

293 Kev. H. -

FIELD BOOK

1888

Bx 293

Kavli  
Wood Lake



## Standard Engineer's Field Book

### Description

	Size	Rulings
No. 1307	7 $\frac{1}{4}$ x 4 $\frac{5}{8}$	"Level"
No. 1308	"	"Field"

Specify by Number, the Book desired

Made in U. S. A.

This book contains a superior 50% rag content paper having a high degree moisture resisting surface. Waterproof ink is used and it is sewed with Bing Enamel Waterproof Thread. The binding material is also waterproof.

Made in U. S. A.

**BOORUM & PEASE COMPANY**  
BROOKLYN, N. Y.



Kavli 293

1

Note: This Field Book  
No 293 Belongs to  
Jack <sup>and</sup> Harold Curo  
Walker Minn

If lost, Finder please  
Notify Curo Surveyors  
at once Suitable reward  
Telephone collect

Jack Curo  
April 18-1949.

Office Phone Walker 207  
Res " " 74W

2

# Index

Plats page 3-5-17-21-24-26-27-28-29

Board Pg 15

Time Pg 15-25-35-65-111-117-

Ties Pg 21-

New Ties Pg 20

US Notes 6 To 13 T.

Section Lines Plot 43-(62)-54



Kavli Realty Co

217 So 6th Street Mo 18

A.C. Kavli

27

172 6

1/2

139-26

24

90

Township  
corner

Caline	Cass Co
Crow	Wing Co

7

138-26

1/4

To be plotted N $\frac{1}{2}$  Sec 6-138-26

5 1/2 " 31-139-24

4

US Bearing Trees

5-6-7-8-138-26

Board Pg 15





6 US Notes

From Cor Twp 138-139 R 26 T 10N  
West-Bet 1-36 var 11° 48'

40 Set  $\frac{1}{4}$  Aspen 6 N 7 W 16°

" 6 South 14°

80 Cor 1-2-35-36 7900 Tan  
Swamp

Tom 7 N 44 W 33°

" 8 N 34 E 69°

" 8 S 73 E 47°

" 5 S 43 W 25°

West Bet 2-35 var 11° 57'

15 L Swamp NE SW

40  $\frac{1}{4}$

Pine 12 N 57 E 16°

W. Birch 10 S 50 W 35°

64.30 Set MC E Side Lake 4243.80

Aspen 10 N 78 E 48°

Pine 12 S 40 E 36°

8000 2-3-34-35 in Lake

West on True Line Bet 3-34 110° 12'

8.68 MC on West side of Lake 572.88

Y P 14 N 5° E 34° 22.44

" 12 S 68 W 42° 27.72



40 Set 1/4

Spruce 10 N 11° E 33

W. Birch 8 S 21 1/2° E 17

2939.32

43.02 Set M. Post E Side Crooked Lk

White Birch 8 N 35° E 6

Spruce 11 S 21° E 8.

8000 Cor 3-4-33-34 in Lake

West True Line Bet 33-4 Var 9° 52'

40 in Lake

6311 M post W Side Crooked Lk 4165.26

Ash 10 N 70° W 41

Maple 6 S 60° W 19

8000 Cor 4-5-32-33

Oak 12 N 37° E 78

Lind 11 S 70° E 19

WP 14 S 23° W 129 = 85.14

Oak 10 N 86° W 126

West Bet 32-5 and 5 Var 9° 52' E

40 = 1/4

WP 28 N 67° E 107 = 70.62

WP 28 S 44° W 180 = 118.80

# US Notes

8 West Bet 138-139 R 26  
8000 Cor 5-6-31-32-

WP	15 N	39° E	83	54.78
"	17 S	42 E	78	51.48
"	24 S	33 W	27	17.82
W Birch	7 N	63 W	53	34.98

West Bet 6-31 V 10° 22' E

1484 979.44 MCELL LAKE

WP 16 N 41 E 111 = 73.26 FT  
" 12 S 13 W 49 = 32.34

Chain across on ice

3084 = 2035.44 MC on W Side of Lake

Pine 3 N 30 1/2 W 53 = 34.78

W Birch 8 S 27 W 55 = 36.30

33.68 2222.88 H Post on E Side Lake Wood

YP 6 N 21 1/2 W 84 =

W Birch 8 S 29 E 147 =

4706 3105.96 MC on W Side Lake Wood

Appen 7 N 20 W 11

" 10 S 60 W 25



# US Notes

9

67.60 = (446.16 Pond Barnes NE SW

74.70 (493.02) Lv Bond NW SE

79 24 (5222.84 To established Cor  
To Twp 138-139 R 26-27

WP 14 N 85 E 40 = 26.40

WP 16 S 72 E 58 = 38.29

WP 6 S 43 W 25 = 16.50

WP 13 N 48 W 33 = 21.78

T 139-26-27

North Bet 36-31 Var 9° 15'

40 St 1/4

YP 14 N 55 E 19 = 12.54

YP 16 N 68 W 15 = 9.90

8000 YP 14 N 85 E 40

" 16 S 72 E 58

" 6 S 43 W 25

" 13 N 48 W 33

10

138-26-27

1-6-7-12

Pine	20 N 88 E	425	} Im
WP	17 S 84 E	385	
YP	17 S 83 W	493	
WP	16 N 80 W	338	

North Bet 1-6

1100

Lv Marsh NE SW

40

 $\frac{1}{4}$ 

WP 12 N 62 E 33 = 21.78

" 20 N 61 W 42 = 27.72

63

Twp Swp EW

68

Lv

NE SW

8000

Twp Cor 138-139 R 26-27



139-26

11

29-30-31-32

WP 24 N 38 E 34 = 22.44

" 24 S 15 E 39 = 25.74

" 20 S 37 W 36 23.76

" 20 N 60 W 44 29.04

1/4 Bet 30-31

Aspen 9 N 54 W 45 = 29.70 Ft

" 8 S 69 E 27 17.82

1/4 Bet 31-32 - 139-26

WP 24 N 75 E 6 = 3.96

" 17 S 70 W 32 21.12

138-26

North Bet 7-8 - 0.44' 0.104'

40 1/4 Aspen 8 N 12 = 116

" 5 N 10 W 114

5947 A set MC Ad side Lake

Elm 7 S 70 E 14

W Birch 4 S 50 W 41

North over Lake on ice 1399

7336 MCN Side

Spruce 8 N 3 1/2 E 78 = 51.48

Elm 13 N 37 W 50 33.00

12

NS Nales

7783

Creek 5 Lks wide

Runs SE

80

Cor 5-6-7-8

YP 24 N 16 E 15 = 9.90

YP 14 S 54 E 36 = 23.74

YP 20 S 17 W 15 = 9.90

" 16 N 27 W 14-01-74  $\frac{9.24}{18.84}$ East True Line Bat 5-8  $19^{\circ} 3/4$ 40  $1/2$  WP 16 N 60 W 32 = 21.12

WP 28 S 6 W 55 = 36.30

6088 MC West Side Crooked Lake

YP 18 N 57 W 31

" 16 S 64 W 37

West Bandon Bat 6-7  $19^{\circ} 1/4$ 

190 spring 10" wide Runs SE

40 Tang  $1/4$ 

7700 Marsh NS

7970 interest Cor 6-7

East on True Line Bat 6-7

3970 Act 114

Aspen 6 N 14 E 20 = 13.20

WP 8 S 32 E 28 = 18.48



US

138-24

13

North Bat 5-6-V 10°

500 Swamp / SW NE 330 FT

1000 LV 660

40 Temp 1/2

8000 Lat 5 LK: E 9 Con

South on True Line Bat 5-6 V 10° 02'

40 1/2

$$YP20 S 81\frac{1}{2} E 82 = 54.12 \text{ FT}$$

$$" 8 N 81 W 83 = 54.78$$

14

April 27 Wed 1949

Harold and I to Manhattan  
Beach Supper + Bed with  
Bert Meehan

April 28-29 work

Harold + I eat with Meehan Supp  
and come home to walk

April 30-49 at et #1

May 1 Figure angle

" 2 Monday Harold takes me to  
Hardy Res. Can beach

May 2-3-4 work on sun

May 4- Harold loves + help

May 5- Three Beaches + Boring  
one to Pine Row

May 5-6-7-8 in Walker



To Page 25  
To pg 25

15

# Jack Curo Board With Bert Mitchener

April 1949 27 28 29 30 May SW 2 3 4 5 6 7 SW

Jack Curo

27 28 29 30

0

0

0

Harold Curo

27 28 29 30

0

0

0

May 5-1949 Mitchner takes Curo to Pine River

May 2 Hardy Fix Car 1.20 Telephone 1. Taxi 2 = 34.20

## Jack Curo Worked

April 1949

27 28 29 30

0

0

0

May 1949

SW 2 3 4 5 6 7 SW

0

0

19 Meds

6 Beds



16

April 28-1949 Thursday  
1st day on Plot of Wood Lane  
7-30 Am Otto Nelson

Kavli Field Boss and his car  
picks me up with my lunch at  
Bert Michner's and we drive  
to Corner

25-30-31-36 7139 Rg 26-27  
where we find a tall white stake  
set by State Forestry which  
Cavli and Nelson think is the  
section corner but it is not

25-30-31-36

was established from original US  
bearing trees by me 40 years ago  
and again when I plotted Northland  
Camp for B. B. Nelson See my old  
Field Book No 63 and No

Today the original US B.T.s  
have disappeared but my later  
bearing trees still exist from  
which we cut many trees which  
are grown over where we find  
the head of big spikes and



accurately locate True pt 17  
for the True sec cor where we  
drive a 1x2 inch stake which we  
will later mark with an Iron pipe  
and mark new ties later

From the true wood sec  
cor just set we chain West  
23.35 ft when we set the  
60d spike under the Transit  
to get along shot down the  
road and run

South on random line on a  
23.35 foot offset bet Secs 31-36  
South assumed course

All our hubs will be 60d

Spikes	stake	sec cor
300-600	2335	
+108.8	90°	

Hub 708.8

900-1200

Hub in west

edge of road

10 ft x 8 in

Rock

18

300

Pin

600

pin Hub

708.8

900

Pin

1200

Hub

1500

1800

2100

+ 113.2

2213.2 Hub

2276.2

Hub

2676.8

22.35

70'

1015'



20

$V 6^{\circ} 20'$

Township Corner  
New Ties

Red Oak  $8'' N 33^{\circ} 25' E 41.5$

NP  $16'' N 81^{\circ} 41' W 75.70$

Red Oak  $6'' S 32^{\circ} 57' W 40.90$

J.P.  $8 S 29^{\circ} 50' W 65.2$

Red Oak  $9'' S 37^{\circ} 22' E 71.15$

To Spot at base

Turned from true Range

Line one mile North

Magnetic Variation

Reads  $6^{\circ} 20' E$

21

25

30

36

31

New Ties

CROOK 12' JP

~~115' 10" N~~

57° 55' E 65.10

JP 12 22° 40' W 57.62

JP 12 S 26° 20' W 55.75

JP 12 S 51° 20' E 67.75

JP 20 S 30° 19' W 49.15

JP 8' S 83° 35' E 38.65

RR SPIKE

JUNE 24 - 1949

Sec 31

139-27 Cross

Note: This spike goes  
North 3' +

36

31  
90°Township  
Corner

6

6-138-27  
CROW WING  
Co



22

June 6-1949

Monday Mike Schottz and  
his car @ at Trailer Ho. 7-30  
AM

Walter Musolf @ 8.

and his car  
@ 8- also Otto and car  
@ 8 AM

We intended to Town Line  
East BUT found boat  
gone So drove back and  
run line

EAST Random E

Sec 31-139-26

1/4 CH East

300-600 + 712.5 Hub

Ties JP 10N 81.5' W 8.70

JP 11S 28' W 3.25

120.0 900 Stake

75 1200 "

112.5 all stakes on line

1200 0 1110.2 Hub

89.8

020 1200.0 1200 Stake

89.8 79.5

1110.2

1279.5 Hub

On raise

7" JPN 35°50' E 32.2

15" NP 5 79°50' W 11.0

1-20 to 1-55 Otto Nelson

Corns

1200 + 300 = 1500 stake

West edge revenue

@ 1400 E 15" NP Heavy limbed  
Stands North 75+ feet North

Lookout tree with small board  
seat in top

1500 Stake 1520 Low revenue

N-S 1500 + 120 = 1620 pin

+ 5.3 = 1612.7 Hub

1620.0

7.3

1612.7

1612.7 Hub on Top

6" JPN 40° E 9.90

6" Birch N 84° W 27.8

1612.7

169.8

1782.5

1782.5 Soil Stake

West Edge, open

Cranbury Bog  
wet



'24

Musolf and  
Walk around west edge  
of Bog with Picket and Mike  
gives then line from  
Hub from 1612.7

6 ft  $\frac{1}{2}$  inch

Alex Michaelis

Nix Backwards See Pg 26

350 (432.2) 169.8  
Chd

340.0

28

337.2

169.8

337.2

507.0

12795

From 1612.7

600.5 Slodig

169.8

437.2

607.0

From 1612.7 Topt over Bog 607.0 Chd  
Sladin Reader 6 ft  $\frac{5}{8}$  inch OK close

430.0

12.2

78



From Page 15.  
From Pg 15 To Pg 35

25

1949  
May

Sun 2 3 4 5 6 7

0 8 8 8

0

April  
Time

24 27 28 29 30 31

To Page 35 →



26

Van 60401

2400

47

109.36

235.3

Gund

1782.5

2569.7

2914.3

1612.7

169.8

437.2

350

235.3

109.3

$$\begin{array}{r} 430 \\ - 2.8 \\ \hline 427.2 \end{array}$$

od 401

1782.5

2219.7

2569.7

2565.7

2805.0

2914.3

1

1612.7

169.8

1782.5

437.2

2219.7

350

2569.7

235.3

2805.0

109.3

2914.3

444.0

3358.3

427.9

3786.1

300

4086.1

300

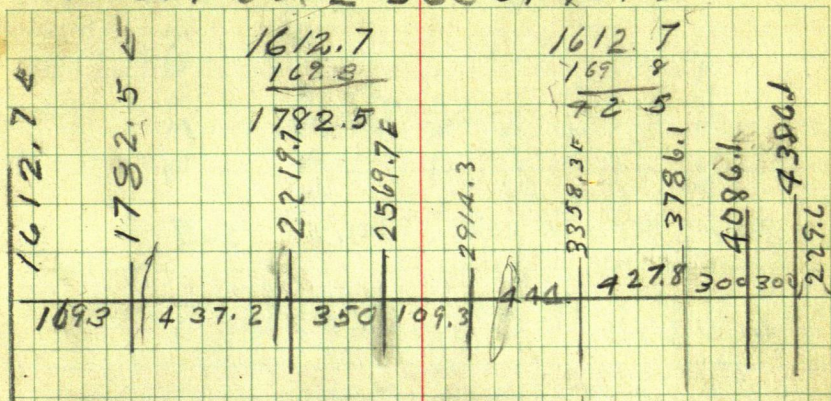
4386.1

229.6

4615.7

444.

East on E sec 31-139-26 27



Ties T. 335.3 = 60° split

NP 8" N 21° 50' E 14.43

NP 11 S 23° 43' E 16.58



28 June 7-1949 Tues

4615.7	4915.7	5215.7	5229.2	5385.9
229.6	300	300	13.5	156.7
229.6	150	150	13.5	156.7

*Woke Nox on line*  
*Start on motor*

LOUIS M. SCHULTZE

EQH 1

1915c

Lv No 4615.7 Covered with

4615.7	5170 Lv B-7	
300.0		
4915.7	160.0	
300	33	
5215.7	156.7	5229.2
135		156.7
5229.2		5385.9
5216.7		14
5229.2		
60		
5169.2		

139-26

6 5 4 3 2 1

7 8 9 10 11 12

18 17 16 15 14 13

19 20 21 22 23 24

30 29 28 27 26 25

31 32 33 34 35 36

6 5 4 3 2 1

7 8 9 10 11 12

18 17 16 15 14 13

19 20 21 22 23 24

138-20



30

North 90° to E-W Random

483.75

253.25

737.00

June 8-1949

Rain in PM. Mose and Otto Nelson go East around East side Wood Lake

Mike Shultze and I with Walt plow brush down West side to new Cut Canal and wait in the rain squalls for rain and while flag pole to show East side of lake is big open bog

While waiting on the Canal point we turn 90° to our Random Town Line and Cut line in wet brush 700'± -  
Get home one hour late



32 June 9-1949 Thursday

Pick up double center Hub  
spikes over lake run

East-but find no Dec Cor To

31-32-56 Continue East

East

Cut Line East bet 5 and

32 138-139-26

We hope to find  $\frac{1}{4}$  bet

5 and 32 No chaining

We could not make the whole  
half mile but O'Hara walks

30 Rods East and finds

1  $\frac{3}{4}$ " pipe set in the old

Joe Wood survey 35 years

ago

<sup>10</sup>  
June 8-1949 Friday

33

Walt Musolf, Mike Schultze  
and I finish cutting line  
East to a point 16.5 North  
of  $\frac{1}{4}$  bet 5 and 32

Then over look for Old Bts  
US Notes  $\frac{1}{4}$  Bet 5-32 Town Line  
Page 7 and Page 29 This Book  
Call for

WP  $28^{\circ}N 67^{\circ}E 107$  Lks - 70.62 ft

"  $28^{\circ}S 44^{\circ}W 180$  Lks - 118.80 ft

The NE tree is gone grubbed out  
in an old road which runs East  
but the SW Old Bt is still  
there tipped over But scribed  
plain and checkes Perfect  
both for course and distance  
with the  $1\frac{3}{4}$  inch old iron pipe  
which is the True  $\frac{1}{4}$  Cor bet  
Secs 5-32 on Town line bet 138-139  
R926



34 June 10 - 1949

From a point 16.5 ft North of this  
iron pipe we chain

West along our random line.

