.21	N3930	11.29
5200			12.2	09.0
5190			9.7	11.5

N3920

5190			13.8	07.4
200			16.4	04.8

N3910

5200			18.5	02.7
190			18.8	02.4
180			19.5	01.7

plotted

Continued from page 4.8

Xsections under Hydraulic fill.

Bottom Item 11 top Item 3

T.P	5.24	593.42		588.18
			N3790	
4710			19.4	74.0 ✓
20			14.6	78.8 ✓
30			13.6	79.8 ✓
40			9.6	83.8 ✓
50			6.7	86.7 ✓
60			8.2	85.2 ✓
70			5.4	88.0 ✓
80			2.8	90.6 ✓
90			1.3	92.1 ✓
4800			1.3	92.1 ✓
10			1.3	92.1 ✓
20			1.6	91.8 ✓
30			1.3	92.1 ✓
40			1.2	92.2 ✓
50			0.6	92.8 ✓
60			0.1	93.3 ✓
70			0.0	93.4 ✓

Pole Head

ok Plotting MW

Feb 8-1933 Kiernan for Contr. 50

Elliott

Simpson

Soper

Kemmen

		593.42	N3790	
4880			10.5	93.9 ✓
90			11.3	94.7 ✓
4900			6.5	86.9 ✓
4903			6.9	86.5 ✓
			N3780	
4880			12.4	81.0 ✓
70			9.3	84.1 ✓
60			6.7	86.7 ✓
50			4.0	89.4 ✓
40			2.6	90.8 ✓
30			3.8	89.6 ✓
20			4.8	88.6 ✓
10			7.8	85.6 ✓
4800			9.1	84.3 ✓
4790			7.4	86.0 ✓
80			11.0	82.4 ✓
	0.00	578.40	15.02	578.40

Pole Head

ok Plotting MW

	578.40	N3780	
4770		+1.2	79.6
60		2.9	75.5
50		4.4	74.0
40		6.0	72.4
30		6.1	72.3
4720		5.9	72.5
		N3770	
4730		6.6	71.8
40		6.8	71.6
50		6.6	71.8
60		6.4	72.0
70		6.2	72.2
80		6.0	72.4
90		5.3	73.1
4800		4.9	73.5
10		3.8	74.6
20		1.5	76.9
30		+1.2	79.6
40		0.4	78.0

	578.40	N3770	
4850		1.3	77.1
60		2.8	75.6
70		3.7	74.7
80		3.9	74.5
90		3.8	74.6
4900		3.5	74.9
05		3.4	75.0
T.P.	0.82	566.20	13.02	565.38
10			+6.1	72.3
20			+1.4	67.6
30			1.1	65.1
40			5.8	60.4
50			8.3	57.9
60			9.0	57.2
66			9.8	56.4

	11.45	550.36
4973		
80		
90		
4997		
4997		
90		
80		
72		
66		566.20
60		
50		
40		
30		
20		
10		
	0.0	578.40
4905		

N3770

	538.91
6.3	44.1
7.6	42.8
10.8	39.6
11.7	38.7

N3760

12.5	37.9
11.8	38.6
10.1	40.3
8.8	41.6
12.6	53.6
11.9	54.3
11.4	54.8
10.8	55.4
7.1	59.1
4.6	61.6
+1.4	67.6
	578.40
3.9	74.5

Derrick

578.40

N3760

4900	
4890	
80	
70	
60	
50	
40	
30	
20	
10	
4800	
4790	
80	
70	
60	
50	
40	
30	

3.2	75.2
3.4	75.0
4.3	74.1
4.9	73.5
5.2	73.2
5.5	72.9
5.5	72.9
5.7	72.7
5.9	72.5
6.7	71.7
7.6	70.8
7.1	71.3
6.3	72.1
6.3	72.1
6.4	72.0
6.4	72.0
6.3	72.1
11.2	67.2

		528.40	N3750		
4730			15.7	62.7	
40			12.8	65.6	
50			9.2	69.2	
60			7.3	71.1	
70			9.0	69.4	
80			10.2	68.2	
90			9.7	68.7	
4800			8.6	69.8	
10			6.7	71.7	
20			5.5	72.9	
30			5.4	73.0	
40			5.5	72.9	
50			5.1	73.3	
60			5.3	73.1	
70			4.9	73.5	
80			5.0	73.4	
90			7.5	70.9	
4903			3.4	75.0	Dornick
	0.82	566.20		565.38	

