Misc. Surveys.

9

TRANSIT

F.B.11

11

able 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

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STATIONERS AND PRINTERS,
SAN FRANCISCO, CAL.

Table for Running on Slopes.

In the following table the first column shows the angle, the second, the nu[illegible] link[illegible] be added to a chain on the slopes, to make one chain, horizontal measurem[illegible]

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

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Ta

In the following tal
links to be added to a chain

Angle.	Cor. in links	Angl
°		°
4	0·24	11
5	0·38	12
6	0·55	13
7	0·76	14
8	0·98	15
9	1·24	16
10	1·55	17

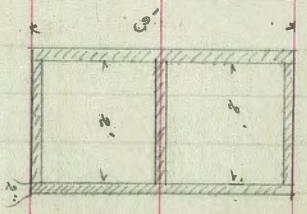
Report relative of grade of 4th & Beech –

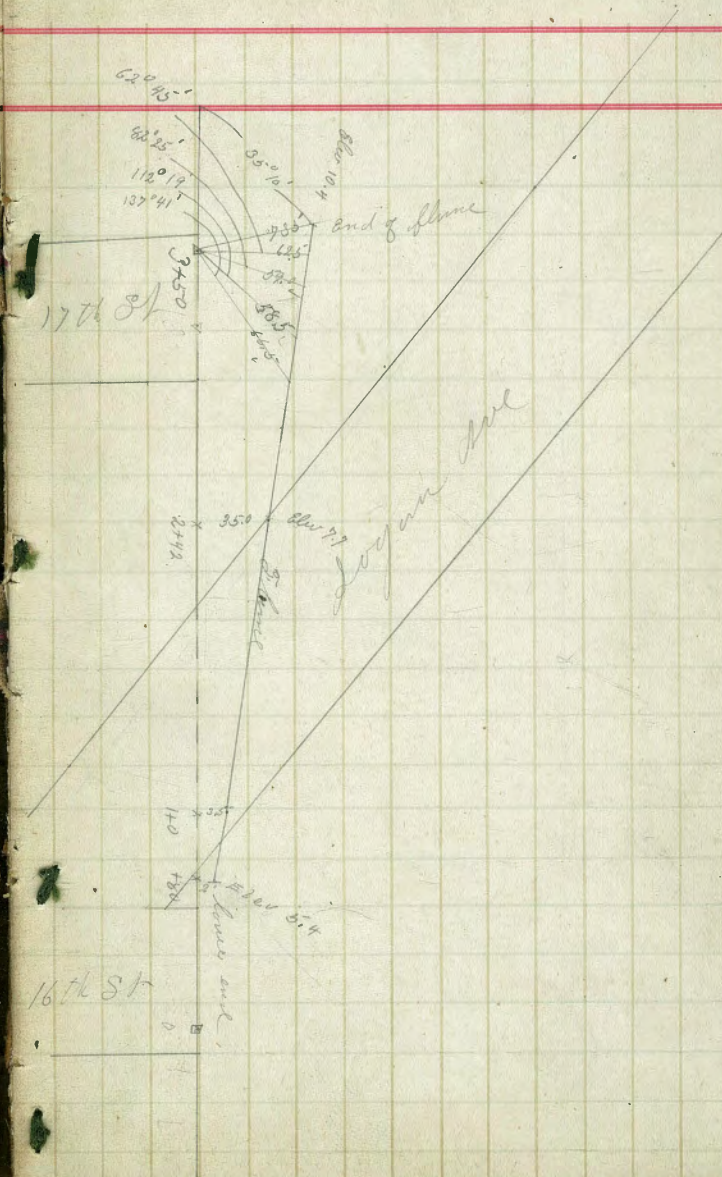
Index in back

Between H + G. Lots E + F. – S. + C.
" G + F " E + F. – S + C
" L.
" F + E " J. curb Lot K curb Lou
" E + D. S + C. north of alley W
" E + D. N½ A S½ B, C. D. E + F.
+37 C. + D. all in C + S
" B + A Lot H C. + S.
" Ash + Beech Lot G. H + S.

Set up at point at intersection of center line of S. 20th with N. line of Pueblo lot 1157 F S along N line of P.L. 1157 to intersection of center line of 17th St with said line

Height of flume in clear 2'
Width outside to outside 3'





Sketch showing wash up end of Flume at 16th & Logan

Sta	+	HI	−	Elev	
	3.7	11.3		7.6	Top of [illegible] of Flume
			6.1	5.2	
			6.2	5.1	
			7.4	3.9	
			6.3	5.0	

Intr of Flume 20' St with Dueble line

Jany 7th 1890

Bet K + J no improvement

(114)
E " J + I Lot F curb + sidewalk

" I + H no imp.

(88)
E " H + G. Lot E + F sidewalk + Curb

(69)
E " G + F Lot E + F " "

(68)
W " G + F " L " " "

(63)
W " F + E Lot I curb I curb low.

(43)
E E + D A to F curb + gutter

(42)
W E + D north of alley curb.

E + W " D + C (36) A to K + (37) C to L curb + sidewalk

(11)
E " B + A Lot H curb + sidewalk

(100)
" Ash to Birch Lot G, H + I curb + walk

N W cor F + 4th sidewalk to P.L on 4th St.

Bet. E + D. Lots A.B.C.D E + F curb + gutter

Blk 4th + 5th

C. St Lot A curb + sidewalk

D St Lot F sidewalk + curb
" A + L. sid. curb + gutter

E St. Lot F + G curb gutter + sidewalk
" L + E ½ A sidew + curb.

F St E 14 ft Lot L Blk 69:

G Lot F curb + sidewalk
" L " gutter

H F + G sidewalk + curb
I nothing

J L sidewalk + curb
60' Lot F

K nothing

Blk 5th + 6th

C. St F G + A sidewalk + curb.
L sidewalk curb + gutter (concrete

D St. Lot F curb + sidewalk

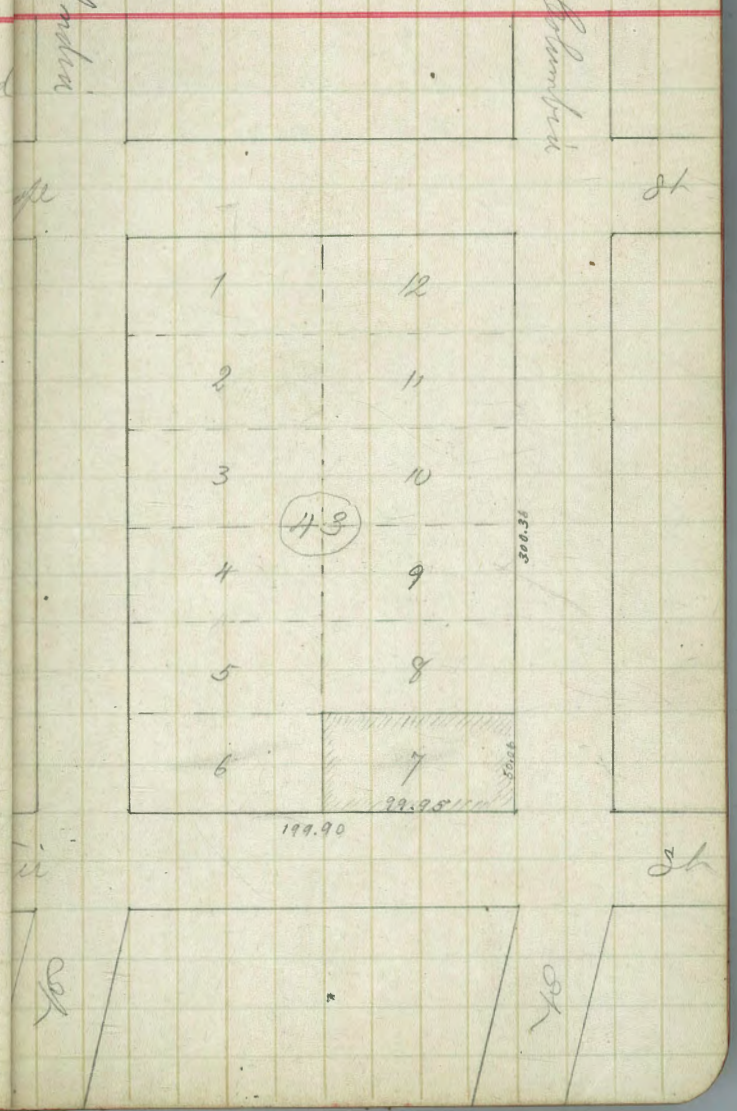
E St F + G sidewalk curb + gutter
gutter on G. No good
A + L sidewalk + curb.

