

DIETZGEN  
1892

ENGINEERS'  
LEVEL BOOK

No. 412 F

#721

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  $30.6 + (20 - 16) \div 2$  or 2 ft. added to 30.6 = 32.6. For slopes of 1 on 1½ see inside of back cover.

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Notes			Reduced or Plotted		
Date	To Page	By	Date	To P. Map#	By
9/8/47	32	M.R.V.			
10/1/47	46	mas.			
3/1/48	75	mas.			
3/25/48	80	mas.			

Olivet St. Profile LaJolla P1-2-3 ✓

Milton St. Water Grades Profile P4-7 ✓

Littlefield St. Water Grade Profile 8-12

54th St. Guinness 13 ✓

From 39th to Dem pr

From Hilltop to Market 14-37  
Market to Hilltop

Jarvis St. for Construction 38-41

From Willow to Rosecrans

Keats St. for Construction 42-43

From Rosecrans to Evergreen

Emerson St. for Construction 44-46

From Rosecrans to Willow

Alignment of pipeline forming

from Silvergate to Bangor-61

Pt. loc. 52nd & Landis Sts. 71-76 ✓

Orten St. water grades 75-78

Galveston St. water grades 79 ✓

Chalcedony St. water grades 80 ✓

2.

## OLIVET (Cont.)

10'5 of 2

	B.S.	H.I.	I.S.	Elev
		180.76		
		<del>184.66</del>		
2+00			9.0	171.8
T.P.			13.01	167.75 ✓
				171.65
	1.00	168.75 ✓		
		<del>172.65</del>		
2+50			3.1	165.7
3+00			8.2	160.6
3+50			13.1	155.7
T.P.			12.55	156.20 ✓
				160.10
		157.53 ✓		
	1.63	144.73		
4+00			7.2	150.6
4+50			12.4	145.4
T.P.			12.36	145.47 ✓
				<del>149.37</del>
		147.56 ✓		
	2.09	144.46		
5+00			7.0	140.6
5+27			9.1	138.5
T.P.			11.57	135.99 ✓
				139.89
		137.75 ✓		
	1.76	141.65		
T.P.		131.31 ✓	7.24	130.51 ✓
				<del>134.41</del>
	0.80	135.21		
BM			2.00	129.37 ✓
				133.27

2.



3

## Check levels for Olivet

B.S.	H.I.	F.S.	Elev.
BR. SE. cor. Girard & Pearl			115.70
4.20	119.90 ✓		
TP#1		0.45	119.45 ✓
11.86	131.31 ✓		
TP#2		11.39	119.92 ✓
1.43	121.35 ✓		
		0.23	121.12 ✓
9.50	130.62 ✓		
		4.55	126.07 ✓
5.49	131.56 ✓		
		2.18	129.38 ✓
Olivet St. Cont.			
Sta. 0+00			191.1
9.83	<sup>11.94</sup> 200.93		
0-242		9.9	191.60
0-50		7.3	193.6
0-1400		3.5	197.4

Aug. 27, 1947.

Raney  
King  
Merrill  
Daker

3.

on concrete

"

"

A Milton St. Profile  
 from Morena to Galveston  
 10'S of 6

Rainey  
 King  
 Narrows

A.

B.M. Mar. & Frankfort + Milton 53.67

0.35 54.02

T.P.#1 12.25 41.77

0.05 41.82

T.P.#2 12.28 29.54

0.42 29.96

T.P.#3 11.61 18.35

1.75 20.10

0+00 8.9

0+50 6.8

1+00 4.5

1+50 2.9

2+00 1.3

2+50 0.0

T.P.#4 0.07 20.03

10.08 30.11

3+00 8.6

3+50 7.5

Int. w/ existing line on Morena



5

Milton St Profile  
 from Morena to Galveston  
 10' 50' @

30.11

4+00	5.8		
4+50	4.1		
5+00	2.6		
5+50	1.4		
T.P. #5	0.50	29.61	
10.76	40.37		
6+00	10.2		
6+50	8.1		
7+00	6.6		
7+50	5.2		
8+00	4.0		
8+50	2.6		
9+00	1.1		
T.P. #6	0.47	39.90	
11.22	51.12		
9+50	10.5		
10+00	9.2		

5.

6 Milton St. Profile  
from Morena to Galveston  
10.50.4

51.12

10+50	7.8	
11+00	6.4	
11+50	4.8	
12+00	2.8	
12+50	1.1	
T.P.#7	0.30	50.82

10.75 61.57

13+00	10.2	
13+50	8.8	
14+00	7.6	
14+50	6.8	
15+00	5.4	
15+50	3.1	
T.P.#8	0.24	61.33

12.86 74.19

16+00	12.0	
16+50	6.6	



7

Milton St. Profile  
 from Morena to Galveston  
 10.50 ft

74.19

17+00

0.3

17+34

71.6

TP\*9

12.72

66.47

0.03

61.50

B.M. @ Mar. Milton + Franklin 7.83

53.67

Corr.

53.67

7.

int. w existing line on Galveston

8

10' S of 2

Littlefield St. Profile

from Morena to Frankfort

BM. 6	Milton + Frankfort	53.67
	0.91	54.58
TP#1		12.22 42.36
	1.37	43.73
TP#2		9.74 33.99
	0.69	34.68
TP#3		12.70 21.98
	2.04	24.02
TP#4		5.66 18.36
	6.10	24.46
TP#5		1.94 22.52
	6.13	28.65
TP#6		9.91 18.74
	2.29	21.03
IBM Set		5.09 15.94
	0+00	7.0
	0+50	5.6
	0+53	5.0

Rainey  
Clegg  
Nieman  
Baker

Aug. 28, 1947

8

Spike in PP#2487 SE. cor Morena  
+ Littlefield  
Int. w/ existing line on Morena Blvd



<sup>10 50 6</sup>  
 Littlefield St. Profile

from Morana to Frankfort

21.03

1400 3.4

1400 14 Road 1.52 3.7

1450 1.7

1450 14 Road 1.54 2.0

T.P.#7 0.28 20.75

9.64 30.39

2400 9.4

2450 7.8

3400 6.4

3450 5.1

3450 14 Road 10.6 5.6

4400 3.0

4400 14 Road 3.5

4450 1.1

4450 14 Road 1.9

T.P.#8 9.70 39.65 0.44 29.95

<sup>10.50 ft</sup>  
Littlefield St. Profile  
from Morena to Frankfurt

39.65

1	5+00		9.2	
1		1N Rd.	9.7	
1	+50		7.3	
1		1N Rd.	7.4	
2	6+00		4.9	
		1N Rd.	5.2	
2	6+50		1.7	
2	T. Pdg	10.46	50.09	0.02 39.63
3	7+00		9.6	
3	7+50		7.3	
3		1N Rd. - 2' left	8.1	
1	8+00		5.8	
1		1N Rd 2' Lt.	6.8	
1	+50		3.9	
4			5.2	
2	+75		2.2	
		1N Rd.	4.0	

5+15 begin Oil Pav. 4' Left

No burm



Littlefield St. Profile  
 From Merena to Frankfort

50.09

9+00			2.9	
	1N Rd-3'ht		3.6	
+50			2.1	
	1N Rd. 3'ht		2.4	
10+00			1.2	
T.P. #10	10.42	60.17	0.34	49.75
10+50			9.6	
	1N Rd.		9.7	
11+00			7.6	
	1N Rd.		7.3	
+50			4.4	
	1N Rd.		4.5	
12+00			0.4	
	1N Rd.		0.9	
T.P. #1	10.21	70.36	0.02	60.15
+50			7.5	
13+00			3.0	

11.

No burm.