		566.20	N3750		
4910			+1.9	68.1	Dornick
4910 also			3.8	62.4	
20			7.2	59.0	
30			10.2	56.0	
40			12.5	53.7	
50			12.9	53.3	
60			13.3	52.9	
65			13.6	52.6	
B.M.	11.45	550.36		538.91	
73			11.2	39.2	
80			12.5	37.9	
90			12.9	37.5	
4997			12.5	37.9	
			N3740		
4997			14.1	36.3	
90			14.0	36.4	
80			13.1	37.3	
4975			11.7	38.7	
70			7.4	43.0	

	566.20	N3740		
4966		16.7	49.5	
60		14.5	51.7	
50		13.8	52.4	
40		13.5	52.7	
30		12.8	53.4	
20		11.8	54.4	
10		8.5	57.7	
4900		8.8	57.4	
4890		2.9	63.3	
80		1.7	64.5	
	0.0	578.40	578.40	
70		13.4	65.0	
60		12.6	65.8	
50		8.5	69.9	
40		12.8	65.6	
30		12.4	66.0	
20		12.8	65.6	
10		10.5	67.9	
4800		9.2	69.2	

plotted

		578.40	N3740	
4790			10.7	67.7
80			11.8	66.6
70			13.6	64.8
60			13.2	65.2
50			16.9	61.5
T.P.	7.38	581.41		574.03
			N3840	
5000			1.4	80.0
4990			+10.0	91.4
			N3830	
4997			5.2	76.2
90			0.4	81.0
80			1.5	79.9
75			1.2	80.2
60			+13.0	94.4

plotted

Final X Sections
Bottom Item 3 (Top was O.G.)
Copied from Book 408 p. 31

Feb 8 - 1933

55

N3980'

B.M.	3.48	632.11	
			628.63
5190			
		1.7	30.4
200			
		4.8	27.3
10			
		7.3	24.8
5220			
		9.2	22.9

N3970'

5175		
	+1.3	33.4
80		
	0.7	31.4
90		
	6.7	25.4
5200		
	9.3	22.8

N3960'

5145		
	+4.2	36.3
50		
	+2.7	34.8
60		
	1.8	30.3
70		
	3.1	29.0
80		
	5.1	27.0
90		
	8.3	23.8
5200		
	12.0	20.1

Plotted

N3950'

632.11		
5140		
	+1.0	33.1
50		
	3.1	29.0
60		
	6.3	25.8
70		
	8.3	23.8
80		
	10.0	22.1
5190		
	12.0	20.1

N3940'

5190		
	16.0	16.1
80		
	13.0	19.1
70		
	12.3	19.8
60		
	10.3	21.8
50		
	7.8	24.3
40		
	4.3	27.8

Plotted

N3930'

5140		
	9.3	22.8
50		
	10.6	21.5
T.P.	0.71	620.88
	11.94	620.17

620.88

	N3930		
5160	2.8	18.1	ch Setting NW
70	4.6	16.3	
5180	2.1	13.8	
	N3920		
5180	11.8	09.1	
70	9.9	11.0	ch Setting NW
60	6.6	14.3	
50	4.2	16.7	
5140	4.1	16.8	
	N3910		
5140	11.5	09.4	
50	11.8	09.1	ch Setting NW
60	12.2	08.7	
5170	15.2	05.7	
	N3900		
5160	18.3	02.6	
50	21.4	599.5	ch Setting NW
40	19.8	01.1	

Plotted

End Feb 8 - 1933

Additional Structure
Excavation along core wall

56

B.M.	0.11	575.36		575.25
N3360				
E5003			5.0	70.4
N3370				
E5009			5.3	70.1
N3370				
E5003			9.1	66.3
N3380				59.3
5003			16.1	58.7
T.P.	0.38	563.70	12.04	563.32
N3390				
5003			10.2	53.5
3400				
5006			10.8	52.9
3400				
5003			13.6	50.1
T.P.	1.15	551.75	13.10	550.60
3410				
5006			3.3	48.5
N3410				
5003			5.0	46.8
3420				
5003			6.4	45.4
3420				
5006			4.1	47.7

plotted 9/25/34

Plotted

plotted

plotted

		551.75		
N3430				
5003			8.5	43.3
3430	plotted			
5006			8.3	43.5
3430				
5008			4.6	47.2
N3440				
5003	plotted		10.5	41.3
3450				
5003	plotted		16.0	35.8
3460				
5003			20.1	31.7
B.M.	6.39	560.80		554.41
N3790				
5012			5.3	55.5
3790	plotted.			
5003			17.6	43.2

