from ~~[illegible]~~ to [illegible] t.xi

[illegible]etery — 62

[illegible]

[illegible]

[illegible]ey through Garritson tract

[illegible]h P.L. 1778.

[illegible] Road P.L. 1797

[illegible]ST. BET. D+E

[illegible]ST. [illegible] 25

[illegible] FROM OLD MISSION DAM

TRANSIT.

[illegible]NSION INDIA ST ROAD 36

[illegible]CTION 3RD ST 42

[illegible]ENSION INDIA ST

GRADING PAGE 56

" 67.

F.B. 95

Book No 95

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

Minutes.	Links.	Minutes.	Links.	Minutes.	Links.
1	$2\frac{1}{3}$	21	49	41	$95\frac{2}{3}$
2	$4\frac{2}{3}$	22	$51\frac{1}{3}$	42	98
3	7	23	$53\frac{2}{3}$	43	$100\frac{1}{3}$
4	$9\frac{1}{3}$	24	56	44	$102\frac{2}{3}$
5	$11\frac{2}{3}$	25	$58\frac{1}{3}$	45	105
6	14	26	$60\frac{2}{3}$	46	$107\frac{1}{3}$
7	$16\frac{1}{3}$	27	63	47	$109\frac{2}{3}$
8	$18\frac{2}{3}$	28	$65\frac{1}{3}$	48	112
9	21	29	$67\frac{2}{3}$	49	$114\frac{1}{3}$
10	$23\frac{1}{3}$	30	70	50	$116\frac{2}{3}$
11	$25\frac{2}{3}$	31	$72\frac{1}{3}$	51	119
12	28	32	$74\frac{2}{3}$	52	$121\frac{1}{3}$
13	$30\frac{1}{3}$	33	77	53	$123\frac{2}{3}$
14	$32\frac{2}{3}$	34	$79\frac{1}{3}$	54	126
15	35	35	$81\frac{2}{3}$	55	$128\frac{1}{3}$
16	$37\frac{1}{3}$	36	84	56	$130\frac{1}{3}$
17	$39\frac{2}{3}$	37	$86\frac{1}{3}$	57	133
18	42	38	$88\frac{2}{3}$	58	$135\frac{1}{3}$
19	$44\frac{1}{3}$	39	91	59	$137\frac{2}{3}$
20	$46\frac{2}{3}$	40	$93\frac{1}{3}$	60	140

MICROFILMED
DEC 7 1964
Return to City Engineers Office
City Hall, San Diego, Cal.

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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

95
Return to City Engineers Office
City Hall, San Diego, Cal.

18 (4.24
16
82)200
164
844)3600

4.24
424
1696
848
1696
179776

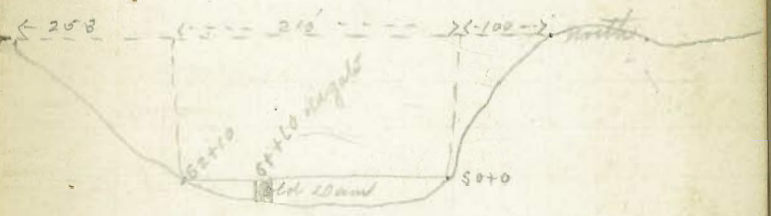
50'
70'
170

	BS	I.S	F.S.	El
0+0	7.80			0+0
+50		8.30		
1+00		—		
+60		5.00		
2+10		2.50		
	11.77		0.98	6.82
	12.00		0.88	17.71
	11.05		0.61	29.10
	11.70		1.08	29.12
			0.82	

Base dam

gate Dam
Ends of Y.

6.82
11.77
18.59
.85
17.71
12.00
29.71
.61
29.10
11.05
40.15
1.03
39.12
11.70
50.82



Oct 24th 1894

Level from Old Mission Dam

Capps. Engineer

William Rumsey Rod-Chain

Stat	B.S.	H.I.	F.S.	El
0+0	8.54	358.54		350.00
7+00	2.56	349.72	11.38	347.16
	0.08	338.61	11.19	338.53
	0.46	327.49	11.58	327.03
	0.25	316.09	11.65	315.84
	2.62	306.88	11.83	304.26
	0.45	295.49	11.84	295.04
	7.20	291.00	11.69	283.80
	5.92	296.45	0.47	290.53
	5.91	292.35	10.01	286.44
75+00	8.82	296.94	4.23	288.12
78+00			1.44	295.50 BM
	Run Down to Loop Dam			
	1.44	296.94	11.85	285.09
	0.51	285.60	11.89	273.71
	0.15	273.86	11.80	262.06
	0.61	262.67	11.11	251.56
	0.48	252.04	11.90	240.14
	0.00	240.14	11.72	228.42
	2.83	231.25	11.69	219.56
	2.64	222.20	11.48	210.72
	2.68	213.40	5.31	208.09

S0+0 is 50 feet above the base of the Old Mission Dam.

Datum assumed at 300 ft

Base of Dam Site at old Spanish headwork 3000 ft down stream from old Mission Dam, distance across on bottom 300 ft approximate distance across 50 ft high, about 475 and base is 25 ft lower than Base Old Mission Dam

Distance from Old Mission Dam to Loop Dam 7800 feet

B.M. Driven in Saddle above Loop Dam Elevation 295.50'

292.35
4.23
288.12
8.82
296.94
1.44
295.50
1.44
296.94

350.00
8.54
358.54 HI
11.38
347.16
2.56
349.72
11.19
338.53
0.08
338.61
11.58
327.03
0.46
327.49
11.65
315.84
0.25
316.09
11.83
304.26
2.62
306.88
11.84
295.04
0.45
295.49
11.69
283.80
7.20
291.00
0.47
290.53
5.92
296.45
10.01
286.44
5.91
292.35

208.09 = Base Loop Dam, it being a spike driven in Crack of Boulder 40 ft West of Dam

Stat	B.S.	H.I.	F.S.	El
Thence going back to S 78+00 and continuing line				
	4.50	300.00		295.50
	10.65	307.28	3.37	296.63
91+50	4.32	302.35	9.25	298.03
	6.60	306.53	2.42	299.93
	3.95	306.76	3.72	302.81
	4.10	305.84	5.02	301.74
	4.08	304.70	5.22	300.62
	3.71	304.93	3.48	301.22
161+00	5.56	308.92	1.57	303.36
	9.01	313.53	4.40	304.52
	4.96	307.08	11.41	302.12
	4.49	308.78	2.79	304.29
	0.00	305.65	3.13	305.65
	0.30	294.11	11.84	293.81
	1.11	283.30	11.92	282.19
	2.33	273.63	12.00	271.30
232+40	3.30	265.10	11.83	261.80
254+50	2.30	256.04	11.36	253.74
267+70	2.00	246.52	11.52	244.52
284+15	0.91	235.71	11.72	234.80
308+65	1.23	225.16	11.78	223.93

545
2
1090

Oct 25th 1894

303.36 = T.P. on top hill at Mouth Cation and just above large bluff and 3 miles from Mission Dam

From 191+00 to 205+00 a Syphon 1500 feet and about 200 ft Depth. large gulch back of Hartmann

Oct 30th 1894

307.08	295.50
2.30	4.50
304.28	300.00
4.40	3.37
308.78	296.63
3.13	10.65
305.65	307.28
0.00	9.25
305.65	298.03
11.84	4.32
293.81	302.35
0.30	2.42
294.11	299.93
11.42	6.60
282.19	306.53
1.11	3.72
283.30	302.81
12.00	3.95
271.30	306.76
	5.02
	301.74
	4.10
	305.84
	5.22
	300.62
	4.08
	304.70
	3.48
	301.22
	3.71
	304.93
	1.57
	303.36
	5.56
	308.92
	4.40
	304.52
	9.01
	313.53
	11.41
	302.12
	4.96
	307.08

244.52	271.30
2.40	2.33
246.52	273.63
11.72	11.83
234.80	261.80
.91	3.30
235.71	265.10
11.78	11.36
223.93	253.74
1.23	2.30
225.16	256.04
	11.52
	244.52

Stat	B.S.	H.I.	F.S.	El
311+98	1.37	315.08	11.45	213.71
314+15	0.10	203.58	11.60	203.48
332+83	3.27	196.52	10.33	193.25
337+72	6.93	201.92	1.53	194.99
348+25	4.97	196.79	10.10	191.82
358+14	5.71	191.74	10.76	186.03
367+94	4.57	190.09	6.20	185.52
376+24	3.67	189.04	4.72	185.37
387+71	5.46	182.76	11.74	177.30
395+41	5.82	177.23	11.35	171.41
413+01	6.87	176.47	7.63	169.60
431+86	7.40	179.17	4.70	171.77
441+92	4.19	181.01	2.35	176.82
	11.00	192.01	0.00	181.01
	11.77	203.78	0.00	192.01
	11.61	215.39	0.00	203.78
	11.02	226.41	0.00	215.39
453+41	11.92	238.33	0.00	226.41
	11.43	249.76	0.00	238.33
	11.60	261.36	0.00	249.76
457+56	11.60	272.96	0.00	261.36

Between Station 284+15 & 2100 ft is a very deep Canon about 100 feet below Station 284+15 = 134.00 ft this Canon is back of Clement house

Above Christiansen house

Nov 3rd 1894

181.01 BM on side hill at foot Grade (upper Mission)

Stat 457+56 = Mouth of tunnel Elev 261.36

225.16
11.45
213.71
1.37
215.08
11.60
203.48
.10
203.58
10.33
193.25
3.27
196.52
1.53
194.99
6.93
201.92
10.10
191.82
4.97
196.79
10.76
186.03
5.71
191.74
6.20
185.52
4.57
190.09
4.72
185.37
3.67
189.04
11.74
177.30
5.46
182.76
11.35
171.41
5.82
177.23

177.23
7.63
169.60
6.87
176.47
4.70
171.77
7.40
179.17
2.35
176.82
4.19
181.01
0.00
181.01
11
192.01
0.00
192.01
11.77
203.78
0.00
203.78
11.61
215.39
11.02
226.41
11.92
238.33
11.43
249.76
11.60
261.36
11.60
272.96

Stat	B.S	H.I.	F.S	El	
	11.45	284.21	0.00	272.76	
	10.99	295.20	0.00	284.21	
	10.20	305.40	0.00	295.20	
	10.60	316.00	0.00	305.40	
	11.20	327.20	0.00	316.00	
	10.91	338.11	0.00	327.20	
	11.06	349.17	0.00	338.11	
	11.34	360.51	0.00	349.17	
	11.31	371.82	0.00	360.51	
467+60	11.30	383.12	0.00	371.82	top hill - Near Alley Blk 18 on Northside Street Madison
	2.33	376.74	9.71	373.41	
	0.71	368.22	9.23	367.51	
	11.42	368.31	11.42	356.80	
	10.19	376.42	2.08	366.23	
	3.65	372.77	3.65	372.77	Check
	0.65	361.67	11.65	361.12	
	0.85	351.15	11.37	350.30	
	0.45	339.90	11.70	339.45	
	0.00	328.15	11.75	328.15	
	0.29	317.44	11.00	317.15	
	1.00	306.95	11.49	305.95	

Check on BM at S E Cor University Boulevard & Park Boulevard 372.77
Elev of BM 340.60, this will make the base of Missouri Dam 267.83 and the base of the Pump dam 175.92.

300.00
20809
191.91

372.77
3406
3217
267.83
92
175.83

300
2217
267.83

300.00
3217
267.83
9191
175.92

317.15
29
317.44
11.49
305.95
1
305.45

372.77
11.65
361.12
.65
361.67
11.37
350.30
.85
351.15
11.70
339.45
.45
339.90
11.75
328.15
.00
328.15
11
317.15

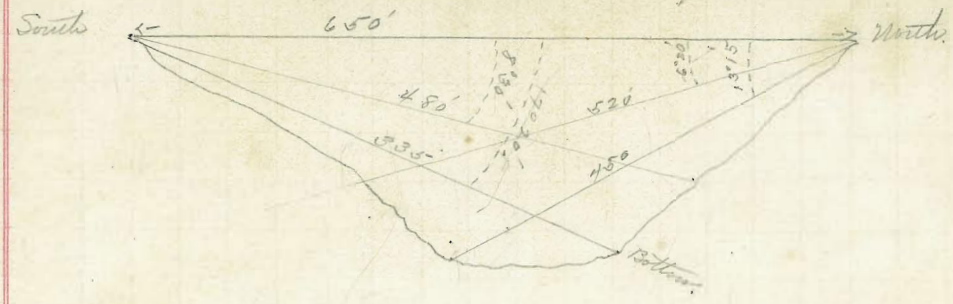
272.76
1145
284.21
1099
295.20
10.20
305.40
10.60
316.00
11.20
327.20
10.91
338.11
11.06
349.17
11.34
360.51
11.31
371.82
11.30
383.12
9.71
373.41
5.65
376.74
9.23
367.51
.71
368.22
11.42
356.80
11.51
368.31
2.08
366.23
10.19
376.42
3.65
372.77

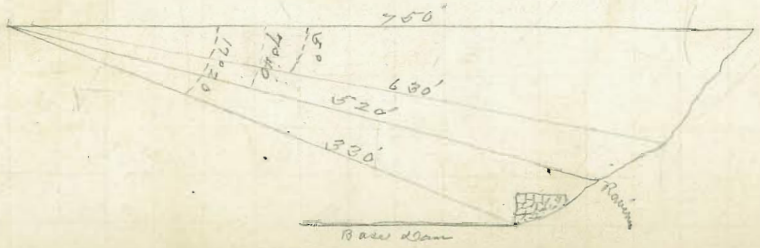
Stat.	B.S.	H.I.	F.S.	El
	1.98	297.28	11.65	295.30
	0.40	286.68	11.00	286.28
			11.65	275.03

306.95
11.65
295.30
1.98
297.28
11.00
286.28
4
286.68
11.65
275.03

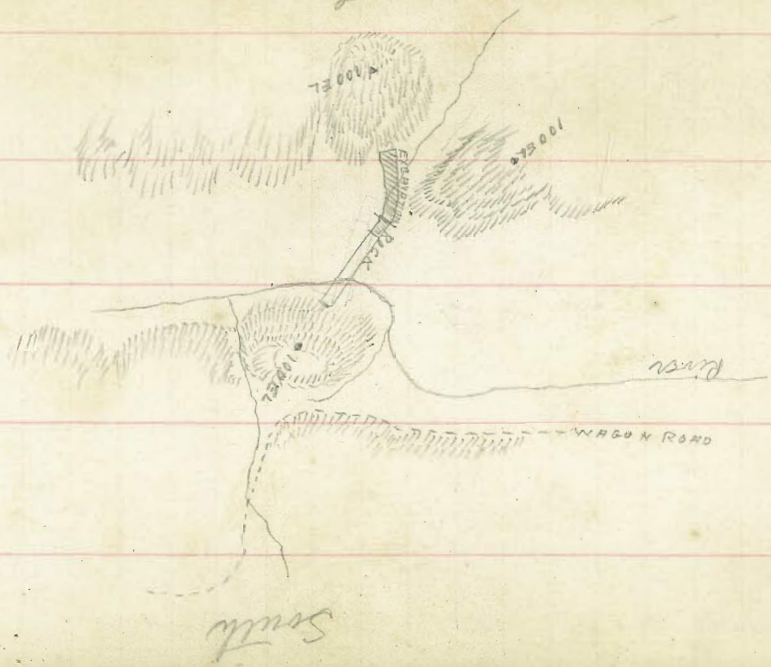
Tunnel will come out
on South line Flemmer Ave
Near the S W Cor Blk 197 University Heights

Loop Dam Site 100 ft high





North

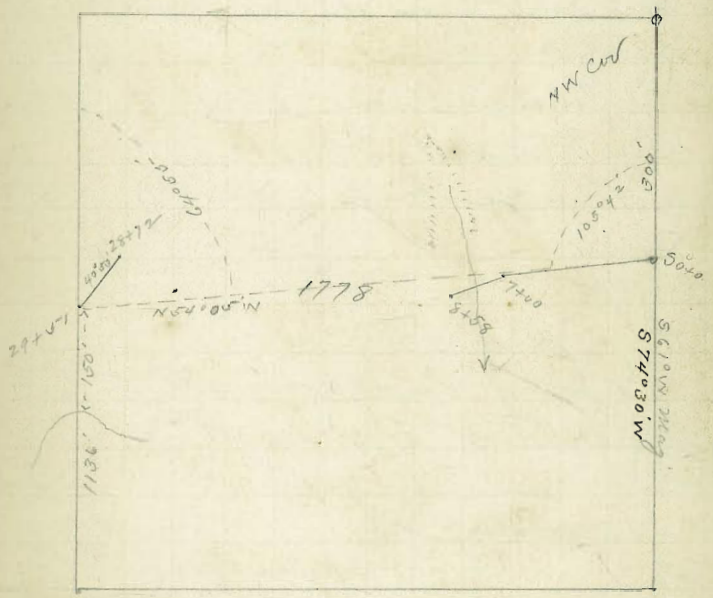


South

Wagon Road through Pueblo Lot
1778

Garretson Tract
Nov. 16th 1894 Capps.

Stat	Angle	M. B.	Dist	
0+0	105°42' L	S 44°45' E	700'	
7+00	Running tee 25°9' L. R	S 69°45' E	158	Gulch
8+58	not Running 199°53' R.	S 49°50' E	163'	
10+21	" " 164°29' R	S 65°20' E	237'	
12+58	" " 204°43' R	S 40°45' E	116'	
13+74	" " 156°42' R	S 64° E	377	
17+51	192°55'	S 51°10' E	327	
20+78	175°29'	S 55°40' E	334	
24+12	185°15'	S 50°25' E	460	
28+72	152°24'	S 78° E	79'	
29+51				



Dist from Center Road way to edge
Brick Cut 105 ft

Survey of 6th sheet through City Park.

31.12
57.
88.

