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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Return to City Engineers Office
City Hall, San Diego, Cal.

Crocker Quality

TRANSIT BOOK

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. 69.09'
550.60'
500.90'
(19.75)
73.57'

74.88'
632.08'

68.89 to end curve
69.08 West side
325.5' — to Hendricks

294.73
68.63
363.36

294.73) 73000 (.25
58946
140540
147363
71.56 mail

68.63
25
34315
13726
1.98 75.5
69.08 17
338.41'
57.47 bet tacks.

Vermont.
84.11
69.08'
334.17
69.12'

6280
14
76.80

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

471.08

461.45
208.15
392.31'
81.0
146.65'+4

471.08) 290000 (.615
282648
73520
47108
26412

62
15
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 lines
37.91 E " "
582.85
595
589.80
34.00
(555.80)

6.95

404.69

27.19
635.62
22.95
61670
9142
70812
27.19
68093
68093

2062
18.92
1.70
695
616.70

9599311
.0122173
.9721484
324.6
583 28904
3888 5936
1944 2968
291 64452
315.55937064

Nolins Pasco
So " " 29'

So. line Hendricks 32.56
No. line Cleveland 32.56
No. line Mills. 32.56

129.5

157.12
2
314.24 + alley + Hend.

83.74

180
157.12
72°49'

X = 80 Rad
sin 72°49'

X = 20
sin 72°49'

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

20.93
83.74
314.24
418.91

32.56
37
418.91) 13.5600 (1.327
41891
137090
125673
114170
83782
303880

1.327
83.74
5308
9289
3981
1061 6
1.1112298

32.56
1.11
31.45

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
339353 64
339353 64
452471 52
678707 28
72.768732204
11311788
185.88661

34.6

185.89 / 986 00 (5.304
92945
56550
55767
78300

#988

0° 05'

Inverter

16° 26'

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'

5.304
34.6
31824
21216
15912
183.5184
31040

5.304
17
37128
5304
90.168
1° 36'

3 / 83 (27.666
5.304
1106.64
82998
138330
146.740464
44276
2° 26' 44"

5° 18" 2

from end of tow (4° 14' 139.87)

11° 07'

358.30 / 667000 (1.86
358300
308200
286640
220600

1.86
67
1302
1116
124.62

2° 4' 37"

1.86
30.5
930
558
56.730
56' 4380

56' 44"

11 06 60
2 4 37
× 9° 2' 23"
56' 44
× 8° 5' 39"
56 44
× 7° 81 55"
56' 44
× 6° 12' 11"
56 44
5° 15' 27"

3 / 91.5
30.5

6°21'

209.87 / 38100 (1.81
20987
171130
167896
3234

1.81
6
10.86
5760

1.81
30.5
905
543
55.205
12300

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

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.

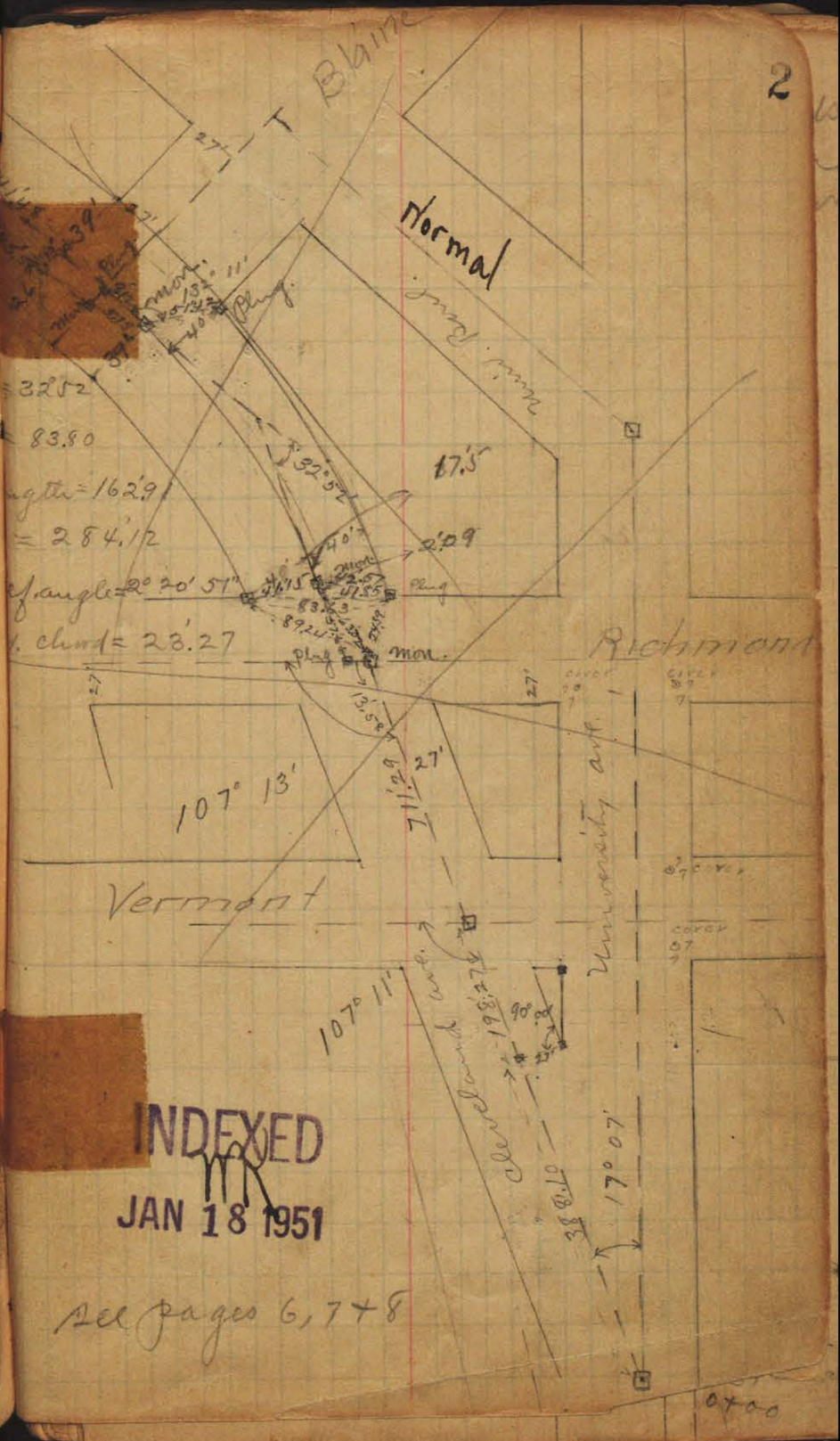
MINUTES.	LKS.	MINUTES.	LKS.	MINUTES.	LKS.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	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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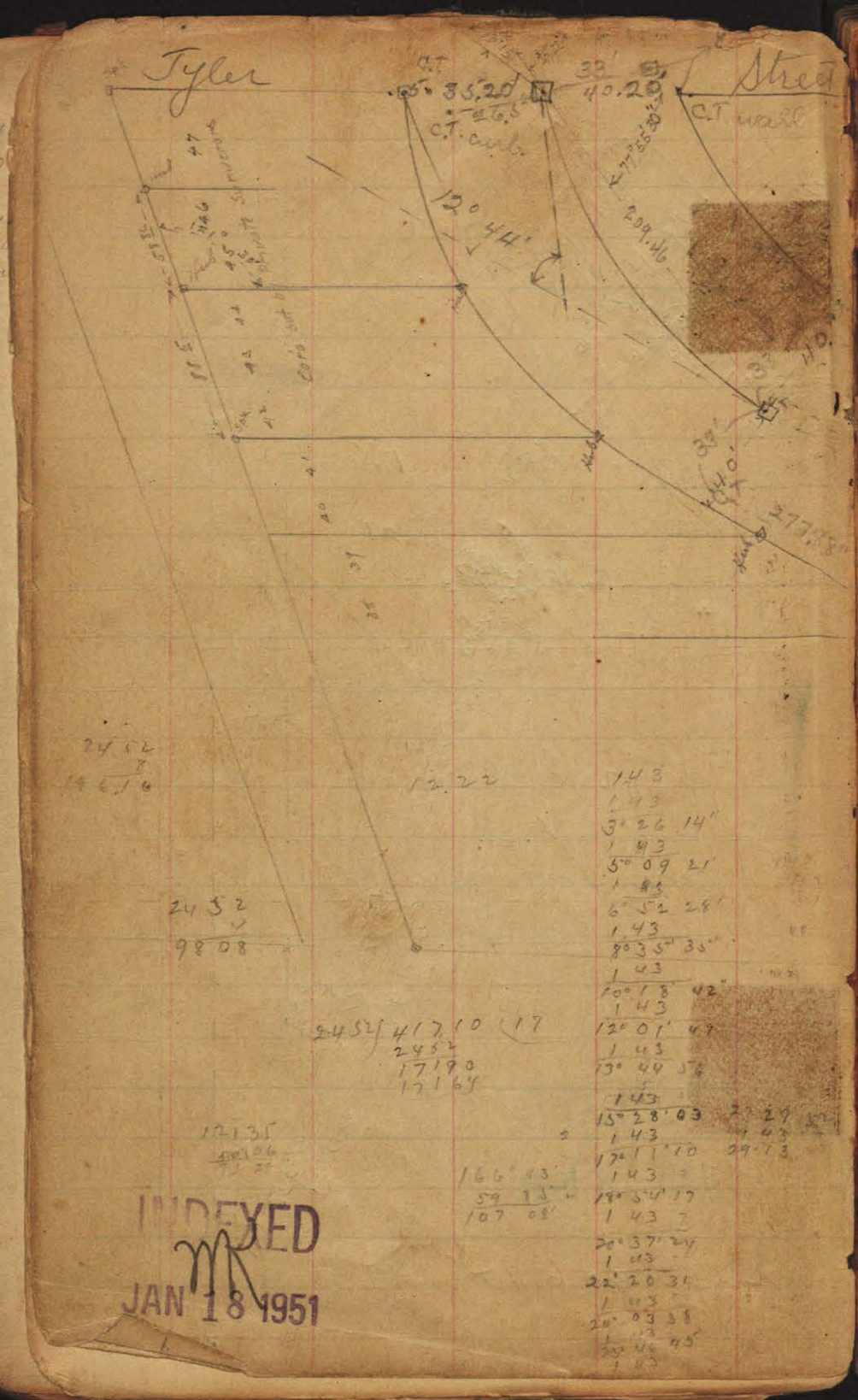
JAN 18 1951

