70

FIELD BOOK.

No. 400 T.

County No 2

1909

NO

EUGENE DIETZGEN CO.,

Drawing Materials and Surveying Instruments.

NEW YORK. CHICAGO. SAN FRANCISCO.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 20 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

PAGE

INDEX

7

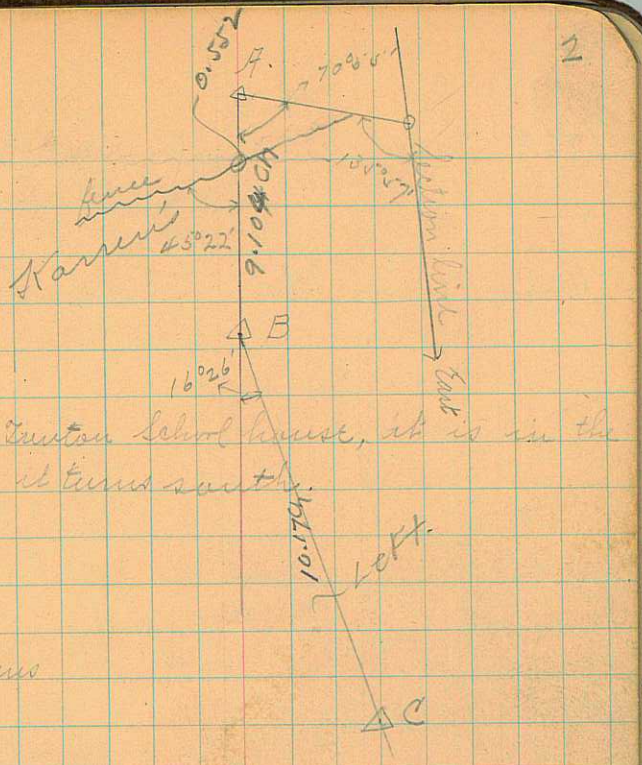
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	0
1	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11 7	11.8	11.9	1
22	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	22
23	33.0	33.1	33.2	33.3	33.4	33.5	33 6	33.7	33.8	33.9	23
24	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	24
25	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	25
26	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36 7	36.8	36.9	26
27	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37 8	37.9	27
28	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38 7	38.8	38 9	28
29	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39 9	29
30	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	30
31	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	31
32	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	32
33	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	33
34	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	34
35	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	35
36	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	36
37	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	37
38	48.0	48 1	48 2	48.3	48.4	48.5	48 6	48.7	48 8	48.9	38
39	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	39
40	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	40

Calculated by F. E. Paradis, C. E.

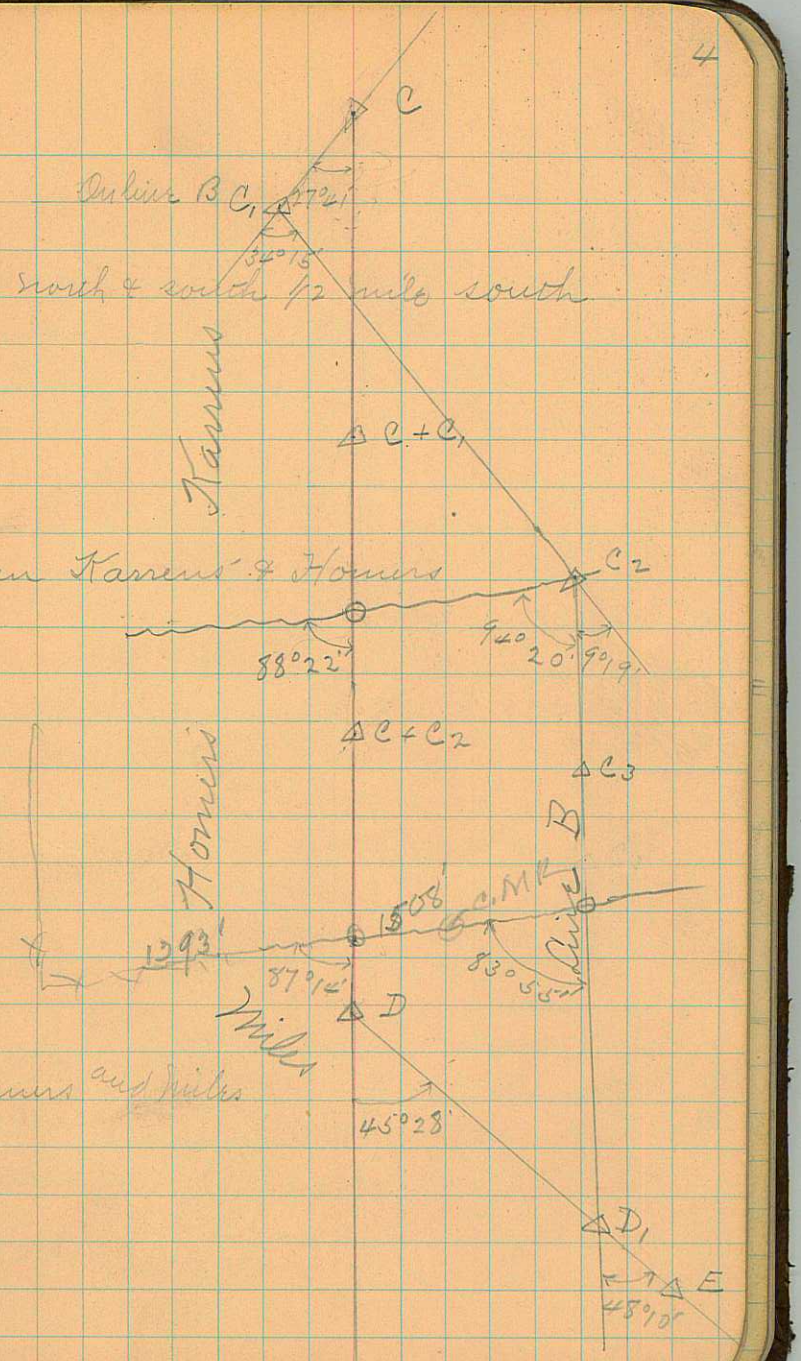
Proposed County road from Trenton to Bear River Bridge.

Line A

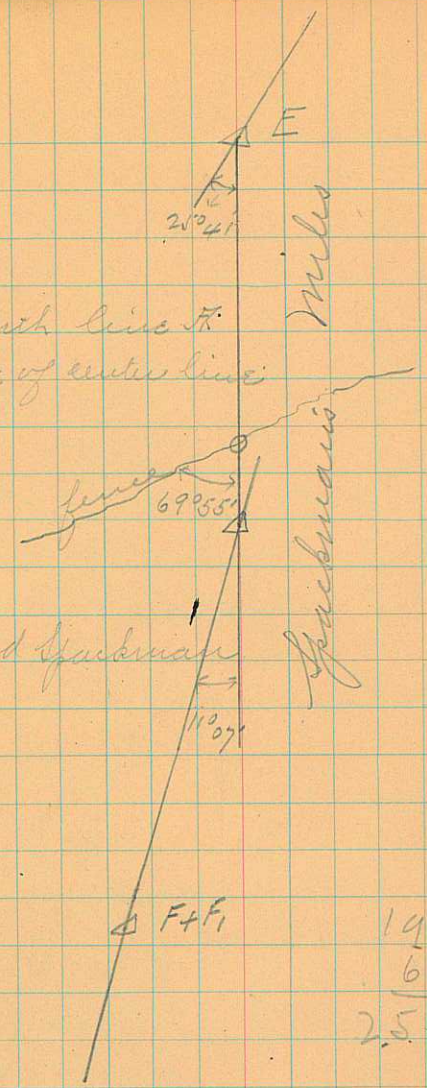
Sta	Angle	Dist.	Remarks
	At Point on Section line		
F.S	0° 00	East	
A	R 135° 57'		Station A is a point 2½ miles east of Trenton School House, it is in the main road at a point where it turns south.
	At Sta. A		
B	0° 00	9 ch. 10.4 l	F.S.
Section line	L 70° 55'		
A	0° 00	55.2 l	Fence line between public road & Karens
Pipe	L 90°	33 ft.	
	at Hub on fence line between A & B.		
A	0° 00'		B.S.
fence line	R 45° 22'		fence line between public road & Karens
	At Sta B		
A	0° 00'		B.S.
C	L 16° 26'	10 ch. 17 l	
Pipe	L 98° 13'	33.3 ft.	There are two pipes one on each side of center line