11

Beginning at 7' line on S E Cor Date
~ 6th thence running North at Juniper
East line 6th is 106 feet from West
line Park.
At Quince Sheet 88.12 from East
line 6th to West line City Park
At N W Cor Park 77.45 from East
line 6th

Dec 22nd 1894
Survey of Grade from head of 6th
to Juniper St
Stat Angle
0+0 5°33'R

20.45
57
77

Stat 0+0 Center 6th on 7 ft line on Date
from S 0+0 B.S down Center 6th St

Level over road from head of 6th to Juniper St Dec 22 1894

Stat	B.S.	I.S.	F.S.	El
B.M. Cor 6th Date	11.98	( )		
0+0		11.50		
50				
1+00		9.20		
50		6.60		
2+00		4.80		
50		1.80		
3+00	11.58	0.00 ( )	T.P. 0.47	
50		9.50		
4+00		7.40		
50		5.30		
5+00		2.30		
50	11.49	0.30 ( )	0.80	
6+00		8.30		
50		6.30		
7+00	11.29	1.80	0.68	
50				
8+00				
50				
9+00	11.94	T.P.	2.40	
50				
10+00				

B.M. N.E. Cor. Date 100.00
Rod 10.89
110.89
2.88
108.01

Seven ft point at Cor 6th & Date ne 8.01 higher than B.M. at NE Cor Date & 5th

from S 7+00 run 5% grade

	B.S.		F.S.		
50					
11+00	12.00		1.94		
50					
12+00					
50					
13+00	11.24		2.00		
50					
14+00					
50	11.26		2.98		
15+00					
50					
16+00			3.76		

16027
14
16452
179
16273

Notes on Wagon Road C" St — Sorrents

17 May 29 1895

Stat	East	Center	West	
			(26.93)	
0+0	7.00	7.40	7.00	
+50	8.30	8.50	7.40	
1+00	9.00	9.00	9.00	
+25	9.20	9.20	9.10	
+50	8.20	8.80	9.30	
2+00	8.50	8.50	8.40	opposite Spring
+50	7.30	7.30	7.40	
3+00	5.20	5.50	5.30	
+50	2.80	1.10	2.50	
		(33.73)		
4+00	6.00	6.00	6.40	
+50	2.40	2.90	2.60	

B.M. Spike in tel pole
first pole South of Trestle Elev

20.00
6.93
26.93
0.52
26.41
7.32
33.73
2.81
30.92
8.73
39.65
1.23
38.42
9.25
47.67
3.28
44.39
6.55
50.94

From S 4+50 a Contour Road of 3 % ascending is run to Stat 9, from S 9 to S a grade of 1% down grade

Elo Potters Pass £ 57.00

Mch 20 — 96

Run level from City to San Miguel Mesa

Stat.	B.S	I.S.	F.S.	El	H.I
				B.M	
1	1.36			63.89	65.25
2	2.92		8.98	56.27	59.19
3	3.15		11.95	47.24	50.39
4	0.82		11.30	39.09	39.91
5	0.66		11.69	28.22	28.88
6	0.60		11.49	17.39	17.99
7	9.41		11.20	6.79	16.20
8	11.16		4.84	11.36	22.52
9	11.54		1.39	21.13	32.67
10	11.66		1.15	31.52	43.18
11	10.80		1.81	41.37	52.17
12	11.62		7.72	44.45	56.07
13	11.67		1.26	54.81	66.48
14	11.33		0.80	65.68	77.01
15	11.26		0.79	76.22	87.48
16	2.92		3.36	84.12	87.04
17	5.77		1.00	86.04	91.81
18	11.38		0.67	91.14	102.52
19	7.44		5.03	97.49	104.93
20	3.38		1.15	103.78	107.16
21	0.25		11.87	95.29	95.54

B.M N.E. Cor. National - 29th Hydrant

77.01	11.36	63.89
0.79	1.16	1.36
76.22	22.52	65.25
11.26	1.39	8.98
87.48	21.13	56.27
3.36	11.54	2.92
84.12	32.67	59.19
2.92	1.15	11.95
87.04	31.52	47.24
1	11.66	3.15
86.04	43.18	50.39
5.77	1.81	11.30
91.81	41.37	39.09
0.67	10.80	0.82
91.14	52.17	39.91
11.38	7.72	11.69
102.52	44.45	28.22
5.03	11.62	0.66
97.49	56.07	28.88
7.44	1.26	11.49
104.93	54.81	17.39
1.15	11.67	0.60
103.78	66.48	17.99
3.38	1.80	11.20
107.16	65.68	6.79
11.87	11.33	9.41
95.29	77.01	16.20
0.25		4.84
95.54		11.36

Stat	B.S	I.S.	F.S	El	H.I.
22	1.79		11.67	83.87	85.66
23	0.87		11.76	73.90	74.77
24	0.76		11.81	62.96	63.72
25	0.64		11.66	52.06	52.70
26	0.60		11.48	41.22	41.82
27	0.91		11.41	30.41	31.32
28	5.70		11.08	20.29	25.99
29	0.68		5.95	20.04	20.72
30	6.56		3.89	16.83	23.39
31	11.01		5.19	18.20	29.21
32	2.68		4.39	24.82	27.50
33	5.13		4.15	23.35	28.48
34	5.41		3.58	24.90	30.31
35	6.41		2.99	27.32	33.73
36	2.66		0.66	33.07	35.73
37	7.59		3.11	32.62	40.21
38	4.56		2.07	38.14	42.70
39	6.42		3.15	39.55	45.97
40	5.88		3.64	42.88	48.21
41	8.08		2.16	46.05	54.13
42	5.98		2.48	51.70	57.68

42.70
3.15
89.55
6.42
45.97
31.64
42.33
5.88
48.21
2.16
46.05
8.08
54.13
2.43
51.70

33.73
0.66
33.07
2.66
33.73
3.11
32.62
7.59
40.21
2.07
38.14
4.56
42.70

24.82
2.68
27.50
4.15
23.35
5.13
28.48
3.58
24.90
5.41
30.31
2.99
27.32
6.41
33.73

20.04
0.68
20.72
3.89
16.83
6.15
23.39
5.19
18.20
11.01
29.21
4.39
24.82

95.54
11.67
83.87
1.79
85.66
11.76
73.90
0.87
74.77
11.81
62.96
0.76
63.72
11.66
52.06
0.64
52.70
11.48
41.22
0.60
41.82
11.41
30.41
0.91
31.32
11.03
20.29
5.70
25.99
5.95
20.04

Stat 30 is a large 80# wire spike driven into platform (at North end) of Sweetwater junction, on N.C.O.R.R.
Elev above City datum 16.83'
From S 29 Run on R.R. track

51.70
5.98
57.68

Stat	B.S	I.S.	FS	El	HI
				B.M	
43	4.08		1.47	56.21	60.29
44	9.40		1.95	58.34	67.74
45	7.91		3.77	63.97	71.88
46	7.18		2.90	68.98	76.16
47	7.75		2.73	73.43	81.18
48	5.40		3.09	78.09	83.49
49		5.82		B.M 77.67	
50	4.48		1.00	82.49	86.97
51	10.65		3.78	83.19	93.84
52	11.57		1.45	92.39	103.96
53	11.77		1.22	102.74	114.51
54	11.39		0.90	113.61	125.00
55	11.82		0.30	124.70	136.52
56	11.88		0.00	136.52	148.40
57	11.68		0.00	148.40	160.08
58	11.99		0.87	159.21	171.20
59	11.94		0.54	170.66	182.60
60	11.68		0.00	182.60	194.28
61	11.63		0.00	194.28	205.91
62	11.30		0.00	205.91	217.21
63	11.67		0.00	217.21	228.88

Stat 43 is a B.M on top of water table at N.W. Cor of Bonita Ranch packing house.
Elev = 56.21

Mch 21st started from S 43

57.68
1.47
56.21
4.08
60.29
1.95
58.34
9.40
67.74
3.77
63.97
7.91
71.88
2.90
68.98
7.18
71.16
2.73
73.43
7.75
81.18
3.09
78.09
5.40
83.49

S49 is a B.M. at Bonnie Brae, being the top of a small cleat nailed on to the post of the Cross sign post, Elev 77.67 (about 20 ft West of R.R.

83.49
5.82
77.67

82.49
4.48
86.97
3.78
83.19
10.65
93.84
1.45
92.39
11.57
103.96
1.22
102.74
11.77
114.51
0.90
113.61

113.61
11.39
125.00
.30
124.70
11.82
136.52
11.88
148.40
11.68
160.08
0.87
159.21
11.99
171.20
0.54
170.66

170.66
11.94
182.60
11.68
194.28
11.63
205.91
11.30
217.21
11.67
228.88

Stat	B.S.	I.S.	F.S.	El	H.I
64	11.61		0.00	228.88	240.49
65	11.04		0.00	240.49	251.53
66	11.00		0.00	251.53	262.53
67	11.57		0.00	262.53	274.10
68	11.14		1.33	272.77	283.91
69	12.03		1.15	282.76	294.79
70	11.66		0.97	293.82	305.48
71	11.81		1.36	304.12	315.93
72	11.56		2.71	313.22	324.78
73	11.83		0.00	324.78	336.61
74	11.10		0.00	336.61	347.71
75	11.78		0.00	347.71	359.49
76	12.02		0.00	359.49	371.51
77	11.83		0.00	371.51	383.34
78	11.68		0.00	383.34	395.02
79	12.08		0.00	395.02	407.10
80	11.93		0.00	407.10	419.03
81	11.64		0.00	419.03	430.67
82	11.23		0.00	430.67	441.90
83	11.48		0.00	441.90	453.38
84	11.60		0.00	453.38	464.98

336.61
11.10
347.71
11.78
359.49
12.02
371.51
11.83
383.34
11.68
395.02
12.08
407.10
11.93
419.03
11.64
430.67
11.23
441.90
11.48
453.38
11.60
464.98

228.88
11.61
240.49
11.04
251.53
11.00
262.53
11.57
274.10
1.33
272.77
11.14
283.91
1.15
282.76
12.03
294.79
0.97
293.82
11.66
305.48
1.36
304.12
11.81
315.93
2.71
313.22
11.56
324.78
11.83
336.61

Stat	B.S.	I.S.	F.S.	El	H.I
85	9.17		0.00	464.98	474.15
86	11.77		2.52	471.63	483.40
87	11.75		0.80	482.60	494.35
88	11.24		0.00	494.35	505.59
89	11.06		1.05	504.54	515.60
90	11.90		0.93	514.67	526.57
91	11.88		1.05	525.52	537.40
92	11.84		0.52	536.88	548.72
93	11.92		0.00	548.72	560.64
94	11.00		0.00	560.64	571.64
95	11.61		0.00	571.64	583.25
96	11.36		0.00	583.25	594.61
97		5.73		B.M. 588.88	
98	11.63		0.00	594.61	606.24
99	11.95		1.14	605.10	617.05
100	11.71		0.96	616.09	627.80
101	12.00		1.27	626.53	638.53
102	11.84		0.00	638.53	650.37
103	11.52		0.00	650.37	661.89
104	12.02		0.80	661.09	673.11
105	10.79		1.72	671.39	682.18

594.61
5.73
588.88

661.09
12.02
673.11
1.72
671.39
10.79
682.18

583.25
11.36
594.61
11.63
606.24
1.14
605.10
11.95
617.05
0.96
616.09
11.71
627.80
1.27
626.53
12.00
638.53
11.84
650.37
11.52
661.89
0.80
661.09

464.98
9.17
474.15
2.52
471.63
11.77
483.40
0.80
482.60
11.96
494.35
1.05
493.30
11.24
505.59
1.05
504.54
11.06
515.60
0.93
514.67
11.90
526.57
1.05
525.52
11.88
537.40
0.52
536.88
11.84
548.72
11.92
560.64
11.00
571.64
11.61
583.25

S 97 is a B.M in N.E Cor post of C.D Robinson Orchard this B.M is two nails driven in top of post, Elev is 588.88

S 104 is peg driven in pave 20' left of road Potter Pass 661.09

Stat	B.S.	I.S.	F.S.	El	H.I.
106	12.20		1.70	680.49	692.68
107	12.00		1.18	691.50	703.50
			3.50	700.00	

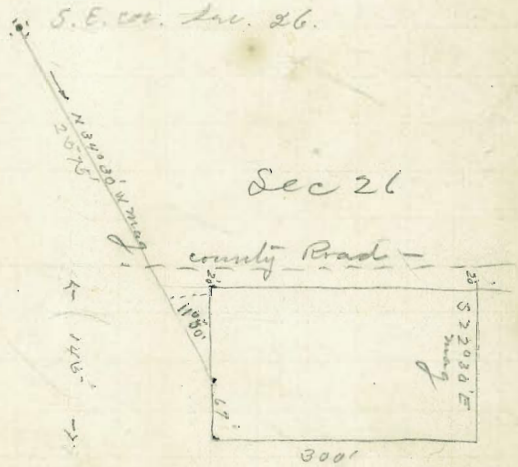
2575
67
2642

34 30
13 30
21.00

34 30
1 20
20 30

682.18
1 70
680 48
12 20
692 68
1 18
691 50
12 00
703 50
3 50
on Initial point 700.00

This initial point is N. 34° 30' W mag



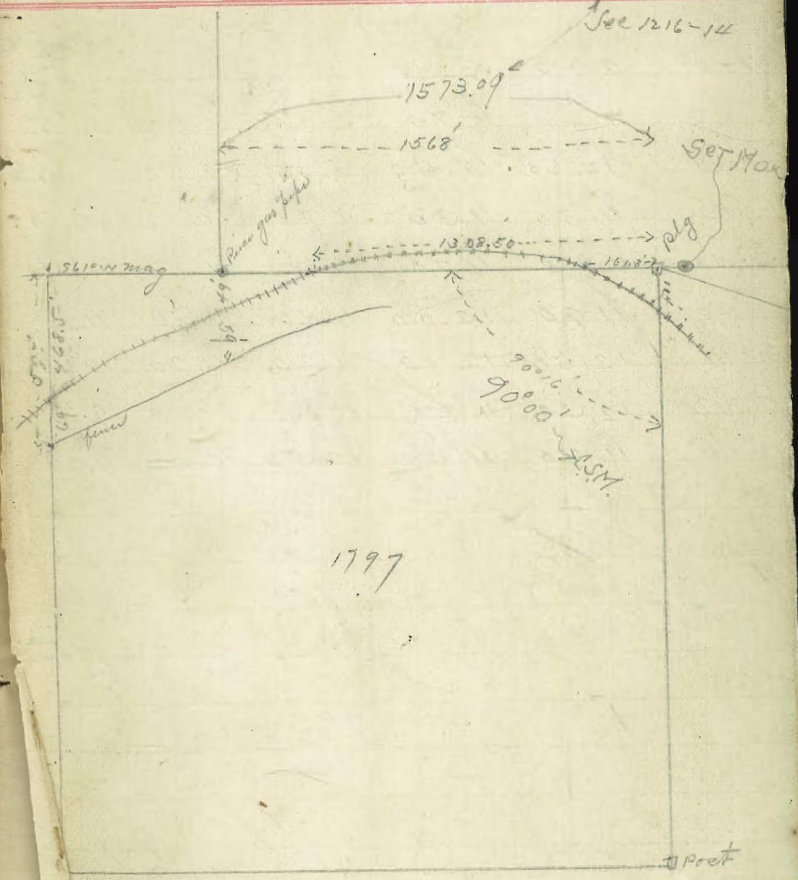
Motor House located in Sec 26.
T. 17. S. R. 1 W.

S = South
N = North

Stat. along N line of 1797	Offset to P.R. from P. Line	Offset to fence from R.R. Race track	Stat		
N.E. Cor 1797 0+0	S 114				
+72	S 48.00	0.00			
1+61.3 Center R.R.	center	S 50.00			
2+00	N 14.00	S 63.00			
3+00	N 32.00	S 82.00			
4+00	N 32.80	S 84.00			
5+00	N 29.50	S 79.00			
6+00	N 26.40	S 78.00			
7+00	N 23.00	S 65.00			
8+00	N 19.7	S 62.00			
9+00	N 16.50				
10+00	N 13.50	S 60.00			
11+00 } Creek					
11+50					
12+00	N. 7.00	S 61.50	from	angle left	
13+00		S 60.00	13+00 Δ	10°33'	267'
+08.5 R.R.			to 13+67 Δ	L 10°4'	226.5
14+00	S 12.00	S 60.00	to 15+93.5 Δ	L 8°4'	97.6
15+00	S 31.50	S 59.00	to 25+69.5		
+68	S 49.00	S 59.00			

31.5 — 72' 89.3 161.3 — 200 161 .39

C.S. Moore 6-35
See 1216-14



+68 = S W cor to P.L.

Cross Section 16th St. Bet 20-E.

Stat	Stat	Cent	Centre	Cent	East
	56.4	(59.17) 56.2	56.5	57.1	57.1
0+0	2.80	3.00	2.70	2.10	2.10
50	52.2	52.5	52.7	52.5	48.1
	7.00	6.70	6.50	6.70	11.10
1+00	48.6	48.8	49.4	49.2	49.1
	10.60	10.40	9.80	10.00	10.10
50	47.9	47.9	48.9	48.5	48.7
	11.30	11.30	10.30	10.70	10.50
2+00	47.7	47.5	48.4	47.9	47.8
	11.50	11.70	10.80	11.30	11.40
50	47.3	47.2	47.8	47.7	48.2
	11.90	12.00	11.40	11.50	11.00
3+00	46.9	47.1	48.0	48.0	48.5
	12.30	12.10	11.20	11.20	10.70
E 40	46.9	47.4	48.2	48.8	49.9
	12.30	11.80	11.00	10.40	9.30
0+0	47.8	47.8	48.7	49.2	50.0
	11.40	11.40	10.50	10.00	9.20

16th (59.17 B.M.) Bet 20-E.

