

1635

WETZ

FIELD BOOK

No. 760

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 47	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 04	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	25 50	96 36	25 72	96 25	27 14	74
16	96 13	27 56	96 00	27 98	95 88	28 40	95 76	28 52	73
17	95 63	29 24	95 50	29 45	95 37	29 07	95 24	30 49	72
18	95 11	30 90	94 97	31 32	94 83	31 78	94 69	32 14	71
19	94 55	32 56	94 41	32 97	94 26	33 38	94 12	32 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 86	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.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

Published by the A. LIETZ CO., San Francisco, Cal.

MADE IN U. S. A.



Quality Evidenced Since 1882.

Standard Tripod Connection

LIETZ STANDARD ENGINEERS' TRANSIT
With U Shaped Standards

No. 5E with 6¼" limb. No. 11E with 5" limb.

Furnished with either Internal or External Focusing Telescope.

1635

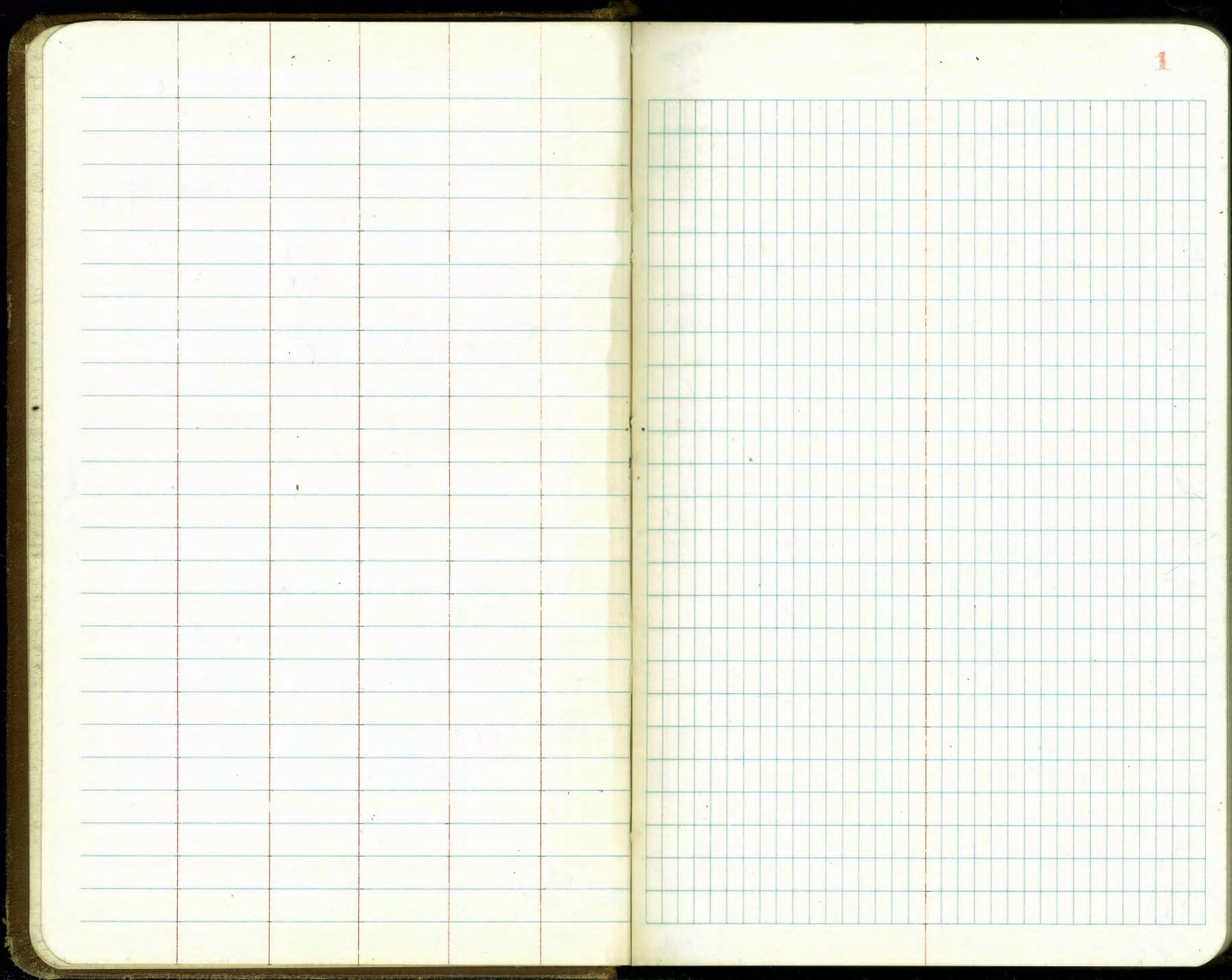
CITY ENGINEER

TABLE OF STADIA REDUCTIONS
For a Constant of 100.

Rod Vertical.

Min.	0°		1°		2°		3°		4°		5°		6°		7°	
	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.	Hor. Dist.	Diff. Elev.
0	100.00	.00	99.97	1.74	99.88	3.40	99.73	5.23	99.51	9.96	99.24	16.68	98.81	24.40	98.21	33.24
1	100.00	.06	99.97	1.80	99.87	3.55	99.72	5.38	99.50	7.02	99.23	16.74	98.80	24.53	98.20	33.37
2	100.00	.12	99.96	1.86	99.86	3.70	99.71	5.51	99.49	8.69	99.00	16.89	98.79	24.66	98.19	33.50
3	100.00	.18	99.95	1.92	99.85	3.85	99.70	5.64	99.48	10.38	98.91	17.04	98.78	24.79	98.18	33.63
4	100.00	.25	99.94	1.98	99.84	4.00	99.69	5.77	99.47	12.07	98.82	17.19	98.77	24.92	98.17	33.76
5	100.00	.31	99.93	2.04	99.83	4.15	99.68	5.90	99.46	13.76	98.73	17.34	98.76	25.05	98.16	33.89
6	100.00	.38	99.92	2.10	99.82	4.30	99.67	6.03	99.45	15.45	98.64	17.49	98.75	25.18	98.15	34.02
7	100.00	.44	99.91	2.16	99.81	4.45	99.66	6.16	99.44	17.14	98.55	17.64	98.74	25.31	98.14	34.15
8	100.00	.51	99.90	2.22	99.80	4.60	99.65	6.29	99.43	18.83	98.46	17.79	98.73	25.44	98.13	34.28
9	100.00	.57	99.89	2.28	99.79	4.75	99.64	6.42	99.42	20.52	98.37	17.94	98.72	25.57	98.12	34.41
10	100.00	.64	99.88	2.34	99.78	4.90	99.63	6.55	99.41	22.21	98.28	18.09	98.71	25.70	98.11	34.54
11	100.00	.70	99.87	2.40	99.77	5.05	99.62	6.68	99.40	23.90	98.19	18.24	98.70	25.83	98.10	34.67
12	100.00	.77	99.86	2.46	99.76	5.20	99.61	6.81	99.39	25.59	98.10	18.39	98.69	25.96	98.09	34.80
13	100.00	.83	99.85	2.52	99.75	5.35	99.60	6.94	99.38	27.28	98.01	18.54	98.68	26.09	98.08	34.93
14	100.00	.90	99.84	2.58	99.74	5.50	99.59	7.07	99.37	28.97	97.92	18.69	98.67	26.22	98.07	35.06
15	100.00	.96	99.83	2.64	99.73	5.65	99.58	7.20	99.36	30.66	97.83	18.84	98.66	26.35	98.06	35.19
16	100.00	1.02	99.82	2.70	99.72	5.80	99.57	7.33	99.35	32.35	97.74	18.99	98.65	26.48	98.05	35.32
17	100.00	1.09	99.81	2.76	99.71	5.95	99.56	7.46	99.34	34.04	97.65	19.14	98.64	26.61	98.04	35.45
18	100.00	1.15	99.80	2.82	99.70	6.10	99.55	7.59	99.33	35.73	97.56	19.29	98.63	26.74	98.03	35.58
19	100.00	1.22	99.79	2.88	99.69	6.25	99.54	7.72	99.32	37.42	97.47	19.44	98.62	26.87	98.02	35.71
20	100.00	1.28	99.78	2.94	99.68	6.40	99.53	7.85	99.31	39.11	97.38	19.59	98.61	27.00	98.01	35.84
21	100.00	1.35	99.77	3.00	99.67	6.55	99.52	7.98	99.30	40.80	97.29	19.74	98.60	27.13	98.00	35.97
22	100.00	1.41	99.76	3.06	99.66	6.70	99.51	8.11	99.29	42.49	97.20	19.89	98.59	27.26	97.99	36.10
23	100.00	1.48	99.75	3.12	99.65	6.85	99.50	8.24	99.28	44.18	97.11	20.04	98.58	27.39	97.98	36.23
24	100.00	1.54	99.74	3.18	99.64	7.00	99.49	8.37	99.27	45.87	97.02	20.19	98.57	27.52	97.97	36.36
25	100.00	1.61	99.73	3.24	99.63	7.15	99.48	8.50	99.26	47.56	96.93	20.34	98.56	27.65	97.96	36.49
26	100.00	1.67	99.72	3.30	99.62	7.30	99.47	8.63	99.25	49.25	96.84	20.49	98.55	27.78	97.95	36.62
27	100.00	1.74	99.71	3.36	99.61	7.45	99.46	8.76	99.24	50.94	96.75	20.64	98.54	27.91	97.94	36.75
28	100.00	1.80	99.70	3.42	99.60	7.60	99.45	8.89	99.23	52.63	96.66	20.79	98.53	28.04	97.93	36.88
29	100.00	1.87	99.69	3.48	99.59	7.75	99.44	9.02	99.22	54.32	96.57	20.94	98.52	28.17	97.92	37.01
30	100.00	1.93	99.68	3.54	99.58	7.90	99.43	9.15	99.21	56.01	96.48	21.09	98.51	28.30	97.91	37.14
31	100.00	2.00	99.67	3.60	99.57	8.05	99.42	9.28	99.20	57.70	96.39	21.24	98.50	28.43	97.90	37.27
32	100.00	2.06	99.66	3.66	99.56	8.20	99.41	9.41	99.19	59.39	96.30	21.39	98.49	28.56	97.89	37.40
33	100.00	2.12	99.65	3.72	99.55	8.35	99.40	9.54	99.18	61.08	96.21	21.54	98.48	28.69	97.88	37.53
34	100.00	2.19	99.64	3.78	99.54	8.50	99.39	9.67	99.17	62.77	96.12	21.69	98.47	28.82	97.87	37.66
35	100.00	2.25	99.63	3.84	99.53	8.65	99.38	9.80	99.16	64.46	96.03	21.84	98.46	28.95	97.86	37.79
36	100.00	2.31	99.62	3.90	99.52	8.80	99.37	9.93	99.15	66.15	95.94	21.99	98.45	29.08	97.85	37.92
37	100.00	2.38	99.61	3.96	99.51	8.95	99.36	10.06	99.14	67.84	95.85	22.14	98.44	29.21	97.84	38.05
38	100.00	2.44	99.60	4.02	99.50	9.10	99.35	10.19	99.13	69.53	95.76	22.29	98.43	29.34	97.83	38.18
39	100.00	2.50	99.59	4.08	99.49	9.25	99.34	10.32	99.12	71.22	95.67	22.44	98.42	29.47	97.82	38.31
40	100.00	2.57	99.58	4.14	99.48	9.40	99.33	10.45	99.11	72.91	95.58	22.59	98.41	29.60	97.81	38.44
41	100.00	2.63	99.57	4.20	99.47	9.55	99.32	10.58	99.10	74.60	95.49	22.74	98.40	29.73	97.80	38.57
42	100.00	2.70	99.56	4.26	99.46	9.70	99.31	10.71	99.09	76.29	95.40	22.89	98.39	29.86	97.79	38.70
43	100.00	2.76	99.55	4.32	99.45	9.85	99.30	10.84	99.08	77.98	95.31	23.04	98.38	29.99	97.78	38.83
44	100.00	2.82	99.54	4.38	99.44	10.00	99.29	10.97	99.07	79.67	95.22	23.19	98.37	30.12	97.77	38.96
45	100.00	2.89	99.53	4.44	99.43	10.15	99.28	11.10	99.06	81.36	95.13	23.34	98.36	30.25	97.76	39.09
46	100.00	2.95	99.52	4.50	99.42	10.30	99.27	11.23	99.05	83.05	95.04	23.49	98.35	30.38	97.75	39.22
47	100.00	3.01	99.51	4.56	99.41	10.45	99.26	11.36	99.04	84.74	94.95	23.64	98.34	30.51	97.74	39.35
48	100.00	3.08	99.50	4.62	99.40	10.60	99.25	11.49	99.03	86.43	94.86	23.79	98.33	30.64	97.73	39.48
49	100.00	3.14	99.49	4.68	99.39	10.75	99.24	11.62	99.02	88.12	94.77	23.94	98.32	30.77	97.72	39.61
50	100.00	3.20	99.48	4.74	99.38	10.90	99.23	11.75	99.01	89.81	94.68	24.09	98.31	30.90	97.71	39.74
51	100.00	3.27	99.47	4.80	99.37	11.05	99.22	11.88	98.99	91.50	94.59	24.24	98.30	31.03	97.70	39.87
52	100.00	3.33	99.46	4.86	99.36	11.20	99.21	12.01	98.98	93.19	94.50	24.39	98.29	31.16	97.69	40.00
53	100.00	3.40	99.45	4.92	99.35	11.35	99.20	12.14	98.97	94.88	94.41	24.54	98.28	31.29	97.68	40.13
54	100.00	3.46	99.44	4.98	99.34	11.50	99.19	12.27	98.96	96.57	94.32	24.69	98.27	31.42	97.67	40.26
55	100.00	3.52	99.43	5.04	99.33	11.65	99.18	12.40	98.95	98.26	94.23	24.84	98.26	31.55	97.66	40.39
56	100.00	3.59	99.42	5.10	99.32	11.80	99.17	12.53	98.94	100.00	94.14	24.99	98.25	31.68	97.65	40.52
57	100.00	3.65	99.41	5.16	99.31	11.95	99.16	12.66	98.93		94.05	25.14	98.24	31.81	97.64	40.65
58	100.00	3.71	99.40	5.22	99.30	12.10	99.15	12.79	98.92		93.96	25.29	98.23	31.94	97.63	40.78
59	100.00	3.78	99.39	5.28	99.29	12.25	99.14	12.92	98.91		93.87	25.44	98.22	32.07	97.62	40.91
60	100.00	3.84	99.38	5.34	99.28	12.40	99.13	13.05	98.90		93.78	25.59	98.21	32.20	97.61	41.04
c=1.15																
c=1.90																

Published by the A. LIETZ Co., San Francisco, Cal.



1

Walker
Hardin
Reed
4-4-42

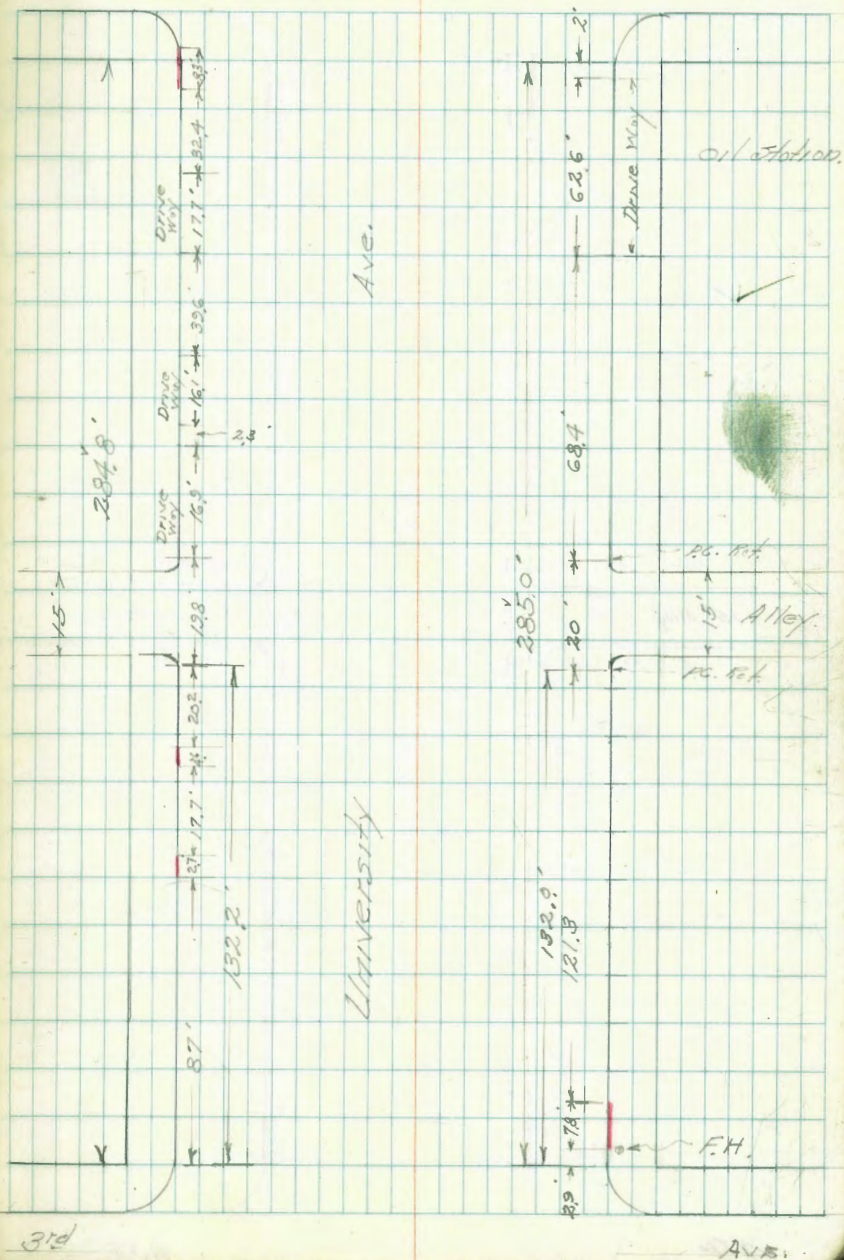
Location of Drive Ways, Fire Plugs,
Loading Zones, No Standing Zones,
and Taxi Cab Zones
for "PARKING METER DATA"

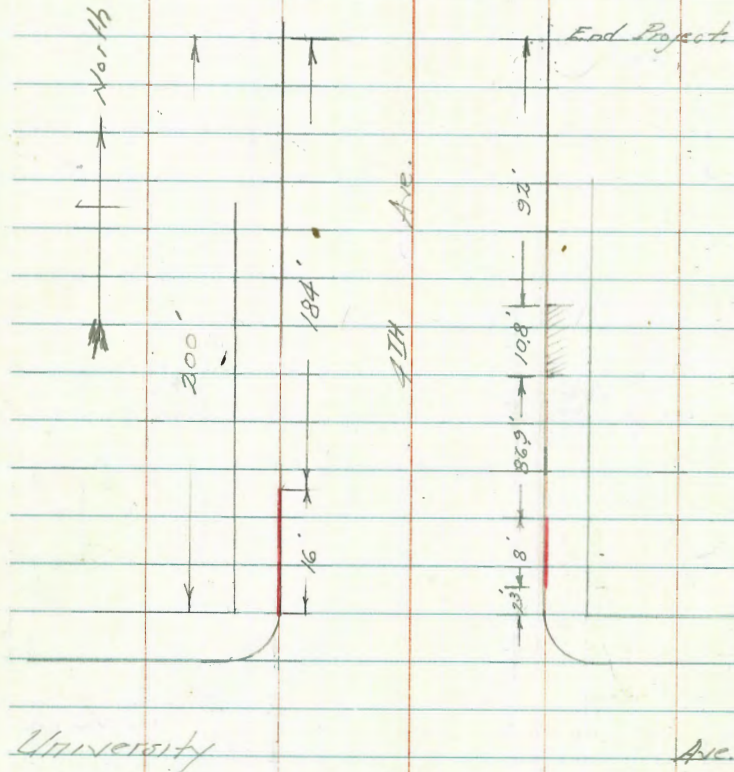
~ LEGEND ~

- No Standing Zones Painted Red down bus: —
- Unloading " " yellow " " —
- Passenger " " white " " —
- Fire Hydrants " " ⊕ F.H.
- Drive Ways " " —
- Diagonal Parking Stripes " " ||
- Taxi Cab Zones " " T.C.Z.

4TH indexed
C.S.K.

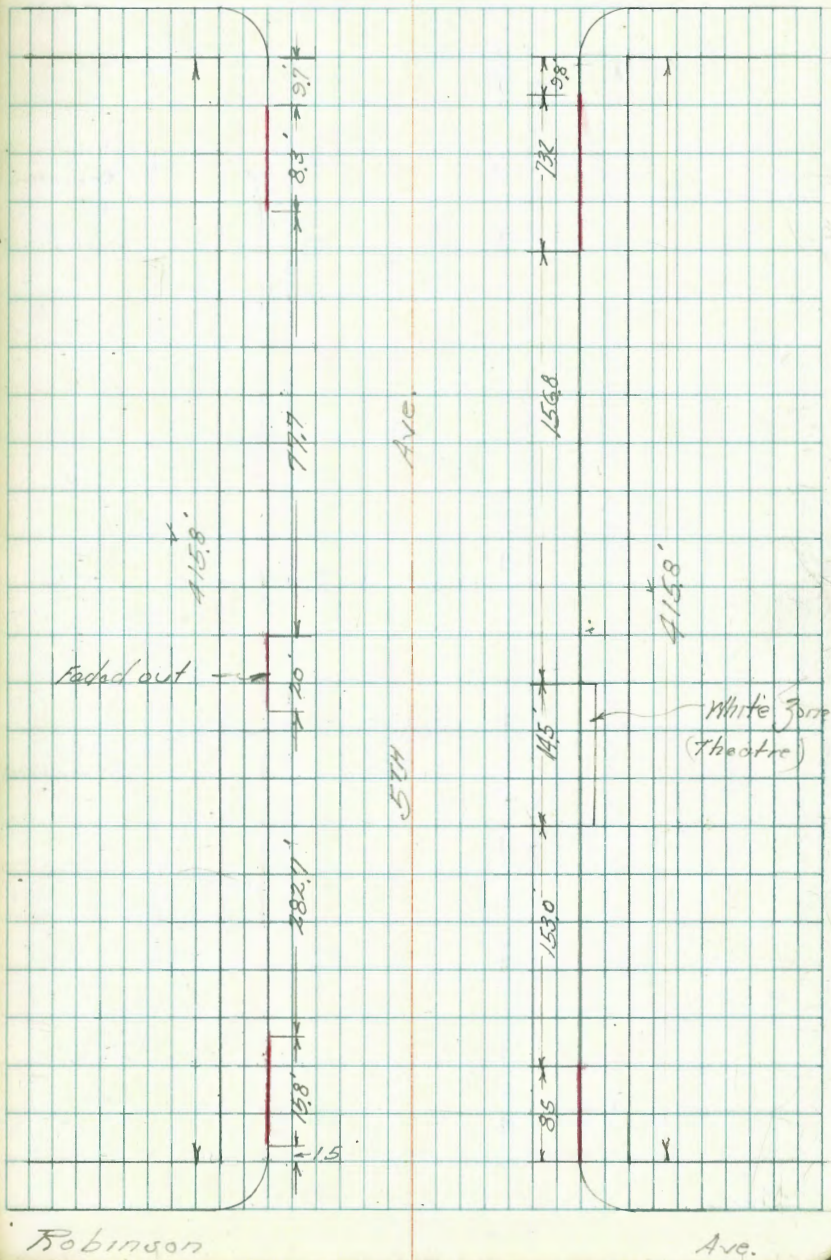
AVE.
2



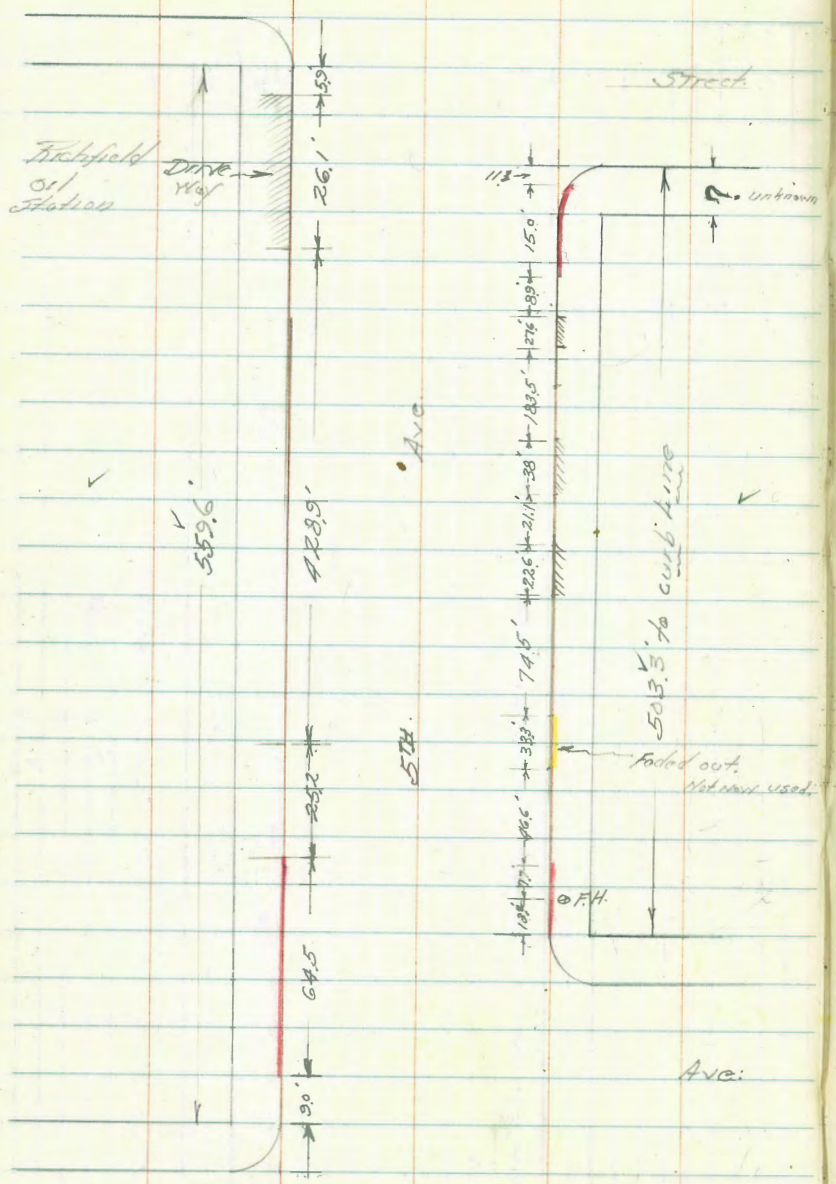


University

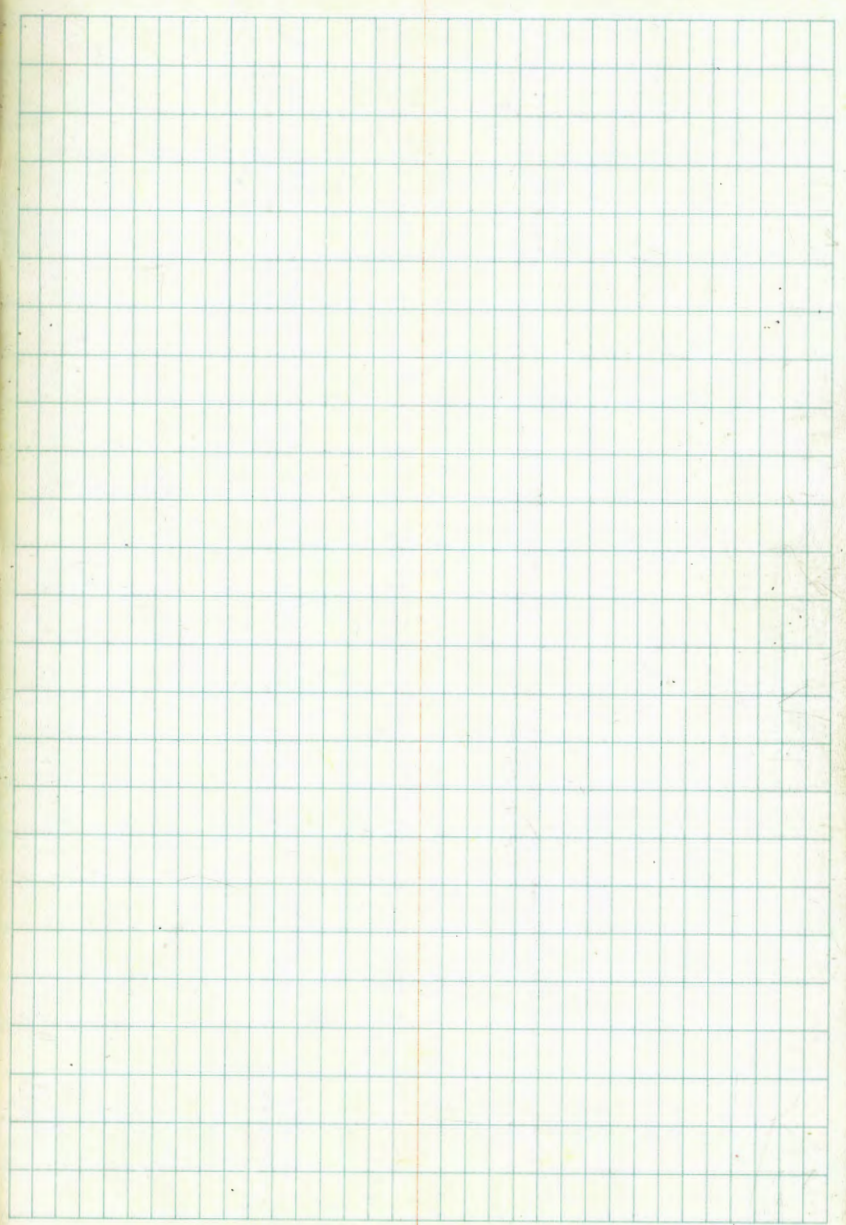
5 Ave.



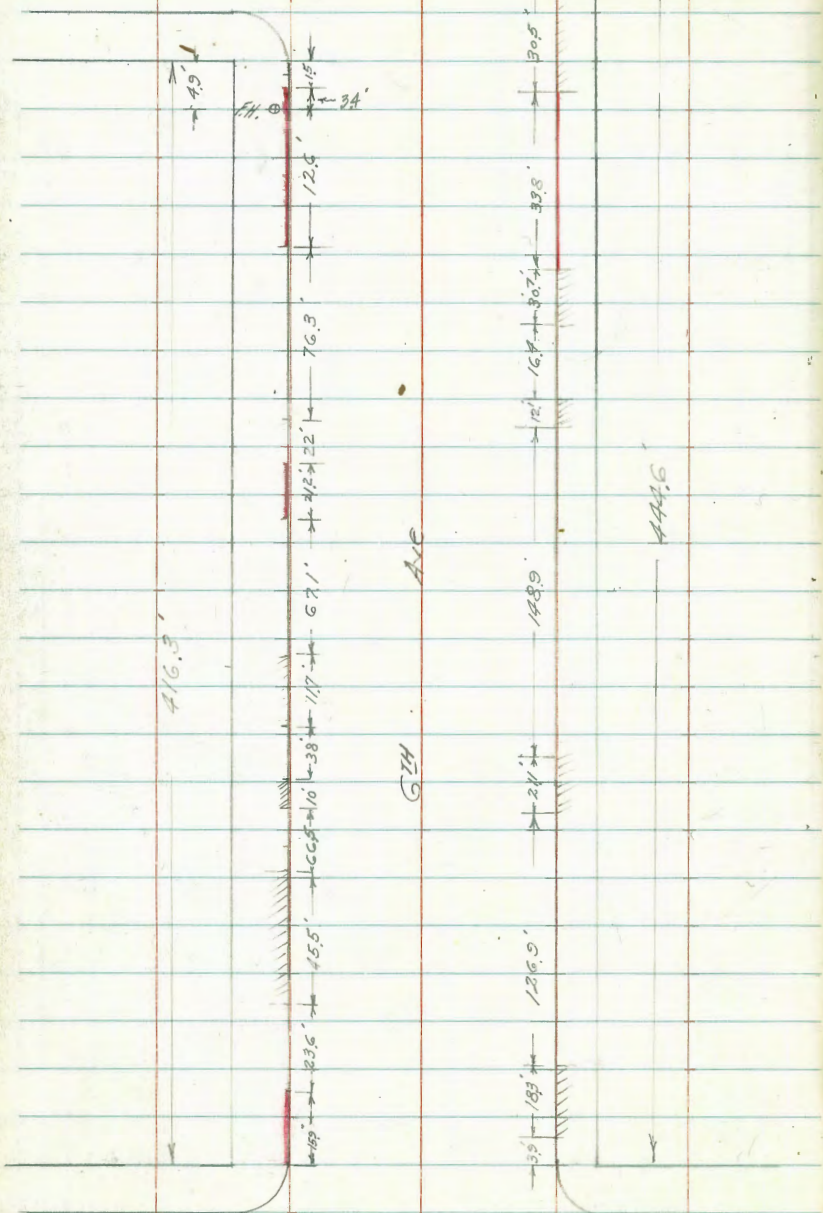
WASHINGTON



W. 11.11.11



Union

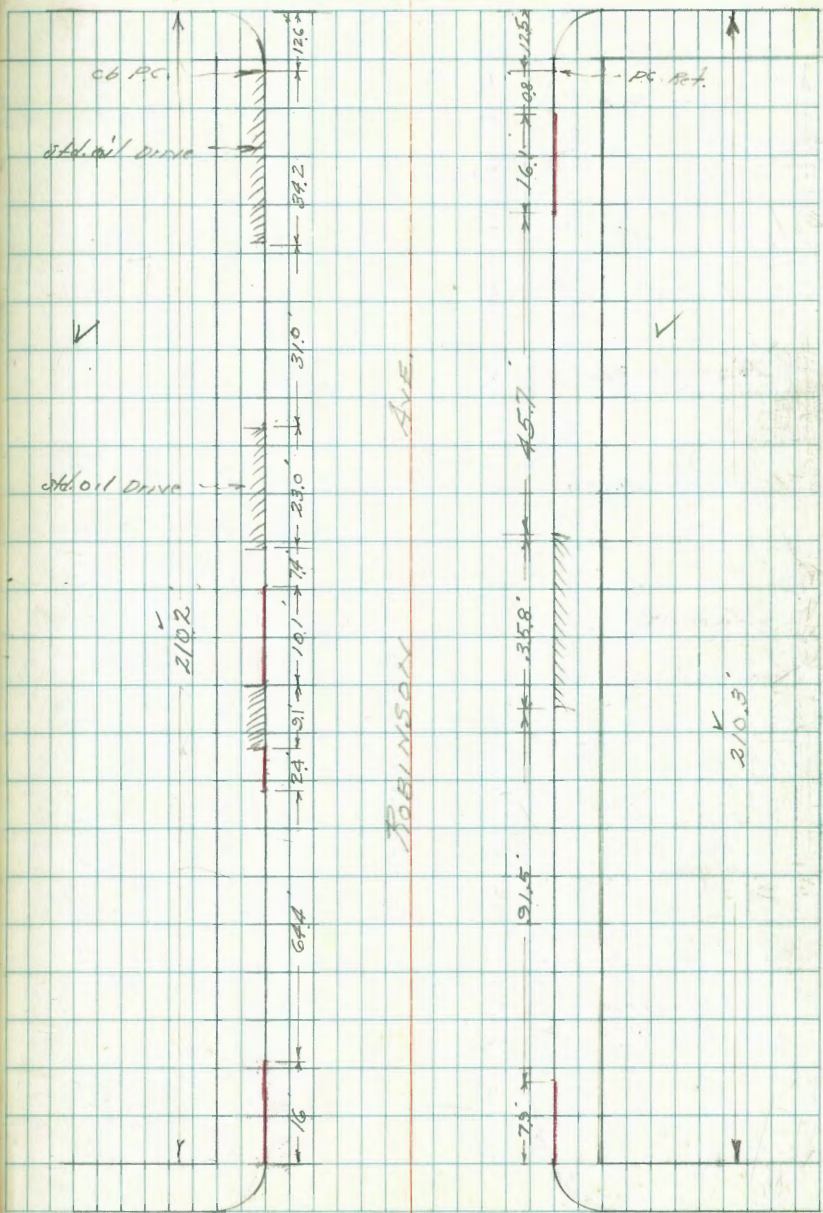


Robinson

Ave.

6th

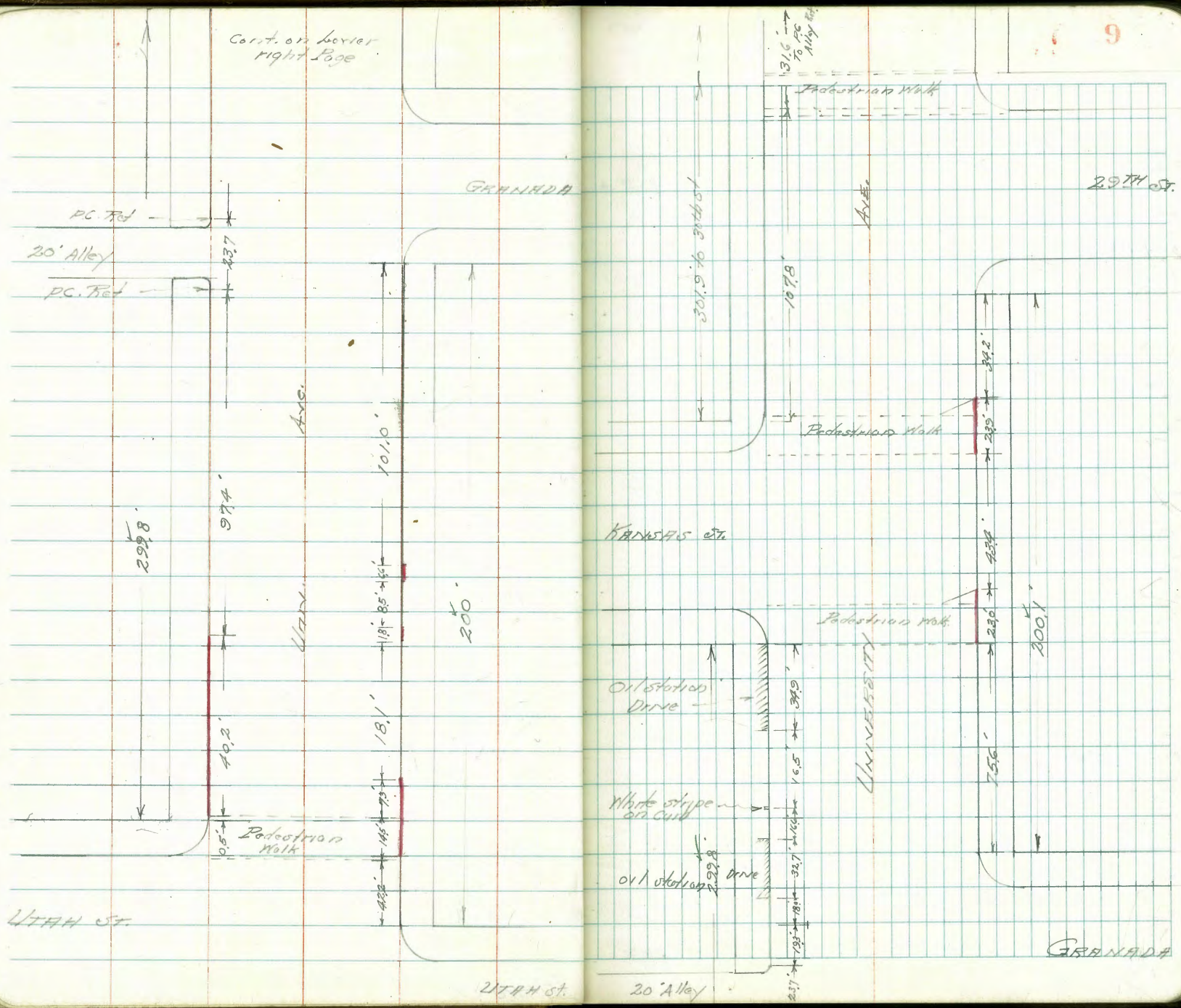
Ave 7

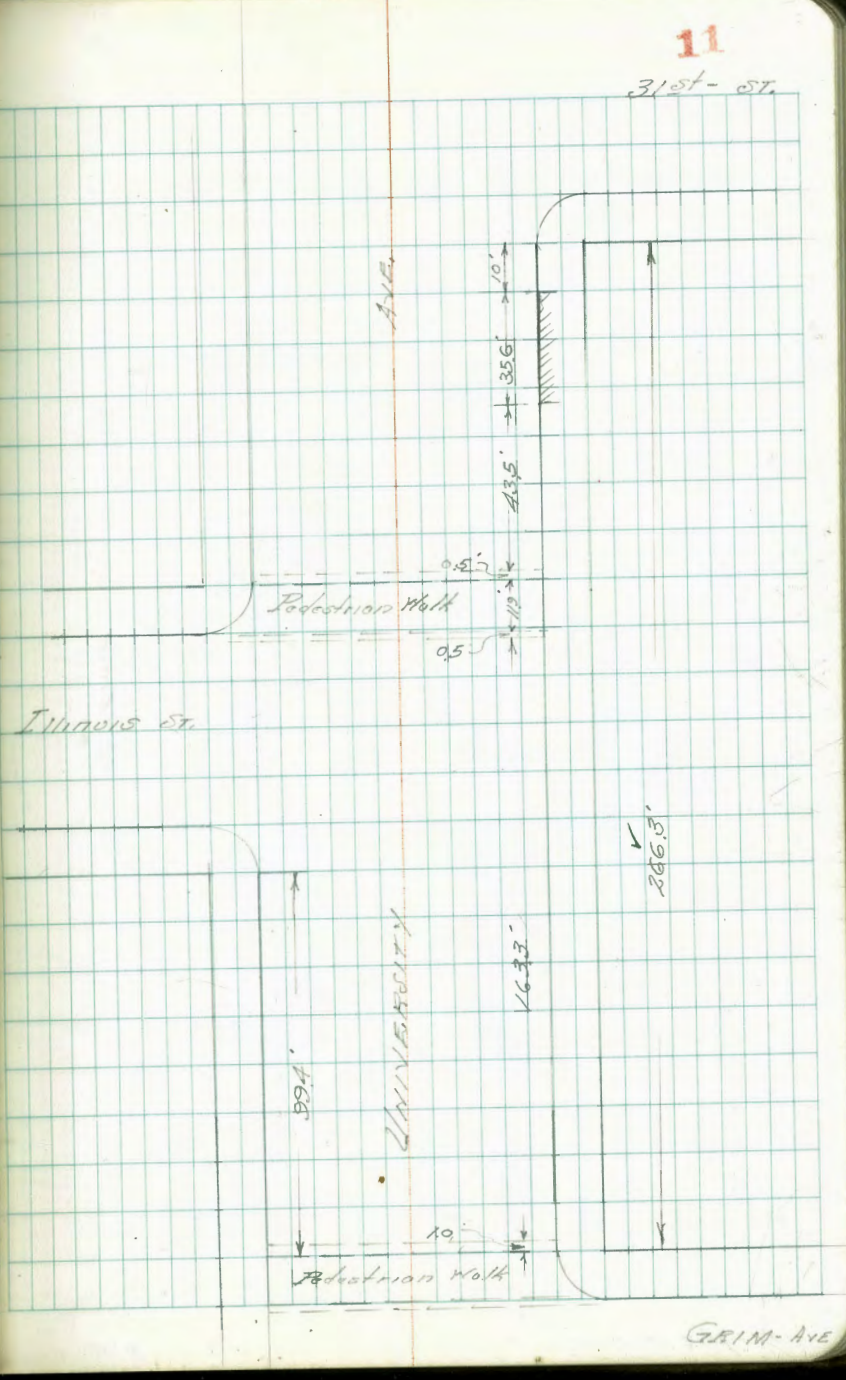
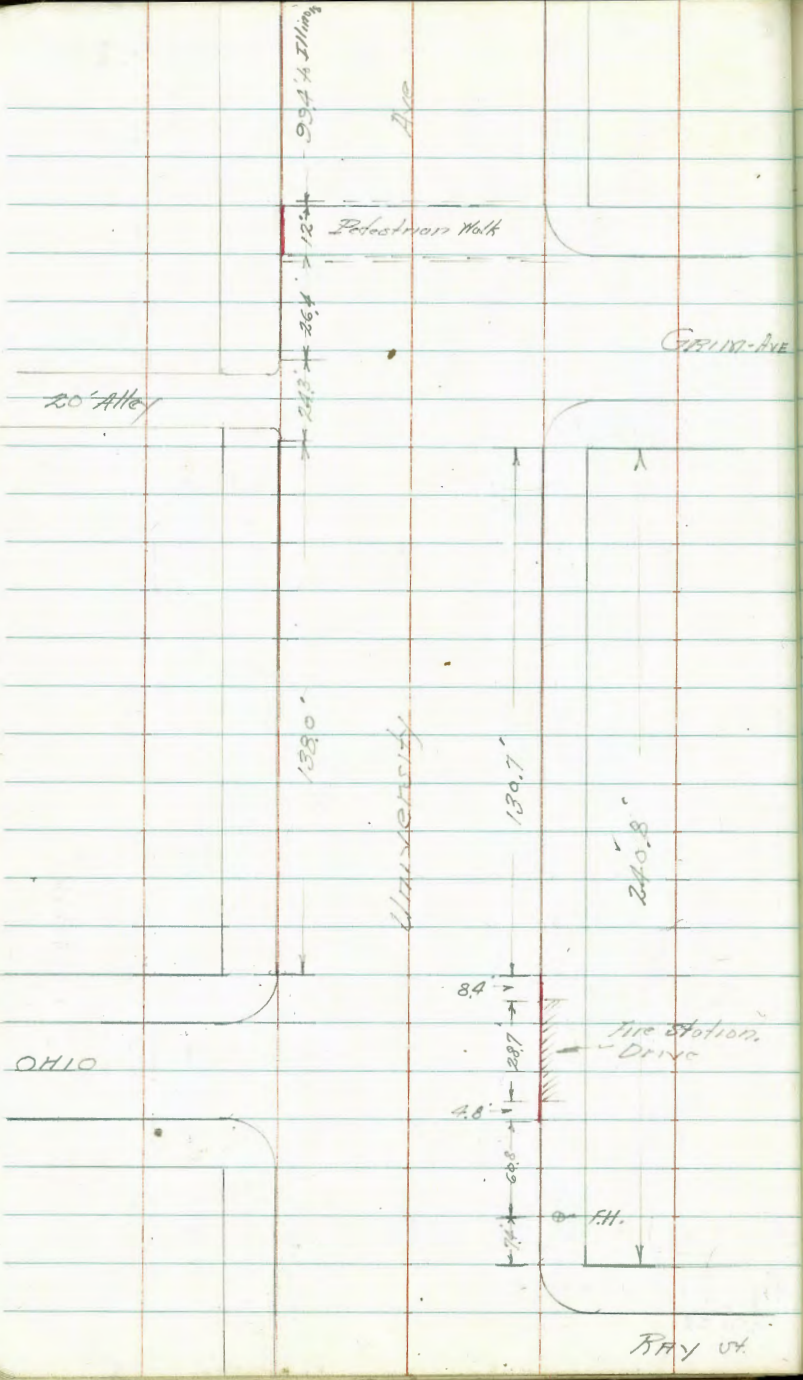


