

PLANS SURVEY
COUNTY ROAD "E"

From Centerville Road

To East County Line

CO. PROJ. N° 23-01

ROAD $\frac{1}{2}$ N° 6

Office of Ramsey Co. Engineer
ST. PAUL, MINN.

Date Filed 3-10-23

File No. 2

CE LINE -

JOB N^o 10

ALIGNMENT NOTES

File
2

W. McDonald } Transitman.
F. M. Conners }

P. L. Banits

Engr. in charge.

Co. Road "E"

Job N^o 23-01

Sheet #1 of 3
Sta. Point ΔL ΔR Bearing

61+62.2 Pot. Men

35+04.3 Pot.

8+47.5 Pot. Men

$589^{\circ}47'E$

7+41.4 Pot

P.I. 0+98.8V

$\Delta 52^{\circ}40'$

$29^{\circ}C.R.$

1+81.6 \checkmark E.C.

1+50

1+00

0+50

0+00 \checkmark B.C.

$\left\{ \begin{array}{l} 26^{\circ}20' \text{ ST. 918' } \checkmark \\ 21^{\circ}45' \text{ LC. 1816' } \checkmark \\ 14^{\circ}30' \\ 7^{\circ}15' \\ 0^{\circ}00' \end{array} \right.$

$N37^{\circ}33'E$

CE Line

Job #10

Sheet #1 of 3

SEC-34

T.P. 76.2

T.P. 75.7

Man. Not found

T.P. 20'

x 34' FR 43.8

2 nails

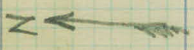
SECTION - 33

FR 33.1

TR 57.35

43°14'

± N.P.R.Y.



SECTION - 32

1481.6 EC

Δ 52°40'
29°CR

105°20'
52°40'

886

TR 27A

0+00 = 33+13.4 SCLINE

0+00 BC

98.8'

Rt. Sign
15.5'

Sta Point ΔL ΔR

Sheet # 2 of 3

167+10.0^{PI} Mont. 0°-21'

S.
① N 89°-53' E

151 P.O.T.

S 89°-34' E

140+74.1^{PI} Mont

0°-20'

S

① N 89°-54' E

114+27.6^{PI} Mon 00-27'

3/4/22 - Corner Trans.

99+00 P.O.T.

S 89°-27' E

93+27.0^{PI} Pl.

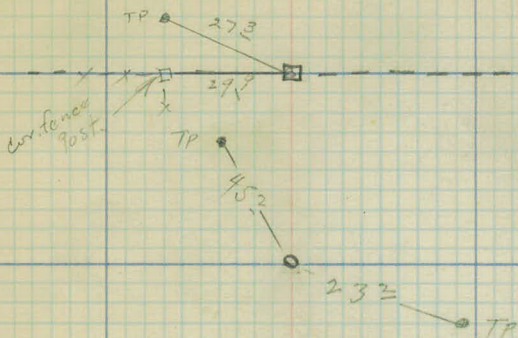
0° 20'

S 89°-47' E

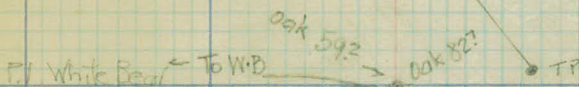
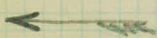
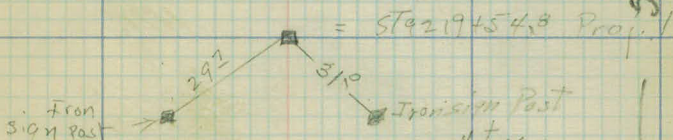
CE Line
Proj-10

Sheet # 2 of 3

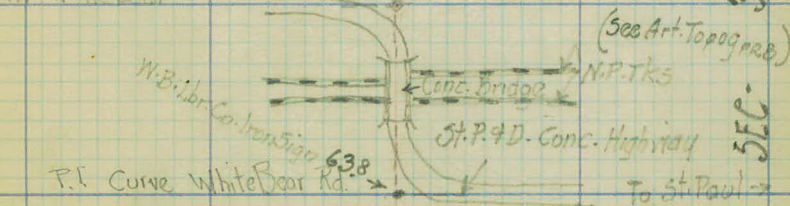
SEC-36



SECTION-35



34



SEC-34

Lt.

Rt.

Sheet #3 of 3

219+75.3

End. of Project. - East County line

589°-33'E.

3/8/23

193+48.3 Mont.
26 30

0°-22' End 3/7/23 3:00 PM

177+00

POT

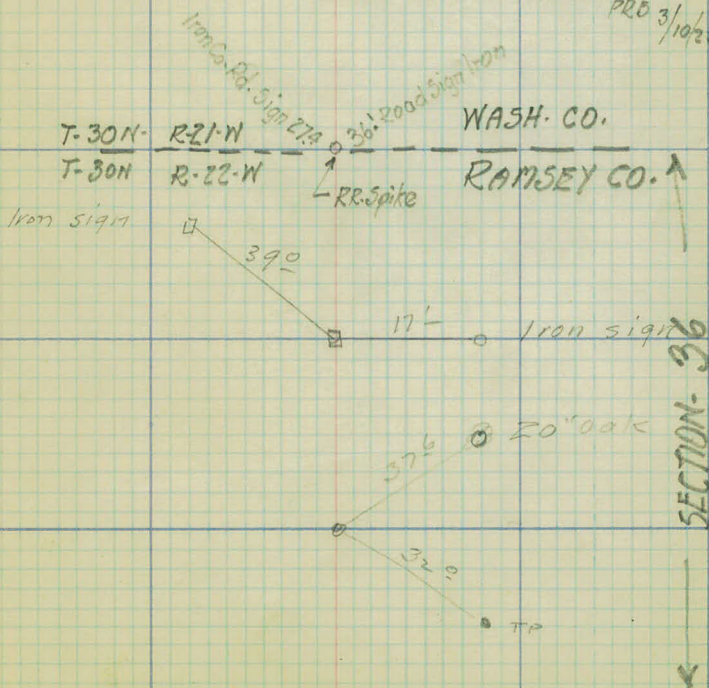
N89°-55'E

CE Lind
Prej-10

sketch #3 of 3.

NOTE- This Mon. has been removed for 3 years & lays along side of Road. Could not locate mon. N. 45. So set point in ctr. of E & W dump correct gov. chainage dist. from Mon. 1/2 mi. West

PRB 3/10/20.



T-30N R-21-W

T-30N R-22-W

Iron sign

39°

17'

Iron sign

376

20' oak

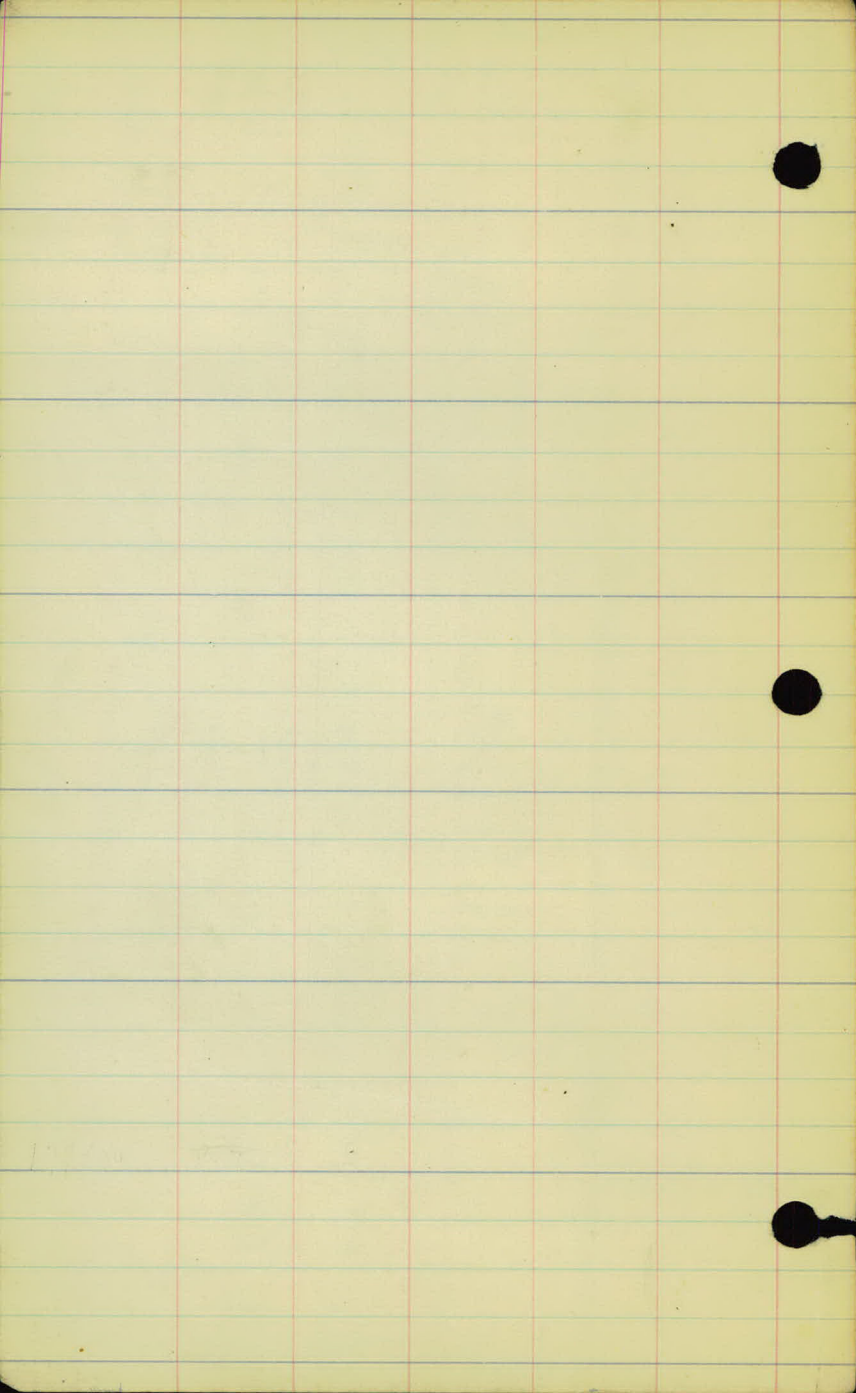
329

TP

WASH. CO.

RAMSEY CO.

SECTION-36



CE LINE

JOB N^o 10

ARTIFICIAL TOPOG. NOTES

F. M. Conners } recorders.
D. Webber. }

P. L. Banister
Engr. in charge.

GE LINE JOB #10

sheet #1 of 38

Sta

6

5

4

3

2

1

0

C.F. Line
Proj-10

3/8/23

⊥

Artificial Topog

Sheet # 1 of 38

F.M.C.
D.W. Party
E.T.

+41 TP22

+41 F.W. 30
F 35

+35 Sign 10 -
Sharp turn

+88 TP22

+37 TP 22

+92 TP22

Center Villa Rd.

0488 TP-2' R of ⊥

CS line

Cultivated

Cultivated

F 27 +00

X ————— X ————— X ————— X

X
X
-FE

X

X

X

X

X

2 X

X

X

X

X

X

X

X

X

X

X

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• T.P.

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Art. Topog.

Sta.

12

11

10

9

8

7

6

CE Line
Proj-10
→

±

Sheet #2 of 34
FMC 3/8/23

F 33

108 TP 14

CULTIVATED

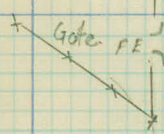
CULTIVATED

173 tree 55

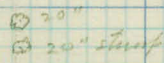
120 tree 45'-35

178 tree 12'-35

F Cor 32



Cont. 151472



177 Tree 35



F Cor 33

198 TP 15
CG 27
RR X 119



179 F.C. 32

74412 1/2 RR

400 CG 29
TRK 27

+41 TP 22



+41 F. Cor 30
F. 35

Art. Topog.

sta

18

17

16

15

14

13

12

Art. Topog
Sta.

24

23

22

21

20

19

18

Art. Topog.

Sta

30

29

28

27

26

25

24

Art Topog

sketch of 38

59.

36

35

34

33

32

31

30

CE line
Proj -10

£

sheet 6 of 38
FMC 3/8/23

404 F 34

ind →
Y — X — X

X — X — X 404 F 30

Cultivated

Cultivated

FE

FE

line 404 F 30

100' 50'
 149 } 6" trees
 140 } out 2.2
 134 } Rt.
 122 }
 113 }
 105 }
 195 tree 8" 23
 176 tree 8" 22
 162 tree 10" 23
 144 tree 4" 25

12"
14"
6"
10"

177 with stand 15
 177 tree 14.7m
 161 tree 22
 152 tree 22 16x20
 total trees 2

X — Y — X

116 F Cor. 34

Art. Topog

sta.

42

41

40

39

38

37

36

CE line
Proj-10

£

Sheet #7 of 38
F.M.C. 3/9/22

Cultivated

Cultivated.

37 to 38
bush
30 ft. L.T.
4th trees

ART. TOPOG.

JOB #10

sheet #8 of 35

50

48

47

46

45

44

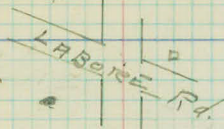
43

42

E

+29 Rd sign 31
+25 TP36

+78 TP40



+92 Jun sign 30
+70

+30 TP51

Cultivated

Cultivated

ART. TOPOG.

Sheet #9 of 38

56.

57

53

52

51

50

49

48

C.E. Line
Proj-10

£

sheet #9 of 38
FMC 3/8/23

Cultivated

Cultivated

□

193 Mail Box 12

ART. TOPOG

sheet #10 of 38

58.

60

59

58

57

56

55

54

C.E. Line
Proj-10

£

Sheet #10 of 38

F.M.C. 3/8/23

+47TP 29

+35TP 29

+7TP 29

Cultivated
FE

FE

Cultivated.

+94 F av. 28

+73 F av.

+42 Mail box 12

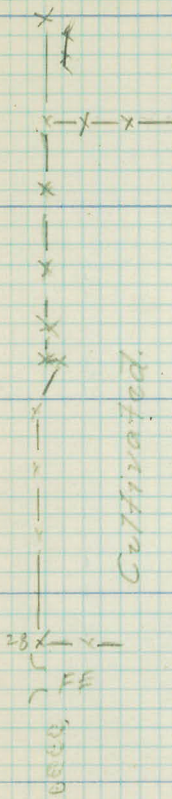
+39 Mail box 12

+36 box 27

+26 box 6" 37

+09 box 41 29

+97 box 27-6"



ART. TOPOG

sta.

