

96.

MINING
TRANSIT BOOK

363

Property of J. W. Curo

Walker, Minn.

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"	78-87	-	144-31	Gorman

EB. Horst. { 87-108 - 133-31 Twp Road. 391
 Oct. 1915. { 109-117 - 134-30-31 Co Road 392
 Oct. 1916. { 117-124 - 134-30 finish same road

134-~~31~~ 31

835

C

0

Sunday

June 13 1915

W. B. Jones drives me to E. A. Coles.
 for my instruments thence to Geo Horns
 where I will start survey for Roads
 71 134-31

Monday

June 14 1915

German Transit A Eckard chain

Beg at cor to sec 1-2-11-12

Run N Var. $9^{\circ}30'$

200.1 Hub

455.6 "

700 enter stony

890 Av "

906.4 Hub

1253.1 "

1310 enter stony

1939.4 Hub

2545.5 "

3320 "

3811.1 "

4594.5 "

5220.5 cor to 1-2-35-36 770.5 E 75.75

835

2)

835

Monday

134-31

cont'd ② June 14 1915

correcting Back [014511]

2001 goes E 2.902

455.6 " " 6.61

906.4 " " 13.15

1253.1 " " 18.14

1939.4 " " 28.13

2545.5 " " 36.94

2610.0 " " 37.87 To True 1/4 cor

Should be 2613.50 ^{curio}

3320.0 " " 48.18

3811.1 " " 55.39

4594.5 " " 66.66

5220. " " 75.75 To True sec cor

to sec's 1-2-35-36

At 1/4 cor. btr sec's 1-2 set I. M.

should be 37.92 if curio

300

V

③
134-31

Weather No. 7d ③

Tuesday

June 15 1915

335

Gorman Transit, Geo. Horn chain

R. Horn & Eckland Ax

To establish cor. to sec's 8-9-16-17

Begin at cor - 7-8-17-18

Run E Var. $8^{\circ}30'$

1784.5' Hub

3101.15 "

5284.4 "

6598.5 "

8399.1 "

9484.6 "

Wednesday

June 16 1915

cloudy & cold

Same crew continue E

At 10624.5 cor to sec's 9-10-15-16-134-31

Tree 56.5 ft S.

✓

335

13

335

Klingbress Team

July 1 $\frac{1}{2}$

" 7 \$2.00 to get Carrie

" 8 1 on time

335

✓

15

335

134-31

②

Sunday June 13 1915

W B Jones drives me to E. A. Cole
for my instruments thence to Geo
Horns where I will start survey
for roads in Twp 134-31

Monday June 14 1915

Gorman Transit

A Eckhard chain

Begin at cor. to sec 1-2-11-12 run
N for 9030'

200.1 Hub

455.6 "

700 enter slow

890 Lv "

906.4 Hub

1253.1 "

1310 enter slow

1400 Lv slow

1939.4 Hub

2545.5 "

3320.5 "

3811.1 "

4594.5 "

5220.5 cor to sec. 1-2-35-36

lies E 75.75 ft V

335

134-31

16

Tuesday

June, 15, 1913

335

correcting

Back [014511]

200 goes E 2.902

455.6 " E 6.61

906.4 " " 13.15

1253.1 " " 18.14

2545.5 " " 36.94 should be 37.92 ^{cur}2610.0 " ^{should be 2613.50} " 37.87 To 4 cor

btr sec 1-2, set "I.M."

3320.0 goes E 48.18

335

134-31

18

335

Friday June 25 1915

Geo. Cole chmn, O. Klengbrel. Ax,
O. Beckner Ax. C. Honey AxBeginning at cor to sec's. 32-33 on
S Twn line.

137.0 H

1146.9 "

1564.1 "

1963.0 (P) "

2649.2 H Temp $\frac{1}{4}$ cor btr sec's 32-33

2881.3 "

3189.0 "

3564.1 "

5260.9 " Temp sec cor to sec's 28-29-32-33

6199.25 "

6997.5 "

7980.0 " Temp $\frac{1}{4}$ cor btr sec's 28-29

335

19

335

134-31

Saturday

June, 26, 1915

Same crew. Continue line N lat 8°30'

8898.5 H

10200 enter stern

10619.1 H

11560.9 " Lvs skew Temp cor to 20-21-28-29

12610.5 "

14157.5 "

14700.0 "

15600 enter stern

15889.1 Hub Temp cor to 16-17-20-21

16364.05 Hub Lv Stern

Sunday

June, 27, 1915

A 77 day

at Klingbreid's

Monday

June, 28, 1915

O. Klingbreid charr, C. Honey Ax

Beginning at Hub 16364.05

17907.0 H

18677.25 H Temp cor b/w sec -16-17

20492.50 H

21265.5 Todd's Temp cor to 8-9-16-17 Pres

W 753.75 ft. decide to run trial

line 1 mi N

335

Time Sheet June 194-31

June	July												Sub										
	13	14	15	16	17	18	19	20	21	22	23	24		25	26	27	28	29	30	1	2	3	4
Germari	0	1	1	1	0							1	1	1	0	1	1	1	1	1	0	0	0
G. Horn	$\frac{1}{2}$	1	1	1																			
R. Horn	$\frac{1}{2}$	1	$\frac{1}{2}$																				
A. Eckland	1	1	$\frac{1}{2}$																				
A. Kingbird													1	1	0	1	1	1	1	1	0	0	0
O. Kingbird													1	1	0	1	1	1	1	1	0	0	0
G. Harney													1	1	0	0	1	1	1	1	0	0	0
G. Cole													1	1	0	0							
O. Beckner													1	1	0	0							
Beard with																							
Horn	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
Beard with																							
R. Kingbird																							

335

134-31

3

134-31

335 . 20

335 .

21

335

134-31

⑧

Tuesday, June 29 1915

Borman Transit, Cole Charn,

O. Kingbert, A. Kingbert & Honey Ax

Beginning at Hub 710270.1

Continue N

73939.80 H

74000.0 enter slow

74136.0 lv slow

74768.5 Hub

25171.9 "

75878.0 "

26595.75 "

76617.35 Cor. to sec's 4-5-8-9 Pres

W 371.75 ft. Cor. set by Whiteley.

Begin at cor. to sec's 4-5-8-9 run N
 Var. 9°. cut out to creek which is too
 high to ford. Decide to work in S
 part of town until low water

335

134-31

335

22

Wednesday

June 30, 1915

Gorman Transit, Haney chain,
 Kingbird & Cole chain.

Begin at cor. to 29-30-31-32 Run
 E Var. 9°

7640 set Hub Temp $\frac{1}{4}$ cor.

3191.1 "

4633 "

5234.75 " Temp sec cor.

Look for BTs

NP 6 S 46 E 40

NP 14 S 78 W 83

Poplar 13 N 21 W 52

6350 enter 652 W

6965.5 Hub br 52 W.

7970.2 " Temp $\frac{1}{4}$ cor.

8955.9 "

9794.8 "

10577.9 cor to sec's 27-28-33-34

2125 S 11.95 ft.

I go to $\frac{1}{4}$ cor btr sec's 32-33 where
 U.S. notes call for NP 20 N 67 E 27.

NP 22 S 37 W 43.

I find NE stump standing

335

23

335

(10)

and plainly marked from which I
set $\frac{1}{4}$ cor.

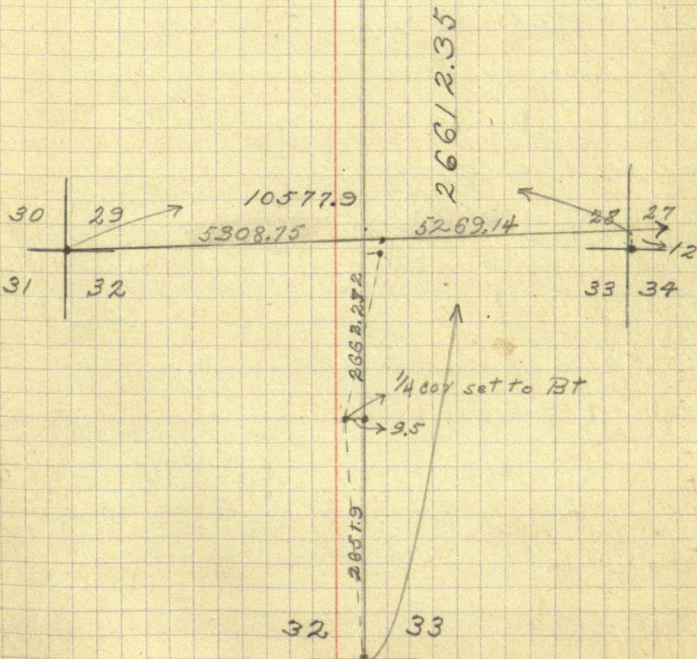
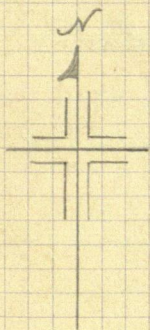
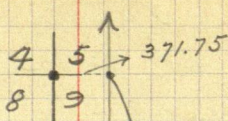
At 7651.9 ^{N.} on ^{N+O.} E-W random
line cor 715 W 9.5 ft

335

① N

335

24



335

25 330

134-31

(12)

Thursday July 1 1915

Gorman Transit, Cole Ax, Klingbeil Ax
Haney chain.

Establish cor. to sec's 28-29-32-33

From sec. cor. btw sec's 32-33 on Twn.

line to cor to sec's 4-5-8-9 =

76612.35 ft.

At 5269.13 $\frac{1}{4}$ cor. btw sec's 32-33

lies 9.5 ft N set to Rt.

At 5314.1 cor to sec's 28-29-32-33

lies E 71.10 ft

Distance from cor to 29-30-31-32 to

cor. 27-28-33-34 = 10577.9 ft

By proportionate measurement.

10573.2 = U.S. measurement

4.7 = Difference

.000444 = correction

5269.13 = distance btw sec's ²⁸⁻³³ 29-325309.76 = " " " ²⁹⁻³² 28-33

At 5308.75 cor to sec's 28-29-32-33

lies S 34.

To establish $\frac{1}{4}$ cor. btw 28-33At 7943.62 $\frac{1}{4}$ cor. sets S 23. ft

335 .

27

835

134-31

(14)

To establish 1/4 cor btw 29-32.

At 7654.35 1/4 cor goes S 17.7° E.

Friday July 2 1915

Begin at 1/4 cor. btw sec's 21-28

Run W Var. 8°30'

6.50 enter slew

8.0 " "

1062.6 Hub

1500 enter marsh

7645.8 Hub Temp sec cor.

7700.25 "

3757.25 "

5307.75 " Temp 1/4 cor.

7024.4 "

7711.25 "

7949.75 cor to sec 19-20-29-30 goes
S 27.75° E.

Set cor to BT. U.S. notes call for.

Aspen 74 S 55 E 18

" 8 S 33 W 60

" 2 N 52 E 48

E 7m 14 N 31 W 32

I find the E 7m stump still
standing. It Ringbrel & Cole
were sworn to BT.

835

134-31

(13)

335

28

Correction back

7949.75 = My chain

7924.62 = U.S. chain

25.15 = difference, .003173 = correction

7641.98 + 8.38 = 7650.36,

7949.75 - 7650.36 = 5299.39 = length of

S line of Sec 20-134-31

To establish sec. cor to sec's 20-21-28-29

At 10638.772 on N & S Random

line cor sets W to 2650.36 on E & W
Random.

At 10638.772 on N & S Random line

cor. to sec's 20-21-28-29 lies W 5.5 ft

At 2650.62 on E & W random cor. lies N
10.25 ft.

To establish $\frac{1}{4}$ cor b/w sec's 29-28.

At 7976.448 cor lies 32.8 ft E

To establish $\frac{1}{4}$ cor b/w sec's 20-29.

At 5300.31 cor lies S 8.50.

