82.

MINING
TRANSIT BOOK
363

INDEX.

Sec. 5-145-31 Cont from Book No ___

Recorded in Book B. E.B.H.

Sec. 5 - 145 - 31

Previous notes by
Donner in Book ___ page
Bryant in Book ___ page.

Wednesday Nov 10, 1915

Molyneux & Herig take 6-19 evening G.N. train to Cass Lake, fair 49¢ each. Get supper at Hotel 50¢ each. After supper go to Ben McKinnis place to stay during survey of Sec.

Board at Ben McKennons

Sec 5-145-31
" 32-144-31
1920 to

November 1915

		W 10	T 11	F 12	S 13	S 14	M 15	T 16	W 17	T 18	F 19	S 20
F. N. Molyneux			BD	BD	BD	BD	BD	BD	BD	BD	BD	BD
	L		SL	SL	SL	SL	SL	SL	SL	SL	SL	
Nick. Herig.			BD	BD	BD	BD	BD	BD	BD	BD	BD	BD
	L		SL	SL	SL	SL	SL	SL	SL	SL	SL	

5

6

5-145-31

Expense Account

F. N. Molyneux

Nov. 10	RR. fair Walker to Cass Lake	49¢
" 10	Supper " "	50¢
" 10	Buss at Walker	25¢
" 18	freight on 20 lbs to Wilkinson	26
" 18	Drayage " " " Depot	10

Nichttering

Nov. 10,	RR. fair Walker to Cass Lake	49¢
" 10	Buss "	25
" 10	Supper Cass Lake	50

TIME SHEET - SEC. 5 - T. 135 - R. 41

NOVEMBER 1915 — December

	T 11	F 12	S 13	S 14	M 15	T 16	W 17	T 18	F 19	S 20	S 21	22 29	1
F.W. Molyneux	1	1	1	1	1	1	1	1				Laid up work	
Nick Herig	1	1	1		1	1	1	1					
Peter Moe Jr					1/2								
" " Jr					Fl. Hauling timber								

Muddy + Cold.

Stormy + Cold

Windy + Cold.

Snowy Hill & Rain

5-145-31

7

8 11/11/15 6-145-31 Thursday.

Nick Herig and Molyneux walk out from Cass Lake to the corner of Secs. 4,5,7&8 where we find an 1½"x4' I.M. previously set by Curo for the Sec. Cor.

From this corner on a magnet variation of 5°00 I run West and at:

1306 find wooden stake set by Curo .25 ft to north or right.

2612 find hub, wooden ¼ corner previously set by Curo, goulled and at south side of road.

3920 find wooden stake, set by Curo for 1/16 corner, .75 feet to R. or north.

5227 Intersect the Secline on west side of Sec 5, 1.0 feet to left or sout of the 1½"x4' I.M. previously set by Curo for corner of Secs 5,6,7+8.

We now correct up this line by placing the temperary corners at proportional distances for alignment and correction as follows.

1306.75 set north .25 feet, 1/16 Cor

2613.5 " " .5 " ¼ Cor

3920.25 " " .75 " 1/16 Cor

Correction for course is West on Var. of 4°59' Noon

From the corner of Sec. 5, 6, 7 + 8 we run north and making an angle of 91° 59' to the N.E. from the random line run across the south side of Sec. 5 and at:

1322.5' intersect 1½" gass pipe previously set for the S. 1/16 Cor. on west sid of Sec. 5 and at

2645 feet intersect the 1½" x 4' I. M. previously set by Curo for the ¼ Sec Cor to Secs 5 + 6.

At the ¼ Sec. I. M. we defled 1° 12' to the west or left and at,

3945.6 ft intersect 1½" x 4' I. M. previously set by Curo for the N. 1/16 corner between Sec. 5 + 6 and at

5016 intersect the 1½" x 4" I. M. set by Curo for the Sec. Cor of 5 + 6. In our chaining from the ¼ Cor north to the Sec Cor we get 2371 ft. Gov notes calls for 2406.36

2406.36
2371
2406.36 / 35.36

0147 - Correction per ft
1320
2940
2940
1323
19.404 correction for ¼ to 1/16 Cor

1320
19.4
1300.6

Which is the distance from ¼ to 1/16 Cor
Qual for day
Mostly mud

FRIDAY 12/11/15

Snowing - nasty morning.

We go to the I.M. at corner of Sec 4, 5, 8 & 9 and from the random line run across south side of Sec. 5 I turn a angle of 88° 15' to N. West and run north as follows and at

1320 set a hub

2640 " " " and look for 1/4 corner. Unable to find any indications of cor or Gov. B.Ts. We continue the line and at

3960 set a hub

5364.2 the Sec. Cor sets west or 90° L. 46.00 feet. At this point the Sec Cor is marked with an old wooden stake with a tack in the top from which a Gov. B.T stands as follows.

N.P.& N. 40° W. 70 lks or 46.2 ft.

No other Govt B.T.s are to be found. The U.S. notes calls for the east boundary line to be 5369.1 ft.

We make it a diference of 5369.1 − 5364.2 = 4.9'

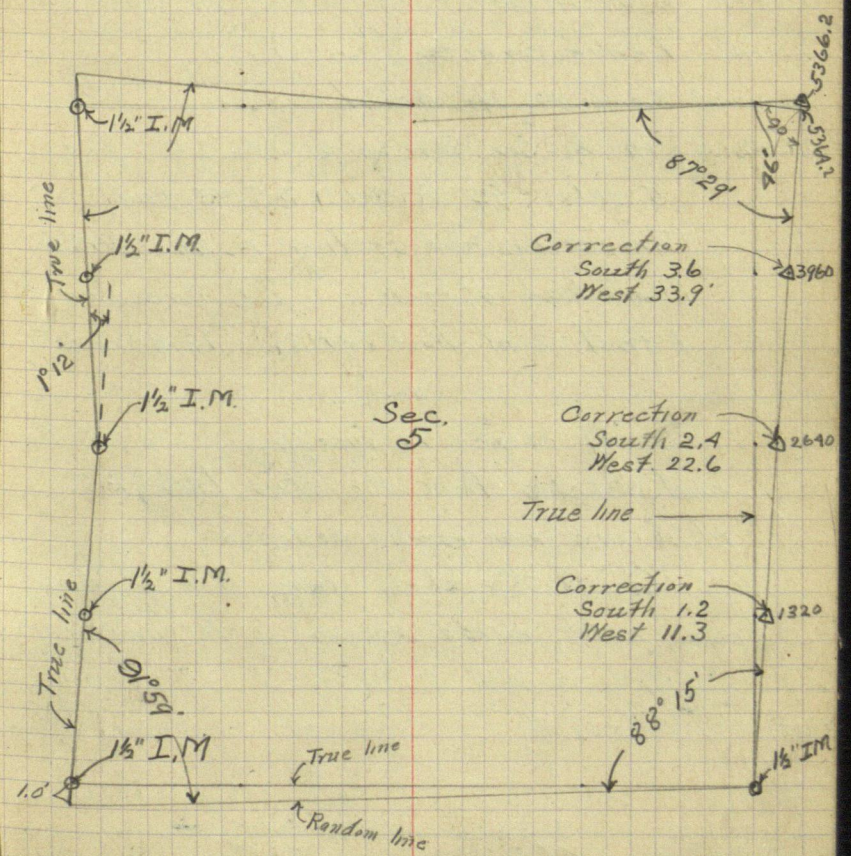
4.90000
48 3219
6 7810
5 3691
1 4119

.000913.

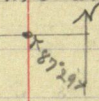
Correction Sout per foot = .000913.

5364.2) 46.0000 (.0085 75" Correction West per f.o.t.
42 9136
3 88640
2 68210
1 60430
37 5499
28806°

Note
See diagram below for correction on East boundary



F. M. Molyneaux

From the north east corner of Sec 5 I run a random line west which backed east intersects the random line run north along east side of sec 5 at Stq 5366.2 and the angle to the S.W is 87° 29'  and at

11+80 Enter swamp.
13+11 Set hub.
20+40 Leave swamp.
22+00.3 Turn 90° offset line
26+21.8 The ¼ Sec. Cor on N. side of Sec 5 sets 90° R (North) 25.75 feet.

Corrections for setting E. ¼ Corner from hub at 1311. It goes east .1 feet and North (90° R.) 12.88 feet.

The ¼ corner is marked by a stake and checks from the two Gov. B.Ts. which are well preserved.

