

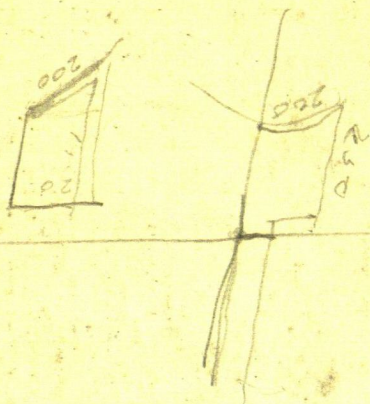
247

DIETZEN
INCORPORATED

ENGINEER'S
FIELD BOOK

No. 105

Saunders Loeis
Hesselin Bill



S 411 F

This Field Book is manufactured of a High Grade 100% Rag Paper Having a **WATER RESISTING SURFACE**, and is sewed with Bing Special Enamel Waterproof thread.

Made in U. S. A.

①

Note:

This Book belongs
to John W. Curo-Walker
Minn

If lost, finder please
notify the owner and
recieve a suitable reward

John W Curo
March 1-1940

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

②

Index

Addresses: Pg 3-12-13

Maps: Pg 5-6-9-12-16-

AA Boehman

Addresses

3

F. J. Steadwell 70. Hastings

Tel Co Hastings Minn

Wanted a Cruiser

Feb 17-1940 - 11-pm.

Reed brot this slip from
Re Employment Bureau
Brainerd Minn

"Berdeen"

Bertin B. Johnson Pequot
Minn wants survey

Cord dated Feb 5-1940

Post mkt Mar 5-1940

Rt N^o 1.

Copied in this book Mar 10/40

Ilo Babcock 558 St Peter
St to Farmer apt 15

Cedar 1903 Hannah St Paul

Mar 10-1940

Mrs G. A. Lincoln 411-26

Sioux City Ia - owns land

By Mrs Geo Engelhart Longview
Minn Feb 27-1940 \$1500.

4

19

20

30

29

31

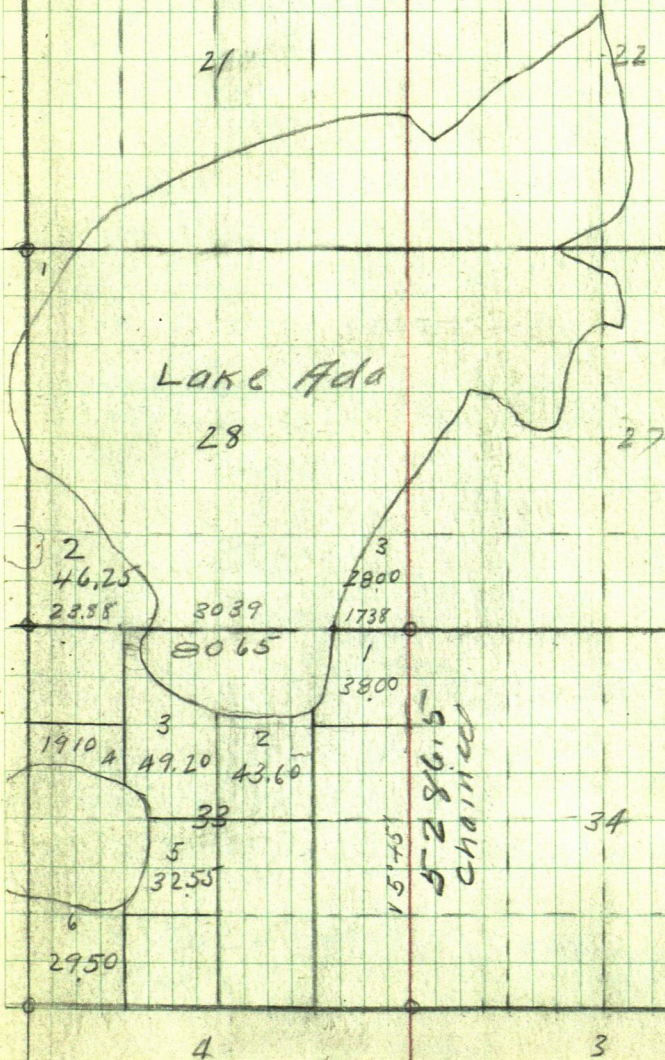
32

289

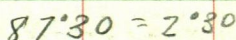
6

5

139-29 Saunders 5



6

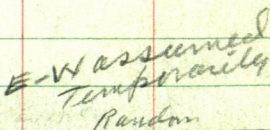


$$\text{Corr } 99905 \times 178.4 = 178.23$$

33

7.78

5301.70 ^{1.78} coral
west 178.23



5312.30 OK.
- TSV LINE

4

$$5301.7) 178.23 (= 336175' \\ 1056')$$

March 2-1940

7

North Randon bet 32-33-139-29

Bege Iron RR. Spike & 4 Roads

Temp Cor old ties in Hoernberg

Survey BOOK No 419

Old Ties to IR. 6.10 N of Sec Cor

Iron Signpost N $19^{\circ}55'E$ 49.10⁹⁰⁰

Tel pal N $73^{\circ}20'W$ 24.35

Fence Cor S $41^{\circ}35'W$ 37.65

Tel pal S $45^{\circ}30'E$ 37.90

Note: Iron Signpost evidently moved and spike gone

We re-set Temp Cor 0.0
To Sec.

4-5-32-33-138-139-29

Drive Half a mile to and set

True $\frac{1}{4}$ Cor Bet 4-5.

138-29 JP 15 N $30^{\circ}10'E$ 34.95

Oak 12 N $58^{\circ}10'W$ 46.90

SPRUCE 8531⁰ 47 W 53.50

Fence Cor post S $88^{\circ}40'E$ 36.80

Find old Spike in & N-S Road

set for True $\frac{1}{4}$ Cor Bet 4-5

See Hoernberg Survey Book 419

8

Mar 3-1940

Bash Sigh So on true 1/2
Cor and run

North on random bet

Lees 32-33-139-29

Reed Cuen & ch - Clarence
Hodge - a reb.

300-600-792.8 Hat RR spike
on So Sea wall Risco Lake

Near old BT. Stump - marked

900-1200-1500-1800-2100

2400-2700-3000-3300

pin on ice

3366. Hat 10^d nail on
peak of low hill

3600-3900-4200-4500 pin

4590 Hat RR spike on

West side of Island in

Hay meadow

4800-5100-5300 pin

5303.38 Hat RR spike & E. W

Temp road

& then 5303.38 I m true Cor

Lees 28-29-32-33-139-29

bears S 87°31½' W 178.38

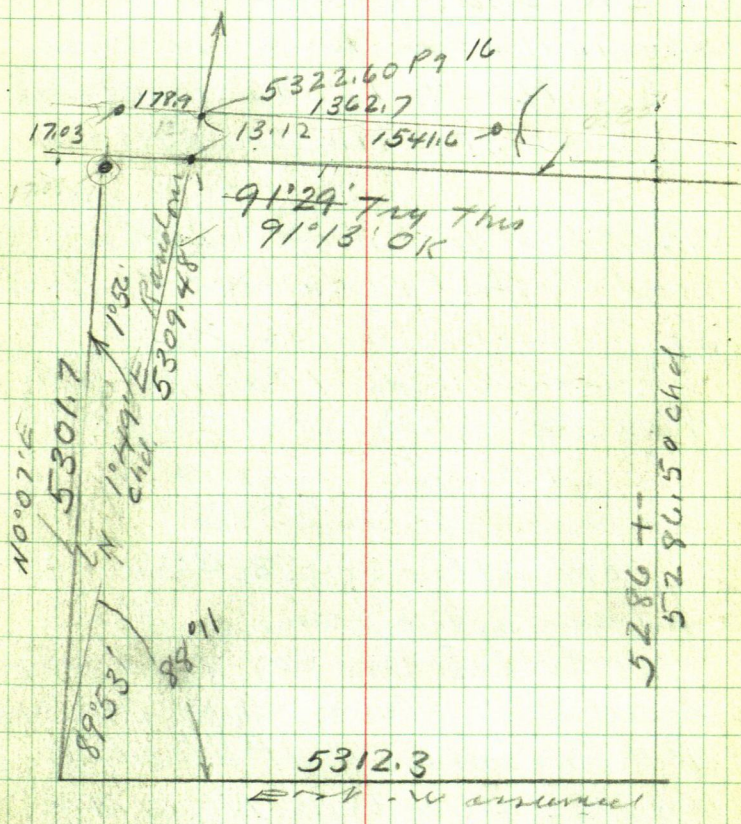
Preston Silliman helps cut line

Reed & Clarence
cut to base

Howard
Silliman & Reed ch

5309.48
13.12
 5322.60

5301.7
5286
 15.7



5286 +
5286.50 chd

10

Mar 26? 1940

Reed and d W Curo @ Cor

3-4-33-34-138-139-29

Look for Old BTS V12

JP12 N 30° 10' E 140.40 New stump

" 6 N 71° 45' W 90.40 OK Tree

" 6 S 72° 52' W 120.45 Don't look

" 12 S 75° 31' E 111.85 NOW a stump

We found the above - well
marked But are about 8° off
for course - must have
been set from Magnetic
Bearing

We Chain in - dig but find
no iron Ground frozen

From the above 3 BTS

we chain to a point and set
120 ft spike for Cor and take
New BTS V12

R.R Spike in @ 12" JP Stump

N 47° 23' E 66.40. NP 15 N

49° 45' W 60.45 JP 10 S 13° 10' W

47.70. JP Stump 12 S 68° 23' E

111.85 old B. all spat at base

True Line N V 6° 30'

139-29. Saunders

(11)

Nat. old stump S

S $75^{\circ}31'E$ 111.85 Same stump

Now S $68^{\circ}23'E$ 111.85

$7^{\circ}08'$ diff showing that these old BTS were turned from Magnetic N. instead of True N.

Reed and I build a fire @ Cr 10

27-28-33-34-139-29

Where my old radio call for

JP10 N $55^{\circ}30'W$ 47.80 ^{OK} Nat. 2 trees _{Bark bled out}

" Stp 16 S $71^{\circ}30'W$ 40.10 OK.

" " 30 N $38^{\circ}E$ 91.05 OK here

" " 16 S $83^{\circ}E$ 9.20 Grubbed out

We chain in from the 3-

Build a fire and dig some find no iron but drive a RR spike to Temp Cr

27-28-33-34-139-29

Home to Jenkins 4-30 PM

Jabma Crew

12

Lewis J. Saunders

Feb 26-1944

Westing

2 savanders

2. Lower

France

France

France

* GERSKE

3 Gerske

~Pattinson

- Tracy

4601

757

75

00

100

1001

100

25

0

10

Lat 2-
Sec 33
139-29

LEWANN'S Ada Acid"

Austin O. Lower
Father in Law
Lewis J. Saunders 211 Colborne St Staarl
Garfield 8633.
Feb 26-1940 Saunders pd me 825 doren

500 +
13247W

✓

13



14

March 11th 1940 Monday

I and my V8-60 pick up
Reed and @ 9-30 AM LV Jenkins
Call at Pequot P.O. who say
Bertin B. Johnson lives 5 miles
W and 2-15- Call on Ludwig
Mattson - gone to mpls - his daughter
says Ludwig will not come
good for Johnson survey

as he may NOT get the timber
Dine to Johnson rer
SW Cor Sec 18-136-29 where
he lives with his wife on his
son's place

Bertin B and his sister
Johannah Johnson are in
litigation over Fractional
SE 1/4 Sec 18-136-29 Loon
Lake Twp. to be divided
71³⁵ and 71³⁵ Acker

Their lawyers are DeLury
and Peterson for Bertin B
Rogers for Johannah J.
Matt Addison & PK Region
will need lines also in Sec 18-

Lot 2-33-139-29 Saunders 15

Back to Jenkins 11-30 AM.

Eat lunch - LV my car at

Jenkins Lake Reed and his

28-Model A. 1-30 at Lake Ada

Buff & Berger π over Hub

5309.48 Pg 8- E W Road

To save cutting trees East

Continue Random line

North 13.12 To 5322.60 N.

Pg 7. π over 5322.60 N

Focus so on random Zm

28-29-32-33-139-29 in

S Wheel track E W Road and

on old N-S fence bears

S $83^{\circ}20'W$ on R. 179.8 ft

π still @ 5322.60 Focus

So on random Turn SE Angle.

$91^{\circ}13' L$ and run East 1362.7

ft to R.R. Spike Hut on West

bank of Lake Ada

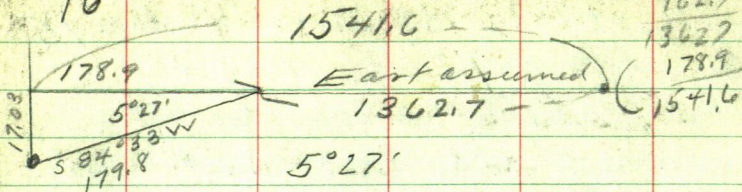
as E-W Random

Using this E-W Random as

East the Zm Sec on bears

S $84^{\circ}33'W$ 179.80 ft.

16



$$\text{Sine } 9473 \times 179.8 = 17.03$$

$$\cos 9954 \quad 179.8 = 178.9$$

So

Reg @ pt 17.03 N of NW Cor

Sec 33-139-29 Run East on Random

178.9 Hub under π

From π ch E 3-6-9-12 + 162.7
 = 1362.7 + 178.9 = 1541.6 Hub
 on West bank of Lake Ada

Lot 2-33-139-29 Saunders 17

April 1-1940

9 am- Reed and his car like
Welfred Miller and Jack Case
to workshop of Lake Ada

Met Ernie Silliman

Rey @ Hub 1541.6 ch

West 41.6 set pin 1500 E

1554 Top cut bank 1565 foot

1585 for Low sea wall

$1500 + 204.3 = 1704.3$

Flag on ice 1800 pin on

ice 2100 2400 pin

$+ 54.40 = 2454.4$

Flag on ice 2700-3000

3300 small wood stakes

on ice $3600 + 280.3 =$

3880.3 Flag on ice

3900 pin small stake on ice

$+ 240 = 4140$ Top 3 ft sea

wall NE SW 4200 pin

on top At about ± 4170.5

Iron pipe set in 8.50 ft

4200 Hub 17 ft spike

18 April 1-1940 contd

4200 Ht Twp --
N P 10 N 11' 20' E 14.20
JP 12 S 81' 53' E 35.90

To spot of bone 2 spots
ballon and up. Dr 4' 30'

4200 + 196.00 = 4396.00

Ht 4500 fm 16' 30'

Note: Harry Chapman: M'Peal

Ours 140 A + -

100 x 500 -

4800-5100 fm + 189.65
5289.65 Ht 1104 spk
on West bank East Edge
of Cut Bank 2 ft from Bush
about 30 ft West and
20 ft S of 2 m in
E of road 3-20 PM

Reed and Wilfred
walk 4 miles to and
1/4 mile West to fix car
wheel

Lot 2-33-139-29- Saunders 19

27-28-33-34-139-29

see pg 24

We dig up Capbed 1 m

1 ft N of our 110 spike
set.

1930

Set flag and drive a nail
to the corner 3-4-33-34

138-139-29 where we dig
up 110 spike and set pin

Too low to see corner &
push N & and work out
on line 371.4 N

6 ft west of N-S-L

Drive 110 spike

P.O.T.

14 ft N of old road runway
west

JP 15 S 54° W 57.4 + 50 = 57.90

Oak 6 S 29° 26' E 131.6 + 1.5 = 132.10

20

5322.44d

17.03

TRUE

Random

20.70

17.03

37.73

90°37'

33
139-29

True line

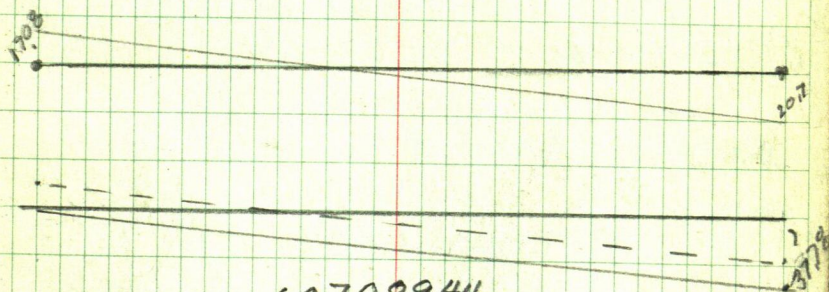
Apr 1 - 1940

21

Saunders - L is ada
Lat 2-33-139-29

$$\begin{array}{r} .00709 - 024\frac{1}{2}' \text{ OK.} \\ 5322 \overline{) 37.730} \\ \underline{37.254} \\ 47600 \\ \underline{47898} \end{array}$$

Harold Curro - March 1957



.00708944

$$5322 \overline{) 37.78}$$

hub. 178.9 E goes N12.7 then S17.08 to line

hub 1541.6 E " N10.93 " S 17.08

hub 4200 E " N 29.78 " S

1 OR

hub 178.9 E goes S15.81 to line

hub 1541.6 E goes N 6.15 to line

hub 4200 E goes N12.70.0 to line

2017

22

π back on Random Hat
5289.65 En 10

27-28-33-34-

139-29 Bear-

N $57^{\circ}17'E$ 38.20 ft

5289.65 + 32.40 = 5322.05

$$\begin{array}{r} 32.40 \\ 5289.65 \\ \hline 5322.05 \end{array}$$

5322. East

Intersect True N-S-See

Line between 33-34-

139-29. at a point 20.7

South of Sec En

 π over IP

SW Angle of True N-S

Line with random

$$\begin{array}{r} 90^{\circ}36\frac{1}{2} \\ 181^{\circ}14 \\ 271^{\circ}51 \\ 362^{\circ}28 \end{array}$$
90 $\frac{3}{4}$ 37

O.K.

