

874

874  
F.B.

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LEVEL BOOK.

No. 410 T

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MICROFILMED

DEC 15 1964

EUGENE DIETZGEN CO.,

Drawing Materials and Surveying Instruments.

NEW YORK.

CHICAGO.

SAN FRANCISCO.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.  
DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.  
ROADWAY 20 FEET WIDE. SIDE SLOPES 1 TO 1.  
FOR SINGLE TRACK EXCAVATION.

Copyright, 1902. No. 30340.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	0
1	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	1
2	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	2
3	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	3
4	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	4
5	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	5
6	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	6
7	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	7
8	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	8
9	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	9
10	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	10
11	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	11
12	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	12
13	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	13
14	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	14
15	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	15
16	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	16
17	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	17
18	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	18
19	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	19
20	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	20
21	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	21
22	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	22
23	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	23
24	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	24
25	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	25
26	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	26
27	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	27
28	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	28
29	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	29
30	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	30
31	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	31
32	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	32
33	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	33
34	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	34
35	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	35
36	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	36
37	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	37
38	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	38
39	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	39
40	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	40

Calculated by F. E. Paradis, C. E.

16 days  
25  
low  
X Sec of 29th St (60')  
2d Woolman to S L N St

974 100.74 91.00 Mon 30th  
Woolman

532 104.13 193 98.81 nwt

N line of Woolman

W 53 98.8

U 53 98.8

Y 55 98.6

L 51 99.0

V 50 99.1

M 52 98.9

E 56 98.5

25' N of Woolman

E 45 99.6

U 46 99.5

Y 49 99.2

L 49 99.2

V 47 99.4

M 45 99.6

W 48 99.3

10413

50

n f

Woodman

W	45	99.6
bl	42	99.9
y	42	99.9
b	42	99.9
y	42	99.9
h	42	99.9
E	40	100.1

75

n f

Woodman

E	34	100.7
h	37	100.4
y	36	100.5
b	38	100.3
y	37	100.4
h	34	100.7
W	38	100.3

10413

297

1

100

n f

Woodman

W	36	100.5
h	36	100.5
y	33	100.8
b	31	101.0
y	31	101.0
h	30	101.1
E	31	101.0

125

n f

Woodman

E	27	101.4
h	23	101.8
y	23	101.8
b	24	101.7
y	26	101.5
h	28	101.3
W	28	101.3

For Breaks in this Block  
See Page 46

10413

	150	n f	Woolman	
W			17	102.4
H			19	102.2
Y			17	102.4
L			20	102.1
"			20	102.1
U			22	101.9
E			23	101.8

	175	n f	Woolman	
E			37	100.4
H			35	100.6
Y			30	101.1
L			29	101.2
Y			26	101.5
H			22	101.9
W			20	102.1

10413

29th

2

	200	n f	Woolman	
W			34	100.7
H			34	100.7
Y			43	99.8
L			48	99.3
Y			50	99.1
H			51	99.0
E			50	99.1

	225	n f	Woolman	
E			66	97.5
H			65	97.6
Y			66	97.5
Y			65	97.6
Y			62	97.9
H			54	98.7
W			50	99.1

10413

9740

2901

3

	250	n f	Wulman	
W			71	97.0
H			77	96.4
V			83	95.8
L			88	95.3
Y			88	95.3
H			85	95.6
E			85	95.6

10413  
280  
96.23  
97.12  
97.49

TP 117 97.40 790 96.23

	275	n f	Wulman	
E			23	95.1
H			30	94.4
Y			35	93.9
L			42	93.2
Y			43	93.1
H			31	94.3
W			29	94.5

295 n f Wulman

W			52	92.2
H			50	92.4
V			63	91.1
L			66	90.8
Y			58	91.6
H			52	91.8
E			60	91.4

300 n - Sely Franklin (80) (Graded)

E			82	89.2
H			76	89.8
Y			76	89.8
L			74	90.0
V			71	90.3
H			67	90.7
W			65	90.9

9740

n line of Franklin

W		10.1	87.3
H		10.8	86.6
Y		11.0	86.4
L		11.3	86.1
Y		11.4	86.2
H		11.7	85.7
E	43'	11.3	85.1
		11.6	85.8

9740  
845  
8795  
115  
90.10

25' n of Franklin

E		11.4	86.2
H	45'	11.6	84.8
		10.9	86.5
Y		11.5	85.9
L		11.8	85.6
Y		10.9	86.5
H		11.3	86.1
W		10.9	86.5

70 215 90.10 945 8795

90.10

50 n of Franklin

W		4.0	86.1
H		4.6	85.5
Y		4.4	85.9
L		4.8	85.3
Y		5.0	85.1
H		4.4	85.9
E	45'	5.4	84.7
		4.5	85.6

75 n of Franklin

E		4.7	85.4
H	45'	6.6	83.5
		4.8	85.3
Y		5.4	84.7
L		5.4	84.7
Y		5.3	84.8
H		5.4	84.7
W		5.4	84.7

2902

4

9010

	100	n f	Franklin	
W			55 84.6	
W			61 84.0	
Y			55 84.6	
L			58 82.3	
Y			58 84.3	
W			60 84.1	
E	75'		68 83.3	
			65 83.9	

	125	n f	Franklin	
E			61 84.0	
	75'		76 82.5	
W			53 84.8	
Y			46 85.5	
L			48 85.3	
	75'		63 83.8	
Y			68 83.3	
W			68 83.3	
W			68 83.3	

9010

2902

5

	150	n f	Franklin	
W			64 83.7	
W			67 83.4	
Y			72 82.9	
L			68 83.3	
Y			68 83.3	
W			66 83.5	
E	78'		80 82.1	
			76 82.5	

	175	n f	Franklin	
E			73 82.8	
	70'		86 81.5	
W			71 83.0	
Y			77 82.4	
Y			78 82.3	
Y			80 82.1	
W			77 82.4	
W			77 82.4	



9010

9010

29.5

6

	200'	n 7	Franklin	
w			82	81.9
ll			84	81.7
y			85	81.6
b			85	81.6
y			75	82.6
ll			73	82.8
E	15'		89	81.2
			80	82.1

	250'	n 7	Franklin	
w			94	80.7
ll			94	80.7
y			96	80.5
b			96	80.5
y			97	80.8
ll			88	81.3
E	15'		91	80.5
			92	80.9

9010  
880  
80.30  
1.74  
82.04

	225'	n 7	Franklin	
E	15'		87	81.4
			92	80.9
ll			82	81.9
y			80	82.1
b			86	81.5
y			89	81.2
ll			87	81.4
w			86	81.5

	275'	n 6	Franklin	
E	15'		97	80.2
			105	79.6
ll			95	80.6
y			95	80.6
b			101	80.0
y			102	79.9
ll			100	80.1
w			102	79.9

TP 174 8204 980 8030

8204

298 n of Franklin

W		26	79.4
U		23	79.7
V		33	78.7
b		24	79.6
y		10	81.0
	+8'	15	80.5
U		37	78.3
	+1'	17	80.3
E		1.6	80.4

300 n = 5 lin blay st<sup>(80)</sup> (Graded)

E		37	78.3
H on bk		40	78.1
butte		47	77.3
y		33	78.7
b		34	78.6
by		38	78.2
U		36	78.4
W		33	78.7

434 77.70 Bm

8204

297

7

n lin of blay an

W		47	77.3
U		50	77.0
y		50	77.0
b		50	77.0
y		51	76.9
U		51	76.9
E		48	77.2

25 n of blay

E		50	77.0
U		55	76.5
y		53	76.7
b		53	76.7
y		52	76.8
U		53	76.7
W		53	76.7

82.04

50

n f

blay

w	60	76.1
u	60	76.0
y	62	75.8
t	63	75.7
y	62	75.8
u	60	76.0
E	61	75.9

75

n f

blay

E	68	75.2
u	68	75.2
y	69	75.1
t	71	74.9
y	70	75.0
u	66	75.4
w	67	75.3

82.04

82.04

100

n f

blay

w	69	75.1
u	71	74.9
y	72	74.8
t	74	74.6
y	70	75.0
u	68	75.2
E	70	75.0

125

n f

blay

E	81	73.9
u	78	74.2
y	80	74.0
t	80	74.0
y	77	74.3
u	76	74.5
w	75	74.5

29.4

8

8204

	150	n.f.	delay	
W			80	74.0
U			85	73.5
Y			80	74.0
L			82	73.8
V			86	73.4
U			83	73.7
E			81	73.9