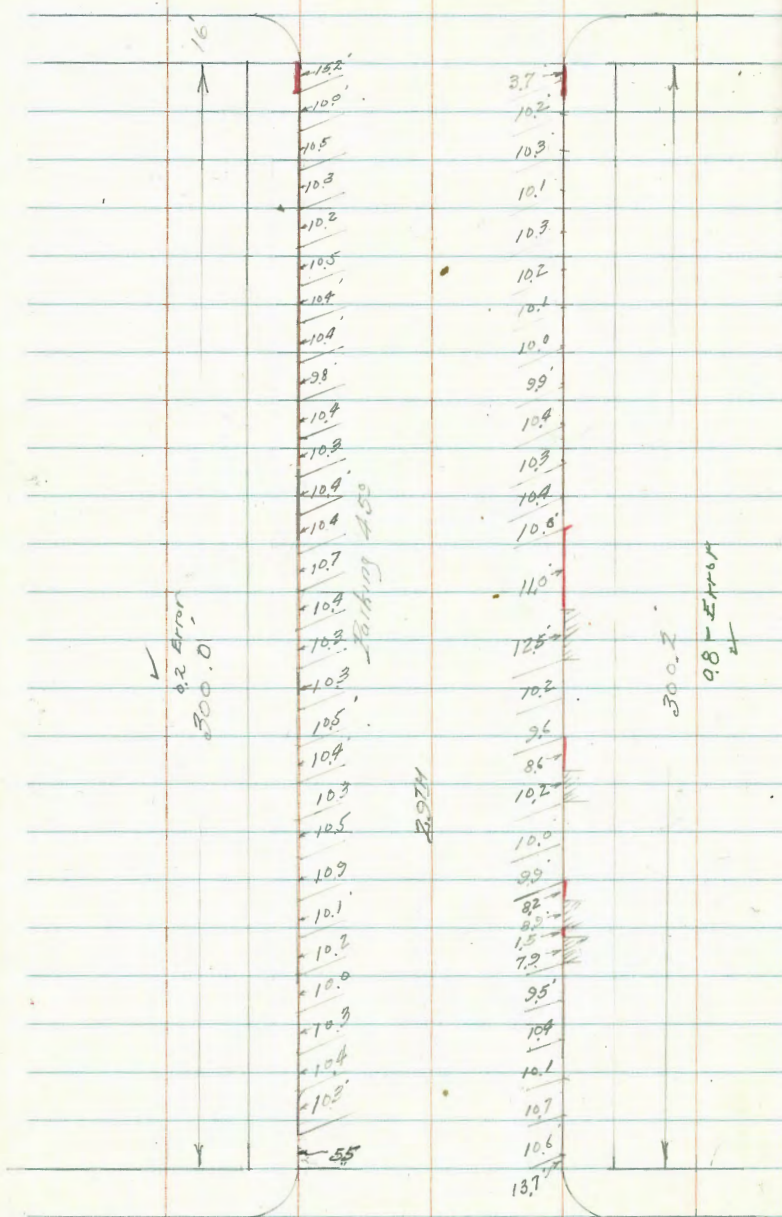
5th

Ave.

Carit. on barrier
right Page





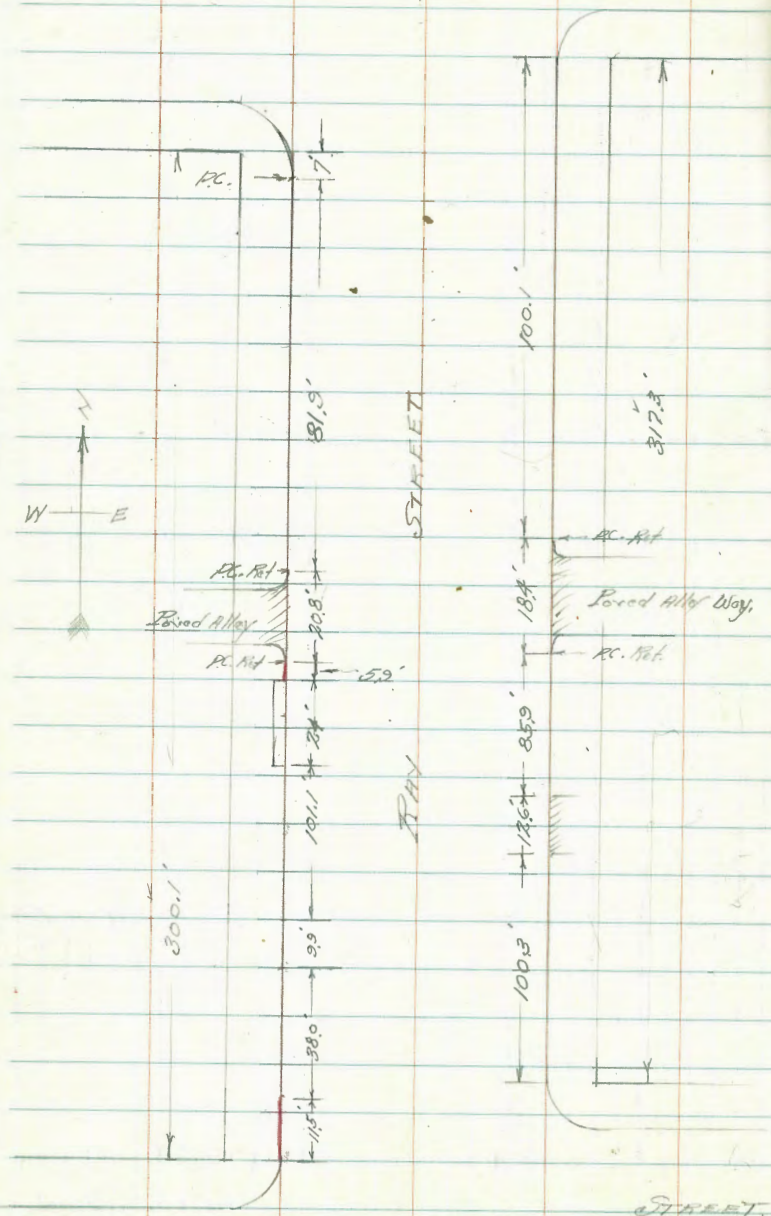


Wrightman

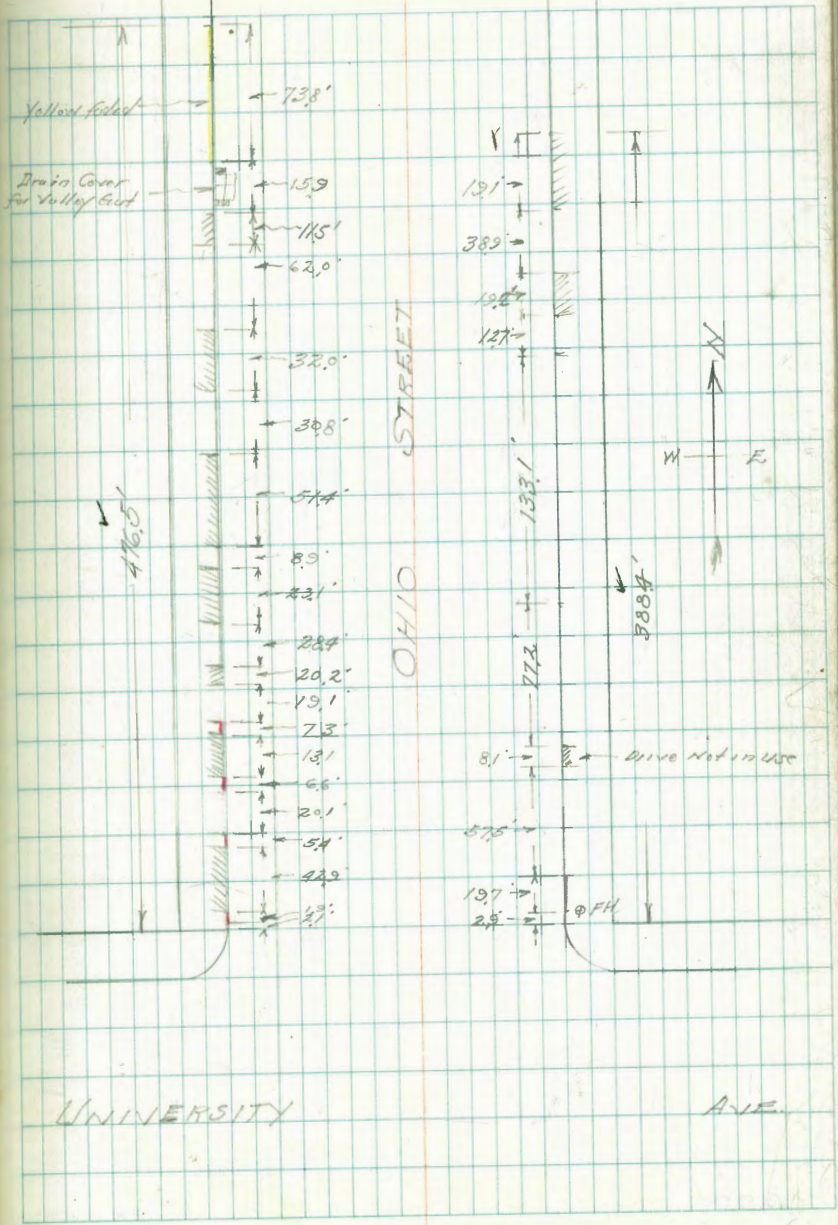
AT

University

Ave.



Wightman



UNIVERSITY

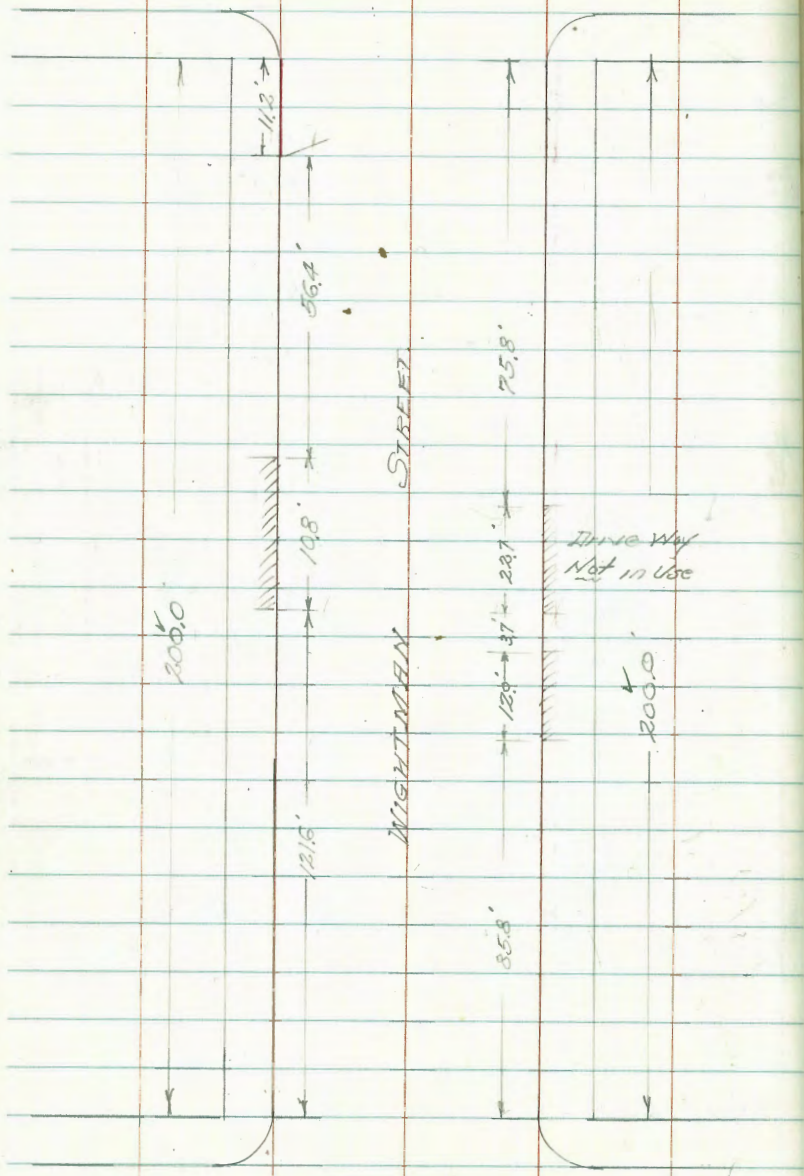
AVE.

30TH

STREET.

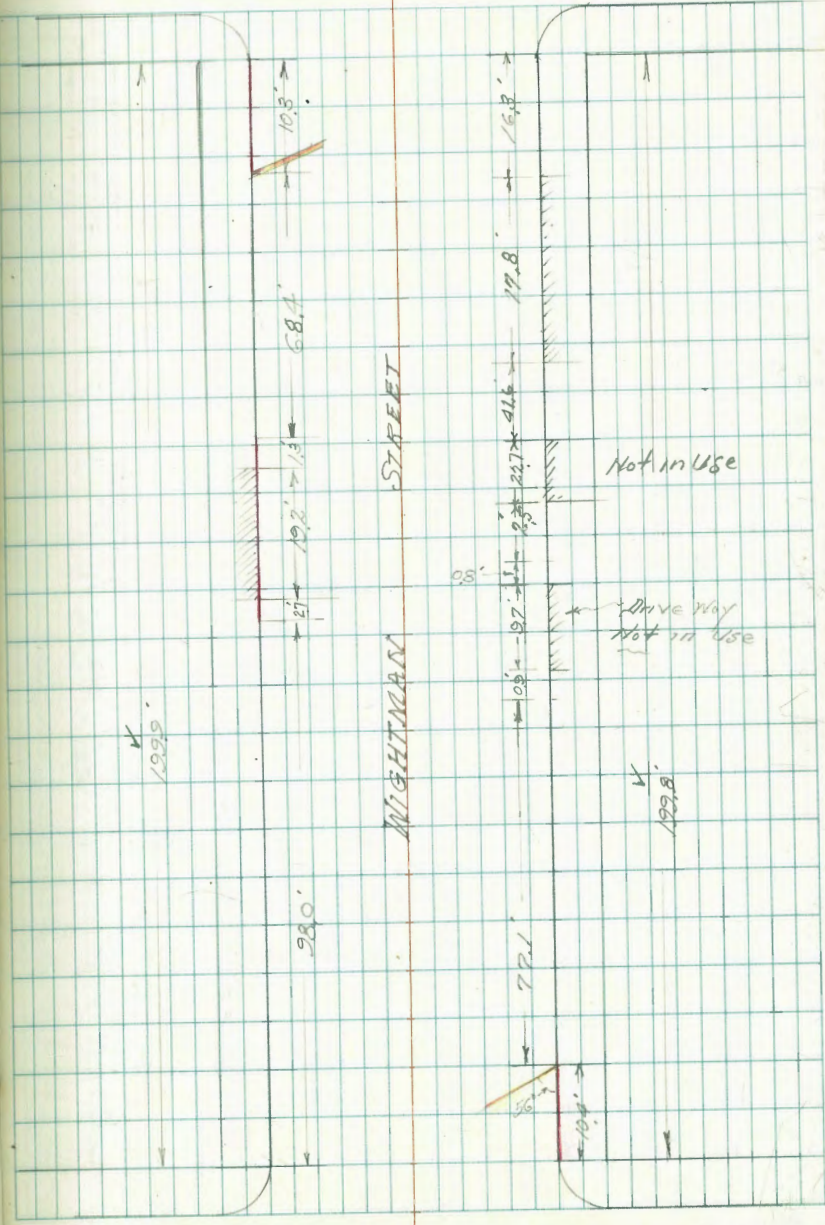
RAY

15 STREET.



29TH

STREET.



199.5'

280'

NIGHTMAN STREET

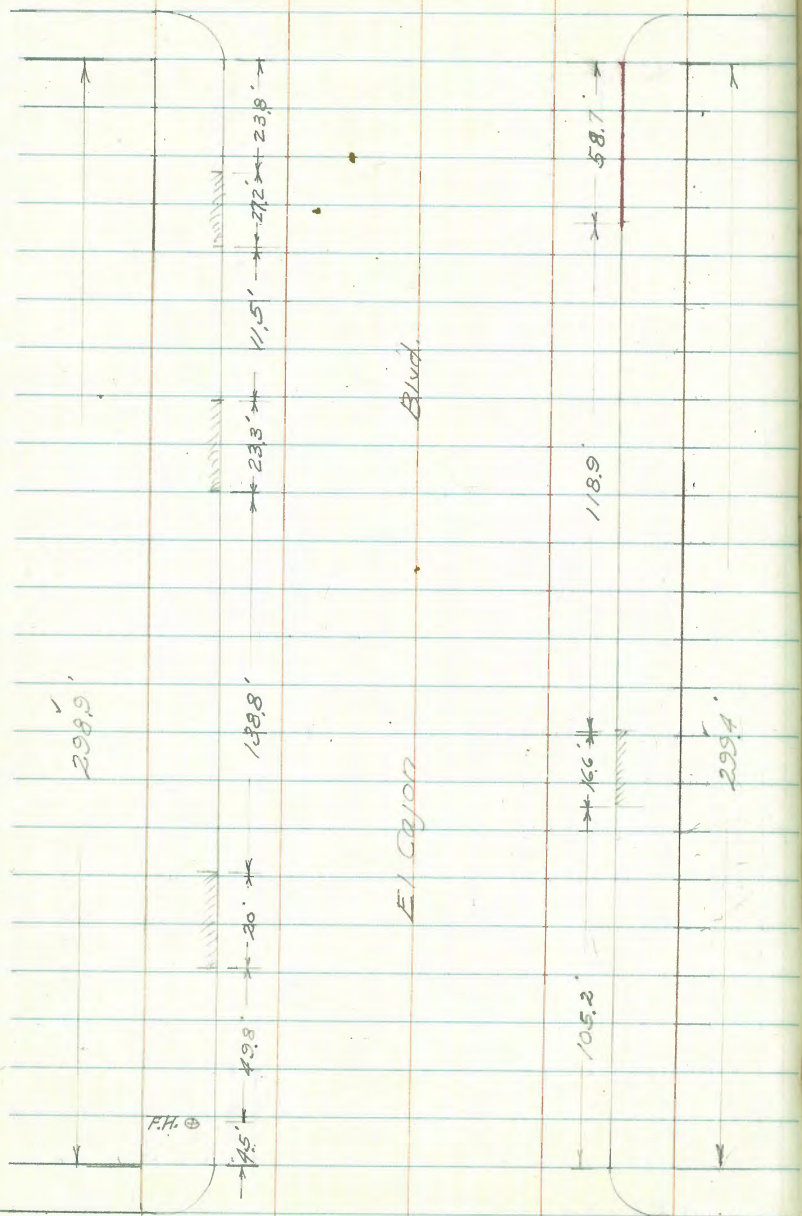
199.8'

30TH

STREET

30TH

STREET



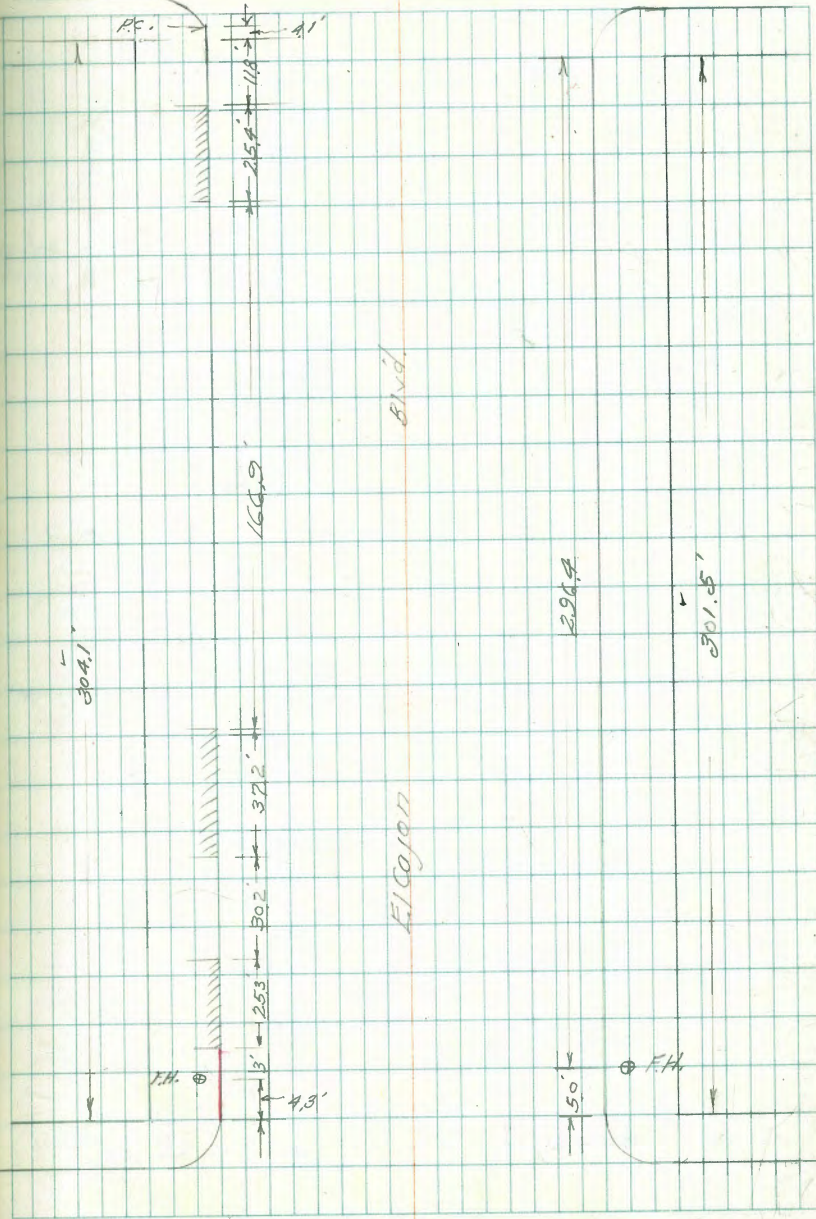
KANSAS

STREET

16

STREET

OHIO



30TH

STREET

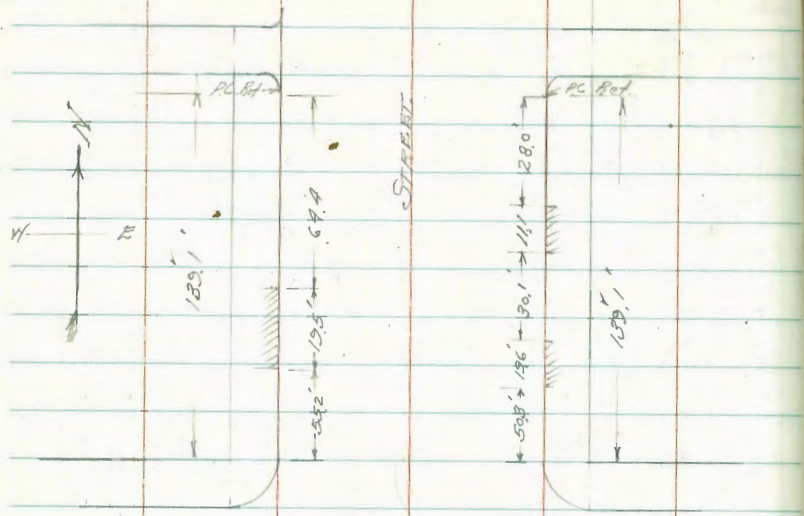
304.1'

El Cajon

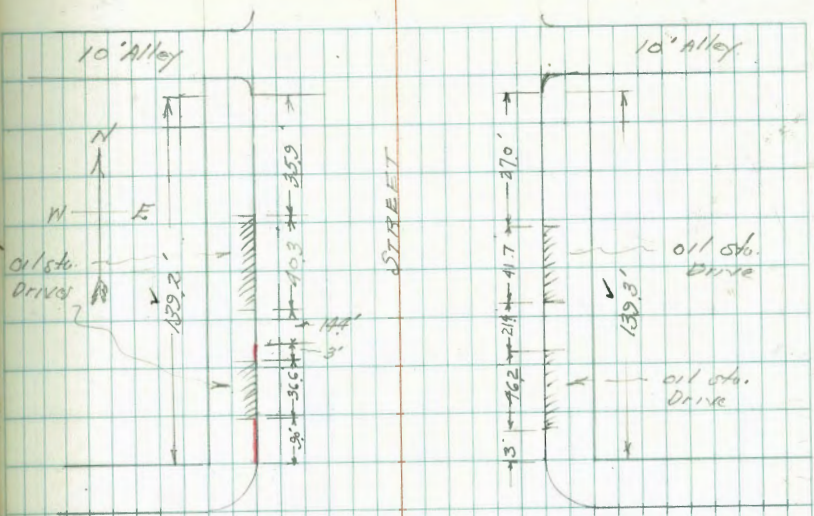
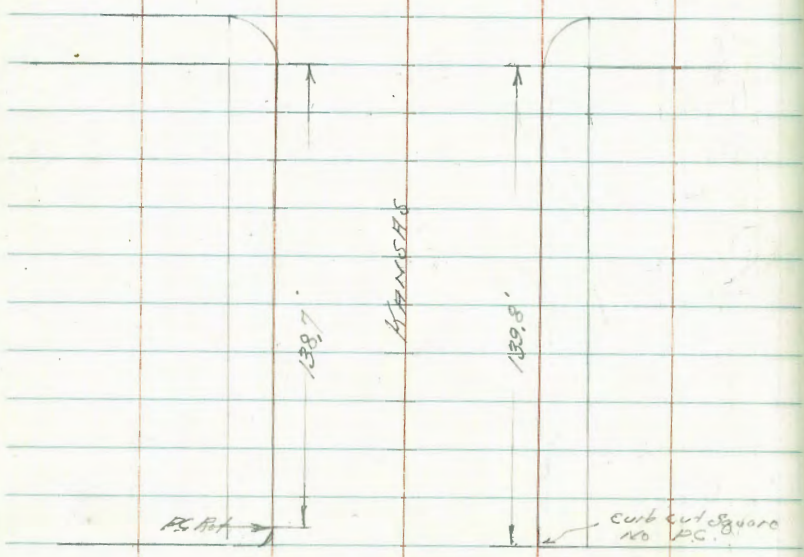
Blvd.

F.H.

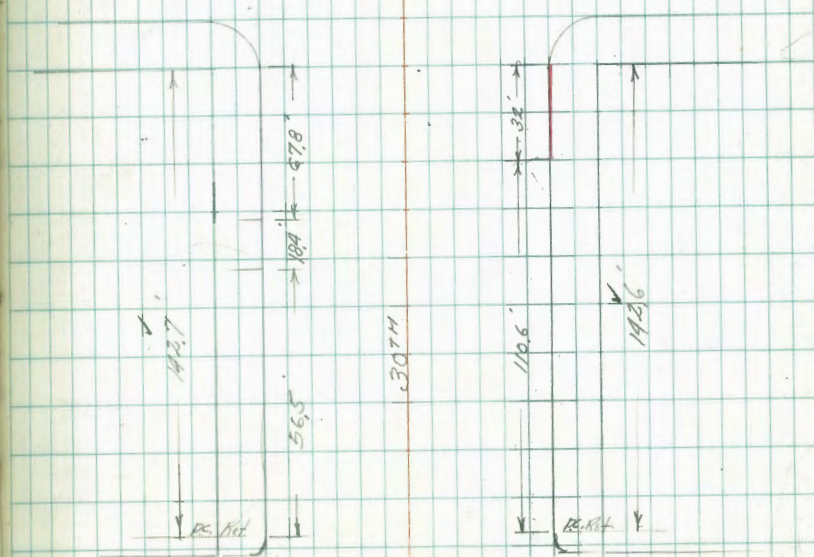
F.H.



El Cajon Blvd



El Cajon Blvd

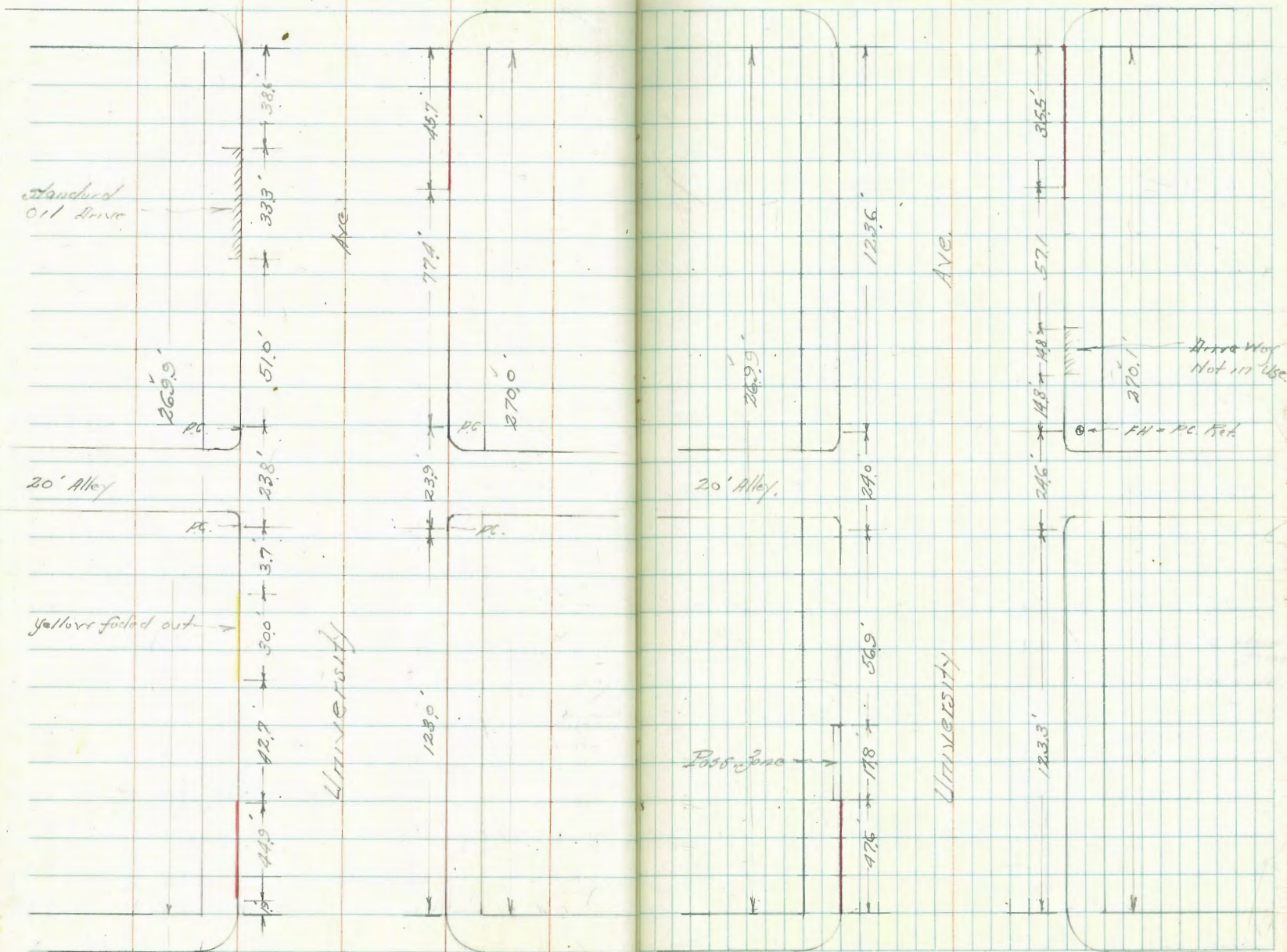


Fairmount

Ave.

44TH

ST. 20

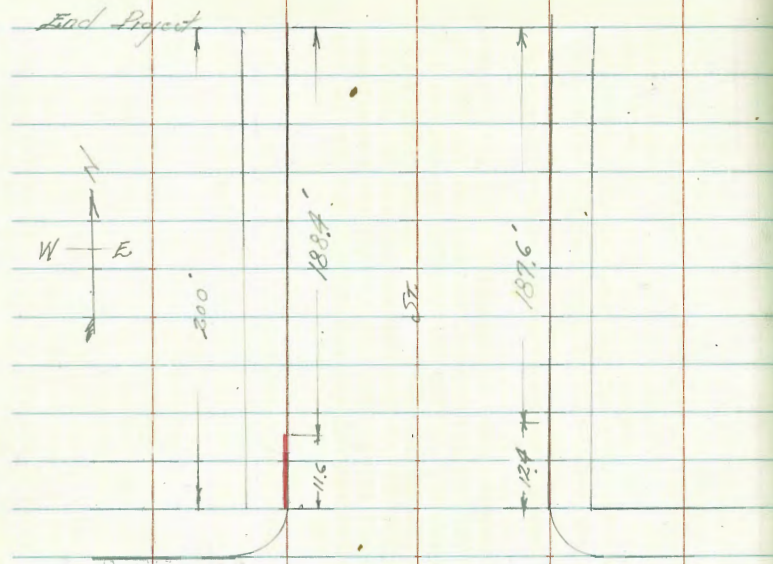


43rd

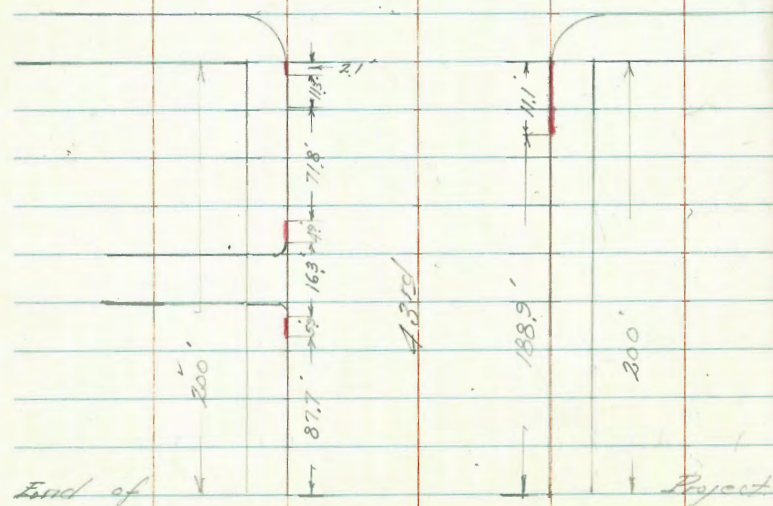
ST.

Fairmount

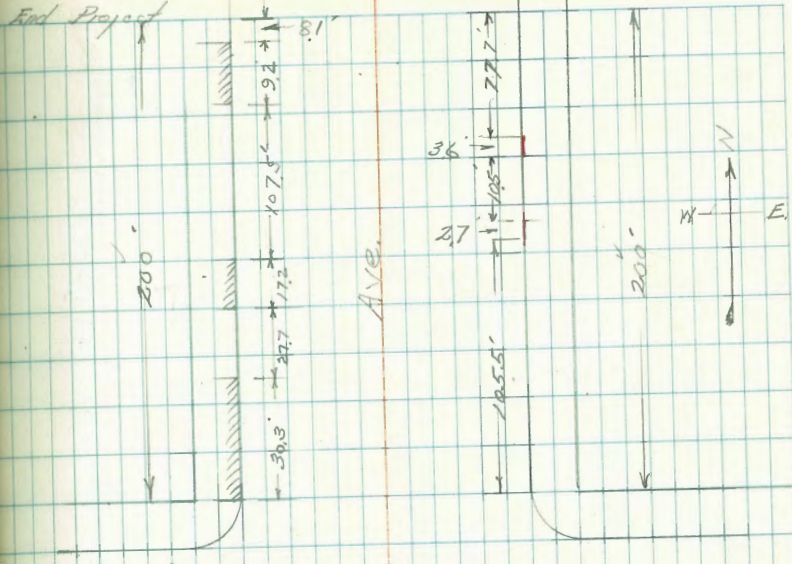
Ave.



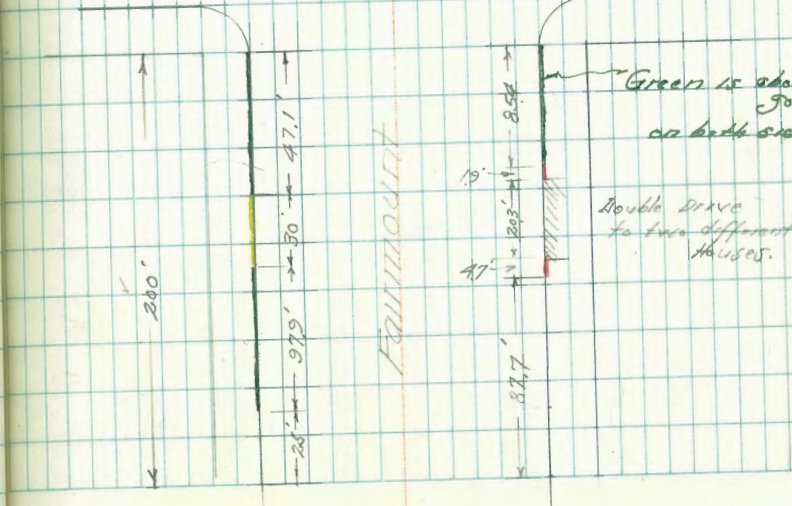
University Ave



End of Project



Ave

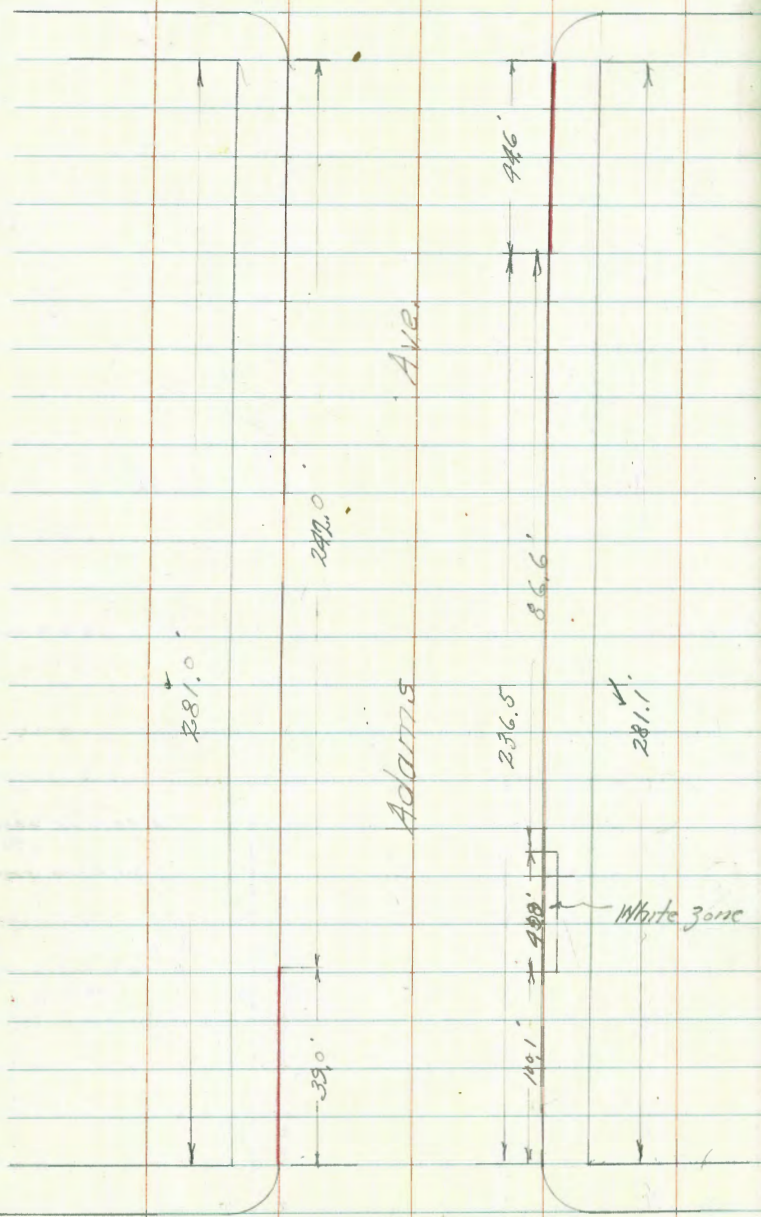


Project

Fairmount Ave.

