

W
572

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

Copyright, 1914, by Eugene Dietzgen Co.

13546074
135+00 } 4
33+00 23
25+00 25

572

The paper stock of this book is made of a high grade 50% rag paper having a water resisting surface and is sewed with Bing Special Enamel Waterproof Thread.

Made in U. S. A.

MICROFILMED

JAN 13 1965

CONSTRUCTION NOTES PACIFIC
BEACH P.L.

Appurtenances Pac. Beach P.L. 28
and back of book

Profile etc. 265 to 378+75 1-13

Ground Water Elev. 14-15

Profile 0+00 to 50+00 16-20

Alignment Revision - Kurtz St. 21-22

Profile 69+50 to 68+67 23-25
" 55 " 59 27

Alignment Archer St. P.L. 30-33

Profile same 34-46

Alignment Foothill Blvd. P.L. 47-50

Profile same 54-59

Alternate #1 51-52

Profile same 60-62

Alternate #2 53

Profile same 63

ALIGNMENT PROPOSED ROAD TO
PAC. BEACH RES. SITE 65

PROFILE OF SAME 66-69

STADIA SURVEY OF ALTER. ROUTE 70 ✓

Profile proposed road from Lot #2
to AGATE ST. Pac. Beach 71-73

Measurement of Concrete Paving Overbrakes
Electric Ave. Pipeline 74

MPV

Chic

H

0

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

to 1
of r
exa
30.6

MICROFILMED

JAN 18 1982

Ups. St. to Pacific Beach Res. Location

Profile of offset points.

B.M.	5.40	33.57	28.17	Grade
2651508			5.1	28.5 ^{22.80}
266			5.6	28.0 ^{22.80}
+50			6.2	27.4 ^{22.7}
267			6.8	26.8 ^{22.7}
+50			7.3	26.2 ^{22.28}
+59 ³⁸ L			7.2	26.4 ^{22.21}
TP	2.84	29.17	7.24	26.33
268			3.1	26.1 ^{21.90}
+50			3.4	25.8 ^{21.65}
269			3.7	25.5 ^{21.40}
+50			4.1	25.1 ^{21.16}
270			4.4	24.8 ^{20.92}
+50			4.6	24.6 ^{20.67}
271			5.0	24.2 ^{20.43}
+28 ⁰⁰ B.C.			5.1	24.1 ^{20.29}
+50			5.2	24.0 ^{20.16}
272			5.4	23.8 ^{19.94}
+50			5.6	23.6 ^{19.70}
+53 ⁹⁴ E.C.			5.6	23.6 ^{19.68}
273			5.9	23.3 ^{19.45}
TP	3.05	26.36	5.86	23.31
+50			3.3	23.1 ^{19.20}
274			3.8	22.6 ^{18.96}

3/25/41

Hill

3-7-41

Braceless

Hodge son

Part in cutting, Crown Point Dr. at N. end of bridge

Cut

4.7 5.7

4.6 5.2

4.4 4.7

4.1 4.1

4.0

4.2

4.2

4.1

4.1

3.9

3.9

3.9

3.8

3.8

3.8

3.9

3.9

3.9

3.8

3.9

3.8

3.9

3.6

	26.36		Grade	
274 +50		3.6	22.8	18.71
275		3.8	22.6	18.47
+50		4.5	21.9	18.22
276		4.6	21.8	17.98
+50		4.9	21.5	17.73
277		5.2	21.2	17.49
+50		5.4	21.0	17.24
278 x		5.6	20.8	17.00
+50		5.9	20.5	16.50 16.50
IT	8.49	28.97	5.88	20.98
278+65 ⁹⁰ B.C.		8.6	20.4	16.24 16.24
279 x		8.6	20.4	16.00 16.00
+50		8.0	21.0	17.00 17.00
280 x		7.0	22.0	18.00
+50		6.0	23.0	18.80
280+61 ¹⁵ E.C.		5.8	23.2	18.98
281		5.1	23.9	19.60
+50		4.4	24.6	20.40
B.M.		3.46	25.51	
282		3.4	25.6	21.20
+50 x		2.4	25.6	22.00
283		3.0	26.0	22.42
+35 ⁹⁰ B.C.		2.7	26.3	22.71
+50		2.6	26.4	22.83
IT	7.08	33.47	2.58	26.39

Cut
4.1
4.1
3.7
3.8
3.8
3.7
3.8
5.0 4.0
5.4 4.1
6.4 5.4
5.0 4.0
4.0
4.2
4.2
4.3
4.2
Point on curb between S.R. Cor Buena Vista & La Mancha Elev. 25.50
4.4
3.6
3.6
3.6
3.6

	33.47		Grade	
284		6.7	26.8	23.25
+50		6.2	27.3	23.66
285		5.7	27.8	24.08
+06 ⁰⁰ E.C.		5.7	27.8	24.13
+50		5.3	28.2	24.49
286		5.0	28.5	24.91
+50		4.5	29.0	25.32
287		4.0	29.5	25.74
+50		3.5	30.0	26.16
288		3.1	30.4	26.57
+50		2.5	31.0	26.98
+65 ⁰⁰ L		2.2	31.3	27.10
TP	6.84	39.19	1.12	32.35
B.M.		6.45	32.74	
289	X	6.9	32.3	27.40
+50		4.8	34.4	29.10
290	X	4.2	35.0	30.80
+06 ⁹⁰ L		3.6	35.6	30.74
+50		4.1	35.1	30.40
291	X	3.9	35.3	30.00
+50		6.0	33.2	28.33
292		7.8	31.4	26.67
TP	2.47	33.84	7.82	31.37
+50 X		3.6	30.2	25.00
293		4.6	29.2	24.67

Cut
3.5
3.6
3.7
3.7
3.7
3.6
3.7
3.8
3.8
4.0
4.2
Point on curb return, S.E. Cor. Burma Vista & Meireland Dr. Elev. 32.74
4.9
5.3
4.2
4.9
4.7
5.3
4.9
4.7
5.2
4.5

	33.84			Grade	
293+50			4.8	29.0	24.33
294			5.0	28.8	24.00
+50			5.4	28.4	24.08
295			5.0	28.8	24.16
+50			4.8	29.0	24.24
296			4.7	29.1	24.32
+50			4.7	29.1	24.40
297			4.3	29.5	24.90
+50			3.1	30.7	25.41
TP	8.10	38.88	3.06	30.78	
298			7.0	31.9	25.92
+50			6.1	32.8	26.42
299			5.5	33.4	26.93
+50			4.5	34.4	27.44
300			3.9	35.0	27.94
+50			3.4	35.5	28.45
301			2.1	36.8	28.96
+50			1.0	37.9	29.46
TP	8.52	45.80	1.60	37.28	
302			6.8	39.0	29.97
+50			5.7	40.1	30.47
303			5.2	40.6	30.98
+50			4.6	41.2	31.49
304			4.5	41.3	32.00
+50			4.7	41.1	32.25

Cut

4.7

4.8

4.3

4.6

4.8

4.8

4.7

4.6

5.3

6.0

6.4

6.5

7.0

7.1

7.0

7.8

8.4

7.0

9.6

9.6

9.7

9.3

8.8

45.80

Grade

Cut

305			4.9	40.9	32.50
+50			5.4	40.4	32.75
306			5.7	40.1	33.00
+50			6.0	39.8	33.25
307			6.1	39.7	33.50
π	6.76	46.46	6.10	39.70	
+50			6.5	40.0	33.75
308			6.5	40.0	34.00
+50			6.9	39.6	34.25
309			7.5	39.0	34.50
+50			6.7	39.8	34.75
310	x		5.6	40.9	35.00
+50			4.4	42.1	35.75
311	x		3.5	43.0	36.50
+50			2.0	44.5	37.60
312			1.4	45.1	38.70
+50			0.8	45.7	39.80
π	13.07	58.76	0.77	45.69	
313			12.9	46.1	40.90
+50			11.6	47.2	42.00
314			10.1	48.7	43.10
+50			7.8	51.0	44.20
315			6.0	52.8	45.30
+50			4.7	54.1	46.40
316+00 x				54.9	47.50
316+02 ⁸³ L			3.9	54.9	47.51

8.4
7.6
7.1
6.5
6.2
6.2
6.0
5.3
4.5
5.0
5.9
6.3
6.5
6.9
6.4
5.9
5.2
5.2
5.6
6.8
7.5
7.7
7.7
7.7

	58.76		Grade	
316+50			4.4	54.4 47.75
317 x			5.0	53.8 48.00
+50			5.6	53.2 46.50
+78° ⁰⁵ L			6.4	52.4 45.66
318			7.2	51.6 45.00
TP	0.38	51.92	7.22	51.54
+50			3.2	48.7 43.50
319			5.5	46.4 42.00
+50			6.7	45.2 40.50
320 x			7.8	44.1 39.00
TP	6.92	51.01	7.83	44.09
+50			7.1	43.9 39.00
321 x			6.5	44.5 39.00
+50			6.1	44.9 39.75
322			5.6	45.4 40.50
+50			5.1	45.9 41.25
323			4.5	46.5 42.00
+50			3.1	47.9 42.75
324 x			2.5	48.5 43.50
+50			1.8	49.7 44.50
TP	10.48	60.30	1.19	49.82
325 x			9.6	50.7 45.50
+50			8.2	52.1 46.75
326 x			7.5	52.8 48.00
+50			6.3	54.0 48.80

Cut

6.6
5.8
6.7
6.7
6.6
5.2
4.4
4.7
5.1
4.9
5.5
5.1
4.9
4.6
4.5
5.1
5.0
5.2
5.2
5.3
4.8
5.2

	60.30		Grade
327 +		5.1	55.2 49.60
+50		4.5	55.8 49.62
328		3.3	57.0 49.64
+50		2.9	57.4 49.66
329		2.9	57.4 49.68
+50		3.3	57.0 49.70
330		4.1	56.2 49.72
TP	5.96 62.16	4.10	56.20
+50		7.8	54.4 49.74
B.M.		7.26	54.90
330+84 x		8.3	53.9 49.75
331		7.9	54.3 49.87
+50		8.2	54.0 50.23
332 x		6.4	55.8 50.60
+50		4.0	58.2 52.30
333 x		2.5	59.7 54.00
+50		1.4	60.8 55.17
TP	9.05 70.63	0.58	61.58
334		8.3	62.3 56.33
+50 x		7.1	63.5 57.50
335		7.3	63.3 58.20
+50		6.0	64.6 58.90
336		5.1	65.5 59.60
+50		4.4	66.2 60.30
337 x		3.9	66.7 61.00
+50		3.6	67.0 61.50

Cut	
5.6	
6.2	
7.4	
7.7	
7.7	
7.3	
6.5	
4.7	
Nail in pole S.W. Cor Haines + Grand Elev. 54.91	
4.1	
4.4 + 0.6	
3.8	
5.2	
5.9	
5.7	
5.6	
6.0	
6.0	
5.1	
5.7	
5.9	
5.9	
5.7	
6.5 ?	

	70.63		Grade	
338		3.0	67.6	62.00
B.M.		0.32	70.31	
B.M.	3.41	73.72	70.31	
336+50		5.2	68.5	62.50
339		5.0	68.7	63.00
+50		4.6	69.1	63.50
340 x		4.5	69.2	64.00
+50		3.2	70.5	64.84
341		3.3	70.4	65.67
TP	6.17	76.57	3.34	70.38
+50 x		6.1	70.5	66.50
342		5.3	71.3	66.85
+50		5.3	71.3	67.20
343		4.8	71.8	67.55
+50		4.4	72.2	67.90
344		3.9	72.7	68.25
+50		3.8	72.8	68.60
345		3.4	73.2	68.95
+50 x		3.5	73.1	69.30
TP	9.84	82.96	3.45	73.12
346		8.6	74.4	69.56
+50		8.2	74.8	69.82
				70.30
				70.08
347		7.9	75.1	70.80
+50		7.6	75.4	70.34
				71.36
				70.60
348		7.1	75.9	71.88

3/26/41
Hill
30' per
Brooks
Hedgeson

Cut		C' OFF sets to Lt		
		Elev.	Grade	Cut
5.6		68.6	63.00	5.6
Set B.M. Top of Fire hydrant S.E. Cor. Haines & Garnet				
6.0		69.0	63.50	5.5
5.7		69.6	64.00	5.6
5.6		70.1	64.84	5.3
5.2		70.4	65.67	4.7
5.7				
4.7				
4.0		70.5	66.50	4.0
4.4		71.1	66.85	4.2
4.1		71.5	67.20	4.3
4.2		71.8	67.55	4.2
4.5		71.9	67.90	4.0
4.4		72.4	68.25	4.1
4.2		72.7	68.60	4.1
4.2		72.9	68.95	3.9
3.8		73.1	69.30	3.8
4.6	4.8	74.0	69.56	4.4
4.5	5.0	74.5	69.82	4.7
4.3	5.0	74.6	70.08	4.5
4.1	5.1	75.2	70.34	4.9
4.1	5.3	75.4	70.60	4.8

	82.96		Grade	
348+50		6.7	76.3	72.30
349 x		6.5	76.5	72.80
+50		4.4	78.6	73.70
350		3.9	79.1	74.60
+50		2.8	80.2	75.50
351		2.3	80.7	76.40
TP	10.74	91.45	2.25	80.71
+50		9.7	81.8	77.30
352		8.7	82.8	78.20
+50		7.5	84.0	79.10
353 x		6.5	85.0	80.00
+50		5.5	86.0	81.40
354		4.2	87.3	82.80
+50 x		3.1	88.4	84.20
355		1.5	90.0	85.60
TP	12.17	102.18	1.44	90.01
+50		10.7	91.5	85.7
356 x		8.8	93.4	87.00
+50		7.1	95.1	86.5
357 x		5.5	96.7	87.40
+50		3.8	98.4	89.1
358		2.4	99.8	89.98
+50		0.6	101.6	91.55
TP	12.56	114.13	0.61	93.13
359		10.9	103.2	94.70

Cut				
4.0	4.6	76.5	71.7	4.8
3.7		77.2	72.8	4.4
4.9				
4.5				
4.7				
4.3				
4.5				
4.6				
4.9				
5.0				
4.6				
4.5				
4.2				
4.4	5.0			
4.5	5.8			
5.0	6.9			
5.1	6.0			
5.1				
5.3				
5.1				
5.3				
5.3				

Grade change

	114.13		Grade	
359			9.7	104.4
360	x		7.6	106.5
+50			5.9	108.2
361			3.9	110.2
+50			1.3	112.8
TP	9.34	122.13	1.34	112.79
362			7.1	115.0
+06 ⁰ B.C.			6.9	115.2
+46 ²			6.0	116.1
+86 ²⁴ E.C.			6.0	116.1
363			5.9	116.2
B.M.			3.16	118.97
+50	x		3.9	118.2
364			2.7	119.4
+50			1.4	120.7
TP	13.16	134.13	1.10	121.03
365			12.2	121.9
+50			11.0	123.1
+74 ⁶⁵ L. (G.H. to bank fang)			10.4	123.7
366	x		9.5	124.6
+50			6.2	127.9
367			3.0	131.1
TP	13.07	146.03	1.17	132.96
+50	x		11.5	134.5
+65 ⁹³ L.			10.9	135.1
+77 ⁸⁵ B.C.			11.1	134.9

Cut	
5.0	
5.5	
5.4	
5.7	
6.5	
7.0	
6.9	
6.2	
4.6	
4.2	
Top of Fine Hyd. S.E. Cor. of Haines Beryl. E. 118.97	
4.2	
4.2	
4.3	
4.3	
4.3	
4.6	
4.6	
4.4	
4.5	
4.9	
4.4	