See pages 6, 7 + 8



INDEXED
JAN 18 1951

Tie points on Cleveland

Childs
Barber
Taylor

3

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

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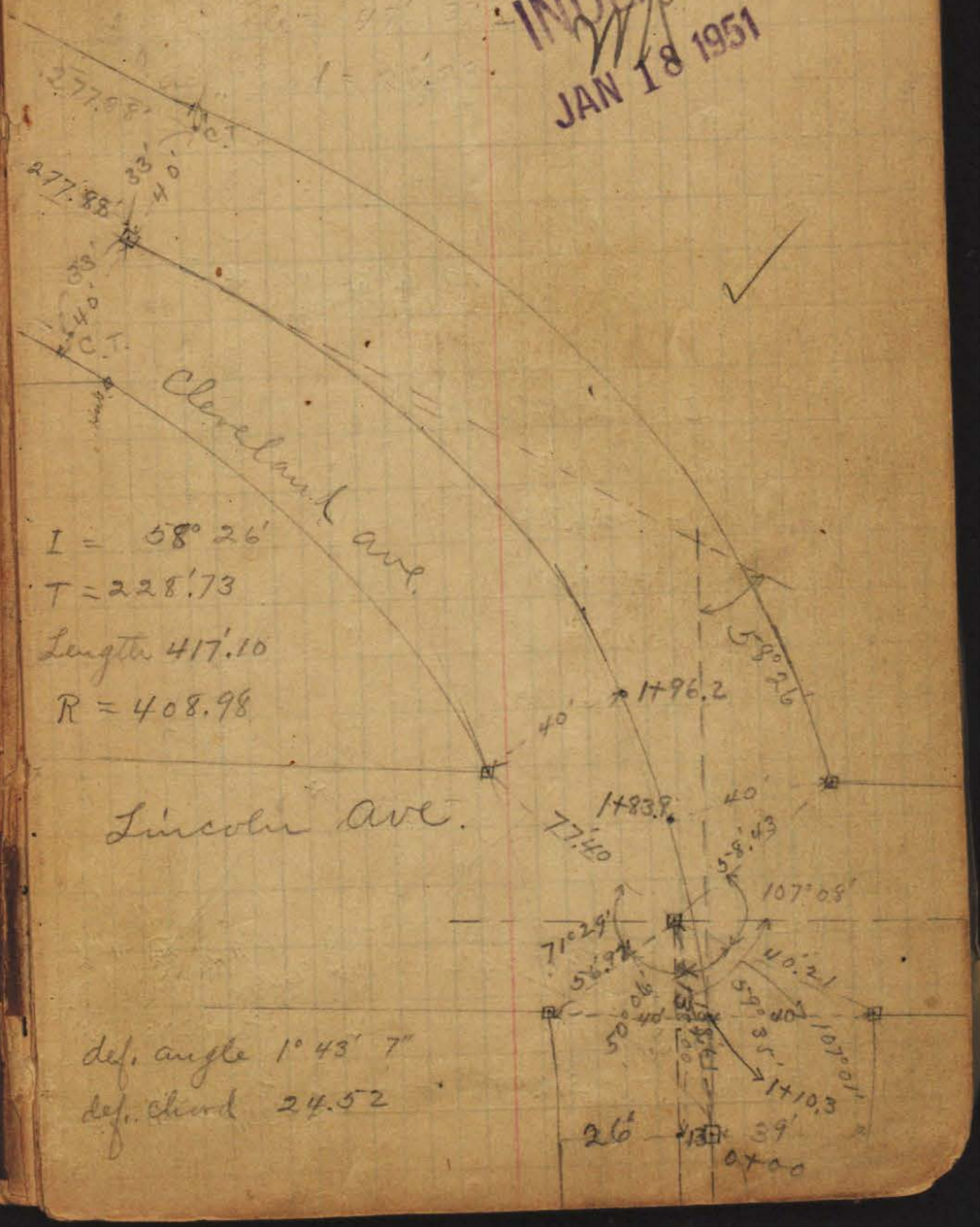
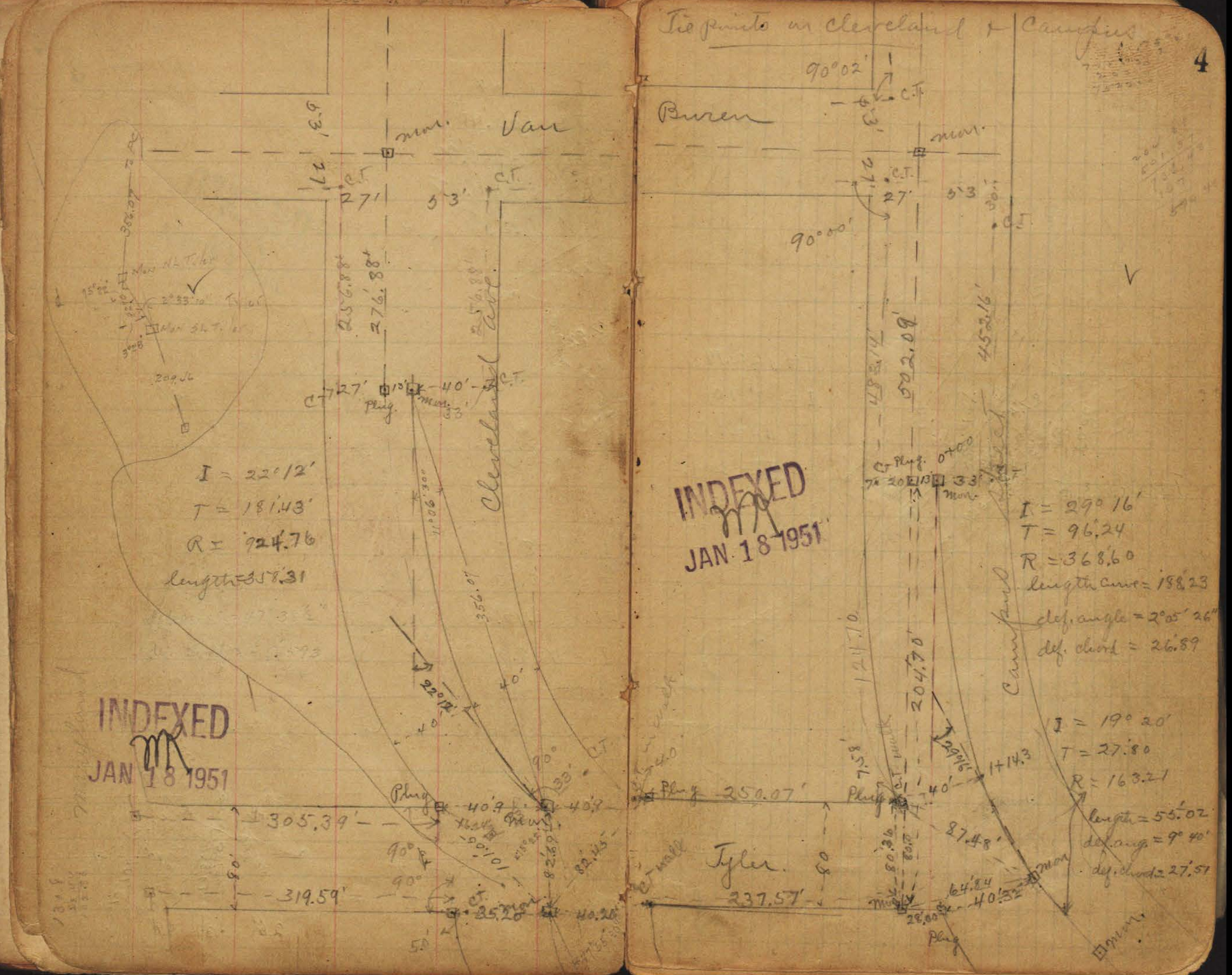
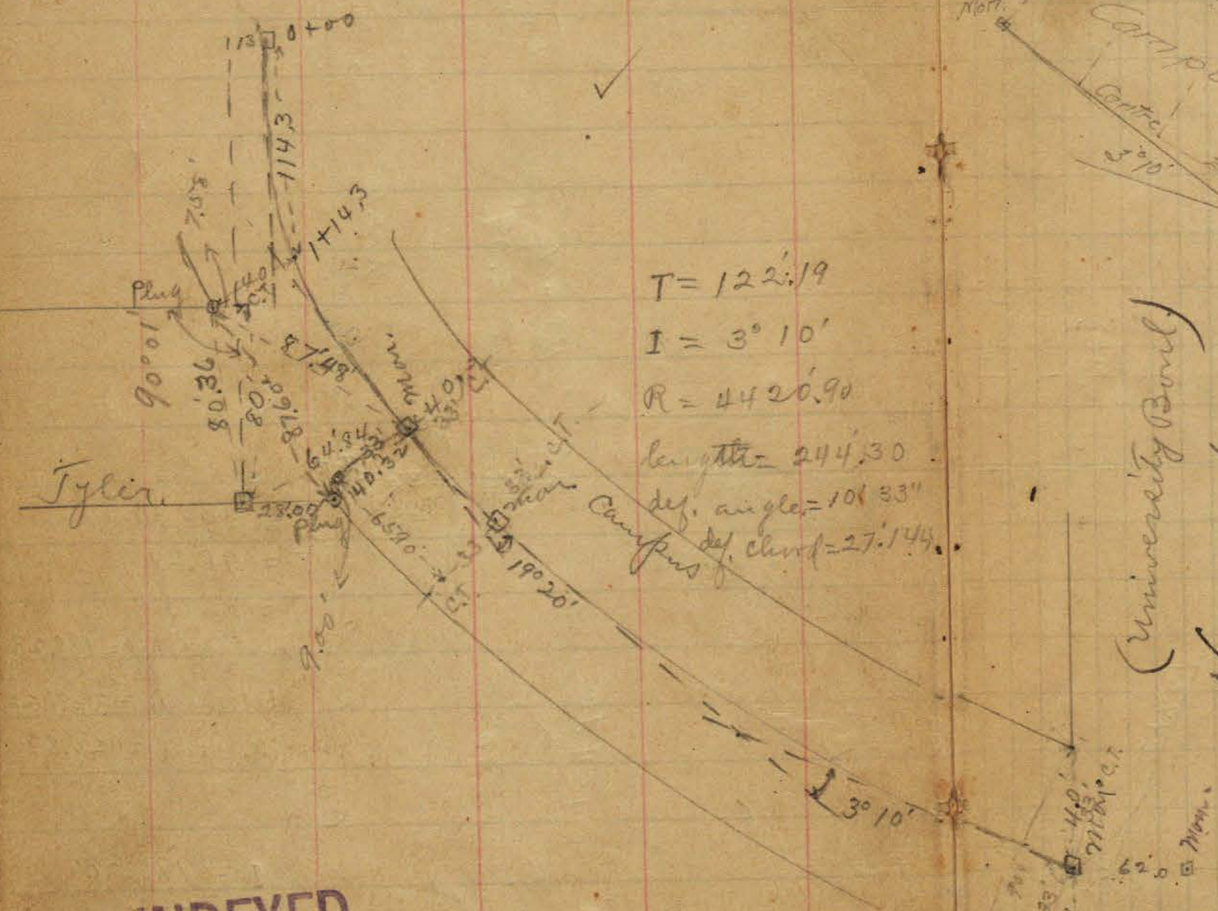
JAN 18 1951

