

RICE ST. & MAHNOMIN ROAD
CONSTRUCTION NOTES
CO. PROJ. NO. (23-02)-(23-55)

FILE NO. 4

DIETZGEN
TRADE MARK

ENGINEERS
FIELD BOOK

No. 203

4

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

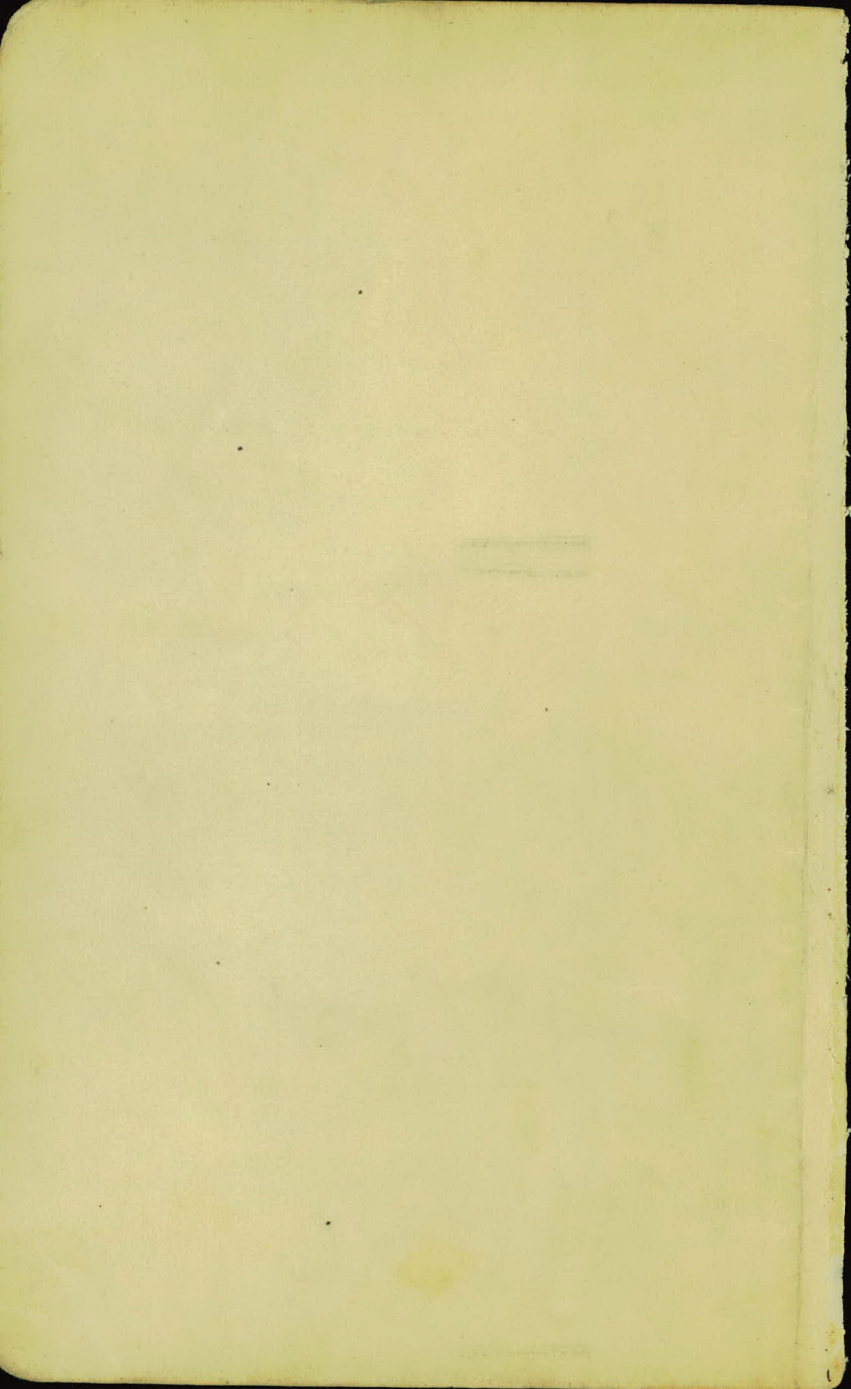
Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be $30.6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

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(23-02) - (23-55)

Please return to

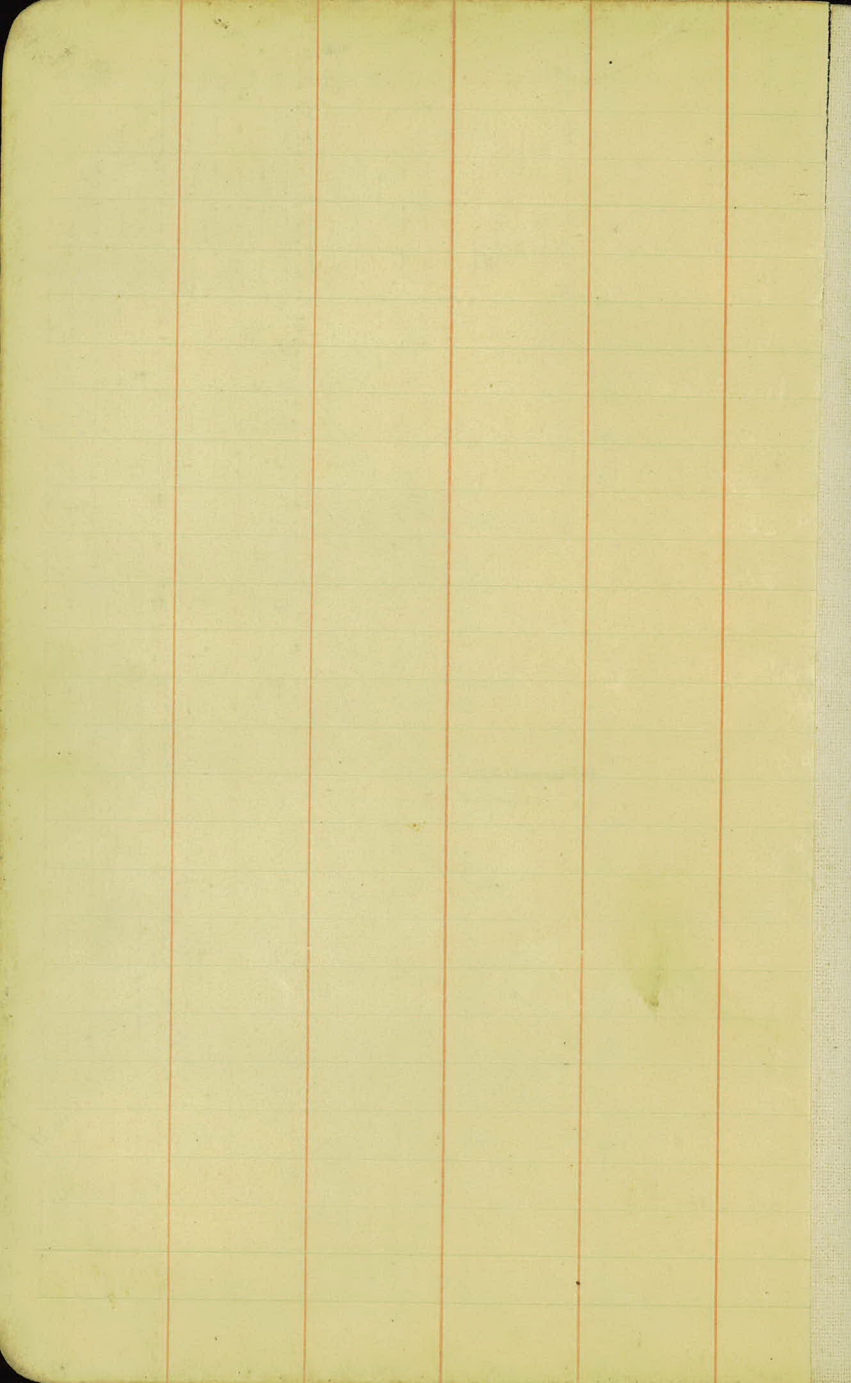
Ramsey County Engineers' Office
9th Fl. Guardian Life Bldg -
St Paul -

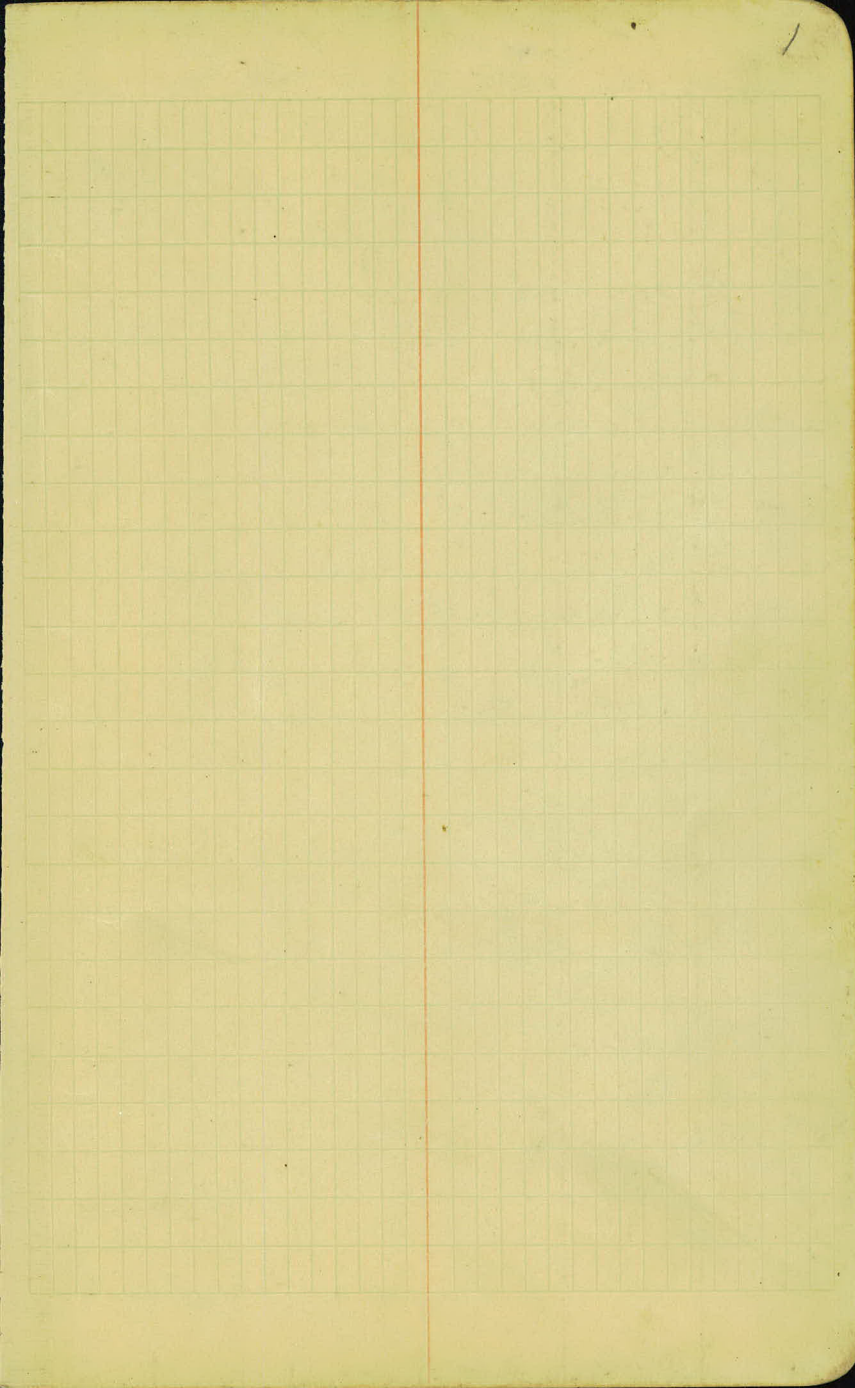


(23-02) (23-55)

INDEX

Page	Title	Sta.
1-5	Check Levels on B.M.s.	0+00-251+57 ⁸
6-7-8-9	" Alignment.	0+00-251+57 ⁸
10	Blank	
11-25 incl	X sections.	118+00 - 0+00 ✓
26	Location Monuments POTS etc.	120+98 ⁷⁵ etc
27	Void	
28-30 incl	Slope Stakes	118+00 - 99+00 incl
31-33 "	X-Sections	122+57 ⁶ - 145+00 "
34	Culv. Layout	sta. 40+21.
35-36 "	Slope Stakes	" 99+00 - 86+00 "
36-39 "	" "	" 55+35 - 18+00 "
40-42 "	" "	" 85+50 - 56+00 "
43-	" "	" 17+00 - 0+00 "
60	Culv. Layouts.	" 108+09 & 91+10
41	" "	" 65+35
75-76 incl	- Slope Stakes @ 4' L&R	" 53+00 - 5+00 " (Hd Level)
44	Stake Curve	118+12 ⁷ to 122+60 ⁹
45	Blue Tops	Sta. 117+50 to 111+00 " -
46	Retan Curve	118+12 ⁷ to 122+60 (50' chords)
47-49.	Slope Stakes (X-Sec)	Sta. 119 - 154+00, ✓
50-54	Blue tops	" 110+50 - 80+00 incl
59	Culv Layout	" 142+13
55	Slope Stakes & X-Sec.	Sta. 151 -
62	Blue Tops	Sta. 69+00 - 80+00 incl
63-73	Final Topog.	" 0+00 - 251+57





Bench. Marks - Job No (23-02) (23-55)
Rice St. r County Rd. "G"

Station	+	H.I	-	Plan. Elev	Check Elev.
22+00	0.26	205.87		205.61	
T.P.	1.59	194.87	12.59	193.28	
T.P.	4.59	194.80	4.96	189.91	
32+95.0			0.08	(194.70)	194.72
T.P.	7.41	199.35	2.86	191.94	
T.P.	2.04	193.94	7.45	191.90	
T.P.	6.23	196.52	3.65	190.29	
45+98			3.45	(193.07)	193.07
T.P.	12.71	208.60	0.63	195.89	
T.P.	11.04	219.39	0.25	208.35	
T.P.	12.05	231.08	0.36	219.03	
55+75			1.75	(229.32)	229.33
T.P.	4.15	233.58	1.65	229.43	
T.P.	6.61	253.58	6.61	226.97	
68+75			1.87	(231.73)	231.71
B.M.	7.04	238.77		231.73	
T.P.	5.95	240.02	4.70	234.07	
T.P.	6.69		5.25	234.77	

B.M. on ²⁴" Oak. Left.

Nail in Tip. Left.

14" Oak. R.

Mont Kohler. Rd.

rr rr rr

Bench Marks - Job (23-02) (23-55)

Station	+	H. I.	-	Plan Elev	Check Elev
79+42		241.46		239.44	239.43
T.P.	2.05	235.70	7.81	233.65	
T.P.	1.06	224.03	12.73	222.91	
84+50			12.91	211.12	
T.P.	4.33	218.73	9.63	214.40	
T.P.	8.65	223.71	3.70	215.03	
93+70			3.91	219.79	219.80
T.P.	8.46	229.00	3.17	220.54	
T.P.	1.18	223.54	6.64	222.36	
102+15				220.44	
T.P.	0.09	213.17	10.46	213.08	
T.P.	3.97	205.53	11.31	201.86	
109+35			4.18	201.63	201.65
T.P.	9.57	211.36	4.04	201.79	
T.P.	5.84	215.24	1.96	209.40	
West Side Hills Gate			3.97	211.28	211.27
B.M.	6.40	217.65		211.25	
T.P.	6.19	221.36	2.51	215.17	
T.P.	1.92	215.76	3.02	213.34	
133+45			6.75	208.51	208.51
T.P.	1.59	205.90	10.95	204.31	
T.P.	0.19	197.59	8.50	197.40	
T.P.	6.81	200.87	3.53	194.06	

Nail in Oak Stamp. left.

B.M. On T.P. 85+50 Left + (set $5/25$)

B.M. Nail in T.P. Right.

B.M. Nail in 10" Oak. 40' R. (set $5/19$)

B.M. Nail in 8" Tree left +

B.M. Nail in 10" Oak.

B.M. Nail in 36" Tree left.

	B.S.	I.I.	F.S.	Check Elev.	Plan Elev.
B.M.	10.48	204.42		193.94	193.99
T.P.	11.52	215.30	0.64	203.78	
T.P.	11.96	226.66	0.60	214.70	
T.P.	11.96	238.29	0.33	226.33	
B.M.	5.53	240.60	3.12	235.07	235.17
T.P.	5.50	244.06	2.04	238.56	
B.M.			2.65	241.41	
T.P.	1.12	236.15	9.03	235.03	
B.M.			5.61	230.54	
B.M.	2.64	229.30	9.51	226.69	226.67
T.P.	4.18	228.69	4.79	224.51	
B.M.			4.35	224.34	
T.P.	5.23	229.29	4.63	227.04	
B.M.			4.04	225.25	225.32
T.P.	5.02	229.44	4.87	224.42	
T.P.	4.14	228.71	4.87	224.57	
B.M.			5.37	223.34	223.37
T.P.	6.24	232.92	2.03	226.68	
T.P.	4.68	230.23	7.37	225.55	
B.M.			6.45	223.78	
T.P.	10.64	240.37	0.50	229.73	
T.P.	9.88	249.70	0.55	239.82	
B.M.			3.44	246.24	246.34
T.P.	3.93	248.98	4.65	245.05	

5/29/23

N. E. Cor. Top Head Wall, Water Works Culu
193.94 was checked.

Spk. in 14" Oak. South of Sta 155 + 45

Spk. in 30" B. Oak. R. 100' of Sta. 162 + 58 Set 5/29

Spk. in 14" W. Oak. 35' R. of Sta. 169 + 87 Set 5/29
Top of Mant. Sta. 170 + 95.

Spk. in 18" Oak 50' R. of Sta. 199 + 20 Set 5/29

Spk. in 16" Oak. L. of Sta. 184 + 65

Spk. in 6" poplar R. Sta. 195 + 25

Spk. in 24" Poplar R. of Sta. 205 + 65 Set 5/29

Spk. in 18" Oak. R. of Sta. 216 + 17

	B.S.	H.I.	F.S.	Check Elev	Plan Elev
		248.98			
T.P.	3.37	256.48	0.67	248.31	
B.M.			4.29	252.39	
T.P.	5.64	257.59	4.73	251.95	
B.M.	11.00	267.99	0.60	256.99	257.05
T.P.	11.54	279.20	0.35	267.64	
B.M.			7.31	271.89	
T.P.	1.65	275.66	5.19	274.01	
B.M.	3.22	271.91	6.97	268.69	
B.M.			4.70	247.21	247.34

B.M. from Sta. 0+00 to 12+00

B.M.	4.66	234.95		230.29	
T.P.	4.58	237.81	1.92	233.23	
B.M.			3.57	234.24	
B.M.	1.24	231.55		230.29	
T.P.	1.34	225.21	7.70	223.85	
T.P.	1.64	213.92	12.33	212.88	
B.M.			8.27	205.65	205.61

Spk. in 18" Oak. 70' L. of Sta 226+98 (Set 5/29)

Spk. in 16" Oak. R. 35' of Sta. 236+25

Spk. in 14" Oak 27' R. of Sta 242+22 (Set 5/29)

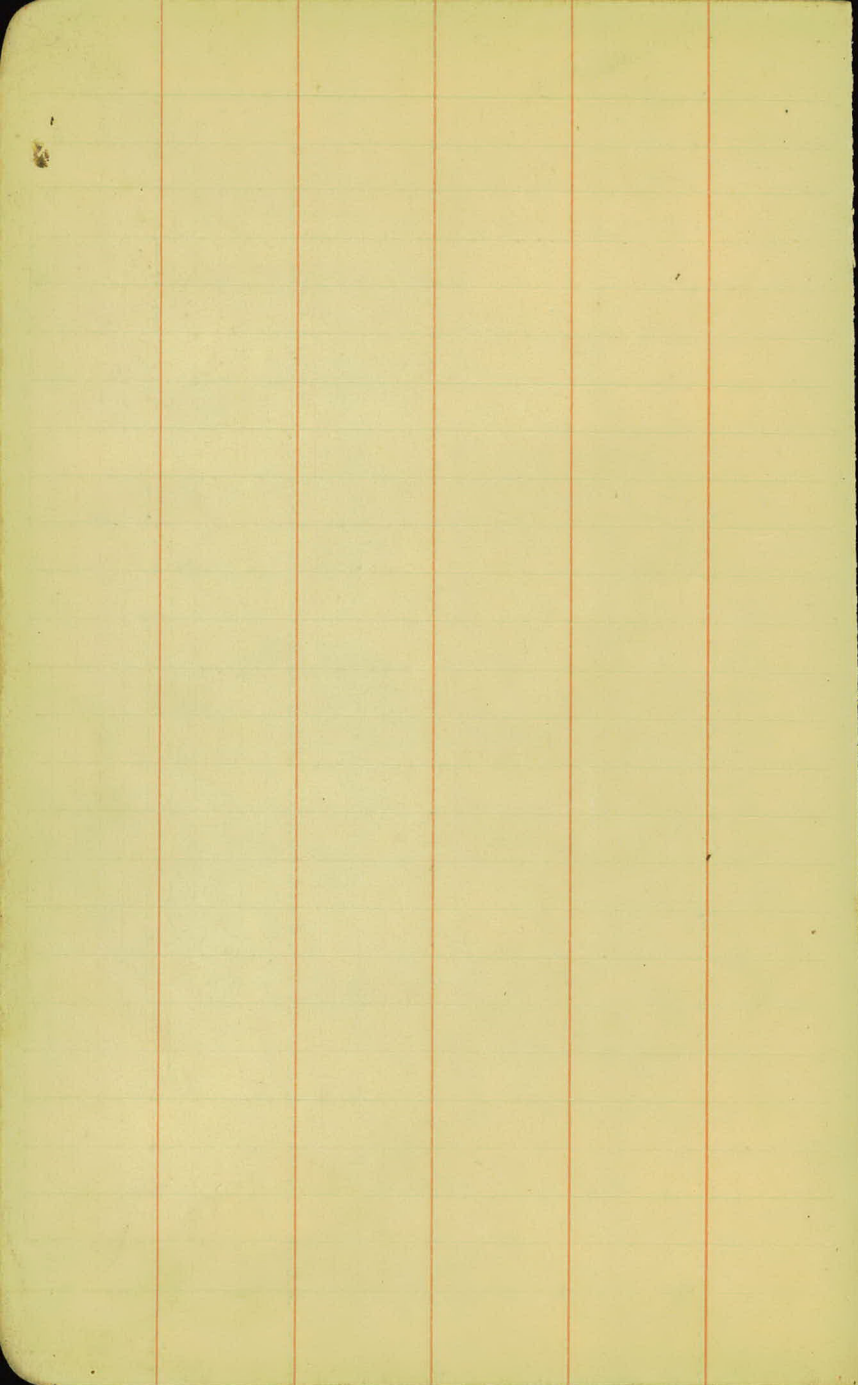
{ Spk. in 14" Oak. at the S.E. Cor. of County Rd. G and Centerville Rd. (Set 5/29)
Top of Mont. Centerville and Manomin.

Spk. in 20" Oak L. of Sta. 9+70. Old Sta. 206+60

Spk. in 30" Cotton wood 40' R. of Sta. 1+62 (Set 8/31)

Spk. in 20" Oak. L. of Sta. 9+70

Spk. in 24" Oak. L. of Sta. 12+00

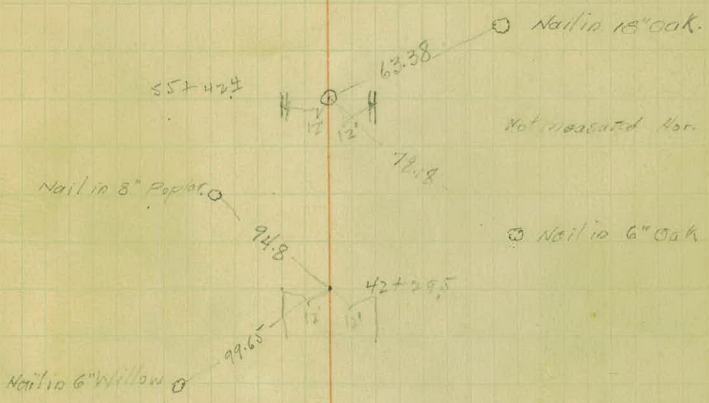


This image shows a blank page from an aged ledger or account book. The page is yellowed with age and features a grid of 20 columns and 30 rows. A vertical red line runs down the center, separating the columns into two groups of ten. The grid is composed of light green lines. There are some small brown spots and a faint mark in the upper right corner of the grid area.

(23-02) (23-55)

Sta.	Point	L	ϵ	π	Calc. Bearing	Mag.
79+71 ²⁵						
79+71 ²	P.O.T.					
68+71 ⁰	Orig.					
68+70 ⁹	P.I.				0°-17'	
55+42 ¹	P.I. Orig.					
55+41 ⁰	P.I.				0°-0 $\frac{1}{2}$ '	
42+29 ^E	P.I. Orig.					
42+27 ⁴	P.I.				0°-02'	
15+99 ¹	P.I. Orig.					
15+97.9	P.I.				0°-17'	
15+64 ¹						
15+42 ⁵						N. 0° 0' W
0+00	End. Pavement					

Mont.



