

SD

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THE 78-IE

77-8-1E

77-1E

77-1E

78-1E

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EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.0 + (20-16) ÷ 2 or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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County Closed

U.S. Geolo. Surv. B.M.

July 1, 1942

Elev. 55.8

26.5 E.V.

77-1W Page 1- to 23
 77-1E " 23 to 46.
 78-1E " 47 to end.

The paper stock of this book is made of a high grade 50% rag paper having a water resisting surface and is sewed with Bing Special Enamel Waterproof Thread.

Made in U. S. A.

77-1W from Page 1 to 23.
 77-1E from 23 to 46
 78-1E 47 to end of Book.

as E - G L

77-1E M.H.

SEC. 2-77-E

5296

24.1

3984

15
2.1
17.1
8.5

Rand. Line

24.2
3000

2663

2695

Road

2631.4

2431.6

11335

13: 5296: X: 3000

10
2.1
37
24
136
5216
39000
37022
17280

2.2
2.1

15

SEC. 2-77-E

77N-R-1-E

SEC	PR.	SEC	PR
1	31	25	
2	28	26	
3	27	27	
4	24	28	
5	25	29	
6	29	30	
7	30	31	
8	33	32	
9	42	33	
10		34	
11		35	
12		36	
13			
14			
15			
16			
17			
18	32		
19			
20			
21			
22			
23			
24			

20.1

2645
2631
5326
2663

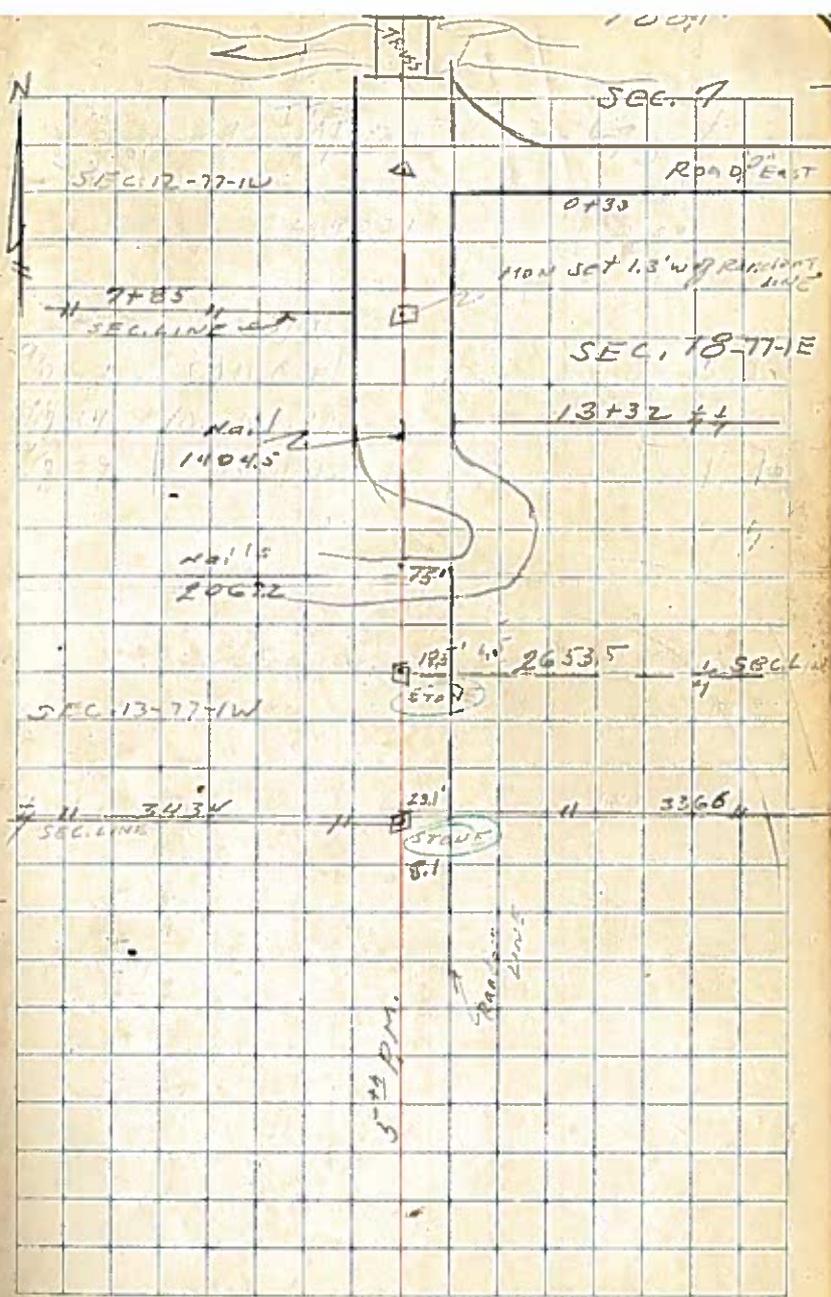
ONE

0+00 NW COR. 18-77-1E

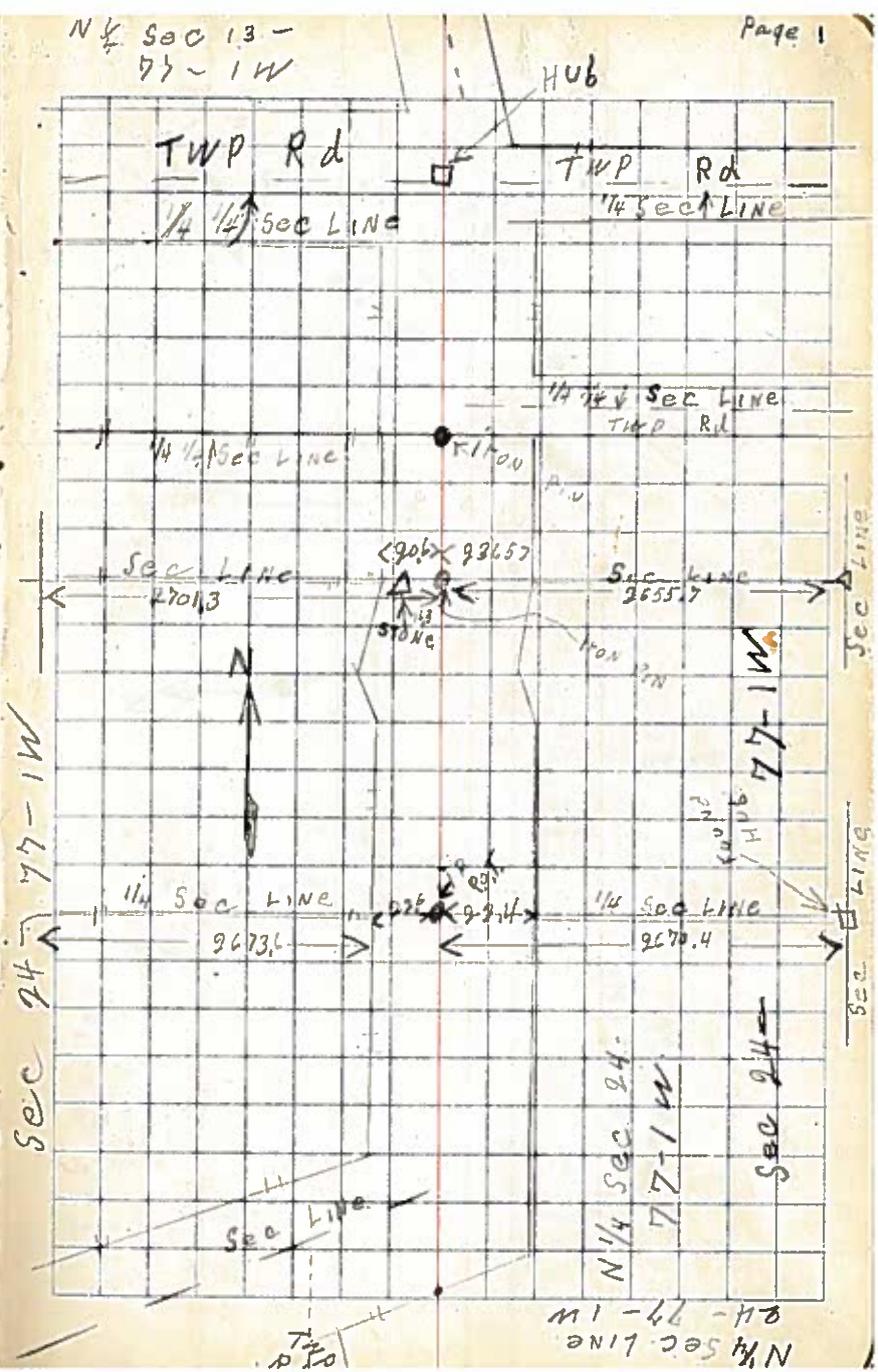


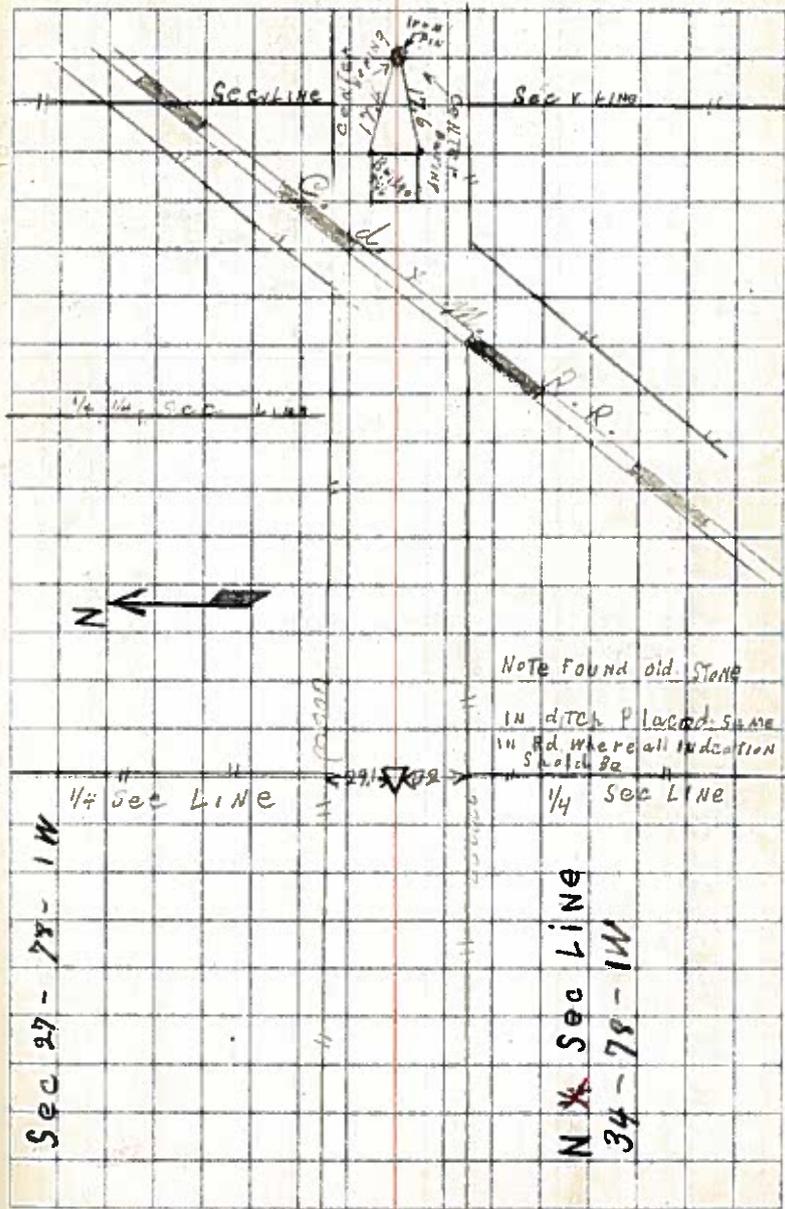
2653.5 COR. MON. W $\frac{1}{4}$ COR. 18-77-1E + 13

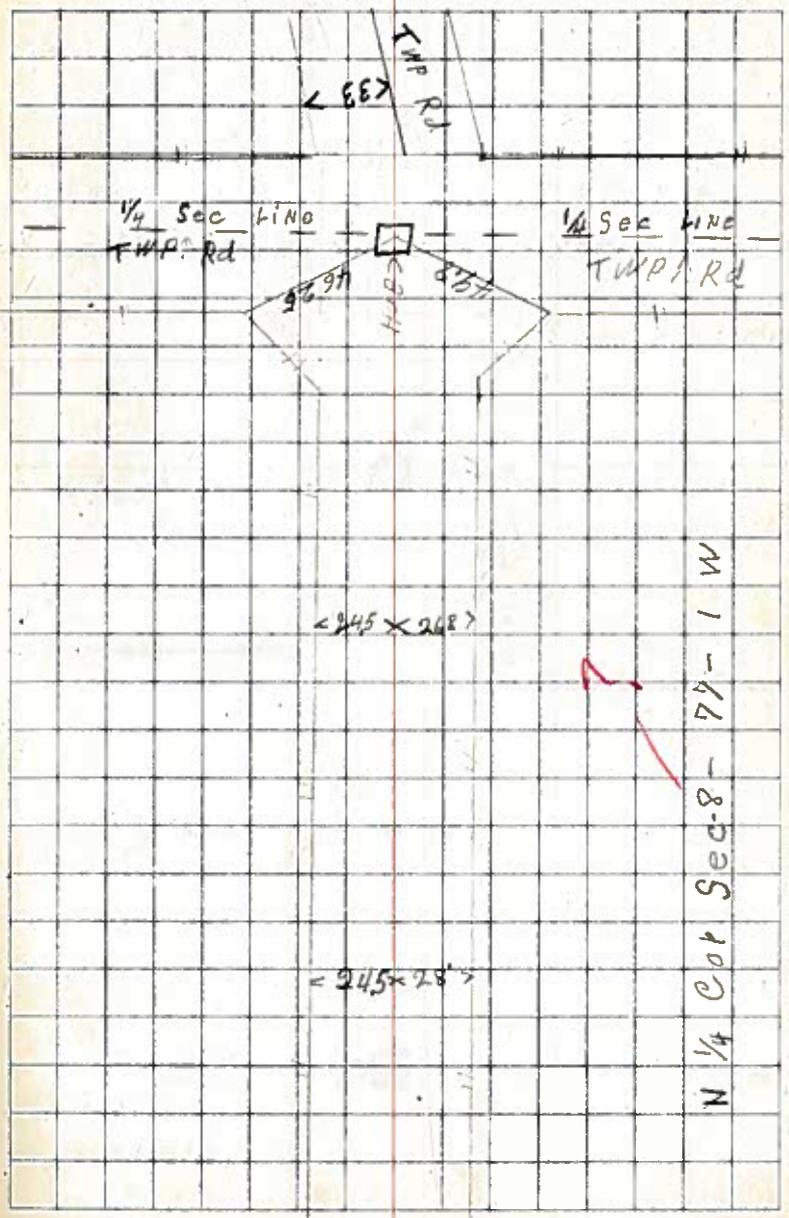
3434 COR. MON. E $\frac{1}{4}$ COR. 13-77-1W + 13

