

C.C.C.

5

---

---

K&E  
COLLEGEFIELD BOOK  
3600

---

---



#5

## Index

Page	Sec.	T.	R	Yr.	Comment.
1-7	33	35	6 <sup>E</sup>	35	Servers + Monuments
8	29	38	4	35	Paced Traverse 2
10	19-30	38	5	36	Cruising
12	6	38	5	36	"
13	16	38	5	36	"
14-19	1	38	4	36	"
20	20	38	5	36	2 monuments set.
21	11-12	"	4	"	Cruise
22	30-31	"	5	"	"
24-46	8	39	7	"	Hatchery
54	9	38	5	"	Cruise
56	3	"	"	"	"
57-59	4	"	"	"	"
58	10	"	"	"	"
60	13	38	4	"	"15 Springs"
48-52	33	35	6	"	Touchdown

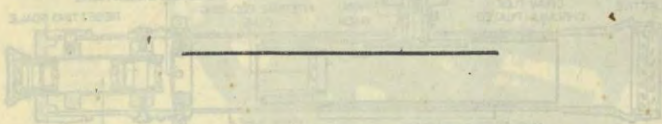
Camp 75 S. Mimocagna, Wis.

K &amp; E

REG. U. S. PAT. OFF.

## COLLEGE FIELD BOOK

Showing the quality of the Paper and Engraving in the Standard K & E Field Books described on one of the following pages.



At the beginning and end of this book will be found general information relative to a few of the items of the extensive K & E line, which will be of interest to the Engineering Teacher and Student.

## KEUFFEL &amp; ESSER CO.

NEW YORK, 127 Fulton Street,

General Office and Factories, HOBOKEN, N. J.

CHICAGO 616-20 S. Dearborn St.

ST. LOUIS 817 Locust St.

SAN FRANCISCO 30-34 Second St.

MONTREAL 7-9 Notre Dame St., W.

Drawing Materials, Mathematical and Surveying Instruments, Measuring Tapes.

M APR 11 1986

Ray H. Hall

## K & E ENGINEERS' FIELD BOOKS.

This College Field Book is intended to familiarize student engineers with the high quality of the first grade Field Books listed in our General Catalogue.

**PAPER.** The leaves in this book are made from paper that contains pure 100% rag stock, an essential for all papers intended for permanent records or which are subjected to rough handling. Sulphite (ground wood) papers or part rag papers are not as strong as 100% rag papers, and deteriorate with age.

The paper used in all K & E Engineers' Field Books is water proofed, so that the surface is not affected by the moisture and rain to which such books are subjected in the field. When not water proofed, the surface of a paper that becomes wet or moist rubs off easily, thus endangering valuable records. The quality of the paper in K & E Field Books may be tested by wetting the surface of a page in this book with a few drops of water and then rubbing it with the finger.

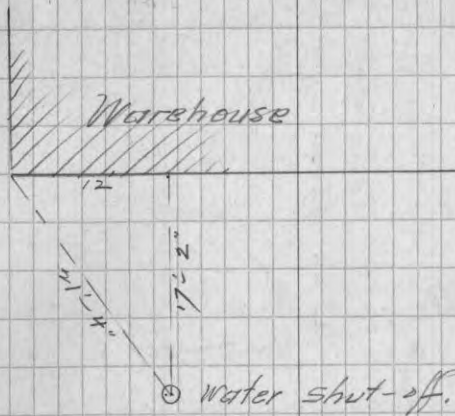
**ENGRAVING.** The pages of the K & E Field Books are printed from engraved plates to insure accuracy of spacing and clearness of lines. The imprint is made with a fine quality of water proof ink, which will not blur when touched with wet fingers or when exposed to rain.

**BINDING.** K & E Engineers' Field Books of first quality are covered with genuine sheepskin leather or very strong water-proof canvas, bound with strong anti-rust wire stitching. The backbone is of heavy cloth which will not tear from the tough cover board. Despite this strong binding the back is flexible, and the book will lie flat when opened. In fact, the covers may be folded against one another, back to back, serving as a stiff support and making it more convenient to take notes in the field.

**TABLES.** Hall's Tables for Excavations and Embankments, and Keith's Tables for Highway and Railroad Engineers, are valuable features which are included in many of the K & E Engineers' Field Books.

The pages in this book are exactly like those in K & E Field Book No. 360. The K & E line includes other Field Books, Transit and Mining Transit Books, Level Books, Cross-Section Books, Earthworks Books and Topographical Books.

Tomahawk



Shut-off @ Somo + Ry. St.

$\left. \begin{array}{l} 17.35' \text{ SE. of Tel. pole} \\ 34.68' \text{ SE. " sign post} \end{array} \right\}$   
 " " rim elev. 99.96

Top of main @ pt 676 W of Ry St. 94.12

= 19' S of hydrant

T is 9.8' - 0. + 1 1/2' E of hyd. +

Plant mon. (6x6x36 cylindrical concrete -  
Wis. Cons. Dept. bronze cap.) at S.E. cor  
" " property. 6" below surface

12/3/35  $\left\{ \begin{array}{l} \text{SE x Warehouse to NW} \\ \text{W face West rail} \end{array} \right. \begin{array}{l} 7.51' \\ 5.92' \end{array}$

Copied





Somo Av.

Dec. 10<sup>th</sup> 1935

+10° overcast. Windy.

Hall + Violette.

Plant WPA concrete monument 9" below  
Surface at Sta 790.03' on new  
North line Somo.

Tch. pole (near face)	269° = S87°W	7.96'
Elm 4 " "	105 S75°E	11.33'
Locust 7 " "	N21½°E	10.55'

790' line (parallel to Ry St) to. N10°-21'E  
at Somo " 70°-53'

Also set anchored iron bolt 1¼" x 39"  
on 790' line 66' E. of above mon.  
(level with surface)

Pr. with transit at angle point in E Somo Av.  
1493.4' W. of Ry St.

Angle W to N off E Somo 52°-09' = Meridian.  
at 41.79' North of A.P. set 1¼" x 39" anchored bolt  
for dividing line bet. orig. properties.

N 19°-22' E 34.79' from A.P.  
Drive 1" x 30" iron bolt for angle point  
in A Somo. post 1½' deep!

Copied

Dec. 11<sup>th</sup> Hall + Violette.  
Sewer check on Somo.

Dec 12<sup>th</sup> Calm 23° Snowing.  
Hall + 3 WPA workers.

Angle Pt. in E Somo thence N52°-09'W  
36.6' + drive iron bolt in E Somo  
= 1630' from W Ry St. (along E ")

Thence @ 37°-51' W (at 90°)  
@ 33' drive bolt for E St.  
@ 415.7 (calc) stake for line.  
+ 16.3

432.0 to E center track into round house

North St.

Main line of RR (near Conservation Ave.) produced,  
falls 1.71' S Ry of track at W lot 1 Blk 3

90° off main line clears N cor. old frame house<sup>lot 1</sup>  
.25'

" " " " .16'

N. corner rd frame meas. 69.28' from E track.

Rec. = 50 + 20

Copied

Marion St.

$$\begin{array}{r} 1178 \\ 15 \\ \hline \text{Sta } 1193. \\ 1.43 \\ \hline 1194.43 \\ 49.57 \\ \hline 1244.00 \end{array}$$
On new  $\frac{1}{2}$  Somo @ 1178 + 15Turn W to S  $90^{\circ} - 32'$ 

Fall 1.43' E of our Iron @ 450' on N North St.

Angle of this line with RR N to E =

 $107^{\circ} - 28'$ 

$$\begin{array}{r} 1493.4 \\ 1244. \\ \hline 249.4 \end{array}$$
With Transit on new  $\frac{1}{2}$  Somo @1178 + 15 + 1.43 sight @  $0^{\circ} - 21'$  W  
to 450' bolt on North St.Reverse + put white  $\frac{1}{2}$  arrow on arc poleMeasure N. on this line parallel to Ry St  
from our bolt (450' on N. St.)387. Dims  $30'' \times \frac{3}{4}''$  bolt for  
angle point in deed.(Checked by transiting in  
true point falls on W + N. edge  
of iron.)Intend to turn W at  $98^{\circ}$  from here.

