

TRANSIT BOOK

355 A

OLDFLD BK 104

P.C. = pocket Compass (no var.)

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

T.A. = True Azimuth

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

Tables for Excavations and Embankments.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

⊕ = South line

⊖ = north line

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	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

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

FOR KEITH'S RAILROAD CURVE TABLES SEE END OF BOOK.

Personal Copy

Field Notes of Lines & Corners

Jan'y 1935 to _____

Ray H. Hall

Camp Surveyor 75-S

Minocqua

30-38-5 E.

Jan'y 7th 1935 Foggy 35°

Hall, M^cDonald, Jostwiak

Identify orig. 1/4 S bet. 30 + 31

by BT on orig. N E bearing

Other indefinite.

Drive Cedar post at record course + dist.

Old cruisers mark N 34 E .05 1/2

var 0/ " " South .05

New W. Pine 15 S 46 W .38

Corner is on ridge between Swamps.

Chain N. - thru bush

2.34 enter swamp NNW + SE

Jan'y 14th '35 Fair 0°

Hall, M^cDonald, Jostwiak, L. Miller

Monument orig. SW cor 30

with 4 1/2' galv. pipe + Tamarac

post alongside.

\$ 30-38-5 E.

Orig. SW cor. Identified by all

4" bearings. Record meas. lack

1/4 link of closing. Find old post

just S. of mean of measurements.

var 0/ Hard land bis South 1.00

New: W. Pine 16" S 5 W .832

E. on eye picket line 12° E.

2.55 hr. swamp SW & NW

5.10 enter " NE SW

10.10 hr "

11.50 re-enters same

14.60 Tamarac faced

18.07 90° N with compass + set .38

white post. W. side T.T. #29

Jan'y 20th '35 -20° Fair

alder swamp.

23.50 Record for 1/8 S.

24 To 25 Swamp.

var. here 1 1/4° E.

\$ 30-38-5 E.

23.943 90° N. with Compass +
 .504
 set Cedar post for 1/8
 var^o } Pople 7 S64°W .469
 } Balsam 6 S28°E .379

On SE slope 1/2 rd. NW of swamp.
 random resumed.

26.60 ± enters Swamp SE NW
 34.80 hr. SE
 28.44 20.595 35.043 37.972 Picket
 40.17 re-enters Swamp NE SSW
 43.07 hr. swamp N + SE
 44.32 90° N to Orig. 1/4 cor. 932
 = .02101 = 1°-12'

44.32 M. on random
 43.50 R
 43.50) .82 Swamp

.01885 x 23.50 = .443

23.50

23.943

20.377

" x 20 =

44.320 ✓

HN - Sec. 5-38-5 E

Jan'y 9th '35 Overcast. 30° Snow
 Snow 16" deep.

Hall. M^r Donald. Jostwiak. Puddy.
 Continue random H (see B 1-143)
 by aligning hubs 20.518 + 27.08
 Course appears to be 270°-00'

27.08 Hub
 34.239 (N. edge) " S. shoulder peak
 40.00 Tam. hub at record
 all open - no stumps.

42.37 Hub enters open marsh NE
 Continue by eye - Transit fogged.

45 50 55 60 65 70 75 80

Tallies

- later (Spring '37) searched on island
 for B.T. found nothing.

Coursed W. to 1/4 cor.

Failed to find N 1/4 Sec. 6

30-39-5 E.

Jan'y 11th 35 Overcast +10°Hall. M^cDonald. JostwiakCruise Wly (v. 3 $\frac{3}{4}$ ° E) from point.20.83 S. of Orig. E $\frac{1}{4}$

(" " meas thru brush)

Mees. " "

20. mark Tally on poplar

41.38 fall .22 N. of Davis $\frac{1}{8}$

S. from " " v. 2°

20.00 mark Tally on 3' birch

Our record Tally from S $\frac{1}{4}$ 29 (orig.)

bars S 15 steps = .65

W 38 " 1.65

§ Sec. 17-38-5 E.

random

Jan'y 21st 35 Fair -20° F.Hall. M^cDonald - JostwiakRun eye picket random Wly from
Orig. S $\frac{1}{2}$ cor.~~6.15~~5.93 § T.T. N^o 2.

9.99 poplar 1' d of line

14 + 17 S. tip marshes

19.25 enter spruce swamp W + SE

20.00 tally picket

26.45 br. swamp E + SW

30.828 E. edge 8" poplar 2p. in line

40.19 Picket at US record - find nothing

44.00 picket

44.995 S. face 7" poplar.

Brush-run to 75 ch. † did not chain

State Fish Hatchery - Woodruff

Comprising:

The SE-SE Sec. 7, Lot 1 in Sec. 18,
 Lot 1 in Sec. 17, Lots 5, 6, 7 and the
 SW NW Sec. 8; also that part of NW NW
 (Lot 3) in Sec. 8 lying South and East of
 Arbor Vitae Creek; Allin Twp. 39 N. R 7 E.

N.B. It appears from the record in Rhineland
 that B.F. Dorr made surveys affecting this
 locality in 1894 - 1903 & 1907, the latter
 date seeming to represent a final survey
 of this identical unit, presumably for the State.

We conducted preliminary examination,
 looking for Dorr corners, with considerable
 snow on the ground, on Feb. 26, 27th
 1935 and identified four corners.

March 4th 1935 Foggy

R.H. Hall with enrollees M. Donald + L. Miller

Set orig. NW cor. sec page

P - N $\frac{1}{8}$ W Find 2 iron pipes. - the sly one
 checking OK with Doris W. Pine on V 2°-07'
 Marker new - { Hem. 9" S 74° W .405 = 26.7
 var. 1°-40' E. " 9" N 17 $\frac{1}{4}$ ° W .16 = 10.6'
 Doris pine N 72° E .135 = 8.9'

March 5th '35 40° F. 2" snow. sloppy.Same party. Run sly from P on
 Transit random var. 2°-48' E.

(actual "course later found to be N 88°-50' E)

0.0 N $\frac{1}{8}$ W - another pipe to N 25° W 2 ft.

2.844 Hub var 2°-52' conc'n S .051

10.06 S. face Birch 9" .180

11.586 Hub V 2°-52' .207

14.687 " " .262

17.542 " " .313

20.32 " " V 3°-15' - W. to S. to $\frac{1}{16}$
 92°-02' .363

17-39-7

$\frac{1}{8}$ lines (§ & § Lot 1) continued.

$\therefore 20.333 \text{ st} \leftarrow S \right) .3635 \text{ to Davis } \frac{1}{16}$
 $.01787 = \text{Tang. } 1^{\circ}01.4'$

True length = $20.336 = 1342.2'$

Var at W. end $2^{\circ}48' - 1^{\circ}01' = 1^{\circ}47'$

" " E " $3^{\circ}15' - 1^{\circ}01' = 2^{\circ}14'$

Ave. for line = 2°

\therefore Try $1^{\circ}01'$ less than as calc. from Davis.

7 $\frac{1}{16}$ (Center NW $\frac{1}{4}$) find hole in ground
 agreeing with both of Davis Sugar trees.

" grown shut.

Drive Iron Pipe in hole - from which:

Davis Sugar N 61° E. 4'

" " S $4\frac{1}{2}^{\circ}$ W 10.9'

New Birch 10' S 75° W .039 = 2.6'

17-39-7 E

North by (N $0^{\circ}26'$ W) from g on random line $\frac{1}{8}$

.36 intersect E+W random

" W to N $90^{\circ}44'$ @ $181^{\circ}29'$

2.077, 4.047, 8.05, 11.53, 15.252 Hubs.

18.835 Hub and deflect st. $0^{\circ}37'$ to Davis $\frac{1}{8}$
 1.089 ch.

$\therefore 19.924$ fall .01172 ch. W. = .00059 = $0^{\circ}02'$

March 8th 35 Same party $10'$ to $25'$ f.

Set anchored pipe $1" \times 4'$ in Davis post hole
 agreeing with 40 lbs. from his stump. (N.W. slope)

(14) $\left\{ \begin{array}{l} \text{Davis stp. S } 7^{\circ}20' \text{ W} \quad 26.4 \\ \text{V. } 1^{\circ}52' \text{ E. } \left\{ \begin{array}{l} \text{New Pople } 4' \text{ N } 37\frac{1}{2}' \text{ W} \quad 12.9 \\ \text{" Birch } 4' \text{ N } 59^{\circ} \text{ E} \quad 15.7 \end{array} \right. \end{array} \right.$

\therefore True line = N $0^{\circ}24'$ W 1315'

For three solar observations in AM at
 18.835 give random as N $0^{\circ}22'$ W

0 28.7
 0 27.

Ave = N $0^{\circ}26'$ W.

17-39-7 E

Continued

March 8th "Run Westerly ($S89^{\circ}29'W$) on random from⑭ $W\frac{1}{2}$ H. Angle S to W (object 18835) $89^{\circ}18'$ ∴ S to W True line to random $89^{\circ}53'$ 0.0 $\frac{1}{8}$ S.4.733 Hub - var (of line) $2^{\circ}35' E$

7.525 "

10.30 " $2^{\circ}20'$ 10.302 rt. \angle N to Orig. MC $\left. \begin{array}{l} \\ \\ \end{array} \right\} 12 \text{ lk.}$.01165 = Tan. $0^{\circ}40'$

Drive I.P. at base of old post (down)

Agreeing with Doris stp and the orig. BT

u	Var	1 $^{\circ}$ 40' E	{	N. Pine 4" N $20\frac{1}{2}^{\circ}W$.198 = 13.07
				W. " 7" S $36^{\circ}W$.65 = 42.9
				Doris stp. N $88^{\circ}E$.44 = 29'
				Orig. " N $80\frac{1}{2}^{\circ}E$.12 = 7.9'

N.B. - This M.C. is only about 2nd S of lake but is 90' E of lake!

17-39-7 E

Continue same random ($S89^{\circ}29'W$)

" " meas.

12.12 Hub at shore (correct N .047)

13.302 Calc. intersectn with true line $2^{\circ}17.4'$

19.174 " correct S. .235

20.00 \pm br. lake NE SW21.158 rt. \angle South .314 to orig Sec. Cor.

Identified same by old post (down) and by Doris + Vaughn's bearings.

Set (anchored) W.C.D. Monument 8" exposed

Var.	{	H. Vaughn's Hem 7" N $44^{\circ}W$.055 = 3.6'
		Doris Pine 6" N $13\frac{1}{2}^{\circ}W$.11 = 7.3'
		New Y. " 10" N $71\frac{1}{2}^{\circ}E$.364 = 24.1'
		" Hem. 6" S $18\frac{1}{2}^{\circ}W$.125 = 8.25'

∴	$\frac{21.158}{10.302}$	$\frac{.314}{.12}$
	$\frac{10.856}{}$	$\frac{.434}{}$
		.03999 = Tan. $2^{\circ}17.4'$

True dist MC to Sec. Cor = $S87^{\circ}11.6'W$ 10.865 = 717.1'" lines \angle at MC = $2^{\circ}57.4'$

Sec. 8-39-7 E.
SE SW.

March 11th 1935 +20° Snowing
Hall with enrollees M. Donald + L. Miller
Produce Time & Lot 7 S 89° 51' E from ④

0.0 Doris 1/8 S.

1.022 Hub on ridge var on 0 = 1° 52'

4.622 " + enter Rami open swamp ^{1 37'} N 45° E

" 2 solar obs. @ 25°F. give random ^{90° 01'}

9.38 br. swamp N 30° E 4 ch th NW to N end
swamp about 7 ch N of line

10.73 Doris? blaze on line

11.374 Hub var on 0 = 1° 50'

15.71 "

20.304 fell .047 S. of Orig. 1/4 S
.00231 = 6°-08' fell S.