335

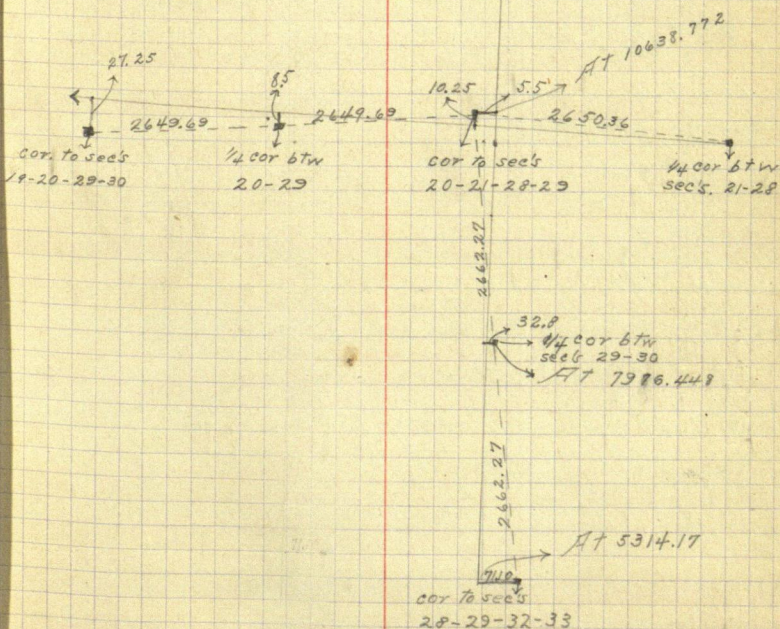
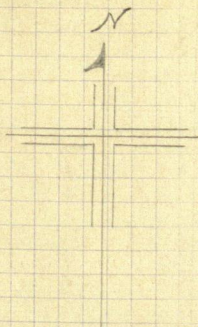
134-31

(17)

N
↑

335

30



335

31

335

134-31

⑩

Tuesday July 6 1915

Gorman Transit, Cole Ax,
Kringber Ax, Hancy chain

Beg. at cor to sec's. 17-18-19-20

Run E Var 8°30'

Setting Road centers

78

Hub

199.6 enter W Bk of ck

215 2v E Bk of ck

461.75 Hub

823.75 "

840.0 enter Branch of ck

1424.1 Hub

1873.2 "

2157.6 "

2804.4 "

3571.75 "

4134.7 "

5301.1 "

5309.75 cor to sec's 16-17-20-21

725 N 137°

At 15963.25 cor. to sec's 16-17-20-21

725 W 140.07°

335

134-31

335 ³²

Tuesday (cont'd)

Correcting Back 600 2487

78.0 goes N .19

199.6 " " .50

461.75 " " 1.04

873.75 " " 2.04

1474.1 " " 3.93

1873.2 " " 4.64

2157.6 " " 5.36

2654.97 " N 6.5 To True 1/4 cor

btw sec's 17-20-134-31

2804.4 goes N 6.97

3571.75 " " 8.88

4134.7 " " 10.28

5301.1 " "

5309.75 " " 137 ft to True cor.

to sec's. 16-17-20-21.

From cor. to sec's 16-17-20-21

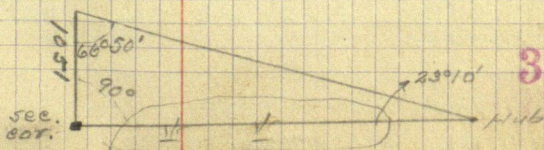
start line across stern. E Var 830

Send Flag men around set Flag

on line. Turn 90° L turn 1051 ft

N. Set Hub from Hub turn 66° 50'

L to Flag across stern



33

333

134²⁰31

Wednesday July 8, 1915

Currie arrives from Mpts.
 Currie Transit, Gorman
 chain Cole, Klingbeil and
 Hancy Ax.

Beginning at Hub - 2456.02

394.9 Hub

759.4

955.0

1658.0

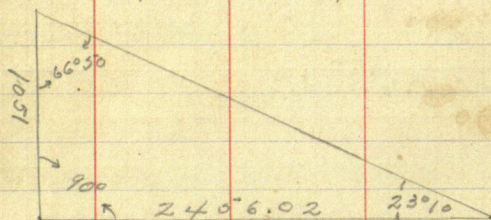
2847.0 = Cor. to SECS. 15, 16, 21, + 22.

2847.0 + 2456.02 = 5303.02 =

Length of Line b/w sec's 16-21

At 2651.51 set 1/4 cor on line

$$180^\circ - (66^\circ 50' + 90^\circ) = 23^\circ 10'$$



$$\sin 66^\circ 50'; \sin 23^\circ 10'; \therefore x; 1051$$

$$\sin 66^\circ 50' = .9194$$

$$\sin 23^\circ 10' = .3934$$

$$.9194 \times 1051 = 966.2894$$

$$966.2894 \div 3934 = 2456.02$$

335

134-31

335 34

Beginning at corner ⁽²¹⁾ to 4, 5, 8, + 9
run N. variation $8^{\circ} 30'$

755.5

Hub

824.5

Cross Creek

1306.2

Hub

1913.7

"

2529.4

"

2652.2

 $\frac{1}{4}$ cor. between secs. 4 + 5 lies E. 27.10

Correcting Back [0.01021']

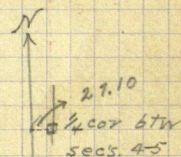
755.5 goes E 7.71

824.5 goes E 8.42

1306.2 goes E 13.34

1913.7 goes E 19.53

2529.4 goes E 25.82



335

Beginning at $\frac{1}{4}$ cor. between secs. 4 & 5
 Twp N. - var. 7°

339.6 Hub

719.0 "

1216.7 "

1627.0 "

2492.0 cross road

2499.2 Hub

There is no cor on Twp 7 ne and
 can not be established without
 first establishing cor on NW
 cor of Twp 134-31. The Twp
 Board decide to take the
 matter under consideration.

Thursday July 8 1915

Gorman Transit, Cole chain

Establish $\frac{1}{4}$ cor b/w sec's 20-21

At 15963.75 on N & S random line
cor to sec's 16, 17, 20, 21 lies 140 ft
W.

At 10638.772 on N & S random
line cor. to sec's. 20-21-28-29
lies W 55 ft

13300.98 $\frac{1}{4}$ cor b/w sec's 20-21
lies W 72.75 ft

To establish cor. to sec's 8-9-16-17

At 21287.79 cor. lies W 277.75 ft
W & At 5308.76 on E & W Random line

To establish $\frac{1}{4}$ cor. b/w 16-17.

At 18625.82 on N & S Random
line cor lies W 181.25

At 14637.11 on N & S Random line W
 $\frac{1}{4}$ b/w sec's 20-21 lies ^W E 118.13 ft

To establish $\frac{1}{4}$ cor b/w sec's 9-16

At 7974.96 on E & W Random line
 $\frac{1}{4}$ cor Goes S 74.5

To establish $\frac{1}{4}$ cor b/w sec's 8-17

At 7654.13 on E & W Random line $\frac{1}{4}$
cor. lies 3.75 ft S.

37

835

134-31

Thursday July, 8, 1915
 Currie Transit, Klingbe-
 chorn, J. C. Martin Ax,
 Haney Ax.

Reg. at cor to sees 4+5-8-9

Run S Var. $8^{\circ} 50'$

605.0 Hub

901.5 "

1373.9 "

1683.8 "

2280.0 "

2686.0

Martin take us to NW cor
 of Twn 134-31 where we learn-
 ed to know of Bts, but all
 trace of Bts were gone.

835

	Time	Sheet										134-318133-31										Sum	
		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		26
July		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Gorman, W.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Currie, P.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Cole, G.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Wingbert, H.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Haney, C.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Watt																							
Adams																							
Lawhead																							
Roseward																							

Friday July 9 1915
 Currie Transit, O. King bell,
 chain, A. King bell Ax

Beg. at Hub 2686.0 continues
 3758.4 Hub

5379.0 cor. to sec's 8-9-16-17

7905 E 129 ft

Correcting Back [02402]

605.0 goes E 14.5 ft

901.5 " " 71.65"

1343.9 " " 31.78"

1683.8 " " 40.44

7480.0 " " 54.76

7664.0 " " 64.0 to $\frac{1}{4}$ cor. btw

sec's 8-9-134-31

7686.0 goes E 64.51

3758.4 " " 78.76

Friday, July, 9, 1915

German Transit, Cole chain.

Rain in the forenoon

After noon set $\frac{1}{4}$ cor btw sec's

16-17-134-31

134-31

335

40

Saturday July 10 1948

335

41

335

134-31

Saturday July 10 1915

Gorman Transit, Currie Rod & Charn
Cole CharnTake levels for Road drainage
btw sec's 27-28-134-31

Sta.	R.P.	H I	E I	Grade
0	7.57	7157	7000	
1	705		7052	
2	707		7050	
3	6.64		7093	
4	5.65		7192	
	8.60	3052		
5	764		7788	
6	650		7402	
7	570		7482	
8	505		7447	
9	405		7647	
10	341		7711	
	602	3513		
11	570		7743	
12	717		7596	
13	695		7618	
14	560		7753	
15	497		7816	
16	500		7815	

335

Sta.	RPR	H.I.	Elev.	Grade
17	485	33.13	2828	
18	495		2818	
	551	33.33		
19	450		2813	
20	461		2872	
21	482		2851	
22	530		2803	
23	574		2759	
24	612		2721	
25	749		2584	
26	790		2543	
27	900		2433	
28	950		2383	
29	1005		2328	
30	1004		2339	
31	1109		2243	
	680	28.13		
	570		2253	Water level
31	640		2183	Bottom of ditch
32	735		2098	" " "

43

335 .

133-31

Monday

July, 12, 1915

Curre Transit

Beg. at cor. to sec's 8-9-16-17

Run N Var. $10^{\circ}10'$

600.0

Hub

911.7

"

1546.7

"

1144.

"

1660.0

"

1660.4 1/4 cor btr sec's 8 & 9 goes

9.47 ft.

Correcting Back [00357]

At 1330.2 S 1/16 cor. btr 8 & 9 goes

4.75

335 .

Monday July 12 1915

Gorman Transit, H. Kawhead chain,

B Adams Ax S. Wait Ax

Beg. at G. to sec's 7-12-13-18 Matteson &
Todd Counties. Run E Var 9°

740.5 H

1387.15 "

1776.5 "

7400 cross state road

1776.5 off set 10 ft to get around house

4009.5 Hub

4069.0 " set back on random

4265.7 " on W Bk of Crawwing River

send man around on E Bk set Hub.

@ Hub 4265.7 turn Rt L Trans 534.65 ft.

set Hub sight on Flag across River

Turn L 37° 15'

4667.23 Hub, on W Bk of River

4999.23 Hub

5096.48 Hub

5123.88 "

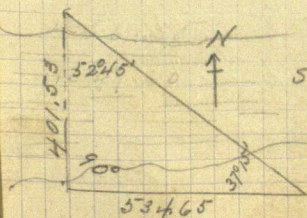
6014.83 "

$$90^\circ + 37^\circ 15' = 127^\circ 15'$$

$$180^\circ - 127^\circ 15' = 52^\circ 45'$$

$$\sin 52^\circ 45' : \sin 37^\circ 15' = 534.65 : X$$

$$\frac{.6053 \times 534.65}{.7960} = 401.53$$



133-31

Tuesday July, 13, 1915.

Beg at Hub 6014.83 continue

E. German Transit, Wart-chain, Adams Ax

6756.5 H

7156.5 "

7781.5 "

7966.0 " Temp sec cor

9051.1 "

9561.1 "

10500.0 " Temp 14 cor

11166.4 "

11964.3 "

12164.75 "

14969.1 "

13727.4 cor to sec's 8-9-16-17 17255

50.6 ft.

Correcting Back

U.S. chain 13719.74

My " 13777.4

Difference 8.76 ft.

Correction .000625072 ft.

At 7640 cor goes E. 1.65 to 7641.65

" 4257.00 M.C. No 24 goes E 2.66 to

4259.66 ft.

At 5083.32 M.C. No 23 goes E
3.15 to 5086.47

At 5280.0 $\frac{1}{4}$ cor goes E 3.28 to
5283.28

At 7920 cor to sed's 7-8-17-187
goes E. 4.94 to 7924.94

At 10560 $\frac{1}{4}$ cor b/w sed's 8-17
goes E 6.60 to 10566.6

At 13219.14 cor goes E 2.20 to
13227.4.

47

335

133-31

Wednesday

July 14 1915

German Transit, Lawhead chain,
Adams Ax, Wait Ax

Begin at temp cor. to secs 7-8-17-18

Run S var 10° 45'

543.75 Hub

560.5 cross N.P. R.R.

1586.75 Hub

1569.7 "

1640 look for Bts where U.S.

notes call for Pine 55 57 1/4 W 32

Aspen 8 N 89 3/4 E 17

All are gone can't S.

3334.75 H

4408.5 "

4550.0 enter swamp

4910.0 Lv. swamp

4955.0 Hub

The Bts to M.C. No ²²~~23~~ are gone.

Thursday July 15 1915

German Transit, Currie chain

Lawhead, Adams, Roswald & Felton Ax

Beg at 4955.0 Hub

4995.74 enter N Bk of Crow Wing River

River is shallow we chain across
5300 Lv River

5334.9 Hub

M.C. No 20 where U.S. notes call

Ash 10 5344 E 29 (19.14)

E 7m 13 S 70 1/2 W 30 (19.80)

Find E 7m stump plainly marked
from which I set M.C.

5353.1 M.C. No. 20 lies N 144.75

60 to cor. to sec's 7-8-17-18 continue
Currie line N,

5353.1

49

335

10576.18

7924.95

2652.23

372.72

335

Friday July 16 1915

German Transit, Larvhead chain
Wait Ax.

Establishing corners.

At 7920^{E & W Random} cor to sec's 7-8-17-18
goes E 4.95 to 7924.95 & at
5353.50 on N & S Random cor to sec's
goes S 3.21 to 5350.29.

