

1142

DEIZGEN
NEW YORK

ENGINEERS

FIELD BOOK

No. 404

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

Distances from Center of Roadway for Cross-Sectioning
Roadway 16 feet wide. Side Slopes 1 on 1.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.1	8.2	8.3	8.4	8.5	8.6	8.7	8.8	8.9	0
1	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	1
2	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	2
3	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	3
4	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	4
5	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	5
6	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	6
7	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	7
8	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	8
9	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	9
10	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	10
11	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	11
12	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	12
13	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	13
14	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	14
15	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	15
16	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	16
17	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	17
18	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	18
19	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	19
20	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	20
21	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	21
22	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	22
23	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	23
24	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	24
25	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	25
26	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	26
27	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	27
28	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	28
29	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	29
30	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	30
31	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	31
32	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	32
33	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	33
34	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	34
35	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	35
36	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	36
37	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	37
38	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	38
39	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	39
40	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 30.6. For same slopes but other widths of roadbed, correct above figures by one-half difference in width of roadbed; thus in example above, for 20 ft. roadbed distance will be 30.6 + (20 - 16) ÷ 2 or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1 1/2 see inside of back cover.

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90
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54

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62
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81
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100
110
120

12
22
32
42
52
62
72
82
92
102
112
122

14.92
14.82
14.72
14.62
14.52

14.92
14.82
14.72
14.62
14.52

See Appendix A

X Sec A1124
 24 to 25 Bet #4 B
 BIK 2 H.M. Higgins

10/11/25
 miles

B.M.	5.63	185.51	179.88	NW 24th + B.
T.P.	12.85	198.32	185.47	
	20' E. end Paving 100' E. of 24th St.			
			198.3	no yardage approving
S		10.10	188.2	
S		8.8	189.5	Ground
C		10.42	187.8	approving
N		10.15	188.2	
		16' E		
N		10.2	188.1	
+3		9.1	189.2	
C		8.9	188.4	
+6		8.7	189.6	
S		7.9	190.4	
		20' E		
S		7.6	190.6	
C		8.6	189.7	
N		8.4	189.9	
	58' E. Garage on N. end floor 4' Back			
N-4		4.50	193.7	on floor on emp approv
N		4.55	193.8	
C		4.6	193.7	
S		4.1	194.2	
	80' E. Garage on S. end floor on line			
S		1.80	196.5	on floor
+3		2.15	196.1	on emp approv

198.32

80' E (emp)
2.6

198.3

195.7

C				
N			2.4	195.9
T.P.	8.91	206.97	0.26	198.06
X	126' E Garage on S. end floor 1' Back			
				207.0
N-5			9.9	197.1
N			8.6	198.4
+1			7.3	199.7
C			7.6	199.4
S			6.9	200.1
+1			6.7	200.3 on floor
	144' E Garage on S. end floor 1' Back			
S-1			5.9	201.1 on floor
	150' E			
S			5.9	201.1
C			6.2	200.8
N			5.9	201.1
	176' E garage on N. end floor 1' Back			
N-1.2			5.3	201.7
	190' E Garage on N. end floor 1' Back			
N-1.5			3.82	203.2 on floor
N			4.0	203.0
C			4.4	202.6
S			3.6	203.4

206.97 207.0
 210' E Double Garage on N end floor 1. Back

S	3.4	203.6	
E	3.8	203.2	
+9.5	3.40	203.6	edge of room
N	3.25	203.7	floor

250' E

N	3.5	203.5	
E	3.7	203.3	
S	3.5	203.5	

290' E Garage on S. dirt floor on line

S	3.0	204.0	
+5	3.9	203.1	
E	4.1	202.9	
N	3.7	203.3	

315' E

N	4.0	203.0	
E	5.0	202.0	
S	4.5	202.5	

345' E Garage on N dirt floor on line

S	5.7	201.3	
E	4.0	201.0	
N	5.8	201.2	floor

385' E Garage on N + S Both dirt New line 's. 9. Back

N	7.1	199.9	
E	7.0	200.0	
S	6.7	200.3	

206.97

207.0
 410' E Garage on N end floor 2. Back

S	7.2	199.8	
E	7.4	199.6	
N	7.4	199.6	
+2	8.4	198.6	on floor

450' E

N	7.5	199.5	
E	7.9	199.1	
S	7.7	199.3	

472' E Garage on S end floor

S	8.15	198.8	on floor
E	8.10	198.9	
N	7.9	199.1	

501' E = W Line R5th St

N	7.72	199.3	on ch.
N	7.86	199.1	paving
E	8.24	198.8	paving
S	8.13	198.9	paving
S	8.05	198.9	ct.

Juniper St X Sec 2
 from Elaine Felton to Elaine Penton at Ave

10/1/32

10/1/32

10/1/32

B.M.	1.38	299.00		297.62	S.W. 32 nd Kalmia
Set B.M. B.P.			5.42	293.59	S.E. Juniper Banner
T.P.	0.07	286.33	12.74	286.26	
Set B.M. B.P. Top Wall			8.21	278.12	S.W. Juniper + 33 rd St
T.P.	0.19	273.67	12.85	273.48	
T.P.	0.95	261.94	12.68	260.99	
Set B.M. B.P. Top Wall			6.46	255.48	S.W. Juniper + Felton
T.P.	1.59	251.50	12.03	249.91	
			00 = Elaine Felton		
			25' East	751.5	
S			0.4	751.2	✓
+7.2			0.72	750.8	✓ on edge of wall
cl			0.9	750.6	✓
1/4			1.0	750.5	✓
+8			0.0	751.5	✓
C			3.3	748.2	✓
+3			4.1	747.4	✓
+6			8.0	743.5	✓ side Road
1/4			7.9	743.6	✓
+12			7.7	743.8	✓ N edge Road
cl			8.5	743.0	✓
+8			13.5	738.0	✓
N			15.7	735.6	✓
+25			26.2	725.3	✓
+66			42.0	709.5	✓
+76			46.5	705.6	✓ bottom of wash

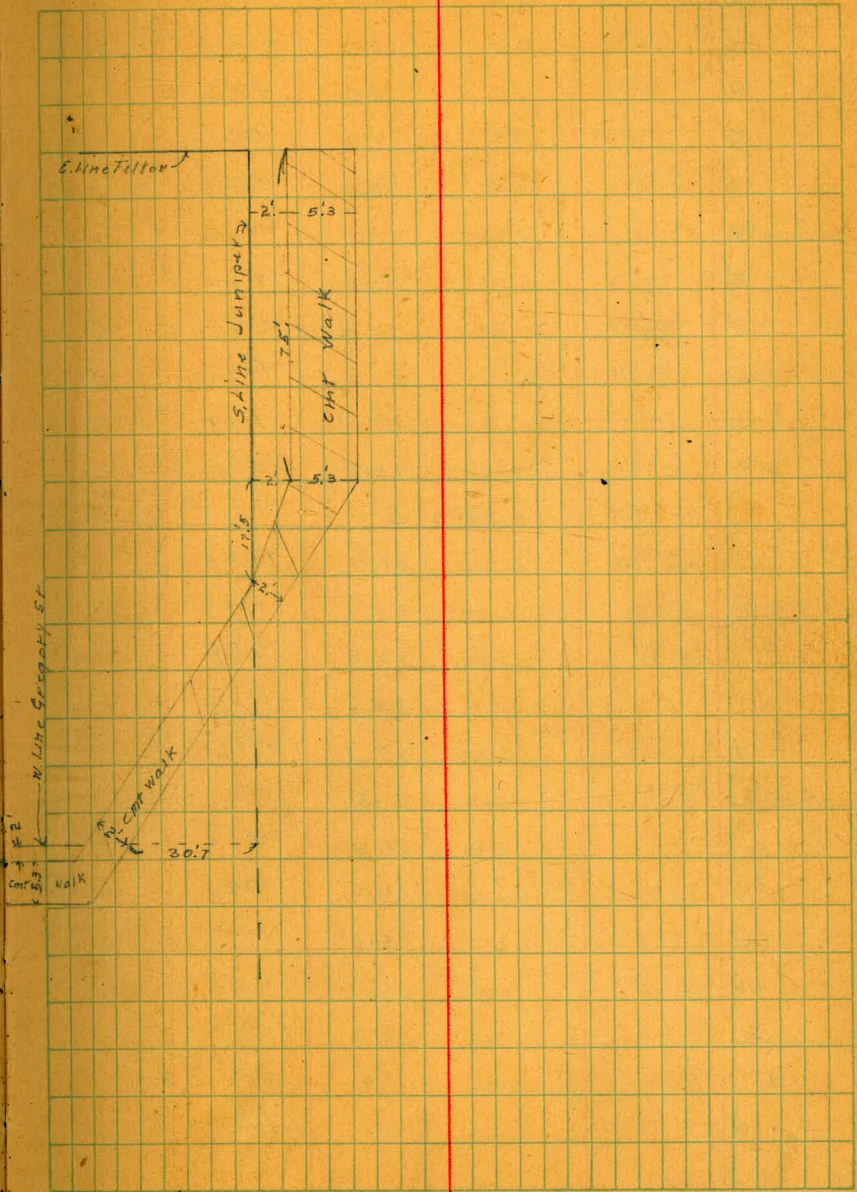
251.50

50' E

751.5

- 67		47.3	702.4	✓	bottom of wash
- 55		42.7	708.8	✓	
- 25		32.5	719.0	✓	
N		21.6	729.9	✓	
cl		14.9	736.6	✓	
+5		11.2	740.3	✓	N edge Road
1/4		11.1	740.1	✓	
+11		11.1	740.1	✓	S edge Road
C		9.7	741.8	✓	
+8		5.6	745.9	✓	
1/4		1.9	749.6	✓	
cl		2.7	748.8	✓	
S		1.8	749.7	✓	
					75'E
S		4.9	746.6	✓	
+72		4.93	746.6	✓	on edge walk at L.P.P.
cl		5.0	746.5	✓	
+10		4.9	746.6	✓	
1/4		6.6	740.9	✓	
+5		10.4	741.1	✓	
+6		15.2	736.3	✓	S side Road
C		15.0	736.5	✓	
1/4		14.3	737.2	✓	
+3		14.4	737.1	✓	N edge Road
cl		21.5	730.0	✓	
N		28.1	723.1	✓	

	251.50			
		75 E (con)		
+25		38.7	7148	✓
+48		46.3	7052	✓
+56		48.8	7017	✓
+60		46.6	7079	✓
		100' E		
-56		46.3	7052	✓
-46		50.3	7014	✓
-40		48.0	7035	✓
-20		42.2	7093	✓
N		32.8	7187	✓
eb		27.4	7261	✓
1/4		20.0	7315	✓
+4		18.1	7334	✓ N side Road
2		18.0	7335	✓
1/4		18.8	7329	✓ S side Road
+1		13.2	7383	✓
+8		8.0	7435	✓
eb		7.8	7432	✓
S		7.4	7401	✓
-3		7.6	7438	✓
		125' E		
-10		10.15	7413	✓ on emb walk
S		11.8	7397	✓
+8		10.5	7410	✓
T.P.	00.5	239.57	11.98	239.52



239.57

7396

175° E (cont)

cl	2.6	1370	✓
+5	9.5	130.1	✓ edge Road
14	9.3	1303	✓
c	9.2	1304	✓
+6	9.2	1304	✓ N side Road
14	14.0	1456	✓
cl	21.4	1184	✓
N	27.2	1146	✓
+27	36.0	1036	✓
+34	39.4	1007	✓ Bottom wash
+47	35.5	1021	✓
142° E			
-45	37.2	1014	✓
-25	40.2	1994	✓ bottom wash
N	30.7	1089	✓
cl	25.0	1146	✓
14	17.7	1119	✓
+9	11.5	1181	✓ N. side Road
c	11.5	1181	✓
14	11.5	1181	✓
cl	12.6	1170	✓ S. side Road
+5	6.7	1329	✓
S	0.3	1393	✓
+7	1.6	1380	✓
+13	0.1	1395	✓ edge walk

239.57

7396

175° E

Juniper 5

-26	3.6	1360	✓ on walk
-77	5.3	1343	✓
-9	3.5	1361	✓
5	9.0	1306	✓
+3	11.0	1186	✓
+4	17.4	1114	✓ S. side Road
cl	17.0	1116	✓
14	16.4	1134	✓
+10	16.6	1130	✓ N. side Road
c	19.3	1203	✓
14	26.8	1148	✓
cl	32.2	1074	✓
N	36.9	1047	✓
+23	43.5	1961	✓ bottom wash
+40	39.0	1006	✓
191° E			
-40	30.3	1013	✓
-10	44.2	1952	✓ Bottom wash
N	40.3	1993	✓
cl	35.2	1044	✓
14	30.3	1093	✓
c	24.4	1152	✓
+6	18.7	1109	✓ N. side Road
14	18.8	1108	✓
cl	18.6	1110	✓
+13	19.2	1104	✓

239.57

139.6

191.8

S			13.0	✓166	✓
+3			8.0	✓316	✓
+10			5.5	✓341	✓
+18			7.4	✓342	✓
+28			5.6	✓340	✓ on walk
+	Roo. E	- W. line	Gregory St		✓
-30.7			7.15	✓344	✓ Nedge emb walk
-20			8.4	✓314	✓
-10			6.7	✓349	✓
-2			10.9	✓87	✓
T.P.	0.22	226.92	12.87	226.70	
S			7.9	✓190	✓ s edge road
cl			7.2	✓196	✓
1/4			7.3	✓196	✓
+4			7.4	✓95	✓ Nedge Road
T.P.	0.44	218.02	9.34	217.58	
2			3.9	✓141	✓
1/4			10.5	✓075	✓
cl			15.1	✓049	✓
N			19.2	1982	✓
+14			22.6	1954	✓ Bottom wash
+35			17.4	✓006	✓
					W. cl
-35			17.2	✓008	✓
-15			23.0	1950	✓ Bottom wash
N			21.3	1467	✓