66

65

64

63

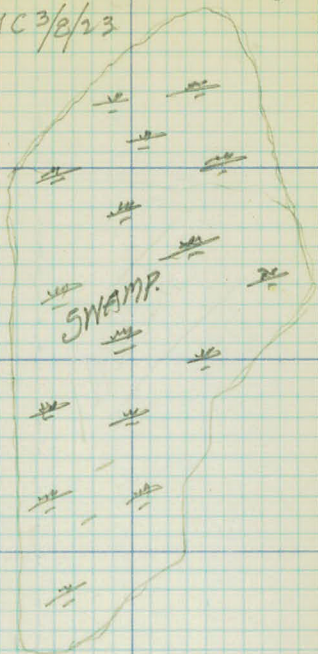
62

61

60

CE Line
Proj -10

FM C 3/8/23



+12 TP 37

+17 TP 34

+31 TP 34

+93 TP 37

Cultivated

Cultivated.

+62 F Cor 32



ART. TOPOG

sta

72

71

70

69

68

67

66

Plot # 12, 38

FMC 3/8/23

F16

⊥

C.E line

Proj-10

+17 TP 30

+17 F. Cor 14
+20 14

x-x-x

+56 F. Cor 14

+19 TP 33

Cultivated

Cultivated

+41 TP 37

+20 TP 37

+55 TP 37

ART. TOPOG.

Sheet #13 of 38

Sta.

78

77

76

75

74

73

72

CE Line
Proj. - 10

£

Sheet #13 of 35
FMC 3/8/23

+23 F 32

+92 F 31

+37 TP 34



+52 TP 32

Cultivated

Passure

F 20

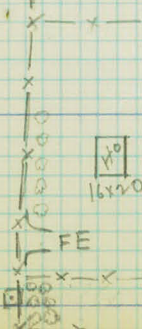
+48 TP 32



+49 F 21

+17 TP 30

malby



Ho. 60

+45 F 16

+17 F 14
+25 - 12

11 Box F 16
10"

ART. TOPOG.

stat #17 of 38

79

84

83

82

81

80

79

78

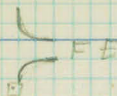
CE Line
Proj-10

£

Sheet #1A-39
FMC 3/8/23

+39 TP 31

+37 FC 32 X — X — X — X



177 mail to 16

+08 TP 32



2

Cultivated

106 mail to 13

+88 TP 34

Cultivated.



X — X — X

+19 FC 32

X

X

X

X

X

X

X

X

X

Pasture

+63 TP 34

+47 TP 34

ART. TOPOG

Sta.

90

89

88

87

86

85

84

C.F. Line
Proj - 10

⊥

Sheet 15 of 38

F.M.C. 3/8/23

End Orchard.

End Fee +64

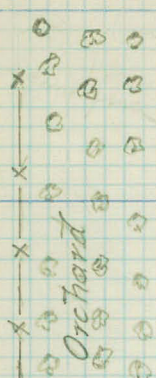
+15 TP 31

+89 F.C. 31
+34 TP 31

+34 TP 31

+78 TP 31

California
FE
X X
X
X
X
X
X
X
X
X
X



FE
X X X
Cultivated

ART. TOPOG

PRB 3/10/23

Sheet 14 of 38

5/10.

96

95

94

93

92

91

90

L E R

+18 R.W. Fence 34'

+18 R.W. Fence 11'

CONG. OVERHD. XING.

N.P. Main Tks

96 ← To W.B

To St.P →

+13 TP-42'L

+10 TP-100'R

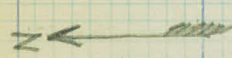
CONG. ST.P. + D. HIGHWAY
(See Next Sheet)

+93 Iron Sign 19'L
T.P. = 34'L
+84 - 3 M. Boxes 27'
+71 Caution Sign 3'x4'

To White Bear.

+10 TP-33'L
+00 End Fence 55'L

To St. Paul.



+25 Cor. Store-61'R



+78 Cor. Store-35'R

+15P (End Fence-54'L)
[TP-32'L

+31 TP-31'L

90

ART. TOPOG

Sheet 17 of 38

C.E. King
Proj -10

Sheet No. 38
Notes taken by
P.E. B. & D.O. W.
Copied by F.M.C.

98

Parament	25' Lt	78'00
✓	14.9	+79
✓	14.3	+80
✓	4.9	+70
✓	12	+60
✓	20	+57.3

97

Par	77+50-79	Rt.
✓	+40	-5.5
✓	+30	-7.3
✓	+20	-9.2
✓	+10	-10.8

96
End of Bridge

+53.3

95
Inside Bridge 11.35
Beginning Bridge
Edge of Pav. 11.9

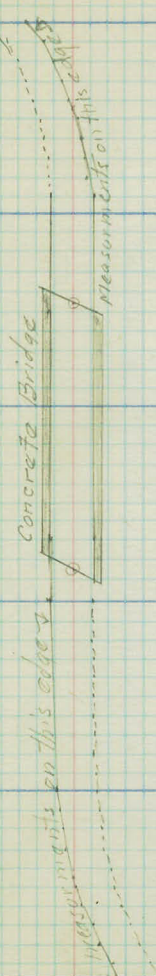
Inside Bridge 11.15
+15.6

94

Pav. Edge	Lt.	97	94+00
✓	7.3	+90	
✓	6.4	+86	
✓	4.0	+70	
✓	00	+55.4	

93

Pav. Edge	93+50-15
✓	+40-5.5
✓	+30-11.0
✓	+20-15.0
✓	+10-21.0
✓	+00-25.0



105-

ART. TOPOG

Sheet 18 of 38

104

103

102

101

100

99

111

110

109

108

107

106

105

C.E. King
Proj-10

mainly #12 100

Sheet 1906 38
FMC 2/7/23

40' 0"
n
20

100

12" (2)	+56
12" (5)	+62
	+38
6" (2)	+16
6" (2)	+22
10" (2)	+52
12" (2) 33	+73
	+13

+85 23
30

Cultivated

Cultivated

6" 325 170

4

Cultivated

Cultivated

12" (2) 30 +10

118

117

116

115

114

113

112

C.F. line
Proj-10

2

Sheet 20 of 38
F.M.C 3/1/23

Cultivated

+28.23.19

+101.21.19

+30.18.01

+13.18.19

16' @ 26.189

16' @ 100

FF

15' @ 166

Row of 2 trees planted Sept. 1919

Cultivated

126

ART. TOPOG

Sheet 21 of 35

125

124

123

122

3

121

120

119

CE line
Proj-10

£

Sheet group 38
FMC 7/7/33

+70
464 · 230 TP

FF

900

20 20
16

486 · 230 TP

Cultivated.

FF

Mail by

13 · 426

406 · 230

Cultivated.

Row of trees in out 3 ft.

415 · 290 TP

133

ART. TOPOG

Sheet 22 of 38

132

131

130

129

128

127

126

C.F. Hine
Proj-10

£

Sheet 22 of 38
F.M.C 3/7/23

+36 int. TP

16" $\frac{+06 \cdot 19 \cdot TP}{-026 \cdot 700}$

+17 20 TP
+16 16 TP

Cultivated

Mailbox # 18 $\frac{+021 \cdot 20}{-026 \cdot 19 \cdot TP}$ FE

Use this 1" line - planted soft agrest seed 21 ft

Cultivated.

300

10x12

Mailbox # 18 $\frac{+021 \cdot 20}{-026 \cdot 19 \cdot TP}$ FE

300

10x12

139

138

137

136

135

134

133

CE Line
Proj. 10

⊕

Sheet 230638
F.M.C. 3/7/23

+85 -16 TP
+73 -21 TP

+06 -20 TP
+97 -16 TP

+52 -16 TP
+39 -19 TP

+96 -15 TP
+97 -19 TP
+10 -15 TP caution - sign

Agriculture

Agriculture

low of ground line 1/2 m. 3.11

ART. TOPOG

Sheet 24828

141

140

CE line
Proj - 10

£

Sheet 24 of 38
F.M.C. 3/7/23

Iron sign	22	+743	Mont. sec cor.
		+54	Iron sign
		+62	18. TP
		+4.2	22. TP

Continued

End of New
of New 140-160
Continued

ART. TOPOG.

Sheet no of 38



PRB 3/1/23

152

+37 TP-28'L

151

+93 TP-23'R

150

+90 TP.

CULTIVATED FIELD

CULTIVATED FIELD

149

+07 TP-22'R

+47 TP-26'L

CULTIVATED

CULTIVATED

148

24' Ave. Width Travelled Roadway

+05 TP-26'L

+26 TP-21'R

147

+7 School Sign 22'L

146

Sheet 27 of 34

Artificial Topography

PRB
T.F.
W.N.S.M. } 3/7/23

158

+14 Mail Box 17' L

157

+68 Fce End 29' L
+68 T.P. 25' L

FARM YARD



156

CULT. FIELD

CULT. FIELD.

Fence 31' R.
+51 T.P. 24' R

155

+70 T.P. 28' L

+73 T.P. 23' R

154

+90 End Fce 29' L

+93 Fce. Cor. 31' R

153

+91 T.P. 28' L

+81 T.P. 23' R

CULT. FIELD

CULT. FIELD.

152

ART. TOPOG

164

163

162

161

160

159

158

ART. TOPOG

170

169

168

167

166

165

164

ART. TOPOG

176

175

174

173

172 ✓

171

170

CE line
Proj - 10

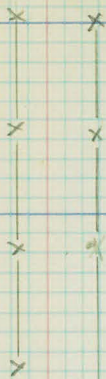
\$

Sheet 20838

FMC 7/8/23

F17

Cultivated



+83 TP 24
F28

+93 Ferr 17
+38 tree 36
+16
+05 main wall
Ho 100

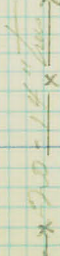
FE

Cultivated

+16 TP 24

+00
+00 TP 18
+88 end ha 28

Orchard



+85 TP 24

+27 F 18
tree 28

+27 tree 24 20"

ART. TOPOG

Sheet 21 of 33

187 ✓

186

180

179

178

177

176

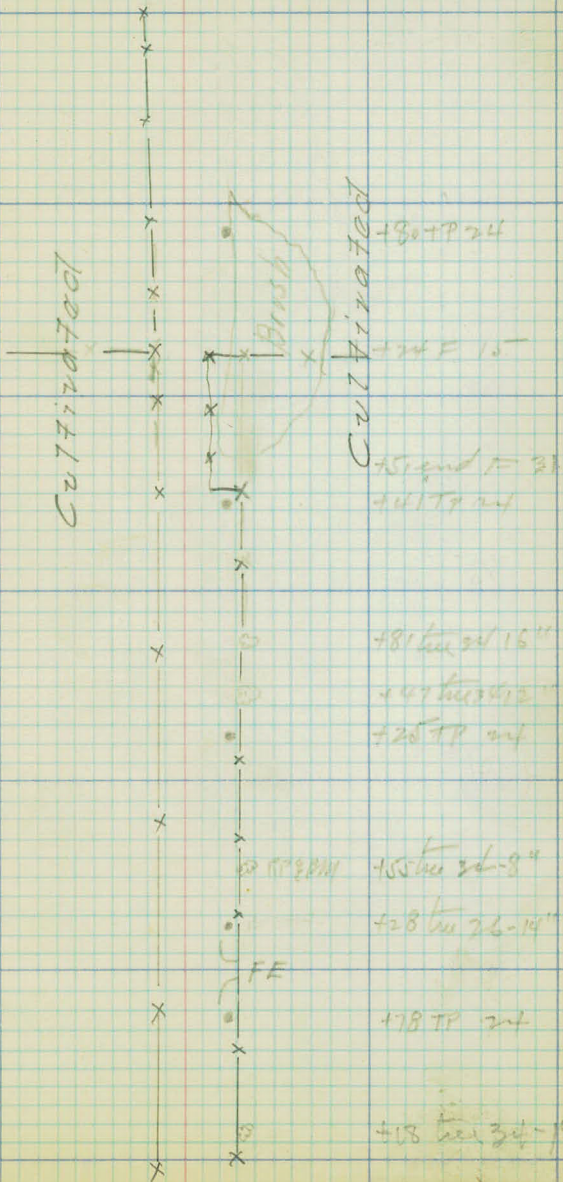
CE line
Proj-10

Sheet 31 of 38

F.M.C. 3/8/23

F21

F15



ART. TOPOG.

188

187

186

185

184

183


182

GE line
Proj-10

Sheet 32 of 38

FMC 3/8/23

+89 F. Cor 31 — X — X — X

+20 Mail R. 12 ~~10'~~ FF. 

+82 Mail 12-30 

+98 TP 25

+93 F. Cor 33 — X — X — X

Excavated

 15 to 30 ft from #

Excavated

+93 TP 25

F22

X

+96 TP 25

X

83

+61 Mail 16-10

X

+30 TP 24

X

ART. TOPOG.

194

193

192

191

190

189

188

CE Line
Proj-10

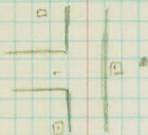
Sheet 32838
FMC 3/8/23

+91 to 14" 23

+74 from sign 25

+14 Mail by 14

RP 23



+92 TP 31

+44 RP/sign 17

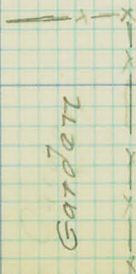
cultivated

Cultivated.

+82 TP 25

+77 TP 25
+60 RP 22/54

+39 F. Cor 30



Gardens

+78 TP 25

ART. TOPOG.

199

198

197

196

195

194

CF line
Proj-10

3/9/23

FMC
D.W. Party
E.R.

4

+90 F Cor 38

x - x -

x

x

x

x

x

x

x

x

Cultivated

Cultivated

+97 Mail 6x15

□

□

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

x

to milk stand K

+97 F Cor 37

+75 TP 31

brush

-63 TP 31

ART. TOPOG.

205

204

203

202

201

200

199

CE Line
Proj-10

1
2

Sheet 35 of 38

FML 3/9/23

Cultivated

Cultivated

to the 12-22

2

2

ART TOPOG.

211

210

209

208

207

206

205

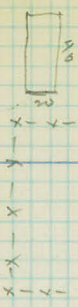
C.F. Line
Prof-10

Φ

Sheet 736 of 89

FMC 3/9/23

+37 Bunch 38
+21 F. Cor. 31



+40 Cluster trees

Cluster
6 trees

+345 Cor. 28



+85 tree 10" 28
+77 tree 12" 28
+63 tree 14
+50 tree 2-12"

+23 tree 10"



+19 }
7-12 tree 30
+42 }

Cultivated

underbrush & trees 4" x 10"

Cultivated



+71 tree 4-8" 30



+46 tree 8" 30



+100 tree 10" 30



+87 tree 10" 30



+178 tree 8" 30

+25 bunch 22-33

ART. TOPOG.