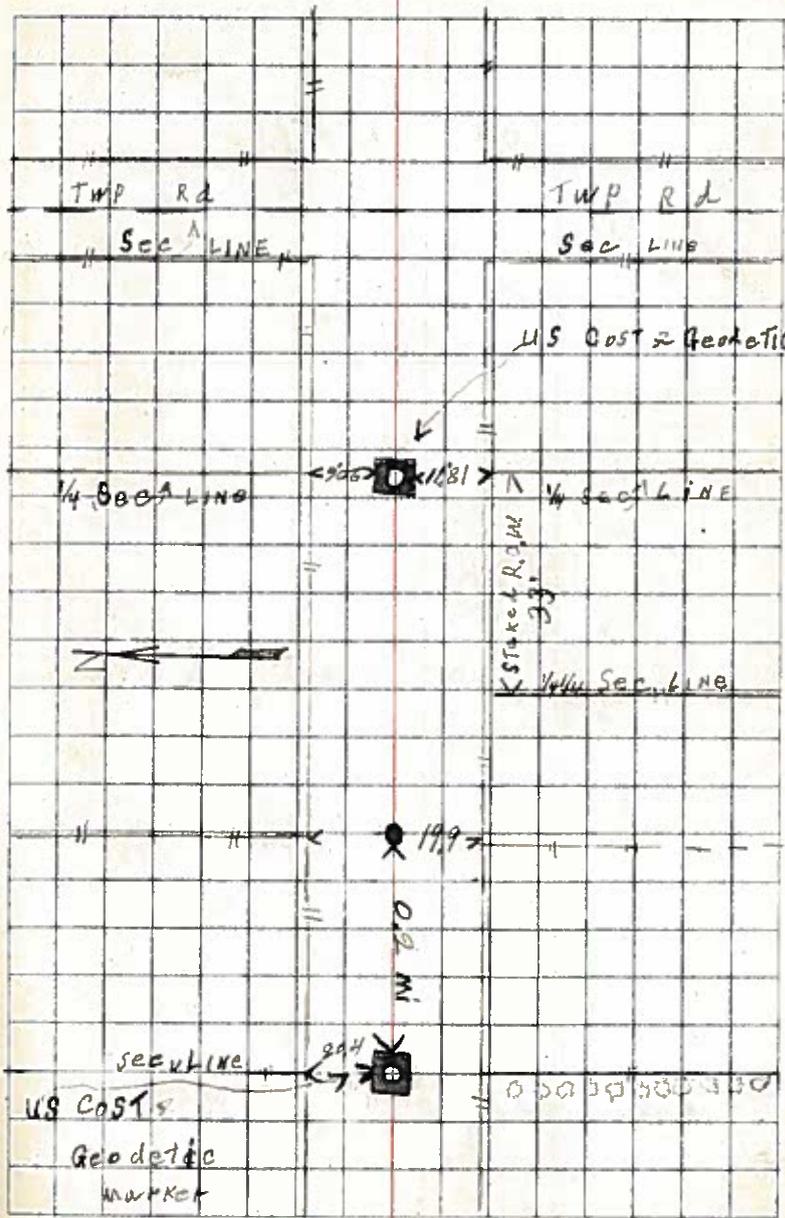


N 1/4 Sec 13 -
77 - 1 W

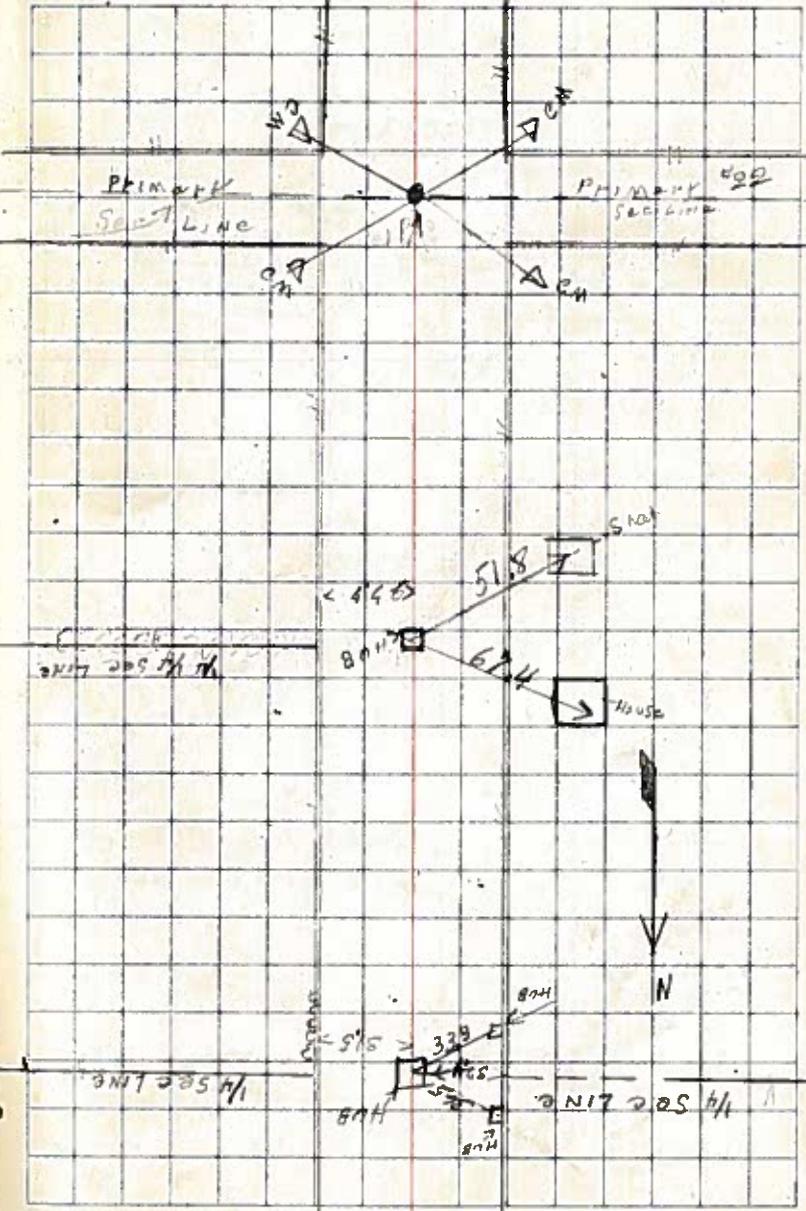








NW cor Sec 7 - 77-1W



N 1/4 sec line 99-78-1E

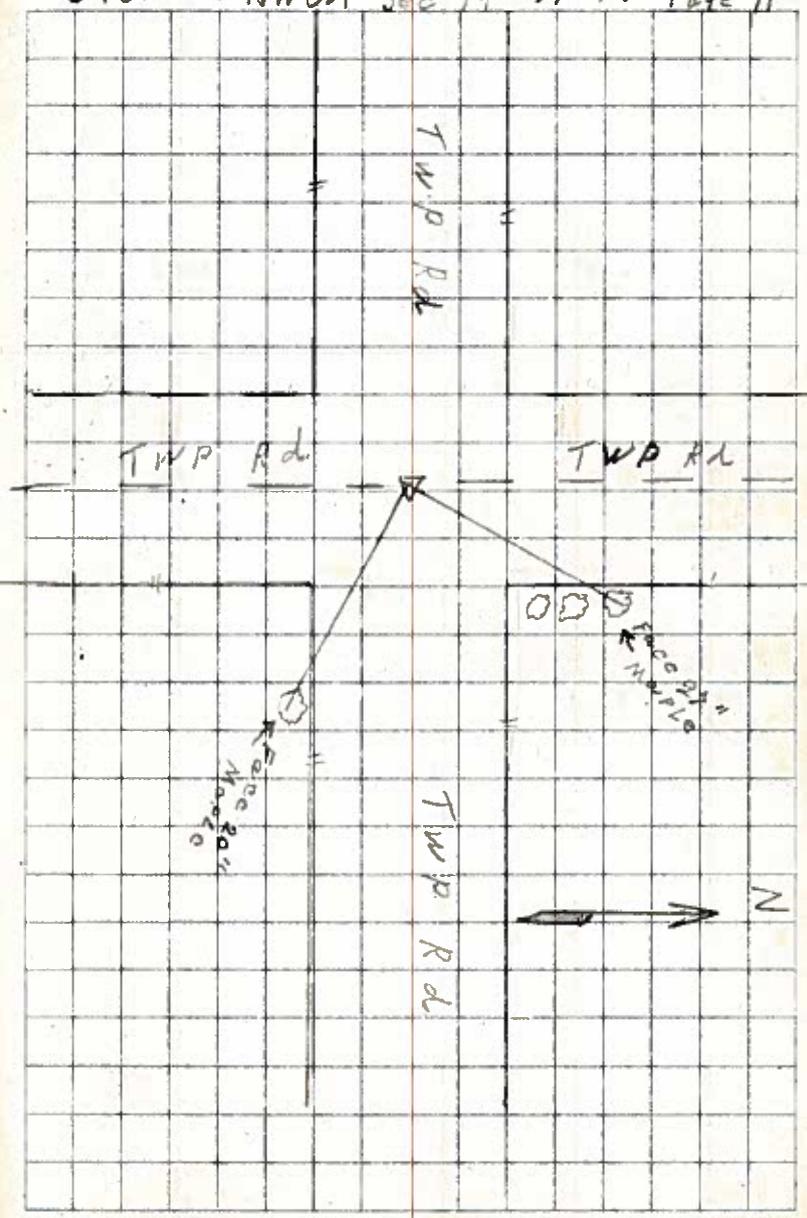


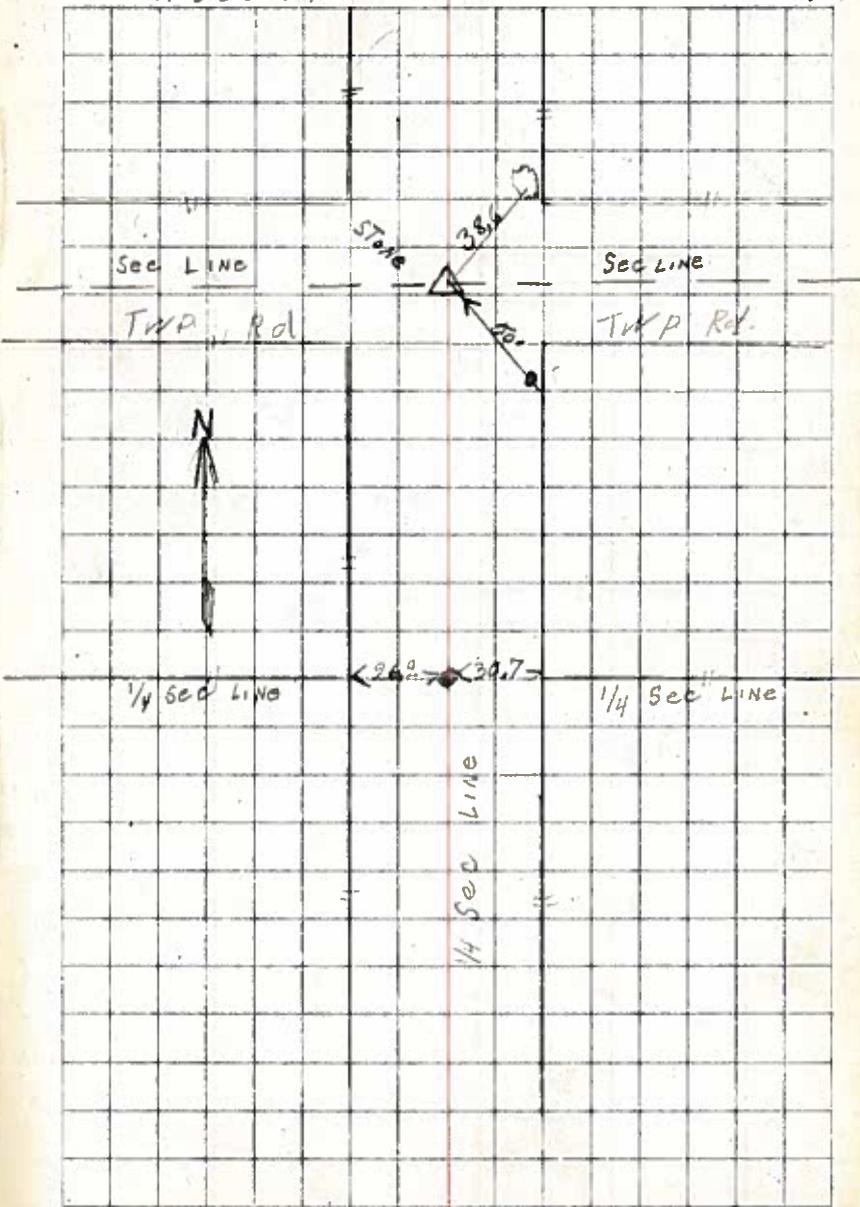
1/4 1/4 SEC LINE 335-337

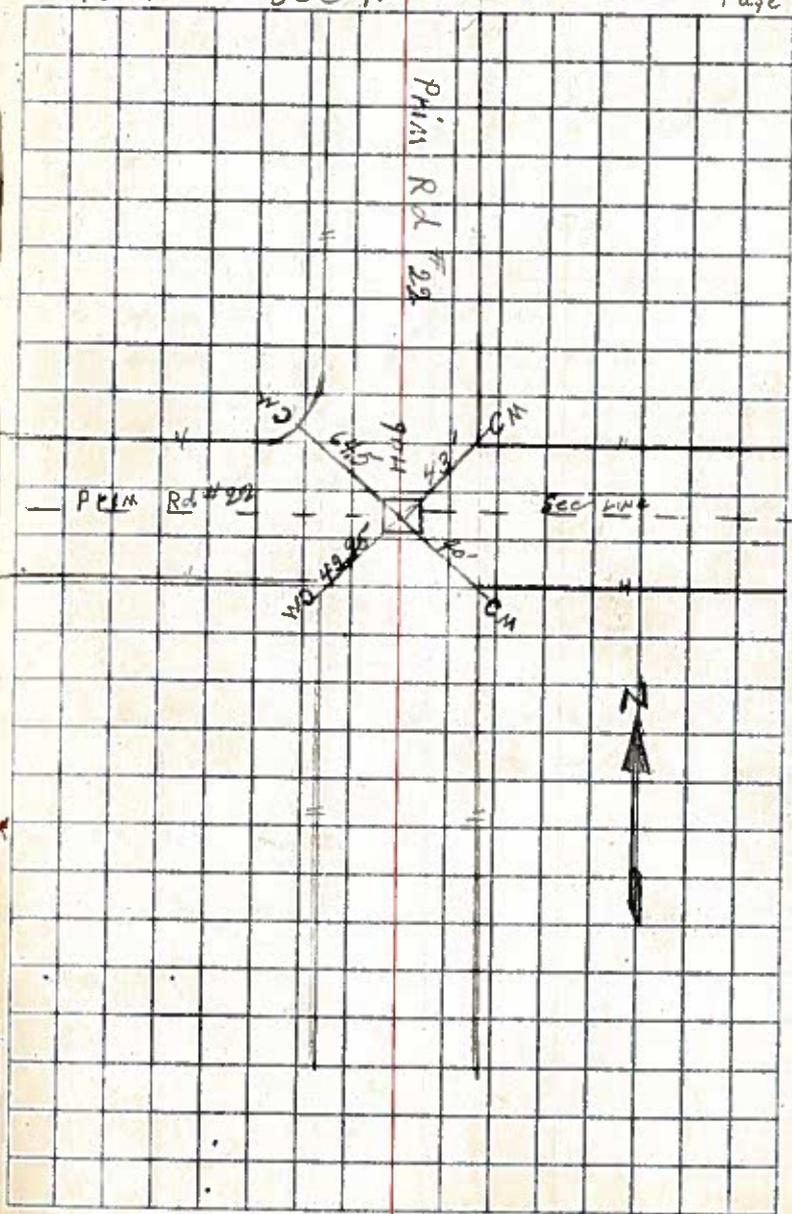
335
FENCE POST

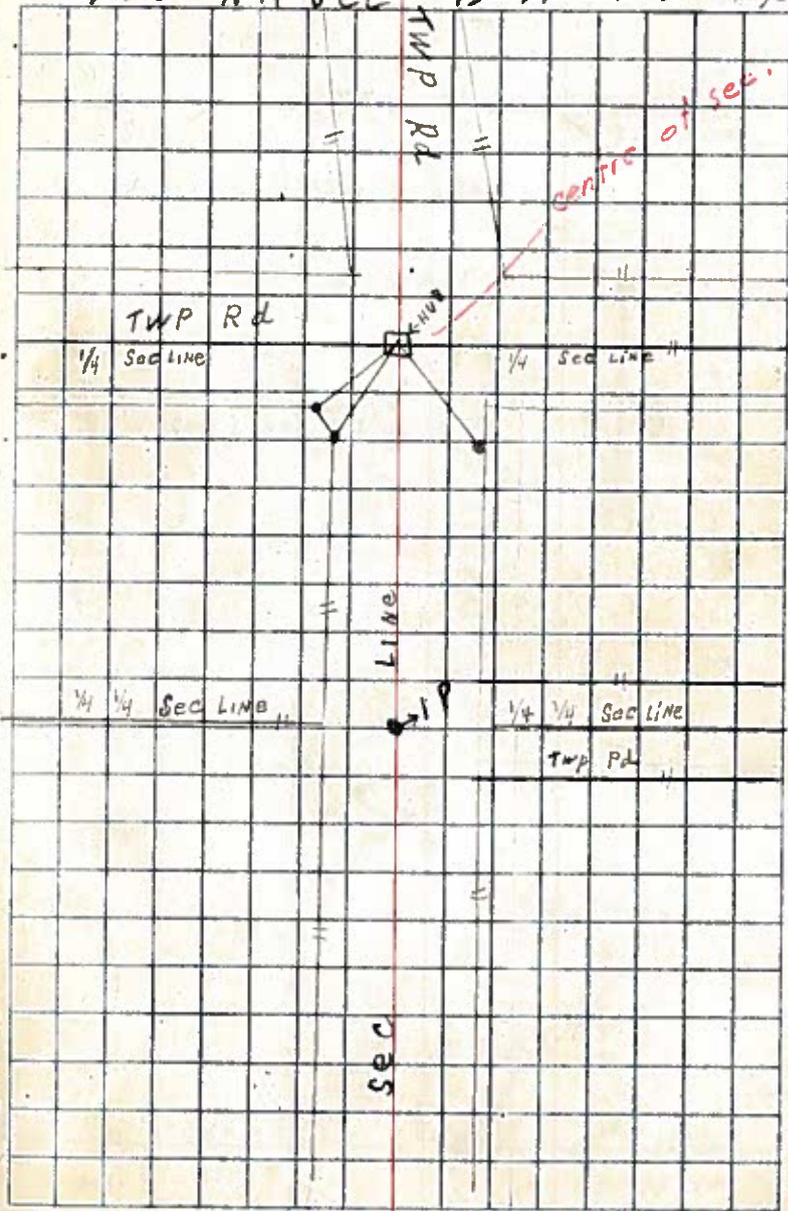
1/4 SEC LINE 335-337
1/4 SEC LINE

SE COR SEC 11 29 1 W

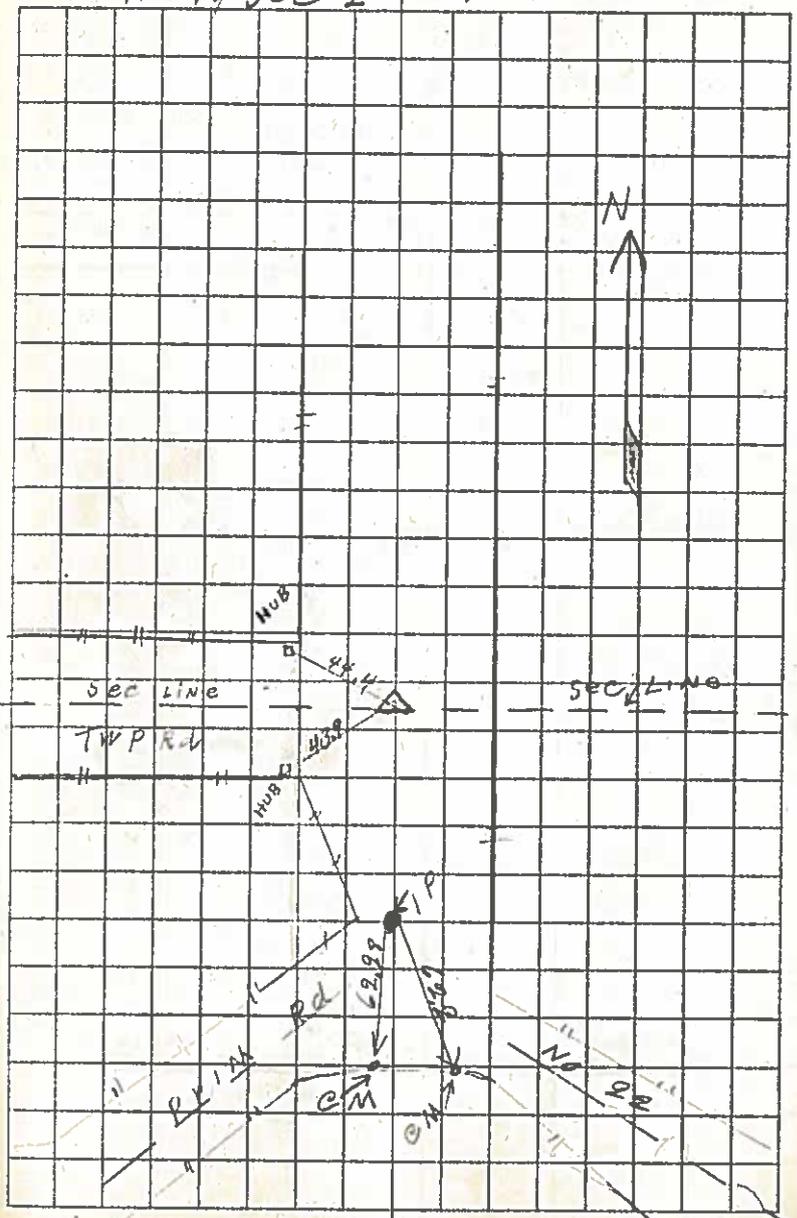




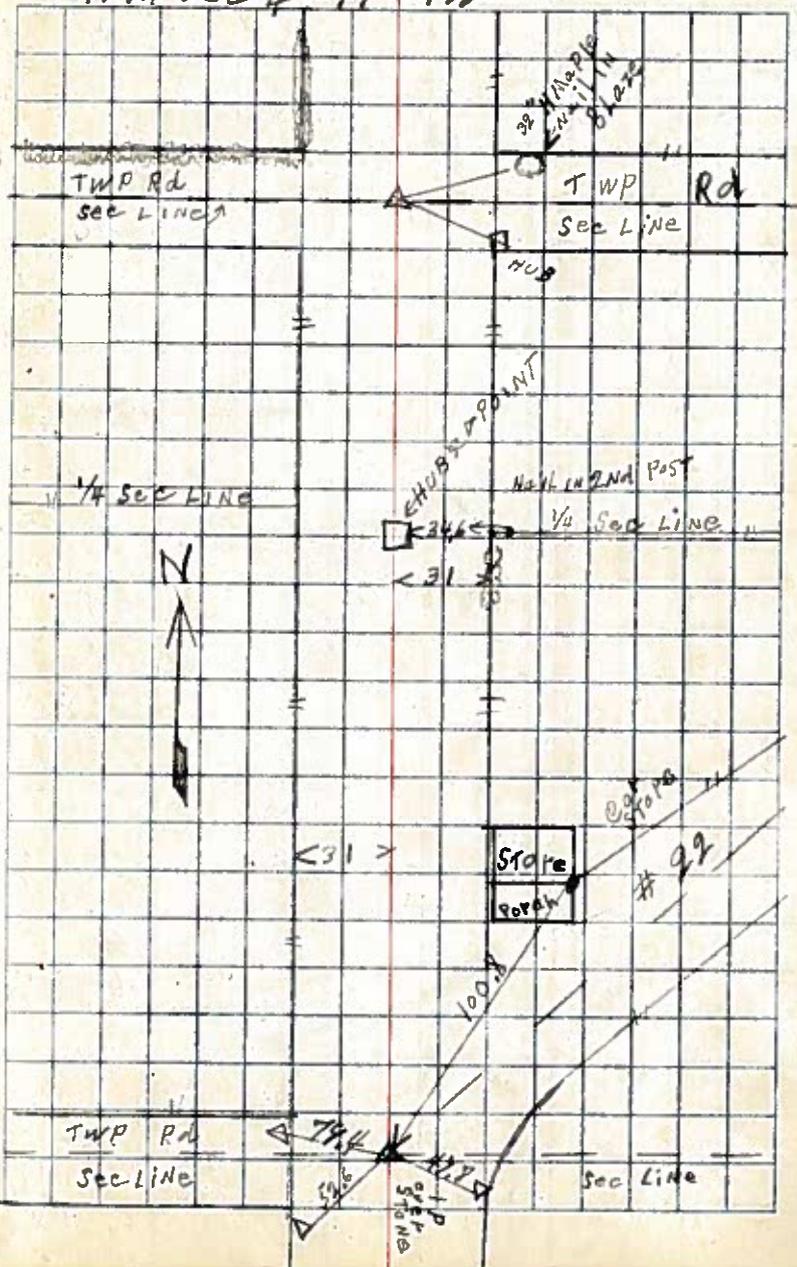




N 1/4 Sec 2 - 77-1 W



N 1/4 Sec 4-77-1W



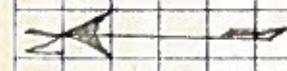
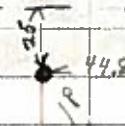
Rd F
74.7M