G. F + G. sidewalk + curb
A sidewalk + curb

H F + A sidewalk + curb
I nothing
J "

K Lot A sidewalk + curb
" F " + curb 5' cobble gutter
" G. " + curb

Survey of Lot 7 Blk 43 M.T. Add
for Capt Petingil



Dis	Street	From	To.	length	No of	
12	Arctic	a	Pump Station Ferry Slip on Dam #2	18755		Cast iron
10	"	a		3725		" "

Size	Strut	From	To	Length	No.

	Age	Street	From	To	Length	No.

Size	Street	From	To	length	No.

Feby 11

Survey portion of Blk K Middleton

for Joseph Nash

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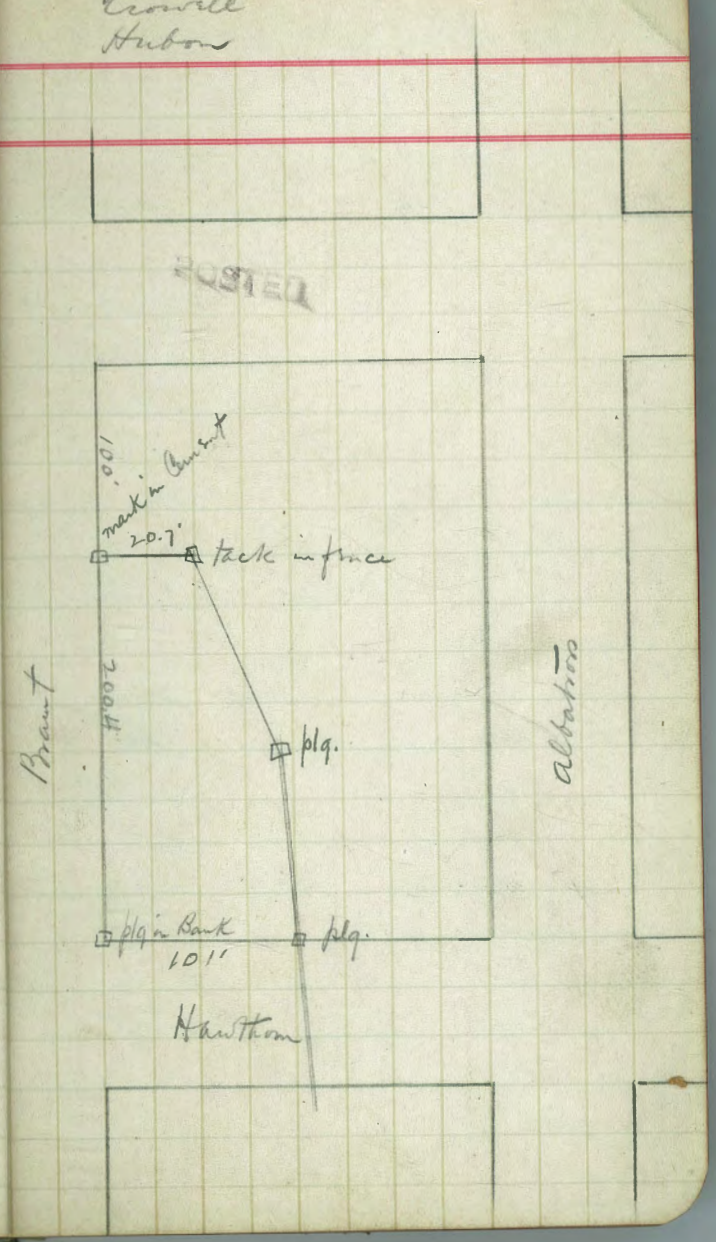


Check levels on Hawthorn St
100' W. of Albatross. St

Sta	+	HI	−	Elev	G	
B.M.	0.39	134.82		134.43	Al	Hawthorn
2			1.83	132.99	133	West of Albatross,
#	1.17	124.34	11.65	123.17		
+50			8.56	126.26	126	
				(124.34) 6.75 − 50		
1			4.82	119.52	119	
2			2.9	131.9	132.	W. of Albatross,
+50			9.4	125.4	125	
				(124.3)		
1			5.8	118.5	118	
2			3.8	131.0	131.	W of Albatross.
+50			10.6	124.2	124	
				(124.3)		
1			6.4	177.9	117	
#	0.87	113.19	12.02	112.32		
B.M.			9.93	103.26		...ion & Hawthorn

Levels to get Elev. for [illegible]
mys for wharf at foot of [illegible]awthorn St

Sta	+	HO	−	Elev.	
B.M.	0.31	21.88		21.57	[illegible]alif & Hawthorn Sts
	1.20	11.40	11.68	10.20	
			10.80	0.57	[illegible]mer of Wharf O.W.
	11.67	12.24	1.23	11.01	
	11.62	22.63	1.07	21.56	

...ndings from the foot of
...awthorn St for Garbage wharf

Sta	Angle	Sounding	Soundings reduced to the City Datum

Measured from center 12½' E of cent Calif and Ha... 200' West.

From this point turned an an... of 78° 30' Lcrt and measured 700' ... point. set up at this point F.S. to East point on Hawthorn St. and took following angles of lines intersecting center line of Hawth... St produced. & of Ivy St produced

	Hawthorn		Ivy
1	8° 04'	1.4	- 7.0
2	11° 20'	1.9	- 7.52
3	16° 02'	2.8	- 8.44
4	17° 33'	3.3	- 8.96
5	19° 30'	4.0	- 9.66
6	23° 06'	5.3	- 10.98
7	24° 24'	5.6	- 11.30
8	27° 58'	6.4	- 12.12
9	29° 58'	6.8	- 12.54
10	32° 31'	6.8	- 12.56
11	35° 03'	7.3	- 13.08

Spencer
Hamlin
Aiton
Williams
Hemsley

... the start the tide stood at - 5.6

Sta	Angle	Soundings	Soundings reduced to the datum
12	38° 32'	7.6	- 13.40
13	41° 34'	7.4	- 13.22
14	44° 40'	8.2	- 14.04
15	49° 47'	9.2	- 15.06
16	52° 25'	9.8	- 15.68
17	54° 49'	10.0	- 16.00
18	57° 29'	10.8	- 16.82

en finished tide staff at -6.02

Feb 24 1890

Survey of Lot 9 Blk 52 Sherman Add. for J.P. Burch.
4 corners.

