

925
F.B. 925

MICROFILMED

DEC 16 1964

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO.

SAN FRANCISCO.

ST. LOUIS.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

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

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

- 835 511 241043 7.26 274

435

3+25

7+08.58

10+98.3

13+07.7

25+60.80

22+82.65

278.15

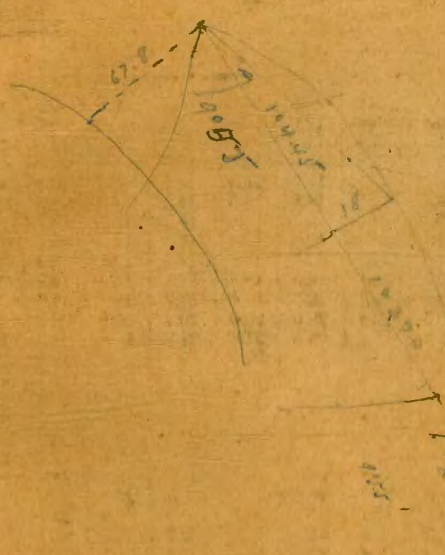
104.45

173.70

23+87.10

22+82.65

104.45



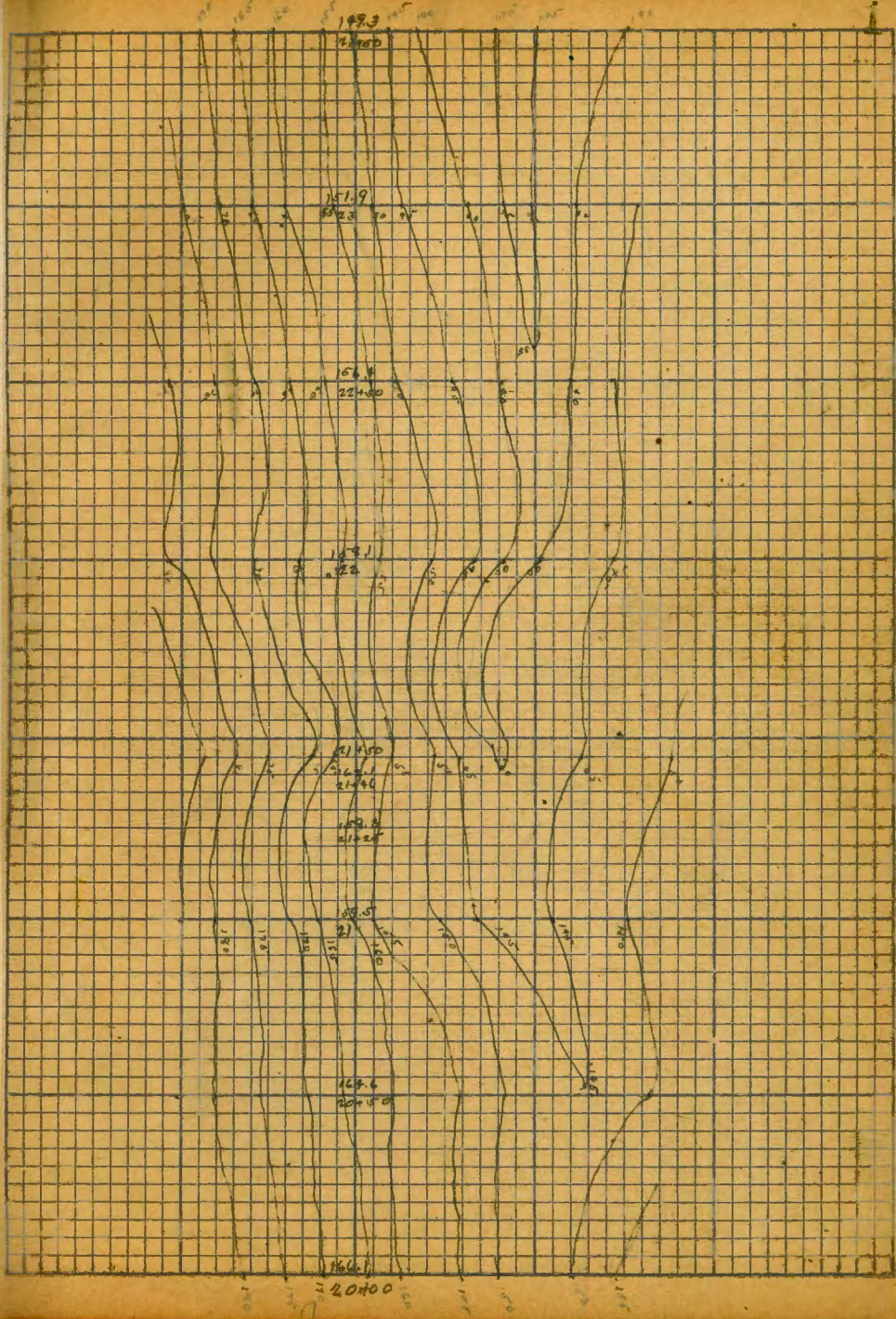
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329.10
279.78
43.00
678.88

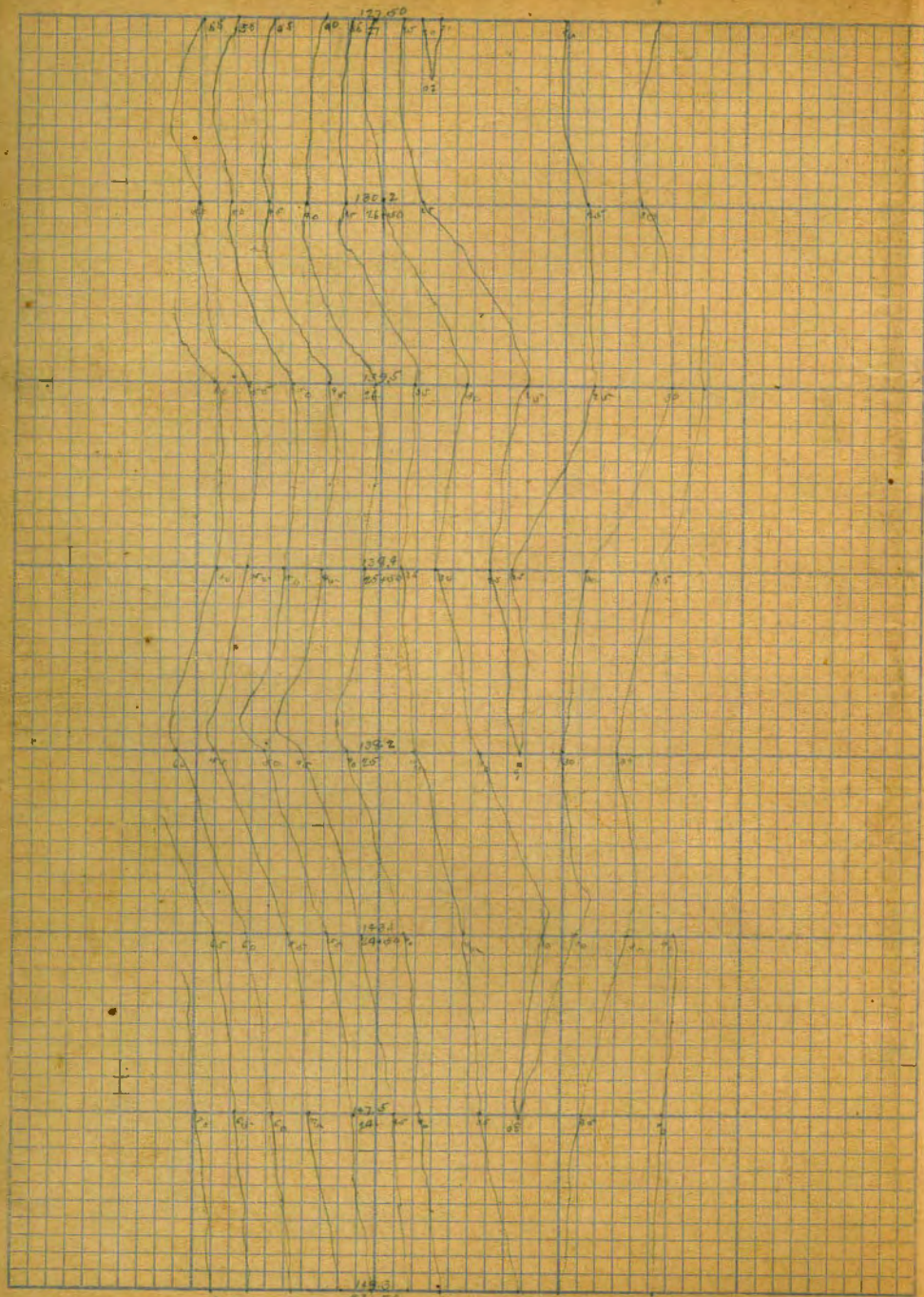
FROM
Loring's Book Store

79.28 NE R.R. pole

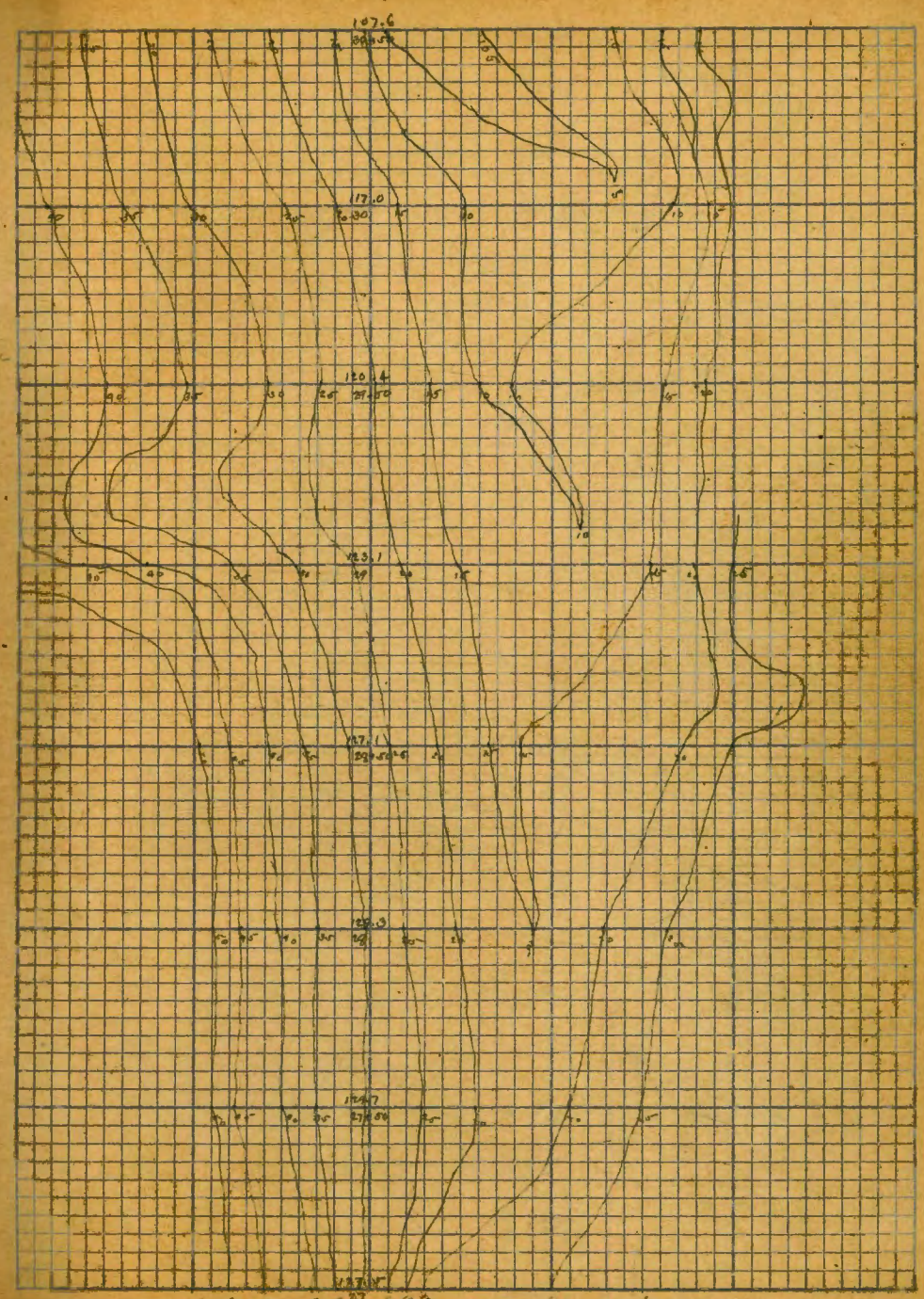
63.92 NW 26 st. m.

4.30
83.58 H.I.
0.00
83.58 I.P.

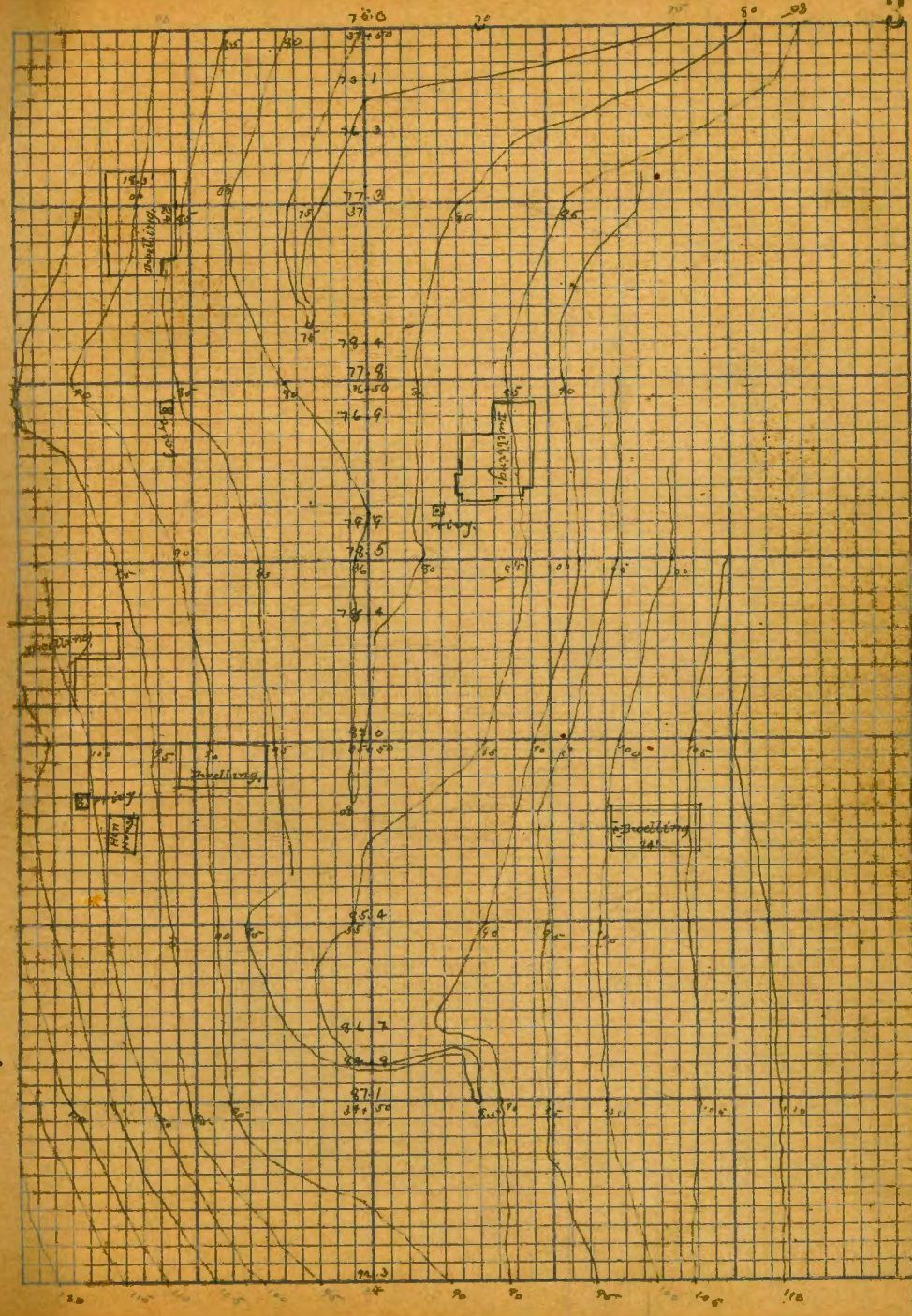
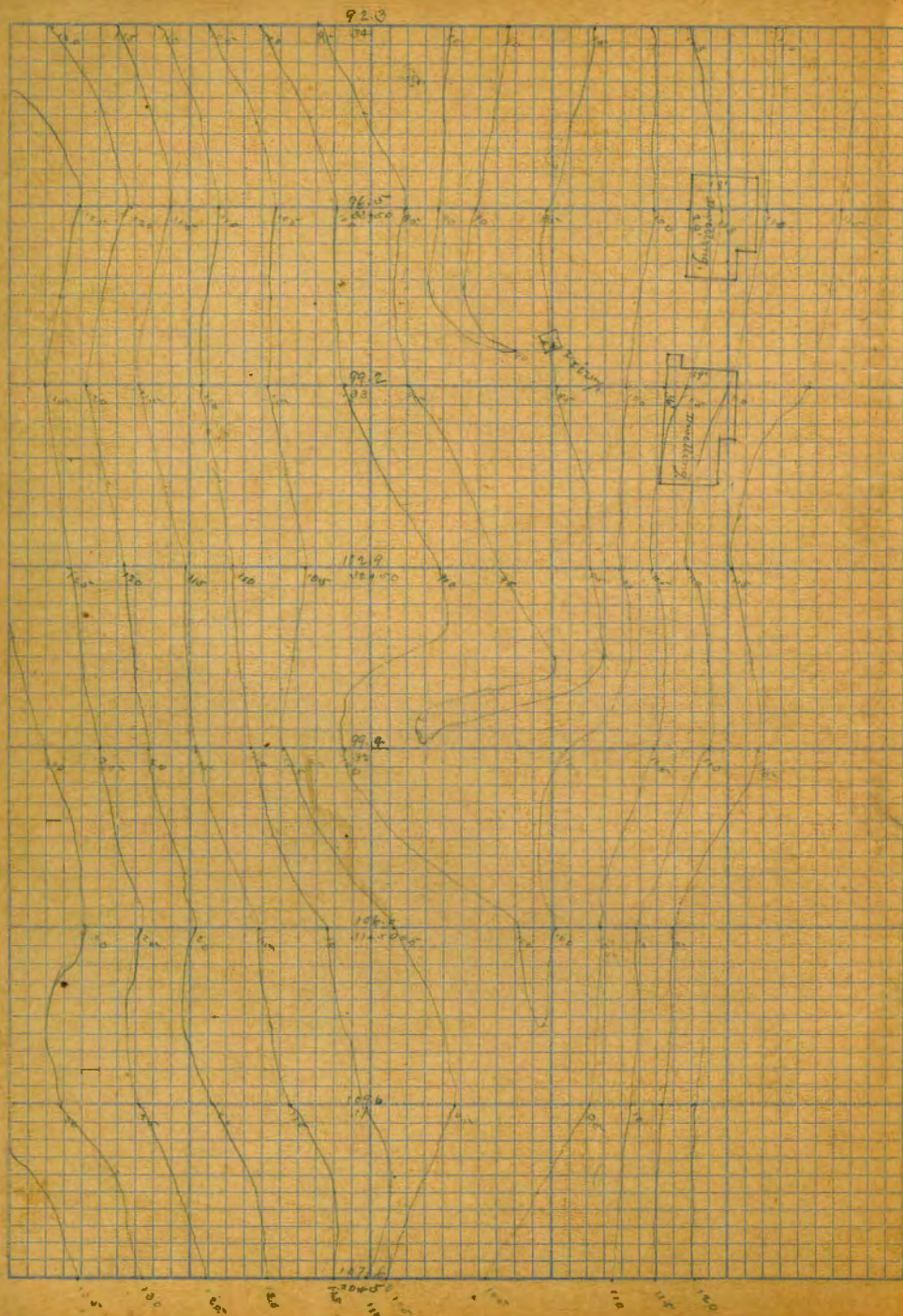




170 180 190 200 210 220 230 240 250



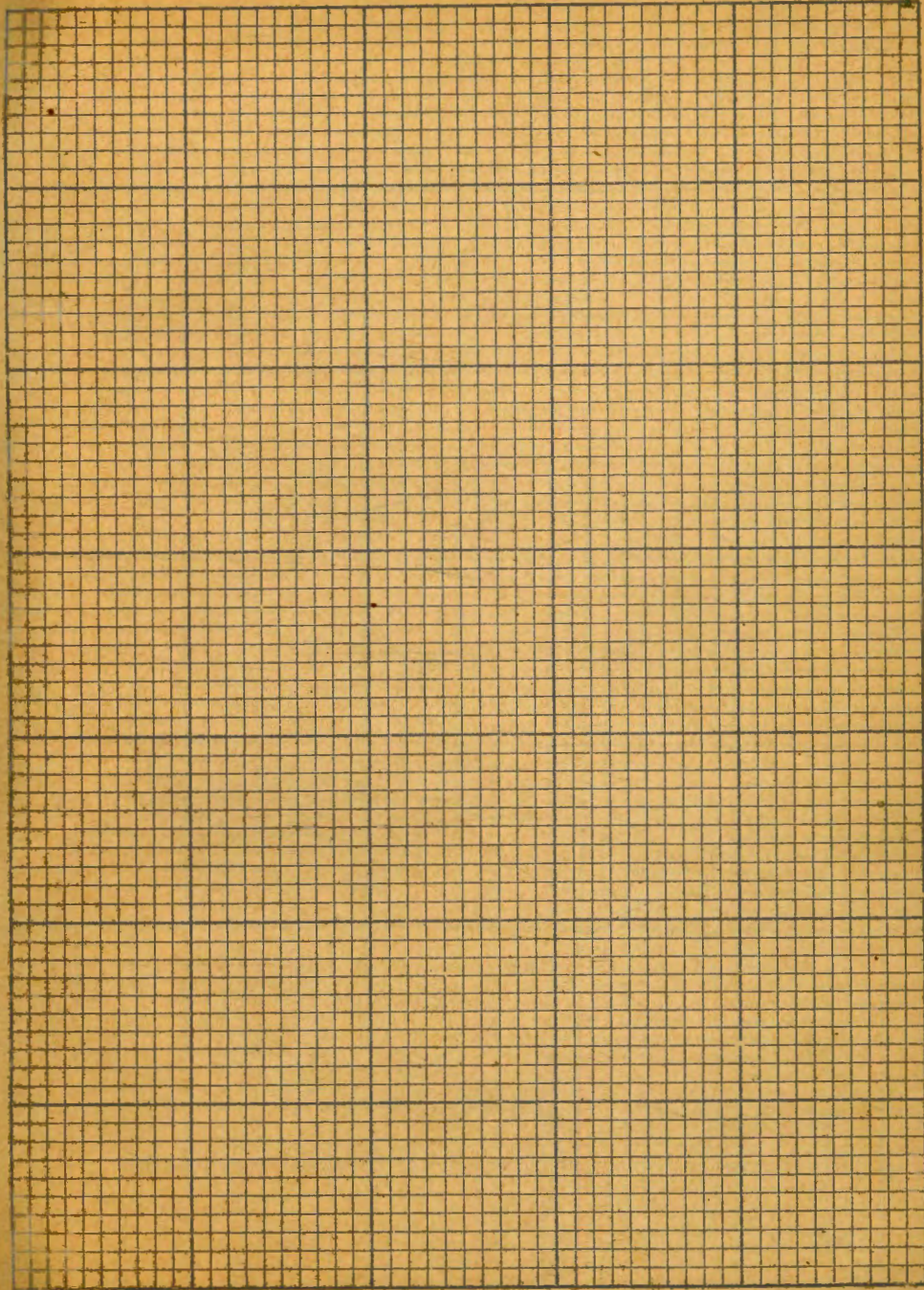
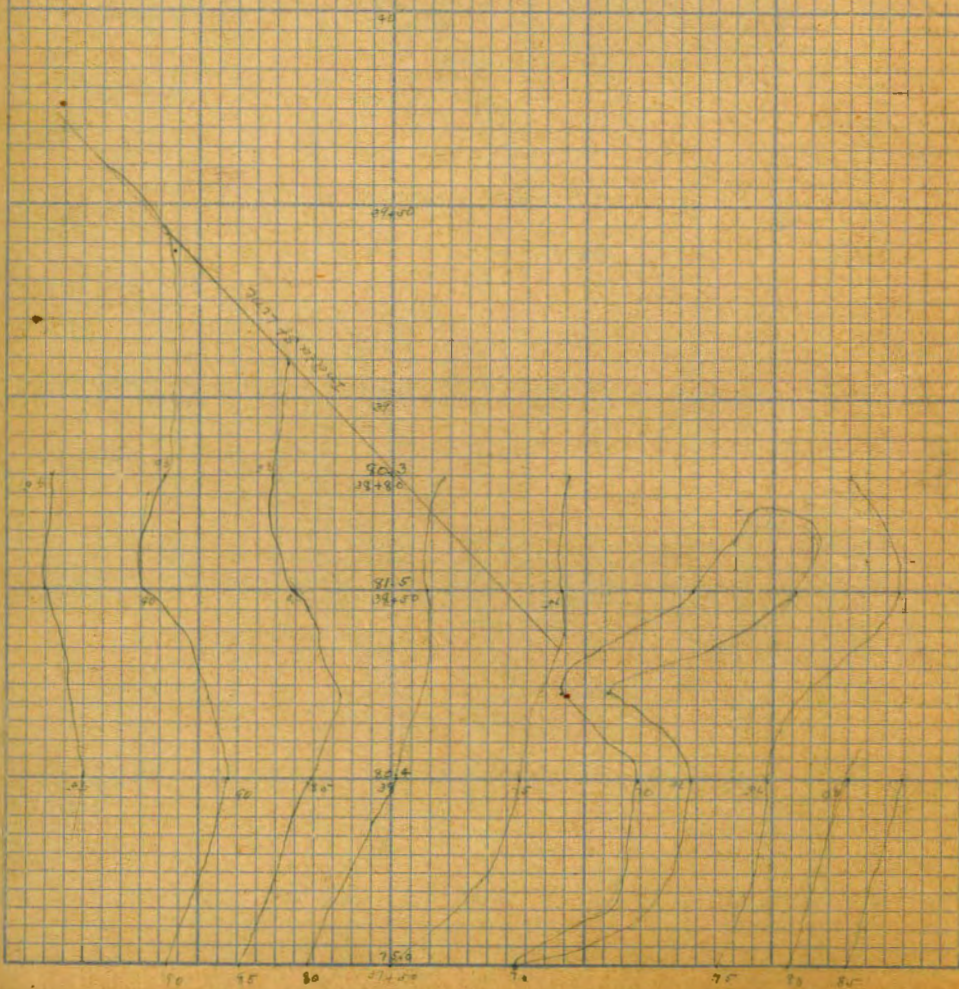
170 180 190 200 210 220 230 240 250

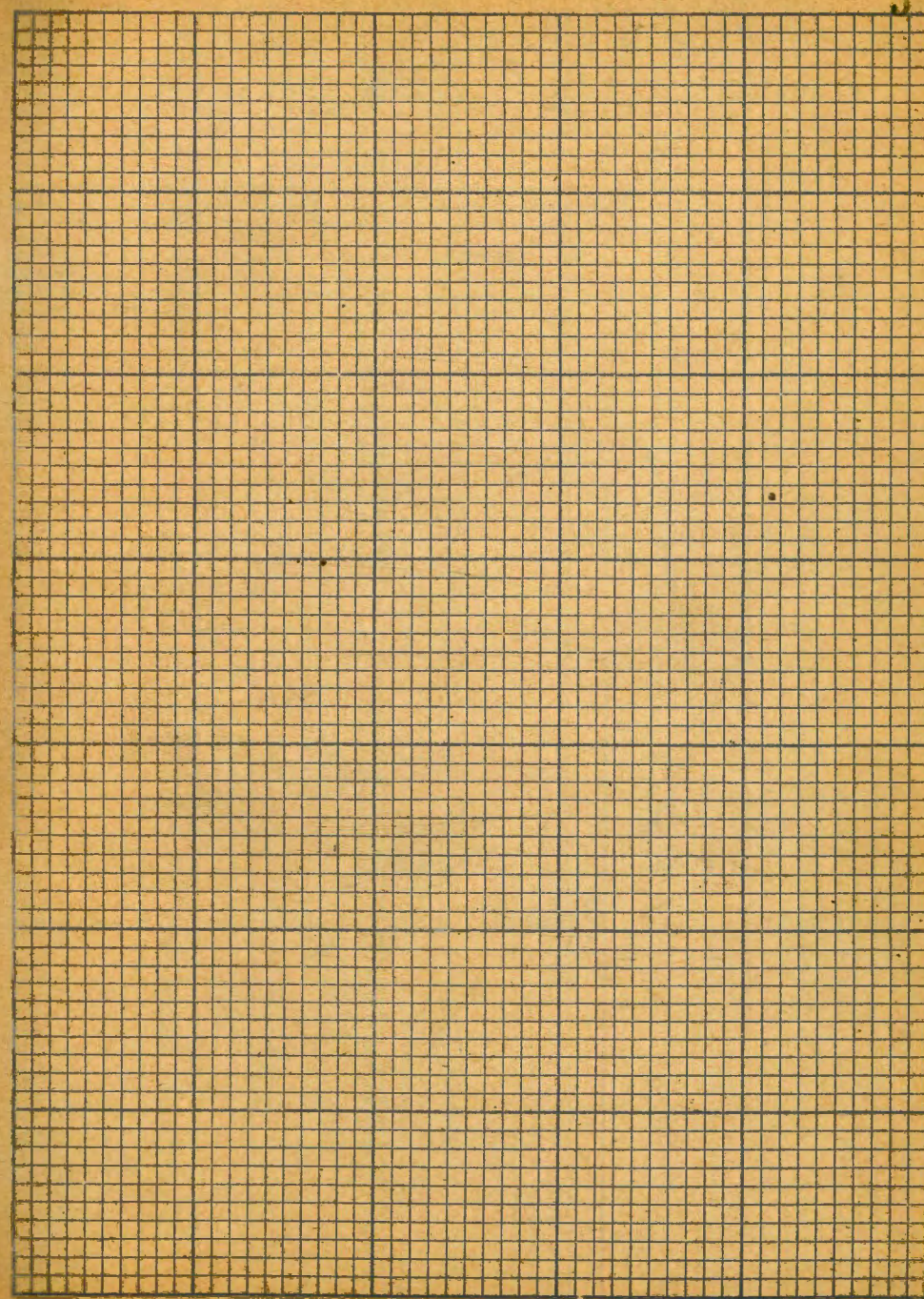
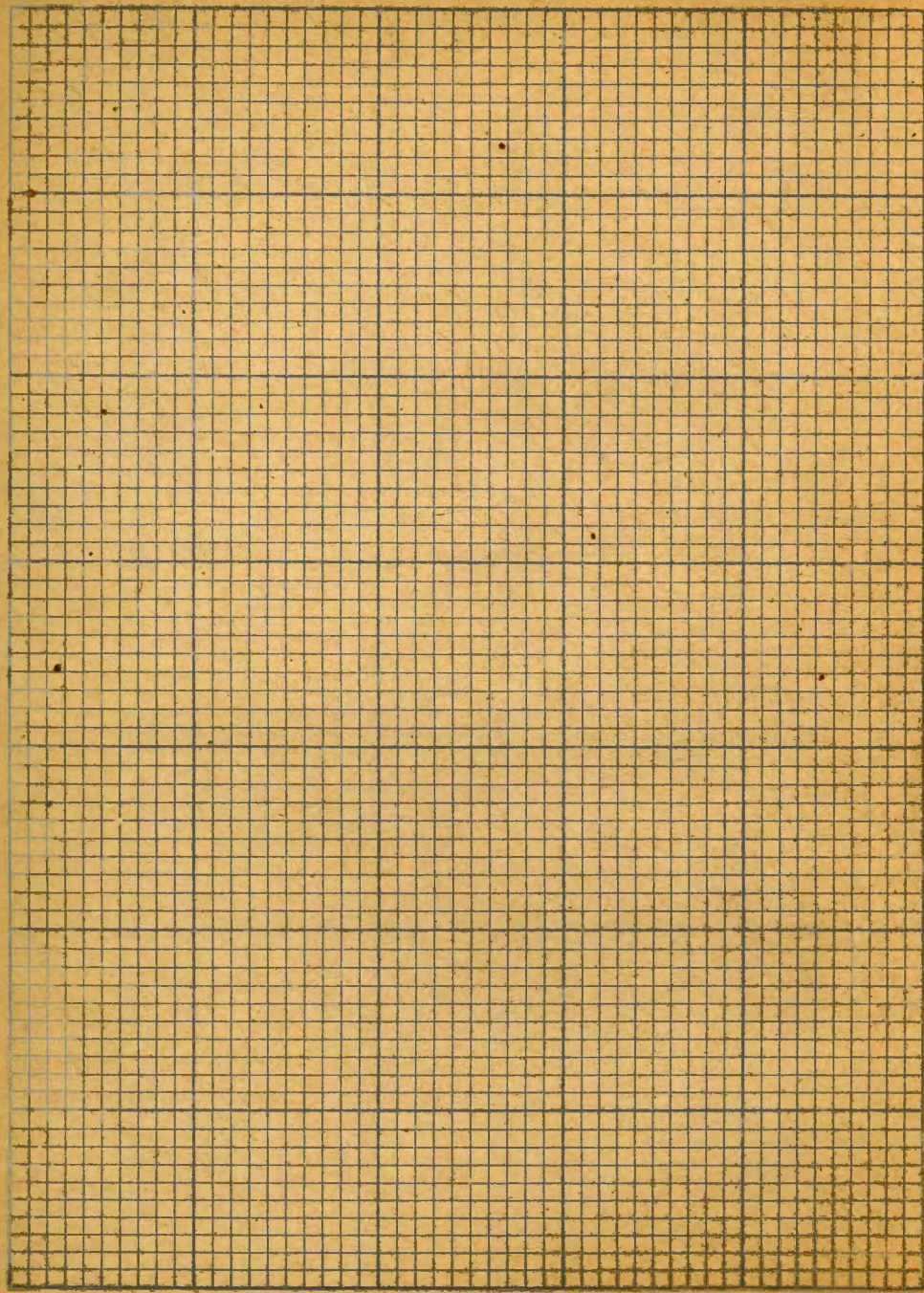


Topography on A Line (Heart St Canyon Road) sta 20 to 39+00. Scale 50' = 1"

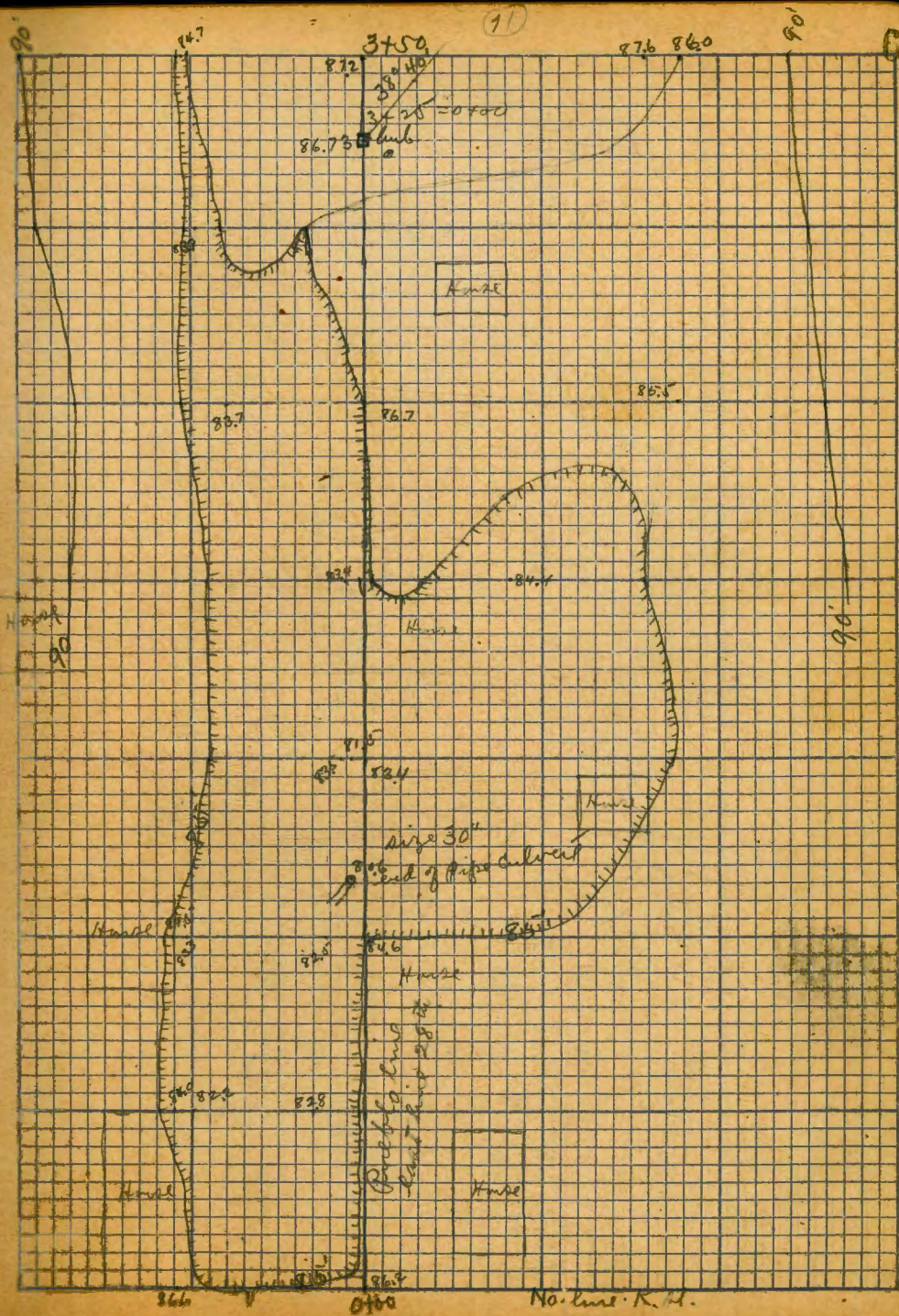
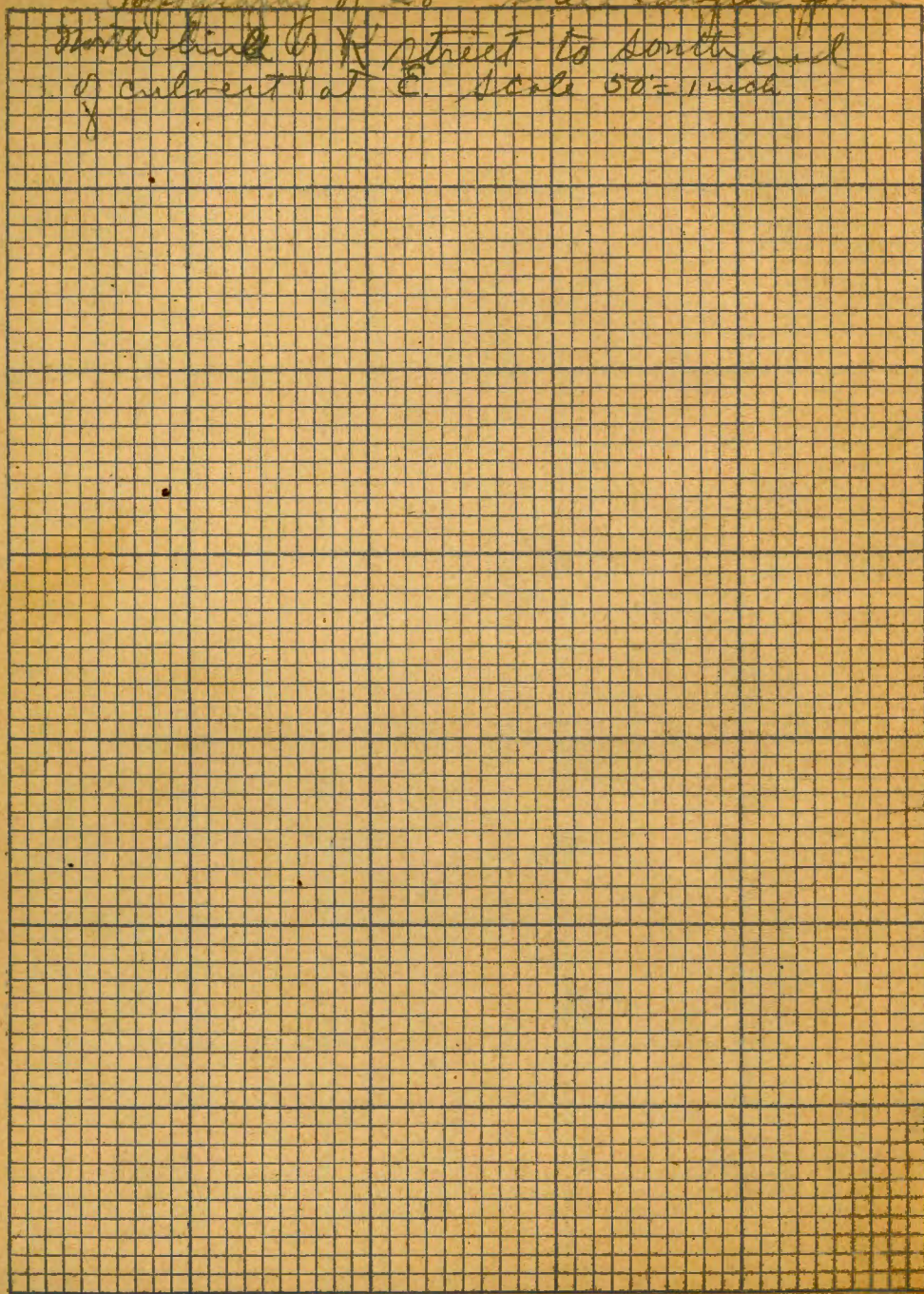
Squares 1/2" each way.

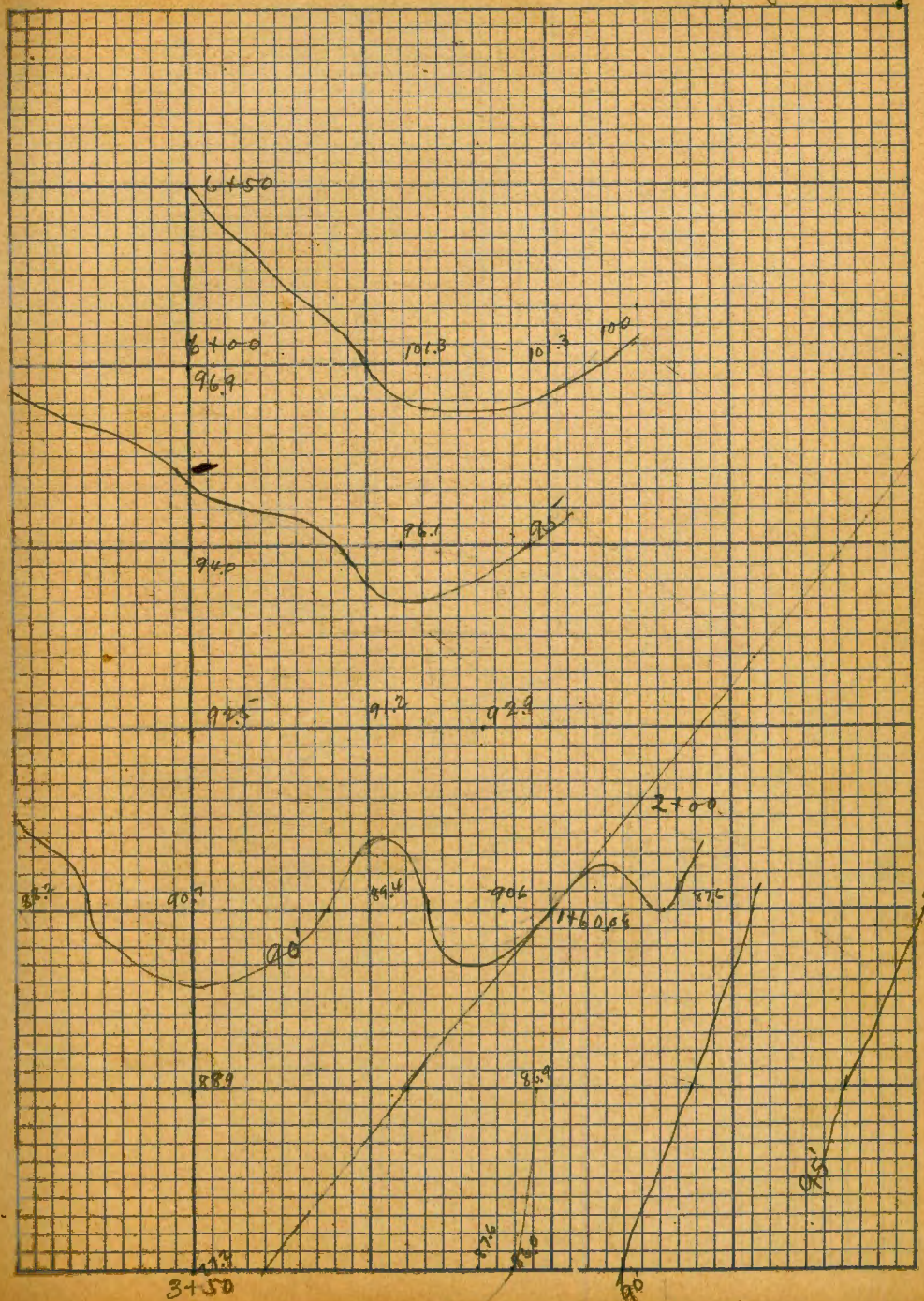
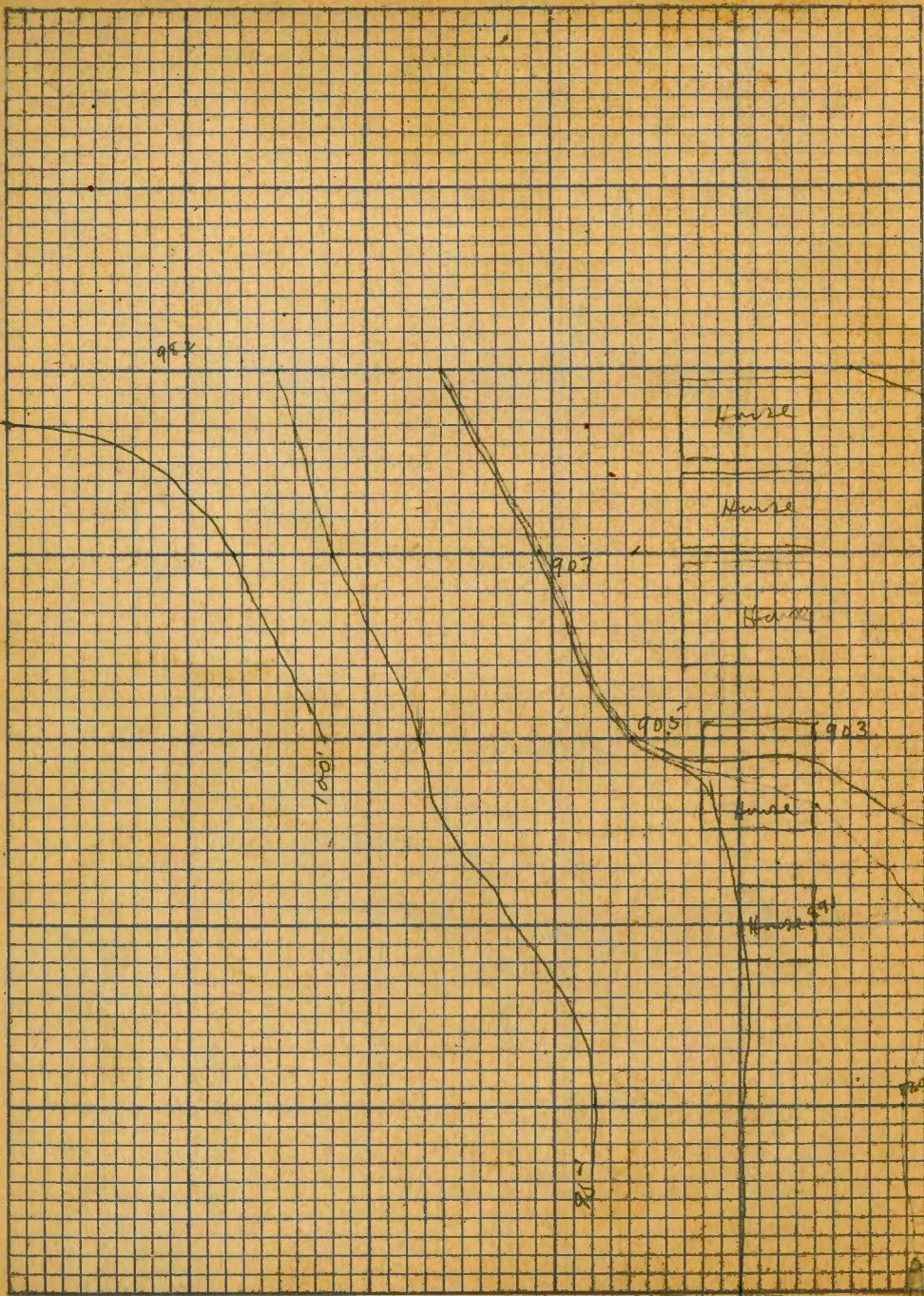
April 1912
C. W. Hayward
Berkeley

