

Dr. G. - R. 30

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Survey

OTTER LAKE RD.

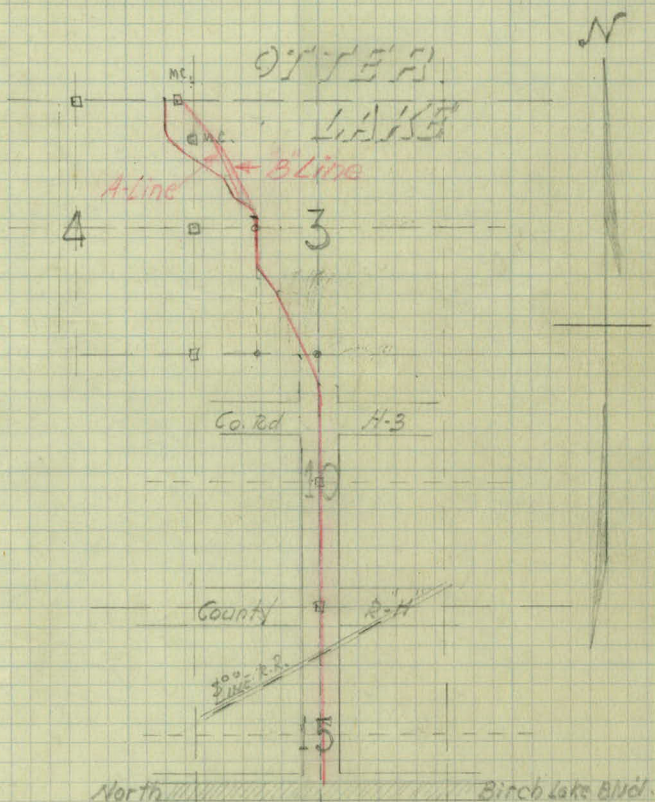
From Birch L. Rd. to N. Co. Line

Road Accl 25

Date Filed 192

File 270 D. 6

Plan Survey/
Otter Lake Road
 N. Birch Lake Blvd. - No. County Line.



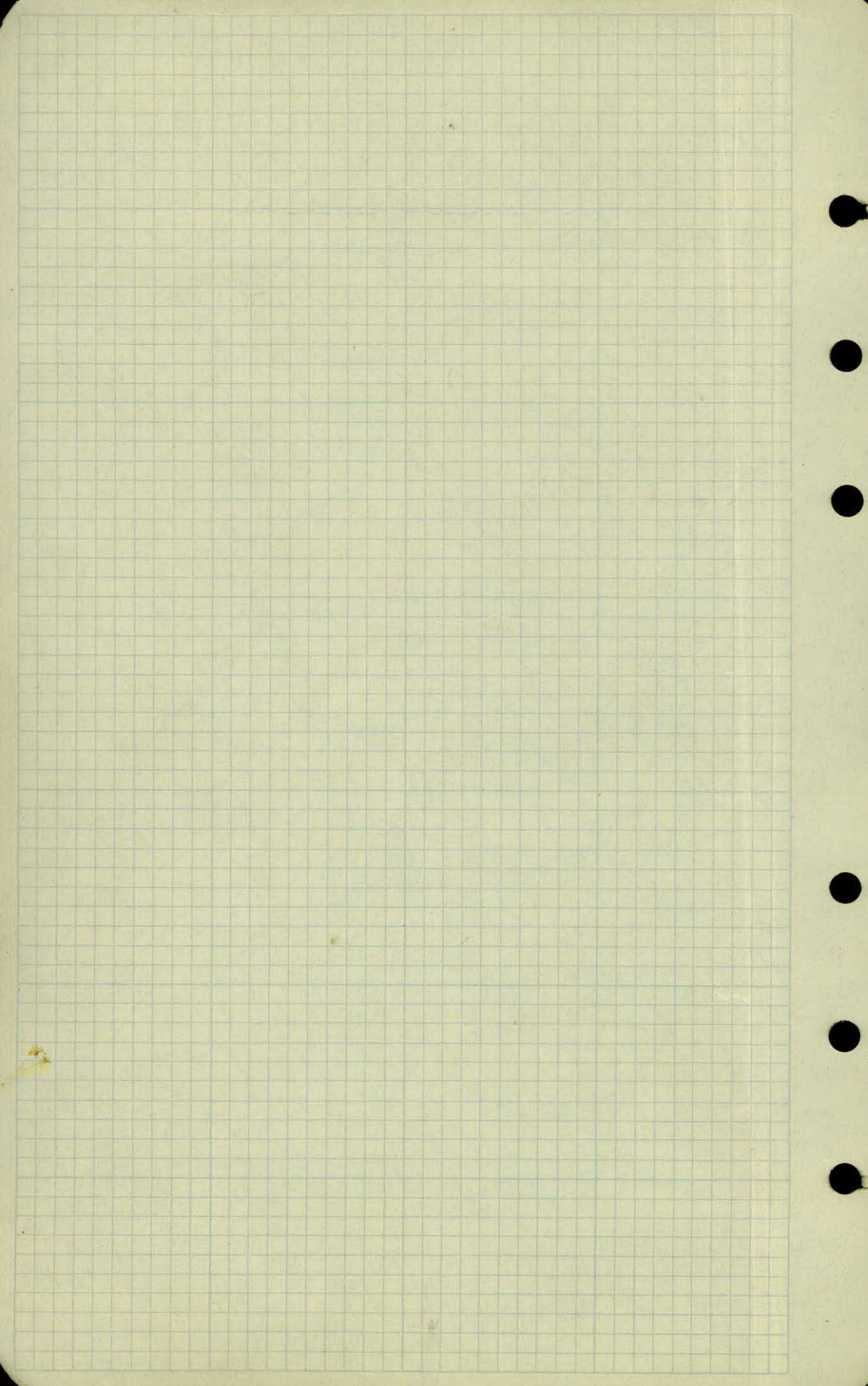
BIRCH
 LAKE

INDEX

align	1-8
Topog	9-31A
X-sec.	32-64
check levels	65-67

W. A. Carlson
 Oct. 1936

(B' line p. 91) (A-line p. 92)



1
alignment

Otter Lake Road

N. Birch Lake Blvd. to N. Co. Line

Station	Point	Angle		Bear.
		Left	Right	

105+69.42	P.I. Mon.		0°-11' R.	
-----------	-----------	--	-----------	--

99+69.78	P.O.T. & Line			
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90+04.06	P.O.V.			
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N-0°-00'

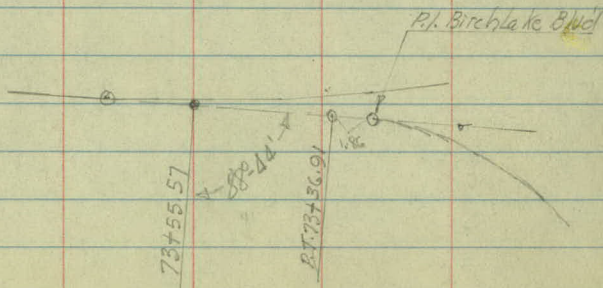
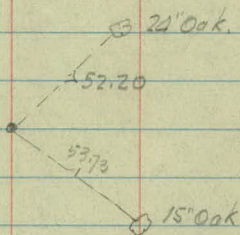
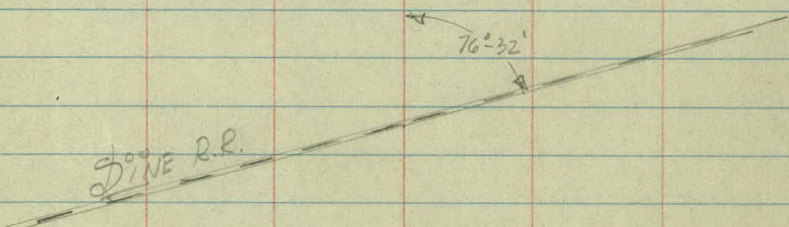
73+56.57	}
73+55.57	

W.H. Carlson
K. Anker
L.B. Hendrix
A. Moeschter

2

Oct. 8, 1936

10" Oak Section 10 P.B.P.
192.40 43.23
Section 15 23.59
8" Oak



Station Point Angle
Lt. - Rt.

158+95.96 P.O.T

N-26°49'W

152+78.24 P.T. 13°30'

+50 11°48.3'

P.I. = 151+68.08

152 8°48.3'

Δ 27°00' Lt.

+50 5°48.3'

D = 12°

151 2°48.3'

T = 114.84 ✓

150+53.24 P.C. 0°00'

L.G. 225°00' ✓

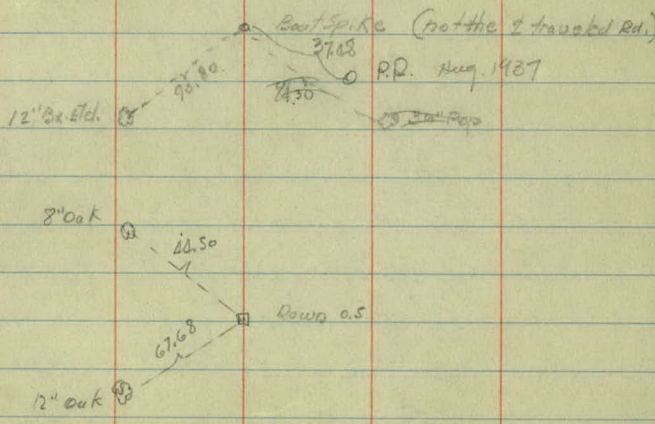
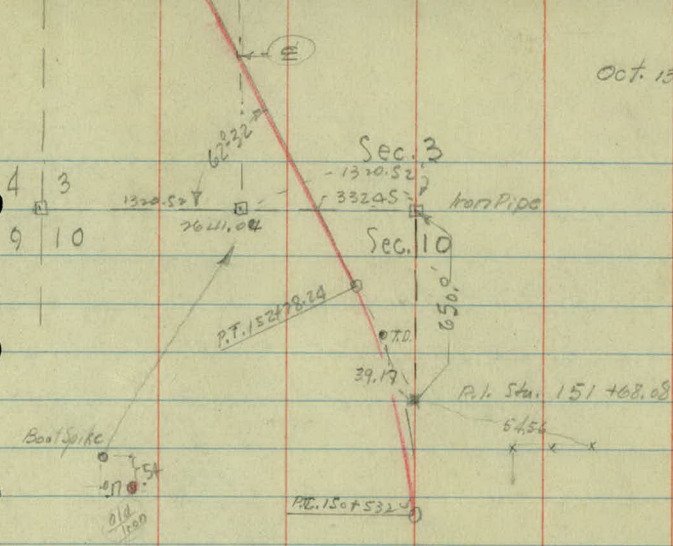
R = 478.34 ✓

45+08.77 P.O.T = 42.3

N-0°11'E

131+99.47 P.O.T.
Et. Mon

Oct. 13, 1936



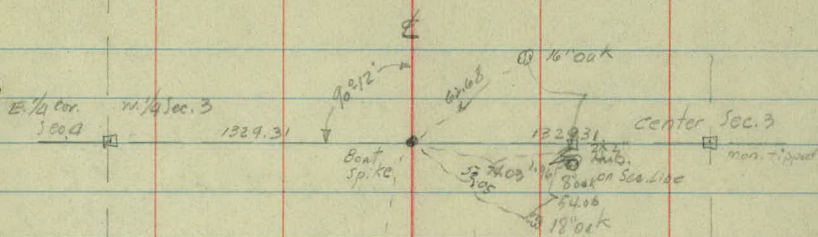
Station	Point	Angle	
		Lt	Rt
188+47.05	P.O.T. on Sec Line		
178+25.30 ✓	P.T.		21°-48.5'
178			19°-54.6'
+50			16°-09.6'
177			12°-24.6'
+50			8°-39.6'
176			4°-54.6'
+50			1°-09.6'
175+34.52 ✓	P.C.		0°-00'

Note this Curve
 Changed to 8°
 Dec. 2, 1936
 See Const. Notes

N-00°18'E

N-43°-19'W

170+98.48 ✓	P.T.	8°-15'	
+50		6°-47.7'	P.I. 169+62.0
170		5°-17.7'	Δ 16°-30'
+50		3°-47.7'	D= 6°00' Lt.
169		2°-17.7'	T. 138.52 ✓
+50		0°-47.7'	L. 275.00 ✓
168+23.48 ✓	P.C.	0°-00'	P= 955.37 ✓



2632.2 - Recorded

2' x 2' Hub.

1175.03

2656.9 - Recorded

170+9248

168+2348

2' x 2' Hub

4 3
 Mont.
 9 10

1320.52

Bent Spike

1320.52

332.45

Iron Mon.

Station Point angle
Lt. Rt.

N-16°-20' W.

198+32.7 ✓ P.T.

17°-11'

198

14°-34'

P.I. 197+29.0

+50

10°-34'

Δ 34°-22' RT

197

6°-34'

D-160

+50

2°-34'

T. 111.09 ✓

196+17.91 ✓ P.C.

0°-00'

L. 214.79 ✓

R. 359.26 ✓

N-50°-42' W.

192+45.06 ✓ P.T.

25°-30'

192

20°-59.6'

P.I. 191+27.4

+50

15°-59.6'

Δ 51°-00'

191

10°-59.6'

D-202 Lt.

+50

5°-59.6'

T. 1373.4 ✓

190

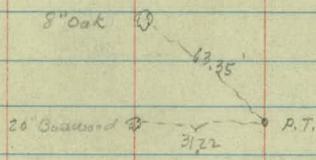
0°-59.6'

L.C. 255° ✓

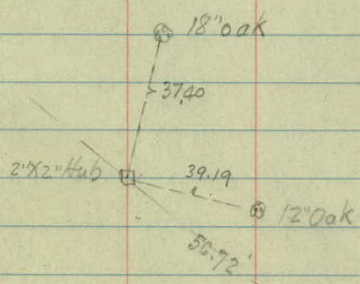
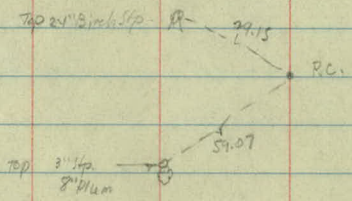
189+90.06 ✓ P.C.

0°-00'

R. 287.94 ✓



2" X 2" Hub



20" Oak on Back Ten
3 Nails

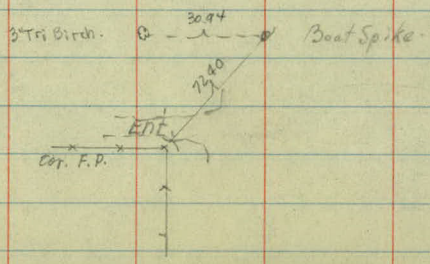
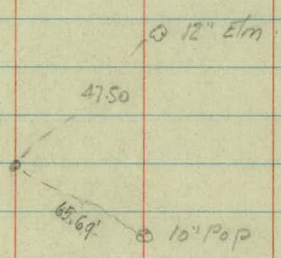
Station Point Angle
Lt Rt.

N-51°-46'W.

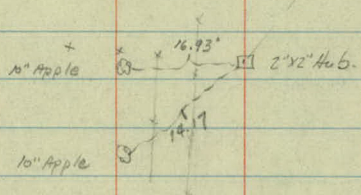
212+41.1 ✓	P.T.	15°-30'	
212		13°-26.7'	P.I. 210+90.2
+50		10°-56.7'	Δ 31°-00' Lt.
211		8°-26.7'	D- 10°-00'
+50		5°-56.7'	T. 159.10 ✓
210		3°-26.7'	L.C. 310.0 ✓
+50		0°-56.7'	R= 573.69 ✓
209+31.1	P.C.	0°-00'	

N-20°-46'W.

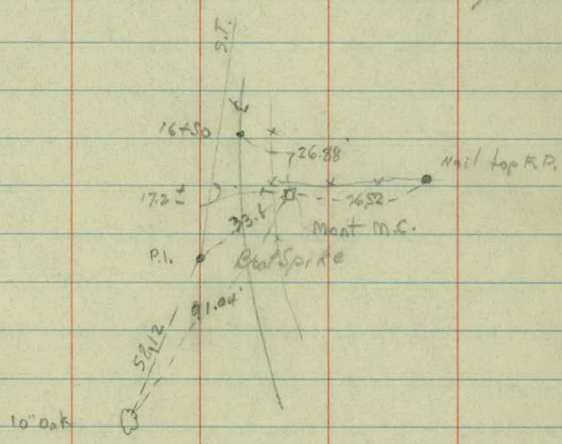
205+79.21 ✓	P.T.	2°-13'	
+50		1°-55.5'	P.I. 204+68.44
205		1°-25.5'	Δ 40°-26' Lt.
+50		0°-55.5'	D= 2°-00'
204		0°-25.5'	T. 110.9 ✓
203+57.54	P.C.	0°-00'	L. 221.67 ✓
			R= 2864.93 ✓



		angle		
Sta.	Point	Lt	Rt.	
225+50.58 ✓	P.T.		19° 46.5'	N 10° 47' W.
225			17° 45.1'	
+50			15° 45.1'	
224			13° 45.1'	P.I. 223+13.9
+50			11° 45.1'	Δ 39° 33'
223			9° 45.1'	8° C. Rt.
+50			7° 45.1'	T. 257.70 ✓
222			5° 45.1'	L. 494.38 ✓
+50			3° 45.1'	R= 716.78 ✓
221			1° 45.1'	N 46° 26' W.
220+56.2 ✓	P.C.		0° 00'	
217+42.4 ✓	P.T.		5° 43'	
217			4° 52.1'	P.I. 216+00
+50			3° 52.1'	Δ 11° 26' Rt.
216			2° 52.1'	D-4900
+50			1° 52.1'	T. 143.43 ✓
215			0° 52.1'	L.C. 285.83 ✓
214+56.57 ✓	P.C.		0° 00'	R= 1432.69 ✓



Oct. 19, 1936



Station	Point	Angle	
		Lt.	Rt.

225+6796	End { Anoka Co. Ramsey Co.		
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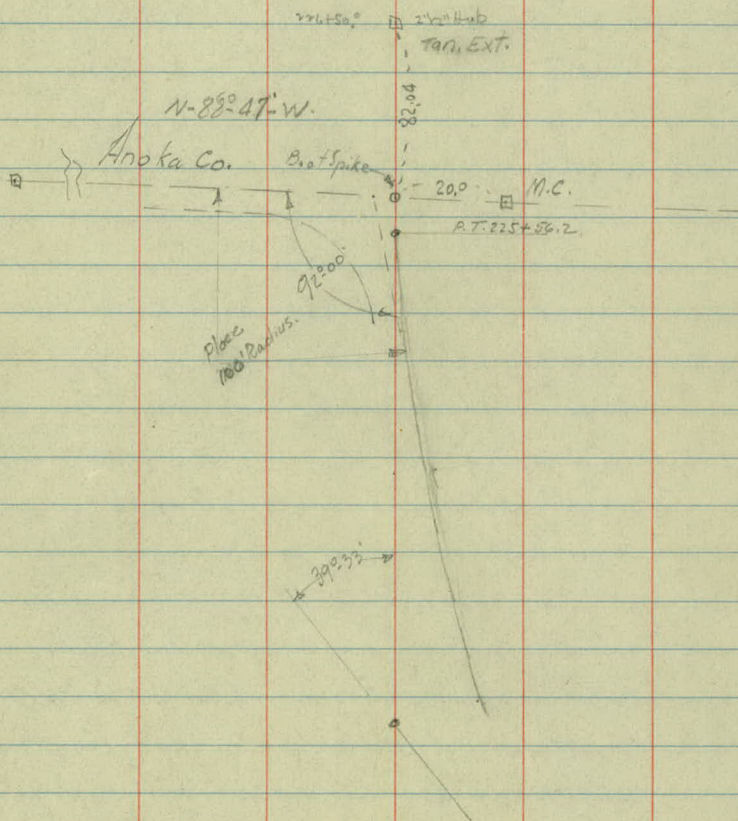
W.H. Carlson.

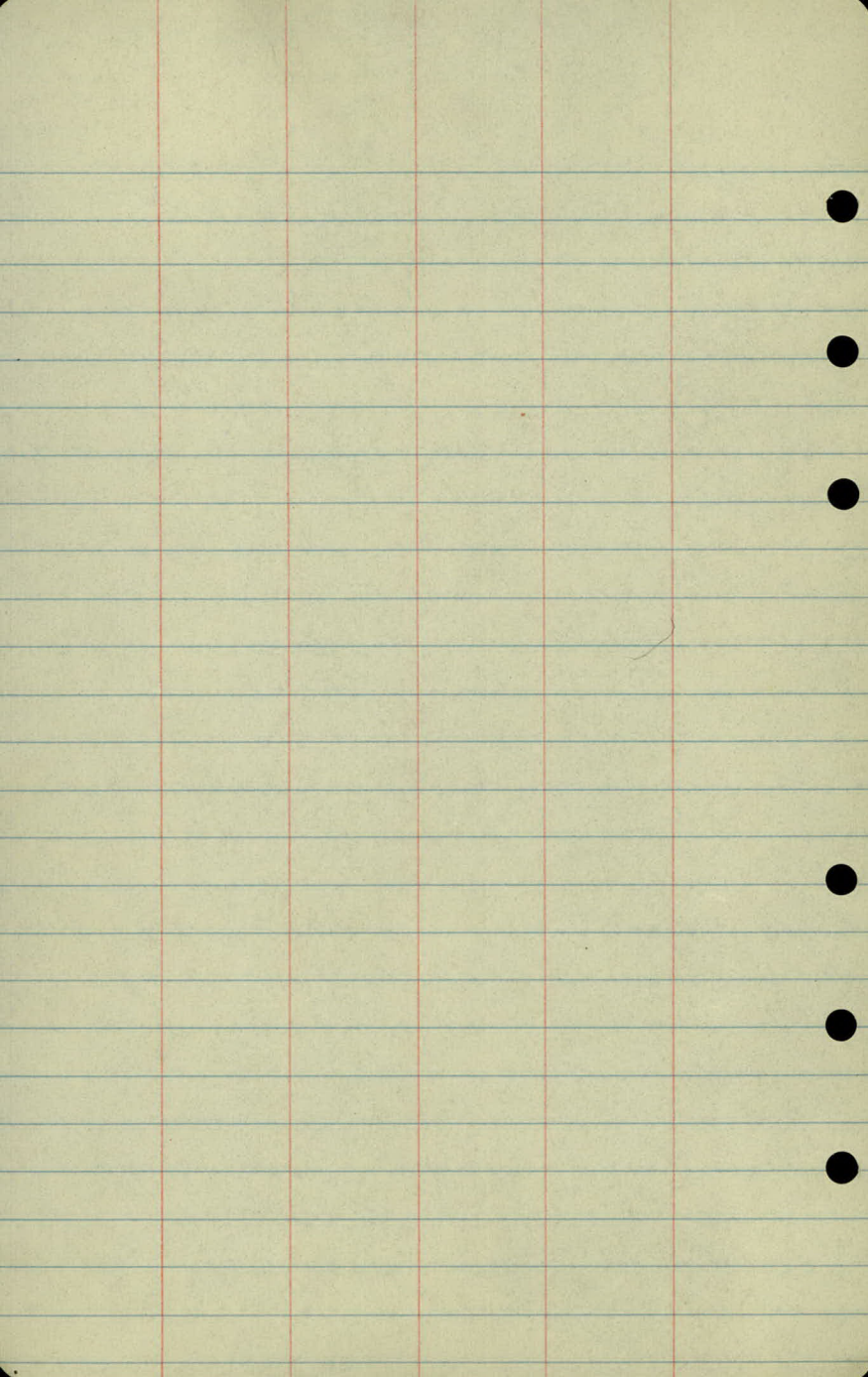
K. Anter.

Oct. 20, 1936

L.B. Hendrix

A. Mooschter





Topography.

Otter Lake Road.

N. Birch Blvd - N. County Line.

Meiz't 650. No. of

P. 1. at 151 + 68.08

332.45 E. of E

78

12 12'

77

12 12'

Lt + Rt

76

12 12'

Paved Road

75

11 - 11

Gravel Surface
Sandy Loam

74

+ 80 - 15" x 40" C.M.

11' 12'

20' - 24'
+ 67.2' Edge of Pav.19.755.37
19.755.37

73

F-31

F-25

10

+99-R.R. 17'
+R-F.C. 31'

9' High Angle 11' Posts.

F-25

+63-18" Oak 35'
+60-18" Oak 33'

+40-15" Oak 32'
+24-10" Oak 32'

F-25

+93-24" Oak 27'

+59-R.P. 16'

+99-12" Pop. 20'

+06-15" Tw. Oak 26'

F-25

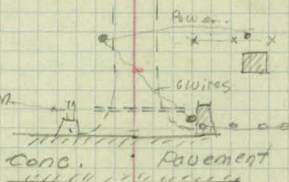
+16-R.P. 16'
+14-36" Elm 24'

+21-2 Oak
+17-R.P. 58' (B.M.)
+16-F.C. 31'
+11-12" Oak 32'
+00-S.W. Rump No. 56 9x9'

+77-End Spill. 1/2 vent-32' (1.5' x 0.5' M.)

+08-1/2 Spill. 1/2 Edge Pav.
32'

+80-End Spill-32'
+68-1/2 Spill 1/2 Edge
Pav. 35'
+16-T.P. 30'
+73-Q.R. 33'



See Otter Lake Rd. Survey
for Addl. Notes 1936

BIRCH LAKE

W. H. Carlson
K. Anker
L. B. Hendrix
A. Moeschter

Oct. 9, 1936

13 - 11

84

13 11

83

13 11

82

13 11

81

13 - 11

80

12 11

+16-2 12' X 40' C.M.
OK.

21 - ~~19~~ 11

79

13 - 12

78

Fence 33'

11

145-24" Oak 33'

+13 R.P. 20

+23-8" Oak 32'
+16-15" Oak 20'
+10-12" Oak 34'

Scattered Oaks

+09-R.P. 19'

+14-24" Oak 38'
+03-Ext. 12x16 CM
17'

Draw

+80-R.P. 19'
T.P.

+06-15" Tw Oak 36'

+50-R.P. 19'
T.P.

Waste
Land

Pasture & Scattered Trees

F-31'
+70 R.P. 18'

+10-F. 6 or 30'

+5-10" Birch 25'

+36-12" No Birch 32'

Scat
Trees

13 9

91

14 9

90

14 11

89

14' 12

88

14 10

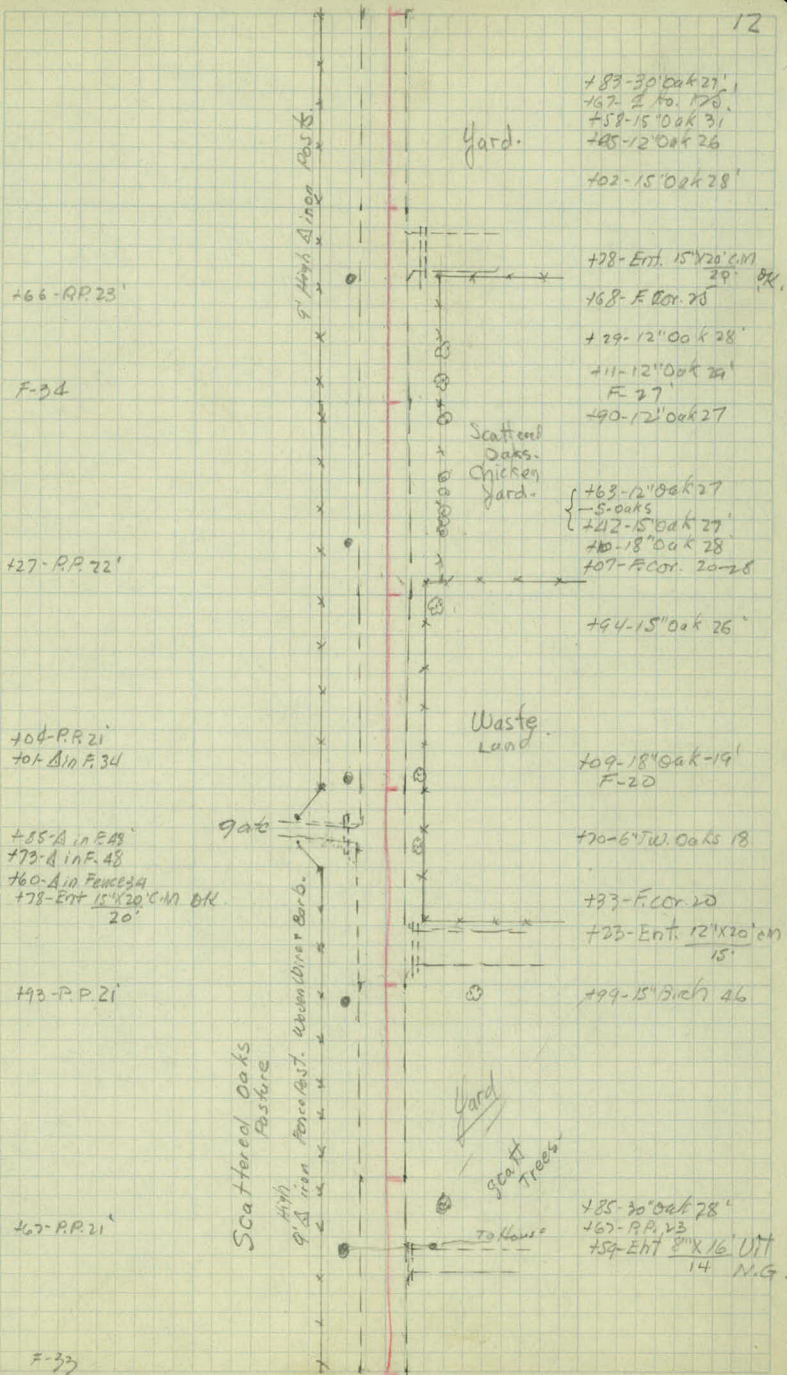
87

13 10

86

13 10

85



10 10

98

10-11'

+79 - d 18" X 4' C.M. OK - 23' - 18'

97

10 12

96

11 12

95

11 13

94

11 - 12'

93

12 10

+45 - E Rd. East

92

13 11

129-13" W. 11'
22'

F-25

F-24

Pasture

+72-F. cor. 23

+11-15" Oak 4'

+95-12" Oak 88'

Cultivated

Yard

+62-12" Oak 38'
 +63-25' Sap 20" x 4' wide
 +61-18" Pop 38'
 +52-15" Pop 38'
 +63-2" House 168'
 +45-N.W. Cor. 72'
 +36-S.W. Cor. 70', 73'-40'
 +32-24' Pop 36'

12' (Bar)

Yard

+91- Pop. 32'
 +76- Road Pop 31'

+45-Rd. E. 15" x 5.5' CM
16'

Waste Land

+45-F. cor. 35'

+80-P. R. 23'

Pasture

+76-Hedge Line, 24'
 +04-18" Oak 32'

Yard

+69.42 = 6' Co. Red 'H'
 } mon.

105

9 14

104

10 12

103

10 13

102

9 13

101

9-12'

+65.2 12" x 40' C.M. OK, 10-10'

100

9-8

+69.78 = 6' 2 1/2" Dia 16' Hook- 7-9

99

+94-P.P. 36' 14

+80

Co. Ed "N"

+81-Ent

+58

+42-F. Cor. 24'

+76-P.P. 22'

Cult.

F-23'

Scattered Trees.

+35-P.P. 22'

F-23

+95-P.P. to No. 34

+35-2 No. 130'

+74-P.P. 22'

Yard

+52-Ent. 15'x20' CM 78' OR.

F-24

Cult.

Waste Land.

+16-P.P. 23'
+14-F. Cor. 78'

+10-Ramp

76-32

\$1.00
LINE R.R.

+19-R.R.T.P. 78'

+12-P.P. 22'
+12-F. Cor. 32'

+18-Ramp

+25-F. Cor. 25

10-11

112

9 11

403 12' x 34' Unit
10' 10' 10'
2.2

18-16

111

11 12

110

12 12

109

11-11

108

9 - 12

107

9-12

106

F 21'

124-P.P.21

F-21

13U-F, Cor. 72

F-21'

471- P.P. 21

F.23

+20 P.P 22'

182-F. Cor. 23

463-Ent.

+77-RP.22'

12th S.E. Cor. 2-57.
57 78'

427-P.P. 22'

Yard.

+90-12" Pop 42"
+68-N.W. 1-S.F.
90

+31-ENT
+73-FLINE-32
+22-10-190-35
+16-ENT

193-N.W. 1/4 F.
28' 24' 90'

+ 42

406-P.P. 76'

cult.

+90-Cr Timber 79

Timber 34'

471-Beg Small Oak 32'

Farm Yard.

Wast

12-8

119

12'

118

10-8

117

10-9

116

10-9

115

10-10

114

10-12

113

F-24

F-25

16

Swampy
Waste land

Small Brush

Swampy
Brush

+82 - E. cor. 24'

+09 - E. cor. 27'

+85 - Still Water St.
+95 - Shldr.

+76 - Shldr.

F-20

Cult.

Fence very poor. No wire

Waste land.

F-20

+61 - Ent. 15' x 20' x 18' Ho

+38 - End P.R. 21'

+50 - Ent. 12' x 20' x 35' CK

+39 - 7 up P. 25'

F-20

Cult.

+79 - P.R. 21'

Cult.

+01 - Ent. (Ent. Not req.)

10 11

126

11 11

125

10 10

124

11 10

123

11 9

122

12 10

121

12 9

120

F-76'

F-72'

17

F-75'

F-34

+87-12" Oak 33'

F-76'

F-78'

Cult.

Pasture.

F-25'

F-25'

F-24'

Swampy

F-25'

+54 Fcor 75'

F-24'

F-25'

13 10

133

11 - 11

132 199.07 - non.

10 10

131

11 - 11

130

11 10

129

11 - 11

128

11 11

127

F-28

F-17

18

499-End Row
Oaks 75

132-6'E/m33

F-22

2/14/50

Pasture.

12-oak 510'x

405-Beglow Oak-28'
F-18'

199-P.P. 14

412-8 Sak-17'

412-10" Oak 14"

F-17

+ 80 - F. Cor. 19'

173-Eht. $\frac{12' \times 16' \text{ CM.}}{17'}$ fair

+39-15' Oak-32

+17-S.E. Cor. No. 98
+122" Birch 27-31.26

+92-6'E 10 29'

185- End Fence 22'

F-22'

Pr. 12/1

24/4.

436-5-12' oaks 37

499 - F. Cox. 19

4.9-P.P. 15' (Bogin.)

261-27000075

+53-6172.00 L 26

714-6" oak - 25'

F-20'

+92-6100K 26'

F-22

F-28

F-28

Parakeets

17 5

140

17 5

139

18 6

138

17 6

137

17 6

136

16 7

135

13 9

134

F-34'

F-24'

19

F-33'

F-37

F-34'

Trans Pipe Post.

Down Wire.

+54-F Cor. 33'

+58-N.E. Cor. 148'

+47-Elm. (N. & 90°)

+70 S.E. Cor. 105-F. 20 E. & W.

+19-6" Elm 34'

F-29'

+58-12" Elm 32'

F-29'

+99-10" Elm 32'

+71-8" Elm 31'

+12-8" Elm 32'

F-31'

+108-F Cor. 31'

Cult.

Meadow.

+61-P.P. 9'

+71-F Cor. 41'

+64-F Cor. 16'

+31-12" Oak 17'

+75-8" Oak 19'

F-15'

+90-P.P. 10'

+42-8" Oak 20'

F-15'

+76-12" Oak 22'

+27-P.P. 11'

F-16'

F-16'

+65-P.P. 12'

+35-15" Oak 28'

9 11

147

10 10

146

12 9

9' - +65

+45-16

145

702-2 15' x 200' W.

22 - 18'

+85-15 6

144

16-8'

143

17 6

Note: Place Ent at 14#96.Rt.

142

18 6

141

F-70'

Waste Land

Waste Land

+32 G.P. 32'
+19-T.P. 17'
F-22'

+144 Beg. P. 2 U'

+130
(Grave 1)
+07

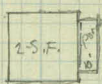
X-3

(Grave 2)
+07

+95-T.P. 16

+83-P.P. 21'
(End)

+57-N.E. Cor. 25'



+20-S.E. Cor. 16. 80

+92-ENT

+75-F Cor. 36'

+28-36" Co # 30'

+04-30" Co # 31'

+80-30" Co # 33'

+56-30" Co # 34'

+36-P.P. 21'

+08-18" Co # 38'
F-35'

Chick
Land
Treas

+50-N.W. Cor. 77'
1-S.F.



+18-S.W. Cor.
+37-36" Co # 38'

+21-30" Co # 38'

+05-30" Co # 39'

+98-F Cor. 34'

Pasture

ENT

ENT

+62-F Cor. 32'

+28-P.P. 15'

Pasture

10 11

154

8 12

153

6-12

150 6-13

152

6 13

150-8-12

151

10 10

150 11'-8

150

10-9

149

10 10

148

F-25'

+73-T.P. 17'

F-24'

+50-F. 22'

+0.4-T.P. 22'
F-24'

EQU. +56-F. cor. 20

F-17'

+13-T.P. 15'

F-16'

F-18

+21-T.P. 19

Load

Posture

Waste

+92-Ent

13-9

161

13-9

160

11-9

159

13-10

158

11-11

157

10-11

156

9-10

70-1 12" X 45' C.M.

21-24

155

+61-T.P. 19'

F-24'

F-24'

Pasture

Waste Land.

+40-Ent.

+80-T.P. 19'

+11-F. Cor. 23'

+80-F. Cor. 21'

F-20'

+76-T.P. 18'

Waste Land.

Pasture.

F-18'

Swampy

Brush.

F-21'

+58-T.P. 18'

10 12

150 9-12

(House
26' N x 5', 49' E x W.)

168

9 12

167

9 11

166

10 10

165

11 10

164

12 9

163

13 8

162

Save -

+62-Bay Hedges 27'

+58-M.E. Cor. 67'

+41-Ent. (Int.)

+31-S.E. Cor 1-S, F 80'

+41-8" Bx E 14' 35'

+23-8" Bx E 14' 36'

+04-8" Bx E 14' 38'

+80-2-2' Breakstuffs

50'

+57-M.E. Cor. Orchard

45'

+02-Trec 31' (Save)

+80-S.E. Cor. Apple Orchard 55'

cut

Yard

+07-Ramp to Hwy

+01
Ramp to+95-T.P. - 22
(Lost P.W.)

+18-T.P. 21'

Wardland

Waste Land

+52-F. Cor 25'

F-25'

+40-Ramp to

+40-T.P. 20'

11 11

8-13

175

9-12

174

10-12

173

8-12

172

9-12

9-12

171

10-11

10-10

170

11-11

150 11-12

169

Meadow.

Low

Waste Land.

Cult.

Sandy / Sub Soil
etc. / top "

3 16

182

4 - 16

+ 85-2 18" X 32" C.M.

11' - 21

- good -

181

5 - 15

180

5 15

179

6 15

18 5 - 15'

178

5 15

8 - 12

177

11 - 10

12 10

176

Cult.

~~Draw~~

+58 Land Line.

Cult.

2 17

189

2 19

188

5 - 15

187

4 18

186

4 - 15'

185

4 15

184

4 - 16

183

P.C. 20' Curve 184+90.06

+86-12' Oak 27 26
 +80-12' Oak 28
 +63-12' Oak 28 - Reg. 15
 +58-21' Oak 236

Oct. 21, 1936
 color w. map.

off for

pot hole

cult.

cult.

+40-24' Oak 45
 +65-10' Oak 41

+32-18' Oak 42
 +08-18' Oak 436

+81-Ent.
 +60-24' Oak 45
 (3' Oak)
 +27-10' Oak 30
 +22-25' Oak 20
 +32-N.W. Cor. 79
 +16-24' Oak 49 12
 +13-25' F 32
 (24' N. 15) (31' E. 10)
 +96-30' Oak 37
 +70- Fence 81

+67- Fence

+88

13 8

11 10

196

12-9'

MT 410-16.250' Lt. ±

195

12-7'

194

11 7

193

9 10

+41-9-10

192

5-13

2-20'

426-2 18'x37' C.M. OK 3-34'

191

4-23'

0-20'

190

157-15" oak 15'
153-12" oak 28'

R.C. 196+17.91

198-6" Birch 19'
173-18" Birch 29'
155-12" oak 19'

128-15" oak 20'
176-24" Elm 35'
160-Range to Ent

152-15" Elm 52'

Yard

Ent

R.T. 192+45.06

Alb. Co.

Old Lake Shore

160-12" Oak 27.34'

156-24" Oak 34' R

101-12" oak 28'
R-28

Timber

13-8

+50 11-8'

203

10 9'

202

9-9'

201

11-10

200

11-10

+17-6 18'X35'CM. BK.

(20'-15')

199

13-7'

+32 14-5

198

15 5

14 7

197

P.C. 203 +57.54

+70-36' Oak 18'

+59-F Cor. 23'

+ Race 5 +33

+70-F Cor. 17'

+69-15" Oak 26'

+55-12" Oak 20'

+36-15" Oak 22'

Tree 21'

F-20

45-20

F-18

55-20

F

+33-12" Maple 22'

+30-F Line 33

cult.

Pinus

+91-18" Oak 17'

+84-15" Oak 15'

+35-15" Oak - 15'

Br. 35'

Br. 35'

Br. 35'

R.T. 198 +32.7

Willow
Brush

+64-15" Oak 13'

+34-18" Elm 15'

+08-18" Elm 30'

23-42

14-34

210

2-24'

9' - 10'

209

10-5'

22'-0

208

26-6

+ 92' 12" X 32' 0" 10'

(30-2')

29-8

207

30-26

229

206

28-8

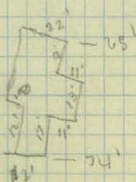
25'-5

205

21'-2

+ 50 17-3

204



+79-18" oak 12'
 +47-15" oak 8'
 +36-18" oak 1'
 +23-18" oak 1'
 F-7'

+87-18" oak 6'
 +80-24" oak 5'
 +50-F-5'-41'

+90-18" oak 20'

F-31'

+57-F con 22'
 (Range 51)

+90-18" oak 22'
 +50-19'
 F-12'

P.C. 209+31.1

F-28'

+92-15" oak 15'
 +57-15" oak 8'
 F-4'

F-33'

F-31'

F-1'

Cult.

283 1/2' + 5'

+50-36' F-3'

+39-10' + 6'

38' F-5')

+50 (37' F-5')

Berries

40' F-3'

Begin Fence.

P.T. 205+79.21

+73-5" oak 22'

+50-F-2'

+35-15" oak 34'
 90.706 N.E. cor. No. 65

F-6'



Do Not Disturb Bank

+70 S.E. Cor. Line 1/4 Sec. 24

Pasture

+22-Ent. 12" x 27'
 20'
 +04-F con 20'

+12-12" oak 21'
 F-12'

20-0

18-2

 $\sqrt{37-18'' \times 36' CM}$
 O.K.

(26' - 10')

217

12-4

17-4

216

17-4'

19-2

215

21'-0

22'-0

214

19'-5'

14-9

213

7-15

1-33'

212

10-30

 $\sqrt{33-2' \times 38' CM}$
 O.K.

→ 7'-45'

21-40

211

F-29'

F-9'
+85-15" Elm 10'

F-26'

F-7'
217+42.4

F-24'

+03-15" Elm 7'

F-24'

F-27'

+65-12" Oak 11'

F-10'

+27-F. Cor. 10'

F-10'

+90-B in F. 25'

+76-15" Oak 29'

+59-12" Oak 28'

+80 F- NXS - 64'

Tree line 58'

+94-F. Cor 32'

+80-15" Elm 16'

F-9'

+47-10" Birch 20'

F-29'
Tree line 30'

F-7'

+73-15" Birch 19'
P.C. 214+86.57

F-5'

F-27'
Tree Line 33'

Tree line 38'
F-23'

F-8'

F-17'
+58-18" Oak 31'

+23-18" Oak 23'

F-10'

F-13'

+31-15" Elm 23'

F-19'

+84-18" Oak 23'

+97-15" Elm 23'
+75-15" Elm 27'

F-26'

+30-F-3' P.T. 212+41.1

F-6' - F-36'

F-14' - F-45'

+01-12" Oak 21'

Pasture

Pasture

Oaks



Q

Q

Q

Q

24-4



29-10

465-5. E. Con. B. 10. 166

224

30-12

32'-12'

223

31'-12

28-10

222

24-5

20-1

221

15'-2

18-0

220

19-0

21-0

219

21'-1

20-4

218

F-33-

F-3-

31

+50 F-40-5
+50-Ent.

+67-18' 2m 18'

+01-15" Oak 40'
F-41-8

+42-00 7/10 Ent.
+39-36' Oak 4'

F-41-8

F-42-8

F-39-2

Pasture B

F-34'

Pasture

+04-6' Turn-3
ADP 6
F-2'

F-27'

+50-4'

F-24'

+20-15" Ash-17'

Oaks-

F-6'

+21-18"-18'

F-25'

P.C. 220+56.2

F-0'

F-76'

F-5'

F-78'

+97-15" Elm 15'

F-5'

F-70'

Pasture Oaks

Q2

Old to Shore.

F-6'

+45-15" Feb 7'
+97-15" Feb 9'

F-5'

F-30'

Pasture

227

103-12" X 20" C.M.

226

Extended

1-19"

10-14-26

2-13

225+67.96 - North County Line.

147 15" X 60" C.M.
18"

46' - 14'

10-10-23

225

For Loc. of farm buildings
see Machine Notes.

F-32

F-23

Amoka Co.

468-FCor.

P.T. 225+50.58

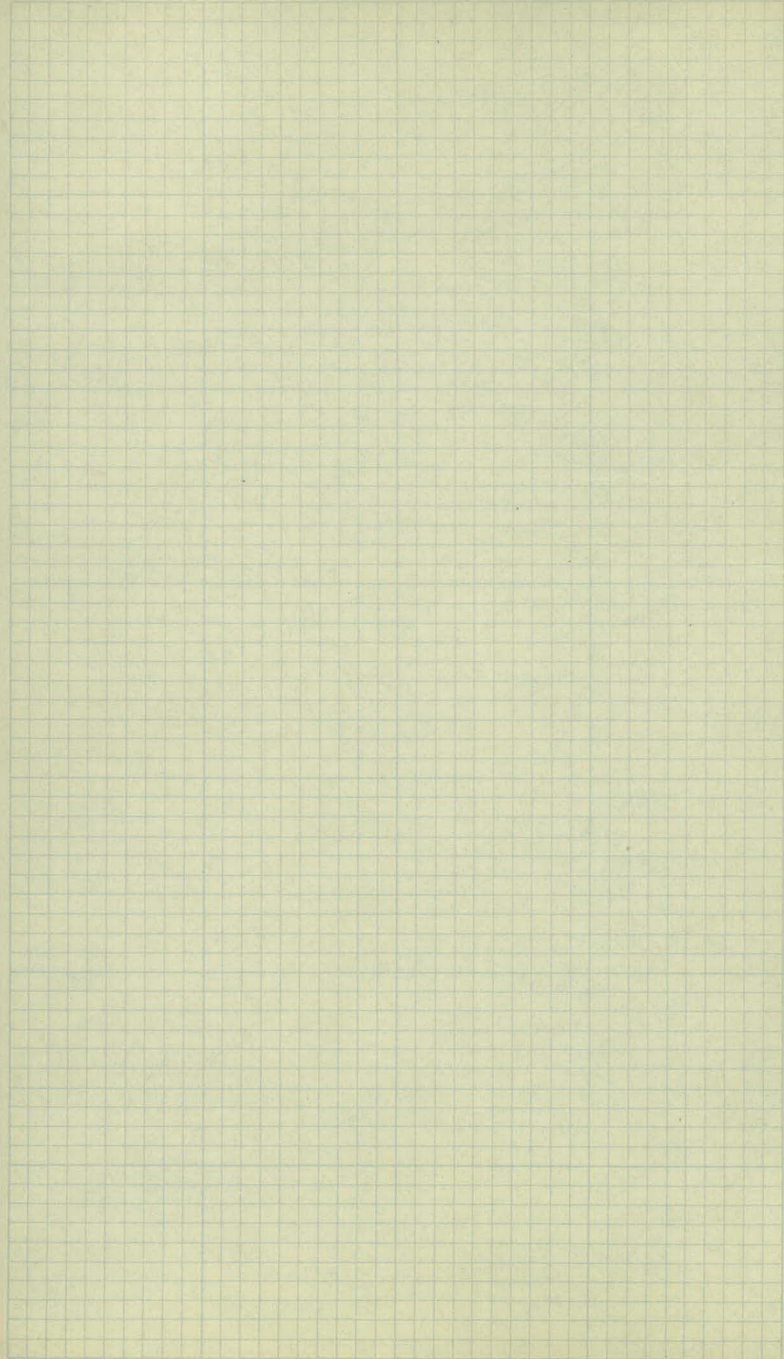
Ramsey Co.

+79.

+49-F. Line W. 58

+58

468-F. 32'



Cross-Sections.

Otter Lake Road.

N. Birch Lake Blvd to N. Co. Line.

Station	+	π ✓	-	Elev.
B.M.	5.50	928.26		922.76

73+56.57 = Birch Lake Blvd North.
Pavement.

924.47 -

74 20 N. edge Pav.

