

Surveys

Sept ⁹/₄ Oct. 1888.

9

TRANSIT

F. B. 683

683

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

Minutes.	Lks.	Minutes.	Lks.	Minutes.	Lks.
1	2½	21	49	41	95½
2	4½	22	51½	42	98
3	7	23	53½	43	100½
4	9½	24	56	44	102½
5	11½	25	58½	45	105
6	14	26	60½	46	107½
7	16½	27	63	47	109½
8	18½	28	65½	48	112
9	21	29	67½	49	114½
10	23½	30	70	50	116½
11	25½	31	72½	51	119
12	28	32	74½	52	121½
13	30½	33	77	53	123½
14	32½	34	79½	54	126
15	35	35	81½	55	128½
16	37½	36	84	56	131
17	40	37	86½	57	133
18	42	38	88½	58	135½
19	44½	39	91	59	137½
20	46½	40	93½	60	140

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STATIONERS AND P

SAN FRANCISCO, CA

Table for Running on S

In the following table the first column shows the
links to be added to a chain on the slopes, to make one chain

number of
measurement.

Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor.	Cor. in links.
0		0		0		
4	0-24	11	1-88	18	3	10-54
5	0-38	12	2-24	19	6	11-26
6	0-55	13	2-63	20	7	12-24
7	0-73	14	3-06	21	28	13-37
8	0-98	15	3-53	22	29	14-34
9	1-24	16	4-02	23	30	15-47
10	1-55	17	4-56	24	35	22-07

H. Hamilton
A. Hamilton

Grades on Lateral

Blk + HD - Blue Grate

for Kuhn block on 44 & D.
Contractor J. Kelly.

46.53	1.79	48.32	35.4
5.53	42.79	36.24	
5.20	43.12	36.69	
5.24	43.08	37.13	
4.40	43.42	37.58	
4.40	43.52	38.02	
4.59	43.73	38.47	
4.34	43.98	39.58	
3.93	48.39	40.69	
6.28	50.72	3.68	44.44
			41.40
		1.94	48.78

Sept 21 1888

Sewer Lot

Blk

Heat

cut Sta

0 = Y Sta

6.55	+10
6.43	+20
5.95	+30
5.44	+40
5.50	+50
5.26	+60
4.40	+85
3.70	+110
3.04	+26 # back

Blk 5th & 10 Sts

Sta + H.I. - Elev Grade but

Sept 25 1988

H Hamlin
A Hamlin

Sta	+	HI	-	Clev	Grade
-----	---	----	---	------	-------

Cut

Located & for Kelly
Lot A Blk 64 Hortons
V Sta 18+89.5 3rd St



H Hamlin
A Hamlin

Sept 25 1888

Sta + H2 - + Elev Grad but

Located Y for J Kelly
Lot 16. Blk 61 Hartman's Grad
5th St. bet J. & C sts
Sta 21+20.5'
P.L. 20+20

Est

D

21+20.5'

20+20 x

Est

Sept 26 1888

Sta + H I - Elev. Grob Sub

Located γ east half
of Lot 6 Blk E Middletown
for
 γ 8+01.5'

N Hamlin
A Hamlin

Bate St

Union
St

8+41.5

8+17 X

5

6

Bedar St



Sept 26 1988

Sta	+	H ₂ O	-	Clor	Gross	but
-----	---	------------------	---	------	-------	-----

Located y for Sol-B, 70
Hertens for Taylor continues
on

HH amlin
A Hamlin

Sept 29 1888

Sta + HI - Elev Grad - but

Located y. fm P.O. corner
Lot 6 Blk 203 Horton's Add
y 48+26
M.G. Bancroft owner.

PL = 49+80

V 48+26

49+80

48+26

2

Cedar

A

B

C

203

D

E

F

Beech St

5th

Oct 1 1888

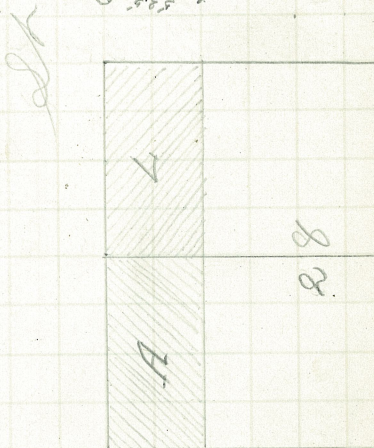
H Hamlin

A Hamlin

Sta	+	HL	-	Elev	Grav	but
-----	---	----	---	------	------	-----

Lateral Sewer for lots
A & B blk 28 Hartons Add
bet bet 12th & 13th
for Curd J. Harbison
Contractor J. D. Buck

Inspected
18.48 22.
18.48 22.
13th St



13th St

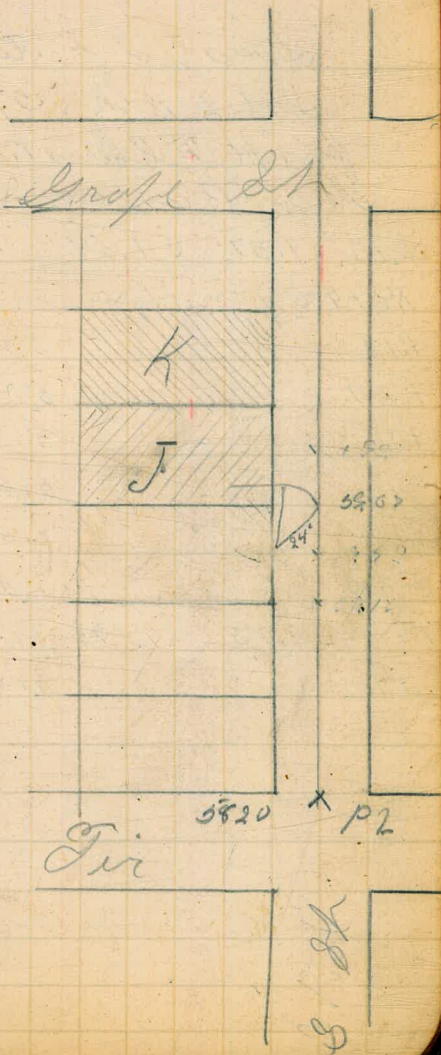
b.

Oct 2 1888

Sta	+	H ₀	-	Clas	Grad	cut
-----	---	----------------	---	------	------	-----

ateral for lots of blk
252 Huttons for
H J Christian
contractor P O Bonnell

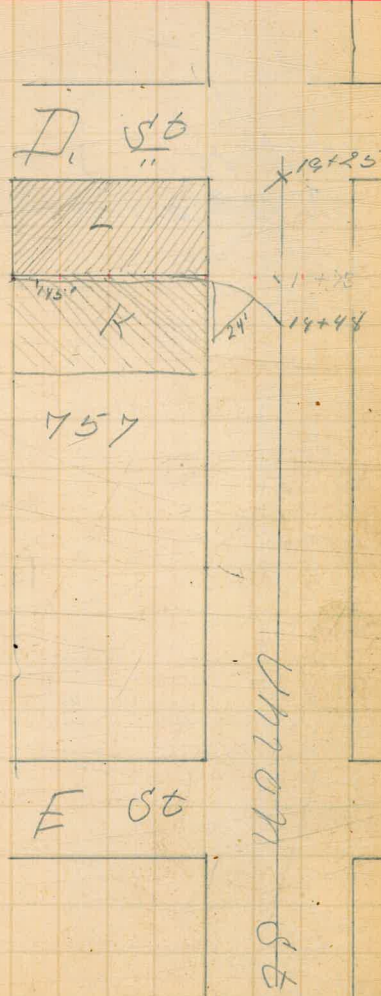
H Hamlin
A Hamlin



Oct 3 1888

1325
1425
52
H Hamilton

Sta	+	H.S.	Elev	Grad	cut
Located lateral sewer					
Lot 4 blk 757 N. J. Add					
for H. J. Christian					
A. M. Bascom & Co contractors					
B.M.	4.57	31.54	27.01		
18+48	γ on Union		20.50		
+10		5.07	26.51	20.67	5.84 5 10 1/8
+20		5.27	26.31	20.83	5.48 5 5 3/4
+30		5.85	25.73	21.00	4.73 4 4 3/4
+40		5.63	25.95	21.17	4.78 4 9 3/8
+65		6.65	24.93	21.58	3.35 4 4 1/4
+90		7.05	24.53	22.00	2.53 2 6 3/8
1+15#	3.73	27.94	7.37	24.21	22.42 1.79 1 4 1/2
+40		4.55	23.39	22.83	0.56 0 6 3/4



