LEVEL BOOK

400

F.B. 296

296

H. S. CROCKER COMPANY

DRAWING MATERIALS AND SURVEYING INSTRUMENTS

SAN FRANCISCO

296

TABLES FOR EXCAVATIONS AND EMBANKMENTS

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING

Roadway 18 Feet Wide. Side Slopes 1 to 1.
For Single Track Excavation.

"Copyright, 1895, by Kueffel & Esser Co."

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

Calculated by Julien A. Hall, M. Am. Soc. C. E.

MICROFILMED
DEC 1964

21.25
16.75
9.00
16.75
21.25
85.00

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

Cross Section of W½ of 16th St bet "E" and "F"

POSTED

POC.					
	3.71	61.85			58.64
T.P.	0.89	49.89	12.85	49.00	
T.P.	6.75	44.77	11.89	38.02	
	50 line "E" St				
W.			2.7	4210	42.1
Ct.			2.3	4250	42.5
¼			2.6	4220	42.2
Ctr.			7.0	3780	37.8
	75 '50 "E"				
Ctr			8.0	3680	36.8
¼			6.8	3800	38.0
6' E Ct			5.4	3940	39.4
Ct			5.6	3920	39.2
W.			5.4	3940	39.4
	50 '50 "E"				
W			5.6	3920	39.2
Ct			5.6	3920	39.2
¼			5.9	3890	38.9
Ctr.			8.2	3660	36.6

BM. No2. Hydt S.W Cor 16th and D.

	75 '50 "E"			
Ctr	7.8	3700	37.0	
¼	5.3	3950	39.5	
Ct	4.8	4000	40.0	
W.	4.4	40.4	40.4	
	100 '50 "E"			
W	4.3		40.5	
Ct	4.5		40.3	
¼	5.0		39.8	
Ctr.	7.7		37.1	
	125 '50 "E"			
Ctr.	7.1		37.7	
¼	5.6		39.2	
Ct	5.0		39.8	
W.	4.7		40.1	

4477

140' So. "E" - N.L. Alley

W	5.2	39.6
C	5.4	39.4
¼	5.9	38.9
Ctr	7.1	37.7

160' So. S.L. Alley

Ctr	6.3	38.5
¼	5.7	39.1
C	5.3	39.5
W.	4.7	40.1

175 So. "E"

W	4.5	40.3
C	5.0	39.8
¼	5.3	39.5
Ctr.	6.1	38.7
8' E Ctr.	9.6	35.2

200 So. "E"

POSTED

Ctr	10.3	34.5
3' E ¼	5.0	39.8
¼	4.4	40.4
C	3.6	41.2
W.	3.6	41.2

215 So. "E"

W	2.0	42.8
C	2.5	42.3
2' E C.	2.8	42.0
¼	8.8	36.0
8' E ¼	10.1	34.7
Ctr	10.4	34.4

250 So. "E"

Ctr	10.7	34.1
¼	10.6	34.2
7' E Ch.	{10.4 3.6	34.4 41.2
C	1.8	43.0
W	1.1	43.7

4477

POSTED 275.50 "E"

W.	1.1	43.7
Ch.	1.5	40.3
7 'E Ch.	3.0 10.7	41.8 34.1
1/4	10.8	34.0
6 'E 1/4	11.5 13.8	33.3 31.0
Ch.	12.7	32.1
300 '5. "E" = N. 1/4. "E"		
Ch.	12.5	32.3
1/4	13.7	31.1
9 'E Ch.	13.0 3.4	31.8 41.4
Ch.	1.7	40.1
W.	1.3	43.5

7/8/07 X sections Fern St.
Hatch from South Park to Juniper
Donnan
Williams

BM	5.11	231.12		226.01	
	N. Line South Park				
W			4.4		226.7
			4.7		226.4
			4.7		226.4
			4.5		226.6
			4.8		226.3
			5.0		226.1
E			4.8		226.3
	50' N.				
E			2.9		228.2
			3.0		228.1
			2.4		228.7
			2.3		228.8
			1.9		229.2
			1.7		229.4
W			1.6		229.5

POSTED

Spk. NW Cor Corral near 30th & Hinchcroft

T.P.	12.51	241.75	1.88	229.24	
	100' N.				
W			8.2		233.6
			8.2		233.6
			8.8		233.0
			8.9		232.9
			9.9		231.9
			10.9		230.9
E			11.3		230.5
	121 ± S.L. Date				
E			10.3		231.5
			9.9		231.9
			8.7		233.1
			7.4		234.4
			7.0		234.8
			6.3		235.5
W			5.8		236.0

S Ch. Date.

W	4.7	237.1
	5.6	236.2
	6.2	235.6
	6.7	235.1
	7.6	234.2
	8.8	233.0
E	9.6	232.2

S 1/4 Date.

E	8.7	233.1
	7.5	234.3
	6.6	235.2
	5.9	235.9
	5.4	236.4
	4.3	237.5
W	3.7	238.1

On Date.

W	2.4	239.4
	3.1	238.7
	4.0	237.8
	4.7	237.1
	5.2	236.2
	6.6	235.2
E	8.2	233.6

N 1/4 Date.

E	7.6	234.2
	6.0	235.8
	4.7	237.1
	3.9	237.9
	3.2	238.6
	2.0	239.8
W	1.9	240.4

241.75

N Cl. Date

W			0.5	241.3
			1.3	240.5
			2.6	239.2
			3.2	238.6
			4.3	237.5
			5.3	236.5
E			6.9	234.9

NL Date.

E			6.3	235.5
			4.7	237.1
			3.3	238.5
			2.7	239.1
			1.6	240.2
			0.5	241.3
W			+0.4	242.2 242.2
T.P.	10.95	252.65	0.05	241.70

252.65

50' N of Date.

W		8.6	244.1
		9.3	243.4
		11.1	241.6
		11.9	240.8
		12.9	239.8
		14.3	238.4
E		15.3	237.4

100' N of Date

E		13.7	239.0
		13.0	239.7
		11.4	241.3
		10.3	242.4
		9.2	243.5
		7.4	245.3
W		7.0	245.7

POSTED

150' N of Date.

W	5.3	247.4
	6.1	246.6
	7.6	245.1
	8.3	244.4
	9.7	243.0
	11.5	241.2
E	11.7	241.0

200' N of Date.

E	8.7	244.0
	8.2	244.6
	6.5	246.2
	6.3	246.4
	5.4	247.3
	3.9	248.8
W	3.2	249.5

252.65

250' N of Date

W	1.2	251.5
	2.2	250.5
	3.8	248.9
	4.7	248.0
	5.4	247.3
	6.7	246.0
E	7.8	244.9

300' N of Date = St Elm —

E	10.6	242.1
	8.5	244.2
	6.6	246.1
	5.7	247.0
	4.5	248.2
	2.9	249.8
W	1.1	251.6

25265

S Cb. Elm.

W		1.8	250.9
		3.0	249.7
		4.9	247.8
		6.5	246.2
		7.8	244.9
		10.0	242.7
E		11.6	241.1

S 1/4 Elm.

E		13.7	239.0
		10.6	242.1
		9.0	243.7
		7.3	245.4
		5.5	247.2
		4.3	248.4
W		2.0	250.7

25265

Cr. Elm.

W		2.0	250.7
		3.4	249.3
		6.0	246.7
		7.4	245.3
		9.0	243.7
		11.6	241.1
E		14.9	237.8
15		23.8	228.9
28		28.0	224.7

POSTED

N 1/4 Elm.

20' E		25.0	227.7
10' E		25.0	227.7
E		15.7	237.0
8		12.1	240.6
1/2		9.2	243.5
cr.		7.3	245.4

1/4	6.1	246.6	
cb.	3.5	249.2	
W	2,1	250.6	
	N Cb. Elm.		
W	2.3	250.4	
cb.	3.8	248.9	
1/4	6.2	246.5	
C	8.1	244.6	
1/4	9.8	242.9	
Cb	12.4	250.3	
E	15.4	237.3	
10'	~~24.5~~	228.2	
20'	East side ravine	24,5	228.2
	N h. Elm.		
~~14~~ 14'	East side Ravine	24.0	228.7
E	17.1	235.6	
	12.7	240.5	

25.265

	9.6	243.1	
	8.2	244.5	
	6,1	246.6	
	3.5	249.2	
W	1.8	250.9	
	35' N of Elm		
W	2,1	250.6	
cb.	3.9	248 8	
1/4	5.9	246.8	
C	8.7	244.0	
1/4	10.1	242.6	
cb.	11.7	241.0	
E	13.9	238.8	
7'	Bottom of steep ravine	17.6	235.1
	50' N of Elm -		
E	Bottom of ravine	17.4	235.3
cb.		11.6	241.1

		9.5	243.2
		8.4	244.3
		5.5	247.2
		3.6	249.1
W		2.0	250.7
	75' N of Elm -		
W		1.4	257.3
		3.4	249.3
		4.9	247.8
		8.0	244.7
		8.9	243.8
ch.		12.6	240.1
+5'		12.8	239.9
East		11.0	241.7
10'		8.0	244.7