217

216

215

214

213

212

211

CE Line
Proj-10

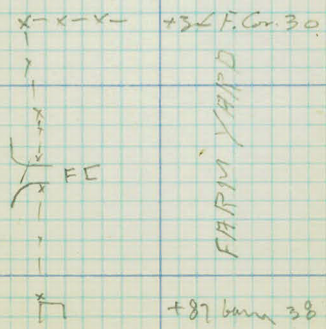
FMC 3/9/23



Cultivated

Cultivated
+22thub 22

+57 Mail 6x12



FE)
FE)

+87 barn 38

ART. TOPOG.

220

+75³ End.

219

218

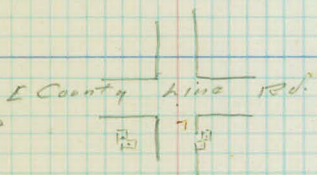
217

CE line
Proj-10

\$

Sheet 738 D 38

FMC 3/9/23

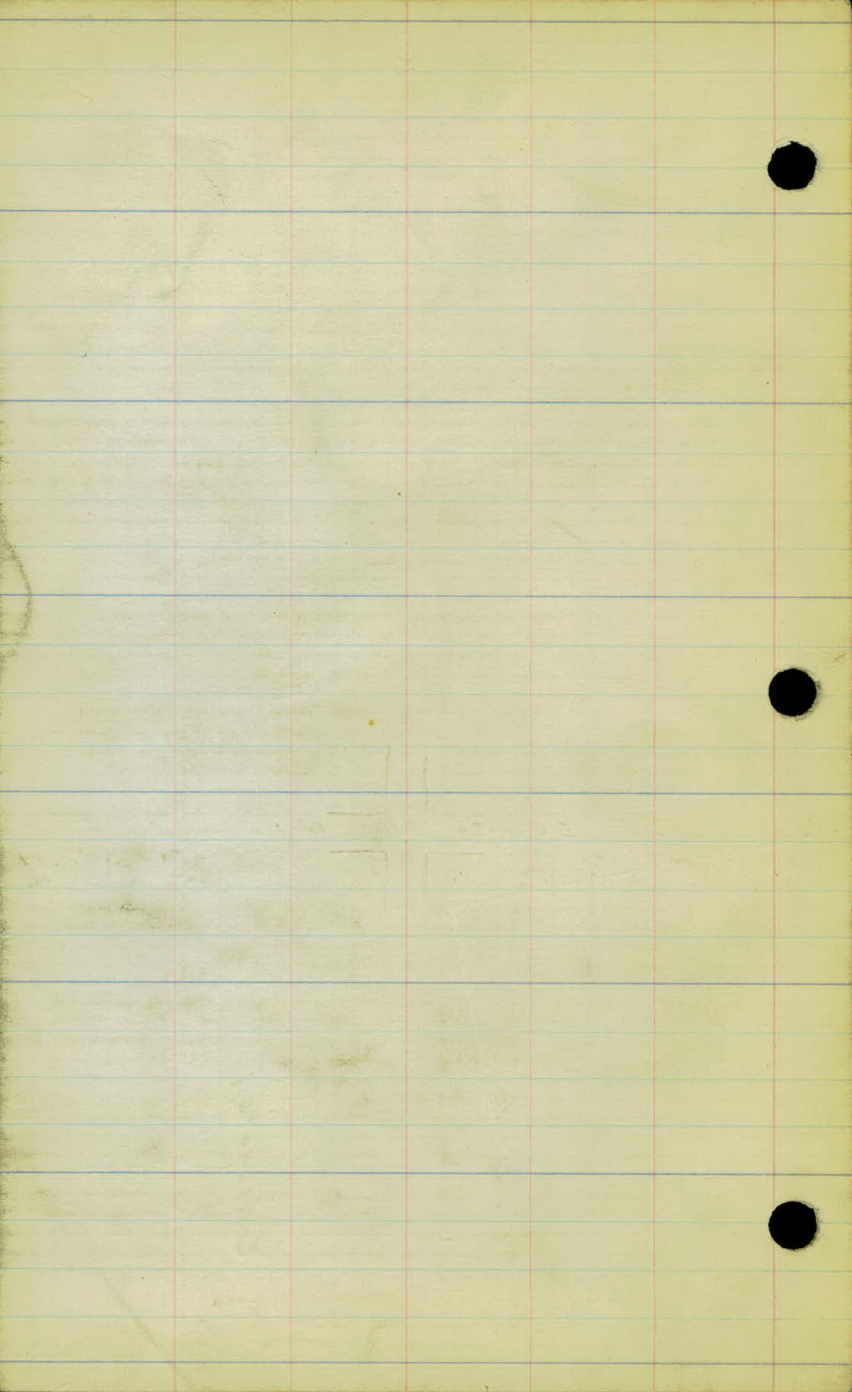


+57 from sign 30
+52 ✓ 27

+57 from sign 17
+52 ✓ 16

Cultivate

Cultivated



X



X



Sta. Elev.

141 +00 54.9
253.9

142 254.7

143 255.3

144 256.3

145 ✓ 257.5

146 258.1

147 259.5

148 259.8

149 259.9

150 260.4

151 260.8

152 ✓ 261.1

101

CE King
Proj-10

FMC 3/9/23
DW
ER

-2.0	-2.5	-1.1	-0.3 ✓	-0.5	-1.5	-1.5
33	28	18	12	12	23	33

-3.5	-3.5	-3.0	-0.6 ✓	-0.5	-1.0	-0.5
33	20	16	8	10	22	33

-1.0	-0.5	-1.3	-0.5 ✓	-1.0	-1.5	-1.3
33	23	16	10	14	25	33

-1.8	-0.5	-1.5	-0.5 ✓	0.0	-0.5	+1.5	+2.0
33	29	20	13	7	12	21	33

-1.0	-0.6	0.0 ✓	+0.5	+2.2	+2.5
33	21	14	12	21	33

+2.5	+2.3	-1.5	-0.6	+0.2	-0.5	+2.2	+2.5
33	26	16	9	9	15	23	33

+2.0	+2.0	-1.2	-2.0	-0.6	+1.5	+1.1
33	26	18	11	12	19	33

+2.3	+2.3	-0.5	-1.0	-0.5	+1.2	+1.5
33	26	18	12	12	17	33

+0.5	+0.8	-0.1	-0.2	-0.3	-1.5	-1.5	-1.8
33	29	20	9	7	12	19	33

+0.1	-0.6	-1.0	-0.5	-0.3	-1.5	-1.5	-1.5
33	27	22	13	7	15	25	33

-1.5	-0.9	-2.0	-0.5	-0.6	-2.5	-2.5	-3.5
33	26	18	10	7	13	21	33

-0.7	-0.7	-1.5	-0.2	-0.3	-3.6	-3.5	-3.5
33	29	19	12	8	16	24	33

Sta	Elev.
-----	-------

153	261.2
-----	-------

154	261.8
-----	-------

155	262.9
-----	-------

156	262.9
-----	-------

157	262.5
-----	-------

158	262.2
-----	-------

159	261.6
-----	-------

160	261.1
-----	-------

161	260.5
-----	-------

162	260.5
-----	-------

163	260.1
-----	-------

163 + 65 = 0.3

C.E. Hine
Proj-10

F.M.C. 3/9/23

-16 -2.7 -2.5 -0.4 ✓ -0.5 -3.0 -3.5 -3.3
33 26 19 10 8 16 24 33

-3.5 -3.5 -0.5 ✓ -0.6 -2.5 -2.3 -1.7
33 32 10 8 17 24 33

+1.2 +1.5 +0.1 -0.5 -0.3 ✓ -0.3 -0.9 +1.5 +2.2 +3.2
33 21 18 13 6 8 11 19 30 33

+3.5 +3.1 -0.1 -0.3 ✓ -0.1 -0.5 +1.3 +3.7 +3.5
33 24 18 10 8 13 20 23 33

+2.5 +2.3 -0.5 -0.2 ✓ -0.3 -0.5 -0.6
33 26 17 10 6 16 32

+1.1 +0.3 -1.5 -0.5 ✓ 0.0 -0.7 -0.1 -0.2
33 22 14 9 3 11 18 33

-0.5 -0.7 -1.2 -0.6 ✓ -0.2 -0.9 0.0 +0.6 +0.5 +0.5
33 19 17 11 3 11 15 18 28 33

-3.0 -2.5 -2.5 -0.3 ✓ -0.5 -1.0 -0.2 0.0
33 27 21 8 8 17 27 33

-3.0 -3.0 -3.0 -0.5 ✓ -0.6 -3.5 -2.7 -3.0
33 30 25 11 8 19 29 33

0.0 -0.6 -1.5 -0.3 ✓ -0.3 -2.1 -0.5 -1.0
30 27 22 11 8 16 26 30

-0.7 -1.5 -2.3 -0.3 ✓ -0.4 -3.5 -2.1 -1.5
30 25 21 11 8 16 27 30

-2.5 -3.0 -3.0 -0.4 ✓ -0.5 -2.5 -1.1 -1.1
33 27 22 9 8 18 27 33

Sta	Elev.
-----	-------

164	260.3
-----	-------

165	260.7
-----	-------

165 + 40	<u>+0.2</u> 260.8
----------	-------------------

166	260.8
-----	-------

167	261.3
-----	-------

168	261.8
-----	-------

169	262.7
-----	-------

170	264.8
-----	-------

171	267.0
-----	-------

172	269.9
-----	-------

173	271.7
-----	-------

174	273.6
-----	-------

CE line
- Proj - 10

F.M.C. 3/9/23

-2.0	-2.4	-0.5	-0.2	-1.0	-1.0	-0.8
30	23	10	8	16	28	33
+1.4	+1.5	-0.8	-0.2	-0.5	+2.2	+2.9
32	22	17	9	10	14	19
+3.0	+1.4	+0.2	-0.1	-0.3	-0.6	+2.5
30	26	18	10	10	14	23
+3.2	+2.5	-0.5	-0.5	-0.4	-1.5	+1.2
33	28	21	13	10	14	22
+1.5	+1.0	-1.2	-1.1	-0.4	-2.5	-3.1
30	27	21	13	9	21	28
-5.7	-5.5	-4.1	-0.5	-0.4	-4.3	-4.5
33	30	20	9	10	19	30
-5.0	-5.5	-2.5	-0.5	-0.6	-2.0	-5.5
33	23	18	10	10	15	22
-3.3	-3.9	-3.0	-0.4	-0.5	-3.2	-3.6
33	24	16	9	10	18	23
-0.4	-0.1	-1.1	-0.4	-0.2	-0.8	-0.5
33	18	15	8	10	18	22
+2.2	+1.1	-0.2	-0.5	-0.5	-1.0	-0.5
33	19	16	12	10	14	20
+2.5	+1.8	-0.5	-0.3	-0.5	-0.7	+1.4
33	20	14	10	10	16	21
+0.4	-0.6	-0.5	-0.6	-0.6	-2.0	-2.8
33	16	10	10	10	18	27

Sta.	Elev.
------	-------

175	2754
-----	------

176	2770
-----	------

177	2782
-----	------

CE line
Proj. 10

FMC 3/9/23

+2.1	+1.5	00	-0.3	-0.6	-0.1	00	00
33	20	17	10	10	17	27	33

+0.8	00	-0.3	-0.2	-0.5	-2.0	-2.0	-2.8
33	21	17	8	10	19	30	33

-1.5	-1.0	-1.0	-0.5	-1.8	-1.9
33	20	17	10	21	33

3/10/23

sheet #17 of 20 sheets

5th	15/00
190+00	319.8
189+00	315.6
+50	313.7
188+00	311.8
187+00	308.0
186+00	304.0
185+00	299.2
184+00	295.0
183+00	291.2
182+00	287.3
181+00	284.3
180+00	282.7
179+00	281.7
178+00	280.2

fields

trees & brush

open fields

L Z R

C.E. Line X-sections

$$\frac{-3.2}{33} \quad \frac{-2.1}{27} \quad \frac{-1.0}{17} \quad \frac{-0.3}{11} \quad \frac{0.0}{10} \quad \frac{+0.3}{17} \quad \frac{+2.0}{23} \quad \frac{+2.7}{33}$$

$$\frac{-5.5}{33} \quad \frac{-5.0}{29} \quad \frac{-9.0}{19} \quad \frac{-0.6}{12} \quad \frac{+0.3}{12} \quad \frac{-1.3}{19} \quad \frac{-0.5}{25} \quad \frac{0.0}{33}$$

$$\frac{-6.0}{33} \quad \frac{-4.5}{28} \quad \frac{-2.8}{18} \quad \frac{-0.6}{12} \quad \frac{-0.3}{10} \quad \frac{-1.0}{19} \quad \frac{+1.8}{24} \quad \frac{+2.6}{33} \quad +0.0$$

$$\frac{-5.5}{33} \quad \frac{-4.5}{25} \quad \frac{-0.6}{19} \quad \frac{-0.3}{10} \quad \frac{-3.0}{19} \quad \frac{-1.8}{33}$$

+0.0

$$\frac{-1.5}{33} \quad \frac{-0.8}{18} \quad \frac{-1.3}{16} \quad \frac{+0.8}{19} \quad \frac{-0.3}{12} \quad \frac{-1.2}{17} \quad \frac{+1.6}{22} \quad \frac{+1.5}{33}$$

$$\frac{-0.6}{33} \quad \frac{+0.4}{18} \quad \frac{-0.9}{16} \quad \frac{-0.3}{12} \quad \frac{-0.8}{12} \quad \frac{+2.0}{20} \quad \frac{+2.7}{32} \quad \frac{+2.7}{33}$$

$$\frac{-3.8}{33} \quad \frac{-2.8}{21} \quad \frac{-0.3}{19} \quad \frac{-0.2}{12} \quad \frac{-2.0}{19} \quad \frac{-2.9}{25} \quad \frac{-1.5}{33}$$

$$\frac{-1.8}{33} \quad \frac{-3.5}{20} \quad \frac{-0.5}{11} \quad \frac{-0.4}{12} \quad \frac{-3.0}{19} \quad \frac{0.0}{29} \quad \frac{0.0}{33}$$

$$\frac{+1.0}{32} \quad \frac{-0.0}{19} \quad \frac{-0.1}{13} \quad \frac{-0.3}{12} \quad \frac{-3.2}{21} \quad \frac{+1.0}{33}$$

$$\frac{+0.6}{33} \quad \frac{-1.7}{18} \quad \frac{-0.6}{12} \quad \frac{-0.3}{11} \quad \frac{-1.3}{18} \quad \frac{-2.0}{33}$$

$$\frac{-5.0}{33} \quad \frac{-4.8}{20} \quad \frac{-0.8}{10} \quad \frac{-0.3}{13} \quad \frac{-3.2}{21} \quad \frac{-1.2}{33}$$

$$\frac{-3.0}{33} \quad \frac{-2.5}{15} \quad \frac{-0.6}{9} \quad \frac{-0.2}{10} \quad \frac{-1.0}{16} \quad \frac{-4.0}{33}$$

$$\frac{+0.5}{33} \quad \frac{-0.9}{16} \quad \frac{-0.2}{10} \quad \frac{-0.2}{10} \quad \frac{+0.3}{16} \quad \frac{+6.3}{24} \quad \frac{+6.0}{33}$$

$$\frac{-3.8}{33} \quad \frac{-2.1}{19} \quad \frac{-0.2}{12} \quad \frac{0.0}{10} \quad \frac{+3.1}{17} \quad \frac{+3.3}{27} \quad \frac{+3.0}{30} \quad \frac{+3.0}{33}$$