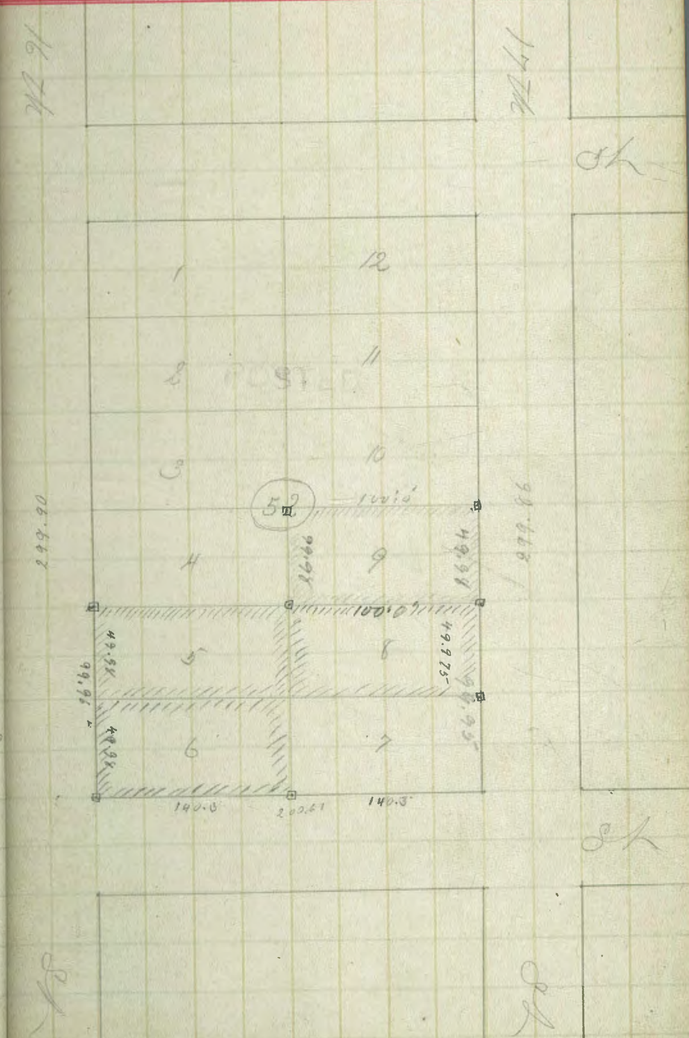
POSTED

Feb 24 1890

Hamlin { Orton
Williams
Hemsley

Survey of Lots 5.6 and 8 in Blk 52 for Mrs M.C. Baugh
Sat. Apr 5 1890

Hamlin { Orton
Williams
Hemsley



Sta	+	HI	−	Elev	
B.M.	5.325	5.061		-0.264	Atlantic and E St
B.M #	7.060	7.531	4.590	0.471	0.4 " and F St
B.M			4.255	3.276	3.5 California and F St's

Check pavement on E St Spencer
bet 4th & 5th Mch 3 Hubon

	+	HI	-	El	R	Gutter Grade	Gutter Grade
				BM			
	3.27	43.68	2.04	38.41			
				4164			
0	S				4.97	39.6	38.93
	C				3.879		39.87
	N				3.605	40.8	40.13
+50	S				5.606	38.7	38.03
	C				4.791		38.945
	N				4.515	39.85	39.18
1	S				6.516	37.8	37.13
	C				5.798		38.02
	N				5.420	38.9	38.23
+50	S				7.421	36.9	36.23
	C				6.604		37.095
	N				6.335	37.95	37.28
2	S				8.45	36.0	35.33
	C				7.26	3	36.17
	N				7.48	37.0	36.33

Certificate given Mch 3/90.

Finishing stakes on Spruce Street bet 3rd & 4th Sts

Hamlin { Alton Level, Hemsley rod, Williams

North Grade	North Rod	Center Grade	Center Rod	South Grade	South Rod	+	HO	−	Elev
						8.04	280.51		272.47
						3.55	276.66	7.40	273.11
		(276.66)							
271.50	5.16	271.25		271.00		West Line of 3rd St			
271.50		271.25		271.00		3rd Street			
271.50	5.16	271.25	5.41	271.00	5.1	East Line of 3rd St			
	.38		.38	.38					
271.88	4.78	271.63	5.03	271.38	5.0				
	.37		.37	.37					
272.25	4.41	272.00	4.66	271.75	4				
	.38		.38	.38					
272.63	4.03	272.38	4.28	272.13	.0				
	.37		.37	.37					
273.00	3.66	272.75	3.91	272.50		West Line of 4th St			
273.00	3.66	272.75	3.91	272.50		4th St			
273.00	3.66	272.75	3.91	272.50		East Line of 4th St			
						3.70	276.20	4.16	272.50
								9.99	266.21

4th and Redwood

Finishing stakes on Spru
Street betn 2nd & 4th Streets

North		Center		South	
Rod	Elev	Rod	Elev	Rod	E

to 4th Street

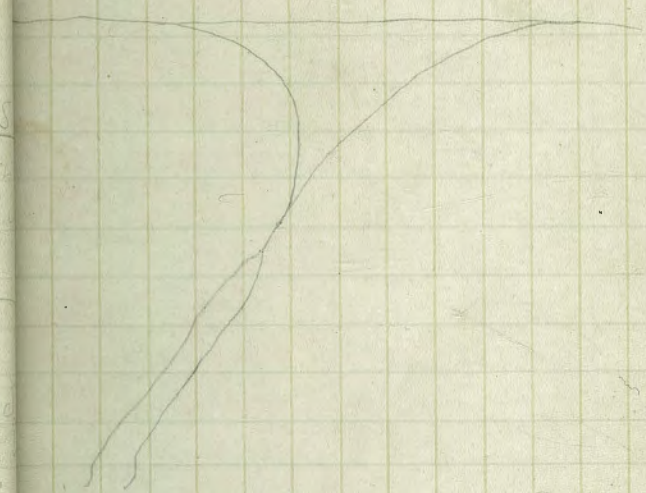
East side of 4th St

Measurements to locate track 7/89 at Pacific Beach

Spencer
Hubin

Measured to Cen track
W from E 2nd St on Elm 16
East of same to P.C 15
W from NW cor of lot 9
in Blk 259 - 156.1
N from same 101
W on S line Thomas from E 1st S
which is also on Pt frog of Y
N E along track 53' to Cross
frog
E from N E Thomas & 1st 22' t
37.5 to Centers of Wye
34.9 & 50.9 to Outside rails
both tracks S from same
E from N E Cor Blk 260 - 52
N from same 383
62 W from W line 1st in Elm St
Crossing frog of E C
55.5' SW along Center of track f
S line of Thomas to 1st Cross fro
Switch

