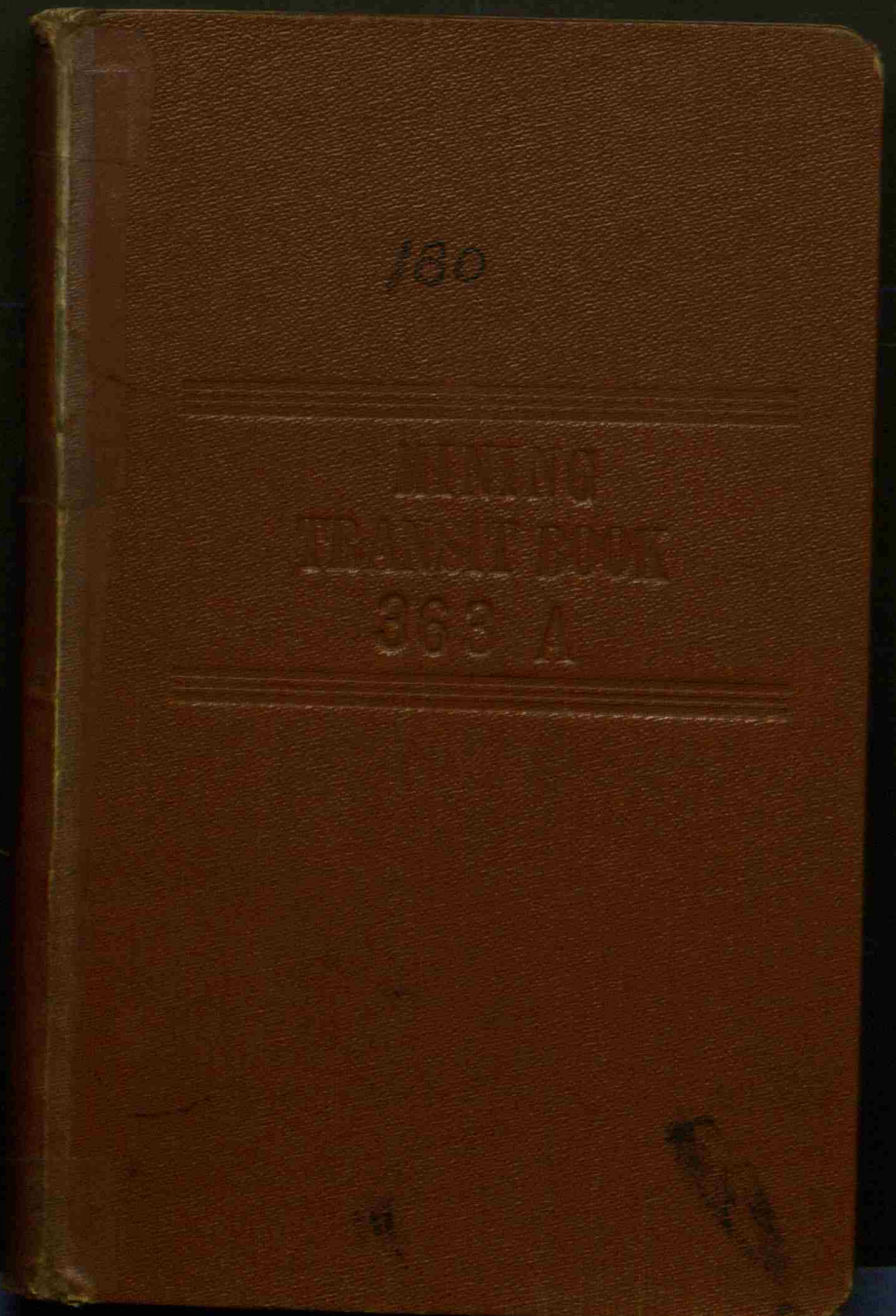

180
MINING
TRANSIT BOOK
363 A

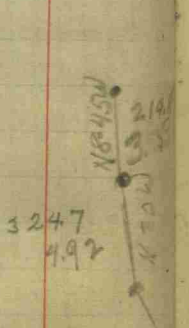
2344
227
2571
.66
15426
15426
16968
2677
25171
1.06

1697
1676
.21

24.36
.66

14616
14616

1607.76



N 10°-W 548.5
8.31ch

150'
2.27ch
40'
.60LKS
S75°-30 W
10.03 ch
662'

1547
S 73-45 W
16.77ch
1105'

N 10W

Center of Rd Rd.

1609

#1	1607.76	1320.00	
#2	1320.00		
	287.76		
#3	1057.10		RR Line on N.
#4	1162.00	" "	" " S.

NE^4 to Road 40 N. Line 131'
Rd. N Line to S Line 100'
Rd S Line to Railroad North Line 331
Railroad 100'

1320
1162
158

20
+ 20,50
20,25

81.000 | 20.25
040

15		—	π	+	BM 100.00
0+0					on tree in R.R. Right of way 100 feet above sta 0+0
1+0					
2+0					
3+0					
4+0					
5+55					

15

End of Ditch 15+56

15

	−	℄	+		BM
		104.05	4.05		100.00
11+00					
12+00					
13+00					
14+00					
15+00					
15+56					
10+00					
9+00					
8+00					
7+00					
6+00					

Sta Post Sta, 11+00

Page Pitch

Sta		
	5.13	
99.62		94.49
4.43		
99.63	5.34	94.29
4.42		
100.05	5.96	94.09
4.00		
99.05	5.16	93.89
5.00		
98.10	4.41	93.69
5.95		
	5.81	
99.30	92.99	93.49
4.75	11.24	
99.65		
4.40	4.96	94.69
100.25		
3.80	5.36	94.89
100.13	5.04	95.09
3.92		
100.35		
3.70	5.06	95.29
100.55		
3.50	5 0.6	95.49

	−	℄	+	BM
		104.05		
5+65				
5+0				
4+0	4.25	~~99.80~~ 104.31	4.51	99.80
3+0				
2+0				
1+0				
0+0				

19

99.37 4.78	95.57	3.80
99.97 4.08	95.69	4.28
99.80 4.25	95.89	3.91
100.02 4.29	96.09	3.93
99.59 4.72	96.29	3.30
99.50 4.78	96.49	3.01
99.63 4.68	96.69 7.62	2.94