FELTON

57.

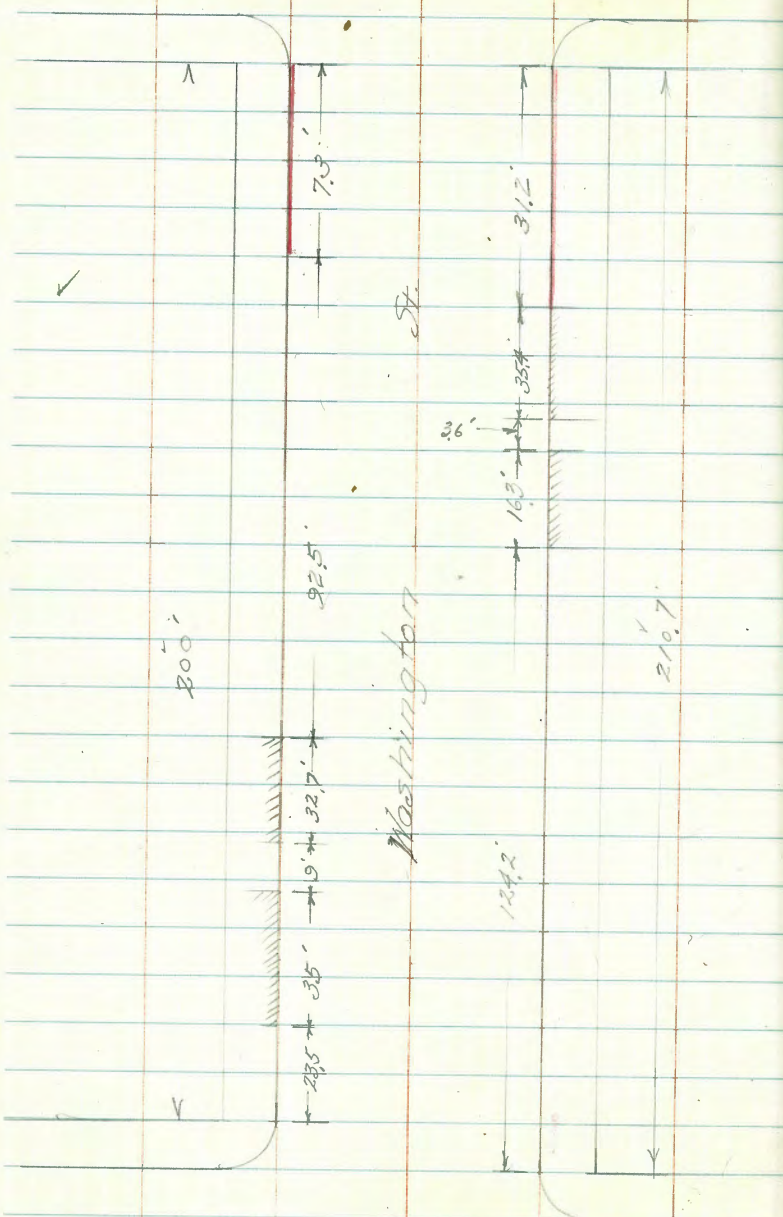


13180

57

Goldfinch

St.



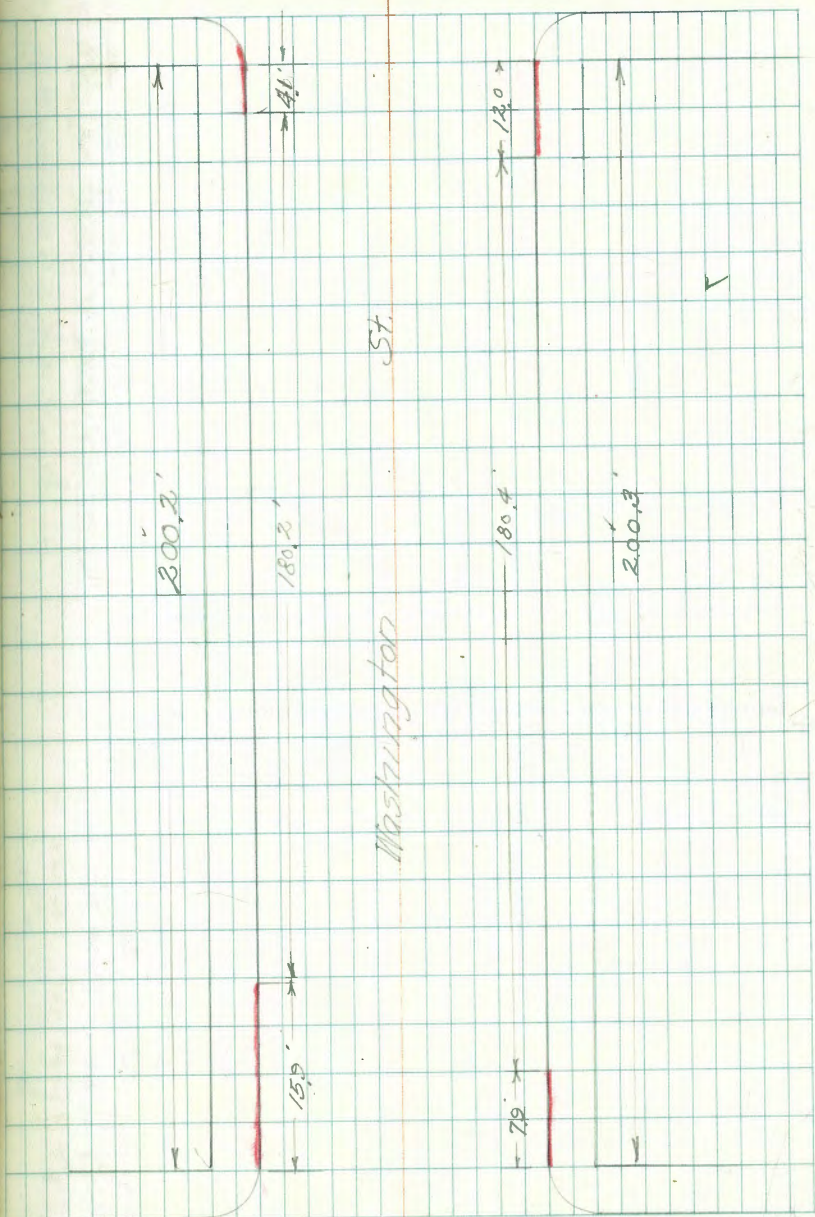
Washington

HAWK

St.

Falcons

St. 23



Washington

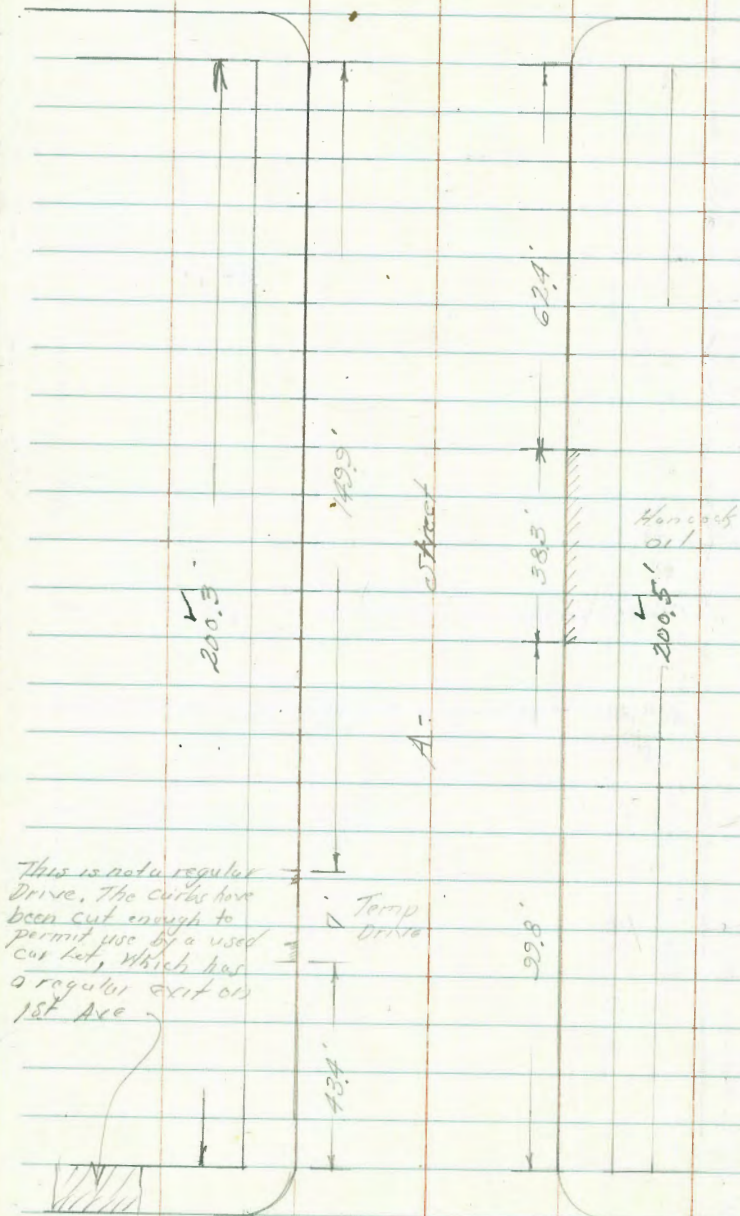
Goldfinch

St.

Central Business District

2nd

Ave



This is not a regular Drive. The curbs have been cut enough to permit use by a used car lot, which has a regular exit on 1st Ave

Temp Drive

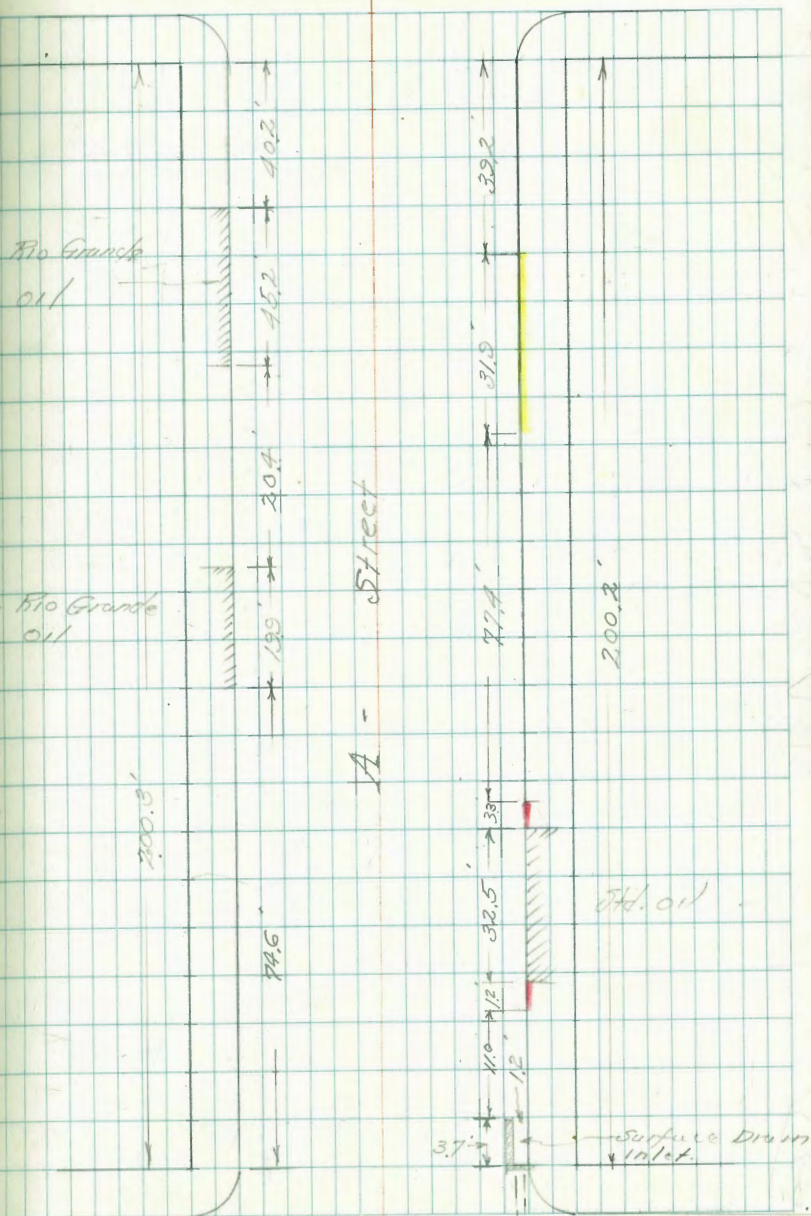
1st

Ave

3rd

Ave

25



Rio Grande Oil

Rio Grande Oil

Hancock Oil

A - Street

5th Oil

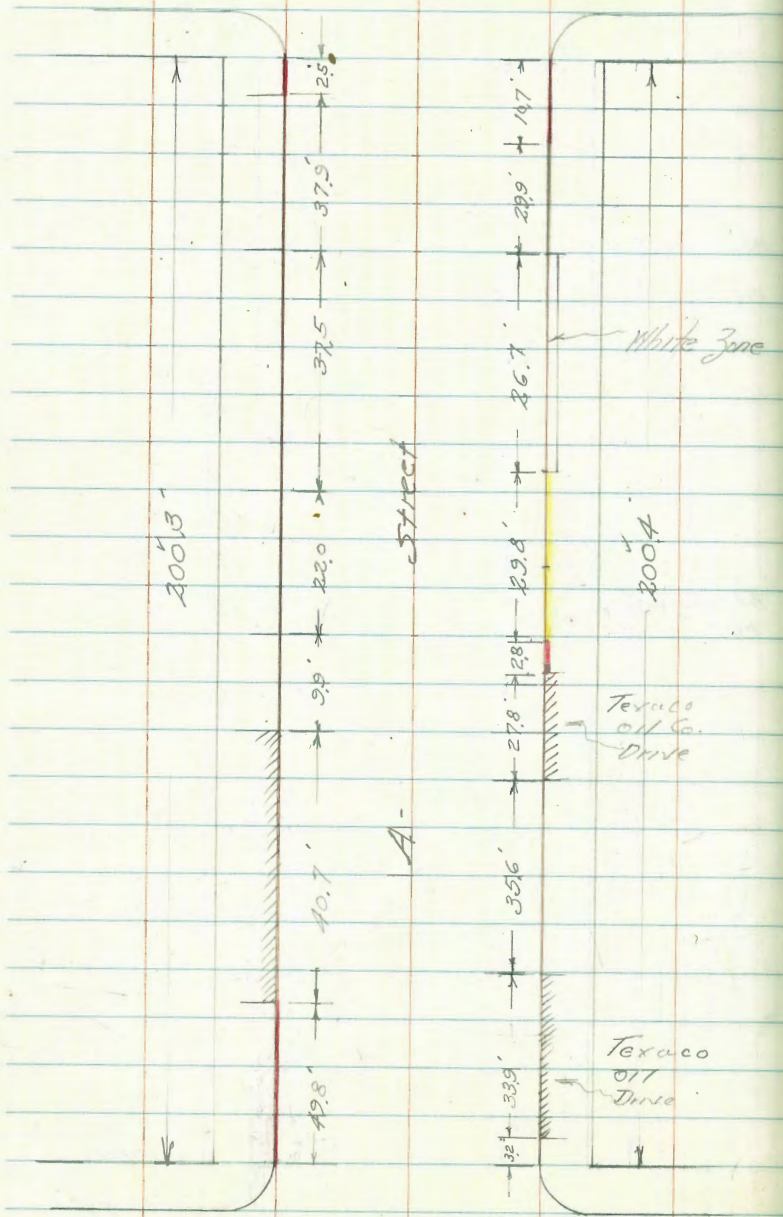
Surface Drain Inlet

2nd Ave

Ave

4TH

Ave

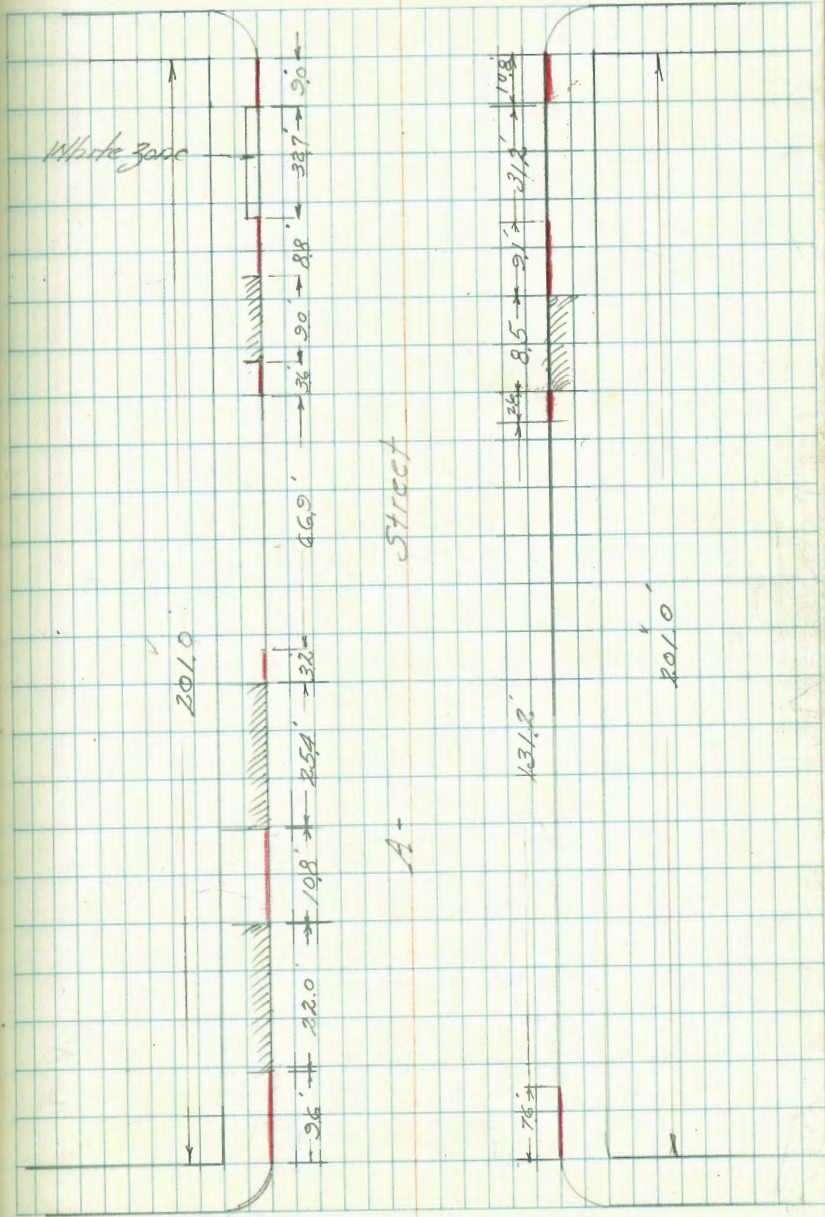


3RD

Ave

7TH

Ave. ²⁶



6TH

Ave

8TH

AVE.

This side Blank, no drives etc.

A - Street

124.5'

8.5' 20' 14.5' 30.7'

199.5'

AVE.

8TH

9TH

AVE.²⁷

Nothing on this side 209.0'

A - Street

82.5'

17.8'

99.7'

200.0'

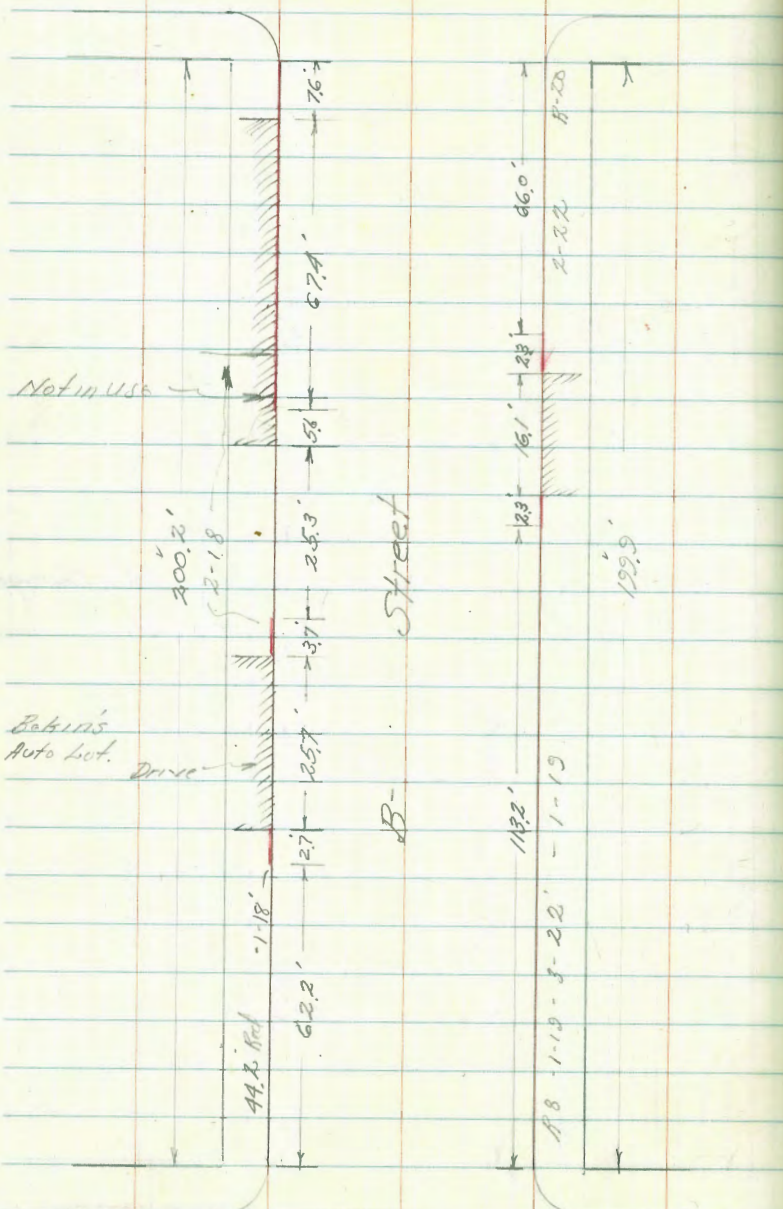
16.0' Garage Drive

AVE.

8TH

India

Street

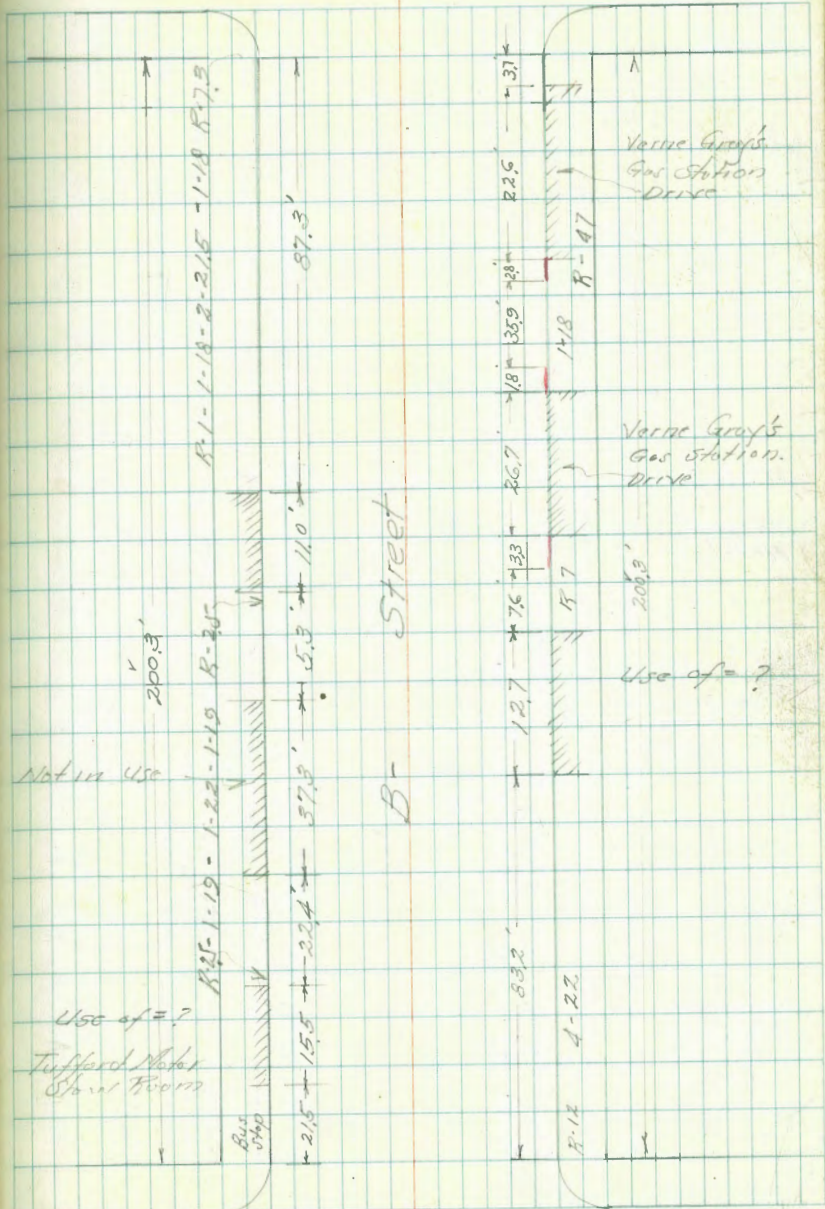


Kettner

Blvd.

1st

28
AVE.



Front

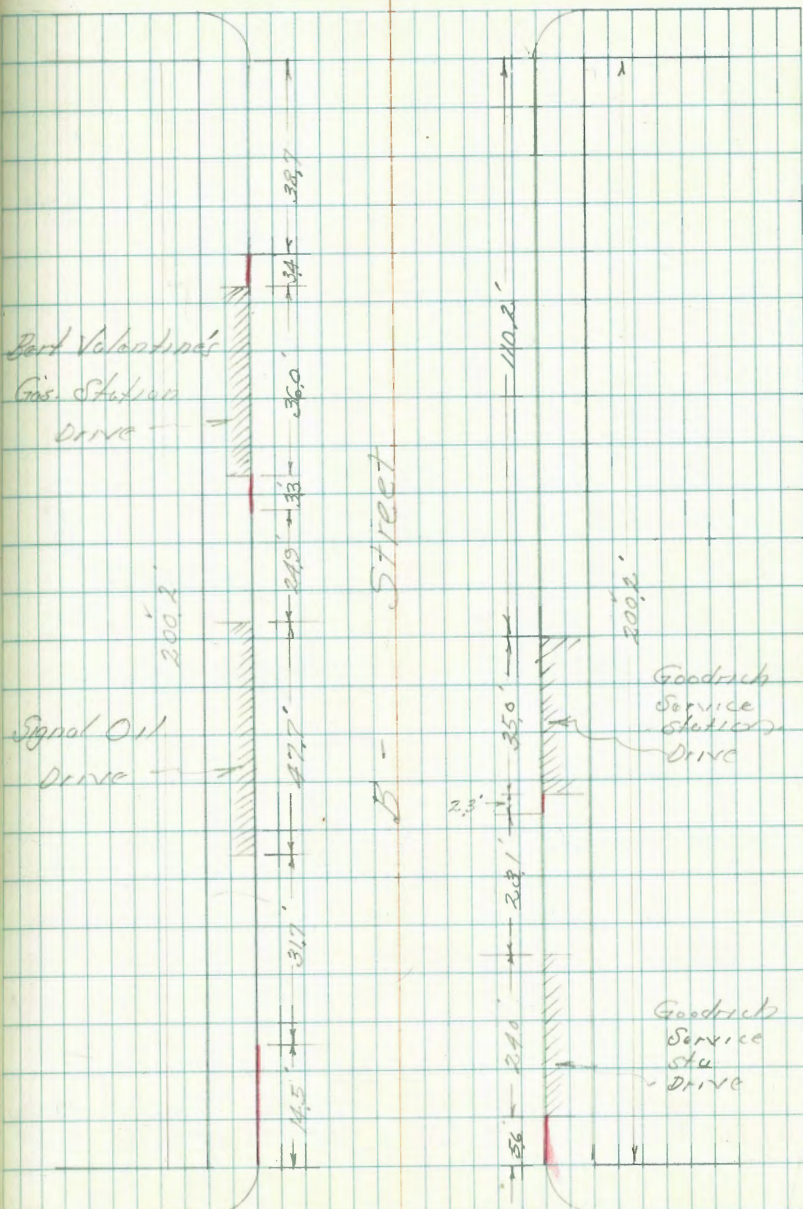
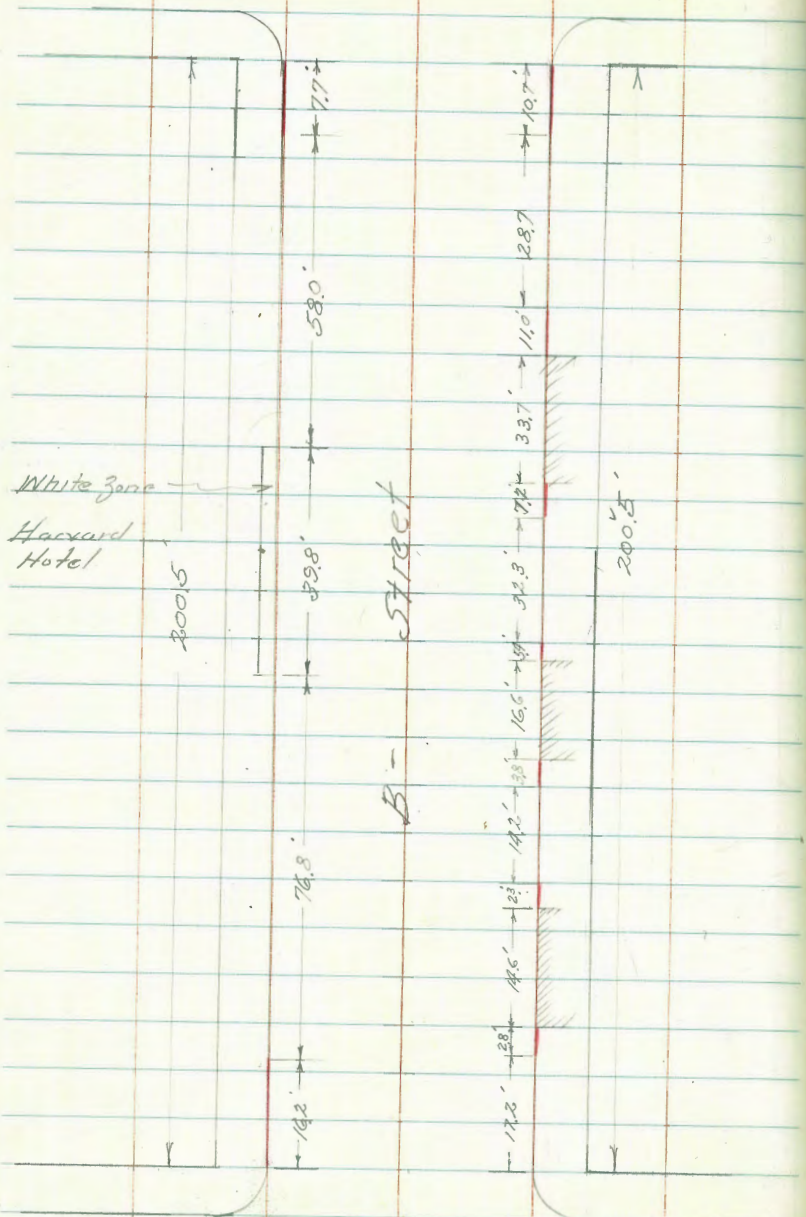
Street

2ND

AVE.

10TH

AVE. 29



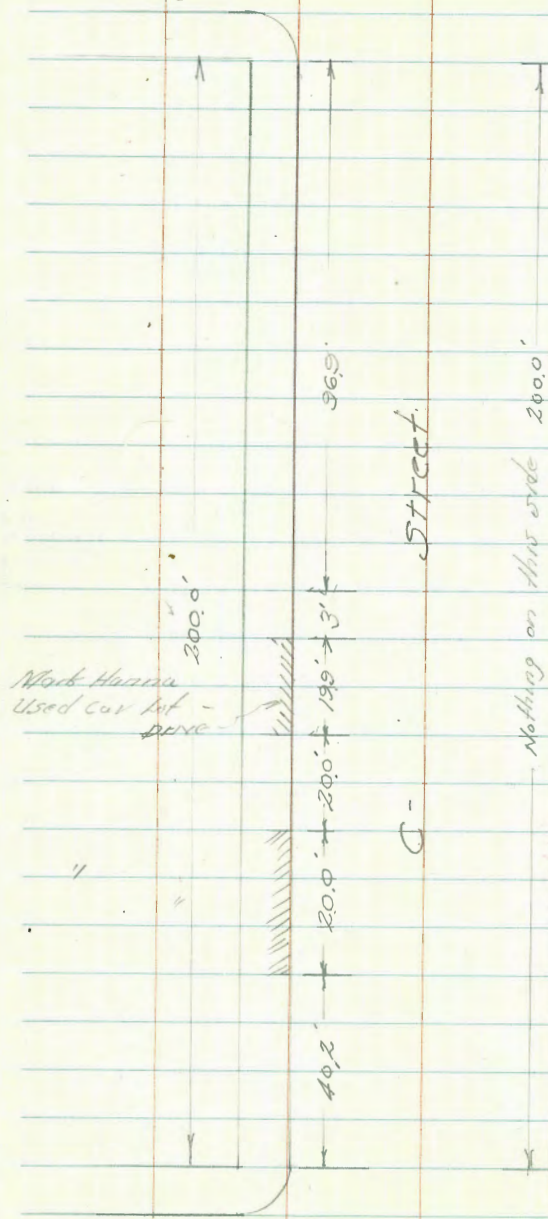
1ST

AVE.

9TH

AVE.

India

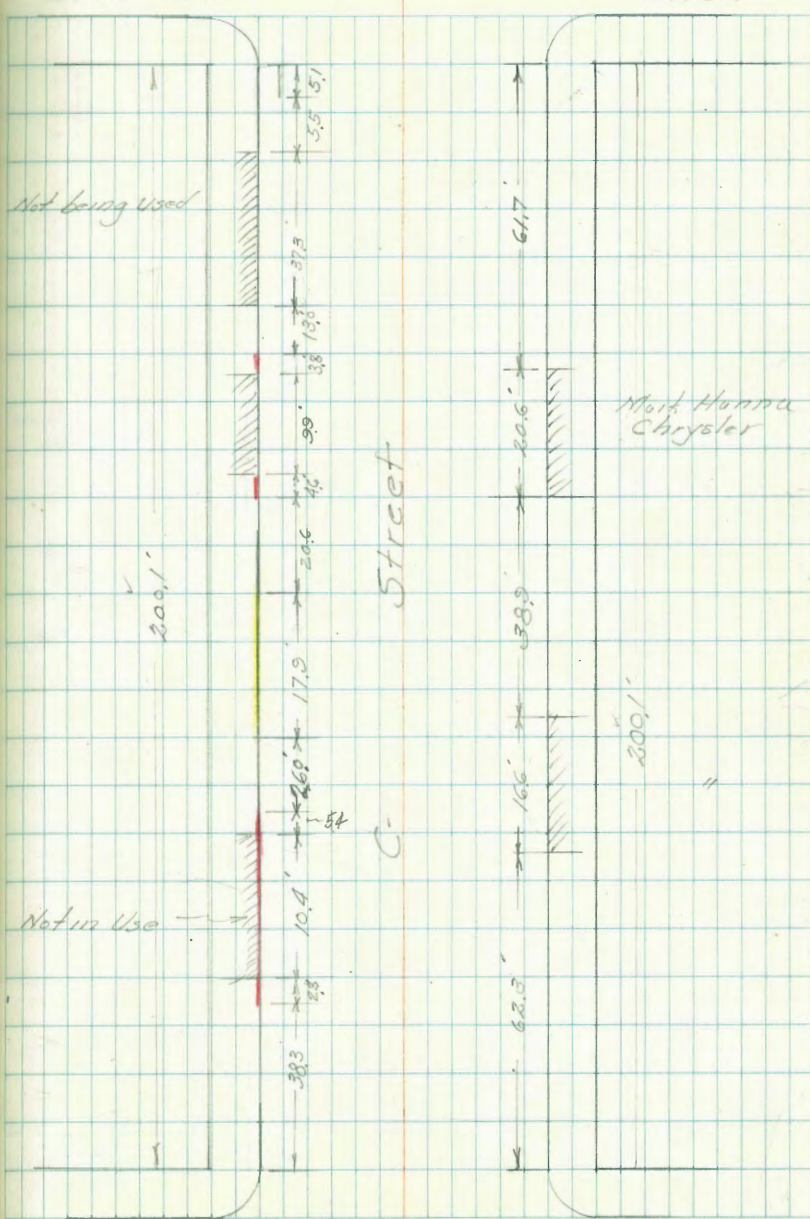


Kettner

Street

Columbia

39
Street



India

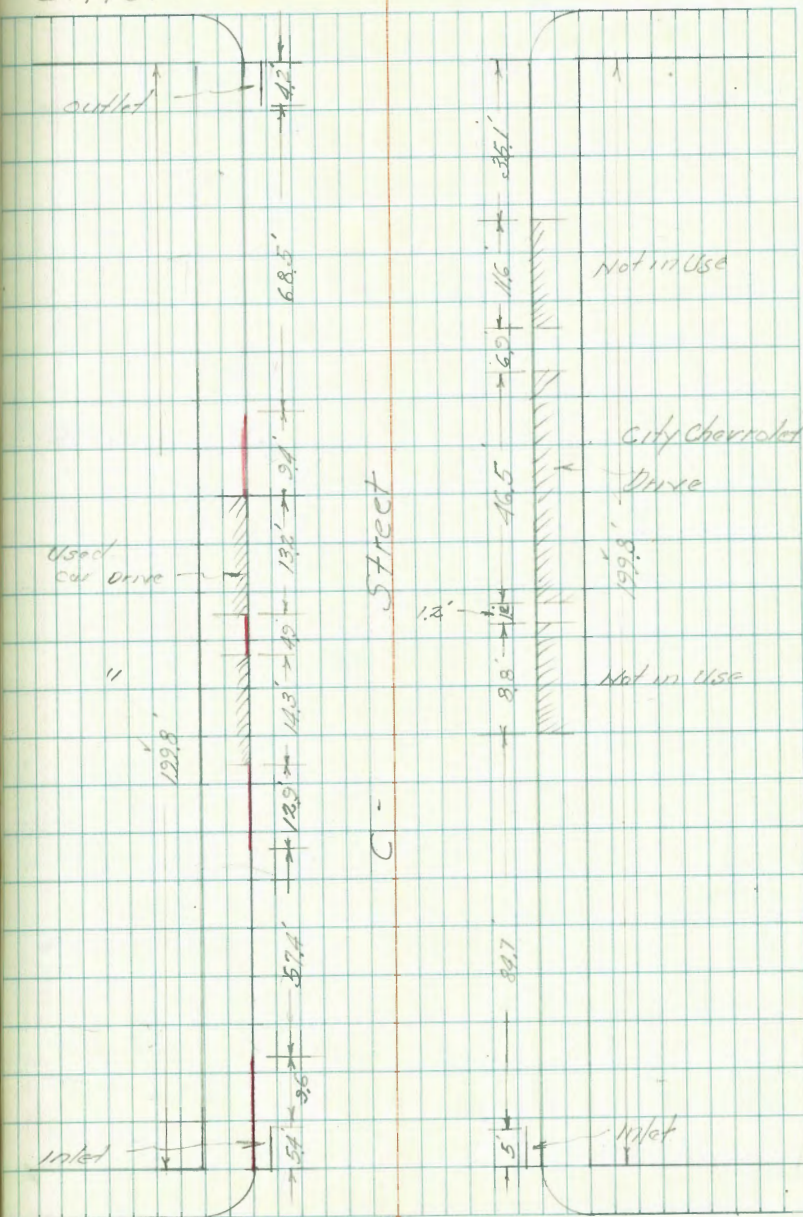
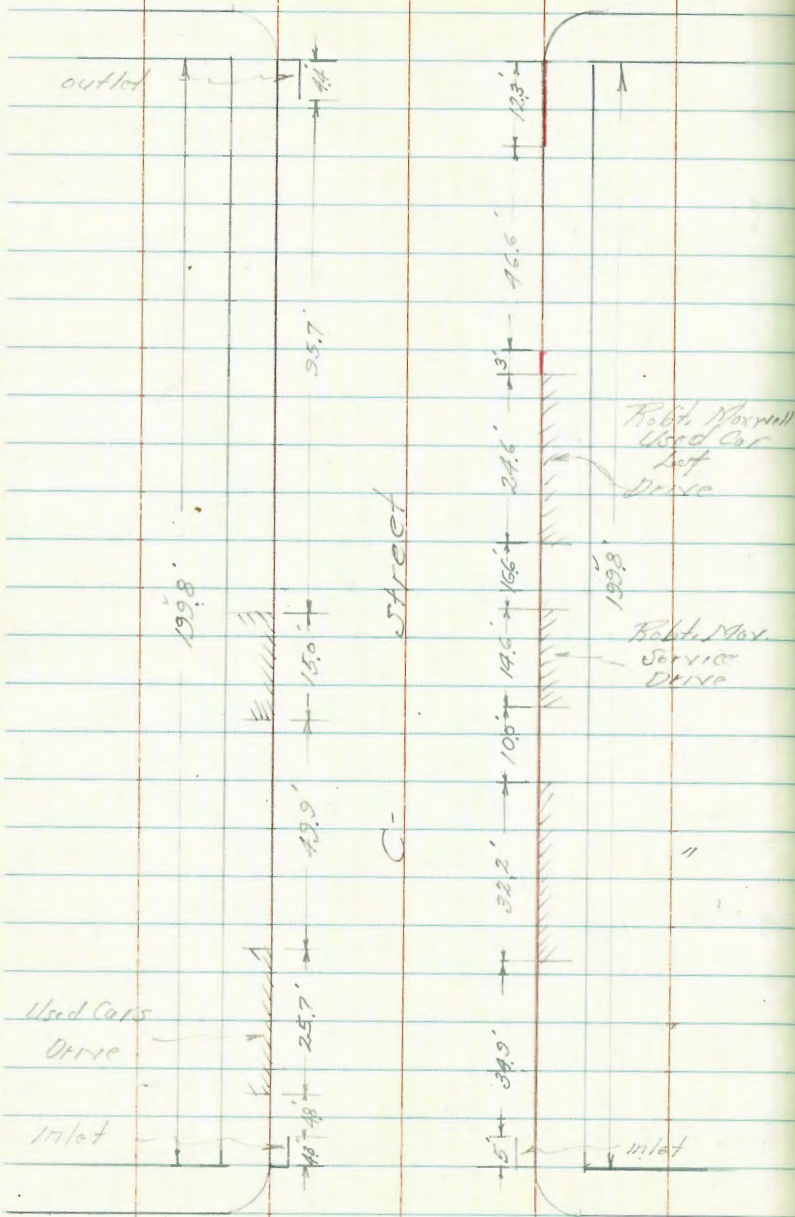
Street