252.65

	100' N of Elm -				
E		8.0			244.7
ch.		10.0			242.7
+5'		11.0			241.7
		9.7			243.0
		7.0			245.7
		4.3			248.4
		2.1			250.6
W		0.5			252.2
T.P.	9.74	261.71	068	251.97	
	150' N of Elm				
W		9.6			252.1
		11.3			250.4
		11.8			249.9
		13.9			247.8
		12.3			249.4
		12.0			249.7
E		11.9			249.8

26171

300' N of Elm

E	9.0	252.7
	9.4	252.3
	9.6	252.1
	9.7	252.0
	9.7	252.0
	8.7	253.0
W	6.8	254.9

250' N of Elm

W	4.2	257.5
	5.7	256.0
	6.1	255.6
	6.6	255.1
	7.3	254.4
	7.2	254.5
E	6.7	255.0

26171

300' N of Elm = SL Fir

E	4.4	257.3
	4.6	257.1
	4.3	257.4
	4.6	257.1
	3.6	258.1
	3.2	258.5
W	2.1	259.6

5 ch. Fir

W	1.4	260.3
	2.6	259.1
	3.1	258.6
	3.0	258.7
	3.5	258.2
	3.7	258.0
E	3.5	258.2

S 1/4 Fit

E		2,5	259.2
		2.9	258.8
		3,0	258.7
		2,7	259.0
		2,8	258.9
		2,1	259.6
W		1,3	260.4

Cr Fit

W		1,2	260.5
		1,8	259.9
		2,3	259.4
		2,1	259.6
		2.4	259.4
		2.9	258.8
E		2.9	258.8

261.71

N 1/4 Fit

E		2,1	259.6
		2,2	259.5
		1,8	259.9
		1,5	260.2
		1,7	260.0
		1,1	260.6
W		0.5	261.2

Neb. Fit

W		+0.3	262.0
		0.2	261.5
		0.9	260.8
		1.1	260 6
		1.1	260.6
		1.7	260.0
E		1,6	260.1
T.P.	1239	272.68 ~~273.68~~	1.42 ~~260.29 261.29~~

272.68
~~27368~~

NL Fir.

E	12.1	260.6
	12.1	260.6
	12.0	260.7
	11,6	261.1
	11.4	261.3
	10,7	262.0
W	10.1	262.6

50 N of Fir.

W	8.0	264.7
	8,8	263.9
	9.7	263.0
	9.7	263.0
	10.1	262.6
	10,4	262.3
E	10,4	262.3

272.68
~~27368~~

100 N of Fir

E	8,8	263.9
	8.9	263 8
	8,6	264.1
	8,2	264.5
	8,2	264.5
	7,3	265.4
W	6.6	266.1

150 N of Fir

W	5.0	267.7
	5,6	267.1
	6,5	266.2
	6,3	266.4
	6,8	265.9
	7,3	265.4
	7.2	265.5

200' N of Fir

E		5.8	266.9
		5.7	267.0
		5.2	267.5
		5.0	267.7
		5.0	267.7
		4.0	268.7
W		3.4	269.3

250' N of Fir

W		2.6	270.1
		3.1	269.6
		4.0	268.7
		4.0	268.7
		3.8	268.9
		3.9	268.8
E		3.8	268.9

Grape is 75-1

272.68
~~273.68~~

300 N of Fir = SL Grape

E		3.3		269.4
		3.0		269.7
		2.8		269.9
		2.8		269.9
		2.8		269.9
		2.5		270.2
W		2.1		270.6
	277.07		271.81	
5.26	~~278.07~~	0.87	~~272.81~~	BM SW Fern and Grape.

S. Cb. Grape

W		5.7	271.4
		6.9	270.2
		7.0	270.1
		6.9	270.2
		6.7	270.4
		7.5	269.6
E		7.9	269.2

E	5 1/4 Grape		
E		7.3	269.2
		7.2	269.9
		7.0	270.1
		6.8	270.3
		6.6	270.5
		6.8	270.3
W		6.2	270.9
	Cr. Grape		
W		5.8	271.3
		6.3	270.8
		6.4	270.7
		6.6	270.5
		6.7	270.4
		7.0	270.1
E		7.1	270.0

		277.07	
		~~270.7~~	
	N 1/4 Grape		
E		6.8	270.3
		6.4	270.7
		6.2	270.9
		6.3	270.8
		6.1	271.0
		6.0	271.1
W		5.8	271.3
	N Cb. Grape.		
W		5.7	271.4
		6.6	270.5
		5.7	271.4
		5.8	271.3
		6.0	271.1
		6.2	270.9
E		6.7	270.4

271.07
~~27807~~

NL Grape.

E		6.3	270.8
	POSTED	5.8	271.3
		5.3	271.8
		5.3	271.8
		5.5	271.6
		5.4	271.7
W		5.6	271.5
RM	8.60 280.41		271.81

East line Ferri. (Despard)

N.		6.4	274.0
		6.0	274.4
		6.5	273.9
		6.6	273.8
		6.2	274.2
		6.7	273.7
S		7.2	273.2

7/11/07 Haleh Donnan Williams

280.41

North line Grape.

E		6.4	274.0
		5.7	274.7
		5.4	275.0
		5.3	275.1
		5.2	275.2
		4.6	275.8
W		4.4	276.0

50 N of Grape.

W		3.9	276.5
		4.3	276.1
		4.5	275.9
		4.8	275.6
		5.1	275.3
		5.7	274.7
E		6.0	274.4

100 N of Grape.

E	5.2	275.2	
	5.1	275.3	
	5.0	275.4	
	4.7	275.7	
	4.6	275.8	
	4.1	276.3	
W	3.9	277.0	

150 N of Grape

W	2.9	277.5	
	3.7	276.7	
	4.4	276.0	
	4.6	275.8	
	5.2	275.2	
	5.2	275.2	
E	5.7	274.7	

28041

200 N of Grape.

E	5.7	274.7	
	5.8	274.6	
	5.5	274.9	
	4.8	275.6	
	4.6	275.8	
	3.6	276.8	
W	3.1	277.3	

250 N of Grape

T.P.	6.10	28203	4.48	276.93
W	4.4			277.6
	5.6			276.4
	6.5			275.5
	6.9			275.1
	7.4			274.6
	7.7			274.3
E	7.8			274.2

282.03

300' N. of Grape = SL Hawthorne.

E	7.7	274.3
	7.7	274.3
	7.9	274.1
	7.2	274.8
	7.1	274.9
	6.0	276.0
W	5.1	276.9

N L Hawthorn —

W	4.9	277.1
	5.5	276.5
	6.3	275.7
	6.3	275.7
	6.8	275.2
	6.8	275.2
E	6.8	275.2

50' N of Hawthorn

E	6.3	275.7
	6.0	276.0
	5.6	276.4
	5.6	276.4
	5.7	276.3
	5.2	276.8
W	4.5	277.5

100' N of Hawthorn

W	3.7	278.3
	4.1	277.9
	4.7	277.3
	4.7	277.3
	4.8	277.2
	5.1	276.9
E	5.7	276.3

28203

150' N of Hawthorn

E		4.4	277.6
		4.3	277.7
		4.3	277.7
		3.9	278.1
		3.8	278.2
		2.8	279.2
W		2.6	279.4

200' N of Hawthorn

W		1.0	281.0
		1.6	280.4
		2.1	279.9
		2.3	279.7
		2.6	279.4
		2.7	279.3
E		3.2	278.8

28203

250' N of Hawthorn

E		2.6		279.4
		1.8		280.2
		1.3		280.7
		1.2		280.8
		0.9		281.1
		0.3		281.7
W		0.4	283.4	282.4
T.P.	6.77	287.92	0.85	281.15

300' N of Hawthorn = SL Ivy

W	4.5		283.4
	5.5		282.4
	6.3		281.6
	6.7		281.2
	6.5		281.4
	7.5		280.4
E	7.4		280.5

287.92

S Cb. Trv.

E	7.5	2804
	7.3	2806
	6.9	2810
	6.5	2814
	6.2	2817
	5.4	2825
W	4.5	2834

S 1/4 Trv.

W	4.6	2833
	5.5	2824
	6.1	2818
	6.4	2815
	6.9	2810
	7.2	2807
E	7.6	2803

287.92

Cr Trv.

E	7.3	2806
	6.8	2811
	6.2	2817
	6.1	2818
	5.7	2822
	4.9	2830
W	4.4	2835

N 1/4 Trv

W	3.8	2841
	4.3	2836
	5.5	2824
	5.9	2820
	5.9	2820
	6.6	2813
E	7.1	2808

N Cl Ivy

E	6.8	281.1
	6.4	281.5
	5.9	282.5
	5.7	282.2
	5.3	282.6
	4.8	283.1
W	4.1	283.8

N4 Ivy

W	3.8	284.1
	4.4	283.5
	5.1	282.8
	5.3	282.6
	5.3	282.6
	6.0	281.9
E	6.7	281.2

2889?