 360 148

6:40 P.M.

April 1. 1940

Saunders

382 3.2

23

April 13-1940

I pick up Hacalet and
Reed and @ 8-30 L. Jenkins

Meet Saunders NE of Pine River
Turn back and overtake his
car. Return to Lake Ada

24.

$\begin{array}{r} \text{Beg @ } 371.4 \\ 28.6 \\ \hline 400.0 \end{array}$
 $\begin{array}{r} \text{CHH } 28.6 \\ \text{To } 400 \end{array}$

Chain North

North 1320 - 2640 - 3960
 5280 set 60 d. spikes
 not on line

$5280 + 6.50 = 5286.5$

Cor 27-28-33-34

139-29

Rake in the mill, bet

33 and 34 Page 5

1320.900 N 1.62 To 1321.62 $\frac{3}{4}$

2640 " N 3.25 To 2643.25 $\frac{1}{4}$

3960 " N 4.87 To 3964.87 $\frac{1}{4}$

5280 " " 6.50 To 5286.50 $\frac{1}{2}$

27-28-33-34 - 139-29

Ties W B 6 N 34° 29' E

WB 6 N 34° 29' E 94.05

JP 12 N 52° 18' E 47.15 NW 5 2' 37"

WP. 30 - S 17° 55' W 152.00

J.P. 6 S 47° 27' E 63.30 47° 04' 64.55

For 5° 45' Turned from True

Line 80

24° WP plumb N 38° 05' 92.2

Power pole 10 N 53° 24' E 43.00

574

Saunders

177.60

25

April 13-1940 continued
P.M.

2-05 PM - Meet Saunders
Wesline and another man
N 1/4 Sec 33-34-139-29

They cut a line East

Put in R.R. Spike 6 ft W of E
N-S Co Road in line 2 ft N of
North ditch of Wesline Road

R.R. Spike in Heart of 10 inch
Solid Tam Slump

S. 37° 07' W 59.55

6" JPS 45° 43' E 177.60

Turn 90° and run

East on Random line E N 1/2 Sec 34
About 80 rods East at Hat 60 ft
spike about 75 ft W of field

N 16° N 38° 15' E 50.60

J P 4 N 68° 50' W 24.20

Wesline help ch. Tm

East 100 to 120 LV marsh
 end old field 3-6-9-jm
 936.5 Hat about 75 NE of
 field see Tran

1200 fm + 37.2 = 1237.2
 Hat under on ridge
 NW SE 1200 + 1 = 1300

1318.7 Hat 60' spike in N
 edge of Green 10" green
 pap slumps

1320 Hat ent bog

1400-1500 in bog + 15
 = 1515.0 Hat

Low sea wall NW SE
 1520 ent in

Bars

1800 on in 100 N of 20
 bog shore

2100 on in 150 or 200
 N of swampy shore
 2400 on in 200 N of shore
 2700 fm on in

2640 Hub 60 d spike in
in 150 ft of good
shale 50 ft E of end
of bog

3000 pin 50 ft E of in
runs SW and N 20° E 300

3000 + 43.5 = 3043.50

Hub 60 d spike 9 ft W of
old dim road NW SE
Tree

60 d spike in heart of green
10' up slump S 49° 58' E 23.50

W Oak 6 N 2° 44' E 36.70

West Corner of big rock

SE 0.50 of foot

28

5-30 PM. Back with π
over $1/4$ Cor Bet 33-34
139-~~26~~²⁹ - RR. Spk
3. π W of \mathcal{Q} N S corner
15 ft N of old fence running
West

7" Tam Th West Tree in
a cluster of 5 Tam trees
N $41^{\circ}50'E$ 137.10

Pop 12 N $12^{\circ}05'W$ 47.80

9" Power Pal. S $89^{\circ}33'E$ 34

To spot at base of tree
Turned from line N

3. π W of \mathcal{Q} corner

S $1/16$ Bet 33-34 - 139-29

12" Spk. 3 π W of N-S \mathcal{Q}

JP 10 N $47^{\circ}49'E$ 225.10

Pop 7 N $44^{\circ}07'W$ 48.60

6-20 PM Quit

139-29

$$00709 = 0^{\circ} 24\frac{1}{2}'$$


Correction N Line = $00^{\circ} 24 \frac{1}{2}$

$$0^{\circ}12' = 003625 \times 5322 = 19.29$$

$$\begin{array}{r} 5286.50 \\ 5282.41 \\ \hline 4.09 \end{array}$$

$$5301.7) 9.7 = (.183 = 0^{\circ} 6\frac{1}{2}' +$$

Apr. 16-40 Figoria
at Reeds Ho

5322.0

2661.0

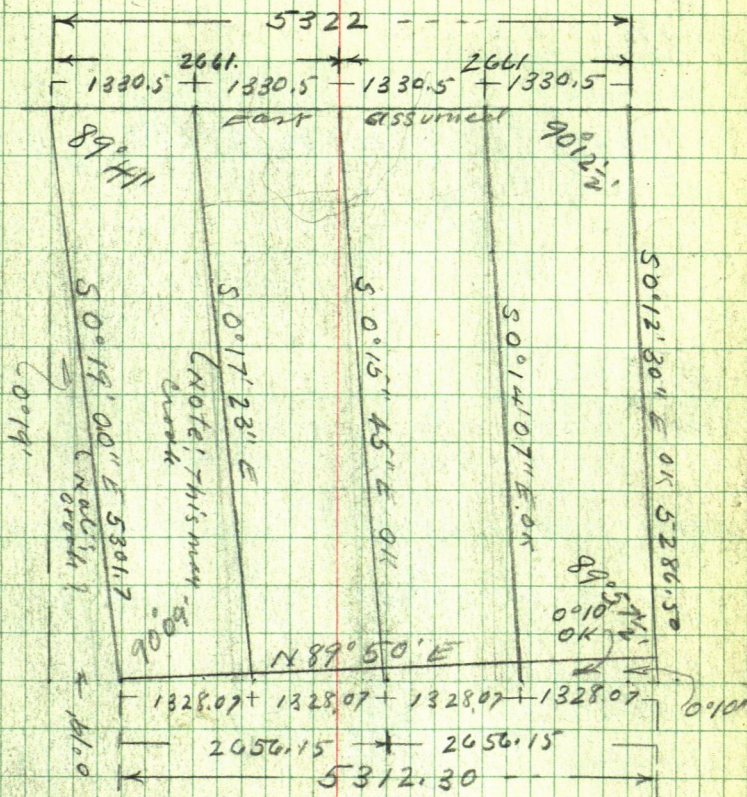
5312.30

90° 37' 21"

Saunders

31

33-139-29 - Apr 16-1940



32

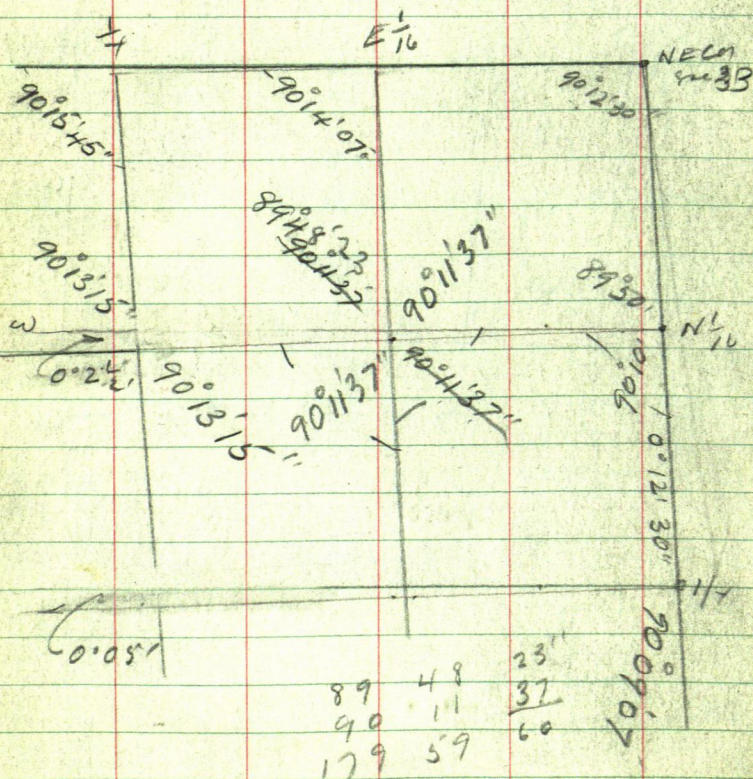
1325.42

1321.62

3.80 ~ 1/16 lin.

5320) 3.80 = .7143 = 0°2 1/2'

5320) 7.60 = .143 = 0°5'



34

13.75 3.60
257

Nals.

April

\$20. ch from Werline Total pd
\$70. Bal due for plat only \$5

April 15-1940 Ilo corner on the Bar
Reed brings her out

April 16- Figure all day at Reeds
on plat Saunders calls at
the farm in evening

I tell him I will have his
Wet line in by 9 am tomorrow

Saunders helps us cut him
and chain

50' 13' 67" E
- 2' 30"
0' 11' 37"

Figuring Saunders 35

Sec 33-139-29

West

NEC 33

90° 12' 06"

89° 41'

0° 02' 30"

Lot 2

90° 11' 37"

S 0° 12' 30" E

0° 05' 00"

S 0° 19' 11" E

0° 07' 30"

S 0° 15' 45" E OK

S 0° 14' 07" E OK

89° 57' 11"

90° 09'

0° 10' 00"

S 0° 17' 22" E

0° 12' 30"

OK

36

1329.9

13.7

1316.2

April 17-1940

Up @ 5:30 No breakfast
pick up Reed - Eat lunch at
Pine River 8-9 AM as

Find Saunders waiting

Buff & over 14 to Bit 33-34
139-29 Focus so on this line

Turn SW angle $90^{\circ}10'$ Run

West on line $\frac{1}{16}$ line on
North edge of road grade

1316.2 Hat 60' spike 3.6 So
of SW Cor part of fence

1329.90 Hat RR spike

True $\frac{1}{16}$ Cor in NE $\frac{1}{4}$

See 33-139-29

Note: North line considered
East and West our line runs
 $S89^{\circ}57'30''W = SW$ angle $90^{\circ}10'$

Saunders helps us cut line

Saunders

Apr 16-1940

33-139-29

37

West

← $589^{\circ} 57' 30'' W$

← $589^{\circ} 55' 00'' W$

← $589^{\circ} 52' 30'' W$

← $589^{\circ} 50' 00'' W$

38

April 17-1940 continued

From $\frac{1}{16}$ Cor just set
in $\frac{1}{4}$ NE $\frac{1}{4}$ Sec 33-139-29

Continue same line

West ($S 89^{\circ} 57' 30'' W$) = 0.0.0.0. at 100 To 225 Cut
North end of marsh - SW300 pin 346 Corn old road
NE SW 600 pin

609.3 Hut R.R. Sprk

100 ft so of State Line Lake

add shore 900 pin
on N side of hill

1007.2 Hut 609 spike

1012.8 - $\frac{1}{4}$ 6" Oak 0.20 S

900 + 214 = 1114 Hut

609 spike

1114 + 176 = 1290 hut

 $\frac{176}{1290}$ East end of road

H0 about 5 ft N Y

SE Cor

H0

1290

24.1

13141

1329.9

1314.1

15.8

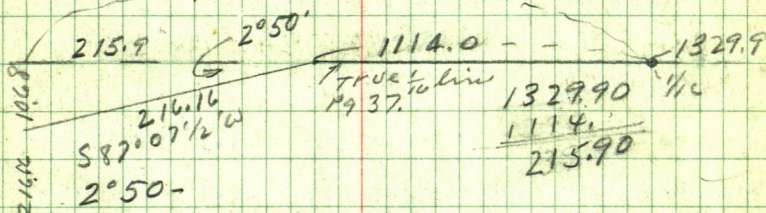
Saunders

2°50' L

39

1114.0 W. Hub under T
Turn 2°50' L to Miss House
Eat lunch - PM

1329.9



since $0494 \times 216.16 = 10.68$

cos 99878 in $215.9 = 216.16$

Tang $0495 \times 215.9 =$

1249.9
1114.0

135.9

1329.90
80.00

1249.90 W

87° 07 30 W
2 50

89° 57 30

1329.9
80

1249.9
1114.0

135.9 to 1249.9

From 1114.00

140

From 1114.0 continue 55.9

=

135.90 To -

L-15 1-2

Hut Hut

April 18-1940

10 AM - Reed and I go to Elmo Walker work all day in office
Home late 8:30 From Merry

April 19-1940

My Birthday party at Jenkins

April 20-1940 Sat

Frank Saulter and his
car take Martha and I to

Piquet 12-00 Noon I to
buys Lats 12-13-14 Blk 1-

Curd's Addition to Jenkins

Then on to Brainerd where
O'Brien were to pay me
\$48.71 Galvin full

Harold and Reed set
Tom S. on O'Brien land
at Loh Berths

April 25-1940

Martha and I Lr Jenkins
Drive to Pequot. See Mr
Morgan to Jenkins Lots 1-2-3-
Pek 2 @ \$250. \$150 down with
dred to Lot 1-2- and Contract
for \$100 bal on Lot 3.

Drive to Barkus - then East
to Lak Ada - 100' Laps I alone
check S. Shore of Lak Ada
for 500 foot Lots

Bege SW Cor Metsroth Land
Lot 1. See 33-139-29

$\frac{1}{16}$ Cor in Center NE $\frac{1}{4}$
walk West on my new cut out
a line Ten E-W. $\frac{1}{16}$

at 460W Ch N

North @ 110 Sea wall Stake
line @ 140 sand ridge Low
sea wall = Beach @ 160
water edge Lak Ada

Then drive West and from
 $\frac{1}{16}$ in Center of N Half Sec 33
back North:

60 to 63 ft Sea Wall - Stake
line. @ 80 Low sand ridge
sea wall: @ 95 Water edge
Lake Ada on N-S & Sec 33
139-29.

Meet Bartlett Westline
and we agree on location of
a 66 ft Highway. To begin
at Start @ $\frac{1}{16}$ in & NE $\frac{1}{4}$ corner
West over bog 460 ft to apt
about 50 ft so 7 E W $\frac{1}{16}$ line
and continue West along
ridge of the land over and
across Lot 2 - keeping about
300 ft from Lake Ada

44

April 26-1940 Friday

All day in Ct Ho I mail
to Bartlett Westlin - %

Westlin Resort - Backus Minn
a blank application for
On sale Beer License
Work on Merry plot

Recieve a letter from
Mrs A.A. Lincoln of 411-26th
Sioux City Ia

Saunders

45

May 7-1940

Saunders sends me P.O. order for \$10. which over pays me \$5 which I must send back to him later

Vali: Her whale contract was
----- he has paid \$5 too
much and is now anxious
to get the thing finished up
Walker & Jenkins

46

May 11th 1940

Reed and Eunice move
into Ladd Spornly Trailer
Ho

10 AM Reed and his car
pick me up at Bob Norton
farm Ho.

Cut slakes etc. I buy
lunch 61¢ buy gas 1.30 oil
30¢ = 81.30.

Sped on Reed's Ford
19969 - and 55.9 drive away from

11-20 AM at Lak Ada

Sped on 19988. Trip costs 74.3

19988

19969

.19

74.3

55.9

18.4

close check.

Saunders

47

Ruff π over Hub 1114.0

See my ruler Pg 58 This book

609.3

1007.2

1114.00

1329.9

Plot Pg 12

1329.9 Minus 80 = 1249.9 Plot Lots 1-2

1249.9 " 80 = 1169.9 " " " 2-3

1169.9 " 150 = 1019.9 " " " 3-4

1019.9 " 100 = 919.9 " " " 4-5

919.9 " 100 = 819.9 " " " 5-6

819.9 " 100 = 719.9 " " " 6-7

719.9 " 100 = 619.9 " " " 7-8

619.9 " 80 = 539.9 " " " 8-9

539.9 " 79.9 = 460 " " " 9-10

Bal 460 Ft for Working

48 May 11-1940 Continued
Reed coaks tea for dinner
PM

2- To 2.50 PM. Mr
Patterson of Park Region Hotel
Pine River and his carpenter
Mr are with us

We help them lay out 24x30
foundation for Bldg in Lot 2-

90° to my E-W Transit line

RR. A fukes and Elex stakes set
Town RR. spike @

1249.9 W BS N 89°57'30"E and Run
S 0°15'45" S so about 100 ft set stake
mkd Lot 1-2- Transit telescope
and set row of small stakes on
Lake Sea wall

T over 1169.9 repeat same
procedure - Bet Lots 2-3

T over 1114.0 Ties Uij

BS N 89°57½'E

Oak 6 N 33°08'W 7.25

" 55 75°33'E 8.20

NE Cor Cem Foundation S 1°37' W
7.65

NW Co. Cem. Foundation

S 72° 55' W 33.50 To sharp

Corner of cement

60 d spike driven 2" down

From 1114.00 ch E on line

 $\frac{1}{16}$ line See Page 47 This Book

1114.00 94.10 To 1019.90 W

1019.90

94.10

Set RR spike on line

E-W - $\frac{1}{16}$ line Bet

Lats 3 and 4.

