





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

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

H. S. CROCKER CO.

Drawing Paper and Material, Mathematical Instruments, etc.

STATIONERS AND PRINTERS

215-217-219 BUSH STREET,

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.

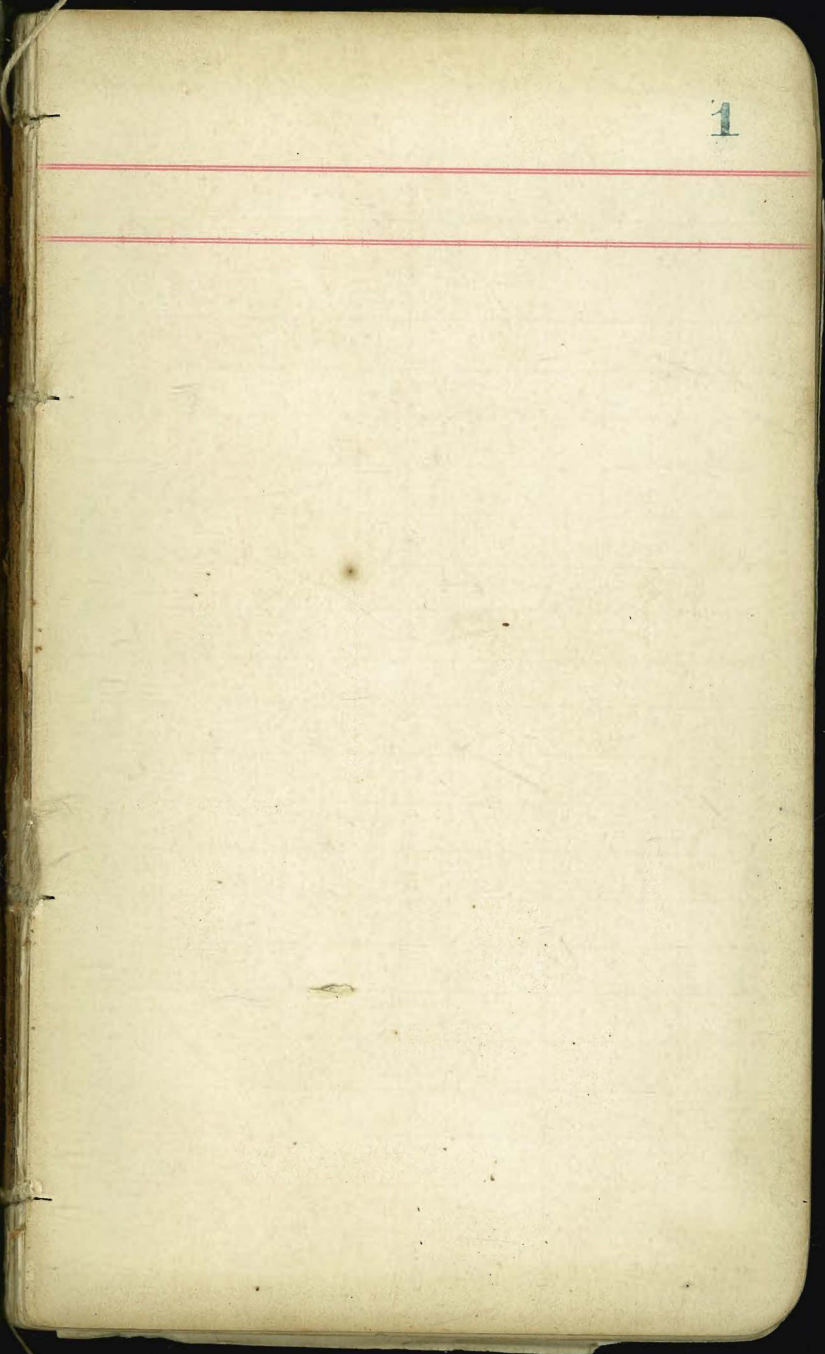
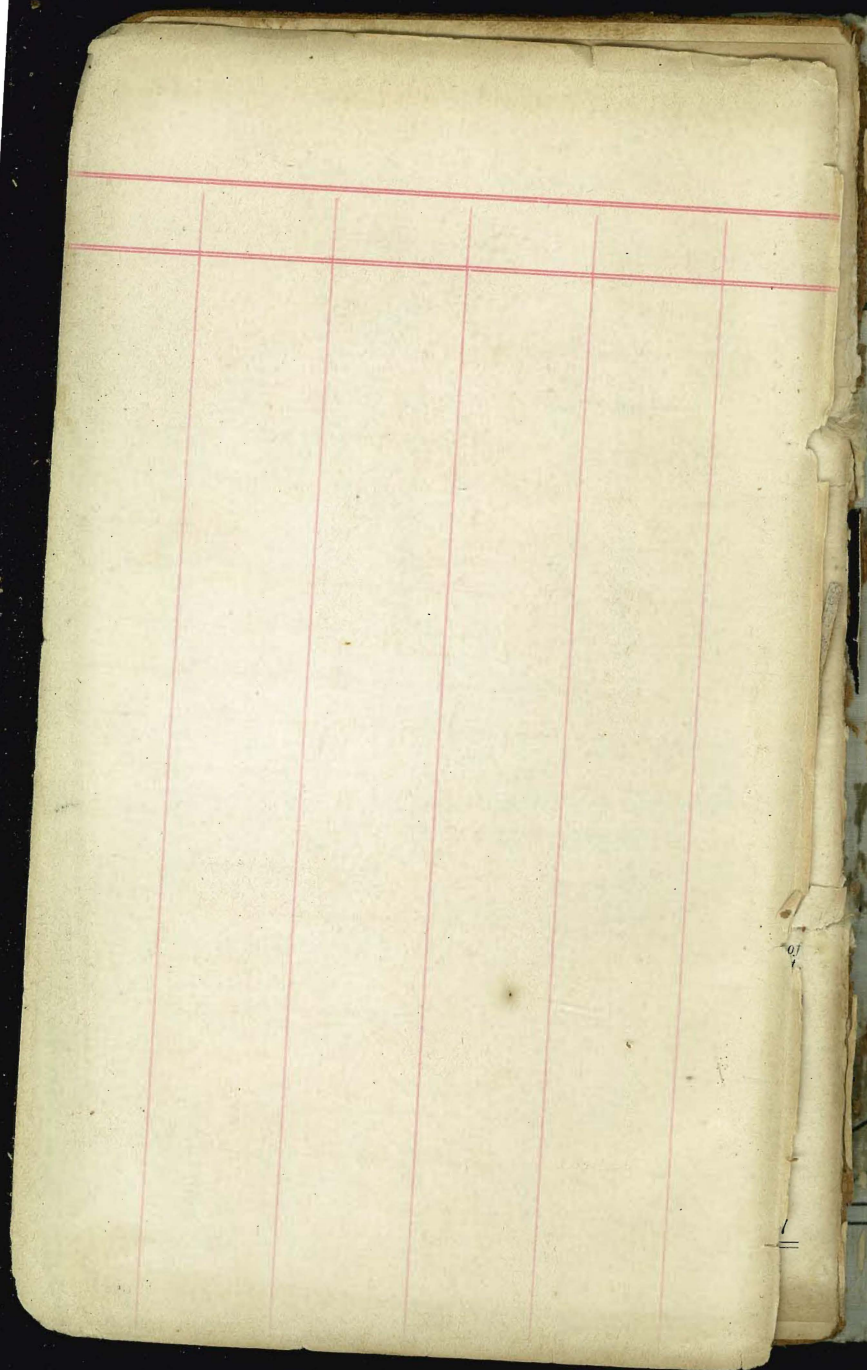
Angle.	Cor. in Links.	Angle.	Cor. in Links.	Angle.	Cor. in Links.	Angle.	Cor. in Links.
0		0		0		0	
4	0.24	11	1.88	18	5.14	25	10.54
5	0.38	12	2.24	19	5.76	26	11.26
6	0.55	13	2.63	20	6.42	27	12.24
7	0.76	14	3.06	21	7.11	28	13.37
8	0.98	15	3.53	22	7.85	29	14.34
9	1.24	16	4.02	23	8.64	30	15.47
10	1.55	17	4.56	24	9.47	35	22.07

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

18 4.24 4.24  
16 4.24  
82/200 16.96  
164 84.8  
844/300 1696  
179776

82  
16  
0.7











	BS	I.S	F.S	El
0+0	7.80			0+0
+50		8.30		
1+00		—		
+60		5.00		
2+10		3.80		
	11.77		0.98	6.82
	12.00		0.88	17.71
	11.05		0.61	39.10
	11.70		1.08	39.12
			0.82	

Backs plan

gate down  
Ends of Y.

6.82  
11.77  

---

17.59  
8.5  

---

17.71  
12.00  

---

29.71  
39.81  

---

39.10  
11.05  

---

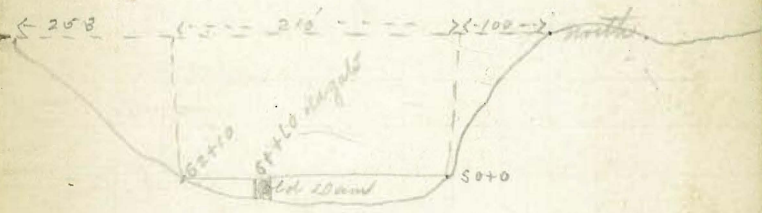
40.15  
1.08  

---

39.12  
11.70  

---

50.82





Oct 24<sup>th</sup> 1894

Stat	B.S.	I.I.	F.S.	Ev
0+0	8.54	358.54		350.00
7+0.0	2.66	349.72	11.38	347.16
	6.08	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	289.80
	5.92	296.45	0.47	290.53
	5.91	292.35	10.01	286.44
75+00	8.82	296.94	4.28	288.12
78+00			1.44	295.50 BM
Run Down to Loop Dam				
	1.44	296.94	11.85	285.09
	0.57	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
	2.53	231.25	11.69	219.56
	2.64	222.20	11.48	210.72
	2.65	213.40	5.31	208.09

Level from Old Mission Dam 4

Capt. Engineer

William Penney B.S. Ch.

50+0 is 50 feet above the base	350.00
of the Old Mission Dam.	8.54
Datum assumed at 300ft-	358.54 H.I.
	11.38
	347.16
	2.66
	349.72
	11.19
	338.53
	0.46
	327.49
	11.65
	315.84
	2.62
	304.26
	0.45
	295.04
	7.20
	289.80
	5.92
	290.53
	5.91
	286.44
	8.82
	288.12
	1.44
	295.50 BM
Base of Dam Site at old Spanish	338.53
Leadwork 3000ft down stream from	0.8
Old Mission Dam, distance assumed	338.61
on bottom 300ft, approximate distance	11.68
assumed 50ft high, about 475'	327.03
	41
	327.49
	11.66
	315.84
	2.6
	316.09
	11.83
	304.26
	0.45
	292.35
	4.28
	288.12
	1.44
	295.50 BM
Distance from Old	292.35
Mission Dam to Loop	4.28
Dam 7800 feet	298.12
B.M. shown in Saddle	8.82
above Loop Dam Elevation 295.50	296.94
	1.44
	295.50
	11.69
	283.80
	7.20
	291.00
	0.48
	290.53
	0.57
	285.60
	0.15
	273.86
	0.61
	262.67
	0.48
	252.04
	0.00
	240.14
	2.53
	231.25
	2.64
	222.20
	2.65
	213.40
208.09 = Base Loop Dam, it being	208.09
a spike driven in cracks of Boulder 40 ft West of Dam	



546-  
2  
1390

Stat	B.S.	H.I.	F.S.	El
	Thence going back to 575+00 & continuing line			
	4.00	300.00		295.00
	3.25	307.28	3.37	298.03
91+50	4.82	302.05	9.25	298.03
	6.60	306.53	2.42	297.93
	3.95	306.76	3.72	302.81
	4.10	305.84	5.02	301.74
	4.08	311.70	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	305.15	3.13	305.65
	0.30	294.11	11.84	293.81
	1.11	283.36	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	255.74
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

307.08  
2.50  
304.58  
4.40  
308.78  
3.13  
305.65  
3.20  
308.85  
11.54  
293.81  
0.30  
294.11  
1.42  
299.93  
6.60  
306.53  
1.11  
305.42  
12.00  
293.42  
1.11  
282.31  
12.00  
270.31  
271.30 = P.P. on top hill  
at Mouth Cañon and just  
above largest bluff 2nd 3 miles  
from Mission Dam  
From 191+00 to 205+00 in by phone  
rooflet about 200 ft depth.  
larger gneiss back of Washburn  
244.52  
2.00  
246.52  
11.72  
234.80  
2.30  
235.71  
11.78  
223.93  
12.00  
223.93  
2.00  
244.52

295.00  
4.00  
300.00  
13.37  
296.63  
10.68  
307.28  
9.25  
298.03  
4.82  
302.81  
2.42  
297.93  
2.42  
299.93  
6.60  
306.53  
3.72  
302.81  
5.02  
301.74  
3.48  
301.22  
1.57  
303.36  
4.40  
304.52  
11.41  
302.12  
2.79  
304.29  
3.13  
305.65  
11.84  
293.81  
11.92  
282.19  
1.37  
304.58  
3.36  
305.36  
5.56  
308.92  
4.40  
304.52  
11.36  
302.12  
2.00  
304.52  
11.52  
302.12  
11.72  
302.12  
4.96  
307.08  
11.83  
261.80  
11.36  
255.74  
11.52  
244.52  
11.72  
234.80  
11.78  
223.93  
4.96  
307.05

Oct 25 1894  
Oct 30 1894

Stat	B.S.	I.I.	F.S.	EL
311+98	1.87	315.08	11.45	213.71
314+15	0.10	203.58	11.60	203.48
332+88	0.27	196.52	10.88	195.25
337+72	6.98	201.92	1.58	194.99
345+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	177.80
395+41	5.82	177.28	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	2.85	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