PRIM # 22

Sec Line

PRIM # 22

Sec Line

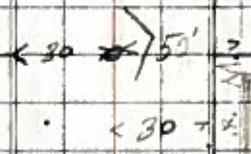


1/4 Sec Line

1/4 Sec Line

SW Cor Sec 25-78-1W

NW Cor Sec 36-78-1W



R.R.
E. D. No. 2



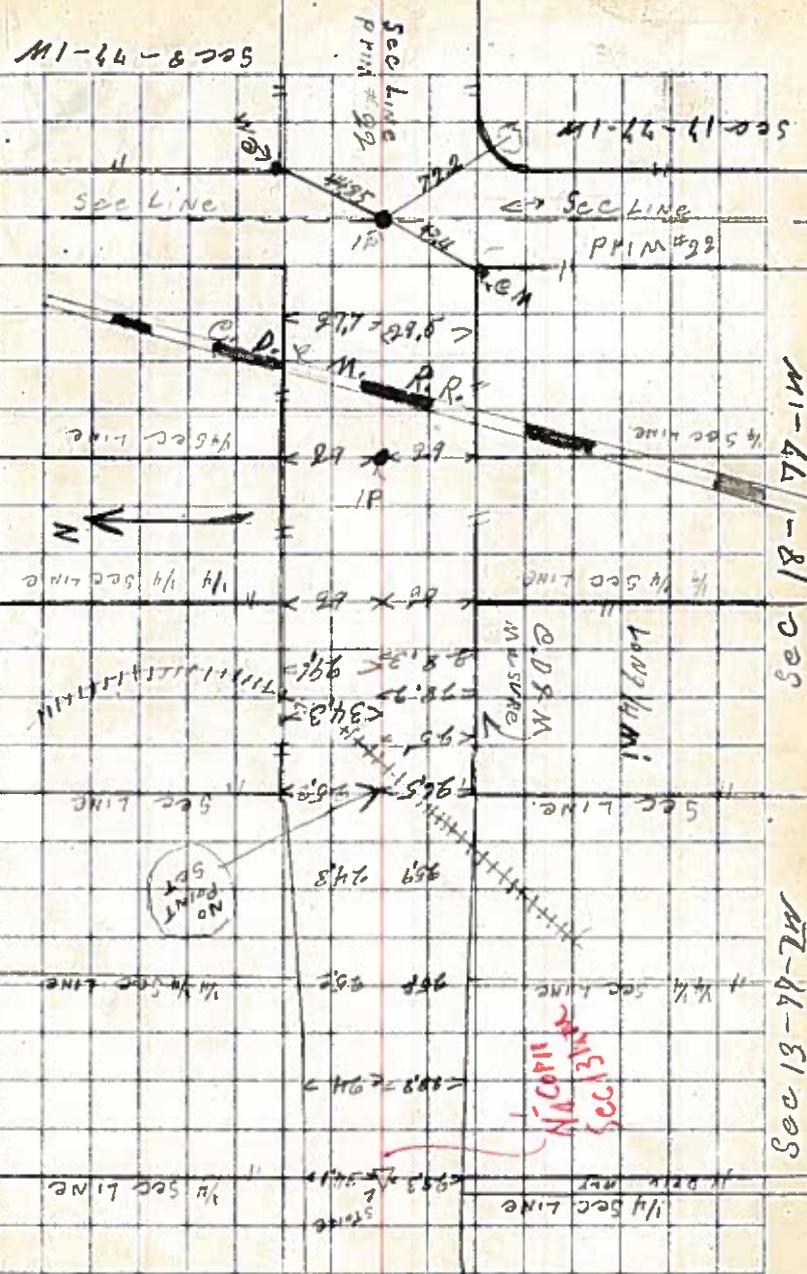
Sec Line

Sec Line

NW Cor.
30'

Well Box Post

Sec 12-77-1W



MI-24-855

MI-24-1155

Sec Line

Sec Line
PRIM #22

D. & M. R.R.

1/4 Sec Line

1/4 Sec Line

N

1/4 Sec Line

1/4 Sec Line

W. & S. W. 1/4
LAND

Sec Line

Sec Line

NO. 15 POINT

1/4 Sec Line

1/4 Sec Line

N. 1/4 Sec Line

1/4 Sec Line

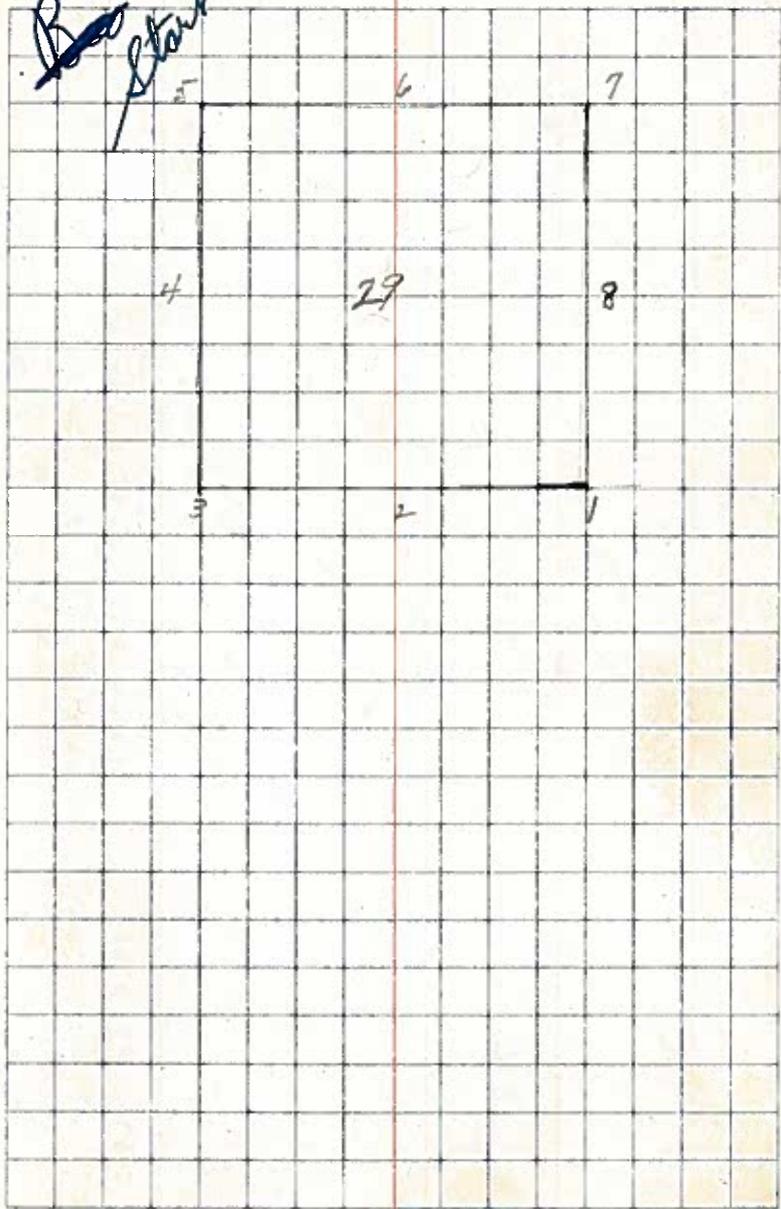
1/4 Sec Line

Sec 13-77-2W

77-R.I.E.



~~B~~ Start.



④ SET MONUMENT FOUND STONE
 553 SE TO GEOLOGICAL MONUMENT ✓
 1173 NE TO 16" W OAK ✓
 614 NW TO TEL POLE

① SET MONUMENT FOUND STONE
 255 SE TO 18" MAPLE
 865 S TO 20" W OAK ✓
 722 SW TO 20" W OAK

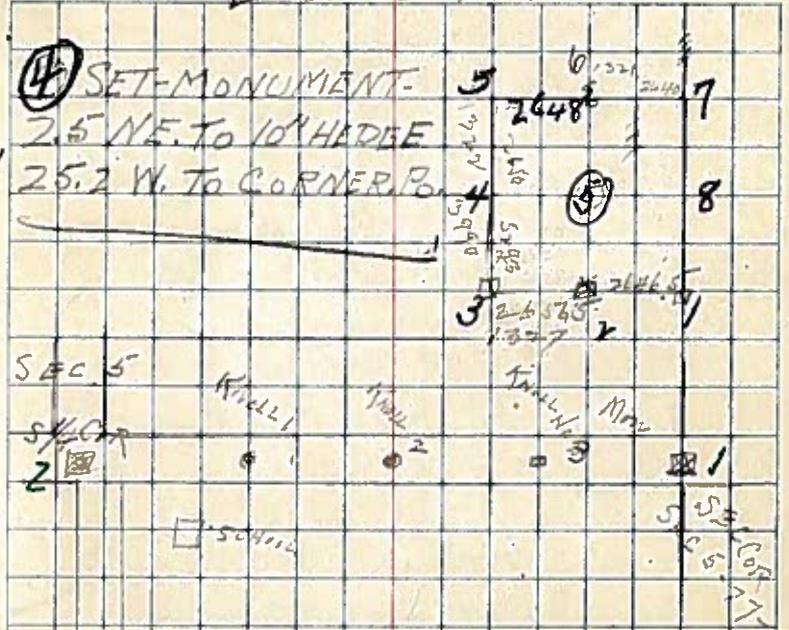
⑥ SET MONUMENT FOUND IRON PIN
 1102 SE TO 36" ELM ✓
 666 SW TO 12" CEDAR
 505 NE TO IRON PIN

⑤ SET MONUMENT
 769 SW TO NE COR HOUSE ✓
 2595 WEST TO COR POST ✓
 305 SE TO COR POST
 317 NE TO COR POST

③ SET MONUMENT
 1610 E TO W END BRIDGE FLOOR ✓
 379 NW TO TEL POLE ✓
 1327 NE TO TEL POLE

④ SET MONUMENT CENTER OF CREEK
 279 NW TO 12" BLAZED ELM ✓
 121 SW TO 14" TWINELM BLAZED ✓
 340 SE TO 10" BLAZED HICKORY ✓