Oct 5 1888

H. Hamlin

Sta	+	H ₂ O	-	Elev	Grad	Sub
-----	---	------------------	---	------	------	-----

Located lateral sewer
for J. M. Jones Lot 1/2 R
Blk 140 X Sta 0+90.5
on Mc Donald Construction

Sub = 0+025

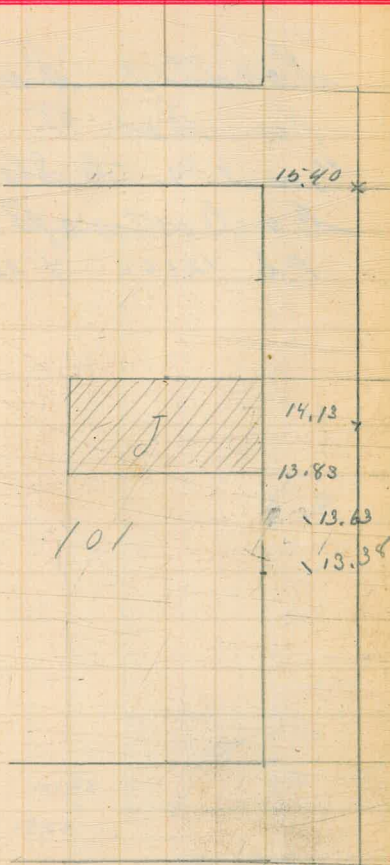
Oct 6

H. Hamlin

Sta	+	HD	-	Elev	Grad	Sub
-----	---	----	---	------	------	-----

Located y for Lot
 J Blk 101 Horton's add
 for Lot Merritt
 La Macdonald contractor

$$\begin{array}{r} 15.40 \\ 13.83 \\ \hline 1.57 \end{array}$$

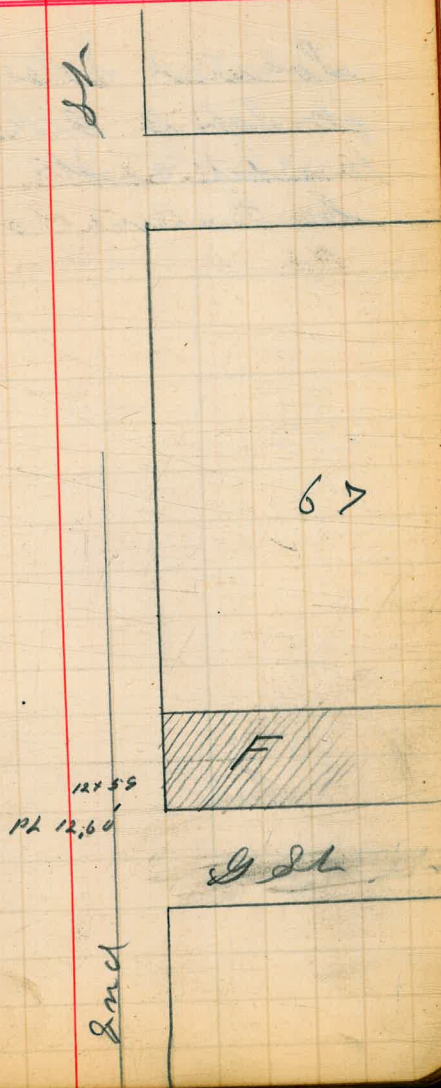
$$\begin{array}{r} 15.40 \\ 14.13 \\ \hline 1.27 \end{array}$$


Oct 8 1888

Sta + Hd - Elev Grad cut

Located lateral sewer
for Lot F Blk 67
and G Sts. for
contractors, Bacon & Co
p. 12x60 y 12x55

Shaw



Sta + HD - Elev Grad cut

Shaw

Located Lateral Sewer
for Lot B Blk 89 Horton
on 3rd St
Contractor

11+80

11+03

B

89

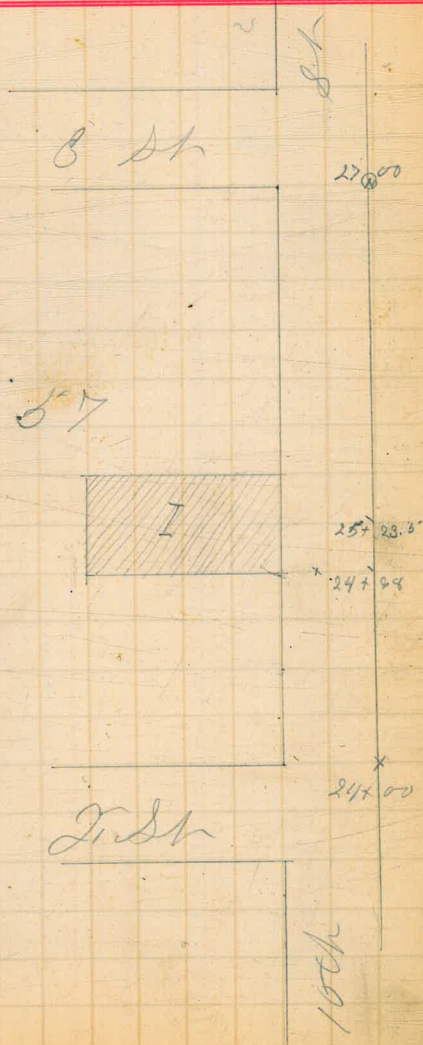


Oct 9 1888

Sta + HJ - Elev Grad but

Located lateral for
set I Blk 57 Hoskins
for B B Heath owner
Mr. Ronald contractor

H H amlin
A H amlin



25.23
+ 23.5

48.73

100th

Oct 7 1888

Sta +	H ₀	-	Blk Grad	Sub
-------	----------------	---	----------	-----

Located lateral fm
Lot J Blk 113 Horton

P. O. bonnell contractor
Staten

1150
x

J

10758

10,000

13.40

19.58

1160
1421
27

Sta	+ H ₂ O	-	Elev	Grade	cut
-----	--------------------	---	------	-------	-----

Located lateral from
lot A. Bilk 77 Hinton
Sta 22+68.5

23 x 185'

22 1+68.5'

>>

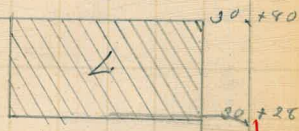
Oct 13 1988

Sta	+ Hd	-	Blv	Grade	cut
-----	------	---	-----	-------	-----

located lateral sewer
for Lot 48 (blk 48 Hark)
connected to Sta 30+28
Contractor Kelly
Radius of curve 21.7

H Hamlin
H Hamlin

LB DL



48

10th dr

Apr 12 1884

Sta + H₂ - Elev Grade

Dist

Located lateral from
lot I Bk 43 Horton
in Mc Donald contractor
connected to y 25+22