At 10576.18 $\frac{1}{4}$ cor b/w sec's 8-17
goes S 27.67 ft

At 54.78 on N & S Random line
cor to sec's 17-18-19-20 goes N .03.12
a foot to 54.81 cor in Rider

At 2647.75 $\frac{1}{4}$ cor b/w sec's 17-18
goes W 77.62

57

335

Saturday

July 17 1915

2816.12

480.52

1945.35

5242.57

2855

480.52

1945.35

5280.87

$$\begin{array}{r} .0151 \\ 5281 \overline{) 799000} \end{array}$$

5281

27090

26405

6850

2359

0151-7

2359

11795

2359

356209

5280.87

1949.2

3331.67-5.4

151-7

333167

1665835

333167

50308217

66094

$$79.9 \overline{) 5280.87}$$

4794

4868

4794

7470

7191

2790

1949.2

5.4

2001.2

1326.0

675.2

1326

335

Saturday July, 17, 1915

Beg. at cor. to sec 7-18 on W Turbine
Run N 90°30' W.

Gotman Transit Lowhead chain
Adams & Wait Ax.

1379.3 H

7139.75 "

2359 H16

2816.7 "

2855.0 enter S Bk of Crow Wing River

send Flagman to opposite Bk set Hub
on line

Turn 48° L run 500.0 ft W. L at that Pt. =
48°10'

cross River by Bridge and start
new chain.

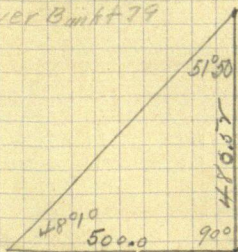
1094.75 Hub

1722.45 " 0°52'

1943.85 cor to Sec's 6-7 Ties E 79.9

1949.2 +52.1 M, N Sin 48°10' : Sin 51°50' :: X : 500.

River Bank 79



$$\sin 48^{\circ}10' = .7451$$

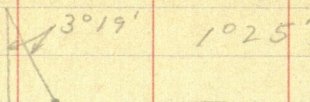
$$\sin 51^{\circ}50' = .7753$$

$$.7451 \times 500 = \frac{372.5500}{.7753} = 480.57$$

Total Length of Line = 5280.87

53

335



$$\begin{array}{r}
 17.28 \\
 15 \overline{) 259.21} \\
 \underline{15} \\
 109 \\
 \underline{105} \\
 40 \\
 \underline{30} \\
 120 \\
 \underline{120} \\
 0
 \end{array}$$

$$\begin{array}{r}
 13175.6 \\
 12214.6 \\
 \hline
 961.0
 \end{array}$$

$$\begin{array}{r}
 61.0 \\
 54.6 \\
 \hline
 6.4
 \end{array}$$

$$\begin{array}{r}
 405 \\
 6.4 \overline{) 259.2} \\
 \underline{256} \\
 320 \\
 \underline{320} \\
 0
 \end{array}$$

$$\begin{array}{r}
 259.6 \\
 99833 \overline{) 259200} \\
 \underline{199666} \\
 595340 \\
 \underline{499165} \\
 961750 \\
 \underline{898497} \\
 632530
 \end{array}$$

10614.78

5315.96

13175.55

N. 259.2 to Cor. 6-7

335

Monday July 19 1915

German Transit, Adams Charn
Wait Ax.

Ck charming Currie's Random Line
Beg. a cor. to sec's 4-5-8-9 Running
W

1560.0	Hub	
1715.0	"	
1659.9	"	13175.55
3350.0	"	12214.6
3813.5	"	960.95
4885.0	"	12214.6
5104.75	"	11690.6
5773.75	"	524.0
5511.8	"	11690.2
6835.15	"	10633.1
7719.50	"	1057.1
7900.0	cross Misqueto creek	10633.1
7939.6	Hub	9199.9
8501.8	"	1433.2
9199.9	"	
10633.1	"	
11690.2	"	
12714.6	"	
13175.55	cor. to sec's 6-9 on W Trw Line	
725 N 759.2		
+ 80.7' to intersect W. Ran. Line		
S. E. X 90° 09' 30"		

55

835

133-31

Monday July 19 1915

collecting Back on E & W Random line

U.S. chain 13085.82

My chain 13175.55

Difference 89.73

correction. [0.006811]

5780.0 cor. to sec's 5-6-7-8 goes W

35.96 ft. to 5315.96

At 10614.78 on N & S Random

line cor. goes N 30.94 to

10645.64.

length of sec. line btw sec's 17-18 =

5795.51

length of sec. line btw sec's 7-8 =

5795.51

length of sec line btw sec's 5-6 =

5179.2

Establish 4 cor btw sec's 5-8

At 7657.98 cor. goes N 60.75 ft.

Cor. to sec's ⁵⁻⁶~~4-5~~-7-8 lines 18 W of

N & S random line

cor. to sec's ⁵⁻⁶~~4-5~~-7-8 lines 121.4 ft N of

E & W Random line.

335

Tuesday

July, 20, 1915

German Transit, Lawhead chain, Wirt,
Adams, Roswald & H Adams Ax

Beg at E $\frac{1}{4}$ cor btr sec 7-18 run
N Var. $90^{\circ}30'$

337.8 Hub

919.7 "

1490.0 "

2010.0 "

2140.1 "

2294.75 "

3053.8 "

3871.4 "

4184.0 "

4500.0 Bend of Misqueto cr. cross line

5040 cross creek

5110 " "

5284.0 Hub on Bridge

To establish $\frac{1}{4}$ cor btr sec's 6-7 on E & W Random

At 7973.44 $\frac{1}{4}$ cor goes N 168.77 ft

At 5297.1 on N & S Random $\frac{1}{4}$ cor btr
sec's 6-7 lies N 118.5 ft

57 **335**

133-31

Tuesday (cont'd) July 20 1915

same crew.

From 1/4 cor. between sec's 5-8 run
S Var. 9030'

450.0 enter swamp

1362.5 Hub Lx swamp

1506.1 "

7174.75 "

Wednesday July, 21, 1915

same crew. con't' Time S

1348.75 Hub

3101.7 "

3981.8 "

4370.3 "

5308.7 1/4 cor btw sec's 8-17 Time W 7907

correcting Back [001319]

335

Wednesday (cont'd) July 21 1915

Beg. at $\frac{1}{4}$ cor btw sec's 8-9

Run W Var. $90^{\circ}30'$

1014.2 Hub

1603.7 "

2197.9 "

2527.5 "

3377.0 "

3477.0 "

4017.7 "

4829.3 "

5296.4 "

5312.4 $\frac{1}{4}$ cor btw sec's 7-8 Trs 21.5 N

To establish $\frac{1}{4}$ cor. btw s 7-8.

At 2647.75 on E/W random line
btw sec's 7-8 cor. goes W 28.07.

At 1343.87 $8\frac{1}{6}$ btw sec's 7-8 goes
W 3.407 t.

Correcting Back

correction [004047]

61 335

133-31

Wednesday (cont'd) July 21 1915

Beg. at S 1/6 B'tw sec's 7-8 run E

Var. 0° 30'

558.1

Hub

919.9

"

1763.9

"

4783.0

"

4745.6

" on N 1/2 center Random

Thursday July 22, 1915

At 4670.35 S 1/6 on N 1/2 center

True Res 51.2 ft. S.

correcting Back [101917]

558.1

goes S 10.69

919.9

" S 17.63

1763.9

" S 33.81

4783.0

" S 43.86

4648.36

" S 51.2

Thursday July, 22, 1915

Gorman Transit, Adams Ax, Wait chain.
Establish $\frac{1}{4}$ cor in center of sec 8.

At 2618.75 where E & N center Random
intersects N & S center Random line.

temp $\frac{1}{4}$ cor. goes N 10.59 to 2649.21
on N & S center random line,

At 2649.21 on N & S center random
True $\frac{1}{4}$ in center of sec 8 goes W 34.94
to 2653.19 on E & W Random line

At 3978.77 on N & S random line S $\frac{1}{2}$
goes W 52.94. To 2670.35

To establish W $\frac{1}{4}$ betw sec's 7-18

At 2640 on random line betw sec's 7-18
 $\frac{1}{4}$ cor goes E 1.65 to 2641.65

correction for E & W .000675

At 2641.65 $\frac{1}{4}$ cor betw 7-18 goes S 1.75 to

Reg. at $\frac{1}{4}$ cor to sec's 7-18 Run N Var
9°30'

131.6 set Hub send man across
river set Hub on line. From Hub at

131.6 turn 90° angle run W 290.07
set Hub from which I turn 52°20' angle

133-31

335

64

Friday

July, 23, 1915

Gorman Transit, Low head chain, Adams
 Ax wait Ax.

Req. at $5\frac{1}{16}$ on N+S center line
 77 sec. 8. Run E. Var. $90^{\circ}30'$

449.5 Hub

834.4 "

1997.8 "

7646.55 $5\frac{1}{16}$ on E line of sec 8 225
 N 16.8 7 ft.

Correcting Back [006348]

449.5 goes N 1.85

834.4 " N 5.79

1997.8 " N 12.65

7646.55 " N 16.8 to $5\frac{1}{16}$ on
 E line of sec. 8.

Req at $5\frac{1}{16}$ Btm sec's 7-8 Run N
 Var $90^{\circ}30'$

1298.75 Hub

7469.5 "

8666.5 "

3900 enter mosquito c'k

3995.0 Hub

4175.2 enter Mosquito creek

335..

65

335

133-31

Friday (cont'd) July 23 1915

4210.2

Hub 2v creek

4260.9

"

4481.1

"

5378.9

"

Ht 5312.7 Sko on W center line

Pres 78.5 7' N.

335

133-31

335

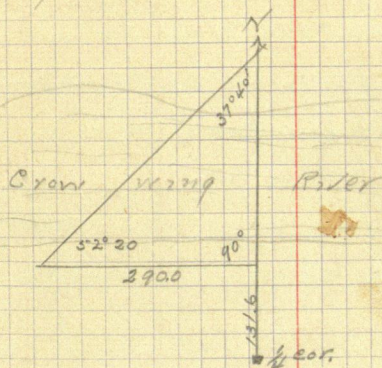
66

Saturday

July, 24, 1915.

Beg at Hub on N. Bl. of Crow
Wing River on W $\frac{1}{4}$ line running N & S
in Sec 7.

Triangulation done on Thursday



517.73

Hub

9921.34

"

1815.2

"

1640.0

"

3913.5

"

5313.4

"

5317.4 W $\frac{1}{4}$ 5th sec's 6-7 Ties W 18.2 + 15.0

07507 = 33.2 ft

3354

67

335

133-31

Saturday (cont'd) July, 24, 1915

To establish W 1/4 betw sec's 6-7.

At 10560 cor. goes W 71.92 ft to 10631.92.

Whole Time 13175.55 My charn

13085.82 V S "

Difference 89.73 correction (.006811)

At 10631.92 W 1/4 cor goes N

At 13175.55 cor on Town Line Time

N. 759.7

At 5315.96 cor to ⁵⁻⁶ 4-5-7-8 goes N

121.4

 $759.7 - 121.4 = 137.8$ $\frac{137.8}{759.59} = .01753 \times 5315.8 = 93.18$

$93.18 + 121.4 = 214.58 = \text{distance W 1/4}$
 cor betw 6-7 goes N from 10631.92
 on Pandan Line.

13175.55 13175.55
 10560 W 71.92 to 10631.92

13175.55
 12214.6
 961.0

11690.2
 524.4

1224.63
 961.0 ✓
 253.6
 524.4
 260.8

2543.63
 1329.0
 1214.63

335

Monday

July, 26, 1915

Gorman Transit Lawhead chain, Adams
Wait & Peterson AxAt 2658.7 1/4 cor on w center line goes
W 16.7 ft. or 6.7 from spot on
Random line.

From 1/4 cor Run E Var 9°30'

450.8 Hub

681.0 "

1238.5 "

2581.2 "

2336.3 "

2510.0 enter ~~pt~~ creek

2535.0 LV " "

2597.1 Hub

2680.8 "

3188.25 "

5019.5 "

5313.2 " 1/4 cor b/w 7+8 dist 11.5' to
the N

13175.6

10631.9

2543.7

12214.6

10631.92

1582468

89°56'

Monday, (cont'd) July, 26, 1915

Same crew

To establish $E\frac{1}{4}$ in center of sec 7.

At 7649.2 on E & W center line

True $W\frac{1}{4}$ in center of sec. 7

goes N 5.75 pt to 7644.65

on N & S - East center line.

To establish $S\frac{1}{4}$ on E center
line

At 1377.87 on N & S E center

line $S\frac{1}{4}$ goes W 15.3

At 7593.6 on E & W Random $S\frac{1}{4}$ line

True N 40.0 pt.

5295.5

5297.1

5317.

2649.2 5.75

1322.6

2653.2

1150

1326.6

2644.5

18.7

2655.8

2635.5

5295.5

2637.8

2644.5

2653.2

7.7

2661.0

6.7

8.7

133-31

835 70

Tuesday July, 27, 1915

Rain in forenoon
To establish $S\frac{1}{2}$ on Western line
see 7.

At 1378.3 $S\frac{1}{2}$ goes W 8.25 ft

At 5313.5 on E & W $S\frac{1}{2}$ line to cor.
just established goes 78.5 ft N
Set Iron Monuments

Wednesday July, 28, 1915

Gorman, Hancock & Adams

Set Iron Monuments.