1171
 2 1/2 SEC 5-77-1E



KROLL ① SET IRON PIN
 672 SW TO 24" RED OAK
 670 SE TO 18" W OAK

KROLL ② SET IRON PIN
 567 SW TO 24" TRIPLE OAK
 649 SE TO 12" RED OAK

KROLL ③ SET IRON PIN
 325 SOUTH TO WINDMILL POST

⑧ SET MONUMENT -
 AT FENCE CORNER - NO OTHER TIES

③ SET MONUMENT FOUND STONE
 152.3 NE TO 30" W OAK ✓
 42.5 NW TO 10" WILD CHERRY

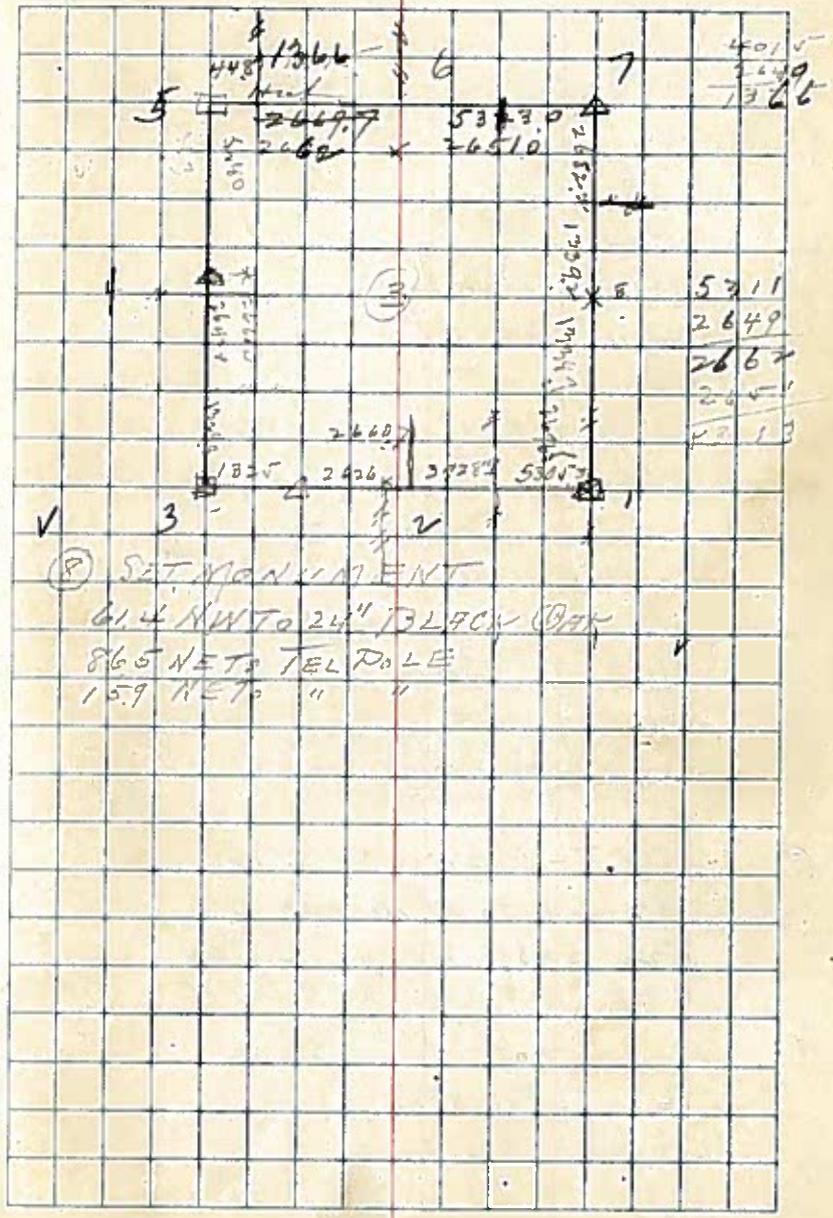
① SET MONUMENT STONE ✓
 FENCE CAP RUNNING E/W & N/S

⑤ SET MONUMENT FOUND STONE
 45.1 SE TO COIR POST ✓
 59.0 SE TO " " " " ✓
 " " " " " " " " ✓

④ SET MONUMENT FOUND STONE
 19.4 SW TO TEL POLE ✓
 17.0 NE TO 12" BUR OAK ✓
 113.5 NW TO 12" BOX ELDER

⑥ SET MONUMENT FOUND STONE ✓
 7.5 SW TO 16" BUR OAK ✓
 MIN. SET ONE NEW FENCE LINE PI FENCE-N/S

⑦ SET MONUMENT ✓
 69.2 NE TO 10" HICKORY ✓
 52.0 EAST TO 18" W OAK ✓
 68.8 SE TO 7" BUR OAK



⑧ SET MONUMENT ✓
 61.4 NW TO 24" BLACK OAK ✓
 86.0 NE TO TEL POLE ✓
 15.9 NE TO " " ✓

③ SET MONUMENT FOUND IRON PILE
 388 SW TO TEL. POLE ✓
 627 SE TO " " ✓
 475 NW TO " " ✓

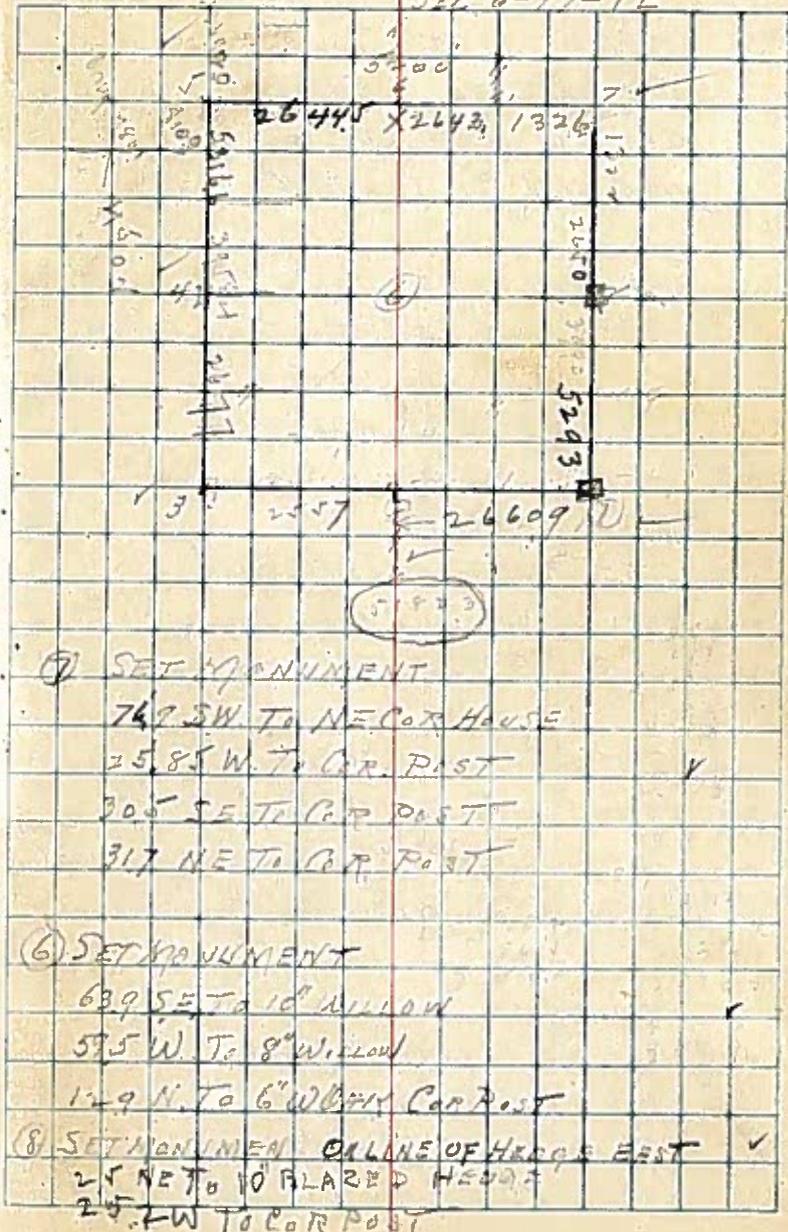
⑤ SET MONUMENT
 700 SW TO POWER POLE ✓
 1017 NW TEL. POLE ✓

④ SET MONUMENT
 674 NE TO 42" ELM ✓
 324 E TO POWER PILE ✓
 100.0 SE TO POWER PILE ✓

② SET MONUMENT
 335 SW TO COR. POST ✓
 615 NW TO TEL. POLE ✓
 849 NE TO " " ✓

① SET MONUMENT
 1610 EAST TO WEND. BRIDGE FLOORING ✓
 379 NW TO TEL. POLE ✓
 1327 NE TO TEL. POLE ✓

SEC 6-77-1 E



⑦ SET MONUMENT
 769 SW TO NE COR. HOUSE ✓
 2585 W. TO COR. POST ✓
 305 SE TO COR. POST ✓
 317 NE TO COR. POST ✓

⑥ SET MONUMENT
 639 SE TO 10" WILLOW ✓
 595 W. TO 8" WILLOW ✓
 129 N. TO 6" WILLOW COR. POST ✓

⑧ SET MONUMENT CALL LINE OF HEADS EAST ✓
 25 NE TO 10 BLAZED HEADS ✓
 25.7 W TO COR. POST ✓

⑤ SET MONUMENT FOUND IRON PIN

38.8 SW TO TEL POLE

62.7 SE TO TEL POLE

117.5 NW TO TEL POLE

③ SET MONUMENT - FOUND IRON PIN

13.7 S.E. TO TEL. POLE ✓

NW

63.9 S.W. TO TEL. POLE

NEAR
SET

95.9 NW TO TEL. POLE

① SET MONUMENT

255.0 SW TO RECOR CORNER

48.1 NW TO CORNER FENCE POST ✓

71.5 SE TO 3" TUBE LAP FENCE POST

② SET MONUMENT ✓

250.7 SW TO 18" COTONWOOD

34.2 SE TO 1ST FENCE EAST OF CR ✓

33.3 N TO WIRE ON FENCE

⑧ SET MONUMENT

145.9 NE TO 18" BUR OAK

SW

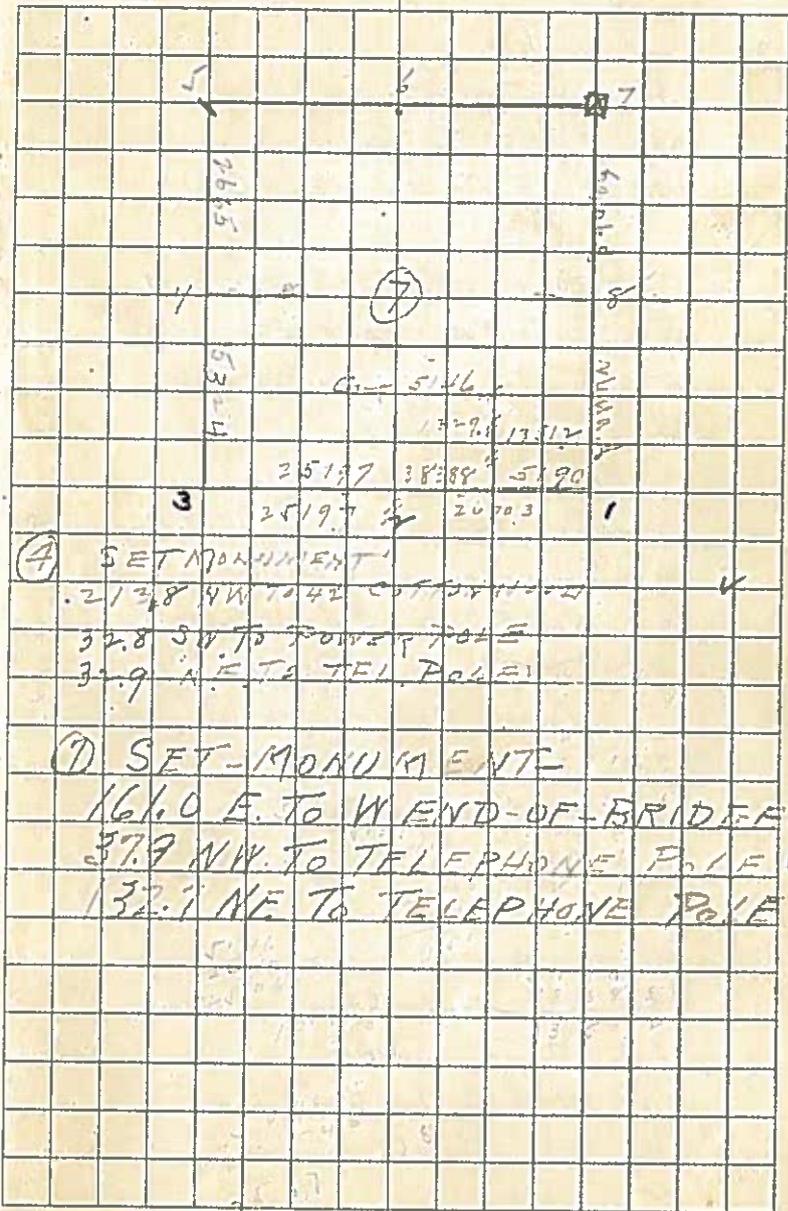
23.6 EAST TO W. END COR. POST

23.1 NW TO 1ST POST NORTH OF CR.

240 W. of XSPKS IN TEL POLE

248 S.E. of in PLY POLE

46.5 W. of GOOD MON # 855



④ SET MONUMENT ✓

213.8 NW TO 42 COTONWOOD

32.8 SW TO POWER POLE

31.9 NE TO TEL POLE ✓

⑦ SET MONUMENT

166.0 E. TO W END OF BRIDGE ✓

37.9 NW TO TELEPHONE POLE ✓

132.7 NE TO TELEPHONE POLE ✓

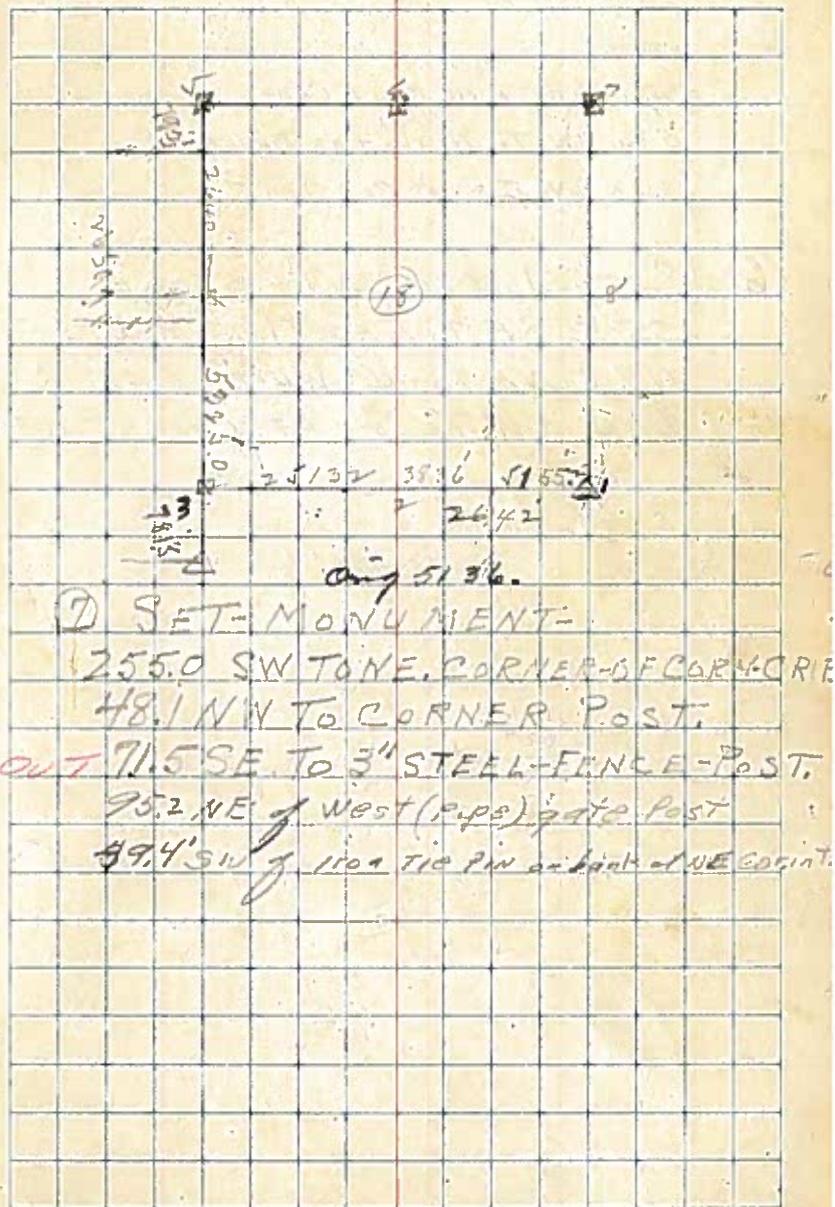
③ SET MONUMENT
454 S of POWER POLE
6.4 Ho of ^{XSSK 172} 1/2" INCH PIP POWER POLE
61.7 W. TO TEL. POLE ✓

④ STONE
20.6 NW TO 8" ELM. BLENDED
6.3 SW TO 18" BLACK OAK ✓
26.4 E TO 8" WALNUT

⑤ SET IRON PIN
41.0 NORTH TO 8" COTTON WOOD
41.0 SW TO TEL. POLE ✓
48.4 SE. TO NW CORNER PIN

⑥ SET-MONUMENT-
150.7 SW TO 18" COTTON WOOD
34.2 SE. TO 1st FENCE E. OF FENCE COR.
33.3 N. TO FENCE. ✓
34.8 NE of Tel. of on S. ROW FC

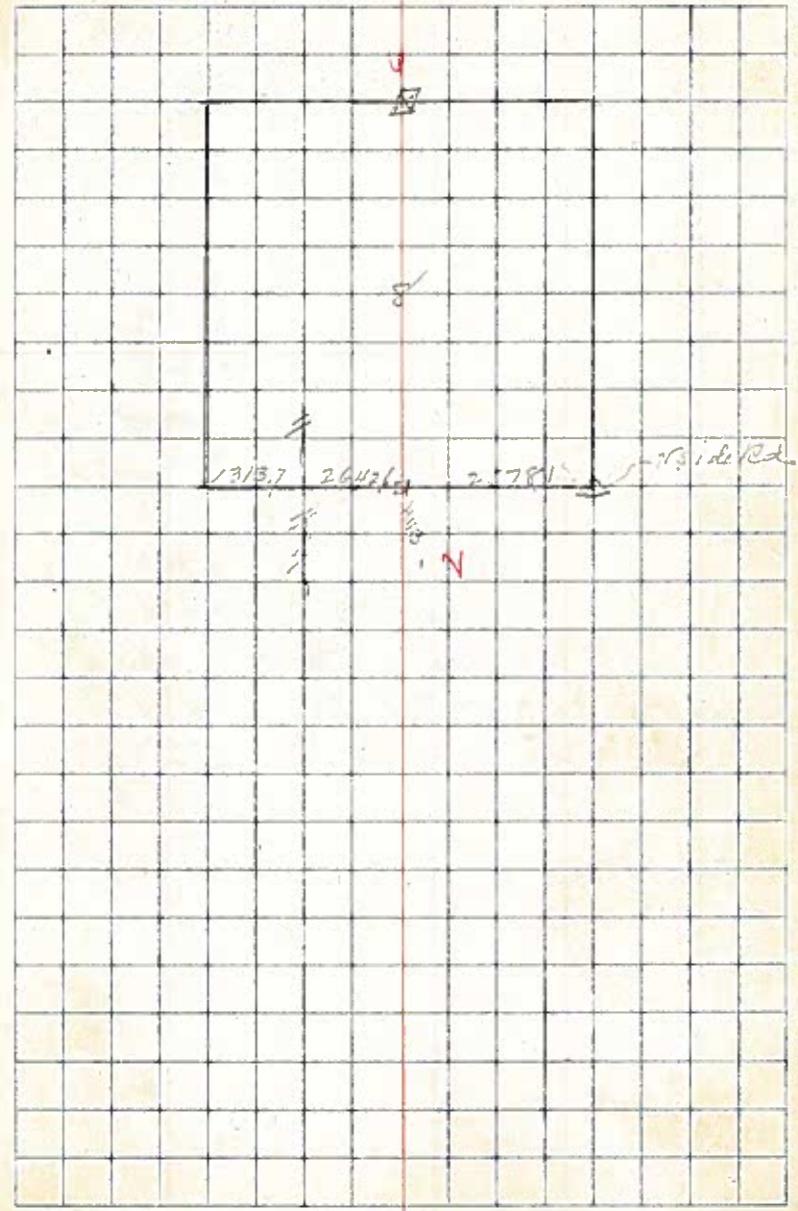
⑦ SET-MONUMENT-IRON PIN
63.7 SE. TO TELEPHONE POLE
63.9 SW. TO TELEPHONE POLE
95.9 NW. TO TELEPHONE POLE.

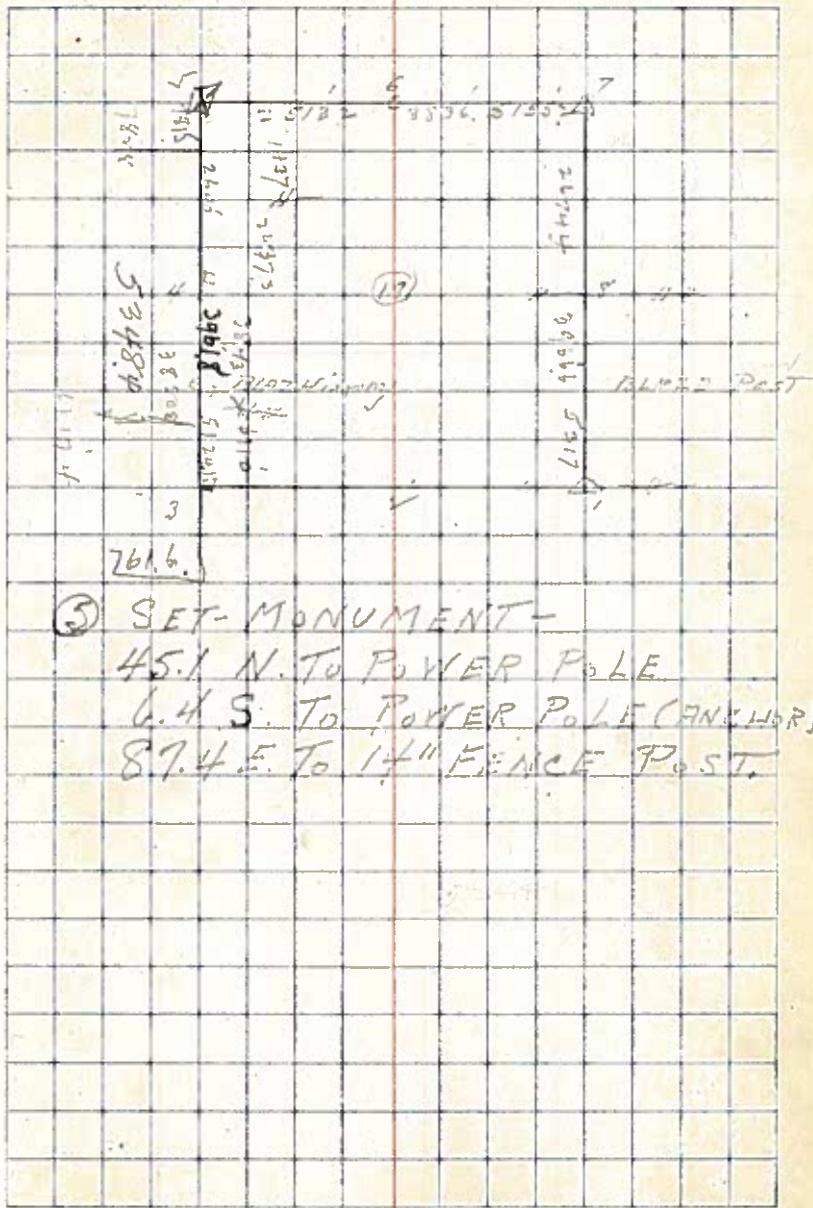


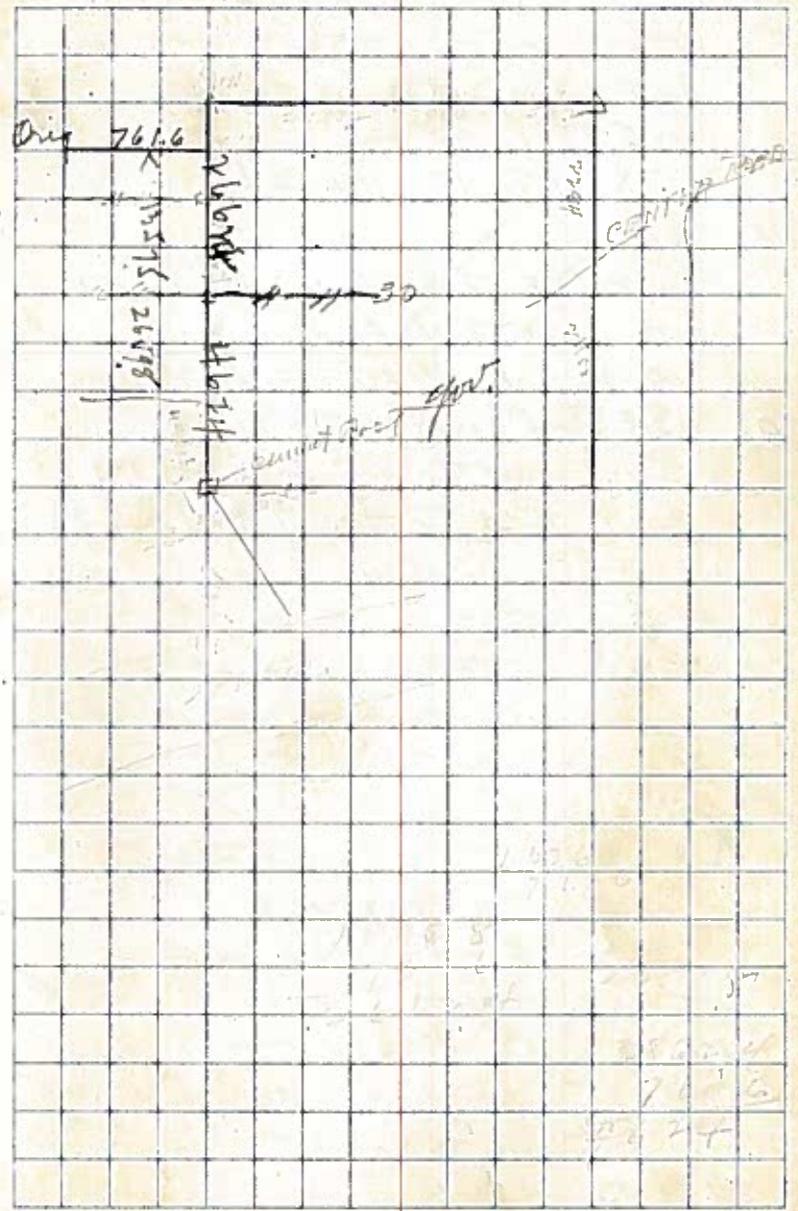
⑧ SET-MONUMENT-
255.0 SW TO NE CORNER OF CORNER COR.
48.1 NW TO CORNER POST.
OUT 71.5 SE TO 3" STEEL-FENCE-POST.
95.2 NE of West (pipes) gate post
89.4 SW of 1100 TIE PIN on bank of NE CORNER.

(5) HUB
 37.0 SE. TO 10" PAST COR
 53.0 SW TO NORTH 60R BRIDGE
 34.0 NW TO 10" COR POST

(6) SET-MONUMENT-STONE
 55.3 SE. TO GEO. MONUMENT-
 117.3 NE. TO 16" WHITE OAK
 61.4 NW. TO TELEPHONE POLE







① SET-MONUMENT-STONE

(7) STONE = 7 1/2 FEET EAST OF COR POST
19.1 S. TO 20" ELM BLAZED
48.5 NE TO 28" BUR OAK BLAZED ✓
22.8 NN TO 8" HICKORY

⑧ STONE

16.2 NE TO 8" WILD CHERRY
51 NW TO 10" ELM ✓
18.7 S.W. of 10" ELM X SPKS

⑥ SET-MONUMENT-

52.1 SW TO 10" BL ELM ✓
66.7 NW TO 20" TWIN ELM

⑤ SET MONUMENT

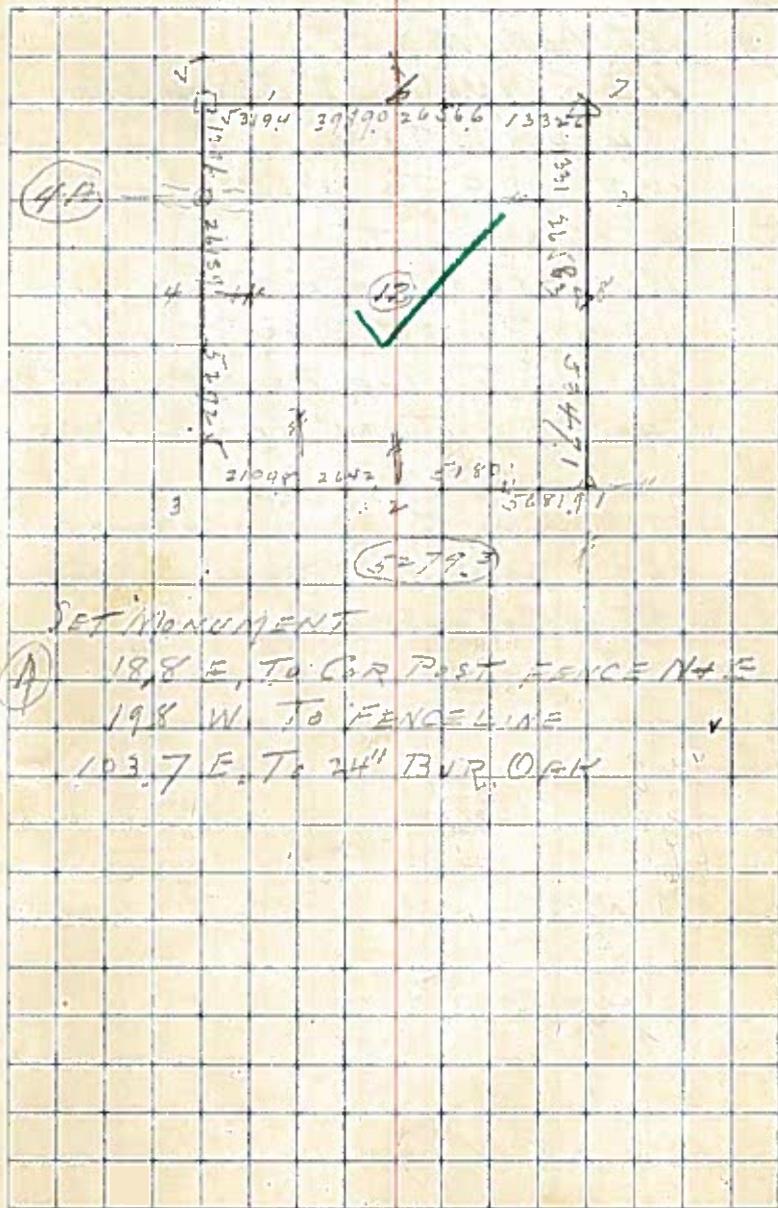
124.5 SET TO 16" WILLOW ✓
85.2 S. TO COR POST A FENCE

LA) X SET MONUMENT

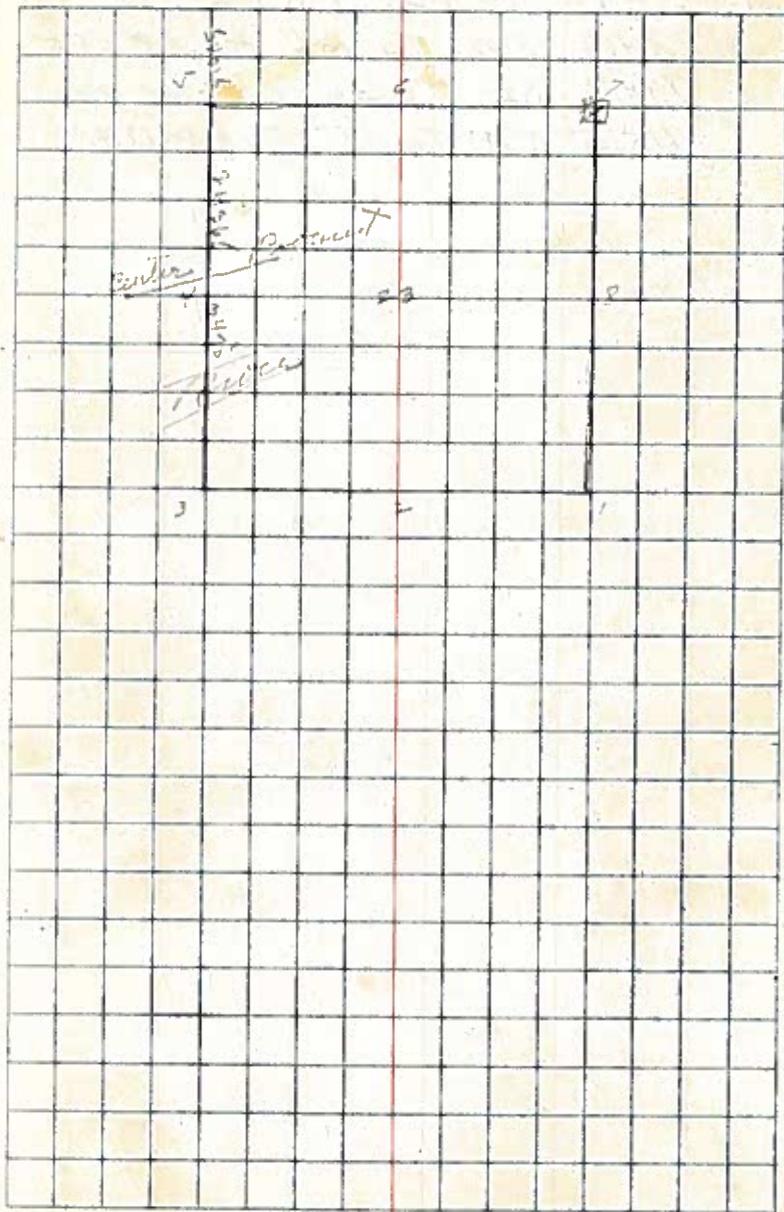
26.7 NW TO W GATE POST
15.6 N TO TEL. POLE
32.2 SE TO POWER POLE

③ SET MONUMENT

1.6 W. TO COR POST
31.9 W TO 30" OAK STUMP ✓
31.0 E. TO COR POST
74.7 SE TO 14" APPLE TREE



① SET MONUMENT
STAKE IN LINE CEN. ROAD NORTH + FENCE EAST
84" SW. TO 1 1/2" BUR OAK
138" S.E. TO 3 1/2" COTTONWOOD
115" NW. TO 1 1/2" BUR OAK



