

S. R. H.

P. H.

INJURY
white

CHI

T

DIST

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33
- 34
- 35
- 36

23
Const book SRH 80 Res # 3-----Hack Res.

For Keith's Railroad Curve Tables see end of book.

93°
60.0 8.25
33.00
4) 32

9.56
1282
2580.0

120

100 pieces @ 10' long

47
87.4
7.3

200x

5/6 10/6 = 1 2/3 ft per piece

.61 1° 50' 166 ft. 24°
1.83 11° 05' 25° 50'
12° 55'

Got into Hackensack on P.M.
 train on Apr. 24/16
 Credit: Chas. Ralys
 Geo. Kline.

2.11
0.71
0.4
8.52
0.52
0.6
0.52
1.21
0.8
5.21

rp 2688p781
 rp 2707p303 → RP.3025+302
 rp 2811p633
 14...cge cl 2837p329
 15...lvls on cge "
 16... "
 17...rp 1/4cor.2469p363
 rp sec.cor bg swp.
 rp hub 2462
 18...cve 2948p20
 cve 2951p73
 cve 2965p085
 rp 2965p085
 19...cve 2971p009rppi
 cve 2979p68 rppi
 20...B pt 2976
 " 2968
 " 2959

C30
 C3031p77
 rp3078p49
 rp3084
 53C3093p377rppi
 C3102rppi
 rp3091p475
 rp3087p288
 rp3060p645
 54b pt 3001

55- B. pt Surfacing
 Note: -

RP. = ref. points
 C, Cve. = curve.
 Cge = change
 lvls = levels
 Rppi. = Ref. points P.I.
 B:pt. = Brown pit

2290

~~5 eggs
 3 pieces cake
 1 qt. coffee.~~

54
 51
 48
 38
 36
 20
 18
 20

11. 1693
 100.0
 69.3
 30.7
 20) 22.6300
 26
 20
 63
 60
 30
 11.

6) 23.5000
 18
 55
 54

10
 6
 40
 36
 40

.61
 3
 1.83

1° 50'
 11° 05'
 12° 55'
 24° 110'
 25° 50'

2979 + 68.0
 1 + 98.7
 2977 + 69.3
 3 + 91.7
 2981 + 61.0

Jan. 198.63

9) 208
 16
 48
 198.7

6) 23.500
 3.9166

6) 11.91800
 198.633

2979 + 68.0
 1 + 98.7
 2977 + 69.3
 3 + 91.7
 2981 + 61.0

.307
 3
 .921

1° 50'
 9° 55'
 10° 105'
 11° 45'
 2
 22° 90'
 23° 30'

1225.27
 + 1.52
 1226.79
 1226.65
 - 11.14
 1215.43
 + 0.43
 1215.59
 - 8.59
 1206.98
 + 2.06
 1208.99
 2.6

77.700
 0.83
 0.86

I.	± S	HI	- S	Rod	ELV.
		100.00			
75				4.5	95.5
74				4.5	95.5
73				4.4	95.6
72				4.2	95.8
71				4.2	95.8
70				4.2	95.8
69				4.0	96.0
68				4.6	95.4
T.P.	5.47	101.50	3.97		96.03
67				5.3	96.2
66				5.8	95.7
65				6.2	95.3
64				5.1	96.4
63				5.2	96.3
62				5.5	96.0
T.P.	4.75	101.55	4.70		96.80
61				4.9	96.7
60				4.7	96.9
59				4.5	97.1
58				4.9	96.7
57				4.8	96.8
56				4.8	96.8
T.P.	4.30	101.85	4.00		97.55
55				5.0	96.9

Note. To obtain True
Elev. for these stations
subtract 4.41 ft. from
each ELV.

High land set up.

W

101.85

54

4.7 97.2

53

4.6 97.3

52

4.6 97.3

51

4.7 97.2

50

4.6 97.3

49

4.5 97.4

T.P.

4.45

102.40

3.90

97.95

48

5.0 97.4

47

4.9 97.5

46

4.7 97.7

45

4.6 97.8

44

4.6 97.8

43

4.5 97.9

44

4.5 97.9

43

4.5 97.9

T.P.

3.96

102.51

3.85

98.55

42

4.5 98.0

41

4.5 98.0

40

4.5 98.0

39

4.5 98.0

T.P.

3.95 98.56

on top of stake at 39 + 00

sta.	Cut.	distance out.
51	1.1	✓
52	1.3	✓
53	1.3	✓
54	1.2	✓
55	1.0	✓
56	0.9	✓
57	0.9	✓
58	0.8	✓
59	1.3	✓
60	1.1	✓
61	0.9	✓
62	0.2	✓
63	0.6	✓
64	0.7	✓
65	0.0	✓

Need stakes for ditch grade on
 Carstens section.
 Gilmore's ditch a little wavy
 a few holes + hills

Sta	+S	HI.	-S	Rod.	ELY
6					
B.M.	3.62	1207.50			1203.88
17				4.5	03.0
16				3.7	03.6
15				4.8	02.7
T.P.	4.87	07.90		4.47	03.03
14				5.8	02.1
13				4.9	03.0
12				4.7	03.2
11				5.2	02.7
10				6.8	01.1
T.P.	3.92	05.54		6.28	01.62
9				6.0	99.5
8				4.8	00.7
7				4.8	00.7
6				4.1	01.4
T.P.	1.41	03.48		3.47	02.07
5				5.6	97.9
4				11.5	92.0
T.P.	1.57	93.93		11.12	92.36
3				4.8	89.1
2				5.1	88.8
1				5.9	88.0
00				6.4	87.5

E 1.0

F 0.12

F 1.3

F 1.9

F 1.0

F 0.8

F 0.6

F 1.6

F 2.5

F 0.3

C 0.7

C 2.4

C 1.6

F 1.7

F 1.9

F 1.0

F 0.7

00 grade.

7

	Grade.
80+30	20.3
80+52	
80+55	20.6
80+43	
80+70	20.3
2881	21.0
80+89	
80+85	
81+50	27.5
2882	24.0
82+50	25.5
82+48	
81+30	21.3

B. pit. on R.

80+43
80+70
2881
81+30
81+50

L	C	R	M
+6.6	+9.3	+6.3	
9.9		19.5	
Do 0	00		
		00	
Do 1.3	-1.4	5.1	
15.3		21.1	
+1.6	+1.3	-1.0	
12.4		.17	
Do 0			
Do 0	+1.1	+1.4	-0.4
	11.7		16.4
Do 0.6	+0.9	+1.8	+0.6
14.6	11.7		17.9
Do 0.4	+1.0	+2.1	+1.2
14.4	11.5		11.8
			Do 0
	+1.2	-0.5	
		16.5	

-00/14 -4.4/50 -5.4/60
 -8.1/21.1 -11.5/50 -13.4/70
 -3.0/17 -10.0/50 -12.5/70
 -2.5/16.5 -8.2/50 -11.1/70 -12.3/80
 -2.4/16.4 -7.4/50 -10.9/80

8 CURVE DATA.

P
 2725+68 P.I. 40° C. R.
 P.C. = 2724 + 68 = } D = 40° R.
 2725 = 6° 22' R. } Δ = 68° 38' R.
 +50 = 16° 22' R. } T = 99.8
 2726 = 26° 22' R. } L = 171.5
 +392 = P.T. = 34° 19' R.