50' N of Ivy

E	6.1	281.8
	5.5	282.4
	5.1	282.8
	5.1	282.8
	4.5	283.4
	4.1	283.8
W	3.5	284.4

100' N of Ivy

W	3.0	284.9
	3.5	284.4
	3.9	284.0
	4.7	283.2
	5.0	282.9
	5.7	282.2
E	6.2	281.7

150' N of Ivy.			
E	6.1	281.8	
	6.0	281.9	
	4.9	283.0	
	5.2	282.7	
	4.5	283.4	
	3.9	284.0	
VV	3.1	284.8	
200' N of Ivy.			
VV	3.1	284.8	
	4.2	283.7	
	5.0	282.9	
	5.2	282.7	
	5.2	282.7	
	6.3	281.6	
E	6.1	281.8	

		287.82 / ~~288.42~~			
250' N of Ivy.					
E		5.0		282.9	
		5.2		282.7	
		5.1		282.8	
		4.9		283.0	
		4.5		283.4	
		4.0		283.9	
VV		3.3		284.6	
300' N of Ivy = SL Juniper					
VV		3.1	285.52	284.8	
		3.5		284.4	
		3.9		284.0	
		4.2		283.7	
		4.5		283.4	
		4.6		283.3	
E		4.6	284.32	283.3	
F.P.	8.22	292.46	3.68	285.24	
Bm SE 30th of Juniper			2.55	289.91 / ~~290.91~~	

7/11/07 Hatch Donnan Williams

X sections State St

Ivy to Juniper

	12.28	77.36		
BM SE7 TK. Ivy - Columbia				65.08
BM	5.19	80.16	2.39	74.97
NL Ivy -				
W			4.5	7570
cb			3.6	7660
1/4			2.9	77.30
c			2.1	7810
1/4			1.2	7900
cb			0.6	7960
E			0.1	8010
25' N				
E			0.3	7990
cb			0.8	7940
1/4			1.6	7860
c			2.4	7780
1/4			3.1	7710
cb			3.8	7640
W			4.5	7570

POSTED

		80.16		
50' N				
W			5.1	7510
cb			4.6	7560
1/4			3.6	7660
c			2.8	7740
1/4			1.9	7830
cb			1.6	7860
E			1.1	7910
75' N				
E			2.5	7770
cb			2.2	7800
1/4			2.9	7730
c			4.2	7600
1/4			4.1	7610
cb			5.5	7470
W			5.5	7470

8016

100 N

W.	6.4	73.80
d	6.6	73.60
1/4	7.5	7370
c	7.3	7390
1/4	5-7	7450
d	5-8	7440
E	6.2	74.00

125' N

E	7.1	7310
d	8.1	7210
1/4	8.2	7200
c	9.0	7120
1/4	9.6	7060
d	9.7	7050
W	8.9	7130

8016

150' N

20	12.3	67.90
W	11.3	68.90
d	11.0	6920
1/4	10.6	69.6
c	10.1	70.1
1/4	9.3	70.9
d	8.9	71.3
E	7.9	72.3

175' N

E	5.4	74.8
d	7.7	72.5
1/4	9.9	70.3
c	10.8	69.4
1/4	12.1	68.1
d	12.4	67.8
W	12.6	67.6
20	13.6	66.6

8016

200 'N

20	14.2	66.0.0
W	13.6	66.6
ob	13.3	66.9
1/4	12.3	67.9
c	9.1	71.1
1/4	9.0	71.2
ob	6.1	74.1
E	3.8	76.4

225 'N

E	1.9	78.3
ob	3.7	76.5
1/4	6.2	74.0
c	6.7	73.5
1/4	9.4	70.8
ob	13.5	66.7
W	15.2	65.0
20	15.1	65.1

8016

250 'N

20	17.4	62.8
W	13.7	66.5
ob	10.8	69.4
1/4	7.1	73.1
c	5.2	7500
1/4	4.3	75.9
ob	2.8	77.4
E	1.6	78.6

275 'N

E	1.0	79.2
ob	2.0	78.2
1/4	3.8	76.4
c	3.9	76.3
1/4	5.4	74.8
ob	8.0	72.2
W	9.7	70.5
20	14.9	65.3

POSTED

300 'N of Ivy = SL Juniper

Ivy	7.7	72.5
+ 5	7.5	72.7
b,	5.7	74.5
1/4	4.7	75.5
c	3.9	76.3
1/4	4.2	7600
b	2.9	77.3
E	1.0	79.2

Xsections of Nutmeg 5th to Park

7/11/07 {Hatch, Donnan, Williams}

SW7 TK 5-1/2 Nutmeg

BM	6.61	269.69	263.08

EL 5-1/2

S	5,6	264.1 POS
b	5,8	263.9
1/4	5,3	264.4
c	5,1	264.6
1/4	4,9	264.8
b	4,4	265.3
N	4,0	265.7

50' E

N	4.0	265.7
b	5,0	264.7
1/4	4,8	264.9
c	5,0	264.7
1/4	5,5	264.2
b	5,9	263,8
S	5,9	263.8

269.69

100' E of 5th

S	5.9	263.8
+12	5.6	264.1
ch.	6.2	263.5
1/4	5.3	264.4
Or	5.1	264.6
1/4	5.0	264.7
11	5.3	264.4
ch.	4.7	265.0
N	4.6	265.1

136' E of 5th

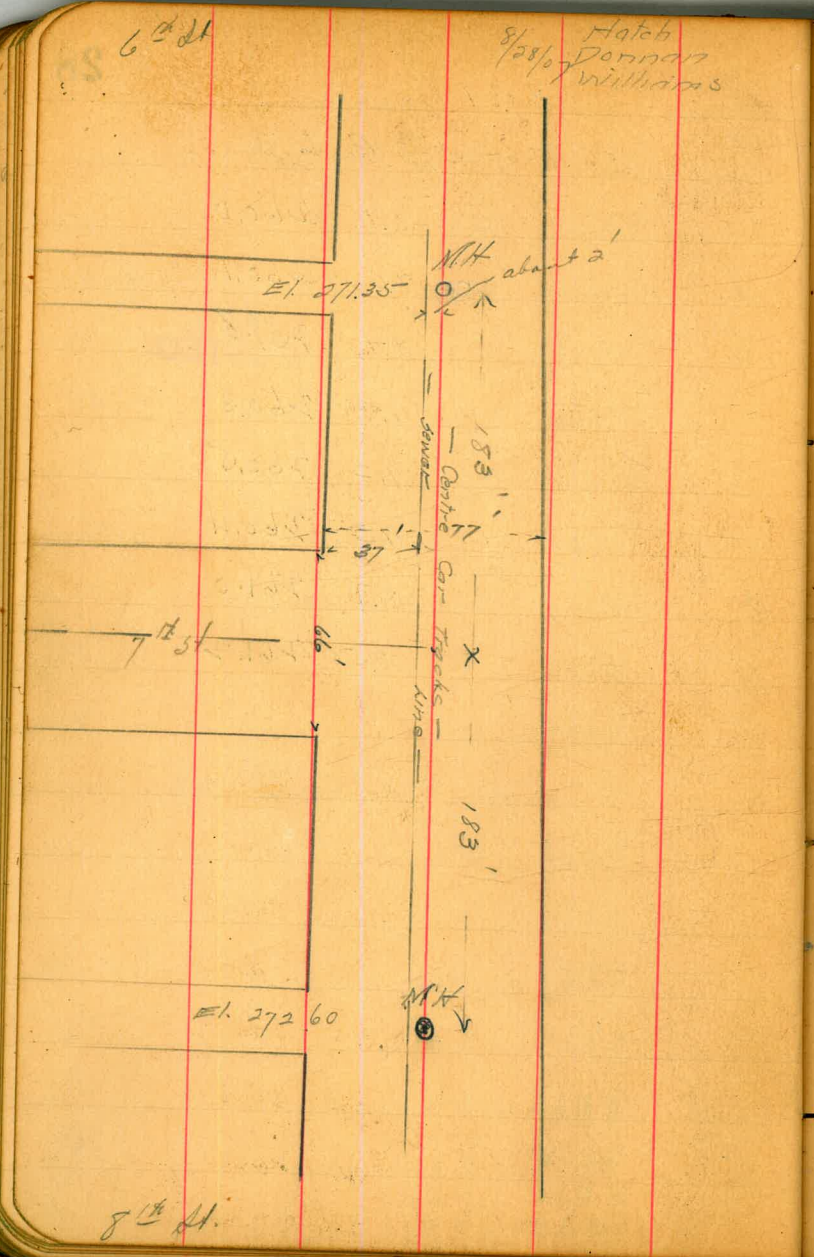
N	5.0	264.7
+3	5.7	264.0
ch.	6.2	263.5
1/4	5.7	264.0
C	5.9	263.8
1/4	6.2	263.5
ch.	6.1	263.6
S	6.6	263.1

269.69

156' E of 5-1/2 Park line

S	9.7	260.0
ch.	9.6	260.1
1/4	9.9	259.8
O	9.4	260.3
1/4	9.2	260.5
+11	9.3	260.4
ch.	8.7	261.0
N	8.5	261.2

POSTED



Levels on Centre line 7th from Sewer on Univ. Ave to Penn—

6th - Univ - POSTED

BM	456	288.10		283.54
W MH			16.75	271.35
E. MH.			15.50	272.60
Centre of Tracks.			4.2	283.9
gutter			5.3	2828
0+00 S.L. Univ—			4.8	2833
+50			5.8	282.3
T.P.	243	285.16	5.37	279.73
1			3.2	282.0
+50			3.6	281.6
2			3.8	281.4
+50			4.7	280.5
3			5.5	279.7
+50			6.7	278.5
4			7.5	277.7
+44 N. Robinson			8.6	276.6
N gutter	"		9.2	276.0

