Fulton's City

Survey Book

No 2 A for 25

Filed.

2

F.B.57

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

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

Minutes.	Lks.	Minutes.	Lks.	Minutes.	Lks.
1	2⅓	21	49	41	95⅔
2	4⅔	22	51⅓	42	98
3	7	23	53⅔	43	100⅓
4	9⅓	24	56	44	102⅔
5	11⅔	25	58⅓	45	105
6	14	26	60⅔	46	107⅓
7	16⅓	27	63	47	109⅔
8	18⅔	28	65⅓	48	112
9	21	29	67⅔	49	114⅓
10	23⅓	30	70	50	116⅔
11	25⅔	31	72⅓	51	119
12	28	32	74⅔	52	121⅓
13	30⅓	33	77	53	123⅔
14	32⅔	34	79⅓	54	126
15	35	35	81⅔	55	128⅓
16	37⅓	36	84	56	130⅓
17	39⅔	37	86⅓	57	133
18	42	38	88⅔	58	135⅓
19	44⅓	39	91	59	137⅔
20	46⅔	40	93⅓	60	140

MICROFILMED
DEC 4 1964

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SAN FRANCISCO, CAL.

Table for Running on Slopes.

In the following table the first column shows the angle, the second, the number of links to be added to a chain on the slopes, to make one chain, horizontal measurement.

Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor. in links.	Angle.	Cor. in links.
°		°		°		°	
4	0·24	11	1·88	18	5·14	25	10·54
5	0·38	12	2·24	19	5·76	26	11·26
6	0·55	13	2·63	20	6·42	27	12·24
7	0·76	14	3·06	21	7·11	28	13·37
8	0·98	15	3·53	22	7·85	29	14·34
9	1·24	16	4·02	23	8·64	30	15·47
10	1·55	17	4·56	24	9·47	35	22·07

57

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

No 57

Index

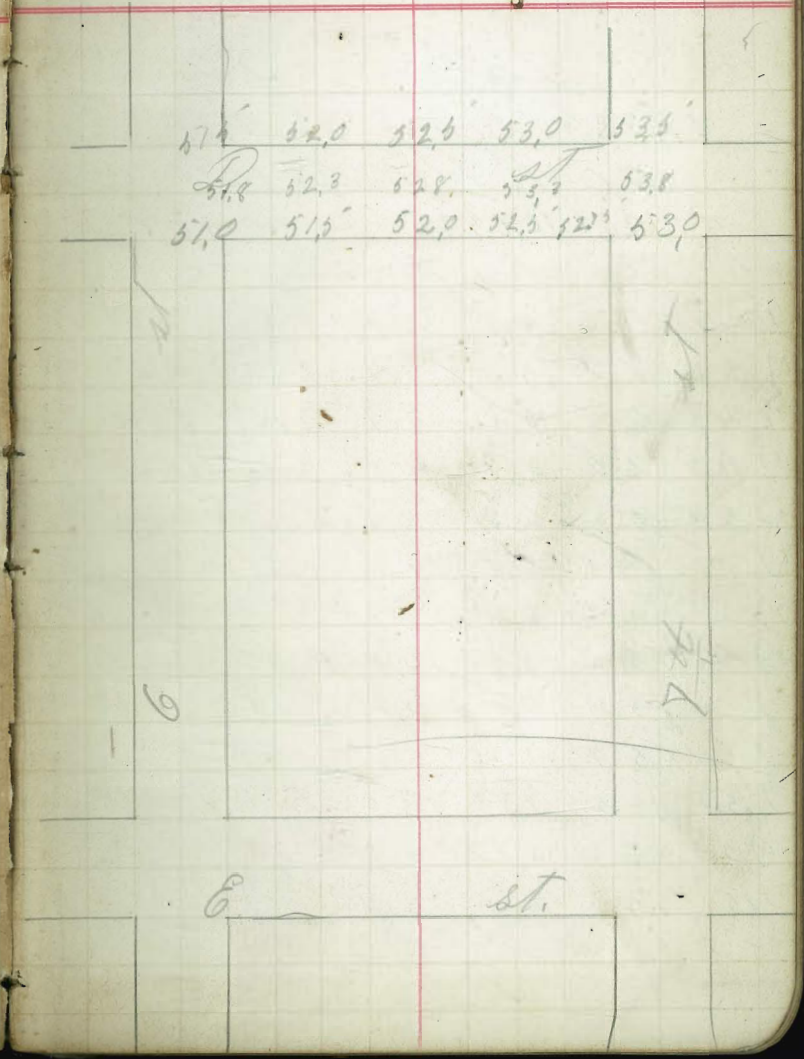
Whitney x sect Blk 26 W Add 4
City Lot grader 8
Emanuel H Grader 12
Hill C.H. 14
Puterbaugh Judge 18
Nutmeg St x sect 20
Olive St x sect 22
Palm St x sect 24
Dunce St x sect 26
Christian H T 32
Battell 34
Brewster & Whaley 36
S.H. Elec Singht Co 40
Allyn John 42
Magee Thomas S 44
Grape St x sect 46
Bass Mrs 54
Journey 56
Cowman J 62
McDonald 64

Index continued in back

1,54 56,27 54,73

52,25 4.02
52,0 4,27
51,75 4,52

51,5 52,0 52,5 53,0 53,5
51,8 52,3 52,8 53,3 53,8
51,0 51,5 52,0 52,5 53,0

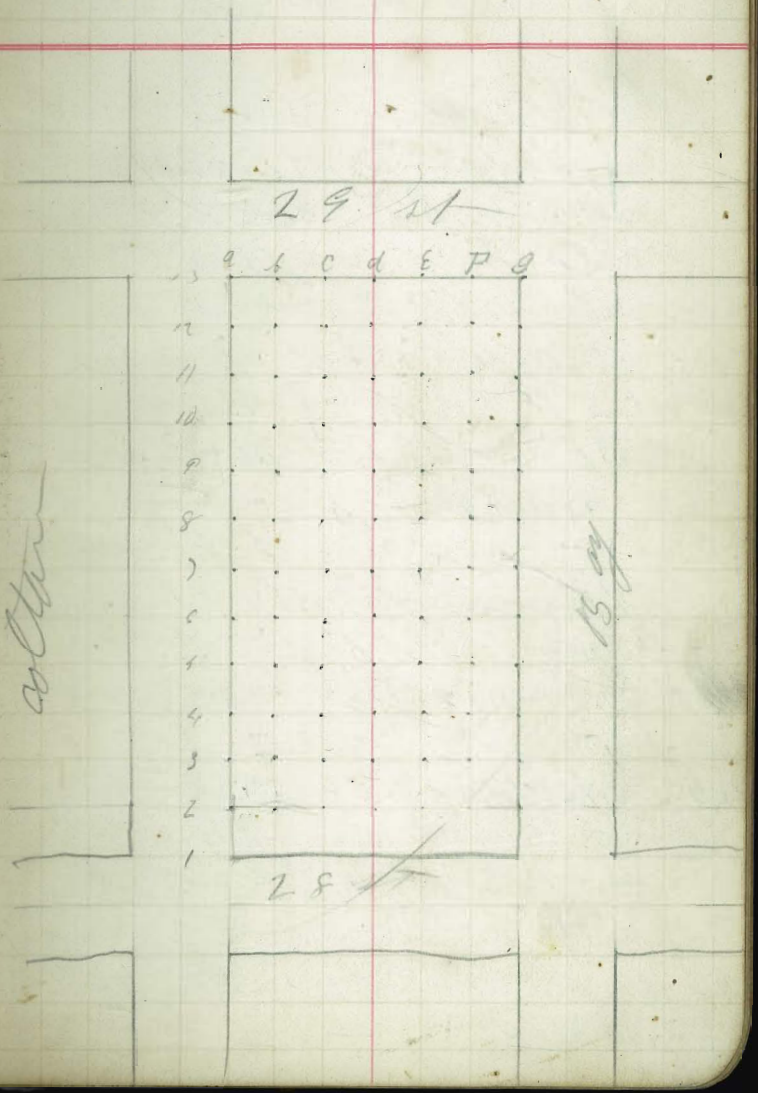


May 10 1888

X sections for
Whitney B. Ch
26 R & H add

	a	10,61	10,69 b		c	0,08
	R	E	R	E	R	E
1)	2,8	7,9	4,8	6,9	7,3	3,4
2)	3,7	7,0	5,0	5,7	7,2	3,5
3)	4,3	6,4	5,6	5,1	7,4	3,3
4)	4,7	6,0	5,9	4,8	8,1	2,6
5)	5,3	5,4	6,8	3,9		
6)	5,8	4,9	6,9	3,8		
7)	5,5	5,2	6,9	3,8		
8)	5,6	5,1	6,5	4,2		
9)	5,4	5,3	7,0	3,7		
10)	5,3	5,4	7,2	3,5		
11)	5,2	5,5	7,1	3,6		
12)	5,3	5,4	6,7	4,0		
13)	5,1	5,6	7,3	3,4		

Calculation Notes in Fulton's Old Book



5

May 16 1888

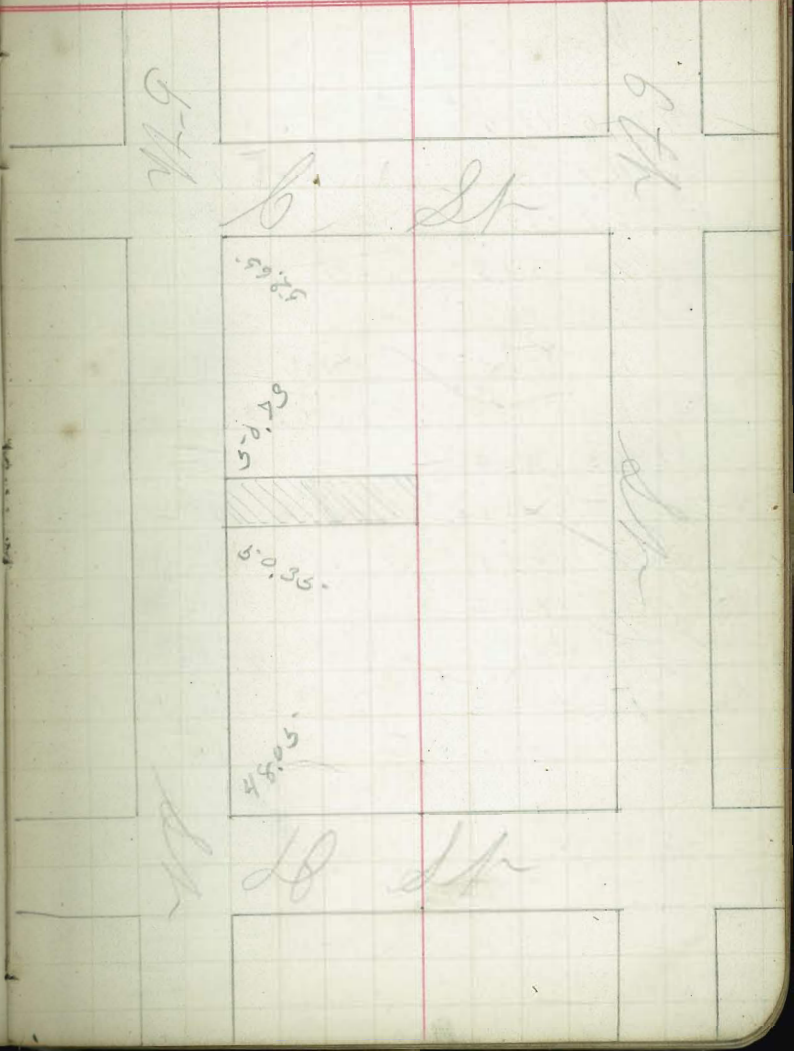
6

4

BM	+	H.I.	Grade	Rod	
					Grades for Water Company at the S.E. cor of Arctic and D st also N.E. cor of Arctic and F st.
					S.E. cor of D & Arctic Grade 10,5
					N.E. cor of F & " Grade 5,5
7.07	3.20	10.27	5.5	4.77	Arctic & F
7.52	6.73	14.25	10.50	3.75	Arctic & D

May 18 188 H Hamlin
7 A Hamlin

BM	+	HI	Grade	Rod	−	Elev
Set points 12' below higher grade on Lot Block Hortons Add For City Lot						
47.73	7.61	55.34				
			50.73	4.61		
	5.54	58.09			2.85	52.49
BM					1.64	56.45