1114.00

919.90

© 194.10 = 919.9 Set RR spike

Bet Lats 4 & 5

1114.00

819.90

294.10

To 819.9 W set RR

spike Bet Lats 5-6

50

5:20 P.M. π back over Hat
216.16 Page 39.

Figuring

From Hat 1114.00 on True $\frac{1}{16}$
line which runs West $0^{\circ} 2\frac{1}{2}'$
S we turned $2^{\circ} 50'$ more to
which makes us
West $2^{\circ} 52\frac{1}{2}'$ So

So I BSE $2^{\circ} 52\frac{1}{2}'$ N

on Hat 1114.00 and run

S $0^{\circ} 15' 45''$ E for True line

My line cuts my old transit
line so it is a cat hair OK. Run

North ($N 0^{\circ} 15' 45''$ W) 10.68 To

60th spike True $\frac{1}{16}$ Cor in Center
of North Half of Sec 33.

From $\frac{1}{16}$ Ch N on line line

60.00 ft to pt for I m

@ 65 N edge of Birch

@ 98 Water Edge

From Hat 1249.9 West on $\frac{1}{16}$ ch
N bet Lats 1-2- @

53. pt fr IM @ 57 N edge Bank
@ 93 water edge

N End Lat 1- via Shore = 80.4

Lat 2 = 80 ft

N Bet 2-3 @ 54.50 pt fr IM
@ 50 N Edge Bank @ 91 water

again from $\frac{1}{16}$ ch
North bet Lats 3-4

@ 56.8 pt fr IM @ 90 water
6-30 PM.

Nali N end Lat 3-

Cham 149.75 ??

Lv 6-50 as Jenkins 7-30.
spedam 2004.

52

May 12-1940 Sunday

Up @ 6-AM. Drive to Reed's
Trailer House - starts to sprinkle
rain - Wait till 7-

Call Reed - Mrs Ridley's
Buck sets here

8-15 Reed not arrived
Eat Breakfast with Ito
Frank and Martha

Drive back to Trailer to
Reed follows me home and
loads a little

Lv my car and take Reed's.
1 qt oil at Dargons 15¢
Spedom reads 20,013.

20013

20004

Reed must have
driven 9 miles for oil

8-40 Lv Jenkins - at
Lake add 9-10 Reed sets
up Buff. T

Rechain and find Hat chain
 today 0.40 short in 1114.11
 We also find \approx end of Lot 3
 .25 (3 inches short).

So

we Begin at 1114.00 w
 old hub and chain

West on line line down
 hill

1169.90

1114.00

55.9

Should be 55.9 but it is 55.8
 \approx 0.10 short

and to 1249.9

should be 135.9 But it is 135.78
 \approx 0.12 short

Make last 2 lots 79.2 and 79.2

79.2

2

1584

54

Correcting

Line Bet Lots we set East
Lots

1-2 OK. No change

2-3 We set East 0.10

3-4 We set E .10 + 3 = 0.40

4-5 " " " 40 + 1 = 50

5-6 " " " 50 + 1 = 60

6-7 " " " 60 + 1 = 70

7-8 " " " 70 + 1 = 80

9x LA chain 78.65

80
2) 158.65
79.30

Call Lab

8 and 9 = 79.3

Labs 8-9- Chain 158.8

Each will chain 79.4

But we record them
79.3

Reed and I drove ~~to~~ 5x9 2 miles
eat lunch at little store

P.M

T over Hub 460 W R.R. Spike
Ties

JP 9 N $14^{\circ}23'E$ 46.65 (spiral at
JP 14 N $55^{\circ}05'W$ 23.07 } base
NP 15 S $84^{\circ}35'E$ 37.25

$\frac{1}{16}$ Cor East 460 Feet

Turned from true E-W $\frac{1}{16}$ line
considered East and West just
for these ties

N Line Sec 33 considered E-W
to line run S $89^{\circ}57'30''W$

at 460 W BS N $89^{\circ}57'30''E$ Run
N $0^{\circ}15'45''W$ @ 70 set R.R. spike
on top $70 + 38 = 108$ IM.

$108 + 53 = 161$ water edge
Lake Ada

North But. Lats 7-8

@ 77.0 IM + 53 = 130 water

N End Lats 8-9 Undr Shore
 $161.60 \div 2 = 80.80$

56

North Bt 5-6 - @ 58- IM +
44 = 102 water

N End Lats 6-7 old
lake seawall = 201.10
= 100.55

North Bt 3-4 @ 57- IM
+ 33 = 90 feet water edge

N End Lats 4 and 5
200.34 = 100.17

⌈ Back over Hut 460

Q new Road line

S 35° E 54 ft

Road East 110

@ 160 E Road line

North 25 ft

@ 250 East Q Road 50' N

and Mark 15 ft N

@ 300 E Road 75 N

Turner Hut 460 West of $1/16$
Cor and on $1/16$ line R.R.

$S 0^{\circ} 15' 45'' E$ parallel to
West line of Lot 2

See 33-139-29.

@ 75 cross ^{curve} ~~curve~~ in road

@ 83.25 Hut R.R. spike
in line with crooked
road west

83.25 + 76.15 = 159.4 Hut
60 ft west of bog 159.40 +
40.6 = 200 pin 3 ft above
and 30 ft west of Bog

250 to 300 - in low
land 2 ft above and
30 ft west of bog

200 + 300 = 500 Hut
R.R. spike on H's land

6-40 PM

6-20 at 460 W pull
up spike and set in
this place a $2\frac{1}{4} \times 15$ "
pipe

6-20 Speedon 20034

Lo for northerly curve

58 May 12 - 1940 continued

6.50 PM Home Spedon
20048.

Notes

Siltman Family Tree

Herman Siltman 84 - Come from
Springfield Ill - Married Lillie Sales
His Family

- | | |
|--------------|-------------|
| ① Archie | ② Kerbie 50 |
| ③ Earnie 40 | 4 Ora 38 |
| 5 Preston 36 | |

2 girls living

6 Ella Shill 52 Pine River

7. Myra Godden 42-43 year old

Preston grading road near Westline
Resort to-day

Note : Archie Siltman worked for
Peet Stauley -- Pres of
Sunset Memorial Park Cem

3-40 to 3-50 Saunder and Mr Tammis
- on - wife with Johnnie
Helped Reel & Load in Trailer to

Saunders

May 13-1940

59

Reed Leamer his car at my Ho
use Le Jenkins in my car 8-9 AM

See "Duff" Harold L. Kimball

owns 80 acres - on Cross Lake

I will plat it for \$500. pt payments
on \$450. cash.

I am to write Duff about
Expense money

Fried Hubert H. Dreis Box 21

Fifty Lakes -- wants survey

He has a cabin fee - for us

I quote \$1.20 pr Hour for my Deputies

\$1.80 pr hour for myself

If both working one takes 40¢
pr hour

60

Saunders

Saunders

61

Lot 2 - Sec 33-139-29

Lake Ada Cass Co Minn

July 31-1940

H. Walker - Copy Co Records

Reference Book "J."

Page 614

WD #1 Dec 7-1938

Filed Dec 15 " (1)

Book 76 Deeds Page 348

Ack Dec 7-1938

Austin O. Somer Single

To Ann J Saunders

Com @ NW Cor Lot 2 then

So along West line 500 feet

then due East 310 feet then

Due North 500 ft to the North

line of said Gov Lot 2

Then due West to NW Cor

of said Gov Lot 2 - Sec 33-139-29

Before Lewis J Saunders

VPut Ramsey & Minn

62

Deeds ⁽²⁾ contd.

WD 81. July 22-1939 Filed July 26/39

Book 78.D. Pg 38. Ack July 22/39

Lewis J. Saunders and

Ann J " wife

(2)

TO

Joseph P. Tracy and B.A.

Geraghty as joint tenants
not as tenants in common

Commence at NW Cor Lot 2

then go on W Line 500 ft then
due East 80 feet then due North
plumb West Line 500 ft to Shore
of Lake Ada then West along
shore 80 ft to NW Cor of Lot 2

1/4 of Sec all in Lot 2 - Sec 33

139-29.

Also a roadway for
ingress and egress running
in a general easterly and
northerly direction across
Gov Lats 2 & 1 to the main trap
road Before James Tracy
& P Ramsey Co

Geraghty

Deeds -

3.

63

WD 81. June 1-39. Fld Dec 15/39

Book 78 Deeds Pg 127

Ack June 1-1939

Ann J. Saunders and Lewis
J Saunders Husband

To

Hubert A and Kathron. H
Garske as joint tenants

Con @ a pt 150 ft due East of
NW Cor Lat 2 - then South pt to
West line 500 ft then due East
150 ft then due north 500 ft to
the north line of said Lat 2 then
due West 150 ft to pt of beg

all in Gov Lat 2 Sec 33-139-29

together with an easement for
a roadway for ingress and
egress upon a roadway now
established across the
easterly portion of said Lat 2
and the southerly portion of
Lat 1. Said easement being subject
to an easement in favor of any
future owner of the land immedi-
ately West

64 it being the intention of
the grantor that one contin-
uous roadway be established
for all the occupants and
land owners having land in
Gov Lals 1 and 2.

Before Jas P Tracy vs Ramsey Co

(4)

WD 81. June 12-1940 Fld June 26/40
Book 790. P 179 Ask June 12/40
Austin O. Somer Single
To

Army Saunders

Lot 2 and SE $\frac{1}{4}$ of NE $\frac{1}{4}$ Sec 33
139-29 together with R & W
forever ingress and egress over
the following portions of other
land of quarter not herein
conveyed viz the road running
diagonally over and across
Lat 1 - Sec 33 - as same or
now located Except parts of
Lot 2 previously conveyed by
Deeds recorded in 78 of Deeds 127
and 780. 38 Befr Jas P Tracy

Saunders ⑤

Deed

65

WDB1. July 16-1940 Filed July 25/40
Book 78 D-216 Ack July 16 1940

Arin J Saunders and Lewis
J. Husband To

John C. and Margaret A
Devereux joint Tenants

Comm @ a pt 510 ft East of NW
Cor Lot 2, then South on line
pt with W Bdry 500 then E 100
N 500 to lake then West 100 to
pt of beg 33-139-29 Lot 2

Ref to road now platted out to
Ely & N over Lots 1- & 2- to

main trap road Before former Tracy

66

Saunders

Nov 29-1941 Sat

Evening: "Curley" Saunders
calls at Jenkins and I promise
to go to Lake Ada to-morrow and run
the 50 line 500 ft. 20 of 14 1/4 line

Nov 30-1941 Sunday

Pick up Bud Bryant at Lizzie
McLearner at Pine River

Lv @ 10 AM - Drive to Lake Ada
Cut line to See Page 57

Sept 6-43 Deed ^① Vernon

Copy Abstract

69

W.O. Oct 6-1942

T.R. Ethridge and Francis
Marie Ethridge his wife
also in her own right
Parties of First part
and

W.F. Henselin and May Ann
Henselin with right of
survivorship of Pine River
Minn. Husband and wife
and survivor of them in his
or her own right parties of
second part

One dollar and other valuable
consideration x x

in Cass County Minn

The North 377.9 Feet
of South 1512.6 ft

of Lot 3 Sec 28-139-29

Description furnished by
grantor

Irene Higgins H.P.

Uilas Co Wisc

2115.30 US Ch

2102.70 CURD 1920

1512.60

377.90

1890.50

Bk 44-Pg 8

156

70

p. 16 1943 Labor Day Mon

Note Page 87 Book 144
gives just what we want
for MC #8 and
S $\frac{1}{16}$ Cor

Carpenter and Cooley Survey
See Page 87 Bk 156

1200.00

-55.25

250.00

600.00

 2105.25

channeled to day

ends may be out

850.00

791.3

58.7

58.74

414

from

850.00

850.00

58.7

 791.3

2115.3008

12.6

2102.7 Cunch

1.1

N 600 ft to Weber

1921

N 600

1913

1/10

137.4

T. A. W. Mountain

N 600 of S 1137.4

600

72

Abstract Lot 3-28-139-29

1st Transfer Nov 16-1921

No 4 Frank R. Anderson & wife

To Chas E. Wheeler

North 600 ft

#5 FR Anderson & wife To

Acad Moulder North 139-29

600 ft & 1137.4 ft Lot 3-28

Sept 26-1925

#6 Frank R Anderson & wife

To Melgrath Clothing Co Inc

South 537.4 ft Lot 3-28-139-29

Nov 19-1925

#7 FR Anderson & wife To

- Lily Westfall

All that part Lot 3-28-139-29

Except North 600 ft and

1137.4 ft

Dec 28-1928

Monday Sept 6 I guess 1943

Laborday Pick up Nort Newlan 12

Nort has due him a total of 14.00

He needs shoes for school

tomorrow. I give him Ch Regu 1st 85

Bal due Nort \$9.00 we slip at

Pine River Nort buys shoes &

Drive on to Lake Ada to survey

Sarah E Carpenter track & more for

Bill Vernon

Find IM. we and Vernon dug up

Friday (Sat & Sunday we worked

for Lippke - 13h 263)

27-28-33-34-139-29 Temp Co Cl

North on & graded road 3-6-9-12

1200 spike out on line

	9 00
Nort works 8 hours @ 30	2.70

Bal due Nort	11.70
--------------	-------

OK Sept 11

Sept 11 th 43 Nat works 6	1.80
--------------------------------------	------

	13.50
--	-------

74

check n^o 35

Copy: Backus Minn Sept 7-1943

Pay to John W. Curo \$37⁷⁰

Signed W.F. Henselin

Henselin pay me also \$2¹⁵ cash
to draw deed to what he has left
Deed to be:

From W.F. Henselin and Mary
Ann Henselin Husband and wife
With right to Survivorship
To ?

Donald O. Wright and Herbert Hoppe?

Henselin gives me \$2¹⁵ cash
to draw deed later

Hands me his abstract
which I am to copy and
study so as to make him safe
in deeding All but the
250 feet on the North side
of his tract

Note: His deed will be
short on the balance

Sept 7-1943

John W Curo

Wright and Happe land
joins Bill Hanselin on the so
and Vernon Florence bought
the
land on the north of Bill and
admits he cut Bills fence

Ethridge sold Hanselin the

76

MC N^o 8 Anderson Survey 1920
Book 156 Page 6-7.

also

Dwight E Cooley Survey in 1935
Book 144 Page 82

" " " 83 Ties

1/16 " " 83

88-08-18
31-19
37
85-39
71-20-23

sent 7-1943
Bill Henderson and I
dig up this 2" pipe on lake
bank & set in the
concrete survey
ties today
Twin Birches 7-3-9"
at base - 5' about 10' W
7.75' to bank
10' W N.W. 1.60
Bill covers the 2" pipe
so Vernon can't see it
Jack & Co
Sept 7, 1943
400

This 2x48 capped
Galy pipe may have
been moved

Sarah E
Carpenter

B Sarah E
Corpenter

Bill Reserve
this is 250
plus his
new purchases.

We dig up these 2" Pipe I set in the carpenter survey but all 3 seem to be 1. ft. no. of the r.c. No. 8
Today Sept 6-1943
John W. Cress.

