6

d Tie Points

ANSIT

398

T.P. 6

TRAVERSE TABLE FOR TRANSIT BOOK.

From 1° to 90° for a distance of 100.

Degrees.	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees.
	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
0			100.00	0.44	100.00	0.87	99.99	1.31	89
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	81
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
45	70.71	70.71							
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
	DEGREES		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

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Crocker Quality

TRANSIT BOOK

COMMUNI CONSENSU TRADE MARK PRIMO

No._____

MANUFACTURED BY

H. S. CROCKER CO.

SAN FRANCISCO AND SACRAMENTO
CALIFORNIA

FROM
LORING'S BOOK STORE
SAN DIEGO, CAL.

511.26'
74.88'
642.13
68.37' 12.3 to prop cor.
550.60'
(19.75)
73.57'

68.89 to end curve
69.08 West side
74.88' 325.5' — to Hendricks
632.08'
69.09'
500.90'

294.73
68.63
363.36

294.73) 73000 (25
58946 77
140540 42
14736
71.06 mail

Vermont.
84.11
69.08'
334.17
69.12'
6280
14
76.80
68.63
25
34315
13726
21.98 75.75
69.08 47
338.41'
57.47 bet tusho.
613.4
361.06'
6232

Richmond
294.11 273.60'

534.57
66.0
461.08'
29.53'
68.63'
294.73'
298.20'
80.00
145.40'
62.92
14
76.92
46145
20815
392.31'
81.0
146.65'+4
471.08
471.08) 290000 (.615
282648
73520
47108
26412 0
62
13
80
29.53
.615
14765
2953
17718
.1816095

24.01
564.00
360.50
562.17
730.70
379.66 (16.42) 0°48'
390.41 Vermont

Hendricks
34.00 W. on Lincoln
37.91 E " "
582.85
6.95
589.80
34.00
555.80
404.69

27.19
635.62
22.95
616.70
9.42
708.12
27.19
680.93
27.91.02
3.43

2062
18.92
1.70
6.95
616.70

9599311
.0122173
.9721484
324.6
583 28904
3885 9336
1944 2968
291 64452
315.5593 7064

Moline Porco
do " " 27'

So. line Hendricks 32.56
No. line Cleveland 32.56
No. line Univ. 32.56

129.5

157.12
2
314.24 + alley + street.

83.74

X = 80 sec
sin 72°49'

X = 20
sin 72°49'

20.93
83.74
314.24
418.91

1.327
83.74
5308
9289
3981
1061 6
1.1112298

1.903090
9.980169
~~1.883259~~
1.922921
1.301030
9.980169
~~1.281199~~
1.320861

32.56
27
418.91 / 5.5600 (1.327
418.91
137090
125673
114170
83782
3038.80

32.56
1.11
31.45

180
107 11
72°49'

Tie point Book #6

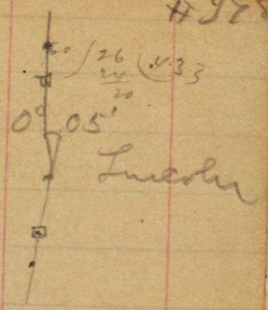
Street	Page
Cleveland + Campus	~~2-4~~ 1-10
Madison	10-12
Maryland	12-14
Park Blvd	77
Richmond	79

2 20 51
4 41 42
7° 02' 33
9 23' 24
11° 44' 15"
14° 05' 06

10349

324.12
.0349
291708
129648
97236
11.311788
16.433
33935364
33935364
45247152
67870728
72.768732204
11311788
185.88661

#988



16° 26'
60
960
26
986

185.89) 986.00 (5.304
92945
56550
55767
78300

18.340

8° 3' 31"
2° 26 44"
5° 30' 15"
2 26 44
7° 56' 59"
2 26 44
10° 23' 43"
1 30 10
11° 53' 53"
23 27
17.5

2° 21'
4) 141
35.25
9.4
105.6
1° 46'

5.304
34.6
81824
21216
15912
183.5184
31040

5.304
17
37128
5304
90.168
1° 36' 10'

5' 18" 2

3) 83 (27.666
6
23
21
5.304
1106.64
8.2998
138.330
146.740464
20
44427.6
2° 26' 44"

from end of line (4° 14' 139.87)

11° 07'
60
667
358.30) 66700 (1.86
35830
308700
286640
220600
80

1.86
67
1302
1116
124.62

2° 4' 37"
62
60
372
240
62

1.86
30.5
930
558
56.730
60
56' 4380

56' 44"

3) 91.5
30.5

6°21'
209.87) 38100 (1.81
20987
171130
167896
3234

1.81
6
10.86
60
5160

1.81
30.5
905
543
55.205
60
12300

10' 52"
6° 21'
× 6° 31' 52"
55 12
× 5° 36' 40"
55 12
× 4° 41' 26"
55 12

11 07
2 4 37
× 9° 2' 23"
56' 44
× 8° 5' 39"
56 44
× 7° 8' 55"
56' 44
× 6° 12' 11"
56 44
5° 15' 27"

3° 46' 14" ×

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Table showing the difference of latitude and departure in running 80 chains at any course from 1 to 60 minutes.

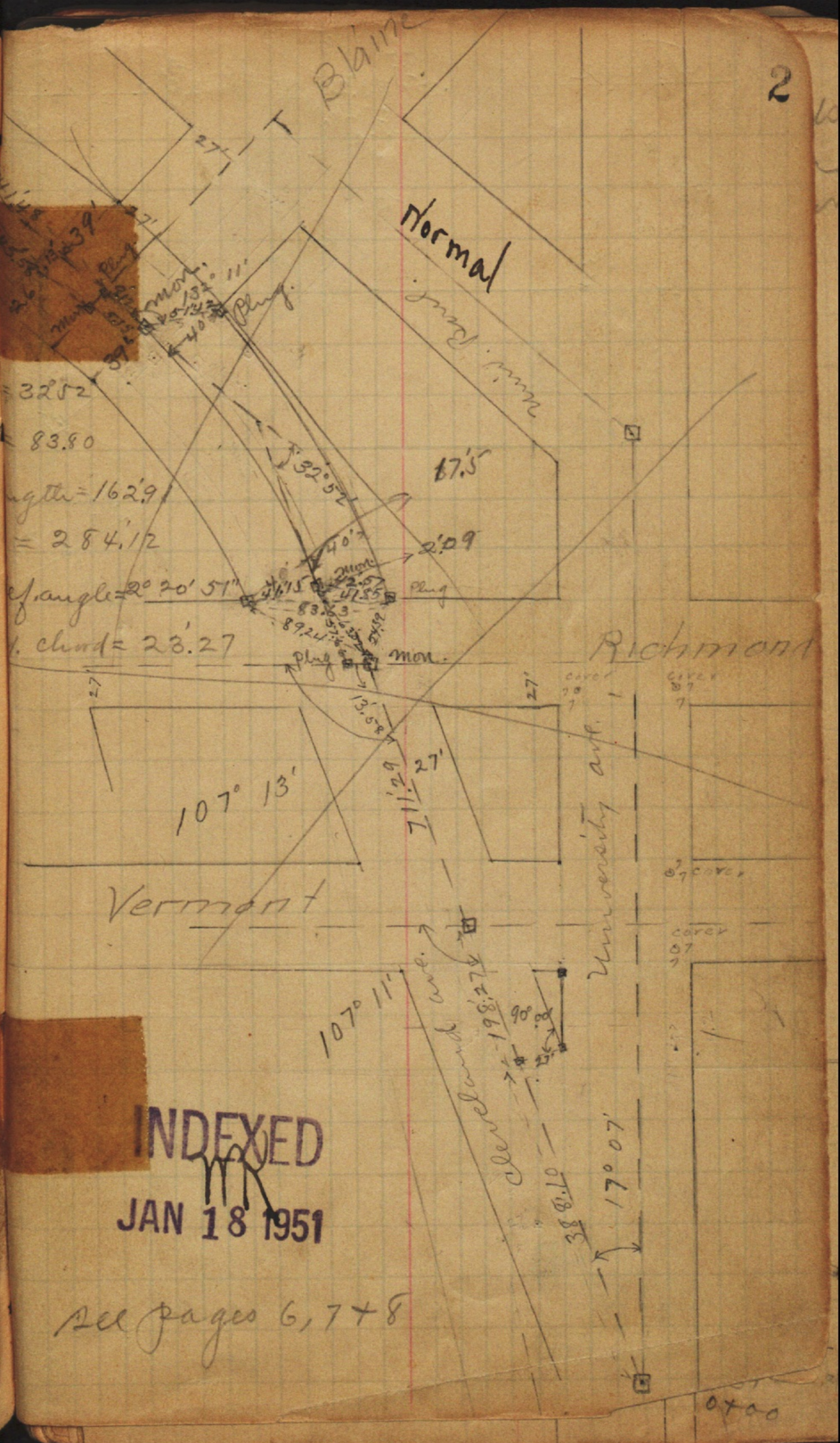
MINUTES.	LKS.	MINUTES.	LKS.	MINUTES.	LKS.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	32⅔	34	79⅓	54	126
15	35	35	81⅔	55	128⅓
16	37⅓	36	84	56	130⅓
17	39⅔	37	86⅓	57	133
18	42	38	88⅔	58	135⅓
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

TABLE FOR RUNNING ON SLOPES.