9 Cut & fills on E st between 24th & 25th st

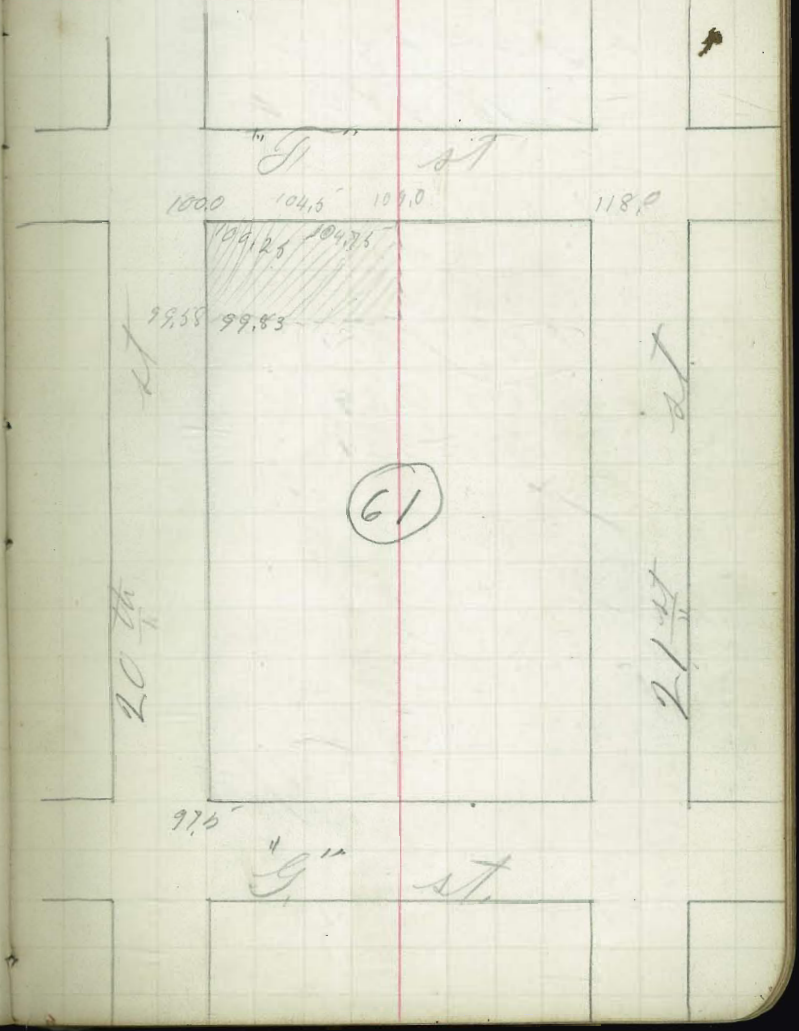
182,086

N Elev.	N Gr		S Elev	S Gr		N ±	S ±
		187,86				24th st	
173,0	171,5		172,1	171,5	0	+1,5	+0,6
174,9	173,6		174,3	173,6	+	+1,3	+0,7
176,9	175,8		176,3	175,8	1	+1,1	+0,5
179,4	177,9		178,1	177,9	+	+1,5	+0,2
180,0	180,0		180,0	180,0	2	0,0	0,0
181,3	181,0		181,3	181,0	+	+0,3	+0,3
182,4	182,0		182,3	182,0	3	+0,4	+0,3
183,3	183,0		183,4	183,0	+	+0,3	+0,4
184,0	184,0		184,2	184,0	4	0,0	+0,2
185,1	185,0		184,9	185,0	+	+0,1	0,0
185,9	185,0		185,9	185,0	5	+0,9	+0,9
187,1	185,0		186,9	185,0	+	+2,1	+1,9
188,6	185,0		187,6	185,0	6	+3,6	+2,6
						25th st	

11 June 13th 1888
J. B. Fulton

Grades for
H. Emanuel ~~in~~
Blk 61 Lot 1
culvs & Yag's add,

6,431	107,442		101,011
	El,	R,	
Cor	100,25	7,19	
S cor	99,83	7,61	
E cor	104,75	2,69	



13

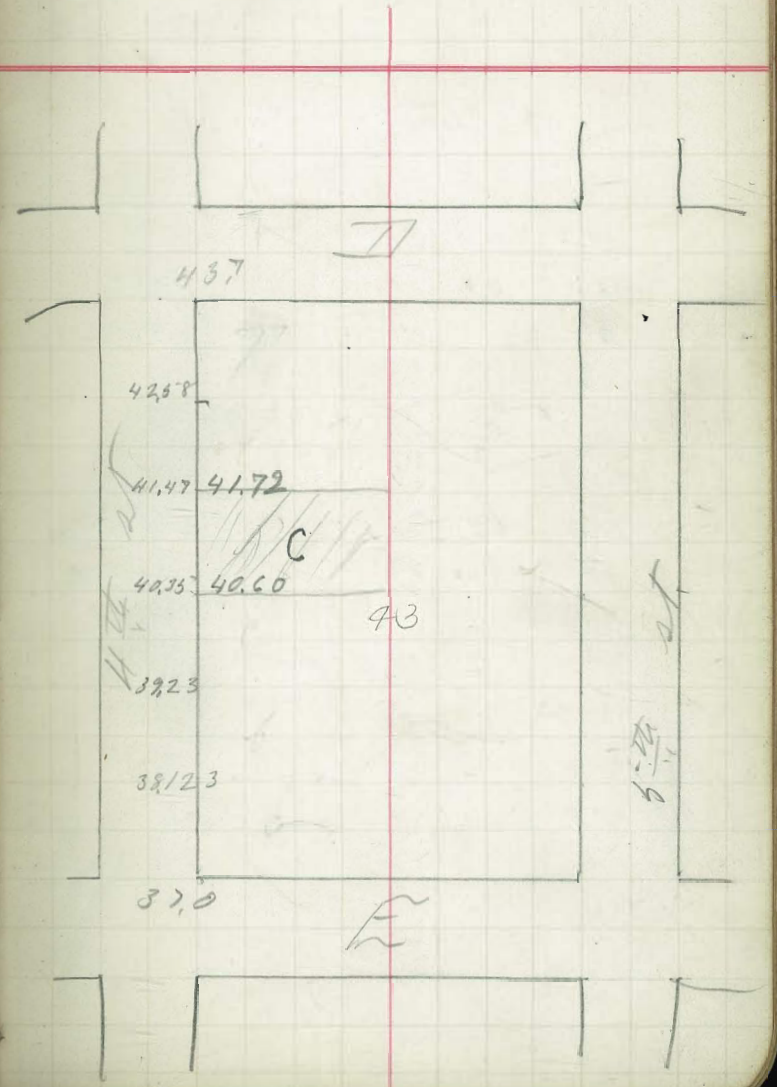
June 26 1888

8

2 grades on
C K Hill

4.41	44.41			40.00

El.	K
41.72	2.69
40.60	3.81



15

Logan Ave.

N — S

R	E	R	E	R	E
		(21.2)			
10.5	10.7	10.5	10.4	11.6	9.6
10.4	10.8	11.0	10.2	11.9	9.3
10.2	11.0	10.9	10.3	11.6	9.6
10.0	11.2	10.6	10.6	11.3	9.9
9.8	11.4	10.2	11.0	10.9	10.3
9.0	12.2	9.5	11.7	10.0	11.2
7.9	13.3	8.3	12.9	8.9	12.3
6.1	15.1	6.7	14.5	6.7	14.5
3.7	17.5	4.1	17.1	4.5	16.7
1.0	20.2	1.4	19.8	1.6	19.6
		(31.8)			
5.8	23.0	9.1	22.7	9.2	22.6
6.3	25.5	6.1	25.7	6.1	25.7
3.6	28.2	3.4	28.4	3.2	28.6

9

Sta	+	H.I.	−	Elev. Bm
	12.00	21.25		9.25
0				
+				
1				
+				
2				
+				
3				
+				
4				
+				
	10.88	31.79	0.34	20.91
5				
+				
6				

17 June 29 '88

Maple St.

N.		C.		S	
R	E	R	E	R	E
		(264.0)			
5.0	259.0	5.1	258.9	5.2	258.8
3.7	260.3	3.7	260.3	4.7	259.3
5.2	258.8	6.2	257.8	7.0	257.0
5.0	259.0	5.9	258.1	7.2	256.8
6.5	257.5	7.2	256.8	8.4	255.6

	N.			S.		
R	El	gr	R.E	El.	gr	
5.0	259.0	259.0	5.2	258.8	258.5	✓
3.7	260.3	259.0	4.7	259.3	258.5	✓
5.2	258.8	259.0	7.0	257.0	258.5	✓
5.0	259.0	259.0	7.2	256.8	258.5	✓
6.5	257.5	259.0	8.4	255.6	258.5	

4.84 5.09 5.34

4.7 4.95 5.20

Judge Puterbaugh 10

Sta	+	H. I.	
	9.14	263.99	254.85
0			
+	4.93	263.37	
1	5.40	263.84	S.W. cor 258.44
+	5.28	263.72	
+ 83	City Park line		

	N	S
sta	+ −	+ −
0	0.0	+0.3
+	+1.3	+0.8
1	−0.2	−1.5
+	0.0	−1.7
+ 83	−1.5	−2.9

19 Nutmeg St.

N		C		S		
R	E	R	E	R	E	
		(270,4)				
2.4	268,0	5,1	265,3	7,0	263,4	
2,2	268,2	4,4	266,0	6,5	263,9	
5,6	264,8	6,1	263,3	6,6	263,8	
8,9	261,5	8,6	261,8	8,3	262,1	
		10,0	260,4	9,4	261,0	
10,4	260,0					
	M			S		
R	E	g	R	E	g	
2,4	268,0	265,0	7,0	263,4	263,5	✓
2,2	268,2	265,0	6,5	263,9	263,5	✓
5,6	264,8	265,0	6,6	263,8	263,5	
8,9	261,5	265,0	8,3	262,1	263,5	
10,4	260,0	265,0	9,4	261,0	263,5	
475		54		625		

6,50

Sta	+	HO	—	Elev.	B.M.
		263,99			
	8,38	270,45	1,92	262,07	
0					
+					
1	5,80	269,75			
+	5,54	269,49			S.W. ca 263,95
+ 85					
+ 85,5					
	M	S			
sta	±	±			
0	+3,0	−0,1			
+	+3,2	+0,4			
1	−0,2	+0,3			
+	−3,5	−1,4			
+ 85	−5,0	−2,5			
				8 / 54	

21 Olive St.

N		C		S							
R	E	R	E	R	E	Sta	+	H.I.	—	Elev.	B.M.
		(278.1)						(270.45)			
							8.15	278.15	0.45	270.00	
4.6	273.5	4.8	273.3	5.7	272.4	0					
4.9	273.2	5.4	272.7	6.1	272.0	+					
7.9	270.2	8.8	269.3	9.7	268.4	1	4.58	275.78		271.20	
10.8	267.3	11.1	267.0	12.8	265.3	+	4.19	275.39			
		11.9	266.2	12.9	265.2	+ 88					
11.1	267.0					+ 88.8					

	M			S			M	S
R	E	I	R	E	I	Sta	±	±
4.6	273.5	272.0	5.7	272.4	271.5	0	+1.6	+0.9
4.9	273.2	270.9	6.1	272.0	270.4	+	+2.3	+1.6
7.9	270.2	269.8	9.7	268.4	269.3	1	+0.4	−0.9
10.8	267.3	268.7	12.8	265.3	268.2	+	−1.4	−2.9
11.1	267.0	267.5	12.9	265.2	267.0	+ 88	−0.5	−1.8

23 Palm St

N.		C		S	
R	E	R	E	R	E
		282,2			
5,2	277,0	5,6	276,6	5,9	276,3
5,3	276,9	5,5	276,7	5,9	276,3
6,7	275,5	6,8	275,4	7,0	275,2
7,4	274,8	8,3	273,9	9,1	273,1
7,2	275,0	7,7	274,5	8,6	273,6

	M			S		
R	E	9	R	E	9	
5,2	277,0	277,0	5,9	276,3	276,0	✓
5,3	276,9	276,6	5,9	276,3	276,6	✓
6,7	275,5	276,2	7,0	275,2	276,2	✓
7,4	274,8	275,8	9,1	273,1	274,8	✓
7,2	275,0	275,5	8,6	273,6	274,5	✓

6,12 276,08

Sta	+	H.I.	−	Elev. B.M.
		278,15		
	7,80	282,20	3,75	274,40
0				
+				
1				
+	5,06	281,13		276,08
+ 91	2,30	281,88		279,58

	N.	S
sta	±	±
0	0,0	+0,3
+	+0,3	+0,7
1	−0,7	−0,0
+	−1,0	−1,1
+ 91	−0,5	−0,9

25 Quince St.

N		C		S		
R	E	R	E	R	E	
		(285.3)				
5.4	279.9	5.7	279.6	5.9	279.4	
4.9	280.4	5.3	280.0	5.8	279.5	
4.9	280.4	5.2	280.1	5.4	279.9	
4.8	280.5	5.1	280.2	5.2	280.1	
		5.4	279.9	6.1	279.2	
4.8	280.5					

	M			S		
K	E	g	K	E	g	
5.4	279.9	279.5	5.9	279.4	279.6	√
4.9	280.4	279.6	5.8	279.5	279.6	√
4.9	280.4	279.8	5.4	279.9	279.8	√
4.8	280.5	279.9	5.2	280.1	279.9	√
4.8	280.5	280.0	6.1	279.2	280.0	√

Sta	+	H.I.	—	Elev. B.M.
		(282.20)		
				S.E. Spin Tel.
	5.74	285.32	2.62	279.58
0				
+				
1				
+	4.82	284.40		279.58
+ 94	5.05	284.63		
+ 94.5				

	M	S
sta	±	±
0	+0.4	−0.1
+	+0.8	−0.1
1	+0.6	+0.1
+	+0.6	+0.2
+ 94	+0.5	−0.8

27 E St bet 24 & 25

	N		C		S	
Sta	R	E	R	E	R	E
			181.2			
0	9.5	171.7	9.3 Center	171.9	9.5	171.7
+	7.4	173.8	7.4	173.8	7.4	173.8
1	5.2	176.0	5.2	176.0	5.2	176.0
+	3.1	178.1	3.1	178.1	3.1	176.1
2	1.0	180.2	1.1	180.1	1.1	180.1
			189.0			
+	7.8	181.2	7.8	181.2	7.8	181.2
3	6.8	182.2	6.8	182.2	6.8	182.2
+	5.8	183.2	5.8	183.2	5.8	183.2
4	4.8	184.2	4.8	184.2	4.8	184.2
+50	3.8	185.2	3.9	185.1	3.8	185.2
5	3.8	185.2	3.8	185.2	3.8	185.2
+50	3.7	185.3	3.8	185.2	3.8	185.2
6	3.8	185.2	3.8	185.2	3.7	185.3

all elevations are .1' too high which is due to nearly 1 tenth diff in elev of Bench mark