Angle at Sta. 2733 + 31.5 J.
 found to be 8° 02' R. instead
 of 7° 32' as plans show.
 Found both B.S. + F.S. P.O.s.

2755+52* P.I. 18° C. L.
 B.C. = 2754 + 65 } D = 18° L.
 2755 = 3° 09' L. } Δ = 30° 35' L.
 +50 = 7° 39' L. } T = 87.4
 2756 = 12° 09' L. } L = 169.9
 P.T. +342 = 15° 18' L.

2765+61 P.I.
 B.C. 2764 + 61 = } Δ = 34° 50' R.
 2765 = 3° 30' R. } D = 18° R.
 +50 = 8° 00' R. } T = 100.3
 2766 = 12° 30' R. } L = 193.3
 +542 = 17° 25' R. E.C.

2755+10 = 4° 03' ✓
 +20 = 4° 57' ✓
 +30 = 5° 51' ✓
 +40 = 6° 45' ✓
 +50 = 7° 39' ✓
 +60 = 8° 33' ✓
 +70 = 9° 27' ✓
 +80 = 10° 21' ✓
 +90 = 11° 15' ✓
 2756 = 12° 09' ✓
 +10 = 13° 03' ✓
 +20 = 13° 57' ✓

B.C. = 2754 = 4° 54' L.
 65 + 50 = 9° 24' L.
 65 = 13° 54' L.
 61 = 17° 25' L.

7° 39' ✓
 8° 33' ✓
 8° 87 ✓
 9° 27 ✓
 9° 81 ✓
 10° 21 ✓
 10° 75 ✓
 11° 25 ✓

00.0
 61.2
 38.8
 349.2

.545
 4905
 4° 54'
 4° 30'
 8° 84'
 9° 24'
 4° 30'
 13° 54'
 3° 30'
 16° 84'
 17° 24'

9
2774+38 P.D.

2773+34.7 = P.C. 10° L.
2774 = 3° 16' L.
+50 = 5° 46' L.
2775 = 8° 16' L.
+392 = 10° 15' L. E.C.

R.P.s B.C.
#1 = 3" N.P.R. 43.55
#2 = 2" B. R. 57.8

A = 20° 30' L.
D = 10° L.
T = 103.7
L.C. = 205.0

2911+50 P.I. Δ = 26° 34' L.

2910+82.3 = P.C.
2910+00 = 1° 46' L.
+50 = 6° 46' L.
2912 = 11° 46' L.
E.C. +15.1 = 13° 17' L.

D = 20° L.
T = 67.66
L.C. = 132.8

2914+91.5 P.D. 31° 35' L.

P.C. = 2914+10.5
2914+50 = 3° 57' L.
2915 = 8° 57' L.
+68.4 = 15° 48' L. P.T.

D = 20° L.
T = 81.02
L.C. = 157.9

2918+42 P.J. 25° 45' R.

P.C. = 2917+76.5
2918 = 2° 21' R.
+50 = 7° 21' R.
2919+00 = 12° 21' R.
+05.3 = 12° 53' R. P.T.

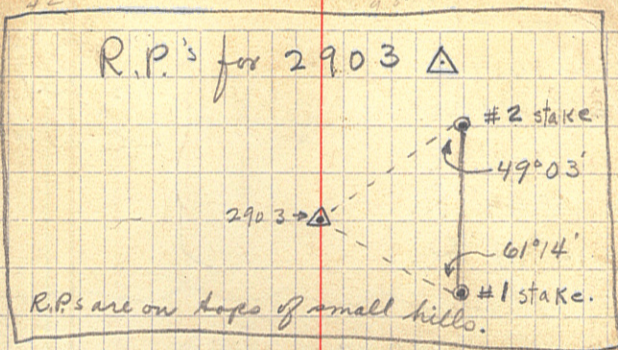
D = 20° R.
T = 65.48
L.C. = 128.75



#9 03
61 17
110 17
69 42

179° 59

30.4
68.4
4.8



P.D. R.P.s

#1 small Ash on R. 40.7 out
#2 small Birch on R. 33.85 out.

P.I. R.P.s

#2 = small W. pine on R. 54.5 out
#1 = small poplar on R. 46.5 out.

R.P.s for Δ at 2889+752.

#1. Oak on R. 38.0 out. (Dead)
#2. Oak on R. 40.7 out.

R.P.s for 2879+472

#1 = 7" oak on R. 43.9 out
#2 = Birch stake on R. 44.8 out.

10

2921+35 P.S. 28° 38' R.

P.C. = 2920+61.9

2921 = 3° 49' R.

+50 = 8° 49' R.

2922 = 13° 49' R.

+05.1 = 14° 19' R.

D = 20° R.

T = 73.1

L.C. = 143.2

2929+40 P.S. 47° 02' L.

P.B.C. = 2928+14.7

2928+50 = 3° 32' L.

+ 2929 = 8° 32' L.

+50 = 13° 32' L.

+ 2930 = 18° 32' L.

B.C. +49.9 = 23° 31' L.

+50

2930 = 18° 32' L.

+50 = 13° 32' L.

2931 = 20° 28' L.

+61 = 23° 31' L.

D = 20° L.

T = 125.3

L.C. = 235.2

Ext. approx 26.0

short sta. 2930-31
= 84.6' long
$$\begin{array}{r} 2929+40 \\ + 25.3 \\ \hline 2930+65.3 \\ + 49.9 \\ \hline 2979.9 \\ + 5.4 \\ \hline 2985.3 \end{array}$$

34.7

R.P.'s for P.S.

#1 = 7. Pine 3" = 35.05 on S.

#2 = Black stump on S. 37.2 out.

R.P.'s stump R.P.I. #1 = 12.95 out on R.

#2 Birch Stake 11.75 on R.

R.P.'s for Hub at sta. 2868+174

#1 = 4" Pop. on R. 33.7 out.

#2 = 4" Pop. on R. 41.5 out.

Hub. 2863+273

#1. small Pop. on R. 55.2' out

#2. " " " " 51.0' out.

2857+72^E#1. Tack ^{thin patch of red cloth} in B.M. stump. 57.9' out. R.

#2. " in Pine stump. 59.9' out on R.

angle turned at 2857+72^E from
course 2857+72^E - 2868+174 to W. end
of R. at Sta. 2970+50 = 22° 54' L.

11 Reference Points.

2850 Hub.

Rough curve
built in here #1. 10" Oak on L. 42.3 out.
Ext. = about 6' #2. small Oak on R. 38.95 out.

2841 + 56 =

Ref gone #1. Small N. Pine on L. 28.2 out
#2. small Birch on L. 41.2 out

2837 + 32 =

#1. J.P. on L. 43.8 out.

#2. small Pop. L. 31.7 out.

2830 + 57 =

#1 = B.M. stp. on L. 60.7 out.

#2 = Birch stake L. 51.8 out.

2817 + 68 =

#1. small Pop. on L. 41.8 out.

#2. Sp. in top of large stp. L. 59.9 out.

2796 + 15 =

#1. 5" Pop. on L. 38.0 out

#2. 4" Pop on L. 31.3 out.