8204  
268  
74.9  
336  
77.76

	TP	336	7776	764	7440
		175	n.f.	delay	
E				45	73.3
U				45	73.3
V				47	73.1
L				37	74.1
Y				37	74.1
U				43	73.5
W				43	73.5

7776

290

9

	200	n.f.	delay	
W			47	73.1
U			50	72.8
Y			48	73.0
L			49	72.9
V			50	72.8
U			48	73.0
E			48	73.0

	200	n.f.	delay	
E			51	72.7
U			50	72.8
V			50	72.8
L			51	72.7
Y			51	72.7
U			53	72.5
W			49	72.9

7276

250

n of

Clay

W	55	72.3
W	56	72.2
Y	54	72.4
L	54	72.4
Y	53	72.5
W	54	72.4
E	56	72.2

275

n of

Clay

E	58	72.0
W	57	72.1
Y	57	72.1
L	58	72.0
Y	57	72.1
W	59	71.9
W	57	72.1

Tp

567

7523

820

6960<sub>56</sub>

$$\begin{array}{r} 7276 \\ 6956 \\ \hline 567 \\ 7523 \end{array}$$

7523

298

n of

Clay

W	34	71.8
W	41	71.1
Y	43	70.9
L	48	70.4
Y	39	71.3
W	37	71.5
E	36	71.6

50

n =

S L Webster or (Graded)

(80)

E	45	70.7
W	45	70.7
Y	45	70.7
L	52	70.0
Y	50	70.2
W	47	70.5
W	52	70.0

10

7523

2 line of Wehster an

W	58	69.4
U	59	69.3
7	54	69.8
6	56	69.6
7	56	69.6
U	55	69.7
E	54	69.8

1 line of Wehster

E	42	71.0
U	43	70.9
U	42	71.0
6	53	69.9
6	56	69.6
4	52	70.0
4	41	71.1
U	39	71.3
W	44	70.8

7523

2907

11

25 line of Wehster

W	46	70.6
U	43	70.9
4	44	70.8
6	45	70.7
9	45	70.7
U	43	70.9
E	42	71.0

50 line of Wehster

E	46	70.6
U	47	70.5
7	47	70.5
6	46	70.6
7	44	70.8
U	48	70.4
W	49	70.3

7523

75' n f Webster

W W	43	70.9
W W	40	71.2
" "	45	70.7
b b	49	70.3
" "	49	70.3
W W	48	70.4
E E	48	70.4

100' n f Webster

E E	47	70.5
W W	48	70.4
" "	50	70.2
b b	49	70.3
" "	46	70.6
b b	42	71.0
W W	42	71.0

7523

140' n = Sd Valley Place (40')

W	46	70.6
W	47	70.5
"	47	70.5
"	47	70.5
"	49	70.3
W	49	70.3
E	49	70.3

Bal of this st to 2 S 2 W st  
is in B 830 P 40

Continued on Page 36 this Book

12

3/19/25  
 B. Show  
 X sec of Inaple 51 - (60')  
 India to Calamba

Gradbook 68-72  
 Ser. book 6  
 9083

Mapt  
 13

11' chs				mon Sunnet
	1245	6878	56.33	
	1275	5087	066	6812
	E of India 51			
S			2.3	78.6
h			2.9	78.0
u			2.5	78.4
b			2.3	78.6
u			2.3	78.6
h			2.4	78.5
n			1.8	79.1
	1184	9083	784	7899
	20	E of India		
n			9.3	81.5
h	75		11.2	79.6
u			11.7	79.2
u			11.9	78.9
b			11.8	79.0
u			12.3	79.6
h			12.4	78.2
S			11.6	79.2

	25'	E of	India	
S			100	80.8
h			104	80.4
u			97	81.1
h			95	81.3
u			93	81.5
h			85	82.3
n			68	84.0
	50	E of	India	
n			46	86.2
h			60	84.8
u			65	84.0
b			75	83.3
u			88	82.0
h			90	81.8
S			81	82.7
	62'	E		
S			67	83.9



9083

	75'	E	Inch	
S			20	888
	+8'		15	893
U			55	853
Y			60	848
L			60	848
Y			46	86.2
U			38	87.0
N			28	88.0

9083  
20  
90.5  
28  
86.2  
99.3

	86	E		
N			15	89.3
U			30	87.8
Y			29	87.9
	+5'		41	86.7
L			47	86.1
Y			41	86.7
	+5'		18	90.0
U			05	90.3
S			09	89.9

TP 884 9934 0.29 9054

9934

Maple

14

	100'	E	g	Inch
S			83	91.1
U			82	91.2
Y			84	91.0
L			87	90.7
Y			94	90.0
U			95	89.9
N			87	90.7

	105'	E	Inch	
N			50	94.4
U			48	94.6
Y			53	94.1
	+4'		70	92.4
L			70	92.4
Y			68	92.6
U			67	92.7
S			70	92.4

9938

150

E of

Inter

S		6.1	93.3
H		5.9	94.5
Y		5.3	94.1
L		5.3	94.1
"	75	3.6	95.8
"		3.2	96.2
H		2.8	96.6
N		2.4	97.0

175

N		0.9	98.5
H		2.0	97.4
Y		3.2	96.2
L		3.9	95.5
"		4.7	94.7
H		5.4	94.0
S		6.0	93.4

9938

Maple

15

200

E = WS

Calumet

(Banded)

S		7.1	92.3
H		6.0	93.4
Y		5.3	94.1
L		4.8	94.6
"	75	3.4	96.0
"		2.4	97.0
H		0.6	98.8
N		+0.4	99.8

200

E = WSW

Calumet

N		6.0	93.4
H		6.5	92.9
Y		6.2	93.2
L	79	4.8	94.6
"		5.3	94.1
H		6.0	93.4
S		7.1	92.3

16



## Sec. C

W	1.8	298.5
cb	1.7	298.6
1/4	2.3	298.0
C	2.2	298.1
1/4	2.3	298.0
cb	2.3	298.0
E = west of Richmond on Sec. H	1.6	298.7

## Sec. D

E = west of Richmond on Sec. H	1.8	298.5
cb	2.0	298.3
1/4	2.1	298.2
C	2.5	297.8
1/4	1.6	298.7
cb	1.8	298.5
W	2.0	298.3

## Sec. E

W	2.2	298.1
cb	2.0	298.3
1/4	1.7	298.6
C	2.2	298.1
1/4	2.1	298.2
cb	2.0	298.3
E = center of Richmond on Sec. H	1.7	298.6

## Sec. F

E = East 1/4 of Richmond on Sec. H	1.9	298.4
cb	2.4	297.9
1/4	2.7	297.6
+ 7	2.9	297.4
C	2.1	298.2
1/4	2.2	298.1
cb	2.1	298.2
W	2.3	298.0

300.26

## Sec G

W	2.7	297.6
cb	2.5	297.8
1/4	2.3	298.0
+3	2.3	298.0
+8	4.2	296.1
C	4.0	296.3
1/4	3.3	297.0
cb	3.2	297.1
+7	1.5	298.8
E <small>= EAST CORN OF RICHMOND IN SEC G</small>	1.3	299.0

## Sec. H

E	1.9	298.4
cb	3.2	297.1
+4	4.8	295.5
1/4	4.6	295.7
C	4.8	295.5
1/4	4.9	295.4
+5	2.6	297.7
cb	2.6	297.7
W	2.8	297.5

300.26

19

## 25' No.

W	3.3	297.0
cb	3.5	296.8
+4	3.6	296.7
1/4	6.1	294.2
C	6.0	294.3
1/4	6.0	294.3
+4	6.0	294.3
cb	3.2	297.1
E	2.4	297.9

60.12' No = Sec J = SL Pascoe ST

E	3.4	296.9
cb	4.0	296.3
+6	5.0	295.3
1/4	8.1	292.3
C	7.9	292.4
1/4	8.1	292.2
+11	4.5	295.8
cb	4.4	295.9
W	4.6	295.7

18.14' No. = Sec J = 50 CORB

W	8.2	292.1
cb	7.0	293.3
+4	7.2	293.1
1/4	9.0	291.3
C	8.9	291.4
1/4	8.9	291.4
+6	6.2	294.1
cb	5.8	294.5
E	4.7	295.6

16.85' No. = Sec K = 50. 1/4

E	6.8	293.5
cb	7.9	292.4
+8	8.3	292.0
1/4	10.0	290.3
C	9.3	291.0
1/4	9.9	290.4
cb	11.6	288.7
W	13.6	286.7