J B Sullivan

Elevations on Fulton's Grade Stakes

	+		−	E
Bm	8.78	181.20		172.32
X	8.78	188.98	1.0	180.2
Bm 25 + E			0.91	187.97

29 E St 24 to 25

Checking Grade +

Sta	+	⊼	−	EL	Grd	
BM	3.29	175.52		172.23		
SE		174.57	4.01	171.61	on stake	
SC			4.23	171.29	170.75 (29 / 54)	+0.54
C			4.77	170.75		00 Set stake
NC			4.17			+0.6
NE on W line Sidewk			4.02			00 Set stake
	4.37	189.37		185.0	on Grade Stake	
Center			4.37	185.0	185.0	00
N.C			4.37	185.0	185.0	00
SC			4.37	185.0	185.0	00

Figure Exc on 25th a little large as the natural surface ~~curves~~ bows upward in the center

July 12 ~~88~~ E 7th

24 + E

24 + E
- NW 170.0
- SW 170.0
- NE 171.5
- SE 171.5

25 + E 185.0

25 + E

At 24 + E NC is 0.6 high CC 0.4 high
SC is OK
Sidewalks are 14 x 14

25 + E

At 25 + E SC is OK
CC 0.6 high
NC 0.6 high
Sidewalks are 14 x 14

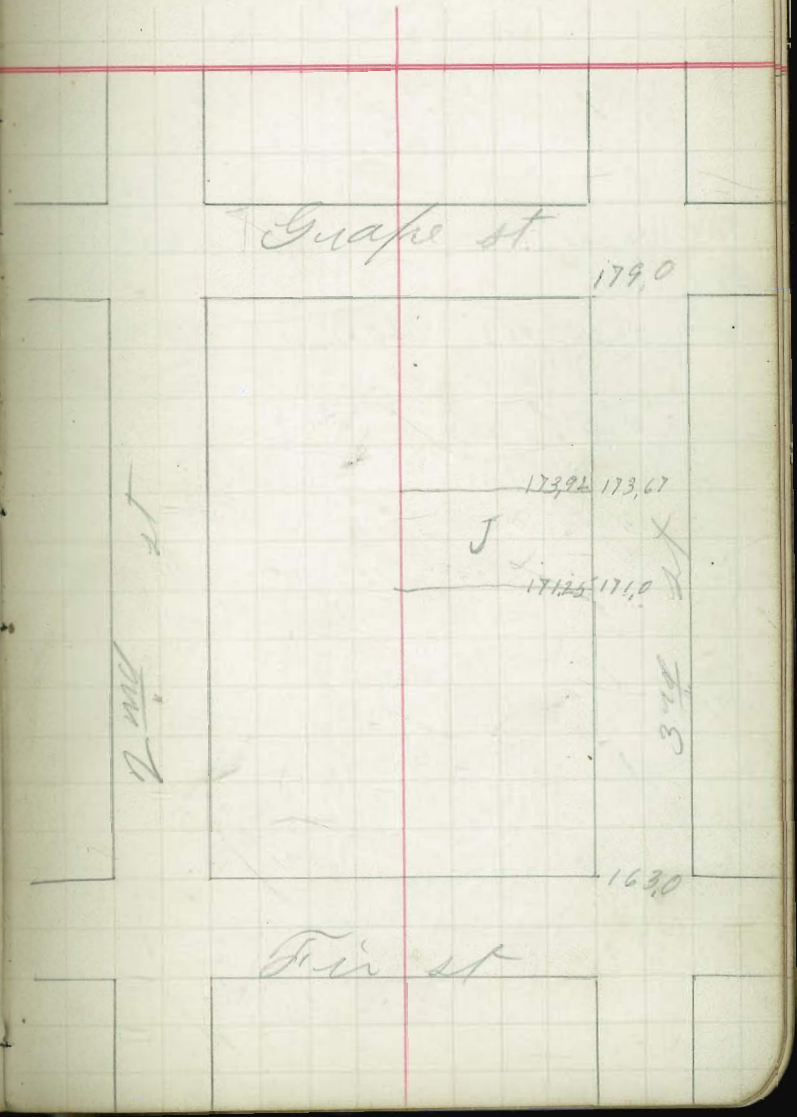
31 H. J. Christian
per P.J. McCormick

Lot J Blk. K. 232 Ha

1,342	184,614			183,272
3,965	182,236	6,443	178,371	
3,491	176,940	8,757	173,449	

Elev	Rod
171,25	5.69
173,92	3.02

376	168,880	11,816	166,124
		7,755	161,122

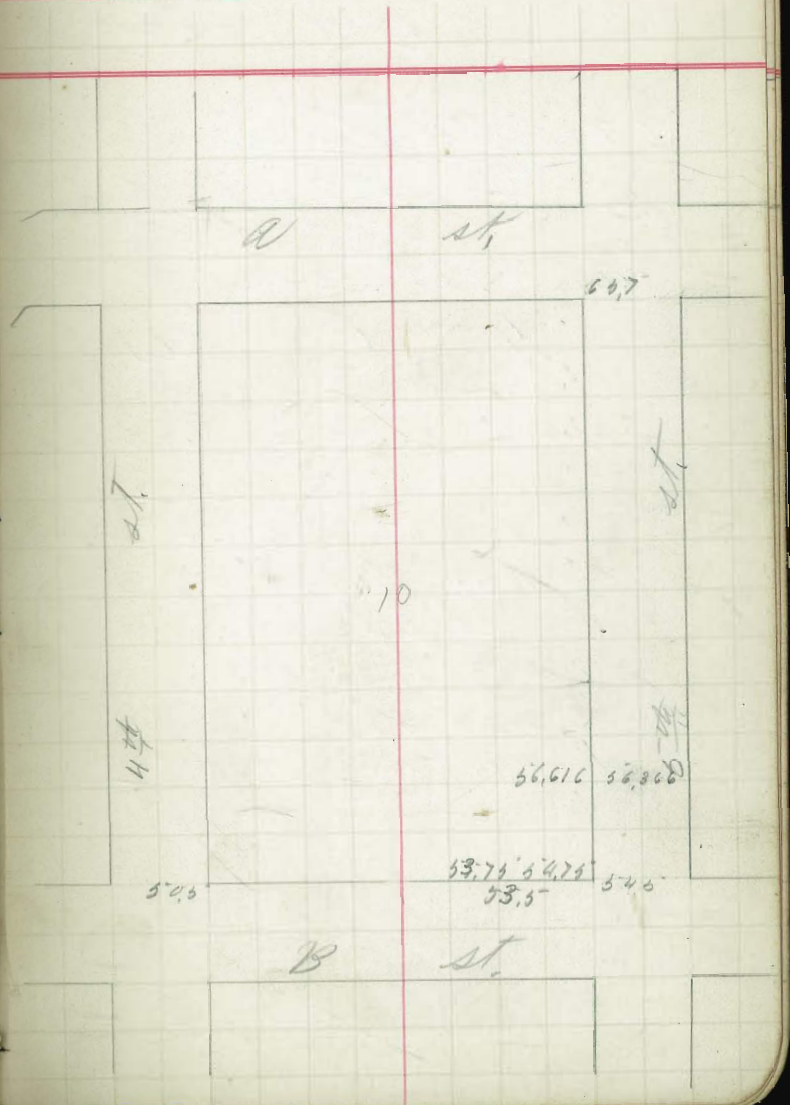


33 Aug 31 1888

Grade for Battell

3.597	59.199				55.602
3.14	58.742				
3.24	55.982	6.01	52.732		65.814
		5.33	50.65		
	56.616	2.583			
	54.750	4.449			
	53.750	5.449			
		3.68			
		2			

657
545
0112
1.86



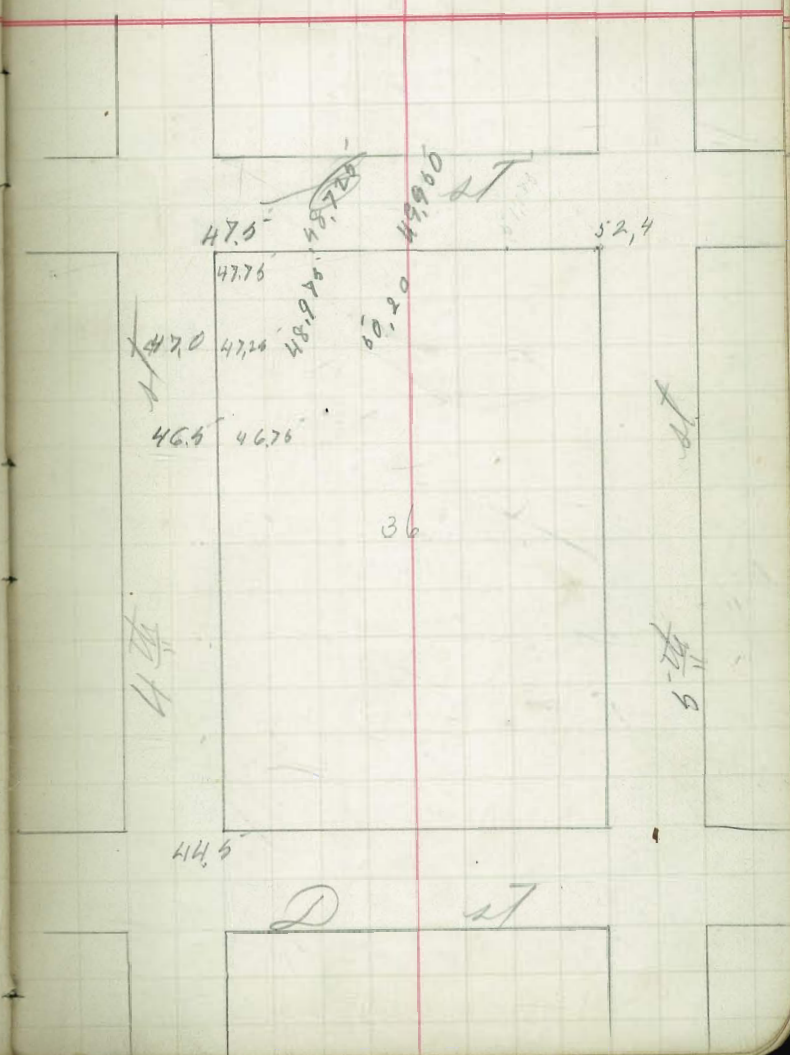
35 Aug 31 1888

J. B. Fulton

3 grades for
Brewster & Whalen
at S.E. cor of
4. & C. sts.

52,63

50,20	2,43
48,98	3,65
47,75	4,88
47,25	5,38
46,75	5,88

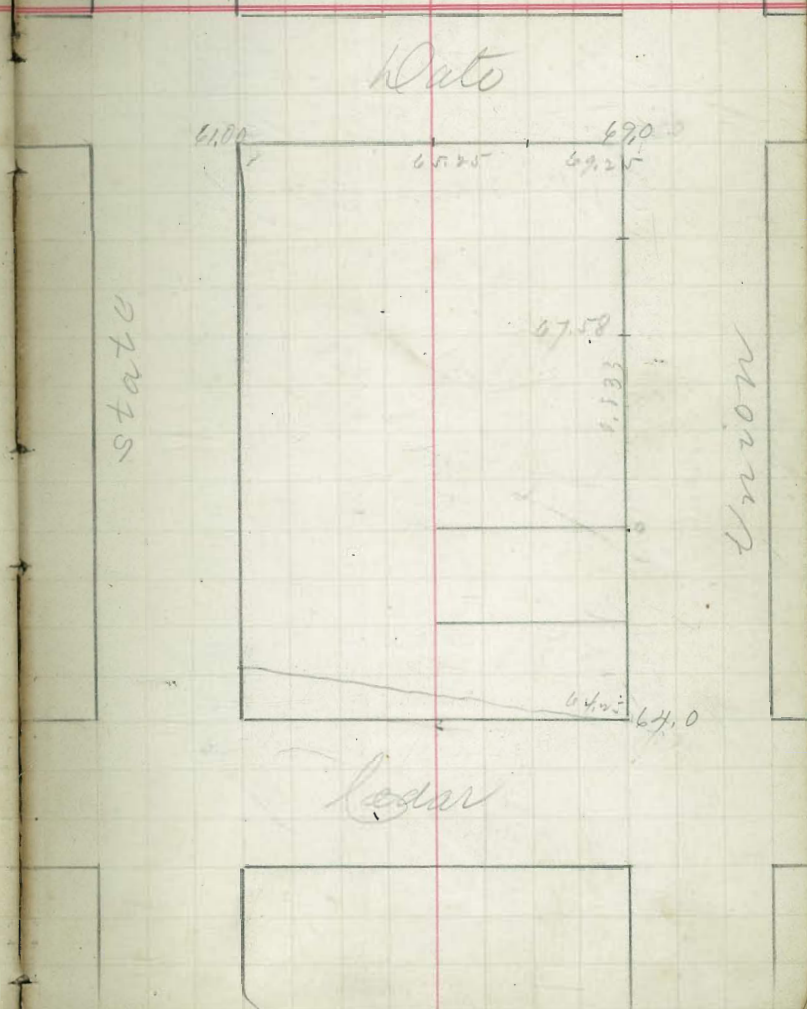


	+	H.I.	—	Elev.	B.M.
	4.889	75.493			70.604
			6.243	69.250	
			7.913	67.580	
			10.243	65.250	
	7.612	81.148	1.957	73.536	Front
			3.015	78.133	78.138

