

1112

ASTS

MEMORANDUM BOOK

No. 185 F

MICROFILMED

DEC 21 1964

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
- No. 382 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 4 x 4 to the inch, Center Line Red.
- No. 384 MINING TRANSIT BOOK. Left Hand Page as in this Book, Right Hand Page 8x8 to the inch, Center Line Red.
- No. 385 FIELD BOOK. Left Hand Page as in this Book, Right Hand Page 8 vertical and 4 horizontal lines to the inch, Center Line Red.

We also carry the Note Books listed above, bound in extra strong Fabri-Hide (otherwise the same quality of book), which can be furnished at a somewhat lower price.

In ordering Fabri-Hide covered books, add the letter "F" to catalog number.

**THE FREDERICK POST CO.**  
*ENGINEERING and DRAFTING SUPPLIES*  
IRVING PARK STATION  
CHICAGO, ILL.

92 FIFTH ST.  
PORTLAND, ORE.

79 NEW MONTGOMERY ST.  
SAN FRANCISCO, CAL.

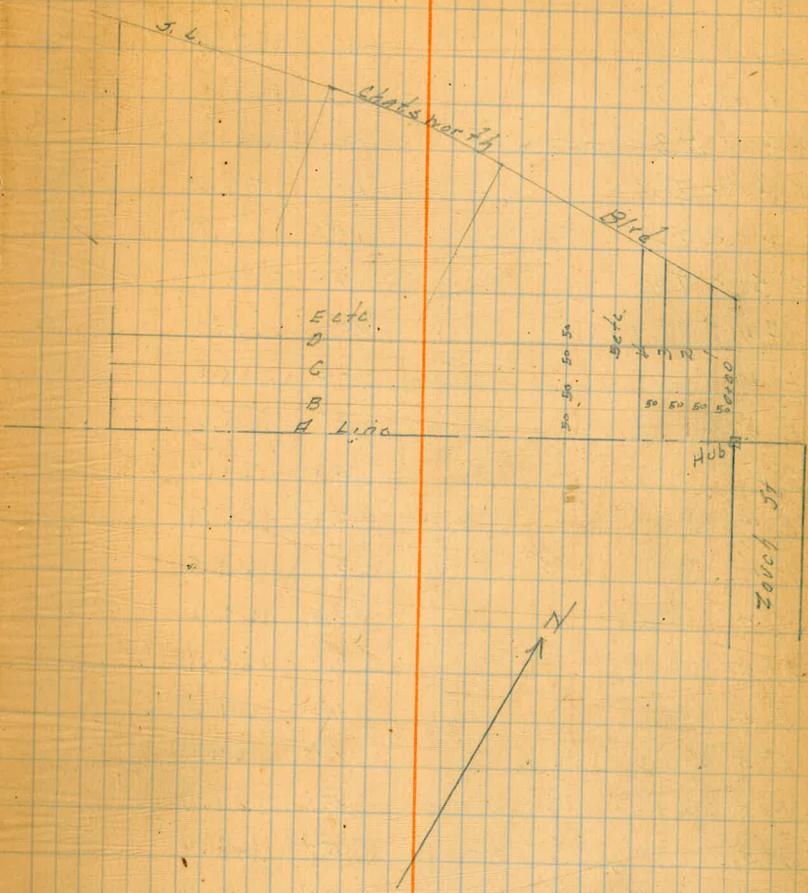
AGENTS FOR

"BERGER" TRANSITS and LEVELS  
"GURLEY" SURVEYING and HYDRAULIC INSTRUMENTS  
"CHICAGO" STEEL TAPES, etc.

3/3/24

Contours for School Board on Chatsworth

on B.M.	12.73	17431	161.58	200 ft. alt. 37
A.0			17.0	157.3
8' N. of F.0 = bottom bank			10.6	163.7
3' N. of F.0 = Top			9.2	165.1
B.0			15.5	158.8
25' N. of E.0			8.1	166.2
E.0			9.0	165.3
D.0			12.6	161.7
C.0			13.5	160.8
C.1			14.5	161.8
B.1			13.8	160.5
? D.1			11.0	163.3
A.1			15.8	158.5
E.1			9.2	165.1
F.1			7.8	166.5
40' N. of F.1			6.7	167.6
45' - F.1			10.1	164.2
A.2			14.3	160.0
30' N. of G.2			10.2	164.1
27' - - -			5.5	168.8
B.2			12.4	161.9
G.2			5.7	168.6
F.2			6.1	168.2
E.2			7.8	166.5
D.2			9.7	164.6
C.2			11.1	163.2



C.3	8.8	165.5
B.3	10.0	164.3
D.3	7.3	167.0
A.3	12.2	162.1
E.3	6.2	168.1
F.3	4.3	170.0

174.31

G3	4.8	169.5	—
H3	6.7	167.6	—
15' N of H3	7.2	167.1	—
20' - H3 = bottom bank	12.1	162.2	—
5' - I4 = - -	15.1	159.2	—
3' - I4 = Top	2.8	164.5	—
15' S of I4	7.7	166.6	—
A4	10.1	164.2	—
H4	6.3	168.0	—
B4	8.7	165.6	—
G4	5.0	169.3	—
C4	7.4	166.9	—
F4	5.1	169.2	—
E4	4.8	169.5	—
D4	5.6	168.7	—
E5	4.4	169.9	—
D5	4.4	169.9	—
F5	5.1	169.2	—
G5	5.7	168.6	—
20' S of D5	4.9	169.4	—
H5	6.9	167.4	—
C5	6.4	167.9	—
I5	9.1	165.2	—
B5	7.2	167.1	—
30' N of I5	11.3	163.0	—
A5	7.5	166.8	—

38' N of I5	12.9	161.4	—
43' - I5	17.4	156.9	—
A6	3.2	171.1	—
25' N of A6	4.6	169.7	—
B6	4.2	170.1	—
C6	3.8	170.5	—
22' N of J6	14.6	159.7	—
26' - J6	21.1	153.2	—
J6	12.3	162.0	—
25' N of C6	2.6	171.7	—
D6	2.8	171.5	—
I6	9.4	164.9	—
E6	4.2	170.1	—
H6	7.7	166.6	—
G6	5.8	168.5	—
14' W of E5	4.0	170.3	—
14' - 94/145 of E5	2.5	171.5	—
14' - 28' - - -	4.0	170.3	—
F6	5.4	168.9	—
30' W of F6	5.1	169.2	—
E7	4.7	169.6	—
F7	6.1	168.2	—
G7	7.2	167.1	—
D7	1.8	172.5	—
H7	7.2	167.1	—
C7	+0.3	174.0	—

2

I 7	9.9	164.4	✓	25' E of B9	33	178.9	✓
25' E of C7	1.5	173.8	✓	25' ✓ and 15' N of B9	38	178.4	✓
20' S - C7 ←	+0.3	174.0	✓	25' S of B9	22	180.0	✓
10' E of last above	0.6	173.7	✓	25' ✓ and 15' E of B9	18	180.4	✓
15' ✓ ✓ of ✓ ✓	2.3	172.0	✓	A9	16	180.6	✓
B7	0.3	174.0	✓	15' W of C9	62	176.0	✓
25' E of B7	3.2	171.1	✓	15' ✓ and 20' S of C9	63	175.9	✓
A7	+0.2	174.1	✓	35' N of C9	95	172.7	✓
I 8	11.0	163.3	✓	35' ✓ and 15' W of C9	97	172.5	✓
H 8	9.2	165.1	✓	D9	97	172.5	✓
20' E of H 8	7.7	166.6	✓	15' N of D9	103	171.9	✓
15' S ✓ of H 8	8.6	165.7	✓	15' - D9 and 10' E	112	171.0	✓
G 8	6.2	168.1	✓	30' - D9	122	170.0	✓
F 8	6.7	167.6	✓	E 9	132	169.0	✓
30' E + 20' N of F 8	6.9	167.4	✓	15' E of A10	16	180.6	✓
E 8	4.8	169.5	✓	15' - and 12' N of A10	18	180.4	✓
D 8	2.1	172.2	✓	A10	23	179.9	✓
10' S of D 8	1.5	172.8	✓	B10	52	177.0	✓
9.02 182.25	1.10	173.21	✓	25' N of B10	62	176.0	✓
A 8	3.8	178.4	✓	35' - - B10	60	176.2	✓
B 8	4.3	177.9	✓	C 10	75	174.7	✓
C 8	5.6	176.6	✓	15' E of E10	133	168.9	✓
8' N of C 8	6.0	176.9	✓	E10	121	170.1	✓
C 9	6.9	175.3	✓	20' W of E10	130	169.2	✓
25' S of C 9	5.7	176.5	✓	15' S ✓ ✓ 10	123	169.9	✓
B 9	3.6	178.6	✓	D10	105	171.7	✓

D 11	10.6	171.6	✓
25' S. of D 11	8.9	173.3	✓
25' ✓ and 15' E of D 11	7.4	174.8	Top Knoll
5' ✓ - 15' ✓ - D 11	9.9	172.3	✓
C 11	8.7	173.5	✓
B 11	6.7	175.5	✓
A 11	3.2	179.0	✓
C 12	10.4	171.8	✓
18' W of A 11	3.1	179.1	✓
18' W and 20' N of A 11	5.8	176.4	✓
A 12	4.4	177.8	✓
<del>E 12</del> E 12	12.4	169.8	✓
15' N of A 12	5.5	176.7	✓
25' ✓ - A 12	5.5	176.7	✓
40' ✓ - A 12	7.0	175.2	✓
B 12	7.5	174.7	✓
25' N of D 12	13.0	169.2	✓
25' ✓ and 25' W of D 12	11.9	170.3	✓
25' W of D 12	12.9	169.3	✓
✓ ✓ and 7' S of E 12	13.8	168.4	✓
C 13	11.7	170.5	✓
E 12 ?	13.5	168.7	✓
B 13	8.9	173.3	✓
15' E of B 13	8.1	174.1	✓
15' ✓ and 10' N of B 13	8.9	173.3	✓
E 13	15.2	167.0	✓

D 13	13.6	168.6	✓
A 13	4.1	178.1	✓
A 14	5.6	176.6	✓
B 14	9.7	172.5	✓
C 14	12.7	169.5	✓
D 14	14.7	167.5	✓
E 14	15.9	166.3	✓
25' W of E 14	16.0	166.2	✓
25' W - E 14 and 5' N	15.6	166.6	✓
E 15	17.3	164.9	✓
25' E of B 15	10.0	172.2	✓
15' ✓ - B 15	10.8	171.4	✓
15' ✓ and N of B 15	12.0	170.2	✓
D 15	16.2	166.0	✓
E 15	17.3	164.9	✓
C 15	14.3	167.9	✓
B 15	11.0	171.2	✓
15' S of B 15	9.4	172.8	✓
A 15	7.7	174.5	✓
A 16	9.3	172.9	✓
B 16	12.9	169.3	✓
A 17	12.3	169.9	✓
T.P. 043 170.38	12.30	169.35	✓
25' N of B 16	7.8	167.6	✓
C 16	4.0	166.4	✓
E 16	6.2	164.2	✓

25' S. of E 16	5.1	165.3	—
D 16	5.8	164.6	—
C 17	5.3	165.1	—
25' N and 25' W of D 16	6.8	163.6	✓
B 17	3.0	167.4	—
D 17	6.9	163.5	—
E 17	7.6	162.8	—
18' W of A 18 = 6 Voltaire	2.0	168.4	—
✓ - - B 18 = ✓ ✓	4.6	165.8	—
18' - - C 18 = ✓ ✓	6.7	162.7	—
40' W of E 17	7.3	163.1	—
E 18	8.3	162.1	—
20' S. of E 18	8.4	162.0	—
18' W of D = 6 Voltaire	8.1	162.3	—
18' - - E 18 = ✓ ✓	8.5	161.9	—
18' - - F 18 = ✓ ✓	9.7	160.7	—
F 18	9.7	160.7	—
25' N of F 18	8.5	161.9	—
✓ ✓ and 25' W of F 17	9.3	161.1	—
F 17	8.4	162.0	—
G 18	9.7	160.7	—
18' W of G 18	9.7	160.7	—
20' N and 18' W of G 18	8.7	161.7	—
G 17	8.5	161.9	—
20' N of G 18	8.3	162.1	—
20' - and 20' E of G 18	9.5	160.9	—

5

20' E of G 17	7.1	163.3	—
18' W of H 18	11.0	159.4	—
20' E and 15' S. of G 17	8.4	162.0	—
H 18	10.3	160.1	—
25' N of H 18	12.0	158.4	—
20' E and 30' N of G 17	8.7	161.7	—
18' W of F 18	15.8	154.6	—
I 18	15.5	154.9	—
H 17	9.4	161.0	—
25' E and 15' S. of I 18	13.0	157.4	—
I 17	13.1	157.3	—
20' S. of I 17	9.9	160.5	—
I 16	10.3	160.1	—
25' S. of I 16	8.6	161.8	—
25' - and 20' W of I 16	9.8	160.6	—
H 16	9.4	161.0	—
G 16	8.6	161.8	—
30' S. of G 16	6.5	163.9	—
F 16	7.2	163.2	—
15' E of F 16	6.8	163.6	—
15' - and 15' N of F 16	6.0	163.4	—
25' W of I 15	10.7	159.7	—
25' - and 20' S. of I 15	10.1	160.3	—
I 15	10.3	160.1	—
15' S. of I 15	9.6	160.8	—
35' - - -	10.2	160.2	—

H15	9.5	160.9	/
F15	6.8	163.6	/
10' W of H15	8.8	161.6	/
25' N of F15	6.4	164.0	/
G15	8.1	162.3	<
20' W of I14	10.9	159.5	/
20' and 15' S of I14	9.7	160.7	/
25' and 10' N of H14	10.3	160.1	/
15' of G14	7.7	162.7	/
H14	9.0	161.4	/
G14	6.5	163.9	/
25' N of H14	10.8	159.6	/
25' of G14	8.5	161.9	/
I14	11.4	159.0	/
20' S of G14	7.1	163.3	/
F14	6.1	164.3	/
25' E of I14	10.5	159.9	/
25' E and 10' S of I14	9.8	160.6	/
25' W and 10' N of H13	9.9	160.5	/
F13	4.8	165.6	/
H13	7.8	162.6	/
G13	6.0	164.4	/
25' N of H13	10.1	160.3	/
I13	10.7	159.7	/
F12	9.4	161.0	/
H12	7.0	163.4	/

G12	5.0	165.4	/
F12	3.4	167.0	/
I11	8.7	161.7	/
H11	7.2	163.2	/
G11	4.6	165.8	/
F11	3.4	167.0	/
25' E of H11	7.1	163.3	/
H10	6.9	163.5	/
G10	5.1	165.3	/
I10	7.5	162.9	/
35' S of G10	4.0	166.4	/
F10	2.8	167.6	/
25' E of I10	6.2	164.2	/
25' and 10' S of I10	7.1	163.3	/
I9	7.3	163.1	/
F9	3.2	167.2	/
H9	6.0	164.4	/
G9	4.7	165.7	/
J9	8.6	161.8	/
20' N of J9	10.8	159.6	/
5' S of K9	11.6	158.8	/
K9 Top Bank	13.3	157.1	/
5' N of K9 bottom	20.8	149.6	/
J8	9.5	160.9	/
K8	12.4	158.0	/
12' N of K8	12.0	158.4	/

17038

24' N x K8	133	157.1
33' v - K9 - Top of bank	153	155.1
28' v - K9	13.8	156.6
15' W & 25' N x K9 Top bank	14.0	156.4
J 10	9.1	161.3
K 9	123	158.1
J 9	9.5	160.9
25' W x J 9	8.5	161.9
K 10	11.2	159.2
20' N x K 10	13.2	157.2
J 11	8.5	161.9
15' N x K 11	12.0	158.4
K 11	10.7	159.7
25' N x L 11	9.4	161.0
25' v - L 12	8.7	161.7
J 12	9.6	160.9
25' N x J 12	10.6	159.8
K 12	13.2	157.0
J 13	11.7	158.7
20' N x J 13	14.1	156.3
J 14	15.5	154.9
10' W x J 14	17.2	153.2
J 15	13.6	156.8
20' S x J 15	11.7	158.7
20' E x J 16	13.4	157.0
20' - 7/8 20' S x J 16	10.1	160.3