Sta.	Angle	Dist	Remarks
			At Sta C.
B	0° 00'		B.S.
C+C₁	L 27° 46½' (41' Revised)	23 Ch 85.7l	Opposite road running south & south 1/2 mile south
			At Sta C+C₁
C	0° 00'		B.S.
fence line	0° 00'	10 Ch 88.5l	On fence line between Karrens & Homers
			At Hub on fence line
C+C₁	0° 00'		B.S.
fence line	R 88° 22'		
C+C₂	0° 00'	6 Ch 44.6l	
			At Sta C+C₂
C+C₁	0° 00'		B.S.
fence line	0° 00'	22 Ch 87.6l	On fence line between Homers and Hicks
D	0° 00'	24 Ch 92.3l	
			At Hub on fence line
D	0° 00'	2 Ch 05.3l	F.S.
fence line	R 87° 14'		



Sta	Angle	Dist	Remarks
		At Sta D	
C+C2	0° 00'		B.S.
E	L 45° ~~47~~ 28' revised	11 Ch 3 l	
D1	L 45° 28'	2 Ch 7.5 l	Point where line B connects with line E
fnce	L 102° 46'	35.8 ft	Two fnces one on each side of center line
		At Sta E	
D	0° 00'		B.S.
F	L 25° 41'	19 Ch 26 l	
Fence line	L 25° 41'	11 Ch 16.8 l	On fence between Miles and Stackman
fnce	L 102° 51'	33.8 ft	Two fnces
		At Hub on fence line	
F	0° 00'		F.S.
fence line	R 69° 55'		
		At Sta F	
E	0° 00'		B.S.
F+F1	R 110° 07'	6 Ch 46.3 l	
fnce	R 95° 33'	33.3 ft	Two fnces

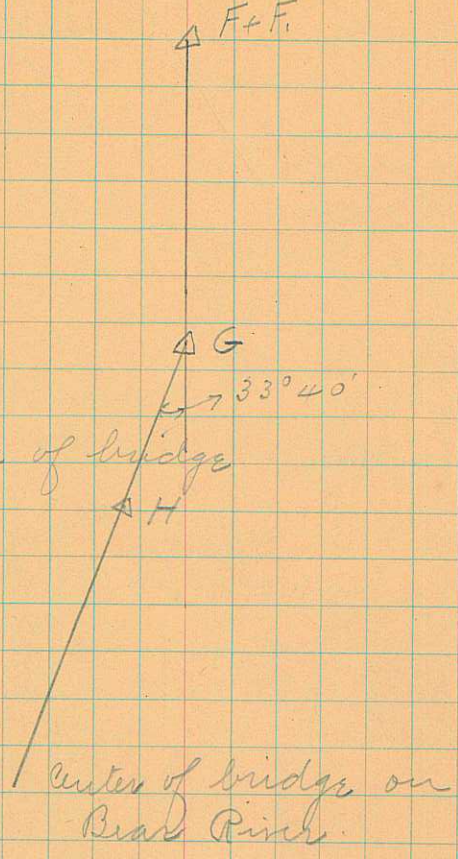


19.26
6 46
25.72

Henry Stackman
Sarah Miles

$50 per acre.
50¢ per rod.

Sta	Angle	Dist	Remarks
	at Sta F+F₁		
F	0° 00'		B.S.
G	0° 00'	6 ch 85 l	
	at Sta G.		
F+F₁	0° 00'		B.S.
H	R 33° 40'		
Bridge	R 33° 40'	10 ch 47 l	To Concrete wall at west side of bridge
fire	R 106° 50'	34.5 ft	Two fires



Sta	Angle	Dist	Remarks
			Line B.
			Line B begins at C. on line A
	At Sta C		
B	0° 00'		B.S.
C_1	0° 00	82.6 l	
	At Sta C_1		
C	00° 00'		B.S.
C_2	L 34° 15'	34 ch 21 cl	C_2 is on fence line between Karnes & Homers
	At Sta C_2		
C_1	0° 00'		B.S.
C_2	R 9° 19'	16 ch 54 l	
fence line	94° 20'		
	At Sta C_3		
C_2	0° 00'		B.S.
D_1	0° 00'	17 ch 33.6 l	D_1 is located on line F between Sta D and E
fence line	0° 00	13 ch 26.1 l	Fence between Homers and Miles

For sketching of line see pp. 4

At Hub on fence line

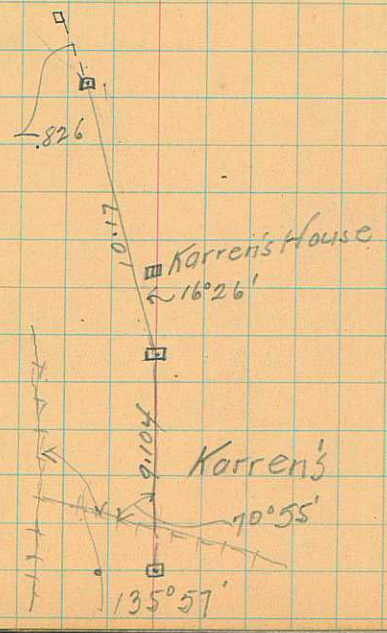
Sta	Angle	Dist.	Remarks
D_1	0° 00'	4ch 75 l	F.S.
fence	R 83° 55'		

At D_1 Sta

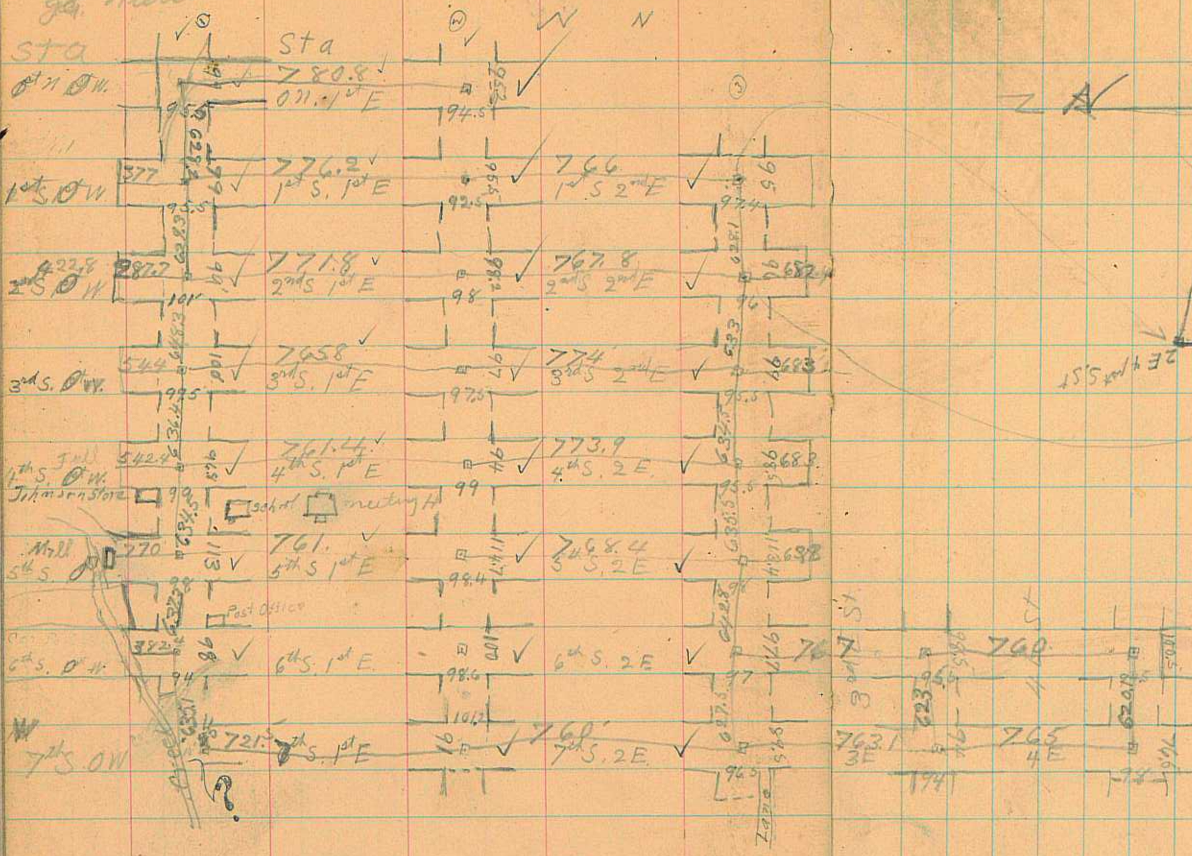
C_3	0° 00'	B.S.	
E	L 48° 10'	E Sta on line	a