3/10/23

Sheet #18 of 20 sheets

Sta	Elev
202+00	343.1
201+00	341.0
200+00	338.8
199+00	338.8
198+00	333.9
197+00	333.2
196+00	333.6
195+00	333.9
194+00	³ 333.5
193+00	³ 331.9
192+00	329.8 <u>319.8</u>
150	<u>327</u> !
191+00	324.3

fields cultivated

trees - brush

black soil

C.E. Line Xsections

$$\frac{+4.5}{33} \frac{+4.8}{28} \frac{-0.5}{18} \frac{-0.4}{12} \frac{-0.4}{10} \frac{-1.0}{18} \frac{+4.0}{23} \frac{+4.0}{33}$$

$$\frac{+8.5}{33} \frac{-1.0}{20} \frac{-0.2}{10} \frac{-0.2}{10} \frac{+12.4}{33}$$

$$\frac{-0.7}{33} \frac{+0.8}{25} \frac{-0.7}{18} \frac{-0.4}{13} \frac{-0.0}{10} \frac{-1.0}{16} \frac{+6.0}{33}$$

$$\frac{-0.8}{33} \frac{-8.3}{27} \frac{-3.8}{17} \frac{-0.5}{11} \frac{-0.7}{16} \frac{-2.8}{16} \frac{-8.3}{33}$$

$$\frac{-9.3}{33} \frac{-4.2}{21} \frac{-0.2}{12} \frac{-0.7}{10} \frac{-2.5}{28} \frac{-5.5}{28} \frac{-6.0}{33}$$

$$\frac{-9.5}{33} \frac{-2.5}{26} \frac{-0.2}{11} \frac{-0.4}{10} \frac{-0.5}{18} \frac{-1.0}{27} \frac{-3.5}{33}$$

$$\frac{+1.5}{33} \frac{+1.2}{24} \frac{-0.2}{12} \frac{-0.8}{10} \frac{0.0}{12} \frac{+0.5}{26} \frac{+2.2}{33}$$

$$\frac{+2.0}{33} \frac{-2.0}{25} \frac{-0.5}{12} \frac{-0.4}{10} \frac{-0.5}{19} \frac{-0.6}{33}$$

$$\frac{+1.5}{33} \frac{-0.5}{23} \frac{+0.4}{12} \frac{-0.4}{10} \frac{-0.5}{15} \frac{+1.3}{20} \frac{+1.2}{33}$$

$$\frac{+1.5}{33} \frac{+1.3}{23} \frac{+1.5}{17} \frac{0.0}{13} \frac{-0.2}{7} \frac{0.0}{10} \frac{0.0}{19} \frac{+5.8}{25} \frac{+5.8}{33}$$

$$\frac{+1.5}{29} \frac{+1.1}{19} \frac{+0.1}{16} \frac{-0.3}{11} \frac{0.0}{10} \frac{-0.2}{14} \frac{+1.0}{20} \frac{+3.3}{30} \frac{+7.3}{33}$$

$$\frac{+5.0}{33} \frac{+4.5}{24} \frac{0.0}{16} \frac{-0.2}{11} \frac{-0.3}{10} \frac{-0.5}{14} \frac{+7.8}{29} \frac{+7.8}{33}$$

$$\frac{+0.5}{33} \frac{+1.0}{28} \frac{+1.3}{21} \frac{+0.9}{16} \frac{-0.2}{14} \frac{0.0}{10} \frac{-0.5}{16} \frac{+3.2}{21} \frac{+2.5}{33}$$

3/10/23

Sheet #19 of 20 sheets

Sta	Elev
215+00	312.8
214+00	315.9
213+00	317.2
212+00	320.0
211+00	323.6
210+00	327.6
209+00	331.5
208+00	335.2
207+00	338.4
206+00	341.6
205+00	343.5
204+00	343.6
203+00	344.0

sandy-soil

trees

open fields

C.E. Line Xsections

$$\frac{+3.0}{33} \quad \frac{+3.5}{28} \quad \frac{-1.0}{21} \quad \frac{-0.5}{14} \quad \frac{-0.3}{12} \quad \frac{+0.5}{24} \quad \frac{+1.0}{33}$$

$$\frac{+5.0}{33} \quad \frac{0.0}{26} \quad \frac{-0.8}{13} \quad \frac{-0.3}{10} \quad \frac{+1.0}{20} \quad \frac{0.0}{22} \quad \frac{+1.5}{33}$$

$$\frac{+5.8}{33} \quad \frac{-0.8}{22} \quad \frac{-0.5}{12} \quad \frac{-0.2}{10} \quad \frac{0.0}{18} \quad \frac{+0.5}{27} \quad \frac{-1.0}{30} \quad \frac{+0.6}{33}$$

$$\frac{-2.4}{33} \quad \frac{-1.8}{26} \quad \frac{-0.6}{11} \quad \frac{-0.4}{10} \quad \frac{-3.0}{33} \quad \frac{-3.0}{33}$$

$$\frac{-10.0}{33} \quad \frac{-0.5}{11} \quad \frac{-0.3}{12} \quad \frac{-1.2}{15} \quad \frac{-6.0}{24} \quad \frac{-5.5}{33}$$

$$\frac{-8.0}{33} \quad \frac{-7.5}{30} \quad \frac{-0.7}{8} \quad \frac{-0.5}{10} \quad \frac{-1.3}{14} \quad \frac{-5.0}{21} \quad \frac{-4.5}{33}$$

$$\frac{-6.5}{33} \quad \frac{-6.0}{24} \quad \frac{-1.5}{14} \quad \frac{-0.8}{10} \quad \frac{-0.4}{9} \quad \frac{0.0}{12} \quad \frac{+7.8}{33}$$

$$\frac{-2.5}{33} \quad \frac{-0.2}{28} \quad \frac{+0.2}{18} \quad \frac{0.0}{10} \quad \frac{-0.3}{8} \quad \frac{0.0}{14} \quad \frac{+10.3}{33}$$

$$\frac{+6.5}{33} \quad \frac{+6.8}{21} \quad \frac{0.0}{14} \quad \frac{-0.2}{8} \quad \frac{+1.8}{14} \quad \frac{+7.1}{33}$$

$$\frac{+4.5}{33} \quad \frac{+4.0}{21} \quad \frac{-0.3}{14} \quad \frac{+0.2}{10} \quad \frac{+2.5}{16} \quad \frac{+1.2}{33}$$

$$\frac{+2.0}{33} \quad \frac{+2.0}{26} \quad \frac{+1.0}{17} \quad \frac{-0.3}{16} \quad \frac{-0.2}{12} \quad \frac{0.0}{10} \quad \frac{+1.8}{16} \quad \frac{+0.6}{33}$$

$$\frac{+1.5}{33} \quad \frac{+2.3}{21} \quad \frac{-0.4}{13} \quad \frac{0.0}{10} \quad \frac{+2.0}{18} \quad \frac{+1.3}{26} \quad \frac{+0.7}{33}$$

$$\frac{+3.2}{33} \quad \frac{+3.0}{22} \quad \frac{+2.5}{17} \quad \frac{-0.5}{10} \quad \frac{-0.8}{10} \quad \frac{+2.0}{20} \quad \frac{+1.0}{33}$$

3/10/23

Sheet # 20 of 20 sheets

Sta

Elev

+80

08.7

+45

308.2

219+00

307.6

218+00

308.1

217+00

308.8

216+00

310.5

L E T

C.E. Line Xsections

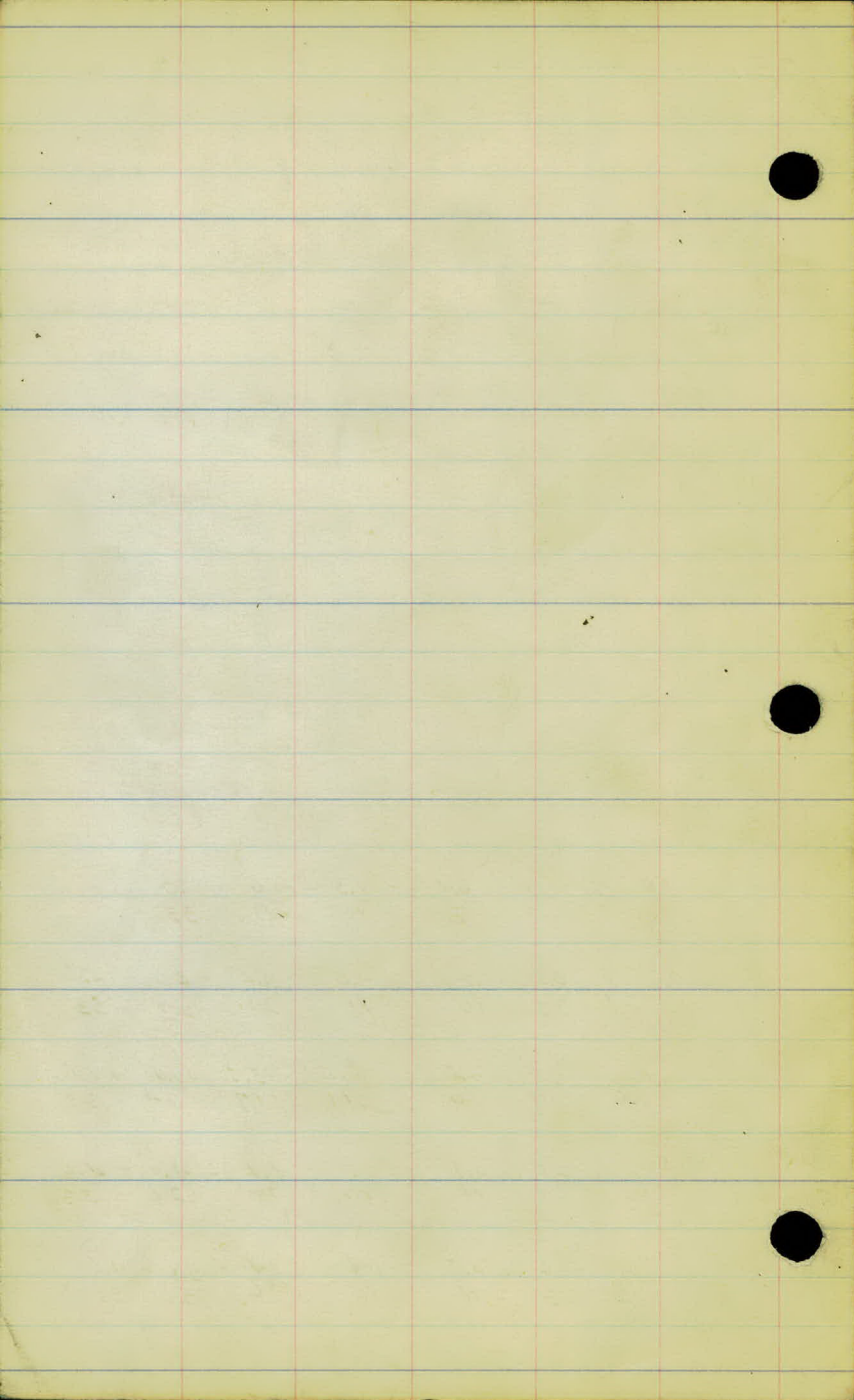
$$\frac{-2.0}{33} \quad \frac{-1.5}{25} \quad \frac{-0.4}{18} \quad \frac{-0.3}{10} \quad \frac{-0.6}{18} \quad \frac{-7.8}{33}$$

$$\frac{-1.4}{33} \quad \frac{-3.0}{27} \quad \frac{-3.5}{22} \quad \frac{-0.7}{10} \quad \frac{-0.8}{11} \quad \frac{-5.5}{21} \quad \frac{-3.2}{23} \quad \frac{-5.5}{33}$$

$$\frac{+0.3}{33} \quad \frac{-2.8}{19} \quad \frac{-0.5}{10} \quad \frac{-0.5}{11} \quad \frac{-3.5}{17} \quad \frac{+1.0}{24} \quad \frac{+0.5}{33}$$

$$\frac{-0.8}{33} \quad \frac{-2.2}{19} \quad \frac{-0.4}{11} \quad \frac{-0.7}{12} \quad \frac{-1.1}{20} \quad \frac{-4.0}{26} \quad \frac{-4.0}{33}$$

$$\frac{+1.5}{33} \quad \frac{-1.6}{23} \quad \frac{-0.5}{11} \quad \frac{-0.4}{10} \quad \frac{-1.4}{16} \quad \frac{-3.8}{22} \quad \frac{-9.5}{33}$$



CE LINE

JOB N^o 10

CHECK LEVELS

March 8, 9, 10, 1923

Carley - Level
Stork - Rod.

Job N^o 10

G.F. Check Levels

Carley-Level Stark-Rod

	+	H.I.	-	Elev	B.M. Elev.
B.M.	7.75	312.99			304.74 ✓
T.P.	10.93	322.19	1.23	311.26	
T.P.	10.98	322.76	0.41	321.78	
T.P.	9.51	341.10	11.7	331.59	
T.P.	8.97	348.34	1.74	339.37	
B.M.			(3.38)		344.96 ✓
T.P.	0.0	347.07	1.27	347.07	
T.P.	5.24	339.30	13.01	334.06	
B.M.	1.52	334.43	6.39		332.91
T.P.	0.79	222.98	12.19	222.24	
T.P.	2.21	212.22	12.97	210.01	
B.M.			(3.64)		306.58
T.P.	0.66	200.31	12.57	199.65	
T.P.	0.37	188.39	12.29	186.02	
T.P.	0.10	181.36	7.13	181.26	
B.M.			(11.35)		280.01
T.P.	0.87	270.66	11.37	269.99	
B.M.	3.75	265.20	9.21		261.45
B.M.	7.32	267.52	5.00		260.20
T.P.	3.50	265.66	5.36	262.16	
	<u>72.74</u>		<u>115.32</u>		
	115.32		304.74		
	<u>72.74</u>		<u>362.16</u>		
	42.58		<u>42.58</u>		



C.E. Line Check Levels

Carley Level Stark Road

	+	H.T.	-	Flev	B.M. Elev.
T.P.	3.50	265.66		262.16	
B.M.	5.85	265.76	5.75		259.91
B.M.	4.95	259.59	11.12		254.64
B.M.	8.19	265.49	2.24		267.35
B.M.	7.11	268.01	7.59		260.90
T.P.	8.90	274.28	2.63	265.38	
B.M.			(6.12)		268.16
B.M.			(5.06)		269.22
T.P.	6.04	277.60	2.72	271.56	
B.M.	0.90	275.45	3.05		274.55
T.P.	4.21	273.19	6.97	268.98	
B.M.	8.96	273.49	8.16		265.03
T.P.	7.20	276.78	3.91	269.58	
B.M.			(3.87)	272.91	272.91
T.P.	0.0	269.94	6.84	269.94	
B.M.	2.32	269.55	7.71	262.23	262.23
B.M.	5.75	266.36	3.94	260.61	260.61
B.M.	X		(3.97)		262.39
T.P.	0.23	254.41	12.18	254.18	
B.M.	0.34	244.37	10.38		244.03
	73.90		92.03		
	92.03		262.16		
	73.90		244.03		
	18.13		18.13		



Check Levels on C.E. Line

Carley Level Star K-Red

	+	H.I.	-	Elev.	B.M.
B.M.	0.39	299.37			299.03
T.R.	0.31	232.57	12.11	232.26	232
T.R.	7.73	232.08	7.92	229.65	
B.M.	3.62	234.60	1.90		230.98
B.M.	3.59	232.71	5.98		229.12
B.M.	4.87	232.74	4.91		227.80
T.R.	4.97	232.61	4.60	228.14	
B.M.	25.00		5.33		227.28
			<u>41.75</u>		

41.75	299.03
<u>25.00</u>	<u>227.28</u>
16.75	16.75

CE-LINE -

JOB N°10

LEVEL NOTES

Carley-Level
Stork-Rod.