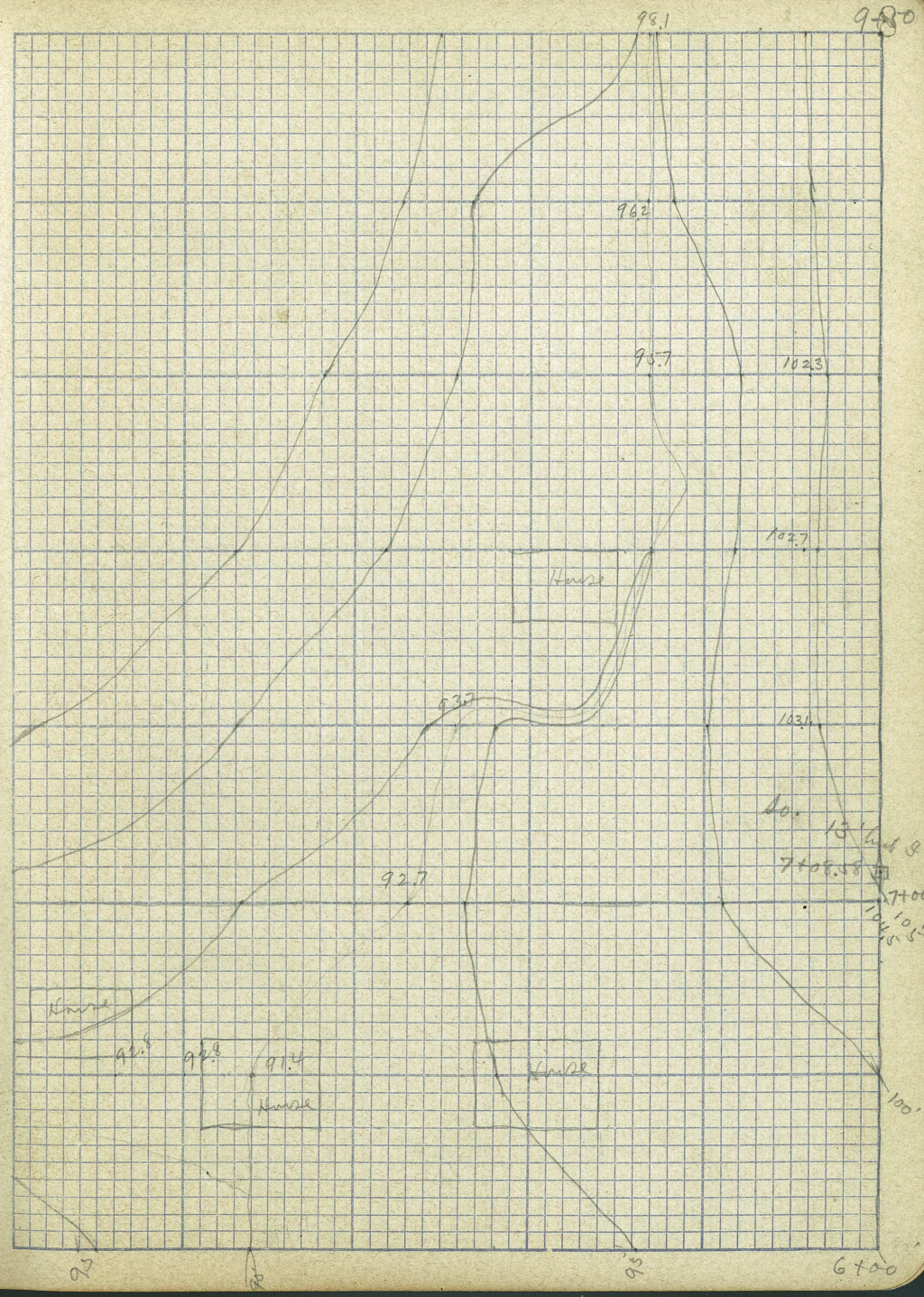
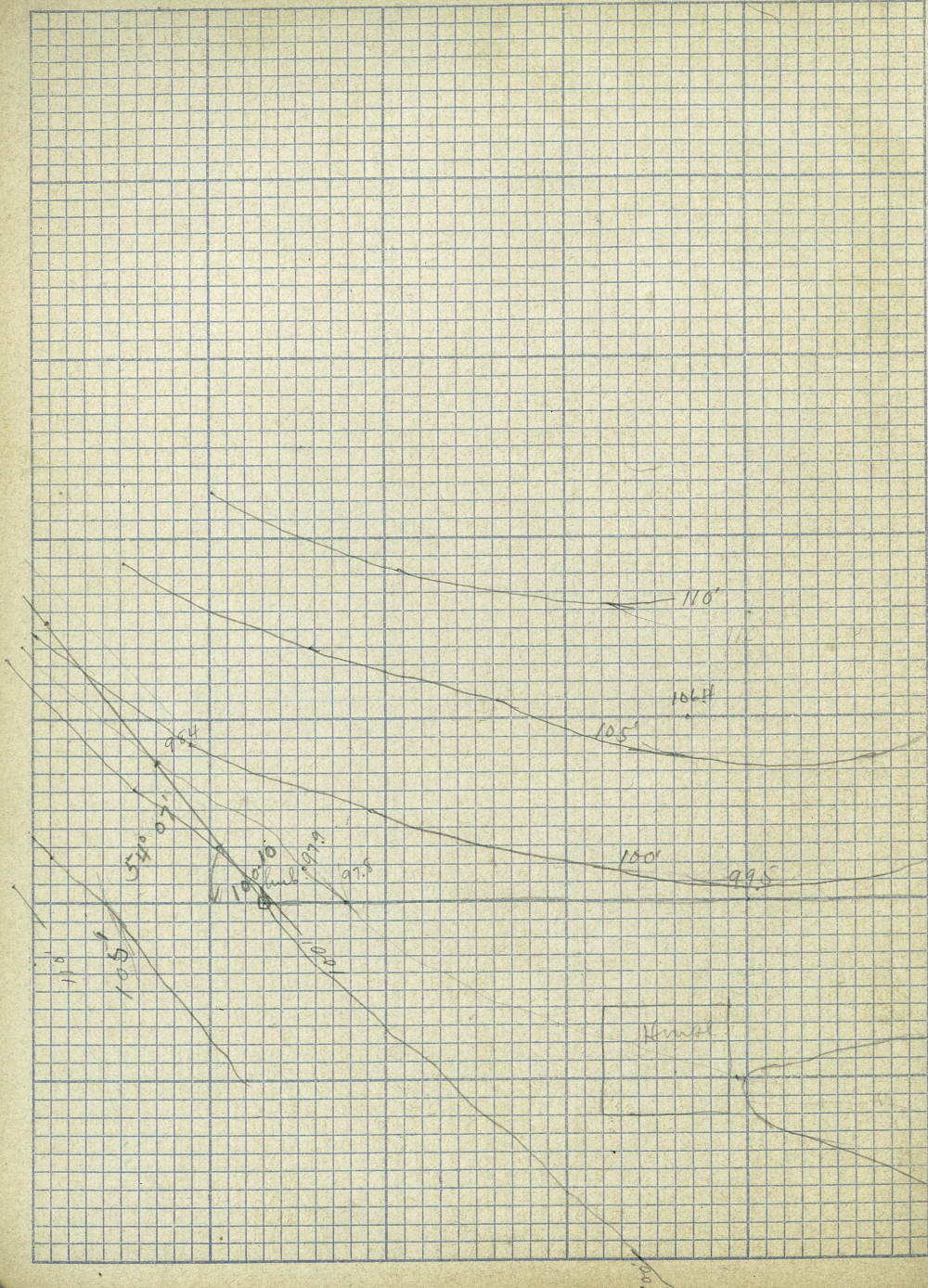




Topography of 38th Street Canyon from
 North end of H Street to South end
 of culvert at E. Scale 50' = 1 inch





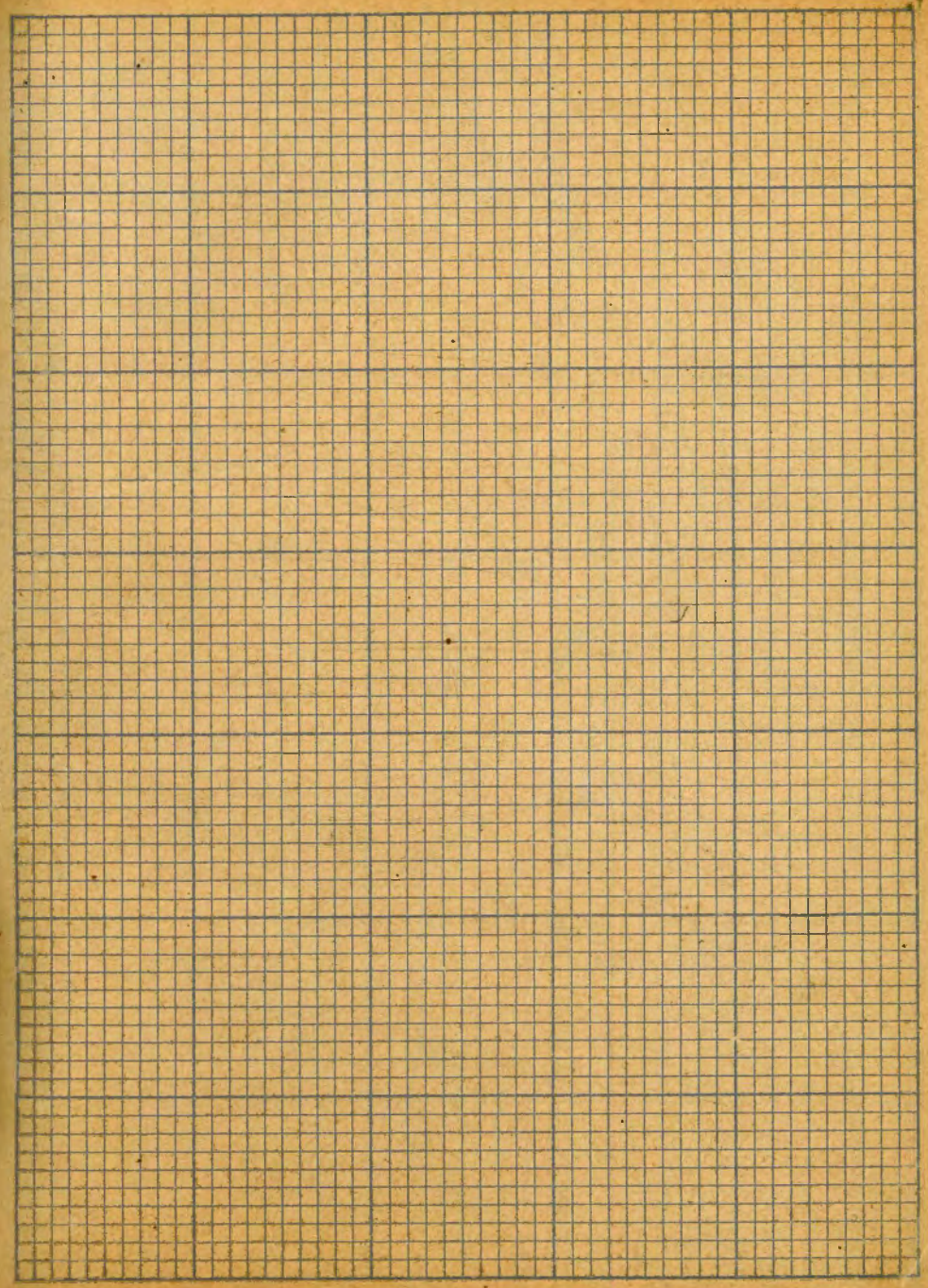
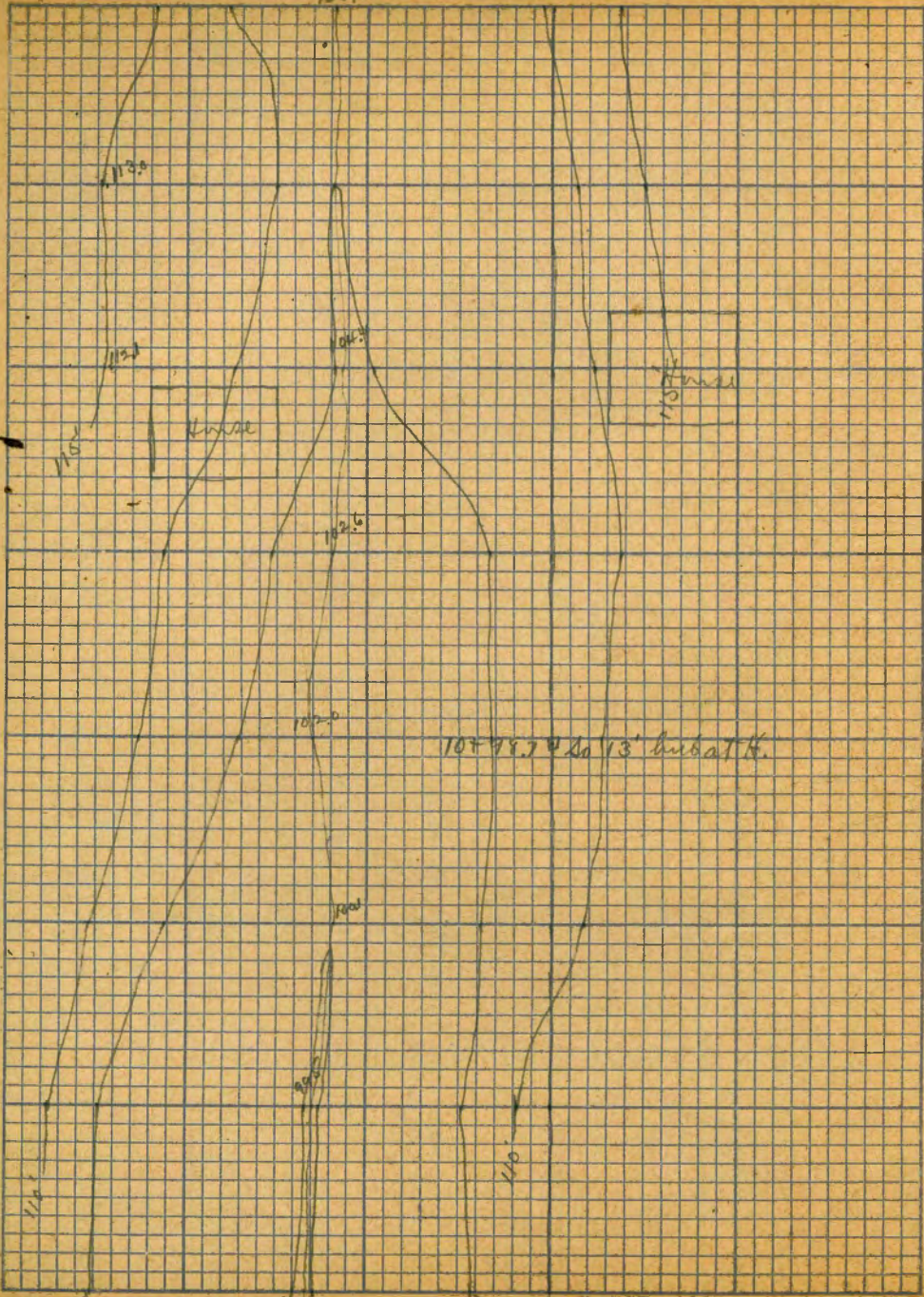


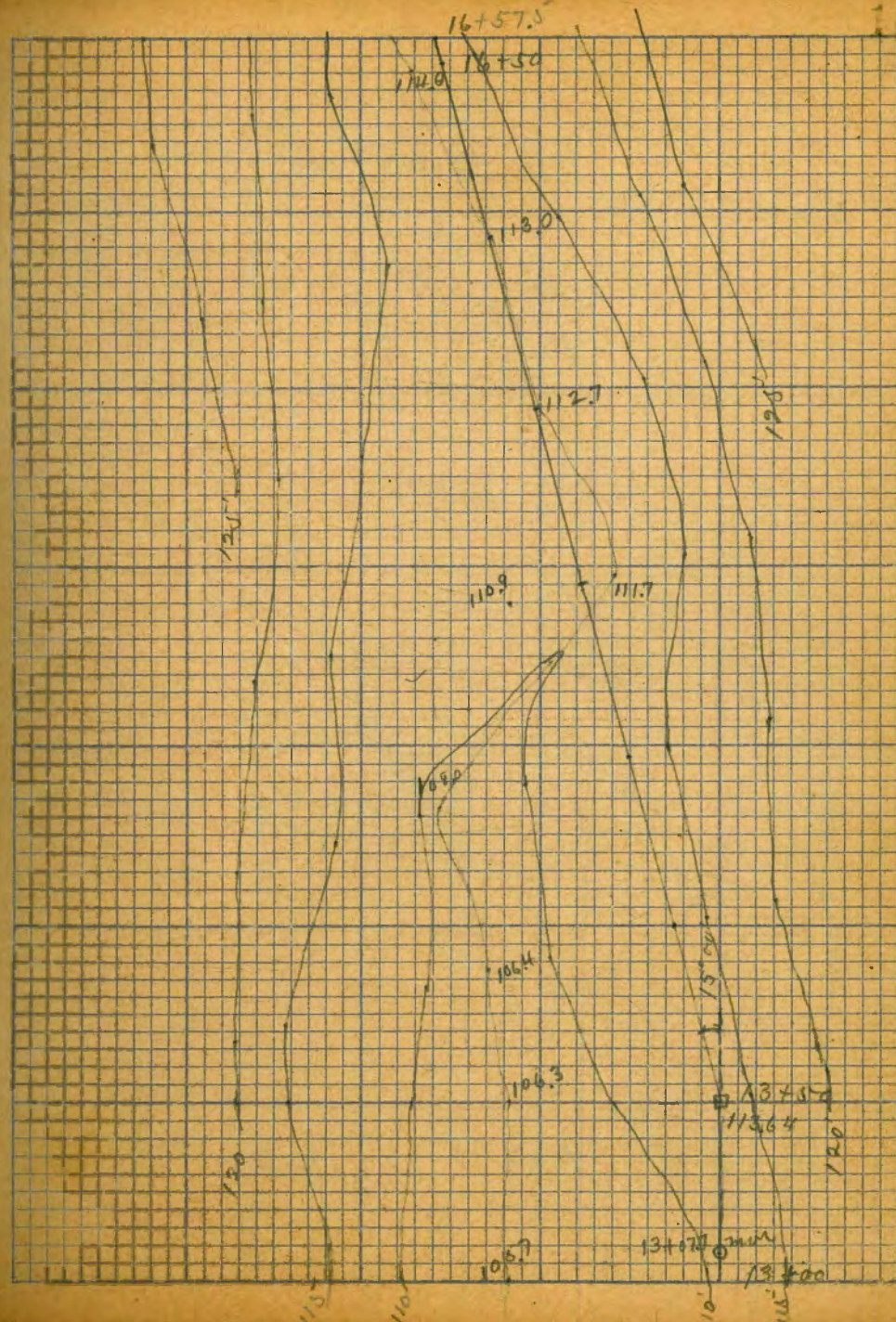
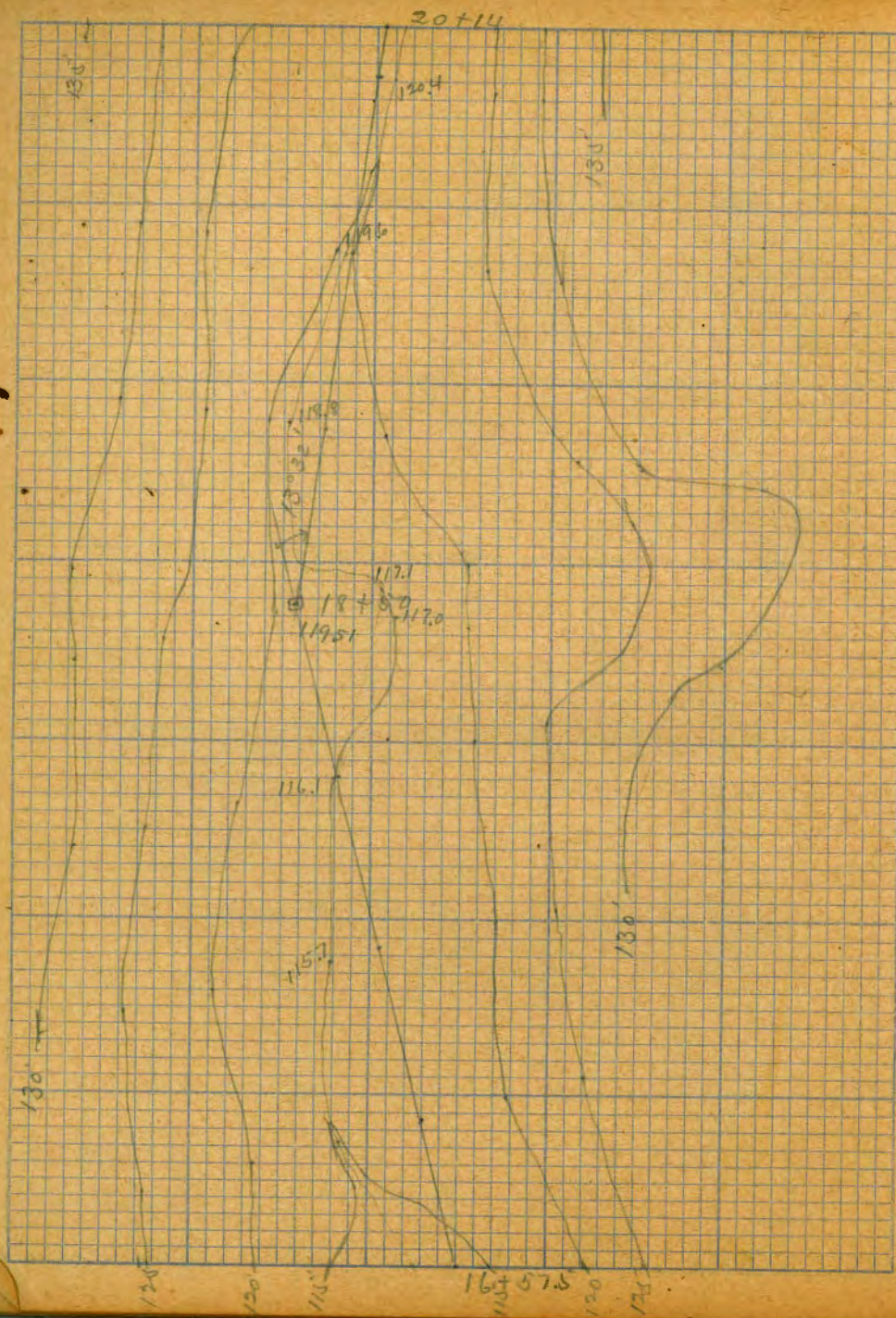
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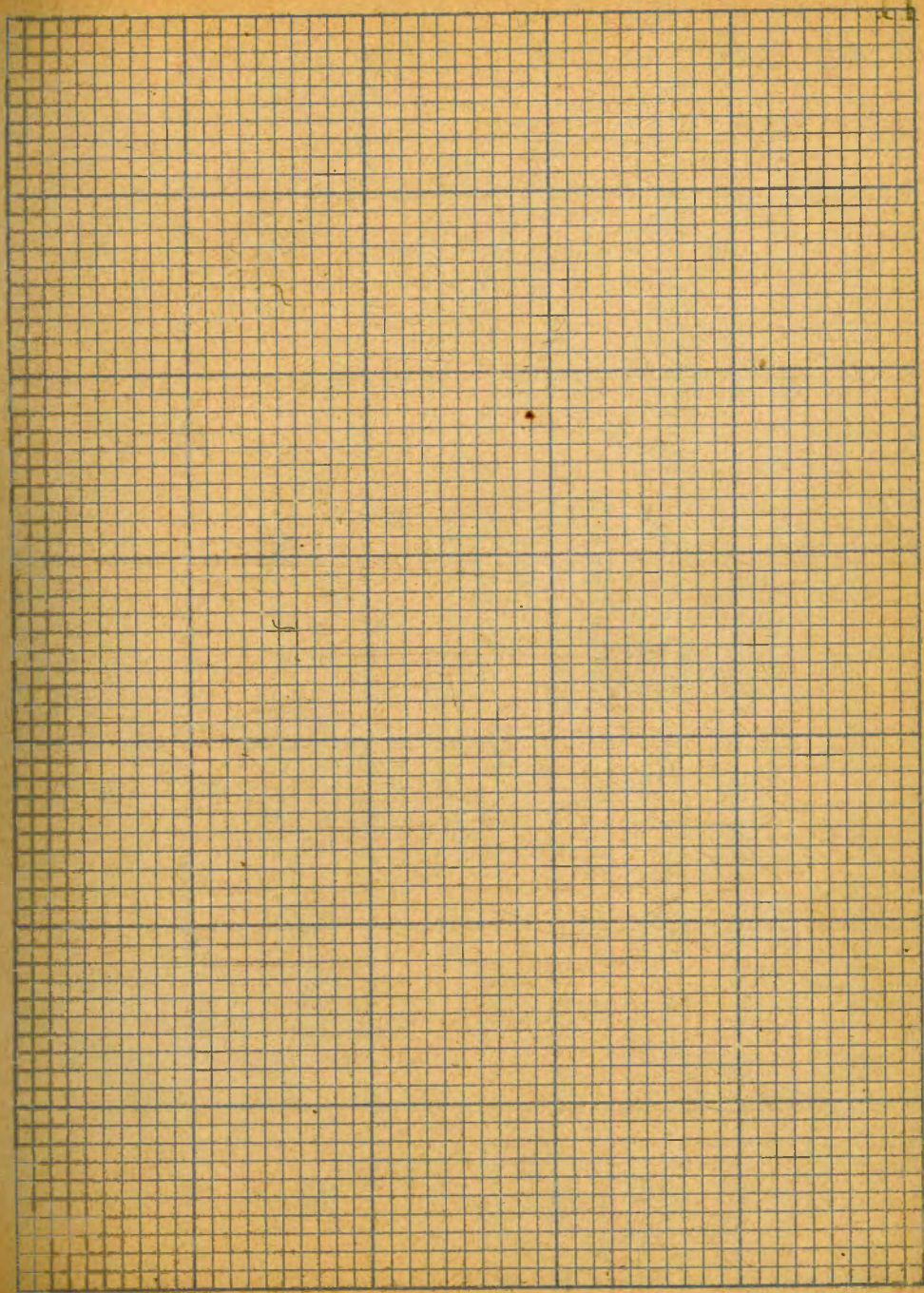
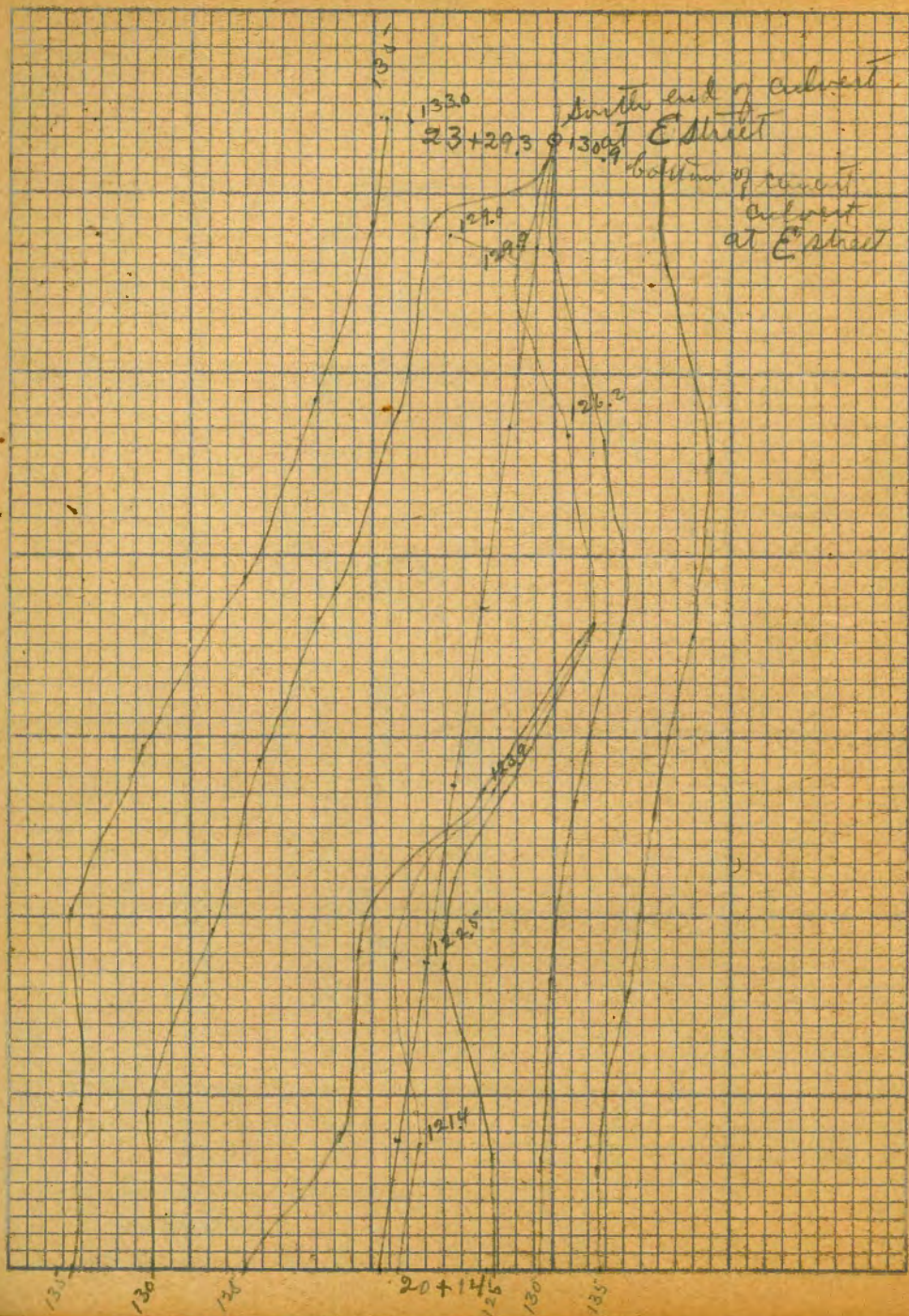
13+00

11364 F.P. and

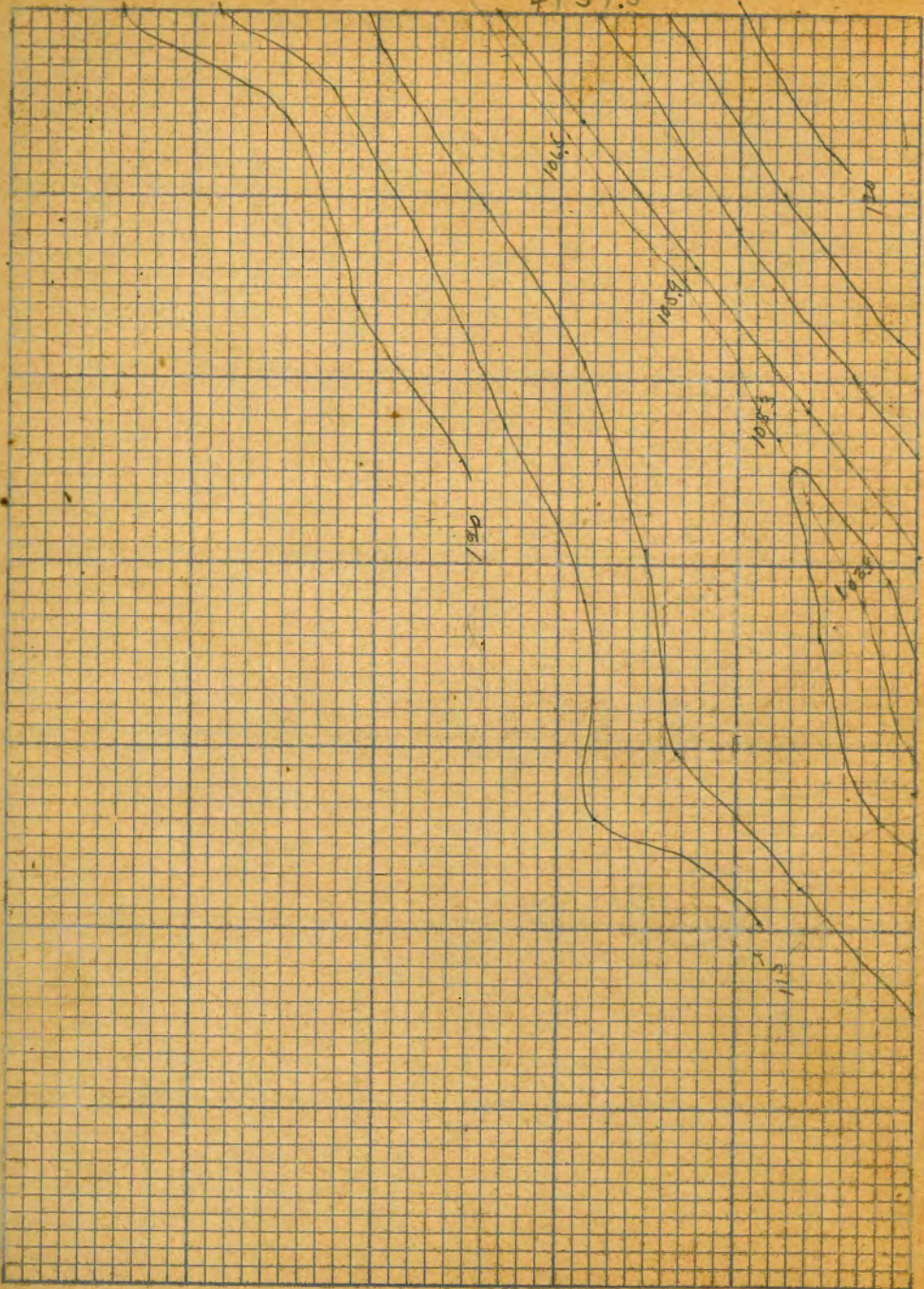
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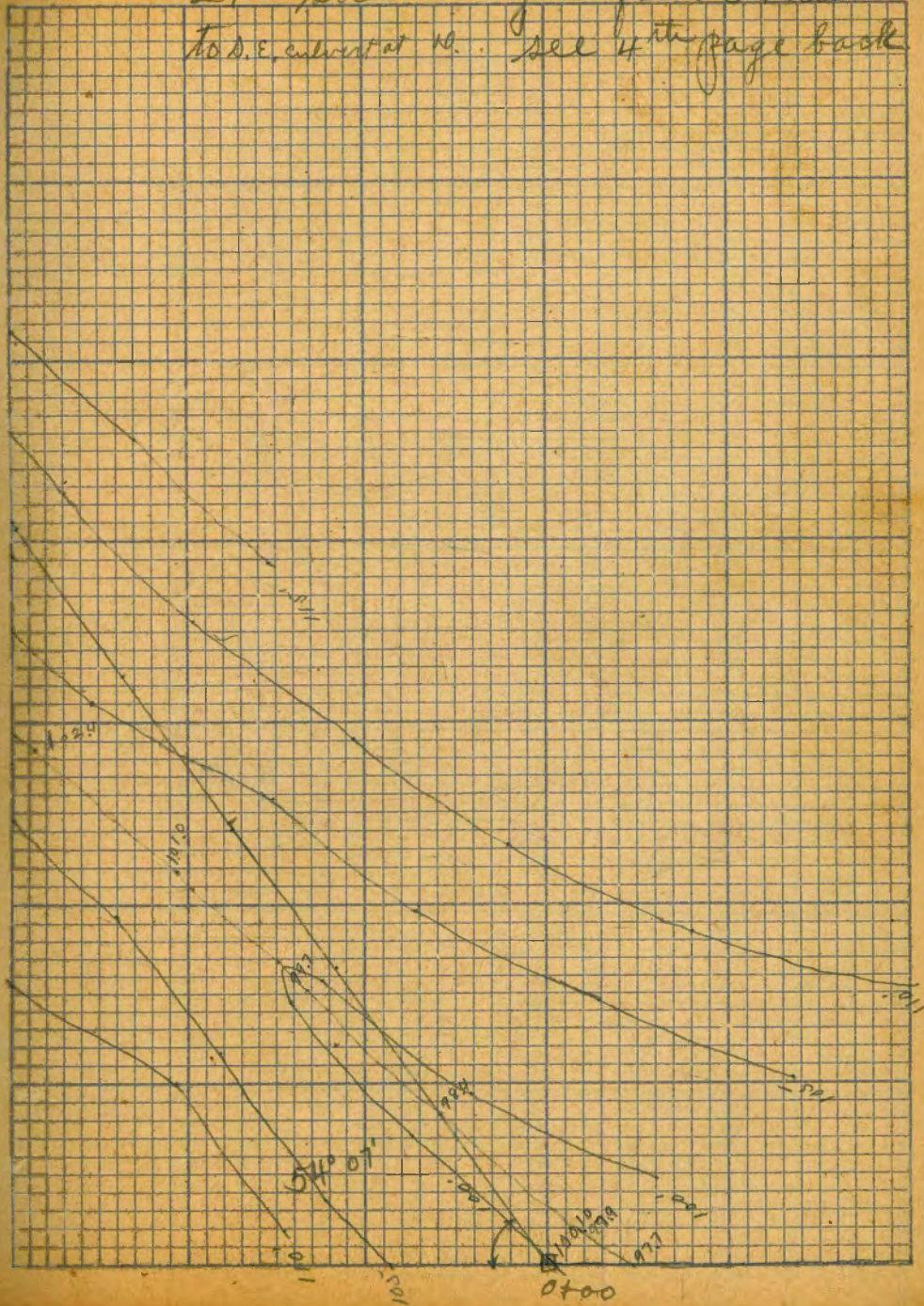


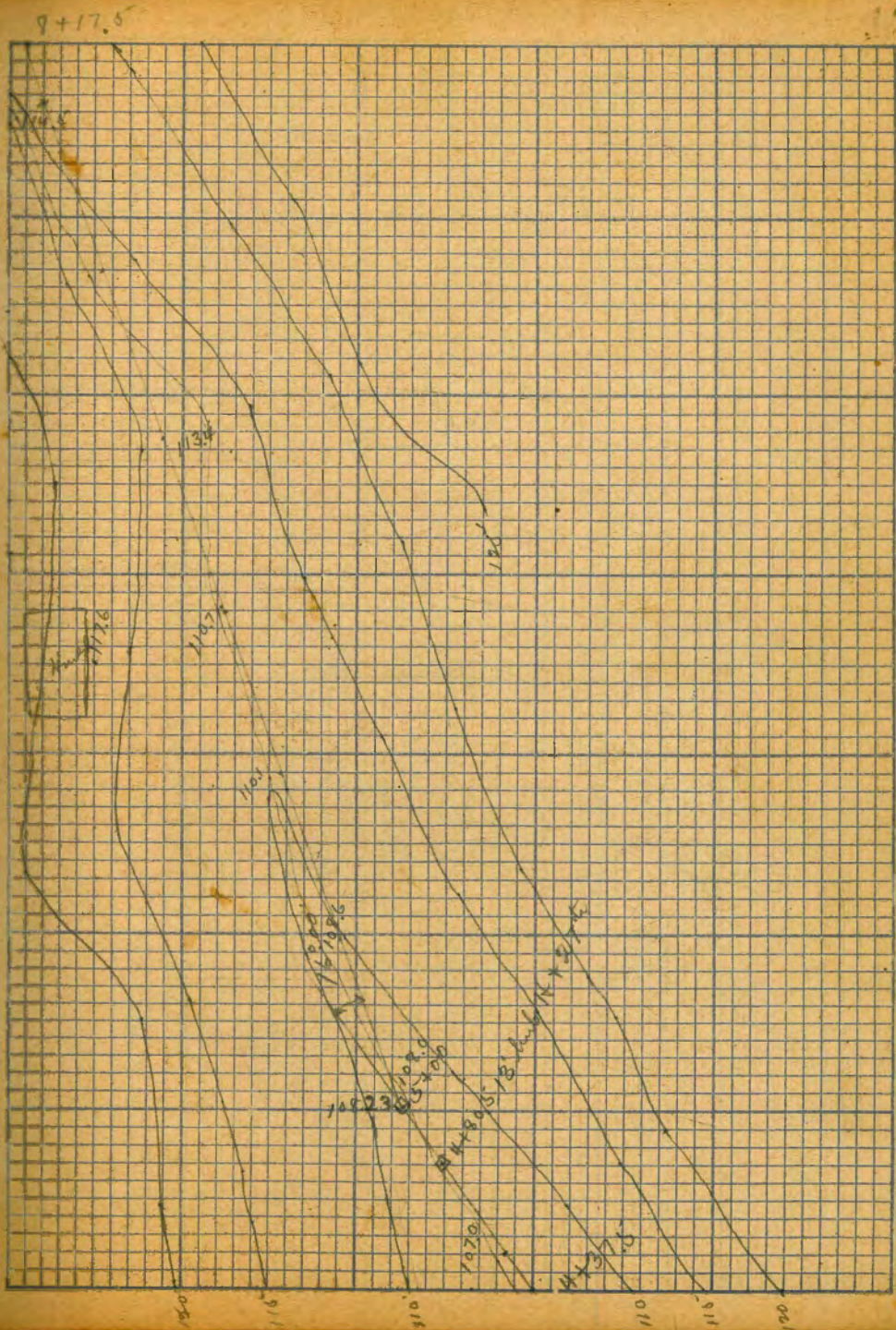
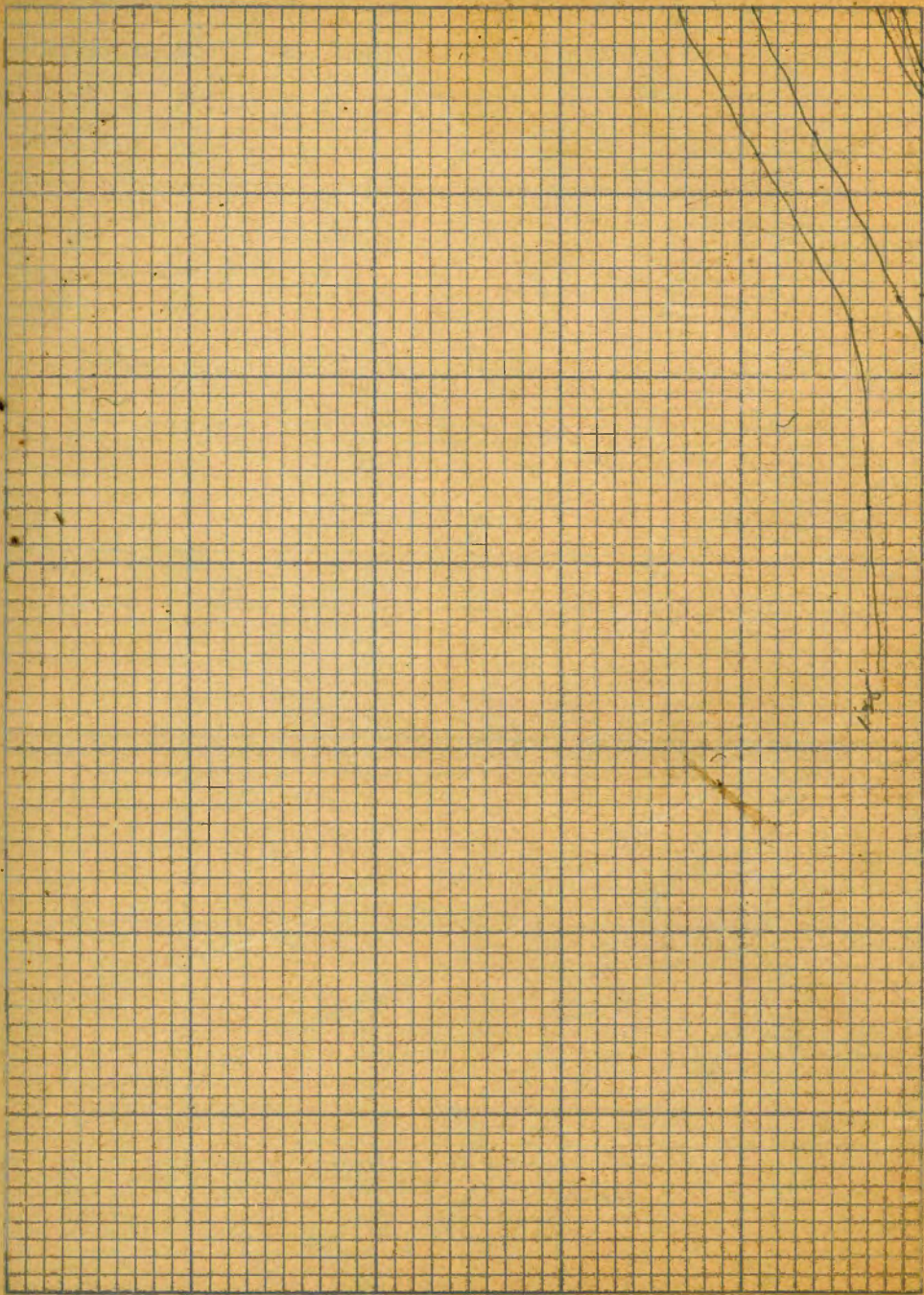


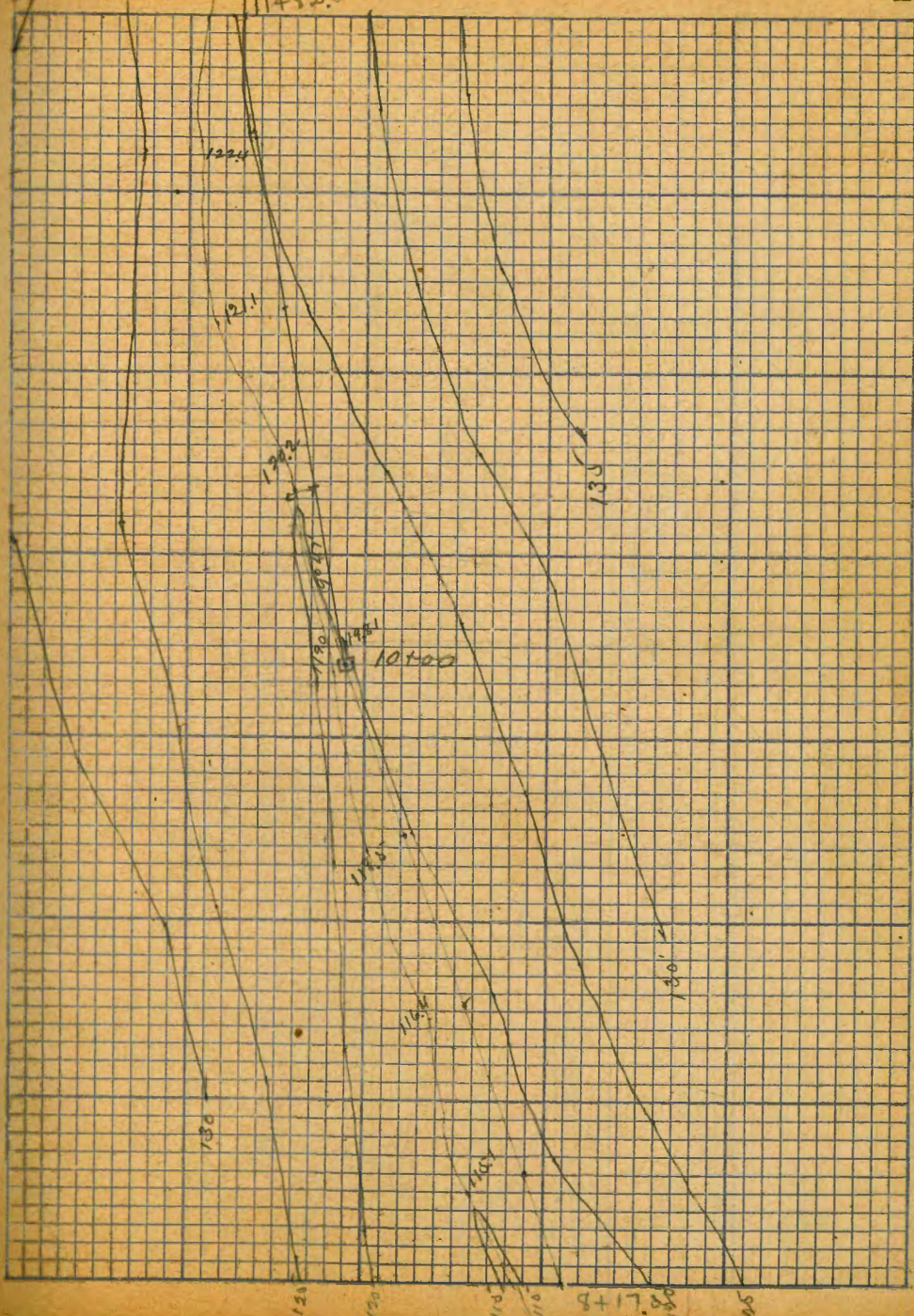
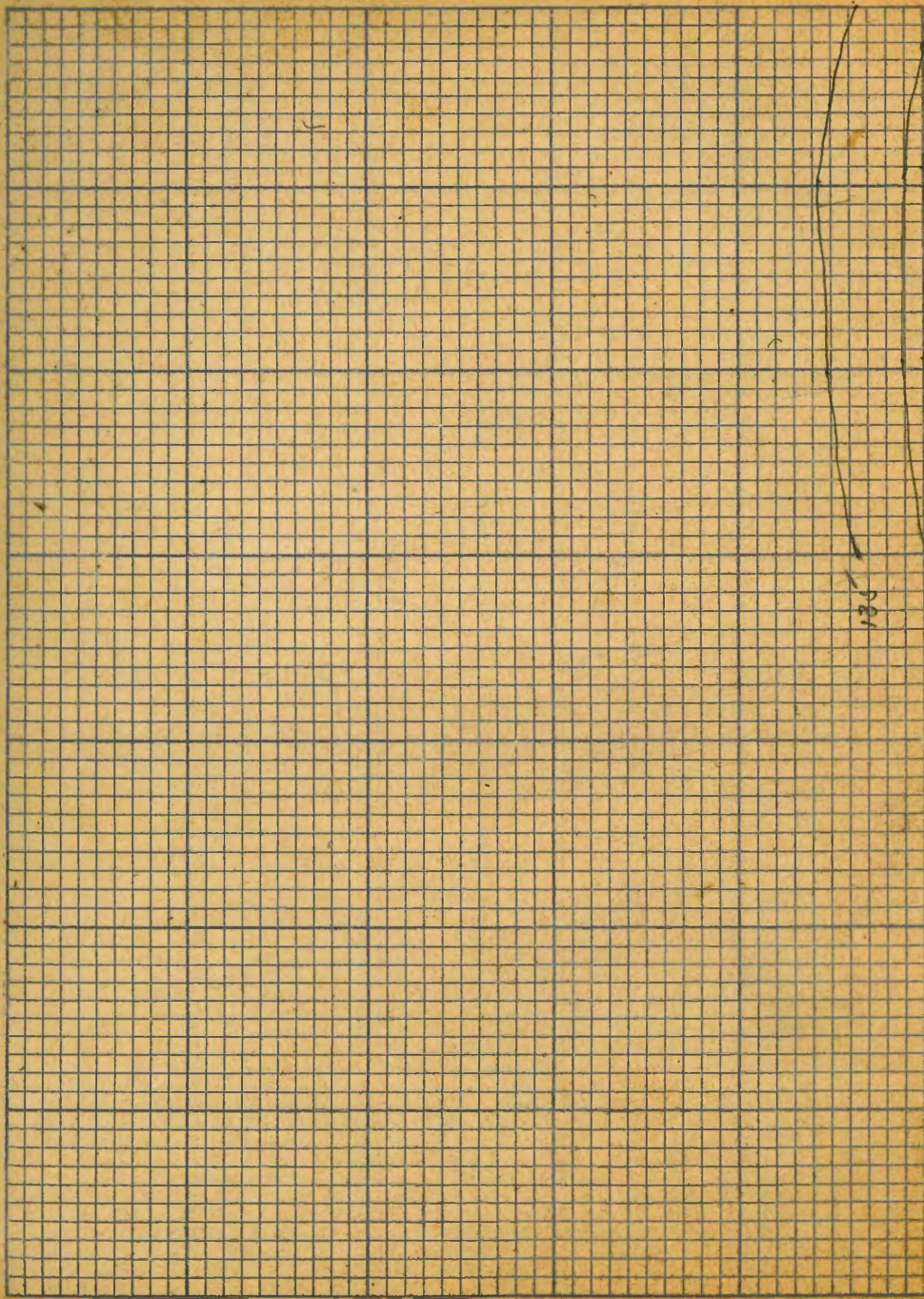
4+37.5