Cloth Tape
No Instrument

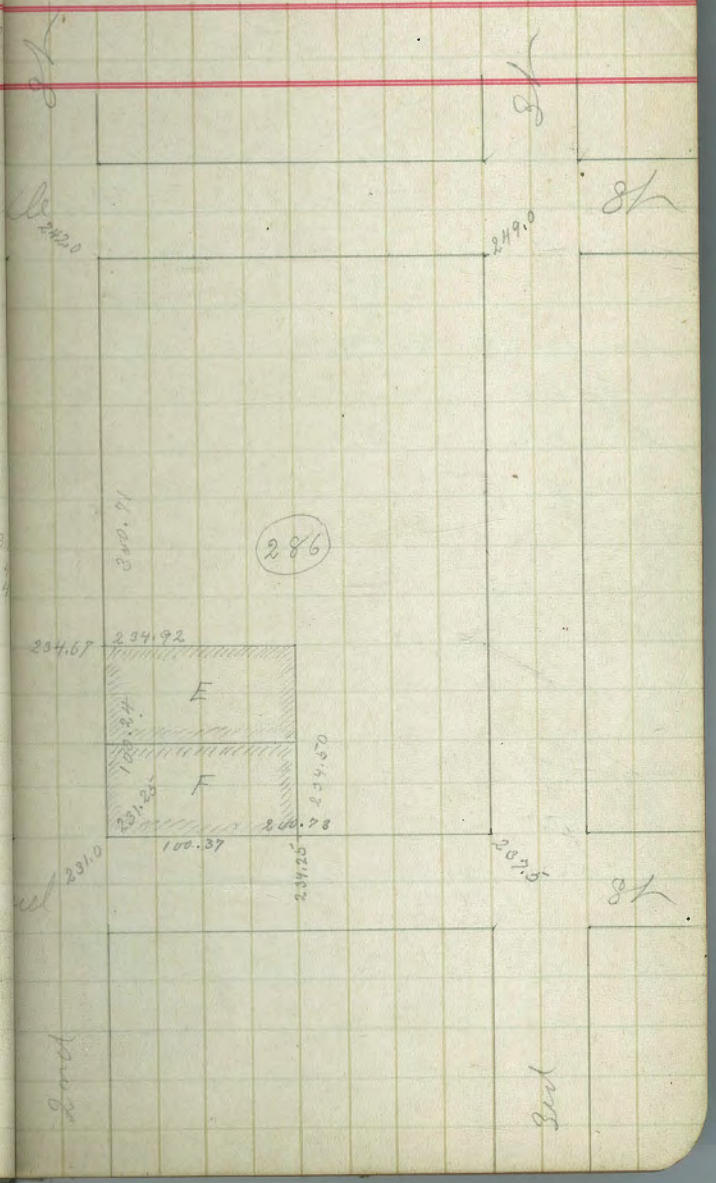


W from S W Cor Lot 11 Blk 56
54.7 to Cen W Switch
78.7 " " E "
33' S from NW Cor Blk a
To Cen

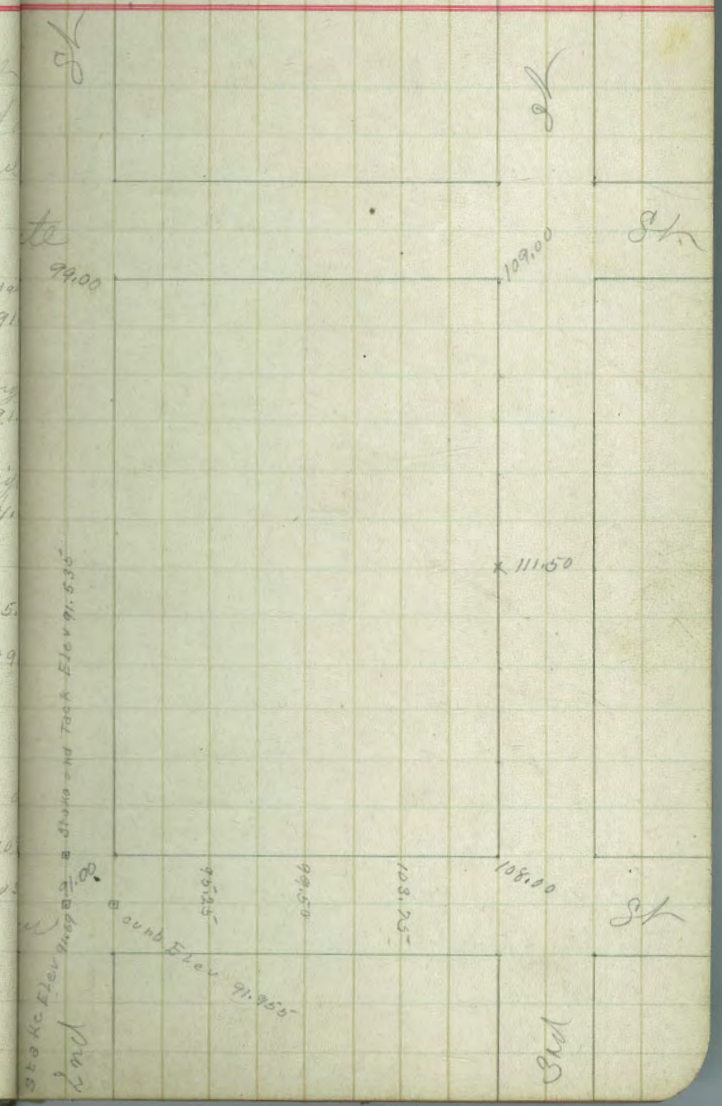
BM	+	HO	Grade	Rod	E

Grades and lines (3) for lots
E and F Blk 286 H A at
N.E. cor 2nd and Laurel
For Jerry Tole.

	2nd and Laurel				
230.495	7.95	238.445	234.92	3.525	
			231.25	7.195	
			234.50	3.945	
#	11.515	247.760		1.20	23
BM	2nd and Maple			5.245	2



Sta	+	HI	–	Elev	Di
Check of curb grades of N.E. cor of 2nd and Cedar Walk laid by W. D. & Bro					
B.M.	10.275	102.055		91.78	High
Cut at Property line on Cedar St.			10.100	91.955	91
on stake at intersection of curb lines			10.37	91.685	High 91.
At the property line on 2nd St			10.520	91.535	High 91.
0+50 on Ced'r St			6.24	95.815	95.
1 " " St			2.270	99.785	99
#	9.145	110.365	0.835	101.220	
			3.450	106.915	
Cut at N.W. cor Ced'r and 2nd St					
Bushy heads			2.28	108.085	10
1+50 on Ced'r St			6.46	103.905	10



...oundings for Garbage wharf
...rom foot of Ivy St

Sta	Angle	Sounding	Soundings reduced to the City Datum
			12½' E of cent.

Measured from center of Calif
and Hawthorn Sts 200' West
From this point turned an
angle of 78° 30' Lost. and
measured 700' set plug.
Set up at this point sight
to last point and turned off
the following angles to soun
ings taken along center lin
of Ivy St. produced.

1	15° 18'	1.8	- 8.33
2	17° 40'	2.6	- 9.17
3	19° 12'	3.0	- 9.60
4	20° 0'	3.4	- 10.03
5	22° 04'	4.0	- 10.67
6	24° 48'	4.7	- 11.40
7	27° 18'	5.4	- 12.13
8	32° 57'	6.3	- 13.07
9	34° 52'	6.6	- 13.40
10	36° 58'	6.8	- 13.63