+ 258.1

645.1 =  $\frac{1}{2}$  Somo Av.
$$\begin{array}{r} 1178 \\ 66 \\ \hline 1244 \\ 1493.4 \\ \hline 249.4 \end{array}$$
Copied  
5/14/57

Secs. 21-28-29

38-4

Traverse #2

Dec. 24<sup>th</sup> 1935 Overcast. 20°

Hall - Thall &amp; Knutson

Scout road S to cedar.

I traverse #2 from point assumed to be  
156 steps N of South  $\frac{1}{4}$  S. 21  
(23 " to 1 ch.)

- no van*
- ① N83W = N80W 240.
  - ② S81W = S84W 160.
  - ③ S70W = S73W 100.
  - ④ S63W = S66W 450

@ 423

turn out sign (90°)

↳ look N 56W PC 63 steps for cor

20-21-28-29 } Hem 6 N72W 10.

do 8 N73E 07

= E+W PC

.15 $\frac{1}{4}$  apart.

- ⑤ S66W = S69W 170.
- ⑥ S58W = S61W 90.
- ⑦ S47W = S50W 120.
- ⑧ S33W = S36W 70.
- ⑨ S27W = S30W 200.

- ⑩ S34W = S37W 140. @ 124<sup>th</sup> turn out sign <sup>172<sup>th</sup></sup>
- 11) S47W = S50W 100.
- 12) S57W = S60W 80.
- 13) S68W = S71W 80.
- 14) S79W = S82W 50.
- 15) S89W = N88W 50. Th. newly

" S on 3<sup>rd</sup> thru brush.

This is logical route for truck road.

Must try to find SW x 21  
This location is at variance with maps  
available.



Segs. 19-20-30 38-5  
Jan'y 17<sup>th</sup> 1935 Overcast 20° (now 20°)  
Hall + Tonsey - hard snowing.

S. on 1 1/2° E var from budge project 2  
Estimated on E 19 735 steps N. of cor.

543 steps - Creek E+W.  
700 = fell 76. W of Orig. 19-20-29-30  
Post found agrees with stp. of  
Orig. Pine.  
" T" visible.

Sets in beaver flowage 6 or 7 rods N  
of hard hand.

No new logs available.

West from Sec Cor on var 3 1/2° E.  
76  
388  
lv. sup.  
old blaze 8 steps S.  
1°-10°

Continue from do on 4 1/2°

463 find nothing  
falls at SE base of hill.  
3 stubs just NW of here.  
Sq up a stub 12 SE of Tally

S on 1/2 line var. 1/2° E.  
OK with old blaze.  
420 Enter spruce sup E+W.  
462 1/2 loc. + lv "  
to more sup.  
640 summit of knob  
4+58" Norway growth.  
788 re-enter sup E+W.  
882 lv. do SE + NW. scrub pine.  
926 Tally on E+W ridge for E+W 1/2 line.  
thence S. var same.  
165 to 290 sup.  
412 re-enter sup.  
463 1/2 tally at SE edge sup.  
Over run our E+W 1/2 line about  
1 chain.

Produce our E+W 1/2 line (E NW SE)  
Ely to E " "

This was meas. 20.00 ch N from S 1/2  
thence E by by compass (1934)



Sec 6 - 38 - 5

Cruising NW of SW + SW of NW  
 Jan'y 20<sup>th</sup> '36 Hall, Lignan + Tonsey  
 -10° to 0° fair. windy.

S  $\frac{1}{4}$  NW not set. Thence pace E var 4°  
 508 steps for  $\frac{1}{16}$  all <sup>flat</sup> barren  
 Thence N. Var 3°-40' E.  
 322 Jossart road NW + SE.  
 368 " shack bus W. 3 ch ±  
 463  $\frac{1}{4}$  cor. location. Th. N.

20 Enter dead Tame swp E + SW  
 463 Approx  $\frac{1}{16}$  in NW  $\frac{1}{4}$   
 Th. W. on 3°-40'

85 sleigh road N35E.  
 122 lv. swp SW + NE.  
 390 re-enters do SE  
 487 to random Range line.  
 Th. S.

122 To sleigh road SE.  
 226 " " " NE. <sup>N72E.</sup> 565W

Sec 16 - 38 - 5 E.

Cruising for Cedar.  
 January 23<sup>rd</sup> 1936 PM 0°  
 Hall - Tonsey + Swearingen  
 E from Ough N  $\frac{1}{4}$  cor var 3° E.

27 steps  $\frac{1}{16}$  Fire lane #2  
 255 enter swamp N + SW.  
 527 lv do SE + SW.  
 630 follow E+W neck between <sup>swamps</sup>  
 880 fall 64 steps S. of only evidence  
 indicating Sec Cor.  
 Blazes + topography.

Thence S  $\frac{1}{2}$  mile on normal var (3°)  
 Mostly hard land  
 Appears to be heading for Center of  
 State Pine on SE SE 16'  
 No evidence of  $\frac{1}{4}$  S.  
 Topography does not fit.

270  
 46  
 46  
 506

928  
 921  
 880  
 41

Sec 1-38-4

Cruising for Cedar + Tamarac or  
Country Forest Area.

Note In Jan'y 1934 (Book 2/122) we  
Ran staff compass + Tape traverse of  
old trail NW thru Sec. 1 from SE x  
Using same as truck trail for  
transportation of crews on Project 17.

This we connected to " " "  
at Gilkey Inson camp, thus tying up  
NW x Sec 1.

Never could find E  $\frac{1}{4}$  or W  $\frac{1}{4}$   
Had not searched for N  $\frac{1}{4}$  or S  $\frac{1}{4}$ .

Platting out Sec. 1 Having:  
Meas. + alignment of E  
Location of NW x. & Assuming:  
Record mile for H  
" for S  
" " W.

We are using this skeleton for cutting lines  
in Sec 1.

1-38-4

Jan'y 16<sup>th</sup> 1936

Locate approx C + d from our Traverse.  
Old camp is right on the line E of Center.  
(300 steps)  
find no sign of lines.

Jan'y 21<sup>st</sup> '36

Hall Tonsey + Lignans.  
Pace West from SE x var 8° E.

738

enter Swamp NW + SSE

Hi bank all along

926

Searched for N.S. no luck.  
Thence on same course.

150

creek SW.

360 ±

" NE 1

1000

fall 47 E of right SW x  
Sec 2/158

$$\begin{array}{r} 1000 \\ 926 \\ \hline 4)1926(481 \\ \underline{1443} \\ 483 \\ \underline{356} \\ 517 \end{array}$$

$$\begin{array}{r} 447 \\ 12 \\ \hline 36 \end{array}$$

Return to <sup>1926</sup> 517 + sq up for  $\frac{1}{8}$  S 36 steps N.  
Thence N. on var 2° E. some wood +  
scrub growth.

460 sq up for  $\frac{1}{6}$  (no sign of other)



1-38 - 4.

west  $\frac{1}{4}$  line.

- 594 sleigh rd W SW.  
 690 " " NW. <sup>as noted.</sup>  
 940 fell 10 steps E of (d)

Feb 6<sup>th</sup> Hall + Tousey PN 0°  
 N from (d) var 2° on our snowshoe trail

ridge E+W.

- 691 br. swp NE + SW  
 723 old sleigh rd. NW + SE.  
 783 re-enter swp. E+W.  
 813 fell " steps W. of  
 Benedict's W  $\frac{1}{8}$  on 44  
 820 " E+W random.  
 (Had calc. 822) (460 + 362)

Blaze up  $\frac{1}{2}$  + most of 44 +  $\frac{1}{2}$  of SW NW <sup>mount.</sup>

1-38 - 4

Jan'y 28<sup>th</sup>. Feb 6<sup>th</sup> + 7<sup>th</sup>  
 Blaze around NE SW + NE NE. (Private)  
 " " most all high.  
 " " all swamp.

Jan'y 24<sup>th</sup> PM. Hall Tousey + Averinger.  
 Set county monument at Orig West  $\frac{1}{4}$  19-38-5  
 Feb 7<sup>th</sup> Hall + Tousey  
 Set do at Orig. Cor. to Tps 38+39 R 4+5.  
 " our 6" x 6" pitch post just N. of monument.  
 It looks as if Benedict prolonged the  
 random we started W. from Tps. cor.  
 " was about 20' N at W's cor.