Bk

43



25+22

Adk

24+00

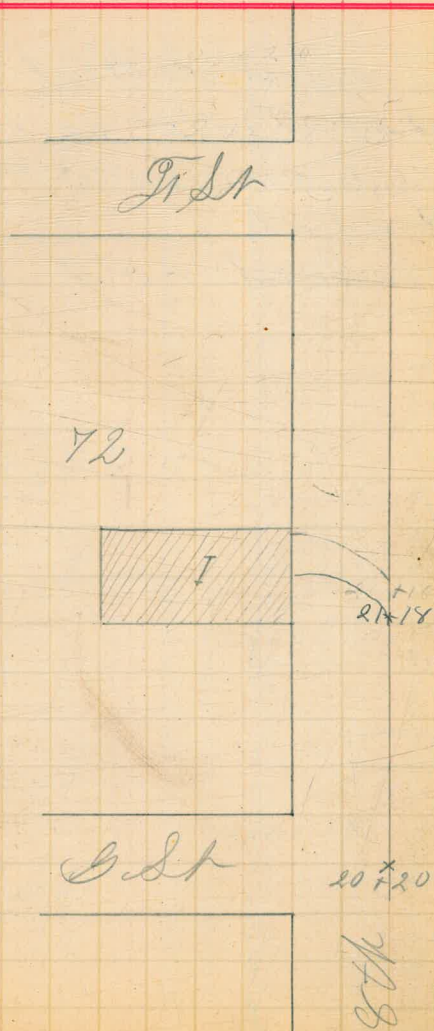
5-11-84

H H amlin
H H amlin

Oct 15 1884

located lateral
sewer for
lot L. Blk 72 Hort
for Cowles owner 73 & 8th
Rose & Matter Contractors
connected to sta 21+18

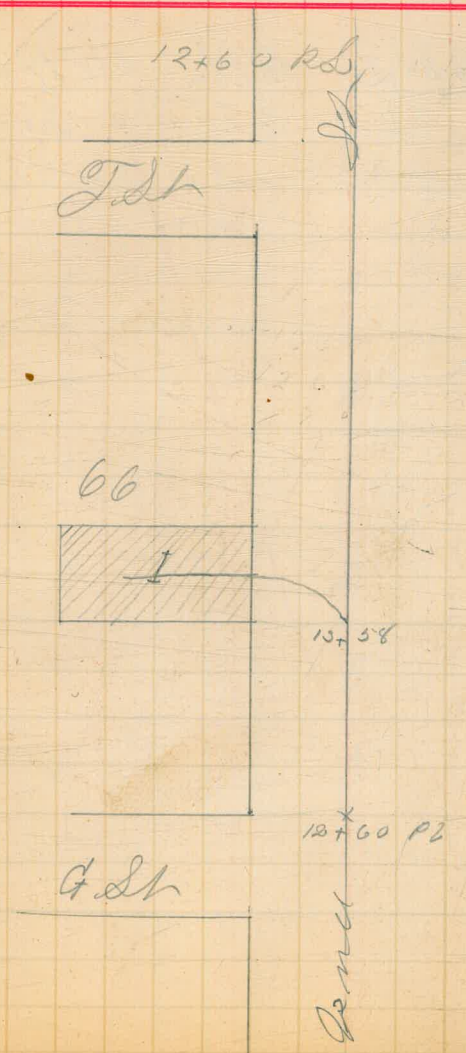
H Hamlin
A Hamlin



Oct 15 - 1888

Created lateral for
Lak I BK 66 Hentons
and connected to Sta 13+58
& rd sh
In McDonalds Contractor

✓
H Hamlin
A Hamlin



Got y from Office

Oct 16 1888

Lot 2 Blk 89 H. m. t. s.
Heating Estate Owner
J. B. Buck Contractor

19 40
18 85
3 45

19 40
18 105
3 45

19 40
18 85
3 45

	19 40	
L	18 85	A
K		B
J		C
I		D
H		E
G		F

Oct 17 1888

Loh I Blk 25
C. H. Stearns Owner
M. McDonald Contractor
connected to Sta 5+46
on 13 St. Hinton
Also connected to Loh
18

H Hamlin
A Hamlin
✓

	B		Sh
	L		A
	K		B
25	J		C
	I	5+46	D
	H		E
	G		F
	b		Sh
		15th	

Oct 14 1888

Located lateral for
lot E Blk 324

3104
3060
44

U

H Hamilton
A Hamilton

Trid		Sh
L		A
K		B
J		C
I		D
H		E
G	5160	F
Blow	50760	Sh

Oct 19 1884

H. H. Hamilton
✓ H. H. Hamilton

7 HO - 800 Bull but Sta

Located lateral for
Sect 4 Blk 19 Culverwell & Ad

J. C. Bush Contractor.

11.10 60.57

49.47

47.37

6.27 54.30 48.42 5.88

7.69 52.98 49.22 3.66

0

+42

+84

19

G

1

2

3

4

9

8

7

H

2.23
1.9

0.93

1884

Street

Street

Oct 22 1885

Stn A Blk 137 Hartone

H. Hamlin
A. Hamlin

K

480

Stn

A

37.30

137

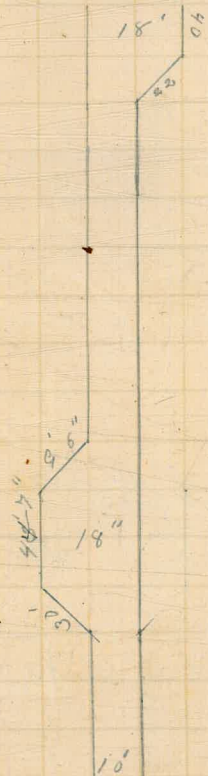
776

Measurements on Sewer

Wharf Oct 22 1888

H Hamlin
A Hamlin

+40				
+70				
+79				
+30				
6				
+30				
5				
+30				
+40				
+96				
+90				
+50				
+46				
+18				
3				
+50				
2				
+50				
1				
+50				
0 =	W line of Atlantic St.			

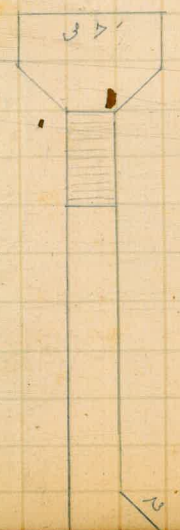
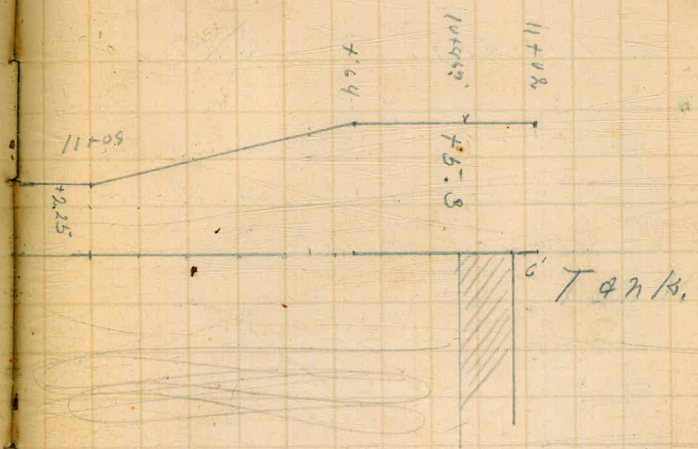