218.02

218.0

JUNIPER

6

cl			17.6	✓004	✓
1/4			12.5	✓055	✓
2			7.0	✓019	✓
+10			0.5	✓173	✓ Nedge Road
1/4			0.5	✓175	✓
cl			0.6	✓174	✓
S			1.0	✓170	✓ S edge Road
					W. 3/4
S			2.6	✓154	✓ S edge Road
cl			2.6	✓154	✓
1/4			2.4	✓156	✓
+3			2.5	✓155	✓ Nedge Road
C			9.6	✓084	✓
1/4			15.1	✓049	✓
cl			19.3	1987	✓
N			22.2	1958	✓
+15			23.7	1943	✓ Bottom wash
+35			17.0	✓010	✓
					4
-35			17.7	✓003	✓
-10			24.4	1936	✓ Bottom wash
N			23.2	1944	✓
cl			20.3	1972	✓
1/4			16.3	✓017	✓
C			10.2	✓078	✓
+9			4.5	✓135	✓ N edge road

218.02
~~218.0~~

S 14	4.3	1132	✓
cl	4.6	1134	✓
S	4.6	1134	✓ s. edge road
E 14			
S	6.5	1115	✓ s. edge road
cl	6.1	1119	✓
14	6.3	1117	✓
+3	6.3	1117	✓ N edge road
C	12.4	1056	✓
14	17.3	1007	✓
cl	21.4	1966	✓
N	24.3	1932	✓
+10	24.5	1935	✓ bottom wash
+25	21.1	1969	✓
E cl.			
-25	22.3	1957	✓
-7	26.0	1970	✓ bottom wash
N	24.6	1934	✓
cl	22.2	1958	✓
14	18.3	1997	✓
C	12.4	1056	✓
+10	8.0	1100	✓ N edge road
14	8.0	1100	✓
cl	7.8	1102	✓
S	8.3	1099	✓ s. edge road

218.02
 00 E Line Gregory 218.0

Juniper 7

S	10.1	1079	✓ sedge road	
cl	9.6	1081	✓	
14	9.7	1083	✓	
+3	9.7	1083	✓ N edge road	
C	14.7	1035	✓	
14	19.4	1986	✓	
cl	23.5	1945	✓	
N	26.1	1919	✓	
+3	26.7	1913	✓ bottom wash	
+25	24.2	1938	✓	
15' E				
-25	25.8	1922	✓	
-5	27.5	1905	✓ bottom wash	
N	26.7	1913	✓	
cl	23.6	1924	✓	
14	19.8	1982	✓	
C	16.1	1019	✓	
+6	12.2	1058	✓ N edge road	
14	11.7	1063	✓	
cl	11.6	1066	✓	
+9	11.8	1062	✓ sedge road	
S	9.3	1087	✓	
T.P.	0.65	205.69	12.98	205.04
50' E				
S	1.4	1043	✓	
cl	2.1	1036	✓ s. edge road	

205.69 7052
50' E (cont)

14	2.3	7032	✓
C	2.3	7034	✓
+2	2.4	7033	✓ N-edge Road
14	10.2	1955	✓
cl	14.4	1913	✓
N	17.0	1882	✓
+5	17.6	1891	✓
+22	16.2	1894	✓
65' E			
-25	17.5	1882	✓
-5	18.4	1873	✓ hollow wash
N	17.4	1883	✓
cl	15.5	1902	✓
+8	13.7	1910	✓
14	8.8	1969	✓
+6	4.0	7012	✓ N-edge Road
C	3.6	7021	✓
14	3.3	7014	✓
cl	3.1	7016	✓ Sedge Road
S	3.6	7011	✓
95' E			
-15	16.0	1892	✓
S	15.9	1898	✓
+6	14.6	1911	✓
cl	10.0	1957	✓
+8	5.2	7005	✓ Sedge Road

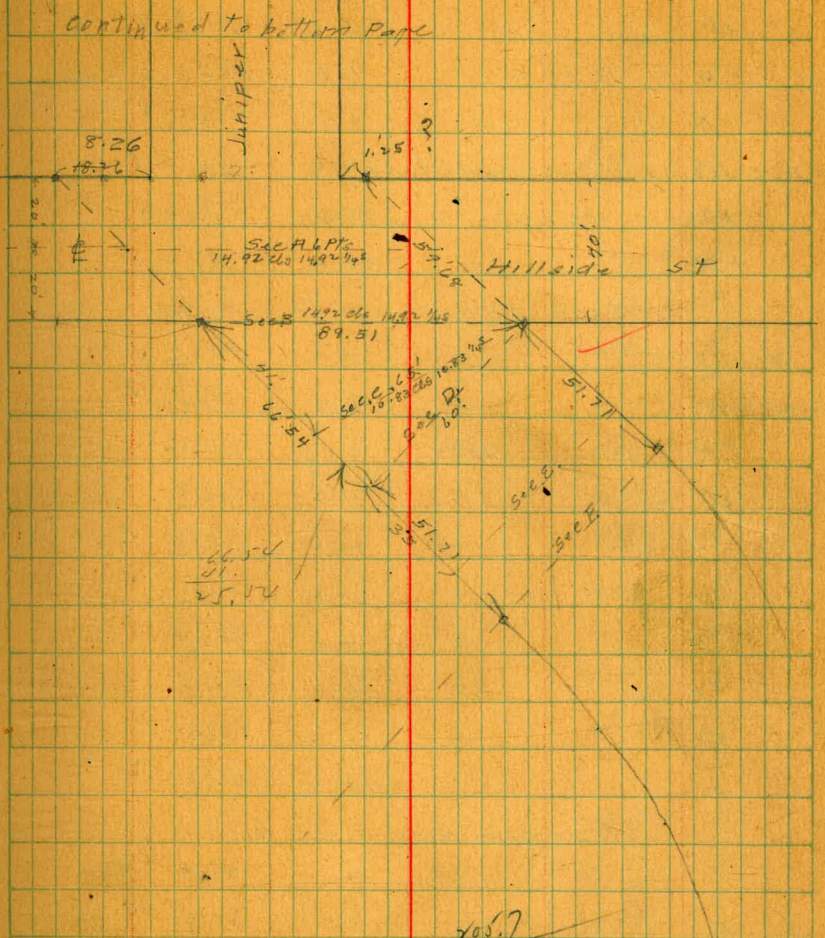
205.69 7052 Juniper 8

14	5.2	7005	✓
C	4.9	7008	✓
14	5.4	7003	✓
+2	5.7	7000	✓ N-edge Road
cl	13.2	1945	✓
+7	18.6	1872	✓
N	19.2	1865	✓
+15	19.6	1861	✓ wash
+30	18.7	1870	✓
110' E			
-30	20.1	1856	✓
-18	20.6	1881	✓
N	19.4	1863	✓
cl	11.0	1947	✓
+9	5.6	7007	✓ N-edge Road
14	5.1	7006	✓
C	5.1	7006	✓
14	5.4	7003	✓ Sedge Road
cl	13.1	1916	✓
+12	15.0	1902	✓
S	15.5	1902	✓
+20	16.7	1896	✓
118.5' E on S. = S. end of 24" corr. Iron Pipe Culvert			
S. Line = End of Pipe	20.5	1852	on Flowline
115' E on N. = 24" corr. Iron Pipe Culvert			
E.N. of N. line = N. end of Pipe	19.4	1863	on Flowline

	205.69	705.7		
-40		135. E	23.4	1842 ✓
S			22.6	1831 ✓
+5			22.0	1827 ✓
cl			16.7	1890 ✓
1/4			8.7	1970 ✓
+6			5.3	2002 ✓ S. Side road
C			4.6	2011 ✓
1/4			4.6	2011 ✓
+10			4.7	2010 ✓ Wedge road
cl			7.0	1987 ✓
N			16.4	1892 ✓
+3			18.2	1875 ✓
+23			18.4	1873 ✓

		135' E		
-20			15.6	1901 ✓
-5			15.4	1903 ✓
N			12.3	1934 ✓
+11			4.0	2017 ✓ Wedge road
cl			4.6	2017 ✓
1/4			4.0	2017 ✓
C			4.3	2014 ✓
+22			4.3	2016 ✓ S. edge road
1/4			11.8	1939 ✓
cl			18.5	1872 ✓
S			22.5	1824 ✓
+30			24.3	1814 ✓

205.69
 183.604N + 184.2 045 = White Hillside
 705.7
 S - 1826 = Shine Juniper Produced from E. 11.9
 Juniper 9
 1938 ✓
 1959 ✓



		705.7		
cl			8.3	1974 ✓
+9			7.6	1981 ✓
1/4			8.5	1974 ✓
+11			2.6	2031 ✓ S. Side road

205.69

			205.7	
Z	2		2.6	Y031 ✓
1/4			2.2	Y035 ✓
cl			1.8	Y039 ✓
+11			1.6	Y041 ✓ Wedge Road
11			3.7	Y040 ✓
+ 1.25 = N. Line Jupiter produced from E. 4.2				Y015 ✓
+15			10.5	1952 ✓
+30			10.2	1955 ✓
Sec A = E. Hillside 14.92 cts 14.92 '45				
N- 15			5.7	Y000 ✓
A			6.3	1992 ✓
T.P.	12.87	218.70	0.16	205.53 ✓
cl			218.4	Y069 ✓ Wedge Road
			11.5	
1/4			12.8	Y056 ✓
C			13.3	Y051 ✓
1/4			14.0	Y042 ✓
+7			16.8	Y016 ✓ Wedge Road
cl			12.2	Y062 ✓
S			12.3	Y061 ✓
Sec B = E. Line Hillside 14.92 cts 14.92 '45				
S			5.6	Y128 ✓
+7			6.9	Y112 ✓
cl			13.5	Y069 ✓ S. side Road
+10			11.1	Y073 ✓
1/4			10.8	Y076 ✓
C			10.2	Y084 ✓

-18.40

JUNIPER 10

			Y187	
1/4			7.2	Y094 ✓
+11			8.0	Y102 ✓ Wedge Road
cl			8.8	Y096 ✓
+10			11.3	Y071 ✓
N			11.5	Y069 ✓
+10			11.1	Y073 ✓
Sec C = see Page 9. 10.83 cts 10.83 '45				
N			11.5	Y069 ✓
+5			11.3	Y071 ✓
cl			8.3	Y101 ✓
+2			7.1	Y113 ✓ Wedge Road
1/4			7.7	Y107 ✓
C			8.1	Y103 ✓
1/4			8.0	Y104 ✓
cl			9.2	Y105 ✓
+2			9.1	Y093 ✓
+9			3.9	Y145 ✓
S			3.5	Y149 ✓
Sec D 10' cts 10' '45				
S			5.6	Y128 ✓
+5			4.7	Y112 ✓
cl			5.7	Y127 ✓ S. side Road
1/4			5.8	Y126 ✓
C			4.1	Y123 ✓
1/4			6.2	Y124 ✓
+8			5.9	Y125 ✓ S. side Road

218.40

218.4
Sec D (cont)

cl	6.5	2119	✓
+6	11.1	2073	✓
N	11.5	2069	✓
35' N.E. of Sec D = Sec. E			
-10	7.1	2113	✓
N	2.9	2155	✓
+2	1.5	2169	✓ N edge road
cl	1.0	2174	✓
1/4	1.1	2173	✓
C	0.8	2176	✓
1/4	0.5	2179	✓
cl	0.5	2172	✓
+8	1.2	2174	✓ S side road
S	+8.0	226.4	Top Bank

T.P. 12.76 231.05 0.11 218.29

Sec F = P.C. ^{L = 45.051} ^{R = 170.842-30.8} ^{6 Parts 20.265, 31.43N}

S	1.4	2192	✓ Top Bank
+1.5	10.4	2102	✓ S edge road
cl	10.4	2102	✓
1/4	10.5	2106	✓
C	10.7	2104	✓
1/4	11.3	2198	✓
cl	11.3	2198	✓
N	12.8	2183	✓ N edge Road
-10	13.1	2180	✓

Sec. #7

231.05

Juniper 11

231.1

N	9.8	2113	✓
+3	8.2	2119	✓ N edge road
cl	7.5	2136	✓
1/4	7.1	2140	✓
C	6.6	2145	✓
1/4	6.3	2148	✓
cl	6.3	2178	✓
+9	6.5	2146	✓ S side road
S	+3.5	234.5	Top Bank
Sec #2			
S	+5.8	236.8	Top Bank
+1	2.2	2199	✓ S edge road
cl	1.9	2194	✓
1/4	2.1	2190	✓
C	2.3	2188	✓
1/4	2.6	2185	✓
cl	2.6	2185	✓
+4	2.5	2186	✓ N edge road
N	5.8	2153	✓
+10	9.6	2115	✓
T.P.	12.23	243.17	0.11 230.94
Sec #3			
-10	15.2	2180	✓
N	12.4	2308	✓
+4	11.7	2315	✓
+8	10.7	2330	✓ N edge road

243.17

243.2

cl			10.1	✓331	✓
14			10.1	✓331	✓
e			9.7	✓335	✓
114			9.7	✓335	✓
cl			9.9	✓333	✓
s			10.4	✓328	✓ sedge road
		sec #4			
s			4.5	✓387	✓ sedge road
cl			5.8	✓374	✓
114			5.8	✓374	✓
e			5.5	✓397	✓
114			5.6	✓376	✓
cl			5.2	✓380	✓ N side road
N			7.1	✓361	✓
+10			9.0	✓342	✓
		sec #5			
N			0.0	✓397	✓
cl			0.6	✓456	✓
114			1.9	✓412	✓ N side road
e			1.8	✓411	✓
114			1.9	✓413	✓
cl			1.9	✓412	✓
s			2.4	✓408	✓ sedge road
T.P.	13.07	253.58	0.66	242.51	
		sec #6 E. End			
S			10.9	✓477	✓