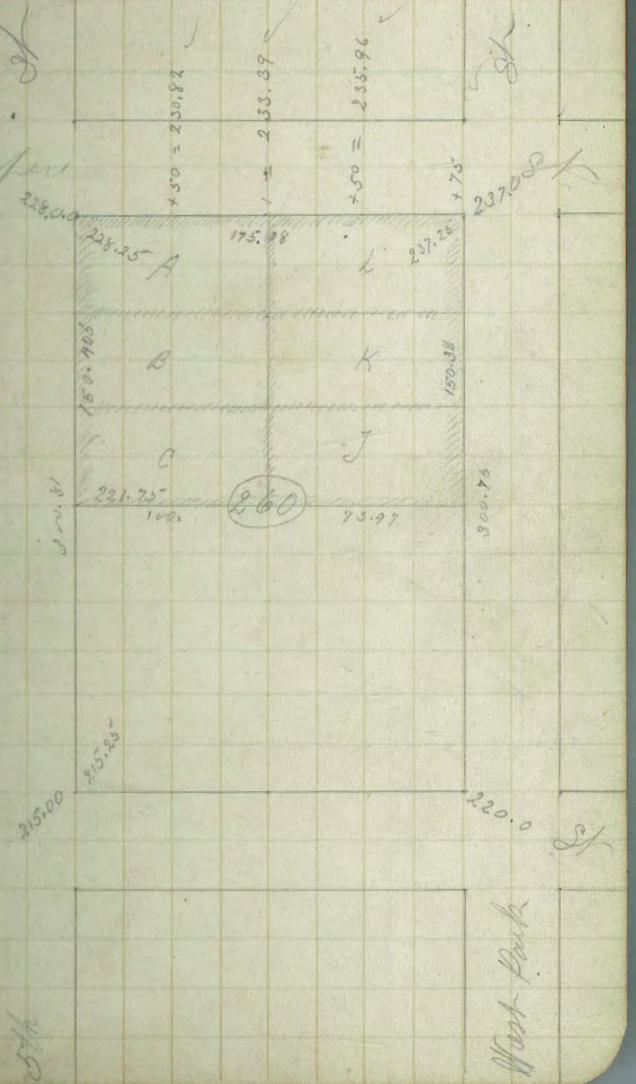
Spencer
Hamlin
Acton
Williams
Hemsley

...the begining the tide stood at -6.53

Sta	Angle	Sounding	Soundings reduced to the City Datum
11	39° 22'	7.3	- 14.17
12	41° 59'	8.4	- 15.30
13	43° 41'	8.8	- 15.73
14	45° 17'	9.6	- 16.57
15	46° 11'	10.0	- 17.00

When finished tide stood at -7.0

+	HI	−	Elev	Grade	Co
	Survey and grades for N				
	of Blk 260 Hortons Add				umper
	for H H Bare.				
9.99	226.28		216.29	B.M. 5th and	
		2.67	223.61	221.75	
9.21	234.96	0.53	225.75		
		2.90	232.06	228.25	
		4.10	230.86	B.M. 5th on	
11.96	228.25		216.29	B.M. Dug & 5th	
10.87	237.95	1.17	227.08		
				228.25	
		8.14	229.81	B.M. 5th &	
				230.82	
		2.72	235.23	233.39	
		0.68	237.27	235.96	
				237.25	
8.28	243.63	2.60	235.35		
		1.59	242.04	B.M. 5th &	



Grades and lines on St for drain

Sta	+	HI	−	Elev	Depth	
BM	5.67	54.94		49.27		
0			7.27	47.67	7.47	East of 4th St
+25			6.80	48.14	4.46	
+50			6.30	48.64	4.48	
+75			5.99	48.95	4.30	
1			5.77	49.17	4.04	
+25			5.58	49.36	4.95	
+50			5.23	49.71	4.62	
+75			4.80	50.14	4.57	
2			2.88	52.06	4.10	West of 5th St
+20			2.64	52.30	4.76	

Grades and lines on C St from Main

43.20
43.00 catch basin

Sta	+	HI	−	Elev	Grade	
		54.94				
+40			2.43	52.51	47.68	5th St
+60			2.51	52.43	48.22	
+80			2.67	52.27	48.67	East of 5th St
B.M.			0.52	54.42		

Grades and lines on 4th & Main

B.M.	7.21	53.76		46.55		On 2nd and C St
0			9.38	44.38	41.28	, 3' 3 5/8" East line 3rd St
+25			8.58	45.18	41.0	, 4' 0"
+50			8.02	45.74	41.49	, 4' 5 7/8"
+75			7.36	46.40	41.07	, 5' 1"
1			6.68	47.08	41.8	, 5' 8 1/4"
+25			5.97	47.79	41.1	6' 3 3/4"

Sta	+	HI	−	Elev	Grade			Altered Grade
		53.76						
+50			5.31	48.45	41.90	6' 10 3/4"		41.55
+75			4.66	49.10	41.47	7 5 5/8"	7' 6 5/8	41.552
2			3.56	50.20	41.50	W of 4th St 8' 6"	8' 7 3/4"	41.557
+20			3.85	49.91	41.5	8 1 3/4"	8' 4 1/8	41.57
+35			3.42	50.34	41.3	8 6 3/8"	8' 8 7/8"	41.6
+55			3.79	49.97	41.10	Curve 10' Radius B C 8 1 1/4		
+75			3.70	50.06	41.14	Curve 10' Radius E C 8' 1 3/4		
+77			3.76	50.00	41.07	Centre B St		
B.M.			3.13	50.63		8' 1"		
+97			3.93	49.83	41.84	7 10 1/8		
3 +17			4.23	49.53	42.48	S line B St 7 5 3/4		

Sta	+	HI	−	Elev	Grade		
		53.76					
3+42			4.43	49.33	42.20	7	1 3/8"
+ 67			4.61	49.15	42.95	6	11 3/8"
+ 92			4.76	49.00	42.72	6	8 5/8"
4+17			4.78	48.98	42.68	6	7 5/8"
+ 42			4.91	48.85	42.42	6	5"
+ 67			5.12	48.64	42.14	6	1 3/4
+ 92			5.28	48.48	42.90	5	10 3/4
5+17			5.48	48.28	42.63	5	7 5/8
+ 42			5.51	48.25	42.53	5	6 3/8
+ 67			5.80	47.96	42.16	5	1 7/8

Sta	+	HI	−	Elev	Grad	
		53.76				
+92			5.85	47.91	42[illegible].04	5' 0 1/2"
6+17			6.12	47.64	42[illegible].69	N Line 3 St 4 8 3/8"
6+32.7					43[illegible]	Catch Basin
			6.03	47.73	43[illegible].53	East line 4th St 4' 6 3/8"
B.M.			4.50	49.26	[illegible]	

Mar 25 1890

Survey of Lot 2 Blk 5
in Hartins Add for
C.W. Hanley 4 stakes

Hamlin Transit
Williams chain
Hensley "
Acton "

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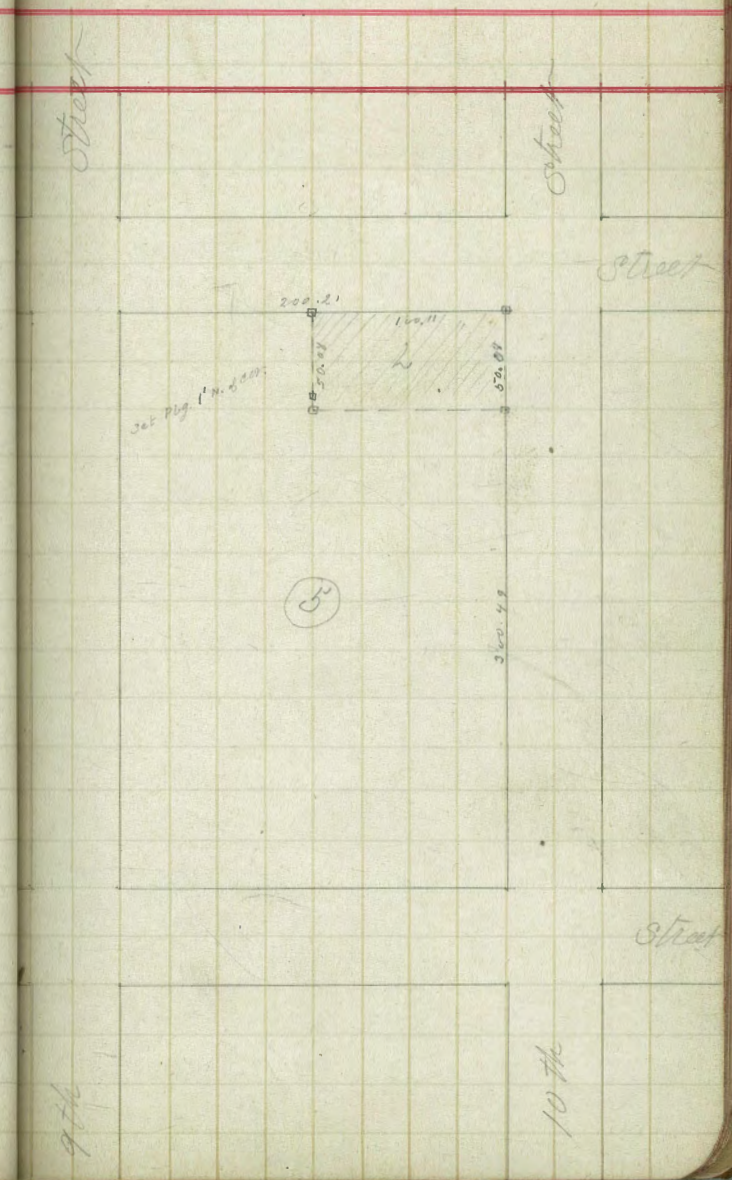