Establish cor.

At 3986.47 W $\frac{1}{2}$ BtW sec's 5-8 goes N 91.96At 1378.9 E $\frac{1}{2}$ " " 5-8. " N 30.43

At 1376.5 E $\frac{1}{2}$ on E & W centerline sec 8
goes N 5.29

At 3979.6 W $\frac{1}{2}$ " " " " " 8
goes N 16.0 ft.

Thursday July, 29, 1915

At day at Motley work on notes
and time of Armes.

Friday July 30 1915

Lv for Walker Fare \$1.86

835 11

71 335

133-31

Saturday July 31 1915

In office on plots and
recording notes,

Tuesday Aug. 17, 1915

Leave Walker (fare \$1.78) for Motley
to set I. M. in Trn 134-31.

Arrive at Motley Telephone line
out of order and cannot get Cole.
Stay at Motley all night

Wednesday Aug. 18, 1915

Hotel Bill.

Dinner Thursday	35
Supper "	25
Lodging "	50
Breakfast Wed	35
Total	\$1.55

Try to get Cole by Phone but line
still out of order. Call Lawhead
who comes to Town and arranges for
machine to take Me to Cotes.

King birds for dinner

Began setting "I. M."

335

Thursday Aug. 19,

1915

335 72

With C. Haney and son assisting I
continue to set "I M"

Am boarding w Otto Klingbier

A. Klingbier takes me to Motley

Stay all night at City Hotel

Friday Aug. 20 1915

Hotel Bill 1.55

Lv for Walker on 2:00 Train

Fare \$1.78

335

Monday Aug. 23, 1915

Leade Walker via G.N. for Cass Lake.

Fare .50¢ Stay at Endorn Hotel Bill \$2.00

Tuesday Aug. 24, 1915.

Hire Livery & drive to sec. 5-144-31.

Try to locate boarding place. Go to M.

Gass also Rayborn but with no success.

Finally pull up at Greenside's where they will allow us to sleep in the barn (Livery \$4.00)

H. Swanberg & I go to cor to sec. 4-5-8-9 to locate U.S. Bts but with no success.

Wednesday Aug. 25 1915

Gorman Transit, Swanberg chain,

F. Greenside Axe. Use Rayborn Ax

Go to cor to sec's 5-6-7-80. "I. M." set by

J. W. Guro. Run E, Var. 8°30'.

H. Swanberg goes to Rayborns for man

160.40 Hub

566.8 "

Ground Level. Timber, dense polar brush.

1050.5 Hub

1500.0 "

1896.8 "

2640.0 " V.S. notes call for

Bts as follows: H to y @ 5
 NP 12 N 15 E 38
 NP 12 S 17 E 42
 Bts gone.

Thursday Aug. 26 1915
 Gorman Transit, Swanberg chain,
 Greenside Axe, Rayborn Axe, Grumb Axe.

Begin at Hub 2640.0 continue E

2905.75 Hub

3565.25 "

4270.7 "

4768.0 Random line intersects G.N.R.R.

4791.25 Hub

5289.0 Cor to sec's. 4-5-8-9 ties S 13.4 ft.

Cor. Oak Post set by Surveyor Middleton

U. S. Notes call for:-

Oak 4 311 E 122

WP 7 517 W 226

Birch 6 N 32 W 187

WP 6 N 52 E 17

Bts are gone

Time

Sheet on Survey for Roads

in Twp 144 Rge 31

August

Gorman, N.P.

Swanberg H.

Greenside E.

Rayborn, C.

Clumb, C.

Craymer J.

21 22 23 24 25 26 27 28 29 30 31

1 1 1 1 1 0 1 1 1 1 1

1 1 1 1 1 0 1 1 1 1 1

1 1 1 1 1 0 1 1 1 1 1

1 1 1 1 1 0 1 1 1 1 1

1 1 1 1 1 0 1 1 1 1 1

1 1 1 1 1 0 1 1 1 1 1

Board & Room on Survey of Roads in Twp 144 Rge 31

August

Flt Greensides

Gorman

Swanberg

21 22 23 24 25 26 27 28 29 30 31

1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1

1009 40
190 575

Friday

Aug. 27, 1915

Gorman Transit, Swanberg chain, Greenside Axe
Ray born Axe, Grumb Axe.

Begin at cor. to sec's 4-5-8-9 Run E (Var 8°)

50.0 enter cedar swamp

527.8

Hub

1500.0 Lr cedar swamp

1589.0

Hub

1775.5

"

2335.75

"

2619.0 1/4 cor b/w sec's 4-9 trees 18.5 ft S

Cor trees in small stem almost round

U.S. Notes call for Bts viz:

E 7m 8 S 64 W 20

Oak 5 N 80 E 59

Find Oak standing and plainly marked
chk's for measurement.

From 1/4 cor start new line E 8° Var

728.8

Hub

1261.75

"

2059.75

"

2627.25 cor. to sec's 3-4-9-10, is N 103.5 ft

"I.M." set by Curo.

Saturday

Aug. 28

1915

Gorman Transit, Swanberg Churn,
Greenside Axe, Rybain Axe, Grumb Axe.
Correcting Back on line btw sec's. 5-8

Whole Time 5289

Missed cor. 13.40

$$\frac{5289}{13.4} = .0025336 = \text{correction.}$$

160.4	Hub goes	S	0.40
666.8	" "	S	1.68
1080.5	" "	S	2.45
1500.0	" "	S	2.65
1896.8	" "	S	4.80
2644.5	" "	S	6.7 to $\frac{1}{4}$ cor btw sec's 5-8
2905.75	" "	S	7.36
3565.25	" "	S	9.04
4270.7	" "	S	10.66
4791.25	" "	S	12.13

5289.0 Cor. to sec's 4-5-8-9. Lies South 13.4

Correcting Back on line from cor. to sec's 4-5-8-9
to $\frac{1}{4}$ cor btw sec's, 4-9

Whole Time 2619.0

Missed $\frac{1}{4}$ cor 18.5 ft.
$$\frac{2619}{18.5} = .07063 \text{ correction}$$

527.8 Hub goes S 4.017 ft.

Saturday Aug. 28 (cont'd) 1915

1589.0 Hub goes S 11.72

1775.5 " " S 12.53

7335.75 " " S 16.50

7619.0 4 cor b/w 4-9 ties 18.5 ft S

Correcting Back on line BTW sec's
4-9 from 4 stake to "IM" at cor to
sec's 3-4-9-10.

Whole line 2627.25

Missed cor. 103.5

$$\frac{2627.25}{103.5} = .03939 \text{ correction}$$

779.8 goes N 28.9

1268.75 " N 49.97

7059.75 " N 80.13

7627.25 " N 103.5 to "IM" on
cor to sec's 3-4-9-10.

The Fbovers survey for Road.

Sunday, Aug. 29 1915

Monday, Aug. 30 1915

Starting survey for road btw sec's 18-19
Road beginning at cor to sec's 17-18-19-20
and continuing W to Twp line, 144-31
Gorman Transit, Swanberg Charn,
Greenside Ave, Rayborn Ave, Crumb Ave.
Begin at cor. to sec's 17-18-19-20 Run W
8° Var.

1016.1 Hub

1701.0 "

4436.75 "

7534.0 "

7628.0 (1/4 cor btw 18-19 trees N 16.0 ft.)
(Note)

I find Bts to 1/4 cor but have no notes.

Tuesday Aug. 31, 1915

Go to Walker to get notes.

Wednesday Sept. 1 1915

Gorman Transit, Swanberg Charn, Greenside
Ave, Rayborn Ave, Crumb Ave.

Set 1/4 cor btw sec's 18-19 where J. S.
Notes call for: E 7m 6 568 W 61 = 40.26
N P 6 N 2 E 71 = 46.86

Put new Bts as follows: Var 8°

WP 71 55 W 44 71

Poplar 8 N 78° 10' W 44.75

Wednesday (cont'd) Sept. 1, 1915

From cor. just established run 7 line

W Lot 8°

481.9 Hub

910.2 "

1201.03 "

1997.6 "

7640.0 "

7780.2 sec. cor on Trn line b/w

sees 18-19 Trs 88.5° N

correcting Back

Whole line 7780.2

Missed cor. 885°

$$\frac{7780.2}{88.5} = .03183$$

Hub at 481.9 goes N 15.73

" " 910.2 " N 78.86

" " 1201.03 " N 38.72

" " 1997.6 " " 63.58

" " 7640.0 " " 84.02

" " 7780.2 " " 88.5° to

cor to sees 18-19 on W Trn line

144-31

144-31

82

Wednesday (cont'd) Sept. 1, 1915

Ht. 2678.0 1/4 cor b/w sec's 18-
19 Ties N 16.0

Correcting Back

Whole Time 2678.0

Missed 1/4 cor. 16.07+

$$\frac{2678}{16} = .06088 = \text{correction}$$

Hub at 1016.1 goes N 6.88

" " 1701.0 " " 10.35

" " 2436.75 " " 14.82

" " 2534.0 " " 15.43

" " 2678.0 " " 16.7 to 1/4

cor. b/w sec's. 18-19-144-31

Go to Richards to see about
boarding place while on sec. 21

144-31

Thursday Sept. 2, 1915

Leave Greensides and go to
Richards to Room and BoardGorman Transit, Swanberg chain,
Greenside, Rayborn, Crumb Ave.

Begin at 4 cor. btr sec's. 71-78-144-31

Run S $60^{\circ}45'E$

100 enter Tamarac swamp

748.7 Hub L^v swamp

1176.0 "

1340 enter slow

1500 L^v "

1841.7 Hub

2573.0 "

3350.5 "

144-31

84.

Friday

Sept. 3, 1915

German Transit, Swanberg Chain,
Greenside, Raybarn, Crumb, Craymer Ave.
Continue S.

4793.75 Hub

4907.5 "

5238.0 1/4 cor. b/w 28-33 Ties 33.1 W

Correcting Back

748.7 goes W 4.87 ft.

1176.0 " W 7.55 "

1871.7 " W 11.85 "

7573.0 " W 16.77 "

3350.5 " W 71.80 "

4793.75 " W 77.94 "

4902.5 " W 37.91 "

5238.0 " W 33.1 to 1/4 cor. b/w sec's 28-33

Begin at 1/4 cor b/w sec's 21-28 Run N 90°

348.0 Hub

600 enter Tamarac swamp

1143.5 Hub L.V. Swamp

1520.40 "

1550 enter spruce swamp

1900 L.V. "

7174.5 "

2641.0

7700.0

74.6 where E & W line intersects

85

144-31

Saturday Sept. 4 1915

Gorman Transit, Swanberg chain, Greenside,
Rayborn, Grumb, Craymer AxeBegan at $\frac{1}{4}$ cor b/w secs 10-11Run E Var 83°

542.4 Hub

1180.0 "

1765.0 "

2649.2 "

3750.5 "

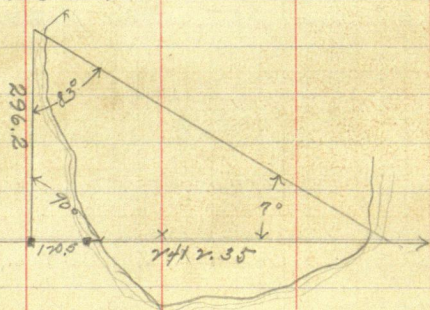
3371.0 " on W Bk of Lake

I send man around lake and set
Hub on E Bk of LakeFrom Hub at 3750.5 turn Rt. angle
and Run 269.27 \pm N turn angle to
Hub across Lake = 83°

$$\sin 83^{\circ} : \sin 7^{\circ} :: X : 266.2$$

$$.99755 \times 266.2 = 265.3993310$$

$$\frac{265.3993310}{.72197} = 2417.35$$



Go around lake to find $\frac{1}{4}$ cor b/w secs.
11-12. Rayborn say that he located U.P.
Bt. last summer but we can find no
trace of it

Sunday, Sept. 5 1915

Go to Cass Lake to get trons to set on
Wilkinson job but trons which Swenberg
ordered have not come yet. Try to call
Curo but find that Telephone operator got
married and more apt to neglect calls to
attend to domestic affairs.

Monday Sept. 6, 1915.

German Transit, Greenside chmn, Ray born,
Crumb, Traver Ave.

Began at Acor 6th road 70-71 Run N
Ver. 8:30'

75.0 enter Tanager swamp

503.75 Hub Lv. "

774.5 enter small c't

1374.5 Lv. " "

1374.5 Hub

1742.0 " center of state Road

Quit for day.

Lv for Walker via Steamboat River, Richards
Launch.

Tuesday, Sept. 7 1915

Make out Bills for work just finished

1391

Wednesday Sept. 8 1915.

Lv Walker for Motley to Finish work
in Twp 133-31. E. Horast goes also and
is to take charge of work.

Arrive at Motley 12:30. Try to call
Lawhead but find he is not at home.
Stay in Motley all night.

Thursday Sept. 9, 1915.

Livery takes us to Geo. Burnt's and
began survey for Twp Road. Beginning
a cor. to sec's 3-4-9-10 T133 R31 to run
south to Crow Wing River.