		285.16			
Cr Robinson			9.0	276.2	
0 = SL	"		9.4	275.8	
+20			7.5	277.7	
+30			7.4	277.8	
T.P.	5.33	282.39	8.10	277.06	
+50			9.1	273.3	
+65			11.8	270.6	
1			6.7	275.1	
+35			9.8	272.6	
+50			9.3	273.1	
+70			7.2	275.2	
+85			8.4	274.0	
2			8.3	274.1	
+50			7.6	274.8	
+75			8.4	274.0	
3			6.8	275.6	
+50			5.7	276.7	

		282.39			
4			5.3	277.1	
+50			5.6	276.8	
5			5.6	276.8	
+50			5.8	276.6	
6 = NL	Penn -		4.9	277.5	
Cr	"		4.2	278.2	
SL	"		4.7	277.7	
T.P.	11.49	289.29	4.59	277.80	
Check	BM (6" - Penn -		19.6	287.33	287.34

8/31/07 Halcl Dorman Williams

Levels on E. rail of E. track on 5th st from Palm - University

BM Quince	5.38	283.44		278.06	
150' So of Quince			5.93	277.51	
100			5.72	277.72	
50		POSTED	5.40	278.04	
SL Quince			5.17	278.27	
CR "			5.10	278.34	
NL "			5.08	278.36	
50			4.94	278.50	
100			4.82	278.62	
150			4.66	278.78	
200			4.52	278.90	
250			4.33	279.11	
300 =SL Redwood			4.22	279.22	279.5
CR "			4.09	279.35	
NL "			4.05	279.39	
BM	5.48	284.50	4.42	279.02	
50			4.98	279.52	

		284.50		
100			4.82	279.68
150			4.75	279.75
200			4.50	280.00
250			4.38	280.12
300 = St	Spruce.		4.23	280.27
	Cr		4.21	280.29
	INT.		4.18	280.32
BM	4.84	284.97	4.37	280.13
50			4.45	280.52
100			4.27	280.70
150			4.02	280.95
200			3.78	281.19
250			3.55	281.42
300 = St	Thurn.		3.31	281.66
	Cr "		3.10	281.87
	INT "		2.81	282.16
BM	5.85	287.85	2.97	282.0

		287.85			
50			5.23	282.62	
100			4.73	283.12	
150			4.19	283.66	
200			3.59	284.26	
250			3.02	284.83	
300	SF Upas		2.45	285.40	
	Cr "		2.39	285.46	
	NL "		2.43	285.42	
BM	356	288.49 ✓	2.92	284.93 ✓	284.92
50			3.38	285.11	
100			3.68	284.81	
167.5	~~SL~~ Walnut.		4.08	284.41	
	Cr "		4.33	284.16	
	NL "		4.69	283.80	
BM			1.99	286.50 ✓	286.48
50			5.02	283.47	
100			5.31	283.18	

POSTED

		288.49			
150			5.69	282.80	
171 = St	Ivy Lane		4.84	282.65	
	Cr " "		6.05	282.44	
	N L " "		6.20	282.29	
~~TH~~	283	285.17	6.21	282.28	
25			3.03	282.08	
75			2.38	281.73	
125			3.77	281.34	
175			4.17	280.94	
225			4.53	280.58	
275			4.88	280.23	
325			5.25	279.86	
379	SL Brook		5.58	279.53	
	Cr "		5.61	279.50	
	N L "		5.62	279.49	279.50
Bm.	5.78	285.17*	5.69	279.42	*279.39
50			5.64	279.53	279.71

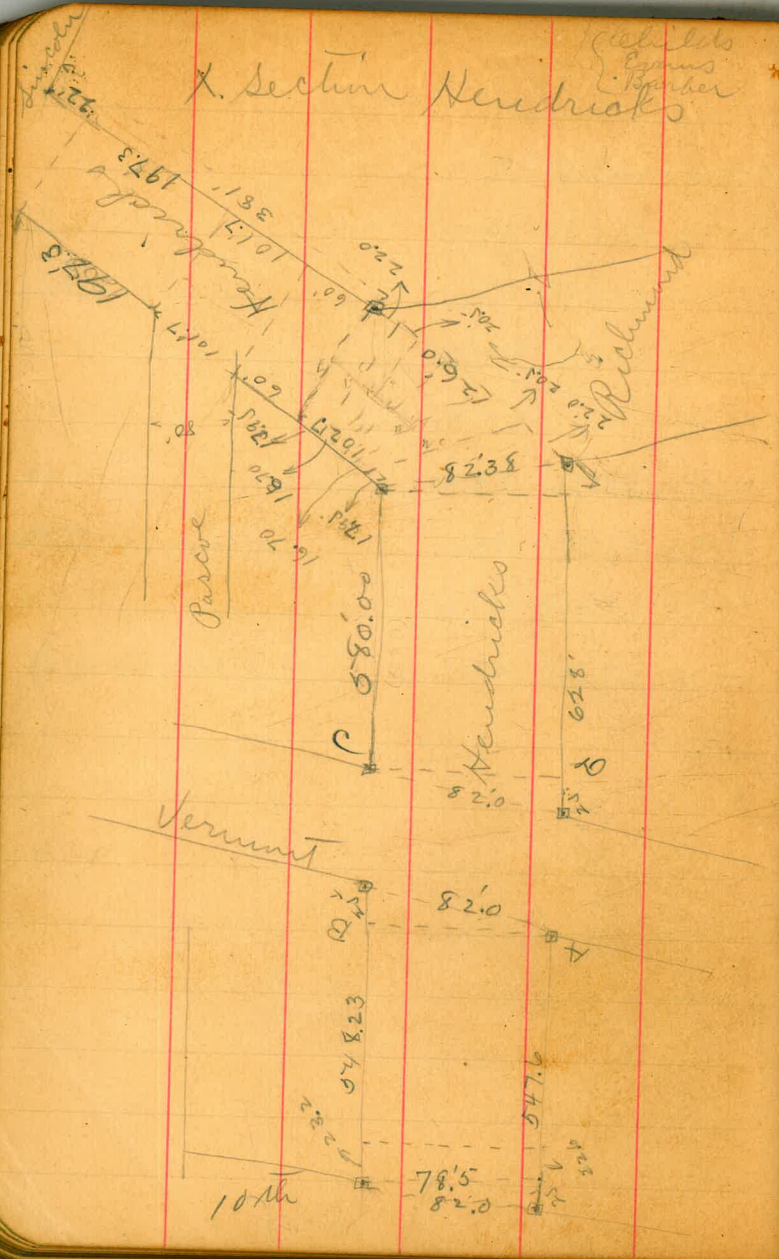
		28577			
100			5.46	279.71	279.92
150			5.27	279.90	280.13
200			5.06	280.11	280.34
250			4.80	280.37	280.55
	275 St Anderson		4.68	280.49	
	300 Cr		4.55	280.62	280.75
	325 NL.		4.46	280.71	
350			4.39	280.78	280.95
400			4.14	281.03	281.17
450			3.90	281.27	281.38
500			3.63	281.54	281.58
550			3.41	281.76	281.79
600 = St Penn.			3.07	282.10	282.0
	Cr "		2.90	282.27	
	NL "		2.70	282.47	282.50
BM	6.90	289.32	2.75	282.42	282.44
50			6.50	282.82	282.89

		289.82			
100			6.11	283.21	283.28
150			5.67	283.65	283.67
200			5.31	284.01	284.05
250			4.95	284.37	284.44
275	= SL Evans.		4.72	284.60	284.65
300	Cr "		4.52	284.80	284.87
325	NL "		4.32	285.00	285.10
350			4.12	285.20	285.37
400			3.74	285.58	285.75
450			3.32	286.00	286.19
500			2.86	286.46	286.63
550			2.40	286.92	287.07
600	= SL Robinson		1.87	287.45	287.60
	Cr "		1.60	287.72	
	NL "		1.38	287.94	288.0
TP.	5.35	293.30	1.97	287.95	
BM.			5.33	287.91	287.95

	29330			
50		5.09	288.21	288.24
100		4.92	288.38	288.48
150		4.63	288.67	288.72
300		4.43	288.87	288.96
350		4.27	289.03	289.20
800		4.01	289.29	289.44
350		3.80	289.50	289.68
400		3.55	289.75	289.93
416 SL Univ –		3.50	289.80	290 –

X. Section Hendricks

Childs
Evans
Barber



Sept. 3. 1907

10th to Lincoln Ave.