Mont.

Ties measured 6-23-23
By RED



6-7-23

(23-02) (23-55)

Sta.	Point	Left	Right	Calc.	Mag Bearing
------	-------	------	-------	-------	-------------

144+47 ⁰	orig. }		0°-53'		
144+47 ⁸	P.I. }		0°-48'		

125+49.5	P.O.T.	0°-03'			
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122+57.6	} P.T. Equation				
122+60 ⁹					

120+98 ²⁵	} P.I.				
120+97 ⁴⁵			87°-38'		

100+0°	} Orig. P.O.T.		0°-02'		
99+99 ¹⁵					

Mont.

(23-02) (23-55)

Sta.	Point	Left	Right	Calc.	Mag
				Bearing	

249+95 ⁶	Orig.				
249+95 ¹	P.I.				

241+80 ⁸	Orig.				
241+79 ⁰²	P.O.T.				

223+47 ²	Orig.				
223+46 ³⁵	P.I.	0°-07'			

197+07 ⁴	Orig.			0°-41'	
197+06 ²⁰	P.I.				

170+77 ⁵⁰	Orig.				
170+76 ⁰⁵	P.I.	0°-29'			

157+11.2	P.O.T.				
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Mont.

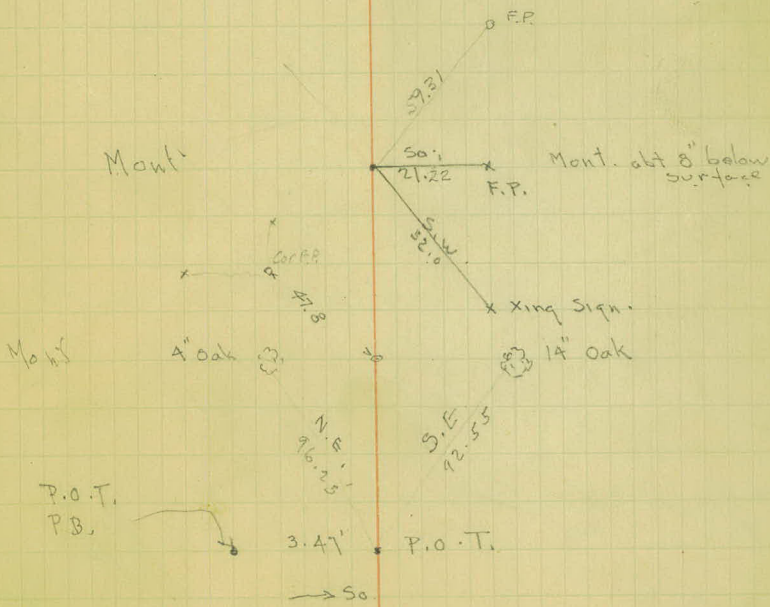
6" below surface

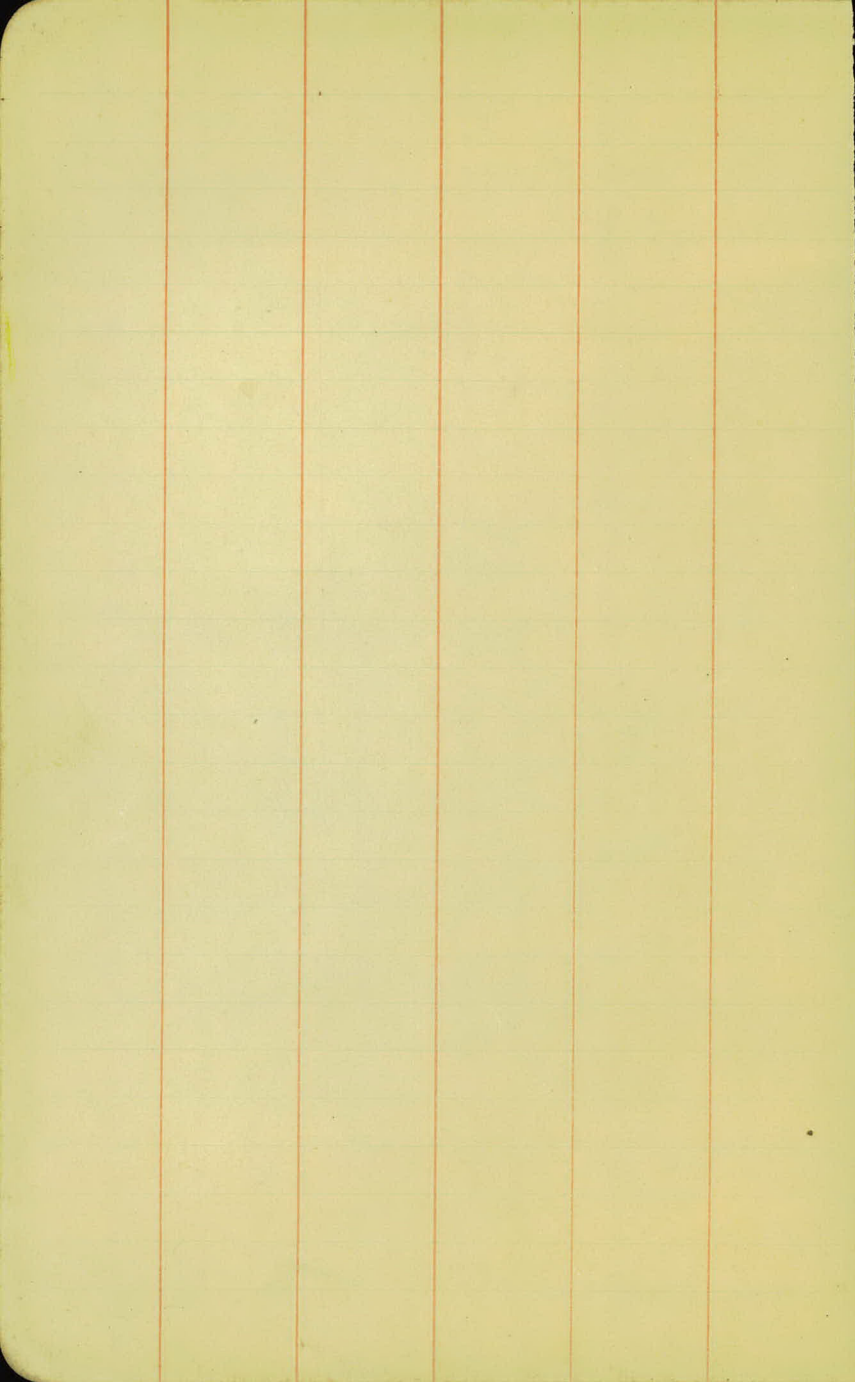
Mont.

Mont. abt. 15" below surface

Mont.

Mont. abt 8" below surface





Xsections

6-7-23

(23-02) (23-55)

F.S. H.I. B.S. Elev. ± Elev.

B.M. 3.99 215.27 211.28

B.M. 4.46 201.75 201.63

110

T.P. 6.32 206.21 6.10 199.89 01.7

111 01.8

112

T.P. #2 4.68 205.99 9.75 201.31 01.7

113 02.7

114 0.5.0

115 07.2

116 08.9

T.P. #1 1.40 211.06 5.61 209.66

117 10.1

118

215.27 (To page 47) 11.2

(23-02) (23-55) 6-8-23

X sections

EEI.

F.S. H.I. B.S Elev.

103

219.5v



104

16.1v



T.P.

12.57

232.92

0.19

220.35v

105

13.1v



106

10.5v



T.P.

12.81

220.54

0.36

207.73v

107

07.4v

108

04.4v



109

202.2v

6.46

208.09

201.63

Check Levels

B.M.

4.41

201.62

4.80

206.03

T.P. #2

10.12

201.23

1.78

211.35

T.P. #1

5.90

207.51

4.19

215.47

B.M.

211.28

(23-02) (23-55)

Xsec 10ws

6-8-23

F.S.

H.I.

B.S.

Elev.

± E/

92



216.0

93

17.2

B.M.

0.18

219.97

219.79

B.M + 70

2.27

219.83

219.79

94



18.8

95

19.7

T.P.

2.34

222.10

10.28

219.76

96

20.7

97

21.7



98

23.1

T.P.

6.76

230.04

12.76

223.28

99

24.3

100

24.6

101



24.1

T.P.

12.04

236.04

8.92

224.00

102



221.9

232.92

6-9-23

(23-02)		X Sections			(23-55)C	
Sta.	F.S.	H.I.	B.S.	Elev.	±EI	
+82						
+92	Drive to L					
81+92					28.5	
82					28.3 ✓	
T.P.	11.61	239.76 ✓	2.36	228.15 ✓		
83					24.9 ✓	
84					21.9 ✓	
T.P.	11.96	230.51	1.12	218.55		
85					18.7 ✓	
86					16.7 ✓	
87					14.6 ✓	
88					14.4 ✓	
T.P.	5.21	219.67 ✓	5.51	214.40 ✓		
89					14.4 ✓	
90					14.4 ✓	
91					214.8 ✓	
		219.97				

L E R

sed. similar

50 - 11.0/36 11.1/18 11.9/8 11.3

1.3/50 33 - 4.3/30 5.5/26 11.5/17 12.8/14 12.2/8 11.5 12.1/9 12.2/14 11.9/16 1.7/33 1.6/45

+3.4/45 +3.6/33 31 6.3/13 6.3/10 5.6 6.2/10 6.5/14 5.5/17 +5.2/33 +5.6/50

0.7/50 3.9/33 32 R 5.3/31 9.0/24 9.8/17 9.2/10 8.6 9.5/9 9.4/14 5.2/25 5.2/29 5.6/33

6.6/35 6.1/30 5.9/30 2.5/19 1.7/9 1.0 2.0/11 2.1/16 6.8/29 7.3/33

18.4/40 17.3/34 5.3/16 4.6/8 4.0 4.2/9 5.0/13 17.5/31 18.3/40

14.1/40 13.9/33 13.1/30 6.3/16 5.9/10 5.1 5.5/7 5.5/12 14.6/27 16.2/33 16.7/40

7.4/50 7.1/33 6.8/28 6.6/19 5.3/16 5.7/4 5.3 5.8/9 6.4/15 7.3/18 4.7/22-23 8.6/28 5.4/36

7.0/40 7.1/33 7.0/19 6.1/4 5.6 6.3/10 6.4/13 8.3/21 9.4/33 9.6/40

11.3/40 11.5/33 10.9/23 6.5/16 6.0/8 5.4 6.3/7 7.2/13 10.1/20 12.2/26 13.7/33

12.4/35 11.7/31 8.9/29 6.6/17 5.7/8 5.2 5.8/9 6.4/16 8.8/22 12.4/32 12.4/31

6-9-23

(23-02) X Sections (23-55)

	F.S	H.I.	B.S.	Elev.	±EI
71					33.9
72					34.3 ✓
73					34.7 ✓
74					35.0 ✓
75					35.2 ✓
T.F.	3.75	239.13 ✓	4.38	235.38	
76					35.6 ✓
77					36.0 ✓
78					36.0 ✓
B.M.			0.32	239.44	239.44
79					35.6 ✓
80					34.5 ✓
81					31.3 ✓
81+78		239.76			228.9 ✓



L E R

$$\begin{array}{cccccccc} \frac{5.8}{33} & \frac{5.7}{12} & \frac{5.9}{9} & 5.2 & \frac{5.7}{9} & \frac{5.8}{13} & \frac{5.2}{16} & \frac{5.9}{33-50} \end{array}$$

$$\begin{array}{cccccccc} \frac{6.4}{35} & \frac{5.4}{15} & \frac{5.4}{9} & 4.8 & \frac{5.4}{10} & \frac{5.8}{14} & \frac{5.9}{30} & -50 \end{array}$$

$$\begin{array}{cccccccc} \frac{5.3}{40} & \frac{5.1}{35} & \frac{3.9}{11} & \frac{4.9}{11} & \frac{5.3}{10} & \frac{5.1}{7} & 4.4 & \frac{5.0}{10} & \frac{5.3}{15} & \frac{4.2}{19} & \frac{4.3}{33-50} \end{array}$$

$$\begin{array}{cccccccc} \frac{5.1}{50} & \frac{5.6}{38} & \frac{5.1}{23} & \frac{4.9}{13} & \frac{4.9}{7} & 4.1 & \frac{4.7}{10} & \frac{5.1}{14} & \frac{4.6}{22} & \frac{5.0}{33-50} \end{array}$$

$$\begin{array}{cccccccc} \frac{4.2}{50} & \frac{4.7}{33} & \frac{4.3}{23} & \frac{4.5}{13} & \frac{4.7}{10} & 3.9 & \frac{4.5}{9} & \frac{4.9}{15} & \frac{4.2}{13} & \frac{5.0}{21} & -50 \end{array}$$

$$\begin{array}{cccccccc} \frac{4.7}{40} & \frac{3.9}{33} & \frac{3.9}{23} & \frac{4.0}{14} & \frac{5.0}{11} & \frac{4.7}{7} & 4.2 & \frac{4.9}{9} & \frac{4.9}{12} & \frac{4.0}{16} & \frac{4.5}{26} & -50 \end{array}$$

$$\begin{array}{cccccccc} \frac{4.8}{45} & \frac{4.0}{33} & \frac{4.5}{21} & \frac{4.7}{12} & \frac{4.5}{9} & 3.8 & \frac{4.4}{10} & \frac{4.6}{13} & \frac{4.1}{15} & \frac{3.7}{27} & \frac{3.9}{33-40} \end{array}$$

$$\begin{array}{cccccccc} \frac{3.0}{40} & \frac{1.2}{35} & \frac{1.2}{22} & \frac{2.1}{14} & \frac{4.5}{12} & \frac{4.5}{9} & 3.8 & \frac{4.3}{9} & \frac{4.5}{14} & \frac{3.7}{20} & \frac{3.4}{29} & -50 \end{array}$$

on 14" oak L 79+42

$$\begin{array}{cccccccc} \frac{0.6}{40-35} & \frac{1.6}{25} & \frac{2.1}{20} & \frac{2.9}{17} & \frac{3.8}{15} & \frac{4.7}{13} & \frac{4.6}{9} & 4.2 & \frac{4.6}{10} & \frac{5.1}{13} & \frac{4.7}{15} & \frac{2.9}{18} & \frac{2.1}{21-50} \end{array}$$

$$\begin{array}{cccccccc} \frac{1.0}{45} & \frac{1.2}{33} & \frac{1.2}{23} & \frac{2.9}{20} & \frac{5.1}{15} & \frac{5.9}{9} & 5.3 & \frac{5.9}{11} & \frac{6.5}{14} & \frac{5.7}{16} & \frac{1.5}{23} & -50 \end{array}$$

$$\begin{array}{cccccccc} \frac{2.3}{45} & \frac{2.3}{33-28} & \frac{3.9}{26} & \frac{8.2}{18} & \frac{4.3}{14} & \frac{4.0}{14} & 8.5 & \frac{4.1}{9} & \frac{4.1}{14} & \frac{3.9}{21} & \frac{2.7}{23} & -33-50 \end{array}$$

$$\begin{array}{cccccccc} \frac{5.3}{40} & \frac{8.6}{30} & \frac{6.2}{27} & \frac{10.8}{15} & \frac{12.1}{13} & \frac{11.4}{9} & 10.9 & \frac{11.5}{10} & \frac{11.4}{13} & \frac{10.3}{16} & \frac{1.7}{30} & -33-50 \end{array}$$

6-9-22

(23-02)	Xsections	(23-55)		
F.S.	H.I.	B.S.	Elev. $\pm EI$	
T.R. 66	8.84	233.04 [✓]	5.73	227.31 [✓] 28.5 [✓]
67				30.3 [✓]
68				31.9 [✓]
+55				32.1 [✓]
+57				32.2 [✓]
68+71	ϕ Co. Rd. F			32.1 [✓]
+85				32.2 [✓]
+90				32.2 [✓]
69+95				232.2 [✓]
B.M.	4.42	236.15	7.40	231.73
69				32.3 [✓]
70				233.1 [✓]
		239.13		



L E R

19.2/30 18.0/27 8.5/11 8.0/7 7.7 7.9/9 8.9/15 12.6/22 16.0/29 16.5/33

9.2/33 8.8/17 7.0/13 6.4/10 6.1/5 5.9 6.1/9 6.4/13 8.0/17 8.1/27 8.0/33

4.4/33 4.8/24 5.1/13 4.8/8 4.3 4.4/8 4.8/15 5.5/17 4.5/21 3.5/27 3.7/33

5.2/33 5.1/29 4.8/21 4.3/14 4.1 4.2/8 4.4/12 4.8/16 5.0/22 3.3/26 3.0/33

5.1/33 5.0/31 4.4/23 4.3/15 4.0 4.0/10 4.6/18 4.6/26 5.0/33

6.2/100 5.0/58 4.5/33 4.4/27 4.3/14 4.1 4.1/15 4.3/24 4.4/33 4.6/50

5.3/33 4.7/23 4.4/16 4.0

4.0 4.3/16 4.8/24 5.2/32

3.4/33 3.8/26 4.3/20 4.1/13 4.5/11 4.0 4.3/13 4.7/22 4.1/24 3.4/21 3.4/33

Top of Mont. Rice st. in Col Rd. F. Sta. 68+71'

6.8/33 7.0/14 7.4/10 6.8 7.3/11 7.3/21 6.3/22 4.6/29-50

6.2/33 6.3/15 6.5/11 6.6/8 6.0 6.5/11 6.9/15 7.1/20 6.6/27 5.2/31-50

(23-02) X Sections (23-55)

Sta- F.S. A.L. B.S. E.I. E.E.I

56

55+60
B.M.

3.04

230.31

57+00

29.1 ✓

58+00



29.6 ✓

58+25
T.P.

3.80

233.35 ✓

4.11 ✓

229.24 ✓

59+00

29.3 ✓

60+00

29.0 ✓

61

28.6 ✓

62+00

28.2 ✓

63+00

27.5 ✓

64+00



26.9 ✓

65+00

233.04

227.3 ✓

6-11-23

(23-02)

X Sections

(23-55)

EEI

Sta.	F.S.	H.I.	B.S.	EI.	
T.P.	0.62	227.28 ^v	12.50	214.78	
53+00					215.4
52+00			↑		209.2
+ 50+94 T.P.	0.20	215.40 ^v	12.38	203.02 ^v	
51+00					203.7 ^v
50+00					197.1
49+00			↑		91.6 ^v
T.P. 47+95.8	9.23	203.22 ^v	11.92	191.30 ^v	94.0 ^v
47+30					91.3
47+00			↑		91.5
46+00					191.4
45+98 (I.I.)		200.53 ^v	7.46	193.07	

(23-02)

X-Sec. (23-55)

6-11-23 2:00

Sta	FS	H.I.	B.S.	EL.	L'EL.
-----	----	------	------	-----	-------

T.P.	10.57	220.87	0.24	220.63	
------	-------	--------	------	--------	--

49+00

50+00

51+00

↑

51+45

T.P.	0.0 ✓	231.20 ✓	-1.82 ✓	233.02	
------	-------	----------	---------	--------	--

51+45

52+00

53+00

55+00

27.4 ✓

55+60
B.M.

2.60

↑

230.42 ✓

T.P.

0.25

233.02 ✓

5.99

227.03 ✓

54+00

↑

227.28

221.5 ✓

$\frac{+0.8}{93}$

54+00

L

Q

R

$$\begin{array}{r} 10.7 \\ 57.0 \end{array}$$
 Top of bk

$$\begin{array}{r} 10.7 \\ 49.0 \end{array}$$

$$\begin{array}{r} 6.7 \\ 45.5 \end{array}$$
 Top of bk

$$\begin{array}{r} 8.7 \\ 39.5 \end{array}$$

$$\begin{array}{r} 3.2 \\ 44.5 \end{array}$$
 Top of bk

$$\begin{array}{r} 4.0 \\ 39.5 \end{array}$$

$$\begin{array}{r} 4.0 \\ 43 \end{array}$$
 Top of bk

$$\begin{array}{r} 4.0 \\ 37 \end{array}$$

No readings necessary a/c See Br #1292 on Rk.

See Page 20

$$\begin{array}{r} 15.2 \\ 32 \end{array}$$
 Top of bk

$$\begin{array}{r} 16.7 \\ 40 \end{array}$$

$$\begin{array}{r} 5.0 \\ 57.5 \end{array}$$
 Top of bk

$$\begin{array}{r} 5.4 \\ 37.5 \end{array}$$

$$\begin{array}{r} 7.6 \\ 32.5 \end{array}$$

$\frac{4.5}{60}$

$$\begin{array}{r} 4.5 \\ 28.5 \end{array}$$
 Top of bk

$$\begin{array}{r} 4.2 \\ 33 \end{array}$$

$$\begin{array}{r} 4.5 \\ 27.5 \end{array}$$

$$\begin{array}{r} 4.4 \\ 15.5 \end{array}$$

$$\begin{array}{r} 6.0 \\ 10 \end{array}$$

$$\begin{array}{r} 5.8 \\ 8 \end{array}$$

$$\begin{array}{r} 5.6 \\ 0 \end{array}$$

$$\begin{array}{r} 5.9 \\ 7 \end{array}$$

$$\begin{array}{r} 6.1 \\ 9 \end{array}$$

$$\begin{array}{r} 5.7 \\ 11.5 \end{array}$$

$$\begin{array}{r} 5.3 \\ 230.42 \end{array}$$

$$\begin{array}{r} 4.6 \\ 19 \end{array}$$

$$\begin{array}{r} 4.6 \\ 33 \end{array}$$

... assumed ok

Spikes 16" Oak 50'R (See top page 17) Same

$$\begin{array}{r} 10.8 \\ 21 \end{array}$$

$$\begin{array}{r} 0.3 \\ 20 \end{array}$$

$$\begin{array}{r} 4.3 \\ 13 \end{array}$$

$$\begin{array}{r} 5.3 \\ 12 \end{array}$$

$$\begin{array}{r} 6.4 \\ 9.5 \end{array}$$

$$\begin{array}{r} 6.1 \\ 7.5 \end{array}$$

$$\begin{array}{r} 5.8 \\ 0 \end{array}$$

$$\begin{array}{r} 6.0 \\ 7 \end{array}$$

$$\begin{array}{r} 6.4 \\ 9 \end{array}$$

$$\begin{array}{r} 5.2 \\ 12 \end{array}$$

$$\begin{array}{r} 2.7 \\ 11.5 \end{array}$$

$$\begin{array}{r} 0.8 \\ 22 \end{array}$$

$$\begin{array}{r} 10.8 \\ 23.5 \end{array}$$

$$\begin{array}{r} 10.8 \\ 16.0 \end{array}$$

X-Sections

St.	F.S.	H.I.	B.S.	El.
45+98 B.M.	7.82			193.05
T.P.	12.97	200.87	-0.57 ✓	201.44
50+00				
T.P.	9.47	214.41	3.01	211.40
		220.87		

$$\begin{array}{r}
 2'4.41 \\
 \hline
 2'2.0 \\
 \hline
 2'2.0 \\
 \hline
 2'97.1 \\
 \hline
 2'4.91
 \end{array}$$

Sp. phone pole 7 16' Left

$$\begin{array}{r}
 \text{Top bk} \\
 + \\
 2.4 \\
 \hline
 35
 \end{array}$$

$$\begin{array}{r}
 3.4 \\
 \hline
 45
 \end{array}$$

Top Rivet - W End N Grid - 500 Br #12 A $\frac{1}{2}$

(23-02) X Sec (23-55) 6-12-23
7:30 A

Sta	F.S.	H.I.	B.S.	EI.
38+00				94.4
39+00				93.2
39+70				92.6
40+00				92.3
41+00				91.2
T.P.	3.21	200.96 ✓	9.70	191.26
41+00				91.2
42+00				89.7
43+00				89.4
44+00				89.6
45+00				190.5
B.M.-		194.47 ✓	1.40	193.07

9.7
36

8.8
39

6.7
33

Ed - Franke

Ch - Mahoney

L

♀

R

$\frac{4.4}{33}$ $\frac{5.1}{22.5}$ $\frac{6.5}{14.5}$ $\frac{6.8}{10}$ $\frac{6.6}{0}$ $\frac{7.0}{7}$ $\frac{6.8}{11}$ $\frac{3.3}{19}$ $\frac{6.8}{27}$ $\frac{8.6}{33}$ $\frac{10.6}{37}$

$\frac{7.2}{33}$ $\frac{7.2}{24}$ $\frac{7.5}{20}$ $\frac{7.9}{9}$ $\frac{7.8}{0}$ $\frac{8.3}{8.5}$ $\frac{8.0}{12.5}$ $\frac{3.9}{20}$ $\frac{6.0}{27}$ $\frac{10.0}{37}$

$\frac{6.4}{33}$ $\frac{7.5}{27.5}$ $\frac{7.6}{18.5}$ $\frac{8.3}{12.5}$ $\frac{8.6}{9}$ $\frac{8.4}{0}$ $\frac{8.7}{7.5}$ $\frac{8.8}{10.5}$ $\frac{10.0}{16}$ $\frac{13.4}{37}$

$\frac{7.7}{34}$ $\frac{8.1}{32}$ $\frac{8.5}{22}$ $\frac{8.9}{15.5}$ $\frac{9.0}{9.5}$ $\frac{8.7}{0}$ $\frac{9.1}{7}$ $\frac{9.5}{11.5}$ $\frac{10.8}{18}$ $\frac{11.2}{22}$ $\frac{12.7}{34}$

$\frac{9.8}{0}$

$\frac{12.0}{19}$

$\frac{14.0}{33}$

$\frac{5.0}{33}$ $\frac{4.2}{28.5}$ $\frac{3.7}{17}$ $\frac{3.5}{14}$ $\frac{3.2}{8.5}$ $\frac{3.3}{0}$ $\frac{3.8}{7.5}$ $\frac{4.1}{10}$ $\frac{4.9}{13.5}$

Edge pool & W.S.