69.25
1.67
67.58
3.34
64.24

69
61
8
4
61
65

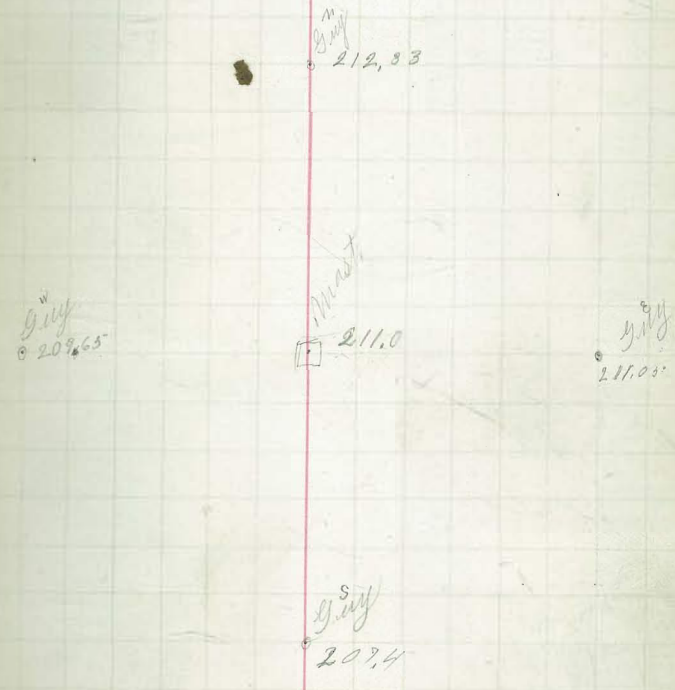
69
3.)5
1.67



39

Sept 24 1888

Grades for
Elect. Light Mast
S.W. Cor 3rd Jennifer



41 Oct 11 1888

E. T. Wheeler

22

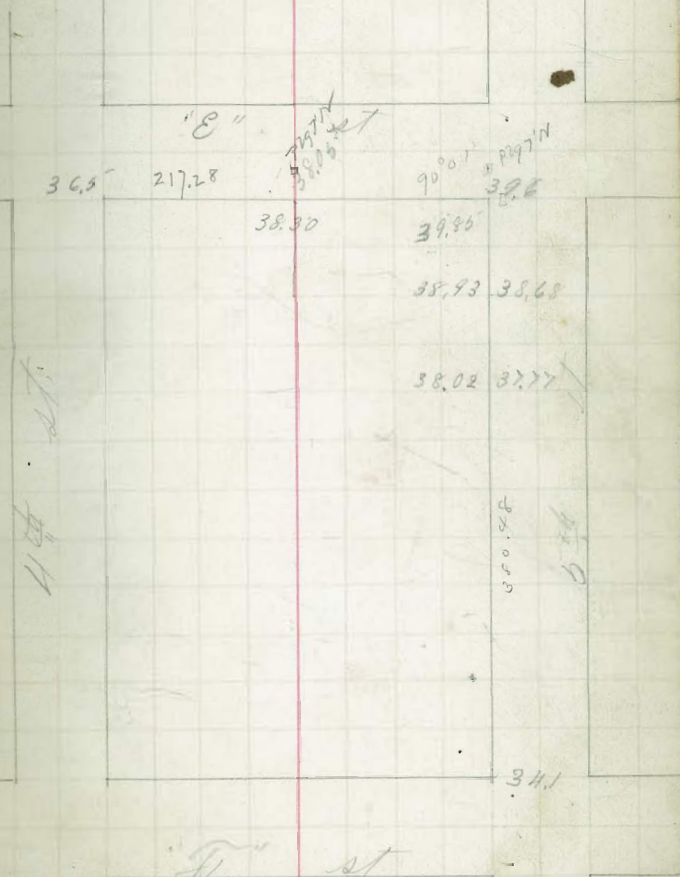
3 grades for

John Allyn S.W. cor

5,8 E. sts. Lot L. B,4,K,62 H.A.

41.635

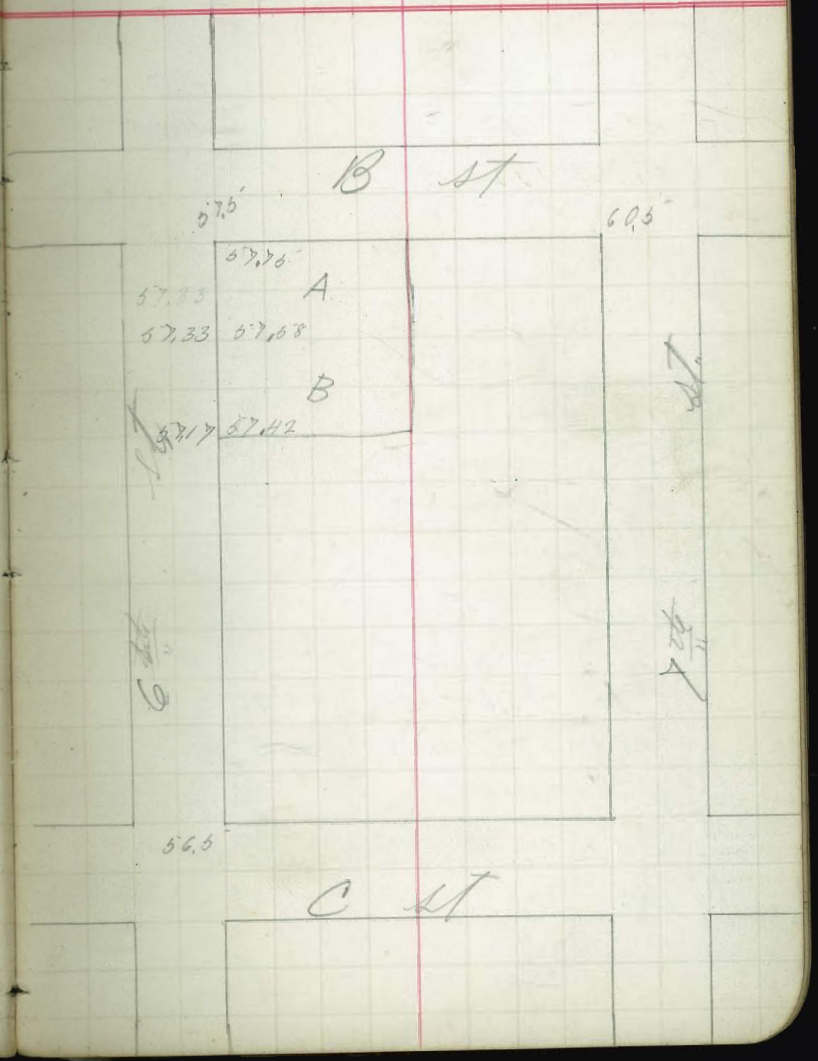
	+	⊼	−	∠	Grd	
B M	2.175	43.81		41.635		
SW cor			4.88		38.93	
NW cor			5.51		38.30	
NE cor	3'E		4.36	39.45	39.85	F0.4
N.E. cor	7'N		4.24	39.56	39.85	F0.29



43 Oct. 11 1888

Side Walk grades
for Chas. S. Mudge.

3.954	42.417			58.463
		4.667	57.750	
		4.837	57.580	
		4.997	57.420	
		6.814	56.603	55.602



Location on Graph of
Between Abatoir Union.

11.53	100.33				86.28	
6.81	105.22	1.92	98.41			

	N		S	
	8.4.	SW 4	C	SW 4	W 4
			Abatoir		
105.2	104.7	103.4	103.2	104.4
0.0	1.00	1.8	2.0	0.8
103.8	102.8	102.2	101.3	100.8
1.4	2.4	3.0	3.9	4.4
102.4	101.6	100.7	99.7	99.2
2.8	3.6	4.5	5.5	6.0
100.8	100.2	99.6	98.8	98.4
4.4	5.0	5.6	6.4	6.8
100.0	98.7	97.9	97.5	97.0
5.2	6.5	7.3	7.7	8.2
99.2	97.6	96.7	96.1	95.9
6.0	7.6	8.5	9.1	9.3
97.1	95.6	95.2		
8.1	9.6	9.7		96.7
				9.3
96.1			Abatoir	
9.1	Union			
		N	S	
		+1.6	+2.2	
		+1.7	+0.5	
		+1.1	−1.6	
		0.0	−0.6	
		+0.8		
		Union		
		Abatoir		

					S	
	9 L	E Bow		E Bow	9 L	
	94.5	96.1		95.7	93.5	
	95.41	97.1		97.0	96.5	
	98.94	100.0		99.2	100.25	
	102.47	102.4		104.4	105.0	
	106.00	106.2				

47 Grades on 13th st

K.	El.	Gr.	R.	El.	Gr.		
		2,5			2,5		
							Mst.
		2,5			2,5	0	
						+	
						1	
						+	
						2	
						+	
		3,0			3,0	3	
							"M" st
		3,0			3,0	0	
						+	
						1	
						+	
						2	
						+	
		5,5			5,5	3	
							"4" st.

49 Grades on L st.

R	al S	gr	R	El M	gr	
			10.6			
4.0	6.6	7.5	2.1	8.5	8.5	0
8.7	1.9	7.0	6.0	4.6	7.88	+
8.7	1.9	6.5	7.1	3.5	7.25	1
8.9	1.7	6.0	7.0	3.6	6.63	+
6.9	3.7	5.5	6.9	3.7	6.0	2
		X sections on L st				
	1.27	10.64			9.37	0
			5.79	4.85	4.845	+25
						+50
						+75
						1
						+25
						+50
						+75
						2

12th st

S	M
-0.9	0.0
-5.1	-3.3
-4.6	-3.8
-4.3	-3.0
-1.8	-2.3

13th st

B4	S SW4		C		SW4 M	B4
4.0	4.2		2.7		3.2	2.1
7.4	7.6	7.5/55	3.4	4.7/20	4.9	4.3
8.7	8.3	7.7/58	3.7		6.0	6.0
8.5	8.3	8.0/60	3.9	6.7/11	5.0	6.5
8.7	8.5	8.1/57	4.2	6.8/11	4.0	7.1
8.8	9.0	8.5/59	4.3		7.3	6.8
8.9	8.8	8.5/60	4.2		7.1	7.0
7.3	7.9		4.2	7.2/24	7.2	6.8
6.9	4.7		3.9	6.7/22	6.8	6.9

+'s are all taken from M. side

		41.5			42.8	○
		42,0			42,8	+
		42.5			43.3	/
		43,0			43.8	+
		43.5			44,3	2

			41.8			

				4,2	44,20	40,000

		1.9		4.9		
9		2.8		41,4	3.6	40.6
+		2.1		42,1	3,0	41,2
1		1.3		41,9	2,4	41.8
+		1.0		43.2	2,0	42,2
2		0.6		43.6	1.6	42.7

Oct 25 88

Grades for sidewalk on Blk 32 Lot "F" H.A.

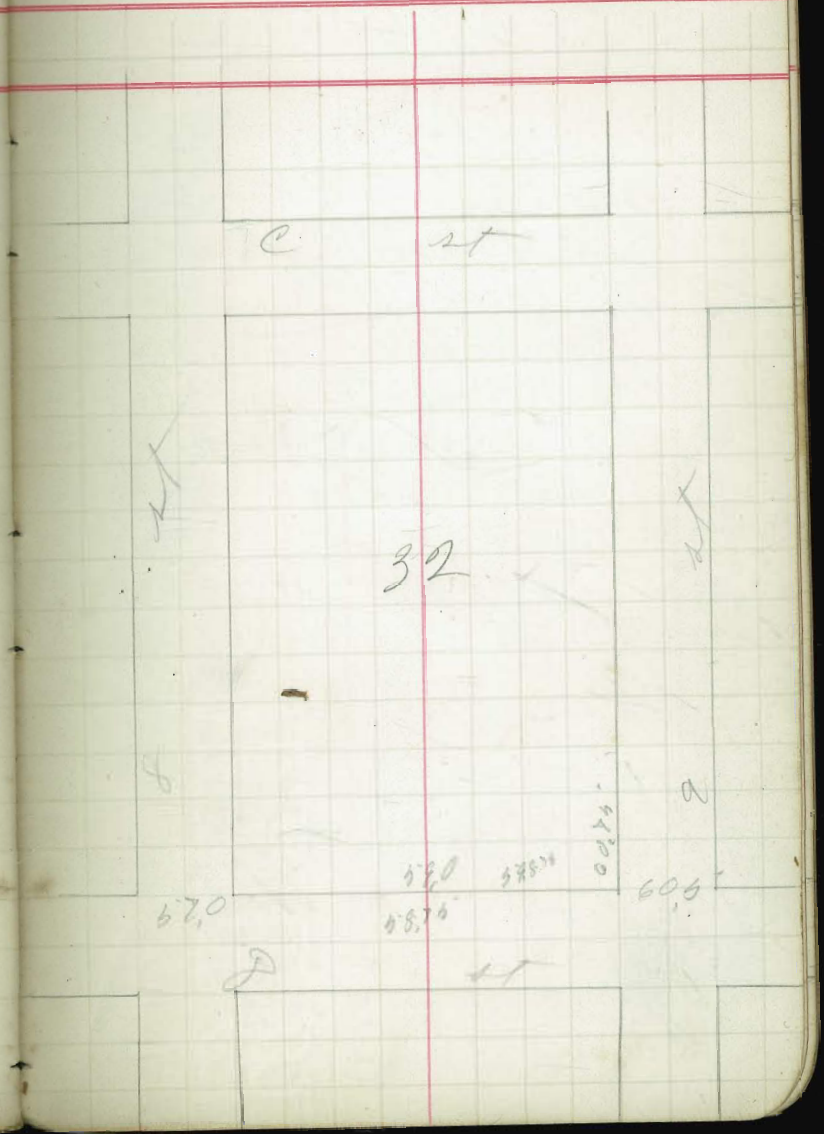
for	Mr		Bass	
6,831	63,556			56,725
		3,380	60,176	60,161