State

Street

Union

Street



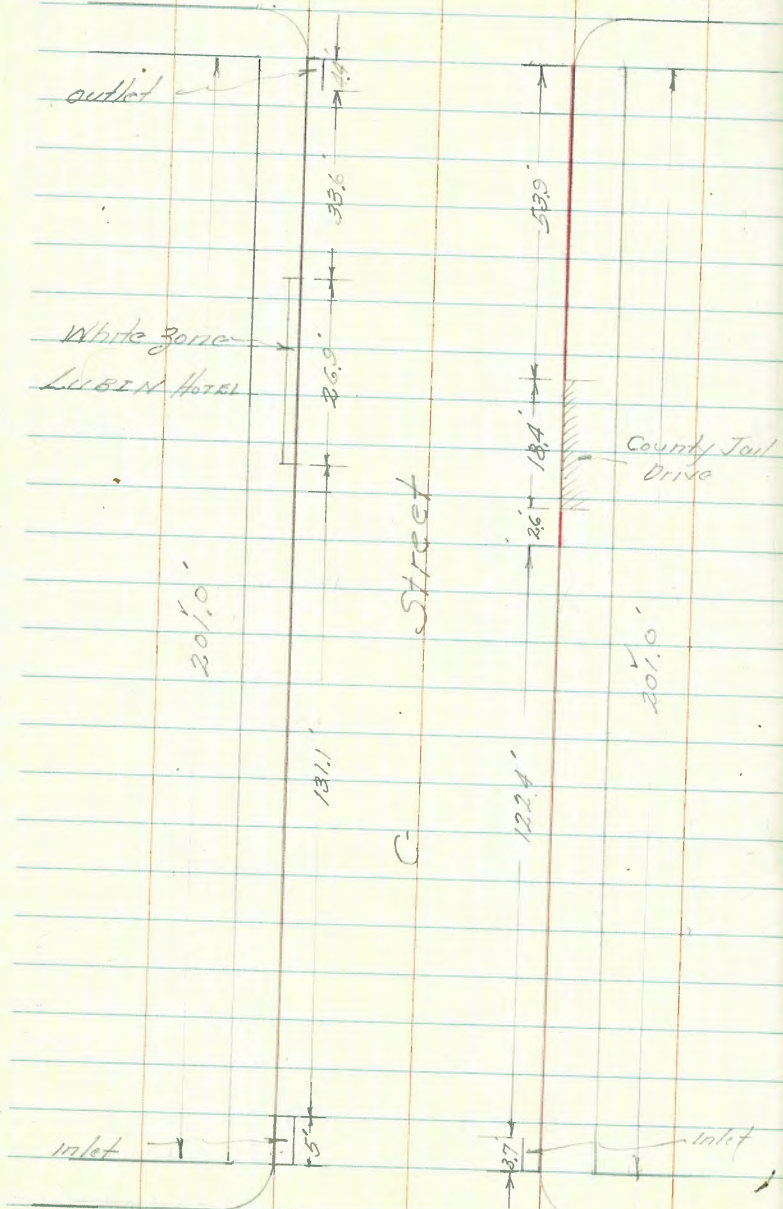
Columbia

Street

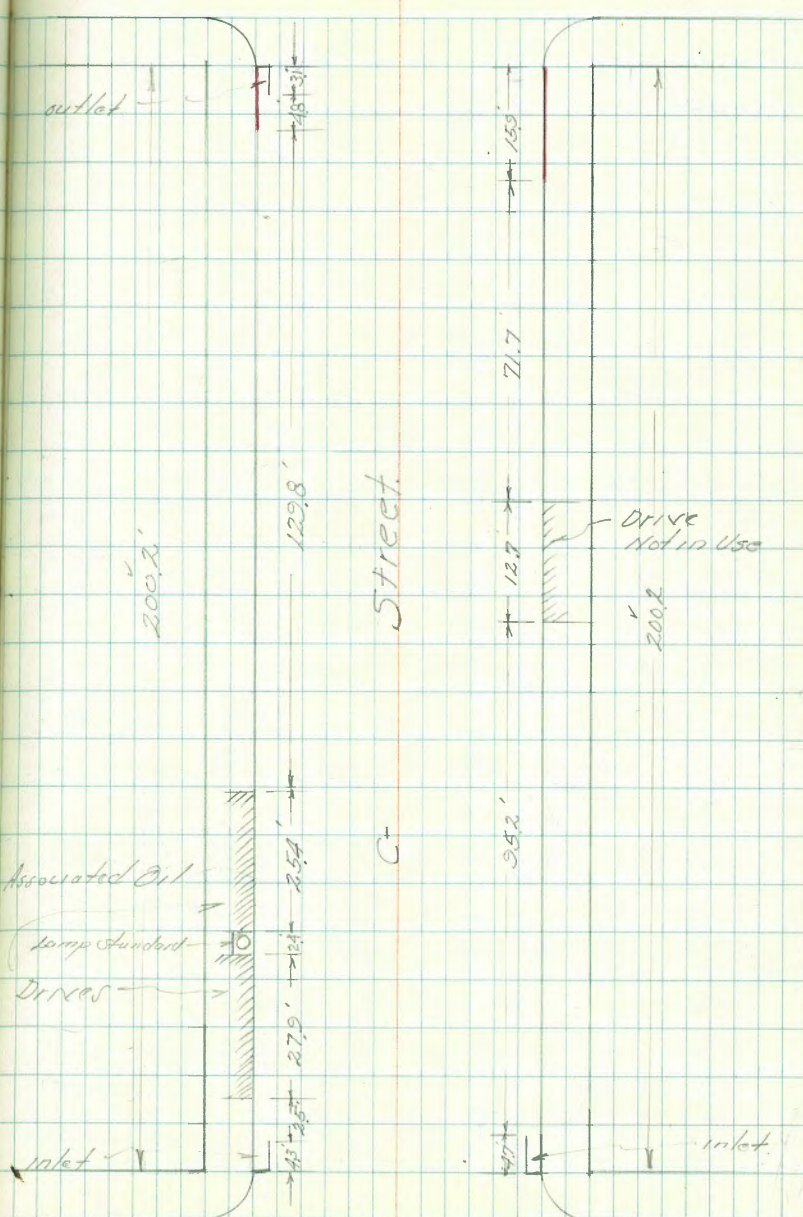
State

Street

Front Street

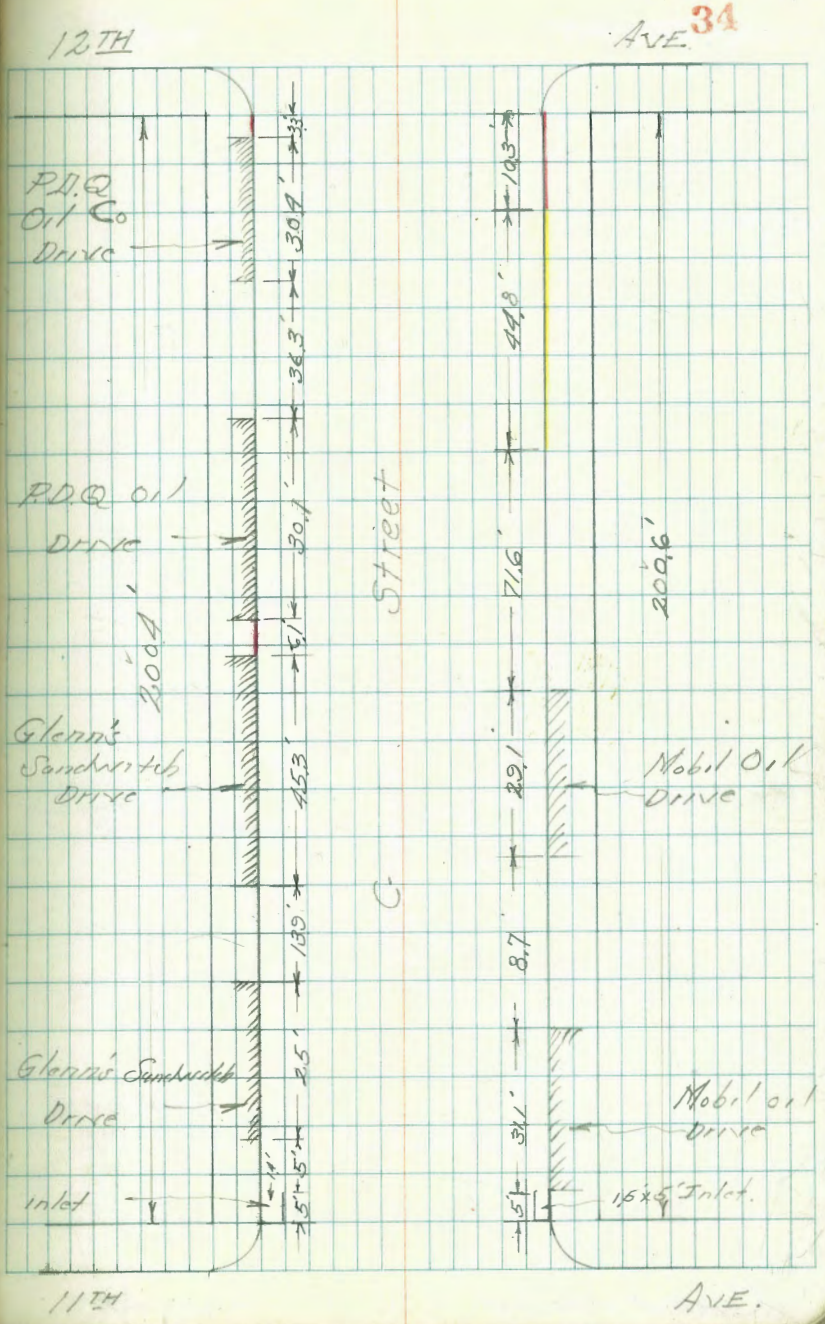
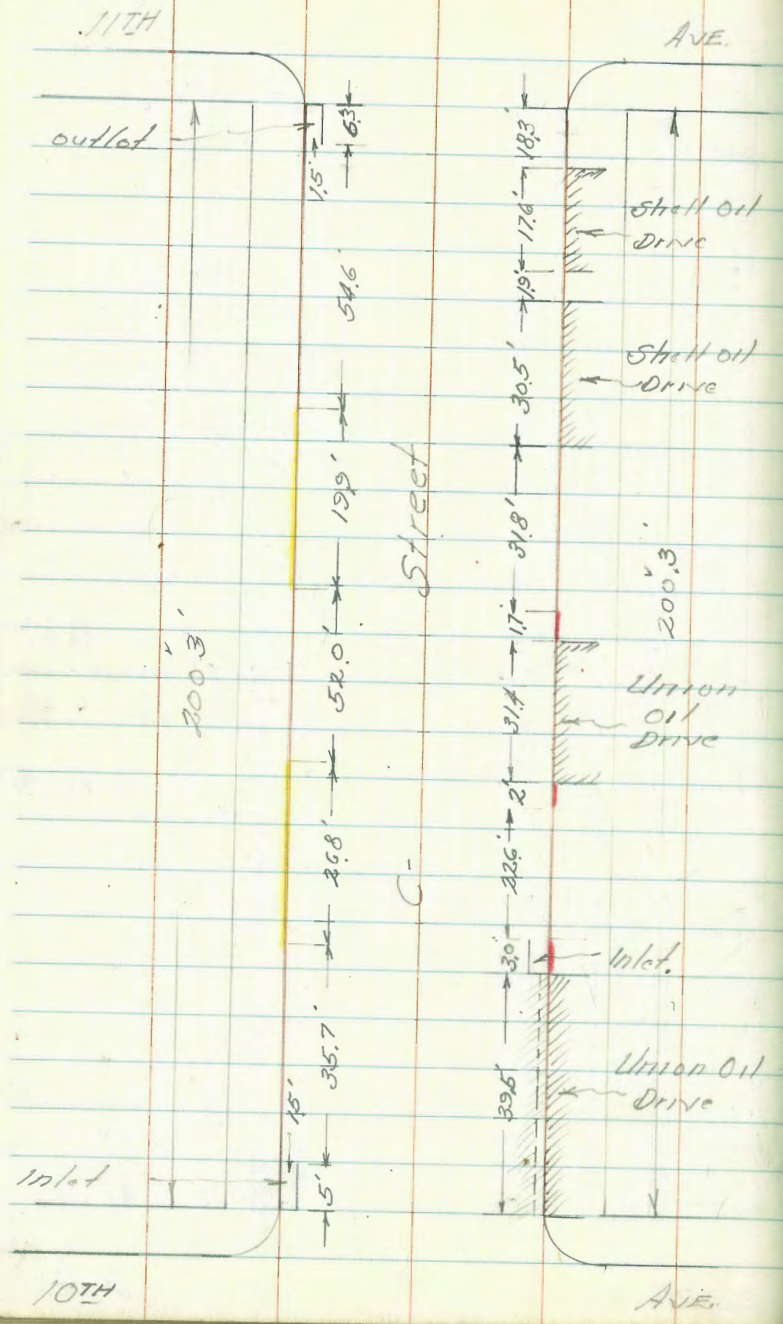


1st Ave



Union St

Front Street

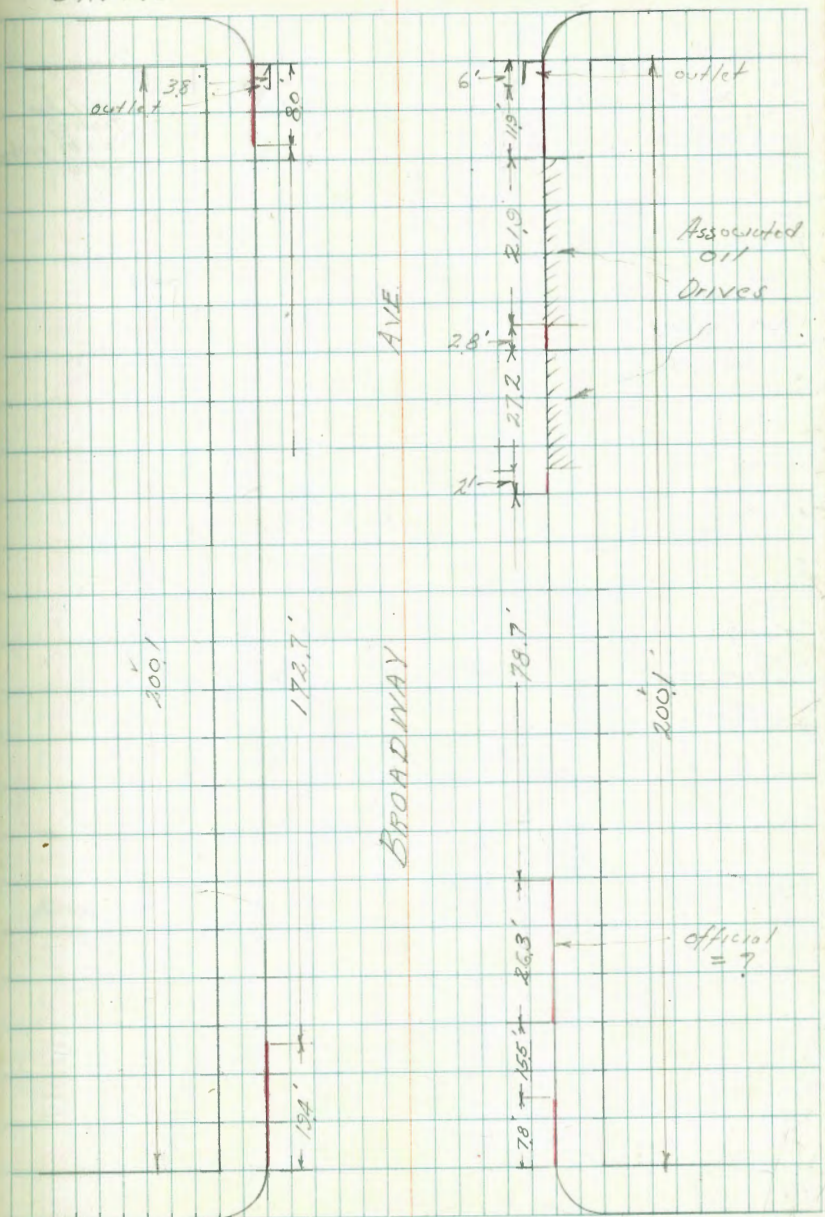
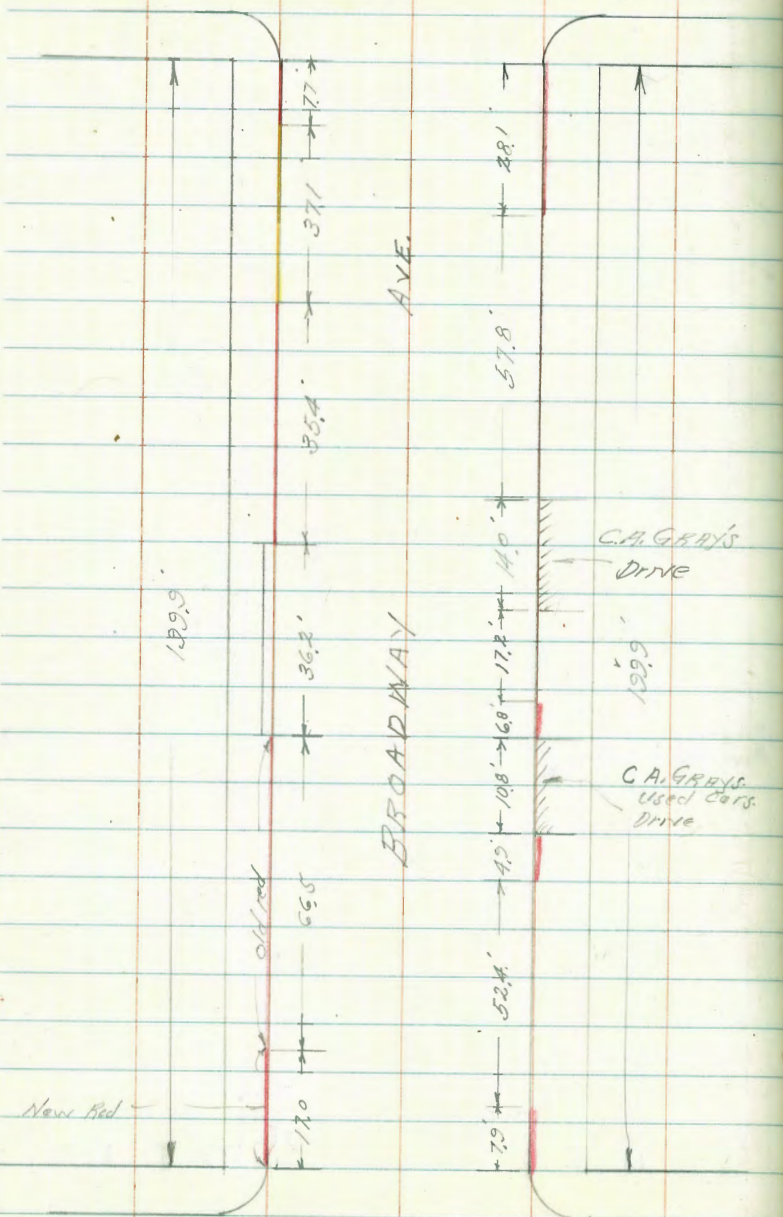


COLUMBIA

STREET.

STATE

36
STREET.



INDIA

ST.

COLUMBIA

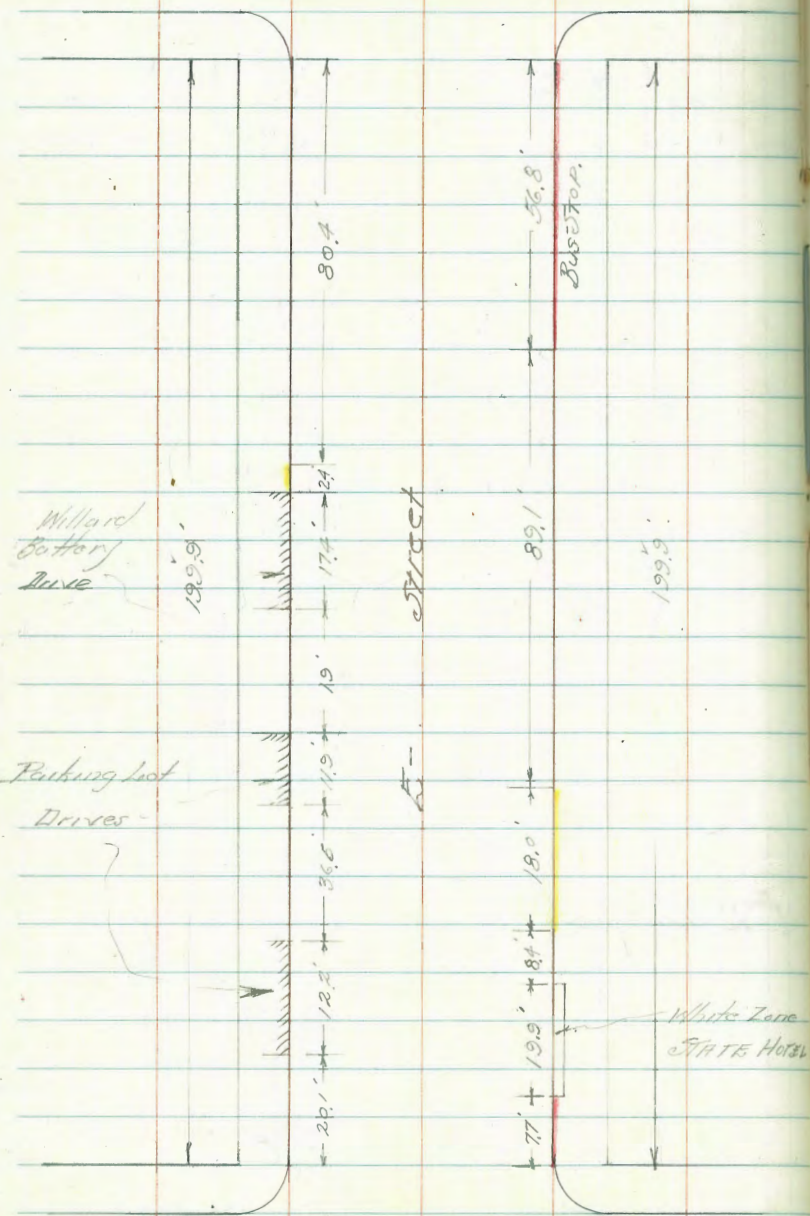
ST.

UNION

STREET

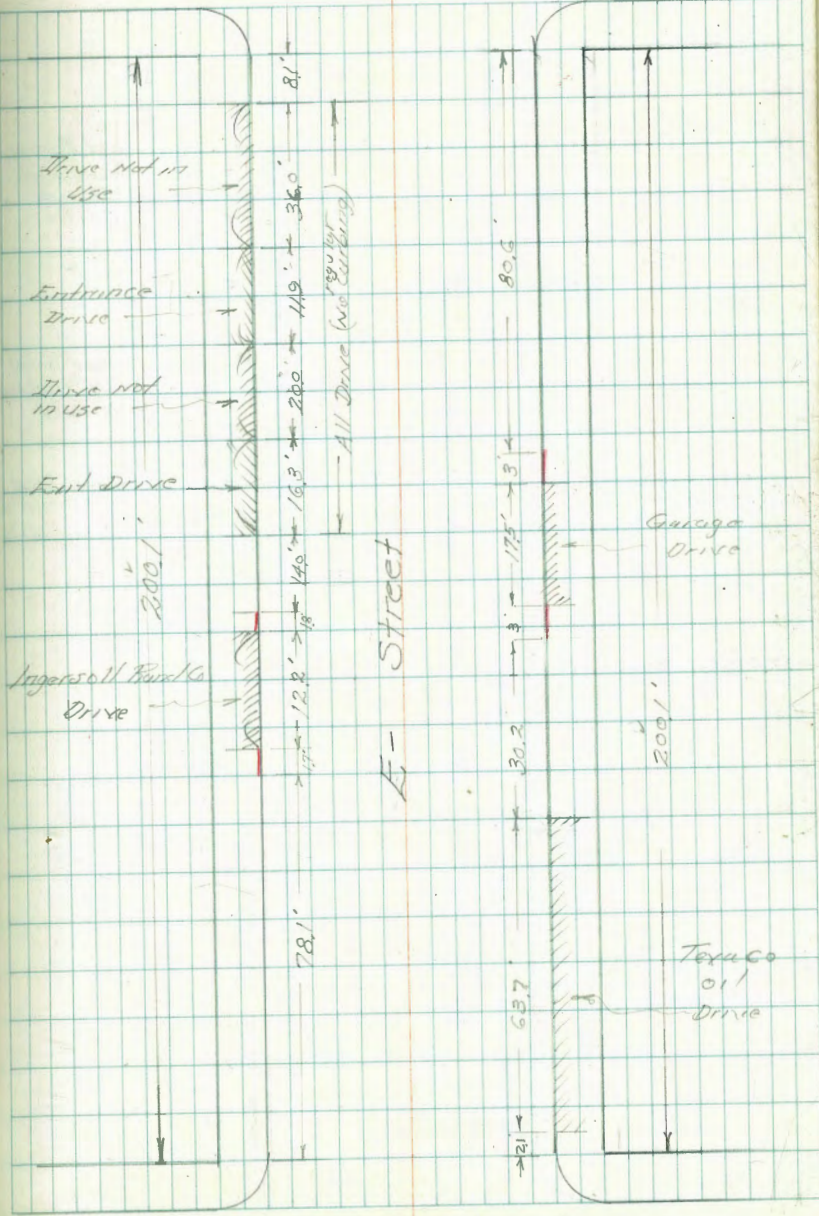
FRONT

38
ST.



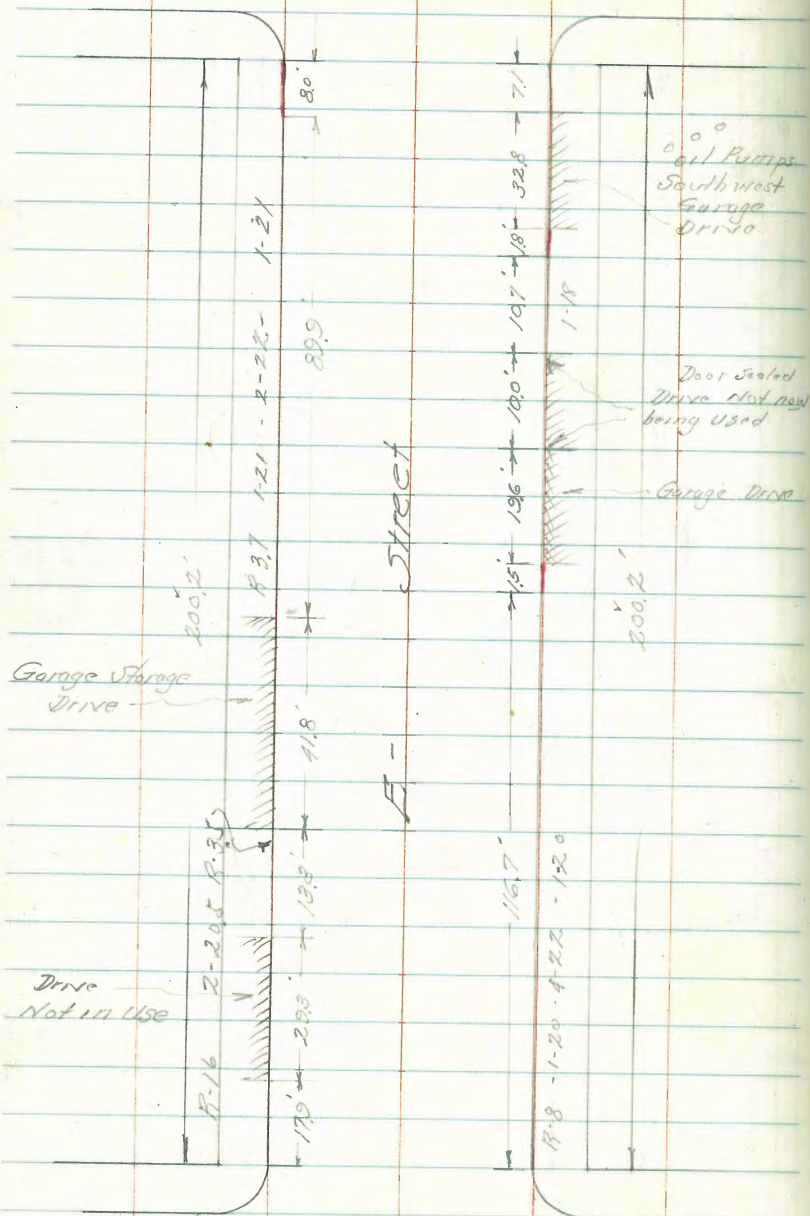
STATE

ST.



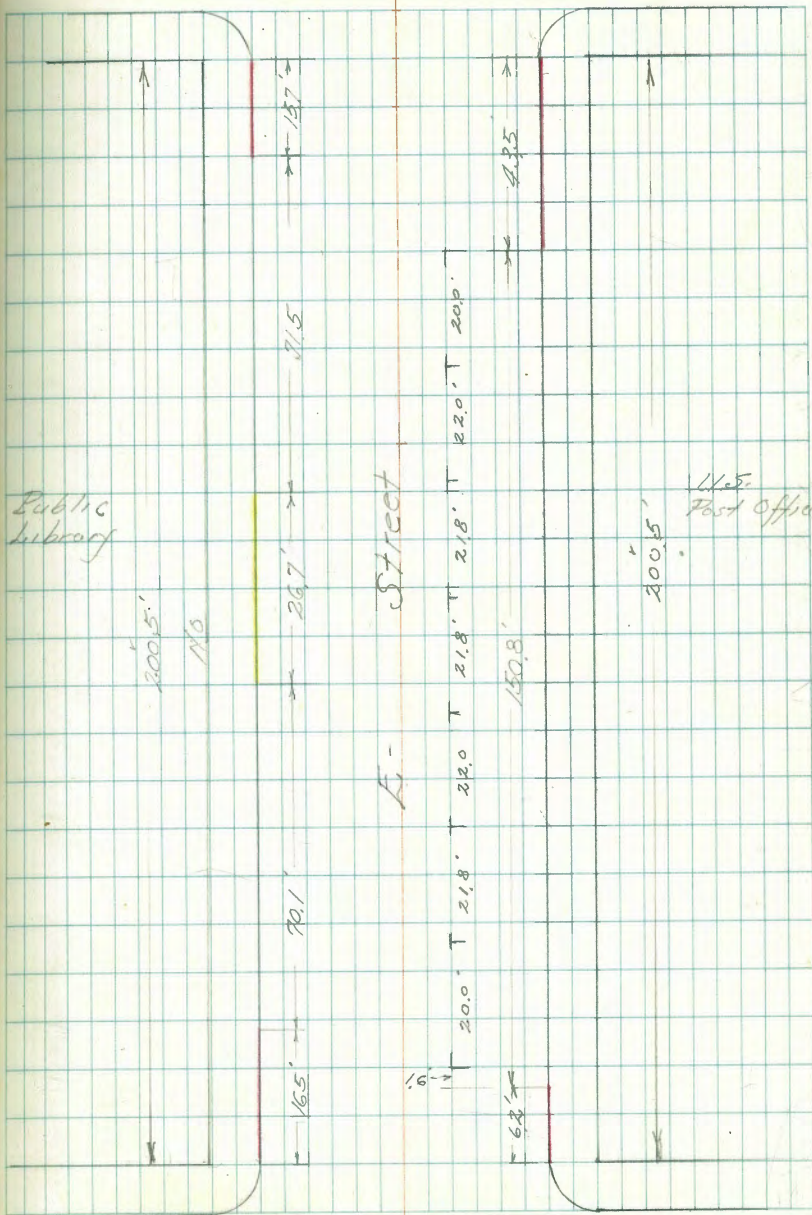
UNION

ST.



FRONT

ST.

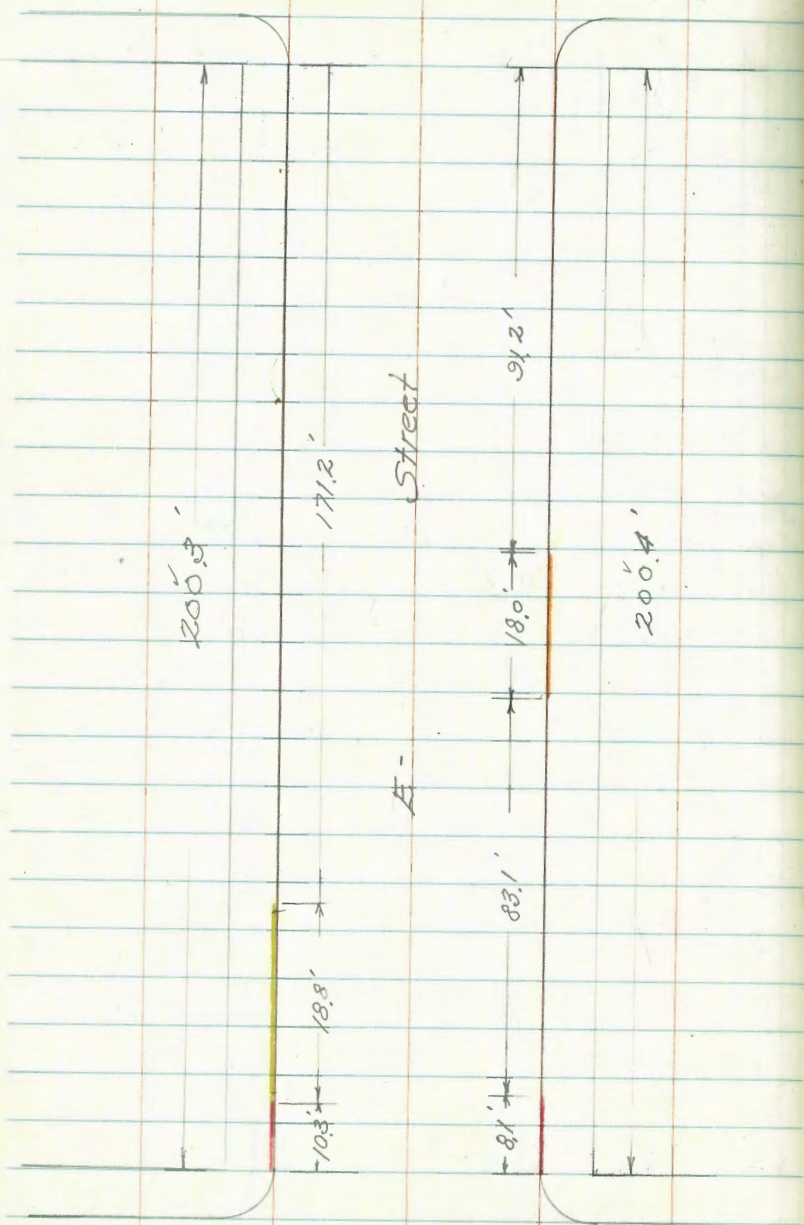


8TH

Ave.

10TH

Ave.



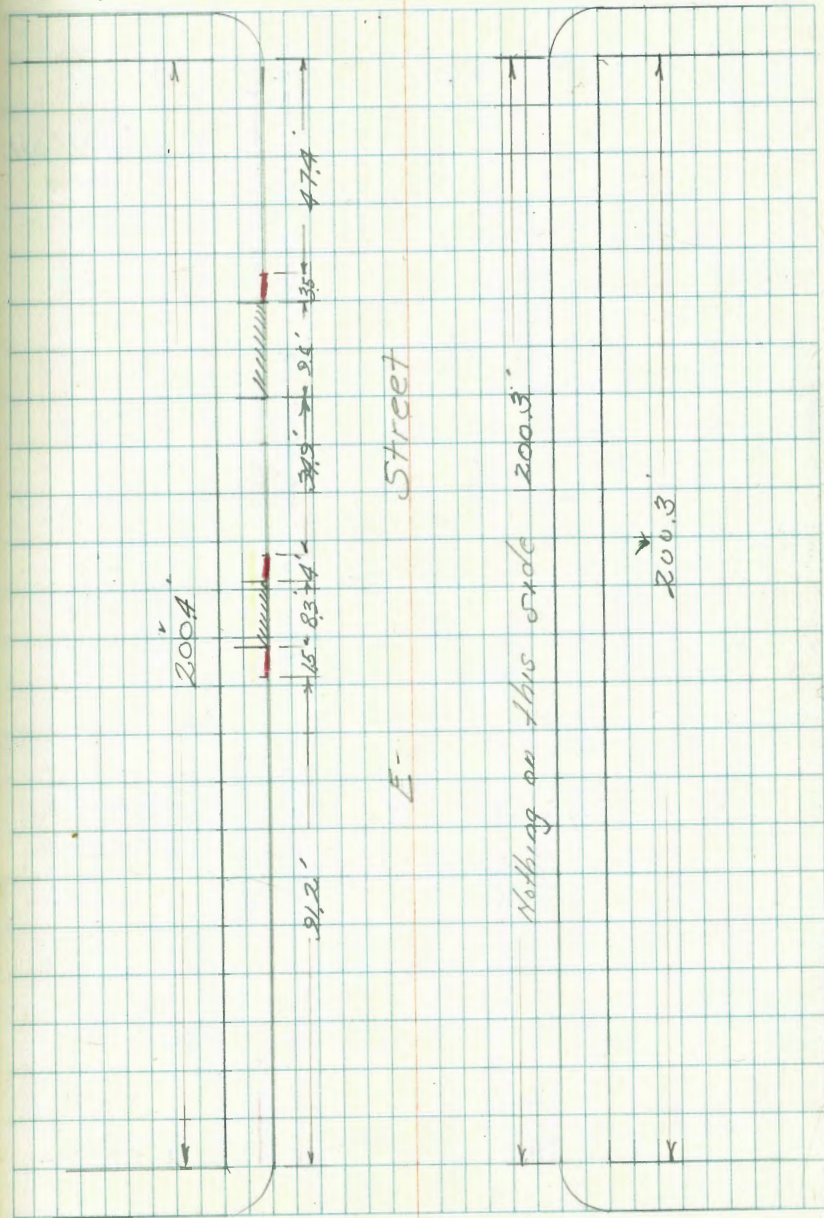
9TH

Ave.

40

Ave

11TH

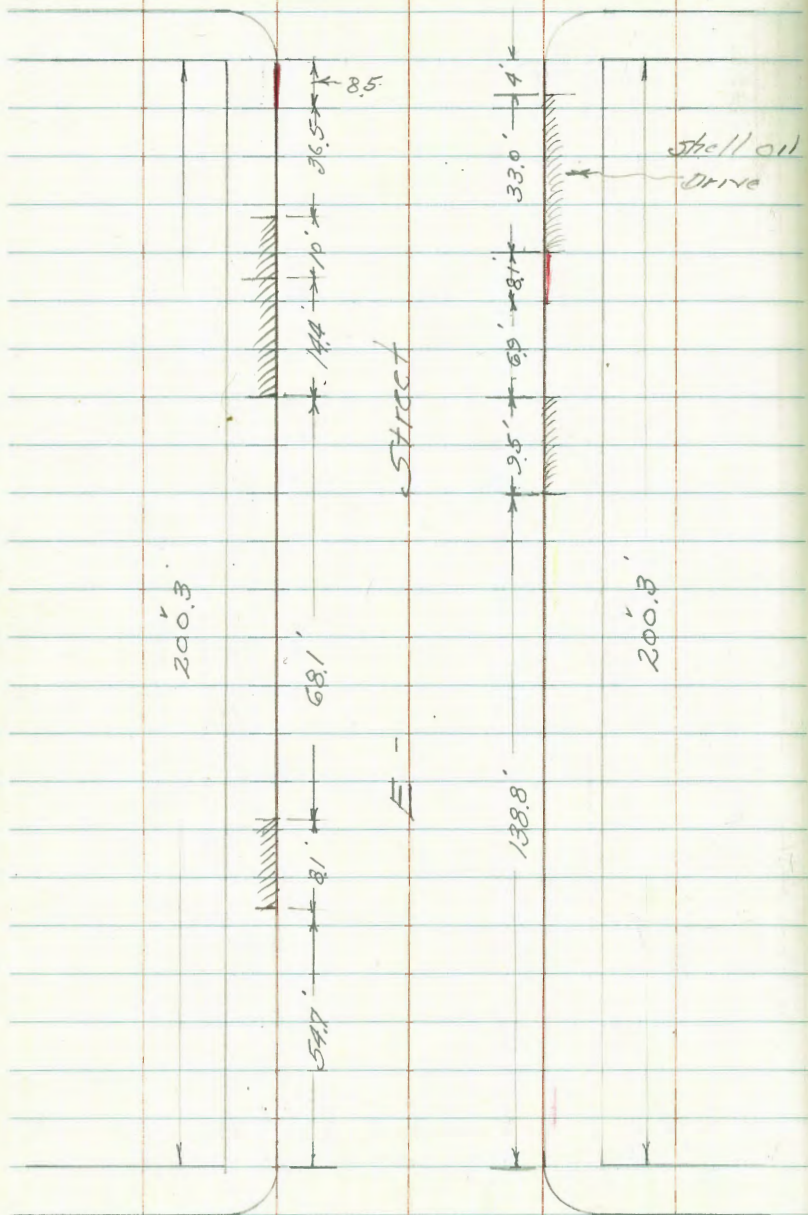


10TH

Ave.

12TH

AVE.