Feb 21<sup>st</sup> 1936

Hall - Tousey + Scherer

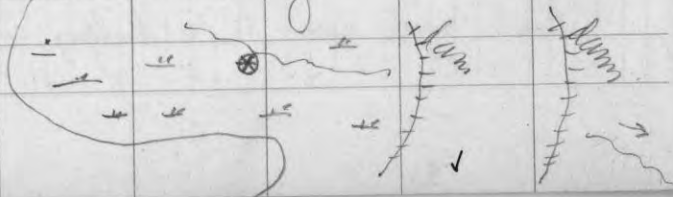
Set county mon 52" long 8" exposed  
in place of stake we set June '33  
At record course + dist from Tall  
stp. of Orig. 12" Tamarac with marks.  
No sign of maple.  
Another W.T. not recorded but  
o var. } N25E 27.9'

Orig corner 19-20-29 + 30

Identified by post found in beaver flowage.  
Agreeing (for distance) with stp. of  
orig Pine BT. no sign of spruce.

Set county monument by record  
course + dist. from stump.  
This falls .9' SW of post found.  
(find old post down where we put mon.)

Also set new scribed 5x5 cedar post.  
no new bearings available.

Feb 20<sup>th</sup> 1936

PM

20°

Hall + Tousey

Cruise S. from orig cor 1-2-11-12  
o.o County Monument. var 3° E.  
20 to 40 steps over ridge bro. W.  
439 winter road thru spruce 3" BT  
" " S35W + NNE  
535 lv. thick spruce + enter open  
scattering Tamarac.  
638 bow of creek  
715 " "  
902 pg up dead 2" tree  
no sign of 1/4 S + enter small  
Orig. 1/4 found June 1938 scattering spruce  
Begin over at 900  
225 to narrows about 3 ch E to hard  
" " " " land  
506 lv. swamp SSE + WNW.  
707-820 " bro W.  
890 to 920 E arm of big swamp.

Fail to reconcile US notes saying  
Sec cor is 4.50 E of swamp.  
No sign of cor 11-12-13-14.

Secs 20 + 21 38-5

Cruising.

Feb 25<sup>th</sup> 1936 20° Fair

Hall Tousey + Swearingen.

S<sup>ky</sup> on narrow found from

Orig Cor 16-17-20-21

63 steps Creek (SW)

81 hr. swamp SW.

120 End of line - continue on 3°

" Jossart shack hrs.

580 W about 3 ch.

" re-enters Swamp  
bordering edge of line

162 Creek to SW SE

239 hr bottom "

291 re enters bottom

NE + SW  
sparse dead spruce

360 Swamp narrows to

7rd W of line

knob E SE 6ch +

460 find squared tree  
swamp narrows to

1 ch. W. of line

5 or 6 E of line

Spruce (4") all dead

706

hr. ramp W + NE

764

enters NE x open swamp

920

fall 20 steps W. of a

small stake found.

There are some 4 + 5" spruce

SW + 1/4. cor.





24

Sec 8 - 39 - 7

Hatchery.

To locate West  $\frac{1}{4}$  cor of Sec. 8 +  
to run the  $\frac{1}{4}$  W of SW NW ..  
I proceed:

March 2<sup>nd</sup> '36 Overcast 20°  
Hall + Tousey

locate Davis N  $\frac{1}{8}$  W from tie-ins of last  
transit in between do to the cor. 5-6-7-8  
+ project true line S.

$$\text{Angle E to S at } \frac{1}{8} = 90^\circ - 26' = 90^\circ - 25\frac{1}{2}' - 180^\circ = 51'$$

$$\therefore N 89^\circ - 19' E + 90^\circ - 25\frac{1}{2}' - 180^\circ = S 0^\circ - 16' E.$$

$\therefore S 0^\circ - 16' E$  on true line from  $\frac{1}{8}$   
O.O. =  $\frac{1}{8}$  cor  
135.6 Hub (.41' E of line)

Just On July 29<sup>th</sup> '35 we chained from NWx to  
bridge on #47 (following fence), 4/94  
N. main face of W wall of bridge  
= .928 ch or 61.25 S of  $\frac{1}{4}$ .

$\frac{1}{4}$  Cor. on line projected to 61.25 N. of bridge.  
falls on W. edge old surface  
9.8' W. of line of E face bridge rail  
19.7' " " E between " " "

center gap in Center pier trestle 217.13 } 25

1/4 S { NWx North Stone gate post  
N 66° - 30' E 62.5'  
⑧ { NEx cap on West rail of bridge  
S 9° - 06' E 62.3'

Approx E road S = 21.1' E.  
E 47 Wly (over hill) 86.56 W

March 4<sup>th</sup> 15° Windy - Hall - Dell - Tousey  
Sly on Transit Traverse on + along #47

O.O. = 1/4 S.  
① S 12° - 10' E 1448. (@ 885 lv. marsh)  
SEly

To E shoulder Hwy.

② S 0° - 24' W 442.2 " " "

③ S 17° - 40' W 883. W " "

from which

Orig cor 7-8-17-18 to N 71° - 05' E 269.2

from which

true line to East MC to N 87° - 10' E

(short sight.)

④ S 11° - 35' W 549.7 on W. shoulder

⑤ S 18° - 35' E 683.5 to round over  $\frac{1}{8}$  line.

⑥ S 88° - 18' E 209.3 " N  $\frac{1}{8}$  4th 17

⑦ Additional Brngs:

N. Pina 14" 312°/13' = N 47° - 47' W 120.8'  
NWx cement base  
of gate post N 84° - 46' E 62.07'  
Sign post N 61°  $\frac{1}{2}$  W 13.65'

March 5<sup>th</sup> '36

Fair -4° rising temp

Hall - Tousey + Swearingen

Measurements yesterday indicate  
an excess of 100' for 4W S $\frac{1}{2}$  E  
(over normal half reported by B.F.D.)

Re-measure said traverse with results  
as on page 25.

Traverse in between Cor. 7-8-17-18 + N.C. shore  
(187°-11.6'E) east

@ 51.8' Ely from Sec Cor (on shore)  
x on S. face 12" W.P. to  
.78' N. of line.

100. peg on ice for traverse

East MC.

187°-11.6' W  
120' ± shore  
250. Set peg on ice for traverse.

Sec line across Bass L.

Meas in March '35 4/46  
187°-11.6'E 10.865 d. = 717.1

Decide to traverse main body of lake  
& shoot shore by stadia.

Bass Lake (Secs 8-17-18)

39-7

March 6<sup>th</sup> 1936 Fair to snowy 15°  
R# Hall Tousey + Swearingen.

Begin peg 100' Ely from SW x 8  
Orient on line 187°-11'

at	shore to	feet.	Δ	feet
0	@ 348 $\frac{1}{2}$	64		
	⊙ 353 $\frac{1}{2}$	365		
			Δ 23°57'	590'
Δ	@ 245°10'	128		
	+ 357 $\frac{1}{2}$	128		
	c 0°-25'	205		
	d 14°	252		
			Δ 34°-24'	364.8
Δ	@ 301°30'	71		
	+ 335°-50'	115		
	c 6°	165		
	d 14 $\frac{1}{2}$	220		
	c 22°-35'	250		
			⊙ 48°02'	435.3



Bass L.

@B	a	275 $\frac{1}{2}$	139
	b	302 $\cdot$ 50	98
	c	29 $^{\circ}$	85
	d	49 $\cdot$ 50	170
	e	65 $\cdot$ 45	235

A 95 $\cdot$ 14 398.9

@A	a	294 $\cdot$ 10	117
	b	212 $^{\circ}$	112
	c	3 $\cdot$ 40	162
	d	26 $\cdot$ 10	270
	e	51 $\cdot$ 55	340
	f	77 $\cdot$ 40	320
	g	80 $\cdot$ 25	390
	h	89 $\cdot$ 35	420
	i	119 $\frac{1}{2}$	380
	j	139 $^{\circ}$	360

B 175 $\cdot$ 43 528.3

@5	a	50 $\cdot$ 40	155
	b	110 $\cdot$ 55	127
	c	118 $\cdot$ 50	170
	d	144 $\cdot$ 20	215
	e	178 $\cdot$ 50	208
	f	204 $^{\circ}$	360

A 233 $\cdot$ 44 438.9

@A	a	106 $^{\circ}$	227
	b	125 $\frac{1}{4}$	145
	c	173 $\cdot$ 40	148
	d	205 $\cdot$ 05	215
	e	225 $\cdot$ 05	320

A 239 $\cdot$ 19 568.9  
to stake 250 W  
P.M.C.