$\frac{8.4}{28}$ $\frac{6.4}{20}$ $\frac{6.0}{14.5}$ $\frac{5.1}{11}$ $\frac{5.3}{8}$ $\frac{4.8}{0}$ $\frac{5.3}{7.5}$ $\frac{5.7}{11}$ $\frac{7.0}{16.5}$ $\frac{9.0}{18}$

W.S. & Sh. Line stag. pool

W.S. Stag pool & sh. line

$\frac{6.7}{34}$ $\frac{6.2}{30}$ $\frac{4.8}{26}$ $\frac{5.4}{22.5}$ $\frac{5.3}{14.5}$ $\frac{4.8}{9.5}$ $\frac{5.2}{8}$ $\frac{5.1}{0}$ $\frac{5.6}{7.5}$ $\frac{5.7}{12}$ $\frac{6.3}{16.5}$ $\frac{7.6}{23}$ $\frac{7.0}{29}$

W.S. & Shore stagnant pool

$\frac{7.8}{37}$ $\frac{5.5}{33}$ $\frac{4.2}{27}$ $\frac{3.4}{18.5}$ $\frac{5.0}{14}$ $\frac{5.0}{10}$ $\frac{5.1}{8}$ $\frac{4.9}{0}$ $\frac{5.2}{7}$ $\frac{5.0}{12}$ $\frac{4.8}{14}$ $\frac{2.8}{21.5}$ $\frac{3.4}{25}$ $\frac{3.0}{28}$ $\frac{4.8}{33}$

$\frac{4.1}{28.5}$ $\frac{3.2}{24}$ $\frac{3.9}{19}$ $\frac{3.2}{16}$ $\frac{4.3}{11.5}$ $\frac{4.1}{9}$ $\frac{4.3}{6}$ $\frac{4.0}{0}$ $\frac{4.3}{8.5}$ $\frac{4.4}{12}$ $\frac{4.2}{19}$ $\frac{2.4}{25.5}$ $\frac{5.2}{33}$ $\frac{8.2}{40}$

Sp. TP 16' L.A. Sta. 45-198

(23-02)

X. Sec.

(23-53)

Sta.

F.S.

H.I.

C.S.

E.L.

B.M.

4.28

190.40

29+00

898

30+00



898

T.P.

5.90

194.68

4.86

189.82

31+00

899

32+00

899

33+00

90.2

34+00

91.6

35+00



192.5

T.P.

7.57

195.72

2.33

193.39

36+00

93.8

37+00



195.0

200.96

L

Q

R

Nail in T. Blk. Sta. 27+50 = 25' left.

$$\begin{array}{cccccccccccc} \frac{8.6}{33} & \frac{7.9}{19} & \frac{5.4}{14} & \frac{5.2}{12} & \frac{5.0}{8.5} & \frac{4.9}{0} & \frac{5.2}{3} & \frac{5.3}{7} & \frac{8.1}{13.5} & \frac{9.1}{28.5} & \frac{9.1}{35} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} \frac{7.5}{33} & \frac{7.9}{31} & \frac{7.9}{21} & \frac{5.4}{15} & \frac{5.3}{12} & \frac{4.9}{0} & \frac{5.1}{3.5} & \frac{5.4}{7.5} & \frac{7.8}{16.5} & \frac{9.4}{24} & \frac{9.4}{34} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} \frac{7.8}{33} & \frac{9.1}{27} & \frac{8.8}{21} & \frac{6.3}{15.5} & \frac{6.2}{12} & \frac{5.8}{0} & \frac{6.0}{4} & \frac{6.7}{8} & \frac{9.4}{15.5} & \frac{10.3}{28.5} & \frac{10.3}{35} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} \frac{4.5}{39} & \frac{8.7}{21.5} & \frac{6.3}{16.5} & \frac{6.2}{12.5} & \frac{5.8}{0} & \frac{6.0}{4} & \frac{6.6}{6.5} & \frac{8.1}{10} & \frac{10.2}{22} & \frac{10.2}{35} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} \frac{5.2}{33} & \frac{6.5}{23.5} & \frac{5.7}{17} & \frac{5.6}{13} & \frac{5.5}{0} & \frac{5.8}{4} & \frac{6.1}{7} & \frac{9.2}{14.5} & \frac{10.3}{26.5} & \frac{10.3}{33} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} \frac{0.6}{33} & \frac{4.3}{28.5} & \frac{5.2}{24} & \frac{4.7}{17} & \frac{4.4}{12} & \frac{4.1}{0} & \frac{4.5}{4.5} & \frac{5.2}{8} & \frac{7.1}{13} & \frac{9.5}{28} & \frac{9.5}{38} \end{array}$$

Edge Swamp

$$\begin{array}{cccccccccccc} +\frac{4.6}{33} & -\frac{0.2}{27} & -\frac{2.8}{24.5} & -\frac{3.7}{20} & \frac{3.8}{16} & \frac{3.6}{11} & \frac{3.2}{0} & \frac{3.5}{5.5} & \frac{3.8}{8} & \frac{5.2}{13} & \frac{7.2}{32} & \frac{7.2}{42} \end{array}$$

$$\begin{array}{cccccccccccc} +\frac{1.7}{33} & -\frac{5.5}{22} & \frac{6.1}{19.5} & \frac{7.3}{16} & \frac{7.2}{13} & \frac{7.3}{9} & \frac{7.2}{0} & \frac{7.8}{7} & \frac{8.3}{10} & \frac{10.3}{15.5} & \frac{11.3}{31} & \frac{11.4}{33} \end{array}$$

$$\begin{array}{cccccccccccc} \frac{0.7}{33} & \frac{8.0}{30} & \frac{3.6}{21} & \frac{6.2}{14.5} & \frac{6.3}{10} & \frac{6.0}{0} & \frac{6.5}{7} & \frac{6.4}{16.5} & \frac{6.0}{12.5} & \frac{6.5}{16} & \frac{8.2}{21} & \frac{11.9}{35} \end{array}$$

(23-02)

(X- Sec -)

(23-55)

6-12-23
1:10

Sta.	F.S.	H.I.	B.S.	El.	
20+00					208.2

T.P.	0.59	217.48	11.59	205.89	
------	------	--------	-------	--------	--

21+00					203.9
-------	--	--	--	--	-------

B.M.	0.89			205.59	205.61
------	------	--	--	--------	--------

22+00					199.8
-------	--	--	--	--	-------

23+00					962
-------	--	--	--	--	-----

T.P.	0.47	206.48	11.55	194.93	
------	------	--------	-------	--------	--

24+00					93.6
-------	--	--	--	--	------

25+00					91.2
-------	--	--	--	--	------

26+00					90.2
-------	--	--	--	--	------

27+00					90.0
-------	--	--	--	--	------

28+00					89.9
-------	--	--	--	--	------

B.M.		195.40	5.00	190.40	
------	--	--------	------	--------	--

(23-02)

X-See

(23-53)

Sta.

F.S.

H.I.

B.S.

E.I.

10+00

28.0

11+00

26.0

12+00

25.7

13+00

24.5

T.P.

2.86

230.54

7.49

223.05

14+00

23.4

15+00

21.9

16+00

20.5

17+00

18.8

T.P.

1.20

225.91

9.66

216.25

18+00

15.7

T.P.

217.45

11.56

A/c instr. moved.
205.89

19+00

217.48

212.4

		L			4			R			
$\frac{1.9}{36}$	$\frac{1.9}{20.5}$	$\frac{3.3}{16.5}$	$\frac{2.9}{12}$	$\frac{2.5}{8}$	$\frac{2.5}{0}$	$\frac{2.9}{4}$	$\frac{3.1}{2.5}$	$\frac{3.6}{10}$	$\frac{4.1}{15.5}$	$\frac{5.2}{33}$	

$\frac{2.6}{36.5}$	$\frac{2.7}{27.5}$	$\frac{4.8}{24.5}$	$\frac{4.7}{16.5}$	$\frac{4.0}{11.5}$	$\frac{3.7}{0}$	$\frac{4.2}{3.5}$	$\frac{4.5}{8}$	$\frac{5.6}{74.5}$	$\frac{6.8}{36.5}$	
--------------------	--------------------	--------------------	--------------------	--------------------	-----------------	-------------------	-----------------	--------------------	--------------------	--

$\frac{3.3}{33}$	$\frac{3.5}{23}$	$\frac{5.6}{16}$	$\frac{5.1}{11}$	$\frac{4.7}{7}$	$\frac{4.8}{0}$	$\frac{5.3}{5}$	$\frac{5.7}{9}$	$\frac{6.5}{16}$	$\frac{7.6}{33}$	
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$\frac{4.2}{33}$	$\frac{4.7}{25.5}$	$\frac{4.1}{21}$	$\frac{6.3}{16}$	$\frac{6.0}{12}$	$\frac{5.8}{8}$	$\frac{6.0}{0}$	$\frac{6.3}{4}$	$\frac{6.4}{8}$	$\frac{7.2}{15.5}$	$\frac{8.1}{33}$
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$\frac{0.2}{33}$	$\frac{0.8}{21}$	$\frac{2.9}{15.5}$	$\frac{2.4}{10}$	$\frac{2.5}{0}$	$\frac{2.7}{2.5}$	$\frac{3.0}{6.5}$	$\frac{3.5}{11}$	$\frac{4.5}{20}$	$\frac{6.0}{33}$	
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$\frac{2.6}{33}$	$\frac{2.9}{22.5}$	$\frac{5.0}{18}$	$\frac{4.4}{14}$	$\frac{4.2}{11}$	$\frac{4.0}{0}$	$\frac{4.5}{5}$	$\frac{5.0}{8}$	$\frac{6.4}{14.5}$	$\frac{6.7}{20}$	$\frac{8.2}{33}$
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$\frac{3.6}{33}$	$\frac{6.2}{24}$	$\frac{6.2}{19}$	$\frac{5.6}{14}$	$\frac{5.5}{10.5}$	$\frac{5.4}{0}$	$\frac{5.7}{3.5}$	$\frac{6.1}{6.5}$	$\frac{8.5}{12.5}$	$\frac{8.4}{18}$	$\frac{10.6}{33}$
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$\frac{5.1}{33}$	$\frac{6.0}{24}$	$\frac{7.7}{21}$	$\frac{8.1}{18}$	$\frac{7.7}{12.5}$	$\frac{7.4}{10}$	$\frac{7.1}{0}$	$\frac{7.7}{4.5}$	$\frac{8.6}{8.5}$	$\frac{10.4}{12}$	$\frac{12.2}{23.5}$	$\frac{13.6}{33}$
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$\frac{1.5}{33}$	$\frac{1.8}{22.5}$	$\frac{2.6}{18}$	$\frac{2.2}{14}$	$\frac{1.9}{10.5}$	$\frac{1.8}{0}$	$\frac{2.2}{4}$	$\frac{2.4}{6.5}$	$\frac{5.4}{15}$	$\frac{6.6}{26}$	$\frac{7.7}{33}$
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at last reading sta 19-

Same as that betw sta 20 & 21 page 22

$\frac{5.5}{33}$	$\frac{5.5}{23}$	$\frac{6.1}{18.5}$	$\frac{5.7}{15}$	$\frac{5.1}{10}$	$\frac{5.1}{0}$	$\frac{5.7}{4.5}$	$\frac{5.9}{7.5}$	$\frac{9.5}{14}$	$\frac{12.8}{33}$ ✓	← Last reading
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(23-02)		X-See		(23-55)	
Sta.	F.S.	H.I.		B.S.	E.I.
2+00					34.0
3+00					34.1 ✓
3+22					County Road E to Left 34.0
T.P.	1.67	237.80		4.62	233.18 ✓
4+00					33.7 ✓
5+00					33.3 ✓
					32.2 ✓
6+00					31.2 ✓
7+00					30.3 ✓
8+00					
BM		234.85 ✓		4.56	230.29 ✓
		New Set Up.		B.S. on B.M. below	
9+00					229.2 ✓
B.M.	0.32				230.22 ✓
		230.54			230.29 ✓

		L				E		R				
$\frac{4.9}{33}$	$\frac{3.9}{28}$	$\frac{4.3}{18.5}$	$\frac{5.0}{14.5}$	$\frac{4.4}{11}$	$\frac{4.3}{7}$	$\frac{3.8}{0}$	$\frac{4.3}{7}$	$\frac{4.6}{13.5}$	$\frac{5.0}{17}$	$\frac{4.5}{22.5}$	$\frac{4.8}{33}$	

$\frac{3.7}{33}$	$\frac{3.7}{31}$	$\frac{3.6}{11}$	$\frac{3.9}{5.5}$	$\frac{3.7}{0}$	$\frac{4.7}{5}$	$\frac{4.5}{12}$	$\frac{4.6}{20}$	$\frac{5.0}{33}$
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$\frac{4.7}{33}$	$\frac{5.1}{23.5}$	$\frac{4.5}{16.5}$	$\frac{3.9}{9.5}$	$\frac{3.8}{0}$	Same Sec. as Sta 4
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$\frac{0.8}{33}$	$\frac{1.5}{20}$	$\frac{2.7}{15.5}$	$\frac{1.7}{11}$	$\frac{1.5}{7.5}$	$\frac{1.2}{0}$	$\frac{1.7}{6.5}$	$\frac{2.3}{12}$	$\frac{2.8}{17}$	$\frac{3.1}{33}$
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$\frac{1.8}{33}$	$\frac{2.0}{21}$	$\frac{3.0}{16.5}$	$\frac{2.2}{11}$	$\frac{1.8}{7}$	$\frac{1.6}{0}$	$\frac{2.2}{7}$	$\frac{2.8}{11.5}$	$\frac{2.7}{20}$	$\frac{3.0}{33}$
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$\frac{2.9}{33}$	$\frac{3.0}{21}$	$\frac{4.2}{15}$	$\frac{3.3}{10.5}$	$\frac{3.0}{8}$	$\frac{2.7}{0}$	$\frac{3.1}{6}$	$\frac{3.5}{8.5}$	$\frac{3.9}{12.5}$	$\frac{3.9}{20.5}$	$\frac{3.9}{33}$
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$\frac{4.3}{33}$	$\frac{4.6}{23.5}$	$\frac{5.2}{17}$	$\frac{4.5}{11.5}$	$\frac{4.0}{8}$	$\frac{3.7}{0}$	$\frac{4.2}{6.5}$	$\frac{4.5}{8.5}$	$\frac{5.1}{12}$	$\frac{4.8}{21}$	$\frac{5.0}{33}$
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$\frac{4.8}{33}$	$\frac{4.6}{20}$	$\frac{5.5}{14.5}$	$\frac{5.0}{11.5}$	$\frac{4.8}{9}$	$\frac{4.6}{9}$	$\frac{5.0}{5}$	$\frac{5.4}{11.5}$	$\frac{5.8}{33}$
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Same as below this page.

Assuming Elev. = 230.29.

$\frac{1.4}{33}$	$\frac{1.2}{19.5}$	$\frac{2.4}{16}$	$\frac{1.8}{12.5}$	$\frac{1.5}{9}$	$\frac{1.3}{0}$	$\frac{1.6}{5}$	$\frac{1.8}{7}$	$\frac{2.3}{15}$	$\frac{3.0}{28.5}$	$\frac{3.4}{34}$
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→ As shown on page 5 Spike in 20" Oak L. Sta #70

X-Sec.

(23-02) (23-55)

Sta

F.S.

H.I.

B.S.

Elev

6:12-23

End. 4:45 P.M.

B.M.

3.53

234.27

234.24

(0+00) - 5' On Concrete Rd - Rice St.

233.8'

Intersection Rice St. & Vadnais Blvd.

0+00

4.12

Top spike & Conc. pave. beginning

233.68

233.7'

1+00

233.7'

237.80'

L E R

See Page 5 for check Elev.

Spike 30" Cotton wood 40' R Sta. 1462

Edge Conc.
R Edge Concrete

$\frac{4.3}{28}$	$\frac{5.6}{24}$	$\frac{4.2}{13}$	$\frac{4.0}{0}$	$\frac{4.0}{12}$	$\frac{4.7}{19}$	$\frac{5.7}{30}$	$\frac{5.9}{33}$
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$\frac{5.3}{33}$	$\frac{4.8}{30}$	$\frac{4.7}{25}$	$\frac{4.4}{19}$	$\frac{4.1}{12}$	$\frac{4.1}{0}$	$\frac{4.1}{12}$	$\frac{4.9}{21.5}$	$\frac{6.0}{31}$	$\frac{6.4}{33}$
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$\frac{5.4}{33}$	$\frac{4.8}{26}$	$\frac{4.7}{17.5}$	$\frac{5.2}{14.5}$	$\frac{4.5}{8}$	$\frac{4.1}{0}$	$\frac{4.4}{7}$	$\frac{4.6}{13}$	$\frac{5.0}{17}$	$\frac{4.6}{24}$	$\frac{4.8}{33}$
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(2302)

Transit
Notes6-13-23
(23-55)

8:00 A to 11:30 A.

Purchasing new level rod - transit pole,
luggage carrier for Ford #509
having tape repaired & getting to job

11:30 A to 12:00 Adjusting transit

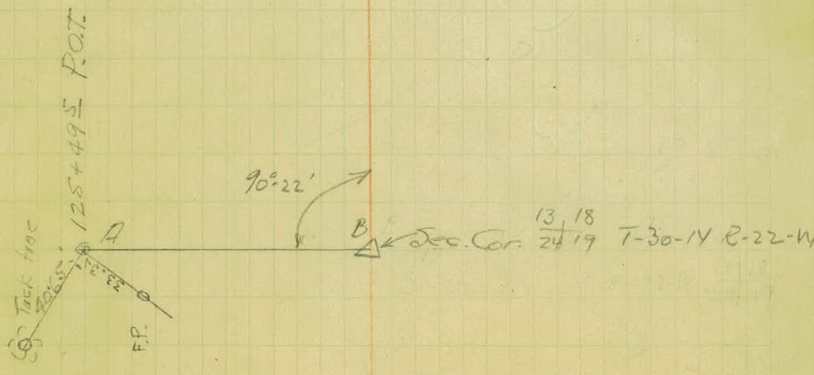
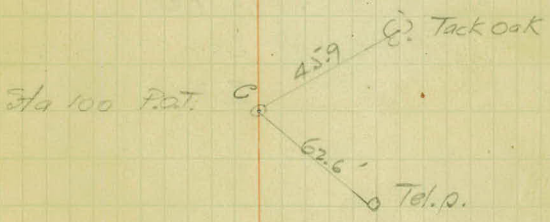
1:00 P " 3:30 " "

3:30 P " 4:25 Checking Ls digging up
monuments locating P.O.T's etc.

T @ Sta. Pl. 120+98⁷⁵ $\frac{13}{18}$ Sec. Cor. T-30-M-R-22-W $\frac{24}{19}$ B.S. on sta. 125+49⁵ P.O.T.

Foresight	Angle	Line	Length	Bearing
P.O.T. Sta. 100.	90°-22'R	Cr. Rd.	2098 ⁷⁵	S-0°-33'E

Party-
 Weber Franke
 Mahoney Deutsche



Slope-Stakes

6-14-23

(23-02)

(23-55)

8:45A to 10:20 Ran E Red Sea from
Sea Cor @ Hill Farm - Sta. 120+98.75

Sta.	B.S.	I.I.	Elev Sub Grade	Gr. Rod. 217
BM	4.38	215.66		
118			211.35	4.31
117+50				
117			210.4	
116+50				
116+00			209.00	
115+50				
115+00			207.00	
114+00			204.7	
113+00			202.4	
112+00			201.3	
111+00			201.4	
110+00			201.5	
109+00			202.3	
108+00			204.5	
107+00			207.4	
106+00			210.3	
105+00			213.2	

L R

Sp. 10" Oak W. side Hill Gate Elev. 211.28
 $\frac{0.0}{37.9}$ $\frac{0.0}{36.9}$

VOID

(23-02)

Slope Stakes

Sta	+	H.I.	-	Gr Elev	Grid Rod
B.M.	5.88	217.16		211.28	
118				211.4 ✓	5.8 ✓
117+50				211.0 ×	6.2 ✓
117				210.4 ×	6.8 ✓
16+50				209.8 ×	7.4 ✓
16				209.0 ×	8.2 ✓
15+50				208.5 ✓	8.7 ✓
T.P.	8.26	224.07	1.35	215.81 ✓	
118				211.4 ×	12.7 ✓
117+50				211.0 ✓	13.1 ✓
117				210.4 ×	13.7 ✓
16+50				209.8 ×	14.3 ✓
16				209.0 ×	15.1 ✓
T.P.	0.13	212.93	11.27	212.80 ×	
15				207.00 ×	5.9 ✓
14				204.7 ×	8.2
13				202.4 ×	10.5
112+50				201.6	11.3
T.P.	6.85	209.02	10.76	202.17	
115				207.0 ✓	2.0
114				204.7 ✓	4.3
113				202.4 ×	6.6
112+50				201.6 ×	7.4
T.P.	4.98	205.84	8.16	200.86	
T.P.			5.97	199.87	199.89 ✓

A - Weber Notes Deutsche
 Rod Franke
 Ch. Mahoney

Sta. Lt. ♀ Sta. K. Sta. R.
 Sp. 10" Oak W. Side Hill Gate Elev. 211.28

	$\frac{F0.7}{14}$	$\frac{F0.2}{0}$	$\frac{F0.1}{14}$	
	$\frac{F0.5}{14}$	$\frac{F0.4}{0}$	$\frac{F0.7}{14}$	
	$\frac{F1.0}{14}$	$\frac{F0.4}{0}$	$\frac{F0.8}{14}$	
	$\frac{F0.6}{14}$	$\frac{F0.2}{0}$	$\frac{F0.9}{14}$	
	$\frac{F0.8}{14}$	$\frac{F0.3}{0}$	$\frac{F1.0}{14}$	
$\frac{C.2.0}{29.0}$	$\frac{F0.5}{18.8}$	$\frac{F1.0}{14}$	$\frac{F0.3}{0}$	$\frac{F1.4}{14}$ $\frac{F2.2}{21}$
$\frac{C.10.9}{37.9}$				$\frac{C.6.9}{33.9}$
$\frac{C.9.1}{36.1}$				$\frac{C.8.7}{35.7}$
$\frac{C.8.7}{35.7}$				$\frac{C.8.0}{35}$
$\frac{C.7.5}{34.5}$				$\frac{C.5.6}{32.6}$
$\frac{C.6.0}{33}$				$\frac{C.1.8}{28.8}$

$\frac{F1.2}{19.8}$	$\frac{F0.4}{14}$	$\frac{0.0}{0}$	$\frac{F0.9}{14}$
$\frac{F2.8}{21.9}$	$\frac{F0.4}{14}$	$\frac{C.0.1}{0}$	
$\frac{F0.2}{18.3}$	$\frac{C0.4}{14}$	$\frac{C0.2}{0}$	
$\frac{F0.2}{18.3}$	$\frac{C0.1}{14}$	$\frac{C0.3}{0}$	

	$\frac{F8.9}{31.1}$
$\frac{F0.6}{14}$	$\frac{F8.5}{30.5}$
$\frac{F0.8}{14}$	$\frac{F8.1}{30.1}$
$\frac{F0.7}{14}$	$\frac{F8.4}{30.4}$

See page 11
 8" Poplar Sta. 111+10 720'R

Sta.	(23-02)	Slope Stakes		6-16-23	Gr. Rad
	+	H.I.	-	(23-55) Gr. Elev.	
T.P.	6.37	206.24		199.87	
112+00				201.3	4.9
111+00				201.4	4.8
110				201.5	(5.5) 4.7
T.P.	5.88	207.03	5.09	201.15	
109+50				201.8	5.2
P.M.			5.37	201.6	(201.63)
109				202.3	4.7
108+50				203.2	3.8
108				204.5	(5.0) 2.5
T.P.	5.83	209.50	3.36	203.67	
107				207.4	2.1
T.P.			0.29	209.21	
		End 6-16-23		12:15	
		Start 6-18-23		8:30	
T.P.	7.31	216.52		209.21	
106				210.3	6.2
105				213.2	3.3
104				216.1	0.4
T.P.	11.03	227.29	0.26	216.26	
105				213.2	14.1
104				216.1	11.2
103				219.0	8.3
102				221.9	5.4
T.P.	10.09	235.57	1.81	225.48	
105				213.2	22.4
104				216.1	19.5
T.P.	7.61	238.69	4.49	231.08	