Elev	Rod
57,25	56,306
58,125	5,431
5,900	4,556

55 Oct 25-84

Grades for sidewalk on Blk 32 Lot 9 K.C. for Journey

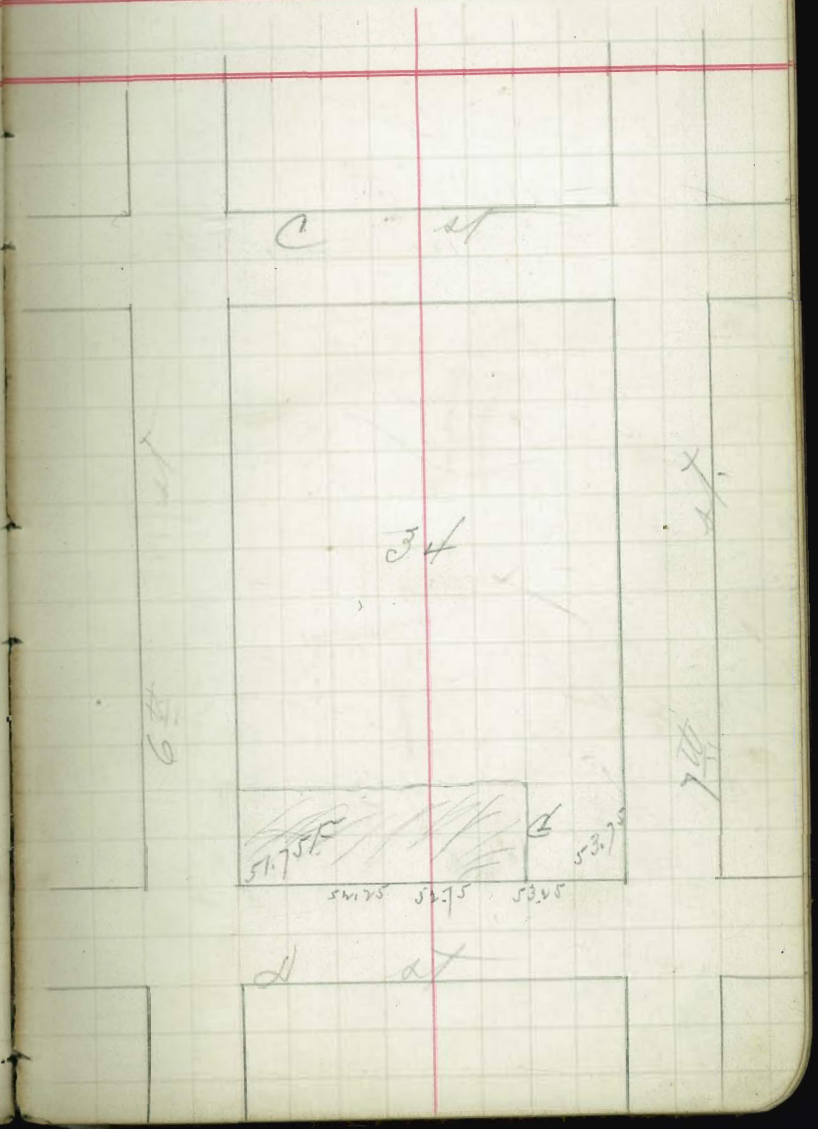
68.31	63.636			66,726	
		3,380	60.176	60.161	
	Elev	Rod			
	59.000	4.536			
	59,976	3.681			
	60.750	2,806			



4520

5,912	54,688			48,776
		4,097	50,591	50,579
5,820	57,595	2,913	51,775	
		2,791	54,804	54,787
4,770	59,542	2,823	54,772	
		2,840	56,702	56,725

Try B.M. on 7 & 8 & 10.

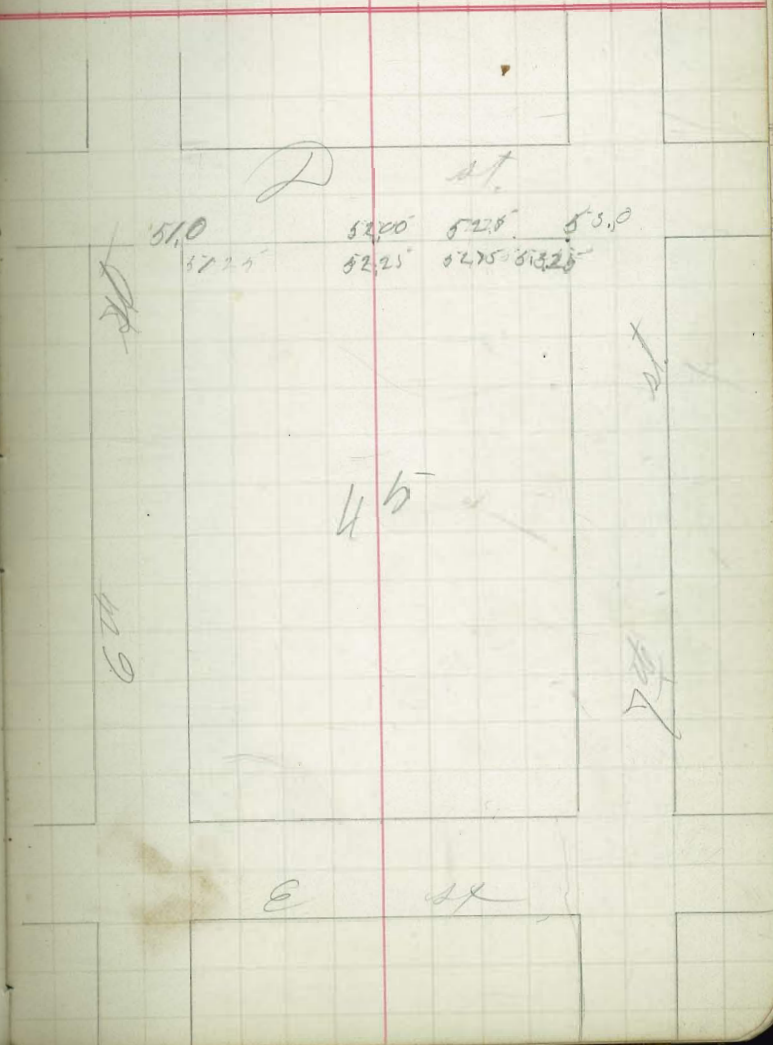


59 Oct 30 1888

check work on

S.W. cor. D & 7th sts.

6069	56,660			50,591
		1,85	54,810	54,804
	52,25	4,41		
	52,75	4,91		
	53,25	3,41		



61 Oct. 30. 1888

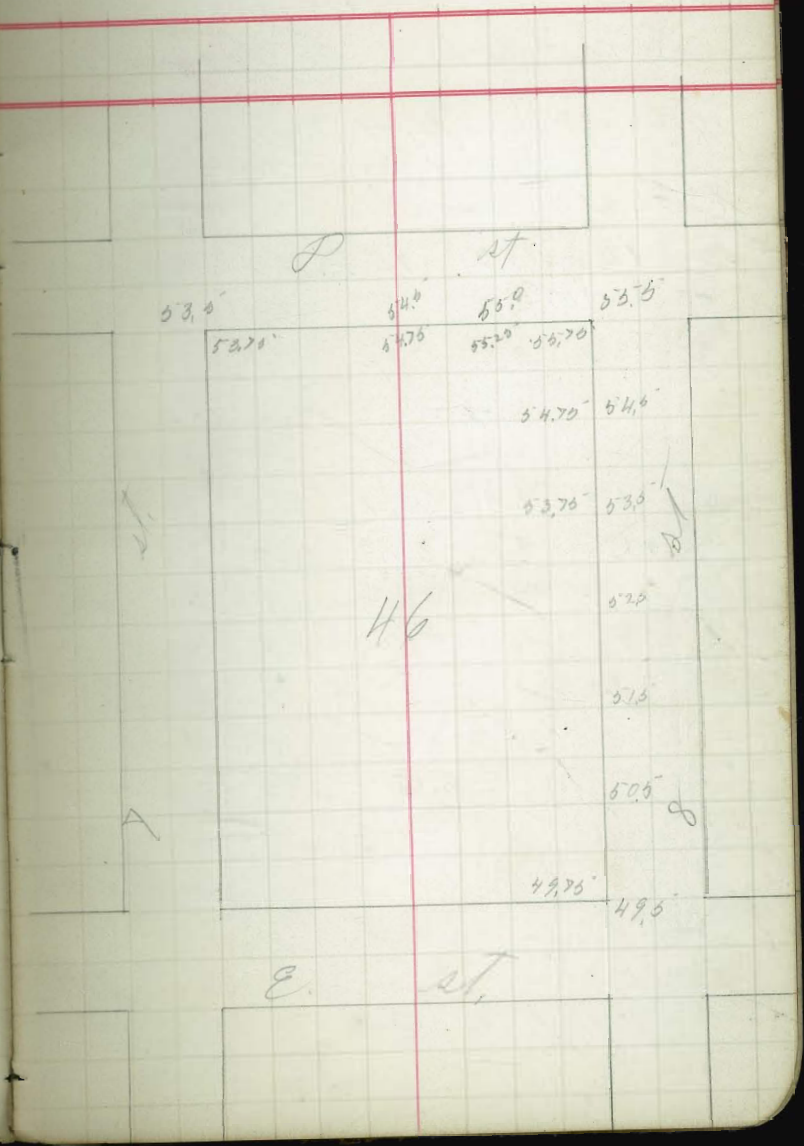
sidewalk grades for lot A Blk 44 H.A. add, for J Cowman

3.383	52.159			48.776
	48.85	3.31		
	47.90	4.26		
	46.95	5.21		
2.93	51.71			48.77[illegible]
	45.97	5.74		
3.475	52.254			48.776
	46.95			
	5.304			

63 Oct. 31 1888

Sidewalk grades on Blk 46 lots K+4. H.A. for Mc. Donald.

3.69	60.40			56.71
	54.75	5.65		
	53.75	6.65		



65 Oct. 31st 1888

X sec. of side walk

for Mr Chase

N E car #11 & "D" sts.

76,2

R	B L el	tile lin		curb lin		sta
3,4	72,8	3,7	72,5	4,0	72,2	0
3,0	73,2	2,9	73,3	3,5	72,7	+25
2,5	73,7	2,6	73,6	2,8	73,4	+50
2,4	73,8	2,6	73,6	2,8	73,4	+75
2,6	73,6	2,7	73,5	3,1	73,1	1
2,6	73,6	2,5	73,7	2,6	73,6	+25
3,0	73,2	2,9	73,3	3,0	73,2	+50
3,3	72,9	3,4	72,8	3,5	72,7	+75
3,6	72,6	3,7	72,5	4,1	72,1	2

tile lin is 11' from B.L.

1,32 76,16 74,84

2,84 73,32

W E 73.0

74.0 cu

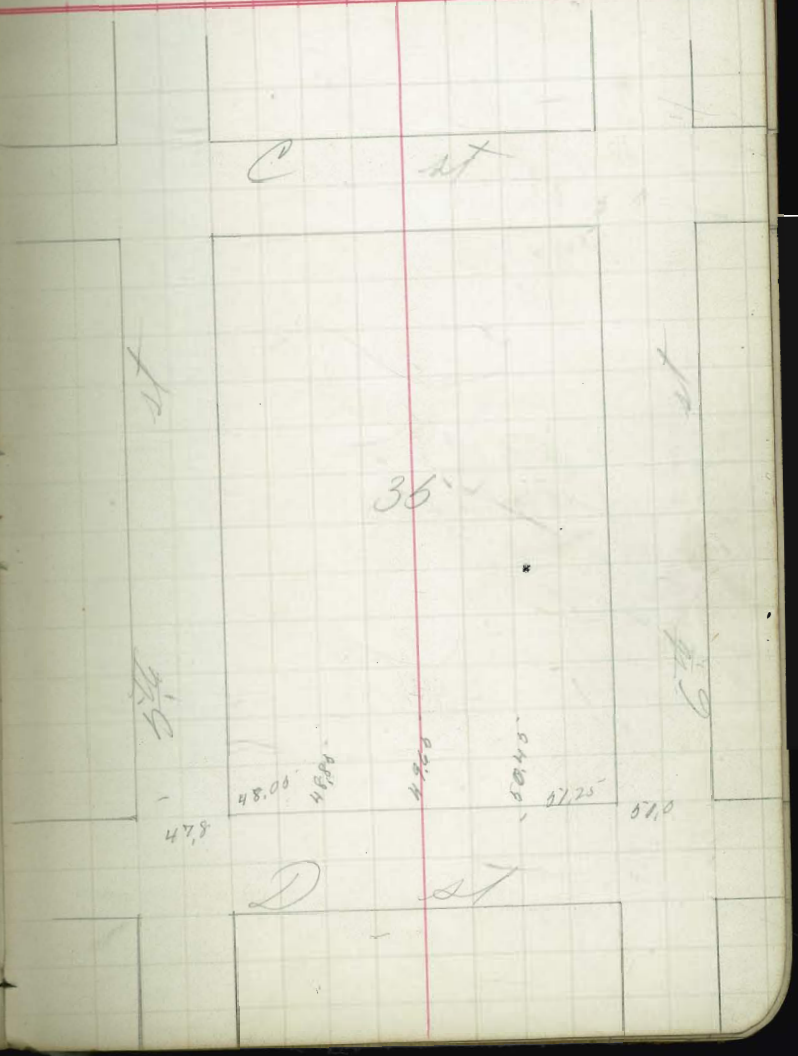
72.5

67 Oct. 31 88

68
35

Sidewalk grades on lot 9 blk 35 K.A. for Mrs Dowdell.