In the following table the first column shows the angle, the second the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS	ANGLE	COR. IN LINKS
°		°		°		°	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

23303
114
48.47
344.11
739.61



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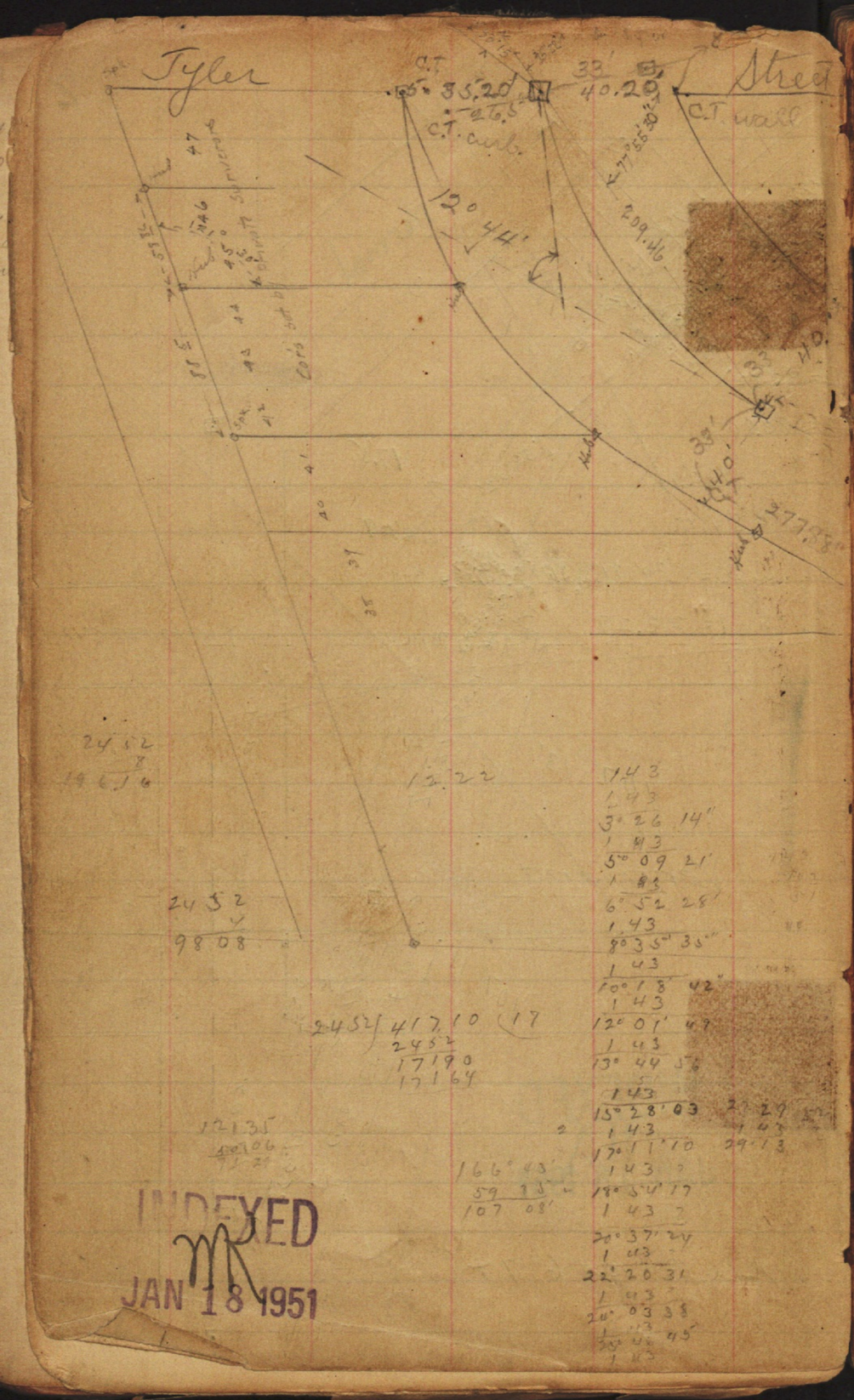
See pages 6, 7 + 8