13

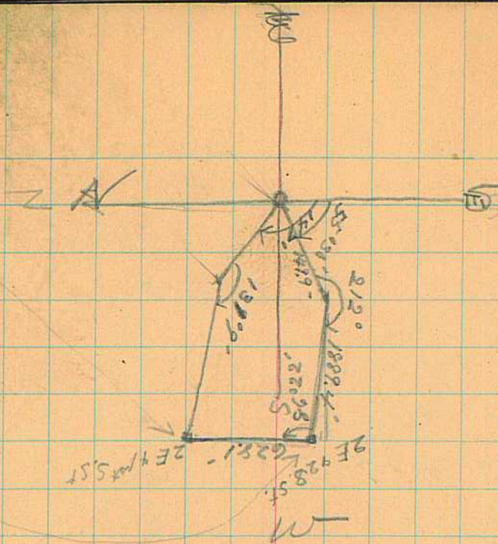
14



15 I began on the cor. of the most Northerly & Westerly street in Millville and ran South.
J. H. Nielsen & Fred Petersen, Oct. 25, 1909.



M. 77 60+60 and is on fence line on S. Side



382.4

666
199

17 I Set up over hub on ON & 1st E. St and set my vernier on hub on 1st E & 1st S. St. as a beginning.
J.G. Nielsen Inst. Fred Petersen Jesse Smith ~~John Petersen~~
Bantu Green Ass'ts. Oct. 26. 09.

Sta	Inst at	Angle	Distance	
ON. 1E st.	ON. 1st E st.		0+00	
1st S 1st E			6+23.7	
ON. OW. st.		90°55'	~~12+50.6~~	
	1st E, 1st S. St			
2nd E. 1st S. St		90°30'	✓	626.9
OW. 1st S st.	↖↗	180°25'		
1st E 2nd S. St	↙↘	270°37'	12+50.6	
	1st E. 2nd S. St.			
1st E. 1st S. St				641.3
2nd E. 2nd S. St		90°10' ✓		
1st E 3rd S. St.		180°25' ✓	18+91.9	
OW. 2nd S. st.		270°00'	✓	
	1st E 3rd S			
1st E 2nd S				632.2
2nd E 3rd S.		89°15'	✓	
1st E 4th S.		179°47'	✓ 25+24.1	
OW 3rd S.		269°05'	✓	
	1st E. 4th S			
1st E 3rd S				639.2
2nd E 4th S		89°25'		
1st E 5th S		179°38'	31+63.3	
OW & 4th S		269°15'		
	1st E. 5th S			
1st E 4th S				636.2
2nd E 4th S		89°45' ✓		
1st E 6th S		179°45'	37+99.5	
OW 5th S		269°55'		

N

Set Inst on this hub.

Back Sight on Hub at ON. 1st E

Back Sight on 1st E 1st S. St.

W

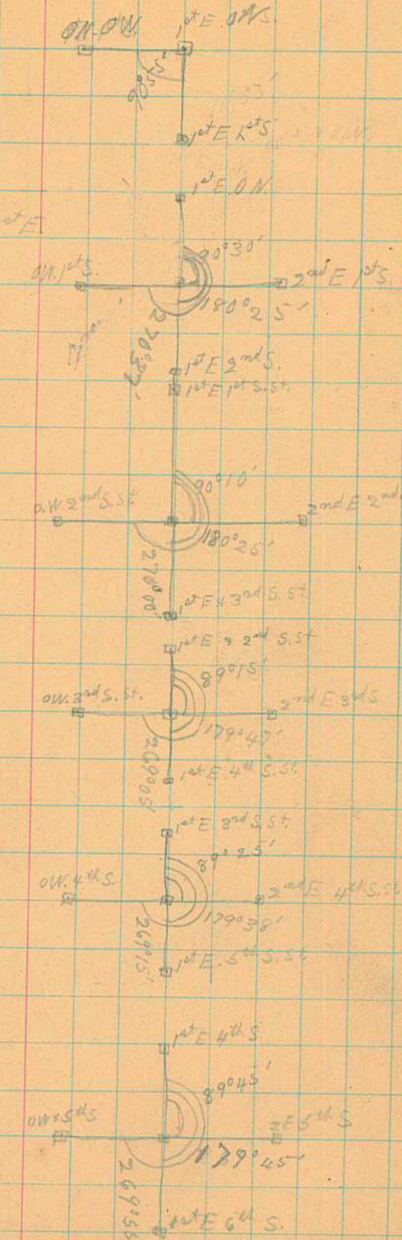
Back Sight on 1st E 2nd S. St.

Back Sight on 1st E 3rd S. St.

Back Sight on 1st E 4th S.

S

E



Sta	Inst at	Angle	Distance	
	1st E 6th S			
1st E 6th S				6+19.5
2nd E 6th S		90° 20'		
1st E 7th S		180° 10'	44+29	
3rd E 6th S		270° 10'	0+00	
	1st E 7th S			7+60.2
1st E 6th S			7+60.2	
2nd E 7th S		89° 50'		
	2nd E 7th S			7+21.5
1st E 7th S				
2nd E 6th S		90° 15'	15+22.6	
3rd E 7th S		180		
	3rd E 7th S			
2nd E 7th S				
3rd E 6th S		90° 40'		
4th E 7th S		179° 20'		
	4th E 7th S			
3rd E 7th S				
4th E 6th S		90° 55'		

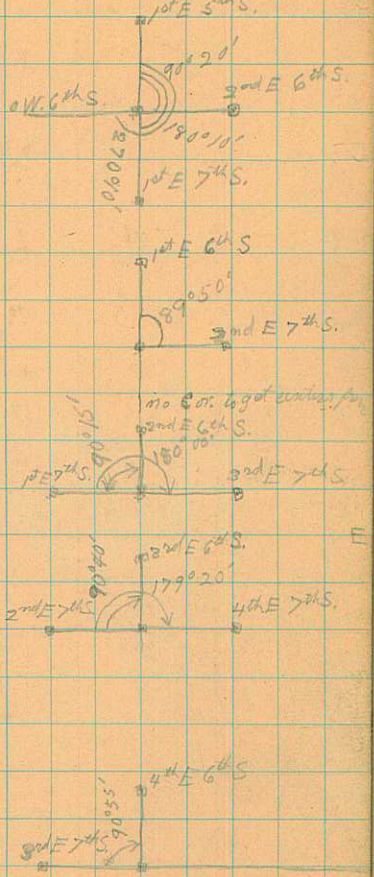
Back Sight on 1st E 6th S.

Back Sight on

Back Sight on 1st E 7th S.

Back Sight 2nd E 7th S

Back Sight on 3rd E 7th S.