Return Station 284+15 = 210ft  
 is a very deep Canon about 100 feet  
 below Station 284+15 = 134.11ft this  
 Canon is back of Cleaved house

17223	
768	203.58
16960	1088
687	193.25
17647	3.27
470	196.52
	1.58
171.77	194.99
740	698
179.17	201.92
235	1010
176.82	

Above Christensen house

419	191.82
181.01	497
000	196.79
181.01	1076
11	15603
192.01	571
000	191.74

Nov 3rd 1894

181.01 BM on side hill

192.01	620
1177	185.52
203.78	457
000	

at foot of grade (Copper Mission)

203.78	190.09
1161	422
215.39	185.37
1102	367
226.41	189.04
1192	1174
238.33	17730
1143	246
249.76	182.76
1160	1135

Stat 457+56 = Mouth of  
 tunnel Elev 261.36

261.36	171.41
1160	582
272.96	177.28



300.60  
208.09  
191.91

372.77  
3406  
82.17  
267.88  
92  
175.92

300.00  
3217  
267.88  
9191  
175.92

17

300  
52.17  
267.83

Stat	B.S.	H.S.	F.S.	Cl.
	11.45	284.21	0.00	272.76
	12.89	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
	11.81	371.82	0.00	360.51
467+60	11.30	383.12	0.00	371.82
	2.33	376.74	9.71	373.41
	0.71	368.22	9.23	367.51
	11.57	368.31	11.42	356.80
	10.19	376.42	2.08	366.23
	3.65	372.77	3.65	372.77 <i>Check</i>
	0.55	366.67	11.65	366.12
	0.80	351.05	11.87	352.30
	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	306.93	11.49	306.93

317.15  
29  
317.44  
11.49  
306.95  
1  
306.95

372.77  
11.65  
361.12  
10.5  
361.67  
14.87  
350.80  
8.5  
351.15  
11.70  
339.45  
4.0  
339.90  
11.75  
328.15  
0.00  
328.15  
11  
317.15

272.76  
11.45  
284.21  
10.99  
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  
11.81  
371.82  
11.30  
383.12  
9.71  
373.41  
3.65  
376.74  
9.23  
367.51  
7.1

top hill - near Abbey Bch 18  
on W. side street Madison

Check on BMW at S E on University  
Boulevard & Park Boulevard 372.77  
Ear of BMW 340.60, this will  
make the base of Mission Dam  
267.83 at the base of the Pump  
dam 175.92.

372.77  
11.42  
361.35  
11.51  
351.84  
20.5  
366.23  
10.19  
376.42  
3.65  
372.77

Stat	B.S.	I.G.	I.S.	ΣC
1.77	297.28	11.60	298.30	
0.40	286.68	11.00	286.28	
		11.65	275.28	

~~306.90~~  
~~11.65~~  
~~295.30~~  
~~19.9~~  
~~297.28~~  
~~11.60~~  
~~286.28~~  
~~4~~  
~~286.68~~  
~~11.35~~  
~~276.08~~

Tunnel will come out  
 on South line F-limbed arc  
 near the SW Cor Bks 197 University Heights



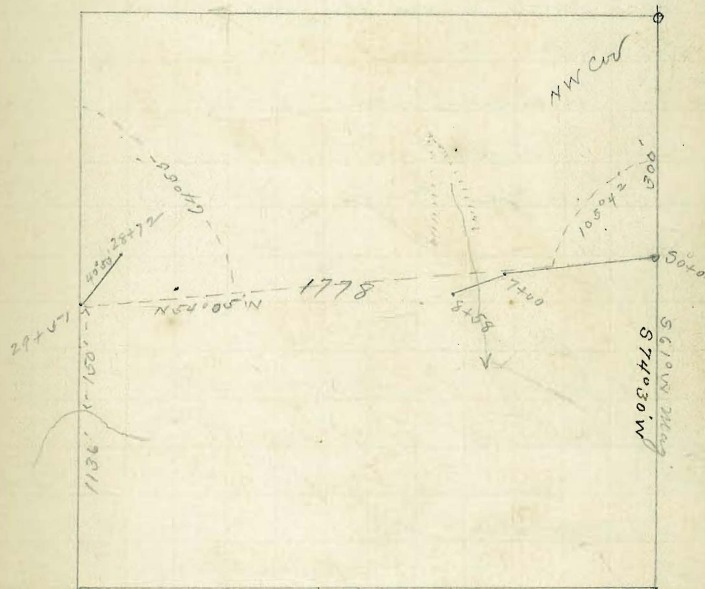


Stat-	Angle	M. B.	Dist
0+0	105°42' L	S 44°45' E	700'
7+00	Remaining Tee 25°9' L. R.	S 69°45' E	158'
8+58	with Remaining 199°53' R.	S 49°50' E	163'
10+21	164°29' R	S 65°26' E	287'
12+58	204°43' R	S 40°45' E	116'
13+74	156°42' R	S 64°05'	377'
17+51	192°55'	S 51°10' E	327'
20+78	175°29'	S 55°40' E	334'
24+12	185°15'	S 50°25' E	460'
28+72	152°24'	S 78°0' E	79'
29+51			

} Gulch

Wagon Road through Pueblo <sup>10</sup>  
1778

Garrison Tract  
Nov. 16<sup>th</sup> 1894 Capps.



Dist from Bucke Road way to edge  
Bucke Cut 105 ft



Survey of 6<sup>th</sup> street through

City Parks.

31.12  
57  
88 **11**

Beginning at 7<sup>th</sup> line on S E Cor Dale  
- 6<sup>th</sup> street running North at Juniper.  
East line 6<sup>th</sup> is 106 feet from West  
line Park.

At Quince Street 88.12 from East  
line 6<sup>th</sup> to West line City Parks

at N W Cor Parks 77.45 from East  
line 6<sup>th</sup>

30.45  
57  
73

Dec 22<sup>nd</sup> 1894

Survey of Grade from head of 6<sup>th</sup>  
to Juniper St

Stat Angle  
0+0 5'33"R

Stat 0+0 Center 6<sup>th</sup> on 7<sup>th</sup> line on Dale  
from 5+0 B.S. down Center 6<sup>th</sup> St

Level over road from head of

Stat	B.S.	I.S.	F.S.	EL
B.M. Cor. 6. Note	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	9.00	T.P. 0.47	
50		9.50		
4+00		7.40		
50		5.30		
5+00		2.30		
50	11.49	0.30	1.80	
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				

6<sup>th</sup> to Jump St Dec 22<sup>nd</sup> 1894

B.M. NE. Cor. A Date 100.00

Redd  

$$\begin{array}{r} 10.89 \\ 110.59 \\ \hline 2.88 \\ 108.01 \end{array}$$

Lower ft point at Cor 6 in Note is 8.01 height  
 from B.M. of NE Cor A Date - 57 ft

from 87+00 run 5% grade



	B.S	F.S		
50				
11+00	12.00	1.94		
50				
12+00				
50				
3+00	11.24	2.00		
50				
11+00				
50	11.26	3.78		
15+00				
50				
16+00		3.76		

169.27  
11.6  
164.52  
179  
162.73



Notes on Wagon Road C" St-

Sorrento

18 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	9.50
2+00	8.50	8.50	8.40
+50	7.30	7.30	7.40
3+00	5.20	5.50	5.30
+50	2.80	1.10	2.50
4+00	6.00	(53.73) 6.00	6.40
+50	2.40	2.90	2.60

opposite Spring

B.M. spike in tel pole  
first pole South of Trustee 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  
~~9.20~~  
 47.62  
~~3.28~~  
 44.34  
~~6.55~~  
 50.89

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

Elle Pottun Pass 6 157.00



Meu 20 - 96

Run level from City to <sup>W</sup> San Miguel Mesa

Stat	B.S.	I.S.	F.S.	EO	A.D
1	1.86			B.M 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	28.58
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	3.35		1.15	103.78	107.16
21	0.25		11.87	95.29	95.54

B.M N.E. cor. National - 29<sup>th</sup> Hydrant

77.01	11.36	68.89
079	11.16	1.36
<u>76.22</u>	<u>225.2</u>	<u>68.26</u>
11.26	11.39	8.98
87.48	21.13	56.27
3.36	11.54	2.92
84.12	5.267	59.19
2.92	1.16	11.95
87.04	3.15-2	47.24
11	11.66	3.15
86.04	43.18	50.39
5.77	1.81	11.30
97.81	4.84	39.09
0.67	10.80	0.82
91.14	5.217	39.91
11.35	7.72	11.66
102.52	44.45	28.22
67.03	11.62	0.66
97.49	56.07	28.58
7.44	1.26	11.49
104.93	54.81	17.39
11.26	11.67	0.60
103.78	66.48	17.99
3.35	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.	A.D.
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	16.88	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	5.08		2.16	46.05	54.13
42	5.98		2.43	51.70	57.68

42.70	33.73	24.82	20.84	
3.15	0.66	2.65	0.65	
895-6	33.07	27.50	20.72	95.54
642	2.66	4.15	3.89	11.67
4597	3.573	23.35		83.87
3164	3.11	5.13	1.683	1.79
4233	3262	2848	365	85.66
588	759	365	23.39	11.76
48.21	40.21	24.90	5.19	73.90
2.16	2.07	5.41	18.20	81.87
46.05	38.14	30.31	11.01	74.77
808	4.56	2.99	29.21	11.81
6013	42.70	27.32	4.39	62.96
243	4.1	0.41	24.82	0.76
51.70		33.73		63.72
				11.66
Stat 30 is a large 8" wire spike				52.06
driven into platform (at north end)				0.64
of Sweetwater junction, on N.C. O.R.R.				52.70
Elev above City datum 16.83'				11.48
From S 29 Run on R.R. tracks				41.22
				0.60
				41.82
				11.41
				30.41
				0.91
				31.32
				11.03
				20.29
				5.70
				25.99
				6.42
				20.04



Stat	B.S	I.S.	F.S	EL	H.D
43	4.08		1.47	56.21	60.29
44	9.40		1.95	58.34	67.74
45	7.91		3.77	60.97	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		83.70	89.52
50	4.48		1.00	82.49	86.97
51	10.65		3.78	83.19	93.54
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		2.00	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. H. Crv of Bonita Ranch packing house,

Elev = 56.21

Mch 21<sup>st</sup> started from 543

57.68
1.47
56.21
4.08
60.29
1.95
58.34
3.77
60.97
2.90
68.98
2.73
73.43
3.09
78.09
5.82
83.70
1.00
82.49
3.78
83.19
1.45
92.39
1.22
102.74
0.90
113.61
0.30
124.70
0.00
136.52
0.00
148.40
0.00
160.08
0.87
159.21
0.54
170.66
0.00
182.60
0.00
194.28
2.00
205.91
0.00
217.21

549 is a B.M. at Bonnie Brass, being

the top of a small cleat nailed

on to the foot of the Cross sign

about 20ft West of R.R. <sup>at corner</sup>

post, Elev 77.67

82.49
4.48
77.67
58.34
9.40
67.74
3.77
60.97
16.397
7.91
82.49
4.48
71.88
2.90
86.97
3.78
68.98
71.88
83.19
1.45
76.16
93.84
1.45
2.73
92.39
1.22
77.67
11.67
81.18
103.96
0.30
80.9
102.74
0.87
64.0
159.21
1.22
117.7
1.167
83.49
0.90
171.20
0.54
113.61
170.66

Stat	B.S.	I.S.	F.S.	EO	NO
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	310.22	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	453.88
84	11.60		0.00	453.88	464.58

886.61
11.10
847.71
11.78
859.49
12.02
871.51
11.83
883.34
11.65
895.02
12.05
907.10
11.93
919.03
11.64
930.67
11.23
941.90
11.48
953.38
11.60
964.98
1.36
984.12
11.81
995.93
2.71
1010.22
11.61
1024.78
11.83
1036.61



Stat.	B.S.	I.S.	F.S.	El	H.
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	505.09
89	11.00		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	11.65		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	583.25	464.98
6.73	11.06	9.17
588.88	594.61	474.15
	11.63	2.52
661.09	606.24	483.40
12.02	1.14	11.77
673.11	605.10	488.40
1.72	11.96	0.80
671.39	617.05	494.35
10.79	0.96	11.24
682.18	616.09	494.35
	11.71	11.24
	627.80	505.09
	11.27	1.05
	626.53	504.54
	12.00	11.00
	638.53	515.60
	11.84	0.00
	650.37	514.67
	11.52	11.90
	661.09	526.57
	0.80	1.65
	661.09	525.52
		11.85
	587.40	
	0.52	
	536.88	
	11.84	
	548.72	
	11.92	
	560.64	
	11.00	
	571.64	
	11.36	
	583.25	

597 is a B.M. in N.E. Cor

part of C.D. Robinsons Orchard

this B.M. is two nails driven

into top of post, Elev. is 588.88

5104 is peg driven in pass

20' left of road Potters Pass 661.09

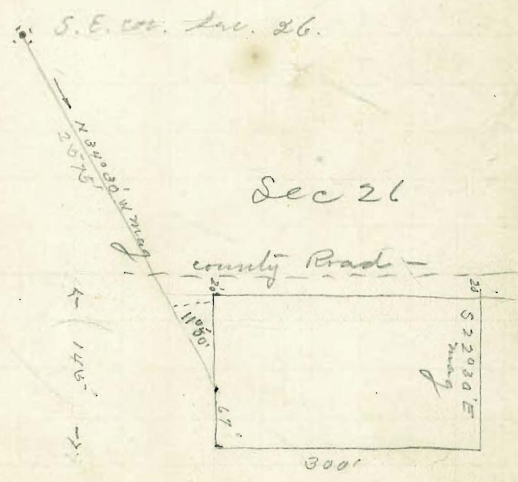
2576-  
67  
2642

34 30    34 30  
13 30    122  
21,00    20 30

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	

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



Water tower located in sec 26.  
T. 77. S. R. 1 W.