2667 + 68.2
2665 + 62.9
1 # 5.3

40° Curve R. at Sta. 2667 + 0.8 = P.I.

Sta. 2665 + 62.9 = B.C.

Sta. 2666 = 7° 25' R. ✓

+ 50 = 17° 25' R. ✓

2667 = 27° 25' R. ✓

+ 50 = 37° 25' R. ✓

+ 87 = 44° 51' R. E.C.

25° Curve L. Sta. 2662 + 49.4 P.I.

B.C. = 2658 + 58

2659 = 5° 15' L. ✓

+ 50 = 11° 30' L. ✓ R.P. = P.I.

2660 = 17° 45' L. ✓ #1 = stp. on L. 21.9

+ 50 = 24° 00' L. ✓ #2 = stp. on R. 21.5

2661 = 30° 15' L. ✓

+ 50 = 36° 30' L. ✓

2662 = 42° 45' L. ✓

+ 50 = 49° 00' L. ✓

2663 = 55° 15' L. ✓

E.C. + 33 = 59° 28' L.

18° Curve R. at Sta. 2653 + 94.8 P.I.

B.C. = 2652 + 92.4

2653 = 0° 41' R.

+ 50 = 5° 11' R.

2654 = 9° 41' R.

+ 50 = 14° 11' R.

E.C. + 90 = 17° 41' R.

12

18° Curve R. at Sta. 2642+00 P.I.

B.C. = 2640+94±

2641 = 0°30' R.

+50 = 5°00' R.

2642 = 9°30' R.

+50 = 14°00' R.

E.C. +97± = 18°17' R.

20° Curve L. at Sta. 2600+94± P.I.

B.C. 2599+49±

2600 = 5°03' L. $2600+94.4$ +50 = 10°03' L. $2599+49.5$ 2601 = 15°03' L. $1+44.9$

+50 = 20°03' L.

2602 = 25°03' L.

E.C. +16± = 26°43' L.

10° Curve R. Sta. 2597 P.I.

B.C. 2595+64.9

2596 = 1°45' R.

+50 = 4°15' R.

2597 = 6°45' R.

+50 = 9°15' R.

2598 = 11°45' R.

E.C. +29.9 = 13°15' R.

Short Sta. 2598-2599 = 94.8

long.

Reference Point Notes:

2720+34 Δ

#1 Cor. fence post 47° out. L.

#2 Tel. pole 36.25 out R.

2725+60 P.I.

#1. 2" Norway tree. 33° out.

#2. Jam. fence post. 35± out.

2733+31± Δ

#1. 3" W. pine L. 48.9' out.

#2. 3" Norway P. on L. 60± out.

2742 Δ

#1. 3" Birch tree on L. 35± out.

#2. 2" J. pine on L. 38± out.

2744+66± Δ

#1. 3" poplar 45.95 on L.

#2. 3" poplar 38± on L.

2748+21± Δ

#1. = 4" J. Pine. on R. 37± out.

#2. = 3" J.P. on R. 33± out.

2755+52± P.I.

#1. = Tack in hub on R. 30± out.

#2. = Tack in side of hub on R. 35± out.

2759+74± Δ

#1. 3" N.P. on L. 38± out

#2. = 4" G.P. on L. 54± out.

13

2765+61⁵ P.I.#1. tack intop of stp. 41¹ on L.#2. Dead pop. L. 37² out2774+38⁴ P.I.#1=3" B. Oak. R. 33³ out.#2=2" Norway. R. 31² out.2786+46⁹ Δ#1. W. pine stp. 45³ out R.#2. W. pine stp. 45⁵ out R.2688+78¹ Δ wooden hub.#1. = 5" poplar on L. 36⁴ out.#2. = 4" Oak on L. 41⁹ out.2707+30³ Δ#1. = fence P. on L. 34² out

#2. = " " " 31.25 out.

① 2811+63³#1 2" Pop. 38⁴ L.#2 2" Birch 36⁹ L.R.P. Δ 3025+30²= #9. Pine L. 37²W. Birch L. 37¹

R.P. P.J. Curve at

2600+94.4

#1= Bk. stump 49.2

#2=g.w.pine stp. 31.3

14 Change of Line from

sta. 2837+32.9 to sta. 2850

100.0
90.6
9.4

100.0
24.4
25.6

+37.9	Δ		sta. 2850
2850			
2849			
2848			
+29.3	E.C.	13°28'	
2847	✓	12°44'	P.I. = 2844+65
+50	✓	11°29'	Δ = 26°56'R.
2846	✓	10°14'	T. = 274.4
+50	✓	8°59'	L.C. = 538.7
2845	✓	7°44'	D = 5°R.
+50	✓	6°29'	
2844	✓	5°14'R.	
+50	✓	3°59'R.	
2843	✓	2°44'R.	P.I.
+50	✓	1°29'R.	
2842	✓	0°14'R.	
+90.6	B.C.	5° Curve R.	
2841			
+45	Δ	8°32'R.	
2840			
2839			
2838			
2837+32.9	⊙	P.O.T.	

our old Survey.

R.P.'s #1. = Red Oak stub on L. 33⁵ out.
#2. Red Oak stub. on L. 36.85 out.

R.P.'s #1. 2" poplar on L. 46⁶ out.
#2. 3" Oak on L. 35¹ out.

Sta.	Levels on		Rod	Elev.
	+s	H.I.		
B.M.	3.07	1277.22		1274.15
T.P.	0.41	66.99	10.64	66.58
T.P.	886	71.82	4.03	62.96
2850			0.8	71.0
2849			7.1	64.7
+60			9.7	62.1
2848			11.4	60.4
T.P.	6.31	68.88	9.25	62.57
2847+20			8.6	60.3
2847			7.1	61.8
+74			5.9	63.0
+74			4.7	64.2
+50			4.4	64.5
2846			5.9	63.0
F50			7.3	61.6
T.P.	2.16	64.55	6.49	62.39
2845			3.3	61.3
+50			2.8	61.8
2844			4.3	60.3
+50			4.4	60.2
2843			3.4	61.2
T.P.	3.67	64.83	3.39	61.16
+50			4.0	60.8
+40			3.5	61.3
+12			5.6	59.2

change. L. 5²/₈ S. 1¹/₂ C R.

2⁵/₂₀

sta. 2849-2850 = Long sta. = 137.9 Long.