96.69
92.79
3.90

15.56 / 3.90.0
3112

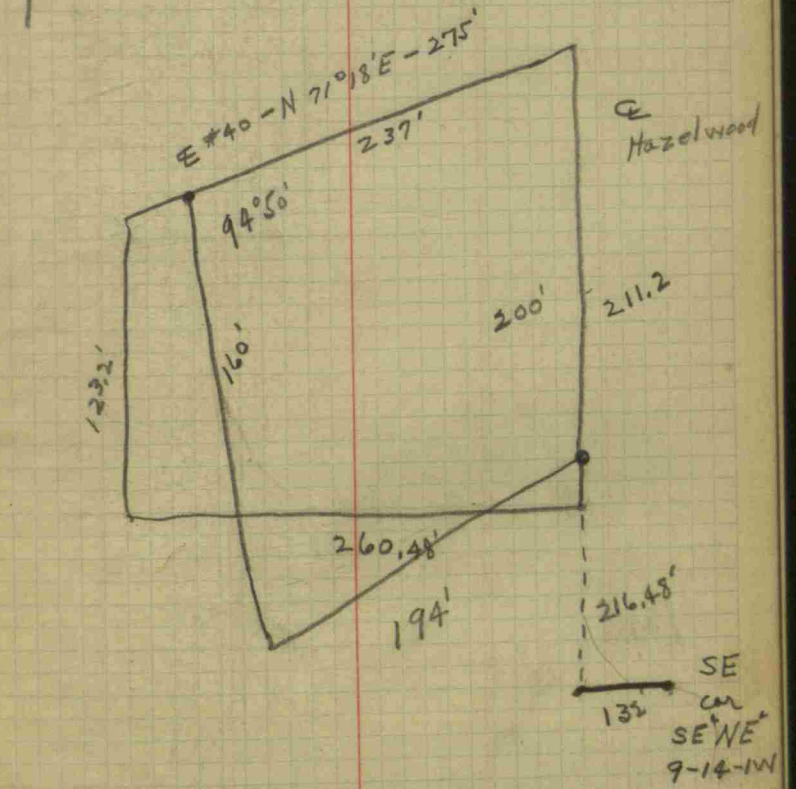
Frank White
Pt NE¼ NW¼
11-6-1E
17A.

52

Sewell Leitzman

Dec. 15, 1938

Pt. SE NE - 9-14-1W



—	+	+	BM
	104.87	4.87	100.00
9.03			95.84
	97.14	1.30	
11.87			85.27
	86.27	1.00	
11.35			74.92
	75.52	0.60	
9.43			66.09
	68.79	2.70	

Levels for Water Works
Boys School Plainfield

time 2 hr.
Mileage - 18 mi

Armstrong
Newman

Jan. 22, 1938

BM Elv. 100.00 on inside intersection of walks at S.E. Corner of Dunbar barracks.

104.75
0.12 on Concrete at Base of Water tank.

61.19
Lower Threds at Well = 7.60

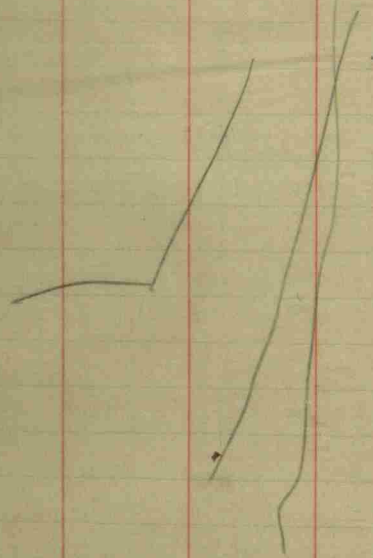
67.08
top of well casing = 1.71

104.75
67.19
37.56 top Well Casing to Concrete base at water tank

52

B/r Survey at Plainfield.

for State Highway



Sec. line 9-0" ℄

℄ 3' ℄ 35+77'-10"

53

SW edge Bridge = 35+72

10'-8" from Centerline to ℄
35+25

Sec line to toe Slope 41'-9"

5 to L = 11'-2"
35+0

Sec line to toe of Slope 37'-9"

5 to L = 13'-9"
33+0
34+0

Sec Line to toe of Slope 29'-4"

5 to L = 14'-8"
32+56

Sec line to toe Slope 26'-5"

8 Width of Drive 13'-10"

5 to L = 15'-6"
— 3240
Sec line to toe of slope
22'-4"

31+42
Sec line to toe of slope
18'-8"
North edge of Drive

31+29 ℄ Drive
Sec line to toe of slope 33'-10"

31+15'-4"
Sec line to toe of slope 14'-8"

5 to L = 16'-1"
31+0
Sec line to toe of slope
13'-6"

5 to L = 16'-4"
30+53 Prop. Lines
Sec line to toe of Slope 4'-11

20.31 ✓

East 10' on E+W Rd

N+S 54.15'

20.31
.66
12186
12186
1340.46

1371
54 15
4
14
12
21
21

27.75
26.40
54 Hs
52 80
135

1371
1340
00.31

Time

Boys School Survey
Jan. 29+28

16 hr. field @ 1.30 = 20.80
3 hr. Office @ 1.20 = 3.00
Mileage 3 trips 54 mi @.06 = 3.24
27.04

Boys School Well Survey

2 hr field @ 1.30 = 2.60
Mileage 1 trip 18 mi @.06 = 1.08
3.68

Total $30.72

64

62

12.4
166
74.4

66

81.24
82.15
40620
8124
16248
64992
667.3866 2
640
27.38

65

Boys School Survey

20.31
20.62
4062
12186
40620
41.879 22

41.90 ~~ft~~ S. Cook. Dead Calls for 40.50

Over run in Sec 3-14-1E
E + W = 74.4 feet

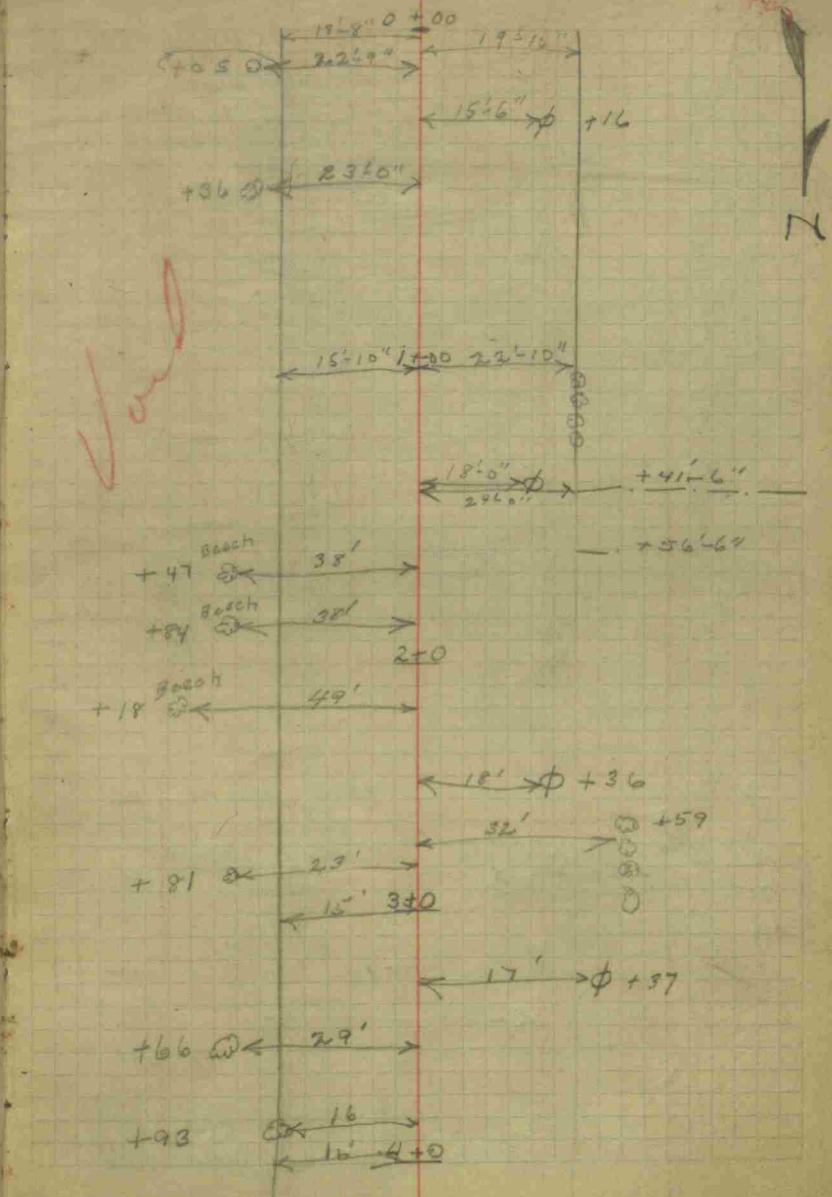
Over Run in Sec 3-14-1E
N + S = 135 feet