S = South  
N = North

stat.	Offset to RR from P. line	Offset to fence Race track	Stat-
along N line of 1797			
N. E. Co 1797 0+0	S 114		
+72	S 48.00	0.00	
1+61.3	Center RR, center	S 50.00	
2+00	N 14.00	S 65.00	
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 66.00	
8+00	N 19.7	S 62.00	
9+00	N 16.50		
10+00	N 13.50	S 60.00	
11+00	Center		
11+50			
12+00		N 7.00	S 61.00
13+00		S 60.00	
+08.5 RR.			
14+00	S 12.00	S 60.00	
15+00	S 31.50	S 59.00	
+68	S 49.00	S 59.00	

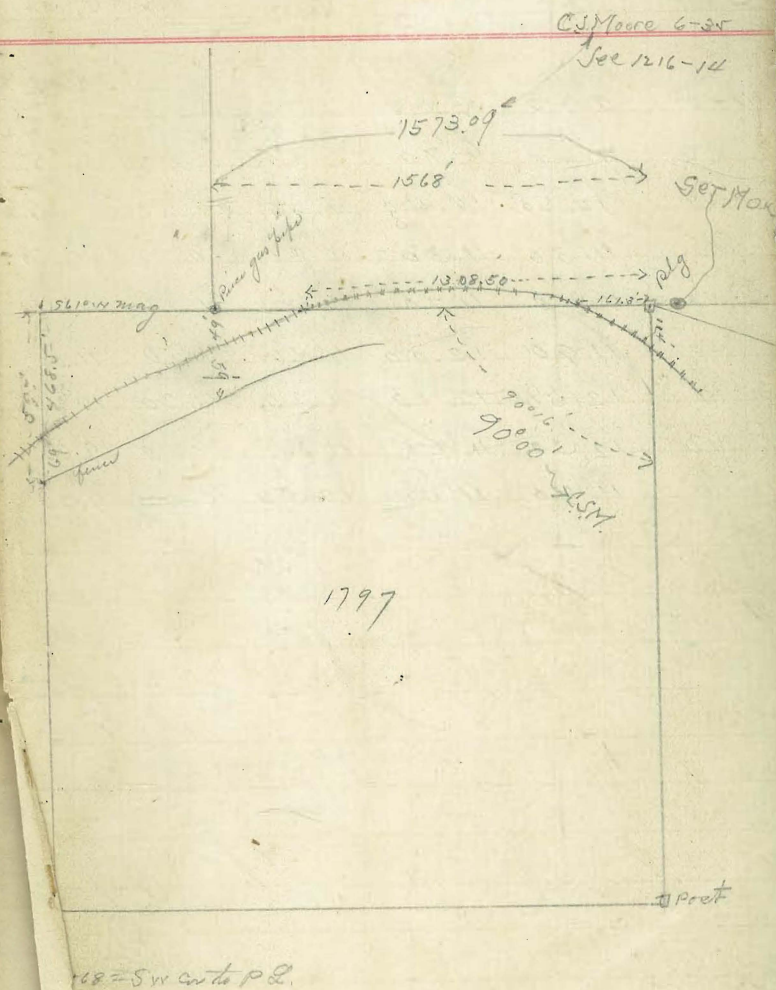
from angle left  
 13+00  $\angle$  10°30' 217  
 to  
 13+67.5  $\angle$  10°4' 226.5  
 to  
 15+93.5  $\angle$  8°4' 976  
 to  
 15+69.5

31.0

72  
 893  
 1613

200  
 161  
 139

23



Cross Section 16<sup>th</sup> St. Bet 20-E.

Stat	West	Cent	Centw	Cent	East
	56.4	(59.17)	56.5	57.1	57.1
0+0	2.80	300	2.70	2.10	2.10
	52.2	52.5	52.7	52.5	48.1
50	7.00	6.70	6.50	6.70	11.10
	48.6	48.8	49.4	49.2	49.1
1+00	10.60	10.40	9.80	10.00	10.10
	47.9	47.9	48.9	48.5	46.7
50	11.30	11.30	10.30	10.70	10.50
	47.7	47.5	48.4	47.9	47.8
2+00	11.50	11.70	10.80	11.30	11.40
	47.3	47.2	47.8	47.7	48.2
50	11.90	12.00	11.40	11.50	11.00
	46.9	47.1	48.0	48.0	46.5
3+00	12.30	12.10	11.20	11.20	10.70
	46.9	47.4	48.2	48.8	49.9
6 40	12.30	11.80	11.00	10.40	9.30
	47.8	47.8	48.7	49.2	50.0
0+0	11.40	11.40	10.50	10.00	9.20

16<sup>th</sup> 59.17 B.M.  
Bet 20-E.

24

0+0 = 5 line 10 at





McKinzie Flint Quarry

Sept 13-97

Survey pts a-b Beck 139  
Harrow.

Did not set pins in line but  
on pins in wall,

N

IRON NAIL IN ASPHALT WALK  
200.00  
85.68

a	L.
B	H
c	139
D	10
E	H
F	B

L.

File

File



Garbage Crematory Sept 15-97

Survey of Lots 19-20-21 Block  
85 Madison Schiller

Order 927.

South

20<sup>th</sup>

1	45
2	47
3	46
4	45
5	44
6	43
7	42
8	41
9	40
10	39
11	38
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

Rever

Order

85

15'  
15' x 15'  
15'

South

21<sup>st</sup>

Dr Polhemus

Sept 24-9

Sunny Pt C Baker 53 Notes

Juniper<sup>249</sup>

St-

a	Q.
B	X
C	D
b	e
E	H
F	G

↑  
300.16  
300.16  
↓

Lory

Brant<sup>249</sup>

St-

Albatross.



Land-Town Co.      Nov 5-97

Survey of Lot 12 Bk 52 Minn

Order No 947

L.

↳

← 200.50 SPK →

90° SPK

SPK

299.80

↳

1	12
2	11
3	10
4	9
5	8
6	7

M.

↳

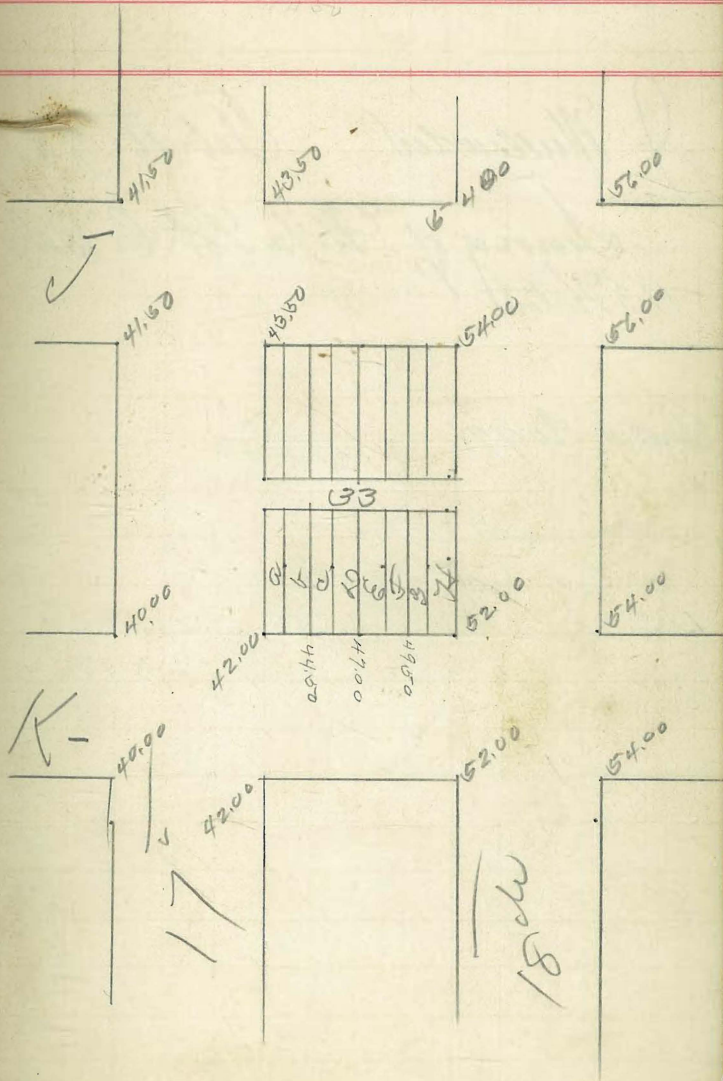
16th

17th

Joe Kelley Jan 22<sup>o</sup> 1898.  
 Graduate at Bero Bek 33  
 Sherman,

Order No 968.

43.27 B.M.  
 3.07  
 46.34  
 421  
 4.34  
 42.00 on ew dake  
 761  
 49.61 49.61 49.61  
 44.50 47  
 6.11 2.61

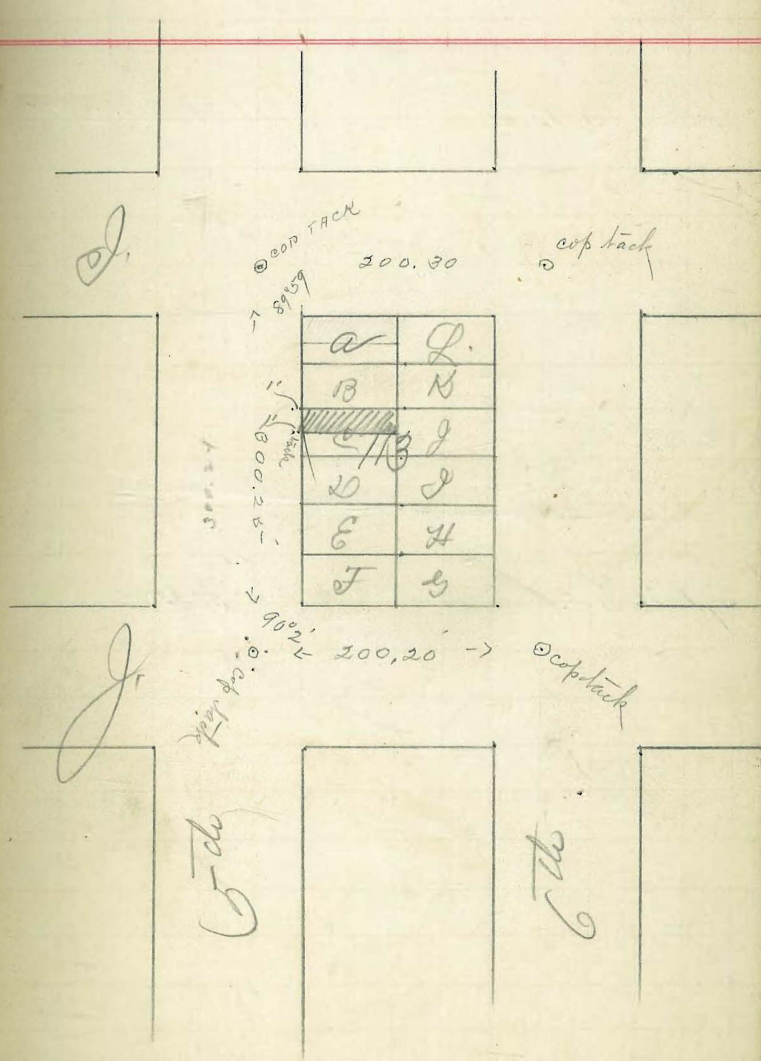




J Mullenbacher Feb 16 98  
 Survey of W/2 Lot C "Boks"  
 113 Hinton

Order No 991

Set spike at N.E. cor  
 Set peg-tack at S.E. cor  
 Set tack in lead one foot out at N.W. cor  
 " " " " " " " S.W. cor



482  
25  
507  
25  
532

62.69  
56.50  
6.19

56.50  
12  
56.62  
12  
56.74  
12  
56.86

214) 1.00000  
856  
1440  
1280  
1600  
1498

75  
125  
870  
25  
1120 32  
5818  
25  
5843

Order No 972

Mar 12 98

58.42 18 m -  
427  
62.69 62.69  
57.43 57.60  
5.26 5.19  
58.42 18 m -  
427  
62.69 62.69 62.69  
57.43 57.60 57.60  
5.26 5.19 5.19  
58.42 18 m -  
427  
62.69 62.69 62.69  
57.43 57.60 57.60  
5.26 5.19 5.19  
61.63  
61.63  
5.19

Order No.

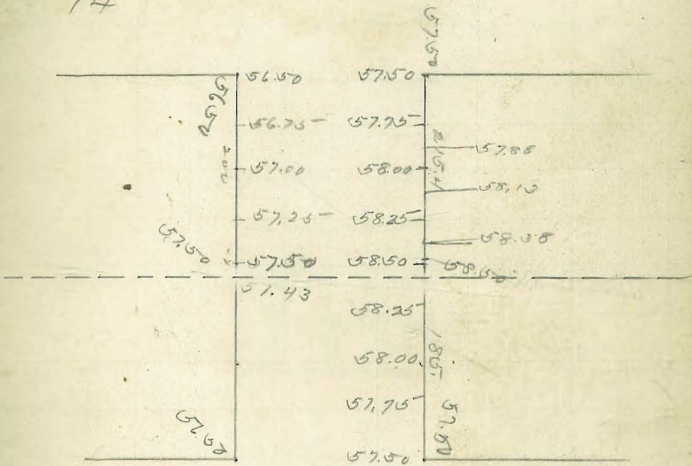
Mar 31 98

58.42 18 m  
5.10  
63.52 63.52 63.52 63.52  
58 58.25  
5.52  
58.50  
482  
63.32  
63.32 63.32  
58.25 58.00  
507 5.32

57.50

57.50

14



15

57.50

21

215.4  
156  
409.4



B. L. Muir

March 21 1898

Survey N 1/2 S 1/2 Lot 1,  
Beck 11 Antlers

Order No 976

A

← 200.08' → 89.89' up track

a	L.
b	K
c	J
d	I
e	H
f	G

89.89'  
310.40'

B.