End of Col 3'ht & Pipe

Littlefield St. Profile

70.36

13+50			1.9		
	1 IN Rd. 3' 2+		2.4		
14+00			3.5		
	1 IN Rd.		4.6		
+50			6.6		
	1 IN Rd. 3' 2+		6.4		
15+00			6.0		
15+50			4.3		
15+60			4.3		
T.P. #12	2.37	67.76	4.97	65.39	
T.P. #13	1.33	62.93	6.16	61.60	
T.P. #14	5.70	61.05	7.58	55.35	
T.P. #15	5.42	62.16	4.31	56.74	
T.P.	3.23	60.47	4.92	57.24	
			6.75	53.72	53.67

ON MONUMENT @ Littlefield & Frankfort

ON MON. Milton & Frankfort. Page B



Grades on 70' offset ginnies

B.M. 1.39 414.65 413.26

16+05<sup>93</sup> 12' offset 6.6 408.1 403.8

15+75 8.9 405.8 402.3

15+50 10.5 404.2 400.5

T.P. 0.58 402.20 13.03 401.62

15+00 2.5 399.7 396.9

14+50 5.4 396.8 393.3

14+00 9.1 393.1 389.7

T.P. 231 392.65 11.86 390.34

13+50 3.0 389.7 386.0

13+00 6.6 386.1 382.4

T.P. 6.58 386.07

12" C.I. P. LINE - 54 ST

13

N.E. Cor. 54 & Adams B.P.

cut 6

4.8

4.0

~~3.5~~

4.2

~~3.7~~

3.3

~~2.8~~

4.0

~~3.5~~

3.9

~~3.4~~

4.2

~~3.7~~

4.2

~~3.7~~

ON SPIKE - 13+00

39th St. Profiles (water)  
from Hilltop to F.

BM S.E. Cor. Bdry + Market 139.92

4.19 144.11 ✓

T.P.#1 0.40 143.71 ✓

7.45 151.16 ✓

T.P.#2 0.28 150.88 ✓

12.15 163.03 ✓

T.P.#3 0.02 163.01 ✓

12.59 173.60 ✓

T.B.M. 2.34 171.26 ✓

0+00 5.0 168.6

0+50 8.2 165.4

1+00 11.9 161.7

T.P.#4 12.72 160.88 ✓

0.67 161.55 ✓

1+50 3.1 158.45

2+00 6.9 154.7

2+50 9.6 156.0

Sept. 3, 1947 Rainey  
King  
Methow  
Baker

14.

Rock on N.W. Cor. Hilltop + Quail

int. w/ Otay line Hilltop + 39th



39th St. Profile (water)  
From Hilltop to F

15.

161.55 ✓

3+00 11.4 150.2

3+50 12.2 149.4

4+00 13.2 148.4

FP#5 13.02 148.53 ✓

0.83 149.36 ✓

4+50 1.6 147.8

5+00 2.6 146.8

5+50 3.5 145.9

6+00 4.2 145.2

B.M. Market + Bdry 9.42 139.94 ✓

Int. W/ S Side F.H.

Quail Pt. Profile (water)  
from Hilltop to F

T.P. set P 14		171.26
1.30	172.56	✓
0+00	0.6	172.0
0+50	3.3	169.3
1+00	6.2	166.4
1+50	8.6	164.0
2+00	11.2	161.4
T.P. #1	12.88	159.68
0.47	160.15	✓
2+50	1.2	159.0
3+00	3.9	156.13
3+50	6.5	153.7
4+00	8.9	151.3
4+50	11.4	148.8
T.P. #2	12.84	147.31
1.03	148.34	✓
5+00	1.9	146.4
5+50	4.6	143.7

Int. w/ existing Otay line on Hilltop



Quail St. Profile (Water)  
from Hilltop to Market

17

148.34 ✓

6+00	4.8	143.5
6+21	3.4	144.9
6+50	4.0	144.3
7+00	5.5	142.8
7+50	7.0	141.3
8+00	8.2	140.1
8+50	10.0	138.3
9+00	12.4	135.9
T.P.#3	12.23	136.11 ✓

0.37 136.48 ✓

9+50	2.7	133.8
10+00	4.6	131.7
10+50	6.4	130.1
11+00	8.3	128.2
11+50	10.1	126.4
12+00	12.5	124.0
T.P.#4	11.84	124.64 ✓

3.25 127.89 ✓

Quail St. Profile (Water)  
from Hilltop to Market

127.89 ✓

12+50 5.8 122.1

12+71 7.01 120.9

13+00 7.2 120.7

13+20 7.8 120.1

T.P. #5 1.62 126.27 ✓

5.62 131.89 ✓

B.M. B.P. N.E. Cor. 40th + Mkt. 3.61 128.28 ✓

on Conc. Apron Market

on Market

1st. w/ existing line on Market



19 40th. St. Profile (Water)  
from Hilltop to Market

T.P. set P14		171.26	
	12.73	183.99	✓
T.P. set TBM		12.69	171.30 ✓
0+00		2.8	181.2
T.P. #1		3.94	180.05 ✓
	1.53	181.58	✓
0+50		1.9	179.7
1+00		2.4	179.2
1+50		3.1	178.5
2+00		4.3	177.3
2+50		7.4	174.2
3+00		11.4	170.2
3+00	1/4 Road 2.5 Rt.	12.1	169.5
T.P. #2		13.02	168.56 ✓
	0.43	168.99	✓
3+50		3.0	166.0
4+00		6.6	162.4
4+00	1/4 Rd. 2.1 Rt.	7.5	161.5

19

on Rock in E. Raven St.

Int. w/ existing line on Hilltop

20 40th St Profile (water)  
from Hilltop to Market

168.99 ✓

4+50 11.1 157.9

T.P.#3 12.58 156.41 ✓

0.03 156.44 ✓

5+00 2.4 154.0

5+50 4.6 151.8

6+00 6.5 149.9

6+50 8.0 148.4

7+00 9.7 146.7

7+50 11.0 145.4

T.P.#4 12.50 143.94 ✓

0.59 144.53 ✓

8+00 1.5 143.0

8+50 4.2 140.3

9+00 7.1 137.4

9+50 8.8 135.7

10+00 10.3 134.26

10+50 10.9 133.6

20.



21

40th St. Profile (water)  
from Hilltop to Market

144.53 ✓

11+00 11.6 132.9

11+50 12.1 132.4

T.P.#5 12.14 132.39 ✓

2.11 134.50 ✓

12+00 4.1 130.4

12+50 6.1 128.4

12+71 7.42 127.1

13+00 7.40 127.1

13+20 7.8 126.7

B.M. B.P. N.E. Cor 40th &amp; Mkt. 6.24 128.26 ✓

21

on conc. Apron on Market

in Mkt. St.

Int. w/ existing line on Mkt. St.

Raven St Profile (Water)  
from Hilltop to Market

TP set P. 19 171.30

1.51 172.81 ✓

0+00 2.1 170.7

0+50 6.1 166.7

1+00 10.9 161.9

TP #1 12.86 159.95 ✓

0.05 180.00 ✓

1+50 1.2 158.8

2+00 3.3 156.7

2+50 4.4 155.6

3+00 5.6 154.4

3+50 6.3 153.7

4+00 6.8 153.2

4+50 7.5 152.5

5+00 7.9 152.1

5+50 8.4 151.6

6+00 7.9 152.1

8+36 7.6 152.4



23

Raven St. Profile (Water)  
from Hilltop to Market

160.00 ✓

6+50 5.3 154.7

7+00 6.8 153.2

TP#2 6/4 153.86 ✓

0.93 154.79 ✓

7+50 2.9 151.9

8+00 3.2 151.6

8+50 3.6 151.2

9+00 3.9 150.9

9+50 4.6 150.2

10+00 6.3 148.5

10+50 8.0 146.8

11+00 10.7 144.2

11+50 13.1 141.7

TP#3 12.54 142.25

0.75 143.00 ✓

12+00 3.8 139.2

12+50 6.8 136.2

23.

24

Raven St. Profile (Water)  
from Hilltop to Market

1	143.00	✓		
12+71	8.3	134.7		
13+00	8.7	134.3		
13+20	9.0	134.0		
TP#4	8.86	134.14	✓	
	3.06	137.20	✓	
BMBP NE Cor. 40th + MKT	9.00	128.20	✓	

24

Int. w/ MKT. St not conc.

Int w/ existing line on MKT.