24.15 -

74 23.5 -

+50 23.0 -

75 23.1 -

+50 23.3 -

76 23.3 -

+50 23.6 -

77 23.6 -

T.P.	5.00	928.61 ✓	4.65	923.61 ✓
------	------	----------	------	----------

+50 23.4 -

78 23.2 -

H. Brattager 33
 H. Wilke
 M. Gillen Oct, 8, 1936

H. 2 Rt.
 (=923.21) Potter Lake Rd. South
 Spike in P. Pole @ Pump Ho. N.E. Corner (Birch Lake Blvd)

3.79

$\frac{4.29}{30}$ 4.11 $\frac{4.36}{30}$ $\frac{4.24}{50}$

$\frac{7.4}{50}$ $\frac{7.8}{32}$ $\frac{7.6}{20}$ $\frac{5.2}{11}$ 4.8 $\frac{5.2}{12}$ $\frac{6.6}{16}$ $\frac{7.3}{26}$ $\frac{6.7}{50}$

$\frac{7.4}{50}$ $\frac{8.1}{29}$ $\frac{8.5}{20}$ $\frac{5.6}{12}$ 5.3 $\frac{5.6}{8}$ $\frac{6.0}{11}$ $\frac{7.3}{14}$ $\frac{8.0}{18}$ $\frac{8.0}{29}$ $\frac{8.0}{50}$

$\frac{4.7}{50}$ $\frac{5.6}{28}$ $\frac{6.8}{25}$ $\frac{6.7}{21}$ $\frac{6.3}{15}$ $\frac{5.6}{12}$ 5.2 $\frac{5.4}{7}$ $\frac{5.7}{11}$ $\frac{7.2}{11}$ $\frac{7.0}{18}$ $\frac{6.4}{20}$ $\frac{6.3}{28}$ $\frac{6.3}{50}$

$\frac{3.5}{50}$ $\frac{3.5}{29}$ $\frac{5.7}{24}$ $\frac{5.7}{14}$ $\frac{5.4}{12}$ 5.0 $\frac{5.2}{8}$ $\frac{5.7}{13}$ $\frac{7.0}{16}$ $\frac{7.7}{20}$ $\frac{6.7}{25}$ $\frac{6.0}{27}$ $\frac{5.5}{50}$

$\frac{3.0}{50}$ $\frac{3.0}{30}$ $\frac{5.0}{25}$ $\frac{5.2}{13}$ 5.0 $\frac{5.0}{7}$ $\frac{5.4}{12}$ $\frac{6.6}{15}$ $\frac{6.6}{17}$ $\frac{4.7}{20}$ $\frac{4.7}{50}$

$\frac{1.6}{50}$ $\frac{2.1}{30}$ $\frac{5.4}{23}$ $\frac{5.3}{13}$ 4.7 $\frac{4.9}{8}$ $\frac{5.4}{12}$ $\frac{6.1}{15}$ $\frac{6.1}{16}$ $\frac{2.1}{25}$ $\frac{2.4}{30}$ $\frac{4.8}{50}$

$\frac{1.1}{50}$ $\frac{1.1}{29}$ $\frac{5.3}{23}$ $\frac{5.1}{13}$ 4.7 $\frac{5.2}{12}$ $\frac{5.8}{15}$ $\frac{5.8}{17}$ $\frac{4.0}{20}$ $\frac{2.8}{24}$ $\frac{2.8}{34}$ $\frac{6.8}{42}$

Top of Red Sta 77
 $\frac{1.1}{50}$ $\frac{1.1}{30}$ $\frac{6.0}{22}$ $\frac{6.1}{18}$ $\frac{5.6}{12}$ 5.2 $\frac{5.4}{7}$ $\frac{5.8}{13}$ $\frac{6.2}{14}$ $\frac{6.0}{16}$ $\frac{4.6}{19}$ $\frac{3.7}{25}$ $\frac{5.2}{32}$ $\frac{5.6}{39}$
 $\frac{8.4}{50}$

$\frac{2.1}{50}$ $\frac{2.1}{29}$ $\frac{6.7}{22}$ $\frac{6.1}{14}$ $\frac{5.4}{8}$ 5.4 $\frac{5.6}{6}$ $\frac{6.2}{14}$ $\frac{6.4}{17}$ $\frac{4.8}{24}$ $\frac{4.6}{26}$ $\frac{6.8}{34}$ $\frac{8.3}{50}$

	+	π ✓	-	Elev
Sta		928.61		
78+50				23.1 -
79				22.2 -
+50				21.8 -
80				22.1 -
+50				22.4 -
81				22.6 -
T.P	6.04	928.67 ✓	5.98	912.63 ✓
+50				22.8 -
82				22.7 -
+50				22.9 -
+88				23.1 -
83				23.1 -
+50				23.6 -

H Z RT

$$\frac{5.7}{38} \frac{5.7}{28} \frac{7.3}{26} \frac{7.0}{19} \frac{6.2}{14} \frac{5.6}{7} \frac{5.6}{7} \frac{6.3}{14} \frac{7.2}{15} \frac{7.0}{17} \frac{6.2}{25} \frac{6.9}{27} \frac{8.3}{30}$$

$$\frac{8.7}{50} \frac{8.7}{31} \frac{9.2}{21} \frac{7.3}{15} \frac{6.6}{7} \frac{6.6}{7} \frac{7.2}{13} \frac{7.4}{18} \frac{9.8}{31} \frac{9.8}{50}$$

$$\frac{10.6}{50} \frac{10.6}{46} \frac{9.8}{43} \frac{9.8}{33} \frac{10.3}{31} \frac{10.2}{28} \frac{7.2}{13} \frac{6.9}{7} \frac{7.0}{6} \frac{7.8}{13} \frac{10.2}{19} \frac{10.4}{33} \frac{10.4}{50}$$

$$\frac{8.8}{38} \frac{8.8}{31} \frac{9.1}{21} \frac{7.4}{17} \frac{6.9}{14} \frac{6.5}{7} \frac{6.5}{6} \frac{6.6}{13} \frac{8.4}{18} \frac{8.6}{28} \frac{8.0}{30}$$

$$\frac{7.3}{38} \frac{6.7}{31} \frac{6.6}{19} \frac{7.3}{17} \frac{7.3}{16} \frac{6.6}{13} \frac{6.2}{15} \frac{7.2}{16} \frac{8.0}{19} \frac{5.7}{21} \frac{5.0}{28} \frac{5.5}{33} \frac{5.5}{50}$$

$$\frac{6.5}{50} \frac{5.5}{31} \frac{5.2}{24} \frac{6.8}{21} \frac{7.2}{16} \frac{6.2}{13} \frac{6.0}{13} \frac{7.2}{15} \frac{7.1}{16} \frac{4.7}{25} \frac{4.7}{50}$$

$$\frac{6.0}{38} \frac{5.0}{32} \frac{4.6}{21} \frac{6.7}{18} \frac{7.0}{16} \frac{6.2}{15} \frac{6.5}{12} \frac{7.1}{15} \frac{6.9}{17} \frac{5.3}{21} \frac{5.8}{24} \frac{6.0}{50}$$

$$\frac{5.6}{50} \frac{5.6}{32} \frac{5.3}{21} \frac{7.0}{18} \frac{7.0}{16} \frac{6.3}{14} \frac{6.2}{12} \frac{7.3}{15} \frac{7.4}{18} \frac{6.6}{20} \frac{7.2}{33} \frac{7.7}{50}$$

$$\frac{4.9}{38} \frac{5.9}{32} \frac{5.8}{21} \frac{7.2}{19} \frac{7.2}{18} \frac{6.2}{15} \frac{6.6}{12} \frac{7.2}{15} \frac{9.0}{18} \frac{9.0}{25} \frac{9.4}{34} \frac{9.4}{50}$$

$$\frac{4.6}{50} \frac{6.1}{32} \frac{6.8}{21} \frac{7.3}{20} \frac{7.3}{18} \frac{6.1}{15} \frac{6.3}{13} \frac{7.4}{18} \frac{8.1}{26} \frac{7.7}{39} \frac{7.2}{50}$$

$$\frac{4.6}{50} \frac{6.1}{32} \frac{6.8}{21} \frac{7.3}{20} \frac{7.3}{18} \frac{6.1}{15} \frac{5.7}{8} \frac{6.9}{23} \frac{5.2}{50}$$

$$\frac{4.5}{50} \frac{6.2}{32} \frac{6.6}{18} \frac{5.9}{16} \frac{5.5}{14} \frac{5.1}{11} \frac{5.6}{11} \frac{6.6}{15} \frac{6.6}{17} \frac{5.3}{19} \frac{4.4}{33} \frac{4.4}{50}$$

Sta	+	π ✓	-	Elev
84		928.67		24.3 -
+50				25.0 -
85				25.4 - ✓
BM	0.78	928.67 ✓	0.78	927.89 ✓
+50				25.9 -
86				25.7 -
+50				25.6 -
87				25.6 - ✓
T.P	10.28	936.30 ✓	2.65	926.02 ✓
+23		Farm Ent		25.7 -
+50				25.9 -
88				26.4 -
+50				26.9 -
89				27.4 -

Lt

X

Rt

$\frac{2.3}{50}$	$\frac{3.3}{32}$	$\frac{3.3}{22}$	$\frac{5.5}{18}$	$\frac{4.6}{17}$	$\frac{5.1}{15}$	$\frac{4.6}{10}$	4.4	$\frac{4.8}{11}$	$\frac{5.3}{15}$	$\frac{3.1}{18}$	$\frac{2.8}{29}$	$\frac{2.8}{50}$
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$\frac{1.5}{50}$	$\frac{1.5}{32}$	$\frac{1.7}{23}$	$\frac{4.6}{18}$	$\frac{4.9}{17}$	$\frac{4.2}{15}$	$\frac{3.9}{10}$	3.7	$\frac{4.4}{12}$	$\frac{4.8}{13}$	$\frac{4.6}{15}$	$\frac{2.3}{19}$	$\frac{2.3}{50}$
------------------	------------------	------------------	------------------	------------------	------------------	------------------	-----	------------------	------------------	------------------	------------------	------------------

$\frac{1.6}{50}$	$\frac{2.1}{33}$	$\frac{2.0}{22}$	$\frac{4.4}{19}$	$\frac{4.6}{17}$	$\frac{4.1}{16}$	$\frac{3.5}{11}$	3.3	$\frac{3.8}{12}$	$\frac{4.5}{14}$	$\frac{4.3}{16}$	$\frac{2.3}{19}$	$\frac{2.1}{50}$	$\frac{1.6}{50}$
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Spike in 14" Twin oak 42' Rt 5 to 85+00

$\frac{1.2}{50}$	$\frac{2.2}{33}$	$\frac{2.2}{22}$	$\frac{4.0}{19}$	$\frac{4.2}{17}$	$\frac{3.6}{15}$	$\frac{3.0}{9}$	2.8	$\frac{3.6}{13}$	$\frac{4.1}{14}$	$\frac{3.7}{17}$	$\frac{2.4}{20}$	$\frac{2.2}{31}$	$\frac{1.3}{37}$	$\frac{0.8}{50}$
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$\frac{1.4}{50}$	$\frac{2.6}{33}$	$\frac{2.3}{21}$	$\frac{3.7}{19}$	$\frac{4.0}{18}$	$\frac{3.5}{16}$	3.0	$\frac{3.4}{10}$	$\frac{4.2}{13}$	$\frac{4.1}{15}$	$\frac{3.0}{17}$	$\frac{2.0}{34}$	$\frac{1.5}{50}$
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$\frac{1.7}{50}$	$\frac{3.2}{33}$	$\frac{3.5}{22}$	$\frac{4.3}{21}$	$\frac{4.6}{19}$	$\frac{3.9}{17}$	$\frac{3.2}{10}$	3.1	$\frac{3.6}{11}$	$\frac{4.2}{13}$	$\frac{4.1}{16}$	$\frac{3.7}{18}$	$\frac{2.8}{37}$	$\frac{2.8}{50}$
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$\frac{0.7}{50}$	$\frac{2.7}{33}$	$\frac{3.4}{23}$	$\frac{4.1}{22}$	$\frac{4.1}{20}$	$\frac{3.7}{19}$	$\frac{3.2}{9}$	3.1	$\frac{3.3}{11}$	$\frac{4.1}{14}$	$\frac{4.2}{16}$	$\frac{3.7}{17}$	$\frac{3.0}{41}$	$\frac{2.5}{50}$
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For Grade only

10.6	$\frac{10.5}{19}$	$\frac{9.9}{50}$
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$\frac{6.2}{50}$	$\frac{8.2}{34}$	$\frac{9.0}{25}$	$\frac{11.2}{22}$	$\frac{10.7}{14}$	10.4	$\frac{10.8}{10}$	$\frac{11.7}{14}$	$\frac{11.6}{16}$	$\frac{10.9}{18}$	$\frac{11.1}{23}$	$\frac{12.0}{50}$
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$\frac{5.3}{50}$	$\frac{6.3}{34}$	$\frac{6.8}{27}$	$\frac{10.6}{21}$	$\frac{10.1}{14}$	9.9	$\frac{10.4}{11}$	$\frac{11.0}{14}$	$\frac{10.9}{16}$	$\frac{9.8}{18}$	$\frac{9.8}{20}$	$\frac{11.2}{23}$	$\frac{12.2}{50}$
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$\frac{4.1}{50}$	$\frac{5.1}{34}$	$\frac{5.7}{29}$	$\frac{10.0}{21}$	$\frac{10.0}{18}$	9.4	$\frac{10.0}{11}$	$\frac{10.6}{15}$	$\frac{10.6}{16}$	$\frac{9.3}{20}$	$\frac{10.7}{24}$	$\frac{12.2}{50}$
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$\frac{4.5}{50}$	$\frac{4.9}{34}$	$\frac{5.1}{29}$	$\frac{9.3}{21}$	$\frac{9.3}{17}$	9.9	$\frac{9.4}{12}$	$\frac{9.8}{15}$	$\frac{9.8}{17}$	$\frac{7.8}{20}$	$\frac{8.1}{23}$	$\frac{10.4}{38}$	$\frac{11.6}{50}$
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Sta	+	Δ ✓	-	Elev
		936.30		
89+50				27.7 -
90				27.7 -
+50				27.5 -
91				27.3 -
+50				26.9 -
92				26.6 -
T.P	5.15	931.75 ✓	9.70	926.60 ✓
+28				26.6 -
+33				26.6 -
+45				26.6 -
+49				26.5 -
+57				26.4 -
+61				26.4 -

4 2 P4

$$\frac{4.1}{50} \frac{4.6}{30} \frac{7.6}{25} \frac{9.1}{20} \frac{9.3}{18} \frac{9.0}{15} 8.6 \frac{9.2}{12} \frac{9.8}{15} \frac{9.8}{19} \frac{9.0}{23} \frac{9.0}{50}$$

$$\frac{4.8}{50} \frac{4.8}{34} \frac{4.9}{31} \frac{9.5}{22} \frac{9.5}{20} \frac{9.1}{17} 8.6 \frac{9.0}{11} \frac{9.2}{15} \frac{9.7}{17} \frac{6.4}{23} \frac{5.9}{28} \frac{6.9}{50}$$

$$\frac{4.9}{50} \frac{4.9}{29} \frac{9.2}{21} \frac{9.6}{17} \frac{9.2}{16} 8.8 \frac{9.3}{13} \frac{9.9}{15} \frac{9.7}{17} \frac{5.4}{25} \frac{5.4}{50}$$

$$\frac{5.1}{50} \frac{5.1}{30} \frac{9.8}{23} \frac{9.8}{21} \frac{9.6}{19} 9.0 \frac{9.3}{10} \frac{9.9}{14} \frac{9.7}{15} \frac{6.1}{24} \frac{6.6}{50}$$

$$\frac{5.2}{50} \frac{5.2}{29} \frac{8.8}{24} \frac{9.9}{21} \frac{9.8}{18} \frac{9.7}{14} 9.4 \frac{9.9}{7} \frac{10.5}{14} \frac{10.2}{17} \frac{6.6}{23} \frac{6.9}{50}$$

$$\frac{6.5}{50} \frac{6.5}{34} \frac{6.9}{28} \frac{10.4}{22} \frac{10.0}{13} 9.7 \frac{10.2}{12} \frac{11.1}{14} \frac{11.0}{18} \frac{9.7}{23} \frac{9.7}{50}$$

$$\frac{2.4}{34} \frac{2.4}{34} \frac{2.7}{27} \frac{5.7}{21} \frac{6.0}{19} \frac{5.8}{18} \frac{5.5}{13} 5.2 \frac{5.4}{17} \frac{4.7}{21} \frac{2.6}{24} \frac{2.3}{50}$$

$$\frac{2.4}{34} \frac{2.4}{34} \frac{2.7}{27} \frac{5.7}{21} \frac{6.0}{19} \frac{5.8}{18} \frac{5.5}{13} 5.2 \frac{5.4}{18} \frac{5.0}{25} \frac{4.7}{50}$$

$$\frac{2.4}{50} \frac{2.4}{35} \frac{2.8}{25} \frac{4.8}{23} \frac{5.8}{20} \frac{5.9}{18} \frac{5.0}{15} \frac{5.7}{12} 5.2 \frac{5.4}{9} \frac{4.4}{27} \frac{4.3}{50}$$

$$\frac{4.5}{50} \frac{4.8}{24} \frac{5.8}{20} \frac{5.8}{17} \frac{5.2}{15} \frac{5.7}{12} \frac{5.5}{9} \frac{5.1}{10} \frac{4.9}{26} \frac{4.7}{50}$$

$$\frac{4.9}{50} \frac{4.9}{25} \frac{5.7}{20} \frac{5.8}{17} \frac{5.3}{15} \frac{5.8}{14} 5.4 \frac{5.5}{9} \frac{5.1}{11} \frac{4.9}{30} \frac{4.7}{50}$$

$$\frac{4.9}{50} \frac{4.9}{25} \frac{5.7}{20} \frac{5.8}{17} \frac{5.3}{15} \frac{5.8}{12} 5.4 \frac{1.7}{25} \frac{1.9}{50}$$

Sta + π - Elev
931.75

93 26.0 -

+50 24.8 -

94 23.6 -

+50 22.6 -

T.P. 4.81 926.60 9.96 921.79

95 21.8 -

+50 20.9 -

96 20.6 -

+50 20.9 -

97 21.6 -

+50 22.7 -

+82 18" x Drain

98 23.9 -

+50 25.4 -

T.P. 6.45 931.96 1.09 925.51

4 - 2 - RT

6.0	5.3	5.0	6.2	6.2		6.2	6.3	7.2	6.7	4.2	1.4	1.4
50	78	24	19	16	5.8	11	14	15	18	20	26	50

(RT Sta 93+40 $\frac{6.2}{\text{Elev}} = 9249$ Floor of Garage)

8.1	6.6	6.4	7.0	7.2	7.4		7.2	7.6	7.5	1.7	1.1
50	38	23	18	13	12	7.0	12	16	19	28	50

12.9	11.5	10.8	8.6		8.4	8.8	8.8	7.0	3.6	2.1
50	34	23	12	8.2	12	18	22	26	32	50

12.0	10.7	14.7	12.0	9.5		9.4	10.2	10.2	9.8	9.0	6.6	6.2	5.2
50	31	26	17	12	9.2	13	22	24	26	31	37	45	50

13.5	12.7	5.5	5.0		5.3	6.3	6.5	6.2	5.7	2.4	2.6
50	27	15	11	4.8	14	18	22	31	36	45	50

13.6	13.6	12.9	6.2		6.0	7.6	7.7	7.2	5.3	3.5	3.2
50	33	25	12	5.7	15	19	28	36	41	45	50

12.8	12.8	12.0	6.6		6.2	7.6	7.8	6.8	2.9
50	28	24	12	6.0	14	17	23	39	50

13.2	13.2	11.9	6.4		5.7	6.0	7.2	7.7	7.7	7.2	3.3	3.3
50	28	22	12	5.7	8	14	17	21	26	39	48	50

13.3	13.3	5.5		5.5		8.1	8.1	7.7	4.1	4.0
50	26	12	5.0	13	7.9	26	31	48	50	

12.9	11.9	11.3	4.4		4.3	6.6	6.9	6.6	7.6	6.0
50	20	22	11	3.9	12	16	21	28	35	50

			10.6			7.8				
			Inv			Inv				
10.9	9.9	8.9	3.3		3.2	6.1	6.7	7.5	7.5	6.5
50	25	22	12	2.7	12	18	23	27	37	50

8.4	7.9	8.6	8.1	1.8		1.8	6.8	7.8	7.8
50	39	31	22	12	1.2	12	21	26	50

Sta	+	$\bar{X}$ ✓	-	Elev
		931.96		
99				27.1 -
+43				29.0 -
+55				29.5 -
+69.78	of \$100 LINE		7.03	29.93 ✓
+74				29.9 -
+82				29.6 -
+87				29.4 -
+96				29.0 -
100+50				27.4 -
+65 - 1/2 cu lv.				
101				26.8 -
+50				26.6 -
102				26.7 -

4x ✕ P+

932.0

$\frac{12.8}{50}$ $\frac{12.4}{27}$ $\frac{11.4}{22}$ $\frac{5.4}{12}$ 49 $\frac{5.2}{12}$ $\frac{11.2}{24}$ $\frac{12.3}{29}$ $\frac{11.7}{50}$

$\frac{12.8}{50}$ $\frac{11.8}{32}$ $\frac{10.4}{24}$ $\frac{3.7}{11}$ 30 $\frac{3.1}{11}$ $\frac{4.2}{14}$ $\frac{8.5}{21}$ $\frac{10.3}{28}$ $\frac{10.2}{36}$ $\frac{9.4}{50}$

$\frac{3.2}{50}$ $\frac{2.8}{10}$ 25 $\frac{2.5}{11}$ $\frac{4.0}{15}$ $\frac{4.8}{20}$ $\frac{8.1}{27}$ $\frac{8.9}{41}$ $\frac{8.4}{50}$

$\frac{2.04}{\text{Top No Rail}}$

$\frac{2.02}{\text{Top South Rail}}$

$\frac{3.2}{50}$ $\frac{3.3}{36}$ $\frac{2.6}{12}$ 21 $\frac{2.4}{19}$ $\frac{2.4}{50}$

$\frac{11.7}{50}$ $\frac{9.9}{28}$ $\frac{6.8}{19}$ $\frac{2.9}{13}$ 2.4 $\frac{2.6}{13}$ $\frac{3.1}{18}$ $\frac{3.1}{50}$

$\frac{12.2}{50}$ $\frac{10.7}{29}$ $\frac{9.1}{24}$ $\frac{3.3}{13}$ 2.6 $\frac{3.0}{12}$ $\frac{4.8}{16}$ $\frac{5.9}{20}$ $\frac{6.9}{26}$ $\frac{6.5}{42}$ $\frac{6.5}{50}$

$\frac{12.3}{50}$ $\frac{11.1}{28}$ $\frac{9.5}{22}$ $\frac{3.5}{10}$ 3.0 $\frac{3.2}{11}$ $\frac{6.7}{19}$ $\frac{7.9}{24}$ $\frac{8.2}{33}$ $\frac{7.7}{50}$

$\frac{11.1}{50}$ $\frac{10.1}{26}$ $\frac{9.6}{17}$ $\frac{5.2}{10}$ 4.6 $\frac{4.9}{12}$ $\frac{6.5}{16}$ $\frac{7.2}{22}$ $\frac{6.9}{33}$ $\frac{5.7}{50}$

$\frac{9.80}{\text{Inv}}$

$\frac{8.30}{\text{Inv}}$

$\frac{10.6}{50}$ $\frac{9.6}{27}$ $\frac{9.0}{21}$ $\frac{8.1}{17}$ $\frac{5.6}{10}$ 5.2 $\frac{5.8}{13}$ $\frac{8.0}{20}$ $\frac{8.6}{24}$ $\frac{8.7}{28}$ $\frac{5.4}{35}$ $\frac{4.2}{50}$

$\frac{10.3}{50}$ $\frac{9.3}{28}$ $\frac{8.9}{23}$ $\frac{7.7}{15}$ $\frac{5.9}{10}$ 5.4 $\frac{5.6}{13}$ $\frac{7.4}{21}$ $\frac{7.4}{29}$ $\frac{4.4}{36}$ $\frac{3.1}{50}$

$\frac{9.8}{50}$ $\frac{8.8}{26}$ $\frac{8.0}{19}$ $\frac{7.4}{15}$ $\frac{5.8}{10}$ 5.3 $\frac{5.9}{14}$ $\frac{7.1}{18}$ $\frac{8.2}{25}$ $\frac{3.7}{36}$ $\frac{1.6}{50}$

Sta	±	T ✓	-	Flow	932.0
		931.96			
102 +60			5.1	26.9 -	
103			4.7	27.3 -	
+50			4.4	27.6 -	
104			4.1	27.9 -	
B.M	5.46	934.06 ✓	3.36		928.60 ✓
+50			6.0	28.1 -	
105			5.8	28.3 -	
+50			4.9	29.2 -	
+694 d Co. R.H.			4.8	29.3 -	
+85			4.7	29.4 -	
+90			4.7	29.4 -	
T.P			4.91		929.15 ✓
T.P					

LT ~~2~~ RT

$\frac{9.6}{50}$ $\frac{8.6}{26}$ $\frac{7.7}{25}$ $\frac{7.0}{14}$ $\frac{5.6}{10}$ 5.1 $\frac{5.6}{14}$ $\frac{7.0}{18}$ $\frac{7.4}{24}$ $\frac{6.3}{28}$ $\frac{3.4}{36}$ $\frac{2.0}{50}$

$\frac{9.4}{50}$ $\frac{7.4}{23}$ $\frac{7.0}{15}$ $\frac{5.5}{11}$ 4.7 $\frac{5.1}{14}$ $\frac{7.7}{22}$ $\frac{7.6}{27}$ $\frac{4.3}{34}$ $\frac{3.2}{50}$

$\frac{8.3}{50}$ $\frac{6.3}{25}$ $\frac{6.5}{18}$ $\frac{6.1}{15}$ $\frac{4.9}{10}$ 4.4 $\frac{5.0}{14}$ $\frac{6.8}{19}$ $\frac{7.3}{23}$ $\frac{6.8}{28}$ $\frac{5.2}{32}$ $\frac{5.2}{50}$

$\frac{6.1}{50}$ $\frac{3.1}{25}$ $\frac{5.4}{18}$ $\frac{4.4}{11}$ 4.1 $\frac{4.7}{15}$ $\frac{6.5}{21}$ $\frac{6.6}{27}$ $\frac{4.3}{31}$ $\frac{4.3}{50}$

Spike in 12" Oak 50' RT 5th 103+73

$\frac{8.2}{50}$ $\frac{7.2}{25}$ $\frac{7.2}{18}$ $\frac{6.4}{10}$ 6.0 $\frac{6.5}{14}$ $\frac{8.3}{19}$ $\frac{8.5}{27}$ $\frac{6.5}{33}$ $\frac{6.5}{50}$

$\frac{7.9}{50}$ $\frac{6.9}{25}$ $\frac{6.9}{15}$ $\frac{5.8}{10}$ 5.8 $\frac{6.2}{15}$ $\frac{7.2}{22}$ $\frac{7.8}{29}$ $\frac{5.4}{32}$ $\frac{4.8}{50}$

$\frac{7.4}{50}$ $\frac{6.8}{40}$ $\frac{6.4}{24}$ $\frac{5.3}{12}$ 4.9 $\frac{5.2}{17}$ $\frac{5.8}{21}$ $\frac{5.8}{27}$ $\frac{3.0}{32}$ $\frac{3.0}{50}$

$\frac{7.1}{50}$ $\frac{5.8}{21}$ 4.8 $\frac{4.8}{26}$ $\frac{2.3}{32}$ $\frac{1.6}{50}$

$\frac{7.1}{50}$ $\frac{5.8}{21}$ 4.7 $\frac{4.8}{26}$ $\frac{2.3}{32}$ $\frac{1.6}{50}$

$\frac{5.6}{50}$ $\frac{5.3}{27}$ $\frac{6.0}{24}$ $\frac{6.1}{21}$ $\frac{5.6}{18}$ 4.7 $\frac{4.6}{16}$ $\frac{5.3}{22}$ $\frac{5.2}{26}$ $\frac{1.5}{32}$ $\frac{1.5}{50}$

Top of Mott

Sta	+	π ✓	-	Elev ✓
106	8.76	939.91		929.15
				29.4 -
+50				29.1 -
107				28.2 -
+50				27.5 -
108				26.5 -
+50				25.3 -
T.P	0.73	926.02 ✓	12.62 ✓	925.29 ✓
109				24.2 - 25.2 -
+50				22.4 -
110				21.0 -
+50				20.4 -
111				20.5 -
111 + 04		12" V.T.P.		

Bratager }
 Wilke } Oct. 12, 1936
 Gillen } Cold & Windy.

LT Z PT

Top Mont.

$\frac{93}{50}$ $\frac{85}{27}$ $\frac{98}{23}$ $\frac{98}{21}$ $\frac{90}{14}$ $\frac{91}{9}$ 8.5 $\frac{8.7}{18}$ $\frac{9.4}{22}$ $\frac{9.4}{24}$ $\frac{4.6}{34}$ $\frac{48}{50}$

$\frac{61}{50}$ $\frac{53}{28}$ $\frac{91}{21}$ $\frac{91}{13}$ $\frac{9.4}{18}$ 8.8 $\frac{9.3}{19}$ $\frac{9.7}{22}$ $\frac{9.7}{25}$ $\frac{3.9}{35}$ $\frac{4.2}{50}$

$\frac{45}{50}$ $\frac{45}{28}$ $\frac{100}{16}$ $\frac{9.8}{12}$ $\frac{10.1}{18}$ 9.7 $\frac{10.2}{13}$ $\frac{10.8}{16}$ $\frac{10.0}{21}$ $\frac{9.3}{25}$ $\frac{5.7}{32}$ $\frac{5.8}{36}$ $\frac{6.1}{50}$

$\frac{42}{50}$ $\frac{42}{28}$ $\frac{89}{22}$ $\frac{10.4}{18}$ $\frac{10.8}{11}$ 10.4 $\frac{11.0}{13}$ $\frac{10.7}{15}$ $\frac{10.7}{19}$ $\frac{10.0}{23}$ $\frac{6.7}{29}$ $\frac{7.7}{50}$

$\frac{6.4}{50}$ $\frac{69}{27}$ $\frac{11.8}{19}$ $\frac{11.7}{12}$ $\frac{12.0}{9}$ 11.4 $\frac{11.8}{14}$ $\frac{12.1}{16}$ $\frac{12.2}{23}$ $\frac{9.4}{28}$ $\frac{10.0}{40}$ $\frac{11.5}{50}$

$\frac{10.6}{50}$ $\frac{11.1}{26}$ $\frac{13.2}{21}$ $\frac{13.0}{18}$ 12.6 $\frac{13.2}{15}$ $\frac{13.6}{22}$ $\frac{13.6}{27}$ $\frac{14.1}{50}$

$\frac{41}{50}$ $\frac{4.8}{25}$ $\frac{4.2}{17}$ $\frac{2.1}{13}$ 1.8 $\frac{2.7}{14}$ $\frac{6.0}{20}$ $\frac{6.3}{23}$ $\frac{6.8}{50}$

$\frac{8.4}{50}$ $\frac{8.4}{20}$ $\frac{41}{13}$ $\frac{3.8}{7}$ 3.6 $\frac{4.6}{14}$ $\frac{8.2}{20}$ $\frac{8.7}{28}$ $\frac{8.7}{50}$

$\frac{9.3}{25}$ $\frac{8.9}{18}$ $\frac{5.7}{13}$ $\frac{5.5}{9}$ 5.0 $\frac{5.7}{13}$ $\frac{9.3}{21}$ $\frac{9.0}{50}$

$\frac{9.7}{50}$ $\frac{9.7}{23}$ $\frac{9.5}{20}$ $\frac{6.5}{13}$ $\frac{6.1}{9}$ $\frac{6.6}{9}$ $\frac{6.2}{13}$ $\frac{9.2}{20}$ $\frac{8.7}{50}$

$\frac{9.7}{50}$ $\frac{8.7}{22}$ $\frac{8.1}{16}$ $\frac{6.2}{13}$ 8.5 $\frac{6.1}{13}$ $\frac{8.8}{20}$ $\frac{8.7}{50}$

9.68

Flow line

8.25

Sta + π - Elev

926.02 ✓

111 + 42

20.7 -

+ 50

20.8 -

112

21.1 -

+ 50

21.1 -

113

21.3 -

T.P

3.16

924.48 ✓

4.70

921.32 ✓

+ 50

21.2 - 921.32 ✓

114

20.9 -

+ 50

20.8 -

115

20.7 -

+ 50

20.2 -

116

19.6 -

+ 50

19.4 -

L1 L2 R1

$$\frac{9.2}{50} \quad \frac{9.2}{23} \quad \frac{8.5}{18} \quad \frac{6.1}{12} \quad 5.3 \quad \frac{5.6}{13} \quad \frac{6.6}{18} \quad \frac{7.3}{31} \quad \frac{7.3}{50}$$

$$\frac{9.2}{50} \quad \frac{9.2}{23} \quad \frac{8.5}{18} \quad \frac{6.1}{12} \quad 5.2 \quad \frac{5.5}{13} \quad \frac{4.9}{29} \quad \frac{4.4}{32} \quad \frac{4.1}{50}$$

$$\frac{8.6}{50} \quad \frac{8.6}{23} \quad \frac{7.7}{17} \quad \frac{5.5}{11} \quad 4.9 \quad \frac{5.2}{12} \quad \frac{4.7}{16} \quad \frac{4.5}{29} \quad \frac{4.0}{33} \quad \frac{4.0}{50}$$

$$\frac{8.7}{50} \quad \frac{8.7}{26} \quad \frac{7.2}{20} \quad \frac{5.3}{11} \quad 4.9 \quad \frac{5.2}{12} \quad \frac{4.6}{17} \quad \frac{4.0}{34} \quad \frac{3.5}{50}$$

$$\frac{7.8}{50} \quad \frac{7.8}{40} \quad \frac{6.4}{26} \quad \frac{5.2}{12} \quad 4.7 \quad \frac{5.0}{8} \quad \frac{5.2}{13} \quad \frac{6.7}{28} \quad \frac{3.5}{35} \quad \frac{3.5}{50}$$

$$\frac{4.7}{50} \quad \frac{3.7}{26} \quad \frac{5.0}{20} \quad \frac{5.1}{17} \quad \frac{4.0}{12} \quad 3.3 \quad \frac{3.9}{15} \quad \frac{5.6}{19} \quad \frac{5.5}{23} \quad \frac{1.7}{31} \quad \frac{2.2}{35} \quad \frac{2.2}{50}$$

$$\frac{3.6}{50} \quad \frac{3.6}{29} \quad \frac{5.5}{22} \quad \frac{5.5}{18} \quad \frac{5.1}{16} \quad \frac{4.2}{12} \quad 3.2 \quad \frac{4.1}{14} \quad \frac{4.9}{17} \quad \frac{5.4}{23} \quad \frac{4.8}{27} \quad \frac{3.4}{31} \quad \frac{3.4}{50}$$

$$\frac{4.5}{50} \quad \frac{4.5}{25} \quad \frac{4.8}{16} \quad \frac{4.3}{11} \quad 3.7 \quad \frac{4.3}{12} \quad \frac{4.7}{15} \quad \frac{5.2}{29} \quad \frac{4.9}{50}$$

$$\frac{5.6}{50} \quad \frac{5.4}{32} \quad \frac{5.0}{21} \quad \frac{5.5}{20} \quad \frac{6.2}{14} \quad \frac{4.2}{11} \quad 3.8 \quad \frac{4.7}{12} \quad \frac{5.5}{14} \quad \frac{6.0}{23} \quad \frac{5.6}{23} \quad \frac{5.6}{50}$$

$$\frac{6.8}{50} \quad \frac{7.0}{31} \quad \frac{5.8}{19} \quad \frac{4.8}{10} \quad 4.3 \quad \frac{4.8}{11} \quad \frac{5.7}{17} \quad \frac{5.6}{50}$$

$$\frac{7.1}{50} \quad \frac{7.1}{25} \quad \frac{6.4}{14} \quad \frac{5.3}{11} \quad 4.9 \quad \frac{5.5}{10} \quad \frac{8.4}{19} \quad \frac{8.3}{37} \quad \frac{8.3}{50}$$

$$\frac{7.1}{50} \quad \frac{7.1}{25} \quad \frac{6.8}{16} \quad \frac{5.8}{13} \quad 5.1 \quad \frac{5.5}{10} \quad \frac{7.1}{14} \quad \frac{8.5}{24} \quad \frac{8.5}{50}$$

Sta	+	π ✓	-	Flev
117		924.48		19.3 -

+50				12.7 -
-----	--	--	--	--------

118				18.0 -
-----	--	--	--	--------

+30				17.6 -
-----	--	--	--	--------

+86	25 ft. 1/1 water ✓			17.5 -
-----	--------------------	--	--	--------

119				17.3 -
-----	--	--	--	--------

+50				16.6 -
-----	--	--	--	--------

120				16.4 -
-----	--	--	--	--------

T.P	7.25	923.66 ✓	8.07	916.41 ✓
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+50				16.2 -
-----	--	--	--	--------

121				16.1 -
-----	--	--	--	--------

+50				16.0 -
-----	--	--	--	--------

122				16.2 -
-----	--	--	--	--------

Lt & Rt

$$\frac{7.0}{50} \quad \frac{7.0}{28} \quad \frac{7.0}{15} \quad \frac{6.0}{12} \quad \frac{5.2}{10} \quad \frac{5.8}{10} \quad \frac{7.5}{14} \quad \frac{7.6}{27} \quad \frac{7.1}{50}$$

$$\frac{7.7}{50} \quad \frac{7.7}{30} \quad \frac{7.4}{23} \quad \frac{7.7}{20} \quad \frac{7.1}{14} \quad \frac{6.5}{11} \quad 5.8 \quad \frac{6.3}{11} \quad \frac{7.8}{14} \quad \frac{8.0}{25} \quad \frac{7.5}{50}$$

$$\frac{7.6}{50} \quad \frac{7.6}{23} \quad \frac{8.0}{18} \quad \frac{7.7}{13} \quad \frac{7.0}{12} \quad 6.5 \quad \frac{7.1}{10} \quad \frac{8.2}{13} \quad \frac{8.1}{17} \quad \frac{8.1}{27} \quad \frac{8.1}{50}$$

$$\frac{7.9}{50} \quad \frac{7.9}{24} \quad \frac{8.1}{21} \quad \frac{8.2}{16} \quad \frac{7.5}{14} \quad 6.9 \quad \frac{7.8}{12} \quad \frac{8.4}{14} \quad \frac{8.4}{19} \quad \frac{8.1}{27} \quad \frac{8.6}{50}$$

$$\frac{8.2}{28} \quad \frac{8.7}{27} \quad \frac{8.5}{17} \quad \frac{7.7}{13} \quad 7.0 \quad \frac{7.3}{22} \quad \frac{7.2}{50}$$

$$\frac{8.2}{50} \quad \frac{8.7}{27} \quad \frac{8.5}{17} \quad \frac{7.7}{13} \quad 7.2 \quad \frac{7.6}{14} \quad \frac{8.4}{26} \quad \frac{8.9}{31} \quad \frac{8.4}{50}$$

$$\frac{9.2}{50} \quad \frac{9.2}{27} \quad \frac{9.2}{20} \quad \frac{9.5}{17} \quad \frac{9.5}{13} \quad 7.9 \quad \frac{8.3}{11} \quad \frac{9.2}{14} \quad \frac{9.2}{19} \quad \frac{9.1}{29} \quad \frac{9.1}{50}$$

$$\frac{9.7}{50} \quad \frac{9.7}{28} \quad \frac{9.6}{22} \quad \frac{9.6}{17} \quad \frac{8.7}{14} \quad 8.1 \quad \frac{8.5}{12} \quad \frac{9.5}{14} \quad \frac{9.2}{19} \quad \frac{9.0}{26} \quad \frac{9.0}{50}$$

$$\frac{8.5}{50} \quad \frac{8.5}{20} \quad \frac{8.7}{18} \quad \frac{8.7}{15} \quad \frac{8.0}{14} \quad 7.5 \quad \frac{7.7}{11} \quad \frac{8.4}{14} \quad \frac{8.3}{18} \quad \frac{8.2}{28} \quad \frac{8.2}{50}$$

$$\frac{8.5}{50} \quad \frac{8.5}{27} \quad \frac{8.7}{20} \quad \frac{8.9}{16} \quad \frac{8.2}{14} \quad 7.6 \quad \frac{8.0}{11} \quad \frac{9.0}{13} \quad \frac{8.7}{16} \quad \frac{8.6}{27} \quad \frac{8.6}{50}$$

$$\frac{9.0}{50} \quad \frac{9.0}{27} \quad \frac{9.0}{16} \quad \frac{8.1}{14} \quad 7.7 \quad \frac{8.1}{11} \quad \frac{9.1}{13} \quad \frac{8.8}{18} \quad \frac{8.5}{16} \quad \frac{9.5}{50}$$

$$\frac{8.6}{50} \quad \frac{8.6}{27} \quad \frac{8.8}{17} \quad \frac{8.0}{14} \quad 7.5 \quad \frac{8.1}{11} \quad \frac{8.7}{13} \quad \frac{9.1}{17} \quad \frac{8.8}{20} \quad \frac{9.0}{28} \quad \frac{9.0}{50}$$

Sta + π ✓ - ELEV
 923.66

122+50 17.3-

123 18.6-

+50 19.9-

124 ✓ 22.0- ✓
 T.P 12.17 935.35 ✓ 0.48 923.18 ✓

+50 24.3-

B.M 9.68 935.35 ✓ 9.68 925.67 ✓

125 26.4-

+50 ~~28.4~~
 ~~27.4~~

126 ✓ 30.4- ✓
 T.P 9.51 941.97 ✓ 2.89 932.46 ✓

+50 32.0-

127 33.7-

+50 35.3-

128 36.5-

H K H

$$\frac{8.0}{50} \quad \frac{8.0}{22} \quad \frac{7.6}{17} \quad \frac{6.7}{13} \quad 6.4 \quad \frac{7.6}{12} \quad \frac{8.1}{14} \quad \frac{8.3}{18} \quad \frac{7.9}{21} \quad \frac{8.4}{28}$$

$$\frac{7.5}{50} \quad \frac{7.5}{27} \quad \frac{7.5}{21} \quad \frac{5.7}{16} \quad \frac{5.5}{11} \quad \frac{5.1}{11} \quad \frac{5.8}{11} \quad \frac{7.2}{14} \quad \frac{7.5}{25} \quad \frac{7.5}{50}$$

$$\frac{6.3}{10} \quad \frac{6.9}{26} \quad \frac{6.8}{26} \quad \frac{6.8}{19} \quad \frac{4.1}{14} \quad \frac{3.8}{11} \quad \frac{4.2}{11} \quad \frac{6.1}{16} \quad \frac{6.9}{19} \quad \frac{7.2}{25} \quad \frac{7.2}{50}$$

$$\frac{6.0}{10} \quad \frac{5.7}{25} \quad \frac{4.9}{20} \quad \frac{2.3}{15} \quad \frac{1.7}{13} \quad \frac{2.6}{13} \quad \frac{5.2}{18} \quad \frac{5.9}{25} \quad \frac{5.4}{50}$$

$$\frac{14.5}{50} \quad \frac{14.0}{28} \quad \frac{13.7}{22} \quad \frac{11.7}{15} \quad 11.1 \quad \frac{11.8}{13} \quad \frac{13.2}{16} \quad \frac{13.3}{27} \quad \frac{12.3}{51}$$

Spike in 15" W 58' R + Sta 124 + 61

$$\frac{10.8}{50} \quad \frac{9.8}{28} \quad \frac{9.9}{24} \quad \frac{11.0}{21} \quad \frac{10.8}{18} \quad \frac{9.5}{14} \quad 9.0 \quad \frac{9.7}{13} \quad \frac{10.5}{16} \quad \frac{10.5}{21} \quad \frac{8.6}{26} \quad \frac{8.1}{50}$$

$$\frac{8.4}{50} \quad \frac{7.8}{28} \quad \frac{8.8}{21} \quad \frac{8.4}{17} \quad \frac{7.0}{13} \quad 7.0 \quad \frac{7.9}{15} \quad \frac{8.7}{17} \quad \frac{8.6}{25} \quad \frac{6.6}{30} \quad \frac{5.2}{34} \quad \frac{5.0}{40} \quad \frac{5.0}{50}$$

$$\frac{4.7}{50} \quad \frac{4.2}{26} \quad \frac{6.7}{21} \quad \frac{6.7}{18} \quad \frac{5.7}{14} \quad \frac{5.6}{9} \quad 5.0 \quad \frac{5.7}{15} \quad \frac{6.8}{17} \quad \frac{7.1}{21} \quad \frac{6.6}{25} \quad \frac{3.8}{30} \quad \frac{2.9}{36} \quad \frac{2.9}{50}$$

$$\frac{7.8}{50} \quad \frac{7.3}{25} \quad \frac{10.0}{20} \quad \frac{11.0}{18} \quad \frac{10.8}{11} \quad 10.0 \quad \frac{10.4}{14} \quad \frac{11.0}{17} \quad \frac{11.0}{22} \quad \frac{10.1}{26} \quad \frac{7.9}{27} \quad \frac{6.8}{33} \quad \frac{6.8}{50}$$

$$\frac{4.4}{50} \quad \frac{4.4}{26} \quad \frac{9.1}{17} \quad \frac{9.1}{15} \quad \frac{8.9}{13} \quad 8.3 \quad \frac{8.5}{13} \quad \frac{9.3}{17} \quad \frac{9.3}{21} \quad \frac{8.3}{25} \quad \frac{4.4}{30} \quad \frac{3.9}{50}$$

$$\frac{0.7}{50} \quad \frac{1.7}{26} \quad \frac{7.5}{17} \quad \frac{7.3}{11} \quad 6.7 \quad \frac{7.1}{11} \quad \frac{7.6}{18} \quad \frac{6.5}{24} \quad \frac{3.3}{28} \quad \frac{1.8}{33} \quad \frac{1.3}{50}$$

$$\frac{0.0}{50} \quad \frac{2.0}{25} \quad \frac{6.1}{17} \quad \frac{5.8}{11} \quad 5.5 \quad \frac{5.9}{15} \quad \frac{6.3}{18} \quad \frac{5.7}{23} \quad \frac{3.3}{26} \quad \frac{3.3}{50}$$

Sta	+	π ✓	-	Elev
		941.97		
128	+50			37.7 -
129				38.6 -
T.P.	7.47	946.47 ✓	2.97	939.00 ✓
B.M.	5.44	946.46 ✓	5.45	941.02 ✓
+50				39.4 -
130				40.0 -
+50				40.4 -
131				40.8 -
+50				41.5 -
132				42.0 -
+50				42.5 -
133				42.9 -
+50				43.6 -
134				44.3 -

LX Z PT

$$\frac{0.6}{50} \frac{2.6}{22} \frac{5.2}{18} \frac{5.2}{16} \frac{4.8}{14} 43 \frac{4.7}{13} \frac{5.3}{16} \frac{5.3}{19} \frac{4.6}{22} \frac{2.9}{24} \frac{2.9}{50}$$

$$\frac{2.0}{50} \frac{2.3}{22} \frac{4.7}{19} \frac{4.7}{17} \frac{3.8}{12} 34 \frac{4.0}{13} \frac{4.4}{17} \frac{3.7}{19} \frac{1.7}{23} \frac{1.5}{50}$$

Spike in stump 60' at Sta 121+79

$$\frac{5.8}{50} \frac{5.8}{21} \frac{7.7}{18} \frac{7.7}{16} \frac{7.4}{11} 7.1 \frac{7.7}{10} \frac{7.3}{14} \frac{7.0}{16} \frac{4.5}{23} \frac{3.9}{27} \frac{3.9}{50}$$

$$\frac{4.5}{50} \frac{4.0}{22} \frac{7.5}{17} \frac{7.5}{15} \frac{6.9}{11} 6.5 \frac{7.0}{10} \frac{7.0}{15} \frac{6.2}{18} \frac{3.3}{22} \frac{2.5}{30} \frac{2.5}{50}$$

$$\frac{4.9}{50} \frac{4.4}{21} \frac{7.1}{17} \frac{7.1}{15} \frac{6.7}{14} \frac{6.4}{11} 6.1 \frac{6.3}{11} \frac{6.6}{16} \frac{4.2}{20} \frac{3.7}{22} \frac{2.9}{26} \frac{2.9}{50}$$

$$\frac{5.2}{50} \frac{5.5}{21} \frac{6.7}{17} \frac{6.7}{15} \frac{6.1}{11} 5.7 \frac{6.0}{13} \frac{6.6}{14} \frac{6.6}{16} \frac{5.0}{18} \frac{4.6}{22} \frac{3.6}{25} \frac{3.1}{50}$$

$$\frac{5.4}{50} \frac{5.6}{31} \frac{6.2}{20} \frac{6.3}{17} \frac{6.3}{15} \frac{5.9}{13} \frac{5.8}{12} \frac{5.4}{11} 5.0 \frac{5.5}{11} \frac{5.3}{13} \frac{5.0}{22} \frac{5.0}{50}$$

$$\frac{5.7}{50} \frac{6.2}{19} \frac{6.0}{15} \frac{5.0}{11} 4.5 \frac{4.7}{6} \frac{5.1}{10} \frac{4.9}{12} \frac{4.6}{16} \frac{4.0}{19} \frac{4.1}{21} \frac{5.2}{27} \frac{5.5}{30}$$

$$\frac{4.7}{50} \frac{5.2}{40} \frac{5.2}{22} \frac{5.6}{14} \frac{4.6}{12} 4.0 \frac{4.4}{12} \frac{4.9}{13} \frac{4.8}{16} \frac{3.8}{21} \frac{4.0}{24} \frac{5.2}{29} \frac{6.4}{36} \frac{6.1}{50}$$

$$\frac{4.3}{50} \frac{4.8}{40} \frac{4.8}{25} \frac{4.7}{16} \frac{3.9}{14} 3.6 \frac{4.0}{11} \frac{5.0}{14} \frac{5.0}{16} \frac{4.5}{18} \frac{4.6}{22} \frac{5.8}{26} \frac{6.1}{37} \frac{6.1}{50}$$

$$\frac{4.0}{50} \frac{4.8}{18} \frac{4.6}{21} \frac{4.9}{18} \frac{4.9}{16} \frac{3.4}{14} 2.9 \frac{3.2}{7} \frac{3.6}{12} \frac{5.0}{16} \frac{5.0}{50}$$

$$\frac{1.6}{50} \frac{3.0}{32} \frac{3.1}{26} \frac{4.5}{14} \frac{4.5}{20} \frac{7.5}{16} \frac{2.2}{8} 2.2 \frac{2.5}{5} \frac{2.8}{12} \frac{3.4}{15} \frac{3.8}{22} \frac{4.4}{40} \frac{4.4}{50}$$

Sta	+	π ✓	-	Elev
		946.46		
134+30		✓		44.8 -
T.P	3.74	948.46	1.74	✓ 944.72
135				44.8 -
+50				44.2 -
136				44.2 -
+50				43.8 -
137				✓ 43.7 -
+50				43.8 -
138				43.7 -
+50				43.5 -
139				✓ 43.1 -
+50				42.6 -
140				✓ 42.3 -

LT Z RT

$\frac{0.0}{50} \frac{0.6}{34} \frac{1.0}{29} \frac{3.3}{24} \frac{3.9}{20} \frac{2.1}{17} \frac{2.0}{9} 1.7 \frac{1.9}{6} \frac{2.1}{12} \frac{2.8}{14} \frac{2.9}{19} \frac{1.3}{23} \frac{1.3}{31} \frac{2.3}{34} \frac{2.0}{50}$