34.81
24.85
9.96

34.81
24.85
96

24.85
11.10
13 75
4
55 x 0 0

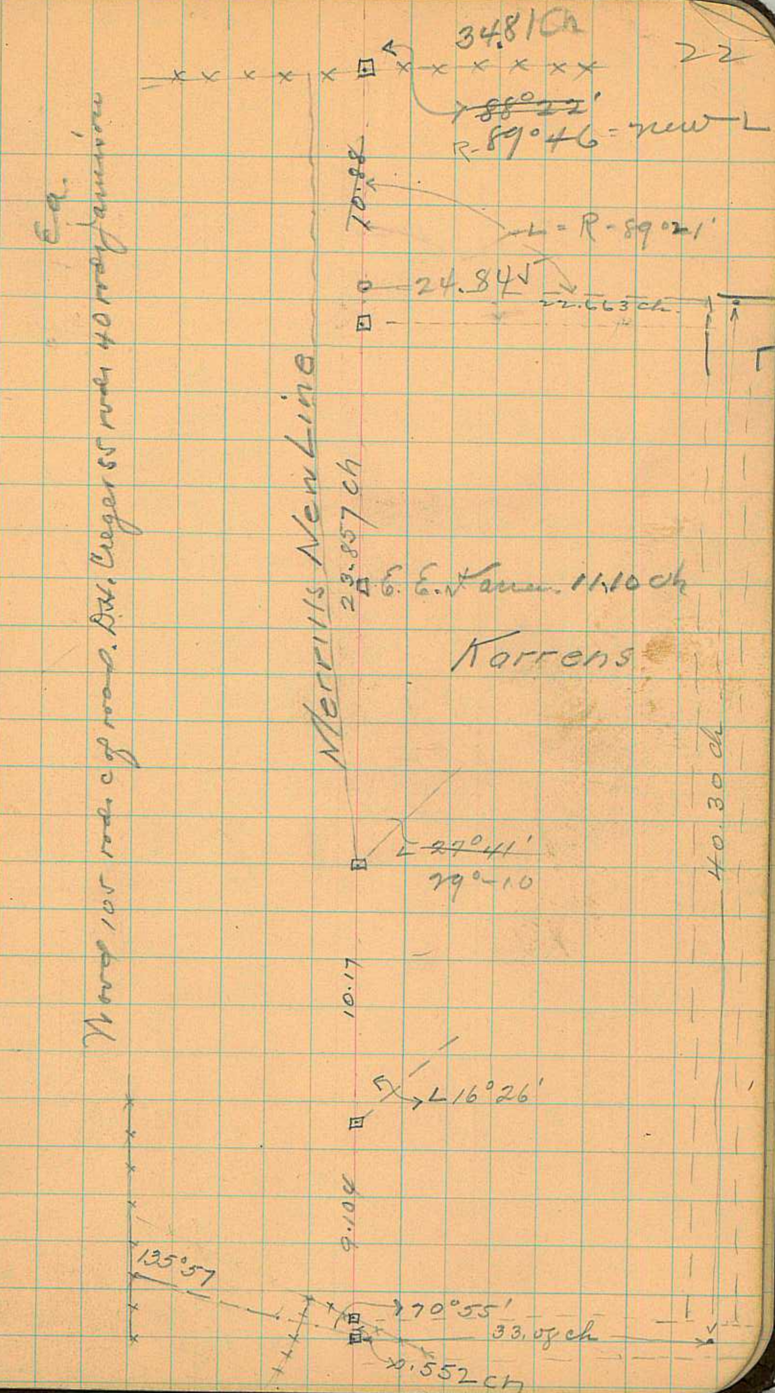
24.85
11 10
13.75
55 0 0

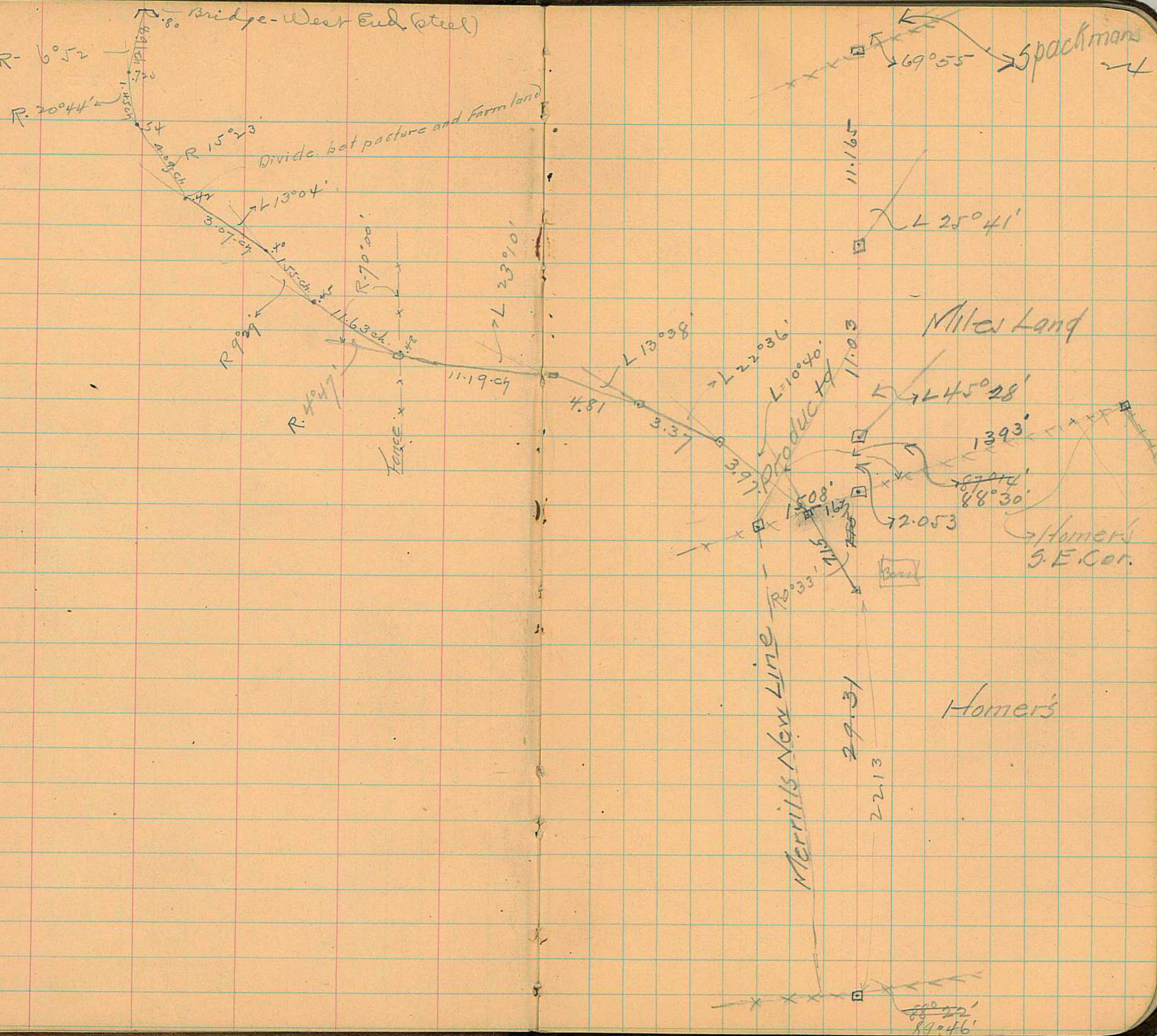
59.30

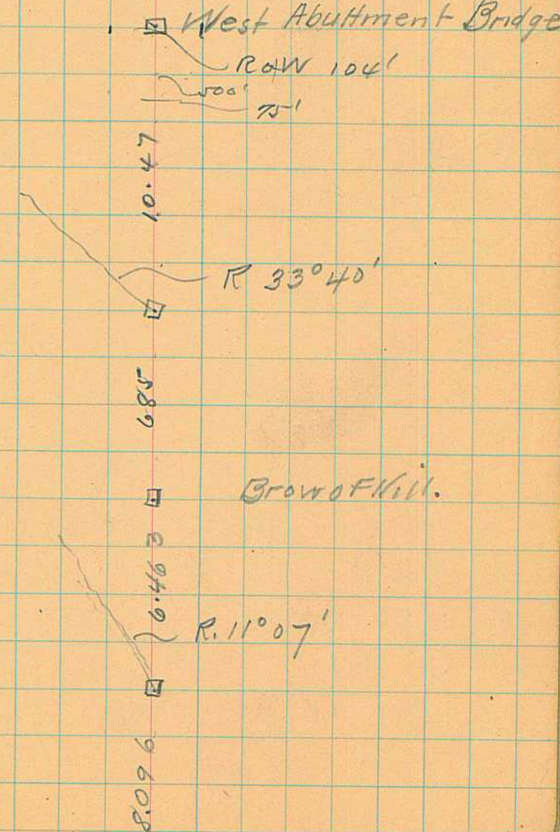
10.88
23.86
34.74

13 75
4
3
55.00

23.86




Bridge - West End (steel)
R- 6°52
R. 20°44'
R 15°23
Divide. bet pasture and Farm land
L 13°04'
3.07 ch
1.55 ch
R 9°29'
R-70°00'
11.63 ch.
R. 4°47'
Fence
11.19 ch
L 23°10'
L 13°38'
4.81
3.37
3.97
L 22°36'
L 10°40'
Product
11.03
15.08'
1.16
72.053
R 0°33'
Merrill's New Line
29.31
22.13
69°55'
Spackmans
11.165
L 25°41'
Miles Land
L 45°28'
1393'
88°30'
Homer's S.E. Cor.
Homer's
89°46'


West Abuttment Bridge
RoW 104'
500'
75'
10.47
R 33°40'
685
Brow of Hill.
6.46
R. 11°07'

Survey Made May 14 - 010 on Green's Drain.