25 Alst. St. Profile (Water)  
 from Hilltop to Market  
 10. E. of 4

T.P. Set P. 19		171.30
0.63	171.93	✓
T.P. #1	12.62	159.31 ✓
0.04	159.35	✓
T.P. #2 T.B.M.	6.48	152.87 ✓
0.89	153.76	✓
0400	2.0	151.8
0450	6.3	147.5
1400	9.2	144.6
1450	10.6	143.2
2700	11.9	141.9
2750	12.8	141.0
T.P. #3	12.99	140.77 ✓
0.92	141.69	✓
3100	2.0	139.7
3150	3.8	137.9
4400	6.3	135.4
4450	7.4	134.3

Sept 4, 1947

Rainey 25  
 King  
 Niessow  
 Baker

on Monument 6 Alst + Hilltop

Int. w/ existing Main on Hilltop

10' E of G  
 41st St. Profile (Water)  
 from Hill top to Market

141.69 ✓

5+00	8.4	133.3
5+50	8.8	132.9
6+00	9.3	132.4
6+50	9.6	132.1
7+00	10.1	131.6
TP#4	9.88	131.81 ✓

5.13 136.94 ✓

7+50	6.4	130.5
8+00	7.1	129.8
8+50	6.8	130.1
9+00	5.5	131.4
9+50	5.7	131.2
10+00	6.7	130.2
10+50	7.4	129.5
11+00	9.7	127.2
11+50	11.0	125.9
12+00	11.9	125.0



27

41st St Profile (Water)  
from Hilltop to Market  
D.E. of 4

136.94 ✓

12+50 12.7 124.2

12+70<sup>85</sup> 13.0 123.9

13+00 13.2 123.7

13+20 13.6 123.3

B.M. B.P.N.W. cor. 41st + Market 1.54 125.40 125.39  
cor.

27

on Conc apron edge Market St

on Conc. Market St.

Int. w/ existing line on Market

28 Morrisson St. Profile (Water)  
from Hilltop to Market  
16.5'

I.B.M. @ 41st + Hilltop 152.87

10.89 163.76'

I.B.M. Ref 10.42 153.34'

0+00 5.5 158.3

0+50 7.8 156.0

1+00 11.1 152.7

TP#1 12.16 151.60'

0.58 152.18'

1+50 2.2 150.0

2+00 5.5 146.7

2+50 8.2 144.0

3+00 10.6 141.6

3+50 12.6 139.6

TP#2 12.31 139.87'

0.11 139.98'

4+00 2.2 137.8

4+50 3.3 136.7

5+00 5.3 134.7

Sept. 5, 1947

Rainey  
King  
Baker

28

on Hub SE. cor 42nd + Hilltop

Int. w/ existing line Hilltop



29 Morrisson St. Profile (Water)

From Hilltop to Market

139.98 ✓

5+50 6.5 133.5

6+00 7.7 132.3

6+50 9.5 130.5

7+00 11.1 128.9

7+50 12.3 127.7

TR#3 12.03 127.95 ✓

1.32 129.27 ✓

8+00 2.6 126.7

8+50 3.3 126.0

9+00 4.0 125.3

9+50 4.5 124.8

10+00 4.8 124.5

10+50 4.9 124.4

11+00 4.5 124.8

11+50 5.1 124.2

12+00 7.0 122.3

12+50 8.8 120.5

29

30

Morrison St. Profile (water)

From Hilltop to Market

129.27 ✓

12+71<sup>0</sup>

9.5 119.8

13+00

9.4 119.9

13+21

9.7 119.6

B.M. B.P. S.W. Concord NH 0.49 128.78 ✓

30

edge conc. Apron Market

on conc. Market St.

Int. w/ existing line on Market



31 42nd St. Profile (Water)  
from Hilltop to Market

T.B.M. Set P 28 153.34

2.29 155.63 ✓

0+00 2.3 153.3

0+50 3.3 152.3

1+00 4.0 151.6

1+50 4.4 151.2

2+00 4.9 150.7

2+50 5.1 150.3

3+00 5.7 149.9

3+50 6.1 149.5

4+00 6.9 148.7

4+50 9.0 146.6

5+00 11.8 143.8

T.P.M. 12.86 142.77 ✓

0.84 143.61 ✓

5+50 2.2 141.4

T.B.M. Set 3.45 140.16 ✓

6+00 5.2 138.4

31

Int. w/ existing line Hilltop St.

on Hub at 6+00

42nd St. Profile (Water)  
From Hilltop to Market

	143.61	✓	
6+50	7.6	136.0	
7+00	10.0	133.6	
7+50	11.4	132.2	
8+00	12.8	130.8	
IR #5	12.74	130.87	✓
	2.59	133.46	✓
+50	3.2	130.3	
9+00	4.0	129.5	
+50	4.6	128.9	
10+00	4.8	128.7	
+50	5.0	128.5	
11+00	5.4	128.1	
+50	5.3	128.2	
12+00	5.5	128.0	
12+50	5.1	128.4	
12+72 <sup>to</sup>	4.3	129.2	
13+00	3.9	129.6	

edge conc. Apron on Market St



33

Azhd/St. Profile (water)  
from Hilltop to MKT.

133.46 ✓

13122

3.8 129.7

BM BR 5 W. Cox Azhd-NWA. 68 128.78 ✓

33

Toyme St. Profile (Water)  
 From N Prop Line to Market  
 "F"

T.B.M. P. 31 140.16

4.07 144.23 ✓

T.B.M. Set 9.08 135.15 ✓

0+00 4.7 139.5

0+50 6.7 137.5

1+00 7.9 136.3

1+50 8.1 136.1

2+00 8.4 135.8

2+50 8.4 135.8

3+00 7.1 137.1

3+50 5.7 138.5

T.P. 41 6.04 138.19 ✓

1.82 140.01 ✓

4+00 1.3 138.7

4+50 2.1 137.9

5+00 4.1 135.9

5+50 6.1 133.9

6+00 8.0 132.0

on Rock 20' N & Denby

"End Toyme St. 1 block N of Market"



Tayne St. Profile (Water)  
From N. Popline to Market

140.01 ✓

6+23<sup>69</sup> 9.3 130.7

6+50 9.6 130.4

6+74 9.5 130.5

I.P.#2 7.73 132.28 ✓

3.77 136.05 ✓

B.M.B.P. SW. Cor 42nd + MKL.

7.26 128.79 <sup>✓ Corr.</sup> 128.76

I.B.M. Set. 10.84 125.21 ✓

on Conc. Apron Market St.

on Conc. Market St.

Int. w/ existing line Market St.

on NW. curb Derby + Market

Demby St. Profile (Water)  
From "N" Prop line to Market

T.B.M. P.34 135.15

10.05 145.20

0+00 7.5 137.7

0+50 8.3 136.9

1+00 6.3 138.9

1+50 8.0 137.2

2+00 8.9 136.3

2+50 8.0 137.2

3+00 6.5 138.7

3+50 6.2 139.0

4+00 5.9 139.3

4+50 6.5 138.7

5+00 9.6 135.6

5+50 12.9 132.3

T.P.#1 13.04 132.16

1.56 133.72

6+00 6.6 127.1

6+22<sup>13</sup> 10.7 123.0

N Prop line 1 block N of Market

CONC. Apron Market St



Demby St Profile (Water)  
 from N Prop Line to Market

133.72 ✓

6+50

10.8

122.9

6+72

11.4

122.3

T.B.M. P. 35

5.48

125.24 ✓

125.21

on Conc. Market St.

Int. w/ existing line

38

## Jarvis St. Water Grades

B.M. L &amp; T. SW. Cor. Jarvis + Ingelow

41.27

0.22 41.49

0+00 6.2 35.3 36.1

0+50 6.8 34.7 34.1

1+00 9.4 32.7 31.8

2E 11.7 29.8 31.0

1+20 Lateral 4' 2W 11.0 30.5 31.0

1+50 10.3 31.2 29.6

(Box In)

1+68 Lateral 32' N 11.1 30.4 28.6

T.P.  
1+50 11.38 30.11

0.35 30.46

1+80 Lateral 4' 5' 2E 2.5 28.0 28.4  
2W 2.4 28.1 28.4

2+00 2.9 27.6 27.6

Box In

2+15 Lateral 32' N 2.0 28.5 26.4

2+50 4.3 26.2 25.4

Box In

2+75 Lateral 32' N 4.0 26.5 23.8

2E 5.8 24.7 24.8

2+70 Lateral 4' 32' W 5.8 24.7 24.8

3+00 6.9 23.6 22.7

Cuts

Oct. 3, 1947

Raimy 14.5

L.H.G.  
Nichols

38

Note: Line Moved to 5' Soft  
Stakes offset 9'Int. w/ existing 6" Gate on Prop. line  
Willow St

4.1

3.8

41.2

40.5

5.1

1.8

40.4

40.3

3.5

2.1

4.3

2.7

40.1

40.1

4.9



39.