N3290

B.M	9.49	level 617.68		608.19
5012			17.9	99.8
20			8.9	08.8
25			7.3	10.4
40			5.4	12.3
50			4.2	13.5
60			3.9	13.8
70			3.3	14.4
80			5.4	12.3
90			6.7	11.0
5100			8.4	09.3
10			9.4	08.3
20			9.8	07.9
30			9.2	08.5
40			6.1	11.6 Derrick
50			6.4	11.3
60			6.2	11.5
70			5.4	12.3
5180			1.7	16.0

plotted

Item 3

617.68 N3280

5180	1.2	16.5
70	1.9	15.8
60	3.6	14.1
50	3.0	14.7
40	4.3	13.4
30	4.3	13.4
20	3.8	13.9
10	1.2	16.5
5100	1.0	16.7
90	2.2	15.5
80	3.1	14.6
70	3.1	14.6
60	2.9	14.8
50	4.1	13.6
40	4.9	12.8
30	5.1	12.6
25	5.5	12.2
20	7.2	10.5

plotted

ok plotting

617.68 N3280

5015	9.4	08.3
13	13.9	03.8
06	18.5	99.2
05	23.5	94.2
03	23.9	93.8
	N3270	
5003	19.9	97.8
05	19.9	97.8
06	13.1	04.6
10	8.1	09.6
15	3.6	14.1
20	3.7	14.0
30	4.3	13.4
40	4.2	13.5
50	3.8	13.9
60	2.7	15.0
70	2.9	14.8
80	1.7	16.0
90	1.9	15.8

plotted

ok plotting

		Level 617.68	N3270		
5100			0.9	16.8	✓
T.P.	11.97	Transit 628.93	0.72	616.96	
5110			11.5	17.4	✓
20			10.2	18.7	✓
30			8.7	20.2	✓
40			8.1	20.8	✓
50			8.0	20.9	✓
60			9.1	19.8	✓
70			8.2	20.7	✓
80			3.6	25.3	✓
90			4.9	24.0	✓
			N3260		
5190			5.0	23.9	✓
80			4.9	24.0	✓
70			5.3	23.6	✓
60			6.0	22.9	✓
50			6.4	22.5	✓
40			7.6	21.3	✓
30			8.7	20.2	✓

plotted

plotted

	628.93	N3260		
5120		10.1	18.8	✓
10		10.4	18.5	✓
5100		6.1	22.8	✓
5095		2.7	26.2	✓ Dornick
87		4.9	24.0	✓
80		6.6	22.3	✓
70		5.2	23.7	✓
60		7.4	21.5	✓
55		7.3	21.6	✓
50		12.0	16.9	✓
40		13.3	15.6	✓
	Level 617.68			
30		3.6	14.1	✓
20		2.4	15.3	✓
14		3.4	14.3	✓
12		9.4	08.3	✓
07		13.9	03.8	✓
03		14.0	03.7	✓

		Level 617.68	N3250		
5003			8.7	09.0 ✓	
06			8.2	09.5 ✓	
10			0.4	17.3 ✓	
		Transit 628.93			
18			9.9	19.0 ✓	
20			10.8	18.1 ✓	
30			11.2	17.7 ✓	
40			10.9	18.0 ✓	
50			8.0	20.9 ✓	
T.P.	12.65	Level 641.58	0.0	628.93	
57			11.6	30.0 ✓	
70			10.2	31.4 ✓	
80			11.5	30.1 ✓	
92			10.6	31.0 ✓	Dornich
95			12.7	28.9	
5100			13.0	28.6	
08			12.4	29.2	
		T 628.93			
10			7.4	21.5	

Plotted

Plotted

Plotted

		T 628.93	N3250		
5120			8.1	20.8 ✓	
30			7.2	21.7 ✓	
40			7.4	21.5 ✓	
50			6.0	22.9 ✓	
60			4.5	24.4 ✓	
70			2.9	26.0 ✓	
80			2.8	26.1 ✓	
5190			3.4	25.5 ✓	
		Level 641.58	N3240		
5270			+4.2	45.8	0.6
53			5.7	35.9 ✓	
50			11.1	30.5 ✓	
40			11.1	30.5 ✓	
30			10.2	31.4 ✓	
25			9.5	32.1 ✓	
20			13.3	28.3 ✓	
10			12.5	29.1 ✓	
5200			12.5	29.1 ✓	
5190			11.9	29.7 ✓	

		level 641.58	N3240	
5180			12.8	28.8 ✓
70			12.6	29.0 ✓
60			13.4	28.2 ✓
50			13.4	28.2 ✓
40			14.8	26.8 ✓
30			14.2	27.4 ✓
20			16.8	24.8 ✓
10			14.8	26.8 ✓
05			8.0	33.6 ✓
5100			6.7	34.9 ✓
5090			3.8	37.8 Dornick
80			4.1	37.5 ✓
70			5.7	35.9 ✓
60			4.6	37.0 ✓ superseded 4/27/48
55			5.6	36.0 ✓ "
50			11.9	29.7 ✓ "
		⊼ 628.93		
40			2.2	26.7 ✓ "
30			6.0	22.9 ✓ "