H Hamlin
A Hamlin

Measurements on Sewer

W. half, Oct 22 1888

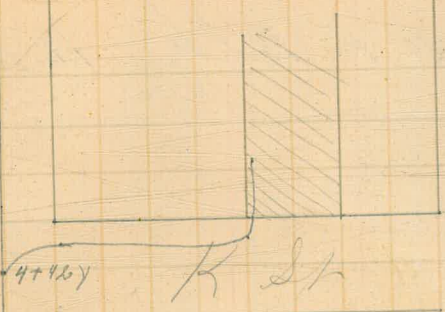
11+00 End of W. half
 +55.5 Reservoir
 +64
 +50
 +09 beginning of rise
 10
 +50
 9
 +50
 8
 7+50



Oct 22 1888

H Hamlin
A Hamlin

Sta	+	HO	-	Bl	Drake
Bm	5.57	25.64		20.07	
OV					14.0
1+45	bank		4.70	20.94	17.6
+78			3.60	22.04	20.0

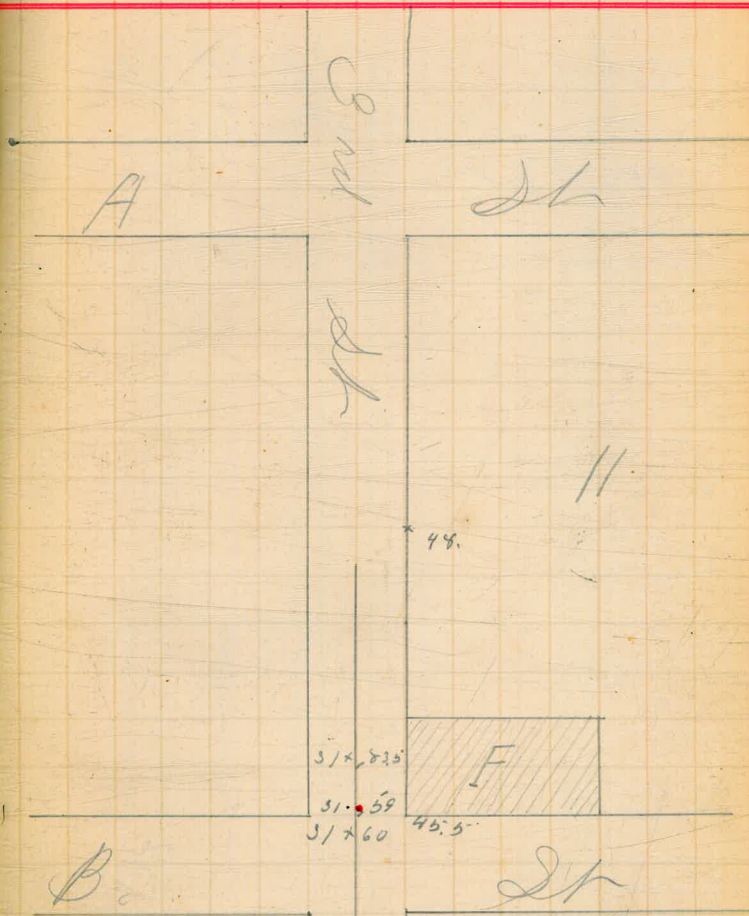


10th St

Oct 22 1888

Lot F Blk 11 Hunters

H Hamlin
A Hamlin

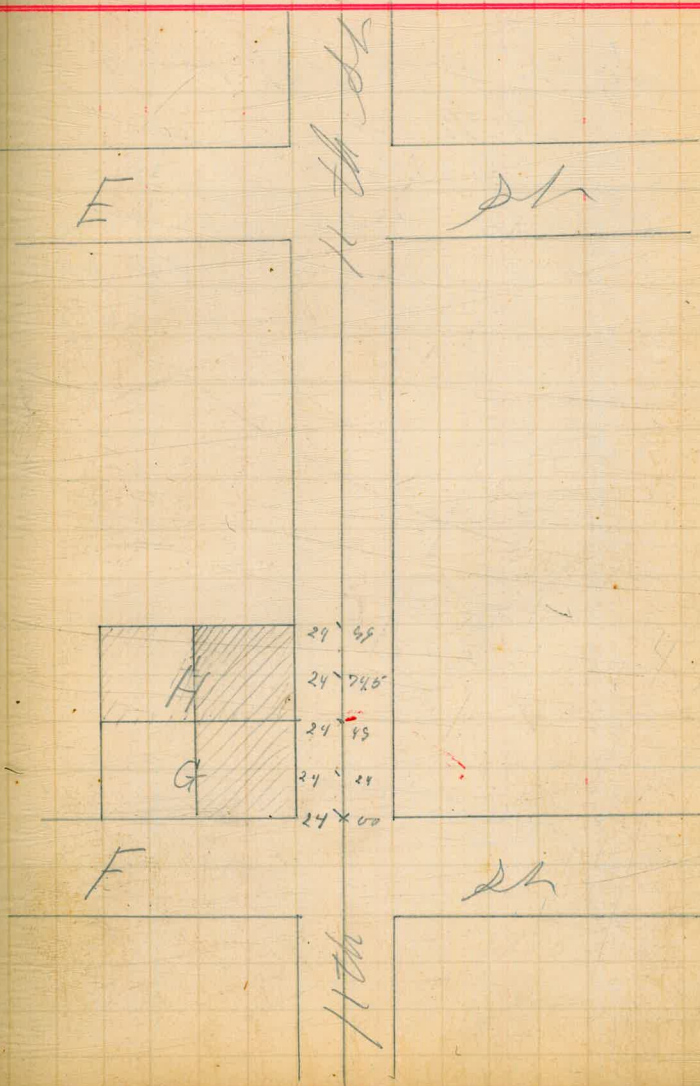


Oct 24

1888

Lot Blk 56
for Hutton & Hauite on
cor 11 & F

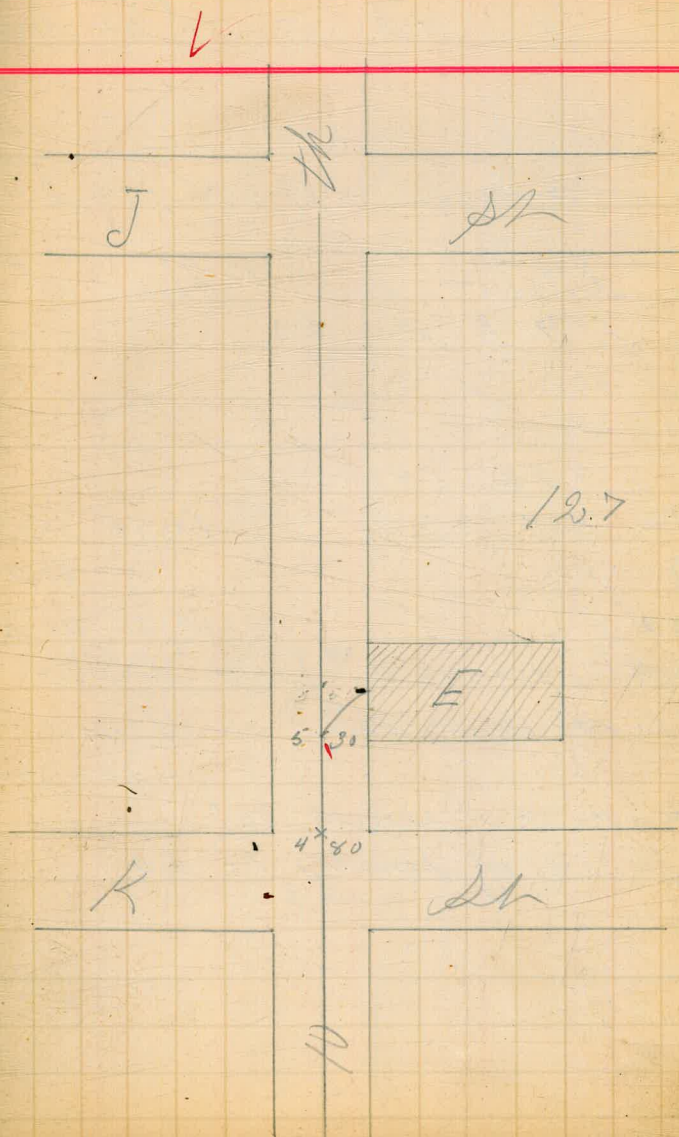
H Hamilton
A Hamilton



Oct 25 1888

Lot E Blk 127 H. A.
for A. May.
B. M. Bascom contractor
Grade 1-30 from the
entire length 173 ft

H. Hamlin
A. Hamlin



Oct 27 1888

Str 72 H2 - Elev Grade

Survey for
Bacon & Bashford

Lateral Sewer for Lot
9 Blk 20
bet J & J.