6²/₂₀
3.4¹/₂₅

4¹/₂₅

2.8¹/₂₅
6.0¹/₂₅

6⁵/₂₀
5.1¹/₂₅

2.10¹/₂₀
1.3¹/₂₀

7.1¹/₂₀
7.6¹/₂₀

10.4¹/₂₀

0.8¹/₂₀
0.6¹/₂₀
0.0¹/₂₅

Sta	+S	H.I.	-S	Red.	Elv.
		64.83			
B.M.			10.38		1254.45
2842				4.6	60.2
+80				3.2	61.6
+60				3.5	61.3
+15				8.9	55.9
2841				7.8	57.0
T.P.	3.20	66.56	1.47		63.36
+45				2.9	63.7
+30				3.7	62.9
2840				7.4	59.2
+70				10.3	56.3
+12				9.0	57.6
2839				7.0	59.6
+80				4.3	62.3
+50				4.7	61.9
2838				2.8	63.8
T.P.	3.97	67.96	2.57		63.99
+85				4.4	63.6
+60				2.8	65.2
+32				1.7	66.3
T.P.	0.92	64.93	3.95		64.01
T.P.	3.05	57.97	10.01		54.92
B.M.			7.03		1250.94

(14)

L	C	R
Notch in Large W. Pine		
✓	9.8/20	5.2 Higher than E. 25 out.
✓	9.2/20	4.2 H. than E. 25 out
✓	8.7/20	4.6 H. & 25 out
✓	10.6/20	1.9/25
✓	10.7/20	1.1/25
✓	6.1/20	3.2 H. & 25 out.
✓	8.5/20	3.7 H. & 25 R.
	11.2/20	6.8 H. & 25 R
	13.9/20	5.4 H. / 25 out
	12.9/20	3.5/23
	11.1/20	1.7/25
	10.2/25	4.2 H. / 25 out
	12.0/25	5.7 H. / 25 out
	7.2/25	4.9 H. / 25 out
	7.8/25	2.1/15 2.1/25
	5.2/25	Level with C
	3.2/25	1.7 H. / 25

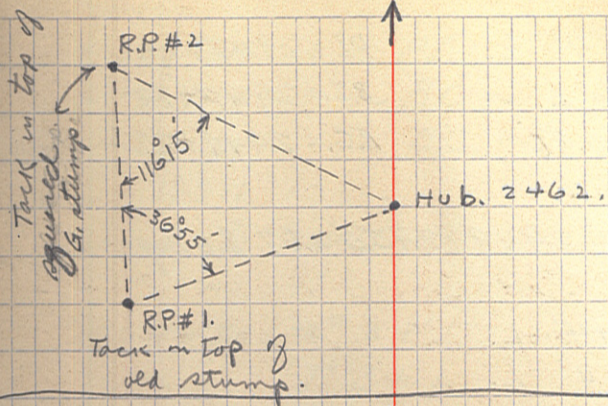
47
R.P.'s for $\frac{1}{4}$ Cor. Sta. 2469+36³

#1. 10" J.P. on L. 48.5 out.
#2. J.P. on L. 41.75 out.

R.P.'s Sec. Cor. I.P. in Big
Swamp. S. of Hack.

#1. = Spruce 5" - 35.25 out.
#2 = " 5" - 38.75 out.

R.P.'s for Hub at Sta. 2462



18 26° Curve L. sta. 2948+20

$\Delta = 64^{\circ}46' L.$ P.I. = 2948+20
 $D = 26^{\circ} L.$ B.C. = 2946+79
Tan. = 140.96' E.C. = 2949+28⁺
L.C. = 249.1

Short sta. 2949-2950 = 67' Long.

2947 = 2°44' L.

+50 = 9°14' L.

2948 = 15°44' L.

+50 = 22°14' L.

2949 = 28°44' L.

+28' = 32°23' L.

16° Curve R. sta. 2951+73

$\Delta = 51^{\circ}48' R.$ P.I. = 2951+73
 $D = 16^{\circ} R.$ B.C. = 2949+98[±]
Tan. = 174.45' E.C. = 2953+22[±]
L.C. = 323.8

Short sta. 2953-54 = 74' long.

2950 = 0°07' R.

+50 = 4°07' R.

2951 = 8°07' R.

+50 = 12°07' R.

2952 = 16°07' R.

+50 = 20°07' R.

2953 = 24°07' R.

+22' = 25°54' R.

Curve at sta. 2965+08[±]

$\Delta = 32^{\circ}37' L.$ P.I. = 2965+08[±]
 $D = 20^{\circ} L.$ B.C. = 2964+24[±]
Tan. = 84.2' E.C. = 2965+87[±]
L.C. = 163.1

Short sta. 2965-66 = 94.7' Long.

2964+50 = 2°34' L.

2965 = 7°34' L.

2965+50 = 12°34' L.

+87' = 16°19' L.

R.P.'s sta. 2965+08[±]

#1 = 37.95 R. } stakes

#2 = 43.2 R. }

50
243
2517

1000
243
75.7

19

Δ 32°16' R. B.C. = 2969+970
 D = 16° R. E.C. = 2971+982
 Tan = 103.88
 L.C. = 201.7'

2970 = 0°14' R

+50 = 4°14' R

2971 = 8°14' R

+50 = 12°14' R

+982 = 16°08' R.

short sta. 97' long 2972-73.

Curve at sta. 2979+68.

 Δ 23°30' L. D 6° L.

tan. 198.7

L.C. 391.7

B.C. 2977+693

E.C. 2981+610

2978 = ~~2°05' L.~~ 0°55' L.+50 = ~~3°35' L.~~ 2°25' L2979 = ~~5°05' L.~~ 3°55' L.+50 = ~~6°35' L.~~ 5°25' L2980 = ~~8°05' L.~~ 6°55' L+50 = ~~9°35' L.~~ 8°25' L2981 = ~~11°05' L.~~ 9°55' L

+61 = 11°45' L.

short sta. 2981-82 = 95 ft. long

R.P.s 2979+68

#2 Dead pop snag = 52.35 R.

#1 N.P. stake = 41.45 R.

R.P.s P.I. Curve @ sta. 2969+97

#1 = stake 39.2 L.

#2 = 3" J.P. 52.5 L.

$$\begin{array}{r} 2969+97.0 \\ +03.9 \\ \hline 2971+00.9 \end{array}$$

$$\begin{array}{r} 0.55 \\ 1.30 \\ \hline 1.85 \\ 2 \end{array}$$

20

1192.17 B.M.
 + 12.40
 1204.57 H.S.
 - 1.70
 1202.87 T.P.
 + 6.30
 1209.17 H.S.
 - 9.64
 1199.53 T.P.
 + 2.60
 1202.13

04.6

106.1
 71.4
 150.5
 388.0 438
 388
 50

12.1
 93.2
 8.9 gr.

135.0
 89.3
 224.3
 11215.00
 1246.11
 415.37
 .4
 166.148

Original Ground. B. Pit sta. 2976.

Rod Readings.	℄	R.
sta. 2976+50.	8.4	$\frac{5.1}{50}$ $\frac{5.2}{60}$
2976+15.	8.1	$\frac{6.6}{30}$ $\frac{3.5}{50}$ $\frac{2.7}{60}$
2976+00	8.0	$\frac{6.0}{30}$ $\frac{3.3}{50}$ $\frac{2.8}{60}$
2975+60	9.1	$\frac{6.0}{22}$ $\frac{4.0}{42}$ $\frac{3.9}{60}$
75+20.	10.7	$\frac{10.2}{12}$ $\frac{10.4}{35}$ $\frac{8.8}{60}$

	℄	R.
B. Pit 2968	5.2	$\frac{4.0}{13}$ $\frac{0.8}{40}$
H.S. = 1221.8	6.7	$\frac{3.7}{30}$ $\frac{3.0}{40}$
67+60	6.7	$\frac{5.7}{15}$ $\frac{6.6}{40}$
2967	6.9	$\frac{5.4}{30}$ $\frac{4.4}{40}$

B. Pit. sta. 2959. on B.

	℄	R.
2958+55	13.9	$\frac{12.0}{20}$ $\frac{6.0}{45}$ $\frac{1.3}{100}$
2959.	14.0	$\frac{10.7}{30}$ $\frac{9.0}{60}$ $\frac{2.9}{100}$
+20	13.7	$\frac{10.7}{52}$ $\frac{11.7}{50}$ $\frac{4.8}{100}$
+50	15.4	$\frac{15.5}{35}$ $\frac{13.0}{65}$ $\frac{9.0}{100}$

grade points on N. line $\neq +32'$ out.
 " " " S. " $24'$ out.