7

J 16	13.8	156.6
25' S x J 16	11.1	159.3
TP 0.38 15834	12.42	157.96
25' W x J 16	4.0	154.3
25' v and 20' S x J 16	1.9	156.4
J 17	6.7	151.6
25' S x J 17	3.8	154.5
J 18	9.3	149.0
18' W x J 18 + d Voltairio	10.0	148.3
25' S x J 18	4.7	153.6
25' - 7 15' E x J 18	5.0	153.3
18' W and 20' N x J 18	13.8	144.5
20' N x J 17	10.4	147.9
20' W & 5' W x J 17	8.8	149.8
15' N x J 16	5.2	153.1
15' - & 25' N x J 16	4.5	153.8
K 15	12.6	145.7
25' E x K 15	13.2	145.1
K 14	11.4	146.9
K 13	6.7	151.6
25' N x K 13	12.5	145.8
25' N & 15' E x K 13	11.8	146.5
25' N x K 12	6.8	151.5
25' E x L 10	6.3	151.0
L 10	7.8	150.5
13' N x L 10	12.5	145.8

24	L 11	9.7	148.6	✓
33	10' N of L 11	13.0	145.3	✓
28	F.P.	0.88	147.00	
15'	28' N of L 11	12.22	146.12	
J	36' ✓ L 11	5.1	141.9	✓
K	L 12	9.7	137.3	✓
J	L 12	2.3	144.7	✓
25'	25' W of L 12	9.3	143.7	✓
25'	5' S of Last above	2.9	144.1	✓
K	46' N of L 12	12.6	134.4	✓
20	38' ✓ L 12	7.7	139.3	✓
J	25' W & 10' N of L 12	4.2	142.8	✓
15'	15' ✓ & 15' ✓ L 12	7.5	139.5	✓
K	25' N of L 13	7.6	139.4	✓
25'	M 13	10.6	136.4	✓
25'	L 13	5.2	141.8	✓
J	8' N of M 13 = bottom bank	15.3	131.7	✓
25'	25' W of L 13	6.0	141.0	✓
K	25' W & 20' N of L 13	8.3	139.7	✓
J	25' N of L 14	8.7	139.3	✓
20'	L 14	8.0	139.0	✓
J	2' N of M 14	12.5	134.5	✓
10'	20' W of L 14	8.6	138.4	✓
J	25' N of last above	11.0	136.0	✓
20'	15' E of L 15	8.5	138.5	✓
20'	10' N of last above	8.8	138.2	✓
20'	20' - - -	12.4	134.6	✓

25' N of L 15	12.0	134.4	✓
L 15	9.8	137.2	✓
25' W of L 15	10.3	136.7	✓
25' W & 20' N of L 15	11.8	135.2	✓
L 16	11.9	135.1	✓
20' S of L 16	6.8	140.2	✓
10' N of K 16	5.1	141.9	✓
K 16	3.2	143.6	✓
15' E of K 17	5.8	141.2	✓
K 17	5.6	141.4	✓
33' N of K 17	10.6	136.4	✓
L 17	12.7	134.3	✓
20' E of L 17	10.7	136.3	✓
20' - & 15' N of L 17	14.1	132.9	✓
K 18	8.0	139.0	✓
18' W of K 18 = L Voltaire	9.5	137.5	✓
18' W. and 15' S of L 18	13.6	133.4	✓
18' - of L 18	13.2	133.8	✓
T.P. 000	12.77	134.23	
L 18	1.5	132.7	✓
20' N + 18' W of L 18	3.6	130.6	✓
18' W of M 18	7.0	127.2	✓
20' N + 18' W of M 18	9.0	125.2	Top bank
25' - & 18' - - -	13.0	121.2	bottom
16' N of M 17	5.8	128.4	✓
25' - - - 17	10.8	123.4	✓

24	M17		5.0	129.2	/
33	M16		2.2	132.0	/
28	6' N of M16		2.1	132.1	/
15	20' - - -		9.0	125.2	/
J	20' 3' - - -		2.8	131.4	/
K	20' & 20' E of M16		0.0	134.2	/
J	20' E of M16		2.7	131.5	/
25	15' N of M15		6.7	127.5	/
K	10' - - -		2.0	132.2	/
20	M15		0.8	133.4	/
J	12' N of M14 bottom		5.2	129.0	X
15	T.P. 1056	143.73	10.6	133.17	
K	5' N of M14		9.2	134.5	/
25	22.5' - - -		6.0	137.7	/
45	22.5' & 15' W of M14		8.1	135.6	/
J	22' & 15' E - - -		6.3	137.4	/
45	5' N of M13		12.1	131.6	/
K	45' - L12		9.3	134.4	X
J	T.P. 930	153.09	0.00	143.73	
20	22' N of L10		12.7	140.3	/
J	L9 - bottom		9.8	143.2	/
10	30' N of K8		6.5	146.5	/
J	T.P. 1291	165.29	0.65	152.38	
20			3.67	161.62	0.8.24
20					
20					



3/23/24

CROSS SECTION OF 80 wide  
MAPLE ST 14' walks  
32' end to Bangcroft

301.11

B.P. SW  
32' end to Bangcroft

308.82

11

7.71

308.82

Elev. 32' end = 0+00

N	8.3	300.5
cb	6.9	301.9
1/2	5.9	302.9
c	5.3	302.5
1/4	4.8	304.0
cb	4.3	304.5
S	4.0	304.8

35' E

S	3.9	304.9
cb	4.0	304.8
1/4	4.3	304.5
c	5.1	303.7
1/2	5.8	303.0
cb	7.0	301.8
N	7.9	300.9

70' E

-5	8.8	300.0
N	8.2	300.5
cb	7.8	301.0
1/4	6.9	301.9
c	6.2	302.6
1/4	5.1	303.7
cb	4.1	304.7

S

3.7

305.1

100' E

S	4.5	304.3
cb	4.8	304.0
1/4	5.3	303.5
c	6.1	302.7
1/2	7.0	301.8
cb	7.4	301.4
N	8.4	300.4
+5	9.2	299.6

125' E

-5	8.9	299.9
N	8.4	300.4
cb	7.9	300.9
1/2	6.8	302.0
c	6.0	302.8
1/4	5.3	303.5
cb	4.6	304.2
S	4.4	304.4

150' E

S	4.5	304.3
cb	4.9	303.9
1/4	5.3	303.5
c	5.8	303.0
1/2	7.2	301.6
cb	8.5	300.3

308.82

N	9.6	299.2
+5	10.0	298.5
	175' E	
-5	11.3	297.5
N	11.1	297.7
cb	9.9	298.9
1/2	9.1	299.7
c	8.1	300.7
1/4	7.0	301.8
cb	6.0	302.8
S	5.3	303.5
	200' E = W L BANCROFT	
S	7.8	301.0
cb	8.9	299.9
1/4	9.8	299.0
c	10.3	298.5
1/4	10.5	298.3
cb	11.7	297.1
N	12.4	296.4
+5	13.1	295.7

91.3'  
30th St - Florence to National3944  
see Last Page

1/4	5.6	85.7
cb	6.0	85.3
+5	5.3	86.0
E	5.4	85.9
	575' S	
E	6.3	85.0
+8	6.6	84.7
cb	7.0	84.3
1/4	6.5	84.8
-C	6.5	84.8
+5	5.8	84.5
1/4	5.6	85.7
+3	5.1	86.2
cb	5.1	86.2
w	5.1	86.2
	63845' S = W L Nat'l Ave	
w	7.1	84.2
cem. cb	7.34	83.97
1/4	7.8	83.5
c	7.4	83.9
1/4	7.7	83.6
+8	8.1	83.2
on cem. cb	7.36	83.95
E	7.2	84.1

Check cb  
Elev. to  
profile of  
Nat'l.  
Thank you  
You are  
welcome

5/8" w	Moore C. W. Harris	Cross Section of Arnold St Myrtle to Upas	65' wide 10' s/w 11.25 1/4		280.80	13	
	1.79	280.80	279.01	NEOP Myrtle + Arnold	cb	2.9	277.9
		N.L. Myrtle		60' wide	WL	3.1	277.7
Top cement curb on E.		1.83	278.97	10' s/w	WL	3.0	277.8
+1		2.6	278.2	10' 1/4	cb	3.0	277.8
E 1/4		3.0	277.8		1/4	2.9	277.9
U		2.6	278.2		c	2.7	278.1
W 1/4		2.8	278.0		1/4	2.6	278.2
+11		3.4	277.4		cb	2.2	278.6
Top cement cb on W		2.85	277.95		EL	1.9	278.9
		N of Myrtle				S 1/4	
w.l. top of cement cb		2.87	277.93		EL	1.8	279.0
use for ydgs		3.50	277.30		cb	2.1	278.7
W cb		3.2	277.6		1/4	2.4	278.4
W 1/4		3.0	277.8		c	2.4	278.4
c		3.1	277.7		1/4	3.1	277.7
E 1/4		2.4	277.9		cb	3.2	277.6
E cb		2.6	278.2		WL	3.2	277.6
E.V. top of cement cb		1.87	278.93			S of Myrtle	
use for ydgs		2.3	277.5		WL top of cement cb	3.79	277.01
		N 1/4			use for yardage	3.4	277.4
E.V.		2.4	278.4		cb	3.0	277.8
cb		2.6	278.2		+3	3.5	277.3
1/4		2.8	278.0		1/4	3.6	277.2
U		3.1	277.7		+4	3.0	277.8
1/4		3.1	277.7		c	2.9	277.9

28080

E 1/4	2.4	278.4
cb	2.2	278.6
EL	2.0	278.8
SL of Myrtle = 0+00		
EL	2.2	278.6
cb	2.3	278.5
1/4	2.4	278.4
L	2.7	278.1
+5	3.0	277.8
1/4	4.2	276.6
+4	4.1	276.7
+7	3.5	277.3
cb use for yardage	3.0	277.8
w/cb top of Cement Return	3.77	277.03
w/L ✓ ✓ ✓ Corner of Return	3.50	277.30
5' S		
w/L	2.7	278.1
cb	2.8	278.0
+6	4.1	276.7
1/4	4.0	276.8
+3	3.2	277.6
C	2.3	278.0
1/4	2.6	278.2
cb	2.5	278.3
EL	2.2	278.6

N.B. - No  
Return on  
S.E. Cor. and  
S. 1/2 of Myrtle  
not graded

Arnold St

14

25' S		
EL	2.8	278.0
cb	3.0	277.8
1/4	3.1	277.7
C	3.2	277.6
+4	3.4	277.4
1/4	4.4	276.4
+7	4.5	276.3
cb	3.6	277.2
w/L	3.6	277.2
44' S		
w/L	4.3	276.5
cb	4.3	276.5
+5	5.5	275.3
1/4	5.5	275.3
+4	3.9	276.9
C	4.0	276.8
1/4	4.1	276.7
cb	3.9	276.9
EL	3.7	277.1
50' S		
EL	3.7	277.1
cb	3.9	276.9
1/4	4.2	276.6
C	4.1	276.7
+4	4.1	276.7
1/4	5.6	275.2

280.80

Arnold St.

15

cb	5.9	274.9
+3	4.3	276.5
wl	4.7	276.1
75' S		
wl	5.5	275.3
+8	5.4	275.4
cb	6.9	273.9
+n	8.0	272.0
+9	5.6	275.2
1/4	5.6	275.2
c	5.3	275.5
1/4	5.1	275.7
cb	4.8	276.0
EL	4.8	276.0
102' S		
EL	6.5	274.3
cb	6.6	274.2
1/4	6.9	273.9
c	7.0	273.8
1/4	6.9	273.9
+4	6.8	274.0
+7	8.8	272.0
cb	8.9	271.9
+1	6.8	274.0
wl	6.8	274.0

110' S

wl	7.4	273.4
cb	7.0	273.8
+3	9.4	271.4
+8	9.5	271.3
1/4	7.3	273.5
c	7.5	273.3
1/4	7.4	273.4
cb	7.0	273.8
EL	6.8	274.0
130' S		
EL	8.5	272.3
cb	8.7	272.1
1/4	8.8	272.0
+8	9.1	271.7
c	11.1	269.7
+5	11.1	269.7
+6	9.4	271.4
1/4	9.0	271.8
cb	8.5	272.3
wl	8.2	272.6
142' S		
wl	9.0	271.8
cb	9.2	271.6
1/4	9.6	271.2
+2	9.6	271.2
+5	11.2	269.6

280.80

C	11.9	268.9
+4	10.9	269.9
+8	10.0	270.8
1/4	10.0	270.8
cb	9.6	271.2
EL	9.0	271.8

160' S

-5	10.8	270.0
EL	10.8	270.0
cb	11.2	269.6
+5	11.1	269.7
+6	12.3	268.5
1/4	12.8	268.0
+6	12.4	268.4
+7	11.7	269.1
+8	11.8	269.0
C	13.0	267.8
+3	13.1	267.7
+4	10.7	270.1
1/4	10.7	270.1
cb	10.4	270.4
wL	10.5	270.3
+5	10.5	270.3

175' S

-5	10.7	270.1
wL	10.8	270.0

Arnold St 16

cb	11.5	269.3	
1/4	11.6	269.2	
+7	12.1	268.7	
+8	14.0	266.8	
C	14.0	266.8	
+1	14.1	266.7	
+2	12.4	268.4	
+9	12.2	268.8	
+10	13.7	267.1	
1/4	13.8	267.0	
+7	13.7	267.1	
+9	12.4	268.4	
cb	12.4	268.4	
EL	12.1	268.7	
+5	11.9	268.9	
T.P. 0.03	269.18	11.65	269.15

200' S

-5	2.0	267.2
EL	1.9	267.3
cb	2.0	267.2
+1	4.4	264.8
+7	5.2	264.0
+8	2.1	267.1
1/4	2.1	267.1
C	1.6	267.6
+1	3.8	265.4

269.18

+4	3.8	265.4
+5	2.2	267.0
1/4	1.5	267.7
cb	0.8	268.4
wk	0.1	269.1
+5	+0.2	269.0

225' S

-5	0.7	268.5
wk	1.1	268.1
cb	1.6	267.6
1/4	2.6	266.6
+8	2.9	266.3
+9	4.3	264.9
+11	4.4	264.8
C	3.1	266.1
1/4	3.6	265.6
+2	3.6	265.6
+3	5.6	263.6
cb	6.2	263.0
+1	3.7	265.5
EL	4.1	265.1
+5	4.2	265.0

250' S

-5	5.3	263.9
EL	5.7	263.5
+3	6.8	262.4

Arnold St.

17

cb	6.9	262.5
+1	4.8	264.4
1/4	4.6	264.6
+7	4.7	264.5
+8	5.4	263.8
+10	5.3	263.9
C	4.5	264.7
1/4	3.3	265.9
cb	2.7	266.5
wk	2.0	267.2
+5	1.7	267.5

253' S

-5	2.0	267.2
wk	2.3	266.9
cb	2.7	266.5
1/4	3.2	266.0
C	4.6	264.6
+1	4.6	264.6
+2	6.3	262.9
+5	6.1	263.1
+6	4.7	264.5
1/4	5.0	264.2
cb	5.1	264.1
+1	5.1	264.1
+2	7.5	261.7
EL	7.9	261.3
+5	7.0	262.2

269.18

+6	5.8	263.4
	258' S	
-15	5.7	264.5
-7	8.1	261.1
-1	8.1	261.1
EL	5.5	263.7
cb	5.2	264.0
1/4	5.2	264.0
+5	5.0	264.2
+5.5	6.4	262.8
+7.5	6.4	262.8
+8	5.0	264.2
c	4.6	264.6
1/4	3.5	265.7
cb	2.7	266.5
WL	2.3	266.9
+5	2.0	267.2
	275' S	
-5	2.7	266.5
WL	3.1	266.1
cb	3.5	265.7
1/4	4.4	264.8
c	5.3	263.9
+4	5.4	263.8
+4.5	7.2	262.0
+6.5	7.3	261.9

Arnold St

18

+7	5.4	263.8
1/4	5.8	263.4
cb	6.0	263.2
EL	6.5	262.7
+10	6.4	262.8
+12	8.5	260.7
+18	8.6	260.6
+20	6.4	262.8
	300' S	
-30	6.8	262.4
-20	9.7	259.5
-7	9.7	259.5
-5	8.1	261.1
EL	7.7	261.5
cb	7.4	261.8
1/4	6.7	262.5
+4	6.6	262.6
+4.5	8.4	260.8
+6.5	8.3	260.9
+7	6.5	262.7
c	6.4	262.8
1/4	5.7	263.5
cb	4.7	264.5
WL	4.2	265.0
+5	3.6	265.6

269.18

325' S

- 5	4.5	264.7
wL	4.7	264.5
cb	5.5	263.7
1/4	6.6	262.6
c	7.4	261.8
+3	7.5	261.7
+3.5	8.8	260.4
+5.5	8.9	260.3
+6	7.6	261.6
1/4	7.8	261.4
cb	8.0	261.2
EL	9.1	260.1
+4	10.7	258.5
+12	10.6	258.6
+20	8.8	260.4