146.03

368			10.9	135.1	130.75
+162			10.9	135.3	131.00
+50 x			10.3	135.7	131.50
+53.79 E.C.			10.2	135.8	131.65
369			8.5	137.5	133.50
+50			6.4	139.6	135.50
370 x			4.2	141.8	137.50
+50			2.1	143.9	138.95
+75.5 d			1.0	145.0	139.69
371			0.2	145.8	140.41
TP	12.47	158.38	0.12	145.91	
371+375 x		158.34	8.16	145.87	141.50
+50			11.0	147.3	141.55
372			11.7	146.6	141.75
+50			11.0	147.3	141.95
B.M.			7.81	150.57	
372+625 x				150.57	142.00
373			9.2	147.5	144.15
+136.4 B.C.			8.8	149.6	144.93
+50 x 6' RT			7.3	151.1	147.00
" 5' LT			7.5	150.9	147.00
+82.57 E.C. 6' RT			6.1	152.3	148.09
" 5' LT			6.2	152.2	148.09
374 6' RT			5.4	153.0	148.67
" 5' LT			5.5	152.9	148.67
+50 6' RT			3.5	154.9	150.34
" 5' LT			3.6	154.8	150.34
TP	13.10	168.00	3.48	154.90	
				154.46	

4.3
4.3
4.2
4.1
4.0
4.1
4.3
4.9
5.3
5.4
Run check levels back over TP's
5.6
5.8
4.9
5.4
Top of F. Hyd. W.E. Cor Loring & Fourth St. Bldg.
5.5
5.0
51 150.58
4.7
4.1
3.9
4.2
4.1
4.3
4.2
4.6
4.5

		168.00			
375	x 6' RT	11.2	156.8	152.00	
	5' LT	11.4	156.6	152.00	
+50	6' RT	9.3	158.7	154.44	
	5' LT	9.5	158.5	154.44	
376	6' RT	7.2	160.8	156.88	
	5' LT	7.4	160.6	156.88	
+50	6' RT	4.9	163.1	159.32	
"	5' LT	5.1	162.9	159.32	
377	6' RT	2.4	165.6	161.75	
"	5' LT	2.5	165.5	161.75	
TP	12.97	180.07	0.90	167.10	
+50	6' RT	12.0	168.1	164.19	
"	5' LT	12.1	168.0	164.19	
378	6' RT	9.4	170.7	166.63	
"	5' LT	9.6	170.5	166.63	
+50	6' RT	6.9	173.2	169.07	
	5' LT	7.0	173.1	169.07	
379	x 6' RT	4.4	175.7	171.50	
"	5' LT	4.5	175.6	171.50	
379+50 ³⁸	6' RT	2.0	178.1	173.00	
"	5' LT	2.5	177.6	173.00	
B.M.		0.59	179.48		
379+53 (2 nd dead end of 6)		5.67	174.40		

Cut

4.8'

4.6'

4.3'

4.1'

3.9'

3.7'

3.8'

3.6'

3.8'

3.7'

3.9'

3.8'

4.1'

3.9'

4.1'

4.0'

4.2'

4.1'

5.1'

4.6'

Top of E.H. Toumaline a Foothill - El 179.47

Top of 10" water line

Sta	Elev.	Grade	Cut
363+50 - 5' Lt	118.1	114.00	4.1 ✓
363+75 - 6' Rt	118.8	114.60	4.2 ✓
" 5' Lt	118.7	114.60	4.1 ✓
364+00 - 5' Lt	119.3	115.20	4.1 ✓
364+25 - 6' Rt	120.0	115.80	4.2 ✓
" 5' Lt	119.9	115.80	4.1 ✓
364+50 5' Lt	120.6	116.40	4.2 ✓
364+75 6' Rt	121.2	117.00	4.2 ✓
" 5' Lt	121.1	117.00	4.1 ✓
365+00 5' Lt	121.8	117.60	4.2 ✓
365+25 6' Rt	122.5	118.20	4.3 ✓
" 5' Lt	122.4	118.20	4.2 ✓
365+50 5' Lt	123.0	118.80	4.2 ✓
375+25 6' Rt	157.7	153.22	4.5 ✓
" 5' Lt	157.6	153.22	4.4 ✓
375+75 6' Rt	159.7	155.66	4.0 ✓
" 5' Lt	159.6	155.66	3.9 ✓
376+25 6' Rt	162.0	158.10	3.9 ✓
" 5' Lt	161.9	158.10	3.8 ✓
376+75 6' Rt	164.3	160.54	3.8 ✓
" 5' Lt	164.2	160.54	3.7 ✓
377+25 6' Rt	166.8	162.97	3.8 ✓
" 5' Lt	166.7	162.97	3.7 ✓

	Elev.	Grade	Cut
377+75 - 6' Rt	169.3	165.41	3.9 ✓
" 5' Lt	169.2	165.41	3.8 ✓
378+25 6' Rt	171.9	167.85	4.0 ✓
" 5' Lt	171.8	167.85	3.9 ✓
378+75 6' Rt	174.4	170.29	4.1 ✓
" 5' Lt	174.3	170.29	4.0 ✓

Water elevs on Causeway

	+	H.I.	-	H.W.	
B.M.	8.17	10.96		2.79	
TP	3.23	5.28	8.91	2.05	
146+66			4.75	0.53	Pave
"			8.33	-3.05	Water
144+60			7.81		Pave
"			8.55	-3.27	Water
144+31			4.79		Pave
"			9.18	-3.90	Water
143+46			4.71		Pave
"			8.66	-3.38	Water
142+44			4.65		Pave
"			8.29	-3.01	Water
TP	5.24	5.99	4.53	0.75	
141+45			5.24		Pave
"			8.98	-2.99	Water
140+40			5.12		Pave
"			9.13	-3.14	Water
139+45			5.01		Pave
"			9.02	-3.03	Water
138+47			4.93		Pave
"			8.80	-2.81	Water
137+60			4.80		Pave
"			8.58	-2.59	Water
TP	4.81	6.13	4.67	1.32	

B.P. in Conc. Hdwall, North of W. Point Lema Blvd.

613

136+50			4.87		Pave.
"			8.81	-2.68	Water
135+53			4.80		Pave.
"			8.94	-2.81	Water
134+56			4.73		Pave.
"			9.10	-2.97	Water
TP	5.77	7.57	4.33	1.80	
TP	4.66	6.98	5.25	2.32	
124+23			4.86	2.12	Pave
"			10.51	-3.53	Water
B.M.			1.76		

Fire hydr. opp 124+50

Profile of 6' offsets

B.M.	0.39	31.61		31.22	
TP	10.25	29.75	12.11	19.50	
0+00			10.3	19.5	15.5
0+50 x			10.2	19.6	15.00
1+00			10.0	19.8	15.47
+50			9.9	19.9	15.93
2			8.8	21.0	16.40
+50			8.2	21.6	16.86
3			7.0	22.85	17.33
+50			5.3	24.5	17.80
4			5.2	24.6	18.26
+50			4.9	23.9	18.73
5			4.4	25.4	19.19
+50			4.8	25.0	19.66
6			4.2	25.6	20.13
+50			3.5	26.3	20.59
7			2.6	27.2	21.06
+50			1.6	28.2	21.52
TP	3.27	31.45	1.57	28.18	
7+56 ¹⁹ L			2.5	29.0	21.58
8+00 x			4.1	27.4	22.00
B.M.			2.96	28.49	
+50			4.5	27.0	22.00
9			4.8	26.7	22.00

7/10/41 16

50 feet
Brooks
Hodge 104

Nail in power pole

4.0
4.6
4.3
4.0
4.6
4.7
5.5
6.7
6.3
5.2
6.2
5.3
5.5
5.7
6.1
6.7
7.4
5.4
ck on B.M. Elev 28.50
5.0
4.7

9+50			4.7	26.8	22.00
10	x		4.5	27.0	22.00
+50			4.3	27.2	21.67
11			4.0	27.5	21.33
+50			3.2	28.3	21.00
12			4.3	27.2	20.67
TP	2.07	30.61	2.91	28.54	
+50			2.5	28.1	20.33
13			2.6	28.0	20.00
+50			2.7	27.9	19.67
14			3.0	27.6	19.33
+50			3.6	27.0	19.00
15			4.1	26.5	18.67
+50	x		5.4	25.2	18.33
16	x		8.0	22.6	18.00 17.00
+50	x		8.9	21.7	18.14
17			8.6	22.0	18.28
+50			7.6	23.0	18.42
18			7.8	22.8	18.57
+50			8.2	22.4	18.71
19			8.3	22.3	18.86
TP	4.84	27.13	8.32	22.29	
			7.12	20.01	

4.8	
5.0	
5.5	
6.2	
7.3	
6.5	
7.8	
8.0	
8.2	
8.3	
8.0	
7.8	
6.9	
4.6	5.6
3.6	
3.7	
4.6	
4.2	
3.7	
3.4	
ck on B.M. elev. 20.03	

7/11/41 (18)
 Joper
 Brooks
 Hodgson

	5.90	25.93	20.03	
19+50x			3.8	22.1 19.0
20400			3.8	22.1 18.57
+50			3.3	22.6 18.14
21			3.5	22.4 17.71
+50			4.0	21.9 17.28
22			4.6	21.3 16.85
+50			5.2	20.7 16.42
23 x			5.7	20.2 16.0
+50			6.2	19.7 13.64
24			7.1	18.3 11.25
T	2.20	20.54	7.59	18.34
+50			4.9	15.6 8.89
+90 x			9.3	11.2 7.0
25			8.2	12.3 7.12
+50			7.7	12.8 7.73
26			7.0	13.5 8.34
+50			6.3	14.2 8.95
27			5.1	15.4 9.56
+50			4.8	15.7 10.17
28			4.7	15.8 10.77
+09 ⁰⁰ L			4.6	15.9 10.87
+44 ³⁵ L			3.9	16.6 11.30
29 x			4.3	16.2 12.0
+1894			4.5	16.0 11.95
				11.70

3.1
3.5
4.5
4.7
4.6
4.4
4.3
4.2
6.1
7.0
6.7
4.2
5.2
5.1
5.2
5.2
5.8
5.5
5.0
5.0
5.3
4.2
4.3 4.6

1.2 + 90

2054

29+50			4.8	15.7	11.87
30 +75 x			5.1	15.5	11.20
				15.4	11.80
+50			5.5	15.0	10.40
TP	2.89	17.92	5.51	15.03	
B.M			2.53	15.39	
31			2.9	15.0	8.80
+50 x			4.3	13.6	8.0
32			4.4	13.5	7.75
+50			5.0	12.9	7.50
33			4.7	13.2	7.25
+50			5.5	12.4	7.00
34			5.7	12.2	6.75
+50			6.2	11.7	6.50
35			6.7	11.2	6.25
+50 x			7.0	10.9	6.0
TP	4.11	15.16	6.87	11.05	
36			4.7	10.5	5.86
+50			5.4	9.8	5.72
37			5.5	9.7	5.57
+50			4.8	10.4	5.43
38			4.7	10.5	5.28
+50			4.2	11.0	5.14
39 x			4.2	11.0	5.0
+50			6.4	8.8	3.33
40			8.1	7.1	1.67

19

4.5	3.8
5.0	4.3

5.4

Elev. 15.44

6.2

5.6

5.9

5.4

5.9

5.4

5.4

5.2

4.7

4.9

4.6

4.1

4.1

5.0

5.2

5.9

6.0

5.5

5.4

		15.11				
40	+50			9.7	5.5	0.00
	IT	2.33	8.02	9.47	5.69	-1.07
41				3.5	4.5	-1.67
	+50			4.4	3.6	-3.33
42	X			4.8	3.2	-5.0
	+50			5.0	3.0	-5.50
43	X			5.7	2.3	-6.0
	+50			6.0	2.0	-5.1
44				6.2	1.8	-4.2
	+50			6.1	1.9	-3.3
45	X			6.0	2.0	-2.4
	+50			5.9	2.1	-2.3
46				5.6	2.4	-2.2
	+50			5.4	2.6	-2.1
	IT	5.17	8.09	5.10	2.92	
47				5.3	2.8	-2.0
	+50			5.6	2.5	-1.9
48				5.2	2.9	-1.8
	+50			5.0	3.1	-1.7
49				5.2	2.9	-1.6
	+50			5.3	2.8	-1.5
50	X			5.2	2.9	-1.4
	+44 ⁶⁰ -L			4.6	3.9	-1.57
	B.M			5.55	2.54	

5.5

6.2

6.9

8.2

8.5

8.3

7.1

6.0

5.2

4.4

4.4

4.6

4.7

4.8

4.8

4.4

4.7

4.8

4.5

4.3

4.3

5.5

Elev. 2.46

Line revision - Kurtz St.