Old post* hole along ridge I.P. found

⑦ *Agrees OK with stat of Orig. south tree ^{marks} plain.

Drive temp. oak plug in hole + mark:

Sugar 10' S 81° 50' E .428 = 28.25'
5.9'

Sec 8-39-7
NW 1/4

Mar. 22nd 35 Fair +30°F same party
Identify Doris W 1/8 4th by post in E+W fence

⑨ agreeing " 36" atp.

New- Birch 5' Westerly .471 = 31.1'

S 1° ~~45'~~ ^{36'} E from ⑨ on random

7.55 to Madeline L. SW + NE.

12.986 possible MC tree W at n.c. .137

7/30/35 Drive I.P. for MC on corrected line

13.116 ^{52° 1' E} S 4' from W 1/8 4th

⑩ 11° 40' { Hemlock 6" S 3 1/4° W .483 = 31.9'
" 16" N 48 1/4° E .589 = 38.9'

13.30 present shore line NE SW

13.59 6" Hem. 7/10' E of random

13.60 Hub 16.26 Hub on summit

17.70 & old rd.

19.30 & Park rd

19.847 Hub

19.96 Doris records

15 NW 1/4 8-39-7

② 7/30/35 Correct Temp'y 1/6 S South on line 5/10'
 = 1320.2 S. of H + set 6' acc. of light
 R.R. rail for cor.:

T.A. 12°-10' E	{	Maple 5" S 58 1/2° E .375 24.75'
		Hem. 2 1/2" 36" S 48° E .35 23.1'
		Red Oak 7" S 55° W .029 1.9'
		do 9" N 73° W .037 2.4'

March 25th '35 overcast 40° F. Same party
 Continue random 1/8 line (S 1°-36' E)

23.078 -	25.364	Hubs.	Fell West .291 " 40.029 = Temp 0.227 = Temp 0.225
29.00	enters	Swamp NE SW	
34.22	old winter road	WSW E NE	
35.83	lv. Swamp	SW NE	
36.101	Hub	thence S 7°-27' E (±5°-51) 2.391	
	"	S 3°-21' E (±4°-06) 1.55 to	

Doris 1/8 bet. W 1/4s. Identify by Doris Tree +

① post hole. Set anchored 3/4" x 3' iron bar

V 1°-40'	{	Doris Hem.	N 13° W .06 = 4'
		"	14" N 78° E .041 = 2.7
		"	9" S 36 1/2° W .17 = 11.2

N.B. — Don gives length of N + S 1/8 line
 as. 39.96 and 1/6 @ 19.96 S
 40.029 our meas.

$$39.96) \cdot 069 \text{ Susp. } \left(\begin{array}{r} .001727 \\ \times 19.96 \\ \hline \end{array} \right)$$

$$\begin{array}{r} 19.96 \\ \times 19.96 \\ \hline 19.994 \text{ P.R.} \end{array}$$

∴ @

" correct E 145
 + set Temp'y 1/6 S

Mar. 26th '35 Fair to overcast 40° F

Begin random 1/8 line Ely from ①
 8 ch ± enter timbered flowage and
 leave it.

Correct line Nly from d to 1/6
 and stake same.

Decide Doris "Center S E 1/4" means
 " NW 1/4

July 19th '35 with enrolees Tousey + Tackett
 Set tempy Center NW 1/4 .145 E of 19.96 19.995
 Find no sign of Davis 1/6 post but think
 the 36" Hem 38 lbs SE is his. (he says .32)
 Run Ely on random from tempy 1/6 (V 3-35
 N 89° 44' E.

1.532 4.313 6.03 Hubs.

8.043 Hub + enter open marsh NE SW

12.765 " " br. " " N + S

14.335 "

July 22nd '35 Fair warm - Same party

15.67 ± Park road SE NW

17.143 19.31 Hubs

21.338 " + observe run (2)

Results = N 89° 44' E + N 89° 49' E ^{random}

" deflect left to Davis 1/8 bet N 1/4 (2)

6° 22' 1.475 ch.

∴ 22.804 st ← N to 1/8 .164 (0.0719 = 0° 24.7')

Identified Davis's bet. N 1/4's by his post (down)
 agreeing with his scribed stump (38 lbs)

(a) Set new scribed cedar post from which:
 (Davis's stp. has S 30° E .38 = 25.1
 Var. assumed as 2° 06' } New Poplar 11° N 19° E .313 = 20.7
 " Birch 4° N 41° W .343 = 22.6

Run Wly () from tempy 1/6 NW 1/4
 by angle left off random (produced) 0° 24.7'
 (← W to N "True lines" = 88° 39')

0.0 Tempy 1/6 = Sta. 22.805

.83 ± Park Rd NE SW 80° F.

1.857 Hub + observe run twice 2:45 P.M.

calc. S 89° 30' W + S 89° 19' W

5.278 Hub = 28.083

Thence ← 12° 45' nt 5.439

" 28° 38' left 4.38 to line

" on orig. course 5.59 To hub in
 line of old fence S. 7. = 20.378

Sec 8-39-7

NW 1/4

$$22.805 + 20.378 = 43.183 \text{ meas}$$

$$\frac{44.13 \text{ Davis record}}{.947} ?$$

July 29th 35 Fair + 75° Hall + Tousey
 line out old fence (on NW SW NW) across field
 and fall about one chain E of NW cor. Sec. 8
 This cor. was set by Davis and we
 identify same by old post at fence cor.
 and agreeing with Davis B.T. on 40" stump
 } " N 67 3/4° E 42.4'

Meas. Sly from Sec. Cor. toward fence
 20.13' To our hub in E Park road + 43.183
 + 20.378

W of Temping 1/6

Observed Sun at 43.183 9:35 AM Temp 88°F

line Sly calc. N 89°-11' E + N 89°-16' E.

App. of
Sides 10 ft.

89-19'

74

709

116

119

89-19.8'

N 89-19.6'

true line

89-19'

25

89-44 W

= course

of random

E of 1/6

8-39-7

Project line of old fence Nly with Transit +
 fall 1.02 ch. E of Sec. Cor. Since Davis
 random fell 1.06 " " " " " we know fence
 has been on his random line all this time!
 Continue meas. Sly along fence from 20.131
 25.75 enters Spruce swp. ESE + NW
 27.50 hr. " " E + W
 39.398 + on - hel pole
 40.21 Davis record

41.234 N. main face W. wall of #47 culvert.
 40.306 calc. loc. of 1/4 S
 .928 x S of wall = 61.25'

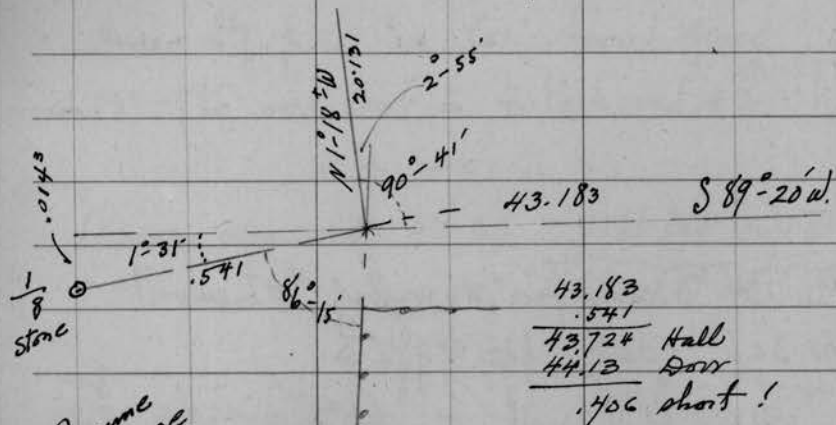
4W-8-39-7

July 29th '35 PM

Dig 53 lbs W. of Sta 43.183 in search of stone
4' below Hiry surface (on fill) find Doris
red boulder 18" hi. with notch in top and iron
rod beneath - Has not moved -

Reference -

(16)	T.A. was ?	Birch 9° S 37 $\frac{1}{4}$ E	.446 =	29.44
		" 10° S 14 $\frac{3}{4}$ W	.435 =	28.71
		M. Pine 3" S 62° W	.865 =	57.09
		Fence post N 2 E	.351	23.2
		our hub ± 6 $\frac{1}{4}$.541	

Resume
on page

43.724) .0143 (.00033 = 0° 01.1'

Sec 7-39-7
SE 1/4March 15th '35 Foggy To Fair

Hall, Miller, Mc Donald

- Find Doris M.C. on E+W's line in SE 1/4 Sec 7
Post is in fence line but find it only .25 $\frac{1}{4}$
from Doris hemlock - he says .26 $\frac{1}{3}$
Set Tempy peg N 30° W P.C. .26 $\frac{1}{3}$
V 1-50' } New Hem. 20° S 47 $\frac{3}{4}$ W .565 = 37.3

Identify Doris MC on 4W SE SE by

- his post and B.T. (OK) - Mark new:
V 1-50' } W. Pine 5° S 33° W .352 = 23.2

Thence S 4 on pocket line (V 2)

2.25 horizontal meas. fall .037 W. of

- Doris post (down) + found D.P. alongside.

23

Sec. 18 - 39 - 7
Lot 1 (NE NE)

March 28th 1935 Fair To Snowy $+25^{\circ}$
 Hall with enrollees M. Donald + L. Miller
 N $\frac{1}{8}$ E (p) westerly (N 88° - 17.5° W) on random
 deflect $2^{\circ}52'$ from random line E
 (\therefore angle of true lines W to N to E = $178^{\circ}11'$)

Run as near on blazes found as trees permit.

0.0 $\frac{1}{8}$ S. I.P.

2.54 E 47 Hurv NW SE

6.136 Hub + shift $\frac{8}{100}$ N to pass birch at

7.472

10.42 " + change of course $0^{\circ}06\frac{1}{2}'$ right
and continue same meas.

13.75 br. timber NTS

14.48' Hub

1.22' correct.

20.098 Fall .03 ch N. of Doro post
agreeing with his notched stp.

⊙

$$0^{\circ}06\frac{1}{2}' \text{ in } 7.678 = \frac{.0183}{.03}$$

$$20.098) .012 (.00060 = 0^{\circ}02'$$

$$\therefore \text{true course} = N 88^{\circ} - 19\frac{1}{2}' W$$

18 - 39 - 7

4W Lot 1

24

April 1st 1935 Fair To overcast $+30^{\circ}$ F.

Hall with enrollees Pitt + Ziarak

Substitute anchored $1\frac{3}{4}'' \times 36''$ I.P. exp. $4''$ for Doro post for Center NE $\frac{1}{4}$

⊙	r	" Stump	S 50° E	.102 =	6.7'
		Poplar 3'	N 24° W	.145	9.6'
		" 3'	N 29° E	.148	9.8'
		Maple 2'	S 10° W	.137	9'

Thence Nely (N $1^{\circ}24\frac{1}{2}'$ W) on random0.0 $\frac{1}{16}$.03 < random courses E to N $93^{\circ}13\frac{1}{2}'$

4.709 Hub

6.00 enter timber - continue as a

traverse (from 4.709) continuous meas.

N $1^{\circ}07'$ W to 14.232N $1^{\circ}35'$ W to 19.505 to $\frac{1}{8}$ cor. ⊙
 \therefore would have fallen .033 ch. W. on random
 19.505) " (.00169 Tan $0^{\circ}05.8'$
 $\therefore 1^{\circ}24.5' - 0^{\circ}05.8' = N 1^{\circ}18.7' W$ true line

t) Davis $\text{E } \frac{1}{8}$ # Set anchored S.P.