T. Weber } Stokes
 Ch. Mahoney }
 R. Frank }
 H. Deutsche } Left & Right

8' poles Sta. 11+00 to 20'R

	<u>F0.3</u>	<u>F0.4</u>	<u>Co.2</u>	<u>F0.6</u>	<u>F.6.6</u>	
	18.4	14	0	14	28	
	<u>F1.3</u>	<u>F0.3</u>	<u>Co.2</u>	<u>F0.5</u>	<u>F6.6</u>	
	19.9	14	0	14	28	
	<u>F6.6</u>	<u>F1.0</u>	<u>Co.1</u>	<u>F1.3</u>	<u>F6.6</u>	
	28	14	0	14	28	
	<u>F6.8</u>	<u>F1.2</u>	<u>Co.1</u>	<u>F0.8</u>	<u>F7.5</u>	
	28.3	14	0	14	29.2	
	<u>F7.4</u>	<u>F1.4</u>	<u>F0.1</u>	<u>F1.4</u>	<u>F7.7</u>	
	29	14	0	14	29.5	
	<u>F8.4</u>	<u>Cl. Light Br</u>	<u>F1.8</u>	<u>0.0 F1.0</u>	<u>Cl. Brack⁴tr</u>	<u>F9.8</u>
	30.4	17-23	14	0	23-35	32.4
	<u>F9.9</u>	<u>Cl. Light Br</u>	<u>F1.3</u>	<u>F0.1</u>	<u>F1.5</u>	<u>F10.8</u>
	32	20-24	14	0	14	34.7

Top Stk 14'L Sta. 108

<u>F11.2</u>	<u>Cl. Light Br</u>	<u>F0.8</u>	<u>Co.1</u>	<u>F1.3</u>	<u>Cl. Light Br</u>	<u>F13-0</u>
35.7	20-30	14	0	14	20-40	37.7

Sta. 106+50 Top stake 12'R

Same as above sta. 106+50

<u>C.1.2</u>	<u>Cl. Light Br</u>	<u>F0.1</u>	<u>Co.4</u>	<u>F0.4</u>	<u>No clearing</u>	<u>F.4.1</u>
28.2	28-35	14	0	14	0	23.5
			0.0	<u>F0.2</u>		
			0	14		
			<u>Co.2</u>	<u>F0.4</u>		
			0	14		

Sta. 104 Top sl. stk 14' right

<u>light grab</u>	<u>C1.3</u>	<u>1/4 light grab</u>	<u>C.8.0</u>
40-50	14	14-35	35.0
<u>light grab</u>	<u>C1.1</u>	<u>1/4 light grab</u>	<u>C.7.4</u>
40-50	14	14-35	34.4
<u>light grab</u>	<u>Co.8</u>	<u>Co.3</u>	<u>Cl. 4' Oak</u>
40-50	14	14	abt. 10-tr.
		<u>Co.4</u>	<u>Crub light</u>
		14	30-35

Sta 104+00 28'L - Top Stk

<u>G-18.4</u>
45.4
<u>C-18.9</u>
45.9

Top Stk 35'L Sta. 103+00

(23-02)	Slope Stakes		(23-55)	6-18-23	
Sta.	+	H. I	-	Gr. Elev.	Gr. Prod.
		238.69			
103				219.0	19.7
102				221.9	(20.9) 16.8
101+50				223.2 ✓	(19.9) 15.5
T.P.	796	242.88	3.77	234.92	
101				224.1	18.8
100+50				226.3	16.6
100				224.9	18.0
99+50				224.8 ✓	18.1
T.P.	3.07	236.14	9.81	233.07 ✓	
T.P.	3.94	228.96	11.12	225.02 ✓	
102				221.9	7.1
101+50				223.2	5.8
101				224.1	4.9
100+50				226.3	3.7
100				224.9	4.1
99+50				224.8	4.2
99				224.4	4.6
T.P.	1.81	224.35	6.42	222.54	
B.M.			4.56	219.79 ✓	219.79 ✓

T Weber
 Rod. Franke
 Ch. Monney

Mater. Deutsche.

30

Stk. Left

Q

Stk. Right

C. 15.4
42.4
 C. 15.5
42.5
 C. 15.3
42.3
 Top stake 38' L Sta. 101
 C. 14.4 $\frac{1}{4}$ light grb
41.4 33-50
 C. 11.4
38.4 "
 C. 10.5
37.5 "
 C. 7.0
34 "

light br → C. 6.4
 20-40 33.4
 light br → C. 9.6
 30-40 36.6
 light br C. 10.4
 30-40 37.4
 $\frac{1}{4}$ light arb C. 7.2
 30-35 34.2
 $\frac{1}{4}$ light arb C. 6.2
 24-33 33.2
 $\frac{1}{4}$ light arb C. 3.1
 24-33 30.1

Sp. Tel. pl. 30' R Sta. 101-

Top stk 16' R Sta. 101+50

<u>C. 1.3</u>		
14		
<u>C. 1.6</u>	<u>C. 0.1</u>	<u>C. 0.1</u>
14	14	14
<u>C. 0.7</u>	<u>C. 0.1</u>	<u>C. 0.2</u>
14	14	14
<u>F. 0.9</u>	<u>F. 0.8</u>	<u>F. 1.1</u>
14	0	0
<u>F. 0.1</u>	<u>F. 0.1</u>	<u>F. 0.8</u>
14	0	14
<u>F. 0.2</u>	<u>C. 0.3</u>	<u>F. 0.6</u>
14	0	14
<u>F. 0.3</u>	<u>C. 0.4</u>	<u>F. 0.6</u>
14	0	14

3' R Top rock Sta. 97+69

Sp. Tel. pl. 30' R. Sta. 93+70

(23-02)

X-Sections

6-14-23

(23-53)

Sta	B.S.	H.I.	F.S.	Elev
BM	5.59			211.28
122+57 ⁶		216.87 [✓]		End Curve 213.2 [✓]
123+00				213.6
124+00				14.8 [✓]
125+00				15.8 [✓]
T.P.	5.13	221.11 [✓]	0.89	215.98 [✓]
126+00				16.6 [✓]
127+00				17.2 [✓]
128+00				16.9 [✓]
129+00				16.1 [✓]
130+00				15.2 [✓]
131+00				13.6 [✓]
132+00				11.0 [✓]

Sp. 10" Oak W. of Gate to Hill Farm

↙ E ditch 8' wide ↘

4.1	4.1	6.4	8.0	4.7	4.3	4.1	3.7	4.0	4.2	7.0	7.6	4.0	4.0
33	31	24.5	19.5	13	9	7	0	7.5	12.5	17.5	20.5	28	33

↙ 10' wide ditch ↘

3.6	3.6	7.2	4.4	3.8	3.7	3.3	3.7	4.0	7.0	4.8	4.8	3.1
33	29	20	13	10.5	7.5	0	7.5	12	19.5	25.5	30	33

↙ E ditch 5' wide ↘

2.2	2.3	3.1	2.7	2.1	2.7	3.1	5.5	1.2	2.8	3.5
29.5	20	13	8.5	0	7	12	17.5	25.5	28.5	33

↙ E ditch ↘

2.7	2.7	3.5	1.7	1.6	1.4	1.1	1.7	1.7	5.6	3.1	2.1	2.1
33	20	16	12.5	8.5	6	0	9.5	13	19.5	25.5	27.1	33

Top rock center road sta 125+30

↙ E ditch 5' ↘

5.5	6.0	6.3	5.4	5.3	1.5	5.0	5.2	7.4	7.8	7.8
35	21.5	15.5	13	8.5	0	6.5	11.5	17	30.5	33

↙ E ditch ↘

2.3	0.8	3.1	5.5	4.4	4.4	3.9	4.4	4.5	4.9	6.3	4.6	5.0	5.0
33	30.5	21	16	12	12	0	5	8.5	12	17	22	28.5	33

↙ E ditch ↘

4.0	4.0	4.4	5.6	4.9	4.7	4.2	4.6	4.9	6.6	5.2	3.4	3.6	2.6
33	31	19	15.5	12.5	8	0	7.5	11	17.5	22.5	25	30	33

↙ E ditch ↘

2.8	2.8	4.8	5.6	7.2	5.6	5.4	5.0	5.7	6.0	7.8	6.6	6.1	7.0	9.0
35	32	26.5	21.5	18	12.5	8.5	0	8	11	16	20	25.5	29	35

↙ E ditch ↘

4.9	6.5	6.2	7.9	6.3	6.1	5.9	6.6	6.9	8.7	6.7	7.0	6.4	5.9
33	27	21.5	17.5	13	9	0	7	10.5	16.5	22	27	29.5	33

↙ E ditch ↘

10.0	10.2	10.6	9.6	9.7	8.5	8.2	7.5	8.1	8.3	11.1	9.5	8.9	7.4
30	28	24	20	18.5	11.5	7.5	0	8	11.5	20	26.5	29.5	33

↙ E ditch ↘

14.5	14.5	14.5	10.9	10.7	10.1	10.9	11.1	15.0	14.8	12.8
33	28	19	11	8	0	9	11.5	21.5	27	33

Light Scrub oak

(23-02)

X- Sec.

(23-55)

Sta.	B.S.	H.I. 221.112-Trans. 1004 2016- 211.12 ✓	F.S.	Elev
T.P.	0.20	211.12 ✓	10.19	210.92 ✓
133+00				09.2 ✓
B.M.			2.58	208.54 ✓ 208.51 ✓
B.M.	2.58	211.09 ✓		208.51 ✓
134+00		211.09		07.4 ✓
135+00				05.8 ✓
136+00				03.7 ✓
137+00				201.7 ✓
T.P.	1.90	203.42 ✓	9.57	201.52 ✓
138+00				199.6 ✓
139+00				97.3 ✓
140+00				95.3 ✓
T.P.	201 8.55	196.88 ✓	8.55 201	194.87 ✓

L ♀ R

Sta. 132+08 ← Road Top rock

Modern ditch

$\frac{27}{33}$	$\frac{27}{24}$	$\frac{52}{22.5}$	$\frac{4.9}{17}$	$\frac{2.6}{11}$	$\frac{2.4}{7.5}$	$\frac{19}{0}$	$\frac{2.6}{7}$	$\frac{3.0}{12.5}$	$\frac{6.2}{20}$	$\frac{6.1}{26}$	$\frac{5.0}{28.5}$	$\frac{4.5}{33}$
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Twin Cottonwood 86° - Left Sta. 133+45

Same as above.

Light Scrub Oak

$\frac{5.7}{33}$	$\frac{5.7}{30.5}$	$\frac{7.2}{25.5}$	$\frac{5.4}{21}$	$\frac{4.7}{16.5}$	$\frac{5.5}{13.5}$	$\frac{4.6}{11}$	$\frac{4.4}{7.5}$	$\frac{3.7}{0}$	$\frac{4.4}{9.5}$	$\frac{4.8}{13}$	$\frac{7.1}{20}$	$\frac{5.7}{27}$	$\frac{5.1}{29.5}$	$\frac{4.6}{33}$
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$\frac{5.7}{33}$	$\frac{5.7}{31}$	$\frac{7.8}{26}$	$\frac{6.6}{22}$	$\frac{5.2}{18}$	$\frac{7.1}{14.5}$	$\frac{6.2}{10.5}$	$\frac{6.0}{7}$	$\frac{5.3}{0}$	$\frac{5.9}{9.5}$	$\frac{5.8}{12}$	$\frac{7.7}{19}$	$\frac{7.4}{23}$	$\frac{5.7}{26}$	$\frac{4.5}{29}$	$\frac{4.5}{33}$
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$\frac{8.8}{33}$	$\frac{8.8}{29}$	$\frac{8.6}{21}$	$\frac{7.2}{17}$	$\frac{9.1}{14}$	$\frac{8.1}{10.5}$	$\frac{7.9}{6.5}$	$\frac{7.4}{0}$	$\frac{7.8}{9.5}$	$\frac{8.0}{12.5}$	$\frac{9.4}{17}$	$\frac{8.8}{24.5}$	$\frac{10.0}{30.5}$	$\frac{10.0}{33}$
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Top of bk

$\frac{4.3}{34}$	$\frac{8.6}{24.5}$	$\frac{7.2}{20.5}$	$\frac{11.1}{15.5}$	$\frac{10.1}{11.5}$	$\frac{10.0}{8}$	$\frac{9.4}{0}$	$\frac{10.0}{10}$	$\frac{9.9}{12}$	$\frac{10.8}{15}$	$\frac{11.5}{20}$	$\frac{11.4}{26}$	Swamp
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Sta. 137+20 Top rock

$\frac{3.8}{33}$	$\frac{6.2}{29}$	$\frac{8.0}{24.5}$	$\frac{7.6}{18.5}$	$\frac{4.6}{12.5}$	$\frac{4.3}{8.5}$	$\frac{3.8}{0}$	$\frac{4.3}{7.5}$	$\frac{4.4}{12}$	$\frac{4.9}{14.5}$	$\frac{4.0}{19.5}$	$\frac{2.9}{30}$	$\frac{2.9}{33}$
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$\frac{10.0}{33}$	$\frac{11.0}{25}$	$\frac{10.0}{22.5}$	$\frac{9.0}{17}$	$\frac{6.6}{11.5}$	$\frac{6.5}{7.5}$	$\frac{6.1}{0}$	$\frac{6.5}{9}$	$\frac{6.5}{13}$	$\frac{10.4}{20}$	$\frac{10.2}{24}$	$\frac{9.2}{27.5}$	$\frac{9.3}{33}$
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$\frac{12.0}{33}$	$\frac{12.0}{18.5}$	$\frac{8.6}{11}$	$\frac{8.4}{7.5}$	$\frac{8.1}{0}$	$\frac{8.6}{8}$	$\frac{9.0}{11.5}$	$\frac{12.8}{20}$	$\frac{12.0}{27.5}$	$\frac{12.0}{33}$
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(23-02)

X-Sec. (23-55)

E-14-23

Sta.	B.S.	H.L.	F.S.	Elev
141+00		196.88		93.0v
142+00				92.4v
143+00				94.0v
144+00				96.1v
EM.			2.91	193.97v
				193.99v
		<u>Start 6-15-23</u>		
BM.	9.85	203.84v		193.99v
144+22		E. edge emb. over water culv. 96.7v		
144+37				
144+40		E water culv.		
144+43				97.1v
144+55		W. Edge emb over water culv 97.5v		
145+00				99.2v
T.P.			4.50	199.84v
		Picked up to start setting		

	L. Edge				Q	R. Swamp Edge				
Swamp	$\frac{7.6}{2.1}$	$\frac{8.3}{1.6}$	$\frac{4.6}{10.5}$	$\frac{4.3}{7}$	$\frac{3.9}{0}$	$\frac{4.4}{8.5}$	$\frac{4.7}{12}$	$\frac{8.6}{18}$	$\frac{7.6}{20}$	Swamp

	Edge Swamp					Edge Sw.			
Swamp	$\frac{8.3}{3.3}$	$\frac{8.3}{17}$	$\frac{5.1}{12}$	$\frac{5.0}{8}$	$\frac{4.5}{0}$	$\frac{5.4}{9.5}$	$\frac{5.4}{12.5}$	$\frac{8.5}{17}$	$\frac{8.5}{3.3}$

	Edge Swamp											
	$\frac{7.0}{3.3}$	$\frac{7.0}{3.1}$	$\frac{8.0}{2.5}$	$\frac{6.9}{23.5}$	$\frac{6.5}{17}$	$\frac{3.4}{12}$	$\frac{3.2}{8.5}$	$\frac{2.9}{0}$	$\frac{3.5}{9}$	$\frac{3.8}{12.5}$	$\frac{8.1}{19}$	$\frac{8.1}{3.3}$

	$\frac{5.8}{3.5}$	$\frac{5.8}{3.2}$	$\frac{7.3}{2.5}$	$\frac{5.0}{18.5}$	$\frac{1.3}{11.5}$	$\frac{1.0}{8}$	$\frac{0.8}{0}$	$\frac{1.0}{9}$	$\frac{1.3}{12}$	$\frac{5.5}{19.5}$	$\frac{6.6}{28}$	$\frac{6.6}{3.3}$
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N.E. Cor. top head wall Water Works. Calv. Sta 144+48

Same as above.

$\frac{12.2}{3.3}$	$\frac{12.8}{30.5}$	$\frac{14.6}{2.5}$	$\frac{12.9}{2.3}$	$\frac{11.6}{19.5}$	$\frac{7.4}{12}$	$\frac{7.1}{8}$	$\frac{7.3}{7.5}$	$\frac{7.4}{11}$	$\frac{13.3}{20}$	$\frac{13.3}{29.5}$	$\frac{13.5}{3.5}$
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Same Sec. as 144+40

$\frac{9.5}{3.3}$	$\frac{7.2}{18}$	$\frac{7.1}{12}$	$\frac{6.8}{8}$	$\frac{6.7}{0}$	$\frac{6.5}{7}$	$\frac{7.1}{10}$	$\frac{9.7}{2.3}$	$\frac{10.2}{3.3}$
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Same Sec. as 144+40.

$\frac{15.0}{4.0}$	$\frac{13.0}{3.3}$	$\frac{13.3}{2.8}$	$\frac{13.3}{2.7}$	$\frac{12.0}{19}$	$\frac{6.7}{10.5}$	$\frac{6.4}{7.5}$	$\frac{6.3}{0}$	$\frac{6.5}{10}$	$\frac{7.9}{13.5}$	$\frac{11.5}{22.5}$	$\frac{12.6}{3.3}$
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$\frac{11.6}{3.3}$	$\frac{12.2}{3.0}$	$\frac{12.0}{2.4}$	$\frac{5.3}{12}$	$\frac{8.0}{8}$	$\frac{4.6}{0}$	$\frac{5.3}{8.5}$	$\frac{5.4}{12}$	$\frac{11.3}{2.3}$	$\frac{11.5}{3.3}$
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Nail popular. 18' Left Sta. 145+20

slope stakes - See page 28

(23-02) Culv. Layout. 23-55 6-19-23
 Sta. 40+21

Sta.	+	H.I.	-	Elev
B.M.	2.14	195.21		193.07
T.P.	7.03	196.16	6.08	189.13
40+21			4.7	191.5
40+29			9.75	186.41
40+21			2.91	193.25
40+26			4.76	191.4
40+21			9.61	186.55
40+21			9.80	186.36
40+21			11.1	185.06
40+21			8.36	187.80

F.S. Angle Value Line Dist.

15+99^L

E	CBE	90°-00'	BE	27'-0
D	CBD	90°-00'	BD	27'-0

Transit @ B. Sta. 40+21 B.S. on C. Sta. 15+99^L

40+21

B	ABC	180°-00'	AB	208' ^S
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A 42+29^S

Transit @ 42+29^S B.S. on C. Sta. 15+99^L

Notes & T. Deutsche
 Chain - Mahoney & Weber
 Rod - Franke. L & R.

Sp. Tel. pl. 20' L Sta. 45+98

Gr. 27' L

Bottom ditch - 40' L 0.3' water.

♀ culv. Top stake 27' L

Top. stk. 5' N ♀ Culv and 27' R ♀ road.

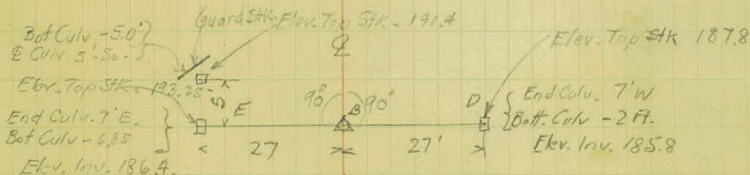
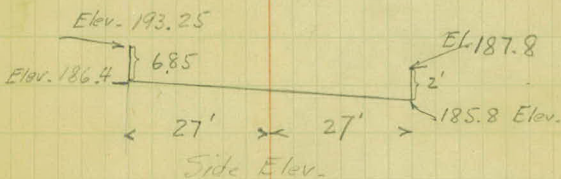
Gr. 37' R Bottom ditch 0.1' water.

Gr. 27' R " " 0.4' " -

Gr. 20' R " " 1.65' " -

Top stake - 27' R

OC



Δ A

(23-02) - Slope Stakes (23-55) 6-19-23

D	Sta.	+	H.L.	-	Gr. Elev	Gr. Rod
0	B.M.	4.33	224.12		219.79	
0	T.P.	8.28	229.67	100 AM. 2.73	221.37	
0	99.				224.4	5.3
0	Temp T.F.			5.17	100 PM	
	98				223.2	6.5
	97				222.0	7.7
	T.P.	8.74	230.40	8.01	221.66	
	97				222.0	8.4
	96				220.8	9.6
	95				219.6	10.8
	TP	2.30	221.02	11.68	218.72	
	94				218.4	2.6
	93				217.2	3.8
	BM			1.22	219.80	219.79
	92				216.0	5.0
	91				214.8	6.2
	T.P.	4.25	218.72	6.55	214.47	
	91				214.8	3.9
	T.P.			5.98	212.74	
			End 6-19-23			
			Start 6-20-23			
	T.F.	6.19	218.93		212.74	
	90+30				214.2	4.7
	90				214.1	4.8
	89+60				214.0	4.9
	89				214.0	4.9

$\frac{C 4.4}{31.4}$ $\frac{Cl. light br}{22-33}$ $\frac{Cl. 400's}{20-33}$ $\frac{C 0.6}{27.6}$

Top stk 14'L Sta 99+00

To check H.I. at 100 PM

$\frac{C 3.9}{30.9}$ $\frac{Cl. light br}{18-33}$ $\frac{F 0.2}{14}$ $\frac{F 0.2}{0}$
 $\frac{F 0.3}{0}$

$\frac{F 1.0}{14}$ $\frac{Cl. 400's}{21-33}$ $\frac{F 1.9}{20.8}$
 $\frac{F 1.1}{14}$ $\frac{Cl. light br (3")}{16-33}$ $\frac{F 1.2}{19.8}$

$\frac{C 4.0}{31.0}$ $\frac{Gr. light br}{18-33}$ $\frac{F 0.7}{14}$

$\frac{C 3.4}{30.4}$ $\frac{Gr. light br}{25-33}$ $\frac{F 0.3}{14}$ $\frac{F 0.1}{0}$
 $\frac{F 0.5}{18.7}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 1.0}{14}$ $\frac{C 0.1}{0}$

$\frac{F 0.4}{14}$ $\frac{Cl. 300's br}{20-33}$ $\frac{C 2.0}{29}$
 $\frac{F 0.5}{14}$ $\frac{Cl. light br (3")}{18-33}$ $\frac{C 0.6}{27.6}$

Top rock 5'R Sta. 94+70

$\frac{F 1.2}{19.8}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.4}{14}$ $\frac{C 0.3}{0}$
 $\frac{F 2.2}{21.3}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 1.1}{14}$ $\frac{C 0.0}{0}$

$\frac{F 0.5}{14}$ $\frac{Cl. light br str}{16-33}$ $\frac{C 0.6}{27.6}$
 $\frac{F 1.0}{14}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 2.0}{21}$

Sp. Tel. pl. 33'R - Sta. 93+70

$\frac{F 9.2}{31.6}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 1.0}{14}$ $\frac{F 0.1}{0}$
 $\frac{F 0.1}{0}$

$\frac{F 0.7}{14}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 3.5}{22.8}$

Top rock 5'L - Sta. 90+64

$\frac{F 6.9}{29.4}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.8}{14}$

$\frac{F 1.2}{14}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 4.7}{24.4}$

Sp. Tel. pl. 33'R Sta 89+60

Same as above -

$\frac{F 5.3}{25.2}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.8}{14}$ $\frac{C 0.1}{0}$
 $\frac{F 6.1}{26.7}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.8}{14}$ $\frac{C 0.2}{0}$
 $\frac{F 4.2}{23.7}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.8}{14}$ $\frac{C 0.2}{0}$
 $\frac{F 1.6}{19.6}$ $\frac{No. Chlor. Gr.}{14}$ $\frac{F 0.8}{14}$ $\frac{C 0.3}{0}$

$\frac{F 8.8}{31}$ $\frac{Cant set 14' sl. stk}{9/0 fill in before natl}$
 $\frac{F 8.1}{31}$ $\frac{gr. taken cl. light br}{24-33}$
 $\frac{F 6.5}{27.8}$ $\frac{Cl. light br}{24-33}$
 $\frac{F 2.5}{20.3}$ $\frac{ditto}{14}$

(23-02)

Slope Stakes

(23-55)

6-20-23

Sta.	+	H.I.	-	Grade Elev.	Gr. Rod
88		218.93		214.0	4.9
T.P.	6.81	219.22	6.52	212.41	
87+50				214.1	5.1
87				214.5	4.7
86+50				215.2	4.0
86				216.1	3.1
T.P.	0.99	218.03	2.18	217.04	
86+50				215.2	2.8
86				216.1	1.9

Cont'd on Page 40

Pull up to go to cut ending at 755+75

Start 6-20-23

B.M.	181	232.23		230.42	
55+35				227.1	5.1
55				26.0	6.2
54				21.0	11.2
53				15.1	17.1
52				09.2	23.0
T.P.	3.46	230.55	5.14	227.09	
51				03.3	27.3
50				197.4	33.2
52				209.2	21.4
49				191.6	30.7
T.P.	3.42	222.32	11.65	218.90	
50				197.4	24.9
49				191.6	30.7
48				189.1	33.2
T.P.	0.09	211.76	10.65	211.67	

T. Weber
Ch. Mahoney
Rod. Franke

Notes. Demolition

SK L

Q

SK Right

F1.2 19.6	Modg	F0.4 14	Ca.3 0	F0.7 14	Cl. 14/16 24-33	F 4.2 23.7	← start 6-26-23
Sp. Tel. pl. (New)		33' R	Sta. 88+20				
F5.3 16.2	Modg	F0.5 14	Ca.3 0	F0.9 14	No clg.	F 3.4 22.7	
F13.1 37.8	Modg	F1.2 14	0.0 0	F0.9 14	"	F 8.8 31.0	
	Cl. 2 trees & arb light br	F1.3 14	F0.3 0	F1.4 14	"		
	Clg. triple 14" Cottonwood	F1.7 14	F0.5 0	F2.1 14			

F 16.2
42.0
F 17.2
44.4

F 12.3
36.8
F 16.6
43.7

Sp. 16" 50' R Sta 55+75

C1.5 24.5	C1.2 14	C1.6 0	C1.4 14	C-2.3 25.3
C2.5 25.5	C2.1 14	C1.1 0	C1.2 14	C 2.8 25.8
C7.2 30.2	C2.1 14	C0.2 0	C1.8 14	C.7.1 30.1
C13.6 36.6	See page 75 for 2x14' etc.			C12.0 35

No clearing

No clearing

Top R/W stk 40' R Sta. 52

C 24.5 47.5				C 17.3 40.3
C 27.0 50.0				C 11.8 34.8
C 18.9 41.9				
C 29.4 52.4				

Sp. Tel. pl. 33' R Sta. 49+50

				C 13.9 36.9
				Net set/c Sp. Emb.
				C 16.2 39.2

Net set/c Sp. Emb.