## Jarvis Pt. Water Grades

30.46

3+20		7.6	22.9	22.2
3+50		8.7	21.8	21.4
3+70		11	19.0	20.8
3+96	(Box 14) Lateral 52'N	10.8	19.7	19.8
4+00		13.4	17.1	19.7
4+00	2'E Lateral 452'W	11.7	18.8	20.4
4+00		10.9	19.6	20.4
T.P.		12.71	17.75	

0.62 18.37

4+36	(Box 14) Lateral 32'N	1.3	17.1	18.3
4+50		2.8	15.6	17.7
4+50	2'E Lateral 452'W	2.9	15.5	18.3
4+50		2.7	15.7	18.3
5+00		4.0	14.4	15.8
5+00	2'E	3.1	15.3	16.3
5+00	2'W	3.1	15.3	16.3
5+04	Box 14 Lateral 32'N	2.8	15.6	15.6
5+38	Box 14 Lateral 32'N	3.5	14.9	14.6
5+50		3.8	14.6	14.0
5+63	Box 14 Lateral 7'N	4.0	14.4	13.8

cuts

39.

6.0

5.9

4.0

f0.1

2.5

f1.6

f0.8

f1.2

1.4

f1.8

f1.6

2.1

f1.0

f1.0

0.0

0.3

4.1

0.6

4.1

## Jarvis St. Water Grades

18.37

6+00		5.7	12.4	12.3 <sup>1</sup>	3.8
	Box In				0.9
6+00	Lateral 4'S 2'W	5.1	13.3	12.3	1.0
	Box In				
6+04	Lateral 32'N	5.6	12.8	12.0	0.8
	Box In				
6+41	Lateral 32'W	6.3	12.1	10.6	1.5
6+50		7.4	11.0	10.3	4.2
	2'E	8.3	12.1	10.3	0.8
6+50	Lateral 4'S 2'W	6.3	12.1	10.3	0.8
7+00		8.3	10.1	9.2	4.4
7+50		8.8	9.6	8.4	4.7
	Box In				
7+70	Lateral 7'S	9.0	9.4	8.1	1.3
	Box In				
7+86	Lateral 32'N	9.5	8.9	8.0	0.9
8+00		9.8	8.6	7.8	4.3
	2'E	9.8	8.6	7.5	1.1
8+20	2'W	9.5	8.9	7.5	1.4
8+50		10.6	7.8	7.1	4.2
T.P.		10.56	7.81		
	4.26	12.07			
	2'E	4.4	7.7	6.8	0.9
8+70	Lat 4'S	4.2	7.9	6.8	1.1
	2'W				
8+78	Box In				
	Lat 32'N	4.7	7.2	7.7	0.5



41

## Jarvis Pt. Water Grades

12.07

9+00 5.4 6.7 6.4

Box 1m

9+11 Lat 7'S 4.7 7.4 6.2

Box 1m

9+11 Lat 32'N 5.1 7.0 6.7

9+50 4.4 7.7 5.8

9+90 Lat 32'N 2'E 6.2 5.9 5.6  
2'W 6.2 5.9 5.6

10+00 5.7 6.4 5.2

10+50 7.1 5.0 5.0

TBM. TP on TPole 4.05 8.02

8.50 16.52

0.72 15.80

12.89 28.69

0.55 28.14

12.54 40.68

1.87 38.81

4.29 43.10

B.M. SE. Cor. Willow Lake 1.90 41.20 41.27

cuts

41.

3.8

1.2

0.3

5.4

0.3

0.3

4.7

3.5

42

Keats St. Water Grades  
from Rosecrans to Willow

B.M. 1 - Ply NW. Cor. Keats + Rose 6.66

8.85 15.51

0+00		8.2	7.3	7.1
0+50		8.6	6.9	7.1
1+00		7.9	7.6	7.5
		W 6.9	8.6	7.6
1+10	4'S Lateral	E 7.0	8.5	7.6
		W 6.8	8.7	8.1
1+10	32'N Lateral	E 6.6	8.9	8.1
1+50		5.9	9.6	8.1
		W 5.7	9.8	8.4
1+78	4'S Lateral	E 5.6	9.9	8.4
		W 5.5	10.0	8.9
1+78	32'N Lateral	E 5.7	9.8	8.9
2+00		5.2	10.3	8.7
		W 4.6	10.9	9.5
2+28	32'N Lateral	E 4.6	10.9	9.6
2+50		4.8	10.7	9.3
		W 4.1	11.4	10.1
2+78	32'N Lateral	E 4.1	11.4	10.1
3+00		4.5	11.0	9.5
		2.0	11.5	10.2
3+24	4'S Lateral	E 4.1	11.4	10.2
		W 3.5	12.0	10.7
3+28	32'N Lateral	E 3.5	12.0	10.7

Oct. 9, 1947

Rainey  
King  
Nieman

46

cuts

14' 5" of 6

Int w/ existing line on Rosecrans

3.8

3.6

1.0

0.9

0.6

0.8

5.0

1.4

1.5

1.1

0.9

5.1

1.4

1.4

4.9

1.3

1.3

5.0

1.3

1.2

1.3

1.3



	15.51			
3+50	3.9	11.6	10.6	
4+00	3.0	12.5	11.3	
4+50	2.4	13.1	12.3	
5+00	1.5	14.0	13.9	
T.P. #1	1.11	14.40		
	11.56	25.96		
5+50	10.6	15.4	15.7	
6+00	9.0	17.0	17.5	
	2' N 7.5	18.5	18.0	
6+03	32' N Lateral 2' 7.8	18.2	18.0	
6+50	7.0	19.0	19.2	
	2' W 5.4	20.6	19.7	
6+53	32' N Lateral 2' 5.5	20.5	19.7	
7+00	5.5	20.5	20.9	
7+50	4.0	22.0	23.0	
T.P. #2	11.76	14.20		
	0.82	15.02		
TBM on T.P. # P. 41	6.95	8.07		

4.5	
4.7	
4.3	
3.6	
3.2	
3.0	
0.5	
0.2	
3.3	
0.9	
2.8	
3.1	
2.5	end of line

44

Emerson St. Water Grades  
from Willow to Rosecrans

BM. 1st Plug NW Cor. Water Rosecrans	6.66		
1.63	8.29		
TP#1	2.42	5.87	
9.23	15.10		
0+00	9.1	6.0	
0+50	8.9	6.2	5.7
1+00	8.4	6.7	6.3
1+48	4'5 lateral	W 7.8 E 7.8	7.3 7.3 7.4 7.4
1+50		7.4	7.7 7.0
2+00		6.9	8.2 7.8
2+50		6.1	9.0 8.6
3+00		5.2	9.9 9.4
3+50		4.1	11.0 10.2
4+00		3.3	11.8 10.9
4+50		2.4	12.7 11.7
4+98	32' N	W 1.6 E 1.6	13.5 13.1 13.1 13.1
5+00		1.4	13.7 13.1