$4\frac{1}{2}'$ long (18' exposed)

$\left\{ \begin{array}{l} \text{Hew } 12' \text{ S } 25^\circ \text{ E } .381 = 25.2' \\ \text{ " } 12' \text{ N } 70^\circ \text{ W } \quad \quad 17.8' \end{array} \right.$

Sec. 8-39-7

N + S $\frac{1}{4}$ line

June 13th '35 Fair

R.H. Hall with Ziarek, Pitt + Delgoff

S $\frac{1}{4}$ $\frac{1}{4}$ on random (N $0^\circ 30' \text{ E} \pm$)

\leftarrow W to N. true line to random $90^\circ 29'$

2.22 6.02 Hub

7.39 fall .21 W of Davis flag = .02842

9.63 " .193 " " " = .02004

Correct over random E. $1^\circ 23\frac{1}{4}' = .02423$

@ 10.75 " " " .26

11.66 " " " $.28\frac{1}{4} = N 1^\circ 53' \text{ E}$

13.20 " " " .32

Final calc. give $N 1^\circ 57' \text{ E } 2657' \text{ to C}$

\leftarrow W \rightarrow

March 27th 1936 Overcast $+20^\circ$

Hall + Tousey - Re-locate Davis N $\frac{1}{8}$ W from last Summers tie-ins and transit in between do and NW cor Sec. 8

Project true line Sly (S $0^\circ 16' \text{ E}$)

@ $\frac{1}{8}$ \leftarrow E to S. $90^\circ 26'$ $180 51' = 90^\circ 25\frac{1}{2}'$

$\therefore 189^\circ 19' \text{ E} + 90^\circ 25.5' - 180^\circ = S 0^\circ 16' \text{ E}$

\therefore from $\frac{1}{8}$ S. true line "

135.6' Hub

Produce this line Sly thru woods + did not re-meas. Intersect true line

with 61.25' N. of bridge + use it for $\frac{1}{4}$ S.

Point falls on bituminous Hwy 47 surface

N. Pine $14^\circ \text{ N } 47^\circ 47' \text{ W } 120.8'$

NW cor water table of

True Azimuth South gate post

$N 84^\circ 46' \text{ E } 62.1'$

NE cor. cap of west culvert wall

$S 9^\circ 06' \text{ E } 62.3'$

E culvert lines to pt. $19.7' \text{ E}$

8-39-7
Traverse Hwy #47

March 4th 1936 +15° Windy.
Transit trav. Time azimuth. (along Hwy)

0.0	1/4 S	
1.	S 1°-10' E	1448' @ 885' br. marsh.
2	S 0°-24' W	442.2 E. shoulder
3	S 17°-40' W	883. W "

" Thence thru woods

N 71°-05' E 269.2' to Dig SW x Sec 8
from which E. MC br. N 87°-10' E short sight.
This agrees well with solar results S. end.

4	S 11°-35' W	549.7' W. shoulder
5	S 18°-35' E	683.5 To random
6	S 88° 18' E	209.3 N 8° E 18' (P)

3/8/36 Locate S 1/8 W in cut just W.
(15) of shoulder. (1322' S 0°-17' E of 1/4 S.)

Drive 1/2 mi on road

V 1°-40' E	{	Hem. 8' S 10°-56' E	144.7'
		" 11' S 85' W	37.2'
		± road E	11.

Traverse of Bass Lake
Secs 8-17-18

March 6th '36 Fair to Snowy +15°
Hall - Tousey + Swearingen

Run transit trav. true courses on
ice about 1 or 1 1/2 ch from shore, getting
detail by Stadia.

Commence 100' N 87°-11' E from Sec Cor.

①	" 23°-57' E	590'
2	34°-24'	364.8'
3	48°-02'	435.3'
4	95°-14'	398.9' =
5	175°-43'	528.3
6	233°-44'	438.9
7	239°-19'	568.9

To point 250' S 87° 11' W of MC

8	205°-05'	485.8'
9	228°-34'	342.6
10	7°-41'	328.8'
"	9°-44'	327.8 To P.O.B.

line reads 87°-15'

8-39-7

Bass Lake

Scale out on large scale, then fabricate set of meander courses which will follow shore as on my plat.

Dense growth young hemlock etc makes actual shore trav. undesirable.

Area in lake by US plat: 49.35 A.

" " " my survey 41.696 A.

7.754 short
7.654

N & S $\frac{1}{4}$ line

March 8th 1936 Overcast 20° 40'

Hall, Towsey, Swearingen

Set on random $\frac{1}{4}$ line from Davis to bet N $\frac{1}{4}$ S

W. to S. off. random 87° 50' $\frac{1}{2}$ '

Var. on meridian 1° 40' E.

S 1° 57' $\frac{1}{2}$ W.

261' E Park road

219.8' 405' 577.1' 737.3' 1284.3' Hubs.

800 to Swamp SE NW.

1125 to 1210 along E edge do.

.0033 = 0° 11' $\frac{1}{2}$ '

1320' fall $\sqrt{4.4}$ W. of C as located from Davis stumps.

T.A. { N. Pine 5° N64W 16.85'
W. " 5° N67E 9.2'

(Schneeger's post 1' too far E.

S.P. found 2.6' " " SW.)

Lines touched by CCC

from W. falls 3 $\frac{1}{2}$ ' N

" S. " 12' E.

Swamp to. 30' \pm E of cor.

7-39-7
1/8 S. line.April 2nd '36 15° Windy

Hall & Zawadzki (Buzz)

Transit traverse from S's & Wly to

Doris MC. (m)

- 1 N 10°-14' W 124.9'
- 2 S 77°-55' W 315.3'
- 3 S 73°-38' W 139.6 To MC
- = N 87°-50' W 464.8' = 7.04 ch.
- Doris rec. = 7.00 ✓

Area Calculations

SE SE Sec. 7	1,714,230 sq'
NW NW 17	1,788,325
NE NE 18	1,681,170
SW 1/4 8	7,353,850
SW NW 8	1,856,900
A E. of Creek	137,500
	<u>14,531,975</u>

= 333,606 A.

- in Bass L. 41,696

291,910 A. net

This excludes the (meandered) waters of Bass L. but includes overflowed area in Sec. 7 + 8 which I have not determined.

R. #. #.

7-13-38

19-39-5
W

March 18th 1935 Hall + Freund
Find orig. W.C. ("3.00 ch. S. of NW cor 19th pond")
Sw. orig. B.T. on 10' Tamarac stub OK
Other evidence must be under ice.

March 19th '35 Overcast 20° windy
Hall - McDonald - Miller

Drive 2" x 6' iron pipe 2' exposed
by record course + dist. from the B.T.
Cor. comes 2²/₁₀ hr. W. of a 3" Tamarac
" " 30 " E of creek. SW

Mark new: { Tamarac 3' N32E .272
0° var. { " 2' N23W .242

10-15-37 set white target at WC
oriented 45° off meridian.

2 solar observations at post →

23-39-5
\$ W 1/2

May 2nd 1935 Overcast 50°

Hall & Ziarik - Cruise
Westly on 2 1/2" ± E. var. from Orig. S 1/4
250 steps - fall 2 steps S of old blaze^{down}
413 " OK with " " "
" gain plateau summit
462 set temp. y picket OK " " "
607 fall 4 steps S of old blaze
644 old road N 37 E.
" new " (not constructed this date)

910 OK with small stake found 6" ±
west of a post hole. NW line would
have been in old road. NE " represented
by hole where Pople stood.

Henry Ahlborns testimony verifies this as the
old corner; Set anchored section narrow
gauge R R rail + post alongside.

8/1/25 tree { W. Pine stp. 14° S27-38W .82 ch.
Aspen with { W. Pine tree 12° N54-22W 3.103
(var 2-23) { Aspen 4" N32°W ± .73

9 - 38 - 5
SW 1/4

May 15th 1935 Fair 55° Hall + Ziarke
Cruise S. from orig. West 1/4 S. Var 3° E.

652 steps fall 30 steps W. of old blaze

Resume on var 5° 40' E from - "

800 to marsh W + SSE

916 fall 34 steps E of Orig. SW cor.
.037 · 2° 10' - 540 · (3° 30')

Identified cor. by stubs of both Orig. Tamaracs with orig. marks in good condition. Intersect record meas. from both + fall 3" E of bottom of very old stake under bog. - may be point of US stake?

Drive Jack Pine post at record intersectin

over {	Orig.	N 66 W	record
	"	S 37 W	"
	new:	Jack Pine 2° S 16° E	.294
	on island {	" " 6° N 61 W	1.128
	" " 6° S 41 W	.942	

Th. E on 3°

9 - 38 - 5
S 1/4 S.

906 steps OK with orig 1/4 S. cor.

Identified by 4' step of pine (down). Found "B.T." by chopping in. Straighten up step and believe it close to orig. position.

Remains of tamarac are 10 1/2' from pine instead of .13

May 16th '35 Hall. Pitt - Ziarke

Decide to set monument by record course + dist from step of Tamarac, which has not moved. Set 4' section R.R. rail 6' W from Tamarac and 8" exposed.

var. {	Shell of 13" W. P. step	N 70° W	.149
	White post at road	Ely	1.03
	" " "	"	1.215

Post at road is 1.13 ch S. of my temporary blaze determined by road trav. Dec. '33

§

May 17 1935 Hall. Ziarko - Pitt
SW cor Sec. 2 marked by very old post.
agreeing with evidence of spruce.

Drive 6' iron Pipe + scribed cedar post
var } near Tamarac 2' N16°W .244 ch.
0° } " 2' S13°W .817

This does not agree with record S. to limit
of marsh nor E to " "

At W $\frac{1}{8}$ § 2 set 3 $\frac{1}{2}$ ' angle iron + cedar post
498' E of $\frac{1}{8}$ set road marker at W siderd.
Set 5 $\frac{1}{2}$ ' iron bar + cedar post at S $\frac{1}{4}$
fail to find more evidence " "

T 39 N R 4 + 5 E.

Orig. Cor. Secs 1-6-7-12

June 7th 1935 Hall. Pitt. Ziarko - Delgoff

Perpetuate Sec. cor. as marked by
D.S. Burnett's post. (Town of Minocqua
building E + W. road over this point).

Set steel plow point 24" long and
1'-9" to show road surface.

Transit at corner var 3° E.

Orig's read

N 60 W	.109	only BT visible
N 15 E	.29	rotted remains only
S 74 W	.278	" " "
S 56 E	.154	" " "

Set Cedar post .50 lks N. (var 1°40'E)^{rods}

var 3'	{	Burnett's find 12	N 29 $\frac{3}{4}$ ° E .41 = 27'
		New: Hem. 16'	S 72° W .887 = 58.5'
		(marked " in feet)	

39

27 & 28

39-5

1/4 S.

June 7th '35

Chain and pace S₄ from Sec. Cor. r
determine approx. N + S location.

Norway str. cut low appears to be

the right one. Try S 30° W PC 50 lb

and find square hole under rock

" " 3x3" with rotted wood.