Mar. 5, 6, 7, 1923

P. R. Barister
Engg in Charge

3/5/23

Sheet #1 of 15 sheets

Sta.	+ H.I.	-	Red.	Elev.
B.M.	5.01	23 2.29		227.28
0+00 B.C.			4.9	227.8 ✓ 227.4
0+50			4.8	227.5 ✓
1+00			5.0	227.3
1+50			5.1	227.2
1+81.6 F.C.			4.9	227.1
T.P.	5.20	23 2.71	4.78	227.51
2+00			5.0	227.7
3+00			4.9	227.8
4+00			4.9	227.8
5+00			4.7	228.0
6+00			4.8	227.9
7+00			5.2	227.5
7+36			4.60	228.11
7+92 TP	4.22	23 2.40	4.53	228.18 ✓
	14.43			
8+00			5.1	227.3
9+00			5.1	227.3
B.M.			4.60	227.80
10+00			4.7	227.7
11+00			4.7	227.7
12+00			4.6	227.8
13+00			4.6	227.8
TP	6.20	23 3.78	4.82	227.58 ✓
	14.43	227.58	14.13	
	14.13	227.28		
	.30	.30		

C. E. Line Levels Carley-Level Sterk-Rod,
Nail in tele pole R of sta 30+25 on S. C. Line

Top of W. Rail on N. P. tracks
" " E. " " " "

Spike in tele. pole 30' E of sta 24+50

3/5/23

Sheet # 2 of 15 sheets

Sta.	+ H.I.	- Rod Elev.
	6.20	233.78
14+00		6.0 227.8
15+00		5.8 228.0
16+00		5.2 228.6
17+00		4.7 229.1
18+00		4.8 229.0
19+00		4.8 229.0
B.M.		4.66 229.12
20+00		4.7 229.1
21+00		4.7 229.1
T.P.	<u>5.21</u> 234.67	4.32 229.46
	11.91	
22+00		5.3 229.1
23+00		5.0 229.7
24+00		4.8 229.9
25+00		4.5 230.2
26+00		4.1 230.6
27+00		3.9 230.8
28+00		3.9 230.8
T.P.	3.74 234.12	<u>3.99</u> 230.68
B.M.		8.31 230.98
29+00		3.7 230.7
30+00		4.2 230.2
31+00		5.1 229.3
	11.91	230.68
	<u>8.31</u>	<u>227.58</u>
	3.10	3.10

C.F. Line Levels

Carley-Level Star-K-Rod

Spike in 14" tree 35' R. of sta 19+65

Nail in 4' tree 25' R. of sta 28+25

Sto	T	M.I.	-	Pod Elev.
	3.74	234.42		
32+00				6.1 228.3
33+00				7.5 226.9
34+00				8.9 225.5
T.P.	4.20	229.57	9.05	225.37
35+00				4.6 225.0
36+00				4.8 224.8
37+00				4.6 225.0
38+00				3.9 225.7
39+00				2.8 226.8
T.P.	<u>8.48</u>	234.95	3.10	226.47
	16.42			
40+00				7.2 227.7
41+00				6.0 228.9
42+00				5.2 229.7
43+00				4.3 230.6
44+00				2.3 <u>232.3</u> (32.65)
45+00				0.0 234.9
T.P.	11.13	245.74	<u>0.39</u>	234.61
			12.49	
46+00				8.5 237.2
47+00				6.0 239.7
48+00				2.9 242.8
B.M.				1.71 244.03
49+00				1.0 <u>245.7</u> 44.7
	16.42		234.61	
	<u>12.49</u>		<u>230.68</u>	
	3.93		3.93	

C.E. Line Levels

Carley-Level Sterk-Rod.

Nail in tele. pole 40' L of sta 48+21

3/5/23

Sheet #4 of 15 sheets

540	+	H.I.	-	Red Elev	
	11.13	245.79			
T.P.	11.02	255.79	0.97		244.77
+00					
50+00				8.5	247.13
51+00				5.5	250.3
52+00				3.3	252.5
53+00				1.3	254.5
TP	12.40	266.89	1.30		254.49
54+00				10.2	256.7
55+00				7.7	259.2
56+00				5.8	261.1
57+00				4.4	262.5
5 ^c BM				4.50	262.39
58+00				3.7	263.2
59+00				4.0	262.9
60+00				4.6	262.3
TP	2.95	265.31	4.53		262.36
	<u>37.50</u>				
61+00				4.0	261.3
BM	3.56	264.17	4.70		260.61
			<u>11.50</u>		
62+00				3.9	261.4
63+00				4.4	259.8
64+00				4.9	259.3
65+00				5.3	258.9
66+00				5.3	258.9
	37.50		260.61		
	<u>11.50</u>		<u>234.61</u>		
	261.00		261.00		

No. 3

C.E. Line Levels.

Carley-Level Star-K-Rod

Nail in tele. pole L of sta 57+15

Top of stk sta 60

Top of monument on E of sta. 61+62.3

Sta	+	H.I.	-	Rod Elev	Elev.
		3.56			264.17
67+00				4.6	259.6
T.P.	7.75	266.24	5.68		258.49
68+00				6.2	260.0
69+00				6.1	260.1
70+00				5.2	261.0
71+00				5.6	261.6
72+00				4.3	261.9
7 B.M.				4.41	262.23
73+00				3.7	262.5
74+00				3.2	263.0
T.P.	<u>9.33</u>	272.35	3.72		262.52
75+00	21.14			9.2	263.1
76+00				7.7	264.6
77+00				6.2	266.1
78+00				4.5	267.8
79+00				2.8	269.5
80+00				1.6	270.7
T.P.	6.10	276.95	<u>1.50</u>		270.85
81+00			10.90	5.2	271.7
82+00				5.0	271.9
83+00				5.2	271.7
B.M.				4.04	272.91
	21.14		270.85		
	<u>10.90</u>		<u>260.61</u>		
	10.24		10.24		

C.E. Line Levels

Corley-Level Sterk-Rod.

Nail in tele. pole L of sta 72+18

Nail in tele. pole L of sta 89+36

Sta.	+	Ht.	-	Red.	Elev.
	6.10	276.95			
84+00				5.6	271.3
85+00				5.9	271.0
86+00				6.4	270.5
T.P.	4.30	273.88	7.37		269.58
87+00				3.7	270.2
88+00				4.0	269.9
89+00				4.4	269.5
90+00				5.1	268.8
91+00				6.6	267.3
92+00				8.1	265.8
92+25				8.3	265.6
93+00				7.7	266.2
				7.3	266.6
B.M.	7.81	272.87	8.82		265.06
94+00	18.21			6.1	266.8
95+00				4.8	268.1
96+00				4.1	268.8
97+00				4.7	268.2
97+54				4.50	268.37
98+00				4.0	268.9
T.P.	6.16	275.13	3.90		268.97
99+00			21.09	6.0	269.1
	20.09		270.85		
	18.21		268.97		
	1.88		1.88		

C. E. Line Levels

Carley-Level / Star K-Rod

Edge of paving on White Bear road, 93+90
Nail in tele. pole L of sta 93+10

Edge of pave

Sta.		H.I.		Red.	Elev.	
	6.16	275.13				
100+00				5.3	269.8	
101+00				4.8	270.3	
102+00				4.3	271.0	70.4
103+00				3.9	271.2	
104+00				3.4	271.7	
B.M.				0.55	274.58	
105+00				3.1	272.0	
T.P.	5.50	277.96	2.67		272.96	
	<u>11.66</u>					
106+00				5.9	272.1	
107+00				5.5	272.5	
108+00				5.2	272.8	
109+00				4.8	273.2	
109+95				4.9	273.1	
110+00				5.3	272.7	
111+00				6.3	271.7	
112+00				7.1	270.9	
T.P.	2.01	273.34	6.63		271.33	
B.M.			<u>9.30</u>			
113+00				4.09	269.25	
113+00				3.5	267.8	269.8
114+00				5.0	268.3	
B.M.				5.13	268.21	
115+00				6.0	267.3	
	11.66		271.33			
	<u>9.30</u>		<u>268.97</u>			
	2.36		2.36			

C. E. Line Levels

Corley-Level Sterk-Rod

Nail in 14" tree L of sta 109+10

Nail in 16" tree L of sta 112+90

Top of monument $\frac{1}{2}$ sta 114+27.6

Sta.	+	H.I.	-	Red.	Elev.
	2.01	273.34			
116+00				6.9	266.4
117+00				7.7	265.6
T.P.	1.57	267.81	7.10		266.24
118+00				3.4	264.4
119+00				4.6	263.2
120+00				5.5	262.3
121+00				6.5	261.3
122+00				7.0	260.8
T.P.	<u>9.17</u>	265.14	6.84		260.97
123+00	7.75			4.2	260.9
124+00				4.4	260.7
B.M.				4.20	260.94
125+00				4.6	260.5
126+00				3.9	261.2
127+00				5.0	260.1
128+00				5.0	260.1
129+00				4.6	260.5
T.P.	4.70	265.89	<u>3.95</u>		261.19
130+00			17.89	5.1	260.8
131+00				5.2	260.7
132+00				6.1	259.8
133+00				7.5	258.4
	17.89		271.33		
	<u>7.75</u>		<u>261.19</u>		
	10.14		10.14		

C.E. Line Levels

Carley-Level Stork-Rod

Nail in tele pole Rod sta 127+60

shoot # 9 of 15 shoots

Sta	+	H.I.	-	Red	Elev.
	9.70	260.89			
134+00				8.4	257.5
B.M.	18.7	259.23	8.53		257.36
135+00				2.4	256.6
136+00				9.0	255.2
137+00				5.0	254.2
138+00				5.3	253.9
139+00				5.4	253.8
140+00				5.2	254.0
B.M.	6.05	260.69	4.59		254.64
141+00				5.8	253.9 SA.9
142+00				6.0	254.7
143+00				5.4	255.3
144+00				4.4	256.3
145+00				4.2	257.5
146+00				2.6	258.1
147+00				1.2	259.5
T.P.	5.24	265.40	1.23		259.46
148+00	18.56			5.6	259.8
149+00				5.5	259.9
150+00				5.0	260.4
B.M.	6.59	266.46	5.53		259.87
151+00			19.88	5.7	260.8
	19.88		261.19		
	18.56		260.87		
	1.32		1.32		

C. E. Line Levels Carley-level Staff-Rod

Nail in tele. pole R of sta 133+95

Top of monument on ϕ sta 140+74.7

W. Bear - d. & Co. rd. E.

Nail in tele. pole R of sta 150+88

Sta.	+	H.I.	-	Red	F/cv
	6.59	266.46			
152+00				5.4	261.1
153+00				5.3	261.2
154+00				4.7	261.8
155+00				4.1	262.4
156+00				3.6	262.9
TP.	3.55	267.43	2.58		263.88
157+00				4.9	262.5
158+00				5.2	262.2
159+00				5.8	261.6
160+00				6.3	261.1
B.M.				7.7	260.16
161+00				6.9	260.5
TP.	4.17	265.28	6.32		261.11
162+00				4.8	260.5
163+00				5.2	260.1
164+00				5.0	260.3
165+00				4.6	260.7
TP.	<u>4.52</u>	265.93	3.87		261.91
166+00	18.83			5.1	260.8
167+00				4.6	261.3
B.M.	9.43	270.88	<u>9.98</u>		261.45
168+00			17.25	9.1	261.8
	18.83		261.95		
	<u>17.25</u>		<u>259.87</u>		
	658		158		

C.F. Line Levels · Carley-level Staff-Rod.

Nail in tele. pole R of sta 160+63

Top of monument ~~end~~ at sta 167+10.0

Shoot #11 of 15 sheets

Sta.	+	H.S.	-	Rod Elev.	
	9.93	270.88			
169+00				8.2	262.7
170+00				5.1	264.8
171+00				3.9	267.0
172+00				1.5	269.4
^{TP} 173+00	1359	283.13	0.39		270.51
173+00				11.4	271.7
174+00				9.5	273.6
175+00				7.7	275.4
176+00				6.1	277.0
177+00				4.9	278.2
B.M.				3.10	280.03
178+00				2.9	280.2
179+00				1.4	281.7
180+00				0.4	282.7
^{TP}	12.80	295.28	0.65		282.48
181+00	34.82			11.0	284.3
182+00				8.0	287.3
183+00				4.1	291.2
184+00				0.3	295.0
^{TP}	12.35	307.33	0.30		294.98
185+00			1.29	8.1	299.2
186+00				3.3	304.0
	34.82		294.98		
	1.29		261.45		
	33.53		33.53		

C, E. Line Levels

Carley-Level Sterk-Rod.