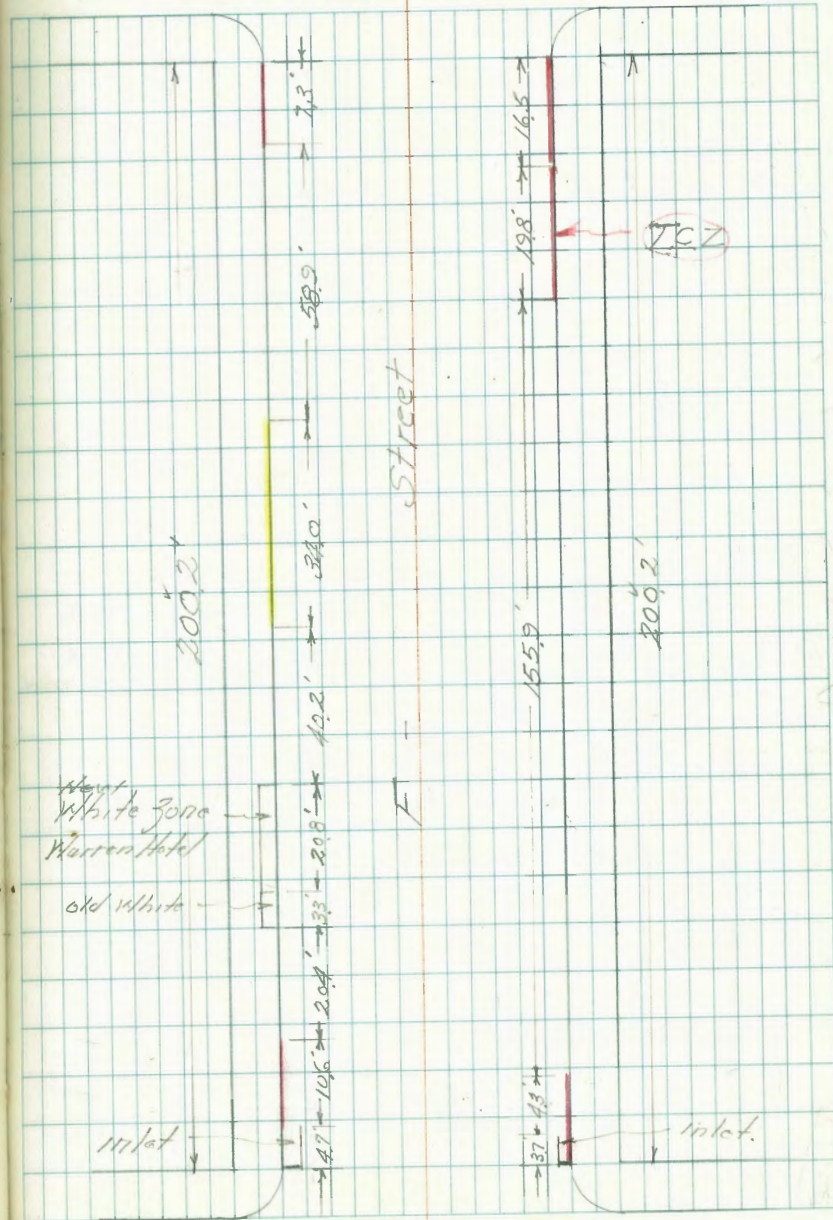


11TH

AVE.

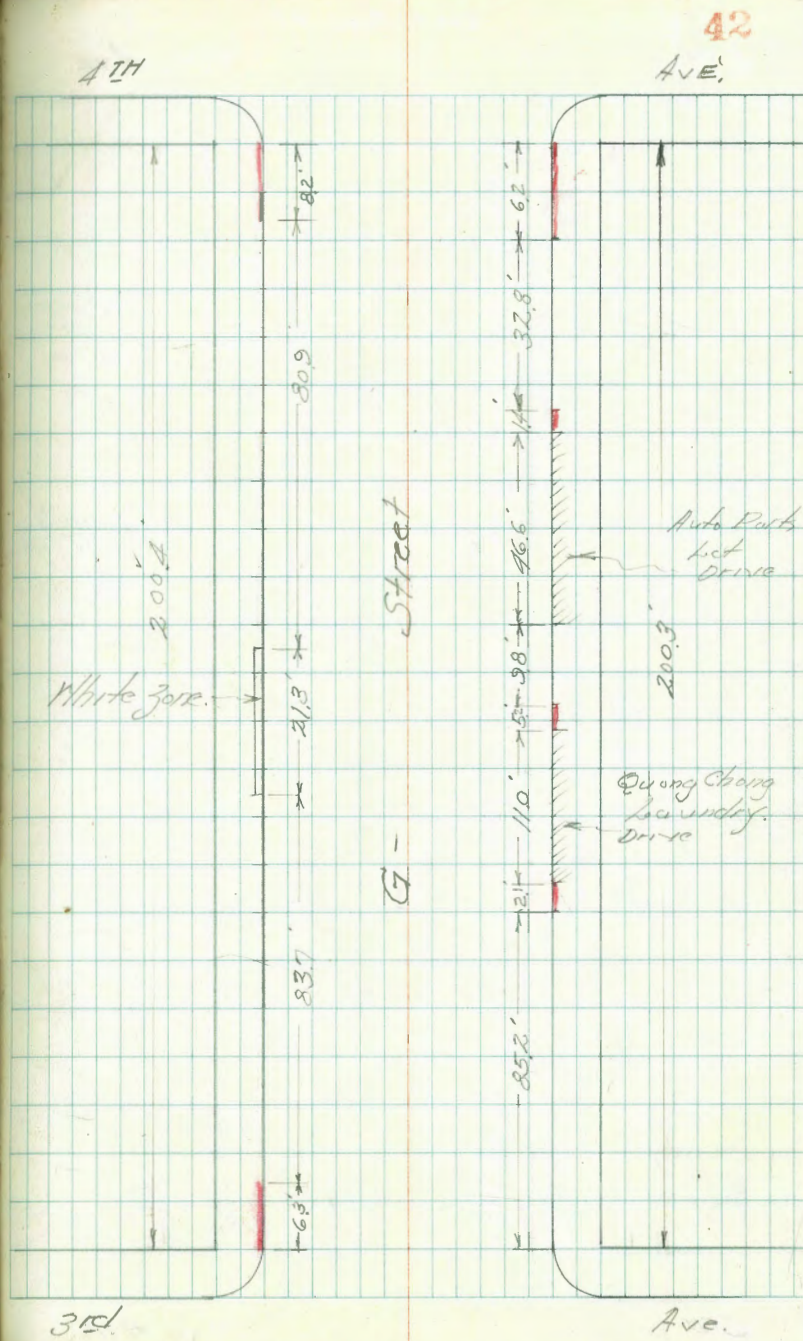
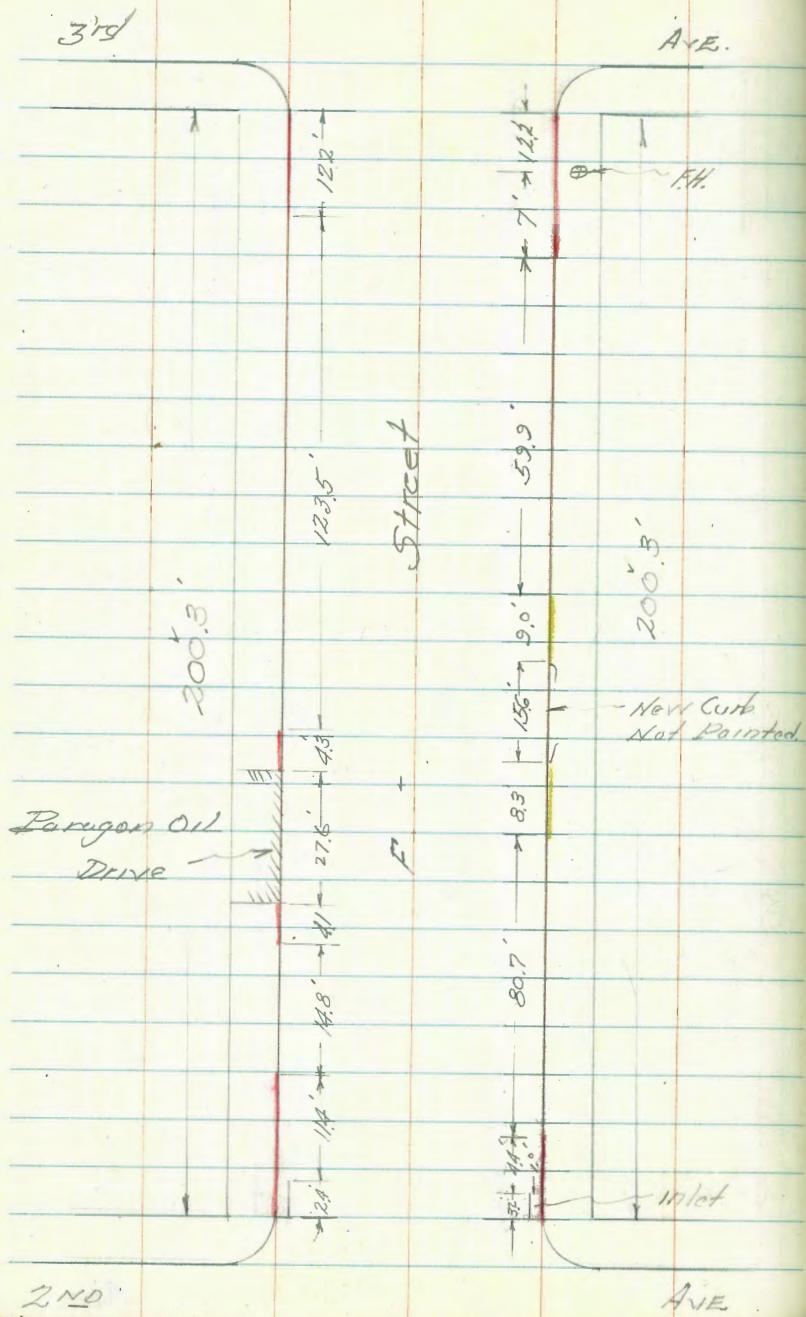
2ND

41
AVE.



1ST

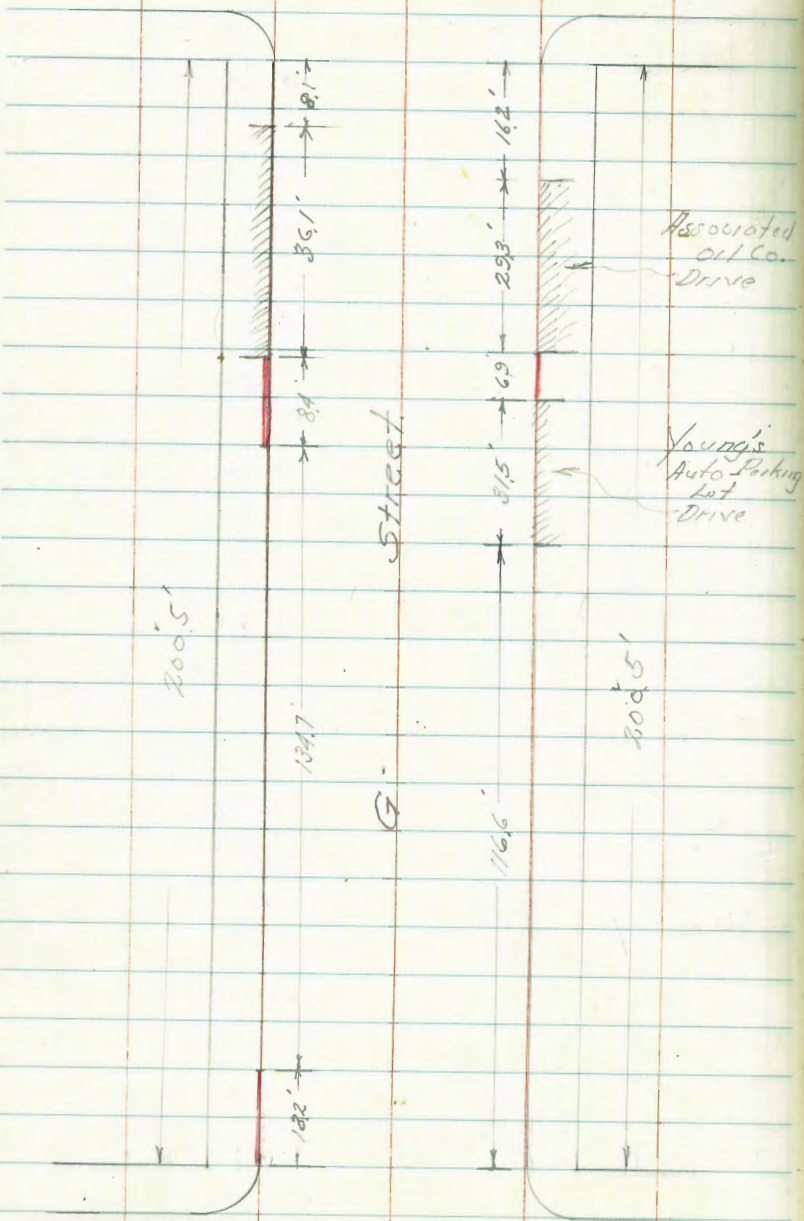
AVE.



6TH

Cont Page 47

AVE.



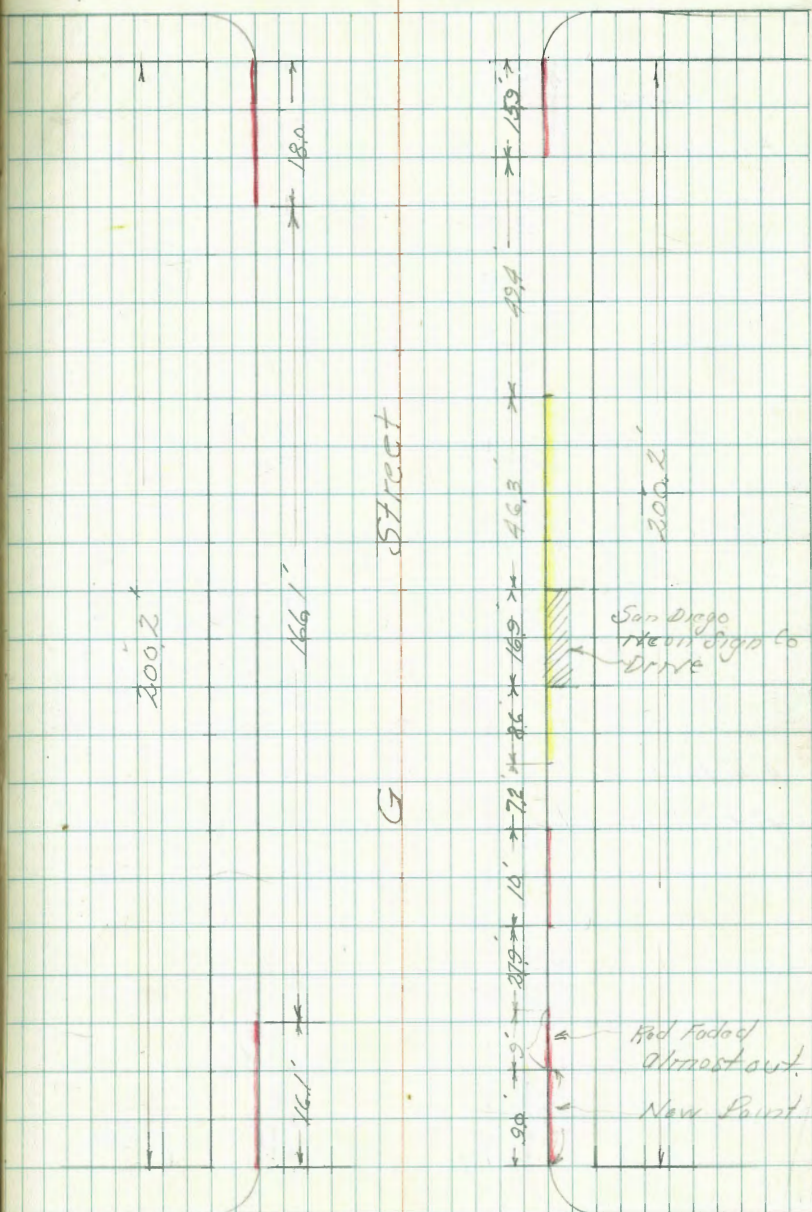
5TH

AVE.

43

AVE.

7TH 5TH



6TH 4TH

AVE.

Cont. P. 47
on Pt. Page

6TH

AVE.

12TH

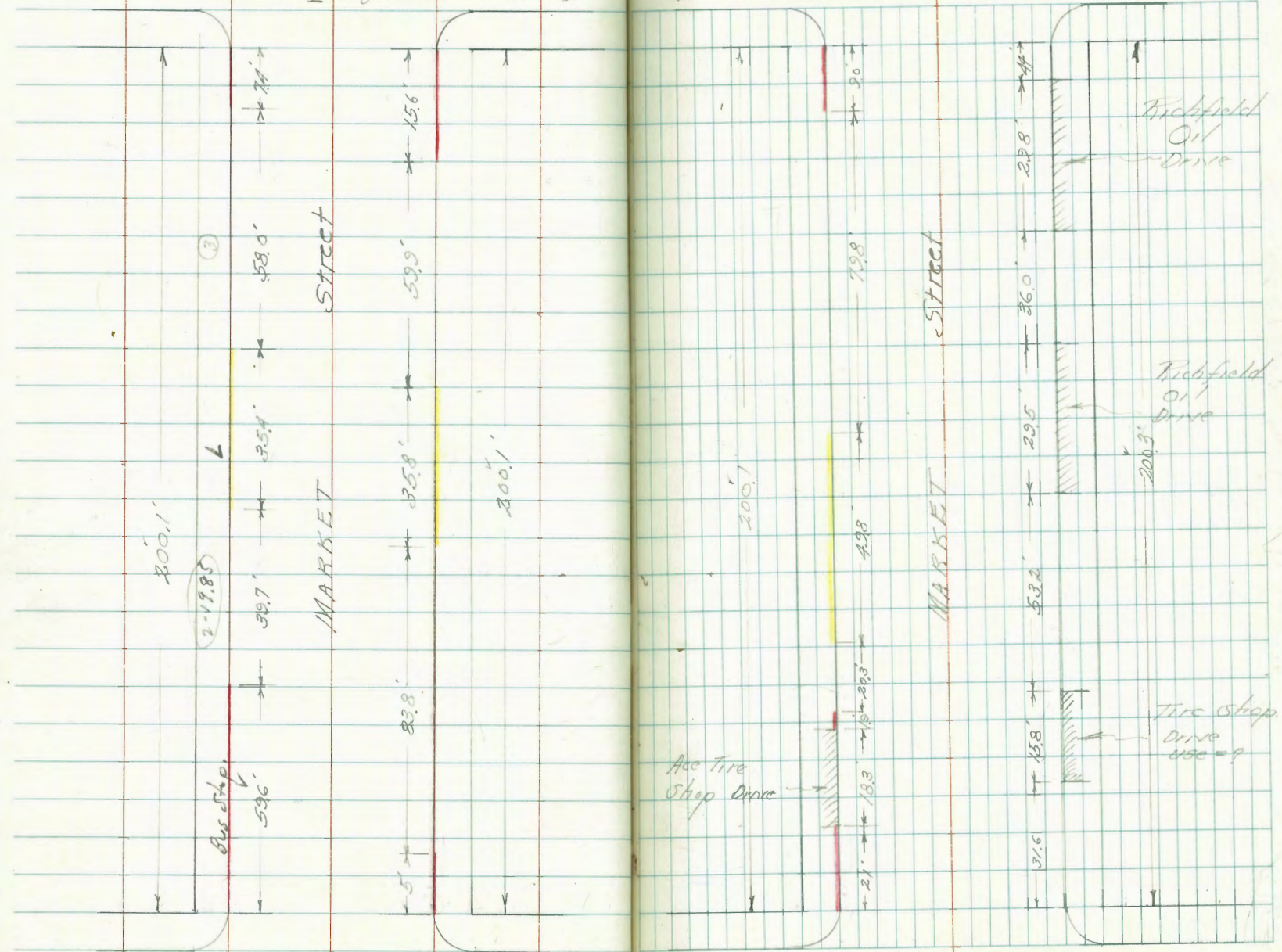
AVE.

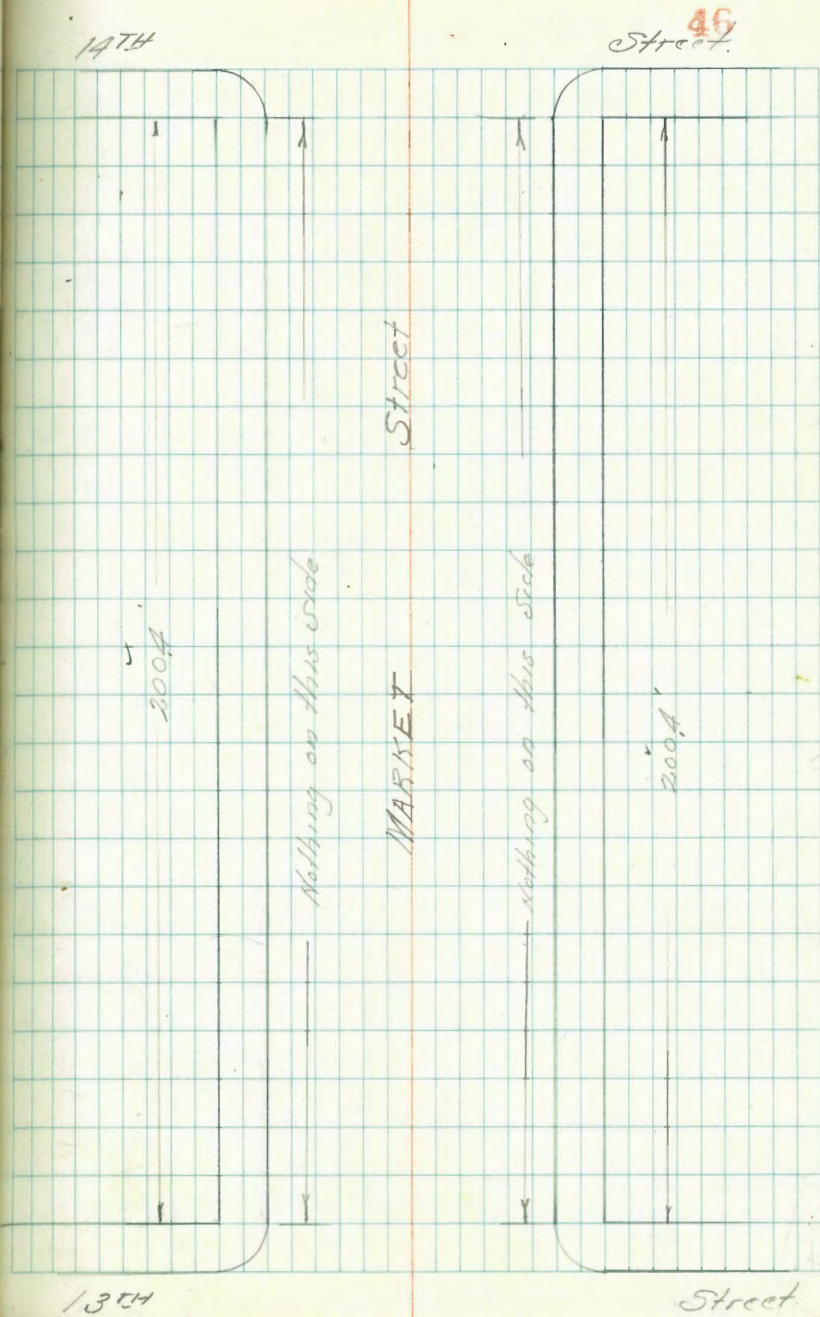
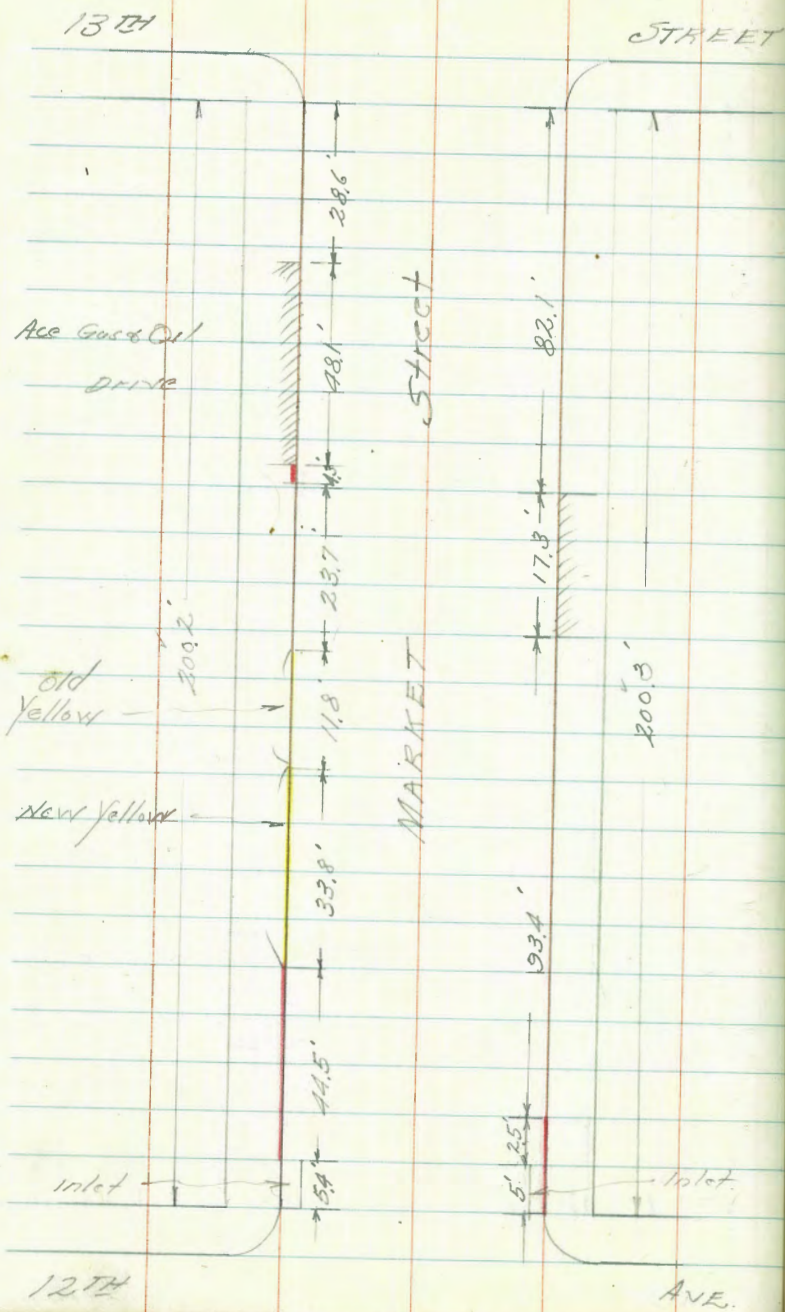
5TH

AVE.

11TH

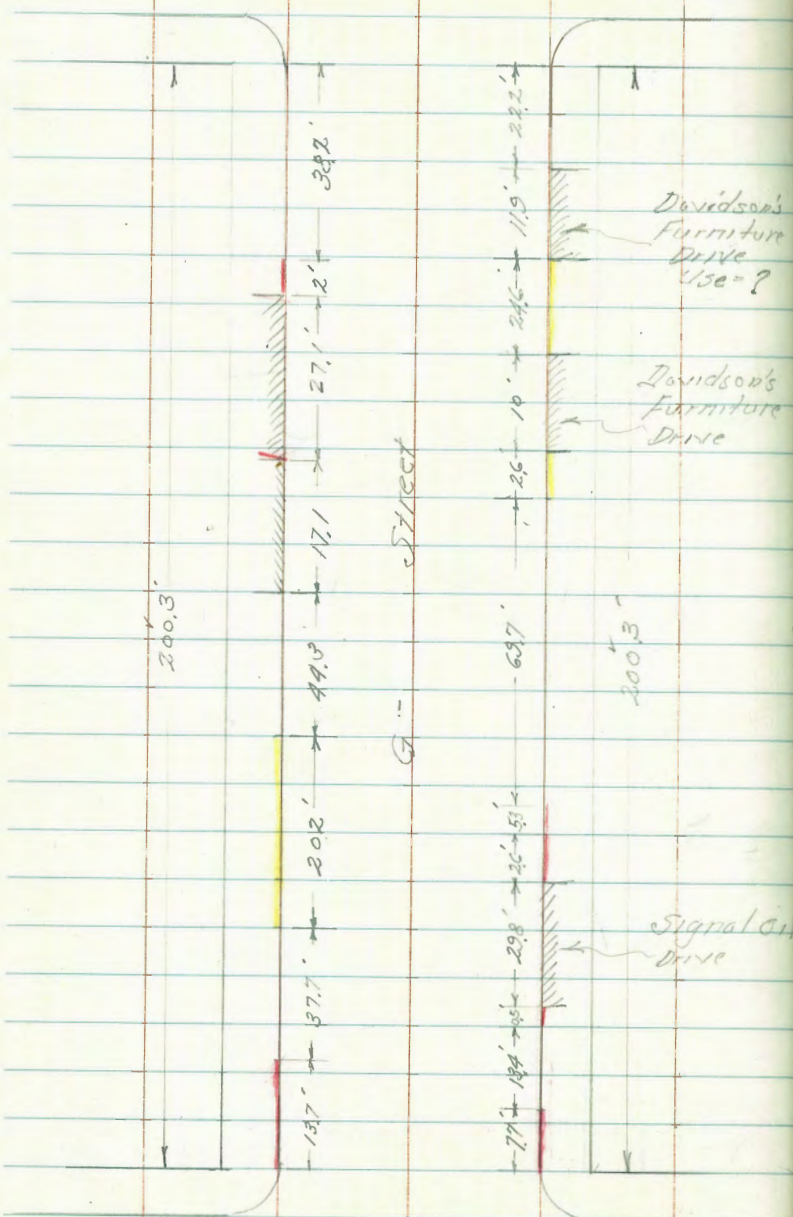
AVE.





7th

Ave



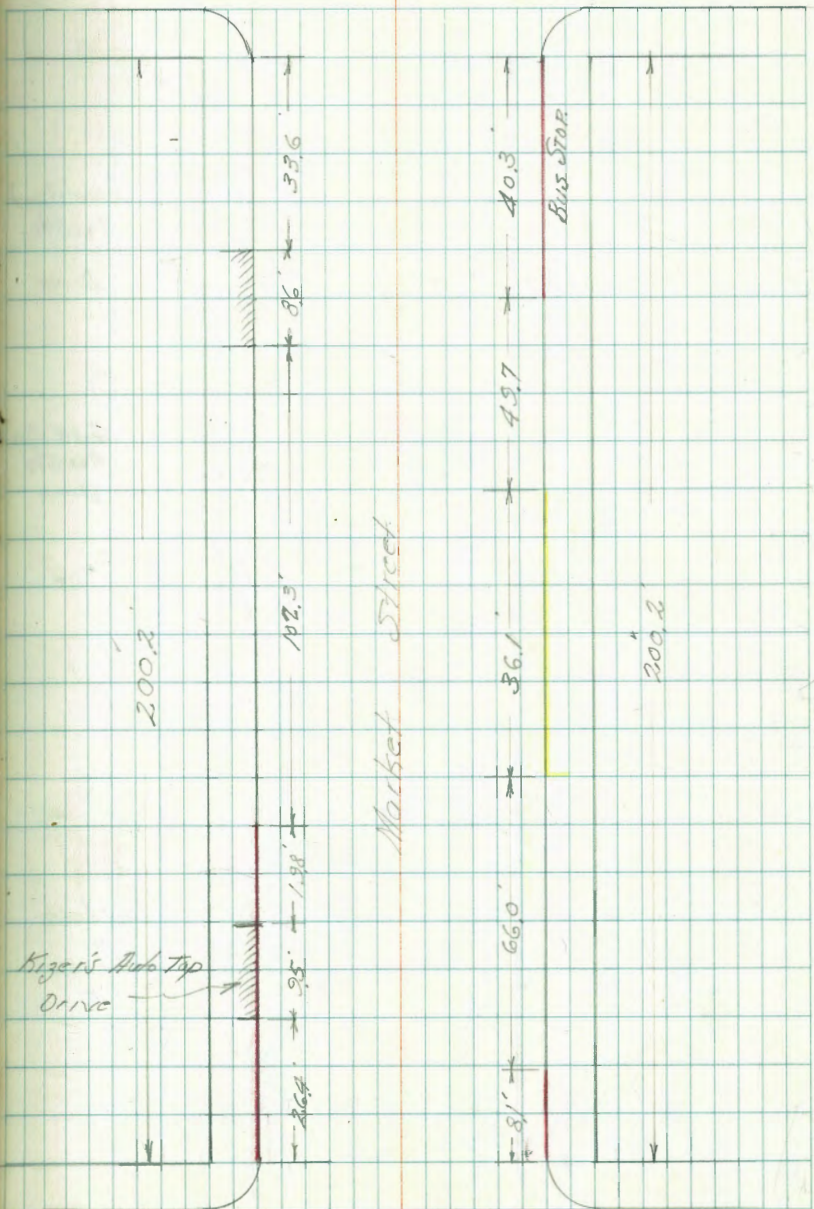
6TH

Cont. from Page 43

Ave

7th

Ave. 47



6TH

Cont from Left Page 45

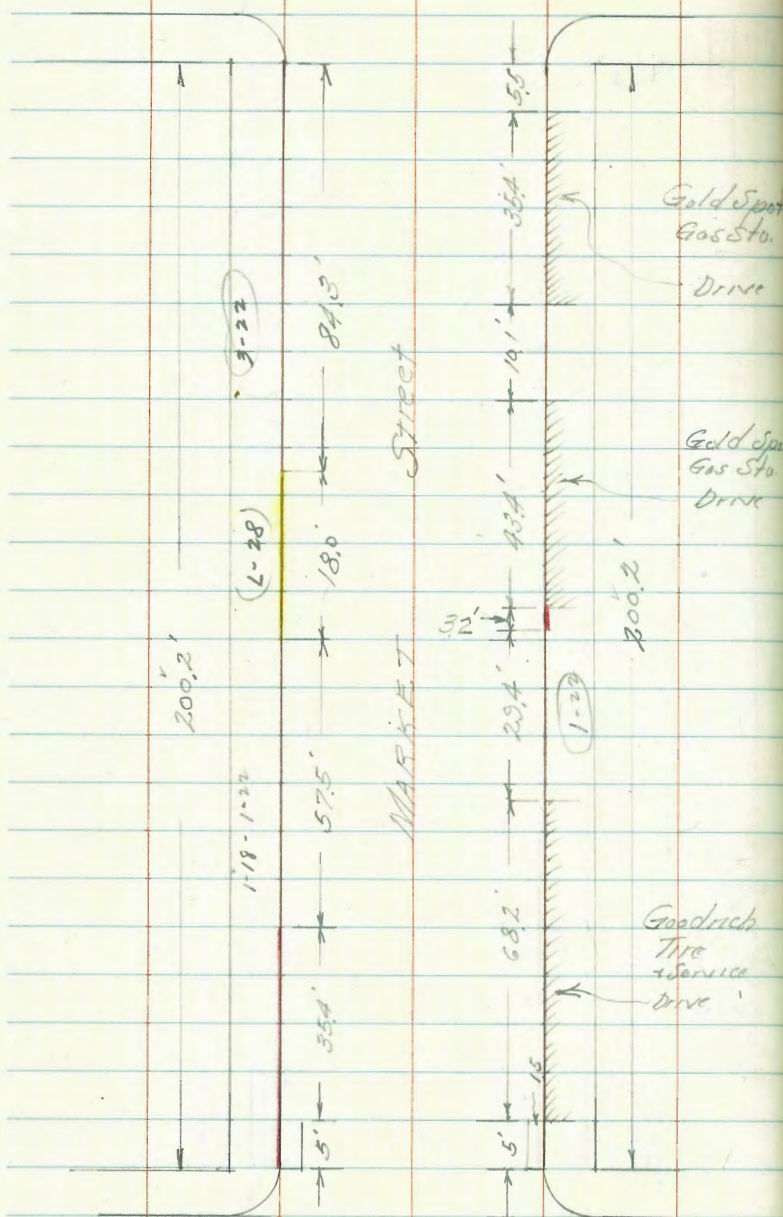
Ave

8TH

Ave.

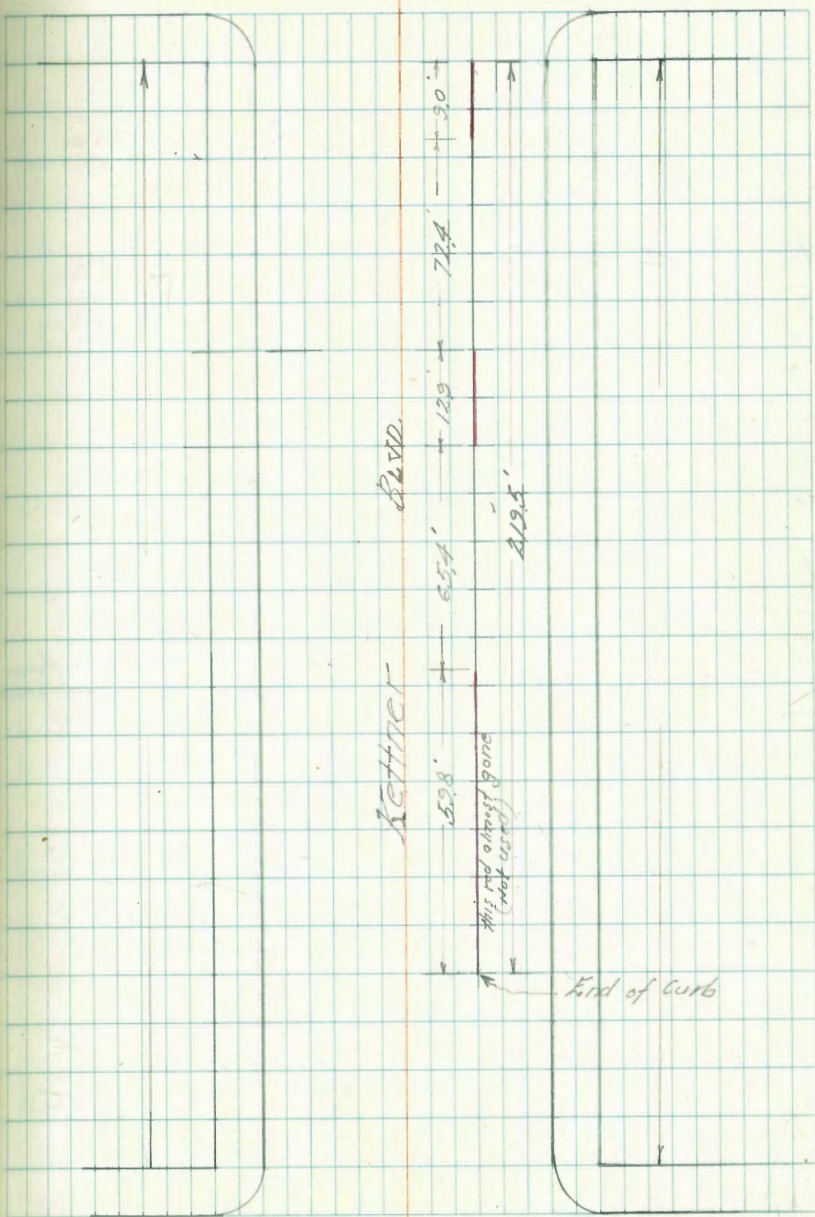
C-

Street 48



7TH

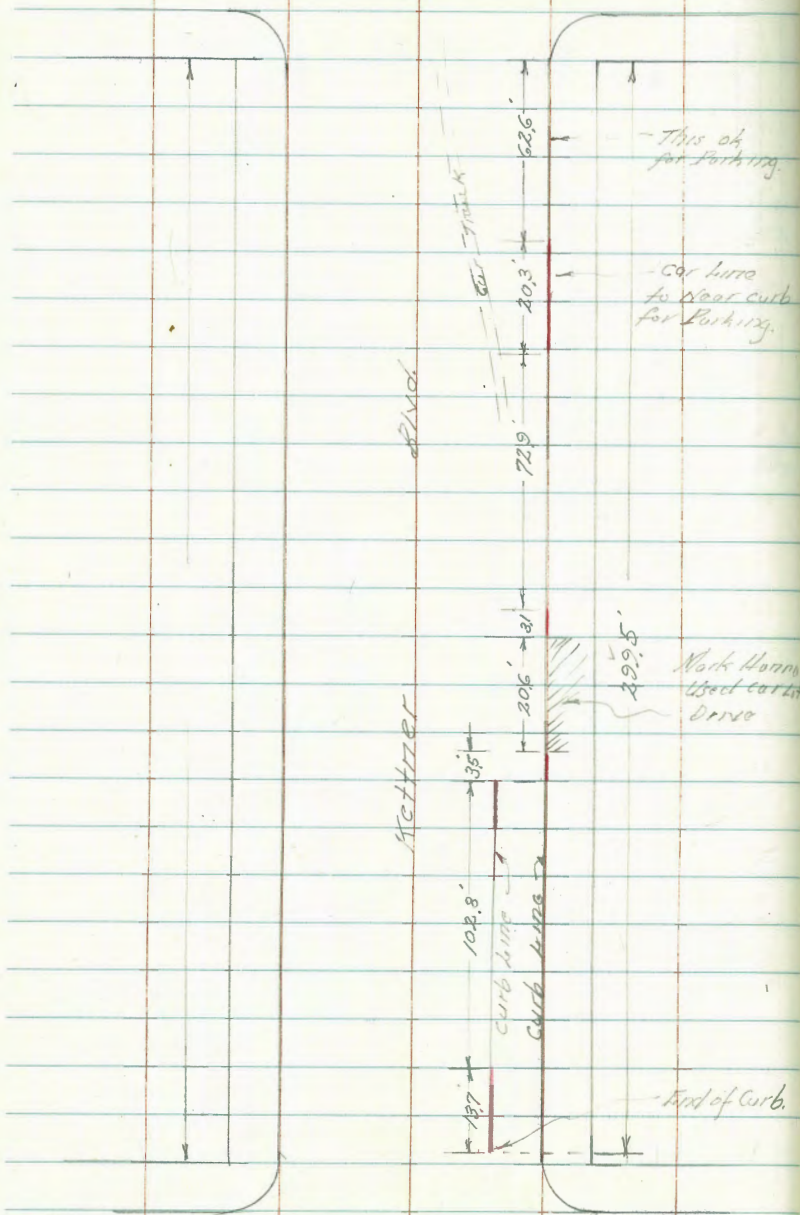
Ave.



Broadway

Ave.