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JAN 18 1951

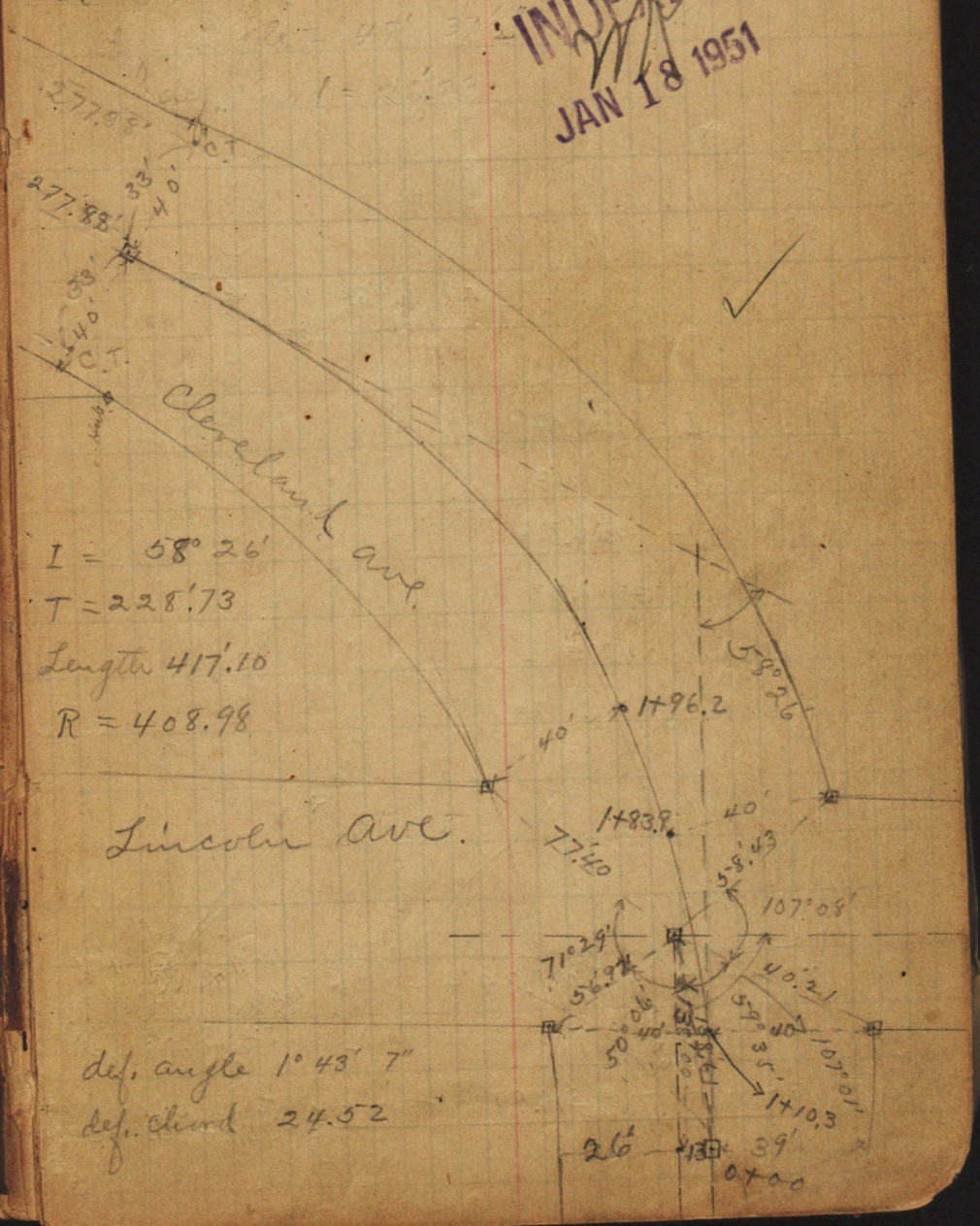
Tie points on Cleveland

Childs
Barber
Taylor

3

I = 12° 44'
T = 105.40'
Length = 209.93
R = 944.62

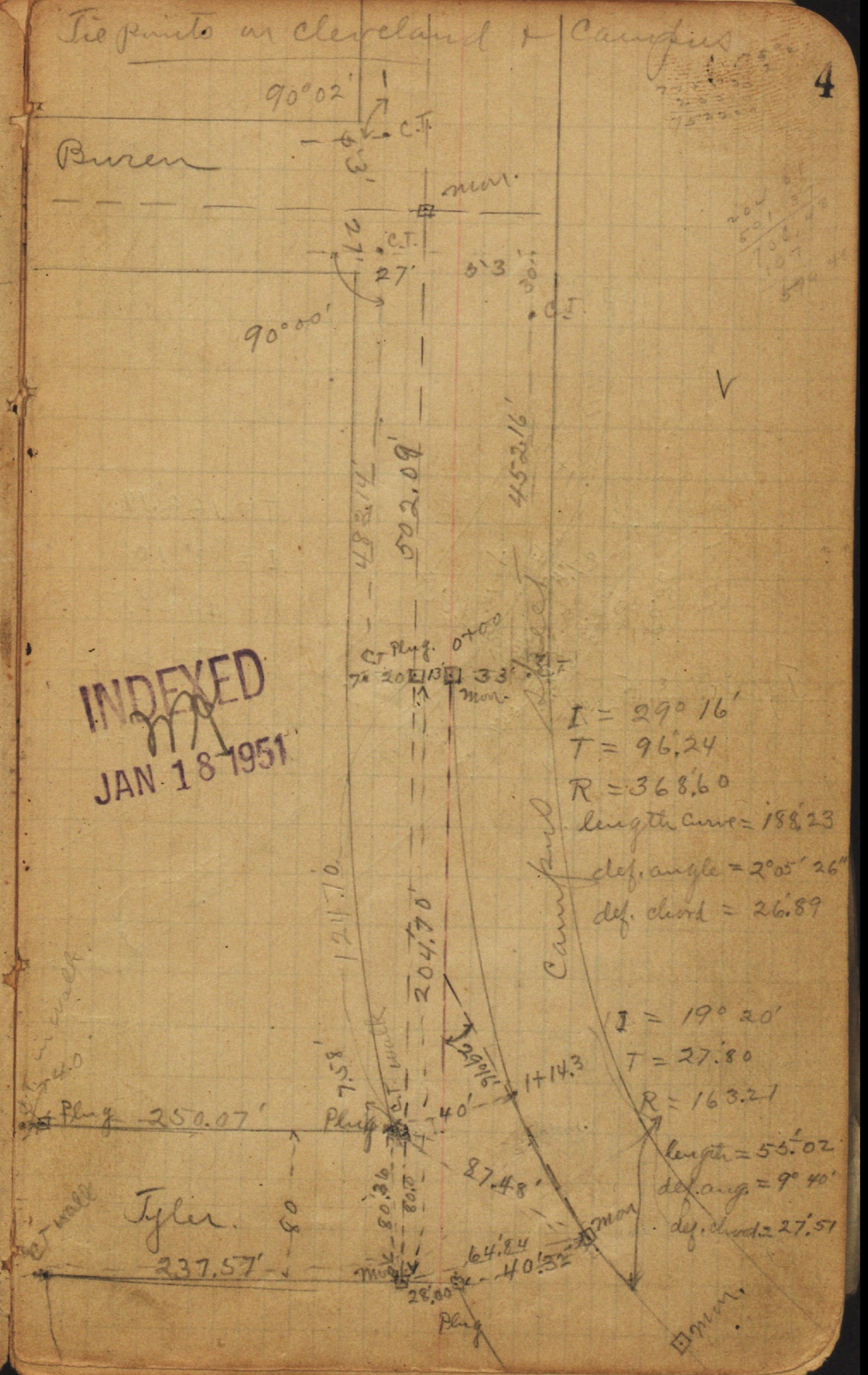
INDEXED
JAN 18 1951



I = 58° 26'
T = 228.73
Length 417.10
R = 408.98

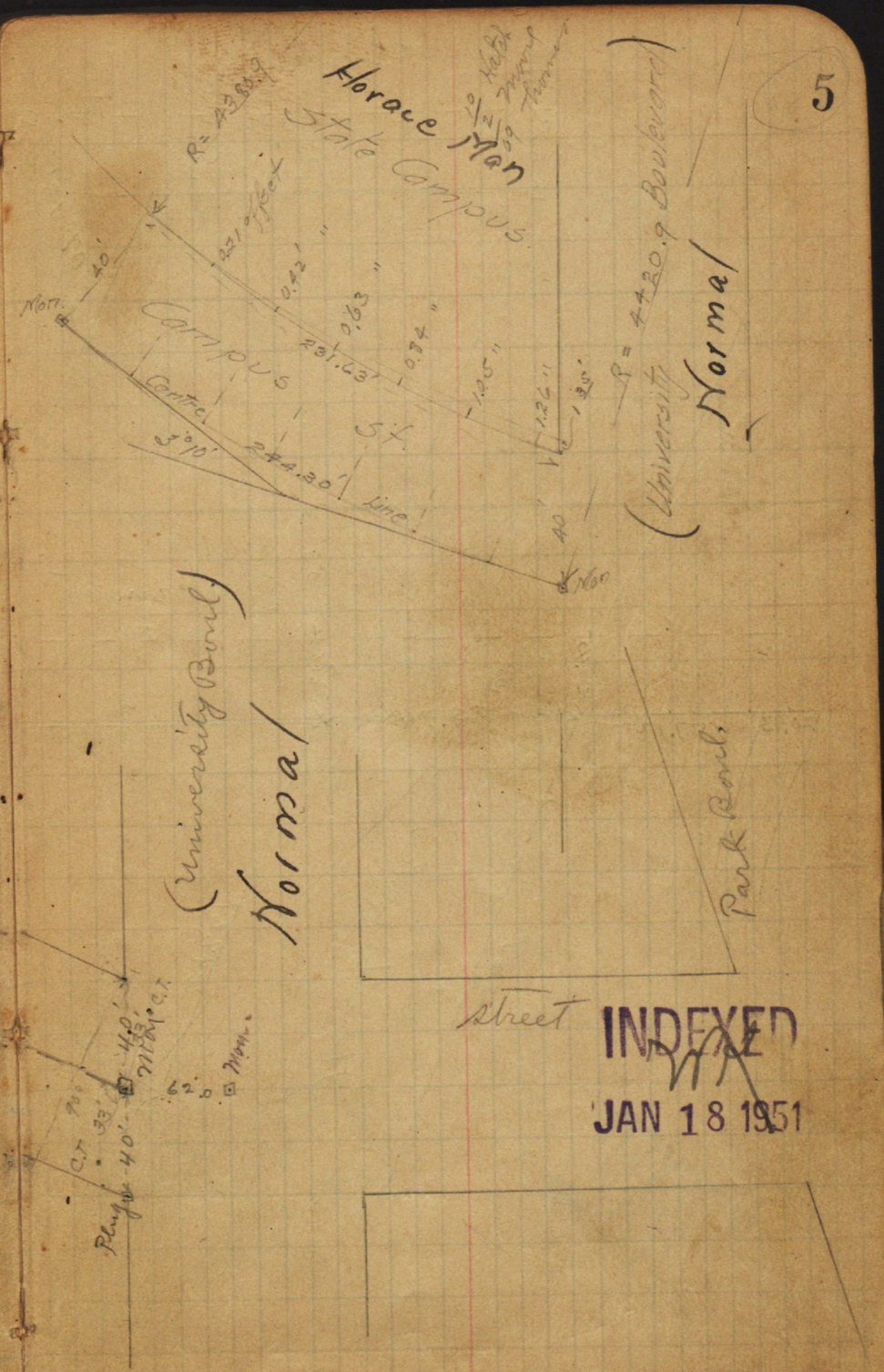
def. angle 1° 43' 7"
def. chord 24.52

Van
Buren
Cleveland Ave
Mon. N.L. Tyler
Mon. S.L. Tyler
I = 22° 12'
T = 181.43'
R = 924.76
length = 358.31
INDEXED
JAN 18 1951
Plug
305.39'
319.59'
Mon.


Tie points on Cleveland & Campfield
Buren
Tyler
Campfield
INDEXED
JAN 18 1951
I = 29° 16'
T = 96.24
R = 368.60
length curve = 188.23
def. angle = 2° 05' 26"
def. chord = 26.89
I = 19° 20'
T = 27.80
R = 163.21
length = 55.02
def. ang. = 9° 40'
def. chord = 27.51
250.07'
237.57'
Plug
Mon.