255.58

Juniper 12

255.6

cl			10.4	✓457	✓
14			10.2	✓456	✓
e			10.1	✓455	✓
+8			10.3	✓453	✓
114			9.8	✓458	✓
+5			5.9	✓497	✓
cl			5.8	✓498	✓
N			6.0	✓496	✓
		30' E of E.C.			
N			1.0	✓546	✓
cl			0.9	✓547	✓
+4			1.0	✓526	✓
+6			5.7	✓499	✓
114			6.7	✓489	✓
e			5.9	✓497	✓
114			5.9	✓497	✓
cl			6.2	✓494	✓
+8			4.6	✓490	✓
+9			+2.4	✓58.0	
s			+2.8	✓58.4	
		60' E of E.C.			
s			+4.8	260.4	
+1			3.0	✓516	✓
cl			2.2	✓534	✓
114			✓2	✓534	✓
e			2.8	✓528	✓

255.58

255.6

60'E

E.C. (cont)

1/4			2.8	2528	✓
+5			1.4	2522	✓
T.P.	11.94	267.27	0.25	255.33	
cl			<u>267.3</u>	2589	✓
			8.4		
N			7.7	2596	✓

81' E of E.C. = W. Line Arcadia Ave

N			6.4	2609	✓
cl			6.8	2605	✓
+5			10.1	2591	✓
1/4			12.0	2553	✓
E			12.2	2551	✓
1/4			12.0	2553	✓
cl			12.3	2550	✓
+9			12.5	2544	✓
S			4.2	2611	✓

W. cl

S			5.8	2615	✓
+1			11.8	2585	✓
cl			11.6	2587	✓
1/4			11.2	2561	✓
C			11.1	2561	✓
1/4			11.0	2562	✓
+4			10.4	2569	✓
cl			6.5	2610	✓
N			5.9	2612	✓

267.27

W. 1/4

267.3

JUNIPER 13

N			5.4	2619	✓
cl			6.0	2613	✓
+4			8.3	2590	✓
1/4			10.0	2593	✓
E			10.1	2592	✓
1/4			10.2	2571	✓
cl			10.6	2567	✓
+9			11.1	2562	✓
S			5.7	2616	✓
S			5.2	2621	✓
+1			9.9	2572	✓
cl			9.7	2576	✓
1/4			9.2	2581	✓
C			8.9	2584	✓
1/4			8.9	2584	✓
+5			8.0	2593	✓
cl			5.5	2618	✓
N			5.3	2620	✓
N			5.2	2621	✓
cl			5.5	2618	✓
+3			7.8	2595	✓
1/4			8.4	2589	✓
C			8.3	2590	✓
1/4			8.4	2589	✓

267.27

E 1/4 (can)

2673

cl	7.2	2581	✓
+9	9.2	2581	✓
S	5.5	2618	✓
E. cl.			
S	5.3	2620	✓
+1	9.8	2575	✓
cl	8.5	2588	✓
1/4	8.0	2593	✓
C	7.7	2596	✓
1/4	7.8	2595	✓
+5	7.5	2598	✓
cl	5.5	2618	✓
N	7.9	2624	✓

0.0 = E line

N	4.5	2618	✓
cl	4.9	2624	✓
+4	6.9	2602	✓
1/4	7.3	2600	✓
C	7.3	2600	✓
1/4	7.5	2598	✓
cl	8.0	2593	✓
+9	8.2	2591	✓
S	5.4	2619	✓

30' E

S	6.5	2608	✓
cl	7.0	2603	✓

267.27

2673

Juniper

14

1/4	6.7	2606	✓
C	6.5	2608	✓
1/4	6.6	2607	✓
+5	6.6	2607	✓
cl	4.9	2614	✓
N	4.2	2631	✓
65' E			
N	4.2	2631	✓
cl	4.7	2616	✓
+2	5.4	2619	✓
1/4	5.6	2617	✓
C	5.8	2615	✓
1/4	6.1	2612	✓
cl	6.0	2613	✓
S	6.1	2612	✓
100' E			
-10	9.3	2580	✓
S	7.1	2602	✓
cl	5.9	2611	✓
1/4	5.5	2618	✓
C	5.3	2620	✓
1/4	5.2	2621	✓
+9	5.0	2623	✓
cl	4.6	2627	✓
N	4.2	2631	✓

267.27

135' E ~~267.3~~

N	3.6	✓2632	✓
cl	4.2	✓2631	✓
1/4	4.4	✓2629	✓
C	4.6	✓2627	✓
1/4	5.0	✓2623	✓
cl	5.4	✓2619	✓
1/5	5.8	✓2615	✓
S	7.6	✓2597	✓
110	9.1	✓2584	✓

150' E

-10	7.8	✓2595	✓
S	4.4	✓2609	✓
1/5	5.2	✓2621	✓
cl	5.0	✓2623	✓
1/4	4.6	✓2627	✓
C	4.3	✓2630	✓
1/4	4.0	✓2633	✓
cl	3.7	✓2636	✓
N	3.5	✓2638	✓

175' E

N	2.0	✓2653	✓
cl	2.8	✓2645	✓
1/4	3.0	✓2643	✓
C	3.4	✓2639	✓
1/4	3.9	✓2634	✓
C	4.1	✓2632	✓
S	4.5	✓2628	✓
1/5	5.0	✓2623	✓

267.27

200' E ~~267.3~~

Juniper 15

-5	3.6	✓2632	✓
S	3.2	✓2641	✓
cl	2.9	✓2641	✓
1/4	3.0	✓2643	✓
C	2.2	✓2651	✓
1/4	2.1	✓2652	✓
cl	1.7	✓2656	✓
N	1.3	✓2660	✓

225' E

N	0.1	✓2672	✓
cl	1.0	✓2663	✓
1/4	1.1	✓2662	✓
C	1.1	✓2662	✓
1/4	1.9	✓2652	✓
cl	1.7	✓2656	✓
S	1.9	✓2654	✓

250' E

S	0.8	✓2665	✓
cl	1.1	✓2664	✓
1/4	1.3	✓2660	✓
C	0.7	✓2666	✓
1/4	0.5	✓2668	✓
cl	0.5	✓2668	✓

T.P. 7.96 275.10 0.13 267.14

N

~~275.1~~

✓2675

Continued Book 1142 Page 32

Levels on Torrence West. Pring 250'

B.M.	8.14	235.90		2277.6	SPL 100' X 100' on Peterburg
T.P.	117	224.65	12.42	223.48	
T.P.	1241	236.21	0.85	223.80	
T.P.	12.65	246.21	2.65	233.56	
T.P.	3.97	248.06	2.12	244.09	

So. Side Torrence on Stubs & Back Grades

0+00 T.Curb N.P. Pring		12.03	236.03	236.25
+2		8.6	239.5	
+50		4.8	243.3	242.75 +0.6
1+00		3.2	244.9	243.75 +1.1
+50		5.1	243.0	241.25 +1.7
2+00		11.5	236.6	239.75 +1.9
T.P.	2.66	239.22	11.50	236.56
+50		11.3	227.9	228.25 -0.3

T.P.	6.23	232.97	12.48	226.74	SPL 100' N Pring
B.M.			5.22	227.75	227.75

No. Side Torrence

on Stubs & Back Grades

0+00 T.Curb N.P. Pring	248.06	10.00	238.06	238.25
+2		7.8	240.3	
+50		2.4	245.7	243.25 +2.4
1+00		0.8	247.3	244.25 +3.0
+50		2.9	245.2	242.25 +3.0
2+00		9.4	238.7	235.50 +3.2
	239.22			
+50		10.7	228.5	228.75 -0.3

10/15/25

CROSS SECTION OF
BRIGHTON ST
From GUIZOT TO FROUDE

60 ST.
12.5 cbs
875 1/4's

SE GUIZOT
+ BRIGHTON

B.M.	0.97	108.37	107.40
		W.L. Guizot	
S		2.0	106.4
cb	W 8' of this cb rot should be	2.74	105.63
1/4		3.0	105.4
C		3.2	105.2
1/4		3.3	105.1
cb		3.3	105.1
+3		3.5	104.9
N		3.9	104.5
	73' W		
N		5.0	103.4
cb		4.2	104.2
1/4		3.6	104.8
C		3.6	104.8
1/4		3.1	105.3
cb		2.5	105.9
S		2.2	106.2
	22' W		
S		2.7	105.7
+7		3.7	104.7
cb		3.4	105.0
1/4		4.3	104.1
C		4.4	104.0
1/4		4.6	103.8

BRIGHTON 18

108.37

cb	5.6	102.8
N	5.7	102.7
	40' W	
N	6.7	101.7
cb	7.2	101.2
1/4	6.9	101.5
C	7.0	101.4
1/4	6.8	101.6
cb	6.6	101.8
+7	6.3	102.1
S	5.5	102.9
	65' W	
S	6.6	101.8
+3	7.0	101.4
+5	8.6	99.8
cb	9.2	99.2
1/4	9.4	99.0
C	9.7	98.7
1/4	9.7	98.7
cb	10.0	98.4
N	10.6	97.8
	100' W	
N	14.3	94.1
cb	14.0	94.4
1/4	13.2	95.2

108.37

c			13.2	95.2
1/4			12.8	95.6
cb			12.9	95.5
+2			13.2	95.2
+4			12.4	96.0
S			12.0	96.4
T.P.	0.27	95.94	12.70	95.67
		125' W		
S			2.3	93.6
+6			2.2	93.7
+8			2.8	93.1
cb			2.6	93.3
1/4			2.8	93.1
c			2.8	93.1
1/4			3.0	92.9
cb			3.7	92.2
N			3.8	92.1
		170' W		
N			7.6	88.3
cb			7.4	88.5
1/4			6.9	89.0
c			6.9	89.0
1/4			6.9	89.0
cb			6.6	89.3
+3			6.7	89.2
+5			5.9	90.0
S			5.9	90.0

95.94

BRIGHTON

17

200' W

S			8.5	87.4
+7			8.7	87.2
+9			9.7	86.2
cb			9.4	86.5
1/4			9.7	86.2
c			9.8	86.1
1/4			9.5	86.4
cb			9.9	86.0
N			10.1	85.8
T.P.	0.13	83.09	12.98	82.96
		250' W		
N			5.0	81.1
cb			1.8	81.3
1/4			1.4	81.7
c			1.3	81.8
1/4			1.2	81.9
cb			0.9	82.2
+2			1.0	82.1
+3			0.4	82.7
S			0.2	82.9
		300' W		
S			4.1	79.0
+10			4.8	78.3
cb			5.2	77.9
1/4			5.4	77.7

8309

c			5.5	77.6
1/4			5.7	77.4
cb			6.0	77.1
N			7.0	76.1
350' W				
N			10.4	72.7
+5			9.9	72.2
cb			9.4	72.7
1/4			9.3	72.8
c			9.0	73.1
1/4			8.4	73.7
cb			8.3	73.8
+3			7.6	75.5
5			7.6	75.5
400' W				
5			10.5	72.6
+9			10.5	72.6
+10			11.2	71.9
cb			11.2	71.9
1/4			11.4	71.7
c			11.8	71.3
1/4			12.2	70.9
cb			12.8	70.3
N			13.3	69.8
T.P.	0.36	71.1	12.34	70.75
447' W				
N = cement walk to house.			3.57	67.54

71.11

BRIGHTON

20

450' W				
N			3.2	67.9
cb			3.2	67.9
1/4			2.6	68.5
c			2.1	69.0
1/4			1.6	69.5
cb			1.5	69.6
+3			0.8	70.3
5			0.8	70.3
500' W				
5			2.5	68.6
+4			3.1	68.0
cb			3.5	67.6
1/4			3.8	67.3
c			4.1	67.0
1/4			4.2	66.9
+5			4.9	66.2
cb			4.9	66.2
N			5.5	65.6
526' W = Tree 7.0' 5.0' x N.L. 18" dia.				
550' W				
N			7.7	63.4
+6.0 = Tree 18" dia.				
cb			7.1	64.0
1/4			6.8	64.3
c			6.8	64.3

7111

1/4		6.1	65.0
cb		6.1	65.0
+7		5.7	65.4
S		4.7	66.4
	600' W = E.L. Froude	60' 5"	10' cbs
S		7.0	64.1
cb		8.0	63.1
1/4		8.3	62.8
C		8.7	62.4
1/4		9.2	61.9
cb		9.4	61.7
+3		9.2	61.9
N		9.7	61.4
	E Curb		
N		10.0	61.1
+10		10.4	60.7
cb		10.4	60.7
1/4		9.2	61.9
C		8.9	62.2
1/4		8.8	62.3
cb		8.4	62.7
S		7.4	63.7
	E 1/4		
S		8.1	63.0
cb		8.6	62.5
1/4		9.2	61.9

BRIGHTON

21

7111

C		9.5	61.6
1/4		9.6	61.5
cb		10.1	61.0
N		10.8	60.3
	center Froude		
N		11.0	60.1
cb		10.3	60.8
1/4		10.0	61.0
C		9.9	61.2
1/4		9.6	61.5
cb		9.2	61.9
S		8.3	62.8
	N 1/4		
S		8.9	62.2
cb		9.8	61.3
1/4		10.2	60.9
C		10.4	60.7
1/4		10.7	60.4
cb		10.9	60.2
N		11.4	59.7
	N cb		
N		11.4	59.7
cb		11.4	59.7
1/4		11.2	59.9
C		11.0	60.1