0+0 = S line 20 st

Front Street Bet Kalmia & Laurel

Apr 28-97

Stat	West	Cent	Center	Cent	East
			(210.04)		
	204.8	204.8	205.8	206.6	206.8
0+0	5.20	5.20	4.20	3.40	3.20
	204.0	204.4	204.8	205.6	206.5
25	6.00	5.60	5.20	4.40	3.50
	203.5	203.7	204.9	205.2	205.8
50	6.50	6.30	5.10	4.80	4.20
	202.4	203.0	203.9	204.6	205.0
75	7.60	7.00	6.10	5.40	5.00
	201.1	201.3	202.8	203.8	204.6
1+00	8.90	8.70	7.20	6.20	5.40
	200.2	201.2	201.8	203.0	203.5
2550	9.80	8.80	8.20	7.00	6.20
	199.9	200.6	201.4	202.4	202.8
5075	4.10	3.40	(203.96) 2.60	1.65	1.20
	199.5	199.8	201.1	202.0	201.9
775	4.50	4.20	2.90	2.00	2.10
	199.4	199.3	200.4	201.6	201.1
2+00	4.60	4.70	3.60	2.40	2.90
	198.2	198.6	199.8	201.0	200.5
25	5.80	5.40	4.20	3.00	3.50
	197.6	198.3	199.1	200.9	199.8
50	6.40	5.70	4.90	3.10	4.20
	197.0	198.5	199.0	200.3	199.1
75	7.00	5.50	5.00	3.70	4.90
	197.5	197.5	198.5	200.2	198.5
3+00	6.50	6.50	5.50	3.80	5.50
			198.1	199.6	197.8
14			5.90	4.40	6.20
			198.1	199.5	198.7
40			5.90	4.50	5.30
				199.0	
				5.00	
				198.8	
				5.20	
				198.3	
				5.70	
				198.1	
				5.90	
				197.8	
				6.20	
				197.8	
				6.20	
				198.4	
				5.60	

222.59
0.98
22357
11.10
21247
187
21434
475
20959 BM

0+0 = 8 lin Laurel

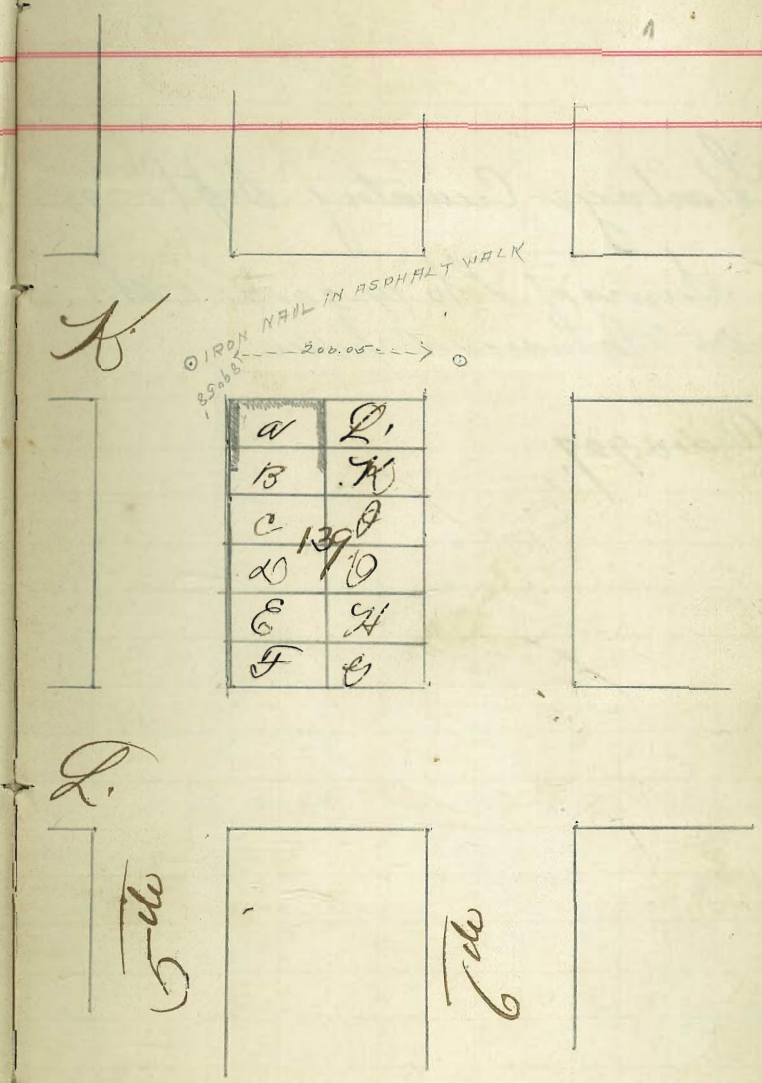
045
21004
862
20142
254
20396

McKinzie Flint. Wmsby

Sept 13-97

Survey Lots A-B Blk 139
Norton.

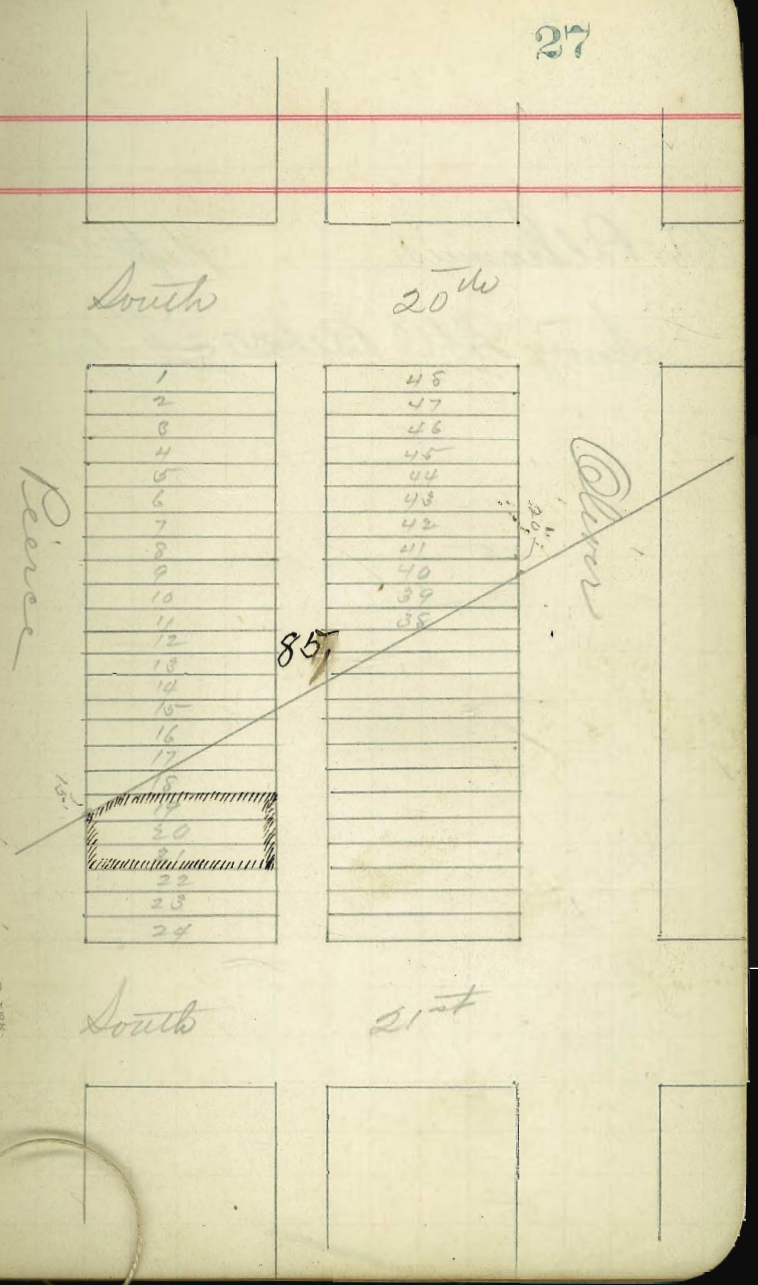
Did not set division line ~~but~~
Ton division wall,



Garbage Crematory Sept 15-97

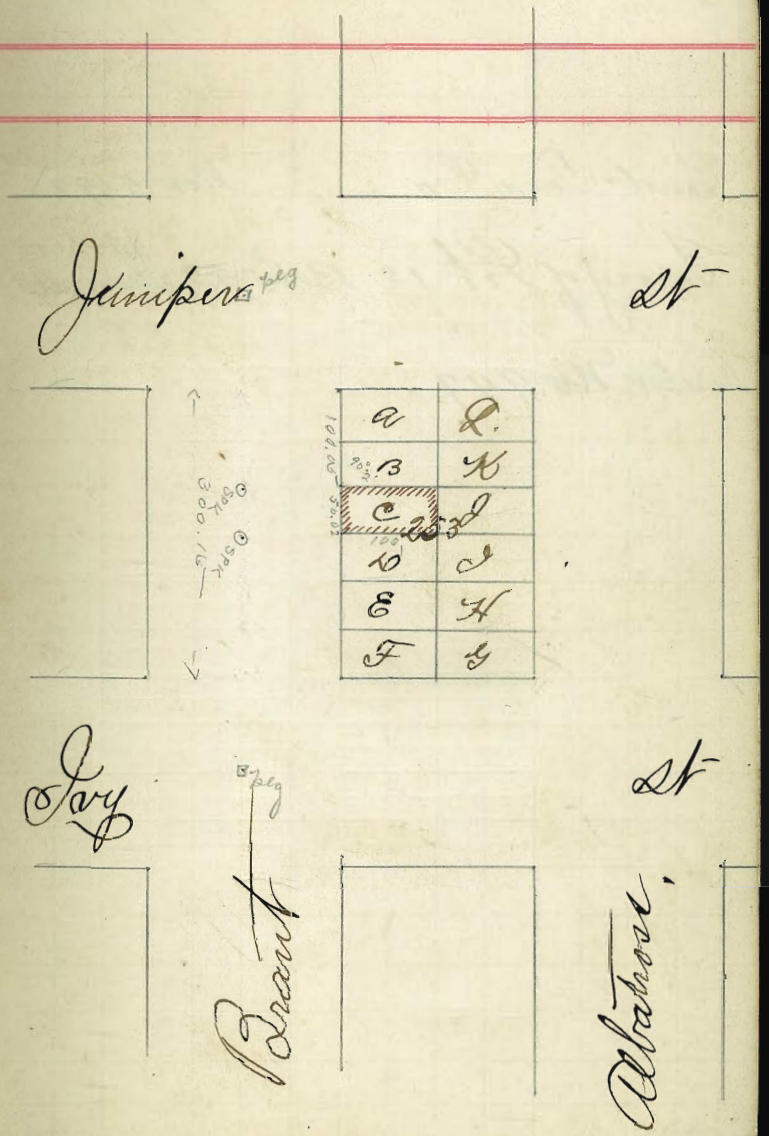
Survey of Lots 19-20-21 Blk
85 Manassas & Schiller

Order 927.



Dr Polhemus. Sept 24-9

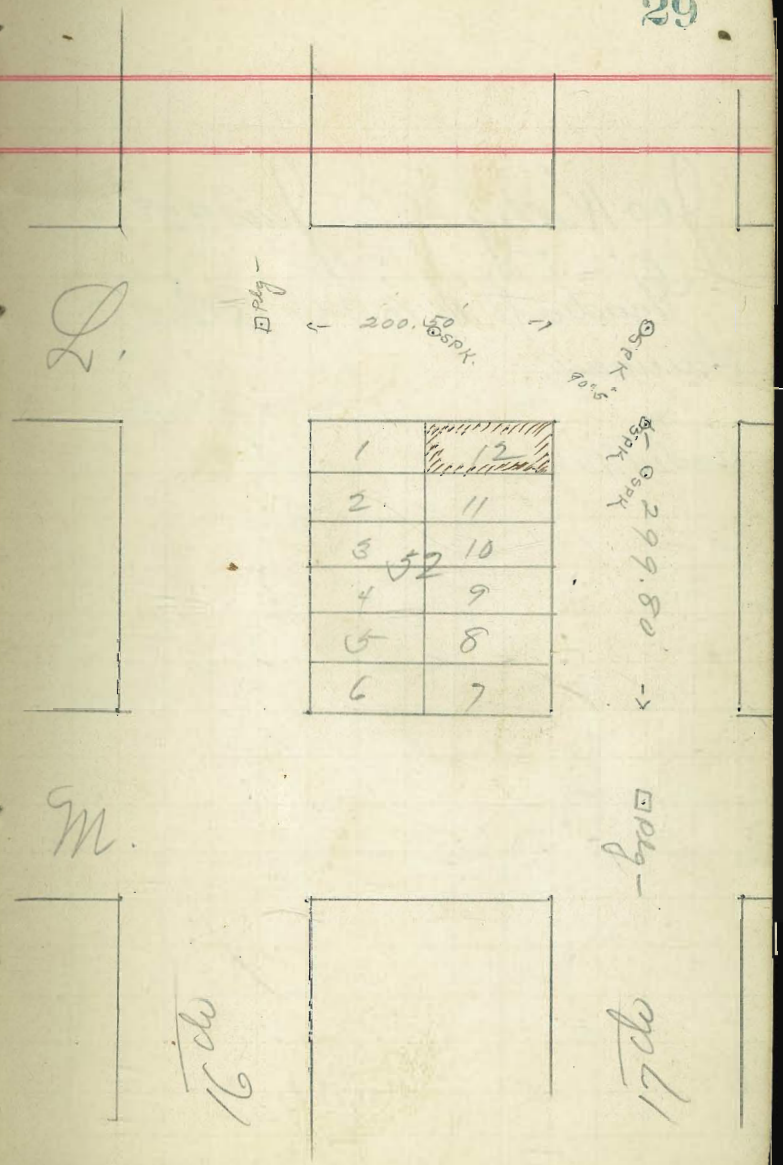
Survey Lot C Blk 253 Horton



Land & Town Co. Nov 5-97

Survey of Lot 12 Blk 52 Sherman

Order No 947



Jos Kelley Jan 22d 1898.

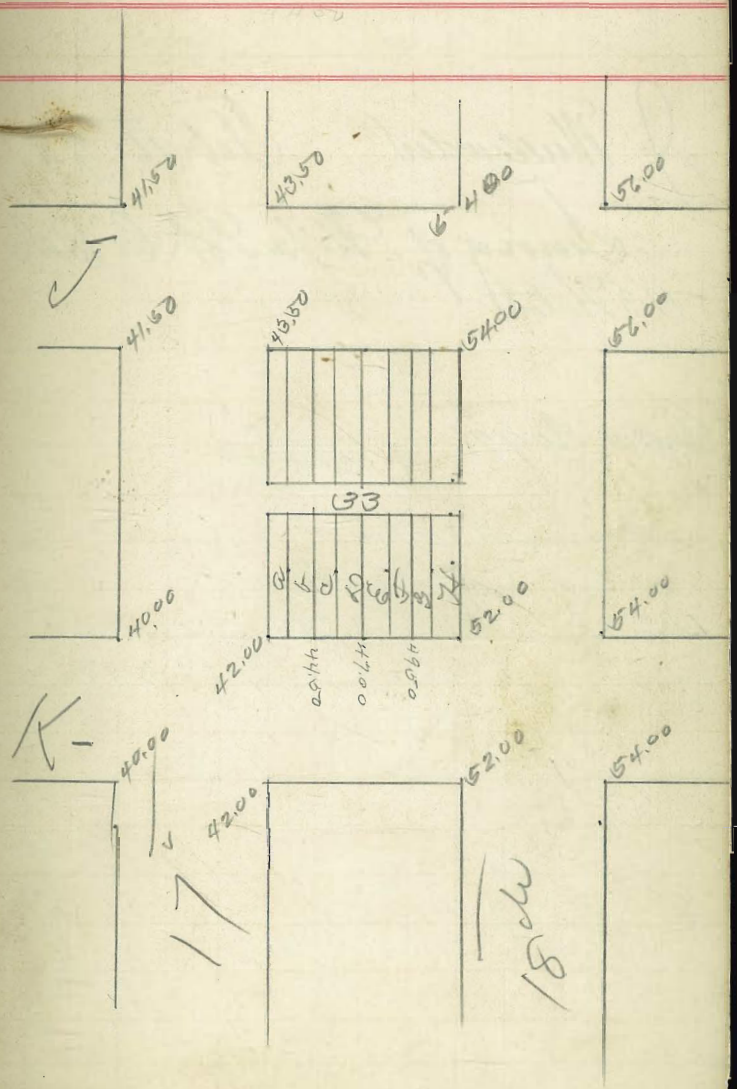
Grades to A B C D Blk 3 3

Sherman,

Order No 968.