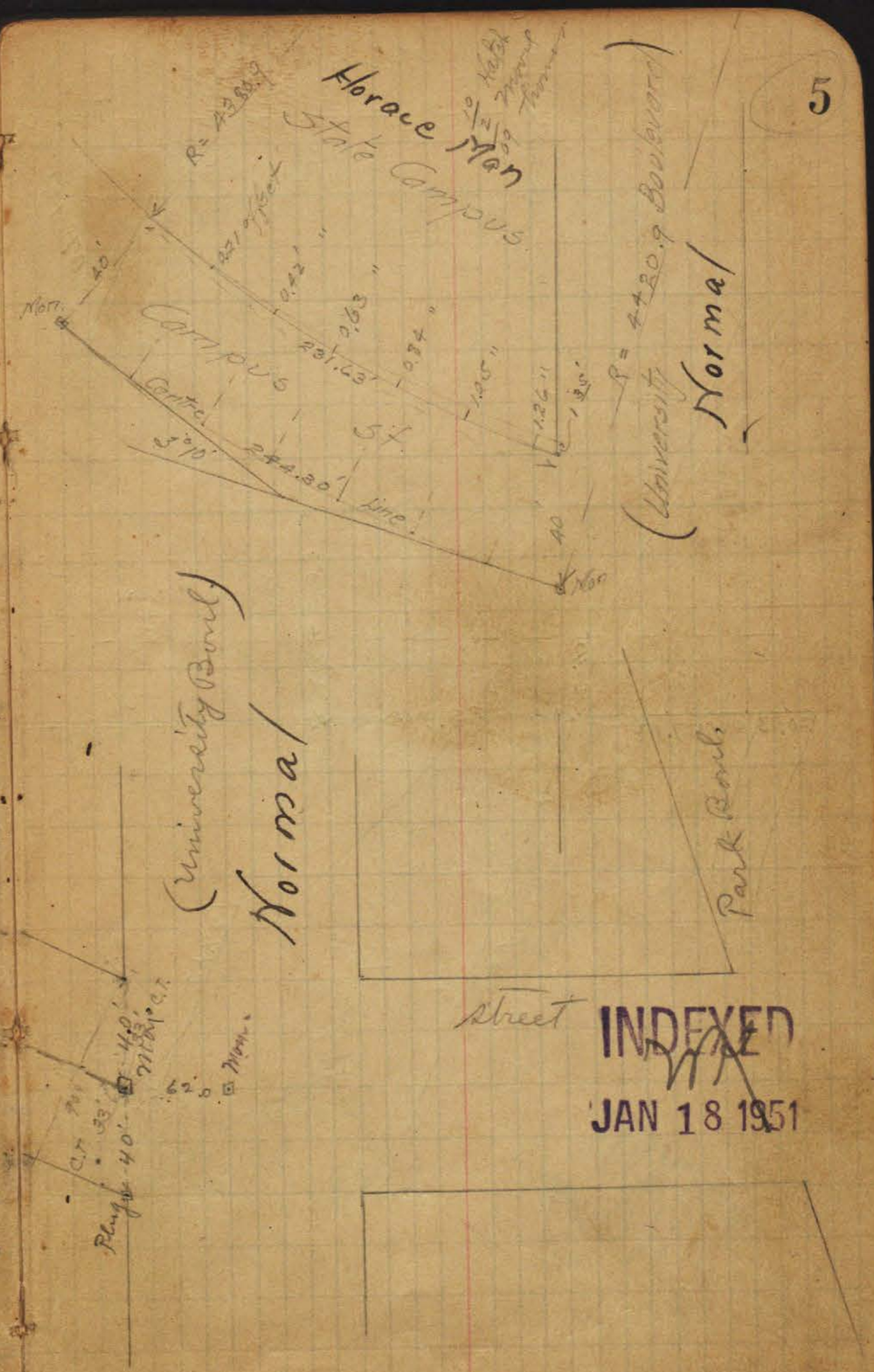


def. angle 1° 43' 7"
def. chord 24.52


Van
Buren
Cleveland Ave
Tyler
Campbell
I = 22°12'
T = 181.43'
R = 924.76
length = 358.31
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
305.39'
319.59'
237.57'
250.07'
502.09'
452.16'
204.70'
INDEXED
JAN 18 1951
INDEXED
JAN 18 1951