	5.2.4	H.I. 287.98		282.74
	E line 10th			
So. line			4.7	283.3
			4.4	283.6
			4.6	283.4
C	POSTED		5.1	282.9
			5.7	282.3
			6.5	281.5
N. line			6.4	281.6
		522.6	West	Sect A.B
N line			6.4	281.6
			6.5	281.5
			5.5	282.5
C			5.4	282.6
			5.0	283.0
			4.9	283.1
So line			4.4	283.6

500' West

So line	287.98	4.7	283.3
		4.9	283.1
		5.4	282.6
C		5.4	282.6
		5.7	282.3
		6.0	282.0
N line		6.2	281.8

475' W

N line		6.2	281.8
		5.9	282.1
		5.5	282.5
C		5.2	282.8
		4.9	283.1
		4.7	283.3
So. line		4.4	283.6

450' W

So line	287.98	4.4	283.6
		4.6	283.4
		5.0	283.0
C		5.5	282.5
		5.7	282.3
		5.3	282.7
N line		5.9	282.1

425' W

N line		6.2	281.8
		5.9	282.1
		5.7	282.3
C		5.4	282.6
		4.8	283.2
		5.0	283.0
So line		4.7	283.3

POSTED

	400'. W		
So line	287.98	4.5	283.5
		4.9	283.1
		5.3	282.7
C		5.3	282.7
		5.2	282.8
		5.7	282.3
N line		5.9	282.1
	375' W		
N line		5.9	282.1
		5.7	282.3
		5.3	282.7
C		5.2	282.8
		5.2	282.8
		4.8	283.2
So line		4.4	283.6

	350' W		
So line	287.98	3.8	284.2
		4.4	283.6
		4.4	283.6
C		4.7	283.3
		4.8	283.2
		5.3	282.7
N line		5.4	282.6
	325' W		
N line		4.7	283.3
		3.9	284.1
		4.0	284.0
C		3.6	284.4
		3.9	284.1
		3.3	284.7
So line		3.3	284.7

	300' W			
So line	287.98	2.8	285.2	
		2.9	285.1	
		3.0	285.0	
C		3.4	284.6	
		3.5	284.5	
		4.0	284.0	
N line		4.3	283.7	
	275' W			
N line		5.5	282.5	
		4.5	283.5	
		3.6	284.4	
C		3.3	284.7	
		3.1	284.9	
		2.9	285.1	
So line		3.1	284.9	

287.98

	265' W				
So line		287.98	7.1	280.9	
			7.2	280.8	
			7.0	281.0	
C			4.8	283.2	
			5.4	282.6	
			6.0	282.0	
N line			8.2	279.8	
T.P.	1.75	N.I. 277.03	12.70	275.28	
	250' W				
N line			2.7	274.3	
			1.3	275.7	
			0.8	276.2	
C			0.7	276.3	
			1.1	274.9	
			3.3	273.7	
So line			3.6	273.4	

277.03

225' W

So line		277.03	13.0	264.0
			12.3	264.7
			13.4	263.6
C			13.5	263.5
			13.2	263.8
			14.5	262.5
N line			14.5	262.5
		200' W		
		H.I.		
T.P.	1.26	258.73	11.10	254.47
N line			4.3	251.4
			4.8	250.9
			4.1	251.6
C			3.7	252.0
			3.9	251.8
			3.7	252.0
So line			3.7	252.0

258.73

188' W

So line			8.2	247.5
			7.8	247.9
			7.0	248.7
C			6.7	249.0
			7.6	248.1
			10.3	245.4
N line			11.1	244.6
		175' W		
N line			17.9	237.8
			15.0	240.7
			13.5	242.2
C			10.9	244.8
			7.8	247.9
			5.2	250.5
			2.8	252.9
So line				
		H.I.		
T P	1.26	263.37	12.72	264.31

	265.57			
	150' W			
N. line			18.9	246.7
			17.0	248.6
			17.0	248.6
C			14.6	251.0
			9.8	255.8
			6.7	258.9
So line			3.5	262.1
	125' W			
	H.L.			
N line	277.03		18.5	258.5
			17.3	259.7
			18.2	258.8
C			18.9	258.1
			13.7	263.3
			8.9	268.1
S line			3.7	273.3
T.S.			12.2	264.31

	277.03			
	100' W			
So line	295.80		14.7	281.1
	277.03		2.3	274.7
			7.0	270.0
C			8.8	268.2
			6.4	270.6
			5.2	271.8
N line			6.9	270.1
		H.L.		
T.P.	11.35	295.80	3.53	284.45
		75' W		
So. line			9.7	286.1
			13.6	282.2
			15.9	279.9
C			16.1	279.7
			14.5	281.3
			13.0	282.8
N line			17.1	278.7

295.80

50' W

N. line		11.5	284.3
		10.2	285.6
		10.1	285.7
C		8.8	287.0
		9.0	286.8
		8.8	287.0
So line		8.1	287.7
	25' W		
So. line		7.9	287.9
		8.2	287.6
		8.3	287.5
C		8.4	287.4
		8.9	286.9
		9.3	286.5
N line		9.6	286.2

295.80

Sect. on A.B.

N line		8.6	287.2
		8.2	287.6
		8.1	287.7
C		8.0	287.8
		7.4	288.4
		6.8	289.0
So line		6.7	289.1
	West line Vermont.		
So line		6.7	289.1
		6.6	289.2
		6.8	289.0
C		7.5	288.3
		7.2	288.6
		7.1	288.7
N line		7.0	288.8

295.80

W. cb

n line		6.8	289.0
		6.9	288.9
		6.8	289.0
c		7.2	288.6
		7.0	288.2
		6.8	289.0
So line		6.5	289.3
	W 1/4		
So line		6.4	289.4
		6.5	289.3
		6.9	288.9
c		6.6	289.2
		6.2	289.6
		6.3	289.5
n line		6.0	289.8

295.80

Center

n line		5.6	290.2
		5.6	290.2
		5.6	290.2
c		6.0	289.8
		5.6	290.2
		5.1	290.7
So line		6.5	289.3
	E 1/4		
So line		6.2	289.6
		5.2	290.6
		5.4	290.4
c		6.2	289.6
		6.0	289.8
		6.1	289.7
n line		6.4	289.4

295.80

E. ℄

N line		5.8	290.0
		6.2	289.6
		5.1	290.7
℄		5.1	290.7
		5.1	290.7
		4.8	291.0
So line		6.0	289.8
	East line Vermont		
So line		5.3	290.5
		3.7	292.1
		4.7	291.1
℄		5.1	290.7
		5.0	290.8
		4.2	291.6
N line		5.5	290.3

295.80

Section ℄ 20

N. line		5.5	290.3
		4.0	291.8
		4.5	291.3
℄		4.6	291.2
		3.5	292.3
		4.0	291.8
So line		5.0	290.8
	25' East ℄ 20		
So line		4.5	291.3
		4.6	291.2
		4.2	291.6
℄		4.6	291.2
		4.6	291.2
		4.4	291.4
N line		4.2	291.6

295.80

50' E

N line		4.3	291.5
		4.3	291.5
		4.3	291.5
C		4.1	291.7
		3.9	291.9
		4.2	291.6
So line		3.9	291.9

75' E

So line		2.8	293.0
		3.4	292.4
		3.7	292.1
C		3.9	291.9
		4.0	291.8
		4.0	291.8
N line		3.8	292.8

295.80

100' E

N line		3.8	292.0
		3.8	292.0
		3.3	292.5
C		3.2	292.6
		2.8	293.0
		2.9	292.9
So line		2.7	293.1

125' E

So line		2.8	293.0
		2.7	293.1
		2.8	293.0
C		3.1	292.7
		2.7	293.1
		2.8	293.0
N line		2.8	293.0

295.80

150' E

N line	2.4	293.4
	2.7	293.1
	2.5	293.3
C	2.4	293.4
	2.2	293.6
	1.9	293.9
S line	1.8	294.0

175' E

S line	1.4	294.4
	1.5	294.3
	1.6	294.2
C	2.2	293.6
	1.6	294.2
	2.4	293.4
N line	2.2	293.6

295.80

200' E

N line	2.2	293.6
	2.5	293.3
	1.8	294.0
C	1.6	294.2
	1.2	294.6
	1.0	294.8
S line	1.1	294.7

225' E

S line	4.2	291.6
	4.0	291.8
	5.3	290.5
C	5.6	290.2
	2.7	293.1
	4.1	291.7
N line	3.2	292.6

295°80

225° E

N line			6.3	289.5
			6.8	289.0
			5.8	290.0
C			7.3	288.5
			6.9	288.9
			6.2	289.6
S line			5.7	290.1
J.P.	0.15	H.I. 283.62	12.33	283.47

250° E

S line			3.4	280.2
			4.2	279.4
			5.2	278.4
C			6.0	277.6
			5.9	277.7
			6.9	276.7
N line			5.5	278.1
J.P.	0.67	H.I. 272.24	12.05	271.57

272.24

270° E

S line	0.5	271.7
	3.2	269.0
	4.2	268.0
C	4.9	267.3
	4.9	267.3
	4.0	268.2
N line	4.4	267.8

295° E

N line	13.7	258.5
	12.8	259.4
	10.9	261.3
C	10.1	262.1
	8.6	263.6
	8.0	264.2
S line	7.6	264.6

272.24

300' E

Solive	6.4	265.8	
	5.7	266.5	
	5.5	266.7	
C	6.2	266.0	
	8.1	264.1	
	8.8	263.4	
Nline	10.1	262.1	

283.62

325' E

N.line	13.8	269.8	
	11.7	271.9	
	9.1	274.5	
C	6.3	277.3	
	6.7	276.9	
	6.1	277.5	
Solive	6.7	276.9	

350' E

H.I.