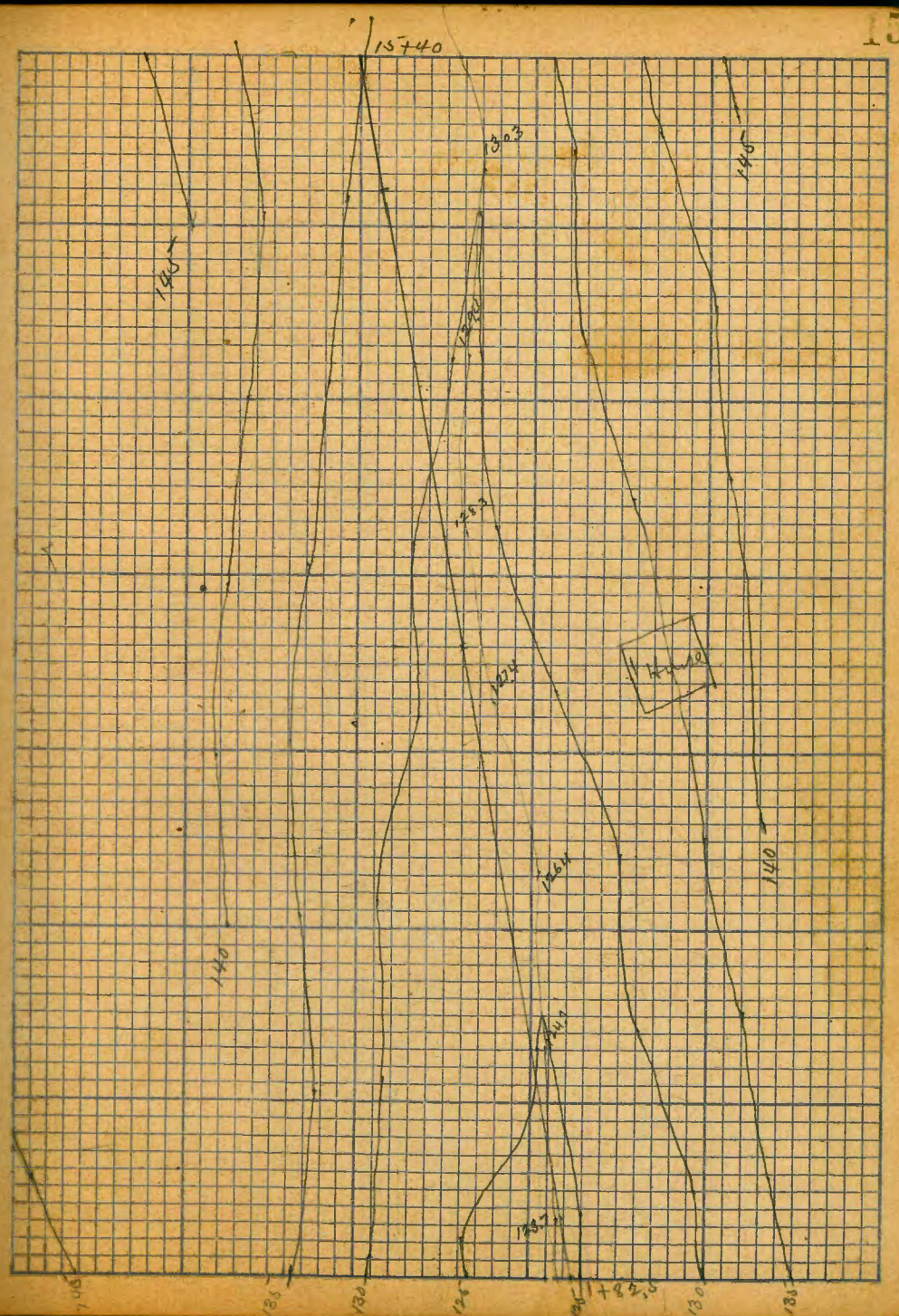
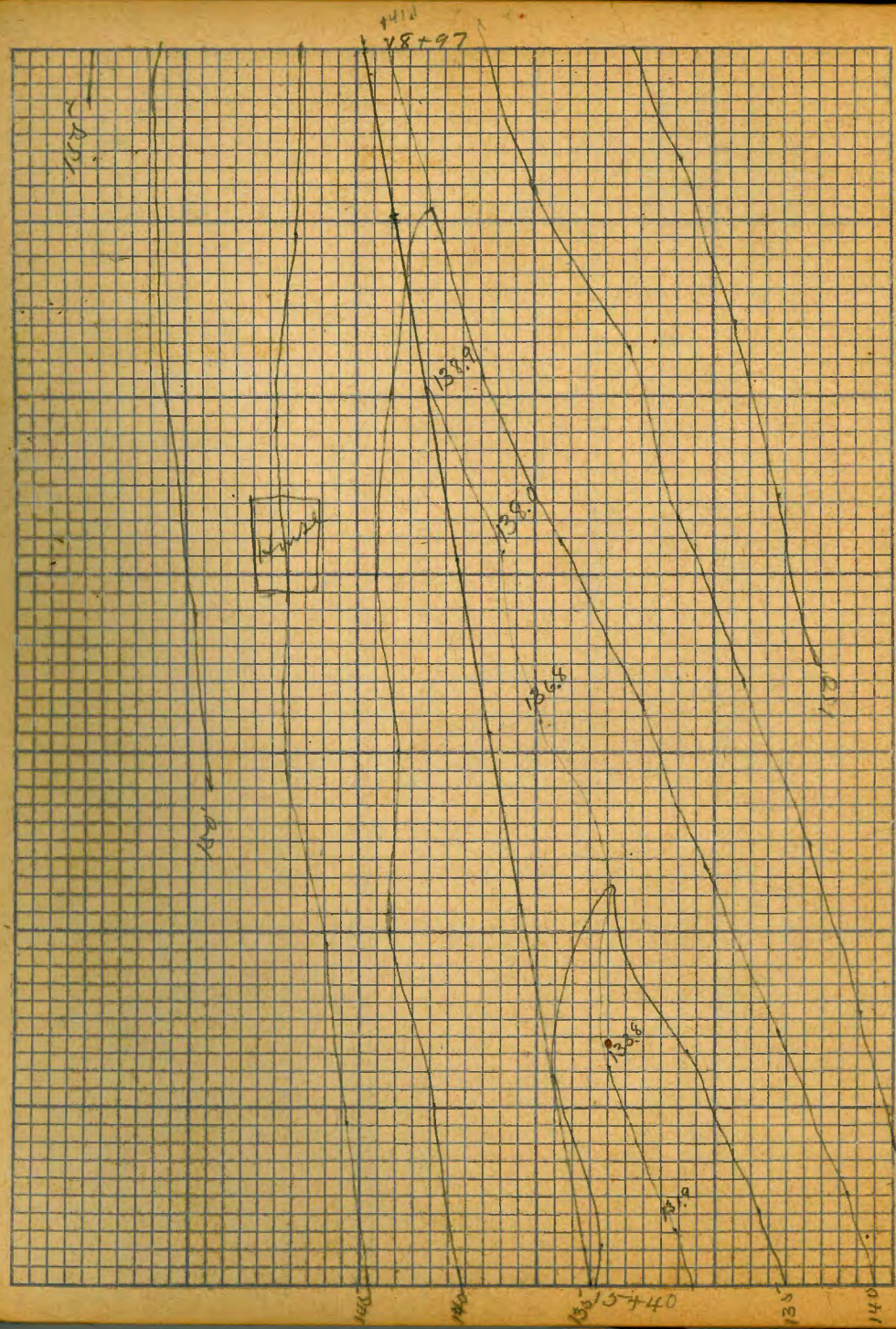


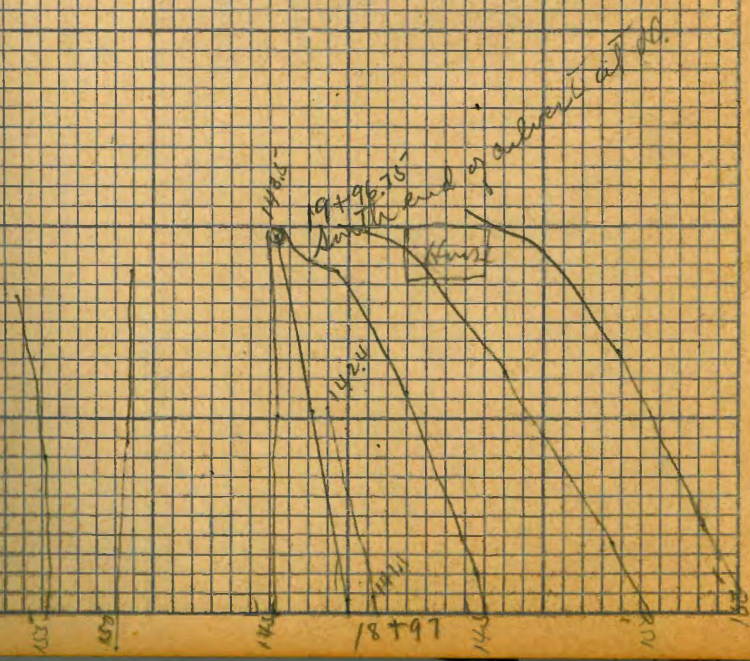
27th Street Canyon from S sheet 2
 to S.E. corner at 10. see 4th page back



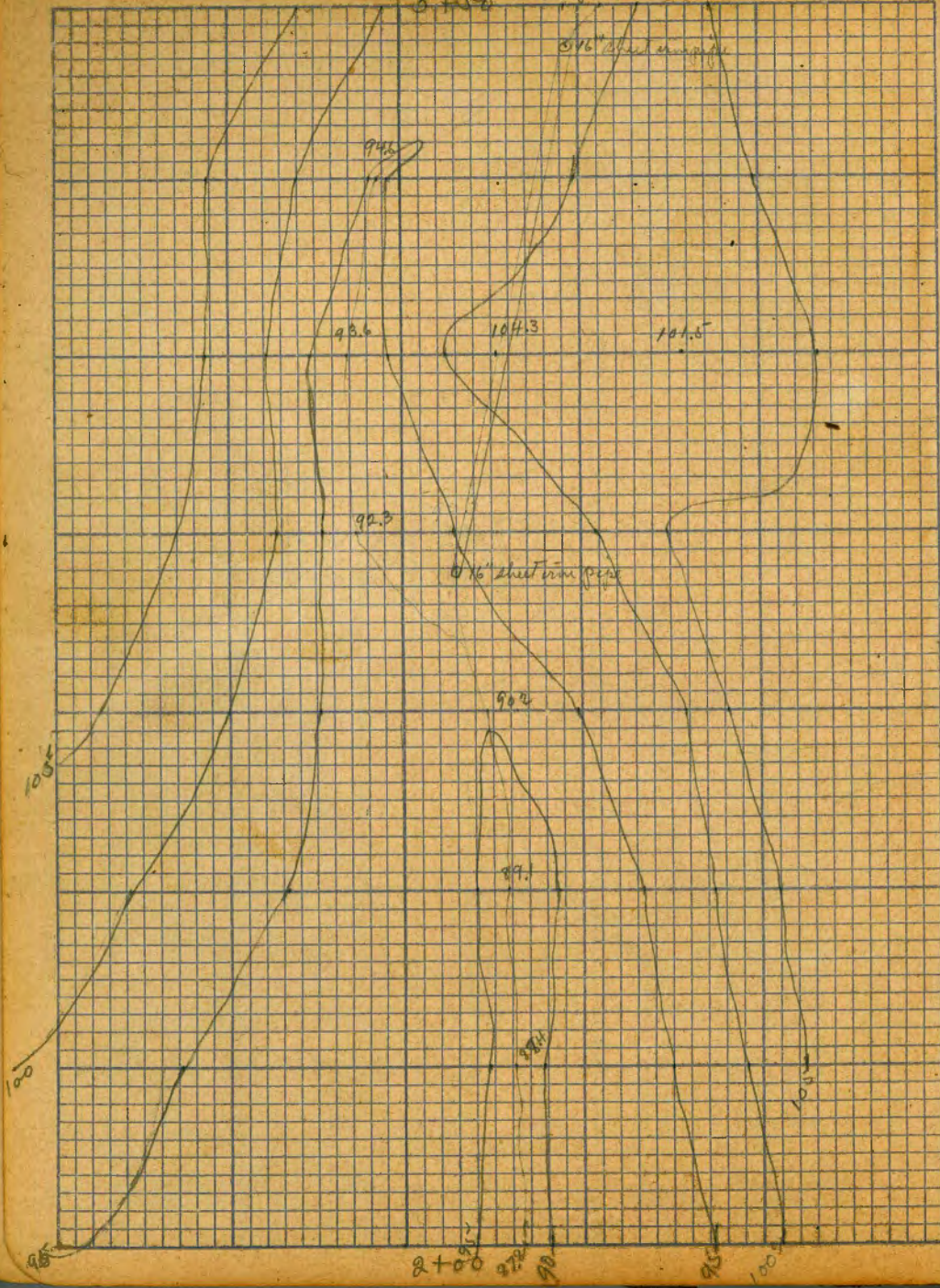




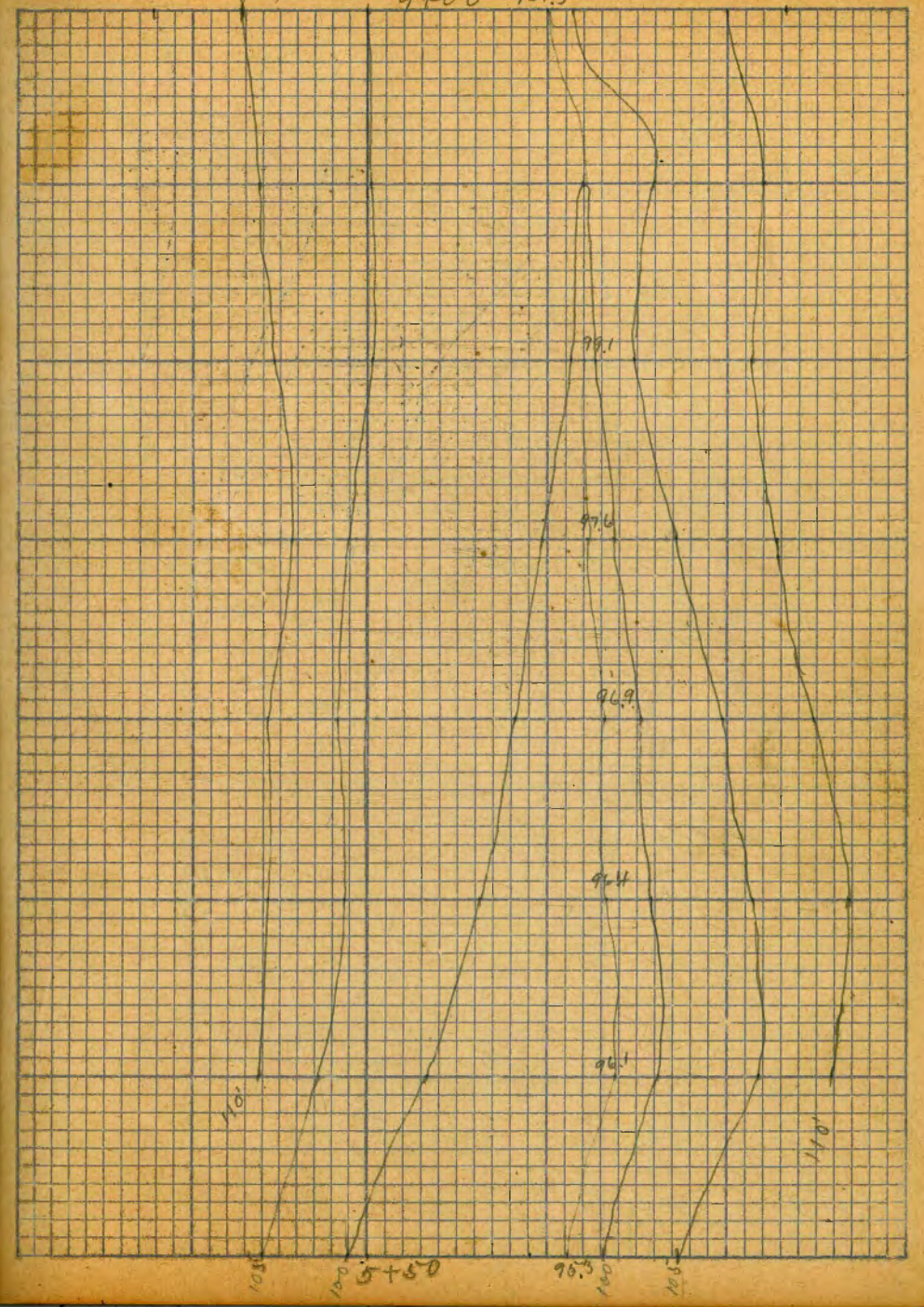


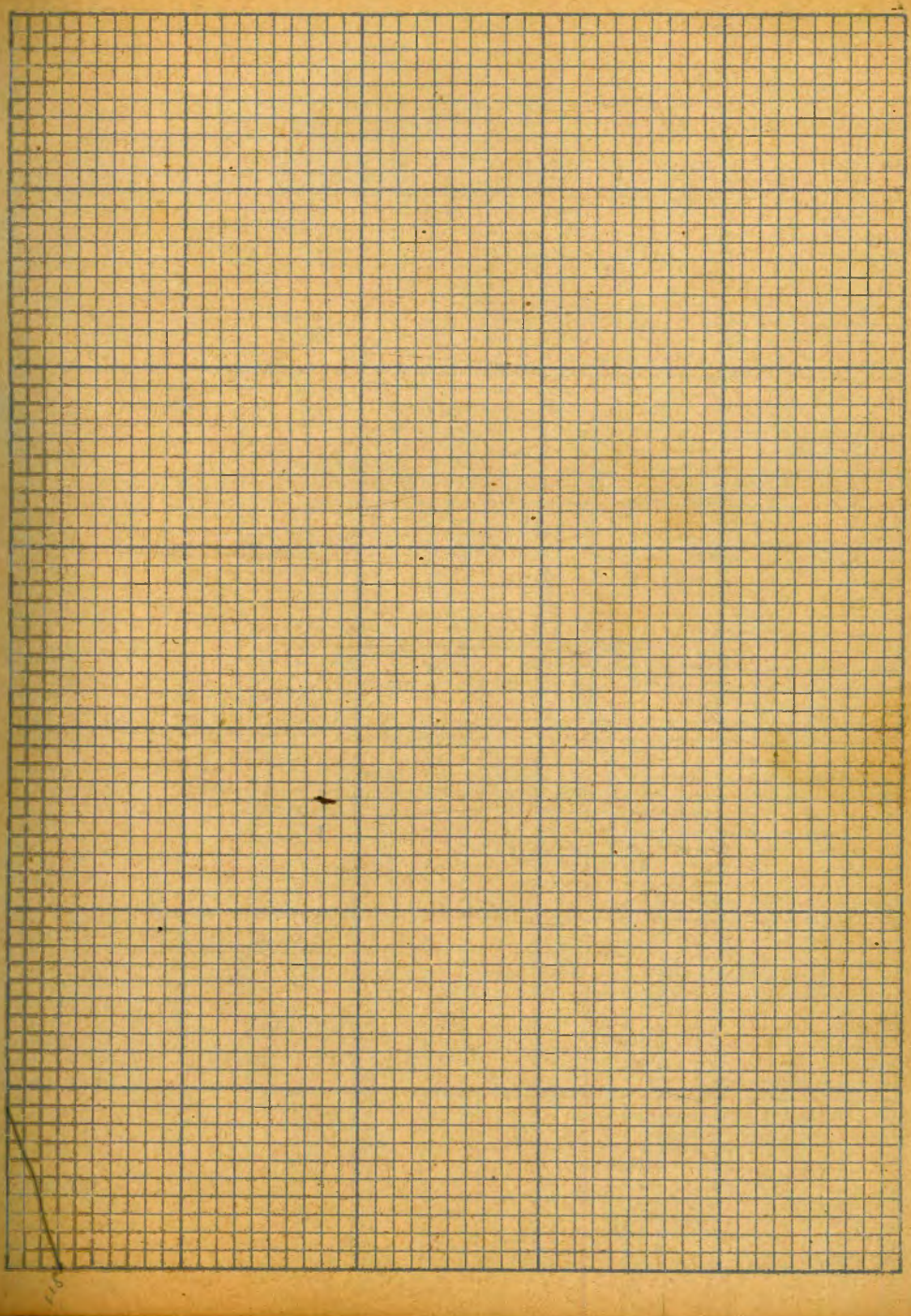
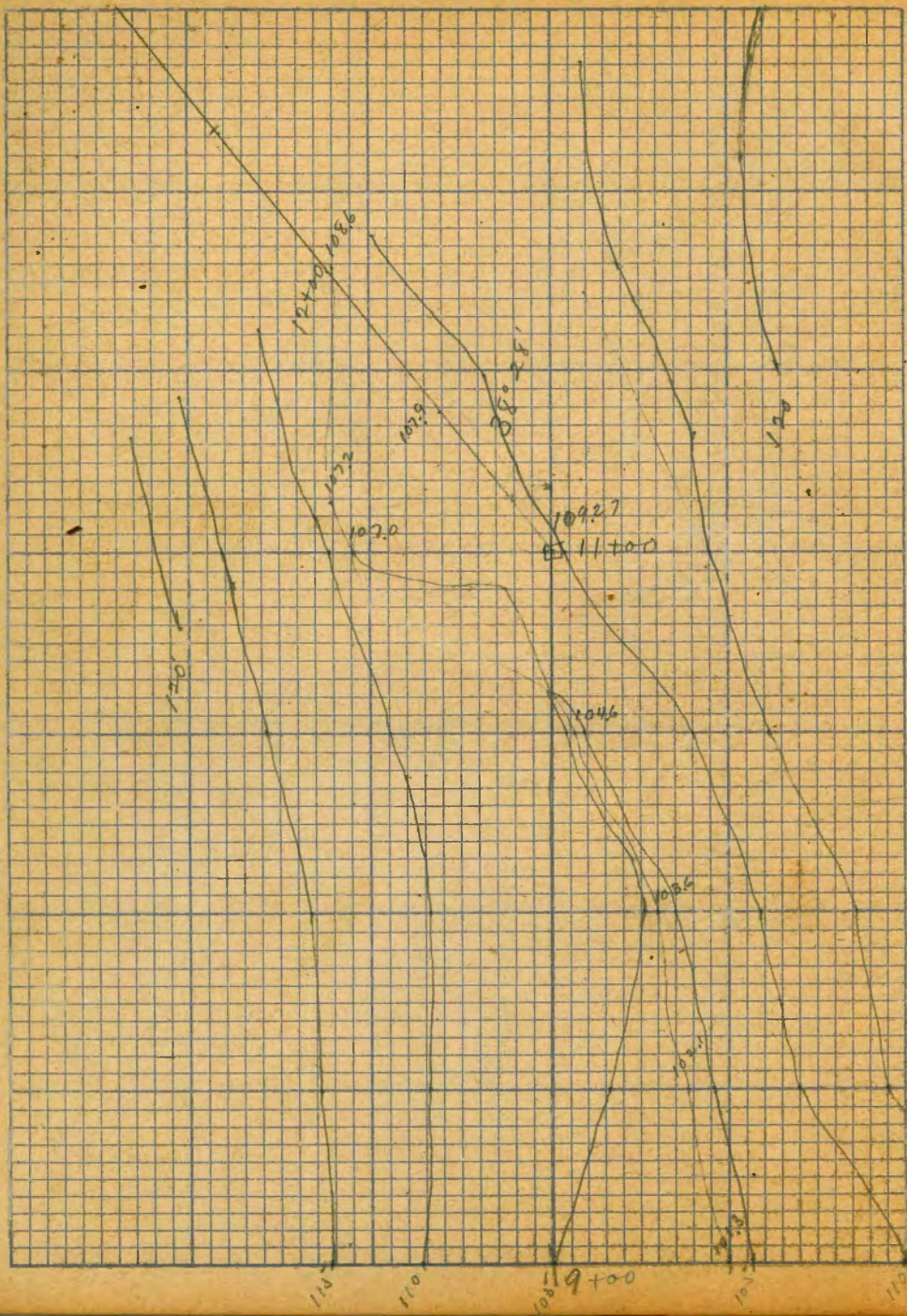


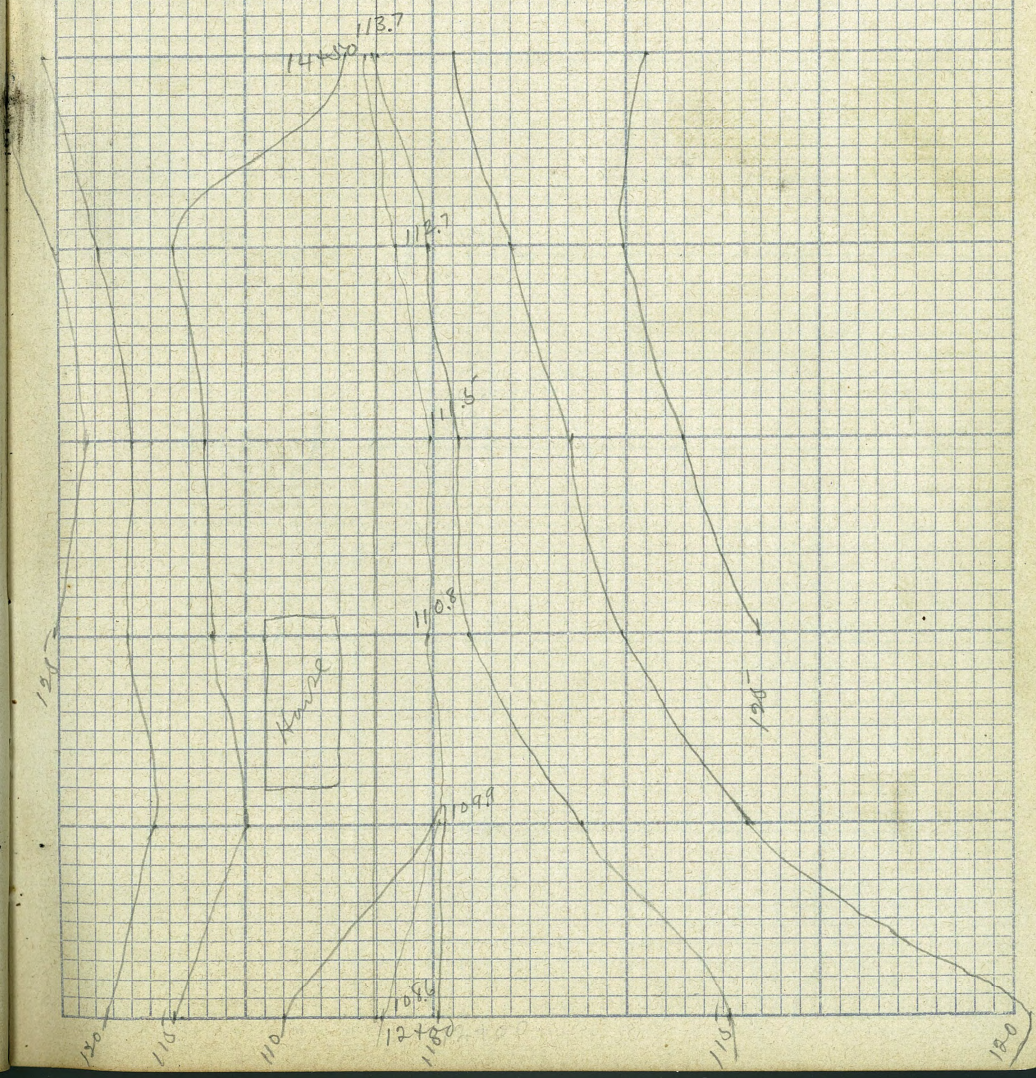
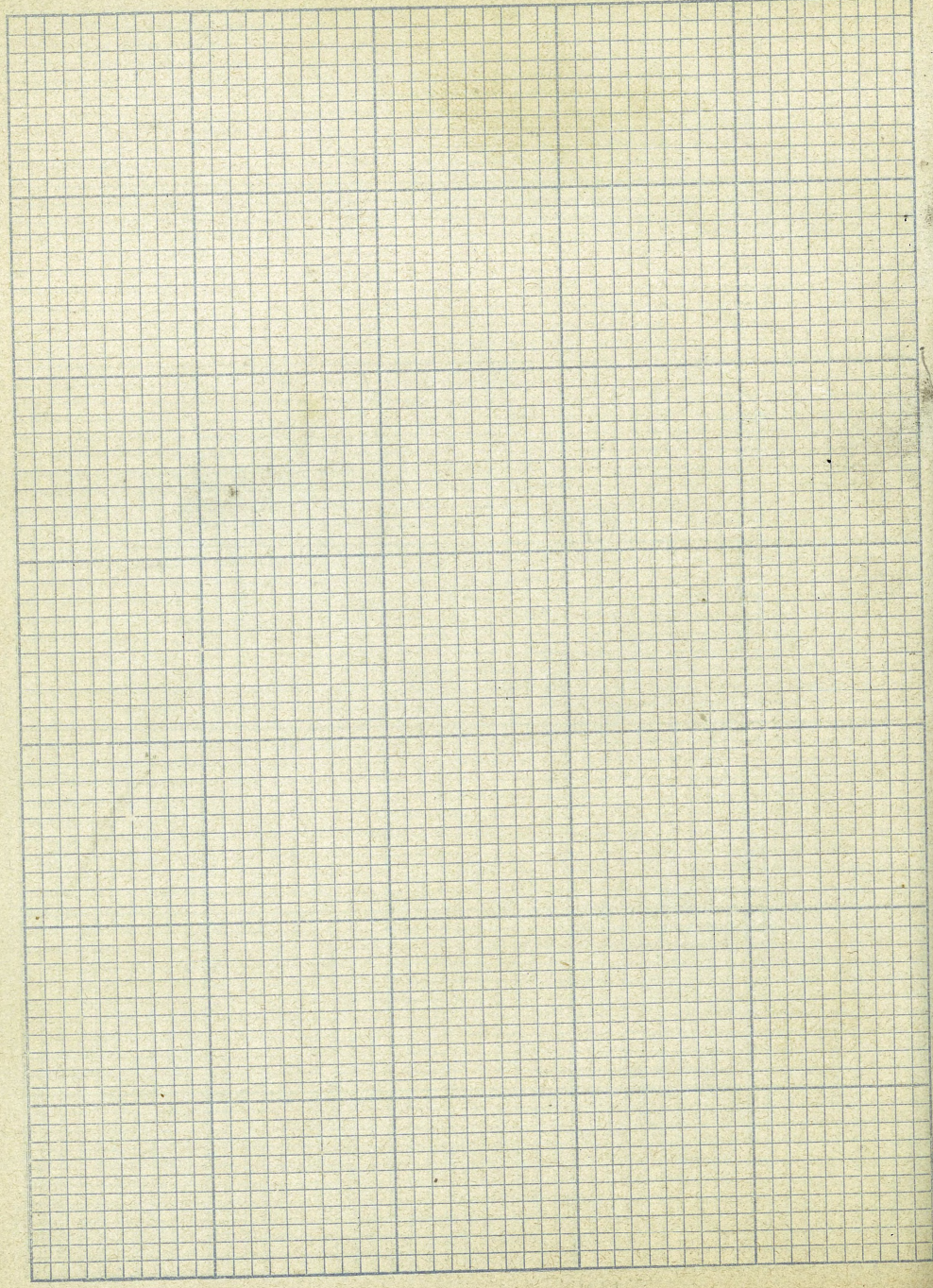
(32) See page 13+11
95.0 95.8

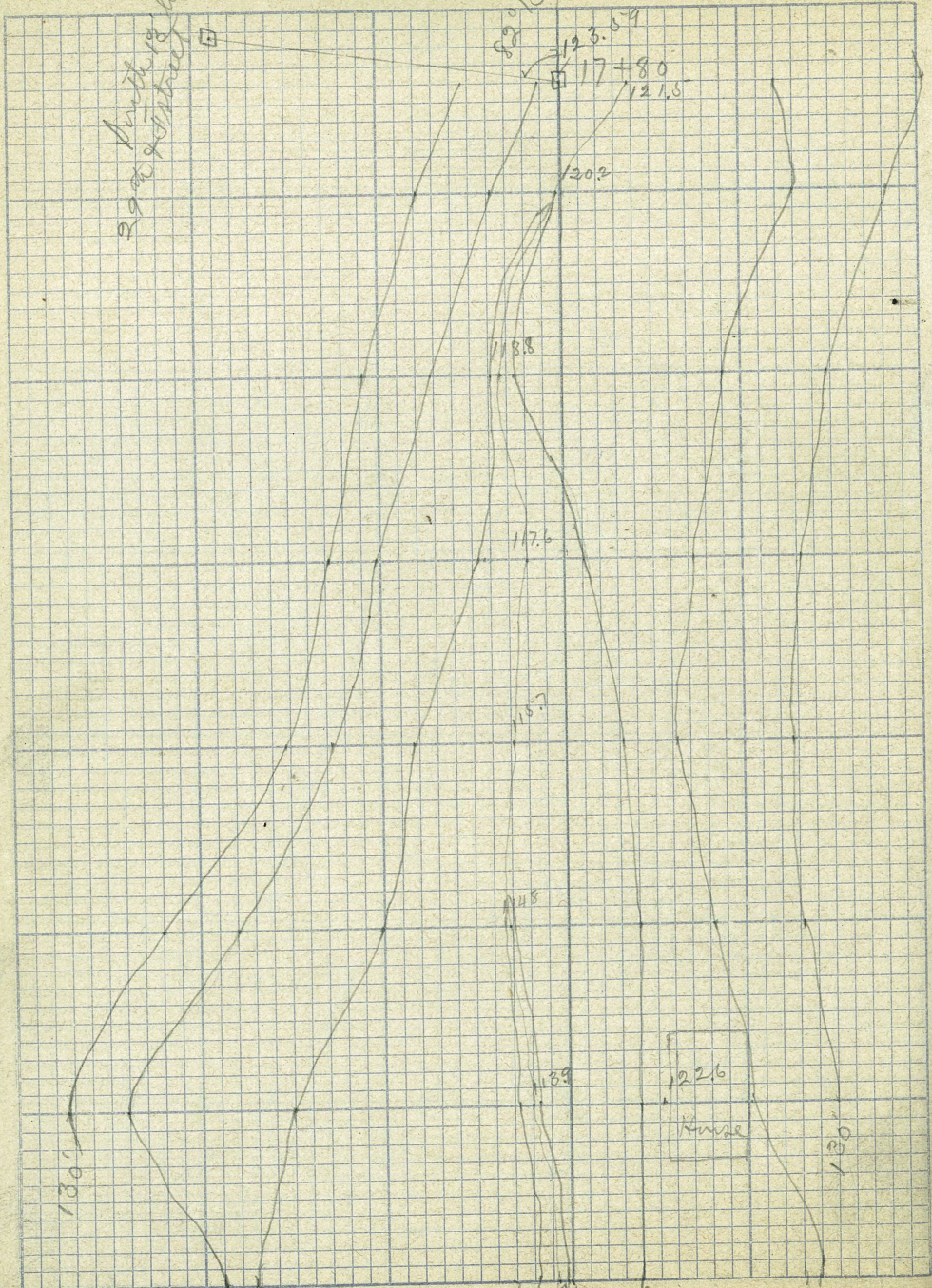


contour of 29th camp (33)
94.00 101.3





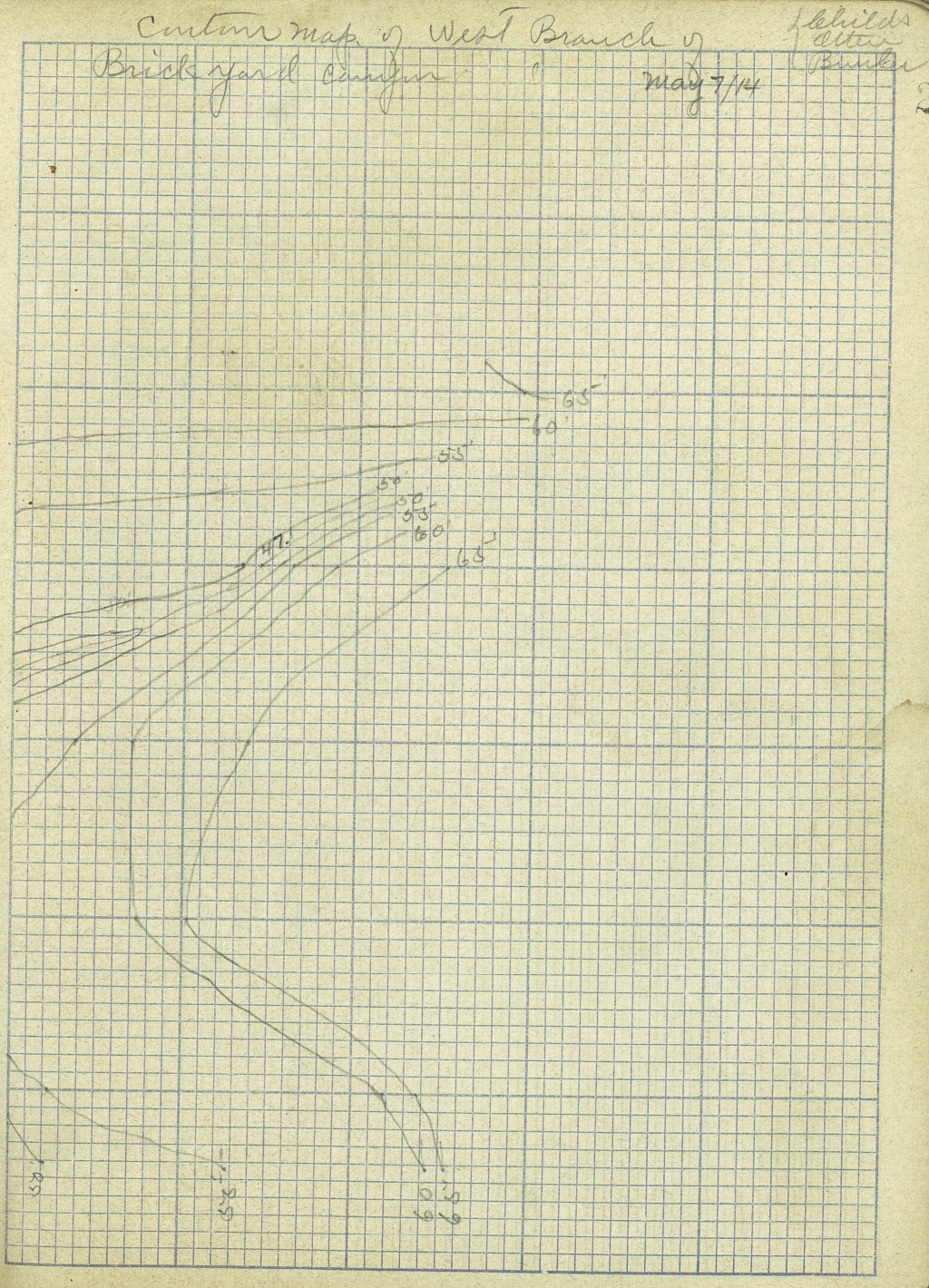
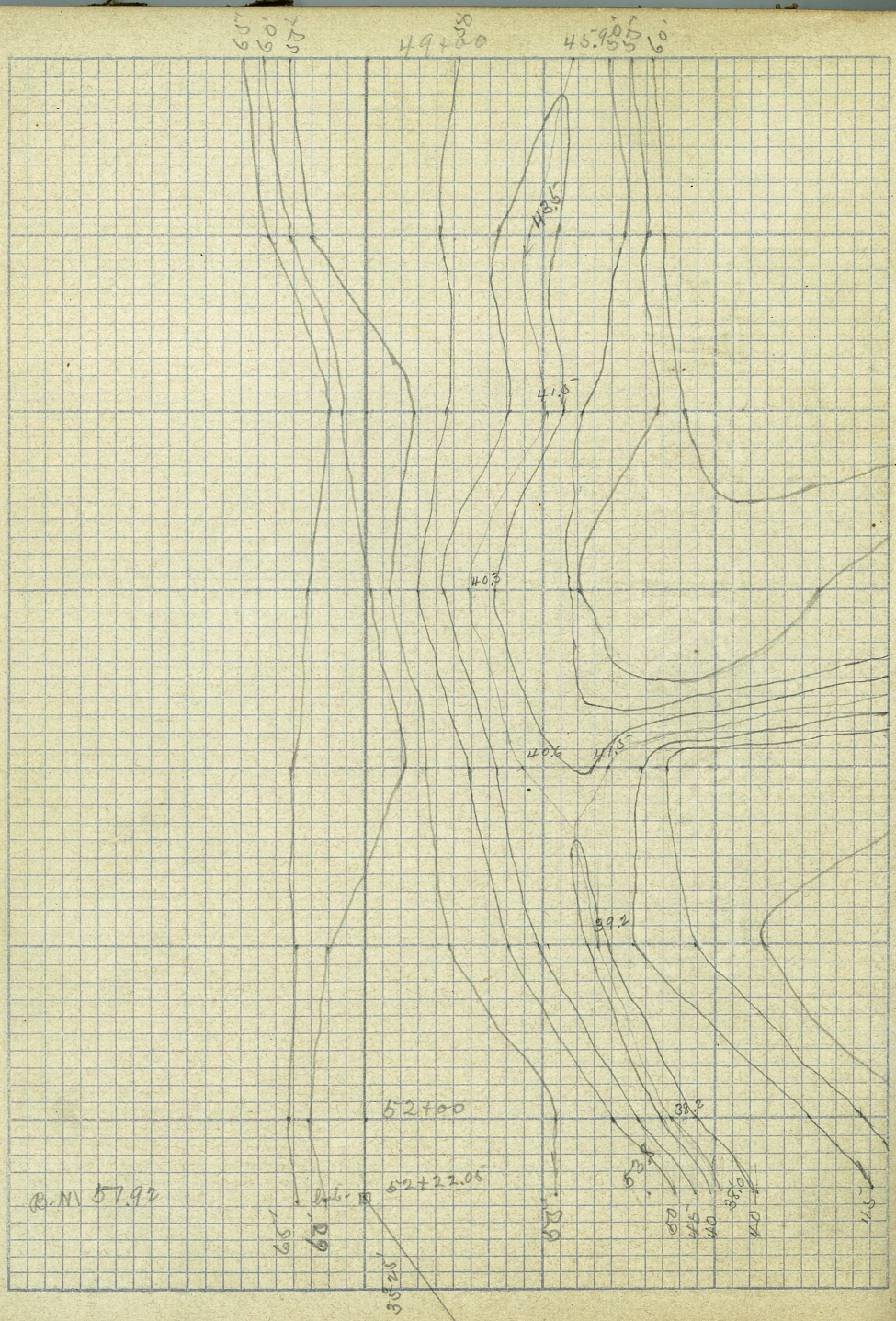


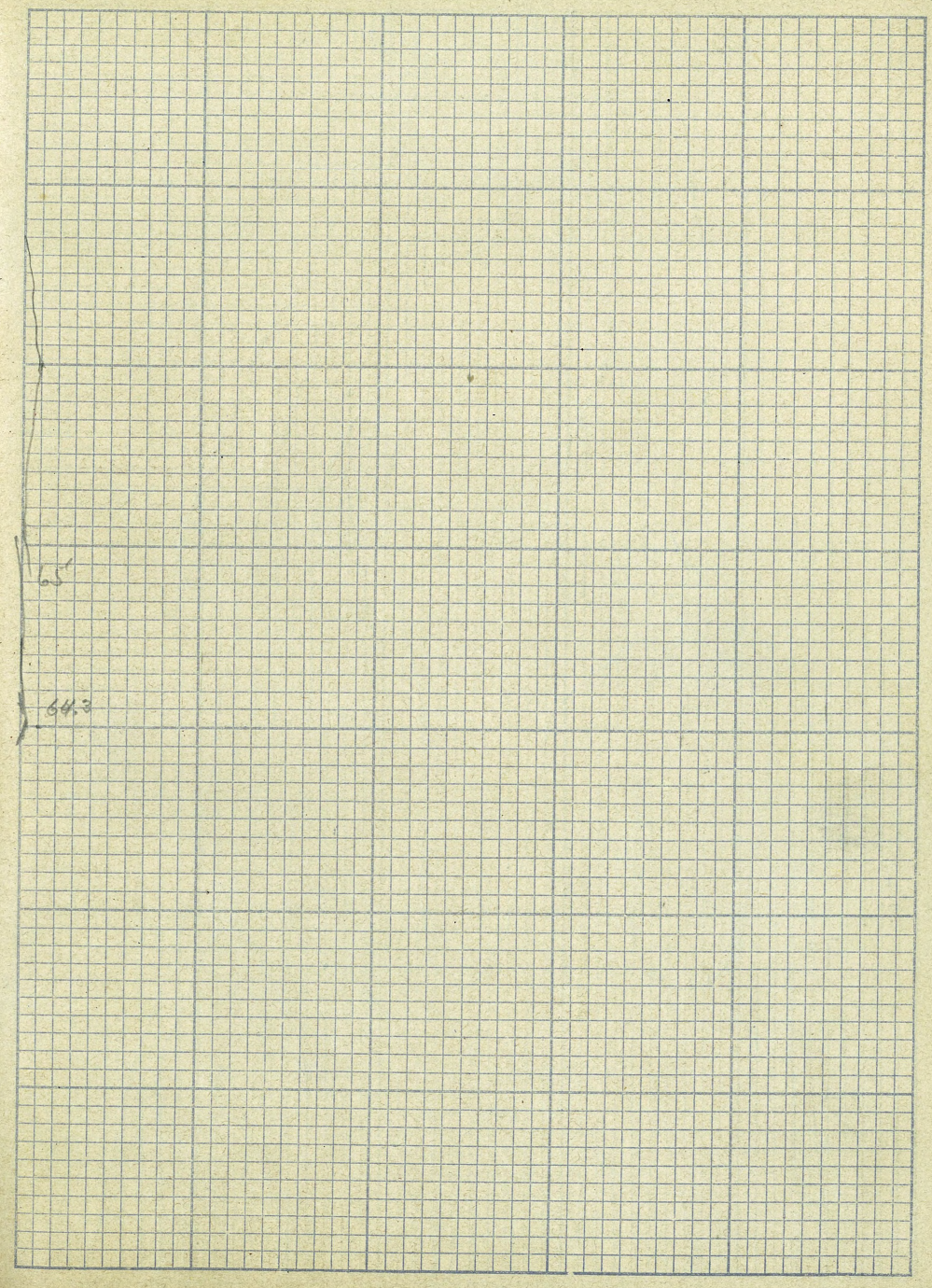
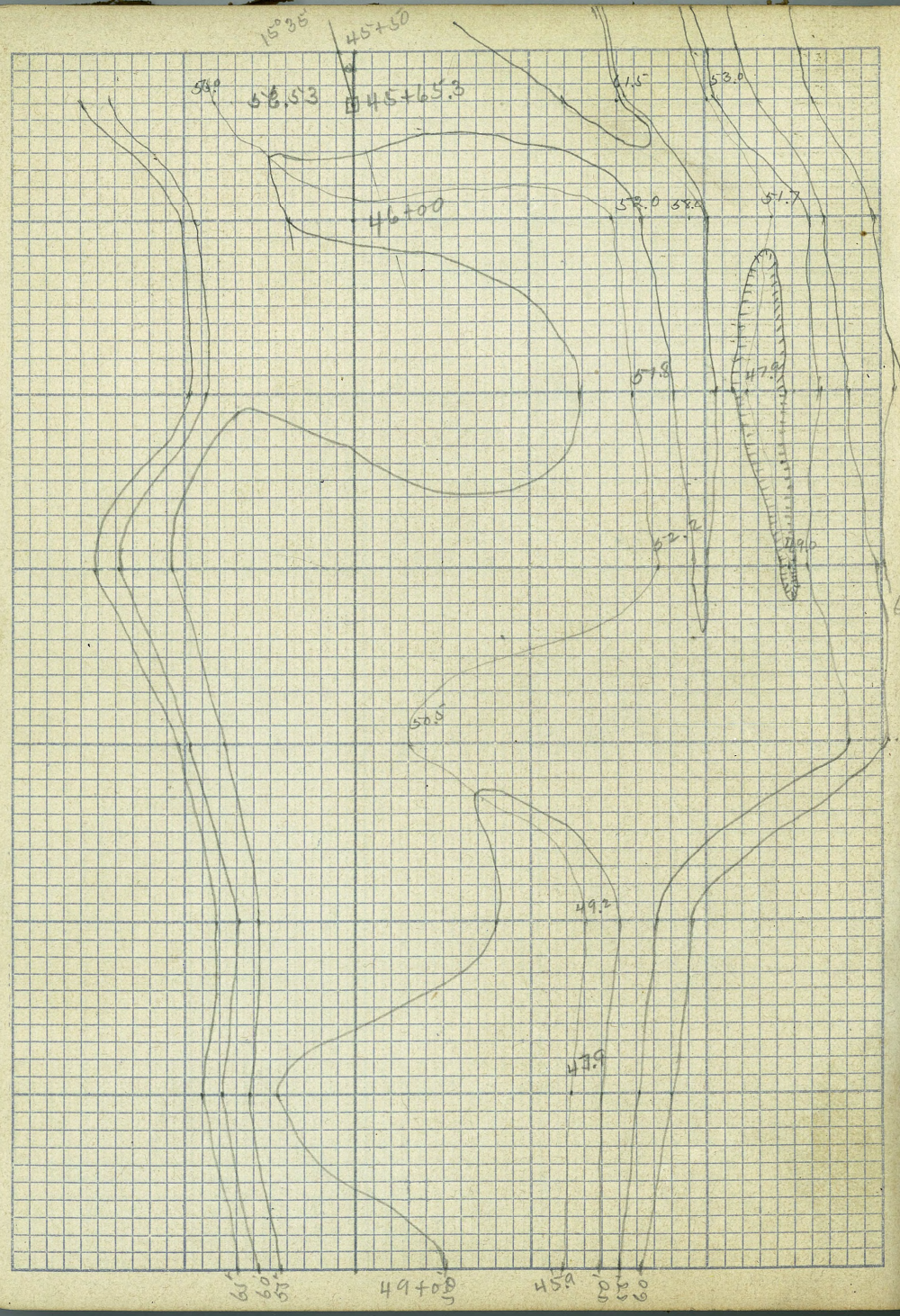