@A	a	68 $\cdot$ 40	170
	b	126	106
	c	156 $\cdot$ 50	197
	d	185 $\frac{1}{4}$	312
	e	188 $\cdot$ 20	420

A 205 $\cdot$ 05 485.8

@B	a	99 $\cdot$ 40	121
	b	143 $\cdot$ 35	165
	c	169 $\cdot$ 25	183
	d	178 $\cdot$ 20	265
	e	192 $^{\circ}$	340

f 207 $\cdot$ 35 450 $\pm$ A 228 $\cdot$ 34 342.6

@A	a	159 $\cdot$ 45	172
----	---	----------------	-----

@	185	182
	217	177
	231 $\cdot$ 40	135
	286	200
	302 $\frac{3}{4}$	243
	313 $\cdot$ 25	286

A 7 $\cdot$ 41 328.8

Bass L.

8-17-18

(39-7)

a	262°	200'
b	287°	146
c	331 30	98
d	345 50'	195
e	350 30	237
f	3°	290

 $\Delta$  944' 327.8'

To P.O.B.

Az reads 97°15'

Rod readings taken  
about 10' out from shore.

See page 32 for adjusted shore trans.

By scaling we find orig mc on S. shore  
between 17 + 18

should be S 2°-46'E 864' = 13.09 of  
from Sec Crb.

3/4/36 Locate 1/8 S.-cor (S 84° 8-39-7)

Temporarily in cut + just W. of  
shoulder Hwy 47.

(1322' (S 0°-17'E) from W 1/4.

Drive 1/2" from Rod.

15	var on meridian 1°-40'E.	Hew	8"	S 10°-56'E	144.7	
			"	11"	S 85° W	37.2
			£ mark	£.	11.	

8-39-7

N + S 1/4 line from a to C

see diagram in back.

March 8<sup>th</sup> 1936

Overcast 30° - 40°

Hall: Touzey Sweringen

Run S 1°-54 1/2' W from Dours 1/8 N of Center.

by L W to S. off random 87°-50 1/2'

feet

Var on meridian  
1°-40'E

261. £ Park Road

219.8 405' 577.1 737.3 Hubs

800. To swamp SE + NW

1125 To 1210 along E edge do

1284.3

Hub on ridge

+ 35.7

.0033 = 0°-11 1/2'

1320.0

fall 1/4.4' W. of C as located

from Dours stp.

Trans. r.  
C 0' var

{ N.P. 5" N 64° W 16.85'

{ W.P. 5" N 67° E 9.2'

Hugos post is 1' too far E.

J.P. " 2.6' " " S W

no tools for removal

Brushed line from 1/2 falls 3 1/2' N

" " " S 12' E

Swamp to 30' ± E of cor.

## Meander of Bass L.

Scaled approx. 20' outside of rod readings.

\* Beginning 50' N 87°-11' E of Orig Cor 7-8-17-18

	N	S	E	W
a N 12°-50' E 70.	68.2		15.5	
b N 6°-30' W 300.	298.1			34.
c N 52°-40' E 220.	133.4		174.9	
d N 30°-50' E 200.	171.7		102.5	
e N 16° E 100.	96.1		27.6	
f N 52°-50' E 140.	84.6		111.6	
g N 23°-10' E 130.	119.5		51.1	
h N 50°-15' E 380.	243.		292.2	
i N 78°-20' E 270.	54.6		264.4	
j S 50°-50' E 160.		101.	124.	
k N 46°-50' E 280.	191.6		204.2	
l S 78°-40' E 180.		35.4	176.5	
m S 17° E 130.		124.3	38.	
n S 56°-30' E 130.		71.8	108.4	
o S 20°-30' W 220.		206.1		77.
p S 42° W 170.		126.3		113.8
q S 23°-50' W 200.		182.9		80.8
r S 13°-40' E 210.		204.	49.6	
s S 62°-50' W 700.		319.6		622.8
t S 84° W 230.		24.		228.7
u S 18°-23' W 39.3		37.3		12.4

to Sec line 90' (S 87°-11' W) of AC lot  $\frac{8}{17}$ 

	1160.4	1492.7	1740.5	1169.5
thence-	N	S	E	W
1 S 18°-23' W 210.7		200.		66.4
2 S 35°-35' W 200.		162.6		116.4
3 S 15°-35' W 240.		231.2		64.5
4 S 49° W 80.		52.8		60.4
5 S 25° W 120.		108.8		50.7
6 S 60° W 220.		110.		190.5
7 N 86°-30' W 150.	9.2			149.7
8 N 29°-30' W 280.	243.7			137.4
9 N 0°-40' E 160.	160.		1.9	
10 N 29° E 160.	139.9		77.6	
11 N 62° E 120	56.3		106.	
12 N 4° E 150	149.6		10.5	
13 N 41°-29' E 105	78.6		69.5	
to Sec. line				
50' Ely of				
Sec. Cor.				
or P.O.B.				
			2006.	2006.
				✓
	2295.1	2298.1		
Area of lake (by U.S. plat) =	49.35 A.			
" " " by this survey =	41.696 A.			



8-39-7

New Garage at Hatchery.

March 12 '36 20° Snowing  
Hall - Sweringen - Tonsey.

S 0°-16' E on 4-8 from N 1/2 cor.

443.4'

Thence N 77°-37' E

182.7'

To point decided upon as SWx Garage.

Garage to be 118' E-W + 26' N-S.

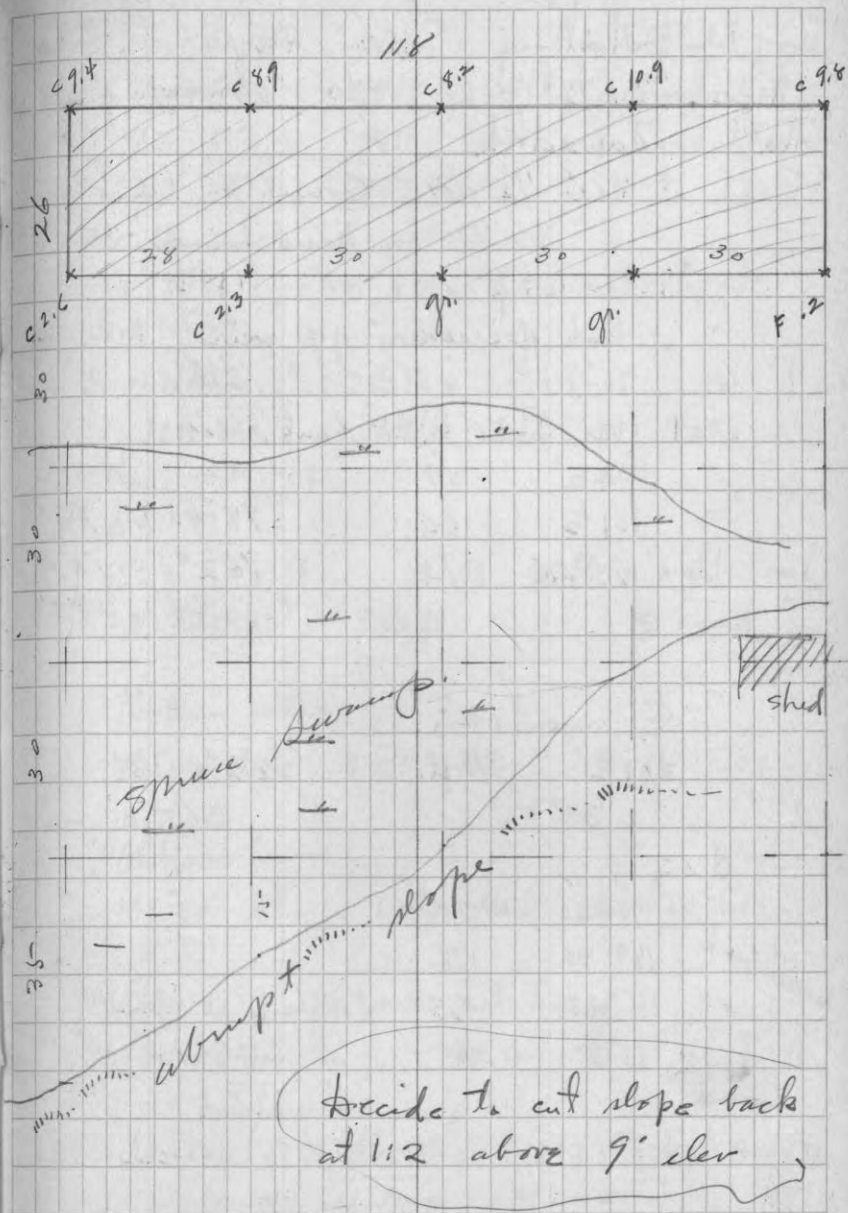
Assume Grade as elevation of ground  
at NWx Old help-quarters (to be razed).Try various orientations to secure  
maximum parking + turning space in  
front of bldg + minimum cut into hill.