Nail in 18" tree top sta 178+30

Sta	f	H.I.	-	Rad	Elev.
	12.35	307.33	✓		
T.P.	11.00	317.82	0.51		306.82
187+00				9.8	308.0
B.M.				11.22	306.60
188+00				6.0	311.8
189+00				22	315.6
T.P.	11.77	328.99	0.60		317.22
190+00				9.2	319.8
191+00				4.7	324.3
192+00				0.3	328.7
T.P.	9.11	337.81	0.29		328.70
193+00				5.9	334.9
B.M.	5.79	338.72	4.88		332.93
	<u>50.02</u>				
194+00				5.2	333.5
195+00				4.8	333.9
196+00				5.1	333.6
197+00				5.5	333.2
198+00				4.8	333.9
199+00				2.4	336.3
T.P.	10.02	347.04	<u>1.70</u>		337.02
200+00			7.88	8.2	338.8
201+00				6.0	341.0
202+00				3.9	343.7
	50.02		337.02		
	<u>7.98</u>		<u>294.98</u>		
	42.04		42.04		

M. W. Carley

C.E. Line Levels Carley level Sterk-Rod

Nail in 14" tree L of sta 187+90

Top of monument on R of sta 193+95.13

Sta.	T	H.E.	-	Red Elev
	10.02	347.09		
203+00				9.0 344.0
? TR	2.57	349.58	0.03	347.01
204+00				6.0 343.6
205+00				6.1 343.5
206+00				8.0 341.6
BM				9.66 344.92
207+00				11.2 338.4
TR	0.01	337.77	12.42	337.16
208+00				2.6 335.2
209+00				6.3 331.5
210+00				10.2 327.6
TR	0.97	326.51	12.23	325.54
	14.17			
211+00				2.9 323.6
212+00				6.5 320.0
213+00				9.3 317.2
214+00				14.1 315.4
TR	0.0	316.09	10.37	316.04
			35.15	
215+00				3.2 312.8
216+00				5.5 310.5
217+00				7.2 308.8
218+00				7.9 308.1
219+00				8.9 307.6
	35.15		337.02	
	14.17		316.04	
	20.98		20.98	

C.E. Line Levels

Carley-Level Sterk-Rod.

Nail in 8" tree L of sta 206+75

Sta	I	H.E.	-	Red Elev
	0.0	316.04 [✓]		
+80				7.3 308.7
T.P.	3.78	312.49 [✓]	7.23	308.71
B.M.				7.75 309.74

C.E. Line Levels

Carley-level: Ste-K-Rod.

Top of corner fence post 125' R of +80

Sheet #15 of 15 sheets

BE LINE

JOB #10

CULVERT & DRAINAGE NOTES

M. W. Corley - Recorder

P. R. Reinitz

Eng. in Charge

CE LINE JOB #10 CULVERT NOTES 2/19/23
Sheet #1 of 1.

Sta - Present Culv. Recommended Culv.

35+40 - 18" Cor. I.P. 50'lg.
Extds - 20'R + 30'L.
Flows Left.

W-22

91+97 - 12" Cor. I.P. 42'lg.
Extds - 23'R + 19'L.
Flows left.

W-22

102+00 -

W-22

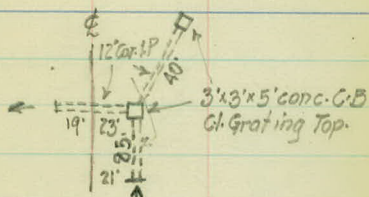
(Appears to need Drainage)
PRB.

128+50 to Sta 134+00 should be ditched both sides
to drain East Parallel to $\$$.

Inv. Elev. 219.9

Inv. Elev. 262.1

91+97



11

+30

11



CE-LINE

JOB N^o 10

CROSS SECTION NOTES

March 8, 9, 10, 1923

Carley - recording
Stark - Hand Level
Franko - Tape
Mcmanus - Rod

P. R. Banister
Engr in Charge.

Elev.

9+00 227.3

8+00 227.7

7+00 227.5

6+00 227.9

5+00 228.0 ✓

4+00 227.8 ✓

3+00 227.8 ✓

2+00 227.7 ✓

1+816 227.7 ✓

1+50 227.2 ✓

1+00 227.3

0+50 227.5

0+00 227.4 ✓
222.27

Plowed fields

Clay sand

Plowed fields

Plowed fields

X

X

L E R

C.E. Line Sections

0.0 +1.2 -1.1 -0.3 ✓ -0.3 -0.5 -1.8 -0.4 -0.5
 33 24 15 9 7 14 20 29 33

0.0 +1.4 +0.8 -0.5 ✓ -1.1 -1.0 -2.0 +1.2 +0.2
 33 23 19 14 9 14 19 23 33

+1.0 +0.2 -0.6 -0.5 ✓ -0.6 -1.0 -0.3 -1.1 -0.2
 33 21 18 12 10 13 17 28 33

+0.7 -0.2 -0.7 -0.5 ✓ -0.8 -0.8 +0.8 +1.2 +1.2
 33 19 14 10 15 21 24 33

-0.5 -0.5 -1.3 -0.9 ✓ -0.9 -1.2 0.0 +0.2 +0.2
 33 20 15 9 7 14 24 28 33

-0.5 -0.5 -1.1 -0.2 ✓ -0.6 -1.6 +0.1 +0.0 +0.0
 33 18 14 9 9 16 21 27 33

0.0 -0.2 -0.3 ✓ -0.2 -0.5 +0.5 +0.2 -0.1
 33 15 9 6 11 21 26 33

+1.0 +1.2 -0.6 -0.2 ✓ -0.2 -0.6 +0.5 +1.2 -0.3
 33 26 18 8 5 11 22 25 33

+2.0 +1.9 -0.7 +0.2 ✓ -0.3 +1.0 +0.6 -0.2
 33 25 17 6 10 19 24 33

+1.0 +1.0 -0.6 -0.1 ✓ -0.2 +1.3 +1.0 +1.2 +0.9
 33 25 20 6 8 13 19 22 27

+1.5 +0.2 ✓ +0.3 +0.5
 33 19 8 33

0.0 -0.5 -1.2 ✓ -0.2 -0.2 +1.2 +0.7
 33 22 12 8 16 26 33

+1.0 +0.2 -0.2 -0.5 -0.3 ✓ -1.0 0.0 +0.5
 33 18 14 11 9 10 19 33

5/8/23

Sheet # 2 of 20 sheets

Sta.	Elev.
22+00	229.9
21+00	229.1
20+00	229.1
19+00	229.0
18+00	229.0
17+00	229.1
16+00	228.6
15+00	228.0
14+00	227.8
13+00	227.8
12+00	227.8
11+00	227.7
10+00	227.7

X

X

fields clay

Grove of trees

X

X

Plowed fields

Clay & sand

L E R

C.E. Line Xsections

$\frac{-1.0}{33} \quad \frac{-1.8}{27} \quad \frac{-0.8}{16} \times \frac{0.6}{13} \quad \frac{-0.8}{21} \quad \frac{-2.3}{26} \quad \frac{-1.5}{31} \quad \frac{-1.7}{33}$

$\frac{-1.0}{33} \quad \frac{-1.0}{20} \quad \frac{-0.5}{12} \times \frac{-0.6}{12} \quad \frac{-0.5}{17} \quad \frac{-1.3}{29} \quad \frac{-0.8}{30} \quad \frac{-0.7}{33}$

$\frac{-1.0}{33} \quad \frac{-1.0}{33} \quad \frac{-0.8}{16} \times \frac{-0.7}{10} \quad \frac{-2.2}{16} \quad \frac{-1.6}{23} \quad \frac{-0.6}{27} \quad \frac{-0.9}{33}$

$\frac{-1.0}{33} \quad \frac{-1.7}{21} \quad \frac{-0.5}{12} \times \frac{-0.5}{10} \quad \frac{-2.0}{16} \quad \frac{-2.5}{25} \quad \frac{-0.7}{33}$

$\frac{-1.0}{33} \quad \frac{-1.0}{19} \quad \frac{-0.2}{10} \times \frac{-0.7}{10} \quad \frac{-2.2}{16} \quad \frac{-2.5}{27} \quad \frac{-1.0}{33}$

$\frac{-1.4}{32} \quad \frac{-2.2}{19} \quad \frac{-0.4}{9} \times \frac{-0.2}{10} \quad \frac{-2.6}{16} \quad \frac{-1.0}{25} \quad \frac{-1.0}{33}$

$\frac{-1.0}{33} \quad \frac{-1.3}{17} \quad \frac{-0.5}{10} \times \frac{-1.1}{10} \quad \frac{-2.7}{17} \quad \frac{-2.5}{26} \quad \frac{-1.4}{33}$

$\frac{-1.5}{33} \quad \frac{-2.2}{21} \quad \frac{-0.3}{11} \times \frac{-2.6}{10} \quad \frac{-2.5}{16} \quad \frac{-2.0}{26} \quad \frac{-1.0}{33}$

$\frac{-1.5}{33} \quad \frac{-2.5}{22} \quad \frac{-0.8}{14} \times \frac{-1.0}{10} \quad \frac{-3.0}{28} \quad \frac{-2.5}{27} \quad \frac{-1.0}{33}$

$\frac{-1.5}{31} \quad \frac{-2.0}{19} \quad \frac{-0.4}{9} \times \frac{-0.8}{10} \quad \frac{-2.2}{15} \quad \frac{-2.2}{28} \quad \frac{-1.0}{33}$

$\frac{-1.6}{33} \quad \frac{-1.8}{19} \quad \frac{-0.4}{10} \times \frac{-0.6}{10} \quad \frac{-2.2}{16} \quad \frac{-2.5}{29} \quad \frac{-2.0}{33}$

$\frac{-1.0}{33} \quad \frac{-2.0}{23} \quad \frac{-0.6}{13} \times \frac{-0.8}{10} \quad \frac{-2.0}{19} \quad \frac{-2.2}{27} \quad \frac{-1.2}{33}$

$\frac{1.05}{33} \quad \frac{1.03}{26} \quad \frac{-1.6}{22} \quad \frac{-0.2}{8} \times \frac{-0.8}{10} \quad \frac{-2.4}{16} \quad \frac{-2.5}{28} \quad \frac{-1.0}{33}$

3/8/23

Sheet #3 of 20 sheets

Station	Elev
35400	225.0 ✓ 4K
34400	225.5 ✓
33400	226.9 ✓
32400	228.3 ✓
31400	229.3 ✓
30400	230.2 ✓
29400	230.7 ✓
28400	230.8 ✓
27400	230.8 ✓
26400	230.6 ✓
25400	230.2 ✓
24400	229.9 ✓
23400	229.7 ✓

Sandy soil

open fields

open fields

Xsections on C.E. Line

$$\frac{-3.8}{33} \quad \frac{-1.0}{26} \quad \frac{-0.9}{16} \quad \checkmark \quad \frac{-1.2}{15} \quad \frac{-3.8}{22} \quad \frac{-5.0}{26} \quad \frac{-2.0}{29} \quad \frac{-9.0}{33}$$

$$\frac{-4.5}{33} \quad \frac{-1.0}{26} \quad \frac{-2.0}{16} \quad \frac{-0.6}{10} \quad \checkmark \quad \frac{-1.0}{12} \quad \frac{-3.0}{19} \quad \frac{-4.0}{33}$$

$$\frac{-2.0}{33} \quad \frac{-2.0}{21} \quad \frac{-0.7}{13} \quad \checkmark \quad \frac{-0.6}{12} \quad \frac{-2.1}{16} \quad \frac{-2.5}{22} \quad \frac{-2.2}{33}$$

$$\frac{2.0}{33} \quad \frac{-1.4}{19} \quad \frac{-0.7}{16} \quad \frac{-1.0}{14} \quad \frac{-0.7}{10} \quad \checkmark \quad \frac{-0.5}{10} \quad \frac{-1.0}{14} \quad \frac{-1.5}{19} \quad \frac{-0.6}{28} \quad \frac{-2.0}{33}$$

$$\frac{+2.5}{33} \quad \frac{-0.8}{22} \quad \frac{-0.6}{18} \quad \frac{-0.9}{8} \quad \checkmark \quad \frac{-1.9}{10} \quad \frac{-0.7}{13} \quad \frac{-0.6}{17} \quad \frac{+0.6}{20} \quad \frac{+0.1}{33}$$

$$\frac{-0.2}{33} \quad \frac{-1.5}{23} \quad \frac{-0.2}{18} \quad \checkmark \quad \frac{-0.6}{10} \quad \frac{-1.9}{15} \quad \frac{-1.0}{17} \quad \frac{-0.3}{19} \quad \frac{-0.5}{33}$$

$$\frac{+0.3}{33} \quad \frac{-0.2}{23} \quad \frac{-0.1}{18} \quad \checkmark \quad \frac{-0.9}{12} \quad \frac{-1.0}{16} \quad \frac{+0.8}{19} \quad \frac{+0.9}{33}$$

$$\frac{-0.5}{33} \quad \frac{-0.5}{21} \quad \frac{-0.9}{13} \quad \checkmark \quad \frac{-0.2}{9} \quad \frac{-0.7}{13} \quad \frac{0.0}{18} \quad \frac{-2.9}{33}$$

$$\frac{-0.5}{33} \quad \frac{-0.8}{17} \quad \frac{+0.5}{10} \quad \checkmark \quad \frac{-0.6}{11} \quad \frac{-1.5}{18} \quad \frac{-1.0}{19} \quad \frac{-0.9}{19} \quad \frac{-0.8}{33}$$

$$\frac{-1.0}{33} \quad \frac{-1.0}{22} \quad \frac{-1.5}{16} \quad \frac{-0.9}{10} \quad \checkmark \quad \frac{-1.6}{10} \quad \frac{-1.0}{14} \quad \frac{-2.0}{20} \quad \frac{-1.8}{27} \quad \frac{-1.0}{29} \quad \frac{-1.0}{33}$$

$$\frac{-1.2}{33} \quad \frac{-1.6}{22} \quad \frac{-1.0}{16} \quad \checkmark \quad \frac{-1.0}{14} \quad \frac{-2.3}{18} \quad \frac{-2.0}{29} \quad \frac{-1.3}{22} \quad \frac{-1.0}{23}$$

$$\frac{-1.2}{33} \quad \frac{-3.0}{22} \quad \frac{-1.2}{15} \quad \checkmark \quad \frac{-0.8}{14} \quad \frac{-2.2}{17} \quad \frac{-2.5}{25} \quad \frac{-1.0}{31} \quad \frac{-1.5}{33}$$

$$\frac{-1.2}{33} \quad \frac{-1.5}{23} \quad \frac{-1.0}{15} \quad \checkmark \quad \frac{-0.5}{11} \quad \frac{-2.0}{18} \quad \frac{-2.9}{36} \quad \frac{-1.0}{30} \quad \frac{-1.3}{33}$$

3/9/23

Sheet #4 of 20 sheets

Station	Elev.
48+00	242.8 ✓
47+00	239.7 ✓
46+00	237.2 ✓
45+00	234.9 ✓
44+00	32.65 232.3 ✓
43+00	230.6 ✓
42+00	229.7 ✓
41+00	228.9 ✓
40+00	227.7 ✓
39+00	226.8 ✓
38+00	225.7 ✓
37+00	225.0 ✓
36+00	224.8 ✓