Bet Sec 5-32

@ 2.2 to 60 d spike

Went 300 - 600 697.6 Hub

900 Stake 1105.9 + 200

1100 stake + 300 - 1400 Stake

1400 + 100 = 1500 stake + 100 = 1600

1900 Stake +

144.5

2044.5 Hub + 250

259.5

2294.5 Hub + 30

300.0

2594.5 + 45.5

45.5

2640.0 went Hub on TRUE

E and W Random Find @ 110

Nelson waiting Eat our lunch

PM

Drove 2640 W Turn 90 off Random and Run  
North Random bet Sec 31-32

253.1 Hub

@ 737 + 400 Quit for night

More and I go home Eat Supper with Mike

Harold takes us to weather



Time June 1949

1	2	3	4	5 <sup>SUN</sup>	6	7	8	9	10	11	12 <sup>SUN</sup>	13	14	15	16	17	18	19	20 <sup>SUN</sup>
---	---	---	---	------------------	---	---	---	---	----	----	-------------------	----	----	----	----	----	----	----	-------------------

Jack Curo

Mixe Schultz

Car

Mose

Walt Masoff

O. H. Nelson

Alex Michaelis 8?

TRUCK

Dave

Truck



38

June 10-1949 Friday

Evening: I call Walke to tell  
Gertrude to have Harold pick  
Moe and I up at Mike  
Schultz's car but she does not  
know where Harold is.

7-30 Harold arrives at Schultz's  
res and we find that he  
met us coming out but did  
not know us and drove an extra  
18 miles to our Trailer House.

Found us gone and came back  
to Schultz where he also ate  
supper and we all drove into  
Walke.

Moe missed his car and  
walked 22 miles to Cass Lake  
in the night.

June 11-1949 Sat

Got a check \$35 from  
The B.F. Nelson Mfg Co  
401 Main St NE Mpls  
my Second Quarterly Exp acc  
Deposited \$25 in first Nat Bk  
of Waska on 41. + " 866. + in Bank  
25 -  
sent ch 6-90 for 119 lbs

Harold goes to Fisherman's  
Point to continue survey of  
Hammergreen

Sunday June 12-1949

Moss arrives from Cass Lake  
Harold and Young Don  
dinner Moss and I to Trailer  
to at Wood Lake



40

June 13-1949 Monday

Truck @ 7:45 AM

Mike Schults More

Walt Musolf and I ride the  
truck part way and walk  
80 rods in from new road  
where we find T + Tails

Mike and More missed North  
end of our survey line

Otto Nelson arrives in a few  
minutes Calls loud for  
Mike + More but they are back  
in a few minutes and we

Continue North on random

Ret 31-32-139-26

737.0 +

543.7

1280.7 Hub

412.3

1693.0 Hub

274.1

1967.1 Hub

341.2

2308.3 Hub

300.3

2608.3 Hub

10

2608.3

253

2633.6

cum sum.

Then down hill

30.5

25.3

261.3

52

41

5229.2

26.5

5255.5

30.

4.3

257

5229.2 E

26.0

5255.2 E cross E-W Randon

2634.0 N

3608.3

252

26340 ~

31

5255.2 E

Randon

1/4 90

1/4

1317

1317

90

26340

90

2640

TWP COR

⊕

TOWN LINE 52552

0165 0110 01



42

June 13-49

2608.3

$$\begin{array}{r} 121.1 \\ 2729.4 \end{array}$$

490.3

3219.7

HUB 1.5 E of Random

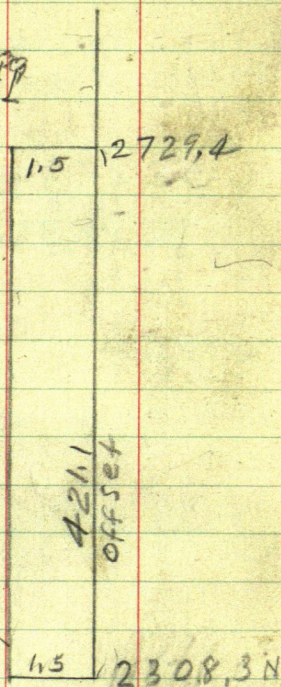
Tree online

2729.4

2308.3

421.1

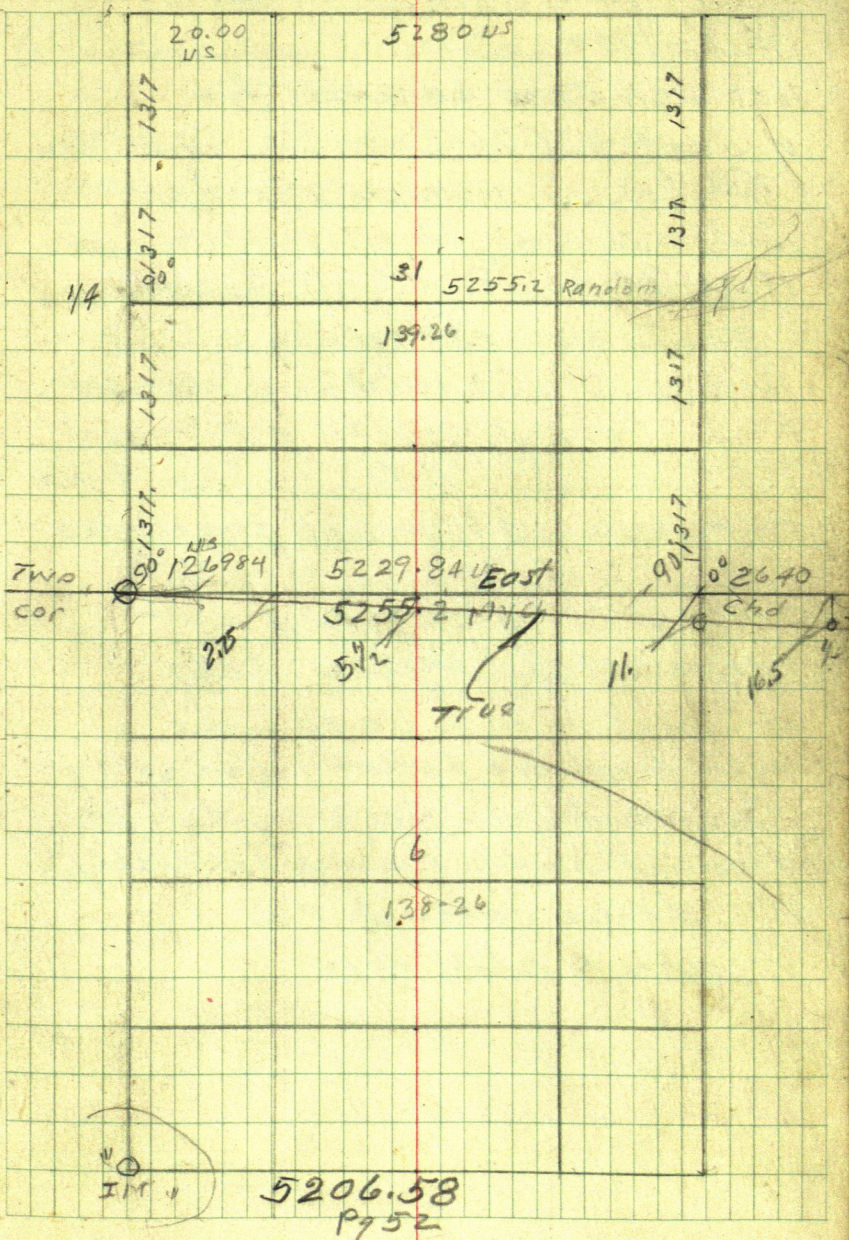
East Random Sec 31-138-26



Harold calls for me in  
Evening. Hilding Swanson  
Kyllingstead trial

I Leave instructions with Mike  
Schultze to take over Heller T  
and crew







44 June 14 - 1949 Tues

Mike takes over Continues  
North on East random line  
of Sec 31-139-26 Cass Co

All lines parallel to West  
Side of Sec 31 called North  
Mose - MUSEOLF and Otto helps

I and Harold all day in  
Brainerd with Hilding Swanson  
and Blix Kyllingslad Newspaper  
Mr. Johnson. After supper 8-PM  
Hilding and his car leads us  
10 miles West and North to  
Disputed  $\frac{1}{4}$  line on East  
shore of Upper Sylvan Lake  
on West side of Dade Lake  
After dark we follow Hilding's  
Car North and 5 or 6 miles  $\rightarrow$   
to 371 then on home to Walker  
An Eleven o'clock PM  
Gertrude still up

June 15-1949 Wed

All day in Walker

4:20 PM, Harold with Don and  
Ed take me to Trailer Ho  
at Wood Lake - where we  
find Moe alone in camp  
still smiling. Smile widens  
when he sees the New 2-Hour  
Kerosene stove I brought  
him \$7.50



46

Mike Schultze Notes June 14

Bog 3219.7 continue North bet  
Secs 31-32-139-24 139-24

North 300<sup>+3'</sup> stake 3570 300 + 50.3  
= 3570 Hub - 300 stake + 230 + 9  
= 4109.0 Hub

Bog starts about 3219.7

100 FT. N. of Hub

350.3  
3570.0

4109.0 about 250 FT. across bog.  
(very wet)

Continue N. from 4109.0 + 60. + 300.  
+ 40. + 3.30 = 4512.30 Hub. + 380 + 4.55  
= 4896.85 N. Hub.

Set backshot W. 17 $\frac{3}{4}$ " at Hub 4896.85 N.

Continue N. from Hub 4896.85 + 70  
+ 300 + 13.15 = 5280 N. Hub.

measure W. 17 $\frac{3}{4}$ " at Hub 5280 N set  
transit over Hub. (Random corner)

Find old W.P. stump that check  
very close.

After measuring to find old corner  
set transit over Hub 5280 and turn  
N. 90° E set peg and measure 13.4 FT.  
N. to corner. Then set Hub 13.4 FT. N.  
of Hub. 5280 N.

continued T. 49 47

From Hub 13.4 N. to Corner Measured  
24.8 Ft. E.

Set Transit over Hub 13.4 N. and  
take reading of Corner Hub 5  $88^{\circ}56'E$   
Nothing filled in at 4.40 P.M.



continued to p. 51

49

50

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25



Brot from Pg 47

4335.80  
59.35  
4395.15 51

Friday June 24-1949

4400.00  
197.85  
4597.85  
35.15  
4633.00

Harold's Notes

J.W.C. Check chains from

Twp Cor South along Twp  
Line Otto Nelson helps him  
I, with 3 men drive  $\frac{1}{2}$  mi  
So Lv Cor and walk SE to  
end of cutting

West random on So side

Sec 6-138-26 Pickup west  
end of Mike Shultze line JWC

Heller X over Hub 1" wood  
hub 3735.80 West + 300 = 4035.80  
slake + 300 = 4335.80 slake + 59.35 =  
4395.15 - 60 d spike + 4.85 = 4400  
pin + 197.85 = 4597.85 Hub = 60 d spike  
+ 300 = 4897.85 slake + 35.15 = 4933.  
Hub = 60 d spike + 139.9 = 5072.90 Hub

Wood Ten feet East of Box

Heller X over 5072.90 West

S.W. Cor Sec 6 bears R 20° 12'

249. feet Stadia Harold Cor

Continued To Page 53 This Book



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527859

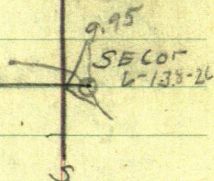
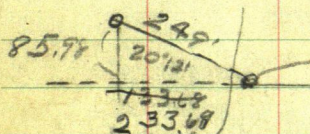
9.8

326879

6  
138-26

5044.9  
233.68  
5278.59

5072.90



20°12' R 249'

$$\text{Sine } 345298 \times 249 = 85.98$$

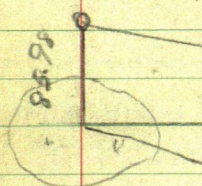
$$\text{Cos } 938493 \times 249 = 133.68$$

5072.90

133.68

5206.58

6-138-26



West

5206.58

5306.59

90

SECOR

6-138-26

5072.90

233.68

5306.59

S.W. Cor Sec 6-138-26

Iron Pipe in bog



249

233.69 20°12'

20°12'

$$\text{Sine } 345298 \times 249 = 85.98$$

$$\text{Cos } 938493 \times 249 = 233.69$$

$$\text{Tan } 267268 \times 233.69 = 85.98$$

$$367928 \times 233.69$$



June 24-1949  
Continued From Pg 51

53

This book Harold's Notes  
Bob Bowman: Dave  
Walt Musolf - Ott Nelson comes  
in PM

2 PM. Pack  $\pi$  thro brush  $\frac{1}{2}$  mile  
N.W. to car where we find Jack  
Curo and Otto Nelson

We all drive north to To

S  $\frac{1}{16}$  West Side 31-139-26

when I set RR spike  $2\frac{1}{2}$  inches  $\pm$  9  
old random spike which I pull up  
Switch to Warren Knight  $\pi$   
which has just come from Factory  
a week ago in fine shape

Tiest to S  $\frac{1}{16}$  Focus So 1317.0 Ft  
on Twp Cor Turn  $90^\circ$  Run

East on So  $\frac{1}{16}$  Line Sec 31-139-26

Ties: JP 20 S  $30^\circ 19' W$  49.15 ft

JP 9 S  $83^\circ 35' E$  38.65

300 Stake: 322.6 Hub RR spike 600

Stake: 684.8 Hub RR spike 900 St

1074.2 Hub RR spike 1200 Stake 1307. E Botta

in 260 ft Kavli New road 1465.8 wood  
Hub on bank = Stake line on shore of  
Little Lake



54

## Kovli Wood Lake Survey

sec  
cor

24

31-139-26

32

TWIP  
cor

1269.84

525520 My ch  
5229.84 US

2640

90

TRUE

25.36 Lorn

16.5

Cut Line

5349.6  
5338.6  
5359.8

0 cor

9.95

S 5359.8  
 10.2  
 53496  
 11  
 53386



Mon. June 19th, 1950

Otto Nelson, John Nygard, Bob  
Cox & I led the cats on H.W.

@ S. E & W. 1-16 line walk E.

To Hub 2255.26 E.

X (Heller) @ Hub 2255.26

b.s. West Run 300

2255.25 + 310 = 2565.25

4018

248.3

4266.3

5044.90

233.68

5278.58

Marye

Ties to S.E. Cor. of South

E. & W. 1-16 line

8" Red Oak N. 85° 30' E. 4.1A

10" Poplar S. 17° 25' E. 26.9F

8" " N 45° 05' W. 19.8



# KAVLI REALTY COMPANY

*Lake Shore Property*

217 SOUTH SIXTH STREET  
MINNEAPOLIS, MINNESOTA

April 25, 1949

Messrs. Jack & Harold Curo  
Walker, Minnesota

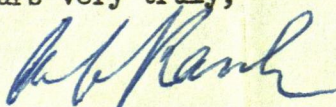
Dear Messrs. Curo:

Confirming my conversation with you over the telephone today and talking with you personally on Sunday, April 24th, I am hiring you people to survey the subdivision at Wood Lake located in Crow Wing and Cass Counties, Minnesota, on the following terms and conditions:

I agree to pay Jack Curo \$150.00 per week for a 6 day week of 8 hours each day of working in the field with the understanding that you will <sup>also</sup> do some figuring and planning of the job on time that you are not actually in the field, and I will pay Harold Curo \$16.00 a day for an 8 hour day. It is a further understanding that there shall be two crews and that each one of you shall handle one crew, and it is further understood that you will stay on the job until the work is completed. If for any reason it is imperative that one of you leave the job for a day or two at longest, there will at all times be one of you there to direct the work so as to keep the people who are doing the brushing busy so that the job does not stop. Otto Nelson is to be my representative on the job and shall arrange to get men to do the necessary brushing and chaining and if he runs short of men, you are to help him get men to keep this job going. It is imperative that this job be pushed to completion at the earliest possible moment for the reason that the selling season will soon be here. It is a further understanding that I am to pay \$50.00 for each record plat and further that there will be two record plats, one in Crow Wing County and one in Cass County so that the total cost of the record plats will be \$100.00. You further agree to cooperate with me to expedite this work and to do it in a first class workman like manner in the shortest time possible. It is also further agreed and understood that you will start work on Thursday, April 28, 1949 and that you will continually stay on the job until it is completed. It is further understood that if for any reason I am unable to get help for brushing and chaining that your employment will stop, and also if for any other reason that I do not wish to go ahead with the job that your employment will stop. I however do not anticipate anything along this line. Further, you are to receive your pay at the end of each week or as soon as I can get them out from the office here after receiving the bills from Otto Nelson.

I think it best that we have our understanding in writing as per this letter even though it is practically impossible to write a definite contract on these working conditions. I mentioned all of these facts to you in my telephone conversation and they seemed to be satisfactory to you so I am just writing them out so there can be no misunderstanding.