Fie points on Campus

T = 122.19
I = 3° 10'
R = 4420.90
length = 244.30
def. angle = 10' 33"
def. chord = 27.144



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JAN 18 1951

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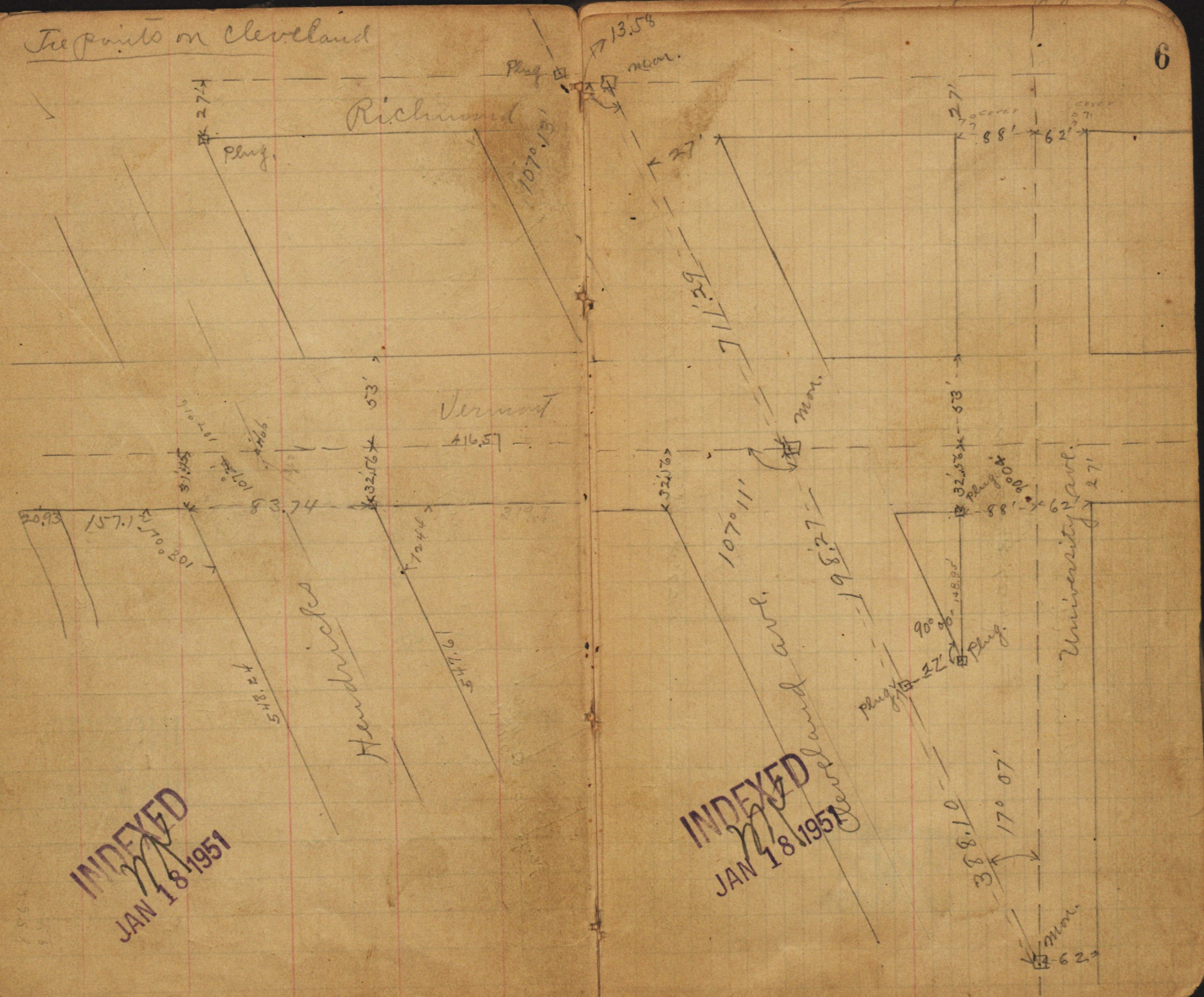
JAN 18 1951

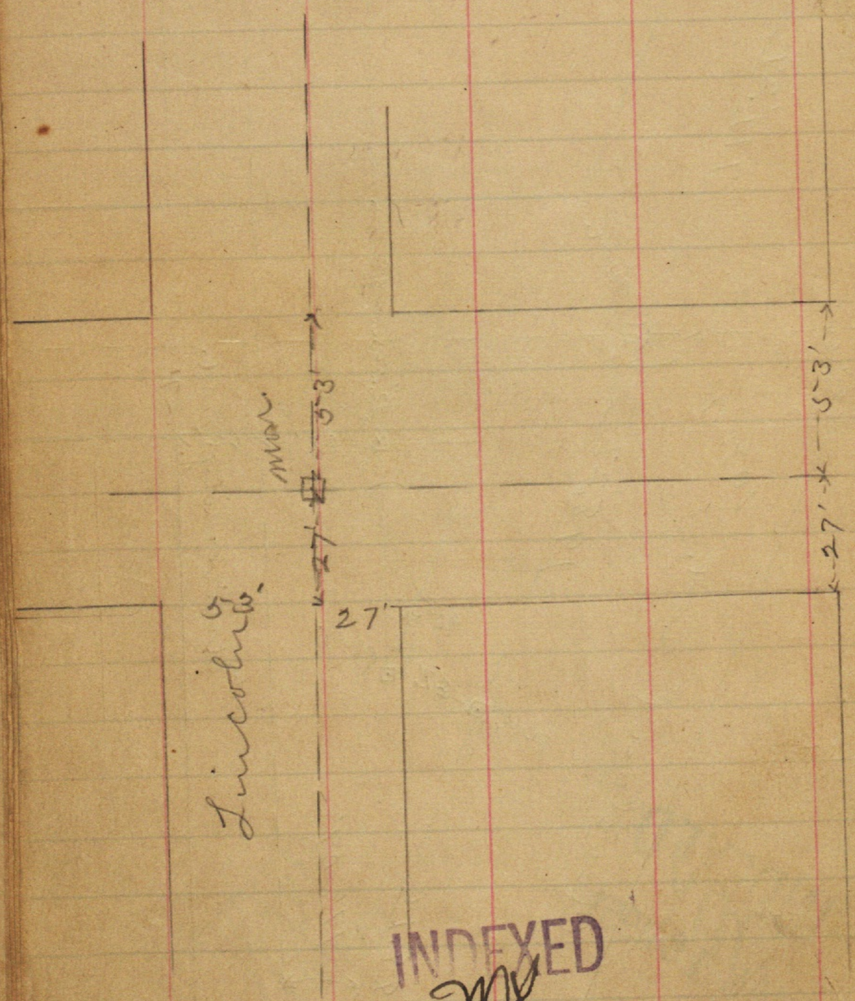
The points on Cleveland

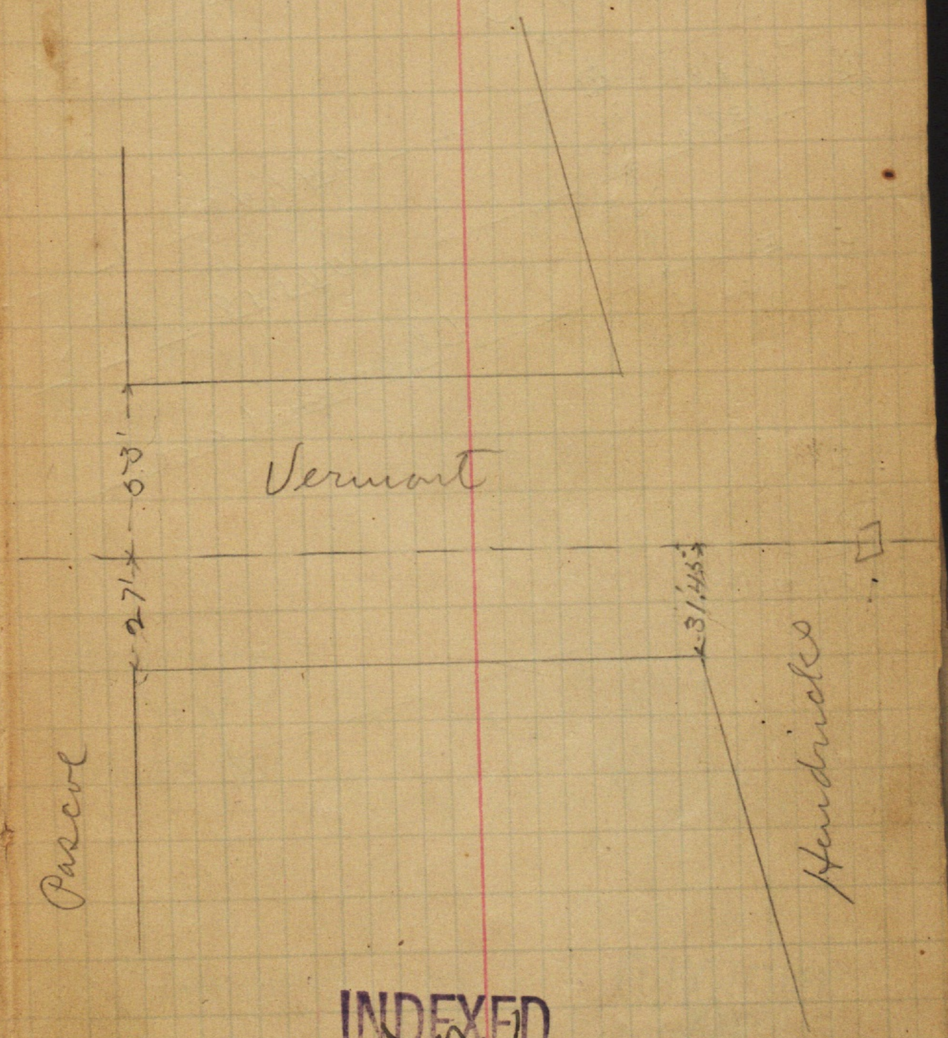


Tie points. at Lincoln & Vermont.