Quit for the day. Which has been, cold, windy, snowy - A nasty day

Molyneux & Hoy

F. M. Molyneux

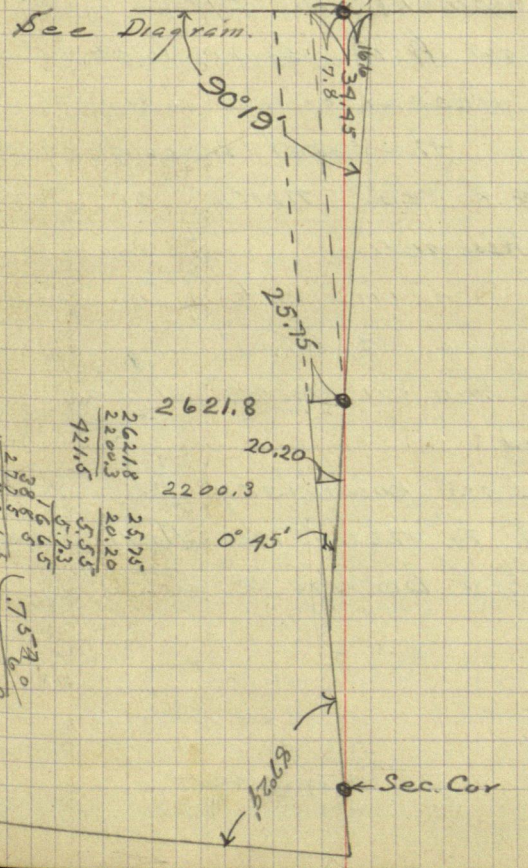
Commencing at the ¼ Corner on the north side of Sec 5 I run west, but first backsit and set a hub opposite Sta 22+00.3 of line run yesterday which hub is 20.20 feet along offset line thence running west at

1314.6 set a hub, which is 8.4' N. of stake marked 1/16

2631 the Sec cor is South (90° L) 16.6 feet

Corrections for the W. 1/16 corner from the hub at 1314.6 feet are

1/16 Cor Goes South, 8.3 feet and 0.9' West



SATURDAY 13/11/15

N. 1/16 LINE

With the transit over the N. 1/16 corner on the west boundary of Sec 5 and looking at a flag on the 1/4 corner between sections 5 & 6 I turn an angle to the left (S.E.) of 86°55' and hub a line East.

Between the N + S 1/4 line and the E. 1/16 line offset 3 ft to L. or (North) to pass trees.

Just east of the E 1/16 line again offset to the L or (North) 2 ft to pass trees.

Intersect the east boundary of Sec. 5, 4.8 feet north of the north 1/16 Corner.

Sunday 14/11/15

Worked on notes all day.

Cold day.

The East boundary line is now assumed to run true North and has a magnet bearing of 5°30'

F.N. Molyneux

Commencing at the 1/4 Sec. Cor on the South side of Sec. 5-145-31 and turning an angle of 87° 40' to the N. W. from the random line run along the south side of section 5, I brush and hub a line, N 0° 06' W. across the section.

Intersect N. boundary line 1.2 ft west of 1/4 Sec. Cor.

When we crossed the N. 1/16 line reset an intersection hub.

Peter Moe is helping as axeman

Noon - Take lunch by fire in woods

After lunch we walk to the 1/4 corner on west side of Sec. 5, and with transit over I.M. and sight on the 1/16 corner to the south I turn an angle to the left (S.E. Ang) of 87° 55 and run S. 87° 40' E across the section. On the way we put in an intersection hub where this line crosses the N.+S. 1/4 random line.

We intersect the E. boundary line of Sec. 5, 2.1 ft to the south of the 1/4 Sec. Cor. Snowing.

We now go to the S. 1/16 corner on the east boundary

F. N. Holyman

With transit over hub, the South 1/16 Temp. Corner, on random line along the east side of Sec. 5 and sight to the north I turn an an angle of 88° 11' to the left (N.W. ang). and brush and hub a line, N. 87°42' W across the section.

Where this line crosses the N. + S. 1/4 line we put in an intersection hub, and run one one more hub. - Snowing

Quit for day + and walk to Cass Lake.

Tuesday 16/11/15 P.M.

Continue above line and intersect the west boundary line of Sec. 5, 2.2 feet north of the S.1/16 Corner on I.M.

Beginning at the temporary E. 1/16 cor on the random line along the south side of Sec 5, with sight to west I turn an angle of 87°32' to the right (N. W. Aug) and run N. 0° 14' W and put intersection pubs where this line crosses the S. 1/16, the E. & W. 1/4 and the N. 1/16 lines, and intersect the North boundary of 5, 18.6 feet west of the E. 1/16 corner.

18 Tuesday - 14/11/15 S-14S-31

From the W. 1/16 corner on the North boundary of 5, we brush and hub a line south ran put in an intersect where this line crosses the N. 1/16 line and the E+W. 1/4 line, This line intersects the E+W. 1/4 line at 1827.4 feet from the 1/4 Cor on W.B line of the section, we and is here discontinued

From the West 1/16 corner on the south boundary we brush and hub a line N. 0° 5' E. and put in an intersection hub where this line crosses the S. 1/16 line and the E+W. 1/4 line. This line intersects the E+W. 1/4 line at 1287.3 feet from the 1/4 corner on the west side of section

G. M. Molyneux

Molyneux & Herig go to Sec. 5 get 5 I.M. and drive them as follows
One at the N. 1/16 corner on the E. boundary
" " " N. E. " of " section
" " " E. 1/16 " on " N. boundary
here we drove a cedar pole 6 feet into the swamp and then drove the I.M. over it.
One at the 1/4 corner on the north boundary
" " " W. 1/16 " " " " "

We now chain from 1/4 corner on the north boundary South along the N. & S. 1/4 line to the north 1/16 random line 1242.4 ft.

We now chain from the intersection of the N. + S. 1/4 line with the E. & W. 1/4 line, west along the random line and at 1269.2 ft intersect the W. 1/16 run from the north and at 1309.3 ft intersect the W. 1/16 line run from the south, at 2596.6 ft we intersect the west boundary of the sect at the 1/4 I.M.

We now eat dinne by a fire.

P.M. we set I.Ms. at the following corners
One at the 1/4 corner on the south boundary
" " " W. 1/16 " " " " "
" " " S. 1/16 " " " west "
" " " E. 1/16 " " " south "

One of the S. 1/16 corner on the E. boundary
" " " 3/4 " " " " "
We now distribute the I.M. on the E. 1/16 line. Then go to camp to figure the corrections for the interior corners from the intersections of the random lines.

F. M. Molyneux

Thursday 18/11/1915

Snowing hard this morning.

Molyneux & Hering walk to Sec 5, and distribut the balance of the I.M. and then put in all of the interior subdivision corners as follows:

S. 1/16 Cor. on E. 1/16 line, 36" in ground, Mound with pits N. + S.
E. 1/16 " " E. + W. 1/4 " " " " " " " " E. + W.
N. 1/16 " " E. 1/16 " " " " " " " " N. + S.
N. 1/16 " " N. + S. 1/4 " " " " " " " " N. + S.
Cent of Sec " " " " " " " " " " " " " "
S. 1/16 Cor " " " " " " " " " " " " " "
S. 1/16 " W. 1/16 " " " " " " " " " " " "
W. 1/16 " E. + W. 1/4 " " " water and mud on a 6 foot piling, no mound or pits.
N. 1/16 Cor on W. 1/16 line 36" in ground Mound with pits N. + S.