3<sup>rd</sup>

2<sup>nd</sup>



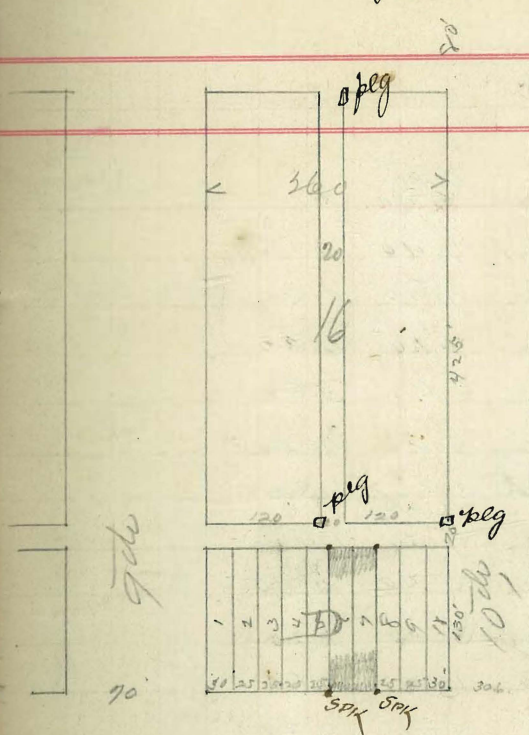


Order No 978

Mr. Fred Robinson

April 2-98

Survey of Lots 6-7 Sub "D" Estrada  
Addition



University Ave

peg

35

Cross Section India st

extension

Station	Left		Right	
	West 12'	Center	East 12'	
xx		(76.82)		
xxx		67.40		
8'	68.40	69.40	70.20	
0+08	8.40	7.40	6.60	
32'	68.90	69.80	70.50	
0+0	7.90	7.00	6.30	
+50	68.90	69.70	70.50	
	7.90	7.10	6.30	
	69.80	70.20	71.00	
1+00	7.00	6.60	5.80	
	71.20	71.80	72.60	
50	5.60	5.00	4.20	
	74.00	74.50	75.00	
2+00	2.80	2.80	1.50	
	77.50	(85.70)	78.80	
50	8.20	7.50	6.90	
	80.00	80.70	81.30	
3+00	5.70	5.00	4.40	
	81.70	82.40	83.10	
40	4.00	3.30	2.60	
	83.30	83.90	85.10	
10+0	2.40	1.80	0.60	
	84.10	84.90	85.50	
50	1.60	0.80	0.20	
	83.70	84.50	85.30	
1+00 x	2.00	1.20	0.40	
	83.60	84.40	85.30	
50	2.10	1.30	0.40	
	83.90	(88.50)	88.80	
2+00	4.70	3.60	2.80	
	83.40	85.20	86.40	
50	5.20	3.40	2.20	
	83.00	84.40	85.90	
3+00	5.60	4.20	2.70	
	82.80	83.10	82.90	
+12	5.50	5.50	5.70	
12	81.60	81.40	81.10	
+24	7.00	7.20	7.50	
12	81.00	80.30	78.60	
+36	7.60	8.30	10.00	
12	80.50	79.20	76.40	
+48	8.10	9.40	12.20	

xxx Centre of Chalurus B.M. Co 67.58 B.M.  
 Centre of Chalurus India 9.24  
 3682  
 70.38  
 ---  
 76.44  
 North line Chalurus 9.27  
 ---  
 85.71  
 0.77  
 ---  
 84.94  
 0.66  
 ---  
 85.59  
 10.135  
 ---  
 78.24

Stim Pence  
 Curve 37.512



	L. 12	Center	R. 12
	80.00	78.10	75.00
+60	8.60	10.40	13.60
	77.40	(78.38)	74.40
4+1.6	1.60	2.70	4.60
	73.60	72.60	72.40
+6.0	5.40	6.40	6.60
	68.00	67.80	67.30
5+1.0	10.50	11.20	11.70
	65.10	(68.59)	61.80
+6.0	3.50	5.30	6.80
37.5	82.80	62.10	60.60
+92.5	5.80	6.50	8.00
20	58.70	(64.69)	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	6.50
50	51.30	52.40	55.60
+97.5	10.40	9.30	6.10
10	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
5	57.30	(64.76)	59.60
8+17.5	4.40	3.20	2.10
+67.5	3.40	2.30	1.10
	59.50	60.30	61.20
9+17.5	2.20	1.40	0.50
+67.5	57.00	58.30	59.70
50	47.3	3.40	2.00
10+17.5	53.50	54.70	55.60
18	53.40	7.00	6.10
+35.5	8.30	54.30	55.40
32	55.20	7.40	6.30
+67.5	6.50	55.70	56.60
	57.60	6.00	5.10
11+17.5	4.10	58.30	59.00
	59.40	3.40	2.70
+67.5	2.30	60.10	61.30
		1.60	0.40

= West line India - Cent. Pease

Center Arctic - Pease

See page 41

Bottom Ravine

Center Cal - McKee

78.24
0.72
78.96
17.51
67.45
11.4
65.59
91.35
59.24
2.45
61.29
1.94
59.75
1.99
61.74
2.01
59.73
9.23
69.46

Stat	12L	Center	12R
		(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
	68.40	69.80	68.80
+67.5	2.90	1.90	0.70
	67.90	(72.45)	69.70
14+17.5	4.60	4.00	2.80
	68.10	68.50	69.10
+67.5	4.40	4.00	3.40
	67.30	67.70	67.70
+59.5	5.20	4.80	4.80
	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	63.40	64.50	65.20
	9.10	8.00	7.30
+67.5	65.50	66.50	67.90
	7.00	6.00	4.60
17+17.5	67.40	68.70	70.10
	5.10	3.80	2.40
+67.5	69.20	70.70	72.30
	3.30	1.80	0.20
18+17.5	71.00	(72.20)	73.10
	9.40	8.30	7.30
+67.5	71.10	72.40	73.90
	7.30	5.00	6.50
19+17.5	73.60	75.50	77.40
	6.80	4.90	3.00
+67.5	75.40	77.40	79.90
	5.00	3.00	0.50
20+17.5	77.50	(77.80)	82.40
	8.20	5.90	3.30
+67.5	78.50	81.60	84.20
	7.20	4.10	1.50
21+17.5	76.20	79.90	82.30
	9.50	5.50	3.40
+67.5			

Center Cal - McNealy

Center 4<sup>th</sup> Cal

Range

69.46
1.03
68.43
4.05
72.48
1122
71.26
91.5
80.41
2169
7772
794
8566



	12' L. Cuts	12' R	
	72.20	74.80	77.60
22+17.5	13.50	10.90	8.10
	70.70	73.80	77.30
+67.5	15.00	11.90	8.40
	70.10	(79.35)	75.60
23+17.5	9.20	72.10	5.70
	71.90	72.30	73.80
+67.5	7.40	7.00	5.50
	73.90	74.60	75.80
24+17.5	5.40	4.70	3.50
	78.20	(85.38)	78.10
+67.5	7.20	6.60	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	79.50	80.80
26+17.5	6.90	5.60	4.60
	81.10	(82.52)	83.80
+67.5	8.50	7.30	5.80
	80.20	81.50	83.30
27+17.5	9.40	7.80	6.30
	78.60	80.40	82.50
+67.5	11.00	7.20	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	6.80
	80.80	83.10	85.60
29+17.5	8.80	6.50	4.00
	82.70	85.40	88.10
+67.5	8.90	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)	84.40
31+17.5	14.00	81.50	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

Break-

Ravine

85.66  
 10.44  
 75.22  
 413  
 7936-  
 203  
 7732  
 806  
 8538  
 234  
 8304  
 6163  
 8907  
 479  
 8478  
 762  
 9240

$$\begin{array}{r} 75.25 \\ 10.10 \\ \hline 56 \\ 91 \end{array}$$

$$\begin{array}{r} 38.75 \\ 35 \\ \hline 38.525 \end{array}$$

	12 R	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	11.90	7.90
	75.50	(83.20)	81.90
+67.5	7.90	4.70	1.50
	75.60	75.60	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	(75.20)	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

$$\begin{array}{r} 92.40 \\ 11.23 \\ \hline 81.17 \text{ T.P. at } 535475 \\ 2.23 \\ \hline 83.40 \\ 10.93 \\ \hline 72.47 \\ 2.78 \\ \hline 75.25 \\ 10.07 \\ \hline 65.18 \text{ 18m on St. Louis} \\ \text{with bar } 47^{\text{th}} \end{array}$$

Center of the *Wistaria*  
 from this point run 1% descending  
 to Stat 19+00, then an ascending of 1%  
 to Stat 28+50, then on a descending  
 of 1% to Stat



# Extension Indian St Road

Stat-	12' L	Center	12' R
	62.80	(66.85) 61.90	59.10
0+0	4.00	4.90	7.70
+37.50	60.60	59.30	58.10
+87.50	7.80	7.50	8.70
+137.50	55.60	57.40	55.90
+187.50	0.20	9.40	10.90
+237.50	51.50	(55.80) 57.40	53.70
+287.50	4.30	1.40	2.10
+337.50	49.00	51.10	50.60
+387.50	48.00	4.70	5.20
+437.50	7.80	49.10	48.90
+487.50	45.10	6.70	6.90
+537.50	10.70	48.50	48.80
+587.50	41.80	7.30	7.60
+637.50	14.00	45.00	46.40
+687.50	41.40	10.80	9.40
+737.50	14.40	41.10	40.70
+787.50	48.30	14.70	15.60
+837.50	7.50	41.40	42.00
+887.50	49.10	14.40	13.80
+937.50	6.70	47.40	47.90
+987.50	49.50	8.40	7.90
+1037.50	6.30	48.90	49.30
+1087.50	50.80	6.90	6.50
+1137.50	5.00	49.40	50.20
+1187.50	53.30	6.40	5.60
+1237.50	2.50	52.00	52.90
+1287.50	54.60	3.80	2.90
+1337.50	5.00	54.00	55.00
+1387.50	52.60	1.80	0.80
+1437.50	7.00	(59.50) 55.60	56.30
+1487.50	53.40	4.00	3.30
+1537.50	6.20	53.60	54.60
+1587.50		6.00	5.00
+1637.50		54.30	55.30
+1687.50		52.30	4.30

3.70 on top pipeline

12' West  
7.80

Reg at Center Arctic - Price, thence West along  
pipe to Caly, thence North along Cal to intersect  
Cal @

57.5  
35  
92.5

0+0 = Center Pkg at Arctic - Price 66.85

West line Arctic 1194

5491

889

5580

174

5406

550

West line Cal

5956

20 feet into Cal

530

5426

Bottom Range

54.30

= 510 + 35.5 on Page 37, Center Cal - McKee



Cross Section 3<sup>rd</sup> St from W line Laurel to S line Cleve 42  
June 10 1898

Stat	West	Cent.	Mid	Center	Mid	Cent.	East	
			(245.72)					
0+0	238.10 7.60	237.90 7.80	237.60 8.10	237.70 8.00	238.30 7.40	238.90 6.80	240.00 5.70	W line Laurel B.M. 242.75 2.97
25	238.90 6.80	238.90 6.80	239.00 6.70	239.10 6.60	239.70 6.00	240.00 5.40	241.20 4.50	245.72 1.22
50	239.40 6.30	239.60 6.10	239.70 6.00	239.90 5.80	240.70 5.00	240.80 4.90	242.30 3.40	244.50 8.27
75	240.10 5.60	240.50 5.20	240.50 5.20	240.70 5.00	241.20 4.50	241.30 4.40	242.10 3.60	252.77 1.11
1+00	241.10 4.60	241.60 4.10	241.60 4.10	242.80 3.90	242.10 3.60	242.60 3.10	242.90 2.80	251.66
25	243.40 2.30	243.60 2.10	243.40 2.30	243.70 2.00	243.90 1.80	243.70 2.00	243.90 1.80	
50	244.90 6.90	244.90 7.90	245.10 7.50	245.10 7.70	245.20 7.60	245.20 7.60	244.60 8.20	
75	246.80 6.00	246.00 6.80	246.00 6.80	246.00 6.80	246.10 6.70	245.70 7.10	245.00 7.80	
2+00	247.10 5.70	246.60 6.20	246.70 6.10	246.70 6.10	246.90 5.90	246.60 6.20	246.50 6.30	
25	247.90 4.90	247.30 5.30	247.20 5.60	247.30 5.50	247.10 5.70	247.00 5.80	247.20 5.60	
50	248.10 4.70	247.80 5.00	247.80 5.00	247.70 5.10	247.80 5.00	247.20 5.60	247.50 5.30	
75	248.80 4.30	248.20 4.60	248.00 4.80	248.20 4.60	248.10 4.70	248.90 4.90	248.30 4.50	
3+00	249.00 3.80	248.60 4.20	248.50 4.30	248.60 4.20	248.60 4.20	248.40 4.40	248.70 4.10	S line Maple
14	249.70 3.10	249.10 3.70	248.80 4.00	248.90 3.90	248.80 4.00	248.60 4.20	248.70 4.10	
40	250.00 2.80	249.80 3.00	249.60 3.20	249.50 3.30	249.60 3.20	249.60 3.20	249.60 3.20	
66	250.40 2.70	250.00 2.80	250.20 2.60	249.70 3.10	249.80 3.00	249.40 3.40	249.70 3.10	
0+0	250.60 2.20	249.90 2.90	250.10 2.70	249.80 3.00	249.70 3.10	249.70 3.10	250.30 2.50	W line Maple
25	251.00 1.80	250.40 2.40	250.30 2.50	249.90 2.90	250.20 2.60	250.00 2.80	250.80 2.00	
50	251.00 1.80	250.60 2.20	250.60 2.20	250.30 2.50	250.40 2.40	250.40 2.40	251.20 1.60	
75	251.00 1.80	250.80 2.00	250.80 2.00	250.60 2.20	250.80 2.00	250.80 2.00	251.50 1.30	
1+00	251.30 1.50	251.10 1.70	251.30 1.50	251.10 1.70	251.50 1.30	251.50 1.30	252.30 0.50	