43.27 B.M
3.07
46 34
4 21
4.34

42.00 on cw strike
7 61
49 61 49.61 49.61
44 50 47
5,11 2,61

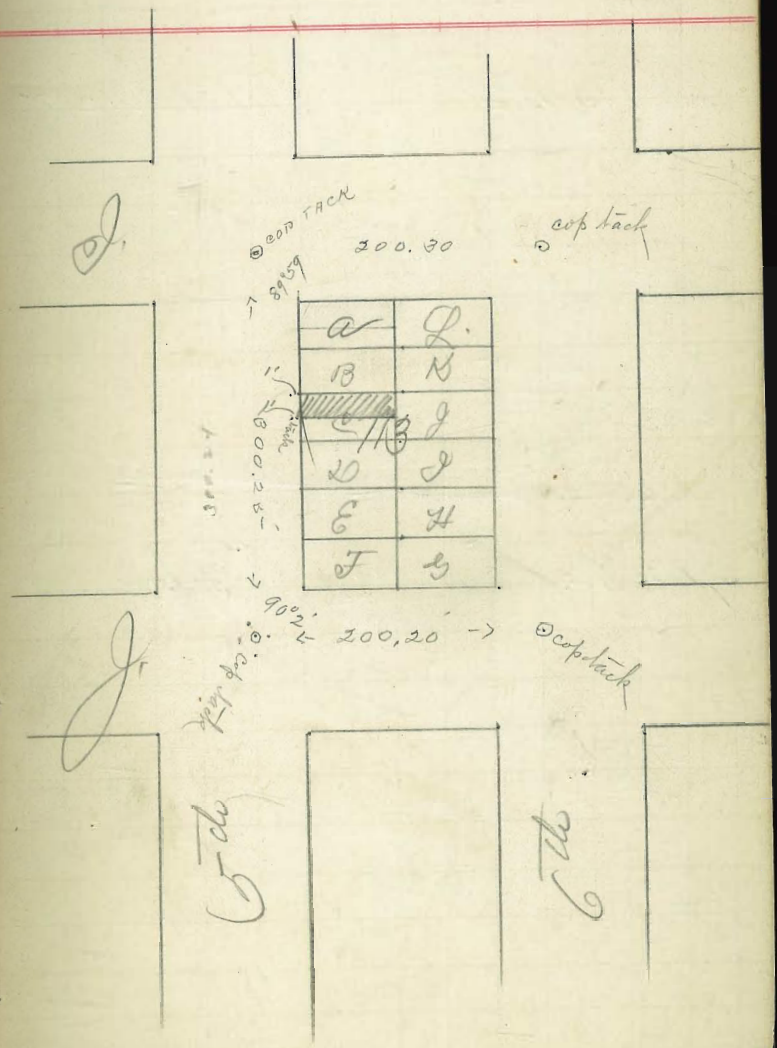


J Mullewder Feb 16 98

Survey of W 1/2 Lot "C" Blk 113 Horton

Order No 971

Set spike at N.E. Cor
Set peg-tack at SE Cor
Set tack in lead one foot out at NW Cor
" " " " " " " SW Cor



482
25
507
25
532

62.69
56.50
6.11

Order No 972 Mch 12 98

58.42 B.M.
427
62.69
57.25
5.44

62.69
57.43
5.26

62.69
57.50
5.19

62.69
57
5.69

62.69
57.75
5.94

~~62.69~~
~~56.50~~
~~6.19~~

56.75
488
61.63
56.50
5.13

61.63

Order No. Mch 31-98

58.42 B.M.
5.10
63.52
58
5.52

63.52
58.25

63.52

63.52

58.50
482
63.32
58.25
5.07

63.32
58.00
5.32

56.50
12
56.62
12
56.74
12
56.86

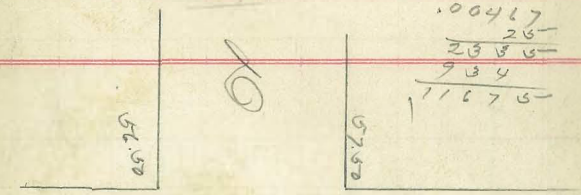
214.) 1.00000
856
1440
1284
1560
1498

.00467
75
125
875
25
1125

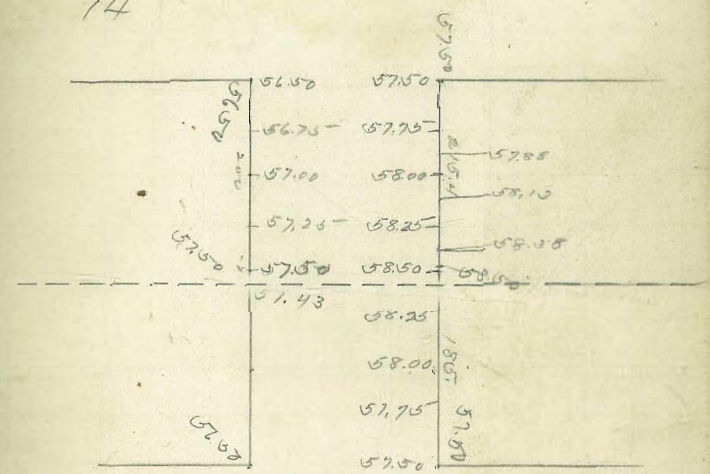
5813
25
5838

32

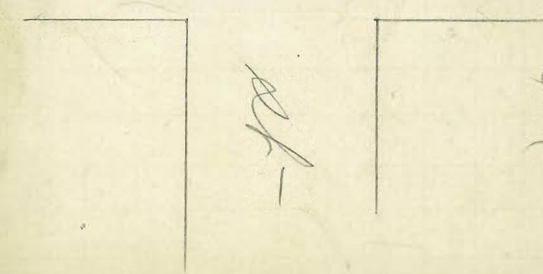
.00467
25
2335
934
11675



14a



15

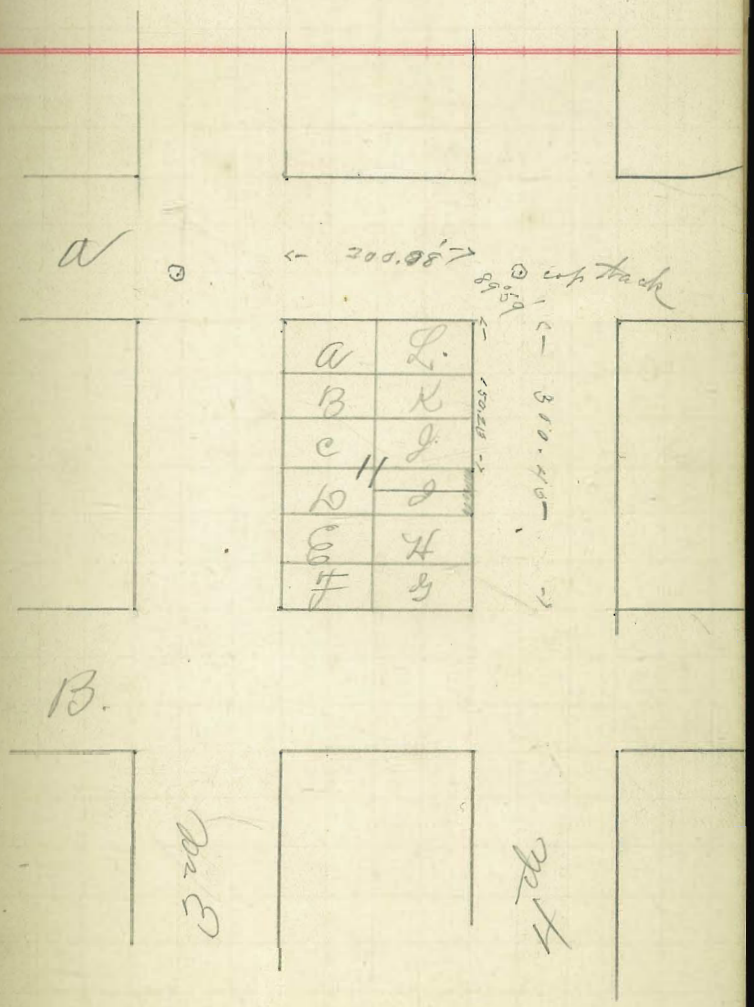


215.4
185
4004

Mch 21 1898

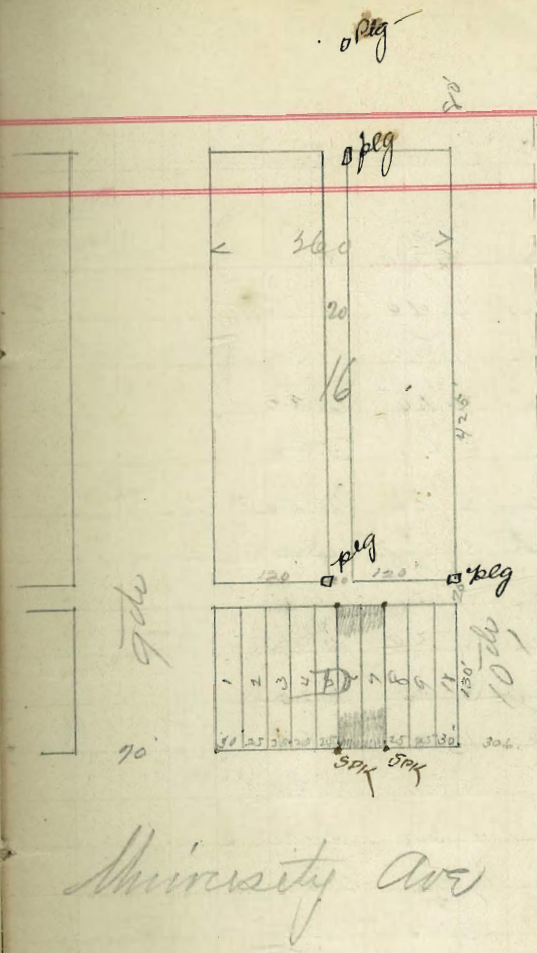
B. L. Muir
Survey N 1/2 S 1/2 Lot I
Bek 11 Horton

Order No 976



Order No 978
Mr Fred Robinson April 2-98

Survey of Lots 6-7 Block "D" Estudillo Addition



Cross Section India St extension

Station	Left West 12'	Center	Right East 12'
		(76.82)	
xxx		67.40 9.40	
8' 0+08	68.40 8.40	69.40 7.40	70.20 6.60
32' 0+0	68.90 7.90	69.80 7.00	70.50 6.30
+50	68.90 7.90	69.70 7.10	70.50 6.30
1+00	69.80 7.00	70.20 6.60	71.00 5.80
50	71.20 5.60	71.80 5.00	72.60 4.20
2+00	74.00 2.80	74.50 2.30	75.00 1.80
50	77.50 8.20	(8.57) 78.20 7.50	78.80 6.90
3+00	80.00 5.70	80.70 5.00	81.30 4.40
40	81.70 4.00	82.40 3.30	83.10 2.60
0+0	83.30 2.40	83.90 1.80	85.10 0.60
50	84.10 1.60	84.90 0.80	85.50 0.20
1+00 x	83.70 2.00	84.50 1.20	85.30 0.40
50	83.60 2.10	84.40 1.30	85.30 0.40
2+00	83.90 4.70	(88.59) 85.00 3.60	85.80 2.80
50	83.40 5.20	85.20 3.40	86.40 2.20
3+00	83.00 5.60	84.40 4.20	85.90 2.70
12 +12	82.80 5.80	83.10 5.50	82.90 5.70
12 +24	81.60 7.00	81.40 7.20	81.10 7.50
12 +36	81.00 7.60	80.30 8.30	78.60 10.00
12 +48	80.50 8.10	79.20 9.40	76.40 12.20

xxx Center Chalmers

Center of Chalmers - India

North line Chalmers

Silver Pence

Curve 37.5R

B.M. Cor 67.58 B.M.
9.24
76.82
0.38
76.44
9.27
85.71
0.77
84.94
3.65
88.59
10.35
78.24

	L. 12	Center	R 12'
12	80.00	78.10	75.00
+60	8.60	10.40	13.60
5	77.40	(78.96) 76.30	74.40
4+1.0	1.60	2.70	4.60
5	73.60	72.60	72.40
+6.0	5.40	6.40	6.60
5	68.50	67.80	67.30
5+1.0	10.50	11.20	11.70
5	65.10	(68.59) 63.40	61.80
+60	3.50	5.20	6.80
37.5	62.80	62.10	60.60
+97.5	5.80	6.50	8.00
20	58.70	(64.69) 57.80	54.70
6+17.5	3.00	3.90	7.00
15	57.10	51.50	55.40
+32.5	4.60	10.20	6.30
15	52.20	53.20	54.90
+47.5	9.50	8.50	6.80
50	51.30	52.40	55.60
+97.5	10.40	9.30	6.10
50	54.40	56.50	58.70
7+17.5	7.30	5.20	3.00
50	56.70	58.60	60.70
+67.5	5.00	3.10	1.00
50	57.30	(64.74) 58.50	59.60
8+17.5	4.40	3.20	2.10
	58.30	59.40	60.60
+67.5	3.40	2.30	1.10
	59.50	60.30	61.20
9+17.5	2.20	1.40	0.50
	57.00	58.30	59.70
+67.5	4.70	3.40	2.00
50	53.50	54.70	55.60
10+17.5	8.20	7.00	6.10
18	53.40	54.30	55.40
+35.5	8.30	7.40	6.30
32	55.20	55.70	56.60
+67.5	6.50	6.00	5.10
	57.60	58.30	59.00
11+17.5	4.10	3.40	2.70
	59.40	60.10	61.30
+67.5	2.30	1.60	0.40

= West line India - Center Pence

Center Arctic - Pence

see page 41

Bottom Ravine

Center Cal - McKee

78.24
0.72
7896
11.51
6745
114
6859
935
5924
245
6169
194
5975
199
6174
201
5973
973
6946

67.5
22
89.5

Stat	12 L	Center	12 R
		(69.46)	
	61.40	62.10	63.00
12+17.5	8.10	7.40	6.50
	63.50	64.20	65.30
+67.5	6.00	5.30	4.20
	65.00	66.00	67.10
13+17.5	4.50	3.50	2.40
	~~66.60~~	~~67.60~~	68.80
+67.5	2.90	1.90	0.70
	67.90	(72.48)	69.70
14+17.5	4.60	4.00	2.80
50	68.10	68.50	69.10
+67.5	4.40	4.00	3.40
22'	67.30	67.70	67.70
+89.5	5.20	4.80	4.80
28'	66.00	66.00	66.60
15+17.5	6.50	6.50	5.90
	64.60	65.00	65.80
+67.5	7.90	7.50	6.70
	63.40	63.40	63.40
16+17.5		9.10	
	63.40	64.50	65.20
16+67.5	9.10	8.00	7.30
	65.50	66.50	67.90
17+17.5	7.00	6.00	4.60
	67.40	68.70	70.10
+67.5	5.10	3.80	2.40
	69.20	70.70	72.30
18+17.5	3.30	1.80	0.20
	71.00	(80.40)	73.10
+67.5	9.40	8.20	7.30
	71.10	72.40	73.90
19+17.5	9.30	8.00	6.50
	73.60	75.50	77.40
+67.5	6.80	4.90	3.00
	75.40	77.40	79.90
20+17.5	5.00	3.00	0.50
	77.50	(82.60)	82.40
+67.5	8.20	5.90	3.30
	78.50	81.60	84.20
21+17.5	7.20	4.10	1.50
	76.20	79.90	82.30
+67.5	9.50	5.80	3.40

Center Cal - McNealy -

Center 4th - Cal

Ravine

69.46
1.03
68.43
4.05
72.48
1.22
71.26
9.15
80.41
2.69
77.72
7.94
85.66

	12' L.	Center	12 R		
	72.20	74.80	77.60		
22+17.5	13.50	10.90	8.10	Break-	
	70.70	73.80	77.30		
+67.5	15.00	11.90	8.40		
	70.10	(79.35) 72.10	75.60		
23+17.5	9.80	7.20	3.70		
	71.90	72.30	73.80		
+67.5	7.40	7.00	5.50	Ravine	
	73.90	74.60	75.80		
24+17.5	5.40	4.70	3.50		
	78.20	(85.38) 79.10	78.10		
+67.5	7.20	6.30	7.30		
	79.00	80.00	81.40		
25+17.5	6.40	5.40	4.00		
	79.20	80.30	81.30		
+67.5	6.20	5.10	4.10		
	78.50	79.80	80.80		
26+17.5	6.90	5.60	4.60		
	81.10	(89.53) 82.30	83.80		
+67.5	8.60	7.30	5.80		
	80.20	81.80	83.30		
27+17.5	9.40	7.80	6.30		
	78.60	80.40	82.50		
+67.5	11.00	9.20	7.10		
	77.90	80.10	82.60		
28+17.5	11.70	9.50	7.00		
	79.20	81.40	83.80		
+67.5	10.40	8.20	5.80		
	80.80	83.10	85.60		
29+17.5	8.80	6.50	4.00		
	82.70	85.40	88.10		
+67.5	6.90	4.20	1.60		
	82.70	84.90	86.70		
30+17.5	6.90	4.70	2.90		
	79.60	81.10	82.60		
+67.5	10.00	8.50	7.00		
	78.40	(92.40) 81.80	84.40		
31+17.5	14.00	10.60	8.00		
	84.20	86.90	89.50		
+67.5	8.20	5.50	2.90		
	86.20	88.70	91.00		
32+17.5	6.20	3.70	1.40		

85.66
10.44
75.22
4.13
79.36
2.03
77.32
8.06
85.38
2.34
83.04
6.63
89.67
4.79
84.78
7.62
92.40

	12 L	Center	12 R
	86.00	88.60	91.00
67.5	6.40	3.80	1.40
	83.70	86.60	89.40
33+17.5	8.70	5.80	3.00
	82.80	86.20	88.80
+67.5	9.60	6.20	3.60
	82.80	85.50	88.00
34+17.5	9.60	6.90	4.40
	80.70	83.30	86.30
+67.5	11.70	9.10	6.10
	78.40	81.30	84.50
35+17.5	14.00	11.[illegible]	7.90
	75.50	78.70 (83.50)	81.90
+67.5	7.90	4.70	1.50
	75.60	78.60	81.40
36+17.5	7.80	4.80	2.00
	74.20	76.40	79.00
+67.5	9.20	7.00	4.40
	71.0	73.80	76.40
37+17.5	12.40	9.60	7.00
	68.10	70.60 (75.25)	73.40
67.5	7.10	4.60	1.80
	64.50	66.80	69.60
38+17.5	10.70	8.40	5.60
	62.90	65.10	68.20
38+52.5	12.30	10.10	7.00

75.25
10.10
56)65.15(1.25
56
91

38.75
35
38.525

92.40
11.23
81.17 T.P. at S 35+17.5
2.23
83.40
10.93
72.47
2.78
75.25
10.07
65.18 B.M. on St Center Witherbee & 4th

Center 4th E/ Witherbee
from this point run 1% descending to Stat 19+00, then an ascending of 1% to Stat 28+50, Then on a descending of % to Stat