Tie points on Campus

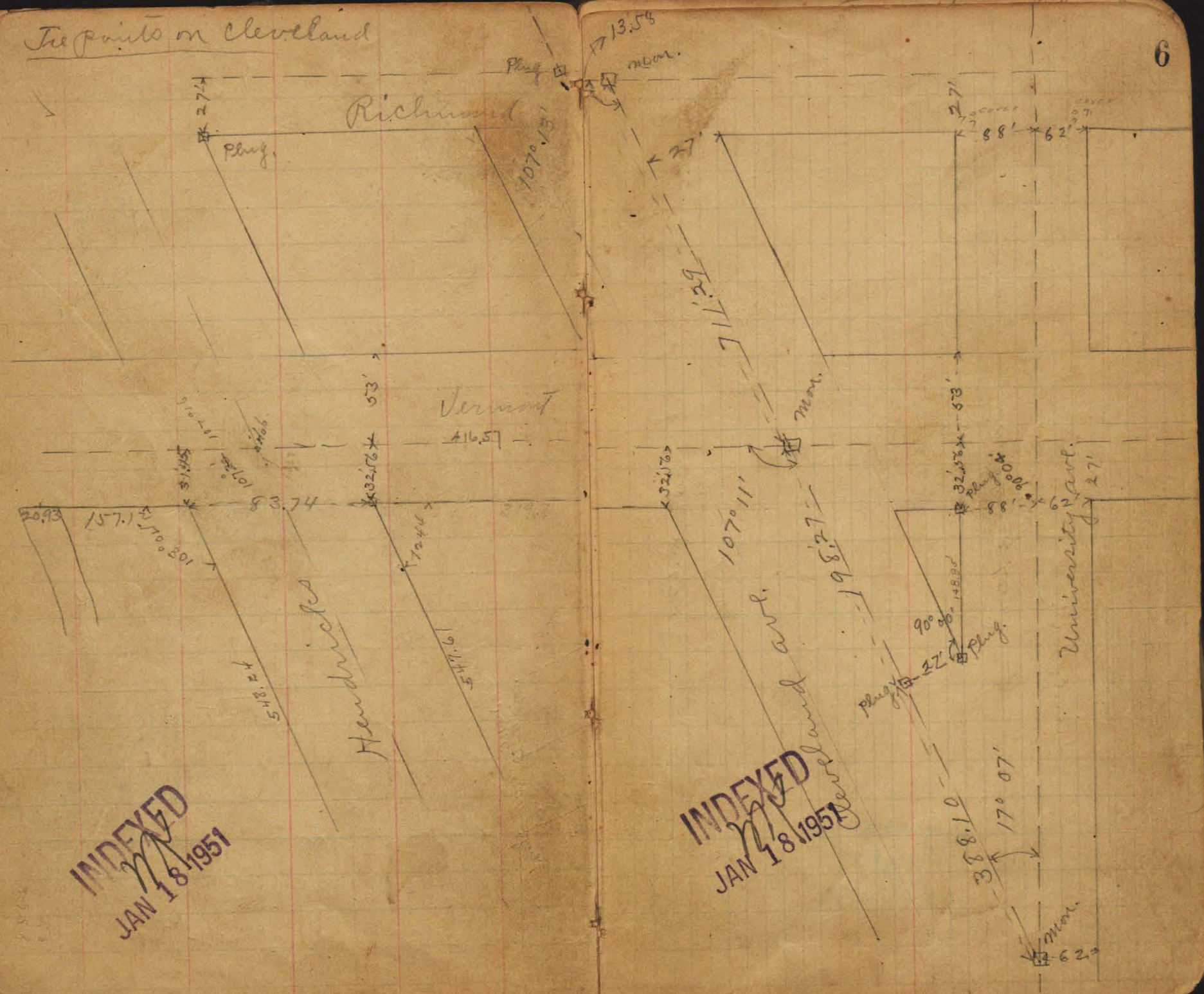




INDEXED
JAN 18 1951

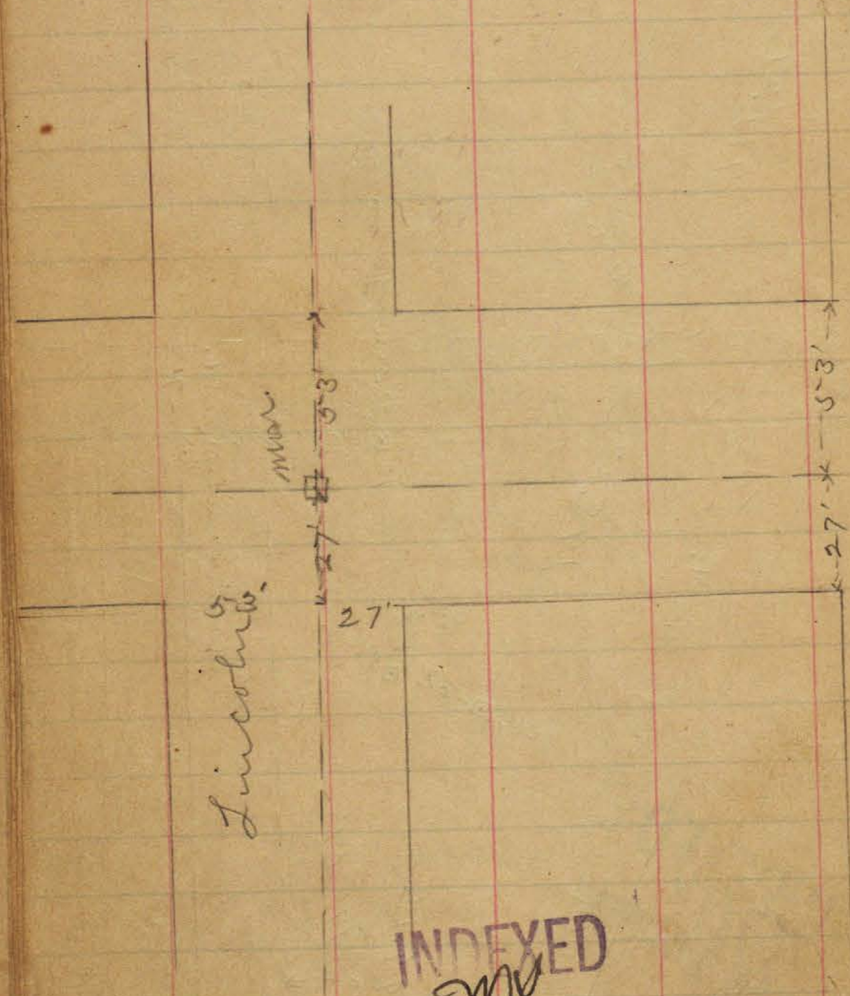
INDEXED
JAN 18 1951

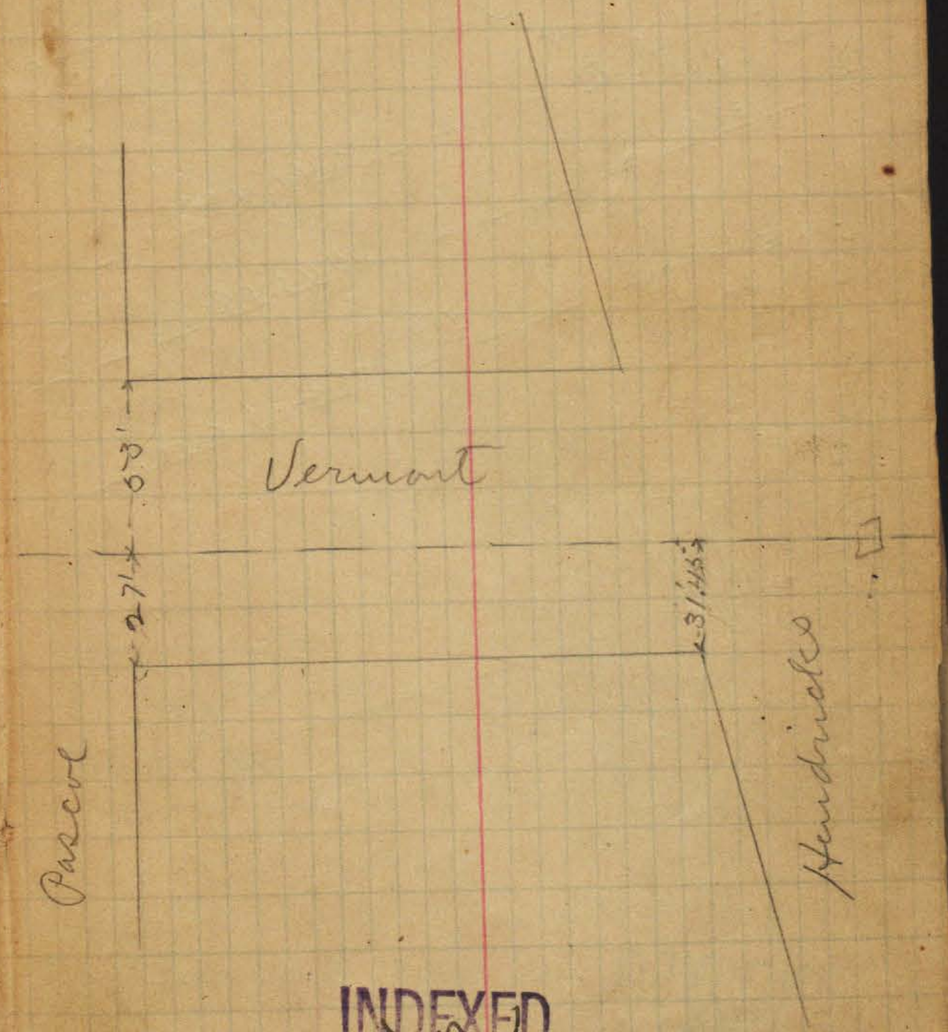
The points on Cleveland



Tie points. at Lincoln & Vermont.