- Did not have shovel here in 1934 -

Aug. 1st '35 PM Hall + Towsey

Set anchored $\frac{3}{4}$ " iron shaft for corner
(with cedar post alongside)

1/4 S. var used 2° 30' E.	}	Y. Pine 11" S 78° E 2.032
		Jack - 5" N 82° E .497
		" 7" S 45 1/2° W .49
		⊥ old road E .22

40

County Monuments

38-5

Sept. 23rd '35

N 1/4 Sec 1. (orig). 3" exposed

NW x " 1 " 6" "

NW x " 2 " 12" "

E 1/4 " 1 " 10" "

Sept. 25th

N 1/4 Sec. 3 " 8" "

NE x " 7 " 8" "

W 1/4 " 7 " 8" "

Oct. 8th '35

T 37-4

N 1/4 Sec 1 orig. 14" "

Mark new bing

o var. { Cedar 5" N 34° W 15.7'

July 16th 1935

Find evidence of orig. cor 13-14-23-24
 - old post (down) agreeing with strips of
 both Aspens. (.446 S. of sta. 80.501 on E+W random)
 (.067 W. of " 1.341 " mer. ")

Set post in old post hole + marks:

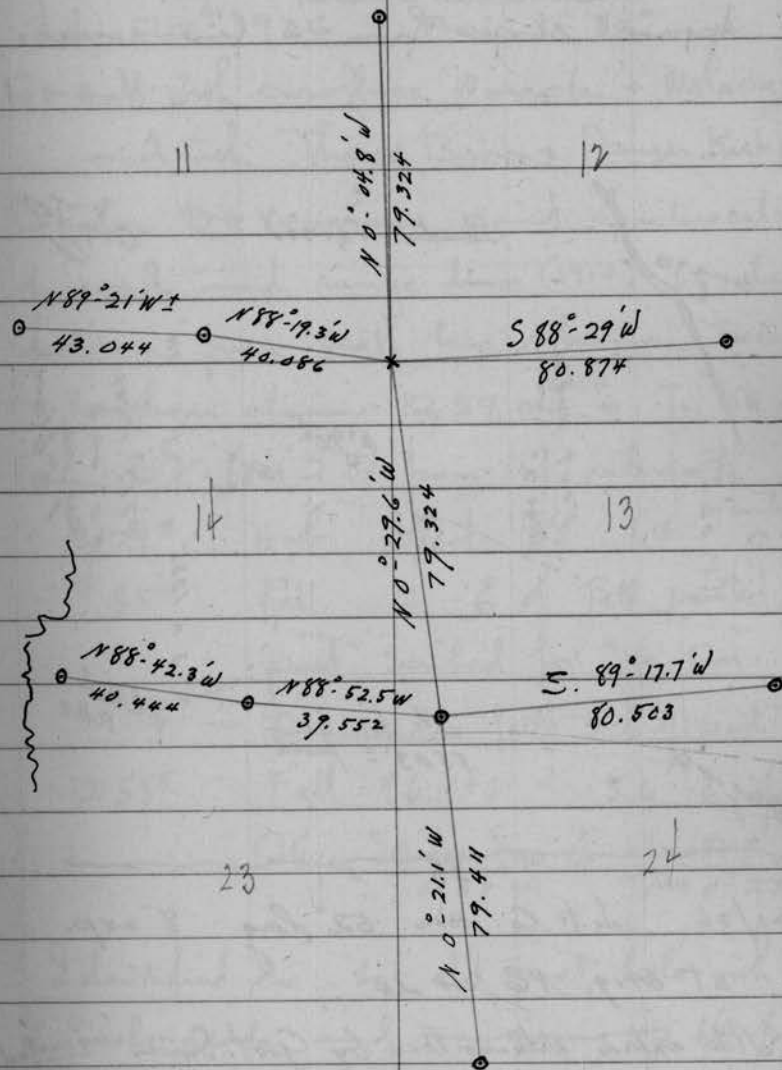
True Azimuth Obs 3° 27' E	}	Jack Pine 10" N 70° 35' E .6905
		" " 9" S 47° 05' W 1.015
		" " 4" S 51° 20' E .428
		Loc. orig. Aspen N 25° E record
" " "	N 44° W "	

8/15/35 Substituted official monument 9" exposed

" Set " Cons. Dept. " at final cor. to

11-12-13-14 as determined by double pro-nate

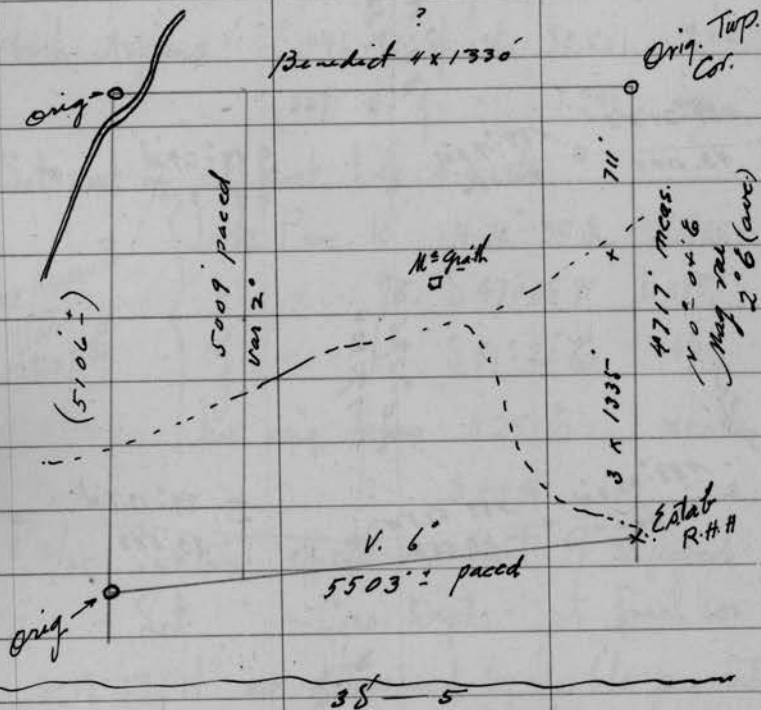
Par 3° E.	}	Orig? Jack found marked S 35° E .751
		New Jack 3° S 43° 05' W .649



orig. corners indicated ○

Sec 1-38-4

Approx. shape from a few sources



2/21/36 Set C. Now. 52" long 8" exp.
at Orig. NE cor 20

An extra Witness Tree by Govt. Survey unnoted
bears N 25° E 27.9'

Orig. Cor. 19-20-29-30 Set C. Now in creek.
no new bings available.

6-38-10 E.

Indian Lake

July 20th 1936 Town Location
Fair 80°

R. H. Hall with enrollees Woicck + Wsloacz
and with Thane Brown + Ranger Kirkpatrick

Locate R. H. Vaughan's point of intersectn
of road and range line (1914) by his
distance from both his reference trees

— Vaughan claims 12.59 ch. S. to SW cor.

Run S by (var 2° E) from sd. intersectn

3.29^s Hub Offset BS 1' W. + continue on offset

9.65^s Fall 2' E of Tall painted
post scribed for Sec. Cor.

12.53^s (Orig. random falls 3' E of post)

12.58^s Fall 4.6' + 1 = 5.6' E of

Orig. SW cor Sec 6 = .0849
.00674 = Tan 8° 23.2'

Identified cor. by old post hole with
D. P. alongside and measuring 12 lbs from
base of orig. Hem. (Bole of tree down,
scribe marks OK.)
over

HW continued

Course to hemlocks not exactly record but distance to remains of birch and sugar seem Ok. Fail to find remains of Vaughan's sugar tree. Mark new:
 $\sqrt{2\frac{1}{2}^{\circ} E. \left\{ \begin{array}{l} \text{Sugar } 13'' \text{ S } 55^{\circ} \text{ W } .70^2 \text{ ch.} \end{array} \right.$

Since "true line" north is obstructed by large maples I assume corrected line south as meridian and offset $S 40^{\circ} 47' E 28.7'$ (on account of length of sight possible) This equals a perpendicular offset of -28.4 ch from Vaughan's intersection and continue N by transit traverse in old road:

0	=	point .284 E of Vaughan's
1		North 13.11 pt under tower
2		$N 4^{\circ} 35' W$ 1.52
3		$N 1^{\circ} 58' E$ 2.505 in old road
4		$N 1^{\circ} 28' W$ 3.17 To Orig. M.C.
		on Indian Lake.

7/21/36

Accept D.H. Vaughan's location of M.C. (1914). Remains of orig. bearing trees only definite enough to supplement his work. Bury anchored iron rod + set hem. post.
 an " found by my 1.7'

New bearings:

vars.	{ Hem. 8"	$S 34^{\circ} E$.109
	{ Birch 9"	$N 63^{\circ} E$.11
		on tasks	

By lat. + dep. our assumed meridian would, if produced, fall .167 ch. W. of M.C. at 32.878 N. of Sec. cor. = .00508. $0^{\circ} 17\frac{1}{2}'$. We must assume an error in Vaughan's alignment.
 " intersectn .064 ch. too far W.

US record	31.88	} Must assume U.S. surveyor lost 1 chain.
Vaughan	32.94	
Hall	32.88	

W 6 - 38 - 10

Conclusion

Corrected line clears tower footings
(under construction) by 14 lks and $\frac{1}{2}$ Tower line
by 30 lks. (at $12.585 + 13.11 = 25.696$ N of
Sec. Cor.) - correct trav. sta. W. .13

" sta. $25.696 + 1.515$ W. .138

" " $27.211 + 2.498$ W. .151

" Vaughns intersects E .064 and

drive Iron Pin in S. edge road from which

to Vaughns Trees to. $N \frac{16}{76} W .534$
 $S \frac{76}{76} W .565$

Calc ^{net} corrections for stations page 44:

sta. 3.298 (9.287 N of sec cor). .025 ch E of hub

" 9.655 (2.93 " " " ") .035 W "

— Foliage + construct'n haste resulted in
my failure to determine true Meridian.

Magnetic data — $\frac{2^{\circ}00'}{23}$ S. end.

N. end $3^{\circ}10' - 1^{\circ}45' =$

$\frac{1^{\circ}20'}{1^{\circ}25'}$

\therefore Avg. mag. var. for true range line = $1^{\circ}22'E.$

E $\frac{1}{4}$ cor. 2 - 38 - 7 E.

Sept. 21st 1936 Fair 75°

Hall, Hassler, Wolocz, Woicke, Walters
& Swearingen.

Check E $\frac{1}{4}$ as found by Hassler

There is an old oak post and I.P.

115 lks. (^{OK for conc} low var 1° E) from shell of 60°

W. Pine stumps with Orig. BT plain,

low on stps, and Vaughns = re-marking

higher up. Hassler has set new cedar

post + marked the following:

v 1° { Red Oak 9" S74°E .18 $\frac{3}{4}$
W. Pine 6" N49°W .425

I.P. is alongside post.

We searched S29°E S29°W N29°E N29°W.
could find no trace of other brig.

8 - 40 - 11 E.

Orig. E $\frac{1}{4}$ cor.Sept. 21st '36 PMCheck $\frac{1}{4}$ cor. as found by Hassler:

Stp. of orig. bing evidently re-marked by Doris. Intersect 48 from do with $16\frac{1}{2}$ from Doris y. P. stp. (marks plain) and find hole and 2 posts (down).

Drove Hassler's pitch post in old hole

from which: " W. Pine 18" S70°E .88 = 58.1'

Var: } new W " 9" N16°E 1.918 = 126.6'

* Doris SE x 8 should bear S. on $\frac{1}{2}$ ° W. var
44.12 ch.

* Thence E on 13° W. var 43.61[±]

* calc. from Doris notes.

Reconnaissance to locate more accurately the old Rhinelanders 3 Lakes Road. Identified as road laid out by H. Vaughan in 1901?

Sept. 25th '36 60°

Hall. Harness, Bud Freund

Shown a stump marked RE BT

from which we locate DAV's other bing and his point of intersect. E + H Sec. 32.