⑤ SET-MONUMENT-

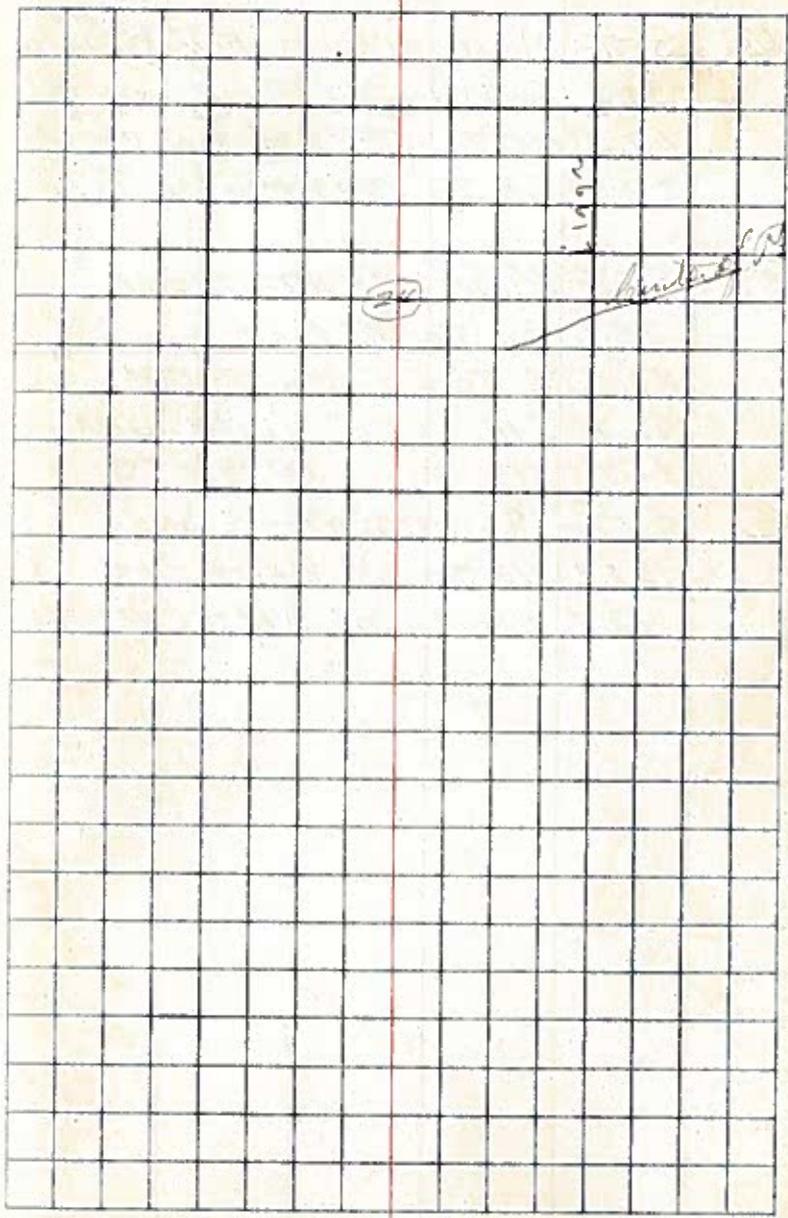
84.2 SW. To 14" BURR OAK

138.9 SE. To 36" COTTON WOOD

115.5 NW. To 18" BURR OAK

11715

4

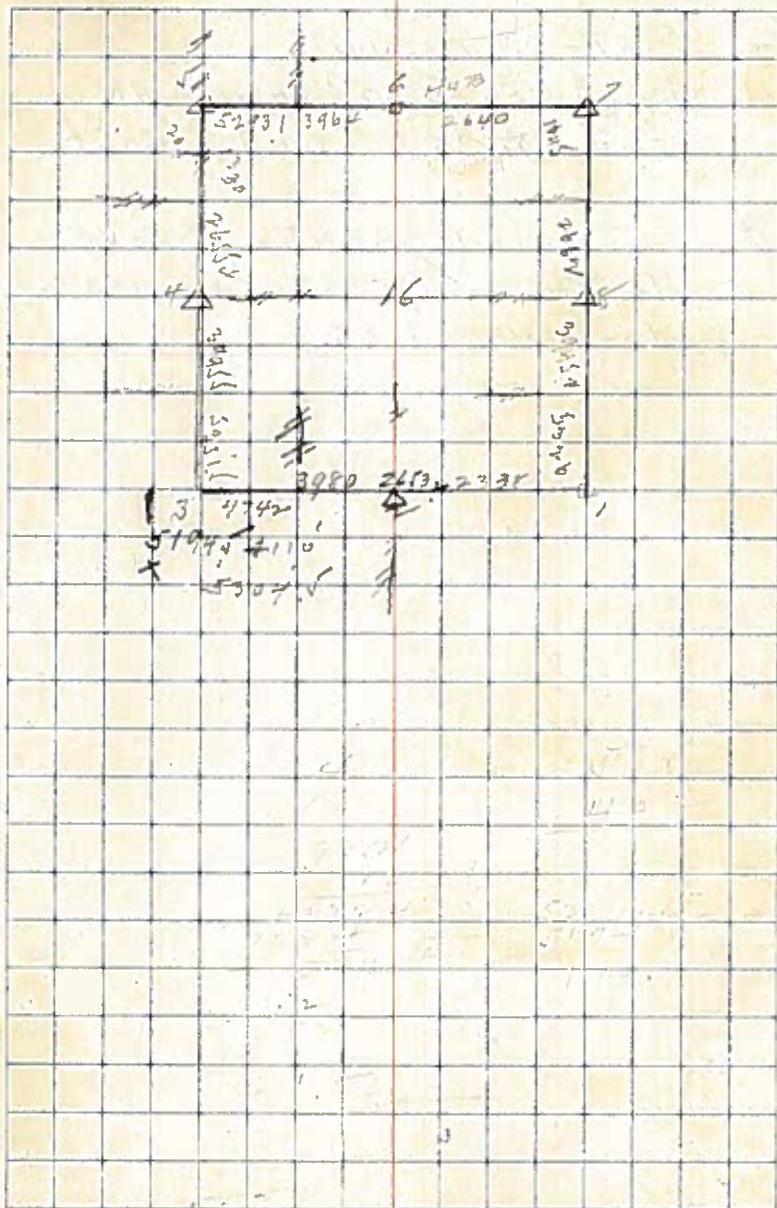


① SETHUR IN GREEN
 ✓ 121 W. TO 20" BARK OAK
 ✓ 381 N. TO 16" " "
 470 E. TO 16" WHITE OAK

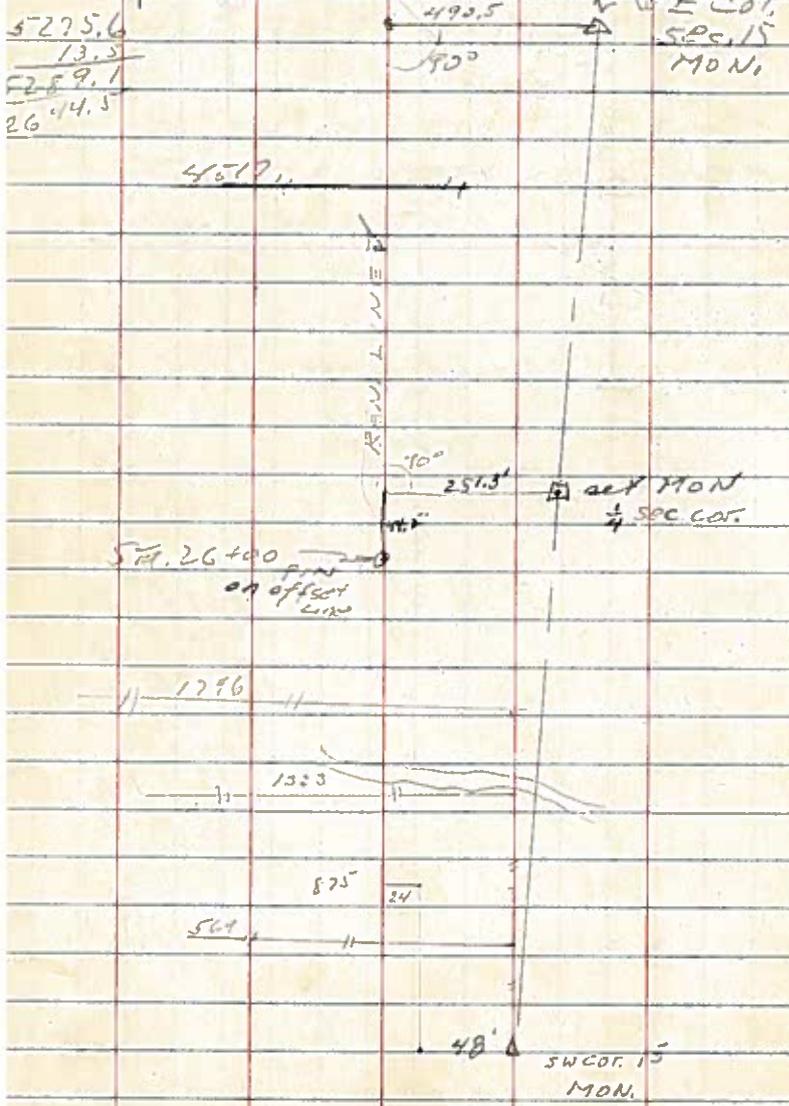
② STONE
 146 W. TO CAR POST ✓
 366 W. TO 2ND POST W. OF CAR POST
 235 S.E. TO POST SOUTH SIDE GATE

⑦ STONE
 33.5 S.E. TO 12" W OAK POST CORNER FENCE
 195.6 N.E. TO POWER POLE
 ✓ 426 W.W. TO TEL POLE
 38.9' N.E. TO I.G.S.B.M. #923

③ SET STONE
 26.9 S.E. TO 20" BARK OAK
 80 S.W. TO 5"



COAKLEY'S PARTY

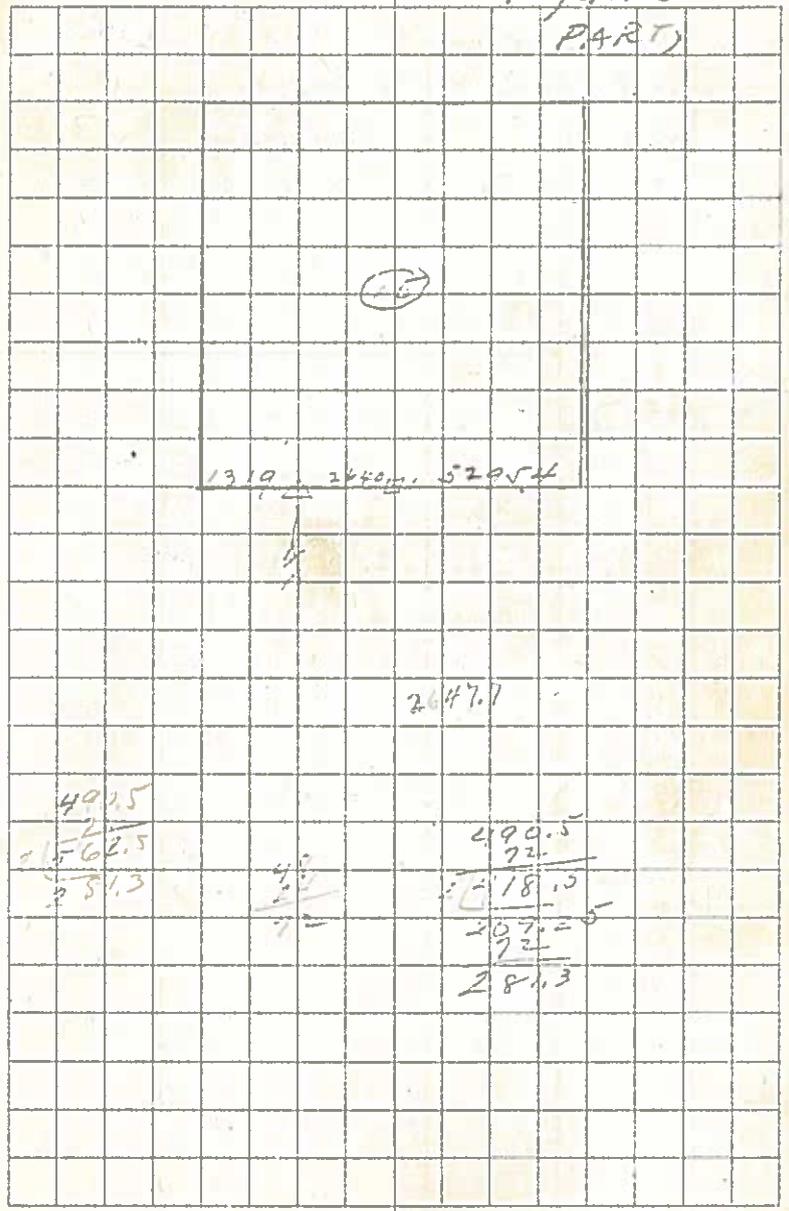


5275.6
 13.3
 5289.1
 2614.5

77-1 E

45

Ryan's PARTY



402.5
 2
 351.3

490.5
 72
 418.5
 207.25
 72
 281.3

1319 2440.1 5285.4

2647.1

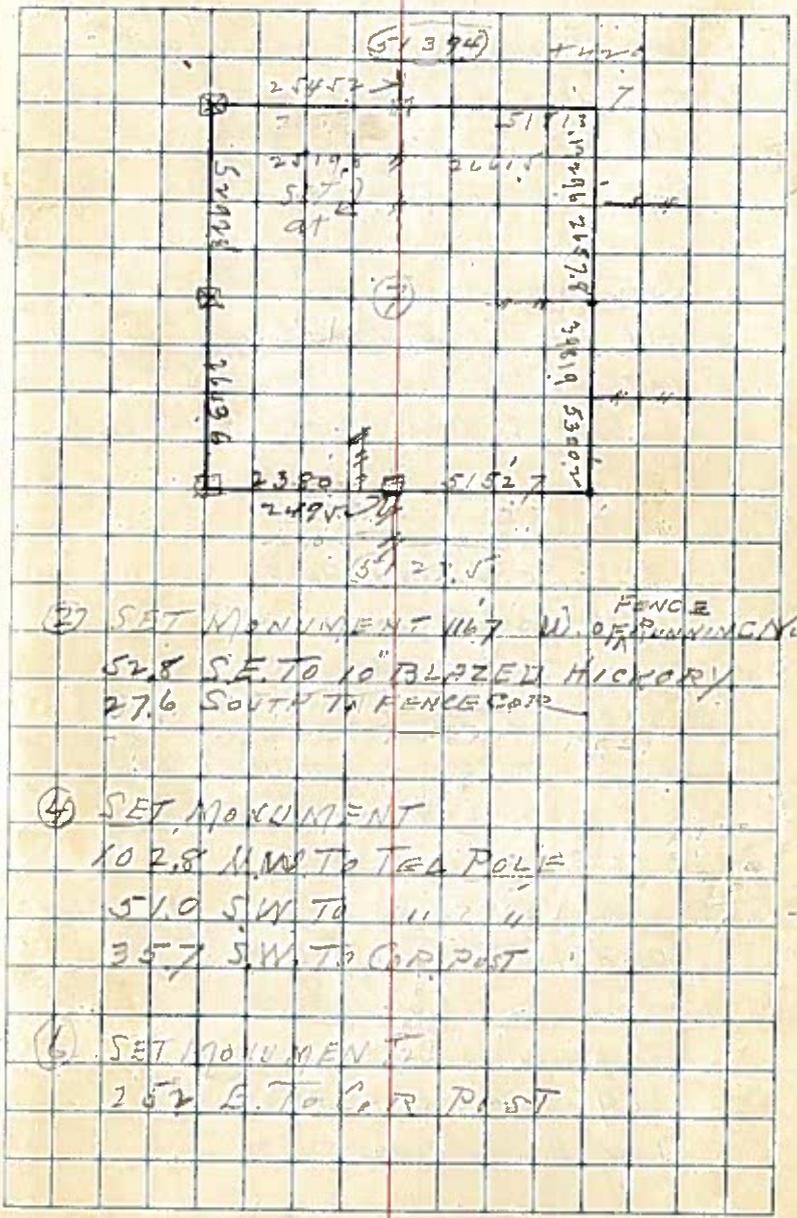
5 SET MONUMENT
 97.85 SW TO NE COR CORN CRIB
 140.2 NW TO 14" ASH
 33.5 EAST TO COR POST

7 SET MONUMENT
 32.15 SE TO POWER POLE
 34.2 SW TO POWER POLE
 25.9 W TO COR POST
 37.8 N.E. TO TEL POLE

1 SET MONUMENT IRON PIN
 54.3 NE TO POWER POLE
 41.3 SE TO COR POST
 58.0 SW TO TEL POLE
 141.25 NW TO SE COR RESIDENCE

8 SET MONUMENT - IRON PIN
 41.6 E TO 30" BUR OAK
 25.3 W TO COR POST
 115.6 SW TO POWER POLE

3 SET MONUMENT
 56.95 S.E. TO POWER POLE
 75.1 NW TO BUR OAK BLAZED
 82.1 S.W. TO 24" " " "



2 SET MONUMENT 116.7 W. OF FENCE RUNNING NORTH
 52.8 SE TO 10" BLAZED HICKORY
 27.6 SOUTH TO FENCE CORN

4 SET MONUMENT
 102.8 N.W. TO TEL POLE
 51.0 SW TO " " "
 35.7 SW TO COR POST

6 SET MONUMENT
 25.2 E. TO COR POST

⑤ STONE - SET - MONUMENT.