Oct. 9, 1947

Rainey King  
Niemo

44

14'5 of 6

int. w/ existing line on Rosecrans

4.0

3.9

10.1

10.1

4.2

3.9

3.9

4.0

4.3

4.4

4.5

0.4

0.4

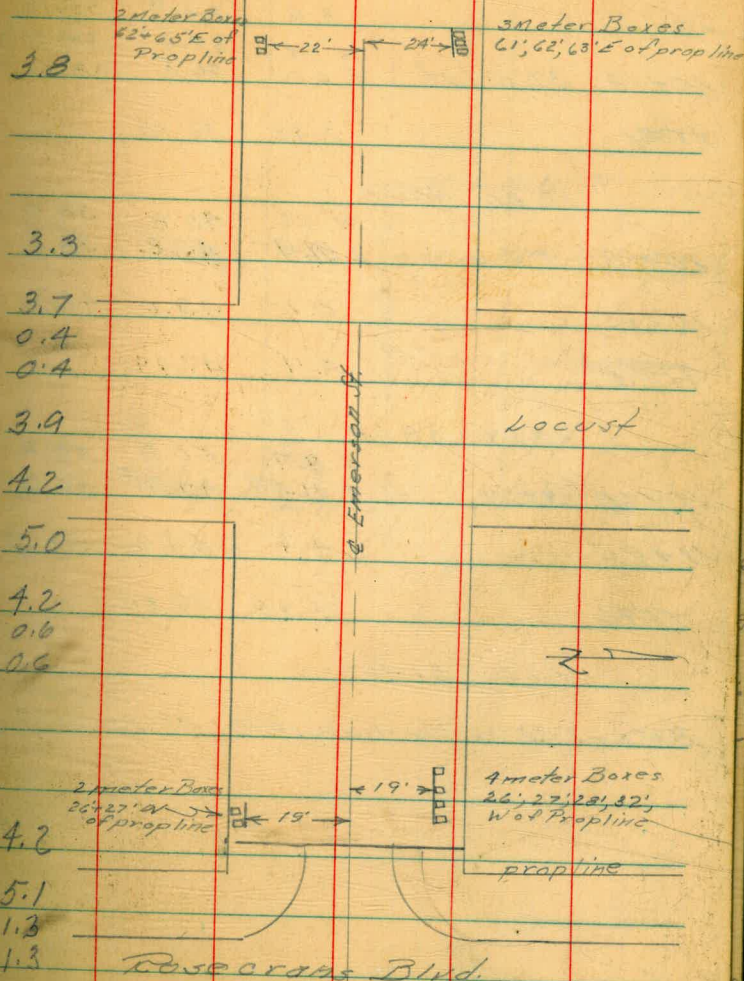
4.1



Emerson St. Water Grades  
From Rosecrans to Willow

	15.10			
5+50	0.7	14.7	14.4	
T.P.#2	0.16	14.94		
	11.28	26.22		
6+00	10.6	15.6	15.8	
6+50	9.2	14.0	16.8	
6+98	32' N Lateral	17.5	18.7	18.3
		17.5	18.7	18.3
7+00	8.0	18.2	17.8	
7+50	6.3	19.9	19.2	
8+00	4.1	22.1	20.6	
8+50	2.0	24.2	23.5	
8+68	4.5 lateral	W 0.8	25.4	24.8
		E 0.8	25.4	24.8
T.P.#3	0.33	25.89		
	12.63	38.52		
9+00	11.2	27.3	26.6	
9+50	7	X.4	31.1	29.5
		W 2.1	32.4	31.1
9+68	A'S	E 6.1	32.4	31.1

## EVERGREEN







47

Milton St Pipeline  
for Construction

B.M. @ Milton + Frankfurt 53.67

0.50 54.17

T.P.#1 11.13 43.04

0.30 43.34

T.P.#2 9.96 33.38

0.46 33.84

T.P.#3 10.18 23.66

1.28 24.94

T.P.#4 8.71 16.23

2.98 18.61

T.B.M. T.P.#5 4.55 14.06

5.80 19.86

0+00

0+50 8.8 11.1 11.8

1+00 8.5 11.4 11.8

1+50 5.8 14.1 13.4

2+00 4.4 15.5 14.9

2+50 2.4 17.5 16.3

cuts

Nov. 28, 1947 ✓ Rainey  
King  
View

T.B.M. Top of fire hydrant L 305 0+50

2.8

3.1

4.2

4.1

4.7

48

Milton St. Pipeline  
for Construction

19.86

3+00 1.0 18.9 17.8

TR#6 0.95 18.91

9/16 28.97

3+50 7.7 20.3 19.3

4+00 6.6 21.5 20.7

4+50 5.4 22.7 22.0

5+00 3.7 24.3 23.8

5+50 2.1 26.0 25.4

TR#7 0.49 27.58

11/22 39.80

6+00 11.7 27.5 27.3

6+50 10.3 28.9 29.0

7+00 8.6 30.6 30.8

7+50 7.0 32.2 32.2

8+00 5.6 33.6 33.3

8+50 4.2 35.0 34.7

9+00 2.8 36.4 36.1

cuts

4.6

4.4 ✓

4.5 ✓

4 ✓

4.3 ✓

4.1 ✓

4.2 ✓

3.9 ✓

4.0 ✓

4.1 ✓

3.7 ✓

3.4 ✓

3.3 ✓

3.5 ✓

3.8 ✓

3.8 ✓

3.8 ✓



A9

Milton St. Pipeline  
for Construction

39.20

9+50 1.4 37.8 37.4

10+00 0.0 39.2 38.7

TP#8 0.01 39.19

11.55 50.74

10+50 10.1 40.6 40.1

11+00 8.7 42.0 41.3

11+50 7.3 43.4 42.6

12+00 5.7 45.0 44.3

12+50 4.1 46.6 46.1

13+00 2.2 48.5 47.9

13+50 0.5 50.2 49.4

TP#9 0.55 50.19

6.72 56.91

14+00 5.5 51.4 51.2

14+50 4.0 52.9 52.5

15+00 3.1 53.8 53.8

15+50 2.1 54.8 55.2

cuts

43.4

50.1

43.2

3.9 ✓

4.0 ✓

4.0 ✓

4.2 ✓

4.3 ✓

4.2 ✓

4.0 ✓

4.1 ✓

4.3 ✓

3.7 ✓

3.9 ✓

3.5 ✓

3.1 ✓

50

Milton St. Pipeline  
for Construction

	56.91			
16+00	0.6	56.3	57.0	
T.P. #10	0.60	56.31		
	12.99	62.24		
16+50	10.2	59.0	59.6	
17+00	6.7	62.5	63.5	
17+50	0.5	68.7	70.0	
T.P. #11	0.46	68.78		
	9.01	77.79		
18+00	3.1	74.7	74.2	
T.B.M. on top spigot	0.33	77.46		
	0.24	77.70		
T.P. #13	12.72	64.98		
	0.10	65.08		
B.M. @ Milton + Frankfort	11.42	53.66		
		5' off 44.7	43.2	
F.H. Milton + Erie		on 44.4		

cuts

2.8 ✓

2.8 ✓

2.9

2.0 ✓

2.5

2.2

4.0

40' S.W. of 18+00

1.5

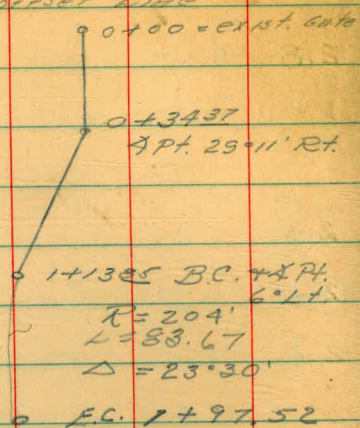
1.2



51

Rainey Dec. 3, 1947  
King  
Nichols  
Santa Cruz St

1050 ft 4' offset line



4+62.24 End

Santa Cruz St

"R" St. Name NW. Cor. Redondo + Santa Cruz

B.M. "R" NW. cor. Redondo + Santa Cruz 181.61

2.68	184.29			
TP#1	6.36	177.93		
11.71	189.64			
0+00	7.0	182.6	182.3	
0+34.37	3.9	185.7	184.5	4.7
0+50	0.8	188.8	185.3	7.0
TP#2	0.77	188.87		
11.58	200.45			
1+138.5 B.C.	7.9	192.6	190.5	5.6
1+25	7.3	193.2	191.8	4.9
1+50	4.4	196.1	195.0	9.6
1+75	1.9	198.6	197.6	4.5
TP#3	0.83	199.7		
11.90	211.52			
1+97.52 E.C.	15.4	201.1	200.0	4.6
0+50	7.5	204.0	203.9	3.6

cuts

52

Santa Cruz St.  
Cont.

	211.52		
3+00	3.4	208.1	207.7
T.P.#4	1.00	210.52	
	11.67	222.19	
3+50	11.0	211.2	211.5
4+00	6.6	215.6	215.4
4+62 <sup>00</sup> end	1.5	220.7	220.5
T.P.#5	11.92	210.27	
	0.14	210.41	
T.P.#6	12.01	198.40	
	0.55	198.95	
T.P.#7	12.70	186.25	
	0.26	186.51	
T.P.#8	12.95	173.56	
	0.94	174.50	
<sup>B.P.</sup> P.M. NW. Cor. Catalina S. 7.00		167.50	

cuts

3.9

3.3

3.7

3.7



53

Milton St. Cont.