Temp. peg	}	DAV's	N76 W	.38	
		"	S35 E	.17	
0' var.	}	New W.P. stp 16	N81 E	.87	= 57.4'
		" Soft maple 6"	N69 W	1.23	= 81.2'

Old road (N on 3° E var) brs W. .60

Meas N. on do 15.88 find nothing.

Traverse NEly in road from sd. intersect
0' var. 463 steps = 20 ch.

22.15 = 1

100	=	1.32
1	=	.0435

V2°

1	N53°E = N55°E	58 steps	= 2.51 ch.
2	N41°E = N43°E	102	4.41
3	N47°E = N49°E	78	3.37
4	N38°E = N40°E	94	4.06
5	N47°E = N49°E	187	8.08
6	N59°E = N61°E	243	10.50
7	N68°E = N70°E	121	5.23
8	S88°E = S86°E	185	8.00
9	N89°E = S89°E	43	1.86 ^{12" W of culvert}
10	N69°E = N71°E	82	3.54
11	N75°E = N77°E	105	4.54
12	N62°E = N64°E	143	6.18
13	N73°E = N75°E	36	1.56
14	N60°E = N62°E	112	4.84
15	N42°E = N44°E	89	3.84
16	N56°E = N58°E	237	10.24
17	N49°E = N51°E	307	13.32

Sept. 28th '36 Hall + HasslerS. from Vaughan's point of intersectn with W. ^{V2 1/2°}

57 steps to post which apparently has stood unmolested for years: but are unable to find a trace of Don's stump!

Set new (spruce) post in place

S. from culvert near center Sec.

Find Don's post for " " down (under a brush pile) agreeing with both tamaracs ok. N. one is a step.

W. .. a dead tree

Set new pine post scribed & mark

"C.S. 32 Don's"	over }	Spruce 4" N 80°E .51
		" 5" S 49 1/2°E .54

Chain north from Center (thru the brush) var $\frac{3}{4}$ °E

6.03 ch. E road .50 SW of culvert

6.37 Tack Conserv. Dept. plaque

on 3" Tamarac:

Traverse continued: paces reported as chains

18	N 50 ^{over} E	5.00
19	N 45 E	6.50
20	N 52 E	3.50
21	N 35 E	1.20
22	N 40 E	.83
23	N 17 ^{1/2} E	4.25
24	N 29 E	3.00
25	N 47 E	5.00
26	North	6.25
27	N 35 E	2.50
28	N 49 ^{1/2} E	5.00
29	N 60 E	3.00
30	N 52 ^{1/2} E	4.00
31	N 36 E	2.00
32	N 56 ^{1/2} E	5.9

Thence N Var 1° E

4^{1/4} ch to DH roughness

Center Sec. 28

Set new cedar post:
 { DH Hemlock 17" S 88° .085
 Cedar 6" N 84 E .128
 over

Sept. 29th 1936 Hall-Hassler-Bud Freund

Pace N (again) from sta ① Var 1° E

8.50 fall 2.18 E of orig. cor.

28-29-32-33 found by Hassler

Marks on slab of orig. Tamarac

Set new spruce post at record dist.

from str. of Tamarac and agreeing with faint remains of a birch. This is 5' ±

NW of other post found. and on W. shoulder knoll. ch.

new { W. Pine 14° 120° S 60° E .196

over { W " 10° 269^{1/2} S 89^{1/2} W .50
 defective (at edge of swamp)

Sta ① West 2.18 Thence S 1.60 to road =

Sec Cor South 10.10 to ± 3 ch SW of ①

At about 10 ch S of cor. Tack up

aluminum plaque.

55

28 - 38 - 10

Traverse continued

from point $4\frac{1}{4}$ ch. S. of Center Sec.
ch (paced)

33	N 61° E = N 62° E	3.00
34	N 47 $\frac{1}{2}$ ° E : N 48 $\frac{1}{2}$ ° E	3.50
35	N 33° E N 34° E	3.50
36	N 52° E N 53° E	6.00
37	N 57 $\frac{1}{2}$ ° E : N 58 $\frac{1}{2}$ ° E	10.00
38	N 54° E : N 55° E	9.00 to swamp
39	N 62° E N 63° E	6.50
40	N 53 $\frac{1}{2}$ ° E N 54 $\frac{1}{2}$ ° E	5.50 To DNV's

referenced intersectn \pm

+70 lks = 6.20 Orig cor

bus N (on 5°) 14.00 ch.

41	N 53 $\frac{1}{2}$ ° E N 54 $\frac{1}{2}$ ° E	50.00
----	---	-------

at 17.00 hr. Swamp

at 50.00 Search S 16ch + East 1.20

for $\frac{1}{4}$ S. no luck.

42	335° N 25° W = N 24° W	5.00
43	269° S 89° W = West	2.00
44	301° N 59° W = N 58° W	3.25 to gate

56

45	263° S 83° W = S 84° W	2.50 (equiv)
46	302 N 58° W N 57° W	2.00
47	274° N 86° W N 85° W	3.00 E. end lake
48	282 N 78° W N 77° W	5.00
49	23 N 23° E N 24° E	5.00
50	1° - 1 N 2° E	4.50

Orig. cor. 21-22-27-28 Old post
and both orig. Tamaracs standing. Set new
post by record from both:

0° var. { Orig's S 68° W + S 83° E rec.
New Spruce 5° N 75° W .177
" " 5° N 14° W .363

About $1\frac{1}{4}$ lks NE
of old post

S. from corner (var 5° E) 14.00 to road .70 NE of

Station (40).

51	317 $\frac{1}{2}$ N 42 $\frac{1}{2}$ ° W = N 41 $\frac{1}{2}$ ° W	2.00
52	301 N 59° W N 58° W	2.25 Amelia's road S.
53	278 N 82° W N 81° W	2.50
54	293 N 67° W N 66° W	5.75
55	288 N 72° W N 71° W	5.25

56. 265° S85W = S86W 4.00

57. 284 N76W N75W 4.00

Sept. 30th

58) 333° N27W = N26W 80 Thence west

2.00 Thence S54W^{no var.} 8.50 to orig. $\frac{1}{4}$ S

59) 318° N42W N41W 2.00

60) 14° N14E N15E 3.50

61) 344° N16W N15W 3.00

62) 20 N20E N21E 1.00

63) 336 $\frac{1}{2}$ ° N23 $\frac{1}{2}$ W N22 $\frac{1}{2}$ W 3.50

64) 316° N44W N43W 3.25

65) 329° N31W N30W 3.50

66) 293 $\frac{1}{2}$ ° N66 $\frac{1}{2}$ W = N65 $\frac{1}{2}$ W 7.0067) 264 S84W = S85W 2.50 ^{at 1.25}
N S picket line

68) 335 N25W N24W 3.50

69) 310° N50W N49W 1.50

70) 266 S86W S87W 3.50

71) 314 $\frac{1}{2}$ N45 $\frac{1}{2}$ W N44 $\frac{1}{2}$ W 5.50

72) 296 N64W N63W 3.25

73 306° N54W = N53W 4.00

74 297 N63W N62W 2.50

75 315 N45W = N44W 2.00

76 3 N3E = N4E 3.00

To & Co. Trunk "A" at $\frac{1}{8}$ S.

Sept. 30th 36' Overcard 60' Hall + Hassler
Identify cor. to 15-16-21-22 in & Co. Trunk "A"
on hill - by stump of DHVaughan's hemlock
(N18 $\frac{1}{2}$ W P.C. .66 from " ")

Mark new Brigs

(Hem. 16"	187 $\frac{1}{2}$ °	S4 $\frac{1}{2}$ W	.722
---	----------	---------------------	--------------------	------

given	W. Birch 5"	N27°E	.551
-------	-------------	-------	------

)	Random N. bro west	.05
---	--------------------	-----

)	$\frac{1}{8}$ stake found	18.35 paced
---	---------------------------	-------------

Sec. Cor S. on picket line found Var. 8° E.

15.00 To road

19.50 To Davis post. May have been

moved since it br. S68E .25

from BT. Can find no evidence .39 from
BT.

Continue S. (pacing) on 9° from $\frac{1}{8}$ S
(as Don notes it)

16 $\frac{1}{2}$ enter spruce swamp

19.90 fall .35 W. of Orig. $\frac{1}{4}$ S.

Post agrees with Don's description

NW tree dead. We cut it high. Drive a
stake by East BT and bury the slab in
the moss. Set new Tamarac corner post:

$\frac{1}{4}$ 0° var. { Spruce 6' ³⁰⁴ N56°W .335
" 7' _{131°} S49°E .714

Thence N54°E (no var) at $8\frac{1}{2}$ hr. swamp.

" E. (no var). 2.00 To road - 80 NW of (58) P₅₇

Orig NW x 27. Pace E on $1\frac{3}{4}$ E var (To follow
DHV Vaughan's random)

16.00 hr. swamp S + NW

20.00 in road

41.90 Thence S. 2.10 + search again for

DHV $\frac{1}{4}$. Many sugar maples - no blazes.
fail to find $\frac{1}{4}$

found by Hassler + Gould in winter
Both spruce stumps are there - Scribe
marks plain on SW one. Set new Tam
post and mark:

o var. { W. Pine 7' N75°E .388
" " 9' S19 $\frac{1}{2}$ °W .23
" " 199 $\frac{1}{2}$
Spruce 6' S30°E .372
" " 150°

Thence N. (var 1°W)

(Slightly E of fence)

4.75 (paced) \pm R.R.

65
5.40 \pm road.

Don's North $\frac{1}{4}$ Sec. 6 37-10

Oct. 1st '36 Hall + Hassler 50'

Identify Don's $\frac{1}{4}$ by his post + both stps.

Set new 5" x 5" Spruce post:

o var. { Spruce 5' N 9°E .22
" 4' S41 $\frac{1}{2}$ °W .271
" " 221°-30

Th. S (on r1°E) 2 $\frac{1}{4}$ ch to road junction

Paced traverse SW on road from
DHY's intersectn. $\frac{1}{4}$ "15.88 S of $\frac{1}{4}$ "

1	241°	S61W	S62W	6.00	
2	260	S80W	S81W	16.00	at 11.00 culvert
3	232°	S52W	S53W	7.00	
4	205	S25W	S26W	4.00	
5	231	S51W	S52W	2.00	
6	242	S62W	S63W	8.00	
7	211	S31W	S32W	4.00	To junctn

2 $\frac{1}{4}$ ch. S of $\frac{1}{4}$ S $\frac{1}{2}$ 31

8	179	S1E	South	23.50	+ br. Hamilton road
---	-----	-----	-------	-------	------------------------

9	285°	N75W	N74W	6.25	
---	------	------	------	------	--

at 1 ch $\frac{1}{4}$ to S .75

Continue on RR (parallel to road)

10	257 $\frac{1}{2}$	S77 $\frac{1}{2}$ W	S78 $\frac{1}{2}$ W	33.50	Range line
----	-------------------	---------------------	---------------------	-------	------------

4 $\frac{3}{4}$ ch. N of $\frac{1}{4}$ S.

@ 34.00 line of N & S
fences.

Cruise To determine descriptions
Crossed by Stella L. - 3 Lakes Truck Trail.

Sept. 26 '36 AM rainy.

Hall, Harness, Bud Friend.