55.0 SE TO POWER POLE ✓

48.7 SW TO TEL POLE

56.3 NW TO POWER POLE

48.7 NE TO TEL POLE

⑦ IRON PIN = SET MONUMENT

43.15 WEST TO 10" HEDGE

33.0 EAST TO HEDGE POST END NORTH

40.15 NW TO TEL POLE

⑧ SET MONUMENT PIPE

SET ON LINE WITH FENCE EAST

29.3 E TO FENCE POST

33.0 E IRON PIN

22.5 W TO FENCE LINE COR POST

42.0 W TO IRON PIPE 2"

6 SET MONUMENT STONE

59.4 W TO DOUBLE BOX ELDER

0.6 N OF COR POST

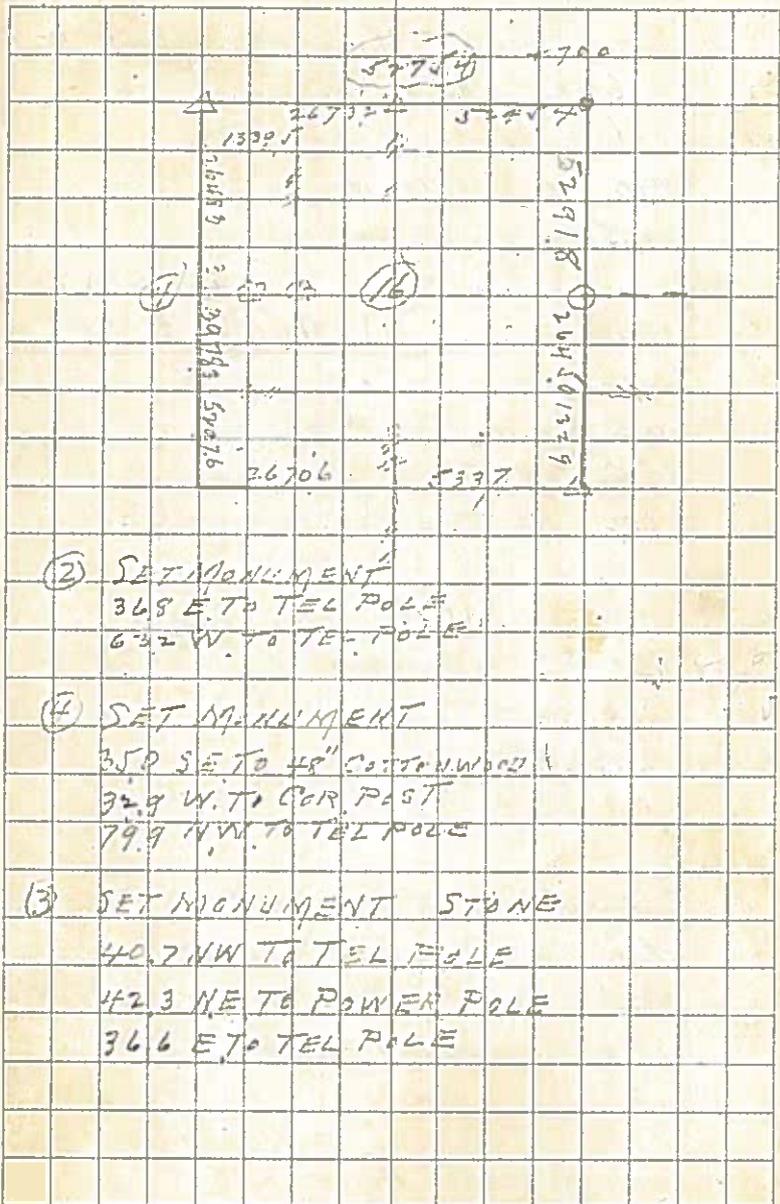
④ SET MONUMENT - STONE

66.5 E TO TEL POLE

58.3 SW TO POWER POLE

25.2 W TO COR POST

53.9 NW TO POWER POLE



② SET MONUMENT

36.8 E TO TEL POLE

63.2 W TO TEL POLE

④ SET MONUMENT

35.0 SE TO 48" COTTONWOOD

32.9 W TO COR POST

79.9 NW TO TEL POLE

③ SET MONUMENT STONE

40.2 NW TO TEL POLE

42.3 NE TO POWER POLE

36.6 E TO TEL POLE

5 IRON PIN MONUMENT SET

- 5438 NE TO POWER POLE
- 41.35 E TO COR POST
- 58.00 SW TO TEL POLE
- 1413 NW TO SECOR RESIDENCE

6 IRON PIN MONUMENT SET

- 332 SOUTH TO COR POST ✓
- 60.5 SE TO TEL POLE ✓
- 82.8 SW TO " "
- 91.2 NW TO SECOR RESIDENCE

7 STONE MONUMENT SET

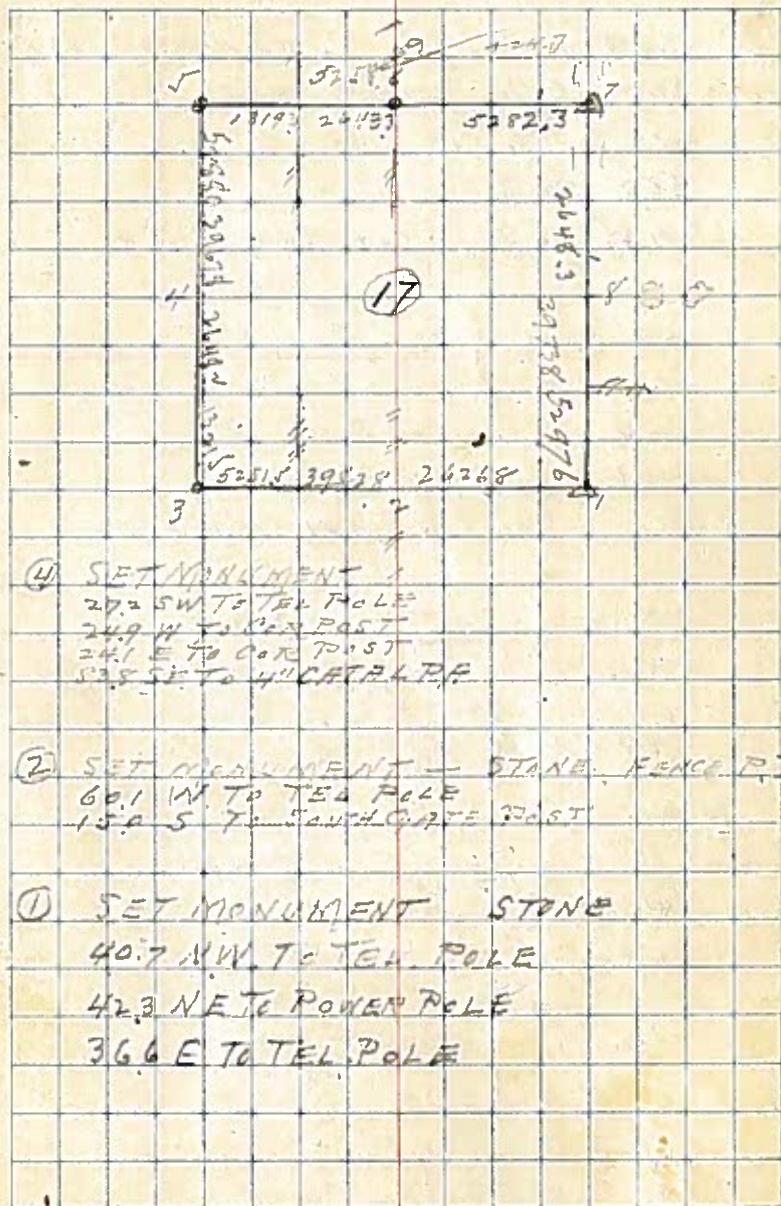
- 550 SE TO POWER POLE
- 487 SW TO TEL POLE
- 561 NW TO POWER POLE
- 484 NE TO TEL POLE

8 SET MONUMENT ON LINE WITH HEDGE FENCE EAST

- 35.0 SE TO 48° COTTONWOOD
- 32.9 WEST TO COR POST
- 79.9 NW TO TEL POLE

3 SET MONUMENT

- 882 NE TO SW COR RESIDENCE
- 544 W TO CABLE POLE
- 544 NW TO TEL POLE



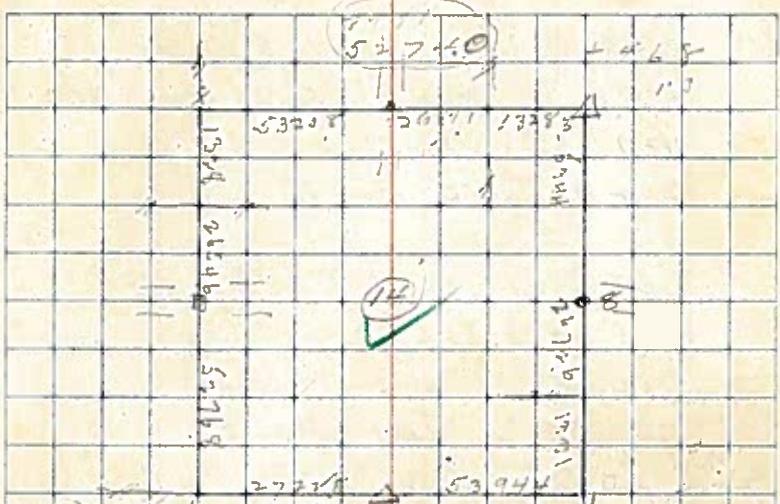
⑥ SET MONUMENT STONE E. SIDE TR
 41.241 TO FENCE POST
 0.6 S. TO COR HEDGE POST
 18.7 NORTH TO POWER POLE
 48.4 N N TO COR POST

④ SET MONUMENT
 62.3 S E TO TEL POLE
 105.4 N E TO POWER POLE
 90.2 S W TO TEL POLE
 102.1 N W TO POWER POLE

② SET MONUMENT - STONE
 6.0 N TO TEL POLE
 13.0 E TO EAST GATE POST

① SET MONUMENT
 69.0 E TO TEL POLE
 51.8 W TO
 0.5 E TO COR POST

③ SET MONUMENT
 19.4 W TO TEL POLE
 109.3 E TO TEL POLE
 16.0 S TO COR POST



⑧ SET MONUMENT - IRON PIN
 43.4 N E TO TEL POLE
 71.0 N E TO POWER POLE
 70.9 S E TO TEL POLE
 22.0 S TO COR POST
 75.7 S W TO TEL POLE

⑤ SET MONUMENT
 2.8 N TO GATE POST
 141.5 TO COR POST
 31.8 E TO COR POST WITH TERRACE

⑦ SET MONUMENT STONE
 20.0 W TO IRON POST SET IN CONCRETE
 44.7 S E TO TEL POLE
 20.4 E TO 12" POST

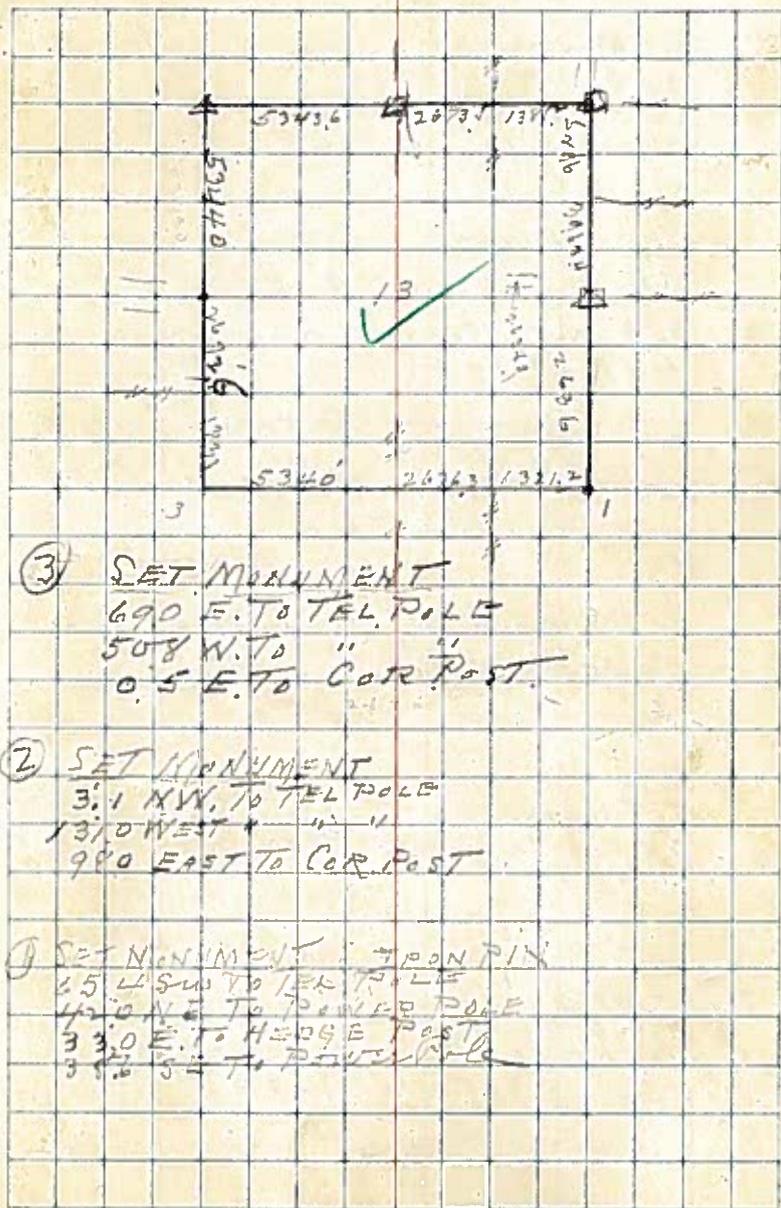
(5) SET MONUMENT STONE
 20.0 W. TO IRON POST IN CONCRETE
 42.7 S. TO TEL POLE
 20.4 E. TO 10" POST

(4) SET MONUMENT STONE
 43.5 N. TO TEL POLE
 71.0 N. TO POWER POLE
 70.9 S. TO TEL POLE
 33.0 S. TO COR. POST
 75.2 SW TO TEL POLE

(8) SET MONUMENT = STONE FENCE EAST
 32.1 E. TO FENCE POST
 38.4 NE TO 20" MAPLE PLEEK
 56.6 SW TO TEL POLE
 50.8 NW TO ANCHOR POLE TEL
 29.3 SE TO " " POWER POLE

(7) STONE SET MONUMENT
 31.0 NE TO HEDGE POST 8"
 37.85 NW TO 1" STEEL POST NORTH OF BRACE
 30.8 W TO FENCE POST

(6) STONE SET MONUMENT
 17.7 W TO END OF HEDGE WEST
 13.7 N. " " " " NORTH



(3) SET MONUMENT
 69.0 E. TO TEL POLE
 50.8 W. TO " " COR. POST
 0.5 E. TO COR. POST

(2) SET MONUMENT
 3.1 NW TO TEL POLE
 137.0 WEST " "
 99.0 EAST TO COR. POST

(1) SET MONUMENT : IRON PIN
 45.4 SW TO TEL POLE
 42.0 NE TO POWER POLE
 33.0 E. TO HEDGE POST
 38.2 S. TO POWER POLE

7 SET MONUMENT IRON PIPE
259 E. TO COR POST
324 NW. TO TEL POLE
1342 SW TO TEL POLE

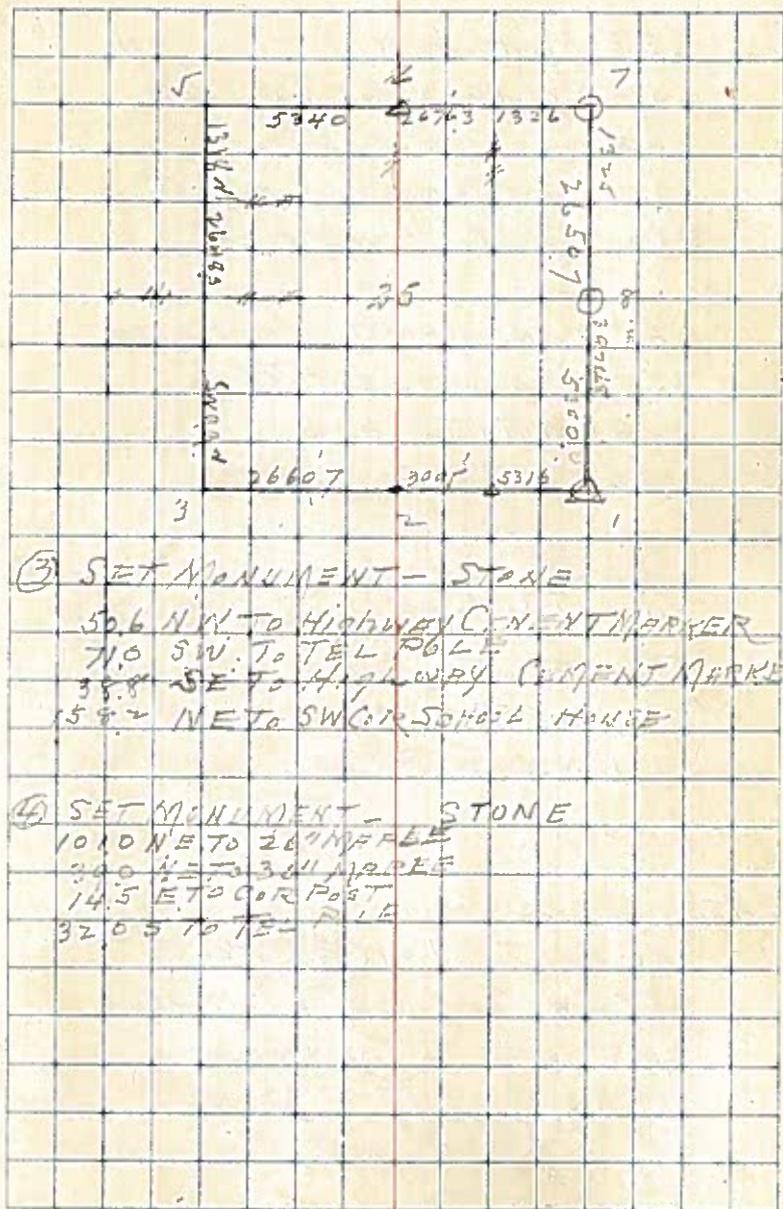
8 SET MONUMENT 1" IRON PIPE
364 NE TO HEDGE 8" DIAM
303 W TO COR POST W. SIDE ROAD
440 NE TO 5" HEDGE BLK-LU

③ SET MONUMENT AT FENCE INTER.
38 N. TO 4" HEDGE
155 TO HEDGE POST

⑥ SET MONUMENT - STONE
0.9 SOUTH TO COR POST

⑦ SET MONUMENT - STONE
0.8 SW TO POST
1.1 W. TO POST

② SET MONUMENT 2 1/2 FT NORTH OF
GUARD RAIL -
470 SE. TO POWER POLE
288 NE TO HIGHWAY ROW MARKER
550 SE TO POWER POLE



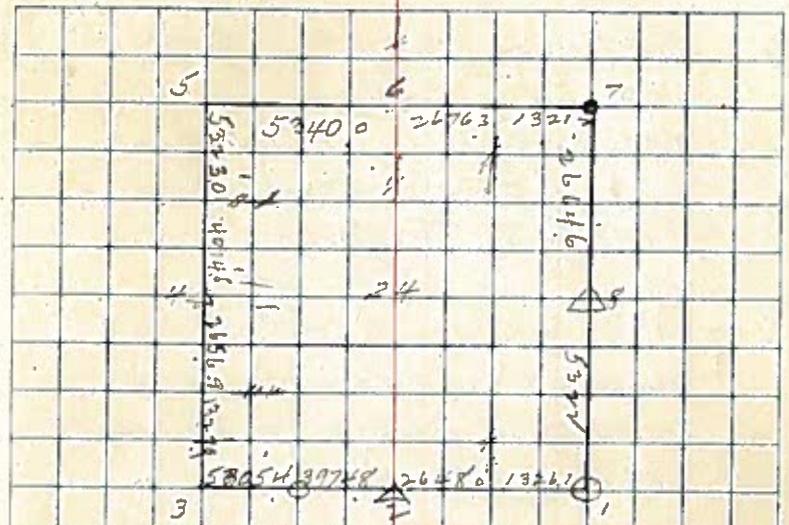
- ⑦ SET MONUMENT IRON PIN
 ✓ 65.4 SW TO WEST TEL POLE
 42.0 NE TO POWER POLE
 ✓ 33.0 EAST TO HEDGE COR POST
 38.6 SE TO POWER POLE

- ① SET MONUMENT IRON PIPE
 25.9 E TO HEDGE POST
 32.4 NW TO TEL POLE
 136.2 SW TO TEL POLE

- 8 SET MONUMENT - STONE
 86.1 SE TO NW COR. SCHOOL HOUSE
 53.1 NE TO TEL POLE
 92.3 NE TO 30° MAPLE Tree
 79.1 NW TO POWER POLE

- CENTER SEC 24-78-1E SET PIN
 39.0 NW TO POWER POLE
 28.8 SW TO ANCHOR TO POWER LINE
 39.3 SOUTH TO TEL POLE

- ④ SET MONUMENT - STONE
 64.0 SW TO 10' CALTAP
 29.6 S TO COR POST
 45.1 NE TO POWER POLE
 54.9 SE TO TEL POLE



- ⑤ SET MONUMENT
 69.0 E TO TEL POLE
 50.8 W TO TEL POLE
 0.5 EAST TO COR POST

- ③ SET MONUMENT - FENCE INTER
 3.8 N TO 4" HEDGE ISLAVED
 1.5 S TO HEDGE POST

- ② SET MONUMENT - STONE
 0.90 TO COR POST

- ⑥ SET MONUMENT
 3.1 NW TO TEL POLE
 131.0 WEST TO " "
 98.0 EAST TO COR POST

(11) SET MONUMENT
 32.3 SW TO TEL POLE
 72.1 SE TO " "
 21.3 E TO COR POST
 176.2 N 57.5 SW COR CHICKEN HOUSE

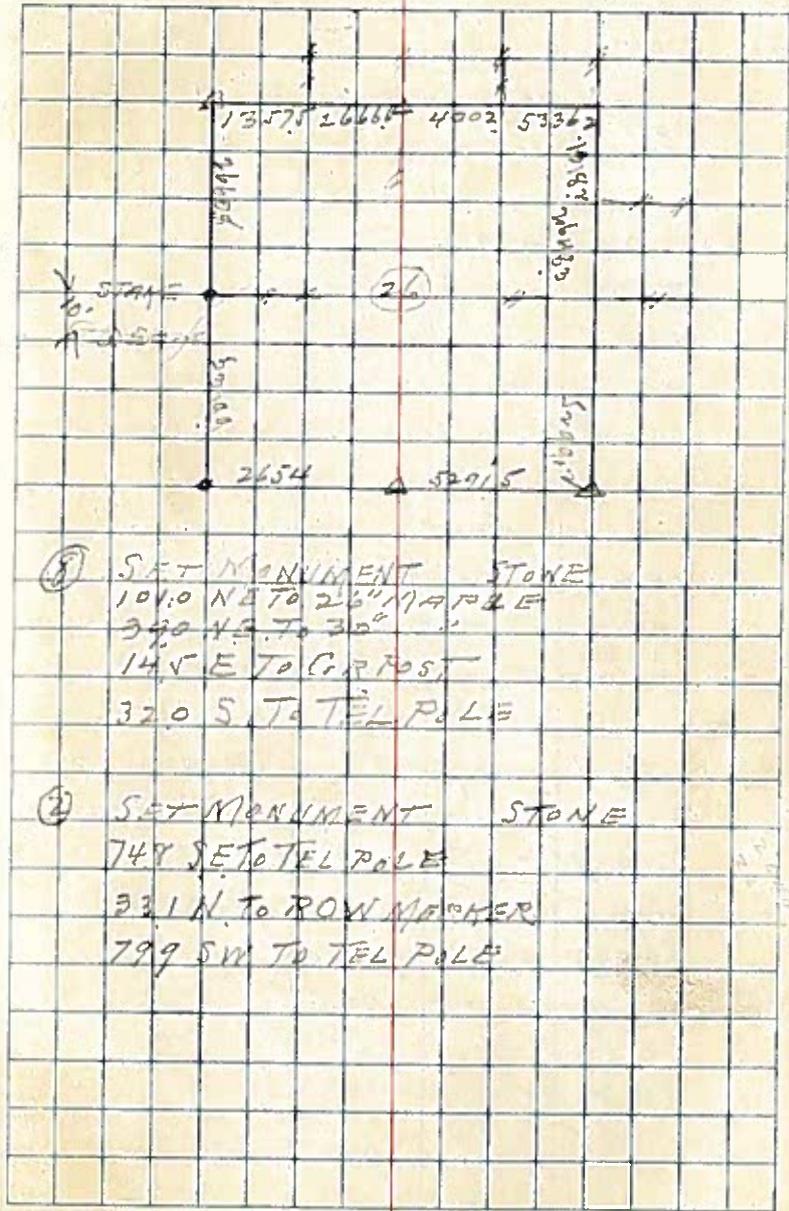
(5) SET MONUMENT
 20.1 W TO COR POST
 21.9 E TO 10" HEDGE POST
 70.3 N 57.5 SW COR R. POLE
 105.5 E TO POWER POLE