Sta	+	HI	−	Elv.	
				100.0	
	2.3	102.3			
0			10.3	92.0	Picket fence B.M. on top of Scant Mend a
1+20			7.7	94.6	Opposite culvert.
2+0			5.2	97.1	Edge of Water "
3+0			5.6	96.7	
3+74			3.2	99.1	S. Bank
3+79			6.0	96.3	Center of Ditch
3+84			3.2	99.1	
4+0			5.1	97.2	
4+15			7.4	94.9	Beg of Gutter
5+0			8.2	94.1	
6+0			8.6	93.7	
7+0			10.6	91.7	

29 Survey made on canal on Poor Farm Mar 20-10

Sta	+	H.I.	-	Elev	Gr.	Cut or Fill	
				100.0			Corner of fence on bank Merchants N.H. Co
	0.2	100.2					
0			1.3	98.9	98.9		100' E of wood.
1			2.0	98.2	98.3		
2			2.0	98.2	97.7	+.5	
3			3.0	97.2	97.1	+.1	
4			4.3	95.9	96.5	-.6	S=.006
5			4.7	95.5	95.9	-.4	
6			5.0	95.2	95.3	-.1	
7			5.3	94.9	94.7	+.2	
8			6.3	93.9	94.1	-.2	
9			5.9	94.3	94.0	+.3	S=.01
10			6.7	93.5	93.9	-.4	
11			6.4	93.8	93.8	.0	
12			5.8	94.4	93.7	+.7	
13			6.1	94.1	93.6	+.5	
13+75=0 on NE line			6.7	93.5	93.5	0	Edge main ditch where it turns SW & NE
1			6.5	93.7	93.4	+.3	Runs N.E
2			6.7	93.5	93.3	+.2	
3			6.7	93.5	93.2	+.3	
4			6.3	93.9	93.1	+.8	Other line branches N.
5			7.1	93.1	93.0	+.1	
6			6.7	93.5	92.9	+.6	
7			5.7	94.5	92.8	+1.7	
8			4.7	95.5	92.7	+2.8	

Sta	+	H.I.	−	Elev	Gr.	Cut or Fill	
		100.2					
1. 9			5.1	95.1	92.6	2.5	
10			5.00	95.2	92.5	2.7	
11			4.8	95.4	92.4	3.0	
12			5.1	95.1	92.3	2.8	
13			4.7	95.5	92.2	3.3	
14			4.9	95.3	92.1	3.2	
15			5.5	94.7	92.0	2.7	
16			6.2	94.0	91.9	2.1	
17			6.1	94.1	91.8	2.3	
18			7.0	93.2	91.7	1.5	End of line. Near N.E. cor Farm
4 = 4a							
5 a			7.0	93.2	93.	+.2	
6 a			7.2	93.0	92.9	+.1	
7. a			7.3	92.9	92.8	+.1	
8. a			6.7	93.5	92.7	+.8	
9. a			7.4	92.8	92.6	+.2	
10. a			7.1	93.1	92.5	+.6	
11. a			6.8	93.4	92.5	1.0	
12. a			6.8	93.4	92.3	1.1	
13. a			7.0	93.2	92.2	1.0	
14 a			7.4	92.8	92.1	0.7	End of line
0 = Sta x on main line			1.8	98.2	98.3	−.1	
1			1.2	99.0	98.2	+.8	
2			2.1	98.1	98.1	0	

Sta	+	HS 100.2	−	Elev	Gr.	Cut or Fill
3			3.0	97.2	98.0	−.8
4			2.6	97.6	97.9	−.3
5			2.6	97.6	97.8	−.2
6			1.8	98.4	97.7	+0.7
7			1.6	98.6	97.6	+1.0
8			3.2	97.0	96.0	+1.0
9			4.8	95.4	94.4	+1.0
10			4.2	96.0	95.2	+00.8
11			4.0	96.2	95.2	+1.0
12			5.7	94.5	93.5	+1.0
13			6.4	93.8	93.0	+0.8

35 Survey of Drain Ditch for County Poor Farm from House to Ditch on E. side of County Road W of House

Nov-11-10- A.H.C

Sta	+S	HI	-S	Elev.	Rem.
				100'	
	3.7	103.7	11.4	92.3	
	7.1	99.4	9.15	90.25	

Bottom of cellar = 6.3 ft below cement sill on outside window.

= On cement sill outside window

= In ditch on E Side Co. Road to Greeville

Sta	+	H I	−	Elev.	R	R	C	L	
				100.					Top of culv. on N side
	6.6	106.6							of road on E end
			7.4	99.2					Bottom of ditch N side
0						5.8 ✓	4.8 ✓	5.9 ✓	
1			[illegible]			6.0 ✓	5.6 ✓	6.2 ✓	
2						5.6 ✓	5.0 ✓	5.4 ✓	
3						5.1 ✓	4.7 ✓	5.3 ✓	
4						5.0 ✓	4.5 ✓	5.2 ✓	
5						5.1 ✓	4.5 ✓	5.0 ✓	
6						5.1 ✓	4.5 ✓	5.0 ✓	
7						4.9 ✓	4.6 ✓	5.1 ✓	
8						4.8 ✓	4.4 ✓	5.0 ✓	
9						4.6 ✓	4.4 ✓	4.6 ✓	
10						4.5 ✓	4.5 ✓	5.0	
			6.2	100.4					SW in Pond

Survey made July 17-11 on Co road
N of Cronquists Farm

Sta	+	HI	−	Elev C	−	Elev N	−	Elev S	
				100.0					B.M. N.W Cor. Cronquist G.
	0	100.00							
0+0			0.4	99.6	1.6	98.4	0.6	99.4	
1+0			3.3	96.7	2.7	77.3	3.8	96.2	
2+0			5.5	94.5	5.2	94.8	6.0	94.0	
3+0			7.8	92.2	7.5	92.5	8.4	71.6	
4+0			10.0	90.0	9.9	90.1	10.6	89.4	
5+0			12.4	87.6	12.4	87.6	13.0	87.0	
T.P on 5.			11.8	88.2					
	1.5	89.7							
6+0			4.5	85.2	4.4	85.3	5.2	84.5	
7+0			7.0	82.7	7.1	82.6	7.3	82.4	
8+0			9.2	80.5	9.3	80.4	9.8	79.9	
9+0			11.4	78.3	11.7	78.0	11.9	77.8	
T.P on 9.			10.9	78.8					
	1.7	80.5							
10			4.3	76.2	5.0	75.5	5.1	75.4	
11			6.6	73.9	6.7	73.8	7.0	73.5	
12			9.1	71.4	9.2	71.3	9.2	71.3	
13			10.3	70.2	10.6	69.9	10.7	69.8	Street
14			~~12.8~~	67.9	~~[illegible]~~	67.6	~~[illegible]~~	67.1	Cross.
T.P on 13			9.7	70.8					
	1.6	72.4							
15			6.7	65.7	6.7	65.7	6.7	65.7	
16			8.4	64.0	8.4	64.0	8.7	63.7	
17			10.2	62.2	10.3	62.1	10.5	61.9	