434 16th

BM 437 33.21 24.94
X 25.58

100 7.00 26.21 29.08

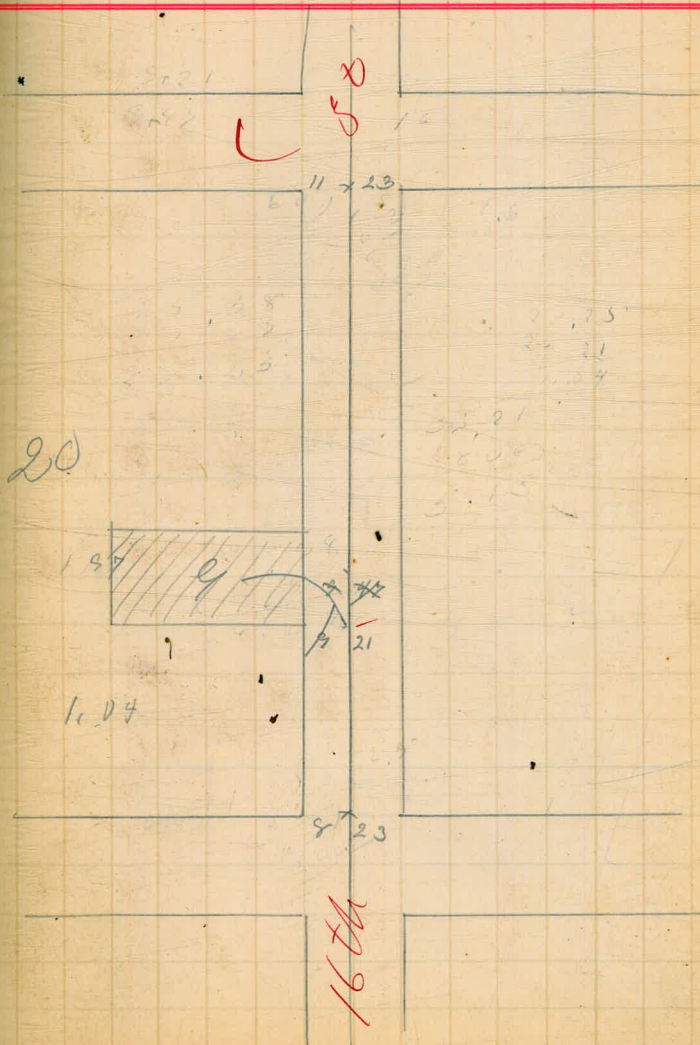
At 60' will be
1' out of ground at upper end

26.21 27.23

Radius of curve 36'

Grade of sewer 1-60'

H.A. Humlin
A.H. Humlin



J

67525

6728

4780

Oct 29 1888

BPM + H 2 - Guide Rod

Sidewalk grades for
cor-B & 7th St.

59.79 1.84 56.63

53.25 3.84

52.75 3.84

52.25 4.38

Bk 6th & D

6.07 50.56

5.40 50.43

Chas J. Shaw

56.63
31.79
24.84

H Hamlin
A Hamlin



Oct 29 1888

Bm + HO - Elev grade

Located sewer for
lots 5 & 6 blk 27 A, A
B. Sh bet 14th & 15th
J. S. Buck contractor.