16.85' No. = Sec L = Center

W	19.0	281.3		
cb	16.9	283.4		
1/4	10.9	289.4		
+5	9.6	290.7		
C	9.5	290.8		
+9	9.6	290.7		
1/4	10.6	289.7		
cb	11.2	289.1		
E	9.4	290.9		
T.P.	8.76	296.14	12.88	287.38

16.85' No. = Sec M = No. 1/4

E	8.4	289.7
cb	10.5	285.6
+7	9.9	286.2
1/4	6.2	289.9
C	5.2	290.9
+9	5.2	290.9
1/4	7.2	288.9
cb	18.2	277.9
W	20.7	275.4

296.14

Sec M+6

-10	25.6	270.5
W	25.1	271.0
cb	17.1	279.0
1/4	11.0	285.1
C	5.0	291.1
1/4	5.3	290.8
+3	5.4	290.7
+9	14.0	284.1
cb	11.7	284.4
E	10.7	285.4

+16.85 = Sec N = No. Curb

E	12.9	283.2
cb	13.9	282.2
1/4	7.5	288.6
+5	5.3	290.8
C	5.1	291.0
+9	5.3	290.8
1/4	7.5	288.6
cb	14.7	281.4
+10	24.6	271.5
W	25.0	271.1

296.14

21

18.14 No = Sec O = N Line Pascoe

W	18.8	277.3
cb	16.4	279.7
1/4	7.6	288.5
+4	5.1	291.0
C	4.9	291.2
+8	5.0	291.1
1/4	8.4	287.7
cb	15.3	280.8
+6	18.9	277.2
E	19.5	276.6
+30	15.0	281.1

13' No.

-20	18.9	277.2
E	18.8	277.3
cb	16.4	279.7
1/4	9.2	286.9
+8	5.1	291.0
C	4.7	291.4
1/4	5.0	291.1
+4	7.9	288.2
+7	8.0	288.1



296.14

cb		10.1	286.0
W-terrace		11.6	284.5
	25' No		
W		7.0	289.1
cb		7.0	289.1
1/4		6.5	289.6
+7		4.7	291.4
C		4.7	291.4
1/4		5.4	290.7
cb		11.4	284.7
E.		13.3	282.8
+20		16.3	279.8
	50' No		
E		5.6	290.5
cb		3.8	292.3
1/4		5.0	291.1
C		4.6	291.5
1/4		4.9	291.2
cb		5.1	291.0
W		5.3	290.8

296.14

22

75' No.

W		3.3	292.8
cb		3.2	292.9
1/4		3.6	292.5
C		3.5	292.6
1/4		3.5	292.6
cb		2.8	293.3
E		2.5	293.6

100' No.

E		0.9	295.2
cb		0.9	295.2
1/4		1.6	294.5
C		1.6	294.5
1/4		1.8	294.3
cb		1.7	294.4
W		1.6	294.5
T.P.	9.16 304.02	1.28	294.86

304.02

125' No.

W	7.6	296.4
cb	8.1	295.9
1/4	8.3	295.7
c	7.8	296.2
1/4	7.8	296.7
cb	6.9	297.1
E	6.8	297.2

150' No.

E	5.4	298.6
cb	5.6	298.4
1/4	6.6	297.4
c	6.4	297.6
1/4	6.7	297.3
cb	6.8	297.2
W	6.4	297.6

304.02

23

175' No.

W	5.1	298.9
cb	5.7	298.3
1/4	5.7	298.3
c	5.3	298.7
1/4	5.8	298.2
cb	4.7	299.3
E	4.5	299.5

191.05' No = Sec P.

E	3.9	300.1
cb	4.0	300.0
1/4	5.2	298.8
c	4.4	299.6
1/4	4.7	299.3
cb	4.6	299.4
W	4.1	299.9

T

304.0v

24

Sec Q

W			4.1	299.9	
cb			5.3	298.7	
1/4			4.5	299.5	
C			4.3	299.7	
1/4			4.9	299.1	
cb			4.1	299.9	
E			3.8	300.2	
T.P.	3.27	300.24	7.05	296.97	
T.P. on BM			8.18	292.06	St. Vermont + Lincoln

25

3/27/13  
 Eugene  
 Bradford  
 Shoemaker

Xsection of Richmond ST (80' wide)  
 from the north line of Pennsylvania  
 to - - - - - Brookes

29293

26

B.M.	3.65	300.81	297.16	SW UNIV + RICHMOND	No.	1/4
T.P.	0.25	29293	8.13	292.65	W	2.5 290.4
				N.L. PENNSYLVANIA AVE (80' WIDE)		
W			2.4	290.5	1/4	1.4 291.5
cb			2.2	290.7	C	1.2 291.7
1/4			2.1	290.8	1/4	1.0 291.9
C			1.8	291.1	cb	0.7 292.2
1/4			1.4	291.5	E	0.5 292.4
cb.			0.8	292.1	CENTER	
E			0.5	292.4	E	0.6 292.3
				No. CURB.		
E			0.6	292.3	cb	0.7 292.2
cb			0.9	292.0	1/4	1.0 291.9
1/4			1.1	291.8	C	1.3 291.6
C			1.5	291.4	1/4	1.4 291.5
1/4			1.7	291.2	cb	2.0 290.9
cb			2.1	290.8	W	2.5 290.4
W			2.7	290.2		

292.93

So. 1/4

W	2.6	290.3
cb	1.7	291.2
1/4	1.6	291.3
C	1.2	291.7
1/4	1.0	291.9
cb	0.8	292.1
E	0.7	292.2

So. CURB

E	1.2	291.7
cb	1.0	291.9
1/4	1.2	291.7
C	1.5	291.6
1/4	1.7	291.2
cb	1.8	291.1
W	2.3	290.6

292.93

27

So. LINE PENNS.

W	2.3	290.6
cb	2.0	290.9
1/4	1.9	291.0
C	1.6	291.3
1/4	1.5	291.4
cb	1.6	291.3
E	1.8	291.1

50' So.

E	2.9	290.0
cb	2.8	290.1
1/4	2.6	290.3
C	2.8	290.1
1/4	2.8	290.1
cb	3.1	289.8
W	3.4	289.5

29293

100' So.

W	4.4	2885
cl	3.8	2891
1/4	3.5	2894
c	3.5	2894
1/4	3.5	2894
cl	3.6	2893
E	4.1	2888

150' So.

E	5.4	2875
cl	4.7	2882
1/4	4.3	2886
c	4.1	2888
1/4	4.7	2882
cl	5.4	2875
W	6.6	2863

29293

175' So.

-20	23.1	269.8
W	13.6	279.3
cl	8.4	284.5
1/4	5.8	287.1
c	4.8	288.1
1/4	5.0	287.9
cl	5.5	287.4
E	6.1	286.8

200' So.

E	6.9	286.0
cl	6.8	286.1
1/4	6.3	286.6
+10	6.1	286.8
c	8.3	284.6
1/4	13.2	279.7
cl	17.2	275.7
W	22.9	270.0
+32	35.7	257.2

123

28

295' 50.

-45		49.0	243.9
W		33.4	259.5
cb		26.4	266.5
1/4		18.3	274.6
C		12.8	280.1
1/4		8.2	284.7
cb		8.0	284.9
E		9.0	283.9

240' 50

E		10.2	282.7	
cb		10.7	282.2	
1/4		12.8	280.1	
T.P.	0.36	280.21	13.08	279.85
C		4.0	276.2	
1/4		9.1	271.1	
cb		14.4	265.8	
W		23.1	257.1	
+52		36.7	249.5	

280.21

250' 50.

-46		57.9	242.3	
W		25.6	254.6	
cb		18.6	261.6	
1/4		13.4	266.8	
C		8.8	271.4	
1/4		5.4	274.8	
cb		2.5	277.7	
E		3.0	277.2	
T.P.	0.64	268.21	18.64	267.57

275' 50.