Cross Section

3<sup>rd</sup> St

Stat	West	Cent	Mid	Center	Mid	Cent	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
50	252.50	251.90	252.20	252.20	252.70	252.60	253.10
	5.50	6.10	5.80	5.80	5.30	5.40	4.90
75	252.70	252.70	252.70	252.80	253.20	253.20	253.70
	5.30	5.30	5.30	5.20	4.80	4.80	4.30
2+00	253.10	253.10	253.50	253.40	253.80	253.80	254.10
	4.90	4.90	4.50	4.60	4.20	4.20	3.90
25	253.60	253.80	253.80	254.00	254.30	254.30	254.70
	4.40	4.20	4.20	4.00	3.70	3.70	3.30
50	254.30	254.20	254.50	254.50	254.80	254.80	255.20
	3.70	3.80	3.50	3.50	3.20	3.20	2.80
75	254.90	254.50	254.90	255.30	255.50	255.50	255.80
	3.10	3.50	3.10	2.70	2.30	2.30	2.20
3+00	255.10	255.00	255.30	255.60	256.00	256.00	256.40
	2.90	3.00	2.70	2.40	2.00	2.00	1.60
14	255.30	255.60	255.70	256.00	256.40	256.40	256.90
	2.70	2.40	2.30	2.00	1.60	1.60	1.10
40	255.80	256.00	256.30	256.50	257.00	257.30	257.60
	2.20	2.00	1.70	1.50	1.00	0.70	0.40
66	256.40	256.60	(256.84)	257.20	257.30	257.70	258.00
	9.90	9.70	9.40	9.10	9.00	8.60	8.30
0+0	256.70	257.00	257.20	257.60	257.80	258.30	258.40
	9.60	9.30	9.10	8.70	8.30	8.00	7.90
25	257.20	257.70	257.90	258.10	258.30	258.60	258.90
	9.10	8.60	8.40	8.20	8.00	7.70	7.40
50	257.90	258.20	258.40	258.80	259.30	259.30	259.60
	8.40	8.10	7.90	7.50	7.00	7.00	6.70
75	258.50	258.80	259.00	259.40	259.80	259.90	260.10
	7.80	7.50	7.30	6.90	6.50	6.40	6.20
1+00	258.80	259.20	259.60	259.90	260.10	260.20	260.80
	7.50	7.10	6.70	6.40	6.20	6.10	5.50
25	259.40	259.80	260.00	260.60	261.10	260.90	261.10
	6.90	6.50	6.30	5.70	5.20	5.40	5.20
50	260.00	260.30	260.50	260.80	261.20	261.50	262.00
	6.30	6.00	5.80	5.50	5.10	4.80	4.30
75	260.60	261.20	261.60	261.80	262.10	262.20	262.30
	5.70	5.10	4.70	4.50	4.20	4.10	4.00
2+00	261.10	261.50	262.10	262.20	262.50	262.60	262.50
	5.20	4.80	4.20	4.10	3.80	3.70	3.80
25	261.60	261.80	262.40	262.50	262.80	263.20	263.60
	4.70	4.50	3.90	3.80	3.50	3.10	2.70

257.66  
6.38  
258.04  
1.56  
256.18  
10.56  
266.34

S. line Mchberg

N. line Mchberg



Cross Section

3<sup>rd</sup> st

222.02  
 247  
 21955-  
 8145-  
 228.00

44

Stat West Cub Mid Cuts Mid Cub East

	261.50	261.80	262.50	262.90	263.00	263.00	263.30	
50	4.80	4.50	3.80	3.40	3.30	3.30	3.00	266.34
	261.30	262.10	262.20	262.70	262.80	263.00	263.20	3.03
75	5.00	4.20	4.10	3.60	3.50	3.30	3.10	263.31
	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	

Slime Over

	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	235.20	224.20	(225.00) 218.60	217.20	
25	1.10	1.10	1.50	6.00	13.00	9.40	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	229.60	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	18.00	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) 230.40	228.60	218.60	214.10	209.40	
2+00	0.60	0.80	1.80	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	

Slime Laurel

4.50  
 10.20  
 7.5  
 10.00  
 10.50  
 15.217.5  
 12.50  
 20  
 204.90  
 7.70  
 35  
 9.40  
 35  
 11.00  
 28  
 12.5  
 25  
 13.8  
 26  
 15.00  
 25  
 10.7  
 20

3.40  
 218.6  
 20  
 6.50  
 218.5  
 20  
 8.20  
 25  
 10.50  
 213.8  
 211.5  
 207.10  
 30  
 203.2  
 201.6  
 201.10  
 198.8  
 197.6  
 197.3  
 15.5  
 35

242.75 B.M.  
 0.80  
 243.55  
 7.9  
 236.36  
 0.88  
 237.24  
 5.39  
 231.85  
 6.80  
 232.65  
 11.80  
 220.85  
 1.17  
 2220.2  
 10.69  
 211.33  
 1.20  
 212.53

Slime Laurel





Standard Iron Works

June 16-98

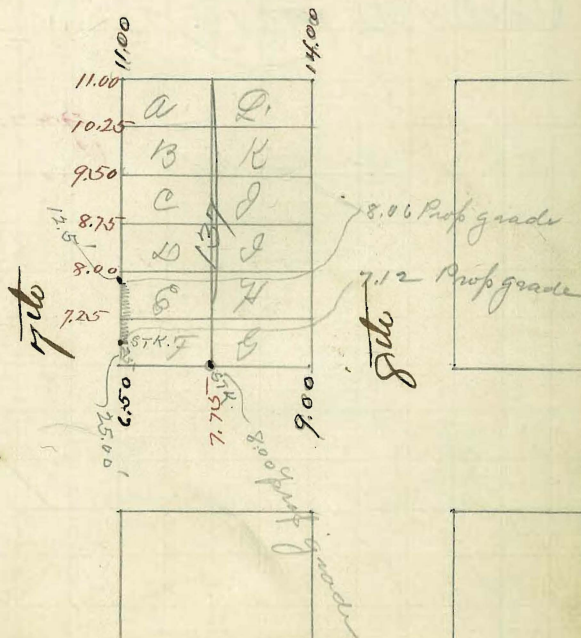
Grades to N.E. Cor 7<sup>th</sup> & L.

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

K



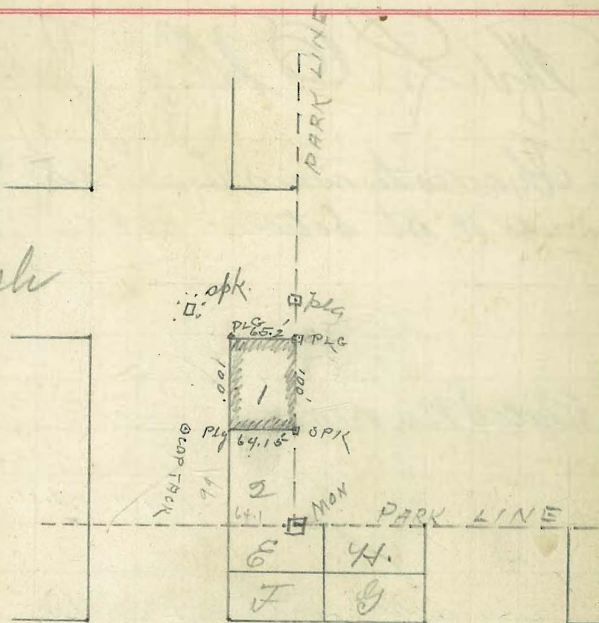
L



Mr Nichols July 19-98  
 Survey Lot 1 Block 21 Canutus

Order No 1001

Ash



A.

10th

11th

Mr L. O. Mey July 19-98

Shades to ware house on North  
side N<sup>th</sup> st between 15<sup>th</sup> & 16<sup>th</sup>

12.95 13.7m 16<sup>th</sup> st  
1.53

14.48	14.48	14.48
4.60	7.20	8.27
9.98	7.28	

Order No 1002.

6.21	
4.76	10.97
0.97	4.9
4.60	
6.47	6.07

in all points, set spikes in  
the back 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 Anyamaca <sup>Co</sup> Comrade  
R.R. tracks on N<sup>th</sup> & East line of  
15<sup>th</sup> st

Set points in Corners of ware house

12.48  
1060  
3.98

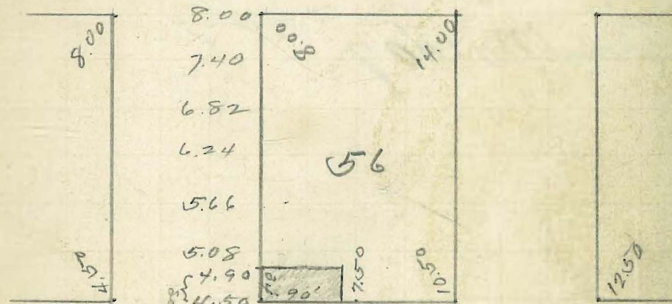
7.6-  
45  
3.0  
2.7

46  
27  
7.2

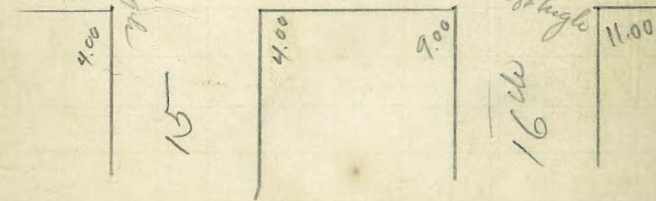
.58  
0.58  
7  
.406

48 ✓

M.



W





Tom Kay.

Aug 22-98

Survey of Lot N<sup>o</sup> 116  
Hortons

Order No 1007

SPK  
200.15' → B m m

a	L.	↑
b	K	SPK
c	J	SPK
d	116	1000
e	H	↓
f	G	B m m

Bond-

Bond

53  
 50 09  
 103.09

50 ✓

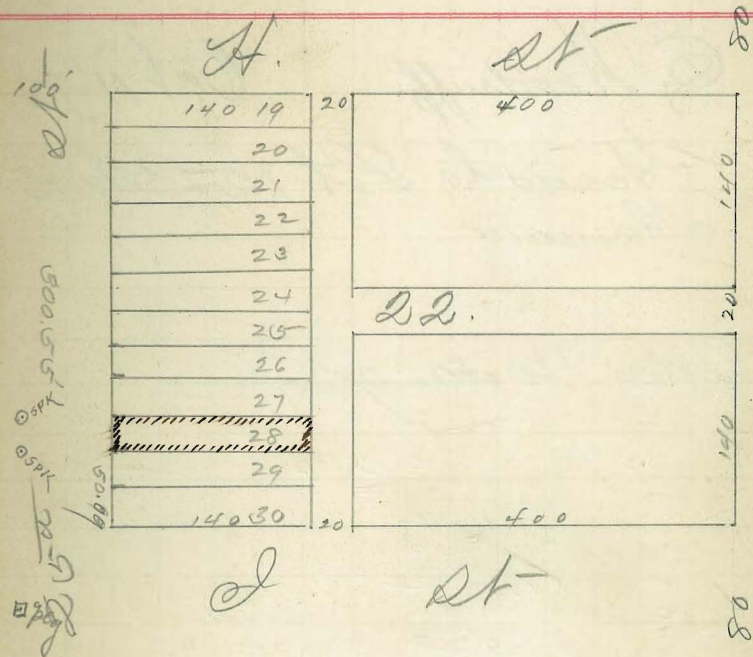
Sept 27. 98

Mr Croff

Sunny lot 28 Bels 22 Kimball

spks set at all four corners

Order No 1018.





E. Woodruff Oct 11, 98  
 Graded to Lot 12, Bek 12  
 Shinnon,

Order No 1020

118.20 B.M.

0.02

118.22

11.20

107.02

2.26

109.28

100

9.28

109.28

99.03

9.28

100.00 stake

2.10

102.10

102.10

96.75

98.50

5.35

8.60

4/13 (3.28) = 28  
 12 67  
 10 76  
 8  
 20

51

100.00

8.25

96.75

8.28

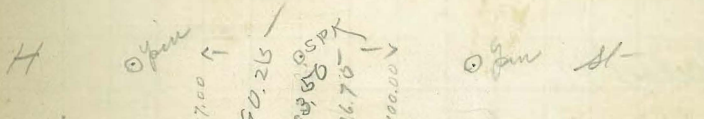
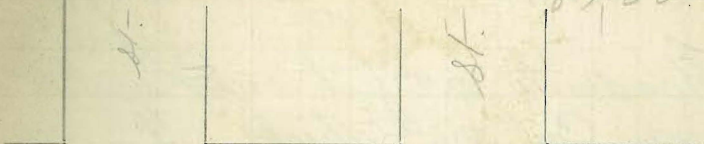
93.50

8.25

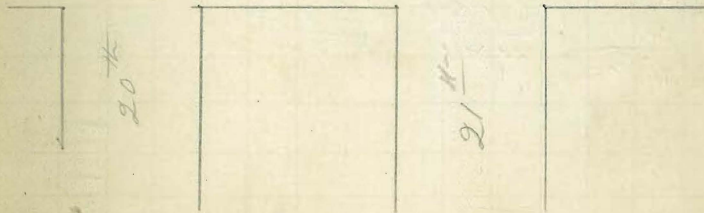
90.25

8.25

87.00



1	12	100.00
2	11	99.03
3	10	98.67
4	9	98.00
5	8	97.34
6	7	96.67
		96.00



Lech Abbott. Oct 12-98

Grades to 25 feet on Logan  
Ave, Cor 25<sup>th</sup> street.