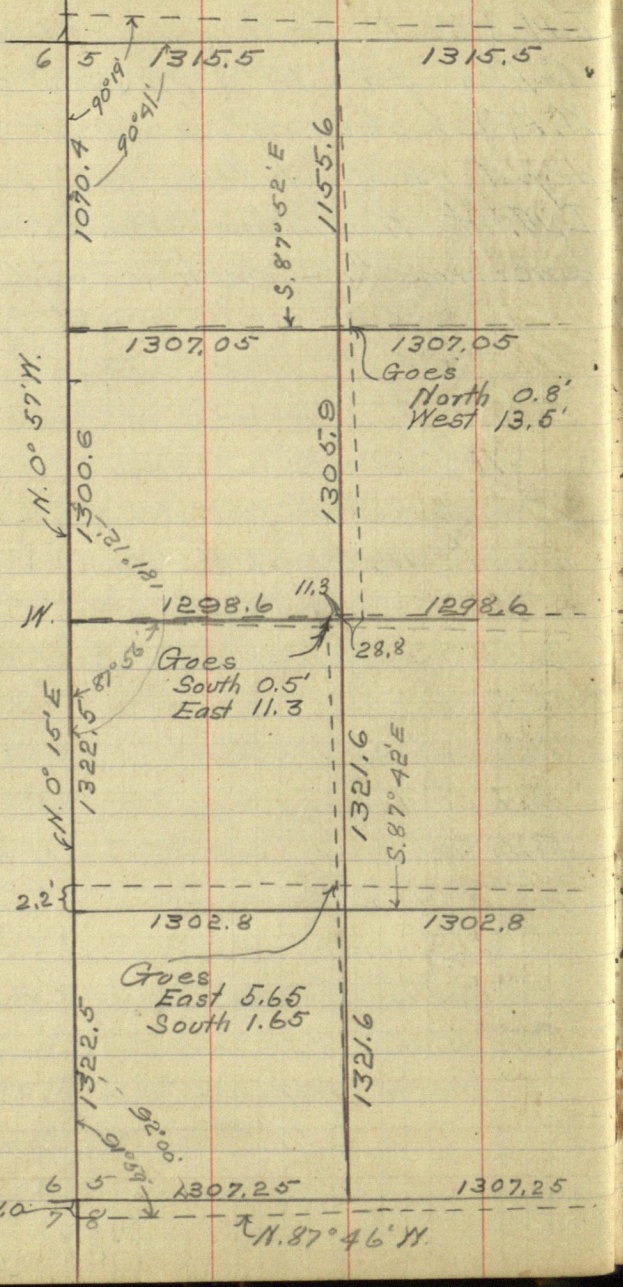
Quit snowing 10 A.M.

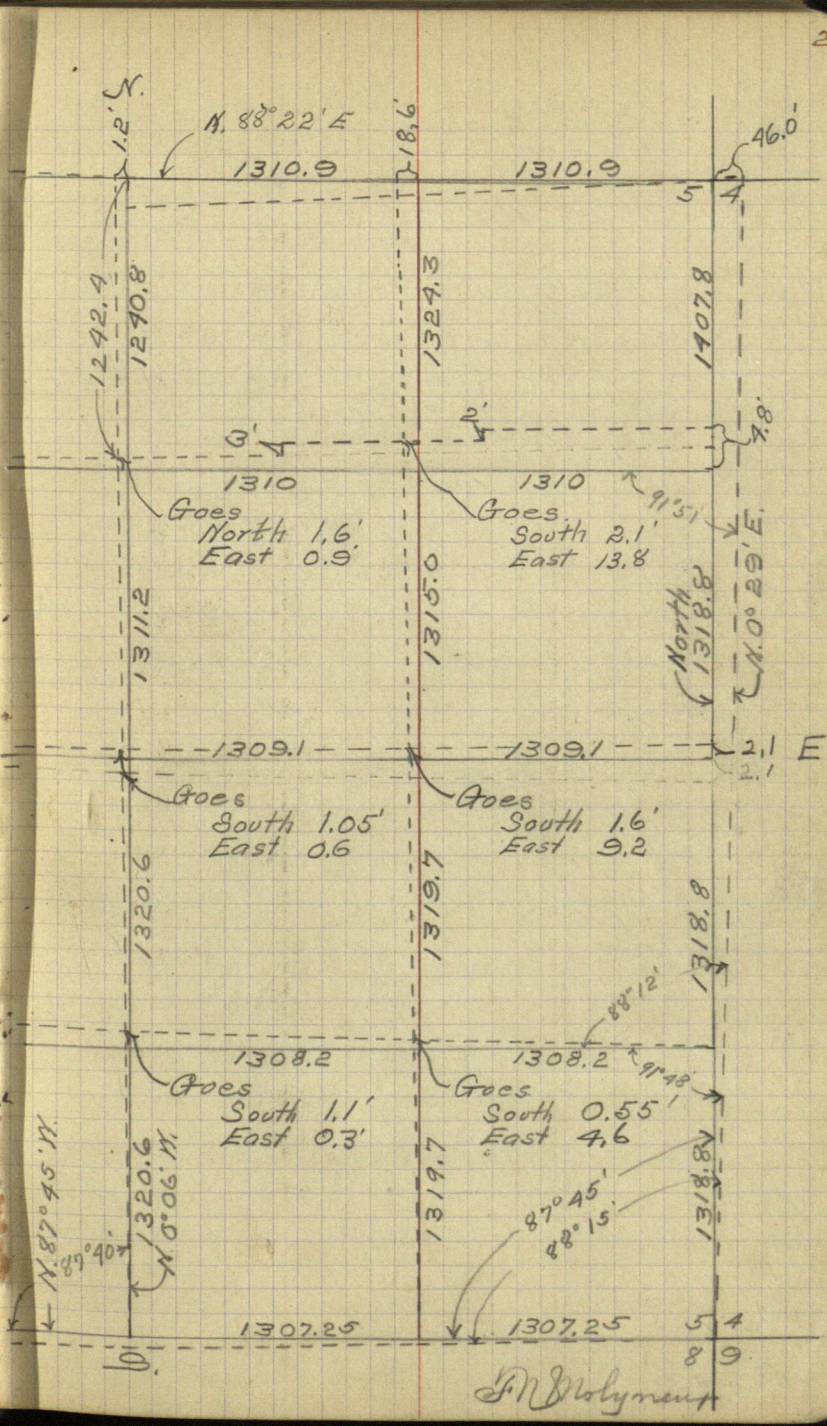
Had Peter Moe take balance of I.M (10) to G.N. freight depot.

Also got 10 I.M. from the blacksmith W.H. Brooks, delivered at the freight depot, and billed the entire 20 I.M. to Wilkinson - Brooks said his price was $1.00 each - Freight 26¢

F.N. Molyneux

5-145-31


6
5
1315.5
1315.5
90°19'
90°41'
1070.4
S.87°52'E
1155.6
1307.05
1307.05
Goes
North 0.8'
West 13.5'
N. 0° 57' W.
1300.6
1305.9
21.12'
W.
1298.6
11.3
1298.6
28.8
Goes
South 0.5'
East 11.3
87°56'
N. 0° 15' E
1322.5
1321.6
S.87°42'E
2.2'
1302.8
1302.8
Goes
East 5.65
South 1.65
1322.5
1321.6
92°00'
1307.25
1307.25
1.0'
N.87°46'W.


N.
1.2'
N. 88° 22' E
1310.9
18.6'
1310.9
46.0'
1242.4
1240.8'
1324.3
1407.8
3'
2'
7.8'
1310
1310
Goes North 1.6' East 0.9'
Goes South 2.1' East 13.8
91°57'
E. 1320.0' N.
1311.2
1315.0
1308.8
North
1309.1
1309.1
2.1 E
Goes South 1.05' East 0.6
Goes South 1.6' East 9.2
1320.6
1319.7
1318.8
88°12'
1308.2
1308.2
91°48'
Goes South 1.1' East 0.3'
Goes South 0.55' East 4.6
N. 87°45' W.
N. 89°40'
1320.6
N. 0°06' W.
1319.7
1318.8
87°45'
88°15'
1307.25
1307.25
5
4
8
9

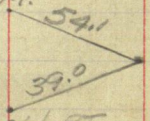
Sec. Cor. ties.

S.R.H #83.

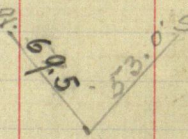
141.26

Sec. Cor. 1, 2, 11 + 12 . 16' ø one way

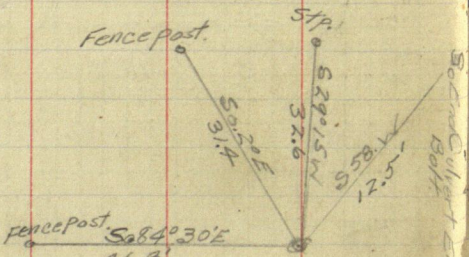
1/4 Cor Sec. 11-12.



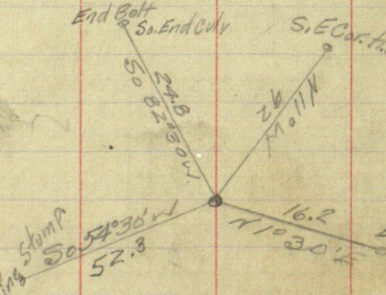
Sec. Cor 11, 12, 13, + 14.



1/4 Cor 13-14.