-40		14.1	254.1
-33		7.9	260.3
E		3.9	264.3
cb		3.9	264.3
1/4		5.5	262.7
C		7.7	260.5
1/4		10.4	257.8
cb		15.1	253.1
W		20.2	248.0
+30		31.0	217.2
+16		25.9	242.3



300' 50 = No. LINE CYPRESS 80' WIDE

				T.P.	0.32	243.56	12.59	243.24
-45		24.8	243.4	cb			2.4	241.2
-23		33.2	235.0	W			5.0	238.6
W		26.7	241.5	+30			10.2	233.4
cb		22.2	246.0	+30			5.9	237.7
1/4		19.2	249.0		No.	1/4		
C		17.6	250.6	-30			5.2	238.4
1/4		16.7	251.5	-15			11.3	232.3
cb		16.0	252.2	W			8.5	235.1
E		16.6	257.6	cb			5.5	238.1
T.P.	0.14	255.83	12.52	255.69	1/4		3.9	239.7
+35		7.5	248.3	C			3.2	240.4
+50		13.6	242.2	1/4			3.3	240.3
	No.	CORB		cb			4.1	239.5
-50		17.4	238.4	E			4.2	239.4
E		10.8	245.0					
cb		9.8	246.0					
1/4		9.3	246.5					
C		10.2	245.6					
1/4		11.6	244.2					

24356

## CENTER

E	9.0	234.6
cb	9.3	234.3
1/4	8.8	234.8
C	7.9	235.7
1/4	7.6	236.0
cb	8.5	235.1
W	11.0	232.6
+8	19.1	231.5
+20	8.8	234.8

So. 1/4

-20	8.8	234.8
-5	14.1	229.5
W	13.3	230.3
cb	12.2	231.4
1/4	12.2	231.4
C	12.5	231.1
1/4	12.4	231.2
cb	12.4	231.2
E	12.4	231.2

24356

## So. CURB

31

E	14.9	228.7
cb	15.9	227.7
1/4	16.1	227.5
C	16.4	227.2
1/4	17.0	226.6
cb	18.0	225.6
W	15.8	227.8
+20	10.0	233.6

So. LINE CYPRESS

-20	12.5	231.1
-5	17.8	225.8
W	16.7	226.9
cb	16.2	227.4
1/4	15.5	228.1
C	15.2	228.4
1/4	15.0	228.6
cb	14.6	229.0
E	14.5	229.1

243.56

L	95'	50.		
E			11.6	232.0
cb			12.5	231.1
1/4			13.2	230.4
C			13.6	230.0
1/4			14.5	229.1
cb			15.0	228.6
W			15.6	228.0
+30			18.0	225.6
+35			14.6	229.0
	50'	50.		
W			14.4	229.2
cb			12.5	231.1
1/4			11.9	231.7
C			11.0	232.6
1/4			9.5	234.1
cb			7.7	235.9
E			5.5	238.1
T.P.	12.76	255.80	0.52	243.04

255.80

32

	75'	50.		
E			8.6	247.2
cb			12.2	243.6
1/4			15.1	240.7
C			18.8	237.0
1/4			20.5	235.3
cb			22.7	233.1
W			24.7	231.1
	100'	50		
W			20.5	235.3
cb			17.2	238.6
1/4			14.9	240.9
C			12.1	243.7
1/4			8.4	247.4
cb			5.9	249.9
E			2.7	253.1
T.P.	13.01	268.49	0.32	255.48

268.49

195' So

E	7.8	260.7
cb	16.0	258.5
1/4	14.8	253.7
c	18.4	250.1
1/4	20.6	247.9
cb	21.7	246.8
W	26.0	242.5

150' So.

W	16.4	252.1
cb	14.1	254.4
1/4	12.0	256.5
c	9.2	259.3
1/4	6.7	261.8
cb	5.7	262.8
E	2.0	266.5

T.P.	10.43	278.60	0.32	268.17
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278.60

175' So.

E	3.4	273.2
cb	8.6	270.0
1/4	10.9	267.7
c	12.2	266.4
1/4	14.1	264.5
cb	14.7	263.9
W	16.3	262.3

200' So.

W	5.9	272.7
cb	4.7	273.9
1/4	5.3	273.3
c	4.6	274.0
1/4	3.6	275.0
cb	2.3	276.3
E	0.2	278.4

T.P.	9.75	287.99	0.36	278.24
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33

287.99

225' So.

E	6.2	281.8
cb	7.6	280.4
1/4	7.8	280.2
C	8.0	280.0
1/4	7.7	280.3
cb	7.9	280.1
W	8.0	280.0

250' So

W	5.3	282.7
cb	5.6	282.4
1/4	5.5	282.5
C	5.5	282.5
1/4	5.5	282.5
cb	5.4	282.6
E	5.2	282.8

287.99

34

275' So.

E	4.2	283.8
cb	4.4	283.6
1/4	4.2	283.8
C	4.1	283.9
1/4	4.2	283.8
cb	4.2	283.8
W	4.5	283.5

298.4' So = N.L. BROOKES

W	4.6	283.4
cb	4.1	283.9
1/4	4.2	283.8
C	3.8	284.2
1/4	3.7	284.3
cb	3.9	284.1
E	3.8	284.2
BM	3.83	284.16 287.16
T.P.	1.76	295.48
T.P.	1.04	294.44

BM. N.E. Brookes  
+ RichmondBM. cph SW  
Richmond +  
Robinson

LOCATION & LEVELS  
CULVERTS ON SIGSBEE ST  
AT KEARNEY

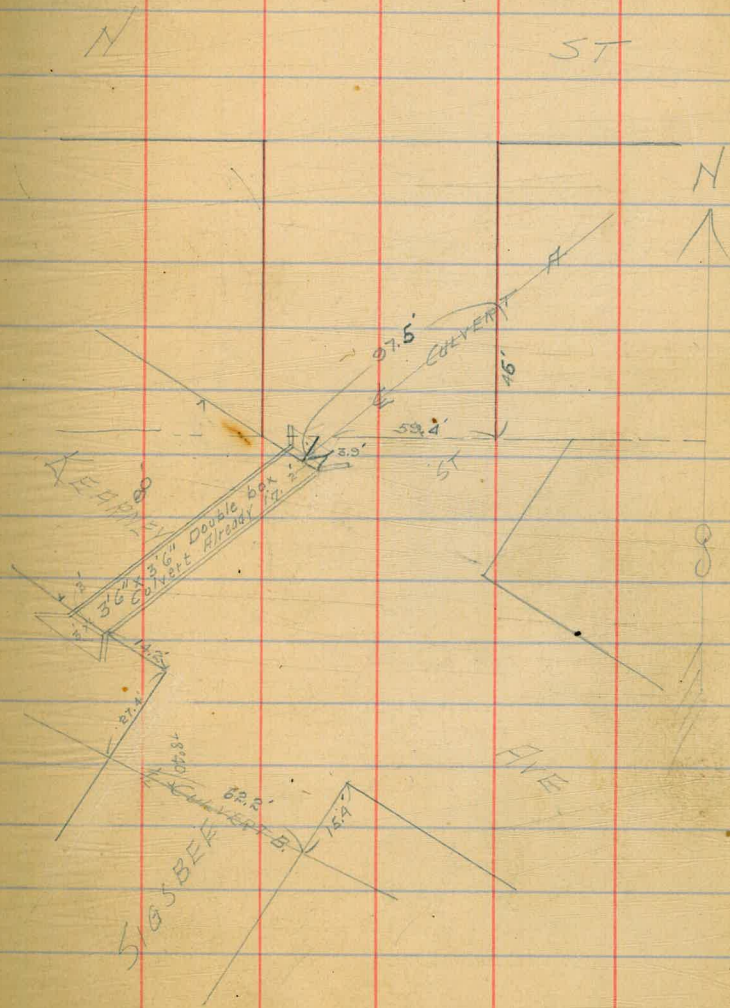
35

LEVELS ON CULVERT B

BM	4.02	32.14	28.12	NW corner + Square
T.P.	3.70	34.54	11.60	20.84
20' W. of W.P.L.		9.0	15.5	
5' W. of W.P.L.		7.0	17.5	
W. PROP. LINE		6.1	18.4	
10' E. of W.P.L.		5.5	19.0	
18' v v v v v		5.6	18.9	
27' v v v v v		4.8	19.7	
30' v v v v v		5.4	19.1	
E. PROP. LINE		5.6	18.9	
20' E. of E.P.L.		4.0	20.5	