Horast takes Transit and crew and
began line. I take compass and took for
Bts.

Beginning at cor to sec's 3-4-9-10 Run
S Var 8°30'

Horast. Transit, Adams chain,
Seadtund and Britton Axemen

391

Friday Sept 10 1915

Gorman goes back to Walker and I
take charge of work with crew as follows

Foret, Transit

Adams, flag and axe

Seadlund, Axe

Britton, "

Berndt, "

and continue South on line started
from sec cor of 3-4-9+10. we reach the
Crow Wing River and find B Oak
B.T. at M.C. 1010 deeply cut and
bearing the marks M.C. plainly
and find no trace of any other
B.T.s

Sundberg

E B Horst

Saturday Sept 11 - 1915

71 391

Horst. Transit Adams, Britton,
Seadlund and Berndt as men
We go to $\frac{1}{4}$ cor (Stone) between
Sections 10 and 15 and run W
intersecting N and S. line and continue
1 mile W to See cor of 8-9-16-17
begins to rain at 3.00 we finish
at 3.30 and quit work for the day

1915

September 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Sunday

W.D. Gorman.

Colmer B Frost,

Burrill Adams,

John Leadbund

Erail Britton

George Bernard,

Home & Southard.

Boord' at Geo Berndt

N.D. Gorman. 1 day

11.2.2000	12.2.2000	13.2.2000	14.2.2000	15.2.2000	16.2.2000	17.2.2000	18.2.2000	19.2.2000	20.2.2000	21.2.2000	22.2.2000	23.2.2000	24.2.2000	25.2.2000	26.2.2000	27.2.2000	28.2.2000	29.2.2000	30.2.2000	31.2.2000
11.2.2000	12.2.2000	13.2.2000	14.2.2000	15.2.2000	16.2.2000	17.2.2000	18.2.2000	19.2.2000	20.2.2000	21.2.2000	22.2.2000	23.2.2000	24.2.2000	25.2.2000	26.2.2000	27.2.2000	28.2.2000	29.2.2000	30.2.2000	31.2.2000

@ site per day = 1.75-

100

$$\frac{5}{12.75}$$

١٠٩١

Monday Sept 13, 1915
Horst Transit, Adams, Seadland,
and Britton axemen

We go to Sec cor of sections 13-14-23-24
and run a line West on $9^{\circ}30'$ var.

I find an Oak B.T. at sec cor of
sections 14-15-22-23. Plainly
marked but have no notes for an
Oak B.T. at this cor notes call for 4
asp B.Tr. We continue W. on same
course $\frac{3}{4}$ mile and quit for the day

Tuesday, Sept. 14.

1915.

Raining. Quite at 8.30
and we go to work

West Transit.

Adams, Seadlund and Britton
Axemen

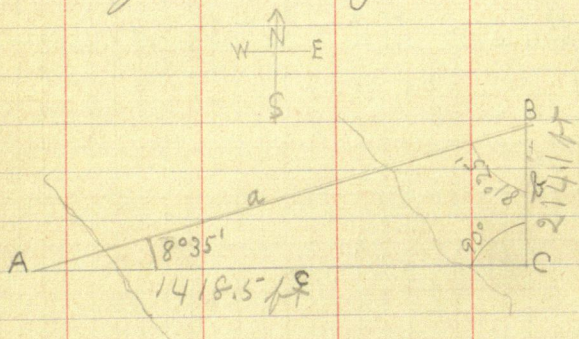
We continue West our line begun
at Sec cor of 13-14-23-24 intersecting
N and S random line. we are not
able to locate any B.T.s for cor of
15-16-21-22 so we continue
W. to Crow Spring River and look
for B.T.s of M.C but find none and
quit for the day

Wednesday Sept - 15 - 1915

Horst Transit.

Adams, Beadhead, and Britton etc.
We go to Crow Wing river and triangulate across the river to get the distance on the E and W. random line and continue W. on S side of river arriving again at the bank of the same river and quit for the day.

triangulation of the Crowing River



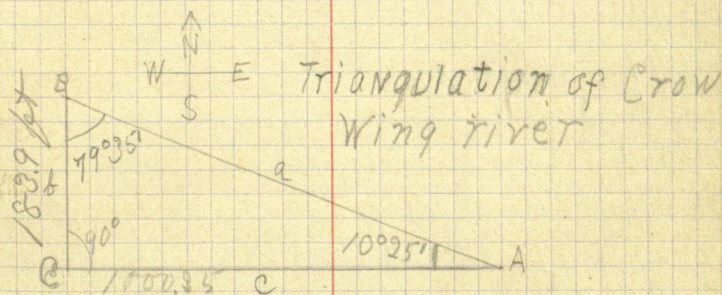
Thursday Sept - 16 - 1915

Crew goes to Motley fair.

I call Curo by phone regarding notes. P.m. I go to Motley after chain

Friday Sept - 17 - 1915.

Howt, Transit. Adams flag and
ape, Leadhind, and Britton Ape
We continue E and W random line tri-
angulating Crow Wing river between
sections 17-20. We continue line
several hundred feet more and
come to Crow Wing river again and
find it shallow so we chain across
and continue line west to MC No 20
missing it 166.5 ft to the south



$$c = \text{TANG of } B \times b$$

$$\text{tang } 5.43966 \times 183.9 \text{ ft} = 1000.35 \text{ ft length of } c$$

Saturday Sept -18-1915

Horst. and Adams. chain

Britton axe

We begin chaining at $\frac{1}{4}$ cor between
Secs 10-15 going N to cor of 8-9-16-17

1879.5	---	Hub
2011.2	"	"
2167.5	"	"
2633.8	E+W Random intersects	N+S Random.
2744.3	---	Hub
4012.	Small stream	
4646.1	----	Hub
5229.	----	"
6010.4	"	"
6858.6	"	"
7350.9	"	"
7866.1	End of line	

cor of 8-9-16-17 sets N 4.5 ft at

Sta 7866.1. U.S. chain = 7881.06 ft

$$\text{Correction} = \frac{14.96}{7881.06} = .00189$$

We go to cor of 3-4-9-10 and chain south
offset from cor W 28.8 ft

561.2	S----	Hub
1292.3	----	"
1754.		
1900.9		

391

95

Saturday Sept-18-1915 Cont'd

2029.9 S Hub

2238.2 " "

2391.9 " "

2591.6 " "

3175.6 " "

3892.9 " "

4242.9 " "

4675.4 " "

5284.7 N, and S, random intersects, E, and W, random

Monday Sept. 20, 1915.
 Horst and Adams chain
 Britton ape

We go to P.I. of N and S and E.
 and W random lines
 going South from

5284.7	P.I.	Hub
5322.	centre of State road	E+W
5868.4	S	Hub.
6327.6	"	"
6901.9	"	"
7426.	"	"
8048.5	"	"
8461.1	"	"
9417.6	"	"
10020.8	"	"
10368.6	"	"
10731.9	P.I. at E and W Random line	
10926.6	continue S	Hub
11253.1	"	"
11697.9	Centre of Northern Pacific Tracks	
11970.5	S	Hub
12213.8	S	Hub. witness cor sets W 74.7 ft
12283.8	S	Hub. M.C. No 10 sets W 75.3 W

U.S. chainage = 12227.2 ft

12283.8 - 12227.16 = 56.64 correction = 00463

Monday Sept, 20. 1915. Cont'd

We go to cor of 13-14-23-24 and

Chain West on graded road at about 2702. ^{5130 W line runs S of road} road turns W

2760.0 W Hub

2979.2 " "

3660. " "

4878.2 " "

5336. Wire fence

5635.8 W Hub

6086. Wire fence

6104 old road

6149.5 W Hub

6553. " "

8075.2 " "

9103.2 " "

9317.7 " "

9941.9 " "

10515.5 " "

10558.6 Ri. at N4S random line coming S from cor of sec 3-4-9-10.

Tuesday, Sept. 21, 1915.

Forest and Sawhead Chain

We go to cor of 15-16-21-22

and start chaining, going west
beginning at P.K. Hub

10538.6

10.829 small stream

11053.2 W Hub

11454.3 " "

12031. Northern Pacific Railway

12137.9 W Hub.

12250.9 To High water mark Crow wing river

13476.4 leave Crow Wing river

13556.4 W Hub

14092.1 W "

14871.2 " "

15743.6 " "

16637.7 " "

17613.4 " "

18219.9 " "

18262.2 at Crow Wing river E side

19039.25 leave Crow Wing river

19220.25 W Hub

19539.6 " "

19875.3 " "

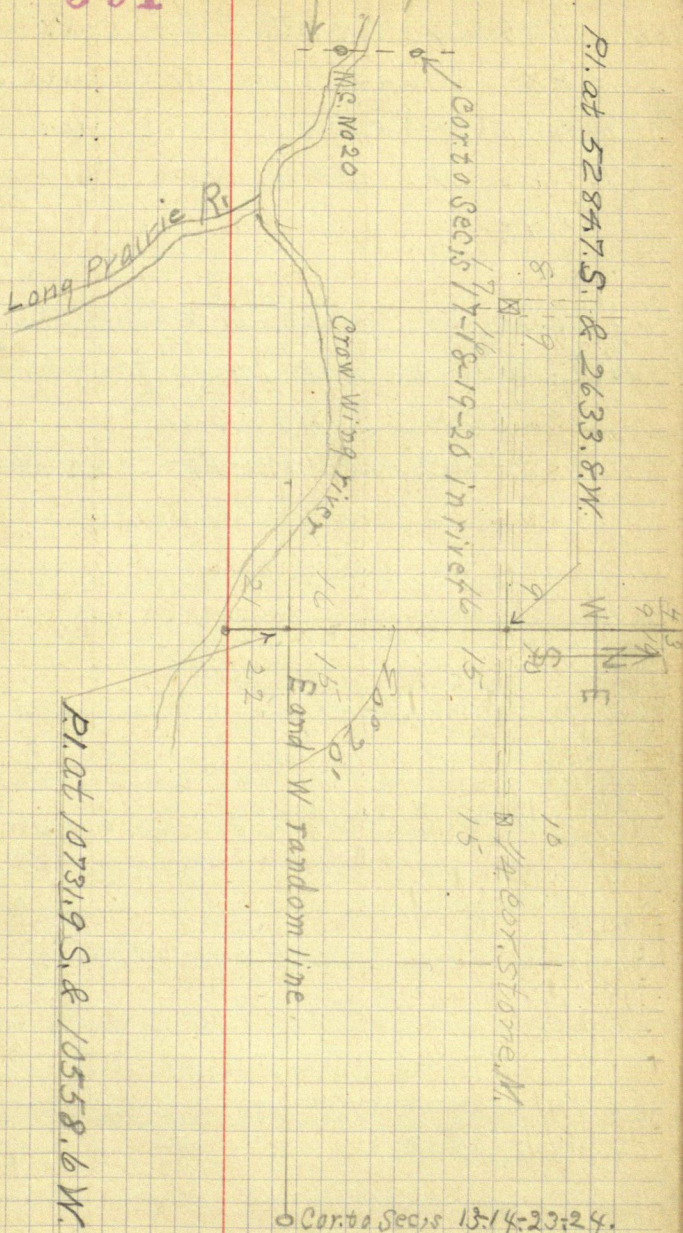
20128.9 " "

391

MC. Sets N. 1665 ft

100

Pi. at 52847.5. & 2633.8 W.



Tuesday Sept 21 1915 Cont'd.

20158.9 arrive at Crow Wing river E side

20404.7 leave " " river.

20439.1 W Hub

21058.4 " "

21412.1 " "

21568.6 W Hub at end of random line

M.C. No 20 sets N 166.5 ft at

station 21568.6 W

Cor of sections 17-18-19-20 is in river

Wednesday, Sept. 22. 1915.

Horst Transit

Adams flag and axe A.M.-P.M. goes home
Leadline Axe

We go to B.T. at M.C. No 10 and set
witness cor to M.C.

M.C. No 10 setting S 70. ft in river

We tie random line to Witness cor

Witness cor sets W 74.7 ft at Sta. 12213.8 W
offset at cor of 3-4-9-10 = 28.8 ft

$$74.7 + 28.8 \text{ ft} = 103.5$$

$$\frac{103.5}{12213.8} = .00847 = \text{correction}$$

$$70 \times .00847 = .59 \text{ ft}$$

M.C. No 10 sets W 75.3 ft at station 12283.8 ft S

Set Sec cor of 9-10-15-16. at 5304.44 ft S
and 2634.94 ft W setting wood Hub

Starting at 3-4-9-10 cor setting road

$$\text{Center's correction} = \frac{30.2}{5304.4} = .00569$$

561.2 S Hub goes E 25.6 ft

12923 " " " 21.4 ft

Diagram of N+S Line between Sec 9+10

Sec cor.

offset 28.8 ft

Random
True Line

1m.
Sec cor.

→

→

Thursday, Sept. 23, 1915.