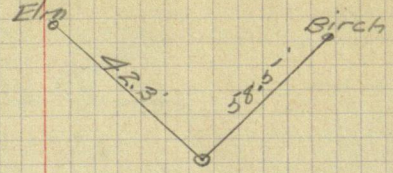


1/16 Cor. 14-15

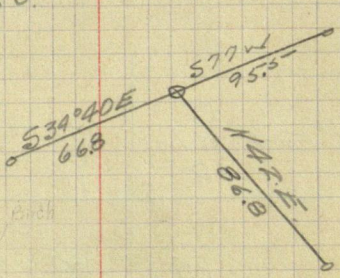


141 - 26

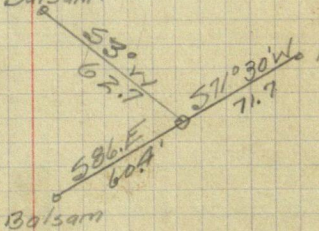
1/16 Cor Sec 14-15



Sec Cor. 14, 15, 22, 23.

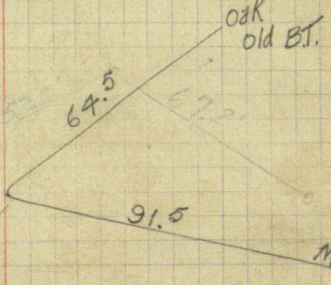


1/4 Cor Sec. 22-23



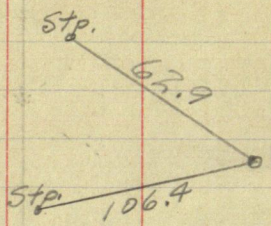
140 - 26

1/4 Cor Sec 10-11
4" Oak Post.



140 - 26

Sec. Cor. 10, 11, 14 + 15



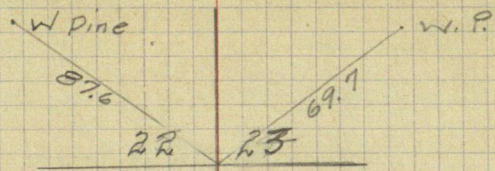
Stake 33' Each side

10	11
15	14

Stake 33' Each side

15	14
22	23

140 – 26.



27 | 26

Stake 33' Each side.

27 | 26

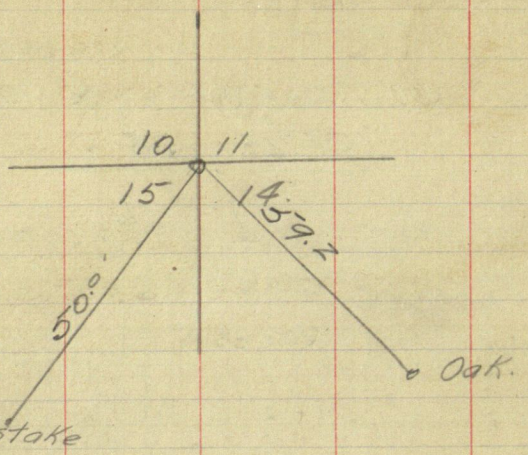
34 | 35

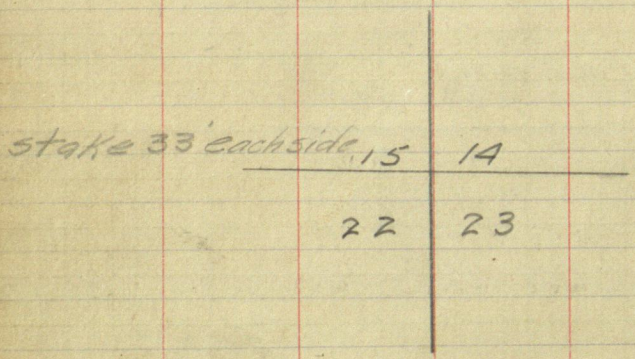
Stake 33' Each Side,

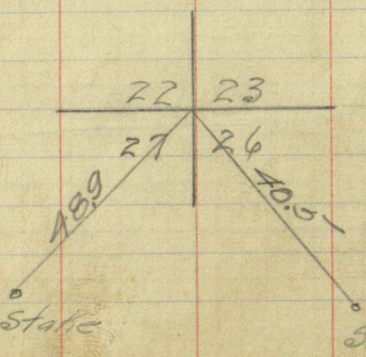
34 | 35

3 | 2

T 139 N R 26 W.


10
11
15
14
39.2
50.0
Oak.
Stake


Stake 33' each side
15
14
22
23


22
23
27
26
139
40.0
Stake
Stake

143-28 State Rural Highway #45

Re-established B.T.

1/4 cor Sec 2-11 Iron post
New B.T. 14" Aspen S10°30'W 54'
12" Birch N67°30'E 82.2'

Sec Cor. 1-2-11-12 old post
New B.T.s 8" Ash. S21°30'W 74'
9" Spruce S65°E 69.5
12" Cedar N64°E 56.8

1/4 Cor Sec 1-12 Old govt. post
Old B.T. Spruce N.E. 16' Laying down.
New ∠ 16" Ash. S72°W 96.3
12" Birch N74°W 126.2.

Sec Line Between R27+28 T143

Sec Cor 6-7-1-12
Old Post been re-established.
B.T 15" Birch S-W 59.4 (no check)
∠ 12" ∠ N-W. 49'
∠ 12" ∠ N-E 54.8
∠ 16" ∠ S-E 41.4 (Can't Find)

1/4 Cor 7-12
Old B.T. Rotten Popl. Stp. N90°W 4.4'
∠ ∠ ∠ ∠ ∠ N76°E 8.0'
New ∠ 10" Birch N64°30W 42.6
∠ ∠ ∠ ∠ N85°E 64.8

R 27 + 28 T. 143

Sec. Cor. 7-18-12-13.
Iron stake No BT
New B.T. 10" Maple N 55° 30' E 66.4'
" " 12" Birch S 37° 30' W 72'

2107+00

1/4 Cor Sec. 13-18 Old Post
Old B.T. Stump. S 44° 30' W 13'
" " " N 55° 30' E 13'
NEW " 10" Ash N 79° W 42.4'
" " 12 Birch S 87° 30' E 4.5'

2864+43

Sec Cor. 13-24-18-19
Old Post No. B.T.
NEW B.T. 10" Basswood
" " 8" " S 43° W
" " 4" Balsam
" " 12" Birch N 44° 30' E

2631+?

N 81° 30' W 56.4 ft.
49 ft.
S 34° 30' E 48 ft.
44.8 ft.

Corners in T143 R27

1/4 Cor. 18-19
Old Post
" B.T. Stump
289 New " " 6" Birch N. 28.° 30'
" " " 12" " S 26°

Sec. Cor. 17-18-19-20
Old Post No B.T.
314+62 New B.T. 3 Poplar S. 25°
" " " 4 " S. 70° 30'
" " " 4 " N 82°
" " " 4 " N 1°

1/4 Cor. Sec. 17-20
Old Post.
" B.T. 8" Tam. N. 31° 30
" " " 5" " S. 52° 30
340+75 New " " 6" " N 4°
New " " 6" Cedar S 27° 30'
" "

S. E. Laying on Ground
W SHP 58.5 ft. to nail in B.T.
E 86.2 " " " " " "

W 84.4 ft. to nail in B.T.
E 114.2 " " " " " "
E 115 " " " " " "
E 76.6 " " " " " "

E 116 ft to nail in B.T.
E 134 " " " " " "
E 38.6 " " " " " "
E 43.6 " " " " " "

Sec. Cor. 16-17-20-21.

Old Post.

"	B.T.	8	Tam.	N.	50°
"	" "		Spruce	S.	65°
"	" "		"	N.	52°
NEW	" "	12	Tam	S.	34° 30'
"	" "	8	"	N.	28° 30'
"	" "	10	Spruce (stpd)	N.	64°
"	" "	6	Cedar	S.	29°

366 + 75.0 = 85.9

1/4 Cor. Sec 16-21

No Post.

