

PASTS

LEVEL BOOK

1880 F

1899 A

289 A

289-A

Our Leather Bound Engineers Note Books are carried in the following rulings:

- No. 380 LEVEL BOOK. Left and Right Hand Page the same as Left Hand Page of this Book.
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THE FREDERICK POST CO.
ENGINEERING and DRAFTING SUPPLIES

IRVING PARK STATION

CHICAGO, ILL.

MICROFILMED

JAN 1 1960

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May 21, 1930

Elliott
Bailey
Jacobszon

B.M. #76

56.59

8.55 65.09

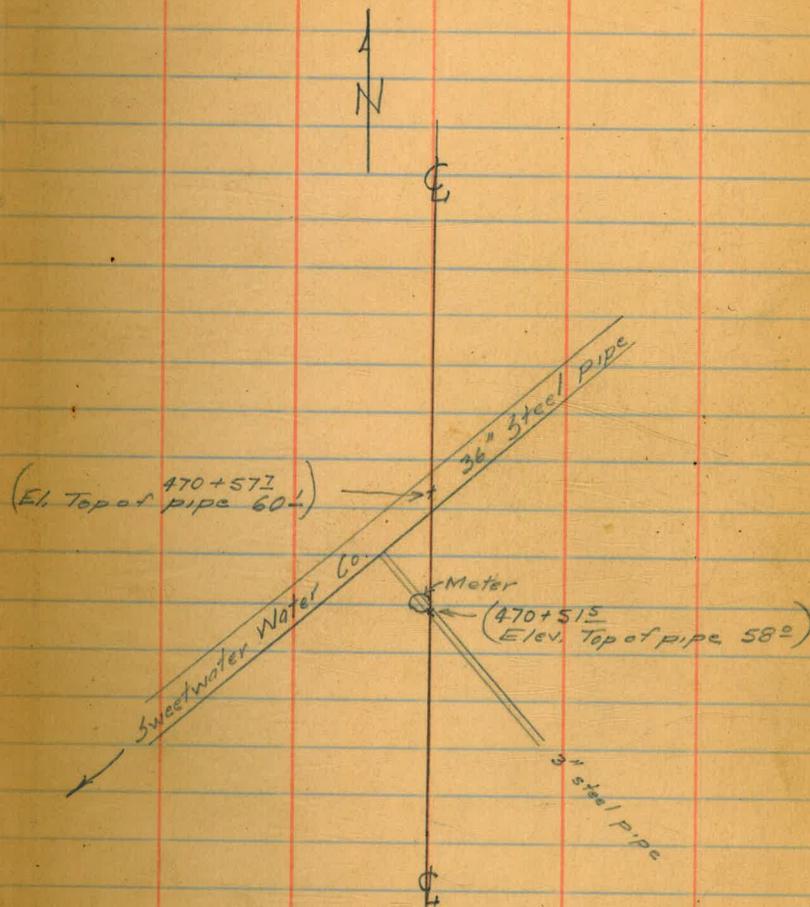
470+572

5.0 60.1

470+515

7.1 58.0

Otay Res. to San Diego 2nd Main Pipe Line
Sweetwater Water Co. Pipe Crossing Near Bonita
Road.



May 21 1930
 Clear - Cool
 Elliott & notes
 Bailey + Jacobs 20m ϕ raps

Otay Reservoir to

Cont. from Book #289
 Pages 30-38

Sta.	Grade	Elev.	Dist	L.C.	ϕ
470+50	52.7	58.5		58 2.25	5.8
				52 2.25	5.7
Standard Trench					
470+60	52.7	58.6		52 2.25	
Begin 1/2:1 Slopes 5' bottom					
471+00	52.7	57.5		98 9.5 9.7	9.8
472+50	52.6	57.7		52 9.8 10.0	5.1
472	52.6	57.8		51 9.9 10.1 2.3	5.2
+50	52.6	58.3		54 10.4 10.6	5.1

San Diego 2nd Main Pipe Line
 Final X Sections Schedule I.

Sta. 470+50 to 483+64

54" base width - Side slopes 1 1/2:1

R.C. End Area Cu. Yds.

58
2.25

26.10

26.325 \checkmark 975 \checkmark

52
2.25

26.55

43.04 \checkmark 63.76 \checkmark
 42.00 62.22

50
9.8
10.0

59.53 \checkmark
 57.46

61.705 \checkmark 114.27 \checkmark
 59.52 110.22

51
9.9
10.1

63.88 \checkmark
 61.59

65.09 \checkmark 120.54 \checkmark
 62.51 115.76

52
10.2
10.4

66.30 \checkmark
 63.44

70.46 \checkmark 130.48 \checkmark
 67.61 125.21

55
10.5
10.8

74.62 \checkmark
 71.78

67.445 \checkmark 124.90 \checkmark
 64.92 120.23

m.s.
R.C.