Yours very truly,



A. C. Kavli

ACK:L

1 copy for Jack Curo ✓  
1 copy for Harold Curo  
1 copy for Otto Nelson



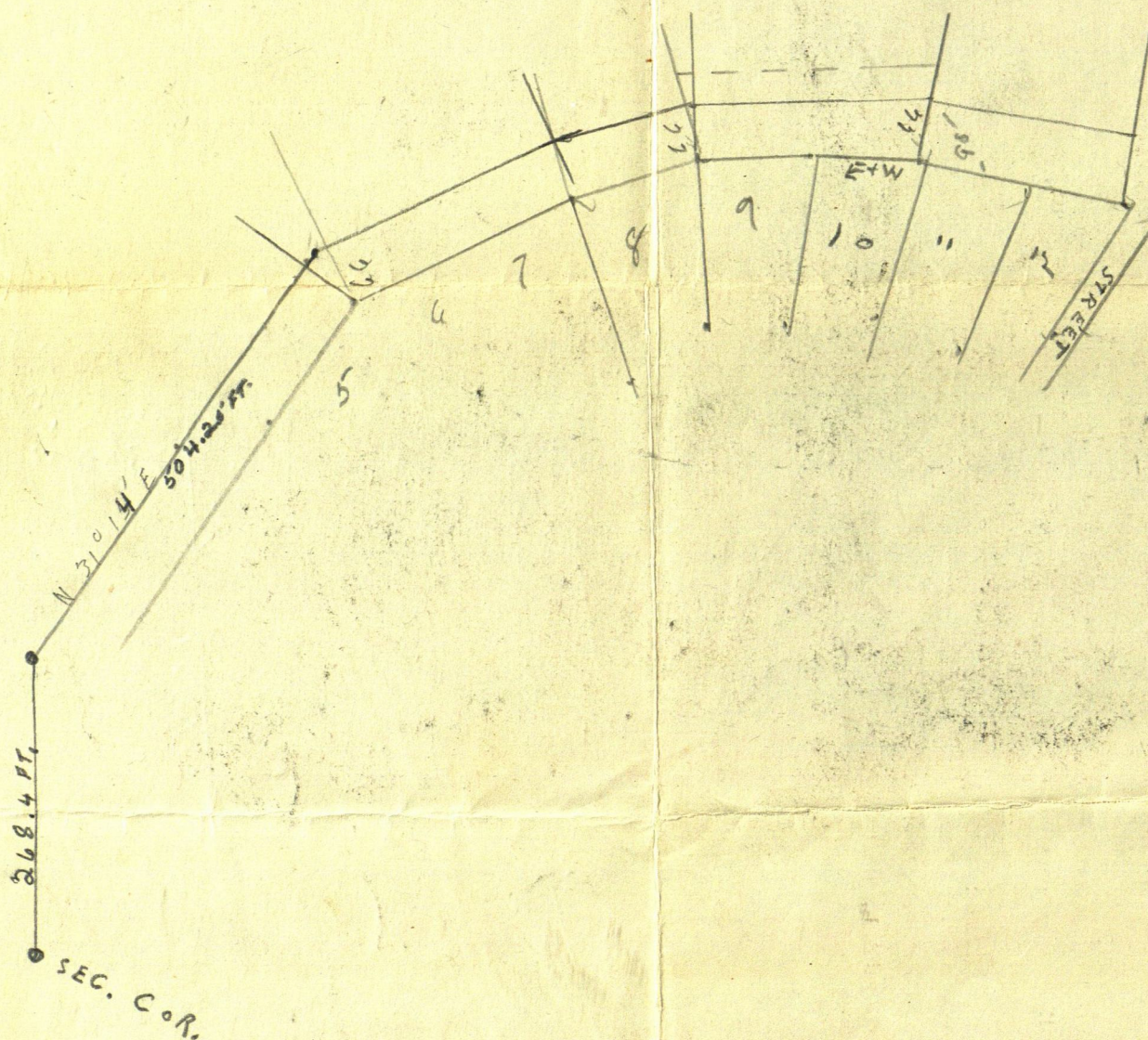
FULLY BONDED

OFFICE PHONE 207  
RES. PHONE 74W

# HAROLD CURO

COUNTY SURVEYOR  
CASS COUNTY, MINNESOTA

WALKER, MINNESOTA





Due to off set in  
 line @ 2100 set  
 T @ HUB about 1800  
 S.S. N. on 45.1 @ HUB  
 1291.25 FT. SET @ PPS  
 @ 2180.2 FT.  
 T @ 2180.2 FT. S  
 RUH 2180.2 FT. 35 FT.  
 T @ SPIKE 35 FT E.  
 B.S. W. CONTINUE RUH  
 S. 337.8 SET HUB  
 @ 2640 FT. S. @ 364  
 500 FT 1142.  
 CH. 60 FT TO 2700  
 CH. 5 TO 3166.7 FT  
 SET SPIKE.  
 T @ SPIKE 3354.7  
 B.S. N. ON HUB 35 FT.

RUH S. 224.6 FT  
 TO OLD HUB 224.4 FT  
 CH. 300 FROM I.M. OR  
 SEC.  
 CH. 300 SET  
 CH. 62.1 FT S. TO  
 OLD HUB @ 267.1 OLD  
 MK. 667.2 FT. S.  
 CH. OUT TO 900 FT  
 " 300 TO 12  
 " 1291.26 FT. S. OLD  
 HUB MARKINGS NOT  
 READABLE  
 SET CH. STAKE @ 1320 FT S  
 (NOT ON LINE)  
 CH. TO 1600  
 CH. 300 TO 2100 S.

214 016 86  
 1 2 3 4 5 9

4150  
 2.15

9970  
 1 36.9  
 10096.9

5229.20  
 2238.  
 3366.88

23.3  
 2008.3  
 23.3  
 2008.3

CHECK MEAS. OF  
 WEST N 85 1-16  
 FROM S.E. & W 1-16 LINE  
 TO COLINE 1314.7  
 TO COLINE OR 2651  
 FT FROM E & W

29.1  
 2.9  
 100  
 4  
 2231  
 22  
 2008.3  
 23.3  
 2008.3

1320.2  
 1314.9  
 2635.1

2100  
 2100  
 2100  
 2100  
 2100

E. find course will  
 not follow old cutting  
 so. continue by ch.  
 only.  
 set ch. stake 3900  
 S.E. Road Bank  
 CH. 50. 248 FT. TO BACK  
 OLD HUB 4048.4 FT. 50.  
 OUT MEAS. 4148 FT. 5.  
 CH. 52 FT. TO CH. STAKE  
 4200 FT. 50.  
 @ 4447.6 FT. 5. TO  
 OLD HUB. 4345 FT. 5.  
 SET CH. STAKE @  
 4500. FT. 5.



3419.45  
 203.8  
 3623.25

3419.45  
 238.06  
 3657.51

SEPT. TUES. 6TH. 1947  
 DAVE & I ON S. ROAD LOT LINE

λ AT STA. 14.

RUN. S. 18° W. 100 FT. TO 'STA. 15'  
 OR HUB 2670 FT.

STARTING TO RAIN. LEAVE  
 FOR HOME AT 10 O'CLOCK.

627  
 272  
 747  
 3419.45  
 238.06  
 3657.51

0871  
 006  
 009  
 005

498  
 111  
 088.9  
 0532  
 0697  
 082.5 / 0532

0508  
 0018  
 0031  
 0091  
 0001  
 006  
 009  
 005



3170  
 13'0  
 3320  
 26'0  
 3670

(P1)

SEPT. MON. 12TH. 1947,  
 CLOUDY & LOOKING LIKE RAIN.  
 I PICK DAVE UP AT HIS HOME  
 AND DRIVE TO WORK. NO ONE ELSE  
 THERE WE DRIVE IN ON SOUTH  
 ROAD TO STA. #16 ON ROAD LOT  
 LINE.

AT STA. #16 B.S. N. 18° E. ON  
 STA. 14.

RUN S. 2° 30' W. 100 FT. TO  
 STA. #16. OR HUB 2770 FT.

AT STA. 16.

RUN S. 9° 30' E. 300 FT. TO STA.  
 #17. OR HUB 3070 FT.

AT STA. 17.

RUN S. 30° E. 100 FT. TO STA.  
 #18. OR HUB 3170 FT.

AT STA. 18.

RUN S. 54° 30' E. 150 FT. TO  
 STA. #19. OR 3320 FT.

AT STA. 19.  
 RUN S. 48° 30' E. 250 FT. TO STA.  
 #20 OR HUB 3370 FT.  
 AT STA. 20.  
 RUN S. 15° W. 100 FT. TO STA. 21  
 OR HUB 3670 FT.

Q



AT STA. 26.  
 RUN S.  $6^{\circ}30'$  E. 175 FT TO STA.  
 27 OR HUB 4820 FT.

(P. 2)

SEPT. TUES. 20TH. 1949, (P. 1)  
 DAVE & I WORK ON SOUTH  
 ROAD LOT LINE.

AT STA. # 21 OR HUB 3670  
 B. S. N.  $15^{\circ}$  E.

RUN S.  $84^{\circ}30'$  W. 275 FT. TO STA.  
 22 OR HUB 3945 FT.

AT STA. 22.

RUN S.  $55^{\circ}30'$  W. 100 FT. TO  
 STA. # 23 OR HUB 4045 FT.

AT STA. 23.

RUN. S.  $44^{\circ}$  W. 200 FT. TO STA  
 24 OR HUB 4245 FT.

AT STA. 24.

RUN. S.  $64^{\circ}30'$  W. 300 FT. TO STA.  
 25 OR HUB 4545 FT.

AT STA. 25.

RUN. S.  $24^{\circ}$  W. 100 FT. TO STA.  
 26 OR HUB 4645 FT.

3670  
 275  
 3945  
 100  
 4045  
 200  
 4245  
 300  
 4545  
 100  
 4645  
 175  
 4820



AUG. THUR. 11TH, 1949  
WALT, ALEX, & I. DRIVE MY CAR  
IN TO 1-4 LINE ON N. ROAD

T AT HUB 1173.6 FT  
CONTINUE SOUTH  
CHAIN FROM HUB 1720.35 FT.  
325.7 FT. TO HUB 1646.05 FT.  
X AT 1646.05 FT.

TURN ANGLE TO STATION 23  
IN CUT OUT ROAD.

S. ~~83~~<sup>80</sup> 26' E. 86.3 FT.

CONT RUN S. 14.1 = 1760.15 FT  
LINE CUT .95' LEFT OF SPOKE  
ON 3" ASH 8' FT UP. 1910.45 FT.

CONT. S. 264.4 FT. TO HUB IN LAKE  
LOT STAKE LINE 20.15 FT. FROM  
STAKE 45' 00 FT. S. E.

X AT HUB 1910.45 FT.  
HUB 4655.8 BEARS S. 30° 32' E.  
135.65 FT.

@ 1940 S. LAKE 8 FT. R.

CONT. S. 120.70 FT. TO HUB

2031.15 FT. ON LAKE SHORE



2.  
TIES TO HUB 1710.45 S.

10" POPLAR N.  $38^{\circ}06'$  W. 21.15 FT.

8" W. OAK N.  $50^{\circ}37'$  E. 1.65 FT.

AFTERNOON. BACK AT CANAL

~~AT HUB 170.9 FT.~~



COUNTY SURVEYOR  
CASS COUNTY, MINN.  
FULLY BONDED

CIVIL ENGINEER, REGISTERED  
LAND SURVEYOR, REGISTERED  
MINN. REG. NO. 1428

JOHN W. CURO

SPECIALIST  
IN  
DIFFICULT SURVEY PROBLEMS

WALKER, MINNESOTA

34-25-36-37-40  
40/ 41-42 43 44 45 46-  
100 100 100 100 100 100

NORTHWEST



100-100 58.8  
21 22 23 24 25  
100 100 100 100 100  
212 212 212 212 212

150  
245  
119  
364

26- 27- 28- 29- 30- 31- 32- 33  
100 100 100 100 100 100 100 100  
381.6 381.6 381.6 381.6 381.6 381.6 381.6 381.6

34 35 36 37 38 39 40  
100 100 100 100 100 100 100  
203.8 203.8 203.8 203.8 203.8 203.8 203.8

41 42 43 44 45 46 47 48  
100 100 100 100 100 100 100 100  
203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8

249 380 380 380 380 380 380 380  
100 100 100 100 100 100 100 100  
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203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8  
238.12 238.12 238.12 238.12 238.12 238.12 238.12 238.12  
189.64 189.64 189.64 189.64 189.64 189.64 189.64 189.64  
131.57 131.57 131.57 131.57 131.57 131.57 131.57 131.57

203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8  
238.12 238.12 238.12 238.12 238.12 238.12 238.12 238.12  
189.64 189.64 189.64 189.64 189.64 189.64 189.64 189.64  
131.57 131.57 131.57 131.57 131.57 131.57 131.57 131.57

203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8  
238.12 238.12 238.12 238.12 238.12 238.12 238.12 238.12  
189.64 189.64 189.64 189.64 189.64 189.64 189.64 189.64  
131.57 131.57 131.57 131.57 131.57 131.57 131.57 131.57

386970 33000000  
13428 13428  
4428 4428  
2214 2214  
3565 3565

925651 33000000  
2776953 2776953  
5230470 5230470  
4628255 4628255  
6022150 6022150  
5553906 5553906  
468244 468244

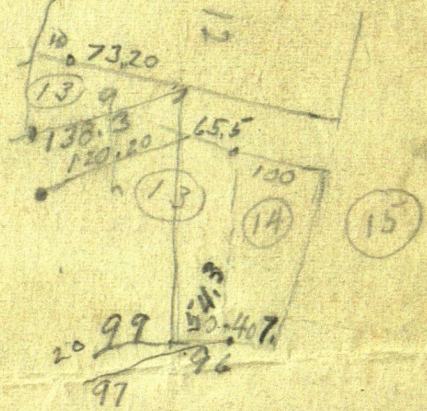
203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8  
238.1 238.1 238.1 238.1 238.1 238.1 238.1 238.1  
189.6 189.6 189.6 189.6 189.6 189.6 189.6 189.6  
131.5 131.5 131.5 131.5 131.5 131.5 131.5 131.5

249 380 380 380 380 380 380 380  
100 100 100 100 100 100 100 100  
203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8

249 380 380 380 380 380 380 380  
100 100 100 100 100 100 100 100  
203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8

5282 288 4016

109.55 59 59



109.55 79 305.5 328.6 288 040.6 305.5 714.6

2403 3042 4655.8 4960

249 380 380 380 380 380 380 380  
100 100 100 100 100 100 100 100  
203.8 203.8 203.8 203.8 203.8 203.8 203.8 203.8

109.5 77

2 44/80 40.6



Kovli

55

July 3-1949 Sunday  
All day in Walker

July 4-1949 Monday  
All day in Walker

July 5-1949 Tuesday  
Dep @ 6-AM still raining  
6.10 Lv Walker - Rush thro Hack  
Backus - Pine River and 7 miles  
E = 38 miles @ 7.10 still raining  
Earl (Mike) still horn  
Transfer Heller & and  
luggage to Mike's Car,  
Harold goes back to Walker  
Mike and his car come on EXN  
Av my Trailer House 8.10 AM  
Rain partly stopped  
Mike and I work alone  
Stake out angle points & road  
10-30 we go to Ott Nelson res  
Ott paws out 6' sticks and 2' sticks  
14 p 1x2x72" 20 short sticks 2' Long  
Back to Trailer Ho at noon



Kov 11

58

July 6-1949 Wed

Schultzgear Trailer Ho 7:40 AM

Still raining slightly

We drive to Big Pond Dam

Then back to Otto Nelson Res 5

Then to Pine River where I  
call on Mrs Prossit at Silverdres  
wants \$400. for her Trailer Ho

Too small for me. Shave +  
buy groceries Dinner with Ramsey  
Schultzge On Trailer Ho 1 PM

Mike takes 8 tall stakes  
and marks Road angle. From  
Sta "0" NE I write up notes  
at camp Mike returns @ 2-30  
PM Otto Nelson slips in  
to "catch" us loafing

This will cost Kovly more  
money for my services



July 6-49

20 151° 59  
4  
16

#4 Run S 86° 26' W 240 To #5

S 86° 26' W

#4

5 11' E

~~5~~ 70

4

5 plate

#5 Run S 61° 57' W 426.85 To #6

3" Oak N 60° W 15.9

130.00

3 15

126.85

3

4 26.85

T at #6 Run EXT 6' 5ft long

Ties to #6

⑥

N 25° 57' E

To 4" JP

N 40° 39' W 11.5 ft 7" JP 34.05

⑦

6.5 EXT 50 ft long

Sta #6 Run

336.5

340 -

34  
34 00

357

336.5

#6 Run S 28° 49' W 336.5 To #7

EXT 12 ft 100 Long



160.