71.11

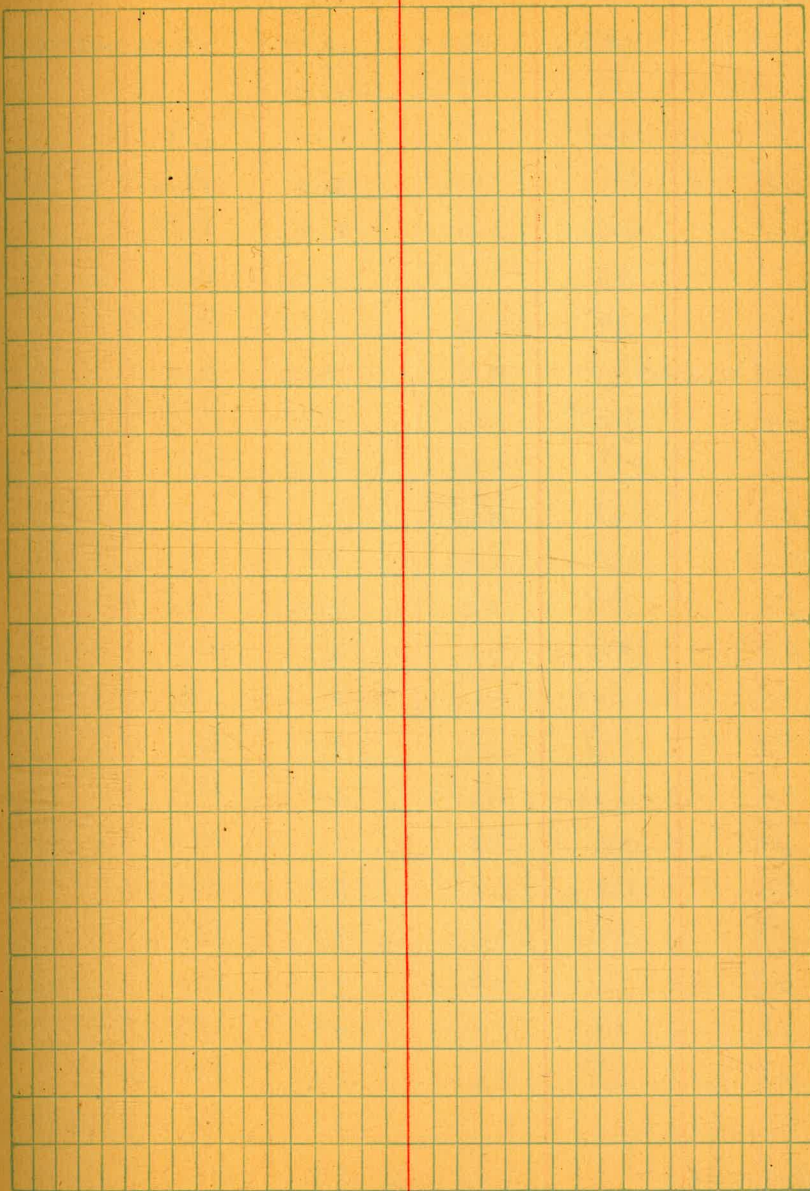
BRIGHTON

22

1/4	10.7	60.4
cb	10.3	60.8
3	9.2	61.7

W.L. Froude

3	10.0	61.1
old broken curb.	10.53	
cb	10.8	60.2
1/4	11.2	59.9
c	11.4	59.7
1/4	11.5	59.6
cb	11.7	59.4
+2	11.3	59.8
N	11.4	59.7



CROSS SECTION OF
 SPRUCE ST. 80' wide
 India to Kattner 14' 00"

SPRUCE 23

11' W (86)

B.M.	0.55	86.55	(86)	86.00	SE India 2 Spruce
		W.L.	India		
5	on cement	2.40	862	✓	
cb	✓	3.05	85.50	✓	
1/4	- paving	2.66	85.9		
c	✓	4.52	84.03	✓	
1/4	- ✓	2.74	83.81	✓	
gutter	✓	3.10	83.5	✓	
cb	on cement	2.67	83.88	✓	
N	✓	2.18	82.7	✓	
		4' W			
- 5		4.9	81.7	✓	
N		4.2	82.2	✓	
+ 5		4.0	82.6	✓	
+ 10		3.1	83.8	✓	
cb		3.9	82.7	✓	
+ 4		2.8	83.8	✓	
1/4		2.9	83.7	✓	
c		2.7	83.9	✓	
1/4		2.7	83.9	✓	
+ 7		3.4	83.2	✓	
cb		4.9	81.7	✓	
+ 1		4.0	82.6	✓	
5		3.7	82.9	✓	
+ 5		3.8	82.8	✓	

-10	80	786	✓
5	81	785	✓
+3	89	772	✓
+5	109	752	✓
+10	10.6	760	✓
+11	12.7	739	✓
cb	12.6	740	✓
+1	9.2	772	✓
+6	8.0	786	✓
+11	5.4	812	✓
1/2	4.0	826	✓
+4	2.6	840	✓
+9	2.5	842	✓
c	3.7	829	✓
1/2	4.1	828	✓
+4	4.8	818	✓
+9	6.3	803	✓
cb	7.6	790	✓
+2	7.6	790	✓
+5	5.9	807	✓
+9	6.5	802	✓
N	7.7	789	✓
+10	8.3	782	✓

86.55

21' W 86.5

-10			9.2	77.5 ✓
N.			8.5	78.1 ✓
+8			8.4	78.2 ✓
CB			11.5	75.1 ✓
+4			7.1	79.5 ✓
+7			7.1	79.5 ✓
+9			8.6	78.0 ✓
+11			6.5	80.1 ✓
1/4			6.4	80.2 ✓
+8			6.8	79.8 ✓
C			6.0	80.6 ✓
1/4			6.2	80.2 ✓
+6.0			8.0	78.6 ✓
CB			12.3	74.5 ✓
+5			14.3	72.3 ✓
+6			17.7	68.9 ✓
+9			17.4	69.2 ✓
+10			14.2	72.6 ✓
S			14.3	72.3 ✓
+15			15.3	71.9 ✓
TP	29.0	79.08	10.37	76.15
-		30' W	79.1	
-15			12.3	66.8 ✓
S			10.6	68.5 ✓
+1			9.4	69.7 ✓

SPRUCE

24

79.1

+3			9.0	70.1 ✓
+4			10.9	68.2 ✓
+7			10.8	68.3 ✓
+8			8.8	70.3 ✓
+11			7.7	71.4 ✓
CB			6.0	75.1 ✓
+8			2.0	77.1 ✓
1/4			1.0	78.1 ✓
+4			0.3	78.8 ✓
C			0.7	78.4 ✓
+3			1.3	77.8 ✓
+10			1.4	77.2 ✓
1/4			0.8	78.3 ✓
+4			3.4	75.2 ✓
+7			1.5	77.6 ✓
+11			1.5	77.6 ✓
CB			2.5	76.4 ✓
+2			4.6	74.5 ✓
+6			4.6	74.5 ✓
+8			2.9	76.2 ✓
N			3.8	75.3 ✓
+6			3.3	78.0 ✓
+15			4.7	74.1 ✓
-15			6.8	72.3 ✓

38' W

	79.1		
N	4.7	744	✓
+1	4.7	744	✓
+5	5.7	734	✓
+11	5.3	738	✓
+12	3.3	758	✓
cb	3.2	759	✓
+6	3.5	756	✓
+8	4.8	743	✓
+11	2.8	763	✓
1/4	2.8	763	✓
C	2.8	763	✓
1/4	2.8	763	✓
+1	3.2	759	✓
+9	7.0	701	✓
cb	8.4	707	✓
+2	11.1	680	✓
+10	11.0	681	✓
S	12.2	669	✓
+15	13.3	658	✓
+25	13.8	653	✓
	47' W		
-25	15.0	641	✓
S	13.7	654	✓
+2	12.8	662	✓
+10	12.0	671	✓
cb	13.6	655	✓

SPRUCE 25

	79.1		
+1	12.8	66.3	✓
+3	10.1	69.0	✓
1/4	5.0	74.1	✓
+3	4.6	745	✓
C	4.5	743	✓
1/4	5.1	740	✓
+3	5.2	732	✓
+5	6.7	744	✓
+8	5.6	735	✓
cb	5.6	735	✓
+4	5.5	736	✓
+6	7.0	701	✓
N	7.9	711	✓
+2	6.9	724	✓
+25	8.2	709	✓
	62' W		
-20	9.7	694	✓
-5.0	9.7	694	✓
N	8.8	703	✓
+3	8.0	711	✓
+10	7.8	713	✓
cb	8.5	706	✓
1/4	8.3	708	✓
C	7.8	713	✓
+10	8.0	711	✓

	79.08	79.1	
1/2		9.6	697 ✓
+7		12.7	662 ✓
+11		13.6	655 ✓
06		15.2	632 ✓
+4		14.2	649 ✓
+11		14.6	645 ✓
5		15.6	635 ✓
+45		17.3	618 ✓
T.P.	2.69	10.74	68.34
		<u>71.0</u>	
-25		10.0	610 ✓
5		9.7	610 ✓
+3		9.7	613 ✓
CB		8.9	621 ✓
+3		8.8	628 ✓
+7		7.7	633 ✓
14		6.5	648 ✓
2		5.0	660 ✓
14		5.4	656 ✓
+2		5.3	657 ✓
+12		4.3	662 ✓
CB		4.3	667 ✓
N		4.0	670 ✓
+10		3.8	672 ✓
+15		3.7	673 ✓

100'X

	71.03	71.0	SPRUCE
-15		5.3	65.7 ✓
-1		6.0	65.0 ✓
N		6.7	64.3 ✓
+2		6.9	64.1 ✓
+3		6.2	64.8 ✓
CB		7.1	63.9 ✓
+11		8.0	630 ✓
14		8.1	629 ✓
+11		8.3	627 ✓
2		8.6	622 ✓
+7		9.0	620 ✓
14		9.7	613 ✓
CB		10.2	608 ✓
+8		10.5	605 ✓
+11		11.5	595 ✓
5		11.4	596 ✓
+13		11.3	597 ✓
T.P.	370	62.88	12.45
		<u>62.3</u>	
-6 N Edge Bldg		4.2	581 ✓
5		4.4	579 ✓
CB		3.9	584 ✓
+11		4.2	581 ✓
14		4.0	583 ✓
+8		3.6	587 ✓

115'X stairs
10'X10'
2.0' in street

6278

673

2	3.7	586	✓
+9	3.6	587	✓
14	3.2	591	✓
+7	1.9	602	✓
CB	1.2	611	✓
+1	1.6	607	✓
N	0.9	612	✓
+15	0.0	623	✓

160'N

-15	2.1	602	✓
N	4.1	582	✓
CB	5.5	568	✓
+9	5.9	564	✓
14	6.1	562	✓
2	6.0	563	✓
14	6.2	561	✓
CB	6.2	561	✓
+11	6.5	558	✓
S	6.6	557	✓
+11	5.9	562	✓
+15	6.0	563	✓

180'N

-15	6.5	558	✓
S	7.2	551	✓
CB	7.3	550	✓
+7	7.8	545	✓

6278

673

SPRUCK

27

14	7.6	527	✓
2	7.7	526	✓
14	7.7	526	✓
110	7.7	526	✓
CB	7.4	529	✓
N	5.6	567	✓
78	5.1	572	✓
+15	5.1	572	✓

200'N = EL KADDER

-15	6.7	556	✓
N	7.5	528	✓
CB	9.2	531	✓
14	8.7	536	✓
2	8.5	538	✓
14	8.4	539	✓
#11	8.5	538	✓
CB	8.2	541	✓
3	7.6	527	✓

10/15/25 Gregory CROSS SECTION OF 80' wide
LAUREL ST 14' cbs
from India to Kettner

	1.31	56.01	56.2	54.70
			W. L. India	
S			2.0	54.01 ✓
cb	on cement		1.93	54.08 ✓
gutter	✓ paving		2.17	53.84 ✓
1/4	✓ ✓		2.12	53.89 ✓
C	✓ ✓		1.95	54.06 ✓
1/4	✓ ✓		1.80	54.11 ✓
gutter	✓ ✓		1.75	54.16 ✓
(cb	cement)		1.00	55.0 ✓
cb			1.4	54.6 ✓
N			0.7	55.3 ✓
		25' W		
N			0.5	55.5 ✓
+10			2.5	53.5 ✓
cb			2.8	53.2 ✓
1/4			2.8	53.2 ✓
C			3.1	54.9 ✓
1/4			3.6	54.4 ✓
cb			3.8	54.4 ✓
+3			2.7	53.3 ✓
S			2.9	53.1 ✓
		75' W		
S			5.8	50.2 ✓
+10			5.7	50.3 ✓

LAUREL

28

	56.2	
+13	7.4	48.6 ✓
cb	7.4	48.6 ✓
1/4	6.7	48.3 ✓
C	6.4	49.6 ✓
1/4	6.4	49.6 ✓
cb	6.4	49.6 ✓
+3	5.4	50.6 ✓
+11	4.8	51.2 ✓
N	2.8	53.2 ✓
		100' W
N	5.3	50.7 ✓
+4	6.7	49.3 ✓
+11	7.7	48.3 ✓
cb	8.3	47.2 ✓
1/4	8.5	47.5 ✓
C	8.0	48.0 ✓
1/4	8.8	47.2 ✓
cb	9.3	46.2 ✓
+3	8.6	47.2 ✓
+8	7.4	48.6 ✓
S	7.4	48.6 ✓
		120' W
S	9.5	46.5 ✓
+7	9.8	46.2 ✓
+12	11.2	44.8 ✓

	56.01		56.0	448	✓
cb			11.2		
1/4			10.7	453	✓
c			10.0	460	✓
1/4			10.1	459	✓
cb			10.4	456	✓
+3			9.7	463	✓
N			8.0	480	✓

160' W

N			12.4	436	✓
+3			12.4	436	✓
+4			13.0	430	✓
T.P.	0.43	43.81	1263	4338	
cb			45.8 11.9	441	✓
+1			2.5	413	✓
1/4			2.5	413	✓
c			2.9	409	✓
1/4			3.1	407	✓
cb			3.5	403	✓
+5			2.5	413	✓
+9			1.1	427	✓
S			0.6	434	✓

200' W - EL. Kettner

S			3.8	400	✓
+4			4.0	398	✓
+12			7.6	362	✓
cb			7.8	360	✓

LAUREL

29

438

1/4	7.3	365	✓
c	7.1	367	✓
1/4	7.1	367	✓
cb	6.6	374	✓
+2	4.7	391	✓
N	4.2	396	✓
chk BM	1088	3293 = 3297	

Cross Section of Intersection of Laurel and 29th St
 From E.L. 29th St from N to N.L. 29th From S.