349.20' S = N.L. Vpas

- 20	9.1	260.1
- 10	11.3	258.9
EL	10.8	258.4
cb	9.2	260.0
1/4	8.8	260.4
c	8.3	260.9
1/4	7.4	261.8
cb	6.7	262.5
wL	6.1	263.1

N.B. Wash  
peters out here

Arnold St 19

20' S = N of line of Vpas

wL	6.8
cb	7.3
1/4	8.1
c	9.1
1/4	9.6
cb	10.0
+5	10.5
+9	12.4
EL	12.5

30' S = N 1/4 of Vpas

EL	13.1
+1	11.3
cb	10.3
1/4	10.0
c	9.5
1/4	8.3
cb	7.8
wL	7.4

40' S = E of Vpas as graded at  
Penning Drive

wL	8.0
cb	8.2
1/4	8.9
c	9.6
1/4	10.1
cb	10.5

269.18

f8	11.2
EL	13.3
	60' S
EL	12.2
cb	11.6
1/4	11.2
c	10.2
1/4	9.8
cb	9.2
wl	9.4

20' curb  
10' 1/4 S { N.B. Cross Section of Upas Arnold to Arizona  
25' W of WL of Arnold

-5	5.0
NL	5.4
cb	6.7
1/4	7.3
c	8.0
+20	9.6
	50' W
-20	9.7
c	8.5
1/4	7.9
cb	7.1
NL	6.9
+5	5.4

Arnold + Upas 20  
75' W

-5	6.9
NL	7.0
cb	7.6
1/4	8.6
c	9.3
+20	10.7
	90' W
-20	12.8
-17	11.3
c	10.1

1/4	9.1
cb	8.2
NL	7.4
+5	7.0

105' W

-5	7.5
NL	8.0
cb	9.4
1/4	10.4
c	13.0
+5	13.2
+7	11.7
+20	11.8

125' W

-20	10.2
-----	------

269.18

-4	10.3
-2	12.3
c	12.3
+1	11.9
1/4	10.9
cb	10.5
NL	9.3
+10	8.3
137.5 W	
-10	8.8
NL	9.2
+5 Center of M.H.	9.54
cb	9.8
1/4	10.6
+2	10.8
+7	11.7
c	11.7
+1	9.7
+20	9.4
139' W	
-20	9.3
c	9.5
+1	11.4
+5	11.6
1/4	10.6
cb	9.6

Vbas St =

NL	8.9
+10	8.9
152' W	
-10	9.1
NL	9.2
+19	9.8
cb	10.6
+7	10.5
1/4	8.5
c	7.9
+20	8.0
165' W	
-20	7.1
c	7.0
1/4	6.9
+5	6.8
+6	9.2
cb	9.3
+3	9.6
+5	7.0
NL	7.4
+6	9.2
+12	7.8
200' W	
-20	4.8
-19	7.4

269.18'

- 4	8.8
- 2	5.2
NL	5.2
+6	5.1
+8	8.3
+16	8.2
+17	5.2
cb	5.2
1/4	5.0
c	5.1
+20	4.8

225' W

-20	3.3
c	3.5
1/4	3.7
cb	3.5
+9	4.0
+10	6.7
+17	6.5
+18	3.5
NL	3.2
+5	3.8
+9	6.1
+22	6.0

T.D. 72' 273.12 3.27 265.91

273.12

22

250' W

-13	7.7
-8	8.1
NL	6.4
+10	5.9
cb	4.9
1/4	4.8
c	5.2
+20	5.2

254' W

-20	4.8
c	5.3
+1	5.2
1/4	3.6
cb	3.5
+12	3.3
+14	5.9
NL	6.2
+10	8.0

263' W

-5	6.3
NL	6.1
+3	4.8
+7	3.4
cb	3.0
1/4	3.4

273.12

+7	4.7
C	4.7
+20	4.3
	270' W
-20	3.4
C	3.8
1/4	3.1
ct	3.0
NL	3.0

275' W = El of Arizona

NL	3.2
cb	2.8
1/4	2.6
C	2.4
+20	2.1

on Cement curb E side of Arizona 4.20

Please check  
 26.892 this for ct grade  
 269.0 = Grade

23

6/10/24 Gregory.

CROSS SECTION OF  
INGLESIDE ST  
from 140' N. of Sunset.

50' WIDE  
10' CBS

24

283.2

	0.85	283.19	282.34	B.P. N.E Ingr. side + 55
				140' N. of Sunset = N. end of curb on E
W. cb on cement		5.65	✓ 77.5 ✓	
✓ gutter		6.1	✓ 77.1 ✓	
1/4		5.7	✓ 77.5 ✓	
o		5.2	✓ 78.0 ✓	
1/4		5.0	✓ 78.1 ✓	
E gutter		4.9	✓ 78.0 ✓	
✓ cb on cement		4.6	✓ 78.5 ✓	
E		4.4	✓ 78.8 ✓	
		150' N		
E		4.7	✓ 78.5 ✓	
cb		5.1	✓ 78.1 ✓	
1/4		5.2	✓ 78.0 ✓	
c		5.2	✓ 78.0 ✓	
1/4		5.8	✓ 77.4 ✓	
W gutter		6.4	✓ 76.8 ✓	
✓ cb on cement		5.90	✓ 77.3 ✓	
		175' N		
W cb - -		6.67	✓ 76.5 ✓	
✓ gutter		6.9	✓ 76.3 ✓	
1/4		6.3	✓ 76.9 ✓	
c		5.9	✓ 77.3 ✓	
1/4		6.0	✓ 77.4 ✓	
+5		6.0	✓ 77.4 ✓	

cb	5.5	✓ 77.7 ✓
E	5.3	✓ 77.9 ✓
	200' N	
E	5.7	✓ 77.5 ✓
cb	6.0	✓ 77.2 ✓
+2	6.4	✓ 76.8 ✓
1/4	6.4	✓ 76.8 ✓
c	6.5	✓ 76.7 ✓
1/4	6.9	✓ 76.3 ✓
W gutter	7.5	✓ 75.7 ✓
✓ cb on cement	7.30	✓ 75.9 ✓
	225' N	
W cb - -	8.10	✓ 75.1 ✓
✓ gutter	8.3	✓ 74.9 ✓
1/4	7.4	✓ 75.8 ✓
o	7.2	✓ 76.0 ✓
1/4	7.0	✓ 76.1 ✓
+6	6.9	✓ 76.3 ✓
cb	6.4	✓ 76.8 ✓
E	6.1	✓ 77.1 ✓
	250' N	
E	6.7	✓ 76.5 ✓
cb	7.0	✓ 76.2 ✓
+2	7.9	✓ 75.0 ✓
1/4	7.7	✓ 75.5 ✓
c	7.9	✓ 75.3 ✓

273.19

283.2

1/4  
W gutter  
- cb on cement

271.5 = End of cement cb on W

W	9.0	✓74.1 ✓
Wcb	9.49	✓73.7 ✓
+2	9.6	✓73.6 ✓
1/4	9.0	✓74.2 ✓
c	8.7	✓74.5 ✓
1/4	8.7	✓74.5 ✓
+5	8.7	✓74.5 ✓
cb	8.2	✓75.0 ✓
E	7.8	✓75.4 ✓

285' N

E	8.4	✓74.8 ✓
+2	8.9	✓74.5 ✓
cb	9.1	✓74.1 ✓
+1	9.6	✓73.6 ✓
1/4	9.3	✓73.9 ✓
c	9.5	✓73.7 ✓
1/4	9.6	✓73.6 ✓
+5	9.8	✓73.6 ✓
cb	9.5	✓73.7 ✓
W	9.3	✓73.9 ✓

300' N

W	10.1	✓77.1 ✓
---	------	---------

INGLESIDE

25

283.2

cb	10.5	✓77.7 ✓
1/4	10.4	✓77.8 ✓
c	10.3	✓77.9 ✓
1/4	10.1	✓77.1 ✓
cb	9.9	✓77.3 ✓
+6	9.5	✓77.7 ✓
E	8.6	✓77.6 ✓

313' N

E	9.4	✓73.8 ✓
+2	9.9	✓73.3 ✓
cb	10.5	✓74.7 ✓
1/4	11.2	✓72.0 ✓
c	11.3	✓71.9 ✓
1/4	11.4	✓71.8 ✓
cb	11.6	✓71.6 ✓
W	11.5	✓71.7 ✓
T.P	1.74	272.0
	12.93	270.26

350' N

277.0

W	2.7	✓69.3 ✓
+3	3.4	✓68.2 ✓
cb	3.3	✓68.7 ✓
+1	3.9	✓68.1 ✓
1/4	3.4	✓68.6 ✓
c	3.0	✓69.0 ✓
1/4	2.8	✓69.2 ✓
cb	2.6	✓69.4 ✓

272.0

272.0

+7	2.1	✓69.9 ✓
E	1.2	✓70.8 ✓

375' N

E	1.5	✓70.5 ✓
+5	4.2	✓67.8 ✓
cb	4.4	✓67.6 ✓
1/4	4.9	✓67.1 ✓
C	5.2	✓66.8 ✓
1/4	5.6	✓66.4 ✓
+6	6.0	✓66.0 ✓
cb	5.6	✓66.4 ✓
+7	5.6	✓66.4 ✓
W	4.2	✓67.8 ✓

400' N

W	6.2	✓65.8 ✓
+3	7.5	✓66.5 ✓
cb	7.9	✓66.1 ✓
1/4	7.9	✓66.1 ✓
C	7.4	✓64.6 ✓
1/4	7.2	✓65.8 ✓
+6	7.2	✓65.8 ✓
cb	6.6	✓65.4 ✓
+6	6.4	✓65.6 ✓
E	5.5	✓66.5 ✓

425' N (Side walk permit out on E)

E	8.8	✓63 ✓
---	-----	-------

cb

1/4

C

1/4

cb

+6

W

W

W

+5

cb

1/4

C

1/4

cb

E

T.P. 1.48

260.49

E

cb

1/4

C

1/4

cb

+5

W

272.0

INGLESIDE

8.8 ✓63 ✓ ✓

9.5 ✓62.5 ✓

9.7 ✓62.3 ✓

10.1 ✓61.9 ✓

10.4 ✓61.6 ✓

10.7 ✓61.3 ✓

8.6 ✓62.5 ✓

450' N

10.5 ✓61.5 ✓

12.3 ✓59.7 ✓

12.3 ✓59.7 ✓

12.1 ✓59.9 ✓

11.7 ✓60.2 ✓

11.8 ✓60.2 ✓

11.5 ✓60.5 ✓

11.6 ✓60.1 ✓

475' N

12.99 259.01

260.5 1.8 ✓58.7 ✓

1.7 ✓58.8 ✓

2.3 ✓58.2 ✓

2.4 ✓58.1 ✓

2.8 ✓57.2 ✓

3.0 ✓57.5 ✓

2.9 ✓57.6 ✓

1.3 ✓59.2 ✓

260.49

760.5

488.89 N = 5.6. of Chestnut.

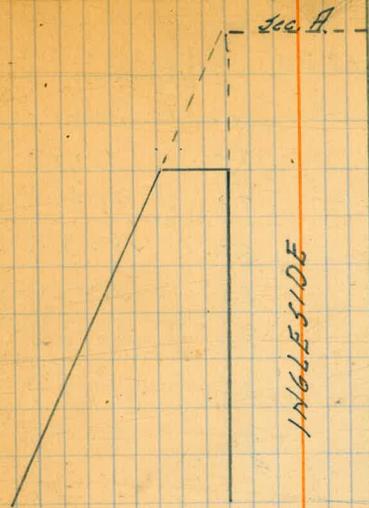
W	3.7	✓ 568 ✓
cb.	4.2	✓ 563 ✓
1/4	4.0	✓ 565 ✓
c	3.2	✓ 570 ✓
1/4	3.1	✓ 571 ✓
cb	2.8	✓ 572 ✓
E	2.7	✓ 578 ✓

505.7 N = 5. end of cb on E

E	3.5	✓ 570 ✓
E cb. on cement	3.75	✓ 567.5 ✓
1/4	3.6	✓ 56.9 ✓
c	3.8	✓ 56.7 ✓
1/4	4.4	✓ 56.1 ✓
cb	5.1	✓ 55.2 ✓
W	5.6	✓ 54.9 ✓

Sec. A. 538 ± N = Int. of E.L. Withers &amp; Mt. Ingleside

W	5.9	✓ 54.6 ✓
cb	5.1	✓ 55.2 ✓
1/4	4.8	✓ 55.7 ✓
c	4.4	✓ 56.1 ✓
1/4	4.7	✓ 55.8 ✓
E gutter	4.7	✓ 55.8 ✓
✓ cb on cement	4.40	✓ 56.1 ✓



27

6/19/22

Gregory

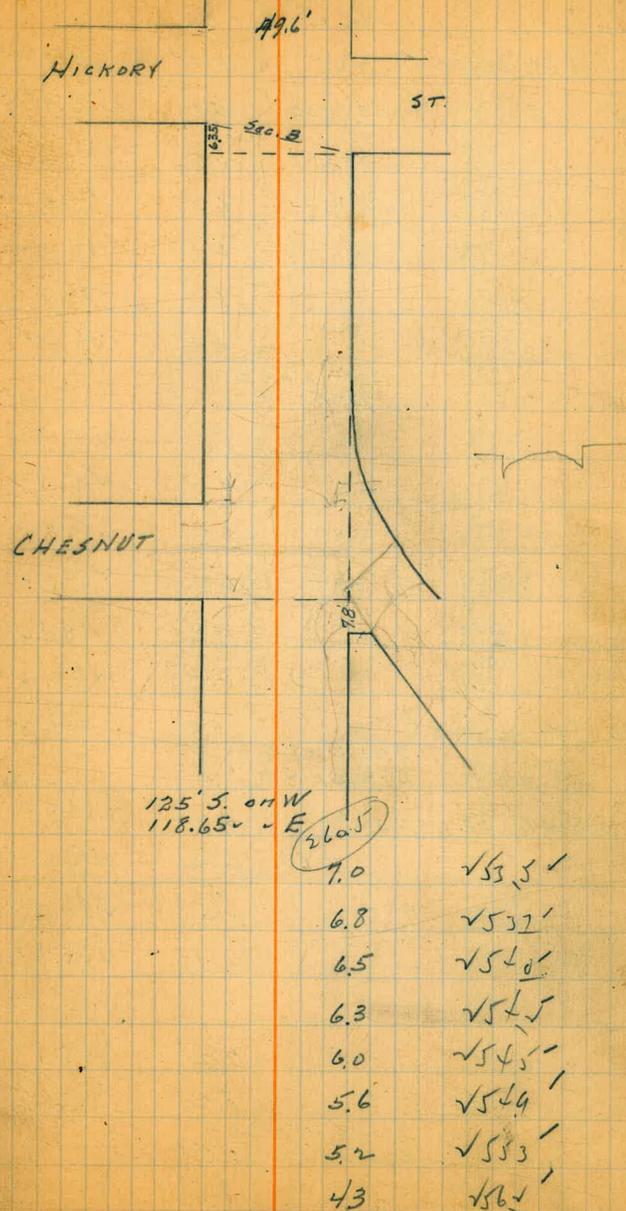
CROSS SECTION OF  
WITHERBY ST 10' cbs  
from St. Hickory to St. Chesnut  
260.49 Hd. from page 27

Sec. B

260.5

E		7.3	✓ 53.2 ✓
cb		7.4	✓ 53.1 ✓
1/4		7.7	✓ 52.8 ✓
c		8.0	✓ 52.5 ✓
1/4		8.5	✓ 51.0 ✓
cb		8.8	✓ 51.7 ✓
W		9.6	✓ 50.9 ✓
	56.35' S. of B on W		
	50' - - - - E		
W		8.1	✓ 52.4 ✓
cb		7.8	✓ 52.7 ✓
1/4		7.7	✓ 52.8 ✓
c		7.6	✓ 52.9 ✓
1/4		7.2	✓ 53.3 ✓
E gutter		7.2	✓ 53.3 ✓
cb	on cement. N. end of cb.	6.80	✓ 53.7 ✓
E		6.55	✓ 53.9 ✓
	101.35' S. of B on W		
	95' S. of B on E		
E		5.28	✓ 55.2 ✓
cb	on cement S. end of cb.	5.6	✓ 54.9 ✓
gutter		6.1	✓ 52.2 ✓
1/4		6.2	✓ 52.3 ✓
c		6.8	✓ 53.7 ✓
1/4		6.9	✓ 53.6 ✓
cb		6.9	✓ 53.6 ✓
W		7.2	✓ 53.3 ✓