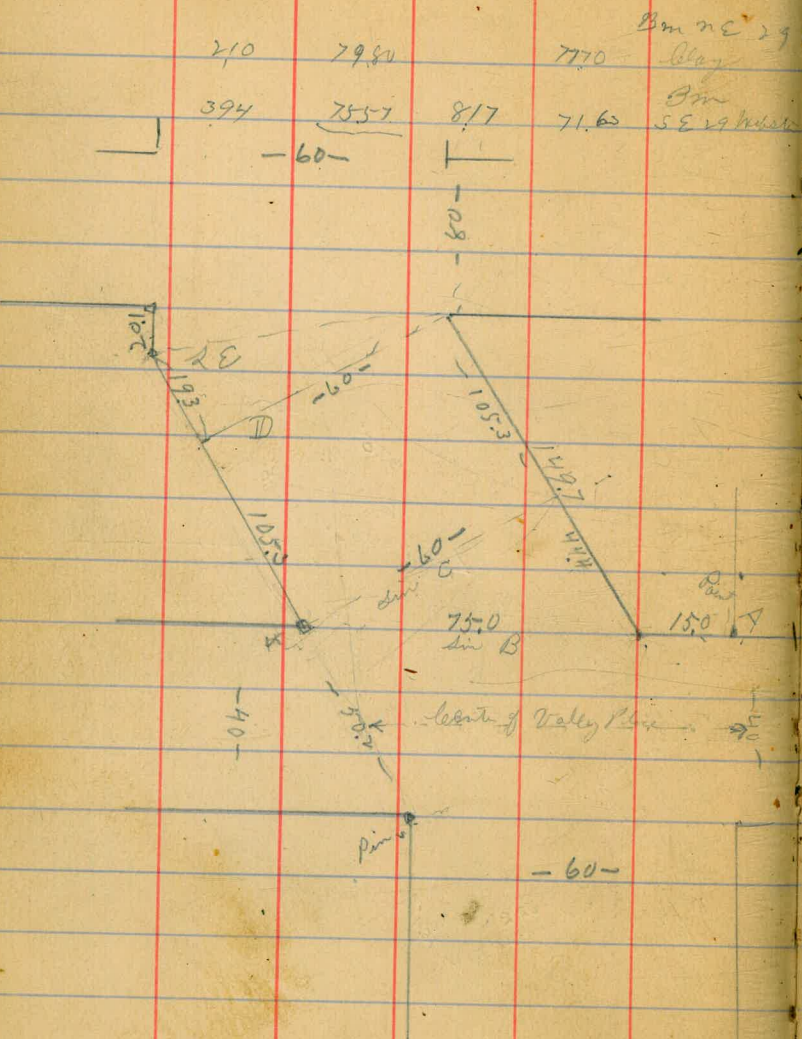
LEVELS ON CULVERT A

30' E. of E.P.L.		5.3	19.2
E. Prop. L.		5.6	18.9
34' W. of E.P.L.		5.4	19.1
40' v v v v v		4.7	19.8
67' v v v v v = TOP of sewer.		5.37	19.17
70' v v v v v		6.7	17.8
84' v v v v v		6.0	18.5
97.2' v v v v v = END of Double box		7.1	17.4



5  
26  
13  
Calvert  
Taylor  
Fitz

X Sec of 29th St  
Continued from Page 12th Book



75.57

29th

36

140 m of Webster - S of Valley Place (40)

75.6	47	70.9
	51	70.5
	51	70.5
	51	70.5
	50	70.6
	49	70.7
	52	70.4
Center of Valley Place		
	55	70.1
	51	70.5
	51	70.5
	50	70.6
	51	70.5
	51	70.5
	50	70.6
	52	70.4

Part A

75.57

(75) 50 m N Valley Place

E	75.6	52	70.4
		52	70.4
		54	70.2
b		52	70.4
		54	70.2
		56	70.0
w		58	69.8

(60) 50 m N Valley Place

w	90 m N 44 m E	58	69.8
		58	69.8
		54	70.2
b		55	70.1
		55	70.1
		52	70.4
E		51	70.5

75.57

29 d

37

50 m N Valley Place

E	75.6	46	71.0
		54	70.2
		59	69.7
b		62	69.4
		60	69.6
		61	69.5
w		58	69.8

L D 105.3 w = 52 m N 10 m E

w		57	69.9
		60	69.6
		61	69.5
b		58	69.8
		56	70.0
		54	70.2
E		53	70.3



7557

(63) S of N on a  
line E angl Pt on W

E	53	70.3
	51	70.5
	54	70.2
b	54	70.2
	59	69.7
	60	69.6
w	55	70.1

S of N at (80')

w	53	70.3
	51	70.5
	54	70.2
b	48	70.8
	49	70.7
	48	70.8
E	53	70.3

TP 470 7551 476 7081

7557  
476  
7081  
474  
7551

7551

290

38

S of N + 2' = 2' S of RR Rail

E	51	70.4
	46	70.9
	48	70.7
	46	70.9
	50	70.5
	48	70.7
w	50	70.5

E of Rail

E	455	70.96
w	47	70.8

S of N + 11' = 2' N of Rail

w	50	70.5
	50	70.5
	45	71.0
b	44	71.1
	45	71.0
	43	71.2
	49	70.6

S 1/4 of N 1/4

E	49	70.6
	43	71.2
	45	71.0
S	44	71.1
	43	71.2
	50	70.5
W	52	70.1

S 1/4 + 6' = 2' S of RR Rail

W	52	70.3
	51	70.4
	47	70.8
S	43	71.2
	44	71.1
	43	71.2
E	47	70.8

E of Rail

W	45	71.0
E	41	71.4

S 1/4 + 2' = 2' N of RR Rail

E	50	70.5
	47	70.8
	45	71.0
S	44	71.1
	50	70.5
	52	70.3
W	53	70.2

S 1/4 + 8.5' = 2' S of RR Rail Main line

W	58	69.7
	56	69.9
	55	70.0
S	47	70.6
	48	70.7
	53	70.2
E	55	70.0

E of Rail

W	51	70.4
E	47.5	70.76

7539

Leinta + 4.5 = 2 n of Riv (Main line)

E	55	70.0
	52	70.3
	50	70.5
b	51	70.4
	56	69.9
	58	69.7
n	60	69.5

n 1/4 of n st

n	63	69.2
	57	69.8
	53	70.2
b	53	70.2
	53	70.2
	57	69.8
E	59	69.6

7551

2962

40

n 1/4 of n st

E	57	69.8
	58	69.7
	55	70.0
b	49	70.6
	51	70.4
	51	70.4
n	49	70.6

n line of n st

n	52	70.3
	56	69.9
	57	69.8
b	54	70.1
	56	69.9
	57	69.8
E	55	70.0

7551

	50	mg	n	st
E			39	71.6
			42	71.3
			46	70.9
b			42	71.3
			40	71.5
			40	71.5
W			40	71.5
	100	mg	n	st
W			50	70.5
			48	70.7
			40	71.5
b			37	71.8
			37	71.8
			39	71.6
E			37	71.8

7551

	150	mg	n	st
E			46	70.9
			48	70.7
			52	70.3
b			54	70.1
			55	70.0
			57	69.8
W			57	69.8
	200	mg	n	st
W			49	70.6
			53	70.2
			48	70.7
b			50	70.5
			47	70.8
			49	70.6
E			44	71.1

TP

684

78.24

407

71.44

TP

2927

41

2284

7551
407
<u>71.44</u>
537
<u>76.81</u>
407
<u>72.54</u>
71.44
<u>684</u>
78.28

7824

	250	n of	W st	
E		78.3	68	71.5
			70	71.3
			65	71.8
l			67	71.6
			66	71.7
			64	71.9
W			63	72.0

300 n = S 2 f. W st (Paved) 80

W			60	72.3	
			62	72.1	7824
			64	71.9	$\frac{5.79}{72.49}$
l			64	71.9	
			64	71.9	
			68	71.5	
E			64	71.9	
			5.79	72.49	Bm NE 29.4 m

7824

2915

42

	n line of	W st	
E	78.3	57	72.6
		57	72.6
l		56	72.7
		57	72.6
		52	73.1
W		48	73.5

The curb &amp; walk is in all of this block on both sides except

1st 100 m of W st on West side

50 m of W st

W		39	74.4
		48	73.5
		50	73.3
		47	73.6
		52	73.1
on curb		50	73.3

7828

7828

390

43

	100	n of Mt	
E on bank	78.3	42	74.1
		45	73.8
		44	73.9
		43	74.0
W on bank		35	74.8

	200	n of Mt	
E bank on bank	78.3	28	75.5
		28	75.5
		26	75.7
		29	75.4
		29	75.4
W on bank		19	76.4

	150	n of Mt	Alley
W		27	75.6
		31	75.2
		36	74.7
		32	75.1
		35	74.8
		32	75.1
E		32	75.1