Void

Bank on E. Breaks to Hollow at 3+00

Bank on West breaks to Hollow at 3+23

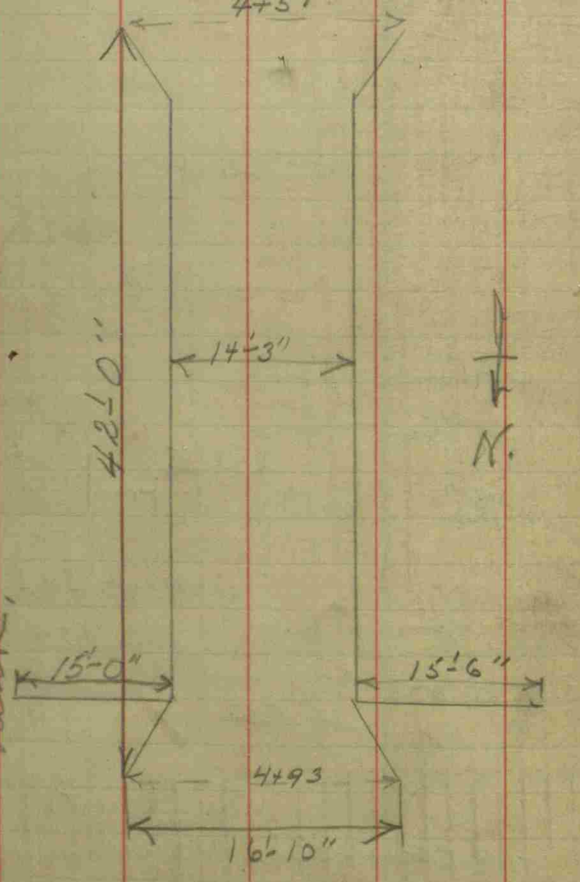
White Bridge



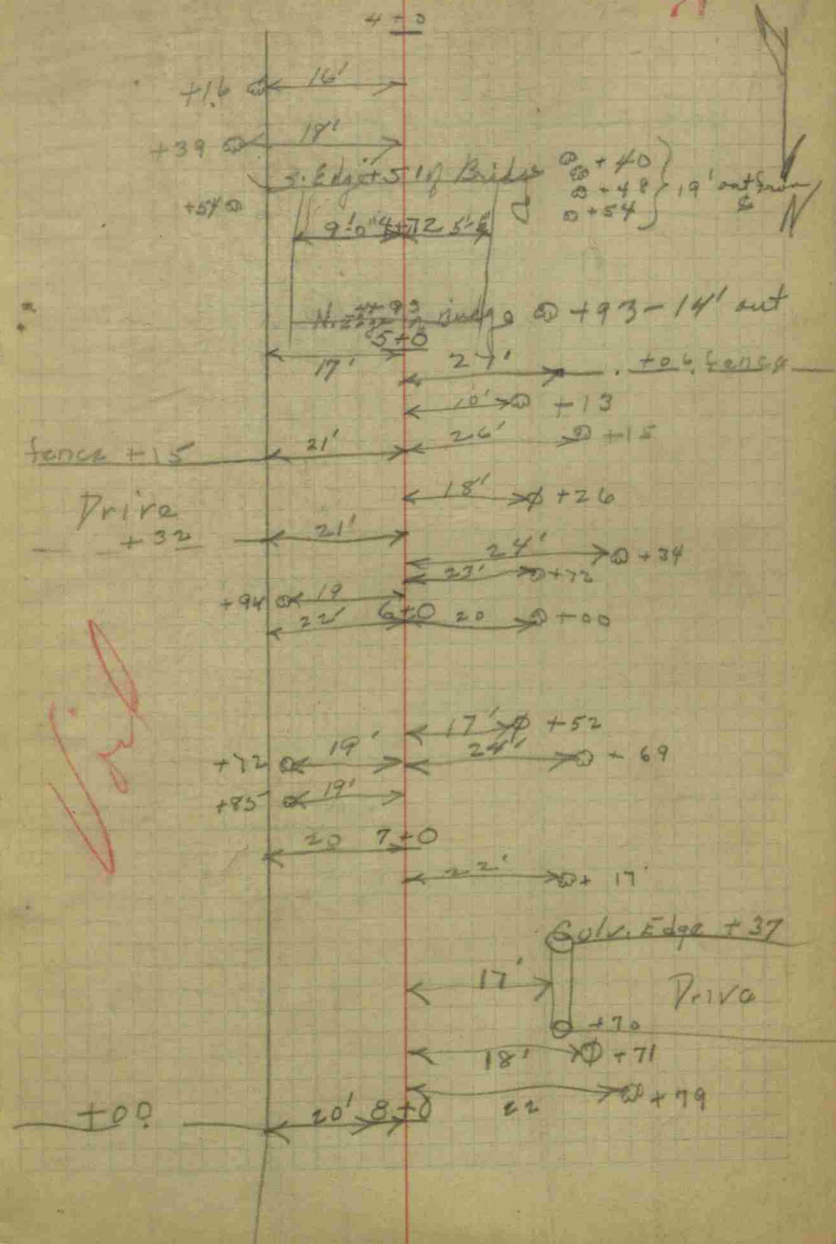
Plus station on ditch to West of Bridge = 4+85'-10" to West Bank of Ditch. Ditch 200 feet long all stakes on West bank.