28



W		7.0	✓ 53.5 ✓
cb		6.8	✓ 53.2 ✓
1/4		6.5	✓ 52.0 ✓
c		6.3	✓ 52.5 ✓
1/4		6.0	✓ 54.5 ✓
cb		5.6	✓ 54.9 ✓
+8		5.2	✓ 55.3 ✓
E		4.3	✓ 56.2 ✓

146.35  
140  
260.5  
E

E	on cement	5.42	√55.05
cb	hand excb	5.90	√54.69
1/4		5.8	√54.7
c		6.1	√54.4
1/4		6.4	√54.1
cb		6.5	√54.0
W		6.8	√53.7
200' 3.0 x B on W 193.65 - - - E			
W		7.0	√53.5
cb		7.0	√53.5
1/4		6.7	√53.8
c		6.8	√53.7
1/4		6.4	√54.1
gutter		6.4	√54.1
E cb	on cement	5.98	√54.51
250' 3.0 x B on W 243.65 - - - E			
E = cement cb.	on log side	5.64	√54.85
cb		6.2	√54.3
1/4		6.5	√54.0
c		6.9	√53.6
1/4		7.1	√53.4
cb		7.2	√53.3
W		8.2	√51.3
275' 3.0 x B on W 268.65 - - - E			
W		8.5	√51.0

+7  
cb  
1/4  
c  
1/4  
cb  
E  
+5  
-10  
E  
cb  
1/4  
c  
1/4  
cb  
+7  
W  
+5  
-5  
W  
cb  
1/4  
c  
1/4  
cb  
E

WITHERBY

260.5

7.9	√54.6
7.3	√53.2
7.0	√53.5
7.0	√53.5
6.7	√53.8
6.5	√54.0
5.8	√54.7
5.8	√55.1
340' 3.0 x B on W 293.65 - - - E = N.L. Chesnut 50' wide	
4.8	√55.7
5.7	√54.8
6.2	√54.4
6.4	√54.1
6.9	√53.6
7.0	√53.5
7.7	√54.8
8.0	√54.5
8.7	√51.8
9.4	√51.1
N cb	
9.2	√51.2
8.5	√52.0
7.8	√52.7
7.4	√53.1
6.9	√53.6
6.3	√54.2
6.3	√54.2
5.8	√54.7

	N 1/2	260.5	
E		5.7	✓ 54.8 ✓
cb		6.3	✓ 54.2 ✓
1/4		6.5	✓ 54.0 ✓
c		7.0	✓ 53.5 ✓
1/4		7.7	✓ 52.8 ✓
cb		8.2	✓ 52.3 ✓
W		8.8	✓ 51.7 ✓
+5		9.5	✓ 51.0 ✓

Center Chesnut

W		8.0	✓ 52.5 ✓
+8		7.3	✓ 53.2 ✓
cb		7.9	✓ 52.6 ✓
1/4		7.8	✓ 52.7 ✓
c		7.4	✓ 53.1 ✓
1/4		6.8	✓ 53.7 ✓
cb		6.7	✓ 53.8 ✓
E		6.2	✓ 54.3 ✓

S 1/4

E		6.3	✓ 54.2 ✓
cb		6.7	✓ 53.8 ✓
1/4		6.9	✓ 53.6 ✓
c		7.4	✓ 53.1 ✓
1/4		7.8	✓ 52.7 ✓
+6		7.9	✓ 52.6 ✓
cb		7.2	✓ 53.3 ✓

W

W

+8

cb

1/4

c

1/4

cb

E

E on walk

cb on cement

gutter

1/4

c

1/4

gutter

W cb on cement

W

WITHERBY

260.5

260.49

30

8.0

✓ 52.5 ✓

S. Curb on West.

7.8

✓ 52.7 ✓

7.1

✓ 53.4 ✓

7.8

✓ 52.7 ✓

7.6

✓ 52.9 ✓

7.3

✓ 53.2 ✓

7.0

✓ 53.5 ✓

6.7

✓ 53.8 ✓

6.4

✓ 54.1 ✓

10.5 on W

17.8 on E

S. Line Chesnut.

6.20

✓ 54.3 ✓

6.47

✓ 54.0 ✓

6.9

✓ 53.6 ✓

6.9

✓ 53.6 ✓

7.2

✓ 53.3 ✓

7.6

✓ 52.9 ✓

7.8

✓ 52.7 ✓

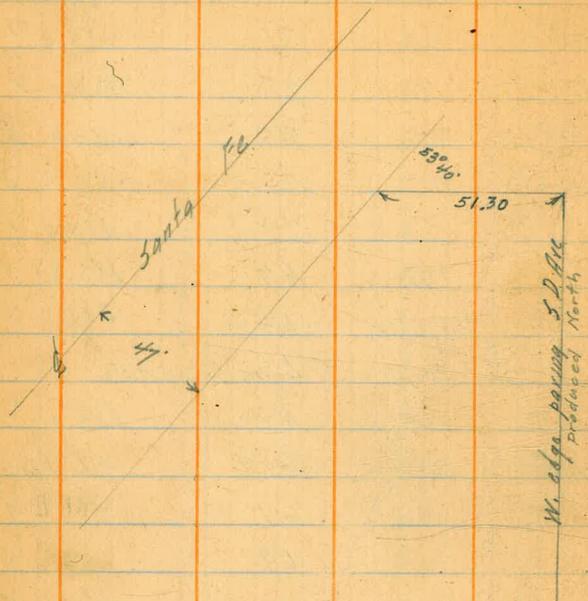
7.46

✓ 53.0 ✓

7.6

✓ 52.9 ✓

6-26-24



TAYLOR.  
S. Edge parking

← 15'

6/19/24 Gregory's CROSS SECTION OF  
 KETTNER BLVD  
 from 5L Pierce to 7L Chalmers  
 75' wide  
 12' obs.  
 on B.M. 065 77.65 77.00  
 T.P. 461 69.42 12.84 64.81

	5L Pierce	
W	6.6	62.8
cb	5.9	63.5
on cement cb	6.50	62.9
+4	6.5	62.9
1/4 on paving	6.1	63.3
C	5.5	63.9
1/2	5.2	64.2
gutter	5.0	64.4
cb on cement	4.40	65.0
E	4.2	65.2
25' S		
E	4.6	64.8
cb	5.2	64.2
1/4	5.2	64.2
C	5.3	64.1
1/4	5.5	63.9
+11	5.7	63.7
cb	5.3	64.1
+ 2 = row of Trees		
W	6.2	63.2
50' S		
W	6.0	63.4
+ 10.4 = Tree here	5.2	64.2

69.42

32

cb	5.2	64.2
+2	5.7	63.7
1/4	5.3	64.1
C	5.3	64.1
1/4	5.1	64.3
cb	4.9	64.5
E	4.2	65.2
100' S		
E	3.3	66.1
+2	4.0	65.4
cb	4.7	64.7
1/4	5.3	64.1
C	5.3	64.1
1/4	5.5	63.9
+5	5.6	63.8
cb	6.4	63.0
+ 1 = trees here		
W	6.8	62.6
+ 7.9 = front of Rug shed	10.15	59.29 = elev. of floor
- 25 = front of House 150' S		
W	6.4	63.04 = elev. of floor
	6.5	62.9
+ 10 and 1/2 = Trees		
cb	6.2	63.2
1/4	5.2	64.2
+5	4.8	64.6
C	5.3	64.1

69.42

1/4	4.9	64.5
cb	4.4	65.0
E	3.5	65.9
160' S		
E	2.8	66.6
+3	3.7	65.7
cb	4.8	64.6
+4	4.8	64.6
+5	4.5	64.9
1/4	5.0	64.4
C	5.4	64.0
+7	4.9	64.5
1/4	5.3	64.1
cb	5.5	63.9
+1 & 3 = Tree		
W	6.3	63.1
175' S		
W	6.6	62.8
+10 & 11 = Tree		
cb	5.7	63.7
1/4	5.1	64.3
+8	5.0	64.4
C	5.5	63.9
1/4	5.2	64.2
cb	4.6	64.8
E	3.4	66.0

KETTNER

33

200' S		
E	3.2	66.2
+6	4.8	64.6
cb	5.1	64.3
+2	5.1	64.3
+3	4.8	64.6
1/4	5.3	64.1
C	5.7	63.7
1/4	5.8	63.6
cb	6.0	63.4
W	6.6	62.8
250' S		
W	7.1	62.3
+11 = Tree		
cb	6.1	63.3
+4	5.7	63.7
1/4	5.7	63.7
C	6.0	63.4
1/4	5.7	63.7
cb	5.1	64.3
+5	4.6	64.8
+7	3.7	65.7
E	3.0	66.4
280' S		
E	1.6	67.8
+3	3.8	65.6

6942

+6			4.3	65.1
+9			5.1	64.3
cb			5.1	64.3
1/2			5.6	63.8
c			6.0	63.4
+7			5.8	63.6
+8			6.3	63.1
1/4			6.4	63.0
+3			6.4	63.0
+4			6.1	63.3
T.P.	v.48	66451	5.45	63.971
cb			3.5	63.0
+1 = Treas			✓	
W			4.4	62.0
		2985		
W			4.7	61.8
+3			5.0	61.4
+5			5.0	61.5
+6			4.5	62.0
cb			3.9	62.5
+8			3.4	63.0
+11			4.7	61.8
1/4			4.8	61.1
+5			4.6	61.8
+6			4.0	62.5
c			3.7	62.7

66.45

KETTNER 34

1/4			3.6	62.8
10			3.8	62.7
cb			3.6	62.8
E			0.7	65.8
		3005 =	N.L. Winder (graded)	
E			1.5	65.0
cb			3.8	62.6
+3			4.0	62.5
1/4			4.0	62.4
c			4.0	62.5
+6			4.4	62.0
+8			4.9	61.5
1/4			4.9	61.5
cb			5.0	61.5
+1 = Treas				
W			5.3	61.1
		52	Winder	
W			6.5	60.0
cb			6.0	60.5
1/4			6.0	60.5
+2			5.5	61.0
c			4.8	61.7
1/4			4.8	61.6
cb			4.2	62.2
E			3.7	62.8

66.45

4'5

E	1.5	65.0
cb	2.4	64.0
+7	2.8	63.7
+10	4.3	62.1
1/4	4.5	62.0
c	4.7	61.8
1/4	5.8	60.6
+4	6.0	60.4
+6	5.6	60.9
cb	5.6	60.9
W	6.5	60.0

20'5

W	6.8	59.6
cb	6.2	60.3
1/4	5.5	61.0
c	4.9	61.5
1/4	4.2	62.2
+2	3.8	62.7

T.P. 2.56 64.44 ✓ 4.57 61.88 ✓

cb	0.4	64.0
E	0.0	64.4

40'5

E	0.5	63.9
cb	1.4	63.0
1/4	2.8	61.6

64.44

METTLER

35

+6	3.1	61.3
+8	2.6	61.8
c	3.4	61.0
1/4	4.3	60.1
cb	4.1	60.3
W	4.0	60.0

55'5

W	5.6	58.8
cb	5.6	57.8
1/4	4.8	59.6
c	4.0	60.4
1/4	3.6	60.8
cb	2.2	62.2
E	0.9	63.5

70'5

E	2.0	62.4
cb	3.1	61.3
1/4	4.1	60.3
c	4.7	59.7
1/4	5.5	58.9
cb	6.2	58.2
W	6.7	57.7

100'5

W	7.6	56.8
cb	7.3	57.1
1/4	6.3	58.1

c	5.5	58.9
1/4	5.2	59.2
cb	4.1	60.3
E	3.0	61.4

125' S

E	3.7	60.7
cb	4.9	59.5
1/4	6.2	58.2
c	6.5	57.9
1/4	7.1	57.3
cb	8.0	56.4
W	8.8	55.6

150' S

W	8.6	55.8
cb	8.2	56.2
1/4	7.8	56.6
c	7.0	57.4
1/4	7.0	57.4
+10	6.3	58.1
cb	5.8	58.6
E	4.7	59.7

200.2' S = N. line of New P.N. on W

E	6.7	57.7
+8	7.6	56.8
+9	8.2	56.2
cb	8.4	56.0

1/4	9.3	55.1
c	9.2	55.2
1/4	9.6	54.8
cb	9.9	54.5
W	10.1	54.3

250' S

center.	10.8	53.6
E 1/4	10.6	53.8
+8	10.0	54.4
cb	9.2	55.2
E	7.8	56.6

300' S = N.L. Chalmers

E	11.0	53.4
---	------	------

8/29/24  
Moore  
me  
Pavle

Cross Section of the Middle 50'  
of Columbia St. Chalmers to Walnut

	12.54	78.92		66.08	sw India & Chalmers
	12.61	90.79	0.74	78.18	
	11.95	102.36	0.38	90.41	
		SL Chalmers			
- 0.5	on cement Return	8.48		93.88	
W		8.4		94.0	
+25		7.1		95.3	
E		6.0		96.4	
+0.5	✓ ✓ ✓	5.36		97.0	
		20' S			
E		5.1		97.3	
+25		6.6		95.8	
W		7.8		94.6	
+5		7.9		94.5	
		35' S			
- 5		6.5		95.9	
W		6.4		96.0	
+20		5.2		97.2	
+35		3.7		98.7	
E		2.7		99.7	
T.P.	12.67	114.92	0.11	102.25	
		65' S			
E		10.3		104.6	
+15		12.0		102.9	
+22		13.5		101.4	

114.92

37

W	13.8	101.1
+5	14.0	100.9
	85' S	
- 5	10.7	104.2
W	10.7	104.2
+5	10.2	104.7
+25	10.4	104.5
+35	7.9	107.0
E	7.0	107.9
	100' S	
E	3.2	111.7
+10	5.2	109.7
+30	8.0	106.9
+42	8.0	106.9
W	9.3	105.6
+5	9.3	105.6
	125' S	
- 5	5.9	109.0
W	5.4	109.5
+5	4.4	110.5
+24	3.4	111.5
+35	1.4	113.5
+40	1.1	113.8
T.P. on Nat/12.27	126.60	0.59
E	10.5	116.1

12660

150' S

E	7.1	119.5
+8	9.2	117.4
+13	9.3	117.3
+26	12.7	113.9
+33	11.6	115.0
W	11.6	115.0
+10	11.5	115.1

165' S

-10	8.8	117.8
W	8.5	118.1
+5	8.2	118.9
+12	9.5	117.1
+20	8.0	118.6
+35	6.2	120.4
+42	5.8	120.8
E	3.9	122.7

195' S

E	0.6	126.0
+8	3.1	123.5
+25	5.1	121.5
+40	5.3	121.3
+43	4.5	122.1
W	4.9	121.7
+10	6.3	120.3
T.P.	11.30	136.36
	1.54	125.06

136.36

Columbia

38

220' S

-10	12.1	124.3
W	11.0	125.4
+5	10.6	125.8
+15	10.9	125.5
+30	9.8	126.6
+38	7.1	129.3
E	4.9	131.5

230' S

E	3.3	133.1
+25	8.8	127.6
+37	9.0	127.4
W	10.5	125.9
+10	11.3	135.1

250' S

-10	8.8	127.6
W	8.4	128.0
+5	8.5	127.9
+20	6.5	129.9
+35	3.6	132.8
E	0.4	136.0
T.P.	5.06	141.25
	0.17	136.19

275' S

E	2.5	138.8
+5	4.1	137.7
+15	6.2	135.1

141.25

+30	7.9	133.4
W	10.9	130.4
+10	11.3	130.0
	301' S = N.H. Walnut	
-10	10.4	130.9
W	9.1	132.2
+20	5.6	135.7
+27	5.1	136.2
+35	3.5	137.8
+47	1.6	139.7
E	0.7	140.6
	30' S of N.H. Walnut	
E	1.7	139.6
+7	2.3	139.0
+20	4.8	136.5
+35	6.6	134.7
W	8.6	132.7
+10	10.4	130.9
	50' S	
-10	11.3	130.0
W	9.3	132.0
+10	8.3	133.0
+23	6.1	135.2
+28	5.8	135.5
+42	3.5	137.9
E	2.9	138.4

141.25

Columbia St 39

	60' S		
E	2.6	138.7	
+10	3.9	137.4	
+20	5.7	135.6	
+28	6.6	134.7	
+40	8.3	133.0	
W	9.9	131.4	
+10	11.9	129.4	
	80' S = S.L. of Walnut		
-10	13.5	127.8	
W	12.0	129.3	
+10	10.2	131.1	
+25	8.0	133.3	
E	4.6	136.7	
	on Hub & Columbia + Walnut	5.59	135.66
TP	-0.01	129.05	12.19 129.06
	0.11	117.37	11.79 117.26
	0.11	104.84	12.64 104.73
	0.27	92.51	12.60 92.24
	0.07	80.07	12.51 80.00
	check to B.M.	14.02	66.03

B.M.  
66.08 India &  
Chalmers

9/4/24 Gregory

CROSS SECTION OF  
 SPRUCE ST 12' cb on N.L. Spruce prod.  
 from 100' W. of FRONT 20' closed on  
 To 140' ✓ 5. x 0.19 Spruce  
 N.E. Front  
 + Spruce

0.17 234.13 233.96  
 1.70 224.73 111.0 223.03

100' W. of N.L. FRONT.