Old	B.T.	5	Tam.	N.	
NEW	" "	4	"	S.	52° 30'
"	" "	5	"	N	31° 30'

392 + 65 = 457

E	4 ft.	
E	11 "	
W	4 "	
E.	47.5 "	to nail in B.T.
E.	42	
W.	82.9	
W.	57.2	
W	17 ft.	to nail in B.T.
W	56.2 "	
W	49 "	" " " "

Sec. Cor. 15-16-21-22

		Post			
4+48.50	Old	B.T.	6" Birch	S.	39°30'
	"	" "	Maple Stump	N.	31°30
	New	" "	8" Balsam	S.	6°
	"	" "	12" "	S	38°30'
	"	" "	12" "	N	45° 30'
	"	" "	6" "	N	32° 30'

1/4 Cor. Sec 15-22

	Old	Post			
49.8+03.4	"	B.T.	6" Ash	So.	38°30'
	New	" "	6" Poplar	N.	37°30'

Sec. Cor. 14-15-22-23

		Post			
47.1+72	Old.	B.T.s	Cut down		
	New	" "	6" Cedar	S.	44°
	"	" "	4" Tam.	S.	22°
	"	" "	6" Spruce	N.	44°
	"	" "	6" "	N.	36°30

E 11 ft
W. 17 "
W. 41 " to nail in B.T.
E 59 " " " " "
E. 51.4 " " " " "
E. 50.9 " " " " "
" " " "

W. 47.6 " to nail in B.T.
W. 41.8 " " " "

" " " "
" " " "

E 50 ft to nail in B.T.
E. 41 " " " " "
W. 50.9 " " " " "
E. 56.3 " " " " "

1/4 Cor. Sec. 14-23

498+54

Old	Post	2"	Old	B.T.	
N Ext	B.T.	3"	Tam	N	30°
"	" "	3"	"	S	29°

524+94

Sec. Cor. 13-14-23-24

Old	Post				
"	B.T.	Due	S. 12°	Tam.	
"	" "	6	Cedar	S	63° 30'
N Ext	" "	8	"	N	41°

1/4 Cor. Sec. 13-24

581+34

Old	Post		No.	B.T.	
N Ext	B.T.	4"	Pine	S.	110 30'
"	" "	15"	Poplar	N	4°

Cut down

W 39 Ft. to nail in B.T.
E 37.7 " " " " " "

11.9 N 20 E 49.2 ft.
W 7 " Tam. 14 Dia.
W 44.6 " to nail in B.T.
S 45° E 25 " to Screw end of Chk.
N 46° E 27.9 " " " "

W 50 ' to nail in B.T.
" 39.5 " " " " "

Corners Between Rg. 27 &

579+30.5 S.M.C.
$-29+7
577+74

Sec. Cor. 13-24-18-19
Old Post
Old B.T. 12" Tam. S 54° 30' W
" " 8" " N 16° 30' W.
" " 6" Spruce S E
New B.T. 8" Tam. N 26° 30 E
" " 12" Cedar S 80° W
" " 16" Tam S 25° E

Twp-143-Rg.26.

604+9

1/4 Cor. Sec 18 & 19
Old B.T. 8" Birch N 35° 30' W
New B.T. 8" " N 3° 30' W
" " 6" Spruce S 23° E

627+2

Sec. Cor. 17-18-19-20
Old B.T. 10" Cedar S 73° W.
" " 12" " N 25° 30' W
New B.T. 8" Maple N 51° E
" " 12" Cedar N 32° 30' E
" " 10" " S 23° 30' W

26 Twp. 143.

8.4 '
7.4 '
7.3 '

47 ' to nail in B.T.
59.2 ' " " "
52.6 ' " " "

Old Post.
11 '
46 ' to nail in B.T.
43.2 ' " " " ".

Old Post
13.3 '
16.9 '
45.9 to Nail in B.T.
37.8 " " " "
56.9 " " " ".

Corners in Twp 143 R.26.

654+87 1/4 Cor. Sec. 17-20.
Old B.T. 6" Birch N 46° W
New B.T. 14" " S 4° 30' W
" " 12" " N 2° W

681+41 Sec. Cor 16-17-20-21
Old B.T. 5" Cedar N 54° E
New B.T. 8" " S 8° 30' W
" " 10" Spruce S 21° E
" " 12" Birch Stump N

708+0 1/4 Cor Sec 16-21 No BT.
New B.T. Poplar Stump S 28° E
" " 5" Cedar N 28° 30' W

734+6 Sec Cor. 15-16-21-22. Post.
Old B.T. Cedar S 27° E
New B.T. 4" Poplar N 20° W
" " " Stump S 19° E
" " 12" " " S 3° W
" " 5" Cedar N 47° 30' E

Post.
4.0'
40.1' to nail in B.T.
53.2 " " " "

No Post.
9'
71.4' to Nail in B.T.
49 " " " "
18° E 44.7' " " "

Old Post
40.6' to nail in B.T.
35.6' " " " "

3.0'
37.4' to Nail in B.T.
46.7' " " " "
53.0' " " " "
54.5' " " " "

Sec. Cor. 14-15-22-23.
788+54
Balsam 43
50.6 Cedar
41.2 Birch
Spruce 52
Elm 54.7
81 Birch
1/4 Cor Sec 15-22
761+61

Corners in Twp. 143 - Rg. 26.

815+12

1/4 Cor. Sec 14-23
Old B.T.s 12" Birch S 78° W
New " 8" Tam. S 8° 30' W
" " 8" Spruce N 16° 30' W.

841+52

Sec. Cor. 13-14-23-24

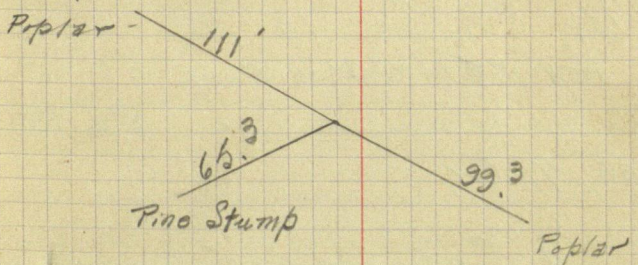
Re-established-

868+88

1/4 Cor. Sec 13-24.
Old B.T. 4" Pine S 12° 30' W
" " 14" Birch N 42° E
New B.T. 3" Poplar S 33° 30' E
" " Pine Stump N 8° E

Old Post
185.'
51.°' to nail head.
59.° " " "

No old Post or B.T.



Old Post
11.8'
3.5'
58.°'
59.3' to nail head.
" " "

Corners Twp 143 Rgs 25

896+55
Sec. Cor. 18-19-13-24
Old B.T. 12" Birch N 49° E
New B.T. 3" Maple S 41° E
" - 12" Birch N 1° E
" " 12" Stub S 13° W

922+68
1/4 Cor. Sec 18-19 Rg 25
New B.T. 10" Pine Stump S 1° W
" " " N 16° 30' W

935+88 1/16 Cor

1/4 Cor. Sec 10-15 Rg 25
1166
Old B.T. Spruce 8" N 44° 30' E
New B.T. Cedar 5" N 5° 30' E
" " Pine Stub S 19° W

Sec. Cor. 10-11-14-15 Rg 25
Old B.T. Elm 12" S 46° 31' E

These Notes obtained from —
Mr. Geo. A. Ralph
16 Fulton Blk.
St. Paul.

Res Engr
A. L. Colwell

26.

Old Post.

18.0'

44.3' to nail head.

58.1' " " "

51.2' " " "

Re established.

35.5' to nail head.

49.0' " " "

Old Post.

6.5'

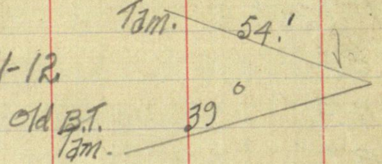
46.2' to nail head.

42.3' " " "

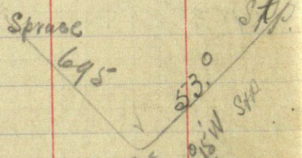
40.8'

Traverse of State Rural Highway No. 83

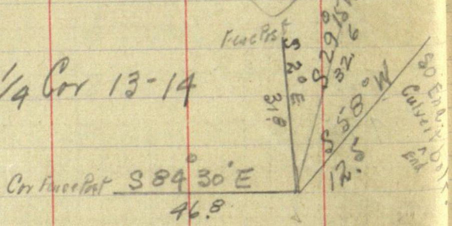
0+00 Sec Cor 12-11-12 -141-26 16' one way



26+56 1/4 Cor. Sec. 11-12



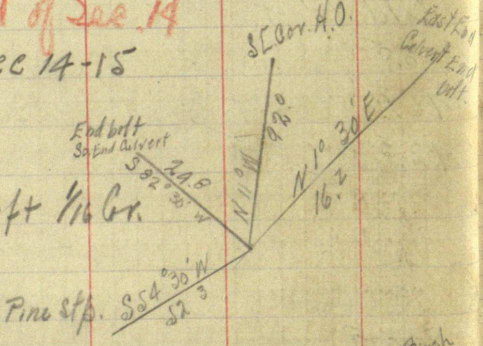
53+00 Sec Cor. 11-12-13-14



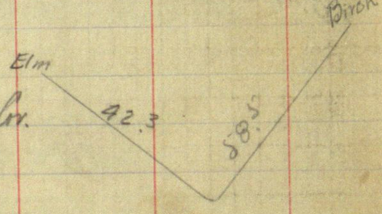
79+51.5 Δ Right 90° 1/4 Cor 13-14

Cent of Sec. 14

107+15.6 1/4 Cor Sec 14-15

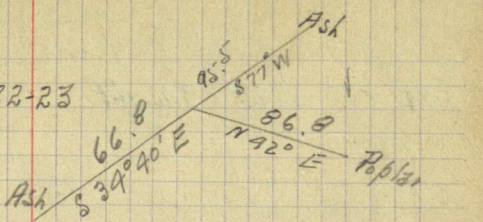


120+47.0 Δ 90°00' Left 1/16 Cor.