Void

27'-Clear Span
14'- Rise



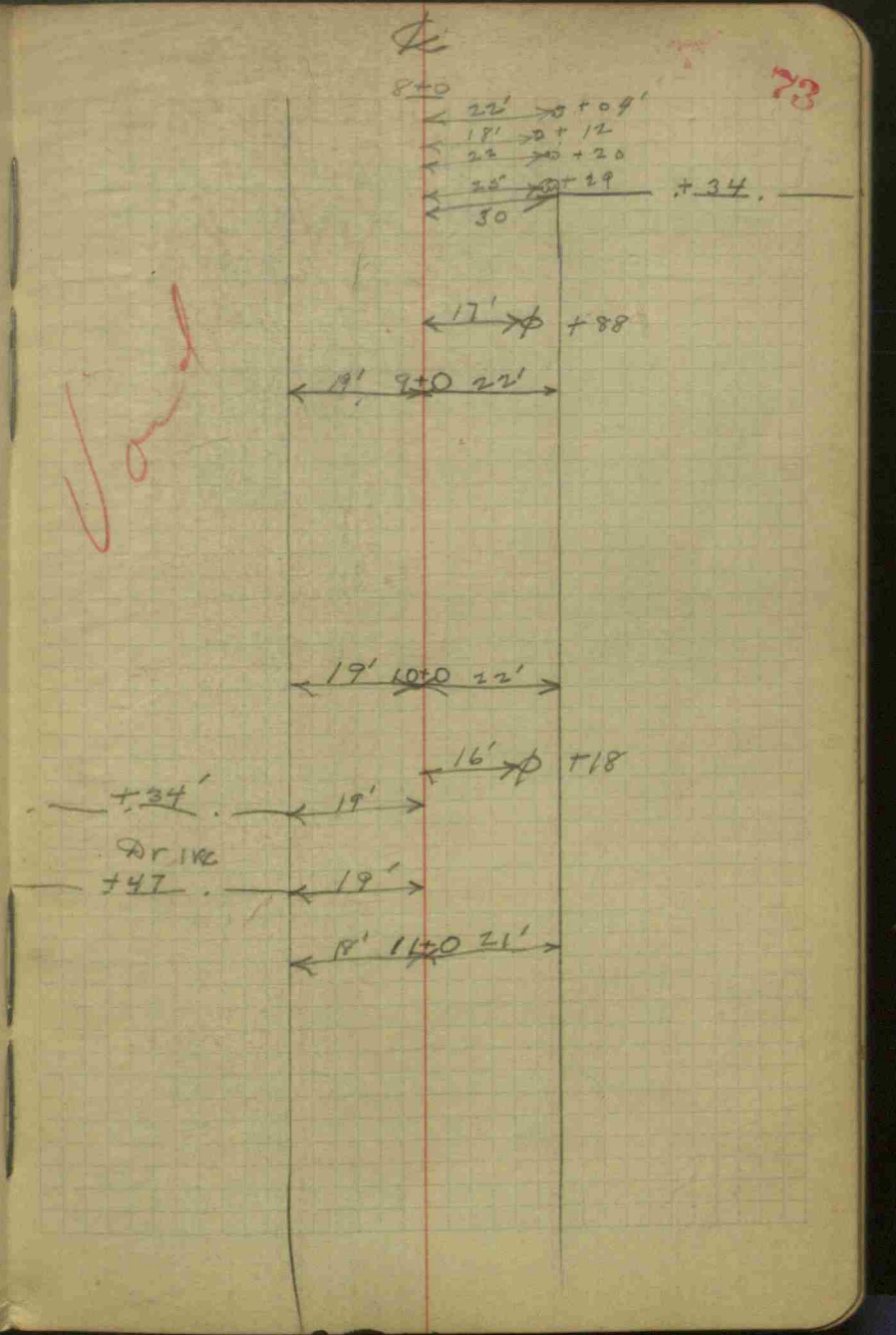
Thickness Handrails 12"



Void

72

73


8+0
22'
0+09'
18'
0+12
22
0+20
25'
0+29
+34.
30
17'
0+88
19'
9+0
22'
19'
10+0
22'
16'
0+18
+34'.
19'
Drive
+47.
19'
18'
11+0
21'

BM in Beech Nut tree 150' E
+ 25 feet South of Sta 0+00

	—	T	+	BM
		108.56	8.56	100.00
0+0				
1+0				
1+41				
2+0				
3+0				
3+23				
	0.08	109.65	9.65	100.00
		116.64	7.07	109.57
1+0				

Void

Void

99.36 99.21 99.38 98.90 98.41 98.20
27 19 11 13 19
9.20 9.35 9.18 9.66 10.15 9.36

103.06 103.26 103.60 102.88 101.90 102.93 104.74
12 11 13 16 18 28
5.50 5.30 4.96 5.68 6.66 5.63 3.82
104.06
4.50

103.54 104.09 106.40
12 103.88 4 63
5.00 4.68 4.47 2.16

100.90 101.10 101.64 101.57 106.13 106.70
11 10 101.96 11 14 25 30
7.66 7.46 6.60 6.92 6.99 2.93 1.86
106.06
54
2.54

104.96 97.76 97.06 97.41 95.91 95.26 100.34 104.06
27 21 14 11 96.36 11 13 20 26
7.80 9.80 11.50 13.15 12.20 12.65 10.30 6.72 4.50
106.06 104.13
40 48
3.50 4.43

103.93
70
4.63

113.72 108.72
79 30
2.93 7.92

	BS −	HI	+	BM
		116.64		
1+41				
2+00				
3+00				
		106.51	6.51	100.00
	10.12			96.39
		97.54	1.25	
4+00				
4+72				
5+00				
6+00				
7+00				
	8.02			89.52
		101.50	11.98	

Void

Void

E

113.42	111.62	108.01
73	31	24
3.22	3.02	8.63
110.27	110.84	
64	23	
6.37	5.80	
103.16	105.03	
39	29	
13.48	11.71	

90.86		81.06
10'	90.82	9
6.68	6.72	6.48
89.60		
8.6	89.48	89.71
7.94	8.06	6
		7.83
88.51		88.59
10'	88.94	7'
9.03	8.81	8.95
88.12	88.49	85.32
11	9.05	7
9.42		9.21
89.46		89.32
12	89.53	9
8.66	8.01	8.22

	—	T	+	BM
8+00		101.50		
9+00				
10+00				
	11.40			90.10
		90.45	0.35	
7+00				
6+00				
5+00				
	11.48			90.02

E

90.20 90.52 91.55 92.47 92.20 90.79 92.80
46 18 71 72 16 20
11.30 10.98 9.95 9.03 9.30 10.61 8.70
9601
32
96.27 96.80 95.98 96.90 96.60 96.24 95.12 89.98
21 16 14 11 12 15 40
5.23 4.72 3.52 4.80 4.90 5.24 6.38 2.12

102.50
-0.00 1 foot

86.92 87.22 87.82 87.25
21 18 24 32
3.53 3.23 1.63 3.20

83.40 83.47 83.07
27 20 39
7.05 6.96 7.38

77.77 80.61
18 27
12.68 9.84

W

80

	—	⊼	+	B.M.
		80.67	1.70	78.97
4+72				
4+00				
3+53				

Ditch

	—	⊼	+	B.M.
		87.08	8.11	78.97
0+40				
1+00				
2+00				

Paved

81

W

72.72
15
7.95 ft. Stream

74.12	75.57	76.40
25'	30'	35'
6.55	5.10	4.27

Toe slope

74.25
92'
6.72

S

Sht.	4's	15'	21'	40
6.74	6.80	10.82	11.15	11.12

36'
5.25 4.30

	4	12	17	20
4.28	8.90	11.60	11.92	10.72

	—	+	BM	
		82.81	77.47	
4+72				
	3.46		79.36	
		90.51	11.15	
4+0				
3+0				
		89.74	1.00	88.74
5+30				
		83.22	5.75	77.47

EL. at S.E. Corner of Bridge Wing

Void

70.31 (E) 70.34
18 110
12.50 12.77
Fl. Creek

(E)
83.56 85.33
40' 20
6.95 5.18

(E) E
87.24 88.21 80.99 79.79
10 60 100
1.50 1.53 8.75 9.95

73.40 76.87 77.14 79.79
20' 30' 35' 45'
9.82 6.35 6.08 3.75

	W Slope		W Slope
~~1+41~~	~~30½'~~	1+41	30½'
~~1+41~~	~~30½'~~	2+0	30½'
~~3+0~~	~~37½'~~	3+0	37½'

	—	+	BM
	~~19.38~~	~~9.38~~	~~10.00~~ on top of
	17.80	7.80	10.00 footings
			W end of
			N.W. wing

Bed of St
0+00

Ground
0+00

1+00.