S. = 20' 0.8 ✓ 23.9 ✓  
 46.30 = N edge of walk 0.62 ✓ 24.11 ✓  
 cb = 12' N. of S 1.33 ✓ 23.40 ✓ on cement  
 gutter 1.96 ✓ 24.77 ✓ on paving  
 19.5' N. of S. 1.75 ✓ 24.99 ✓ ✓  
 27' ✓ ✓ ✓ 1.79 ✓ 24.94 ✓ ✓  
 34.5 ✓ ✓ ✓ 2.10 ✓ 24.63 ✓ ✓ ✓  
 42' ✓ ✓ ✓ = gutter 2.57 ✓ 24.16 ✓ ✓ ✓  
 42' ✓ ✓ ✓ = N. cb 2.10 ✓ 24.63 ✓ on cement

101' W.

18' 3/4 x old N.L. = N. cb 1.1 ✓ 24.6 ✓  
 0.3 S. of N. cb 2.0 ✓ 24.7 ✓  
 7.5 ✓ ✓ ✓ 1.9 ✓ 24.9 ✓  
 15' ✓ ✓ ✓ 1.82 ✓ 24.91 ✓ on paving  
 22.5 ✓ ✓ ✓ 1.71 ✓ 24.30 ✓ ✓ ✓  
 30 ✓ ✓ ✓ 1.16 ✓ 24.57 ✓ ✓ ✓  
 35.3 ✓ ✓ ✓ 0.7 ✓ 24.6 ✓  
 48' 3 = S.L. 0.7 ✓ 24.6 ✓

114' W.

5 1.54 ✓ 24.19 ✓ on cement walk  
 8' N. 1.45 ✓ 24.48 ✓ ✓ ✓  
 12.6' N = edge cement cb 1.22 ✓ 24.51 ✓  
 12.7' 1.5 ✓ 24.4 ✓

19.5' N.

27 ✓  
 34.5 ✓  
 42 ✓

N. cb

1' S

7.5 -

15 ✓

22.5 ✓

29.0 = gutter

29.0 = Top cb. Use for yardage east.

29.0 = use this for yardage west

39.7 = N. edge of garage

135' W

2.3' N of S = Hedge garage

12' - - S

19.5 ✓ ✓ ✓

27 ✓ ✓ ✓

34.5 ✓

38 ✓

42 ✓ = N. cb

47 ✓ of S.L. = under bridge

224.73

2.0 ✓ 24.1 ✓  
 2.0 ✓ 24.7 ✓  
 2.0 ✓ 24.7 ✓  
 2.0 ✓ 24.7 ✓

118' W = center of 1.5' x 2.0' CB

S. edge basin = 12.9 N. of S. 1.94 ✓ 24.79 ✓

127.8' W = end of cb. on S.

3.1 ✓ 24.6 ✓  
 2.4 ✓ 24.2 ✓  
 2.7 ✓ 24.0 ✓  
 3.0 ✓ 24.7 ✓  
 3.0 ✓ 24.7 ✓  
 2.6 ✓ 24.1 ✓

1.20 ✓ 24.9 ✓ on cement.

2.5 ✓ 24.1 ✓

2.21 ✓ 24.54 ✓ on walk.

3.3 ✓ 24.4 ✓

3.3 ✓ 24.4 ✓

3.6 ✓ 24.1 ✓

3.2 ✓ 24.5 ✓

3.1 ✓ 24.6 ✓

3.2 ✓ 24.5 ✓

4.9 ✓ 24.8 ✓

7.0 ✓ 24.7 ✓

40

22473

146' W 22473

10' N. of N. cb.	11.2	✓13.5 ✓
deck of bridge =	4.44	✓10.49 ✓
4' N. of N. cb.	9.6	✓15.1 ✓
N. cb.	7.3	✓17.4 ✓
7.5 S. of ✓	3.3	✓11.4 ✓
15' " " "	3.2	✓11.5 ✓
22.5' " " "	4.1	✓10.6 ✓
30' " " "	4.1	✓10.6 ✓
34' " " "	4.1	✓10.6 ✓
39.7' " " " = N. edge garage.	7.1	✓17.6 ✓
Center of Bridge Tower 149.6 = N. edge of garage on S.	12.7	✓14.0 ✓
4' S.	12.3	✓14.6 ✓
5'	9.6	✓15.1 ✓
+ 2.3 = N. edge of garage.	8.5	✓16.1 ✓
9' N. of S.	4.3	✓10.2 ✓
12' " " "	5.6	✓19.1 ✓
19.5' " " "	7.5	✓17.2 ✓
21.5' " " "	3.6	✓11.1 ✓
27' " " "	3.3	✓11.2 ✓
31' " " "	6.0	✓18.7 ✓
34.5' " " "	4.0	✓10.7 ✓
40.7' " " " S edge of concrete pier	6.7	✓18.0 ✓
42' " " " = inside pier	8.2	✓16.5 ✓
46' " " " = top of pier	9.6	✓15.1 ✓
155' W.	16.7	✓108.0 ✓
10' N. of N. cb.		

N. cb.

7.5 S. of N. cb.		
11.5 " " "		
15' " " "		
27' " " "		
22.5' " " "		
30' " " "		
34' " " "		
42' " " " = S		
46' " " "		
52' " " "		

160' W.

10' S. of S. L.	16.5	✓08.2 ✓
S	13.1	✓11.6 ✓
6' N. of S.	10.6	✓14.1 ✓
12' " " "	11.6	✓13.1 ✓
15' " " "	12.2	✓14.3 ✓
18' " " "	10.6	✓14.1 ✓
19.5' " " "	7.6	✓17.1 ✓
21.5' " " "	6.0	✓18.7 ✓
27' " " "	7.4	✓17.3 ✓
34.5' " " "	10.8	✓13.9 ✓
42' " " " = N. ob line	14.1	✓10.1 ✓
52' " " "	17.8	✓06.9 ✓
62' " " "	21.6	✓03.1 ✓
T.P. 0.07 212.83	11.97	212.76 ✓

SPRUCE

22473

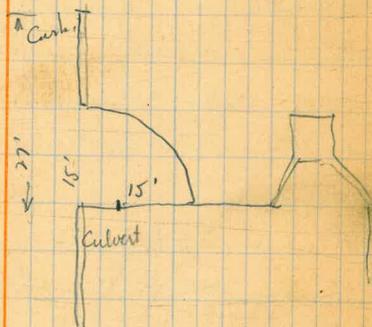
11.1	✓12.2 ✓
8.0	✓16.7 ✓
8.0	✓16.7 ✓
3.1	✓11.6 ✓
58	✓18.9 ✓
9.8	✓14.9 ✓
8.0	✓16.7 ✓
6.3	✓18.2 ✓
10.8	✓13.7 ✓
12.3	✓12.2 ✓
12.7	✓14.0 ✓

41

	212.83	70.5
180.5		
Nov		
6.5	15.3	197.5 ✓
7.5 ✓	14.3	198.5 ✓
15 ✓	11.9	100.9 ✓
22.5 ✓	9.7	103.1 ✓
30 ✓	8.7	102.1 ✓
32 ✓	8.8	104.0 ✓
32 ✓ - end of 18" cor. pipe	8.55	104.18 ✓
35 ✓	11.6	101.4 ✓
42 ✓	14.4	198.4 ✓

Spruce

42



W 25  
K+L  
Cross Section of Alley 20' wide Moore  
BIK 12 Lincoln Park 12/17/24

on BM	12.73	75.62	62.89	6+24 NE
		EL 24th = 00		
S on paving		5.30	70.42	
C		5.35	70.27	
N		4.70	70.92	
	46' E			
N & Garage dirt floor		6.2	69.4	5' in alley
C		6.5	69.1	
S		6.6	69.2	3' S of SL
	55' E			
S		6.7	68.9	on SL
	93' E			
S		7.1	68.5	
C		7.0	68.6	
N		6.9	68.7	2' N of NL
	107' E			
S		7.6	68.0	on base
	116' E			
-3		6.23	69.29	double garage concrete floor
N		6.7	68.9	
C		7.1	68.5	
S		7.7	67.9	
T.P.	462	72.78	746	68.16
		156' E		
-2		4.85	67.93	E Garage concrete floor
S		4.91	67.87	on CONC. BRON

72.78

43

+1	edge of HIRON	5.05	67.73	Alley 12' wide
C		5.0	67.8	
+4		5.1	67.7	
N		4.8	68.0	
	200' E			
N		5.3	67.5	
C		5.2	67.6	
S		5.3	67.5	
	224' E			
S		5.2	67.6	
C		5.3	67.5	
N & Garage dirt floor		5.3	67.5	1.5' in Alley
	295' E			
N		5.3	67.5	
C		5.5	67.3	
S		5.3	67.5	
	300' E			
S		5.4	67.4	
C		6.2	66.6	
N		6.3	66.5	
	304' E			
N		6.2	66.6	
C		6.2	66.6	
S		6.5	66.3	
	309' E			
S		6.7	67.1	

check stone drain  
between K + L paved  
with cattle stance

7278

C			5.8	67.0
N	= W.L. of Dwelling in Alley		5.3	67.5
	315' E			
N			4.8	68.0
C			5.2	67.6
S			5.1	67.7
	329' E			
N	= EV of Above Dwelling		4.2	68.6
	337' E			
S	40' of Double Garage Care. floor		4.50	68.28
	+ .3 Edge of H.prow		4.60	68.18
C			4.8	68.0
N			4.2	68.6
	357' E			
N	& Garage dirt floor		4.4	68.4
C			4.4	68.4
S	✓ ✓ ✓ ✓		4.6	68.2
	369' E			
S	✓ ✓ Care floor		4.50	68.38
	400' E			
S			3.5	69.3
C			3.9	68.9
N			3.3	69.5
T.P.	6.38	76.01	3.15	69.63
		439' E		
N			5.6	70.4

Plumbing - vents etc.  
stuck out 5' further in Alley

1.0 in Alley

6.0 in Alley

on Line

76.01

44

C			6.1	69.6
S			6.0	70.0
	+ 2' of Double Garage		5.9	70.1
	461' E			
S			5.3	70.7
C			5.8	70.2
N	✓ ✓ ✓ ✓		5.3	70.8
	491' E			
S	✓ ✓ ✓ ✓		5.40	70.61
	506' E			
N	✓ Garage		4.70	71.31
C			5.2	70.8
S	✓ ✓ ✓ ✓		5.3	70.7
	550' E			
S			5.0	71.0
C			4.9	71.1
N			4.3	71.7
	600.6' E			
N	on paving		4.88	71.13
C			5.38	70.68
S			5.23	70.78
T.P.	7.68	78.55	5.1	70.87
67 B.M. 22+K			1.58	76.97
				76.93 NW

Care. floor

Dirt floor

76.93 NW

1st + 3d  
Robt + Penn

Cross Section of Alley 15' wide  
BIK I Brookes + S Nuttes Add Moore

282.50

45

on BM	0.52	279.86	279.34	3d + Penn
				NL of Penn = 00
E		4.83	275.03	
C		5.08	274.78	
W		5.12	274.66	
		8' N		
W		3.6	276.26	
C		4.2	275.66	
E		3.8	276.06	
		15' N		
E		3.9	276.56	
C		3.8	276.06	
W		3.8	276.06	
		24' N		
W		3.6	276.26	
C		3.5	276.36	
+5.8 @ Garage conc. floor		2.17	276.16	
E		3.3	276.56	top package
		114' N		
E	✓	✓	✓	floor
E		3.4	276.46	✓
C		3.8	276.06	
W		3.9	275.96	
		122' N		
W	E of Garage	4.0	275.86	conc. floor
T.P.	100	279.50	3.36	276.50

	141' N		
W		6.0	276.50
C		6.2	276.30
E @ Garage dirt floor		6.2	276.3
		184' N	
-3.5 ✓ ✓ ✓ ✓		5.6	276.9
E		5.6	276.9
C		5.6	276.9
W		5.3	277.2
		238' N	
W	E south Garage conc. floor	5.0	277.5
W		5.1	277.4
C		4.7	277.8
E		4.5	278.0
		260' N	
E		4.8	277.7
C		5.0	277.5
W		5.3	277.2
+6 @ Garage conc. floor		5.62	276.88
		306' N	
W		5.3	277.2
C		5.5	277.0
E		5.3	277.2
		311' N	
W	✓	✓	dirt floor
		5.3	277.2

7' Back

282.50

350' N

E		4.9	277.6
C		4.9	277.6
W		4.9	277.6

400' N

W		3.2	279.3	
C		3.4	279.1	
E		3.3	279.2	
T.P.	7.00	286.80	2.70	279.80

440' N

E		6.5	280.3
C		6.7	280.1
W		6.7	280.1
+ 6' @ Double Garage dirt floor		6.60	280.2

485' N

W		5.5	281.3
C		5.4	281.4
E		5.4	281.4

498' N

2' W of E.L. pepper tree 30" Diam

518' N

- 3.5' @ Garage dirt floor		5.7	281.1
E		5.7	281.1
C		5.7	281.1
W		5.8	281.0

286.50

46

531' N

E @ of Garage Conc floor	5.60	281.2	on line
--------------------------	------	-------	---------

550

W		6.0	280.8
C		6.2	280.6
E		6.0	280.8

595' N

E		6.5	280.3
C		6.8	280.0
W		6.7	280.1

600' N

W		7.2	279.56
C		7.6	279.64
E		6.7	280.13

T.P.	2.52	281.88	7.44	279.36
------	------	--------	------	--------

OH BM 10' @ Robert M. M. M.

2.06	274.82	274.85
------	--------	--------

12/19/24 Gregory

CROSS SECTION OF 10' wide  
N + S Alley B1K12  
LINCOLN PARK

NE 24th St.

47

	0.89	80.32	79.43
	1.70	72.29	70.59
		S.L. K.	
E on curb		2.60	69.69
r - dirt		3.3	69.0
C		3.6	68.7
+3		3.2	69.1
W on curb		2.55	69.71
		3' S	
W		2.1	70.2
+2		3.5	68.8
C		3.6	68.7
+3		3.5	68.8
E		2.9	69.4
		30' S	
E		2.4	69.9
+1		3.8	68.5
C		3.9	68.4
+4		3.6	68.7
W		2.4	69.9
		60' S	
W		3.1	69.2
+2		3.7	68.6
+2.5		4.2	68.1
C		4.2	68.1
+3		4.1	68.2
E		3.1	69.2

	100' S	
E	3.9	68.4
+2	4.9	67.4
C	4.7	67.6
+3	4.6	67.7
W	4.2	68.1
	140' S	
W	4.7	67.6
+3	5.3	67.0
C	5.8	66.5
E	5.6	66.7
	160' S	
E	5.3	67.0
C	6.1	66.2
W	5.5	66.8
	200' S	
W	5.6	66.7
+2	6.5	65.8
C	6.3	66.0
E	5.9	66.4
	240' S	
E	6.2	66.1
C	6.8	65.5
+3	6.7	65.6
W	6.2	66.1

Alley jogs 5' East here.