Due E-W is out.

N 86° E ± final orientation.

El.	0.	= Grade for bldg.
	- 3.	level of swamps (fell 2')
	- 1.	" " parking space proposed.

B.M. 4.73 Spike in 12" Oak  
12' ± E of bldg.



8-39-7

Detail in SW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub>March 30<sup>th</sup> 1936 20° Snowing

Hall &amp; Zawadzki

Begin at West <sup>1</sup>/<sub>4</sub> cor. Orient on line N 0° 16' W

Var on Meridian 2° 35' E

\* 112° 105 ft. &amp; 100° - 148 ft =

N. bank of creek (\* opp weir) flows SW

Δ 1 hrs 71° 10' 250. (measured)

at Δ 1 (var 1° 50' E) N. bank creek:

194 <sup>1</sup>/<sub>2</sub> 89 Az. stadia161 <sup>1</sup>/<sub>2</sub> 66 98° 40' 96'123° 40' 74 76 <sup>1</sup>/<sub>2</sub>° 134'

67° 50' 170'

⊕ present road:

301 <sup>1</sup>/<sub>2</sub>° 70 ft. 22 <sup>3</sup>/<sub>4</sub>° 138

Δ 2 35° 56' 365.0 meas.

at Δ 2

right bank of stream { 191° 20' 218'

189° 35' 176.

186° 35' 135 (opposite weir)

10° 35' 185 (at foot bridge) road 28 W creek near

⊕ road = (225° 77) (312° 35 55) (340° 55 98)

138° 20' E. end long dyke which  
has S 45 E (P.C) from 12 S of Δ 2

at Δ 2 50° 05' 36' point 4' E of inlet pond<sup>#1</sup>  
142° 50' 159' on dyke over outlet "  
Δ 3 141° 14' 197' for net house detail  
Δ 3' 4° 11' 383.8'

at Δ 2 continued -

77° 25' NW x old net house

91° 07' SW x - - "

91° 37' SE x - - "

100° 36' SW x New " "

at Δ 3'

152 <sup>1</sup>/<sub>2</sub>° 38 ft 2° 25' 58 ft = right bank

332° 45' 83 ft ⊕ road

Perkins cottage

86° 20' NW x 91° 37' SE x 91° 16' SW x

Old net house

148° 30' NE x 152° 11' NW x 155° 50' SW x

137° 48' NE x new net house.

A 4 341° 17' 190.4'

at Hatchery bro

(41° 05' 38 ft. NW x) (142 <sup>1</sup>/<sub>2</sub>° 40 ft. SW x) 60 x 30'Andersons residence (24 <sup>1</sup>/<sub>2</sub> x 34 <sup>1</sup>/<sub>2</sub>)

(341° 53 ft. SE x) (348° 43' 87 ft NE x)

Δ 5 17° 59' 270.7' 70° 34' + 47° 50'

at A 5 ~~connected Hub on~~ ~~ETW 1/4 line @ 896.1' ETW~~  
 70°-34'

Sta c on E. traverse 87°-50'

W Tank Creek	185°-10'	220'	at # Stone bridge
	187°-35'	184'	bay in rip rap (Tap).
	190°-55'	110	174° 26ft.
	77°-20'	42ft.	72°-10' 121
	60°-35'	147	44°-05' 184

E road	341°-10'	67'	235½° 65'
	5°	140	(at 1/4 line).

289°-10'	147	SE x piny
291°-15'		NE x

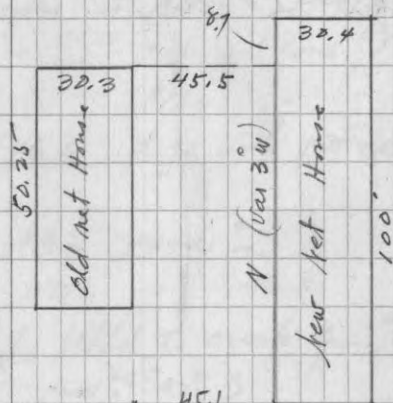
168°-41'		NW x old Net House
185°-47'		SE x Hatchery
210°-11'		NE x Anderson cottage.

April 1<sup>st</sup> Pace traverse of old road SE from  
 SE x large pond E of net house 0° var.

Ⓐ S 46°W 50      Ⓒ S 40°E 48  
 @ 25 rip packet to NE 'ch.

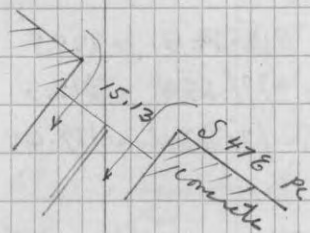
Ⓓ S 48 46      Ⓔ S 28 E 68      Ⓕ S 16 E 66  
 Ⓖ S 3 W 109      Ⓗ 69 wood rd S 67 W 2 1/2 ch th. at.  
 Ⓙ S 11 E 46      Ⓚ S 3 E 64 to lake  
 1 1/2 ch N 59 E 7 point.

Am. 1<sup>st</sup>  
 Hall + Zawadzki



Set traverse points  
 N<sub>eg</sub> from B on  
 E side ponds +  
 measure stations.

Dam at  
 outlet  
 Madeline L.



7" water over weir. ±

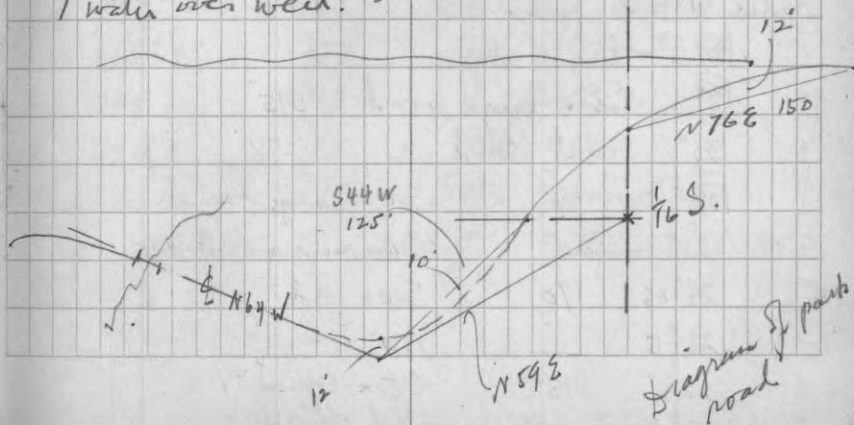
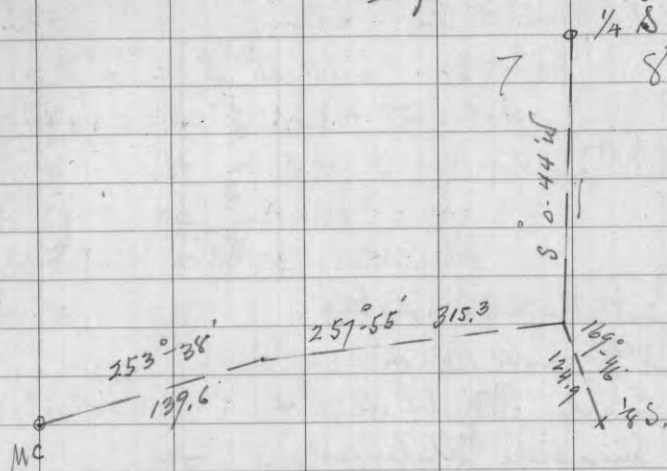