7,20
600. S

we know that this 3" pipe was set exactly 600 ft + 50 of the USMC. N = 8 when I made the Carpenter survey 50 I use all 31, 400-500 and 600 as being TRUE starting point for today's survey

Jahm W. Cress
Sept 7-1943

Tip 12" Roak N
23°47'W 40.35
10" Roak S 1200 pin
54°48'W 35.80 T. Nail
in spatula base

$$1200H + 55.25$$

1255125 N of

when sector is today

12
Kissed today Sept 6-1963
May have been
washed

Sept 6-1943

To find 2" pipe at SE cor of Carpenter Tract I surveyed in A.D. 19__

We chain From MCN = 8

South 600 ft Then West 33 ft

We dig but no find

We find it about 1 ft 20

Same way with NE Cor Carpenter Tract At 400 S, and 33. west we find the 2" pipe about a foot 20

We also find the 500 ft pipe in middle of Carpenter Tract about 1 ft 20

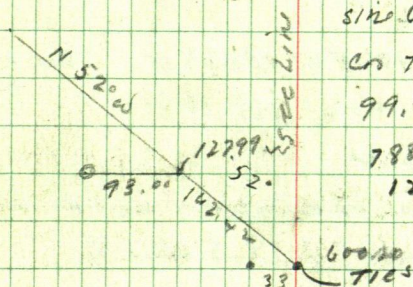
We know these 2" pipe is correct from where the MCN = 8 stood when we surveyed the Carpenter Tract 19__

and will use them li-day as our base OK

Jahmed C. Cus
Sept 6-1943

Note; Mrs Carpenter drove all 6.
irons down after I surveyed her
Two - 100 ft tracts - but we dig
them all up. September 6-7-1943

520



$$\sin 615661 \times 162.42$$

$$\cos 788011 \times 162.42 =$$

$$99.99565 \text{ N} = 100 \text{ N}$$

$$788011 \times 162.42 =$$

$$127.99 \text{ W}$$

$$\begin{array}{r} 2105.3 \text{ Today} \\ 2102.7 \text{ actual} \\ \hline 2.6 \end{array}$$

"

$$\begin{array}{r} 600.00 \\ 250.00 \\ \hline 850.00 \\ 55.25 \\ \hline 905.25 \\ 1200.00 \\ \hline 2105.25 \end{array}$$

To See on Today

corn may have been
disturbed

Jack Carr

sept 7-1943

$$N 377.9 \text{ of } 80$$

80

Sept 7-1943

To look for Zn on Lake Shore at NW Cor
Carpenter Tract From pt on sec line
600.20 of orig pt of MC 48'

I run

N52°W 176.52

Sine 615661 x 176.52 = 108.68 N Then N 12°

Cor 788011 x 176.52 = 139.10 W

91.49

I want 91.32 N

I lay this in heavy wind and do not
hit Zn But are find it close by

108.68
91.32
200.00

81

D Westene July 8th - 1944

Ellen M. Westin

P.O. Backus - Minn

About a week ago Mrs Westene
left a note for me at

to come make her survey

July 8th 1944 Sat

Harald and I L. Walker 10 AM

Drive to Backus and East

Find Mrs Westin with gravel
truck filling her pond, married "Fireman"
Wemeel also Harry Chapman
who owns 80 acres in "Bass Lake"

in Sec 34-139-29 NW Cor of the "80"

is the N 1/4 Bet 33-34-139-29

Mrs Westin - now divorced

owns 3 1/2 acres on Bass Lake and
in order to find it we will have to
run the whole mile E to be sure
of the N 1/4 Line of 34-139-29

I tell Mrs Westin I will do the
Eng'g work for \$35. She to furnish
the help. She say OK?

② Tam 12 N 75° W 95.65

82

North 1/4 Bet 33-34-139-29
My old notes Page 25 this book

Call for Spike 60° Ties viz
RR Spike in heart of Solid 10" Tam

Stamp S 37° 07' W 59.55 feet

6" Jack Pine S 45° 43' E 177.60

Harald Cutlin S E and
finds the 6" Jack Pine

Jump water filled ditch to the
RR spike in heart of 10" Tam
stamp Chain from bath BTS
to a pin point and dig up the 60°
spike with stub of my old back shot
3" west

We take up the 60° spike and
put in its place a 2x14" pipe
set 4 inches down

TRUCK N 1/4 COR Take New Ties
12" Tam line N 75° W 95.65 good
plain spurs all turned from
truck N-S line

John W. Curo

69-3-19
69-4-16
69-5-10

83

July 7-1944 continued

Mrs Westin rides N & SW with us to
SW Cor of her 460 ft

Ties P936-42-55-

On Page 55 this book we find all
3 BTS- grown over 2 inches

We brighten them up and find
ald 2" pipe true 460 ft 1 m ch

North @ 70 ft RR spike old on ridge

@ 108.05 find my ald 2" pipe

@ 125 foot of sea wall Low
wall So Shore Lake Area

We take new ties to 108.05

True west Line of Westin 460 ft

NP 14 S $27^{\circ}05'W$ 33.35

NP 10 S $48^{\circ}27'E$ 16.35

T. spot at base another spot

3 ft up

True West Line of Westin

460 ft Tract

2 PM Harald and I drive E-S
& West $2\frac{1}{2}$ miles to Alois - buy milk 119
Buns 15¢. Eat on their table.

I give them 50¢

Mrs

PM. Harold & I ch go

See Pg 57, A 159.4 Find my old
RR spike on my old TRUE LINE
14 inches East from Westlin's
vine fence @ 500 find My old 2" pipe
at SE Cor of Saunders Plat

Ties

6" Red Oak N About 30° W 16.6

9" " S " 5" W 11.50

We take a 3rd Tie

5" ~~Red Oak~~ ^S About 75° E 18.6.

SE Cor Post of Westlin's fence sets
on (1.) foot SE of I.M.

Note Fence runs N also West
from this 500 ft I.M.

Heavy Brush - We do not follow fence
West but then a 20 fence is a foot
too far west at a pt 169.4 So from
the 460 foot I.M.

Omaha & G.N. RR

Meet Mr Robert Sweeney 139-4th AV
N So St Paul Mechanical Engineer
who does all the topographical work
for his partner owns Lot 7?

85

211.4 Fur p-v
248.6
460.0

Charles Murray CE of M Paul on to
St Paul Sweeney's partner owns
Lot 7? of Saunders plat

A Mr Steve

Married Mrs Westin's mother

I met her

X over IOW at 460 W

Focus N $89^{\circ}57\frac{1}{2}'E$ RunN $0^{\circ}15'45''W$ N $0^{\circ}16'W$ RunN $89^{\circ}57\frac{1}{2}'E$ @ 211.4 Top of line post +248.6 = 460 - BR pipe $\frac{1}{16}$ inch S.O. 30 of

a foot dig up BR pipe

TRUE $\frac{1}{16}$ in cen of NE $\frac{1}{4}$ Look N True line N $0^{\circ}14'07''W$ P 35Our line cuts $\frac{1}{2}$ ft East of SE Cor

Westin's res Ties to

 $\frac{1}{16}$ in cen NE $\frac{1}{4}$ Acc 3:3-139-29Red Oak 6 N $19^{\circ}E$ 78.706" W Birch N $20^{\circ}18'E$ 72.70Red Oak 7 N $75^{\circ}04'E$ 66.87Power Pole 10 inch S $62^{\circ}40'E$ 49.75SE Cor H N $0^{\circ}40'W$ 208.6 $\frac{1}{16}$ Line Called E-WS $2\frac{1}{2} \times 16$ " PIPE flush

July 8-1944

35 70
5
350

8 75
0 0 86

6-30 PM

10 AM To 6.30 PM 8 Hours 30 minutes

70 miles @ 60 = \$4.20

15.00

Hotel 7.50

Car 4.20

Hotel 2.00

\$ 28.70

April 19-1947.

Harald and I Harald's Car
Working for W. F. Henselin and

Ev. Walker 10-30 AM at Old Point
Comfort. Bill is gone

Harald + I drive 80 rods So to Cor
27-28-33-34-139-29

Bill returns and digs up iron pipe
he drove 2 ft down

This iron has been driven 8 ft
down since I first set it 25
years ago. We fill up the 2 ft
deep hole and reset pt for 3m.
Set 2x24" border tube

NEW Tie's Pg 24

Look N on true line

Power Pole 10" N 5324 E

8854
104
8748

(89)

27-28-33-34

8960
106
1856

East @ 33. Spike - 300

East 33 spike 300-600 900+ fish
-137. = 763. Hub

all Hubs = 60' spike

1050 ent wet bog 1205 L V N S

300 = 1350 Pin + 17 = 1367. Hub in

and road 1350 + 221.7 =

1571.7 Hub + 77 = 1648.7 foot Hill

1571.7 + Turn 1'06' L Run N 88°54'E

1871.7 - 140 = 1731.7 enter in

SW and NE 1871.7 peg on ice + 300

2171.7 + 300 = 2471.7 + 300 = 2771.7

+ 300 = 3071.7 on w 350 = 3371.7 +

300 = 3671.7 + 200 = 3871.7 turn

+ 254.3 = #26 4126.0 IM

pipe 60 ft east of well

Thence up Hill 4126.0 + 79.3 =

4205.3 Hub on Lip

Tier J P 7 N 19°53'W 45.15

14 P 6 S 4°25'W 51.8

Crooked 15" NP N 82°32'E 38.5°

spit it here Turned from L into W

X over 4205.3 Turn

1'06' L and run N 87°48'E

300 foot of hill. Enter low L and

N 87° 48' E Cont'd

3-6-9 + 143.4 = 1043.4 Im

26-27-34-35-139-29

Then

Ask 6 N 67° 53' E 51.5 New

WP 15 N 66° 45' W 52.2 old spot

12' W Birch S 15° 49' W 15.19 old spot

Pop 6 S 41° 30' E 25.31 New

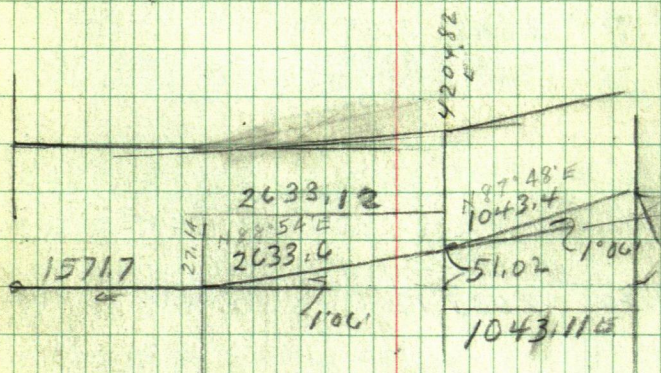
Qed 15' Apr Sluings N 66° 22' E

29.40 old spot - 22 1/2 to 20 1/2

Var 8° 30' E 12. noon Creek

Walk back via a shore

But parks me over mile



4205.3	Sin	019197 X	2633.6	51.02
1571.7	C	999816 X	2633.6	
2633.6				2633.12

019197 X 1043.4 = 20.03 "

999816 X 1043.4 = 1043.11 E

91

139-29

(27)

1350⁰⁰
1311 86
1311 4

38 14

5248.22

0°59'12"

5247.45

(34)

1571.70

2633.12

1042.63

524 5

5248) 71.05.00

5248

1857

1571.7
50.4

1571.70

2633.6
88°54' 1.06

2633.12

1043.4

87.484

50.56

1042.63

1.06

40.05

50.56

90.61

1571.70

2633.12

1042.63

4) 5247.45 = 13118625

$$N 88^{\circ} 54' E \ 2633.6 = 1^{\circ} 06'$$

$$\text{Sine } 0.19197 \times 2633.6 = 50.56 \text{ N}$$

$$\text{Cos } 999816 \times 2633.6 = 2633.12 \text{ E}$$

$$N 87^{\circ} 48' E \ 1043.4 = 2^{\circ} 12'$$

$$\text{Sine } 0.38388 \times 1043.4 = 40.05 \text{ N}$$

$$\text{Cos } 999263 \times 1043.4 = 1042.63 \text{ E}$$

East

North

1571.70

50.56

2633.12

40.05

1042.63

90.61 N

5247.45

$$5247.45) 90.61 (= 1726.7434 = 0^{\circ} 59' \frac{1}{2}')$$

$$4) 5247.45 (1311.8625 \times 2 = 2623.725$$

$$3935.5875 - 5247.45$$

$$\text{Tan } 0^{\circ} 59' = 0.17164$$

$$1^{\circ} 00' = 0.17455$$

$$1311.8625 \} + 119.25$$

$$26237.250 \}$$

$$1^{\circ} \text{ Tan } 0.17455$$

$$3935.5875 \} \text{ Via Random}$$

$$5247.45 \}$$

93

April 21-1947

Figuring

Correction = 017267434N

763 E goes N 13.18 Tier

1311.86 E goes N 22.65 T.W. 1/16

Tier

" goes N 23.60

1367 goes west 55.14 to 1311.86 E

1571.7 E goes N 27.14

Tier

"

Hub MKd 4205.3 E = 60 spike on top is
over lake is

1571.70

262312

4194.82

1° 06'

Sine 019197

Cos 999816

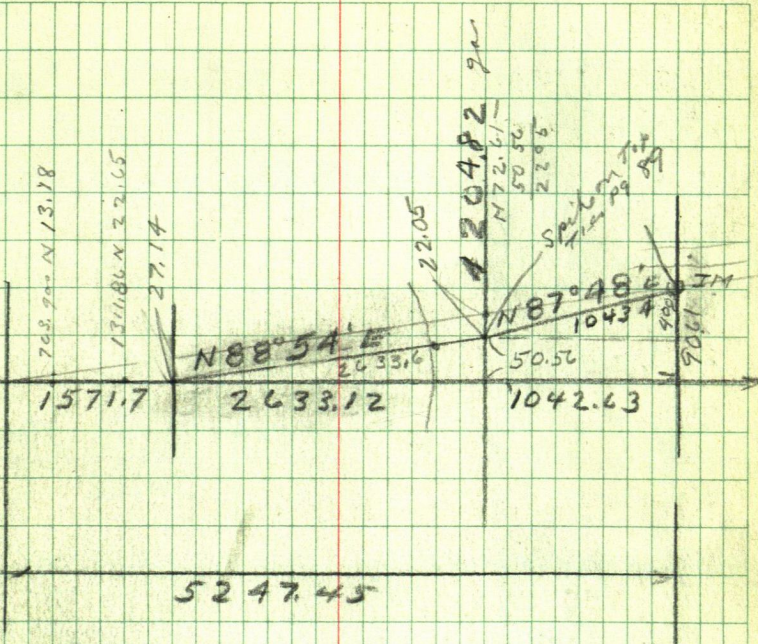
Tang 019201

2° 12'

Sin 038388

Cos 999263

Tang 038416



1571.70
 2633.12
 1042.63

 5247.45

See Bk 222 pg 9 Mike Whitaker

95

April 22-1947

Apr 22-1947 Figuring 139-29

96

See Old Notes

Book 213-222-202

1311.86

741

1319.27

5248.22

1312.05

1311.86

1311.86

1311.86

1311.86

1322.22

Ma
No. 100
No. 100

1323.03

WF
Hanselin

1323.84

1324.65

1325.43

1319.27

1300.23

1300.23

1319.27

5239.00

BK 202
Pg 24

1322.22

1323.03

NO 19' W

1323.84

1324.65

1325.43

1326.68

1326.68

34

1288.60

1288.60

1322.22

50° 19' E

OK Figured

April 22-1947

Harold + JWC

1334.09

1334.09

1322.22

1341.51

1341.51

MC 15 = 1/4

2683.03

POT 371.4 N Pg 19

TIES JP 15554 W 57.4 + .50 = 57.90

OOK 65 29° 2' W 131.6 + .50 = 132.10

Pg 19 This Book 247

3

138-29

97

D

Woodrow

SE $\frac{1}{4}$ - SE $\frac{1}{4}$ - Sec 2 - 140-29

Letter May 27-1954

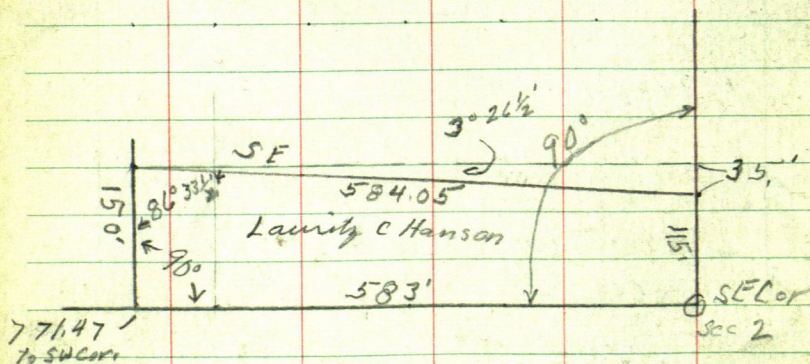
First Trust Co. of St Paul

Walter W. Ahl - Real Estate Officer.

Confirming our telephone conversation of the other day. We would like a survey of the following property situated in Cass County Minnesota

SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 2-140-29 except that part described as follows

Beginning at the SE corner of said Sec. 2: thence West 583. ft. thence North at a 90° angle 150 ft. thence SE to a point on the E line of said Sec 2 thence S 115 ft to place of beginning



771.47'
to SW corner

150

115

$$35 \div 583 = .0600343 = 3^\circ 26'$$

$$\text{Sine } 059887 \times 584.05 = 34.98$$

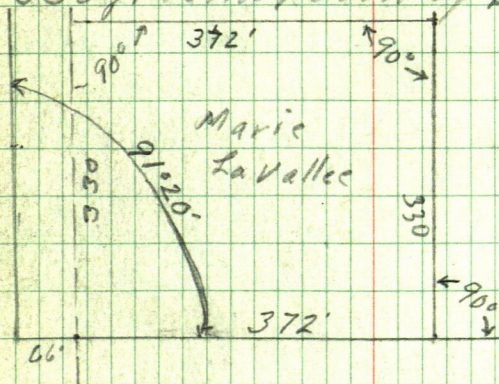
$$\text{Cosine } 998205 \text{ into } 583 = 584.05$$

$$\text{Tang. } 059995 \times 583 =$$

Letter Continued

and except that part of said SE $\frac{1}{4}$ of SE $\frac{1}{4}$ described as:

Beginning at a point 66' East of the iron monument located at the SW cor of SE $\frac{1}{4}$ of SE $\frac{1}{4}$ of said Sec 2, thence East 372 ft, thence North at a 90° angle 330 ft, thence West at a 90° angle 372 ft, thence South at a 90° angle and parallel to the County road a distance of 330 ft to the point of beginning



Letter Continued

It seems to the writer as if there maybe some buildings on this particular piece and if there are We would like them staked out on the blue print. We have a blue print which takes in more than the property on which we are requesting a survey and we are inclosing it in case you can use it

very truly yours

W W Ahl Real Estate Office

99

Letter Continued

W W A: cec

Enc.