Levels on pipe line in Park

Sta	+	HI	-	Elev	
B.M.	0.91	278.12		277.21	5th and Palm St
B.M.			6.91	271.21	5th and Olive St
0			6.0	272.1	A point 10' S of Intersection of
+50			7.0	271.1	center lines of 5th and Olive St
1			7.8	270.3	
+50			9.0	269.1	
2			10.1	268.0	
+50			11.7	266.4	
#	2.19	268.27	12.04	266.08	
3			3.7	264.6	
+50			2.4	265.9	
+70			1.7	266.6	
4			2.3	266.0	
+50			3.0	265.3	
5			3.0	265.3	
+50			3.8	264.5	
6			5.0	263.3	
+50			5.8	262.5	
7			6.4	261.9	
+50			7.8	260.5	
8			9.6	258.7	

Levels along Pipe line in Park

Sta	+	HI	−	Elev
		268.27		
8+50			10.9	257.4
#	1.92	258.29	11.70	256.57
9			2.4	255.7
+50			3.2	255.1
10			3.9	254.4
+50			2.5	255.8
11			3.4	254.9
+50			4.7	253.6
12			5.7	252.6
+50			5.9	252.4
13			5.0	253.3
+50			4.5	253.8
14			4.7	253.6
+50			5.0	253.3
15			5.8	252.5
+11			6.1	252.3
+50			6.3	252.0
16			6.5	251.8
+50			6.6	251.7
17			3.5	252.8

Levels along pipe line in park

Sta	+	HI	−	Elev	
		258.29			
#	0.63	253.50	5.42	252.87	
+44			0.1	253.4	First Sta on Boulevard
+50			0.2	253.3	
18			0.9	252.6	
+50			1.6	251.9	
19			2.9	250.6	
+50			3.5	250.0	
20			4.0	249.5	
+50			5.0	248.5	
21			5.7	247.8	
+50			6.2	247.3	
22			6.5	247.0	
+50			7.2	246.3	
23			7.8	245.7	
+50			8.5	245.0	
24			9.3	244.2	
+50			9.6	243.9	
#	0.11	244.47	9.14	244.36	
25			0.7	243.8	
+50			1.5	243.0	

Levels along Pipe line in park

Sta	+	HI	−	Elev
26		244.47	2.3	242.2
+50			3.6	240.9
27			4.9	239.6
+50			6.6	237.9
28			8.1	236.4
+50			9.2	235.3
29			10.0	234.5
+50			11.4	233.1
#	0.59	233.09	11.97	232.50
30			2.4	230.7
+50			3.5	229.6
31			5.2	227.9
+50			6.0	227.1
32			7.0	226.0
+50			8.3	224.8
33			9.5	223.6
+50			10.8	222.3
34			11.3	221.8
#	0.62	221.90	11.81	221.28
+50			1.0	220.9
35			2.2	219.7

Levels along Pipe Line in Park

Sta	+	H	–	Elev	
		221.90			
35+50			2.7	219.2	
36			4.7	217.2	
+50			6.8	215.1	
37			7.5	214.4	
+50			8.8	213.1	
38			10.4	211.5	
+50			12.2	209.7	
#	0.65	210.56	11.99	209.91	
39			2.8	207.8	
+50			3.8	206.8	
40			5.5	205.1	
+50			7.0	203.6	
41			9.2	201.4	
+50			10.5	200.0	
#	1.00	199.68	11.88	198.68	
42			4.7	195.0	
+31			7.8	191.9	Last Sta on Boulevard
+50			9.9	189.8	
#	1.67	188.45	11.90	187.78	
43			2.8	185.7	
+50			6.2	182.3	

Levels along pipe line in Park

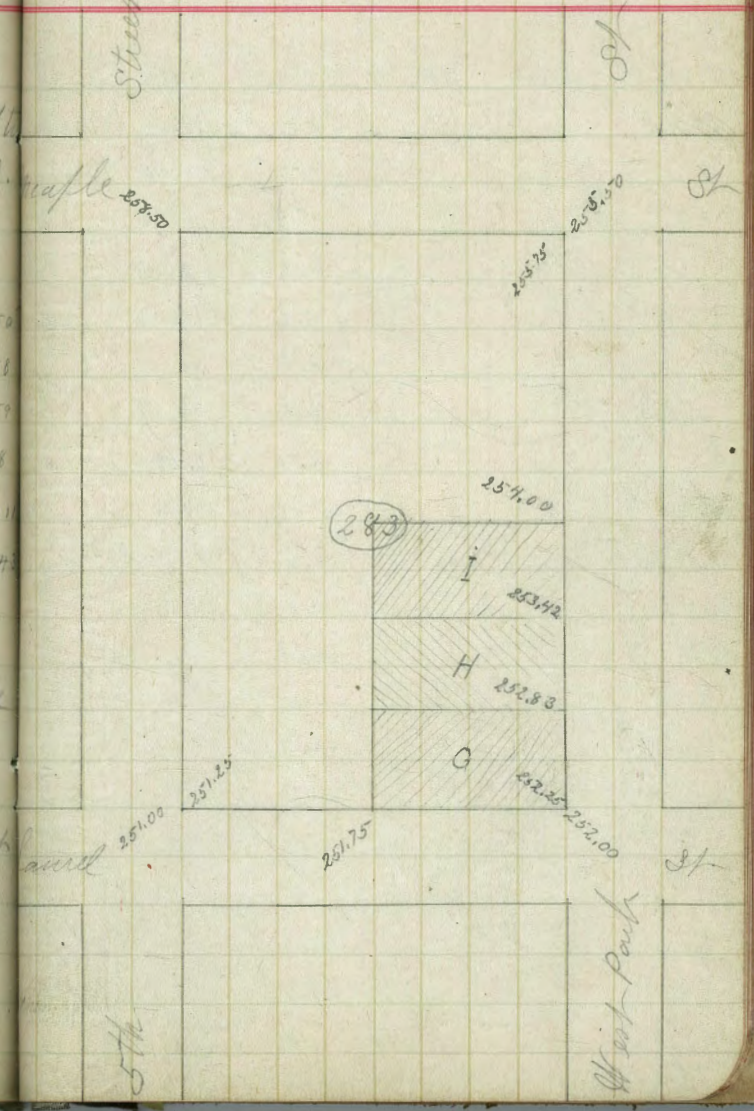
Sta	+	HI	−	Elev	
		188.45			
44			9.0	179.5	
+50			11.8	176.7	
#	1.02	177.51	11.96	176.49	
45			2.5	175.0	
+50			5.4	172.1	
46			7.7	169.8	
+50			9.5	168.0	
47			11.2	166.3	
#	0.95	(166.8) 166.77	11.69	165.82	
+50			3.6	163.2	
48			6.4	160.4	
+31			8.1	158.7	S line of Abate St
BM			7.31	159.46	7th and Abate

Mar 31 1890

BM	+	HI	Grade	Rod	Elev
Survey and grades for Mr Sefton of Lots G H & I. Blk 283 H.A.					
249.66	9.14	258.80			
			251.75	7.05	
			252.25	6.55	0.50
			252.83	5.97	0.58
			253.42	5.38	0.59
			254.00	4.80	0.58
#	7.43	263.54		2.69	256.11
BM 5th and Maple				5.11	258.43

Grade at Maple & Park was lowered by order of the City Eng.