Considerable work to here ↓

Stg.	+ HS	— Elv. C.		— Elv. N.		— Elv. S.	
	92.4						
18		12.2	60.2	12.1	60.3	12.3	60.1
TP on 18		11.7	60.7				
	2.3 63.0						
19		5.3	57.7	4.7	58.3	4.8	58.2 Center 1' in ditch
20		7.6	55.4	7.2	55.8	6.7	56.1 " 1' " "
21		9.3	53.7	9.3	53.7	9.2	53.8 " .5' " "
+50		9.6	53.4	9.8	53.2	9.6	53.4 On Bank. Canal
		9.2	53.8		E center E. Twin Bridge		

Elevations Taken Clay 5/94 Bia,
Aug 3

Sta	+	HI	−	Elv
				100.00
	0.52	100.52		
			10.65	
			10.68	89.84
			10.75	
			10.50	
			0.86	99.66
			10.3	
			10.5	
			10.60	
			10.35	
				100.00
	6.91	106.91		
			3.75	103.16

av. 89.87 = W abut

av. 90.0? E abut

S. End of wing of west pier
Inner W. pier and S. side West pier wing
" " " " N " " "
N End of wing of west pier
Bottom of center girder.
N end of wing E pier
Inner E pier & N wing
" " " " S "
S end of wing East pier.

Grade: 4" higher.

99.66
89.84
9.82

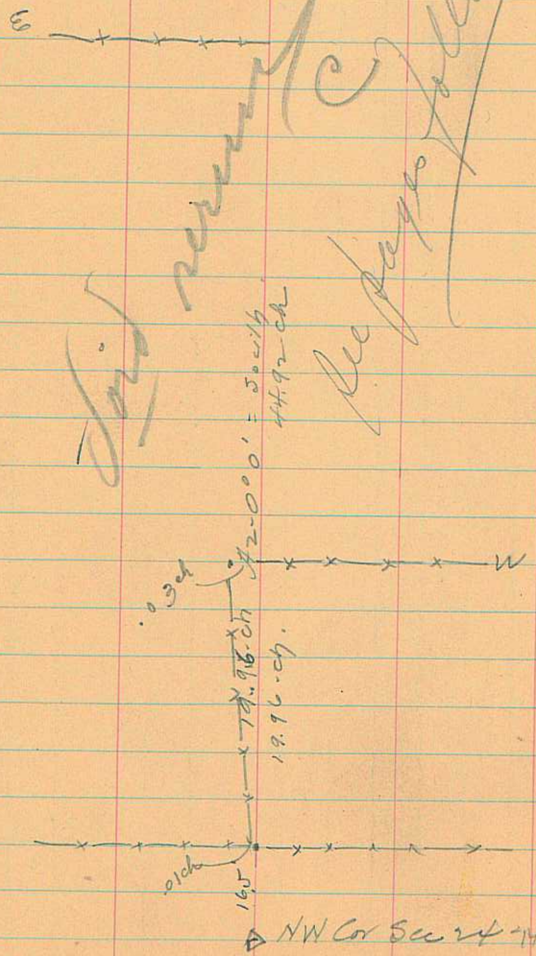
Levels Lakeview Newlin Pond[?]
Aug 11-1911

Sta	+	H I	—	Elv.	
				100.00	BM on Flume.
	6.82	106.82			
			5.50	101.32	H W. marks.
			3.70		Lower plane floor
			6.7		H. Wings

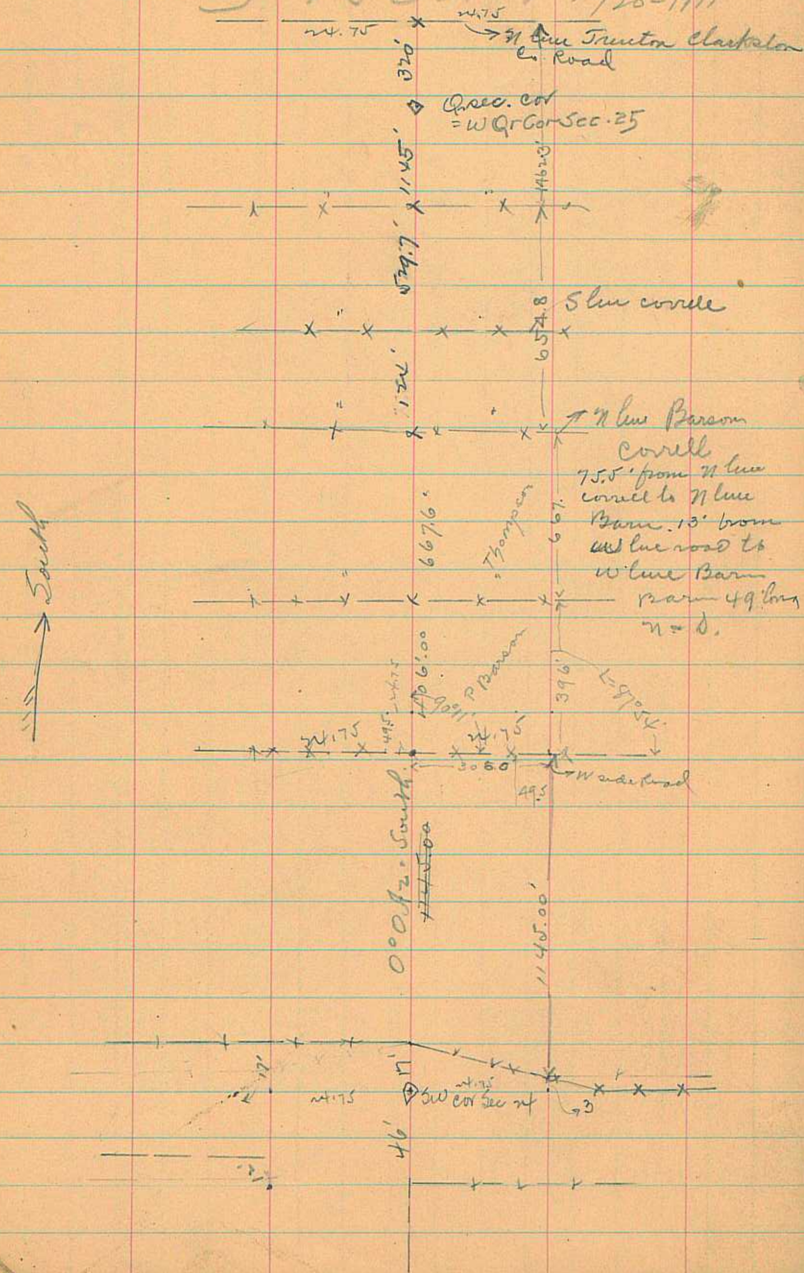
47 Survey of County Road, in Clarkston
1. begin at N.W. cor of Sec. 24. Tp14N-R-2W.