50' N
 7' CB
 12' S
 SE Kaimosi

BM	422	290.30	286.08
E Line 29th St From North			
S		56	84.7
CB Top		58.2	84.4
Gutter		64	83.9
1/4		60	84.3
S		60	84.3
1/4		66	83.7
Gutter		68	83.5
CB Top End		63.4	83.96
N		67	83.6
15' N			
-15		17.2	873.1
N		86	81.7
+5		66	83.7
CB		65	83.8
+4		62	84.1
1/4		66	83.7
S		65	83.8
1/4		65	83.8
Gutter		67	83.6
CB Top		607	84.73
S		58	84.5
25' N = CB From So.			
S Top CB		66	84.44
Gutter		66	83.7

290.30

30
 10.26.25
 5.91.45
 Northern

CB		67	83.6
1/4		64	83.9
S		63	84.0
1/4		63	84.0
+2		64	83.9
TP	180	28.6	284.04
CB		44	81.4
N		81	77.7
+25		20.2	63.6
32.5' N = E 1/4			
-35		20.1	59.7
N		11.6	74.2
CB		90	78.8
1/4		3.0	82.8
+3		17	84.1
S		17	84.1
1/4		17	84.1
CB		18	84.0
S		2.1	83.7

180 28.6 284.04

32.5' N = E 1/4

57

10.5

10.20

50'

Laurel St

29th

← 50' →

285.84

40N = E

S	22	783.6
+4	22	783.6
CB	19	83.9
1/4	18	81.0
+5	19	83.9
E	24	83.4
1/4	66	79.2
CB	10.7	75.1
N	15.3	70.5
+40	30.1	55.7

47.5 = N 1/4

-40	31.8	54.0
N	16.5	69.3
CB	12.4	73.4
1/4	9.1	76.7
E	6.0	79.8
1/4	2.9	82.9
+3	2.0	83.8
CB	2.1	83.7
S	2.4	83.4

55N = CB

S	2.2	83.1
+6	1.8	84.0
CB	3.2	82.6

285.84

31

1/4	5.7	280.1
E	9.2	76.6
1/4	11.7	74.1
CB	13.3	72.5
N	17.2	68.5
1/40	32.2	53.5

65N = N 1/4 29th From South

-40	33.8	52.0
N	20.0	65.8
CB	16.8	69.0
1/4	13.0	72.6
E	11.6	74.2
1/4	9.4	76.4
CB	5.2	80.6
15	2.6	83.2
S	1.4	84.4

TP 1.22 274.06 13.00 222.84

Juniper St. Sec from E. Line Felton to
 E Line Pentuck St. Ave
 Continued from Book 1142. Page 15

275.10

275.1' E of Freedom Ave

N	7.1	2680 ✓
cl	7.5	2676 ✓
+3	8.0	2671 ✓
1/4	8.0	2671 ✓
C	8.0	2671 ✓
1/4	8.6	2665 ✓
+5	8.7	2664 ✓
cl	8.2	2662 ✓
S	8.0	2671 ✓

300' E

S	7.5	2676 ✓
cl	7.9	2674 ✓
+1	8.1	2670 ✓
1/4	7.8	2673 ✓
C	7.3	2678 ✓
1/4	7.4	2677 ✓
+7	7.7	2674 ✓
cl	7.0	2681 ✓
N	6.7	2684 ✓

323.6' E = W Line Commonwealth Ave

N	6.4	2687 ✓
cl	6.5	2686 ✓
+3	7.2	2679 ✓

275.10

32

1/4	7.2	2672 ✓
C	7.3	2672 ✓
1/4	7.7	2674 ✓
cl	7.5	2676 ✓
S	7.5	2676 ✓
	W, cl	
S	7.7	2674 ✓
cl	7.7	2674 ✓
1/4	7.6	2675 ✓
C	7.2	2679 ✓
1/4	7.0	2681 ✓
cl	7.1	2680 ✓
+5	6.4	2687 ✓
N	6.0	2691 ✓
	W E of W cl	
N	6.8	2685 ✓
cl	7.1	2680 ✓
	W 1/4	
N	6.7	2682 ✓
cl	6.9	2682 ✓
1/4	6.7	2684 ✓
C	7.1	2680 ✓
1/4	7.4	2677 ✓
cl	7.7	2674 ✓
S	8.0	2671 ✓

275.10

 $\frac{2751}{7.9}$

S	7.9	2672	✓
cl	7.6	2675	✓
1/4	7.4	2677	✓
e	7.0	2681	✓
1/4	6.9	2682	✓
cl	6.6	2685	✓
N	6.3	2688	✓

E. 1/4

N	6.5	2686	✓
cl	6.9	2682	✓
1/4	6.9	2682	✓
e	7.2	2679	✓
1/4	7.5	2676	✓
cl	7.7	2674	✓
S	8.0	2671	✓

7' E of E 1/4

S	8.1	2670	✓
cl	7.9	2672	✓
1/4	7.6	2675	✓
e	7.3	2678	✓
1/4	7.0	2681	✓
cl	6.8	2683	✓
N	6.4	2687	✓

E. cl

N	5.8	2693	✓
cl	6.0	2691	✓

275.10

 $\frac{2751}{6.7}$

JUMPER ST. 2.

E. 20' (cl)

+4	6.7	2684	✓
1/4	6.8	2683	✓
e	7.0	2681	✓
1/4	7.4	2677	✓
cl	7.5	2676	✓
S	7.5	2676	✓

0.05 E. 1/4

S	7.3	2678	✓
cl	7.5	2676	✓
1/4	7.2	2679	✓
e	6.8	2683	✓
1/4	6.7	2684	✓
+8	6.4	2687	✓
cl	5.7	2692	✓
N	5.5	2696	✓

40' E

N	4.2	2705	✓
cl	4.5	2706	✓
+3	5.1	2700	✓
1/4	5.1	2700	✓
e	5.6	2695	✓
1/4	5.7	2694	✓
+5	6.1	2690	✓
cl	6.0	2691	✓
S	6.1	2690	✓

27510

75' ~~2775'~~

S	4.2	2709	✓
cl	4.4	2707	✓
+3	4.9	2704	✓
14	4.3	2708	✓
C	3.7	2711	✓
14	3.8	2713	✓
+7	3.8	2713	✓
cl	3.0	2711	✓
N	2.8	2713	✓
	100' E		
N	1.8	2733	✓
cl	2.0	2731	✓
+3	3.0	2711	✓
14	3.0	2711	✓
C	3.1	2710	✓
14	3.5	2716	✓
+7	3.9	2714	✓
cl	3.5	2716	✓
S	3.4	2717	✓
	125' E		
S	2.5	2716	✓
cl	2.6	2715	✓
+3	3.0	2711	✓
14	2.7	2714	✓
C	2.2	2717	✓
14	2.2	2719	✓

27510

125' E (ex 1)
275' E

Juniper St 3-4

+8		2730	✓
cl	1.7	2731	✓
N	1.2	2739	✓
	150' E		
N	1.3	2738	✓
cl	1.5	2736	✓
+3	2.1	2730	✓
14	2.1	2730	✓
C	2.1	2730	✓
14	2.6	2725	✓
+7	2.7	2714	✓
cl	2.3	2718	✓
S	2.1	2730	✓
	175' E		
S	2.1	2730	✓
cl	2.6	2715	✓
+3	3.3	2718	✓
14	3.0	2711	✓
C	2.4	2712	✓
14	2.2	2712	✓
+8	2.4	2715	✓
cl	1.8	2732	✓
N	1.7	2734	✓
	200' E		
N	3.1	2710	✓
+8	3.2	2719	✓

27510

200

7751

(COH)

cl	4.5	776	✓
14	3.9	771	✓
14	3.7	7714	✓
E	3.7	7714	✓
14	3.7	7714	✓
14	4.2	7765	✓
cl	3.3	7718	✓
S	3.1	7720	✓

230'E

S	5.0	7701	✓
cl	5.1	7700	✓
14	6.1	7690	✓
14	6.1	7690	✓
C	6.3	7688	✓
14	6.6	7685	✓
cl	6.9	7682	✓
12	6.4	7687	✓
N	6.4	7682	✓

250'E

N	10.3	7646	✓
cl	10.3	7648	✓
14	9.8	7653	✓
C	9.7	7652	✓
14	9.5	7656	✓
cl	9.4	7657	✓
S	9.5	7656	✓

Set B.M.

T.P. 1.33

265.66

10.80

776.5 SPK Tel Pole
 270.50 ME Juniper
 264.30 Common Weeds Ave

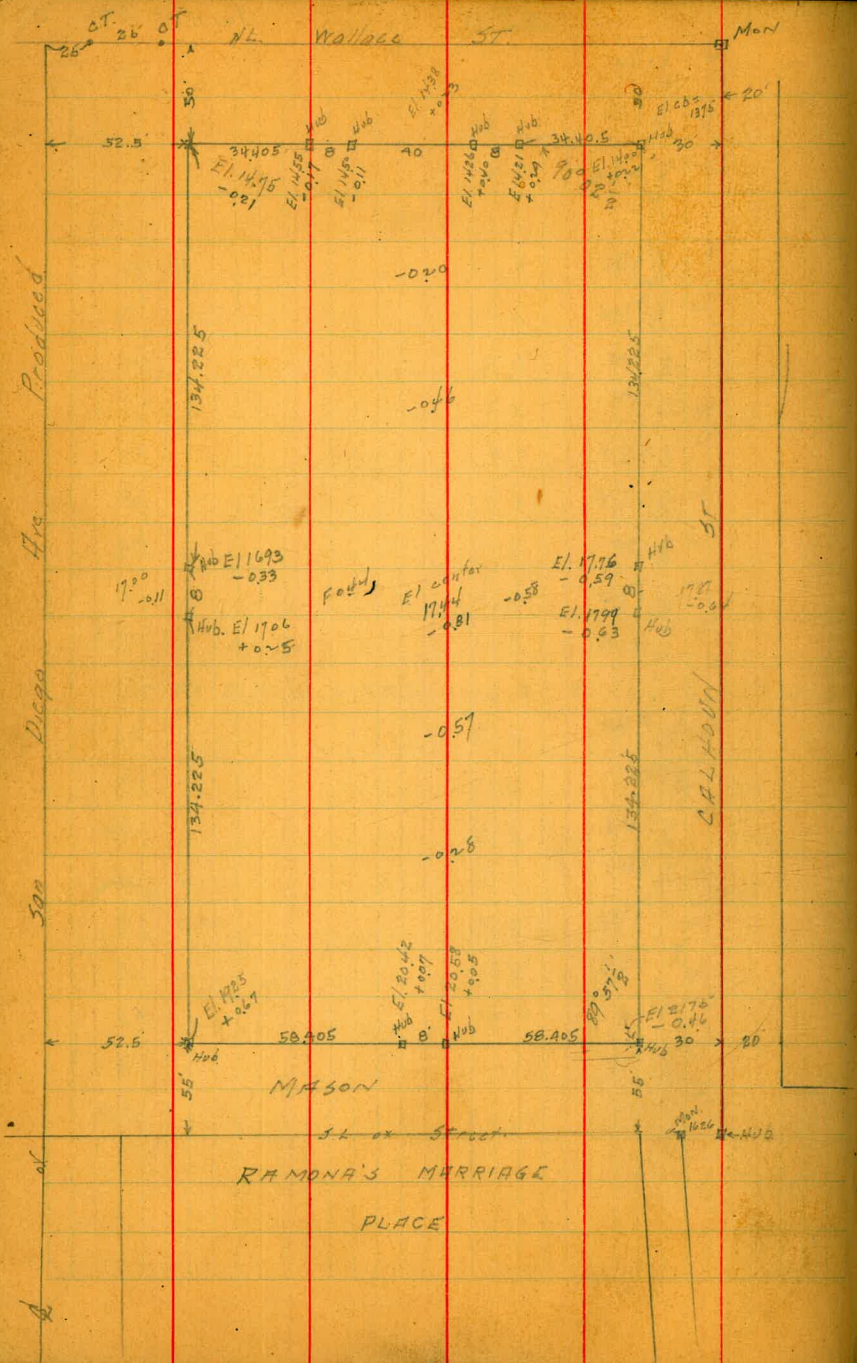
26516

Juniper ST 35

265'E = White Pentucket Ave on S.