Hamlin assist
Mar 31 1890



Levels for sewer on 14th St from H to J 1.5 E of curb

Sta	+	HI	−	Elev	
B.M.	5.13	14.01		8.88	
37+40			9.0	5.0	Centre of L St
0			8.7	5.3	
+50			7.7	6.3	
1			7.2	6.8	
+50			5.0	9.0	
2			4.9	9.1	
+50			4.2	9.8	
3			0.1	13.9	
#	7.64	21.61	0.04	13.97	
+70			6.8	14.8	K Street
0			7.2	14.4	
B.M.			6.17	15.44	
0+15			11.5	10.1	
+50			9.3	12.3	
1			5.7	15.9	
+50			4.7	16.9	
2			7.4	14.2	
+50			6.1	15.5	
+95			4.9	16.7	
3			0.3	21.3	
#	5.52	26.99	0.14	21.47	

95' N of I St to break

E.C. 23' N of Break

Sta	+	HI	−	Elev		
+40		26.99	4.6	21.4		I Street
0		(27.0)	4.8	22.2		
BM				4.83	22.	
+25			7.8	19.2		
+50			4.9	22.1		BC
+75			3.3	23.7		
+91			3.6	23.4		P.R.C
1			3.5	23.5		
+25			2.9	24.1		E.C.

2.30	51.57		52.9		49.27
			48.0	3.57	

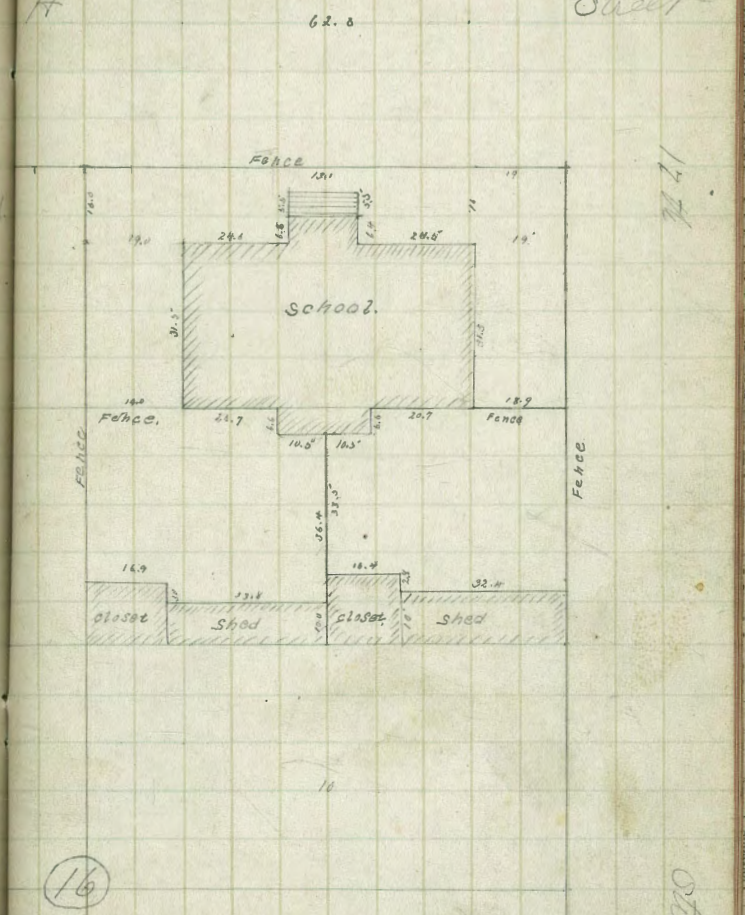
Apr 9/90

Sketch showing location of School buildings at cor of 17th and H Sts.

Lots 1 & 2, 11 & 12 Blk 16 Sherman Add.

Apr 10 1890

Hambi { Arton Williams Hensley.



Levels on pipe line in Pa[illegible] from 5th St to Sta 3+70

Sta	+	HO	−	Elev	Grade	Cut			
B.M.	3.96	275.18		271.22					5th and Olive
0+10			3.11	272.07	267.75	4.32			10' E of Centre of 5th St
+50			3.96	271.22	268.00	3.22	3'	2 5/8"	
1			4.63	270.55	266.75	3.80	3'	9 5/8"	
+50			5.80	269.38	265.50	3.88	3'	10 3/4"	
2			7.07	268.11	264.25	3.86	3'	10 1/2"	
+50			8.67	266.51	263.00	3.51	3'	6 1/8"	
3			10.38	264.80	263.83	1.97	0'	11 5/8"	
+50			9.48	265.70	264.67	1.03	1'	0 3/8"	
+70			8.60	266.58	265.00	1.58	1'	7"	
+70 On old line			8.60	266.58	266.6[illegible]				

Measurements in Northend Brook

6th Street

N Line Park to Douglass	406.24
Douglass to Brooks	434.71
Brooks to Anderson	330.00
Anderson to Thornton	329.67
Thornton to Evans	329.85
Evans to Robinson	329.75
Robinson to University	475.94
Robinson St	
6th to 5th	244.53
5th to 4th	360.00
4th to 3rd	355.10
3rd to 2nd	326.87
Evans	
6th to 5th	243.00
Thornton	
2nd to 3rd	326.79
3rd to 4th	355.00
4th to 5th	359.83
5th to 6th	241.41
Anderson	
5th to 6th	239.84

Copied

Brooks

6th to 5th	238.28
5th to 4th	359.76
4th to 3rd	355.05
3rd to 2nd	326.77
Douglass	
5th to 6th.	
Terry	
4th to 5th	
3rd to 4th	
2nd to 3rd.	

Copied

Measurements in Nutt and Brooks

2nd St

University to Robinson

Robinson to Thornton 659.62

Thornton to Brooks 659.73

Brooks to Ferry. 630.25 Line Ferry.