Rest of Smith's hub

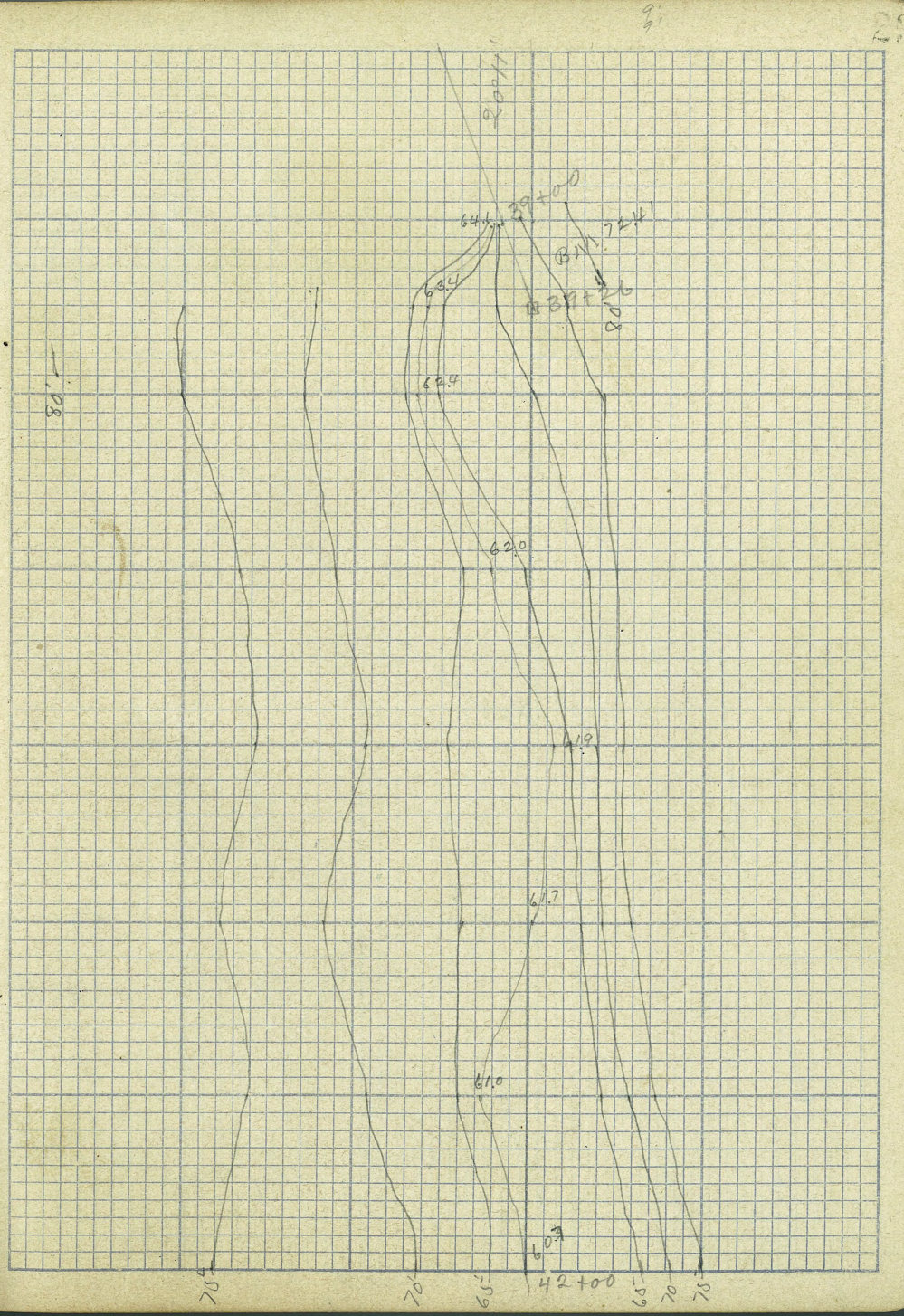
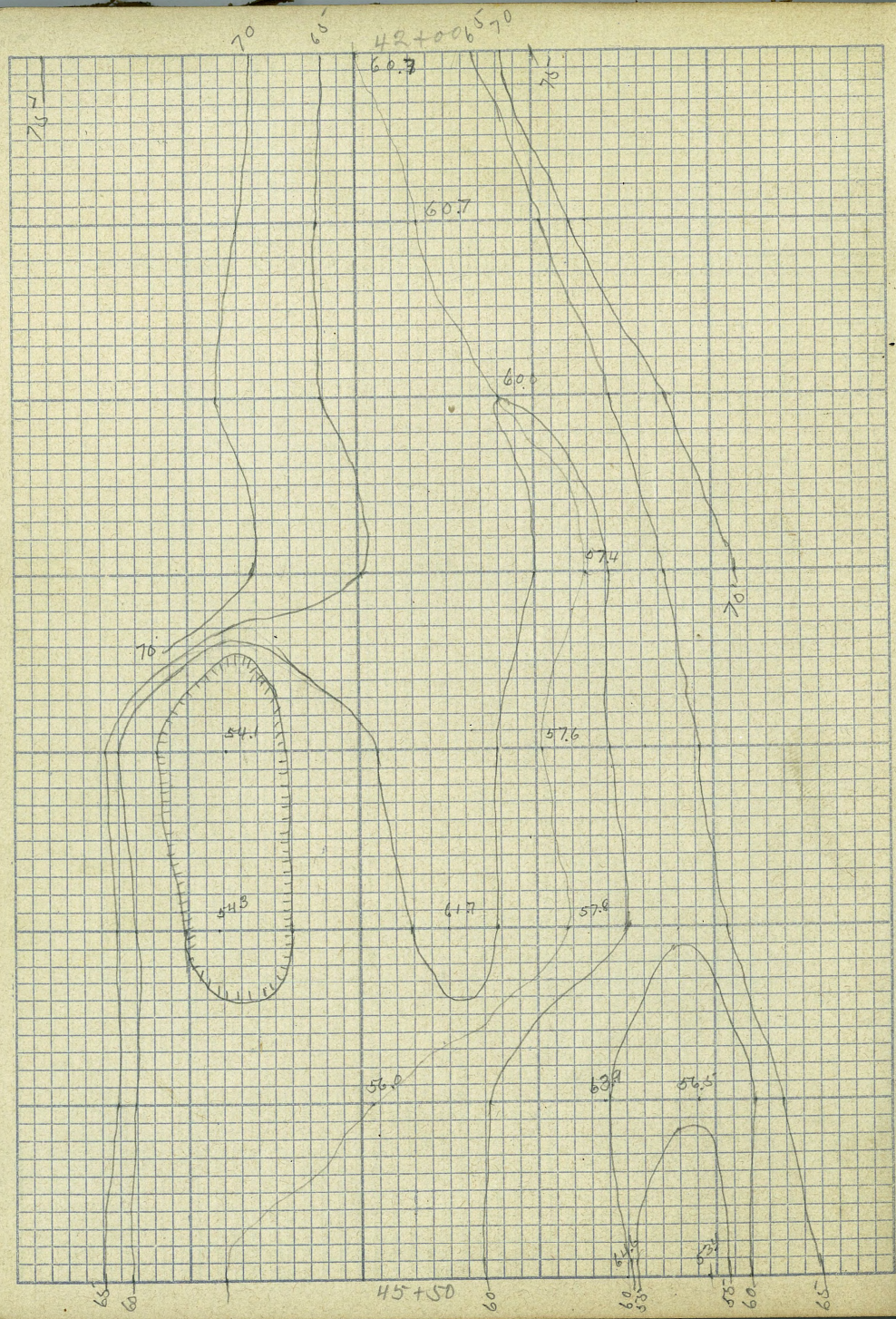
193.5
174.80
121.5

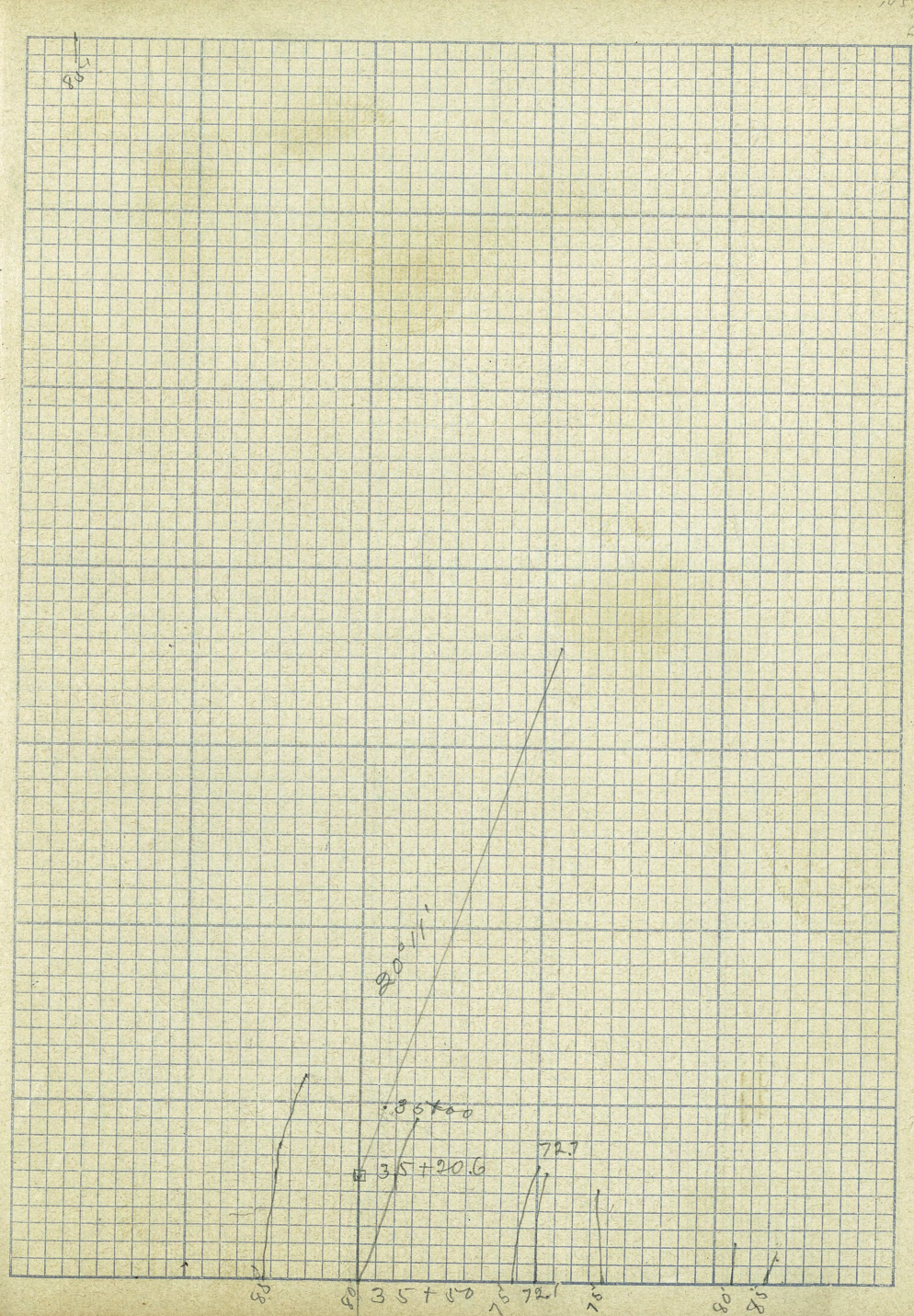
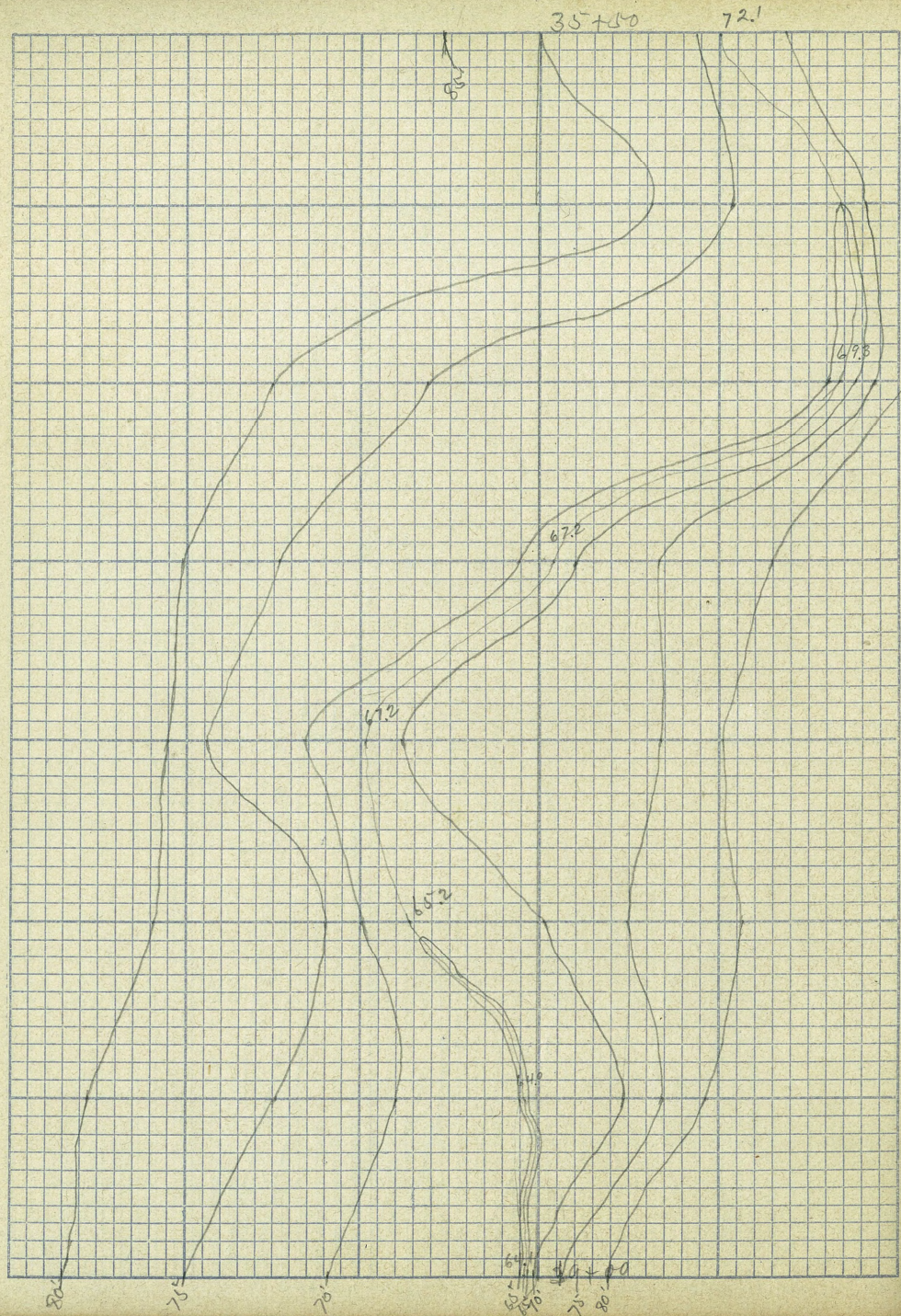
122.6
House

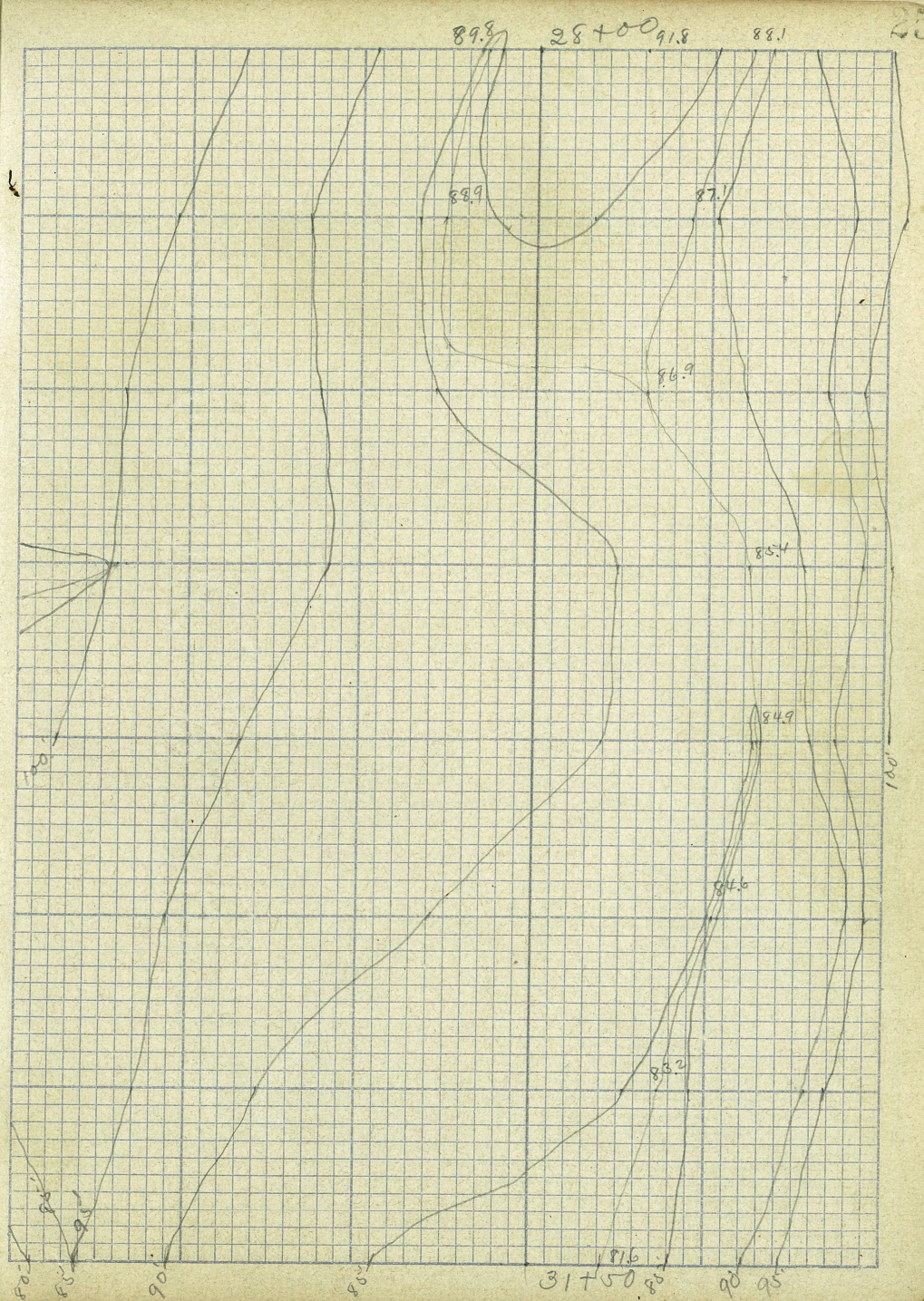
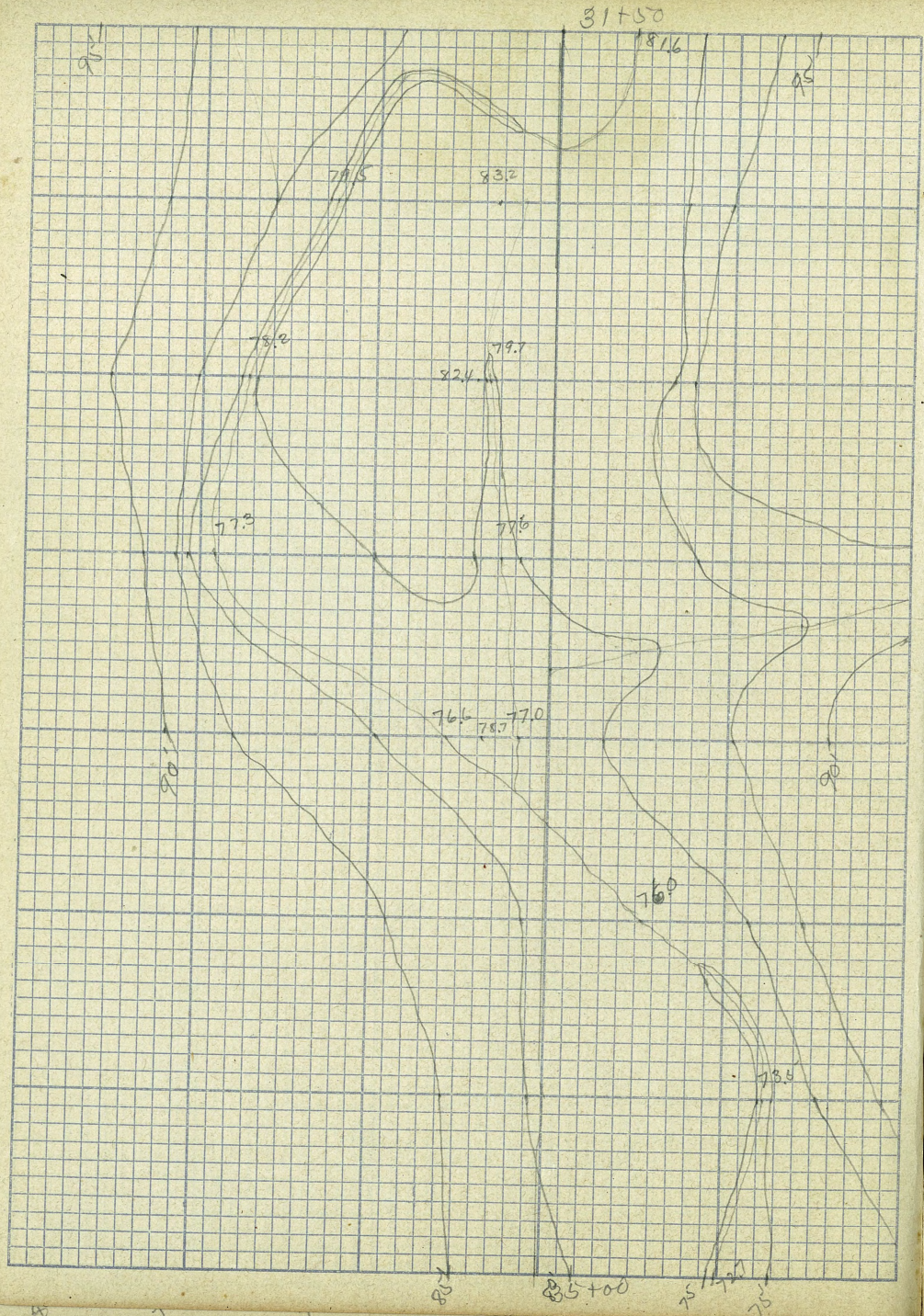


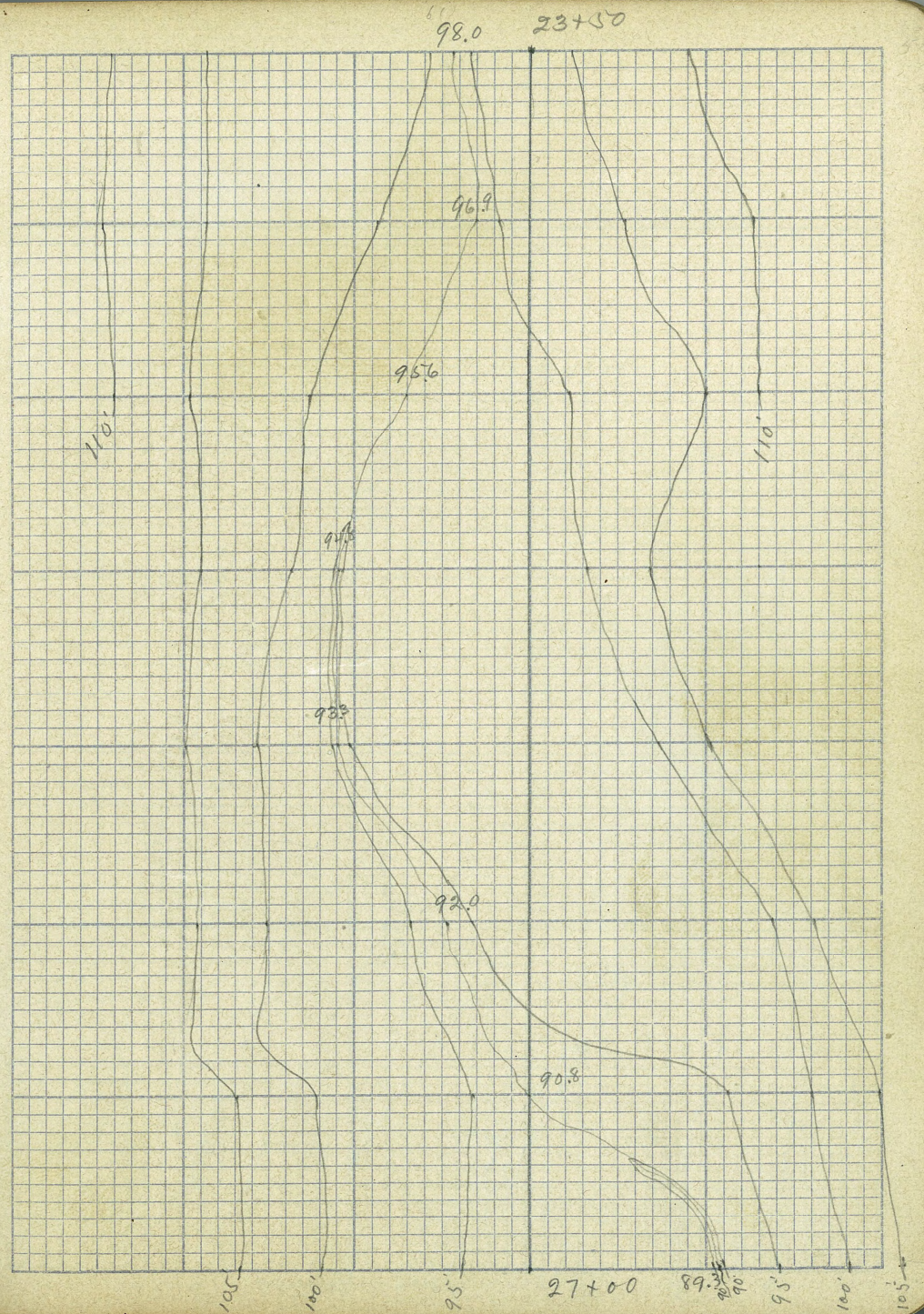
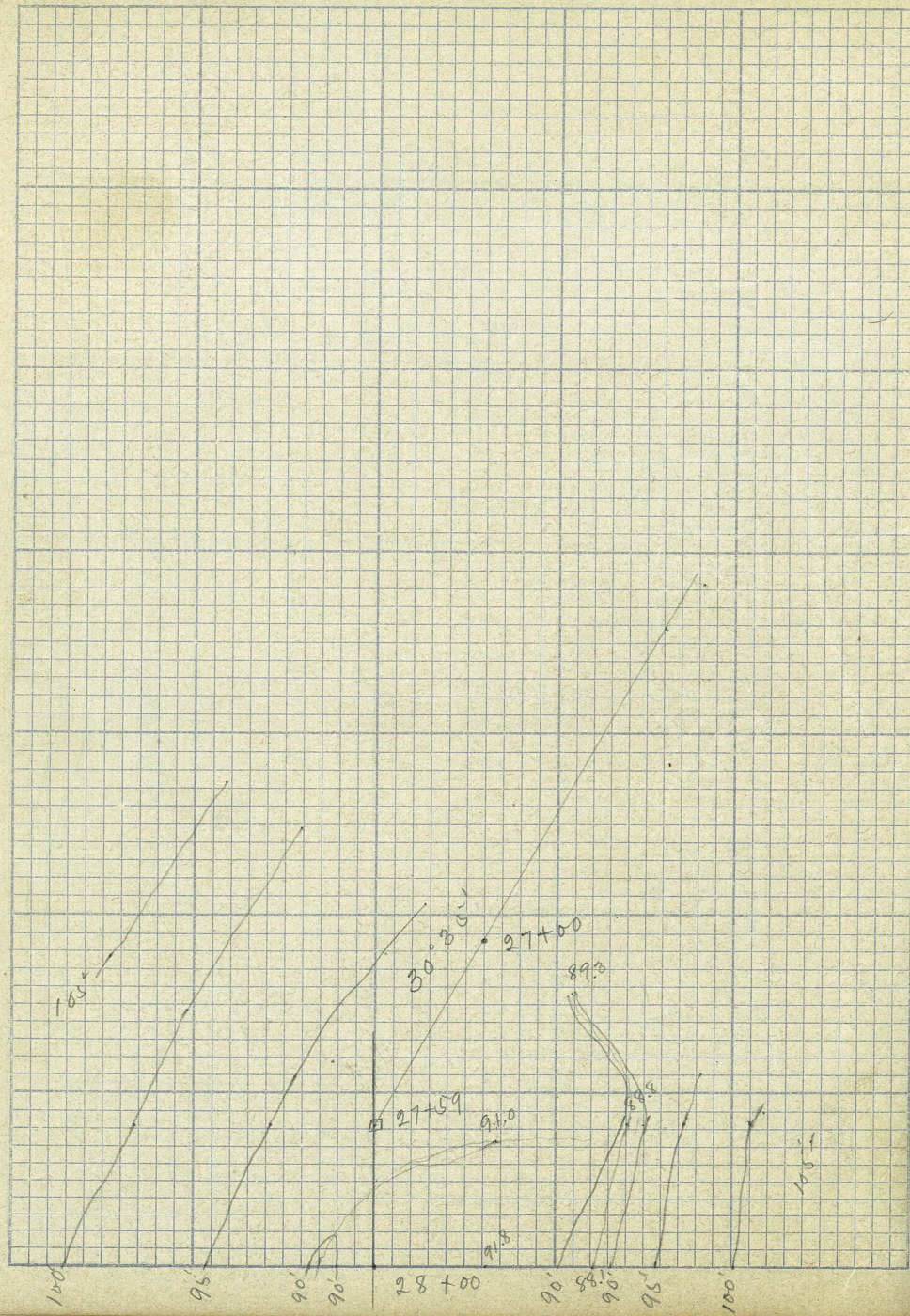


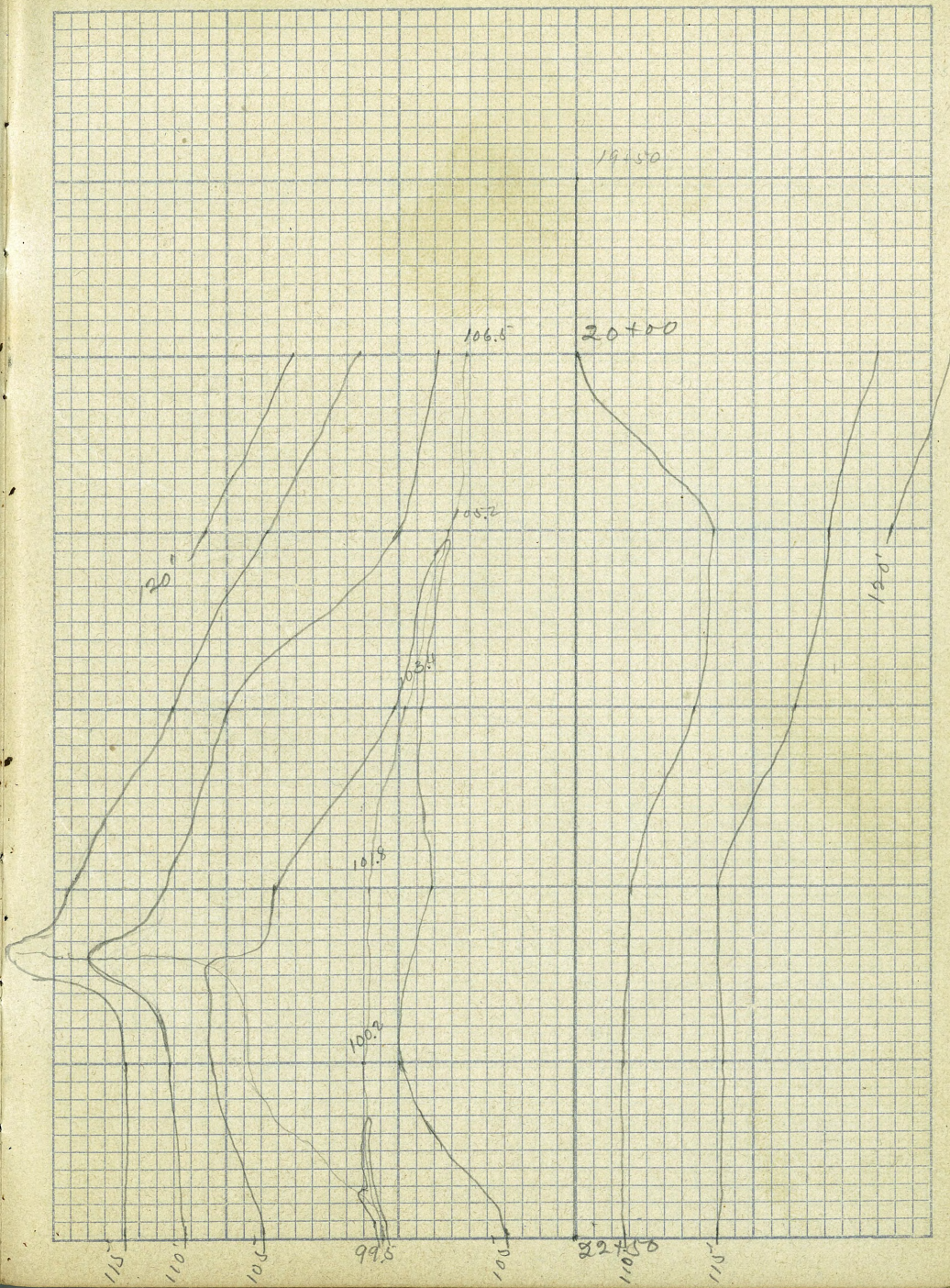
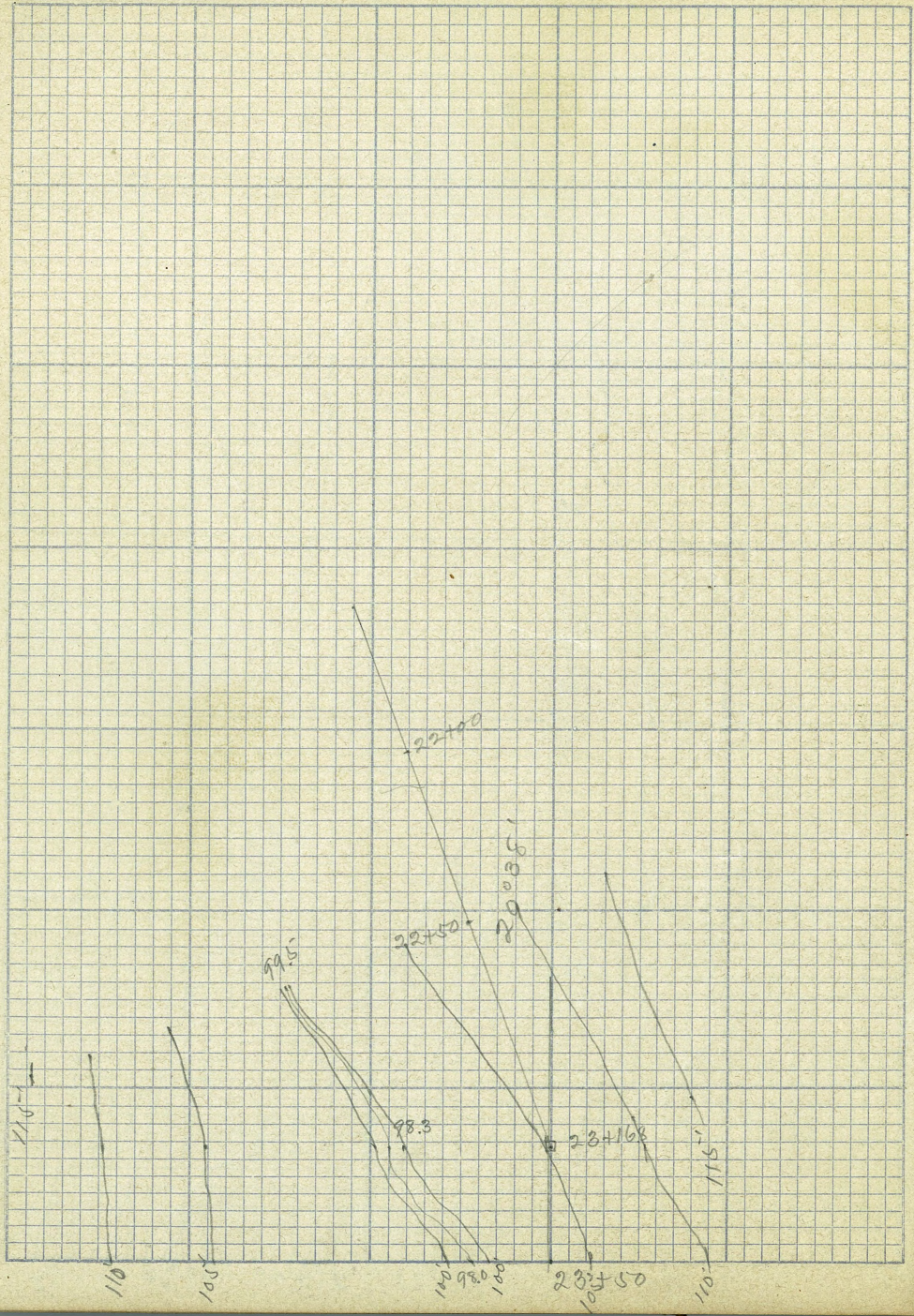
65
65
64.3



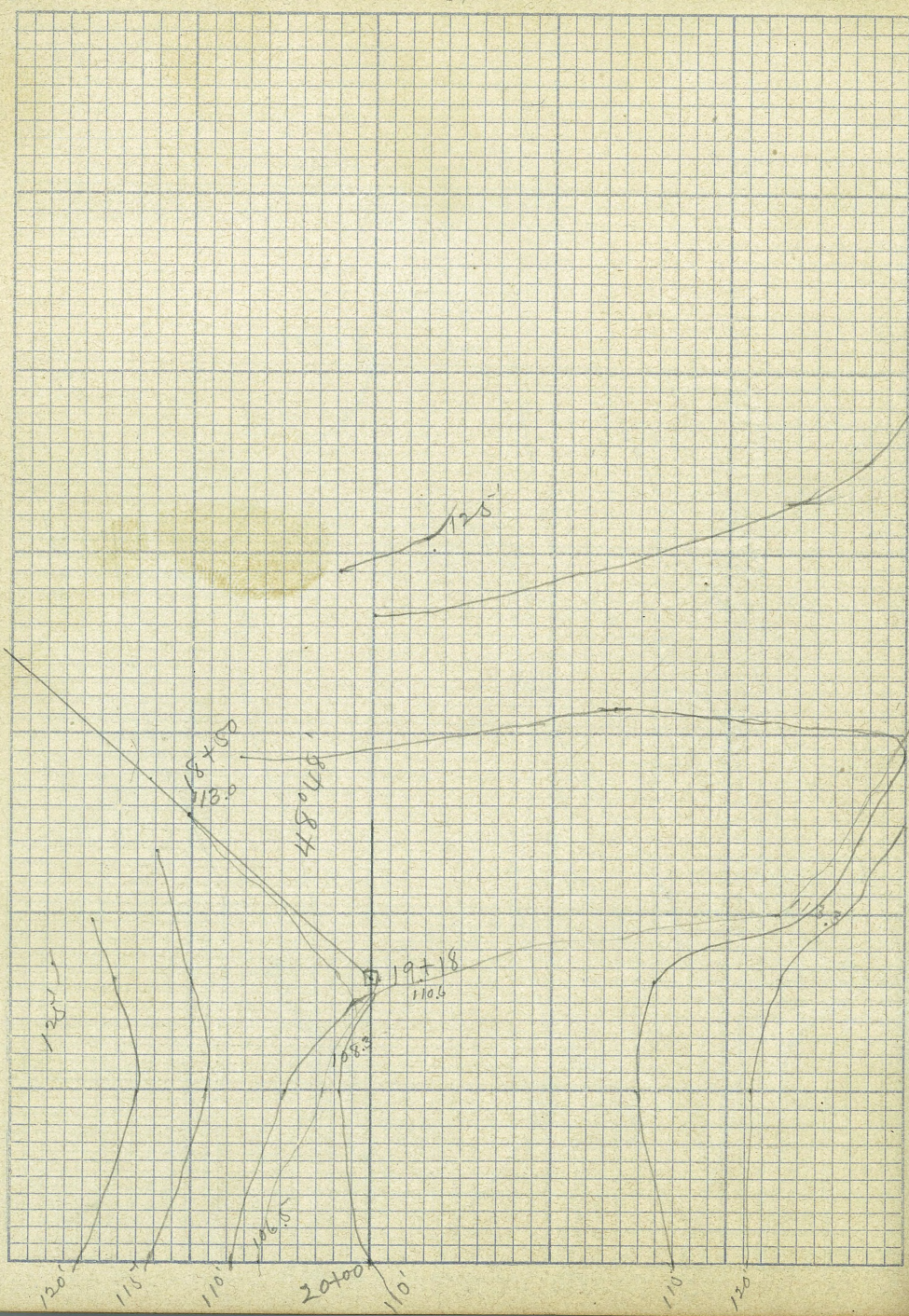




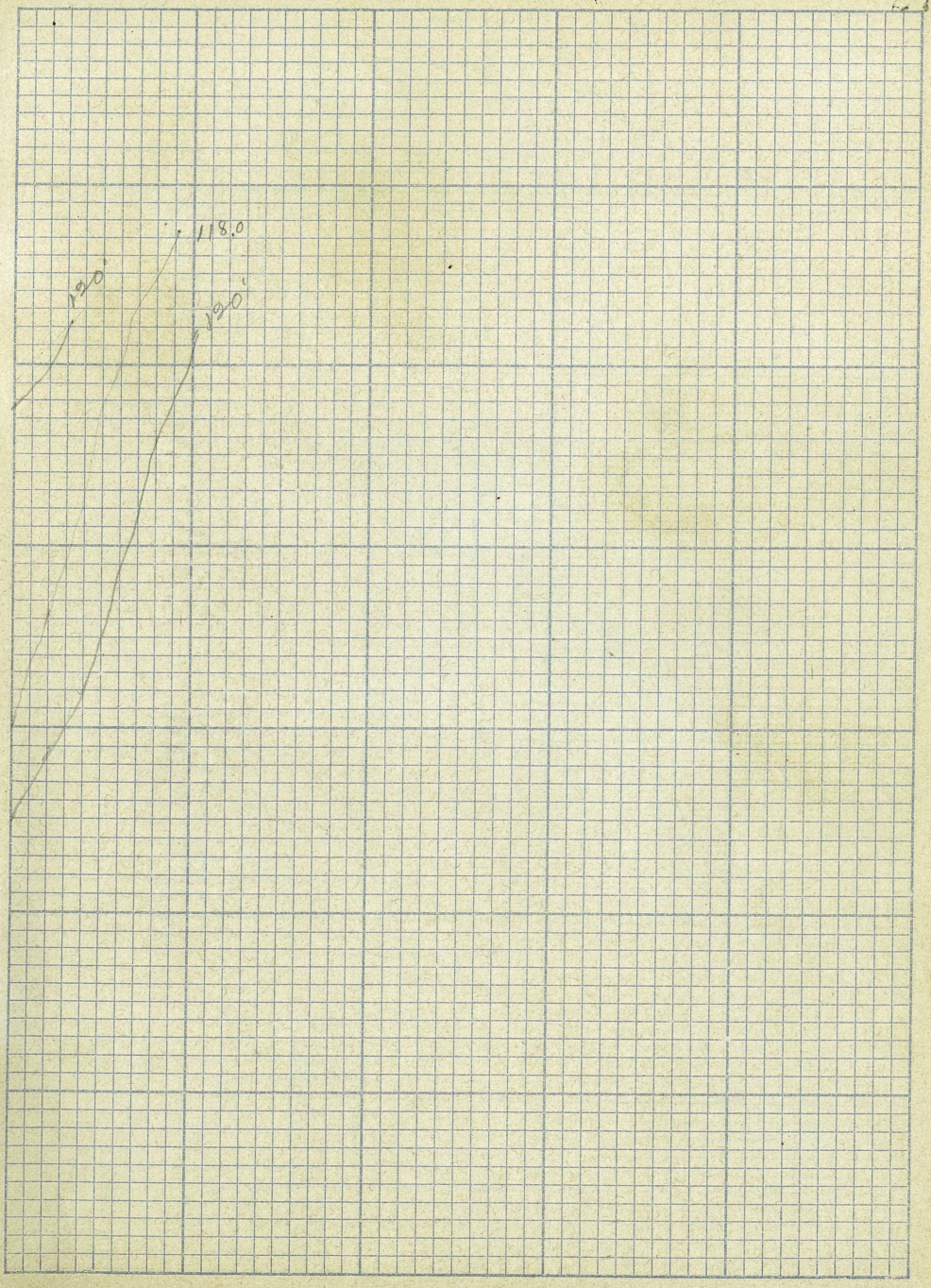


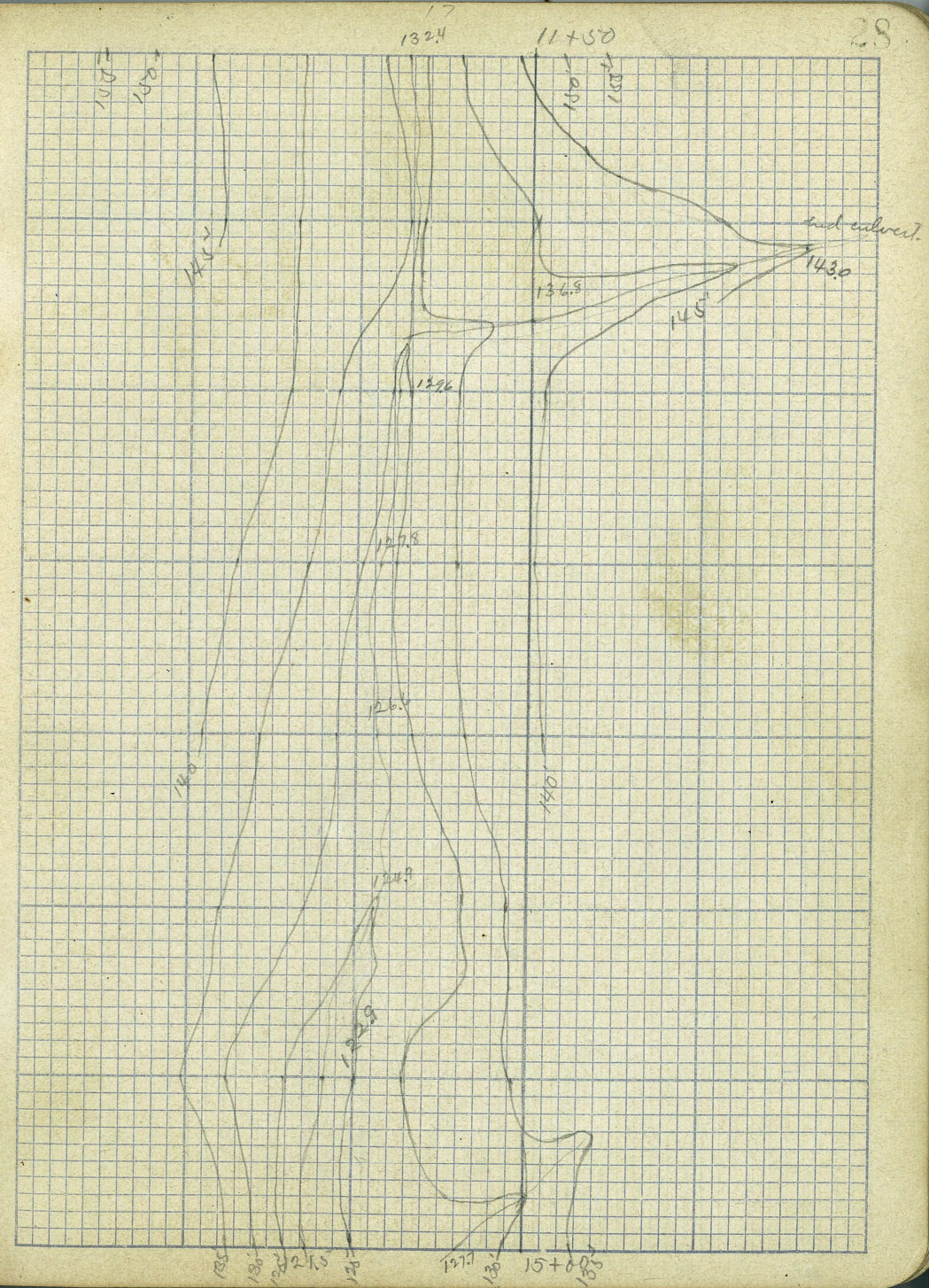
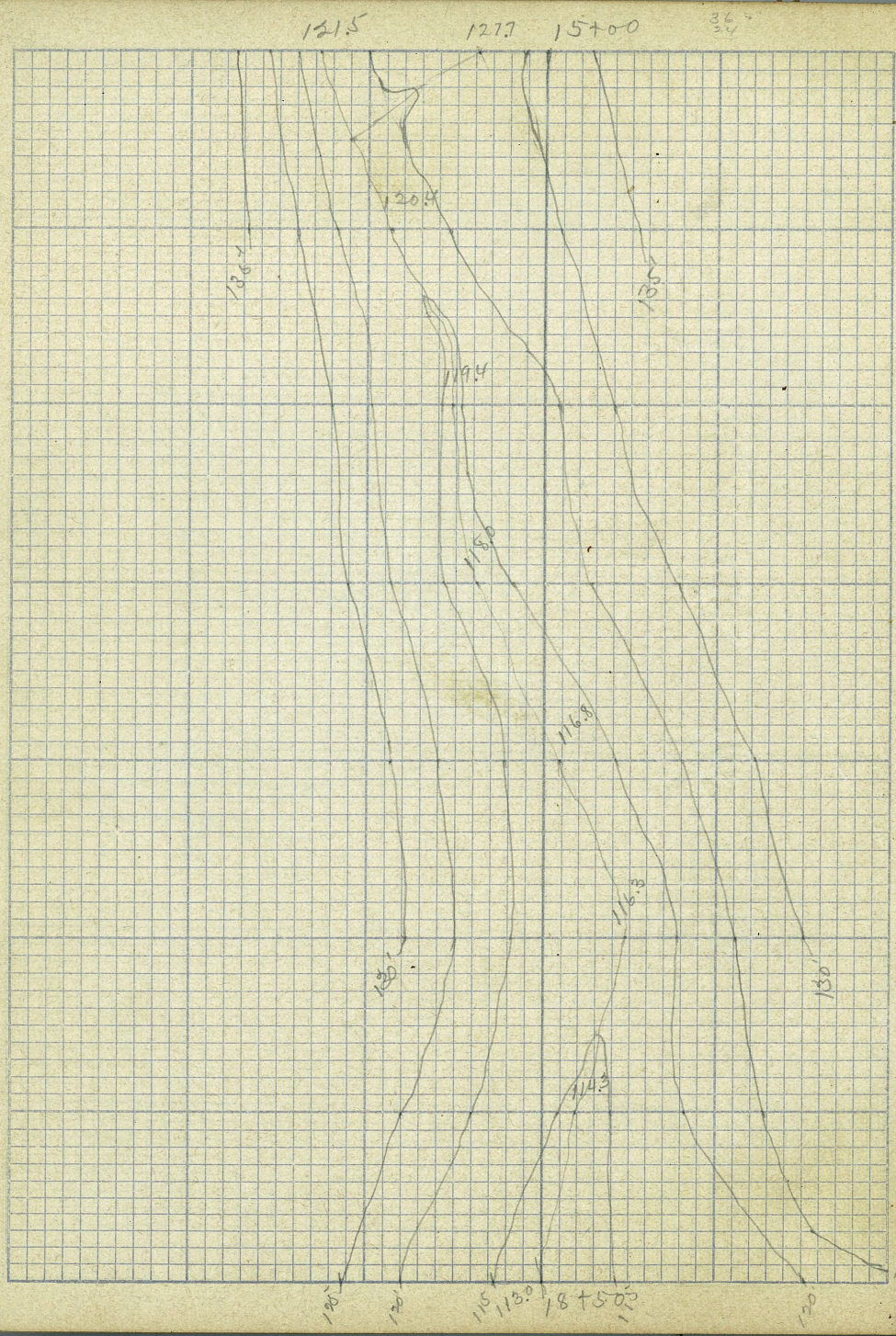