S	0.6	7651	✓	
cl	0.7	7650	✓	
14	0.8	7649	✓	
C	1.0	7647	✓	
14	2.1	7636	✓	
17	4.7	7618	✓	
cl	4.8	7609	✓	
N	4.5	7612	✓	
15'E				
S	8.7	7570	✓	
N	8.9	2568	✓	
cl	8.5	7572	✓	
14	6.1	7596	✓	
C	5.2	7605	✓	
14	3.9	7618	✓	
cl	2.7	7630	✓	
S	2.3	7634	✓	
35'E				
S-10	9.4	2563	✓	
S	10.3	7554	✓	
cl	11.0	7547	✓	
14	11.5	7547	✓	
C	12.3	7534	✓	
14	13.2	7545	✓	
T.P.	4.15	257.42	12.19	753.47

	257.62	257.6	
cl	35' E (E-11)	5.8	2518 ✓
N		6.6	2510 ✓
H10		6.8	2505 ✓
	50' E		
N-10		11.9	2457 ✓
N		10.2	2472 ✓
cl		8.5	2491 ✓
14		8.2	2492 ✓
C		8.1	2495 ✓
14		7.6	2500 ✓
cl		7.6	2500 ✓
S		6.4	2512 ✓
H10		6.7	2509 ✓
60'35' E on S, & 53'67' E on N = E line Pentuck at Ave			
- 10		8.2	2494 ✓
S		8.6	2490 ✓
cl		8.5	2491 ✓
14		9.1	2485 ✓
C		9.5	2481 ✓
14		9.8	2478 ✓
cl		10.7	2472 ✓
N		12.0	2457 ✓
H10		15.0	2472 ✓



690
 1450
 007
 2134
 740
 1400
 37

33.27 Mon N^o Harte & San Diego

256	149	242	278	212
18.85	19.94	20.49	20.63	21.27

6.28 Top Hyd. Seaver Taylor

405	424	719	694	675	620
17.36	17.17	14.22	14.50	14.66	14.61

El. 1706	702	703	687	481	491	410
	14.37	14.37	14.54	10.60	10.57	11.10
	4.18				1.629	1.784
	17.23					

2129
426
2559

Dec. 1925.
Chas. Moore

CROSS SECTION OF
SPATHIC AVE GOLDEN PARK ADD.
ARMADA to RICE

30' wide

NWBP	116'	39.66	28.05	Bessemer + Roselans
T.P.	1255	52.24	0.00	39.66
TP	1216	64.31	0.09	52.25
TP	1302	77.14	0.19	64.12
TP	1231	89.33	0.12	77.02
TP	1271	102.03	0.01	89.32
TP	1168	113.58	0.13	101.90
TP	1150	125.15	0.23	113.35

140.5 of SL of Lucinda = 0+00 Spathic 30' wide

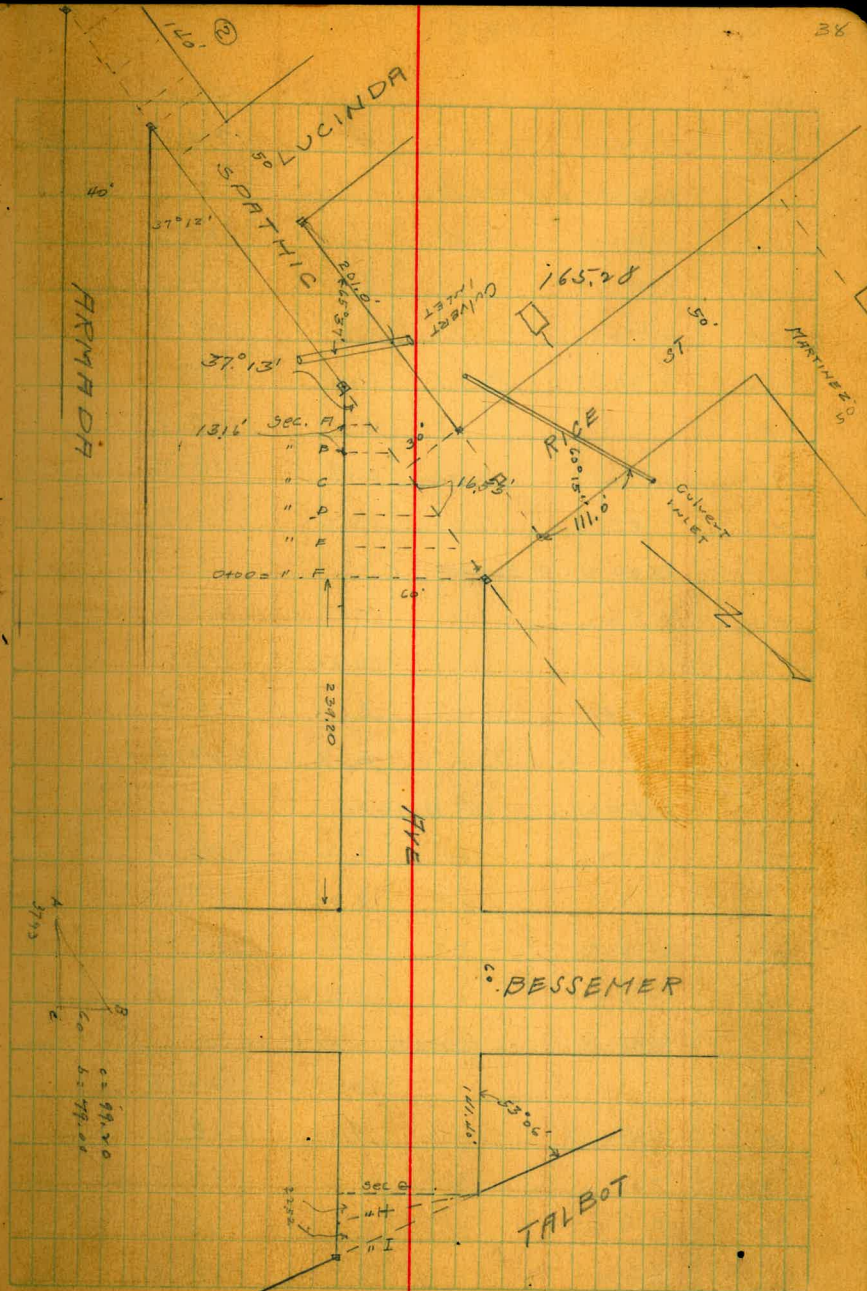
-10	15.5	109.6
E	14.1	111.0
C	9.5	115.6
W	-4.5	120.6

PLOTTED
Larry

W	5.1	120.0
C	9.0	116.1
E	12.9	112.2
+10	15.7	109.4

22.12 W = EL. of Armada = 40' wide

-10	14.5	110.6
-7	13.0	112.1
-6	11.9	113.2
E	11.5	113.6
+13	11.0	114.1
+14	8.4	116.7



C	7.7	117.4
W	4.7	120.4
30.4' N = E of Armada		
W	4.1	121.0
C	6.8	118.3
+5	8.3	116.8
+6	11.0	115.1
E	11.4	113.7
+10	11.9	113.2
+12	13.4	111.7
55.20' N = E Armada		
-10	12.7	112.4
E on M.H.	10.00	115.1
C	6.7	118.4
W	2.7	122.4
80.0' N = W of Armada		
W	3.3	121.8
C	8.0	117.1
E	11.7	113.4
+10	15.5	109.6
88.28' N = W of Armada = 40' wide		
-10	18.4	106.9
E	14.3	110.8
+3	11.6	113.5
C	8.0	117.1
W	3.1	122.0

104.82' N = old W of Armada

W	3.8	121.3
+10	9.6	115.5
C	10.9	114.2
+5	13.0	112.1
E	17.5	107.6
+10	20.4	104.7
115' N		
-10	17.8	107.3
E	15.8	109.3
+7	14.2	110.9
+10	12.0	113.1
C	11.5	113.6
W	4.2	120.9
140' N = St Lucinda = 50' wide		
W	3.7	121.4
+7	4.5	120.6
+10	7.0	118.1
C	8.7	116.4
E	11.0	114.1
+10	10.7	114.4
50' S of		
-10	7.2	117.9
E	8.4	116.7
C	6.6	118.5
W	2.2	122.9

10' cks
75' / 45

	S 1/4	125.15		
W			7.5	113.6
C			5.3	119.8
E			6.6	118.5
+10			5.3	119.8
	E			
-10			3.9	121.2
E			5.0	120.1
C			3.8	121.3
W on MM.			1.00	124.1
	N 1/4			
W			0.0	125.1
C			2.7	122.4
E			3.4	121.7
+10			2.7	122.4
T.P.	1228	13544	1.99	123.6
	Nct			
-10			11.8	123.6
E			12.1	123.3
C			11.2	124.2
W			9.3	126.1
	NL Lucinda 20100			
W			8.0	127.4
C			10.1	125.3
E			10.6	124.8
+10			10.1	125.3

		135.44	SPATHIC	40
	25' N			
E			7.3	128.1
C			6.5	128.9
W			5.3	130.1
	50' N			
W			2.8	132.6
C			4.0	131.4
E			5.1	130.3
	75' N			
E			3.7	131.7
C			2.2	133.2
W			0.5	134.9
T.P.	543	140.55	0.32	135.4
	100' N			
W			4.2	136.4
C			6.2	134.4
E			7.9	132.7
	125' N			
E			6.1	134.5
C			4.4	136.2
W			2.0	138.0
	150' N			
W			1.3	139.3
C			4.9	135.7
E			7.8	132.8
+10			11.1	129.5

14055

175' N

-25	22.6	118.0
E	15.2	125.4
C	10.6	130.0
W	4.9	135.7

187' N

-15	7.7	132.9
W	10.9	129.7
C	15.2	125.4
E	18.9	121.7
+25	24.4	116.2

195' N

-25	22.1	118.5
E	19.3	121.3
C	16.8	123.8
W	14.2	126.4
+20	9.6	131.0

200' N

-20	10.8	129.8
W	14.2	126.4
C	16.6	124.0
E	18.1	122.5
+25	21.7	118.9

T.P. on Hub

150

135.63

6.42

134.13

A
at spathic

13563

SPATHIC 41

CULVERT LEVELS 201' N OF LUCINDA

inlet	5.7	129.9
+25 = inlet	9.2	126.4
+20 = Spathic	11.6	124.0
+27	12.0	123.6
+55	14.2	121.4
+67	16.0	119.6
+82 = outlet	19.3	116.3

215' N

-20	11.2	122.4
E	9.6	126.0
C	8.2	127.3
W	6.1	129.5
+20	4.2	131.4
T.P.	1216	14629
	1.50	134.13

220' N

-15	8.9	127.4
W	10.5	135.8
C	12.9	133.4
E	14.3	132.0
+20	16.0	130.3

225.8' N = A on E line of Spathic

-20	13.9	132.4
E on hub	12.16	134.13
C	10.3	136.0
W	9.5	136.8

146.29

+15		8.4	137.9
	262.35 N = E ct of spathic 60' wide		
-15		3.8	144.5
W		4.7	141.6
C		6.1	140.2
E		8.1	138.2
	278.88 = E 1/4		
E		4.5	141.8
C		2.0	144.3
W		1.1	145.2
+10		0.2	146.1
T.P.	8.96 155.12 0.3 146.16		
	295 W = SL RICE ST = 50' wide = 10' cbs 7.5 1/2		
W		7.2	147.9
C		9.3	145.8
E		11.0	144.1
	S ct		
E		9.9	145.2
C		8.0	147.1
W		6.0	149.1
	S 1/2		
W		5.2	149.9
C		7.4	147.7
E		9.4	145.7
	E		
E		9.0	146.1

155.12

SPATHIC

42

C	6.7	148.4
W on Granite Mon.	4.58	150.54
	N 1/2	
W	4.5	150.6
C	7.0	148.1
E	9.1	146.0
	N ct	
E	9.2	145.9
C	6.8	148.3
W	4.3	150.8
	NL RICE	
W	4.5	150.6
C	7.4	147.7
E	9.2	145.9

CROSS SECTION OF
RICE ST
155' W

50' wide
10' ch
7.5' 1/2"

WL SPATHIC = 0+00

PLOTTED
Larry

S			7.2	147.9
cb			6.0	149.1
1/4			5.2	149.9
c			4.6	150.5
1/4			4.5	150.6
cb			4.3	150.8
N			4.5	150.6
	25' W			
N			0.5	154.6
cb			0.1	155.0
1/4			0.0	155.1
c			0.6	154.5
1/4			1.9	153.2
cb			3.1	152.0
S			5.0	150.1
+10			6.9	148.9
T.P.	6.07	160.76	0.43	154.69
	50' W			
-1.0			11.6	149.2
S			10.0	150.8
d			7.2	153.4
1/4			6.1	154.7
c			5.0	155.8
1/4			4.1	156.7

160.76

43

cb			2.9	157.9
N			2.4	158.4
	0+60' W			
N			1.8	159.0
cb			3.0	157.8
1/4			3.9	156.9
c			4.5	156.3
1/4			6.2	154.6
cb			7.5	153.3
S			10.0	150.8
+10			12.3	148.5
	25' W			
-15			13.8	147.0
S			11.8	149.0
cb			9.8	151.0
1/4			8.1	152.7
c			6.4	154.4
1/4			5.6	155.2
cb			4.1	156.7
N			2.9	157.9
	95' W			
-5			3.0	157.8
N			3.3	157.5
cb			4.5	156.3
1/4			5.6	155.2
c			7.0	153.8
1/4			7.4	153.4

100.76

cb	8.3	157.5
S	8.9	151.9
+15	10.0	150.8
	11.1 W	
-10	5.6	155.2
S	6.2	154.6
cb	5.2	155.6
1/4	4.4	156.4
C	3.8	157.0
1/4	3.5	157.3
dt	2.9	157.9
N	2.5	158.3
+5	2.0	158.8

CUIVERT LEVELS 111' W OF WL SPOT #10

0+00 = INLET	0.0	160.8
+20 = NL RICE	2.5	159.3
+40	4.9	155.9
+52	6.7	154.1
+60	8.7	152.1
+70	10.6	150.2
+78 = SL RICE	11.9	148.9
+91	14.4	146.4
+100	16.7	144.1
+110	18.3	142.5
TP	17.00	172.68
	12.5 W	
-5	11.3	161.4

172.68

RICE

44

N	11.6	161.1
dt	12.2	160.5
1/4	13.0	159.7
C	13.3	159.4
1/4	13.8	158.9
cb	14.0	158.7
S	14.1	158.6
+10	12.6	160.1
	11.0 W	
+10	8.8	163.9
S	8.7	164.0
dt	9.4	163.3
1/4	8.9	163.8
C	8.8	163.9
1/4	8.6	164.1
dt	8.3	164.4
N	8.5	164.2
+5	8.3	164.4
	15.0 W	
N	5.2	167.5
dt	5.3	167.4
1/4	5.4	167.3
C	5.7	167.0
1/4	5.9	166.8
dt	6.0	166.7
S	6.6	166.1
+5	6.6	166.1