Solive	299.16		14.4	284.8
			13.3	285.9
			13.2	286.0
C			13.7	285.5
			15.4	283.8
	283.62		1.4	282.2
Nline			2.9	280.7
		H.I.		
T.P.	6.09	299.16	2.73	293.07

375' E

Nline	8.2	291.0	
	8.1	291.1	
	8.1	291.1	
C	6.7	292.5	
	7.0	292.2	
	6.8	292.4	
Solive	6.9	292.3	

299.16

400' E

Solns	5.0	294.2	
	5.1	294.1	
	5.5	293.7	
C	5.1	294.1	
	5.8	293.4	
	5.8	293.4	
Nhis	5.5	293.7	

425' E

Nhis	3.6	295.6	
	4.0	295.2	
	4.3	294.9	
C	3.5	295.7	
	4.3	294.9	
	3.8	295.4	
Solns	3.8	295.4	

299.16

450' E

Solns	2.9	296.3	
	2.9	296.3	
	3.2	296.0	
C	2.3	296.9	
	3.0	296.0	
	3.3	295.9	
Nhis	2.9	296.3	

475' E

Nhis	2.1	297.1	
	2.5	296.7	
	2.5	296.7	
C	1.7	297.5	
	2.8	296.4	
	2.2	297.0	
Solns	2.1	297.1	

~~273~~

299.16

500' E

Soline		1.7	297.5
		1.7	297.5
		2.0	297.2
C		1.2	298.0
		2.1	297.1
		1.7	297.5
Nline		1.4	297.8

525' E

Nline		0.8	298.4
		1.1	298.1
		1.3	297.9
C		0.7	298.5
		1.3	297.9
		1.4	297.8
Soline		1.5	297.7

299.16

550' E

Soline		1.1	298.1
		1.1	298.1
		1.3	297.9
C		0.1	299.1
		1.1	298.1
		0.7	298.5
Nline		0.8	298.4

(580' E) Sect on E.F.

Nline		0.6	298.6
		0.5	298.7
		0.5	298.7
C		0.0	299.2
		0.4	298.8
		0.5	298.7
Soline		0.6	298.6

299.16

West line Richmond

So line			0.4	298.8	
			0.4	298.8	
			0.9	298.3	
C			0.0	299.2	
			0.6	298.6	
		POSTED	0.5	298.7	
N line			0.6	298.6	
T.P.	2.76	H.I. 301.29	0.63	298.53	B.M.
		W.Cb.			
N. line			2.9	298.4	
			2.8	298.5	
			2.6	298.7	
C			2.6	298.7	
			2.3	299.0	
			2.9	298.4	
So line			2.5	298.8	

301.29

W 1/4

So line	3.0	298.3	
	2.7	298.6	
	2.8	298.5	
C	2.8	298.5	
	2.7	298.6	
	2.9	298.4	
N line	3.1	298.2	
Center			
N line	3.0	298.3	
	3.0	298.3	
	2.8	298.5	
C	2.7	298.6	
	2.9	298.4	
	3.1	298.2	
So line	2.6	298.7	

E 1/4

So line		3.1	298.2
		3.3	298.0
		3.7	297.6
1/4 + 9'		4.1	297.2
C		3.1	298.2
		3.3	2980
		3.2	298.1
N line		3.4	297.9
	E Cb		
N line		3.7	297.6
		3.5	297.8
		3.3	298.0
1/4 + 8'		5.5	295.8
C		4.8	296.5
		4.2	297.1
		4.2	297.1
Cb + 4'		4.1	297.2
+ 9'		2.3	299.0
So line		2.3	299 0

W. line = N line on account of angle

N. line Richmond

E line		2.9	298.4
		4.0	297.3
Cb + 6'		6.0	295.3
		5.5	295.8
C		5.6	295.7
		6.2	295.1
1/4 + 7'		3.5	297.8
		3.6	297.7
W line		3.8	297.5
	25' N		
W line		4.4	296.9
		4.5	296.8
Cb + 5'		4.7	296.6
		7.4	293.9
C		6.9	294.4
		7.1	294.2
1/4 + 5'		~~7.3~~	294.0
		4.7	296.6
E line		3.4	297.9

	50' N		
Elmo	4.0	297.3	
	4.6	296.7	
	8.9	292.4	
C	8.2	293.1	
	8.5	292.8	
	4.7	296.6	
Wlmo	4.8	296.5	
	60' N (So. Elmo Passive)		
Wlmo	6.3	295.0	
	5.5	295.8	
	9.4	291.9	
C	8.8	292.5	
	9.4	291.9	
	5.2	296.1	
Elmo	4.3	297.0	

	So. Cb		
Elmo	5.5	295.8	
	6.8	294.5	
Cb + b'	7.3	294.0	
	10.2	291.1	
C	9.8	291.5	
	10.2	291.1	
1/4 + 8'	7.9	293.4	
	7.9	293.4	
Wlmo	8.9	292.4	
	So. 1/4		
Wlmo	14.0	287.3	
	12.2	289.1	
	11.0	290.3	
C	10.9	290.4	
	11.6	289.7	
1/4 + 7'	9.4	291.9	
	9.0	292.3	
Elmo	7.9	293.4	

		301.29					290.80		
		Center					N. eb		
E line			10.9	290.4	E line		6.8	284.0	
			12.0	289.3			8.7	282.1	
			12.0	289.3			2.9	287.9	
C			11.9	289.4	C		2.9	287.9	
			12.4	288.9			3.8	287.0	
	H.I.	290.80	7.6	283.2			13.2	277.6	
W line			9.4	281.4	W line		19.8	271.0	
		N 1/4					North line Pasture		
W line			11.1	279.7	W line		14.9	276.9	
			14.7	276.1			11.0	279.8	
	H.I. 301.29		13.3	288.0			4.1	286.7	
C			12.7	288.6	C		3.3	287.5	
			12.9	288.4	C+10'		3.6	287.2	
1/4+8'			15.7	285.6			6.6	284.2	
			15.7	285.6			13.1	277.7	
E line			14.0	287.3	E line		13.9	276.9	
JB	2.57	H.I. 290.80	13.06	288.23					

(13.3 N. Pascoe)		175' N. Richmond		
E line			13.9	276.9
			11.5	279.3
			3.1	287.7
C			2.7	288.1
			3.1	287.7
1/4 + 7'			2.4	288.4
			5.0	285.8
W line			7.6	283.2
		184' N		
W line			1.7	289.1
			2.1	288.7
			2.9	287.9
C			2.4	288.4
C + 10'			2.6	288.2
			3.8	287.0
			7.5	283.3
E line			10.0	280.8

		Σ 90.80			
		Σ 00' N			
E line			3.4	287.4	
			2.8	288.0	
			1.1	289.7	
C			1.2	289.6	
			1.4	289.4	
			0.7	290.1	
W line			1.0	289.8	
T.P.	11.75	H.I. 302.33	0.22	290.58	
		Σ 25' N			
W line				10.7	291.6
				10.3	292.0
				10.7	291.6
C				10.6	291.7
				11.0	291.3
				9.8	292.5
E line				9.7	292.6

		250' N		
Elive			7.9	294.4
			8.0	294.3
			9.2	293.1
C			8.5	293.8
			9.1	292.2
			8.6	293.7
Wlive			8.6	293.7
		275' N		
Wlive			6.8	295.5
			6.8	295.5
			7.3	295.0
C			6.9	295.4
			6.9	295.4
			6.2	296.1
Elive			6.1	296.2

		300' N		
Elive			4.3	298.0
			4.7	297.6
			5.6	296.7
C			5.3	297.0
			5.9	296.4
			5.4	296.9
Wlive			5.3	297.0
		325' N		
Wlive			4.2	298.1
			3.9	298.4
			4.5	297.8
C			3.7	298.6
			3.9	298.4
			3.4	298.9
Elive			3.4	298.9

	35 8' N		
E line		2.4	299.8
		2.6	299.7
		3.3	299.0
C		2.8	2995
		3.3	299.0
		2.9	299.4
W line		2.7	299.6
	35 9' N		
W line		2.2	300.1
		2.1	300.2
		2.8	299.5
C		2.2	3001
		2.9	2994
		2.3	300.0
E line		2.3	300.0

	So. line Lincoln		
E line		1.7	300.6
		1.6	300.7
		2.0	3003
C		1.8	3005
		2.4	299.9
		2.1	300.2
W line		2.2	300.1

10/7/07 Hatch Donnan Williams — Section Quincy St. 5th St. to Park —

BM SW Hack	633 5th Quincy	284.39		278.6	
	E L.	5th			
N			4,5		279.9
cb			4.8		279.6
1/4			5,1		279.3
cr			5,1		279.3
1/4			5,1		279.3
cb			5,2		279.2
S			5,1		279.3
	50' E.				
S			4.7		279.7
cb			5,0		279.4
1/4			5,3		279.1
cr			5,0		279.4
1/4			4,9		279.5
cb			5,0		279.4
N			4.7		279.7

POSTED

POSTED

	100' E				
N			4,5		279.9
cb			4,8		279.6
1/4			4.8		279.6
cr			4.8		279.6
1/4			5,1		279.3
cb			4.9		279.5
S			4,5		279.9
	150' E				
S			4,9		279.5
cb			4,9		279.5
1/4			5,2		279.2
cr			4,9		279.5
1/4			4,6		279.8
cb			4,9		279.5
N			4,1		280.3