	250	n of Mt	
W on bank		11	77.2
Gully		21	76.2
		21	76.2
		22	76.1
		20	76.3
E on bank		20	76.3
TP	520	8026	022 7896

7838  
 12  
 78.00  
 5-20  
 80.20  
 5-20  
 77.76

	300	n =	527	Set so	Graded
	83.3				
E on bank		62			77.1
Gully		67			76.6
		67			76.6
		61			77.2
		63			77.0
		60			77.3
W		520			78.06
		530			77.75

Bm 2.2  
 29 L

N line of S st

W	83.3	4.9	78.4
		5.3	78.0
		5.9	77.4
b		6.0	77.3
		6.3	77.0
		6.3	77.0
E		6.0	77.3

burb + walk are all in this block

except 1st 40' n of S st

on each side

30' n of S st

E to burb		5.8	77.5
		6.0	77.3
b		5.9	77.4
		5.7	77.6
W of burb		4.9	78.4

100' n of S st

W of burb		4.4	78.9
		4.9	78.4
b		5.4	77.9
		5.5	77.8
E to burb		5.4	77.9
		5.5	77.8
E		5.2	78.1

150' n of S st (alley)

		5.6	77.7
		5.0	78.3
		4.7	78.6
		4.5	78.8
		4.2	79.1
W		4.0	79.3

200' n of S st

W to burb		3.5	79.8
Burb		4.0	79.3
		4.4	78.9
		4.7	78.6
		4.7	78.6
		4.6	78.7

250 n<sub>g</sub> Lat

Ebb on Bank	41	79.2
Butte	45	78.8
	43	79.0
	41	79.2

	39	79.4
Butte	38	79.5
Wt on bank	31	80.2

300 r = 5 d<sub>g</sub> Kat (50)

Wt on bank	28	80.5
------------	----	------

	32	80.1
--	----	------

b	33	80.0
---	----	------

	40	79.3
--	----	------

Ebb on bank	38	79.5
-------------	----	------



5  
26  
13  
53  
10413  
9851  
TP Page  
1 this Book

Level for Breaks in  
Top 29 ft at (60) Woolman & Franklin  
Top from P 1 this Book

	110	n of Woolman	
B	28	101.3	
	27	101.4	
	27	101.4	
b	28	101.3	
	30	101.1	
	33	100.8	
w	33	100.8	
	135	n of Woolman	
w	24	101.7	
	23	101.8	
	24	101.7	
b	24	101.7	
	23	101.8	
	23	101.8	
E	26	101.5	

10413

29 ft

46

160	n of Woolman	
29	101.2	
26	101.5	
24	101.7	
22	101.9	
19	102.2	
13	102.8	
18	102.3	
185	n of Woolman	
25	101.6	
28	101.3	
32	100.9	
35	100.6	
38	100.3	
38	100.3	
40	100.1	

104.13

210 rif woolman

E

55 98.6

55 98.6

55 98.6

b

53 98.8

48 99.3

41 100.0

W

40 100.1

47

X section of Capps St 30' wide, from the East line of 30th to the West line of Flay St, 14' walks, 13' quarters.

B.N. Mon SE Cor 30th & Capps 336.76

Jan 23-1914  
Hennert,  
Griller,  
Shaw.

H.I.  
340.72

48

	+	H.I.	-		+	H.I.	-
	3.96	340.72					
00 = East line of 30th St							
S.L.			4.8	+25 S.L.			3.1
cl			5.21	cl			4.2
quarter			5.67	1/4			4.1
1/4			5.42	c			4.2
c			5.34	1/4			3.8
1/2			5.23	cl			4.5
quarter			5.32	M.L.			4.2
cl			4.72	+50 M.L.			4.0
M.L.			4.3	cl			4.1
+5 M.L.			4.5	1/4			3.6
cl			4.0	c			3.3
1/2			4.2	1/2			3.5
a			4.2	cl			3.3
1/4			4.4	+75 S.L.			4.1
cl			4.3	cl			4.9
S.L.			4.0	1/4			4.8
				+3			3.4
				c			4.2
				1/2			4.0

H.I.  
340.72

Coffin Vt (50' wide)

cl	3.9
M.L. 1400	4.3
M.L.	5.1
cl	5.0
1/4	4.8
c	4.1
1/4	4.1
+3	5.1
cl	5.0
V.L. 1425	4.6
V.L.	4.3
cl	5.7
1/4	5.6
c	5.5
1/4	5.7
cl	5.8
M.L. 1450	5.6
M.L.	6.6
cl	6.6
1/4	6.4

H.I.  
340.72

49

c	6.6
1/4	6.6
cl	6.2
V.L. 1475	6.2
V.L.	6.6
+5	7.9
cl	7.7
1/4	7.8
c	7.7
1/4	7.7
cl	7.7
V.L. 1493	7.3
V.L. 1497	9.1
V.L.	2+60 = West line of Ray Vt. 9.2
cl	9.3
1/4	9.2
c	9.0
1/4	8.8
cl	9.1

H.I.  
346.72

Capps St (80' wide)

X-section of Dwight St 80' wide, from the East line of 30th  
to the West line of Ray St, 12' walks, 10' quarters.

B.M. Men S.E. Cor 30th & Capps. 336.76

Jan 23 - 1914.

Donnan  
Miller  
Shaw. 50

m.L.	9.2					
Check on initial B.M.	3.26	336.76 - 336.76		1.07	341.13	B.M. 336.76

00 = East line of 30th St.

00						
m.L.				9.15		337.0
cl				9.67		36.4
quater				5.21		35.9
1/2				5.01		36.1
c				5.04		36.1
1/2				5.06		36.0
quater				5.22		35.9
cl				4.62		36.5
m.L.				4.3		36.8
+6						
m.L.				4.2		36.4
cl				4.5		36.6
1/2				4.8		36.3
c				4.4		36.7
1/2				4.6		36.5
cl				4.5		36.6
m.L.				4.5		36.6

+ H.I.  
341.13

D. Wright - 44 (80' wide)

341.13

+50 V.L.	4.6	336.5
c.b.	5.4	35.7
1/2	5.6	35.5
c	5.7	35.4
1/2	5.5	35.6
c.b.	4.9	36.2
M.L.	4.6	36.5
+100 M.L.	6.2	34.9
c.b.	6.3	34.8
1/2	6.3	34.8
c	6.4	34.7
1/2	6.5	34.6
c.b.	6.4	34.7
V.L.	5.6	35.5
+100 V.L.	6.9	34.2
c.b.	6.8	34.3
+11	6.7	34.4
1/2	7.8	33.3
c	7.8	33.3
1/2	7.1	34.0

+ H.I.  
341.13

51

c.b.	7.2	33.9
M.L.	6.4	34.7
2+00 = West line of Bay Vt		
2+00		
M.L.	5.9	35.2
c.b.	6.5	34.6
1/2	6.8	34.3
c	7.1	34.0
1/2	6.6	34.5
c.b.	6.6	34.5
V.L.	7.0	34.1
Check on initial B.M.		
	4.37	336.76 = B.M. 4.37

1. Clough X Sec of Yama St 60  
 29 Taylor Main St to bottomwood  
 14 July. bottomwood to city line

383 1223

840

Bm #  
at P.D.