# 7 Run 299.4

7 Run S  $3^{\circ}12' E$  299.4 T. <sup>flor</sup> <sub>pile</sub>

To point of West edge of  
Road which will be E of  
Q. Road

Ties to Sta 7

8" ZP N  $5^{\circ}17' E$

5" JPN  $51^{\circ}47' W$

299.4

57.2

356.6 To pt

Tap con ch E 148.3 T

@ 197.5 mph W side Road

$200 + 20.7 = 220.7$  mph E.

mile Road

Note Angle @ ZP Sta 8 don't put

$\Delta$  @ # 8 - # 70 ears



Kavli

July 6-1949 continued

161

PM Rover Sta 4 Page 57 Run

S  $86^{\circ}26'W$  240' to Sta 5. Stake

External 11' - 70 ft curve

#5 Run S  $61^{\circ}57'W$  426.85

To Sta #6 Ties 3' 09" N 60 W 15.9

#6 Ext 6 1/2 curve 50'

Ties to Sta 6

N  $25^{\circ}57'E$  to 4" Jack pine 34.05 ft

N  $40^{\circ}29'W$  11.5 to 7" JP

#6 Run S  $28^{\circ}49'W$  336.5 To Sta 7

Ext 13 ft Curve 100'

Ties to Sta 7

8" JP Pine N  $5^{\circ}17'E$

5" JP Pine N  $51^{\circ}47'W$

#7 Run S  $3^{\circ}12'E$  299.4 To Flag

pole at West edge of Co Road

which will to Q later + 57.2 =

356.6 To Sta #8 Set 148.3 ft

on random East of Twp Cor

Twp Cor Ch E on Random 148.3 R

197.5 bolt W-Edg 220.7 spike E

side Otto helps PM Quit 5:20 PM

= 1/2 day for crew



Kavli 31-139-26

62 July 7-1949 Thursday

6 o'clock up a trailer to

cloudy 7 AM rain starts

9 AM rain slack no Mike

or Otto I figure correction  
of section lines

See page 6 To 13 - Pa 9

TWP	5229.84	US
COR	5255.20	My ch
	5229.84	US
	<hr/>	
	25.36	Long in 5229.84

Long 4849258

5229.84 / 25.36000

2091936

4440640

4183872

2577680

2091936

4857440

4706856

1505840

1045948

4598720

4183872

Correction = 04849096 Long  
So line Sec 31 = Twp Line



July 7-cont'd  
PM Rain stops

63

1-15 Mike Comes We drive to  
Sta 0. RUN  $7^{\circ}14\frac{1}{2}'E$  230-  
1.3 off = 228.7 To Sta 9.  
@ 110 CR 4'E

Turn over #9 BSS  $7^{\circ}14\frac{1}{2}'W$   
External 7 ft 100' curve  
320-2' = 318 To Sta 10  
@ 150 Road Sags 4'E  
#9 RUN  $9^{\circ}16'W$  318. To 10  
Ties To #9

11" JPN  $60^{\circ}12'W$  30.50

12" JPN  $6^{\circ}30'E$  29.15

Stake East mkd 10' ONT

To #10 BSS  $9^{\circ}16'E$

Q Road  $S9^{\circ}16'E$  37'

" "  $S72^{\circ}E$  131

"  $N31^{\circ}E$  60

"  $N27^{\circ}30'E$  173

"  $N28^{\circ}15'E$  232

"  $N30^{\circ}30'E$  305

#10 RUN  $32^{\circ}18'E$

Ties to N-10 UPR  $N10^{\circ}17'E$  57.65

Birch 8"  $S71^{\circ}26'W$  10.4

Var  $5^{\circ}30'$

To #11  
5' JPN



64 July 7-1949 cont'd  
Sta 10 Run N 32, 18'E

348 E Road 390 Sta 11

Over Sta 11 Ties

11" Red Oak N 60° 14' E 29.9 <sup>T.P. spot</sup>

6" " " N 22° 50' W 17.05

E Road 554° E 18 ft

" " 59° E 55'

" " 89° E 170

11 588° 03' E 390.3 T. #12

to #12 Ties to 12

NP 15 S 41° 01' W 33.8

JP 8 N 58° 03' W 4.1

Sta 13 S 69° 50' 1/2 E 7.13

E Road S 85° 28' W 82.

= Foot Big Hill

E Road 15' R

" " S 69° 50' 1/2 E 170 Top of Hill

1. " " " 300

Quit 5 PM May change #13

= 4 Hours P.M.



Time Sheet Working For Kevli Co

So half Sec 31-39-46 Wood Lake Plot 17 Cass Co Minn

July 1949

	SUN	1	2	3	4	5	6	7	8	9	SUN	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	SUN
John W. Curo	8	4	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Car																											
EXP																											
Harold Curo	?																										
Car																											
Mike Schultz																											
Car																											
Otto Nelson																											
Car																											

Jack curo 87.5 am 8125 = 8212.50

Not paid To be paid WEEK ENDING 1

July 25-1949 Curo

From Pg 35 To 111



66

Kavli Plat  
31-139-26

July 8-1949 Friday  
Am still in Trailer Ho alone  
at Wood Lake Raining

up @ 6 A.M. Still raining

Note: This is the Third day  
the rain has held us up except  
a few hours in the P.M.

Rain stops up @ 7.35 AM  
Mike Schultze should be here  
by 8 A.M.

Figure angles and "sech"  
See Page 62. N.C. Too dark  
will have to get to the office

8 A.M. No Mike, and now it  
is raining, - like hell!

9.20 no rain

12 To 12.15 O.Ho with Mr  
Hagen his bro-in-law at Trailer  
Ho. still cloudy

Mike ar 1.05 PM We work in  
Lakeshore



PM.

July 8-1949 Continued

67

TOVER 220.7 Page 60  
continue Random Twp Line

EAST + 106.8 = 327.5 E

S 00 21 = 327.5 goes S 0

.68 of a foot to TRUE LINE

220.7 goes S 0.46

172.5 Ch E 12.5

Find old spike 210 E in E

Co Road TOVER 210 E

TRUE line is 5.44 of a foot

From 327.5 E 10' from water Run

Chain From N. Side of

Street @ 100 stk 10. ft from water

N 2° 42' W 300 - 33 ft from water

@ 200 stk 20 ft from water

@ 300 stake 33' from water

Then 40° R 100 stk into 400

Walk back to pt on random

148.3 E of Twp cor Ch. 3150 to

Irue line Then

@ 100 stk 15' R @ 200 stk 15' R

@ 300 stk 15' O - 357 RZ

From 300 stake 15' Ch

Northerly along E. side of

100 stk 15' R 400



Kavli

68 July 11-1949 Monday

J.W.C. went to St. Paul last night on train

I work in office until almost noon then drive to Jenkins then on to Norman Robinsons on W side Lake Sibley where I leave him the description of the land he wants to buy from Walker.

it rained hard all forenoon and part of P.M.

I meet Mike Schultz in Jenkins and Tell him

I will be out to-morrow.

Drive on to Walker

Harold Curo



Tues WOOD LAKE

July 12-1949 Tues.

69

get late start drive to schultz  
mike has left. I drive on to  
Traiter house, as there are no  
cars around Traiter house. I  
drive out on Nelson's new  
roads. find Mike at hub  
1307 E of S  $\frac{1}{4}$  cor on Twp line  
Mike was going to finish the  
S  $\frac{1}{4}$  line as he had no notes  
to work on Lake shore or streets  
I help him get hub set over  
lake and then give him the  
course between Sta. 11 & 12

he will work on street and  
I will run Lake shore

as the street or road from  
1307 on S  $\frac{1}{4}$  line to the Twp  
line doc's not check I rerun  
same as follows

Tower 6" bolt in  $\phi$  of street  
Sta 0 B.S. W. on  $\frac{1}{4}$  line and run  
S  $6^{\circ}47'$  W - Sta 1 S  $23^{\circ}48'$  W Sta 2  
N  $82^{\circ}32'$  W " 4 S  $86^{\circ}04'$  W " 5  
S  $61^{\circ}28'$  W " 6 S  $28^{\circ}20'$  W " 7  
S  $3^{\circ}43'$  E " 8 90° W = Twp Cor

Harold & Cora



70 July 12 continued

I do not chain these over  
See page 57 this book  
for distance bet stations

We go and run Lake shore  
as Mike & JWC started this  
I take their Notes for it

See Page 67 - This book  
Says From 327.5' E 10 ft. W of  
Water run N  $2^{\circ}42'$  W 300 ft

I set Tower stake marked  
300 BS S  $2^{\circ}42'$  E on hub 327.5?  
and run N  $38^{\circ}52'$  E @ 50 water 10-R  
@ 100 (stake 400) Water 15-R.

Tower stake 400 BS, S  $38^{\circ}52'$  W  
and run N  $60^{\circ}32'$  E @ 100 out to stake  
marked 500 Water 18 R @ 200  
stake marked 600 Water 24 R

Tower 600 BS-S  $60^{\circ}32'$  W and  
run N  $56^{\circ}$  E @ 100 stake marked  
700 Water 12 Right

@ 200 stake marked 800 Water 30 R

K still @ 600 run N  $56^{\circ}15'$  E  
300 ft to stake marked 900 on top  
Lake 75 ft R

Harold Curo



July 12-Continued

Tower 900 B.S. S  $56^{\circ}15'W$  and  
 run S  $87^{\circ}57'E$  on top of bank

@ 100	stake MKd	1000	Water	70 R
@ 200	" "	1100	" "	70 R
@ 250	" "	1150	" "	70 R
@ 300	" "	1200	" "	105 R

Tower 1200 Sta 3 bears S  $54^{\circ}34'E$   
 30.68. ft

Harold Curo



72 July 11-1949  
Monday - Rain No. on  
Works Jack Curs in mple

July 12-1949 Tues  
Mike Schultze  
Notes.

Mike Schultze - Heller &  
300' and 100' steel tapes  
Hi Pockets  
and Walt Mursalf with  
Mike

The Road

R #12 #13 on St 11

N 88° 03' W

Run S 71° 03' E 356.15 to  
Sta 13 Ties to 13

8" Pop N 72° 47' E 34.95

4" Birch N 9° 35' W 19.95

Road # 150 14"

" " S 30° 49' E 45.5'



July 12 - Tues Continued  
From #13 Run

S 41°15'E 249.7 To Sta 14

To #14 Ties

8" Red Oak S 53°17'E 21.80

10" " S 43°14'W 34.8

€ Road

S 4°E 58'

S 57°W 14.2

N 48°30'W 57 67.4

Run S 9°23½'E 171.85' To 15.

To #15

9" Red Oak S 1°40'E 18.65

6" " S 86°23'W 24.8

€ Road

North 30'

N 54°10'E 16

S 47°45'E 120

15 Run S 47°49'E 320.77. (16)

To (16) 5" Pop N 3°57'W 14.2

5" Birch N 40°45'E 14.85

€ Road S 19°E 150

S 50°W 16 N 52°30'W 58

Run S 20°12'E 163.6

Schultze Notes



74 July 12-cont'd  
#16 Run S 20° 12' E 204" T. 17  
Sta 17 (@ 163.6 Follow &  
of All Rod)

(7) Ties

8" Pop N 31° 21' W 6.7'

8" " S 23° 43' E 5.5'

& Road

N 23° 24' W 54.2

N 12° E 32.4 & Curve

N 50° 30' E 77.2

Run N 57° 33' E 110' T. H 18

That's all of Mike's notes

8 Hours

Mike Schultze Notes



JAC. K

75

July 13-1949 Wed

Jack Curo back

Harold and Gertrude and

Jim L & Walter L & M

Breakfast at Pine River

Meet Mike and his Car at Schuch

Road Harold returns to Walter  
and to work on Rect

Mike and JWC Meet Otto

Nelson & who takes Two men  
Hi Rockers

Alex - and Sanders

Cuts stake line around L & Shou

JWC, Mike & myself Run  
Road

Station K 17 Run N 20° 12' W 40.5

To Sta 19 ~~From which we run 19~~

~~The Continues Main Road~~

K 17 Sta 18 = spoke in main road

K 17 Take Curve

E Road in Curve

John W Curo



76 July 13- cont'd  
T over #17 Run  
~~1 Set Back~~  
BS N 20° 12' W on 16

T@17 Run N 20° 12' W 40.5'  
To 19 - spike in main Road in Curve

T@17 Run<sup>N</sup> 45° 15' E 174.3 To #20

T still 17 Run again to 18  
N 57° 38' E 110.7. 18

T@18  
E Road in Curve  
West 18

N 45° W 15  
North 28

#18 Run N 10° 20' E @ 62 E Road  
@ 100 E Run

@ 200 E. Road

@ 300 E 8' R

@ 364.5 To Sta 21

John W. Curo



July 13. cont. KAN 11 JWC T

77

T @ 21 BS ON 18 S 10° 20' W

H 22 Run N 46° 47' E 444.9

Ties To 21

N P 14" N 30° 03' E 17.6

N P 5" S 52° 08' E 41.2

Q Road

East 13.5

N 55° E 24

Run N 46° 47' Road

Road Run N 46° 47' W

@ 100 Q Road 7 ft R

@ 125 E S R 8 ft

@ 200 Q Road 2' L

@ 300 Q 12' L

@ 400 Q

350 Q 15' L

400 Q 10' L

T over Sta 22

Ties To H 22

6" Birch N 14° E 5.0

7" Red Oak S 85° 45' W 11.8

Q Road Sout 14

S 45° E 17

S 69° E 54

Road runs about 64° E 600 ft -

Out for dinner John W Carr



78 13 continued SE 80  
July 13-1949 Wed 250  
330

PM 1.05 Heller  $\pi$  over  
Sta 19. P975 RUN short + S106 Rd  
S  $2^{\circ}17'W$  330 To Sta #23

To Sta 23 Ties RUN S  $40^{\circ}08'W$   
E 190 To Mah at end of cut  
out Road

Ticks to 23  
4" Birch S  $44^{\circ}02'W$  20.6  
8" Pop N  $39^{\circ}41'W$  33.4

$\pi$  over (29) BS S  $45^{\circ}15'W$  on 17  
Take a Road Branch  
S  $30^{\circ}W$  20: S  $20^{\circ}E$  37 on Curve  
S  $28^{\circ}E$  71: S  $26^{\circ}E$  160  
S  $22^{\circ}17'E$  130 End of Curve  
= Sta #25

To STA 25 BS N  $22^{\circ}17'W$  on 20  
Run S  $8^{\circ}08'W$  200 ft to #29 Ties  
8" Pop S  $51^{\circ}20'W$  30.3

8" Birch N  $38^{\circ}50'W$  32.9  
RUN S  $22^{\circ}08'E$  308' 47' 27

Ties Crooke 4" Birch S  $44^{\circ}29'W$

32.2 Top Spot; 5" Birch  
N  $68^{\circ}27'E$  35.45 Top Spot

John W. W.



Jack Caro X

79

July 13-1949 continued

Sta 27 on Rock Point

Run S 110° 22' E 313.0 To H 28

Ties

4" Birch N 52° 14' E 35.94

8" " S 82° 13' E 27.35

End of Cut out road

5.00 PM at car

Jwe - Mike & daughter Mandy & Mrs  
Supper with Schultze

Evening

Mike Schultze and his wife bring  
Jack Caro to U'ahen

38 and 38 = 76 miles @ 5¢ =

\$3.86 Supper .60¢ \$4.40

76 miles @ 5¢ = 380 + 60 = \$4.40

8 Hours

John W. Caro



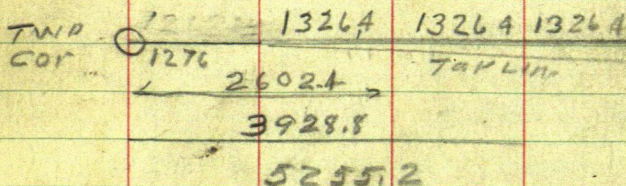
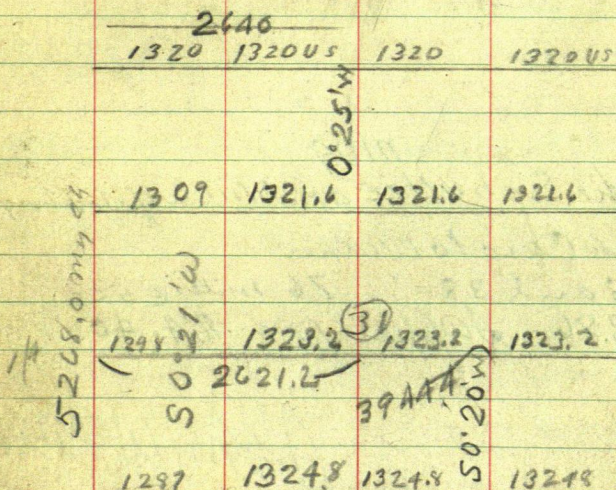
80

8. Horn on plot. Pure

JULY 14 - 1949 Thurs

I telegraph Mpls BPCo  
for Drawing Board  
Work all day in Walker on  
Kovli' Plot