1725

1+36

1+36

Void

Bed of St.
11.93
5.87

Gd.
5.44
12.36

Gd
2.81
14.99

Gd.
2.59
15.21

Gd
1.95
15.85

Bed of St
9.90
7.90

Ensminger Drives

2 pcs. — 30 : 15 " E.M.R

Void

−	π	+	BM	
			100.00	BM on Base 150 E & 25' S of King D.
	106.23	6.23		
12.14			94.09	
	94.37	.28		
2.82			91.55	BM on top of N.E. Handrail
	92.32	.77		
9.82			82.50	BM on E side RE MC Pole W of Br.
	82.56	.06		
5.12			77.44	B.M. West End of N.W. Footing
10.93			71.63	
	77.56	5.93		

Ensminger & Whyte

℄ Rd cent. of Br. El. 4.95 - 89.42

E. Top of Arch Ring El. ~~6.58~~ 6.74 - 87.63

W. " " " " El. 6.74 - 87.63

Flow line of stream W. side El. 6.14 - 71.42

El. of conc. waterway floor 2.45 - 75.11

Bed of stream E. side El. 7.83 - 69.73

" " " 300' East 9.54 - 68.02

−	⏊	+	BM
			77.44 BM W NW Footing
	78.09	0.65	

−	⏊	+	BM
			91.55
	94.45	2.90	

℄

[90'50. of Br.]

4.81 / 73.28 ℄ Stream

℄ Roadway 90'50.

309 - 91.36

9' W of ℄
304 - 91.41

10' E of ℄
328 - 91.17

	—	H	+	BM
		103.52	3.52	100.00
0+0				
9+32				
13+46				
14+95				

BM on Top Con. Post on Rd. El. 100.00

Levels for Mr. Greist Plainfield

H+K	Ground
103.51	103.12
0.01	0.40
97.62	96.99
5.90	6.55
95.51	94.90
8.01	7.62
93.90	93.52
9.62	10.00

92.24 Ditch 11.30

10.90

	−	T	+	BM
		101.62	1.62	100.00
0+0				
5+12				
8+88				
9+75				

BM = N Cor Cor Post NE Cor Farm EL. 100.00

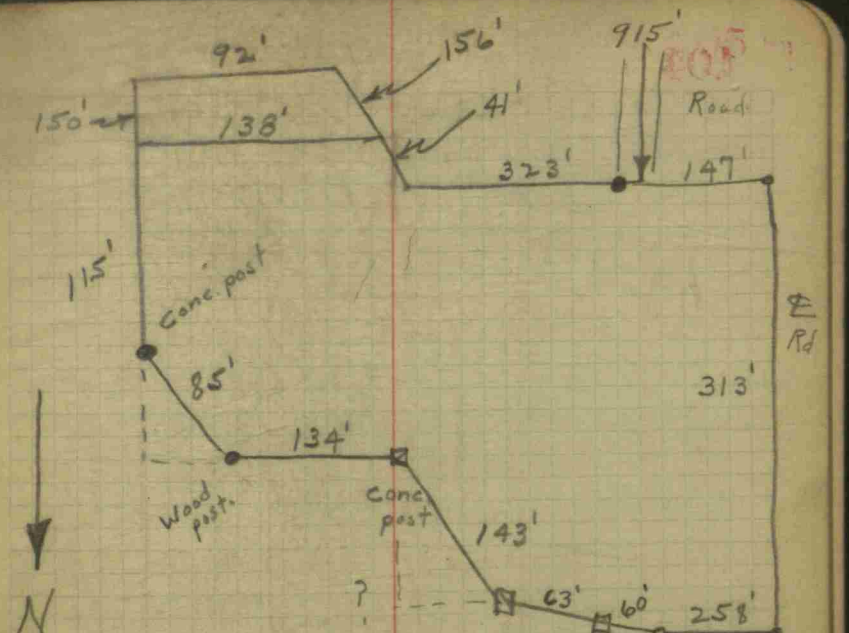
H.I.	ground
98.92	98.34
2.70	3.28
96.62	96.02
5.00	5.60
95.41	94.79
6.21	6.83
95.32	94.79 Cord 92.22 Ditch
6.30	6.83 9.40

6.12

104 Mill Creek Church.

April 7, 1938. 18-15-1W.

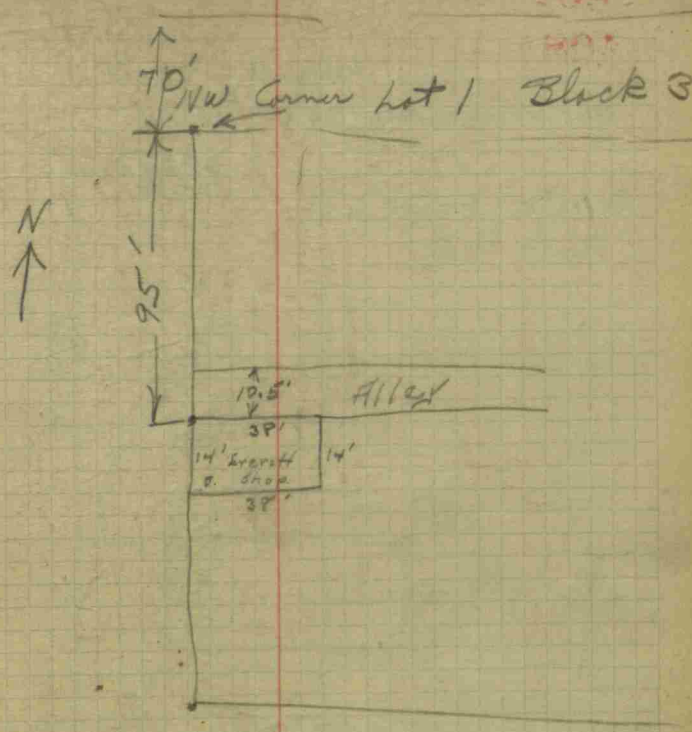
Cook
Armstrong
Newman.



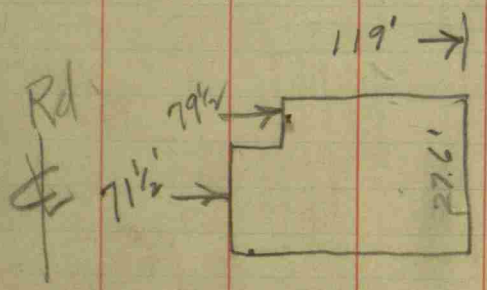
See description in File Box for correct measurements.