14.06

6.38 20.44

0+50 9.2 11.2 11.8

1+00 9.2 11.2 11.8

1+50 6.3 14.1 13.4

2+00 5.1 15.3 14.9

2+50 3.2 17.2 16.3

3+00 1.7 18.7 17.8

T.B.M. Top Spigot 77.46

7.57 85.03

18+50 7.1 77.9 76.8

18+74<sup>20</sup> end 4.8 80.2 80.0

5' off 0.4

84.6

on hub 0.7

84.3

18+74<sup>20</sup> 2 Fire Hydrant 84.3 80.6

cuts

Dec. 8, 1947

Rainy  
Niérow

3.0

3.0

4.2

3.9

4.4

4.4

4.6

3.7

4.0

3.7

54

Frankfort St. Profiles  
for Construction

B.M. Man. & Milton + Frankfort	53.67			
5.12	58.79			
0+00				
0+50	5.8	53.0	52.5	
1+00	5.8	53.0	52.7	
1+50	4.1	54.7	53.1	
2+00	3.3	55.5	53.5	
2+50	3.4	55.4	53.9	
3+00	2.8	56.0	54.3	
3+50	2.2	56.6	54.7	
4+00	1.5	57.3	55.1	
4+50	0.6	58.2	55.5	
7.24	0.61	58.18	55.9	
9.36	61.54			
5+00	3.6	57.9	55.5	
5+50	4.0	57.5	55.7	
6+00	4.0	57.5	55.9	
6+50	4.0	57.5	56.1	

cuts

Rainey Dec. 10, 1947  
King  
Nielsen 10'E of Rd

int. w/ existing line on Milton

4.0

3.8

5.1

5.5

5.0

5.2

5.4

5.7

6.2

5.9

5.3

5.1

4.9



55

Frankfort St.

61.54

7+00	4.1	57.4	56.3
7+50	3.9	57.6	56.5
8+00	4.1	57.4	56.7
8+50	3.6	57.9	56.9
9+00	3.2	58.3	57.0
9+50	3.4	58.1	57.1
10+00	2.6	58.9	57.2
10+50	3.6	57.9	57.2
T.P. <sup>22</sup> <sub>2</sub>	3.64	57.90	

3.15

61.05

11+00	3.8	57.3	57.1
11+50	4.0	57.1	57.0
12+00	4.3	56.8	56.8
12+50	4.7	56.4	56.6
13+00	4.4	56.7	56.4
13+50	4.5	56.6	56.2
14+00	4.7	56.4	56.0

cuts

4.6

4.6

4.2

4.5

4.8

4.5

5.2

4.2

3.7

3.6

3.5

3.3

3.8

3.9

3.9

56

Frankfort St. Cont.  
for Construction

61.05

14+50	5.0	56.1	55.8	3.8
15+00	4.8	56.3	55.6	4.2
15+50	4.9	56.2	55.4	4.3
16+00	5.1	56.0	55.0	4.5
16+50	4.8	56.3	55.9	3.9
TP#3	4.80	56.25		

10.15 66.40

17+00	7.3	57.1	56.9	3.7
17+50	8.4	58.0	57.8	3.7
18+00	7.2	59.2	58.8	3.9
18+50	6.3	60.1	59.8	3.8
19+00	5.7	60.7	60.8	3.4
19+50	4.4	62.0	61.8	3.7
20+00	3.5	62.9	62.7	3.7
20+50	3.4	63.0	63.4	3.1
21+00	4.5	61.9	63.9	1.5
21+50	4.5	61.9	64.2	1.2

cuts



57

Frankfort St. Profiles  
for Const. Cont.

66.40

22+00 5.2 61.2 64.4

22+50 4.6 61.8 64.6

23+00 2.5 63.9 64.8

23+50 0.7 65.7 64.9

BM <sup>Ditt. Infield</sup> ~~Head of Frankfort~~ <sup>Corr. 65.39</sup> 1.08 65.3228' E 5th 60.2  
Fire Hydrant 4+63 on pt. 60.7 55.9 1.820' E 5th 57.3  
Fire Hydrant 15+72 on pt. 57.1 55.5 1.6

cuts

0.3

0.7

2.6

4.3

4.3

4.8





59

Littlefield St. Cont.

59.09

7+00 12.6 46.5 44.3

TR#2 12.65 46.44

0.54 46.98

7+50 2.8 44.2 42.4

8+00 4.5 42.5 40.4

8+50 5.8 41.2 38.7

9+00 8.3 38.7 36.7

9+50 11.4 35.6 34.7

TR#3 12.45 34.53

0.18 34.71

10+00 1.4 33.3 32.0

10+50 4.5 30.2 31.1

11+00 5.4 29.3 29.2

11+50 6.8 27.9 27.2

12+00 9.0 25.7 25.7

12+50 9.9 24.8 24.4

13+00 11.8 22.9 22.8

cuts

5.7

5.9

5.6

6.0

5.5

4.4

3.8

2.6

3.6

4.2

3.5

3.9

3.6

34.71

T.P. #4

12.73 21.98

1.00 22.98

13+50

1.7 21.3 21.1

14+00

3.3 19.7 19.4

14+50

5.4 17.6 17.7

15+00

6.8 16.2 16.0

15+50

9.0 14.0 14.9

Corr. 15.94

7.00 15.98

FH

F.H. Sta 5+88

F.H. 5+85

584 48.8

4 48.8 47.6

F.H. 11+75

584 27.0 26.4

4 26.6

F.H. 15+20

584 15.9 15.4

4 15.8

3.7

3.8

3.4

3.7

2.6

end Edge Morena

7.2

6.2

0.6

0.2

0.4

0.4



61 Rainey  
Dec. 26 1919  
1947. Narrow

Alignment of existing  
Line on Jennings from  
Silvergate to Bangor

to Conc. Man.  
to Silvergate

Silvergate St  
Unpaved

Jennings

Albion

existing pipeline

No opening  
(Deep Canyon)

to Conc. Man. at road? 3' N of line

to pipe marked 20's  
aty engr.

68' →  
Bangor

from prop. line  
& turned  
to Conc. Man.

Note! Gate Valve  
approximately 12' E of  
apparent & Silvergate

62

Notes from Bacon  
to Abbott

B.P. SW Cor. Veltre + Abbott 2.47				
	7.19	9.66		
J.P.#1		4.43	5.23	
	4.25	3.48		
0+00		1.1	8.4	
0+50		1.8	7.7	7.9
	2'W	0.9	8.6	8.3
0+618		2'E	0.8	8.3
1+00		2.5	7.0	7.6
	2'W	1.5	8.0	7.8
1+118		2'E	1.5	7.8
1+50		3.1	6.4	7.2
2+00		3.3	6.2	6.8
2+50		4.1	5.4	6.4
	5' off	3.0	6.5	6.3
2+668 F.H.		3.1	6.4	6.3
3+00		4.2	5.3	6.1
	2'W	3.3	6.2	6.0
3+212		2'E	3.6	6.0
3+50		4.8	4.7	5.8
	2'W	3.8	5.7	5.4
3+712		2'E	3.9	5.4
4+00		5.5	4.0	5.1

Cuts Dec. 31, 1947

Raimey  
King  
Nelson

0+3+00

Int. w/ existing line Bacon

3.3

0.3

0.4

2.9

0.2

0.2

2.7

2.9

2.5

0.2

0.1

2.7

0.2

f 0.1

2.4

0.3

0.2

2.4



63

## Lotus St. for Construction

	9.48				
4+50		6.0	3.5	4.6	
5+00		6.5	3.0	4.0	
5+01 <sup>B</sup>	32'N	2'W 5.4	4.1	4.0	
		2'E 5.4	4.1	4.0	
5+11 <sup>B</sup>	3'5	2'W 5.6	3.9	3.9	
		2'E 5.5	4.0	3.9	
5+50		7.0	2.5	3.5	
		2'W 6.3	3.2	3.2	
5+81 <sup>B</sup>		2'E 6.4	3.1	3.2	
6+00		7.5	2.0	3.0	
6+50		7.5	2.0	2.5	
T.P. <sup>#2</sup>		4.75	4.73		
	2.44 7.17				
B.M. B.P. S.W. Cor. Voltaire + Abbott		4.68			copy 2.47 2.49
3+00 Lotus			5.23		
	5.24 10.47				
0+50		5.0	5.5	6.1	
1+00		4.7	5.8	6.2	
1+50		4.8	5.7	6.3	
2+00		4.3	6.2	6.5	
2+00					

cuts

2.4	
2.5	
0.1	
0.1	
0.0	
0.1	
2.5	
0.0	
0.1	
2.5	
3.0	
on top of H. cor. Lotus + Abbott	
0+00 Chamberlain Ct. 2+71	
2.9	
x	Lotus
3.1	
2.9	
3.2	