13.7
 4.8
 8.9

21 X-sections sta. 2778-81+50 For change of grade. L. R.

Sta.	+ S	H.S.	- S	Rod	Elev.
B.M.	8.53	1267.17			1258.6
78+35				8.5	1258.7
78+60				9.3	1257.9
2779				2.1	65.1
T.P.	+11.13	1277.20	1.10		1266.07
79+25				7.7	69.5
79+55				5.4	71.8
79+80				7.1	68.1
79+92				9.6	67.6
2780				8.5	68.7
80+30				3.5	73.7
80+70				5.3	71.9
2781				4.4	72.8
81+40				3.2	74.0
81+50				1.4	75.8
T.P.		292			1274.28

$\frac{14.9}{2.5}$ $\frac{3.5}{1.6}$ $\frac{1.9}{3.3}$
 $\frac{17.3}{3.0}$ $\frac{0.4}{3.0}$
 $\frac{6.4}{2.2}$ 5.0 Higher & 25 out
 ~~$\frac{2.5}{2.5}$~~
 $\frac{11.3}{2.5}$ $\frac{5.0}{2.5}$
 $\frac{6.0}{2.2}$ $\frac{5.5}{2.3}$
 $\frac{6.8}{2.0}$ $\frac{10.3}{2.5}$
 $\frac{6.7}{2.5}$ $\frac{8.1}{1.8}$ $\frac{10.4}{2.5}$
 $\frac{6.8}{2.5}$ $\frac{9.6}{2.7}$
 $\frac{2.7}{2.7}$ $\frac{3.9}{2.8}$
 $\frac{3.3}{2.5}$ $\frac{4.4}{1.8}$ $\frac{3.0}{2.5}$
 $\frac{4.6}{2.8}$ $\frac{5.5}{1.3}$ $\frac{3.4}{1.7}$ $\frac{1.7}{1.8}$ $\frac{1.5}{3.0}$
 $\frac{2.5}{2.0}$ $\frac{2.8}{1.6}$ $\frac{1.8}{1.5}$ $\frac{0.0}{3.0}$
 2.4 Higher & 20 25 out
 stone. L. sta. 2781

22	+S	H.S.	-S	Rod Rod.	elv.
B.M.	9.13				1186.85
H.S.					1195.98
00					
+34					
+54					
+74					
+64					

B. pit for checky chase at sta. 2661

Remeasure B Pit 2661

11/15/16. H.I. = 94.28

Bm.	7.43	L	C	R	1186.85
00					
+05	$\frac{6.3}{25}$	$\frac{8.5}{19}$	9.5	$\frac{5.8}{24}$	
+34		$\frac{3.8}{21}$	10.2	$\frac{9.4}{17}$	
+54	$\frac{4.6}{26}$	$\frac{6.4}{24}$	8.7	$\frac{7.8}{16}$	
+58					
+64					

L. B.Pt. R. 1195.98

Rod Readings only given

= C1.0	$\frac{8.3}{25}$	7.1 = C2.2	$\frac{7.6}{25}$ = C1.7
C2.4 =	$\frac{6.9}{25}$	5.4 = C3.9	$\frac{4.8}{25}$ = C4.5
C3.1 =	$\frac{6.2}{25}$	3.4 = C5.9	$\frac{2.3}{25}$ = C7.0
C3.9 =	$\frac{5.4}{25}$	3.5 = C5.8	$\frac{2.2}{25}$ = C7.1
C3.6 =	$\frac{5.7}{25}$	3.2 = C6.1	$\frac{2.1}{25}$ = C7.2

yardage = 411.6
 amt req'd = 375.0
 Difference will be taken up in slopes at ends.

00
 = same n. ground as 00

Same as +54

00

23 Curve @ Sta. 2983 P.S.

$\Delta = 19^{\circ}09' L.$ $2982+50 = 2^{\circ}20' L.$
 $D = 10^{\circ} L.$ $2983+00 = 4^{\circ}50' L.$
 $Tan = 96.75'$ $2983+50 = 7^{\circ}20' L.$
 $B.C. = 2982+03.2$ $2983+94^2 = 9^{\circ}35' L.$
 $L.C. = \frac{1+91.5}{}$
 $E.C. = 2983+94.7$

Curve @ Sta. 2948+20 $\theta = 32^{\circ}23'$

$\Delta = 64^{\circ}46' L.$ $2947 = 0^{\circ}22' L. 32^{\circ}01' \checkmark$
 $D = 30^{\circ} L.$ $+50 = 7^{\circ}52' L. 24^{\circ}31' \checkmark$
 $Tan = 122.4$ $2948 = 15^{\circ}22' L. 17^{\circ}01' \checkmark$
 $P.I. = 2948+20$ $+50 = 22^{\circ}52' L. 9^{\circ}31' \checkmark$
 $B.C. = 2946+97.6$ $2949 = 30^{\circ}22' L. 2^{\circ}01' \checkmark$
 $L.C. = \frac{2+159}{}$ $+13^5 = 32^{\circ}23' L. 2^{\circ}01'$
 $E.C. = 2949+13^5$

Short sta. 2949-50 = 71.1 long.

Curve @ Sta. 2951+73

$\Delta = 51^{\circ}48' R.$ $2951 = 5^{\circ}58' R.$
 $D = 22^{\circ} R.$ $+50 = 11^{\circ}28' R.$
 $P.I. = 2951+73 =$ $2952 = 16^{\circ}58' R.$
 $Tan = \frac{12+1+27^2}{}$ $+50 = 22^{\circ}28' R.$
 $B.C. = 2950+45^2$ $+81^2 = 25^{\circ}54' R.$
 $L.C. = \frac{2+35^5}{}$
 $E.C. = 2952+81^2 =$ Sta. 2953+00.2 on Tan.

Short sta.

500
32
468

R.P.s for P.S. Sta. 2983 =

#2 = 4" N.P. 58.4 Right.
 #1. sq. stake. 53.6 ..

R.P.s P.I.

#1 = Stake (cedar) 61.1 on L.
 #2 = Bk. stump. 70.85 on L.