Horst Transit full day

Leadlund axe " "

Adams flag & axe P.M. $\frac{1}{2}$ day

We go to Hub 1754. ft S on N+S random
and continue setting road centers

1754. goes E. 18.8 ft

1900.9 " " 18.0 ft

2238.2 " " 16.1 ft

2591.6 " " 14.06 ft

at 2652.2 ft S & set temporary $\frac{1}{4}$ cor
between Secs 9 & 10

$\frac{1}{4}$ cor sets E from random 13.7 ft

3175.6 S. Hub goes E 10.74 ft

3892.9 " " " 6.65 ft

4242.9 " " " 4.66 ft

4675.4 " " " 2.2 ft

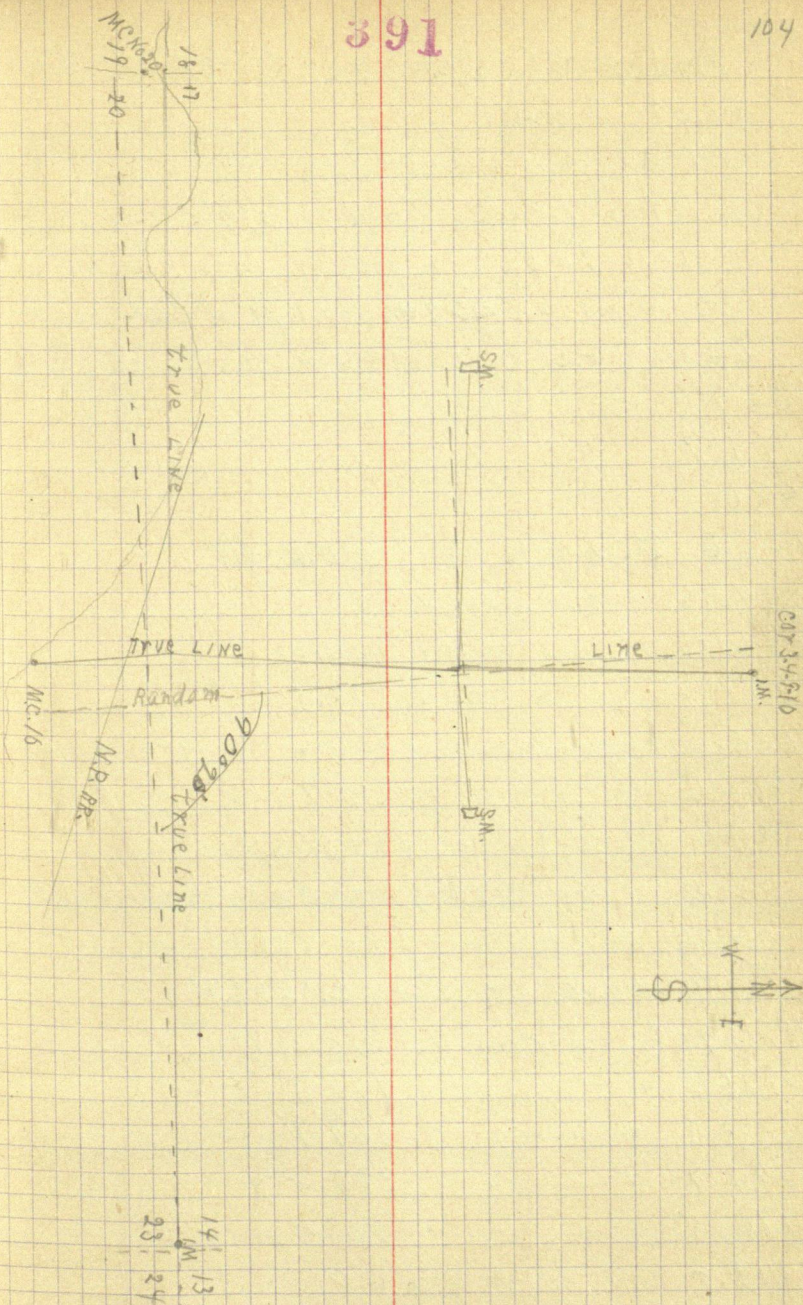
Sec. cor of 9-10-15-16 Sets W of
random 1.4 ft

I set temporary cor. at cor of sections
15-16-21-22

by proportion of U.S. and our
chainage setting cor at station

10789.3 ft W from cor of sections

13-14-23-24 and Station 10608.9 S
from cor of 3-4-9-10



Friday Sept 24 1915
Hors. Transit

Adams and Seadland ave

We set road centers from cor of 9-10-15-16 S to cor
of 15-16-21-22 as follows from random line

correction = 043096 + 1.4 ft at each Hub.
5868.4 S Hub goes W from random 26.6 ft
6327.6 " " " " 44.6 "
6901.9 " " " " 68.9 "
7426 " " " " 91.4 ft

7956.6 $\frac{1}{4}$ cor goes W 115.0 ft

8048.5 S Hub goes W 117.3 "

8461.1 " " " " 134.7 "

9417.6 " " " " 173.1 "

10020.8 " " " " 200.6 "

10368.6 " " " " 215.3 "

cor of 15-16-21-22 sets N from

Random line 228.6 ft set 4x4x60 in post

setting road centers from cor of 15-16-21-22

to M.C. No. 10 correction = 08967

10731.9 S Hub goes W 214.5 ft

10926.6 " " " " 197.0 ft

11253.1 " " " " 167.7 "

11697.9 " " " " 127.8 "

11970.5 " " " " 103.4 "

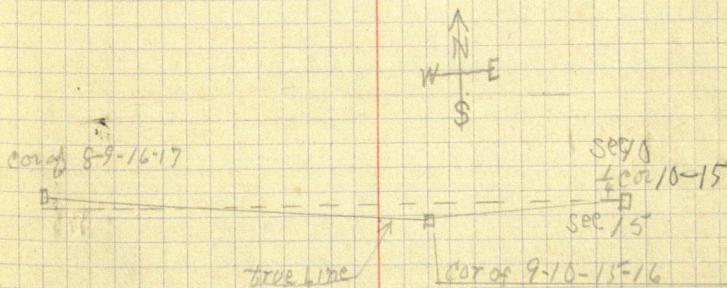
12213.8 witness cor goes W 81.7 "

391

106

Friday Sept 24-1915: continued.

Wegots $\frac{1}{4}$ cor between 9-16 and
 set a 4x4 in. by 3 ft tam. post at equal
 distaners from sec. corners being
 26.15.58 ft from each cor and setting
 S from random line 7.6 ft which puts
 $\frac{1}{2}$ cor on true line with sec corners



Saturday Sept 25 1915

Raining all day

I stay at Geo. Berndts checking work
done on road in town 133 R31.

and making out bills

all measurements and figures

Checking O.K. which concludes

this work with exception of settling
iron monuments which have not
arrived yet.

I receive letter from Curo

to go on County road work in
Town 134 R31 and 134-R30

Sunday Sept 26 1915

I stay at Geo. Berndts over
Sunday and make arrangements
to go to Geo. Horns on Monday
and start survey of a County road

134-31 and 134-30

Monday Sept 27 1915

Rains all day 392

Geo. Berndt takes me to
Geo. Horst's place where I
have made arrangements to board
while on survey of County road
in township 134 R31 and 134-30
but I am unable to begin on
account of rain

Geo. Berndt Livery \$2.00

Tuesday Sept 28 1915

A.M. rain.

P.M. Horst. transit

Horns, Geo. flag & axe

Horns, Raymond axe

We go to Sec. cor. of 1-2-11-12.

Iron monument, and start

E. run $\frac{1}{2}$ mile, var 9°30' it begins
to rain and we come in

392

Time Sheet for road survey in twp. 134 R31 and 134-R30

Sept 27 28 29 30

Elmer B. Horst. 1 1 1 1

Geo. Horn 1/2 1 0

Raymond Horn 1/2 1 1

Charles Brinkman. 1 1

October 1915. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Elmer B. Horst. 1 1

Raymond Horn 1 1

Sunday

134-31 + 134-30

392

111

134-31-134-30 392

Wednesday Sept 29-1915

Forst Transit.

G. Horns flag chain + axe

R. Horns axe

C. Brinkman axe

We continue E from sec cor of

1-2-11-12

1497.4 E 1 hub

2926.8 ft E 1 hub

3445.7 " "

3890.5 " "

4209.5 " "

4957.2 " "

5297.5 End of random

Cor of 1-12, 134-31 and 6-7-134-30

Set S N 5.7 ft at Sta 5297.5 ft W.

Starting at cor of 1-12-6-7-134-31 and 134-30

we go E at an angle of $8^{\circ}30'$ one half mi

134-31-134-30

392

112

Thursday Sept 30

1915

Forest transit

R. Horne flag and axe

C. Brinkman axe

We chain from cor of 1-12-6-7
going E

569.7 ft E Hub

1301. " " "

2500.4 " " "

2550. Enter Tamarack swamp

3296.3 ft E Hub

3500. leave swamp

3672.9 ft E Hub

4252.1 ft E Hub

We continue E about $\frac{1}{2}$ mile with line

392

113 Friday October 1. 1915. 1392

Horst transit

R. Horne flag & axe

We continue random line E from cor

of 1-12-6-7

4713.9 ft. E. Hub

5700.0 enter large Tamarack swamp.

5298.8 ft E Hub

5801.8 " " "

6202.7 " " "

6838.7 " " "

134-30

392

114

Saturday Oct 2 1915

Horst transit

R. Horns flag & Cape

after an hours rain in the morning
 We go to cor of sections 1-2-11-12 and
 set road centers going E.

cor of 1-12-6-7 on Rge line Sets N 5.7 ft

correction per foot = .50 / 0.76

1497 ft E Hub goes N 1.6 ft

2648.75 " " " " " " 2.85 ft

2996.8 ft E Hub goes N 3.15 ft

3445.7 " " " " " " 3.7 "

3890.5 " " " " " " 4.18 ft

4209.5 " " " " " " 4.5 ft

4957.2 " " " " " " 5.3 ft

P.M. We continue E & W Random line
 (begun at cor of 1-12-6-7 on Rge line)
 from Hub 6838.7 ft E to

7469.9 ft E Hub.

7823.9 " " Hub.

begins to rain and we come in

115-

11392

Sunday Oct 3 1915

We have an all day rain
toward evening wind rises
and temperature falls

Monday Oct 4 1915

Horst. transit

R. Horns flag and axe

We go out to continue E and W.
random line but find swamp
flooded and are unable to continue
the work

We return and set $\frac{1}{4}$ corner
on E + W line between sections
1 and 12 setting a 3x3 in by 3 ft.
wood post

section line = 15297.5 ft

$\frac{1}{4}$ cor 2648.75 from section corners

P.m. I write up notes and
make out bills preparatory to
leave the work until weather
permits us to continue.

392
Tuesday Oct. 5. 1915.

I am unable to get to town
and remain at Geo. Horns

Wednesday Oct. 6. 1915.

Geo Horn takes me to Motley
and I return to Walker
fare \$1.78.

to Geo. Horn. livery \$9.00

117

392 134-30 County Road
Friday Oct 20. 1916.

E.B. Horst working for Cass County
gets Notes and Plats and survey
outfit leave Walker on 9-28
train for Pillager arrive at
Pillager 12:10 Fare \$1.59

As there is no chance to go to
George Horns place I remain in
Pillager with Ed Parks
E.B. Horst.

134-30

1392

118

Saturday. Oct 21-1916.

W.B. Jones promises to take me to George Horn's place in sec 12 134 Rge 31 today. we get ready to drive out and find the road is unpassable on account of the bridge having been removed by road contractors

at 5.00 P.M. we are able to get thru and drive to Horn's

dinner at City Hotel \$1.35.

Horst and Jones at Horns for supper and overnight.

E.B. Horst.

Sunday Oct 22. 1916.

Horst at George Horns all day
I look up old field notes of survey made last year.

No field work.

E.B. Horst.

Monday, Oct. 23-1916.

Horst, transit and chain,
 Raymond Horn as flag & chain.
 With Scurly transit and 300 ft
 steel tape we begin to finish
 survey begun in Oct. 1915
 being a County road beginning
 at cor to secs 12-11-12-134-31
 and running E on sec line
 4 miles. One mile bet secs
 1 and 12 was finished in 1915
 and random line beginning at
 cor to secs 1-12-6+7 on Rge line
 bet ranges 30+31 was cut
 and chained to Hub 7823.9 ft E
 At Hub 7469.9 ft E we straighten
 up backsight ~~titto~~ and set
 transit on Hub 7823.9 and
 backsight W on line foresight E
 and continue random line E
 at sta 8345.04 where Z.C.S. Notes
 call for Post and following L&R
 $\text{Jam } 12 \text{ N } 34 \text{ E } 19 = 12.54 \text{ ft}$
 $\text{Jam } 6 \text{ S } 28 \text{ W } 20 = 13.20 \text{ ft.}$
 nearly all timber is down

1392

and we find No B.T.s

Continue line E at sta 11014.08 ft E
we look for corner to see 4-5-8-9
established by A.W. Moulster and
marked with an I.M. by N.D. Gorman
we find same ^{top} one foot above ground
and standing solid

at sta 11033.6 ft E I.M. Cor to 4-5-8-9
sets S 96.0 ft

at this cor we erect a 30 foot

Tamarac pole and quit for night
water in swamp about 1 foot deep
and pretty cold

E.B. Horst.