R.C. R.C.

54" Bottom - Slopes 1 1/2:1
5'

4

Sta.	Grade	Elev.	Dist	L.C.	\$	R.C.		
473	52.6	57.5		42 9.6 9.8	49	42 9.6 9.8	60.27 58.06	62.90 58.24 62.36 57.74
+25	52.5	57.6		54 10.9 10.6	51	50 9.8 10.0	65.53 66.67?	53.28 49.33 52.97 49.04
+50	52.5	55.8		46 9.2 9.4	33	42 8.6 8.8	41.03 39.27	49.495 45.83 47.53 44.01
+75	52.5	57.2		42 9.5 9.7	43	42 9.6 9.8	57.96 55.79	53.275 49.33 51.22 47.42
474	52.5	56.8		43 8.6 8.8	43	43 8.6 8.8	48.59 46.66	41.845 38.74 40.10 37.13
+25	52.5	55.9		34 7.4 7.6	34	36 7.7 7.9	35.10 33.54	42.20 47.17 40.45 45.22
							m.o.b. A.C.L.	A.C.L. A.C.L.

54" Bottom Slopes 1/2:1
5

5

175
225

Sta.	Grade	Elev.	Dist	L.C.	Q.
474+55.18 =	52.5	57.0		4.3	4.5
474+57.68				8.6	
				8.8	
+80	52.4	55.9		3.7	3.5
				7.8	
				8.0	
475+10	52.4	57.4		9.6	5.0
				9.2	
				9.4	
+30	52.4	55.9		3.5	3.5
				7.5	
				7.7	
+43	52.4	57.0		9.6	4.6
				9.2	
				9.4	
+80	52.4	56.4		4.2	4.0
				8.4	
				8.6	

R.C.	Left	Right
49.30	43.51	35.97
47.36	41.72	34.49
37.72		
36.07		
3.8	49.11	54.57
8.0	47.19	34.96?
8.2		
5.0	60.50	
9.8	58.29	
10.0		
	48.10	35.63
	46.20	34.22
3.5	35.70	
7.5	34.12	
7.7		
4.0	51.92	
8.3	49.92	
8.6		
4.2	44.90	
8.4	43.06	
8.6		
	54.20	40.15
	52.15	38.63

M.D.C. A.C.L. A.C.L.

54" Bottom - Slopes 1 1/2 : 1
5'

Sta.	Grade	Elev.	Dist	L.C.	Φ	T.R.C.		
476+00	52.4	57.4		59	50	48	63.50 61.23	
			20.	10.4 10.6		9.5 9.7	82.875 81.58	
							61.39 60.43	
+20	52.4	59.2		60	68	75	102.25 101.94	
			30.	11.3 11.5		9.0 12.2 12.4	113.89 111.23	
							126.54 123.58	
+50	52.4	59.4		73	70	82	125.53 120.53	
				13.2 13.4		11.0 12.7 14.1	144.135 139.12	
							266.92 139.12	
477+00	52.4	62.0		77	83	93	162.74 159.71	
				13.3 14.1	52	90	12.0 14.0 14.2	153.195 153.145 148.97
							147.53 147.47 270.35?	
+26	52.3	62.9		68	75	106	143.65 143.55 140.24	
				12.3 12.5	3.0	107	5.7 6.0 10.8 11.0 11.5	104.245 101.35
							27.03 26.28	
+33	52.3	57.1		53	48	48	69.84 64.94 62.47	
				10.2 10.4	8.0	52	5.0 5.0 10.0	69.725 69.78 67.28
							43.90 43.94 42.36	

Comptd. M.D.B.
H.C.L. P.C.L. P.C.L.

54° Bottom - Skopes 1311
5'

7

Sta.	Grade	Elev.	Dist	L.C.	4.
477+50	52.3	58.2		53 10.2 10.4	59
465	52.3	57.1		50 9.8 10.0	48
478	52.3	57.6	30.	52 10.1 10.3	53
430	52.3	56.9		52 10.1 10.3	46
450	52.3	56.5		46 9.2 9.4 9.5	43
479	52.3	56.1		43 8.9 9.1	38

R.C.	74.61	930
53	72.10	215
10.2		205
10.4		870
	67.56	37.53
	65.19	36.22
	60.50	
50	58.28	
9.8		
10.0		
	65.09	84.38
	62.77	30.22
	69.68	
56	67.27	
10.7		
10.9		
	62.86	69.84
	55.70	108.95
	56.04	
43	44.14	
8.7		
8.9		
	52.42	38.83
	45.50	33.71
	48.80	
43	46.86	
8.4		
8.6		
	47.03	87.09
	45.04	83.41
	45.26	
43	43.22	
8.7		
9.0		
	51.92	96.13
	49.80	92.22

M.R.E.
A.C.L. A.C.L. A.C.L.