Order No 1022

50.61 B.m. 25<sup>th</sup> Logan

8.67

59.28

0.70

58.58

8.86

67.44

67.44

67.44

67.44

2.03

68.00

62.44

65.41 B.m. 4.44

5.00

65.41 B.m.

4.31

69.72

69.72

69.72

6.3

64.86

66.72

6.72

4.86

3.00

67.04  
60.75  
6.69

412.25 5-6 63.52  
20 25 62.44 52

672  
486  
186  
72

48.00

49.00

24<sup>th</sup>

48.50

49.50

51.75

54.00

56.25

58.50

60.75

62.00

63.00

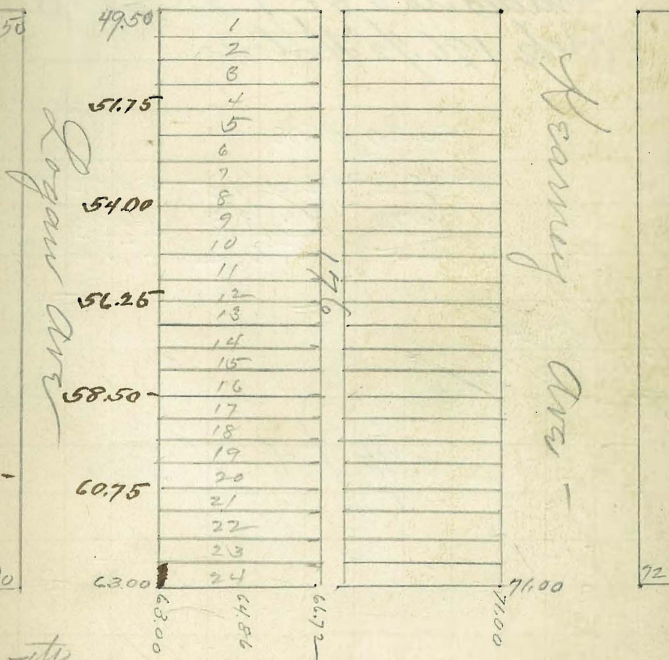
25<sup>th</sup>

62.00

63.00

71.00

72





33	49.33	33
16	17	17
	49.670	5.0

50.00

52.00

ash

st

	50.00
L	49.66
K	49.50
J	49.33
I	49.00
H	48.66
G	48.33
	48.00

52.00

48.50

a

st

47.00

47.50

Front

48

6	20	333
	15	
	200	

John Englebert Oct 13, 98  
 Grades to Lot J & S 1/2 N  
 Bks 196 1/2 Hinton.

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



199  
14  
185-

Louis Blockman <sup>Alderman</sup> Oct 15-98

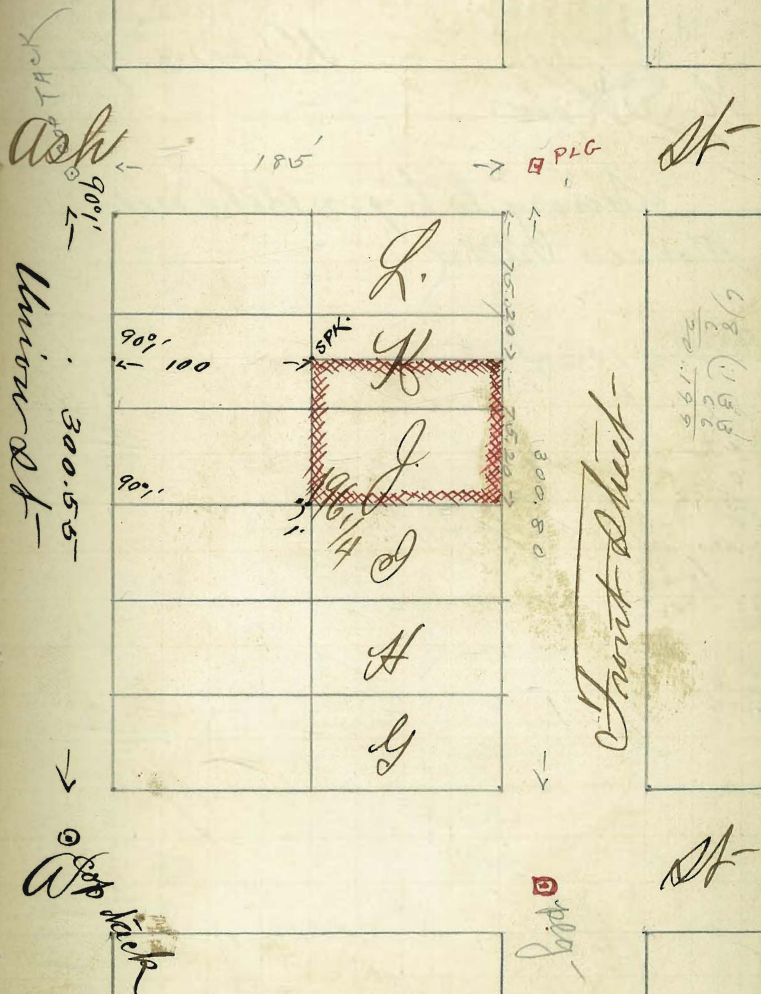
Survey of Lot J & South 1/2  
of N. P. Bek. 196 1/4 Horton

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 turn cor.





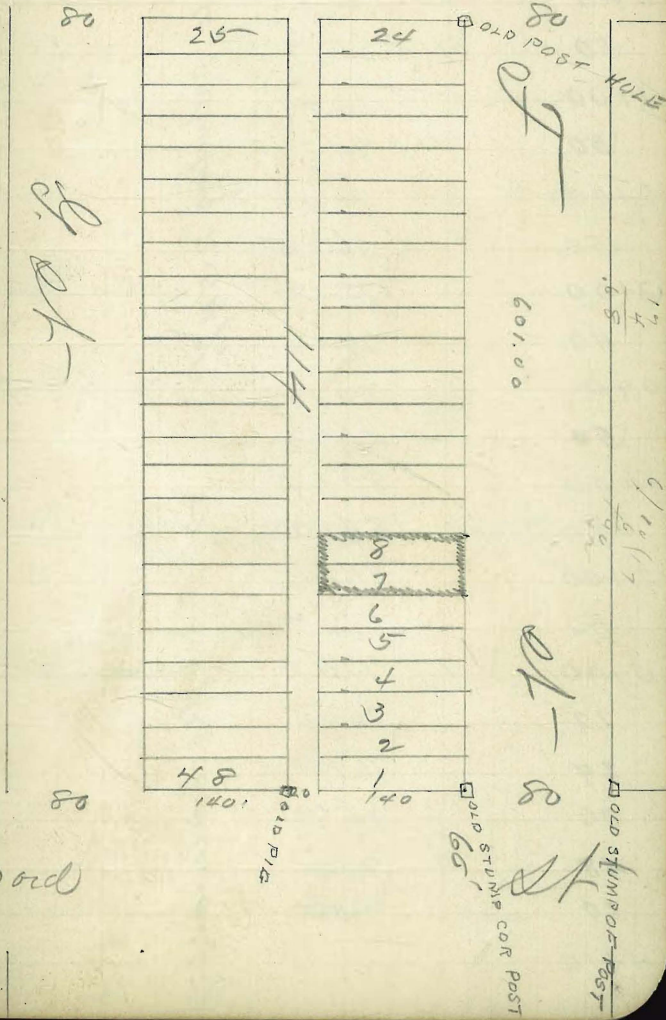
N-S Low

Dec 13, 98

Survey to 7-8 Bels 114  
Moses Add

Order 1034

3/1st of



- B2nd

# India St grading

Station	Center grade			
0+0	70.50	↳ ascending 2.54%	L	-0.70
50	71.77		✓	-2.10
1+00	73.04		✓	-2.80
50	74.31		✓	-2.50
2+00	75.58	↳ ascending 2.54%	✓	-1.10
50	76.85		✓	+1.30
3+00	78.12		✓	+2.60
40	79.14		✓	+3.30
0+0	80.15	↳ ascending 4.52%	✓	+3.80
50	81.42		✓	+3.50
1+00	82.69		✓	+1.80
50 BREAK	84.00		✓	+0.40
2+00	81.74		✓	+3.30
50	79.58		✓	+5.60
3+00	77.32		✓	+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	✓	+3.60	
4+10	72.23	✓	+4.10	

67.58  
 11.03  
 78.61  
 841  
 78.20  
 9.17  
 87.37  
 2122

83.75 T.P.

Jan 1899. <sup>56</sup> ✓

W line Chalmers

85.15  
 1.59  
 86.74

86.74  
 1.53  
 85.21 B.M.  
 at India-River

L R  
 -1.10  
 -2.40 -0.80  
 -2.70 -1.50  
 -2.60 -1.20  
 -1.10 -0.10

S line Winters

W line Andrews

Break Grade from 2.54% to 4.52%

S line Pierce

West line India on Pierce







# India St Extension

Station	Center grade	
32'		
67.50	59.11	↘ -3.40
50'		
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	65.10	↘ +2.60
28'		
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%

# grading Notes

58

73.11  
 2.53  
 70.58 BM  
 Approx 514+89.5

	L	R
(Change of Notes. X acc)	-3.40	-2.00
	-1.70	-0.30
	-0.40	
64.35		
0.81		
63.52		
9.59		
73.11		
1.34		
71.77		
9.72		
81.49		
70.58		
3.42		
74.06		
65.10		
8.96		
73.50		
66.21		
7.29		
66.92		
6.58		
73.50		
71.18		
2.32		
65.10		
8.40		
73.50		
68.34		
5.16		
73.50		
69.76		
3.74		
73.50		
70.47		
3.03		

Center Cal = 4<sup>th</sup>

73.50		
0.93		
72.57		
8.12		
80.69		
72.60		
8.09		
	-1.10	
4.5	-3.00	-3.00
6.6	-3.70	-1.90
4.10	-2.80	
	-1.10	
	-0.10	



# India St Extension

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

# grading notes Jan 1899 59

81.49	80.69		
201	75.50		
7948	519		
6170		L	R
8518			
2179			
8239			
8100			
9039			
Break grade from 1.42% to 1.05%			
	6'	-2.80	
	8.5'	-4.50	
	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



# India St Extension

Station	Center grade	
31+17.5	84.37	L -3.10
+67.5	85.40	L +1.50
32+17.5	86.92	L +2.80
+67.5	86.44	L +2.20
33+17.5 Break	87.00	L -0.40
67.5	85.30	L +0.90
34+17.5	83.60	L +1.90
+67.5	81.90	L +1.40
35+17.5	80.20	L +1.10
67.5	78.50	L +0.20
36+17.5	76.80	L +1.80
+67.5	75.10	L +1.30
37+17.5	73.40	L +0.40
+67.5	71.70	L -1.10
38+17.5	70.00	L -3.20

1.05%

Stake 44.58  
50.00W  
↘ descending 3.4%

# Grading Notes Jan 1899

60

90.39			
284			
87.65			
4.23			
91.73	9.6	L	R.
1.41			0.00
90.32	B.m. opposite		-0.70
0.41	5 35+67.5		
90.73			
11.41			
79.32			
Break grade from 1.05% to 3.4%			
79.32	6'	-2.80	
2.24	4'	-2.00	77.86
81.56		-0.30	10.50
3.70		-0.70	88.41
77.86	B.m. opposite 33+17.5		87
1.71		-1.30	1.71
77.86			77.86
1.32			1.32
79.18	4.5'	-2.50	79.18
70		-0.70	70
9.18		-0.40	9.18
	4'	-1.90	
	6'	-3.10	
Souto line 9.55' at			



69.17 H.Z.	69.17
<u>58.14</u>	<u>53.00</u>
71.03	16.17

<u>58.66</u>	
4.35	

63.01	63.01
<u>56.72</u>	<u>56.01</u>
6.29	7.00

Johnson Cemetery Road

47 32 <hr/> 1.5		5.00 41 <hr/> .9
4065 325 <hr/> 4378 1325 <hr/> 4700 1325 <hr/> 5025 1325 <hr/> 5150 132 <hr/> 567	7.74	2900 4.05 <hr/> 3805 8.92 <hr/> 2413 4.46 <hr/> 2859 423 <hr/> 2438
	8.87	
	5	
	5.87	
	5	
	2.87	

Englehart Contract  
Grading contract

62 ✓

585 32 <hr/> 565 33 <hr/> 532 598 <hr/> 33 <hr/> 180
---------------------------------------------------------------------------

at foot of 6% elevation of Centre  
line 29.00 ft

Grade level to Bridge 168 feet  
elevation centre line 29.00 ft

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

6.30 83 <hr/> 6.63 132 <hr/> 6.95
-----------------------------------------------



6) 2.5 - (417) 63  
 24  
 10  
 6  
 50

18.09 B.M. Co. State - F  
 Jan 19-99  
 Mc Near  
 Contract on East side Park

18.09 B.M.  
 108

19.17	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 stake  
 4.66

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

Chicks Jan 30-99

18.09 B.M.  
 116

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

Columbia

Chas Englebertson Feb 14-99  
 Survey of Lot 10 Bk. 44  
 Corralles Culowill Teggats.

Order No. 1044

190  
 82.9  
 272.9

43

264  
 7  
 257  
 43  
 300

64

D

↑  
 0 SPK

300

↓

DPK

1	7
2	8
3	9
4	10
5	11
6	12

0 TRACK

7

0 SPK

300

0 SPK

0 SPK

↓

E

0 PLC

0 SPK

ST

21/2

22 1/2



Ms Butler,

Feb 16, 99

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

203.30 18 m. N2 Cor 27. B.

4.04	
207.34	207.34
197	196.83
10.34	105.1
6.20	57.90
+ 4.14	+ 4.61

at Cor

Mar 28<sup>th</sup> 99

Scott + Carter.