Sand & gravel

Plowed fields

Plowed fields

C.E. Line Xsections

R

$$\frac{+0.7}{33} \quad \frac{+0.5}{19} \quad \frac{-1.0}{12} \quad \frac{-1.8}{17} \quad \frac{-2.4}{26} \quad \frac{-1.8}{31} \quad \frac{+2.2}{33}$$

$$\frac{-2.7}{33} \quad \frac{-2.0}{26} \quad \frac{-1.2}{21} \quad \frac{-2.8}{18} \quad \frac{-1.0}{13} \quad \frac{+0.6}{13} \quad \frac{-2.2}{17} \quad \frac{-2.9}{21} \quad \frac{-4.0}{33}$$

$$\frac{0.0}{33} \quad \frac{0.0}{28} \quad \frac{-2.4}{21} \quad \frac{-0.7}{19} \quad \frac{-1.0}{12} \quad \frac{-0.8}{18} \quad \frac{-0.8}{33}$$

$$\frac{+1.0}{33} \quad \frac{+0.4}{28} \quad \frac{-2.2}{21} \quad \frac{-1.0}{13} \quad \frac{-0.6}{12} \quad \frac{-1.2}{22} \quad \frac{-1.8}{33}$$

$$\frac{+0.2}{33} \quad \frac{+0.2}{30} \quad \frac{-3.5}{23} \quad \frac{-2.5}{18} \quad \frac{-0.8}{13} \quad \frac{-0.8}{12} \quad \frac{-2.0}{20} \quad \frac{-2.8}{28} \quad \frac{-3.0}{33}$$

$$\frac{-0.8}{33} \quad \frac{-0.8}{30} \quad \frac{-2.6}{22} \quad \frac{-1.3}{19} \quad \frac{-1.3}{12} \quad \frac{-2.3}{18} \quad \frac{-2.0}{33}$$

$$\frac{-2.2}{33} \quad \frac{-3.0}{23} \quad \frac{-1.2}{16} \quad \frac{-0.5}{11} \quad \frac{-1.3}{14} \quad \frac{-2.8}{21} \quad \frac{-2.8}{33}$$

$$\frac{-0.5}{33} \quad \frac{-1.0}{19} \quad \frac{-2.3}{16} \quad \frac{-1.0}{12} \quad \frac{+0.8}{12} \quad \frac{+0.6}{16} \quad \frac{+0.4}{19} \quad \frac{+0.2}{33}$$

$$\frac{-0.6}{33} \quad \frac{-0.2}{20} \quad \frac{-2.0}{19} \quad \frac{-0.7}{12} \quad \frac{-0.7}{13} \quad \frac{-1.6}{19} \quad \frac{-2.6}{18} \quad \frac{-0.5}{22} \quad \frac{-1.5}{33}$$

$$\frac{-1.6}{33} \quad \frac{-0.8}{22} \quad \frac{-2.0}{17} \quad \frac{-0.9}{13} \quad \frac{-0.8}{12} \quad \frac{-1.6}{14} \quad \frac{-2.8}{17} \quad \frac{0.0}{21} \quad \frac{0.0}{33}$$

$$\frac{-0.5}{33} \quad \frac{+0.5}{24} \quad \frac{-3.0}{17} \quad \frac{-0.8}{12} \quad \frac{-0.5}{9} \quad \frac{-0.7}{12} \quad \frac{-2.2}{16} \quad \frac{-3.0}{18} \quad \frac{-1.0}{21} \quad \frac{-1.0}{33}$$

$$\frac{-0.7}{33} \quad \frac{-1.2}{27} \quad \frac{-1.5}{20} \quad \frac{-1.3}{18} \quad \frac{-0.5}{11} \quad \frac{-0.5}{10} \quad \frac{-1.0}{13} \quad \frac{-1.9}{17} \quad \frac{-1.5}{22} \quad \frac{-0.5}{24} \quad \frac{-0.5}{33}$$

$$\frac{-2.0}{33} \quad \frac{-2.4}{26} \quad \frac{-1.8}{16} \quad \frac{-0.5}{10} \quad \frac{-0.5}{9} \quad \frac{-1.0}{12} \quad \frac{-3.0}{18} \quad \frac{-2.4}{23} \quad \frac{-2.8}{23} \quad \frac{-2.0}{33}$$

L E R

C.E. Line Xsections

$$\frac{0.0}{33} \quad \frac{-1.2}{22} \quad \frac{-0.7}{17} \quad \frac{-0.7}{13} \checkmark \quad \frac{-1.0}{12} \quad \frac{-2.0}{16} \quad \frac{-2.8}{25} \quad \frac{-2.5}{33}$$

$$\frac{0.0}{33} \quad \frac{-0.5}{24} \quad \frac{-0.1}{18} \quad \frac{+0.6}{13} \checkmark \quad \frac{-0.5}{8} \quad \frac{-1.0}{15} \quad \frac{-0.8}{18} \quad \frac{+0.2}{29} \quad \frac{+1.0}{31} \quad \frac{+1.6}{33}$$

$$\frac{+3.2}{33} \quad \frac{-1.8}{29} \quad \frac{-1.2}{21} \quad \frac{-0.5}{17} \quad \frac{-0.5}{15} \checkmark \quad \frac{-0.7}{13} \quad \frac{-0.6}{16} \quad \frac{-2.5}{17} \quad \frac{-2.0}{23} \quad \frac{+1.5}{31} \quad \frac{+2.0}{33}$$

$$\frac{0.0}{33} \quad \frac{-0.5}{28} \quad \frac{-0.8}{13} \checkmark \quad \frac{-0.8}{12} \quad \frac{-0.6}{16} \quad \frac{0.0}{22} \quad \frac{+0.7}{26} \quad \frac{+0.9}{33}$$

$$\frac{0.0}{33} \quad \frac{-0.5}{18} \quad \frac{-0.6}{12} \checkmark \quad \frac{-0.3}{12} \quad \frac{-0.2}{16} \quad \frac{+2.8}{23} \quad \frac{+2.8}{30}$$

$$\frac{-0.5}{33} \quad \frac{-0.3}{23} \quad \frac{-0.8}{20} \quad \frac{-0.8}{14} \checkmark \quad \frac{-0.5}{12} \quad \frac{-2.5}{18} \quad \frac{-2.0}{24} \quad \frac{+1.7}{31} \quad \frac{+2.0}{33}$$

$$\frac{-2.8}{33} \quad \frac{-2.5}{22} \quad \frac{-0.9}{13} \checkmark \quad \frac{-1.0}{12} \quad \frac{-2.5}{18} \quad \frac{-2.3}{22} \quad \frac{-2.0}{33}$$

$$\frac{-1.0}{33} \quad \frac{-1.0}{31} \quad \frac{-1.8}{24} \quad \frac{-0.6}{15} \checkmark \quad \frac{-1.0}{12} \quad \frac{-2.0}{17} \quad \frac{-2.5}{27} \quad \frac{-2.5}{33}$$

$$\frac{+0.7}{33} \quad \frac{0.0}{27} \quad \frac{-0.7}{21} \quad \frac{-0.7}{15} \checkmark \quad \frac{-1.5}{13} \quad \frac{-3.2}{18} \quad \frac{-2.0}{26} \quad \frac{-2.0}{33}$$

$$\frac{-0.6}{33} \quad \frac{-0.6}{20} \quad \frac{-0.9}{14} \checkmark \quad \frac{-0.8}{12} \quad \frac{-1.5}{18} \quad \frac{-2.0}{26} \quad \frac{-2.5}{33}$$

$$\frac{-0.2}{33} \quad \frac{-0.7}{16} \quad \frac{-0.5}{13} \checkmark \quad \frac{-1.1}{13} \quad \frac{-1.5}{17} \quad \frac{-1.5}{22} \quad \frac{-2.0}{33}$$

$$\frac{-2.0}{33} \quad \frac{-0.5}{19} \quad \frac{-0.6}{14} \checkmark \quad \frac{-1.0}{13} \quad \frac{-2.3}{18} \quad \frac{-2.0}{24} \quad \frac{-3.0}{33}$$

$$\frac{-0.5}{33} \quad \frac{+0.2}{24} \quad \frac{-0.7}{15} \checkmark \quad \frac{-0.7}{13} \quad \frac{-0.2}{20} \quad \frac{-1.6}{28} \quad \frac{-1.5}{33}$$

3/9/23

sheet # 6 of 20 sheets

Station	Elev		
74+00	263.0 ✓	X	
73+00	262.5 ✓		
72+00	261.9 ✓		Field
71+00	261.6 ✓	X	small grave X
70+00	261.0 ✓		
69+00	260.1 ✓		
68+00	260.0 ✓		
67+00	259.6 ✓		
66+00	258.9 ✓		Field
65+00	258.9 ✓		
64+00	259.3 ✓		
63+00	259.8 ✓		
62+00	60.3 261.4 ✓		

L & R

C.E. Line, Xsections

$$\frac{-4.5}{33} \quad \frac{-4.5}{31} \quad \frac{-3.2}{23} \quad \frac{-1.3}{15} \quad \checkmark \quad \frac{-1.5}{12} \quad \frac{-2.2}{18} \quad \frac{-3.0}{21} \quad \frac{-1.2}{33}$$

$$\frac{-2.8}{33} \quad \frac{-3.4}{25} \quad \frac{-2.3}{19} \quad \frac{-1.0}{13} \quad \checkmark \quad \frac{-1.3}{12} \quad \frac{-2.3}{18} \quad \frac{-2.0}{25} \quad \frac{-0.7}{33}$$

$$\frac{-0.4}{33} \quad \frac{-0.3}{31} \quad \frac{-1.5}{24} \quad \frac{-1.0}{18} \quad \checkmark \quad \frac{-0.6}{14} \quad \frac{-0.2}{23} \quad \frac{-0.4}{33}$$

$$\frac{0.0}{33} \quad \frac{-1.2}{31} \quad \frac{-2.2}{24} \quad \frac{-1.0}{15} \quad \checkmark \quad \frac{-0.6}{13} \quad \frac{0.0}{33}$$

$$\frac{-1.5}{33} \quad \frac{-2.0}{23} \quad \frac{-0.6}{19} \quad \checkmark \quad \frac{-1.3}{12} \quad \frac{-1.8}{20} \quad \frac{-1.5}{33}$$

$$\frac{-2.8}{32} \quad \frac{-3.5}{29} \quad \frac{-2.8}{22} \quad \frac{-1.2}{15} \quad \checkmark \quad \frac{-1.2}{12} \quad \frac{-3.8}{19} \quad \frac{-3.5}{33}$$

$$\frac{-2.8}{33} \quad \frac{-4.4}{27} \quad \frac{-3.5}{19} \quad \frac{-1.0}{12} \quad \checkmark \quad \frac{-1.0}{12} \quad \frac{-3.4}{18} \quad \frac{-4.0}{25} \quad \frac{-2.8}{33}$$

$$\frac{-3.0}{33} \quad \frac{-4.5}{29} \quad \frac{-3.5}{20} \quad \frac{-1.5}{13} \quad \frac{-0.7}{11} \quad \checkmark \quad \frac{-0.6}{11} \quad \frac{-2.1}{14} \quad \frac{-4.5}{20} \quad \frac{-5.0}{25} \quad \frac{-5.5}{33}$$

$$\frac{-2.0}{33} \quad \frac{-3.8}{32} \quad \frac{-4.3}{23} \quad \frac{-1.3}{15} \quad \checkmark \quad \frac{-1.3}{12} \quad \frac{-1.8}{15} \quad \frac{-4.1}{26} \quad \frac{-9.1}{29} \quad \frac{-4.0}{33}$$

$$\frac{-3.0}{34} \quad \frac{-4.2}{25} \quad \frac{-3.1}{20} \quad \frac{-1.2}{14} \quad \checkmark \quad \frac{-1.5}{14} \quad \frac{-2.0}{17} \quad \frac{-4.0}{20} \quad \frac{-2.6}{25} \quad \frac{-2.3}{31} \quad \frac{-2.5}{33}$$

$$\frac{-3.0}{33} \quad \frac{-4.0}{28} \quad \frac{-2.6}{22} \quad \frac{-1.5}{15} \quad \frac{-0.7}{11} \quad \checkmark \quad \frac{-1.0}{12} \quad \frac{-2.6}{16} \quad \frac{-4.5}{20} \quad \frac{-3.8}{23} \quad \frac{-3.0}{33}$$

$$\frac{-2.8}{33} \quad \frac{-2.8}{27} \quad \frac{-3.4}{21} \quad \frac{-1.2}{14} \quad \checkmark \quad \frac{-1.0}{11} \quad \frac{-3.0}{15} \quad \frac{-5.2}{21} \quad \frac{-5.5}{30} \quad \frac{-5.0}{33}$$

$$\frac{-2.5}{33} \quad \frac{-2.3}{29} \quad \frac{-3.2}{24} \quad \frac{-2.6}{17} \quad \frac{-0.8}{12} \quad \checkmark \quad \frac{-0.8}{11} \quad \frac{-3.5}{14} \quad \frac{-7.2}{22} \quad \frac{-3.2}{28} \quad \frac{-2.0}{33}$$