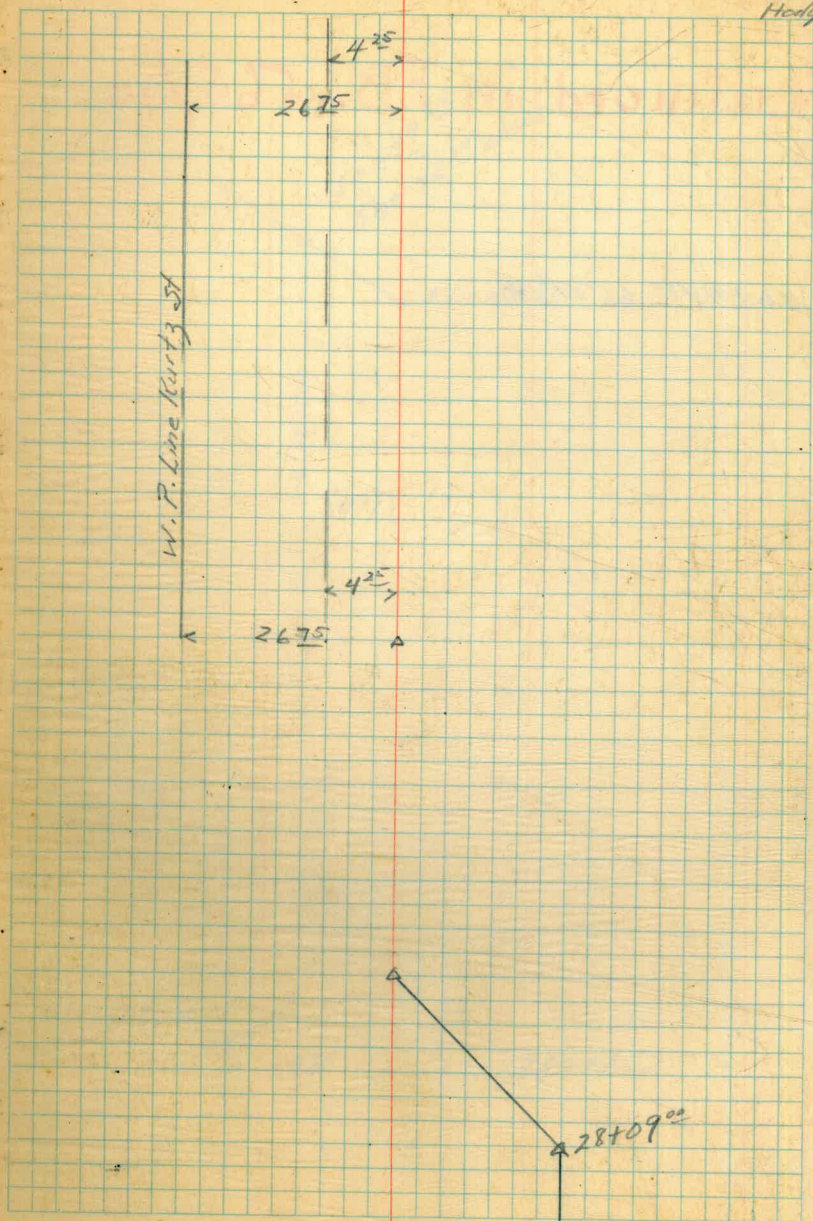
$29+18^{94}$ \angle $3^{\circ}16'14''$

$28+44^{35}$ \angle $48^{\circ}16'10''$

Continued from FB 565/8

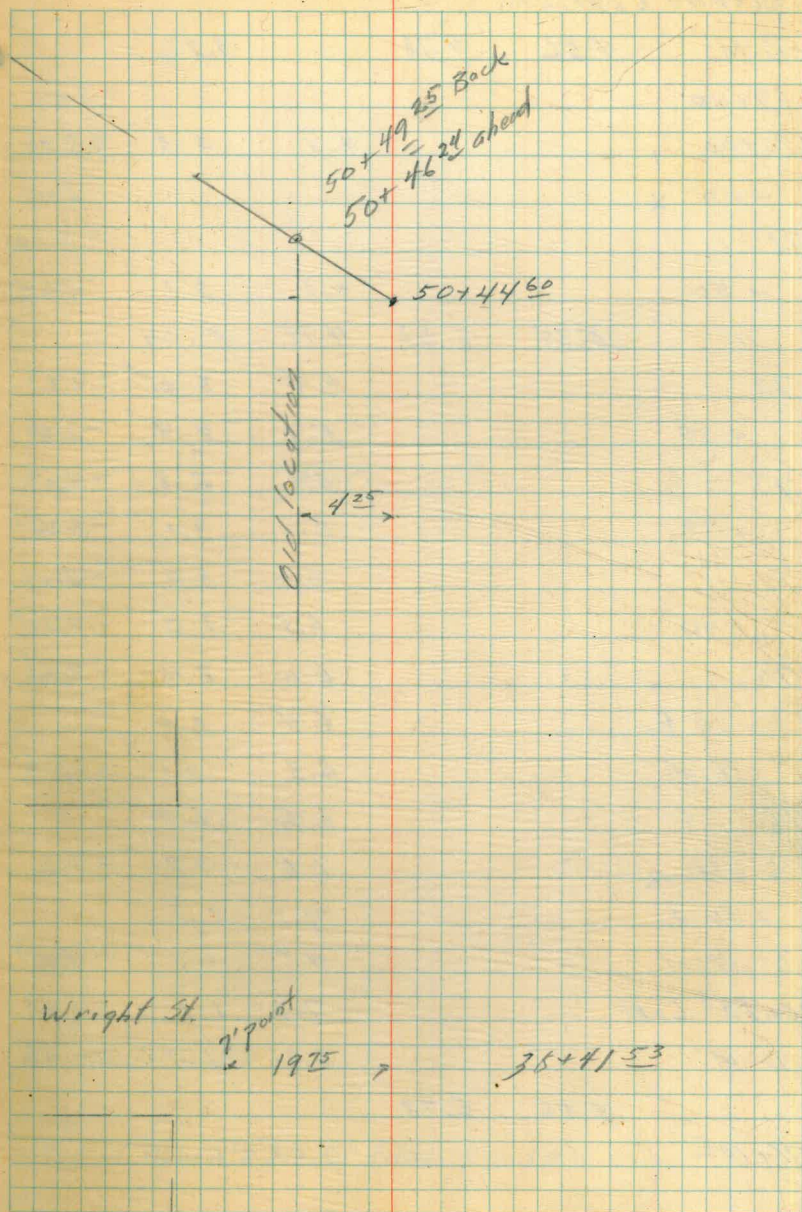
7/9/41

Super
Brooks 21
Hodgeson



Continued in F.B. 565/10

50+44⁶⁰ 66°04'44"



Profile C'offsets

B.M.	4.56	7.78	3.22	
69+50				-2.93
70+00		4.8	3.0	-3.00
+50				-2.00
71				-2.04
+50		4.7	3.1	-2.09
77	5.34	8.38	4.74	3.04
72			5.4	3.0
+50			5.9	2.4
73			5.6	2.8
+50			5.3	3.1
74			5.1	3.3
+50			5.4	3.0
75			6.0	2.4
+50			6.4	2.0
C'offset			6.3	2.1
76			6.6	1.8
6'04"			6.6	1.8
+50			7.1	1.3
C'offset			7.7	0.7
76+93 ³ C'off.			7.3	1.1
B.M.			6.96	1.42
	5.56	6.98		
76+10 ⁵			7.53	-0.55

Rec. elev. 1.39

Top of drain culvert (Rec. -0.58)

Profile - 6' offsets to Rt

B.M. 5.66 8.12 2.46

50+50 offset 4.8 3.3 -1.59

51 \$ 6.2 1.9 -1.78

+50 6.3 1.8

+56 x 1.8 -2.00

+76²⁰ 6.3 1.9 -2.27

52 \$ 6.5 1.6 -2.59

+375 offset (BK) 0.8 -3.10

+50 offset 5.7 2.4 -2.87

53 " 5.1 3.0 -1.94

+40²³ 4.3 3.8 -1.18

+50 x 4.3 3.8 -1.00

54 " 5.0 3.1 -0.8

+50 " 5.2 2.6 -0.6

TP 7.02 8.91 6.23 1.89

55 " x 6.4 2.5 -0.40

+50 " 7.1 1.8 -0.30

56 " 6.8 2.1 -0.21

+50 " 6.3 2.6 -0.11

57 " 6.1 2.8 -0.01

+50 " 6.6 0.3 +0.04

58 x 7.4 1.5 +0.11

+50 " 6.7 2.2 +0.22

59 " 5.3 3.6 +0.2

+50 " 6.4 2.8 +0.28

TP 6.37 9.21 6.07 2.84

+54²³ 6.4 2.8 +0.28

+60 x 2.6 +0.26

59+79²⁵ 5.7 3.5 +0.2

59+77⁴³ 5.7 3.5 0.0

4.9'
3.7'
3.8'
4.1'
4.2'
3.9'
5.3'
4.9'
5.0'
4.8'
3.9'
3.2'
3.5'
2.9'
2.1'
2.3'
2.7'
2.8'
2.5'
2.1'
3.5'
2.6'
2.4'
3.3'

see page 27

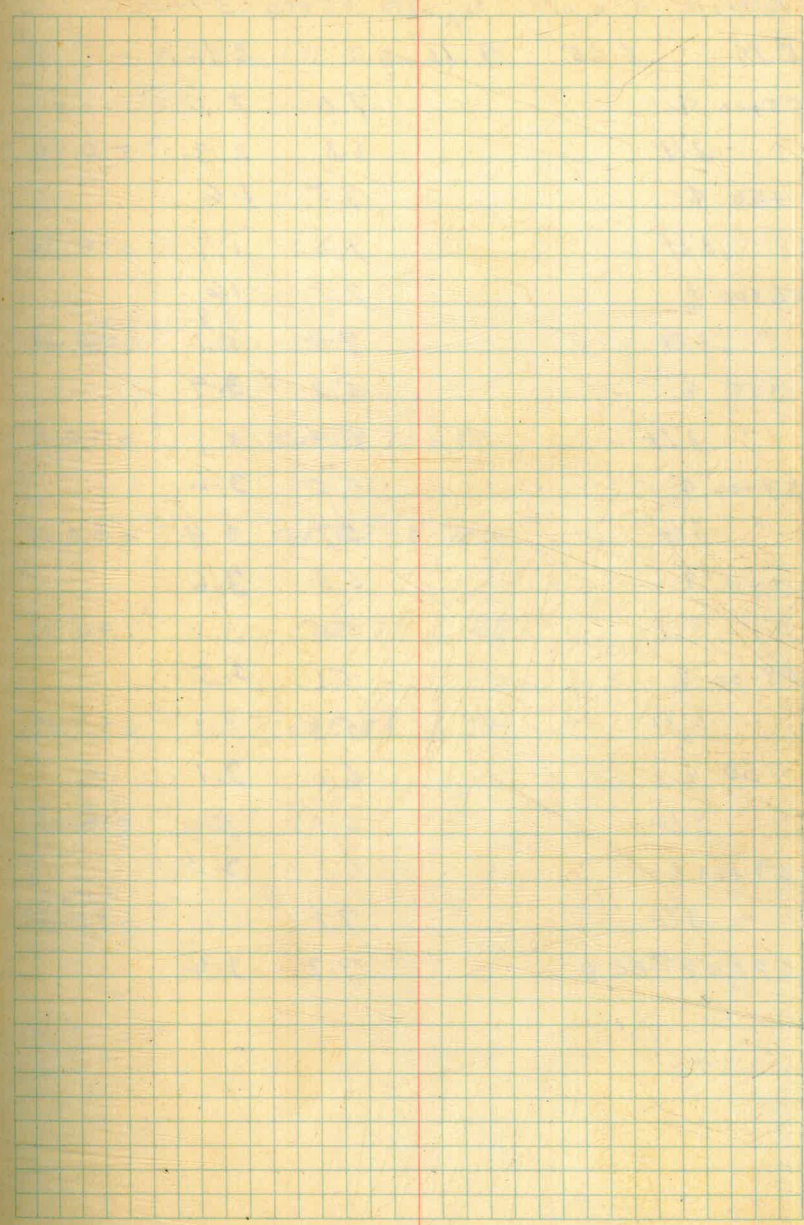
9.21

60			5.2	4.0	+0.3
+25			5.1	4.1	+0.4
+50			4.7	4.5	+0.5
+74 ⁸⁰			4.9	4.3	+0.6
61			4.8	4.4	+0.5
+50			5.1	4.1	+0.5
62			4.7	4.5	-0.33
+50			5.0	4.2	+0.50
63			5.4	3.8	+0.35
+50			5.5	3.7	+0.20
64			5.8	3.4	+0.05
+50			5.2	4.0	-0.10
TP	f.36	8.32	5.19	4.02	-0.25
65			4.7	3.6	-0.40
+50			4.2	4.1	-0.55
66			4.3	4.0	-0.70
+50			4.9	3.4	-0.85
67			4.3	4.0	-1.00
+50			4.6	3.7	-1.60
68			4.8	3.5	-2.20
+50			5.5	2.8	-2.80
+67 ⁸¹			5.5	2.8	-2.8
B.M.			5.14	3.18	

4.6	3.7
5.4	3.7
6.5	4.0
5.9	3.8
5.6	3.9
4.4	3.6
4.0	
3.8	
3.6	
3.6	
3.5	
4.3	
4.1	
4.7	
4.7	
4.3	
5.0	
5.3	
5.7	
5.6	
5.6	
Elev. 3.22	

Elev.

60+33	6" gas main (0.90 O.D)	-0.1	(Top)
60+41 ⁶	6" gas main (0.60 O.D)	-0.2	"
60+50	3" water line	+1.0	"



(3'LT)

Profile, ϵ & offsets, Sta 55+00 - 59+54²²

B.M.	6.65	9.11	2.46	
55+00 ϵ		7.0	2.1	
" 3'LT		6.8	2.3	-0.40
+50 ϵ		7.5	1.6	
" 3'LT		7.2	1.9	-0.30
56+00 ϵ		7.5	1.6	
" 3'LT		7.0	3.8 2.1	-0.21
+50 ϵ		5.2	3.9	
" 3'LT		5.4	3.7	-0.11
57+00 ϵ		5.5	3.6	
" 3'LT		5.7	3.4	-0.01
+50 ϵ		5.5	3.6	
" 3'LT		5.5	3.0	+0.08
58+00 ϵ		5.6	3.5	
" 3'LT		5.3	3.8	+0.19
+50 ϵ		6.0	3.1	
" 3'LT		6.1	3.0	+0.2 +0.28
59+00 ϵ		6.1	3.0	
" 3'LT		7.1	2.0	+0.2 +0.38
59+54 ²² B.C. ϵ		7.7	1.4	

(27)

7/26/41
Super
Browns
Hodgson

B.P. in Conc. wall Subway St.

Cuts - 3'LT

2.7

2.2

4.0
2.3

3.8

cut 3.9 - 6'RT

3.4

cut 3.7 - 6'RT

3.5

cut 3.5 - 6'RT

3.6

cut 3.5 - 6'RT

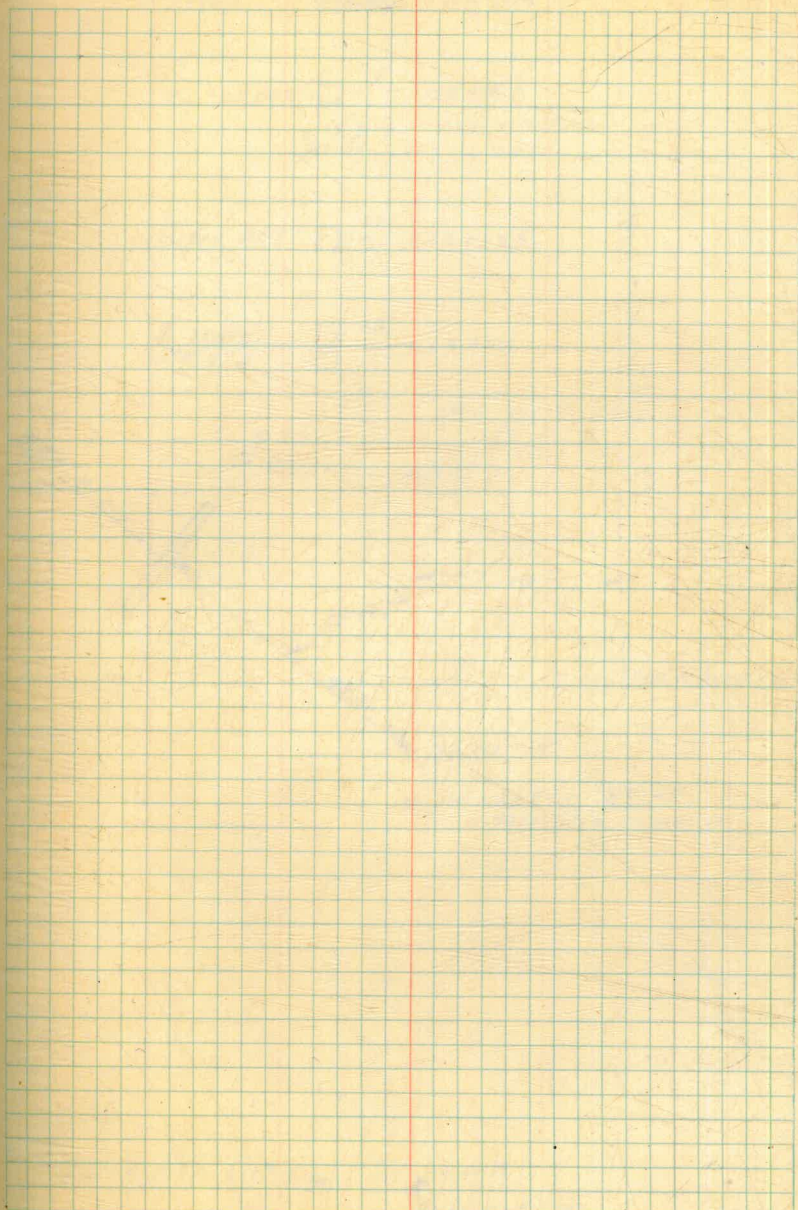
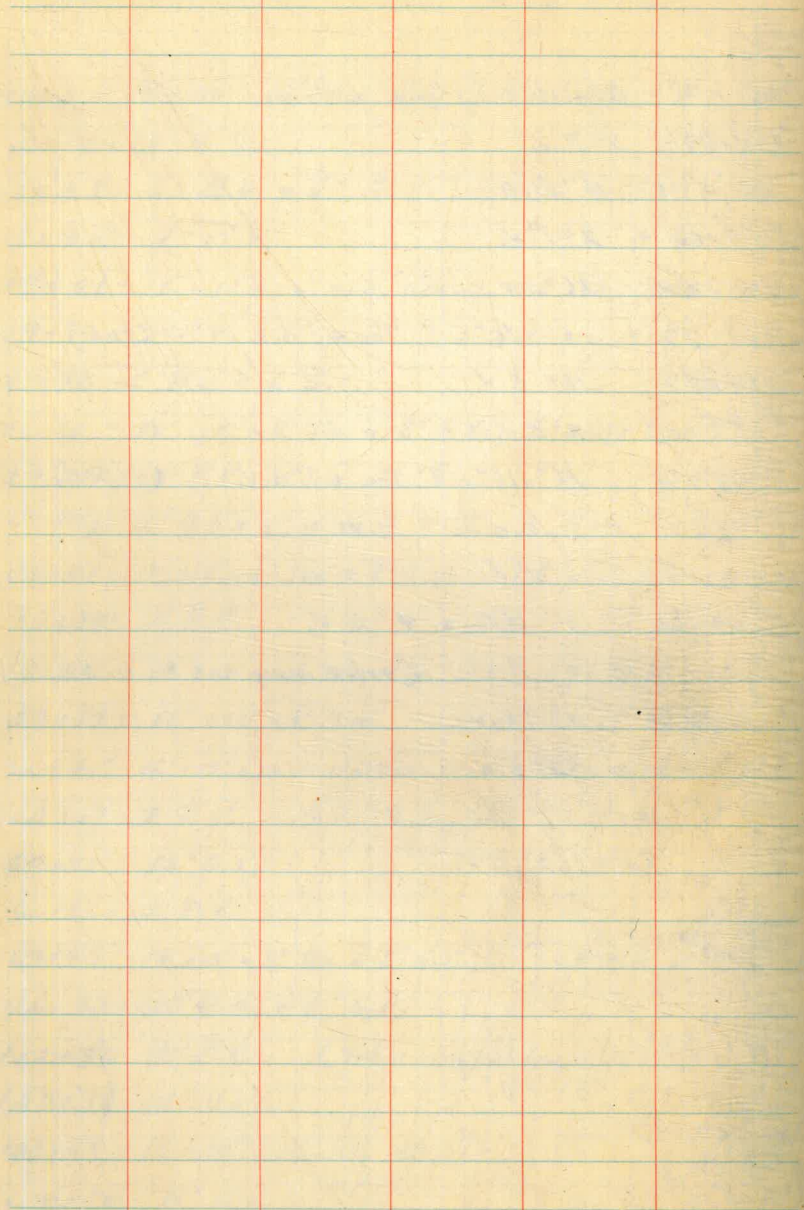
2.7 2.8