See P. 61 for later plan & revised slope st's

(23-02)

Joe Stokes (23-55) 6-21-23

Sta.	+	H.I.	-	Gr. Elev	Gr. Rod.
		211.76			
T.P.	0.60	202.29	10.07	201.69	✓
B.M.			9.22	193.07	193.07
			New Setup 9/6 brush.		
B.M.	9.02	202.09		193.07	
47				189.1	13.0
46				189.0	13.1
T.P.	2.37	195.44	9.02	193.07	
46				189.0	6.4
45				88.9	6.5
44				88.8	6.6
43				189.0	6.4
T.P.	7.07	196.32	6.19	189.25	✓
42				189.8	6.5
41				90.9	5.4
T.P.				193.43	Should be 194.42 ✓

Should be 1.89

2.89

193.43

Should be 194.42 ✓

Start

6-22-23

40	3.81	197.24		192.0	5.2
39				193.1	4.1
38				93.9	3.3
37				94.1	3.1

VOID

Check levels to check above T.P.

B.M.	2.01 ✓	195.08		193.07	
T.P.	6.99	196.22	5.85	189.23	✓
T.P.			1.80	194.42	✓

T. Weber
 Rod Franke
 Ch. Mahoney

Notes - Deutsche

E

F

See P. 61 for later plan
 & Revised S. Stake.

See P. 61
 Exp. 10-18-13

Sp Tel. pt. 20' L - Sta 45+98

Same as 1st above.

Hot set For. E. & 14' cuts a fill LaR
 9/8 See Line emb. See page -75

$\frac{C 5.8}{32.8}$
 $\frac{C 0.3}{27.3}$

$\frac{C 0.7}{27.7}$

$\frac{0.0}{27}$
 C 1.2
 28.2
 $\frac{C 0.3}{27.4}$

$\frac{C 0.9}{27.9}$
 $\frac{C 1.5}{28.5}$
 $\frac{F 1.3}{19.9}$

Top iron P.I. Sta. 42+29.5

$\frac{F 1.4}{20.1}$

$\frac{0.0}{26.6}$
 $\frac{0.0}{1.8}$

Hot set 9/8
 Water ✓
 $\frac{F 2.2}{21.3}$

Sp. Tel. pt. 14' L Sta. 39+10

Top iron P.I. Sta. 42+29.5

Sp Tel pt 4' L Sta - 39+10 -

Sta.	(23-02)	(23-55)	-	6-22-23	
	+	H.I.		Gr Elev.	Gr Rod.
		196.22			
40				192.0	4.2
T.P.	6.09	200.51	1.80	194.42	
39				193.1	7.4
38				93.9	6.6
T.P.	6.12	200.28	6.35	194.16	
37				194.1	6.2
36				193.6	6.7
	3.91	196.30	7.89	192.39	
35				192.5	3.8
34				91.3	5.0
33				90.5	5.8
BM			1.62	194.68	194.70
32				190.1	6.2
T.P.	4.74	194.37	6.67	189.63	
32				190.1	4.3
31				189.9	4.5
T.P.	6.21	196.21	4.37	190.00	
33				90.5	5.7
34				91.3	4.9
35				92.5	3.7
T.P.	7.07	200.39	2.89	193.32	
36				93.6	6.8
37				94.1	6.3

Left

E

R

Clg 27' not set up in detail C 0.2 No clg Cl-4 7" 6" willows & brush 18-33' F 1.8 20.4

C 0.6 No clg See page 75 for E Cl. br. 18-33' C 1.0 27.6 2 1/2' cuts & fill. 28.0

C 2.1 No clg Clg. Br willow 18-33' C 0.2 29.1 27.2

Top rock 8' R Sta-38-00

C 5.6 No clg Clg willow & br 18-33' F 1.4 Void 22.6 20.1

C 13.7 Clg-Lght br. 20-30' Clg br. & oak 20-27' F 3.4 Void 40.7 Got with hand Level - 22.6

C 5.8 Clg - Slt Oak 4"-12" 20-33' Clg br - Slt Oak 20-33' F 3.6 Void 32.8 22.9

F 0.3 ✓ Clg willow oak 18-33' No clg - R. 27' to shoulder F 5.6 Void 18.4 20.6

F 0.3 Void w/c 27' shoulder 27' to shoulder F 5.7 18.4 34.8

F 5.5 34.5

F 3.0 27' Shoulder 31.0

F 2.3 30.3

F 5.1 33.9

F 1.1 28.6

27' No clg to 40' Clg Lght br 14-20' See above R. Clg

4' 27' Shoulder.

F 6.0 35.2 ✓

F 4.5 33.1 ✓

F 4.5 33.1 ✓

F 5.3 34.7 ✓

(23-02) (23-55)

	+	H.I.	-	Gr Elev.	Gr Rod.
BM	2.00	194.70		194.70	
30				189.7	5.0
T.P.	5.16	194.80	5.06	189.64	
T.P.	4.66	195.08	4.38	190.42	
T.P.	12.02	206.16	0.94	194.14	
BM.			0.58	205.58	205.61
				End 6-22-23	
				Start 6-28-23	
T.P.	5.08	195.50		190.42	
29				189.5	6.0
28				189.3	6.2
27				189.4	6.1
26				190.1	5.4
25				91.5	4.0
24				93.5	2.0
T.P.	10.61	205.81	0.30	195.20	
23				96.1	9.7
22				99.4	6.4
BM.	0.23	205.84	0.23	205.58	205.61
21				203.3	2.5
T.P.	11.97	216.74	1.07	204.77	
20				207.5	9.2
19				211.7	5.0
18				215.4	1.3
T.P.	9.43	226.02	0.15	216.59	

Cont'd on page 43

Left 2 Right

Sp. 14" Oak L Sta. 32+95

 $\frac{F3.4}{31.7}$ Cl. Willow 2"
16-33'Clg Light willow
8-14 $\frac{F5.0}{33.7}$

Sp. Tel. pl. 16' L Sta. 27+50

16" Oak 18' L Sta. 22+00

Sp. Tel. pl. 16' L Sta. 27+50

 $\frac{F3.6}{31.9}$ Clg light br.
17-33'See page 75 for 2
2 14' cut & fill stakesNo clg or grb
to 33' $\frac{F4.4}{33.0}$ ✓ $\frac{F3.1}{31.2}$

" 27' shldr.

"

 $\frac{F4.2}{32.7}$ ✓ $\frac{F2.8}{27}$

Used 25' shldr

Clg light br
17-33' "

"

 $\frac{F4.4}{33.0}$ ✓✓ $\frac{F3.4}{24.6}$

Used 20' "

Clg light br
22-33' "

"

 $\frac{F5.2}{24.3}$ ✓✓ $\frac{F3.9}{23.3}$

Used 18' "

ditto "

"

 $\frac{F6.3}{35.5}$ ✓✓ $\frac{F0.6}{18.6}$ Used 18' shldr
fr. here bk.Clg light br
18-24' "

"

Clg light br & 1-6 out
14-25 $\frac{F8.8}{39.0}$ ✓ $\frac{F0.6}{18.9}$ No clg or grb
to 33' "

"

Used 21' shldr

Clg light br
16-27 $\frac{F4.6}{27.3}$ $\frac{F0.2}{18.3}$

"

"

Use 18' "

Clg scrub oak 3"
20-33 $\frac{F5.4}{25.3}$ ✓

Sp. 24" Oak L Sta. 22+00

 $\frac{F0.5}{18.7}$ No clg or grb
to 33' "

"

Use 18' shldr
from here bkClg scrub Oak 3"
20-33 $\frac{F4.8}{24.6}$ Hd Level $\frac{F0.2}{18.3}$

"

"

Clg br & scrub Oak 3"
18-33 $\frac{F5.9}{26.1}$ (Hd Level) $\frac{F0.1}{18.2}$

"

"

Clg light br
21-33 $\frac{F6.3}{26.7}$ $\frac{F0.6}{18.9}$

"

"

Clg br & trees
24-33 $\frac{F4.4}{24.0}$

Top rock & Road 17+50

Slope Stakes

6-26-23

(23-02)				(23-53)	Gr. Elev.	Gr. Rod
Sta.	+	H.I.	-			
Cont'd from Page 36		218.03				
85+50					217.3	0.7
B.M.			6.94		211.09	211.12
T.P.	12.01	229.06	0.98		217.05	
85					18.8	10.3
84					22.0	7.1
83					25.2	3.9
82					28.4	0.7
T.P.	10.62	239.56	0.12		228.94	
83					25.2	14.4
82	Abrupt	section			28.4	11.2
81+94						
81+88						
81+82						
81					31.6	8.0
80					234.2	5.4
79					35.6	4.0
B.M.	2.27	241.71	0.16		239.40	239.44
78					35.9	5.8
77					35.6	6.1
76					35.3	6.4
75					235.0	6.7
T.P.	3.99	239.41	6.29		235.42	
74					234.7	4.7
73					34.4	5.0

R

$\frac{F13.3}{38.1}$	Clg 1-5" oak	$\frac{F1.0}{14}$	$\frac{F0.4}{0}$	$\frac{F1.0}{14}$	cl. 1-4 or 16" oak	$\frac{F13.0}{37.7}$
----------------------	--------------	-------------------	------------------	-------------------	--------------------	----------------------

Sp. Ter. pl. 34'R. Sta. 85+40.

$\frac{F3.3}{22.5}$	No clg or grb	$\frac{F1.0}{14}$	$\frac{F0.2}{0}$	$\frac{F1.2}{14}$	Clg light br 20-27	$\frac{F5.7}{26.8}$
$\frac{C3.6}{30.6}$	No clg or grb	$\frac{F1.2}{14}$	$\frac{F0.1}{0}$	$\frac{F1.0}{14}$	No clg or grb	$\frac{C1.7}{28.7}$
	No clg or grb	$\frac{F1.1}{14}$	$\frac{F0.3}{0}$	$\frac{F1.4}{14}$	No clg or grb	$\frac{C11.7}{38.7}$ Hd. Layer Setg
		$\frac{F0.5}{14}$	$\frac{F0.2}{0}$			

$\frac{C8.6}{35.6}$
 $\frac{C7.1}{34.1}$

$\frac{F0.8}{14}$

$\frac{C9.7}{36.7}$

Abrupt Sec. $\frac{4.1}{33}$ $\frac{10.9}{0}$ Same as Sta. 82
 Priv. Entr. $\frac{10.9}{33}$ $\frac{10.9}{0}$ " " " "

	Abrupt Sec.	$\frac{5.1}{33}$	$\frac{10.9}{0}$			
$\frac{C6.0}{33}$	No clg or grb	$\frac{F1.1}{14}$	$\frac{F0.3}{0}$	$\frac{F1.0}{14}$	$\frac{1}{4}$ light clg 28-33	$\frac{C5.9}{32.9}$
$\frac{C4.5}{31.5}$	No clg or grb	$\frac{F0.4}{14}$	$\frac{C0.3}{0}$	$\frac{F0.9}{14}$	$\frac{1}{4}$ light clg 28-33	$\frac{C4.1}{31.1}$
$\frac{C3.0}{30.0}$	" " "	$\frac{F0.3}{14}$	$\frac{0.0}{0}$	$\frac{F0.8}{14}$	$\frac{1}{4}$ light clg 28-33	$\frac{C1.9}{28.9}$ ✓

Oak. 20'L Sta. 79+42

$\frac{C2.4}{29.4}$	Cl-6.3" oak	$\frac{C0.2}{14}$	$\frac{0.0}{0}$	$\frac{F0.9}{14}$	$\frac{1}{4}$ light 28-33	$\frac{C0.7}{27.7}$ ✓
$\frac{C0.2}{27.2}$	No clg or grb	$\frac{F0.3}{14}$	$\frac{C0.3}{0}$	$\frac{0.0}{14}$	$\frac{1}{4}$ light 28-33	$\frac{C0.7}{27.7}$ ✓
$\frac{C1.0}{28}$	" " "	$\frac{C0.5}{14}$	$\frac{C0.2}{0}$	$\frac{C0.1}{14}$	$\frac{1}{4}$ light 28-33	$\frac{0.0}{27}$
$\frac{F0.4}{18.6}$	" " "	$\frac{F0.5}{14}$	$\frac{C0.2}{0}$	$\frac{F0.4}{14}$	$\frac{1}{4}$ light 28-33	$\frac{F0.4}{18.6}$

$\frac{F0.9}{19.8}$	" " "	$\frac{F0.5}{14}$	$\frac{C0.3}{0}$	$\frac{F0.6}{14}$	No clg -	$\frac{F0.4}{18.6}$
$\frac{C0.3}{27.3}$	" " "	$\frac{C0.2}{14}$	$\frac{C0.4}{0}$	$\frac{F0.6}{14}$	" "	$\frac{C0.4}{27.4}$

(23-02)	Slope Stakes			(23-55)	6-26-23
Sta	+	H.I.	-	Gr Elev	Gr Rod
72		239.41		234.1	5.3
71				233.8	5.6
70				33.3	6.1
B.M.			7.70	231.71	231.73
69	4.11	235.84		32.4	3.4
68				31.2	4.6
67				29.6	6.2
66				28.2	7.6
T.P.	3.67	232.27	7.24	228.60	
66				28.2	4.1
T.P.	3.73	232.33	-3.67	228.60	
T.P.	2.45	222.76	12.02	220.31	
65				227.3	+ 4.5
64				227.3	+ 4.5
T.P.	3.36	231.96		228.60	
T.P.	1.96	222.22	11.70	220.26	
65				227.3	+ 5.1
64				227.3	+ 5.1
T.P.	+3.51	232.11		228.60	
65				227.3	4.8
64				227.3	4.8
63				27.6	4.5
62				27.9	4.2
61				28.2	3.9
T.P.	6.13	234.61	3.63	228.48	

Cont'd to P. 40
239.41

Start 6-27-23

231.73

(23-02)

Slope Stakes

(23-55)

Sta

+

H.I.

-

Gr.
ElevGr.
Rod.

Cont'd fr. P. 41 234.61

60

228.5

6.1

59

228.8

5.8

58

229.1

5.5

57

229.4

5.2

56

28.8

5.8

B.M.

5.27

229.34

229.32⁴

G-27-23

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As Notes Deutsche
Chain Weber & Mahoney
Rod. Franks L & R

p.c. 4.5 37.0	F0.3 18.4	Necker 970	Hotset 3/8 scraper	Co.2 0	Hotset/c Scraper working	No dig or grab	F0.6 18.9
p.c. 6.3 35.8	F0.1 18.2	"	"	Co.2 0	"	"	F0.7 19.0
p.c. 5.0 34.2	F0.3 18.4	"	"	Co.4 0	"	"	F0.8 19.2
	F0.9 19.3	"	"	F0.6 0	"	"	F1.3 20.0
	C1.7 28.2	"	"	F0.2 0	"	"	F0.4 18.6

Sp Twin 8" Oak - 16' R Sta. 55+75

(23-02) (23-53) Slope Stakes

Sta.	+ 5	H.L.	- 5	Gr Elev	Gr Elev
17	Contd from page 39 226.02			218.2	7.8
16				220.1	5.9
15				21.5	4.5
14				22.9	3.1
13				24.3	1.7
T.P.	7.61	232.07	1.56	224.46	
14				22.9	9.2
13				24.3	7.8
12				25.6	6.5
11				26.8	5.3
10				27.9	4.2
9				29.0	
8				30.1	
T.P. & B.M.	4.24	234.53	1.77	230.30	230.29
9				29.0	5.5
8				30.1	4.4
7				31.2	3.3
6				32.3	2.2
5				33.4	1.1
T.P.	4.21	238.58	0.16	234.37	
4				33.9	4.7
3				33.7	4.9
2				33.5	5.1
1				33.3	5.3
0				33.1	5.5
B.M.			4.35	234.23	234.24

	L	E	R	
F 0.3	Clg. bratrees	See page 75	Clg. bratrees	F 4.9
18.4	26-33'	for Expt. reading	24-33	24.7
F 0.3	No clg or grb	"	Clg. bratrees	F 3.6
18.5	"	"	14-33	22.9
F 0.5	Grbly light	"	Clg. bratrees	F 2.4
18.7	27-33	"	22-33	21.6
		"	Clg. light br	F 1.7
		"	28-33	20.5
		"	No clg or grb	F 1.0
		"	to 33'	19.5

Sp. Tol. pl. 18' R Sta. 13-

C 2.8	Vy light br	"		
29.8	18-33'	"		
C 1.7	"	"		
28.7	"	"		
C 1.8	"	"	No clg or grb	F 1.5
28.8	"	"		20.2
F 0.9		"	Vy light clg or	F 2.2
19.2		"	21-33	21.3
C 0.7		"		F 1.7
27.7		"		20.6

Sp. 20 "Oak L old sta. 206 + 60 or about 9 + 70 new

C 0.2	Vy light br	"	Vy light clg or	F 0.9
27.2	22-33'	"	19-22	19.3
0.0	"	"	No clg or grb	F 0.8
27	"	"	19-33	19.2
F 1.9	"	"	ditto	F 1.2
20.8	"	"		19.8
F 1.4	"	"	Clg. 2-6' oak	F 1.4
20.1	"	"		20.1
F 1.1	"	"	Clg light br	F 1.3
19.6	"	"	20-33	20.0
F 0.7	No clg or grb	"	No clg	F 1.8
19.1		"	to 33'	20.7
Not set a/c	"	"	"	F 0.7
in Rd "E"	"	"	"	19.0
F 0.1	"	"	"	F 0.5
18.3	"	"	"	18.7
E 0.1	"	"	"	F 0.5
18.2	"	"	"	18.5
S 0.1	"	"	"	Not set a/c
27.1	"	"	"	Clg Rd "E"

Sp. 30 *Cottonwood 40' R Sta. 1462 See page 5

(23-02) Δ Stakes for Curve (23-55)

Sta. Occupied	Point Sighted At	Def. Angle	Distance	Bearing
---------------	------------------	------------	----------	---------

$$\Delta = 89^{\circ}38'$$

$$T = 286'$$

$$D = 20^{\circ}R$$

$$P.C. = 118+12^2$$

$$P.I. = 120+98^{75}$$

$$P.T. = 122+60^9$$

$$L = 448^2$$

$$122+60^9 \quad 31^{\circ}05'R \quad 60^9$$

$$122+00 \quad 25^{\circ}00'R \quad 100^{\circ}$$

$$121+00 \quad 28^{\circ}44'R \quad 100^{\circ}$$

$$120+00 \quad 18^{\circ}44'R \quad 50^{\circ}(50^{\circ})$$

$$119+50 \quad 13^{\circ}44'R \quad 50^{\circ}(50^{\circ})$$

$$119+00 \quad 8^{\circ}44'R \quad 87^{\circ}$$

$$118+12^2 \quad 120+98^{75} \quad 0^{\circ}00' \quad 286'$$

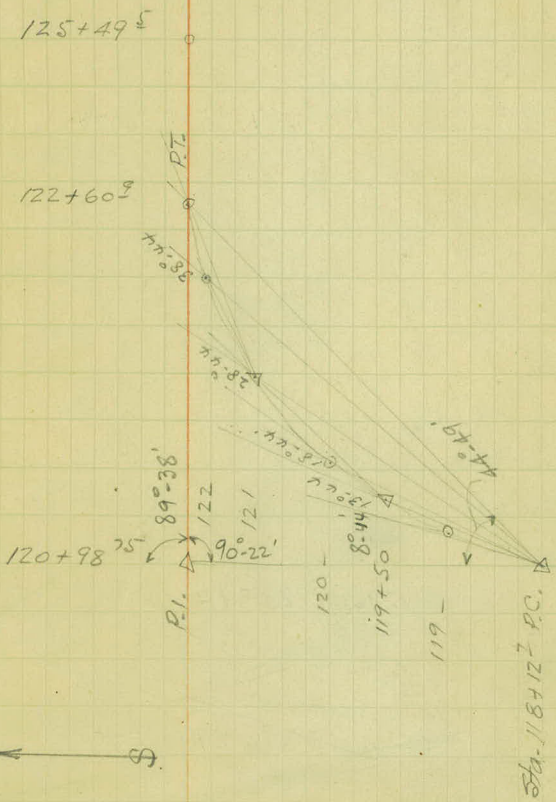
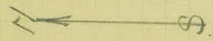
$$118+12^2 \quad 89^{\circ}38'L \quad 286' \quad (P.C.)$$

$$122+60^9 \quad 0^{\circ}00' \quad 286' \quad (P.T.)$$

$$120+98^{75}(P.I.) \quad 125+49^E \quad 0^{\circ}$$

121+00
B.S. at 119+50
Vernier at 13^{\circ}44'

119+50
B.S. at 118+12^2
Vernier at 0



(23-02)	Blue Tops (23-55)			Profile Grade plus 0.52 = Elev. Edge Lane	Grade Rod. 15' L &
Sta.	+ S	H.I.	- S		
B.M.	4.80	216.08		211.28	
118+00 (See note)				211.87	4.21 ✓
17+50				11.52 ✓	4.56 ✓
117				10.92	5.16
116+62 ²					
116+50				10.33 ✓	5.75 ✓
T.P.	1.51	211.09	6.50	209.58	
116				209.52 ✓	1.57 ✓
115+50				208.60 ✓	2.49 ✓
15				207.52 ✓	3.57 ✓
14+50				206.37 ✓	4.72 ✓
14				205.22 ✓	5.87 ✓
13+50				204.07 ✓	7.02 ✓
113+00				202.92 ✓	8.17 ✓
112+50				202.07 ✓	9.02 ✓
(7-5-23-)					
B.M.	4.66	215.94		211.28	
117+50				11.52 ^{super elev}	4.15
117				11.77	
				10.92	
				10.98	4.96
T.P.	0.22	208.81	7.35	208.59	
T.P.					
112				201.82	6.99
11+50				201.87	6.94
111+00				201.92	6.89
T.P.	5.48	207.40	6.89	201.92	

Cont'd on page 50

7-3-22

Deutsche T
Weber & Mahoney Ch.
Franke Rod.

45

Sp. 10" Oak West Side Hill Gate

Note. (Removed this stake 7-5-23 a/c on trans. curve.)

→ Reset to care for super elev. See below

→ Reset To care for super elev. " "

→ Start of super elev curve.

Blue top not set a/c truck load dirt at this sta.