= Park Line

N	3.7	280.7
ab	4.1	280.3
1/4	4.7	279.7
cr	4.4	280.0
1/4	5.0	279.4
cb	4.8	279.6
S	4.6	279.8

POSTED

1/22/08 Dunkle Dorman Shaw levels on sewer C-St 4th & C

B.M. 49.265 S.E. Cor No 2 Hydt
" " 49.888 N.E Cor " "

POSTED

49.26
2.48
51.74
8.74 T.P.
43.00
2.50 B.S.
45.50 H.I
8.95
36.55

Elevation sewer 3rd & C = 36.55
24' N of S curb line C-Street
25.7' W " E " " 3rd "

45.50
6.98 T.P.
38.52 B.M.
1.90 B.S.
40.42 H.I
8.20
32.22

Elevation sewer 2nd & C = 32.22
24.6' N. of S curb line C Street
26.1' W " E " " 2nd "

40.42 H.I.
9.97 T.P.
30.45
3.15 B.S.
33.60 H.I
6.23
27.37

Elevation sewer 1st & C = 28.87
24.7 N of S curb line C St
26.1 W " E " " 1st "

33.60 H.I
9.29
24.31

33.60 H.I
9.51 T.P.
24.09
2.56
26.65 H.I.
6.08
20.57

Elevation sewer Front & C = 27.37
26.8' N of S curb line C St
26.3' W " E " " Front St

26.65 H.I
12.60
14.05

26.65 H.I
8.14 T.P.
18.51
1.26
19.77 H.I
10.36
9.41

Elevation sewer Union & C = 24.31
26.8' N of S curb line C St
17.3' W " E " " Union

10.09
5.15
15.24
11.17
4.17

38.52
0.55
39.07
9.10
29.97
.55
30.52

30.52
1.75
28.77

19.77 H.I.
9.68
10.09 B.M. for Atlantic
2.60 B.S.
12.69 H.I
10.58
2.11

Elevation sewer State & C = 20.57
25.9' N of S curb line C St
25' W of E " " State

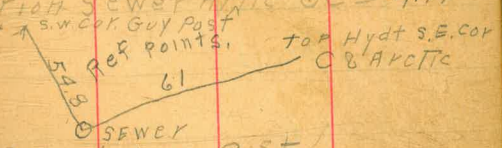
12.69
9.67
3.02 B.M. for Atlantic

Elevation Sewer Columbia & C = 14.05
12.9 N. of S. curb line C St
25.4' W. " E. " " Columbia

POSTED

Elevation sewer India & C = 9.41
19' N. of S. curb line C St
25.5' W. of E. " " India St

47' N. of S. curb line C St
Elevation Sewer Arctic & C = 4.17



144' N. of S. curb line C St
Elevation Sewer Calif Ave = 2.11

Elevation sewer Atlantic & C
not uncovered

Levels on Sewers at 16th & E

3/2/08 Shattuck
Bates

9/26/08 Hatch more Churchman	sections Fern St		Date to Grape		63
SL Grape	60.0				
NL Fir	57.6				
SL Fir	56.8				
NL Elm	53.9				
SL "	53.0				
BM	9.08	235.09		226.01	Spk Corral Fence
		NL South Park			
W			8.6	226.5	
b			8.6	226.5	
1/c			8.6	226.5	
c			8.7	226.4	
1/c			9.0	226.1	
b			8.9	226.2	
E			8.7	226.4	
		50' N.			
E			7.1	228.0	
b			6.8	228.3	
1/c			6.5	228.6	
c			6.2	228.9	
1/4			6.4	228.7	
b			5.8	229.3	

Portion

Plotted

$40 / 950 / 20.00 / 360 / 320.00

		2350.9		
W			5.6	229.5
		100 W.		
W			1.5	233.6
cb			2.0	233.1
1/a			2.7	232.4
c			3.0	232.1
1/a			3.7	231.4
cb			4.5	230.6
E			4.7	230.4
		121 W. = 5L	Date	
E			3.4	231.7
cb			3.1	232.0
1/a			2.4	232.7
c			1.2	233.9
1/a			0.7	234.4
cb			0.4	234.7
W			0.1	235.0
T.P.	10.03	2345.5	0.07	2350.2

	2345.5		
	5 cb. Date		
W	9.0	236.1	
cb	9.6	235.5	
1/a	10.1	235.0	
c	10.4	234.7	
1/a	11.0	234.1	
cb	12.4	232.7	
E	13.0	232.1	
	5 1/a Date		
E	12.2	232.9	
cb	11.2	233.9	
1/a	10.4	234.7	
c	9.4	235.7	
1/a	9.1	236.0	
cb	8.6	236.5	P
W	7.4	237.7	

24505

Cr Date

W	6,2	238.9
cb	7,4	237.7
1/a	7,9	237.2
c	8,6	238.5
1/a	9,5	235.6
cb	10,9	234.7
E	11,5	233.6

N/a Dat

E	10,9	234.2
cb	9,8	234.3
1/a	8,5	236.6
c	7,4	237.7
1/a	7,0	238.1
cb	6,4	238.7
W	5.2	239.9

P

24505

N cb Date

W	4,5	240.6
cb	5,8	239.3
1/a	6,3	238.8
c	6,6	238.5
1/a	8.3	236.8
cb	9.0	236.1
E	10.3	234.8

N1 Date

E	9,6	235.5
cb	8,6	236.5
1/a	7.6	237.5
c	6,2	238.9
1/a	5.9	239.2
cb	5.3	239.8
W	3.7	241.4

P

24505

50' N of Date

W			1,7	243.4
b			3,5	241.6
1/a			4,7	240.9
c			4,3	240.8
1/a			5,8	239.3
b			6,9	238.2
E			7,8	237.3
	100' N			
E			6.1	239.0
b			5,5	239.6
1/a			4,1	241.0
c			3,1	242.0
1/a			2,4	242.7
a			1,5	243.6
W			+0.2	245.3
T.P	7.25	25212	0.18	244.87

25212

150' N

W	6.2	246.9	
b	6.8	245.3	
1/a	7.6	244.5	
c	8,0	244.1	
1/a	9.4	242.7	
b	11,1	241.0	
E	11.2	240.9	
	200' N		
E	8.2	243.9	
b	7,7	244.4	
1/a	6.8	245.3	
c	5,8	246.3	
1/a	5.6	246.5	
a	4,8	247.3	
W	3.5	248.6	

25212

250 N.

W		1.1	251.0
d		2.8	249.3
1/a		4.0	248.1
c		4.6	247.5
1/a		5.3	246.8
cb		6.1	246.0
E		7.2	244.9
	300 N = 31. Elm.		
12'E.		12.7	239.4
E.		9.8	242.3
cb		7.4	244.7
1/a		5.7	246.4
c		4.8	247.3
1/a		4.9	247.2
cb		3.1	249.0
W		1.7	250.4
+12			

25212

5 cb. Elm

W		2.0	250.1
cb		3.6	248.5
1/a		4.6	247.5
c		4.8	247.3
1/a		5.3	246.8
+4		6.0	246.1
cb		7.6	244.5
E		11.2	240.9
+12		14.6	237.5
3/a	Elm.		
8'E		16.2	235.9
E		13.0	239.1
cb		9.2	242.9
1/a		5.0	247.1
c		5.1	247.0
1/a		5.2	246.9
cb		3.8	248.3
W		2.3	249.8

25212

On Elm

W.	2.3	249.8
ab	4.6	247.5
1/a	5.3	246.8
a	6.6	246.5
1/a	5.7	246.7
ab	9.8	242.3
E	14.1	238.0
+8'	18.0	234.1

N/a Elm

3'E	18.5	233.6
E	14.7	237.4
ab	10.4	241.7
1/a	6.0	246.1
c	5.8	246.3
1/a	5.7	246.4
ab	4.9	247.2
W	2.6	249.5

25212

NCh. Elm.