$\frac{2.9}{50} \frac{2.9}{34} \frac{3.3}{28} \frac{5.3}{24} \frac{5.2}{19} \frac{4.4}{17} \frac{3.9}{8} 3.7 \frac{4.1}{10} \frac{5.0}{14} \frac{5.0}{18} \frac{3.1}{23} \frac{3.8}{50}$

$\frac{6.4}{50} \frac{6.4}{40} \frac{5.7}{37} \frac{5.4}{30} \frac{6.0}{24} \frac{6.0}{20} \frac{4.6}{17} \frac{4.2}{10} 4.3 \frac{4.7}{7} \frac{4.6}{11} \frac{5.5}{15} \frac{5.8}{20} \frac{4.6}{21} \frac{4.6}{30} \frac{6.0}{35} \frac{6.0}{50}$

$\frac{7.3}{50} \frac{6.7}{36} \frac{6.5}{30} \frac{6.8}{25} \frac{6.4}{21} \frac{5.2}{17} \frac{4.6}{10} 4.3 \frac{4.6}{9} \frac{6.3}{15} \frac{6.7}{28} \frac{6.7}{50}$

$\frac{7.2}{50} \frac{7.2}{30} \frac{7.6}{26} \frac{7.2}{23} \frac{5.4}{18} \frac{4.8}{9} 4.7 \frac{4.9}{8} \frac{6.6}{13} \frac{6.8}{18} \frac{7.1}{34} \frac{6.9}{50}$

$\frac{7.4}{50} \frac{6.8}{30} \frac{7.0}{26} \frac{6.8}{21} \frac{5.4}{18} \frac{4.8}{9} 4.8 \frac{5.1}{8} \frac{5.7}{10} \frac{5.6}{14} \frac{5.0}{18} \frac{5.0}{50}$

$\frac{5.0}{50} \frac{4.5}{32} \frac{5.5}{25} \frac{5.9}{23} \frac{5.9}{21} \frac{5.3}{19} \frac{4.8}{10} 4.7 \frac{5.1}{7} \frac{5.6}{8} \frac{5.4}{11} \frac{4.1}{15} \frac{5.0}{50}$

$\frac{3.7}{50} \frac{3.7}{39} \frac{4.6}{29} \frac{5.5}{26} \frac{5.5}{22} \frac{5.1}{20} \frac{4.8}{11} 4.8 \frac{5.2}{6} \frac{5.4}{14} \frac{4.4}{14} \frac{4.4}{21} \frac{5.0}{24} \frac{5.4}{50}$

$\frac{4.4}{50} \frac{4.9}{32} \frac{5.6}{27} \frac{5.6}{23} \frac{5.1}{20} \frac{4.8}{14} 5.0 \frac{5.5}{7} \frac{6.1}{10} \frac{6.1}{13} \frac{5.6}{16} \frac{5.3}{50}$

$\frac{6.0}{50} \frac{6.2}{33} \frac{6.4}{26} \frac{6.8}{24} \frac{6.8}{22} \frac{5.8}{19} \frac{5.4}{11} 5.4 \frac{5.7}{7} \frac{6.6}{11} \frac{7.4}{17} \frac{7.7}{50}$

$\frac{6.0}{50} \frac{6.6}{37} \frac{6.9}{26} \frac{7.1}{25} \frac{7.0}{21} \frac{6.4}{19} \frac{5.9}{12} 5.9 \frac{6.2}{7} \frac{7.8}{12} \frac{8.6}{38} \frac{8.6}{50}$

$\frac{6.4}{50} \frac{7.1}{36} \frac{7.5}{26} \frac{7.8}{24} \frac{7.8}{22} \frac{6.9}{19} \frac{6.2}{11} 6.2 \frac{6.5}{8} \frac{8.6}{12} \frac{9.0}{23} \frac{9.7}{38} \frac{10.3}{50}$

Sta	+	π ✓	-	Elev
140+63		948.41		41.9 -
141				41.9 -
T.P	6.82	948.72 ✓	6.56	941.90 ✓
+27				41.8 -
+50				41.9 -
142				41.7 -
+50				41.5 -
143				40.7 -
+50				40.4 -
144				39.7 -
+88				37.6 -
B.M	3.51	941.63 ✓	10.60	938.12 ✓
+96				37.4 -
145+17		* C. Rd H ₃		37.0 -

LT Z RT

8.2 8.5 9.1 9.1 7.0 6.6 7.2 10.7 12.2 12.4 13.4
50 38 32 29 19 13 6.6 8 14 26 36 50

9.5 9.8 10.0 9.4 7.2 6.6 7.0 8.0 10.5 11.4 11.5 11.5
50 36 31 25 18 12 6 6 12 18 24 35 50

10.1 10.1 9.7 7.6 7.0 7.2 8.6 9.1 9.2 9.5 8.5
50 38 25 20 11 6.9 7 12 19 28 34 50

10.0 10.0 9.2 7.5 6.9 7.0 6.0 6.0 6.3 6.3
50 35 26 18 12 6.8 13 19 26 33 50

8.9 8.9 8.4 8.2 8.4 7.5 7.0 7.5 7.9 5.2 4.1 3.1
50 32 29 23 22 18 12 7 12 19 34 50

8.8 8.3 7.6 7.7 8.4 8.4 9.0 7.5 6.9 4.1 2.7 1.5
50 34 31 25 22 21 19 12 7.2 14 19 34 50

8.2 7.7 7.7 8.9 9.0 9.1 7.8 8.0 8.4 8.2 7.2 4.8 4.1 3.0
50 36 26 23 21 17 12 8.0 6 13 16 19 24 50

7.9 7.9 9.3 8.7 8.4 8.7 9.0 6.6 6.0 5.6
50 26 21 17 12 8.3 8 14 19 23 50

6.2 6.0 6.5 9.1 9.1 9.6 9.7 6.2 6.6 7.0
50 34 29 24 12 9.0 8 14 19 39 50

6.5 6.9 7.8 11.7 11.9 11.3 11.3 11.6 11.6 9.3 7.5 8.4 9.1
50 38 30 22 20 16 11 11.1 8 11 18 23 31 50

Spike in T.P. 15' RT Sta. 144+95

4.3 4.3 4.8 5.1 3.8 4.8 5.2
50 43 24 15 20 33 50

4.2
50

46

6.0
50

Station	+	π ✓	-	Elev
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941.63

145	+30			36.6 -
-----	-----	--	--	--------

	+35			36.5 -
--	-----	--	--	--------

	+65			35.6 -
--	-----	--	--	--------

146				34.5 -
-----	--	--	--	--------

	+50			33.1 -
--	-----	--	--	--------

147				32.1 -
-----	--	--	--	--------

	+50			31.6 -
--	-----	--	--	--------

148				31.6 -
-----	--	--	--	--------

	+50			31.7 -
--	-----	--	--	--------

149				31.6 -
-----	--	--	--	--------

T.P	4.26	✓ 935.88	10.01	✓ 931.62
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	+50			31.2 -
--	-----	--	--	--------

150				31.1 -
-----	--	--	--	--------

L ♀ R

$$\frac{4.4}{50} \quad \frac{4.9}{26} \quad 5.0 \quad \frac{5.5}{14} \quad \frac{6.2}{36} \quad \frac{6.5}{50}$$

$$\frac{2.1}{50} \quad \frac{3.2}{26} \quad \frac{5.3}{22} \quad \frac{5.1}{12} \quad 5.1 \quad \frac{5.8}{12} \quad \frac{6.6}{26} \quad \frac{6.2}{31} \quad \frac{7.1}{50}$$

$$\frac{3.0}{50} \quad \frac{4.4}{28} \quad \frac{3.8}{19} \quad \frac{6.0}{17} \quad \frac{6.6}{13} \quad \frac{6.1}{6} \quad 6.0 \quad \frac{7.0}{12} \quad \frac{6.8}{16} \quad \frac{6.1}{19} \quad \frac{7.1}{24} \quad \frac{8.5}{39} \quad \frac{9.3}{50}$$

$$\frac{5.0}{50} \quad \frac{6.2}{34} \quad \frac{6.8}{14} \quad \frac{7.5}{13} \quad \frac{7.3}{7} \quad 7.1 \quad \frac{8.0}{9} \quad \frac{8.0}{15} \quad \frac{7.7}{18} \quad \frac{8.6}{23} \quad \frac{10.6}{42} \quad \frac{11.5}{50}$$

$$\frac{7.8}{50} \quad \frac{8.0}{38} \quad \frac{9.0}{26} \quad \frac{8.3}{18} \quad \frac{8.4}{12} \quad \frac{8.9}{10} \quad 8.5 \quad \frac{8.9}{6} \quad \frac{9.1}{11} \quad \frac{9.4}{17} \quad \frac{9.9}{21} \quad \frac{10.3}{26} \quad \frac{11.3}{50}$$

$$\frac{9.8}{50} \quad \frac{10.1}{39} \quad \frac{9.9}{25} \quad \frac{9.3}{17} \quad \frac{9.5}{11} \quad \frac{9.9}{10} \quad 9.5 \quad \frac{9.7}{6} \quad \frac{10.0}{10} \quad \frac{9.8}{15} \quad \frac{10.0}{18} \quad \frac{10.9}{24} \quad \frac{11.9}{50}$$

$$\frac{10.1}{50} \quad \frac{10.3}{33} \quad \frac{9.7}{18} \quad \frac{9.7}{15} \quad \frac{10.2}{11} \quad 10.0 \quad \frac{10.7}{11} \quad \frac{10.4}{12} \quad \frac{10.7}{17} \quad \frac{11.2}{21} \quad \frac{12.4}{34} \quad \frac{11.9}{50}$$

$$\frac{10.7}{50} \quad \frac{10.7}{37} \quad \frac{9.8}{12} \quad \frac{10.3}{10} \quad 10.0 \quad \frac{10.6}{9} \quad \frac{10.2}{14} \quad \frac{10.3}{19} \quad \frac{10.8}{50}$$

$$\frac{10.6}{50} \quad \frac{10.6}{34} \quad \frac{9.6}{13} \quad \frac{10.3}{10} \quad 9.9 \quad \frac{10.8}{9} \quad \frac{9.9}{15} \quad \frac{9.4}{19} \quad \frac{10.0}{50}$$

$$\frac{10.5}{50} \quad \frac{10.3}{28} \quad \frac{9.8}{11} \quad \frac{10.2}{9} \quad 10.0 \quad \frac{10.8}{9} \quad \frac{9.7}{14} \quad \frac{10.2}{18} \quad \frac{11.7}{44} \quad \frac{11.7}{50}$$

$$\frac{4.6}{50} \quad \frac{4.6}{37} \quad \frac{4.2}{15} \quad \frac{4.5}{10} \quad \frac{4.9}{9} \quad 4.7 \quad \frac{5.2}{9} \quad \frac{4.7}{12} \quad \frac{4.0}{14} \quad \frac{4.9}{21} \quad \frac{5.7}{50}$$

$$\frac{4.3}{50} \quad \frac{4.3}{12} \quad \frac{5.2}{9} \quad 4.8 \quad \frac{5.5}{9} \quad \frac{4.9}{12} \quad \frac{3.8}{14} \quad \frac{4.3}{20} \quad \frac{4.5}{50}$$

Station	+	$\bar{X}$ ✓	-	Elev
		935.88		
150 + 53				30.6 -
151				30.6 -
+ 50				30.5 -
152				30.1 -
+ 50				29.9 -
153				29.6 -
+ 50				29.0 -
154				28.0 -
+ 40				27.3 -
155				26.3 -
T.P.	7.88	✓ 934.10	9.61	926.22 ✓
+ 28			12" CM	26.0 -
+ 50				25.7 -

L_t ~~R~~ R_t

$$\frac{5.7}{50} \frac{5.2}{23} \frac{5.1}{15} \frac{5.7}{10} 5.3 \frac{5.8}{9} \frac{5.4}{11} \frac{5.6}{15} \frac{6.1}{18} \frac{6.6}{29} \frac{6.3}{50}$$

$$\frac{7.7}{50} \frac{7.7}{39} \frac{7.2}{23} \frac{6.2}{15} \frac{5.9}{10} 5.3 \frac{5.7}{9} \frac{5.6}{16} \frac{6.3}{18} \frac{6.8}{35} \frac{6.8}{50}$$

$$\frac{7.7}{50} \frac{7.7}{29} \frac{6.4}{17} \frac{5.6}{11} \frac{5.9}{7} 5.4 \frac{5.3}{7} \frac{5.4}{13} \frac{5.3}{22} \frac{4.7}{50}$$

$$\frac{6.4}{50} \frac{5.5}{27} \frac{5.1}{9} \frac{6.1}{6} 5.8 \frac{5.7}{8} \frac{5.9}{13} \frac{5.2}{18} \frac{5.1}{27} \frac{6.1}{50}$$

$$\frac{6.1}{50} \frac{6.1}{33} \frac{6.0}{18} \frac{5.6}{10} \frac{6.3}{6} 6.0 \frac{6.0}{7} \frac{6.4}{13} \frac{6.3}{17} \frac{6.7}{19} \frac{6.7}{21} \frac{6.3}{22} \frac{5.7}{50}$$

$$\frac{7.3}{50} \frac{7.0}{34} \frac{6.6}{21} \frac{6.1}{10} \frac{6.5}{8} 6.3 \frac{6.4}{7} \frac{6.7}{13} \frac{6.6}{17} \frac{7.1}{21} \frac{7.3}{28} \frac{7.3}{40} \frac{6.7}{50}$$

$$\frac{8.0}{50} \frac{8.0}{34} \frac{7.6}{20} \frac{6.8}{11} \frac{7.3}{8} 6.9 \frac{7.0}{7} \frac{7.3}{13} \frac{7.4}{16} \frac{7.9}{20} \frac{7.9}{23} \frac{7.0}{26} \frac{6.0}{50}$$

$$\frac{6.5}{50} \frac{6.5}{31} \frac{8.0}{22} \frac{8.0}{12} \frac{8.2}{9} 7.9 \frac{8.1}{7} \frac{8.4}{12} \frac{8.4}{16} \frac{9.3}{18} \frac{9.3}{21} \frac{7.3}{26} \frac{7.3}{50}$$

$$\frac{8.4}{50} \frac{8.8}{28} \frac{9.4}{24} \frac{9.4}{19} \frac{8.8}{14} \frac{9.0}{10} 8.6 \frac{8.8}{6} \frac{9.2}{12} \frac{9.2}{14} \frac{10.7}{17} \frac{11.0}{21} \frac{9.8}{24} \frac{9.8}{50}$$

$$\frac{11.0}{50} \frac{13.1}{36} \frac{13.7}{26} \frac{13.2}{21} \frac{9.8}{16} \frac{9.8}{12} \frac{10.2}{10} 9.6 \frac{9.8}{15} \frac{14.8}{22} \frac{14.8}{50}$$

$$\frac{13.9}{\text{Invert}} \frac{10.8}{60} \frac{11.9}{27} \frac{10.8}{21} \frac{8.5}{15} 8.1 \frac{8.6}{15} \frac{14.7}{25} \frac{14.4}{\text{Invert}} \frac{14.7}{50}$$

$$\frac{9.7}{50} \frac{10.3}{39} \frac{11.2}{25} \frac{10.7}{20} \frac{8.6}{15} 8.4 \frac{9.0}{14} \frac{13.4}{24} \frac{14.4}{30} \frac{14.4}{50}$$

Station	+	π ✓	-	Elev
		934.10		

156				25.6 ✓
-----	--	--	--	--------

+50				26.0 ✓
-----	--	--	--	--------

157				26.5 ✓
-----	--	--	--	--------

+45				27.3 ✓
-----	--	--	--	--------

158				28.5 ✓
-----	--	--	--	--------

T.P

+50				29.6 ✓
-----	--	--	--	--------

T.P	7.42	937.89 ✓	3.63	930.47 ✓
-----	------	----------	------	----------

159				30.7 ✓
-----	--	--	--	--------

+30				31.3 ✓
-----	--	--	--	--------

B.M	3.47	937.89 ✓	3.47	934.22 ✓
-----	------	----------	------	----------

+60				31.8 ✓
-----	--	--	--	--------

160				32.5 ✓
-----	--	--	--	--------

+50				33.0 ✓
-----	--	--	--	--------

161				33.1 ✓
-----	--	--	--	--------

Lt Z Rt

$\frac{8.1}{50} \frac{9.0}{36} \frac{9.0}{20} \frac{8.8}{16} 8.5 \frac{9.1}{17} \frac{13.4}{23} \frac{14.5}{38} \frac{14.5}{50}$

$\frac{6.0}{50} \frac{7.2}{20} \frac{7.7}{12} \frac{8.2}{9} 8.1 \frac{8.7}{15} \frac{13.3}{22} \frac{14.0}{27} \frac{14.7}{36} \frac{14.7}{50}$

$\frac{2.8}{50} \frac{3.5}{40} \frac{5.4}{19} \frac{6.7}{15} \frac{8.0}{10} 7.6 \frac{8.0}{11} \frac{7.7}{12} \frac{7.7}{15} \frac{9.1}{19} \frac{10.8}{31} \frac{13.1}{50}$

$\frac{1.0}{50} \frac{2.3}{29} \frac{1.9}{21} \frac{6.4}{15} \frac{7.1}{11} \frac{6.9}{6} 6.8 \frac{7.0}{6} \frac{7.3}{10} \frac{7.2}{12} \frac{7.2}{17} \frac{6.8}{19} \frac{7.6}{33} \frac{9.2}{50}$

$\frac{0.9}{50} \frac{1.8}{32} \frac{1.2}{21} \frac{5.1}{15} \frac{6.1}{11} \frac{6.1}{8} 5.6 \frac{5.7}{7} \frac{6.1}{11} \frac{6.1}{16} \frac{4.1}{20} \frac{4.8}{39} \frac{4.8}{50}$

$\frac{1.3}{50} \frac{1.8}{31} \frac{1.5}{21} \frac{4.7}{16} \frac{5.1}{12} \frac{4.7}{7} 4.5 \frac{5.0}{9} \frac{4.8}{13} \frac{2.3}{20} \frac{1.7}{50}$

$\frac{3.6}{50} \frac{3.6}{40} \frac{3.6}{21} \frac{7.4}{15} \frac{7.9}{13} \frac{7.4}{7} 7.2 \frac{7.7}{10} \frac{7.5}{15} \frac{5.1}{20} \frac{5.4}{34} \frac{6.4}{50}$

$\frac{4.8}{50} \frac{4.8}{36} \frac{4.5}{21} \frac{6.5}{17} \frac{6.8}{14} \frac{7.2}{13} \frac{6.7}{7} 6.6 \frac{7.2}{10} \frac{7.0}{11} \frac{7.2}{17} \frac{5.3}{21} \frac{5.3}{50}$

6.5' Lt 5.4 15.9 + 30

$\frac{6.8}{50} \frac{6.4}{40} \frac{5.0}{23} \frac{5.4}{20} \frac{6.3}{16} \frac{6.6}{13} \frac{6.3}{8} 6.1 \frac{6.5}{10} \frac{6.7}{14} \frac{7.3}{16} \frac{7.3}{18} \frac{6.1}{20} \frac{7.0}{23} \frac{7.0}{34} \frac{7.0}{50}$

$\frac{5.9}{50} \frac{5.1}{38} \frac{4.7}{26} \frac{4.5}{19} \frac{5.8}{17} \frac{6.1}{12} \frac{5.6}{6} 5.4 \frac{5.9}{10} \frac{5.6}{13} \frac{6.1}{15} \frac{6.1}{17} \frac{5.2}{20} \frac{5.5}{23} \frac{6.6}{39} \frac{6.6}{50}$

$\frac{3.5}{50} \frac{3.5}{26} \frac{3.7}{21} \frac{4.8}{18} \frac{5.3}{15} \frac{5.7}{13} \frac{5.2}{8} 4.9 \frac{5.3}{8} \frac{5.2}{25} \frac{6.2}{50}$

$\frac{5.8}{50} \frac{5.8}{26} \frac{5.5}{17} \frac{5.4}{14} \frac{4.9}{8} 4.8 \frac{5.3}{10} \frac{6.0}{14} \frac{6.8}{18} \frac{7.5}{33} \frac{7.5}{50}$

Station	+	π ✓	-	Elev
		937.89		
161+50				33.1 ✓
162				33.3 ✓
+50				33.4 ✓
163				33.7 ✓
+50				33.7 ✓
164				34.1 ✓
T.P	7.80	940.53 ✓	5.16	932.73 ✓
+50				34.3 ✓
T.P	8.44	941.17 ✓	7.80	932.73 ✓
165				34.4 ✓
+65				34.4 ✓
166				34.6 ✓
+50				35.1 ✓
167				35.3 ✓

L+ L R+

$$\frac{5.2}{50} \frac{5.2}{27} \frac{5.4}{20} \frac{5.2}{14} \frac{5.0}{10} 4.8 \frac{5.1}{5} \frac{5.4}{10} \frac{6.1}{13} \frac{6.4}{16} \frac{6.8}{19} \frac{7.2}{36} \frac{6.9}{50}$$

$$\frac{4.5}{50} \frac{4.5}{27} \frac{5.2}{18} \frac{5.1}{14} \frac{4.8}{9} 4.6 \frac{5.2}{9} \frac{5.4}{13} \frac{6.0}{21} \frac{5.9}{36} \frac{5.4}{50}$$

$$\frac{4.6}{50} \frac{4.6}{28} \frac{5.1}{19} \frac{4.8}{14} \frac{4.6}{9} 4.5 \frac{5.0}{9} \frac{5.1}{12} \frac{5.7}{14} \frac{5.7}{16} \frac{5.5}{17} \frac{6.0}{22} \frac{5.0}{50}$$

$$\frac{4.0}{50} \frac{4.3}{28} \frac{4.7}{20} \frac{4.6}{15} \frac{4.4}{9} 4.2 \frac{4.8}{7} \frac{4.8}{11} \frac{6.0}{15} \frac{6.5}{17} \frac{6.5}{19} \frac{6.2}{20} \frac{6.7}{26} \frac{6.9}{50}$$

$$\frac{4.1}{50} \frac{4.1}{27} \frac{4.1}{22} \frac{4.9}{19} \frac{4.7}{17} \frac{4.6}{14} \frac{4.6}{14} \frac{4.3}{8} 4.2 \frac{4.6}{8} \frac{4.7}{13} \frac{6.0}{17} \frac{6.4}{24} \frac{6.4}{31} \frac{5.9}{50} \frac{6.4}{50} \frac{6.9}{41}$$

$$\frac{3.0}{50} \frac{3.0}{39} \frac{2.6}{22} \frac{4.2}{19} \frac{4.6}{17} \frac{4.3}{15} \frac{4.4}{13} \frac{4.0}{8} 3.8 \frac{4.1}{6} \frac{4.2}{13} \frac{4.7}{19} \frac{4.3}{24} \frac{4.0}{50}$$

$$\text{Na.1 I.P.}$$

$$\frac{6.2}{50} \frac{5.7}{27} \frac{5.0}{21} \frac{6.9}{18} \frac{6.9}{16} \frac{6.5}{15} \frac{6.7}{12} \frac{6.4}{8} 6.2 \frac{6.7}{10} \frac{6.2}{14} \frac{5.4}{26} \frac{4.8}{50}$$

$$\frac{7.0}{50} \frac{6.7}{44} \frac{6.6}{20} \frac{7.8}{18} \frac{7.8}{16} \frac{7.2}{14} 6.8 \frac{7.0}{6} \frac{7.3}{11} \frac{6.7}{15} \frac{6.4}{28} \frac{5.4}{50}$$

$$\frac{8.5}{50} \frac{8.9}{33} \frac{9.2}{25} \frac{8.9}{19} \frac{7.0}{16} \frac{6.9}{12} \frac{7.2}{11} 6.8 \frac{7.1}{10} \frac{7.0}{12} \frac{6.6}{21} \frac{6.2}{37} \frac{5.4}{50}$$

$$\frac{8.4}{50} \frac{9.0}{33} \frac{9.2}{23} \frac{9.0}{19} \frac{6.9}{15} \frac{6.7}{11} \frac{7.0}{10} 6.6 \frac{7.0}{10} \frac{6.7}{13} \frac{6.4}{26} \frac{5.7}{50}$$

$$\frac{8.1}{50} \frac{8.1}{40} \frac{7.9}{25} \frac{7.1}{18} \frac{6.2}{16} \frac{6.0}{12} \frac{6.6}{11} \frac{6.4}{6} 6.1 \frac{6.4}{8} \frac{6.6}{11} \frac{6.3}{13} \frac{5.7}{15} \frac{5.3}{25} \frac{4.4}{50}$$

$$\frac{7.5}{50} \frac{7.7}{29} \frac{7.5}{20} \frac{6.0}{15} \frac{5.8}{10} \frac{6.2}{9} 5.9 \frac{6.1}{6} \frac{6.4}{11} \frac{6.2}{12} \frac{5.9}{21} \frac{5.4}{40} \frac{4.6}{50}$$

Station	+	π	-	Elev
		941.17		
167+45				35.6 ✓
168				36.2 ✓
+50				36.9 ✓
169				37.4 ✓
T.P.	8.35	945.65 ✓	3.87	937.30 ✓
+50				37.8 ✓
170				37.7 ✓
+50				37.0 ✓
171				36.1 ✓
T.P.	2.00	938.06 ✓	9.59	936.06 ✓
+50				35.1 ✓
172				34.1 ✓
+20		18" C.M. Pipe		33.9 ✓
+60				33.4 ✓

LT Z RT

$$\frac{6.7}{50} \frac{7.5}{30} \frac{7.2}{20} \frac{5.6}{15} \frac{5.8}{10} 5.6 \frac{5.9}{7} \frac{6.3}{12} \frac{6.0}{16} \frac{6.3}{31} \frac{5.0}{50}$$

$$\frac{2.8}{50} \frac{3.1}{29} \frac{4.6}{23} \frac{5.6}{14} \frac{5.1}{10} \frac{5.4}{9} 5.0 \frac{5.3}{8} \frac{5.7}{12} \frac{5.4}{16} \frac{5.6}{23} \frac{4.2}{50}$$

$$\frac{2.0}{50} \frac{2.3}{34} \frac{3.7}{25} \frac{4.1}{12} \frac{4.7}{9} \frac{4.5}{6} 4.3 \frac{4.4}{7} \frac{4.8}{12} \frac{4.4}{17} \frac{3.7}{19} \frac{3.4}{40} \frac{3.0}{50}$$

$$\frac{2.7}{50} \frac{2.8}{33} \frac{2.3}{20} \frac{4.4}{14} \frac{4.5}{10} 3.8 \frac{4.0}{13} \frac{4.0}{18} \frac{0.6}{24} \frac{1.1}{50}$$

$$\frac{4.6}{50} \frac{4.6}{40} \frac{4.0}{34} \frac{4.1}{22} \frac{8.0}{15} \frac{8.6}{11} 7.9 \frac{8.2}{15} \frac{8.5}{22} \frac{6.5}{26} \frac{2.5}{31} \frac{4.0}{50}$$

$$\frac{1.8}{50} \frac{2.4}{45} \frac{2.7}{33} \frac{2.3}{25} \frac{8.0}{16} \frac{8.7}{12} \frac{8.3}{6} 8.0 \frac{8.4}{17} \frac{4.0}{25} \frac{5.1}{38} \frac{6.1}{50}$$

$$\frac{6.8}{50} \frac{7.3}{22} \frac{9.3}{17} \frac{9.1}{13} \frac{9.3}{11} 8.7 \frac{9.1}{9} \frac{9.3}{15} \frac{9.6}{16} \frac{9.6}{19} \frac{8.1}{23} \frac{10.1}{50}$$

$$\frac{9.7}{50} \frac{10.9}{38} \frac{10.6}{20} \frac{9.8}{13} \frac{10.2}{10} 9.6 \frac{9.8}{8} \frac{9.8}{15} \frac{11.6}{20} \frac{13.5}{50}$$

$$\frac{4.6}{50} \frac{5.0}{30} \frac{5.1}{19} \frac{3.2}{14} \frac{3.4}{10} \frac{3.3}{9} 3.0 \frac{3.5}{12} \frac{3.5}{16} \frac{6.4}{22} \frac{7.0}{24} \frac{7.5}{30} \frac{9.0}{50}$$

$$\frac{5.7}{50} \frac{7.3}{21} \frac{7.2}{18} \frac{4.6}{13} 4.0 \frac{4.5}{16} \frac{10.4}{24} \frac{11.7}{33} \frac{11.7}{50}$$

$$\frac{6.1}{50} \frac{6.9}{44} \frac{7.6}{23} \frac{8.7}{INV} \frac{7.8}{18} \frac{4.9}{12} 4.2 \frac{4.7}{16} \frac{9.7}{INV} \frac{11.2}{24} \frac{12.7}{40} \frac{12.7}{50}$$

$$\frac{5.6}{50} \frac{7.0}{22} \frac{7.4}{19} \frac{5.5}{13} 4.7 \frac{5.4}{15} \frac{11.5}{24} \frac{12.9}{42} \frac{12.9}{50}$$

Station	+	π ✓	-	Flow
		938.06		
173		✓		33.1 ✓
T.P	3.61	938.05 ✓	3.62	934.44 ✓
+50				33.2 ✓
174				33.2 ✓
+50				33.5 ✓
175				33.6 ✓
+50				33.5 ✓
176				33.5 ✓
+50				33.1 ✓
177				33.0 ✓
+50				33.5 ✓
178				33.5 ✓
+50				34.0 ✓

LY $\neq$ RT

$$\frac{4.8}{50} \frac{6.0}{20} \frac{6.4}{15} \frac{5.4}{11} \quad 5.0 \frac{3.4}{15} \frac{9.1}{22} \frac{11.4}{38} \frac{12.5}{50}$$

Top of Boulder

$$\frac{3.8}{50} \frac{4.6}{23} \frac{5.8}{16} \frac{5.5}{13} \frac{5.2}{7} \frac{4.9}{49} \frac{5.4}{12} \frac{5.1}{15} \frac{6.9}{19} \frac{8.0}{33} \frac{9.7}{50}$$

$$\frac{2.5}{50} \frac{2.9}{26} \frac{5.2}{22} \frac{6.0}{19} \frac{5.7}{14} \frac{5.3}{9} \frac{4.9}{49} \frac{5.3}{12} \frac{5.1}{14} \frac{5.9}{18} \frac{6.2}{26} \frac{8.5}{50}$$

$$\frac{2.7}{50} \frac{2.7}{26} \frac{5.1}{21} \frac{5.4}{18} \frac{5.2}{15} \frac{5.2}{10} \frac{4.6}{4.6} \quad \frac{5.1}{11} \frac{5.0}{15} \frac{5.1}{22} \frac{7.8}{50}$$

$$\frac{1.9}{50} \frac{2.8}{27} \frac{3.4}{21} \frac{4.5}{15} \frac{5.0}{11} \frac{4.5}{4.5} \frac{4.3}{7} \frac{4.8}{13} \frac{4.5}{25} \frac{6.1}{50}$$

$$\frac{2.5}{50} \frac{4.3}{16} \frac{5.0}{9} \frac{4.6}{4.6} \frac{4.7}{12} \frac{4.6}{18} \frac{5.5}{22} \frac{6.0}{22} \frac{7.7}{50}$$

$$\frac{1.8}{50} \frac{3.7}{19} \frac{4.8}{11} \frac{4.6}{4.6} \frac{4.9}{6} \frac{5.2}{12} \frac{5.0}{15} \frac{7.0}{31} \frac{8.4}{50}$$

$$\frac{3.3}{50} \frac{4.4}{17} \frac{4.7}{14} \frac{4.7}{8} \frac{5.0}{5.0} \frac{6.0}{10} \frac{5.1}{11} \frac{5.1}{15} \frac{6.3}{33} \frac{6.9}{39} \frac{7.3}{60}$$

$$\frac{4.0}{11} \frac{5.1}{31} \frac{5.1}{23} \frac{4.7}{18} \frac{5.1}{5.1} \frac{6.3}{9} \frac{7.5}{14} \frac{8.9}{50}$$

$$\frac{3.0}{50} \frac{4.6}{26} \frac{4.7}{17} \frac{4.6}{4.6} \frac{5.6}{11} \frac{5.7}{15} \frac{6.5}{17} \frac{7.1}{20} \frac{8.1}{50}$$

$$\frac{2.1}{50} \frac{4.1}{11} \frac{4.8}{6} \frac{4.6}{4.6} \frac{4.6}{9} \frac{5.0}{15} \frac{4.7}{20} \frac{5.5}{22} \frac{7.0}{50}$$

$$\frac{1.8}{50} \frac{2.1}{36} \frac{3.5}{10} \frac{4.4}{7} \frac{4.1}{4.1} \frac{4.1}{11} \frac{4.6}{15} \frac{4.2}{19} \frac{4.6}{23} \frac{3.5}{26} \frac{4.5}{50}$$

Station	+	π ✓	-	Elev
		938.05		
179				33.9 ✓
+50		✓		33.4 ✓
T.P	381	937.86	4.00	934.05 ✓
180				33.1 ✓
+50				32.5 ✓
181				32.2 ✓
+50				32.0 ✓
+86		18" CM.		
182				31.7 ✓
+50				31.9 ✓
183				32.6 ✓
+30				32.9 ✓
184				33.7 ✓
+50				34.4 ✓

L+ K R+

$$\frac{2.9}{50} \frac{4.1}{8} \frac{4.6}{6} 4.2 \frac{4.1}{10} \frac{4.5}{16} \frac{4.4}{20} \frac{4.8}{22} \frac{3.0}{34} \frac{3.5}{44} \frac{2.4}{50}$$

$$\frac{4.3}{50} \frac{4.4}{24} \frac{5.0}{8} \frac{5.2}{6} 4.7 \frac{4.4}{8} \frac{4.8}{16} \frac{4.9}{22} \frac{4.0}{28} \frac{2.8}{35} \frac{1.9}{50}$$

$$\frac{6.7}{50} \frac{5.9}{14} \frac{5.8}{11} \frac{5.4}{9} \frac{5.3}{5} 4.8 \frac{4.7}{15} \frac{5.1}{17} \frac{4.7}{26} \frac{2.4}{43} \frac{1.8}{50}$$

$$\frac{9.1}{50} \frac{7.8}{14} \frac{5.8}{8} 5.4 \frac{5.2}{9} \frac{5.6}{17} \frac{5.2}{27} \frac{2.8}{44} \frac{2.2}{50}$$

$$\frac{9.4}{50} \frac{9.4}{23} \frac{8.9}{12} \frac{6.1}{7} 5.7 \frac{5.5}{11} \frac{5.7}{21} \frac{6.6}{23} \frac{6.3}{28} \frac{4.9}{38} \frac{3.4}{50}$$

$$\frac{10.0}{50} \frac{10.0}{24} \frac{9.5}{12} \frac{6.1}{6} 5.9 \frac{5.7}{10} \frac{6.1}{16} \frac{7.0}{21} \frac{7.8}{24} \frac{5.3}{30}$$

Flows West $\frac{9.9}{111}$ $\frac{8.8}{111}$

$$\frac{10.2}{50} \frac{10.2}{25} \frac{9.1}{11} \frac{6.3}{6} 6.2 \frac{6.1}{10} \frac{6.4}{18} \frac{7.9}{22} \frac{7.7}{25} \frac{5.7}{50}$$

$$\frac{8.6}{50} \frac{9.1}{19} \frac{8.7}{11} \frac{6.1}{6} 6.0 \frac{5.6}{10} \frac{5.9}{21} \frac{7.1}{24} \frac{6.7}{28} \frac{5.8}{36} \frac{5.1}{50}$$

$$\frac{6.4}{50} \frac{6.8}{17} \frac{6.5}{8} \frac{5.5}{6} 5.3 \frac{5.2}{11} \frac{5.4}{20} \frac{7.0}{23} \frac{6.2}{38} \frac{6.6}{50}$$

$$\frac{5.1}{50} \frac{5.6}{16} \frac{5.2}{12} 5.0 \frac{5.0}{13} \frac{5.3}{21} \frac{6.5}{25} \frac{7.0}{34} \frac{7.0}{50}$$

$$\frac{3.5}{50} \frac{2.9}{30} \frac{3.9}{6} \frac{4.4}{4} 4.2 \frac{4.2}{12} \frac{4.0}{21} \frac{5.0}{50}$$

$$\frac{3.1}{50} \frac{2.1}{20} \frac{3.2}{6} \frac{3.7}{4} 3.5 \frac{3.4}{7} \frac{4.0}{16} \frac{2.8}{23} \frac{2.0}{50}$$

Station	+	π ✓	-	Elev
185		937.86		
T.P.	5.04	940.31 ✓	2.9	35.0 - ✓
+60			5.0	35.3 -
186			5.2	35.1 -
100			5.4	34.9 -
187			5.7	34.6 -
B.M	2.32	940.31 ✓	2.32	937.99 ✓
+60			7.0	33.3 -
188			9.4	30.9 -
+47			11.9	28.4 -
			15.0	25.3 -
189				
T.P	0.61	927.23 ✓	13.69	926.62 ✓
B.M	4.72	927.23 ✓	4.72	922.51 ✓
+50			4.3	22.9 -
190			6.9	20.3 -

Lt Z Rt

$$\frac{5.0}{50} \quad \frac{3.6}{21} \quad \frac{2.7}{6} \quad \frac{2.1}{4} \quad 2.9 \quad \frac{2.5}{9} \quad \frac{3.2}{16} \quad \frac{1.7}{22} \quad \frac{0.3}{30} \quad + \frac{1.0}{50}$$

$$\frac{9.8}{50} \quad \frac{8.4}{27} \quad \frac{6.2}{9} \quad \frac{5.2}{6} \quad 5.0 \quad \frac{5.0}{11} \quad \frac{5.1}{16} \quad \frac{3.0}{28} \quad \frac{0.7}{50}$$

$$\frac{10.4}{50} \quad \frac{9.6}{27} \quad \frac{8.0}{14} \quad \frac{5.7}{8} \quad 5.2 \quad \frac{4.8}{10} \quad \frac{4.8}{19} \quad \frac{4.3}{23} \quad \frac{3.6}{26} \quad \frac{1.2}{42} \quad \frac{0.6}{50}$$

$$\frac{10.5}{50} \quad \frac{9.6}{30} \quad \frac{7.1}{8} \quad \frac{5.9}{6} \quad 5.4 \quad \frac{4.9}{11} \quad \frac{5.2}{21} \quad \frac{3.7}{25} \quad \frac{2.8}{29} \quad \frac{1.1}{50}$$

$$\frac{10.3}{50} \quad \frac{8.8}{27} \quad \frac{6.5}{7} \quad \frac{6.1}{6} \quad 5.7 \quad \frac{5.5}{11} \quad \frac{5.8}{21} \quad \frac{5.2}{26} \quad \frac{2.9}{30} \quad \frac{1.8}{50}$$

937.93 Top of Steps 331 Rt Sta 187121

$$\frac{9.2}{50} \quad \frac{7.7}{20} \quad \frac{8.1}{13} \quad \frac{8.0}{9} \quad \frac{7.3}{6} \quad 7.0 \quad \frac{6.8}{7} \quad \frac{7.2}{16} \quad \frac{6.3}{25} \quad \frac{3.4}{30} \quad \frac{1.9}{50}$$

$$\frac{9.3}{50} \quad \frac{8.5}{21} \quad \frac{9.9}{17} \quad \frac{10.3}{9} \quad \frac{9.7}{7} \quad 9.4 \quad \frac{9.6}{8} \quad \frac{9.1}{20} \quad \frac{9.0}{25} \quad \frac{7.8}{29} \quad \frac{4.7}{35} \quad \frac{4.0}{50}$$

$$\frac{11.1}{50} \quad \frac{10.6}{26} \quad \frac{12.5}{15} \quad \frac{12.7}{9} \quad \frac{12.1}{7} \quad 11.9 \quad \frac{11.7}{8} \quad \frac{12.2}{16} \quad \frac{12.0}{24} \quad \frac{10.7}{30} \quad \frac{8.0}{35} \quad \frac{7.1}{50}$$

$$\frac{14.5}{50} \quad \frac{14.2}{29} \quad \frac{15.0}{22} \quad \frac{15.4}{18} \quad \frac{15.1}{6} \quad 15.0 \quad \frac{14.6}{13} \quad \frac{14.6}{28} \quad \frac{12.7}{33} \quad \frac{12.8}{50}$$

92246 12" Oak 50' Rt Sta 189 + 47

$$\frac{6.7}{50} \quad \frac{6.4}{29} \quad \frac{5.8}{10} \quad \frac{4.6}{6} \quad 4.3 \quad \frac{3.8}{11} \quad \frac{4.4}{22} \quad \frac{5.9}{25} \quad \frac{6.4}{34} \quad \frac{6.1}{50}$$

$$\frac{10.0}{50} \quad \frac{10.7}{19} \quad \frac{10.1}{12} \quad \frac{7.2}{7} \quad 6.9 \quad \frac{6.3}{11} \quad \frac{7.1}{21} \quad \frac{9.4}{25} \quad \frac{9.9}{32} \quad \frac{9.9}{50}$$

Station	+	π ✓	-	Elev
		927.23		
190	+50			17.7-
191				14.8-
+37		18" CM.		
+50				15.9-
192				17.0-
+45				18.0-
193				19.1- ✓
T.P.	9.26	✓ 928.66	7.83	919.40 ✓
+50				20.3-
194				21.1-
+50				21.9- ✓
T.P.	2.99	✓ 931.39	0.26	928.40 ✓
195				22.8 22.6
+50				23.8 23.7

14 2 84

$$\frac{12.7}{50} \frac{13.0}{21} \frac{12.4}{8} \frac{9.7}{2} 95 \frac{8.8}{11} \frac{9.0}{22} \frac{12.5}{29} \frac{12.7}{35} \frac{12.0}{50}$$

$$\frac{12.3}{50} \frac{13.3}{33} \frac{13.4}{12} 124 \frac{12.1}{2} \frac{11.1}{4} \frac{9.8}{16} \frac{9.6}{24} \frac{10.0}{26} \frac{10.8}{32}$$

$$\frac{12.8}{50} \frac{11.9}{40} \frac{11.9}{36}$$

$$\frac{14.0}{50} \frac{12.4}{50} \frac{13.0}{29} \frac{12.9}{14} \frac{11.7}{2} 113 \frac{10.2}{16} \frac{10.1}{22} \frac{11.4}{27} \frac{12.3}{30} \frac{13.0}{36} \frac{13.0}{50}$$

$$\frac{14.7}{50} \frac{14.7}{50}$$

$$\frac{10.0}{50} \frac{10.5}{10} 102 \frac{10.2}{16} \frac{12.6}{24} \frac{13.8}{50}$$

$$\frac{7.8}{50} \frac{8.5}{21} \frac{9.2}{16} 92 \frac{9.8}{14} \frac{11.7}{23} \frac{12.3}{36} \frac{14.2}{50}$$

$$\frac{4.9}{50} \frac{5.7}{23} \frac{7.3}{13} \frac{8.3}{12} 81 \frac{8.5}{10} \frac{9.8}{14} \frac{10.8}{24} \frac{11.2}{27} \frac{10.9}{31} \frac{11.2}{35}$$

$$\frac{14.7}{50} \frac{13.7}{42}$$

$$\frac{4.8}{50} \frac{6.4}{26} \frac{7.9}{18} \frac{8.0}{13} \frac{8.4}{12} 84 \frac{8.9}{10} \frac{10.9}{17} \frac{12.1}{21} \frac{12.5}{25} \frac{12.5}{31} \frac{14.2}{41}$$

$$\frac{15.2}{50}$$

$$\frac{2.8}{50} \frac{4.2}{32} \frac{5.3}{23} \frac{6.7}{20} \frac{7.5}{13} 76 \frac{8.2}{8} \frac{11.0}{15} \frac{13.0}{25} \frac{14.9}{40} \frac{16.3}{50}$$

$$\frac{0.9}{50} \frac{3.1}{28} \frac{5.4}{24} \frac{6.4}{9} 68 \frac{7.6}{9} \frac{10.5}{16} \frac{11.5}{21} \frac{14.4}{41} \frac{12.9}{50}$$

Top of stump 14 56 194 x 90

$$\frac{2.7}{50} \frac{4.4}{22} \frac{5.3}{18} \frac{8.7}{14} 86 \frac{9.4}{8}$$

$$\frac{2.1}{50} \frac{3.0}{24} \frac{3.6}{17} \frac{8.0}{12} 76 \frac{8.1}{9}$$

Station	+	π ✓	-	Elev
		931.39		

196				24.0 -
-----	--	--	--	--------

+50				23.4 -
-----	--	--	--	--------

197				22.0 -
-----	--	--	--	--------

+50				20.4 -
-----	--	--	--	--------

198				³ 18.2 -
-----	--	--	--	------------------------

+26				17.7 -
-----	--	--	--	--------

+50				17.4 -
-----	--	--	--	--------

T.P.	4.90	✓ 923.06	13.23	✓ 918.16
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195

+50

196

+50

197

LT ± RT

$$\frac{3.6}{50} \frac{4.6}{34} \frac{4.6}{19} \frac{7.5}{14} \frac{7.9}{12} \frac{7.6}{9} 7.4 \frac{8.1}{12}$$

$$\frac{4.6}{50} \frac{5.6}{31} \frac{7.1}{19} \frac{8.6}{16} \frac{9.5}{14} \frac{9.3}{13} 8.0 \frac{8.6}{12}$$

$$\frac{5.1}{50} \frac{7.3}{24} \frac{9.5}{21} \frac{9.5}{18} \frac{9.2}{16} 9.4 \frac{10.0}{12}$$

$$\frac{4.1}{50} \frac{4.6}{42} \frac{5.9}{34} \frac{10.4}{27} \frac{10.8}{21} \frac{10.4}{18} \frac{10.8}{16} 11.0 \frac{11.8}{9}$$

$$\frac{6.2}{36} \frac{9.9}{32} \frac{11.5}{27} \frac{12.2}{23} \frac{12.1}{17} \frac{12.4}{16} \frac{12.4}{10} 13.1 \frac{13.6}{6} \frac{13.2}{7} \frac{13.1}{13} \frac{14.0}{16}$$

$$\frac{5.5}{42} \frac{5.2}{50}$$

$$\frac{4.3}{57} \frac{5.3}{44} \frac{7.9}{36} \frac{10.3}{30} \frac{13.4}{24} \frac{13.5}{9} 13.7 \frac{14.0}{12}$$

$$\frac{7.5}{50} \frac{14.4}{27} \frac{14.1}{16} 14.0 \frac{14.6}{9}$$

0.3

$$\frac{6.5}{18} \frac{7.7}{22} \frac{7.9}{27} \frac{7.1}{34} \frac{8.1}{41} \frac{9.2}{45}$$

$$\frac{12.5}{96} \frac{10.5}{50}$$

+0.7

$$\frac{5.0}{78} \frac{6.2}{22} \frac{6.6}{31} \frac{6.1}{35} \frac{6.8}{41} \frac{10.7}{50} \frac{12.4}{75}$$

+0.9

$$\frac{4.4}{20} \frac{5.3}{26} \frac{5.0}{29} \frac{5.3}{34} \frac{7.8}{42} \frac{11.1}{50} \frac{12.7}{75}$$

+0.3

$$\frac{3.3}{19} \frac{5.3}{29} \frac{6.6}{36} \frac{10.6}{46} \frac{11.7}{50} \frac{13.0}{75}$$

1.1

$$\frac{4.2}{14} \frac{5.4}{27} \frac{6.7}{33} \frac{8.9}{38} \frac{10.5}{50} \frac{11.2}{55}$$

$$\frac{12.5}{75}$$

Station + π - Elev

923.02

197+50

198

+26

+50

199

16.7-

+50

16.3-

B.M

6.65

922.25

7.46

915.60

200

16.2-

+50

16.3-

201

16.4-

+50

16.8-

202

17.4-

+50

18.4-

Lt £ Rt

2.7 $\frac{4.6}{12}$ $\frac{5.2}{22}$ $\frac{8.7}{28}$ $\frac{10.1}{33}$ $\frac{11.2}{50}$ $\frac{12.8}{75}$

4.8 $\frac{9.6}{23}$ $\frac{10.7}{30}$ $\frac{11.9}{50}$ $\frac{11.9}{70}$

5.4 $\frac{9.1}{17}$ $\frac{10.6}{24}$ $\frac{11.6}{44}$ $\frac{12.7}{75}$

5.7 $\frac{9.3}{14}$ $\frac{10.4}{20}$ $\frac{11.7}{38}$ $\frac{12.0}{50}$ $\frac{12.7}{75}$

$\frac{5.2}{51}$ $\frac{6.7}{46}$ $\frac{7.8}{33}$ $\frac{7.7}{18}$ $\frac{6.6}{15}$ 6.4 $\frac{6.8}{10}$ $\frac{9.8}{16}$ $\frac{11.0}{31}$ $\frac{11.9}{50}$ $\frac{12.0}{75}$

$\frac{6.4}{50}$ $\frac{8.2}{47}$ $\frac{8.7}{38}$ $\frac{8.2}{18}$ $\frac{7.1}{15}$ 6.8 $\frac{7.2}{10}$ $\frac{9.8}{13}$ $\frac{10.9}{23}$ $\frac{11.7}{40}$ $\frac{12.2}{51}$ $\frac{12.6}{75}$

Spike in Triple Elm 50' Lt. Sta. 199 + 72

$\frac{7.2}{50}$ $\frac{7.4}{17}$ $\frac{6.3}{14}$ 6.1 $\frac{6.4}{12}$ $\frac{9.0}{18}$ $\frac{10.3}{25}$ $\frac{11.3}{50}$ $\frac{11.3}{75}$

$\frac{7.0}{50}$ $\frac{7.5}{22}$ $\frac{7.3}{16}$ $\frac{6.3}{13}$ 6.0 $\frac{6.4}{11}$ $\frac{8.7}{16}$ $\frac{10.5}{29}$ $\frac{11.3}{44}$ $\frac{11.8}{75}$

$\frac{6.6}{50}$ $\frac{7.6}{20}$ $\frac{7.1}{16}$ $\frac{6.0}{15}$ 5.9 $\frac{6.4}{12}$ $\frac{8.0}{16}$ $\frac{11.0}{30}$ $\frac{11.7}{43}$ $\frac{11.7}{75}$

$\frac{5.9}{50}$ $\frac{6.5}{38}$ $\frac{7.6}{28}$ $\frac{7.0}{18}$ $\frac{5.7}{14}$ 5.5 $\frac{5.9}{14}$ $\frac{9.3}{18}$ $\frac{10.9}{30}$ $\frac{12.1}{50}$ $\frac{12.1}{75}$