Otis Gray Survey

Brownsburg



165 1/4
16
48 1/4



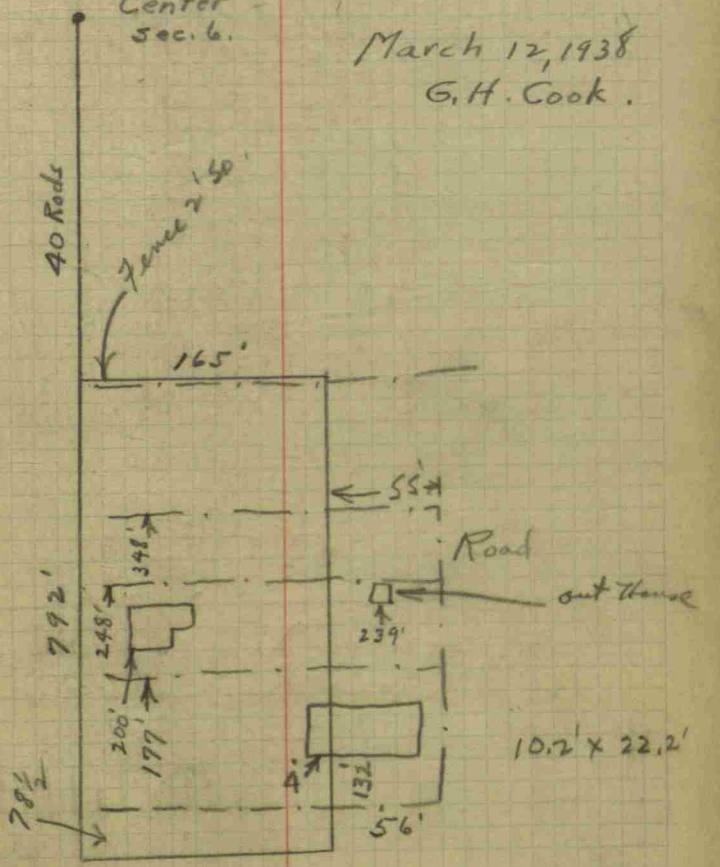
4'x4' out House
187 1/2' E. of ℄ Rd.

171
16 1/2
187

Light line from House
to chicken House, 1 Pole
approx. 18' East of P.L.

Home Owners Loan.
on Carl Jones
W½SE¼-6-15-1E

March 12, 1938
G.H. Cook.



E Road Fence 16½'

30
.05
1.50 Mileage

1.30
3
3.90 field
1.00
1.50
6.40

54.5

4/218

20

18

16

Carl Strawmyer
Brownsburg
R.R. #1

40.0

66 | 17.90.
132
3.80

26

7.6 = 41.42 A.
7.5 = 40.87 A.

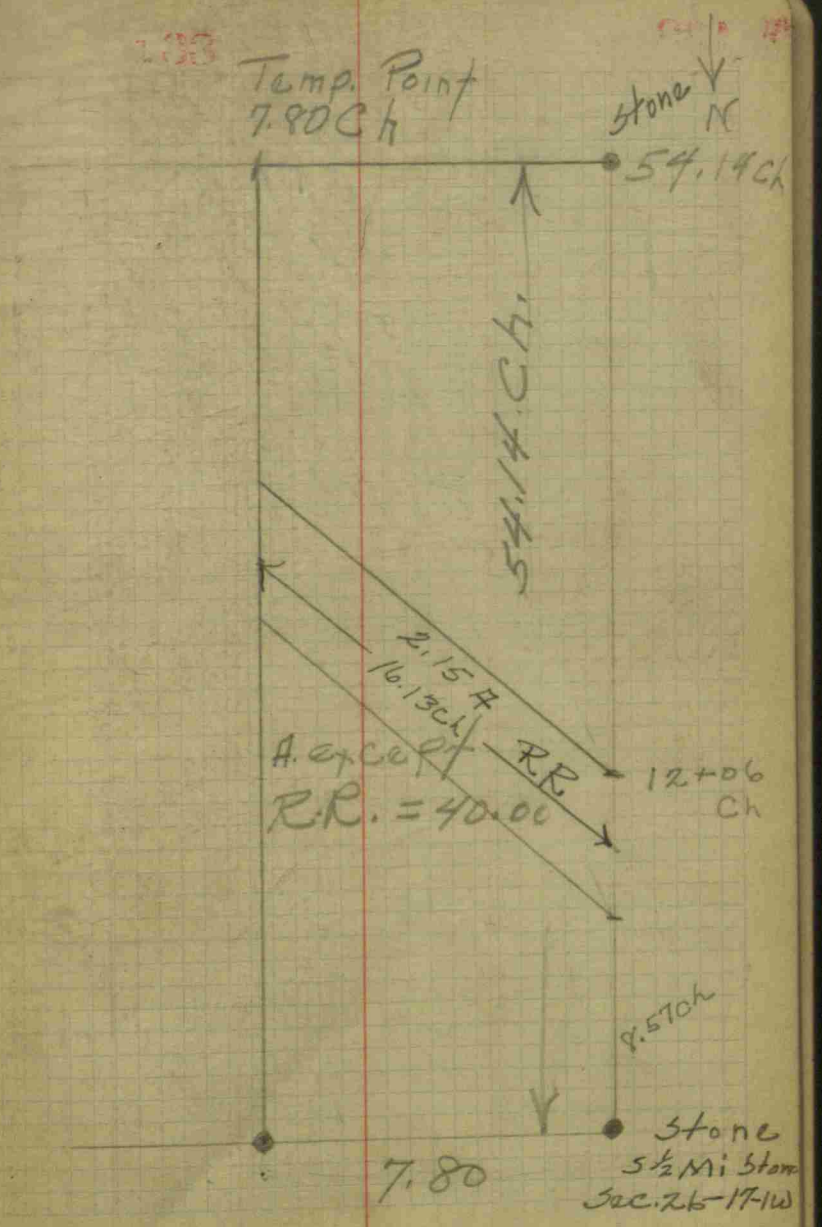
54.5
7.5
2725
3815
40.875

1.33
9
1.197

54.14
7.8
43312
37898
42.2292

42.23
2.19
40.08

16.13
1.33
4839
4839
1613
2.14529



136 Culvert Pipe at Shop

6	pcs	18"	24'	X
2	"	18"	24'	X
5	"	18"	24'	X
1	"	10"	18'	X
1	"	15"	24'	X
1	"	18"	12'	X
1	"	15"	14'	X
1	"	10"	16'	X
1	"	15"	16'	X
1	"	15"	18'	X
1	"	21"	12'	X
1	"	15"	18'	X
1	"	8"	18'	X
1	"	18"	14'	X
2	"	18"	24'	X
1	"	10	18'	X
1	"	15"	14'	X
1	"	10"	16'	X
1	"	18"	24'	X
1	"	10"	16'	X
2	"	10"	24'	
1	"	8"	18"	X
1	"	10"	16'	X
1	"	12	18'	X
1	"	10"	16'	X

1	pcs	8"	x 18'	X
1	"	12"	x 24'	X
1	"	12"	x 18'	X
2	"	12"	x 18'	X
1	"	21"	x 12'	X
1	"	10"	x 16'	X
1	"	24"	x 18'	X
1	"	10"	x 16'	X
2	"			
1	"	18"	x 24'	X
1	"	10"	x 16'	X
3	"	15"	collars	
1	"	8"	"	
1	"	18"	"	
1	"	21"	"	

Reta + Kathleen Stanley
South of Church.