Sp. 10" Oak West side Hill Gate

Top. stk Blue top 115+50 15'L

Top. blue top. 15'L Sta 11+00

Sta. Occupied P.M. Sighted At. Defl. Angle Staking Curve Distance (23-02) (23-55)

$\Delta = 89^{\circ}38'$
 $T = 286'$
 $D = 20^{\circ}R$
 $PC = 118+12^2$
 $PI = 120+98^{75}$
 $PT = 122+60^2$
 $L = 448^2$

	118+12 ²	28°-43'L	87 ²⁵
119+50 B.S. at 121 Vernier at 16'6"	119+00	20°-00'L	50 ²
	119+50	31°-6'L	50 ²
	120+00	26°-6'L	50 ²
121+00 B.S. at 122+60 ² Vernier at 0	120+50	21°-6'L	50 ²
	121-	16°-6'L	50 ²
	121+50	11°-6'L	50 ²
	122+00	6°-6'L	60 ²
122+60 ²	120+98 ⁷⁵	0°-00'	286 ¹

7-3-23 Same party as page 45-

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(23-02)

Slope Stakes (23-55)

Sta.	+ S	X- H- Sec. - S	Gr Elev	Gr Rod.
T.P.	11.74	224.52	212.78	
119+00			211.95	12.6
+35			12.15	12.37

Start 7-9-23

B.M.	939	220.67	211.28	
119+50				
120+00			212.55	8.12 8.12 7 9.2
+18			12.66	8.8 9.1 8.0 8.0 8.89 8.9

T.P.	0.12	211.31	9.48	211.19
+25				08.5
+50				06.9
				12.85

B.M.		0.02	211.29	211.28
------	--	------	--------	--------

B.M.	177	213.05	211.28	
120+75			204.00	-0.5 -0.5
121+00			213.00	+6.2 -9.0
+50			206.7	+6.2 -9.5
+75			213.15	+1.0 +0.15
122+00			209.6	+7.6 -8.9
			213.45	+7.6 -8.0
			211.4	+0.40 +0.40
			213.60	+1.02 +.87
			212.6	+5.5 +5.5
			213.75	+6.2 -8.6
			212.90	+1.8 -3.1
			213.0	+7.0 +7.0
			214.05	+6.2 -8.5
			214.35	+1.82 -1.5

T.P.	6.60	219.50	0.15	212.90
+50				213.0
123+00				214.05
124+00				214.35
125+00				214.95
126+00				15.55
127+00				16.15
				16.75

Left. E Right

Not set up in road

C 9.0
40.5
C 7.8
39.3

	to Road				Top bk								
17'	9.9 40	9.9 33	10.2 28	9.3 19.5	7.0 13	4.0 8	1.5 5.5	1.3 0	7.2 40		20' shldr		
17'	(DC 2.3 29.3)	10.6 37	8.7 31	9.1 29.5	8.3 21.5	7.4 8.0	7.4 8.0	6.4 33	6.3 35	(C 2.8 35.3)	20' shldr		
17'	(F 2.5 20.7)	13.2 35.5	12.4 24	11.1 20	10.6 9.5	(F 1.0 0)	00 20	9.3 23	9.4 27	9.1 33	(DC 2.2 32.2)	20' shldr	
17'	(F 6.3 26.5)	4.5 37	4.1 25	3.4 14	(F 4.2 0)	3.5 5	1.7 14.5	0.8 23	+0.1 30	+0.1 33	0.7 26	(F 1.7 23.5)	12'
18'	(F 8.8 30)	5.6 35	(F 6.6 0)	4.8 6	4.5 14.5	4.1 21	3.8 25	2.4 33	(F 3.8 27.7)				22' sh

Sp. Oak W. Hill Gate

18'	(F 10.0 31.6)	8.7 37	8.1 28.5	6.8 10.5	Not taken question	11.2 19.5	9.7 27	5.8 33	6.4 38	(F 5.8 30.6)	22'
18'	(F 4.3 28)	6.6 31.5	6.6 31.5	19' Edge road	(F 6.5 0)	6.4 25	5.1 31.5	5.5 29	4.5 36	(F 4.7 28)	21' shldr
17'	(F 2.7 21.1)	2.4 35	1.6 26	1.9	(F 2.2 0)	5.1 31	4.6 37			(F 4.7 28)	21'
17'	(F 2.5 20.7)	2.9 29	2.0 26	1.0 16.5	1.1 8	3.3 31	3.0 35	2.0 45		(F 3.6 26.4)	21'
16'	F 8.3 27.4	7.0 33	6.2 31	2.4 27	1.3 21	0.5 17	10			(F 3.2 24.8)	20'

Top stk. E curve Sta. 122. (6.5)

16'	(F 4.8 23.3)	8.3 31	8.8 27.5	10.6 21.5	10.0 18	7.1 14	7.0 11	6.8 7	F 1.0 0	6.8 9	6.8 11	10.4 21.5	8.2 24.5	7.1 29	6.8 33	(F 3.2 22.8)	18'
16' shldr	(F 4.8 23.2)	(DC 3.8 31.0)	9.6 18.5	7.0 12.5	6.4 8.5	F 4.9 0	6.3 7.5	6.6 11.5	10.1 21	9.6 22	7.6 25.5	5.9 28.5	5.9 33	5.9 33	16' shldr	(F 4.2 22.2)	
15'	(F 3.3 20.9)	See p. 31 for X-sec	F 0.2 0	See page 31 for X-sec	F 0.1 0	See page 31 for X-sec	F 0.1 0	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	See page 31 for X-sec	(F 3.1 20.6)	16'
15'	DC 1.7 26.7															(DC 3.9 30)	16'
15'	DC 1.7 26.7															F 2.5 19.7	16'
15'																(DC 2.2 27.2)	15'

To page 31

(23-02)	Slope Stakes (23-55)			Profile	Gr. Rod.
St.	+ S	H.I.	- S	Grade	7-9-23
	219.50				
T.P.	3.45	220.41	2.54	216.96	
127+00				16.75	3.66
128+00				217.00	3.41
129+00				216.50	3.91
T.P.	2.00	214.96	7.45	212.96	
B.M.				208.48	(208.51)
B.M.	7.70	216.21		208.51	
130				215.3	0.9
131				13.35	2.8
132				11.05	5.1
133				209.01	7.2
134				207.4	8.8
B.M. & T.P.	2.03	210.54		208.51	
135				205.7	4.8
136				204.0	6.5
137				202.	8.5
138				199.8	10.7
T.P.	7.67	206.95	11.265	199.28	
137				202.0	5.0
138				199.8	7.2
T.P.	1.50	200.78		199.28	
139.				197.60	3.2
140				195.4	5.4
141				193.8	7.0
T.P.	4.68	199.45	6.01	194.77	
B.M.			5.49	193.96	(193.99)

Party { Deutsche
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Mahoney
Frankel L C R

Top stk 12' R Sta. 127+00

C 3.7
31.2

DC 2.3
29.8

DC 1.8
24.7

F 2.6
18.9

F 0.2
0

F 0.5
0

F 2.2
18.3

F 2.7
19.0

DC 2.7
2.5

DC 1.0
24.0

Top stk 12' R Sta. 131.

Sp. 36 "Tree Left Sta. 133+45

End. 7-9-23

" " " " " " " "

Start 7-12-23 (12:30)

DC 1.7
26.7

F 1.9
18.8

F 5.2
23.1

F 3.4
20.6

F 1.4
18.0

F 0.1
0

C 0.2
0

0.0
0

C 0.1
0

F 0.1
0

F 2.5
18.7

DC 1.4
25.1

F 3.3
20.9

F 5.5
23.5

F 4.7
22.4

F 4.0
21.4

DC 0.4
25.4

DC 0.6
25.6

F 4.6
22.3

0.0
0

F 0.4
0

F 0.4
0

F 0.3
0

F 2.5
19.4

DC 0.6
25.6

F 2.7
19.7

C 0.5
28.0

Top stk 15' R Sta. 138

C 3.9
31.4

DC 1.4
27.7

Same as above

F 4.2
21.7

F 4.3
21.8

F 5.1
22.9

F 0.4
0

0.0
0

F 0.8
0

F 5.1
23.1

F 6.0
24.2

F 5.2
23.1

Top conc culv in road at Sta.

N. E. Cor. Top. Hd. Noll. Water Works Culv. End 7-12-23

(23-02) Sta.	(23-55) + 5	Slope Stakes H.I.	- 5	Profile Grade	Gr. Rod.
B.M.	6.54	200.53		193.99	
142+00				93.4	7.1
143+00				94.2	6.3
144+00				96.3	4.2
145+00				99.2	1.3
T.P.	10.15	209.50	1.18	199.35	^{5 p. 33} 199.34
X-See & Slope Stakes					
146+00				202.6	6.9
147+00				206.8	2.7
T.P.	8.38	216.82	1.06	208.44	
148+00				211.0	5.8
149+00				15.2	1.6
T.P.	10.39	225.92	1.29	15.53	
150+00				19.4	6.5
151+00				23.6	2.3
151+22					
T.P.	10.59	235.66	0.85	225.07	
152+00				27.8	7.9
153+00				31.0	4.7
154+00				32.8	2.9
T.P.	8.22	243.67	0.21	235.45	
B.M.	8.49	243.66	8.49	235.18	^{Handwritten} 235.17
154+00				32.8	10.9
153+00				31.0	12.7
152+00				27.8	15.9

Party { Dautsch
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L

E

7-17-23
Hot Fair.

49

R

NE Cor top	hd wall	Water	Wks.	Gulu
$\frac{F5.4}{23.3}$	Madgar grb		$\frac{F1.1}{0}$	Madgar grb $\frac{F5.8}{23.0}$
$\frac{F4.6}{22.3}$	" " "		$\frac{F0.3}{0}$	" " " " $\frac{F5.2}{23.1}$
$\frac{F7.6}{27.3}$	" " " "		$\frac{F0.3}{0}$	light grb $\frac{F6.9}{26.0}$
$\frac{F8.2}{28.2}$	" 4-16" Oak & poplar		$\frac{0.0}{0}$	hdq light grb $\frac{F8.1}{28.1}$

Nail poplar 18' L Sta. 145+20

Hydgr grb $\frac{F11.5}{32.7}$		$\frac{17.1}{33}$	$\frac{15.7}{25}$	$\frac{7.4}{10}$	Co.2 $\frac{0}{0}$	$\frac{7.4}{12}$	$\frac{13.7}{24}$	$\frac{14.9}{33}$	$\frac{F8.0}{27.9}$	light grb
($\frac{F10.2}{31.0}$)	$\frac{12.4}{33}$	$\frac{11.5}{30.5}$	$\frac{10.2}{25.5}$	$\frac{3.1}{13}$	Fo1 $\frac{0}{0}$	$\frac{37}{12}$	$\frac{10.5}{24}$	$\frac{12.3}{30}$	$\frac{12.7}{33}$	($\frac{F9.9}{30.5}$) light clg

Top stk 12' R Sta 147+50

$\frac{F0.5}{16.8}$	$\frac{12.9}{33}$	$\frac{12.1}{28}$	$\frac{6.4}{19}$	$\frac{5.9}{14}$	Fo1 $\frac{0}{0}$	$\frac{6.4}{12}$	$\frac{7.9}{22}$	$\frac{14.0}{36}$	$\frac{F2.2}{19.0}$
($\frac{F2.2}{14}$)	$\frac{3.4}{18.5}$	$\frac{3.8}{14.5}$	$\frac{2.2}{10}$	Fo1 $\frac{0}{0}$	$\frac{17}{19.5}$	$\frac{2.2}{31.5}$	Name g/c stn		shovel

Top stk 12' L Sta. 149+25

($\frac{F0.7}{14}$)	$\frac{7.6}{18.5}$	$\frac{7.8}{16}$	$\frac{7.0}{13}$	Fo.1 $\frac{0}{0}$	$\frac{7.2}{12}$	$\frac{8.1}{15}$	$\frac{8.0}{17.5}$	($\frac{F1.5}{14}$)		
$\frac{3.5}{16.5}$	$\frac{3.9}{14.5}$	$\frac{1.4}{14}$	$\frac{3.0}{11}$	Fo1 $\frac{0}{0}$	$\frac{3.0}{11}$	$\frac{4.3}{12.5}$	($\frac{F2.2}{14}$)	$\frac{4.4}{15}$		
Sec. taken at E of 12' V ravine					$\frac{1.8}{10}$	$\frac{3.2}{13.5}$	$\frac{3.1}{16.5}$	$\frac{2.6}{20.5}$	$\frac{2.0}{23}$	Same slope to 50'

Top rock E road Sta. 151+30

($\frac{F1.8}{14}$)	$\frac{9.6}{16.5}$	$\frac{9.7}{13}$	$\frac{8.7}{11.5}$	Fo3 $\frac{0}{0}$	$\frac{8.5}{12.5}$	$\frac{9.9}{15}$	$\frac{9.9}{17}$	($\frac{F1.3}{14}$)					
($\frac{F1.4}{14}$)	$\frac{6.1}{16.5}$	$\frac{6.2}{15}$	$\frac{5.7}{13}$	$\frac{5.2}{9.5}$	00 $\frac{0}{0}$	$\frac{5.5}{13}$	$\frac{6.2}{15.5}$	$\frac{6.1}{19}$	$\frac{5.6}{14}$	($\frac{F0.9}{14}$)			
($\frac{C1.3}{28.8}$)	$\frac{0.1}{33}$	$\frac{1.3}{30.5}$	$\frac{2.0}{24}$	$\frac{3.2}{19}$	($\frac{F1.0}{14}$)	$\frac{3.8}{16}$	$\frac{3.9}{13.5}$	$\frac{3.1}{11}$	Co.1 $\frac{0}{0}$	$\frac{3.5}{12}$	$\frac{4.4}{16}$	$\frac{4.0}{18.5}$	($\frac{F0.9}{14}$)

Top stk 31' L Sta. 154+02

Sp 14" Oak R Sta. 155+45

($\frac{C6.3}{33.8}$)					($\frac{C5.6}{33.1}$)
($\frac{C11.5}{39.0}$)	$\frac{4.6}{50}$	$\frac{4.6}{38}$	$\frac{4.6}{31.5}$		($\frac{C8.9}{36.4}$)
					($\frac{C11.7}{38.7}$)

Cont'd on Page 55

Cont'd from page 45 Profile Elev
 Blue tops (23-55) Gr Rod
 H.I. - 5 plus .52 15' L

(23-02) Sta.

+ 5

H.I.

- 5

(23-55) plus .52

Cont'd from page 45		207.40			
110+50				201.97	5.43
B.M.	5.79	207.42	5.79	201.61	201.63
110+00				202.02	5.40
109+50				202.32	5.10
109+00				2.84	4.58
B.M.	8.47	210.10		201.63	Gr Rod 15' L & R
108+50				203.72	6.38
108				205.02	5.08
107+50				06.47	3.63
107				207.92	2.18
106+50				209.37	0.73
109+00				202.84	Gr Rod 15' L & R 7.26
109+50				2.32	7.78
110				2.02	8.08
110+50				201.97	8.13
T.P.	4.97	207.34	7.73	202.37	
111+00				201.92	5.42
11+50				201.87	5.47
112+00				201.82	5.52
12+50				202.07	5.27
T.P.	8.32	210.39		202.07	
13+00				202.92	7.47
13+50				204.07	6.32
14+00				205.22	5.17

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Sp. 8" Willow L - Sta. 109+35

Sp. 8" Willow L Sta. 109+35

Top stk & Road Sta. 110+50

Top stk 15' L Sta 112+50

(23-02)(23-55)	Blue tops		Profile	Grade	Gr. Red
Sta.	+ S	H.I.	- S.	+ 0.52	15' Right
114+50		210.39		206.37	4.02
115+00				207.52	2.87
115+50				208.60	1.79
116+00				209.52	0.87
116+50				210.33	0.06
T.P.	6.39	216.32	0.46	209.93	
117+00				$\frac{210.93}{210.82}$ Super	5.50
117+50				$\frac{211.52}{211.25}$ Super	5.07
T.P.	0.60	215.24	1.68	214.64	
B.M.			3.97	211.27	211.28
B.M.	7.90	209.53		201.63	
B.M.			11.22	198.31	Gr. Red 15' La R
T.P.	9.47	218.83	0.17	209.36	
106+00				210.82	8.01
05+50				212.27	6.56
05				13.72	5.11
04+50				15.17	3.66
04				16.62	2.21
03+50				18.07	0.76
T.P.	10.28	228.35	0.76	218.07	
103				219.52	8.83
102+50				20.97	7.38
102				22.42	5.93
T.P.	6.69	229.11		22.42	

Party - 7-6-23
Deutsche Mahoney
Weber Franke

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Top iron form stk 12'L Sta 116+50

Sp. Road Closed past 12'L Sta. 121+00
" Oak W. Hill Gate

Sp. 8" Willow L Sta 109+35 (This BM will be cut down)

R.R. Sp. 10" pine \pm 38'R Sta. 107+50 (Set. 7-6-23)

Top stk

Top bl. top sta. 103+50 15'R

Top bl. top 15'L Sta. 102

(23-02)(23-53) Blue tops

Profile Grade
+ 0.52

Gr.
Rod.

Sta. + S H.I. - S

Cont'd. from page 51.

101 + 50 229.11 223.72 5.39

101 24.62 4.49

100 + 50 25.13 3.98

100 25.42 3.69

T.P. 2.91 226.20

T.P. 141 219.46 11.06 218.05

T.P. 0.76 211.55 8.67 210.79

B.M. 9.95 201.60

201.63 ✓

T.P. 3.77 (S) 209.45 5.87 205.68

B.M. 11.17 198.28 198.31

Start 7-11-23

Gr. Rod 15' bar

B.M. 3.28 242.72 239.44

80 234.72 8.00

80 + 50 233.62 9.10

81 + 00 32.12 10.60

T.P. 0.97 231.88 11.81 230.91

81 + 50 30.52 1.36

82 28.92 2.96

+ 50 27.32 4.56

83 25.72 6.16 ✓

83 + 50 24.12 7.76

84 22.52 9.36

84 + 50 20.92 10.96

T.P. 1.08 222.00 10.96 220.92

Top stk 18'R Sta 101+21 (Set 7-7-23 as start for future)

" " 15'L " 103+50

" " 15'R " 106+00

Sp. 8" willow L Sta. 109+35

Top form stk

R.R. sp 10" pine 38'R Sta. 107+50

Sp. 14" Oak 20'L Sta. 79+42

Top stk 15'R Sta 81+40

Top stk 15'R Sta. 84+50

(23-02)(23-55) Blue Tops.

Pottle
Grade
+ 0.52

Gr
Rod-
15' L & R

85400	Contd fr. pr. page 52	222.00		219.32 ✓	2.68
+50				217.82	4.18
86				16.62	5.38
86+50				15.72	6.28 ✓
B.M.			✓ 10.86	211.14	(211.12)
B.M.	8.62	219.74		211.12 ✓	
87400				15.02	4.72
+50				14.62	5.12
88				14.52	5.22
+50				14.53	5.21
89				14.55 ✓	5.19
+50				14.57	5.17
90				14.62	5.12
B.M.			8.62	211.12	
T.P	6.17 ✓	220.72	5.19	214.55	
90+50				14.92	5.80
91				15.32	5.40
91+50				15.92	4.80
92+00				16.52	4.20
92+50				17.12	3.60
93				17.72	3.00
+50				18.32	2.40
94				18.92	1.80
+50				19.52	1.2
T.P. & 95400	6.19	226.31	0.60	220.12 ✓	0.6

Party. { Deutsche
Weber
Mahoney
Franks

Sp. Tel. pl. 30' R Sta. 85+50. End. 7-10-23
" " " " " " " " " " Start 7-11-23

Sp. Tel. pl. 30' R Sta. 85+50
Top sk 15' R " 89+00

Top. sk 15' L Sta. 95+00

(23-02) (23-55)

Blue Tops

Profile
Grade
+ 0.52Grade
Rod
15' L & R

Sta.

+S

-H.L.

-S

Cont'd from p. 53
22631

95+50

220.72

5.59

96+00

21.32

4.99 ✓

+50

21.92

4.39

97

22.52

3.79 ✓

+50

23.12

3.19

98

23.72

2.59

+50

24.32

1.99

99

24.92

1.39

+50

25.32

0.99

100+00

0.89 ✓

25.42

0.89

Party

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Weber
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Franke

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And perfect check. Having leveled both ways to
& Sta. 100. See page 52

(2302)(23-55)

Cont'd from page 49
Slope Stakes & X-sec.

Sta.	+5	H.I.	-5		
151+00		243.66		223.6	20.1
150+00				219.4	24.3
149+00				15.2	28.5
T.P.	0.35	234.84	9.17	234.49	
149+00				215.2	19.6
T.P.	✓ 5.70	217.23	11.91	222.93	
T.P.			1.69	215.54	215.53
B.M.	+ 5.62	240.79		235.17	
155+00				33.83	(696) 7.0
+50				34.36	(643) 6.4
156+00				34.89	(590) 5.9
157+00				35.95	484) 4.8
158+00				37.01	3.78) 3.8
T.P.	0.71	230.09	11.41	229.38	
T.P.	2.39	221.91	✓ 10.57	219.52	✓
157+00				35.95	+14.0
T.P.	10.36	229.88	2.39	219.52	
158+00				37.01	+7.1
T.P.	11.34	240.72	✓	229.38	
T.P.	4.11	232.84	11.99	28.73	
157+00				35.95	+31
158+00				37.01	+4.2
T.P.	11.81	240.54		28.73	
B.M.			5.37	235.17	✓ 235.17

Cont'd on Page 57

Weber
Deutsche
Mahoney
Franke

Hkt. Fair-

7-17-23

55

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L. E R

(C 12.0)	$\frac{8.3}{39.5}$	$\frac{8.3}{50}$	$\frac{8.1}{45}$	$\frac{8.7}{40}$	$\frac{8.7}{32}$
(C 15.5)	$\frac{9.9}{43.0}$	$\frac{9.9}{50}$	$\frac{8.8}{42.5}$	$\frac{8.5}{37}$	

(C 11.7)	$\frac{39.2}{39.2}$
(C 20.9)	$\frac{48.4}{48.4}$

Hot set
1/2 in. shovel has 30 ft in.

Top stk - 50' L Sta. 150+00

(C 11.3)	$\frac{11.0}{38.8}$	$\frac{11.0}{50}$	$\frac{9.0}{40.5}$	$\frac{8.2}{37.5}$
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Top main sign "Lee Puna. Proof Tires" L sta. 148+70

Top stk 12' L Sta. 149+25 See page 49. End 7-17-23

Sp 14" Oak R Sta. 155+45 Start. 7-27-23

Deutsche
Weber
Connally
Franke

(D.C. 1.4)	$\frac{6.6}{26.4}$	$\frac{7.5}{33}$	$\frac{8.1}{28}$	$\frac{7.3}{15.5}$	Co. 1	$\frac{7.3}{0}$	$\frac{8.3}{13.4}$	$\frac{8.2}{15.5}$	$\frac{8.7}{19}$	$\frac{8.7}{26}$	$\frac{3.9}{33}$	(C 3.1)	$\frac{30.6}{30.6}$
(F 2.8)	$\frac{8.8}{19.7}$	$\frac{10.1}{33}$	$\frac{9.7}{30}$	$\frac{9.1}{25}$	$\frac{6.9}{20.6}$	Fo. 3	$\frac{6.9}{0}$	$\frac{6.9}{9}$	$\frac{7.4}{20}$	$\frac{8.1}{33}$		(D.C. 1.3)	$\frac{26.3}{26.3}$
(F 6.5)	$\frac{9.6}{25.8}$	$\frac{10.9}{34}$	$\frac{11.8}{31.2}$	$\frac{11.6}{27.6}$	$\frac{6.4}{23}$	Fo. 3	$\frac{6.4}{0}$	$\frac{6.6}{7}$	$\frac{12.4}{26}$	$\frac{13.1}{33}$		(F 7.1)	$\frac{26.8}{26.8}$
					$\frac{5.3}{13}$	Fo. 1	$\frac{5.3}{0}$	$\frac{5.3}{13}$	$\frac{11.8}{23.7}$				
					$\frac{4.7}{13}$	Co. 3	$\frac{4.7}{0}$	$\frac{4.0}{9}$	$\frac{13.8}{27}$				

Sp Tree Oak. 100' R Sta. 158+00

" Top F.P. 38' R " 157+00

$\frac{5.7}{41}$	$\frac{6.5}{44.5}$	$\frac{7.4}{49.7}$	(F 24.0 + 7.8)	$\frac{57.7}{57.7}$
------------------	--------------------	--------------------	----------------	---------------------

Sp. Top F.P. st- 38' R Sta. 157+00

$\frac{3.0}{33}$	$\frac{9.0}{34}$	F 11.1	$\frac{33.6}{33.6}$
------------------	------------------	--------	---------------------

Sp. Oak 100' R Sta. 158-

" poplar. 40' L Sta. 157+50

(20.3)	$\frac{15.5}{45.6}$	$\frac{13.6}{39}$
(15.3)	$\frac{9.7}{38.8}$	$\frac{9.7}{37.8}$

Sp. poplar 40' L Sta. 157+50

Sp. Oak 14' L Sta. 155+45 End 7-27-23

Pulled up to run line Sta. 42 to 56
for So Line Engr. & Br. Xing

Sta.	Slope	Stakes & X-Sec.	Profile Grade	Gr. Rod
	+ 5	11.1	- 5	
I.M.	8.19	234.86		226.67
T.P.			0.53	234.33
T.P.	8.81	243.14		
163+00			239.4	3.7
+ 50			38.9	4.2
164+00			38.1	5.0
165+00			36.5	6.6
166+00			34.9	8.2
T.P.	11.83	254.79	0.18	242.96
16400			38.1	16.7
165+00			36.5	18.3
T.P.	0.15	243.11	11.83	42.96
T.P.	1.42	235.75	8.78	234.33
B.M.			9.09	226.66 226.67 ✓
B.M.	9.77	236.44		226.67
166+00			34.9	1.5
167+00			33.3	3.1
168+00			31.7	4.7
169+00			30.1	6.3
170+00			28.5	7.9
T.P.			9.51	226.93
T.P.	0.07	227.00		
T.P.	2.12	217.09	12.03	214.97
167+00			233.3	16.2
168+00			31.7	14.6