Begin at N. end of HC Hall's transit trav.
of 1932 in 2-37-10 (calc. 154 steps
south and 13 steps west of Orig. $\frac{1}{4}$ $\frac{35}{2}$)

(We found mag. var. of 1°26'E from True
Meridian in '32)

a	N47E	N48E	87	=	3.76
b	N58E	N59E	53	=	2.90
c	N36E	N37E	72	=	3.11
d	N23E	N24E	12	=	.52

\therefore at 150 steps E of $\frac{1}{4}$ $\frac{35}{2}$

Place 10" Sugar on E side of road

Continue traverse thru Sec. 35
from d -

over

1	22°	N 23° E	280 =	12.10 ^{ch}
2	31°	N 32° E	78 =	3.37
3	13	N 14° E	332	14.34
		at	232	creek 20, W
4	61°	N 62° E	80 =	3.46
5	22	N 23° E	121	5.23
6	10	N 11° E	60	2.59
7	N 24° W	N 23° W	79	3.41

calc 926 steps N + 330 E.

Oct 1st Hall + Hassler - search for 1/4 S
from above data - crossing E from ①

at 15.00 road NE + SW

" 20.00 Hassler find Orig 1/4 S 16 1/2 W 4 3/4 ch
= 4.50 S + 1.43 W
 $\frac{2.0}{18.57}$

∴ our stake ① at road is 4 1/2 ch S + 18.57[†] W.

Possibly my pacing was stretched a bit.

Orig. 1/4 S 35 & 36
38 — 10

This 1/4 S is at S. edge of island in swamp

The old BT is down.

It is a Tamarac - but genuine

Two very old stakes br.

N 29° E .13 from BT. We accept this

location since (remains) of it only birch

to be found brs N 25° E .18

Set new dry Tamarac post:

0 var.	{	W. Pine 5' ²²⁵ S 45° W	.157
		do stp 13 ³¹⁸ N 42° W	.275
		" " 12 N 23 1/2° E	.352

Orig. Cor. Secs. 25-26-35-36

Both orig. BTs - NE one standing - West one ^{down}

Since obvious loc. of West tree is too far W

we assume they read .20 for .30

Set new cedar post (from NE BT) & marks:

var 0°	{	Cedar 9" ^{255 1/2} S 75 1/2° W	.315
		Hemlock 3" N 65 1/2° W	.246

294 1/2

65

35-38-10

Continue trav. from sta ①

8	344	N16W	N15W	4 $\frac{3}{4}$ ch.
9	309	N51W	N50W	4
10	336	N24W	N23W	2
11	318	N42W	N41W	4
12	237	S57W	S58W	2 $\frac{1}{2}$
13	295	N65W	N64W	4 at 1 ch creek SW
14	345	N15W	N14W	8
at 6 $\frac{1}{2}$ RR N E - SW				
15	46		N47 E	4
16	38		N39 E	22
17	53		N54 E	4 $\frac{1}{4}$
18	47°		N48 E	12 $\frac{1}{4}$

Th. br. road to check for Sec cor:

Ely. (on var 1° E) 4 $\frac{3}{4}$ ch. at .50 RR (N50 E)

Thence S " "

at 2.00 ch. creek

at 14.00 hit orig. sec. cor. $\frac{26}{35} | \frac{25}{36}$

66

26-38-10

Out 2 mi 36 Hall + Hassler

19	48°		N49 E	4 $\frac{3}{4}$ ch.
20	6°		N7 E	9 $\frac{1}{2}$
21	359°		North	13 $\frac{1}{2}$

fall 10 hrs E of Orig. 1/4 26/25 as

perpetuated by D.H. Vaughan. Found Iron Pipe at old post (down) Re-mark Vaughan's

Pine strip found 72° 62 hrs.

Continue from 1/4 S

22	69°		N70 E	10 $\frac{1}{2}$
23	109°		S70 E	9 @ 2.00 creek

Fall .50 S. of D.H. 1/8 post

Identified same by cedar post found agreeing with remains of NW Hemlock - others in road - gone. (Hem. stub 10" N22W .548

Var. 0° } Center of road South .12

Continue from 1/8 S.

24	140°		S39 E	3.
25	78°		N79 E	5.

at .65 junction (other road brs 175°)

67

25 - 38 - 10 E

26	58'	= N59E	6½ ch.
27	7	N8E	4½
28	31	N32E	3½
29	348°	N11W	2½
30	29	N30E	5½
31	82	N83E	2½
32	4	N5E	23¾ in road

To orig ¼S $\frac{24}{25}$. Identify cor. by orig. BT on stp. of pine + by remains of Tamarac Snow Pipe found, incorrectly set. Drive this 4½' X 1½" galv. pipe at record from both stps. (W. edge fill) and marks:

1/4	var	}	Tamarac 6'	270½°	N89½W	.552
			" 4'	320½	N39½W	.649
		0'	M. Pine 13"	130°	S50E	.308

Road extends N 3 or 4 ch - thence N only —

Pace S + identify Vaughan's Centre by cor. of fence E. S + NW + by " Sugar + stp of birch. No new bings available.

Secs. 1 & 2 37-10 68
36 38-10

Auxiliary track trail location

Oct. 3/1936 fair 60° Hall + Hassler
Orig. South ¼ S. cor Sec. 36-38-10
Identified by old post, 1 old bing, 1 new bing + by cruisers' marks. Timber still stands around the corner and south of the line. Did not have Vaughan's notes but set new post where he had his. 5" X 5" cedar "

x	}	Orig. Birch (dead) N33W	.342
		Sugar 24 N70W	.162
		(may be a bearing tree?)	
var 0'	}	Stp. of Vaughan's birch	
		S55E	.214
		New. Hem. 10' N86W	.308
		" Basswood 9' S78½E	.875

> If we set post at record from the birch we get 10 lbs. to maple x due west.

E from $\frac{1}{4}$ S. $\frac{36}{1}$ (Var 1° E)
 at 8 ch. paced, intersect truck trail. Thence^m do

1	73°	8.5 ch.	at 4.00 road S E $\frac{1}{4}$
2	48°	7.0	
3	93°	6.5	
④	63°	$14\frac{1}{4}$	Thence S (on var 1° E) 12.00
			" S 50° W 3.00

To Twp. Cor. Found new Oneida Co. Mon
 set by V.M. Maine and his own and Vaughan's
 bearing trees. = 13.90 S and 2.30 W of ④

$4\frac{1}{2}$	63°	1.0	
5	$38\frac{1}{2}^{\circ}$	29.0	
6	46°	8.5	
7	91°	18.0	To an iron pipe (for Centre Sec. 31?) Road has 355° from here.

Wly from 8 ch. E of North $\frac{1}{4}$ post Sec. 1

1	$233\frac{1}{2}^{\circ}$	5.00	
2	197°	7.00	
3	222°	2.00	
4	239°	$7\frac{1}{2}$	To intersection road W $\frac{1}{4}$

October 12th '36 Overcast 40° H+H

5	234°	2.	
6	203°	$5\frac{1}{4}$	
7	244°	$8\frac{1}{2}$	@ 6.00 creek S
8	200°	4.	
9	253°	4.	
10	283°	6.50	
"	321°	8.50	
12	280°	4.	
13	243	.50	To approx line between Secs. 1+2 21.23 ch. (measured) S. of orig. Sec. Cor.

- over

2 - 37 - 10

Identified Orig. Cor $\frac{35}{2}$ $\frac{36}{1}$ by old post agreeing with orig. NW bearing (standing) and with DTVaughan's Hemlock (1909), down.

Cor. is on north slope.

Set new 5'x5' cedar post

Var 0°	{	W. Birch	7"	284°	N 76° W	.334	
		"	"	8"	3 $\frac{1}{2}$	N 3 $\frac{1}{2}$ E	.463
		"	"	5	213	S 33° W	.57
		y.	"	3	148	S 32° E	.395

Thence S. on var 2 $\frac{1}{2}$ ° E

17.60 slight road SE rd

21.23 Truck trail.

Could not find DTV $\frac{1}{8}$ cor. - no notes

Continue paced traverse from our station

21.23 S of cor.

14	244°	5.
15	264°	2.50
16	233	13.50
17	310	4.

18	290°	3.25
19	349 $\frac{1}{2}$ °	5.50 @ 3 $\frac{1}{2}$ creek .25 ^{NE}
20	8°	4.
21	263°	6.
22	273°	7.
23	280°	4. To main T.T. do bus
		N 23° E 2.00 Th. N 2° E

Sec. 15 - 38 - 10 E.

Oct. 17th '36 Hall + Hassler

Identify B.F. Dours $\frac{1}{4}$ S. cor. between $\frac{15}{22}$ by an iron pipe agreeing with both his bearings. Set new Tamarac post + mark:

Var 0° { Hem. 9° N 14° W .16 = 10.55'

Oct. 12th 36 P.M. Hall + Hassler
 Orig North 1/4 Sec. 3. Set new cedar
 post by record course and dist from
 both stumps: NW one has good boxing
 SE one is burned. Where Don's post
 is now it agrees with neither as to
 course and dist. (946 + 26 lks.)

var 0°	{	W. Pine stp 11" ^{4" hi} N47 E .242
		Jack Pine 5" ^{2 1/3} S33 W .48
		Orig. N15 W .13
		" S70 E .25

Orig. cor. $\frac{35}{2.1} \frac{36}{1}$ identified by Don's post
 + stp. of NW orig. Re-mark stp. + set
 cedar post in place of Don's.

var 0°	{	Maple 2' 199 S19 W .162
		Peak 4x4 rock N76 1/2 E .52
		Ledge 9" N8 W 1 ch ±

(Truck Trail angles SE of Twp. line 16 ch W. of cor.)

Robbins Refuge

The main items with recording, found
 in surveying perimeter of this tract.

Oct. 13th 1936

Transit random

var 1 1/2° E.

West from post found (for NW x Sec. 4-38-10)

5.54 to 8.25 swamp

10.50 to 38 ± "

19.59 fall .36 S. of D.H.V. 1/3 S.

19.85 st. N. 354 + set 1/8 post

10/20/36 var 0°	{	Cedar 6" N70 W .053 = 3.5'
		" 3" S15 E .047 = 3.1'
		" 6 Just NW of post
		Match on D.H.V. BT N15 E .045 = 3'

random continued

28.702 Hub var. 1° E here

40 ± fall 1.13 S. of a white post

reported set by a Chicago
 surveyor for Inawendawin Co.

\$ 32-39-10 E. $W\frac{1}{2}$

Oct. 15th '36

Had looked up Ltr Vaughan's notes on

\$ $E\frac{1}{2}$ 32 & \$ $W\frac{1}{2}$ 33 (39-10) His $\frac{1}{8}$ S

on " " but must have moved his temp^y

tally .13 E rather than west and then

corrected north. He ran E from $\frac{1}{4}$

and at $\frac{1}{2}$ 39.74 fell $\frac{1.65}{.825}$ $\frac{1}{8}$ of Sec Cor.

Actual
from SE x
 $\frac{19.59}{1.28}$
.14

Since his correction was actually made @ 20.13 E
and measured $\frac{.825}{.835}$ (correction for "
being

\therefore His $\frac{1}{8}$ post is 1 lb too far N and $.26$ $\frac{Too\ far}{E}$.

\therefore Take true line .35 N of our random @ $\frac{19.59}{.709}$

$$= .01787 = 1^{\circ} - 01.4'$$

$\times 39.7$

.709 calc. correctionⁿ for $\frac{1}{4}$ S.

39.70 st. \leftarrow N .709 + set cedar $\frac{1}{4}$ post

} Balsam 6' N $65\frac{1}{2}^{\circ}$ E .277

Thence westerly on projection true E $E\frac{1}{2}$

\leftarrow S to W off perpendicular $91^{\circ} - 01.4'$

$\frac{0}{.14}$
3.40 to 6.75 swamp.