$\frac{4.4}{50}$ $\frac{5.9}{36}$ $\frac{7.6}{26}$ $\frac{7.8}{17}$ $\frac{5.3}{12}$ 4.9 $\frac{5.6}{12}$ $\frac{9.3}{17}$ $\frac{10.8}{30}$ $\frac{11.2}{50}$ $\frac{11.7}{75}$

$\frac{3.5}{50}$ $\frac{4.0}{45}$ $\frac{5.3}{33}$ $\frac{6.7}{26}$ $\frac{7.0}{19}$ $\frac{4.2}{13}$ $\frac{11.4}{9}$ 3.9 $\frac{4.3}{11}$ $\frac{8.4}{18}$ $\frac{10.3}{22}$ $\frac{11.2}{44}$ $\frac{11.7}{75}$

Station	+	π	-	Elev
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922.25

203

19.7

+50

T.P

9.41

930.87

0.79

21.4

921.46

203+50

204

23.4

+50

24.4

205

25.1

+33

~~2~~

+50

27.1

206

27.0

+50

19.9

207

20.8

T.P

9.64

939.99

0.52

930.35

204

+50

L+ ± R+

$$\frac{2.2}{50} \frac{5.4}{34} \frac{6.1}{22} \frac{3.1}{15} \frac{3.2}{11} 2.6 \frac{3.2}{12} \frac{7.8}{20} \frac{9.1}{26} \frac{11.4}{44} \frac{11.9}{75}$$

$$\frac{1.3}{20} \frac{0.8}{14} \frac{1.2}{12} 0.9 \frac{1.4}{16} \frac{4.3}{23} \frac{7.8}{29} \frac{11.1}{50} \frac{12.0}{75}$$

$$\textcircled{9.5} \quad \frac{7.8}{24} \quad \frac{6.3}{50}$$

$$\frac{7.0}{21} \frac{7.1}{18} \frac{7.6}{13} 7.5 \frac{7.6}{14}$$

$$\frac{5.1}{22} \frac{5.9}{19} \frac{5.8}{10} 6.5 \frac{6.6}{3} \frac{5.3}{6} \frac{5.5}{12}$$

$$\frac{4.8}{25} \frac{5.4}{21} \frac{5.0}{12} 5.8 \frac{6.0}{2} \frac{4.0}{6}$$

$$\frac{5.0}{28} \frac{4.6}{18} \frac{4.9}{9} \frac{5.2}{3} 5.1 \frac{3.6}{2}$$

$$\frac{5.3}{35} \frac{5.7}{32} \frac{5.1}{29} \frac{4.9}{16} \frac{6.0}{6} 3.9 \frac{5.5}{3}$$

$$\frac{2.7}{44} \frac{4.7}{42} \frac{5.3}{33} \frac{5.9}{32} \frac{5.7}{18} \frac{6.7}{8} \frac{9.7}{4} 11.0$$

$$\frac{1.2}{60}$$

$$\frac{3.1}{50} \frac{3.6}{44} \frac{6.4}{41} \frac{6.8}{33} \frac{7.3}{31} \frac{6.8}{20} \frac{7.7}{9} \frac{7.8}{5} 10.1$$

$$\frac{7.5}{50} \frac{10.2}{29} \textcircled{16.6}$$

$$\frac{6.2}{66} \frac{6.2}{50} \frac{6.8}{42} \frac{8.3}{30} \textcircled{15.6}$$

Station + π - Elev

939.99

205

+100

T.P. 0.52 930.87 9.64

930.35

T.P. 8.03

922.84

B.M. 0.96 919.10

918.20

204

+50

205

+50

206

+50

207

+50

19.0

208

19.1

Lt R Rt

$$\begin{array}{r} 0.35 \\ \hline \text{Elev. Ho. 1st Floor} \end{array} \quad \begin{array}{r} 4.2 \\ 50 \end{array} \quad \begin{array}{r} 4.8 \\ 39 \end{array} \quad \begin{array}{r} 5.2 \\ 36 \end{array} \quad \textcircled{14.9}$$

$$\begin{array}{r} 4.9 \\ 75 \end{array} \quad \begin{array}{r} 5.4 \\ 50 \end{array} \quad \begin{array}{r} 6.9 \\ 36 \end{array} \quad \textcircled{12.9}$$

Rockin Rd Sta 207

Spk. 177 Trnc Lt Sta 202 + 35

$$-4.3 \quad \begin{array}{r} 2.9 \\ 26 \end{array} \quad \begin{array}{r} 6.0 \\ 32 \end{array} \quad \begin{array}{r} 8.2 \\ 50 \end{array} \quad \begin{array}{r} 9.8 \\ 100 \end{array}$$

$$-5.3 \quad \begin{array}{r} 5.2 \\ 31 \end{array} \quad \begin{array}{r} 8.0 \\ 39 \end{array} \quad \begin{array}{r} 8.4 \\ 50 \end{array} \quad \begin{array}{r} 10.1 \\ 100 \end{array}$$

$$-6.0 \quad \begin{array}{r} 5.7 \\ 30 \end{array} \quad \begin{array}{r} 8.0 \\ 39 \end{array} \quad \begin{array}{r} 8.7 \\ 50 \end{array} \quad \begin{array}{r} 10.2 \\ 50 \end{array}$$

$$-8.0 \quad \begin{array}{r} 1.4 \\ 20 \end{array} \quad \begin{array}{r} 2.4 \\ 24 \end{array} \quad \begin{array}{r} 6.3 \\ 29 \end{array} \quad \begin{array}{r} 7.8 \\ 36 \end{array} \quad \begin{array}{r} 8.9 \\ 50 \end{array} \quad \begin{array}{r} 10.1 \\ 100 \end{array}$$

$$-7.9 \quad \begin{array}{r} 5.9 \\ 22 \end{array} \quad \begin{array}{r} 8.2 \\ 36 \end{array} \quad \begin{array}{r} 9.1 \\ 50 \end{array} \quad \begin{array}{r} 10.3 \\ 100 \end{array}$$

$$-0.8 \quad \begin{array}{r} 2.1 \\ 11 \end{array} \quad \begin{array}{r} 6.2 \\ 17 \end{array} \quad \begin{array}{r} 7.6 \\ 24 \end{array} \quad \begin{array}{r} 9.4 \\ 50 \end{array} \quad \begin{array}{r} 10.3 \\ 100 \end{array}$$

$$-1.7 \quad \begin{array}{r} 2.4 \\ 9 \end{array} \quad \begin{array}{r} 7.0 \\ 14 \end{array} \quad \begin{array}{r} 8.2 \\ 23 \end{array} \quad \begin{array}{r} 9.6 \\ 50 \end{array} \quad \begin{array}{r} 10.3 \\ 100 \end{array}$$

$$0.1 \quad \begin{array}{r} 2.6 \\ 7 \end{array} \quad \begin{array}{r} 6.5 \\ 12 \end{array} \quad \begin{array}{r} 8.0 \\ 19 \end{array} \quad \begin{array}{r} 9.0 \\ 35 \end{array} \quad \begin{array}{r} 9.6 \\ 50 \end{array} \quad \begin{array}{r} 10.6 \\ 100 \end{array}$$

$$0.0 \quad \begin{array}{r} 4.7 \\ 9 \end{array} \quad \begin{array}{r} 5.6 \\ 15 \end{array} \quad \begin{array}{r} 7.3 \\ 20 \end{array} \quad \begin{array}{r} 8.3 \\ 32 \end{array} \quad \begin{array}{r} 9.2 \\ 50 \end{array} \quad \begin{array}{r} 10.6 \\ 100 \end{array}$$

Station + K - Elev
 919.10 ✓

208+50

209

+50

B.M

0.90

918.20

T.P

9.04

931.88 ✓

922.84

207+50

+97

12" C.M.P.

208

+50

21.2
~~20.1~~

209

22.0 -

+50

21.9 -

210

20.7 -

T.P

1.88

923.12 ✓

10.64

926.24 ✓

B.M

1.98

923.05 ✓

2.05

921.07 ✓

+50

20.2 -

211

16.2 -

LT £ Rt

$$\textcircled{-2.1} \quad \frac{6.1}{13} \quad \frac{7.6}{20} \quad \frac{8.6}{32} \quad \frac{9.3}{50} \quad \frac{10.6}{100}$$

$$\textcircled{-2.9} \quad \frac{5.2}{21} \quad \frac{7.7}{30} \quad \frac{8.8}{50} \quad \frac{10.5}{100}$$

$$\textcircled{-2.8} \quad \frac{2.0}{29} \quad \frac{5.4}{33} \quad \frac{8.5}{50} \quad \frac{10.4}{100}$$

Spl. in Tree Rt Sta 202 + 35

Rookin Rd. Sta. 207

$$\frac{8.4}{50} \quad \frac{9.4}{40} \quad \frac{9.6}{37} \quad \frac{9.0}{39} \quad \frac{8.7}{23} \quad \frac{9.7}{6} \quad \textcircled{12.9}$$

$$\frac{12.5}{Inv} \quad \frac{14.2}{Inv}$$

$$\frac{11.7}{50} \quad \frac{12.2}{33} \quad \frac{12.2}{33} \quad \frac{9.7}{28} \quad \frac{9.6}{19} \quad \frac{10.4}{3} \quad \textcircled{12.8}$$

$$\frac{9.3}{60} \quad \frac{9.3}{33} \quad \frac{10.7}{31} \quad \frac{10.7}{26} \quad \frac{10.0}{23} \quad \frac{9.7}{12} \quad \frac{11.1}{10.7} \quad \frac{11.1}{2}$$

$$\frac{3.2}{51} \quad \frac{3.3}{42} \quad \frac{4.6}{28} \quad \frac{10.4}{22} \quad \frac{10.4}{20} \quad \frac{9.9}{17} \quad \frac{9.6}{8} \quad \frac{9.9}{9.9} \quad \frac{10.6}{10}$$

$$\frac{4.6}{50} \quad \frac{5.4}{20} \quad \frac{11.0}{14} \quad \frac{10.8}{11} \quad \frac{10.3}{9} \quad \frac{10.1}{7} \quad 10.0 \quad \frac{11.0}{13} \quad \frac{11.7}{15} \quad \frac{11.6}{16} \quad \frac{11.2}{17} \quad \frac{11.6}{24}$$

$$\frac{10.9}{50} \quad \frac{11.1}{26} \quad \frac{10.4}{14} \quad \frac{10.0}{5} \quad \frac{11.4}{2} \quad 11.2 \quad \frac{10.6}{13} \quad \frac{11.5}{23} \quad \frac{12.2}{26} \quad \frac{12.2}{28} \quad \frac{11.7}{29} \quad \frac{11.5}{34} \quad \frac{14.6}{41}$$

$$\frac{20.4}{100} \quad \frac{19.4}{60} \quad \frac{18.4}{50}$$

12" Oak 75' LT Sta 210 + 96

$$\frac{3.1}{50} \quad \frac{3.6}{12} \quad 2.9 \quad \frac{2.1}{10} \quad \frac{3.3}{12} \quad \frac{2.5}{26} \quad \frac{3.0}{35} \quad \frac{3.5}{37} \quad \frac{2.3}{40} \quad \frac{2.1}{45} \quad \frac{1.9}{60}$$

$$\frac{12.5}{75} \quad \frac{11.5}{65}$$

$$\frac{4.0}{50} \quad 6.9 \quad \frac{6.9}{18} \quad \frac{5.2}{21} \quad \frac{3.6}{33} \quad \frac{4.3}{49} \quad \frac{8.9}{60} \quad \frac{12.1}{65} \quad \frac{13.1}{75}$$

Station	+	π ✓	-	Elev
---------	---	---------	---	------

922.05

211+50				14.3 -
--------	--	--	--	--------

+80		18" CM		
-----	--	--------	--	--

212				14.3 -
-----	--	--	--	--------

+10				14.9 -
-----	--	--	--	--------

+38				17.7 -
-----	--	--	--	--------

213				18.2 -
-----	--	--	--	--------

+50				18.5 -
-----	--	--	--	--------

214				18.4 -
-----	--	--	--	--------

+50				18.5 -
-----	--	--	--	--------

T.P	3.55	922.95 ✓	3.65	919.40 ✓
-----	------	----------	------	----------

215				18.7 -
-----	--	--	--	--------

+50				18.4 -
-----	--	--	--	--------

216				17.6 -
-----	--	--	--	--------

+50				16.9 -
-----	--	--	--	--------

Elev Meander Cor

4 2 P+

$$\begin{array}{cccccccccccc} \frac{8.0}{50} & 8.8 & \frac{8.2}{12} & \frac{5.7}{17} & \frac{5.2}{21} & \frac{4.4}{31} & \frac{4.4}{42} & \frac{5.5}{48} & \frac{9.4}{50} \\ & & \frac{9.2}{50} & \frac{9.3}{50} & \text{Flows to Ltr} & & & & \frac{13.1}{75} \\ \frac{8.5}{50} & \frac{9.2}{18} & 8.8 & \frac{8.6}{2} & \frac{5.4}{7} & \frac{4.8}{22} & \frac{5.3}{34} & \frac{8.6}{40} & \frac{11.4}{50} & \frac{13.2}{75} \end{array}$$

$$\frac{8.3}{50} \frac{8.9}{56} \frac{9.0}{4} 8.2 \frac{5.5}{4} \frac{5.2}{9} \frac{4.8}{20} \frac{5.6}{33} \frac{9.2}{39} \frac{11.5}{50} \frac{13.1}{75}$$

$$\frac{8.3}{50} \frac{8.7}{12} \frac{8.3}{6} 5.4 \frac{4.7}{14} \frac{5.8}{28} \frac{9.3}{32} \frac{12.1}{50} \frac{13.6}{75}$$

$$\frac{6.4}{50} \frac{6.3}{36} \frac{5.6}{18} \frac{6.1}{16} \frac{6.7}{13} \frac{5.4}{9} 4.9 \frac{5.8}{17} \frac{8.7}{20} \frac{10.0}{26} \frac{11.9}{34} \frac{12.9}{50} \frac{14.4}{75}$$

$$\frac{4.4}{50} \frac{4.7}{25} \frac{5.8}{23} \frac{5.7}{19} \frac{5.0}{15} 4.6 \frac{5.7}{10} \frac{6.6}{10} \frac{9.5}{18} \frac{11.5}{28} \frac{12.9}{50} \frac{14.2}{75}$$

$$\frac{3.1}{50} \frac{3.7}{29} \frac{4.7}{27} \frac{4.4}{21} \frac{4.1}{7} 4.7 \frac{6.2}{11} \frac{9.4}{17} \frac{10.5}{24} \frac{12.1}{31} \frac{13.1}{50} \frac{14.8}{75}$$

$$\frac{4.5}{50} \frac{2.6}{28} \frac{4.3}{26} \frac{4.4}{24} \frac{4.1}{22} \frac{3.7}{12} 4.6 \frac{4.4}{5} \frac{6.7}{12} \frac{11.6}{21} \frac{13.0}{50} \frac{15.9}{100}$$

$$\frac{5.5}{50} \frac{4.4}{41} \frac{2.3}{26} \frac{4.4}{25} \frac{4.4}{23} \frac{4.1}{22} \frac{3.5}{12} 4.3 \frac{4.4}{2} \frac{2.6}{5} \frac{5.4}{13} \frac{10.2}{19} \frac{11.8}{29} \frac{13.1}{50} \frac{14.5}{100}$$

$$\frac{7.5}{50} \frac{4.3}{24} \frac{5.1}{23} \frac{4.6}{20} \frac{4.1}{8} 4.6 \frac{4.9}{4} \frac{3.1}{7} \frac{6.1}{14} \frac{11.6}{23} \frac{13.4}{50} \frac{15.2}{100}$$

$$\frac{8.7}{50} \frac{7.7}{38} \frac{7.1}{28} \frac{6.6}{24} \frac{6.2}{21} \frac{5.5}{18} \frac{5.1}{8} 5.4 \frac{6.0}{5} \frac{6.0}{6} \frac{4.2}{10} \frac{9.8}{18} \frac{11.4}{25} \frac{13.2}{50} \frac{15.2}{100}$$

$$\frac{10.0}{50} \frac{9.4}{26} \frac{8.5}{22} \frac{6.6}{18} \frac{5.9}{8} 6.1 \frac{6.5}{9} \frac{9.7}{15} \frac{11.5}{23} \frac{13.3}{50} \frac{15.2}{100}$$

$$6.80/916.05$$

Station + π ✓ - Elev
922.95

217 16.2 -

+36 18" C.M.P.
+42

15.6 -

218 15.8 -

+50 15.5 -

219 16.1 -

+50 16.6 -

T.P 7.38 925.13 ✓ 5.20 917.73 ✓

220 17.5 -

+50 18.6 -

221 19.7 -

+50 20.7 -

222 21.6 -

+50 22.6 -

L+ Z Rt

$$\frac{10.2}{50} \frac{10.2}{27} \frac{9.7}{23} \frac{7.266}{19} \frac{6.8}{8} \frac{7.4}{6} \frac{10.0}{11} \frac{11.1}{17} \frac{12.8}{50} \frac{13.8}{75}$$

$$\frac{10.2}{50} \frac{10.3}{28} \frac{9.6}{24} \frac{8.4}{20} \frac{6.8}{10} \frac{7.4}{5} \frac{7.9}{8} \frac{9.1}{20} \frac{11.2}{50} \frac{12.8}{50} \frac{13.8}{75}$$

$$\frac{10.5}{50} \frac{10.5}{33} \frac{10.0}{27} \frac{8.0}{23} \frac{6.8}{12} \frac{7.2}{9} \frac{8.3}{16} \frac{11.3}{24} \frac{12.1}{50} \frac{13.5}{50} \frac{14.5}{75}$$

$$\frac{8.8}{50} \frac{8.8}{33} \frac{8.0}{27} \frac{7.0}{22} \frac{6.7}{14} \frac{7.5}{5} \frac{8.7}{12} \frac{9.9}{21} \frac{11.7}{50} \frac{13.3}{50} \frac{14.5}{75}$$

$$\frac{6.8}{50} \frac{6.8}{33} \frac{6.8}{29} \frac{7.2}{28} \frac{7.0}{27} \frac{6.5}{20} \frac{6.9}{5} \frac{7.3}{13} \frac{11.0}{26} \frac{12.2}{50} \frac{13.5}{75} \frac{14.7}{75}$$

$$\frac{5.6}{50} \frac{5.6}{28} \frac{6.2}{27} \frac{5.5}{13} \frac{6.4}{10} \frac{7.1}{10} \frac{10.5}{15} \frac{11.1}{22} \frac{13.4}{50} \frac{14.4}{75}$$

Nail in F. Post Lt 219108

$$\frac{7.4}{50} \frac{7.9}{30} \frac{7.9}{24} \frac{7.2}{21} \frac{6.8}{9} \frac{7.6}{7} \frac{8.4}{9} \frac{10.7}{13} \frac{13.3}{22} \frac{14.4}{33} \frac{15.4}{50} \frac{16.4}{75}$$

$$\frac{4.6}{50} \frac{6.6}{26} \frac{6.0}{9} \frac{6.5}{3} \frac{7.9}{7} \frac{8.4}{11} \frac{11.4}{16} \frac{12.9}{26} \frac{14.1}{34} \frac{15.5}{50}$$

$$\frac{3.6}{50} \frac{5.6}{27} \frac{5.9}{22} \frac{4.9}{9} \frac{5.4}{5} \frac{5.7}{7} \frac{7.3}{12} \frac{8.0}{17} \frac{10.7}{30} \frac{13.4}{50} \frac{14.9}{75}$$

$$\frac{3.2}{50} \frac{4.2}{28} \frac{3.8}{11} \frac{4.4}{2} \frac{4.3}{6} \frac{5.9}{18} \frac{9.0}{22} \frac{11.2}{35} \frac{14.0}{50} \frac{14.9}{75}$$

$$\frac{0.5}{50} \frac{1.5}{37} \frac{1.5}{32} \frac{2.9}{30} \frac{2.6}{14} \frac{3.5}{8} \frac{5.0}{19} \frac{8.4}{22} \frac{10.5}{32} \frac{13.0}{50} \frac{14.7}{50} \frac{15.7}{75}$$

$$\frac{2.0}{50} \frac{1.5}{40} \frac{1.7}{36} \frac{2.1}{26} \frac{1.7}{20} \frac{3.1}{7} \frac{1.5}{5} \frac{2.5}{11} \frac{6.1}{21} \frac{11.4}{38} \frac{14.0}{50} \frac{14.7}{75} \frac{15.7}{75}$$

Station	+	π ✓	-	Elev
---------	---	---------	---	------

925.13

223

23.0 -

+50

21.2 -

224

21.4 -

+50

20.7 -

225

23.4 -

+50

23.2 -

Meander Cor. Top of Min. ✓

7.65

(917.48) ✓

T.P.

6.38

929.97

1.52

923.61 ✓

223

99

+50

224

+50

225

+50

Lt R

$$2.1 \frac{4.7}{8} \frac{11.0}{23} \frac{14.4}{50} \frac{15.4}{75}$$

$$3.9 \frac{6.8}{13} \frac{11.0}{24} \frac{12.3}{33} \frac{14.0}{42} \frac{14.9}{50} \frac{15.9}{75}$$

$$3.7 \frac{7.4}{16} \frac{10.9}{23} \frac{12.8}{32} \frac{14.8}{50} \frac{16.3}{75}$$

$$4.4 \frac{8.8}{15} \frac{10.5}{24} \frac{13.6}{42} \frac{14.2}{50} \frac{15.7}{75}$$

$$1.7 \frac{4.0}{6} \frac{5.2}{12} \frac{7.7}{17} \frac{10.6}{25} \frac{13.3}{35} \frac{14.8}{50} \frac{15.9}{75}$$

$$1.9 \frac{2.7}{5} \frac{4.6}{10} \frac{7.4}{24} \frac{11.1}{32} \frac{13.0}{41} \frac{14.0}{75}$$

$$\begin{array}{ccccccc} & & & & \sqrt{4.3} & & \\ 3.3 & 4.2 & 6.4 & 6.4 & 5.8 & 5.7 & 6.3 & 5.2 & 7.0 \\ 50 & 41 & 38 & 36 & 34 & 21 & 11 & 7 \end{array}$$

$$\frac{1.0}{50} \frac{1.7}{41} \frac{4.8}{38} \frac{4.7}{35} \frac{4.7}{23} \frac{5.6}{11} \frac{6.4}{6} \quad 8.8$$

$$\frac{0.0}{50} \frac{1.0}{39} \frac{4.4}{35} \frac{5.0}{31} \frac{4.6}{22} \frac{6.0}{10} \frac{6.5}{7} \quad 8.6$$

$$\frac{2.4}{50} \frac{3.7}{38} \frac{4.7}{21} \frac{6.3}{7} \frac{8.1}{4} \quad 9.3$$

$$\frac{3.3}{36} \frac{3.6}{31} \frac{5.7}{26} \frac{5.6}{20} \quad 6.6$$

$$\frac{5.7}{50} \frac{5.9}{45} \frac{6.0}{17} \quad 6.8$$

Stat + π - Elev

226 929.97
.99

21.8 -

+50
B.M

0.11

24.5

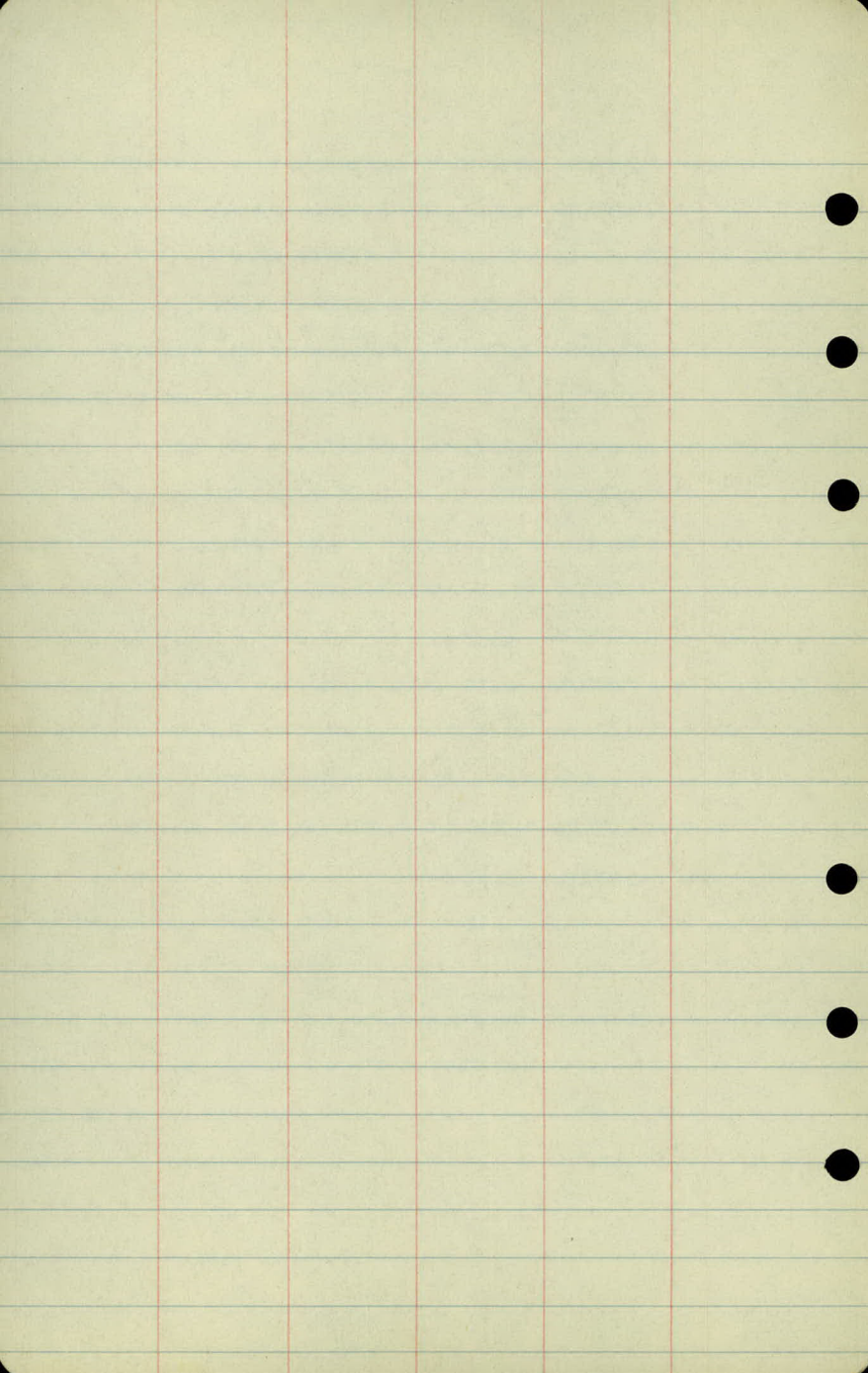
88
929.86

LY Z RT

$$\frac{7.8}{50} \quad \frac{7.9}{17} \quad \frac{9.2}{5} \quad 9.2 \quad \frac{8.3}{16} \quad \frac{10.2}{20} \quad \frac{12.2}{31} \quad \frac{16.8}{40} \quad \frac{18.8}{50}$$

$$\begin{array}{ccccccccccc} & & & & & & 22.2 & & & & \\ \frac{4.9}{50} & \frac{4.3}{22} & & 5.6 & - & \frac{6.4}{9} & \frac{8.0}{13} & \frac{7.8}{20} & \frac{8.5}{28} & \frac{10.8}{35} & \frac{18.8}{50} \\ 55' & 21 & 51.9 & 224 & + & 52 & & & & & \end{array}$$

2
RO.



Bench Levels.

Otter Lake Road.

Birch Lake Blvd - M. Co. Line.

Bench Levels Otter Lake.

	+	+	-	Elev.	
B.M.	5.42	928.18		922.76	
T.P.	4.22	927.85	4.55	923.63	
T.P.	6.73	932.17	2.41	925.44	
B.M.	4.25	937.17	4.25	9279.2	927.89
✓	5.23	931.40	6.00	926.17	
✓	6.53	938.21	4.72	926.68	
B.M.	4.13	932.74	4.60	928.61	
T.P.	0.68	928.01	5.41	927.33	
T.P.	3.40	924.58	6.83	921.18	
✓	2.80	920.71	6.67	917.91	
✓	12.24	932.65	0.30	920.41	
B.M.	6.99	932.65	6.99	928.66	
T.P.	10.77	942.75	0.67	931.98	
✓	6.55	942.18	2.12	940.63	
B.M.	6.17	947.18	6.17	941.01	
T.P.	3.73	948.09	2.82	944.36	
✓	4.05	946.93	6.21	941.88	
B.M.	1.19	939.28	7.84	938.09	x-sec. (938.12)
T.P.	3.91	935.27	7.92	931.36	
✓	4.76	931.76	8.27	927.00	
✓	7.21	937.76	1.21	920.55	
B.M.	3.33	927.76	3.33	924.43	
T.P.	8.75	942.89	3.62	934.14	
B.M.	0.83	942.89	0.83	942.06	

Oct. 10, 1936

Anker
Hendrix
Moeschler

Spike in R.P. @ Pump Ho. N.E. cor. Birch Lake Blvd N.

Spike

Rt. 85+

?

Spike in 1 Oak Rt. Sta. 103+

Oct. 13, 1936

Bratager
Wilke

Spike in 15" Oak 58' Rt. Sta. 124+61

Spike in stump 60' Lt. Sta. 131+79

Spike in T.P. 15' Rt. Sta. 144+95

Spike in fence post 60' Lt. 159+30.

Top of conc. wall at steps. S.E. cor. 90' Lt. Sta. 168+27

Bench Levels Otter Lake,

	+	⌊	-	Elev.
T.P.	2.02	939.34	5.57	937.32
✓	5.53	938.82	6.05	933.29
✓	6.04	939.46	5.40	933.42
B.M.	0.51	938.44	1.53	937.93
T.P.	0.82	926.29	12.97	925.47
B.M.	3.83	926.29	3.83	922.46
T.P.	10.31	928.50	8.10	918.19
✓	1.97	921.03	9.44	919.06
B.M.	5.45	921.03	5.45	915.58
T.P.	9.93	928.13	2.83	918.20
T.P.	2.02	925.93	4.22	923.91
B.M.	4.88	925.93	4.88	921.05
T.P.	4.83	923.06	7.70	918.23
T.P.			5.32	917.74

Top of conc. steps. 33' Rt. Sta. 187+21

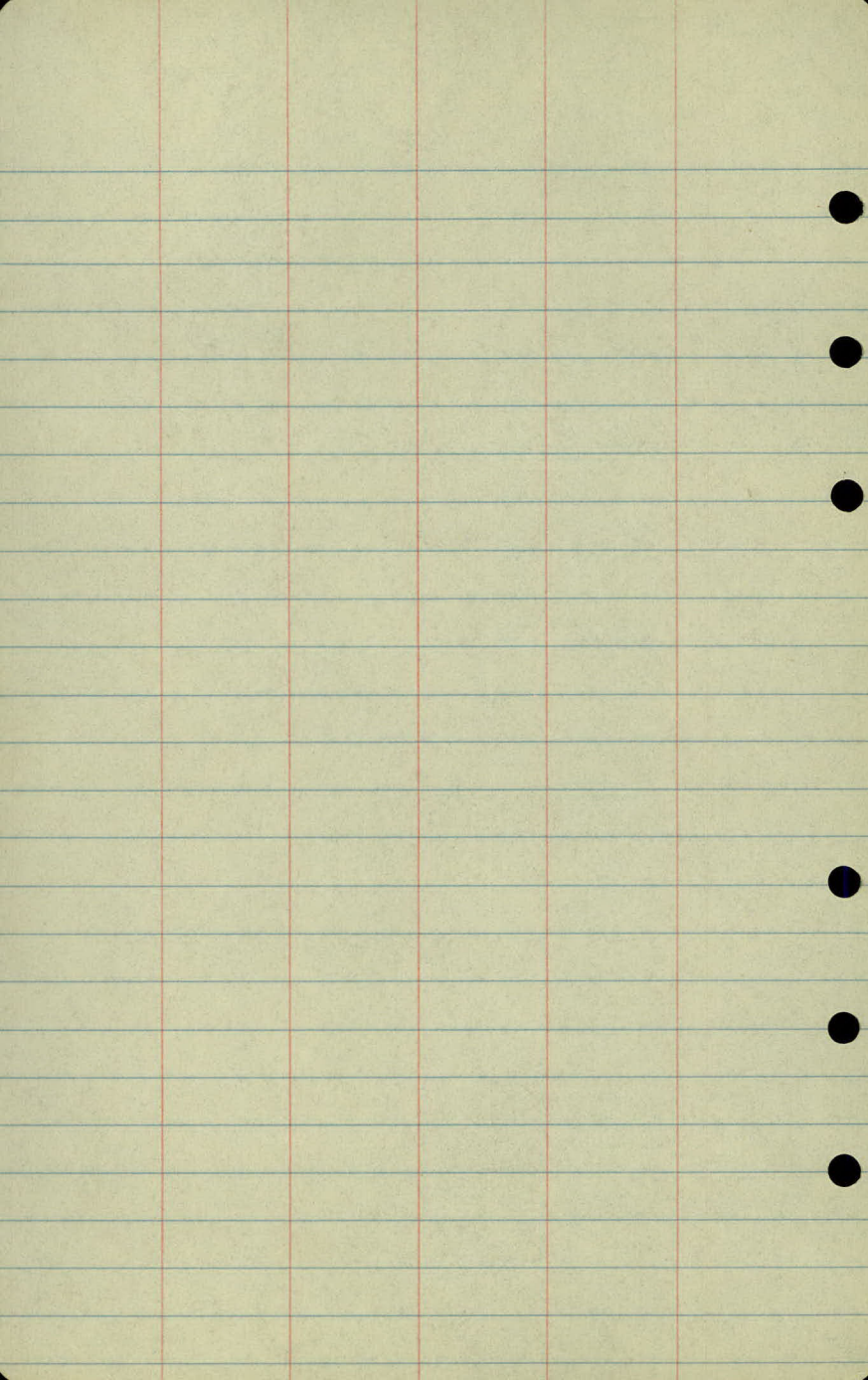
Spike in Oak 50' Rt. Sta. 189+43

Spike in Triple Elm 50' Lt. Sta. 199+72

Spike in Oak Rt. Sta.

Spike in Oak 76' Lt. Sta. 210+96

Nail in fence post.



No } Lower grade dolomite old
Red.

218 ✓ Sta 223- 3' feet. to 0 ft. @ 218

Lower red shale about 2' Sta 205'

Lower old sand about 2' Sta. 215'

" " " " 2' Sta. 198'

Line Revision

"A" Line

Otter Lake Road.

Sta. 189+52.83 to Sta. 212+29.76

W. H. Carlson

Nov. 20, 1936.

Station	Point	Angle	
		Lt.	Rt.
198+79.7	P.T.		16°-11'
+50			14°-41.9'
198			12°-11.9'
+50			9°-41.9'
197			7°-11.9'
+50			4°-41.9'
196			2°-11.9'
195+56.03	P.C.		0°-00'

N-16°-20'-W.

P.I. 197+22.52

Δ 32°-22' Rt.

10°-00' O.

T. 186.49

L. 323.67

R. 573.69

N-48°-42'-W.

192+79.50	P.T.	24°-30'	
+50		22°-17.3'	
192		18°-32.3'	
+50		14°-47.3'	
191		11°-02.3'	
+50		7°-17.3'	
190		3°-32.3'	
189+52.83	P.C.	0°-00'	

P.I. 191+274

Δ 49°-00' Lt.

D-15°

T. 174.57

L. 326.67

R. 383.06

N-02°-18'-E.

W.H. Carlson
K. Anker
L. B. Hendrix
A. Moeschler
Nov. 18, 1936

~~70~~
69

20

RT. 198+79.7

0-14.007

18" oak

37.40

39.19

12" oak

56.72

24" oak

angle

Sta. Point Lt Rt.

212+79.89

P.T.

6°08'

+50

5°41.1'

212

4°56.1'

P.I. 210+76.25

+50

4°11.1'

Δ 12°-16' Lt.

211

3°26.1'

D= 3°-00'

+50

2°41.1'

T. 205.26 ✓

210

1°56.1'

L. 408.89

+50

1°11.1'

R= 1910.08

209

0°26.1'

208+71.0

0°-00'

N-24°-33'-W.

207+36.70

P.T.

4°06.5'

207

3°33.5'

P.I. 206+00.0°

+50

2°48.5'

Δ 8°-13'

206

2°03.5'

D- 3°-00'

+50

1°18.5'

T. 137.19

205

0°-33.5'

L. 273.89

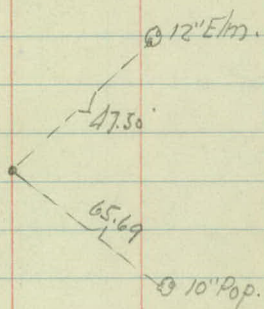
204+62.81

P.C.

0°-00'

R= 1910.08

Pl. correction to original line.



□ 1"X2" Hub.

Station	Point	Angle	
		Lt.	Rt.
468+83.89			
226+58.57	P.T.	25°-59'	
226		21°-35.4	
750		17°-50.4	
225		14°-05.4	
750		10°-20.4	
224		6°-35.4	
750		2°-50.4	
223+12.13	P.C.	0°-00'	

{ Meander Corner.
 P.I. 224+98.82
 Δ 51°-58'
 D= 150
 T. 186.69
 L.C. 346.44
 P= 383.06.

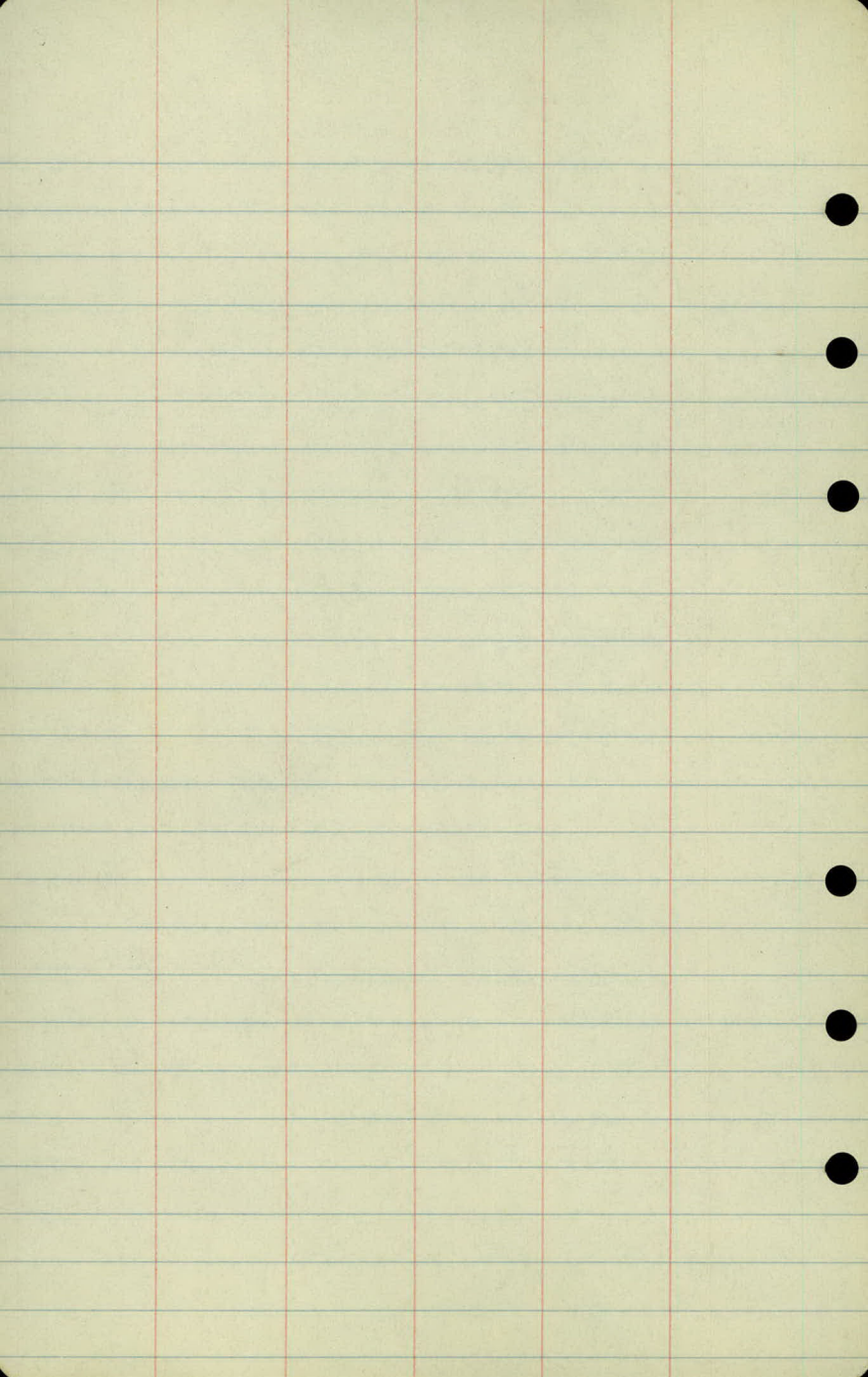
Shoka County

Barney County

See North Dakota
Survey of Nov. 1936. $468 + 83.59$
 $226 + 58.57$

M. Corner

R.C. 223 + 12.13



"A" Line

Otter Lake Road.

Cross Sections

Change of line Sta. 190+00

to Sta. A 226+5837 = 468+83.91

No Co Line Rd.

Sta.	+	✓ K	-	Elev.
B.M.	1.11	923.57		922.46
190+00				20.1
+50				15.3
191				14.3
+50				15.3
192				16.7
+50				18.0
193		✓		18.9
T.P.	9.34	928.68	4.23	✓ 919.34
+50				19.7
194				19.0
+50				19.1
195				18.4
+50		✓		19.0
T.P.	8.39	927.94	9.13	✓ 919.55

Bratton
Wilke
Gillen

11/18/36

72

LT Z RT

12" Oak 50' RT 56 189 + 47
 $\frac{59}{50} \frac{7.1}{16} \frac{6.6}{70} \frac{3.6}{5} \frac{2.7}{3.5} \frac{3.5}{12} \frac{6.0}{24} \frac{6.8}{29} \frac{6.4}{39} \frac{6.4}{50}$

$\frac{9.0}{50} \frac{9.2}{29} \frac{9.2}{3} 9.3 \frac{6.0}{4} \frac{5.2}{18} \frac{5.4}{28} \frac{8.6}{34} \frac{9.1}{50}$

$\frac{8.4}{50} \frac{9.7}{19} 9.3 \frac{8.7}{8} \frac{7.7}{10} \frac{6.5}{20} \frac{6.0}{30} \frac{6.9}{38} \frac{8.0}{42} \frac{9.3}{50}$

$\frac{8.6}{50} \frac{9.2}{30} \frac{9.2}{8} 8.3 \frac{8.0}{4} \frac{7.6}{5} \frac{6.7}{18} \frac{6.5}{27} \frac{7.5}{33} \frac{9.0}{39} \frac{9.6}{50}$

$\frac{6.2}{50} \frac{6.7}{30} \frac{6.9}{18} 6.7 \frac{6.5}{16} \frac{9.0}{26} \frac{9.4}{44} \frac{10.4}{50}$

$\frac{4.1}{50} \frac{4.4}{26} \frac{5.2}{20} \frac{5.7}{12} 5.6 \frac{6.1}{12} \frac{7.6}{18} \frac{8.5}{35} \frac{11.3}{50}$

$\frac{1.3}{50} \frac{1.9}{31} \frac{3.8}{24} \frac{4.2}{19} \frac{4.7}{17} \frac{4.4}{8} 4.7 \frac{4.2}{7} \frac{7.3}{18} \frac{7.8}{27} \frac{10.3}{35} \frac{11.4}{50}$

$\frac{5.2}{50} \frac{7.8}{27} \frac{8.4}{20} \frac{8.4}{12} 9.0 \frac{11.3}{18} \frac{12.4}{15} \frac{13.7}{30} \frac{15.6}{39} \frac{16.8}{50}$

$\frac{3.7}{50} \frac{5.2}{35} \frac{6.8}{31} \frac{7.6}{22} \frac{8.2}{2} 9.7 \frac{12.7}{9} \frac{14.1}{23} \frac{16.8}{44} \frac{17.4}{50}$

$\frac{1.7}{50} \frac{3.1}{36} \frac{6.0}{30} \frac{6.5}{19} \frac{7.5}{3} 9.6 \frac{11.2}{7} \frac{14.3}{29} \frac{15.3}{37} \frac{16.8}{50}$

$\frac{1.1}{50} \frac{1.7}{36} \frac{2.6}{32} \frac{5.9}{28} \frac{5.8}{16} \frac{6.7}{5} 10.3 \frac{13.5}{8} \frac{13.8}{27} \frac{16.2}{39} \frac{17.4}{50}$

$\frac{0.0}{50} \frac{1.0}{34} \frac{5.4}{28} \frac{5.0}{17} \frac{5.4}{6} 9.7 \frac{12.1}{7} \frac{12.3}{23} \frac{16.0}{33} \frac{17.5}{50}$

Sta	+	$\bar{A}$ ✓	-	Elev
196		927.94		19.0
+50				18.5
197				16.1
+50				13.4
T.P.	2.19	✓ 920.92	921	✓ 918.73
198				12.4
+50				12.4
199				12.5
+50				12.8
B.M.	5.33	✓ 920.92	5.33	✓ 915.59
200				12.8
+50				12.1
201				12.8
+50				12.9

LX * RT

$$\frac{1.3}{50} \quad \frac{1.2}{39} \quad \frac{4.5}{33} \quad \text{Rd} \quad \frac{4.0}{20} \quad \frac{4.8}{7} \quad 8.9 \quad \frac{10.5}{5} \quad \frac{10.4}{15} \quad \frac{14.4}{22} \quad \frac{17.0}{50}$$

$$\frac{3.1}{50} \quad \frac{4.0}{45} \quad \frac{5.3}{41} \quad \frac{4.7}{24} \quad \text{Rd} \quad \frac{5.3}{14} \quad \frac{7.7}{8} \quad 9.4 \quad \frac{10.5}{9} \quad \frac{15.2}{20} \quad \frac{16.1}{30} \quad \frac{17.0}{50}$$

$$\frac{3.9}{56} \quad \frac{6.3}{50} \quad \text{Rd} \quad \frac{6.0}{33} \quad \frac{6.8}{18} \quad \frac{9.9}{13} \quad 11.8 \quad \frac{14.6}{18} \quad \frac{16.3}{37} \quad \frac{17.0}{50}$$

$$\frac{7.3}{1.7} \quad \frac{7.8}{46} \quad \frac{7.6}{45} \quad \frac{8.9}{\text{Rd} 35} \quad \frac{9.7}{20} \quad \frac{11.2}{18} \quad 14.5 \quad \frac{15.4}{8} \quad \frac{17.1}{50}$$

$$\frac{6.4}{59} \quad \frac{2.2}{62}$$

$$\frac{2.5}{51} \quad \frac{2.5}{43} \quad \frac{3.1}{41} \quad \frac{2.8}{31} \quad \frac{3.6}{12} \quad \frac{8.0}{4} \quad 8.5 \quad \frac{9.6}{26} \quad \frac{10.2}{50}$$

$$\frac{5.3}{50} \quad \frac{4.5}{37} \quad \frac{4.1}{36} \quad \frac{3.8}{25} \quad \frac{4.5}{12} \quad \frac{7.6}{7} \quad 8.5 \quad \frac{9.6}{14} \quad \frac{10.4}{50}$$

$$\frac{6.2}{50} \quad \frac{6.5}{40} \quad \frac{4.6}{34} \quad \frac{4.4}{24} \quad \frac{5.0}{11} \quad \frac{7.6}{5} \quad 8.4 \quad \frac{9.4}{21} \quad \frac{10.3}{50}$$

$$\frac{6.4}{50} \quad \frac{6.1}{37} \quad \frac{5.0}{34} \quad \text{Rd} \quad \frac{4.7}{24} \quad \frac{5.2}{10} \quad \frac{7.5}{6} \quad 8.1 \quad \frac{9.8}{23} \quad \frac{10.3}{50}$$

Spike in 30" Elm 65' RT Sta 199+50

$$\frac{6.0}{50} \quad \frac{6.0}{36} \quad \frac{5.0}{34} \quad \frac{5.1}{9} \quad \frac{7.6}{4} \quad 8.1 \quad \frac{10.2}{30} \quad \frac{10.4}{50}$$

$$\frac{6.2}{50} \quad \frac{5.9}{37} \quad \frac{4.9}{34} \quad \frac{4.6}{23} \quad \frac{5.1}{9} \quad 8.8 \quad \frac{10.0}{24} \quad \frac{10.5}{50}$$

$$\frac{6.0}{50} \quad \frac{6.0}{38} \quad \frac{4.6}{34} \quad \text{Rd} \quad \frac{4.4}{22} \quad \frac{5.0}{8} \quad 8.1 \quad \frac{9.4}{10} \quad \frac{10.0}{21} \quad \frac{10.5}{50}$$

$$\frac{6.0}{50} \quad \frac{6.5}{42} \quad \frac{5.8}{39} \quad \frac{4.3}{33} \quad \frac{4.0}{22} \quad \frac{4.5}{8} \quad \frac{7.7}{3} \quad 8.0 \quad \frac{9.3}{8} \quad \frac{10.0}{22} \quad \frac{10.5}{50}$$

Sta	+	π ✓	-	Elev
-----	---	---------	---	------

920.92

202

13.5

+50

13.1

203

✓

16.2

T.P.