100 22 # 13
76 40
57

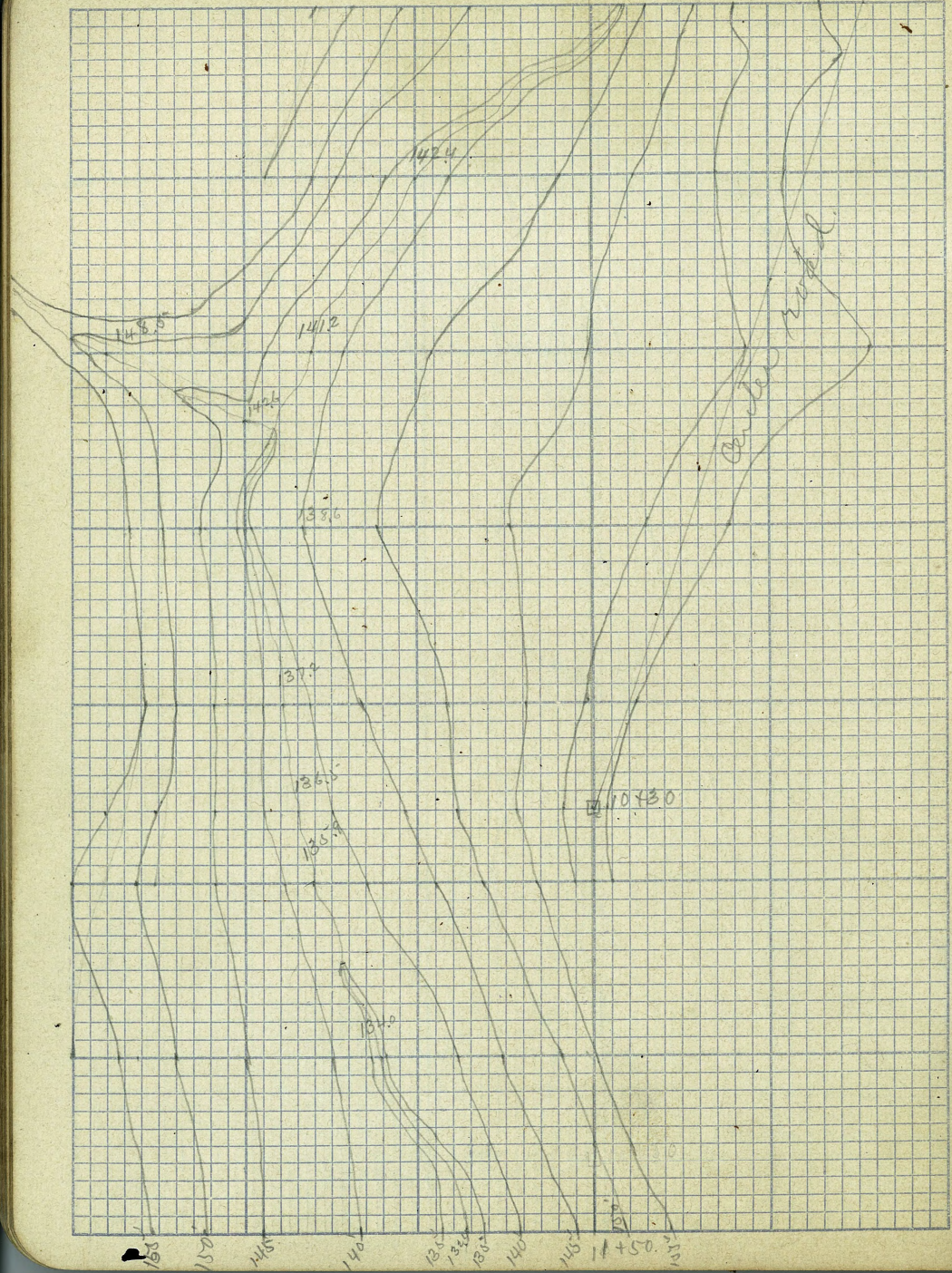


100 2
214
70



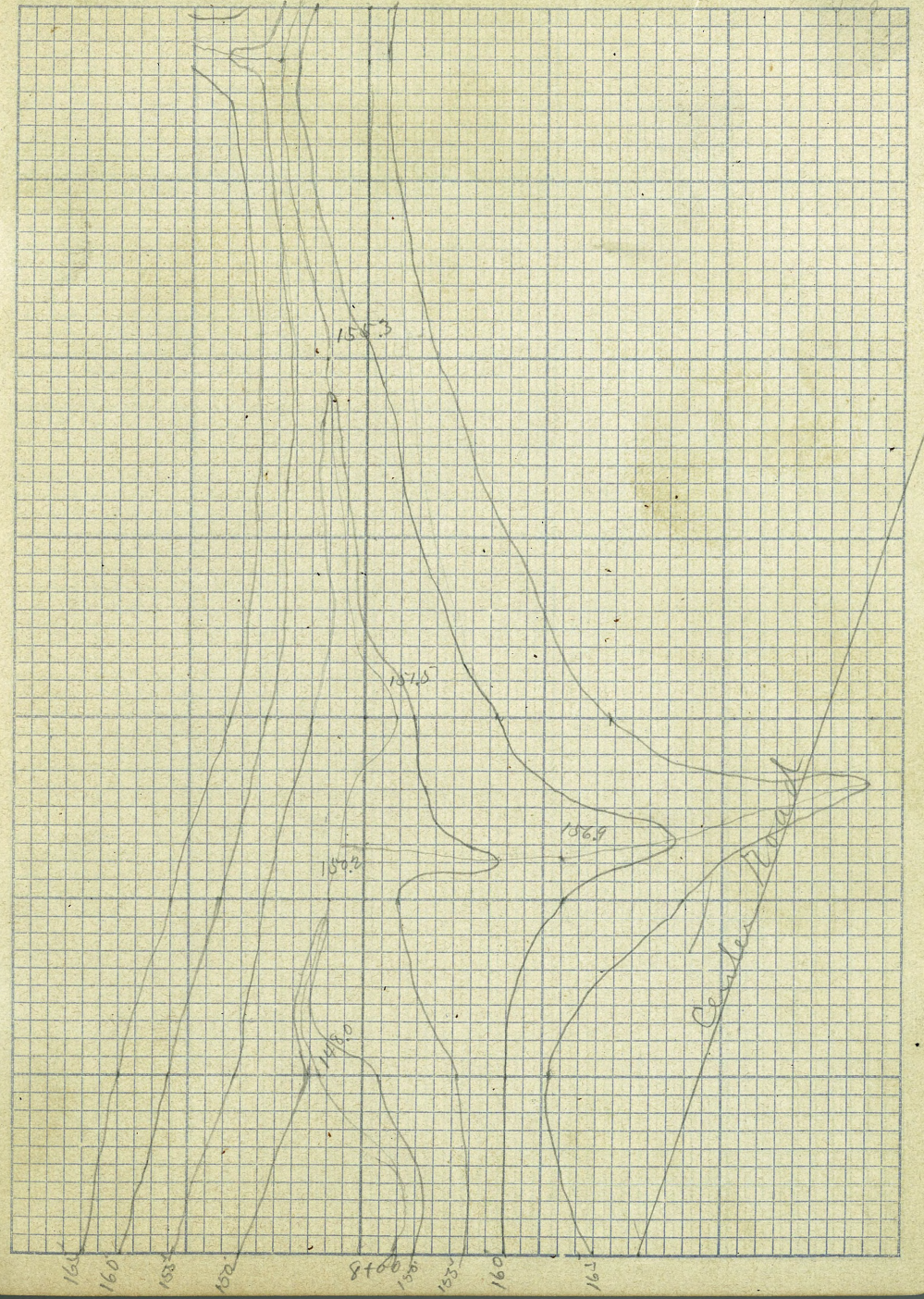


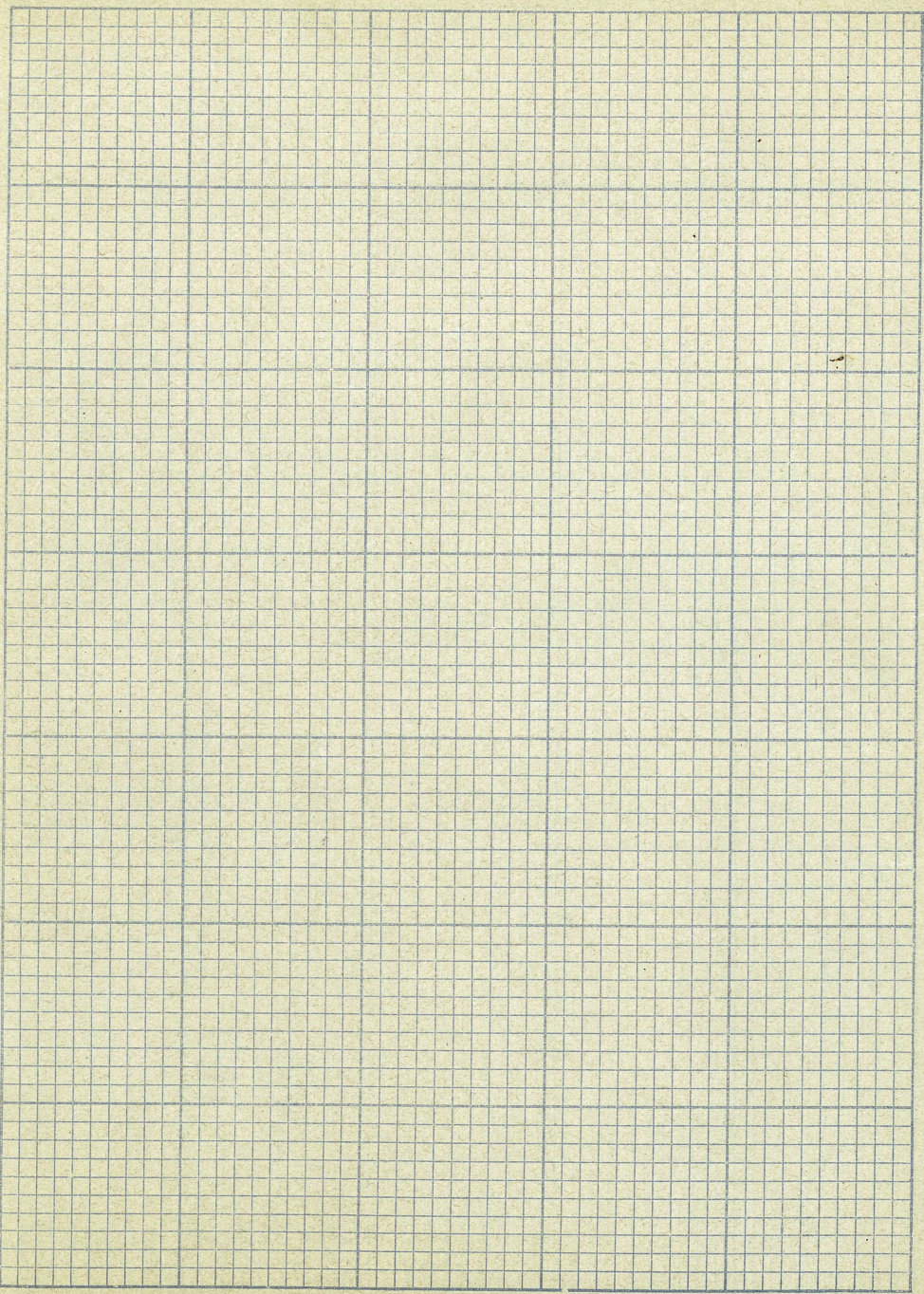
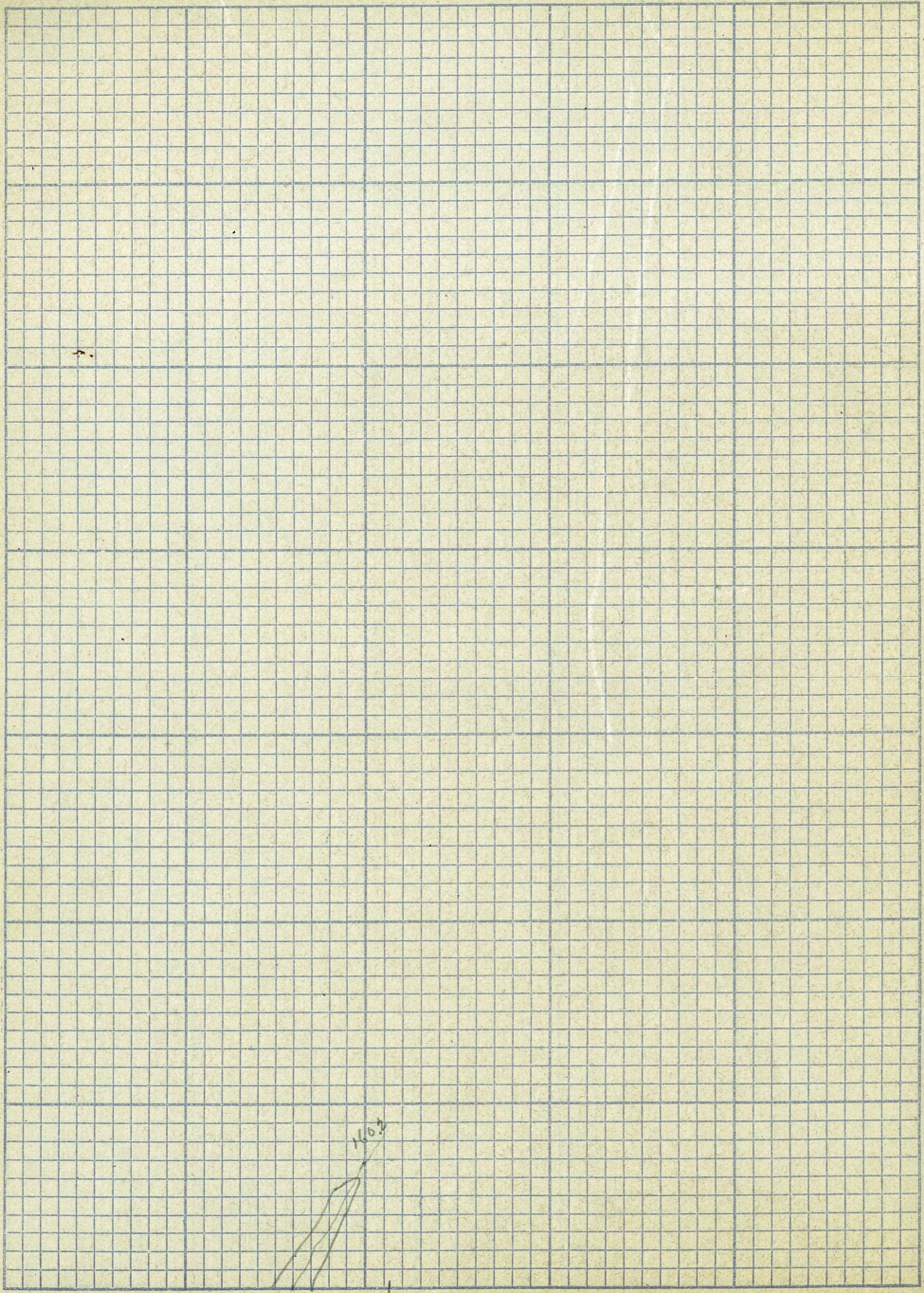
8+00



4+50

see next page



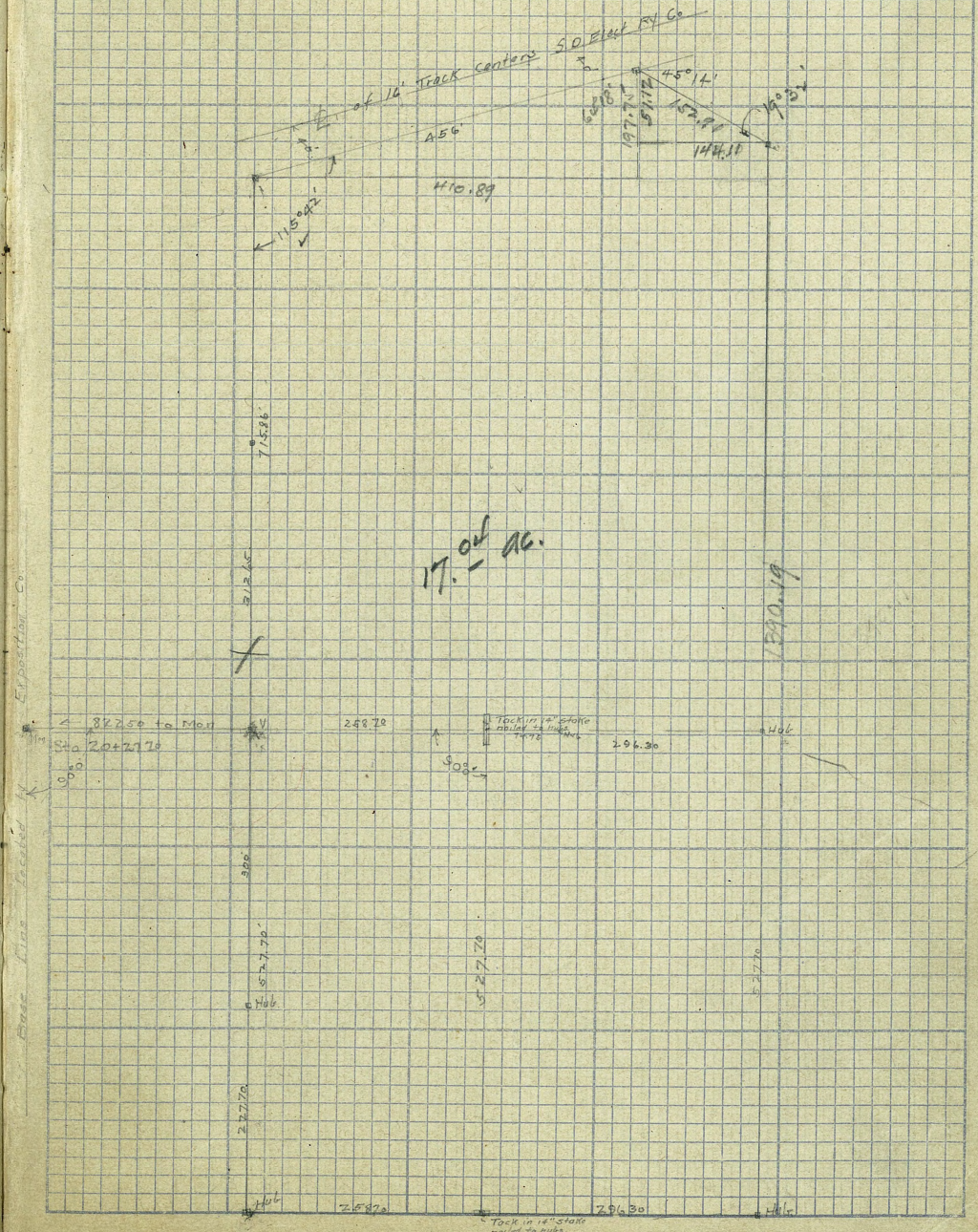


See Also
FB 1631-47

258.7
296.3
171.0
277.1

Location of Proposed Hospital Site in City Park

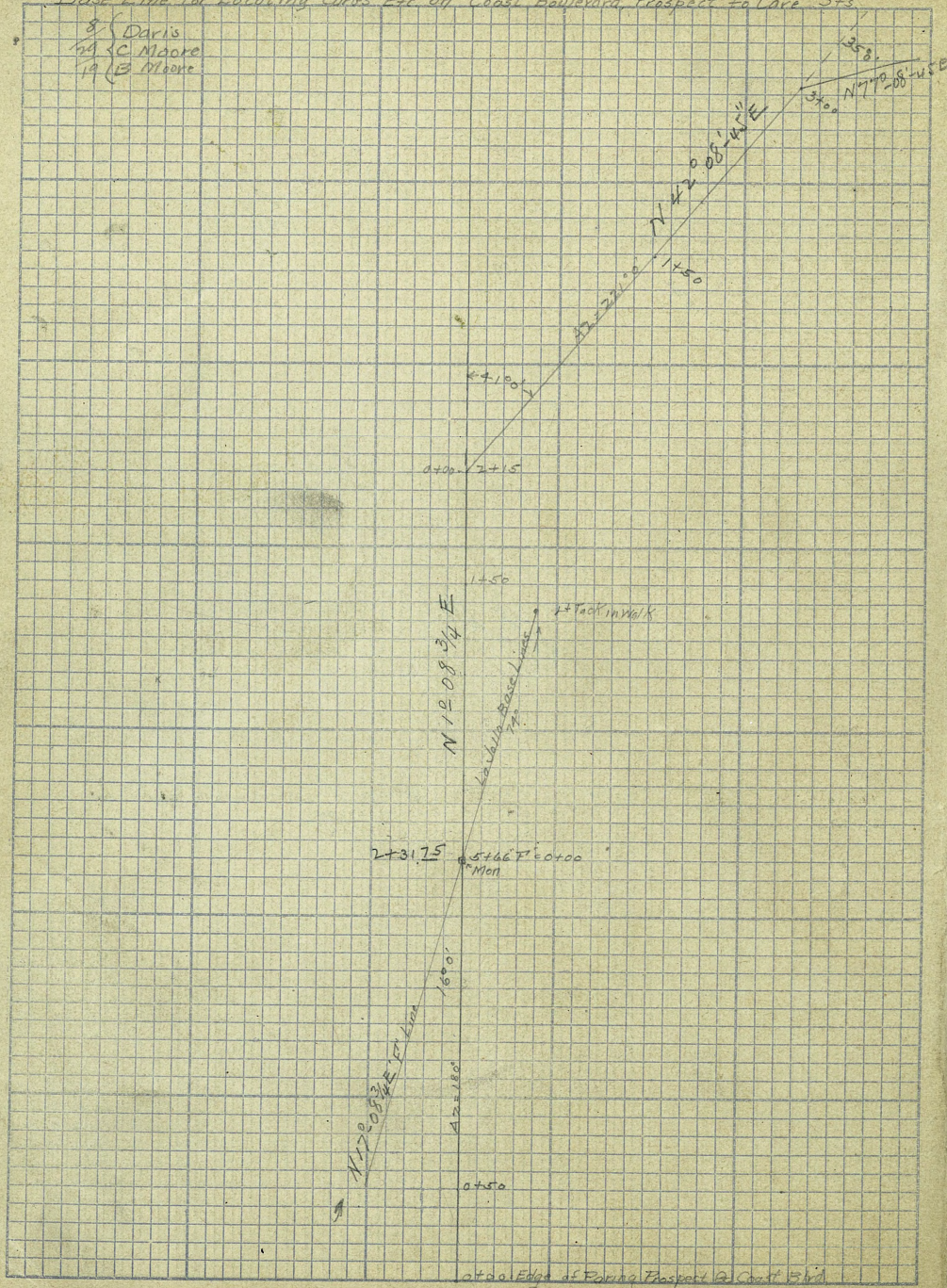
S. J. Davis
17 1/2 Miles
17 1/2 Miles



151.80

Base Line for Locating Curbs Etc on Coast Boulevard Prospect to Care Sts

8/ Daris
14/ C. Moore
19/ E. Moore

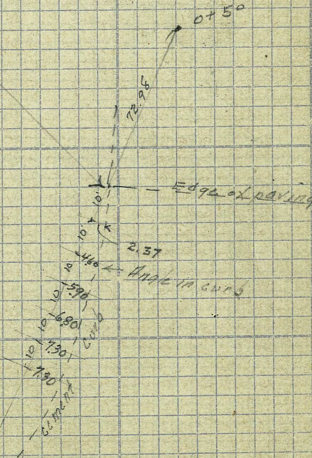


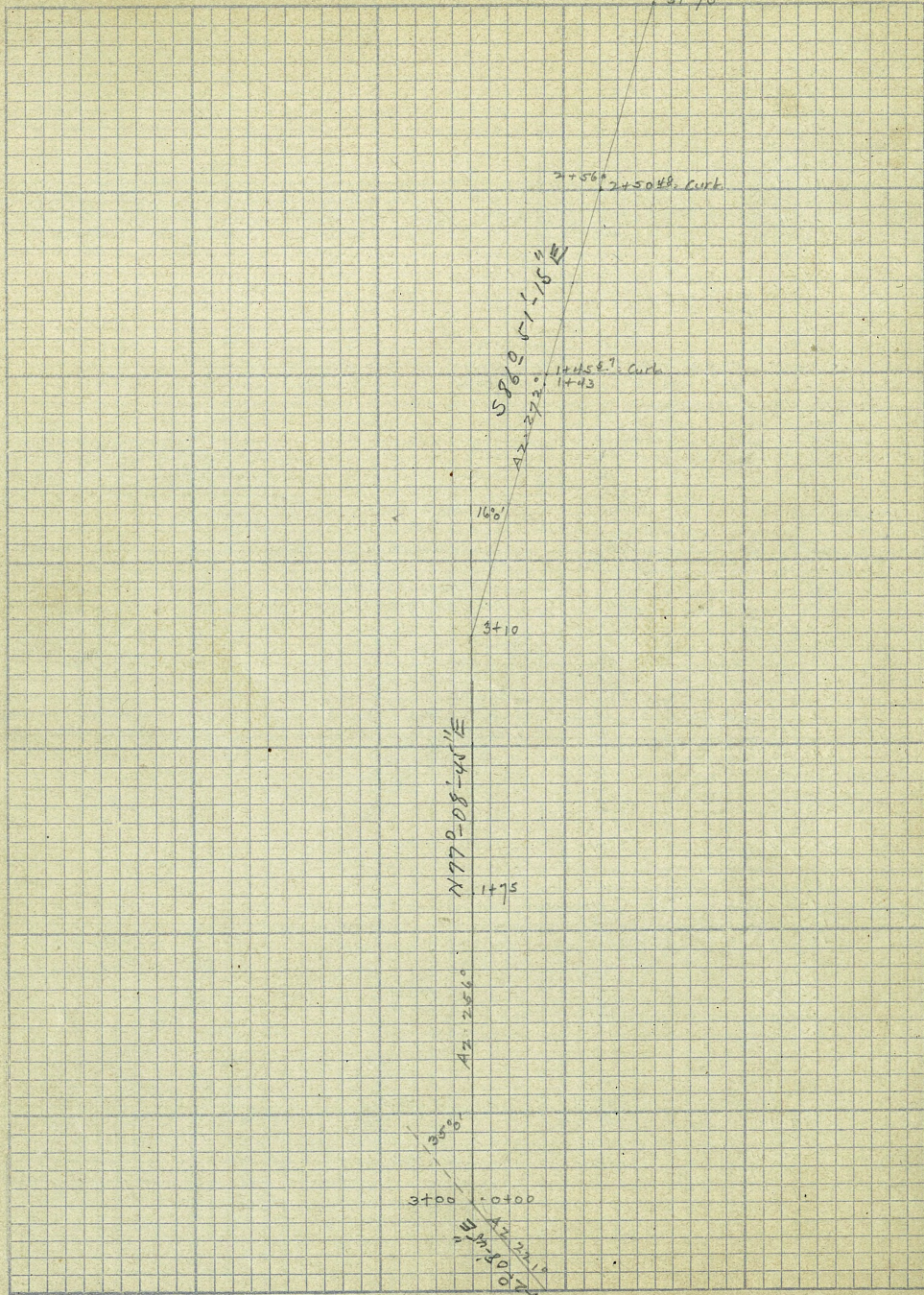
At Sta 5+6.7 La Jolla Base Line Az 180°

Dist	Notes
97.70	Curb
68.81	" - EC
67.41	" Return
69.23	" "
73.12	" EC "
79.72	" "
63.95	" "
87.81	" EC
86.82	" Return
86.55	" PT
89.50	" "
64.24	" "
41.51	" "
21.82	" "
12.70	" "
38.30	" "
55.60	" "
78.85	" "

Dist	Notes
180.0	Curb
21.33	"
41.33	"
47.82	"
44.32	"
50.65	" - EC Return
34.30	" - Edge of Paving
72.92	" - Edge of Facing
61.10	"
34.10	" - End of Curb - Washed out
38.00	" - Outside edge of skeleton walk
32.53	"
32.40	"
42.85	"
37.27	" - End of Curb - Washed out
63.55	" - Curb

Dist	Notes
64.44	Curb
41.44	"
11.74	"
9.00	"
32.60	"
42.85	"
75.00	"
96.00	"
77.43	"
65.57	"
59.86	"
66.10	"
47.26	"
70.30	" - EC Return
73.98	"
78.20	"
63.58	" - EC "
102.91	"
98.24	" - EC Return
96.17	"
97.43	"
102.02	" - and return

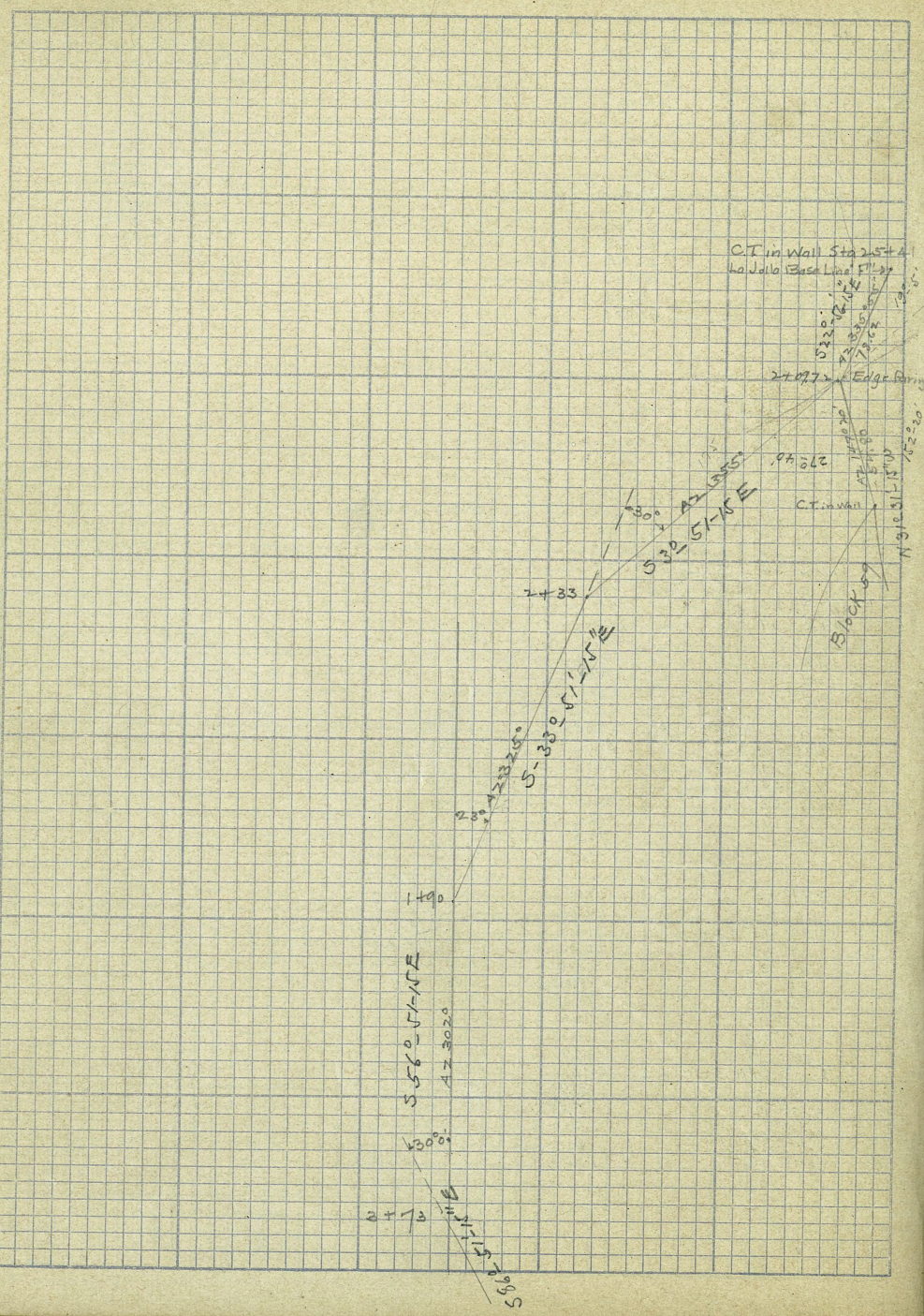




T at Sta 2+15 Az 180°			Notes
Az	Dist		Curb
78° 49	250° 19'	37.53	"
57° 44	237° 44'	56.48	"
51° 43	231° 43'	81.50	"
49° 44	229° 44'	100.00	"
8° 12	189° 12'	100.00	"
	179° 48'	79.00	"
	164° 43'	60.00	"
	148° 55'	49.00	"
T at Sta 1+50 Az 221°			
	12° 38'	21.75	"
136° 57	316° 57'	16.25	"
162° 20	256° 20'	32.20	"
122° 52	242° 52'	58.00	"
92° 30	232° 30'	87.00	"
57° 34	227° 34'	100.00	"
16° 36'	190° 36'	100.00	"
5° 57'	185° 57'	79.00	"
	166° 48'	60.00	"
	139° 39'	51.53	"
	107° 57'	37.00	"
	90° 56'	29.00	"
T at Sta 3+00 Az 221°			
172° 04	352° 04'	45.00	"
144° 40	324° 40'	29.95	"
115° 39	295° 39'	46.00	"
94° 50	274° 50'	64.00	"
81° 02	266° 02'	84.00	"
82° 32	262° 32'	100.00	"
48° 25	223° 25'	95.00	"
35° 29	215° 29'	70.00	"
22° 23	202° 03'	48.00	"
	176° 19'	32.00	"
	141° 48'	27.00	"
	90° 27'	39.00	"
	83° 02'	57.00	"
T at Sta 1+75 Az 256°			
	67° 08'	57.00	"
	63° 27'	26.00	"
	14° 35'	63.00	"
96° 03	276° 03'	22.00	"
90° 14	270° 14'	42.00	"
89° 27	269° 27'	72.00	"
89° 34	269° 34'	100.00	"
47° 23	227° 23'	97.05	"
36° 53	216° 53'	84.77	"
18° 43	198° 43'	71.25	"
7° 26	187° 26'	66.30	"
	168° 32'	63.10	"
	150° 31'	65.10	"
	129° 43'	69.00	"
	129° 11'	76.00	"
	118° 21'	85.00	"
	109° 48'	97.00	"
T at Sta 3+10 Az 256°			
	0° 0'	21.90	"
148° 12	328° 12'	37.50	"
127° 27	307° 27'	60.00	"
131° 44	301° 44'	81.00	"
117° 44	297° 44'	100.00	"

24° 22' C. Basin ✓

24° 12' C. Basin ✓



At Sta 310 Az 756°

Station	Az	D	Dist	Notes
85°43	265°	43'	100.0	Curb
80°33	260°	35'	79.0	"
75°44	255°	44'	63.0	"
71°12	251°	12'	49.0	"
64°47	244°	47'	35.0	"
46°33	226°	33'	16.0	"
	137'	06'	99.5	"
	119'	19'	14.95	"
	118'	04'	20.40	"
	121°	12'	37.0	"
	122°	36'	51.60	"
	121°	25'	60.0	"
At Sta 1743 Az 272°				
	20°	08'	53.25	"
176°25	356°	25'	57.90	"
151°44	331°	14'	69.0	"
139°33	319°	33'	82.0	"
129°26	309°	06'	100.0	"
93°42	273°	42'	100.0	"
96°50	276°	50'	84.0	"
99°35	279°	33'	65.0	"
101°34	281°	34'	47.0	"
108°01	283°	01'	23.0	"
104°03	284°	03'	15.0	"
	107'	18'	23.0	"
	109'	34'	11.0	"
At Sta 2756 Az 272°				
	20°	55'	62.0	"
	4°	20'	57.0	"
169°41	308°	41'	57.85 Ang	"
177°49	307°	49'	61.0	"
90°21	279°	21'	88.6	"
96°28	276°	28'	100.0	"
62°49	242°	49'	82.25 Ang	"
62°25	242°	25'	60.0	"
61°27	241°	27'	37.0	"
57°38	237°	38'	12.30	"
At Sta 3473 Az 277°				
	156°	40'	53.0	"
	171°	08'	50.55	"
2°15	182°	13'	50.85	"
13°59	193°	59'	51.73	"
25°42	206°	42'	51.0	"
41°26	221°	26'	51.27	"
60°13	240°	13'	56.0	"
73°19	253°	19'	64.48	"
89°25	269°	25'	84.0	"
95°16	275°	16'	100.0	"
124°40	304°	40'	100.0	"
124°03	304°	03'	82.95	"
123°09	303°	09'	60.0	"
122°02	302°	02'	40.30	"
123°07	303°	07'	27.0	"
128°12	308°	12'	17.0	"
161°47	341°	47'	8.0	"
	53°	20'	10.0	"
At Sta 1490 Az 302°				
	115°	30'	67.0	"
	104°	52'	40.0	"
	73°	42'	27.0	"
	18°	02'	22.0	"
163°42	315°	42'	44.0	"
155°26	305°	06'	68.0	"
157°06	307°	06'	87.0	"
150°50	230°	50'	100.0	"

Ctr of base V

At Sta 1+90 Az 302° 0'			Notes
As	Dist		
141° 24'	3 21° 54'	100.0	Curb
141° 13'	3 21° 13'	81.0	"
139° 33'	3 19° 53'	68.0	"
135° 06'	3 15° 06'	48.0	"
116° 14'	2 9° 14'	24.0	"
61° 35'	2 41° 35'	14.0	"
1° 28'	1 81° 31'	28.0	"
	1 67° 26'	47.0	"
	1 61° 20'	60.0	"
	1 52° 19'	78.0	"
	1 49° 54'	93.0	"
At Sta 2+33 Az 225°			
	1 48° 30'	112.85	"
	1 49° 49'	94.0	"
	1 51° 09'	77.0	"
	1 51° 49'	62.0	"
	1 52° 26'	48.0	End
	1 59° 24'	48.8	Inside edge Walk
	1 63° 54'	40.5	Top Walk
	1 67° 53'	32.0	"
30° 17'	2 19° 17'	21.0	"
34° 30'	2 29° 56'	34.0	"
60° 38'	2 40° 38'	50.0	"
96° 52'	2 76° 52'	26.04	Ctr Walk 24" C. Basin ✓
121° 23'	3 01° 23'	52.80	" Rice H/d
179° 25'			Curb
	1 0 25'	100.0	"
	1 0 17'	75.0	"
	5 0 24'	50.0	"
	1 5 54'	38.0	"
	4 0 51'	25.0	"
	7 8 04'	22.0	"
	1 1 8 01'	35.0	"
	1 2 9 43'	51.0	"
	1 3 6 01'	72.0	"
	1 3 9 27'	100.0	"
	1 4 0 13'	115.5	"
	2 10 47'		"
	1 7 0 07'	95.80	
	1 6 9 45'	95.35	End Walk
	1 6 2 15'	94.60	
	1 6 6 15'	95.57	Concrete Retaining Wall
	1 6 0 42'	91.90	"
	1 4 7 55'	85.0	" Edge Paving
144° 35'	2 27° 35'	46.75	End return Edge Paving

678.90

School site

Williams
Dunstie
C. Moore
P. Moore

Oct 28-1919

657.90
27.00
678.70

North Park Line 678.90
609.70

Upas St

Sol 2 1/2 x 2 x 2
NE of School site

Found Con. Mon. with Brass caps. M.K. 74711.10

Sol 2 1/2 x 2 x 2
SE Cor. School site

Sol 2 1/2 x 2 x 2
SW Cor. School site

Nt S. = Park Base Line

Found Con. Mon. with Brass caps. M.K. 74711.10

Sol 2 1/2 x 2 x 2
NE of School site

Richmond

Mville Ave

Albert

Brooks Ave

Herbert

East Line Herbert St

10/28/19

10/11/19

760-118-25

3

PC 0+00 90° to Prop Cur. 1123
 $\Delta = 78^\circ 28'$
 $R = 16.35'$
 $ST = 13.35'$

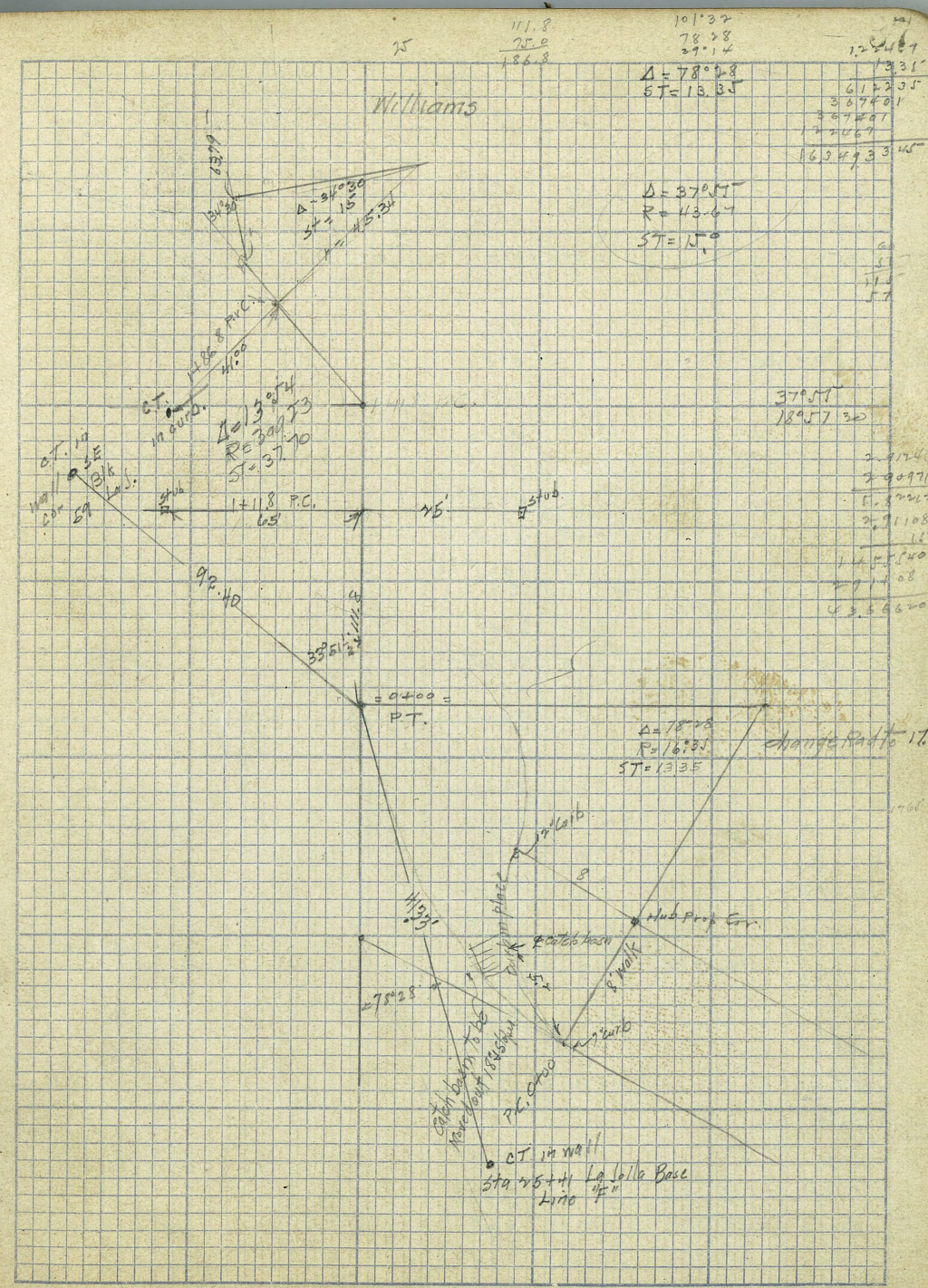
PT 0+00
 0+25
 0+50 Tang.
 0+75
 1+00

PC 1+11.8 Return to End Base Line 14.90 East
 +36.8
 +61.8 $\Delta = 131^\circ 54'$
 $R = 307.23'$
 $ST = 37.70'$

PT 2+15.8 $\Delta = 37^\circ 55'$
 $R = 43.67'$
 $L = 29^\circ$
 2+25.8 End Curb Tang.

PC 0+00 8' south of End of East Curb
 $\Delta = 57^\circ 40'$
 $R = 50'$
 $ST = 27.53'$
 $L = 50^\circ$
 PT 0+50

113.11 NW Corner Prospast



11.8
 25.0
 186.8
 $\Delta = 78^\circ 28'$
 $ST = 13.35'$

$\Delta = 37^\circ 55'$
 $R = 43.67'$
 $ST = 27.53'$

37.55
 189.73
 2.9124
 2.90971
 5.82211
 2.91108
 1.15550
 2.91108
 4.86660

$\Delta = 78^\circ 28'$
 $R = 16.35'$
 $ST = 13.35'$

	Stn	H.I.	FS	Flv	
Cur.					113.114 Plug 10. Cur
PC Ret. 900 to cor		113.91	6.17	107.74	0.80 +
Cur return			6.56	107.35	113.91
FC cur return 900			8.30	105.61	12.61 -
at 25 Edge of			8.57	105.34	10.10 +
at 25			11.54	102.41	0.38 +
	0.38 / 0.148	TP	12.81	101.10	10.148 -
0+50 RT			3.00	98.48	10.74 +
Inf. av. 0+50 25 West			7.07	99.41	88.74 +
0+75 40 West			5.70	95.78	0.80 +
0+75 East			3.64	97.86	89.54
1+00 East			9.70	91.78	11.91 -
1+20 West			9.50	91.98	77.163
PC 1+11.8 West			11.40	90.08	2.194
PC 1+11.8 East			11.70	89.78	79.82
			79.74	88.74	
	+0.80	89.54			
1+36.8 East			3.00	85.94	
on B.M. W. Curd Return to 400 W. 112 levels			0.29	89.25	
0+25 W			3.51	86.03	
0+50 W			6.88	82.96	
+75 W			9.55	79.99	
100 W			12.09	77.45	
161.8 E			7.10	82.44	
1+86.8 PRC			10.10	79.40	
M.C. Return + 2+01.3			12.0	77.54	
		TP	11.91	77.63	
2+15.8 EC	219	79.82	4.3	75.52	
2+25.8 EC + 10			4.1	75.72	
1+00 W			2.38	77.44	
1+25 W			4.81	75.01	
Break 10 grade			7.60	72.22	
End curb East East			7.87	71.95	
PC, 0+00 8' south of End Curb			7.50	72.32	
+10			7.00	72.82	
+30			5.90	73.92	
+40			5.60	74.22	
+50			5.30	74.52	

N.W. Cox Road 1200'

H.I.
79.82

FS

Flv

± Catch basin

5.65

74.17

Flowline Catch Basin

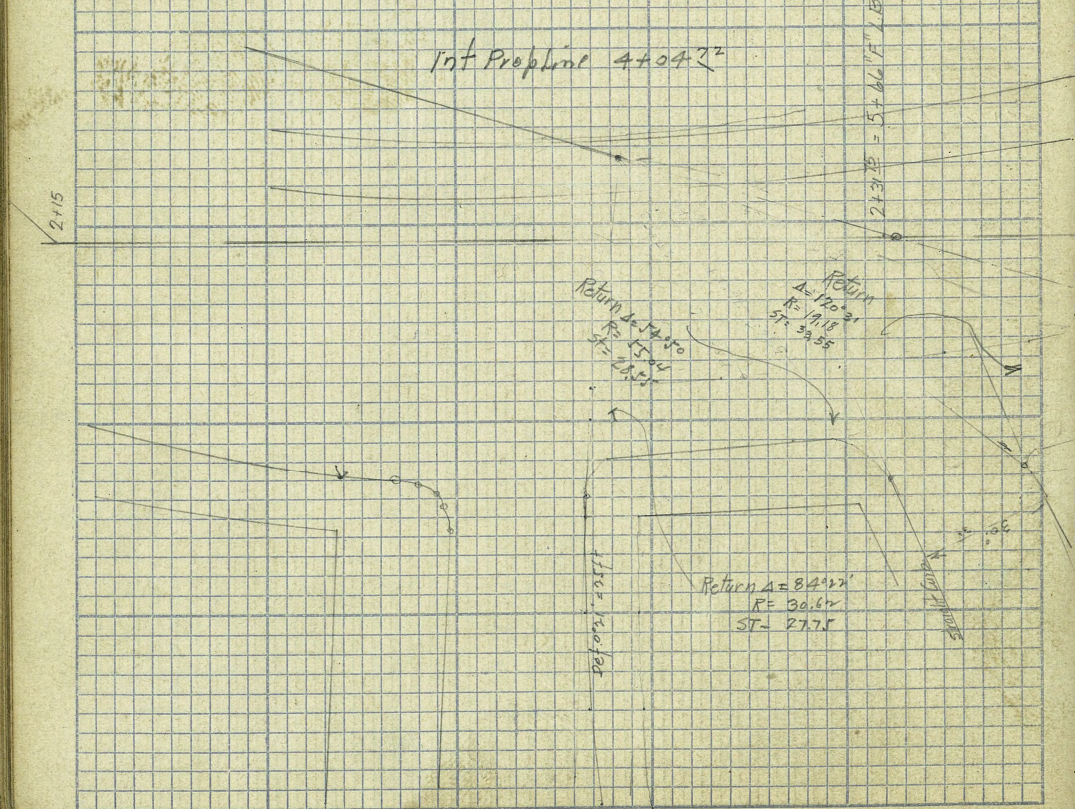
8.93

70.89

89.25

1+26.8
25
148.10
25
128.68

PC 0+00	Def		
0+25	0°43'		
0+50	1°26'	Rad = 1000' Δ = 4°18'	
PCC 0+75	2°09'		
1+00	4°15'		
1+25	8°30'	Rad = 170.56' Δ = 25°30' Δ 74°48'	ST = 37.50
1+48.82			
EC PCC 1+50	12°45'		
1+75	0°34'30"		
2+00	1°09'	Int 1st Curve 2+58.91	
2+25	1°43'30"		= P.R.C. Return
2+50	2°18'	Rad = 1250' Δ = 8°00'	
2+75	2°52'30"	Int 2nd Curve 2+92.90	
3+00	3°27'00"		
3+25	4°01'30"	Int 3rd Curve 3+54.66	= P.R.C. Return

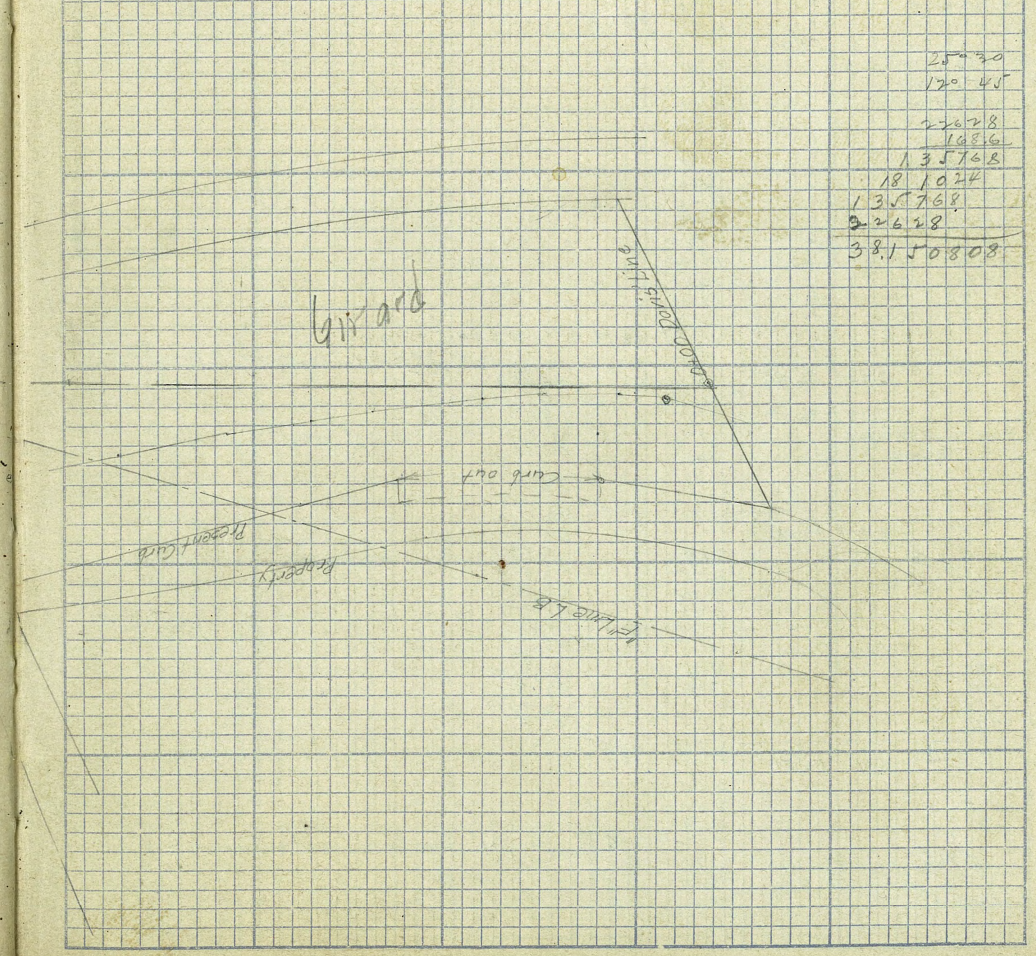


Davis Baseline

At Sta 2+31.75	BS. on Lt T. in walk 74 North	
A = 162.34	Dist 56°	To Sta 2+25
42°46'	69.51	" " 2+44.7
76°41'	179.05	" " 0+52.5 (arc)
125°53'	62.47	" " 3+25.0
122°49'	123.32	" " 0+47.0

At Sta Davis 0+00	BS. To 2+31.75	
AZ. 154°12'	Dist 39'	To 0+75 PCC.
45°28' 1/2	52.8	To 0+00 P.C. of Curve.