3.27 Hub

7.20 " var. of 18° E

12.947 " Oct 16th continue

18.581 "

20.012 Tally Stake

22.60 enter swamp

25.97 Hub 30.505 Hub

39.95 br. swamp. N E SW

40.00 Hub Many cedar stps. no birches

One cruiser's marks (down) indicates

Sec. Cor may have been about 12'

N of 40 ch peg. ?

Oct. 21 + 22 '36

Try again to determine exact location SWx

No combination of stumps seems to check.

A wide trail of old blazes along (W. end) § 32 found but no US line blazes. The bulk of these spots are north of our random 2 rods or better

Identify Orig. MC between 31+32 (S. shore) by chopping away 4" of growth from a tall tamarac stp. + finding orig SW "B.T." (a fine specimen). Rotted wood, indef. is only sign of birch called for.

∴ Set new cedar post by returned course and dist. from Tamarac

o var	W. Birch 9" N 84° E	.247
	do 6" S 54° E	.195
	lake shore N.	.15
	Our sta 40.00 to S by	4.26
	US (subd ⁿ) records	3.77
		<hr/> 49 over

This MC is 18 lbs W. of straight line between Tally 40.00 and MC on N. shore ^{C.B.V.}∴ Set up white Post (found) .49 N of 40.00
Intend to brush and post our random § 1/2
Since our time is limited and less timber encountered than if we follow ^{spots.}

Orig. S.E. 32

Oct 19th '36 Check bearings at cor. and angle with Hassler's random (East).
Vaughan's post, down, a more recent one found in place:

Var. 0°-18'	{	Stp of Vaughan's sugar	S 49° W	.74 1/2	
		" Birch	N 66 3/4° E	.413	
		∓ of trail (at 90°)	N 60° E	.25	
		Birch 28" (found marked)	S 45° E	.44	
		Hem. 11"	"	S 18 3/4° W	.43

Angle of randoms $180 - 1 - 07 = 178 - 53$

Brush out 12' strip south of corrected line.

Oct. 20. Correct our § 6 1/2 32

Oct 22nd + 23rd '36

Line out fence (S of Hwy 17) and produce same Sly to Indian L. Fall 1 $\frac{1}{4}$ ft. W. of a birch stake with stones around it.

Seems to line out to MC. S. shore as it just clears W. base of Tower.

However I find Orig. MC about 2nds SE Part of BT plain on NE strp. Other one entirely gone - carved in to lake?

Meas. Sly on random +15° E.

- .37 $\frac{1}{2}$	E+W wire fence
0.0	E Hwy 17 assume $\frac{1}{4}$ S
+ .37 $\frac{1}{2}$	N. end of wire fence
11.00	fence cor E+N + br. swp SE NW
20.022	line of wire fence (S68° W P.C.)
23.288	Hub (var. 2°53' E)
25.30 \pm	enter marsh E+W
33.35	br. swp. ..
35.81	Hub

35.81	Orig MC brs SE .515	- 42°00'
35.83 \pm	fall 1 $\frac{1}{4}$ ft. W. of birch stake	
36.193	at - E to orig. MC	.345
(36.22 US record)		.00953 = 0 = 33

Correct and stake true line and brush 12' strip E of ds.

Orig. MC. 44-31	(N. shore Indian Lake)									
Drive iron bolt (in rocks at waters edge)										
by returned course + dist from orig BT										
v. 0°	<table border="1"> <tbody> <tr> <td>W. Pine 10"</td> <td>N 44° W</td> <td>1.28 ch.</td> </tr> <tr> <td>" Birch 5"</td> <td>N 83° E</td> <td>.287</td> </tr> <tr> <td>WC post (N. on line)</td> <td></td> <td>.20</td> </tr> </tbody> </table>	W. Pine 10"	N 44° W	1.28 ch.	" Birch 5"	N 83° E	.287	WC post (N. on line)		.20
W. Pine 10"	N 44° W	1.28 ch.								
" Birch 5"	N 83° E	.287								
WC post (N. on line)		.20								

Orig. MC # 31 (E. shore Indian L.) by record from both orig. The SE one a good specimen 7' hi. Boxing only on other

Pitch Post	Orig ^l	N 12° E	.27 (rec.)
	"	S 85° E	.12 "
	var	New Norway 10" S 20° E	.546
	0°	Lake at nearest point S 50° W	.30
		White post found S 18° E	.60 \pm

Sec. 20-39-7 E.
E+W 1/4 line

Nov. 6th 1936 R.H. # + 3 employees
Project 1/4 line Ely thru Davis Centre
and his 1/8 bet. W 1/4s (which Hall set
[1929] midway between Centre + orig west 1/4.)
Did not measure.

21 ch⁺ E of Centre offset 4/10 S. to pass
12" Sugar + continue on do

— fall .113 ch. S of Davis E 1/4
which we set in hole found
record course + dist from his
Sugar tree - now down - marks ok -

.113 - ^{offset}.006 = .107 fall S.

1/4 New Gings	}	B. Oak 6" N12W	.26
0" var pc.		do 9" S39W	.48 ³

But Davis line must have been crooked
since our 1/8 between W 1/4s measured
only .15 N of Davis stp. and he says ^{.23 1/4}

Sec. 17-39-10 E.
Survey of NW 1/4 SE 1/4

Dispute over ~~it~~. Wm Walsh
established E+W 1/4 line (E of pond).
This line, now fenced " " "
runs on $\approx 7^\circ E \pm$ (about parallel to Φ)
Apparently no one has found or
established W 1/4. C.D. Vaughan in 1920
subdivided Sec. 20, running Wly from
orig. cor. $\frac{17}{20} | \frac{16}{21}$ on a normal course
and fell 6.82 ch. N of cor. $\frac{18}{19} | \frac{17}{20}$.
He set S 1/4 + E 1/8 Φ no bearings.
His account of W 1/4 of Sec 20 and SW 1/4
20 not too convincing.

Oct. 5th '36 Rainy 60°

Hall - Haesler - Mentz + N. Sorenson
Identify Orig. SE x 17 by old post
(down) in E+W fence, agreeing with a
burnt W. Pine stp. N 35 W. .60

Determine magnetic bearing of fence west
(on offset 2 rods N). " = $7-10^\circ E \pm$

17 - 39 - 10

Orig. SE cor. Set new post + mark:

Var. $1^{\circ} 54' E$	}	Y. Pine 14" S $30^{\circ} E$ 2.285 ch
		Aspen 3" N $56^{\circ} W$.084

Offset 10 lbs. N of post + run W of on random
Var. $7^{\circ} 10' E$.

0.0 Sec. Cor.

.47 fence S .92 fence N.

4.299 Hub and enter open swamp NW SE
end of fence

19.905 Hub

19.915 Fall .129 N of CDV $\frac{1}{8}$ S. at
N. end of a wire fence S.19.95 calc. $\frac{1}{8}$ S .144Oct. 7th 1936 fair 60° Hell. Hassles - 3ccc

continue random

39.90 st. - S .189 for $\frac{1}{4}$ S.

Dime Iron Pipe

Var. 0°	}	Dead Tamarac 4" East 1.00 ch.
		" " 3 N $17^{\circ} E$.37

39.91 Hub

39.926 CDV $\frac{1}{8}$ post bus S (at 90°) .176
creek - indef.

60. Hub

79.75 " old round stake found bus S 4°
- E to S. $100^{\circ} - 20'$.283

79.80 st. - S. to post .278

(CDV's record 79.72)

 \therefore st. E° on line connects to point
 $3\frac{1}{2}$ lbs W + $1\frac{1}{2}$ lbs S of cor \therefore $\frac{1}{4}$ S we come $2\frac{6}{10}$ E + $1\frac{7}{10}$ S of CDV

.278	offset
- .10	
2.178	
1.084	
.044	

79.80	=	00223	=	0 ^o - 07.7'
39.90				correctin
19.95				S.

SW x 17

C.D.V. accepted - this corner.

Remains of a Spruce br. NE record + dist. ^{course}SW one uncertain. Will accept this, being as valid as (W $\frac{1}{4}$ + SW x 20).Set new 5 $\frac{1}{2}$ ' x 5 $\frac{1}{2}$ ' Cedar post in place of old one.

var. 0°	}	Spruce 2°	S 20° W	.46
		Tam 3°	N 38° W	.873

Nly (N 0°-52 $\frac{1}{2}$ ' W) from SW x on random. ^{V 2°-40° E}

0.0 Sec. Cor.

.28 Intersect random $\frac{1}{2}$ + turn N to E

① 85°-35' ② 171°-11.5 ③ 256°-48

call it 85°-36'

20.00 Hub var. same

34.58[†] Walsh's random from E.38.30 fall .43 W of a small stake
no supporting evidence

40.00 Hub. var. same

~~39.606 correct w. 167 + net $\frac{1}{4}$ S~~

0°	}	Spruce 2	S 40° W	.451
		Tam 3	S 55° E	.362

These bearings, hewn off

39.129 set - West .313 for correct $\frac{1}{4}$ S.

marks New bearings:

Time Az.	}	Tauwasac 2"	S 3 $\frac{1}{4}$ ° E	.346
		Spruce 3"	S 63 $\frac{1}{4}$ ° E	.53

Cedar post

Random continued

50.89 Hub + br. swp. NE SW ^{57.50} U.S. Rec.54.632 " + observe sun ^{70° F ±}

Time Cent. Std.

L S to W to sun	}	Lat.	45°-52.2'
		Long.	89°-16.9'

① 3:29 PM alt 18°-41' Hrs 61°-01'

② 3:31.2 18°-19' 61°-31'

③ 3:33 18°-05' 61°-51'

Calc = S 0°-53' E S 0°-52' E S 0°-53' E

Decide to call random N 0°-52 $\frac{1}{2}$ ' W

17 - 39 - 10

Oct. 8th 36 fair 70°F. Hall Hassler + 2 cc

Continue N. on random W

58.02 E+W wire fence 13th E of cor E+N.

59.72+ Hub + observe sun S to SE

$$\textcircled{1} - 10:11 \quad \text{alt } 34^{\circ}02' \quad \begin{array}{r} 27^{\circ}51' \\ 28^{\circ}49' \text{ E} \\ \hline 56' \end{array}$$

$$\textcircled{2} \quad 10:13.5 \quad 34^{\circ}16' \quad \begin{array}{r} 27^{\circ}07.5' \\ 28^{\circ}00' \\ \hline 52.5' \end{array}$$

$$\textcircled{3} \quad 10:19 \quad 34^{\circ}45' \quad \begin{array}{r} 25^{\circ}32' \\ 26^{\circ}18' \\ \hline 46' \end{array}$$

$$\begin{array}{l} \text{Avg } 1 \ 2 \ 3 = 52.7 \quad \text{Oct } 8^{\text{th}} \\ \text{" } 1 \ 2 \ 3 = 52.7 \quad \text{" } 7^{\text{th}} = \textcircled{0^{\circ}52.5'} \end{array}$$

70.84 Hub 40 E of fence - thence NE

to A 13th N. of E road. (to avoid
Hog yd.) = $16^{\circ}24'$ (4 times) $\frac{115^{\circ}31\frac{1}{2}' \text{ E}}{8.966}$

→ This short meas. later found in error.