Carlos Mackey
School House Road

		Diam	Long.
17	pcs	18"	24'
1	"	10"	16'
2	"	10"	16'
1	"	24"	18'
1	"	10"	16'
1	"	12"	18'
1	"	21"	10'
1	"	12"	18'
2	"	12"	18'
1	"	10"	16
1	"	8"	18'
1	"	12"	18'
1	"	10"	16'
1	"	8"	18'
1	"	10"	18'
2	"	10"	16'
1	"	15"	14'
1	"	18"	14'
1	"	15"	16'
1	"	8"	18'
1	"	15"	16
1	"	21"	12'
2	"	15"	16'
1	"	18"	12'
1	"	10"	16'
1	"	10"	18'

Culvert Pipe at Shop

~~4~~ 6	pcs	18" x 24'
2	"	18" x 24'
5	"	18" x 24'
4	"	18" x 24'
1	"	8" x 18'
1	"	10" x 16'
1	"	18" x 12'
1	"	15" x 14'
1	"	15" x 16'
1	"	15" x 16'
1	"	8" x 18'
1	"	18" x 14'
1	"	15" x 14'
3	"	15" collars
1	"	8" "
1	"	18" "
1	"	21" "

1	pcs	10" x 18'
2	"	10" x 16'
1	"	10" x 24'
1	"	10" x 18'
1	"	10" x 16'
1	"	12" x 16'
1	"	8" x 18'
2	"	12" x 18'
2	"	10" x 16'
1	"	24" x 18'
1	"	10" x 16'
1	"	10" x 16'

Stevens time

2/24/39	5½ hrs.
2/25/39	8½ "
2/26/39	8 "
2/27/39	5 "

Newmans Mileage

2/24/39	51 miles
2/25/39	79 "
2/26/39	75 "
2/27/39	58 "

(31)
52666
52587
79

(28)
52668
52743
52468
75

51
79
75
205
5
1025

Whicker Road.

Cooper - W. side Gate 18' x 10" C. M. R.
Kiser - W side Gate 18' x 10"
" E side " 18' x 10"
Bakius W. side Gate N. of House. 18' x 10"
Kendall E. side Gate 18' x 10"
Stephenson E. side " 18' x 10"
C. Masten - + Rd. 30' x 24"
Between Hammond & Masten across Rd 32' x 30" Ex.
Whicker across Rd - 6' x 21' - 1 Band
Nursery Gate - 24' x 12'
Justice - Gate - 18' x 10'

Jordon Road

Sharp E. side - 16' x 10" in Gateway
H. Jordon across road 2 pcs. 32' x 30" in
~~12' x 30" one boom.~~

Tucker Road

Kirtley E side Gate 16' x 8"
Ross W side " 16' x 8"
" " " " 16' x 8"
Leach E. " " 16' x 10"
W. Ross W " " 16' x 8"

20' x 12' H.S.H
~~28' x 18"~~ Roy Carter
28' x 24' Roy Carter

Red Ellis.

18' x 8" Daum - John.

Extra.

Bakius Drive 24" x 24"
Cross Roads Ext. ~~2 pcs~~ 1 - 15" x 4' Band
1 - 21" x 6' Band
Osborne Ext S.B. 34' x 12'
Whicker S. of Drive 18' x 12'
Thornberry Gate 26' x 10"
Dunsmore - Critchen Rd. 40' x 12'
Watton - Kirtley 16' x 8" Tucker Rd.

Tucker Road Cont.

Leach	N & S side	Gate 2 pcs	16' x 8"
Hickmon	N side	"	16' x 8"
"	across road		24' x 18"

Cartersburg Rd.

J. Dorison	N Side	Gate	24' x 12"
Bridge below			
Sadler	W. Side	"	18' x 12"
Thomas	E Side	"	20' x 12"
Russ Hughes	Across Road		34' x 15"
2 pcs.	4' x 24"	- 1 board each	(Near school)
Cartersburg			E. end. 500'
E. of School	Across Road		32' x 21"
near Springhill	(corner sta		34' x 10"
Owens and			
Edwards			26' x 30"
Hughes on			
Clark Rd			34' x 24"

Guthrie Road

2	28' x 10"	Across Rd.
	18' x 8"	Gate S. side
	28' x 15"	Across Road.
	28' x 8"	Double gate N. side
	34' x 21"	Across Rd.
	38' x 8"	E. Atkinson Drive

Preacher Thomas

18' x 15"	Gate W. side
18' x 42"	" " "

N. Salem Rd.

22' x 8"

Eaton

1 pcs. 12" x 18'

Botany Farm Rod

32' x 54" or more

Brick Arch

60

Nolan

Masten	12" x 32	
Beeler	30" x 30	No Board
Hurst	12" x 24	
Briner	21" x 36	
Rigdon 6966	15" x 24	
Barnett	5' x 24	
Jones	30" x 22	No Board

Zimmerman Survey

Nov 11, 1937 - 7 hr. Newman & Armstrong 32

Nov. 12. 1937 - 8 hr. Newman + Armstrong 32
Nov 13 " 6 hr " " 32

Hoadley Survey

field
Oct. 15 1937 — 8 hr. - Newman + Gray

Oct 23-1937 - 4 hr - Gray Red

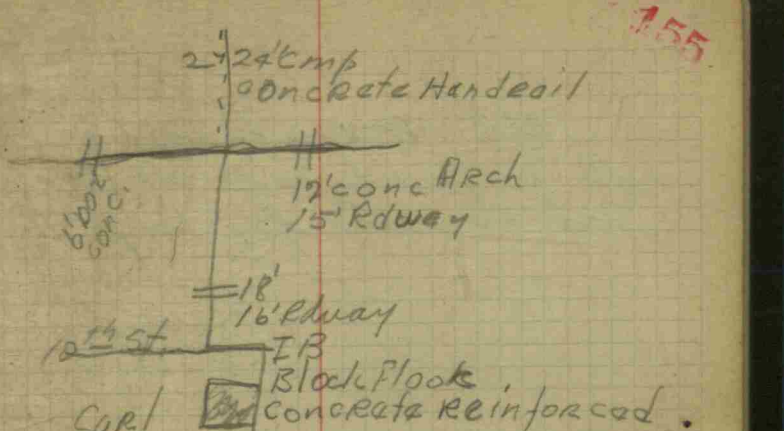
Nov 4-1937 8 hr - Newman Armstrong Red mileage

Nov. 6 - 1937 - 7 hr - Newman + Red + Armstrong - mileage

~~2 pcs 12" x 20'~~

15" x 24' X
8" x 18' X
~~15' x 16'~~
~~18" x 1~~ X
~~5" x 14'~~
~~10" x 18'~~ X
10" x 16'
X 8" x 18'

~~2 - 12' x 24" X~~
~~2 - 12" x 24'~~ X
~~4 - 18" x 24~~
1 - 24" x 18' X
2 - 15" x 18' X
~~2~~ - 10" x 16
15" x 12
~~10" x 16~~
8" x 18 X
18" x 14 X



12" x 16' X
12" x 18' X
~~12" x 16~~

2 - 12" x 18' X
X 2 - 10" x 16
8" x 18' X
~~10" x 24~~ X
~~4~~ - 10" x 16'
~~3 - 18" x 24'~~

Tell maintainers men
not to pick up so much
wood or notify Sup. Imes

158

Lot 6 Sellors Add
2-50' Lots - Conard
+
Frank Hytan

E. ½ Lot 5 Burns 3rd Add Block 3
Phillips 66

Christian St 20' from one Block
E. from Green St.