Sept. 14/09

Helitts
Barber
Taylor





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Tie points on Cleveland

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JAN 18 1951

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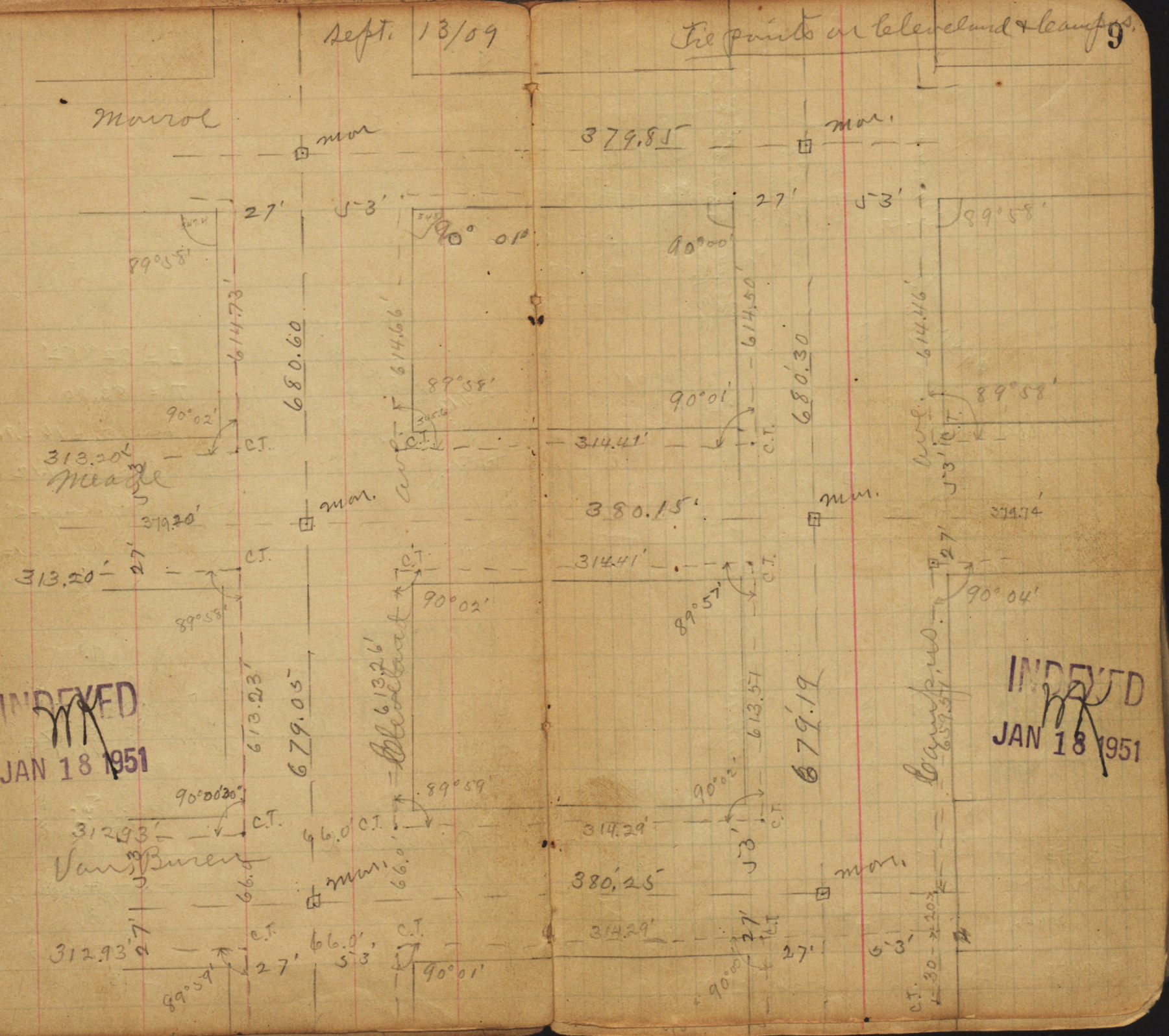
JAN 18 1951