Extension India St Road

Stat	12' L	Center	12 R.		
		(66.85)			
	62.80	61.90	59.10		
0+0	4.00	4.90	7.70		
32.5	60.60	59.30	58.10		
+37.50	6.20	7.50	8.70		
50	59.00	57.40	55.90		
+87.50	7.80	9.40	10.90		
50	55.60	(55.80) 54.40	53.70		
1+37.50	0.20	1.40	2.10		
50	51.50	51.10	50.60	3.70 on top pipe line	
+87.50	4.30	4.70	5.20		
50	49.00	49.10	48.90		
2+37.50	6.80	6.70	6.90		
20	48.00	48.50	48.80	12' West	
+57.5	7.80	7.30	7.00	7.80	
35	45.10	45.00	46.40		
+92.5	10.70	10.80	9.40		
7.5	41.80	41.10	40.20		
3+00	14.00	14.70	15.60		
10	41.40	40.50	42.00		
+10	14.40	15.30	13.80		
25	48.30	47.40	47.90		
+35	7.50	8.40	7.90		
15	49.10	48.90	49.30		
+50	6.70	6.90	6.50		
4+00	49.50	49.40	50.20		
	6.30	6.40	5.60		
	50.80	52.00	52.90		
50	5.00	3.80	2.90		
	53.30	54.00	55.00		
5+00	2.50	1.80	0.80		
	54.60	(59.56) 55.60	56.30		
50	5.00	4.00	3.30		
	52.60	53.60	54.60		
6+00	7.00	6.00	5.00		
	53.40	54.30	55.30		
37.5	6.20	5.30	4.30		

Beg at Center Arctic - Peirce, thence West along Peirce to Calif, Thence North along Cal to Intersection Cal ℄

57.5
35
92.5

0+0 = Center Plg at Arctic - Peirce 66.85
West line Arctic 11.94
54.91
0.89
55.80
1.74
54.06
5.50
59.56
5.30
54.26

West line Cal

20 feet into Cal

Bottom Ravine

54.30

= S 10+35.5 on Page 37, Center Cal - McKrs

Cross Section 3rd St from N line Laurel to S line Olive

June 10 1898

Stat	West	Curb	Mid	Center	Mid	Curb	East	
			(245.72)					
	238.10	237.90	237.60	237.70	238.30	238.90	240.00	
0+0	7.60	7.80	8.10	8.00	7.40	6.80	5.70	N line Laurel
	238.90	238.90	239.00	239.10	239.70	240.30	241.20	
25	6.80	6.80	6.70	6.60	6.00	5.40	4.50	
	239.40	239.60	239.70	239.90	240.70	240.80	242.30	
50	6.30	6.10	6.00	5.80	5.00	4.90	3.40	
	240.10	240.50	240.50	240.70	241.20	241.30	242.10	
75	5.60	5.20	5.20	5.00	4.50	4.40	3.60	
	241.10	241.60	241.60	241.80	242.10	242.60	242.90	
1+00	4.60	4.10	4.10	3.90	3.60	3.10	2.80	
	243.40	243.60	243.40	243.70	243.90	243.70	243.90	
25	2.30	2.10	2.30	2.00	1.80	2.00	1.80	
	245.90	244.90	245.30 (242.77)	245.10	245.20	245.20	244.60	
50	6.90	7.90	7.50	7.70	7.60	7.60	8.20	
	246.80	246.00	246.00	246.00	246.10	245.70	245.00	
75	6.05	6.80	6.80	6.80	6.70	7.10	7.80	
	247.10	246.60	246.70	246.70	246.90	246.60	246.50	
2+00	5.70	6.20	6.10	6.10	5.90	6.20	6.30	
	247.90	247.30	247.20	247.30	247.10	247.00	247.20	
25	4.90	5.50	5.60	5.50	5.70	5.80	5.60	
	248.10	247.80	247.80	247.70	247.80	247.20	247.50	
50	4.70	5.00	5.00	5.10	5.00	5.60	5.30	
	248.50	248.20	248.00	248.20	248.10	248.90	248.30	
75	4.30	4.60	4.80	4.60	4.70	4.00	4.50	
	249.00	248.60	248.50	248.60	248.60	248.40	248.70	
3+00	3.80	4.20	4.30	4.20	4.20	4.40	4.10	S line Maple
	249.70	249.10	248.80	248.90	248.80	248.60	248.70	
14	3.10	3.70	4.00	3.90	4.00	4.20	4.10	
	250.00	249.80	249.60	249.50	249.60	249.60	249.60	
40	2.80	3.00	3.20	3.30	3.20	3.20	3.20	
	250.40	250.00	250.20	249.70	249.50	249.40	249.70	
66	2.70	2.80	2.60	3.10	3.30	3.40	3.10	
	250.60	249.90	250.10	249.80	249.70	249.70	250.30	
0+0	2.20	2.90	2.70	3.00	3.10	3.10	2.50	N line Maple
	251.00	250.40	250.30	249.90	250.20	250.00	250.80	
25	1.80	2.40	2.50	2.90	2.60	2.80	2.00	
	251.00	250.60	250.60	250.30	250.40	250.40	251.20	
50	1.80	2.20	2.20	2.50	2.40	2.40	1.60	
	251.00	250.80	250.80	250.60	250.80	250.80	251.50	
75	1.80	2.00	2.00	2.20	2.00	2.00	1.30	
	251.30	251.10	251.30	251.10	251.50	251.50	252.30	
1+00	1.50	1.70	1.50	1.70	1.30	1.30	0.50	

B.M 242.75
2.97
245.72
1.22
244.50
8.27
252.77
1.11
251.66

Cross Section 3rd St

Stat	West	Curb	Mid	Center	Mid	Curb	East	
			(258.04)					
	251.50	251.50	251.50	251.50	252.00	252.00	252.50	
25	6.50	6.50	6.50	6.50	6.00	6.00	5.50	
	252.50	251.90	252.20	252.20	252.70	252.60	253.10	
50	5.50	6.10	5.80	5.80	5.30	5.40	4.90	
	252.70	252.70	252.70	252.80	253.20	253.20	253.70	
75	5.30	5.30	5.30	5.20	4.80	4.80	4.30	
	253.10	253.10	253.50	253.40	253.80	253.80	254.10	
2+00	4.90	4.90	4.50	4.60	4.20	4.20	3.90	
	253.60	253.80	253.80	254.00	254.30	254.30	254.70	
25	4.40	4.20	4.20	4.00	3.70	3.70	3.30	
	254.30	254.20	254.50	254.50	254.80	254.80	255.20	
50	3.70	3.80	3.50	3.50	3.20	3.20	2.80	
	254.90	254.50	254.90	255.30	255.50	255.50	255.80	
75	3.10	3.50	3.10	2.70	2.50	2.50	2.20	
	255.10	255.00	255.30	255.60	256.00	256.00	256.40	
3+00	2.90	3.00	2.70	2.40	2.00	2.00	1.60	S. line Mulmeg
	255.30	255.60	255.70	256.00	256.40	256.40	256.90	
14	2.70	2.40	2.30	2.00	1.60	1.60	1.10	
	255.80	256.00	256.30	256.50	257.00	257.30	257.60	
40	2.20	2.00	1.70	1.50	1.00	0.70	0.40	
	256.40	256.60	256.90 (266.34)	257.20	257.30	257.70	258.00	
66	9.90	9.70	9.40	9.10	9.00	8.60	8.30	
	256.70	257.00	257.20	257.60	257.80	258.30	258.40	
0+0	9.60	9.30	9.10	8.70	8.50	8.00	7.90	N line Mulmeg.
	257.20	257.70	257.90	258.10	258.30	258.60	258.90	
25	9.10	8.60	8.40	8.20	8.00	7.70	7.40	
	257.90	258.20	258.40	258.80	259.30	259.30	259.60	
50	8.40	8.10	7.90	7.50	7.00	7.00	6.70	
	258.50	258.80	259.00	259.40	259.50	259.90	260.10	
75	7.80	7.50	7.30	6.90	6.80	6.40	6.20	
	258.80	259.20	259.60	259.90	260.10	260.20	260.80	
1+00	7.50	7.10	6.70	6.40	6.20	6.10	5.50	
	259.40	259.80	260.00	260.60	261.10	260.90	261.10	
25	6.90	6.50	6.30	5.70	5.20	5.40	5.20	
	260.00	260.30	260.50	260.80	261.20	261.50	262.00	
50	6.30	6.00	5.80	5.50	5.10	4.80	4.30	
	260.60	261.20	261.60	261.80	262.10	262.20	262.30	
75	5.70	5.10	4.70	4.50	4.20	4.10	4.00	
	261.10	261.50	262.10	262.20	262.50	262.60	262.50	
2+00	5.20	4.80	4.20	4.10	3.80	3.70	3.80	
	261.60	261.80	262.40	262.50	262.80	263.20	263.60	
25	4.70	4.50	3.90	3.80	3.50	3.10	2.70	

251.66
6.38
258.04
1.86
256.18
10.16
266.34

Cross Section

Grade at

222.02
2.47
219.55
8.45
228.00

Stat	West	Curb	Mid	Center	Mid	Curb	East
	261.50	261.80	262.50	262.90	263.00	263.00	263.30
50	4.80	4.60	3.80	3.40	3.30	3.30	3.00
	261.30	262.10	262.20	262.70	262.80	263.00	263.20
75	5.00	4.20	4.10	3.60	3.50	3.30	3.10
	261.00	261.60	262.00	262.60	263.00	263.10	263.60
3+00	5.30	4.70	4.30	3.70	3.30	3.20	2.70
	236.40	236.30	(237.24) 236.30	236.00	235.50	235.40	235.10
0+0	0.80	0.90	0.90	1.20	1.70	1.80	2.10
	236.10	236.10	235.70	234.20	224.20	(225.60) 216.60	217.20
25	1.10	1.10	1.50	6.00	13.00	4.40	4.80
	235.70	235.60	235.20	233.70	225.60	218.80	215.40
50	1.50	1.60	2.00	3.50	11.60	9.20	6.60
	235.30	235.20	234.70	234.30	225.80	219.60	215.40
75	1.90	2.00	2.50	2.90	11.40	8.40	6.60
	234.80	234.50	234.40	233.80	229.80	222.90	215.40
1+00	2.40	2.70	2.80	3.40	7.40	5.10	6.60
	234.10	234.00	233.80	233.50	232.60	224.20	218.60
25	3.10	3.20	3.40	3.70	4.60	13.00	3.40
	233.50	233.50	233.00	232.60	231.70	230.20	220.90
50	3.70	3.70	4.20	4.60	5.50	7.00	1.10
	232.80	232.70	232.10	231.00	224.20	222.00	215.40
75	4.40	4.50	5.10	6.20	13.00	0.00	6.60
	231.00	230.80	(231.65)	223.60	218.60	214.10	209.40
2+00	0.60	0.80	1.35	8.00	3.40	7.90	12.60
	230.20	229.90	228.90	225.90	220.30	214.00	206.40
25	1.40	1.70	2.70	5.70	11.30	8.00	15.60
	229.40	229.00	227.50	221.40	217.20	212.10	206.60
50	2.20	2.60	4.10	10.20	4.80	9.90	15.40
	228.60	228.40	228.10	225.40	217.90	211.30	206.30
75	3.00	3.20	3.50	6.20	4.10	10.70	15.70
	227.90	227.60	227.40	226.50	221.40	215.00	207.80
3+00	3.70	4.00	4.20	5.10	10.10	7.00	14.20

(222.02)
4.50 10. 218.5 3.40 20 218.6
7.5 10.00 214.5 6.30 20 215.5
10.50 15 211.5 8.20 25 213.8
12.5 20 209.5 10.50 30 211.5
204.90 7.70 35 3.50 30 207.10
9.40 35 203.2
11.00 25 201.6
12.5 25 201.10
13.8 25 198.8
15.00 25 197.6
201.9 10.7 20 197.3 15.3 35

(222.02)
(222.02)

266.34
3.03
263.31

Elm Oliver

Elm Laurel

242.75 B.M.
0.80
243.55
7.19
236.36
0.85
237.24
5.39
231.85
6.80
232.65
11.80
220.85
1.17
222.02
10.69
211.33
1.25
210.08

Elm Kalma

D. Rutledge June 15-98

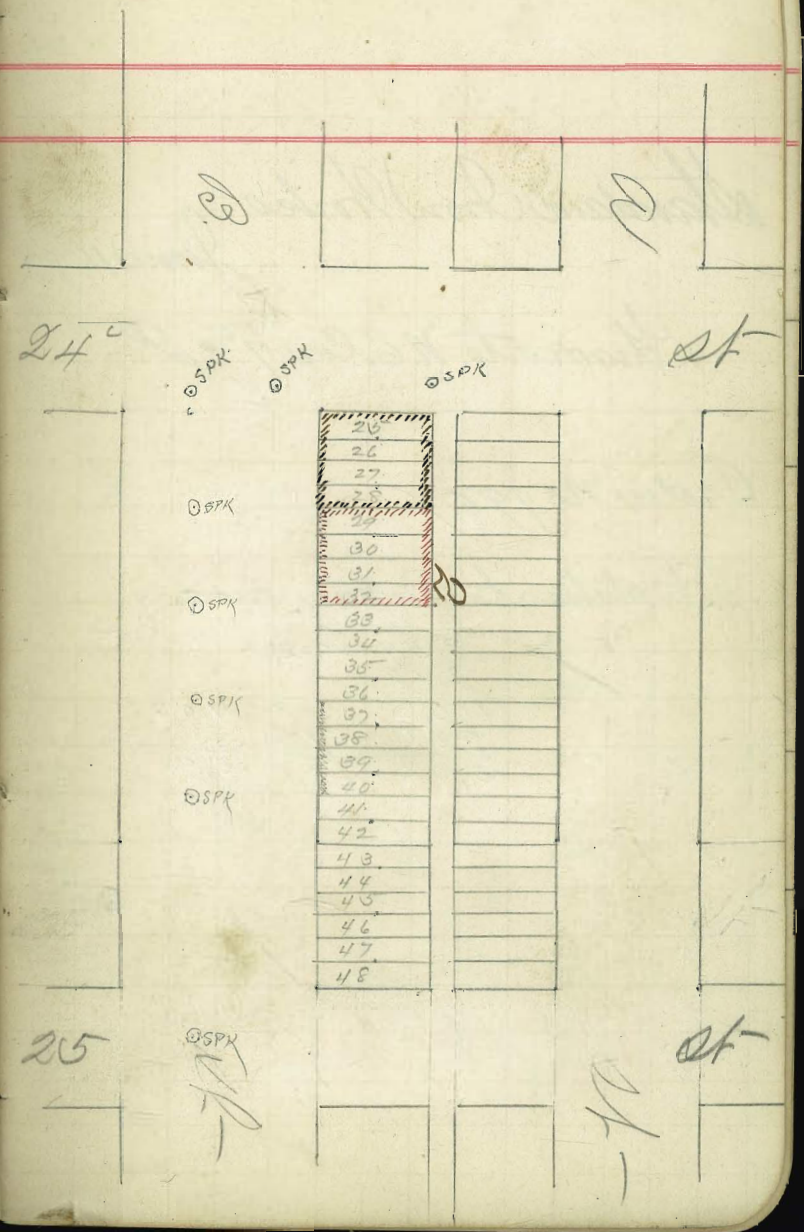
Survey Lots 29-30-31-32 Blk
2 H. M. Higgins Add-

Order No 993.

July 12th. 98

Mr Heller.
Survey Lots 25-26-27-28 Blk
2 Higgins

Order No 999.



Standard Iron Works.

June 16-98

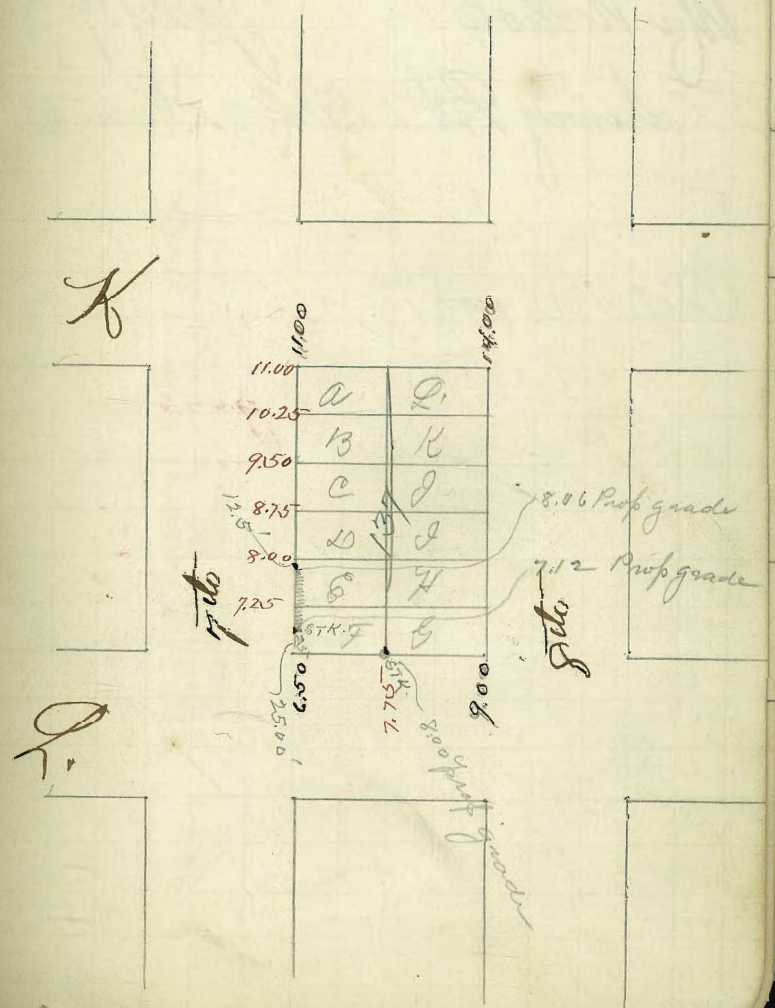
Grades to N.E. Cor 7th & L.