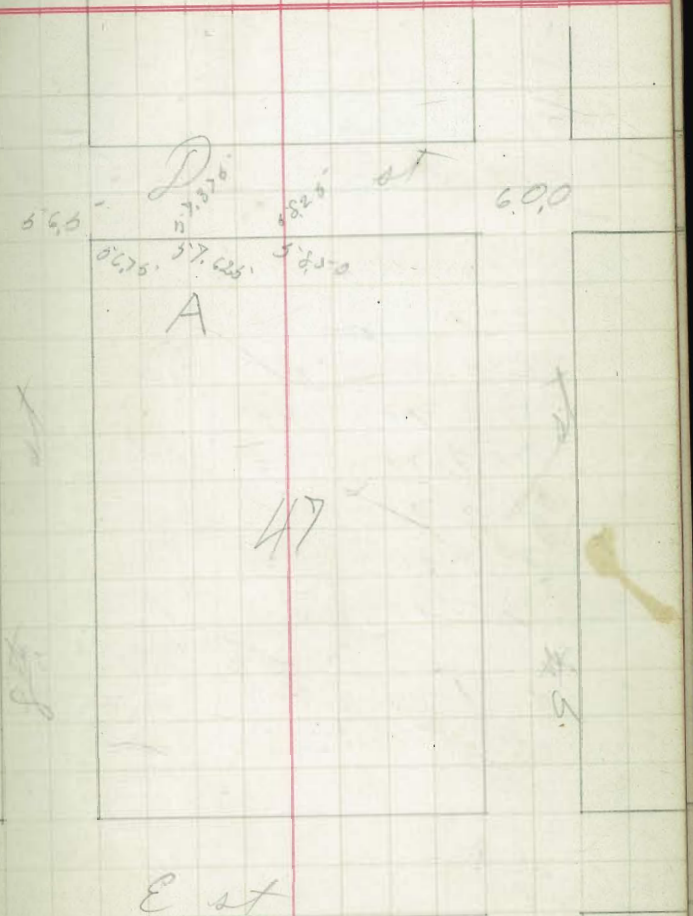
4.92	55.51			50.59
	51.25	4.26		
	50.45	5.06		
	49.65	5.86		



69 Nov 1st 1888

Grades for sidewalk on lot "A" Blk 47 #9, for Will McDonald.

4,34	61,05		56,71
	56,75	4.30	
	57,53	3.42	
	58,5	2,55	



71 Nov 1st 1888

check grades

on 5th st between
a & ash st
for city

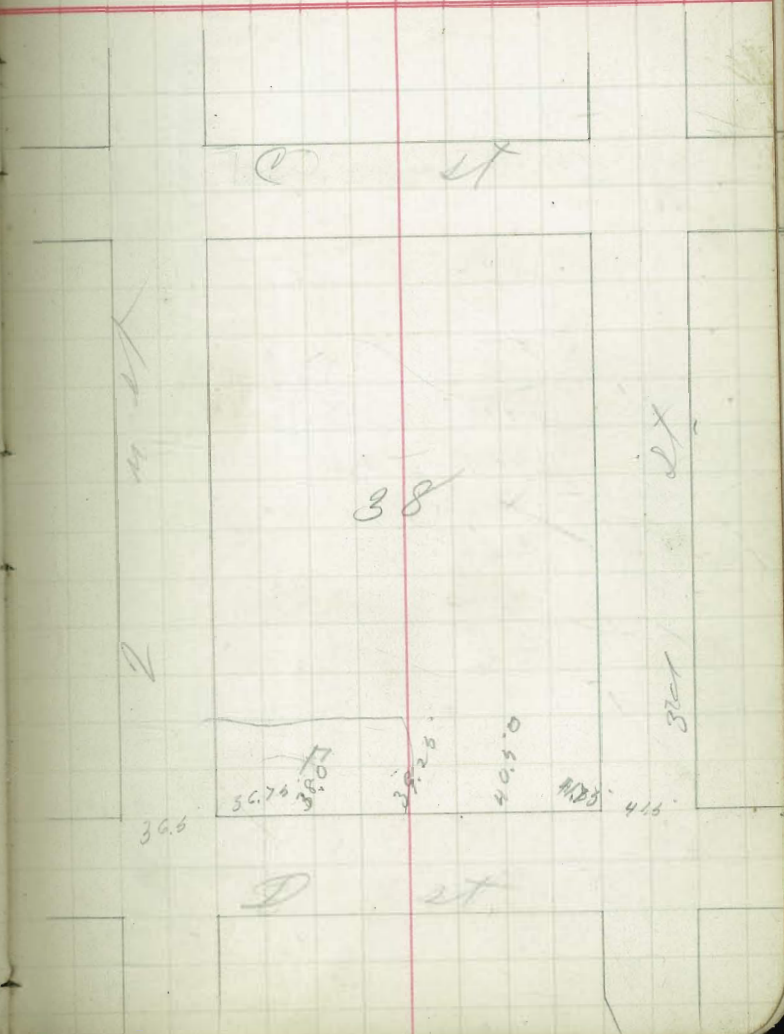
st grades	el	K
0	67.8	67.7	8.6
+	69.5	69.2	7.1
1	71.2	70.4	5.9
+	72.9	71.8	4.5
2	74.6	73.3	3.0
+	76.3	74.8	1.5
3	78.0	76.3	0.0

10.53 76.34 85.81

73 Nov 7 1888

Sidewalk grades for
Will McDonald
lot, F Blk 38 H.a.

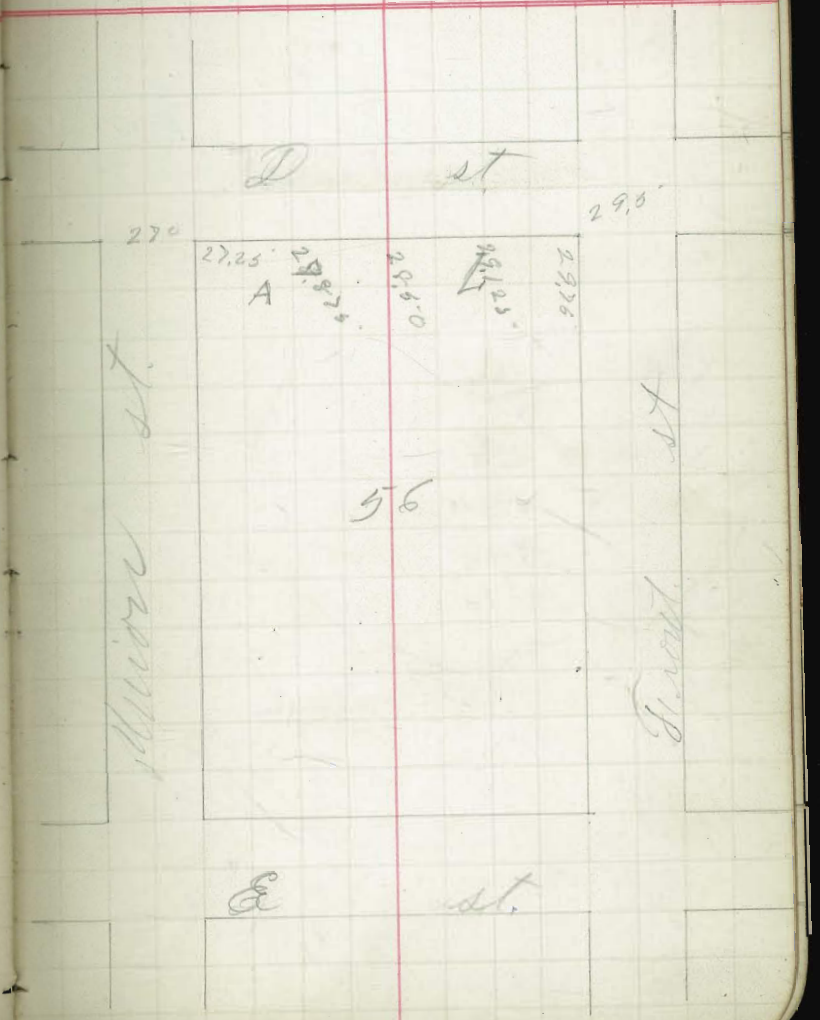
3.54	43.54			40.00
	36.75	6.79		
	38.00	5.54		
	39.25	4.29		



75 Nov. 7 1888

Sidewalk grades for
Will Mc Donald,
Lot 4, A, Blk 56 New Town

1,93	34,08			32,146
		7,06	27,02	27,014
	29,75	4,33		
	29,125	4,95		
	28,50	5,58		
	27,88	6,20		
	27,25	6,83		



77 Nov. 7, 1888

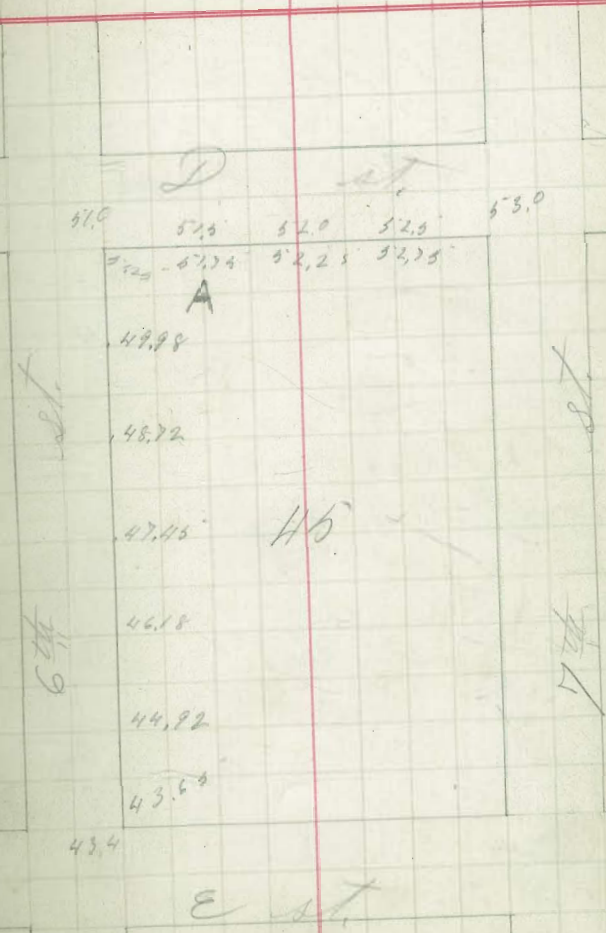
Sidewalk grades on
Lot A B.L.K 45 HA
for Haskins.

5,03	55 62			50,59
	52,25	3,37		
	51,75	3,87		
	51,25	4,37		
	49,98	5,64		
	48,72	6,90		
	48,47	7,15		