B-

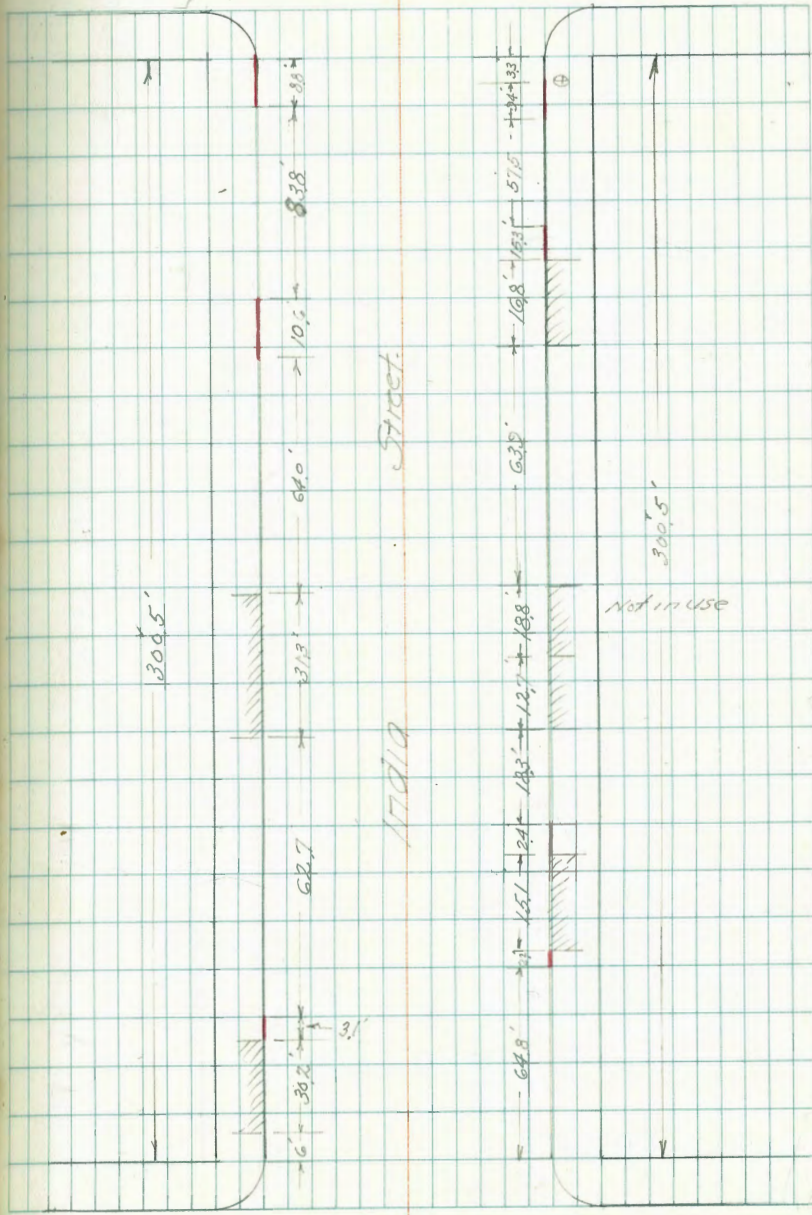


C-

St.

Brooklyn

Ave. 49

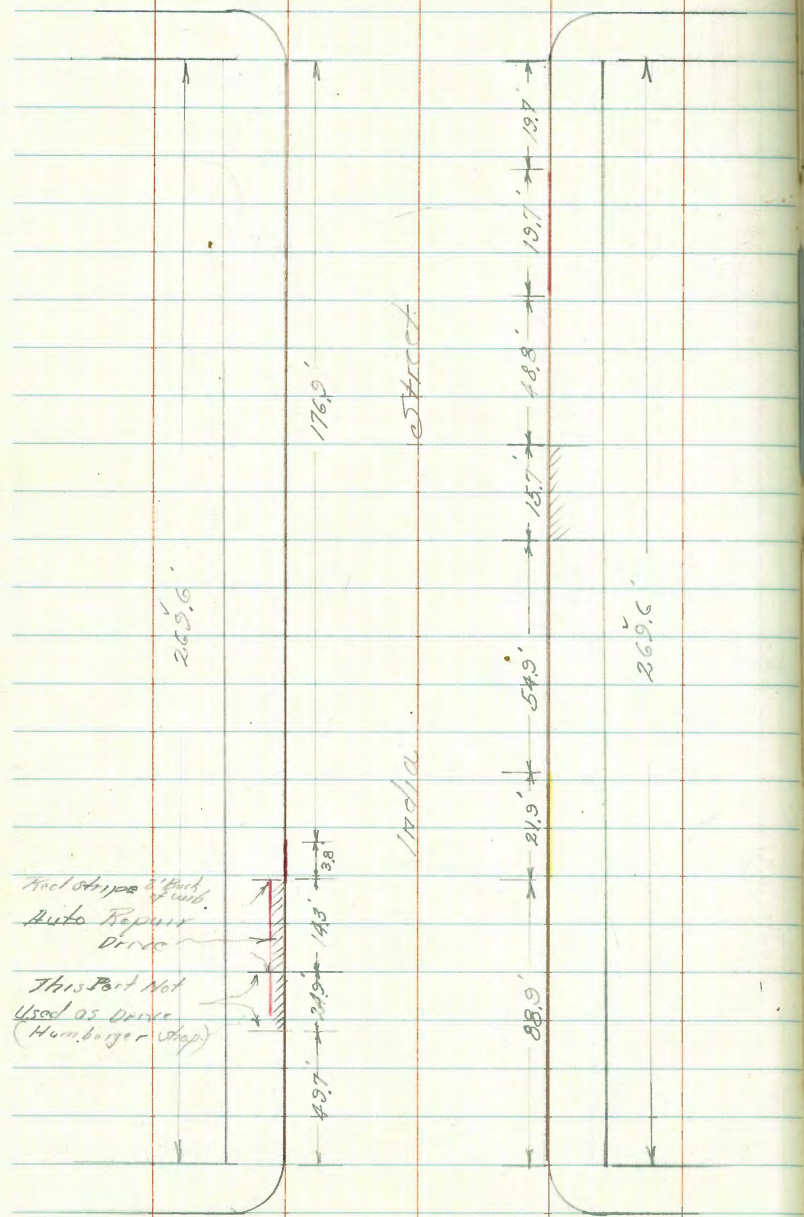


E-

St.

C-

St.



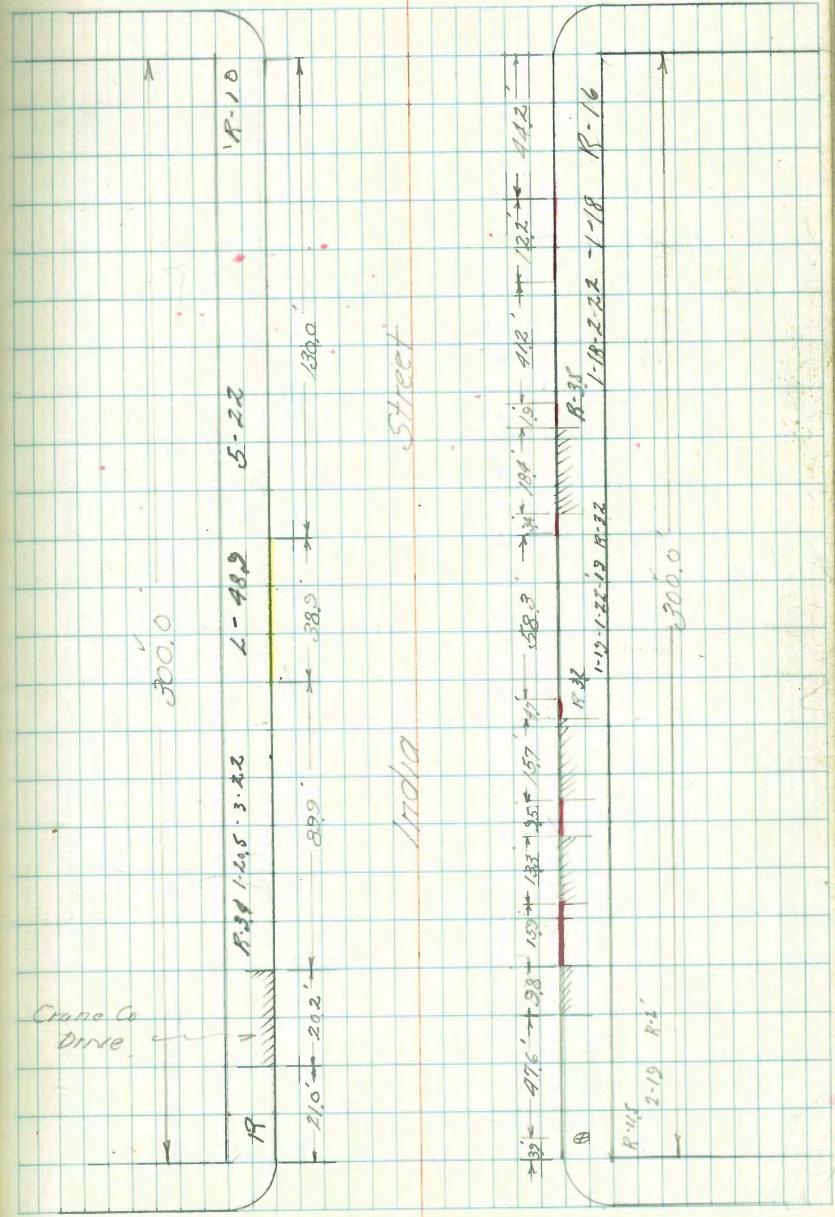
Foot strip 2' part of ind.
Auto Repair Drive
This Port Not Used as Drive (Hamburger Shop)

Brooklyn

Ave.

B-

St.



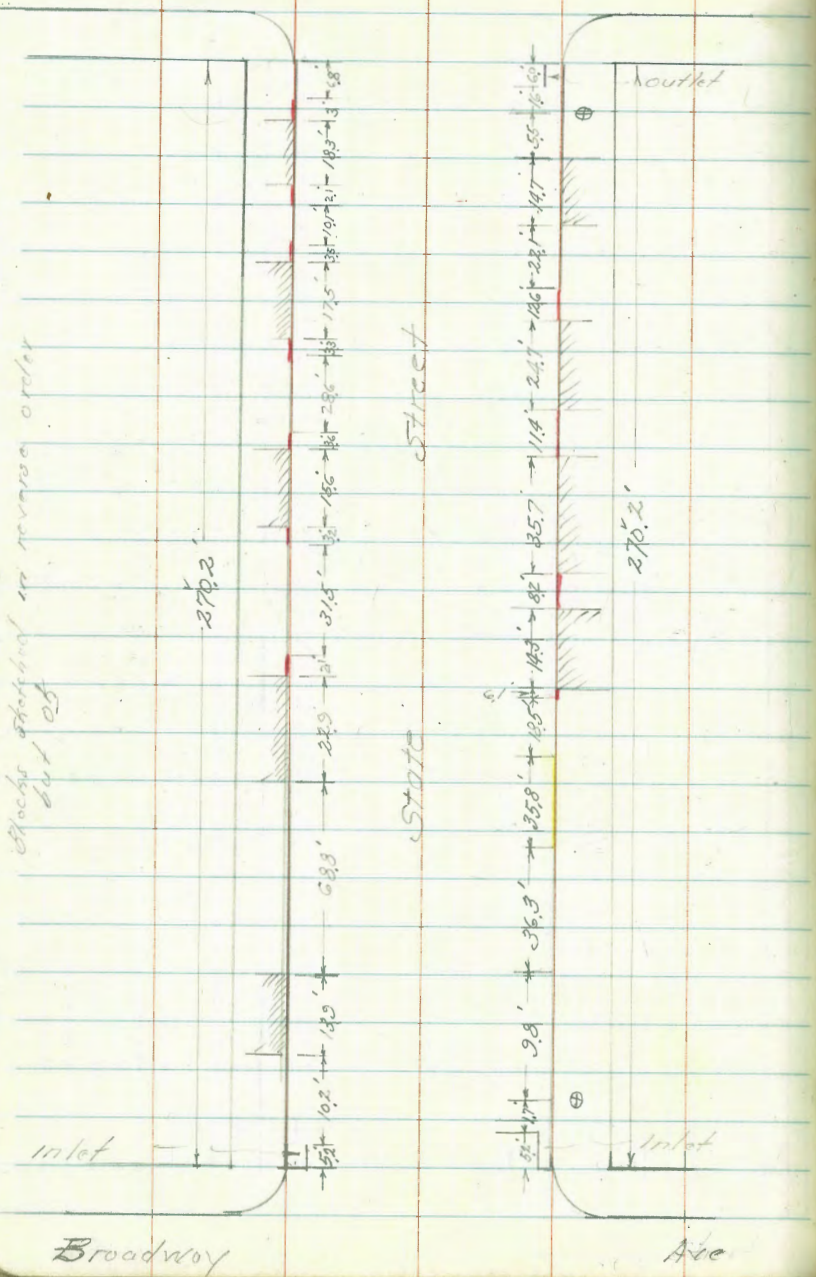
Crane Co Drive

C-

St.

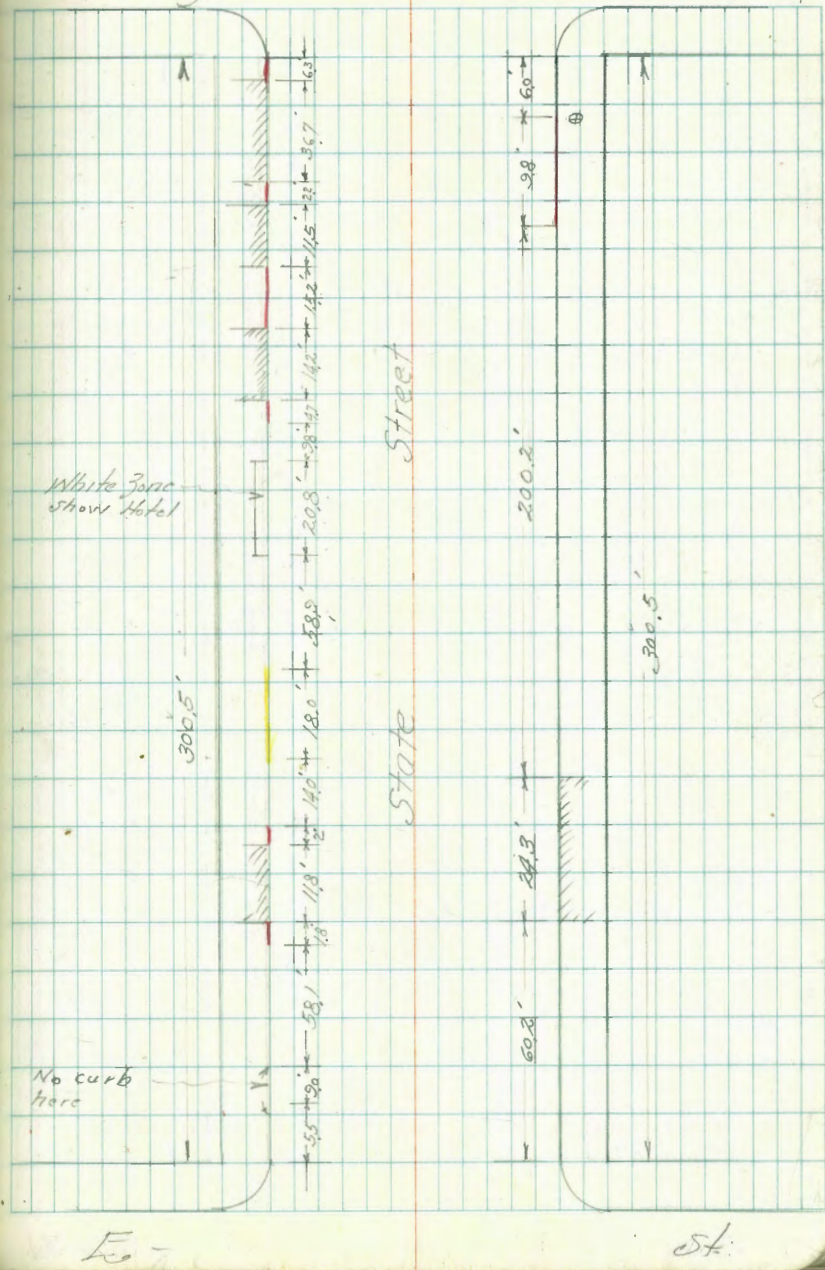
Brooklyn

C



Broodway

52
Ave.

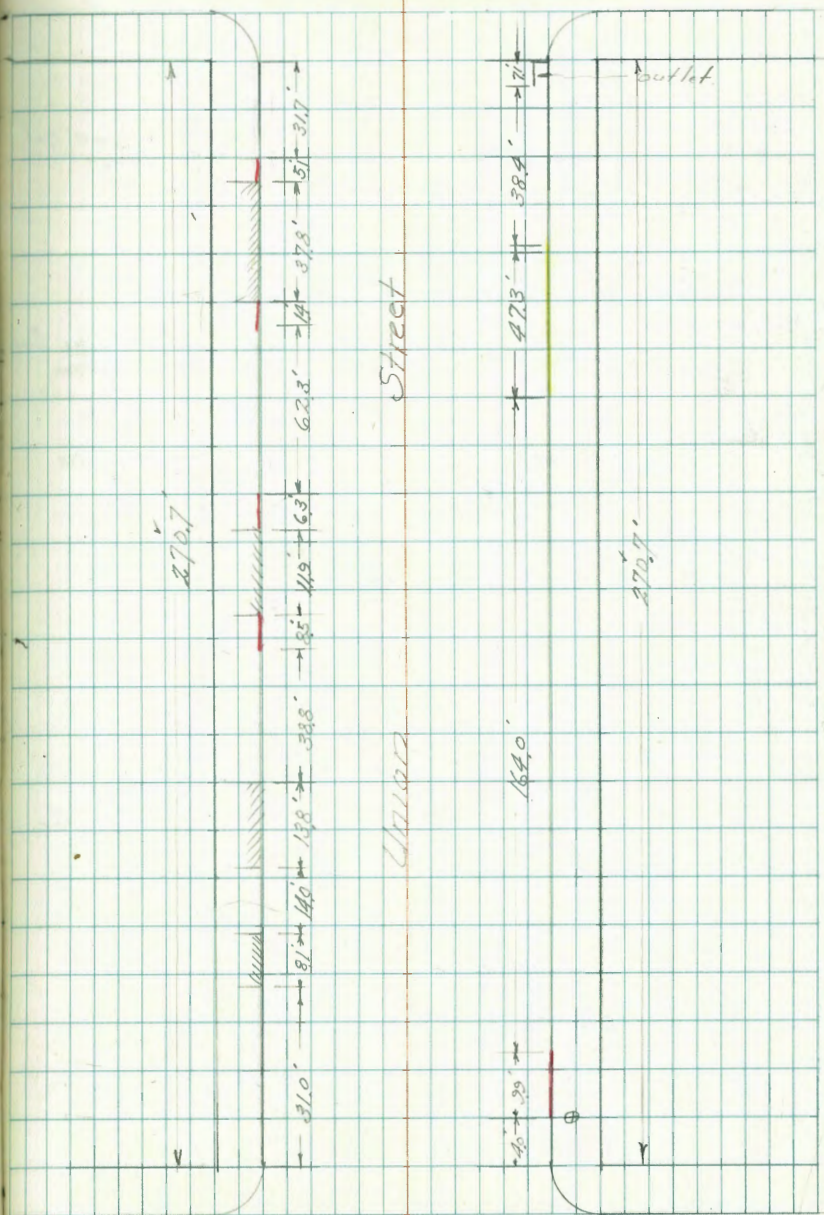
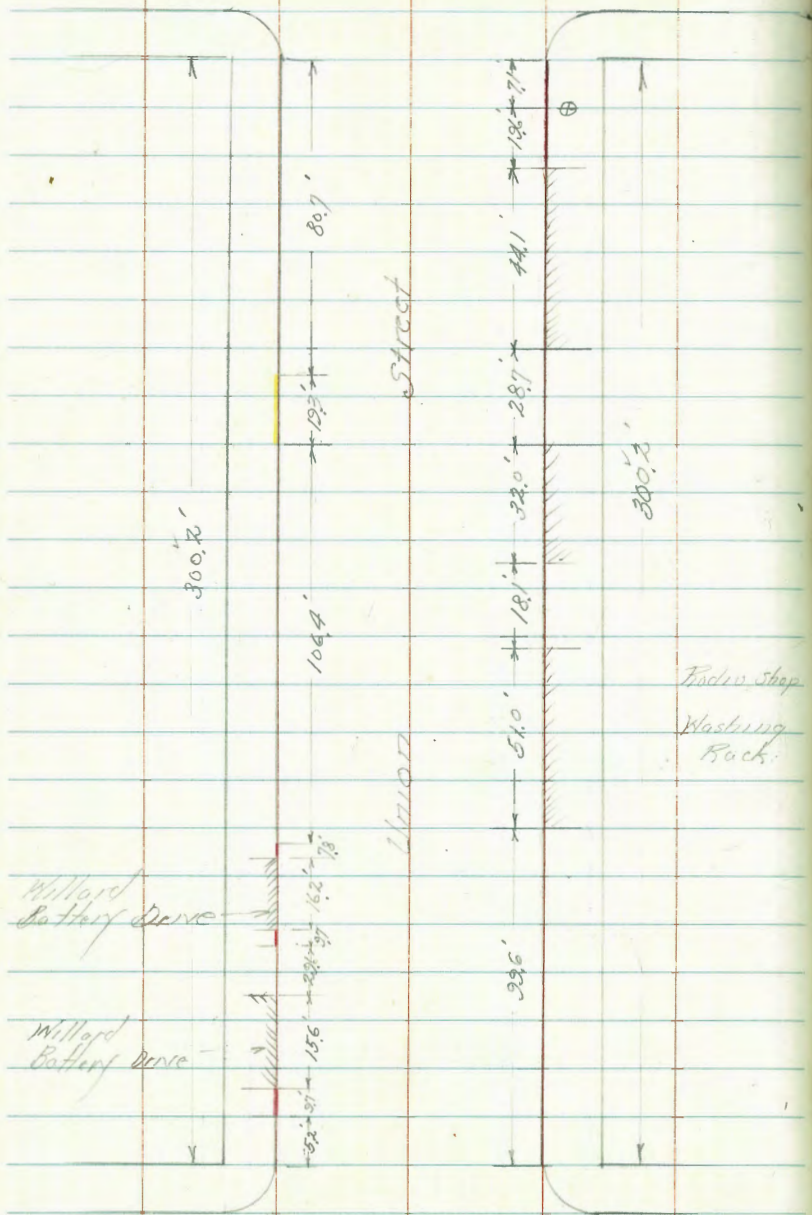


Broadway

Ave

C-

St. 53



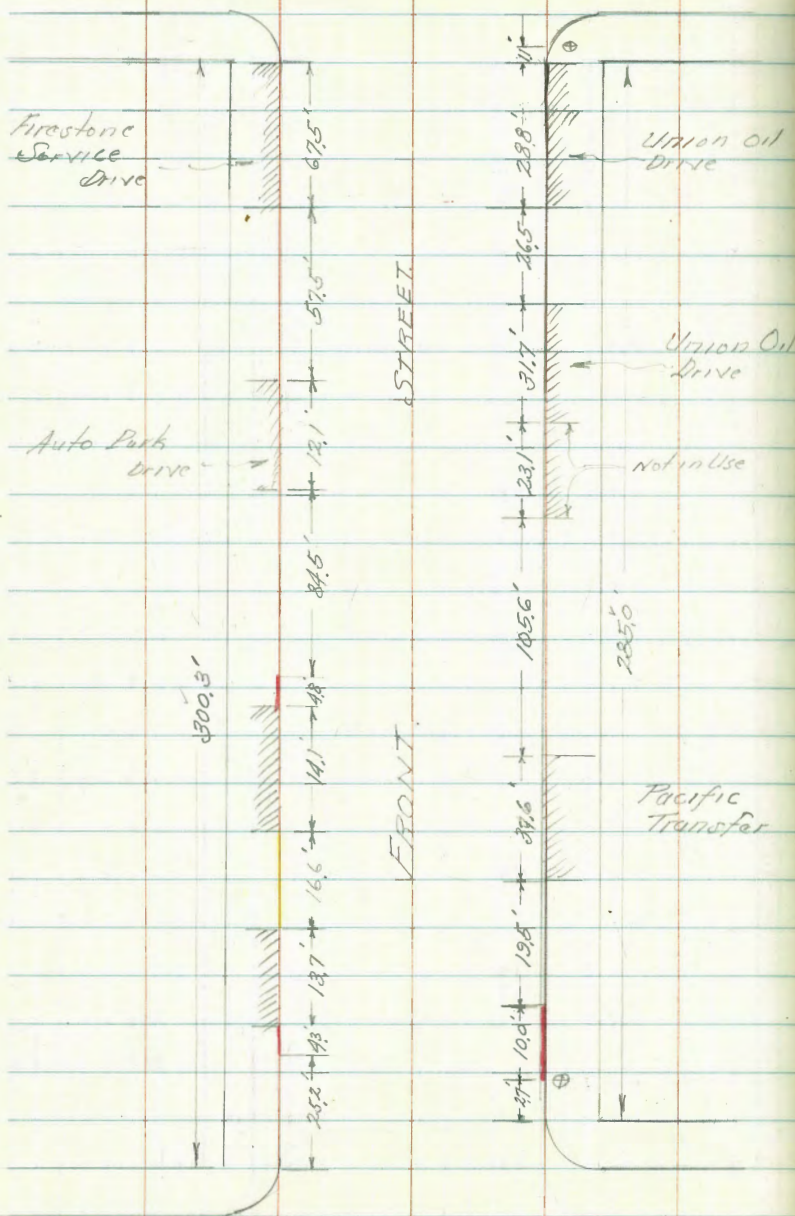
E-

St.

Broadway

Ave.

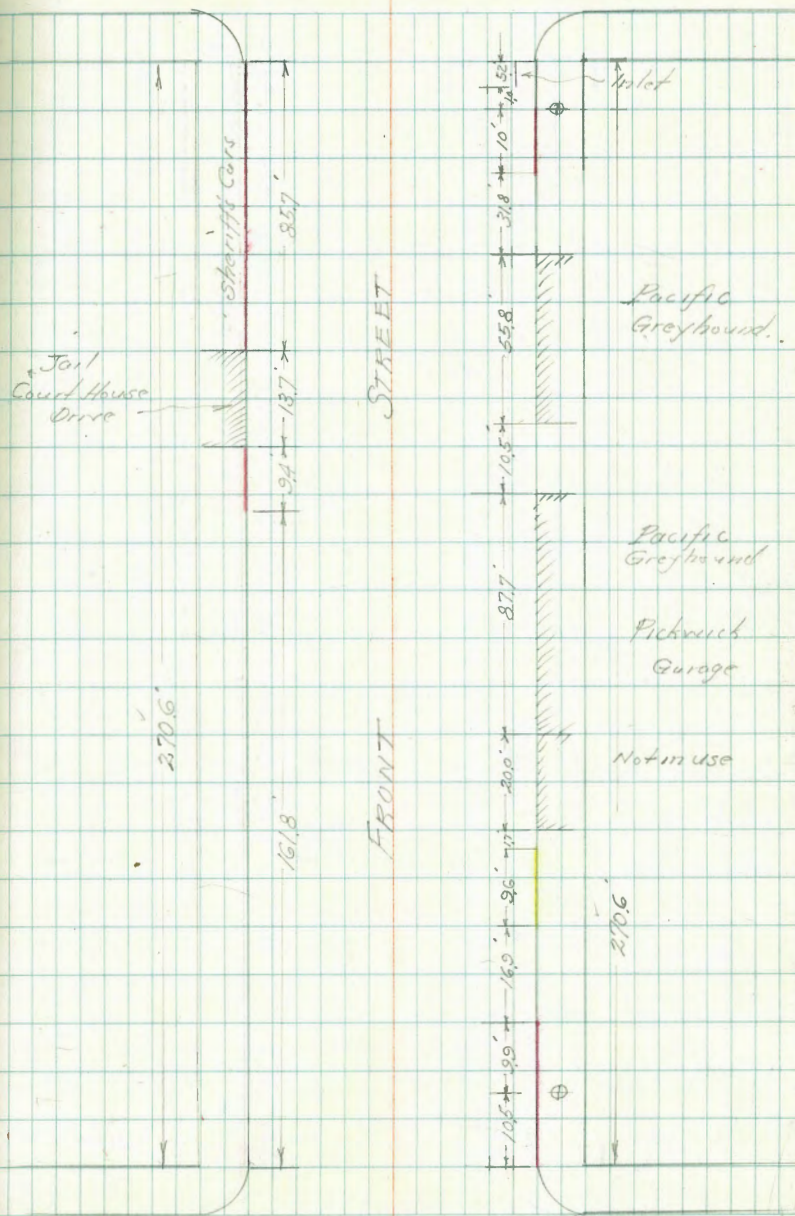
BROADWAY



Street

E-

C-



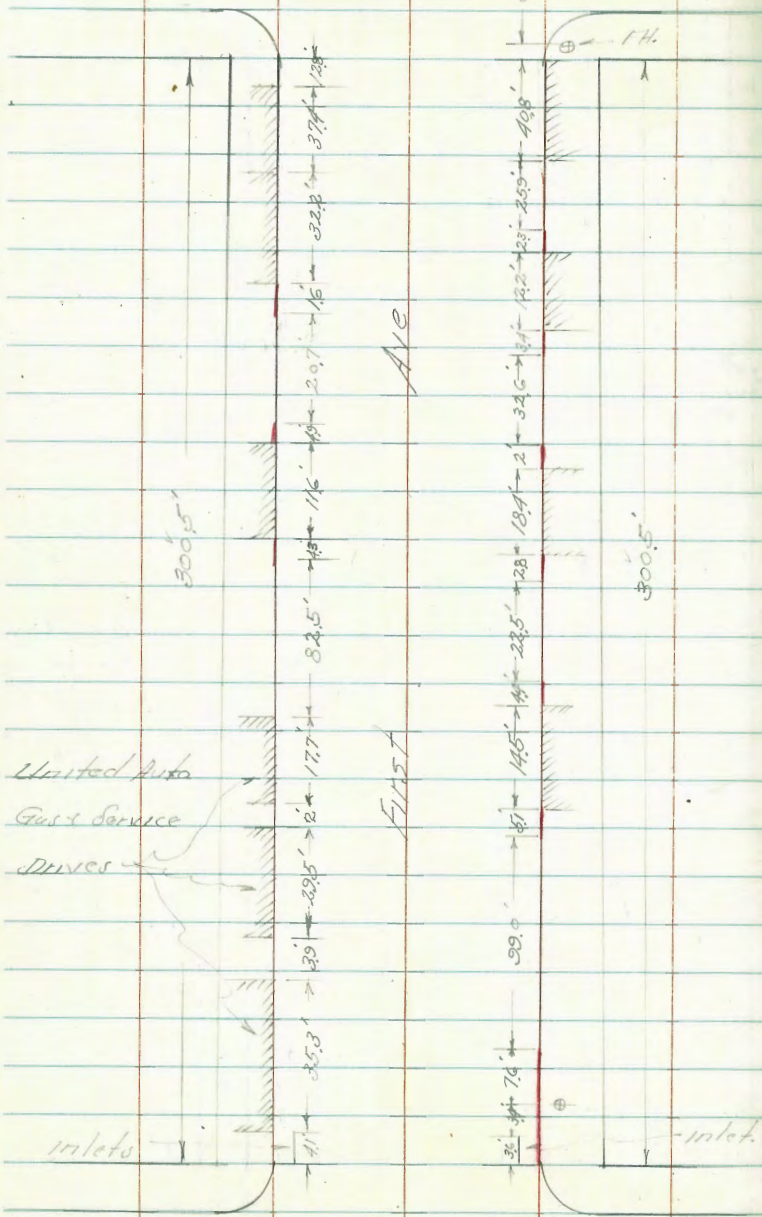
BROADWAY

Ave.

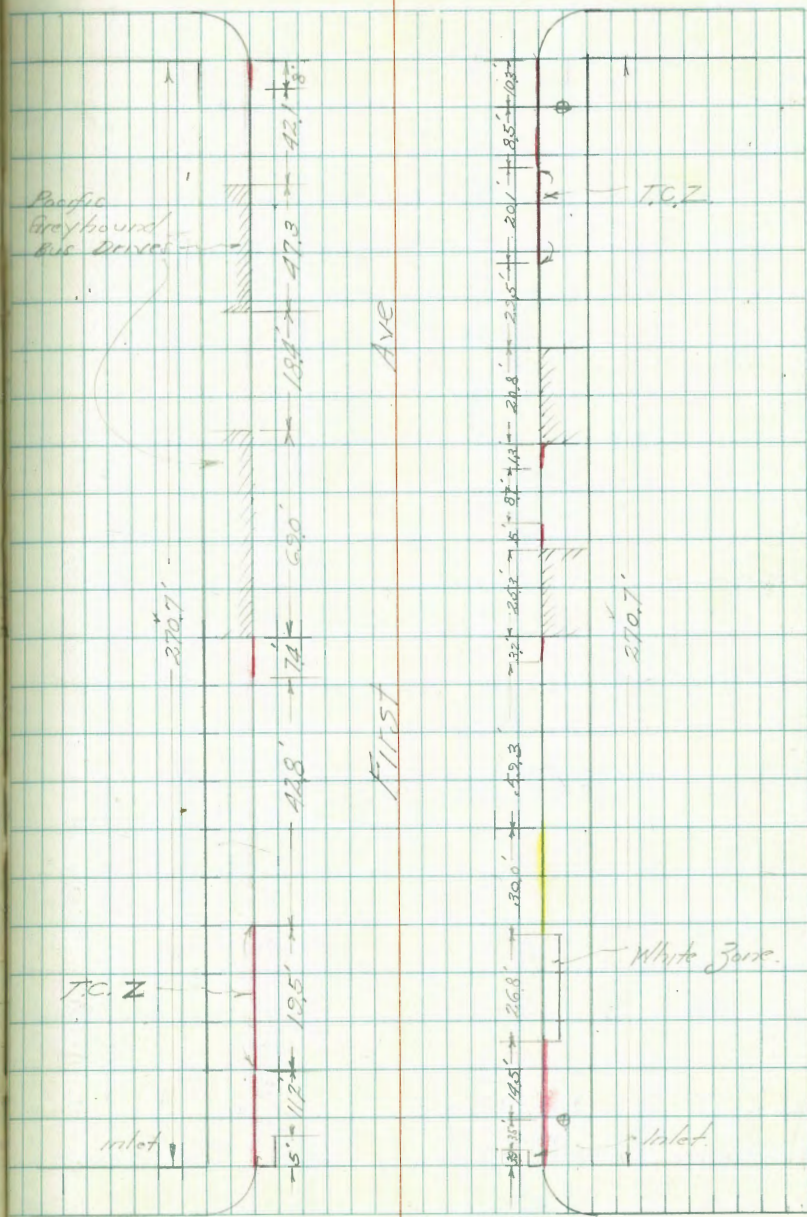
St. 54

E-

E.



C.



ST. 55

F

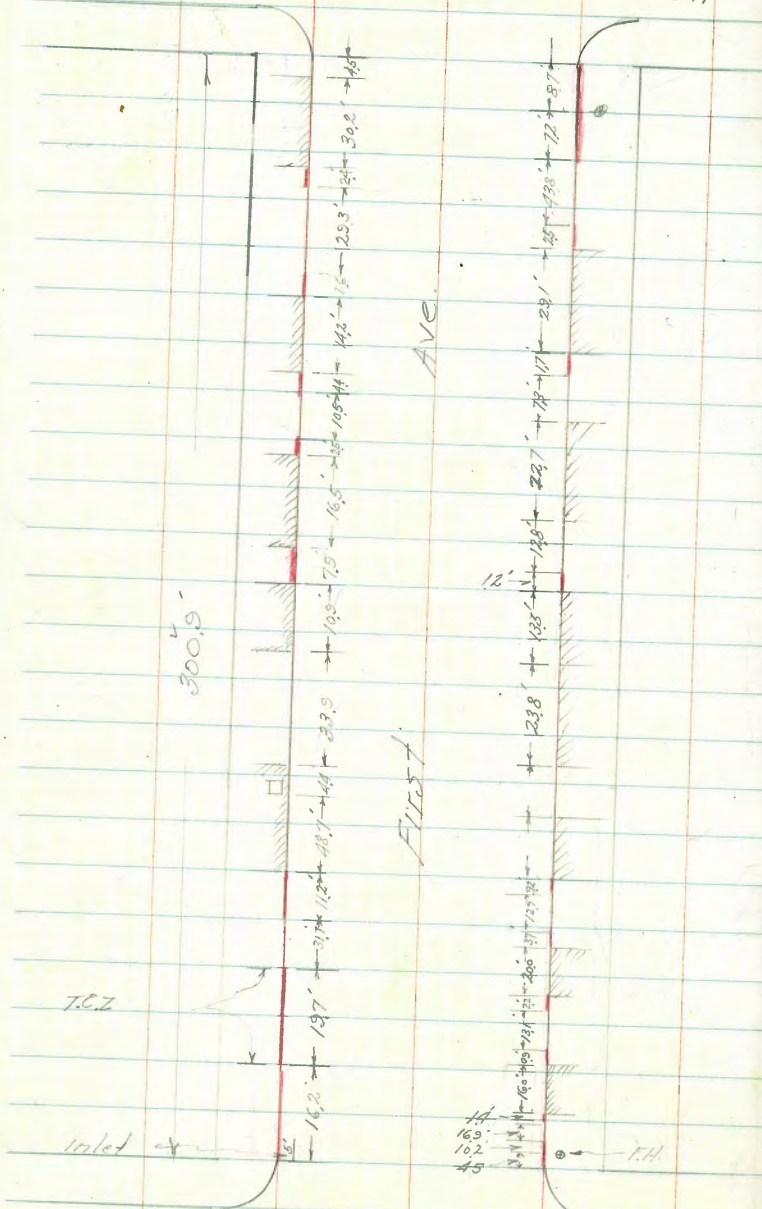
ST

Broadway

Ave.

B-

57

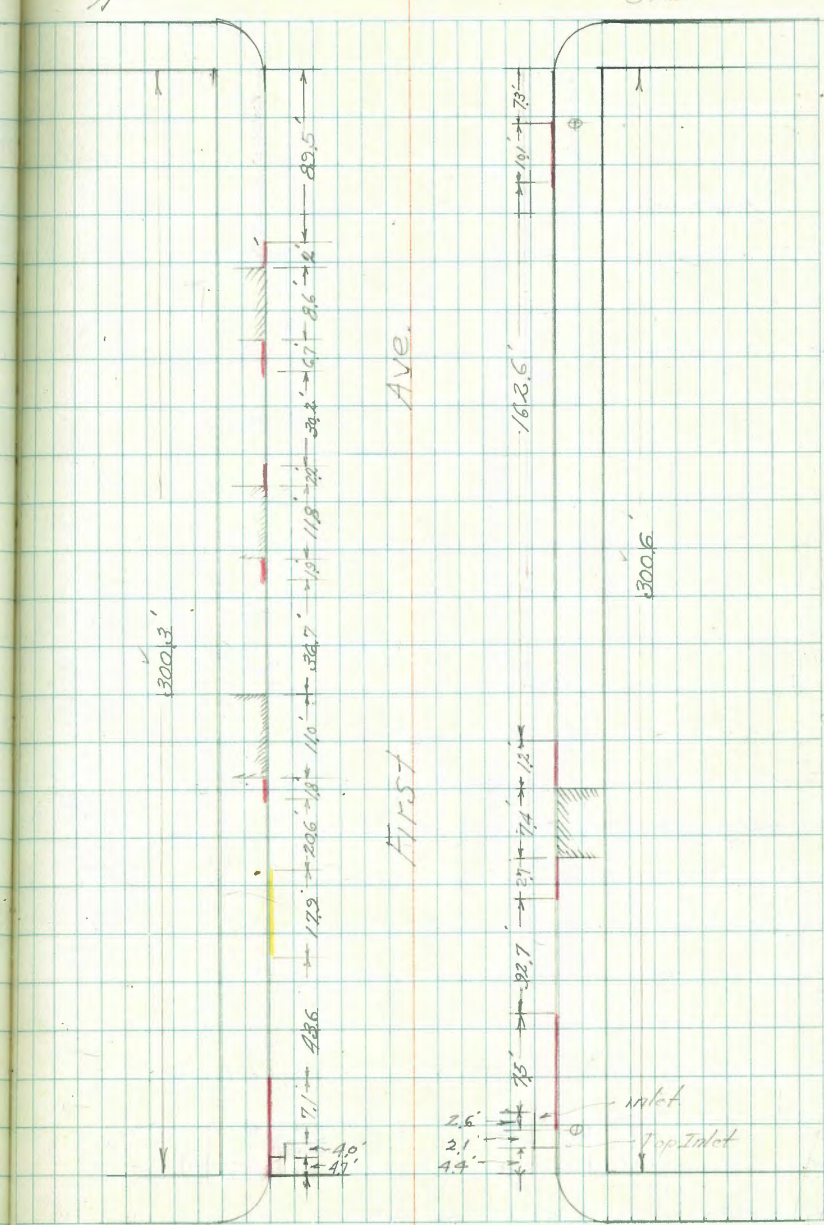


C-

5A

A-

56



B-

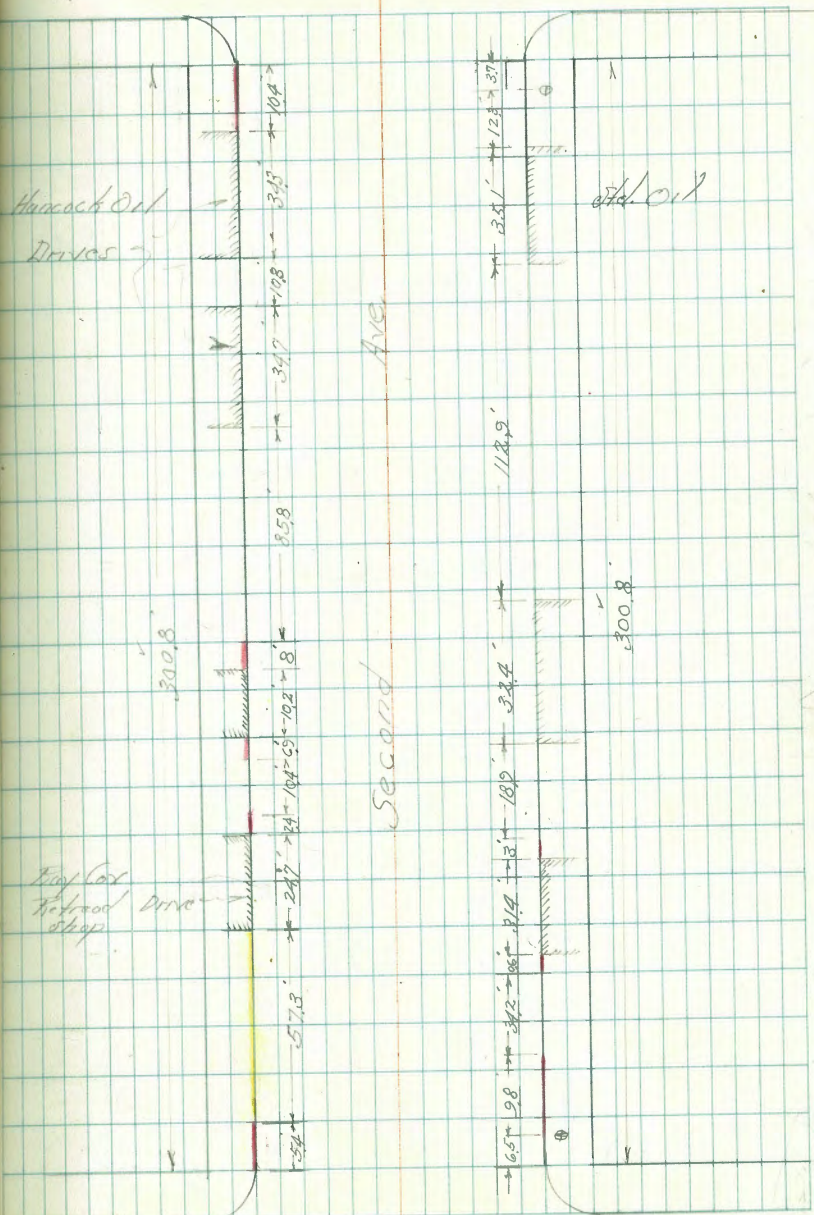
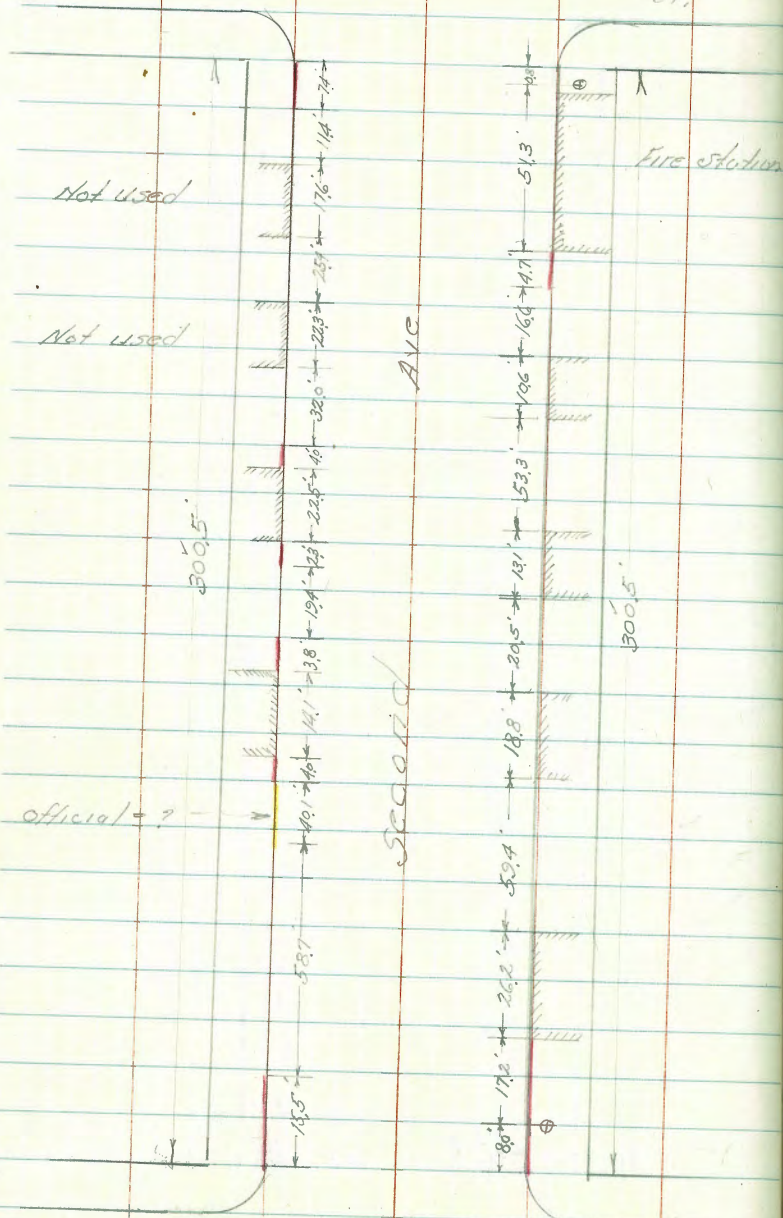
5A

E-

St.