Sept. 14/09 Helliette Barber Jagler

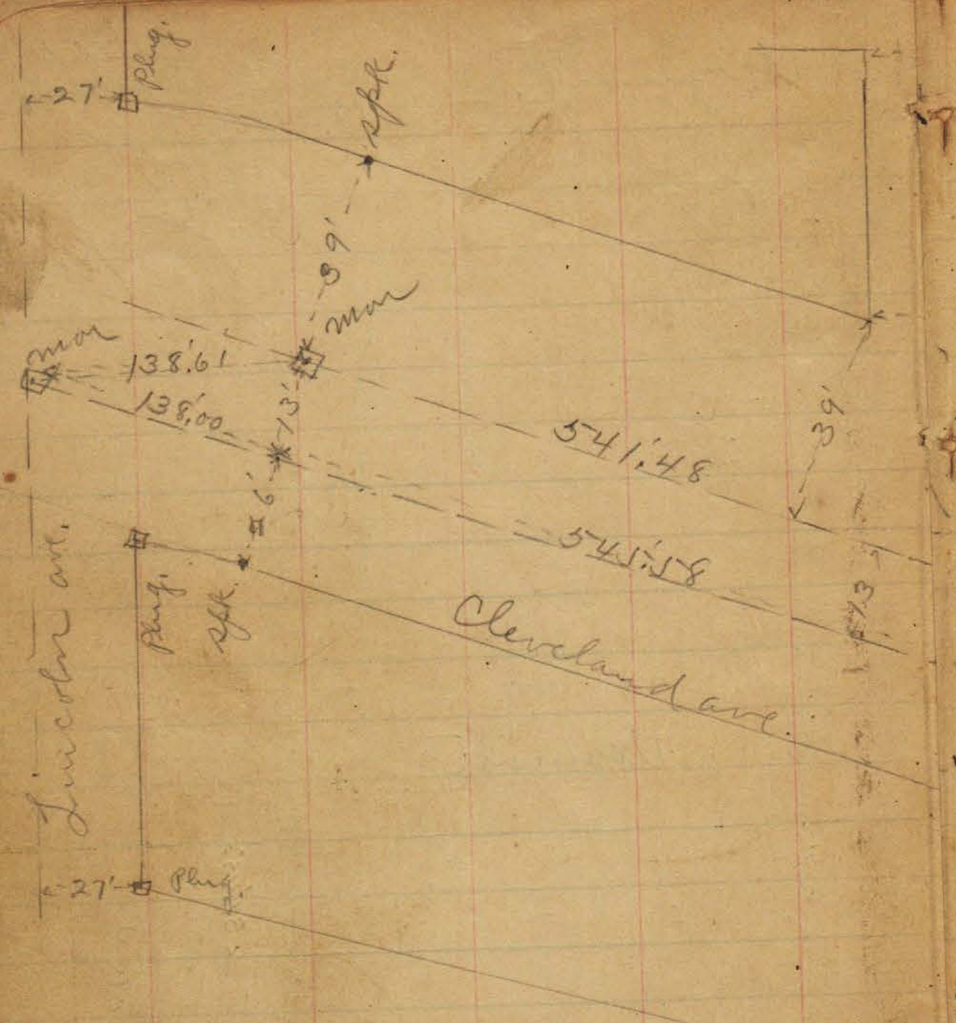


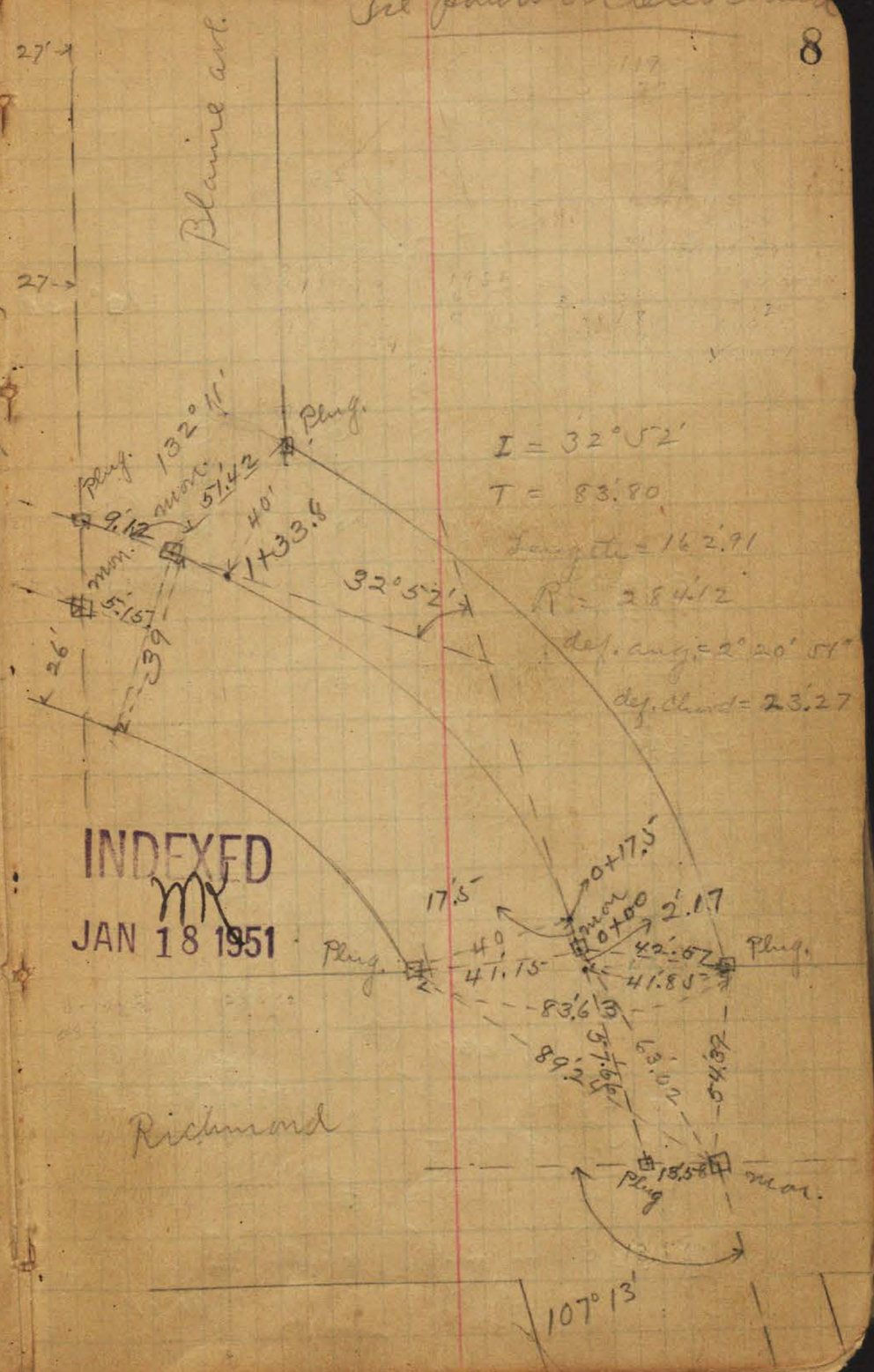


INDEXED
JAN 18 1951

INDEXED
JAN 18 1951

Tie points on Cleveland





INDEXED
MK
JAN 18 1951

INDEXED
MK
JAN 18 1951

165.97
166.0

Sept. 13/09

Tie points on Cleveland & Campbell

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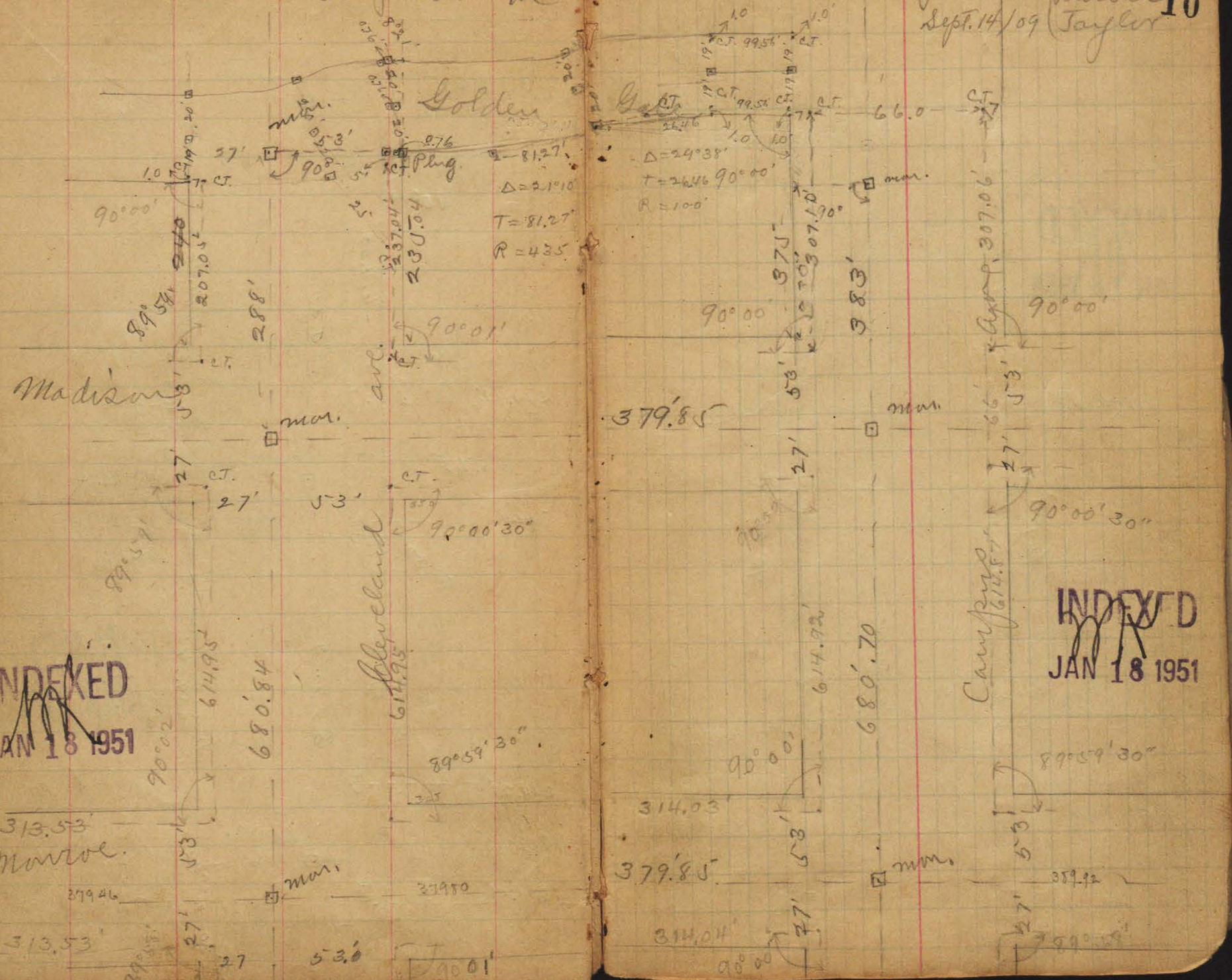
JAN 18 1951