Diagram of park  
 road



8-39-7 continued  
 April 2<sup>nd</sup> '36 15° windy Hall + Zawadzki



= 1/8 S	N	10°-14' W	124.9	
	S	77°-55' W	315.3	= N 87°-50' W
	S	73°-38' W	139.6	464.8
				= 704 ch.
				(7.00 bar)

Stadia detail from A3

a	137 1/2°	line of dyke	
b	137 1/4°	SE x large pond	575'
c	135°	outlet flkhd	278'
d	108 1/2°	20'	SW x large pond.
e	62°	209'	SE x new net House
f	28°-45'	170'	SW x old " "
g	23°-15'		NW " " " "
h	22 1/2°	13'	SE x Pond #1
i	325°-50'	36'	outlet flkhd

o	325 1/2°	137'	⊥ dyke at MO end curve
v	346°-55'	255'	" " " " Pond #1
w	8°-25'	226'	NE x " "
Δ (a)	8°-24'	446.6	at jc with put rd. & G.
			at Δ a
w	185°	47'	NE x Pond #2
o	246 1/2°	102'	NW " " "
p	264 3/4°	98'	⊥ flkhd to creek from #3
q	326°	195'	NW x #3
r	336°-32'	185'	⊥ flkhd ponds #3 + #4
s	350 1/2°	170'	NE x #3
t	18°	93'	SW x Perkins cottage.
Δ b	358°-32'	328.3'	= N 1°-28' W
			at G = NE x pond #4 (opposite Hatching)
v	132°-35'	23'	concrete water-gate
w	190°	69'	angle in ⊥ pond #4
x	188° 30'	144'	SE x " " "
y	202°-35'	165'	connecting flkhd
z	216°-35'	177'	SW x pond #4
aa	249°	117'	W. side " "
ab	294 1/4°	98'	NW x " "
ac	66 1/2°	18'	SE x pond #5
Δ c	36°-01'	260.9'	Thence to d 169.4'

4/9/36

Area (water included)

SE SE 7	1 714	230.	sq'
NW NW 17	1 788	325.	
NE NE 18	1 681	170.	
SW 7 8	7 353	850.	
SW NW 8	1 856	900.	
Δ E of Creek	137	500.	

$$\frac{506 \times 550}{2} =$$

$$14,531,975 \text{ sq}' =$$

$$\text{Total } 333,606 \text{ A.}$$

$$\text{in Base } 41,696$$

$$\text{total } 291,910 \text{ A.}$$

V

Detail continued.

April 13<sup>th</sup> 1936 rain 40-60"

Hall + Swerigen

Find our hub on E-W  $\frac{1}{2}$  line NW  $\frac{1}{4}$  W. of Creek  
 = 609.484 from  $\frac{1}{2}$

R at connected hub on line 896.1 E of N  $\frac{1}{4}$  W

Az of  $\frac{1}{2}$  line =  $89^{\circ}19'$  }  $250^{\circ}29' = 45$

AC =  $221^{\circ}11'$  }  $169.45'$

N  $\frac{1}{4}$  Δ 48-16 }  $237^{\circ}$  (at tourist camp)

Detail of N. ponds. (from 896.1)

Pond N of road #7

e	60'-10"	61'	SE of pond 7
v	39 $\frac{1}{2}$ '	52	outlet blkhd 6-7
c	26'-10"	70'	" 7 to creek
d	12'-10"	160	W. extremely 7
e	12'-50"	180	W bank
f	18'-10"	220	" "
g	28 $\frac{1}{2}$ '	306	" "

Readings on inside run of 5' top. (base 20')  
 creek 12 to 15' wide adjacent dyke.

e	(350 $\frac{1}{2}$ )	40	over tube culvert
c	302'-35"	120	
Buffalo	77'-40"	50	at E tourist road NE
L. Rd.	102'-50"	130	

8-39-7  
continued

Pond #			
n 220°	34'	NE x	
k 266° 15'	26	rim over inlet pipe	
o 277° 30'	142	" BC SW	
d 274° 45'	172	" on curve	
v 270° 25'	205	" " "	
f 263° 20'	239	"	
g 251° 20'	247	" over outlet to creek	
w 246° 25'	240	SW x	
x 242° 03'	209	" in ruins	
y 232° 50'	196		
h 224° 15'	182	SE x	
d 222° 30'	170	"	

m 175° ¼		grand pit
n 17° 40'		NE x rustic bridge
o { 335°		SE x farm house
p { 337° ½		NE x do

at N <sup>4</sup> 4 in Tourist camp,			
a	39° 50'	166'	NE x pond 7
b	{ 29° 30'	199'	SE cor dam
c	{ 25° 10'	203'	SW - "
d	32° 05'	164'	inlet blkhd
e	13°	148'	rim
f	357° 20'	128'	'
g	343° 50'	116'	'
h	17½°		Sw: Madeline L.
i	20° 20'	pt. N. J	same
j	301° 06'		NE x rustic bridge
k	295° 09'		NE x farm house
l	290° 23'		SE x do

at <sup>A</sup>c

305° 20'		Stake on ½ lin (609.4)
267° 48'		Δ 5
352° 54'		SW x farm house
358° 02'		SE x " "
215° 46'		Δ 6
211°		£ road, S <sup>4</sup> y
222°	65	Concrete inlet blkhd & End



at C	Detail	Pond #5	
220°	54	run at NE x	
253 1/2°	41	" "	
286°-10	77	" "	
263°-10	180		
258°-00	210		
239°-05	288		
235°-40	"		
231°-10'	277	over blkhd 4+5	
214°	249	SE x	
239°	—	outlet blkhd frame	

at 46 = hub on 1/8 lin. W of creek (609.4)

1	217°-35'	170.5	A 5
2	64 1/2°	61	
3	106°-20'	20	
W bank creek	163	74	
5	174°-25'	98	
6	204 1/4	135	
7	212°	175	
8	125°-20'		A C

249°-55'  
SE x primary

121 1/2 gravel pit

E	273°-40'	162
Buffalo	285 40	99
Rd.	353	48
	60°-25'	144

~~bal. of day  
adjusting  
transit.~~



## Tomahawk Warehouse

Apr. 15<sup>th</sup> Snow + rain

With Geo Mitchell:

Tours to try + identify our points  
near works.

Run new # Sons E of H.G. by  
our iron for NW x Ry. St + by our  
1/2 arrow on W wall of Hay + grain  
- Rev. + fall 4.85 S of SW x old  
frame listed at NE x Ry St.

Fall 3.00 N of S. end coal fence  
3.8 N - SE - platform.

Fog up - had to quit.

Apr. 15<sup>th</sup> PM. Squalls + snow  
v # Lincoln St as projected E from  
NW x Ry. "L" in field + fall  
1" ± S of our final line at  
Tomahawk Av. sd. final line  
being 2.55' N of iron monument  
at # Tomahawk Av.