(3) SET MONUMENT
 81.0 SE TO TEL POLE
 68.7 SW TO TEL POLE
 35.0 NE TO HIGHWAY MARKER
 72.4 NE TO POWER POLE
 73.0 NW TO TEL POLE

(6) SET MONUMENT - STONE
 SET NW W. SIDE FENCE LINES
 TN SIDE LINE E+W
 NO OTHER TIES

(7) SET MONUMENT AT FENCE INTERP.
 38' N. TO 4" HEDGE BLAZED
 1.5 S. TO HEDGE POST

(1) SET MONUMENT STONE
 50.6 N. TO HIGHWAY CEMENT MARKER
 71.0 SW TO TEL POLE
 38.8 SE TO Highway curve marker
 158.2 NE TO SW. COR SOHAR L HOUSE



(8) SET MONUMENT STONE
 101.0 NE TO 26" MAPLE
 390 NE TO 30" "
 145 E TO COR POST
 32.0 S TO TEL POLE

(2) SET MONUMENT STONE
 747 SE TO TEL POLE
 33.1 N TO ROW MARKER
 799 SW TO TEL POLE

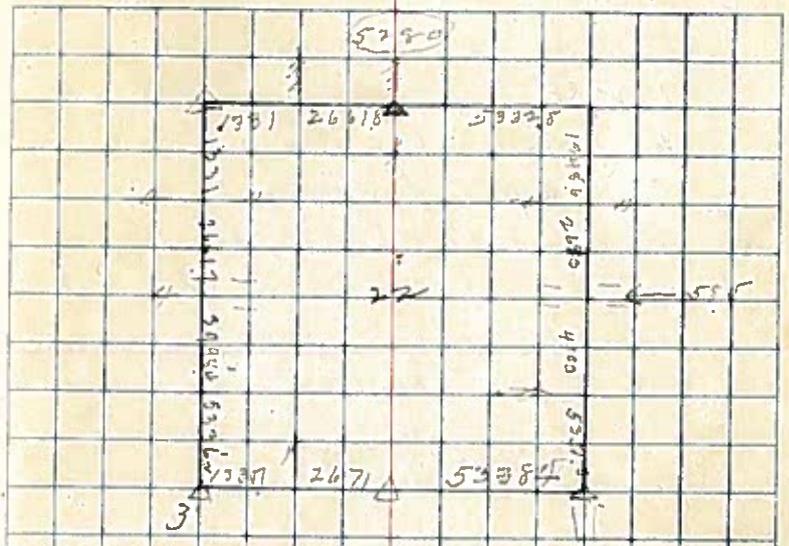
(5) SET MONUMENT SET 308
 665 E TO TEL POLE
 76.5 SW TO POWER POLE
 257 W TO HEDGE COR POST
 52.9 NW TO TEL POLE

(1) STONE SET MONUMENT
 1058.5 S TO POWER POLE
 79.0 NE TO " "
 219 E TO HEDGE COR POST
 281 W TO " " "

(4) SET MONUMENT - IRON PIN
 173.2 SE TO NW COR SCHOOL HOUSE
 43.0 SW TO COR POST
 131.0 SE TO 4 1/2" NUTS
 381 NW TO POWER POLE

(2) STONE: CEN SEC 22 HOLE CUT WITH
 526.0 TO STAKE
 1 TO STAKE 25.0
 S E 280 TO COR POST

(8) SET MONUMENT PIN
 577 SE TO POWER POLE
 338 S N TO COR POST
 300 NE TO POWER POLE
 29.4 N TO COR POST



(2) SET MONUMENT - STONE
 17.2 S TO 12" HEDGE
 27 NW TO HEDGE COR POST
 16.4 W TO 8" HEDGE

6 SET MONUMENT - STONE
 5.2 W TO TEL POLE
 4.5 E TO GATE POST
 16.2 N TO STEEL POST

(7) SET MONUMENT
 194 W TO TEL POLE
 109.3 E TO TEL POLE
 100 S TO COR POST

(3) SET MONUMENT -
 330 W TO COR POST
 70.2 NW TO POWER POLE
 52.8 SE TO TEL POLE
 337 EAST TO COR POST

8 SET MONUMENT
 173.2 SE TO NW COR SCHOOL
 43.0 SW TO COR POST
 38.1 NW TO POWER POLE
 131.0 SE TO 42" MAPLE

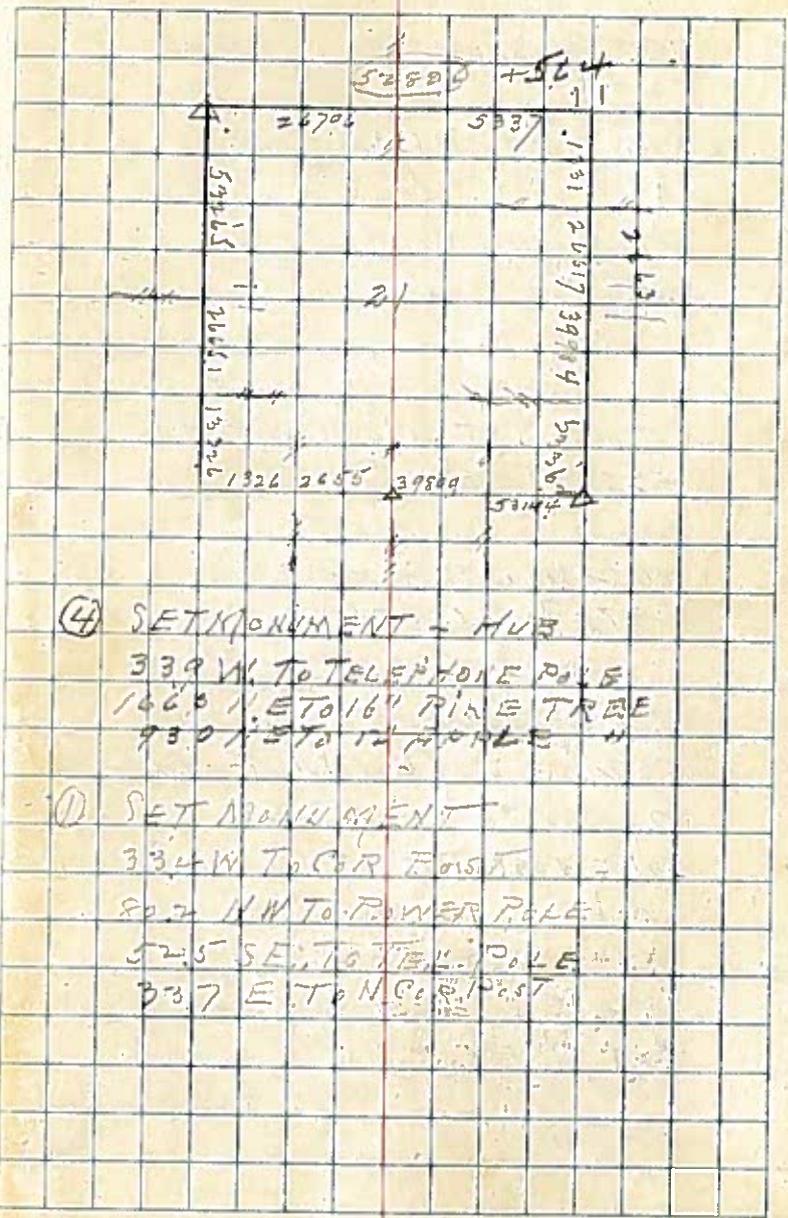
⑦ SET MONUMENT STONE
 61.4 E TO TEL POLE
 58.3 SW TO POWER POLE
 25.2 W TO COR POST
 139.4 NW TO POWER POLE

② SET MONUMENT - STONE
 SET AT FENCE INTERSECTION
 NO OTHER TIES

⑥ SET MONUMENT
 36.8 E TO TEL POLE
 63.2 W TO TEL POLE

③ SET MONUMENT STONE
 52.0 NW TO TEL POLE
 35.6 SW TO 8" BRIDGE COR POST
 37.6 NE TO POWER POLE
 32.9 E TO COR POST

⑤ SET MONUMENT STONE
 40.7 NW TO TEL POLE
 42.3 NE TO POWER POLE
 36.6 E TO TEL POLE



④ SET MONUMENT - HUB
 33.9 W TO TELEPHONE POLE
 166.0 N. E TO 16" PINE TREE
 98.0 N. E TO 12" MAPLE

① SET MONUMENT
 33.4 W TO COR POST
 80.2 NW TO POWER POLE
 52.5 SE TO TEL POLE
 33.7 E TO N COR POST

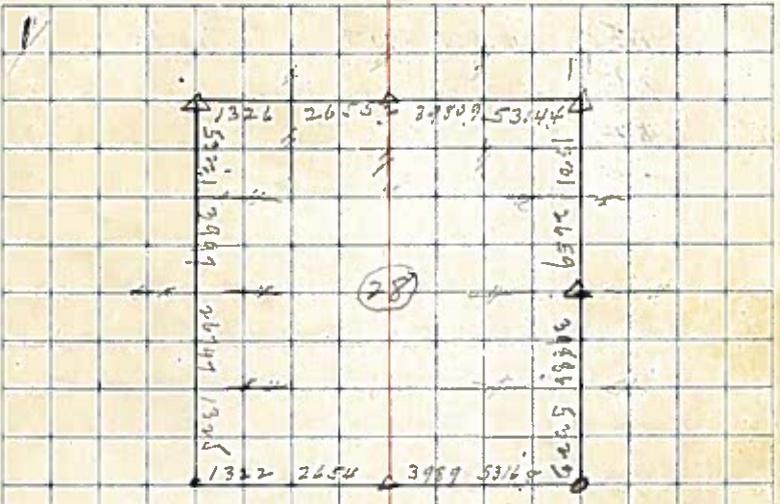
⑤ SET MONUMENT STONE
 520 NW TO TEL POLE
 528 SW TO COR POST
 376 NE TO POWER POLE
 329 E TO COR POST

⑥ SET MONUMENT - STONE
 SET AT FENCE INTERSECTION
 NO OTHER TIES

⑦ (STONE) SET MONUMENT
 52 SE TO TEL POLE
 334 W. TO COR POST
 80 2' VVW TO POWER POLE
 337 E TO N. COR POST

⑧ STONE SET MONUMENT
 332 W. TO COR POST
 532 NE TO WALNUT TREE
 620 SW TO POWER POLE
 331 E TO COR POST

③ SET MONUMENT
 439 NE TO IRON ROW MARKER
 664 NW TO TEL POLE
 354 S. E. TO CONCRETE Highway Marker
 327 SW TO " " "



④ SET MONUMENT PIN
 393 SW TO 6" HEDGE
 370 E TO COR POST
 110.9 S E TO POWER POLE

① SET MONUMENT - PIN
 36.0 SE TO CONCRETE MARKER
 446 NW TO COR POST
 732 NE TO TEL POLE
 721 S. TO CAN. PAT. ROCK

② SET MONUMENT STONE
 341 N TO ROW MARKER
 75.9 S. TO POWER POLE
 170.2 SW TO " "
 32.2' S. TO IRON ROW MARKER
 33.8' S. W. TO MON. #70-619

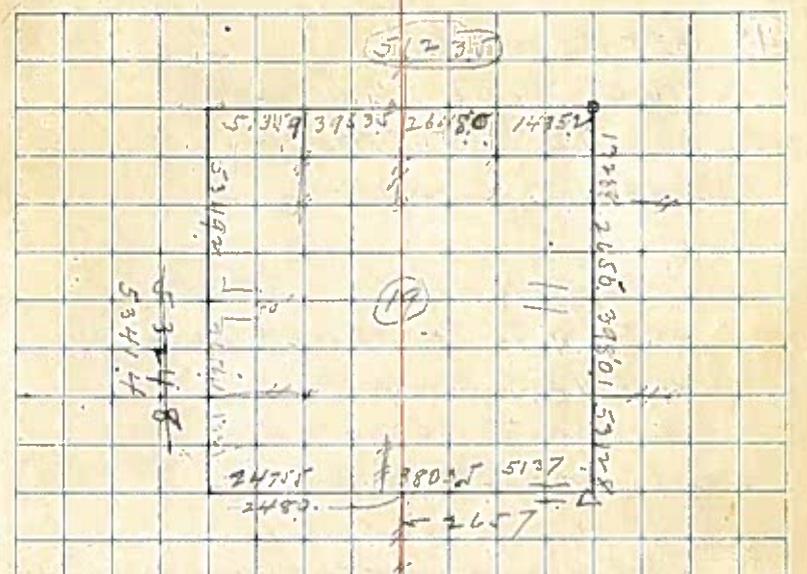
⑤ SET MONUMENT STONE
 50 6 SW TO TEL POLE
 64.4 SE TO POWER POLE
 35.8 EAST TO TEL POLE

⑦ SET MONUMENT - IRON PIN
 89.2 NE TO SW COR P. ENDORCE
 54.4 NW TO TEL POLE
 54.4 W TO CABLE POLE

① SET MONUMENT STONE
 33.9 NW TO POWER AND/OR POLE
 42.6 NE TO POWER POLE
 45.15 SW TO 20" MAPLE

⑧ SET MONUMENT
 76.0 SW TO 24" MAPLE
 39.6 NW TO TEL POLE
 49 EAST TO GUARD RAIL

⑥ SET MONUMENT STONE
 AT FENCE INT. SECTION
 7.2 SE TO TEL POLE
 6.8 W. TO CUR POST



② SET MONUMENT
 29.15 SE TO 18" CATALPA
 26.25 SW TO 4" BLAZED HEDGE
 18.90 NW TO BLAZED 4" HEDGE

③ SET MONUMENT
 17.5 SW TO NE COR PORCH
 55.7 SW TO TEL POLE
 37.3 NE TO CAR POST
 43.0 NW TO CAR POST

④ SET MONUMENT
 35.5 SE TO POWER POLE
 36.2 SW TO TEL POLE
 105.0 SW TO CAR POST FENCE GOING W.

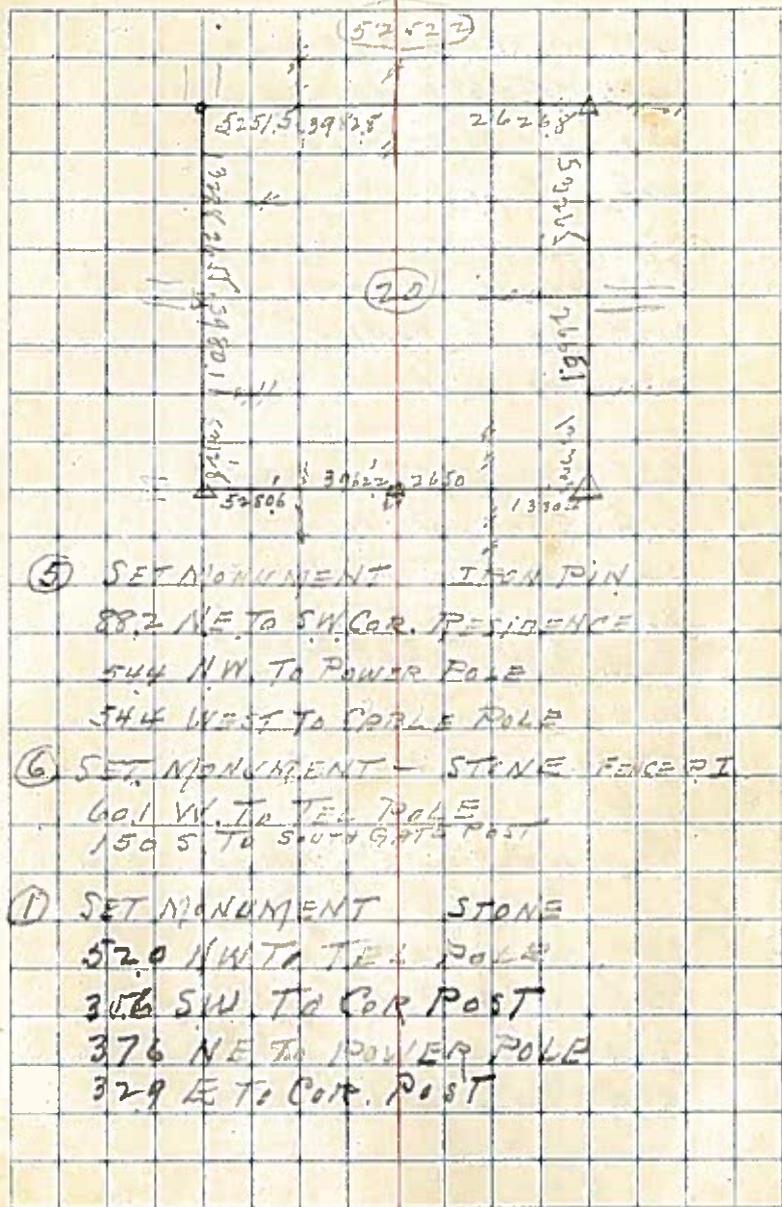
- (4) SET MONUMENT
 76.0 SW. TO 24" MAPLE
 ✓ 39.6 NW. TO TEL. POLE
 4.9 E. TO GUARD RAIL

- (3) SET MONUMENT STONE
 33.9 NW TO POWER POLE ANCHOR
 42.5 NE TO POWER POLE
 48.15 SW TO 20" MAPLE

- (8) SET MONUMENT - HUR
 ✓ 33.9 W TO TEL. POLE
 ✓ 166.3 NE TO 16" PINE TREE
 ✓ 93.0 NE TO 12" APPLE TREE

- (7) SET MONUMENT - STONE
 36.6 EAST TO TEL. POLE
 42.3 NE TO POWER POLE
 40.7 NW TO TEL. POLE

- (2) SET MONUMENT STONE
 49.0 N TO 6" BLAZED WALNUT
 28.9 N. TO POWER POLE
 32.5 W TO COR. POST
 31.5 SW TO TEL. POLE



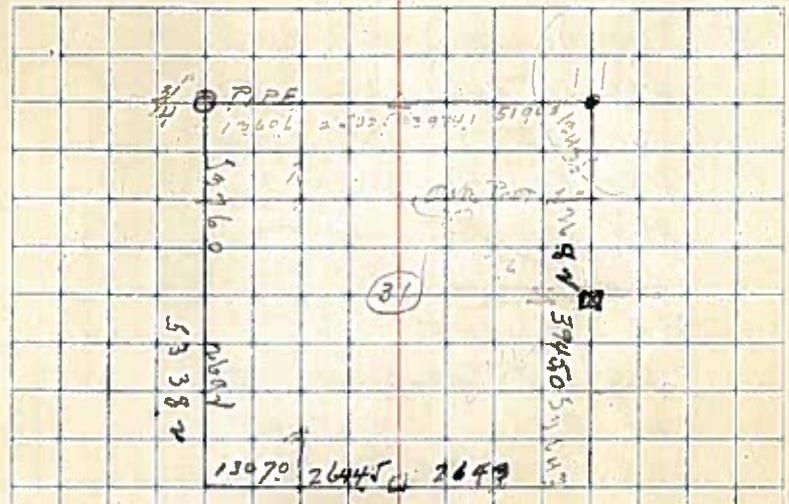
- ⑤ SET MONUMENT
66.8 SW TO NE COR MACHINE SHED
19.8 W. TO POWER POLE
38.8 NW TO NE COR CORN CRIB
71.9 NE TO POWER POLE

- ⑦ SET MONUMENT - IRON PIN
27.9 W TO 40' ELM
22.1 E TO 18' "
65.0 SW TO POWER POLE
29.5 NE TO " "

- ⑥ SET MONUMENT: STONE S. LINE TRV.
169.7 NW TO TEL POLE
56.3 NE TO " "
0.6 SW TO COR POST

- ⑧ SET MONUMENT
151.4 NW TO 6" HEDGE BLAZED
131.7 SE TO COR POST
20.5 EAST TO EAST ROAD FENCE

- ④ SET MONUMENT STAKE
62.9 SE TO 36" BLAZED MAPLE
57.5 SE TO 26' " "
68.4 NE TO POWER POLE



- ③ SET MONUMENT
70.0 SW TO POWER POLE
101.7 NW TO TEL POLE

- ① SET MONUMENT
79.6 SW TO NE COR HOUSE
25.9 W TO COR POST
30.5 SE TO COR POST
31.7 NE TO COR POST

- ② SET MONUMENT
69.3 SE TO 10" WILLOW
59.5 W TO 8" WILLOW
12.9 N TO COR POST

⑤ SET MONUMENT IRON PIN

27.9 NW TO 4" BLAZED ELM

22.1 E T 18" " ELM

65.0 SW TO POWER POLE

79.6 NE TO " "

⑥ SET MONUMENT

37.5 W. TO CAR BUILDING

72.0 N. TO NW COR STAIRS

87.9 NW TO SE COR. BANK BLDG.

⑦ SET MONUMENT - IRON-PIN.