392 134-30 Co road
Tuesday Oct 24-1916.

Horst, transit and chain.

Raymond Horn Age flag + chain
we go near cor of secs 5-6-7-8 where
Govt Notes call for post and B.T.s

Tamck 8 N 12 E 7 = 4.62 ft.

" 7 N 59 W 22 = 14.32 ft.

" 6 S 62 E 23 = 15.16 ft.

" 7 S 67 W 22 = 14.32 ft.

after looking an hour we find
N.W. B.T. dead but standing
from this we locate the others
which are all down but bear
scribe marks plainly except N.E. B.T.
which is all rotted + was covered
we chain from the 4 B.T.s the required
distance and find old post at correct
place by flat chain, course are off a
little so we set a 2 1/2 x 4 ft capped
I.M. by flat chain and take New B.T.s
Tamck snag 6 N 45° E 32.3 ft
Tamck tree 8 N 32° 30' W 47.0 ft
tam stake S 45° W 46.7 ft
" " S 45° E 46.7 ft

392

134-30 Co Road.

122

(bet sees 6-7-134-30- 1 ft wsch = 100415 Mych)

at sta 5699.60 ft E on random
cor to see 5-6-7-8 sets 394.60 ft
Correcting back on sec line between
sees ~~7~~ 7 and 8 correction = .0166 S per ft E
we go ~~W~~ to Hub 4713.9 E which goes S
78.25 ft. I set transit over this Hub
and sight E to Cor of 5-6-7-8 in swamp
and set stakes on true line for road
centers. we continue W setting road centers
Hub 4258.1 E goes S 70.68 ft,

" 3672.9 E " S 60.97 ft,
1/4 cor at 3048.6 " S 50.61 ft,
we set a 2 1/2" by 4 ft capped I.M. at
this point being in edge of small
creek, No trees near for bearings
we set 2 stakes one N of cor 33 ft
and 1 S 23 ft

Hub 2500.4 E goes S 41.50 ft

" 1301.0 E " S 21.60 ft

" 569.7 E " S 9.46 ft

we return to Horns take an I.M.
and drive same at 1/4 cor between
sees ~~11~~ 1 and 12-134-31 which
was marked by a 3"X3"X3 ft popple
Post quit for night

E.B. Horst.

Wednesday Oct 25-1916

Forest transit and chain

Raymond Horn axe + chain

we take 3 I.M.s and walk E on random line leaving one near sta 8400 E at cor to secs 4-5-8-9 we hunt up A.W. Moulster's random line between secs 4 and 9 and walk E to cor of 3-4-9-10 which is 105 ft E of center of N and S road and in center of E+W road marked by 4 stakes on N and S sides of E+W road where we drive a $2\frac{1}{2}'' \times 4'$ capped I.M. at $\frac{1}{4}$ cor between secs 4+9 we pull up Moulster's wood stake and set in its place an I.M. (ditto) returning to $\frac{1}{4}$ cor between 5+8 we set an I.M. (ditto) and erect a 30 ft pole from this I sight to sec cor of 5-6-7-8 and set road center on true line. line E of $\frac{1}{4}$ cor is open swamp.

$\frac{1}{4}$ cor bet 5+8 is at sta 8366.6 ft E and 95.3 ft S of random line, with a wit post (tam) 8 ft long 33 ft N and one 33 ft S quit for night E.B. Horst.

134-30. Co. road.

392

124

Thursday Oct 26-1916

I pack survey outfit to return to
Walker and George Horn with team
and wagon takes me and outfit to
Pillager Survey \$3.00

I take dinner at City Hotel \$0.35-

R.R. Fare Pillager to Walker \$1.64

E.B. Horst.

392

392

123- Survey of Section Line
from S.W. Cor 134-31 to S.E.

Sta. 0 S.W. Cor. Sec. 31 -

Sta 2.475 = tie to R.P. state
Run line and brush through

Brush Random Line

which we miss by 20.3' to the North
Send chainmen back to road to
left of on the 20th.

Sta 25+11.3 = Center of road.

44+96 = Hub by ditch

57+19.3 = " " Creek old

purpose of locating the 1/4 Cor

78+54.5 = Random Cor.

rechain, starting from Ran. d

Old Hub at creek = 26+38.3

road: 53+42.7 Town Cor =

133-134-31

July 20, 1917 ¹²⁶

Cor. Sec. 31-134-31

John M. Greene - Transit
W. N. Warner } are & chain
Ed Heldman }

Stone Monument

about 6' North of random line

to Jack Pine Ridge Mag. Bearing
Quit for night N. 23° E.

John M. Greene
July 21, 1917

Same crew, except Floyd

Lovels takes Warner's place

through to Cor 31-32 = 8" x 8" x 36" stone

Shannup from point Warner and Heldman

Hub which I think was placed for the

In order to make sure, I have them
don't Cor.

Hub at ditch = 32408.5 . Center of
78476.3

July 22, Same

Chaining again from O 53+34

Dis to Town Cor = 75+17.5

Total = 7851.5. Average Dis.

1/16 Cor. = 1186.5 to T. Cor

1/16 " on State Highway = 1332.2

From Town Cor to I.P. State

Highway = 2518.7

= 2666.4

2666.4

Total 7851.5

Witnessed 1 1/2" x 24" gas pipe

set for 1/16 Cor on X of Town line and
State Highway as follows

J. Pine 5" L South Westerly 33° 21' 87"

" " 5" L " Easterly 45° 04' 91"

Cor Lots 13-14-5-6

J. P 5" S. 40° W. 37.5

J. P 6" S. 70° E 46.7

CREW

2517.5

43.5

2574.0

21757.050

7852.5

78754.5

78751.5

$$= 7852.5 = 117.80$$

66.66

117.8

7852.5

66.66

7068

178

66.66

7845

533.28

20

7068

7666.2

1333.20

7770

6666

7068

1186.548

2666.4

7020

1332.20

533.28

7068

3518.7

2518.7

2666.4

7851.5

851

78754.5

1200

52 19.3

1187

26 35.2

13

26 38.3

32.73.5

2636.7

2666.4

29.7' W to 1/4 Cor.

1.0026

78,52.5

20,3.000

157050

459500

471150

1187

2518.7

24

20

7122

151122

2374

050374

30862

654262

found n.

129

July 22, 1917

P.M. for Will Lewis

24+63 Cor to Sec. 22-21-27-28 to

N. $\frac{1}{4}$ Cor. Sec. 27. -

$\begin{array}{r} 1320 \\ 1231.5 \end{array}$

88.5

Set Rough post for $\frac{1}{16}$ Cor.,
but Not on line

Arrived Walter 7 P.M.

mileage 201.5

Extract #455

133-31

S.R.H. #81

2289 + 29.0 W. $\frac{1}{4}$ Cor Sec. 62341 + 68 L.M. W. $\frac{1}{4}$ Cor 6-72381 + 46 S. $\frac{1}{16}$ Cor on W. $\frac{1}{4}$

2385 + 45 A. R 12050'

2389 + 85.7 N. end of bridge.

North Line

Line, Sec. 7

259.2

214.6

$$\begin{array}{r} 259.2 \\ 214.6 \\ \hline 45.6 \end{array}$$
$$55.783 = 1^{\circ}02'$$
$$45.6 \overline{) 2543.7}$$

2280

2637

2280

3570

$$3 \overline{) 92}$$

3780

3648

3

E 9.5 f

1800

219.6

24

238, 6

22

260. 1

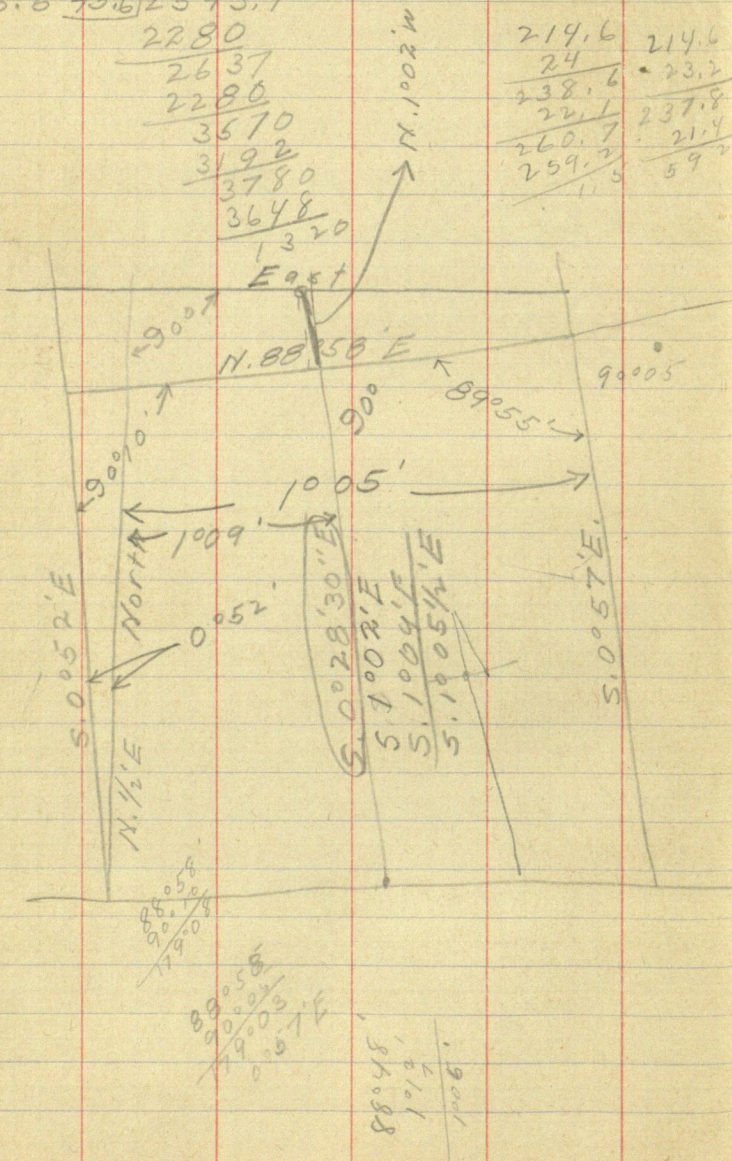
2547

714.6

2.3.2

2517

231.0

$$\frac{21}{9}$$


$$\begin{array}{r} 100200 \\ 28000 \\ \hline 43300 \end{array}$$

135

66.46

38.27 | 2543.7

22962

24750

22962

17480

15308

21720

1827

6646

10962

7308

10962

10962

1214.2 242

6646

20

132930

12143

2543.6

$$\begin{array}{r} 1329 \\ 1320 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 1320 \\ 1224.6 \\ \hline 95.4 \end{array}$$

$$\begin{array}{r} 2641.6 \\ 2543.6 \\ \hline 98.0 \end{array}$$

$$2641.6$$

$$\begin{array}{r} 1814.3 \\ 1803 \\ \hline 36429 \\ 971440 \\ 12143 \\ \hline 21893829 \end{array}$$

$$\begin{array}{r} 238.6 \\ 21.9 \\ \hline 26.05 \end{array}$$

$$\begin{array}{r} 1320.8 \\ 1214.3 \\ \hline 106.5 \end{array}$$

$$13$$

$$\begin{array}{r} 1329 \\ 1320.8 \\ \hline 8.2 \end{array}$$

$$64.4 = 05'$$

$$\begin{array}{r} 8.2 \overline{) 5280} \\ 492 \\ \hline 360 \\ 328 \\ \hline 320 \end{array}$$

$$\begin{array}{r} 106.5 \overline{) 5285} \\ 4260 \\ \hline 10250 \\ 9585 \\ \hline 6650 \end{array}$$

$$\begin{array}{r} 2641.6 \\ 2543.6 \\ \hline 98.9 \end{array}$$

$$.018898$$

$$\begin{array}{r} 5280 \quad 98.90 \\ 5280 \\ \hline 46100 \\ 4144 \\ \hline 4660 \\ 4144 \\ \hline 5160 \\ 4752 \\ \hline 4080 \end{array}$$

$$\begin{array}{r} 1002.30 \\ 28030 \\ \hline 44 \end{array}$$

$$\begin{array}{r} 760.1 \\ 760.1 \\ \hline \end{array}$$

1320

2659.9

$$\begin{array}{r} 1329.3 \\ 1321.6 \\ \hline 2650.9 \\ 2653.2 \\ \hline 2.3 \end{array}$$

$$\begin{array}{r} 1329.3 \\ 1321.6 \\ \hline 2650.9 \\ 2653.2 \\ \hline 2.3 \end{array}$$

$$\begin{array}{r} 1329.3 \\ 1321.6 \\ \hline 2650.9 \\ 2653.2 \\ \hline 2.3 \end{array}$$

$$\begin{array}{r} 1329.3 \\ 1321.6 \\ \hline 2650.9 \\ 2653.2 \\ \hline 2.3 \end{array}$$