W	2.3	249.8
ab	4.8	247.3
1/a	5.7	246.4
a	6.0	246.1
1/a	6.5	245.6
ab	10.8	241.3
3'w of E.	14.8	237.3
E	17.5	234.6

N. Elm

7'E	20.5	231.6
E	16.5	235.6
ab	11.7	240.4
1/a	6.6	245.5
a	6.0	246.1
1/a	5.7	246.4
ab	4.8	247.3
W	2.0	250.1

		252.12		
	25' N of Elm			
W			2,2	249.9
cb			4,9	247.2
1/4			5,3	246.8
c			6,0	246.1
1/4			6,5	245.6
cb			11,3	240.8
E			14,1	238.0
10'			20,0	232.1
	50' N			
8' E			12,0	240.1
E			16,4	235.7
4' W of EL.			14,0	238.1
cb			11,2	240.9
1/4			6,2	245.9
c			5,9	246.2
1/4			5,6	246.5
cb			4,5	247.6
m			1,8	250.3

9 Hatch
28 Moore
08 Dezief

		252.12		
T.P.	4.75	255.63	12.4	250.88
		75' N		
W			5.0	250.6
cb			7.8	247.8
1/4			7.8	247.8
4' W of Cr.			10,1	245.5
Cr.			9,9	245.7
+7			10,0	245.6
1/4			11,4	244.6
cb.			15,1	240.5
5' W of EL			15.6	240.0
E			13.5	242.1
+10			10,9	244.7
		100' N		
15' E of EL			9.5	246.1
E			10.7	244.9
cb			12.8	242.8

	25563		
¼	10.1	242.5	
C	9.7	245.9	
¼	9.8	245.8	
¼	7.1	248.5	
Sh.	7.3	248.3	
W	4.7	250.9	
	125 N		
W	4.4	251.2	
Sh.	6.7	248.9	
¼	7.4	248.2	
C	9.1	246.5	
¼	6.9	248.7	
Sh.	5.4	250.2	
E	8.1	247.5	
	150 N		
E	5.9	249.7	
Sh	5.1		

	25563		
¼	5.1	250.5	
C	7.8	248.3	
¼	6.0	249.6	
Sh	6.0	249.6	
W	3.6	252.0	
	175 N		
W	2.8	252.8	
Sh	5.1	250.5	
¼	4.9	250.7	
C	5.1	250.5	
¼	4.2	251.4	
Sh	3.9	251.7	
E	4.0	251.6	
	200 N		
E	2.9	252.7	
Sh	3.4	252.2	
¼	3.5	252.1	

		25563		
c			3,6	252,0
1/4			3,4	252.2
cb			3.5	252.1
W			1,0	254.6
T.P.	845	263.38	0,70	254,93
		250' N.		
W			5.9	257.5
cb			7.7	255.7
1/4			7.9	255.5
c			8,4	255.0
1/4			9,1	254.3
cb			9,0	254.4
E			8,4	255.0
		300' N = S1 Fir.		
E			6.0	257.4
cb			6.1	257.3
1/4			5.7	257.7

		263.38		
c			6.0	257.4
1/4			5.3	258.1
cb			5,0	258.4
W			4.2	259.2
		S cb Fir		
W			3,2	260.2
cb			4,0	259.4
1/4			4.9	258.5
c			4.7	258.7
1/4			5,0	258.4
cb			5,4	258.0
E			5,1	258.3
		S 1/4 Fir		
E			4.5	258.9
cb			4.7	258.7
1/4			4,5	258.9
c			4.5	258.9

	26338		
1/4		4.5	258.9
ab		3.9	259.5
W		3.0	260.4
	Cr. Fir		
W		2.9	260.5
ab		3.6	259.8
1/a		3.9	259.5
c		3.8	259.6
1/4		4.0	259.4
ab		4.3	259.1
E		4.6	258.8
	W 1/4 Fir		
E		3.7	259.7
ab		3.8	259.6
1/a		3.2	260.2
c		3.3	260.1
1/4		3.3	260.1

	26338		
ab		2.7	260.7
W		2.2	261.2
	W ab. Fir		
W		1.4	262.0
ab		2.1	261.3
1/a		2.6	260.8
c		2.8	260.6
1/4		2.9	260.5
ab		3.3	260.1
E		3.3	260.1
	NE Fir		
E		2.8	260.6
ab		3.0	260.4
1/a		2.7	260.7
c		1.8	261.6
1/4		2.1	261.3
ab		1.6	261.8
W		0.9	262.5

		263.38		
T.P.	866	271.84	0.20	263.18
		50 N.		
W			7.3	264.5
b			8.1	263.7
1/a			8.8	263.0
c			8.8	263.0
1/a			9.2	262.6
d			9.5	262.3
E			9.6	262.2
		100 N.		
E			8.0	263.8
b			8.1	263.7
1/a			7.8	264.0
C			7.5	264.3
1/a			7.4	264.4
b			6.6	265.2
W			6.8	266.0

		271.84		
		150 N.		
W			4.1	267.7
b			5.0	266.8
1/a			5.8	2660
a			5.5	266.3
1/a			6.3	265.5
d			6.5	266.3
E			6.3	265.5
		200 N.		
E			4.9	266.9
b			4.9	2669
1/a			4.4	2674
c			4.4	267.4
1/a			4.1	2677
d			3.4	2684
W			2.6	269.2

July 84

250 N.

W		1,8	270.0
SW		2.4	26.94
W/S		3,2	268.6
S		3,4	268.4
W/S		3,1	268.7
SW		3,1	2689
E		3,1	268.7

300 N = 31 Grape.

E		2.4	269.4
SE		2.2	269.6
E/S		2.0	2698
S		2.0	269.8
E/S		2,1	269.7
SE		1.7	270,1
W		0.98	270.8

Hub.

28517
mt 811
277.06

1185
364
1550

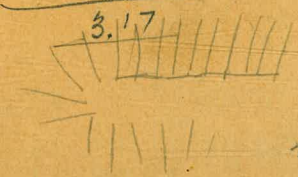
+ 1205
47
1675

470
364
1.06

27 El
mt Anderson
28017 Cr " EL 5th

8
5
3.1

3.17



22

78
18
60
39
2.1

7.80
389
3.91

60
4.46
1.5

78
4.5
3.3

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

For Single Track Embankment.

Roadway 14 feet wide. Side Slopes 1½ to 1.

	.0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.0	7.2	7.3	7.5	7.6	7.8	7.9	8.1	8.2	8.4	0
1	8.5	8.7	8.8	9.0	9.1	9.3	9.4	9.6	9.7	9.9	1
2	10.0	10.2	10.3	10.5	10.6	10.8	10.9	11.1	11.2	11.4	2
3	11.5	11.7	11.8	12.0	12.1	12.3	12.4	12.6	12.7	12.9	3
4	13.0	13.2	13.3	13.5	13.6	13.8	13.9	14.1	14.2	14.4	4
5	14.5	14.7	14.8	15.0	15.1	15.3	15.4	15.6	15.7	15.9	5
6	16.0	16.2	16.3	16.5	16.6	16.8	16.9	17.1	17.2	17.4	6
7	17.5	17.7	17.8	18.0	18.1	18.3	18.4	18.6	18.7	18.9	7
8	19.0	19.2	19.3	19.5	19.6	19.8	19.9	20.1	20.2	20.4	8
9	20.5	20.7	20.8	21.0	21.1	21.3	21.4	21.6	21.7	21.9	9
10	22.0	22.2	22.3	22.5	22.6	22.8	22.9	23.1	23.2	23.4	10
11	23.5	23.7	23.8	24.0	24.1	24.3	24.4	24.6	24.7	24.9	11
12	25.0	25.2	25.3	25.5	25.6	25.8	25.9	26.1	26.2	26.4	12
13	26.5	26.7	26.8	27.0	27.1	27.3	27.4	27.6	27.7	27.9	13
14	28.0	28.2	28.3	28.5	28.6	28.8	28.9	29.1	29.2	29.4	14
15	29.5	29.7	29.8	30.0	30.1	30.3	30.4	30.6	30.7	30.9	15
16	31.0	31.2	31.3	31.5	31.6	31.8	31.9	32.1	32.2	32.4	16
17	32.5	32.7	32.8	33.0	33.1	33.3	33.4	33.6	33.7	33.9	17
18	34.0	34.2	34.3	34.5	34.6	34.8	34.9	35.1	35.2	35.4	18
19	35.5	35.7	35.8	36.0	36.1	36.3	36.4	36.6	36.7	36.9	19
20	37.0	37.2	37.3	37.5	37.6	37.8	37.9	38.1	38.2	38.4	20
21	38.5	38.7	38.8	39.0	39.1	39.3	39.4	39.6	39.7	39.9	21
22	40.0	40.2	40.3	40.5	40.6	40.8	40.9	41.1	41.2	41.4	22
23	41.5	41.7	41.8	42.0	42.1	42.3	42.4	42.6	42.7	42.9	23
24	43.0	43.2	43.3	43.5	43.6	43.8	43.9	44.1	44.2	44.4	24
25	44.5	44.7	44.8	45.0	45.1	45.3	45.4	45.6	45.7	45.9	25
26	46.0	46.2	46.3	46.5	46.6	46.8	46.9	47.1	47.2	47.4	27
27	47.5	47.7	47.8	48.0	48.1	48.3	48.4	48.6	48.7	48.9	27
28	49.0	49.2	49.3	49.5	49.6	49.8	49.9	50.1	50.2	50.4	28
29	50.5	50.7	50.8	51.0	51.1	51.3	51.4	51.6	51.7	51.9	29
30	52.0	52.2	52.3	52.5	52.6	52.8	52.9	53.1	53.2	53.4	30
31	53.5	53.7	53.8	54.0	54.1	54.3	54.4	54.6	54.7	54.9	31
32	55.0	55.2	55.3	55.5	55.6	55.8	55.9	56.1	56.2	56.4	32
33	56.5	56.7	56.8	57.0	57.1	57.3	57.4	57.6	57.7	57.9	33
34	58.0	58.2	58.3	58.5	58.6	58.8	58.9	59.1	59.2	59.4	34
35	59.5	59.7	59.8	60.0	60.1	60.3	60.4	60.6	60.7	60.9	35
36	61.0	61.2	61.3	61.5	61.6	61.8	61.9	62.1	62.2	62.4	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.