plotted

plotted

		⊼ 628.93	N3240	
5020			6.4	22.5 ✓ superseded 4/27/48
10			7.9	21.0 ✓ "
07			15.4	13.5 ✓ Sketching Dr.
03			20.5	08.4 ✓
			N3230	
5003			0.4	28.5 ✓ use
10			0.4	28.5 ✓ use
20			1.1	27.8 ✓ use Same as 4/27/48
		level 641.58		
30			14.0	27.6 ✓ superseded 4/27/48
40			10.3	31.3 ✓ "
45			+2.4	44.0 ✓ "
50			+2.4	44.0 ✓ "
60			+0.6	42.2 ✓ "
70			+1.6	43.2 use
75			+2.5	44.1 "
80			0.1	41.5 "
90			0.3	41.3 "

Sketching Dr.

Item 3 Mar 23 - 1933

641.58 N3230

5100		1.8	39.8 ✓	wl
05		2.2	39.4 ✓	
10		10.0	31.6 ✓	
20		11.8	29.8 ✓	
30		11.5	30.1 ✓	
40		10.3	31.3 ✓	
50		9.0	32.6 ✓	
60		8.2	33.4 ✓	
70		7.2	34.4 ✓	
80		5.9	35.7 ✓	
90		4.9	36.7 ✓	
5200		6.0	35.6 ✓	
10		7.5	34.1 ✓	
20		8.2	33.4 ✓	
30		9.4	32.2 ✓	
40		9.8	31.8 ✓	
5260		+4.0	45.6	0.6
Check B.M.		12.73	628.85	628.84

plotted

checked wl

N3290

B.M.	3.32	613.18	609.86
4980		7.9	05.3 ✓
70		7.3	05.9 ✓
60		5.7	07.5 ✓
50		+0.2	13.4 ✓

plotted

ch plotting wl

N3280

4997	14.3	98.9 ✓
4985	6.2	07.0 ✓
80	5.6	07.6 ✓
70	4.6	08.6 ✓
60	+1.0	14.2 ✓

plotted

ch plotting wl

N3270

4997	14.3	98.9 ✓
96	11.8	01.4 ✓
93	9.8	03.4 ✓
89	3.3	09.9 ✓
80	2.0	11.2 ✓
70	0.2	13.0 ✓

plotted

ch plotting wl

		613.18	N3260		
4997			9.3	03.9 ✓	
B.M.	7.52	625.33		617.81	
87			9.0	16.3 ✓	at plotting
80		Plotted	7.6	17.7 ✓	
70			0.0	25.3 ✓	
			N3250		
4997			16.6	08.7 ✓	
93			16.6	08.7 ✓	
93 also			7.3	18.0 ✓	at plotting
90		Plotted	4.7	20.6 ✓	
80			2.5	22.8 ✓	
75			+2.5	27.8 ✓	
			N3240		
4981			+6.5	31.8 ✓	
94			0.8	24.5 ✓	
96		Plotted	16.6	08.7 ✓	at plotting
97			16.6	08.7 ✓	

End Mar 23 - 1933

Final X sections
(Mostly original ground, plus rocks above surface

Mar 31-1933
Mr. Elliott - Notes
Simpson T
Soper H.Ch.
Remmen R.Ch.

N 3310

B.M. 7.54 623.98 616.44

E 4740		6.0	18.0 ✓
30		4.3	19.7 ✓
20		3.1	20.9 ✓
10		3.6	20.4 ✓
4700		3.2	20.8 ✓
4690		3.6	20.4 ✓
80		6.2	17.8 ✓
70		8.5	15.5 ✓
60		8.6	15.4 ✓
50		7.8	16.2 ✓
46 40		8.2	15.8 ✓

N 3300

4650		4.0	20.0 ✓
60		4.6	19.4 ✓
70		6.1	17.9 ✓

Plot Head.

sh. floating in

sh. floating in

	623.98	N 3300	
4680		7.5	16.5 ✓
90		1.7	22.3 ✓
4700		1.6	22.4 ✓
10		1.1	22.9 ✓
20		1.1	22.9 ✓
30		0.6	23.4 ✓
40		1.3	22.7 ✓
50		3.0	21.0 ✓
60		3.0	21.0 ✓
70		5.0	19.0 ✓
80		1.2	22.8 ✓
88		7.1	16.9 ✓
90		0.6	23.4 ✓
4798		7.3	16.7 ✓
4802		+10.6	34.6 ✓
10		+3.6	27.6 ✓
20		+3.7	27.7 ✓
24		2.0	22.0 ✓
30		1.4	22.6 ✓

Plot Head.