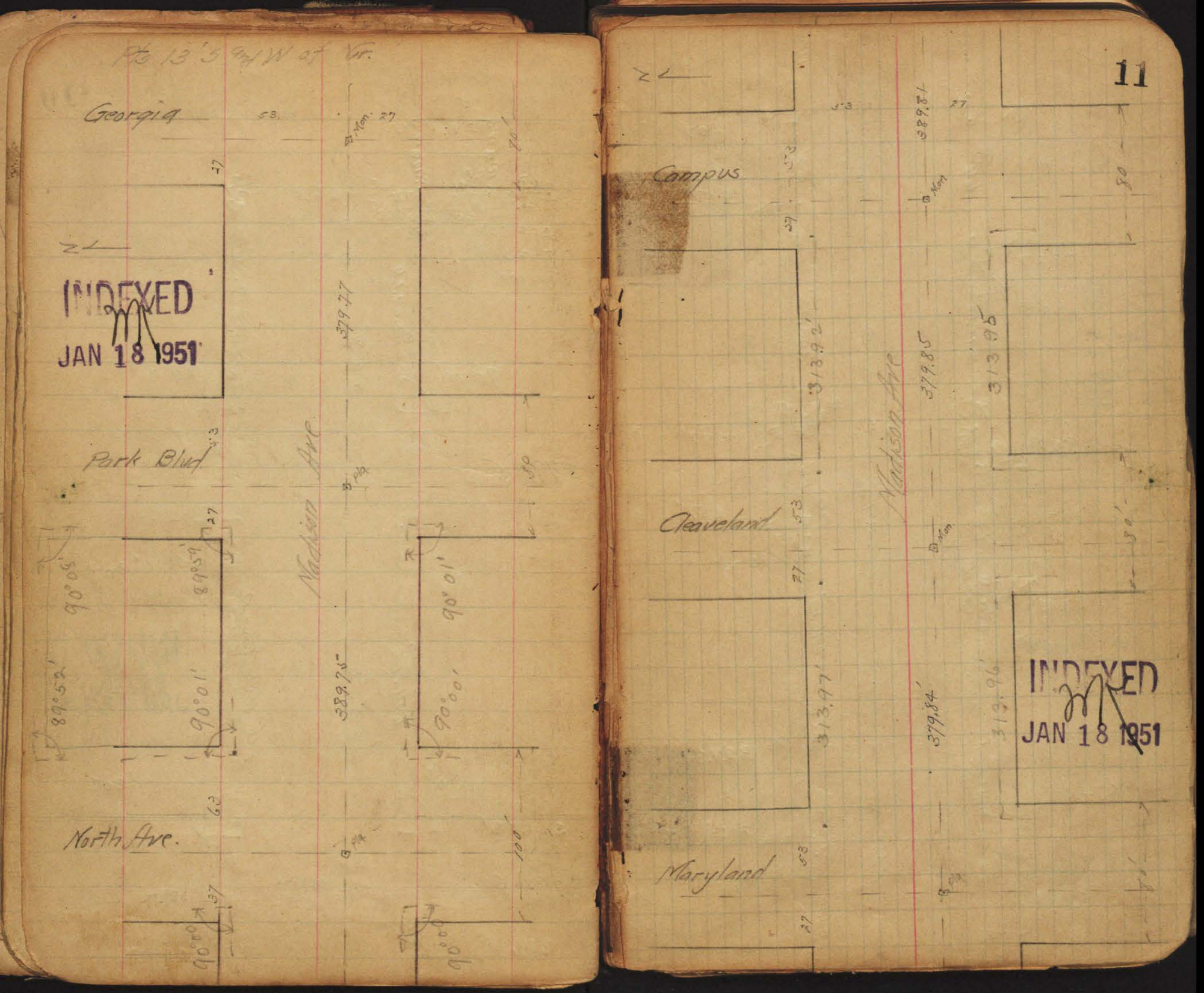
INDEXED
JAN 18 1951

Tie points on Cleveland & Campus

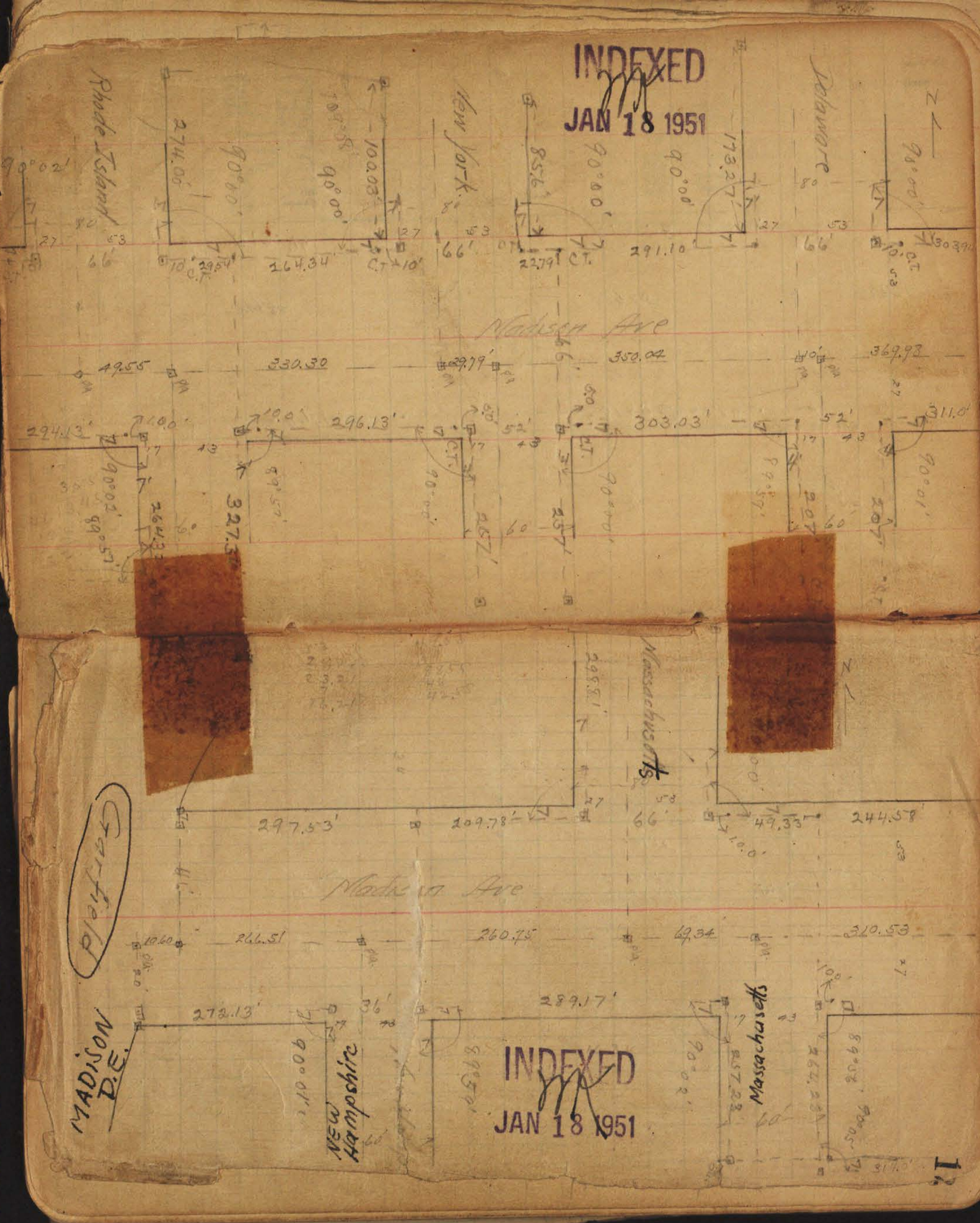
Sept. 14/09

Fleilds
Barber
Taylor



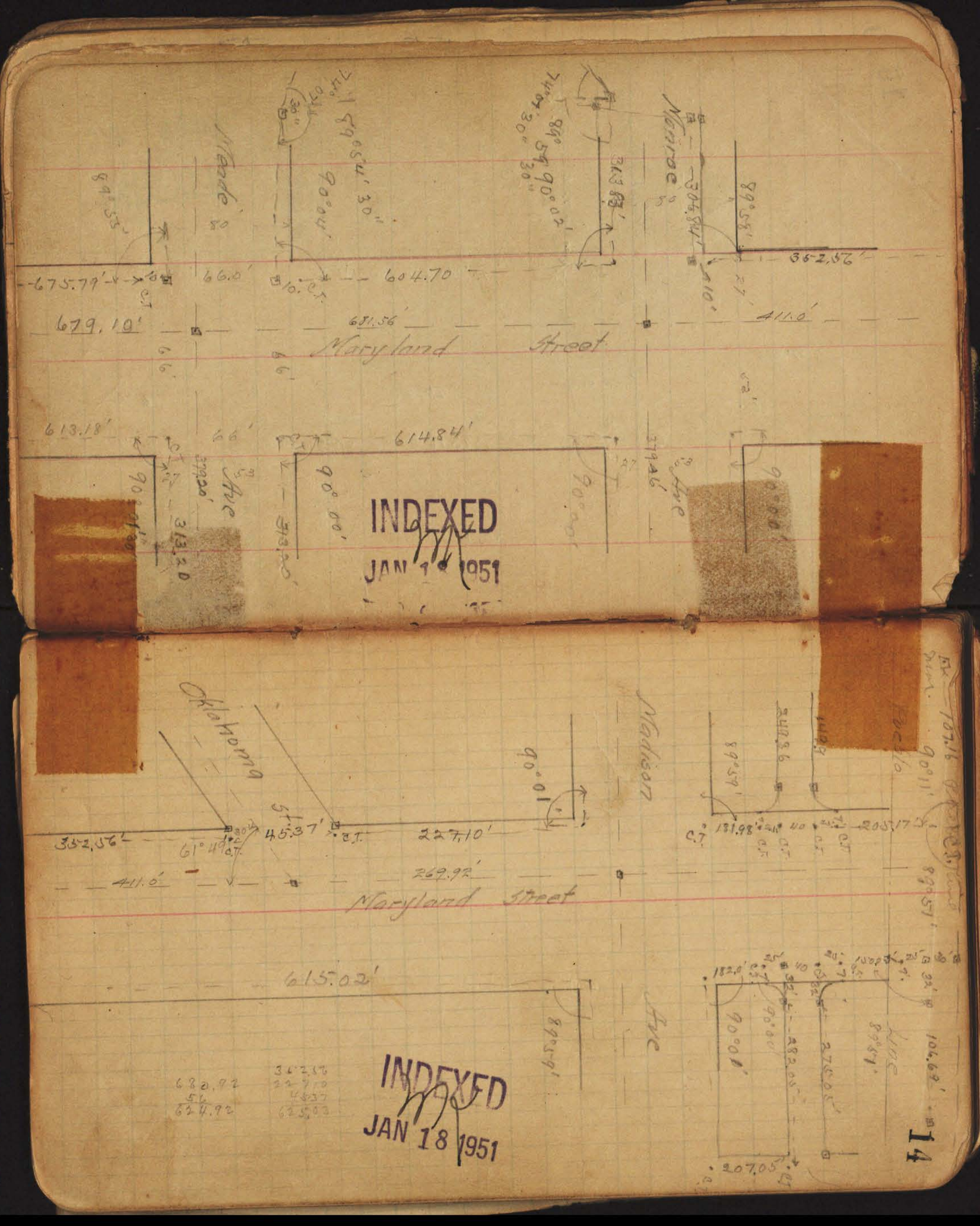

Pt. 13.5 S of W of Cor.
Georgia
Park Blvd
Madison Ave
North Ave.
Campus
Cleveland