T-3929

P.S. Mr. Sayre is going to be up at this property over the coming weekend. He is going to pay for half of the survey and we the other half, so if you are working on the survey when he is there it is perfectly all right to give him information as to where the stakes are and where the buildings are located

Nov 13, 1954

Ed & I to Langville to meet a
Mr. J. J. Stener from Winsted
he wants a mile of line ran in
Sec. 14-141-28 Gov't Lot 10

I tell him it will cost \$150.00 he said
he could get it done for 50. he gives
me \$5.00 for me trip

Ed & I drive to Sec. 2-140-29
find the IMs at SE & SW corners
of SE $\frac{1}{4}$ of SE $\frac{1}{4}$ also a $1\frac{1}{2}$ copped
I.M. which was set for. point 583'
W of SE cor Sec. 2.

Some time ago the owner of that
part of Sec 2 told Ed & I this $1\frac{1}{2}$ "
IM was set by J. W. Curo which I
did not believe. as J W Curo did not
use that kind of an iron.

Today Nov 13-1954

We set the T over this IM site E
on flag held at SE cor Sec 2 and
run West cutting line & setting hubs
(60# spikes) we hit out 2.2 ft N of IM
E $\frac{1}{4}$ cor bet Sec 2-11-

from our last hub, chain W 205.00 ft to
spike 2.20 ft N of IM.

101

old field Book 66 show the
distance between E 1/4 + SE corner

1354.47

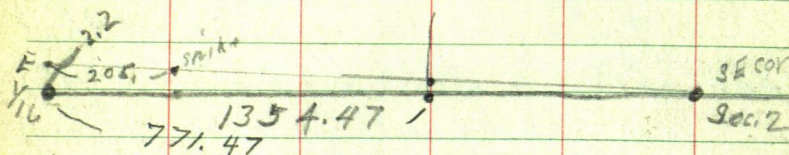
- 205 dist E of E 1/4 - spike

1149.47 = distance from SE cor to hub
corrections

$$2.2 \div 1354.47 = .0016242375$$

hub 1149.47 W goes S $2.19999 = 2.2$ to
true line bet E 1/4 + SE cor

Sec 2



135447

583

 77147

Sec 11

771 47

438
 333.47

372
 46
 438
 205
 233

372
 46
 438
 205
 233

Copy of SE 1/4 SE 1/4 Sec 2-140-29
 taken from Platon file

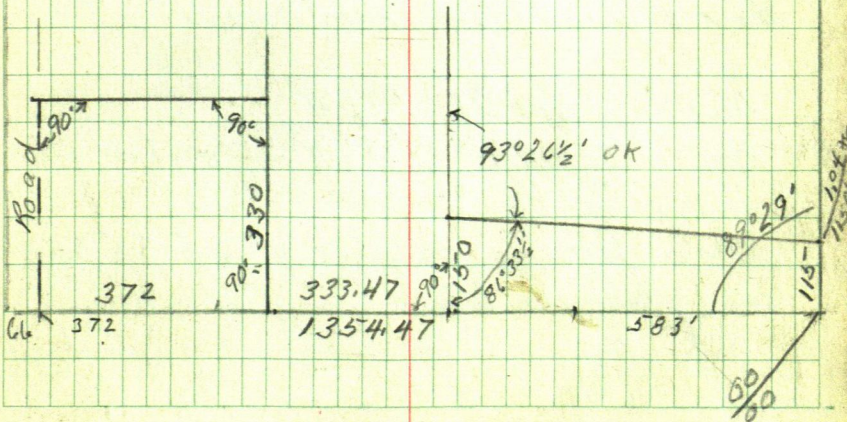
1173.06
 1301.06

1360.13 N 89° 24' W

SE - SE - Sec 2-140-29

1315.11 N
 50° 46' E

1301.10 N 0° 31' W



Nov 15-1954

Gerit John - Don & I to Park
Rapids get Lic. plates for car.
see Martin Hogan who wants
the shore line of Battle Lake
chained out as soon as possible
Back to Walker

I go to Office work on Plot
of Sunny Acres - Lot 2 Sec 23
140-29

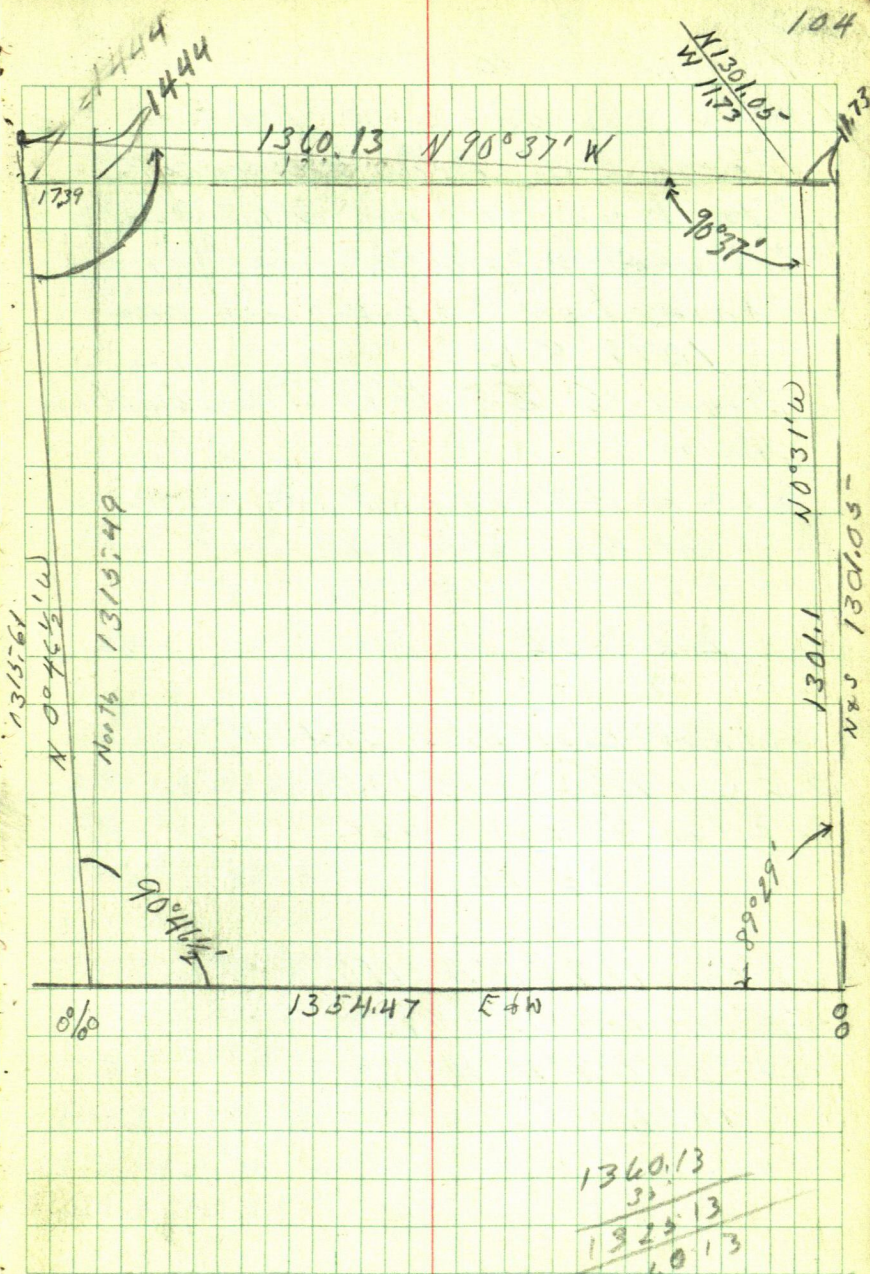
Sun. Nov 21st 1954

Ed & I drive to Sec. 2-140-29
From E $\frac{1}{4}$ cor S mid Sec. 2.
chain rough along road 1315
and look for $\frac{1}{16}$ cor center SE $\frac{1}{4}$
do not find the iron corner.

Monday Nov 22 1954

boy in school I work on plot of
Sunny Acres

then figure angles of SE SE Sec 2
see plat page 102



1360.13
 $\underline{33}$
 1327.13
 $\underline{60.13}$

10.5

Dec 1st

Wed Nov 30-54

Ed & I to Sec 2 - Woman's Lot

Tower I M E $\frac{1}{16}$ S side line 2

Site, East true line @ 66 feet

60.° split hub Rd/W

Tower hub 205' E of IM run

N 10° 19' W 85'

Tower 85' B S S 10° 19' E to buildings

House Log.

NW Cor N 31° 22' E 43.6

SW Cor N 63° E 32.1

SE Cor N 74° 06' E 63.

22 X 32

Garage

SW Cor N 51° 23' W 39.4

SE Cor N 30° 50' W 33.

NE Cor N 25° W 52.7

13.5 X 20

Old Log Shed

SE Cor N 21° 17' E 116.

SW Cor N 16° 33' E 107

NW Cor N 11° 14' E 113.

10 X 12

Tower SE cor of 372 ft tract Turn
 90° run North 330'
 @ 242.5' offset W 90 ft
 Tower 90 Turn 90° & continue line E 87.5'
 Tower 87.5 run E 90 to NE Cor of tract
 run W to road

Total at 87.5 - (90') W of NE Cor
 of SW cor tract run N 51° 42' W
 96.8 to pt. Tower 96.8 run
 N 51° 03' E 219.8 lot lake

Tower pt on dock edge of lake
 run N 7° 15' E 85'

- | | |
|-----------------|-----------------|
| 180 N 13° 30' E | 240 S 32° 15' E |
| 290 N 22° 10' E | 35 S 25° 15' E |
| 380 N 27° 30' E | |
| 470 N 38° 45' E | |
| 550 N 49° 15' E | |
| 640 N 66° 20' E | |
| 760 N 81° 45' E | |
| 920 S 84° E | |
| 880 S 63° 40' E | |
| 830 S 56° E | |
| 620 S 46° 30' E | |
| 470 S 45° 30' E | |

As we did not get the buildings
they wanted Don + I drove to
Sec 2 -

Tower E $\frac{1}{4}$ on S. side of Sec 2
Site E on true line set back in
road 35 ft E of I.M. $\frac{1}{4}$ cor

Tower back 35 ft E site E on true line
run N. $1^{\circ}45'W$ 900 ft back

Tower back 900. into S $1^{\circ}45'E$ +
run N $55^{\circ}59'E$ along post road
170 ft. Tower 170 run N $61^{\circ}14'E$
181.2 to back in yard

Tower 181.2 take bearings
of buildings viz:

Garage 19X16

NE cor N $67^{\circ}W$ 72.4

SE cor. N $73^{\circ}40'W$ 60 - 1.8

SW cor N $77^{\circ}10'W$ 71.2

Shed. 14X18

NW cor N $25^{\circ}11'E$ 30 - .80

SW Cor N $46^{\circ}42'E$ 50 - 5.1

SE Gr N $47^{\circ}18'E$ 59

Shed 12X16

SW cor N $47^{\circ}47'E$ 71.

SE Cor N $48^{\circ}08'E$ 90 - 3.2

Toilet

NW Cor. N 52° 35' E 105.3

SW Cor. N 54° 35' E 105.4

Wash house 12 x 14

NE Cor. N 66° 30' E 61.4

NW Cor. N 71° 15' E 47.9

SW Cor. N 82° 56' E 53.7

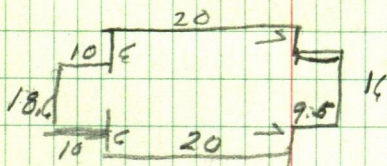
House

NE Cor. N 87° 04' E 60.3

NW " S 89° 16' E 47.3

NW " S 67° 20' E 52.7

SW " S 60° 11' E 71.7



$$\begin{array}{r}
 89060 \\
 37 \\
 \hline
 23
 \end{array}$$

111

Dec 13.

Know @ Echo Hill

Mr Felthouse who owns Govt
lots land 2 Sec. 24-139-30

wants Lot 2 platted I tell him
400 and help he says go ahead

Dec. 13. th 1954 I to Walker
in my Buick drive to Felthouse
resi. on Portage lake

Mr. Felthouse can not get help
so I go back to Walker

P.M. Felthouse call he
has two men for to-morrow

I work at Office write
description for Nat. Neusteter
Gate City Optical Co. Kansas City
Missouri

Dec. 14-1954

drive to Felthouse

To over 1/4 bet Sec. 23-24 start
a line S @ 6° @ 65 ent. sup @
120 L.V. @ 254.65 hub 60° up
@ 550 stch + 110 - .4 = 659.6 hub
660 pin + 300 = 960 pin + 50 =
1010 pin N edge creek + 70 = 1080 pin
over creek @ 1065 L.V. rise of creek
+ 18.5 hub on top = 1265
hub N of road

1080
185-
1265

Echo Hill

112

Crew

Glen Waldron

9F2

Arthur Rueck Rueck

Dec. 15th 1954

drive to Felthous Glen and Art
are out cutting line I drive
to about 3^{1/4} bet 23-24-139-30

where I find boys cutting line

Tower rub. give boys two flag

poles on line drive to Ray Johnson

give Ray his blue prints of

Swampy Acres get my \$300

Cash drive to Felthous eat

dinner Glen is at Felthous

P.M.

Glen + I to W line Sec. 24

I leave Glen to cut line Art

starts cut wood this P.M. I

drive to Backus Pay Bank 66⁰⁰

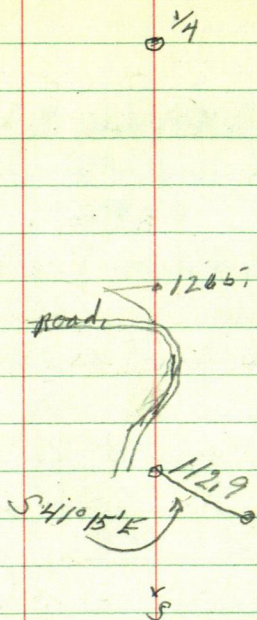
on note in full + 640 in treas

drive to SW cor Sec. 24-139-30

leave car go back with Glen

and bring up my random

Acres line



From hub 1265-S-chain S @ 1365^{mi}

@ 1375^{mi} road in curve

1365

+ 250

1618.3 hub

1615^{mi}

240

@ 1877.3 hub

1875^{mi}

130

2005^{mi}

1875

150

2025^{mi}

+ 80

2105 enters river around Lake

2125^{mi} + 300 = 2425

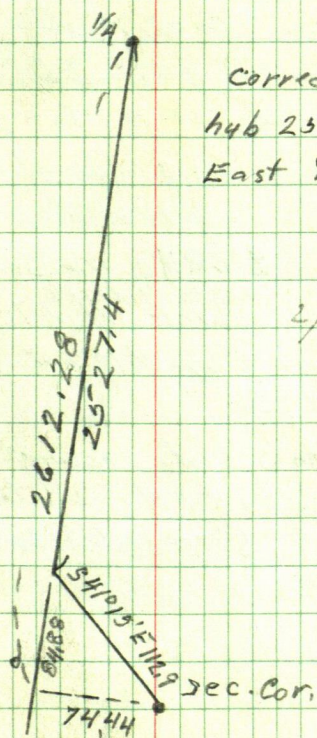
$2426.7 + 102.4 = 2529.1$ hub
 corner sets $S 41^{\circ}15' E$ 112.9 ft

$41^{\circ}15' - 112.9$

$\text{Sine } 659346 \times 112.9 = 74.44 \text{ E}$

$\text{Cosine } 751840 \times 112.9 = 84.88 \text{ S}$

$2612.28 \div 74.44 = 0.28496179 = 1^{\circ}38'$



corrections
 hub 254.6-5 goes
 East 7.26'

$2 \overline{) 2612.28}$
 1306.14

sec. Cor.