231 S.

W	6.5	65.8	
+2	7.1	65.2	
C	7.3	65.0	
E	6.6	65.7	
E - N. end cement walk	5.9	66.38	Top of walk

260 S.

E on cement walk	6.28	66.01	
E	7.2	65.1	
C	7.4	64.9	
+3	7.6	64.7	
W	6.9	65.4	

300 S = N.L. L ST.

W	7.67	64.62	on curb.
+4	8.3	64.0	
C	8.6	63.7	
+1	8.2	64.1	
E	7.9	64.3	
E on curb	7.45	64.84	
E ✓ Walk	6.82	65.47	

Cross Section of FLORENCE  
38 to 40th

60' wide  
10' shw

96.27

109

SE Top of Hydt 8.59 96.27 876.8 Florence + 38th

EL 38th = 0+00

S	9.7	86.6
cb	10.4	85.9
1/4	10.8	85.5
C	10.7	85.6
1/4	11.1	85.2
cb	11.2	85.1
N	10.9	85.4

25' E

N	10.4	85.9
cb	10.2	86.1
1/4	10.1	86.2
C	10.0	86.3
1/4	9.6	86.7
cb	9.4	86.9
S	9.2	87.1

50' E

S	8.1	88.2
cb	8.7	87.6
1/4	8.8	87.5
C	9.2	87.1
1/4	8.9	87.4
cb	9.1	87.2
N	9.3	87.0

100' E

N	7.8	88.5
dt	7.6	88.7
1/4	7.7	88.6
C	7.6	88.7
1/4	7.6	88.7
cb	7.7	88.6
S	7.0	89.3

150' E

S	6.2	90.1
cb	6.5	89.8
1/4	6.4	89.9
C	6.6	89.7
1/4	6.8	89.5
cb	6.9	89.4
N	6.8	89.5

200' E

N	6.0	90.3
cb	6.1	90.2
1/4	6.0	90.3
C	5.7	90.6
1/4	5.8	90.5
dt	5.7	90.6
S	5.2	91.1

250' E

S	4.5	91.8
---	-----	------

9627

db		4.8	91.5
1/4		5.1	91.2
c		5.1	91.2
1/4		5.3	91.0
db		5.5	90.8
N		5.3	91.0
	300' E		
N		5.3	91.0
db		5.4	90.9
1/4		5.3	91.0
c		5.0	91.3
1/4		4.9	91.4
db		4.8	91.5
S		4.3	92.0
	350' E		
S		4.3	92.0
db		4.6	91.7
1/4		4.8	91.5
c		5.0	91.3
1/4		5.2	91.1
db		5.1	91.2
N		5.1	91.2
	400' E		
N		4.5	91.8
db		5.0	91.3
1/4		5.0	91.3

9627

FLORENCE

50

c		4.7	91.6
1/4		4.6	91.7
db		4.5	91.8
S		4.0	92.3
	450' E		
S		3.5	92.8
db		4.0	92.3
1/4		4.3	92.0
c		4.4	91.9
1/4		4.5	91.8
db		4.7	91.6
N		4.3	92.0
	500' E		
N		3.4	92.9
db		3.6	92.7
1/4		3.6	92.7
c		3.7	92.6
1/4		3.4	92.9
db		3.3	93.0
S		3.1	93.2
	550' E		
S		1.6	94.7
+E		2.5	93.8
db		2.5	93.8
1/4		2.7	93.6
c		2.6	93.7
1/4		2.7	93.6

9627

cb	2.7	93.1
N	2.6	93.7
600 E - w L 39th		
N	2.7	93.6
cb	3.1	93.2
1/4	2.9	93.4
C	2.8	93.5
1/4	2.8	93.5
cb	2.6	93.7
+S	2.3	94.0
S	1.8	94.5
w cb of 39th		
S	3.1	93.2
cb	3.1	93.2
1/4	3.0	93.3
C	3.2	93.1
1/4	3.3	93.0
cb	3.3	93.0
N	3.2	92.7
w 1/4		
N	4.1	92.2
cb	4.0	92.3
1/4	3.9	92.4
C	3.8	92.5
1/4	3.7	92.6
cb	3.6	92.7

9627

FLORENCE

51

S	3.9	92.4
E		
S	4.1	92.2
cb	4.1	92.2
1/4	4.1	92.2
C	4.1	92.2
1/4	4.2	92.1
cb	4.2	92.0
N	4.5	91.8
E 1/4		
N	5.1	91.2
cb	4.9	91.4
1/4	4.8	91.5
C	4.7	91.6
1/4	4.7	91.6
cb	4.5	91.8
S	4.5	91.8
E cb		
S	5.1	91.2
cb	5.0	91.3
1/4	5.1	91.2
C	5.1	91.2
1/4	5.2	91.1
cb	5.3	91.0
N	5.3	91.0

9627

EL 39th

N	5.8	90.5
cb	5.8	90.5
1/4	5.7	90.6
c	5.7	90.6
1/4	5.7	90.6
cb	5.5	90.8
S	5.3	91.0

50' E

S	8.2	88.1
cb	8.1	87.9
1/4	8.3	88.0
c	8.1	88.2
1/4	8.1	88.2
cb	7.8	88.5
N	7.8	88.5

100' E

N	9.2	87.1
cb	9.2	87.1
1/4	9.6	86.7
c	9.7	86.5
1/4	9.9	86.4
cb	10.2	86.1
S	10.3	86.0
T.P.	1477	91.29
		97.5
		86.52

9129

FIORENCE

150' E

S	6.5	84.8
cb	6.3	85.0
1/4	5.8	85.5
c	5.6	85.7
1/4	5.2	86.1
cb	4.8	86.5
N	4.6	86.7

200' E

N	4.5	86.8
cb	4.9	86.4
1/4	5.4	85.9
c	5.6	85.7
1/4	6.2	85.1
cb	6.6	84.7
S	6.8	84.5

250' E

S	7.2	84.1
cb	6.6	84.7
1/4	6.2	85.1
c	5.7	85.6
1/4	5.1	86.2
cb	4.8	86.5
N	4.3	87.0

300' E

N	4.3	87.0
---	-----	------

9129

cb		4.7	86.6
1/4		5.2	86.1
c		5.7	85.6
1/4		6.3	85.0
cb		6.8	84.5
S		7.2	84.1
	350' E		
S		7.4	83.9
cb		7.0	84.3
1/4		6.7	84.6
c		6.1	85.2
1/4		5.7	85.6
cb		5.3	86.0
N		5.0	86.3
	400' E		
N		5.5	85.7
cb		5.7	85.6
1/4		5.9	85.4
c		6.3	85.0
1/4		6.7	84.6
cb		7.0	84.3
S	on lower	7.4	83.9
	450' E		
S		7.5	83.8
cb		7.1	84.2
1/4		6.6	84.7

9129

FIORENCE

53

c		6.2	85.1
1/4		6.0	85.3
cb		5.7	85.6
N		5.4	85.9
	500' E		
N		5.7	85.6
<sup>+</sup> cb		6.2	85.8
		6.5	84.8
1/4		6.9	84.4
c		7.2	84.1
1/4		7.3	84.0
cb		7.6	83.7
S		7.7	83.6
	550' E		
S		9.7	81.4
cb		9.7	81.6
1/4		9.5	81.8
c		9.3	82.0
1/4		9.2	82.1
cb		8.9	82.4
N		8.4	82.9
	600' E		
N		11.3	80.0
cb		12.0	79.3
1/4		12.1	79.2
c		12.5	78.8
1/4		12.6	78.7

9129

cb			13.0	78.3
S			13.0	78.3
T.P	298	81.59	12.68	78.61

653.75' E on SL + 653.48' E on NL = PL

S			6.0	75.6
cb			7.1	74.5
+ 13' Mon			7.26	74.33
1/4			7.1	74.5
c			6.7	74.9
1/4			6.8	74.8
cb			6.2	75.4
N			5.9	75.7

675' E

N			8.9	72.7
cb			9.3	72.3
1/4			9.9	71.7
c			9.7	71.9
1/4			9.4	72.2
cb			8.1	73.5
S			7.3	74.3

Cross Section of 38th 60' wide  
Woolman to National

93.30

55

SE Top Hght.	97v	93.30	83.58	38th + Woolman
		SL Woolman = 0+00		
E		10.4	82.9	
cb		10.6	82.7	
+v		10.2	83.1	
+7		10.4	82.9	
1/4		11.2	81.9	
C		11.7	81.6	
1/4		12.2	81.1	
+5		12.7	80.6	
cb		11.1	82.2	
w		11.5	81.8	
		1' S		
w		8.3	85.0	
cb		8.1	85.2	
+v		8.3	85.0	
+5		12.1	81.2	
1/4		11.5	81.8	
C		11.1	82.2	
1/4		10.9	82.4	
+6		8.5	84.8	
cb		7.4	85.9	
+v		6.5	86.8	
+3		8.8	84.5	
E		8.4	84.9	

25'S

E	4.9	88.4
cb	5.3	88.0
+9	6.0	87.3
1/4	7.7	85.6
C	8.5	84.8
1/4	9.0	84.3
+5	8.7	84.6
+6	7.7	85.6
cb	7.6	85.7
w	7.9	85.4
	50'S	
w	6.8	86.5
cb	6.5	86.8
+4	6.2	87.0
+5	7.1	86.2
1/4	6.9	86.4
C	6.6	85.7
1/4	6.5	86.8
+1	4.5	88.8
cb	4.1	89.2
E	3.9	89.4
	75'S	
E	3.0	90.3
cb	3.4	89.9
+9	3.6	89.7
1/4	5.0	88.3

93.30

C	5.0	88.3
1/4	5.1	88.2
cb	5.5	86.8
W	6.0	87.3

100'S

W	5.4	87.9
cb	4.9	88.4
1/4	4.4	88.9
e	3.6	89.7
1/4	3.5	89.8
cb	2.7	90.6
E	2.3	91.0

119.76'S = NL TEAK on West

E	1.6	91.7
+5	2.5	90.8
cb	2.4	90.9
1/4	2.4	90.9
e	2.8	90.5
1/4	3.5	89.8
+2	4.2	89.1
cb	4.4	88.9
W	4.7	88.6

129.76'S

W	4.6	88.7
cb	4.1	89.2
+8	3.8	89.5

93.30

38 + 4

56

1/4	3.3	90.0
e	2.5	90.8
1/4	2.1	91.2
cb	2.1	91.2
+6	2.1	91.2
E	1.2	92.1

139.76'S

E	1.1	92.2
cb	1.9	91.4
+2	2.1	91.2
1/4	1.9	91.4
C	2.2	92.1
1/4	2.7	90.6
+5	3.9	89.4
cb	3.6	89.7
W	4.3	89.0

149.76'S

W	3.9	89.4
cb	3.5	89.8
+2	4.6	88.7
1/4	3.0	90.5
+2	2.4	90.9
e	1.9	91.4
1/4	1.6	91.7
cb	1.8	91.5
+1	1.4	91.9
E	1.2	92.1

93.30

159.76 S

E	1.5	92.0
cb	1.3	92.0
+v	1.8	91.5
1/4	1.4	91.9
c	1.9	91.4
+8	2.2	91.1
1/4	3.1	90.2
+7	3.9	89.4
cb	2.8	90.5
W	3.2	90.1

169.76 S

W	2.8	90.5
cb	2.6	90.7
+5	2.9	90.4
1/4	3.0	90.3
+3	1.9	91.4
c	2.0	91.3
1/4	1.4	91.9
cb	1.3	92.0
E	1.1	92.2

179.76 S = SL TANK on West

E	1.2	92.1
cb	1.3	92.0
1/4	1.3	92.0
c	2.0	91.3

93.30

38 + 4

57

1/4	2.5	90.8
cb	3.6	90.7
W	2.9	90.4
	200 S	
W	2.4	90.9
cb	2.0	91.3
1/4	2.0	91.3
c	1.3	92.0
+1	1.7	91.6
1/4	1.0	92.3
cb	0.8	92.5
E	1.0	92.3
	225 S	
E	2.0	91.3
+3	1.6	91.7
cb	1.2	92.1
+2	1.6	91.7
1/4	1.3	92.0
c	2.0	91.3
+1	1.6	91.7
1/4	1.6	91.7
+5	1.8	91.5
cb	2.7	90.6
+5	1.5	91.8
W	2.0	91.3
	250 S	
W	3.0	90.3

93.30

db	2.2	91.1
1/4	2.1	91.2
C	2.6	90.7
1/4	2.4	90.9
db	2.5	90.8
+7	2.7	90.6
E	3.5	89.8

275'S

E	4.6	88.7
+3	3.9	89.4
db	3.7	89.6
1/4	3.2	90.1
C	3.0	90.3
1/4	2.2	91.1
+5	2.0	91.3
+6	1.6	91.7
db	1.7	91.6
w/	2.2	91.1

285.14'S - NW TEAK on East

w/	1.3	92.0
+7	0.7	92.6
db	1.4	91.9
1/4	1.2	92.1
+5	2.8	90.5
C	3.2	90.1
1/4	3.3	90.0

93.30

38+h

58

db	11.0	89.3
E	4.7	88.6
T.P	771	97.63
	3.38	89.92

295.14'S

E	8.9	88.7
db	8.5	89.1
1/4	7.7	89.9
C	7.7	89.9
+6	6.8	90.8
+7	6.1	91.5
1/4	5.6	92.0
db	5.4	92.2
+5	5.6	92.0
+6	5.0	92.6
w/	5.1	92.5

305.14'S

w/	4.9	92.7
db	5.3	92.3
1/4	5.8	91.8
C	7.8	89.8
1/4	7.9	89.7
db	8.6	89.0
E	9.0	88.6

315.14'S

E	9.4	88.2
db	8.7	88.9

9763

1/4	8.0	89.5
C	7.9	89.7
1/4	6.1	91.5
cb	5.9	91.7
W	6.0	91.6
325.14'S		
W	6.7	90.9
+7	6.0	91.6
cb	5.5	92.1
1/4	6.5	91.1
C	8.1	89.5
1/4	8.2	89.4
cb	8.6	89.0
E	9.3	88.3
335.14'S		
E	9.3	88.3
cb	8.9	88.7
1/4	8.5	89.1
C	8.4	89.2
1/4	7.4	90.2
cb	7.5	90.1
W	7.7	89.9
345.14'S = SLT BRK on East		
W	8.5	89.1
cb	8.4	89.2
1/4	8.1	89.5

9763

38 + H

59

C	8.6	89.0
1/4	8.8	88.8
cb	9.1	88.5
E	9.2	88.4
375'S		
E	9.2	88.4
cb	9.2	88.4
1/4	9.0	88.6
C	9.0	88.6
+5	8.8	88.8
1/4	9.1	88.2
cb	9.5	88.1
W	9.9	87.7
390'S		
W	9.9	87.7
+7	9.9	87.7
cb	10.6	87.0
+5	11.1	86.5
1/4	11.1	86.5
+5	10.6	87.0
+7	9.5	88.1
C	9.3	88.3
1/4	9.3	88.3
cb	9.2	88.4
E	9.1	88.5
425'S		
E	9.1	88.5

97.63

dt	9.1	88.5
1/4	9.3	88.3
C	9.4	88.2
+2	9.5	88.1
+5	10.6	87.0
1/4	11.0	86.6
+5	11.0	86.6
cb	10.1	87.5
w	9.7	87.9
	443.21 S = NL of S st on west	
w	7.3	90.3
cb	7.7	89.9
1/4	9.6	88.0
+5	9.7	87.9
C	9.2	88.4
1/4	9.1	88.5
cb	9.0	88.6
E	9.3	88.3
	453.21 S	
E	8.8	88.8
cb	8.7	88.9
1/4	8.8	88.8
C	8.9	88.7
+5	9.2	88.4
1/4	9.6	88.0
cb	7.9	89.7
w	7.1	90.5

97.63

38 + b 60

	463.21 S	
w	7.4	90.2
cb	8.5	89.1
1/4	9.1	88.5
+4	9.0	88.6
C	8.6	89.0
1/4	8.4	89.2
cb	8.2	89.4
+6	8.1	89.5
+7	7.5	90.1
E	7.3	90.3
	473.21 S	
E	7.0	90.6
+3	7.0	90.6
+4	7.6	90.0
cb	7.8	89.8
1/4	8.0	89.6
C	8.1	89.5
1/4	7.8	89.8
cb	8.1	89.5
w	8.1	89.5
	483.21 S	
w	7.5	90.1
cb	6.8	90.8
1/4	7.2	90.4
E	7.7	89.9

97.63

1/4	7.6	90.0
cb	7.4	90.2
E	7.3	90.3

493.21 S

E	7.2	90.4
+3	6.7	90.9
cb	6.9	90.7
1/4	7.1	90.5
C	7.2	90.4
1/4	6.2	91.2
cb	6.3	91.3
W	6.1	91.5

503.21 S = SL of S st on West

W	4.8	92.8
cb	5.4	92.2
1/4	6.0	91.6
C	6.7	90.9
1/4	6.6	91.0
cb	6.6	91.0
E	6.0	91.6

525 S

E	4.3	93.3
cb	5.2	92.4
1/4	5.1	92.2
C	5.6	92.0
1/4	5.5	92.1

97.63

3874

61

cb	5.3	92.3
W	4.6	93.0

546.21 S = NL of S on EAST

W	4.2	93.4
cb	4.6	93.0
1/4	4.5	93.1
C	4.7	92.9
1/4	4.6	93.0
cb	4.3	93.3
E	3.9	93.7

N cb

E	4.0	93.6
cb	4.2	93.4
1/4	4.1	93.5
C	4.2	93.4
1/4	4.0	93.5
cb	4.2	93.4
W	3.9	93.7

N 1/4

W	3.8	93.8
cb	4.0	93.6
1/4	3.8	93.8
C	4.0	93.6
1/4	3.8	93.8
cb	3.9	93.7
E	4.0	93.6

97.63

R

E	3.7	93.9
cb	3.4	94.2
1/4	3.6	94.0
C	3.7	93.9
1/4	3.7	93.9
cb	4.0	93.6
W	3.8	93.8