43.9 NE TO IRON ROW MARKER

66.4 NW TO TEL POL

35.4 SE TO CONCRETE HIGHWAY MARKER

32.7 SW TO " " "

④ SET MONUMENT

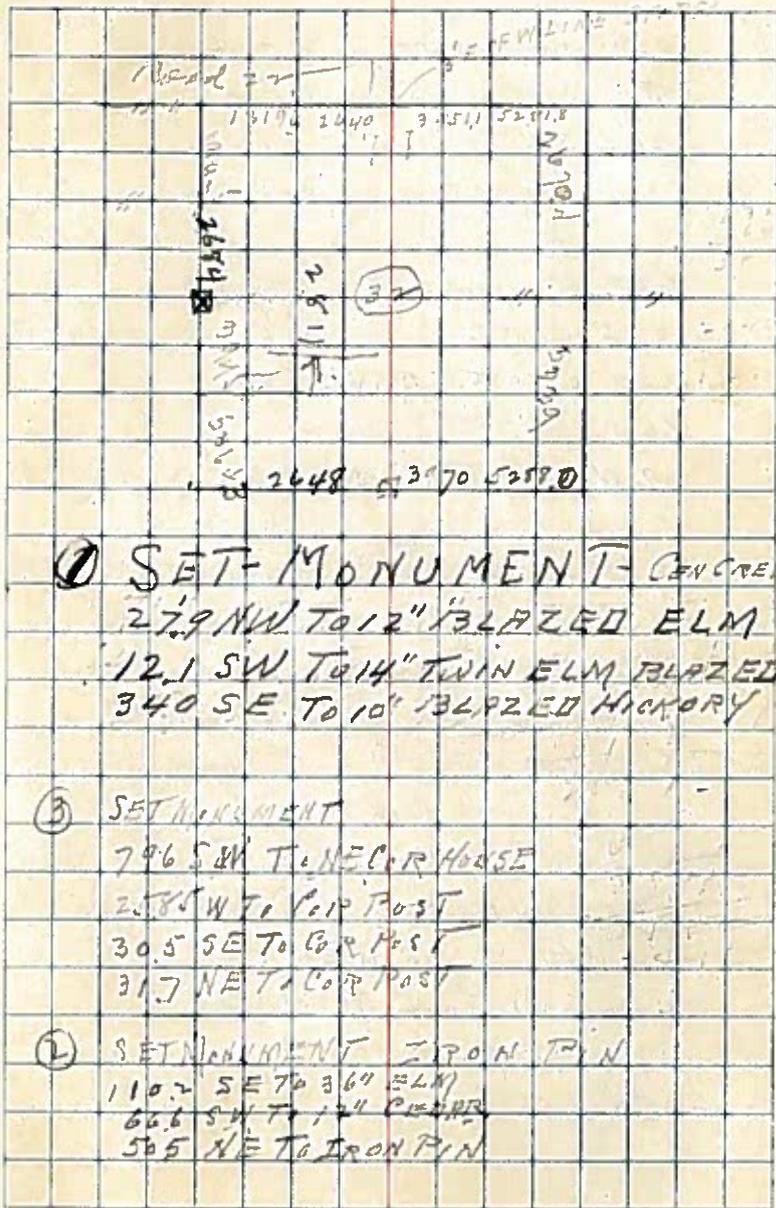
151.4 NW TO BLAZED 6" HELDER

131.7 SE TO COR POST FENCE POST

20.5 E TO EAST ROAD FENCE

⑧ SET MONUMENT - STONE

0.7 SOUTH TO COR POST



① SET-MONUMENT - CEN CREEK

27.9 NW TO 12" BLAZED ELM

12.1 SW TO 14" TWIN ELM BLAZED

34.0 SE TO 10" BLAZED HICKORY

③ SET MONUMENT

79.6 SW TO NE COR HOUSE

25.8 SW TO COR POST

30.5 SE TO COR POST

31.7 NE TO COR POST

② SET MONUMENT IRON PIN

110.2 SE TO 36" ELM

66.6 SW TO 12" COR POST

56.5 NE TO IRON PIN

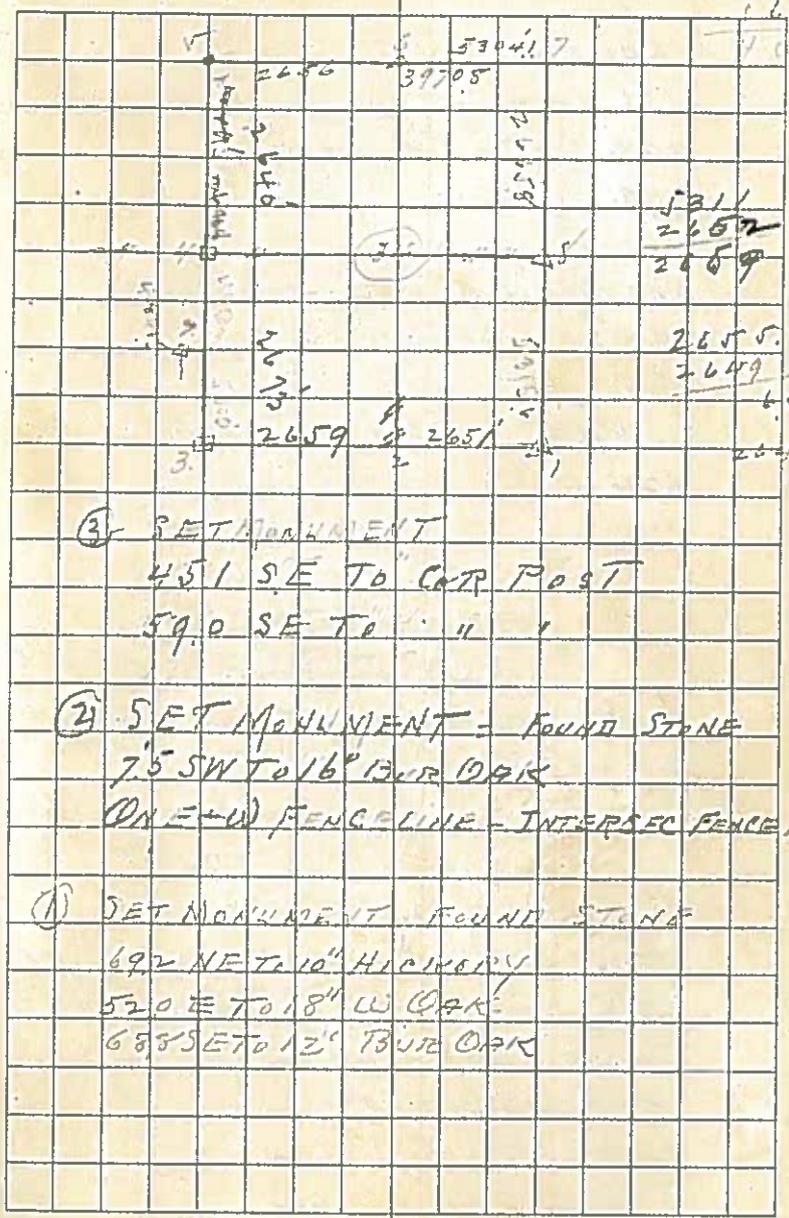
⑥ SET MONUMENT STONE
 79.9 SE TO POWER POLE
 76.5 SW TO TEL POLE
 29.4 NORTH TO COR POST
 33.1 S. TO POW. IRON

⑤ SET MONUMENT PIN
 ✓ 44.6 NW TO COR POST
 ✓ 36.0 SE TO " CONCRETE MARKER
 ✓ 73.2 NE TO TEL POLE
 ✓ 72.1 S TO CEN. OF CTR TRACK

⑦ SET MONUMENT IRON-PIN
 81.0 SE TO TEL POLE
 68.7 SW TO TEL POLE
 62.4 NE TO POWER POLE
 73.0 NW TO TEL POLE
 38.0 NE TO HIGHWAY MARKER

⑧ SET MONUMENT - STONE
 1.0 WEST TO COR POST
 103.0 SW TO 12" BLUE OAK
 103.4 SOUTH TO 30" BLUE OAK

④ SET MONUMENT SET ON LINE ERMV
 FENCE LINE + E SIDE OF ROAD
 34.3 W. TO 14" HEDGE ← 9' woodcut
 (RETIRED IN BOOK #3)



③ SET MONUMENT
 45.1 SE TO COR POST
 59.0 SE TO " "

② SET MONUMENT - FOUND STONE
 7.5 SW TO 16" BLUE OAK
 (N-E-W) FENCE LINE - INTERSEC FENCE NORTH

① SET MONUMENT - FOUND STONE
 69.2 NE TO 10" HICKORY
 52.0 E TO 18" W OAK
 68.8 SE TO 12" BLUE OAK

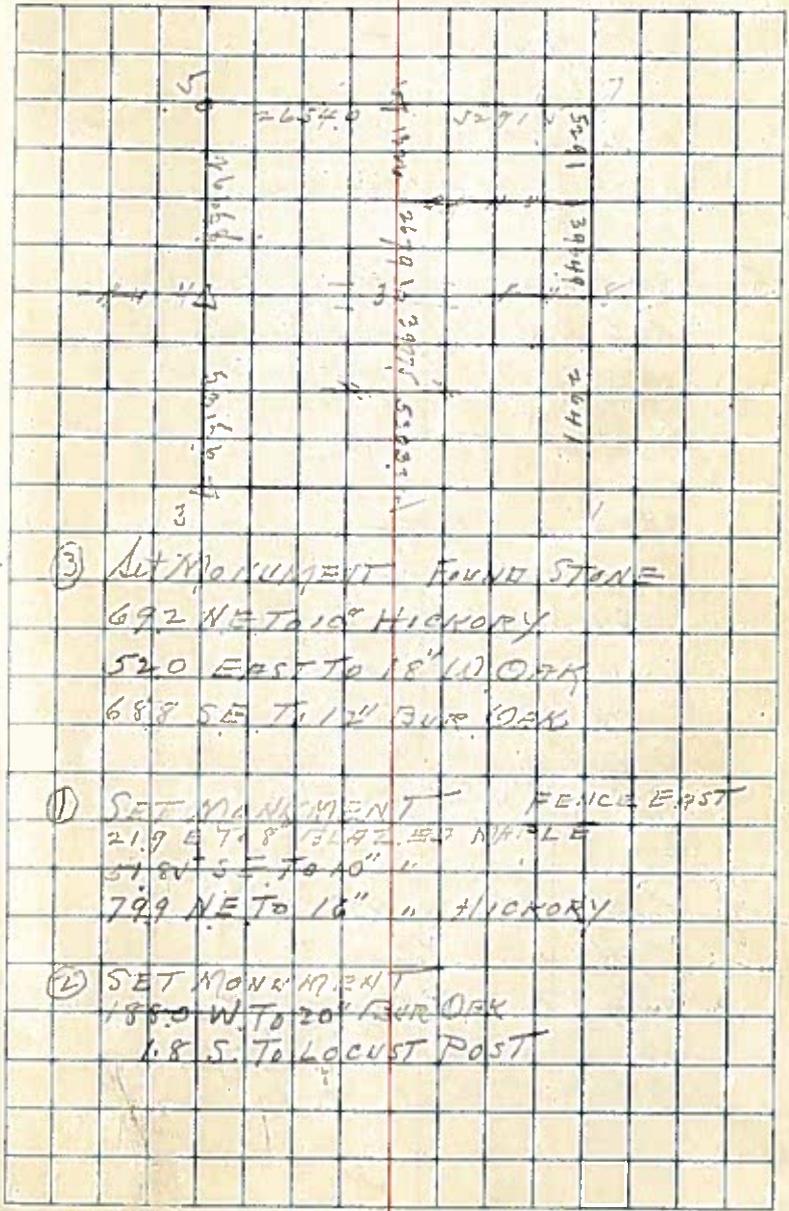
(6) SET MONUMENT STONE
 33.1 NORTH TO ROW PAUL MARKER
 74.8 SE TO TEL POLE
 79.9 SW TO " "

(5) SET MONUMENT - IRON PIN
 41.0 SE TO TEL POLE
 18.7 SW TO " "
 37.0 NE TO IRON ROW
 62.4 NE TO POWER POLE
 73.0 NW TO TEL POLE

(7) SET MONUMENT - STAKE
 50.6 NW TO HIGHWAY CEMENT MARKER
 71.0 SW TO TEL POLE
 38.8 SE TO HIGHWAY CEMENT MARKER
 158.2 NE TO SLO CO R SCHOOL HOUSE

(4) SET MONUMENT STONE
 1.0 WEST COR POST
 103.0 S.W. TO 14" BLAZED ELM
 103.4 SOUTH TO 30" W. OAK BLAZED

X SET MONUMENT
 63.9 SE TO 12" WILLOW
 59.4 W TO 8" WILLOW



(3) SET MONUMENT FOUND STONE

69.2 NE TO 10" HICKORY
 52.0 EAST TO 18" W. OAK
 68.8 SE TO 12" BUR OAK

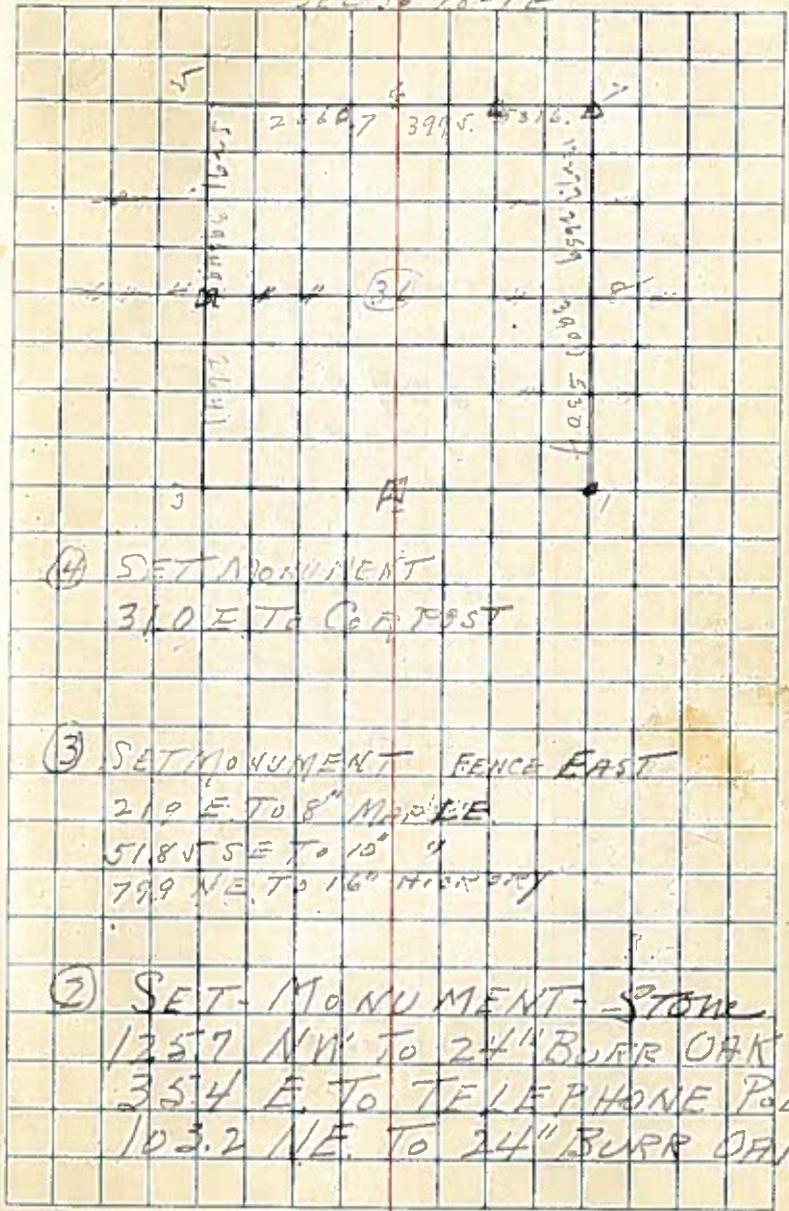
(1) SET MONUMENT FENCE EAST

21.9 E 7.8" BLAZED MAPLE
 51.8 W SE TO 10" "
 79.9 NE TO 16" " HICKORY

(2) SET MONUMENT

185.0 W TO 20" BUR OAK
 1.8 S. TO LOCUST POST

SEC 36-78-1E



④ SET MONUMENT
 52.1 SW TO TEL POLE
 104.4 SE TO " "
 33.2 TO RTO WAY IRON RAIL

⑤ SET MONUMENT STONE
 50.6 NW TO HIGHWAY CEMENT MARKER
 38.8 SE TO HIGHWAY " "
 71.0 SW TO TEL POLE
 158.2 NE TO SWCOR SCHOOL HOUSE

⑥ SET MONUMENT - 2 1/2' x 4.0' = IRON RAIL
 47.0 SE TO POWER POLE
 24.8 N.E. TO R.O.W. RR IRON
 55.0 SE TO POWER POLE

⑦ SET MONUMENT LARGE STAKE
 0.8 SW TO COR POST fence intersection
 1.1 W. TO POST

⑧ SET MONUMENT IRON PIN
 79.8 SW TO POWER POLE
 95.8 S.E. TO " "
 2.90 SOUTH TO COR POST
 33.4 NORTH TO " "

④ SET MONUMENT
 31.0 E TO COR POST

③ SET MONUMENT FENCE EAST
 21.0 E TO 8" MARKER
 51.8 N SE TO 10" "
 79.9 NE TO 16" HIGHWAY

② SET MONUMENT - STONE
 125.7 NW TO 24" BURR OAK
 35.4 E TO TELEPHONE POLE
 103.2 NE TO 24" BURR OAK.

- 1 Down
- 2 Chisemen
- 2 Diggers
- 2 setting monuments
- ✓ Office
- 3 setting monuments

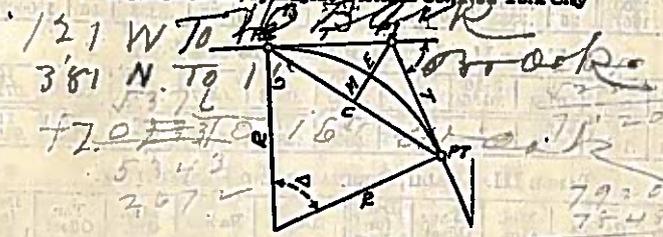
77 416
 46 66 4
 4 6 6
 513 2.6 4

175 / 120 = 1.458

1.75
 12.5
 7.113
 49

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)
- External= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos \frac{\Delta}{4} - R$ (8) $= R \text{exsec} \frac{\Delta}{4}$ (9)
- Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta = \text{Central Angle}$

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 32^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $+8\frac{1}{4} = 414.49$ ft. From Table V correction = .86 or $T = 414.85$ ft. P. C.—Sta. P. I.— $T = 167 + 45.50$. Also from (4) $L = 746.00$ and P. T.—Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.—7.27 ft. Distance = 158—Sta. P. C. = 54.50, hence offset = $7.27 (54.50 + 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle = $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft.—(in minutes) $.3 \times C \times D^2$ or = defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve = $.3 \times 54.5 \times 8\frac{1}{4} = 136.2'$ or $2^\circ 16.2'$, or = $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle = $2^\circ 16.2' + 8^\circ 20' + 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 + 8\frac{1}{4} = 91.27$ and from Table V correction = .10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $+42 = 5.5$ or $D = 5^\circ 30'$.