sh. floating in

623.98 N3290

4940		
30		
20		
10		
4900		
4890		
80		
70		
T.P.		
	12.35	635.74 ✓
60		
50		
40		
36		
30		
20		
48 10		
4800		

Plotted

	4.2	19.8 ✓
	4.8	19.2 ✓
	7.2	16.8 ✓
	9.1	14.9 ✓
	5.1	18.9 ✓
	3.5	20.5 ✓
	3.1	20.9 ✓
	2.5	21.5 ✓
	0.59	623.39 ✓
	15.7	20.0 ✓
	16.6	19.1 ✓
	15.3	20.4 ✓
	6.4	29.3 ✓
	8.5	27.2 ✓
	5.6	30.1 ✓
	4.4	31.3 ✓
	3.9	31.8 ✓

4790		
80		
70		
60		
50		
40		
30		
20		
10		
47 03		
4700		
4695		
92		
87		
80		
70		
60		

635.74 N3290

Plotted

6.8	28.9 ✓
7.9	27.8 ✓
8.3	27.4 ✓
7.7	28.0 ✓
9.9	25.8 ✓
9.5	26.2 ✓
8.6	27.1 ✓
10.7	25.0 ✓
11.6	24.1 ✓
12.8	22.9 ✓
7.7	28.0 ✓
9.7	26.0 ✓
16.5	19.2 ✓
14.5	21.2 ✓
15.8	19.9 ✓
11.6	24.1 ✓
10.2	25.5 ✓

635.74 N3280

4670	5.3	30.4	✓
80	11.0	24.7	✓
90	12.0	23.7	✓
4700	12.2	23.5	✓
10	10.2	25.5	✓
20	7.4	28.3	✓
30	4.9	30.8	✓
40	4.4	31.3	✓
50	4.3	31.4	✓
60	4.0	31.7	✓
70	4.0	31.7	✓
80	3.5	32.2	✓
90	−2.2	33.5	✓
4800	+0.8	36.5	✓
10	+4.3	40.0	✓
13	+0.9	36.6	✓
20	−0.2	35.5	✓
30	3.9	31.8	✓
40	8.1	27.6	✓

p/o Hed

ck plotting m.

635.74 N3280

4850	12.2	23.5	✓
60	10.8	24.9	✓
70	9.6	26.1	✓
80	8.9	26.8	✓
90	9.8	25.9	✓
4900	10.3	25.4	✓
10	13.6	22.1	✓
20	12.7	23.0	✓
30	11.1	24.6	✓
40	11.7	24.0	✓
50	12.6	23.1	✓
			Contractors Elev.
Check	1.8	633.9	634.0 ±

Plotted

pk plotting m.

N4070

B.M.	11.13	675.69 ✓		664.56
	12.65	688.24 ✓	0.10	675.59 ✓

Straight to E5160

E5120	14.7	73.5 ✓
10	7.6	80.6 ✓
5100	3.2	85.0 ✓
5090	+1.0	89.2 ✓

N4080

5146	15.8	72.4 ✓
40	12.0	76.2 ✓
30	10.6	77.6 ✓
27	+0.6	88.8 ✓ Parnick
20	0.5	87.7 ✓
15	+1.8	90.0 ✓ Parnick
10	0.5	87.7 ✓
5100	+2.9	91.1 ✓

Plotted 9-22

688.24

N4090

5100	+7.7	95.9 ✓
5110	+1.5	89.7 ✓
20	1.3	86.9 ✓
30	6.1	82.1 ✓
40	9.9	78.3 ✓
50	12.6	75.6 ✓
60	15.7	72.5

N4100

5180	12.0	71.2 ✓
70	14.7	73.5 ✓
60	11.8	76.4 ✓
50	8.8	79.4 ✓
40	5.9	82.3 ✓
30	1.9	86.3 ✓
20	+2.5	90.7 ✓
10	+8.8	97.0 ✓ Strom 457/45

Plotted 9-22

Ch. Cutting Est.

688.24

5120			
30			
40			
50			
60			
70			
80			
90			
5200			
5195			
90			
80			
70			
T.P.	12.85	699.70 ✓	
60			
50			
40			
30			
25			

Plotted 9-22

N4110

+7.5	95.7 ✓	✓
+2.2	90.4 ✓	✓
1.5	86.7 ✓	✓
4.8	83.4 ✓	✓
8.2	80.0 ✓	✓
11.8	76.4 ✓	✓
11.2	77.0 ✓	✓
12.3	75.9 ✓	✓
14.5	73.7 ✓	✓

N4120

4.4	83.8 ✓	✓
5.6	82.6 ✓	✓
7.1	81.1 ✓	✓
5.9	82.3 ✓	✓
1.39	686.85 ✓	
14.0	85.7 ✓	✓
10.5	89.2 ✓	✓
7.0	92.7 ✓	✓
3.5	96.2 ✓	✓
1.7	98.0 ✓	✓