Maryland
379.77
389.75
329.81
313.92
379.85
313.95
313.97
379.84
313.96
90°00'
89°59'
89°52'
90°01'
INDEXED
JAN 18 1951

INDEXED
JAN 18 1951

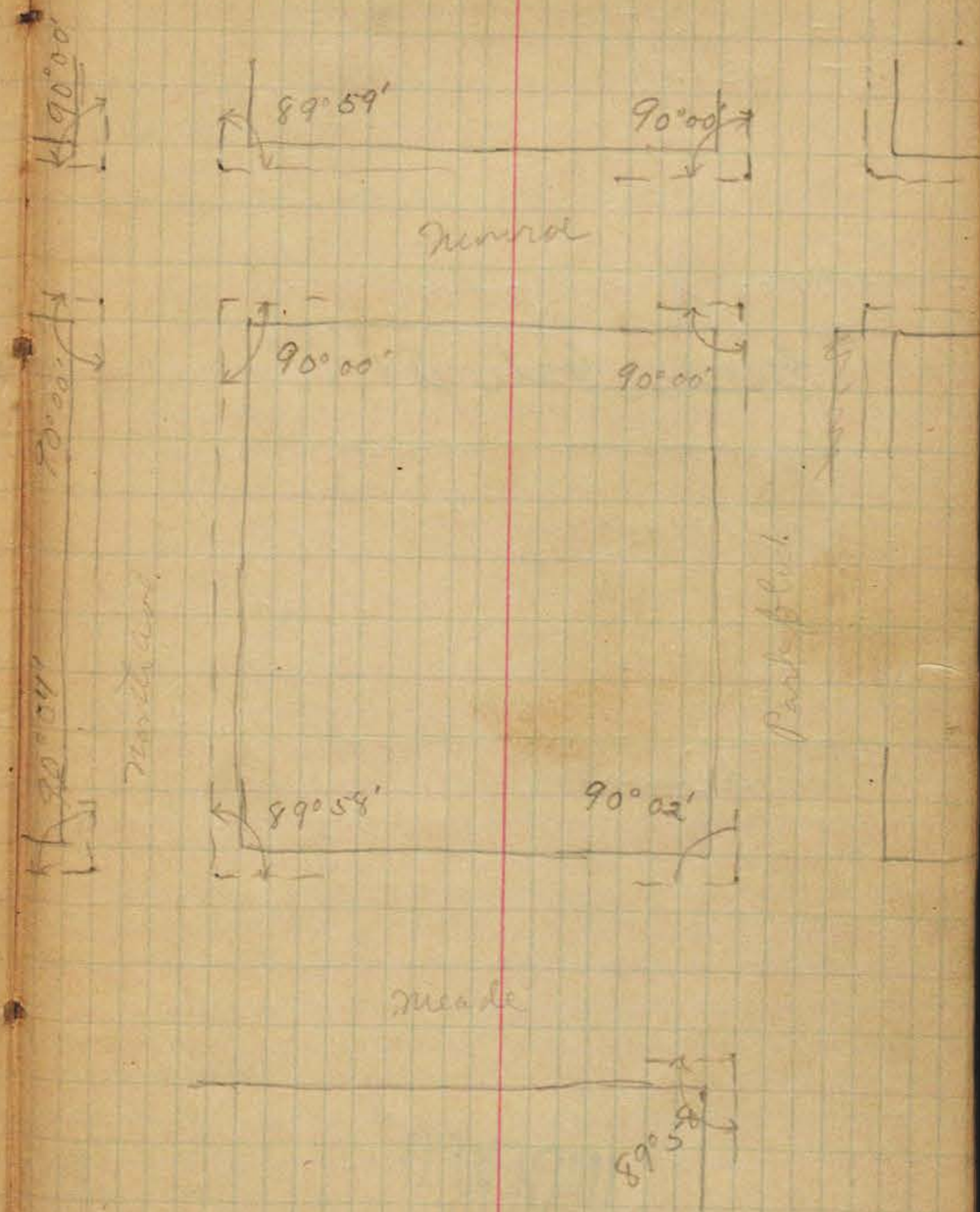


INDEXED
JAN 18 1951

Maryland Street
TYLER
Van Buren
Buchanan
Lincoln
Arnold Place
Maryland Pl.
INDEXED
JAN 18 1951