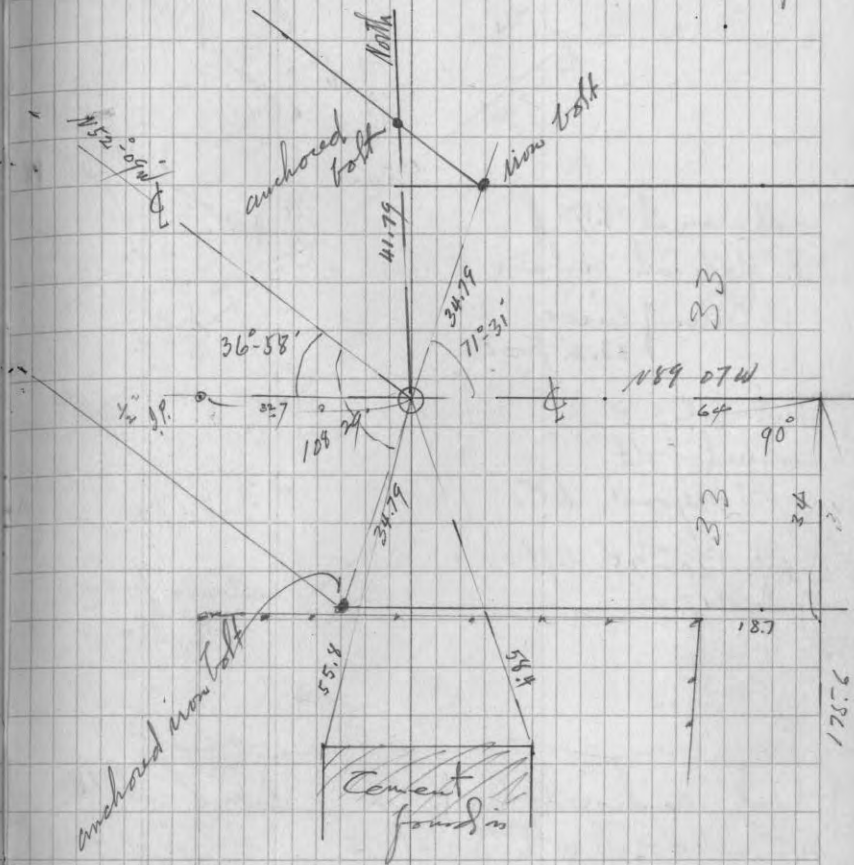
Set concrete monument at 50' W of #  
Main track + on # Lincoln.  
4" below surface.

Thence N at st = 190.2 + set  
concrete mon  
flush with present filled surface.

April 16<sup>th</sup> 1936 cold + windy 37° F.

Hall, Mitchell +

At AP in # Sons Ave = station 1493.4  
Set concrete monument 12" below surface.



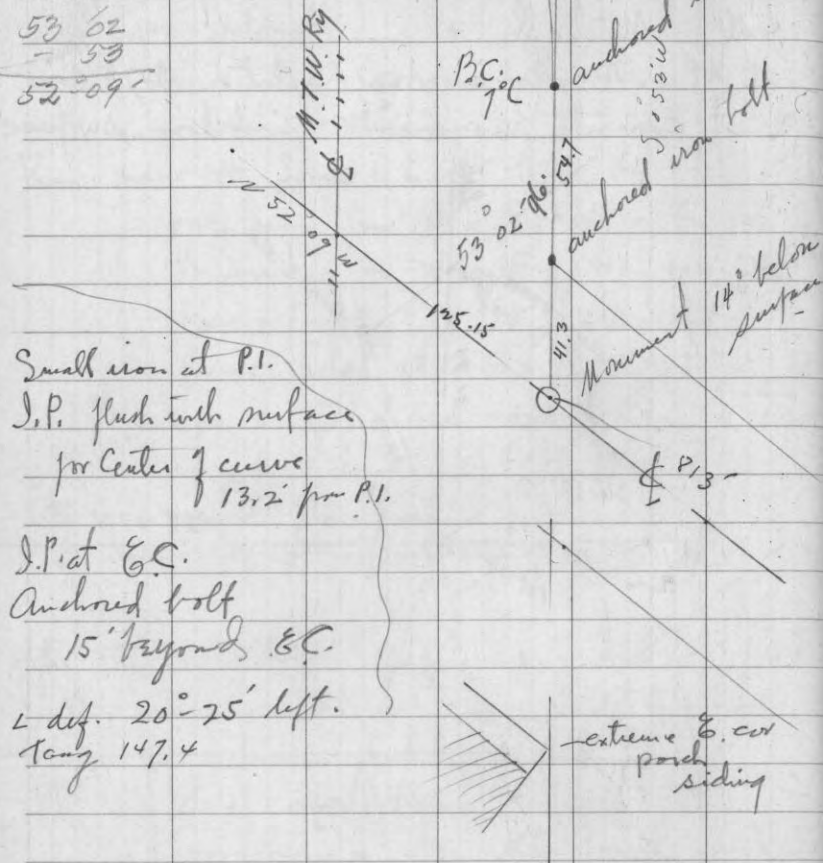
179.60  
100.29  
79.31  
100.29  
179.60  
179.60

Copied





53 62  
 - 33  
 52 09



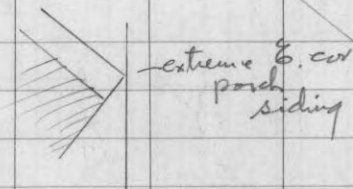
Small iron at P.I.

I.P. flush with surface  
 for center of curve  
 13.2' from P.I.

I.P. at G.C.

Anchored bolt  
 15' beyond G.C.

L def. 20°-25' left.  
 Tang 147.4



extreme E. cor  
 porch  
 siding

Plant anchored bolt on \$ Somo @ 1178.  
 by <sup>33'</sup>  $\angle$  90°-32 with S of \$ " " "  
 3" below surface  
 - for S.E. x Somo x Marnette.

copied

Copied

54  $\frac{1}{2}$  9 — 38 — 5

April 22<sup>nd</sup> '36

Hall + Sweringen,

Search for SE corner.

Unable to find more than

Han Lassart's initials on stp  
near old blaze on Norway.

Assume Sec. Cor. to be 1 ch. S of  
Swamp + in line with blaze.  
Pace N. thru Swamp. (var  $3\frac{1}{2}$  E)

12 Hazed Norway found.  
25 enter Swamp ENE + NSE  
50 do extends E 7 ch W  $3\frac{1}{2}$   
115 " " E 2; W ?  
221 " " E  $1\frac{1}{2}$  - ?

Lt Sp' 1-3

391 stop E 12 + W ?

463 1/2 up dead spruce  
enter alders etc.

529 enter cedar<sup>5</sup> 2-4

560 fall 5 E of old blaze. <sup>more or less</sup> ( $3\frac{3}{4}$ )

615 to swamp

772 " " NW + E.

B<sup>8</sup> 1-3 FI

921 OK with Orig 1/4 S. marks

OK on Hem. down

55

Corner is 2 rods W. of W. tip marsh  
Pace W. to #2.

All hard ground Aspen 2-4  
803  $\frac{1}{2}$  truck trail (2) on curve.



April 23<sup>rd</sup> 1936 Overcast. Same party  
Run eye picket line N from 1/4 S bet 9 & 10  
1<sup>st</sup> 40 B<sup>9</sup> 1-2 var  $3\frac{3}{4}$  E.

F' 4-6

H R<sup>2</sup>

Rolling. Stormy.

2<sup>nd</sup> 40 Pple<sup>2</sup> 2-4

(Found 2 blazes just W. of our line)

Intersect old Willow Rd about 3 rods W  
of where I feel passing from N.  
Road is NE + SW here.

Find nothing.

Monroe Shaw claims

old corner post stood N of road 10 paces  
US notes say 1/6 S + 20 W of Willow Rd. <sup>or more</sup>

Traverse of old trail in NE SE.

April 30<sup>th</sup> 1926 P.M. rainy.

Hall + Swearingen.

Begin at intersectn of trail + our  
random  $\frac{1}{8}$  (sta. 47.65 ch. S. of NE x)

Steps = 23' to 1 ch. Orientation no var.

①	N39 W	25	1
②	N83 W	30	1.3
	old trail hrs. NWly.		
③	S38 W	40	1.7
④	West	25	1
⑤	N42 W	120	5.2
⑥	N81 W	137	6.1
	lv. fire hazard <sup>+</sup>		
	limit of truck passage		
⑦	N86 W	146	6.3
	- margin of swamp* (N10E + S <sup>ly</sup> )		
	hrs W.	41	1.75 ch.

\* E. margin is dense Cedar + Spruce.

+ Almost entire party is high + rough.  
Covered with dead, lodged + down  
1-5" Hem. Spruce, balsam, maple.

Stony log strewn

Run picket line W. (on Var 2<sup>nd</sup> E  
from my  $\frac{1}{8}$  Sec. cor on  $\frac{1}{8}$ ).