OK Clarkson

699.70

T.P.	12.34	710.99 ✓
5122		
18		
5120		
30		
40		
50		
60		
70		
80		
90		
5190		
80		
70		
60		
50		

Plotted 9-22

699.70

N4120

1.05	698.65 ✓
7.4	03.6 ✓ ✓
5.1	05.9 ✓ ✓

N4130

~~5.4~~	~~05.6~~ ✓
~~7.8~~	~~03.2~~ ✓
9.0	90.7 ✓ ✓
10.1	89.6 ✓ ✓
11.4	88.3 ✓ ✓
12.5	87.2 ✓ ✓
11.2	88.5 ✓ ✓
9.8	89.9 ✓ ✓

N4140

1.3	98.4 ✓
1.5	98.2 ✓
12.7	98.3 ✓
15.3	95.7 ✓
3.3	07.7

Superseded 4.52/42 DEC-1-83

Final X Sections
Sept 20-1933

		710.99	N4140	
5140			8.7	02.3
30			5.3	05.7
20			5.5	05.5
			N4150	
5120			5.6	05.4 Superseded See Sht 45
30			5.3	05.7
40			4.8	06.2
50			7.2	03.8
60			8.6	02.4
70			6.0	05.0
80			5.4	05.6
			1.76	709.23

Plotted 9-12

B.M.	12.65	682.43		669.78
	11.04	692.93	0.54	681.89
	5.91	698.00	0.84	692.09
Set B.M.			1.91	696.09
			N3940	
Straight to about 4832				
4850		5.4		92.6
60		4.5		93.5
70		9.1		88.9
			N3950	
Straight to about 4820				
4830		6.1		91.9
40		6.0		92.0
50		5.4		92.6
54		4.7		93.3
60		6.0		98.0
70		+3.1		701.1

Plotted 9-12

Ch. Blocking Corr.

698.00

N3960

Straight to 391.2 +

4820	5.9	92.1
30	6.0	92.0
40	5.9	92.1
46	5.5	92.5
50	+0.2	98.2
60	+9.7	07.7

Plotted 9-22 &

N3970

4850	+6.0	04.0
40	+1.8	99.8
34	5.7	92.3
30	5.9	92.1
20	5.8	92.2
10	5.1	92.9

698.00

N3980

4806	5.0	693.0
10	5.8	92.2
20	5.6	92.4
27	5.1	92.9

Plotted 9-22 &

Resection on So. abutement
Sept 20-1933

N3160

	0.57	705.75 ✓	705.18
4820		10.1	95.6
30		9.1	96.6
40		7.6	98.1
50		8.7	97.0
60		8.4	97.3
70		6.3	99.4
80		8.0	97.7

N3170

4880	12.0	93.7
70	12.9	92.8
60	13.0	92.7
50	13.3	92.4
40	12.8	92.9
30	14.5	91.2
20	13.8	91.9
10	15.0	90.7
T.P.	12.97	692.78

0.27 693.05 ✓

Plotted

Plotted

693.05

N3180

4810	8.8	84.2
20	7.1	85.9
30	5.8	87.2
40	4.6	88.4
50	4.9	88.1
60	3.8	89.2
70	3.0	90.0
80	3.4	89.6

N3190

4880	7.5	85.5
70	8.1	84.9
60	10.2	82.8
50	9.2	83.8
40	11.4	81.6
30	8.1	84.9
20	11.0	82.0
10	14.0	79.0
4800	11.3	81.7
4790	12.7	80.3

693.05

N3200

	3.98	684.46 ✓	12.57	680.48 ✓
4790			8.9	75.6 ✓
4800			10.3	74.2 ✓
10			7.8	76.7 ✓
20			4.7	79.8 ✓
30			4.5	80.0 ✓
40			5.6	78.9 ✓
50			4.7	79.8 ✓
60			4.2	80.3 ✓
70			1.6	82.9 ✓
80			4.9	79.6 ✓
Wall				684.5 check

Plotted

All Sta. ok for Plotting 9-27-34 GBH

End Sept 20 - 1933

Final X sections July 18-1934
Elliott-Simpson-Penman 72

N3060

B.M.	13.28	733.36 ✓		720.08
5110			14.4	19.0 ✓ O.G. +
5100			19.2	14.2 ✓
5090			19.3	14.1 ✓
80			19.6	13.8 ✓
70			21.4	12.0 ✓
60			19.3	14.1 ✓
50			16.5	16.9 ✓
40			15.4	18.0 ✓
30			11.5	21.9 ✓
20			6.3	27.1 ✓
15			6.4	27.0 ✓
10			11.1	22.3 ✓
5003			19.3	14.1 ✓