24

Grade

~~82+59~~~~82+85~~~~8883~~~~83+46~~~~83+50~~~~83+65~~~~2884~~~~84+25~~~~84+60~~~~2885~~~~84+69~~

27.0

30.0

30.0

L

C R

f

Doo

00

 ~~$-\frac{0.9}{10.9}$~~ ~~-0.6~~ ~~$-\frac{0.4}{10.4}$~~

00

 ~~$D^c \frac{1.0}{15} + 0.2$~~ ~~$-\frac{1.0}{17}$~~

Doo

 ~~$+\frac{1.4}{12.1}$~~ ~~+1.8~~ ~~$-\frac{1.3}{17.3}$~~ ~~$+\frac{0.9}{11.4}$~~

00

 ~~$-\frac{2.4}{18.4}$~~ ~~$+\frac{1.3}{12}$~~ ~~+1.7~~ ~~$-\frac{1.3}{17.3}$~~ ~~$-\frac{0.7}{16.7}$~~ ~~1.5~~ ~~$+\frac{1.4}{12.1}$~~ ~~$D^c \frac{0.0}{1.4}$~~

Doo

25 B.M. 1197.73 H.I. = 1205.98 original ground

Rod Readings →	L	±	R			
sta. 00	9.8	$\frac{9.8}{70}$	$\frac{11.3}{12}$			
+40	8.3	$\frac{7.4}{12}$	$\frac{7.4}{30}$	$\frac{10.6}{50}$	$\frac{12.6}{60}$	
+70	7.0	$\frac{5.0}{19}$	$\frac{6.0}{50}$	$\frac{11.8}{65}$		
1+00	6.8	$\frac{4.6}{13}$	$\frac{4.1}{39}$	$\frac{5.5}{66}$	$\frac{12.5}{82}$	
1+38	6.5	$\frac{4.9}{30}$	$\frac{4.5}{47}$	$\frac{8.0}{77}$	$\frac{14.0}{100}$	
1+53	6.7	$\frac{6.9}{3.0}$	$\frac{6.3}{52}$	$\frac{6.6}{63}$	$\frac{9.1}{82}$	$\frac{13.3}{100}$

Remeasure of Pit 9/26/6

B.M.	L	±	R.				H.I.		
+4.38							1202.11		
0+00	$\frac{6.1}{1}$	7.6	$\frac{9.3}{18}$						
0+40	$\frac{4.5}{1}$	6.8	$\frac{7.8}{1}$	$\frac{8.3}{9}$	$\frac{8.3}{27}$	$\frac{7.6}{29}$	$\frac{7.0}{51}$	$\frac{6.4}{54}$	$\frac{7.8}{65}$
0+70	$\frac{3.2}{1}$	5.1	$\frac{6.8}{2}$	$\frac{7.4}{5}$	$\frac{7.2}{28}$	$\frac{6.5}{33}$	$\frac{6.4}{57}$	$\frac{8.2}{71}$	
1+00	$\frac{3.2}{1}$	4.7	$\frac{5.5}{2}$	$\frac{6.8}{20}$	$\frac{6.5}{31}$	$\frac{7.4}{78}$			
1+38		2.7	$\frac{2.7}{1}$	$\frac{4.9}{3}$	$\frac{6.5}{19}$	$\frac{6.9}{46}$	$\frac{6.8}{87}$		
1+53		0	0	0	0	0	0		

Sketch of B: Pit

sta. 00

sta. 1+53 Tel. pole.

• 1+38

• 1+00

• 0+70

• 0+40

Bk. stamp.
R.P. #2

B.M. 100.00

• 58.4

R.P. #1.
Pop. stake

sta. 00

↙ E of Road

06.0
9.2
14.0
5.3
5.7

26

Soundings

Perry L.

Swamp.

$$\begin{array}{r} 17.3 \\ 2.7 \\ \hline 14.6 \end{array}$$

$$\begin{array}{r} 17.3 \\ 3.6 \\ \hline 13.7 \end{array}$$

2601+50	5'	muck to	Sand.
2602	8.3	"	"
2603	13.7	"	"
2604	17.3+	"	"
2605	14.6	"	"
2606	11.9	"	"
2607	8.6	"	Gravel.

X-sections of side ditch
at sta. 2908. = small channel
change 2' B. 1:1 S.

	L.	E.	R.
2908+32	$\frac{-2.0}{3}$	-2.0	$\frac{-2.2}{3.2}$
2908	$\frac{-1.6}{2.6}$	-1.6	$\frac{-1.6}{2.6}$
2907+74	$\frac{-1.6}{2.6}$	-2.5	$\frac{-2.6}{3.0}$
2907	$\frac{-0.4}{1.4}$	-0.4	$\frac{-0.4}{1.4}$
06+32		00	

Area	Cyds.
8.3	8.4
5.8	7.7
10.2	15.3
1.0	1.2
00	$\frac{32.6}{\text{yds.}}$

27
Sta.

Original Ground 8 ft

2745+60
45+85
2746

Area. cu. yds.
168.0
300.0
267.4

374.3

35.7

338.6

yardage in pit

yardage req'd =

surplus =

265.0
73.6

Sta 2746

P.S.

Distances from slope top

-3.6	-1.0	-3.1	-5.4
<u>17.6</u>	<u>33</u>	<u>50</u>	<u>65</u>
-5.3	-3.0	-5.8	-6.2
<u>19.3</u>	<u>25</u>	<u>50</u>	<u>65</u>
-4.6	-2.7	-6.0	
<u>18.6</u>	<u>16</u>	<u>45</u>	

300.0	105.0
267.4	10.0
36	2
10	0.50
31	1.35
54	8.5
13.1	6.4
3.2	
1.6	
19.2	
32	
51.2	

512.00
56.88
18.96

12.4
123.3
135.7

1.9
.65
95
114
123.5

4.6
2.7
6.0
13.3
4.4
2.2
8.8
8.8

23.3

9.68.00
107.55
35.85
65

179.25
21510
233025

28 Curve @ sta. 3013+50.

$\Delta = 32^\circ R$ P.I. = 3013+50.0
 $D = 20^\circ R$ Tan = $\frac{0+82.6}{1+60.0}$
 Tan = 82.55' B.C. = 3012+67.4
 L.C. = 1+60.0
 E.C. = 3014+27.4
 3013 = 3°16' R.
 13+50 = 8°16' R.
 3014 = 13°16' R.
 +27.4 = 16°00' R.

Curve @ sta. 3015+18.6

$\Delta = 29^\circ 14' L$ P.I. = 3015+18.6
 $D = 20^\circ L$ Tan = $\frac{0+75.1}{1+46.1}$
 B.C. = 3014+43.5
 L.C. = 1+46.1
 E.C. = 3015+89.6
 3014+50 = 0°39' L.
 3015 = 5°39' L.
 +50 = 10°39' L.
 +89.6 = 14°37' L.

DeLury's Change at 107M. E.

R.P. P.I. 3013+50
 #1 = small Oak L. 49' out.
 #2 = 4" J.P.L. 29.8' out

$\Delta 3028+31.2 = 12^\circ 41' L$
 3027+88.5 old
 Survey = Beginning
 ing of DeLury's St.
 $\Delta 3025+30.2 \Delta 13^\circ 46' L$

$\odot 3021+36.5 \odot$ Hub.

R.P. 3015+18.6 P.I.
 #1 = 5" J.P. 55° R.
 #2 = J.P. 44.4' R.

R.P. 3016+70
 #1 = 4" J.P. 35° L.
 #2 = 4" J.P. 37° L.