Sept. 13/09

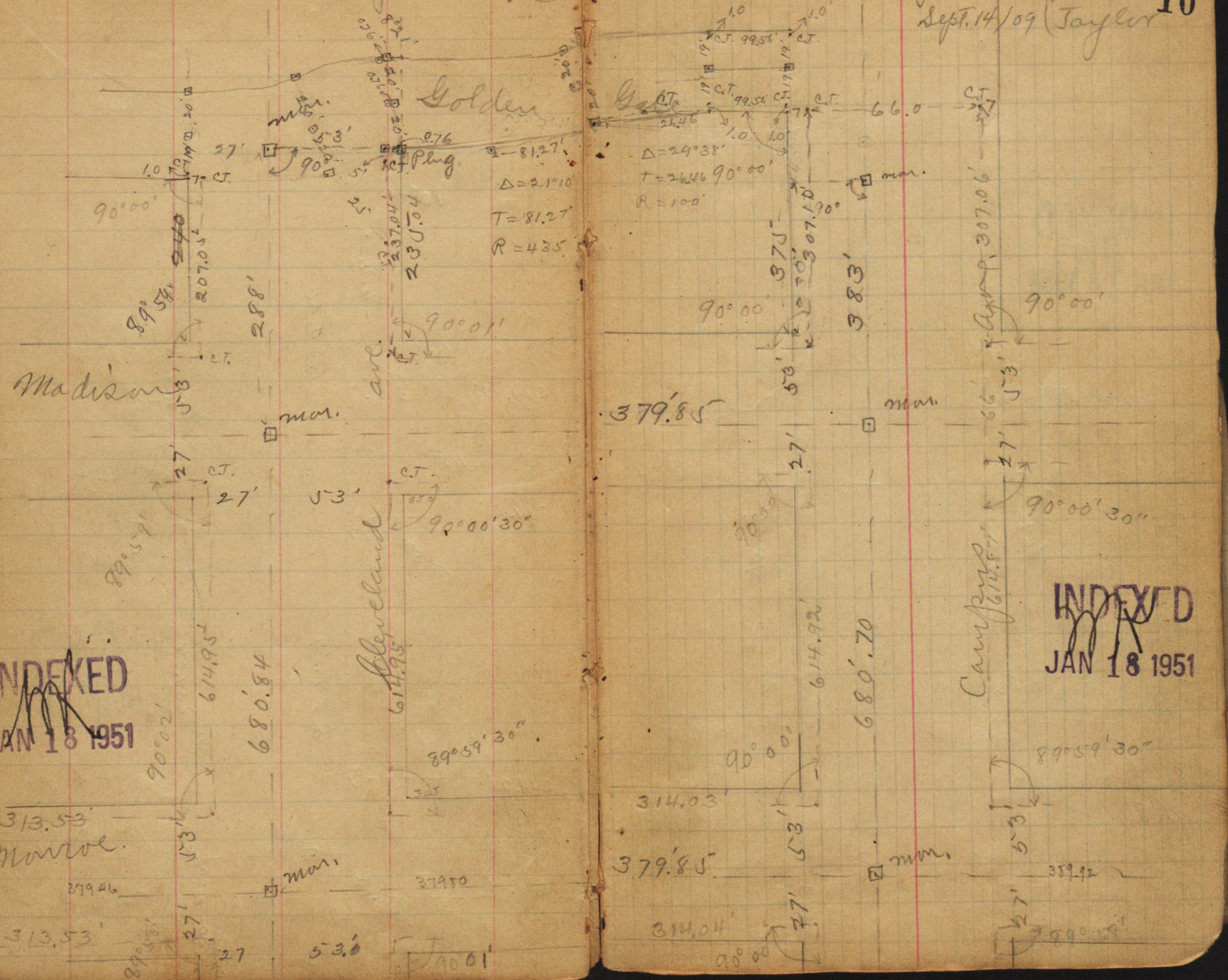
Tie points on Cleveland & Campbell



Tie points on Cleveland & Campus

Sept. 14/09

Fleholds
Barber
Taylor



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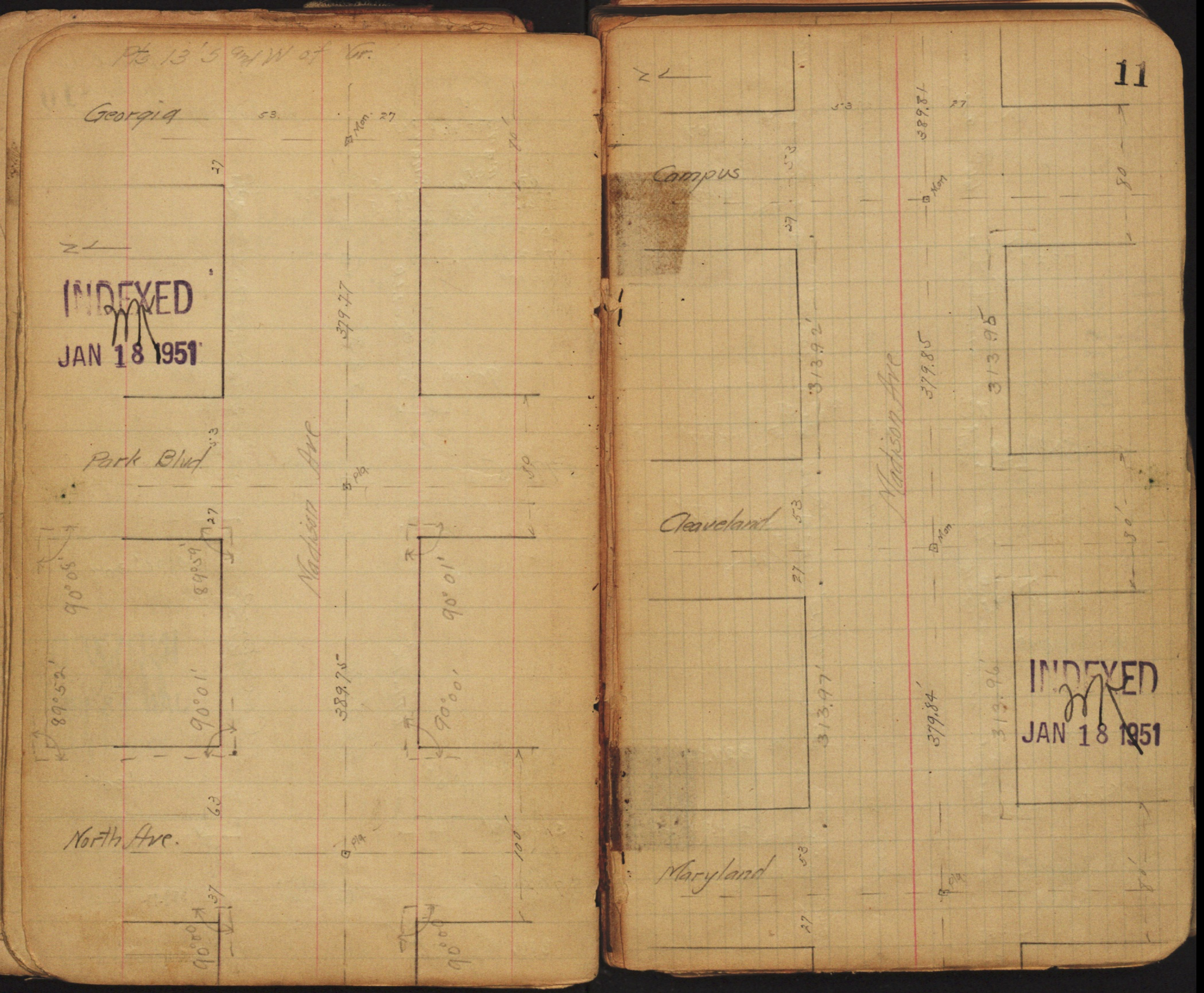
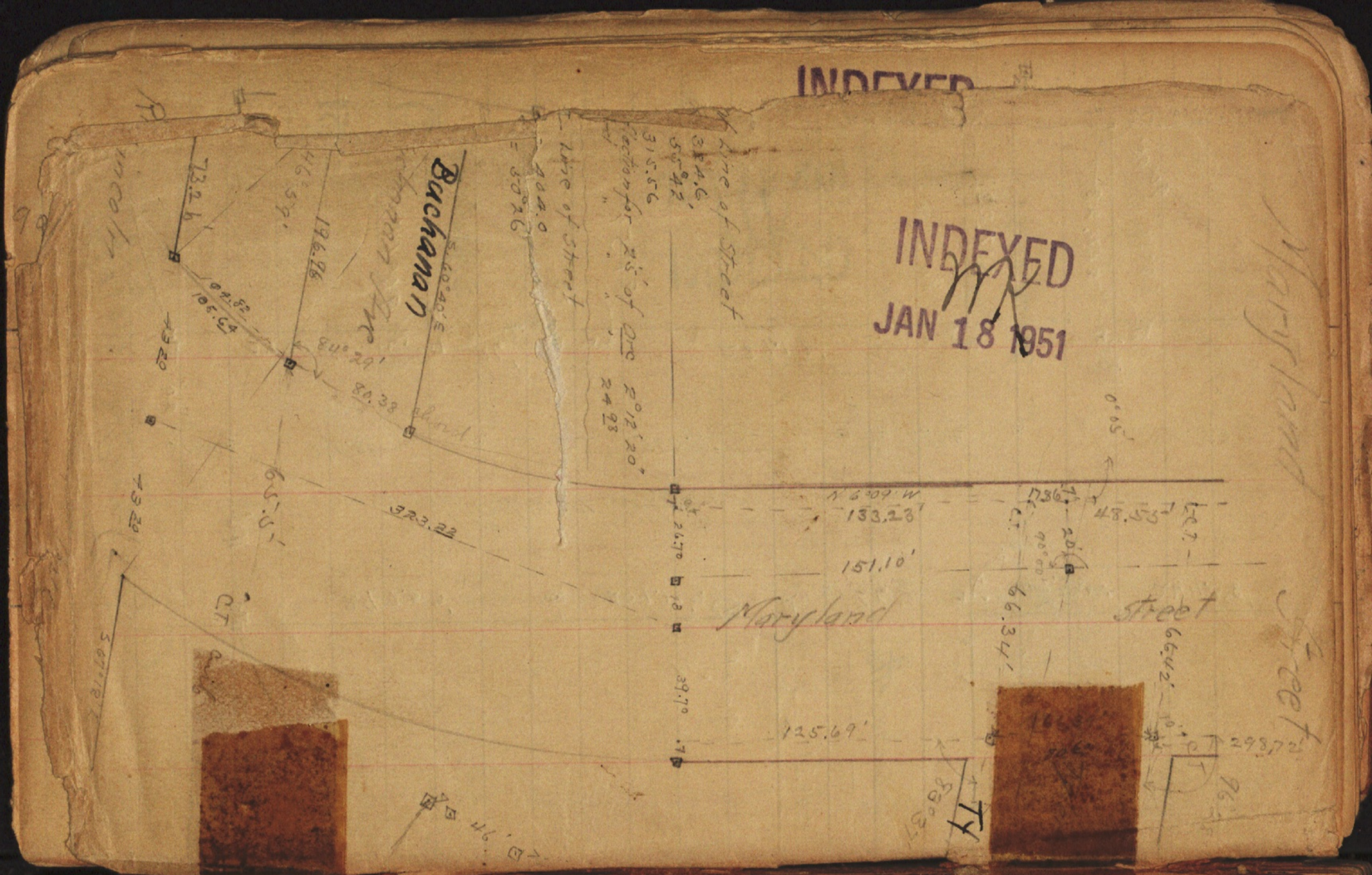
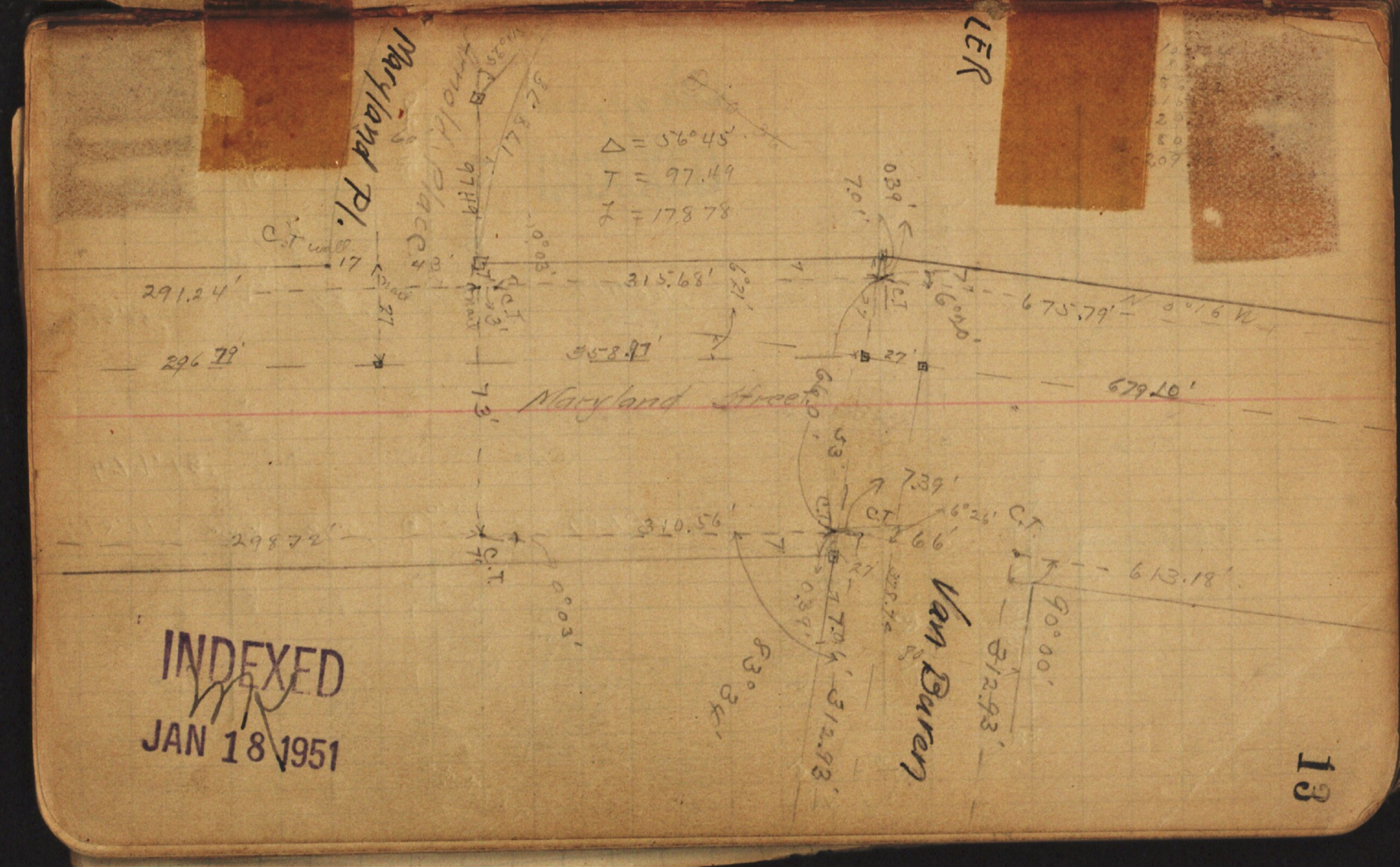