10.56

930.67

0.81

920.11 ✓

+50

19.7

204

20.1

+50

18.5

205

17.0

+50

206

✓

X T.P

90.53

925.91

5.29

925.38 ✓

204

+50

205

Lt & Rt

$$\begin{array}{r} 6.3 \\ 43 \end{array} \begin{array}{r} 6.2 \\ 37 \end{array} \begin{array}{r} 2.5 \\ 32 \end{array} \begin{array}{r} 3.3 \\ 22 \end{array} \begin{array}{r} 3.8 \\ 8 \end{array} \begin{array}{r} 6.6 \\ 5 \end{array} 7.4 \begin{array}{r} 9.5 \\ 13 \end{array} \begin{array}{r} 10.2 \\ 30 \end{array} \begin{array}{r} 10.8 \\ 50 \end{array}$$

$$\begin{array}{r} 5.8 \\ 50 \end{array} \begin{array}{r} 5.0 \\ 50 \end{array} \begin{array}{r} 5.4 \\ 40 \end{array} \begin{array}{r} 2.7 \\ 34 \end{array} \begin{array}{r} 2.3 \\ 22 \end{array} \begin{array}{r} 2.7 \\ 9 \end{array} \begin{array}{r} 7.6 \\ 1 \end{array} 7.8 \begin{array}{r} 8.2 \\ 9 \end{array} \begin{array}{r} 9.6 \\ 14 \end{array} \begin{array}{r} 10.1 \\ 30 \end{array} \begin{array}{r} 10.9 \\ 50 \end{array}$$

$$\begin{array}{r} 3.4 \\ 50 \end{array} \begin{array}{r} 3.4 \\ 42 \end{array} \begin{array}{r} 1.1 \\ 37 \end{array} \begin{array}{r} 0.7 \\ 22 \end{array} \begin{array}{r} 1.2 \\ 9 \end{array} 4.7 \begin{array}{r} 6.3 \\ 2 \end{array} \begin{array}{r} 7.6 \\ 11 \end{array} \begin{array}{r} 9.5 \\ 25 \end{array} \begin{array}{r} 10.4 \\ 50 \end{array}$$

$$\begin{array}{r} 5.2 \\ 50 \end{array} \begin{array}{r} 5.2 \\ 46 \end{array} \begin{array}{r} 9.0 \\ 40 \end{array} \begin{array}{r} 9.1 \\ 38 \end{array} \begin{array}{r} 8.7 \\ 36 \end{array} \begin{array}{r} 8.6 \\ 23 \end{array} \begin{array}{r} 9.1 \\ 6 \end{array} 11.0 \begin{array}{r} 13.7 \\ 7 \end{array} \begin{array}{r} 17.4 \\ 12 \end{array} \begin{array}{r} 19.4 \\ 25 \end{array} \begin{array}{r} 20.7 \\ 50 \end{array}$$

$$\begin{array}{r} 0.5 \\ 50 \end{array} \begin{array}{r} 6.4 \\ 42 \end{array} \begin{array}{r} 6.7 \\ 34 \end{array} \begin{array}{r} 6.8 \\ 22 \end{array} \begin{array}{r} 7.0 \\ 10 \end{array} 10.6$$

$$\begin{array}{r} 12.5 \\ 50 \end{array} \begin{array}{r} 5.2 \\ 45 \end{array} \begin{array}{r} 5.3 \\ 32 \end{array} \begin{array}{r} 6.2 \\ 19 \end{array} \begin{array}{r} 4.3 \\ 15 \end{array} 12.2$$

$$\begin{array}{r} 4.2 \\ 50 \end{array} \begin{array}{r} 5.0 \\ 48 \end{array} \begin{array}{r} 4.7 \\ 38 \end{array} \begin{array}{r} 5.7 \\ 14 \end{array} \begin{array}{r} 3.1 \\ 20 \end{array} 13.7$$

$$\begin{array}{r} 4.7 \\ 50 \end{array} \begin{array}{r} 4.5 \\ 43 \end{array} \begin{array}{r} 5.6 \\ 30 \end{array} \begin{array}{r} 3.3 \\ 26 \end{array} (17.2)$$

$$\begin{array}{r} 4.9 \\ 50 \end{array} \begin{array}{r} 6.1 \\ 34 \end{array} \begin{array}{r} 4.5 \\ 31 \end{array} (19.0)$$

$$(5.8) \begin{array}{r} 13.4 \\ 28 \end{array} \begin{array}{r} 14.3 \\ 36 \end{array} \begin{array}{r} 15.7 \\ 50 \end{array}$$

$$(7.4) \begin{array}{r} 12.9 \\ 9 \end{array} \begin{array}{r} 14.1 \\ 16 \end{array} \begin{array}{r} 15.6 \\ 50 \end{array}$$

$$(8.9) \begin{array}{r} 12.2 \\ 5 \end{array} \begin{array}{r} 14.3 \\ 12 \end{array} \begin{array}{r} 15.8 \\ 50 \end{array}$$

Sta	+	Sta	-	Elev.
205+50		925.91		13.5
206		✓		11.7
T.P	5.83	923.99	7.75	✓ 918.16
+50				11.0

207				10.8
+50				14.0

208				11.4
+50				13.2

209				21.8
FP	1.84	923.82	2.01	921.98

210				
+50				
211				

Line Change

At * R1

$$12.4 \quad \frac{14.1}{6} \quad \frac{15.0}{15} \quad \frac{16.3}{50}$$

$$\frac{12.7}{8} \quad 14.2 \quad \frac{14.0}{27} \quad \frac{16.8}{50}$$

$$\frac{10.5}{50} \quad \frac{10.5}{47} \quad \frac{0.4}{34} \quad \frac{2.8}{30} \quad \frac{7.4}{19} \quad \frac{10.5}{12} \quad 13.0 \quad \frac{14.2}{26} \quad \frac{14.9}{50}$$

$$\frac{0.2}{50} \quad \frac{1.0}{45} \quad \frac{1.3}{32} \quad \frac{5.2}{29} \quad \frac{7.2}{22} \quad \frac{11.3}{18} \quad 13.2 \quad \frac{14.1}{19} \quad \frac{15.1}{50}$$

$$\frac{1.5}{50} \quad \frac{1.3}{40} \quad \frac{2.2}{27} \quad \frac{3.0}{22} \quad \frac{7.0}{17} \quad \frac{10.5}{15} \quad \frac{12.4}{7} \quad 13.0 \quad \frac{14.0}{17} \quad \frac{14.9}{50}$$

$$\frac{4.2}{39} \quad \frac{1.9}{53} \quad \frac{1.8}{33} \quad \frac{2.7}{20} \quad \frac{9.8}{10} \quad \frac{12.0}{4} \quad 12.6 \quad \frac{14.0}{27} \quad \frac{14.7}{50}$$

$$\frac{2.0}{50} \quad \frac{1.0}{48} \quad \frac{2.8}{41} \quad \frac{2.0}{39} \quad \frac{2.0}{25} \quad \frac{2.8}{13} \quad 10.8 \quad \frac{13.7}{8} \quad \frac{14.6}{50}$$

$$\frac{2.0}{50} \quad \frac{1.0}{38} \quad \frac{2.6}{28} \quad \frac{2.2}{27} \quad \frac{1.8}{16} \quad \frac{3.0}{1} \quad 2.2 \quad \frac{9.8}{12} \quad \frac{12.7}{25} \quad \frac{14.3}{50}$$

$$\frac{11.0}{50} \quad \frac{11.0}{26} \quad \frac{3.1}{19} \quad \frac{2.3}{16} \quad 2.4 \quad \frac{3.1}{6} \quad \frac{3.7}{7} \quad \frac{2.8}{15} \quad \frac{7.0}{23} \quad \frac{10.0}{27} \quad \frac{12.3}{35} \quad \frac{13.6}{50}$$

$$\frac{3.1}{50} \quad \frac{3.2}{23} \quad \frac{1.9}{8} \quad \frac{3.6}{6} \quad 3.2 \quad \frac{2.8}{10} \quad \frac{3.5}{19} \quad \frac{4.2}{21} \quad \frac{3.0}{24} \quad \frac{2.8}{29} \quad \frac{10.0}{42} \quad \frac{10.6}{50}$$

$$\frac{4.5}{50} \quad \frac{5.0}{16} \quad \frac{4.6}{8} \quad \frac{5.7}{8} \quad \frac{4.5}{10} \quad \frac{3.5}{23} \quad \frac{3.8}{32} \quad \frac{4.9}{37} \quad \frac{4.6}{43} \quad \frac{6.6}{46} \quad \frac{7.0}{50}$$

$$\frac{6.7}{50} \quad \frac{8.0}{24} \quad 8.4 \quad \frac{8.3}{14} \quad \frac{6.3}{18} \quad \frac{4.7}{31} \quad \frac{6.2}{46} \quad \frac{6.4}{50}$$

Sta. + π - Elev.

922.82

211+50

212

Line Change

$+29.76 = 212 + 41.11$

B.M.

4.27

925.30

2.79

921.03

209+50

21.6

210

20.5

+50

19.5

211

15.3

+24

17.5

+50

18.0

212

17.7

+18

13.8

+50

11.1

Lt.

E

Rt.

Bradley
Wilke
Guller

Revised

~~| | | | | | | | |
|------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|
| $\frac{9.0}{50}$ | $\frac{9.4}{26}$ | $\frac{9.6}{9.6}$ | $\frac{9.4}{9}$ | $\frac{4.5}{13}$ | $\frac{5.3}{27}$ | $\frac{5.5}{41}$ | $\frac{6.5}{45}$ |
| $\frac{9.2}{50}$ | $\frac{10.0}{21}$ | $\frac{9.1}{2}$ | $\frac{8.8}{8.8}$ | $\frac{6.1}{6}$ | $\frac{5.6}{21}$ | $\frac{6.2}{31}$ | $\frac{10.4}{40}$ |
| $\frac{9.1}{50}$ | $\frac{9.6}{28}$ | $\frac{9.5}{8}$ | $\frac{6.0}{6.0}$ | $\frac{5.5}{14}$ | $\frac{6.5}{27}$ | $\frac{10.7}{34}$ | $\frac{13.1}{50}$ |~~

Sph. in tree 95' Sta 210+80
 $\frac{14.0}{100}$ $\frac{10.5}{26}$ $\frac{4.3}{19}$ $\frac{4.6}{17}$ $\frac{3.8}{15}$ $\frac{3.5}{8}$ $\frac{4.5}{37}$ $\frac{5.2}{8}$ $\frac{5.3}{10}$ $\frac{4.9}{12}$ $\frac{4.4}{13}$ $\frac{8.5}{17}$ $\frac{11.3}{22}$ $\frac{14.2}{29}$
 $\frac{14.2}{50}$ $\frac{14.2}{43}$

$$\frac{2.3}{100} \frac{3.6}{89} \frac{4.3}{50} \frac{4.6}{24} \frac{9.4}{9} \frac{5.0}{6} \frac{4.8}{4.8} \frac{4.4}{9} \frac{5.4}{23} \frac{3.5}{26} \frac{11.7}{45} \frac{12.1}{50}$$

$$\frac{4.0}{100} \frac{6.0}{50} \frac{6.3}{28} \frac{5.8}{5.8} \frac{5.4}{6} \frac{6.1}{8} \frac{5.1}{22} \frac{5.3}{31} \frac{6.5}{40} \frac{10.1}{50}$$

$$\frac{4.3}{100} \frac{8.2}{50} \frac{9.4}{34} \frac{10.0}{10.0} \frac{9.5}{5} \frac{7.6}{9} \frac{6.2}{24} \frac{6.7}{37} \frac{11.2}{48} \frac{11.7}{50}$$

$$\frac{5.7}{100} \frac{9.2}{75} \frac{10.1}{50} \frac{10.6}{7} \frac{10.2}{3} \frac{7.8}{7.8} \frac{6.5}{15} \frac{6.9}{29} \frac{7.9}{34} \frac{11.6}{40} \frac{13.3}{50}$$

$$\frac{9.9}{100} \frac{10.7}{50} \frac{11.1}{20} \frac{10.7}{11} \frac{8.0}{6} \frac{7.3}{7.3} \frac{6.7}{11} \frac{6.9}{22} \frac{11.7}{31} \frac{14.0}{50}$$

$$\frac{10.1}{100} \frac{11.5}{50} \frac{11.1}{35} \frac{7.6}{27} \frac{7.1}{19} \frac{7.6}{7.6} \frac{11.5}{8} \frac{13.8}{20} \frac{15.6}{50}$$

$$\frac{10.2}{100} \frac{11.2}{50} \frac{10.9}{44} \frac{7.8}{38} \frac{7.1}{24} \frac{9.0}{7} \frac{11.5}{11.5} \frac{13.5}{9} \frac{15.7}{50}$$

$$\frac{9.2}{100} \frac{9.6}{59} \frac{7.6}{53} \frac{7.6}{50} \frac{7.1}{34} \frac{7.9}{23} \frac{10.7}{17} \frac{14.2}{14.2} \frac{16.2}{50}$$

Sta.	+	T ₁ ✓	-	Elev.
		925.30		
213		✓		10.1 ✓
T.P.	468	922.83	7.15	918.15
+50				09.1
214		✓		08.1 ✓
T.P.	324	913.89	12.18	910.65
215				07.3
216				06.9
217				06.8
218				06.7
219				06.4
220				05.5
221		✓		06.0 ✓
T.P.	13.07	920.31	6.65	907.24
222				05.5
223				06.6

L.

E

Rk

 $\frac{6.7}{100}$
 $\frac{6.4}{82} \frac{8.4}{80} \frac{7.6}{75} \frac{7.1}{60} \frac{8.2}{43} \frac{11.7}{28} \frac{14.4}{25} 15.2$
 $\frac{17.6}{50}$
 $\frac{4.9}{50} \frac{4.5}{95} \frac{4.0}{83} \frac{6.0}{65} \frac{11.6}{50} 13.7$
 $\frac{15.4}{50}$
 $\frac{4.0}{100} \frac{4.7}{85} \frac{9.0}{71} \frac{11.4}{59} \frac{12.2}{50} 14.7$
 $\frac{15.4}{50}$
 $\frac{11.0}{100} \frac{2.5}{94} \frac{4.6}{50} \frac{6.0}{27} 6.6 \frac{7.4}{50}$
 $\frac{3.2}{100} \frac{5.8}{50} 7.0 \frac{7.6}{50}$
 $\frac{6.2}{50} 7.1 \frac{7.2}{50}$
 $\frac{6.2}{50} 7.2 \frac{7.9}{50}$
 $\frac{6.9}{50} 7.5 \frac{8.2}{50}$
 $\frac{6.9}{50} 8.4 \frac{9.1}{50}$
 $\frac{7.2}{50} 7.9 \frac{8.1}{50}$
 $\frac{12.8}{50} 14.8 \frac{14.5}{50}$
 $\frac{6.5}{100} \frac{9.4}{80} \frac{10.3}{65} \frac{11.8}{50} 13.7 \frac{15.3}{50}$

Sta. + π - Elev.
920.31

223 + 50 07.2

224 09.0

+41 11.5

+79

B.M

12.84

✓
930.31

2.84

✓
917.47

224 + 79

22.6

225

24.0

+50

T.R

10.67

✓
938.48

2.50

24.6

✓
927.81

226

28.5

226 + 58.37

32.9

468 + 83.91

T.P

1.70

✓
929.51

1567

✓
927.81

B.M

12.04

✓
917.47

4.

2

et.

$$\begin{array}{r} 0.5 \quad 3.7 \quad 6.7 \quad 10.4 \quad 12.2 \\ 100 \quad 94 \quad 80 \quad 42 \quad 22 \quad 13.1 \quad 15.1 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 11.0 \quad 0.0 \quad 1.2 \quad 4.7 \quad 6.9 \quad 10.2 \\ 100 \quad 81 \quad 73 \quad 62 \quad 50 \quad 10 \quad 11.3 \quad 12.6 \quad 13.4 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 0.4 \quad 2.8 \quad 5.6 \\ 37 \quad 24 \quad 18 \quad 88 \quad 10.1 \quad 10.7 \\ \hline 13 \quad 50 \end{array}$$

$$\begin{array}{r} (+2.3) \quad 2.5 \quad 6.5 \quad 8.8 \\ 29 \quad 39 \quad 50 \end{array}$$

Top Mean. Cor.

$$\begin{array}{r} 36 \quad 36 \quad 6.0 \quad 6.0 \quad 6.2 \quad 7.7 \\ 50 \quad 47 \quad 44 \quad 34 \quad 21 \end{array}$$

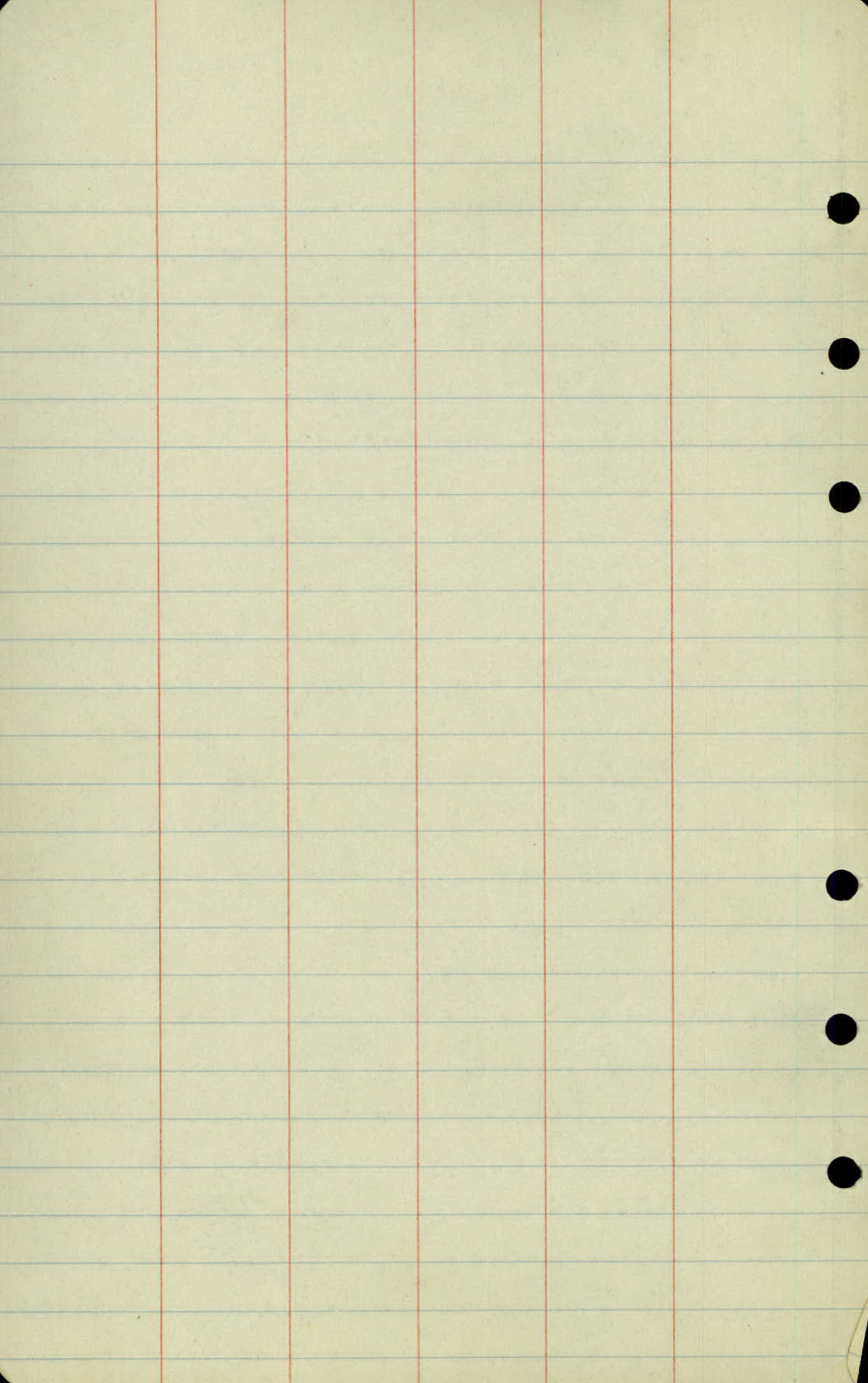
$$\begin{array}{r} 26 \quad 4.8 \quad 6.2 \quad 6.3 \quad 7.3 \quad 10.5 \quad 12.4 \\ 50 \quad 29 \quad 17 \quad 5 \quad 25 \quad 34 \quad 50 \end{array}$$

$$\begin{array}{r} 2.4 \quad 7.1 \quad 7.1 \quad 5.7 \quad 5.3 \quad 6.6 \quad 9.1 \quad 8.9 \\ 50 \quad 19 \quad 5 \quad 1 \quad 22 \quad 31 \quad 36 \quad 50 \end{array}$$

$$\begin{array}{r} 6.5 \quad 9.7 \quad 10.9 \quad 9.7 \quad 10.0 \quad 10.8 \quad 13.8 \quad 14.3 \quad 13.6 \\ 50 \quad 20 \quad 13 \quad 10 \quad 12 \quad 25 \quad 32 \quad 50 \end{array}$$

$$\begin{array}{r} 1.0 \quad 3.4 \quad 6.5 \quad 5.6 \quad 6.7 \quad 9.1 \quad 9.7 \\ 50 \quad 19 \quad 10 \quad 5 \quad 16 \quad 25 \quad 50 \end{array}$$

917.48 Top Meander Cor.



Otter Lake Road.

A-Line

Soundings from Sta.
A213 to Sta. A224 where
proposed new location skirts
the old lake bed of Otter
Lake.

Bratager	} 11 24 36
Wilko	
Gillen	

Sta.
A213

214

215

216

217

218

219

220

221

222

223

+50

A224

Soundings are taken at 2' and at
distances of 50' Bt. Lt. Road strike the
dried up lake bed of Otter Lake. Soundings
indicate post top ranging from 1' in depth
on the Lt. to 4' in depth on the Rt. under which
is encountered a wet clay to depths as shown
where a firmer clay & gravel is met with.

Percent
Moist

Soundings taken with
3/8" steel rod pushed down
to firmer bottom.

Post
wet clay

Lt.

4

Rt.

80

50'

50'

Dry fine sand.

0.5' peat sod to fine sand.

0.5' peat sod to sand & clay.

0.5' peat sod to sand & clay

0.5' peat sod to sand & clay

0.5' peat sod to sand & clay.

1' peat
2' wet clay

8" peat sod to sand & clay

1' peat
2.5' wet clay1' peat
4' wet clay2' peat
7' wet clay1.5' peat
4.5' wet clay2' peat
1' clay1.5' peat
4.5' wet clay2' peat
4' wet clay

Sand

2' peat
2.5' wet clay

Sand

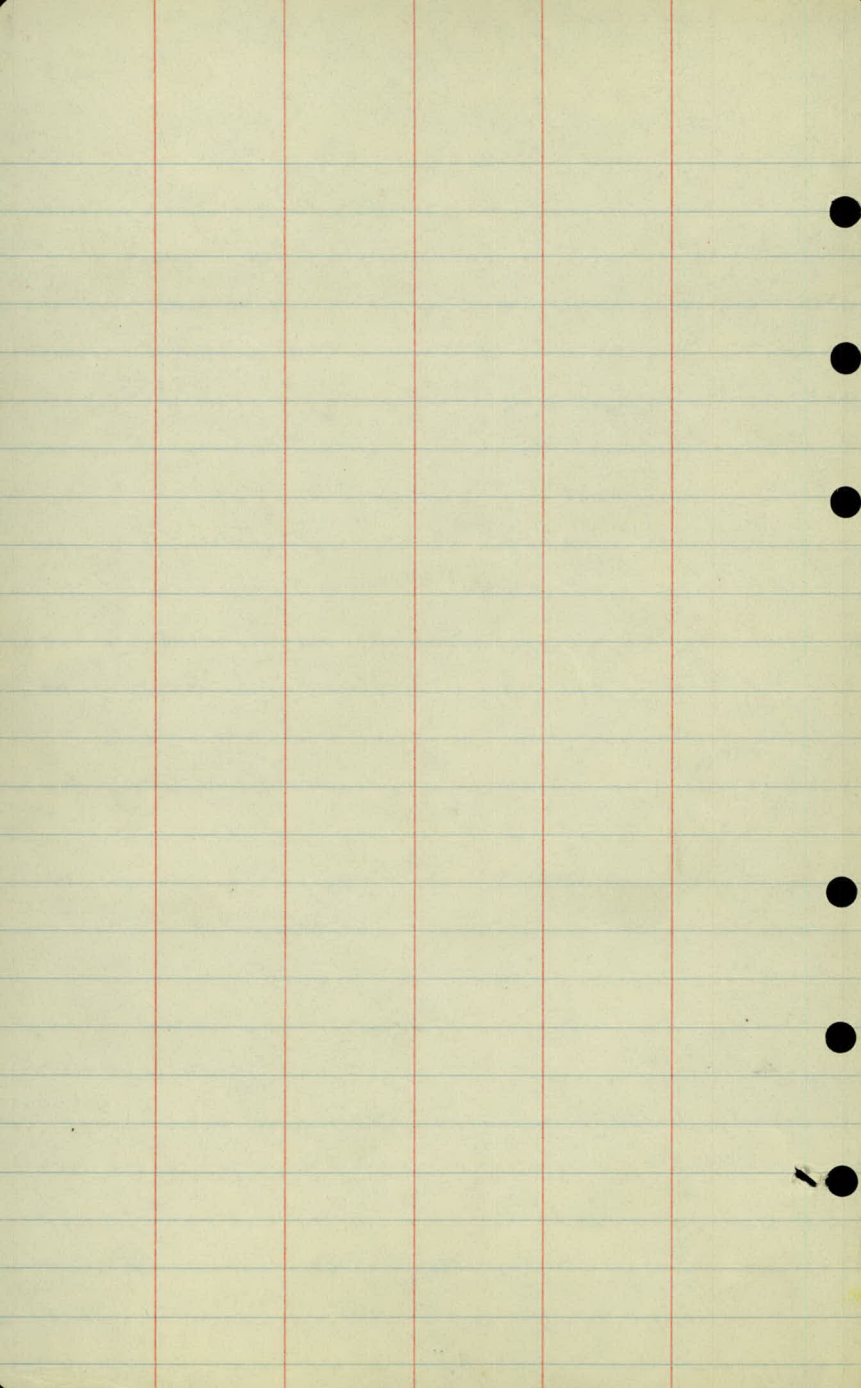
1' peat
3' wet clay

Sand

Sand

1' peat to sand & clay

1.5' peat
1.5' wet clay to firmer bot.1' peat
3' wet clay2.5' peat
2.5' wet clay4' peat
5' wet clay4' peat
1.5' wet clay3' peat
3' wet clay3' peat
13' wet clay3' peat
13' wet clay1' peat
1.5' wet clay



Otter Lake Road.

Line Revision

"B" Line

Sta. 188+84.47 to 212+43.99

W. H. Carlson

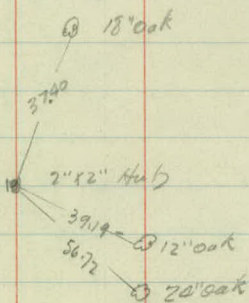
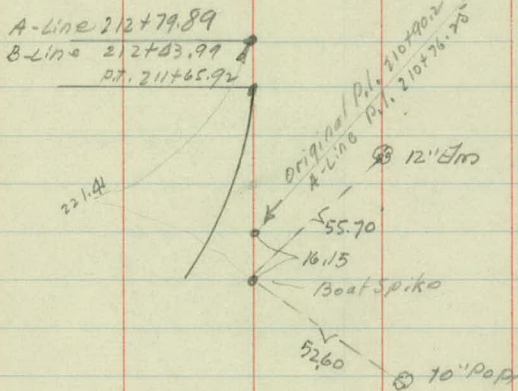
Nov. 28, 1936

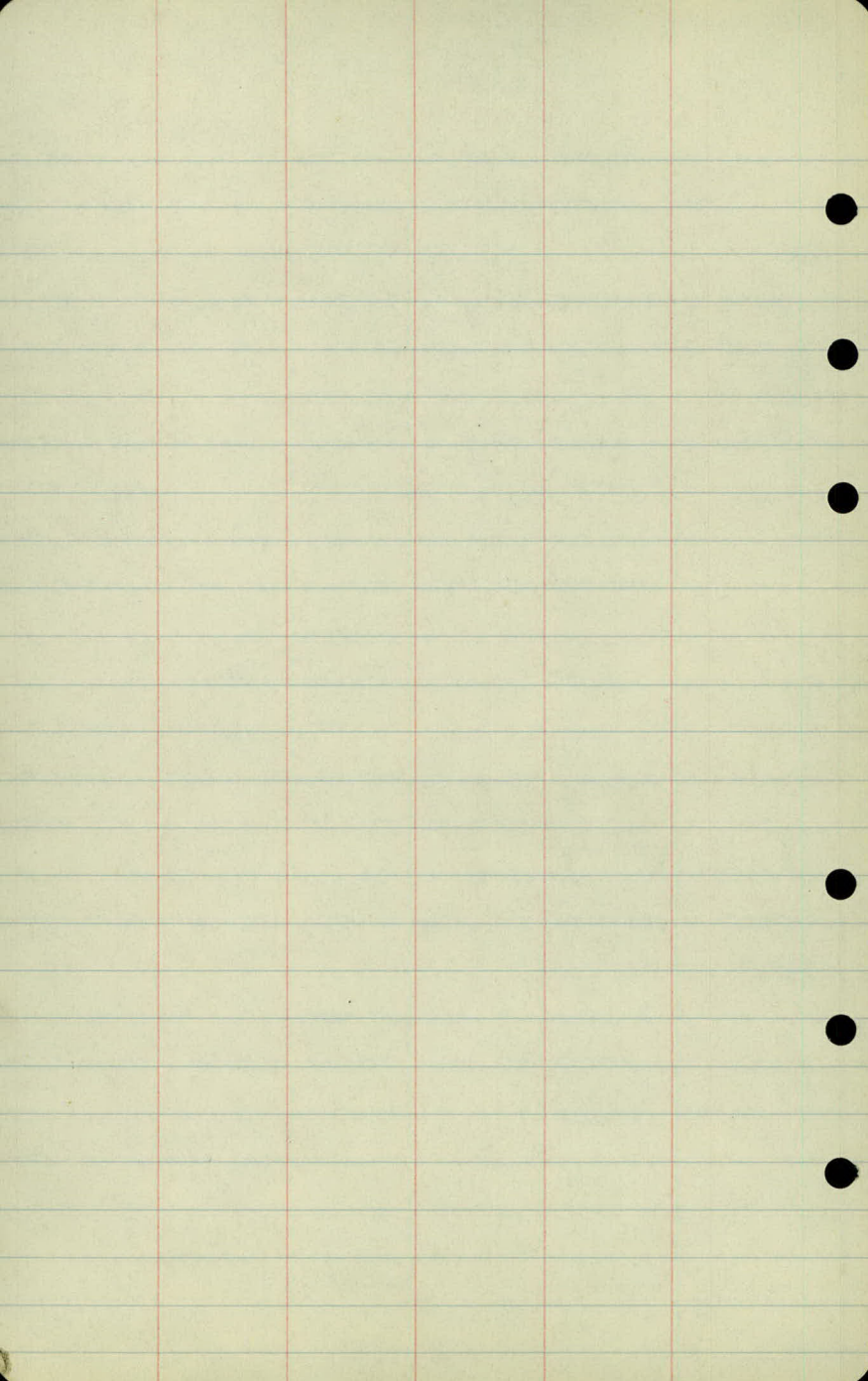
Station	Point	Angle		Calc. Bear.
		Lt	Rt	
Ex. $A = 212 + 79.89$ $B = 212 + 43.99 = P.O.T.$				
211 + 65.92	P.T.	4°-17.5'		N-36°-29' W.
+50		4°-03.2'		
211		3°-18.2'		P.I. Sta. 210 + 23.15
+50		2°-33.2'		$\Delta 2°-35'$ Lt.
210		1°-48.2'		$D = 3°$
+50		1°-03.2'		$T = 143.34$
209		0°-18.2'		L. 286.11
208 + 79.81	P.C.	0°-00'		R. 1910.08
N-28°-14' W.				
193 + 60.03	P.T.	14°-16'		
193		12°-28'		
+50		10°-58'		
192		9°-28'		P.I. 191 + 27.4
+50		7°-58'		$\Delta 28°-32'$ Lt.
191		6°-28'		$D = 62.00'$
+50		4°-58'		$T = 242.93$
190		3°-28'		L. 475.56
+50		1°-58'		R. 955.37
189		0°-28'		
188 + 84.47	P.C.	0°-00'		N-0°-18' E.

W. H. Corison
K. Anker
L. B. Hendrix
A. Moeschler

82

Nov. 25, 1936





("B" Line.)
 Change of line Otter
 Lake Road.

X-Sections $\frac{24}{36}$

{ Bratton
 Wilke
 Gillen

Sta 188 + 84.47 to Sta.

Sta.	+	K ✓	-	Elev.
B.M.	2.80	925.26		922.46
189+50				22.7

190				20.0
-----	--	--	--	------

+50				14.5
-----	--	--	--	------

191				14.5
-----	--	--	--	------

+50				16.5
-----	--	--	--	------

+82				16.9
-----	--	--	--	------

192				14.6
-----	--	--	--	------

+50				13.1
-----	--	--	--	------

193		✓		11.6
T.P.	3.65	923.09	5.82	919.44 ✓

+60				10.1
-----	--	--	--	------

194		✓		09.1
T.P.	3.87	913.72	13.24	909.85 ✓

1950				07.6
------	--	--	--	------

Lt.

E

Rt.

$$13'' \text{ Oct } 50' \text{ Rt. } 272 \quad 189 + 47$$

$$\begin{array}{r} 4.6 \quad 3.7 \quad 2.5 \quad 1.9 \quad 2.8 \quad 4.0 \quad 4.4 \quad 4.3 \\ 50 \quad 8 \quad 9 \quad 2.6 \quad 13 \quad 25 \quad 28 \quad 37 \quad 50 \end{array}$$

$$\begin{array}{r} 7.9 \quad 8.7 \quad 8.3 \quad 5.4 \quad 4.6 \quad 5.2 \quad 7.8 \quad 8.3 \quad 8.3 \\ 50 \quad 13 \quad 6 \quad 1 \quad 5.3 \quad 16 \quad 28 \quad 33 \quad 38 \quad 50 \end{array}$$

$$\begin{array}{r} 10.5 \quad 11.1 \quad 7.6 \quad 7.0 \quad 7.2 \quad 10.5 \quad 10.9 \quad 10.9 \\ 50 \quad 7 \quad 10.8 \quad 7 \quad 20 \quad 30 \quad 37 \quad 44 \quad 50 \end{array}$$

$$\begin{array}{r} 10.3 \quad 11.6 \quad 10.3 \quad 9.3 \quad 7.9 \quad 7.7 \quad 8.8 \quad 10.0 \quad 11.0 \\ 50 \quad 18 \quad 10.8 \quad 4 \quad 7 \quad 19 \quad 27 \quad 35 \quad 38 \quad 50 \end{array}$$

$$\begin{array}{r} 10.4 \quad 11.0 \quad 10.2 \quad 9.3 \quad 8.8 \quad 8.2 \quad 9.4 \quad 10.5 \quad 10.7 \quad 10.7 \\ 50 \quad 27 \quad 19 \quad 8 \quad 8.8 \quad 15 \quad 24 \quad 23 \quad 41 \quad 50 \end{array}$$

$$\begin{array}{r} 9.0 \quad 9.0 \quad 8.4 \quad 10.2 \quad 11.6 \quad 12.5 \\ 50 \quad 26 \quad 12 \quad 8.4 \quad 18 \quad 30 \quad 50 \end{array}$$

$$\begin{array}{r} 8.4 \quad 8.6 \quad 8.2 \quad 8.3 \quad 10.2 \quad 12.4 \quad 14.4 \\ 50 \quad 33 \quad 21 \quad 10 \quad 3 \quad 10.7 \quad 25 \quad 50 \end{array}$$

$$\begin{array}{r} 40 \quad 5.1 \quad 7.1 \quad 7.2 \quad 7.9 \quad 9.6 \quad 10.3 \quad 13.3 \quad 14.5 \\ 100 \quad 80 \quad 65 \quad 50 \quad 33 \quad 25 \quad 12 \quad 12.2 \quad 7 \quad 50 \end{array}$$

$$\begin{array}{r} 6.7 \quad 6.0 \quad 6.7 \quad 5.9 \quad 9.2 \quad 11.4 \quad 12.9 \quad 15.7 \\ 88 \quad 74 \quad 62 \quad 58 \quad 47 \quad 24 \quad 17 \quad 13.7 \quad 50 \end{array}$$

$$\begin{array}{r} 5.4 \quad 3.4 \quad 3.3 \\ 91 \quad 97 \quad 108 \end{array}$$

$$\begin{array}{r} 2.2 \quad 2.7 \quad 3.0 \quad 6.6 \quad 7.7 \quad 9.8 \quad 10.6 \quad 14.4 \\ 115 \quad 100 \quad 94 \quad 82 \quad 63 \quad 55 \quad 50 \quad 13.0 \quad 50 \end{array}$$

$$\text{El. Rd } \begin{array}{r} 2.4 \quad 7.0 \quad 9.0 \quad 12.1 \\ 110 \quad 100 \quad 79 \quad 50 \quad 140 \quad 15.3 \\ 50 \end{array}$$

$$\begin{array}{r} 1.5 \quad 4.6 \quad 8.3 \\ 100 \quad 50 \quad 50 \quad 6.1 \quad 50 \end{array}$$

Sta.	+	π ✓ 913.72	-	Elev.	
196				07.2	
197				07.2	
198				08.4	
199				09.0	
200				09.1	
T.P.	3.88	✓ 913.76	3.84		✓ 909.88
201				09.3	
202				09.3	
203				09.5	
204				09.5	
+50				09.5	
205				09.5	
+50				09.6	
206				09.5	

Lt.

E

Rt.

$$\frac{4.0}{100} \quad \frac{5.4}{50} \quad 6.5 \quad \frac{8.4}{50}$$

$$\frac{4.6}{100} \quad \frac{5.5}{50} \quad 6.5 \quad \frac{7.8}{50}$$

$$\frac{4.1}{100} \quad \frac{4.7}{50} \quad 5.3 \quad \frac{6.8}{50}$$

$$\frac{3.4}{100} \quad \frac{4.2}{50} \quad 4.7 \quad \frac{5.1}{50}$$

$$\frac{3.2}{100} \quad \frac{4.0}{50} \quad 4.6 \quad \frac{5.0}{50}$$

$$\frac{3.3}{100} \quad \frac{4.2}{50} \quad 4.5 \quad \frac{4.9}{50}$$

$$\frac{1.0}{100} \quad \frac{2.3}{95} \quad \frac{3.7}{50} \quad 4.5 \quad \frac{5.0}{50}$$

Cont.

$$\frac{0.0}{81} \quad \frac{2.4}{66} \quad \frac{3.2}{50} \quad 4.3 \quad \frac{5.0}{50}$$

$$\frac{0.6}{58} \quad \frac{2.4}{49} \quad 4.3 \quad \frac{5.2}{50}$$

$$\frac{0.6}{50} \quad \frac{2.7}{41} \quad 4.3 \quad \frac{5.0}{50}$$

$$\frac{0.2}{49} \quad \frac{2.3}{39} \quad 4.3 \quad \frac{5.0}{50}$$

$$\frac{0.4}{50} \quad \frac{2.6}{34} \quad 4.2 \quad \frac{5.1}{50}$$

$$\frac{0.1}{45} \quad \frac{2.6}{34} \quad 4.3 \quad \frac{4.9}{50}$$

Sta.	+	K ✓ -	Elev.
------	---	-------	-------

91376

206+50

09.5

207

09.8

+50

10.5

208

10.6

+33

11.3

+75

T.P.

1337

✓
926.06

1.07

✓
912.69

203

204

T.P.

622

✓
930.87

1.41

✓
924.65

+50

205

+50

206

Lt.

Z

Rt.

$$\frac{1.6}{40} \quad \frac{2.6}{34} \quad 4.3 \quad \frac{5.0}{50}$$

$$\frac{0.4}{38} \quad \frac{2.5}{28} \quad 4.0 \quad \frac{5.0}{50}$$

$$\frac{10.2}{30} \quad \frac{1.9}{22} \quad 3.3 \quad \frac{4.9}{50}$$

$$\frac{1.0}{21} \quad \frac{2.4}{13} \quad 3.2 \quad \frac{4.8}{50}$$

$$\frac{0.6}{10} \quad 2.5 \quad \frac{4.6}{50}$$

$$\begin{array}{r} -5.5 \quad -7.4 \\ +3.1 \quad 2.4 \quad 4.3 \\ \hline 13 \quad 50 \end{array}$$

$$\text{old Rel} \rightarrow \frac{5.3}{110} \quad \frac{5.7}{100} \quad \frac{5.4}{98} \quad (16.6)$$

$$\frac{45.0}{110} \quad \frac{1.1}{100} \quad (\frac{2.1.2}{1188}) \quad \frac{2.0}{76} \quad \frac{0.0}{73} \quad \frac{0.6}{66} \quad (16.6)$$

$$\frac{5.0}{104} \quad \frac{5.4}{100} \quad (\frac{2.5.0}{1191}) \quad \frac{6.1}{79} \quad \frac{4.2}{74} \quad (21.4)$$

$$\begin{array}{r} +4.0 \quad +5.0 \\ \hline 112 \quad 135 \\ +4.1 \quad +3.6 \quad 4.9 \quad (\frac{2.4.7}{1188}) \quad \frac{5.6}{76} \quad \frac{3.8}{73} \quad (21.4) \end{array}$$

$$\frac{4.5}{112} \quad \frac{5.4}{102} \quad \frac{4.7}{100} \quad \frac{5.1}{98} \quad (\frac{2.4.8}{1187}) \quad \frac{5.7}{74} \quad \frac{4.2}{71} \quad (21.3)$$

$$\begin{array}{r} +2.0 \\ \hline 132 \\ \frac{1.4}{130} \quad \frac{1.9}{110} \quad \frac{5.0}{105} \quad \frac{5.4}{95} \quad (\frac{2.5.4}{1184}) \quad \frac{6.4}{71} \quad (21.4) \end{array}$$

Sta.	+	π	-	Elev.
		930.87		

206+50

207

+50

208

+33

+75

T.P

2.75

✓
924.77

8.85

16.9

✓
922.02

209

21.1

+50

21.1

210

19.7

+50

16.6

211

18.0

+50

18.1

Lt.

C

Rt.

$$\frac{1.5}{116} \frac{3.4}{102} \frac{5.2}{99} \frac{6.5}{89} \left(\frac{2}{R} \frac{6.5}{76} \right) \frac{7.7}{60} \quad (21.4)$$

$$\frac{5.6}{100} \frac{6.4}{91} \frac{7.8}{87} \frac{8.1}{83} \frac{7.7}{82} \frac{8.0}{78} \frac{7.8}{65} \frac{8.7}{63} \quad (21.1)$$

$$\frac{9.8}{100} \frac{10.4}{85} \frac{10.7}{75} \frac{8.7}{71} \frac{8.7}{55} \frac{9.4}{44} \quad (20.4)$$

$$\frac{9.0}{57} \frac{8.8}{49} \frac{9.9}{33} \quad (20.3)$$

$$\frac{4.5}{72} \frac{4.5}{62} \frac{9.0}{44} \frac{8.6}{37} \frac{9.7}{23} \quad (19.6)$$

$$\frac{3.0}{60} \frac{3.0}{48} \frac{9.1}{41} \frac{8.8}{27} \frac{9.8}{9} \quad 140$$

$$\frac{12.9}{60} \frac{11.8}{40} \frac{3.0}{36} \frac{2.9}{20} \quad 3.7 \frac{7.5}{9} \frac{11.2}{14} \frac{14.2}{36} \frac{14.7}{50}$$

$$\frac{1.7}{88} \frac{7.3}{46} \frac{2.6}{24} \frac{3.7}{20} \quad 3.7 \frac{4.4}{16} \frac{7.0}{23} \frac{10.9}{31} \frac{14.0}{50}$$

$$\frac{5.2}{100} \frac{5.4}{31} \frac{7.8}{6} \frac{5.1}{4} \quad 5.1 \frac{4.3}{11} \frac{4.7}{19} \frac{5.5}{23} \frac{4.2}{30} \frac{11.6}{44} \frac{13.6}{60}$$

$$\frac{5.4}{100} \frac{7.9}{45} \frac{8.7}{6} \quad 8.2 \frac{6.8}{3} \frac{5.3}{14} \frac{5.8}{30} \frac{8.8}{39} \frac{13.9}{62}$$

$$\frac{9.6}{100} \frac{10.2}{53} \frac{10.1}{12} \frac{7.1}{5} \quad 6.8 \frac{6.2}{21} \frac{7.8}{28} \frac{11.4}{35} \frac{13.1}{47} \frac{14.1}{75}$$

$$\frac{9.8}{100} \frac{10.5}{29} \frac{7.7}{23}$$

$$6.7 \frac{7.2}{8} \frac{9.1}{10} \frac{11.2}{16} \frac{13.5}{27} \frac{15.0}{50}$$

579 + 7 ✓ - Elev ✓

92477

211+66

17.5

212

13.6

+79 Equ.

10.7

T.P.

3.82

922.79

5.80

✓
918.97

B.M.

174

921.05

Lt

A

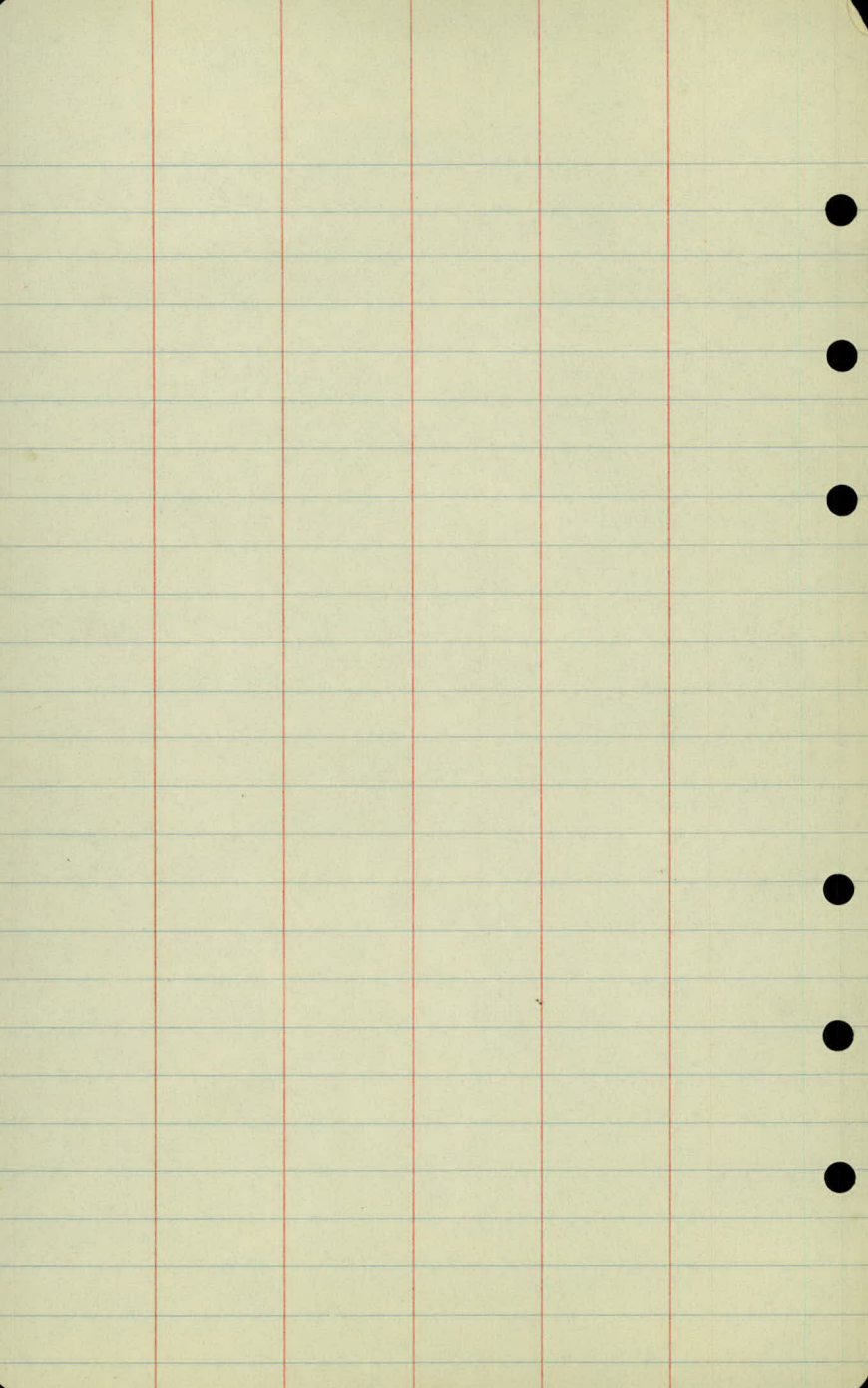
Rt

$\frac{9.8}{100}$	$\frac{10.5}{38}$	$\frac{7.1}{31}$	7.3	$\frac{10.4}{5}$	$\frac{13.4}{19}$	$\frac{14.8}{50}$
-------------------	-------------------	------------------	-----	------------------	-------------------	-------------------

$\frac{9.7}{100}$	$\frac{9.9}{50}$	$\frac{7.1}{44}$	$\frac{6.5}{31}$	$\frac{7.5}{10}$	$\frac{10.3}{12}$	11.2	$\frac{14.3}{15}$	$\frac{15.3}{50}$
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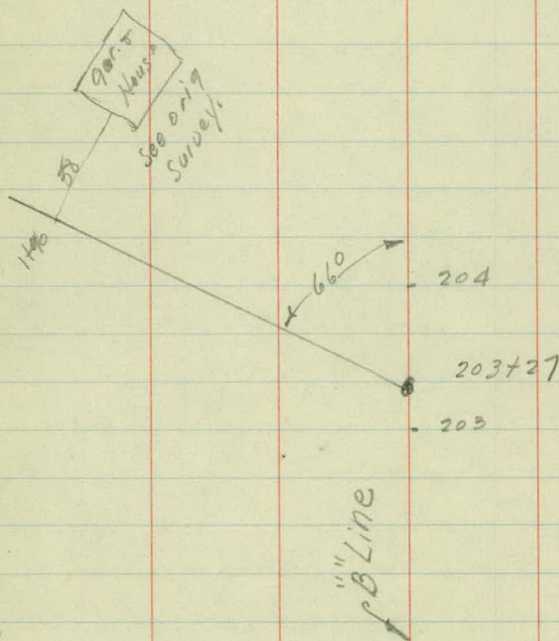
$\frac{8.7}{65}$	$\frac{7.0}{61}$	$\frac{6.5}{48}$	$\frac{7.5}{35}$	$\frac{10.4}{30}$	$\frac{11.4}{28}$	14.1	$\frac{16.0}{50}$
------------------	------------------	------------------	------------------	-------------------	-------------------	------	-------------------

Sph in Tr 210 + 40 100' Lt



Alignment and Cross Sections

Farm Ent Lt. Sta. 203+27



Sta.	+	π ✓	-	Elev.
Tem B.M.	14.40	923.90		909.5 - = 14 - 2 204
0+00 = (203+27)				09.5 -
0+50				11.2 -
0+70				14.9 -
T.P.	12.70	935.90 ✓	0.70	923.20 ✓
0+92				23.9 -
1+21				24.6 -
1+40				26.3 -
1+46				30.5 -

South.
Lt.