At 0+00 P.C. on Curve	FS. 0+75 PCC.	
AZ. 29°30' PA	Dist 52.8	To 0+00 Davis



- 25°30'
- 120°45'
- 226.28
- 168.66
- 135.768
- 181.024
- 135.768
- 226.28
- 381.50808

	STN	B.S	H.I	FS	Elev	Bank Cor Gerard + Prospect 94067 B.M	94067 1.55+
Top. 0+00	Werb	1.11	95.67	11.43			95.67
Carb				11.76 T.P.	82.86		12.76
		8.67	83.53	1.63			82.36
	0+24 W			3.50			0.67+
	0+50 W			5.70			83.53
P.C.C.	0+75 W			8.30			12.80-
	1+00 W			11.2			70.73
	1+25 W			12.80 T.P.	70.73		0.25+
		0.25	70.98				70.98
							12.95
P.R.C.	1+50 W			1.60			59.26
	1+75 W			4.00			
	2+00 W			7.50			
	2+25 W			10.50			72.98
	2+31 W			11.70			72.30
	2+45 W			13.60			60.47
	2+55 W			13.20			
Carb.	2+67 W			12.96			59.26
Ground	2+67 W			13.30			9.50
				12.95	58.03		49.86
		1.23	59.26				
Ground	0+52.5 W			4.70			
Carb.	0+52.5 W			4.24			
Carb.	0+50.0 W			4.26			
	0+40.0 W			5.80			
	0+30.0 W			6.20			
	0+20.0 W			7.20			
	0+10.0 W			8.30			
P.C.C.	0+00.0 W			9.40			
	0+10.0 W			10.40			
	0+20.0 W			11.20			
	0+30.0 W			12.00			
	0+40.0 W			13.10			
Carb.	0+40.0 W			12.26			
Carb	0+47.0 P.C. W			12.27	46.99	3.W. Cor Coast + Gerard	
		2.90	46.97			91.333 N.W. Cor Gerard + Prospect B.M	
				12.12.61	84.26	94.067 5.75+	
						2.90+ 46.983	
Hotel Cor		1.71	86.07	0.97		96.97 2.90-	
Carb	N.E. Cor Gerard + Prospect			3.95		12.61 91.083 B.M. Gerard + Prospect	
	0+5 E Carb			7.17			
	0+50 "			10.47			
	0+75 "			12.30	73.77	12.30-	
		10.47	73.91				
				1.59			73.99
	+25 "			4.75			11.17
	+50 "			8.07			22.82
	+75 "			11.17			61.44
				12.25	61.74		0.67+
	+0.67 60.47						62.43
				2.75			12.88-
	+25 "			5.96			49.51
	+50 "			9.16			2.96+
Breaks	+76 "			12.45			52.51
		2.96	52.51				
				3.50			
	+25 "			4.64			
	+46.7 "			5.50			
				5.5	46.99	on B.M. S.W. Cor Coast + Gerard	
East	3+25 Flowline of Catch Basin			6.70	45.81		
West	" " " "			12.00	49.51		
S.W. Cor Coast + Prospect	" " " "			7.00	45.51		

STN	B.S	H.I	FS	Elev	Bank Cor Gerard + Prospect 94067 B.M	94067 1.55+
Top. 0+00	Werb	1.11	95.67	11.43		
Carb				11.76 T.P.	82.86	
		8.67	83.53	1.63		
	0+24 W			3.50		
	0+50 W			5.70		
P.C.C.	0+75 W			8.30		
	1+00 W			11.2		
	1+25 W			12.80 T.P.	70.73	
		0.25	70.98			
P.R.C.	1+50 W			1.60		
	1+75 W			4.00		
	2+00 W			7.50		
	2+25 W			10.50		
	2+31 W			11.70		
	2+45 W			13.60		
	2+55 W			13.20		
Carb.	2+67 W			12.96		
Ground	2+67 W			13.30		
				12.95	58.03	
		1.23	59.26			
Ground	0+52.5 W			4.70		
Carb.	0+52.5 W			4.24		
Carb.	0+50.0 W			4.26		
	0+40.0 W			5.80		
	0+30.0 W			6.20		
	0+20.0 W			7.20		
	0+10.0 W			8.30		
P.C.C.	0+00.0 W			9.40		
	0+10.0 W			10.40		
	0+20.0 W			11.20		
	0+30.0 W			12.00		
	0+40.0 W			13.10		
Carb.	0+40.0 W			12.26		
Carb	0+47.0 P.C. W			12.27	46.99	3.W. Cor Coast + Gerard
		2.90	46.97			91.333 N.W. Cor Gerard + Prospect B.M
				12.12.61	84.26	94.067 5.75+
						2.90+ 46.983
Hotel Cor		1.71	86.07	0.97		96.97 2.90-
Carb	N.E. Cor Gerard + Prospect			3.95		12.61 91.083 B.M. Gerard + Prospect
	0+5 E Carb			7.17		
	0+50 "			10.47		
	0+75 "			12.30	73.77	12.30-
		10.47	73.91			
				1.59		
	+25 "			4.75		
	+50 "			8.07		
	+75 "			11.17		
				12.25	61.74	
	+0.67 60.47					
				2.75		
	+25 "			5.96		
	+50 "			9.16		
Breaks	+76 "			12.45		
		2.96	52.51			
				3.50		
	+25 "			4.64		
	+46.7 "			5.50		
				5.5	46.99	on B.M. S.W. Cor Coast + Gerard
East	3+25 Flowline of Catch Basin			6.70	45.81	
West	" " " "			12.00	49.51	
S.W. Cor Coast + Prospect	" " " "			7.00	45.51	

	572	36	H.I.	F5.	Flow	
		3.90	31.22			27.297
Non-Bath	Flow Line			11.04	20.19	3.93 +
To House	Grating			6.99	24.24	31.18
Opposite	Flowline			7.74	23.51	0.96 -
D.H.	Grating			4.61	26.62	31.17
				TP 0.06	31.17	12.58 +
		12.58	43.75			48.75
				TP 4.23	43.52	0.23 -
		8.51	52.03			43.52
	Flowline			5.14		8.51 +
	Grate			3.51		52.03
	14" Iron Pipeflowline			8.57		

3/14/47
 Gregory Moore Miller Shaw
 CONTOURS AT TORREY PINES Park
 for LODGE

11.13 5.04
 111.13 Ht. (assumed elev. for Bench)
 07 grade stake R.C.
 nail 1/4
 Auto sign post

Station	Distance	Elevation	Notes
0+00			
Edge of Pavement		6.30	1048
15' W		7.0	1041
50' W		7.2	1039
100' W		7.5	1036
113' W		7.6	1035
140' W	= edge of cliff	9.8	1013
0+20			
140' W at pavement	= edge of cliff	8.8	1023
115' W	✓ ✓	7.9	1032
0+30			
120' W	✓ ✓	10.5	1006
100' W	✓ ✓	8.0	1031
0+50			
100' W	✓ ✓ = edge of cliff	9.1	1020
75' W	✓ ✓	6.9	1042
50' W	✓ ✓	6.7	1044
25' W	✓ ✓	6.3	1048
15' W	✓ ✓	6.6	1045
12' W	✓ ✓	7.5	1036
Edge	✓ ✓	7.2	1039
0+75			
95' W	✓ ✓	11.0	1001
75' W	✓ ✓	8.3	1028
0+85			
97' W	✓ ✓	10.8	1003
90' W	✓ ✓	8.9	1022
75' W	✓ ✓	7.3	1038
50' W	✓ ✓	6.3	1048

Sta 134+77.60
 Book 1010-8
 Torrey Pines Road
 Surr. Coy.

P.C. of Curve

150'

Plants

Torrey

0+00

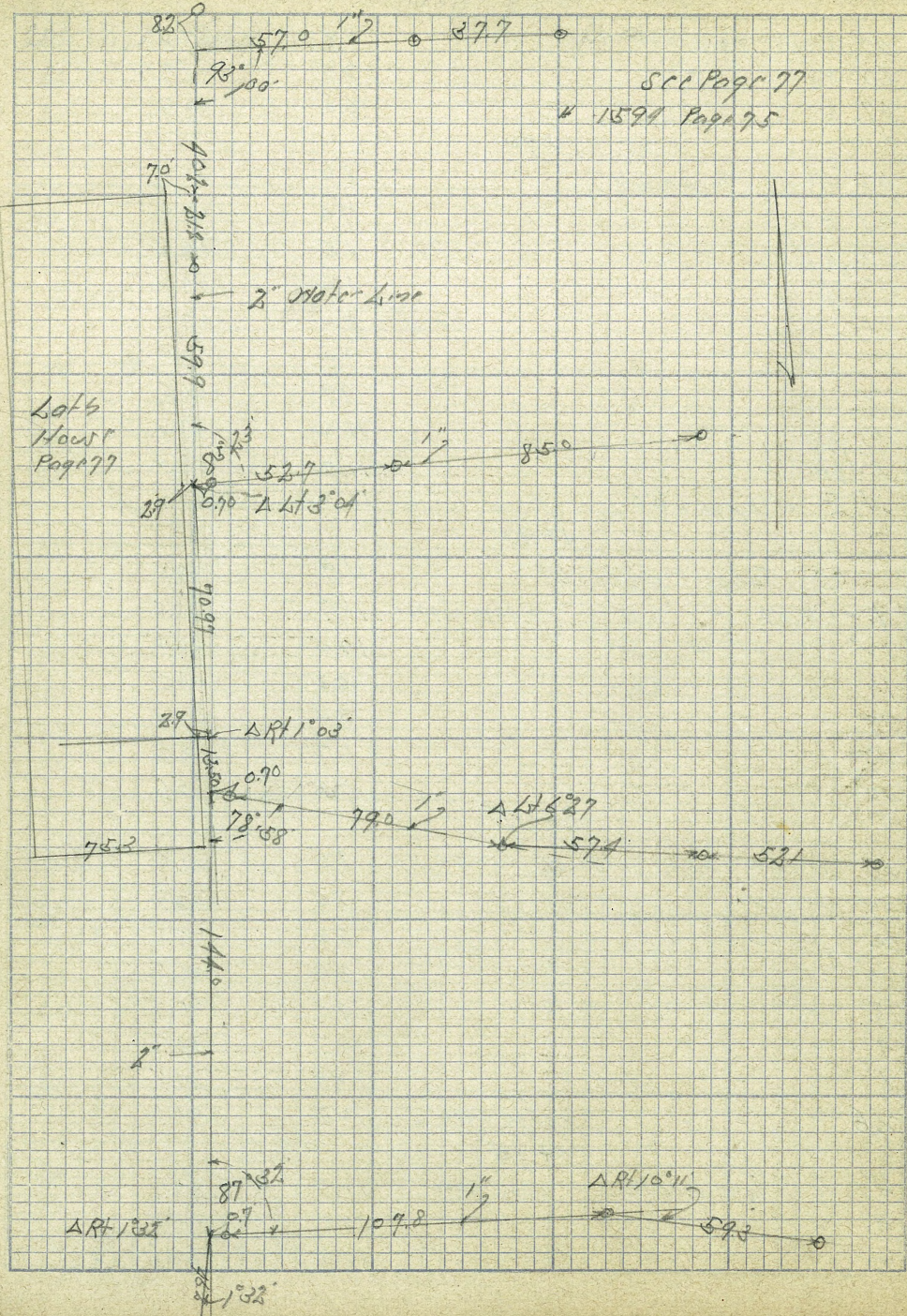
0+95

Station	Distance	Elevation	Notes
Edge of Pavement		8.8	1023
8' W	✓	9.0	1021
13' W	✓	6.2	1049
25' W	✓ ✓	6.1	1050
50' W	✓ ✓	5.2	1059
55' W	✓ ✓	6.9	1042
75' W	✓ ✓	9.2	1019
100' W	✓ ✓	11.0	1001

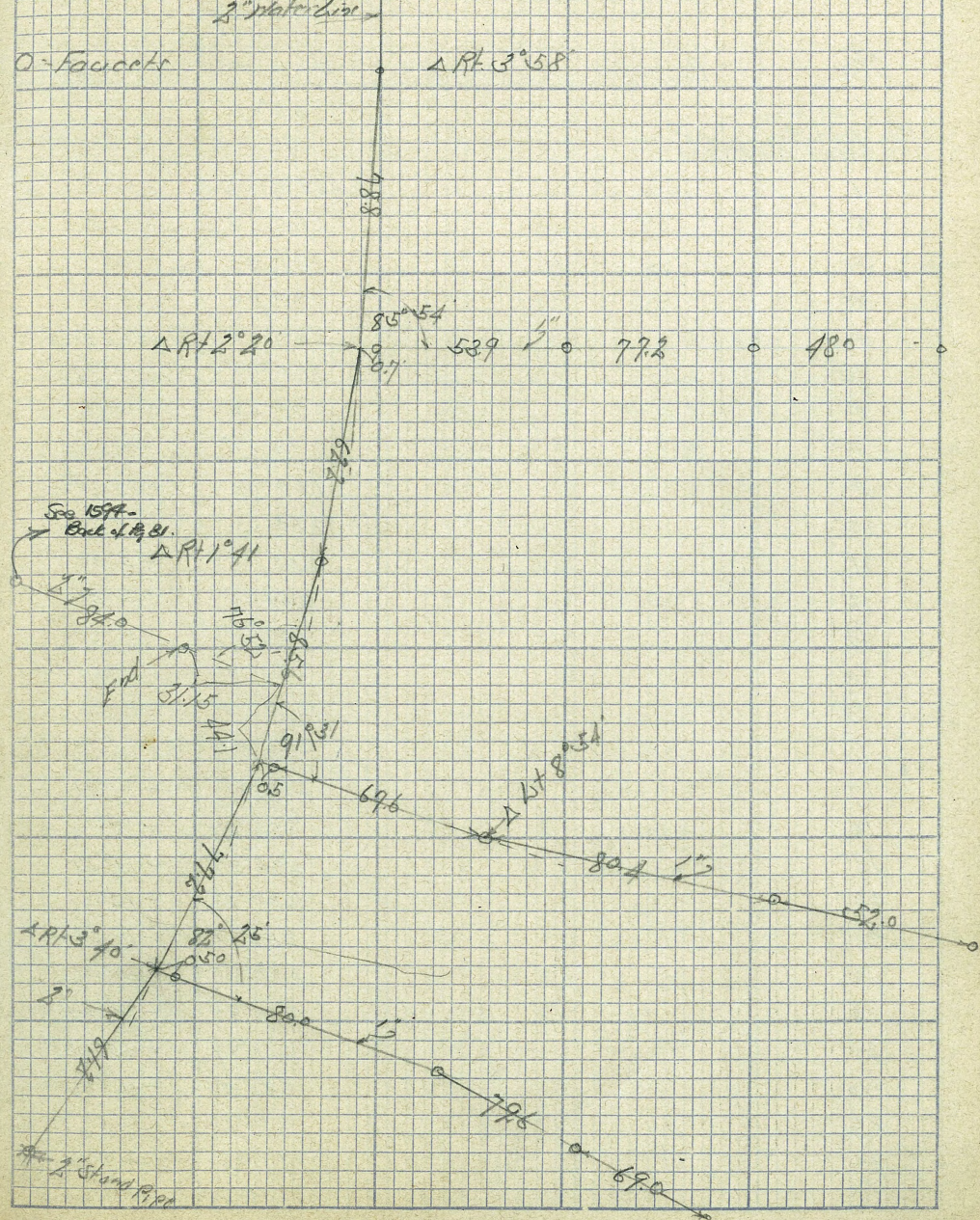
1+15		111.13.MI.		
95' W. of Pavement			10.3	100.8
85' ✓ ✓ ✓			7.6	103.5
65' ✓ ✓ ✓			6.5	104.6
45' ✓ ✓ ✓			5.0	106.1
30' ✓ ✓ ✓			5.2	105.9
13' ✓ ✓ ✓			5.2	105.9
7' ✓ ✓ ✓			9.7	101.4
Edge ✓ ✓			9.5	101.6
1+20				
45' W. of Pavement			4.7	106.4
65' ✓ ✓ ✓			3.1	108.0
75' ✓ ✓ ✓			6.6	106.5
95' ✓ ✓ ✓			8.7	102.4
1+50 = PC on pavement				
81' W ✓ ✓			9.8	101.3
75' ✓ ✓ ✓			7.5	103.6
65' ✓ ✓ ✓			3.8	107.3
55' ✓ ✓ ✓			2.0	109.1
45' ✓ ✓ ✓			3.8	107.3
35' ✓ ✓ ✓			2.4	108.7
12' ✓ ✓ ✓			6.3	104.8
5' ✓ ✓ ✓			10.9	100.2
Edge ✓ ✓			11.0	100.1
1+57				
75' W. ✓ ✓			9.2	101.9
T.P. 3.80	110.43		4.50	106.63
70' W. of pavement			7.0	103.4
67' ✓ ✓ ✓			2.5	107.9
60' ✓ ✓ ✓			3.7	106.7
53' ✓ ✓ ✓			2.0	108.4
1+60				
50' W. of Pavement			1.8	108.6
60' ✓ ✓ ✓			2.7	107.7
63' ✓ ✓ ✓			6.5	103.9
73' ✓ ✓ ✓			8.4	102.0

1+63		110.43		
50' W. of Pavement			1.9	108.5
60' ✓ ✓ ✓			2.5	107.9
67' ✓ ✓ ✓			6.8	103.6
1+70				
65' W. of Pavement			8.6	101.8
57' ✓ ✓ ✓			7.0	103.4
52' ✓ ✓ ✓			1.5	108.9
47' ✓ ✓ ✓			1.2	109.2
41' ✓ ✓ ✓			3.2	107.0
17' ✓ ✓ ✓			5.0	105.4
12' ✓ ✓ ✓			9.9	100.5
5' ✓ ✓ ✓			11.2	99.2
Edge ✓ ✓			11.2	99.2
at E. of Edge = 00			11.2	99.2
1+90				
00 = Tangent produced			11.9	98.5
1.2' Max ✓ ✓ = edge of para			11.9	98.5
12' ✓ ✓ ✓			12.0	98.4
19' ✓ ✓ ✓			6.3	104.1
37' ✓ ✓ ✓			3.4	107.0
43' ✓ ✓ ✓			6.7	103.7
50' ✓ ✓ ✓			7.8	102.6
2+05				
39' W. of Tang. produced			8.5	101.9
34' ✓ ✓ ✓			8.0	102.4
30' ✓ ✓ ✓			3.3	107.1
25' ✓ ✓ ✓			3.9	106.5
18' ✓ ✓ ✓			9.7	100.7
9' ✓ ✓ ✓			10.7	99.7
8' ✓ ✓ ✓			12.9	97.5
2.6' ✓ ✓ ✓ = edge para			12.3	98.1
2+15				
4' W. of Tang. produced = edge para			12.7	97.7
9' ✓ ✓ ✓			13.3	97.1
12' ✓ ✓ ✓			10.3	100.1

Location Water Lines Nursery Balboa Park



Nov. 30-42
5.087
Hazard
H. J. J.



OLD TOWN CONTOURS

Sta.	Backsight	Forsight	Azimuth	Vert Angle
N 75' Azimuth 66°00 from Mon & 28' Grade & Chanels.			66°00	
1			113°33'	-6°20'
2			126°05'	-9°37'
3			167°24'	-13°07'
4			171°30'	-19°44'
5			163°08'	-14°48'
6			161°08'	-13°17'
7			172°56'	-13°54'
8			175°46'	-21°03'
9			179°13'	-21°14'
10			179°13'	-9°21'
11			258°18'	-5°38'
12			258°18'	-5°54'
13			258°18'	-9°27'
14			258°18'	-11°50'
15			239°24'	-14°00'
16			236°37'	-14°58'
17			236°37'	-14°01'
18			236°37'	-14°56'
19			236°37'	-11°57'
20			234°37'	-18°21'
21			252°18'	-16°20'
22			252°18'	-10°21'
23			244°06'	-14°24'
24			223°27'	-15°30'
25			206°24'	-16°05'
26			206°24'	-15°18'
27			191°38'	-17°00'
28			191°38'	-15°34'

Upper Hair	Lower	H. I.	Hor Dist	Vert Dist	Elev.			
				75'		Ground Elev Inst. 23053		
547	0.92	4.55	100.50	235.53	92.0	10.0	220.5	
547	0.55	4.74			530	9.0	221.5	
					32'	2.6	222.9	Top of Bank
					32'	11.5	219.0	Foot of Bank
524	0.48	4.76			45.0	12.4	217.1	✓ ✓ ✓
524	0.48	4.76			46.0	10.9	219.6	Top Bank
526	0.52	4.74			50.0	12.3	218.2	
522	0.44	4.78			43.0	16.8	213.9	Bottom of Pit
					21'	8.2	222.3	Foot of Bank
					17'	2.8	227.7	Top ✓ ✓
					23'	2.3	228.2	✓ ✓ ✓
					37'	3.8	228.9	
					60'	10.0	226.5	
542	0.84	4.58			81.0	12.0	213.5	
550	1.00	4.50			95.0	23.5	207.0	
546	0.92	4.54			86.0	20.9	209.6	
536	0.72	4.64			68.0	12.2	213.3	
528	0.56	4.72			53.0	14.1	215.4	
521	0.42	4.79			41.0	8.7	221.8	
					31'	6.8	223.7	
					25'	7.3	223.2	Foot of Bank
					52'	9.5	221.0	
533	0.66	4.67			63'	16.0	214.5	
547	0.84	4.53			88'	24.5	206.0	
535	0.69	4.66			64'	18.3	212.0	
530	0.60	4.70			57'	15.3	215.2	
521	0.42	4.79			39'	12.0	218.5	
520	0.60	4.70			56'	15.7	214.8	

Sta

Sta	Azimuth	Vert Angle
29	277°53	-15°31
30	280°45	-3°56
31	280°45	-6°05
32	280°45	-6°29
33	280°45	
34	280°45	
35	280°45	-9°59
36	272°27	-10°53
37	272°27	-9°54
38	272°27	-6°24
39	272°27	
40	272°27	
41	266°14	-8°37
42	262°07	-9°05
43	262°07	-6°56
44	289°54	-6°59
45	289°54	-9°51
46	287°44	-10°06
47	287°44	-8°57
48	299°45	-8°06
49	295°04	-6°13
50	320°08	-4°50
51	320°08	-6°21
52	320°08	-5°02
53	350°48	-4°45
54	336°02	-5°44
55	336°02	-3°38
56	347°26	-2°52
57	1°33	-4°13
58	1°33	-4°50
59	1°33	-5°45
60	1°33	-4°23
61	1°33	-2°21
62	55°12	+0°26
63	101°14	-1°06

13 4.2 Lower than 32

✓ 8.0 ✓ - 32

13 4.0 Lower than 38

✓ 6.4 ✓ ✓ 38

Upper	Lower	H.D.	Hor Dist	Vert Dist	Elev.
		rod 522 23553	30	8.4	230.5
			14	1.0	222.1
			35	3.7	222.8
			53	6.2	224.3
			55	10.4	220.1
			62	14.2	216.3
535	470	465	69	12.0	218.5
			65	12.1	218.4
540	0.80	460	78	13.9	217.5
			49	7.5	223.0
			31	11.5	219.0
			54	13.9	216.6
533	0.66	467	65	9.9	220.6
			51	9.2	222.3
			44	5.4	222.1
			62	7.2	222.8
			64	11.1	219.4
			70	12.5	218.0
			76	12.0	218.5
			79	11.2	219.2
			64	7.0	223.5
547	0.94	453	74	9.9	222.6
			63	7.1	223.4
			30	2.7	222.8
			30	2.5	228.0
			62	6.4	224.1
560	1.21	439	121	7.7	222.8
583	1.66	417	166	8.4	222.1
565	1.32	434	136	10.5	220.0
560	1.00	450	100	8.4	222.1
577	0.52	471	58	5.8	224.7
			25	2.0	228.5
			10	0.4	230.1
			23	0.0	230.5
			14	0.3	230.2

Top of Bank
Foot ✓ ✓Top of Bank
Foot ✓ ✓Top Bank
Foot ✓

Bottom Pt

Sta	Azimuth	Vert Angle
62	117°28	-7°24
65	106°43	-7°27
66	90°20	-5°47
67	90°20	-6°15
68	78°26	-3°08
69	46°18	-3°37
70	75°51	-5°31
71	75°51	-5°14
72	89°50	-5°43
73	51°27	-4°47
74	51°27	-4°48
75	51°27	-5°24
76	48°09	-5°47
77	48°09	-6°18
78	29°11	-4°59
79	29°11	-3°34
80	29°11	-6°03
81	29°11	-5°30
82	29°11	-5°43
83	29°11	-5°54
84	14°36	-5°21
85	14°36	-5°22
86	14°36	-4°33
87	14°36	-4°46
88	14°36	-4°13
89	6°02	-3°32
90	6°02	-4°00
91	6°02	-3°52
92	351°37	-2°41
93	354°18	-2°34
94	206°31	-15°47
95	206°31	-14°23
96	206°31	-11°51
97	202°05	-9°52
98	191°04	-19°26

Upper	Lower	H D	Hor Dis	Vert Dist	Elev	
		rod 5° 23353		30	3.9	2305.3
				52	6.8	226.6
				82	8.3	222.2
				57	6.3	224.2
				42	2.3	222.2
				44	2.8	229.7
536	1.31	465		131	12.5	218.0
551	1.02	449		102	9.4	221.1
549	0.99	450		99	9.7	220.8
526	0.22	464		72	5.9	224.6
579	0.98	451		78	8.2	222.3
568	1.35	433		135	12.6	219.9
588	1.25	413		175	12.5	213.0
589	1.27	412		170	12.2	211.3
595	1.20	405		190	16.7	214.1
586	1.20	415		189	16.4	214.1
588	1.62	419		182	16.8	213.7
580	1.60	420		160	15.2	215.3
567	1.24	433		134	13.1	217.4
547	0.98	459		98	9.9	220.6
553	1.05	448		105	9.7	220.8
565	1.20	435		130	12.0	218.5
582	1.64	418		163	12.9	217.6
583	1.66	417		165	13.6	216.9
593	1.80	409		185	13.5	212.0
597	1.83	404		192	11.8	218.7
585	1.20	415		120	11.8	218.7
589	1.66	417		166	11.1	219.4
595	1.87	406		189	8.8	221.9
605	2.10	395		210	8.8	221.9
545	0.86	457		80	22.8	207.7
550	1.00	450		93	26.1	204.4
590	1.39	431		135	28.2	202.3
587	1.25	412		120	29.7	200.8
579	0.98	451		154	28.2	202.3

Sta	Azimuth	Vert Angle	Upper	Lower	HD	Hor Dist	Vert Dist	Exp			
99	191°04	-12°28	5.65	1.30	4.36	1065	235.53	12.24	27.2	239.53	
100	188°39	-16°16	5.46	0.90	4.56		83	24.4	206.1		
101	193°46	-13°35	5.52	1.04	4.48		98	23.9	206.6	✓	
102	178°23	-11°53	5.65	1.30	4.35		126	26.2	204.3		
103	178°23	-10°25	5.77	1.44	4.33		140	25.8	204.2		
104	171°24	-10°07	5.77	1.54	4.23		150	30.5	200.00		
105	167°57	-11°38	5.61	1.22	4.39		118	24.1	206.4		
106	167°57	-13°07	5.45	0.96	4.50		91	21.4	209.1		
107	167°57	-13°51	5.40	0.80	4.60		76	18.7	211.8	✓	
108	188°25	-15°00	5.33	0.66	4.67		62	16.7	213.8		
109	162°24	-12°48	5.36	0.72	4.64		69	15.7	214.8		
110	153°03	-11°25	5.33	0.66	4.67		64	13.0	217.5		
111	145°28	-12°00	5.22	0.46	4.76		45	9.5	221.0		
112	127°57	-8°53	5.33	0.66	4.67		65	10.1	220.4		
113	117°17	-6°27	5.47	0.84	4.63		94	10.4	220.1	✓	
114	131°50	-6°49	5.51	1.02	4.49		102	11.9	218.6		
115	145°34	-10°05	5.37	0.74	4.63		73	12.8	217.7		
116	142°79	-7°57	5.31	1.02	4.29		101	13.9	216.6		
117	153°09	-9°54	5.50	1.00	4.50		96	17.0	213.5		
118	132°52	-5°23	5.67	1.34	4.33		134	12.0	212.9		
119	143°20	-7°14	5.41	1.21	4.20		119	15.2	215.3		
120	152°08	-8°25	5.65	1.26	4.39		124	18.4	212.1		
121	146°46	-6°51	5.75	1.50	4.25		149	17.6	212.9		
122	146°40	-6°31	5.87	1.24	4.63		122	19.6	210.9	✓	
123	151°59	-9°28	5.92	1.84	4.08		183	23.5	202.0		
124	160°16	-7°11	10.85	1.80	9.05		128	22.2	203.3		Ground 5' lower
125	165°38	-7°00	13.73	1.46	12.27		143	17.2	204.8	✓	8' ✓
126	156°54	-6°27	10.69	1.38	9.31		137	16.3	209.2	✓	5' ✓
127	153°18	-5°59	10.79	1.78	9.01		126	21.3	207.1	✓	5' ✓
128	142°12	-3°11	12.82	1.64	11.18		164	23.4	214.3	✓	9' ✓
129	141°28	-3°23	14.00	2.00	12.00		199	21.8	210.7	✓	8' ✓
130	138°32	-2°52	13.92	1.84	12.08		183	21.4	214.1	✓	8' ✓
131	134°01	-3°06	11.02	2.04	8.98		204	20.8	214.7	✓	5' ✓
132	134°01	-3°33	11.04	2.08	8.96		208	22.3	213.2	✓	5' ✓
133	133°22	-2°59	12.32	1.74	10.58		144	21.4	215.6	✓	7' ✓

Sta	Azimuth	Vert Angle
134	129°55'	-2°22'
135	127°09'	-2°02'
136	129°48'	-2°21'
137	130°00'	-2°39'
138 = N.E. cor house	124°13'	-2°20'
139	130°16'	-4°11'
140	130°16'	-4°46'
141	123°33'	-2°49'
142	132°00'	-5°11'
143	114°43'	0°00'
144	112°50'	-0°50'
145	122°23'	-2°28'
146	353°08'	-1°48'
147	351°08'	-0°57'
148	349°40'	-0°11'
149	349°40'	+0°05'
150	344°32'	+0°13'
151	343°43'	+0°45'
152	338°18'	+1°00'
153	338°18'	+0°36'
154	338°18'	-0°11'
155	338°18'	-0°31'
156	338°18'	-1°25'
157	338°18'	-2°12'
158	345°52'	-1°33'
159	344°05'	-0°50'
160	342°24'	-0°35'
161	343°01'	-0°09'
162	341°49'	+0°07'
163	331°38'	+1°22'
164	331°38'	+1°11'
165	331°38'	+0°42'
166	331°38'	+0°04'
167	333°53'	-0°30'
168	333°53'	-1°14'

Upper	Lower	Hd	Hor Dist	Vert Dist	Flux	
1381	2.42 10.79	rod 5'	235.53	242	^{236.53} 98	213.7
1315	2.20 10.85			230	^{16.8} 87	218.4
1313	2.26 10.87			226	^{15.1} 92	214.3
1313	2.26 10.87			226	^{10.4} 94	213.1
11.13	2.26 8.57			226	^{14.1} 77	216.4
594	1.88 4.06			188	13.5	217.0
577	1.54 4.23			154	12.6	217.9
1073	1.46 9.27			146	^{14.4} 134	217.1
568	1.36 4.32			136	12.1	218.4
1283	1.66 11.17			166	^{8.0} 72	218.5
1190	2.00 9.00			200	^{17.8} 75	217.6
1104	2.08 8.96			208	^{8.9} 73	216.6
616	2.32 3.84			232	7.2	223.3
627	2.53 3.74			253	4.2	226.3
639	2.62 3.62			262	0.9	229.1
651	3.02 3.49			303	0.5	231.0
653	3.06 3.47			307	1.2	^{231.0} 229.3
653	3.06 3.47			307	4.1	^{234.6} 226.4
660	3.19 3.41			320	5.5	^{236.0} 224.6
650	3.00 3.50			301	0.9	^{231.4} 229.6
638	2.76 3.62			276	0.9	227.6
626	2.42 3.74			243	2.1	228.4
609	2.19 3.90			220	5.3	225.3
593	1.85 4.08			186	7.2	223.3
519	2.20 3.40			221	5.9	224.6
523	2.46 3.77			246	3.5	229.0
643	2.46 3.77			246	2.5	228.0
635	2.69 3.66			269	0.7	229.8
637	2.74 3.63			275	0.6	^{231.1} 229.9
667	3.33 3.34			334	7.9	^{232.4} 226.6
659	3.14 3.43			315	6.5	^{232.0} 224.0
648	2.96 3.52			296	3.6	^{234.1} 220.9
638	2.75 3.63			276	0.4	^{230.9} 220.4
628	2.46 3.77			247	2.1	228.4
607	2.04 3.88			205	4.4	226.1

Ground 7' lower
 ✓ 7' ✓
 ✓ 7' ✓
 ✓ 7' ✓
 ✓ 5' ✓
 Ground 3' Lower
 Ground 12' Lower
 ✓ 10' ✓
 ✓ 5' ✓
 S. Edge Road.
 N.L. Arista
 E. Edge Road
 Top Bank
 E. Edge Road
 Top Bank
 E. Edge Road
 Top Bank

Sta	Azimuth	Vert. Angle
169	329°20	-0°47
170	325°15	-0°26
171	324°35	+0°32
172	328°33	+0°32
173	329°58	-0°11
174	326°49	+0°43
175	321°00	+0°46
176	319°52	+1°15
177	322°05	+0°56
178	325°50	+0°56
179	327°18	+1°15
180	324°53	+1°10
181	321°45	+1°15
182	319°41	+1°22
183	316°27	+1°13
184	314°53	+1°21
185	314°53	+1°21
186	314°53	+0°53
187	318°33	+0°41
188	309°54	+0°51
189	305°51	+1°01
190	312°00	+1°05
191	312°00	+1°23
192	312°00	+1°06
193	309°09	+1°15
194	304°35	+0°57
195	300°58	+0°09
196	300°58	+0°26
197	300°58	+0°38
198	304°32	+0°57
199	308°00	+1°12
200	310°56	+1°00
201	312°54	+0°57
202	309°55	+1°07
203	307°22	+1°14

Upper	Lower	H.D.	Hor. Dist	Vert. Dist	Flux	
620	240	350	rod 5 = 235.53	241	3.2	230.5
628	251	372		257	2.8	229.3
638	275	363		276	1.6	229.2
641	282	359		283	2.6	229.1
634	269	365		220	0.9	227.9
653	305	348		304	3.8	225.6
653	306	347		307	3.8	224.3
672	344	328		348	7.4	223.7
668	335	333		336	5.4	223.9
663	326	337		326	5.3	223.1
675	349	326		350	7.5	223.8
680	360	320		361	7.0	223.0
687	374	313		375	7.9	223.2
693	385	307		387	9.1	222.6
703	405	298		406	8.5	221.4
688	376	312		377	8.8	221.6
677	342	329		343	8.0	221.7
648	285	353		296	4.5	221.5
644	288	356		289	3.4	221.0
651	302	349		303	4.4	220.9
667	333	334		334	5.9	220.6
676	355	323		356	8.7	220.8
671	342	329		343	8.3	220.8
661	321	340		322	6.1	220.2
693	326	307		327	7.0	220.6
686	321	315		322	6.1	220.5
684	318	316		309	0.9	220.4
704	408	296		409	3.0	220.5
716	432	287		433	4.7	220.8
709	418	291		419	6.8	220.8
700	399	301		400	8.3	220.2
704	408	296		408	7.0	220.5
714	428	286		429	7.1	220.6
727	454	273		455	8.5	220.4
723	446	277		447	9.5	220.0
					145	216.0

Ground 5' Lower
 ✓ 5 ✓

Sta	Azimuth	Vert. Angle
204	307°22	+0°48
205	303°48	+0°48
206	304°05	+1°05
207	300°12	+0°22
208	296°35	0°00
209	294°25	-0°30
210	293°32	-1°01
211	293°15	-1°25
212	295°39	-0°09
213	296°36	-0°21
214	295°42	-1°06
215	294°06	-1°16
216	294°59	-1°11
217	295°54	-0°38
218	298°27	-0°06
219	299°08	-0°06
220	296°39	-0°25
221	294°49	-1°39
222	294°24	-1°42
223	297°06	-1°12
224	297°37	-0°31
225	301°03	0°00
226	304°23	+0°45
227	305°18	+0°04
228	301°00	-0°24
229	299°00	-0°40
230	297°44	-1°38
231	295°58	-1°39
232	297°24	-1°44
233	303°00	-0°05
234	303°00	-0°54
235	298°46	-1°57
236	294°30	-3°33
237	301°38	-1°43
238	307°24	-0°56

735.53	Hor. Dist.	Vert. Dist.	Elev.	51
12.40	480	7.60	481	230.53
12.37	474	7.63	478	231.7
12.30	459	7.71	460	232.3
7.28	456	272	457	234.1
7.23	446	277	447	232.2
7.18	436	282	437	233.5
7.19	438	281	439	230.5
7.06	412	292	412	229.4
7.08	416	292	417	228.1
6.96	392	304	393	223.0
6.96	392	304	393	228.9
6.88	376	312	377	222.8
6.86	372	314	373	226.4
6.85	370	315	371	229.9
6.76	351	325	357	229.9
6.73	346	327	347	228.0
6.73	346	327	347	221.7
6.65	329	336	330	220.9
6.63	326	337	327	223.8
6.65	330	335	331	227.6
6.67	324	333	335	230.5
6.63	326	337	327	234.7
6.42	284	358	285	230.8
6.45	290	355	291	228.5
6.50	300	350	301	227.0
6.48	296	352	297	222.2
6.48	296	352	297	222.2
6.40	279	361	280	222.2
6.43	286	357	287	230.1
6.34	268	366	269	226.5
6.31	262	369	263	221.7
6.26	252	374	252	215.1
6.24	248	376	249	223.2
6.25	256	372	257	226.4

Ground 5' Lower
✓ 5' ✓
✓ 5' ✓

	Azimuth	Vert. Angle
239	317°41'	-0°15'
240	307°20'	-0°54'
241	320°07'	+0°01'
242	320°07'	-0°39'
243	323°17'	-1°20'
244	323°17'	-2°16'
245	323°17'	-3°05'
246	332°19'	-2°35'
247	312°56'	-2°54'
248	312°56'	-4°45'
249	296°10'	-7°26'
250	296°10'	-5°40'
251	296°10'	-3°57'
252	296°10'	-3°57'
253	296°10'	-3°46'
254	302°53'	-2°03'
255	310°27'	-1°22'
256	310°27'	-2°04'
257	310°27'	-2°57'
258	302°55'	-3°30'
259	298°39'	-3°08'
260	289°12'	-2°23'
261	279°06'	-2°01'
262	278°31'	-10.32'
263	266°03'	-10°56'
264	266°23'	-11°15'
265	256°20'	-12°25'
266	256°20'	-11°04'
267	256°20'	-10°23'
268	256°20'	-9°44'
269	256°20'	-9°23'
270	256°20'	-8°54'
271	256°20'	-8°04'
272	256°20'	-8°04'
273	258°33'	-8°00'

Upper	Lower	Nd	Hor Dist	Vert Dist	Elev		
634	2.68	366	rod 50	235.53	269	1.2	232.53
628	2.46	377			247	3.7	228.8
630	2.60	370			264	0.0	230.5
622	2.43	379			244	2.4	228.1
606	2.12	374			213	4.8	225.7
588	1.76	412			177	6.8	223.2
569	1.38	431			138	7.4	223.9
580	1.60	420			161	7.4	223.1
578	1.50	422			157	7.6	222.9
559	1.18	441			118	9.6	220.9
555	1.10	445			109	13.6	218.9
570	1.40	430			140	13.6	216.9
590	1.80	410			180	12.3	218.2
597	1.94	403			194	13.3	217.2
613	2.26	387			226	14.5	216.0
615	2.30	385			231	8.0	222.5
616	2.32	384			233	5.3	225.2
598	1.95	403			195	6.7	223.8
580	1.60	420			160	8.2	222.3
580	1.60	420			160	9.6	220.9
597	1.94	403			194	10.5	220.0
549	.95	451			97	14.4	216.1
582	1.04	448			102	16.0	214.5
550	1.00	450			98	17.7	212.8
548	.94	452			92	17.3	213.2
554	1.08	446			105	20.6	209.9
558	1.10	445			106	22.8	207.7
563	1.25	432			122	23.2	207.3
575	1.49	420			146	26.5	204.0
582	1.64	418			161	27.2	203.3
596	1.92	404			190	30.6	199.9
612	2.24	388			221	34.2	196.3
635	2.70	365			268	37.2	193.3
640	2.80	360			277	38.7	187.1
640	2.80	360			278	38.4	190.1

Edge Draw
Bottom Excl S' tower
Edge Draw

274		259° 33'	- 79° 38'
275		259° 33'	- 79° 34'
276		258° 02'	- 8° 11'
277		261° 35'	- 9° 20'
278		262° 33'	- 7° 23'
279	bottom	262° 33'	
280	Top	264° 37'	- 7° 30'
281	Bottom S Draw	264° 39'	
282	S. Side S. Draw	263° 17'	- 9° 19'
283	S. " " "	266° 13'	- 9° 47'
284	bottom S "	266° 13'	
285		262° 13'	+ 7° 07'
286	Head S Draw	268° 13'	- 7° 28'
287	Bottom " " slower	267° 40'	- 7° 14'
288	North S South Draw	265° 05'	- 7° 19'
289		263° 16'	- 7° 06'
290		263° 16'	- 7° 35'
291		263° 16'	- 7° 39'
292		265° 48'	- 7° 21'
293		263° 36'	- 8° 03'
294		263° 30'	- 8° 32'
295		263° 36'	- 9° 12'
296		263° 36'	- 9° 35'
297		263° 36'	- 9° 56'
298		263° 36'	- 10° 52'
299		271° 049'	- 10° 21'
300		271° 049'	- 9° 45'
301		271° 049'	- 9° 30'
302		271° 049'	- 9° 15'
303		271° 049'	- 8° 58'
304		271° 049'	- 8° 22'
305		271° 049'	- 7° 54'
306		266° 40'	- 7° 54'
307		266° 40'	- 8° 25'
308		275° 47'	- 7° 24'

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	Hor Dist	Vert D.	
655	310	345	230.53
620	340	330	308 40.8 189.7
660	319	341	338 45.9 184.6 Top N Draw
662	324	338	317 44.4 186.1
681	362	319	322 40.6 189.9
			360 46.8 183.2 Edge Draw
			322 176.7 12' beyond 13' lower
687	374	313	372 48.7 182.4
			368 175.4
			375 47.1 183.4 appears 7' lower
687	374	313	373 45.1 185.4
			348 182.4 25' beyond 3' lower
690	340	330	339 41.8 188.7
654	308	346	307 39.3 291.3
583	226	332	225 32.0 191.2
			280 203.6
667	344	323	342 42.6 187.9
667	334	333	332 40.7 190.3
653	306	340	304 39.6 190.9
644	288	351	286 37.8 192.7
656	340	350	298 37.0 192.9
633	266	362	264 36.6 193.9
617	234	383	232 34.2 196.3
640	200	400	198 31.0 199.5
584	176	412	174 28.8 201.7
523	146	429	142 24.9 205.8
566	120	440	118 22.2 208.3 ✓
560	120	440	118 21.0 209.5
556	112	444	110 19.0 211.5
537	134	433	132 21.9 208.6
542	164	418	161 25.9 204.6
586	182	404	188 29.2 201.3
605	230	385	227 32.8 197.7
632	264	368	261 35.7 194.8
632	264	368	261 35.7 194.8
617	234	383	231 33.6 196.9
634	268	360	265 33.9 196.6

309	275°47'	- 7°41'
310	275°47'	- 8°19'
311	281°48'	- 6°28'
312	281°48'	- 6°56'
313	281°48'	- 7°32'
314	281°48'	- 7°41'
315	281°48'	- 8°07'
316	281°48'	- 9°11'
317	290°40'	- 7°21'
318	290°40'	- 6°17'
319	290°40'	- 6°25'
320	290°40'	- 5°24'
321	290°40'	- 5°28'
322	290°40'	- 4°48'
323	290°40'	- 4°16'
324	285°08'	- 5°37'
325	285°08'	- 5°58'
326	285°08'	- 6°24'
327	285°08'	- 7°00'
328	285°08'	- 7°07'
329	292°26'	- 5°29'
330	292°26'	- 4°44'
331	292°26'	- 5°28'
332	292°26'	- 3°35'
333	292°26'	- 3°05'
334	296°50'	- 3°09'
335	296°50'	- 2°47'
336	296°50'	- 2°20'
337	296°50'	- 2°21'
338	289°15'	- 2°55'
339	289°15'	- 2°55'
340	289°15'	- 2°58'
341	286°43'	- 3°49'
342	286°43'	- 3°50'
343	288°43'	- 4°41'

Top Bank

After jump checked

6.18	236	3.82	2	230	31.0	230.53
6.04	208	3.96		203	29.6	229.5
6.34	268	3.66		267	28.9	200.6
6.22	240	3.80		238	28.4	202.1
6.04	208	3.96		199	26.9	203.6
5.88	176	4.12		174	23.1	202.4
5.75	150	4.25		146	21.0	209.5
5.61	122	4.39		118	19.2	211.3 ✓
5.60	120	4.40		118	15.3	215.2
5.25	150	4.25		149	16.3	214.2
5.87	174	4.13		172	19.3	211.2
5.97	194	4.03		193	19.5	211.6
6.05	210	3.95		209	19.7	210.8
6.13	226	3.87		224	18.8	211.2
6.27	256	3.72		254	18.4	212.1 ✓
6.30	260	3.70		258	25.1	205.4
6.27	244	3.79		242	25.1	205.4
6.08	216	3.92		215	23.9	206.6
5.95	190	4.05		187	22.8	209.9
5.80	166	4.17		165	20.3	210.2 ✓
5.82	164	4.18		163	15.5	215.6
5.90	156	4.10		149	12.3	218.2
5.98	196	4.02		195	18.4	212.1
6.40	280	3.64		280	17.3	213.2
6.55	310	3.48		310	16.5	214.0
6.70	340	3.30		340	18.4	212.1
6.85	372	3.14		371	12.8	212.2
6.98	396	3.02		395	15.8	214.6
7.10	420	2.90		418	17.0	213.5 ✓
7.15	433	2.85		430	21.4	209.1
7.05	420	2.85		420	21.0	209.5
6.91	381	3.10		380	19.6	210.9 ✓
7.18	438	2.81		437	28.9	201.6
7.07	414	2.93		413	27.2	203.3
6.96	390	3.01		389	26.9	204.6

344	286°43'	- 4°00'
345	286°43'	- 4°26'
346	286°43'	- 4°52'
347	286°43'	- 5°05'
348	283°40'	- 5°54'
349	283°40'	- 5°03'
350	283°40'	- 5°07'
351	283°40'	- 5°00'
352	283°40'	- 4°50'
353	283°40'	- 4°22'
354	283°40'	- 4°30'
355	280°50'	- 5°15'
356	280°50'	- 5°20'
357	280°50'	- 5°28'
358	280°50'	- 5°09'
359	280°50'	- 5°30'
360	280°50'	- 5°49'
361	280°50'	- 6°07'
362	277°30'	- 6°30'
363	277°30'	- 6°20'
364	277°30'	- 6°09'
365	277°30'	- 5°57'
366	277°30'	- 6°03'
367	277°30'	- 5°54'
368	277°30'	- 5°48'
369	272°30'	- 6°04'
370	272°30'	- 6°22'
371	272°30'	- 6°23'
372	274°30'	- 5°59'
373	274°30'	- 6°07'
374	274°30'	- 5°57'
375	274°30'	- 6°24'
376	274°30'	- 6°28'
377	274°30'	- 6°46'
378	274°30'	- 7°13'

	Horiz. Dist.	Flux
6.8° 3.66 3.17	365	25.1
6.8° 3.40 3.30	340	25.2
6.6° 3.20 3.40	320	24.0
6.4° 2.88 3.50	288	25.0
6.4° 2.90 3.55	290	27.2
6.6° 3.20 3.40	318	29.5
6.75 3.50 3.25	349	30.5
6.8° 3.24 3.13	322	32.0
6.9° 3.94 3.03	391	33.8
7.13 4.26 2.89	424	32.0
7.20 4.40 2.80	438	34.9
7.19 4.38 2.81	436	39.4
7.16 4.20 2.90	418	38.3
7.00 4.00 3.00	398	37.9
6.90 3.80 3.10	378	33.5
6.78 3.56 3.22	354	34.0
6.63 3.26 3.30	324	32.3
6.47 2.84 3.53	282	29.8
6.43 2.86 3.57	284	33.7
6.33 3.06 3.47	303	33.9
6.63 3.26 3.30	323	34.3
6.75 3.50 3.25	348	35.8
6.88 3.76 3.12	373	39.0
7.03 4.06 2.97	403	41.0
7.17 4.34 2.83	431	43.2
7.15 4.30 2.85	428	45.0
7.16 4.20 2.90	416	45.8
7.00 4.00 3.00	398	43.9
7.20 4.40 2.80	436	45.0
7.12 4.24 2.88	421	44.8
7.04 4.08 2.96	406	41.5
6.87 3.94 3.13	372	41.2
6.74 3.48 3.26	346	38.3
6.60 3.20 3.40	318	37.1
6.43 2.86 3.57	283	35.2

379	270°20'	- 90°32'
380	270°20'	- 90°21'
381	270°20'	- 60°47'
382	270°20'	- 60°34'
383	270°20'	- 60°34'
384	270°20'	- 60°34'
385	269°45'	- 60°48'
386	267°45'	- 60°50'
387	267°45'	- 60°50'
388	265°20'	- 90°03'
389	266°04'	- 90°03'
390	267°30'	- 90°00'

Edge Draw

15' N. x
1' Hornsley
0.1' Cheanut.