1.6 1.8

Appurtenances - Pacific Beach Line

- 0400 - 24" x 24" x 18" Tee (on Upas line)
 0420 - 18" G.V.
 0457 - 6" B.O. & 6" G.V.
 9495 - 2" P.V.
 19451 - 18" x 18" x 12" x 12" Cross, & 2 - 12" G.Vs.
 19492 - 2" P.V.
 ✓ 24490 - 6" B.O. & 6" G.V.
 26480 - 18" x 18" x 8" Tee & 8" G.V. (to Rt)
 29421 - 2" P.V.
 42499 - 6" B.O. & 6" G.V.
 45487 - 18" x 18" x 8" Tee & 8" G.V. (to Lt)
 50439 - 2" P.V.
 59465 - 18" x 18" x 10" Tee & 10" G.V. (to Rt.)
 59479 - 18" x 18" x 8" Tee (to Lt - F. Hyd.)
 60455 - 18" x 18" x 12" x 12" Cross - 12" G.V. to Lt - 6" G.V. to Rt
 60467 - 2" P.V.
 60475 - 18" G.V.
 60483 - 2" P.V.
 ? 69443 - 18" x 18" x 8" Tee & 8" G.V. (from Dave Vance ^{group} <sub>69470 ± G.V. ^{into ca.} _{Pl. 320})
 76432 - 6" B.O. & 6" G.V.
 102490 - 2" P.V. (Value may not be installed)
 102494 - 18" G.V.
 103459 - 18" x 18" x 16" x 16" Cross.
 104474 - 16" G.V.</sub>

- 124428 - 16" x 16" x ? Tee or Cross G.V.?
 124489 - 2" P.V.
 145495 - 4" B.O.
 149460 - 2" P.V.
 149465 - 16" G.V.
 149477 - 16" x 16" x ? Tee & ? G.V. (to Lt)
 149497 - 16" G.V.
 ✓ 150403 - 2" P.V.
 157461 - 16" x 16" x 8" Tee & 8" G.V. (to Rt)
 173401 - ? B.O. & ? G.V.
 192496 - 2" P.V.
 204400 - 4" B.O. & 4" G.V.
 223460 - 2" P.V. (value may not be installed)
 223468 - 16" G.V.
 228405 - 2" P.V.
 238400 - 4" B.O. & 4" G.V.
 259490 - 2" P.V.



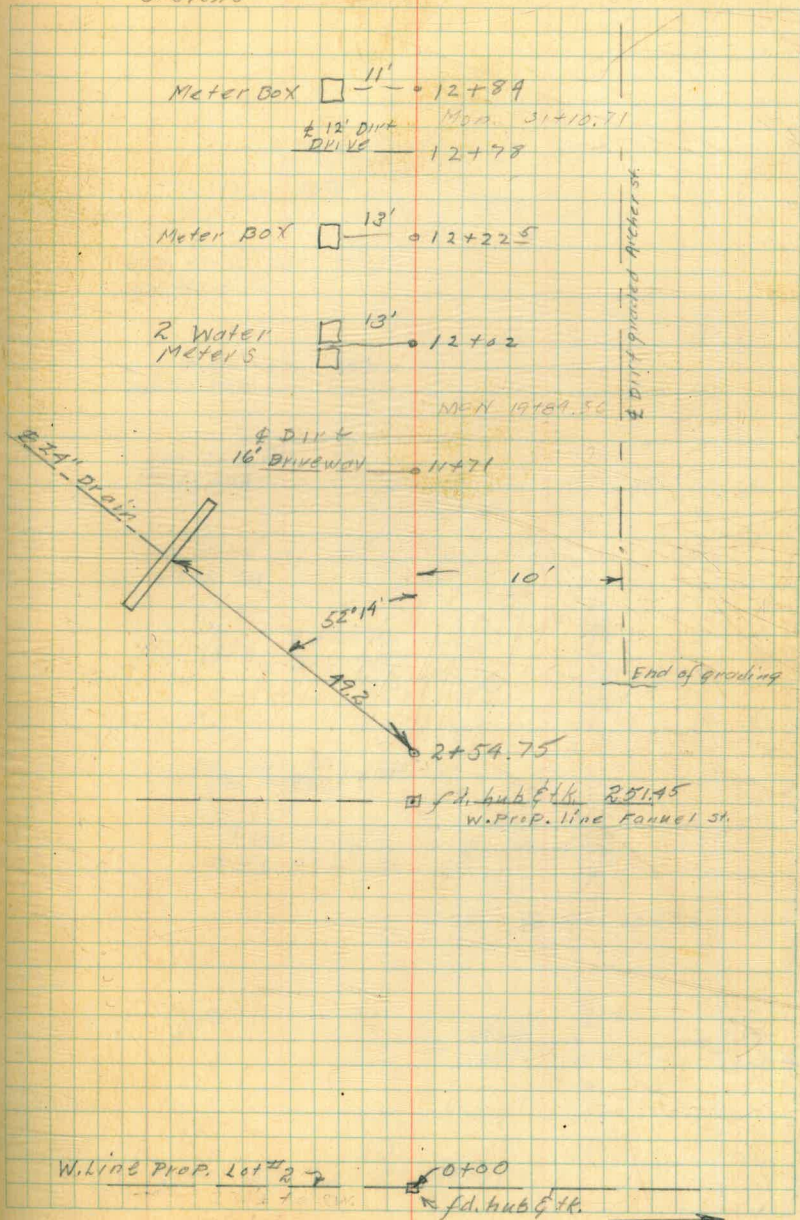
Alignment of pipe line along Archer St.
Pacific Beach

6-13-44

BYKER
KING
OTTEN
STEVENS

±

30



± 10' DIRT
DRIVEWAY
Sta. 18+18

Sta. 17+80 □ 14⁵
Meter Box

Sta. 17+08 □ 14⁵
Meter Box

Sta. 16+46 □ 12⁵
Meter Box

Sta. 15+79 □ 12⁵
Meter Box

Sta. 15+71 ± 10' DIRT
PRIVILEGE

f.d. CONC. Man
Sta. 14+05.22 • 18⁵

± DAWES ST.
Dirt graded 28' wide

10' M.H. 13+74
5.3' deep

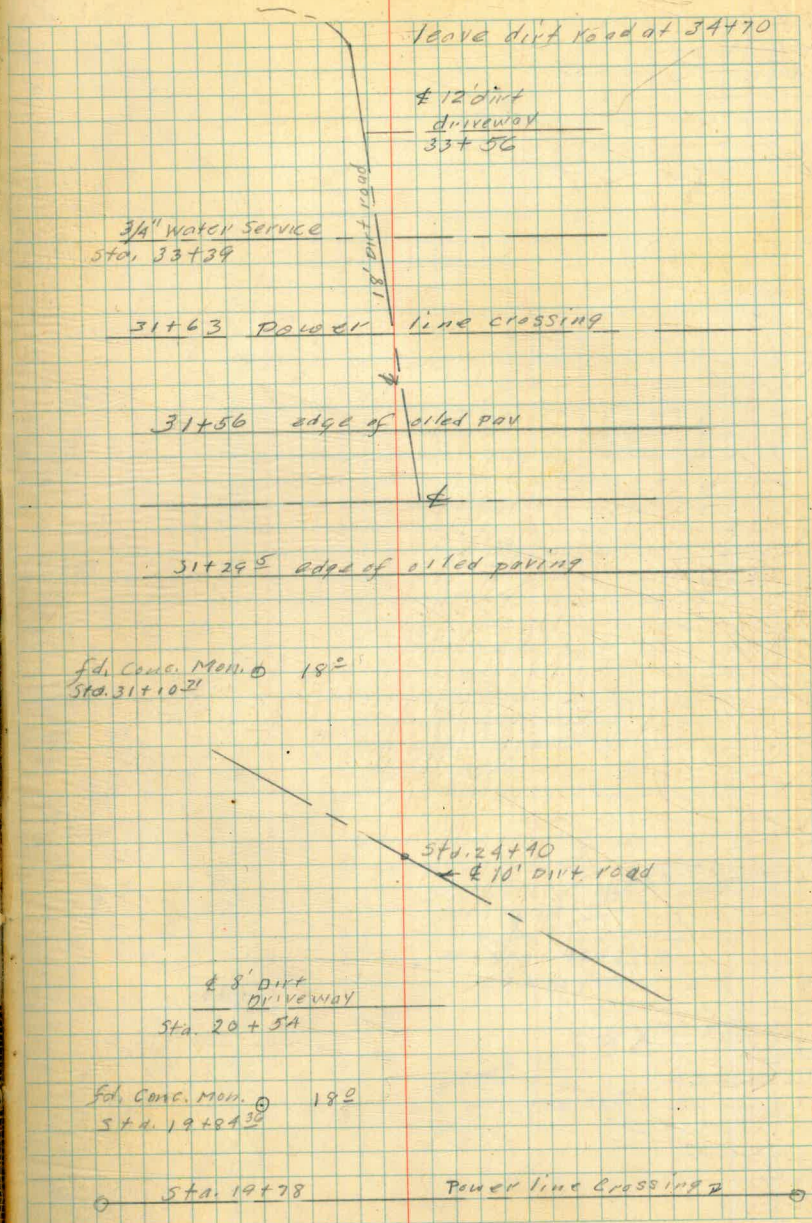
Pole

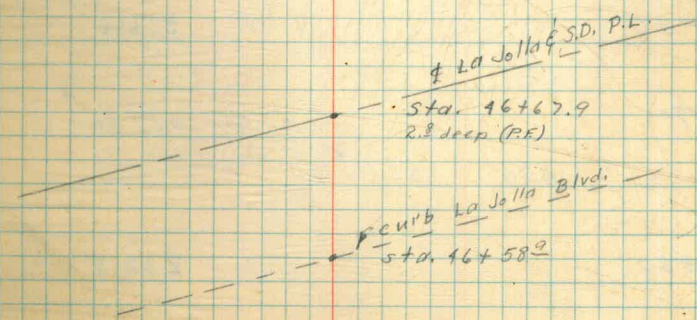
13+15 tol. trunk line Crossing Pole

Meter Box □ 13' → 13+01

± 10' DIRT
DRIVEWAY

± 10' DIRT
DRIVEWAY





Profile Archer St Pipe-line

6-19-44

			290.93
	29.4	293.87	
0+00		3.8	290.1
+50		7.0	286.9
+85		10.6	283.3
TP		13.01	280.86
	0.05	280.91	
1+00		2.1	278.8
TP		12.84	268.07
	1.71	269.78	
+50		13.2	256.6
TP		12.32	257.46
	0.70	258.16	
+60		5.7	252.5
+65		6.7	251.5

Byler
Ottew
Stevens

34

B.M. 6' off set stake for test hole #7
El. 290.93

217.09

5+00 11.5 215.6

TP 12.50 214.59 ✓

1.15 215.74
~~216.71~~

+50 9.0 206.7

TP 12.88 202.86 ✓

0.01 202.87

6+00 2.3 200.6

+50 8.4 194.5

7 11.8 191.1

TP 12.27 190.60 ✓

0.28 190.88

+50 1.8 189.1

8 5.1 185.8

+50 6.8 184.1

	190.88		
9+00		6.8	184.1
		7.5	183.4
10+00		10.0	180.9
+04		11.3	179.6
+08		10.3	180.6
+50		12.3	178.6
TP		12.76	178.12 ✓
	1.05	179.17 ✓	
11		4.0	175.2
+50		7.7	171.5
12		10.0	169.2
+50		11.5	167.7
TP		12.55	166.62 ✓
	4.66	171.28 ✓	

171.28

13+00 5.1 166.2

+50 6.1 164.9

+74 5.52 165.76

10.82 160.46

14 6.5 164.8

7.06 164.22

+50 4.4 166.9

15 2.9 168.4

+50 3.5 167.8

16 3.4 167.9

+50 3.6 167.7

17 3.5 167.8

TP 3.46 167.82

3.77 171.59

top M.H. Cover

Fl. line sewer

set B.M. top conc. Mon. 18" L. Sta. 14+05.22

	171.59		
17+50		3.6	68.0
18		3.4	68.2
+50		4.5	67.1
19		6.3	65.3
+38		7.6	64.0
+50		7.1	64.5
+58		7.2	64.4
+72		8.0	63.6
+84 ³⁶		8.61	162.98
20		8.2	63.4
+50		10.3	61.3
21		12.8	58.8

Set B.M. top CONC. MOM. 18' L. & Sta. 19+89.36

	171.59		
TP		12.85	158.74 ✓
	1.30	160.04 ✓	
21+50		3.8	56.2
22		6.0	54.0
+17		6.2	53.8
+24		11.2	48.8
+27		20.5	39.5
+50		19.7	40.3
+60		19.4	40.6
+63		16.7	43.3
+74		15.1	44.9
+98		17.6	42.4
23+01		13.2	46.8
+09		11.4	48.6