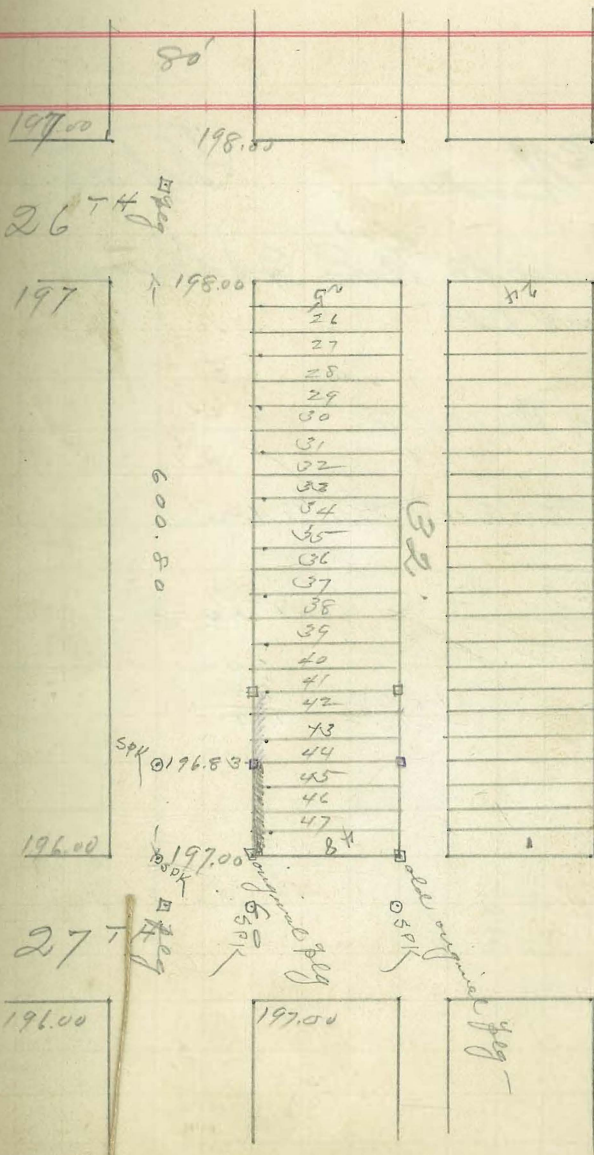
Survey of Lots 42-43-44

B. 32 H. M. Higgins add  
Order 1058

197.00  
17  
196.83

6) 1.4 1.66  
40  
.81

65 ✓



O. M. Andrews

Feb 24-99

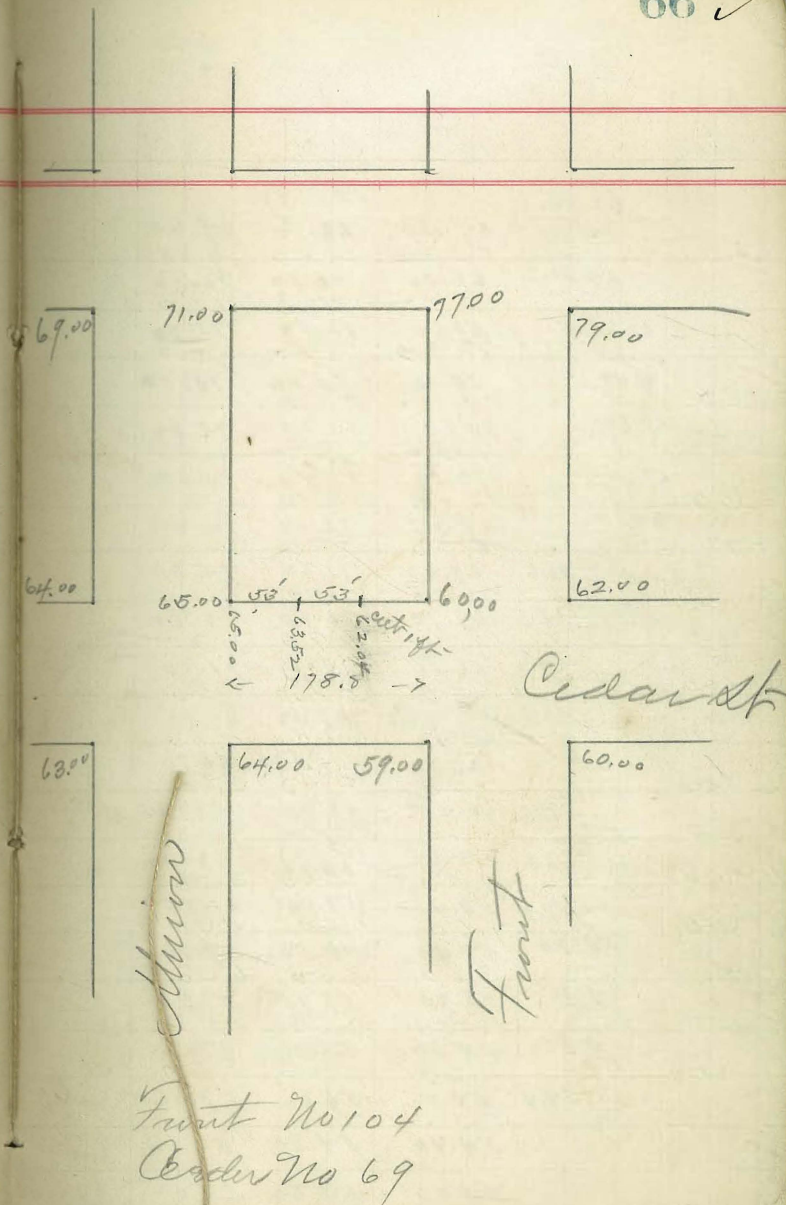
Grades to W. E. Col. Munn -  
Cedar St

Order No 1048.

71.90 13 m Cor Cedar = 1 st.  
1.397329  
62.04  
1125-13.04 m stake 1 ft high  
5.97

8901	69.01
6352	65.00
549	4.01

69.01
60
9.01

Front No 104  
Cedar No 69

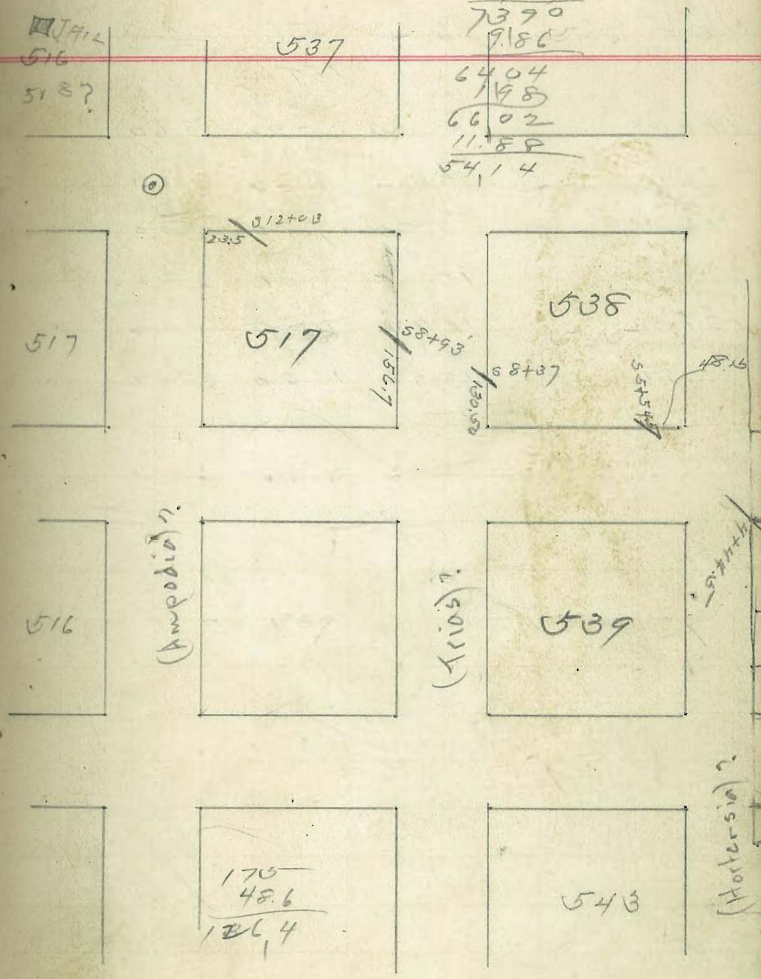


Survey of Indian Strip in Old Town

Angle Right 90°57'  
 Oct 15-99

67  
 77.86 B.M.  
 2.29  
 80.15  
 11.12  
 69.03  
 9.87  
 78.90  
 9.86  
 64.04  
 1.98  
 66.02  
 11.88  
 54.14

Station	12' A	Center	12' B
	62.70	(80.15)	
0+0	25 17.4 64.50	64.30 15.80 67.40	66.70 13.40 70.50
50	25 16.3 67.325	12.70 69.90	69.60 72.50
1+00	12.50 67.30	10.20 70.10	7.60 73.00
50	12.80 67.50	10.00 70.60	7.10 73.20
2+00	12.3 67.60	9.50 70.10	6.90 72.70
50	12.0 68.10	10.00 69.30	7.40 72.00
+71.5 A	12.00 68.10	10.50 69.30	8.10 71.60
3+00	13.50 68.3	10.80 67.70	8.50 70.20
50	14.50 68.40	12.40 66.10	7.90 73.20
4+00	25 68.40	7.50 67.30	5.20 69.90
50	25 68.40	9.30 64.6	6.60 67.30
5+00	25 68.40	62.70 11.20	65.20 8.70
50	25 68.40	60.30 13.60	62.90 11.00
6+00	25 68.40	58.50 7.20	60.60 5.40
50	25 68.40	58.40 7.60	59.90 6.10
7+00	25 68.40	57.40 8.60	58.50 7.50
50	25 68.40	55.70 10.30	56.70 9.30
8+00	25 68.40	54.80 11.20	56.00 10.20
50	25 68.40	54.4 11.10	56.00 10.00
9+00	25 68.40	54.40 11.60	54.50 11.20
50	25 68.40	53.00 13.00	53.60 12.40



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



54.14  
3.00  

---

57.14

68

Stat	12 L	Center	12 R
	52.00	(57.14) 52.20	53.80
10+00	5.40	5.20	3.60
.50	48.80	49.60	49.90
	8.60	7.80	7.50
11+00	47.20	48.20	48.60
	10.20	9.20	8.80
.50	47.40	47.60	48.10
	10.00	9.80	9.30
12+00	45.50	46.10	46.80
	11.90	11.30	10.60
.50	43.70	44.20	44.60
	13.70	13.20	12.80



82.40  
7.  
175.40

MO Riley

Me 8-99

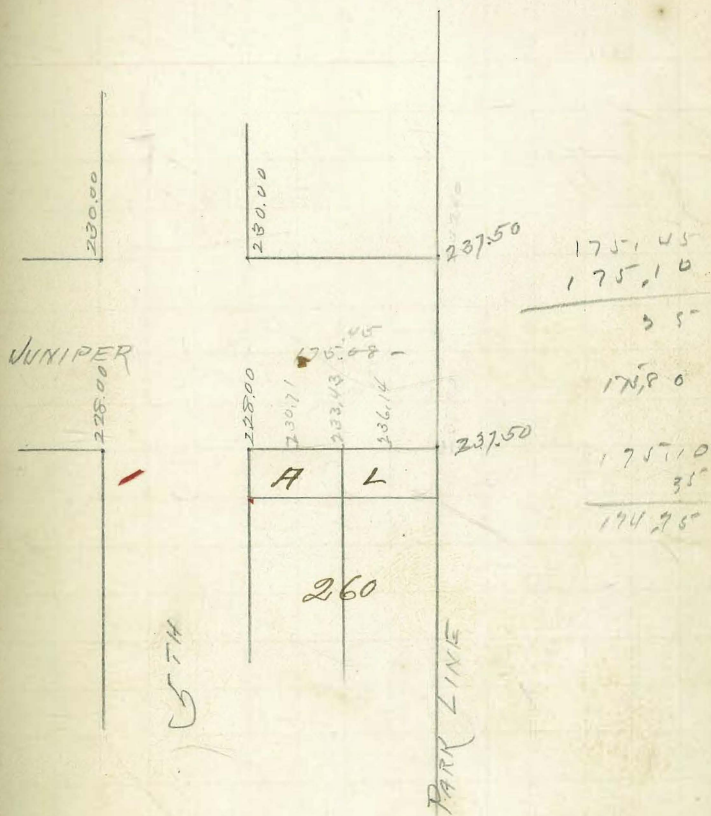
Cut grades to Lots A & L. Bek  
260 Horton

Order No 1052

228.12	43.11
11.65	
239.77	43.11
239.50	11.83
2.33	

Ord 263  
May 25 1894

69



Indexed to here

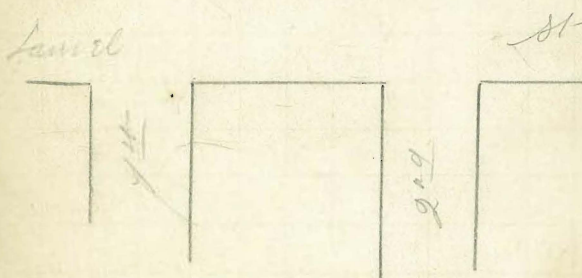
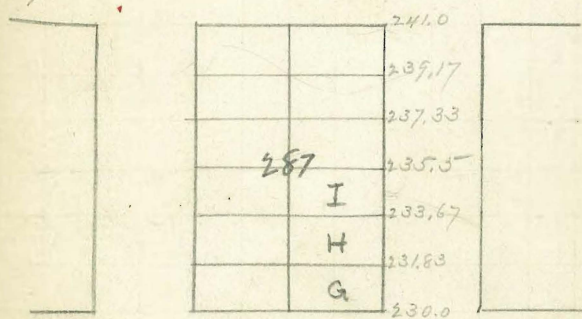
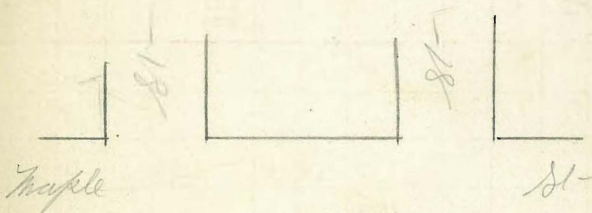
Kaltan Watts April 24/99