2

North
Rt.

0+50

$$\frac{13.0}{25}$$

$$\frac{12.7}{25}$$

$$\frac{12.7}{25}$$

$$\frac{10.8}{30}$$

$$\frac{10.8}{7}$$

$$\frac{9.0}{25}$$

$$\frac{7.2}{13}$$

$$\frac{10.5}{32}$$

$$\frac{13.5}{25}$$

$$\frac{12.0}{25}$$

$$\frac{11.3}{25}$$

$$\frac{12.2}{25}$$

$$\frac{11.3}{25}$$

$$\frac{11.1}{25}$$

$$\frac{5.6}{25}$$

$$\frac{4.6}{76}$$

$$\frac{9.7}{8}$$

$$\frac{9.6}{25}$$

$$\frac{9.5}{8}$$

$$\frac{3.8}{14}$$

$$\frac{3.4}{25}$$

$$\frac{31.8}{25}$$

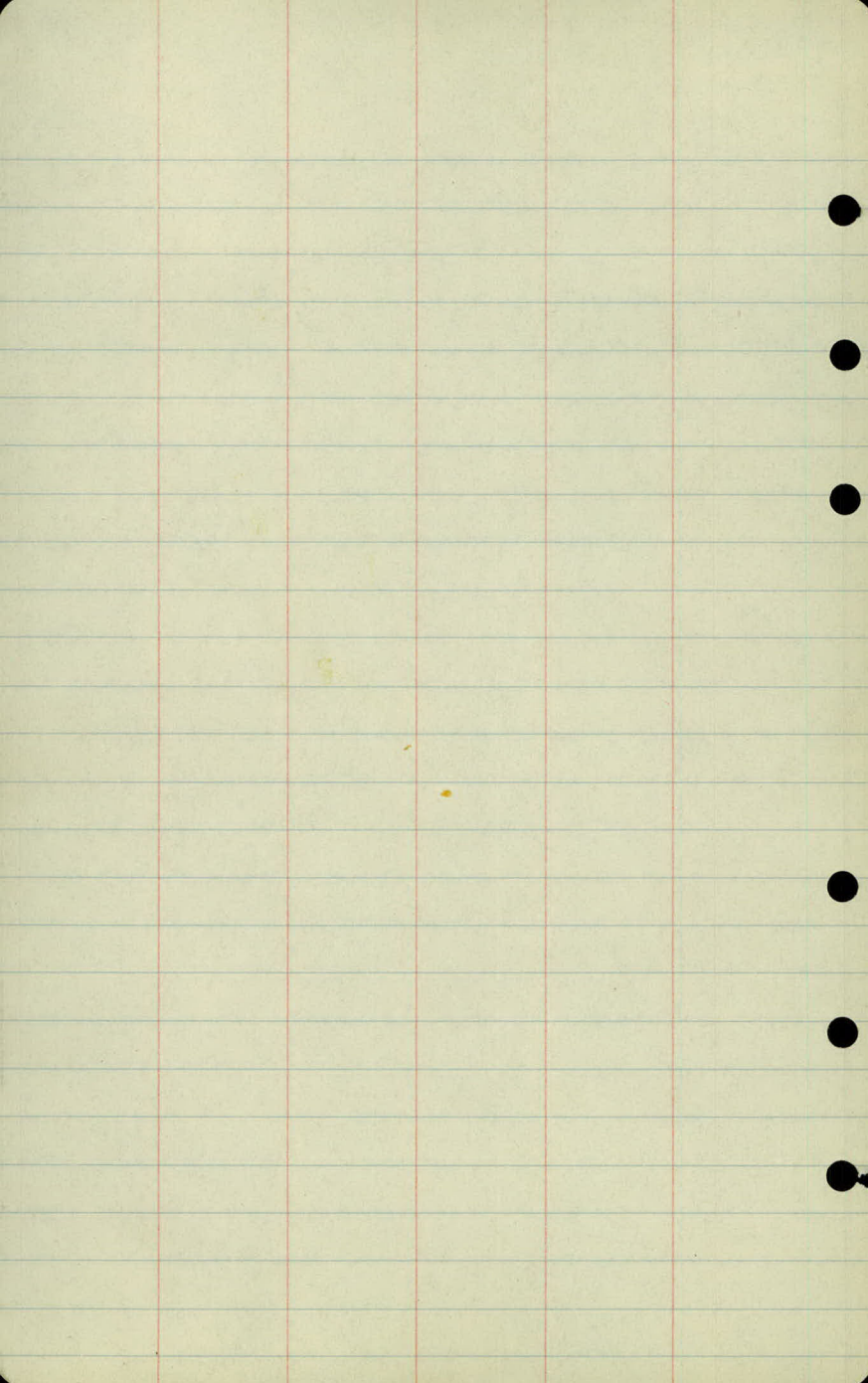
$$\frac{5.4}{25}$$

$$\frac{31.8}{25} \text{ Floor}$$

$$38 = \text{Garage}$$

$$(+21.1) = \text{1st Floor}$$

$$38 = \text{No. over garage}$$



Otter Lake Road.

Line Revision

"C" Line

Sta.

to

W. N. Carlson
Dec. 2, 1936

Angle

Station Point d. Rt. Calc. Bearing.

Eq. $\{A = 212 + 79.89\}$ P.O.
 $\{C = 212 + 16.29\}$

N-36°49'W.

Station	Point	d.	Rt.	Calc. Bearing.
211+47.35	P.T.	6°04'		
211		5°-07.7'		P.I. 209 + 96.07
+50		4°-07.7'		A 12°-09' Lt.
210		3°-07.7'		D-4°-00'
+50		2°-07.7'		T-152.47
209		1°-07.7'		L.C. 303.75
+50		0°-07.7'		R-1432.69
208+43.60	P.C.	0°-00'		N-24°40'W.

P.I. Common to
A-Line

190+51.65	P.T.	12°-29'		
190		10°-56'		
+50		9°-26'		P.I. 188 + 47.05
189		7°-56'		A 24°-58' Lt.
+50		6°-26'		D-6°
188		4°-56'		T. 211.51
+50		3°-26'		L.C. 416.11
187		1°-56'		R-955.37
+50		0°-26'		
186+35.54	P.C.	0°-00'		N-0°18'W.

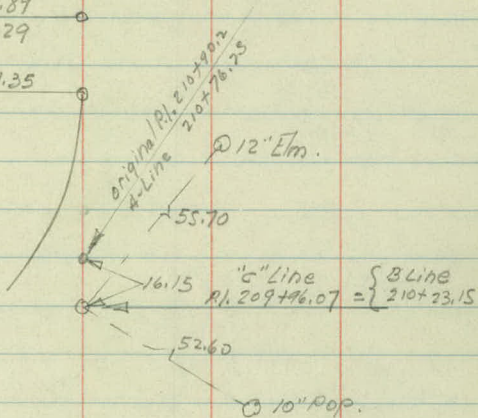
W. H. Carlson.
H. Bratager.
H. A. Wilke
A. Moeschler
M. J. Gillen.

92

A-Line 212+79.89

C-Line 212+16.29

P.T. 211+87.35



Mon.

□

1329.31

Boat
Spike

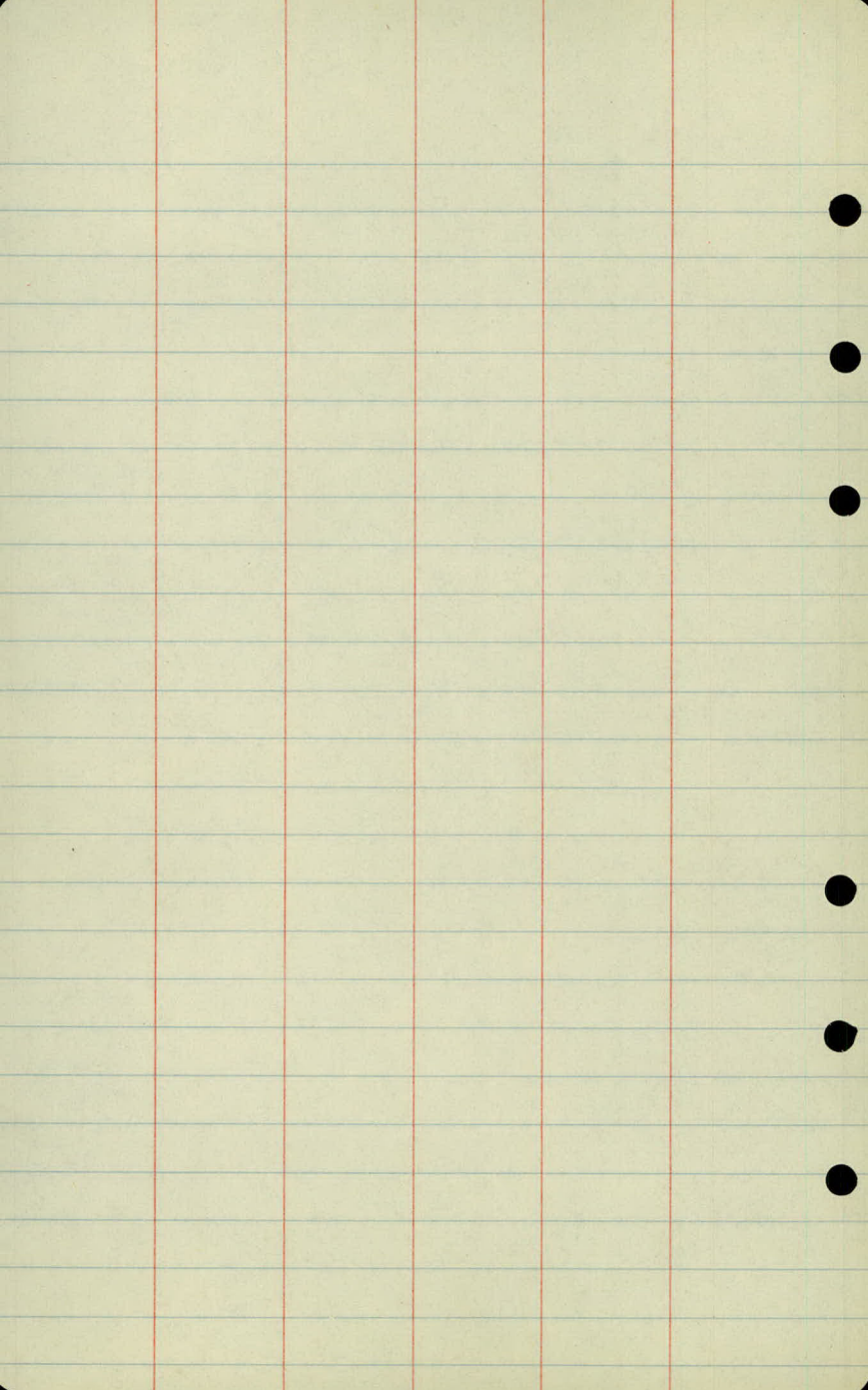
See Page A
for
Ties.

1329.31

Mon.

□

center sec 3



G" Line
Line Revision
Cross Sections.

Sta. 186+35.54 to 212+16.29 F 212+79.89

Sta.	+	π ✓	-	Elev.
B.M.	1.34	939.27		937.93
186+50				
187				34.5
+50				32.9
188				30.1
+50				29.4
189		✓		26.8
T.P.	1.32	928.11	1248	✓ 926.79
+50				20.8
B.M.	5.65	✓ 928.11	5.65	✓ 922.46
190				17.7 920.46
+50				15.5
191				16.0
+50				17.9

Lt. 2 101.

Top Steps 34' Rt. Sta. 187+21

$$\begin{array}{r} 9.4 \\ 50 \end{array} \quad \begin{array}{r} 8.0 \\ 26 \end{array} \quad \begin{array}{r} 5.2 \\ 7 \end{array} \quad \begin{array}{r} 4.8 \\ 1 \end{array} \quad \begin{array}{r} 4.9 \\ 23 \end{array} \quad \begin{array}{r} 4.3 \\ 28 \end{array} \quad \begin{array}{r} 2.0 \\ 33 \end{array} \quad \begin{array}{r} 8.9 \\ 50 \end{array} \quad \text{Fuel}$$

$$\begin{array}{r} 8.4 \\ 50 \end{array} \quad \begin{array}{r} 6.8 \\ 17 \end{array} \quad \begin{array}{r} 7.1 \\ 4 \end{array} \quad \begin{array}{r} 6.4 \\ 1 \end{array} \quad \begin{array}{r} 6.2 \\ 23 \end{array} \quad \begin{array}{r} 5.2 \\ 33 \end{array} \quad \begin{array}{r} 3.5 \\ 37 \end{array} \quad \begin{array}{r} 1.5 \\ 50 \end{array} \quad \text{Fuel}$$

$$\begin{array}{r} 8.2 \\ 50 \end{array} \quad \begin{array}{r} 7.8 \\ 27 \end{array} \quad \begin{array}{r} 7.5 \\ 9 \end{array} \quad \begin{array}{r} 9.2 \\ 1 \end{array} \quad \begin{array}{r} 9.3 \\ 5 \end{array} \quad \begin{array}{r} 8.8 \\ 7 \end{array} \quad \begin{array}{r} 8.9 \\ 41 \end{array} \quad \begin{array}{r} 8.0 \\ 45 \end{array} \quad \begin{array}{r} 5.4 \\ 50 \end{array}$$

$$\begin{array}{r} 9.9 \\ 50 \end{array} \quad \begin{array}{r} 10.1 \\ 28 \end{array} \quad \begin{array}{r} 9.5 \\ 4 \end{array} \quad \begin{array}{r} 9.9 \\ 1 \end{array} \quad \begin{array}{r} 11.3 \\ 6 \end{array} \quad \begin{array}{r} 12.0 \\ 16 \end{array} \quad \begin{array}{r} 12.1 \\ 50 \end{array}$$

$$\begin{array}{r} 12.6 \\ 50 \end{array} \quad \begin{array}{r} 12.6 \\ 28 \end{array} \quad \begin{array}{r} 12.8 \\ 8 \end{array} \quad \begin{array}{r} 12.8 \\ 1 \end{array} \quad \begin{array}{r} 14.5 \\ 20 \end{array} \quad \begin{array}{r} 14.0 \\ 50 \end{array}$$

$$\begin{array}{r} 5.4 \\ 50 \end{array} \quad \begin{array}{r} 6.2 \\ 28 \end{array} \quad \begin{array}{r} 7.3 \\ 1 \end{array} \quad \begin{array}{r} 7.9 \\ 30 \end{array} \quad \begin{array}{r} 7.8 \\ 44 \end{array} \quad \begin{array}{r} 5.9 \\ 50 \end{array}$$

$$\begin{array}{r} 7.6 \\ 50 \end{array} \quad \begin{array}{r} 8.5 \\ 25 \end{array} \quad \begin{array}{r} 10.4 \\ 1 \end{array} \quad \begin{array}{r} 12.2 \\ 20 \end{array} \quad \begin{array}{r} 13.0 \\ 50 \end{array}$$

$$\begin{array}{r} 9.2 \\ 50 \end{array} \quad \begin{array}{r} 11.2 \\ 30 \end{array} \quad \begin{array}{r} 12.6 \\ 1 \end{array} \quad \begin{array}{r} 13.5 \\ 36 \end{array} \quad \begin{array}{r} 14.0 \\ 50 \end{array}$$

$$\begin{array}{r} 9.8 \\ 50 \end{array} \quad \begin{array}{r} 12.1 \\ 1 \end{array} \quad \begin{array}{r} 13.0 \\ 30 \end{array} \quad \begin{array}{r} 13.5 \\ 50 \end{array}$$

$$\begin{array}{r} 8.3 \\ 50 \end{array} \quad \begin{array}{r} 9.4 \\ 22 \end{array} \quad \begin{array}{r} 10.2 \\ 1 \end{array} \quad \begin{array}{r} 11.5 \\ 25 \end{array} \quad \begin{array}{r} 12.0 \\ 50 \end{array}$$

Sta.	+	π ✓ 928.11	-	Elev.
192				19.9
+50				22.0
+80				22.0
193				20.5
T.P.	0.70	✓ 921.61	7.20	✓ 920.91
+57				20.1
+70				17.2
194				15.8
+80				12.3
195				10.5
+50				09.5
196				09.0

4c 2 121

$$\begin{array}{r} 6.3 \\ 50 \end{array} \quad \begin{array}{r} 6.8 \\ 28 \end{array} \quad \begin{array}{r} 8.1 \\ 23 \end{array} \quad \begin{array}{r} 9.1 \\ 23 \end{array} \quad \begin{array}{r} 9.1 \\ 23 \end{array} \quad \begin{array}{r} 10.3 \\ 50 \end{array}$$

$$\begin{array}{r} 3.6 \\ 50 \end{array} \quad \begin{array}{r} 5.3 \\ 32 \end{array} \quad \begin{array}{r} 6.1 \\ 15 \end{array} \quad \begin{array}{r} 7.0 \\ 15 \end{array} \quad \begin{array}{r} 8.3 \\ 20 \end{array} \quad \begin{array}{r} 8.6 \\ 26 \end{array} \quad \begin{array}{r} 9.4 \\ 28 \end{array} \quad \begin{array}{r} 9.6 \\ 50 \end{array}$$

$$\begin{array}{r} 3.0 \\ 50 \end{array} \quad \begin{array}{r} 4.8 \\ 30 \end{array} \quad \begin{array}{r} 6.1 \\ 30 \end{array} \quad \begin{array}{r} 6.5 \\ 5 \end{array} \quad \begin{array}{r} 8.0 \\ 7 \end{array} \quad \begin{array}{r} 8.7 \\ 14 \end{array} \quad \begin{array}{r} 9.1 \\ 40 \end{array} \quad \begin{array}{r} 11.1 \\ 50 \end{array}$$

$$\begin{array}{r} 2.5 \\ 50 \end{array} \quad \begin{array}{r} 5.3 \\ 20 \end{array} \quad \begin{array}{r} 6.3 \\ 8 \end{array} \quad \begin{array}{r} 7.6 \\ 8 \end{array} \quad \begin{array}{r} 8.8 \\ 31 \end{array} \quad \begin{array}{r} 11.8 \\ 44 \end{array} \quad \begin{array}{r} 11.8 \\ 50 \end{array}$$

$$\begin{array}{r} 12.5 \\ 50 \end{array} \quad \begin{array}{r} 10.5 \\ 40 \end{array} \quad \begin{array}{r} 0.0 \\ 31 \end{array} \quad \begin{array}{r} 0.3 \\ 16 \end{array} \quad \begin{array}{r} 1.5 \\ 16 \end{array} \quad \begin{array}{r} 3.5 \\ 5 \end{array} \quad \begin{array}{r} 6.4 \\ 34 \end{array} \quad \begin{array}{r} 8.5 \\ 43 \end{array} \quad \begin{array}{r} 9.3 \\ 50 \end{array}$$

$$\begin{array}{r} 10.6 \\ 50 \end{array} \quad \begin{array}{r} 0.0 \\ 27 \end{array} \quad \begin{array}{r} 1.0 \\ 10 \end{array} \quad \begin{array}{r} 2.7 \\ 4 \end{array} \quad \begin{array}{r} 4.4 \\ 4 \end{array} \quad \begin{array}{r} 6.9 \\ 30 \end{array} \quad \begin{array}{r} 9.2 \\ 39 \end{array} \quad \begin{array}{r} 10.0 \\ 50 \end{array}$$

$$\begin{array}{r} 1.0 \\ 50 \end{array} \quad \begin{array}{r} 0.6 \\ 26 \end{array} \quad \begin{array}{r} 3.2 \\ 17 \end{array} \quad \begin{array}{r} 4.6 \\ 8 \end{array} \quad \begin{array}{r} 5.8 \\ 8 \end{array} \quad \begin{array}{r} 7.1 \\ 12 \end{array} \quad \begin{array}{r} 10.0 \\ 31 \end{array} \quad \begin{array}{r} 11.0 \\ 50 \end{array}$$

$$\begin{array}{r} 12.0 \\ 50 \end{array} \quad \begin{array}{r} 1.0 \\ 50 \end{array} \quad \begin{array}{r} 4.8 \\ 43 \end{array} \quad \begin{array}{r} 6.5 \\ 35 \end{array} \quad \begin{array}{r} 7.0 \\ 12 \end{array} \quad \begin{array}{r} 9.3 \\ 12 \end{array} \quad \begin{array}{r} 11.1 \\ 33 \end{array} \quad \begin{array}{r} 12.2 \\ 50 \end{array}$$

$$\begin{array}{r} 5.1 \\ 50 \end{array} \quad \begin{array}{r} 5.4 \\ 39 \end{array} \quad \begin{array}{r} 9.1 \\ 29 \end{array} \quad \begin{array}{r} 10.4 \\ 11 \end{array} \quad \begin{array}{r} 11.1 \\ 11 \end{array} \quad \begin{array}{r} 12.5 \\ 33 \end{array} \quad \begin{array}{r} 13.0 \\ 50 \end{array}$$

$$\begin{array}{r} 9.8 \\ 50 \end{array} \quad \begin{array}{r} 11.5 \\ 14 \end{array} \quad \begin{array}{r} 12.1 \\ 14 \end{array} \quad \begin{array}{r} 13.5 \\ 50 \end{array}$$

$$\begin{array}{r} 10.8 \\ 50 \end{array} \quad \begin{array}{r} 11.8 \\ 23 \end{array} \quad \begin{array}{r} 12.6 \\ 23 \end{array} \quad \begin{array}{r} 13.7 \\ 50 \end{array}$$

Sta.	+	T ✓	-	Elev.
197		921.61		08.9
198				09.5
199				09.8
T.P.	4.10	914.13 ✓	11.58	910.03 ✓
200				09.7
201				09.8
T.P.	11.53	921.81 ✓	3.85	910.28 ✓
202				10.0
+50				10.3
203				10.4
+50				11.3
204				10.7
+50				10.8

4th 2nd 1st

$$\frac{11.5}{50}$$

$$\frac{12.3}{75}$$

$$\frac{12.7}{-}$$

$$\frac{13.5}{50}$$

$$\frac{11.1}{50}$$

$$\frac{11.9}{25}$$

$$\frac{12.1}{-}$$

$$\frac{12.7}{50}$$

$$\frac{11.0}{50}$$

$$\frac{11.8}{-}$$

$$\frac{12.5}{50}$$

$$\frac{4.0}{50}$$

$$\frac{4.4}{-}$$

$$\frac{4.9}{50}$$

$$\frac{3.8}{50}$$

$$\frac{4.3}{-}$$

$$\frac{4.8}{50}$$

$$\frac{8.4}{50}$$

$$\frac{10.9}{79}$$

$$\frac{11.8}{-}$$

$$\frac{12.6}{50}$$

$$\frac{1.8}{80}$$

$$\frac{1.8}{56}$$

$$\frac{6.5}{42}$$

$$\frac{10.5}{18}$$

$$\frac{11.5}{-}$$

$$\frac{12.5}{50}$$

$$\frac{8.7}{27}$$

$$\frac{11.4}{-}$$

$$\frac{12.5}{50}$$

$$\frac{4.2}{28}$$

$$\frac{7.0}{15}$$

$$\frac{10.5}{-}$$

$$\frac{11.6}{14}$$

$$\frac{12.7}{50}$$

$$\frac{4.6}{22}$$

$$\frac{8.7}{17}$$

$$\frac{10.6}{10}$$

$$\frac{11.1}{-}$$

$$\frac{12.9}{50}$$

$$\frac{5.3}{19}$$

$$\frac{8.7}{13}$$

$$\frac{11.0}{-}$$

$$\frac{12.9}{50}$$

Sta.	+	π ✓	-	E/100.
205		921.81		11.0
+50				10.6
206				10.5
+50				10.4
207				11.0
+50				11.2
208		✓		13.1
T.R.	9.60	930.13	1.28	✓ 920.53
203				
+50				
204				
+50				

LT. S RT

$$\begin{array}{r} 42 \\ \hline 21 \end{array} \quad \begin{array}{r} 96 \\ \hline 12 \end{array} \quad 10.8 \quad \begin{array}{r} 129 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 55 \\ \hline 22 \end{array} \quad \begin{array}{r} 81 \\ \hline 19 \end{array} \quad \begin{array}{r} 11.2 \\ \hline \end{array} \quad \begin{array}{r} 12.2 \\ \hline 25 \end{array} \quad \begin{array}{r} 12.8 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 59 \\ \hline 22 \end{array} \quad \begin{array}{r} 9.8 \\ \hline 14 \end{array} \quad \begin{array}{r} 11.3 \\ \hline \end{array} \quad \begin{array}{r} 13.0 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 54 \\ \hline 23 \end{array} \quad \begin{array}{r} 104 \\ \hline 13 \end{array} \quad \begin{array}{r} 11.4 \\ \hline \end{array} \quad \begin{array}{r} 13.0 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 96 \\ \hline 12 \end{array} \quad \begin{array}{r} 108 \\ \hline \end{array} \quad \begin{array}{r} 12.7 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 98 \\ \hline 6 \end{array} \quad \begin{array}{r} 106 \\ \hline \end{array} \quad \begin{array}{r} 12.7 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 87 \\ \hline \end{array} \quad \begin{array}{r} 106 \\ \hline 11 \end{array} \quad \begin{array}{r} 12.3 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 82 \\ \hline 80 \end{array} \quad \begin{array}{r} 82 \\ \hline 50 \end{array} \quad \begin{array}{r} 9.1 \\ \hline 43 \end{array} \quad (19.7)$$

$$\begin{array}{r} 49 \\ \hline 80 \end{array} \quad \begin{array}{r} 4.8 \\ \hline 50 \end{array} \quad \begin{array}{r} 7.0 \\ \hline 38 \end{array} \quad (18.8)$$

$$\begin{array}{r} 46 \\ \hline 70 \end{array} \quad \begin{array}{r} 52 \\ \hline 50 \end{array} \quad \begin{array}{r} 5.5 \\ \hline 46 \end{array} \quad \begin{array}{r} 29 \\ \hline 42 \end{array} \quad (19.4)$$

$$\begin{array}{r} 38 \\ \hline 71 \end{array} \quad \begin{array}{r} 4.8 \\ \hline 44 \end{array} \quad \begin{array}{r} 2.1 \\ \hline 40 \end{array} \quad (19.3)$$

Sta. + π / - Elev.

930.13

205

+50

206

+50

207

+50

208

3.75

✓
925.54

8.34

✓
921.79

+50

21.5

209

21.3

+50

20.3

210

18.4

L.

E

et.

$$\begin{array}{r} 1/2 \\ 74 \end{array} \quad \begin{array}{r} 40 \\ 60 \end{array} \quad \begin{array}{r} 49 \\ 43 \end{array} \quad \begin{array}{r} 27 \\ 39 \end{array} \quad (19.1)$$

$$\begin{array}{r} 44 \\ 75 \end{array} \quad \begin{array}{r} 44 \\ 55 \end{array} \quad \begin{array}{r} 52 \\ 42 \end{array} \quad (19.5)$$

$$\begin{array}{r} 43 \\ 75 \end{array} \quad \begin{array}{r} 55 \\ 52 \end{array} \quad \begin{array}{r} 65 \\ 40 \end{array} \quad (19.6)$$

$$\begin{array}{r} 68 \\ 70 \end{array} \quad \begin{array}{r} 66 \\ 49 \end{array} \quad \begin{array}{r} 74 \\ 35 \end{array} \quad (19.7)$$

$$\begin{array}{r} 92 \\ 60 \end{array} \quad \begin{array}{r} 76 \\ 56 \end{array} \quad \begin{array}{r} 76 \\ 41 \end{array} \quad \begin{array}{r} 84 \\ 30 \end{array} \quad (19.1)$$

$$\begin{array}{r} 97 \\ 54 \end{array} \quad \begin{array}{r} 82 \\ 47 \end{array} \quad \begin{array}{r} 80 \\ 35 \end{array} \quad \begin{array}{r} 90 \\ 23 \end{array} \quad (18.9)$$

$$\begin{array}{r} 31 \\ 50 \end{array} \quad \begin{array}{r} 84 \\ 40 \end{array} \quad \begin{array}{r} 79 \\ 26 \end{array} \quad \begin{array}{r} 89 \\ 14 \end{array} \quad (17.0)$$

$$\begin{array}{r} 135 \\ 50 \end{array} \quad \begin{array}{r} 130 \\ 29 \end{array} \quad \begin{array}{r} 42 \\ 32 \end{array} \quad \begin{array}{r} 38 \\ 28 \end{array} \quad \begin{array}{r} 34 \\ 17 \end{array} \quad \begin{array}{r} 47 \\ 3 \end{array} \quad \begin{array}{r} 40 \end{array} \quad \begin{array}{r} 136 \\ 17 \end{array} \quad \begin{array}{r} 154 \\ 50 \end{array}$$

$$\begin{array}{r} 10 \\ 50 \end{array} \quad \begin{array}{r} 10 \\ 27 \end{array} \quad \begin{array}{r} 49 \\ 20 \end{array} \quad \begin{array}{r} 42 \end{array} \quad \begin{array}{r} 57 \\ 11 \end{array} \quad \begin{array}{r} 43 \\ 14 \end{array} \quad \begin{array}{r} 124 \\ 32 \end{array} \quad \begin{array}{r} 147 \\ 50 \end{array}$$

$$\begin{array}{r} 47 \\ 50 \end{array} \quad \begin{array}{r} 38 \\ 11 \end{array} \quad \begin{array}{r} 55 \\ 7 \end{array} \quad \begin{array}{r} 52 \end{array} \quad \begin{array}{r} 57 \\ 21 \end{array} \quad \begin{array}{r} 40 \\ 28 \end{array} \quad \begin{array}{r} 120 \\ 43 \end{array} \quad \begin{array}{r} 136 \\ 50 \end{array}$$

$$\begin{array}{r} 66 \\ 50 \end{array} \quad \begin{array}{r} 76 \\ 25 \end{array} \quad \begin{array}{r} 71 \end{array} \quad \begin{array}{r} 55 \\ 17 \end{array} \quad \begin{array}{r} 59 \\ 28 \end{array} \quad \begin{array}{r} 83 \\ 89 \end{array} \quad \begin{array}{r} 113 \\ 50 \end{array}$$

✓
97.54

210+50

16.8

211+0

18.5

+35

17.8

157

12.9

212

10.8

BM

4.46

✓
92.08

lt. E Rt.

$$\begin{array}{r} 10.2 \\ 50 \end{array} \quad \begin{array}{r} 10.2 \\ 4 \end{array} \quad 8.7 \quad \begin{array}{r} 7.8 \\ 2 \end{array} \quad \begin{array}{r} 7 \\ 30 \end{array} \quad \begin{array}{r} 13.8 \\ 48 \end{array} \quad \begin{array}{r} 14.6 \\ 51 \end{array}$$

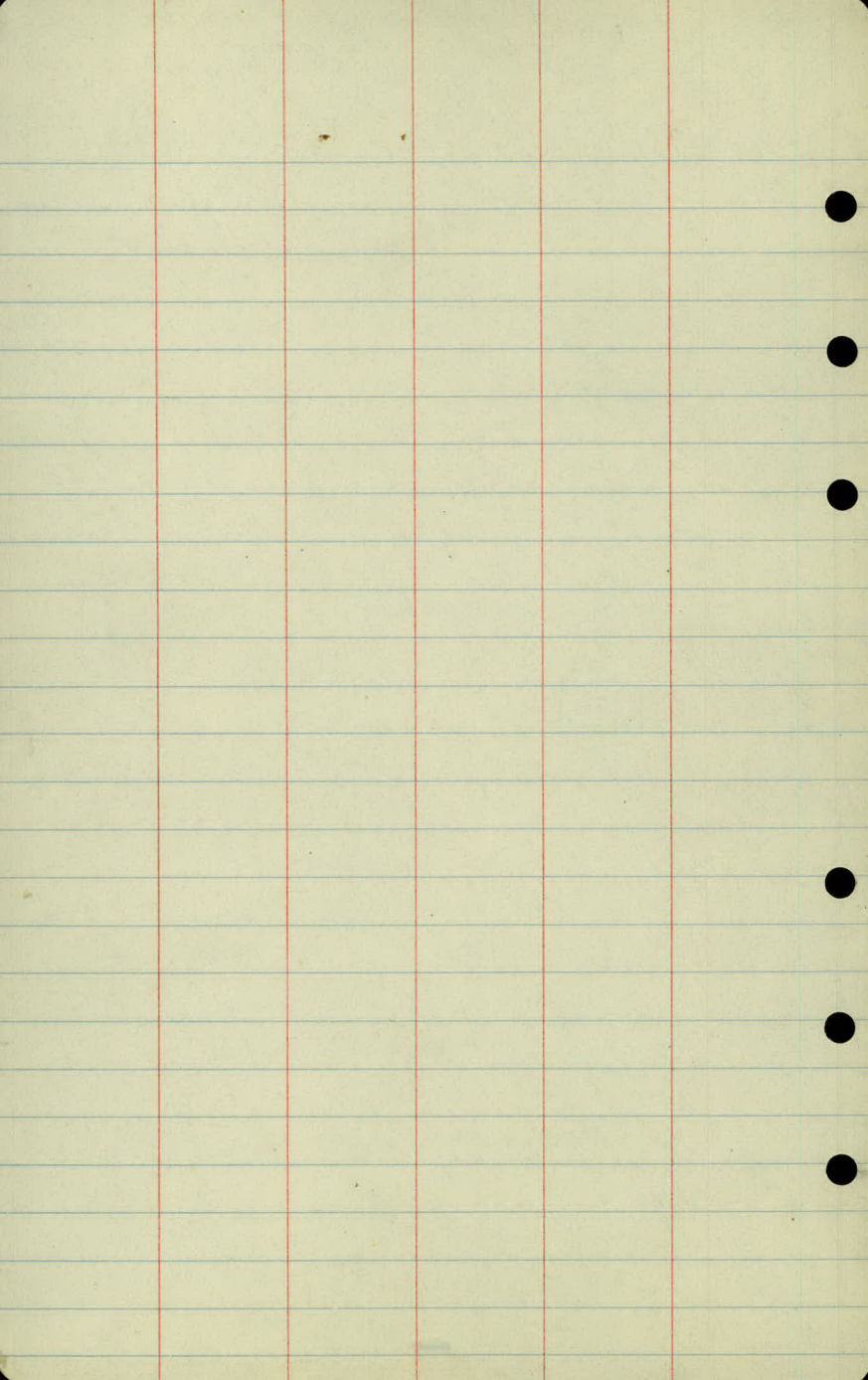
$$\begin{array}{r} 11.4 \\ 50 \end{array} \quad \begin{array}{r} 10.9 \\ 18 \end{array} \quad \begin{array}{r} 7.9 \\ 13 \end{array} \quad 7.0 \quad \begin{array}{r} 7.1 \\ 15 \end{array} \quad \begin{array}{r} 11.8 \\ 24 \end{array} \quad \begin{array}{r} 14.1 \\ 40 \end{array} \quad \begin{array}{r} 15.3 \\ 50 \end{array}$$

$$\begin{array}{r} 11.6 \\ 50 \end{array} \quad \begin{array}{r} 11.1 \\ 37 \end{array} \quad \begin{array}{r} 7.6 \\ 29 \end{array} \quad \begin{array}{r} 7.7 \\ 1 \end{array} \quad \begin{array}{r} 7.4 \\ 8 \end{array} \quad \begin{array}{r} 14.4 \\ 25 \end{array} \quad \begin{array}{r} 16.0 \\ 50 \end{array}$$

$$\begin{array}{r} 11.2 \\ 50 \end{array} \quad \begin{array}{r} 10.2 \\ 43 \end{array} \quad \begin{array}{r} 7.5 \\ 37 \end{array} \quad \begin{array}{r} 7.9 \\ 10 \end{array} \quad 12.6 \quad \begin{array}{r} 14.7 \\ 16 \end{array} \quad \begin{array}{r} 16.1 \\ 50 \end{array}$$

$$\begin{array}{r} 7.7 \\ 55 \end{array} \quad \begin{array}{r} 7.3 \\ 42 \end{array} \quad \begin{array}{r} 8.2 \\ 29 \end{array} \quad \begin{array}{r} 11.3 \\ 24 \end{array} \quad \begin{array}{r} 13.8 \\ 12 \end{array} \quad \begin{array}{r} 14.7 \\ 1 \end{array} \quad \begin{array}{r} 12.1 \\ 50 \end{array}$$

spike in cat 85' Lt. 210+10



Otter Lake Rd.

Grade Lift.

Grade

1.92 921.33

919.41

22+50

19.9

✓

23

19.7

11

+50

19.5

14

24

19.3

+50

19.1

25

18.9

+50

18.7

26

18.5

+50

18.5

917.89

27

18.6

+50

18.9

32 - 3.1

12' cat 33 pt. 22 + 28

1.4 ✓

1.6 ✓ 34

1.8 ✓ 40

2.0 4.1 $286 \overline{) 152}$
 $\underline{- 572}$

$53 \overline{) 289}$

2.2 4.2

$54 \overline{) 287}$ 28.4

2.4 780 $64 \overline{) 40}$

2.6 789 $6.9 \overline{) 43}$

$6.6 \overline{) 40}$ 28 in Ditch

2.8 313 $29 \overline{) 51}$

$22 \overline{) 44}$ 29.2

2.8 330 $89 \overline{) 61}$

$90 \overline{) 62}$ 33

Top of W. H. W. 26 + 60

2.7 23 $94 \overline{) 67}$

$93 \overline{) 66}$ 33

2.4 23 $89 \overline{) 65}$

$88 \overline{) 64}$ 33

921.33

28

19.3

+50

19.9

29

20.6

T.P.

6.20

926.82

0.71

920.62

+50

21.5

30

22.8

X

+50

2.0

$$58.6 / \frac{62}{42}$$

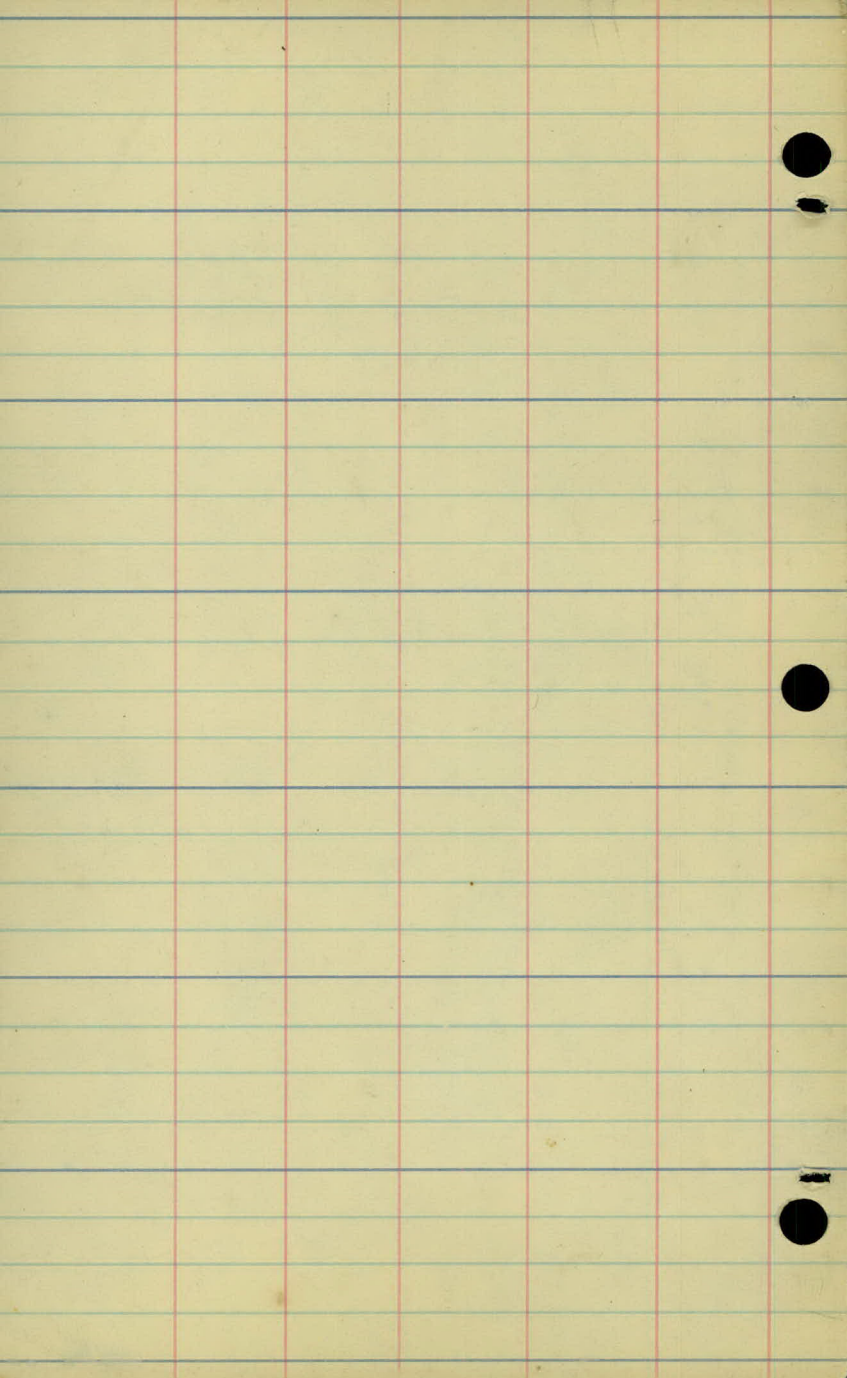
$$\frac{60}{-40/280}$$

$$\begin{array}{r|l} 2.9 & \\ \hline 1.4 & \end{array}$$

$$\begin{array}{r|l} 2.2 & \\ \hline 0.7 & \end{array}$$

5.2

4.2



Slope Stakes
Otter Lake Road North.

(See Orig X- Sec. for Orig ground)

Sta.	+	-	Grade
73+55.37 73+56.37	4.85	927.61	922.76
74+00			24.0
74+50			24.0
75+00			23.9
75+50			23.8
76+00			23.7
76+50			23.6
T.P.	5.06	928.67	4.00 923.61
77+00			23.5
77+50			23.4
78+00			23.3
78			23.2

9.R.

N

E

RT

Spike in P.P. @ Pump 46

3.6

$$76.5 / \frac{7.1}{-3.5}$$

$$\frac{4.2}{-0.6}$$

$$\frac{6.6}{-2.0} / 25.0$$

3.6

$$78.3 / \frac{7.7}{-0.1}$$

$$\frac{4.6}{-1.0}$$

$$\frac{7.3}{-3.7} / 27.1$$

3.7

$$33' / \frac{4.7}{101.0}$$

$$\frac{4.5}{-0.8}$$

$$\frac{5.4}{129.3} / 33'$$

3.8

$$33' / \frac{2.7}{+1.1}$$

$$\frac{4.4}{-0.6}$$

$$\frac{5.1}{100.7} / 33'$$

3.9

$$33' / \frac{1.8}{+2.1}$$

$$\frac{4.3}{-0.4}$$

$$\frac{4.1}{101.8} / 33'$$

4.0

$$33' / \frac{1.4}{47.6}$$

$$\frac{4.1}{-0.1}$$

$$\frac{3.0}{+1.0} / 33'$$

5.2

$$33' / \frac{1.3}{+3.9}$$

$$\frac{5.1}{-0.1}$$

$$\frac{3.1}{+2.1} / 33'$$

5.3

$$33' / \frac{1.3}{+4.0}$$

$$\frac{5.3}{0.0}$$

$$\frac{5.2}{+0.1} / 33'$$

5.4

$$33' / \frac{1.8}{+2.6}$$

$$\frac{5.4}{0.0}$$

$$\frac{6.6}{100.8} / 33'$$

Sta.	+	T	-	Grade
		928.67		
78+50				23.1
79				23.00
+50				23.0
80				23.0
+50				23.05
81				23.1
+50				23.3
82				23.5
T.P.				
+50				23.7
T.P.	5.40	929.10	4.97	923.70
+88				23.9
83				23.95

9. Rod

L/-

2

21.

5.6

$$\begin{array}{r} 33' / 5.6 \\ 259 / 201 \end{array}$$

$$\begin{array}{r} 5.6 \\ -0.1 \end{array}$$

$$\begin{array}{r} 7.1 \\ 100.5 / 33' \end{array}$$

5.7

$$\begin{array}{r} 33' / 9.0 \\ 259 / 313 \end{array}$$

$$\begin{array}{r} 6.5 \\ -0.8 \end{array}$$

$$\begin{array}{r} 9.7 \\ 40 / 280 \end{array}$$

5.7

$$\begin{array}{r} 33' / 10.4 \\ 301 / 407 \end{array}$$

$$\begin{array}{r} 6.8 \\ -1.1 \end{array}$$

$$\begin{array}{r} 10.4 \\ 47 / 30.1 \end{array}$$

5.7

$$\begin{array}{r} 33' / 8.7 \\ 250 / 310 \end{array}$$

$$\begin{array}{r} 6.6 \\ -0.9 \end{array}$$

$$\begin{array}{r} 8.8 \\ 31 / 25.3 \end{array}$$

5.6

$$\begin{array}{r} 33' / 7.8 \\ 250 / 258 \end{array}$$

x

$$\begin{array}{r} 6.2 \\ -0.6 \end{array}$$

$$\begin{array}{r} 5.6 \\ 100 / 33 \end{array}$$

5.6

$$\begin{array}{r} 33' / 6.0 \\ 250 / 198 \end{array}$$

$$\begin{array}{r} 6.0 \\ -0.4 \end{array}$$

$$\begin{array}{r} 4.6 \\ 41.0 / 33 \end{array}$$

5.4

$$\begin{array}{r} 33' / 5.1 \\ 250 / 168 \end{array}$$

$$\begin{array}{r} 6.0 \\ -0.6 \end{array}$$

$$\begin{array}{r} 5.9 \\ 100.5 / 33 \end{array}$$

5.2

$$\begin{array}{r} 33' / 5.0 \\ 250 / 166 \end{array}$$

$$\begin{array}{r} 5.9 \\ -0.7 \end{array}$$

$$\begin{array}{r} 7.1 \\ 100.1 / 33 \end{array}$$

Rail in P.P.

5.0

$$\begin{array}{r} 33' / 5.8 \\ 250 / 192 \end{array}$$

$$\begin{array}{r} 5.8 \\ -0.8 \end{array}$$

$$\begin{array}{r} 9.0 \\ 40 / 28.0 \end{array}$$

(See P. 72)

Sta.	+	π	-	grade
83+50				24.2
84				24.85
+50				24.07
85				24.95
B.M.				
+50				25.20
86				25.45
+50				25.70
87				25.95
+50				26.20
88				26.45
+50				26.7

Slope Stakes
Otter Lake Rd. No.
Cont'd.

Sta.	+	1	-	Grade
	1.21	929.10	1.21	927.89
182+50				23.7
22+88				23.9
83				24.0
+50				24.2
84				24.5
+50				24.7
85				24.9
+50				25.2
86				25.5
+50				25.7
	6.58	932.46	3.22	925.88
87				25.9

Gr. 2nd.

4.

2

21.

42 Rt. Std. 85 to

$$\frac{03}{-08}$$

5.2

$$\frac{61}{-09}$$

$$\frac{26}{-3.4/26.2}$$

5.1

$$33 \overline{) 4.5} \\ \underline{0.06}$$

$$\frac{60}{-09}$$

4.9

$$33 \overline{) 6.6} \\ \underline{00.3}$$

$$\frac{55}{-06}$$

$$\frac{49}{+0.0/33}$$

4.6

$$33 \overline{) 3.3} \\ \underline{+1.3}$$

$$\frac{48}{-02}$$

$$\frac{28}{+1.8/33}$$

4.4

$$33 \overline{) 1.8} \\ \underline{+2.6}$$

$$\frac{42}{+0.2}$$

$$\frac{23}{+2.1/33}$$

4.2

$$33 \overline{) 2.9} \\ \underline{+1.9}$$

$$\frac{37}{+0.5}$$

$$\frac{23}{+1.9/33}$$

3.9

$$33 \overline{) 2.6} \\ \underline{+1.3}$$

$$\frac{33}{+0.6}$$

$$\frac{22}{+1.7/33}$$

3.6

$$33 \overline{) 3.0} \\ \underline{+0.6}$$

$$\frac{34}{+0.2}$$

$$\frac{25}{+1.1/33}$$

3.4

$$33 \overline{) 3.7} \\ \underline{0.1.7}$$

$$\frac{36}{+0.2}$$

$$\frac{34}{+0.0/33}$$

6.6

$$\frac{6.6}{0.0}$$

$$\frac{7.0}{-0.4}$$

$$\frac{25}{0.1.5/33}$$

Sta. + π - grade

93 x .46

87+80

26.2

88

26.5

+50

26.7

89

26.9

+50

27.2

90

27.5

+50

27.6

91

27.6

+50

27.5

92

27.2

+50

27.0

Gr. Rod.

L.

E.