115

470.5
407.9
<hr/> 878.4

Friday Dec. 17 1964

Drive to Sec 24-

correct hub 254.65 Tower

corrected hub site N on V4
and run Northbeg at hub under π chain South

@ 281.7 hub on top @ 290 pin +

 $180.5 = 470.5$ $\frac{1}{4}$ cor to hub under π
from 470.5 chain North

@ 250 bank of creek in curve,

@ 300 pin 30' $\frac{1}{4}$ cor @ 410 - 211 = 407.9

hub on seawall - 15 ft wide + 100 ft

over swampy bog to waters edge Portage

Lake Tower 878.4 site South and

70' E of mouth of creek
run along sea wall N 71° 58' E

@ 100 spike @ Sup N 18° water N. 100

SWP 15' in 203

@ 200 spike on S side seawall 5 ft N of

Nedge sup - sup 15' N - water 100 N

Tower 200 BS S 71° 58' W and run

N 59° 18' E 100 hub

US Notes

$\frac{1}{4}$ bet Sec. 24-25-139-30
 = L to V at 1

B.P. 4 S $63\frac{1}{2}^{\circ}$ E 88 = 58.08

B.P. 10 S 11 W 84 55.44

SE cor, Sec 24-139-30

B.P. 6 N 35° E 96-

B.P. 6 N 57° W 15-

B.P. 7 S $38\frac{1}{2}^{\circ}$ W 26-

B.P. 5 S 12° E 28

Dec 19-54 beg at $\frac{1}{4}$ N side

Sec. 24 run S. do not chain
 @ 6° Var

Dec 20 - continue S on
 N+S center line Sec. 24

Dec 29-54 continue N+S

Q south in Sec. 24 do not chain

Dec 30 - 1954

Cold - drive to Felthouse Co
Chain N + S & see 24-139-30

From spike on top in road chain

North 491.4 to IM $\frac{1}{4}$ Cor N. side sec 24

from 491.4 chain south

+ 812^{=1303.4} hub. + 300 + 290. - 1.20^{=1892.2} hub* 290 + 268⁼²¹⁶⁰ down Glen's road

290 + 300 pin + 300 pin = 2493.4 pin

491.4 N

812.5

1303.4

590

1893.4

- 1.2

1892.2

1893.4

268

2161

1893.4

200

2493.4

2493.4 + 100

Road to W 40 \pm st W

of where road runs N.

2493.4 + 130.5 = 2623.9 hub

+ 300 pin + 92.5 = hub

300 + 300 + 300 pin + 4 = hub

300 + 300 + 32 cross old fence down

E + W 300 + 300 pin + 20.5 hub

300 + 300 over draw + 100 pin +

Felt house

$$80 - 1.6 \text{ hub} - 80 + 20 = 100 + 300$$

$$\text{@ } 90 \text{ enter sup @ } 120 \text{ Lr } \rightarrow 300 \text{ pin}$$

$$+ 100 - \text{pin on top} + 143.9$$

$$27934$$

$$600$$

$$33934$$

$$3693.4$$

$$8$$

$$44934$$

$$47934$$

$$2937$$

$$5037.3$$

checking fig. in Office

from hub on top chain N 491.4 to IM 1/4
on N & S of sec 24-139-30

from hub on top 491.4 S of 1/4 Cor N side
Sec. 24 chain S on round corner N & S of

$$491.4 + 812. = 1303.4 \text{ hub. west of tar. +}$$

$$588.8 = 1892.2 \text{ hub on mound W of road}$$

$$\text{@ } 1893.4 \text{ pin} + 268 \pm = 2161 \text{ of Steen's road}$$

$$1893.4 + 600 = 2493.4 \text{ pin @ } 2590 \text{ of}$$

tar road in corner about 40 ft W of where
road runs N.

$$2493.4 + 130.5 = 2623.9 \text{ hub on shoulder}$$

$$\text{of road in bend S of tar. + } 392.5 =$$

$$3016.4 \text{ hub. + } 604 = 3620.4 \text{ hub}$$

$$+ 332 = 3952.4 \text{ cross old}$$

two wire fence E & W which is
down, $+ 320.5 = 4272.9 \text{ hub}$

$$+ 400 = 4672.9 \text{ pin} + 78.4 =$$

$$4751.3 \text{ hub @ } 5072.9 \text{ pin}$$

@ 4862 enter marsh E & W

@ 49929 LV "

$$@ 5072.9 \text{ pin} + 100 = 5172.9 \text{ pin}$$

$$+ 143.9 = 5316.8 \text{ hub}$$

should

beg at Hub in S shoulder of road
in bend being 2623.4 S of $\frac{1}{4}$
N side Sec 24 and check chain
our line south as old notes
say the true $\frac{1}{4}$ S side Sec 24
sets S 5278' ft from $\frac{1}{4}$ on N side 24

26239
 2600
 52239
 563
 51676

56.3

120

2600 - 56.3 =
 51476

Tower hub. 51476 site North
 on random $\frac{1}{4}$ cor S. side Sec 24
 bears S $41^{\circ}10'E$ 133.1 = 2" IM. no exp
 Tower IM $\frac{1}{4}$ S. side Sec. 24-139-30
 BS N $41^{\circ}10'W$ on hub Son Random
 take ties

White Birch 8 N $55^{\circ}W$ 4986
 WPine, 16 N $25^{\circ}46'E$ 85.05
 Red Oak 6 S $50^{\circ}12'E$ 68.1

We then go to the $\frac{1}{4}$ bet Sec
 23-24. Where Glen holds flag
 on spike Art holds flag on hub
 2623.9 S on N45 & random line
 I work T on line between the
 two flags Glen sets 16 d.
 nails in tar road one near
 edge of chaining the other somewhere
 between the $\frac{1}{4}$ cor and where the
 $\frac{1}{4}$ cor will come along the E & W
 & Sec 24

Friday 10 Walter early
 get letter from
 Patterson Construction Co
 He will get some one else to
 survey his lots at Washburn
 Lake.

Ylan Art + I continue
 E + W & E from Random N + C
 & Sec. 24. - 139-30.

$$\begin{array}{r}
 2635.3 \\
 1316.25 - \\
 \hline
 3951.55
 \end{array}$$

Echo Hill 139 - 30

5278

122

Corrections for N4S & Sec 24

5767.6
100.2
52678

658252
133.1

658252
1974756
1974756
458252
8761334

752798
133.1

752798
2258394
2258394
752798
1001974

5267.8
100.2
52678
133.1
100.2
133.1
100.2
133.1
100.2
133.1

IM 1/4

41°10'

Sine 658252 x 133.1 = 8761

Cosine 752798 x 133.1 = 100120

3°48'

5267.8 / 8761.0
52678
314868
158634
349320
314868
344520
314868
296520
263390
331500
314868
164320
148034
62860
52678
10182

52678

87.61
Sine
133.1

3°48'

Cosine 997801

IM 1/4

$$.016631231 = 0.574$$

$$5267.8 \sqrt{87.61}$$

0°57

Sine 01658

$$\text{Cosine } 999863 \div 5267.8 =$$

Corrections .016631231

Hub	491.4	S goes E 8.17 to True N+S
Hub	812	S " E 13.56 " " N+S
Hub	1892.2	S " E 31.47 " " N+S
Hub	2623.9	S " E 43.64 " " N+S

P117

We correct hub 2623.9

cut continues cutting line. Road
 Glen & I chain beg at hub on top
 chain West down hill 965.1

to $\frac{1}{4}$ mile in road W side Sec 24
 from hub on top chain East 502.8 =
 = 1457.9 hub, + 1150.5 = 2608.4

hub on N+S ranchers 2623.9 S of N $\frac{1}{4}$ Cor
 + 80± cross old fence N+S @ 201.2 hub

@ 300 p.m. @ 905.3 hub, @ 1348±

cross fence N 78± N of tree stub and
 for cor post @ 2671 hub

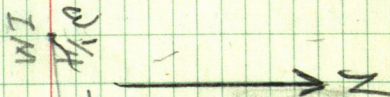
$$2671 + 2608.4 = 5279.4$$

Echo Hill Lot 2 - Sec 24-139-30 124
Faltbous

Town 2471 BS West corner sets
S $45^{\circ}34'E$ 36.45'

This

W. Birch 5 S about $40^{\circ}E$ 14.8
J. P. 9 N $35^{\circ}W$ 17.8



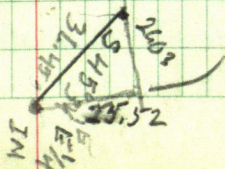
S $45^{\circ}34'E$ 36.45'

$$\sin 714066 \times 3645^{\circ} = = = 26.03 \text{ W}$$

$$\cos 714066 \times 3645^{\circ} = = = 25.52 \text{ S}$$

$$\begin{array}{r} 5279.4 \\ 26.03 \\ \hline 5305.43 \end{array}$$

$$5305.43 \div 25.52 = 207.85$$



We correct 1175.3 and set
a 60' spike for true Center of
Sec. 24.

Then true center Sec. 24 at
intersection of true E & W $\frac{1}{4}$ with
true N & S $\frac{1}{4}$ NE angle reads
 $89^{\circ}24'$

Ties JP 6 S $67^{\circ}12'W$ 29.00
JP 4 N $44^{\circ}04'E$ 21.95

12657.96	1457.9
1325.98	1325.98
	131.92

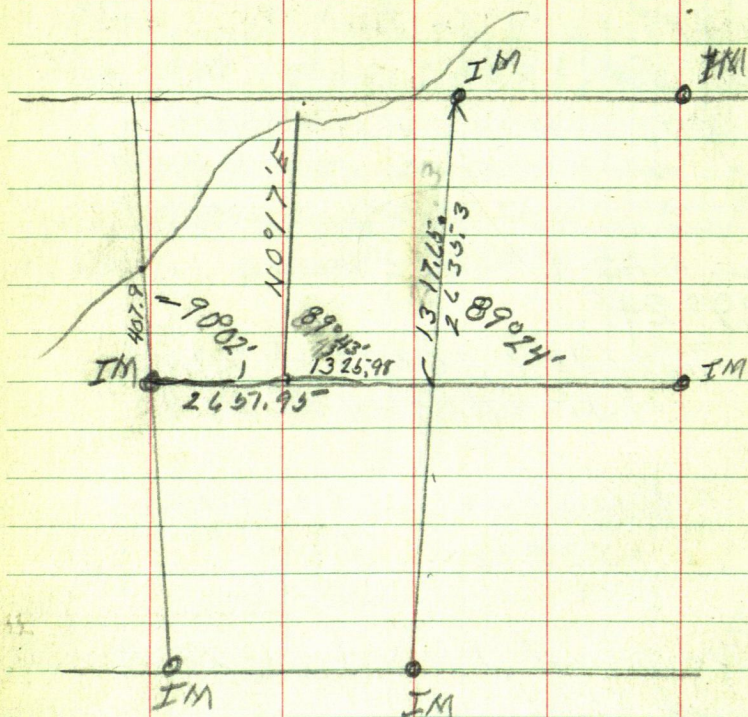
We correct E & W $\frac{1}{4}$ Sec 24-139-30
at hut 955.1

Then $\frac{1}{4}$ W mid. Sec. 24 Site N on
W line Sec. 24 the NE angle of W line
with E & W $\frac{1}{4}$ = $90^{\circ}02'$

@ hut 1457.9 we chain west
131.92 to P325.98 E at 60' spike
in $\frac{1}{4}$ Tar Road for W $\frac{1}{4}$ cor Center
of W half Sec. 24-139-30

Then W $\frac{1}{4}$ Site E Turn Left
 $89^{\circ}43'$ & run N on W $\frac{1}{4}$ line

Sec 24 - 139-30

N + S Φ

Hub 491.4 in Chet's Driveway
goes E 8.17 to N + S Φ

Hub 1303.4 So. near cor of field
goes E 21.68 to N + S Φ
Then South 14.25 feet to N $\frac{1}{4}$
SEC of Lot 1 being Center N $\frac{1}{2}$
Sec. 24-139-30

From $\frac{1}{16}$ Cor center $W \frac{1}{2}$ Sec.
 24-139-30 chain N on $W \frac{1}{4}$
 line @ 33 mph + 300 + 28.9 hnt
 + 300 + 150.5 hnt + 381.3 =
 1193.7 hnt

from 1193.7 chain N 123.96 -
 to SW cor lot 1 = 1317.65 -
 + 212.7 = 1530.35 hnt
 + 300 + 10.7 = 1841.05 hnt
 + 321.1 = 2162.15 hnt on bank

Thurs. Jan. 13-1956

+ 36.25 = 2198.40 hnt 15' from water

Town 36.25 site S $0^{\circ}36'W$ and run
 shore at state line run

S $71^{\circ}35'W$ 100 ft hnt @ Water 10 R.

Town 1 run S $51^{\circ}52'W$ 100' Sta 2 Water 15 R.

Town 2 run S $40^{\circ}13'W$ 100' Sta 3 " 20 R.

@ 50 water 20 R. to

Town 3 run S $33^{\circ}50'W$ @ 100 mph water 20 R

Sta 4 + @ 150 " " 20 R

Town 4 + run S $63^{\circ}57'W$ 250

@ 50 water 20 @ 150 water 20

@ 250 water 20

See page 130

See page 130

from 250 run S $70^{\circ}21'W$

@ 100 Loh 30R @ 200 Loh

Tower 200 run 25' R Water

run S $44^{\circ}15'W$ 100 @ 50' water 30R

@ 100 - water 20 ft R.

Run S $20^{\circ}08'W$ 100' water 30R,

run S $18^{\circ}30'W$ 100 " 10 R

Fri Jan 14 - 1953

Tower NW cor Lot 12, RS N $18^{\circ}30'E$

run S $41^{\circ}E$ @ 190 entrance of ramp

@ 215 hut edge of area

Tower 215 ramp runs South 100' ±

Sid. S $40^{\circ}W$ 75 to corner of ramp

run Stada of area of ramp in plat

105 N $28^{\circ}W$

160 N $17^{\circ}30'E$

Echo Hill
Fellthous

139-30

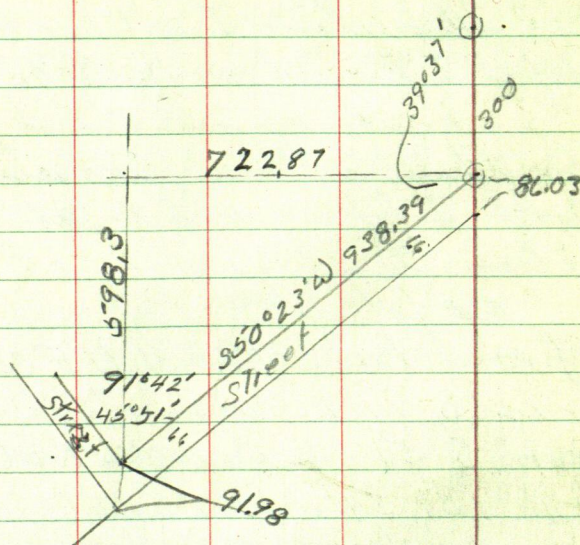
130

Traverse 2198.4 N 15 ft from Water
Note: on page 128 in running
the shore line I set ver at $N0^{\circ}36'E$
before I BSited on the W $\frac{1}{2}$ line S

I should of set ver. at $N0^{\circ}17'E$
So while in the Office and of the
cold I figure where stakes along
shore line really set
as follows

from 2198.4 NE Cor lot 1
run S $71^{\circ}16'W$ 100 to NE Cor lot 2
run S $51^{\circ}33'W$ 100 to NE Cor lot 3
run S $39^{\circ}54'W$ 100 to NE Cor lot 4
" S $33^{\circ}31'W$ 150 to Sta 4 @ 100 NE Cor lot 5
run S $63^{\circ}38'W$ 250 to Sta 5 @ 50 = NE Cor lot 6
@ 150 = NE Cor lot 7 @ 250 = NE Cor lot 8
run S $70^{\circ}02'W$ 200 ft to Sta 6.
@ 100 NE Cor lot 9 @ 200 Sta 6 NE Cor lot 10
run S $43^{\circ}56'W$ 100 to Sta 7 NE Cor lot 11
run S $19^{\circ}49'W$ 100 to Sta 8 NE Cor lot 12
run S $18^{\circ}11'W$ 100 to Sta 9 NW Cor lot 12

Traverse NW Cor lot 12 runs $41^{\circ}19'E$ 215
to SW Cor lot 12.



$$722.87 - 578.3 = 144.57 = 39°37'$$

$$\begin{array}{r} 89°60' \\ - 39°37' \\ \hline 50°23' \end{array}$$

from hub 1841.05 N
Chain N 57.35 to
28-98.4 NE Cor lot 1
from NE Cor lot 1
Chain S 86.03 to S. side
Street

10°17'E 2198.37

1/16

Echo H. 71
139-30

Felt Hous

132

N 6 S E correction .01665631

Hab 3620.4

" 4272.9

@ 3957.55 wt for $\frac{1}{16}$ gold £63.84

W 1 m e

corrections .028496179

@ 1265 hab

@ 1306.4 wt for $\frac{1}{16}$

gross £37.23

.01665631

395155-

48328155-

8328155-

166563105-

83281558

130088797

49968931

4383644

~~995155
8328155
1665631
127165~~

~~2623.9
1200
38934
3~~

~~1665
8328155
1665631
38934
3~~

28496179

1306.4

113984716

170977074

854885374

28496179

37227408

~~2623.9
1200
38934
3~~

1306.4

1265

2 41.4

28496179

133

330

630

930

10'30.1

3153

13356

13156

30

$$\begin{array}{r} 1360.13 \\ 1127 \\ \hline 233 \end{array}$$

$$\begin{array}{r} 336 \\ 12 \\ \hline 324 \end{array}$$
 1324
 Sec 2 140-29

Bob Ed + I to sec 2

Tower spike 66 ft E of SW cor of SE-SE
 run W 10 ft set 60 d spike a foot E of E
 edge of road in loose dirt

Sit on IM W and run $N 0^{\circ} 45' E$

Tower spike hub 36' E of IM run $N 0^{\circ} 45' W$
 @ 336 hub in E road @ $+100$ 1000.1

@ 1315.61 N run W 36 ft set point for
 temp cor. T still on offset line

run $S 89^{\circ} 24' E$ as this line will come
 35' N of Temp cor at final hub E
 goes S. 35' of a foot.