Order No 994

Set stakes to property grade—

8.59 B.M.
2.49

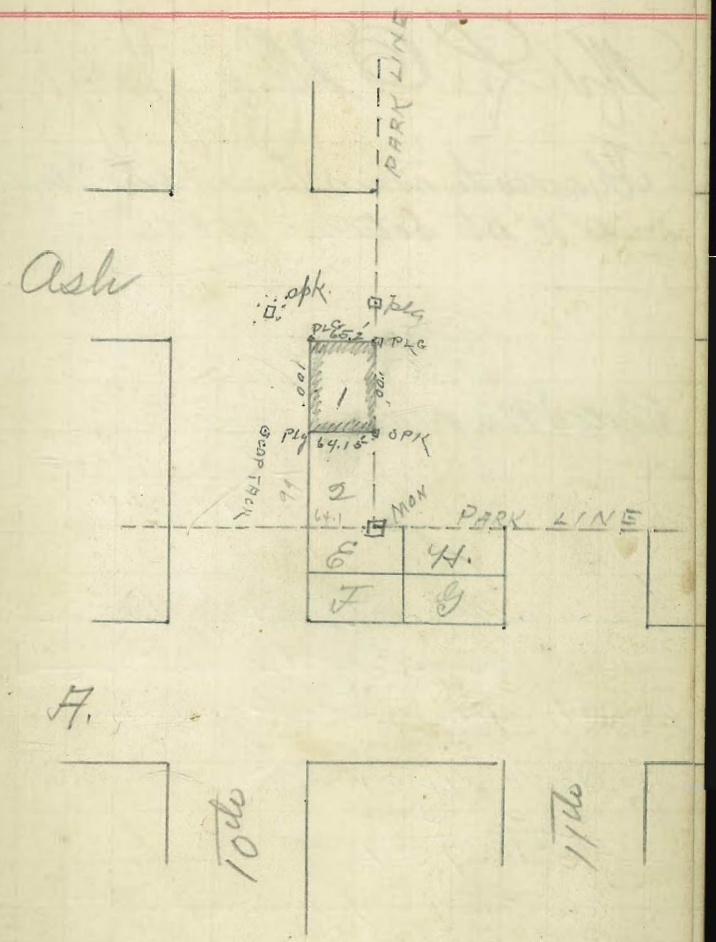
11.08	11.08	11.08
8.06	7.12	8
3.02	3.96	3.08



Mr Nichols July 19-98

Survey Lot 1 Blk 21 Carnuthers

Order No 1001



Mr L. O'Mix July 19.98

Grades to ware house on North side N" st between 15th & 16th

12.95 B.M. 16th st
1.53
14.48
8.27
6.21
4.76
10.97
4.50
6.47

14.48 14.48
4.50 7.20
9.98 7.28

Order No 1002.

10.97
49
6.07

in all points, set spikes in the brick work of the ware house 3 feet above the curb grade

10.97 10.97
3.40 3.40
7.57 7.57

Elevation of Cuyamaca & Coronado R.R. tracks on N & East line of 15th st

set points in Corners of ware house

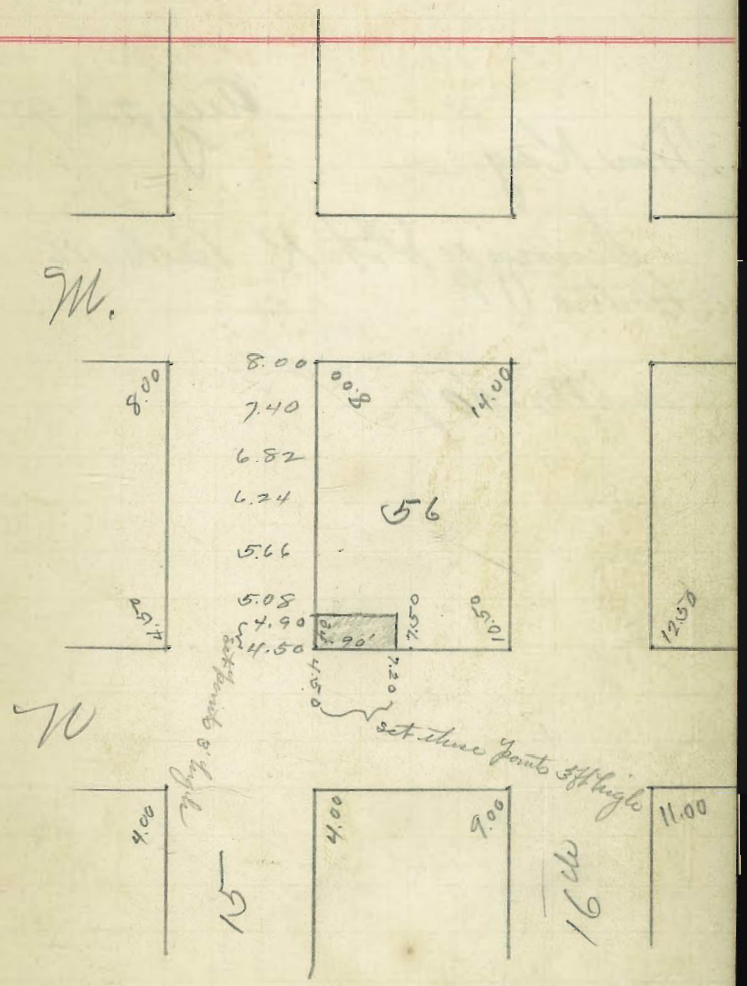
14.48
10.50
3.98

7.5
4.5
3.0
2.7

4.5
2.9
7.2

.58
.058
7
.406

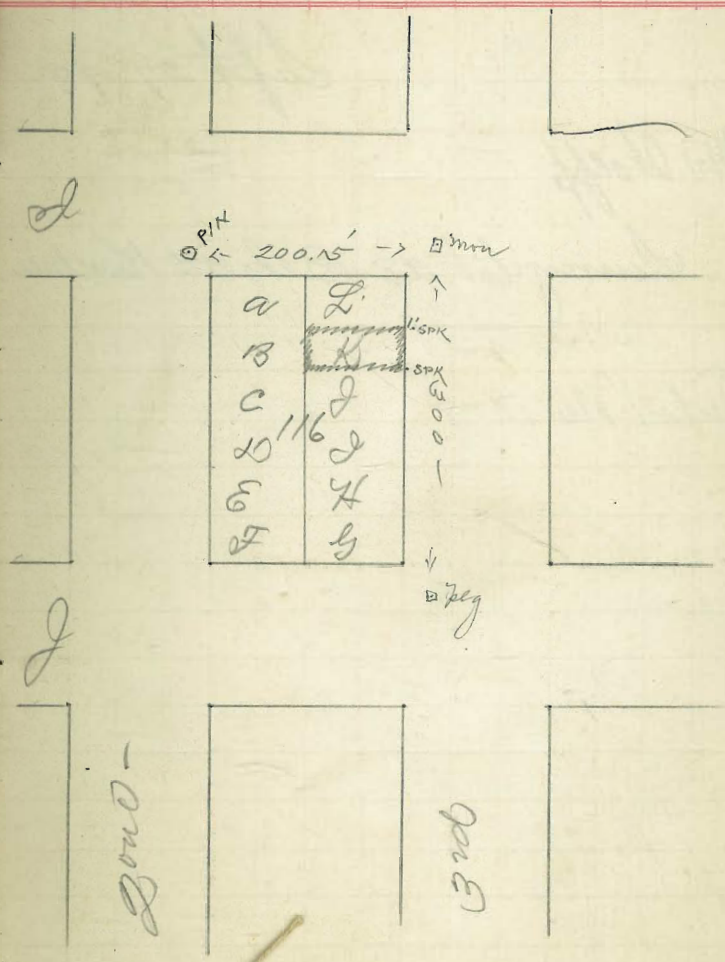
48



Tom Kay. Aug 22-98

Survey of Lot K" Bek 116
Hortons

Order No 1007



Sept 27.98

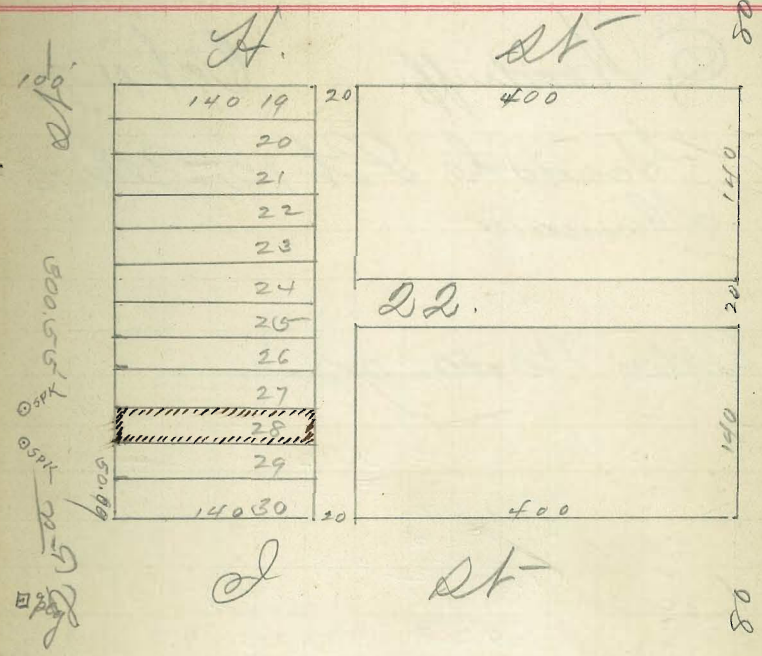
Mr Stolff

Survey lot 28 Blk 22 Kimball

spks set at all four corners

Order No 1018.

53
50.09
103.09



E. Woodruff Oct 11, 98

Grade to Lot 12 Blk 12
Sherman,

Order No. 1020

118.20 B.M.
0.02
118.22
11.20
107.02
2.26
109.28
100
9.28

109.28
99.33
9.95

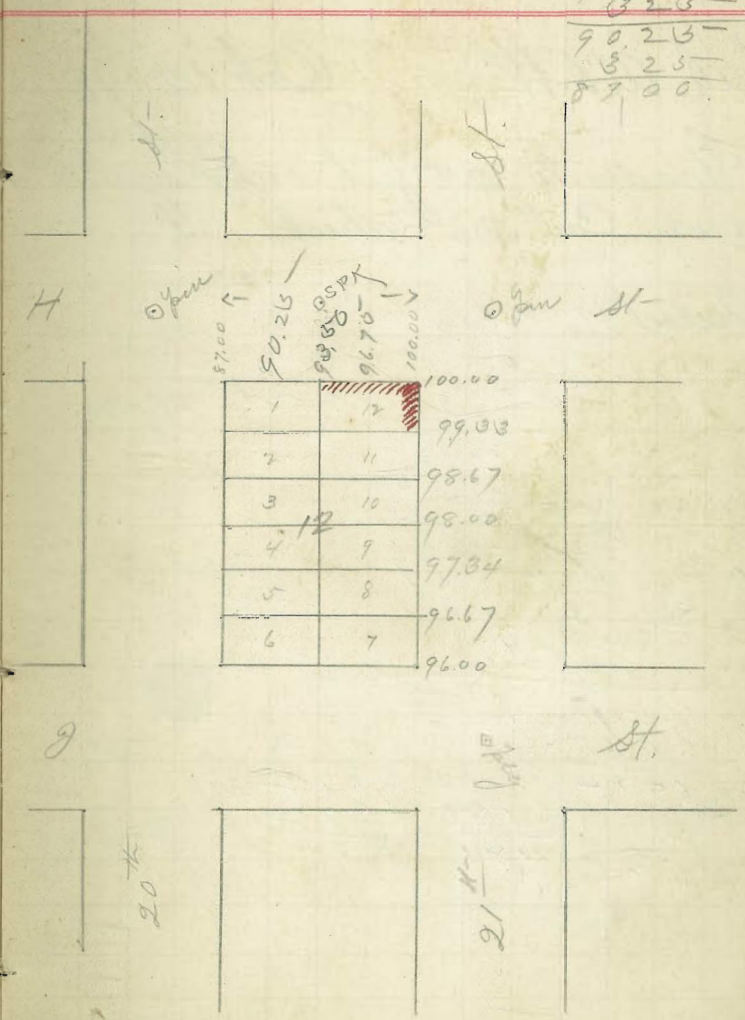
100.00 stake
2.10
102.10
96.75
5.35

102.10
93.50
8.60

4/13 (3.25
12
10
8
20

28
67
95

100.00
3.25
96.75
3.25
93.50
3.25
90.25
3.25
87.00



Seth Abbott. Oct 12-98

Grades to 25 feet on Logan Ave, Cor 25th street.

Order No 1022

50.61 B.M. 24th Logan
8.67
59.28
0.70
58.58
8.86

67.44 67.44 67.44 67.44
2.03 63.00 62.44
65.41 B.M. 4.44 5.00

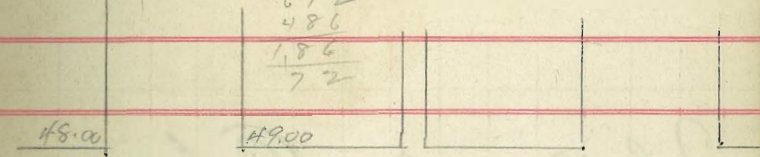
65.41 B.M.
4.31
69.72 69.72 69.72
63 64.86 66.72
6.72 4.86 3.00

67.44
60.75
6.69

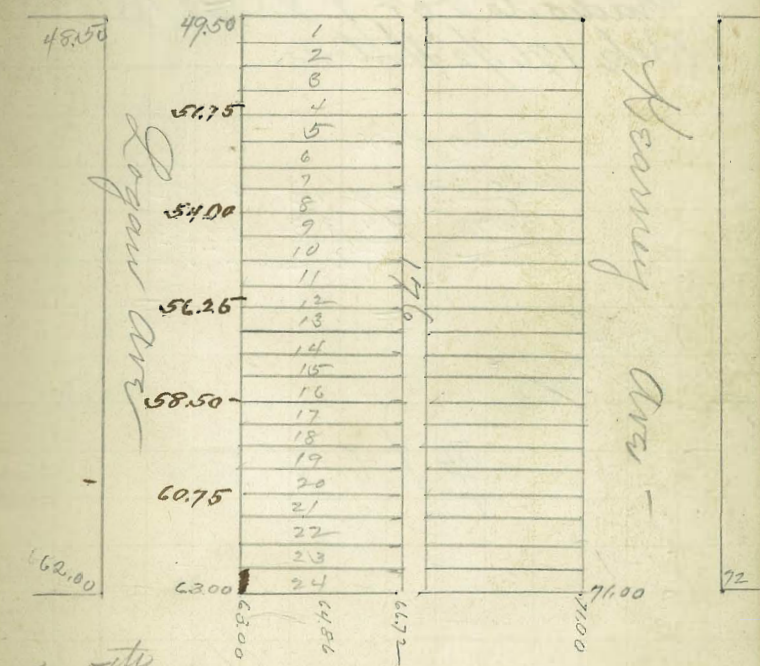
41.2.25 (56
20
25

63
56
62.44

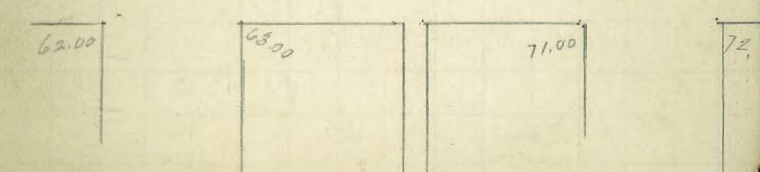
672
486
1.86
72



24th



25th



John Englebret Oct 13. 98

Grades to Lot J E/S 1/2 K

Blk 196 1/2 Horton.

53.80 B.M.
1.15

54.95	54.95	54.95
49.50	49.33	49.00
5,45	5,62	5,95

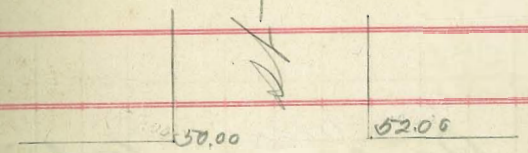
54.95
48.66
6,29

#1023

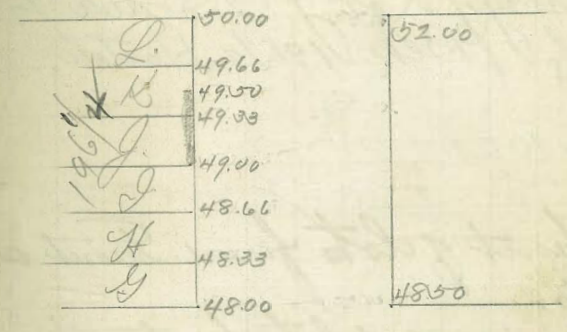
33
16

49.33
17
49.50

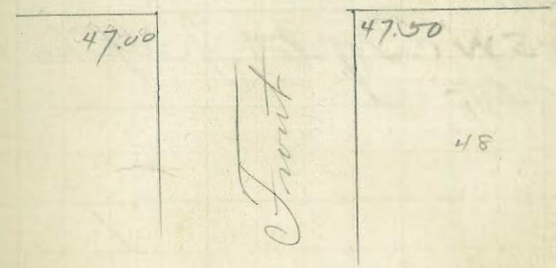
33
17
5.0



ash st



a st



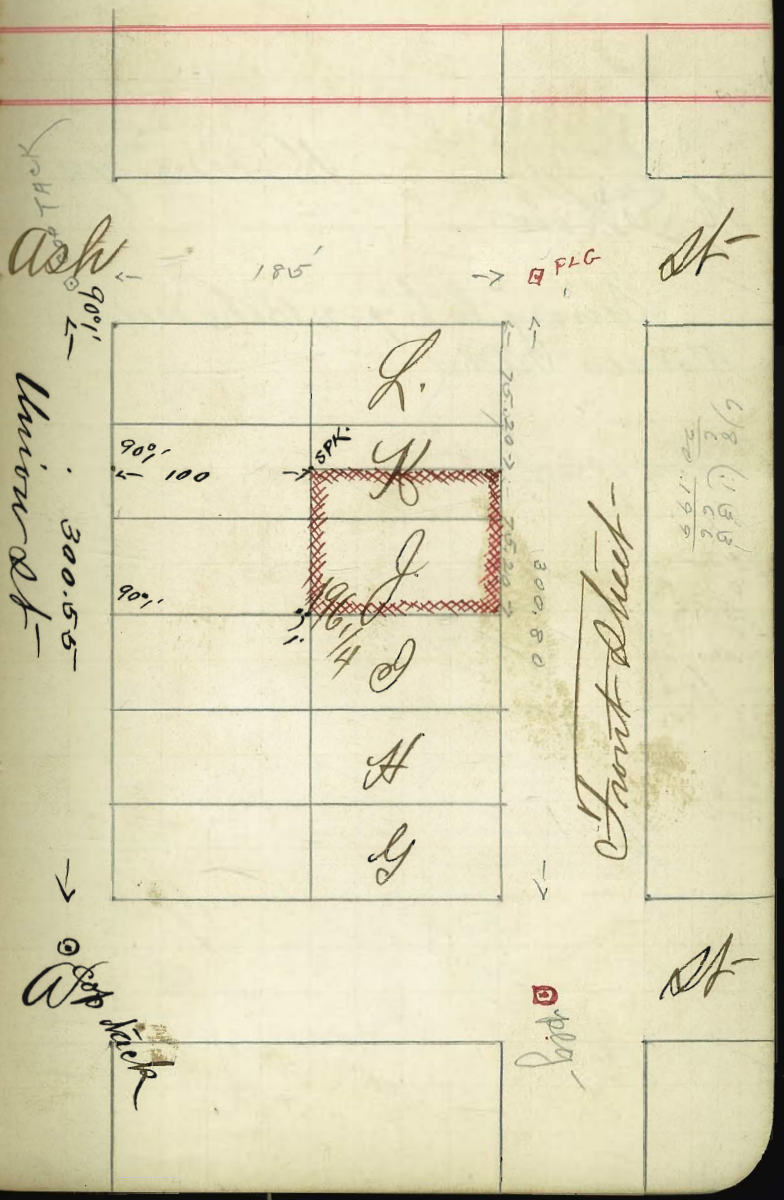
6)20(333
18
200

Louis Bleckman Aldermanic Oct 14-98

Survey of Lot J and South 1/2 of K. Blk. 196 1/4 Horton

Order 1021

Set front of lots from Front st points.
Set rear end of lots by turning angles off of Union st points as shown.
Set S.W. Cor of lot J. spike 1 ft West of true Cor.