1	7°00'	- 3°15'
2	✓ ✓	- 3°50'
3	✓ ✓	- 3°58'
4	✓ ✓	- 5°02'
5	16°50'	- 4°19'
6	✓ ✓	- 5°28'
7	✓ ✓	- 4°12'
8	✓ ✓	- 3°39'
9	✓ ✓	- 2°58'
10	26°40'	- 2°32'
11	✓ ✓	- 3°20'
12	✓ ✓	- 4°29'
13	✓ ✓	- 6°15'
14	34°45'	- 6°50'
15	✓ ✓	- 5°58'
16	✓ ✓	- 4°32'
17	✓ ✓	- 3°13'
18	✓ ✓	- 1°51'
19	36°20'	- 1°20'
20	39°00'	- 1°16'
21	✓ ✓	- 2°02'

June 25-23
2872

	Hardw	Yard Dist	Flcy
6.43	286	357	284
6.65	326	337	323
6.80	360	320	358
6.93	386	307	383
7.07	414	293	411
7.20	440	280	437
7.19	438	281	435
7.05	416	292	413
6.93	386	307	383
7.07	414	293	411
6.94	388	306	374
6.80	360	320	356
284	374	230.53	
323	390	193.1	
358	419	188.6	
383	435	187.0	
411	468	188.0	
437	496	180.9	
435	512	179.3	
413	486	181.9	
383	452	185.3	
411	502	180.3	
374	470	183.5	
356	431	182.4	

NS

613	226	387	rod 5'	218.80	226	12.8	204.6
599	198	401			198	13.0	200.8
581	162	419			162	11.0	202.6
554	112	446			112	9.6	204.2
533	66	467			65	8.3	205.5
551	102	449			102	9.6	204.2
580	160	420			160	11.5	202.3
603	206	397			206	12.9	200.9
620	240	380			240	12.3	201.5
626	252	372			252	11.0	202.8
606	212	394			212	12.8	201.0
575	150	426			150	11.5	202.3
546	92	454			91	9.9	203.9
524	44	478			43	5.1	208.7
546	92	454			92	9.4	204.4
574	148	426			148	11.5	202.3
612	224	388			224	12.3	201.3
637	292	365			272	8.7	205.1
641	282	359			282	6.4	207.4
644	288	356			288	6.3	207.5
633	266	367			266	9.2	204.6

Phillips

	Azimuth	Vert Angle
22	41°10'	-1°01'
23	41°10'	-1°34'
24	✓✓	-3°12'
25	✓✓	-3°59'
26	✓✓	-5°23'
27	47°00'	-5°30'
28	✓✓	-4°56'
29	✓✓	-3°43'
30	✓✓	-2°50'
31	✓✓	-2°01'
32	✓✓	-0°58'
33	NW cor of Barn	✓✓ -0°22'
34	NE ✓✓✓	44°24' -0°28'
35	✓✓	-1°03'
36	48°50'	-0°05'
37	✓✓	-0°31'
38	54°30'	-0°27'
39	✓✓	-0°55'
40	✓✓	-1°43'
41	✓✓	-2°09'
42	✓✓	-2°18'
43	✓✓	-3°30'
44	✓✓	-4°32'
45	61°50'	-4°15'
46	✓✓	-4°32'
47	✓✓	-4°30'
48	✓✓	-3°37'
49	✓✓	-3°00'
50	✓✓	-3°24'
51	✓✓	-1°55'
52	✓✓	-1°32'
53	57°58'	-0°44'
54	47°35'	-2°38'
55	67°05'	-4°05'
56	✓✓	-2°43'

Upper	Lower	rod	AD	Hor dist	Vert Dist	Elev
650	320	350	5'	218.80	301	5.2 208.6
640	280	360			280	7.6 206.2
612	224	388			224	12.5 201.3
585	170	415			170	11.7 202.1
558	116	442			116	10.7 203.1
541	82	459			81	7.8 206.0
565	130	435			129	11.0 202.8
594	188	406			188	12.0 201.8
622	244	378			244	11.8 202.0
640	280	360			280	9.7 204.1
668	316	342			316	5.3 208.5
664	328	336			328	2.1 211.7
655	310	345			310	2.5 211.3
654	308	346			307	5.4 208.4
675	350	326			351	0.5 213.3
668	336	332			337	3.1 210.7
684	368	316			369	2.9 210.9
670	340	330			341	5.4 208.4
653	300	347			307	9.0 204.8
642	284	355			284	10.6 203.2
625	250	373			250	12.1 201.7
602	202	399			202	12.3 201.5
570	140	430			140	11.0 202.7 ✓
533	66	467			66	4.9 208.9
549	98	451			9.8	7.6 206.2
563	120	437			126	9.8 204.2
593	180	407			186	11.7 202.1
622	244	375			243	12.6 201.7
650	299	351			299	12.3 201.5
663	326	337			326	10.7 203.1
677	354	323			354	9.2 204.6 ✓
685	370	315			370	4.7 209.1
670	340	330			340	13.3 198.5
673	340	347			340	14.5 199.3
654	316	345			311	14.5 199.3

	Azimuth	Vert. Angle
57	69°05'	-2°43'
58	✓ ✓	-3°25'
59	✓ ✓	-3°33'
60	✓ ✓	-3°56'
61	78°25'	-2°46'
62	✓ ✓	-2°58'
63	✓ ✓	-3°00'
64	✓ ✓	-4°43'
65	✓ ✓	-2°51'
66	✓ ✓	-8°58'
67	Top of Bank	84°00'
68	Foot ✓ ✓	82°35'
69	✓ ✓ ✓	77°45'
70	Top ✓ ✓	80°00'
71	✓ ✓ ✓	77°30'
72	Foot - -	74°25'
73	✓ ✓ ✓	74°43'
74	Top ✓ ✓	72°05'
75	✓ - ✓	71°10'
76	Foot ✓ ✓	66°16'
77	✓ ✓ ✓	59°45'
78	Top ✓ -	65°55'
79		270°00'
80	✓ ✓	
81	✓ ✓	
82		264°35'
83		251°00'
84	✓ ✓	
85	✓ ✓	
86		213°55'
87	✓ ✓	
88	✓ ✓	
89		226°40'
90	✓ ✓	
91		192°03'

Upper	Lower	HD	Hor. Dis.	Vert. Dis.	Elev. 212.8	
638	265	363	218.8	26.5	123	201.5
605	210	395		210	12.4	201.4
582	163	419		163	10.0	203.8
562	124	438		124	8.4	205.4 ✓
560	120	440		120	5.7	208.1
673	140	527		140	7.5	206.3
599	198	401		198	10.2	203.6
626	252	374		252	11.8	202.0
652	304	348		304	14.9	198.9 ✓
660	320	340		320	16.5	192.3 ✓
				105	+0.1	213.9
				105	-5.0	208.9
				90	-3.4	210.4
				90	+0.8	214.0
				80	-0.3	213.5
				80	-2.1	211.7 ✓
				65	-3.4	210.4
				65	-0.2	213.6
				40	-0.6	213.2
				40	-3.5	210.3
				33	-3.8	210.0
				23	-0.8	213.0
				18	+0.3	214.1
				40	+2.2	216.0
				68	+2.7	216.5
				91	+2.2	216.0
				96	+1.2	215.0
				65	+1.8	215.6
				45	+2.5	216.3
				35	-1.5	212.3
				65	-2.8	211.0
				100	-8.0	205.8
				105	-5.1	208.7
				75	-2.1	211.7
				85	-8.0	205.8

Ground i' Lower

	Azimuth	Vert. Angle
92	192°23	
93	170°24	
94	✓ ✓	
95	154°20	
96	✓ ✓	
97	136°16	
98	✓ ✓	
99	✓ ✓	
100	120°40	
101	✓ ✓	
102	104°05	
103	✓ ✓	
104	✓ ✓	
105	94°05	
106	✓ ✓	
107	217°47	-4°45
108	211°20	-5°52
109	207°10	-6°32
110	✓ ✓	-6°08
111	195°25	-7°19
112	✓ ✓	-6°34
113	185°10	-7°15
114	173°15	-7°00
115	✓ ✓	-6°36
116	162°25	-6°24
117	153°20	-5°35
118	Top of Canyon	136°55 -4°30
119	✓ ✓	-4°09
120	Top of Canyon	128°18 -3°44
121	✓ ✓	-3°14
122	119°50	-2°55
123	✓ ✓	-2°55
124	✓ ✓	-2°55
125		00

To moved to

Upper	Lower	rod	Ht	Hor. Dis.	Vert. Dis.	Elev 2138
		5'	21870	64	-4.5	209.3 ✓
					35	-2.8 211.0
					65	-5.8 208.0
					95	-9.2 204.6
					60	-5.0 208.8
					35	-2.7 211.1
					60	-3.8 210.6
					100	-7.8 206.0
					100	-5.3 208.5
					70	-3.7 210.1
					100	-2.0 211.8
					65	-2.0 211.8
					40	-0.5 213.3
					60	-0.2 213.6
					100	00 213.8
557	114	443		113	9.6	204.2
568	136	432		133	13.6	200.2
567	134	433		133	15.0	198.8
558	116	442		115	12.2	201.6
560	120	440		118	15.1	198.2
553	106	447		105	11.7	202.1
560	120	440		118	14.9	198.9
561	122	439		120	14.6	199.2
553	106	447		105	12.1	201.7
561	122	439		121	13.5	200.3
566	132	434		131	12.7	201.1
583	126	417		125	13.6	200.2
569	138	431		136	9.8	204.0
590	180	410		180	11.5	202.3
573	146	427		146	8.2	205.6
593	186	407		186	9.4	204.4
577	154	423		154	7.8	206.0
564	124	435		124	6.7	207.6
570	140	430		140	-1.00	212.80

Ground / Lower

Plotted

Ken Man & Mason - Chesnut

A31 mstr Vert Angle

1		241°43'	-4°05'
2	✓ ✓		-6°39'
3	✓ ✓		-7°19'
4	✓ ✓		-6°56'
5	✓ ✓		-6°45'
6	✓ ✓		-6°45'
7	✓ ✓		-6°11'
8	✓ ✓		-5°58'
9	✓ ✓		-4°06'
10	✓ ✓		-2°42'
11	✓ ✓		-2°13'
12	✓ ✓		-2°37'
13	✓ ✓	237°19'	-2°57'

Smith = S. Line of Washington
 + Man & Hickory + Washington
 moved to #13

1		313°36'	+5°58'
2	✓ ✓		+6°41'
3		320°07'	+7°28'
4	✓ ✓		+6°51'
5	✓ ✓		+6°20'
6	✓ ✓		+6°21'
7		306°52'	+3°10'
8	✓ ✓		+3°21'
9	✓ ✓		+5°29'
10	✓ ✓		+5°40'
11	✓ ✓		+5°16'
12	✓ ✓		+5°14'
13		298°25'	+3°33'
14	✓ ✓		+4°29'
15	✓ ✓		+4°11'
16	✓ ✓		+1°07'
17	✓ ✓		+1°20'
18		291°18'	+2°14'
19	✓ ✓		+2°07'
20	✓ ✓		+1°41'

#7 166.5 +56.161.5
 100 lbs 100 lbs

Upper	Lower	rod			
513	27	486	28	1.9	159.6
540	80	460	80	2.2	152.3
555	110	445	109	13.7	142.8
579	158	421	156	18.8	142.7
602	204	398	202	23.4	138.1
617	228	386	226	26.3	135.2
620	244	378	242	26.1	133.4
633	261	366	265	27.2	129.3
651	302	349	300	21.2	140.3
668	336	332	336	16.1	145.4
687	374	313	373	14.3	142.2
717	454	283	433	19.7	141.8
787	474	293	417	21.1	140.4
			5.00		
					140.4
640	240	360	280	+ 20.5	Ground 2' Lower
627	254	378	254	39.2	169.8
630	260	370	269	33.2	173.6
606	214	391	212	24.9	165.3
592	188	406	188	15.4	155.8
583	110	445	110	11.4	151.8
540	80	460	80	11.0	144.8
569	138	431	138	9.9	148.3
598	186	402	196	18.4	158.8
615	230	385	230	22.4	162.8
630	260	370	260	23.3	163.7
640	280	360	280	28.1	Ground 3' Lower
670	284	358	284	14.2	✓ 154.8 3' ✓
623	241	377	246	19.0	159.4
602	204	398	202	14.7	153.1
566	132	434	133	2.5	142.8
538	66	462	67	1.5	141.9
610	220	390	220	8.4	148.8
630	260	370	260	9.4	149.8
648	284	358	285	8.2	148.2

	Azimuth	Vert Angle
21	283°43	+ 0°27'
22	✓ ✓	+ 0°41'
23	✓ ✓	- 0°05'
24	✓ ✓	- 1°20'
25	276°28	- 0°53'
26	✓ ✓	- 2°55'
27	✓ ✓	- 2°36'
28	✓ ✓	- 1°30'
29	✓ ✓	+ 0°03'
30 = Edge of Bluff	✓ ✓	- 0°31'
31	271°00	- 1°02'
32 = Edge of Bluff	267°59'	- 2°09'
33	✓ ✓	- 1°56'
34	✓ ✓	- 3°13'
35	✓ ✓	- 4°06'
36	262°45	- 5°06'
37	✓ ✓	- 5°17'
38	✓ ✓	- 5°20'
39	✓ ✓	- 5°03'
40	✓ ✓	- 4°13'
41	✓ ✓	- 3°08'
42	✓ ✓	- 2°02'
43 = Edge of Bluff	✓ ✓	- 1°56'
44	259°36'	- 1°34'
45 = Edge of Bluff	254°30'	- 2°05'
46	✓ ✓	- 2°11'
47	✓ ✓	- 3°34'
48	✓ ✓	- 5°04'
49	✓ ✓	- 7°24'
50	249°20'	- 4°10'
51 = Edge of Bluff	✓ ✓	- 3°31'
52 =	239°59'	- 5°33'
53	✓ ✓	- 5°19'
54	✓ ✓	- 7°29'
55	✓ ✓	- 9°49'

Upper	Lower	Hor	Ver	140.9
652	304 348	305	+ 2.4	142.8
638	264 368	265	+ 3.1	143.4
606	212 394	213	- 0.3	140.1
577	154 423	155	- 3.5	136.9
520	40 480	41.	- 0.5	139.9
545	90 455	9.6	- 4.5	135.9
586	122 414	119	- 7.9	132.7
624	248 376	249	- 6.4	134.0
650	300 350	301	+ 0.0	140.4
664	328 336	329	- 3.0	137.4 ✓
665	330 335	331	- 5.8	134.6
685	320 315	321	- 13.4	127.0
659	314 343	315	- 10.4	130.0
634	248 366	268	14.8	125.6
606	212 394	212	14.8	125.6
549	98 451	98	8.6	131.8 ✓
577	154 423	154	14.0	126.4
606	212 394	212	19.9	121.1
630	260 370	260	22.3	118.1
650	299 351	299	21.5	118.9
660	320 340	320	17.3	123.1
684	368 316	368	12.7	127.9
704	408 296	408	13.6	126.8 ✓
704	408 296	408	10.7	129.7
717	434 283	434	15.5	124.9
705	410 295	410	15.4	125.0
683	366 317	366	22.2	118.4
660	320 340	320	27.9	112.5
620	244 375	240	30.9	109.5 ✓
690	380 310	380	27.0	113.4
707	414 293	414	24.9	115.5
697	394 303	393	37.2	103.2
680	360 320	358	35.8	104.6
650	301 349	295	38.4	102.0
617	234 383	228	39.0	101.4

	Azimuth	Vert Angle
56	239° 57'	-10° 14'
57	✓ ✓	-10° 20'
58	✓ ✓	-7° 22'
59	✓ ✓	-6° 25'
60	223° 58'	-7° 31'
61	✓ ✓	-13° 03'
62	✓ ✓	-13° 31'
63	✓ ✓	-13° 03'
64	207° 34'	-15° 16'
65	✓ ✓	-16° 03'
66	180° 10'	-15° 06'
67	✓ ✓	-18° 02'
68	✓ ✓	-17° 12'
69	152° 38'	-15° 53'
70	✓ ✓	-17° 34'
71	✓ ✓	-18° 27'
72	171° 07'	-15° 58'
73	157° 34'	-15° 15'
74	✓ ✓	-14° 54'
75	✓ ✓	-16° 38'
76	146° 06'	-15° 04'
77	✓ ✓	-14° 26'
78	✓ ✓	-14° 39'
A Dis. 240 Twiggs + Juan Azimuth		
1	256° 41'	+16° 25'
2	338° 11'	+10° 45'
3	335° 20'	+10° 45'
4	331° 38'	+10° 01'
5	✓ ✓ ✓	+10° 55'
6	326° 08'	+11° 21'
7	✓ ✓ ✓	+9° 51'
8	✓ ✓ ✓	+10° 40'
9	320° 24'	+10° 21'
10	✓ ✓ ✓	+9° 42'
11	✓ ✓ ✓	+10° 19'
12	316° 02'	+11° 09'

Upper	Lower	Ho. Dis	Vert Dis	
586	122	414	166	29.5 110.9
560	120	440	116	21.0 119.4
540	80	460	77	12.8 127.6
521	42	479	41	2.6 135.8
517	38	481	37	2.9 135.5
538	76	462	73	16.6 123.8
570	140	430	133	32.0 108.4
588	176	412	166	39.0 101.4
578	156	422	149	37.4 101.0
550	100	450	92	26.4 114.0 ✓
535	70	465	63	20.6 119.6
558	116	442	104	34.0 106.4
577	154	423	142	43.8 92.1 ✓
574	148	426	138	39.0 101.4
548	96	452	88	29.1 112.7
533	66	467	59	19.4 121.0
584	176	412	163	-46.0 94.2
595	190	405	-176	-47.8 92.6
590	180	410	167	-44.1 95.7
567	134	433	123	-36.8 103.6 ✓
580	160	420	148	-40.0 100.7
600	200	400	184	-47.9 92.5
604	208	396	194	-50.6 89.9
			Rd	
			5.0	
645	290	355	7737 (728)	
634	270	365	280	+51.0 123.4 W.L. Rd.
644	288	356	261	+49.0 121.4 W.L. Rd.
645	290	355	269	+49.1 121.5 E.L. Rd.
657	274	363	280	+53.8 126.2 Top Bank
634	268	366	262	+52.9 125.3 ✓
625	250	375	260	+45.0 117.4
620	240	380	242	+45.0 117.4 W.L. Rd.
627	254	373	232	+48.0 114.5 ✓ ✓
630	260	370	247	+47.8 114.2 E.L. Rd.
630	260	370	251	+45.3 117.7 Top Bank
			250	+48.6 126.2 ✓ ✓ ✓

	Flz.	V Flz/glo
12	316°02'	+ 9°34'
13	✓✓✓	+ 10°29'
14	309°37'	+ 10°44'
15	✓✓✓	+ 11°02'
16	306°35'	+ 10°56'
17	305°42'	+ 10°36'
18	305°52'	+ 10°20'
19	304°58'	+ 9°09'
20	✓✓✓	+ 9°55'
21	✓✓✓	+ 10°05'
22	✓✓✓	+ 10°12'
23	302°50'	+ 11°14'
24	303°01'	+ 11°09'
25	✓✓✓	+ 11°47'
26	302°50'	+ 10°20'
27	296°37'	+ 10°20'
28	✓✓✓	+ 11°26'
29	✓✓✓	+ 11°58'
30	291°41'	+ 12°00'
31	✓✓✓	+ 11°12'
32	✓✓✓	+ 9°56'
33	287°21'	+ 9°43'
34	✓✓✓	+ 11°25'
35	281°56'	+ 10°55'
36	✓✓✓	+ 9°51'
37	✓✓✓	+ 9°14'
38	242°44'	+ 1°55'
39	✓✓✓	+ 1°13'
40	2837°54'	+ 1°15'
41	✓✓✓	+ 0°54'
42	✓✓✓	+ 0°38'
43	✓✓✓	+ 0°28'
44	✓✓✓	+ 1°44'
45	225°20'	- 1°12'
46	✓✓✓	- 1°15'

	Hor.	Ver.	7237	
6.23 246 3.77	240	409	172.7	
6.15 230 3.85	222	410	113.4	E.L. Rd
6.25 259 3.75	240	454	117.8	W.L. Rd
6.33 270 3.65	260	503	122.0	Top Bank
6.50 300 3.50	288	553	127.9	S.E. Wash
6.50 260 3.70	251	468	119.2	✓✓✓
6.23 246 3.77	235	428	115.2	✓✓✓
6.22 244 3.78	236	380	110.4	Bottom Wash
6.32 264 3.68	259	44.7	112.1	✓✓✓
6.44 281 3.56	277	489	121.3	✓✓✓
6.55 310 3.45	298	53.7	126.1	✓✓✓
6.55 210 3.45	297	586	131.0	N.E. Wash
6.45 290 3.55	278	548	127.2	✓✓✓
6.32 264 3.68	258	52.7	125.7	✓✓✓
6.20 240 3.80	231	42.0	114.4	Top Bank ✓✓✓
6.15 230 3.85	222	40.3	112.7	✓✓
6.30 260 3.70	249	60.0	122.4	
6.45 290 3.55	278	58.2	130.6	
6.40 280 3.60	267	56.8	129.2	
6.30 260 3.70	249	49.2	121.6	
6.10 220 3.90	213	36.9	109.3	Top Bank E.L. Rd
6.20 240 3.80	233	39.8	112.9	
6.38 276 3.62	264	53.0	125.4	
6.47 294 3.53	283	52.5	124.9	
6.25 250 3.75	243	42.0	114.4	
6.04 208 3.96	203	32.6	105.0	Top Bank
6.55 310 3.45	310	10.2	82.6	✓✓
6.54 308 3.46	308	6.7	79.1	E.L. Rd
6.48 296 3.52	296	6.3	78.7	W.L. Rd
6.12 224 3.88	224	3.5	75.9	
5.75 150 4.25	157	1.6	74.0	
5.45 90 4.55	91	0.1	73.1	
5.22 44 4.78	45	1.3	73.7	
5.15 130 4.35	130	2.8	69.6	
4.03 206 3.77	206	4.4	68.0	

	Az.	V. Angle
47	225°20'	- 1°13'
48	✓✓✓	- 1°08'
49	✓✓✓	- 0°19'
50	✓✓✓	- 1°40'
51	235°36'	+ 0°01'
52	233°03'	+ 0°02'
53	237°48'	+ 0°58'
54	239°33'	+ 1°23'
55	234°20'	+ 0°28'
56	230°09'	- 0°23'
57	226°48'	- 1°18'
58	219°24'	- 2°20'
59	✓✓✓	- 2°03'
60	✓✓✓	- 2°23'
61	✓✓✓	- 2°21'
62	✓✓✓	- 2°11'
63	✓✓✓	- 1°58'
64	213°30'	- 2°50'
65	✓✓✓	- 2°50'
66	✓✓✓	- 2°50'
67	✓✓✓	- 3°02'
68	✓✓✓	- 3°03'
69	✓✓✓	- 3°08'
70	✓✓✓	- 2°52'
71	✓✓✓	- 3°02'
72	206°42'	- 3°11'
73	✓✓✓	- 3°27'
74	✓✓✓	- 4°12'
75	✓✓✓	- 4°13'
76	✓✓✓	- 3°40'
77	✓✓✓	- 3°55'
78	209°41'	- 3°20'
79	197°46'	- 4°52'
80	✓✓✓	- 5°05'
81	✓✓✓	- 5°33'

Upper	Lower	Hor	Vert	(72.37)	
6.34	248	3.66	268	56	66.8
6.70	340	3.30	344	66	65.8
7.04	408	2.96	409	92	63.2
7.32	444	2.68	464	133	59.1
7.00	400	3.00	401	01	72.5
7.00	400	3.00	400	48	67.6
6.75	350	3.25	351	09	73.3
6.72	344	3.28	345	83	80.7
6.63	336	3.37	337	27	75.1
6.87	374	3.13	374	25	69.9
7.15	430	2.85	430	97	62.7
7.70	540	2.30	540	217	50.7
7.58	516	2.42	516	233	49.1
7.53	510	2.45	510	209	51.5
7.21	442	2.79	442	179	54.5
6.87	374	3.13	374	141	58.3
6.48	296	3.52	296	100	62.4
5.82	164	4.18	164	80	64.4
6.20	240	3.80	240	117	60.7
6.57	314	3.43	314	154	52.0
6.91	322	3.09	322	198	52.6
7.13	426	2.87	426	222	50.2
7.37	474	2.63	474	257	46.7
7.40	480	2.60	480	287	43.7
7.56	512	2.44	512	267	45.7
7.35	470	2.65	470	306	41.6
7.24	448	2.76	448	368	35.6
7.17	434	2.83	433	318	40.6
6.96	392	3.04	391	285	43.9
6.86	332	3.34	332	210	51.4
6.35	270	3.65	270	239	48.5
6.52	304	3.48	304	175	54.9
5.53	106	4.47	106	8.8	63.6
5.83	170	4.15	170	148	58.6
6.13	226	3.87	225	218	50.6

Top Bank

Ground 5' Lower E. Li. Rd.

Ground 5' Lower

Top Bank

W. L. Rd.

W. L. Rd.

✓✓✓

N. L. Rd.

Ground 5' Lower S. L. Rd.

Top Bank

S. E. Row Cor. of Residence

Top Bank

Ground 5' Lower S. E. Rd.

N. E. Rd.

Ground 5' Lower N. E. Rd.

Ground 5' Lower S. E. Rd.

Top Bank

N. W. Front Cor. Residence

S. W. Rear Cor. Residence

	Az	V. Angle
82	197° 46'	- 5° 56'
83	✓ ✓ ✓	- 5° 40'
84	✓ ✓ ✓	- 5° 55'
85	✓ ✓ ✓	- 5° 51'
	✓ ✓ ✓	- 5° 31'
	191° 19'	- 6° 07'
	✓ ✓ ✓	- 6° 39'
	✓ ✓ ✓	- 7° 32'
	✓ ✓ ✓	- 6° 18'
	183° 05'	- 7° 50'
	✓ ✓ ✓	- 7° 53'
	✓ ✓ ✓	- 7° 42'
	✓ ✓ ✓	- 8° 01'
	✓ ✓ ✓	- 7° 22'
	177° 30'	- 7° 24'
	✓ ✓ ✓	- 8° 20'
	✓ ✓ ✓	- 9° 01'
	✓ ✓ ✓	- 9° 15'
	✓ ✓ ✓	- 7° 55'
	✓ ✓ ✓	- 8° 03'
	177° 0'	- 7° 52'
	✓ ✓ ✓	- 8° 43'
	✓ ✓ ✓	- 8° 57'
	✓ ✓ ✓	- 9° 36'
	✓ ✓ ✓	- 8° 51'
	✓ ✓ ✓	- 7° 50'
	✓ ✓ ✓	- 7° 07'
	169° 32'	- 6° 48'
	✓ ✓ ✓	- 7° 21'
	✓ ✓ ✓	- 8° 05'
	✓ ✓ ✓	- 8° 16'
	✓ ✓ ✓	- 8° 52'
	✓ ✓ ✓	- 9° 34'

off the map

upper	lower	Hor	vert	72.37
6.88 296 3.52	295	30.0	42.4	
6.66 322 3.34	331	32.8	39.6	
6.86 322 3.14	370	37.9	34.5	
7.07 442 2.93	412	41.9	30.5	S.E. Rd.
7.22 442 2.78	440	42.1	30.3	M.E. Rd.
6.96 322 3.04	387	41.4	31.0	M.E. Rd.
6.65 330 3.35	325	37.9	34.5	
6.27 254 3.73	249	30.7	41.7	
6.01 202 3.99	300	32.9	39.5	
6.07 204 3.98	203	27.5	44.9	
6.34 248 3.66	245	36.2	36.2	
6.58 316 3.42	310	41.8	30.6	
6.75 344 3.27	338	47.3	25.1	
6.93 386 3.07	378	48.8	23.6	S.L. Mason St
6.93 386 3.07	378	49.0	23.4	
6.67 334 3.33	325	47.5	24.9	
6.45 290 3.55	282	44.8	27.6	
6.25 250 3.75	242	39.4	33.0	
5.91 182 4.09	178	24.7	47.6	
5.65 130 4.35	128	17.9	54.5	
5.20 40 4.80	40	4.7	67.7	
5.42 84 4.58	82	12.6	55.8	
5.90 180 4.10	174	22.4	45.0	
6.10 220 3.90	213	35.9	36.5	
6.43 286 3.57	280	43.3	29.1	
6.70 350 3.25	342	46.7	25.5	
6.93 380 3.05	375	46.2	26.2	S.L. Rd.
7.03 400 2.97	401	47.1	25.3	
6.75 350 3.25	345	44.1	28.3	
6.47 294 3.53	287	40.7	31.7	
6.20 240 3.80	236	33.8	38.6	
5.85 170 4.15	165	25.7	46.7	
5.60 120 4.40	116	19.6	52.8	

W. H. ...
 Potted 7.0.0.0.0.0
 Dec 3rd 23

	AZ.	V. Angle
T. Max Whitman + Mason		
1	337°01'	+21°51'
2	353°03'	+16°24'
3	356°19'	+14°52'
4	17°01'	+7°12'
5	✓✓	+6°51'
6	✓✓	+6°32'
7	46°23'	-11°22'
8	✓✓	-7°33'
9	36°21'	-2°16'
10	34°07'	+0°45'
11	35°36'	+0°25'
12	39°18'	-0°39'
13	40°01'	-1°49'
14	43°48'	-2°26'
15	47°47'	-6°25'
16	49°06'	-7°16'
17	60°05'	-6°02'
18	✓✓	-9°25'
19	67°40'	-8°58'
20	✓✓	-9°01'
21	78°02'	-8°45'
22	79°57'	-9°27'
23	84°28'	-10°36'
24	110°32'	-26°16'
25	150°40'	-19°22'
26	187°34'	-8°01'
27	✓✓	-5°10'
28	✓✓✓	-4°56'
29	✓✓	-5°34'
30	✓✓	-6°09'
31	180°27'	-8°20'
32	175°37'	-8°38'
33	174°57'	-8°53'
34	174°07'	-8°43'

Upper	Lower	Horz	Vert	Rod 50	Cor. Elev. 70.62	Platform here
5.17	34	4.83	340	130	83.6	
5.47	94	4.53	870	253	95.9	
5.87	162	4.19	1510	400	110.6	
6.06	212	3.94	209	269	96.6	
5.80	160	4.20	159	187	89.3	
5.47	94	4.53	93	10.6	81.2	
5.28	86	4.72	54	10.7	59.9	
5.50	100	4.50	99	12.9	57.7	
5.73	140	4.27	146	5.7	64.9	
6.10	220	3.90	220	2.9	73.5	
6.14	228	3.86	229	1.7	72.3	Top Bank
6.14	228	3.86	229	2.5	68.1	E. Edge Rd.
5.91	182	4.09	183	5.7	74.9	Top Bank
5.91	182	4.09	183	7.7	62.9	E. Edge Rd.
5.56	112	4.44	111	12.3	58.3	Top Bank
5.57	114	4.43	113	14.2	56.4	E. Edge Rd.
5.68	134	4.32	129	14.0	56.6	W. ✓ ✓
5.50	100	4.50	97	16.3	54.3	E. ✓ ✓
5.48	96	4.52	93	14.7	55.9	N. ✓ ✓
5.60	120	4.40	118	16.5	54.1	Top Bank
5.63	130	4.37	133	20.3	50.3	✓ ✓
5.62	124	4.38	117	19.5	50.8	S. Edge Rd.
5.51	102	4.49	98	23.3	47.3	N. ✓ ✓
5.23	46	4.77	38	18.3	52.3	S.E. Edge Barn
5.27	54	4.73	48	16.5	53.8	
5.32	64	4.68	63	8.8	61.8	
5.67	134	4.33	133	12.0	58.6	
6.00	200	4.00	198	16.9	53.7	
6.20	240	3.80	238	23.0	47.6	
6.37	224	3.63	272	28.8	41.8	
6.55	310	3.45	302	43.8	26.8	
6.58	316	3.42	310	46.1	24.5	N.E. cor Fence
6.40	280	3.60	272	42.3	28.3	
6.17	234	3.83	230	35.1	35.5	

	Az	V. Angle
35	172° 05'	- 9° 20'
36	168° 23'	- 10° 36'
T	Azimuth 180° 00' Dis. 216' W. of E. Main Chesnut + Washington	
1	72° 11'	- 2° 52'
2	81° 38'	- 2° 48'
3	90° 12'	- 4° 44'
4	78° 23'	- 4° 47'
5	70° 29'	- 3° 53'
6	11° 17'	180° 00'
7		
8	259° 10'	+ 6° 10'
9	277° 34'	+ 5° 48'
10	269° 40'	+ 5° 05'
11	257° 35'	+ 5° 10'
12	254° -	+ 5° 19'
13	✓	+ 2° 23'
14	✓	+ 4° 57'
15	✓	+ 4° 42'
16	253° 40'	+ 4° 59'
17	247° 45'	+ 4° 57'
18	✓	+ 4° 59'
19	✓	+ 3° 47'
20	✓	+ 2° 29'
21	✓	+ 2° 14'
22	✓	+ 3° 38'
23	✓	+ 0° 09'
24	237° 15'	- 1° 02'
25	✓	- 0° 59'
26	✓	- 0° 48'
27	242° 20'	+ 0° 32'
28	✓	+ 2° 46'
29	✓	+ 5° 28'
30	236° 10'	+ 4° 07'
31	✓	+ 3° 31'
32	✓	✓

upper	Lower	Hor Dis	V. Dis	Z.C.Z		
5.89	128	4.11	174	28.2	42.7	
5.61	122	4.39	118	22.2	48.4	
				Rod 5.0	21.86	
5.61	122	4.39	122	5.9	16.0	E. edge Road
5.62	124	4.38	124	6.0	15.8	W ✓ ✓
5.44	88	4.56	87	7.2	14.7	✓ ✓ ✓
5.40	80	4.60	79	6.7	15.2	Junction of Roads
5.40	80	4.60	80	6.3	16.6	E edge Road to ✓
			14'	- 50' inverted	21.4	✓ ✓ ✓ ✓
			1.0	2.0	21.9	W edge Road
5.28	55	4.73	55	5.8	22.7	W ✓ ✓ ✓
5.28	56	4.72	56	5.5	27.4	E ✓ ✓ ✓
5.55	110	4.45	109	9.5	31.4	E ✓ ✓ ✓
5.54	108	4.46	107	9.6	31.5	W ✓ ✓ ✓
5.35	170	4.15	169	15.6	37.5	✓ ✓ ✓ ✓
5.47	94	4.53	94	3.9	25.8	below w. edge of Road
6.1	222	3.89	220	18.8	40.7	W ✓ ✓ ✓
6.30	260	3.70	258	21.0	42.9	E ✓ ✓ ✓
6.01	202	3.99	201	17.5	39.4	✓ ✓ ✓ ✓
6.38	276	3.62	274	23.7	45.6	✓ ✓ ✓ ✓
6.27	254	3.73	253	21.8	43.2	W ✓ ✓ ✓
6.20	240	3.80	239	15.6	37.5	
6.09	218	3.91	218	9.3	31.2	
6.87	174	4.13	174	6.3	28.2	
5.67	134	4.30	134	8.4	30.3	
5.47	94	4.53	94	0.1	22.0	
5.17	34	4.83	34	0.7	21.2	
5.43	86	4.67	86	1.4	20.5	
5.65	130	4.35	130	1.8	20.1	
5.97	194	4.03	194	1.8	23.7	
6.13	226	3.87	226	10.8	32.2	
6.39	278	3.61	276	26.0	42.9	W edge of Road
6.45	290	3.55	288	22.2	44.1	
6.27	254	3.73	254	15.4	37.3	

Azimuth V. Angle

33	236° 10'	+ 0° 22'
34	232° 50'	- 0° 47'
35	✓	+ 1° 31'
36	✓	+ 1° 04'
37	227° 47'	+ 0° 13'
38	✓	+ 0° 17'
39	✓	- 0° 49'
40	230° 50'	- 0° 30'
41	219° 25'	- 0° 17'
42	✓	+ 0° 15'
43	✓	- 1° 17'
44	✓	- 3° 18'
45	✓	- 2° 47'
46	208° 02'	- 14° 15'
47	✓	- 8° 59'
48	✓	- 5° 19'
49	✓	- 3° 35'
50	✓	- 4° 16'
51	✓	- 1° 56'
52	199° 20'	- 3° 19'
53	189° 05'	- 3° 55'
54	189° 25'	- 6° 32'
55	✓	- 11° 32'
56	193° 25'	- 10° 13'
57	✓	- 5° 24'
58	154° 40'	- 10° 59'
59	✓	- 20° 43'
60	✓	- 20° 18'
61	117° 55'	
62	✓	
63	✓	
64	✓	- 10° 03'
65	91° 02'	- 12° 31'

Upper Lower

	Hor Dis	Ver Dis			
596	172	404	193	12	21.86
578	156	404	157	2.1	23.1
616	222	389	222	5.9	19.8
640	280	360	280	5.2	22.8
626	252	374	252	10	27.1
617	234	383	234	12	22.9
610	260	40	260	2.8	23.1
613	226	387	226	2.0	24.7
610	220	390	220	11	23.9
601	202	399	202	0.9	20.8
577	154	403	154	3.4	22.8
558	110	400	116	6.6	18.5
525	50	475	50	2.4	15.3
509	18	491	17	4.8	19.5
502	44	478	43	6.7	17.1
540	80	460	79	2.4	15.2
571	143	428	142	8.9	14.5
586	112	444	112	8.2	13.0
595	190	405	190	6.4	13.7
588	174	410	176	10.0	13.5
586	172	414	172	11.7	11.9
550	140	450	140	11.3	10.2
526	52	474	50	10.2	10.6
525	50	475	48	8.7	10.7
550	100	450	99	9.3	13.2
528	57	471	55	10.6	12.6
513	26	487	23	9.3	12.6
513	26	487	23	8.5	13.4
		15'		-6.30	15.5
		23'		-7.9	14.0
		26'		-9.9	12.0
508	58	471	56	9.9	12.0
525	50	475	48	8.9	12.8
					13.0

OK

N Edge of Road to Towler

S edge of Road

Top of bank

N edge of Road

S - - -

N - - -

	α	215°	Azimuth	70°53' from	Magn. Δ ok	Vert. Angle	Harney and
1					273° 30'		
2					353° 40'	+5° 49'	
3					348° 05'	+40° 48'	
4					21° 30'	-6° 38'	
5					✓	-8° 59'	
6					✓	-3° 03'	
7					30° 50'	-6° 28'	
8					✓	-7° 18'	
9					✓	-5° 54'	
10					48° 05'	-18° 59'	
11					✓	-18° 41'	
12					✓	-16° 50'	
13					✓	-13° 45'	
14					✓	-11° 37'	
15					✓	-7° 51'	
16					✓	-9° 50'	
17					54° 50'	-11° 18'	
18					✓	-13° 46'	
19					✓	-13° 28'	
20					✓	-5° 24'	
21					69° 10'	-13° 29'	
22					✓	-15° 47'	
23					✓	-17° 08'	
24					✓	✓	
25					✓	-18° 40'	
26					✓	-21° 23'	
27					✓	-23° 23'	
28					83° 30'	-71° 55'	
29					✓	-9° 10'	
30					✓	-18° 05'	
31					✓	-17° 18'	
32					74° 35'	-14° 58'	
33					✓	-17° 21'	
34					101° 40'	-75° 07'	

Upper	Lower	Hor. Dist	Vert. Dist	Red	Green Elevation	Elev	M. \pm 5.35
Whitman		20'	+4.8	5.0	176.28	176.78	-12.83
540	80 460	79	8.0		181.6		+11.2
565	136 420	135	11.3		184.8		-10.5
544	88 456	87	10.1		188.1		+
518	301 480	35	5.5		166.7		
574	148 426	147	2.8		171.3		193.57
610	220 390	219	2.7		169.0		5.35
589	278 411	176	2.3	Ground 3' lower	152.1		198.77
575	149 426	148	1.2		151.6		12.83
529	58 471	52	17.2		185.94		1.12
548	86 457	72	26.1		161.6		187.06
583	106 447	97	29.2		159.1		12.28
567	134 433	127	30.8		147.6		176.78
535	170 415	164	33.4		150.7		5
604	208 396	201	41.7		146.0		181.25
674	228 386	220	38.1		143.4		
817	234 383	226	44.9		138.7		
604	208 396	195	47.7		131.9		
539	178 411	168	40.1		129.2		
567	134 433	124	39.2		136.7		
640	286 357	271	64.1		139.6		
624	249 375	230	64.5		112.7		
616	232 384	212	65.3		112.3		
605	210 395	192	58.9		111.5		
580	160 420	144	48.1		115.9		
563	128 427	109	42.5		128.8		
540	80 460	67	29.8		134.3		
586	172 414	148	59.1		147.0		
608	216 390	193	66.4		117.7		
643	286 357	258	83.8		110.3		
463	326 337	298	91.9		93.0		
648	296 354	275	73.3		84.9		
626	252 374	222	71.8		103.5		
542	84 458	69	32.3		105.0		

Azimuth V Angle

35	106° 40'	-23° 30'
36	✓ ✓	-22° 41'
37	✓ ✓	-20° 38'
38	✓ ✓	-20° 19'
39	✓ ✓	-20° 09'
40	93° 32'	-21° 11'
41	96° 20'	-20° 27'
42	✓ ✓	-19° 29'
43	89° 12'	-18° 30'
44	88° 50'	-18° 53'
45	109° 00'	-18° 28'
46	✓ ✓	-19° 23'
47	✓ ✓	-20° 32'
48	112° 15'	-21° 28'
49	✓ ✓	-19° 59'
50	✓ ✓	-17° 53'
51	✓ ✓	-17° 57'
52	119° 40'	-17° 19'
53	✓ ✓	-17° 08'
54	✓ ✓	-17° 12'
55	✓ ✓	-19° 33'
56	✓ ✓	-20° 45'
57	✓ ✓	-23° 56'
58	127° 42'	-23° 59'
59	✓ ✓	-20° 00'
60	✓ ✓	-19° 16'
61	✓ ✓	-18° 38'
62	✓ ✓	-16° 20'
63	✓ ✓	-14° 45'
64	✓ ✓	-14° 20'
65	137° 45'	-12° 53'
66	✓ ✓	-17° 06'
67	✓ ✓	-17° 00'
68	150° 35'	-13° 33'
69	✓ ✓	-14° 46'

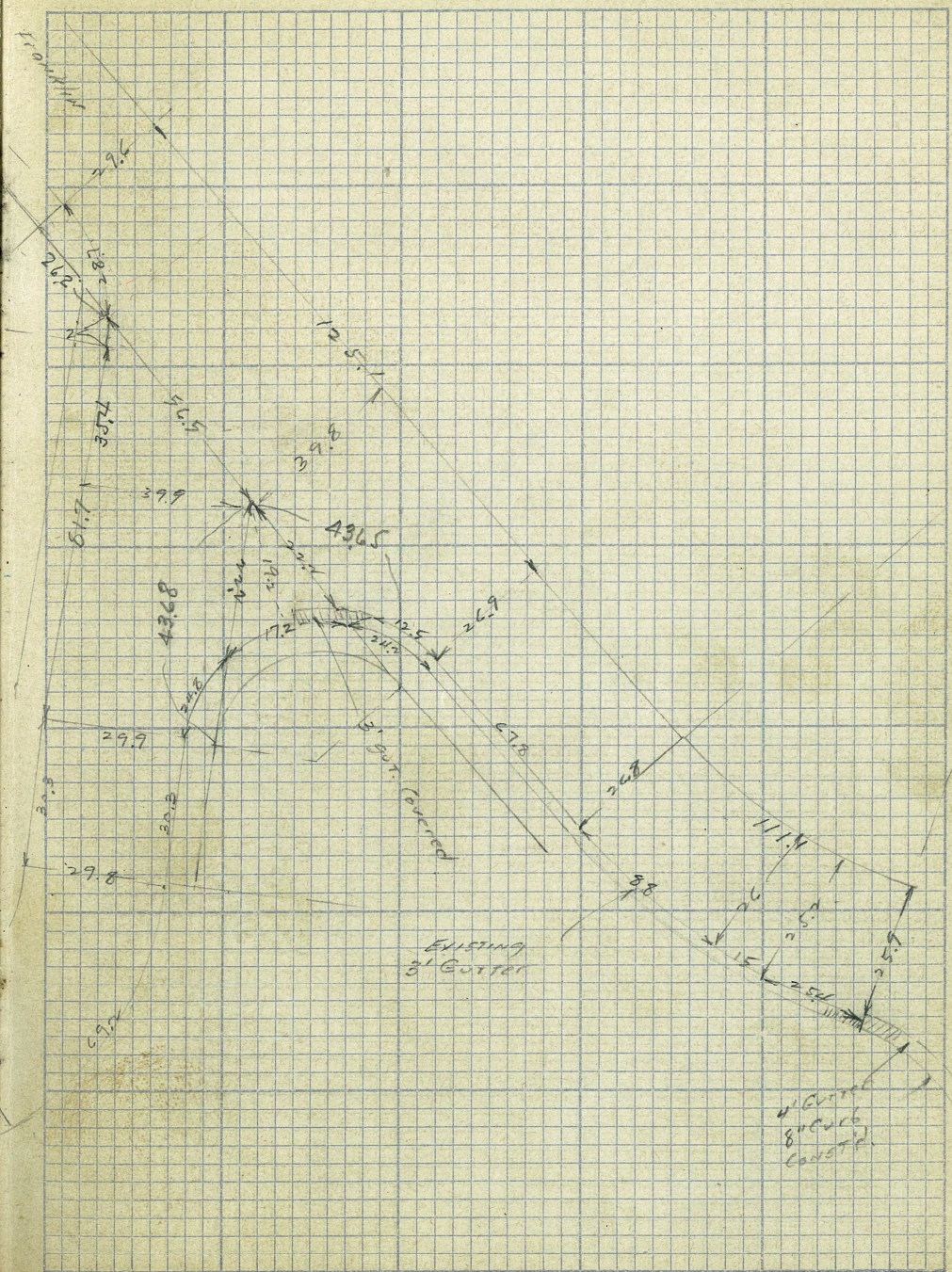
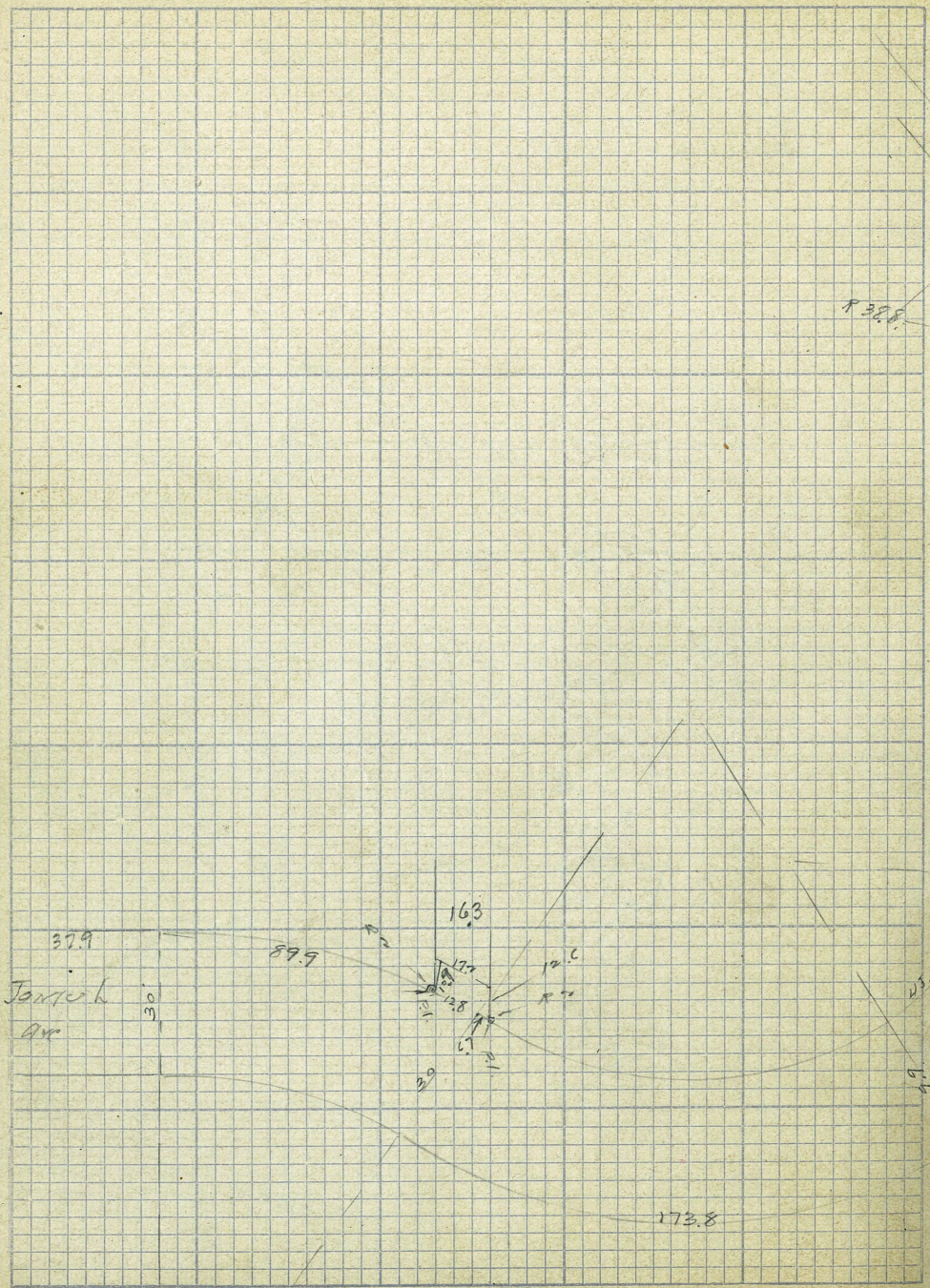
Upper Lower