R

6.3

$$33 \overline{) 4.8} \\ + 1.5$$

$$\frac{5.7}{-0.4}$$

$$\frac{5.3}{00} / 25$$

6.0

$$33 \overline{) 7.9} \\ + 3.1$$

$$\frac{6.2}{-0.2}$$

$$\frac{7.7}{00.03} / 33$$

5.8

$$33 \overline{) 1.5} \\ + 4.2$$

$$\frac{5.7}{+0.1}$$

$$\frac{7.2}{00.6} / 33$$

5.6

$$33 \overline{) 1.1} \\ + 4.5$$

$$\frac{5.2}{+0.4}$$

$$\frac{5.9}{00.7} / 33$$

5.3

$$33 \overline{) 0.8} \\ + 4.5$$

$$\frac{4.9}{+0.4}$$

$$\frac{3.7}{+1.6} / 33$$

5.0

$$33 \overline{) 1.2} \\ + 3.2$$

$$\frac{4.9}{+0.1}$$

$$\frac{2.3}{+2.7} / 33$$

90/50

4.9

$$33 \overline{) 1.0} \\ + 2.9$$

$$\frac{5.1}{-0.2}$$

$$\frac{1.9}{+2.0} / 33$$

4.9

$$33 \overline{) 1.4} \\ + 2.5$$

$$\frac{5.3}{-0.4}$$

$$\frac{2.8}{+2.4} / 33$$

5.0

$$33 \overline{) 1.4} \\ + 2.6$$

$$\frac{5.7}{-0.7}$$

$$\frac{3.2}{+1.7} / 33$$

5.3

$$33 \overline{) 2.9} \\ + 2.4$$

$$\frac{6.0}{-0.7}$$

$$\frac{3.9}{+1.4} / 33$$

5.5

$$\frac{6.1}{-0.6}$$

$$\frac{3.2}{+2.3} / 33$$

Sta.	+	7	-	Grade.
		932.46		
+45				26.8
+65				26.6
+73				26.1
T.D.	667	931.29	7.84	924.62
+50				25.4
+94				24.55
+50				23.6
+95				22.7
	5.22	926.58	9.93	921.26
+50				21.7
+96				21.2
+50				21.5
+97				22.8

Gr. Rod

L+

±

R+

√.7

$$\frac{35}{+22}$$

√.9

$$\frac{35}{+56}$$

$$\frac{63}{-0.4}$$

$$\frac{27}{+3.2} / 33$$

5.4

$$\frac{35}{+16.2}$$

$$\frac{67}{-1.3}$$

$$\frac{18}{+3.6} / 33$$

5.9

$$\frac{35}{+6.2}$$

$$\frac{67}{-0.8}$$

$$\frac{10}{+4.9} / 33$$

6.3

6.8

$$\frac{35}{+10.8}$$

$$\frac{73}{-1.0}$$

$$\frac{3.3}{+3.5} / 33$$

7.7

$$\frac{35}{+14.4}$$

$$\frac{88}{-1.1}$$

$$\frac{8.2}{+1.5} / 33$$

8.6

$$\frac{35}{+18.0}$$

$$\frac{96}{-1.0}$$

$$\frac{10.8}{+2.0} / 33$$

Top Horizontal

4.9

$$\frac{35}{+13.7}$$

$$\frac{57}{-0.8}$$

$$\frac{7.8}{-2.8} / 24.4$$

5.4

$$\frac{35}{+13.4}$$

$$\frac{61}{-0.7}$$

$$\frac{2.9}{-2.5} / 23.5$$

5.1

$$\frac{35}{+13.3}$$

$$\frac{58}{-0.7}$$

$$\frac{7.8}{-2.7} / 24.1$$

3.8

$$\frac{35}{+13.8}$$

$$\frac{52}{-1.4}$$

$$\frac{8.2}{-2.4} / 24.2$$

Sta.	+	Σ	-	Grade
		976.58		
97+50				24.8
98				27.0
+50				28.5
99				29.5
T.P.	576	931.51	0.33	926.25
+50				29.8
+				
+				
+				
100+0				29.8
+50				29.8
101				29.7

Gr. Bod.

Lt.

E

Rt.

$$1.8 \quad \text{Var} \quad 33 \begin{array}{r} 135 \\ -11.5 \\ \hline \end{array} \quad \begin{array}{r} 40 \\ -22 \\ \hline \end{array} \quad \begin{array}{r} 74 \\ -5.6 \\ \hline \end{array} / 32.8$$

$$+0.4 \quad \text{Var} \quad 33 \begin{array}{r} 104 \\ -10.8 \\ \hline \end{array} \quad \begin{array}{r} 28 \\ -32 \\ \hline \end{array} \quad \begin{array}{r} 79 \\ -8.3 \\ \hline \end{array} / 33 \quad \text{Var.}$$

$$+1.9 \quad \text{Var} \quad 33 \begin{array}{r} 84 \\ -10.8 \\ \hline \end{array} \quad \begin{array}{r} 13 \\ -32 \\ \hline \end{array} \quad \begin{array}{r} 83 \\ -10.2 \\ \hline \end{array} / 33 \quad \text{Var.}$$

$$+2.9 \quad 33 \begin{array}{r} 72 \\ -10.1 \\ \hline \end{array} \quad \begin{array}{r} \\ \hline \end{array} \quad \begin{array}{r} 70 \\ -9.9 \\ \hline \end{array} / 33$$

$$1.7 \quad \begin{array}{r} 24 \\ -07 \\ \hline \end{array} \quad \begin{array}{r} 97 \\ -80 \\ \hline \end{array} / 33$$

$$1.7 \quad 33 \begin{array}{r} 11.2 \\ -9.5 \\ \hline \end{array} \quad \begin{array}{r} 79 \\ -1.2 \\ \hline \end{array} \quad \begin{array}{r} 7.8 \\ -6.1 \\ \hline \end{array} / 33$$

$$1.7 \quad 33 \begin{array}{r} 10.2 \\ -8.5 \\ \hline \end{array} \quad \begin{array}{r} 43 \\ -7.6 \\ \hline \end{array} \quad \begin{array}{r} 6.7 \\ -5.0 \\ \hline \end{array} / 31$$

$$1.8 \quad 33 \begin{array}{r} 9.8 \\ -8.0 \\ \hline \end{array} \quad \begin{array}{r} 48 \\ -30 \\ \hline \end{array} \quad \begin{array}{r} 7.1 \\ -5.2 \\ \hline \end{array} / 31.9$$

Sta.	+	π	-	grade
------	---	-------	---	-------

		931.51		
--	--	--------	--	--

101+50				29.5
--------	--	--	--	------

102				29.3
-----	--	--	--	------

+50				29.0
-----	--	--	--	------

103				28.8
-----	--	--	--	------

+50				28.6
-----	--	--	--	------

B.M.	7.02	935.62	3.05	
------	------	--------	------	--

104				28.3
-----	--	--	--	------

+50				28.0
-----	--	--	--	------

105				27.8
-----	--	--	--	------

+50				27.6
-----	--	--	--	------

+69.4				27.4
-------	--	--	--	------

+85				27.3
-----	--	--	--	------

Gr. Rod.

Lt.

E

Rt.

2.0

$$30' \begin{array}{r} 9.6 \\ -7.6 \\ \hline \end{array}$$

$$\begin{array}{r} 5.2 \\ -3.2 \\ \hline \end{array}$$

$$\begin{array}{r} 5.1 \\ -2.1 \\ \hline 29.3 \end{array}$$

2.2

$$30' \begin{array}{r} 9.2 \\ -7.0 \\ \hline \end{array}$$

$$\begin{array}{r} 5.0 \\ -2.8 \\ \hline \end{array}$$

$$\begin{array}{r} 6.6 \\ -4.4 \\ \hline 29.2 \end{array}$$

2.5

$$30' \begin{array}{r} 8.2 \\ -5.7 \\ \hline \end{array}$$

$$\begin{array}{r} 4.8 \\ -2.3 \\ \hline \end{array}$$

$$\begin{array}{r} 6.3 \\ -3.8 \\ \hline 27.0 \end{array}$$

2.7

$$32' \begin{array}{r} 8.3 \\ -5.6 \\ \hline \end{array}$$

$$\begin{array}{r} 927.0 \\ 4.8 \\ -1.8 \\ \hline \end{array}$$

$$\begin{array}{r} 6.9 \\ -4.2 \\ \hline 29.6 \end{array} \quad \begin{array}{r} 4.7 \\ 200.0 \\ \hline 52' \end{array}$$

2.9

$$27.4' \begin{array}{r} 6.7 \\ -3.8 \\ \hline \end{array}$$

$$\begin{array}{r} 4.2 \\ -1.3 \\ \hline \end{array}$$

$$\begin{array}{r} 6.7 \\ -3.8 \\ \hline 27.4 \end{array} \quad \begin{array}{r} 4.4 \\ 200.0 \\ \hline 53' \end{array}$$

928.60 spike 12" oak 50' Rt. 56.103 + 73

7.3

$$\text{Depth } 70.5' \begin{array}{r} 7.3 \\ -0.0 \\ \hline \end{array}$$

$$\begin{array}{r} 7.7 \\ -0.4 \\ \hline \end{array}$$

$$\begin{array}{r} 7.9 \\ 201.4 \\ \hline 33' \end{array}$$

7.6

$$33' \begin{array}{r} 9.3 \\ -0.3 \\ \hline \end{array}$$

$$\begin{array}{r} 7.5 \\ -0.1 \\ \hline \end{array}$$

$$\begin{array}{r} 8.0 \\ 201.4 \\ \hline 33' \end{array}$$

7.8

$$33' \begin{array}{r} 8.9 \\ -0.9 \\ \hline \end{array}$$

$$\begin{array}{r} 7.2 \\ -0.6 \\ \hline \end{array}$$

$$\begin{array}{r} 7.0 \\ 201.8 \\ \hline 33' \end{array}$$

8.0

$$\begin{array}{r} 6.5 \\ -1.5 \\ \hline \end{array}$$

$$\begin{array}{r} 4.6 \\ 201.4 \\ \hline 33' \end{array}$$

Sta.	+	π	-	Grade
		925.62		
105+90				27.3
106				27.2
+50				26.7
107				26.3
+50				25.9
108				25.3
+50				24.6
T.P.	1.57	925.82	11.37	924.75
109				24.0
+50				23.3
110				22.7
+50				22.2

Gr. Rod

4

2

BL

8.4

$$\left(\frac{+173}{249} \right) 33' \frac{6.2}{+12.2}$$

$$\frac{6.3}{+2.1}$$

$$\frac{2.1}{+6.0/33} = 11.00 \text{ top}$$

8.9

$$\left(\frac{+54}{478} \right) 33' \frac{3.1}{+5.8}$$

$$\frac{6.5}{+2.4}$$

$$\frac{1.9}{+7.0/33} \quad " "$$

9.3

$$\left(\frac{+16}{45} \right) 33' \frac{2.0}{+2.3}$$

$$\frac{7.4}{+1.9}$$

$$\frac{3.1}{+6.2/33}$$

9.7

$$\left(\frac{+8.3}{45} \right) 33' \frac{1.7}{+8.0}$$

$$\frac{8.1}{+1.6}$$

$$\frac{5.2}{+4.8/33}$$

10.3

$$\left(\frac{+6.5}{43.0} \right) 33' \frac{4.3}{+6.0}$$

$$\frac{9.1}{+1.2}$$

$$\frac{7.0}{+3.3/33}$$

11.0

$$\left(\frac{+2.9}{40.6} \right) 33' \frac{9.9}{+2.1}$$

$$\frac{10.3}{+0.7}$$

$$\frac{11.7}{+0.3/33}$$

1.8

$$33' \frac{3.8}{+0.0}$$

$$\frac{1.6}{+0.2}$$

$$\frac{6.5}{-4.7/30}$$

2.5

$$32' \frac{8.5}{-8.0}$$

$$\frac{3.3}{-0.8}$$

$$\frac{8.7}{-6.3/33}$$

3.1

$$33' \frac{2.6}{-6.5}$$

$$\frac{1.7}{-1.6}$$

$$\frac{9.0}{-8.9/33}$$

3.6

$$33' \frac{9.9}{-6.2}$$

$$\frac{5.3}{-1.7}$$

$$\frac{8.8}{5.2/31.6}$$

Wid. 200.30, 192

Stk.	+	-	Grade
		975.82	
111			21.7
+42			21.3
+50			21.3
112			20.9
+50			20.6
113			20.4
+50			20.2
T.P	3.95	924.22	5.55
114			20.0
+50			19.8
115			19.6
+50			19.4
			920.27

Gr. Rod.

4.

E

121.

change heading Sec.

4.1

$$33 \overline{) 10.0} \\ \underline{59} $$

$$\frac{54}{-1.3}$$

$$\frac{2.5}{-4.14} / 29.2$$

4.5

$$31 \overline{) 12.8} \\ \underline{50} $$

$$\frac{50}{-0.5}$$

$$\frac{4.8}{102.0} / 33$$

Ditch 2.0

4.9

$$29.2 \overline{) 9.3} \\ \underline{44} $$

$$\frac{4.7}{+0.2}$$

$$\frac{3.9}{+1.0} / 33$$

5.2

$$33 \overline{) 8.2} \\ \underline{200}$$

$$\frac{4.7}{+0.5}$$

$$\frac{3.9}{+1.2} / 33$$

5.4

$$33 \overline{) 6.9} \\ \underline{213}$$

$$\frac{4.4}{+1.0}$$

$$\frac{3.6}{+1.8} / 33$$

5.6

$$33 \overline{) 5.5} \\ \underline{101}$$

$$\frac{4.7}{+0.9}$$

$$\frac{3.2}{+2.4} / 33$$

Begin 3.0 Ditch

Nail in T.P.

4.2

$$33 \overline{) 3.8} \\ \underline{104}$$

$$\frac{3.4}{+0.8}$$

$$\frac{3.1}{+1.1} / 33$$

4.4

$$33 \overline{) 4.4} \\ \underline{220}$$

$$\frac{3.5}{+0.9}$$

$$\frac{4.5}{102.9} / 33$$

4.6

$$33 \overline{) 5.3} \\ \underline{223}$$

$$\frac{3.5}{+1.1}$$

$$\frac{5.7}{101.9} / 33$$

4.8

$$33 \overline{) 6.8} \\ \underline{210}$$

$$\frac{3.6}{101.3} / 33$$

$$\frac{6.4}{102.9} / 33$$

Sta.	+	Σ	-	Grade
		924.22		
116				19.2
+50				19.0
117				18.8
+50				18.6
118				18.4
+50				18.2
	3.17	920.62	6.77	917.45
+86				18.1
119				18.0
+50				17.8
120				17.6
+50				17.4

Gr. Red

H.

d

Rt.

5.0

$$33' \frac{49}{101.1}$$

$$\frac{46}{101}$$

$$\frac{8.2}{32} / 25.6$$

5.2

$$33' \frac{72}{101.0}$$

$$\frac{48}{101.4}$$

$$\frac{9.2}{40} / 28.0$$

5.4

$$33' \frac{72}{101.2}$$

$$\frac{49}{101.5}$$

$$\frac{75}{109} / 33'$$

5.6

$$33' \frac{78}{100.8}$$

$$\frac{53}{101.1}$$

$$\frac{7.7}{109} / 33'$$

5.8

$$33' \frac{82}{100.6}$$

$$\frac{62}{101}$$

$$\frac{7.8}{101.0} / 33'$$

6.0

$$33' \frac{85}{100.5}$$

$$\frac{6.6}{101}$$

$$\frac{8.2}{100.8} / 33'$$

7.5

7.6

$$33' \frac{49}{100.7}$$

$$\frac{34}{101}$$

$$(+0.8) \frac{4.8}{100.8} / 33'$$

7.8

$$33' \frac{53}{100.5}$$

$$\frac{40}{101.2}$$

$$\frac{5.0}{100.8} / 33'$$

8.0

$$33' \frac{57}{100.3}$$

$$\frac{43}{101.3}$$

$$\frac{5.1}{100.9} / 33'$$

8.2

$$33' \frac{54}{100.8}$$

$$\frac{45}{101.3}$$

$$\frac{5.0}{101.2} / 33'$$

Sta	+	π	-	grade
-----	---	-------	---	-------

920.62

121				17.2
-----	--	--	--	------

+50				17.2
-----	--	--	--	------

122				17.5
-----	--	--	--	------

+50				18.1
-----	--	--	--	------

123				19.0
-----	--	--	--	------

+50				20.1
-----	--	--	--	------

T.P.	9.77		0.85	919.77
	+50	930.17	3.88	

124				21.5
-----	--	--	--	------

+50				23.2
-----	--	--	--	------

B.M.	4.50	930.17	3.88	
------	------	--------	------	--

125				25.1
-----	--	--	--	------

T.P.	13.44	941.98	1.63	928.54
------	-------	--------	------	--------

+50				27.1
-----	--	--	--	------

126				29.0
-----	--	--	--	------

LH.

L

LH.

3.4

$$33 \overline{) \frac{55}{109}}$$

$$\frac{46}{-1.2}$$

$$\frac{54}{101.0} / 33$$

3.4

$$33 \overline{) \frac{57}{107}}$$

$$\frac{47}{-1.3}$$

$$\frac{57}{100.7} / 33$$

3.1

$$33 \overline{) \frac{56}{105}}$$

$$\frac{45}{-1.4}$$

$$\frac{59}{100.2} / 33$$

2.5

$$33 \overline{) \frac{50}{105}}$$

$$\frac{33}{-0.8}$$

$$\frac{55}{100.0} / 33$$

1.6

$$33 \overline{) \frac{44}{100.2}}$$

$$\frac{20}{-0.4}$$

$$\frac{45}{100.1} / 33$$

0.5

$$33 \overline{) \frac{3.7}{25.6-32}}$$

$$\frac{07}{0.4}$$

$$\frac{4.2}{-3.7} / 33.1$$

975.67

8.7

$$12.5$$

$$27.4 \overline{) 3.8}$$

$$\frac{82}{+0.5}$$

$$\frac{12.5}{-3.8} / 27.4$$

7.0

$$33 \overline{) \frac{9.1}{100.8}}$$

$$\frac{59}{+1.1}$$

$$\frac{8.0}{104.20} / 33$$

975.67 Spike 15" W.O. 58' Rd. Sta. 124+61

5.1

$$33 \overline{) \frac{4.2}{+0.4}}$$

$$\frac{3.8}{+1.3}$$

$$\frac{3.2}{+1.9} / 33$$

14.9

$$33 \overline{) \frac{14.7}{+0.2}}$$

$$\frac{13.6}{+1.3}$$

$$\frac{12.9}{+2.0} / 33$$

13.0

$$33 \overline{) \frac{14.6}{+1.4}}$$

$$\frac{14.6}{+1.4}$$

$$\frac{10.0}{+3.0} / 33$$

Sta.	+	π	-	Grade
		941.98		
126+50				30.8
127				32.5
+50				34.0
128				35.4
+50				36.7
129				37.8
T.P.	8.02	947.34	2.66	939.32
+50				38.8
130				39.7
+50				40.4
131				41.0
+50				41.5

Lt.

q

Rt.

$$11.2 \quad 33 \overline{) 80} \quad 100 \quad \frac{69}{+43/33}$$

$$9.5 \quad 33 \overline{) 45} \quad 83 \quad \frac{39}{+56/33}$$

$$8.0 \quad 33 \overline{) 16} \quad 68 \quad \frac{22}{+58/33}$$

$$6.6 \quad 33 \overline{) 17} \quad 55 \quad \frac{24}{+42/33}$$

$$5.3 \quad 33 \overline{) 27} \quad 43 \quad \frac{27}{+76/33}$$

$$4.2 \quad 33 \overline{) 32} \quad 34 \quad \frac{17}{+25/33}$$

$$8.5 \quad 33 \overline{) 123} \quad 89 \quad \frac{50}{+35/33}$$

$$7.6 \quad 33 \overline{) 56} \quad 74 \quad \frac{36}{+40/33}$$

$$6.9 \quad 33 \overline{) 58} \quad 70 \quad \frac{36}{+33/33}$$

$$6.3 \quad 33 \overline{) 61} \quad 66 \quad \frac{43}{+20/33}$$

$$5.8 \quad 33 \overline{) 64} \quad 59 \quad \frac{55}{+03/33}$$

Sta.	+	π	-	Grade
		947.34		
132				41.9
B.M.			5.21	942.13
+50				42.3
133				42.7
+50				43.1
134				43.5
T.P.	3.95	948.71	2.58	944.76
+50				43.9
135				44.2
+50				44.4
136				44.5
+50				44.6
137				44.7

ct. E RT

$$54 \quad 33 \frac{7.0}{10.4} \quad \frac{54}{00} \quad \frac{7.0}{10.4/33}$$

941.02 - Spr. 10 Sep. 60' Lt. Sta. 131+79 C/OAC
mailing 6" oak 45' Lt. Sta. 132+15

$$50 \quad 33 \frac{6.8}{11.2} \quad \frac{40}{10.1} \quad \frac{6.5}{10.5/33}$$

$$4.6 \quad 33 \frac{5.9}{10.7} \quad \frac{44}{10.2} \quad \frac{6.7}{10.9/33}$$

$$4.2 \quad 33 \frac{5.3}{10.9} \quad \frac{3.8}{10.1} \quad \frac{6.5}{10.7/33}$$

$$3.8 \quad 33 \frac{3.6}{10.2} \quad \frac{3.1}{10.7} \quad \frac{5.5}{10.3/33}$$

$$4.8 \quad 33 \frac{2.9}{11.4} \quad \frac{3.9}{10.9} \quad \frac{4.4}{10.1}$$

$$4.5 \quad 33 \frac{3.1}{11.1} \quad \frac{4.0}{10.5} \quad \frac{3.8}{10.7/33}$$

$$4.3 \quad 33 \frac{5.7}{11.6} \quad \frac{4.5}{-0.2} \quad \frac{6.1}{10.12/33}$$

$$4.2 \quad 33 \frac{6.8}{10.4} \quad \frac{4.6}{-0.4} \quad \frac{7.0}{10.12/33}$$

$$4.1 \quad 36.8 \frac{7.7}{-7.6} \quad \frac{4.9}{-0.8} \quad \frac{7.1}{10.10/33}$$

$$4.0 \quad 35.9 \frac{7.3}{-7.3} \quad \frac{5.0}{-1.0} \quad \frac{5.3}{10.17/33}$$

Sta	+	π	-	Elev.
-----	---	-------	---	-------

948.71

137+50

44.6

138

44.5

+50

44.4

139

44.2

+50

44.0

140

43.9

T.P.

5.15

947.70

6.16

942.55

10.30/0

+50

43.7

141

43.6

+27

43.5

+50

43.4

142

43.0

Lt. ϵ R/

$$4.1 \quad (100) \quad \begin{array}{r} 5.0 \\ 31 \overline{) 102.6} \\ \underline{91} \\ 11.6 \end{array} \quad \begin{array}{r} 4.9 \\ \underline{-0.8} \end{array} \quad \begin{array}{r} 5.0 \\ 102.1 \overline{) 33} \end{array}$$

$$4.2 \quad \begin{array}{r} 4.8 \\ 31 \overline{) 101.7} \\ \underline{91} \\ 11.7 \end{array} \quad \begin{array}{r} 5.0 \\ \underline{-0.8} \end{array} \quad \begin{array}{r} 5.2 \\ 102.0 \overline{) 33} \end{array}$$

$$4.3 \quad \begin{array}{r} 5.3 \\ 31 \overline{) 102.0} \\ \underline{91} \\ 11.0 \end{array} \quad \begin{array}{r} 5.2 \\ \underline{-0.9} \end{array} \quad \begin{array}{r} 6.0 \\ 101.3 \overline{) 33} \end{array}$$

$$4.5 \quad \begin{array}{r} 6.0 \\ 33 \overline{) 101.1} \\ \underline{99} \\ 2.1 \end{array} \quad \begin{array}{r} 5.6 \\ \underline{-1.1} \end{array} \quad \begin{array}{r} 8.1 \\ -2.6 \overline{) 16.8} \end{array}$$

$$4.7 \quad \begin{array}{r} 6.9 \\ 33 \overline{) 100.8} \\ \underline{99} \\ 1.8 \end{array} \quad \begin{array}{r} 6.1 \\ \underline{-1.4} \end{array} \quad \begin{array}{r} 8.7 \\ -4.0 \overline{) 28.0} \end{array}$$

$$4.8 \quad \begin{array}{r} 7.6 \\ 33 \overline{) 100.2} \\ \underline{99} \\ 1.2 \end{array} \quad \begin{array}{r} 6.4 \\ \underline{-1.6} \end{array} \quad \begin{array}{r} 9.0 \\ -4.9 \overline{) 20.7} \end{array}$$

$$4.0 \quad \begin{array}{r} 8.0 \\ 38 \overline{) 140} \\ \underline{152} \\ -12 \end{array} \quad \begin{array}{r} 5.7 \\ \underline{-1.7} \end{array} \quad \begin{array}{r} 11.0 \\ -7.0 \overline{) 33} \end{array}$$

$$4.1 \quad \begin{array}{r} 9.3 \\ 31 \overline{) 52} \\ \underline{31} \\ 21 \end{array} \quad \begin{array}{r} 5.8 \\ \underline{-1.7} \end{array} \quad \begin{array}{r} 10.7 \\ -6.6 \overline{) 33} \end{array}$$

$$4.2 \quad \begin{array}{r} 8.9 \\ 30 \overline{) 101.7} \\ \underline{90} \\ 11.7 \end{array} \quad \begin{array}{r} 5.8 \\ \underline{-1.6} \end{array} \quad \begin{array}{r} 5.3 \\ 100.0 \overline{) 33} \end{array}$$

$$4.2 \quad \begin{array}{r} 8.1 \\ 30 \overline{) 101.7} \\ \underline{90} \\ 11.7 \end{array} \quad \begin{array}{r} 5.8 \\ \underline{-1.6} \end{array} \quad \begin{array}{r} 5.3 \\ 100.0 \overline{) 33} \end{array}$$

$$4.7 \quad \begin{array}{r} 7.7 \\ 31 \overline{) 100} \\ \underline{91} \\ 9 \end{array} \quad \begin{array}{r} 5.9 \\ \underline{-1.2} \end{array} \quad \begin{array}{r} 3.0 \\ 11.7 \overline{) 33} \end{array}$$

Sta.	+	π	-	Grade
		947.70		
142+50				42.4
143				41.7
+50				40.9
144				39.9
B.M.	5.50	943.62	958	938.12
+50				38.8
+88				37.7
B.M.			958	
+96				37.5
145				37.3
145+17				36.9
+30				36.6
+35				36.4
+50				36.0
+65				35.7

G. Rod	Lt.	E	W	
5.3	$\frac{7.9}{101.3}$	$\frac{6.1}{-5.8}$	$\frac{1.8}{73.5}$	
6.0	$\frac{6.7}{102.3}$	$\frac{6.9}{-5.9}$	$\frac{2.7}{73.3/33}$	
6.8	$\frac{6.9}{102.9}$	$\frac{10.5}{7.2}$ -10.4	$\frac{4.8}{120/33}$	
7.8	$\frac{5.0}{128}$	$\frac{39.7}{8.0}$ -10.2	$\frac{5.3}{125/33}$	cut 0.0 83'
				cut 0.0 81'

$$33 \frac{1.6}{14.2}$$

$$\frac{5.9}{0}$$

$$\frac{2.8}{131/33}$$

938.12 - Spt in T.P. 15' Bl. Sta. 144495

$$6.3 \quad 33 \frac{1.6}{10.2}$$

$$\frac{6.3}{0}$$

$$\frac{6.8}{215/33}$$

$$7.6 \quad 33 \frac{5.8}{11.8}$$

$$\frac{7.5}{10.1}$$

$$\frac{8.1}{101.8/33}$$

Sta.	+	+	-	Grade
		943.62		
146				34.9
+50				33.9
T.P.	3.47	935.64	11.45	932.17
147				33.0
+50				32.3
148				31.7
+50				31.3
149				31.0
+50				30.8
150				30.6
+50, 2 nd P.C. 12° 44'				30.4
151				30.2

Gr. Red.

H.

E

Bl.

8.7

$$33 \overline{) \begin{array}{r} 81 \\ 106 \end{array}}$$

$$\begin{array}{r} 9.1 \\ -0.4 \end{array}$$

$$\frac{11.7}{10.0/33}$$

9.7

$$33 \overline{) \begin{array}{r} 110 \\ 101.7 \end{array}}$$

$$\begin{array}{r} 10.5 \\ -0.8 \end{array}$$

$$\frac{13.0}{3.3}$$

7.6

$$33 \overline{) \begin{array}{r} 12.1 \\ 101.5 \end{array}}$$

$$\begin{array}{r} 3.5 \\ -0.9 \end{array}$$

$$\frac{5.4}{10.4/33}$$

8.3

8.3

$$33 \overline{) \begin{array}{r} 4.3 \\ 10.0 \end{array}}$$

$$\begin{array}{r} 3.9 \\ -0.6 \end{array}$$

$$\frac{6.3}{10.0/33}$$

6.4
3.9

$$33 \overline{) \begin{array}{r} 4.7 \\ 10.2 \end{array}}$$

$$\begin{array}{r} 4.1 \\ -0.2 \end{array}$$

$$\frac{4.6}{10.2/33}$$

4.3

$$33 \overline{) \begin{array}{r} 4.8 \\ 10.8 \end{array}}$$

$$\begin{array}{r} 3.9 \\ 10.4 \end{array}$$

$$\frac{3.4}{10.9/33}$$

7.6
4.6

$$33 \overline{) \begin{array}{r} 4.4 \\ 10.4 \end{array}}$$

$$\begin{array}{r} 4.0 \\ 10.6 \end{array}$$

$$\frac{5.4}{10.2/33}$$

4.8 7.8

$$33 \overline{) \begin{array}{r} 4.4 \\ 10.4 \end{array}}$$

$$\begin{array}{r} 4.5 \\ 10.3 \end{array}$$

$$\frac{5.4}{10.4/33}$$

5.0

$$33 \overline{) \begin{array}{r} 4.8 \\ 10.5 \end{array}}$$

$$\begin{array}{r} 4.6 \\ 10.4 \end{array}$$

$$\frac{4.3}{10.7/33}$$

5.2

$$33 \overline{) \begin{array}{r} 5.8 \\ 12.4 \end{array}}$$

$$\begin{array}{r} 5.0 \\ 10.2 \end{array}$$

$$\frac{6.4}{11.8/33}$$

5.4

$$33 \overline{) \begin{array}{r} 7.4 \\ 11.0 \end{array}}$$

$$\begin{array}{r} 5.1 \\ 10.3 \end{array}$$

$$\frac{6.6}{11.8/33}$$

Sta.	+	π	-	Grade
		935.64		
151+50				30.0
T.P.	1.01	932.09	4.86	931.08
152				29.8
+50				29.6
153				29.4
+50				29.2
154				29.0
+40				28.8
155				28.8
+28				28.8
+50				28.8
156				28.9

2.11 Slopes

Gr. Root.	4.	2	St.
5.6 ⁸⁶	$33 \overline{) 7.7}$ $\underline{20.9}$	$\frac{51}{105}$	$\frac{49}{107} / 33$
2.3	$33 \overline{) 1.8}$ $\underline{10.5}$	$\frac{20}{103}$	$\frac{16}{107} / 33$
2.5	$33 \overline{) 2.4}$ $\underline{10.1}$	$\frac{22}{103}$	$\frac{2.5}{100} / 33$
2.7 ⁵⁷	$33 \overline{) 3.1}$ $\underline{10.6}$	$\frac{24}{103}$	$\frac{36}{101} / 33$
2.9 ⁵⁹	$33 \overline{) 4.1}$ $\underline{10.8}$	$\frac{31}{102}$	$\frac{2.9}{100} / 33$
3.1	$33 \overline{) 3.1}$ $\underline{10.0}$	$\frac{41}{110}$	$\frac{3.6}{100} / 33$
3.3 ⁶²	$33 \overline{) 5.0}$ $\underline{10.3}$	$\frac{50}{117}$	$\frac{7.3}{100} / 28$
3.3	$33 \overline{) 9.6}$ $\underline{10.7}$	$\frac{58}{125}$	$\frac{11.2}{100} / 33$
3.3	$33 \overline{) 9.0}$ $\underline{10.7}$	$\frac{63}{120}$	$\frac{12.5}{100} / 33$
3.3	$33 \overline{) 9.0}$ $\underline{10.7}$	$\frac{63}{120}$	$\frac{12.5}{100} / 33$
3.2	$33 \overline{) 6.3}$ $\underline{10.6}$	$\frac{65}{120}$	$\frac{12.3}{100} / 33$

Sta.	+	-	grade	
		932.09		
156+50			29.1	
157			29.4	
T.P.	9.08	936.68	4.49	927.60
+45			29.7	
158			30.2	
+50			30.7	
159			31.1	
+30		938.22	31.4	
B.M.	3.80	938.22	2.24	
+60			31.6	
160			32.0	
+50			32.3	
161			32.7	

211 slopes.

G. Rod

Lt.

L

Rt.

$$3.0 \quad 6.0 \quad 33 \overline{) \frac{49}{11.1}}$$

$$\frac{6.1}{-3.1}$$

$$\frac{12.6}{-9.6} / 33$$

$$2.7 \quad 33 \overline{) \frac{2.2}{10.5}}$$

$$\frac{5.6}{-}$$

$$\frac{8.9}{-6.2} / 33$$

$$7.0 \quad 13.0 \quad 33 \overline{) \frac{4.7}{11.3}}$$

$$\frac{9.4}{-8.4}$$

$$\frac{10.0}{10.9} / 33$$

$$6.5 \quad 9.5 \quad 33 \overline{) \frac{4.3}{12.2}}$$

$$\frac{8.2}{-7.7}$$

$$\frac{7.2}{10.2} / 33$$

$$6.0 \quad 33 \overline{) \frac{4.3}{11.7}}$$

$$\frac{7.1}{-1.1}$$

$$\frac{4.9}{11.1} / 33$$

$$5.6 \quad 33 \overline{) \frac{2.9}{12.7}}$$

$$\frac{6.0}{-0.4}$$

$$\frac{4.2}{11.2} / 33$$

$$6.8 \quad 33 \overline{) \frac{5.1}{11.7}}$$

$$\frac{6.9}{-0.1}$$

$$\frac{6.3}{10.5} / 33$$

734.42 - 65' Lt. Sta. 159430

$$6.6 \quad 33 \overline{) \frac{6.3}{11.7}}$$

$$\frac{6.5}{10.1}$$

$$\frac{7.4}{10.2} / 33$$

$$6.2 \quad 33 \overline{) \frac{5.4}{10.8}}$$

$$\frac{5.8}{10.4}$$

$$\frac{6.9}{10.5} / 33$$

$$5.9 \quad 33 \overline{) \frac{4.0}{11.9}}$$

$$\frac{5.3}{10.6}$$

$$\frac{5.5}{10.4} / 33$$

$$5.5 \quad 33 \overline{) \frac{6.4}{11.9}}$$

$$\frac{5.1}{10.4}$$

$$\frac{7.9}{10.6} / 33$$

Sta.	+	π	-	Grade
		938.22		
161+50				33.0
162				33.2
+50				33.5
163				33.7
+50				33.9
164				34.1
+50				34.3
165				34.5
+50 Stake				34.8
+65				
	9.75	943.82	3.65	934.57
166				34.9
+50				35.1

41

2

105

5.2

$$33 \div \frac{5.5}{10.7}$$

$$\frac{5.1}{10.1}$$

$$\frac{7.5}{10.7/33}$$

5.0

$$33 \div \frac{4.7}{10.3}$$

$$\frac{5.0}{10.0}$$

$$\frac{6.4}{10.6/33}$$

4.7

$$33 \div \frac{4.9}{10.28}$$

$$\frac{4.8}{10.1}$$

$$\frac{6.0}{10.7/33}$$

4.5

$$33 \div \frac{4.4}{10.1}$$

$$\frac{4.6}{10.1}$$

$$\frac{7.3}{10.2/33}$$

4.3

$$33 \div \frac{4.4}{10.29}$$

$$\frac{4.5}{10.2}$$

$$\frac{6.7}{10.6/33}$$

4.1

$$33 \div \frac{3.1}{11.0}$$

$$\frac{4.1}{10.0}$$

$$\frac{4.4}{10.7/33}$$

3.9

$$33 \div \frac{3.1}{10.8}$$

$$\frac{3.9}{10.0}$$

$$\frac{7.8}{11.1/33}$$

3.7

$$33 \div \frac{3.3}{10.4}$$

$$\frac{3.8}{10.1}$$

$$\frac{3.2}{10.5/33}$$

3.4

$$33 \div \frac{5.3}{10.11}$$

$$\frac{3.9}{10.5}$$

$$\frac{3.4}{10.3/33}$$

8.9

11.9

$$33 \div \frac{11.7}{10.02}$$

$$\frac{9.3}{10.4}$$

$$\frac{9.1}{10.8/33}$$

8.7

11.8

$$33 \div \frac{10.8}{10.09}$$

$$\frac{8.8}{10.1}$$

$$\frac{8.0}{10.7/33}$$

943.82

167

35.3

+45

35.5

168

35.7

B.M.

+50

35.8

169

35.9

7.38

945.08

6.12

937.70

+50

35.9

170

35.9

+50

35.8

171

35.7

T.P.

469

939.74

10.00

935.05

+50

35.5

172

35.3

L. ± R4

$$\begin{array}{r} 11.5 \\ 8.5 \end{array} \quad \begin{array}{r} 10.2 \\ 30' \end{array} \quad \begin{array}{r} 8.6 \\ 10.3 \\ -0.1 \end{array} \quad \begin{array}{r} 8.5 \\ 10.0 \\ -1.5 \end{array}$$

$$\begin{array}{r} 11.3 \\ 8.3 \\ 3.0 \end{array} \quad \begin{array}{r} 10.3 \\ 30' \end{array} \quad \begin{array}{r} 9.6 \\ 10.7 \\ -1.1 \end{array} \quad \begin{array}{r} 8.8 \\ 10.0 \\ -1.2 \end{array}$$

$$\begin{array}{r} 11.1 \\ 8.1 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 7.6 \\ 10.5 \\ -2.9 \end{array} \quad \begin{array}{r} 7.9 \\ 10.2 \\ -2.3 \end{array}$$

942.06

Top conc. White Steps S.E. Cor. 90' Lt. 168+27

$$\begin{array}{r} 11.1 \\ 8.0 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 5.1 \\ 10.1 \\ -5.0 \end{array} \quad \begin{array}{r} 6.9 \\ 11.1 \\ -4.2 \end{array}$$

$$\begin{array}{r} 7.9 \\ 5.9 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 5.6 \\ 11.1 \\ -5.5 \end{array} \quad \begin{array}{r} 3.8 \\ 11.1 \\ -7.3 \end{array}$$

$$\begin{array}{r} 9.2 \\ 11.3 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 3.4 \\ 11.3 \\ -7.9 \end{array} \quad \begin{array}{r} 7.4 \\ 11.8 \\ -4.4 \end{array}$$

$$\begin{array}{r} 9.2 \\ 10.7 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 2.1 \\ 10.7 \\ -8.6 \end{array} \quad \begin{array}{r} 7.4 \\ 11.8 \\ -4.4 \end{array}$$

$$\begin{array}{r} 11.7 \\ 9.3 \end{array} \quad \begin{array}{r} 11.7 \\ 30' \end{array} \quad \begin{array}{r} 6.6 \\ 11.7 \\ -5.1 \end{array} \quad \begin{array}{r} 8.5 \\ 10.8 \\ -2.3 \end{array}$$

$$\begin{array}{r} 12.4 \\ 9.4 \end{array} \quad \begin{array}{r} 12.4 \\ 30' \end{array} \quad \begin{array}{r} 10.1 \\ 12.4 \\ -2.3 \end{array} \quad \begin{array}{r} 9.1 \\ 10.2 \\ -1.1 \end{array}$$

$$\begin{array}{r} 7.2 \\ 4.2 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 6.8 \\ 10.4 \\ -3.6 \end{array} \quad \begin{array}{r} 4.7 \\ 10.5 \\ -6.1 \end{array}$$

$$\begin{array}{r} 4.4 \\ 28.9 \end{array} \quad \begin{array}{r} 10.1 \\ 30' \end{array} \quad \begin{array}{r} 8.7 \\ 10.4 \\ -1.7 \end{array} \quad \begin{array}{r} 13.5 \\ 14.1 \\ -0.6 \end{array}$$

Station	+	π	-	Grade
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+20	(846) 450	939.74		35.2
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+60				35.1
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173				35.0
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+50				34.8
-----	--	--	--	------

174	Beg 8° Curve Rt			34.7
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+50				34.5
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T.P.	3.77	938.17 935.11	5.34	934.40 931.34
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175				34.4
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+50				34.3
-----	--	--	--	------

176				34.2
-----	--	--	--	------

+50				34.1
-----	--	--	--	------

177				34.0
-----	--	--	--	------

Gr. Rod.

4.

2

Rt.

$$4.5 \quad 7.5 \quad 7.1 \quad 28' \quad \begin{array}{r} 8.7 \\ -4.2 \\ \hline 4.5 \end{array} \quad \begin{array}{r} 6.3 \\ -1.8 \\ \hline 4.5 \end{array} \quad \begin{array}{r} 14.7 \\ -10.2 \\ \hline 4.5 \end{array} \quad 2.1$$

4.6

$$4.7 \quad 7.7 \quad 33' \quad \begin{array}{r} 7.3 \\ -0.4 \\ \hline 6.9 \end{array} \quad \begin{array}{r} 6.6 \\ -1.9 \\ \hline 4.7 \end{array} \quad \begin{array}{r} 12.4 \\ -7.7 \\ \hline 4.7 \end{array} \quad 3.14$$

$$4.9 \quad 7.9 \quad 33' \quad \begin{array}{r} 6.0 \\ -1.9 \\ \hline 4.1 \end{array} \quad \begin{array}{r} 6.6 \\ -1.7 \\ \hline 4.9 \end{array} \quad \begin{array}{r} 9.1 \\ -4.2 \\ \hline 4.9 \end{array} \quad 2.4$$

$$5.0 \quad 8.0 \quad 33' \quad \begin{array}{r} 4.8 \\ -1.2 \\ \hline 3.6 \end{array} \quad \begin{array}{r} 6.6 \\ -1.6 \\ \hline 5.0 \end{array} \quad \begin{array}{r} 8.2 \\ -3.2 \\ \hline 5.0 \end{array} \quad 2.8$$

$$(23) \quad 5.2 \quad 8.2 \quad 33' \quad \begin{array}{r} 4.0 \\ -1.2 \\ \hline 2.8 \end{array} \quad \begin{array}{r} 6.4 \\ -1.2 \\ \hline 5.2 \end{array} \quad \begin{array}{r} 8.0 \\ -2.8 \\ \hline 5.2 \end{array} \quad 2.3$$

Top Rock.

$$3.8 \quad 3.1 \quad 33' \quad \begin{array}{r} 3.1 \\ -0.7 \\ \hline 2.4 \end{array} \quad \begin{array}{r} 4.7 \\ -0.9 \\ \hline 3.8 \end{array} \quad \begin{array}{r} 5.8 \\ -2.0 \\ \hline 3.8 \end{array} \quad 2.8$$

$$3.9 \quad 4.9 \quad 33' \quad \begin{array}{r} 4.7 \\ -0.8 \\ \hline 3.9 \end{array} \quad \begin{array}{r} 4.8 \\ -0.9 \\ \hline 3.9 \end{array} \quad \begin{array}{r} 6.4 \\ -1.5 \\ \hline 4.9 \end{array} \quad 2.4 \text{ Wid.}$$

$$3.0 \quad 5.0 \quad 33' \quad \begin{array}{r} 4.8 \\ -1.8 \\ \hline 3.0 \end{array} \quad \begin{array}{r} 5.8 \\ -2.8 \\ \hline 3.0 \end{array} \quad \begin{array}{r} 8.7 \\ -3.7 \\ \hline 5.0 \end{array} \quad 3.0$$

$$3.1 \quad 4.1 \quad 5.1 \quad 33' \quad \begin{array}{r} 4.8 \\ -1.7 \\ \hline 3.1 \end{array} \quad \begin{array}{r} 6.2 \\ -3.1 \\ \hline 3.1 \end{array} \quad \begin{array}{r} 7.5 \\ -2.4 \\ \hline 5.1 \end{array} \quad 2.4$$

$$3.2 \quad 4.2 \quad 5.2 \quad 33' \quad \begin{array}{r} 4.9 \\ -1.7 \\ \hline 3.2 \end{array} \quad \begin{array}{r} 8.3 \\ -5.1 \\ \hline 3.2 \end{array} \quad \begin{array}{r} 9.0 \\ -3.8 \\ \hline 5.2 \end{array} \quad 3.2$$

Station	+	x	-	Grade
		938.17		
177+50				33.9
178+				33.8
+50				33.7
179				33.6
+46.745883				
+50				33.5
180				33.4
+50				33.3
T.P.			7.54	
181				33.3
+50				33.3
182				33.3
+50				33.4

9. Rod

44

2

RT

$$\begin{array}{r} 2.3 \\ 4.3 \end{array} \quad 5.3$$

$$\begin{array}{r} 33 \overline{) 4.7} \\ \underline{0.6} \end{array}$$

$$\begin{array}{r} 6.7 \\ \underline{-2.4} \end{array}$$

$$\begin{array}{r} 8.1 \\ \underline{-2.8} \end{array} \quad 76.4$$

$$\begin{array}{r} 3.4 \\ 4.4 \end{array} \quad 5.4$$

$$\begin{array}{r} 33 \overline{) 3.6} \\ \underline{10.8} \end{array}$$

$$\begin{array}{r} 5.0 \\ \underline{-0.6} \end{array}$$

$$\begin{array}{r} 6.1 \\ \underline{20.1} \end{array} \quad 33'$$

$$4.5$$

$$\begin{array}{r} 33 \overline{) 2.7} \\ \underline{11.8} \end{array}$$

$$\begin{array}{r} 4.0 \\ \underline{10.5} \end{array}$$

$$\begin{array}{r} 3.8 \\ \underline{10.7} \end{array} \quad 33'$$

$$4.6$$

$$\begin{array}{r} 33 \overline{) 3.8} \\ \underline{10.8} \end{array}$$

$$\begin{array}{r} 4.5 \\ \underline{10.1} \end{array}$$

$$\begin{array}{r} 2.9 \\ \underline{11.7} \end{array} \quad 33'$$

$$4.7$$

$$\begin{array}{r} 33 \overline{) 4.2} \\ \underline{10.5} \end{array}$$

$$\begin{array}{r} 4.9 \\ \underline{-0.2} \end{array}$$

$$\begin{array}{r} 3.3 \\ \underline{11.4} \end{array} \quad 33'$$

$$4.8$$

$$\begin{array}{r} 33 \overline{) 6.2} \\ \underline{10.6} \end{array}$$

$$\begin{array}{r} 5.2 \\ \underline{-0.4} \end{array}$$

$$\begin{array}{r} 4.0 \\ \underline{10.8} \end{array} \quad 33'$$

$$4.9$$

$$\begin{array}{r} 33 \overline{) 8.1} \\ \underline{28.0} \end{array}$$

$$\begin{array}{r} 5.8 \\ \underline{-0.9} \end{array}$$

$$\begin{array}{r} 4.8 \\ \underline{10.1} \end{array} \quad 33'$$

Top east end cut 0.

Station	+	π	-	grade
---------	---	-------	---	-------

183				33.5
-----	--	--	--	------

+30				33.5
-----	--	--	--	------

184				33.8
-----	--	--	--	------

+50				34.0
-----	--	--	--	------

185				34.1
-----	--	--	--	------

+50				33.9
-----	--	--	--	------

186				33.5
-----	--	--	--	------

+50				32.8
-----	--	--	--	------

187				31.9
-----	--	--	--	------

B.M.

+50				30.7
-----	--	--	--	------

188				29.3
-----	--	--	--	------

H. e. R.A.

937.93

Top Conc. Steps 33' R.A. 187+21

Sta.	+	π	-	Grade
188+47				27.6
189				25.8
+50				24.1
190				22.6
+50				21.4
191				20.4
+50				19.5
192				18.8
+50				18.4
+80				17.9
193				18.2
+57				18.1

Gr. Rad

ht

g

Rt

Sta	+	1	-	Grade.
193 + 70				18.1
194				18.0
+50				17.9
195				17.8
+50				17.7
196				17.6
+50				17.5
197				17.4
+50				17.3
198				17.2
+50				17.1

Gr. Red

ht.

2

ht

Sta	+	π	-	Grade
199				17.0
+50				16.9
200				16.8
+50				16.7
201				16.6
+50				16.5
202				16.4
+50				16.3
203				16.2
+50				16.1
204				16.0

Gr. Rod

Lt

L

Rt

Sta.	+	1	-	Grade
204 +50				15.9
205				15.8
+50				15.7
206				15.6
+50				15.5
207				15.4
+50				15.3
208				15.2
+50				15.1
209				15.0
+50				14.9

Gr. Rod

Lt

L

Rd.

Sta	+	π	-	Grade
210				14.7
B.M.				921.08
+50				14.5
211				14.4
+35				14.3
+57				14.2
212				14.1
$312 + 16.29 =$ $212 + 79.89$ Equa.				
213				14.0
+50				13.8
214				13.7
+50				13.6

Gr Rod

Lt

g

Rt

Sph in Tree 85' Lt 210+10

Sta	+	1	-	Grade
215				13.5
+50				13.4
216				13.3
+50				
217				13.2
+50				
218				13.2
+50				
219				13.2
+50				
220				13.2

Gr. Rod

Lt

L

Rt.

Sta	+	1	-	Elev.
220	+50			
221				13.7
	+50			
222				15.2
	+50			
223				17.7
	+50			19.3
224				21.2
	+41			22.9
	+79			24.6
225				25.7

Gr. Rod

Lt

\$

Rt

Sta	+	+	-	Grade
-----	---	---	---	-------

225+50				28.2
--------	--	--	--	------

226				30.7
-----	--	--	--	------

24+58.57=				
-----------	--	--	--	--

268+83.89	Equa.			33.62
-----------	-------	--	--	-------

B.M.				917.48
------	--	--	--	--------

Gr. Rod.

Lt

\$

Rt.

Top M. Cor. #19.

Sta.	+	π	-	Grade
------	---	-------	---	-------

Grade Lift

Otter Lake Rd.

near $\00 Line R.R.