A-

St.



F

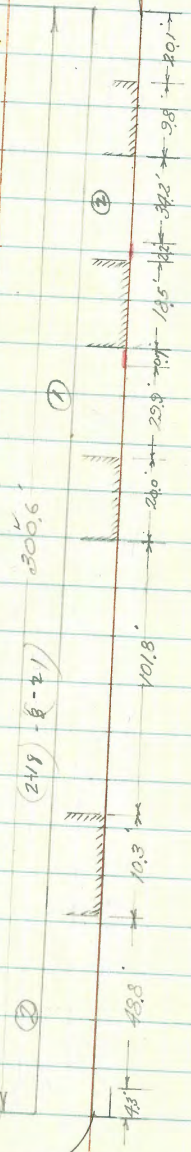
St.

B-

St.

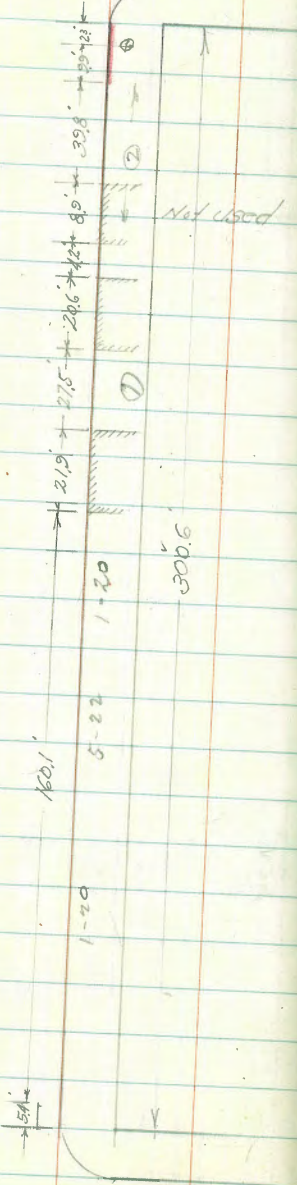
Market

4



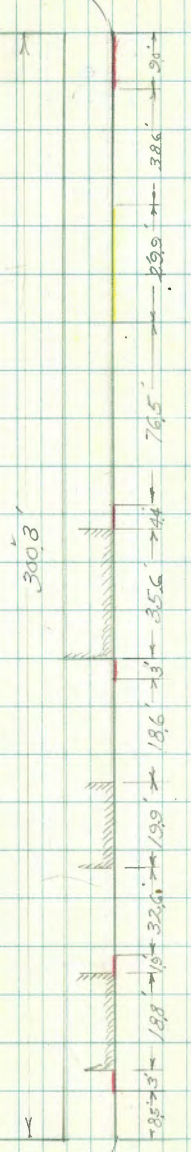
AVE

St.



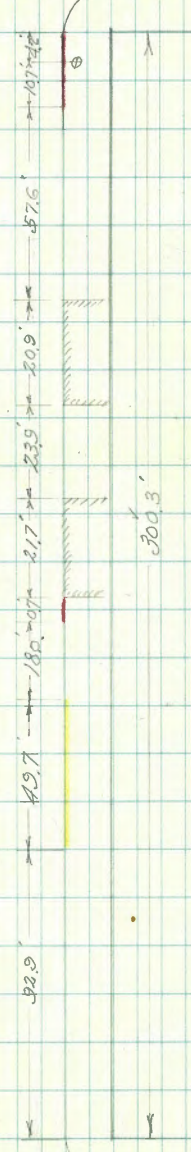
G

F



Ave

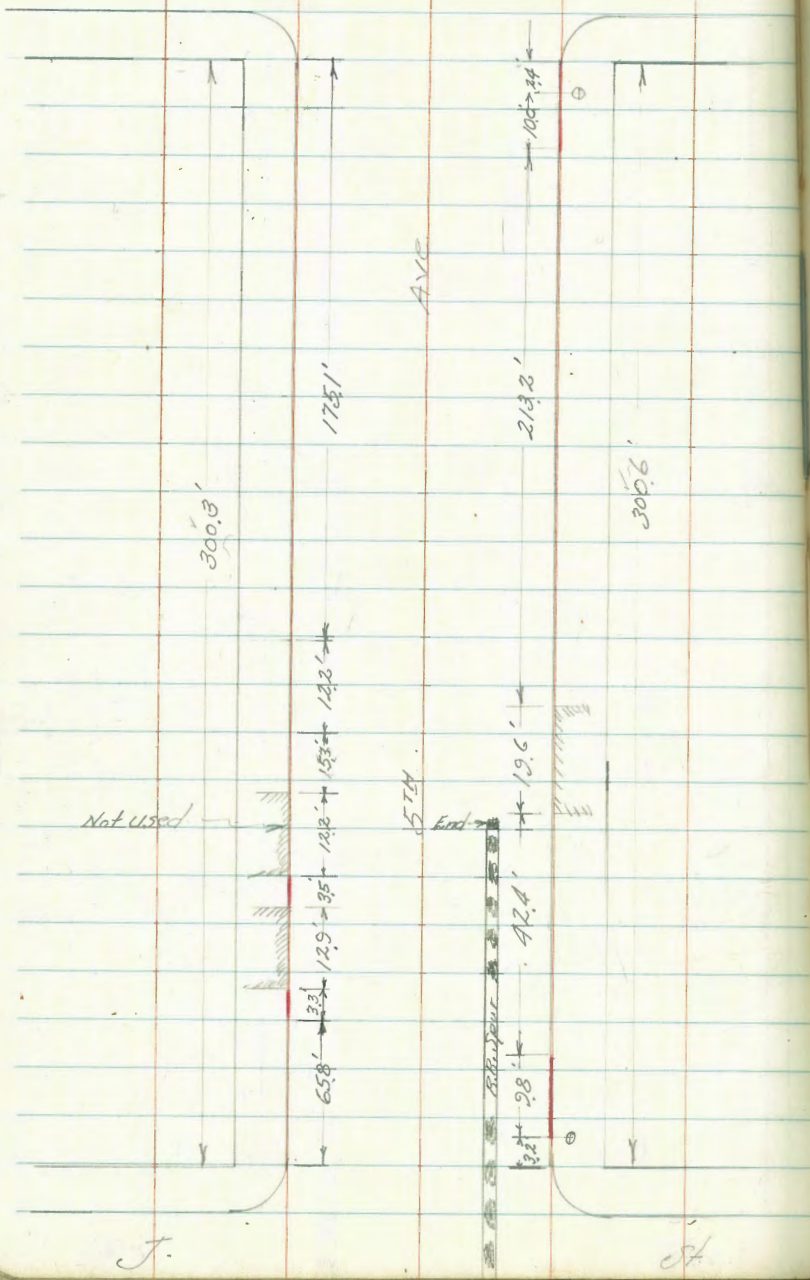
St.



St.

Island.

Ave.

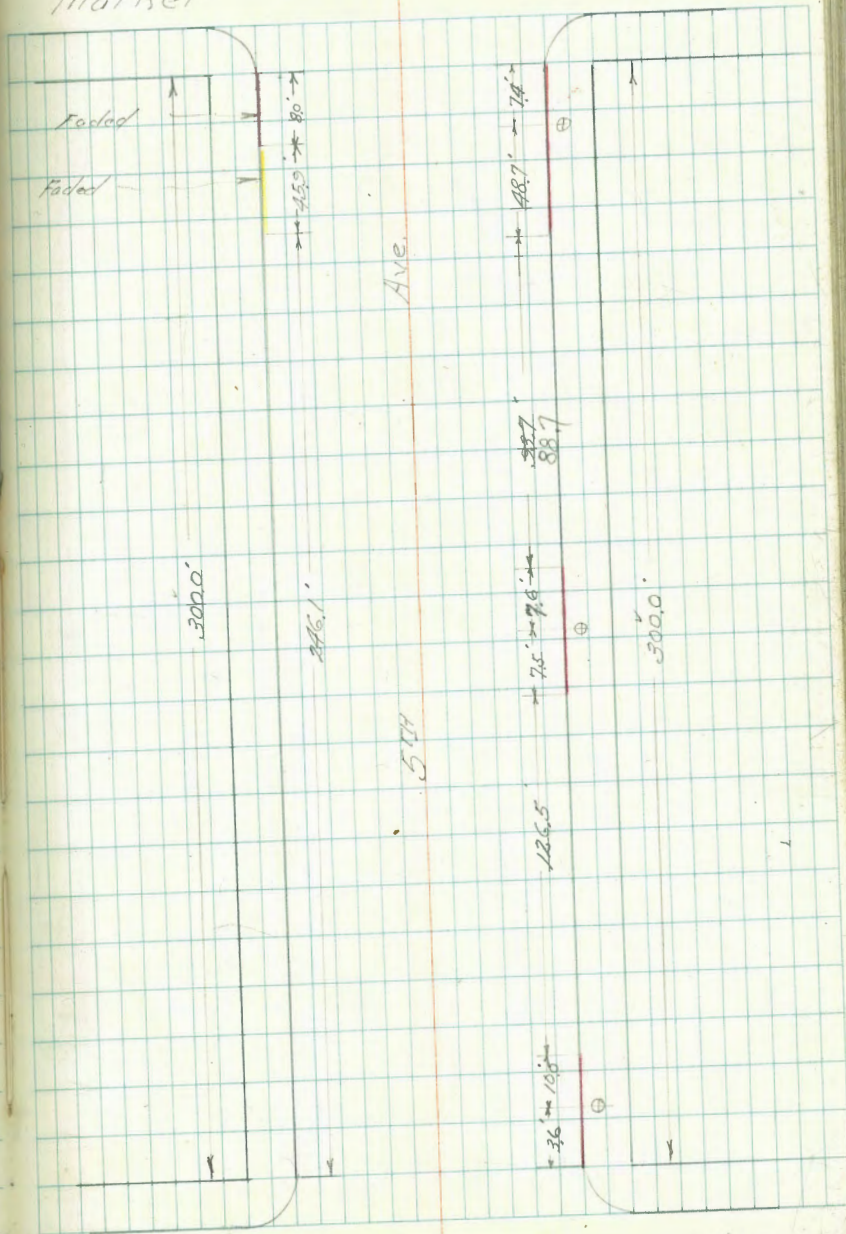


J.

St.

Market

St. 62



Island

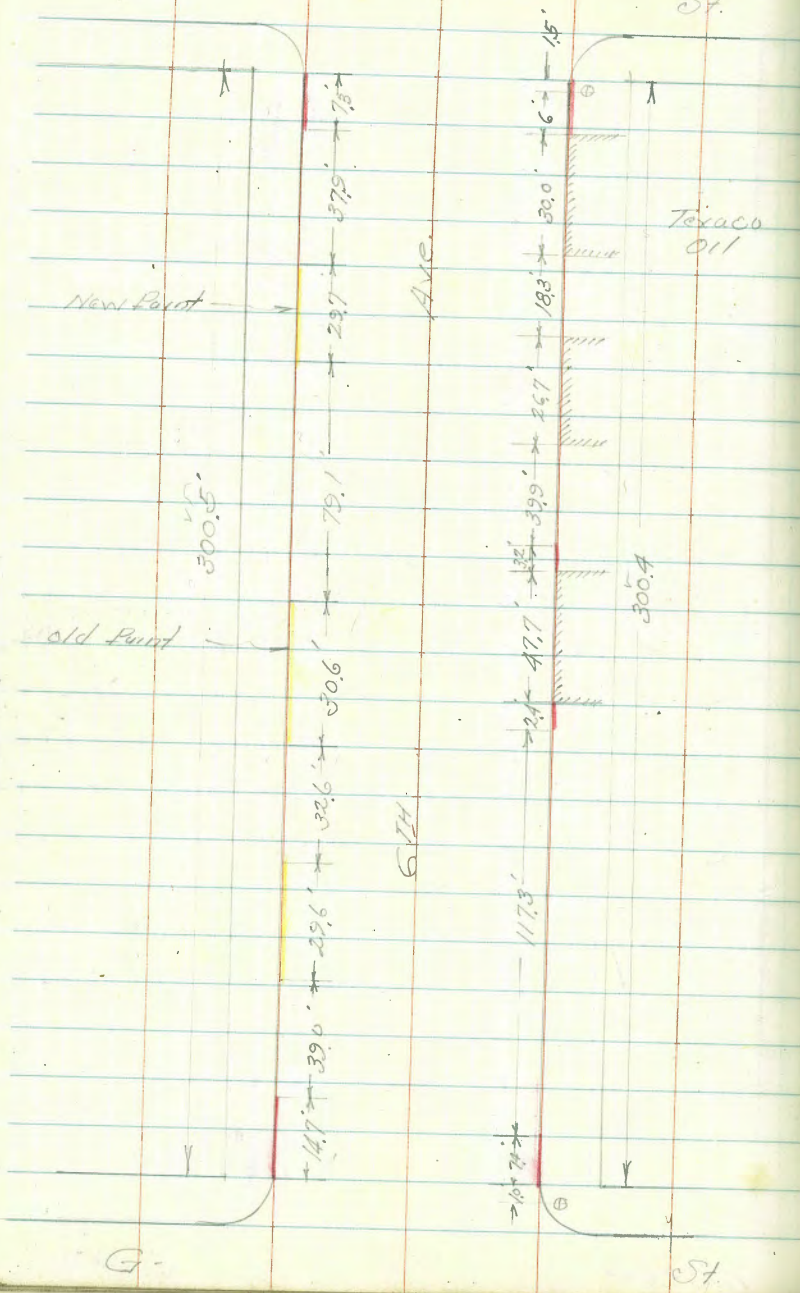
Ave.

F

St.

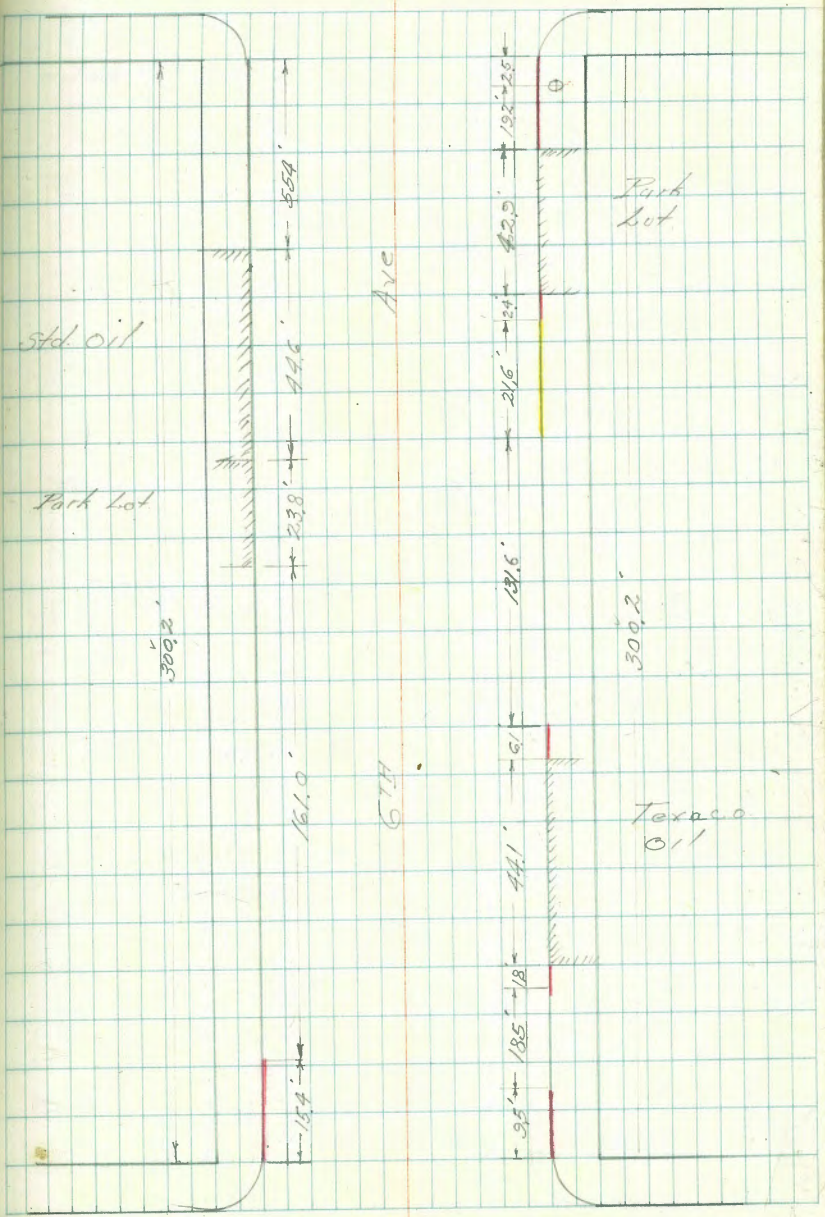
Ash

St. 64



G

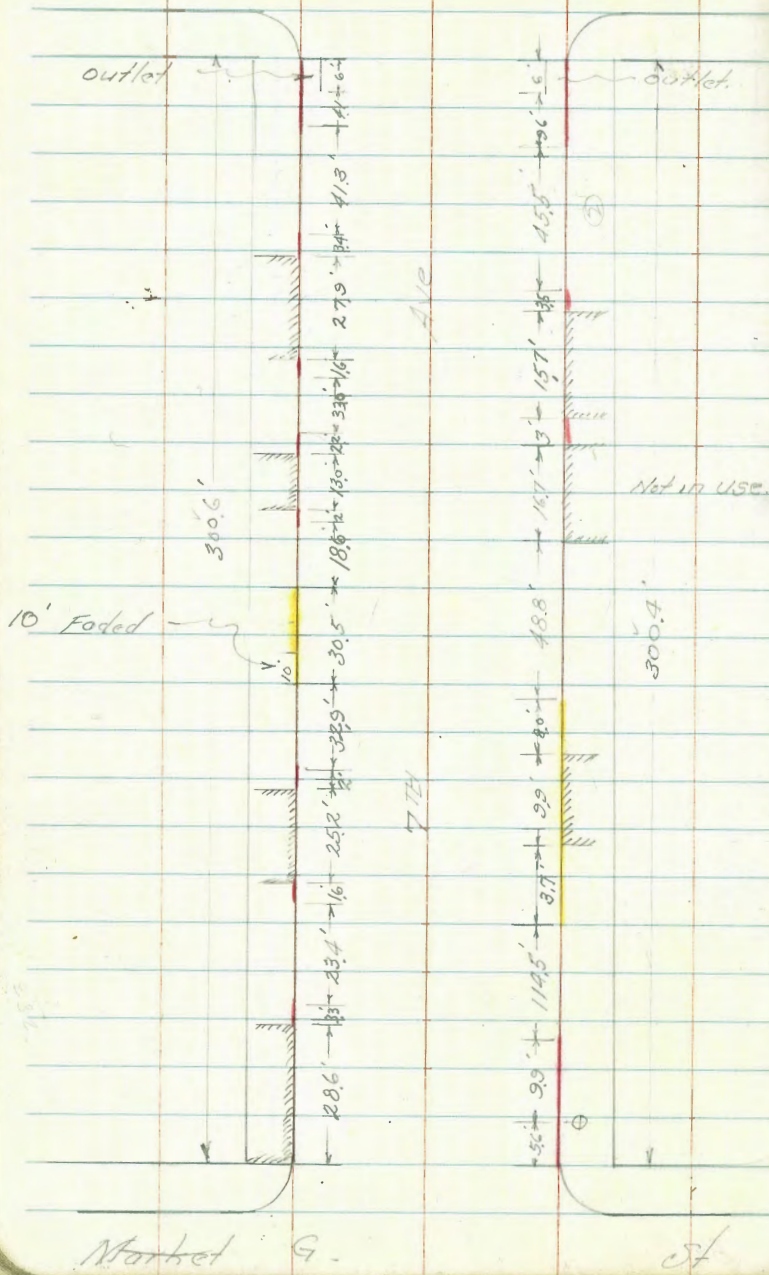
St.



A

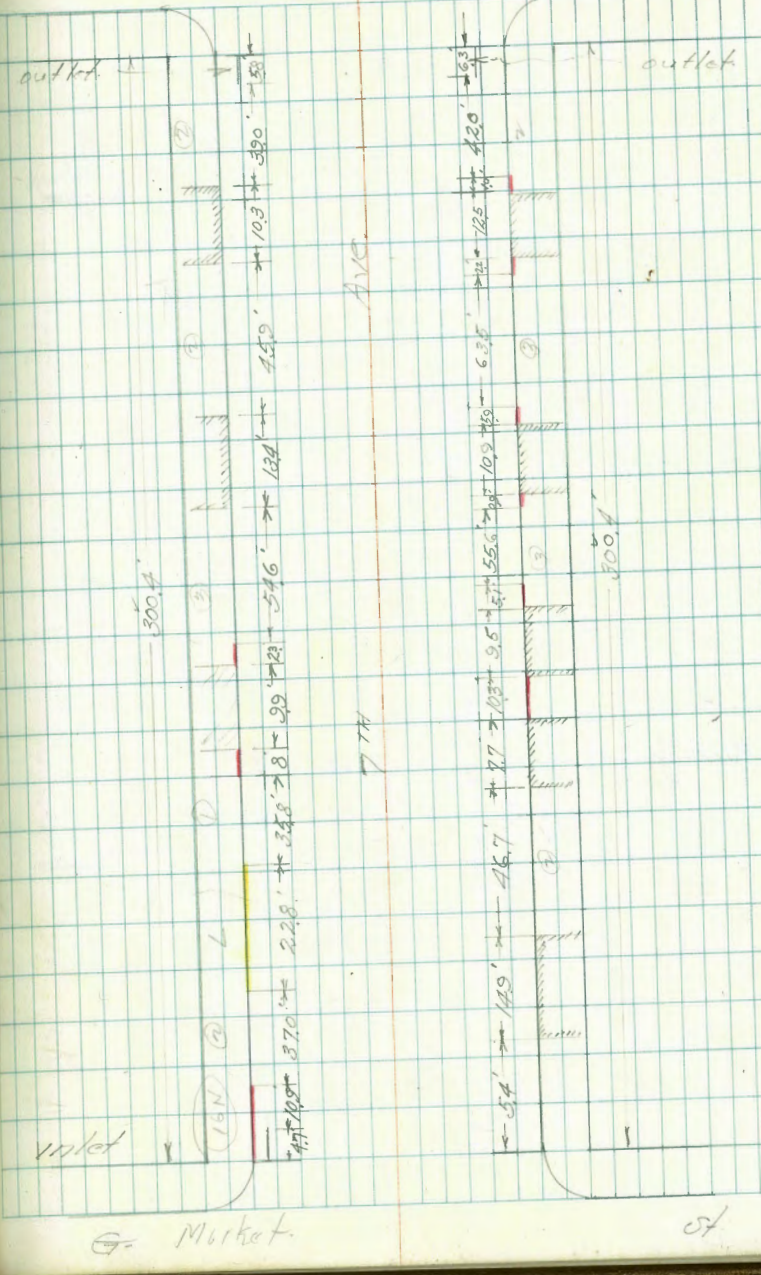
St.

F-F



ST.

F-G



Market G.

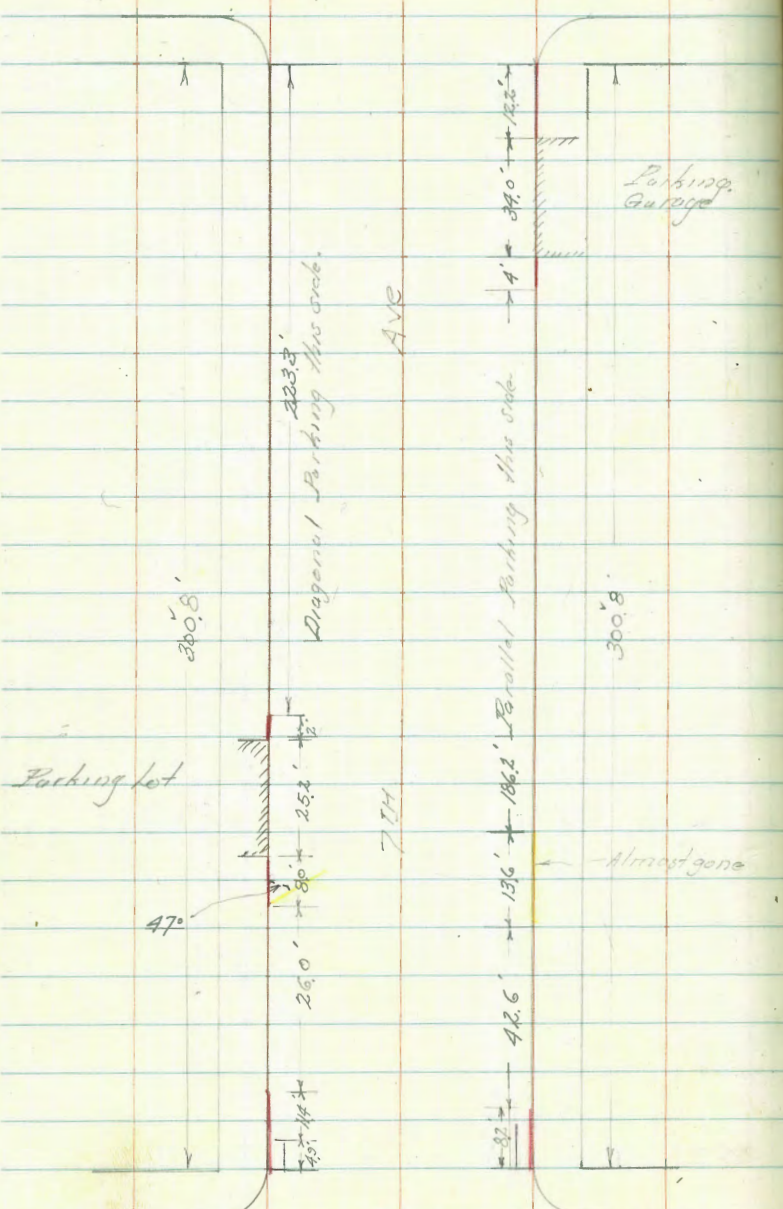
ST.

A-

St

E-

St

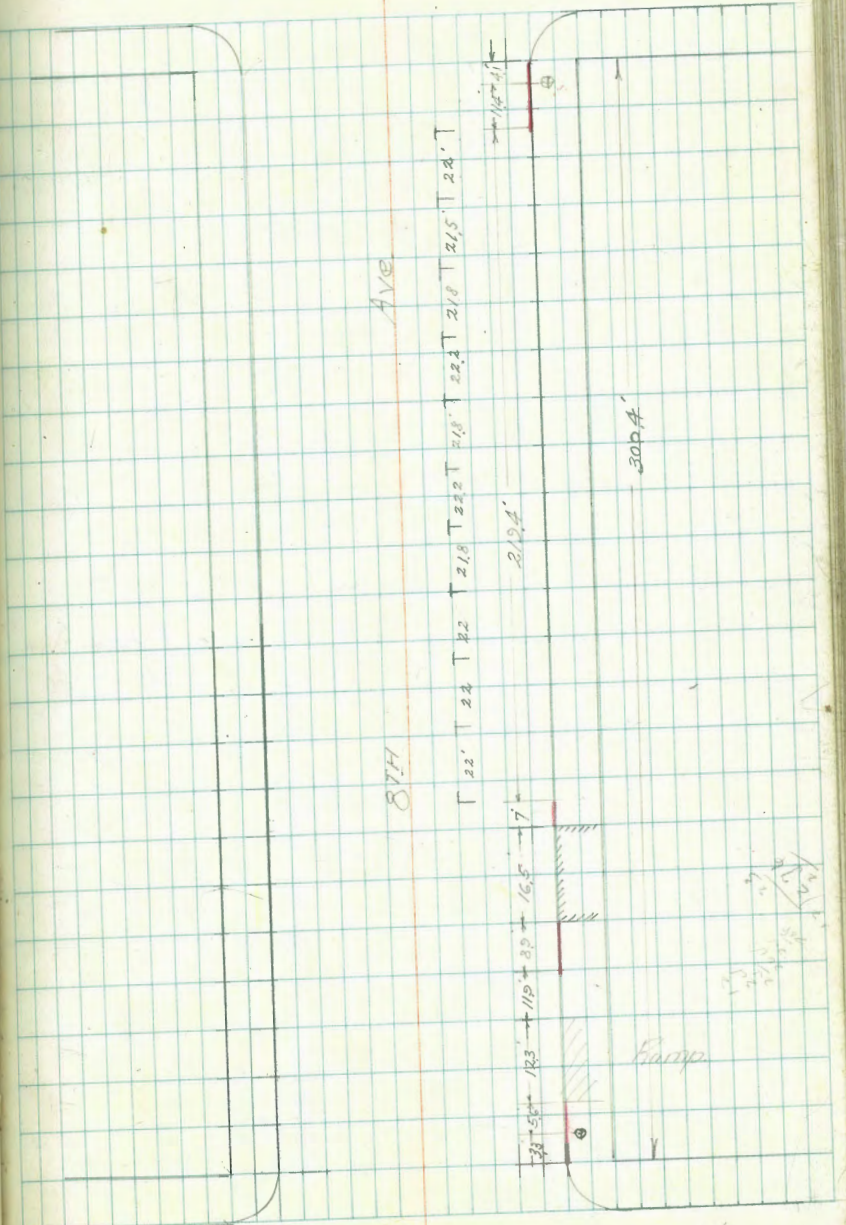


B-

St

F

St

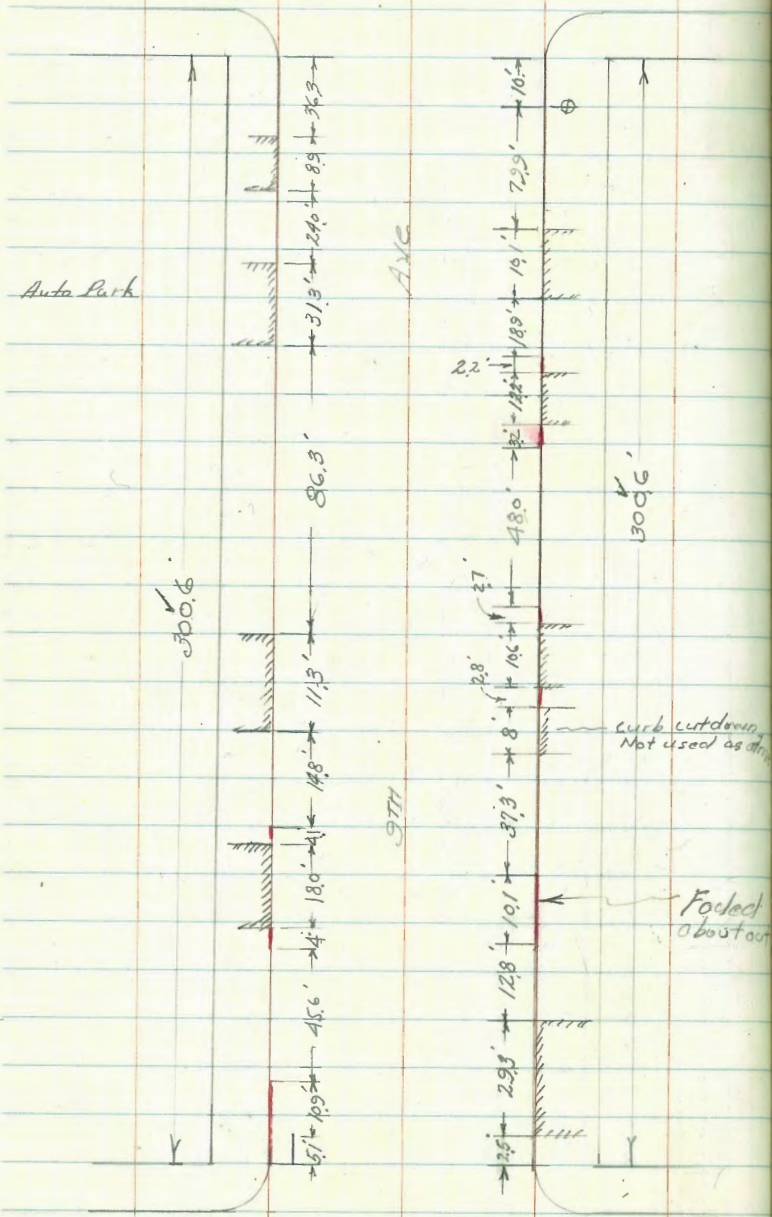


A-

C.

Brookway

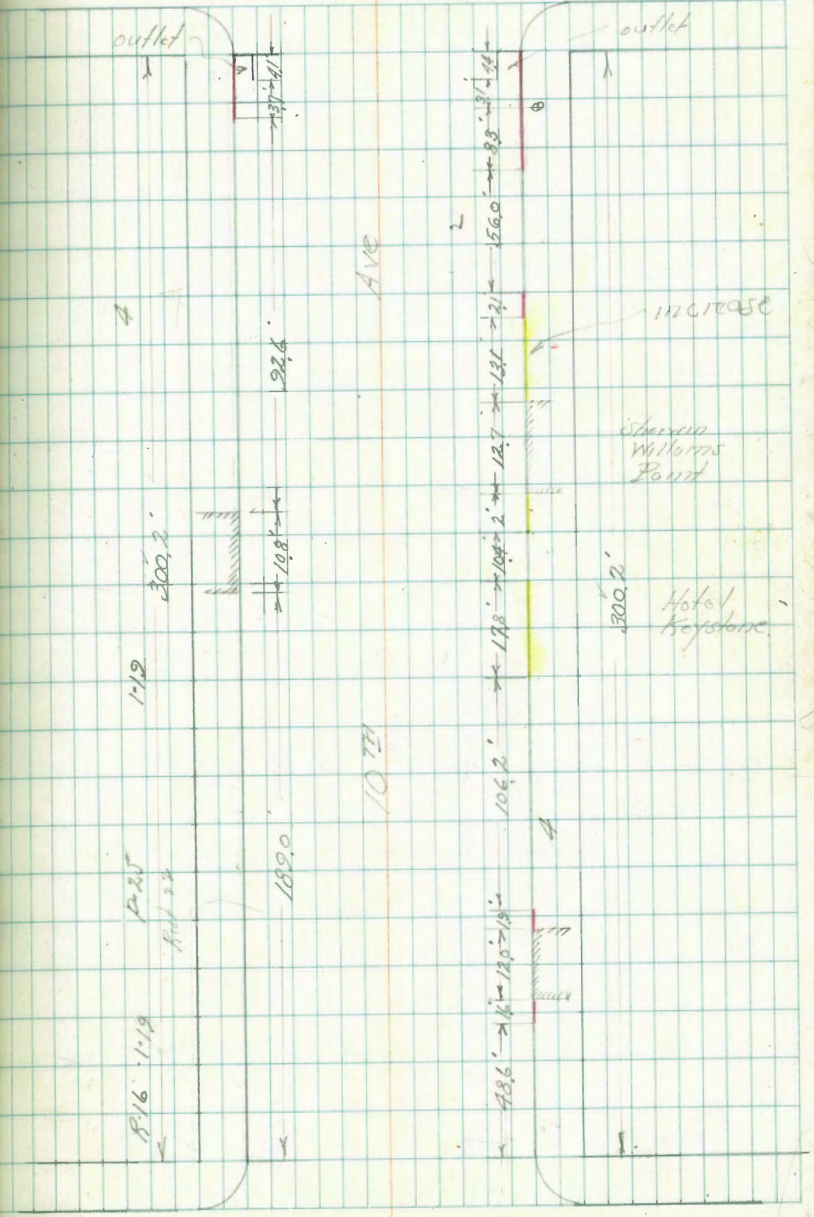
Ave



B.

C.

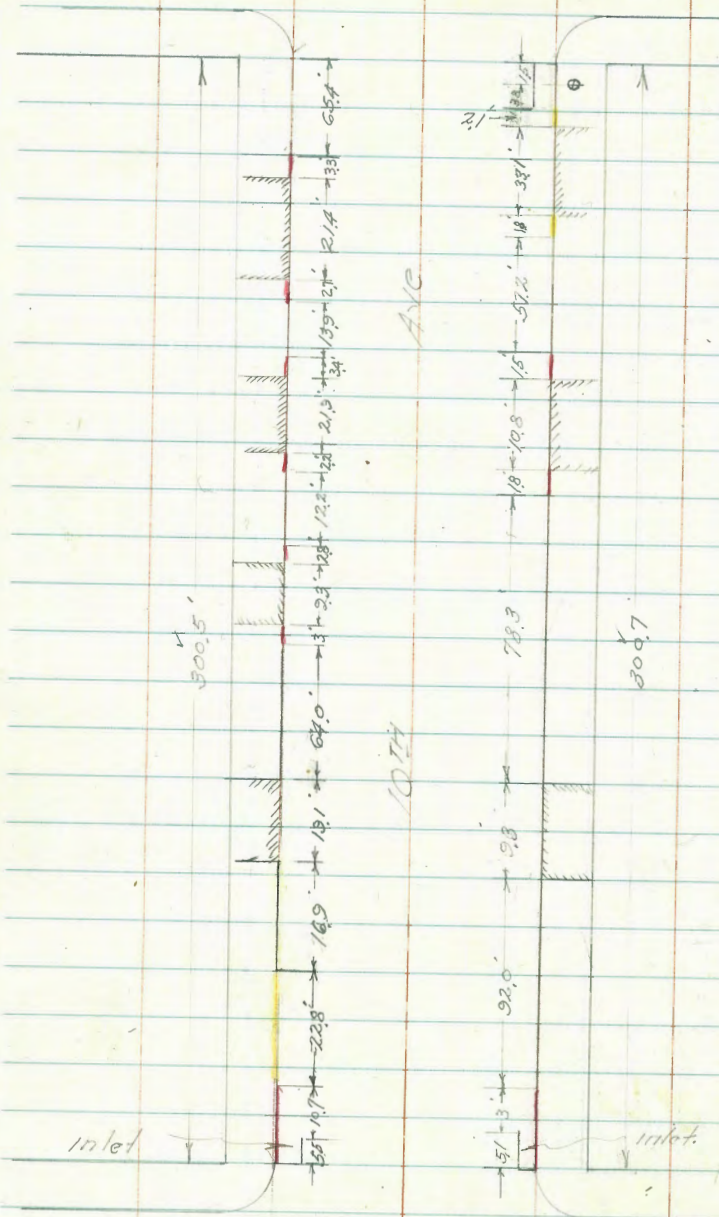
E.



C.