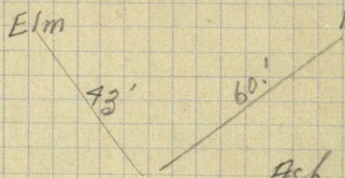


146+92.4 Δ 90°00 Right 1/16 Cor.

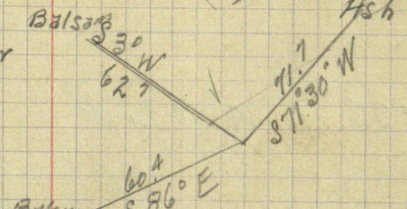
160+22.6 { Δ 90° 00' R. Left?
Sec Cor 14-15-22-23



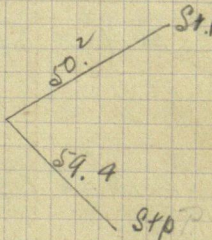
183+91.3 Δ 34° 00' Right



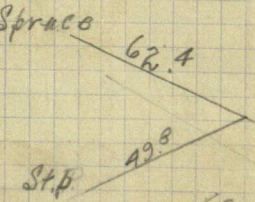
185+69.8 { 4" oak 1/4 Cor
Sec 22-23



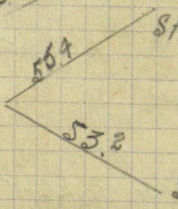
190+74.5 Δ 12° 24' Right



201+76.7 Δ 17° 35' Left



206+13.6 Δ 21° 27' Right



218+00 Δ 19° 29' Left

219+79.5 Δ 34° 32' Left

238+19.8 Δ 26° 10' Right

250+95.0 Δ 24° 10' Left

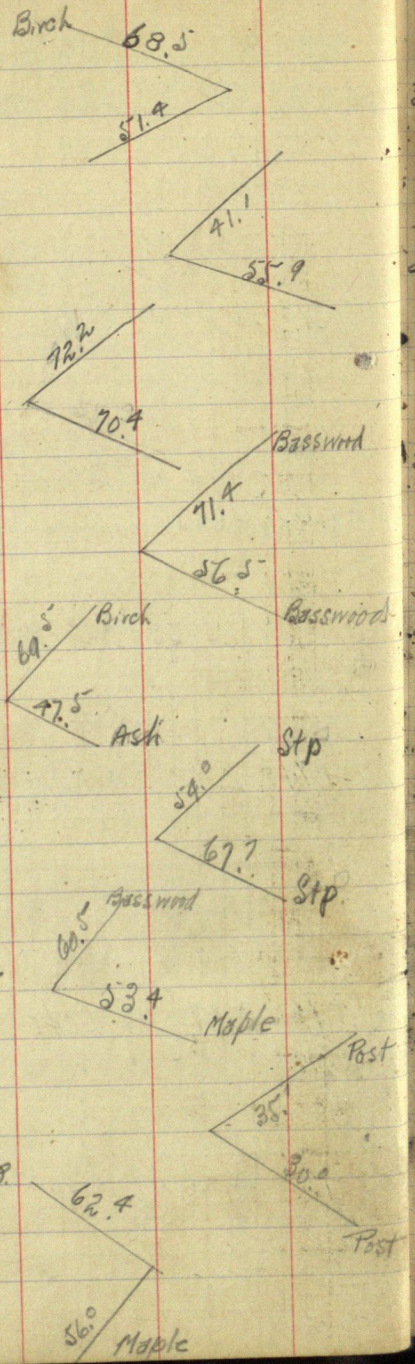
272+11.8 Δ 4° 00' Right

284+00 Δ 13° 15' Right

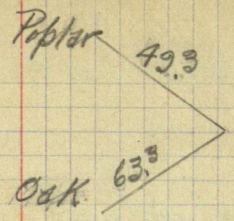
290+35.2 Δ 14° 00' Right

297+73.6 Δ 2° 2' Right

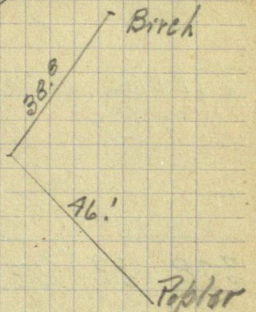
302 Δ 12° 12' Left



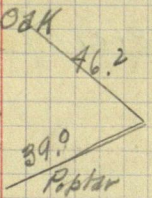
306 Δ 4° 48' Left.



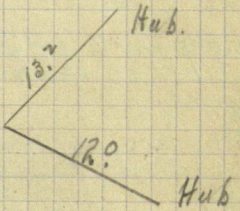
311 Δ 4° 50' Left



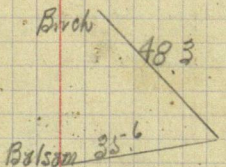
315+77 Δ 23° 52' Right



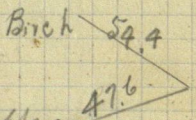
318 Δ 25° 35' Left



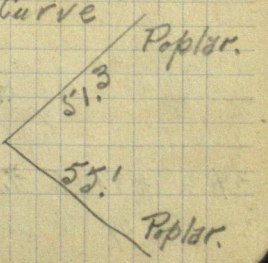
324+48 Δ 16° 20' Right



327+32.8 Δ 0° 18' Right

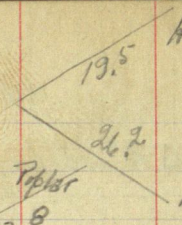


331+80 N = 331+26 S. Δ 113° 10' Left.
No equation going around Curve

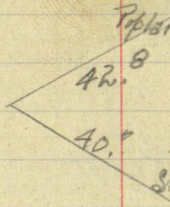


338+72 N = 335+30 S
Δ 23° 54' Right.

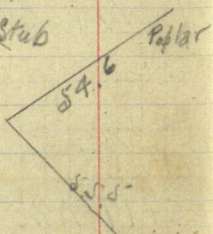
337 Δ 6° 56' Left.



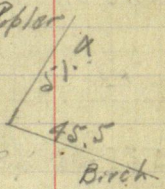
341+36 Δ 20° 48' Left



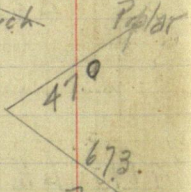
Δ 13° 11' Left
348+32.5 S = 348+21 N



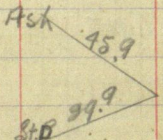
357+65.7 Δ 32° 16' Right.



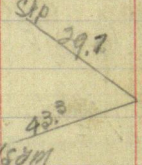
377 Δ 15° 55' Left



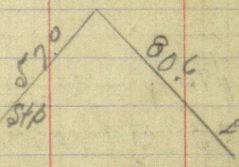
380+49.5 Δ 11° 29' Right



382+51.7 Δ 7° 0' Right.



387+55.0 Δ 84° 16' Right
Curve 36' Ext.



390=389+65 This 35' is gained
by the Curve at 387+55.