	943	930.74	921.36
93	5.30	926.66	921.26

+50

94		2455
----	--	------

+50		228
-----	--	-----

95		223
----	--	-----

+50		23.3
-----	--	------

96		23.5
----	--	------

+50		24.1
-----	--	------

97		25.1
----	--	------

930.79

+50		26.4
-----	--	------

98		28.0
----	--	------

+50		27.9
-----	--	------

99		27.8
----	--	------

2.11

2.9

3.4

$$33 \overline{) 135} \\ \underline{-10.1}$$

$$-20 \overline{) 250} \\ \underline{-64}$$

3.4

$$33 \overline{) 130} \\ \underline{-10.1}$$

$$-4.3 \overline{) 289}$$

3.2

$$33 \overline{) 13.2} \\ \underline{10.0}$$

$$-4.8 \overline{) 30.4}$$

2.6

$$33 \overline{) 10.9} \\ \underline{-10.7}$$

$$-5.2 \overline{) 319}$$

1.6

$$33 \overline{) 13.6} \\ \underline{-12.0}$$

$$-6.2 \overline{) 292}$$

4.4

$$349 \overline{) 120} \\ \underline{-126}$$

$$705 \overline{) 29}$$

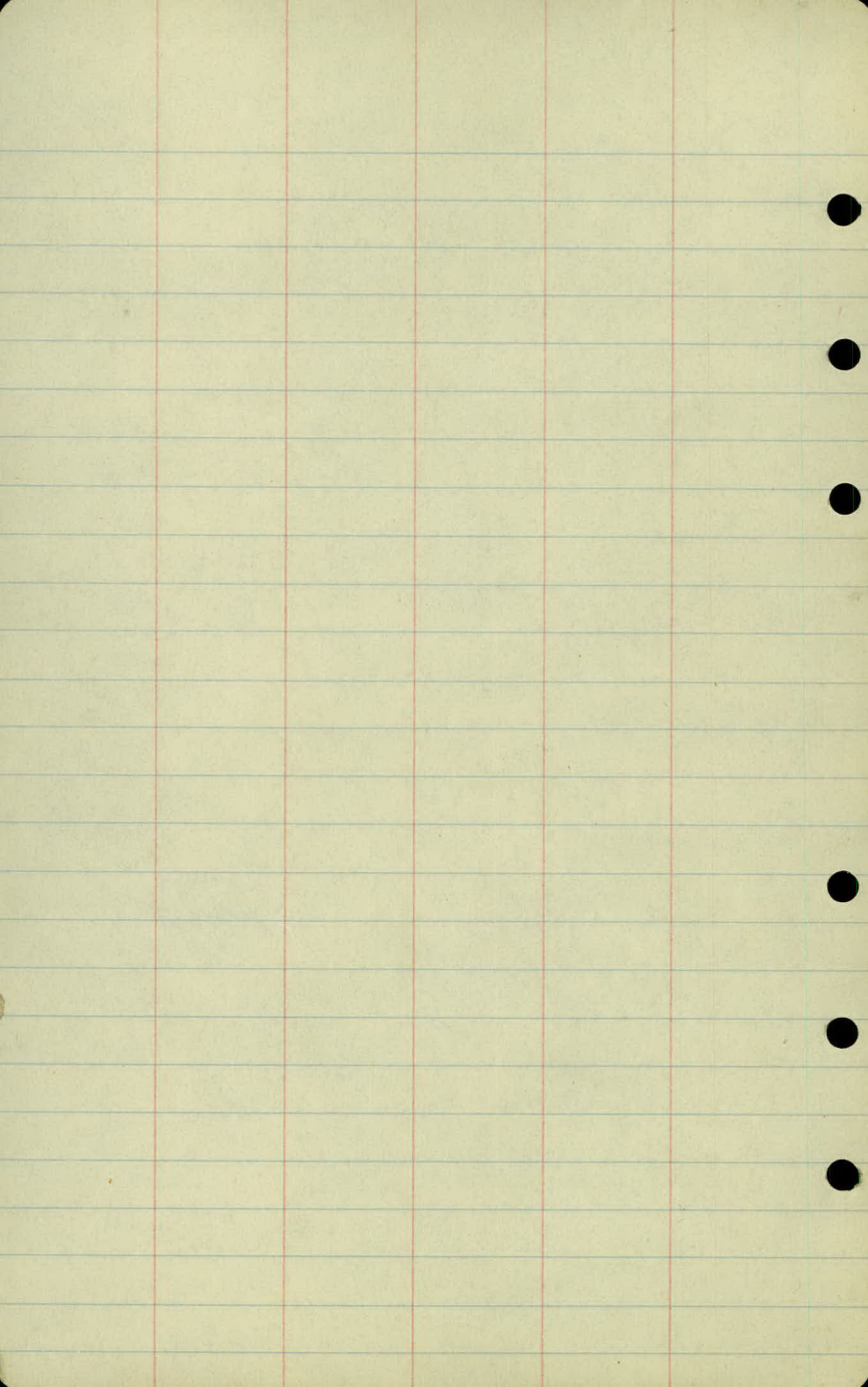
2.8

$$330 \overline{) 11.3}$$

$$908 \overline{) 32}$$

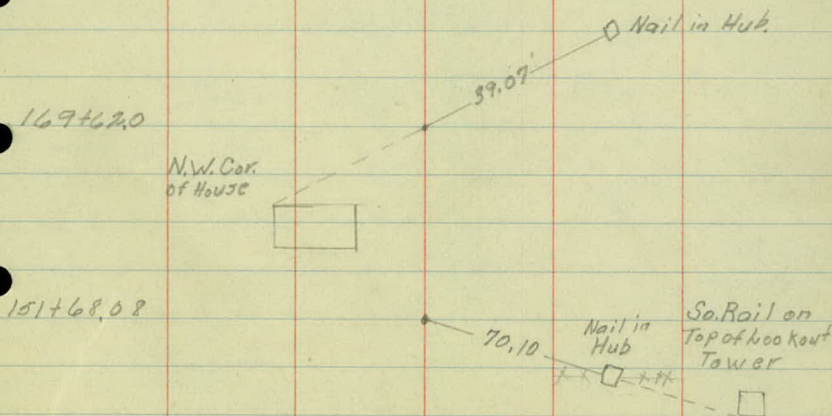
1.9

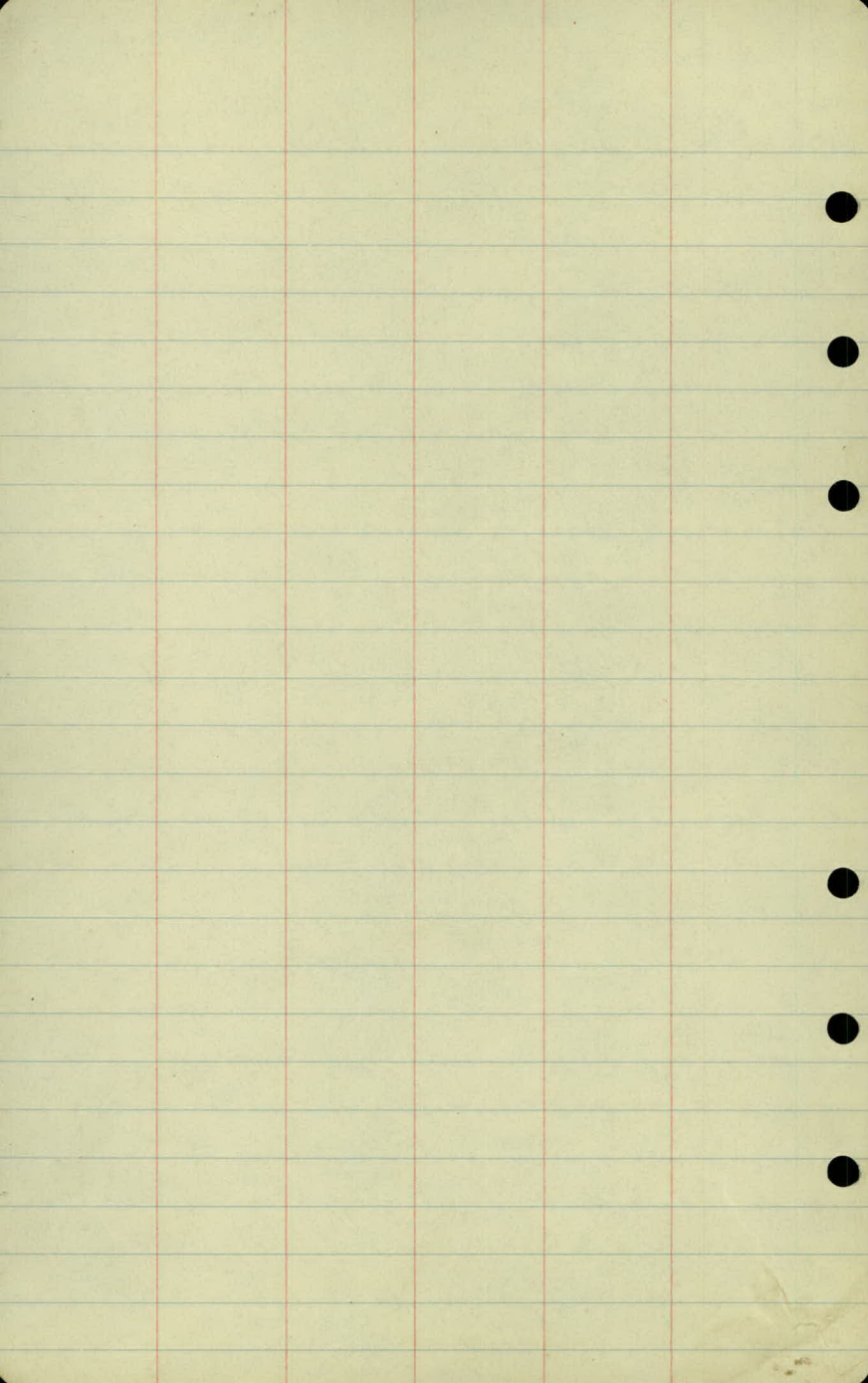
1.0



Ties to P.1s

Otter Lake Rd.





Line Change

Sta. $174+00.99$ to $179+46.20 = 179+58.83$

Station	Point	Lt	Rt
---------	-------	----	----

N-00°-18'E.

Eq 179 + 58.83 P.O.T.
 179 + 46.20 P.T.

179

21°-48' 1/2

19°-57.6'

17°-57.6'

178

15°-57.6'

P.I. 176 + 87.8

13°-57.6'

Δ 43°-31' Rt.

177

11°-57.6'

D-8°

9°-57.6'

T. 286.81

176

7°-57.6'

L.C. 545.21

5°-57.6'

R= 716.78

175

3°-57.6'

1°-57.6'

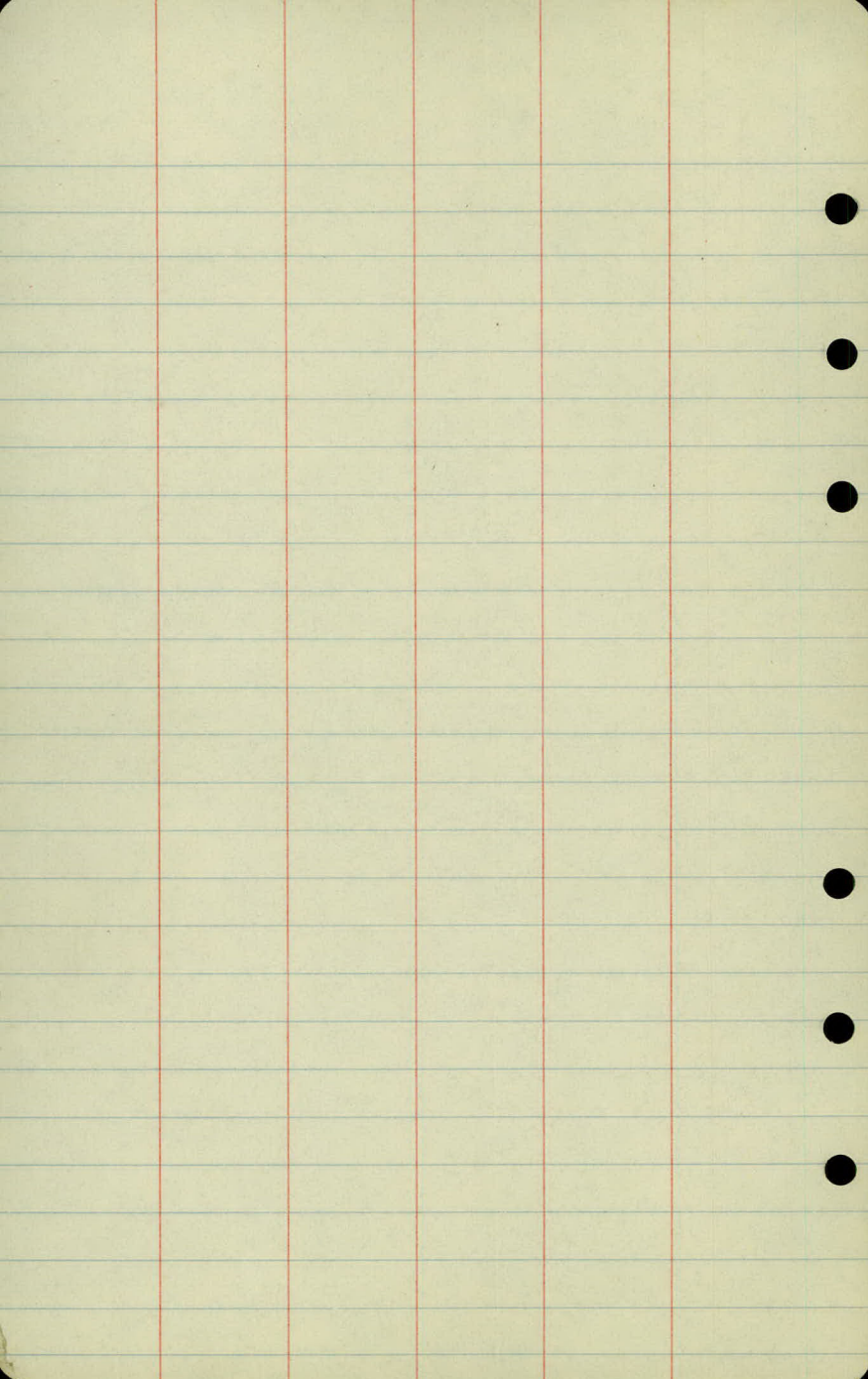
174 + 00.99

P.C.

0°-00'

N-43°-19' W.

33' 33' 174400.99 PC.
I.P. I.P.



X-Sections

Borrow Pit

LINE R.R.

East of Otter Lake Road.

Top Rail

060 = 2 Otter Lake Rd.

8.57

040

8.57

140

Top Pic

8.5

1450

240

7.9

450

2480

340

450

440

450

540

25

85
1750
8.5 8.7 9.2 11.4 11.6 12.2 / 50
8.2 8.4 9.3 9.5 1.7 8.8 / 50
79 79 5 8.7 9.5 4.8 5.0 / 50
8 15 22

Gr. Red.

9.1 8.2 6.2 9.1 10.4 8.7 7.7 7.6 7.6 7.8 8.4 8.5 3.6 3.7 / 50
50 50 41 14 10 8 15 15 8 5 15 23 50
5.2 5.1 9.1 7.5 7.4
50 22 15 5

8.8 5.8 5.2 8.4 8.2 7.3 7.3 7.3 7.5 8.4 8.5 5.2 5.1 / 50
50 50 21 14 9 5 5 5 8 14 19 50

8.5 6.7 6.2 8.3 8.0 7.0 7.0 5.5 10.8 18 15 9 5.5 7.0

8.1 5.5 5.2 7.4 7.5 6.6 6.6 6.6 6.8 7.3 8.2 6.0 5.7 / 50
50 50 19 14 8 5 5 5 5 8 14 17 50

7.7 5.0 4.5 7.1 7.1 6.2 6.2 5.0 10.27 19 13 8 5.5 6.2

7.4 4.7 4.1 6.7 6.9 5.9 5.9 5.9 6.2 6.8 7.2 4.6 3.8 / 50
50 50 18 13 8 5.5 5.9 50 8 14 17 50

5+50

6+0

6+50

7+0

7+50

8+0

8+50

9+0

1/2 Root

$$7.0 \quad 50 \sqrt{\frac{36}{12.34}} \quad \frac{34}{20} \quad \frac{68}{14} \quad \frac{6.5}{8} \quad \frac{53}{5} \quad \frac{55}{5}$$

$$6.7 \quad 50 \sqrt{\frac{34}{12.33}} \quad \frac{34}{19} \quad \frac{62}{14} \quad \frac{62}{7} \quad \frac{54}{5} \quad \frac{52}{5} \quad \frac{5.2}{5} \quad \frac{3.0}{5} \quad \frac{6.2}{8} \quad \frac{6.8}{13} \quad \frac{3.6}{19} \quad \frac{3.6}{50} / 50$$

$$6.3 \quad 50 \sqrt{\frac{30}{12.33}} \quad \frac{32}{17} \quad \frac{56}{13} \quad \frac{58}{7} \quad \frac{50}{5} \quad \frac{48}{5}$$

$$5.9 \quad 50 \sqrt{\frac{31}{12.28}} \quad \frac{30}{18} \quad \frac{52}{13} \quad \frac{53}{8} \quad \frac{46}{5} \quad \frac{44}{5} \quad \frac{4.4}{5} \quad \frac{5.5}{8} \quad \frac{5.5}{13} \quad \frac{3.0}{16} (4.2) \quad \frac{3.0}{50} / 50$$

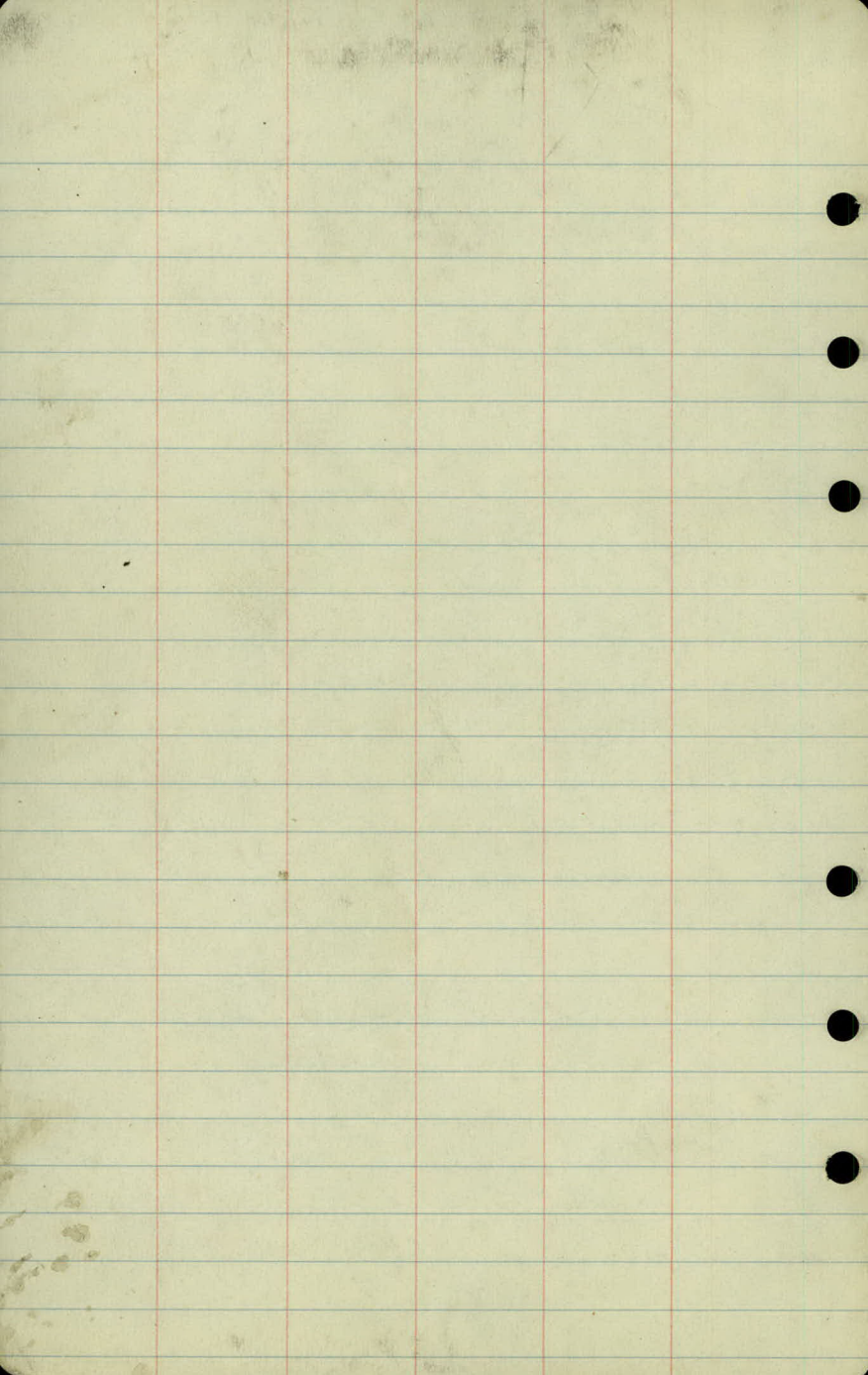
$$5.6 \quad 50 \sqrt{\frac{29}{12.27}} \quad \frac{31}{16} \quad \frac{49}{13} \quad \frac{50}{8} \quad \frac{43}{5} \quad \frac{41}{5}$$

$$5.2 \quad 50 \sqrt{\frac{31}{12.22}} \quad \frac{31}{19} \quad \frac{43}{12} \quad \frac{46}{8} \quad \frac{46}{5} \quad \frac{38}{5} \quad \frac{3.8}{5} \quad \frac{4.6}{8} \quad \frac{4.7}{12} \quad \frac{3.2}{16} \quad \frac{3.2}{50} / 50$$

$$5.0 \quad 50 \sqrt{\frac{3.2}{12.18}} \quad \frac{41}{18} \quad \frac{41}{14} \quad \frac{43}{8} \quad \frac{37}{5} \quad \frac{35}{5}$$

2.0
1.0
1.0

$$4.7 \quad 50 \sqrt{\frac{3.2}{12.15}} \quad \frac{3.2}{16} \quad \frac{40}{14} \quad \frac{40}{8} \quad \frac{33}{5} \quad \frac{3.15}{5} \quad \frac{4.0}{8} \quad \frac{4.0}{11} \quad \frac{3.5}{14} (4.1) \quad \frac{3.0}{50} / 50$$



Other Lake Rd

Birch Lake Blvd No To 300 No
Ninth St.

Profile & Ditch Levels

Rec. 5/28/51
K.A.

5-28-51

HAW

A.M.

L.C.

M.B.

Sta	+	Δ	-	Elev
B.M		66292938		922.76

73+55.37 = 2 No Birch Lake Blvd

74

+27.50 24" X 48' CM

+50

75

+09 15" Side Drain Lt S. End
15" X 20'

+29 15' " " Lt No End

+50

Lt

L

Rt

SpK in P.P. Birch Lake Pump Ho

24.95

493

24.3

5.1

20.4

$$\begin{array}{r} 90 \\ 23 \end{array}$$

24.2

5.2

20.22

$$\begin{array}{r} 916 \\ 26 \end{array}$$

21.3

$$\begin{array}{r} 81 \\ 28 \end{array}$$

24.0

5.4

20.6

$$\begin{array}{r} 88 \\ 29 \end{array}$$

22.4

$$\begin{array}{r} 70 \\ 28 \end{array}$$

24.0

5.4

21.8

$$\begin{array}{r} 76 \\ 27 \end{array}$$

21.93

$$\begin{array}{r} 745 \\ 29 \end{array}$$

22.03

$$\begin{array}{r} 735 \\ 29 \end{array}$$

22.3

$$\begin{array}{r} 71 \\ 25 \end{array}$$

24.1

5.3

22.1

$$\begin{array}{r} 73 \\ 27 \end{array}$$

Sta + π - Elev

929.38

75+76 15" X 26 Side Drain Lt So End
CM

76+02 " " " No End

76+10 12" X 24" CM Side Dr Lt
So End

+34 " " No End

+50

77

+50

+98 15" X 20' CM Side Drain Lt So End

78

4

$$\begin{array}{r} 22.03 \\ 735 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 22.03 \\ 735 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 24.2 \\ 5.2 \end{array}$$

$$\begin{array}{r} 22.1 \\ 73 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 22.3 \\ 71 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 22.1 \\ 73 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 22.7 \\ 67 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 24.2 \\ 52 \end{array}$$

$$\begin{array}{r} 22.0 \\ 74 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 22.5 \\ 69 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 23.9 \\ 5.5 \end{array}$$

$$\begin{array}{r} 21.8 \\ 76 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 22.0 \\ 74 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 23.8 \\ 5.6 \end{array}$$

$$\begin{array}{r} 21.7 \\ 77 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 22.33 \\ 705 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 23.7 \\ 5.7 \end{array}$$

$$\begin{array}{r} 21.0 \\ 8.4 \end{array}$$

Sta + A - Elev

929.38

78+18

15" x 20' CM S. de Dr L N

+50

T.V

79

BM

530 928.26 6.42 922.96

+14

24" x CM x Drain

+50

80

+50

81

W

L

R+

$$\begin{array}{r} 21.7 \\ 7.7 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 21.2 \\ 8.2 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.4 \\ 60 \end{array}$$

$$\begin{array}{r} 21.2 \\ 8.2 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 20.7 \\ 8.7 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.2 \\ 62 \end{array}$$

$$\begin{array}{r} 20.1 \\ 9.3 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 18.82 \\ 944 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 18.28 \\ 998 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 19.4 \\ 84 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 23.0 \\ 53 \end{array}$$

$$\begin{array}{r} 19.8 \\ 85 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 20.1 \\ 8.2 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 23.0 \\ 53 \end{array}$$

$$\begin{array}{r} 20.5 \\ 78 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 20.8 \\ 75 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.3 \\ 50 \end{array}$$

$$\begin{array}{r} 21.2 \\ 71 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 21.3 \\ 70 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.4 \\ 49 \end{array}$$

Sta + π - Elev
92826

81450

81457 15' X 20' CM Lt Eq. End

+77 15" X 20' CM Lt No End

82

+50

+95 15" X 20' CM Rt So End

83 15" X 20' CM Lt No End

+15 15" Rt So End

47

$$\begin{array}{r} 21.6 \\ 67 \\ \hline 20 \end{array}$$

21.66

$$\begin{array}{r} 660 \\ 25 \\ \hline \end{array}$$

21.72

$$\begin{array}{r} 654 \\ 25 \\ \hline \end{array}$$

21.8

$$\begin{array}{r} 65 \\ 20 \\ \hline \end{array}$$

21.8

$$\begin{array}{r} 65 \\ 26 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \hline 28 \end{array}$$

21.98

$$\begin{array}{r} 628 \\ 28 \\ \hline \end{array}$$

4

23.5

$$\begin{array}{r} 48 \end{array}$$

23.7

$$\begin{array}{r} 46 \end{array}$$

23.9

$$\begin{array}{r} 44 \end{array}$$

24.1

$$\begin{array}{r} 42 \end{array}$$

21.19

$$\begin{array}{r} 587 \\ 27 \\ \hline \end{array}$$

21.44

$$\begin{array}{r} 682 \\ 27 \\ \hline \end{array}$$

Sta	+	Δ	-	Elev
-----	---	----------	---	------

928.26

83 +20		15" CM Lt	No End	
--------	--	-----------	--------	--

+50

84

+50

+53		15" X 20' CM Lt	No End	
-----	--	-----------------	--------	--

+73		15" CM Lt	No End	
-----	--	-----------	--------	--

85

T.P	5.45	931.05	266	925.60
-----	------	--------	-----	--------

+50

Lt

L

Rt

$$\begin{array}{r} 21.98 \\ 28 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 22.3 \\ 60 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.2 \\ 41 \end{array}$$

$$\begin{array}{r} 22.3 \\ 60 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 22.8 \\ 53 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.7 \\ 36 \end{array}$$

$$\begin{array}{r} 22.9 \\ 54 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 23.1 \\ 52 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 25.1 \\ 32 \end{array}$$

$$\begin{array}{r} 23.1 \\ 52 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 22.79 \\ 547 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 22.98 \\ 528 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.3 \\ 50 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 25.4 \\ 29 \end{array}$$

$$\begin{array}{r} 23.3 \\ 50 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 23.7 \\ 74 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 25.6 \\ 56 \end{array}$$

$$\begin{array}{r} 23.5 \\ 76 \\ \hline 26 \end{array}$$

549 + π - Elev

931.05

86

+39 15" x CMLT 80 End

+50

0.12 No

+59 15" x 20 CMLT

87

+11 15" x 20 x 1 CM. RT 50 End

+31 15" x CM RT No End

+50

LT

$$\begin{array}{r} 24.0 \\ 91 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 23.96 \\ 709 \\ \hline 26 \end{array}$$

R

$$\begin{array}{r} 25.9 \\ 52 \end{array}$$

RT

$$\begin{array}{r} 23.6 \\ 75 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.1 \\ 570 \end{array}$$

$$\begin{array}{r} 24.0 \\ 91 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 23.91 \\ 714 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.9 \\ 62 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 26.2 \\ 49 \end{array}$$

$$\begin{array}{r} 24.2 \\ 69 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 24.06 \\ 699 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 24.92 \\ 613 \\ \hline 27 \end{array}$$

$$\begin{array}{r} 25.8 \\ 53 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 26.4 \\ 47 \end{array}$$

$$\begin{array}{r} 24.2 \\ 69 \\ \hline 33 \end{array}$$

Sta + π - Elev

931.05

+67 15" x 20' CM Lt. En. End

+87

88

+50

89

+05

Ent Lt. No Culv

+50

90

L

K

R

$$\begin{array}{r} 24.42 \\ 63 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 24.56 \\ 649 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 25.0 \\ 61 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 26.3 \\ 48 \end{array}$$

$$\begin{array}{r} 24.9 \\ 62 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.9 \\ 62 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 26.2 \\ 48 \end{array}$$

$$\begin{array}{r} 25.1 \\ 60 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.3 \\ 48 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 26.9 \\ 42 \end{array}$$

$$\begin{array}{r} 25.3 \\ 58 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.6 \\ 45 \\ \hline 25 \end{array}$$

$$\begin{array}{r} 26.1 \\ 50 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 27.2 \\ 39 \end{array}$$

$$\begin{array}{r} 25.4 \\ 57 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.4 \\ 47 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 27.5 \\ 36 \end{array}$$

$$\begin{array}{r} 25.6 \\ 55 \\ \hline 23 \end{array}$$

Sta + $\begin{array}{c} \wedge \\ 931.05 \end{array}$ - Elev
90+50

+78 $\neq$ Ent Rt No Cnlv

91

+50

92

+19 15" X 20 CM Lt

+26 15" X 36' CM Rt

+39 15" CM Lt

L4

$$\begin{array}{r} 26.1 \\ 50 \\ \hline 24 \end{array}$$

Z

$$\begin{array}{r} 27.6 \\ 35 \\ \hline \end{array}$$

R4

$$\begin{array}{r} 25.5 \\ 56 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 25.8 \\ 53 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 27.5 \\ 36 \\ \hline \end{array}$$

$$\begin{array}{r} 25.6 \\ 55 \\ \hline 23 \end{array}$$

$$\begin{array}{r} 25.8 \\ 53 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 27.3 \\ 38 \\ \hline \end{array}$$

$$\begin{array}{r} 25.5 \\ 56 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 25.3 \\ 58 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 27.3 \\ 38 \\ \hline \end{array}$$

$$\begin{array}{r} 25.3 \\ 58 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 24.91 \\ 614 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.22 \\ 483 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.79 \\ 626 \\ \hline 26 \end{array}$$

Sta + Δ - Elev

931.05

+50

+63

Q M R +

93

+50

B.M

1.65

931.05

1.65

929.40

3.38

927.80

6.57

924.48

5.95

929.40

4.41

923.45

B.M

6.65

922.75

922.76

Lt

£

Rt

$$\begin{array}{r} 24.9 \\ 62 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 27.0 \\ 41 \end{array}$$

$$\begin{array}{r} 24.73 \\ 632 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 24.2 \\ 69 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 26.2 \\ 49 \end{array}$$

$$\begin{array}{r} 24.7 \\ 64 \\ \hline 23 \end{array}$$

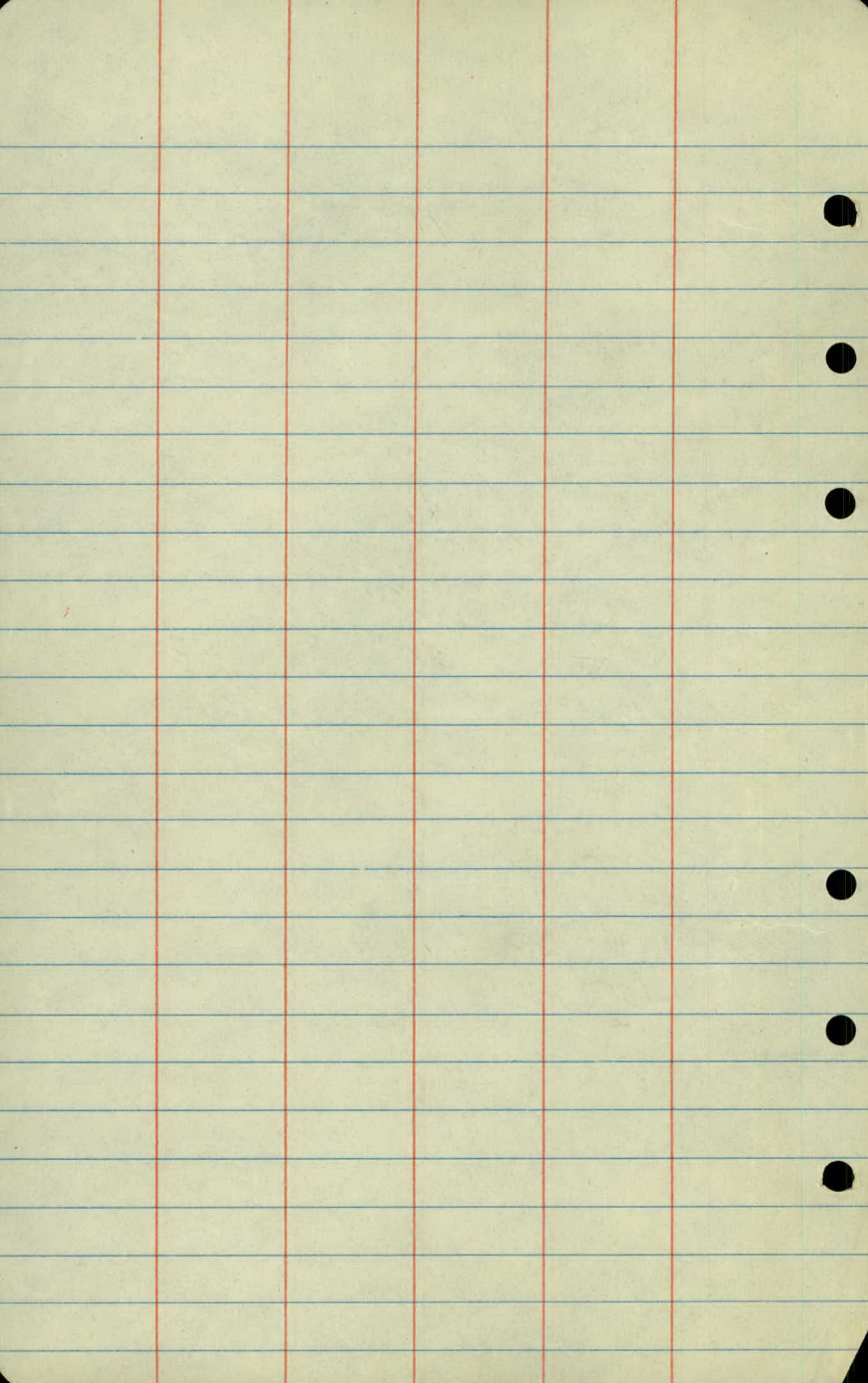
$$\begin{array}{r} 23.3 \\ 78 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 25.3 \\ 58 \end{array}$$

$$\begin{array}{r} 23.7 \\ 74 \\ \hline 23 \end{array}$$

Clear out Ditch N

Top Conc Anchor Cor Fence Post



1

OTTER LAKE ROAD

+

SOO LINE CROSSING

Plan
Survey

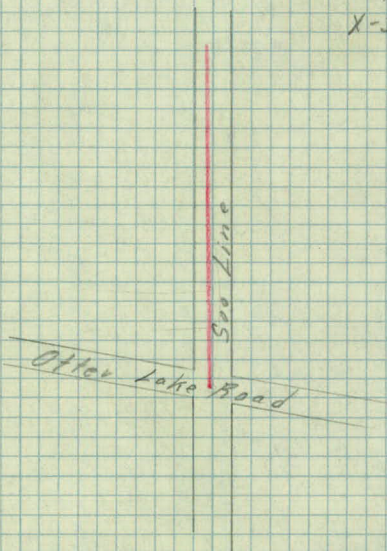
6 Feb 1953

FK
AM
LG
MB

INDEX

Topog 1-2

X-Sect. 3-4



Rec'd. 2-6-53

+88 1" Pine 55 ✓

+50 30" Oak 68 ✓

+23 8" Oak 88 ✓

+14 14" W. Oak 121 ✓

+10 2" Pine 59 & 100 ✓

+08 Twin 8" Oak 82 ✓

2

+70 Coy House Beyond 200'

+66 8" Oak 98 ✓

+67 2" Pine 56 ✓

+65 4" Ash 135 ✓

+65 4" Oak 74 ✓

+61 4" Pine 110 ✓

+59 14" Oak 74 ✓

+35 1" Pine 82 ✓

+50 8" Oak 100 ✓

+41 12" Oak 73 ✓

+38 1" Pine 85 ✓

+30 4" Pine 143 ✓

+25 14" Oak 177 ✓

+23 12" Pine 164 ✓

+23 2" Pine 69 ✓

+18 2" Pine 172 ✓

+12 2" Pine 98 ✓

+30 L Drive 155 ✓

+91 1" Pine 57 ✓

+90 24" Oak 149 ✓

+80 6" Oak 82 ✓

1

+05 3" Pine 173 ✓

+96 14" Lumber Pine 180 ✓

+95 3" Pine 189 ✓

+86 4" Pine 97 ✓

+85 2" Driveway 163 ✓

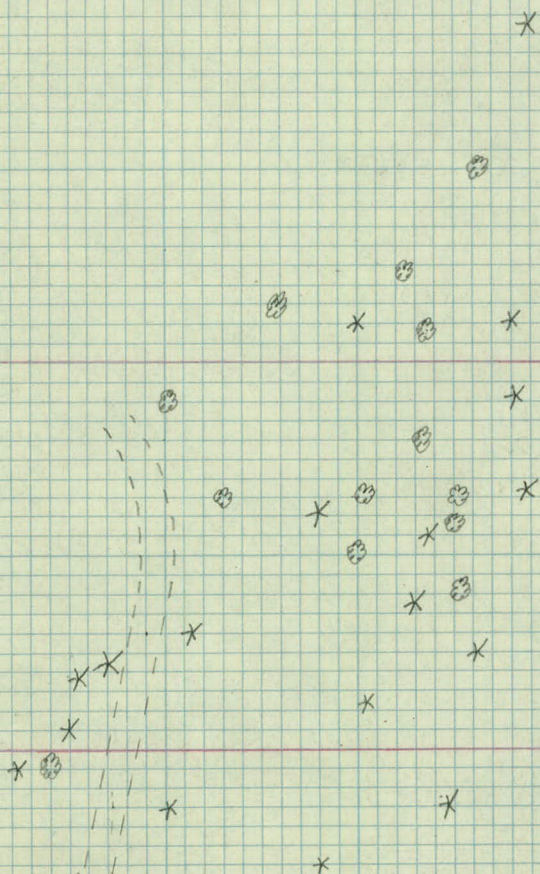
+84 1" Pine 149 ✓

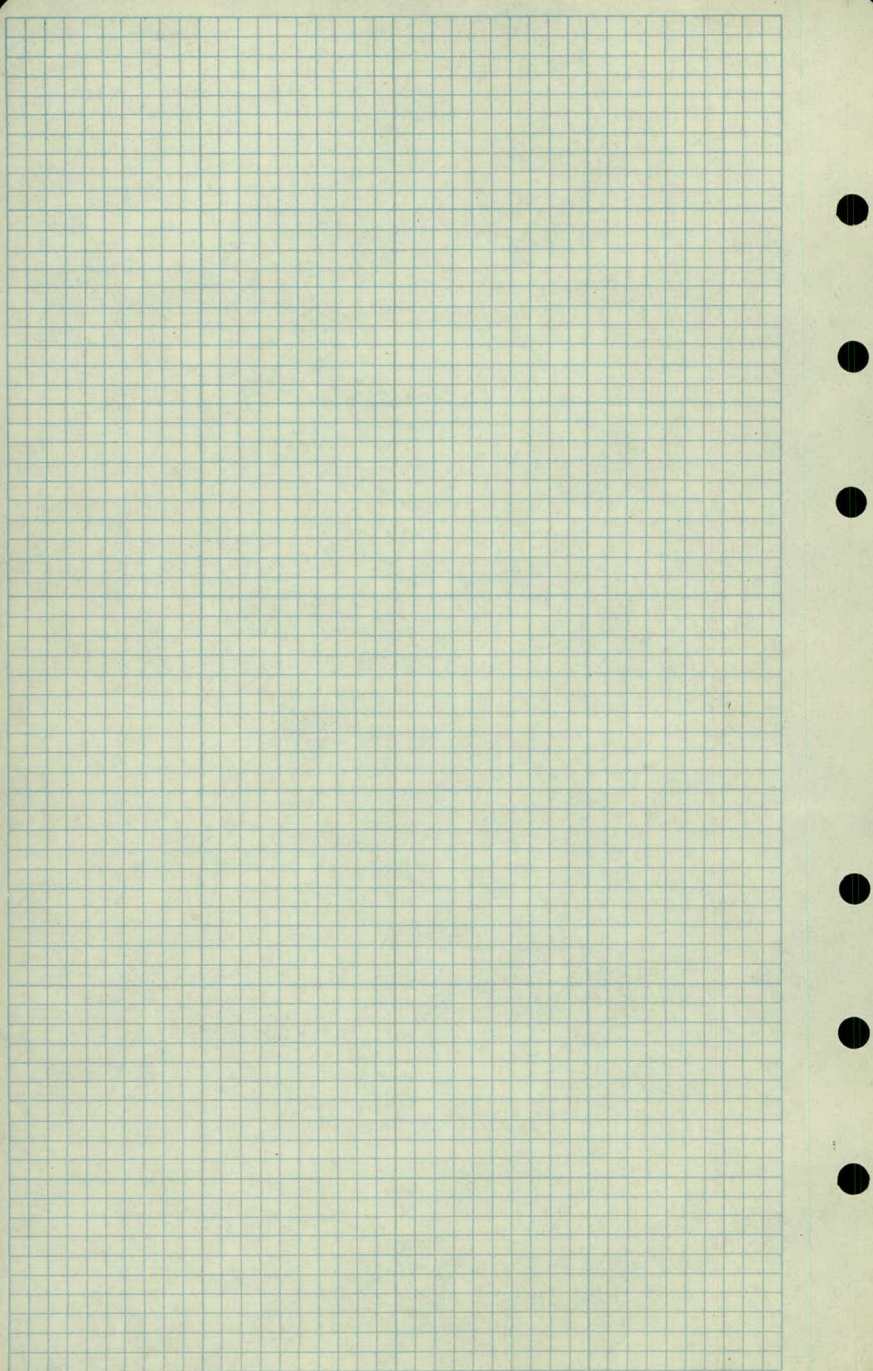
+90 1" Pine 110 ✓

+50

+45 Shoulder 100 ✓

+17 Shoulder 00 ✓





X-Sections

Sta	+	π	-	Elev
BM	7.67	936.69		929.02

0+00

+50

1

+50

2

+50

3

BM			7.66	929.03
----	--	--	------	--------

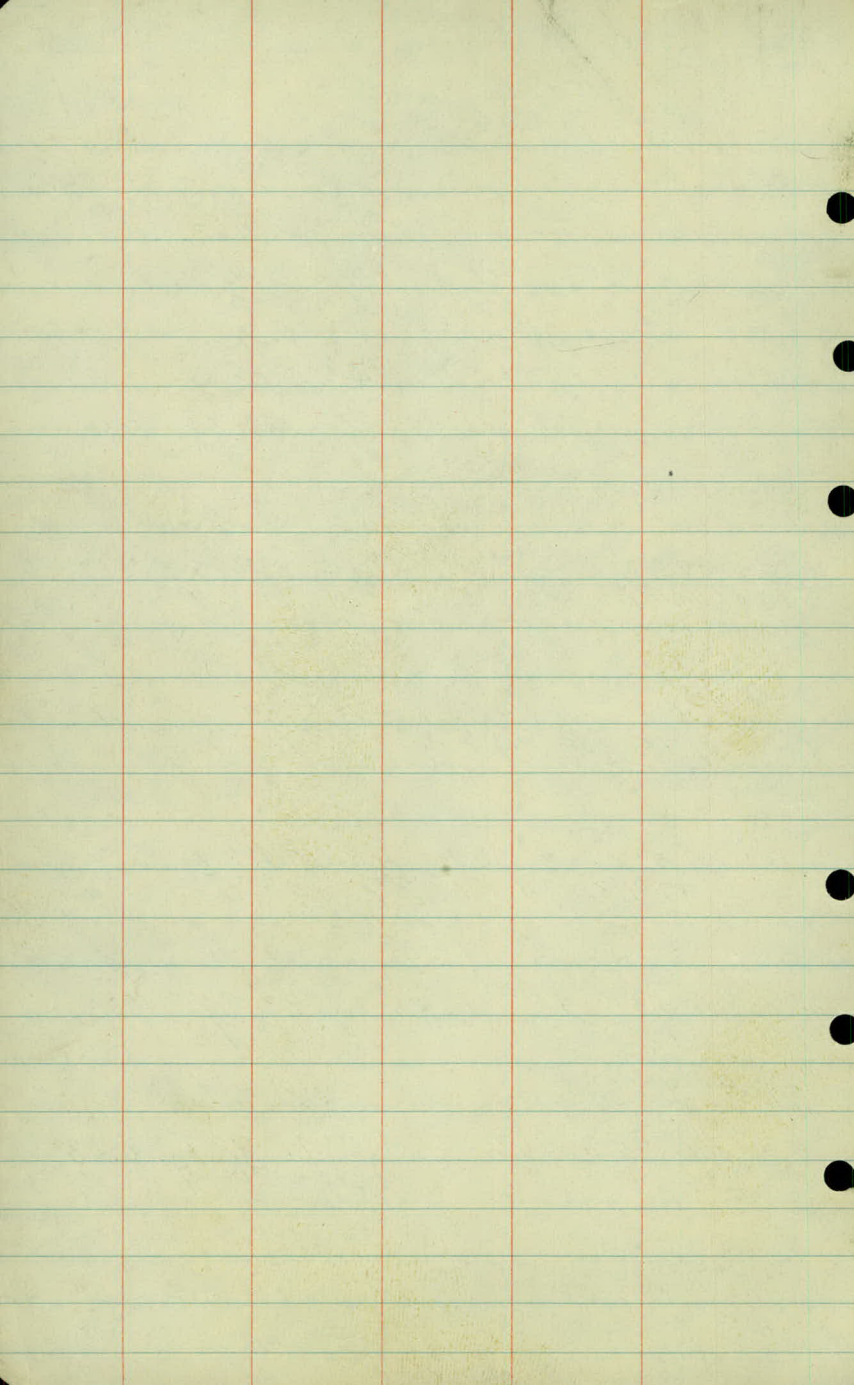
4
N. Rail
2

Left

N. Rail & Otter Lake Road

	27.5		27.6		27.7		28.1		29.02	
	9.2		9.1		9.0		8.6		7.67	✓
	200		150		100		50			
		27.0		24.2		23.0		23.2		29.23
		9.7		12.5		13.7		13.5	9.3	7.46
		100		66		38		16	8	
	28.3	27.7	27.6	27.2	26.7	21.9	21.6	28.4	29.52	
	8.4	9.0	9.1	9.5	10.0	14.8	15.1	8.3	7.17	✓
	163	146	115	82	50	39	20	7		
↳ Drive										
	30.6	31.6	31.3	31.2	27.6	23.4	23.4	28.4	29.72	
	6.1	5.1	5.4	5.5	9.1	13.3	13.3	8.3	6.97	✓
	155	116	86	57	44	29	16	7		
↳ Drive										
	33.6	34.2	34.6	34.0	33.8	25.7	23.6	28.8	29.99	
	3.1	2.5	2.1	2.7	2.9	11.0	13.1	7.9	6.70	✓
	162	147	118	84	57	37	16	6		
↳ Drive										
	32.2	32.7	32.8	33.6	27.8	26.9	29.4	30.36		
	4.5	4.0	3.9	3.1	8.9	9.8	7.3	6.33		✓
	162	133	95	55	35	15	7			
	31.1	31.4	31.1	31.3	29.3	28.4	29.8	30.66		
	5.6	5.3	5.6	5.4	7.4	8.3	6.9	6.03		
	162	116	85	49	40	20	7			

N. Rail & Otter Lake Road



Jan 26, 1965

1

OTTER LAKE ROAD

Profile

Ninth St to "H"

REC. 1-27-65

Sta	+	π	-	Elev.
BM	1.65	931.05		929.40

91			3.27	27.78
----	--	--	------	-------

92			3.5	27.55
----	--	--	-----	-------

+50			3.7	27.3
-----	--	--	-----	------

4.82	926.23	24 91 923.73
------	--------	-----------------

93			4.4	26.6
----	--	--	-----	------

929.93

+50			5.6	25.4
-----	--	--	-----	------

94			6.5	24.5
----	--	--	-----	------

+50			7.1	23.9
-----	--	--	-----	------

95			7.6	23.4
----	--	--	-----	------

+50			7.7	23.3
-----	--	--	-----	------

FX
WS
LD

Jan 26, 1965
Cold Clear Windy 6° 2

Top Conc Anchor Cor. Fence Post

Sta	+	π	-	Elev.
-----	---	-------	---	-------

		931.05		
--	--	--------	--	--

96			7.5	23.5
----	--	--	-----	------

+50			6.9	24.1
-----	--	--	-----	------

97			5.9	25.1
----	--	--	-----	------

+50			4.7	26.3
-----	--	--	-----	------

98			3.4	27.6
----	--	--	-----	------

+50			2.4	28.6
-----	--	--	-----	------

99			1.4	29.6
----	--	--	-----	------

+50			0.5	30.5
-----	--	--	-----	------

+69.76	3.78	934.14	0.69	930.36	929.93
--------	------	--------	------	--------	--------

Jan. 26, 1965

3

± Track

Sta	+	π	-	Elev.
		934.14		
100			4.1	30.0
+50			4.9	29.2
101		935.48	5.1	29.0
+50		948.3	5.3	28.8
102		953.6	5.2	28.9
+50		964.83	5.1	29.0
103			5.3	28.8
+50			5.6	28.5
104			5.9	28.2

Jan. 26, 1965

4

Sta	+	π	-	Elev.
		934.14		
104+50			5.9	28.2
105			5.9	28.2
+50			5.8	28.3
+69.4			6.25	^{29.15} 927.89 _{1.26} 929.15
B.M.	3.93	933.33		929.40
T.P.	3.55	930.25	6.63	926.70
T.P.	6.27	929.51	7.01	923.24
B.M.			7.35	922.16 (922.19)

Jan. 26, 1965

5

Top Monument

Top Conc Anchor Cor. Fence Post

Lake Level B.M. on End of Pipe