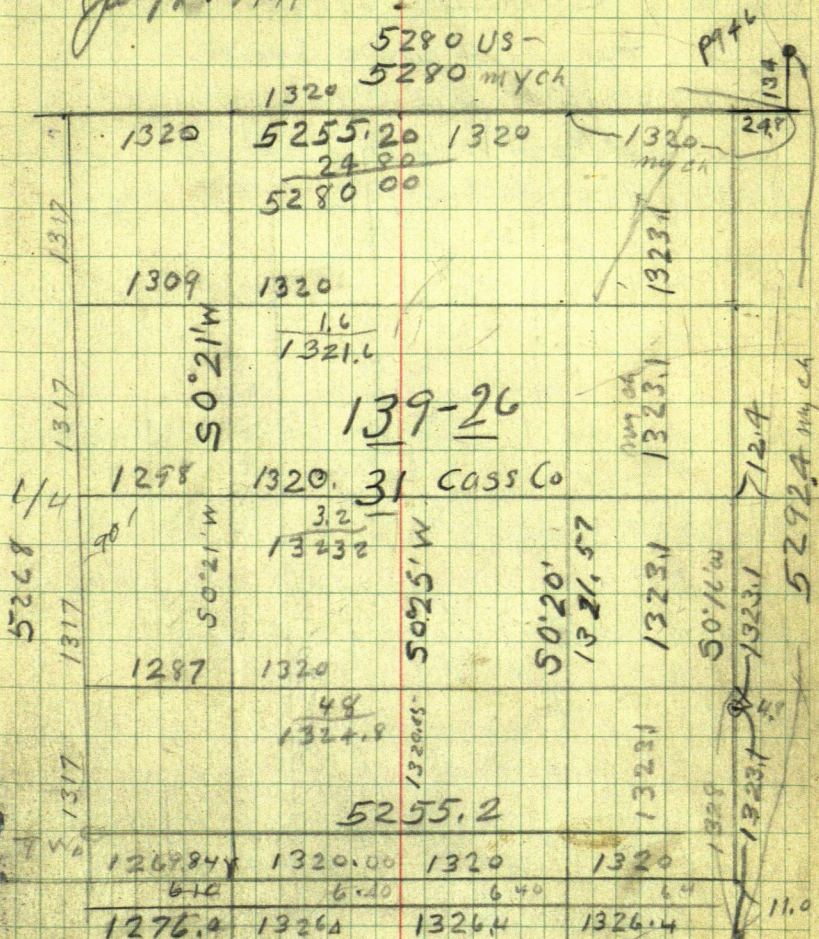
31-139-26



John W. Cuno



at Walker 8 Hour Time P96581  
July 14-1949



5268) 44 = 008352315 = 0°21'W  
5268) 37.6 = 007137433 = 0°25'  
5268) 31.2 = 005922551 = 0°20½'  
5268) 24.8 = 004707668 = 0°16½'W

gwc



82

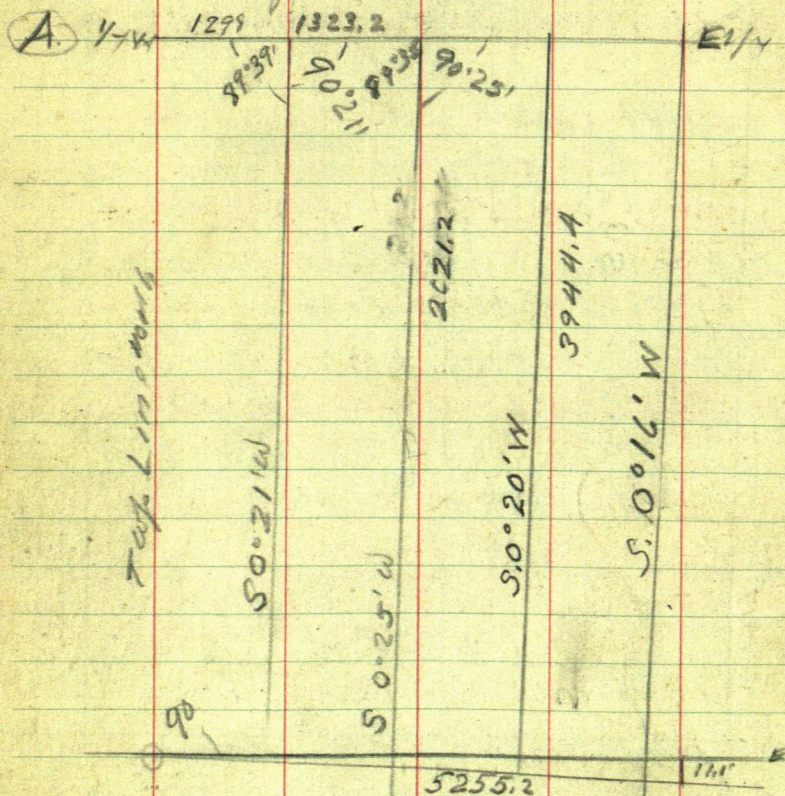
July 14 - 1949 contd.

Correcting Pg 22-26-27

TO E-W-C Sec 31

Set on 1297.5 E Pg 22

Chain E 1/2 ft to 1298 Pg 80



$$5255.2 \times .002093164 = 11.007' +$$

$$.002093164 \times 5255.2 = 10.999995 + 528 = 11.00$$

$$19850.41 \times 227.53 = 10280.215 = 4.578$$



To Correct E-W  $\angle$  31-139-26

(B) pack  $\pi$  E to 2569.7 E Old Hub  
See map Page 26

Chain East 51.50 To 2621.2

Set New Hub See map Pg 80

Set  $\pi$  on 2621.2 Run  $S 0^{\circ} 25' W$

PACK  $\pi$  E to 3786.1 Hub E

Chain East

158.3

To

3944.4 Set Hub

$\pi$  over Hub 3944.4 Run

$S 0^{\circ} 20' W$

Time Pg 65

### Correcting Town Line

5255.2 E goes 002093164 S 11.00 ft  $0^{\circ} 07'$

198.0 E goes S 0.41 327.5 E goes S 0.69

1028 E goes S 2.15 2150 E S 4.58

2275 E S 4.76 3090 E S 6.47

3100 E S 6.49 3175 E S 6.65

3250 S 6.80 4150 S 8.69

4400 E S 9.21



84 Mikes Notes  
July 14-1948 Time P965

Walt Musolf and Mike Schultze  
with Heller  $\pi$  continue Road line

Over sta. #22 Backsite  $S 46^{\circ} 47' W$  on  
sta 21 run  $S 63^{\circ} 21' E$  595.2 to sta  
#29  $\frac{1}{2}$  of road

$S 56^{\circ} 30' W$  60 - South 14 ft

$S 66^{\circ} 03' E$  34' -  $\frac{1}{2}$  from sta 22 to  
sta 29 at 100 ft  $\frac{1}{2}$  9 ft L (bet line of  
stas) @ 200 - 300 on line

@ 400 -  $\frac{1}{2}$  12-L 450 - 15-L

500 - 12-L 550 on line

Sta 29 -  $\frac{1}{2}$   $S 40^{\circ} W$  14 ft

Over 29 run  $S 33^{\circ} 51\frac{1}{2}' E$  307.95  
to Sta 30.

Ties to Sta 29

Pop 6"  $S 46^{\circ} 04' E$  25.75-

" 5 N  $84^{\circ} 30' E$  9.3

run  $\frac{1}{2}$  @ 50  $\frac{1}{2}$  10 ft R - 100 ft  $\frac{1}{2}$  9 ft R.

200 ft  $\frac{1}{2}$  6 ft R. 250 - 6 R. beg of C.

at sta 30 -  $S 70^{\circ} W$  15 ft

Over 30' run  $S 3^{\circ} 12' E$  332.7 ft  
to sta 31

(Set sta 32 -  $S 31^{\circ} 12\frac{1}{2}' E$



Ties to Sta #30

Pop 6" N 63° 08' E 16.05 ft

Birch 5" N 3° 53' W 26.55 "

☿ of road, from 30-31

@ 50 ft ☿ 4 ft R - 100 ft ☿ 2 ft L

150 ft ☿ 4 ft L      200 ft ☿ 2 ft L

250 ft. ☿ 4 ft R.      300 ft ☿ on line

at sta 31 ☿ N 50° E 17 ft.

⌒ over 31 run S 77° 45' E 215.25 ft  
to Sta 32.

Ties to Sta 31

Pop 7.52° W 8.6 ft

Birch 5" N 29° 15' W 6.4 ft.

☿ road, from 31-32

@ 34 ft ☿ on line - 100 ft ☿ 15 ft R.

@ 150 ft ☿ 12 ft R. - 200 ft ☿ 9 ft R.

beg. of sharp curve

⌒ over Sta 32. looks like rain  
run S 13° 37' E 427.55 to Sta 33

Ties to Sta, 32

Pop. 7 N 54° E 6.9 ft

Pop 6" N 54° 38' W 17.75

☿ road from Sta. 32-33

@ 30 ft ☿ 3 ft R.      50 ft ☿ on line

@ 100 ☿ 6. L      170 ft ☿ on line



86

@ 200 ft  $\pm$  2 ft R. - 250 ft  $\pm$  3 ft R.  
300 ft  $\pm$  on line - 350 ft  $\pm$  6 ft L  
400 ft  $\pm$  10 ft L

Over 33

runs  $32^{\circ}55\frac{1}{2}'$  E 296.2 ft to sta  
#34.



July 15, 1949. Schultze Notes

Over Sta #33

Ties to 33

Red Oak 3" S  $10^{\circ}30'W$  10.85

Pop. 6" N  $81^{\circ}50'W$  18.15

☐ of road from 33 to 34

from Sta 33 ☐ N  $70^{\circ}E$  16 ft.

@ 50 ft ☐ 10 ft L @ 100 - ☐ - 2 - L

@ 140 ft on line 200 - ☐ 9 R

@ 250 - ☐ 12 - R.

Over Sta 34

Take reading on town line @ hub.?

bears S  $2^{\circ}18\frac{1}{2}'E$  440.95 ft.

run S  $1^{\circ}E$  512.85 ft to Sta 35

Ties to 34

Birch 4" N  $51^{\circ}10'E$  8.95

" 3" S  $44^{\circ}E$  10.9

☐ of road from Sta 34 to 35

S  $70^{\circ}W$  23 ft to ☐ S  $4^{\circ}53'E$  126.5

ft to ☐ S  $8^{\circ}22'E$  200 ft ☐

S  $9^{\circ}33'E$  270 - ☐ S  $6^{\circ}50'E$  349. ft ☐

S  $2^{\circ}05'E$  420 ft ☐

Over Sta #35

run S  $30^{\circ}30'W$  437.95 to Sta #36



88

July 15-49 continued

Ties to Sta # 35

Red Oak 5 N 51° 25' E 4.8

Birch 6 S 1° 17' E 4.7

¢ of road from 35-36

@ Sta 35 N 13° W 40 ft to ¢

N 9° W 20.5' to ¢ @ 30 ft ¢ 9 ft R

100 ft ¢ 3 ft R. 120 ft. on line

150 ft. ¢ 3 ft L 200 ft ¢ 6 ft L

230 ft ¢ 3 ft L 280 ft on line

300 ft ¢ 6 ft R in deep hole

350 ft ¢ 9 ft R. sharp curve

390 ft ¢ on line

Over Sta 36

147 S. 7° 38' E 156. ft to Sta 37

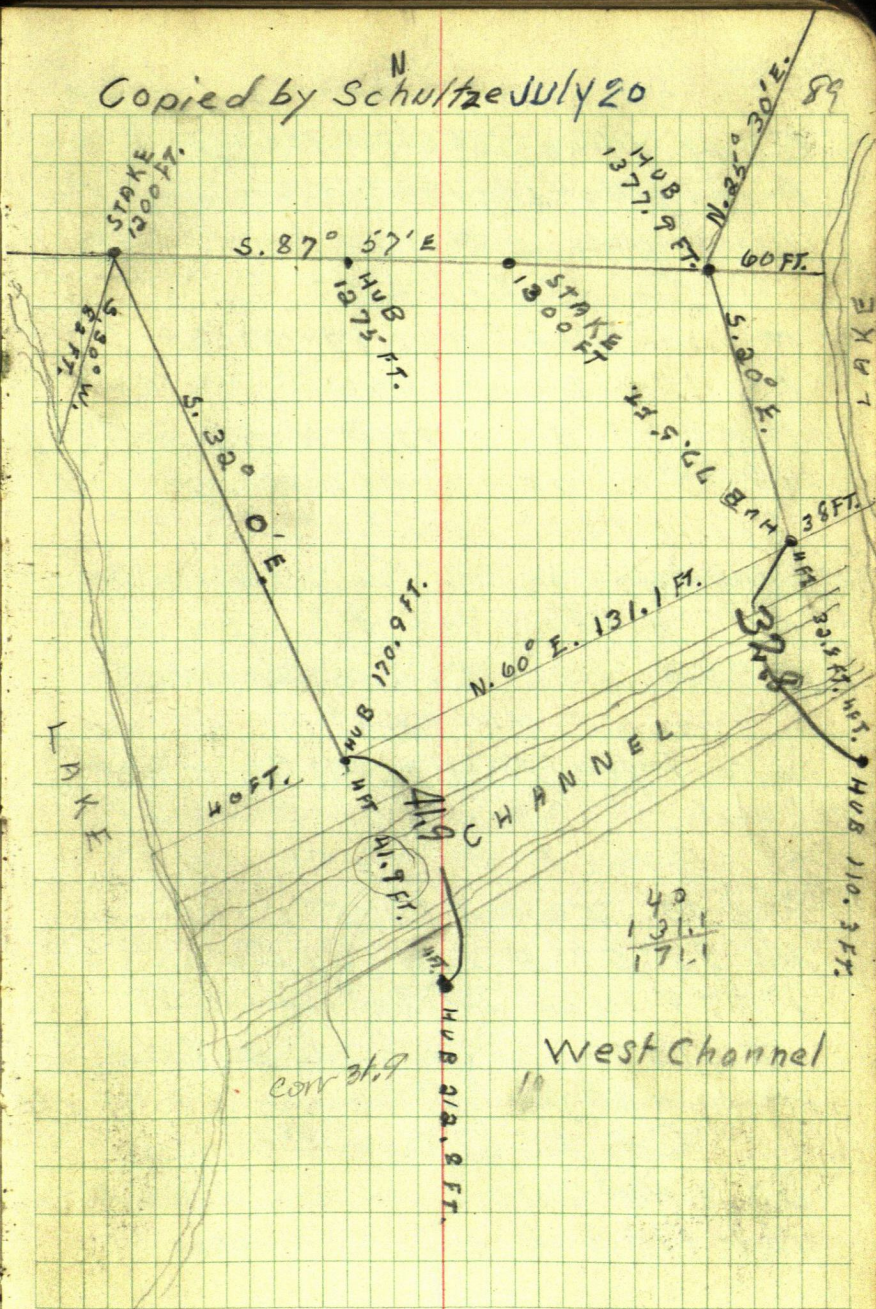
Ties to 36

White Oak 4 S 64° 14' W 12.

Red Oak 8 N 87° 28' E 48.55



Copied by Schultz July 20





Copy Mike Schultze Notes  
 Pg 11 - July - 18 - 1949 Monday  
 Muddoff and Schultze  
 On Lake Shore

$\pi$  @ 1200 stake. BS N  $87^{\circ}57'$  W  
 on 900-stake

Run S  $87^{\circ}57'$  E 75 ft Hub +  
 1275 on brink of hill

Run 10 ft bet Two Lakes to  
 Channel

A  $32^{\circ}$  E 170.9 Hub 4' from bank  
 of Channel. Continue over  
 Channel 41.9' set Hub

212.8 from  $\pi$  4' from Channel  
 bank

Page 13.  $\pi$  @ Hub 1275 continue  
 to  $87^{\circ}57'$  E 1300 Stake

1377.9 Hub 6 ft 60' from Lake

$\pi$  @ 1377.9 Run S  $20^{\circ}$  E 77.5  
 Hub 4 ft from Channel

Continue Over Channel

32.8 Hub @ 110.3 4' from " Bank

Hub 170.9 BS on 1200 stake



T over Hub 170.9 BScn 1200

N <sup>32°</sup> 33° W Run N 60° E 131.1 To  
Hub 77.5 on Channel Bank

Hub 170.9. 40 ft from Lake

" Hub 77.5 = 38 from Lake

Page 14 Tuesday morning

July 19-49

Same crew "2"

T @ 1200 This

4' Birch S 38° 22' W 17.2

6" " S 88° 10' W 32.2

From Alake 1200 To lake

to 30' W 82 ft

T over Hub 1377.9 Ties

5" Birch N 2° E 14.6

5" " N 38° 48' W 15.3

Run N 17° 5½' E 109.6 Hub  
1487.5

T on Hub 1487.5

Lake bears N 80° E 48



92 Schultze Notes

Page 15, Ties To Hub 1487.5

6" Birch N  $79^{\circ}40'E$  11.15

8" S  $10^{\circ}E$  9.90

Run: N  $25^{\circ}30'E$  328.45

Hub 1815.95

@ 1554.3 set  $\frac{1}{2}$  stake and

Cut road @ 1554.3 = 46' to Lake

Set stakes every 100 ch to Lake

@ 1500 Lake 45' R

1600 " 40 "

1700 " 40 "

1800 " 44 "

T on Hub 1815.95 Lake lies

So  $70^{\circ}E$  45' <sup>15</sup>

Ties to Hub 181~~5~~ 95

6" Birch S  $5^{\circ}30'E$  6.9

6" " S  $46^{\circ}15'W$  17.45

Page 16, Run N  $6^{\circ}02'E$  258.8

Set Hub 2074.75

Dirt to Lake

@ 1900 Lake R 45'

2000 " " 45

Stake 2074.75 set in 1/16

Line running East



Chain from Bolt in road

158.9 Hub

 $\pi @ 158.9$  FS East over lake

Run East 10.5 Hub spike

One inch from <sup>NE</sup> stake

2074.75

 $\pi @ 2074.75$   $U 6^{\circ} 20' E$ 

(P17) Lake 38' R Ties

4" Birch  $N 21^{\circ} E$  9.156" Red Oak  $S 15^{\circ} 26' E$  7.25Run  $N 4^{\circ} 40' W$  212 To Hub

2286.75

4:45 PM

R918 July 20-1949 Wld

Murrell's Curo. Schultz

Curo at Cor. set

 $\pi @ 2074.75$  Stake Mtd 2200.