	160.04			
23+35		10.8	49.2	
+50		11.2	48.8	
TP		11.16	148.88	
	0.88	$\frac{149.76}{+48.00}$		
24		2.5	47.3	
+50		5.0	44.8	
25		6.4	43.4	
+50		7.9	41.9	
26		9.3	40.5	
+50		11.2	38.6	
TP				
27		13.05	130.71	
	1.76	$\frac{138.47}{+36.77}$	134.95	
+50		3.3	35.2	
28		1.9	33.6	

138.47
~~136.71~~

28+22 5.7 132.8

+25 10.2 128.3

+65 12.4 126.1

+80 9.4 129.1

+95 7.0 131.5

29 7.0 131.5

+50 7.8 130.7

30 9.4 129.1

+50 10.6 127.9

12.62 125.85 ✓
~~124.09~~

1.87

~~127.72~~
~~125.96~~

31 3.2 124.5

4.53 123.19

41

Set B.M. on conc. Mort. 18' L of Sta. 31+10.71

127.72
~~125.90~~

31+25 5.1 122.6

+42 4.0 23.7

+50 4.3 23.4

+59 5.4 22.3

32 4.5 23.2

+50 5.1 22.6

33 6.7 21.0

+50 8.5 19.2

34 10.5 17.2

+50 11.5 16.2

35 12.1 15.6

TP 12.13 115.59 ✓

0.91

116.50 ✓
114.74

~~113.83~~

42

edge paving

edge paving

116.50
~~114.74~~

43

35+50 2.3 114.2

36 4.0 112.5

+20 5.6 110.9

+50 5.5 111.0

37 8.0 108.5

+50 10.2 106.3

TP 10.30 106.20 ✓
~~104.44~~

1.13 107.33 ✓
~~105.57~~

38 3.3 104.0

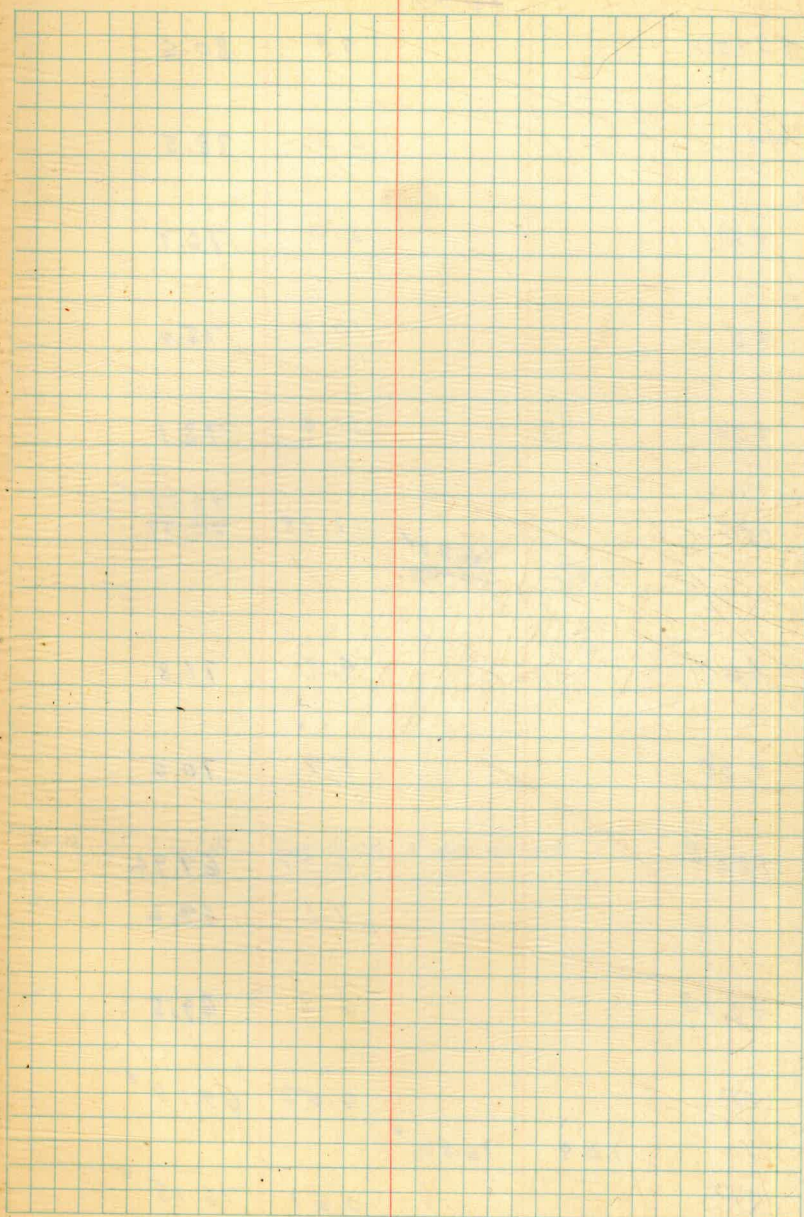
+50 5.6 101.7

39 8.0 99.3

+50 10.2 97.1

40 10.8 96.5

		107.33 105.57		94.87 ✓ 93.11
TP		96.57 ✓	12.46	
	1.50	94.61		
40+50			2.8	93.6
41			5.0	91.4
+45			7.1	89.3
+50			8.8	87.6
+60			7.2	89.2
42+00			9.4	87.0
+50			10.8	85.6
+98			11.8	84.6
43+05			10.9	85.6
TP		85.03 ✓	11.51	84.86 ✓ 83.17
	0.17	85.27		
+10			2.0	83.0



	85.03 83.27		
73+50		4.9	80.6
44		6.5	78.5
+50		8.3	76.7
45		10.0	75.0
+50		11.9	73.1
TP	3.56	76.31 ✓ 74.55	12.28
			72.75 ✓ 70.99
46		4.5	71.8
+50		5.7	70.6
+58.9		6.37	69.94
		7.1	69.2
+67.9		6.8	69.5
TP		6.53	69.78 ✓
	7.04	76.82 ✓	
TP		0.67	76.15 ✓

top of curb set B.M. X on curb

gutter

padding over

404

80.19 ✓

76.15

8.35 71.84 ✓

46
B.M. & B.P. in S.E. Cor. Midway & La Jolla Blvd.
Elev. 71.80 CHK.

ALIGNMENT FOOTHILL BLVD.
PIPE LINE

6-15-44

3+30

3+21.8

3+20

3+07.5

2+94.3

2+40.8

2+34.7

+98.95

1+93.25

1+86.6 E.C. Curve left

1+15

1+10.85

1+04

B.C. 0+00

R = 171.63

$\Delta = 59^{\circ}00'$

L = 176.74

E.C. 1+76.74

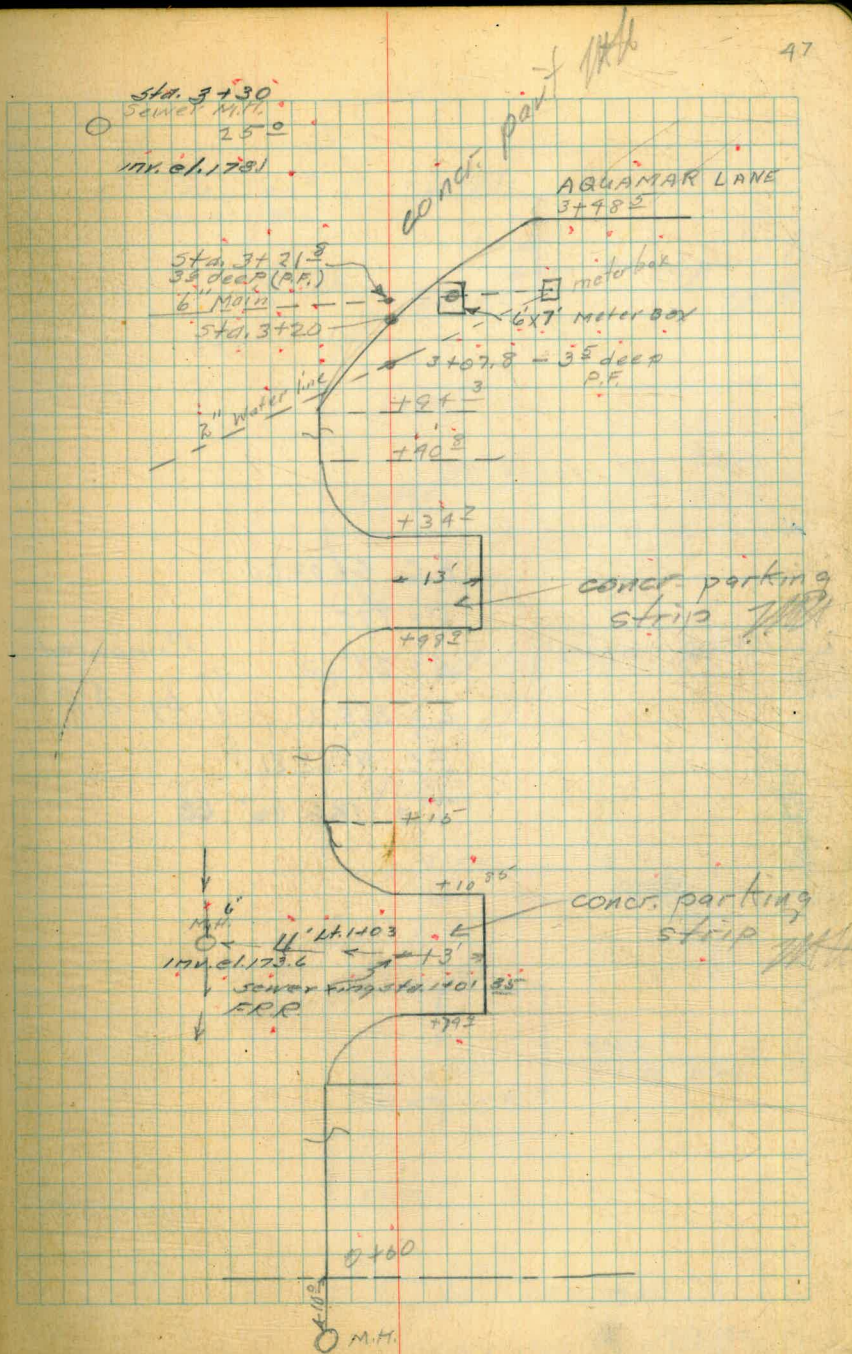
T = 97.10' EE

Computed
by A.R.

0+00

90° apt of 16" main

47

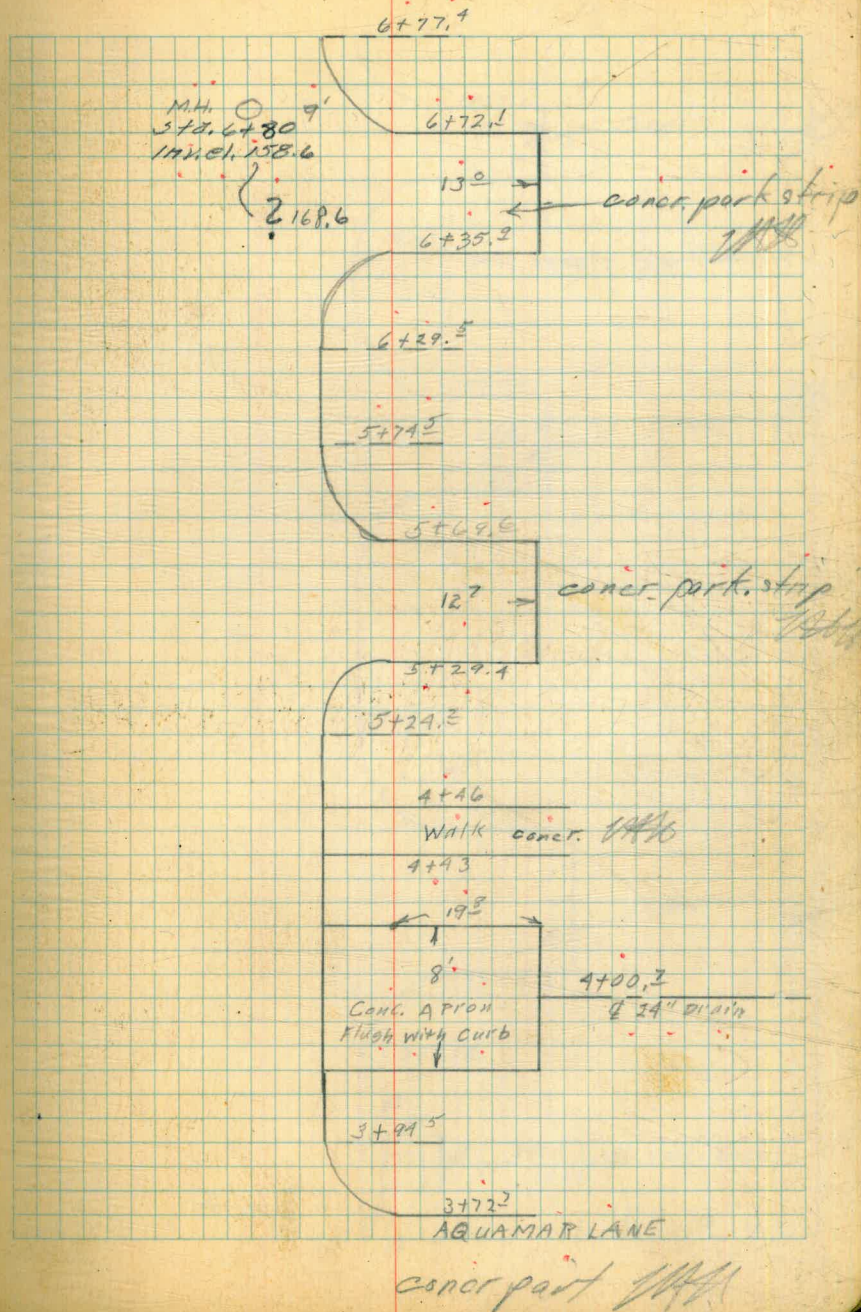


6+82

6+03.6 BC. CURVE RT.

B.C. 6+03.60
 R = 775'
 Δ = 27°00'
 L = 365.21
 E.C. 9+68.81
 T = 186.06' EE

} Computed
 } by A.R.



979.5
985.3
1021.3
1026.3

10+26.3

10+21.3
130
985.3

corner

989.5
9719.1

9709
130
8+72.3

corner

8+67.5

7+93.6

7+89.1

130

corner

7+53.3

7+97.0

28
35

tel. booth conc. base
7+16

tel. pole

1.5
12

1.