56.96 5.64 63.64

1' in 40

7.7 54.90 53.64

146

Sh

2+48

1+67

13th St

87

13th St



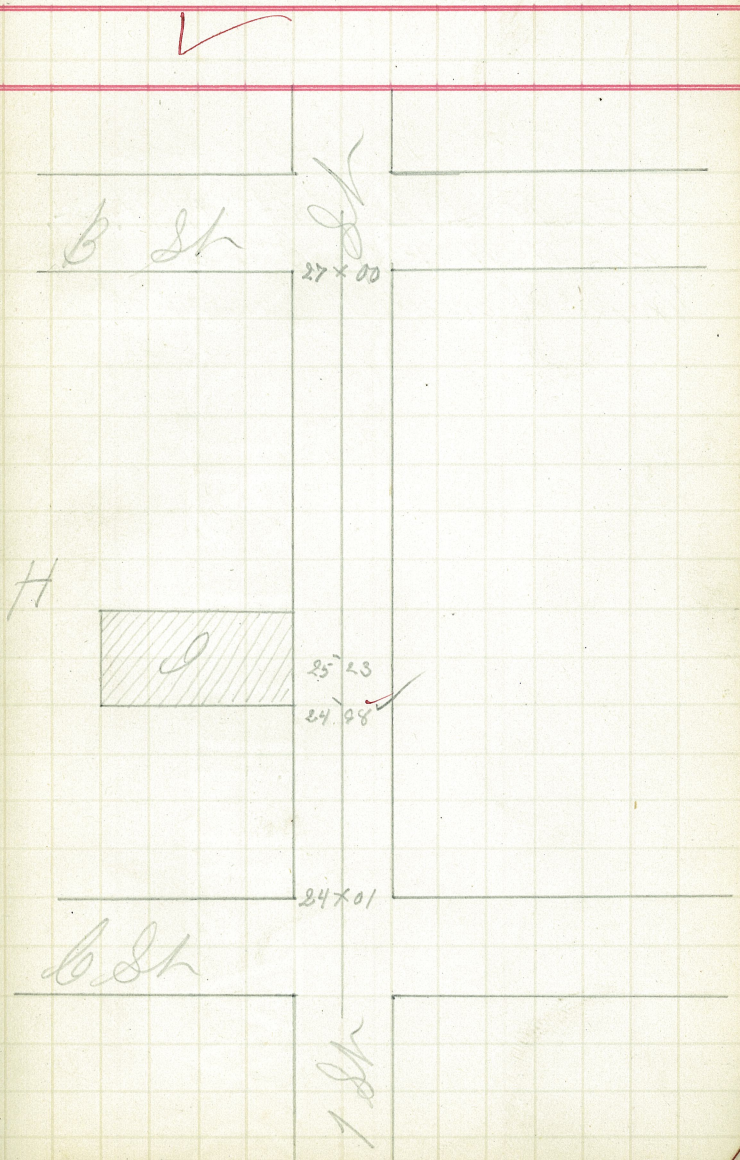
H. H. Ambrin
A. H. Ambrin



Oct 31 1888

Located Sewer for
Lot 9 Blk H Hartons
John Gray Owner
James Bonall Contractor

H Hamlin

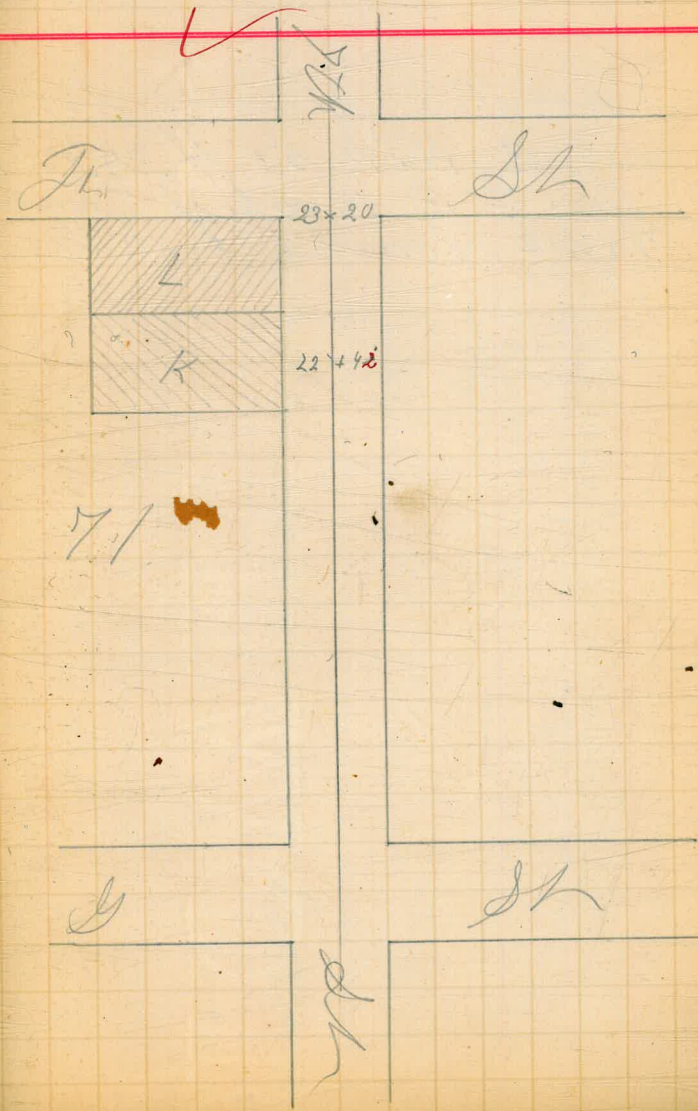


Oct 31 1888

Located sewer from
lots 14 & 15 Blk 71 H.C.A.
for W.A. King owner
in McDonald's contract