40 ft from Lake

50 ft from Lake

 $\pi @ 2286.75$  BS  $S 4^{\circ} 40' E$  onstake 2074.75 @  $1/16$  LineRun  $N 4^{\circ} 33' W$  (light change  
in course to moss trees)

364.95 Hub 2651.7 = 150 from

Lake



94

Schulze Notes

© 2300 Mike Lake 75 R

• 2400 " " 100 "

(Pg 98) 2500 " " 120 "

2600 " " 130' R

Lake lies S 55° E 150'

Tower Hut 2651.7 Ties

4" Birch N 69° 30' W 3.8

5" " N 50° E 11.1

Lake lies S 55° E 150'

NOON

Eat lunch

Curo and Schulze Copy  
above notes in PM, One HourContinued on page 99  
this book



Jack Curo notes

July 10-1949

Sunday night train to St Paul

July 11 at 8 AM meet Bonnie & I to  
shop around St Paul Call on  
Electric Blue Print Co

Inspect drawing board 452  
3 sheets of 30x36 paper

July 12-1949

Call at M & M. Hospital 8-30 AM

PM. to mpls Call on Mpls BPCo

Get 3 more sheets charged to me  
inspect Drawing Table 14"

30x36 Board 16.00

Call on Rogers inspect drawing  
machine \$80 Second hand

Call on MW & Co

Select Table big board \$28+

Select also small drawing  
Machine \$10+ To be sent to me at  
Walker C. & O.

Supper with Ito Reet takes me  
to train 7:45 PM



96 July 13 - 1949 4 AM sleep  
at home in Walker 1. hour  
See Page 75 6 AM Harold  
and Gertrude take me to Mike's  
Schultz's res

I transfer to Mike's car at  
road entrance

Mike and I all day work on survey  
page 75 to 79 this book

Mike wife take Curo to Walker

July 14 1949 I work all day  
plotting

July 15 - 1949 on plot

July 16 - 17 on plot Harold helps  
all 4 days no chg for Harold  
see time sheet pg 65

July 16 - 1949 Harold and I to  
Chas

also Fox

Also Ct Ho Blairmont #16

Call at Hay Lake - gone

Call Bud from Peguot

East Caroli ck 850. Peguot  
Bank



July 16-1949

Check 46.17 to NRR MW & Co  
\$10 to Ruth Braided (Aunt  
Mary) room rent to Aug 16 1949

July 17 Sunday Harold all day  
and night on Caveli plat

Get new board from Mpls BPC

Charged to me \$16

Harold uses it all day to reduce  
Kauli plat

Time on Pg 65

July 18 on plat

July 19-1949 I call Electric BPC

Straw - they still have the drawing  
board complete

I write Caveli to get me the board \$104 +



98

July 20-1949

UP 5 AM Harald takes me to Schullge  
and goes back to Walker to work on  
plot of

6 AM Pancakes + Bacon at Pine River

Mike and I at Wood Lake 7-40 AM

Otto Nelson arrives before 8 AM

and I hand him a copy of my  
letter to Govl

Mike and Musold work on Lake  
shore. I sit in Mikes car and  
copy his notes

Musold + Mike have to make own  
stakes. Complain on time lost in  
doing so

Otto arrives @ 10-30 AM  
finds me nearly asleep copying  
Mikes notes.

Explaining that so much time  
lost making stakes and that it will  
take all my time to get the map  
ready for Commissioners

Mike and his car takes me to  
Walker and returns. Supper for  
Mike and I at Pine River \$1.70



Schultze Notes  
July 20-1949

99

Tower hub 2651.7 continue  
From page 94 This book  
run lake shore page 19 Mike's  
book.

Tower 2651.7 run  
N83°02'E 381.6 ft set hub  
3033.3 @ 2800 Lake 40 ft R. @ core  
Lake @ 2900 - " 40 R.  
set hub @ 2965.6 @ of road  
@ hub 2965.6 Lake 60 ft R.  
@ 3000 Lake 50 R.

Tower 3033.3 Ties

5" Pop N87°53'E 16.85

4" White Oak, S6°30'E 12.2 Black <sup>UPPER</sup>

Lake S13°W 75 ft <sup>TOP SPOT</sup>

run S. 47°16'E 386.15 ft  
set hub 3419.45.

Mike Schultze

Note: Harold and Mike copy  
bal of Mike's notes at Walker

39 and 38 = 76 miles extra for Mike's  
carc 4 = 4.40 ?

John W. Cline



100

Friday

July 22-1949 ~~THURS~~

Up @ 6-p.m. Harold takes me  
to Wood Lake

Pancakes NE 99s at Pine River  
.75¢

On Wood Lake 8-30

Harold returns

Otto and his car takes me  
to Mike (K. 130) Lunch bag at 50  
Lakes Store)

Copy schultze

Yesterdays Notes

P20 July 21-1949

Transit over 3033.3 (p. 19)

Run S 47°16'E 386.15 to Hub marked

3419.45 July 20-49

quit at 4.45 - 5 pm + at car

Drive Curo to Waken - July 20



July 21-194 Thursday

Curoat Waker <sup>on reef</sup> Musolf and  
I work alone

From 3033.3 Pg 99

@ 3100 Lk 50 R

3200 " 35

33 " "

3300 on rock spike on line line

3400 Lk 45' R

X on Hub 3419.45

Ties 10" Pop S 20° W 10.65

8" " N 80° 09 W 14.95

Lake 50' R Magnetometer 6' 20'

Run S 35° 12' E 203.95 ft Wood Hub

Total 3623.40

@ 3500 Lake 70 R

3600 " 75

X on N 1/16 Line Hub 0.0. on

East shore of Lake Tie

5" Pop S 67° 45' E 3.3

6" " S 40° 22' W 4.6

on 1/16 Line

Run East on 1/16 Line

14.9 Wood Hub



102  $\pi @ 3623.4$  on  $1/16$  line

$\pi @ 3419.45$  RUN  $S35^{\circ}12'E$  203.95

To Hub 3623.4 Wood Hub LA 70'R

Ties 8 POP  $S13^{\circ}48'E$  13.9

6' Birch  $N46^{\circ}45'W$  7.00

RUN  $S35^{\circ}55'E$  238.05 To Hub 3861.45

On  $1/16$  Line on Lake shore

$\circ 3700$  LAKE 60' R

3800

40

$\pi @ 3861.45$

5" POP  $N57^{\circ}45'E$  13.9

7" POP  $S34^{\circ}30'E$  23.95

Check reading of Lot line

with  $1/16$  Line BS Went on  $1/16$  Line

overlook TURN  $N36^{\circ}03'W$  to 3623.4

Should read  $35^{\circ}55'$  Diff  $0^{\circ}08'$ ?

PM. GOING EAST on  $1/16$

Line

$\pi$  over Hub O.O. RUN East 344.85

Hub. Note Ottok, Nelson and

Dave Sandberg - with Alex?

McKerlis? Putting line

Schultz  $\pi$

Marsalf Fg - ok



T over Hub 344.85 Run East P.I. 7  
 & Stick road running So  
 Near Sta 17

At & stub road & main road  
 16' L Continue East to 2<sup>nd</sup> stub  
 road 18.1 ft N of Sta 2.5

Continue East 99. ft To Hub  
 653.85 E

T @ 653.85 continue 157.85 To Hub  
 811.70 on Lot stake line

Lake 40 ft East

T @ 811.70 Set double center Hub  
 Over Lake

Ties to Hub 811.70

9" Birch N 67° 00' E 2.2 ft

7" " N 8° W 36.70 ft

4.45 P.M. Out for day



104

July 22-1945 Friday

Camp arrived 8.30 AM

T @ 3861.4 BS over lake on 1/11

Run S  $36^{\circ}0'E$  189.7 Hub 4051.15

@ 3861.4 L 24 50' R

4000 " 70 "

T @ 4051.15 Ties

3" Birch S  $65^{\circ}10'E$  4.04" Red Oak N  $12^{\circ}24'W$  11.55Run S  $7^{\circ}41'E$  248.95 T. Hub 4301

@ 4051.15 L 18 80' R

4100 " 70 "

4200 " 74 R

T @ 4301.00 Ties

8" Red Oak S  $16^{\circ}18'E$  19.916" NP S  $73^{\circ}33'W$  26.9 Spot 5' up

4301 Lake 40 R. Sharp Lim

1-46 4600 plateau on line. 5' As

of dry creek NW-SE

T SHN @ 4301. Run

S  $30^{\circ}32'E$  Hub 4655.8 on East Slope Lim

T at Hub 4655.8 Ties Wood Hub 6 1/2"

Twin Pops S  $84^{\circ}W$  7.00

Lake 70 R straight shore

P.M. Lunch at C.



100.0  
36

63.2  
36.8

105

4655.8 Run S  $41^{\circ}24'E$  309.85 T  
Hut 4960.65

@ 4720 ent bog 170 Lv bog  
T @ 4960.65 Otto Corner

Take point of land 20' wide  
S  $75^{\circ}W$  170 N  $84^{\circ}W$  170  
N  $77^{\circ}W$  170 - 30 from shore of  
main lake

N  $56^{\circ}2'W$  170 N edge of Bay

@ 4890 Lv Bog on slide Line

4800 LK 25 R - N end of Bay

4890 LK R 20'

4860 " R 12

T @ 4960.65 - LK 12 R

Ties 6' Birch S  $30^{\circ}E$  10.75

Run S  $20^{\circ}55'W$  @ 39.35 set

5000 - ~~10~~ LK 10' R

5100 LK Walk 38 R

5136.8 Hut LK 35. R on Hill

Ties to 5136.8

8" Pop N  $59^{\circ}43'E$  12.05

Run  $32^{\circ}57'E$  63.2 T. 5200 LK 2

5300 LK 25 R 5395.4 LK

+7018

708  
5166.2



106

5466.2 Hub on sand  
15 ft N of  $\pm$  ditch

Cont 5.20 PM.

Mike Schultze and his car  
takes Jack Curo to Walker  
and returns home

John W Curo



July 23-1949 Sat

107

Rec letter from C.A. Kavli  
rush order for plot of location  
of the two ditches cut by Otto  
Nelson as Canals to serve the  
three lakes

July 24-1949 Sunday



108

July 25-1949 Monday

Up @ 4:30 5 AM Lv

walker with Donald &amp; Cole

and his car Breakfast at  
Pine River and wait for Mike  
Schultze and his car etcDrive to Jenkins for Mike's  
Trailer. Pick up his boat at  
his home @ Wood Lake 8-30  
NO Otto. Find MUSOLF with brush  
burning crew and take him  
with us

Rove Hub 5466.2 pg 106

On bench about 10 ft above  
water BS N 27° 32' 57" Wtake stake at extreme ends  
of ditch

Stake at West end bears

S 41° 50' W 49.3

East end S 81° 08' E 132.0

Top of cut so side bears

S 43° 21' W 86. ft 3° 30' VA

Then North across top of  
cut 68 ft

East Channel

$$\begin{array}{r} 49.3 \\ 132.0 \\ \hline 181.3 \end{array}$$



58°55'109  
31°05'  
90°

Hub mkd O.O. bear

N 43° 43' E 80.3

HI 15.65 above water in  
West Lake

The east lake is one foot  
higher than the two West Lakes

Drive back and set red flag  
@ stake mkd 170.9 Pg 89

then drive to Twp Cor

X @ spike on random 327.5  
East from Twp Cor

Eat part of Musolf and  
Schultz lunch

PM

X on Hub 327.5 on random  
E of Twp Cor FOCUS East  
over lake on random

Turn L 31° 05' to red flag over  
lake placed at Hub 170.9 Pg 89

From Hub 327.5 E 170.90 bars

N 58° 55' Tang 31° 05' Tang 602842



110 July 25-1949 Continued

3.40 PM @ Trailer HO

Spedon 70500.5

Go To Walker Via Longville

50 Miles Via Longville } From Oilco's

56 " Pine River } Pump

Mile Extra @ Curo - Schultze car

Am To Pine River to pick up Curo 14

PM Curo to Walker

To PR and bck 7x7 14.00 @ 15¢

Total to 438x38 36

To Schultze for car 90 @ 5¢ \$4.50

Time Sheet Pg 65 Tr 115



Time Sheet Working For Kayli Realty Co

	SUN	24	25	26	27	28	29	30	SUN	1	2	3	4	5	6	SUN
John W. Curo	0	8	Plot = 2 S	2	2	2	2	2	0	0	0	0	0	4K	0	0
Car	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exp	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Harold Curo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mixie Schultze	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Car	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Harold - Mike and Curo  
LK  
Hottie

Jim Hein Aug 9 - 1949 First Day for Jim  
Jeep

Continued Page 117



112

Twp Co

Qh N 3-6- 665.7 m Im

© 900-1200-1314.8 = Temp 8 1/2

Rego Temp 1/10 CH

N 3-6-9-12 = 119.85 = 1319.85 T 1/4

7°32 Co Tan 9- 7.61757

7.561757

732

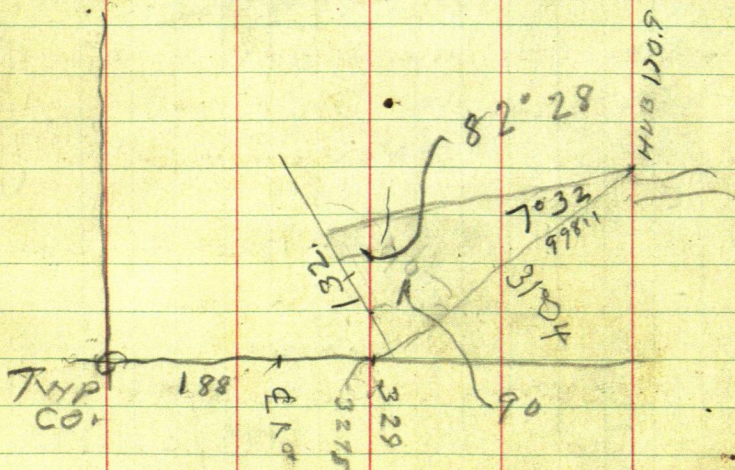
1322.44

15723514

22695271

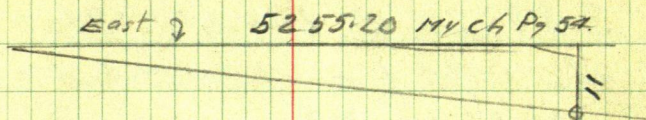
7561757

998261924





Aug 15-1949 Monday 20  
Mike and I figuring



$$\begin{array}{r} 5255.21 \overline{) 1100.00} \\ 1051.04 \\ \hline 489.60 \end{array}$$

$$\begin{array}{r} 65.50 \\ 45.85 \\ \hline 111.35 \end{array}$$

From 198. E of Twp Cor  
Ch East on Random 198  
To pt on Random 41  
239.

239 ft East of Twp Cor

Then 239 RUN N 44° 24' W  
along East line of R of W 45.85  
To One inch pipe 18" Long =

East edge R of W and N side of it  
Continue

N 44° 24' W 65.50 ft to 2X 26" pipe

To East line of New Road

Eat lunch

PM Then 2X 26" pipe BS S 44° 24' W

Run N 4° 41' W on stake line

54.6 To Stake bet Lots 1-2

1" Pipe 18"



114 + 100 = 154.6 Pipe  
Lot Cor bet Lots 2-3

E 164.6 164.6  
82.3

S 89° 20' E 164.6 To Stake on  
Lake 10 ft from water bet  
Lots Lots 1-20  
1" Spruce Sets No. 50

### MIKES NOTES

Aug Thur 11th 1949

Walt, Alex & I Drive my  
car in to 1/4 Line on N. Road  
X at Hub 1173.5 Ft. Continue  
south.

Chain from Hub 1320.35 Ft  
325.7 Ft to Hub 1646.05 Ft  
X At 1646.05 Ft.

Turn angle to station #23  
in cut out road.

S 83° 25' E. 85.3 Ft.

Continue run S. 114.1 = 1760.15 Ft.  
Line cut .25 Ft Left of Spot  
on 5" ash 5' up.

Continue S. 264.4 ft. to Hub  
1910.45 Ft in Lake Lot stake



'line 20.15 Ft. From stake  
4500 Ft S.E.

X At Hub 1910.45 Ft.

Hub 4655.8 bears S.  $30^{\circ}32'E$   
135.65 Ft.

@ 1940 S. Lake 8 Ft R.

Continue S. 120.70 Ft. to  
Hub 2031.15 Ft on Lake shore.

Ties to Hub 1910.45 S

10" Pople N  $38^{\circ}06'W$  21.15 Ft

8" W. Oak N  $50^{\circ}37'E$  1.65 "

Afternoon back of Canal.