$\Delta 3016+70 \Delta 11^\circ L$
 $\Delta 3015+18.6 (29^\circ 14' L) P.I.$

$\frac{3022}{3016} = 6$
 $\frac{80}{21.0}$

$\Delta 3013+50 (32^\circ R) P.I.$
 → left old line

29 Curve @ sta. 3033+28.6

$$\Delta = 46^\circ 41' R. \quad P.I. = 3033+28.6$$

$$D = 6^\circ R. \quad \text{Tan} = 4+12.3$$

$$BC = 3029+16.3$$

$$L.C. = 7+78.1$$

$$E.C. = 3036+94.4$$

3029+50 1°01' R. ✓

3030 2°31' R. ✓

30+50 4°01' R. ✓

3031 5°31' R. ✓

31+50 7°01' R. ✓

3032 8°31' R. ✓

32+50 10°01' R. ✓

3033 11°31' R. ✓

33+50 13°01' R. ✓

3034 14°31' R. ✓

34+50 16°01' R. ✓

3035 17°31' R. ✓

35+50 19°01' R. ✓

3036 20°31' R. ✓

36+50 22°01' R. ✓

E.C. 36+94.4 23°21' R. ✓

Short sta. 3037
to 3038 = 53.5 long.

53.5
47.0
6.5

3033+28.6
4+12.3
37+40.9
36+94.4
46.5

100.0
46.5
53.5

30 Curve @ Sta. 3001+36.4

$\Delta = 44^\circ 28' R$ P.I. = 3001+36.4

$D = 20^\circ R$ Tan = $\frac{1+17^2}{2}$

BC. = 3000+19.7

L.C. = 2+22.3

E.C. = 3002+41.2

3000+50 = 3°08' R.

3001 = 8°08' R

3001+50 = 13°08' R.

3002 = 18°08' R.

3002+41 = 22°14' R.

Short Sta. 3002-

3003 = 96.0 long

R.P.'s For 3001+36.4 P.I.

#1 J.P. R. across Grade 53.5 out.

#2 J.P. R. " " 58.3 out.

Remarks.

3/20

I produced the tangent from Sta. 2983 to 3001 ahead to intersect the tangent 3003+24 to 3014+27.2 produced back.

The tangents crossed at a point 36.4 ft. ahead of 3001 marking the P.I. at Sta.

3001+36.4 + cutting out the short tangent 3001-3003+24.

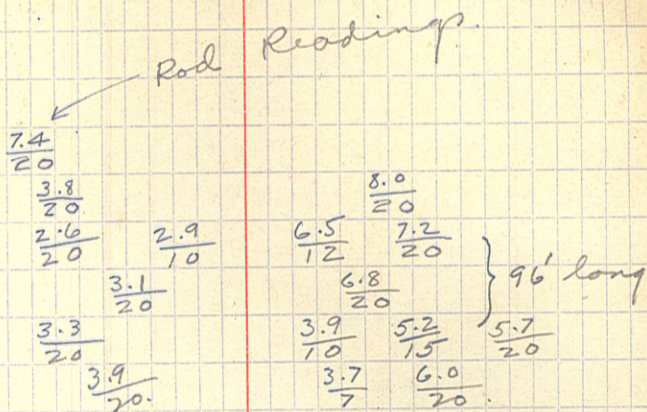
$\Delta = 44^\circ 28' R$

- White

31 ORIGINAL GROUND
 Sta +s H.I. -s Rod Elev.

Sta	+s	H.I.	-s	Rod	Elev.
B.M.	3.95	1200.34			1196.39
3000			9.3		91.0
BC +18Z			9.5		90.8
+50			9.0		91.3
3001			8.5		91.8
+50			6.9		93.4
3002			4.2		96.1
EC +41			3.6		96.7
3003			3.0		97.3
⊙ +24			3.1		97.2

AROUND CURVE AT STA. 3001
 L. C R.



37
sta.

B. Pit
H.I. Rod.

sta 2601.

Elev.

1182.77

00=2601

00+27

00+35

00+75

1+40

1+44

828

733

9.5 Rod

74.50

75.25

Perry L. Swamp.

L. CUT. R.

A. C.

00	00	00
40	40	37
-0.8	-0.7	
40		
-5.4	-5.4	-4.7
40		40
-6.0	-6.3	-5.6
40		40
-6.7	-7.0	-6.9
40		40

00	5.7
38.2	315.1
387.2	384.4
443.1	770.5
502.6	

1475.7

56.4

1419.3

1320

99

Low end slope

required

Extra

Road @

sta. 2601 = sta. 00 B. Pit @

B. Pit Grade = Ditch
Grade at sta. 2601 =
1173.3

R.P. old
stamp

38.3
1+44
20.2

R.P. old Pop. snag

33 OFF-TAKE DITCH

Sta.	Grade.	Rd. Grade rod.	Rod. & reading	CUT
				L. & R.
00				
#35				
00	90.7	9.3	8.4	00-0.9 -0.9 1.9
00+19	90.9	9.1	7.9	-1.1 2.1 -1.2 -1.2 2.2
00+40	91.1	8.9	7.5	-1.5 2.5 -1.4 -1.4 2.4
00+65	91.4	8.6	6.8	-1.6 2.6 -1.8 -1.6 2.6
00+85	91.6	8.4	6.4	-1.7 2.7 -2.0 -2.4 3.4
00+90	91.6	8.4	5.1	-3.3 4.3 -3.3 -3.3 4.3
1+00	91.7	8.3	5.2	-3.1 4.1 -3.1 -3.1 4.1
1+10	91.8	8.2	7.2	-1.0 2 -1.0 -1.0 2

1+35 From 1+10 To 1+35 =
Water + soft muck.

@ STA. 2891 assumed { H.I. 100.0
2'B. 1:1.5. } B.M. 96.76

Area.	Cubic yards.
1.3	1.8
3.8	3.3
4.8	5.2
6.3	5.4
8.3	2.4
17.8	6.2
15.8	3.5
3.0	

Total = 27.8

R.P. Sta. 2951+73 Δ

#1 = cedar stake on L. 61' out

#2 = 70.85' L. BK. stamp.

Δ = square Iron Bridge spike.

34

Try. Levels for OFF TAKE.

@ STA. 2946.

+S	H.I.	-S.	EIV.
	100.0		

2946

T.P.

T.P.

+2.29

93.74

3.42

93.06

8.7

8.55

4.10

4.61

91.3

91.45

89.64

88.45

4.8

W.L. 10M. Lake.

Length by rough chaining
= 1900 ft.

Can shorten line approx. 150'
by running in curves at Δ^2 .

35

Levels on Proposed

Drainage Ditch out of Perry L.

+S

H.I.

-S

Rod.

Elev.

B.M.

4.95

104.95

100.00

Bench in 16" Norway Pine W. end of Lake.

T.P.

9.20

107.08

9.90

7.07

95.05

97.88

W. L. Perry Lake.

12.5

94.6

Ground Elev. foot of R.R. dump. E. side.

6.5

100.6

Top of R.R. Emb.

12.9

94.2

Ground. W. slope R.R. dump.

T.P.

3.93

104.61

6.40

100.68

T.P.

1.95

97.51

9.05

11.4

93.2

swamp.

95.56

spruce stump.

4.8

92.7

swamp.

T.P.

3.65

96.26

4.90

92.61

95.1

T.P.

8.45

102.71

2.00

94.26

76.3

18.8

90.0

T.P.

3.23

99.39

6.55

96.16

76.3

13.7

T.P.