4872
25
4847

63,125

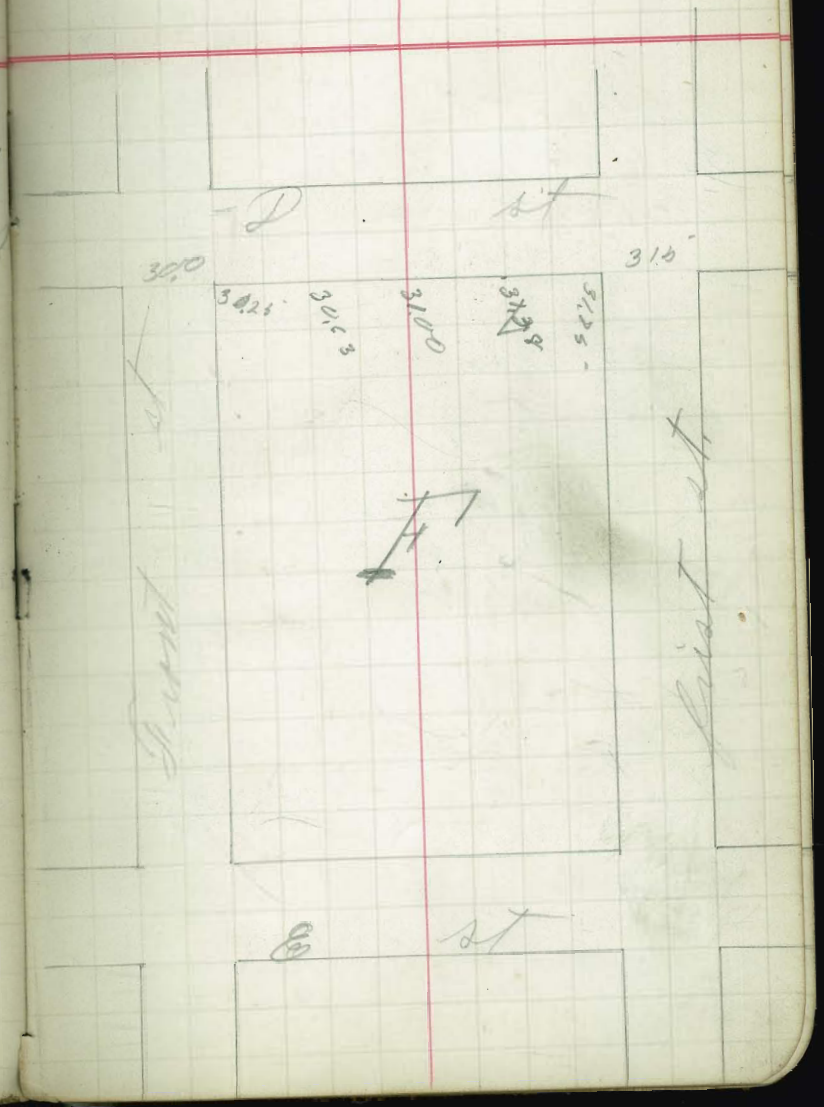
5)1,26
,25



79 Nov. 9 1888

Side walk grades on Blk F lot 4. H. add, for Will McDonald,

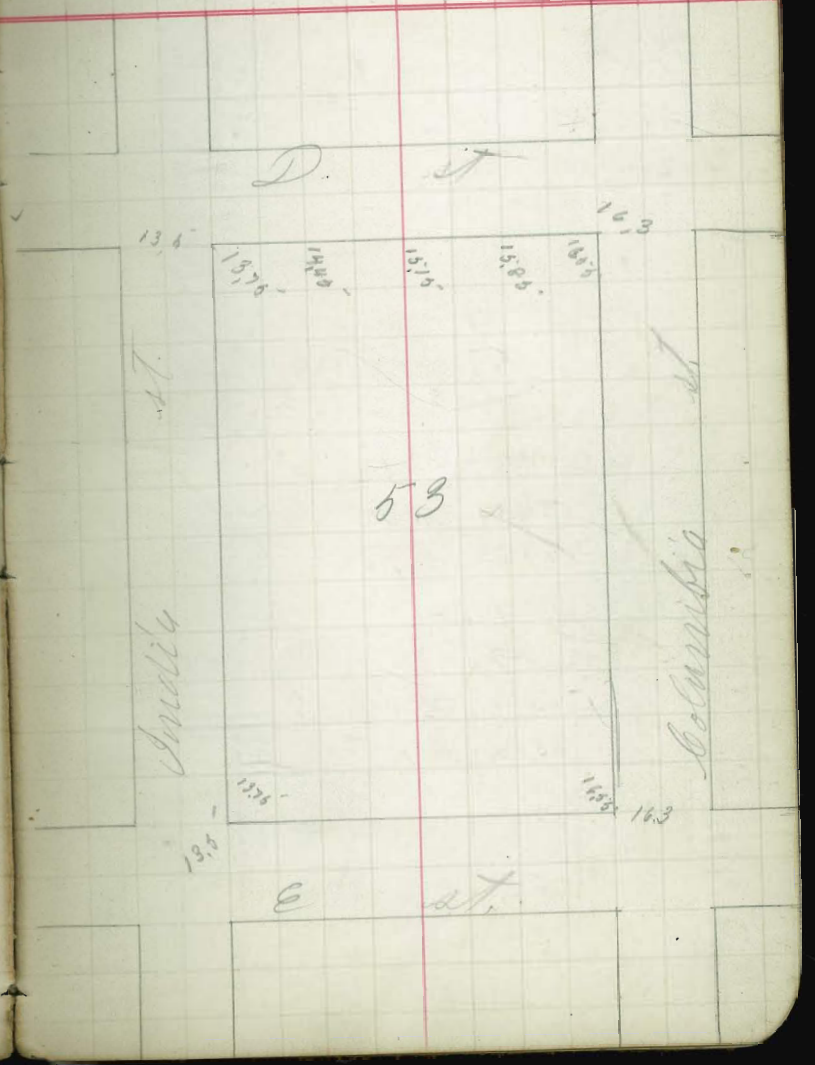
5,015	36688			31,673
	31.75	4.94		
	31,38	5,31		
	31,00	5,69		



Nov. 10th 1888

Sidewalk grades in
Blk. 53 Lot, L
New Town for
J. Cowman

3,32	21,83		18,51
	16,55	5,28	
	15,85	5,98	
	15,15	6,68	

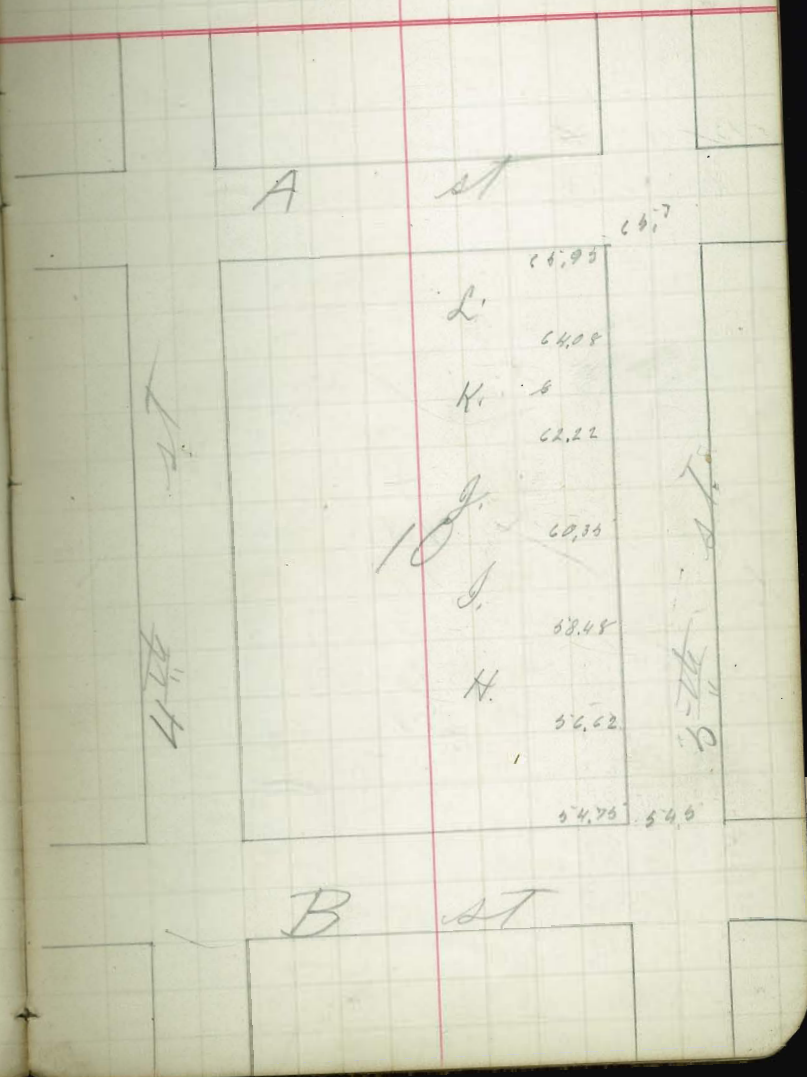


Nov. 10th 1888.

H. A.

Sidewalk grades in Blk 10 Lots H. I. J. K. & L. for Col. Bradt.

6.77	62.37			55.60
		~~0.77~~	~~61.60~~	
	54.75	7.62		
	56.62	5.75		
	58.48	3.89		
	60.35	2.02		
	62.22	0.15		
8.58	70.18	0.77	61.60	
		4.37	65.81	65.81
	64.08	6.10		
	65.95	4.23		



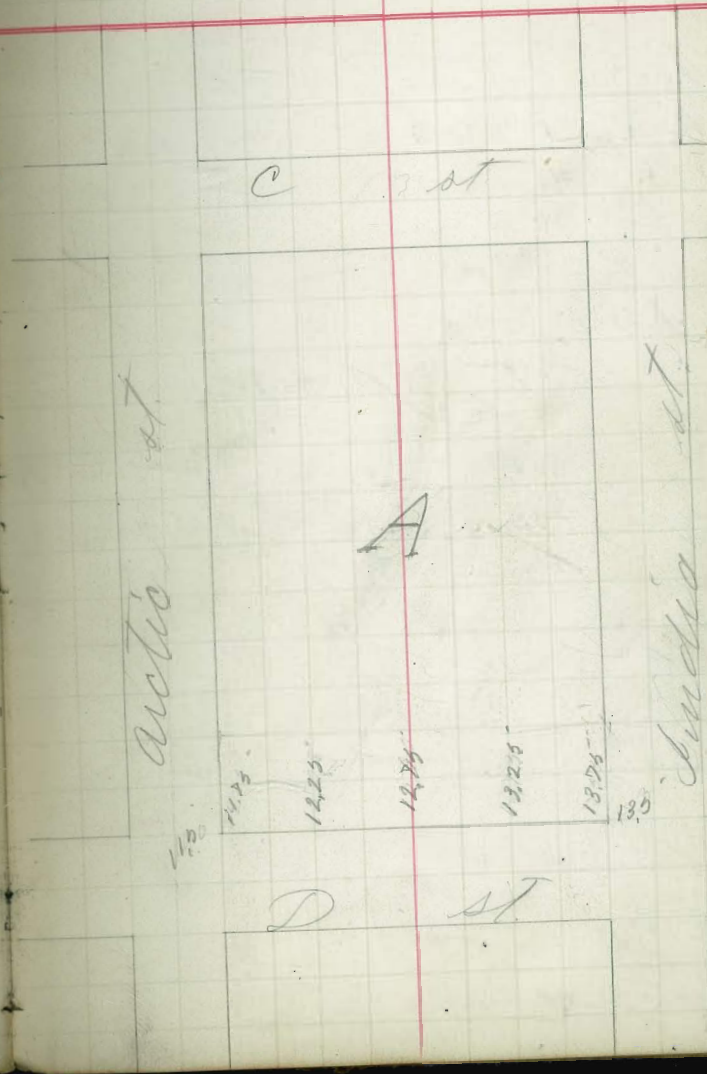
Nov 12 1888

4.03
3.62
4.1
4.2
4.8

Middletown

Sidewalk grades on Blk A two lots 5 grades in Middletown add for Haskins

2,423	16,037			13,614
		7,62	8,417	8,493
	13,75	2,29		
	13,25	2,79		
	12,75	3,29		
	12,25	3,79		
	11,75	4,29		
3,759	17,373			13,614
	3,62			
	4,12			
	4,62			
	5,12			
	5,62			

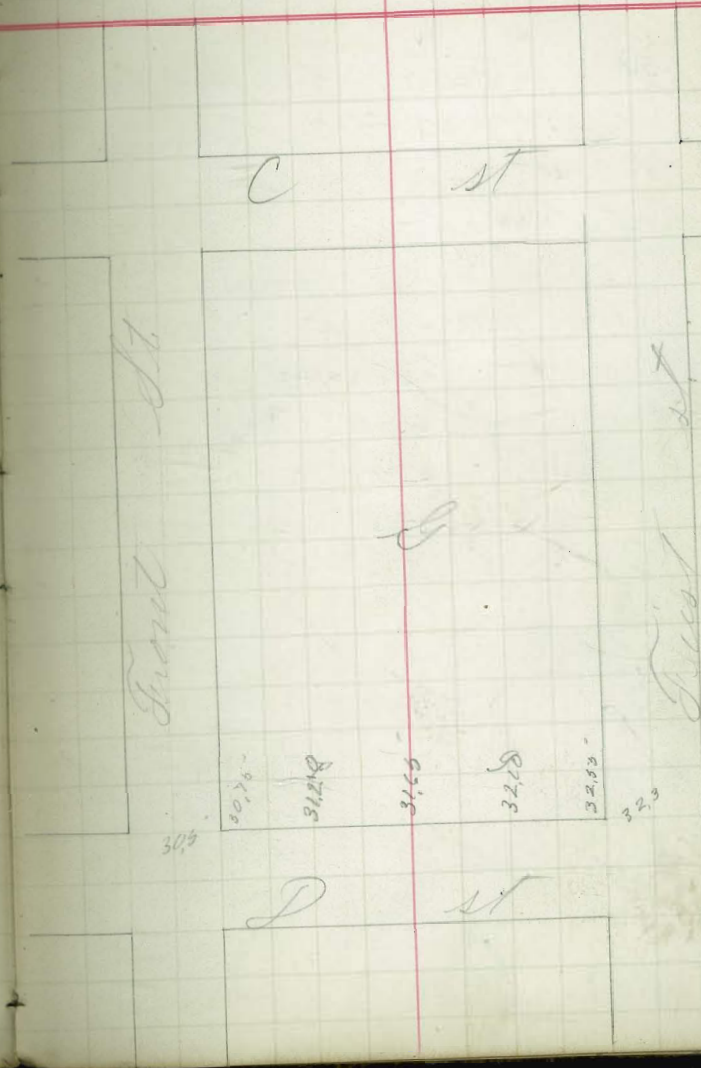


87 Nov 12 1888

5 grades

Sidewalk grades in Blk G lots T & G. H.a. for Haskins.

4,756	36.43			31,673
		4,295	32.134	32,146
	32,55	3.88		
	32,10	4.33		
	31,65	4,78		
	31,20	5.23		
	30,75	5.68		



89 Nov 12 1888

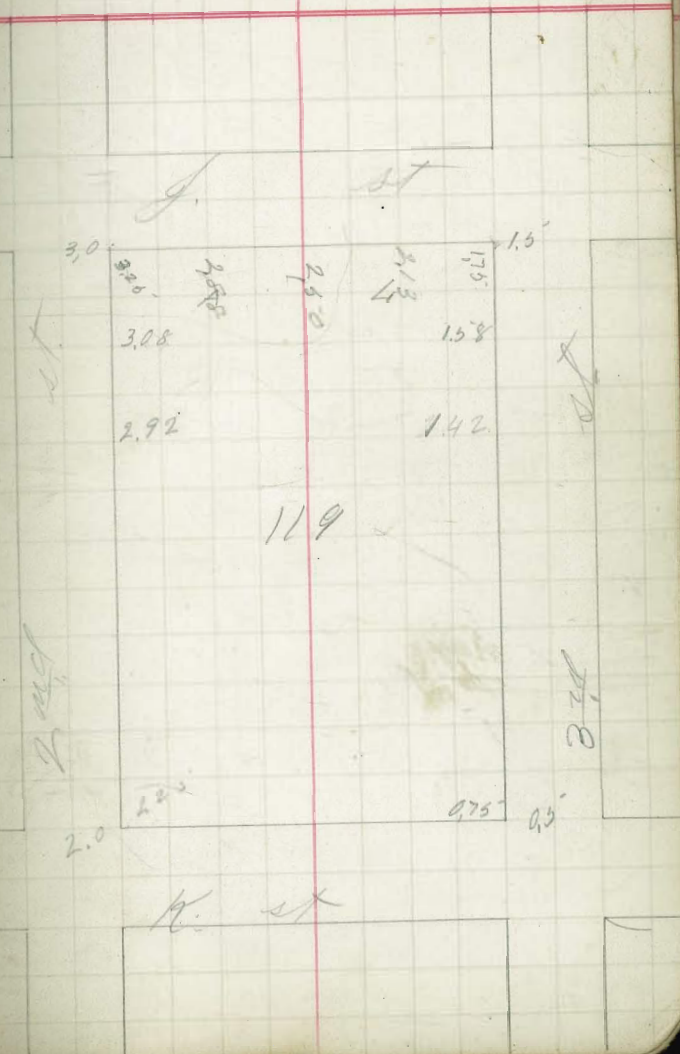
H.A.