Cont'd on page 57

Deutsche Partei } Weber } Fo 166 } Deutsche } 166 to }
 Cennelly } Frank } } Weber } Moheny }

Top Mont E Road Sta-170+77.5

Top. SHK 8'L

(Co.1 27.6)	2.0	3.2	4.7	5.3	4.3	Fo.3	4.5	5.8	6.9	7.1	7.3	(F2.9 20.0)	
(C0.7 28.2)	2.9	3.5	4.9	5.5	4.7	0.0	4.7	5.7	4.4	4.7	4.5	3.3	3.0
	34.5	22	19.7	14.7	12.2	0	12	17.3	23.7	27.9	33		
	3.5	27.3	21.4	15.8	14.6	0	11	16.9	18.8	22.7	27.6	31	33
	2.3	4.3	5.6	6.0	4.9	Co.1	5.7	6.4	6.6	7.0	7.3	8.3	3.0
	24	20.8	17.7	15.5	10.7	0	17.4	18.8	18	18	18	23	26
	0.0	1.7	3.6	7.1	7.6	6.9	Fo.1						
	26.2	24.3	20.7	18	14.7	10	0						
(C4.5 32.0)	3.2	3.7	7.3	7.7	9.3	9.5	8.4	Co.2	8.5				
	35.4	31.6	27	24.8	22.9	19.5	15.5	0	13				

has cut in

Top SHK 18'L 163+80

(C 7.6 35.1)	9.0	10.3	4.5	4.4	4.0	(C 12.2 39.7)
	30.5	27.5	38	41	50	
(C 16.1 43.6)	2.7	1.7	2.4	2.6	2.5	(C 15.8 43.3)
	50	37	42	47.5	50	

18.5/12, 19.7/15, 12.5/24, 2.3/38

Top Mont E Road Sta. 170+77.5

" " E " " " " " - Start 8-9-23

4.8	6.7	(Hot set of fill now in)
21	38	
3.5	Fo.2	3.7
12.5	0	12
5.1	Fo.3	5.3
12.2	0	12
7.1	Fo.4	7.1
12.2	0	12
8.4	Fo.4	8.6
12.3	0	12

Sp. A Oak 60'R. Sta. 166+40

End 8-9-23

" " " " " " " "

Start 8-10-23

" 20" " To'R " 167+00

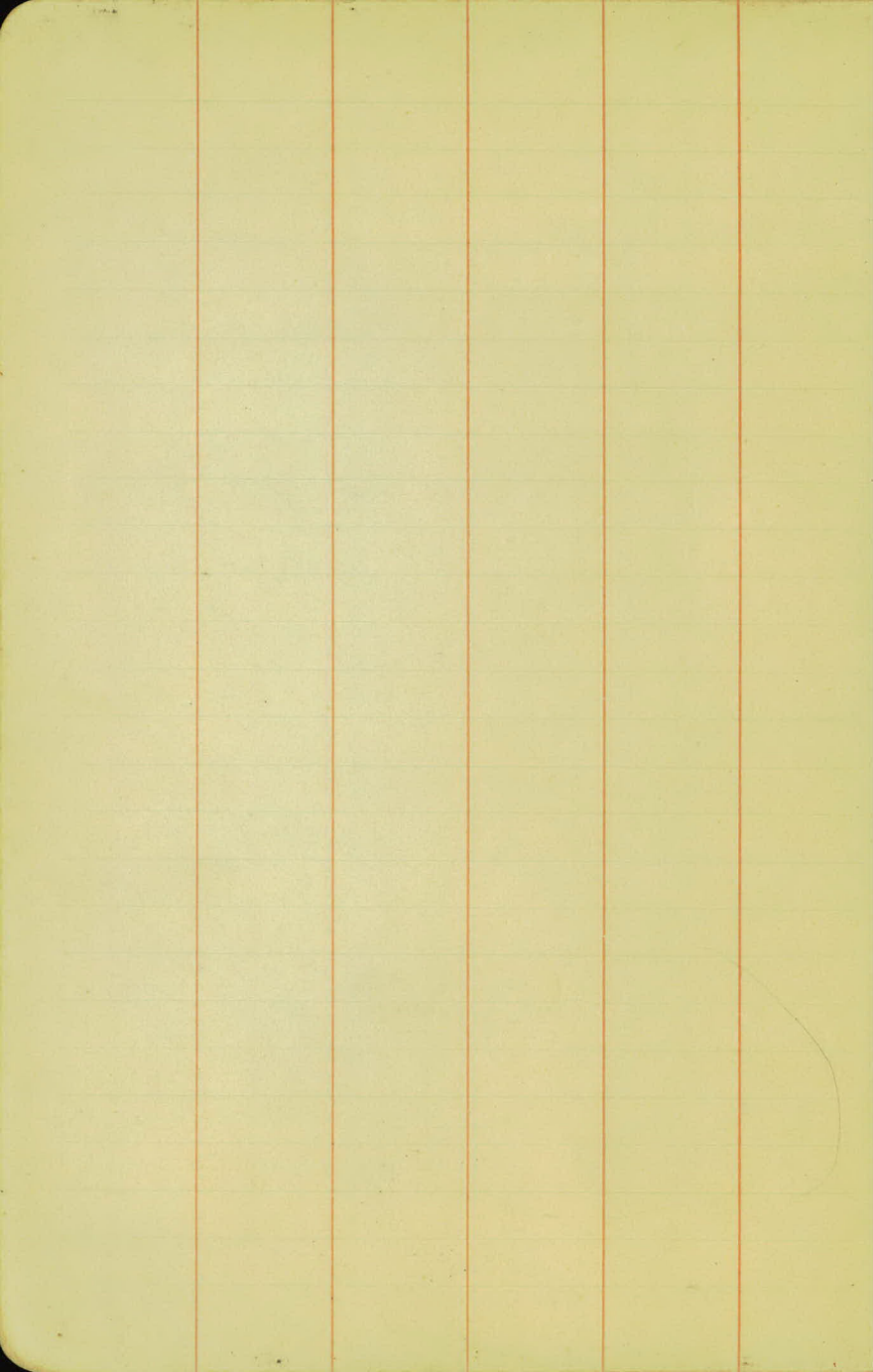
2.8	5.4	[F23.6]
40	52	[51.2]
4	3.6	(F18.1)
40	50	[42.7]

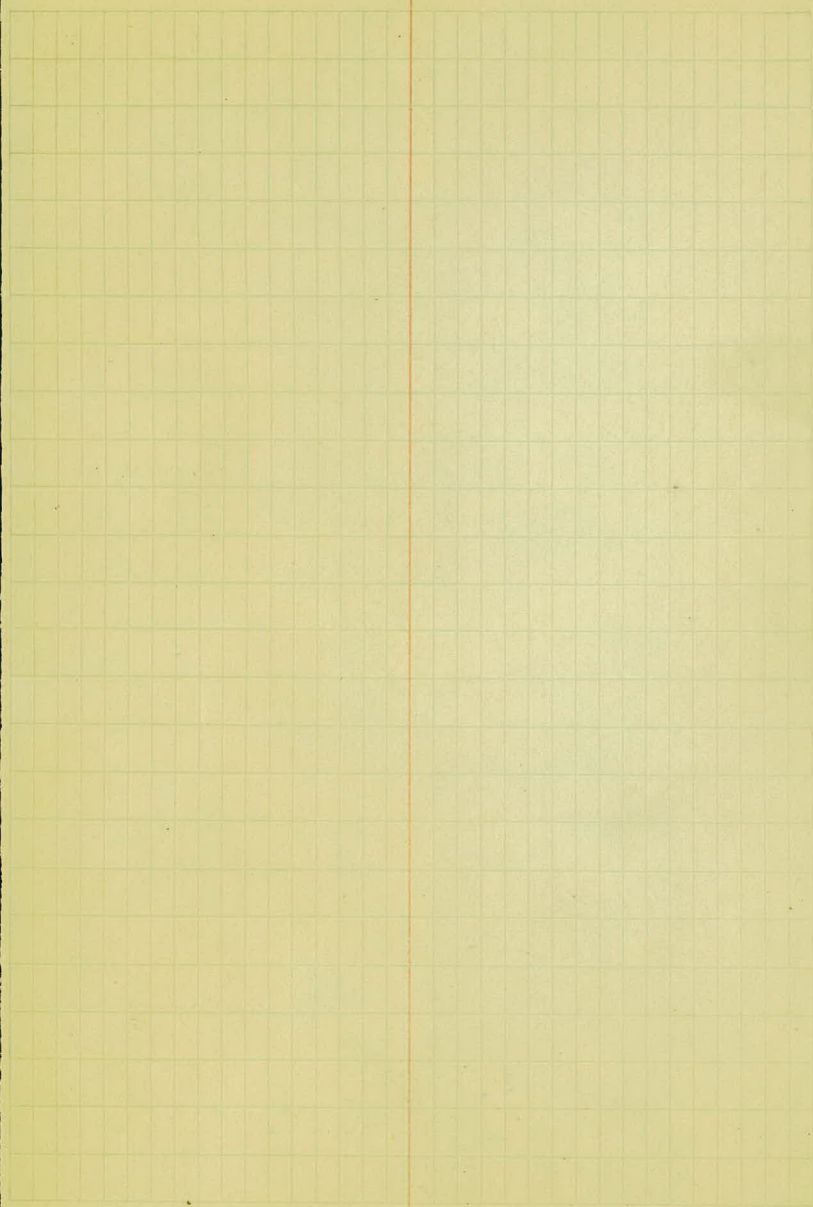
Cont'd Sta. P. 55
Slope Stakes & X-Sec

Profile
Grade
Rod

(23-02) (23-55)

Sta.	+5	H.I.	-5		
B.M.	6.95	242.12			235.17
158+40					237.43 4.7
159+00					38.07 4.1
160+00					39.13 3.0
161+00					39.9 2.2
162+00					39.9 2.2
T.P.	11.81	253.51 [✓]	0.42 ^③		241.70
159+00					38.07 15.4
160+00					39.13 14.4
161+00					39.9 13.6
162+00					39.9 13.6
T.P.	0.42	242.11	11.82		241.69
B.M.			6.92		235.19 235.17 [✓]
T.P.	10.01	236.94			226.93
167+00					33.3 3.6
168+00					31.7 5.2
T.P. & B.M.	7.61	234.28			226.67
169+00					30.1 4.2
170+00					28.5 5.8
171+00					26.5 7.8
172+00					25.2 9.1
173+00					24.4 9.9





(23-02) (23-55) ^{Colv Layout} Sta. 142+13
 + 5 4.1 - 5 Elev.

B.M.	3.72	197.71	193.99
142+36			8.5
142+13			8.5
142+13			8.6
141+90			8.5
141+90			9.4
142+13			8.7
142+25			8.4
142+36			9.4
142+13			8.4
142+13			7.2
142+13			7.5

Elev intake invert = 189.5

" outlet " = 189.2

F 144+47 - F.S. (Unable to locate monument)

142+35.6

141+90

125+49⁵ π

120+98⁷⁵ B.S.

Deutsche
Weber
Mahoney
Franké

7-7-23

59

L

Q

R

NE Cor top Hd. Wall. Water Works Culv.

24' R

24' "

33' "

24' "

24' L

24' L

24' L

" "

33' "

} Very soft muck bottom 20' to 29' Left.

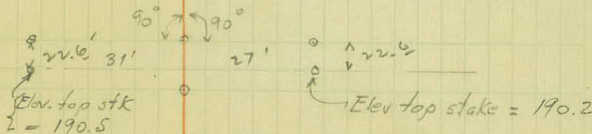
Red - 31' L To top of blue top 1' above intake of culv.

" 27' R " " " " " 1' above outlet "

Marked stake Dist 27' R offset 3' Outlet 1' down

" " " 31' L " Intake 1' down

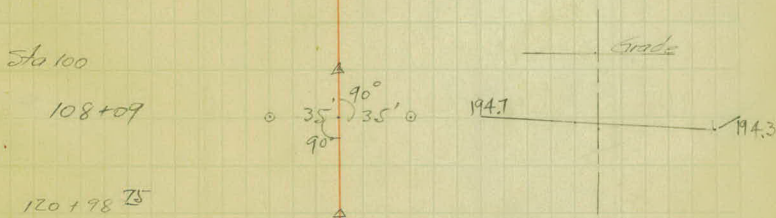
(referred to on profile) o Tack in stk set 7-7-23



Sp tree Left sta- 109+35

Inv. Elev = 194.7 High end

" " = 194.3 Low end



Sp. Tel pl. Rt Sta. 93+70

@ 28' L Ground.

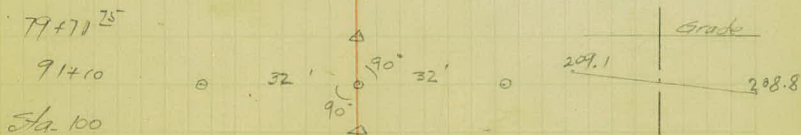
@ 32' L

Set blue top stk 1' below inv. colv. intake @ 209.1

@ 28' R Ground

Set blue top stk 1' below inv. outlet @ 208.8

Grade = 0.3' / 56'



Sta.	Resect Slope Stakes in accordance with Rev. Plan + 5 H.I. - 5	2	Rod to Top Paving	Grade Rod. to sub grade (+ 0.62)
R.M.	0.75	194.66		
44+00			5.35	5.97
+ 50			5.25	5.87
+ 75			5.22	5.84
45+00			5.18	5.80
+ 50			5.11	5.73
46+00			5.00	5.62
+ 10			5.00	5.62
+ 20			5.00	5.62
+ 35			5.01	5.63
+ 50			5.01	5.63
47+00			5.02	5.63
B.M.	0.82	194.73		
47+45			5.03	5.65
T.P.	10.00	203.49	1.24	193.49
46+50				
47+00				
47+25				
47+43				
T.P.	9.78	211.88	1.39	202.10
48+00				
48+25				

Note: - Used Section as below as per

10-18-23 4:00 PM.

Party } Deutsche
 Johnson
 Mainney
 Franke
 Subgrade Elev L \in R

Cold Windy
 10-19-23
 Cold Windy

Hor. Dist Cor in file on Lt. under overhd R.R. Xing. (Spaine)

189.04

$\frac{C 2.1}{23.1}$

189.04

189.04

189.03

$\frac{C 3.2}{23.2}$

$\frac{C 3.3}{27.3}$

189.03

$\frac{C 3.7}{23.7}$

189.03

End. 10-18-23

Same as above

Grade End.

Start 10-19-23

189.08

189.0

14.5

$\frac{C 4.9}{24.9}$

189.0

14.5

$\frac{C 12.9}{32.9}$

$\frac{C 6.4}{26.4}$

189.1

14.5

$\frac{C 15.0}{35.0}$

$\frac{C 5.6}{25.6}$

189.1

14.5

$\frac{C 5.0}{25.0}$

189.0 22.9

$\frac{C 15.8}{35.8}$

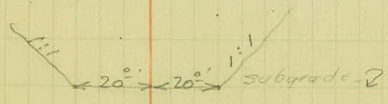
189.0 22.9

$\frac{C 25.0}{45.0}$

$\frac{C 17.6}{37.6}$

Instructions from GBC.

REQ-10-19-23



(23-02)	(23-55)	Blue tops		Profile Grade +0.52	Grade Rod 15' L&R
Sta.	+5	H.I.	-5		
B.M.	5.53	237.26		231.73	
69+00				32.92 ✓	4.34 ✓
+50				33.52 ✓	3.74 ✓
70+00				33.82 ✓	3.44 ✓
+50				34.12 ✓	3.14 ✓
71+00				34.32 ✓	2.94 ✓
+50				34.47 ✓	2.79 ✓
72+00				34.62 ✓	2.64 ✓
+50				34.77 ✓	2.49 ✓
73+00				34.92	2.34
+50				35.07	2.19
T.P.	4.86	239.93	2.19	235.07	
74+00				35.22	4.71
+50				35.37	4.56
75+00				35.52	4.41
+50				35.67	4.26
76+00				35.82	4.11
+50				35.97	3.96
77+00				36.12	3.81
+50				36.27	3.66
78+00				36.42	3.51
+50				36.42	3.51
79+00				36.12	3.81
+50				35.56	4.37
80+00			5.23	34.72	5.21

7-18-23

62

Party. { Deutsche T.
Weber H.Ch.
Mahoney "
Franke Rod.

Top. stk 15' R Sta 73+50

Check to .02 on top blue top 15' L & R Sta. 80+00 ∴ OK.

12/17/23

Final Topog.

{ Jorgenson
 { Persons
 { Briggs
 { Eck.

3

2

1

20

9

8

7

6

5

4

3

2

1

10

9

8

7

6

5

4

3

2

1

00

end Pavement.

✓ { 25' of P₁-15"
 { No 2 ft. of CM 15"
 { South 12 " " " "

Mild & Clear

23+56 T.P. 28'

⊙

< 30 > 22+50 and woods 40' Rt.
start Lake

22+23 T.P. 28'

⊙

20+89 T.P. 28'

⊙

19+62 T.P. 28'

⊙

18+24 T.P. 28'

⊙

16+90 T.P. 28'

⊙

15" x 25' P2. Culv. 16+19 F.E. < 25' >

15+97.8 P.O.T.

15+59 T.P. 28'

⊙

14+47 T.P. 28'

⊙

13+12 T.P. 28'

⊙

11+78 T.P. 28'

⊙

10+42 T.P. 28'

⊙

9+06 T.P.

⊙

8+00 T.P. 28'

⊙

6+61 T.P. 28'

⊙

5+38 T.P. 28'

⊙

45' x 15' C.M.C.

4+18 T.P.

2+93



△ Rd sign 2+93 - 20' out

2+70 T.P. 27'

⊙

1+45 T.P. 27'

⊙

0+12 T.P. 27'

⊙

< 29' >

mail box 3-0+34-18' out
County Rd E.

0-13

3+00 start woods 60' out

2+00 start Oak Woods 60' out

Topog

6

5

4

3

2

1

40

9

8

7

6

5

4

3

2

1

30

9

8

7

6

5

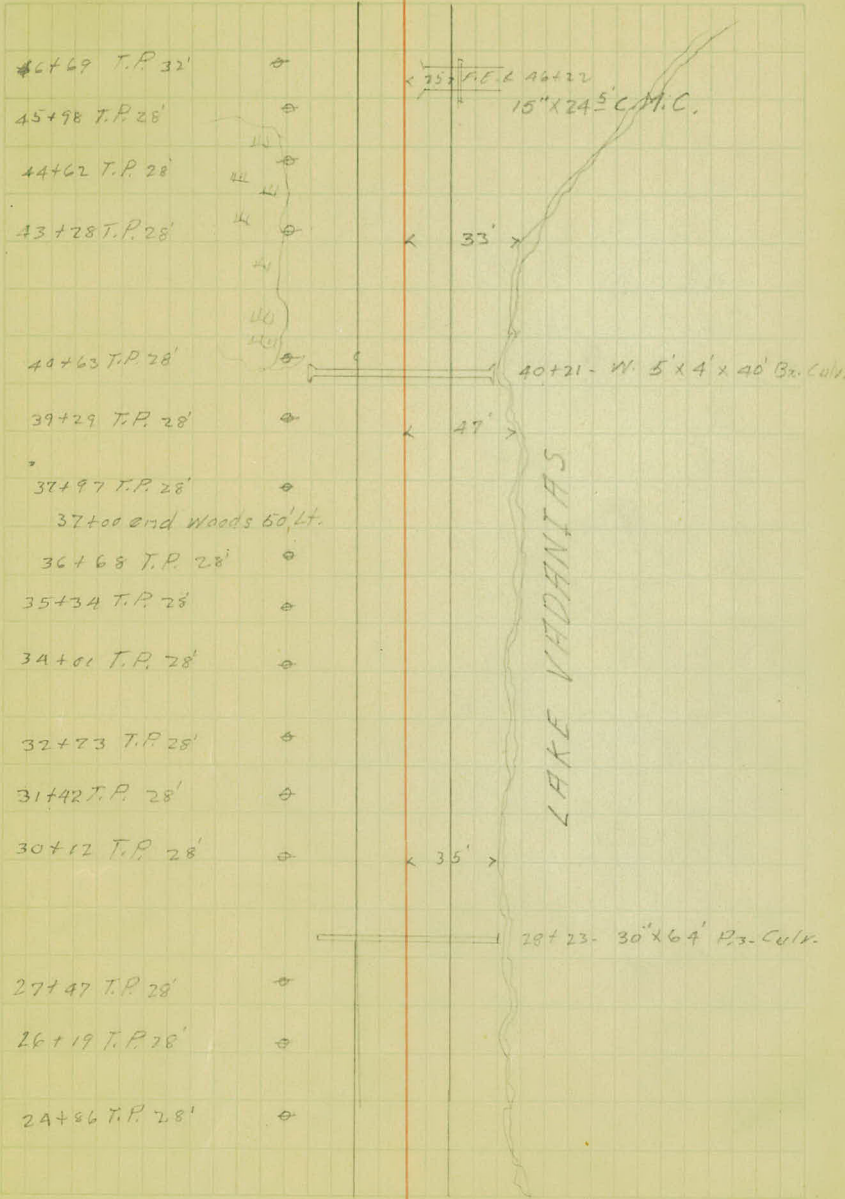
24

Lt

2

Rt

64



70

9

8

7

6

5

4

3

2

1

60

9

8

7

6

5

4

3

2

1

50

9

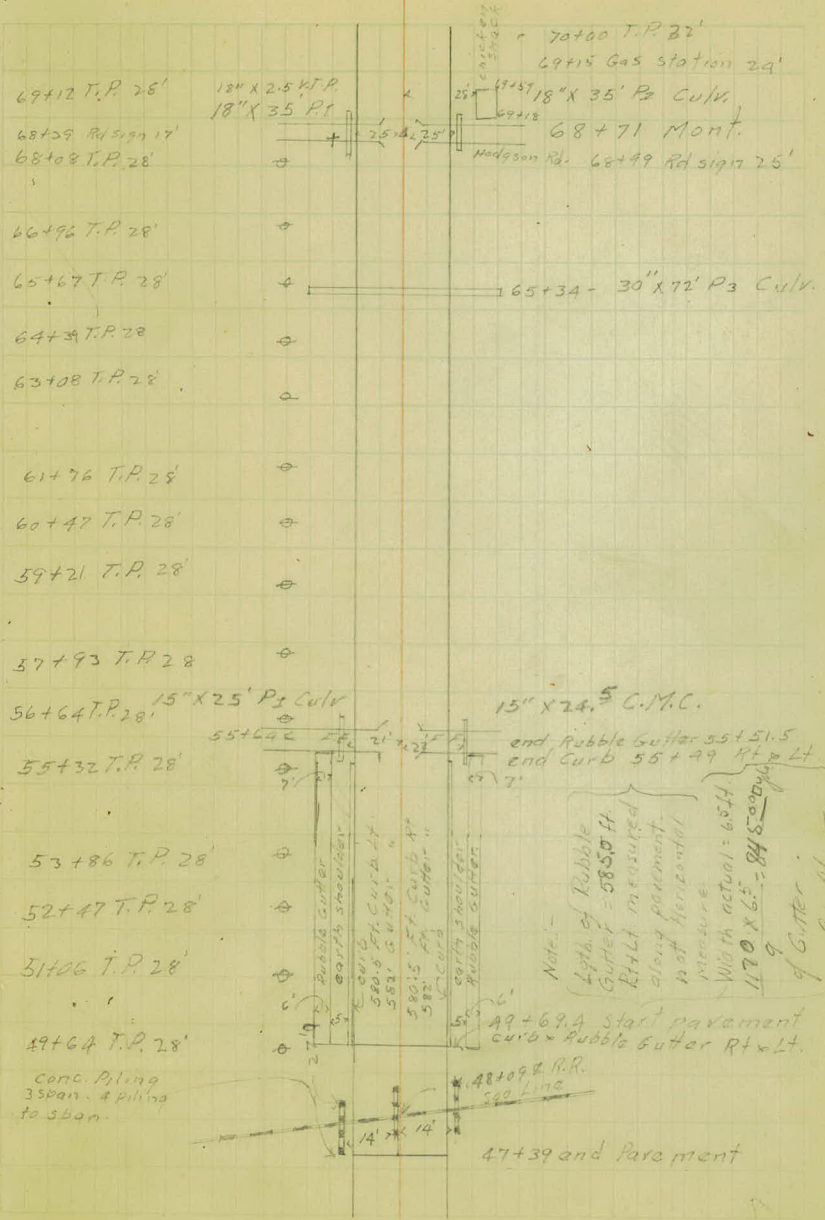
8

47

Lt

Rt

65



69+12 T.P. 28'
 68+09 Rd sign 17'
 68+08 T.P. 28'

12' x 2.5' x 18' x 35' P1

character sheet
 70+00 T.P. 22'
 69+15 Gas station 29'
 69+17 18" x 35' P2 Culv.
 68+71 Mont.
 Hodgson Rd. 68+99 Rd sign 25'

66+96 T.P. 28'
 65+67 T.P. 28'
 64+39 T.P. 28'
 63+08 T.P. 28'

65+34 - 30' x 72' P3 Culv.