Pt. 13.5 rd W of Cor.
Georgia
Park Blvd
North Ave.
Madison Ave
Campus
Cleveland
Maryland
379.77
389.75
389.81
379.85
313.92
313.95
379.84
313.97
313.96
90°05'
89°59'
89°52'
90°01'
90°00'
INDEXED
JAN 18 1951

Delaware
New York
Rhode Island
Massachusetts
Massachusetts
New Hampshire
Madison Ave
Madison Ave
Madison Ave
Madison D.C.
Garfield
INDEXED JAN 18 1951
INDEXED JAN 18 1951
90°00'
90°01'
89°59'
90°00'
90°00'
90°00

INDEXED
JAN 18 1951





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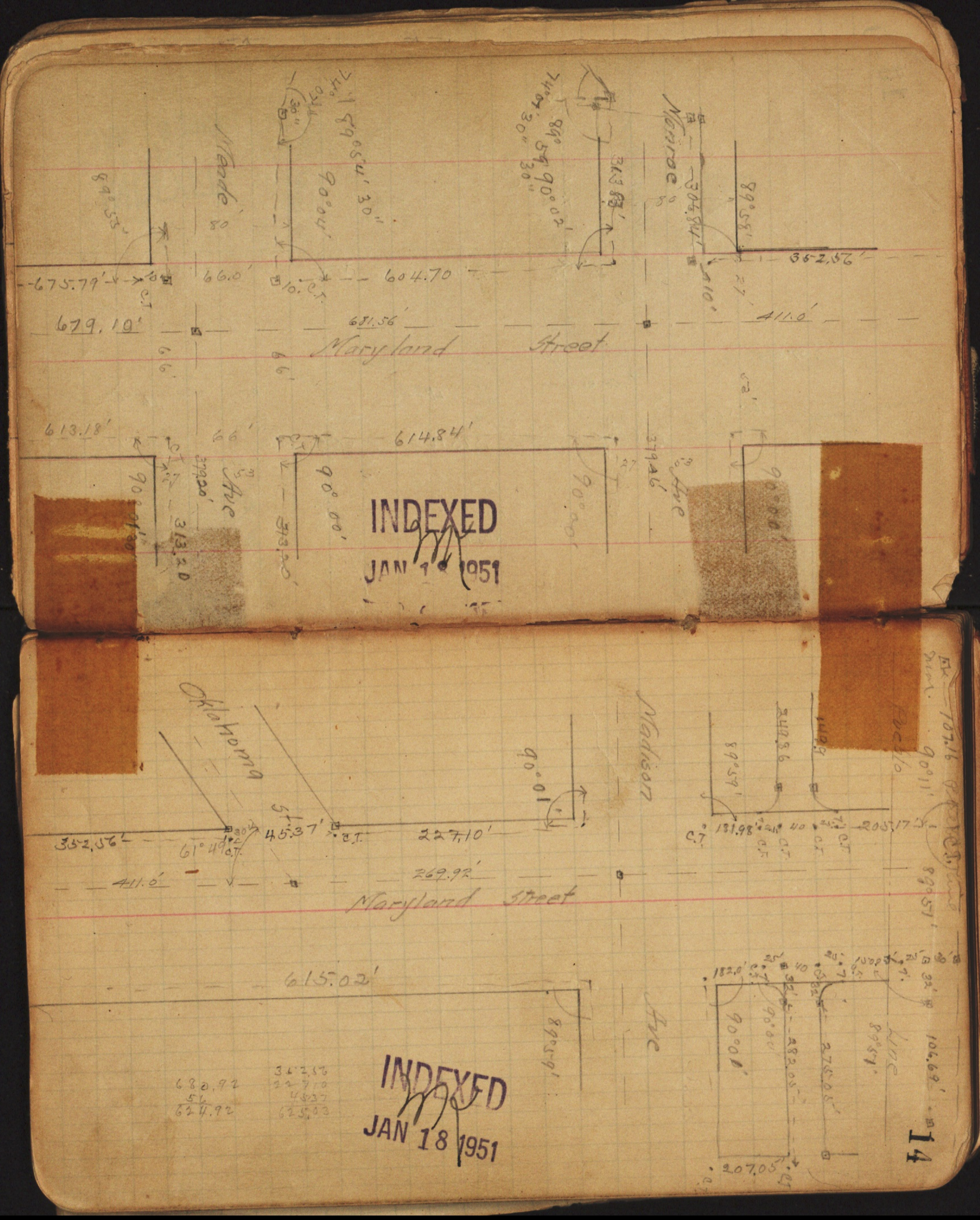

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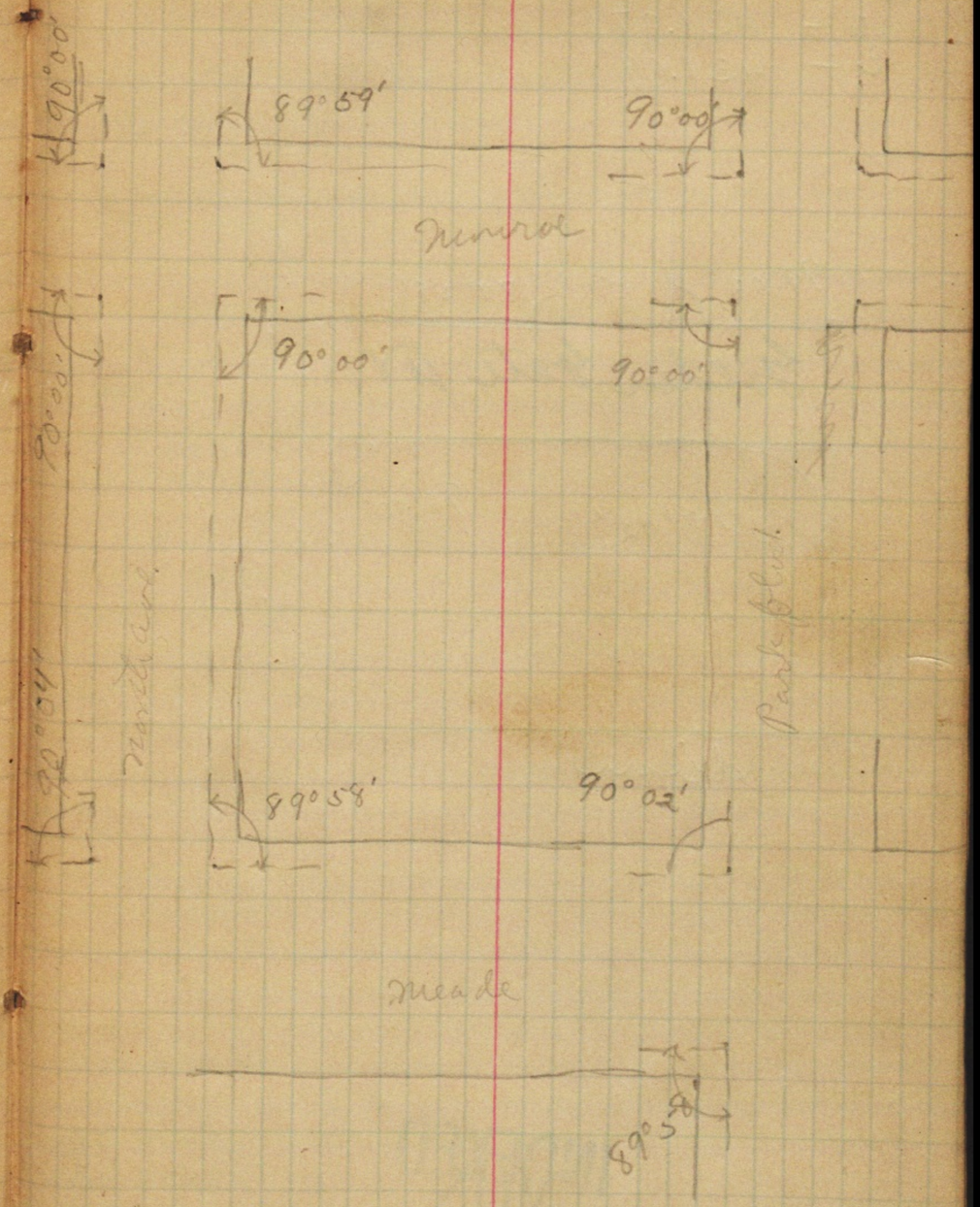
JAN 18 1951