390 12° 48' Right

392+08.4 Δ 43° 22' Left

396+47 N = 396+39 S
gained by Curve Δ 35° 45' Right

400+19.7 Δ 27° 28' Left

P.O.T. of P.I.
397+82.1 S = 401+49 N

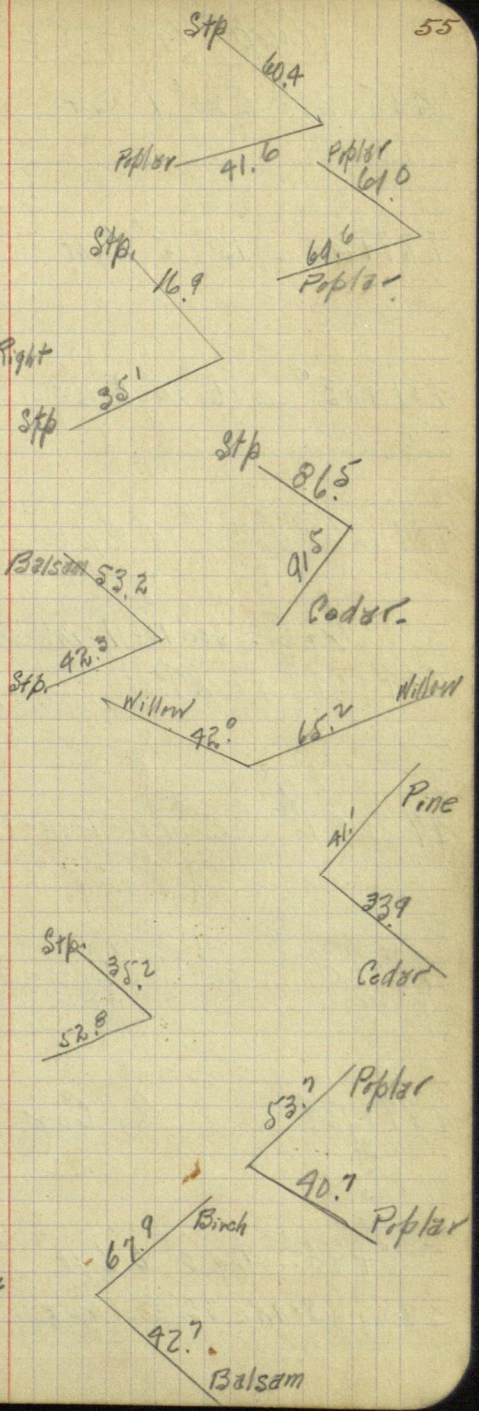
409+20.9 Δ 25° 53' Right

410+87.9 Δ 23° 19' Right

416+94.2 Δ 12° 09' Right

419+12.8 Δ 1° 54' Left

422+37.3 Δ 28° 24' Left



Twp - 140 - R 26

425+24.8 Δ 20° 9' Right

429+74.6 Δ 15° 15' Right

431+53° Δ 16° 10' Right

434+26.3 Δ 33° 19' Right

444+24.3 1/4 Cor, Sec 10-11-140-26 } 4" oak Post

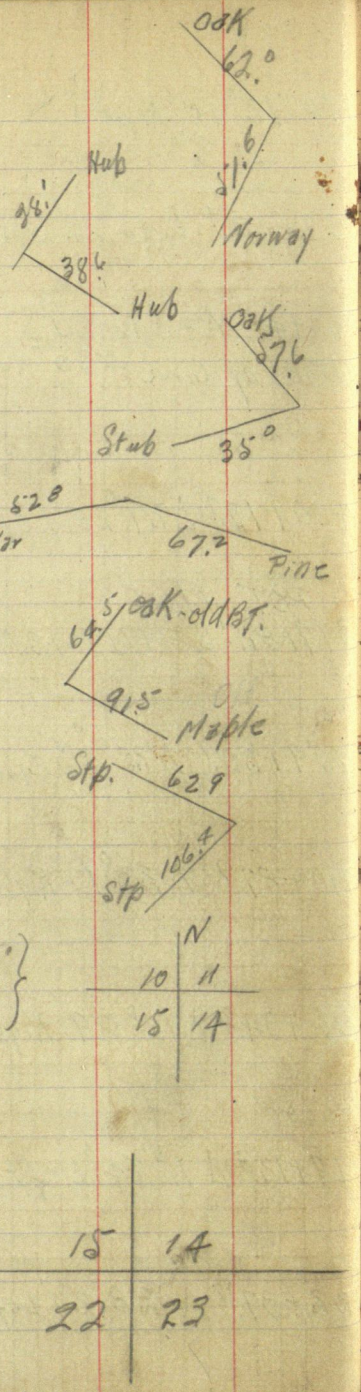
470+87.0 Sec Cor 10-11-14-15

470+87.6 Ang 0°53' { Stake 33' Each Side }

497+13.4 1/4 Cor

S 6°45' E

523+48.0 Ang 0°06' Left
Stake 33' Each Side



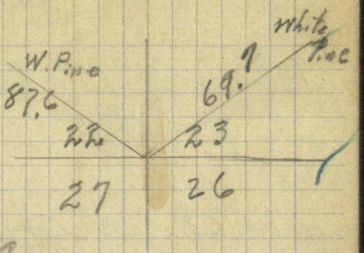
Twp 140 - R 26

549+91.0 Ang 0°00' 1/4 Cor

S 6°51 E

576+34.8 Ang 1°22' L

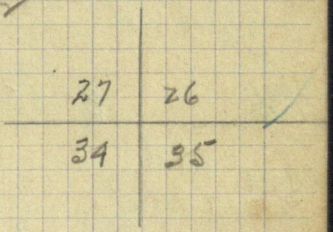
S 8°13' E



602+80 Ang 0°00' 1/4 Cor

629+26 Ang 1°28' R }
Stake 33' each side }

S 6°45 E



655+56.0 Ang 0°00' 1/4 Cor.

662 Ang 28°57' Left Sta 33' Each Side -

S 36°42' E

668+00 22°10' Right

S 13°32 E

674+12.3 24°10' R Stak 33' each side

S 10°38' W

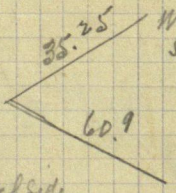
679+20 4°24' Left stake 33' each Side -

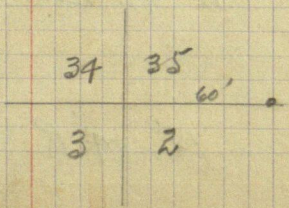
S 6°14' W

686+06.5 14°10' L Stake 33' each Side -

S 1°56' E

683+90





Twp. 140. R 26 -

720 15° R S7° 04' W Stake 33' each Side

S7° 04' W

727+12.4 4° 30' L Stake 33' each Side

S2° 34' W

736 8° 05' R Stake 33' each Side.

S10° 39 W

738 5° 35' L Stake 33' each Side.

S4° 46' W

744+29.8 19° L Stake 33' each Side.

S 14° 14' E

746+02 17° 30' R " " " "

S 3° 16 W

755+75 30° 02 L " " " "

S26° 46 E

759+25 2° 42' L " " " "

S24° 09 E

779+01.6 15° 04' R " " " "

S 90° 01' W

Twp 139 N R 26 W.

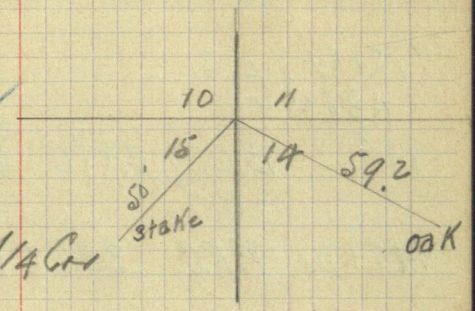
784+14 4° 58' L Stake 33 each Side.

S 13° 59' E

792+38 8° 04' R

S 8° 55' E

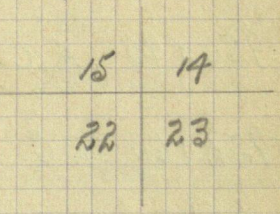
818+70 0° 00' 1/4 Cor.



844+89.5 1° 16' R { Stake 33' each Side }

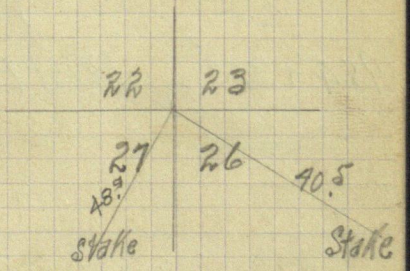
S 7° 38' E

871+30 0.00 1/4 Cor.



897+70 0° 29'

S 8° 07' E



907+84.5 33° 47' R Stake 33' each Side.

S 25° 40 W

928+16.6 30° 51' L Stake 33' each Side.

S 5° 11' E

Twp 139 – 26

944+49 B.C. 80° Ang 91°52'L Stk 33' each Side

945+64 E.C.