Plotted 7-9-34 GBH

Plotted dl

Plotted dl

N3050

5003			11.6	21.8 ✓
10			5.7	27.7 ✓
15			1.5	31.9 ✓
20			+0.7	734.1 ✓

733.36 N3050

5030		3.0	730.4
40		3.5	29.9
50		7.0	26.4
60		9.8	23.6
70		10.6	22.8
80		9.9	23.5
90		10.8	22.6
5100		10.8	22.6
07		7.0	26.4

plotted 7-19-34 CBH

N3040

5100		+1.4	34.8
5090		1.4	32.0
80		2.0	31.4
70		0.7	32.7
T.P.		0.69	732.67
	13.12	745.79	
60		9.2	36.6 — superseded 445/30
50		6.1	39.7 — superseded 445/30
40		5.3	740.5 "

745.79 N3040

5030		4.8	741.0 — superseded 445/30
25		5.0	40.8 " "
20		8.3	37.5 " 445/65
11		9.9	35.9 superseded 445/65
03		19.7	26.1

plotted

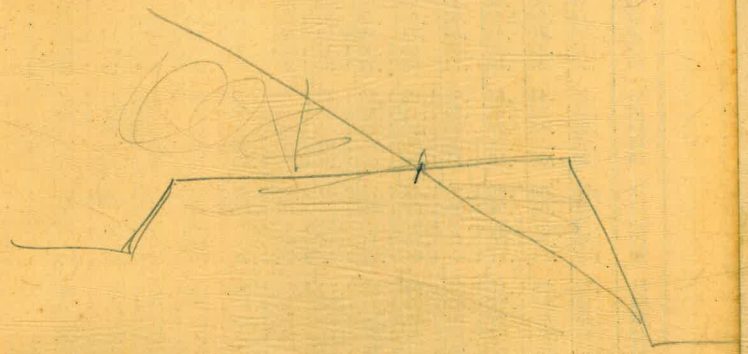
N3030

5003		6.7	39.1
08		+1.4	47.2
12		+1.4	47.2 superseded 445/65
20		2.3	45.5 "
30		4.2	41.6 "
40		4.8	41.0 FB 445–30 +65 superseded
50		5.7	40.1 "
60		6.5	39.3 "
70		7.0	38.8 "
80		8.4	37.4 use
90		10.0	35.8 used this
5100		11.6	734.2 used this
T.P.	12.99	758.31	0.47 745.32
Check			3.73 754.58 754.5

plotted 7-19-34 CBH

		581.88		
	4.84	578.64	8.08	573.80
N3600 E4702			5.0	73.6
N3580 4702			3.7	74.9
3580 4705			3.4	75.2
3560 4702			4.8	73.8
3560 4714			4.2	78.4
3540 4702			4.4	74.2
3540 4715			3.3	75.3
3520 4702			3.5	75.1
3520 4719			2.7	75.9
3500 4702			3.2	75.4
3500 4713			3.2	75.4
3480 4702			3.0	75.6
3480 4704			3.0	75.6
B.M.	0.22	542.47	0	542.25
Sat B.M.			5.02	537.45

4676.92
25
4701.92



B.M. 12.61 721.14 708.53
106 720.08

545.01
7.40
537.61

Table IX.—Calculation of Earthwork.