I 2

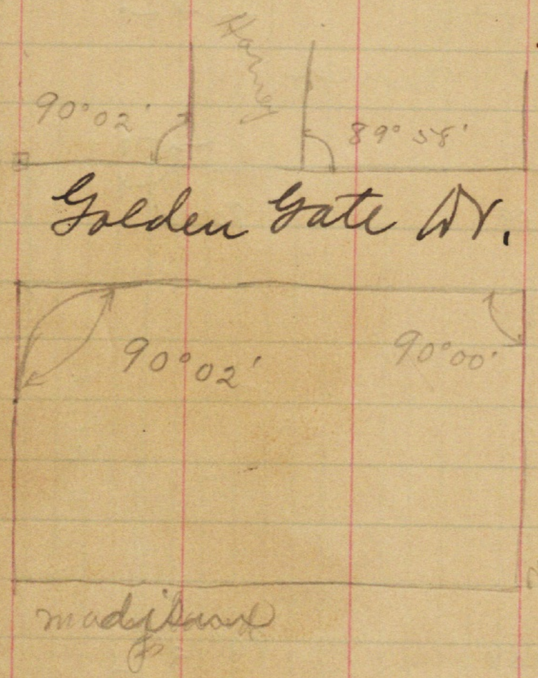
90 0
90 04



INDEXED
JAN 18 1951

Park Bnd. bet. meade & angle

W – 431.07'
E – 431.09'



INDEXED
JAN 18 1951

Adams bet. Monroe & Park

No – 399.81'
So – 313.81'

6263
6310

Monroe bet. Monroe & Park

No – 313.68'
So – 313.68

Madison bet. Monroe & Park

No. – 313.76'
So – 313.81'

Meade bet Monroe & Park

No. – 313.86
No – " 313.89 " " " & Campus

Park Bd bet Adams & Madison

E – 480.61
W – 480.79

Northave bet Adams & Madison

E – 481.36
W – 481.64

" " " Madison & Monroe

E – 614.72'
W – 614.74'

" " " Monroe & Meade

E – 614.03'
W – 614.12'

Park B. bet. Madison & Monroe

E – 614.53'
W – 614.53'

" " Monroe & Meade

E –
W – 613.88

Madison bet. Monroe & Campus

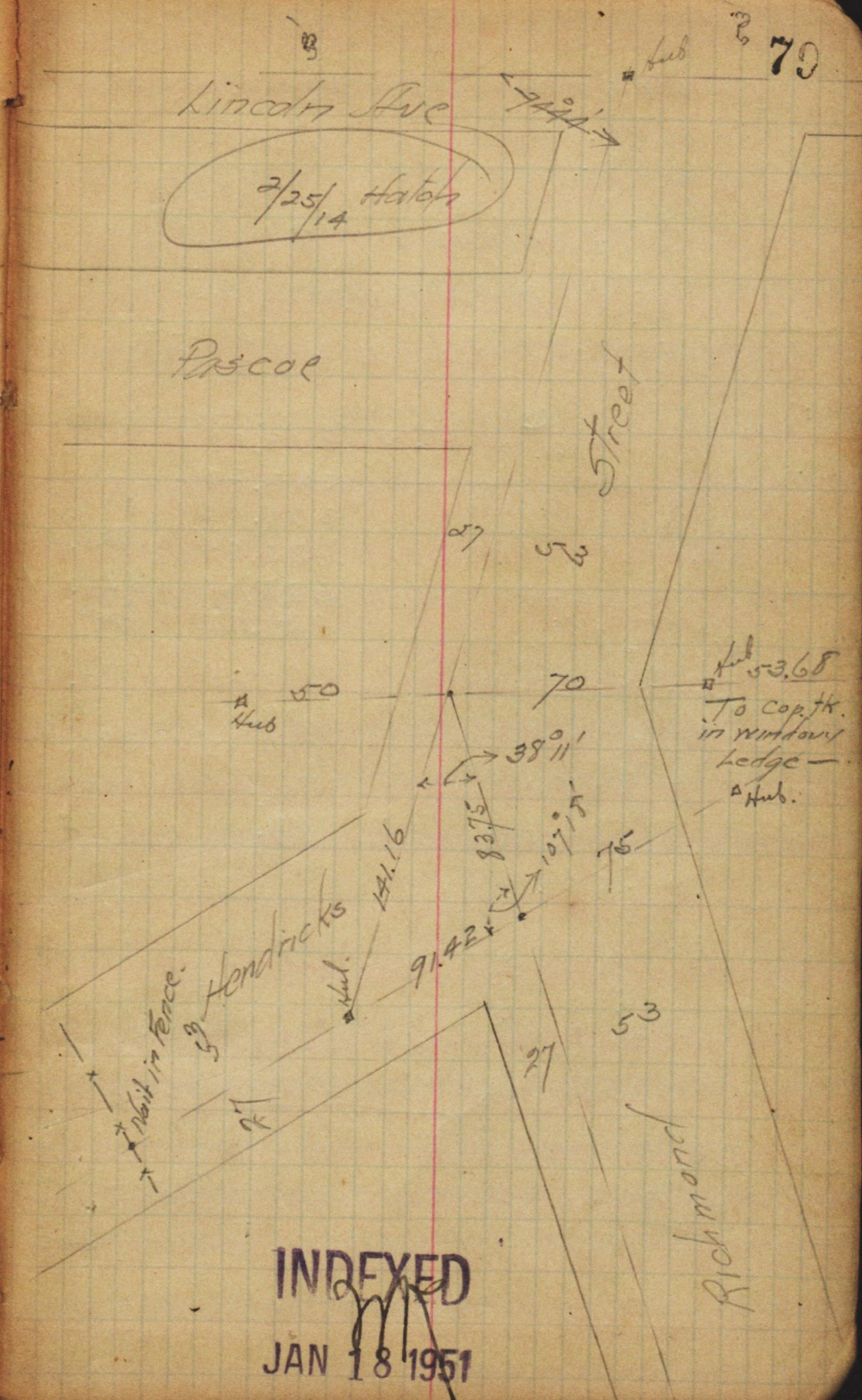
No – 313.96'
So – 313.96'

Monroe bet. Monroe & "

No – 314.09'
So – 314.09'

Meade " Park & "

~~No~~ So. side – 713.63'



INDEXED
JAN 18 1951

633.31 452.05 608.23

511.61 680.05 678.82 679.85 524.77

71.67 678.78 680.05 679.04

168.97 61.63 813.88 452.11 633.20 452.04

185.50 697.11 188.25 613.15 283.36

71.67 613.43 613.44 66.0

168.97 66.0 66.0 613.51

61.63 388.10 150.32 660

435.40 59.48 613.22

71.67 639.07

37.65 ← 625.87

0.62 90°00' 12.10 63.74

6.5 10.0

61340

18237

431.03

313.83

222.22

379.64 379.95

333.84 333.40

378.69 379.31

~~379.31~~

41.75 ← 24.01

334.25 334.47

379.00 378.6

379.95 380.40

182.37 194.20

431.03 813.82

338.37 613.45

322.42 313.57

265.27 313.57

73° 21' 00"

40.99

90°02.69' 39.74

31.06

32.46

117.18

12.5

35 99

40 99

89°25'

89°26'

90°03'

114'

397.04

552.04 397 42

154.78

659.04

813.82

32

25412

.0349

255708

113648

85236

9.91578 81.81

43

543

724

76.02

1.81

7783

9.9158

16.43

297674

396632

594948

9.9158

162.916594

1629

328

301

176

1126

28.15

524.77

608.23

1133.00

1132.94

112.0

18

588.23

615.23

608.23 62

209.87 381.00 1.81

209.87

171130

167896

32340

615.23

640.23

7

633.23

16.02

60

120

121.04

181.56

163.06

1080

408

13

6052

52

151

32

362

543

57.92

1°16'

1°17'50"

57' 55"

2° 15' 45"

57 55

3° 13' 40"

57 55

4° 11' 35"

16.43

16' 23.27 284.12 12.2

60

960

26

2337

5142

4654

4880

46.54

1009

1629 986.00 6.052

610.87

588.23

37.64

9774

18

48416

8600

8145 6052

455 0108.80

16° 26'

26.166

20

52.3320

23.27 1629.17

1629.9

357

1° 48' 58"

2 49 27

4° 38' 23"

2 49 27

7° 27' 50"

2 49 27

10° 17' 17"

2 49 27

13° 06' 44"

140

146

26'

24 280 612

300

20 Lots 26.166

21.73

5.2333

21.23

5.4505

47.80

497.25

80