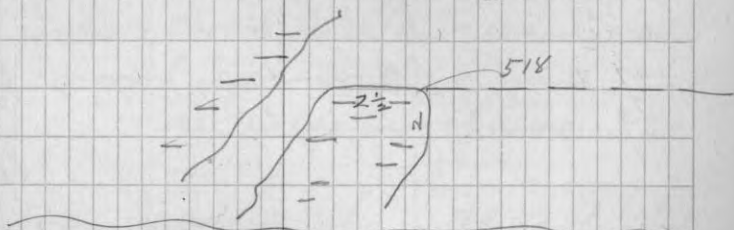
78 steps old grade SSE curving SW  
Hills. Bw 2-4<sup>3</sup> litter. stony

310-340

Frog pond (3 ch N + S)

A 1<sup>3</sup>  
Bw 1-3<sup>3</sup> Rocky

470 square up 2" high for  $\frac{1}{16}$  t  
518 to NE x Lb St 1-2'



4-38-5

May 1<sup>st</sup> Same party Overcast 50°  
West on picket line (Var 3 $\frac{3}{4}$ ° E) from  
N. terminal of our picket line at about  
record dist of old road.  
Assumed as cor. 3-4-9-10

10 steps old road SW.

110 " same NW

463 stakes for temp E 8  $\frac{1}{8}$

Rolling. A 2-4<sup>2</sup> - puddles in low spots



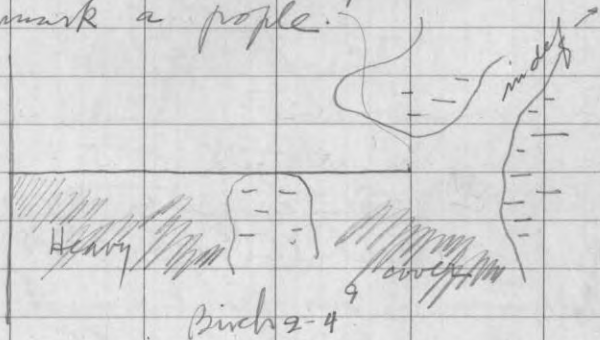
4-38-5

Run N from  $E\frac{1}{2}\ S \pm$  var  $3\frac{1}{2}^\circ E$   
 @ 115 Run W to #2  
 @ 435 (N) #2 (to SW)

i.e. S 20 rods of SW SE at present  
~~unsuited for planting.~~  
 10-38-5

Pace S 4 Tallies from assumed cor 3-4-9-10  
 1 " marks S limit of planting  
 prospect W. of line  
 4 " marks S. limit E of line.

$\therefore$  Run  $E$  on  $\pm$   $E$  NW NW Sec. 10  
 287 to 347 N boundary marsh. to S.  
 487 mark a people.



4-38-5

May 5<sup>th</sup> 36 P.M. Hall-alone.

Continue W. (v 4) from temp.  $E\frac{1}{2}\ S$   
 105 strike rd. willow Rd NE & W SW  
 follow on + along do.

192 W. do

330  $E$  #2 br  $N 12^\circ E$  over.S W  $1\frac{1}{2}$  ch to BC left.

Interest 2

16 steps S of large rock

+

37 " S of where I  
crossed in 33.

" Enter Swamp. Alder-cedar slash.  
 460 search for  $\frac{1}{4}$  S.  
 no evidence whatever.

I strike swamp at 34.50 ch.  
 115 Record 30.00 ch.

13-38-4 E.

July 9<sup>th</sup> 1936 very warm - Fan  
Hall + Freundr

Examine range line for  $\frac{1}{4}$  13/18  
The "bealock" str. opposite 80.07  
Turns out to be Spruce.

$\frac{1}{4}$  cor may be anywhere from 80 to  
81.14. Find no evidence.

Cruise W. from about 80.60 ch. ( $\sqrt{5^\circ}$ )

83 enter swamp ENE.

72 to plough " "  $\frac{1}{2}$  rods wide  
originating W. of range line.

280 to another plough from N.

" offset N ( $\sqrt{5^\circ}$ ) 100 steps  
@ 54 to swamp. Continue W.

296 enter swamp

346 over plough

originates in W part of NE.

359 W. swamp NW) 446 enter marsh. NW.

463 =  $\frac{1}{2}$  mile turn S. @

80 W. marsh ESE + NW.

100 mark up  $\frac{1}{8}$   $\pm$  on 4" pole.

Thence S ( $\sqrt{5^\circ}$ ) over ridge.

71 camp site

115 = 1 tally N. shore big spring

extends W. 3 ch.

River

S

2"

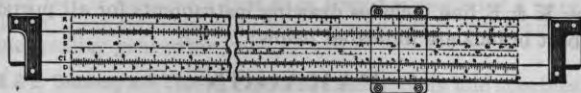
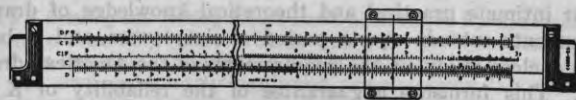
ESE

to

join plough  
from N.

115 = 1 tally  
N. shore big spring  
extends W. 3 ch.  
River S 2" ESE to join plough from N.

## K &amp; E SLIDE RULES.



The slide rule is an instrument for solving arithmetical, algebraical and trigonometrical problems without mental strain and in a small fraction of the time required to work them out by the usual long-hand methods. Anyone who has a knowledge of decimal fractions can learn to use the slide rule in a very short time.

K & E Slide Rules, made in our factory at Hoboken, N. J., are unsurpassed in accuracy, permanency and legibility. They have features, not found in other slide rules, which make for continued accuracy and convenience.

A variety of different rules enable a prospective user to select one most suitable for his purpose, at least expense:

The **BEGINNERS' Slide Rule** is intended for those who desire to become familiar with the possibilities of the slide rule at little expense.

The **POLYPHASE Slide Rule** is suitable for a great variety of purposes, including the solution of problems involving squares and square roots, cubes and cube roots, trigonometrical functions and common logarithms.

The **POLYPHASE DUPLEX Slide Rule** has all the scales of the Polyphase Slide Rule, with the addition of folded scales which facilitate the handling of certain factors in computation.

The **LOG LOG DUPLEX Slide Rule** has all the scales of the Polyphase Duplex Slide Rule with the addition of scales by which problems involving hyperbolic logarithms and any power or root are rapidly solved.

The **LOG LOG DECITRIG Slide Rule** has all the scales of the Log Log Duplex Slide Rule, but with the trigonometrical scales re-arranged, expanded, and decimally divided. Vector problems, important in Electrical Engineering work, can be solved with one setting of the slide.

The **LOG LOG TRIG Slide Rule** has the same scales as the Log Log Decitrig Slide Rule, but the trigonometrical scales are divided to degrees and minutes, instead of to degrees and decimals of a degree.

In addition to the general purpose slide rules, the K & E line includes slide rules of more special character for the Surveyor, Chemist, Electrician, etc.

Every K & E Slide Rule is furnished with a complete and simple manual of instructions.

Our Slide Rule Catalogue is furnished free upon request.



Memo. July 3<sup>d</sup> 1936

Hatchery.

Proposed

Center of Sec 8 - Take or set a more correct point.

Book 5 p 31

Set  $\frac{4}{3}$  white posts

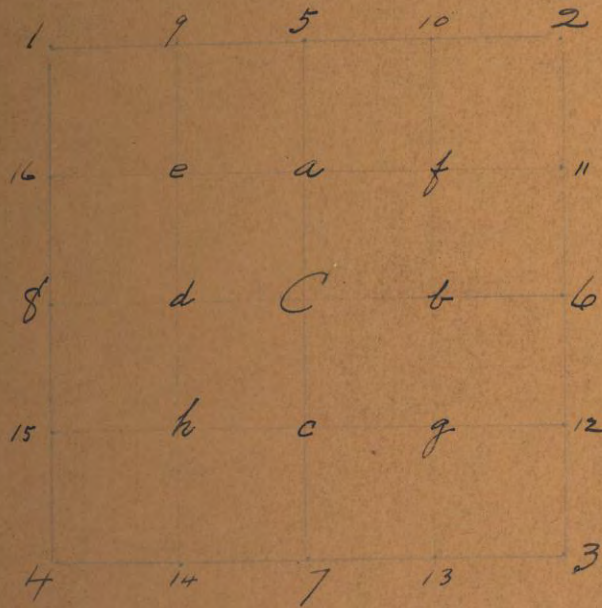
one on E property

Two @  $\frac{1}{4}$  d.

one at  $\frac{1}{2}$  in road way of Anderson

~~Set a more at  $\frac{1}{4}$  Sec. 8 ✓~~

get contour of flowage Sec 4 Barley's



Section  
Diagram