		172.68		
T.P	1175	184.12	0.31	172.37
	175'W			
S			11.6	172.5
Ch			11.7	172.6
1/4			11.6	172.5
C			11.5	173.0
1/4			10.9	173.2
Ch			11.2	172.9
N			11.0	173.1
	200'W			
N			5.7	178.4
Ch			6.1	178.0
1/4			6.3	177.8
C			5.8	178.3
1/4			5.6	178.5
Ch			5.7	178.4
S			6.1	178.0
	225'W			
S			0.9	183.2
Ch			0.3	183.8
1/4			0.3	183.8
C			0.0	184.1
1/4			0.6	183.5
Ch			0.6	183.5
N			0.7	183.4
T.P	1259	196.48	0.23	183.89

196.48

RICE

45

250'W

N		8.1	188.4
Ch		8.0	188.5
1/4		7.9	188.6
C		7.3	189.2
1/4		7.3	189.2
Ch		7.5	189.0
S		7.9	188.6
	260'W = EL MARI NIBZ		50' wide 10' at 7.5
S		5.7	190.8
Ch		5.5	191.0
1/4		5.4	191.1
C		5.3	191.2
1/4		5.6	190.9
Ch		6.2	190.3
N		6.6	189.9
	ECh		
N		5.2	191.3
Ch		4.9	191.6
1/4		4.5	192.0
C		3.8	192.7
1/4		3.6	192.9
Ch		3.6	192.9
S		3.7	192.8
	E 1/4		
S		2.2	194.3

19648

cb			1.9	196.6
1/4			2.1	196.4
c			2.6	193.9
1/4			3.3	193.2
cb			3.7	192.8
N			3.4	193.1
	¢			
N			0.8	195.7
cb			1.6	194.9
1/4			1.9	194.6
C.M.H			1.1	195.4
1/4			0.8	195.7
cb			0.5	196.0
S			1.0	195.5
T.P	648	201.69	1.27	195.21
	w 1/4			
S			4.7	197.0
cb			5.4	196.3
1/4			5.0	196.7
c			5.0	196.7
1/4			5.4	196.3
cb			5.6	196.1
N			5.6	196.1
	w cb			
N			5.3	196.4
cb			5.2	196.5

20169

RICE

46

1/4			4.8	196.9	
c			4.1	197.6	
1/4			4.1	197.6	
cb			3.5	198.2	
S			3.4	198.3	
	W.L. MARTINEZ				
S			2.8	198.9	
cb			3.2	198.5	
1/4			3.0	198.7	
c			3.5	198.2	
1/4			4.4	197.3	
cb			4.5	197.2	
N			4.9	196.8	
TP	041	189.82	1228	18941	
TP	083	177.84	1281	17701	
TP	044	165.38	1288	16496	
TP	027	153.01	1264	15274	
check to Max Spach's Rice			249	150.52	150.54

CROSS SECTION OF
SPATHIC 60' wide

10' ch
10' 1/4

RICE TO TALBOT

146.26

47

4 Ek. +
on Hart. spathic

12.13 146.26

134.13

Sec. A

-15 13.1 133.4
EL 10.4 135.9
E ch 8.2 138.1

Sec. B

E 1/4 4.5 141.8
ch 6.9 139.4
EL 8.9 137.4
+15 11.7 134.6

PLOTTED
Lorry

Sec. C

-15 11.6 134.7
EL 8.1 138.2
ch 6.0 140.3
1/4 3.8 142.5
E 2.2 144.1

Sec. D

w 1/4 0.5 145.8
E 2.5 143.4
E 1/4 4.2 142.1
ch 5.9 140.4
EL 8.0 138.3
+15 11.4 134.9

Sec. E

-15 12.1 134.2

E 2.7 139.6
ch 6.7 139.6
1/4 4.7 141.6
C 2.7 143.6
1/4 1.8 144.5
w ch 0.0 146.3

Sec. F = 0200

w 0.6 145.7
ch 1.8 144.5
1/4 3.1 143.2
C 4.2 142.1
1/4 5.7 140.6
ch 7.7 138.6
E 9.7 136.6
+15 12.6 133.7

25' W

-15 15.8 130.5
E 12.3 134.0
ch 10.2 136.1
1/4 8.9 137.4
C 7.4 138.9
1/4 6.5 139.8
ch 5.0 141.3
w 3.7 142.6

50' W

w 7.1 139.2

14626

cb			8.3	138.0
1/4			9.7	136.6
c			11.0	135.3
1/4			12.4	133.9
cb			14.4	131.9
E			16.0	130.3
+15			18.4	127.9
T.P.	567	13596v	12.97	133.29
	75'N			
-15			13.1	129.8
E			10.6	125.3
cb			8.5	127.4
1/4			7.0	128.9
c			5.3	130.6
1/4			3.7	132.2
cb			2.0	133.9
w			0.4	135.5
	100'N			
w			3.5	132.4
cb			5.7	130.2
1/4			7.6	128.3
c			9.1	126.8
1/4			11.1	124.8
cb			13.4	122.5
E			15.0	120.9
+15			17.4	118.5
T.P.	422	127.94v	12.24	123.72

127.94

SPATHIC

48

	125'N			
-15			12.8	115.1
E			11.3	116.6
cb			9.7	118.2
1/4			7.9	120.0
c			6.3	121.6
1/4			4.3	123.6
cb			2.2	125.7
w			0.2	127.7
	150'N			
w			3.3	124.6
cb			5.7	122.2
1/4			7.6	120.3
c			9.2	118.7
1/4			11.3	116.6
cb			13.4	114.5
E			14.7	113.2
+15			16.3	111.6
	175'N			
-15			20.4	107.5
E			17.9	110.0
cb			15.6	112.3
1/4			13.8	114.1
c			12.3	115.6
1/4			10.5	117.4
cb			8.3	119.6
w			6.7	121.2

12794

200 W

w			9.8	118.1
cb			11.5	116.4
1/4			13.2	114.7
T.P	0.08	115.37	12.65	115.29
c			2.0	113.4
1/4			4.2	111.2
cb			6.2	109.2
E			8.1	107.3
+15			10.7	104.7

239.20 = SL BESSEMER = 60' wide ^{10' to} 10' 11/2

-15			15.6	99.8
E			12.9	102.5
cb			10.5	104.9
1/4			9.2	106.2
c			7.0	108.4
1/4			6.0	109.4
cb			4.6	110.8
w			3.6	111.8

S cb

w			4.8	110.6
cb			6.6	108.8
1/4			7.0	108.4
c			8.6	106.8
1/4			10.1	105.3
cb			11.8	103.6
E			14.1	101.3

115.37

SPATHIC

49

S 1/4

E			15.5	99.9
cb			13.4	102.0
1/4			11.5	103.9
c			10.0	105.4
1/4			8.9	106.5
cb			7.8	107.6
w			6.8	108.6

4

w			8.5	106.9
cb			9.6	105.8
1/4			10.4	105.0
c			11.2	104.2
1/4			12.6	102.8
cb			14.6	100.8
E			16.6	98.8

N 1/4

E			18.1	97.3
c			16.2	99.2
1/4			14.5	100.9
c			13.3	102.1
1/4			12.4	103.0
cb			11.4	104.0
w			10.0	105.4

N cb

w			11.7	103.7
---	--	--	------	-------

115.37

cb		12.8	102.6
T.P	0.54	12.54	102.83
1/4		1.9	101.5
c		3.3	100.1
1/4		4.4	99.0
cb		6.0	97.4
E		7.4	96.0

NL BESSEMER 0+00

E		9.1	94.3
cb		7.2	96.2
1/4		5.8	97.6
c		4.6	98.8
1/4		3.1	100.3
cb		1.7	101.7
w		0.7	102.7

25'N

w		3.6	99.8
cb		5.1	98.3
1/4		6.4	97.0
c		7.8	95.6
1/4		9.3	94.1
cb		10.9	92.5
E		12.6	90.8
+15		15.0	88.4

50'N

-15		18.5	82.9
-----	--	------	------

103.37

SPATHIC

50

E		15.8	87.6
cb		14.7	88.7
1/4		13.1	90.3
c		11.3	92.1
1/4		9.9	93.5
cb		8.8	94.6
w		7.6	95.8

75'N

w		12.1	91.3
cb		13.0	90.4
T.P	0.19	90.86	12.70
1/4		12	89.6
c		1.9	89.0
1/4		3.6	87.3
cb		5.2	85.7
E		6.9	84.0
+10		7.6	83.3
+15		8.3	82.6

100'N

-15		11.4	79.5
E		9.8	81.1
cb		8.0	82.9
1/4		6.9	84.0
c		5.8	85.1
1/4		5.6	85.3
cb		5.2	85.7

90.86

w			4.9	86.0
	125 w			
w			12.4	78.5
cb			11.5	79.4
1/4			11.5	79.4
c			11.5	79.4
1/4			11.7	79.2
cb			12.5	78.4
E			13.5	77.4
+15			15.7	75.2
T.P.	122	79.67	12.41	78.45
	141.4 w	= sec G		
-15			6.2	73.5
E			5.6	74.1
cb			5.5	74.2
1/4			5.7	74.0
c			5.1	74.6
1/4			5.1	74.6
cb			6.3	73.4
w			7.7	72.0
+10			7.8	71.9
		Sec H		
w			7.7	72.0
+6			8.0	71.7
cb			7.4	72.3
1/4			7.8	71.9

79.67

SPATHIC 51

c			8.3	71.4
1/4			9.3	70.4
cb			10.2	69.5
E			10.7	69.0
+15			12.2	67.5
		Sec I = SL TABLET		
-15			17.7	62.0
E			17.0	62.7
cb			15.1	64.6
1/4			13.3	66.4
c			11.6	68.1
1/4			9.8	69.9
cb			8.5	71.2
+4			8.9	70.8
w			7.7	72.0
T.P.	4.7	71.03	12.81	66.86
T.P.	0.13	58.70	12.46	58.57
T.P.	0.17	46.06	12.81	45.89
T.P.	0.59	36.09	10.56	35.20
character	BRISMER ROSECRANS		8.0 ✓	78.05
				78.05

Case Section of 36th St + Woolman
 60' Yds
 10' Cb
 10' Qts

9721
 5000
 9125
 Hartberg

SE Top of
 Woolman St

6904

.52

BM	477	6904	(487)
		N L Woolman	
F			11
Cb			50
L			49
18			27
44			67
L			22
14			28
+5			26
Cb			40
N			36
		145 = N Cb	
N	00 Carb + Ground		602
Cb			52
14			53
L			47
14			55
Cb			64
F	00 Carb + Ground		702
		275 = N 14	
F			76
Cb			69
14			68
L			62

14		59
Cb		61
14		63

Cross Section Alley Block 75 Park Villas
 Between Arnoldy Villa Terrace
 From Myrtle to Dwight

BM	9.04	288.05	279.01	NE Myrtle + Dwight
				N. L. Myrtle
N	Top of Curb	3.44	284.61	✓
	Ground	3.8	284.2	✓
S		3.8	284.2	✓
+5		3.5	284.5	✓
E	N. Curb 19	1.5	286.5	✓
				7'H
E		1.1	286.9	✓
+2		2.5	285.5	✓
S		2.3	285.7	✓
+5		2.5	285.5	✓
N		2.1	285.9	✓
				43'H
N	Garage Dirt Floor	1.42	286.63	✓
S		1.5	286.5	✓
E		0.8	287.2	✓
				95'H
E		0.1	287.9	✓
S		0.5	287.5	✓
N		0.7	287.3	✓
TP	322	290.96	287.74	✓
				100'H
N		2.1	287.4	✓
S		2.1	287.9	✓
E		2.5	288.5	✓

290.96

150'H

53
 9.11.26
 5195.7
 31.55
 4.11.26

E		2.7	288.3	✓
S		3.0	288.0	✓
N		3.5	287.5	✓
				Face into Alley
				175'H
N		3.9	287.1	✓
S		4.0	287.0	✓
E		3.1	287.4	✓
				200'H
E		4.2	286.8	✓
S		4.1	286.6	✓
N		4.7	286.3	✓
				Face into Alley
				250'H
N		5.2	285.8	✓
S		4.8	286.2	✓
E		4.5	286.5	✓
				200'H
E		4.4	286.6	✓
S		4.7	286.3	✓
N		4.9	286.1	✓
				300'H
N	Top of Gr. Parob	2.9	288.1	✓
S		2.5	286.5	✓
E		4.3	286.7	✓
S		4.1	286.9	✓
				315'H
E		3.5	287.5	✓
S		3.5	287.5	✓

260'H
 50' must Garage dirt floor
 50'

29096

N		37	287.3	✓
	400' N			
N		32	287.8	✓
E		30	288.0	✓
15		20	288.0	✓
E		25	288.5	✓
	425' N			
E		18	289.2	✓
14		21	288.6	✓
E		23	288.7	✓
N		25	288.5	✓
	450' N			
N		19	289.1	✓
E		18	289.2	✓
E		16	289.4	✓
	475' N			
E		08	290.4	✓
E		11	289.9	✓
N		13	289.7	✓
TP	59.5	296.16	290.51	✓
	500' N			
N		61	290.1	✓
E		60	290.2	✓
E		59	290.3	✓
	525' N			
E		53	290.9	✓
E		54	290.8	✓

29116

54

N		58	290.4	✓
	540' N			
1/2 Garage Conct floor		552	290.64	✓
N		56	290.6	✓
E		53	290.9	✓
E		53	290.9	✓
1/2 Garage Conct floor		490	291.46	✓
	575' N			
E		45	291.8	✓
E		51	291.1	✓
N		57	290.5	✓
	600' N - 54' Ditch			
N Top Ob + Ground		488	291.27	✓
" " " "		488	291.18	✓
E " " " "		487	291.19	✓
E " " " "		467	291.48	✓
Top Ob + Ground		436	291.80	✓
BN		1128	289.92	✓