Jim Hein 8-17-49



Time Shee Working For Kavli Co

August 1949

SUN 8 9 10 11 12 13 14 15 16 17 18 19 20 21  
SUN

JWC

Car

Exp

Harold Puno

Mike Schultze

Car

Jim Heim

Jeep

First day for Jim Heim  
DRIVE to LK Hattie



118

Aug 19-1949

Jim and I Lu Walker at  
5-30 AM in my car  
Eat at Pine River

At Wood Lake 7-30 wait  
for Otto and Mike

From Int. bet Lat 2-3 - Run  
N  $3^{\circ} 20' E$  118.5 T. I m bet -

Lat 3-4 which is on line bet  
St 7 and Lat stake 300 bet Lat

3 & 4 on Lake shore - distance

Line bet Lat 3-4 1.

S  $82^{\circ} 35' E$  158

Not changed from St 7

T on 118.5 BS S  $3^{\circ} 20'$

Run N  $23^{\circ} 19' E$  168 T. I bet

Lat 4-5

T on I m bet 4-5 BS

S  $23^{\circ} 19' W$  Run N  $31^{\circ} 13' 15' E$

168 T. I on bet Lat 5-6 and 6

Transit Telescope and

Run S  $31^{\circ} 15' W$  along so. side SE side

of 66 ft road



Oct 19-49 Continued  
1 PM Copy makes note 119

Page Two 00. Ch En '116 Lines

" 22 Mikes Book

00-344.85-22 T. 5106

210. T. 2 Second

99.  
653

663.85

157.85  
811.70

S 11° 41' E

811.70 E R 117 S 11° 42' E P 29 S 111.85

At 11-40 AM I and my  
car pick up Jim Hein  
and drive 5 miles to the new  
restaurant near Tully Lake  
where we get opened around 85°-85°  
then back to the Survey

As there seems to be some  
discrepancy between Mikes miles  
running, as to Channel No 2  
we first check the chain along  
the line bet



August 30-1949

I get map & field book  
From J.W. Curo and drive  
to Wood Lake in my Ford  
meet Otto as he is leaving  
his new house on Lot 1 of  
Wood Lake. He goes after  
help for me. 12:00 o'clock noon  
I check over back lines  
and J.W. set at back of Lots  
eat lunch.

Otto comes back with  
Mike. at 12-15.

Mike said he had been  
cutting out roads, as Otto  
stopped the Survey Monday  
said another man was  
going to do the work -  
(he ment Colter)

We start at I.M. bet  
5-6. Tower I.M. B.S.  $S 31^{\circ} 15' W$   
and run  $N 61^{\circ} 50' E$  at 140  
set 60 d spike @ 280 set spike  
Tower 280 B.S. So.  $61^{\circ} 50' W$   
and run  $N 68^{\circ} E$  140 ft.

Harold Curo



Aug 30 1949

$\pi$  over 140 BS S.  $68^\circ$ W and  
run N  $81^\circ$ E 125' at 60 g/yph

$\pi$  over 125 BS S  $81^\circ$ W and  
run EAST 125' at yph

$\pi$  over 125 E. BS West + run  
S  $81^\circ 15'$  E at 116' at 60 g/yph  
@ 232' at 60 g/yph + 33.4'  
265.4' at 60 g/yph

$\pi$  over 232 BS N  $81^\circ 15'$  E  
Sta 1200 on lake line bears  
S  $23^\circ 02'$  W 169.10 ft

$\pi$  still @ 232 site S  $23^\circ 02'$  W  
Turn L  $90^\circ$  and run 33 ft at  
60 g/yph.

$\pi$  over 265.4 BS N  $81^\circ 15'$  W  
and run N  $23^\circ 30'$  E @ 100' at  
60 g/yph @ 200' at 60 g/yph

$\pi$  over 200 BS S  $23^\circ 30'$  W  
and run N  $13^\circ 50'$  E @ 47.5'  
60 g/yph at intersection  
with N + S W 1/4 line 1591.7 ft  
S of E + W  $\frac{1}{2}$  @ 100' Hub 60 g/yph

$\pi$  over 180 BS S  $13^\circ 50'$  W + run N  $6^\circ$  E  
@ 100 yph @ 200 yph quit @ 5'

Harold Curo



$$\begin{array}{r} 3375 \\ 1288.85 \\ \hline 1322.80 \end{array}$$

Aug 31-1949

I stayed in Trailer house,  
Last night. rained

up early still raining

Mike arrives 7:55 AM  
fig. angles.

Lv Trailer house @  
8-30 A.M.

We intersect Back Lot line  
with S  $\frac{1}{4}$  Line

from 200 continue N  $6^{\circ}$  E

22.25. to intersection hub +

$1288.85$  E +  $3390 = 1322.8$  E

of Temp S  $\frac{1}{4}$  cor on Tap line

as I can not make figures  
check out we return the  
whole thing over

$\pi$  over Township corner  
site N on Spike Turn R.

$89^{\circ}59'$  and run N  $89^{\circ}59'$  E

238.55 ft to 1" pipe

$\pi$  over 1" pipe 238.55 E of Tap  
cor B.S. So.  $89^{\circ}59'$  W and run

N  $44^{\circ}23'$  W 111.2 To 2" pipe



at 45.8 a 1" pipe sets W 1 inch

Turn over 2" pipe 111.2 B.S.  $44^{\circ}23'E$   
and run  $N4^{\circ}41'W$ . at 47 IM  
rotation @ 154.15 pipe

Turn over 154.15 B.S.  $4^{\circ}41'E$   
and run  $N3^{\circ}20'E$  118.5 to  
pipe

Turn over 118.5 B.S.  $3^{\circ}20'W$  + run  
 $N23^{\circ}20'E$  167.75 to pipe.

Turn over 167.75 B.S.  $23^{\circ}20'W$   
+ run  $N31^{\circ}15'E$  168. pipe.

Turn over 168 B.S.  $31^{\circ}15'W$   
run  $N61^{\circ}50'E$  280 at 140 pipe

Turn over 280 B.S.  $61^{\circ}50'W$  +  
run  $N68^{\circ}E$  140 ft pipe

Turn over 140 B.S.  $68^{\circ}W$  +  
run  $N81^{\circ}E$  125 pipe

Turn over 125 B.S.  $81^{\circ}W$  +  
run East 125 pipe

Turn over 125 B.S. West and  
run  $S81^{\circ}15'E$  @ 116 pipe  
@ 232 pipe

Turn over 232 B.S.  $N81^{\circ}15'W$

Sta 12 on lake bears  $S23^{\circ}02'W$   
169.10 ft.



Aug 31-

$\pi$  still over 232. continue  
S  $81^{\circ}15'$  E 33.4 at 40 spike

$\pi$  over 33.4 BS N  $81^{\circ}15'$  W +  
run N  $23^{\circ}30'$  E @ 100 spike  
@ 200 spike

$\pi$  over 200 BS. So.  $23^{\circ}30'$  W  
and run N  $13^{\circ}50'$  E @ 47.5  
spike at intersection of E  $\frac{1}{16}$   
line 15-91.7 S of E & W @  
@ 100 spike

$\pi$  over 100 BS. S  $13^{\circ}50'$  W  
run N  $6^{\circ}$  E @ 100 spike @  
200 spike @ 222.25 spike  
at intersection of S  $\frac{1}{16}$  line  
13 22.8 E of Township line  
(NOTE) This figures  
out 13 22.77 E and  
13 14.26 N close.



Sept 1-1949.

Mike + I

Tower spike 200 - which is 22.8 S  
of S 1/4 line

B.S. S. 6° W + run. N 10° E 100 ft

spike Tower 100 B.S. S. 10° W + run  
N 2° 15' E @ 100 spike @ 200 spike

Tower 200 B.S. S. 2° 15' W + run

N 8° 45' W @ 125 spike 250 spike

Tower 250 B.S. S. 8° 45' E and

run N 21° E 125 spike

P.M.

Tower 1" Pipe on Twp line

238.55° E of Township cor

Site W on Twp cor run E Miss

Random spike hub .10 N @ 327.5  
rechain + 88.9 = 327.45 E

Tower pt. 10 N of random spike

Site S 89° 59' W + run N 2° 42' W

32.3 <sup>from Tx</sup> stake + 300 = 332.3 angle pt

Tower 332.3 B.S. S. 2° 42' E + run

N 38° 52' E 100 Pg. 70 This book

Check. from 900 - to 800 is 99.3

from 800 to 700 is 99.9 - from 700 to

600 is 99.95 =



Tower 1200 stake on Lake line  
 BS N  $87^{\circ}57'W$  on Make 900  
 and continue S  $87^{\circ}57'E$   
 12001 @ 75' spike + 102.8 = 1377.8 spike

Tower 1377.8 BS. N  $87^{\circ}57'W$   
 and run N  $17^{\circ}02'E$  34.8 to  
 intersection of W 1/4 line  
 1945.1 S. of E & W E

Continue N  $17^{\circ}02'E$  @ 109.55'  
 spike sta.

Tower 109.55 BS. S  $17^{\circ}02'W$   
 & run N  $25^{\circ}38'E$  328.6 (<sup>Mile 1815.95</sup>)

Tower 328.6 BS. S.  $25^{\circ}38'W$   
 & run N  $6^{\circ}05'E$  258.85'  
 spike @ intersection with  
 S 1/4 line 1476.4 E of Townline



Sept. 9, 1949

Mike + I Tower intersection  
of Lake shoreline + S  $\frac{1}{16}$  line.  
B.S. S  $6^{\circ}05'W$  and run

N.  $4^{\circ}35'W$  212 ~~ft~~ to A.P.

Tower 212 B.S. S.  $4^{\circ}35'E$   
and run. N  $4^{\circ}30'W$   $90 + 274.9 =$   
364.9. A.P.

Tower 364.9 B.S. S  $4^{\circ}30'E$  and  
run N  $83^{\circ}05'E$  -  $170 + 211.15 = 381.65$  A.P.

Tower 381.65 B.S. S.  $83^{\circ}05'W$  + run  
S  $47^{\circ}13'E$   $100 + 286 = 386$ . A.P. <sup>3419.45</sup>

Tower 386. B.S. N  $47^{\circ}13'W$  + run  
S  $35^{\circ}21'E$  203.8 to A.P. <sup>3623.4</sup>

Tower 203.8 B.S. N  $35^{\circ}21'W$  + run  
S  $36^{\circ}03'E$  238.15 to intersection

with S  $\frac{1}{16}$  Line 260.75 W of  
intersection of S  $\frac{1}{16}$  line + N + S  $\frac{1}{16}$

Tower 238.5 on S  $\frac{1}{16}$  line.

B.S. N  $36^{\circ}03'W$  hub  $\frac{1}{16}$  over like  
checks out ok.  $89^{\circ}59'$

T still @ 238.5 run S  $35^{\circ}59'E$   
E. 189.65 A.P. <sup>4051.15</sup>

Tower 189.65 B.S. N  $35^{\circ}59'W$   
and run S  $7^{\circ}40'E$  249. AP

Harold Cunn



Sept 9-1949

Tower 249 BS N  $7^{\circ}40'W$  + run  
 $S 30^{\circ}30'E @ 220.2$  intersect N+S  
 $\$ 1910.45$  S of E+W @ as run

T st. 71 at 249. run  $S 30^{\circ}32'E$   
 $220.2 + 135.6 = 355.8$  to AP.  $4655.8$

Town 355.8 BS N  $30^{\circ}32'W$  + run  
 $S 41^{\circ}24'E 305$  to AP  $4960.66$

Tower 305 BS N  $41^{\circ}24'W$  and run  
 $S 20^{\circ}56'E 176$  to AP.  $5136.8$

Tower 176 BS N  $20^{\circ}56'W$  + run  
 $S 33^{\circ}57'E 258.3$  AP  $5395.4$

on Temp. County line

Tower 258.3 on Temp Co. line  
 BS N  $33^{\circ}57'W$  + run, N  $89^{\circ}59'E$   
 94. to split on top on Temp Co. line

Received Check

The Lake Shore Co.  
 217 - 674 St. S.

No 43860

Minneapolis Sept 7-49

Harold Caro

$\$ 75.00$

Northwestern National Bank  
 of Minneapolis m. 1717

Ab Karli



130

Sept. 12 1949

I Lv Walker drive to Wood Lake  
find Mike working south of  
Co. line. Otto comes late  
I Lv Mike and go to cabin  
Otto sets up stove. I figure on  
map until noon. all eat  
dinner in cabin

P.M.

Mike + I go sta 17 Back stake line

Tower 250 B.S. S  $21^{\circ}$  W and run

Changed Tower 250 sta 16

B.S. S  $8^{\circ}45'$  E and run N  $21^{\circ}30'$  E

150 ft. starts to rain

Mike + I wait in car does  
not stop raining so we go back  
to cabin.

Mike goes home @ 4-30 Otto  
brings out a lamp I work  
on map.

J.W.C. and Pat DeZella  
comes out at 5-30 I give  
Pat the description of the land  
he is selling

over night in trailer House  
Harold Curo



Sept 13-1949

damp & cold spilling rain  
now & then. I go to Otto's  
cabin make fire & work on  
trap. Otto arrives around  
10 o'clock stays a short time and then  
goes home. I work on plat JWC  
comes around 4 o'clock I help  
him set up new stove in trailer  
house and go back on trap  
supper at trailer house, JWC  
& I over night @ trailer house.



Sept 14-1949

Up early eat light breakfast  
and go to Otto's cabin build  
fire and work on plot J.W.C.  
comes over later - Mike and  
Dave arrive 7-45. J.W.C. works  
on his book. Mike takes Dave  
to south side of lake & comes  
back. Mike + I go to where we  
stopped Monday on road line

Over hub 150 = (sta. 17) B.S. S  $21^{\circ}30'W$   
and run N  $32^{\circ}E$  100 ft.

$\pi$  still @ 150 run N  $36^{\circ}E$  200 to A.P.

Over 200 B.S. S  $36^{\circ}W$  and run

N  $72^{\circ}45'E$  100 ft to A.P. @ 40 road  
12' Left

Over 100 B.S. S  $72^{\circ}45'W$  and

run. S  $87^{\circ}15'E$  125 to A.P.

Over 125 B.S. N  $87^{\circ}15'W$  &

run S  $82^{\circ}10'E$  200 ft to A.P.

Over 200 B.S. N  $82^{\circ}10'W$  &

run S  $74^{\circ}40'E$  150 to A.P.

$\pi$  over 150 B.S. N  $74^{\circ}40'W$  and

run S  $66^{\circ}30'E$  200 to A.P.



Tower 200 BS N  $66^{\circ}30'$  W and run  
S  $39^{\circ}$  E 150 ft to A.P.

Tower 150 BS N  $39^{\circ}$  W and run  
S  $31^{\circ}$  E 100 to A.P.

Tower 100 BS N  $31^{\circ}$  W and run  
S  $12^{\circ}30'$  E 100 ft to A.P.

Tower 100 ft BS N  $12^{\circ}30'$  W and run  
S  $43^{\circ}$  E @ 100 spits @ 200 spits @  
300 ft A.P.

Tower 300 BS N  $43^{\circ}$  W and run  
Hub 1173.5 S on N + S & bears  
S  $20^{\circ}46'$  E 41.1 ft

Tstill on 300 run S  $27^{\circ}45'$  E  
@ 100 spits change course

Tstill on 300 run S  $26^{\circ}30'$  E  
@ 200 ft spits A.P.

Quit for night



Sept 15-1949

Mike + I continue back lines.

Otto brings Dave to brush out stub road.

T over 200 B.S. N  $26^{\circ}30'W$   
hub on  $5\frac{1}{6}$  line. 344.85'E  
of hub on lake bank bears

S  $47^{\circ}10'W$  9.20

T still @ 200 run stub road  
S  $2^{\circ}W$  315' to A.P.

T still @ 200 run S  $49^{\circ}24'E$   
44. ft. to old sta 17

T still at 200 run N  $76^{\circ}56'E$   
129.8 to old sta 18

T over 315' on stub road

B.S. N  $2^{\circ}E$  and run S  $27^{\circ}05'E$

@ 100 apks @ 200 apks @ 300 apks  
on line point of bog 40 R. - Go over bog

@ 350 enter bog @ 400 at h

@ 500 stub @ 565 LV bog

@ 575 apks



bag, see last page says 350 enter  
bag bag extends R 90 ft then runs  
west + -

@ 400 station in bag bag extends  
R 180 - SW to water NE & extends  
10 ft Left.

@ 500 bag extends L 10 ft R to  
lake.

P. M.

Mike + I continue backlines

Otto + Dave cutout stub road

Over old sta 18 B.S. S  $76^{\circ}56'W$

old sta 17 bears S  $58^{\circ}04'W$  110.1

T still @ old sta 18 <sup>Van. 3.30</sup> run N  $26^{\circ}29'E$   
70.6 to old sta. 20. E edge of stub road.

T still @ old. 18. run N  $15^{\circ}45'E$

@ 200 spike + 150 = 350 spike A.P.

Over 350 B.S. S  $15^{\circ}45'W$  and run

N  $42^{\circ}E$  150 spike 300 spike A.P.

Over 300 B.S. S  $42^{\circ}W$  and run

N  $59^{\circ}E$  125 to A.P. @ 80  $\pm$  25 Left

Over 125 B.S. S  $59^{\circ}W$  & run

S  $68^{\circ}45'E$  100 ft to A.P.



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Sept 16 - 1949

Up early start work @ 6 o'clock  
on plat checking same

Otto - Dave & Mike come  
@ 8 o'clock Mike helps me  
for a while then Otto comes  
and takes him away

I work checking lot lines

J.W.C. arrives around 1-30

I work on plat.