20.10
35
22.45

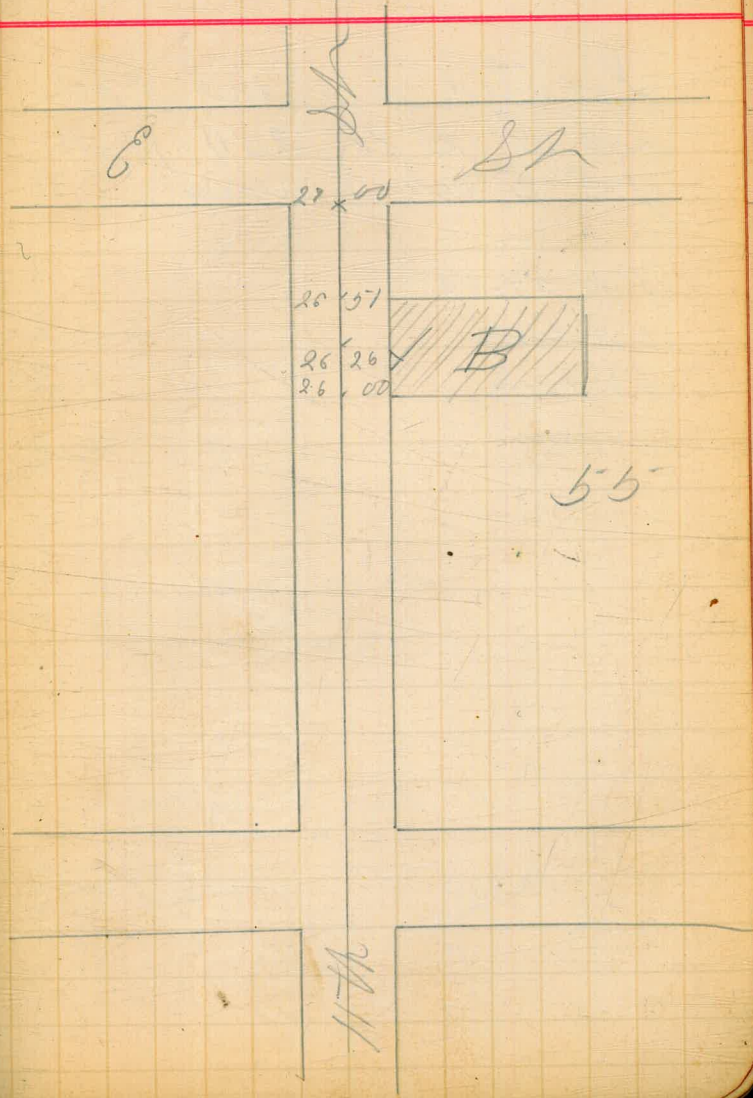
H.H. Amelin
A.H. Amelin



Oct 31 1888

Located sewer for
lot B Blk 55 H.A.
for J B Hooker owner
Mr McDonald contractor

H Hamlin
A Hamlin



Located Sewer for
Sph I Bk 234 H.A
J S Buck contractor

Pds 54+40

55+38

55+62

Group

St

834



55+38

54+40

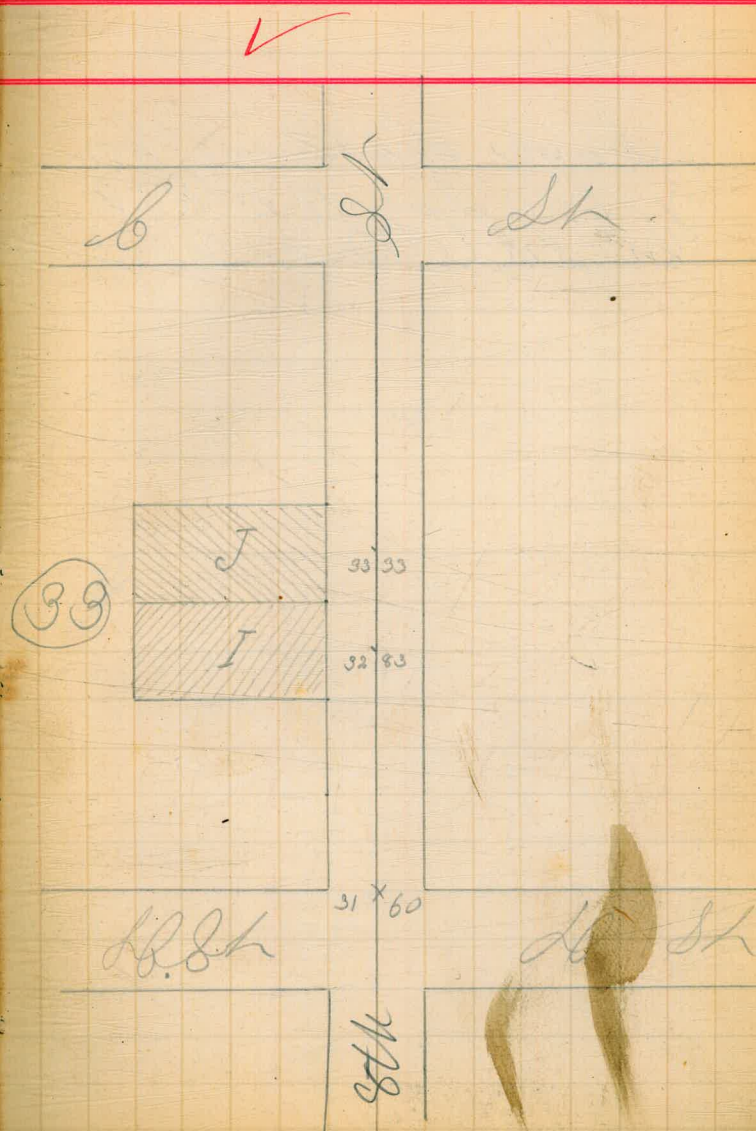
Five

St

St

Oct 30 1888

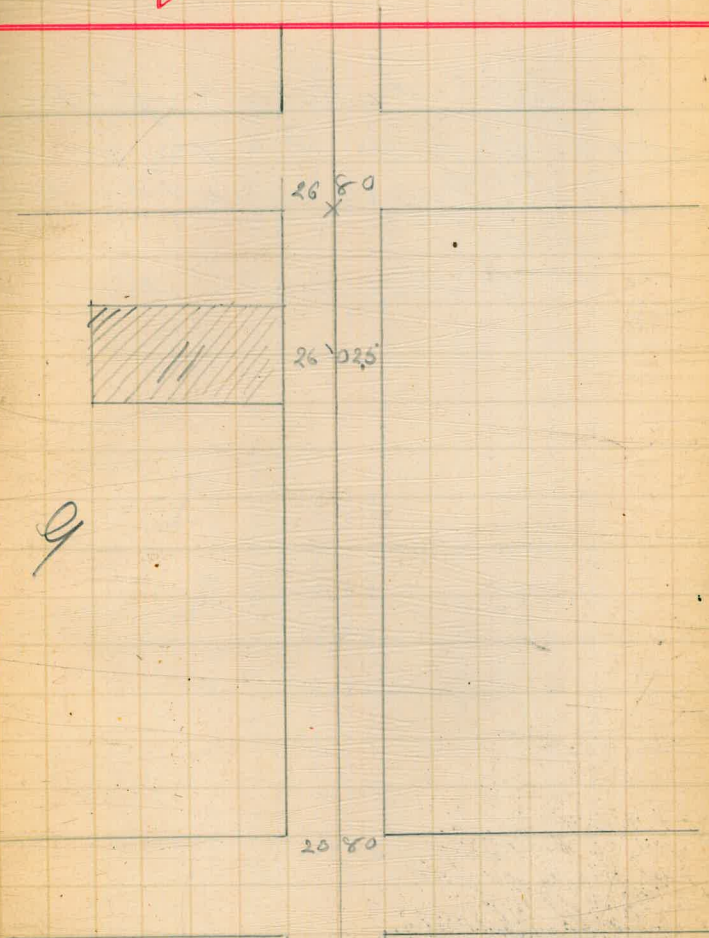
Located Sewer for
Lot 1 & 2 B 33 H A
for B. H. Wilber Owner
by McDonald Contractor



Oct 30 1888

H. Heinlin

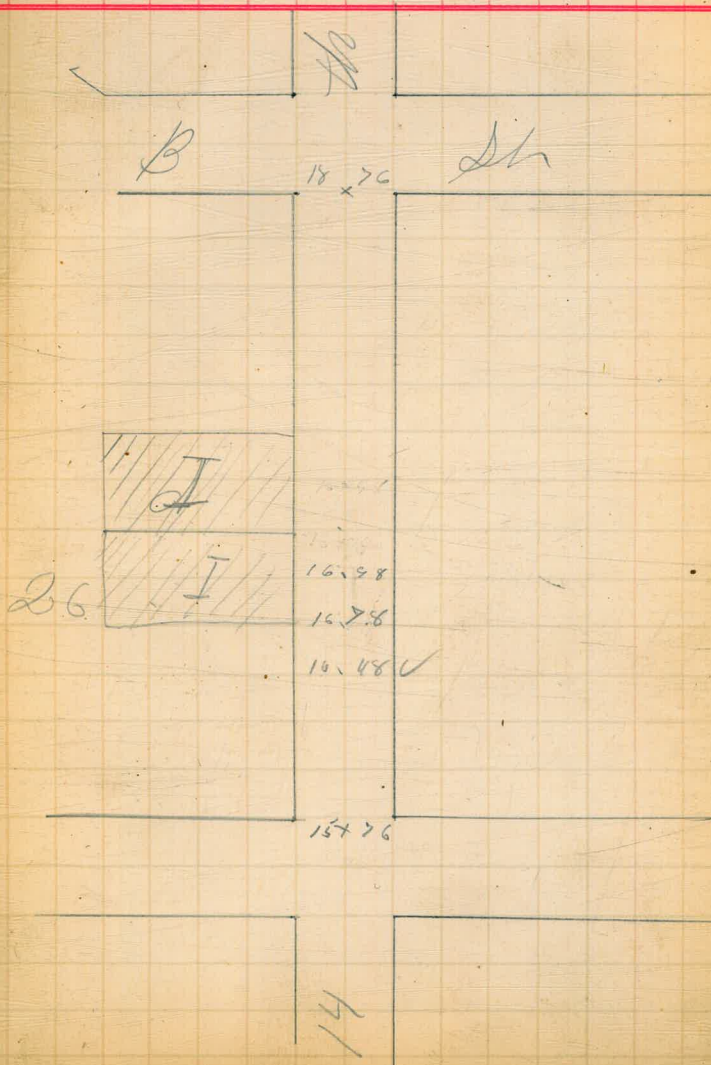
Same distance for
Y for Lot 11 Blk 9
Middle town.



Nov 7 1888

Located lateral for
Lot J Blk 26 Hertons
J P Harris Owner or
Agent.
P O'Connell, contrac-
tor.

A Hamilton
A Hamilton



Nov 7 1888

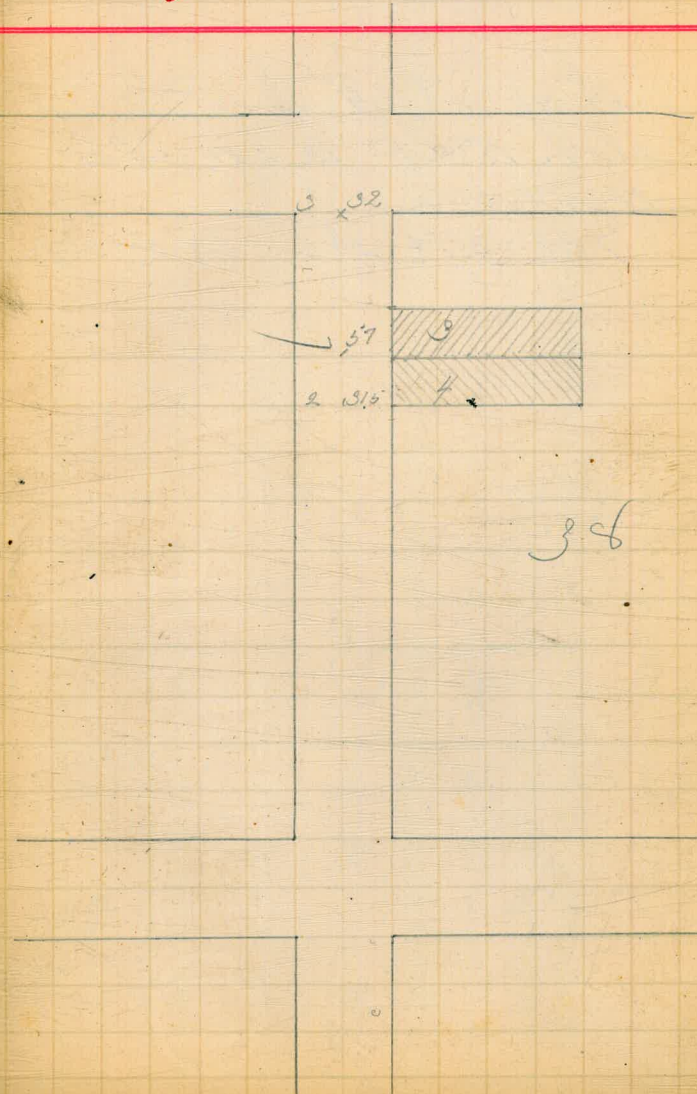
H. Hamblin
A. Hamblin

Located Lotline Sewer
for Lots 3 & 4 Blk 38
Sherman Add.