2659.9

2626.6

33.3

$$\begin{array}{r} 1326.6 \\ 760.1 \\ \hline 566.5 \end{array}$$

$$\begin{array}{r} 566.5 \\ 128 \\ \hline 453.2 \end{array}$$

$$\begin{array}{r} 453.2 \\ 113.3 \\ \hline 566.5 \end{array}$$

$$\begin{array}{r} 566.5 \\ 72.5 \\ \hline 7.2 \end{array}$$

$$\begin{array}{r} 7.2 \\ 590 \\ \hline 4.5 \end{array}$$

$$\begin{array}{r} 4.5 \\ 2653.2 \\ \hline 225 \\ 403 \\ \hline 405 \end{array}$$

$$\begin{array}{r} 225 \\ 403 \\ \hline 405 \end{array}$$

$$\begin{array}{r} 405 \\ 225 \\ \hline 405 \end{array}$$

01280

1329.3

1329.3

1321.2

79.8

1326.6

5306.4

1326.6

1321.2

5.4 N.1/165

2.7 1/4 Cor

780.12

10000

896

1040

1024

1600

1280

3200

26

2659.9

2653.2

6.7

33

39.7

1326.6

2

2652.2

2659.9

676.5

3336.4

00175

166820

233548

33364

5838600

$$\begin{array}{r}
 01280 \\
 528 \\
 \hline
 1024 \\
 256 \\
 \hline
 640
 \end{array}$$

0151177.544 20

$$\begin{array}{r}
 5280.9579.900 \\
 \hline
 52809
 \end{array}$$

780.1

$$\begin{array}{r}
 270910 \\
 264045 \\
 \hline
 68650 \\
 52809 \\
 \hline
 58410
 \end{array}$$

$$\begin{array}{r}
 01280 \\
 780.12 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 00214 \\
 45 \\
 \hline
 1070 \\
 836 \\
 \hline
 2063
 \end{array}$$

$$\begin{array}{r}
 1.00214 \\
 5313.2111.5000 \\
 \hline
 106264 \\
 87360 \\
 \hline
 53132 \\
 242280
 \end{array}$$

$$\begin{array}{r}
 00214 \\
 681 \\
 \hline
 214 \\
 1712 \\
 \hline
 1284 \\
 1.45734
 \end{array}$$

134-31 May Twp.

June 3, 1930 John M. Greene

A.M. Spent 2 hours looking up notes

P.M. Leave Walker at 11 P.M.

Started to rain, so stopped at

Backus till 3 o'clock and then

continued to Sec. 36-134-31. Arrived
at Merle for supper.

Overnight at

Mileage 79.4

June 4,

Sec. 35

M Pine 18 N. 10 W 69

" 16 N. 2 E 64

" 20 S 65 W 44

" 10 S 30 E 16

M Pine 30 N. 14 E 6

" 18 N 70 W 17

N Fir 10 N. 80 W 6

" 6 S. 35 W 7

" 10 S. 50 E 10

" 8 N. 55 E 16

M Pine 9 S. 53 W 10

" 8 N. 21 W 25

O W.C. East 3.5

Pine 12" S. 17 E 78 - 51.5'

8" N. 74 E 78 - 51.5'

F

140

Sec 25

Transitman

2640.

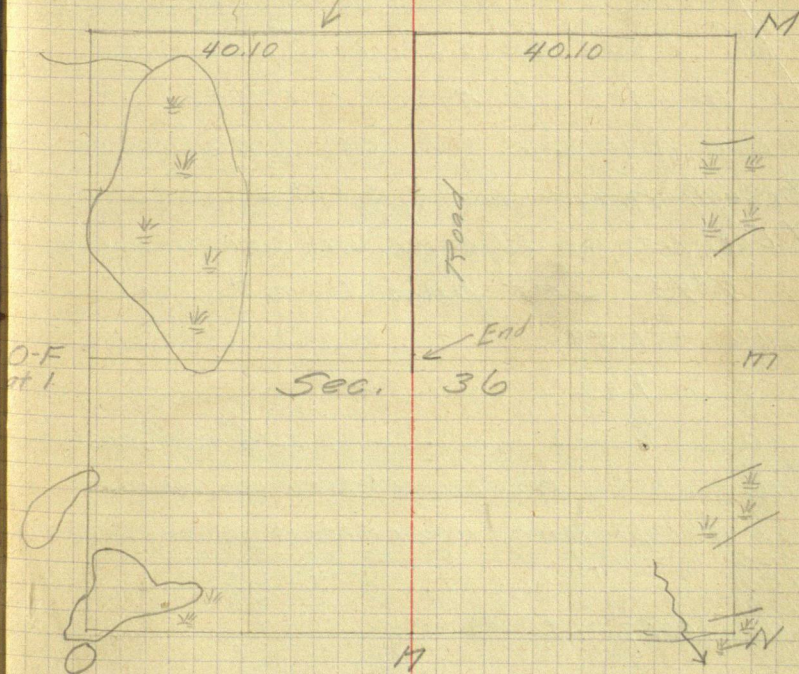
2635.5

2 | 5275.5

2637.8

1318.9

Graded Road



Sec. 1

O-F at 1

N. Pine 17 N. 50° 18' E. 80

Aspen 12 N. 27° 45' W 38

o Tarnic 6" S. 45 W. 4"
 " 12" S 20 E. 11

141

John M. Greene Transit
Merrill Horn, Harry Hagen
T.J. Horn, George Peteren
Howard Horn, Will Weigel

A.M. Left House at 7:45^{with Merrill}, Picked
up Howard Horn - Set flags at
N.E. & N.W. Cor. of Sec. Chained
through mile, dis. = 5275.5. Set
1/4 Cor. at 2637.8. ^{P.M.} Ran South $\times 90^\circ$
Var. $7^\circ 45'$. Set pickets at

300	- 0.54
600	1.08
900	1.62
1200	2.16
1500	2.70

3:00 Rain Quit

June 5-1930 Weather cleared up. Same
crew except Harry Hagen absent

1800	3.24	33	-	5.9
2100	3.78	36	-	6.5
2400	4.32	39	-	7.0
2640 - 2651.2 = 4.75'		42	-	7.6
2700	4.86	45	-	8.1
3000	5.40	48	-	8.6
		51	-	9.2

5280 Hub

3976.8

East 2656.5' - 17' N.

4122.5

West

1320

2392 Temp. W.C.

2623 Temp. Sec. Cor = 5280

1320

Hub

2640

2668

Hub

5308

2656.5

5280

2647

4110588

9.5

2647

38.4' Stone Mon. South

Zach Barnett = 10 o'clock 6/4/42

B.T. for Town Cor

Fir 4" N. 65° W 8" 3.5

Fir 8" S. 12½° W. 21" 6

Fir 8" S. 40° E 8" 21.0

Fir 12" N. 72° E 12.5" 21.0

South ¼ Cor Sec, 36-134-31 23.1

Goes East 9.5' at 5302.45. 26.23

B.T.S. J.P. 9" S. 27° W 40.7' 7.8

W.P. 13" N. 47° E 48.4' 46.8

179 17

315309.7 54 38.4

17.697 9500 0 2155.4

8848.5 2656.7 27.7

17.697 651.50 1320 535

54 3976.7 421.7

7078.8 2647 3970.5

8848.5 1323.5 6.2

9356.38 3970.5 5280

0179 277

5309.7 9500 5309.7

5309.7 4190.30 17 52 27.7

371679 106 17

473510 2144.7

22.4 22.7

22 17

24.6 24 31 38 5280

53024 22.8

5.35 223.5

5.35 27.70

5.35 53.5

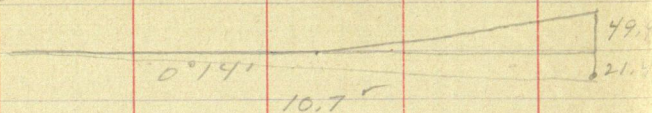
5.35 330.5

5.35 403.5

145

82' N of E.
7967.2'

1006' Running S. 2654 Fence on south



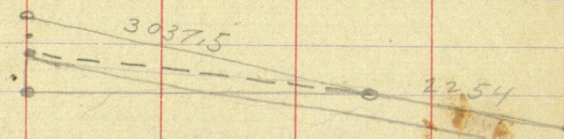
1006' 0192
 2600
 115200
 384
 499200
 71.3
 8.6
 21.4

160' 8
 80
 280
 160' 280
 2145280
 428
 1000
 856
 1440

155

71.3' W.

21.2' W x 45' - 3037.5'



$$\begin{array}{r}
 01309 \\
 3037.5 \\
 \hline
 6545 \\
 9163 \\
 3927 \\
 \hline
 39270 \\
 39760875 \\
 21.2
 \end{array}$$

$$\begin{array}{r}
 18.56 \\
 18.56 \\
 \hline
 5291.5
 \end{array}$$

$$\begin{array}{r}
 3037.5 \\
 2254 \\
 \hline
 5291.5
 \end{array}$$

$$285 = 0^{\circ}12'$$

$$\begin{array}{r}
 3712 \\
 15795 \\
 14848 \\
 \hline
 9470 \\
 9280
 \end{array}$$

$$\begin{array}{r}
 00349-7 \\
 2254-4 \\
 \hline
 20286 \\
 9016 \\
 \hline
 676246 \\
 786646
 \end{array}$$

$$\begin{array}{r}
 2645.7 \\
 349 \\
 \hline
 238113 \\
 105828 \\
 \hline
 19371493 \\
 92334
 \end{array}$$

$$\begin{array}{r}
 66 \\
 21 \\
 \hline
 66 \\
 66 \\
 \hline
 326
 \end{array}$$



$$\begin{array}{r}
 2645.7 \\
 2254 \quad \checkmark \\
 \hline
 391.3 \\
 .01309 \\
 \hline
 35217 \\
 117390 \\
 3913 \\
 \hline
 5112117
 \end{array}
 \quad 01309$$

66303

$$\begin{array}{r}
 38.7025 \overline{) 2566.1000} \\
 \underline{2322} \\
 24395 \\
 \underline{2322} \\
 11735 \\
 \underline{1161} \\
 12425
 \end{array}$$

$$\begin{array}{r}
 165 \\
 \underline{20} \\
 330.0
 \end{array}$$

66303

20

$$\begin{array}{r}
 1326060 \\
 \underline{13235} \\
 2.6
 \end{array}$$

$$\begin{array}{r}
 1323.5 \\
 \underline{2.6}
 \end{array}$$

$$\begin{array}{r}
 1' \\
 1326.1
 \end{array}$$

$$\begin{array}{r}
 1242.6 \\
 \underline{1240}
 \end{array}$$

1323.5

165

$$\begin{array}{r}
 1240 \\
 \underline{330} \\
 910
 \end{array}$$

$$\begin{array}{r}
 910 \\
 \underline{148.5} \\
 7615 \\
 \underline{2540} \\
 4975 \\
 \underline{248.75} \\
 165
 \end{array}$$

$$\begin{array}{r}
 497.5 \\
 \underline{264.0} \\
 233.5
 \end{array}$$

$$\begin{array}{r}
 165 \overline{) 837.} \\
 \underline{825} \\
 120
 \end{array}$$

159.

264

$$\begin{array}{r} 38.27 \\ 40.00 \\ \hline 78.27 \end{array}$$

$$\begin{array}{r} 432.5 \\ 4 \overline{) 173} \\ \underline{16} \\ 13 \\ \underline{12} \\ 10 \\ \underline{8} \end{array}$$

20 rds

960

8 rds

5 acres

1522.7

15 rds

8 acres

4.325

676.5

Sm. Th

1522.7

1422.7

12 rds - 6 acres

7'5.0 of 1/16

1325

1651.472

1348

1485

73

2120

1254.6

1336.5

DeMaris Hds

13

1323.5

1192.8

1242.6

1242.6

Parks

966.7

2641 2641

2566.1

90800

2565.4 2543.6

2543.6

85.9 4197.4

22.5

24.3

24.3

2543.6

910

24.3

165

148.50

2567.9

1242.6

148.50

761.5

1323.5

38.5

2566.1

38.27

12

4.325

38.7025

26

43.25

39.1350

43.25

39.5675

43.25

39.5675

$$\begin{array}{r} 2620.30 \\ 3645.8 \\ \hline 4.35 \end{array}$$

$$\begin{array}{r} 1200 \\ 74 \\ \hline 11.76 \end{array}$$

$$2662.15$$

$$129$$

$$19$$

$$2651.9$$

$$132$$

$$114$$

$$5314.15$$

$$1254$$

$$5260.9$$

$$10360$$

$$53.6$$

$$8.5$$

$$2640$$

$$13700$$

$$19800$$

$$765$$

$$300$$

$$10$$

$$10789 \frac{3}{2}$$

$$20100$$

$$21578.6$$

$$204$$

$$247$$

$$207$$

$$340$$

$$209$$

$$1970660$$

$$211$$

$$139$$

$$257$$

$$30.0$$

$$457.8$$

$$41.2$$

$$\begin{array}{r} 115 \overline{) 1240} \\ 1155 \\ \hline 850 \\ 845 \\ \hline 50 \\ 50 \\ \hline 0 \end{array}$$

$$10638.722$$

$$1706.191$$

$$14.672$$

1400. N center line 500 7

Cape Point 705 N 51° 10' E 41.2