N 86°41' E

948 B.C. 38° C Ang 64°36' R

949+70 P.R.C. 38° C.L = 45°36' L

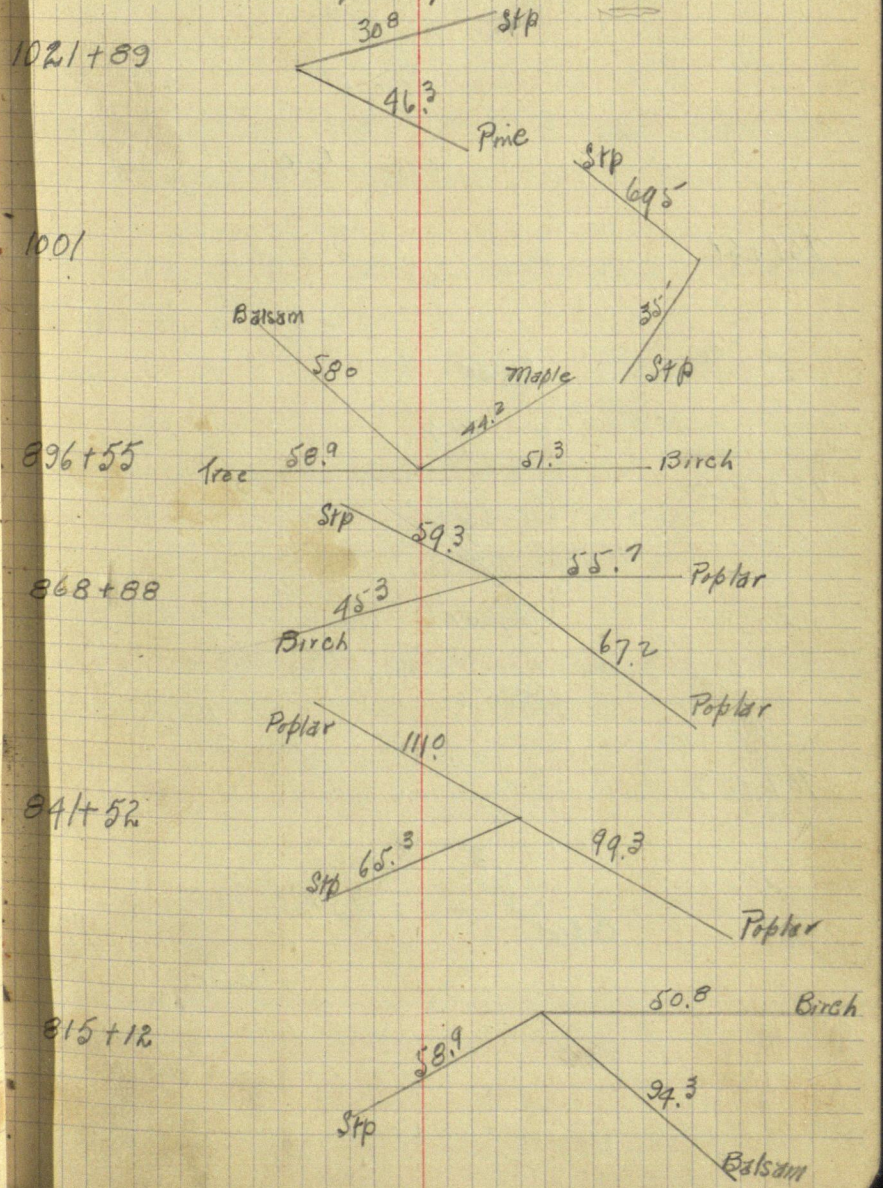
950+90 E.C.

952+60 B.C. 14° C.L. Ang 20°51'

954+08.8 E.C.

954+30.5 West End of Br.

Some Ties of Different Kinds on State Rural Highway No. 45.



788+54

Balsam 43.0

50.6 Cedar

41.2 Birch

761+61

Elm 54.2

37. Birch

52. Spruce

734+60

Cedar 54.4

53' Tree

37.2 Poplar

707+59

Spp 39.8

40.5 Pine

56.8 Cedar

43.0 Cedar

N.B. On State Rural Highway No 45
1 1/2 North of Federal Dam at
Swanberg's Place are enough Iron
Monuments to Monument the Sec. Cor.
along Roads 45 & 85 as tied in
by foregoing notes.

These notes were obtained from
Geo. A. Ralph -
16 Fulton Block
St. Paul -
by courtesy of his Engineer
H.L. Colwell.
Who called at Curo's Office
Dec 6th 1915.
His two Note Books returned
by Reg. Mail Dec 9th 1915 -
Stored to the birthday of Katrinka
A.W. Moulster

Additional Ties

S. R. H. # 83

Sent in letter from H L Colwell Asst Engr
for Geo A Ralph 9

1275+58 ¼ Between Sec 21–22
T. 139 N. R 25 W.

1168+98 ¼ Cor between Sec. 20-29
T 139 N. Rg 25 W

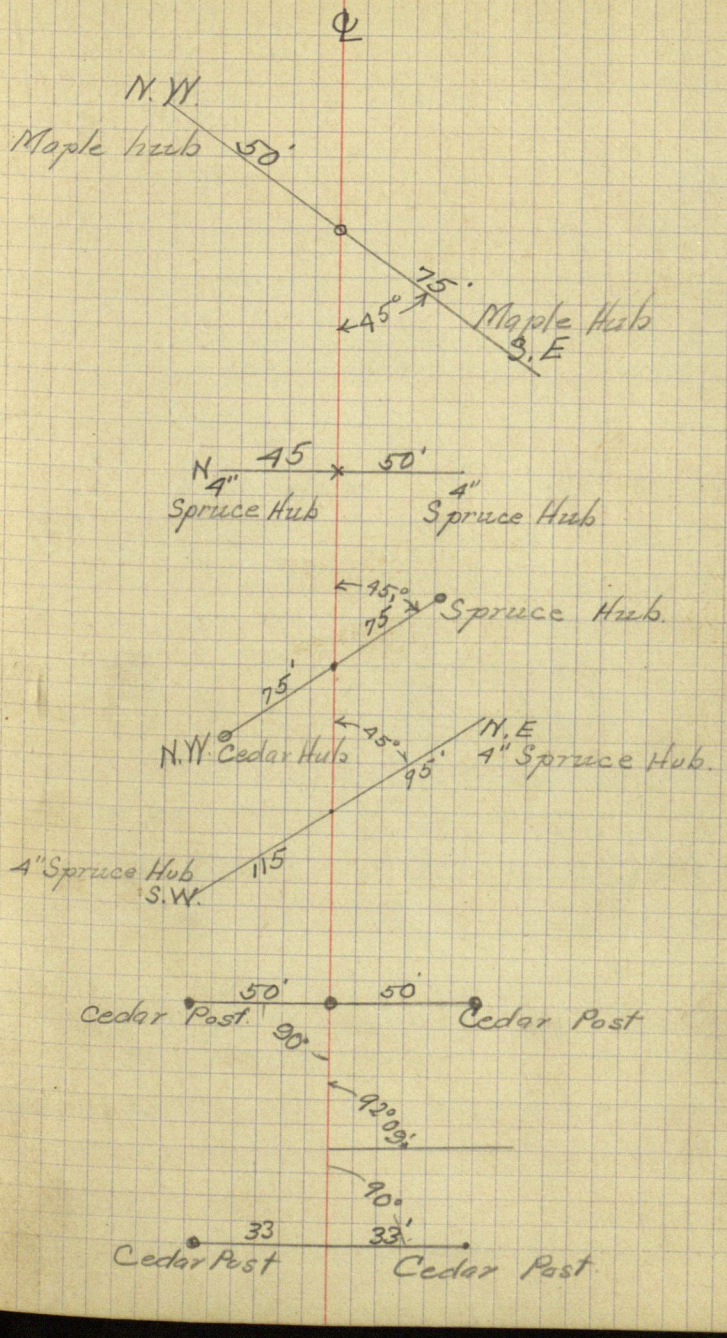
1182+19.1 E 1/16 Cor, N. Side Sec 29

1249+45 Sec. Cor. 21-22-28-27, T 139 N, R. 26 W.

1485+85.9 ¼ Cor Bet Sec. 12-13 T. 139 N. R 25 W.

1459+95 Sec. Cor. 11-12-14-13 T 139 N R 25 W

1446+79.5 1/16 Cor. Sec 14-13 N.


℄
N.W.
Maple hub 50'
75'
45°
Maple Hub
S.E
N 45 50'
4"
Spruce Hub
4"
Spruce Hub
45°
75'
Spruce Hub.
75'
N.W. Cedar Hub
45°
N.E
4" Spruce Hub.
95'
4" Spruce Hub
S.W.
115
50'
50'
Cedar Post.
Cedar Post
90°
92° 09'
90°
33
33'
Cedar Post
Cedar Post

Hank Mullins 18.50 W.
2.2 S

N. 0° 06' W
N. 0° 15' E
N. 0° 9' E.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

87° 40'

ROADWAY 14 FEET WIDE. SIDE SLOPES 1½ TO 1.

FOR SINGLE TRACK EMBANKMENT.

87° 38'

	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.