64

Atascadero St.

for Construction

Tarrington + Catalina

B.M. Chiseled D.N.E. cor. 87.24

12.01 99.25

T.P.#1 0.91 98.34

12.82 101.16

T.P.#2 0.65 110.51

9.79 120.30

0+10 F.H. 5<sup>off</sup> 1.1 119.2

6 1.4 118.9

118.0 1.2  
0.9

T.P.#3 0.66 119.64

11.93 131.57

0+50 10.2 121.4 121.3 3.6

1+00 6.7 124.9 125.4 3.0

1+50 2.5 129.1 129.5 3.1

T.P.#4 0.33 131.24

12.67 143.91

2+00 10.4 133.5 133.5 3.5

2+50 6.7 137.2 137.6 3.1

3+00 2.4 141.5 141.7 3.3

T.P.#5 0.42 143.49 143.8

12.03 155.52

Jan. 15, 1948

Rainey  
King  
Nieman



65

Atascadero St.  
for Construction

	155.57			
3+50		10.2	145.3	145.8
4+00		5.9	149.6	150.0
4+50		2.1	153.4	153.6
T.P.#6		0.40	155.12	
	3.12	158.24		
5+00		1.8	156.4	155.8
5+50		1.8	156.4	156.5
6+00		3.2	155.0	155.5
6+50		4.7	153.5	153.5
T.P.#7		12.49	145.75	
	2.20	147.95		
T.P.#8		12.66	135.29	
	1.17	136.46		
T.P.#9		12.12	124.34	
	0.67	125.01		
T.P.#10		10.50	114.51	
	0.06	114.57		

3.0

3.1

3.3

4.1

3.4

3.0

3.5

 on Sewer MH <sup>Alley</sup> Alicia + <sup>Tennyson</sup> Wells

66

Atascadero St.

Cont.

114.57

TP#11

12.61 101.96

3.05 105.01

BP. S.W. cor. + <sup>Tennysort</sup> Alicia 9.28 95.73



67

Alicia St.  
for Construction

P.P. SE Cor. Catalina Alicia 06.69

11.09 117.78

0+50 8.1 109.7 109.5

3.7

1+00 4.2 113.6 113.7

3.4

1+50 0.2 117.6 118.2

2.9

T.P.#1 0.31 117.47

11.95 129.42

2+00 7.6 121.8 122.7

2.6

2+50 3.1 126.3 127.1

2.7

T.P.#2 0.28 129.14

12.84 141.98

3+00 11.0 131.0 131.7

2.8

3+50 6.7 135.3 136.3

2.5

4+00 3.2 138.8 138.3

4.0

4+50 1.8 140.2 138.9

4.8

5+00 2.4 139.6 137.7

5.4

5+50 4.4 137.6 135.1

6.0

6+00 5.7 136.3 132.2

7.6

Rainey  
King  
Nickow

Jan. 14, 1948

68

## Alicia St. for Construction

141.98

6+50 8.9 133.1 129.5

T.P.#3 11.98 130.00

0.07 130.07

7+00 1.6 128.5 126.7

5th 0.3 129.8

7+185 R.H. 1.3 128.8 126.7

7+50 3.2 126.9 126.6

T.P.#4 12.80 117.27

3.86 121.13

Alley on Wells

On Sewer M.H. bet. Alicia 6.60 114.53 114.51

+Tennison

cuts

7.1

5.3

3.1

2.1

3.8



69

Tennyson St.  
for Construction

B.P. NE Cor. Tennyson + Catalina 87.24

12.83 100.07

0+50 6.5 93.6 93.2 3.9

1+00 0.9 99.2 98.4 4.3

T.P. #1 0.92 99.15

12.40 111.55

1+50 7.6 104.0 103.8 3.7

2+00 2.1 109.5 108.4 4.6

T.P. #2 0.08 111.47

12.04 123.51

2+50 8.4 115.1 114.0 4.6

3+00 3.4 119.4  
120.1 119.4 5.0

T.P. #3 1.15 122.36

7.88 130.24

3+50 5.8 124.4 123.0 4.9

4+00 3.5 126.7 125.3 4.9

4+50 3.1 127.1 126.0 4.6

5+00 3.2 127.0 126.1 4.2

Jan. 14, 1948

Rainey  
King  
Nichow

70

Tennison St.  
for Construction

130.24

5+50	5.2	125.0	124.2	4.3
6+00	7.2	123.0	121.7	4.8
6+50	9.7	120.5	119.2	5.0
7+00	12.2	118.0	116.7	4.8
T.P.#4	12.22	118.02		
	0.82	118.84		
7+50	3.1	115.7	114.2	5.0
8+00	6.2	112.6	111.2	4.9
8+50	9.0	109.8	108.7	4.6
9+00	12.1	106.7	106.0	4.2
T.P.#5	12.05	106.79		
	1.06	107.85		
9+50	2.7	105.2	105.45	3.2
B.M. SW. Cor. Alicia + Tennison	12.16	95.69	95.75	
			Corr.	
	5.4	127.5	1.7	
F.H. 5+25	e	127.4	125.8	1.6



2-27-48

King  
Leonard

71

71

## Profile for Water Line

South from Union 5<sup>23</sup> St. 10' East P

Then 10' So. P on Landis to Altadena

B.M.	11.8132738 ✓	315.57	B.P. N.W. 5241111
------	--------------	--------	----------------------

0+00	11.7	316.1
------	------	-------

0+21.2	11.3	16.1
--------	------	------

0+50	9.0	18.4
------	-----	------

1+00	3.6	23.8
------	-----	------

T.P.	10.75	338.05	0.00	327.30 ✓
------	-------	--------	------	----------

1+50	9.3	328.8
------	-----	-------

2+00	6.6	31.5
------	-----	------

2+50	5.6	32.5
------	-----	------

3+00	5.2	32.9
------	-----	------

3+50	5.3	32.8
------	-----	------

4+00	5.2	32.9
------	-----	------

ON Pav. Top Pipe in Uni. Ave

Edge Conc. Pav - Prop. Line

7' High bank - 3' LT

5' " " 3' LT

3' High bank - 3' LT

72

338.05 ✓

4+50	5.2	332.9
5+00	5.7	32.4
5+50	5.7	32.4
6+00	4.7	33.4
6+50	3.4	34.7
7+00	2.5	35.6
7+50	3.6	34.5
8+00	5.4	32.7

T.P. 0.72 336.17 ✓ 2.60 335.45 ✓

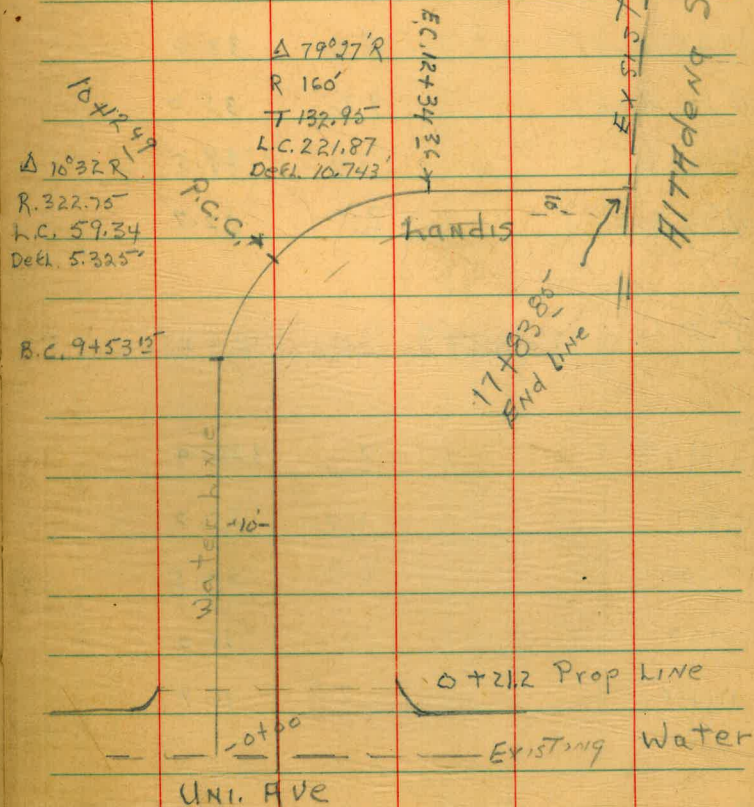
8+50	6.3	329.9
9+00	9.9	26.8
BC 9+53 <sup>15</sup>	10.5	25.7
9+70	9.7	26.5
P.C.C. 10+10 <sup>49</sup> BANK	5.5 ?	30.7
5' R.F. Road	8.2	38.0

72

Alignment Proposed RA-522<sup>d</sup> Uni. to

Landis to Hithdeng.