Grades on Blk 119
lot A, A for

Ah Quin

+	H.S.	−	Elev.	Bm
4.254	7.666			3.412
		4.416	3,250	
		4.786	2.880	
		5.166	2,500	
		2,985	4,681	4,681

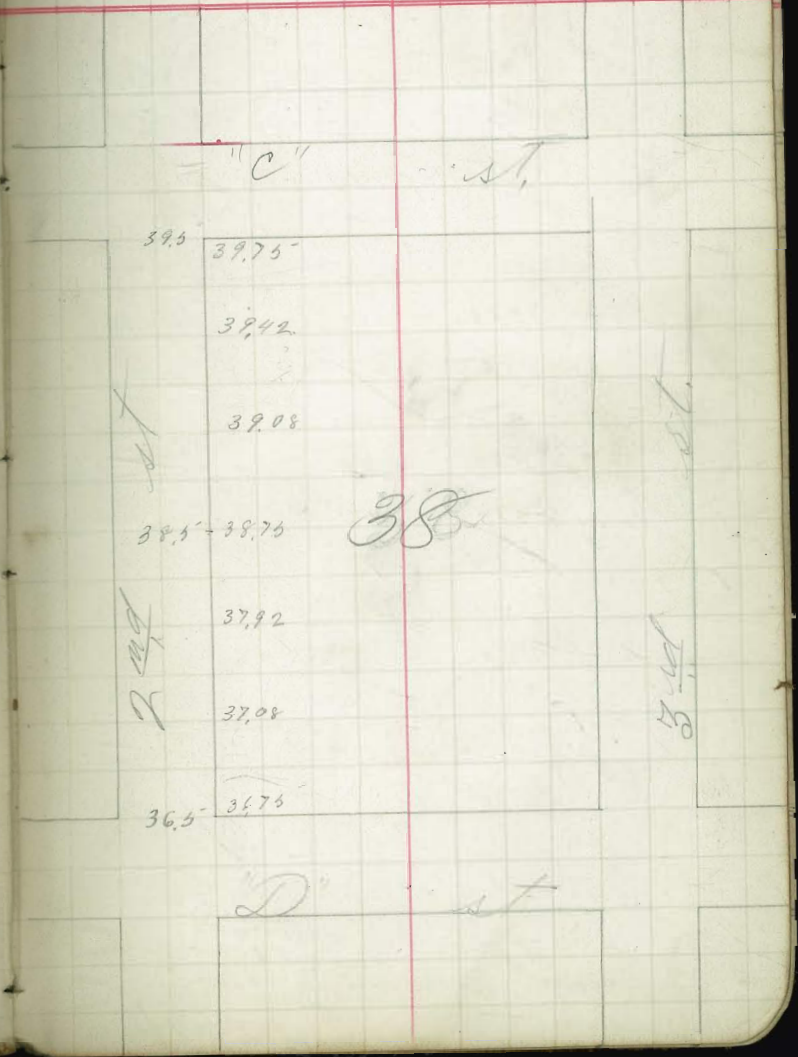
2.985
1,370
.370



91 Nov 13 1888

Sidewalk grades
Blk 38 Lots P.E. H.A.
for W.C. McDonald.

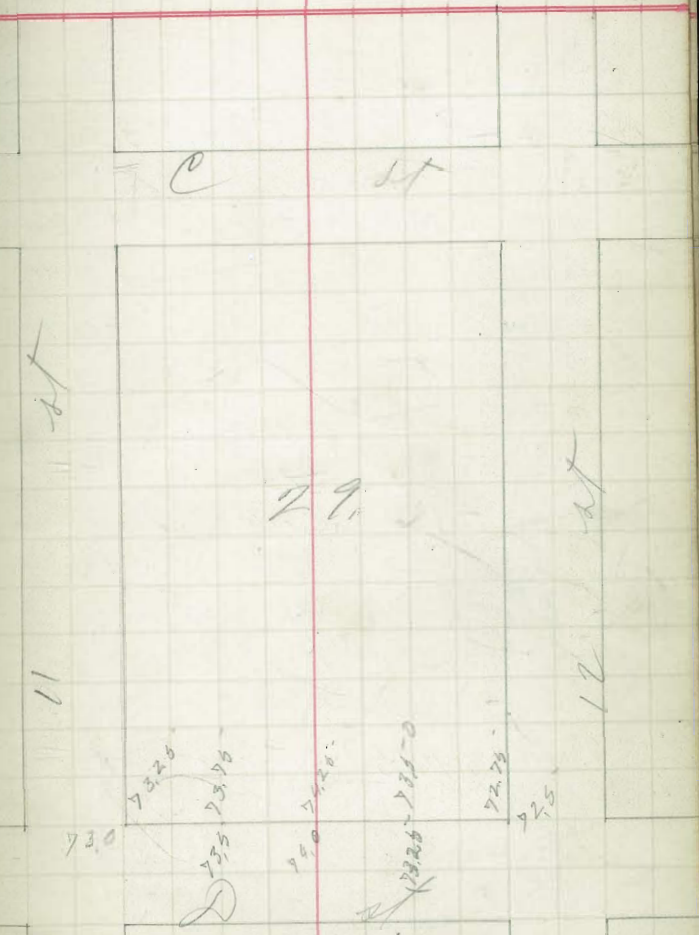
41.92	41.391			37.198
	36.75	4.64		
	37.08	4.31		
	37.92	3.47		
	38.76	2.64		



93 Nov 17 1888

Side Walk grades on Blk 29 lot F, & G, H, A, for Cowman

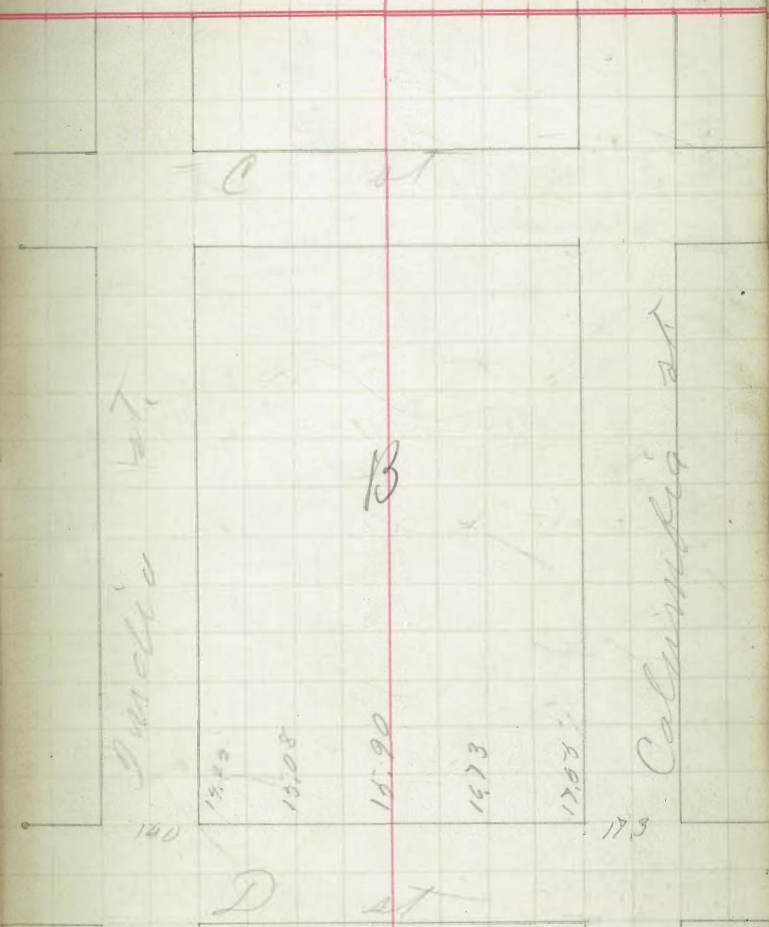
2,347	77,190			74,843
		3,86	73,330	73,34
	73,25	3,94		
	73,75	3,44		
	74,25	2,94		
	73,50	3,69		
	72,75	4,44		



95 Nov, 20 1888
" 22

Sidewalk grades on Blk. B lot G. 3 grades Middletown add for Haskins.

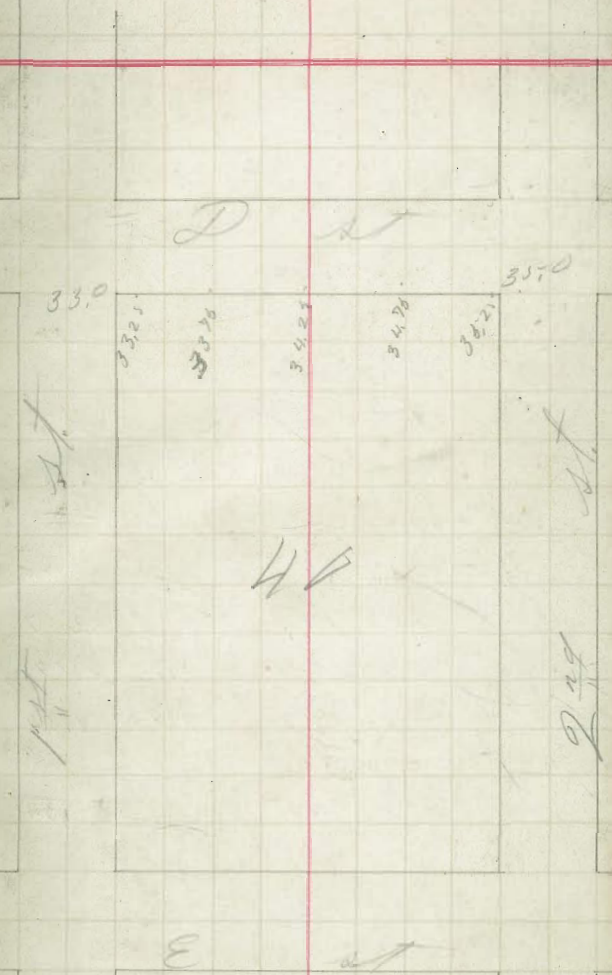
4.155	22.666			18.511
	17.55	5.116		
	16.73	5.936		
	15.90	6.766		
	15.08			
	14.25			



97. Nov. 21 1888

Sidewalk for Blk 40 lots A. & L. H. a. for Mc Donald.

1,784	38,983			37,199
	35.25	3.73		
	34,75	4,23		
	34,25	4,73		
	33,75	5,23		
	33,25	6,73		



	6.17	46.17			40.00
	5.93	50.02	2.10	44.07	
			3.50	46.32	46.32
	6.75	53.90	2.87	47.13	
			3.12	48.78	48.78
	6.69	56.50	4.69	49.81	
			5.91	50.39	50.39
			1.69	54.81	54.81
	6.25	59.93	2.82	53.68	
	6.35	63.06	3.22	56.71	56.70
	7.00	69.87	0.19	62.87	62.87
	6.25	74.98	1.14	68.73	68.74
	. 0	. 3	0.15	74.83	74.84
	4.61	75.99	3.60	71.38	
			2.65	73.31	73.34

Index 57

Chase ——— 66
McDonald ——— 68 ✓
" " 70 ✓
" " ——— 74
" " ——— 76 ✓
Haskins ——— 78
McDonald ——— 80
Bowman J ——— 82
Bradt Geo. ——— 84
Haskins ——— 86
Hum A H ——— 88
Bowman ——— 90
Haskins ——— 94
McDonald ——— 96

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

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

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	89
2	99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	88
3	99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	87
4	99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	86
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	84
7	99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	83
8	99.03	13.92	98.97	14.35	98.90	14.78	98.84	15.21	82
9	98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	81
10	98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	80
11	98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	79
12	97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	78
13	97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	77
14	97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	76
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	74
17	95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	73
18	95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	72
19	94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	71
20	93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	70
21	93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	69
22	92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	68
23	92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	67
24	91.35	40.67	91 18	41.07	91.00	41.47	90.81	41.87	66
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	64
27	89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	63
28	88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	62
29	87.46	48.48	87.25	48.86	87.04	49 24	86.82	49.62	61
30	86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	60
31	85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	59
32	84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	58
33	83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	57
34	82.90	55.92	82 66	56.28	82.41	56.64	82.16	57.00	56
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	54
37	79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	53
38	78.80	61.57	78.53	61.91	78 26	62 25	77.99	62.59	52
39	77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	51
40	76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	50
41	75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	49
42	74.31	66.91	74.02	67.24	73 73	67.56	73 43	67 88	48
43	73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	47
44	71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	46
45	70.71	70.71							45
Degrees.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees.
	DEGREES.		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

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