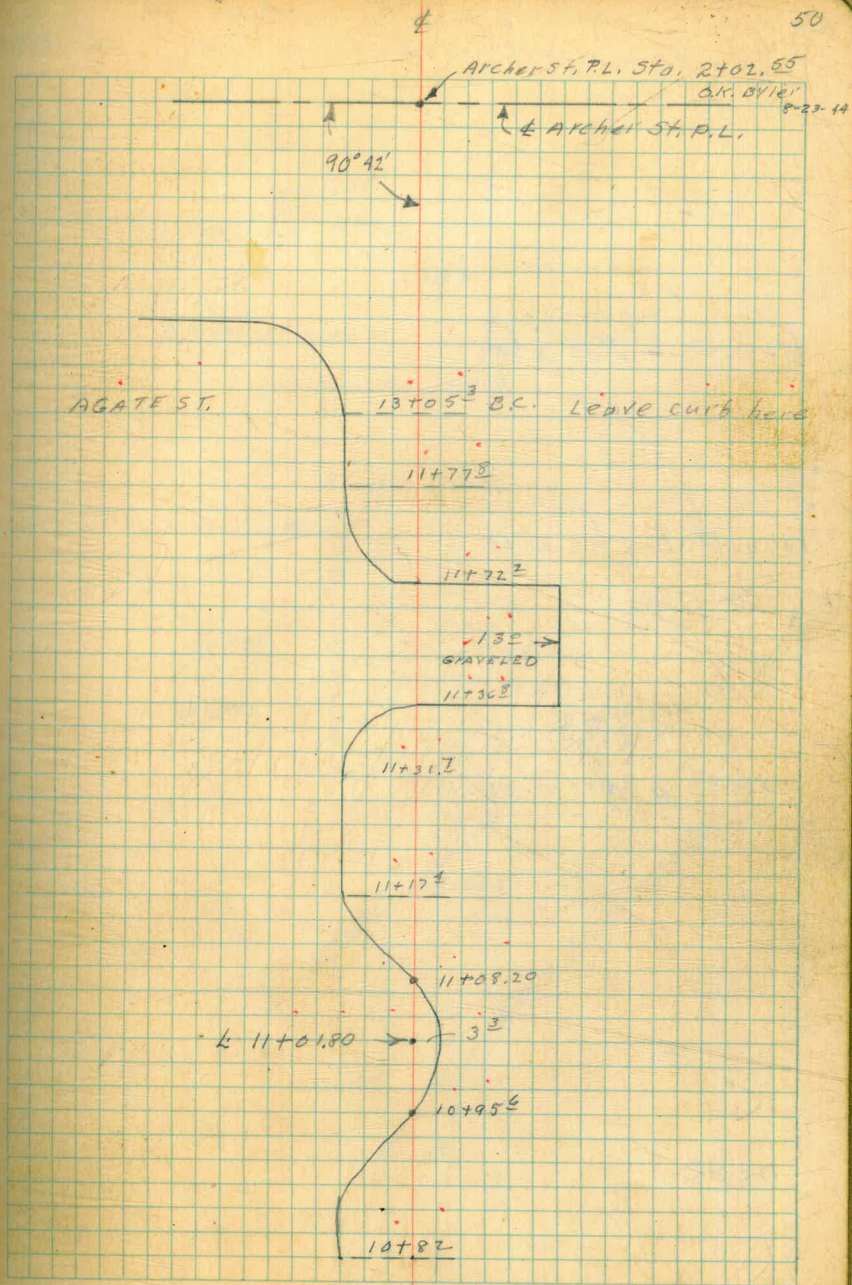
9479.5 E.E. CURVE R.V.

16+80²³

End of Work

11+61⁸⁰ L. 30° 54' 30" R4.

50



Alternate line #1, Fannell St.
 from 11+01⁸⁰ to Archer St. line 6-15-44

BVier
 OTTEN
 STEVENS

#

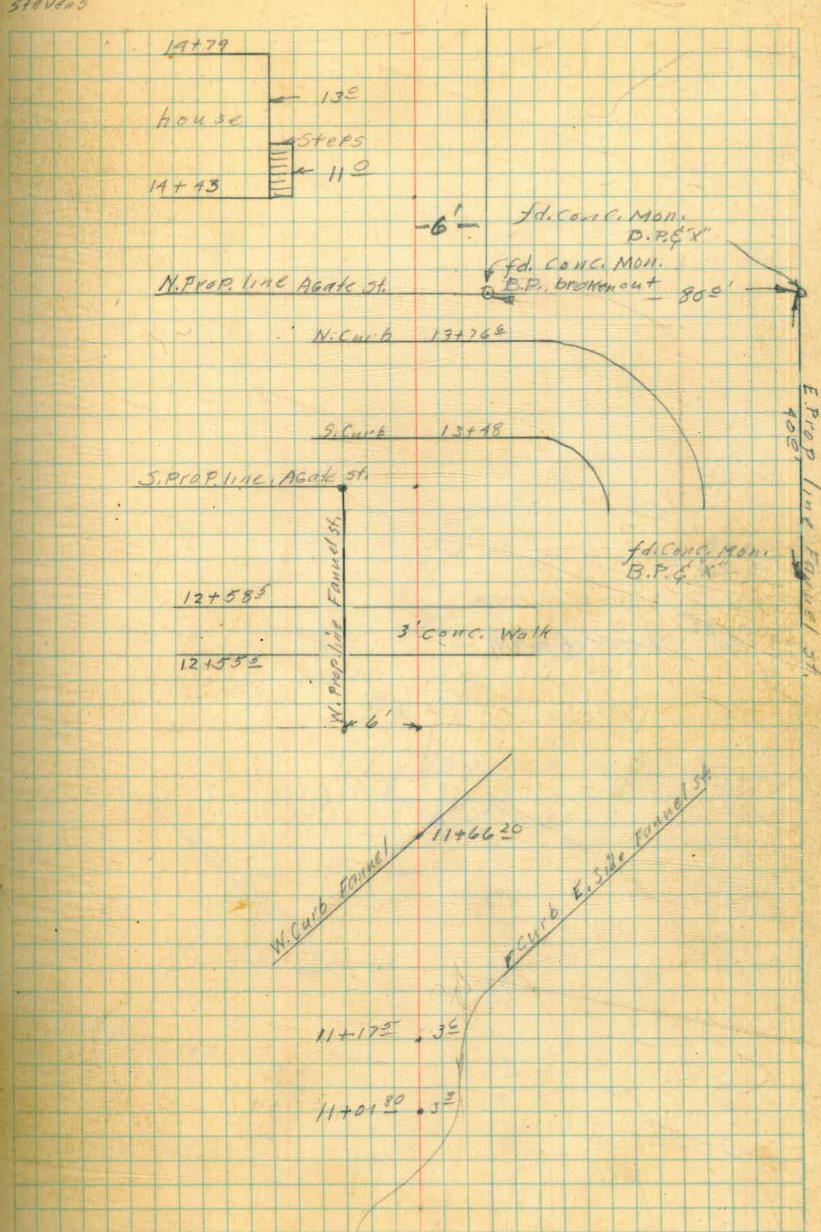
51

14+02⁶² \angle 8°32'30" Rt.

13+21⁸⁰ \angle 8°32'30" Lt.

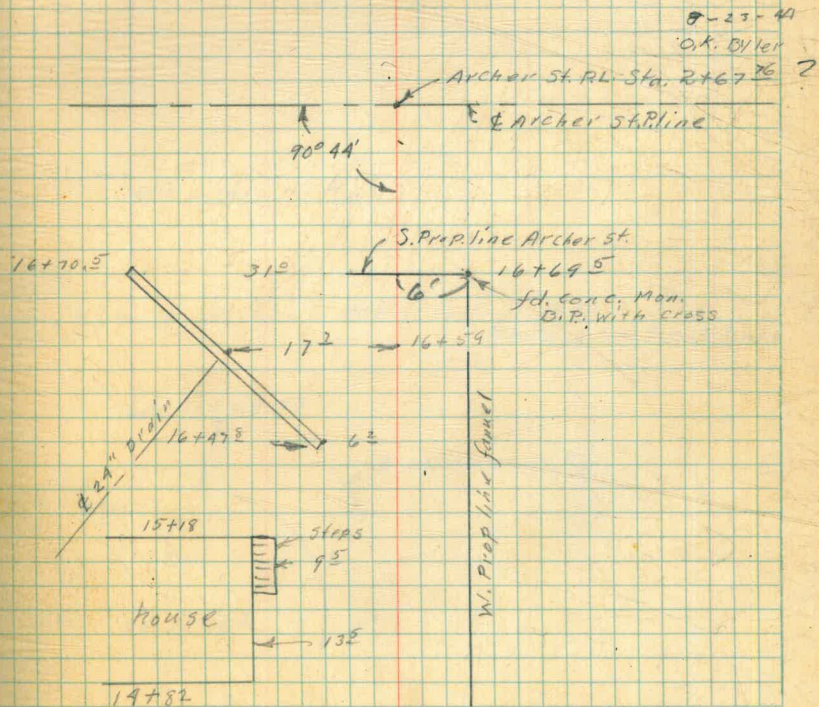
12+01⁵⁶ \angle 30°52'30" Rt.

11+01⁸⁰

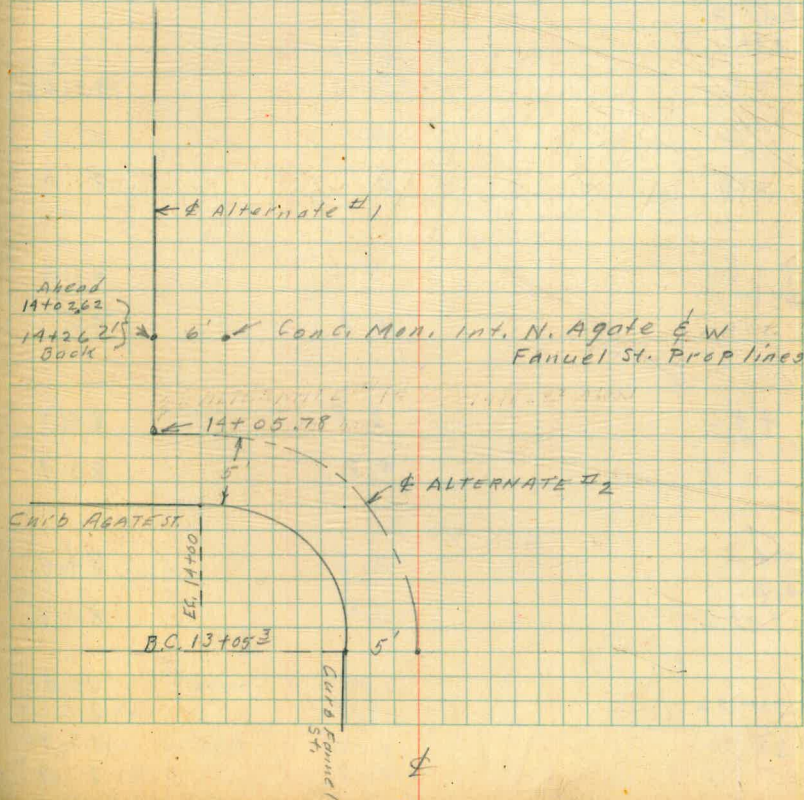


16+96²² End of work

15+87⁶² POT



6-16-49

BY
OTTEN
STEVENS

± PROFILE FOOTHILL BLVD.
PIPELINE

6-17-44

BYLER
OTTEN
STEVENS

54

		179.47
	7.65	187.12
	9.65	77.47
	14.25	72.87
0+00	9.6	77.5
tip		
curb	9.6	77.5
0+50	7.5	79.6
tip		
curb	8.2	78.9
1+00	7.7	79.4
POV 5'		
Left	7.8	79.3
	7.73	79.39
1+04	13.63	73.49
+50	5.7	81.4
top		
curb	6.1	81.0
2+00	5.5	81.6
POV 5'		
Left	5.7	81.4
+50	3.8	83.3
top		
curb	4.0	83.1
3+00	2.6	84.5
top		
curb	3.0	84.1
3+22	1.87	85.25
	5.87	81.25
3+30	3.17	83.95
	9.17	77.95

B.M. N.E. Cor. Tourmaline & Foothill Blvd.
Top E.P. 179.47

Top Gate Valve Cover 0-04

Fl. Line 16" main

16" main from Foothill to Pac. Beach Res.

top M.H. cover
FL. Line

top M.H. (water)
FL. Line

Top M.H. sewer
FL. Line

	187.12		
3+50 PAV 5' left	1.9	185.2	
	2.1	185.0	
4+00	2.10	185.02	
		185.34	
top curb		184.94	
B.M. TP	2.00	185.72	
	0.82	185.94	

+50 top curb	1.5	84.4	
	2.1	83.8	
+77	3.6	82.3	
	8.7	77.2	
5+00	3.0	82.9	
top curb	3.8	82.1	
+50 PAV 5' left	6.1	79.8	
	6.2	79.7	
6+00	7.1	78.8	
top curb	7.5	78.4	
+50 PAV 5' left	9.9	76.0	
	10.0	75.9	
+82	10.80	75.14	
	17.40	68.54	

TOP driven from drain to curb
FL. line drain (EFFLUENT)

B.M. B.P. N.E. COR AQUAMAR LANE & FOOTHILL BLVD.

TOP SEWER Dead end plate

TOP M.H. COVER
FL. line

185.94

7+00 top	10.7	75.2
curb	10.7	75.2

7+16	11.2	74.7
------	------	------

+50 top	12.7	73.2
curb	12.8	73.1

TP	12.79	175.15
0.13	173.28	

8+00 top	1.8	71.5
curb	1.9	71.4

+50 top	3.7	69.6
curb	3.9	69.4

9+00 pav 5'	5.7	67.6
left	5.9	67.4

+50 top	5.7	67.6
curb	6.2	67.1

10 pav 5'	6.1	67.2
left	6.4	66.9

56

conc. incl. Booth Stand

	173.28		
+50		3.4	69.9
top			
curb		4.1	69.2
11+01.8		2.2	71.1
top curb			
33 ft.		1.5	71.8
TP		0.51	172.77
5.61	178.38		
		11.22	167.16
11+50		4.3	74.1
top 5'			
left		4.5	73.9
TP		0.51	177.87
11.96	189.83		
12+00		11.2	78.6
top			
curb		11.5	78.3
+50		6.0	83.8
top			
curb		6.5	83.3
13		0.4	89.4
top			
curb		2.0	87.8

set B.M. on F.P. SE. Cor. turquoise & rannet sf.s

TP 189.83 0.28 189.55 ✓

12.64 202.19

13+50 4.8 197.4

TP 0.00 202.19 ✓

12.27 214.46

14 8.3 206.2

+50 0.5 214.0

TP 0.27 214.19 ✓

11.63 225.82

15 1.9 223.9

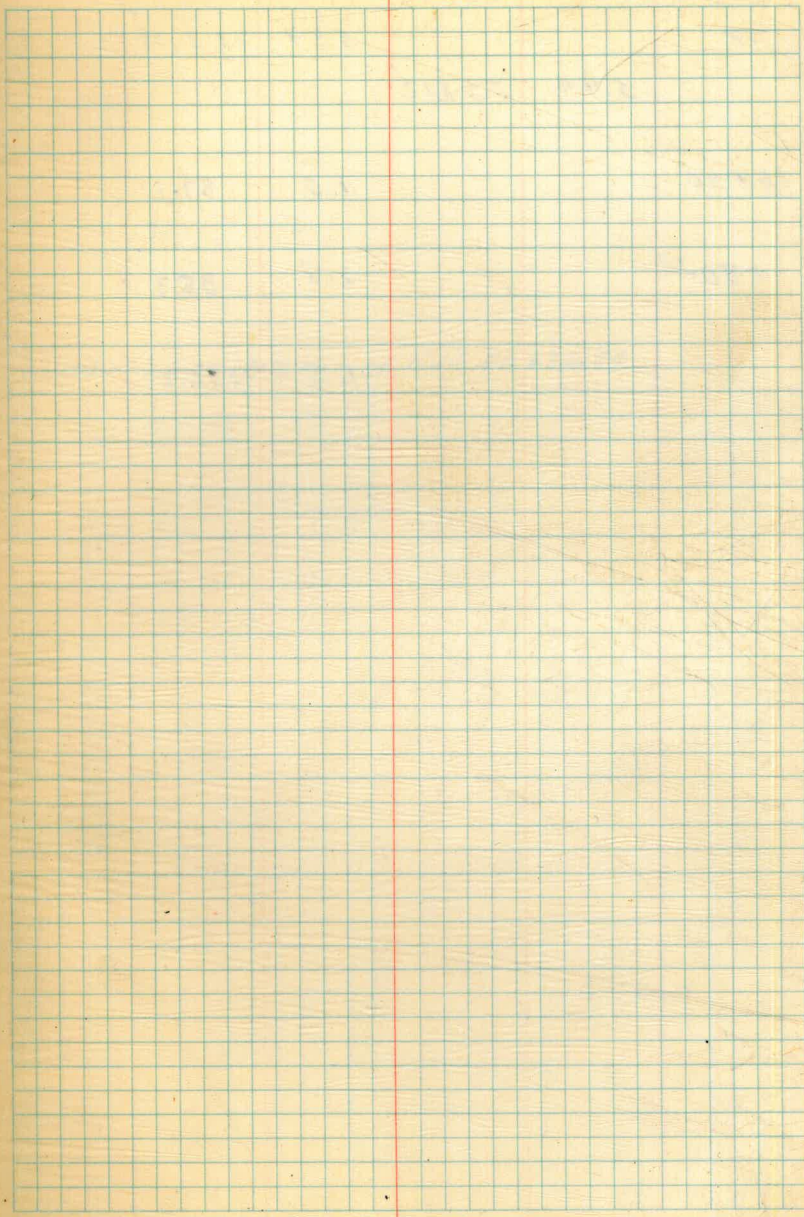
TP 0.77 225.05 ✓

12.52 237.57

+50 6.3 31.3

16 1.4 36.2

+20 0.5 37.1



237.57

TP

5.39 · 232.18 ✓

5.94 · 238.12 ✓

16+50

1.0 · 37.1

+80²³

2.8 · 35.3

1.3 · 236.8 ✓

on sta. 2+00 Archer st, line El. 236.89

Profile Alternate Line #1
Foothill Blvd. P.L. 6-17-99

60

		167.16	
	12.74	179.90	✓
11+01.8		8.8	171.1
+50		6.2	173.7
11+66.2		5.5	174.4
top curb		4.9	175.0
12+04.56	Δ	2.7	177.2
TP		0.18	179.72 ✓
	11.83	191.55	✓
+50		10.5	181.1
+57		9.8	181.8
13.1		5.6	186.0
+21.8	Δ	3.5	188.1
+48		2.0	189.6
+50		2.6	189.0