S 1/4

W	3.7	93.9
cb	3.8	93.8
1/4	3.6	94.0
C	3.5	94.1
1/4	3.5	94.1
cb	3.4	94.2
E	3.5	94.1

S 1/4

E	3.6	94.0
cb	3.5	94.1
1/4	3.5	94.1
C	3.6	94.2
1/4	3.5	94.1
cb	3.5	94.1
W	3.4	94.2

596.71 S = SL of S st on east

W	3.2	94.4
cb	3.4	94.2

97.63

1/4	3.0	94.6
C	3.2	94.4
1/4	3.3	94.3
cb	3.5	94.1
E	3.1	94.5
check B.M. SE Top Hvt	1.40	96.23 96.21
625' S		

E	2.6	95.0
cb	2.4	95.2
1/4	2.7	94.9
C	2.6	95.0
1/4	2.5	95.1
cb	2.9	94.7
W	2.8	94.8

650' S

W	3.2	94.4
cb	3.0	94.6
1/4	2.5	95.1
C	2.3	95.2
1/4	2.5	95.1
cb	2.2	95.4
E	2.2	95.4

675' S

E	1.9	95.7
cb	2.2	95.4
1/4	2.6	95.0

97.63

C		2.3	95.5
1/4		2.7	94.9
cb		3.3	94.3
W		3.5	94.1
	700' S		
W		3.3	94.3
cb		3.1	94.5
1/4		3.0	94.6
C		3.0	94.6
1/4		3.1	94.5
cb		2.8	94.8
E		2.8	94.8
	725' S		
E		3.0	94.6
cb		3.0	94.6
1/4		3.5	94.1
C		3.5	94.1
1/4		3.7	93.9
cb		3.7	93.9
W		3.7	93.9
	750' S		
W		3.9	93.7
cb		4.0	93.6
1/4		4.1	93.5
C		3.7	93.9
1/4		3.8	93.8

97.63

63

cb		3.4	94.2
E		3.3	94.3
	770.49' S = N L T St on West		
E		3.7	93.9
cb		3.5	94.1
1/4		3.8	93.8
C		4.1	93.5
1/4		4.4	93.2
cb		4.9	92.7
W		4.8	92.8
	780.49' S		
W		5.6	92.0
cb		5.0	92.6
1/4		4.9	92.7
C		4.7	92.9
	790.49' S		
C		4.8	92.8
1/4		5.1	92.5
cb		5.4	92.2
W		5.7	91.9
	800.49' S		
W		5.9	91.7
cb		5.5	92.1
1/4		5.4	92.2
C		5.0	92.6
	810.49' S		
C		5.3	92.8

97.63

1/4	5.5	92.1
cb	6.0	91.0
w	6.2	91.4

820.49 S

w	6.2	91.4
cb	6.0	91.6
1/4	5.7	91.9
c	5.5	92.1

830.49 S = SL of T St on West

c	5.6	92.0
1/4	5.7	91.9
cb	5.8	91.8
w	6.0	91.6

795.27 S = NL of T St on East 50' wide  
10' cto  
7.5' 1/4 S

E	3.8	93.8
cb	3.9	93.7
1/4	4.4	93.2
c	4.8	92.8

Ncb

c	5.2	92.4
1/4	4.8	92.8
cb	4.6	93.0
E	4.4	93.2

N 1/4

E	4.6	93.0
cb	4.8	92.8

97.63

38+H

64

1/4	5.1	92.5
c	5.4	92.2
cb	-	-

c	5.5	92.1
1/4	5.2	92.4
cb	4.9	92.7
E	4.7	92.9

S 1/4

E	4.8	92.8
cb	5.1	92.5
1/4	5.4	92.1
c	5.6	92.0

S cb

c	5.7	91.9
1/4	5.5	92.1
cb	5.2	92.4
E	4.7	92.9

845.27 S = SL T St on East

E	5.0	92.5
cb	5.0	92.6
1/4	5.8	91.8
c	6.0	91.5
1/4	6.2	91.4
cb	6.2	91.4
w	6.1	91.5

T.P. on Max 0.22 94.52  
Highest point  
NE Td 38+H

3.33 94.30 94.32

94.52

875' S

w	2.9	91.6
cb	3.2	91.3
1/4	3.3	91.2
c	3.4	91.1
1/4	3.3	91.2
cb	2.8	91.7
E	2.6	91.9

900' S

E	2.7	91.8
cb	3.7	90.8
1/4	3.9	90.7
c	3.6	90.9
1/4	3.7	90.8
cb	3.6	90.9
w	3.2	91.3

925' S

w	3.8	90.7
cb	3.9	90.6
1/4	3.9	90.6
c	4.1	90.4
1/4	4.5	90.1
cb	4.6	90.0
E	4.7	89.9

950' S

E	5.0	89.5
---	-----	------

94.52

38 + 6

65

cb	5.1	89.4
1/4	4.9	89.7
c	4.3	90.2
1/4	3.9	90.6
cb	4.0	90.5
w	4.4	90.1

975' S

w	5.6	88.9
cb	5.5	89.0
1/4	5.7	88.8
c	5.4	89.1
1/4	5.7	88.8
cb	5.6	88.9
E	5.6	88.9

1000' S

E	5.9	88.6
cb	5.9	88.6
+2	5.9	88.6
+4	6.5	88.0
1/4	6.3	88.2
c	5.9	88.6
1/4	6.1	88.4
+6	6.5	88.0
+8	5.8	88.7
cb	6.0	88.5
w	6.6	87.9

94.5 ~			
1025' S			
W	7.8	86.7	
cb	7.3	87.2	
+3	7.1	87.4	
+4	7.7	86.8	
1/4	7.0	87.5	
C	6.8	87.7	
1/4	7.0	87.5	
cb	6.6	87.9	
E	6.0	88.5	
1050' S			
E	7.7	86.8	
cb	8.5	86.0	
1/4	8.7	85.8	
C	8.6	85.9	
1/4	8.7	85.8	
+5	9.1	85.4	
+7	8.5	86.0	
cb	8.5	86.1	
W	8.5	86.0	
1075' S			
W	10.5	84.0	
cb	10.5	84.0	
1/4	10.1	84.4	
C	9.9	84.6	
1/4	9.8	84.7	

94.5 ~		38th		66
cb	10.0	84.5		
E	9.3	85.2		
1098.22' S = NE Florence on West				
E	8.6	85.9		
+5	8.1	86.4		
cb	8.1	86.4		
+2	8.2	86.3		
+3	9.7	84.8		
1/4	9.9	84.6		
C	9.9	84.6		
1/4	10.3	84.2		
cb	11.5	83.0		
W	11.8	82.7		
T.P.	top Hydt SE 38th + Florence	6.80	87.7 ~	87.68
	5.19	92.87	87.68	
Net 1108.22' S				
W	9.6	83.3	West 1/4	
cb	9.6	83.3	of 38th	
1/4	8.6	84.3		
C	8.1	84.8		
1118.22' S				
C	8.1	84.8		
1/4	8.5	84.1		
cb	9.3	83.6		
W	9.5	83.4		
1128.22' S = 4				
W	9.8	83.1		

9287

cb	9.8	85.1
1/4	8.7	84.2
C	8.0	84.9

1138.27' S = S 1/4 to West

C	8.0	84.9
1/4	8.3	84.6
cb	9.7	83.2
W	10.0	82.9

1148.27' S = S of

W	9.0	83.9
1/4	9.4	83.5
cb	8.0	84.9
C	7.6	85.3

1158.27' S = SL Florence to West

C	7.0	85.9
1/4	7.6	85.3
cb	8.0	84.9
W	8.0	84.9

1110.27' S = NE of Florence on East

E	7.6	85.3
cb	7.8	85.1
1/4	8.3	84.6
C	8.2	84.7

1120.27' S

C	8.0	84.9
1/4	8.2	84.7

9287

38 + 11

67

cb	8.1	84.8
E	7.7	85.2

1130.27' S

E	7.7	85.2
cb	8.5	84.4
1/4	8.4	84.5
C	8.0	84.9

1140.27' S

C	7.9	85.0
1/4	8.3	84.6
cb	8.8	84.1
E	7.4	85.5

1150.27' S

E	7.4	85.6
cb	8.2	84.7
1/4	7.9	85.0
C	7.5	85.4

1160.27' S

C	7.0	85.9
1/4	7.0	85.9
cb	7.7	85.2
E	7.0	85.9

1170.27' S = SL Florence To East

E	6.2	86.7
cb	7.0	85.9
1/4	6.8	86.1

92.87

c	6.5	86.4
1/4	7.0	85.9
cb	7.3	85.6
W	7.4	85.5

1200' S

W	5.5	87.4
cb	5.3	87.5
+v	5.8	87.1
1/2	5.6	87.3
c	5.3	87.6
1/4	5.6	87.3
+6	5.4	87.5
cb	5.0	87.9
E	4.3	88.6

1225' S

E	3.7	89.2
cb	4.0	88.9
+4	4.2	88.7
1/4	4.2	88.7
c	3.9	89.0
1/4	4.1	88.8
+8	4.4	88.5
cb	3.9	89.0
W	4.5	88.4

1275' S

W	3.3	89.6
---	-----	------

92.87

38+4

68

cb	2.9	90.0
1/4	2.7	90.2
C	2.4	90.5
1/4	2.5	90.4
cb	2.1	90.8
E	1.8	91.5

1300' S

E	1.0	91.9
cb	1.4	91.5
+5	2.0	90.9
1/4	2.2	90.7
C	2.5	90.4
1/4	2.8	90.5
+8	3.1	89.8
cb	2.8	90.1
W	3.1	89.8

1325' S

W	4.0	88.9
cb	3.2	89.7
1/4	3.2	89.7
c	2.9	90.0
1/4	2.8	90.1
+8	2.4	90.5
cb	1.2	91.7
E	1.1	91.8

1375' S

E	1.7	91.2
---	-----	------

9287

cb	r.v	90.9
+r	3.7	89.2
1/4	4.3	88.6
c	4.5	88.4
1/4	5.1	87.8
cb	5.4	87.5
w	5.8	87.1

1400's

w	6.2	86.7
cb	6.1	86.8
1/4	5.9	87.0
c	5.3	87.6
1/4	5.3	87.6
+8	4.6	88.3
cb	3.3	89.6
E	2.8	90.1

1444.60

S = No

Logan

80' wide

E	4.8	88.1
cb	5.5	87.4
+r	7.3	85.6
1/4	8.0	84.9
c	8.0	84.9
1/4	8.4	84.5
cb	8.3	84.6
w	8.4	84.5

14' slw

12' 1/2

N cb

w	9.4	83.5
---	-----	------

9287

3876

69

cb	9.0	83.9
1/4	9.1	83.8
c	8.9	84.0
1/4	8.8	84.1
+8	7.9	85.0
cb	6.7	86.2
E	5.4	87.5

N cb +10

E	6.5	86.4
cb	7.9	85.0
+r	8.6	84.3
1/4	9.1	83.8
c	9.2	83.7
1/4	9.6	83.3
cb	9.6	83.3
w	10.1	82.8

N 1/4

w	10.4	82.5
cb	10.0	82.9
1/4	9.8	83.1
c	9.3	83.6
1/4	9.3	83.6
cb	8.7	84.2
E	8.1	84.8

E

E	8.7	84.2
cb	9.3	83.6

92.87

1/4		9.8	83.1
C		9.8	83.5
1/4		10.1	82.8
cb		10.4	82.5
W		10.9	82.0
	S 1/4		
W		11.0	81.9
cb		10.9	82.0
1/4		10.5	82.4
C		10.2	82.7
1/4		10.1	82.8
cb		9.9	83.0
E		9.1	83.8
	S 1/4 + 6		
E		9.0	83.9
cb		9.8	83.1
1/4		10.4	82.5
C		10.4	82.5
1/4		10.8	82.1
cb		11.0	81.9
W		11.0	81.9
	S cb		
W		11.2	81.7
cb		11.0	81.9
1/4		11.0	81.9
C		10.7	82.2

92.87

38 + h 70

1/4		10.6	82.3
+ 8		10.2	82.7
cb		9.0	83.9
E		8.6	84.3
	1524.60' S = SU LOGAN		
E		8.8	84.1
cb		9.4	83.5
+ 2		10.7	82.2
1/4		10.9	82.0
C		11.0	81.9
1/4		11.4	81.5
cb		11.4	81.5
W		11.6	81.3
	1525' S		
W		12.9	80.0
cb		12.5	80.4
1/4		12.5	80.4
C		12.1	80.8
1/4		11.9	81.0
+ 8		11.7	81.2
cb		10.2	82.7
E		9.8	83.1
	TP <sup>0.56</sup> top of 2" pipe 8504	8.39	84.48
	1625' S		
E		2.6	82.4
cb		3.4	81.6

SE 3074 d  
Logan

8504

tr	5.0	80.0
1/4	5.2	79.8
C	5.1	79.9
1/4	5.5	79.5
cb	5.2	79.6
W	5.6	79.4
1650'S		
W	6.1	78.9
cb	6.2	78.8
1/4	6.0	79.0
C	5.5	79.5
1/4	5.2	79.5
+8	5.0	80.0
cb	3.3	81.7
E	1.7	83.3
1675'S		
E	3.1	81.9
cb	4.6	80.4
tr	5.3	79.7
1/4	6.0	79.0
C	5.8	79.2
1/4	6.2	78.8
cb	6.5	78.5
tr	5.7	79.3
W	5.7	79.3
1700'S		
W	6.2	78.8

8504

3877

71

cb	6.5	78.5
1/4	6.5	78.5
C	6.2	78.8
1/4	6.4	78.6
+8	6.3	78.7
cb	4.4	80.2
E	3.8	81.2
1750'S		
E	4.7	80.3
cb	4.6	80.4
tr	6.8	78.2
1/4	7.2	77.8
C	7.2	77.8
1/4	7.5	77.5
cb	7.8	77.2
W	7.6	77.4
1800'S		
W	7.9	77.1
cb	8.0	77.0
1/4	8.3	76.7
C	8.1	76.9
1/4	8.1	76.9
+9	8.0	77.0
cb	6.3	78.7
E	5.7	79.3

8504

38th

94.83

Logan

20

77.50

1825' S = N.L. of Nat'l Hve

20' E

E	6.6	78.4	
Cem. ct	7.54	77.5	check this
+1	8.3	76.7	on Grade
1/4	8.7	76.3	
C	8.5	76.5	
1/4	8.9	76.1	
+9	8.9	76.1	
Cem. ct	8.64	76.40	
W	8.3	76.7	
T.F. top. Hydr SE	6.31	78.73	38th + NAT'L.