S line of bottomwood

E

41 8.1

40 8.3

40 8.3

40 8.3

42 8.0

43 7.9

W

43 7.9

50 S of bottomwood

W

44 7.8

44 7.8

44 7.8

N

47 7.5

47 7.5

46 7.6

E

42 8.0

PLOTTED

1223

Yama  
52

150 S of bottomwood

44 7.8

45 7.7

45 7.7

46 7.6

48 7.4

50 7.2

53 6.8

150 S of bottomwood

58 6.4

58 6.4

55 6.7

53 6.9

52 7.0

57 7.1

49 7.3

E

W

W

N

E

1223

200 S of Cottonwood

E 59 63

59 63

60 63

b 60 63

58 64

58 64

W 58 64

250 S of Cottonwood

W 63 59

64 58

63 59

b 66 56

66 56

64 58

E 61 61

PLOTTED

1223

300 S = N of Dalbergia St (100)

E 59 63

61 61

62 60

C 62 60

64 58

64 58

W 65 57

Center = N B & O R R

W on Rail 26 96

E on Rail 19 103

TP 026 1182 237 986

Yama

53

1223  
237  
9.86  
10.8



1082

S Lf Dalbergia W

W 55 53

55 53

53 55

L 52 56

57 57

49 59

E 48 60

50 Sf Dalbergia

E 45 63

46 63

47 61

L 48 60

49 59

52 56

W 53 55

85

E line PLOTTED 70 3.8

1082

Yama

54

100 Sf Dalbergia

W 55 53

55 53

51 57

L 48 60

45 63

68 40

E 47 61

150 Sf Dalbergia

E 47 61

46 63

73 3.5

L 50 58

57 57

57 57

53 55

53 55

PLOTTED

200 S of Dollbergia

W 52 5.6

82 2.6

54 5.4

b 54 5.4

52 5.6

54 5.4

E 54 5.4

250' S of Dollbergia

E 56 5.3

56 5.3

56 5.7

b 56 5.7

58 5.0

57 5.1

W 59 4.9

215' S

W1

PLOTTED

82 2.6

300 S = 2nd of Main + (80)

W 60 4.8

59 4.9

56 5.2

b 59 4.9

58 5.0

58 5.0

E 58 5.0

Bm 383 830 635 4.47

near Bm  
Yama + Main

S of Main St

W 47

42

46

b 44

45

45

E 44

PLOTTED

Continued to city line

830

50 S of Main st  
E 52 3.1

2

47

47

b

45

46

50

W

52

100 S of Main st

W

57

57

54

b

56

55

55

E

56

2.7

830

Yama

56

150 S of Main st  
E 61 2.2

61

63

b

63

63

63

W

57

200 S of Main st

W

70

70

70

C

68

67

66

E

66

1.7

TP

386

526

690

1.40

830  
690  
1.40  
386  
526

576

250 Sq Main st

E 41 1.7

42

42

41

43

44

44

300 S = N S of Zilbert (80')

W 47

45

44

C 44

43

46

E 47 0.6

576

Yama

57

Center of Zilbert st

E L 68 -1.5

W L 70

E L + 40

W L on Road S D + S W

W on Road 13

S line of st

E L 20

W L 68

7 S of

E on Road 16

25' S

E L 78

50' S

E L 61 -0.8

B 59

W 57

5.26

5.26

58

100 S

300' S on W = Lewis St (50)

W		63	
b		63	
E		63	-1.0

W	82
b	82

150 S

E		67	-1.4
b		68	
W		72	

200 S

W		74	-2.1
b		72	
E		71	

250

E		78	-3.5
b		78	
W		78	

city line ~ E

E 80

1/ Blough X sec of 39th St (60)  
 30/ Taylor Main St S to  
 14/ Fly

1384

59th St

59

183 1384 1201 Bm SW  
 Main 439

100 S of Main St

S line of Main St

W	183	1384	1201	Bm SW Main 439
W			20	11.8
			17	12.1
			19	11.9
b			20	11.8
			20	11.8
			19	11.9
E			20	11.8

W	86	5.2
	87	5.1
	80	5.8
b	76	6.2
	67	7.1
	60	7.8
E	52	8.6

150 S of Main

E	50	S of Main St
E		
		35
		35
		36
b		37
		40
		41
W		42

E	108	3.0
	102	3.6
	89	5.9
b	77	6.1
	62	7.6
	52	8.6
W	43	9.5

1384

2047

3921

60

200 S of Main

W 18 17.0

25 11.3

30 10.8

1 37 10.1

45 9.3

54 8.4

E 67 7.1

TP 978 2047 315 10.69

250 S of Main

E 99 10.6

90 11.5

80 12.5

b 70 13.5

60 14.5

54 15.1

W 48 15.7

300 S = 2 S of 7th (80)

W 38 16.7

42 15.3

44 16.1

b 47 15.8

51 15.4

55 15.0

E 58 14.7

Center = S + S E Ray

E on Rail 131 7.4

W on Rail 125 8.0

S of

W 53 15.7

53 15.7

50 15.5

b 47 15.8

46 15.9

43 16.7

E 45 16.0

1384

315

10.69

978

2047

315

10.69

mean

2047

50 S of Filbert

E 50 15.5

50 15.5

52 15.3

b 54 15.1

55 15.0

57 14.8

W 58 14.7

100 S of

W 64 14.1

63 14.2

61 14.4

b 61 14.4

60 14.5

60 14.5

E 58 14.7

2047

150 S of Filbert

E 67 13.8

68 13.7

70 13.5

b 70 13.5

69 13.6

65 14.0

W 70 13.5

200 S of

W 83 12.2

81 12.4

80 12.5

b 79 12.6

80 12.5

79 12.6

E 76 12.9

TP 234 1441 840 1207

39pt

61

2047  
540  
1207  
234  
1441  
17



1441

25-0 S of Filbert

E	24	17.0
	25	11.9
	26	11.8
b	28	11.6
	29	11.5
	31	11.3
W	33	11.1

300 S = rd of Grville (80)

W	32	11.7
	32	11.7
	32	11.7
b	32	11.7
	31	11.3
	31	11.3
E	30	11.4

1441

39d

62

S line of Grville

E	34	11.0
	33	11.1
	35	10.9
b	39	10.5
	40	10.4
	41	10.3
W	43	10.1

Bm

385 10.52

13' man  
39+1/2 89/10

50 S of

W	46	9.8
	45	9.9
	46	9.8
b	45	9.9
	47	9.7
	47	9.7
E	45	9.9

1441

100 S of Grenville

E 51 9.3

49 9.5

46 9.8

b 50 9.4

50 9.4

51 9.3

W 52 9.2

150 S of

W 56 8.8

59 8.5

57 8.7

b 58 8.6

55 8.9

58 8.6

E 58 8.6

1441

200 S of Grenville

E 63 8.1

63 8.1

65 7.9

b 65 7.9

65 7.9

65 7.9

W 64 8.0

250 S of

W 68 7.6

69 7.5

70 7.4

b 70 7.4

70 7.4

71 7.3

E 69 7.5

TP 645 1306 780 661

391

63

1441  
780  
645  
648  
12.0

1306

300' S = 2 S of Hickory (80)

E. 64 6.7

64 6.7

63 6.8

L 64 7.0

58 7.3

54 7.7

W 54 7.7

S line of

W 49 8.2

49 8.2

56 7.5

L 64 6.7

67 6.4

67 6.4

E 67 6.4

1306

392

64

50 S of Hickory

E 53 7.8

51 8.0

44 8.7

L 48 8.3

48 8.3

48 8.3

W 44 8.7

100 S of

W 41 9.0

40 9.1

40 9.1

L 36 9.5

33 9.8

37 9.4

E 43 8.8

1306

150 S of Hickory

E 41 9.0

39 9.2

41 9.0

6 41 9.0

42 8.9

38 9.3

W 40 9.1

200 S of

W 50 8.1

48 8.3

49 8.2

6 50 8.1

50 8.1

48 8.3

E 48 8.3

1306

250 S of Hickory

E 59 7.2

57 7.4

53 7.8

6 59 7.2

56 7.5

46 8.5

W 47 8.4

300 S of S of Juniper (80)

W 66 6.5

64 6.7

65 6.6

6 64 6.7

65 6.6

64 6.7

E 66 6.5

TP 130 8.2 6.4 8.2

3927

65

1306  
6.52  
7.52  
7.30  
6.82

2.2.7 394  
8.2 8.2

882

S line of Inward

W	24	4.4
	25	5.3
	25	5.3
b	30	4.8
	28	5.0
	29	4.9
E	30	4.8
	50 S of	
E	35	
	35	
	34	
b	31	
	34	
	34	
W	31	

882

Sept

66

100 S of

W	48	
	47	
	48	
b	<del>48</del>	
	48	
	48	
E	48	
	48	
	105' SW W } = 2' N of Rail Arizona RR 109' SW E }	
E	42	
	41	
	43	
b	42	
	42	
	42	
W	41	
	El Rail	
E on Rail	34	
W on Rail	34	

882

104' S on W side of S Rail  
118' S on E side

W	42
	42
	43
b	42
	42
	42
W	42

150' S of

W	52
	48
	47
b	48
	47
	47
E	42

882

392

67

200 S of

W	28
	32
	34
b	35
	37
	44
E	50

250

E	22
	16
	13
	10
	06
	03
W	02

TP 540 1302 020 862

882  
20  
862  
540  
1402

1302

300' S on W

W

510

TP

472

8.30

on Boarding  
Peak

68

2  
31  
14  
Clyde  
Taylor  
July

X sec of Minerva st (50')