Thence S $84^{\circ}41' \text{ W}$ 2.79
S $80^{\circ}37' \text{ W}$.093 to NWx as follows:NWx 17 - exact location lost - monument
found lying by graded road. Told by local
men of 2 monuments on W S $\frac{1}{2}$ S :Set flag at concrete mon. found for W $\frac{1}{4}$ S
in E roads

Chain S from do in E road

9.85 line of fence E

19.688 Monument found 2th W of E rd.

Mark { W. Pine stp 18" N $55^{\circ}17' \text{ W}$.62

Double this distance on line extended + drive S.P.

* for NWx 17 { W. Pine 9" N $12^{\circ}48' \text{ E}$ 1.789
T.A. V. 1 $^{\circ}48'$ do 14" S $57^{\circ}56' \text{ E}$ 3.343

This agrees well with E rd N + road E.

Calc W as $4 \times 19.803 = (79.213)$ corrected W $0^{\circ}14\frac{1}{2}' = \text{N } 1^{\circ}07' \text{ W}$ Set in W $\frac{1}{4}$ on above erroneous basis + place
flag tall enough to be visible from E of pond.
Traverse in between W $\frac{1}{4}$ flag and point
determined as E $\frac{1}{4}$.

Oct. 9th '36 Fair 60° Same party:

E 1/4 Take wood post found in E & W road
and 25th N. of south fence of lane

.015 ch. E of line of fence S.

fence post	S - E	.286
	S - W	.41

	S	N	W	E
	24.012	24.02		.621
	4.99	5.06		.838
	6.094	9.84		7.726
	2.214	3.18		
		33.37		33.306
	37.310		2.057	
	2.1057		2.057	42.491
	35.253			2.282
				40.209

Meas. wly on assumed correct 1/4 line

19.857 line of fence S.

36.09 fall .19' N. of Walsh line

North 1/4 not satisfactory

Set peg. for temping use in E roads W + S
and in line of wire fence N.

This peg brs. N 87° 50' E 41.21 from NWx

Run transit traverse from N 1/4 to E 1/4 as →

- S 1° 29' E
- S 9° 32' E
- S 51° 44' E
- S 45° 52' E W

To E + W "1/4 line"
33.37 W by E 1/4

N 86° 28' E
on "1/4 line"

✓ double adju. checks " within 0-05 run drawn

-X Assume boys made error of 1 ch here (Apparently should be 2.5102)

On this basis N 85 1/4 line = N 80° 05' W

"	E + W 1/4 line =	186° - 28' E
"		40.25
"		40.529
"		80.787
"		80.787

✓ See final result.

17 - 39 - 10

⊠ SE 1/4 (Had calc. this)

Feb. 3rd '37 +15° overcast

Hall - Rainey - Morgan.

⊠ 1/4 Sky (S 0° 38' W on calc time line by
 - 85° 50' W to S.)

10.55 Enter open spruce swp NW SE

18.562 fall .23 W of fence cor. N-S-E
 (old heavy post in " " - no means
 of knowing where first set).

36.97 Intersect our random (offset) ⊠
 - S to SE to D.P. 76° 28' .296-

∴ 37.039 set ⊠ E. } .287 To SE x
 .00775 = 0° 26 2/3'

18.519 .143

- Random lines W To N. 95° 59' 191° 54 1/2

Since our random ⊠ bis. S 84° 43.7' W
 ∴ " " ⊠ = 50° 41' W

Assuming S 1/8 ⊠ was accurately set

37.039
18.562
18.477
<u>36.954</u>
37.039
<u>1085</u>

∴ If we were to double north on ⊠ SE SE
 our ⊠ 1/4 would be .085 S + .173 E of our 1/4
 This about coincides with W^m Walsh's
 ⊠ W 1/4 line but agrees with nothing else.

Feb. 4th '37 Same party + Sorenson
 Drive D.P. at ⊠ 1/4 as noted - thru wood post.
 Begin check Traverse ⊠ 1/4 to N 1/4

Snow blowing on narrow road interferes.

Feb. 5th '37 Call on W^m Walsh (former County
 Surveyor - Vilas Co) He produced only
 verbal evidence. His survey apparently
 was not so thro. Spoke as if he
 accepted fence cor at S 1/8 ⊠ and
 claims N 1/4 should be west of turn in road.

N

Feb. 12th '37 Fair +20° Hall + 3 employees

Re-meas. Ely in road from NW x

20.66 dig in road at meridian fence
fail to find iron pin


41.01 line of W. fence of lane

41.21^c line of two posts 20 and 40 rods
North⁺ (said to be Graham's line)41.23¹ our 1/4 in line of fence N.Thence ^(N87°50'E) E. or production of line (back-sight on ^{NW} x)

0.0 our N 1/4

16.48 mark Tally on 4" poplar stub ⁱⁿ line

18.033 " " " 2" birch N. of "

20.66⁵ " " " 3" fir 1' S " "Feb. 16th +7° F.38.56⁹ transit station + turn - it to mid-point of lane 80 wide 
9°09' 1.82∴ 40.366 st = S / 289 T. Ad. E. W. end lane.
.00716 = 0°24²/₃'

No stump evidence visible for 1E x

N87°50'E + 0°25' = N88°15'E 40.367 to mid-pt.

∴ E calc = (from SE x) N0°14'E 37.04 1/4
N0°12'E 36.55
= 73.59
36.795
37.04
73.835On this basis our ^E 1/4 stands 245 N or 0.01 E
∴ Decide to hold E 1/4 as used. of a mid. pt.

N + S 1/4 line.

Since we fell 0°26' W on E SE 1/4 decide to
decrease calc. Az from N 1/4 by 0°13'Feb. 17th '37 Overcast +30°

S 0°18'E from N 1/4 by + 88°08' W to S.

9.508 mark Tally on fence post

" intersect "

18.8 - Cross E & W fence

19.33 locate Temp 8

x on 4" fir N - E .16 1/2

x - 7" W Pine N - W .23

x - 6" W Birch S - E .10

29.406 mark Tally on 3" pole E of line

Mar. 1st 37 Fair 20° Continue37.768 Intersect (1st) E-W 1/4 line 40.123

W of E 1/4 = N to E 86°46' 73°-32 1/2'

57.823 Temp 1/2 on lake

71.15 br. lake N45W + S45E

76.099 fall .016 E of 1/4 (after setting do P. 84)
= randoms W to N 94°58 1/2' 189°57'76.987 calc.
.888 short!

Since our error of closure amounts to .96 or 120" E
it must be that the 8.966 at N end W is
actually 7.966.

March 18th 37 Fair 25° Hall + Mentz

Re-meas SW from ± loc. our trav. sta E of NW

7.97 ± loc of hub. This means an
adjustment of 1 ch. in data on W :

	N	S	E	W
N 0°-52 1/2' W	70.84	70.832		1.082
N 15°-31 1/2' E	7.966	7.676	2.132	
S 84°-37' N	2.883		.270	2.87
		78.238		1.82
				.02326

True Dist. 78.259 = Tang N 1°-20' W

True line N 1°-20' W

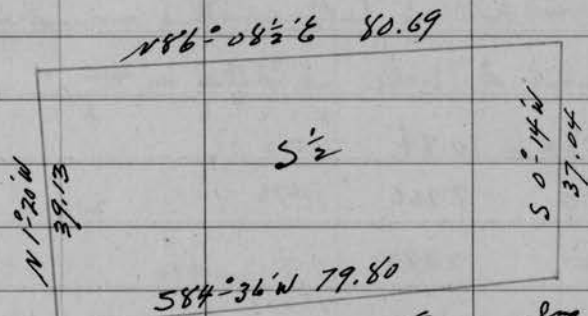
Random N 0° 52 1/2' W — length = 78.259
0°-27 1/2' correction = 39.128
Tang .. = .00400 19.564
78.26 x " = .626 58.692
313 for N 1/2
.156
.469

∴ True E-W 1/4 line = S 86°-08 1/2' W
erroneous AZ 86 28
0°-19 1/2' correction
Tan .00568

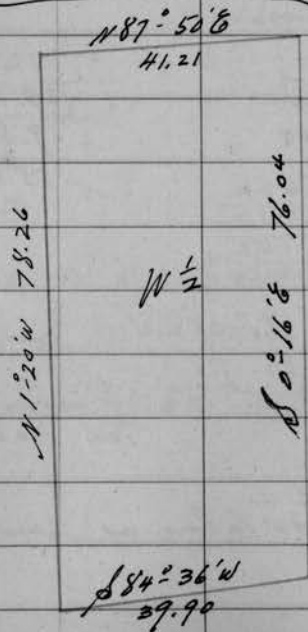
This correction applied to
our points along E-W 1/4 line as run.

17-39-10 E

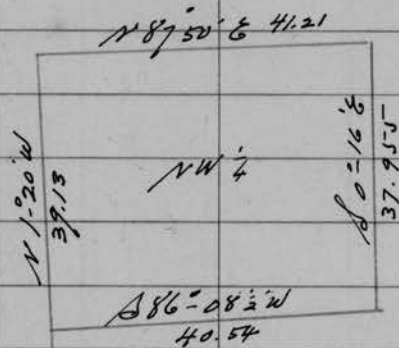
Sec. as balanced - in parts



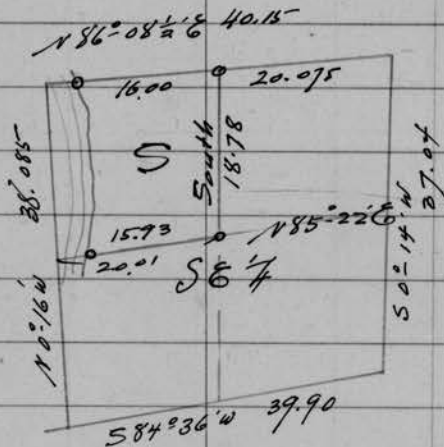
Excess S^{mg} .002 ch.
 " W^{mg} .005



Excess N^{mg} .002 ch.
 " W^{mg} .008



Excess S^{mg} .006
 " W^{mg} .003



Excess S^{mg} .008 ch.
 " E^{mg} .004


Average NW SE
 27.90
 9.70

land area 28.20 net

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KEITH'S RAILROAD CURVE TABLES.

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HOW TO USE KEITH'S TABLES.

EXAMPLE.

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = $23^{\circ} 20'$ to the R. at Station 542+72.

Ext. in Tab. IV opposite $23^{\circ} 20' = 120.87$
 $120.87 + 12 = 10.07$. Say a 10° Curve.

Tan. in Tab. IV opp. $23^{\circ} 20' = 1183.1$
 $1183.1 + 10 = 118.31$.

Tab. V correction for A. $23^{\circ} 20'$ for a 10° Cur. = 0.16
 $118.31 + 0.16 = 118.47 =$ corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. $23^{\circ} 20' = 23.33^{\circ} \div 10 = 2.3333 =$ L. C.

$2^{\circ} 19\frac{1}{2}' =$ def. for sta.	542	I. P. = sta.	542+72
$4^{\circ} 49\frac{1}{2}' =$ " " "	+50	Tan. =	1.18.47
$7^{\circ} 19\frac{1}{2}' =$ " " "	543	B. C. = sta.	541+53.53
$9^{\circ} 49\frac{1}{2}' =$ " " "	+50	L. C. =	2.33.33
$11^{\circ} 40' =$ " " "	543+	E. C. = Sta.	543+86.86
	86.86		

$100 - 53.53 = 46.47 \times 3' (\text{def. for 1 ft. of } 10^{\circ} \text{ Cur.}) = 139.41' =$
 $2^{\circ} 19\frac{1}{2}' =$ def. for sta. 542.

Def. for 50 ft. = $2^{\circ} 30'$ for a 10° Curve.

Def. for 36.86 ft. = $1^{\circ} 50\frac{1}{2}'$ for a 10° Curve.

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