Void renew MC

see pages following



#1 Survey of Clarkston County Road 10/20-1911

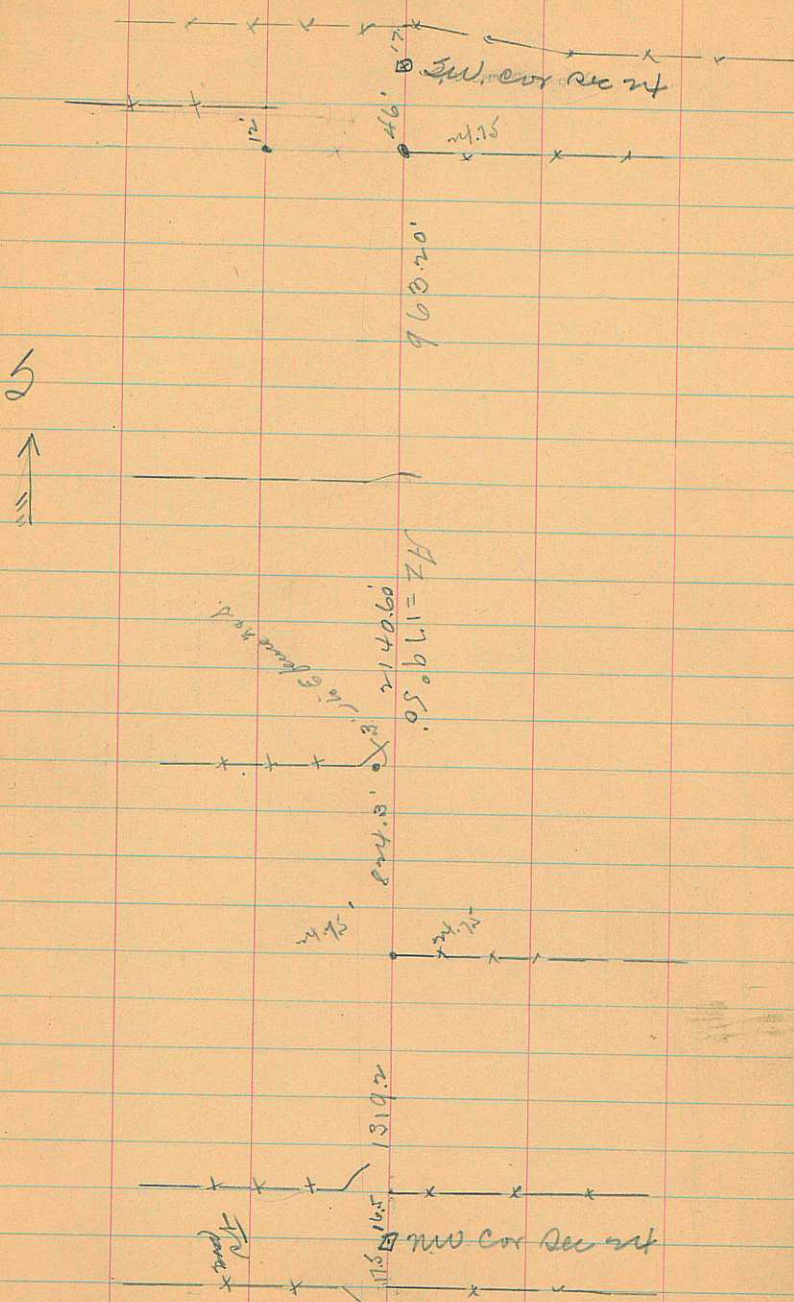


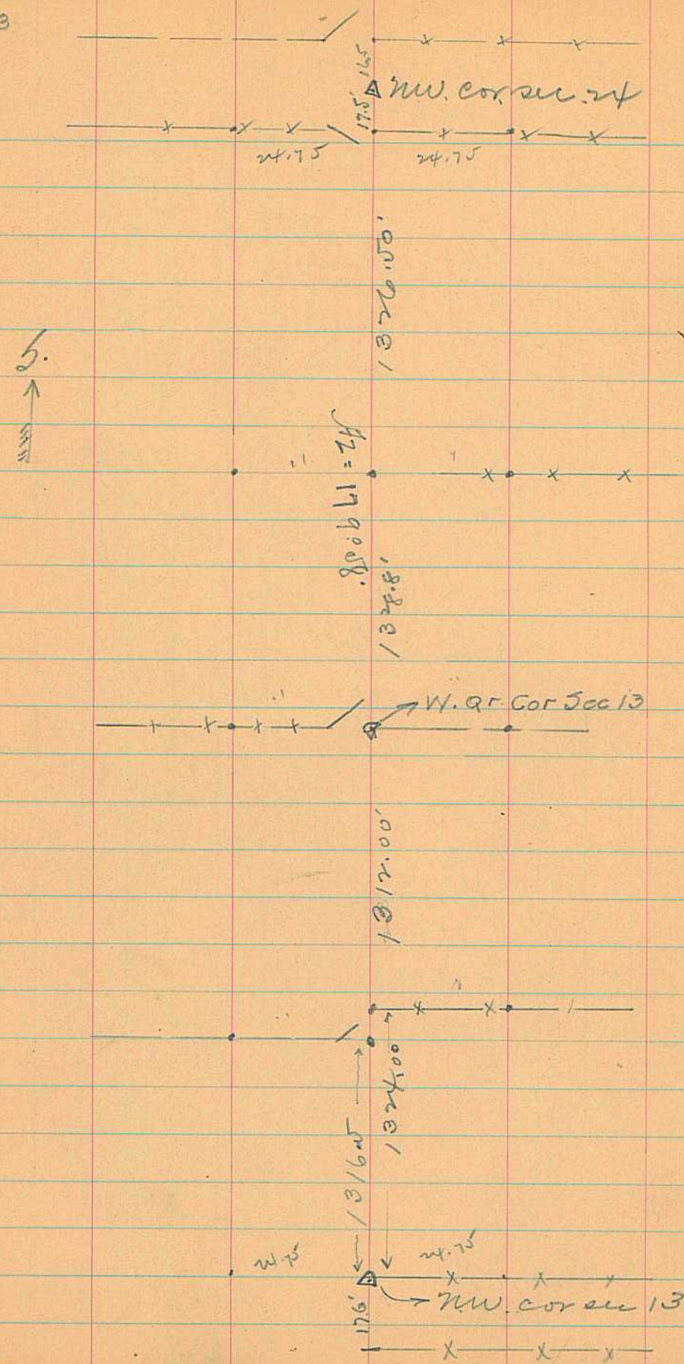
Oct. 20-21 - Chambers, Hanson, Roy Stewart, Carlson } Total 3 Days = Oct 14-20-21

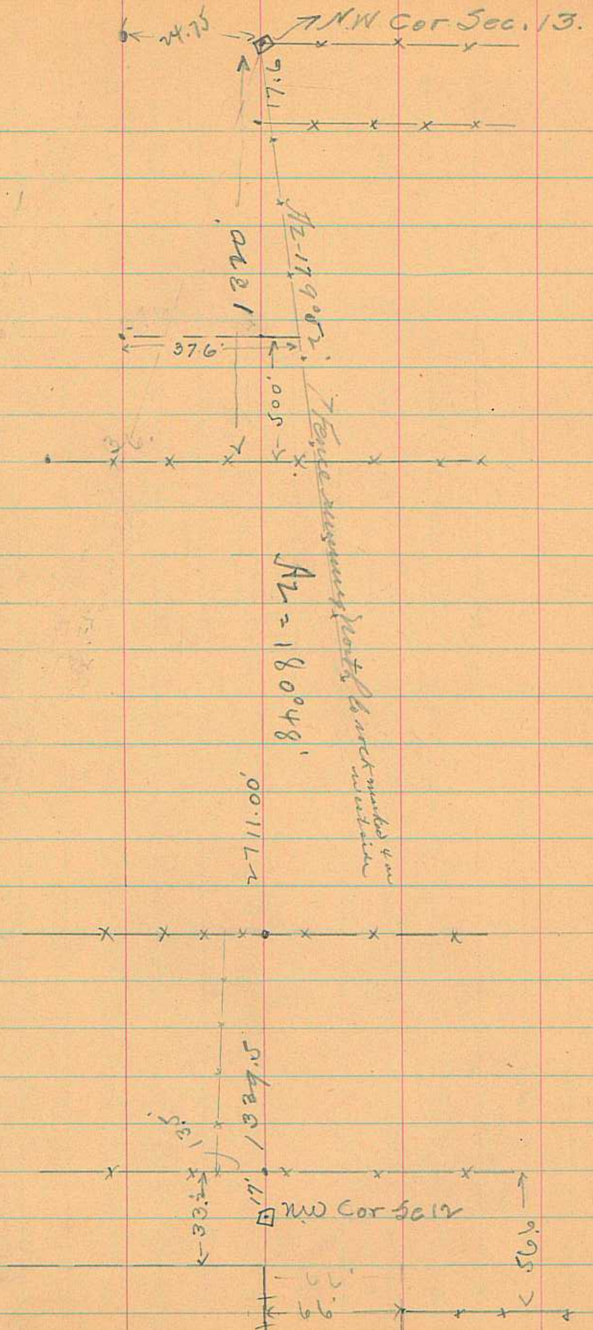
50

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

306'
24.75
281.25


SW cor Sec 24
963.20'
1319.2
NW Cor Sec 24


NW. cor. sec. 24
24.75
24.75
1376.50'
W. Qr Cor Sec 13
1312.00'
NW. cor sec 13


N.W Cor Sec. 13.
24.75
1320
Az-179°02'
376'
500'
Az = 180°48'
1711.00'
1334.5
N.W Cor Sec 12
66'