Width	HEIGHT														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	.02	.04	.06	.07	.09	.11	.13	.15	.17	.18	.20	.22	.24	.26	.28
2	.04	.07	.11	.15	.18	.22	.26	.30	.33	.37	.41	.44	.48	.52	.56
3	.06	.11	.17	.22	.28	.33	.39	.44	.50	.56	.61	.67	.72	.78	.83
4	.07	.15	.22	.30	.37	.44	.52	.59	.67	.74	.81	.89	.96	1.04	1.11
5	.09	.19	.28	.37	.46	.56	.65	.74	.83	.93	1.02	1.11	1.20	1.30	1.39
6	.11	.22	.33	.44	.56	.67	.78	.89	1.00	1.11	1.22	1.33	1.44	1.55	1.67
7	.13	.26	.39	.52	.65	.78	.91	1.04	1.16	1.30	1.42	1.55	1.68	1.81	1.94
8	.15	.30	.44	.59	.74	.89	1.04	1.19	1.33	1.48	1.63	1.78	1.92	2.08	2.22
9	.17	.33	.50	.67	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
10	.18	.37	.56	.74	.93	1.11	1.30	1.48	1.67	1.85	2.04	2.22	2.41	2.59	2.78
11	.20	.41	.61	.82	1.02	1.22	1.43	1.63	1.83	2.04	2.24	2.44	2.65	2.85	3.06
12	.22	.44	.67	.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
13	.24	.48	.72	.96	1.20	1.44	1.68	1.92	2.16	2.41	2.65	2.89	3.13	3.37	3.61
14	.26	.52	.78	1.04	1.30	1.55	1.81	2.08	2.33	2.59	2.85	3.11	3.37	3.63	3.89
15	.28	.56	.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17
16	.30	.59	.89	1.18	1.48	1.78	2.07	2.37	2.67	2.96	3.26	3.56	3.85	4.15	4.44
17	.31	.63	.94	1.26	1.57	1.89	2.20	2.52	2.83	3.15	3.46	3.78	4.09	4.41	4.72
18	.33	.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00
19	.35	.70	1.06	1.41	1.76	2.11	2.46	2.82	3.17	3.52	3.87	4.22	4.57	4.92	5.28
20	.37	.74	1.11	1.48	1.85	2.22	2.59	2.96	3.33	3.70	4.07	4.44	4.81	5.18	5.56
21	.39	.78	1.17	1.55	1.94	2.33	2.72	3.11	3.50	3.89	4.28	4.67	5.06	5.44	5.83
22	.41	.81	1.22	1.63	2.04	2.44	2.85	3.26	3.67	4.07	4.48	4.89	5.30	5.70	6.11
23	.43	.85	1.28	1.70	2.13	2.56	2.98	3.41	3.83	4.26	4.68	5.11	5.54	5.96	6.39
24	.44	.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44	4.89	5.33	5.78	6.22	6.67
25	.46	.92	1.39	1.85	2.31	2.78	3.24	3.70	4.17	4.63	5.09	5.56	6.02	6.48	6.94
26	.48	.96	1.44	1.92	2.41	2.89	3.37	3.85	4.33	4.82	5.30	5.78	6.26	6.74	7.24
27	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50
28	.52	1.04	1.55	2.07	2.59	3.11	3.63	4.15	4.67	5.18	5.70	6.22	6.74	7.26	7.78
29	.54	1.07	1.61	2.15	2.68	3.22	3.76	4.30	4.83	5.37	5.91	6.44	6.98	7.52	8.06
30	.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.55	6.11	6.67	7.22	7.78	8.33
31	.57	1.15	1.72	2.30	2.87	3.44	4.02	4.59	5.17	5.74	6.32	6.89	7.46	8.04	8.61
32	.59	1.18	1.78	2.37	2 96	3.56	4.15	4.74	5.33	5.92	6.52	7.11	7.70	8.30	8.89
33	.61	1.22	1.83	2.44	3.05	3.67	4.28	4.89	5.50	6.11	6.72	7.33	7.94	8.55	9.17
34	.63	1.26	1.89	2.52	3.15	3.78	4.40	5.04	5.67	6.29	6.93	7.56	8.18	8.81	9.44
35	.65	1.30	1.94	2.59	3.24	3.89	4.53	5.18	5.83	6.48	7.13	7.78	8.42	9.08	9.72
36	.67	1.33	2.00	2.67	3.33	4.00	4.66	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00
37	.68	1.37	2.06	2.74	3.42	4.11	4.79	5.48	6.17	6.85	7.54	8.22	8.91	9.59	10.28
38	.70	1.41	2.11	2.82	3.52	4.22	4.92	5.63	6.33	7.03	7.74	8.44	9.15	9.85	10.56
39	.72	1.44	2.17	2.89	3.61	4.33	5.05	5.78	6.50	7.22	7.95	8.67	9.39	10.11	10.83
40	.74	1.48	2.22	2.96	3.70	4.44	5.18	5.92	6.67	7.41	8.15	8.89	9.63	10.37	11.11

Table gives cu. yds. in 1 ft. of a triangle of given width and height. Corrections for tenths of width are one tenth the values found under each height considering the widths from 1 to 9 as tenths and similarly the corrections for tenths of height are one tenth the figures opposite width considering the heights from 1 to 9 as tenths. Thus if w =16.2 and h =5.3, cu. yds. =1.48+.028+.089 =1.597 cu. yds. or practically 160 cu. yds. per 100 ft. If w exceeds 40 ft., use one half and multiply result by 2, if both w and h are large use one half of each and multiply result by 4. Any cross-section may be divided into triangles by the following rule. To the triangle of the sum of the outside cuts (or fills) =h, and ½ the roadbed =w, add the triangles formed by taking the distance out to each break in turn (=w's) by the difference between the cuts (or fills) on each side of it (=h's) always subtracting the outer from the inner.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½.

For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9+(20—16)÷2 or 2 ft. added to 41.9 =43.9. For slopes of 1 on 1 see inside of front cover.

Made in Germany.