We forgot to add the 30 ft at the end
 so we are 30 ft too far E so we set our
 line back S 30 ft

Tower hub 324 E on $S \frac{1}{4}$ line Sec 2

@ 334 pin + 300 = 636 + 90.1 = 726.1 hub
 + 100.9 = 827.0 hub + 300 = 1127 pin
 + 200 = 1327 + 32.1

$$\begin{array}{r} 321 \\ 13591 \end{array}$$

$$\begin{array}{r} 1360.13 \\ 1359.13 \\ \hline 1.00 \end{array}$$

April 24-1959

I got a call from Backus Minn
Last night some one is buying
a strip of land along the E. side
of Gov't Lot 1 Sec. 24-139-30 from
Mrs. Felthouse. I promise to be
there at 8 o'clock this morning - up at
5-30 go to court house to look up note
page 126 this book says

Ties to center of Sec. 24-139-30

J.P. 6 S 67° 12' W 29.00 ft

J.P. 4 N 44° 04' E 21.95

When I surveyed Felthouse I could
not drive an I.M. at this pt as ground
was too hard. Art Ruess said he
would put in the iron in spring
I will have to have this point
to find E line of Gov't Lot 1, from
the lake, or $\frac{1}{4}$ I.M. at Portage Lake South
Bobby - John & I to Portage Lake
re-set $\frac{1}{4}$ Center of Sec. 24-139-30
work from center & $\frac{1}{4}$ on N side
from $\frac{1}{4}$ N side sec 24 chain S along $\frac{1}{4}$
 $16\frac{1}{2} + 50 = 66\frac{1}{2}$ ft. at hub
Then $66\frac{1}{2}$ ft S of $\frac{1}{4}$ site on $\frac{1}{4}$ I.M. & turn
90° run W 120 hub pt for I.M. + 10 ft from water

Ties to $66\frac{1}{2}$ S of $\frac{1}{4}$

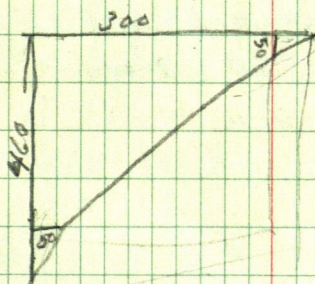
Y.J. $14 N 76^{\circ} 13' W$ 20.25

J.P. $12 N 32^{\circ} 51' E$ 22.13

Tower I M $\frac{1}{4}$ site S turn 90° turn W
54.45 set I M 20 ft from water

from I M $\frac{1}{4}$ chain S at 452.9 feet
on shoulder of road.

from I M $\frac{1}{4}$ chain E 300-



$$\begin{array}{r} 460 \\ 300 \\ \hline 1138000 \\ 69000 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 460 \\ 300 \\ \hline 1138000 \\ 69000 \\ \hline 43560 \end{array}$$

Daniel Becker + Gladys B.
152 W Stevens St.
St Paul, 7, Minn.

137

April 26-1963

JL Lamme

Miami Indiana

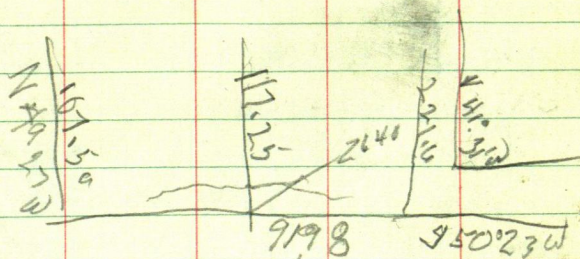
Tracks of Land on Portage Lake

Out { 19-30-140-27-24-23-140-30 }
 { N.P. 10 N 46° W 47.4 Oak 8 S 37° 50' E 34.6 }

Lamme comes to my place in Akeley
 think his line has been moved

We re-establish pt for IM at SW cor of street on
 Plat. Town SW cor of Plat sits E along
 S. line of street and run west.

Then SW cor of Plat BS N 50° 23' E along
 S side of street run S 65° 23' W



Lots 7-12
Section 19-140-29

138

Vincent of Hackensack calls me this morning
Nov. 19th 1959 wants line run between
Govt Lots 7 & 12 - Sec. 19-140-29
being the N & S $\frac{1}{2}$ of said Sec. 19.

As I am on my way to Stony Point
Leech Lake I tell him I will be
down tomorrow

After supper I go to court house and
look for old survey Records
old notes of 1916

Traces to SW cor. Sec. 19-140-29

N.P. 10 NW 46.9

N.P. 10 SW 105

Nov. 20 1959

Don goes to Bemidji

Ed Bob & I to Hackensack then out to
North line Sec 19-140-29 - we find
the NW B.T. stump and I.M. at SW cor
Sec. 19 go East look for SE cor do not find
it we find I.M. at $\frac{1}{4}$ S. side Sec. 20-140-29
set it on hill $\frac{1}{2}$ + mile E of SW cor
site West on flag Sta. at 90 as our line
line crosses the road we will swing our
line to the S to stay in road

Set hub at edge of driveway west
of T and spike hub under train
line called East

From Hat under T run $S 88^{\circ}30'E$
set hubs along road

Town hub $\frac{1}{4}$ S side run 20 sets $N 5^{\circ}45'E$
22,75

from hub $S 5^{\circ}45'W 22.75$ chain. West
along our road

at $100 \text{ pin} + 200 = 300 \text{ pin} + 200 = 500 \text{ pin}$
 $+ 200 = 700 \text{ pin} + 200 = 900 \text{ pin} + 200 =$

$1100 \text{ pin} + 200 = 1300 + 200 = 1500 + 6.7$

1506.7 W hub

$1500 + 200 = 1700 \text{ pin} + 200 = 1900 \text{ pin} + 200 =$

$2100 \text{ pin} + 200 = 2300 \text{ pin} + 200 = 2500$

2500

12335

2623.35 hub

$2500 + 200 = 2700 \text{ pin} + 200 = 2900 + 200$

$3100 \text{ pin} + 200 = 3300 + 200 = 3500 + 200 = 3700 +$

$200 = 3900 + 200 = 4100 \text{ pin} + 5.7 = 4105.7 \text{ hub}$

$4100 + 200 = 4300 + 200 = 4500 + 112.4 =$

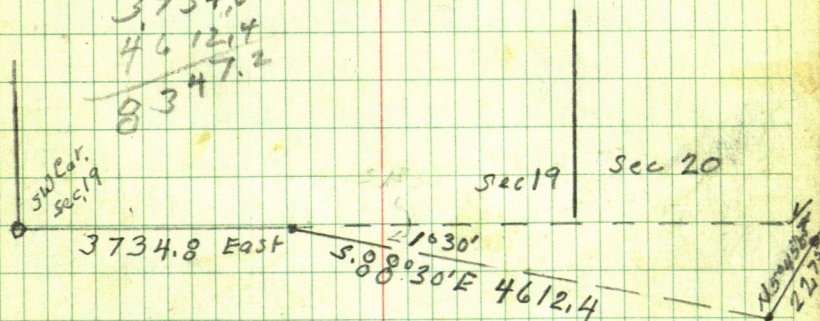
4500

1124

4612.4 W hub A.P.

190.4 139.6 140
(600)

3734.8
4612.4
8347.2



$$004910645 = 0^{\circ}17'$$

$$\cos i n c = 0.26177 \times 4414.67 = 120.80$$

1411

24
22
20
18
16
14
12
10
8
6
4
2

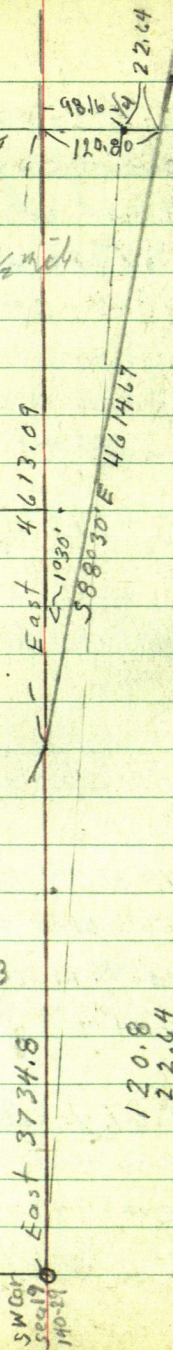
3734.8
4613.89
8347.89
2621.2
5726.69
263.0
3076.69

Sec. 1142

2570
6
15420
15420
169620

4674.67
1956.64
2458.03

1956.64 E per portage dist
for dist cor SE 19 or 2458.03
W of 1/4 IM
go S 25.32 then N 9.60
to 960
to 1572 S.



8347.89 pay chain
8296.20 45

120.8
22.64
9816

fig

$$8347.89 \text{ into } 98.16 = 01175866 = 0^{\circ}40'30''$$

$$01175866 \times 8347.89 = 98.16$$

$$\text{at hub } 585.4 \text{ W of AP} = 3149.4 \text{ E}$$

$$3149.4 \text{ E goes S } 37.03 \text{ to line}$$

$$\text{hub AP, } 3734.8 \text{ E goes S } 43.92 \text{ to line}$$

$$8347.89 \text{ my ch}$$

$$8296.20 \text{ US ch.}$$

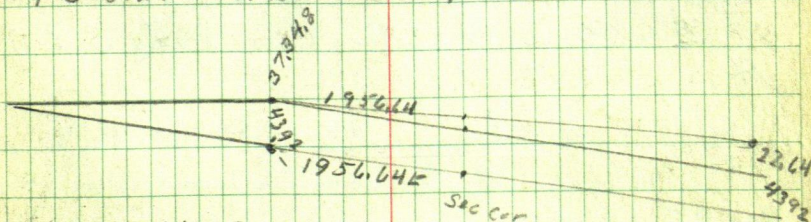
$$51.69 \text{ long.}$$

$$8296.20 \text{ into } 51.69 = .006230563$$

$\frac{1}{4}$ is 3016.2 E. US and goes E 18.79 to 3035.19 E
to $\frac{1}{4}$ S side Sec. 19-140-29

5656.2 E US ch. goes E 35.24 to 5691.44 E
to SE cor Section 19-140-29

8296.2 E US ch goes E 51.69 to 8347.89 E
 $\frac{1}{4}$ S. side Sec. 20-140-29



$$004910645-$$

$$\times 1956.64$$

$$9.61' N$$

$$4613.09 \text{ into } 43.92 = 009525331$$

$$1256.64$$

Old Notes Book 170-B: page 33 to 41

says (Mickey Eng. Steadland asst Eng.
go to cor. to sections 19-20-29-30 140-29
at this point Mickey finds W P Stump
S 75° W 217.8 which his notes say
agree with US Notes and conforms with
Settlers evidence. at this point He
sets a 2x48" IM 40" in ground and
takes following B.Ts

N.P. 6 N 43° W 298.8 ft

Tank 7 N 14° E 208.5

N.P. 14 S 4° 45' W 302.8.

U.S. Notes call for

W.P. 16 N 82° W 312 = 205.92 ft

WP 7 S 75° W 330 = 217.8 ^{Mickey claims he found this tree}
and makes the above B.T.

JW Curo's old Notes Recorded in
Book B on page 439. work done 1907
says from $\frac{1}{4}$ Sec. 19 run East
at 26.50 E the Sec. Cor. sets S. 28
ft

Total distance from SW cor of Sec
19-140-29 to $\frac{1}{4}$ South side Sec. 20
4673.09 +
3734.8

8347.89

8347.89 my ch.
 - 2621.2 Lincoln, Mackey in 1920 $\frac{1}{4}$ SW cor sec 20
 5726.69 across south side sec. 19
 2630.00 JWCure dist from $\frac{1}{4}$ to SE corner 19
 3076.69 from $\frac{1}{4}$ to SW cor sec. 19
 according to J.W.C. Notes of 1907
 W 40 45 chain 16,96.20
 + 1320
 3016.20 U.S. distance to $\frac{1}{4}$

Using J.W.Cure's chainage
 we have 3076.69 or 60.49 long on
 West $\frac{1}{2}$ mile sec. 19.

$$\begin{array}{r}
 4412.0 \\
 2623.35 \\
 \hline
 1989.95
 \end{array}$$

$$\begin{array}{r}
 2623.35 \\
 2621.2 \\
 \hline
 2.15
 \end{array}$$

Monday Nov 23-1959

Ed + I to sec. 19-140-29

Taper knot 2623.35 W of $\frac{1}{4}$ S. sec 20
 B.B. N 88°30' W and run N 13°49' E 11.30
 to I.M. Sec. Cor.

f19

$$\begin{array}{r}
 2623.35 \\
 1989.45 \\
 \hline
 4612.80
 \end{array}$$

E. 3734.8

$$\begin{array}{r}
 1989.05 \\
 588^{\circ}30'E
 \end{array}$$

S 88°30' E - 1989.05

Sine 999657 \times 1989.05 = 1988.37 E
 Cosine 026177 \times 1989.05 = 52.07.5

$$\begin{array}{r}
 4612.4 \\
 2623.35 \\
 \hline
 1989.05 \\
 41240
 \end{array}$$

$$\begin{array}{r}
 6981 \\
 7272 \\
 \hline
 14253 \\
 7126
 \end{array}$$

Sum pt 1988.37 E & 52.07 S of AP
 Sec. Cor sets N 13°49'E 11.30

$$\text{Sine} = 238816 \times 11.30 = 270$$

$$\text{Cosine} = 971065 \times 11.30 = 10.97$$

$$1988.37 + 270 = 1991.07 \text{ E and } 10.97 \text{ N}$$

$$\begin{array}{r}
 270 \\
 1991.07
 \end{array}$$

$$52.07$$

$$10.97$$

$$\begin{array}{r}
 52.07 \\
 10.97 \\
 \hline
 41.10
 \end{array}$$

IM Sets 1991.07 E and 41.10 S
 of AP, 3734.8 E +

$$1991.07$$

$$\begin{array}{r}
 1991.07 \\
 \hline
 5725.87
 \end{array}$$

5725.87 E corner sets 41.10 S

$$.007177948 = 0^\circ 24' 2''$$

$$5725.87 / 41.10,000$$

$$\text{Corrections} = 007177948$$

$$\text{Sub } 3734.8 \times 007177948 = 26.815 \text{ to line}$$

$$\text{Sub } 3149.4 \times 007177948 = 22.615 \text{ to line}$$

$$3734.8$$

$$585.4$$

$$\begin{array}{r}
 3734.8 \\
 585.4 \\
 \hline
 3149.4
 \end{array}$$

$$373.48$$

$$56562 / 6967.0$$

US Measurement

$$\begin{array}{r}
 2570 + 1696.2 \\
 2000 \quad \underline{3960} \\
 2000 \quad 5656.2 \\
 200
 \end{array}$$

$$\begin{array}{r}
 16962 \\
 1320 \\
 \hline
 30162
 \end{array}
 \quad
 \begin{array}{r}
 7353 \\
 50 \\
 \hline
 2353
 \end{array}$$

$$\begin{array}{r}
 5725.87 \\
 5656.2 \\
 \hline
 69.67
 \end{array}$$

$$\begin{array}{r}
 5725.87 \\
 2650 \\
 \hline
 3075.87 \\
 5725.87 \\
 5656.2 \text{ US ch}
 \end{array}$$

$$\begin{array}{r}
 31494 \\
 307587 \\
 \hline
 7353
 \end{array}$$

$$\begin{array}{r}
 5725.87 \text{ my ch} \\
 5656.2 \text{ US ch} \\
 \hline
 69.67 \text{ Long}
 \end{array}$$

5656.2 into 6967. = .12317456 E for each

foot E

$$\begin{array}{r}
 \text{at } 1696.2 \text{ US E} = \frac{1696.2}{171709} = 1717.09
 \end{array}$$

3016.2 US. - goes 37.15

$$\begin{array}{r}
 3715 \\
 \hline
 305335
 \end{array}$$

3149.4 E

3149.4

9605

30

46.05

5725.87

3053.35

2672.52 W 1/4

3149.4

3053.35

96.05

73

at pt 50 ft E of preparation distance
 for $\frac{1}{4}$ we have to run $N 85^{\circ} 06' E 700 \pm$
 calling S line as E+W.

9605

7385

22.70

300

1835

116.5

Phone

DR 55452

Tuesday Nov. 24-1959

3734.8

461309

834789

2621.2 Mackay

572669

2650

307669

JWC, distance from $\frac{1}{4}$ E to SE Cor

pty distance from pt JWC to Sec Cor

hub 3734.8 E A.P.