See Field BK 1529 P.R.





10450 Bank	1.9	334.27
5' Rt. Road	5.5	30.7
11700 Road	3.2	33.0
4' Lt Bank	+1.5	37.7
11450 Road	4.2	32.0
4' Lt. Bank	1.2	35.0
12400 Rd	7.7	28.5
4' Lt. Bank	3.5	32.7

T.P. 0.82 329.39 7.60 328.57 ✓

EC. 12434 <sup>36</sup>	3.0	326.4
+50	4.2	25.2
13400	6.9	22.5
+50	10.4	19.0
14400	12.5	16.9

T.P. 4.60 321.03 ✓ 12.96 316.43 ✓

74	321.03 ✓		
14+50	5.0	316.0	
15+00	5.1	15.9	
750	5.1	15.9	
16+00	5.3	15.7	
750	5.0	16.0	
17+00	3.5	17.5	
17+50	2.4	18.6	
783 <sup>88</sup> END	2.2	18.8	

J.B.M. 1.92 319.11 319.07 ✓

ground bare existing Pipe - Altadena & Landis

Top Sewer M.H. & Landis & Altadena



## Orton St.

Mon. & Frankfurt - Milton	53.67			
	7.14	60.83		
TP#1		3.46	57.37	
	11.72	69.09		
0+00		11.7	57.4	
0+50		8.3	60.8	58.9
1+00		6.2	62.9	61.8
1+50		4.0	65.1	64.8
2+00		0.5	68.4	68.2
TP#2		0.55	68.54	
	12.79	81.33		
2+50		8.9	72.4	72.0
3+00		6.1	75.2	75.6
3+50		1.6	79.7	78.5
3+76 <sup>23</sup> END		0.4	80.9	79.6
TP#3		10.21	71.12	
	0.29	71.41		
TP#4		12.00	59.41	
	3.24	62.65	9.00	53.65

B.M.

Cuts Mar. 9, 1948

Raney  
Baker  
Shipman

75

int w existing line Franklin

5.4

4.4

3.8

3.9

3.9

3.1

4.7

4.9

## Orten H. Court.

3+50 79.73

12.36 92.09

3+76<sup>23</sup> 8.9 83.2 79.5

5' off 8.0 84.0 80.5

F.H. 8.5 83.6 80.5

3+96<sup>22</sup> 4 Pt. 7.5 84.6 80.0

0+50 5.1 87.0 82.2

1+00 2.1 90.0 84.6

1+50 1.8 90.3 86.8

2+00 1.6 90.5 89.4

2+50 1.2 90.9 91.6

2+55<sup>20</sup> 4 Pt. 22' 30" 1.6 90.5 91.82+66<sup>30</sup> B.C. 1.3 90.8 92.0

2+75 0.9 91.2 92.3

T.P. 0.43 91.66

12.77 104.43

3+00 17.0 93.4 93.5

3+25 10.0 94.4 94.5

3+50 8.4 96.0 96.7

Raimy  
Baker  
Shipman

76

cuts

8.2

3.6

3.1

8.1

8.3

8.9

7.0

6.5

2.8

2.2

2.3

2.4

3.4

3.4

2.8

Ink Drain 2+00 - 2+50 <sup>+86.0</sup> 84.0  
6th. min.



104.43

3+75	6.5	97.9	97.0
4+00	5.3	99.1	98.1
4+25	4.6	99.8	99.2
4+50	3.5	100.9	100.3
4+75	2.5	101.9	101.4
5+00	1.2	103.2	102.5
5+25	0.0	104.4	103.6
T.P.#1	0.61	103.82	

11.99 115.81

5+50	10.1	105.7	104.7
5+75	8.9	106.9	105.7
6+00	6.3	109.5	106.8
6+25	4.3	111.5	107.8
6+50	4.1	111.7	109.0
6+75	3.9	111.9	110.0
7+00	3.1	112.7	111.0
7+25	2.2	113.4	112.0

4.4

4.5

4.1

4.1

4.0

4.2

4.3

4.5

4.7

6.2

7.2

6.2

3.4

5.2

5.1

## Orten St. cont.

78

115.81

7450 1.6 114.2 113.2 4.5

7475 0.5 115.3 114.3 4.5

7480 Emd. 0.1 115.7 114.5 4.7

T.P. #2 11.84 103.97

0.32 104.29

T.P. #3 12.56 91.73

0.84 92.57

3450 12.87 79.70



Galveston St.

From Oriento Napier

8+50		79.73		
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	10.51	90.24		
--	-------	-------	--	--

4+00		4.3	85.9	80.6
------	--	-----	------	------

TP		0.70	89.54	
----	--	------	-------	--

	8.68	98.22		
--	------	-------	--	--

3+43		6.9	91.3	85.0
------	--	-----	------	------

3+00		5.4	92.8	88.8
------	--	-----	------	------

2+50		3.1	95.1	91.9
------	--	-----	------	------

2+00		2.6	95.6	93.6
------	--	-----	------	------

1+50		1.3	96.9	94.4
------	--	-----	------	------

1+00		1.4	96.8	95.0
------	--	-----	------	------

TP		0.99	97.83	
----	--	------	-------	--

	2.47	99.70		
--	------	-------	--	--

0+50		1.2	98.5	95.4
------	--	-----	------	------

0+33 <sup>45</sup>		0.7	99.0	95.0
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0+00				
------	--	--	--	--

TP		11.40	88.30	
----	--	-------	-------	--

	1.98	90.28		
--	------	-------	--	--

0+5 or 100		3.3	87.0	
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cuts

Mar. 12, 1948

Rainey  
Baker  
Shipman

79

8.8

9.8

7.5

6.7

5.5

6.0

5.3

0+00 int. w existing line Napier

6.6

7.5

Chalcedony  
 Mar. 23, 1948

Rainey  
 Batey  
 Shipman

cuts

80

	NW B.P. Gresham + Diamond	70.31		
	13.11	83.42		
4	TP#1	0.99	82.43	
	12.54	94.97		
	0+00	6.4	<sup>88</sup> 89.6	89.0
3	0+50	5.3	89.7	89.2
3	1+00	5.4	89.6	89.4
2	1+50	5.2	89.8	89.6
2	2+00	4.8	90.2	89.8
1	2+50	4.5	90.5	90.0
1	3+00	4.2	90.8	90.2
	3+50	3.5	91.5	90.4
	4+00	2.8	92.2	90.6
4	4+50	2.7	92.3	90.8
4	5+00	2.7	92.3	91.0
4	5+50	2.7	92.3	91.6
7	TP#2	12.91	82.06	
	1.11	83.17		
	B.M.	12.89	70.28	

intw existing line Gresham

4.0

3.7

3.7

3.9

4.0

4.1

4.6

5.1

5.0

4.8

4.2

Please Return to  
 City of San Diego Water Dept.  
 Room 268 Civic Center  
 Telephone Main 5161



327 22

Willow S.M.B.P. 37247  
 Jarvis Resections  
 S.W.P.R. Spks  
 4.643

95  
 123

3617  
 902

6047  
 675  
 5372

2103  
 222  
 21893

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	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

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  $41.9 + (20 - 16) \div 2$  or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.