C

C

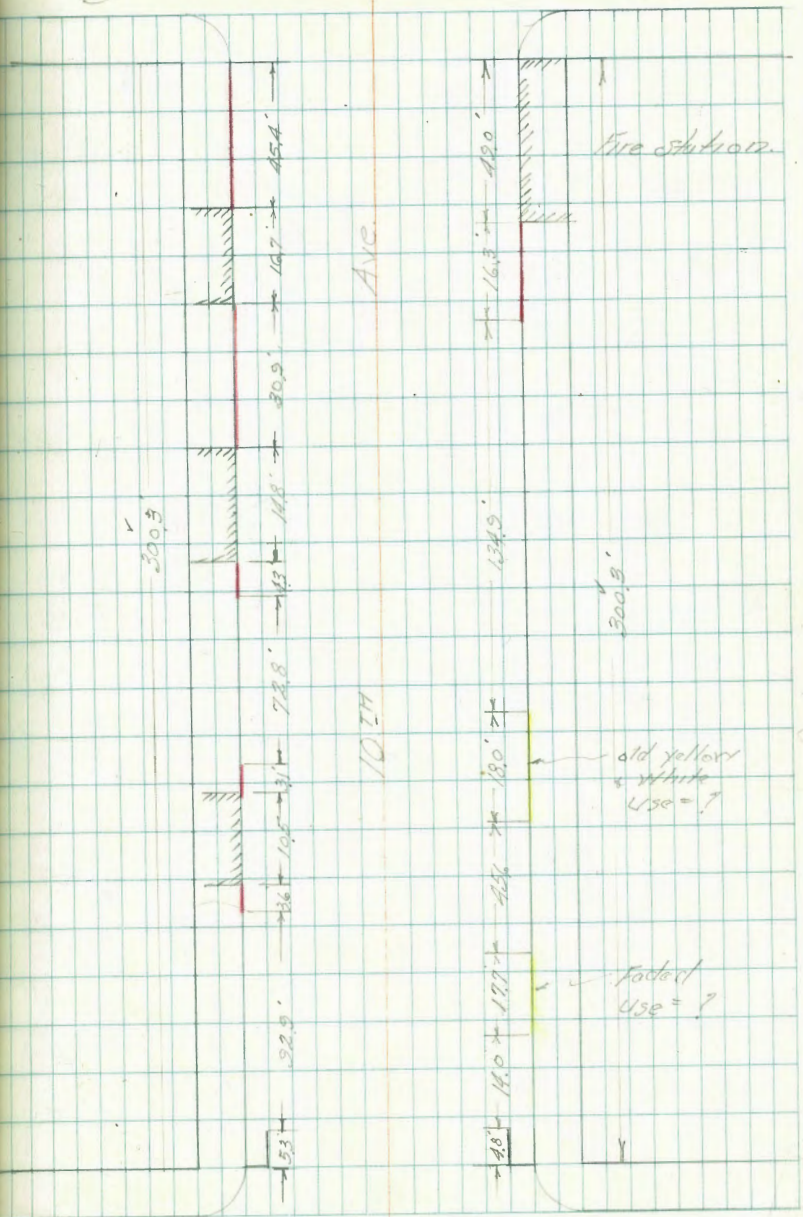


Broadway

Ave

B

C



C

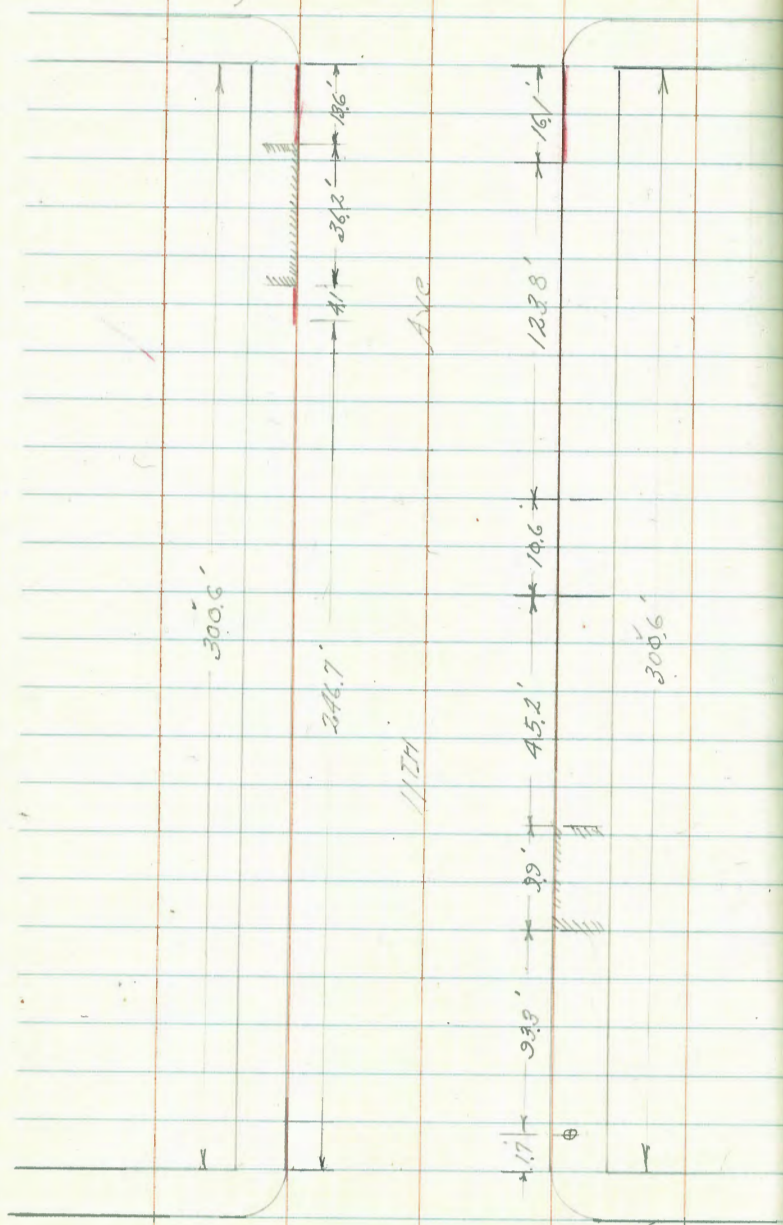
St.

Brooklyn

Ave.

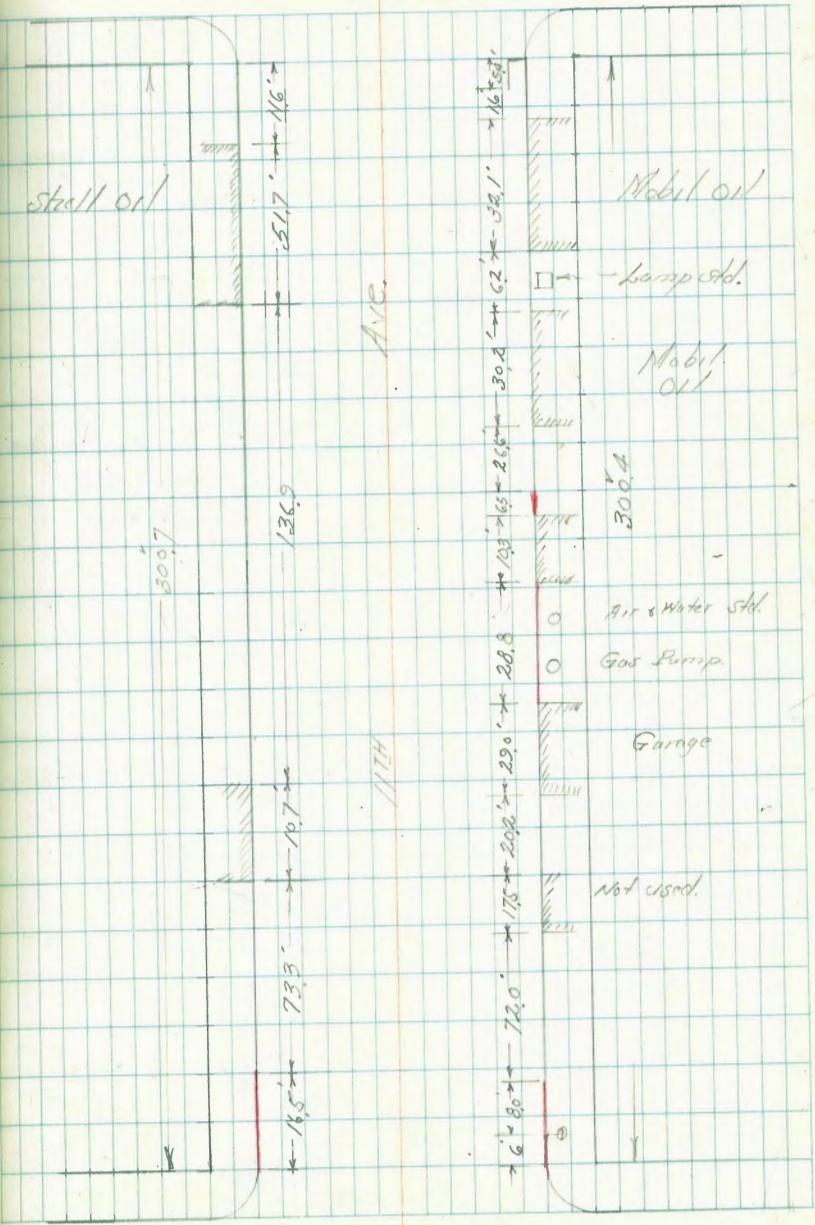
C-

70 St.



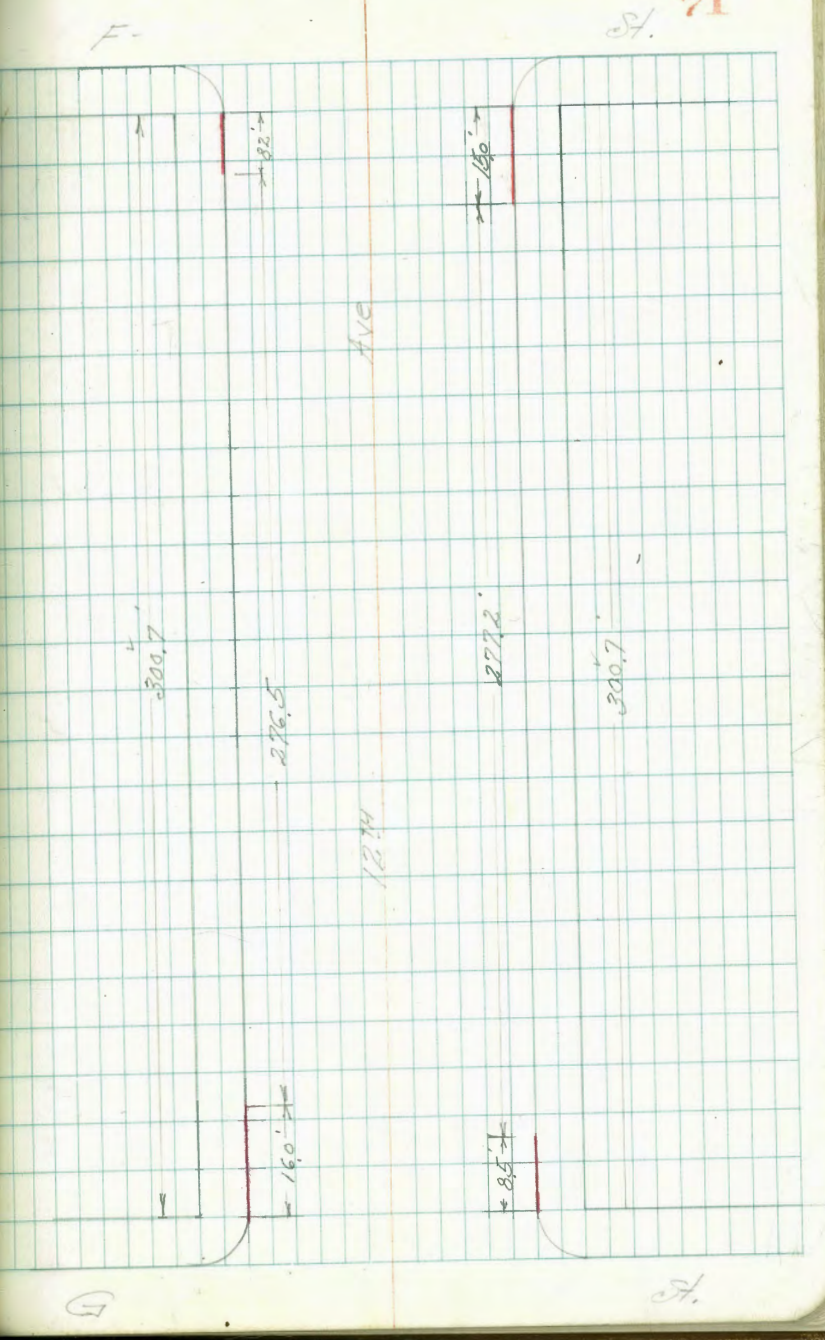
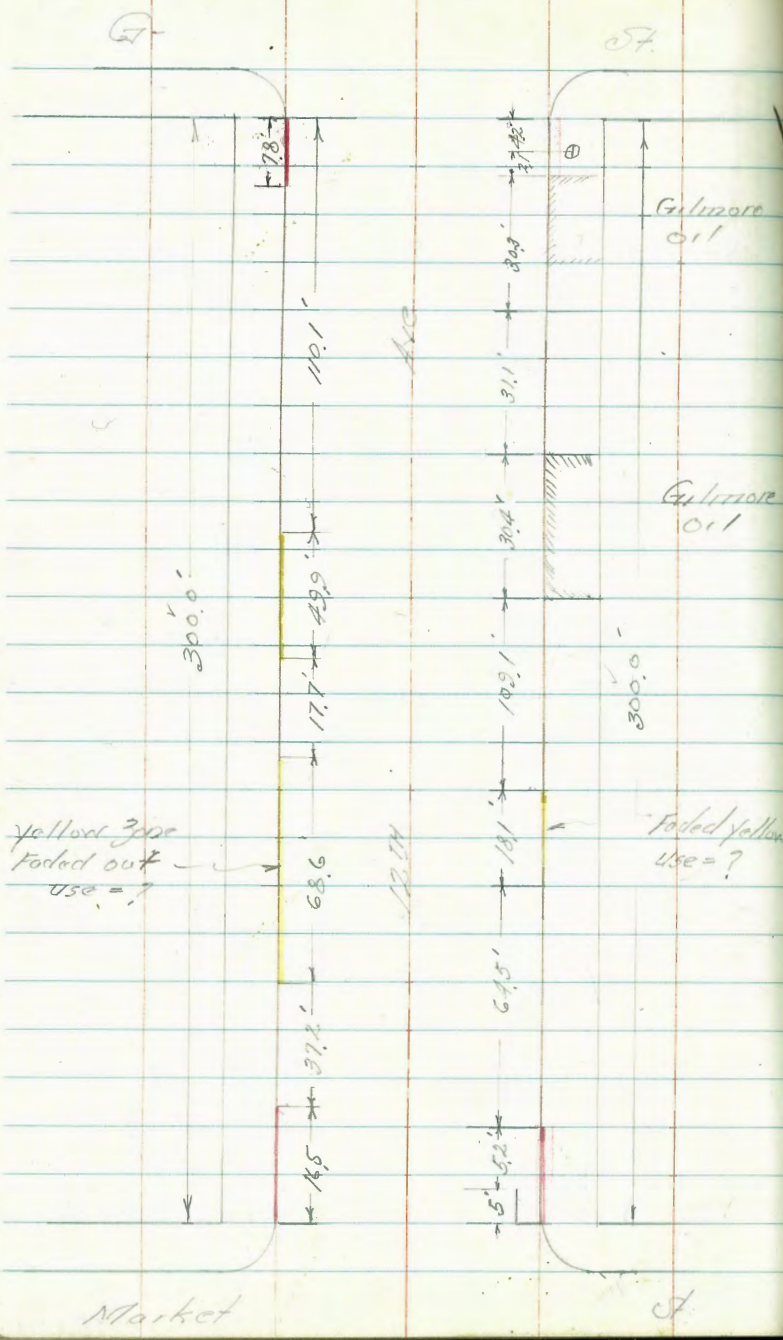
E-

St



Brooklyn

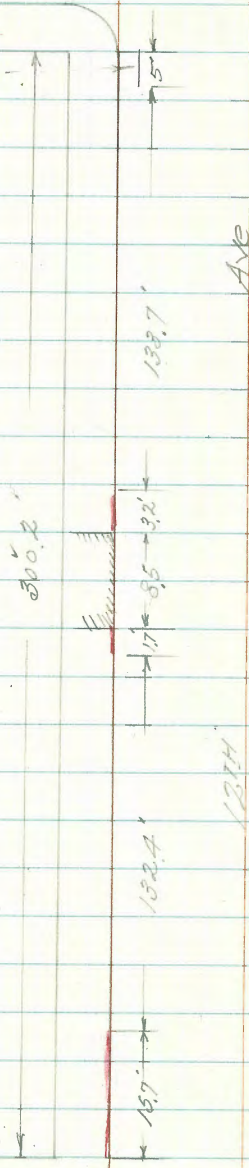
Ave



Brookway

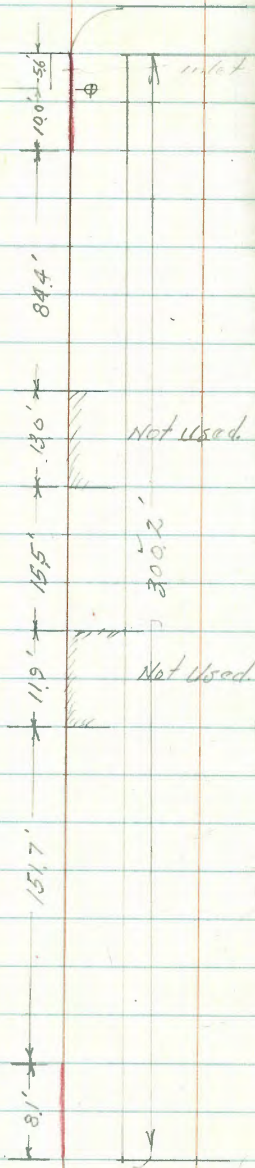
Ave.

inlet



Ave

1214

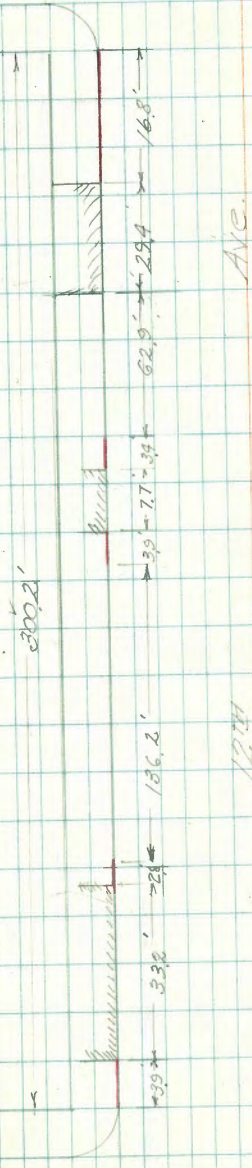


Not Used

Not Used

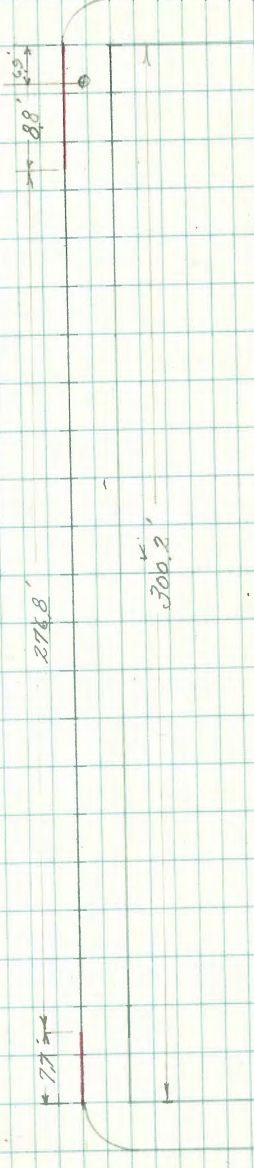
E-
Brookway

St. 72
Ave.



Ave

1214



300.2

St.

E- E

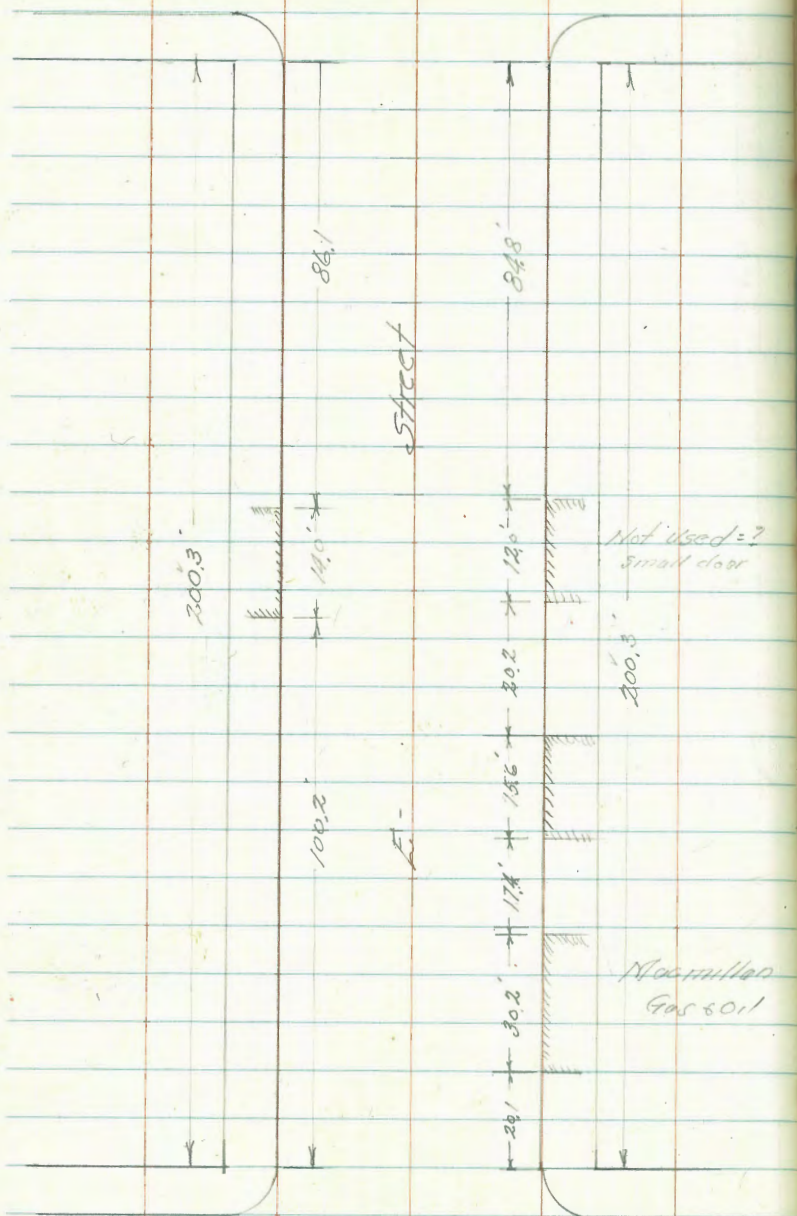
St.

E- F

St.

Columbia

St.

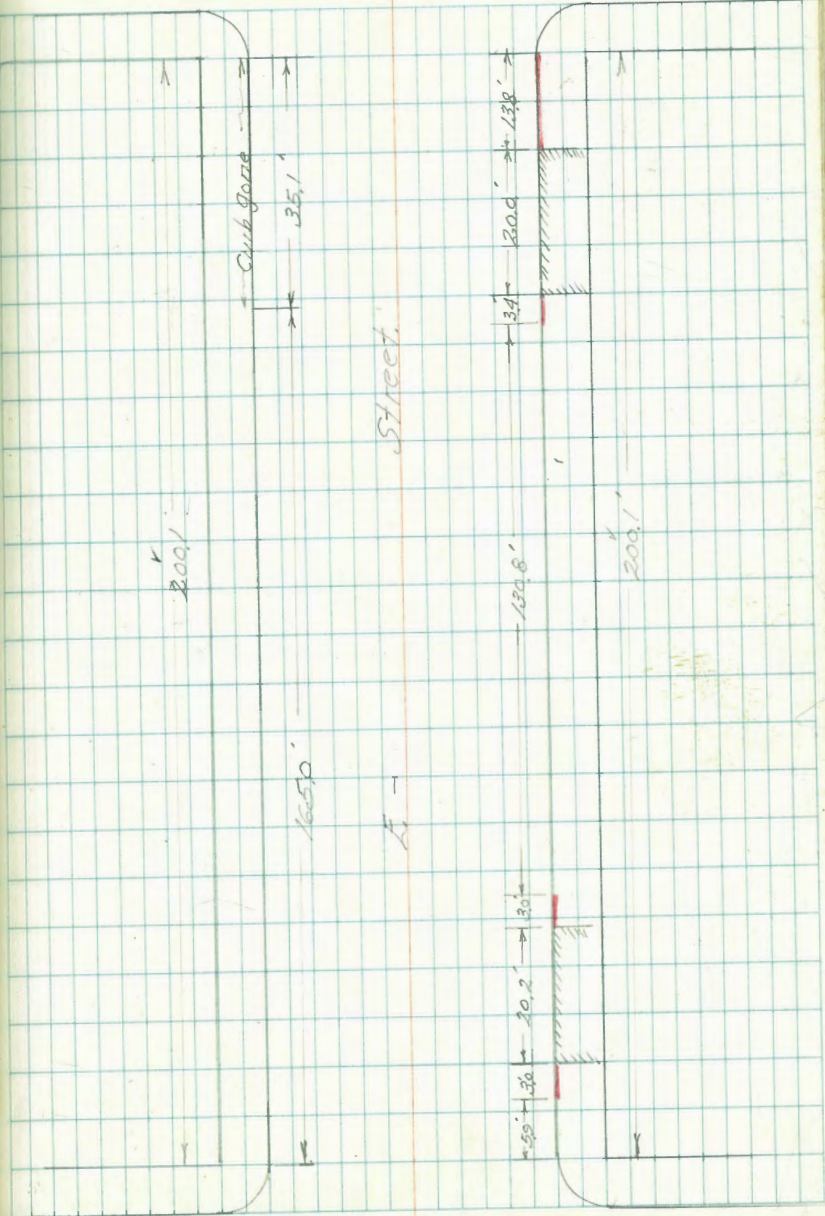


India

St.

State

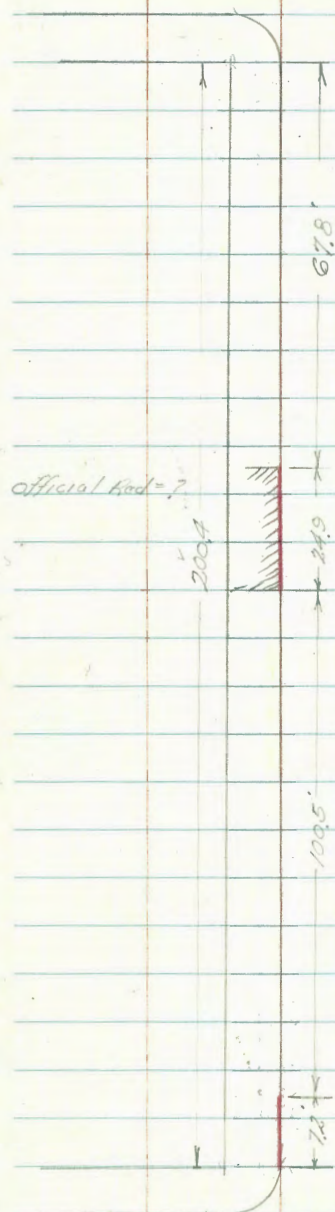
Street 74



Columbia

St.

5TH



Official Road = ?

200'4"

67'8"

109'5"

72'4"

Ave

Island

111'1"

27'1"

73'5"

106'1"

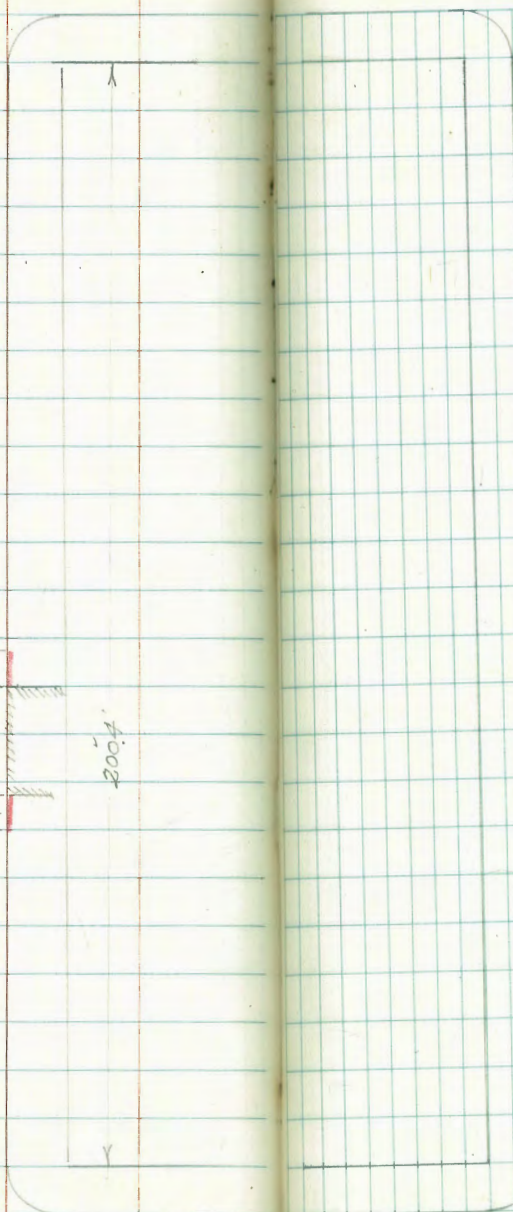
2'5"

200'4"

Ave.

Ave

6TH



Nothing on this side of 200'4"

Ave

Island

67'8"

111'1"

217'

301'

69'8"

200'4"

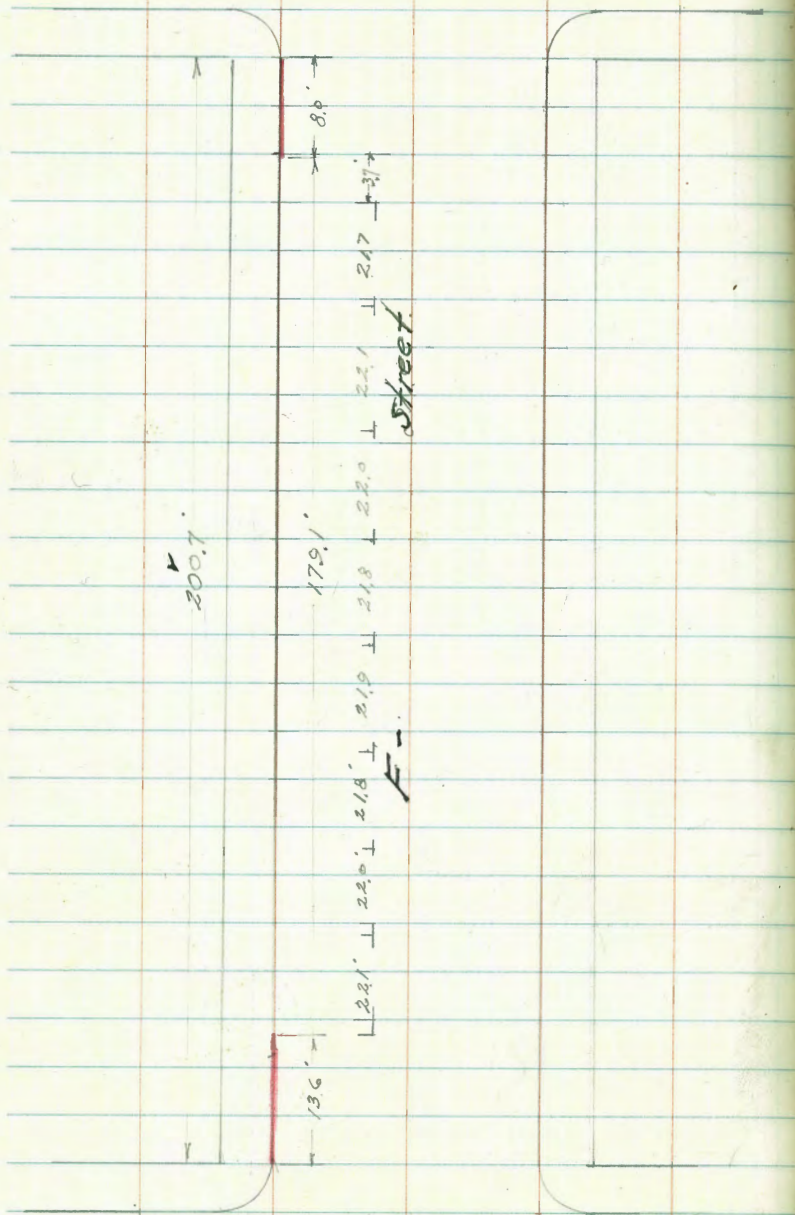
Ave 75

Ave.

5TH

9TH

Ave

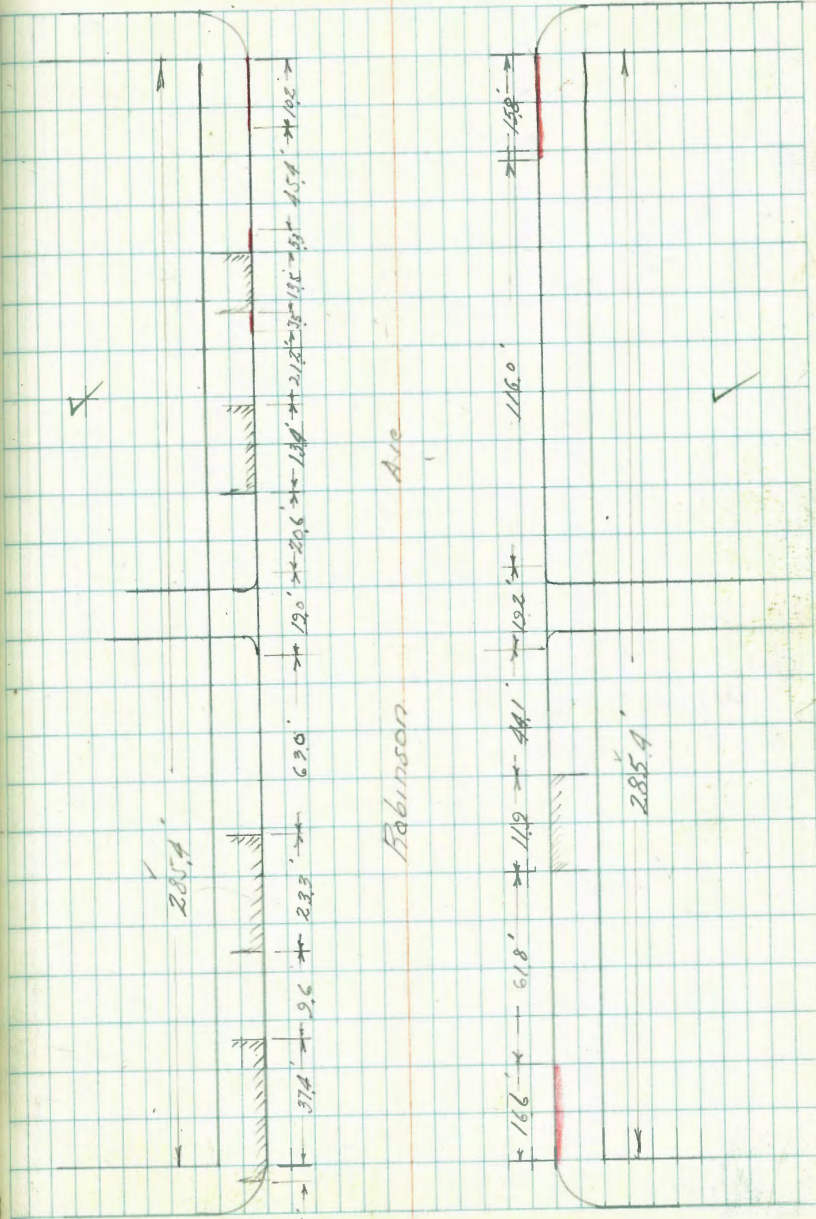


8TH

Ave

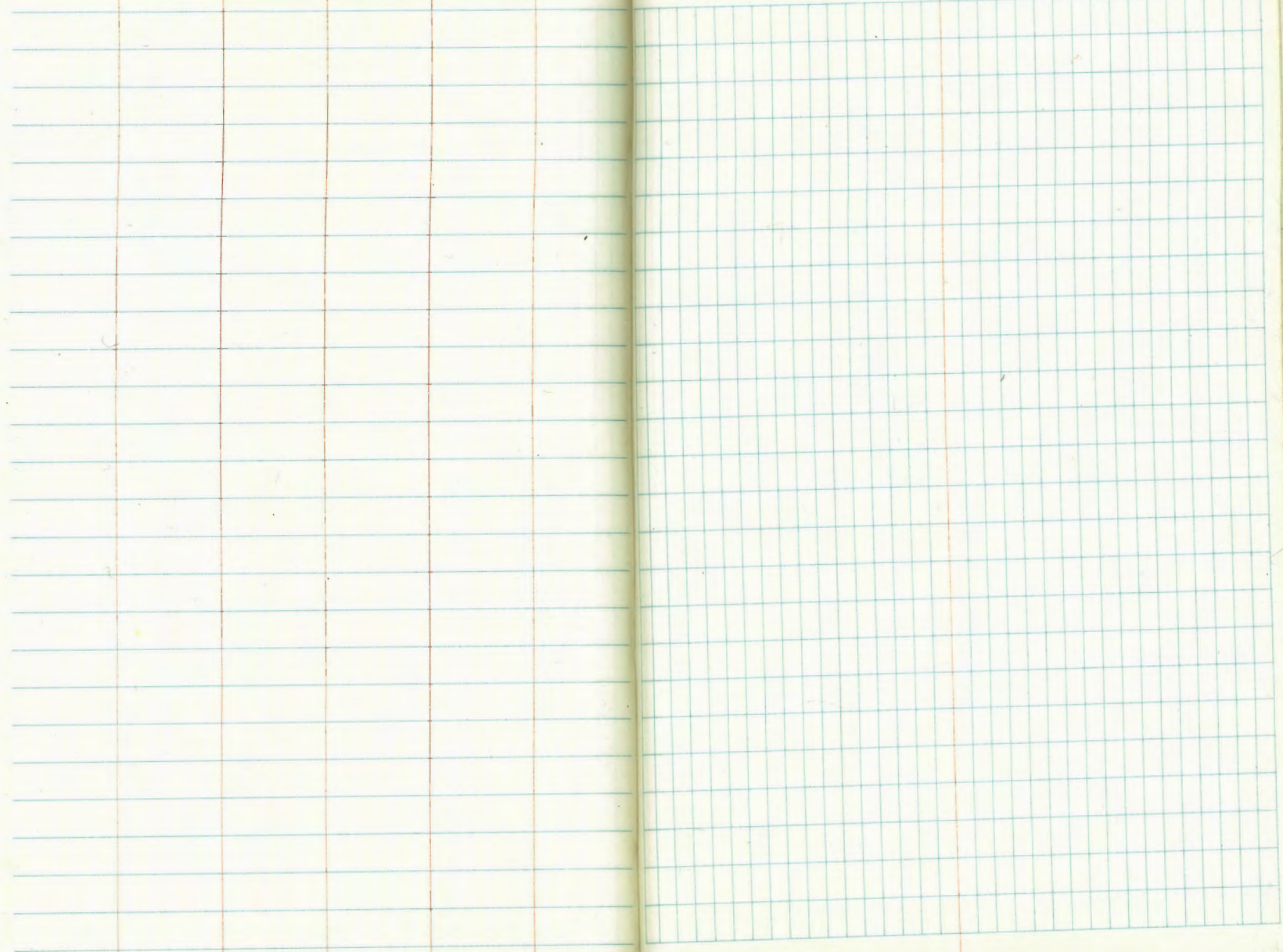
5TH

Ave. 76



4TH

Ave.



IMPROVED TABLES AND INFORMATION

10.8
31.2
31
8.5
131.3
7.6
198.5
22
201.1

HORIZONTAL STADIA CORRECTIONS

2°-00' — 0.1	21°-00' — 12.8	33°-00' — 29.7
3°-00' — 0.3	21°-30' — 13.4	33°-15' — 30.1
4°-00' — 0.5	22°-00' — 14.0	33°-30' — 30.5
5°-00' — 0.8	22°-30' — 14.7	33°-45' — 30.9
6°-00' — 1.1	23°-00' — 15.3	34°-00' — 31.3
7°-00' — 1.5	23°-30' — 15.9	34°-15' — 31.7
8°-00' — 1.9	24°-00' — 16.5	34°-30' — 32.1
9°-00' — 2.5	24°-30' — 17.2	34°-45' — 32.5
10°-00' — 3.0	25°-00' — 17.9	35°-00' — 32.9
10°-30' — 3.3	25°-30' — 18.6	35°-15' — 33.3
11°-00' — 3.6	26°-00' — 19.2	35°-30' — 33.7
11°-30' — 4.0	26°-30' — 19.9	35°-45' — 34.1
12°-00' — 4.3	27°-00' — 20.6	36°-00' — 34.6
12°-30' — 4.7	27°-30' — 21.3	36°-15' — 35.0
13°-00' — 5.1	28°-00' — 22.0	36°-30' — 35.4
13°-30' — 5.5	28°-30' — 22.8	36°-45' — 35.8
14°-00' — 5.9	29°-00' — 23.5	37°-00' — 36.2
14°-30' — 6.3	29°-30' — 24.3	37°-15' — 36.6
15°-00' — 6.7	30°-00' — 25.0	37°-30' — 37.1
15°-30' — 7.2	30°-15' — 25.4	37°-45' — 37.5
16°-00' — 7.6	30°-30' — 25.8	38°-00' — 37.9
16°-30' — 8.1	30°-45' — 26.2	38°-15' — 38.3
17°-00' — 8.5	31°-00' — 26.5	38°-30' — 38.7
17°-30' — 9.0	31°-15' — 26.9	38°-45' — 39.1
18°-00' — 9.5	31°-30' — 27.3	39°-00' — 39.6
18°-30' — 10.1	31°-45' — 27.7	39°-15' — 40.0
19°-00' — 10.6	32°-00' — 28.1	39°-30' — 40.5
19°-30' — 11.2	32°-15' — 28.5	
20°-00' — 11.7	32°-30' — 28.9	
20°-30' — 12.3	32°-45' — 29.3	

Chains to Feet

1	66
2	132
3	198
4	264
5	330
6	396
7	462
8	528
9	594
10	660

Feet to Chains

100	1.515
200	3.030
300	4.545
400	6.060
500	7.575
600	9.090
700	10.606
800	12.121
900	13.636
1,000	15.151

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope $1\frac{1}{2}$ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

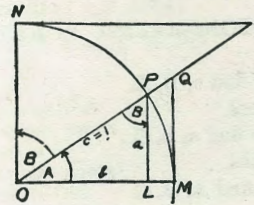


TABLE II
TRIGONOMETRIC FORMULÆ.

$$\begin{aligned} \angle A &= \angle MOP & \angle B &= \angle PON = \angle OPL \\ R &= OB = c = 1 \\ \sin A &= \frac{a}{c} = \frac{a}{1} = a = \cos B = LP \\ \cos A &= \frac{b}{c} = \frac{b}{1} = b = \sin B = OL \\ \tan A &= \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ \\ \cot A &= \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT \\ \sec A &= \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ \\ \csc A &= \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT \\ \text{vers } A &= \frac{LM}{OP} = LM = \text{covers } B \# \\ \text{covers } A &= \frac{OP - LP}{OP} = OP - LP = \text{vers } B \\ \text{exsec } A &= PQ = \text{coexsec } B \\ \text{coexsec } A &= PT = \text{exsec } B \\ \sin \frac{1}{2} A &= \sqrt{\frac{1 - \cos A}{2}} & \cos \frac{1}{2} A &= \sqrt{\frac{1 + \cos A}{2}} \\ \sin 2A &= 2 \sin A \cos A & \cos 2A &= \cos^2 A - \sin^2 A \\ \text{Law of Lines} & \frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c} \\ \text{Law of Cosines} & c^2 = a^2 + b^2 - 2ab \cos C \\ \text{Law of Tangents} & \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)} \end{aligned}$$

67



833
26
67.3
640
23.1

20
1

1289
26
1313