0.45

90.71

9.13

8.7

90.7

Swamp.

90.26

Elev. creek at R.R. Culvert.

14.44

76.27

Toe of RR dump slope. W. side

24+23

24+33

24+40

24+47

24+55

W. shoulder of RR dump.

☉ RR track

E. shoulder of RR dump.

E. toe of slope.

Line crosses R.R. 1174

S. M.P. 48.

36

00

10

20

00
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

30	Original +S	H.I.	Ground -S.	10M. Rod.	10M. Elev.	Lake L.	Change C.
3031+50		1212.56		4.2	08.4		
3032				3.7	08.4		
+50				3.2	09.4		
3033				2.6	10.0		
T.P.	1.63	1212.19	2.00		1210.56		
+50				2.4	09.8		
+75				3.0	09.2		
3034				6.3	05.4		
+50				13.0	09.2		
T.P.	2.75	1204.20	10.74		1201.45		
3034+25				2.5	01.7		
3035				5.7	98.5		
+50				6.1	98.1		
3036				7.1	97.1		
+50				9.5	94.7		
3037				11.2	93.0		
+28.5				12.1	92.1		
3038				10.3	93.9		

		1210.90					
3031				6.0	04.9		
30+50				10.4	00.5		
3030				12.9	98.0		
T.P.	2.42	1201.80	11.52		1199.38		
29+50				9.4	92.4		

1210.70
11.52
1199.38
2.42
1201.80

$\frac{4.1}{22}$	$\frac{5.3}{21}$
$\frac{3.7}{21}$	$\frac{4.3}{21}$
$\frac{3.4}{19}$	$\frac{3.8}{20}$
$\frac{2.9}{20}$	$\frac{2.9}{21}$
$\frac{5.6}{21}$	$\frac{2.4}{21}$
$\frac{5.9}{21}$	$\frac{2.6}{19}$
$\frac{8.5}{18}$	$\frac{4.5}{21}$
$\frac{13.3}{18}$	$\frac{10.9}{20}$
$\frac{4.5}{18}$	$\frac{3.3 \text{ H.C.}}{23}$
$\frac{4.9}{21}$	$\frac{4.7}{21}$
$\frac{3.6}{21}$	$\frac{6.3}{20}$
$\frac{3.2}{24}$	$\frac{7.4}{22}$
$\frac{8.4}{21}$	$\frac{10.2}{18}$
$\frac{10.2}{21}$	$\frac{12.4}{18}$
$\frac{11.4}{22}$	$\frac{11.8}{16}$
$\frac{11.0}{21}$	$\frac{10.7}{14}$
	$\frac{11.7}{18}$
	37-38 = 53.5 Long.
$\frac{5.6}{19}$	$\frac{8.5}{22}$
$\frac{8.8}{19}$	$\frac{12.1}{19}$
$\frac{11.6}{20}$	$\frac{15.4}{20}$
$\frac{5.2}{19}$	$\frac{10.6}{20}$

38	+ S	H. 9	- S	Rod	Elv.
29+16		1201.80		10.8	91.0
T.P.	3.93	1196.33	9.40		1192.40
3029				6.2	90.1
28+50				6.7	89.6
3028				5.4	90.9
27+115				4.4	91.9
27+55				7.4	88.9
3027				7.6	88.7
26+70				6.7	89.6
26+30				5.0	91.3
T.P.	5.09	1199.30	2.12		1194.21
3026				5.7	93.6
25+30				4.9	94.4
3025				5.6	93.7
3024				6.4	92.9
T.P.	2.81	1195.26	6.85		1192.45
3023				4.3	91.0
22+50				4.8	90.5
3022				4.1	91.2
T.P.	4.30	1196.01	3.55		1191.71
T.P.	5.03	1198.22	2.82		1193.19
3016				6.1	92.1
15+50				4.8	93.4
3015				4.7	93.5
14+50				6.3	91.9

1199.30
6.85
1192.45

L 1000
88.8
115

R 131
11
142.7

$\frac{9.8}{19}$	$\frac{12.4}{21}$	
$\frac{4.4}{23}$	$\frac{7.8}{20}$	
$\frac{6.6}{19}$	$\frac{6.8}{16}$	
$\frac{7.0}{22}$	$\frac{4.6}{20}$	27-28=1424 Long.
$\frac{6.5}{19}$	$\frac{4.6}{20}$	
$\frac{6.7}{20}$	$\frac{7.9}{21}$	
$\frac{6.2}{20}$	$\frac{8.1}{17}$	
$\frac{5.1}{19}$	$\frac{7.9}{23}$	
$\frac{3.3}{19}$	$\frac{6.9}{21}$	
$\frac{5.4}{19}$	$\frac{8.3}{19}$	
$\frac{5.9}{23}$	$\frac{5.0}{21}$	
$\frac{6.4}{18}$	$\frac{4.6}{20}$	
$\frac{7.7}{20}$	$\frac{5.4}{20}$	
$\frac{5.3}{19}$	$\frac{3.3}{18}$	
$\frac{5.0}{10}$	$\frac{4.1}{20}$	
$\frac{3.8}{20}$	$\frac{4.5}{19}$	
$\frac{3.6}{20}$		
$\frac{5.2}{16}$	$\frac{6.6}{18}$	
$\frac{4.8}{19}$	$\frac{6.7}{20}$	
$\frac{5.4}{19}$	$\frac{5.4}{22}$	
$\frac{6.6}{18}$	$\frac{5.0}{19}$	

SB from 3016 on

39

+S

H3

-S.

Rod Eld

BC 14 + 43⁵

1198.22

6.6 91.6

EC 14 + 27⁴

6.8 ✓ 91.4

3014

6.3 ✓ 91.9

13 + 50

4.7 ✓ 93.5

T.P.

7.43

1201.82

3.83

1194.39

3013

6.5 ✓ 95.3

BC 12 + 67⁴

5.5 ✓ 96.3

3012

5.0 ✓ 96.8

11 + 50

4.6 ✓ 97.2

3011

4.4 ✓ 97.4

3010

5.0 ✓ 96.8

B.M.

6.54

1195.28

L

C

D

1198.22

1194.36

 $\frac{6.6}{17}$ $\frac{6.3}{20}$ $\frac{6.1}{16}$ $\frac{1.8}{22}$ $\frac{4.4}{24}$ $\frac{4.4}{14}$ $\frac{4.4}{22}$ $\frac{5.0}{21}$ $\frac{5.2}{20}$ $\frac{4.8}{14}$ $\frac{5.3}{12}$ $\frac{5.4}{16}$ $\frac{6.0}{21}$ $\frac{7.1}{18}$ $\frac{6.1}{19}$ $\frac{9.2}{19}$ $\frac{8.9}{20}$ $\frac{6.3}{13}$ $\frac{7.8}{19}$ $\frac{4.3}{3}$ $\frac{7.4}{19}$ $\frac{4.4}{3}$ $\frac{5.9}{14}$ $\frac{5.6}{14}$ $\frac{5.5}{12}$

Oak on lake shore

40

BC

EC

B

R.P. i few $\frac{1}{4}$ cor. near Sawyer A.

#1 = BK. stump on L. 52² out.

#2 = small poplar 45² on L.