61+76 T.P. 28'
 60+47 T.P. 28'
 59+21 T.P. 28'

57+93 T.P. 28'
 56+64 T.P. 28'

15' x 25' P2 Culv

15' x 24.5' C.M.C.

55+32 T.P. 28'

end Rubble Gutter 55+51.5
 end Curb 55+49 Rt & Lt

53+86 T.P. 28'
 52+47 T.P. 28'
 51+06 T.P. 28'

Rubble gutter
 earth shoulder
 580.5 Ft. Curb Lt
 581' Curb Lt
 580.5 Ft. Curb Rt
 582' Ft. Curb Rt
 earth shoulder
 Rubble gutter

Note: -
 4th of Rubble Gutter = 585.0 ft.
 R+Lt measured along pavement not horizontal measure
 Width actual = 65 ft
 170' x 7.5' = 845.00 ft
 of Gutter
 J.M. Christensen

49+64 T.P. 28'
 Conc. Piling 3 span, 4 piling to 5 span.

49+69.4 start pavement curb & Rubble Gutter Rt & Lt.

48+09 R.R. 500 Lins

47+39 end Pavement

3

2

1

90

9

8

7

6

5

4

3

2

1

80

9

8

7

6

5

4

3

2

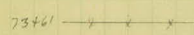
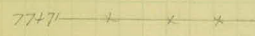
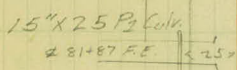
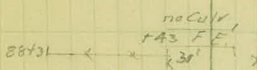
71

Lt

~~E~~

Rt.

30" X 56' P₃ Culv - 91409



- ⊙ 93+79 T.P. 33'
- ⊙ 92+30 T.P. 33'
- ⊙ 90+95 T.P. 33'
- ⊙ 89+54 T.P. 35'
- ⊙ 88+17 T.P. 34'
- ⊙ FE 87+75
no Culv.
- ⊙ 86+73 T.P. 35'
- ⊙ 85+46 T.P. 35'
- ⊙ 84+10 T.P. 40'
- ⊙ 82+61 T.P. 40'
- ⊙ 81+17 T.P. 40'
- ⊙ 79+39 T.P. 33'
- ⊙ 77+71 T.P. 32'
- ⊙ 75+92 T.P. 32
- ⊙ 74+21 T.P. 32'
- ⊙ FE 72+05
no Culv.
- ⊙ 72+83 T.P. 32'
- ⊙ 71+13 T.P. 32'

6

5

4

3

2

1

110

9

8

7

6

5

4

3

2

1

100

9

8

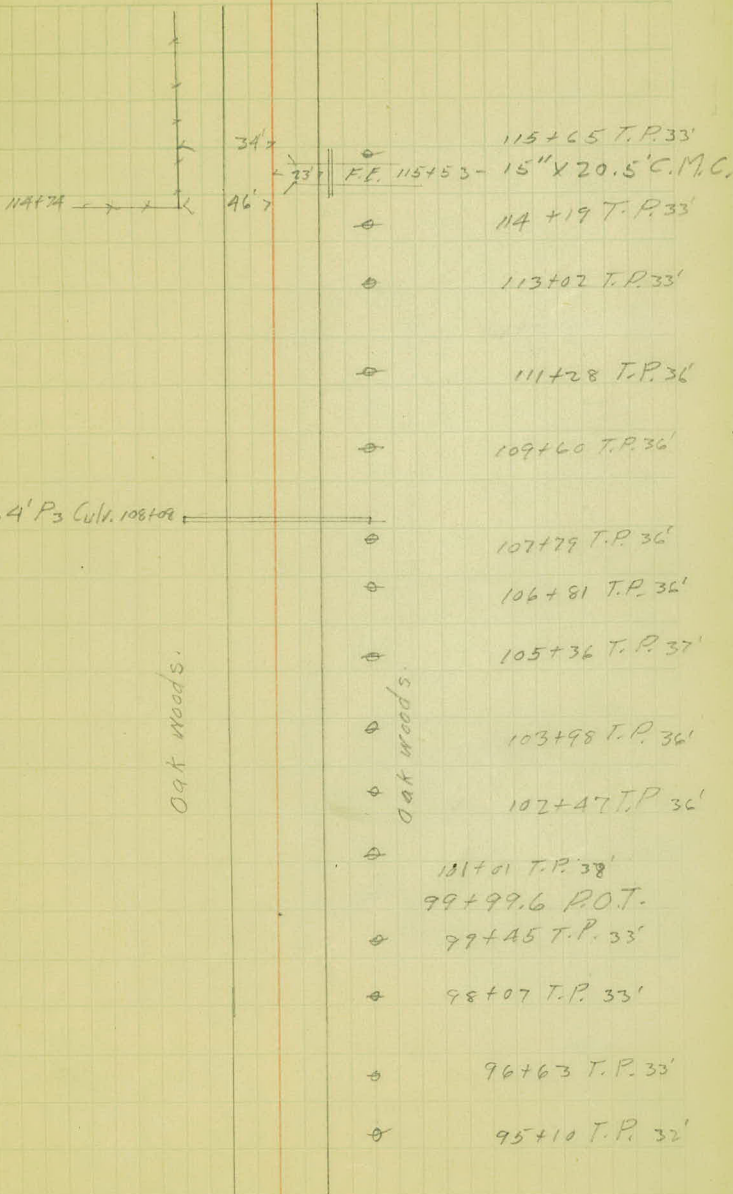
7

6

5

94

Lt E Rt



Oak Woods.

Oak Woods.

140

9

8

7

6

5

4

3

2

1

130

9

8

7

6

5

4

3

2

1

120

9

8

117

Lt

Z

Rt

431.5
70.2
525.7

68

Trees out 28'

41' x 35'

FF 137+99. 15" x 24" C.M.C.

15" x 20" C.M.C.

FF 136+93

Trees out 32'

41' x 25'

Trees out 31'

Dak trees 29' out

34 x 28'

Woods 40' out.

OAK Woods 31' out.

35 x 30'

20'

20.5'

22.5'

23.5'

24.3'

25.1'

26.0'

26.7'

27.7'

25.5'

585.2 Lin. Ft. Curb

123+11 end Curb

118+66 T.P. 33

118+59 spillway 7' long
32" wide arc and
25" " other "

117+62 start curb

117+20 T.P. 33

3

2

1

160

9

8

7

6

5

4

3

2

1

150

9

8

7

6

5

4

3

2

141

Lt & Rt

818 Ft. DT. out 12' from 2
To Sta. 166+56

268 Ft. DT. Total 166+07

158+35 Tile out let 24' out

163+39 - Beg of Tile - out, 12'

WOODS

161+50 - end Tile, out, 12'

328 Ft. DT. out 12'

158+36 Tile out 24' out

155+64 end Tile-12' out

156+62
155+64 end of tile 12' out

718 Lin. 6" Drain Tile

Cultivated

WOODS

742 Lin 6" Drain Tile

Tile 12' out

148+46 tile out let 24'
148+12 end trees 30'

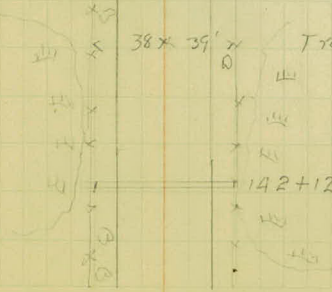
148+22 tile out let 31' out
and trees 148+00

Trees out 32'

44 x 39'

Trees out 30'

142+12 - 30" x 48' - P3. CULV



5

4

3

2

1

180

9

8

7

6

5

4

3

2

1

170

9

8

7

6

5

164

and Fence

130 FTOW P.1

WOODS

182+91 x x x L 427

30" x 56' P3 Culv 181+31

x 377

WOODS.
VOL. HM. Fresh Air Camp

x x x x 177+41

x 347

P.F.
no Cdv

172+37-30" x 48' P3. Culv.

no Cdv

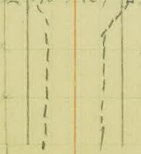
no Cdv

Trees out 31 36 x 33 170+75 170+42

WOODS

167+00 Start tree 30

166+~~26~~⁵⁶ Tile out let 23 out 40' x 39 166+07 Tile out let 26' out



8

7

6

5

4

3

2

1

200

9

8

7

6

5

4

3

2

1

190

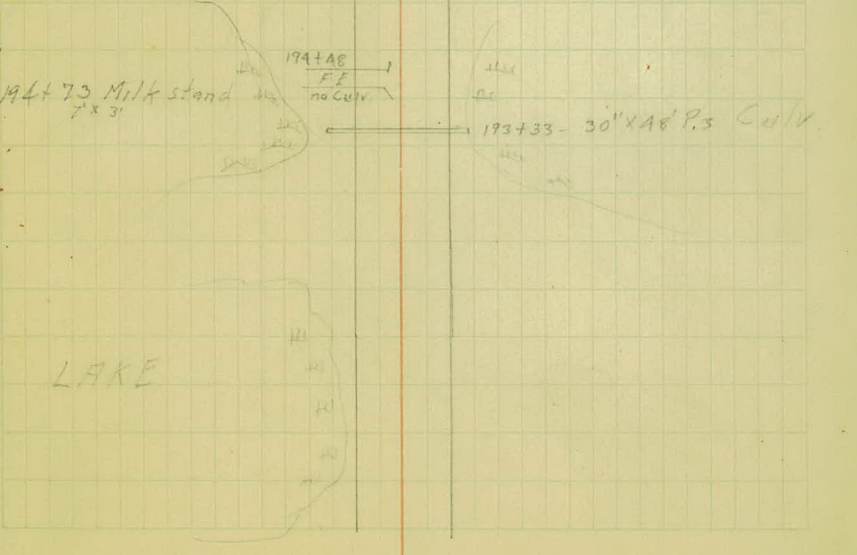
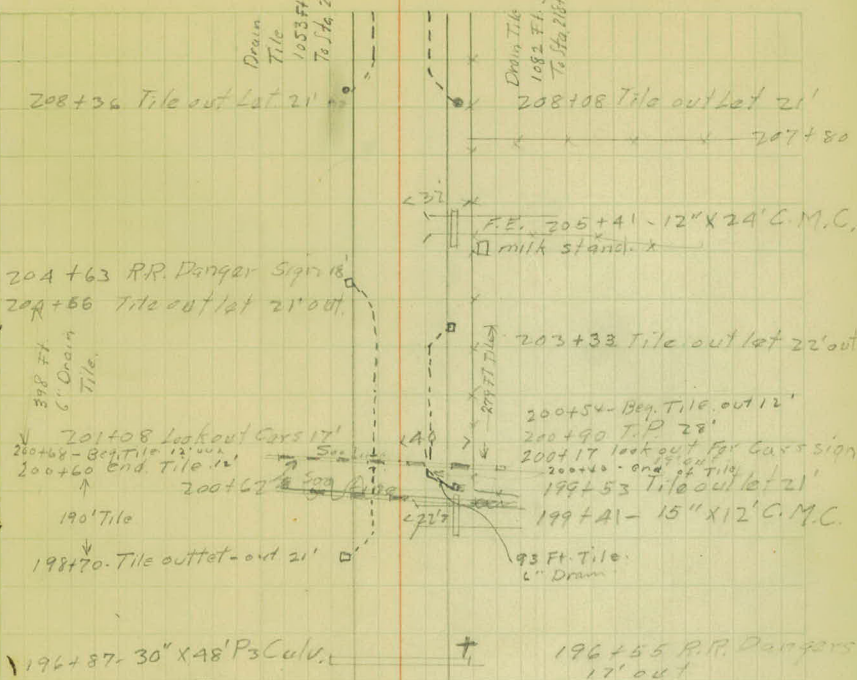
9

8

7

186

L + E Rt.



LAKE

3

2

1

230

9

8

7

6

5

4

3

2

1

220

9

8

7

6

5

4

3

2

1

10

209

L + E P +

463 Ft. Drain Tile
to Sta. 231+66

547 Ft. Drain Tile
to Sta. 231+66

226+94 Beg. Tile out. 12'

226+19 - out - 12'

224+50 - 30" X 56' P₃ Culv.

34'

223+47

34'

221+51 30" X 64' P₃ Culv.

218+89 - Tile Outlet - out. 21'

218+90 - Tile outlet out 21'

Cultivated

WOODS

33'

15' 15'

33'

end Days Work 12/17/23

252+07⁸ end Payment.

+57⁸

1
+52⁶
250

9

8

7

6

5

4

3

2

1

240

9

8

7

6

5

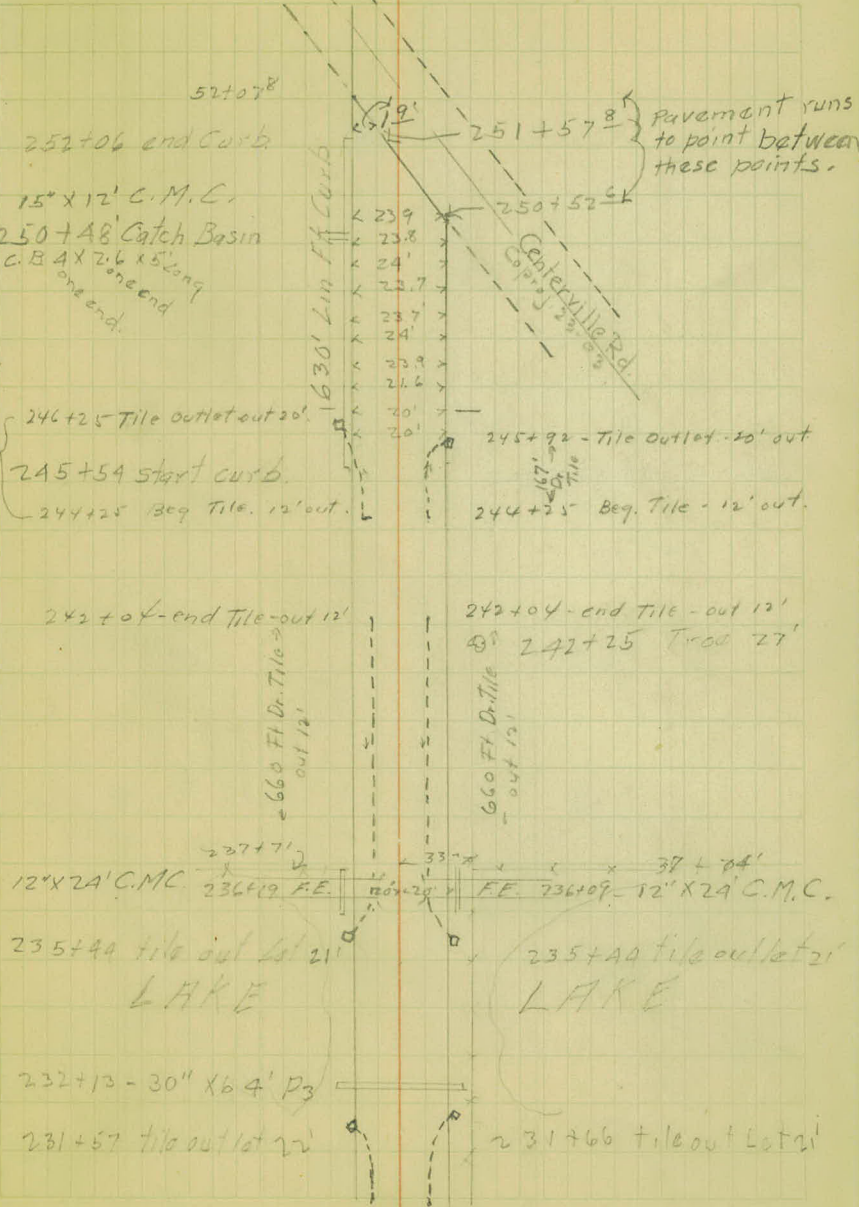
4

3

2

231

Lt Rt. 478
152
230



The image shows a page of graph paper with a grid of small squares. A vertical red line runs down the center of the page. Two vertical black lines are drawn on either side of the red line, creating three columns of different widths. The grid covers most of the page, leaving a margin at the top and bottom.

(23-02)

(23-55)

6-19-23

Slope Stakes

Sta.

53	215.1
52	209.2
51	203.3
50	197.4
49	191.6
48	189.1
47	189.1
46	89.0
45	88.9
44	88.8
43	89.0
42	89.8
41	90.9
40	192.0
39	193.1
38	93.9
37	94.1
36	93.6
35	92.5
34	91.3
33	90.5
32	90.1
31	89.9
30	89.7
29	89.5

Set with Hand Level.

C 1.4 14	0.0 0	C 1.6 14
C 2.9 14	F 0.1 0	C 1.6 14
C 3.5 14	F 0.2 0	C 1.9 14
C 3.5 14	F 0.4 0	C 3.2 14
C 3.1 14	C 0.1 0	C 1.4 12 ✓ A/c BIKhd for bu
F.B.Kat C 1.8 93 ✓	C 2.2 0	C 3.6 14
C 3.7 14	C 2.7 0	C 2.8 14
C 2.4 14	C 2.5 0	C 2.1 14
C 1.7 14	C 1.5 0	C 1.2 14
C 0.6 14	C 0.8 0	C 0.9 14
C 0.6 14	C 0.6 0	C 0.7 14
F 1.2 14	F 0.1 0	F 1.3 14
F 0.6 14	C 0.4 0	Can't set a/c full already in.
C 0.4 14	C 0.4 0	F 0.8 14
C 0.3 14	C 0.2 0	C 0.7 14
C 0.6 14	C 0.5 0	C 1.6 14
C 0.8 14	C 0.9 0	C 0.6 14
C 0.1 14	C 0.1 0	F 2.5 14
F 0.3 14	0.0 0	F 2.2 14
C 0.3 14	C 0.4 0	F 3.0 14
F 0.2 14	F 0.2 0	F 3.9 14
F 0.1 14	0.0 0	F 3.7 14
F 0.2 14	C 0.2 0	F 3.3 14
C 0.2 14	C 0.2 0	F 3.3 14
C 0.1 14	C 0.3 0	F 3.1 14

(2302) (23-55)
Slope Stakes

6-11-23

28	89.3
27	89.4
26	90.1
25	91.5
24	93.5
23	96.1
22	99.4
21	203.3
20.	207.5
19	11.7
18	15.4
17	18.2
16	220.1
15	21.5
14	22.9
13	24.3
12	25.6
11	26.8
10	227.9
9	29.0
8	30.1
7	31.2
6	32.3
5	33.4

Left $\frac{1}{2}$ Right

$$\frac{C0.5}{14}$$

$$\frac{C0.6}{0}$$

$$\frac{F3.1}{14}$$

$$\frac{C0.6}{14}$$

$$\frac{C0.8}{0}$$

$$\frac{F3.2}{14}$$

$$\frac{F0.1}{14}$$

$$\frac{C0.2}{0}$$

$$\frac{F4.0}{14}$$

$$\frac{F0.4}{14}$$

$$\frac{F0.3}{0}$$

$$\frac{F4.9}{14}$$

$$\frac{F0.1}{14}$$

$$\frac{C0.1}{0}$$

$$\frac{F3.7}{14}$$

$$\frac{F0.2}{14}$$

$$\frac{C0.1}{0}$$

$$\frac{F3.0}{14}$$

$$\frac{F0.3}{14}$$

$$\frac{C0.4}{0}$$

$$\frac{F4.2}{14}$$

$$\frac{F0.1}{14}$$

$$\frac{C0.6}{0}$$

$$\frac{F3.7}{14}$$

$$\frac{C0.5}{14}$$

$$\frac{C0.7}{0}$$

$$\frac{F3.4}{14}$$

$$\frac{C0.5}{14}$$

$$\frac{C0.8}{0}$$

$$\frac{F3.8}{14}$$

$$\frac{F0.1}{14}$$

$$\frac{C0.2}{0}$$

$$\frac{F3.1}{14}$$

$$\frac{C0.2}{14}$$

$$\frac{C0.5}{0}$$

$$\frac{F4.1}{14}$$

$$\frac{C0.2}{14}$$

$$\frac{C0.4}{0}$$

$$\frac{F2.4}{14}$$

$$\frac{0.0}{14}$$

$$\frac{C0.3}{0}$$

$$\frac{F2.2}{14}$$

$$\frac{C0.6}{14}$$

$$\frac{C0.6}{0}$$

$$\frac{F1.1}{14}$$

$$\frac{0.0}{14}$$

$$\frac{C0.3}{0}$$

$$\frac{F0.8}{14}$$

$$\frac{F0.4}{14}$$

$$\frac{C0.2}{0}$$

$$\frac{F1.5}{14}$$

$$\frac{F0.5}{14}$$

$$\frac{C0.1}{0}$$

$$\frac{F1.8}{14}$$

$$\frac{F0.3}{14}$$

$$\frac{C0.3}{0}$$

$$\frac{F1.3}{14}$$

$$\frac{F0.4}{14}$$

$$\frac{C0.4}{0}$$

$$\frac{F0.5}{14}$$

$$\frac{F0.8}{14}$$

$$\frac{C0.2}{0}$$

$$\frac{F0.6}{14}$$

$$\frac{F1.4}{14}$$

$$\frac{F0.1}{0}$$

$$\frac{F1.4}{14}$$

$$\frac{F1.3}{14}$$

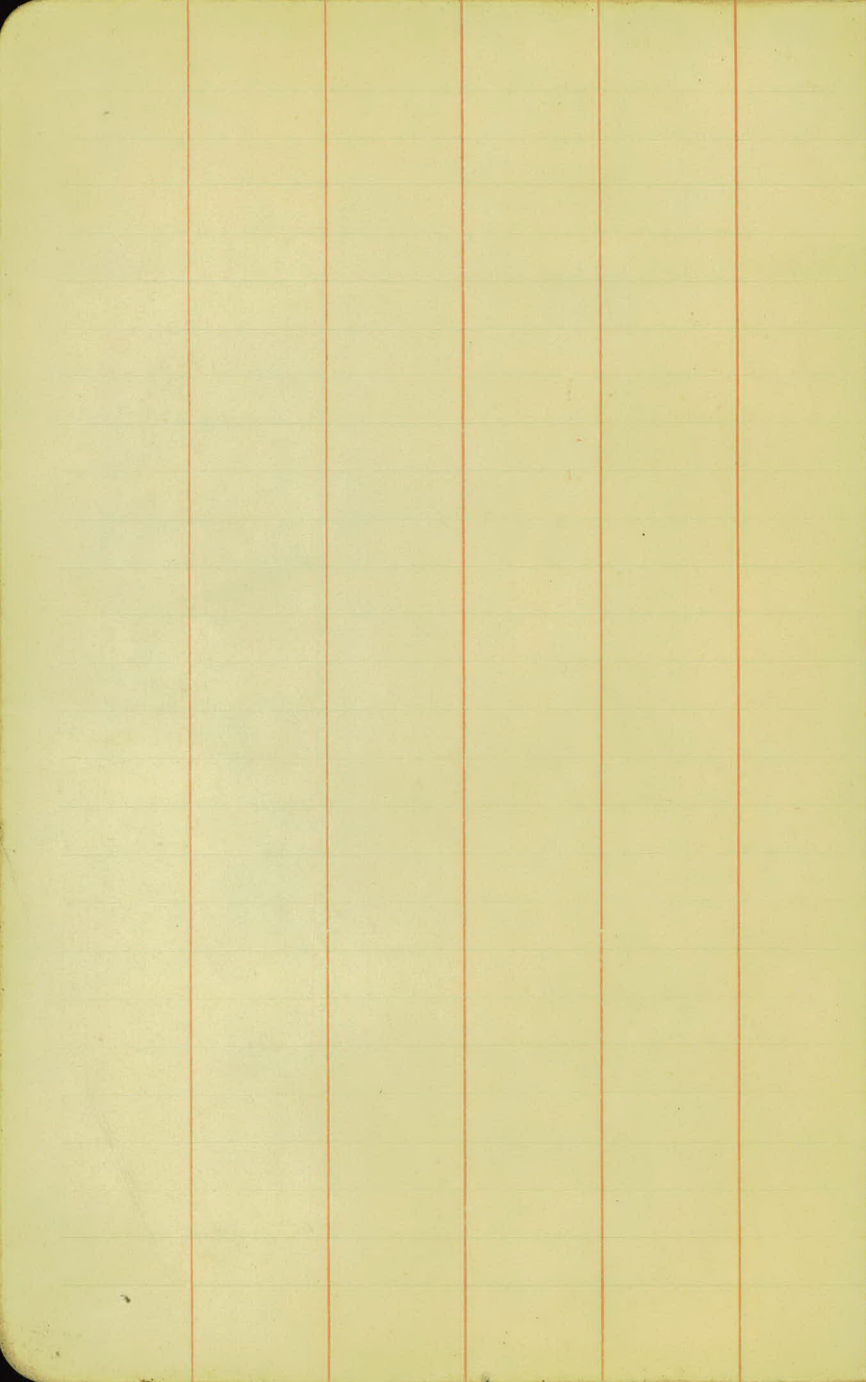
$$\frac{F0.1}{0}$$

$$\frac{F1.4}{14}$$

$$\frac{F1.3}{14}$$

$$\frac{F0.1}{0}$$

$$\frac{F1.5}{14}$$



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	25.2	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 $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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