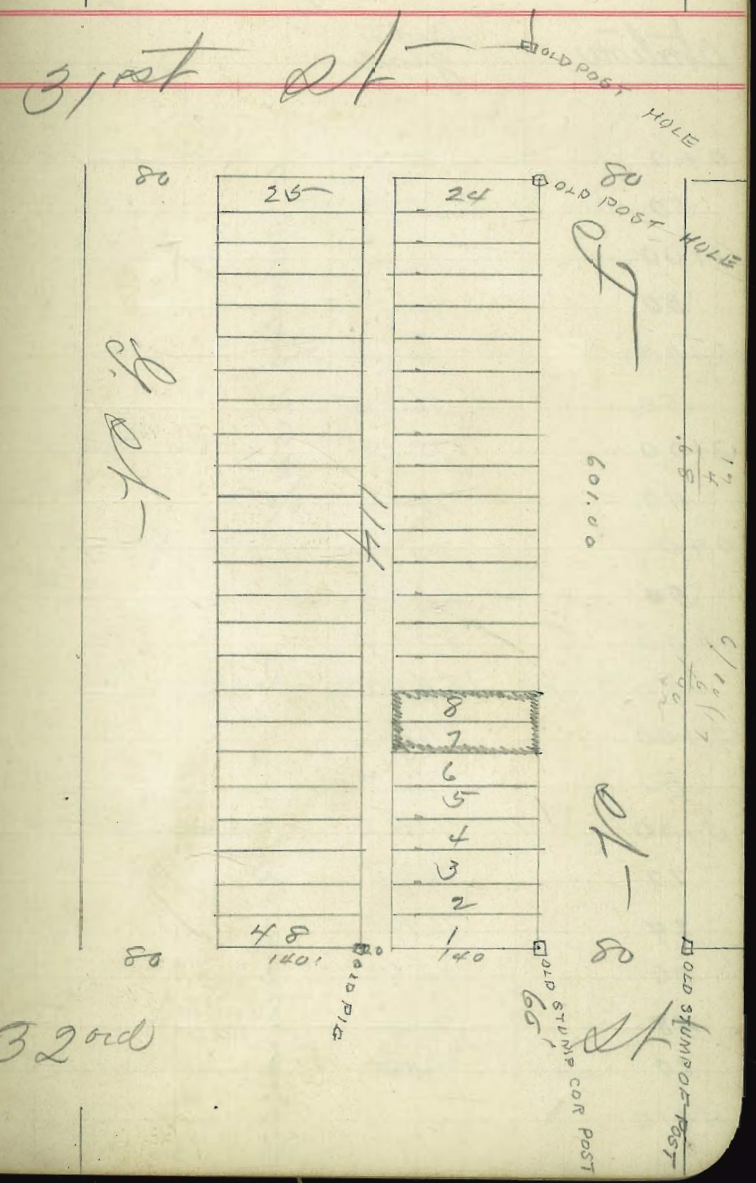


Dec 13, 98

N. S. Low

Survey lots 7-8 Blk 114
Moses Add

Order 1034



32 ord

India St grading

Jan 1899.

Station		Center grade			
0+0		70.50		L	-0.70
50		71.77	ascending 2.54%	L	-2.10
1+00		73.04		L	-2.80
50		74.31		L	-2.50
2+00		75.58		L	-1.10
50		76.85		L	+1.30
3+00		78.12		L	+2.60
40		79.14		L	+3.30
0+0		80.15		L	+3.80
50		81.42		L	+3.50
1+00		82.69		L	+1.80
50	BREAK	84.00	descending 4.52%	L	+0.40
2+00		81.74		L	+3.30
50		79.58		L	+5.60
3+00		77.32		L	+7.10
12		76.75			+6.30
24		76.19			+5.20
36		75.62			+4.70
48		75.06			+4.10
60		74.50		L	+3.60
4+10		72.23		L	+4.10

67.58
11.03
78.61
.41
78.20
9.17
87.37
2.22
85.15 T.P.

	L	R
W line Chalmers	-1.10	
	-2.40	-0.80
	-2.70	-1.50
	-2.60	-1.20
	-1.10	-0.10

85.15 + 1.59 = 86.74
86.74 − 1.53 = 85.21 B.M. at India-Pierce

S line Flinders

W line Flinders

Break Grade from 2.54% to 4.52%

S line Pierce

West line India on Pierce

India St Extension

Station		Center grade			
4+60		69.97		✓	+2.60
5+10		67.71		✓	+0.10
+60		65.45	4.52%	✓	-2.00
37.5 37.5 +97.5		63.73		✓	-1.60
37.50		62.06		✓	-2.80
50' 87.50		59.80		✓	-2.40
1+37.5		57.54		✓	-3.10
+87.5		55.28		✓	-4.20
2+37.5	BREAK	53.00		✓	-3.90
20' +57.50		53.28		-4.20	-4.80
35' +92.50		53.78		-7.40	-8.80
7.5 3+00		53.89		-13.30	-12.20
10' +10		54.03		-12.00	-13.50
25' +35		54.38		-6.40	-7.00
15' +50		54.59		-5.20	-5.70
50' 4+00		55.30		-5.20	-5.90
50		56.01		-3.50	-4.00
5+00		56.72		-2.20	-2.70
50		57.43		-1.40	-1.80
6+00		58.14		-4.50	-4.50
37.5 37.5		58.66		✓	-4.40

Ascending 1.42%

86.74
11.94
74.80
0.42
75.22
11.20
64.02
0.54
64.56
11.75
52.81
4.43
57.24

64.56
1.20
63.36 B.M.
Stake Cor fence
Arctic Pierce

57.24
0.96
56.28
8.05
64.33

57

63.36
5.81
69.17
58.66
10.51

	L	R	
		-3.20	8'
Center Arctic & Pierce	-0.40	-2.60	13'
change of notes West line Arctic St	-1.00	-3.50	6'
	-0.30	-3.40	5.5
	-1.40	-3.10	5.
4.5'	-3.30	-4.20	6'
6'	-3.50	-3.60	6'

West line Cal Break grade from 4.52% to 1.42%

out	12' left	Center	12 R.	out
6'	-4.00	-4.20	-3.2	4.5
8'	-8.2	-7.40	5.8	9'
18'	-11.90	-13.30	-12.3	15' ✓
20	-13.20	-12.00	-10.00	12' ✓
7.5	-7.00	-6.40	-5.9	9' ✓
7.0	-4.70	-5.20	-4.9	7.5 ✓
7.0	-4.70	-5.20	-4.70	7.0 ✓
8.0	-4.20	-3.50	-2.5	3.8 ✓
4.5	-2.70	-2.20	-0.7	1.0 ✓
3.	-1.90	-1.4	—	—
8.	-4.70	4.5	-2.9	4'
Cent Cal & McKee		-4.40	-2.90	4'
8.4	-4.90			

India St Extension grading Notes.

73.11
2.53
70.58 BM
opposite S 14+89.5

Station	Center grade		
32' 67.50 50'	59.11		-3.40
11+17.5	59.82		-1.50
+67.5	60.53		-0.40
12+17.5	61.24		+0.90
+67.5	61.95		+2.20
13+17.5	62.66		+3.30
67.5	63.37		+4.20
14+17.5	64.08		+4.40
67.5	64.79		+3.70
22' 89.50 28'	65.10		+2.60
15+17.5	65.50		+0.50
67.5	66.21		-1.20
16+17.5	66.92		-3.50
+67.5	67.63		-3.10
17+17.5	68.34		-1.80
67.5	69.05		-0.30
18+17.5	69.76		+0.90
67.5	70.47		+1.70
19+17.5	71.18		+1.20
67.5	71.89		+3.60
20+17.5	72.60		+4.80

ascending 1.42%

(Change of Notes. × sec)

	L	R	
5'	-3.40	-2.00	3'
3'	-1.70	-0.30	
	-0.40		

64.33
0.81
63.52
9.59
73.11
1.34
71.77
9.72
81.49

70.58
3.48
74.06
65.10
8.96

65.10
8.40
73.50 +1
65.50
8.00

73.50
67.63
5.87
73.50
68.34
5.16

73.50
66.21
7.29

73.50
66.92
6.58

73.50
69.05
4.45

73.50
69.76
3.74

73.50
71.18
2.32

73.50
70.47
3.03

Center Cal & 4th

73.50
0.93
72.57
8.12
80.69 +1
72.60
8.09

	-1.10		
4.5	-3.00	-3.00	4.5
6.6	-3.70	-1.90	3'
4.10	-2.30		
	-1.10		
	-0.10		

India St Extension grading Notes Jan 1899

Station		Center grade			
67.50		73.31	1.42%		+6.50
21+17.5		74.02			+7.60
+67.5		74.73			+5.20
22+17.5	BREAK.	75.50	↓ Stake 50'-100' west		-0.70
+67.5		76.02			-2.20
23+17.5		76.54			-4.40
67.5		77.06			-4.70
24+17.5		77.58		Bottom Rain -2.10	-3.00
+67.5		78.10			+1.00
25+17.5		78.62			+1.40
+67.5		79.14			+1.20
26+17.5		79.66	1.05%		-0.20
+67.5		80.18			+2.10
27+17.5		80.70			+1.10
+67.5		81.22			-0.80
28+17.5		81.74			-1.60
+67.5		82.26			-0.90
29+17.5		82.78			+0.30
+67.5		83.30			+2.10
30+17.5		83.82			+1.10
+67.5		84.34			-3.20

Ascending

81.49
201
7948
5170
8518
2179
8239
8100
9039

80.69
75.50
5.19

	L	R
6'	-2.80	
8.5'	-4.80	
10'	-5.90	-0.40
7.7	-4.70	-2.80
	-3.20	-1.30
3.5	-2.10	
6.0'	-3.30	
5.5	-2.50	
3'	-1.50	
	-0.10	
	-0.60	
8'	-4.20	-1.20

Break grade from 1.42% to 1.05%

India St Extension

Grading Notes Jan 1899.

Station		Center grade			
31+17.5	1.05%	84.37			-3.10
+67.5		85.40			+1.50
32+17.5		85.92			+2.80
+67.5		86.44			+2.20
33+17.5	Break	87.00		stake 44.5 E " 50.00 W	-0.40
67.5		85.30			+0.90
34+17.5		83.60			+1.90
+67.5		81.90			+1.40
35+17.5		80.20			+1.10
67.5		78.50			+0.20
36+17.5		76.80			+1.80
+67.5		75.10			+1.30
37+17.5		73.40			+0.40
+67.5		71.70			-1.10
38+17.5		70.00			-3.20

-><- descending 3.4% ->

90.39
2.84
87.50
4.23
91.73
1.41
90.32 B.M opposite S 35+67.5
0.41
90.73
11.41
79.32

	L	R.
9.6'	-6.00	0.00
	-0.70	
6'	-2.80	

Break grade from 1.05% to 3.4%

79.32
2.24
81.56
3.70
77.86 B.M opposite S 38+17.5

4'	-2.00	
	-0.30	
	-0.70	
	-1.30	
4.5'	-2.50	
	-0.70	
	-0.40	
4'	-1.90	
6'	-3.10	
9.5'	-5.00	

77.86
10.55
88.41
87
1.41

77.86
1.32
79.18
70
9.18

South line Witherby St

69.17 H.Z.
58.14
11.03

58.66
4.35

63.91
56.72
6.79

69.17
53.00
16.17

63.91
56.91
7.00

Extension Cemetry Road

47
32
1.5

5.00
41
.9

405
325
4375
325
4700
1325
5025
1325
5,350
32
5,67

7.74

8.87
3
5.87
3
2.87

29.00
4.05
3 305
8.92
2413
4.46
2859
422
24,37

Englebret Contract

Grading contract

533
32
5,65
33
5,32
5,98
33
6,30

At foot of 6% elevation of Center line 29.00 ft

Grade level to Bridge 168 feet elevation center line 29.00 ft

Then a descending grade of 0.65% to a connection with the Smith contract

6.30
33
6,63
32
6,95

6)2.5 (417
24
10
6
40

18.09 B.m. on stake F.
Jan 19-99

Mc Near
Contract on East side Park

18.09 B.m
1.08

19.17	19.17	19.17	19.17	19.17	19.17	19.17
12.50	12.08	11.67	11.25	10.83		
6.67	7.09	7.50	7.92	8.34		

11.67 on g stake
4.68

16.35	16.35	16.35	16.35
11.26	10.83	10.42	10
5.10	5.52	5.93	6.35

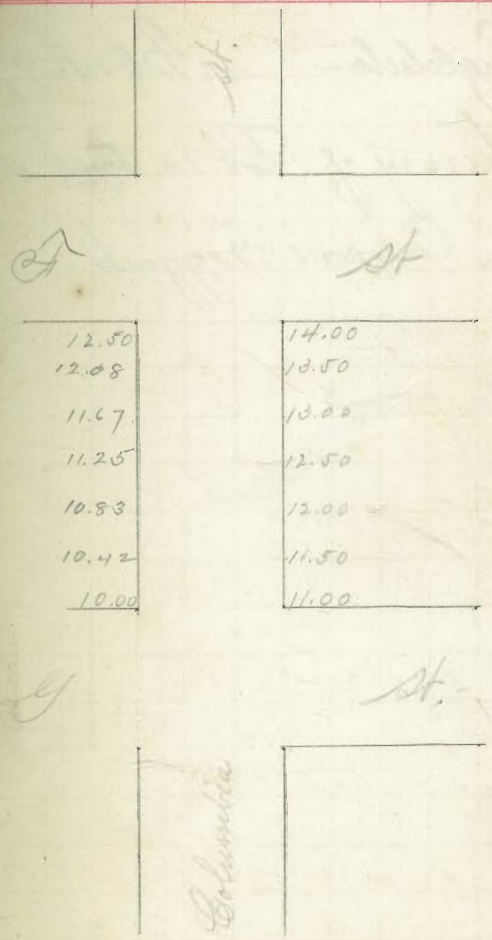
Check Jan 30-99

18.09 B.m
1.16

19.19	19.19	19.19	19.19
12.50	12.08	11.67	11.25
6.69	7.11	7.52	7.94

11.25 on stake
4.51

15.76	15.76	15.76
10.83	10.42	10.00
4.93	5.34	5.76



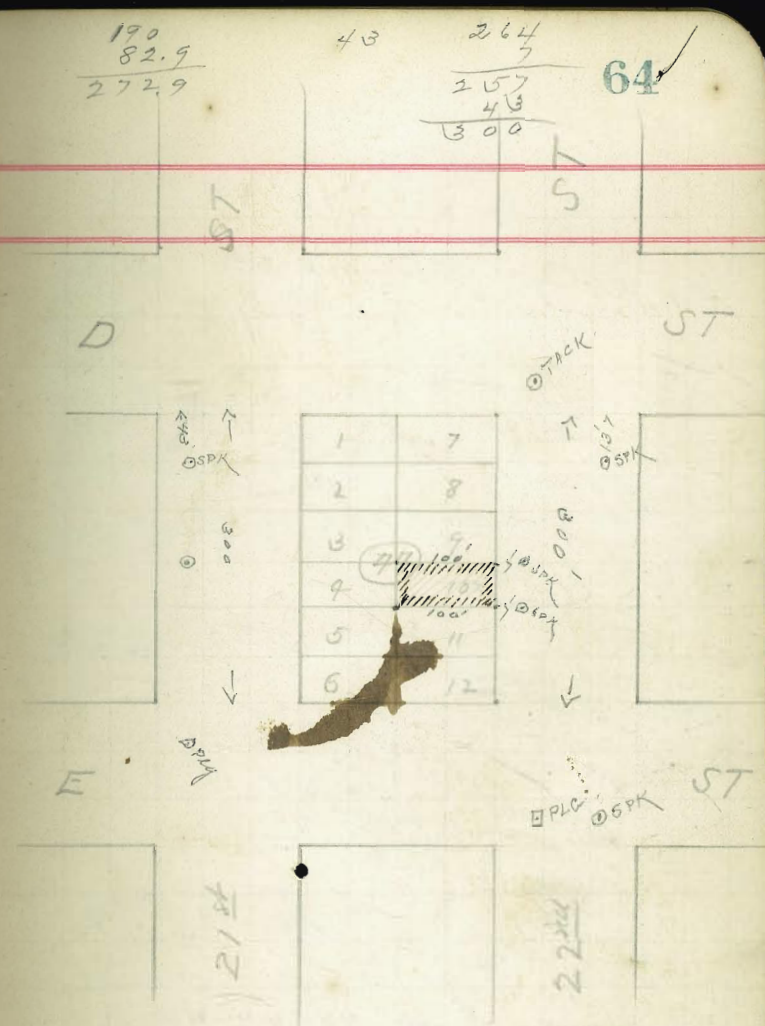
10.00
417
10.417
417
10.834
417
11.251
417
11.668
417
12.085
417
12.502

Chas Englehelsen Feb 14-99

Survey of Lot 10 Blk. 44

~~Cornelius~~ Culverwell & Teggarts.