Sept 20, 1949

J.W.C. goes to St Paul on morning bus. I get my thing together and head for Kalvi's work on Wood Lake Lr Court House @ 8-10 drive to Pine River get bread-meat drive to wood lake unload at Otto's cabin. drive around N end of Lake to stub road find Otto. drive on around lake to where Mike + Dave are working set stake and drive to cabin eat lunch P.M.

Dave goes with Otto Mike + I drive around N side of Lake to where we felt off work Sat.

Turn 100 BS N  $68^{\circ}45'W$  and run S  $77^{\circ}30'E$  200 ft to AP @ 100  
spike

Turn 200 BS N  $77^{\circ}30'W$  + run S  $65^{\circ}E$  140 to AP.

Turn 140 BS N  $65^{\circ}W$  + run S  $89^{\circ}E$  120 to AP.

Turn 120 BS N  $89^{\circ}W$  + run.



Checking Tower 200 see page 134

BS N  $26^{\circ}30'W$  run S  $2^{\circ}W$  OK

T still @ 200 run N  $76^{\circ}24'E$

Van 630 129.8 to old sta. 18

Tower old sta BS S  $76^{\circ}24'W$  and run

N  $15^{\circ}13'E$  350 AP @ 200 mph + 150

Tower 350 run N  $41^{\circ}28'E$  300% AP

Tower 300 BS S  $41^{\circ}28'W$  + run

N  $58^{\circ}30'E$  125 Tower 125 BS S  $58^{\circ}30'W$

and run S  $69^{\circ}15'E$  100

Tower 100 BS N  $69^{\circ}15'W$  and run

S  $60^{\circ}28'E$  200 @ 100 mph Rev

Tower 200 BS N  $60^{\circ}28'W$  + run

S  $72^{\circ}58'E$  140. AP

Tower 140 BS N  $72^{\circ}58'W$  + run

S  $48^{\circ}57'E$  120. AP

Tower 120 BS N  $48^{\circ}57'W$  + run

9



Sept 21-1949

Mike + I continue road, back  
line of lots

Turn 120 BS, N48°57'W + run  
S 36°15'E @ 125 yph @ 250 AP.

Turn 250 BS N 36°15'W  
and run S 22°45'E 100 to AP

Turn 100 BS, N 22°45'W + run  
S 6°E 150 ft to AP.

Turn 150 BS N 6°W at intersection  
hub of S  $\frac{1}{16}$  and E  $\frac{1}{16}$  bears  
N 46°50'E 42.8 feet

Turn still @ 150 run S 4°30'W 100

Turn still @ 150 run S 7°05'E 140

Turn still @ 150 run S 23°30'E 190

this is ground curve

Turn 190 BS N 23°30'W + run  
S 74°35'E 150 to AP.

Turn 150 BS N 74°35'W + run

S 12°45'E @ 125 yph @ 250 AP

Turn 250 BS N 12°45'W + run

S 20°15'E 150 to AP

Turn 150 BS N 20°15'W + run

S 25°45'E 100 yph 200 yph 300 AP



P.M.

Tower 300 BS N  $25^{\circ}45'W$  & run  
S  $14^{\circ}30'E$  270 ft to A.P. in W shoulder  
of road fill

Tower 270 BS N  $14^{\circ}30'W$  & run.

S  $15^{\circ}10'W$  240 to A.P. Crow Wing Co.

Tower 240 BS N  $15^{\circ}10'E$

spike in Random Co. line & road  
bears N  $23^{\circ}51'E$  83.05 <sup>spike driven</sup>  
2" below road

Still over 240. run S  $25^{\circ}30'W$   
210.

$3386.8 + 104.5 = 3491.3$  W of  $\frac{1}{4}$  Cor  
bet 32-5

3491.3

2640

851.3



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stub road

Stub Road

Sept 22 - 1949 Slab road

Mike + I - Windy cold.

Turn Old 18 on road.

BS S  $76^{\circ}24'$  W and run.N  $22^{\circ}$  E 85 feet to NE cor  
Stub road.Turn 85 BS S  $22^{\circ}$  W + run  
S  $30^{\circ}30'$  E 125 AP.Turn 125 BS N  $30^{\circ}30'$  W + run  
S  $5^{\circ}$  W 245 feet to AP.Turn 245 BS N  $5^{\circ}$  E + run  
S  $22^{\circ}18'$  E @ 100 yds @ 200 yds @ 300 AP.Turn 300 BS N  $22^{\circ}18'$  W + run  
S  $8^{\circ}15'$  E @ 100 yds @ 200 yds @ 300 AP.Turn 300 BS N  $8^{\circ}15'$  W + run  
S  $5^{\circ}05'$  E @ 100 yds @ 210 end of  
road.

P.M.

Dave starts cutting brush around  
N side of big bog.Mike + I - go to Temp Co line see  
page 129 this book 293.Turn hub on top 94 NE of (Hub 258.3  
Sta. 5395.4.) T @ Sta 5404.6 Site E  
over lake Verner @  $90^{\circ}$



NW Stake set 100 ft N @ 90° to canal bears  
N 80°40' W 60.9.

another stake 100 ft N of canal bears N 5° W  
15 feet

T still 94 Site E over lake and run  
N 0°01' W 268 A.P.

T over 268 BSS 0°01' E + run.  
N 16°58' W 191.7 A.P.

T over 191.7 BSS <sup>16.58</sup> 12°58' E + run  
N 1°46' E 135.1 - D A.P.

T over 135.1 BSS 1°46' W + run  
N 1°47' E 226.08 - C A.P.

T over 226. BSS 1°47' W + run  
N. 17°06' E 140.9 - B. A.P.

T over 140.9 BSS 17°06' E + run  
N 5°26' E 158.7 - @ A.P.

T over 158.7 BSS 5°26' W + run

N 11°40' W 213.9 - to intersection of S 1/4

T still @ D-158.7 Take up stake  
run S 5°26' W 85.7 F

125 S 21° W — 160 - S 39°30' W

170 - S 59° W — 130 - S 72°30' W

100 - N 81°30' W 170 N 66° W

150 N 45° W 160 N 38°30' W

140 N 26° W 80 N 25°30' W

West 10 mi

811.7 E from hub at  
E side Wood Lake



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Point intersection Skidline  
213.9 BS S  $11^{\circ}40'E$  & run

N  $32^{\circ}20'W$  191.4 To AP

Point 191.4 - BS - S  $32^{\circ}20'E$  & run



Sept 23-1949 Friday

Mike & I Tower 191.4

BS. - S 32° 20' E + run N 9° 59' E 204.1

Tower 204.1 BS. S 9° 59' W + run

N 85° 46' E 216.2 A.P.

Tower 216.2 BS. S 85° 46' W + run

N 86° 35' E 147.8

Tower 147.8 BS. S 86° 35' W + run

S 39° 30' E 207.7

Tower 207.7 BS. N 39° 30' W + run

S 37° 45' E 288.2 A.P. intersection S 1/4 line

Tower 288.2 BS. N 37° 45' W + run on S 1/4

S 24° 08' E 196.5

Tower 196.5 BS. N 24° 08' W + run

S 32° 41' E 183.1

P.M.

Tower 183.1 BS. N 32° 41' W + run

S 6° 36' E 200

Tower 200 continue S 6° 36' E 150.5

edge of big bog

Tower 150.5 BS. N 6° 36' W + run

S 30° 33' E 160 ft along edge of bog

Tower 160 BS. N 30° 33' W + run

S 64° 22' E 240 ft



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Sept 23-1949 Friday

Tower 240 BS N  $64^{\circ}22'W$   
& run N  $74^{\circ}32'E$  98 ft to  
Sta on road line

point of lowland extends from  
Sta. 240 about 100 ft S  $15^{\circ}W$  about  
starts from road sta and stops  
90 ft N  $64^{\circ}22'W$  Then follows  
and line about

Tower 98 BS S  $74^{\circ}32'N$  run  
N  $25^{\circ}49'W$  as check



Sept 27 1949

Rechecking Dave - Mike + I

Tower old 181 BS S  $76^{\circ}24'W$  + run

N  $15^{\circ}14'E$  350

Tower 350 BS S  $15^{\circ}14'W$  + run

N  $41^{\circ}30'E$  300

Tower 300 BS S  $41^{\circ}30'W$  + run

N  $58^{\circ}31'E$  125

Tower 125 BS S  $58^{\circ}31'W$  + run

S  $69^{\circ}11'E$  100

Tower 100 BS N  $69^{\circ}11'W$  + run

S  $60^{\circ}25'E$  200

Tower 200 BS N  $60^{\circ}25'W$  run

S  $72^{\circ}55'E$  140

Tower 140 BS N  $72^{\circ}55'W$  run

S  $48^{\circ}55'E$  120

Tower 120 BS N  $48^{\circ}55'W$  run

S  $36^{\circ}12'E$  250

Tower 250 BS N  $36^{\circ}12'W$  run

S  $22^{\circ}42'E$  100

Tower 100 BS N  $22^{\circ}42'W$  run

S  $5^{\circ}56'E$  150

Tower 150 BS N  $5^{\circ}56'W$  run

N  $46^{\circ}55'E$  428  $\frac{1}{16}$  intersection run

S  $23^{\circ}25'E$  190



Tower 190 BS N  $23^{\circ}25'W$  run

S  $74^{\circ}28'E$  150

Tower 150 BS N  $74^{\circ}28'W$  run

S  $12^{\circ}38'E$  250

Tower 250 BS N  $12^{\circ}38'E$  run

S  $20^{\circ}08'E$  150

Tower 150 BS N  $20^{\circ}08'W$  run

S  $25^{\circ}38'E$  300

Tower 300 BS N  $25^{\circ}38'W$  run

S  $74^{\circ}45'W$  —

S  $14^{\circ}22'E$  — 270

Tower 270 BS N  $14^{\circ}22'W$  run

S  $15^{\circ}18'W$  240

Tower 270 BS N  $14^{\circ}22'W$  Spike  
on Temp Colina bears S  $10^{\circ}46'W$



Sept 28-1949

Mike & Dave check stake line  
along Lake shore. ~~4 1/2~~

I work on plat

Mike & Dave go in my car to  
East canal

Tover hub 5404.60 on 94 ft E of  
stake line F.S. E over lake

~~BS~~ & run N  $0^{\circ}01'W$  to hub 5672.6

Tover hub 5672.6 BS S  $0^{\circ}01'E$  & run  
N  $16^{\circ}57'W$  to hub 5864.45

Tover 5864.45 run N  $1^{\circ}46'E$  to  
hub 5999.45

Tover 5999.45 run N  $1^{\circ}48'E$  to  
hub 6225.5

Tover 6225.5 run N  $17^{\circ}07'E$   
to hub 6366.45

Tover 6366.45 run N  $5^{\circ}26'E$  to  
hub 6525.15

Tover 6525.15 run N  $11^{\circ}40'W$  to  
hub 6739.05 on S  $1/6$  line

Tover 6739.05 on S  $1/6$  line  
run N  $32^{\circ}20'W$  to hub 6930.4

Tover hub 6930.4 run N  $10^{\circ}E$  to hub  
7134.5



Tower 7134.5 run N  $85^{\circ}46'E$  to hub  
7350.6

Tower hub 7350.6 run N  $86^{\circ}35'E$  to  
hub 7498.4

Tower 7498.4 run S  $39^{\circ}30'E$  to  
hub 7706.15

Tower 7706.15 run S  $37^{\circ}39'E$  to  
hub 7994.20

Tower 7994.20 run S  $24^{\circ}03'E$  to  
hub 8190.95

Tower 8190.95 run S  $32^{\circ}35'E$  to  
hub 8374.45

Tower 8374.45 run S  $6^{\circ}30'E$  to  
hub 8574.45 + continue same course  
to hub 8724.75

Tower 8724.75 run S  $30^{\circ}26'E$  160 ft

Tower 160 run S  $64^{\circ}15'E$  240 ft

Tower 240 run N  $74^{\circ}39'E$  98 ft to hub  
spike on road line

Tower 98 run S  $14^{\circ}28'E$  270.1 to  
spike in road + 158.1 to spike  
in road on Tamp Co line



Sept 29 1949

I Work on plat  
Mike & Dave check  
lot line angles

Mikes Notes

Dave & I drive my car in on N  
road to Co line to measure from  
hub 3386.8 W to spike in  $\frac{1}{2}$  of  
road. 104.5 ft W or 3491.3 to  $\frac{1}{2}$   
back to Co line by Ottos  
house to check S road line

$\pi$  at iron pipe 239 ft E of Twp  
Cor. Var. set on  $N 89^{\circ} 59' E$  B.S. West  
on Twp Cor & run  $S 44^{\circ} 26' E$

195.9 ft to big spike hub 195.9

$\pi$  at hub 195.9 run  $S 44^{\circ} 25' E$

432.1 to hub 628 continue same  
course 116.6 ft to hub 744.6

$\pi$  at 744.6 run  $N 39^{\circ} 30' E$  320  
ft to hub 1064.6

$\pi$  over 1064.6 run  $N 38^{\circ} E$  293  
to hub 1357.6.

$\pi$  over 1357.6 run  $N 17^{\circ} E$

125 ft to hub 1482.6

@ 1414.1 intersect Co line



@ 214.65 E of Stake 00 on E bank of lake

T @ 1482.6 BS S  $17^{\circ}W$  on flag at 1357.6 + run N  $21^{\circ}30'E$  175 ft to hub 1657.6 at end of stub road. back to hub 1357.6

T over 1357.6 BS S  $38^{\circ}W$  on flag @ hub 1064.6 + run S  $52^{\circ}30'E$  180.5 to old sta 4 @  $16\frac{1}{2}$  ft & stub road @ 33 set spike online 3 ft from road ditches to both roads

T at old sta 4 BS N  $52^{\circ}30'W$  on hub 1357.6 + run S  $75^{\circ}30'E$  100 ft to old sta 7

T over old sta 7 run N  $84^{\circ}02'E$  125 ft to old sta 8

T over old sta 8 run N  $55^{\circ}02'E$  220 ft to sta 9

T @ 9 run N  $81^{\circ}E$  125 ft to sta 10

T @ sta 10 run S  $70^{\circ}58'E$  100 ft to sta 11



Sept 30 1949

Mike's Notes

Dave & I drive my car in  
on South road to Sta #11  
& continue back line a few  
stations.

$\pi$  @ old Sta 11 BS N  $70^{\circ}58'W$   
on Sta 10. run S  $43^{\circ}26'E$  125  
to Sta 12 Tang. 946756

$\pi$  @ 12 run S  $23^{\circ}57'E$  100  
to Sta 13. Tang. 444183

$\pi$  @ Sta 13 run S  $7^{\circ}57'E$  100 to  
Sta 14 Tang. 139651

$\pi$  @ 14 run S  $18^{\circ}W$  100 ft to Sta 15

$\pi$  @ 15 run S  $2^{\circ}28'W$  100 to Sta 16

$\pi$  @ 16 " S  $9^{\circ}34'E$  300 " 17

$\pi$  @ 17 " S  $30^{\circ}03'E$  100 " 18

$\pi$  @ 18 " S  $54^{\circ}34'E$  150 " 19

$\pi$  @ 19 " S  $43^{\circ}34'E$  250 " 20

discontinue Back line for now

We walk back to car & take Coline

E to Wood Lake to check angles

$\pi$  @ hub 2648.45 BS S  $75^{\circ}20'W$

& run S  $47^{\circ}06'E$  @ hub 2956.85

BS N  $47^{\circ}06'W$  run S  $15^{\circ}30'E$  216.9



to next hub  
return to cabin with notes so  
Harold Caro can put them on paper  
see page 19 loose Leaf book  
This is 9 minutes off.



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Oct 17-1949

Lr Walker drive to Wood Lake  
arrive at Noon

nobody around the cabin  
I drive around the south end  
of lakes + Look for Mike

P.M.

Otto, Dave, Mike + I go to Top  
corner. Where we pull up the  
60' d. spike + set a R.R. rail, 4" long  
for True Top cor center punch  
in top

Otto + Dave dist. I.M. + stakes  
Mike + I drive the I.M. + stakes  
at lot corners. I.M. are  $1\frac{1}{2} \times 18'$

over night in Trailer  
House



Oct 18-1949

Dare + Otto take out IM +  
States. Mike + I set sameMike + I go to IM. 1200 on shore  
end of Lot 12 on E side bet 12 + St.Tower 1200 Site  $N23^{\circ}02'E$   
along Street line + E side of Lot 12  
and continue E side of lot 12  
73.20 to IM 10 ft from water  
bet Lots 12-13T still at 1200 BS  $N23^{\circ}02'E$   
on NE cor Lot 12 + run  $S22^{\circ}30'E$   
angle is  $134^{\circ}28' - 138.3'$  to N side Canal  
BS North of Turn R.  $67^{\circ}14'$  + set up to  
35.65 ft for T.P. of road.Tower 35.65 Site  $N23^{\circ}02'E$  +  
run  $S22^{\circ}30'E$  120.20 set IM.  
N side Canal end of streetFrom NW cor Lot 14 chain  $S23^{\circ}02'W$  @  
100 set IM SW cor lot 14 + 65.5 T.P.  
of road. run  $S22^{\circ}30'E$  120.20 set IM  
on E side of St. on Canal 50 ft N of  
E of same.



200  
150  

---

350



3386.8 v

10.5.2