34 to 36 1/2 sts

(Minerva st has been graded)  
(sum of a day)

112 18261 9649

250 9289 722 9539

BR

786 9203

W side of 36th st

S 79 90.0

82 89.7

**PLOTTED** 83 89.4

6 81 89.8

83 89.6

83 89.6

n 78 90.1

TP 0.69 8625 1433 8556

50 w of 36th

n 0.5 85.8

1.8 84.5

1.7 84.6

Better 2.4 83.9

1.9 84.4

b 1.8 84.5

2.0 84.3

Better 3.0 83.3

2.0 84.3

5 2.2 84.1

mon 36

+  
Seydel

SW 44

+ 0.1  
Minerva

86.25

Minerva

69

100 w of 36th 25

64 79.9

62 80.1

7.8 79.3

61 80.2

57 80.6

58 80.5

62 80.1

80.9

80.8

45 81.8

150 w of 36th

70 79.3

80 78.3

81 78.7

87 77.4

85 77.8

84 77.9

87 77.6

98 76.5

88 77.5

92 77.1

9649  
8125  
10261  
221  
9539  
9289  
9203  
9003  
9789  
1233  
85.86  
82.25

**PLOTTED**



8625-

	200	W of	360 ft	
S			115	74.8
			11.5	75.1
S			11.7	74.6
			10.9	75.4
l			104	75.9
			106	75.7
g			108	75.5
			100	76.3
48'			100	76.3
n			85	77.8
TP	245	7805	1065	75.60
	245'	W =	Ed of Banner	(Good)
				at 50
n			30	75.1
			33	74.8
S			36	74.5
			35	74.6
pl			35	74.6
			43	73.8
g			53	72.8
			46	73.5
S			49	73.2

PLOTTED

7805

Minerva

70

E out of Banner

S			50	73.1
			53	72.8
			43	73.8
l			37	74.4
			38	74.3
			46	74.0
n			37	74.4
			46	74.0
E			48	Banner
n			37	74.4
			38	74.3
			38	74.3
l			40	74.1
			44	73.7
			49	73.2
S			51	73.0

8625-  
1065  
75.60  
245-  
75.05

7805

Center of Bruner

S	50	73.1
	47	73.4
	44	73.7
L	41	74.0
	40	74.1
	39	74.2
	37	74.4

PLOTTED

W 1/4 of Bruner

N	42	73.9
	40	74.1
	42	73.9
L	42	73.9
	46	73.5
	49	73.2
S	52	72.9

7805

Minnema

71

W end of Bruner

S	59	73.1
	57	72.4
	47	73.4
L	43	73.8
	43	73.8
	45	73.6
	42	73.9

W end of Bruner

N	40	74.1
	41	74.0
	45	72.6
	45	73.6
L	43	73.8
	45	73.6
	55	72.6
	50	73.1
S	52	72.9

78.05

50 w of Bruner

S	53	77.8
	49	73.2
S	56	77.5
	50	73.1
b	48	73.3
	49	73.7
S	42	77.9
	46	73.5
n	44	73.7

PLOTTED

100 w of Bruner

n	39	74.2
	43	73.8
S	48	73.3
	46	73.5
b	45	73.6
	50	73.1
S	60	77.1
	50	73.1
S	45	73.6

78.05

Munson

72

150 w of Bruner

S	37	74.4
	39	74.7
S	46	73.5
	39	74.2
b	37	74.4
	38	74.3
S	41	74.0
	32	74.9
	29	75.2
n	16	76.5

TP

330 78.20 315 74.00

200 w of Bruner

n	30	75.2
	39	74.3
	39	74.3
S	46	73.6
	42	73.9
b	40	74.7
	44	73.8
S	49	73.3
	42	73.9
S	42	74.0

78.05  
515  
74.90  
330  
78.20

7820

245 W- E 2 f Insects to the mt 2500  
3500 (60)

S		50	73.7
		52	73.0
S		56	74.6
		52	73.0
b		48	73.4
	PLOTTED	51	73.1
S		55	72.7
		48	73.4
n		43	73.9
	W side of	3500	
n		55	72.7
		61	72.1
S		68	71.4
		64	71.8
b		63	71.9
		65	71.7
S		69	71.3
		60	72.2
S		60	72.2

7820

Kinnawa

73

	50	W f	3500	
S			79	70.3
			78	70.4
S			85	69.7
			80	70.2
b			79	70.3
			81	70.1
S			84	69.8
			76	70.6
n			75	70.7
			59	72.3
	100	W f	3500	
n			92	69.0
			95	68.7
S			106	67.6
			98	68.4
b			97	68.5
			101	68.1
S			112	67.0
			100	68.2
S			100	68.2

7820

150 wf 35 ft

S 124 65.8

S 129 65.7

135 64.7

123 65.9

b 119 66.3

123 65.9

S 129 65.3

118 66.4

n 120 66.2

PLOTTED

TP 061 6691 1190 6630

200 wf 35 ft

n 27 64.2

30 63.9

S 41 62.8

33 63.6

b 30 63.9

35 63.4

S 47 62.2

36 63.3

S 35 63.4

6691

250 wf 35 ft

S 52 61.7

56 61.3

S 62 60.7

56 61.3

b 54 61.5

54 61.5

S 58 61.1

52 61.7

n 50 61.9

275 wf 35 ft Francis V (50)

n 65 60.4

64 60.5

65 60.4

S 64 60.5

65 60.4

65 60.4

S 67 61.2

67 61.2

Munona

74

7820  
1120  
66.30  
68  
66.90

Linda

6691

E half Francis

S	68	60.1
	66	60.3
	68	60.1
b	67	60.2
	69	60.0
	70	59.9
h	72	59.7

PLOTTED

E 1/4 Francis

h	73	59.6
	71	59.8
	69	60.0
b	70	59.9
	69	60.0
	68	60.1
S	70	59.9

6691

Minerva

75

Center of Francis

S	69	60.0
	69	60.0
	70	59.9
b	70	59.9
	71	59.8
	71	59.8
h	72	59.7

W 1/4 Francis

h	75	59.4
	75	59.4
	74	59.5
b	74	59.5
	74	59.5
	73	59.6
S	73	59.6

6691

W of Francis St

S	77	59.2
	77	59.2
	77	59.2
b	77	59.2
	77	59.2
	80	58.9
n	80	58.9

PLOTTED

W side of Francis

n	80	58.9
	81	58.8
	84	58.5
b	80	58.9
	78	59.1
	78	59.1
S	77	59.2

Grading steps here

6691

76

50' W of Francis

S	94	57.5
	93	57.6
	94	57.5
b	100	56.9
	104	56.5
	102	56.7
n	104	56.5

6691

1275

54.16

20

54.36

70' 250 54.36 1275 54.16

25' W of Francis

n	68	47.6
b	47	49.7
S	05	53.9
	100	W
S	34	51.0
b	70	47.4
n	115	48.9

5436

	125'	w of Francis		
n			140	40.4
b			120	42.4
s			82	46.2
TP	016	4212	1240	4196

150 w of Francis

s			70.3	41.8
b			36	38.5
n			50	39.1

175'

		w		
n			87	33.4
b			87	33.4
s			60	36.1
TP	003	2915	1300	2912
	200	w		
s			12	28.0
b			14	28.1
n			20	27.2

2915

Museum

77

	225'	w of Francis		
n			115	17.7
b			110	18.2
s			100	19.2
TP	466	2176	1205	1710
	250	w		

s			69	14.9
b			67	15.1
n			62	15.6

265'

		w		
n			64	15.4
b			68	15.0
s			70	14.8

275' w = E of 3412 #

s			115	10.3
b			115	10.3
n			117	10.1
bluffs			335	18.41

Bm 34

w of Francis



272.06  
294.45  
300.81  
63.9  
344.43  
106.2  
127  
19.8  
11.2  
15.2  
22.5  
13.6  
15.6  
37.9  
11.9  
18.2  
28.8  
13.2  
33.2  
19.2  
37.9  
10.6  
16.6

244  
118  
124  
45  
22  
12  
5.4  
16.6  
12.2  
4.2  
16.4

**DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING**

ROADWAY 16 FEET WIDE. SIDE SLOPES 1½ TO 1.  
FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	
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	26.2	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

Calculated by F. E. Paradis, C. E.

7 feet  
Grevilla  
Hickory  
Ironwood  
Jute wood  
Kings  
Linden

2 176  
88.9  
3.2