B.M. F.P. S.E. Cor. Turquoise & Fannell St.

curb walk

B.M.		191.55		
TP			2.20	189.35
	12.35	201.70		
13+76 ⁶			12.8	188.9
top curb			12.3	189.4
+84 ⁶			8.6	193.1
14+00 ⁶			6.0	195.7
14+50			0.0	201.7
TP			0.25	201.45
	12.79	214.24		
15			5.5	208.7
TP			0.24	219.00
	6.26	220.26		
+50			5.3	215.0
+87 ⁶			2.8	217.5
16			2.7	217.6

61
Set B.M. on RR spike with "X" in st. 4' rt sta.
13+65

220.26 ✓

16+50

5.7

214.6

+75

9.8

210.5

+90

9.5

210.8

+96²²

7.6

212.7

11.53

208.73 ✓

FL line 24" drain El. 208.75 see page 35
This best

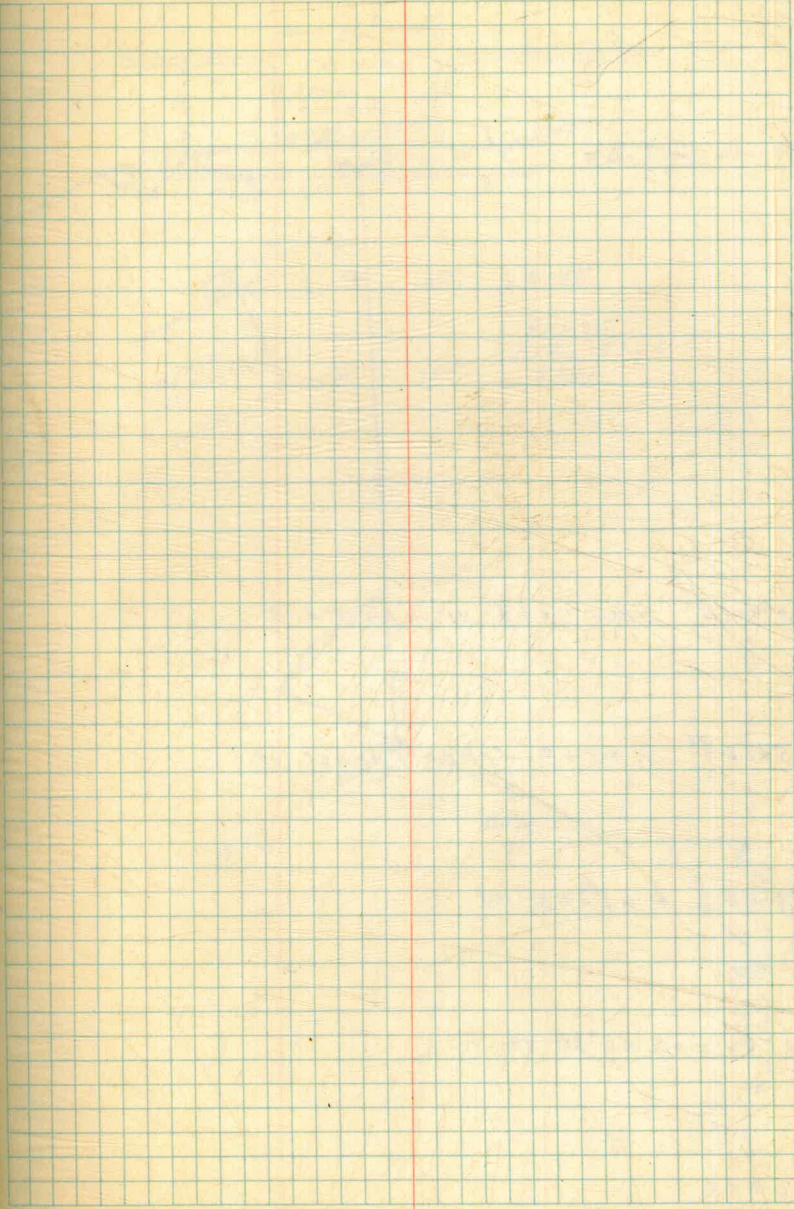
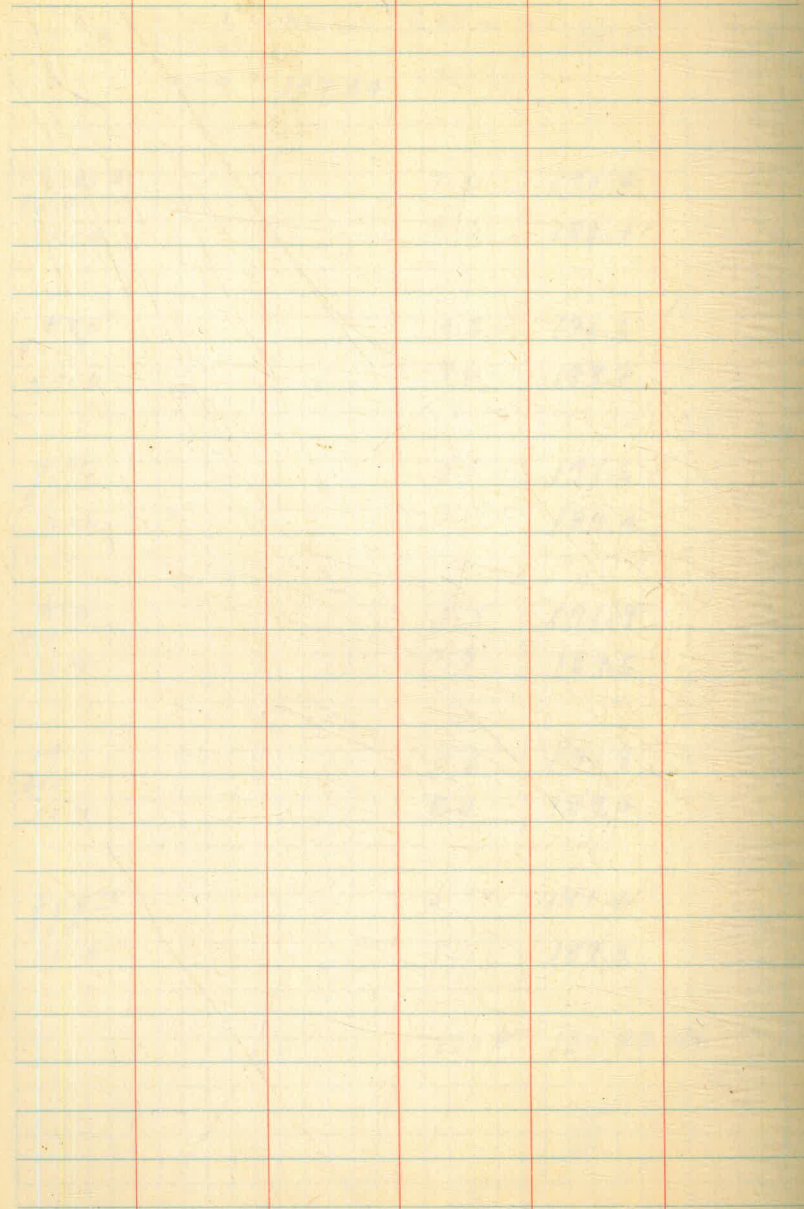
Profile Alternate Line #2
Foothill Blvd P.L. 6-17-44

63

		189.35	
8.09	197.44		
13465.3		7.10	190.4
top			
curb		9.3	188.1
+25		4.8	192.6
top			
curb		8.6	188.8
+50		5.8	191.6
top			
curb		8.0	189.4
+75		5.5	191.9
top			
curb		7.8	189.6
14		5.6	191.8
top			
curb		8.0	189.4
+05.78		6.05	191.4
top			
curb		8.1	189.3
		8.09	189.35

B.M. R.R. SPIKE WITH "X" IN ST. 10' S. OF N. CURB
AGATE ST.

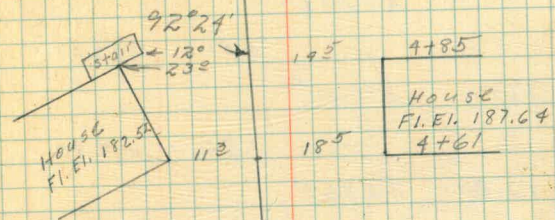
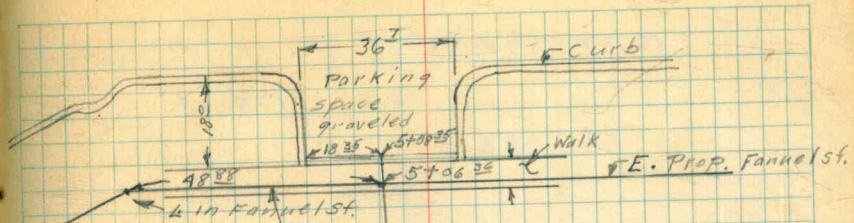
B.M. 189.35



Alignment of Road from Pac. Beach
Res. Site to Fannell St. 6-30-44

92° 24'

65



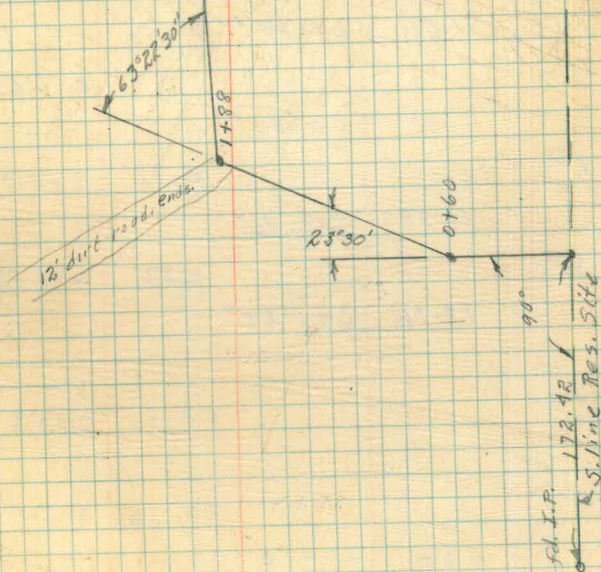
5+08'35" edge curb around Park.

5+06'36" E prop line Fannell St.

1+88 L 63°22'30" Rt.

0+60 L 23°30' Rt.

0+00



Profile Along Proposed Road 6-30-44

	12.37	179.53		167.16
TP			0.05	179.48
	11.84	191.32		
TP			0.46	190.86
	12.72	203.58		
TP			0.51	203.07
	12.93	216.00		
TP			0.20	215.80
	12.89	228.69		
TP			0.07	228.62
	12.45	241.07		
TP			0.50	240.57
	11.78	252.35		
TP			0.33	252.02
	11.01	263.03		
TP			0.72	262.31
	11.55	273.86		
TP			0.33	273.53
	12.36	285.89		
0+00			12.1	273.8
TP			12.36	273.53
	0.59	274.12		
0+60 L			7.9	266.2

B.M. top of S.E. Cor. Fannet & Turquoise Sts

S. Prop line Res. Site

274.12

0480 12.7 261.7

TP 11.81 262.31

0.52 262.83

1400 10.5 252.3

TP 13.09 249.74

1.93 251.67

TP 12.68 238.99

1.89 240.88

1450 6.9 234.0

12.17 228.71

1.61 230.32

1471 4.8 225.5

1488 L 5.6 224.7

2400 6.0 224.3

435 7.0 223.3

edge of dirt road

230.32

+50 9.5 220.8

+70 13.3 217.0

TP 12.89 217.43'

0.24 217.67'

3+00 4.5 213.2

+20 7.3 210.4

TP 12.99 204.68'

3.00 207.68'

3+50 5.7 202.0

TP 12.53 195.15'

0.96 196.11'