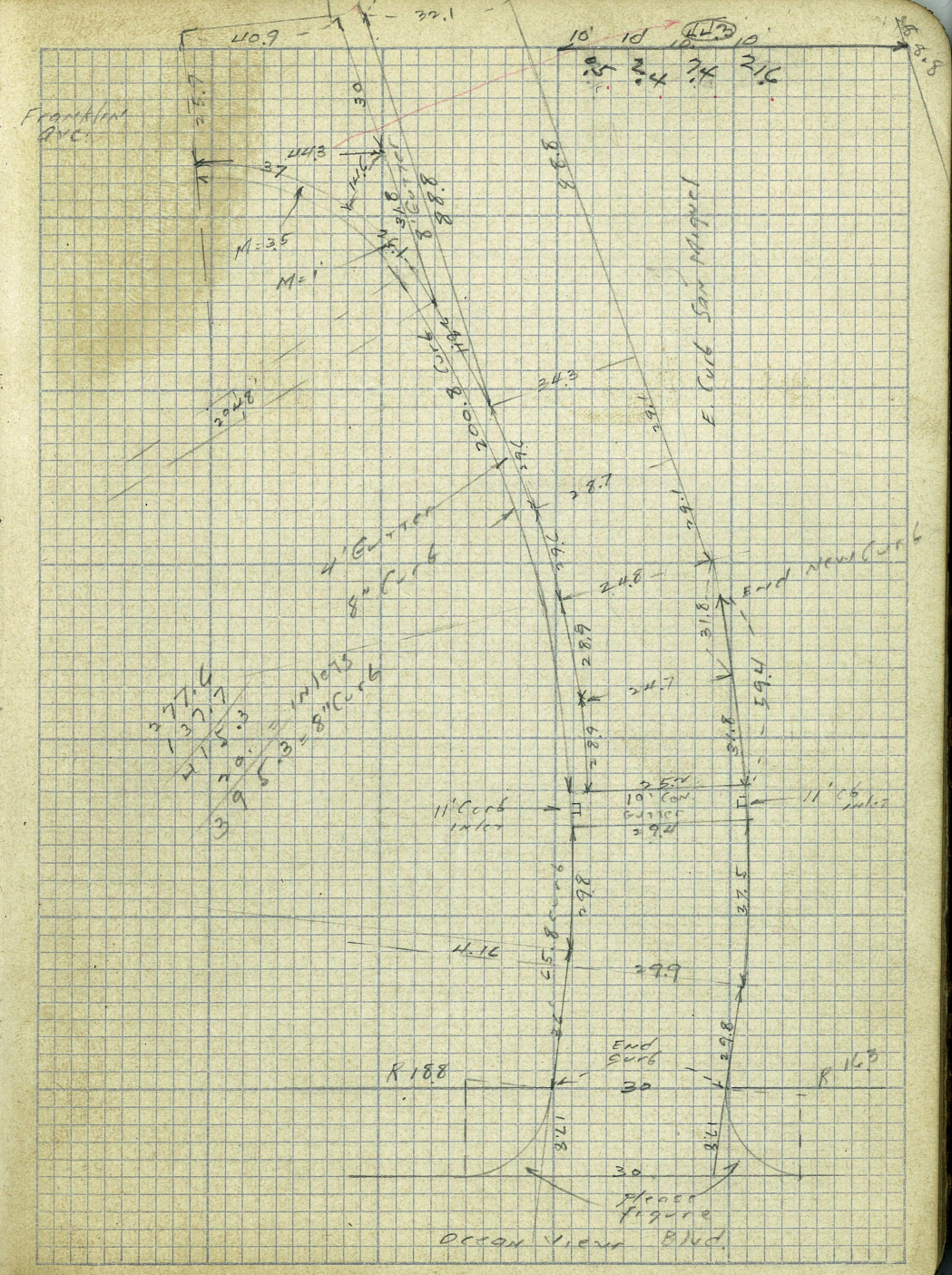
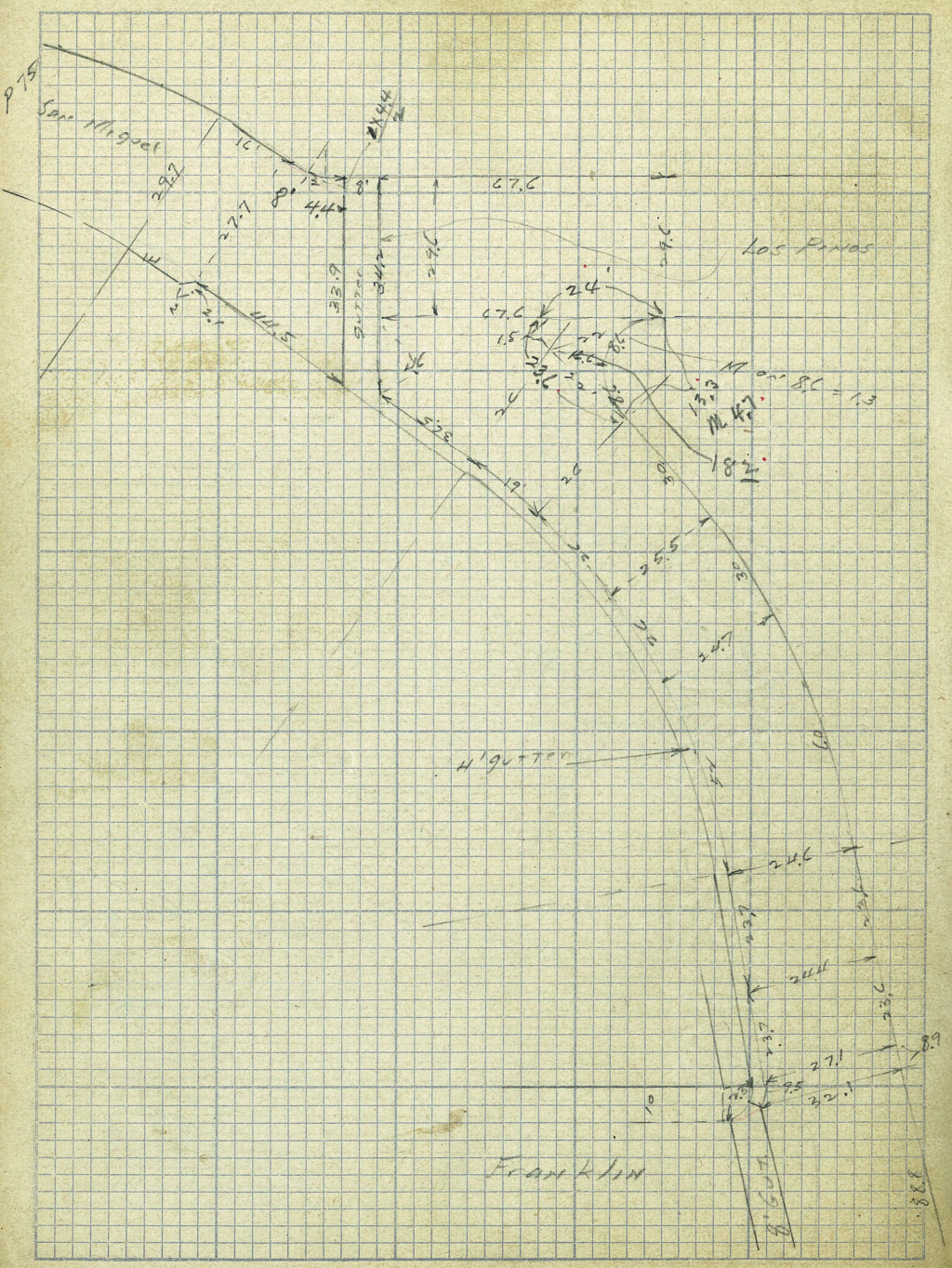
					126.25
565	131	434	110	147.8	129.0
580	160	420	136	52.0	119.8
607	214	393	188	70.3	106.5
630	260	370	228	84.0	92.8
648	296	352	260	96.0	80.8
419	238	331	208	80.1	96.7
648	290	355	252	94.8	82.0
660	320	340	281	100.1	76.7
660	320	340	286	95.8	81.0
635	270	365	240	82.1	94.7
640	320	340	286	95.2	81.6
647	294	353	261	91.2	85.1
607	215	392	188	70.9	105.9
60	200	40	179	67.1	109.7
624	248	276	219	79.2	97.6
654	308	346	279	89.7	87.1
665	336	322	306	98.0	88.8
668	336	322	306	95.0	81.8
653	300	347	279	85.3	91.5
637	274	363	250	77.2	99.6
613	220	387	201	70.8	106.0
590	180	410	154	57.2	117.7
560	100	440	102	44.3	132.5
559	118	441	101	42.9	133.9
572	144	428	123	46.2	130.6
583	191	417	152	52.8	124.0
60	200	40	178	60.3	116.5
623	246	377	228	66.2	110.6
645	290	355	271	71.0	105.8
653	300	347	287	73.1	103.7
602	264	378	252	57.3	119.5
408	216	392	197	60.8	116.0
478	156	422	146	43.9	133.1
484	169	415	159	38.2	138.7
548	130	435	122	31.8	145.0

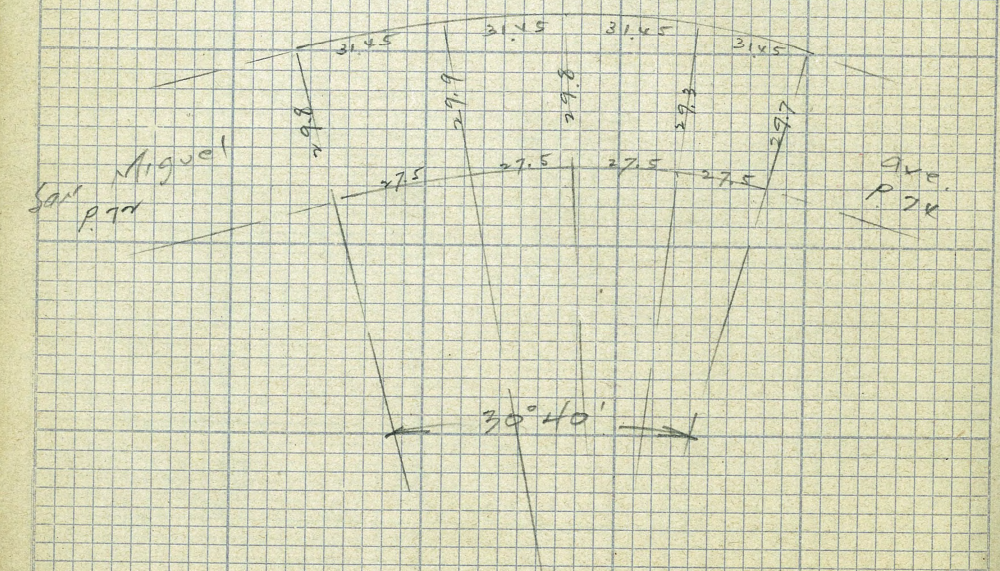
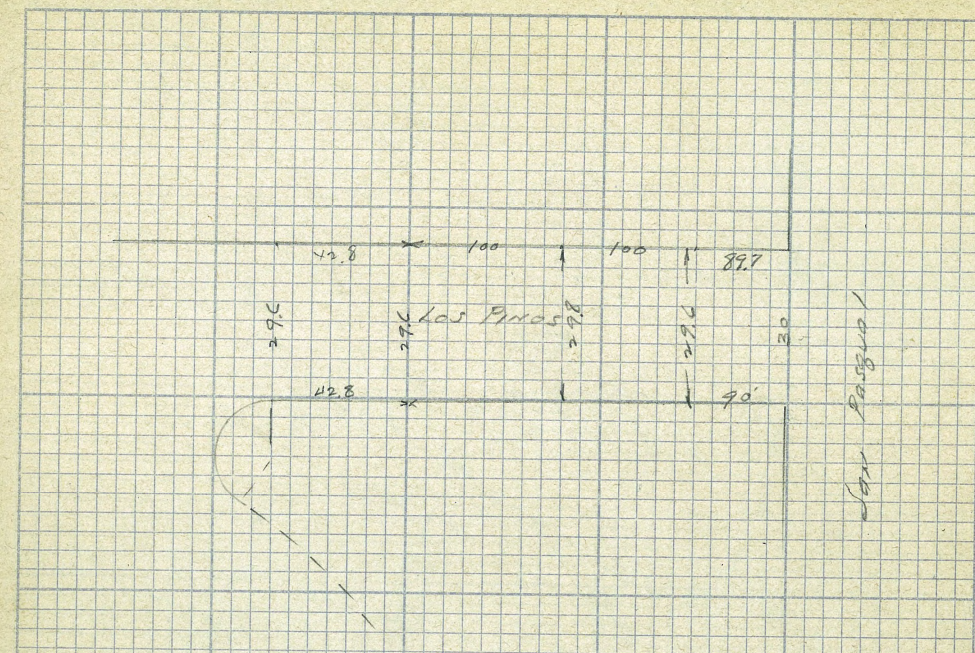
73	150° 35'	-18° 49'
74	✓ ✓	-22° 45'
75	✓ ✓	✓ ✓
76	170° 55'	-9° 17'
77	177° 25'	-15° 12'
78	✓ ✓	-12° 39'
79	✓ ✓	-8° 15'
80	206° 05'	+0° 52'
81	223° 45'	+3° 55'
82	114° 15'	
83	✓ ✓	-23° 53'
84	71° 00'	-22° 43'

Hor. Dis. V. Dis. 19678

559	118	441	106	36.2	140.6
535	20	465	63	24.8	152.0
525	50	475	43	17.8	159.0
557	114	443	111	18.2	158.7
524	48	476	45	12.2	164.6
537	24	463	71	15.7	161.1
552	104	448	102	14.6	162.2
545	80	456	80	1.4	178.2
527	54	473	54	3.7	180.5
			60	-60	176.2
524	48	476	41	17.5	159.0
525	50	475	43	12.8	159.0

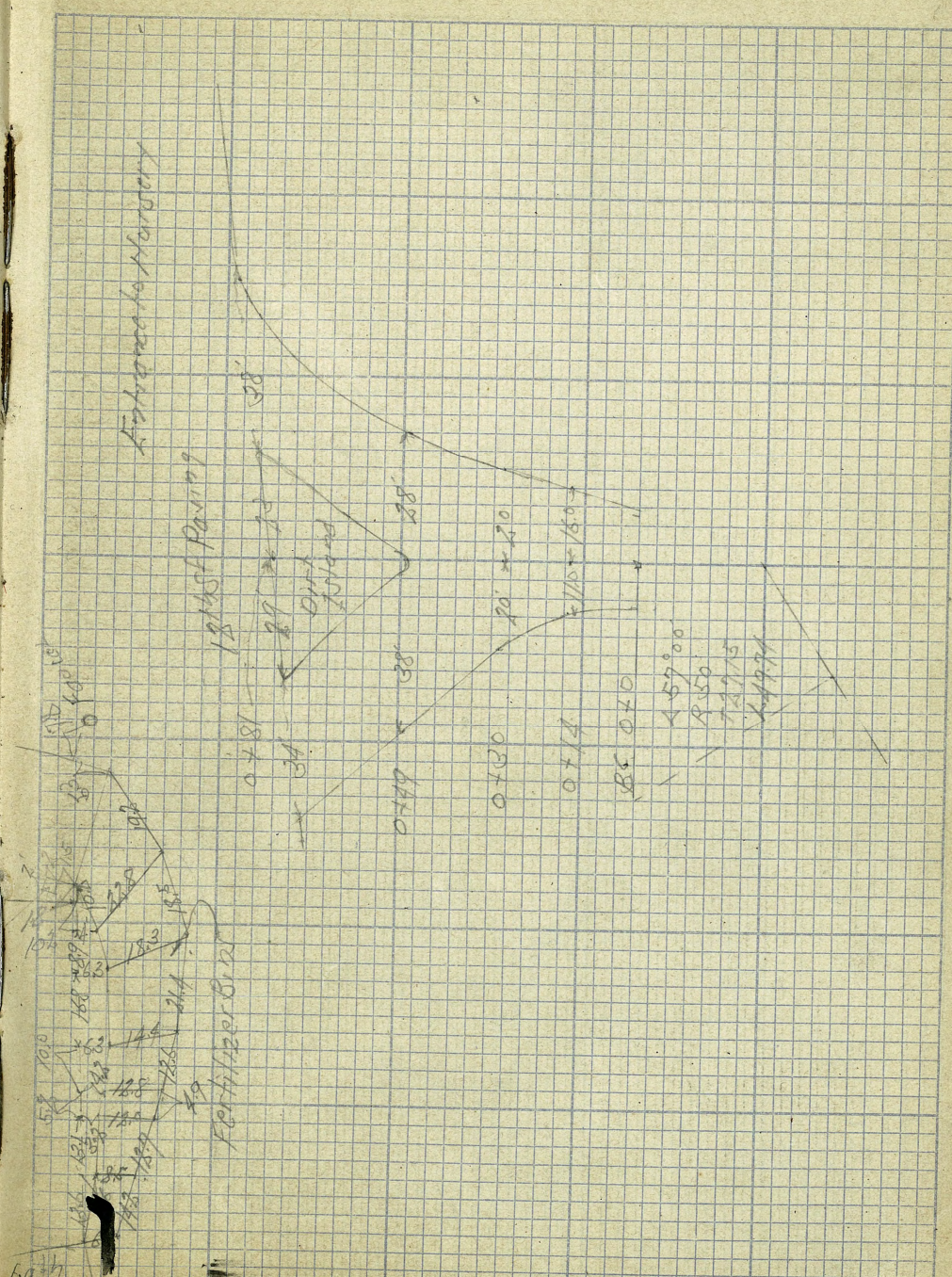
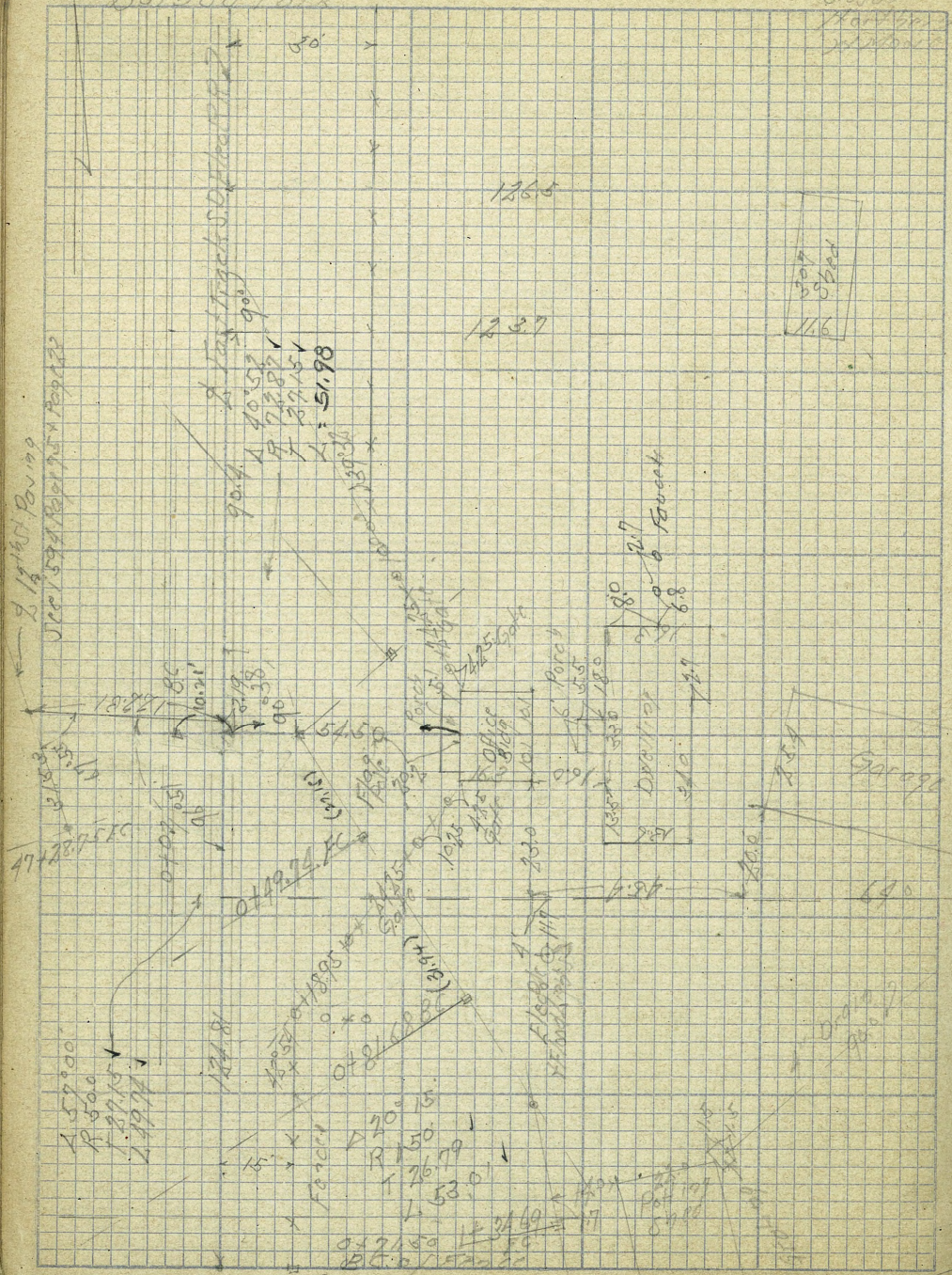






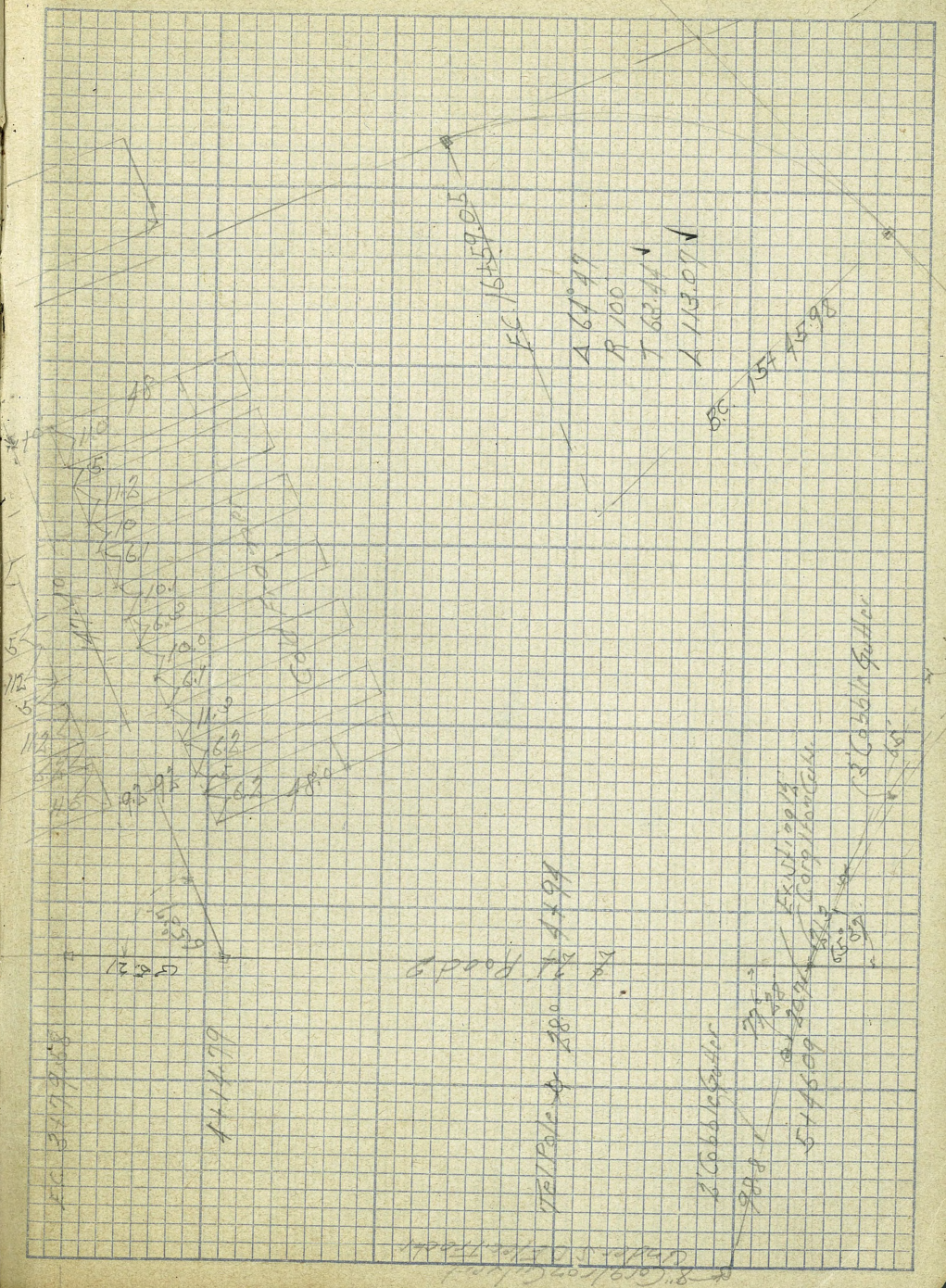
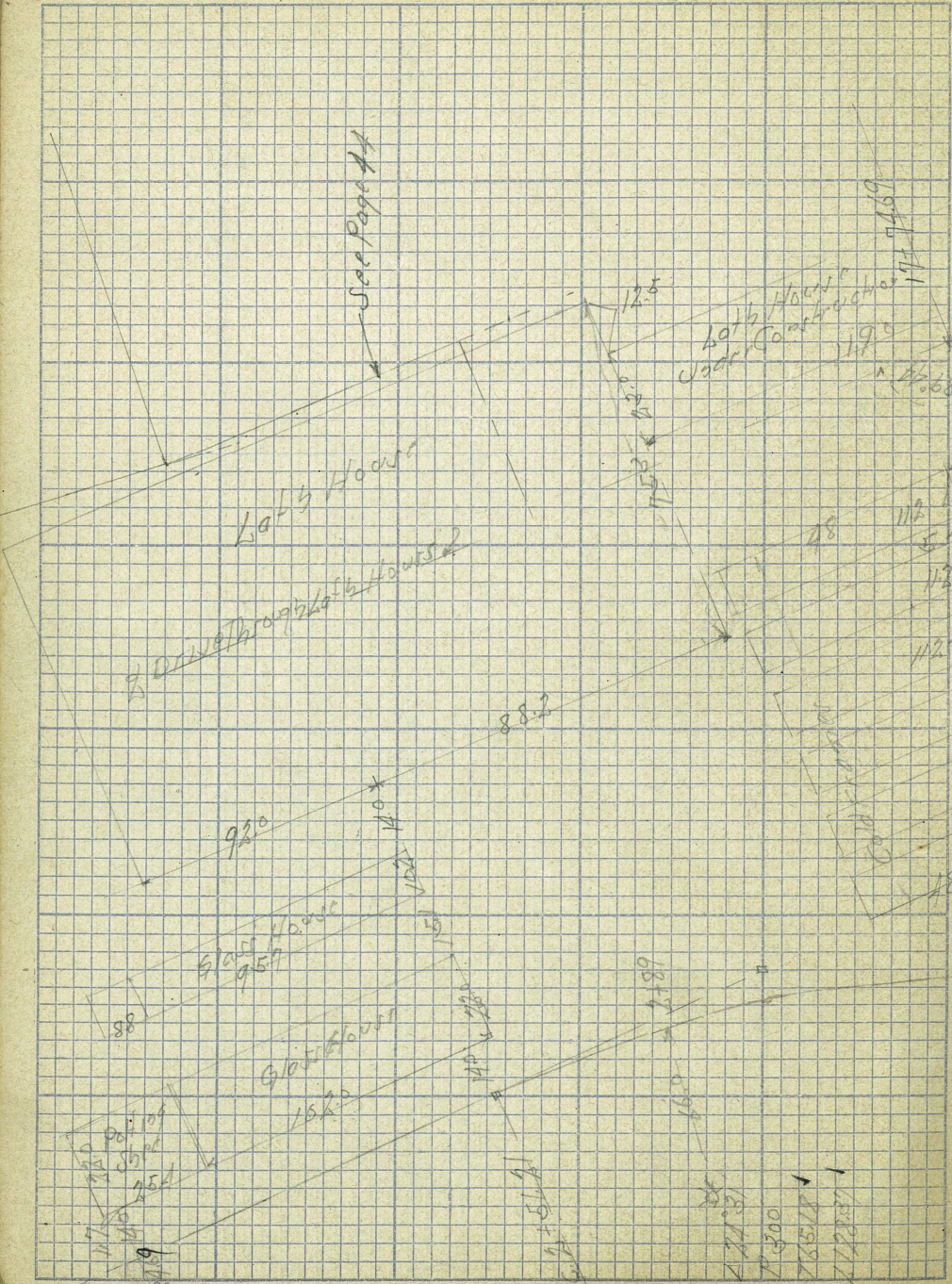
Entrance to Nursery
Balboa Park

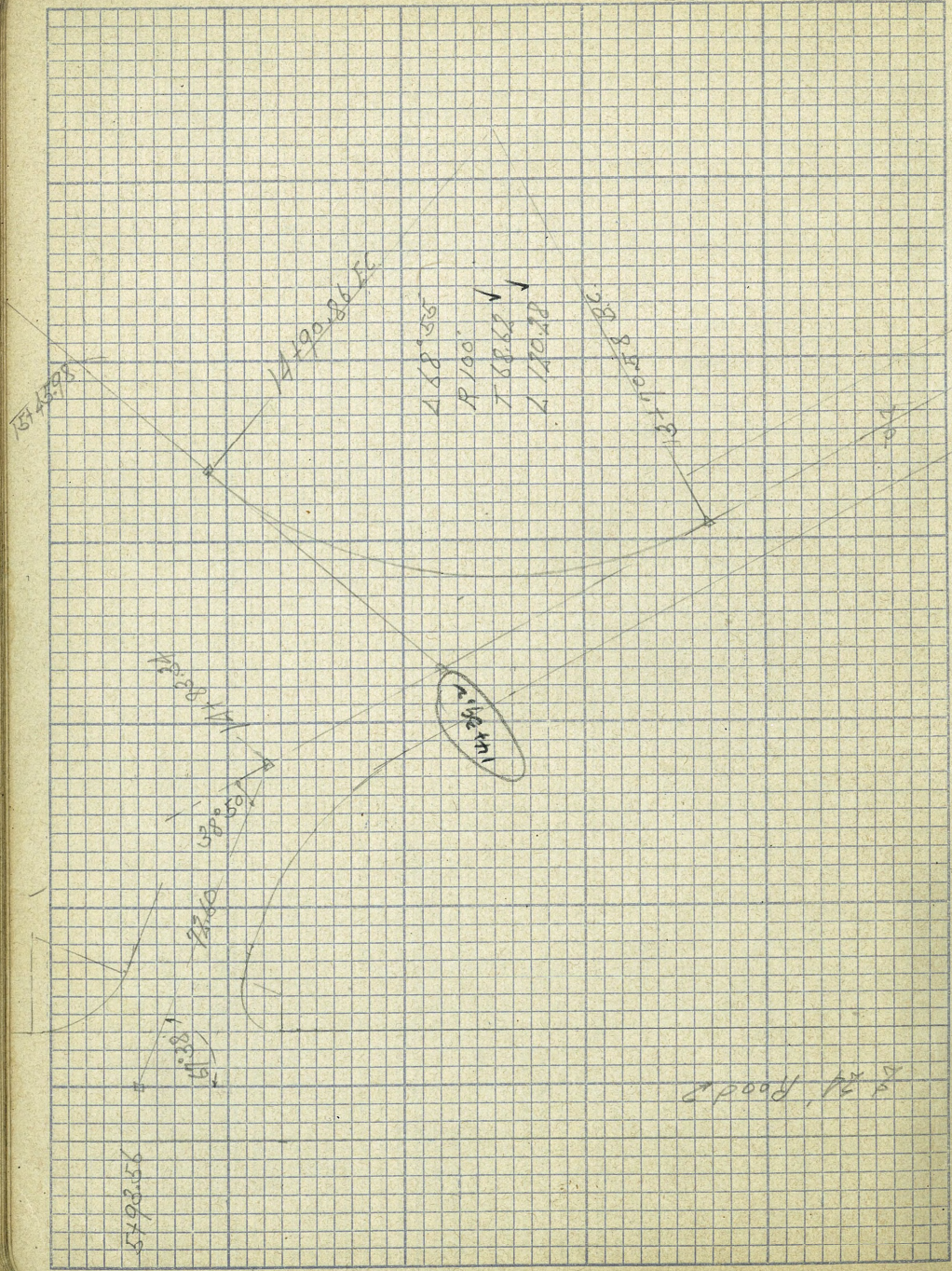
3-11-42
S. W. ...
Hart ...
...



50 ft
Hous

Nursery Balboa Park





5792.56

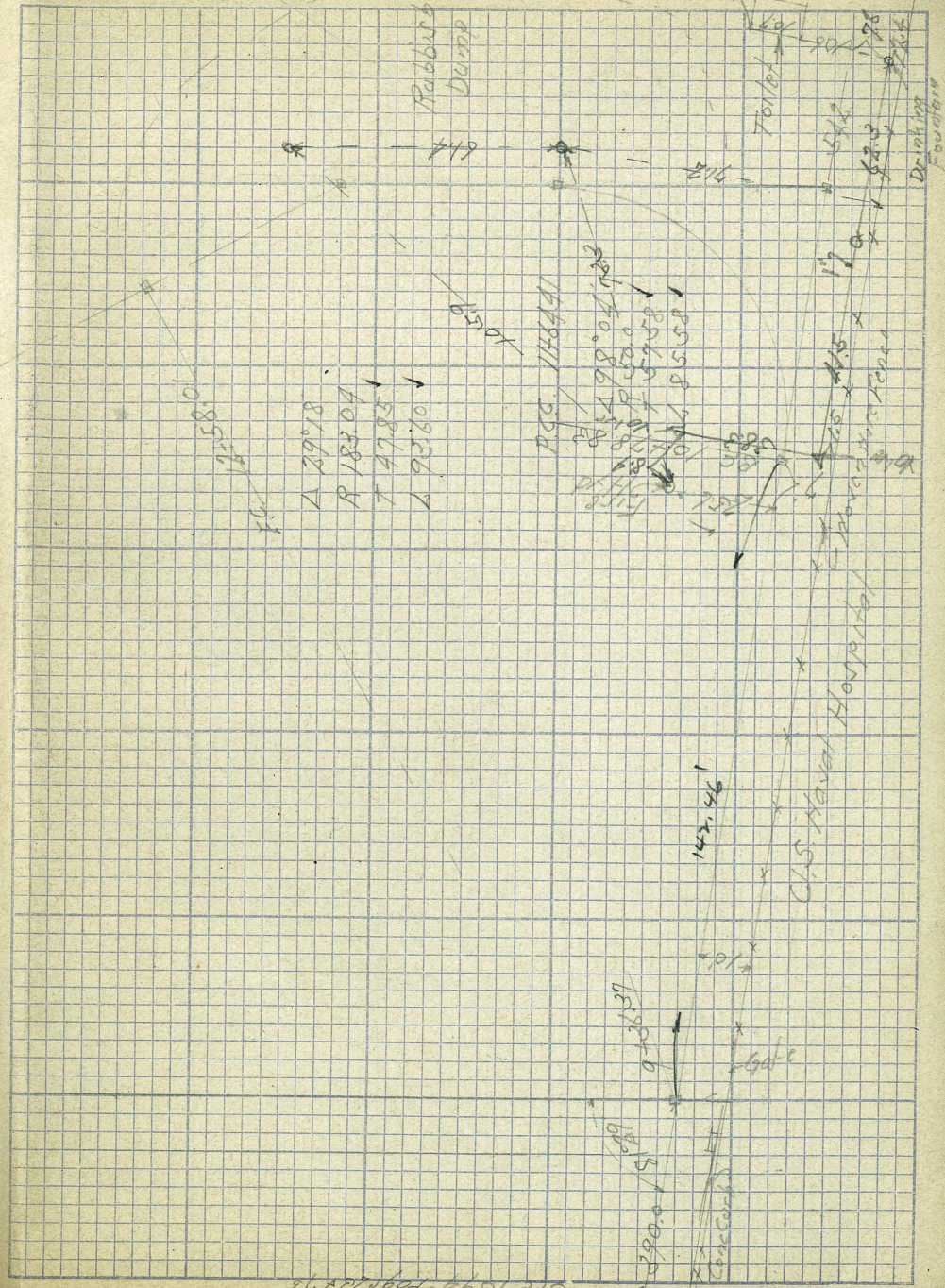
3rd Road

Nursery

158.55
P 100
T 88.8
Z 100.0

3rd Road

CT & SDFAC RTRUCK
See 1591-1592-1593



Rabbit
Dropp

157.18
R 183.04
T 97.85
Z 93.60

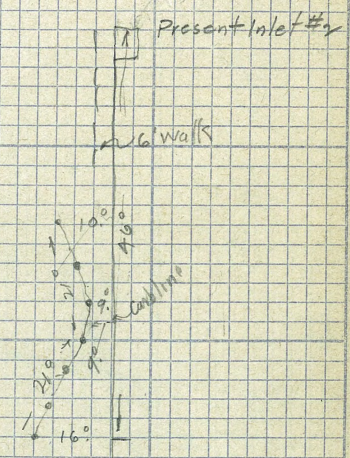
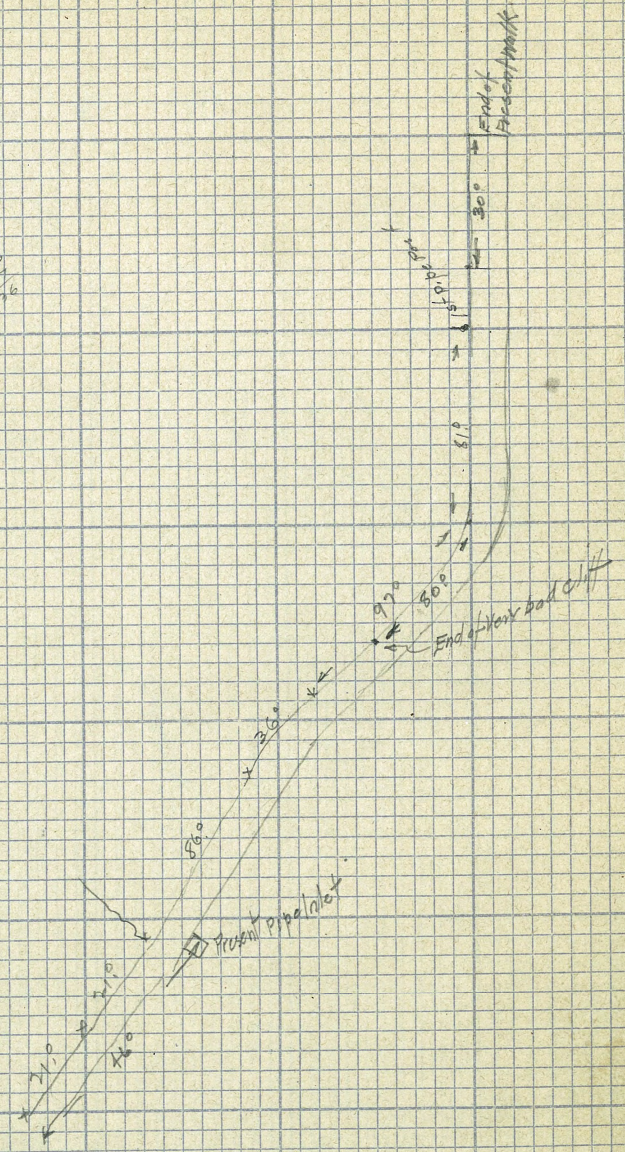
PCC. 1464.41
8.51 9.01 10.01 11.01 12.01 13.01 14.01 15.01 16.01 17.01 18.01 19.01 20.01 21.01 22.01 23.01 24.01 25.01 26.01 27.01 28.01 29.01 30.01 31.01 32.01 33.01 34.01 35.01 36.01 37.01 38.01 39.01 40.01 41.01 42.01 43.01 44.01 45.01 46.01 47.01 48.01 49.01 50.01 51.01 52.01 53.01 54.01 55.01 56.01 57.01 58.01 59.01 60.01 61.01 62.01 63.01 64.01 65.01 66.01 67.01 68.01 69.01 70.01 71.01 72.01 73.01 74.01 75.01 76.01 77.01 78.01 79.01 80.01 81.01 82.01 83.01 84.01 85.01 86.01 87.01 88.01 89.01 90.01 91.01 92.01 93.01 94.01 95.01 96.01 97.01 98.01 99.01 100.01

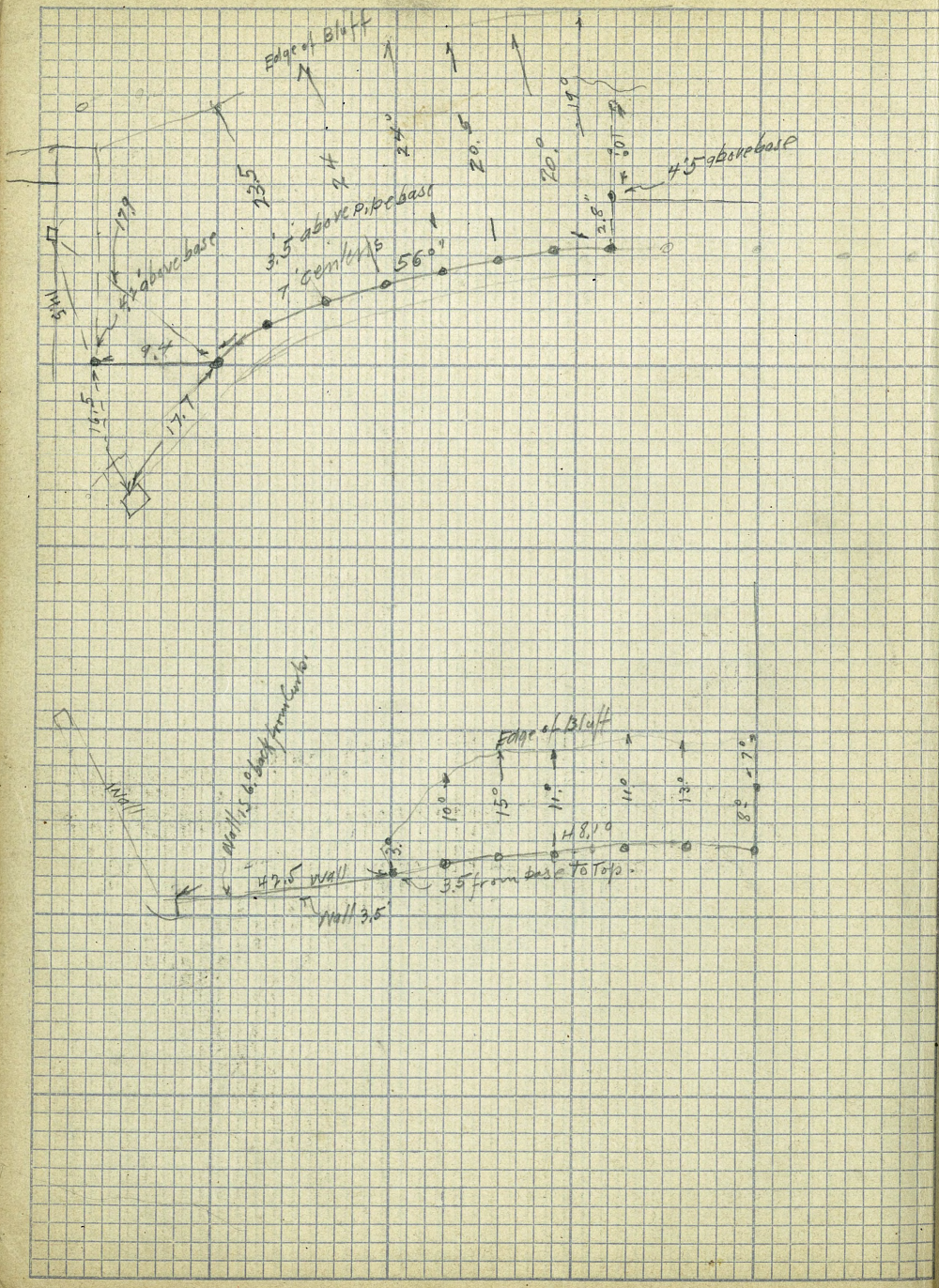
142.46

CAS Haver

Drinking Fountain

13.5
14.5
15.5





21507
 1121
 22634
 192
 22440
 1113
 23553

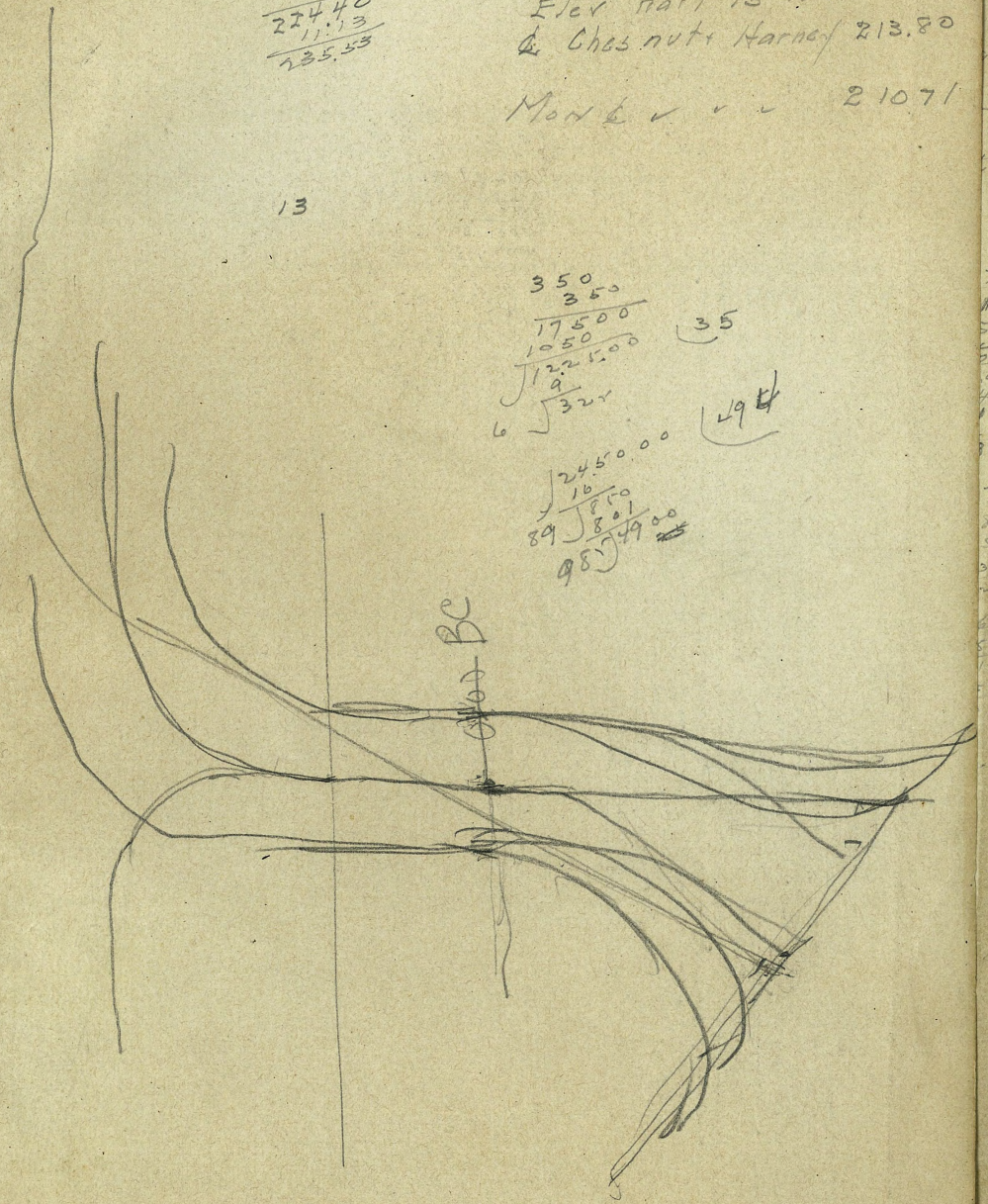
Elev nail 15' Not
 & Ches nuts Harney 213.80
 Mark ✓ ✓ ✓ 21071

13

350
 350
 17500
 1050
 122500
 2
 6 322

2450.00
 16
 89 801
 98 49.00

35
 39
 78
 15
 53
 52
 66
 45
 17
 7
 8
 5
 0
 0
 0



12010
 12.86 HI
 112.96 HI
 53 97.10
 40 27 3.03
 16 58 109.93 J.P.
 5 6.34
 116.27 HI
 42 40 96
 14 74 82
 139 31 53
 102.1 12
 76 6 120.2
 47 5.5 105 37 61 43 152
 20 85 84 61 5 14.7
 105 43 19 121.12
 60 1 15 122.4
 35 81 56 61 135.60 J.P.
 75 29 140.63 HI
 98 3 123.7
 45 16 63 7 124.3 88.5 25
 34 53 40 155 49 48 0.70
 6-127.4 75 8 84 19 139.93 J.P.
 56 30 130.3 75 130 0 5.15
 35 57 77 34 60 17 133.8
 10 82 57 60 34 39 145.08 HI
 8 12.9 27 0 66 90
 84 38 326
 53 57 147.82 J.P. rock
 27 930
 92 15 157.12 HI 32.4 J.P.
 59 45 136.8 13.1 147.88 J.P.
 27 74 12.2 156.04 HI
 93 23 43 16 80 7 14.9
 64 49 10 58 62 34 103.09 J.P.
 30 77 90 18 71 95 111.06 HI
 84 28 52 48 136 142.4
 41 4 72 16 2 108.6
 12 54 92 130 123
 70 17 25 170 125.83 HI
 38 163
 124.20 J.P. rock
 6.46 HI
 130.66 HI
 129.43 HI

18
 143 157 158 20
 107 158 250 158
 679.00
 271.600
 23500
 261360
 19 678
 33 115
 147 70
 189 28

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
 ROADWAY 14 FEET WIDE. SIDE SLOPES 1 1/2 TO 1.
 FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	26
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

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

12345678910
 12345678910
 12678912345678910

69
 83
 112
 72.39
 87.15
 10.55
 70.62
 5.66
 1345
 2247
 1.86
 72.37
 6.78
 81.15
 10.55
 70.62
 8.66
 1345
 2247
 2.5
 1.86
 5.17
 76
 62