Along S Line N and B's Add

1st to 2nd

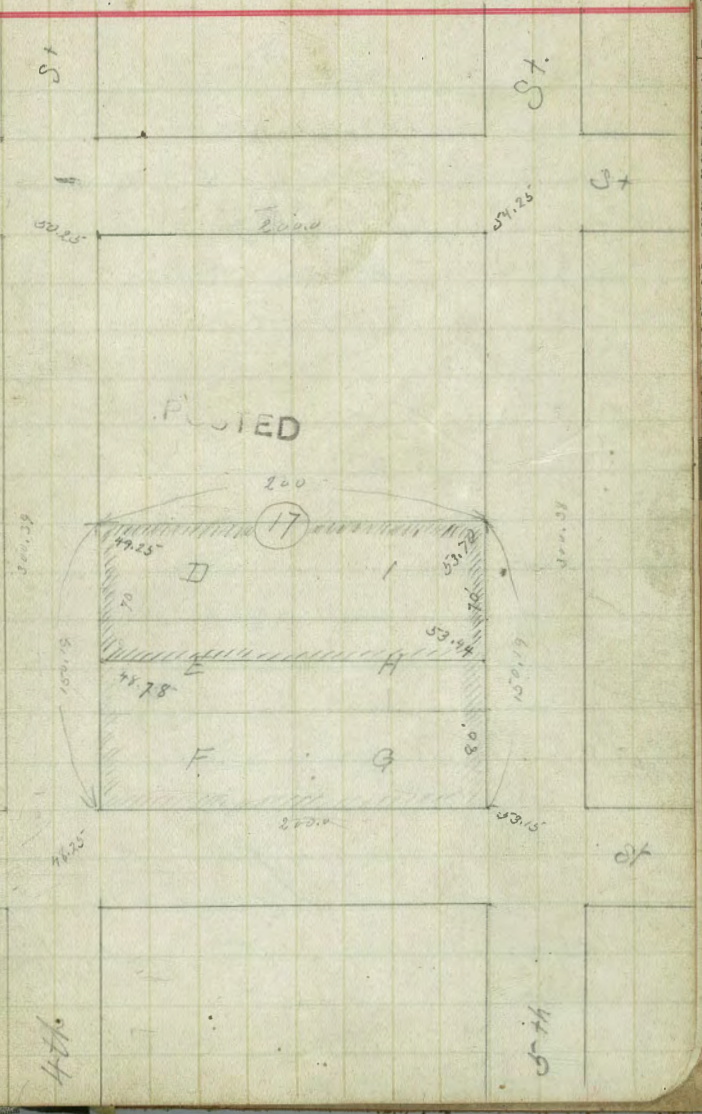
2nd to 3rd 280.06

3rd to 4th 280.10

4th to 5th

5th to 6th

B.M.	+	H.I.	Grade	Rod	
Survey of S½ of Blk 17 H.A. being Lots D.E.F.G.H.&I. for S.B. Cable Railway co.					
Also 70' off of North end of S½ of Blk and grades for it					
49.27	4.27	53.54	POSTED		
			48.75	4.79	
			50	.50	
			49.25	4.29	
B.M. 4th and C St				2.58	50.6
#	7.21	57.395		3.355	50.12
			53.44	3.955	
			.26	.260	
			53.70	3.695	
			2.97		54.42
Now Fisher Opera House					



INDEX.

F

Flume on Logan Ave. 1-
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Pettingil survey lot 7 Blk 43 Mt
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" " " Ivy St 25-
Burch J P Survey lot 9 Blk 52 Sher's
Baugh M.C. Mrs lots 5 6 7 & 8 " "
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R R Co. 48

Elevs on gas & Water mains 5th

~~S~~ H Sts Sta	+	HO	−	Elev
B.M.	2.04	56.46		54.42
			10.22	46.24
			9.04	47.42
			6.96	49.50
			7.56	48.90
B.M.			7.67	48.79

49.50
1.83
~~51.33~~

49.50
~~46.04~~

49.90
46.04
2.86

46.04
90
46.94

47.42
46.94
.48

.045
20
.900

163
9
.73

49.50
1.83
47.67
46.04
36) 1.630 (.045
144
190

271.75
4.16 267.25

271.75

9
2
18 (4.24
16
8) 200
164
84) 3600
3376
4

4.77
25
2.27

5th & C
Elev of top of gas pipe
Elev of top of water pipe
Curb opposite
Gutter opposite
5th & B St

59.1
62.3

4.15
2.50
1.65

46.24
20
46.04

2"

180

267
2675
3345
267.25

4½

19
21.3
40.3

19
31.3
50.3

33
4
.37
17
20

38
90

267.25

24.5
24.5
49.1
13.1
62.1

271.5
2720
2) 3435
271.75

271.75

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.		¼ DEGREE.		½ DEGREE.		¾ DEGREE.		Degrees
Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	
		100.00	0.44	100.00	0.87	99.99	1.31	89
99.98	1.75	99.98	2.18	99.97	2.62	99.95	3.05	88
99.94	3.49	99.92	3.93	99.91	4.36	99.88	4.80	87
99.86	5.23	99.84	5.67	99.81	6.10	99.79	6.54	86
99.76	6.98	99.73	7.41	99.69	7.85	99.66	8.28	85
99.62	8.72	99.58	9.15	99.54	9.58	99.50	10.02	84
99.45	10.45	99.41	10.89	99.36	11.32	99.31	11.75	83
99.25	12.19	99.20	12.62	99.14	13.05	99.09	13.49	82
99.03	13.92	98.97	14.36	98.90	14.78	98.84	15.21	81
98.77	15.64	98.70	16.07	98.63	16.50	98.56	16.93	80
98.48	17.36	98.40	17.79	98.33	18.22	98.25	18.65	79
98.16	19.08	98.08	19.51	97.99	19.94	97.90	20.36	78
97.81	20.79	97.72	21.22	97.63	21.64	97.53	22.07	77
97.44	22.50	97.34	22.92	97.24	23.34	97.13	23.77	76
97.03	24.19	96.92	24.62	96.81	25.04	96.70	25.46	75
96.59	25.88	96.48	26.30	96.36	26.72	96.25	27.14	74
96.13	27.56	96.00	27.98	95.88	28.40	95.76	28.82	73
95.63	29.24	95.50	29.65	95.37	30.07	95.24	30.49	72
95.11	30.90	94.97	31.32	94.83	31.73	94.69	32.14	71
94.55	32.56	94.41	32.97	94.26	33.38	94.12	33.79	70
93.97	34.20	93.82	34.61	93.67	35.02	93.51	35.43	69
93.36	35.84	93.20	36.24	93.04	36.65	92.88	37.06	68
92.72	37.46	92.55	37.86	92.39	38.27	92.22	38.67	67
92.05	39.07	91.88	39.47	91.71	39.87	91.53	40.27	66
91.35	40.67	91.18	41.07	91.00	41.47	90.81	41.87	65
90.63	42.26	90.45	42.66	90.26	43.05	90.07	43.44	64
89.88	43.84	89.69	44.23	89.49	44.62	89.30	45.01	63
89.10	45.40	88.90	45.79	88.70	46.17	88.50	46.56	62
88.29	46.95	88.09	47.33	87.88	47.72	87.67	48.10	61
87.46	48.48	87.25	48.86	87.04	49.24	86.82	49.62	60
86.60	50.00	86.38	50.38	86.16	50.75	85.94	51.13	59
85.72	51.50	85.49	51.88	85.26	52.25	85.04	52.62	58
84.80	52.99	84.57	53.36	84.34	53.73	84.10	54.10	57
83.87	54.46	83.63	54.83	83.39	55.19	83.15	55.56	56
82.90	55.92	82.66	56.28	82.41	56.64	82.16	57.00	55
81.92	57.36	81.66	57.71	81.41	58.07	81.16	58.42	54
80.90	58.78	80.64	59.13	80.39	59.48	80.13	59.83	53
79.86	60.18	79.60	60.53	79.34	60.88	79.07	61.22	52
78.80	61.57	78.53	61.91	78.26	62.25	77.99	62.59	51
77.71	62.93	77.44	63.27	77.16	63.61	76.88	63.94	50
76.60	64.28	76.32	64.61	76.04	64.94	75.76	65.28	49
75.47	65.61	75.18	65.93	74.90	66.26	74.61	66.59	48
74.31	66.91	74.02	67.24	73.73	67.56	73.43	67.88	47
73.14	68.20	72.84	68.52	72.54	68.84	72.24	69.15	46
71.93	69.47	71.63	69.78	71.33	70.09	71.02	70.40	45
70.71	70.71							
Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Dep.	Lat.	Degrees
DEGREES.		¾ DEGREE.		½ DEGREE.		¼ DEGREE.		

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