3/9/23

Sheet #7 of 20 sheets

Station	Elev.
87+00	270.2 ✓
86+00	270.5 ✓
85+00	271.0 ✓
84+00	271.3 ✓
83+00	271.7 ✓
82+00	271.9 ✓
81+00	271.7 ✓
80+00	270.7 ✓
79+00	269.5 ✓
78+00	267.8 ✓
77+00	266.1 ✓
76+00	264.6 ✓
75+00	263.1 ✓

fields

sand-gravel

fields

L L R

C.F. Line Xsections

$$\frac{-3.5}{33} \quad \frac{-3.8}{27} \quad \frac{-1.0}{15} \quad \checkmark \quad \frac{-1.3}{12} \quad \frac{-1.0}{18} \quad \frac{-1.5}{33}$$

$$\frac{-3.2}{33} \quad \frac{-3.5}{25} \quad \frac{-1.0}{16} \quad \checkmark \quad \frac{-1.6}{12} \quad \frac{-1.0}{19} \quad \frac{-3.8}{33}$$

$$\frac{-4.3}{33} \quad \frac{-3.2}{25} \quad \frac{-1.2}{16} \quad \checkmark \quad \frac{-1.0}{13} \quad \frac{-1.6}{19} \quad \frac{-0.3}{23} \quad \frac{-0.5}{33}$$

$$\frac{-1.4}{33} \quad \frac{-1.5}{26} \quad \frac{-0.7}{19} \quad \checkmark \quad \frac{-0.5}{16} \quad \frac{-0.8}{33}$$

$$\frac{+3.0}{33} \quad \frac{+1.3}{22} \quad \frac{-0.5}{17} \quad \frac{-0.3}{12} \quad \checkmark \quad \frac{+0.7}{12} \quad \frac{-1.5}{21} \quad \frac{+1.5}{25} \quad \frac{+1.5}{33}$$

$$\frac{+5.8}{33} \quad \frac{+3.8}{24} \quad \frac{-0.5}{23} \quad \frac{-0.3}{15} \quad \checkmark \quad \frac{-0.4}{12} \quad \frac{0.0}{19} \quad \frac{+5.5}{29} \quad \frac{+5.5}{33}$$

$$\frac{+8.3}{33} \quad \frac{+5.3}{28} \quad \frac{-0.8}{20} \quad \frac{-0.3}{13} \quad \checkmark \quad \frac{0.0}{12} \quad \frac{+1.8}{18} \quad \frac{+8.9}{33}$$

$$\frac{+2.5}{33} \quad \frac{+2.8}{29} \quad \frac{-0.6}{21} \quad \frac{-0.3}{15} \quad \checkmark \quad \frac{-0.5}{12} \quad \frac{+1.5}{20} \quad \frac{+5.8}{28} \quad \frac{+6.0}{33}$$

$$\frac{-1.0}{33} \quad \frac{-0.7}{21} \quad \frac{-0.7}{15} \quad \checkmark \quad \frac{-0.5}{12} \quad \frac{-0.2}{21} \quad \frac{+0.8}{27} \quad \frac{+5.0}{33}$$

$$\frac{-0.5}{33} \quad \frac{-0.7}{29} \quad \frac{-1.0}{21} \quad \frac{-0.5}{14} \quad \checkmark \quad \frac{-0.7}{12} \quad \frac{-1.8}{17} \quad \frac{-0.7}{31} \quad \frac{-3.2}{33}$$

$$\frac{-5.0}{33} \quad \frac{-1.5}{23} \quad \frac{-0.8}{15} \quad \checkmark \quad \frac{-1.1}{12} \quad \frac{-5.0}{21} \quad \frac{-5.5}{33}$$

$$\frac{-3.7}{33} \quad \frac{-3.2}{21} \quad \frac{-1.5}{16} \quad \checkmark \quad \frac{+1.8}{13} \quad \frac{-1.5}{17} \quad \frac{-5.5}{23} \quad \frac{-5.5}{33}$$

$$\frac{-0.2}{33} \quad \frac{0.0}{30} \quad \frac{-3.0}{22} \quad \frac{-0.5}{13} \quad \checkmark \quad \frac{-1.0}{12} \quad \frac{-2.2}{19} \quad \frac{-2.2}{33}$$

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Sheet # 8 of 20 sheets

Sta.	Elev.		
100+00	269.8 ✓		
99+00	269.1 ✓	X	X
98+00	268.9 ✓		Plotted lots
97+00	268.2 ✓		
96+53.3			
96+00	268.8 ✓	Plotted lots	
95+15.6			
95+00	268.1 ✓		
94+00	266.8 ✓		
93+00	266.2 ✓		
92+00	265.8 ✓	X	
91+00	267.3 ✓		Small piece X
90+00	268.8 ✓		
89+00	269.5 ✓	Plotted lots	
88+00	269.9 ✓		X

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Sheet #9 of 20 sheets

Sta.	Elev.		
113+00	267.5	269.6	X X
112+00	270.9		✓
111+00	271.7		✓
110+00	272.7		✓
109+00	273.2		✓
108+00	272.8		✓
107+00	272.5		✓
106+00	272.1		✓
105+00	272.0		✓
104+00	271.7		✓
103+00	271.2		✓
102+00	271.0		✓
101+00	270.3		✓

Farmhouse grove

Fields

Fields

Black locust

trees

X

Fields

Sand-gravel X

C.E. Line Xsections

$$\frac{-1.5}{33} \quad \frac{-2.5}{23} \quad \frac{-0.8}{18} \quad \frac{-1.2}{12} \quad \frac{-1.8}{19} \quad \frac{-5.5}{33}$$

$$\frac{+5.0}{33} \quad \frac{+4.0}{26} \quad \frac{-0.7}{20} \quad \frac{-0.3}{17} \quad \frac{-0.5}{12} \quad \frac{-1.0}{20} \quad \frac{-1.8}{33}$$

$$\frac{+3.8}{33} \quad \frac{+3.8}{26} \quad \frac{-0.5}{21} \quad \frac{0.0}{19} \quad \frac{-0.5}{12} \quad \frac{-0.3}{18} \quad \frac{0.0}{25} \quad \frac{-0.8}{33}$$

$$\frac{+1.3}{33} \quad \frac{+1.0}{20} \quad \frac{0.0}{18} \quad \frac{-0.2}{16} \quad \frac{-0.3}{12} \quad \frac{-0.5}{33}$$

$$\frac{0.0}{33} \quad \frac{-0.5}{29} \quad \frac{+0.7}{12} \quad \frac{-0.7}{19} \quad \frac{-2.0}{22} \quad \frac{-2.8}{33}$$

$$\frac{+2.7}{33} \quad \frac{+1.3}{28} \quad \frac{0.0}{19} \quad \frac{0.0}{12} \quad \frac{-0.5}{17} \quad \frac{+1.0}{21} \quad \frac{+2.0}{23} \quad \frac{+2.5}{33}$$

$$\frac{+2.3}{33} \quad \frac{+1.5}{25} \quad \frac{+1.0}{24} \quad \frac{+0.1}{21} \quad \frac{0.0}{15} \quad \frac{-0.2}{12} \quad \frac{-0.2}{17} \quad \frac{+1.5}{21} \quad \frac{+2.3}{24} \quad \frac{+2.8}{33}$$

$$\frac{+1.6}{35} \quad \frac{+1.4}{23} \quad \frac{-0.3}{20} \quad \frac{-0.3}{12} \quad \frac{-0.4}{12} \quad \frac{0.0}{17} \quad \frac{+1.0}{22} \quad \frac{+1.5}{26} \quad \frac{+2.0}{37}$$

$$\frac{+2.4}{33} \quad \frac{+2.7}{23} \quad \frac{-0.7}{18} \quad \frac{-0.4}{12} \quad \frac{-1.0}{16} \quad \frac{0.0}{24} \quad \frac{+1.3}{33}$$

$$\frac{+2.0}{33} \quad \frac{+2.0}{22} \quad \frac{0.0}{18} \quad \frac{-0.5}{12} \quad \frac{-1.9}{18} \quad \frac{0.0}{27} \quad \frac{+1.0}{33}$$

$$\frac{-1.5}{33} \quad \frac{-1.5}{27} \quad \frac{-0.4}{19} \quad \frac{+0.9}{12} \quad \frac{-2.9}{16} \quad \frac{-1.0}{21} \quad \frac{-1.0}{33}$$

$$\frac{-5.0}{33} \quad \frac{-3.8}{22} \quad \frac{-1.5}{18} \quad \frac{-1.2}{12} \quad \frac{-3.6}{16} \quad \frac{-4.5}{22} \quad \frac{-5.0}{33}$$

$$\frac{-4.5}{33} \quad \frac{-4.8}{27} \quad \frac{-2.5}{19} \quad \frac{-1.0}{15} \quad \frac{-0.7}{12} \quad \frac{-2.5}{20} \quad \frac{-2.7}{33}$$

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Sheet #10 of 20 sheets

Sta	Elev
126+00	261.2 ✓
125+00	260.5 ✓
124+00	260.7 ✓
123+00	260.9 ✓
122+00	260.8 ✓
121+00	261.3 ✓
120+00	262.3 ✓
119+00	263.2 ✓
118+00	264.4 ✓
117+00	265.6 ✓
116+00	266.4 ✓
115+00	267.3 ✓
114+00	268.3 ✓

open fields

open fields

C.E. Line Xsections

$$\begin{array}{cccccc} -2.2 & -1.0 & \checkmark -1.2 & -1.8 & 0.0 & +0.5 \\ \hline 33 & 17 & 12 & 19 & 22 & 33 \end{array}$$

$$\begin{array}{cccccc} -0.5 & \checkmark 0.6 & -1.0 & +1.0 & +1.5 \\ \hline 33 & 12 & 18 & 23 & 33 \end{array}$$

$$\begin{array}{cccccc} -0.2 & \checkmark -0.7 & -2.0 & 0.0 & 0.0 \\ \hline 33 & 12 & 19 & 24 & 33 \end{array}$$

$$\begin{array}{cccccc} -1.5 & -1.0 & \checkmark 0.8 & -2.1 & -0.3 & 0.0 \\ \hline 33 & 19 & 12 & 19 & 23 & 33 \end{array}$$

$$\begin{array}{cccccc} -5.1 & -3.8 & 1.0 & \checkmark 1.0 & -2.3 & -0.5 & -0.5 \\ \hline 33 & 25 & 18 & 12 & 20 & 26 & 33 \end{array}$$

$$\begin{array}{cccccc} -4.2 & -3.8 & -0.7 & \checkmark -0.6 & -1.8 & 0.0 & 0.0 \\ \hline 33 & 26 & 17 & 12 & 22 & 26 & 33 \end{array}$$

$$\begin{array}{cccccc} -3.7 & -2.6 & -1.0 & \checkmark -0.9 & -1.0 & -1.5 & -1.3 \\ \hline 33 & 24 & 18 & 12 & 22 & 28 & 33 \end{array}$$

$$\begin{array}{cccccc} -2.0 & -0.8 & -0.7 & -2.0 & -1.8 & -1.5 \\ \hline 33 & 17 & \checkmark 12 & 17 & 25 & 33 \end{array}$$

$$\begin{array}{cccccc} -2.0 & -0.6 & \checkmark 0.15 & -1.2 & -0.3 & 0.0 \\ \hline 33 & 19 & 12 & 24 & 25 & 33 \end{array}$$

$$\begin{array}{cccccc} -1.0 & -0.5 & -0.2 & \checkmark 0.0 & -0.2 & -0.2 & 1.5 & +2.5 \\ \hline 33 & 31 & 18 & 13 & 20 & 25 & 30 & 33 \end{array}$$

$$\begin{array}{cccccc} -2.0 & -0.7 & \checkmark -0.3 & -0.15 & +0.3 & +2.2 & +2.8 \\ \hline 33 & 19 & 12 & 18 & 26 & 30 & 33 \end{array}$$

$$\begin{array}{cccccc} -6.0 & -5.0 & -4.4 & -1.0 & \checkmark -0.6 & -0.8 & -1.2 & +1.7 & +0.5 \\ \hline 33 & 30 & 21 & 14 & 12 & 18 & 23 & 29 & 33 \end{array}$$

$$\begin{array}{cccccc} -5.5 & -5.0 & -0.7 & \checkmark -1.2 & -2.7 & -3.6 & -3.2 & -3.0 \\ \hline 33 & 24 & 14 & 12 & 15 & 20 & 25 & 33 \end{array}$$

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sheet # 11 of 20 sheets

Sta.	Elev	
139+00	258.8	✓
138+00	258.9	✓
137+00	254.2	✓
136+00	255.2	✓
135+00	256.6	✓
134+00	257.5	✓
133+00	258.9	✓
132+00	259.8	✓
131+00	260.7	✓
130+00	260.8	✓
129+00	260.5	✓
128+00	260.1	✓
127+00	260.1	✓

Black loam

Plowed fields

L R

C.E. Line Xsections

$$\begin{array}{cccc|cccc} -6.0 & -4.0 & -1.1 & & -0.6 & -1.0 & -1.5 & -0.5 \\ 33 & 23 & 14 & & 12 & 17 & 20 & 33 \end{array}$$

$$\begin{array}{cccc|ccc} -3.8 & -3.2 & -1.0 & & -1.2 & -2.0 & -2.0 \\ 33 & 21 & 14 & & 12 & 19 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -3.0 & -2.0 & -0.8 & & -1.0 & -2.5 & -1.0 & -1.0 \\ 33 & 20 & 13 & & 12 & 20 & 29 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -1.8 & -2.0 & -1.1 & -0.5 & -0.2 & -1.7 & -0.5 & -0.8 \\ 33 & 27 & 18 & 15 & 12 & 19 & 23 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} +1.8 & +1.5 & -1.0 & -0.3 & +0.5 & -0.5 & 0.0 & +0.2 \\ 33 & 30 & 23 & 14 & 12 & 16 & 19 & 33 \end{array}$$

$$\begin{array}{cccc|cc} +0.7 & +0.3 & -1.5 & -0.5 & -0.5 & -0.5 \\ 33 & 29 & 23 & 17 & 12 & 33 \end{array}$$

$$\begin{array}{ccc|ccc} +2.4 & 0.0 & -2.0 & +1.0 & -1.5 & -1.5 \\ 33 & 28 & 20 & 12 & 18 & 33 \end{array}$$

$$\begin{array}{cccc|ccc} +3.3 & +2.3 & +1.0 & 0.0 & -0.2 & -1.0 & -1.5 \\ 33 & 27 & 25 & 19 & 12 & 25 & 33 \end{array}$$

$$\begin{array}{ccc|cccc} +2.2 & +1.8 & -0.6 & 0.0 & +0.6 & +1.0 & +0.8 \\ 33 & 21 & 17 & 12 & 15 & 21 & 33 \end{array}$$

$$\begin{array}{ccc|ccc} +1.9 & +1.9 & 0.0 & 0.0 & +2.5 & +2.4 \\ 33 & 22 & 15 & 14 & 19 & 33 \end{array}$$

$$\begin{array}{cccc|ccc} +0.3 & +0.5 & -0.4 & -0.2 & -0.3 & +1.2 & +1.5 \\ 33 & 23 & 19 & 14 & 12 & 17 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -6.0 & -4.2 & -2.0 & -0.8 & -1.0 & -2.3 & -2.0 & -1.5 \\ 33 & 26 & 21 & 15 & 12 & 16 & 27 & 33 \end{array}$$

$$\begin{array}{cccc|cccc} -5.6 & -4.8 & -2.0 & -1.0 & -1.3 & -2.7 & -2.0 & -1.8 \\ 33 & 25 & 20 & 15 & 12 & 17 & 22 & 33 \end{array}$$

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Sheet #12 of 20 sheets

Sta.

Elev.

195+00

199+00

193+00

192+00

191+00

190+00

254.0 ✓

X

X

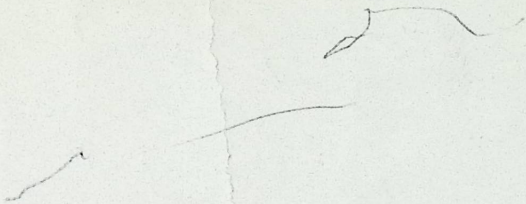
L ~~Q~~ R

C.E. Line Xsections

$\frac{-3.2}{33}$	$\frac{-2.6}{22}$	$\frac{-1.0}{15}$	$\frac{-0.5}{12}$	$\frac{-1.0}{17}$	$\frac{-1.5}{33}$
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Sheet #12 of 20 sheets





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