Comb quadre into O. H. & J.  
Blk. 287 Horton Add-

222.59 B.M. Laurel & 1<sup>st</sup> S.W. Cor.

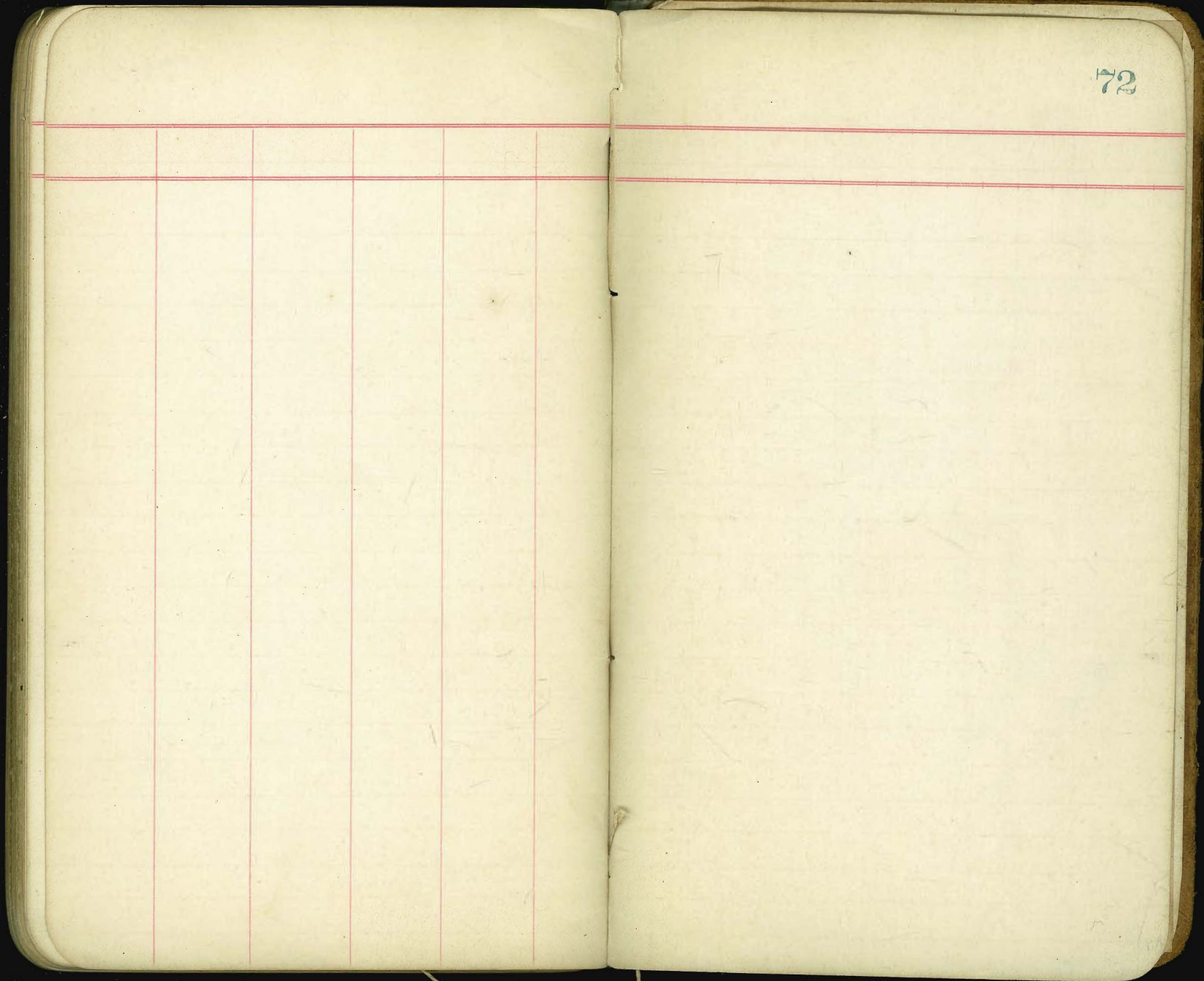
9.01		
231.60 H. & J.	230.00	238.83
230	8.83	233.67
1.60	238.83 H.I.	5.16
	237.83	
	7.00	

238.83  
238.56  
3.33

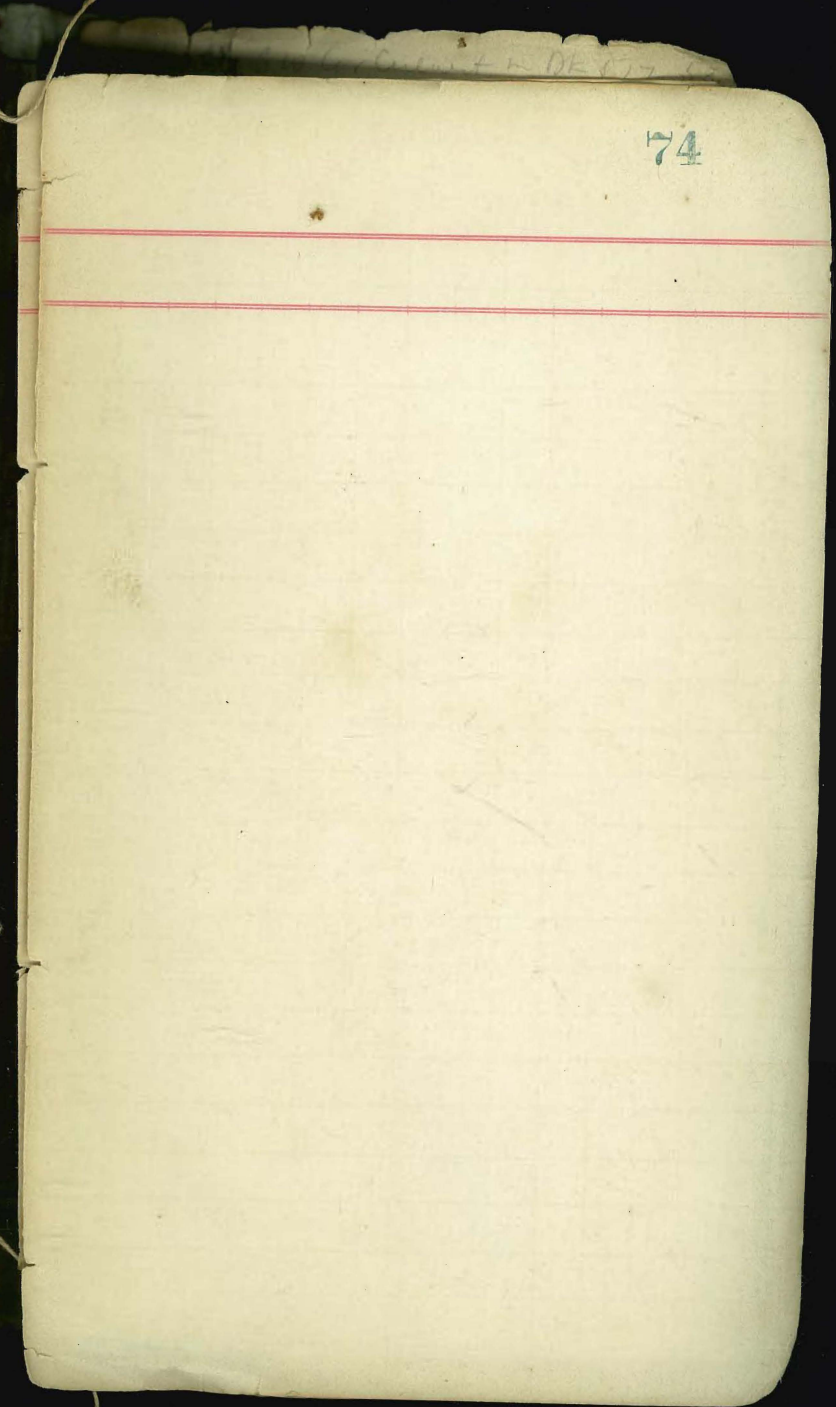
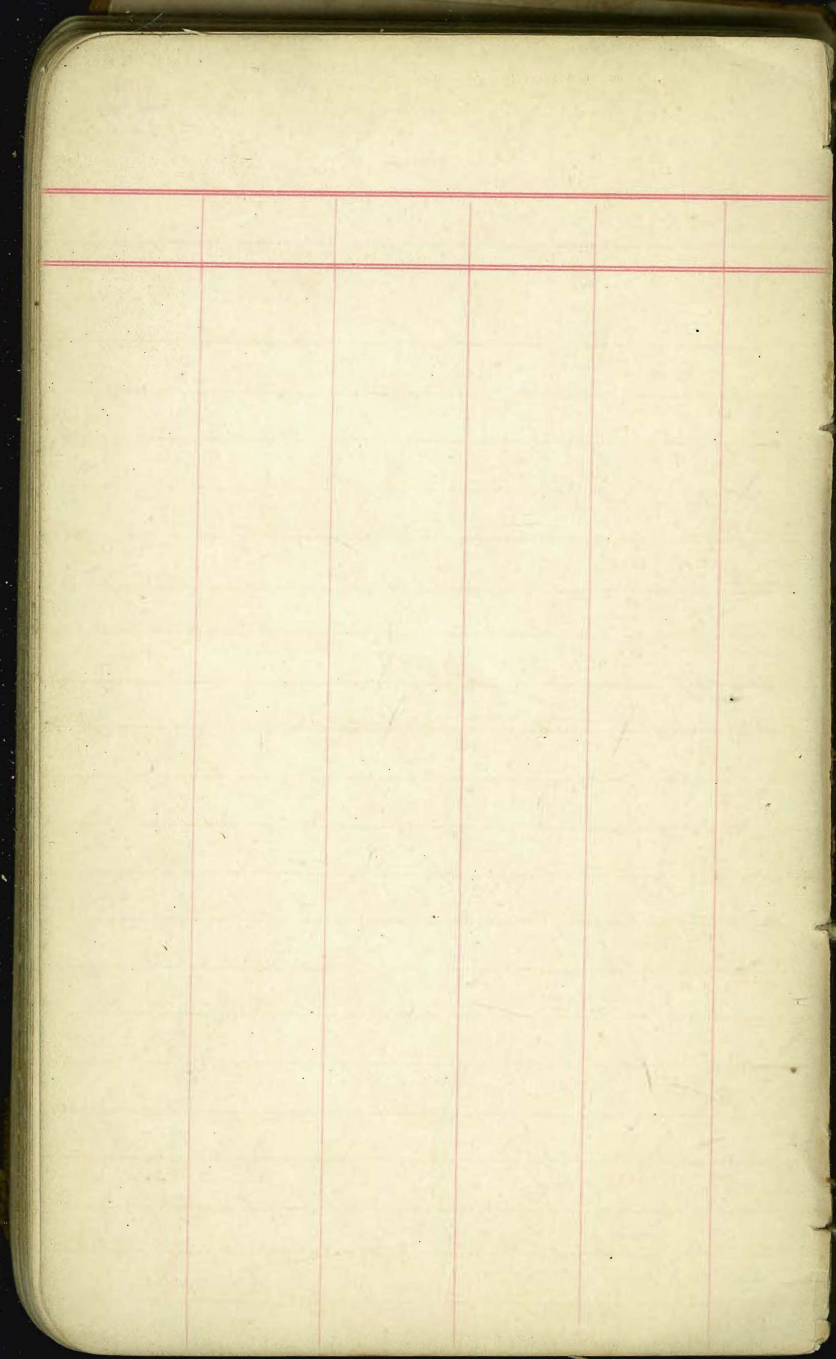












SW Cor Culvert - Dk 517-53.  
Pl. Sta 9-18

1912

75



76

68

74  
75  
76

8

+



	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	196.00	
7.10	8.10	7.70	

St. An. & Conde	33.39
" & Harney	34.25
" & Mason	27.05
St. An. & Plaza	21.15

5th Cor. Culcut n. Dr. 17-55.  
at Sta 9+48

204.00	
203.25	
203.50	
203.00	

Laurel

1072
13
1297
6486

197.00	
196.25	
196.00	
196.40	

Kal

Old Benches in Old Town

Mr. Spoke on Cor. Pont. Juggo & Juan	56.76
Street Center Wilber & 4th	65.18
Plg. Ad. " "	65.05
Cor. Taylor & Webster	5.32
St. An. & Pont. N. St. Juan & Washington	16.82
Spoke on Cor. Playa	21.06
St. An. & Mason St. An. at Picket fence	21.15
Spoke on Cor. Playa by old Adobe	21.15
Center Conqueso & Ampudia	43.54
" " & Conde	19.40
" " & Harney	19.56
" " & Harney	22.54
" " & Harney	33.88
" " & Anista	25.98
St. An. & Pont. N. of Cor. St. An. & Conde	33.88
Center Conqueso & Juggo	"
" " & Ampudia	113.46



Return to City Engineer's Office  
City Hall, San Diego, Cal.

161.3  
 3  
 60.0  
 5.88  
 7.12  
 61.2  
 11.88  
 8  
 8.88  
 3  
 5.85  
 11.2  
 32.3  
 81.7  
 58.24  
 10.75  
 53.50  
 56.50  
 10.85  
 6.65  
 4.9  
 6.0  
 37.5  
 2.27  
 2.1  
 2.2  
 8.4

4.7  
 8.7  
 3  
 5.7  
 8.88  
 11.6  
 7.35  
 1.0  
 5.85  
 1.8  
 6.6  
 2.50  
 16.3  
 3  
 3  
 8.4

2.50  
 16.3

3  
 3

S  
5