R. Campman owner or
agent

In accordance with construction

332
257
75

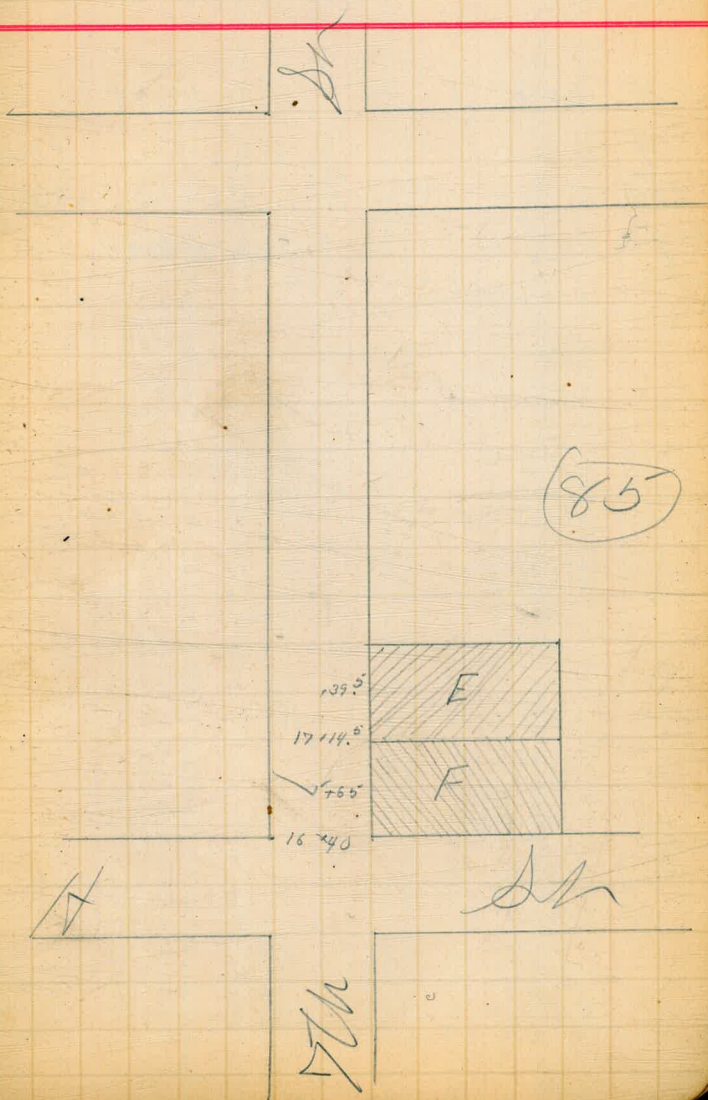


Nov 9 1888

✓ Did not go with

Located Section
Lot E & F Blk 85
Horton.

7th & 18th Sts cor



Grades for Stm

2 m & A Stz

Stz	+	H.I.	-	Blev	Grade
B.M.	1.56	56.14		54.58	
OY					44.57
750					46.50
1740			7.30	48.84	48.00

grade as laid
at house

7.30 48.84

50

X Sections
Levels for Street measurements

Sta	N	Curb	C	Curb	S
			(105.2)		
R	0.0	1.00	1.8	2.0	0.8
S	105.2	104.2	103.4	103.2	104.4
R	1.4	2.4	3.0	3.9	4.4
+75	103.8	102.8	102.2	101.3	100.8
R	2.8	3.6	4.5	5.5	6.0
+50	102.9	101.6	100.7	99.7	99.2
R	4.4	5.0	5.6	6.4	6.8
+25	100.8	100.2	99.6	98.8	99.4
R	3.2	6.5	7.3	7.7	4.2
+0	100.0	98.7	97.9	97.5	97.0
R	6.0	7.6	4.5	9.1	9.3
+75	99.2	97.6	96.7	95.1	95.9
R	4.1	9.6	9.7		9.5
+50	97.1	95.6	95.5	+65	95.7
R	9.1				
+37	96.1				

H Hamilton
A Hamilton
on Grate bet Wm. & Alberta

+ HD - - Elev

11.55 100.33 98.74
6.81 105.22 -1.92 98.91

570 cu yds Fill 147 cu yds cut.

2 = 136.6
+ 50 = 109.8
+ 25 = 53.7 3.0
1 = 34.8 10.9
+ 75 = 9.6 35.1
+ 50 = 0.0 58.4
0 38.0

6170 347.5
2044 575.0
1106 2338.
555 648
120

42.
37 } 648.
28.0

Work for J. G. Capron
14th bed L & C

	W P.L.	Crow	Plant	cut	E P.L.
			(53.14)		
		3.17	5.05	4.93	4.93
1+75	4.94	51.87	50.09	50.31	50.31
	0.40	6.20	5.45	6.18	5.70
+50	48.34	44.94	49.29	48.96	49.44
+25	7.40	7.0	7.4	6.70	6.0
	47.74	48.14	47.74	48.44	49.14
+10	7.40	7.70	7.60	6.6	5.7
	47.34	47.44	47.54	48.54	49.44
+75	4.90	6.40	8.0	7.2	6.40
	50.24	48.74	47.14	47.94	48.74
+50	4.70	3.80	4.30	4.20	7.0
	50.44	49.34	46.84	46.94	48.14
+25	4.90	6.0	4.40	10.10	7.9
	50.24	49.14	46.74	45.04	47.24
0	2.50	3.0	4.40	9.7	4.30
	52.64	52.14	46.74	45.44	46.94

Oct 16 1888

H. H. Anshin
A. H. Anshin
W. H. Anshin
& Co

61.24 61.84
4.31 55.14 11.01 50.43
Bm 2.0 54.94

W. H. Anshin

200
 65
 135105
 233

Sta	+	H ₂ O	TDS	Elev
	1.65	56.23		34.58
110			133	11.500 (8.52)
+			1080	
+		200	700	
		33	800	
+		103	350	
	106	93.5		852.0
+	88.45			5.0
+	103	11.50 (70.05)		426.00
	11.41	105.0		
+	900	423		852
	815	100.75		33
	85	4.21		426.0
+	7055	96.50		2556
	30	4.21		2982.0
	35278.0	92.25		
		9450		
		218		
		9352		
	106.0		7,043	
	353		13	
	102.47		2116.5	
	3.53		705.5	
	108.94		9171.5	
	3.53			
	105.41			

0 44.57
 40 45.57
 180 46.57
 1+20 47.57

36.23
 47.57
 816.6

50 30.89
 7 2.75
 434 33.64

40) 110 (2.75
 80
 300
 140

Darius

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	80
1	99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	81
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	82
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	83
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	84
5	99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	85
6	99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	86
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	87
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	88
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	89
10	98.48	17.96	98.40	17.79	98.33	18.22	98.25	18.65	90
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	71
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	72
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	73
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.16	74
15	96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	75
16	96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	76
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	77
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	78
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	79
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	80
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	61
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	62
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	63
24	91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	64
25	90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	65
26	89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	66
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	67
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	68
29	87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	69
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	70
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	51
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	52
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	53
34	82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	54
35	81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	55
36	80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	56
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	57
38	78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	58
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	59
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	60
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	41
42	74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	42
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	43
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	44
45	70.71	70.71							45
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		

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