4+00 6.0 190.1

+15 9.1 187.0

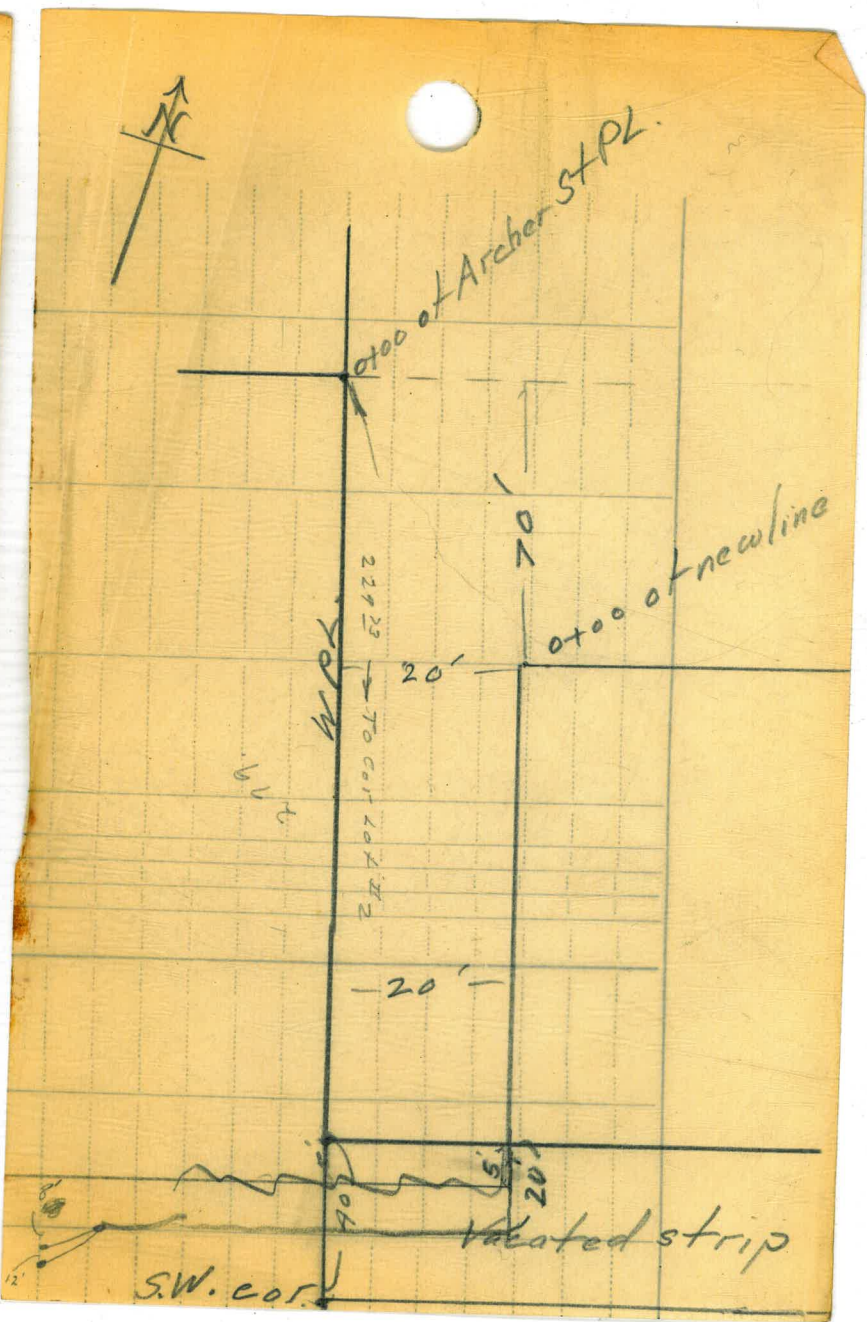
TP 13.06 183.05'

2.52 185.57'

4+50 4.0 181.6

curb projected
4.32 from 10' off E

2+02.70



	185.57		
5400		9.7	175.9
5406 ³⁰		10.24	175.33
5408 ³⁵		10.27	175.30
5421		11.26	174.31
TP		12.11	173.46 ^v
3.45	176.91 ^v		
		9.73	167.18 ^v

69

on Walk at Pipe Line Canal

Curb around Parking area.

E. Curb line Canal St.

GM. on F.P. S.E. Cor. Canal & Turquoise Sts El. 167.16

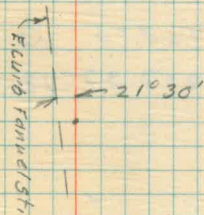
Stadia survey of Proposed Road
to Pac. Beach Res. Site.

6-30-44

4

70

3 to 5	(186)		POT +8°56'	4.9 4.9	289.2
3 to 4	(112)	N15°E	25°17'44" + 5°51'	9.9 4.9	
2 to 3	(112)	N10°W	17°56'44" + 8°30'	4.9 4.9	260.7
1 to 2	(306)	N28°W	19°27'24" + 9°50'	4.9 4.9	244.2
0 to 1	(21)	N8°W	0°0'	4.0 4.5	192.8



0

POINT #0 = POINT ON E. CURB FARVEL ST.

OPPOSITE STA. 12+64 PIPELINE SURVEY PAGE 57
EL. POINT #0 = 189.3

Profile of line 20' N. of AGATE ST.
from E. Line Lot #2 to AGATE & FANUEL STS.

	1.06	288.47		287.41
0+00 = E. Line Lot #2			8.9	279.6 ✓
+29			3.0	285.5 ✓
1+00			7.6	280.9 ✓
+48			14.0	274.5 ✓
2+00			8.1	280.4 ✓
+42			9.9	278.6 ✓
+50			11.0	277.5 ✓
TP	1.90	276.86	13.01	275.46 ✓
3+00			14.6	262.3 ✓
TP	0.46	264.96	12.36	261.50 ✓
TP	0.31	252.37	12.90	252.06 ✓
+50			6.0	246.9 259.0 ✓
TP	0.17	248.01	12.53	239.89 ✓

7-1A-4A

BY 111
OTTEN
KING
STEPHENS.

71

B.M. CUT STONE for Test Hole #9.

	240.01		
4+00		8.8	231.2
TP	0.20	227.42	12.79 227.22
+50		11.0	216.4
TP	0.03	214.51	12.94 214.48
5+00		10.3	204.2
TP	0.06	201.52	13.05 201.46
+25		2.3	199.2
+40		5.5	196.0
+50		7.2	194.3
+56		7.8	193.7
+84		11.7	188.8
+90 = 13+00		12.8	188.7 201.3
6+00		12.9	188.6

on pay. Int. of Fannet & AGATE

= 13+76.6 After rate line (page 61 this
BOOK)

201.52 ✓

6+25

13.7

187.8

12.11 ✓

189.41

TOPCUT B 13+765 Alternate Line (page 61)
El. 189.4

Dec 14 1949

MEASUREMENT OF CONCRETE PAVING
OVER BREAKAGE PIPELINE
ELECTRIC AVE

STATION	WIDTH	STATION	WIDTH
63+94	5.0	65+31	5.3
+98	10. BK 12.5 AH.	+32	4.2
64+02		8.5	+37
+14	7.2	+39	7.2
+19	8.5	+40	5.7
+29	7.5	+50	5.0
+32	8.5	+60	4.0
+35	8.5	0+00 = 6 1/2' RT 64+44' OUTLET TO FH	
+41	10.8	0+00	7.0
+48	9.0	+04	3.7
+53	4.5	+08	2.6
+59	4.8	+14 BK	5.2
+65	5.7	+14 AH	3.0
+69	4.1	+20 curbs	3.0
+87	4.3	SIDEWALK	2.0 x 3.0
+90	6.5	Begin Conc.	
+91	6.0 BK 10.3 AH.	111+83	8.0
65+02	5.8	111+90	5.0
+07	7.5	111+97	6.4
+11	8.7	111+98	7.0
+12	8.0	111+99	10.0
+15	5.3	112+05	11.5 BK
+18	4.0	112+05	14.8 AH.
+27	4.4	112+07	15.5
		+09	16.5
		+19	16.5
		+21	16.0 BK
		+21	10.0 AH.
		+24	6.0
		+33	6.8
		+36	7.8
		+44	8.0
		+45	4.0
		END CONC Begin A.C.	

So. Edge Val Chg
Not "

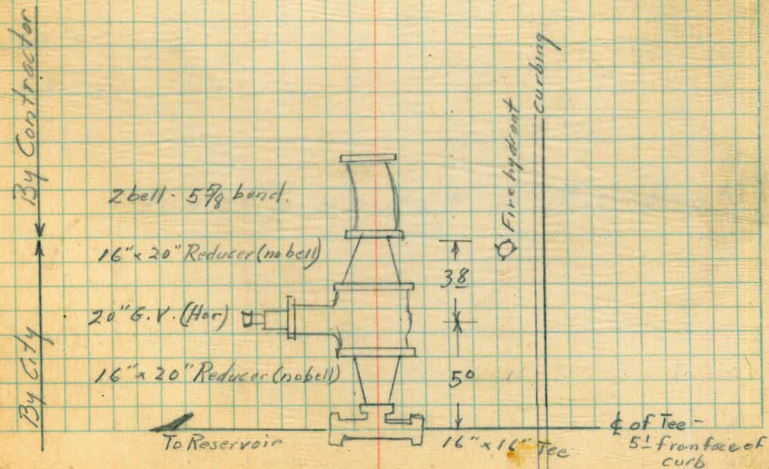
74

STATION	WIDTH	STATION	WIDTH
170+76	5.1	STA 33+00	AVERAGE 4.3 to 4.5
170+86	4.4	STA 45+00	
170+93	4.7		
170+97	3.0		
171+10	7.8	STA 135+00	AVERAGE 4.1.
171+12	4.7	STA 135+60	
171+13	5.0		
171+13	6.5		
171+32	7.7		
171+38	5.0		
171+46	5.8		
171+50	4.8		
171+58	5.8		
171+64	8.5		
171+74	8.5		
171+77	8.4		
171+83	6.2		
171+87	6.7		
171+89	5.3		
171+95	5.3		
171+95	6.5		
171+97	5.3		
172+05	4.6		
+05	5.6		
+13	6.0		
+18	5.0		
+25	4.0		
+48	4.0		
+48	6.0		
+54	4.7		
+57	6.4		
+59	5.4		
+66	4.9		
+67	6.5		
+76	6.0		
+78	7.2		
+86	6.6		
173+10	5.4		
+13	7.5		
+20	8.2		
+20	6.5		
+40	5.0		
+50	6.0		
+66	5.5		
+82	5.1		
+82	6.0		
+97	5.4		
+99	12.5		
174+07	12.5	(4 Projected Street)	
174+14	2.8	x 0.5 x 0.7 curbs.	
174+15			

?	1 1/4" Gas		
262+40 ²	Elect. Conduit		
262+49 ²	Elect. Conduit		
262+50 ⁴	4" C.I. Water		
262+54 ⁷	8" C.I. Water		
267+84	3/4" water	24.0	'
268+45 ⁶	6" C.I. Water	24.1	'
288+72	6" C.I. Water	29.1	'
289+00	6" C.I. Water	30.1	'
289+31 ²	2" Gas	31.6	'
289+42 ⁶	Elect. conduit	32.1	'
310+51	1 1/2" Gas	40.4	'
310+73	3/4" water	41.6	'
318+80	1 1/2" Gas	45.1	'
322+58	3/4" gas	44.5	'
325771 ²	1 1/2" Gas	49.8	'

329+15	3/4" water service	57.1	'
330+25	3/4" water service	54.3	'
330+25 ⁸	" " "	54.6	'
330+26	" " "	54.4	'
330+27	3/4" water service	54.3	'
331+25	Air valve		
331+19	Gate valve		
331+02 ¹	10" C.I. Water	52.7	'
335+20	3/4" water	62.1	'
335+20 ⁵	3/4" water	62.2	'
335+21	3/4" water	62.2	'
335+23	3/4" water	63.1	'
335+26	3/4" water	63.1	'
335+58	3/4" Gas	62.4	'
336+65	6" Gas	63.3	'
337+46	3/4" Gas	66.3	'
337+48	3/4" Gas	63.9	'
339+35	3/4" Gas	68.7	'
339+57	3/4" water service	68.0	'
339+57	3/4" water service	68.2	'
340+15	1" Gas	67.3	'
343+64	1" Gas	70.4	'
355+75	4" C.I. Water	89.1	'

	Elev. of Top of Pipe	
358+97 ^s 3/4" water	101.7	/
359+73 - 3/4" water	104.1	/
361+16 ^s 1 1/2" H.P. Gas	107.9	/
361+98 - 4" Sewer	110.4	/
362+61 3/4" Iron Elect Conduit.	113.9	/
✓ 362+76 6" C.I. Water.	113.4	/
363+18 3/4" Iron Elect. Conduit	115.0	/
363+31 - 3/4" Iron Elect Conduit.	116.8	/
363+57 - 4" Sewer	114.5	will have to be raised
371+03 - 3/4" Iron Elect Conduit	145.6	/
371+10 - 1 1/2" Iron Elect. Conduit.	144.7	/
✓ 372+58 - 10" C.I. Water	145.4	
✓ 372+63 - 6" C.I. Water (F.H.)	145.4	



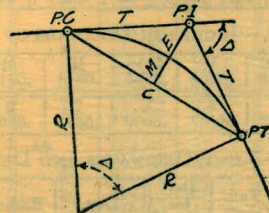
Depth to water in holes Poc Beach Ph.

Sta.	Depth to water	Date
253+75	6.4 dry	4/23/41
243+00	5.7 "	"
233+75	6.8 "	"
223+40	5.9 "	"
213+20	4.9 "	"
203+00	4.6 damp	"
193+00	4.5 dry	"
183+00	5.9 "	"
173+00	6.0 water	"
163+00	3.5 dry	"
154+00	5.8 water	"
139+00	W. of home well 1.5 "	"
133+00	4.0 "	"
123+00	3.7 "	"
114+00	2.4 damp	"
94+00	1.0 dry	"
83+00	1.5 "	"

Top of pipe 52.7 10" M. on Grande

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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



CURVE FORMULAS

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

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

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

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

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

EXPLANATION AND USE OF TABLES

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

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

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

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

4/18/41
Soper-Brooks
Highway

Survey of damaged light conduit by drilling

holes on Causeway bridges.

Lead conduit hit but cable not broken	Cable broken	Distance From Face of curb to $\frac{1}{2}$ of hole
3-4-9-10-25	26-43-44-63-	17.81 - 2 1/2"
32-36-42-60-	66-68-69-70-	82.788 - 3 1/2"
61-62-94-101	71-72-73-102-103	89-101 - 3"
		102-107 - 4 1/2"

Bridge #2

	108-110 - 3 1/2"
	111-113 - 3"
122-135-186-189	109-110-111-114
	114 - 4"
	115-118 - 3"
	119 - 4"
	120 - 3"
	121-125-129-130
	121-122 - 3 1/2"
	123-124 - 3"
	125-127 - 2 1/2"
	128 - 3 1/2"
	129 - 4"
	130 - 4 1/2"
	131-132 - 4"
	132-139 - 3"
	140-142 - 2 1/2"
	143-155 - 3 1/2"
	156-168 - 3"
	169-178 - 2 1/2"
	179-182 - 3"
	183 - 4"
	184-185 - 3 1/2"
	186 - 4 3/4"
	187-188 - 4"
	189 - 4 3/4"
	190-193 - 3"
	194 - 4 1/2"
	195-199 - 2 1/2"
	200-201 - 3 1/4"
	201-209 - 3 1/2"
Total . 33	

185.57 185.57
305 207
182.52 187.64

2" 3407.5 3.5 deep
6" 3121.8 3.5 "

BM. SE. cor. Mont. & Col. Ave.
Top hydr. 452.51

N.W. end of curb
Mont. Linda Paseo El. 453.64

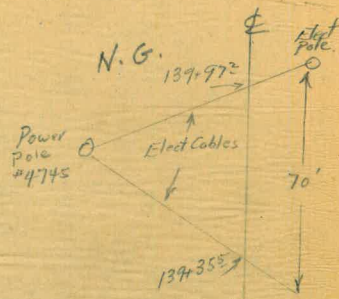
offset Distances

265+50 - 365+50 - 6' RT
367+05.93 - 370+75.5 - 5' RT
371+00 6' RT

204+83 - Elect Light
conduit ring.

204+95.5 - Elect Pole
7' RT - 4573

204+22 - Elect Pole
LT - 4572



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.

MADE IN U.S.A

189.35
(63)

379.46³⁵ - 20' 6"

14+02.62
2 66.88
16 69.50

188.7
13+76.6

79.7
58.6
100.3
5.015

16

155.0
64

14.86

37.50
160.0
21.50
10.75

37.50
107.4
267.8
22.50
4.21

185.12
3.41
188.53
3.19
175.34



59.54

68+47.81 L

228.62
11.45
277.17
290.57
1426

574

140
120
120

37.5
160
21.5
10
25.20
11.01
267.72
107.5
134.31
275.86
0.33
275.53

22

28

2.6
2.0

251.05
16.37
267.42

68+68
33
69.20
43

60+67 - + 0.5' 21.75

16+96.22
16+69.5
26.72