57 Survey ℄ and Center Grades on Benson N. Cut-off. Road. - Continued from page 75 - Cache County Book No. 1.

Sta	+ S	H.I.	- S	Elev.	Gr	℄ Fill
Forward.		110.55				
78			4.8	105.7	107.4	1.7
77			4.4	106.1	107.	.9
76			4.7	105.8	106.6	.8
75			5.3	105.2	106.2	1.0
74			6.2	104.3	105.8	1.5
T.P.			5.90	104.65		
	3.22	107.87				
73			4.2	103.7	105.4	1.7
72			4.7	103.2	105.3	2.1
71			5.0	102.9	105.1	2.2
70			5.7	102.2	105.0	2.8
69			5.6	102.3	104.9	2.6
68			6.2	101.7	104.8	3.1
67			6.5	101.4	104.6	3.2
T.P.			6.07	101.80		
	5.98	107.78				
66			5.7	102.1	104.4	2.3
65			5.2	102.6	104.2	1.6
64			5.3	102.5	104.1	1.6
63			5.4	102.4	104.0	1.6
T.P.			6.37	101.41		
	4.86	106.27				
62			4.6	101.7	103.8	2.1
61			5.4	100.9	103.7	2.8
60			5.5	100.8	103.6	2.8

on W. Pipe at Cor D. side ditch

59

Cont

Sta	+S	H.I. 106.27	-S	Elev.	Gr
59			5.5	100.8	103.5
58			5.3	101.0	103.3
57			4.5	101.8	103.1
56			3.2	103.1	103.
55			3.2	103.1	102.9
54					102.8

60

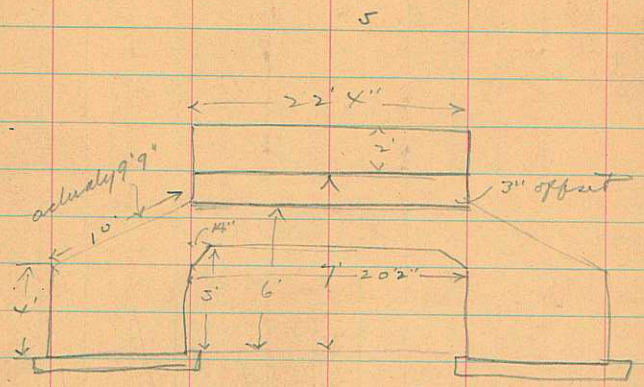
℄ Fill

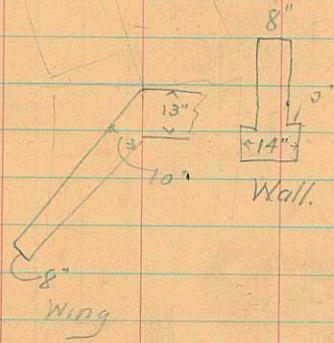
	2.7
	2.3
	1.3
Gr.	50' N of ℄ Twin Bridge.
"	

100

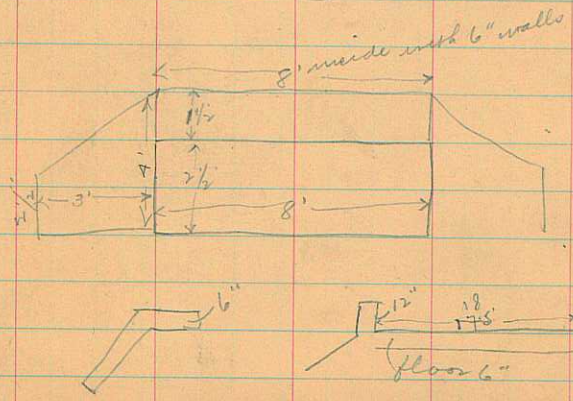
B.S.	H.I.	F.S.	Elev
		1.91	100
	101.91		

Clarkston Creek Bridge





Clarkston Culvert



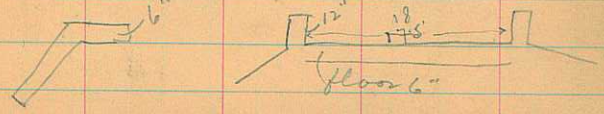


Table IV.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table V.—Inches in Decimals of a Foot.

1-16	3-32	1/8	3-16	1/4	5-16	3/8	1/2	5/8	3/4	7/8
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729

1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	5833	.6667	.7500	.8333	.9167

Table VI.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def for 1 Foot	Deg.	Radius	Mid Ord.	Tan Def.	Chd Def.	Def. for 1 Foot
0° 10′	34377.	.036	.145	.291	0.05′	7°	819.0	1.528	6.105	12.21	2.10′
20	17189.	.073	.291	.582	0.10	20′	781.8	1.600	6.395	12.79	2.20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0.25	8	716.8	1.746	6.976	13.95	2.40
1	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2.50
10	4911.2	.255	1.018	2.036	0.35	30	674.7	1 855	7.411	14.82	2.55
20	4297 3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
30	3819.8	.327	1.309	2.618	0.45	9	637.3	1.965	7.846	15.69	2.70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2 037	8.136	16.27	2.80
50	3125 4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2.85
2	2864.9	.436	1.745	3.490	0.60	40	593.4	2.110	8.426	16.85	2.90
10	2644.6	.473	1.891	3.781	0.65	10	573.7	2.183	8.716	17.43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18.30	3.15
30	2292.0	.545	2.181	4.363	0.75	11	521.7	2.402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2 511	10.02	20.04	3.45
50	2022.4	.618	2.472	4.945	0.85	12	478.3	2.620	10.45	20.91	3.60
3	1910.1	.655	2.618	5.235	0.90	30	459.3	2.730	10.89	21.77	3.75
10	1809.6	.691	2.763	5.526	0.95	13	441.7	2.839	11.32	22.64	3.90
20	1719.1	.727	2.908	5.817	1.00	30	425.4	2.949	11.75	23.51	4.05
30	1637.3	.764	3.054	6.108	1.05	14	410 3	3.058	12.18	24 37	4.20
40	1562.9	.800	3.199	6.398	1.10	30	396.2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	15	383.1	3.277	13.05	26.11	4.50
4	1432.7	.873	3.490	6.980	1.20	30	370 8	3.387	13.49	26.97	4.65
10	1375.4	.909	3.635	7.271	1.25	16	359.3	3.496	13.92	27.84	4.80
20	1322.5	.945	3.718	7.561	1.30	30	348.5	3.606	14 35	28.70	4 95
30	1273.6	.982	3.926	7.852	1.35	17	338.3	3.716	14.78	29.56	5.10
40	1228.1	1.018	4.071	8.143	1.40	18	319 6	3.935	15 64	31.29	5.40
50	1185.8	1.055	4.217	8.433	1.45	19	302.9	4.155	16 51	33.01	5 70
5	1146.3	1.091	4.362	8.724	1 50	20	287.9	4.374	17.37	34.73	6 00
10	1109.3	1.127	4.507	9.014	1.55	21	274.4	4.594	18.22	36.44	6.30
20	1074.7	1.164	4.653	9.305	1.60	22	262 0	4.814	19 08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1.65	23	250.8	5 035	19.94	39 87	6.90
40	1011.5	1.237	4.943	9.886	1.70	24	240 5	5.255	20.79	41.58	7.20
50	982.6	1.273	5.088	10.18	1.75	25	231.0	5.476	21.64	43.28	7.50
6	955.4	1.309	5.234	10.47	1.80	26	222.3	5.697	22.50	44.99	7.80
10	929.6	1.346	5.379	10.76	1.85	27	214.2	5.918	23.35	46.69	8 10
20	905.1	1.382	5.524	11.05	1 90	28	206 7	6.139	24.19	48.38	8 40
30	881.9	1.418	5.669	11.34	1 95	29	199 7	6.360	25.04	50.07	8.70
40	859.9	1.455	5.814	11.63	2.00	30	193.2	6.583	25.88	51.76	9.00