Madison
Monroe
Maryland Street
675.79'
66.0'
604.70
679.10'
681.56'
411.0'
362.56'
613.18'
614.84'
Ave
INDEXED
JAN 18 1951
Oklahoma
Madison
362.56'
45.37'
227.10'
269.92'
411.0'
Maryland Street
615.02'
Ave
680.92
56
624.92
362.56
227.10
45.37
625.03
INDEXED
JAN 18 1951
14

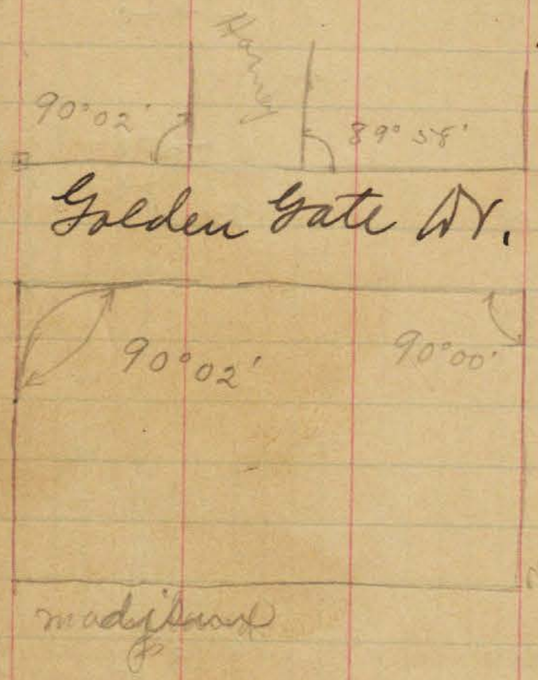
90.0
90.04



INDEXED
MR
JAN 18 1951

Park Boul. bet. meade & angle

W – 431.07'
E – 431.09'



INDEXED
JAN 18 1951

Adams bet. monte & Park

no – 399.81'
So – 313.81'

6263
6310

Monroe bet. monte & Park

no – 313.68'
So – 313.68

Madison bet. monte & Park

no – 313.76'
So – 313.81'

Meade bet monte & Park

no. – 313.86
no – " 313.89 " " " & Campus

Park B. bet Meade & 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. monte & Campus

no – 313.96'
So – 313.96'

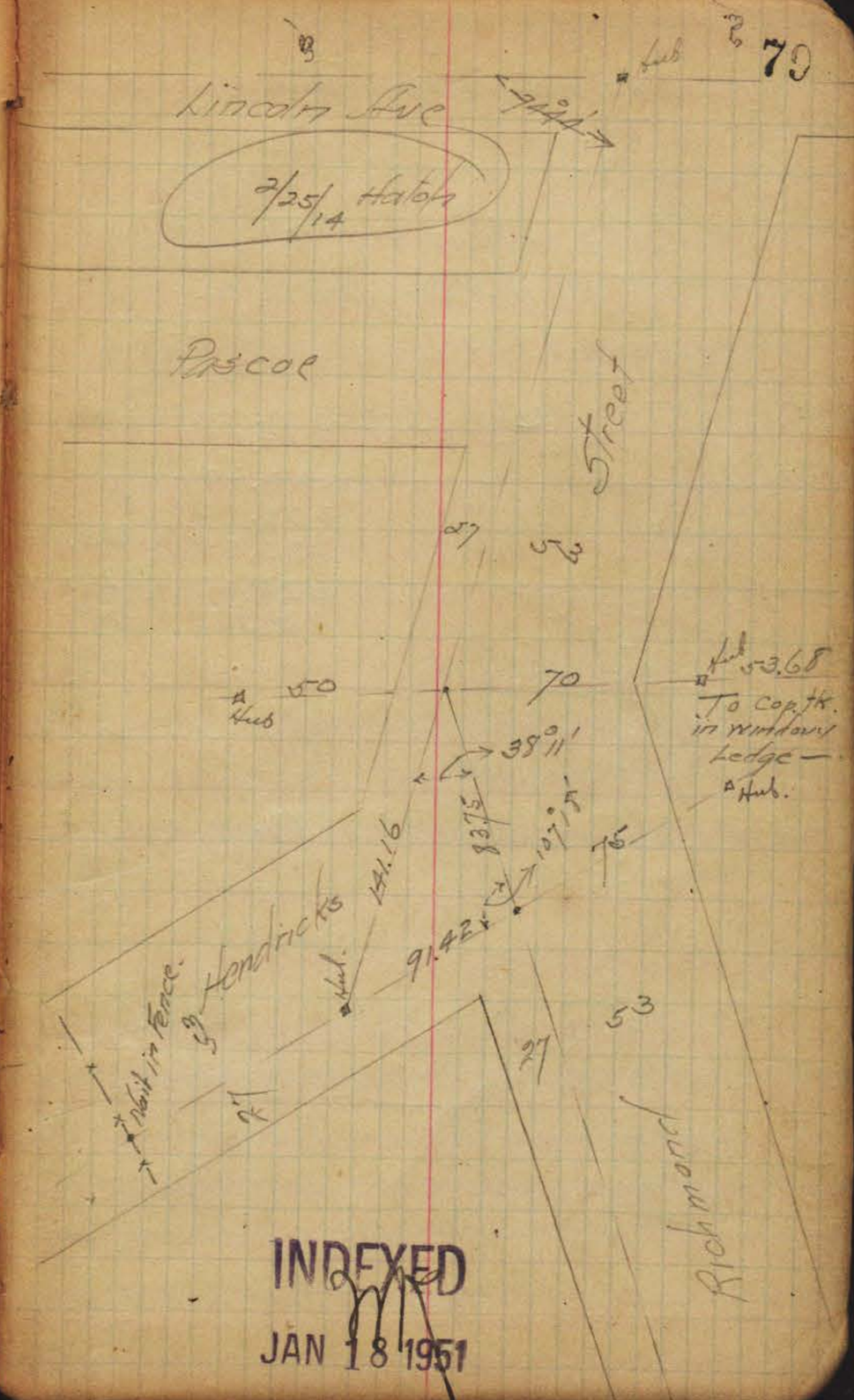
Monroe bet. monte & "

no – 314.09'
So – 314.09'

Meade " Park & "

~~no~~ So. side – 713.63'

1120) 1.000 (.00089
840
1600



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

168.97 452.11 633.20 452.04

61.63

813.88

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 9000 12.10 63.74

6.5 10.0

613.40

182.37

431.03

313.53

222.22

379.64 379.95

333.84 333.40

378.69 379.31

~~379.31~~

334.25 334.47

379.00 378.6

379.95 380.40

182.37 194.20

431.03 313.32

338.37 613.45

322.42 313.57

265.27 313.57

41.75 ← 24.01

41.75 ÷ 30

73° 21' 00"

40.99

39.74

31.06

32.46

117.18

12.5

35 | 99

40 | 99

20

89° 25'

89° 26'

114'

397.04

5204 | 397 42

154.78

659.04

813.82

25412

.0349

255708

113648

86236

9.91578 81.81

43

543

724

76.02

1.81

7783

1629

328

301

126

126

28.13

41 10½

9.9158

16.47

297474

396632

594948

9.9158

162.91594

524.77

608.23

1133.00

1132.94

588.23

615.23

608.23 60

209.87 | 381.00 | 1.81

209.87

171.130

167896

32340

615.23

78

640.23

7

633.23

1° 16'

1° 17' 50"

57' 55"

2° 15' 48"

57 55

3° 13' 40"

57 55

4° 11' 35"

6052

82

12104

181.56

182.0

1.81

32

362

543

57.92

16' | 23.27 | 284.12 | 12.2

60

960

2377

5142

4654

4880

1009

1629 | 986.00 | 6.052

620.87

588.23

37.64

9774

18

45416

8600

5145

6052

455.0108.98

16° 26'

26.166

20

52.3320

23.29 | 1629 | 7

1629

357

1° 48' 38"

2 49 27

2 20 51

2° 38' 23"

2 49 27

2° 27' 50"

2 49 27

3° 17' 17"

2 49 27

13° 06' 44"

24 256 612

300

2617

2173

47.80

14

16

26.166

2173

20 Lots 26.166

1

545.05

47.25

447.25