N.	5.7	89.1
cb	6.4	88.4
+10	7.6	87.2
1/4	5.9	85.9
C	9.1	85.7
1/4	9.1	85.7
+6	9.2	85.6
cb	8.5	86.3
S	9.2	85.6

50' E

S	7.9	86.9
cb	7.2	87.6
+4	7.2	87.6
+10	8.5	86.3
1/4	8.4	86.4
C	8.0	86.8
1/4	7.5	87.3
+5	6.9	87.9
+7	6.2	88.6
cb	5.6	89.2
N	4.8	90.0

## Cross Section of LOGAN

38th to 39th

80' wide

10.35 94.83

84.48

10' slw  
13' 1/2  
top of pipe section  
38th + Logan

E.L. 38th = 0+00

S	10.8	84.0
cb	10.5	84.3
+7	11.2	83.6
1/4	11.2	83.6
C	10.7	84.1
1/4	10.1	84.7
+3	8.6	86.2
cb	7.4	87.4
N	7.0	87.8

100' E

N	3.1	91.4
cb	4.2	90.6
+5	4.5	90.3
1/4	6.3	88.5

94.83

C	6.4	88.4
1/4	7.0	87.8
cb	6.4	88.4
S	6.9	87.9
130' E		
S	5.7	89.1
cb	5.9	88.9
+6	5.9	88.9
1/4	6.4	88.4
C	5.6	89.2
1/4	5.5	89.3
+2	5.5	89.3
+7	4.0	90.8
cb	3.8	91.0
N	3.2	91.6
150' E		
N	3.2	91.6
cb	3.5	91.3
+8	4.2	90.6
+10	5.2	89.6
1/4	5.2	89.6
C	5.1	89.7
1/4	5.9	88.9
+7	5.4	89.4
cb	5.4	89.4
S	5.5	89.3

94.83

Logan

73

S	175' E	4.7	90.1
cb		4.0	90.8
+6		3.9	90.9
+8		4.9	89.9
1/4		5.2	89.6
C		4.7	90.1
1/4		4.7	90.1
+3		3.6	91.2
cb		3.4	91.6
N		3.0	91.8
200' E			
N		3.0	91.8
cb		3.2	91.6
+7		3.5	91.3
+10		4.6	90.2
1/4		4.8	90.0
C		4.7	90.1
1/4		4.9	89.9
+3		4.6	90.2
cb		4.8	90.0
S		5.0	89.8
250' E			
S		4.9	89.9
cb		4.8	90.0
1/4		5.1	89.7
C		4.8	90.0
1/4		4.6	90.2

94.83

+4	4.5	90.3
+6	4.1	90.7
cb.	3.7	91.1
N	3.2	91.6

300' E

N	3.5	91.3
cb	3.9	90.9
+7	5.0	89.8
1/4	5.2	89.6
c	5.3	89.5
1/4	5.9	88.9
+2	5.8	89.0
+4	5.3	89.5
cb	5.2	89.6
S	5.2	89.6

250' E

S	6.2	88.6
cb	6.1	88.7
1/4	6.1	88.7
c	5.6	89.2
1/4	5.2	89.6
+5	5.2	89.6
+7	4.7	90.1
cb	4.4	90.4
N	4.1	90.7

94.83

Logan

74

400' E

N	4.2	90.6
cb	4.8	90.0
1/4	5.5	89.3
c	5.6	89.2
1/4	6.2	88.6
cb	6.0	88.8
S	6.3	88.5

450' E

S	5.4	89.4
cb	5.1	89.7
+11	4.7	90.1
1/4	5.6	89.2
c	4.8	90.0
1/4	4.7	90.1
+2	4.6	90.2
+5	3.2	91.4
cb	3.0	91.8
N	3.3	92.5

475' E

N	2.0	92.8
cb	2.5	92.3
+11	3.3	91.5
1/4	4.3	90.5
c	4.4	90.4
1/4	5.2	89.6
+3	5.2	89.6

94.83

+W	4.4	90.4
cb	4.5	90.3
S	4.6	90.0
	525' E	
S	5.1	89.7
cb	4.5	90.3
+9	3.9	90.9
+10	4.6	90.2
1/4	4.7	90.1
C	4.3	90.5
1/4	3.9	90.9
+3	2.4	92.4
cb	2.1	92.7
N	2.0	92.8
	550' E	
N	2.7	92.1
cb	2.9	91.9
+9	2.2	91.8
1/4	4.3	90.5
C	4.3	90.5
1/4	4.5	90.3
+3	4.5	90.3
+4	3.7	91.1
cb	4.2	90.6
S	4.5	90.3

94.83

Logan

75

S	575' E	3.6	91.2
cb		3.2	91.6
+9		3.2	91.6
+10		4.0	90.8
1/4		4.5	90.3
C		4.2	90.5
1/4		4.3	90.5
+1		3.8	91.0
cb		3.3	91.5
N		3.5	91.3
	600' E =	N 1	39th
N		3.8	91.0
cb		4.3	90.5
1/4		4.9	89.9
C		4.8	90.0
1/4		4.6	90.2
+3		4.3	90.5
+4		3.2	91.6
cb		3.0	91.8
S		3.2	91.6
T.P. on 13 Nov		4.50	90.33

9038  
29th - Logan

Cross Section of 39th  
FLORENCE to NATIONAL

60' wide  
10' slw.  
10' 1/2's

9649

39th

76

on 13' Mar. 3.65 9649 92.84 Florence & 39th

S.L. Florence = 0+00

w	0.9	95.6
cb	3.3	93.2
1/4	4.1	92.4
c	4.4	92.1
1/4	4.8	91.7
cb	5.4	91.1
E	5.6	90.9
E	5.1	91.4
cb	5.3	91.2
1/4	5.0	91.0
c	4.6	91.9
1/4	4.3	92.2
cb	3.6	93.5
+7	2.0	94.5
w	0.5	95.5
w	1.4	95.1
+3	2.4	94.1
cb	3.0	93.5
+w	3.1	93.4
+6	4.2	92.3
1/4	4.5	92.0
c	4.7	91.8

Note: This street is only partly opened

25' S

50' S

1/4	5.1	91.4
cb	5.4	91.1
+2	5.0	91.5
E	4.8	91.7
E	4.6	91.9
+9	4.7	91.8
cb	5.4	91.1
1/4	5.3	91.2
c	4.8	91.7
1/4	4.6	91.9
+5	4.1	92.4
+8	3.1	93.4
cb	3.1	93.4
+8	2.9	93.6
w	1.8	94.7
w	3.0	93.5
cb	3.6	92.9
+5	4.7	91.8
1/4	4.9	91.6
c	5.0	91.5
1/4	5.4	91.1
+7	5.7	90.8
cb	5.0	91.5
E	4.9	91.6

75' S

100' S

96.49

125' S

E	5.1	91.4
cb	5.8	90.7
1/4	5.7	90.8
e	5.4	91.1
1/4	5.4	91.1
cb	4.7	91.8
w	4.4	92.1

175' S

w	5.1	91.4
cb	5.9	90.6
1/4	6.1	90.4
e	6.1	90.4
1/4	6.3	90.2
cb	6.3	90.2
E	6.1	90.4

225' S

E	6.6	89.9
w	6.9	89.6
1/2	6.9	89.6
c	6.6	89.9
1/4	6.6	89.9
cb	5.7	90.8
w	5.4	91.1

247.5' S = NL of Logan on East 30' wide

w	4.9	91.6
cb	5.3	91.2

96.49

39 + h

77

1/4	6.1	90.4
+3	7.1	89.4
c	6.8	89.7
1/4	7.1	89.4
cb	7.1	89.4
+2	6.6	89.9
E	6.6	89.9

258.45' S = NL Logan on West

E	7.6	88.9	14' slw
cb	7.2	88.7	13' 1/4's
1/4	7.2	89.3	
c	7.0	89.5	
+8	7.0	89.5	
1/2	6.2	90.3	
cb	5.7	90.8	
w	5.5	91.0	

N cl

w	5.9	91.6
cb	6.3	90.2
1/4	6.5	90.0
+2	7.2	89.3
c	7.2	89.3
1/4	7.3	89.2
cb	7.5	89.0
E	7.8	88.7

377.5' S = SL Logan on East 30' wide

E	9.1	89.4
---	-----	------

9649

cb	7.6	88.9
1/4	7.4	89.1
e	7.3	89.2
+8	7.2	89.3
1/4	6.6	89.9
cb	6.3	90.2
w	5.9	90.6
	N 1/4	of Logan on west
w	6.4	90.1
cb	6.8	89.7
1/4	7.3	89.2
e	7.2	89.1
1/4	7.5	89.0
cb	7.7	88.8
+w	7.1	89.4
E	7.2	89.3
	E	
E	7.2	89.3
+8	7.3	89.2
cb	8.0	88.5
1/4	7.5	89.0
C	7.6	88.9
1/4	7.1	89.4
cb	6.8	89.7
w	6.4	90.1
	S 1/4	
w	6.3	90.2

9649

39 + A

78

cb	6.5	90.0
1/4	7.4	89.1
e	7.7	88.8
1/4	7.7	88.8
cb	7.9	88.6
+w	7.3	89.2
E	7.3	89.2
	+3	
E	7.3	89.2
+8	7.3	89.2
cb	7.9	88.6
1/4	7.7	88.9
C	7.7	88.9
+5	7.6	88.9
1/4	6.8	89.7
cb	6.3	90.2
w	5.8	90.7
	+4	
w	4.8	91.7
cb	5.4	91.1
1/4	6.4	90.1
+5	7.7	88.8
C	7.7	88.8
1/4	7.8	88.7
cb	8.0	88.5
+w	7.3	89.2
E	7.3	89.2

96.49

S dt

E	7.5	89.0
+8	7.7	88.8
dt	8.2	88.3
1/4	7.8	88.7
c	7.9	88.6
+5	7.6	88.9
1/4	5.8	90.7
cb	5.1	91.4
w	4.6	91.9

338.45' S = SL Logon on west

w	4.8	91.7
cb	5.0	91.5
1/4	5.6	90.9
+5	7.9	88.6
c	8.0	88.5
1/4	8.0	88.5
cb	8.2	88.1
+3	7.7	88.8
E	7.7	88.8

40.5 S

E	8.2	88.1
+8	8.8	87.7
cb	9.2	87.1
1/4	8.7	87.8
c	8.8	87.7
+5	8.4	86.1
1/4	5.9	90.6

96.49

39+H.

79

cb	6.0	90.5
w	6.5	90.0

425' S

w	6.2	90.3
cb	6.4	90.1
1/4	6.5	90.0
+5	7.3	87.2
c	7.2	87.3
1/4	7.0	87.5
cb	7.2	87.1
+2	7.0	87.5
E	8.7	87.8

450' S

E	8.8	87.7
cb	9.4	87.1
+2	10.1	86.4
1/4	9.5	87.0
c	9.5	87.0
+5	9.5	87.0
1/4	7.0	89.5
cb	6.0	90.5
w	5.5	91.0

475' S

w	5.2	91.1
cb	5.9	90.6
1/4	6.6	89.9

	9649	39+h	
+5		9.9	86.6
c		9.9	87.6
1/4		9.8	87.7
cb		10.4	87.1
+2		9.5	87.0
E		9.4	87.1
	500' S		
E		9.9	87.6
cb		10.2	86.2
+1		11.0	85.5
1/4		10.3	86.2
c		10.3	86.2
+7		10.3	86.2
1/4		7.9	88.6
+3		6.6	89.1
cb		6.1	90.4
w		5.8	90.7
T.P. 148	91.31	6.46	89.83
	525' S		
w		1.7	89.6
cb		2.1	89.2
+8		2.3	89.0
1/4		3.6	87.7
+5		5.5	86.0
c		5.6	85.9

See p. 12 for Balance of rods

## DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope 1 1/2 to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in

## IMPROVED TABLES

AND

## INFORMATION

TABLE No. 2.

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  $T$  may be found by dividing tangent (or external), opposite  $T$  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.

## 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.

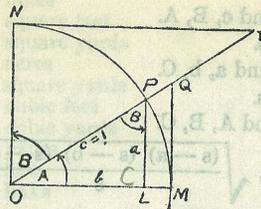


TABLE II  
TRIGONOMETRIC FORMULÆ.

$$\angle A = \angle MOP \quad \angle B = \angle PON = \angle OPL$$

$$R = OB = c = 1$$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OM}{OQ} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B \#$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \frac{1}{2} A = \sqrt{\frac{1 - \cos A}{2}} \quad \cos \frac{1}{2} A = \sqrt{\frac{1 + \cos A}{2}}$$

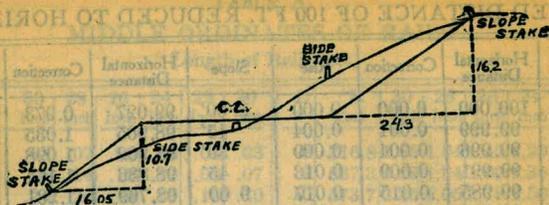
$$\sin 2A = 2 \sin A \cos A \quad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Sines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

TABLE XII  
INCLINED PLANE OF 100 FT. REDUCED TO HORIZONTAL



DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING.

SLOPE 1 1/2 TO 1. ROADWAY OF ANY WIDTH.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0 00	0 15	0 30	0 45	0 60	0 75	0 90	1 05	1 20	1 35	0
1	1 50	1 65	1 80	1 95	2 10	2 25	2 40	2 55	2 70	2 85	1
2	3 00	3 15	3 30	3 45	3 60	3 75	3 90	4 05	4 20	4 35	2
3	4 50	4 65	4 80	4 95	5 10	5 25	5 40	5 55	5 70	5 85	3
4	6 00	6 15	6 30	6 45	6 60	6 75	6 90	7 05	7 20	7 35	4
5	7 50	7 65	7 80	7 95	8 10	8 25	8 40	8 55	8 70	8 85	5
6	9 00	9 15	9 30	9 45	9 60	9 75	9 90	10 05	10 20	10 35	6
7	10 50	10 65	10 80	10 95	11 10	11 25	11 40	11 55	11 70	11 85	7
8	12 00	12 15	12 30	12 45	12 60	12 75	12 90	13 05	13 20	13 35	8
9	13 50	13 65	13 80	13 95	14 10	14 25	14 40	14 55	14 70	14 85	9
10	15 00	15 15	15 30	15 45	15 60	15 75	15 90	16 05	16 20	16 35	10
11	16 50	16 65	16 80	16 95	17 10	17 25	17 40	17 55	17 70	17 85	11
12	18 00	18 15	18 30	18 45	18 60	18 75	18 90	19 05	19 20	19 35	12
13	19 50	19 65	19 80	19 95	20 10	20 25	20 40	20 55	20 70	20 85	13
14	21 00	21 15	21 30	21 45	21 60	21 75	21 90	22 05	22 20	22 35	14
15	22 50	22 65	22 80	22 95	23 10	23 25	23 40	23 55	23 70	23 85	15
16	24 00	24 15	24 30	24 45	24 60	24 75	24 90	25 05	25 20	25 35	16
17	25 50	25 65	25 80	25 95	26 10	26 25	26 40	26 55	26 70	26 85	17
18	27 00	27 15	27 30	27 45	27 60	27 75	27 90	28 05	28 20	28 35	18
19	28 50	28 65	28 80	28 95	29 10	29 25	29 40	29 55	29 70	29 85	19
20	30 00	30 15	30 30	30 45	30 60	30 75	30 90	31 05	31 20	31 35	20
21	31 50	31 65	31 80	31 95	32 10	32 25	32 40	32 55	32 70	32 85	21
22	33 00	33 15	33 30	33 45	33 60	33 75	33 90	34 05	34 20	34 35	22
23	34 50	34 65	34 80	34 95	35 10	35 25	35 40	35 55	35 70	35 85	23
24	36 00	36 15	36 30	36 45	36 60	36 75	36 90	37 05	37 20	37 35	24
25	37 50	37 65	37 80	37 95	38 10	38 25	38 40	38 55	38 70	38 85	25
26	39 00	39 15	39 30	39 45	39 60	39 75	39 90	40 05	40 20	40 35	26
27	40 50	40 65	40 80	40 95	41 10	41 25	41 40	41 55	41 70	41 85	27
28	42 00	42 15	42 30	42 45	42 60	42 75	42 90	43 05	43 20	43 35	28
29	43 50	43 65	43 80	43 95	44 10	44 25	44 40	44 55	44 70	44 85	29
30	45 00	45 15	45 30	45 45	45 60	45 75	45 90	46 05	46 20	46 35	30
31	46 50	46 65	46 80	46 95	47 10	47 25	47 40	47 55	47 70	47 85	31
32	48 00	48 15	48 30	48 45	48 60	48 75	48 90	49 05	49 20	49 35	32
33	49 50	49 65	49 80	49 95	50 10	50 25	50 40	50 55	50 70	50 85	33
34	51 00	51 15	51 30	51 45	51 60	51 75	51 90	52 05	52 20	52 35	34
35	52 50	52 65	52 80	52 95	53 10	53 25	53 40	53 55	53 70	53 85	35
36	54 00	54 15	54 30	54 45	54 60	54 75	54 90	55 05	55 20	55 35	36
37	55 50	55 65	55 80	55 95	56 10	56 25	56 40	56 55	56 70	56 85	37
38	57 00	57 15	57 30	57 45	57 60	57 75	57 90	58 05	58 20	58 35	38
39	58 50	58 65	58 80	58 95	59 10	59 25	59 40	59 55	59 70	59 85	39
40	60 00	60 15	60 30	60 45	60 60	60 75	60 90	61 05	61 20	61 35	40
41	61 50	61 65	61 80	61 95	62 10	62 25	62 40	62 55	62 70	62 85	41
42	63 00	63 15	63 30	63 45	63 60	63 75	63 90	64 05	64 20	64 35	42
43	64 50	64 65	64 80	64 95	65 10	65 25	65 40	65 55	65 70	65 85	43
44	66 00	66 15	66 30	66 45	66 60	66 75	66 90	67 05	67 20	67 35	44
45	67 50	67 65	67 80	67 95	68 10	68 25	68 40	68 55	68 70	68 85	45
46	69 00	69 15	69 30	69 45	69 60	69 75	69 90	70 05	70 20	70 35	46
47	70 50	70 65	70 80	70 95	71 10	71 25	71 40	71 55	71 70	71 85	47
48	72 00	72 15	72 30	72 45	72 60	72 75	72 90	73 05	73 20	73 35	48
49	73 50	73 65	73 80	73 95	74 10	74 25	74 40	74 55	74 70	74 85	49
50	75 00	75 15	75 30	75 45	75 60	75 75	75 90	76 05	76 20	76 35	50

Computed by L. Leland Locke.

653.48  
657.5

795.47  
50  
845.27

96.49  
6.1  
90.38