Order No. 1044



Mr Butler, Feb 16. 99

Survey of Lots 45-46-47-48
Bck 32 H. M. Higgins add
also grade stakes to front of lots
Order 1046

203.30 BM NE Cor 27. B.
4.04

207.34	207.34
197	196.83
10.34	10.51
6.20	5.90
+ 4.14	+ 4.61

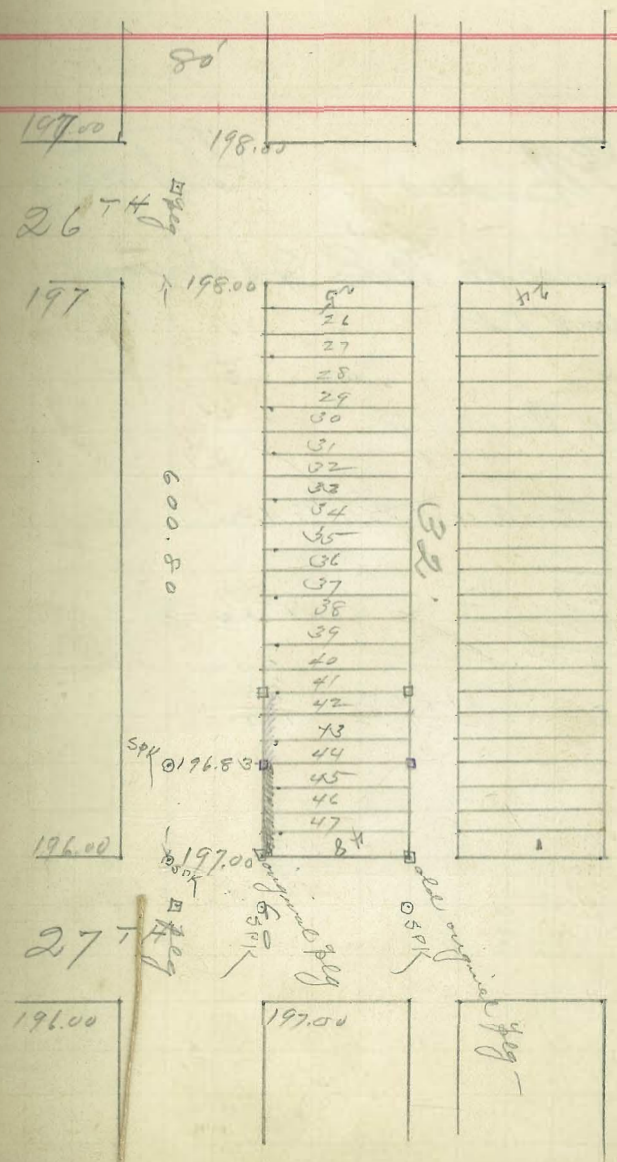
at Cor

Mar 28th 99

Scott & Carter.
Survey of Lots 42-43-44
B. 32. H. M. Higgins add
Order. 1058

197.00
.17
196.83

6)1.0 (.166
6
40
.36



O E Windus Feb 24-99

Grades to N E Cor Union - Cedar Sts

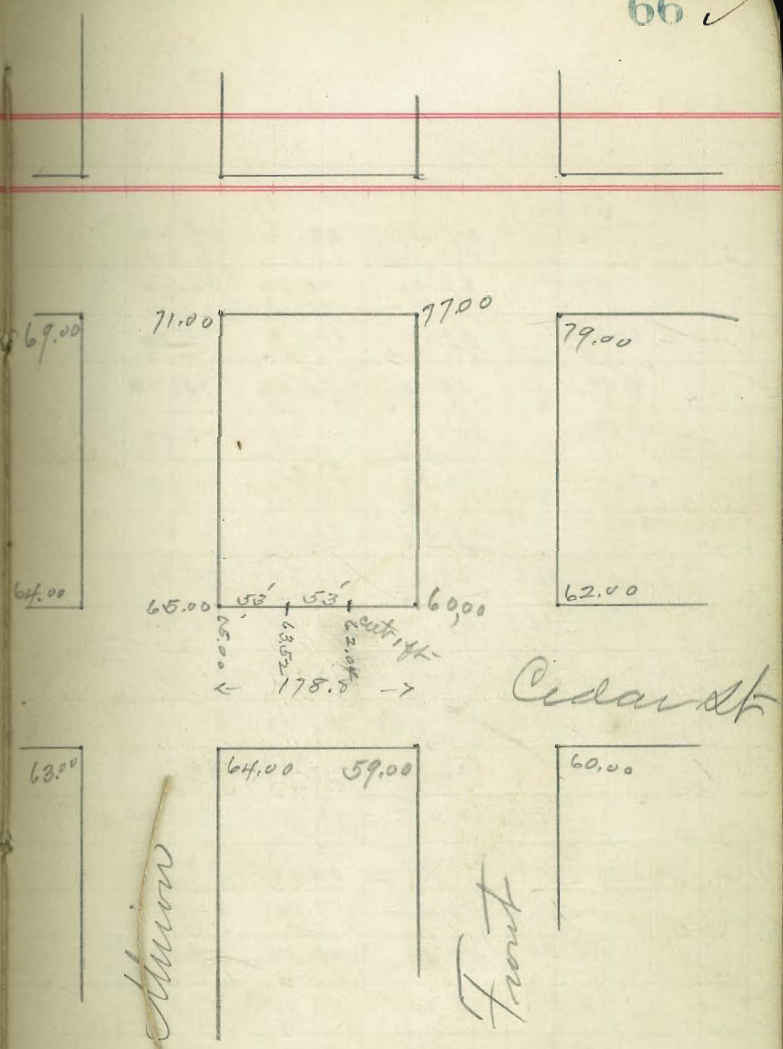
Order No 1048.

71.90 B M Cor Cedar = 1st.
1.39
73.29
62.04
11.25

63.04 on stake 1 ft high
5.97
69.01
63.52
5.49

69.01
65.00
4.01

69.01
60
9.01



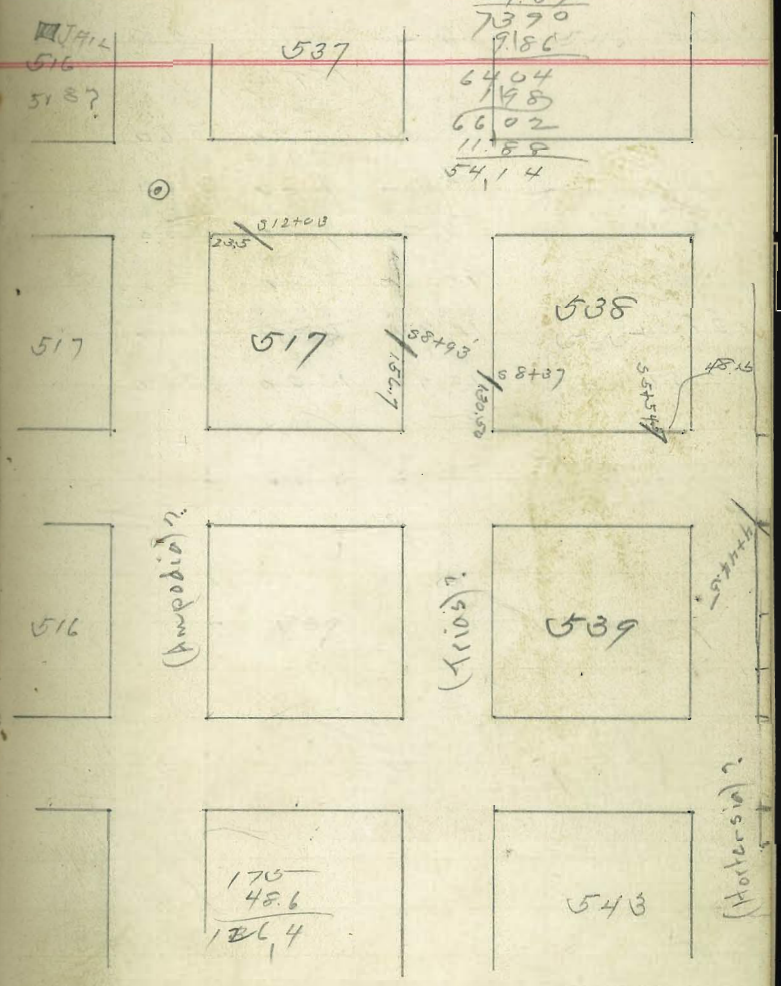
Front No 104
Order No 69

Survey of Indian St ex in Old Town

Angle Right 90°57'

Feb 15-99

Station		12' L	Center	12 R
	62.70		(80.15)	
	25	64.30	66.70	69.60
0+0	17.4	15.80	13.40	10.50
	64.80	67.40	70.50	72.70
50	25	12.70	9.60	7.40
	15.3	69.90	72.50	75.10
	67.30 25	12.80	10.20	7.60
1+00	12.80	70.10	73.00	75.70
	67.30 25	10.00	7.10	4.40
50	12.80	70.60	73.20	75.80
	67.50 25	9.50	6.90	4.30
2+00	12.3	70.10	72.70	75.60
	67.60 25	10.00	7.40	4.50
50	12.5	69.30	72.00	74.40
	68.10 25	10.80	8.10	5.70
+71.5	12.00	69.30	71.60	74.00
	25 66.6	10.80	8.50	6.10
3+00	13.50	67.70	70.20	72.80
	25 65.3	12.40	9.90	7.30
50	14.50	66.10	(7.30)	71.70
	25 64.0	7.80	68.90	2.20
4+00	9.90	pipe 64.6	5.00	69.90
	25 62.3	9.30	67.30	4.00
50	12.60		6.60	68.70
	25 60.30	62.70	pipe 65.20	5.20
5+00	13.60	11.20	8.70	Pipe
	25 58.40	60.30	62.90	66.20
50	15.50	13.60	11.00	7.70
	25 57.3	58.80	(6.02)	62.80
6+00	8.70	7.20	60.60	3.20
	25 57.0	58.40	5.40	61.70
50	9.00	7.60	59.90	4.30
	55.70 25	57.40	6.1.0	59.70
7+00	10.3	8.60	58.50	6.30
	54.30 25	55.70	7.50	57.90
50	11.70	10.30	56.70	8.10
	54.50 25	54.80	9.30	57.20
8+00	11.5	11.20	56.00	8.80
	25 54.4	54.9	10.00	57.00
50	11.60	11.10	56.00	9.00
		54.40	10.00	56.00
9+00		11.60	54.50	10.00
		53.00	11.20	54.50
50		13.50	53.60	11.50
			12.40	



77.86 B.M.
2.29
80.15
11.12
69.03
9.87
73.90
9.86
64.04
1.98
66.02
11.88
54.14

New Bench on Nail S.W. Cor Culvert at 9+48
El. 53.21

54.14
3.00
57.14

Stat		12' L	Center	12 R	
			(57.14)		
		52.00	52.20	53.80	
10+00		5.40	5.20	3.60	
		48.80	49.60	49.90	
50		8.60	7.80	7.50	
		47.20	48.20	48.60	
11+00		10.20	9.20	8.80	
		47.40	47.60	48.10	
50		10.00	9.80	9.30	
		45.50	46.10	46.80	
12+00		11.90	11.30	10.60	
		43.70	44.20	44.60	
50		13.90	13.20	12.80	

82.45
7.
175.45

Ord 263
May 25 1894

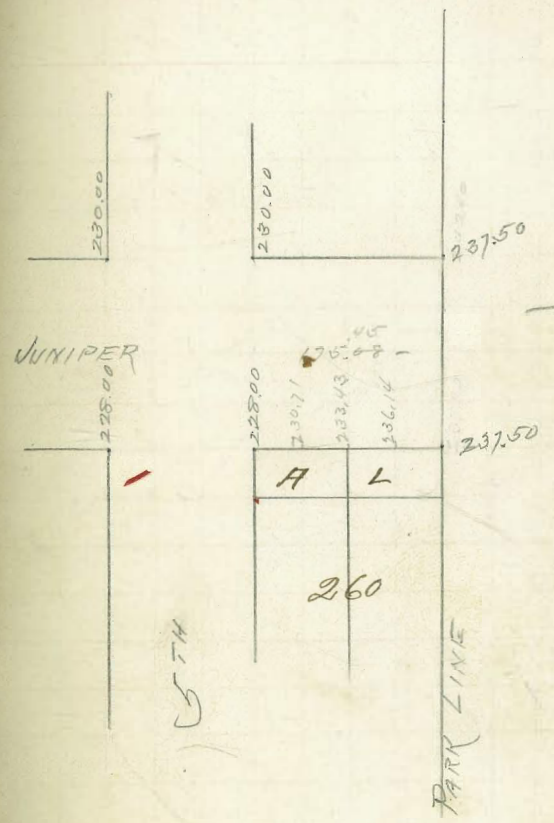
MO Riley Mch 8-99

Cust grades to Lots A & L. Blk
260 Horton

Order No 1052

228.18 B.M.
11.65
239.83 H.I.
237.50
2.33

239.83
228.06
11.83



175.45
175.10
35

175.80

175.10
35
174.75

Nathan Nath April 24/99

Curb grades Lots G. H & I.
Blk. 287 Horton Add-

222.59 B.M. Laurel & 1st S.W. Cor.
9.01

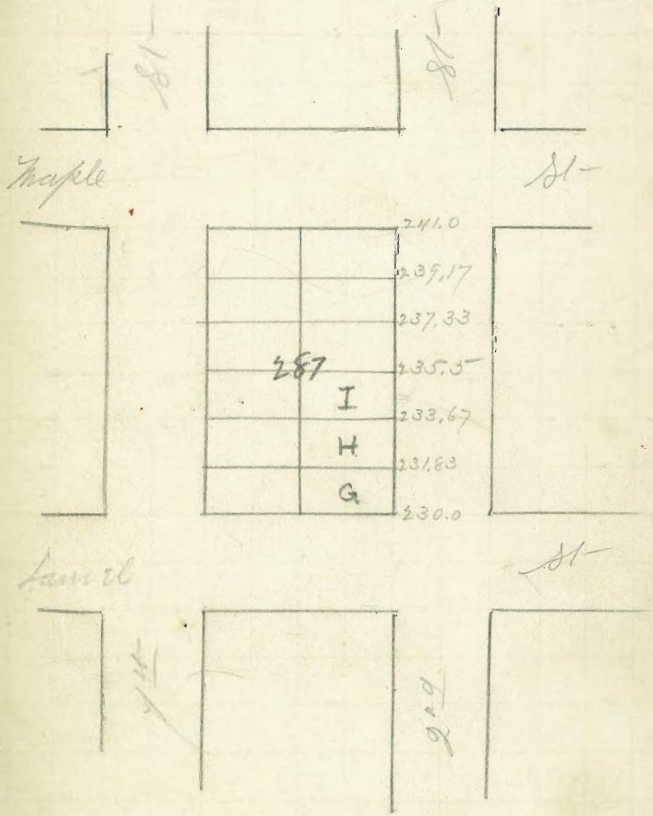
231.60 H.I.
230
1.60

230.00
8.83
238.83 H.I.
231.83
7.00

238.83
233.67
5.16

238.83
235.50
3.33

Indexed to here



209.59
.25

209.84	209.84	209.84	209.84
204.00	203.25	203.00	203.50
5.84	6.59	6.84	6.34

209.84
9.43
200.41
3.69

204.10	204.10	204.10	204.10
197.00	196.00	196.40	
7.10	8.10	7.70	

S D Ave & Conde — — —	33.39
" & Harney	34.25
" & Mason	27.05
S D Ave & Plaza —	21.15

Int Cent & Harney

[illegible] S W Cor Culvert in Bk 517-53.
At Sta 9+48

Laurel

204.00
203.25
203.50
203.00

16.72
6.3
12.97
6.486

Kal

197.00
196.25
196.40
196.00

Old Benches in Old Town

Bm Spike on Cor Post Twiggs & Juan	56.76
Street Center Wilhelmina & 4th	65.18
Plg S.S. " "	65.05
Cent Taylor & Webster —	5.32
Tacks [illegible] Post N. Elor Juan & Washington	16.82
Sp [illegible] Cor Plaza	21.06
[illegible] Cor Mason & S D Ave at Picketfence	27.04 / 27.05
Spk Cor Post [illegible] Plaza by old Adobe	21.15
Center Congress & Ampudia —	43.54
" & Conde —	19.40 / 19.56
" Congress & Harney 22.53	22.54 + 22.56
" San Diego & Harney	33.88 + 33.6[illegible]
" Congress & Arista	25.98
Spk Cor Post 150 N. Of Cor S D Ave & Conde	33.8[illegible]
Cent Congress & Twiggs —	21[illegible]
" " & Ampudia —	43.46 + 4[illegible]

95

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