5854 Whub

3149.4 E Hub

307669

72.71

5726.69 mch

I called this 73.53

72.71

.82

From point on S line 2638 W
at Sec. cor = 1/4 sec. run
N 1/2 at

We offset E 50 ft + run N at 90°
to S line hit cabin ran W 50 ft
to 1/4 line + 30 set up

Then split on 1/4 turn 90 run N
R 3.5 ^{1/2 mile 24°} wale 25 chs 118.5 ^{1/2 mile 24°}
900 W then S 3

from 300 S - chain 5150 + 200 ft

200 + 6213

at 28 ft road

550

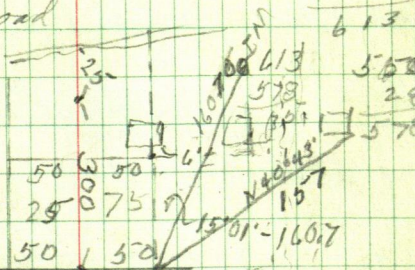
63

613

550

28

578



N 150° 01' E 160.7

Sine 269100 x 160.7 = 41641

Cosine 965850 x 160.7 = 155215

50

4164

9164

N 40° 43' E 157

Sine 652319 x 157 = 10214

Cosine 757945

1024

50

15214

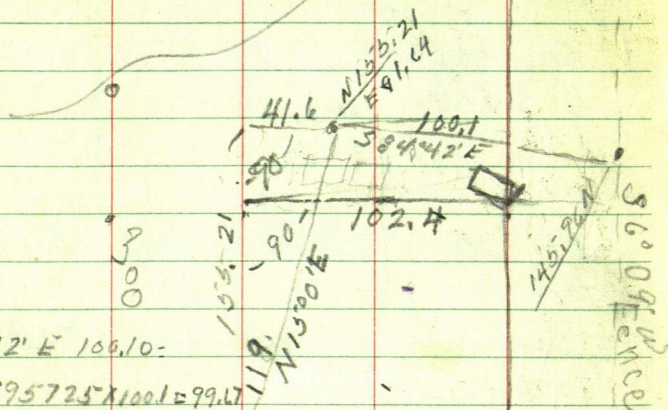
Road

35

1/4

2650

E



S 84° 42' E 100.10-

Sine $995725 \times 100.1 = 99.17$

Cosine $092371 \times 100.1 = 9.255$

155.21

9.25

145.96

91.64

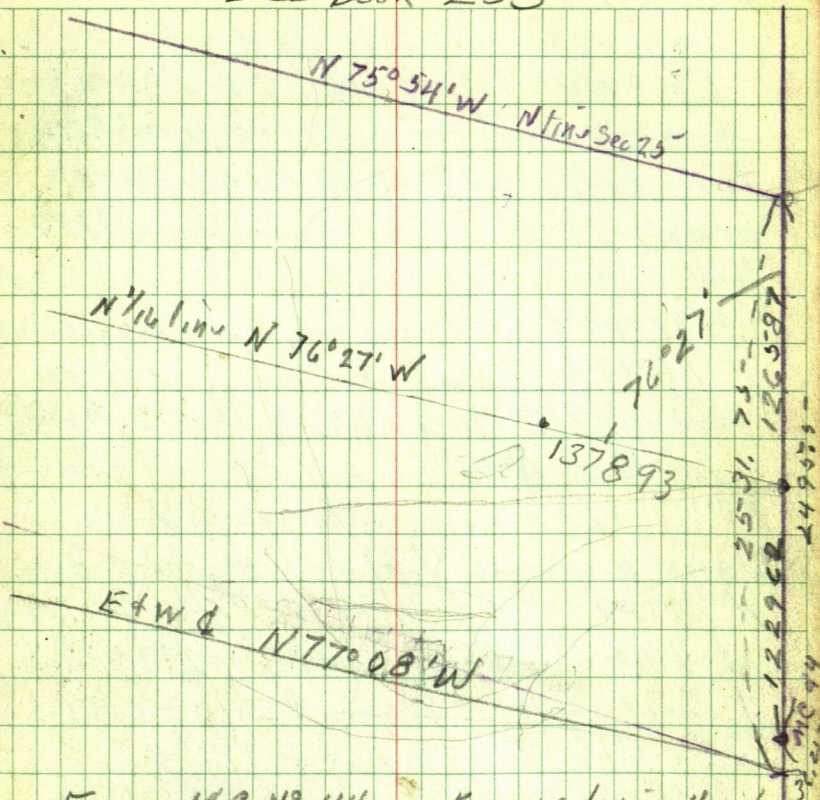
99.67

191.31

Section 25-140-29

100

Sec Book 233



From MC N^o 44 on Range line North
 Make lake chain North on Range line
 1229.62 to pt for N 1/4 E. side sec 25
 side North on Range line and run
 N 76° 27' W along N 1/4 line

April 1st 1960 -

I am 59 years old to day Harold Curo

Ed - Bob & I to sec. 25-140-29

beg. at nail in & tar road on Range
line bet. sec. 25-30 - 140-28-29

chain South along Range line 1179.8
to I.M. wit MC N^o 44

122962 From Spains nail
- 1179.8 in & chain N 49.82

49.82 to 122962 N of I.M. MC
at for N $\frac{1}{4}$ cor in &

Turn 1229.62 site N on range
line Turn L $76^{\circ}27'$ and run
N $76^{\circ}27'W$ along N $\frac{1}{4}$ line sec. 25

at 49.40 hub $30 + 189.3 = 219.3$ hub

$+ 230 = 449.3$ run $+ 240 = 689.3$

run $+ 100 = 789.3$ run $+ 99.6 =$

$\begin{array}{r} 99.6 \\ 888.9 \text{ hub, W.} \\ + 140 \end{array}$

1028.9 run

$+ 160$

1188.9 run

$+ 239.1$

1428.0 hub

$+ 300$

1728.0 run $- 2.1 = 1725.9$ hub

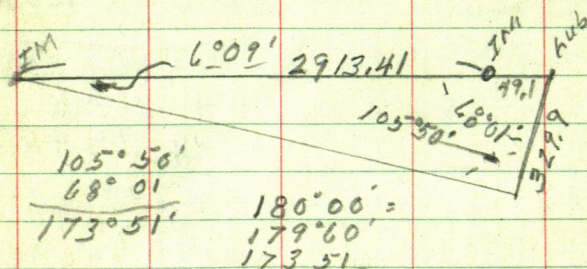
April 3rd 1960

Ed - John & I to Blackwater
 Tower IM MC North side of
 lake on N+S & site South
 on flag at IM on & S side
 of Lake extend line 49.00 ft

North Tower 49.1 ft site
 South and turn L. $68^{\circ} 01'$

329.9 Tower 329.9 site West &
 Turn L. $105^{\circ} 50'$ to flag at MC S side
 of lake

Tower 329.9 N+S site N $68^{\circ} 01'$ W
 flag over lake bears S $6^{\circ} 12'$ W



$$\begin{array}{r} 105^{\circ} 50' \\ 68^{\circ} 01' \\ \hline 173^{\circ} 51' \end{array} \quad \begin{array}{r} 180^{\circ} 00' \\ 179^{\circ} 60' \\ \hline 173^{\circ} 51' \end{array}$$

$68^{\circ} 01'$

$$\begin{array}{l} \text{Sine } 921293 \times 329.9 = 305.91 \text{ E} \\ \text{Cosine } 374337 \times 329.9 = 123.49 \text{ S} \end{array}$$

$6^{\circ} 09'$

$$\text{CoTanq. } 9.280580 \times 305.91 = 2839.02$$

$$+ 12349$$

$$2962.51$$

$$49.1$$

$$2913.41 \text{ IM}$$

from 2962.51 chain North on random
line + 200.90 2.1 inch pipe + 364.4 wood
hub @ 367.8 wood hub intersection into
Ip 200.90 + 400 pin + 300 + 240 + 290 +
73.5. hub 60' pipe + 291.8 =

Tower

 $\frac{1}{4}$ I.M. in E roadbears NE on R. $26^{\circ}52' - 79.10$

2962.51	3163.41	3163.41
200.9	364.4	367.8
3143.41	3527.81 Wood	3531.21 Wood
400		
3563.41		
300		
3863.41		
+ 240.00		
4103.41		
290		
4393.41		
73.5		
4466.91 hub 60' pipe		
291.8		
4758.71 hub		

old IM chain N 491

+ 200.9

1500 IP.

3644

6144

- 4.9

True intersection 609.5 N

Tower hub 4758.71 N the $\frac{1}{4}$ cor bears L
 $26^{\circ}52' - 79.10$

O.M.C 2913.4

M.C

4758.71

 $26^{\circ}52' E 79.10$ $26^{\circ}52'$

Sine 451916 X 79.1 = 35.75

Cosine 892061 79.1 = 70.56

2913.4 N goes E 21.56

2962.5 N " E 21.93

3163, 4 N " E 23.42

35-27.8 N " E 26.11

35-31. B. N. 11 E 26.14

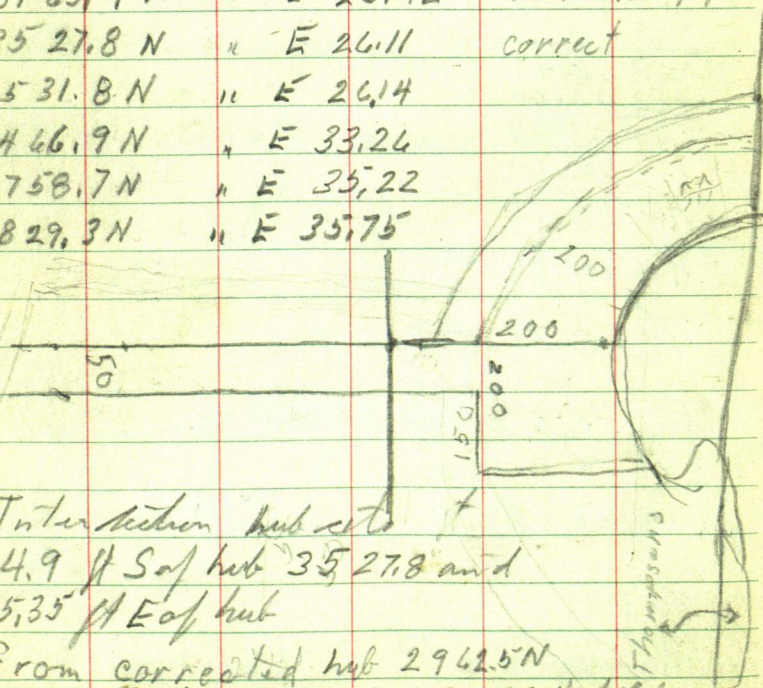
44 66.9 N E 33.24

4758.7 N " E 35.22

4829.3N " E 357.75

1 correct
Correct
Not this is 1" pipe

correct



Inter section hub sets +
4.9 ft S of hub 35 27.8 and
35.35 ft E of hub

from corrected hub 2962.5N
ch. S 50.1 to True point for MC N & Lake

April 5th 1960

156

part of Gov't Lot 2 & NE of NW Sec 25-
140-29

a 50 ft strip of land along the East
line of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ from E of SAR,
#11 to S line $\frac{1}{4}$

Commence at NE cor. Gov't Lot 2 Thence
S along E line lot 2 to the waters edge of
Blackwater Lake Thence westerly along
the waters edge of said lake a distance
of 200 ft Thence N parallel to the
E line a distance of 250 ft Thence
E truly a distance of 150 ft Thence
N parallel to said E line to N line
and lot 2 Thence E to pt of bd.

Ed & I to Acc 25-140-29

Tower built 49.1 N of IMMC N mid to h

Turn 90° and set up on true N 45 E

set intersection spike of N 45 E & N $\frac{1}{16}$ line

True intersection site S 76° 27' E N 45 E

runs S 0° 22' W

fr

Tower pt for I M on N+S & N side
Blackwater Lake 10 ft N of water

Site N $0^{\circ}22'E$ on N+S & x run

S $81^{\circ}02'E$ 100 ft water 10

Tower 100 BS N $81^{\circ}02'W$ run

S $71^{\circ}00'E$ 100 ft water 15

Tower 100 BS N $71^{\circ}W$ run

S $60^{\circ}42'E$ 100 - water 10

Tower 100 BS N $60^{\circ}42'W$ run

S $46^{\circ}28'E$ 100' water 5

Tower 100 BS N $46^{\circ}28'W$ run

S $43^{\circ}32'E$ 100 water 5

Tower 100 BS N $43^{\circ}32'W$ run

S $40^{\circ}54'E$ 100 water 6

Tower 100 BS N $40^{\circ}54'W$ run

S $40^{\circ}55'E$ 100 - water 6

Tower 100 BS N $40^{\circ}55'W$ run

S $39^{\circ}31'E$ 100' water 6

Tower 100 BS N $39^{\circ}31'W$ run

S $34^{\circ}14'E$ 100 water 6

Tower 100 BS N $34^{\circ}14'W$ run

S $20^{\circ}03'E$ 150 water 12'

Tower 150 BS N $20^{\circ}03'W$ run

S $15^{\circ}20'E$ 100 AP, water 15

Tower 100 BS N $15^{\circ}20'W$ run

S $5^{\circ}53'E$ 24.75 water 10 Tower

BS N $5^{\circ}53'W$ E & W & runs $87^{\circ}08'E$

April 6-1960

330 307.5 480 138
 $\frac{185}{145} - \frac{251}{565} = \frac{330}{150}$

I make work plat of SW $\frac{1}{4}$ of NE $\frac{1}{4}$ Sec 25
 Ed & I to Blackwater lake net hub on N & S L
 307.5 N of MC Tower 307.5 BSS $0^{\circ}22'W$
 and run $S 64^{\circ}05'E$ at 185 ft for lot cor at
 330 ft for lot cor at 480 ft for lot cor at 520 AP
 run $S 41^{\circ}20'E$
 from hub 307.5 chain N 55.42 net pt
 for street along N & S L

Tower NE cor lot 1 run $S 16^{\circ}05'W$ 252.2

T bet 2-3 site $S 64^{\circ}05'E$ run $S 26^{\circ}32'W$ 236.35

T bet 3-4 " " " " " run $S 38^{\circ}12'W$ 248.00'

Tower A.P. BS N $64^{\circ}05'W$ and run $S 41^{\circ}20'E$
 97-115-105-102-113-115

Apr 8th 1960

Bob - Ed - I to Blackwater lake Tower
 A.P. BS N $64^{\circ}05'W$ & run $S 41^{\circ}20'E$

$$\begin{array}{r} 40.35 \\ 49.1 \\ \hline 2009 \\ 24.08 \\ \hline 60 \\ 87.5 \end{array}$$

$$\begin{array}{r} 3.30 \\ 875 \\ \hline 2425 \end{array}$$

344.8

$$\begin{array}{r} 470 \\ 32.8 \end{array}$$

502.8

$$\begin{array}{r} 65 \\ 120 \\ 250 \end{array}$$

955.1

14579

11505

21435

34

$$\begin{array}{r} 8610 \\ 3050 \end{array}$$

26084

2991

800

1401

159.9

7

1529

300

5280

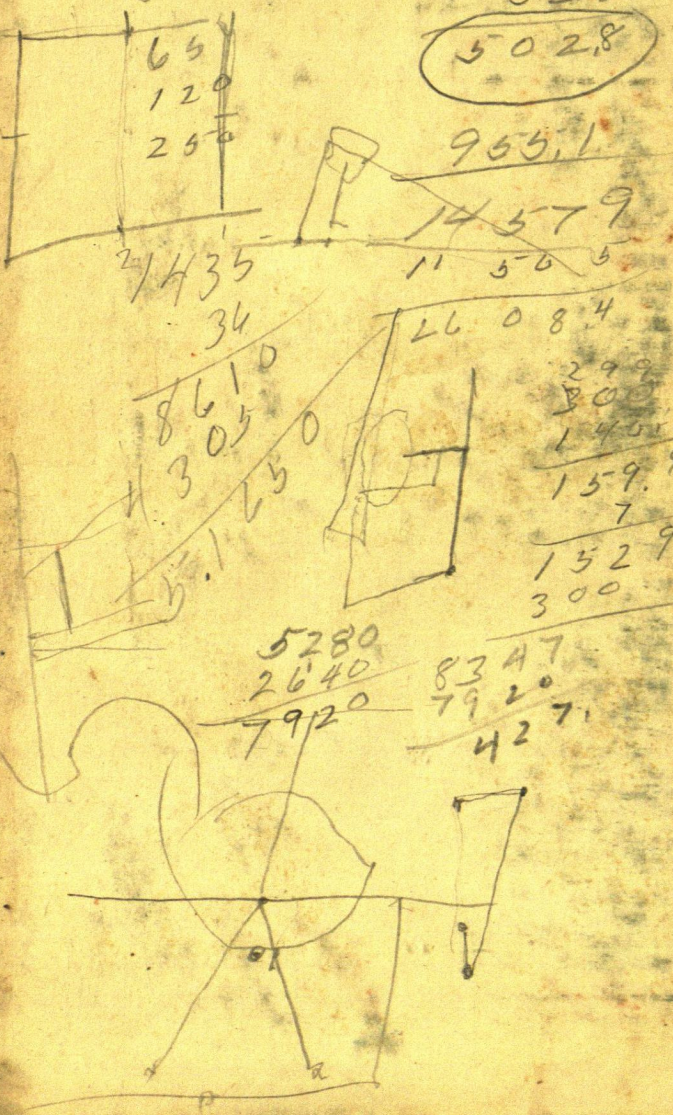
2640

7920

8347

7920

4271



125

90
120
210
398

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.