SW DW 1921
1/2 Garage
290.51

20' elevations
60' width
10' elev
10' elev

Grape St X Sec
N line Bancroft to E. line 33rd St

11-12-26
Miller

BM	2.59	279.55	276.94	S.W. Corner + 32nd St
				32' elev on W 24' Roadway 22' elev on E } Returns in at Bancroft + 81m
N			5.3	274.3
cb			6.0	273.6
114			6.2	273.4
e			6.4	272.8
114			7.1	272.5
cb			7.7	271.9
s			7.9	271.7
+1			6.9	272.7
+20 = old S. line			7.7	271.9
				8' E. of W. line
s-20			8.3	271.3
s-82			7.6	272.0
s-12			8.9	270.7
S. line			8.8	270.8
				13' E. of W. line
S. line			8.7	270.9
+20			9.7	269.9
				32' E. of W. line - c. w. cl.
s-20 = old line			9.9	269.7
s			8.9	270.7
cb			8.4	271.2
114			7.9	271.7
e			7.2	272.4
114			6.7	272.9
cb			6.6	273.0
N			5.7	273.9

279.55
13' E. of W. cl. = 1/2 Roadway

55

N	5.5	274.1
+5	7.3	272.3
cb	7.3	272.3
114	7.2	272.4
e	7.3	272.3
114	8.3	271.3
+7	8.7	270.9
cb	7.6	272.0
s	7.4	272.2
+7	7.7	271.9
+20	9.6	270.0
		13' E. of above = c. cl.
s-20	9.7	269.9
-10	8.2	271.4
s	8.1	271.5
cb	8.3	271.3
+3	9.0	270.6
114	8.5	271.1
c	7.9	271.7
114	7.8	271.8
cb	8.1	271.5
+6	8.0	271.6
N	5.4	274.2
		22' E. of above - E. line Bancroft = walk on s
N	5.3	274.3
+3	8.7	270.9
cb	8.8	270.8
114	8.4	271.2

279.55
E. Lihu (comp)

c	8.6	271.0	
114	8.7	270.9	
cb	9.3	270.3	no emt cb
+2.5 = N edge emt walk	9.46	270.09	
S	9.2	270.4	
+20	8.8	270.8	

36' E. of Barcroft

5+7.5 = N edge emt walk	9.20	270.35	no emt cb
cb	9.5	270.1	
114	8.7	270.9	
c	8.5	271.1	
114	8.4	271.2	
cb	8.8	270.8	
+7	8.4	271.2	
N	6.3	273.3	

50' E. = W. end emt. cb. on S.

N	8.3	271.3	
cb	8.7	270.9	
114	8.2	271.4	
c	8.4	271.2	
114	8.5	271.1	
S cb	9.10	270.45	W. end emt. cb.
77' E			
S, cb	8.93	270.62	
114	8.2	271.4	
c	8.2	271.4	
114	7.9	271.7	

279.55

9 Paper 56

cb	8.1	271.5	
N	7.8	271.8	

100' E = E. end emt. cb & walk on S

N	6.6	273.0	
K3	8.0	271.6	
cb	8.4	271.2	
114	7.9	271.7	
c	8.2	271.4	
114	8.4	271.2	
cb	8.76	270.79	E. end emt. cb
S	8.2	271.4	

116' E

S	8.3	271.3	
cb	8.7	270.9	
114	8.5	271.1	
c	8.3	271.3	
114	7.9	271.7	
cb	8.6	271.0	
+7	8.1	271.5	
N	6.8	272.8	

125' E

N	6.9	272.7	
+3	8.3	271.2	
cb	8.8	270.8	
114	7.9	271.7	
c	8.1	271.5	
114	8.5	271.1	

279.55
125' E. (con)

cl		8.6	270.9	
+8		8.6	271.0	
S		7.2	271.4	
	170' E			
B		8.9	270.7	
+2		10.9	268.7	
cl		11.2	268.4	
114		11.1	268.5	
C		11.2	268.4	
114		11.5	268.1	
cl		12.1	267.5	
N		11.7	267.9	
T.P.	1.57	269.91	11.21	268.34

194' E on N = S. end cl on New St North

N		4.33	265.58	cont cl
	200' E. = W. Line 33 rd St			
N		5.2	264.7	
cl		4.2	265.7	
114		3.3	266.6	
C		3.2	266.7	
114		2.9	267.0	
cl		2.7	267.2	
S		1.9	268.0	
	W. cl			
S		1.9	268.0	
cl		2.6	267.3	
114		2.9	267.0	

269.91

Grape

57

C		3.3	266.6
114		3.5	266.4
cl		3.9	266.0
N		4.4	265.5
	W. 114		
N		3.1	266.8
cl		2.8	267.1
114		2.6	267.3
C		2.6	267.3
114		2.3	267.6
cl		2.0	267.9
S		1.8	268.1

4.8 of W 114

S		1.6	268.3
cl		1.8	268.1
114		2.1	267.8
C		2.4	267.5
114		2.3	267.6
cl		2.5	267.4
N		2.9	267.0

33rd St

N-10		13.4	256.5
N		8.6	261.3
cl		5.0	264.9
114		1.6	268.3
C		1.4	268.5
114		1.2	268.7

269.91

4 (cont)

cl	1.0	268.9
S	1.2	268.7
7' E of 4		
S-10	4.2	265.7
S	3.3	266.6
cl	1.9	268.0
114	1.3	269.6
cl	1.8	268.1
114	5.1	264.8
cl	9.2	262.7
N	12.2	257.7
+10	15.8	254.1
E. 114		
N-10	17.0	252.9
N	13.5	256.4
cl	12.3	257.6
114	9.4	260.5
cl	7.0	262.9
114	6.3	263.6
cl	6.8	263.1
S	6.1	263.8
+10	5.0	264.9
E. cl		
S-10	6.8	263.1
S	8.1	261.8
cl	9.2	260.7

269.91

Grape

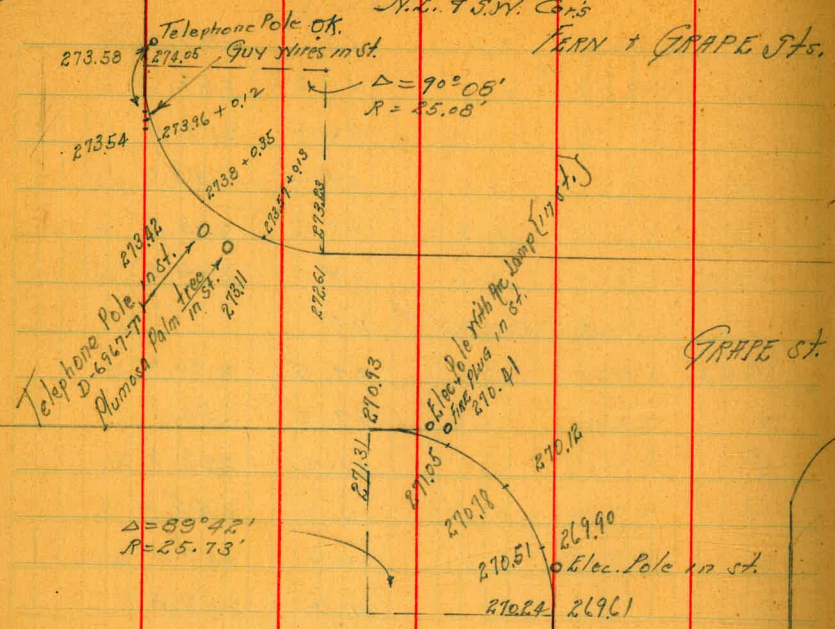
58

114	10.3	259.6
cl	11.6	258.3
114	12.8	257.1
cl	14.2	255.7
N	16.6	253.3
+20	25.4	244.5
E. line 33' d 51		
N-20	29.5	240.4
N	19.8	250.1
cl	17.2	252.7
114	14.7	255.2
cl	12.4	257.5
114	11.3	258.6
cl	10.2	259.7
S	9.4	260.5
+10	8.3	261.6
10' E		
S	10.3	259.6
cl	11.5	258.4
114	12.6	257.3
cl	14.6	255.3
114	16.2	253.7
cl	18.5	251.4
N	21.2	248.7

Walker
2-3-27

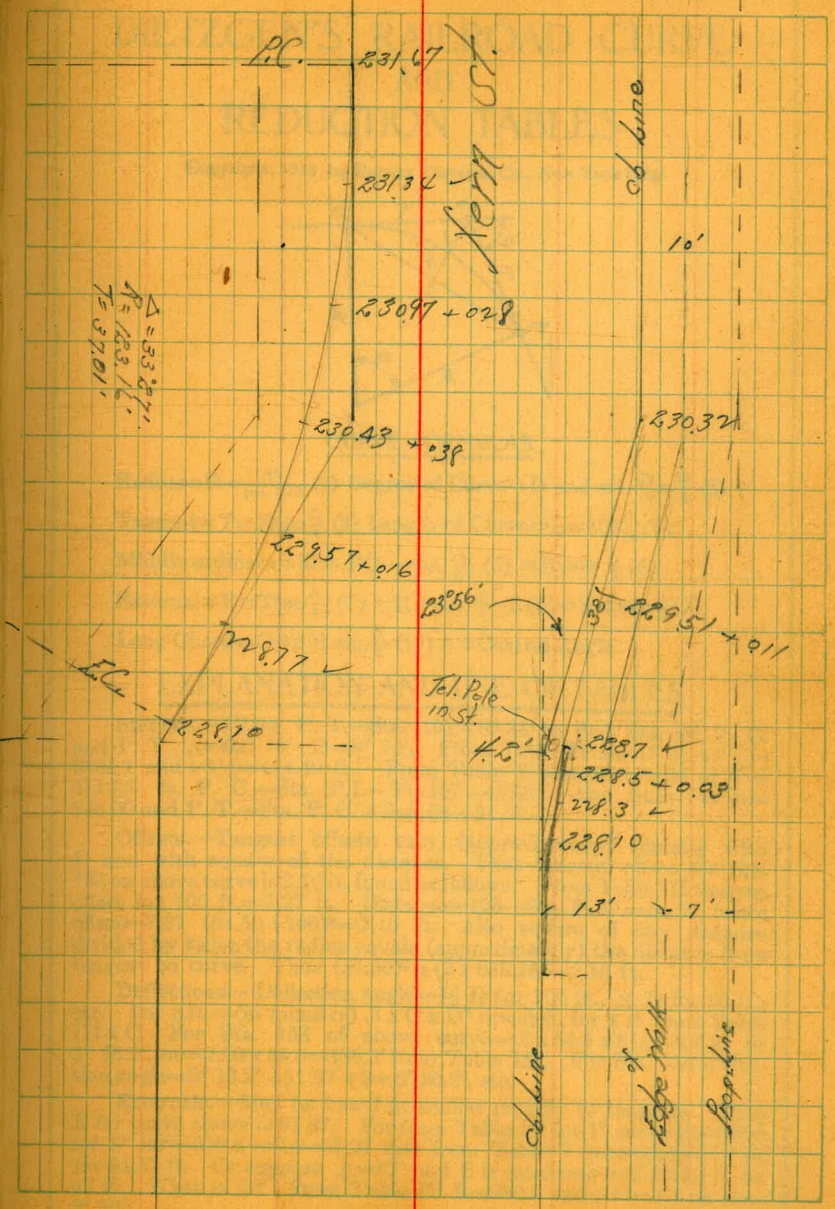
CHANGE IN CURB RETURNS

N.E. + S.W. C&S
FERN + GRAPE STS.



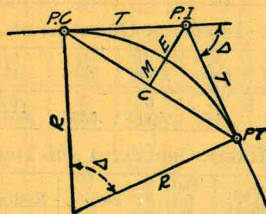
GRAPE ST.

FERN ST.



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

Copyright, 1914, by Eugene Dietzgen Co., New York City



CURVE FORMULAS

Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)

Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)

Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)

External= $E = T \tan \frac{\Delta}{4}$ (7) $= R + \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)

Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta =$ Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.—Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{2} = 414.49$ ft. From Table V correction=.36 or $T = 414.85$ ft. P. C.—Sta. P. I.— $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T.—Sta. P. C. + $L = 164 + 91.50$.

Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset=7.27 $(54.50 \div 100)^2 = 2.16$ ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2 \div (2 \times 688.26) = 2.16$ ft.

Deflections.—Deflection angle= $\frac{1}{2} D$ for 100 ft., $\frac{1}{4} D$ for 50 ft., etc. For c ft.—(in minutes) $.3 \times C \times D^\circ$ or=defl. for 1 ft. from Table III $\times C$. For Sta. 158 of above curve= $.3 \times 54.5 \times 8\frac{1}{2} = 136.2'$ or $2^\circ 16.2'$, or= $2.50 \times 54.5 = 136.2'$ from Table III. For Sta. 159 deflection angle= $2^\circ 16.2' + 8^\circ 20' \div 2 = 6^\circ 26.2'$, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve $E = 960.6$ for $8^\circ 20' = 960.6 \div 8\frac{1}{2} = 91.27$ and from Table V correction=.10 or $E = 91.37$ ft. Or suppose $\Delta = 32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E = 230.9$ and $\div 42 = 5.5$ or $D = 5^\circ 30'$.

19
54
13.6
8.
21.6

16.53
99.18

343
99.18
356
16.53
200.35
78.88

11 4 2 3

20 48.00
18.00

20.00 = 21.00
30.40 = 50.00
55.00 = 4.00

80.00 = 20.00
88.00 = 10.00
104.80 = 0.00

10.0
2.4
7.8
2.4

DISTANCES FROM CENTER OF ROADWAY FOR
CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1 1/2.
For Single Track Embankment.

H	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	H
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	25.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Example—If point is 22.6 ft. above grade, how far should it be from center line to be a slope stake point? Ans. from Table 41.9. For same slopes but other widths of roadbed correct above figures by one-half difference in width of roadbed; thus in example above for 20 ft. roadbed distance will be 41.9 + (20 - 16) + 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.