Shaw, Ketchey + Cummings
½

Chas. Bragg owns just
East of Lumber yard.

Natural Trigonometrical Ratios.

Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.		Angle.	Sine.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	
° ′								° ′							
0	0	0	1.	∞	∞	1.	90	8	.1392	.1405	1.0098	7.185	7.115	.99027	82
10	.0029	.0029		343.8	343.8	1.	50	10	.1421	.1435	1.0102	7.040	6.968	.98986	50
20	.0058	.0058		171.9	171.9	.99998	40	20	.1449	.1465	1.0107	6.900	6.827	.98944	40
30	.0087	.0087		114.6	114.6	.99996	30	30	.1478	.1495	1.0111	6.766	6.691	.98902	30
40	.0116	.0116	1.0001	85.94	85.94	.99993	20	40	.1507	.1524	1.0115	6.636	6.561	.98858	20
50	.0145	.0145	1.0001	68.76	68.75	.99989	10	50	.1536	.1554	1.0120	6.512	6.435	.98814	10
1	.0175	.0175	1.0002	57.30	57.29	.99985	89	9	.1564	.1584	1.0125	6.394	6.314	.98769	81
10	.0204	.0204	1.0002	49.11	49.10	.99979	50	10	.1593	.1614	1.0129	6.277	6.197	.98723	50
20	.0233	.0233	1.0003	42.98	42.96	.99973	40	20	.1622	.1644	1.0134	6.166	6.084	.98676	40
30	.0262	.0262	1.0003	38.20	38.19	.99966	30	30	.1650	.1673	1.0139	6.059	5.976	.98629	30
40	.0291	.0291	1.0004	34.38	34.37	.99958	20	40	.1679	.1703	1.0144	5.955	5.871	.98580	20
50	.0320	.0320	1.0005	31.26	31.24	.99949	10	50	.1708	.1733	1.0149	5.855	5.769	.98531	10
2	.0349	.0349	1.0006	28.65	28.64	.99939	88	10	.1736	.1763	1.0154	5.759	5.671	.98481	80
10	.0378	.0378	1.0007	26.45	26.43	.99929	50	10	.1765	.1793	1.0160	5.665	5.576	.98430	50
20	.0407	.0407	1.0008	24.56	24.54	.99917	40	20	.1794	.1823	1.0165	5.575	5.485	.98378	40
30	.0436	.0437	1.0010	22.93	22.90	.99905	30	30	.1822	.1853	1.0170	5.488	5.396	.98325	30
40	.0465	.0466	1.0011	21.49	21.47	.99892	20	40	.1851	.1883	1.0176	5.403	5.309	.98272	20
50	.0494	.0495	1.0012	20.23	20.21	.99878	10	50	.1880	.1914	1.0181	5.320	5.226	.98218	10
3	.0523	.0524	1.0014	19.11	19.08	.99863	87	11	.1908	.1944	1.0187	5.241	5.145	.98163	79
10	.0552	.0553	1.0015	18.10	18.07	.99847	50	10	.1937	.1974	1.0193	5.164	5.066	.98107	50
20	.0581	.0582	1.0017	17.20	17.17	.99831	40	20	.1965	.2004	1.0199	5.089	4.989	.98050	40
30	.0610	.0612	1.0019	16.38	16.35	.99813	30	30	.1994	.2035	1.0205	5.016	4.915	.97992	30
40	.0640	.0641	1.0020	15.64	15.60	.99795	20	40	.2022	.2065	1.0211	4.945	4.843	.97934	20
50	.0669	.0670	1.0022	14.96	14.92	.99776	10	50	.2051	.2095	1.0217	4.877	4.773	.97875	10
4	.0698	.0699	1.0024	14.34	14.30	.99756	86	12	.2079	.2126	1.0223	4.810	4.705	.97815	78
10	.0727	.0729	1.0027	13.76	13.73	.99736	50	10	.2108	.2156	1.0230	4.745	4.638	.97754	50
20	.0756	.0758	1.0029	13.23	13.20	.99714	40	20	.2136	.2186	1.0236	4.682	4.574	.97692	40
30	.0785	.0787	1.0031	12.75	12.71	.99692	30	30	.2164	.2217	1.0243	4.620	4.511	.97630	30
40	.0814	.0816	1.0033	12.29	12.25	.99668	20	40	.2193	.2247	1.0249	4.560	4.449	.97566	20
50	.0843	.0846	1.0036	11.87	11.83	.99644	10	50	.2221	.2278	1.0256	4.502	4.390	.97502	10
5	.0872	.0875	1.0038	11.47	11.43	.99619	85	13	.2250	.2309	1.0263	4.445	4.331	.97437	77
10	.0901	.0904	1.0041	11.10	11.06	.99594	50	10	.2278	.2339	1.0270	4.390	4.275	.97371	50
20	.0929	.0934	1.0043	10.76	10.71	.99567	40	20	.2306	.2370	1.0277	4.336	4.219	.97304	40
30	.0958	.0963	1.0046	10.43	10.39	.99540	30	30	.2334	.2401	1.0284	4.284	4.165	.97237	30
40	.0987	.0992	1.0049	10.13	10.08	.99511	20	40	.2363	.2432	1.0291	4.232	4.113	.97169	20
50	.1016	.1022	1.0052	9.839	9.788	.99482	10	50	.2391	.2462	1.0299	4.182	4.061	.97100	10
6	.1045	.1051	1.0055	9.567	9.514	.99452	84	14	.2419	.2493	1.0306	4.133	4.011	.97030	76
10	.1074	.1080	1.0058	9.308	9.255	.99421	50	10	.2447	.2524	1.0314	4.086	3.962	.96959	50
20	.1103	.1110	1.0061	9.065	9.010	.99390	40	20	.2476	.2555	1.0321	4.038	3.914	.96887	40
30	.1132	.1139	1.0065	8.834	8.777	.99357	30	30	.2504	.2586	1.0329	3.994	3.867	.96815	30
40	.1161	.1169	1.0068	8.614	8.556	.99324	20	40	.2532	.2617	1.0337	3.948	3.821	.96742	20
50	.1190	.1198	1.0072	8.405	8.345	.99290	10	50	.2560	.2648	1.0345	3.906	3.776	.96667	10
7	.1219	.1228	1.0075	8.206	8.144	.99255	83	15	.2588	.2679	1.0353	3.864	3.732	.96593	75
10	.1248	.1257	1.0079	8.016	7.953	.99219	50	10	.2616	.2711	1.0361	3.822	3.689	.96517	50
20	.1276	.1287	1.0082	7.834	7.770	.99182	40	20	.2644	.2742	1.0369	3.782	3.647	.96440	40
30	.1305	.1317	1.0086	7.661	7.596	.99144	30	30	.2672	.2773	1.0377	3.742	3.606	.96363	30
40	.1334	.1346	1.0090	7.496	7.429	.99106	20	40	.2700	.2805	1.0386	3.703	3.566	.96285	20
50	.1363	.1376	1.0094	7.337	7.269	.99067	10	50	.2728	.2836	1.0394	3.665	3.526	.96206	10
							82								74
	Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.		Cosin.	Cotg.	Cosec.	Sec.	Tan.	Sine.	Angle.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.