54" Bottom - Slopes 1 1/2:1
5'

Sta.	Grade	Elev.	Dist	U.C.	41
479+50	52.2	57.1		50	47
				9.8	
				10.0	

480	52.2	56.2		40	40
				8.3	
				8.5	

4	405	52.2	57.9	57	52
				10.8	
				11.0	

	423	52.2	59.2	72	70
				13.8	
				14.0	

	450	52.2	59.5	58	73
				11.0	
				11.2	

47	480	52.2	56.6	36	40
				7.7	
				7.9	
				7.8	

R.C.
58.58
44 56.38
8.9
9.1
2.5

53.84	99.70
51.76	57.51

49.10
52 47.15
10.7
10.3

61.72	11.43
59.49	55.08

74.33
52 71.83
10.1
10.3

89.06	59.37
86.27	57.52

103.78
56 100.71
10.7
10.9

104.055	104.06
100.99	100.99

104.33
70 101.27
12.8
13.0

77.23	85.81
74.72	83.02

50.13
50 48.18
9.8
10.0

50.93	37.73
48.94	36.25

M.B.S.
A.C.L. A.C.L. A.C.L.

54" Bottom - Slopes 1 1/2"
5'

Sta.	Grade	Elev.	Dist.	L.C.	W.	R.C.		
481	52.2	56.6		7.3	44	47	51.73	
				8.7		48	49.71	
				8.9		49		
						50		
+45	52.1	57.1		47	50	48	59.88	
				9.3		49	57.68	
				9.5		50		
						51		
+85	52.1			50	51	53	64.64	
				9.8		54	62.33	
				10.0		55		
						56		
482	52.1			50	44	43	53.20	
				9.8		44	51.16	
				10.0		45		
						46		
+27	52.1			40	48	50	55.65	
				8.3		49	53.56	
				8.5		50		
			13.			51		
						52		
+50	52.1			39	40	42	44.33	
				8.1		43	42.50	
				8.3		44		
				8.5		45		
						46		
						47		
						48		
						49		
						50		
						51		
						52		
						53		
						54		
						55		
						56		
						57		
						58		
						59		
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						61		
						62		
						63		
						64		
						65		
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						88		
						89		
						90		
						91		
						92		
						93		
						94		
						95		
						96		
						97		
						98		
						99		
						100		

55.81 93.02
53.69 89.49

62.26 92.24
60.00 88.89

58.92 32.73
56.74 31.52

54.43 54.43
52.36 52.36

49.99 42.59
50.04 42.63
48.03 40.92

37.115 34.36
37.17 34.47
35.50 32.87

M.P.B.
A.C.L. A.C.L.

54' Bottom - Slopes 1/2:1
5'

10

Sta.	Grade	Elev.	Dist.	L.C.	¢	R.C.	✓
482+75	52.8	55.8		3.0 6.8 7.0	3.0	29.90 28.50	✓
						3.4 7.4 7.6	✓
						24.87 23.16	✓
						23.03 21.44	✓
483+00	53.5	55.7		2.2 5.6 5.8	2.2	19.84 17.83	✓
						2.4 5.9 6.1 2.5	✓
						9.92 8.91	✓
						4.41 3.96	✓
End 1/2:1 slopes 483+12	53.8	53.8		0.0 2.25	0.0	0.0 0.0	✓

2968.21
2968.13
Total this book
9/25/30
A.L.L. 10/11/30

Continued in Book # 289 Page 39.

Comptd. M.D.E.
~~A.C.L.~~ ~~A.C.L.~~ ~~A.C.L.~~

Inspection of Otay 1st
Main Pipe Line

- At filter plant 1- 24" gate valve,
50' steel pipe (24") with 2 bands.
1- 24" x 40" x 4' cast iron reducer
1- 4" air valve
500' W. 1- 4" air valve assembly
Opp. tr. #2 - 1- 4" blow off valve, 50' handrail,
4- 4" x 12" x 30' stringers fair,
12- 4" x 6" x 7 1/2" pipe sills - poor,
salvage time 3 men 1 day. MIGHT
LEAVE FOR FILTER USE.
400' W. of tr. #2 - 1- 4" air valve assembly
Tr. #3 About 1500' salvagable timber
rather poor. 75 lin. ft. handrail
1- 4" blow off valve.
500' W. Tr. #3 - 4" air valve assembly
500' W. 1" corp. cock
200' E. Tr. #4 4" air valve assembly
Tr. #5 about same as #3 no blow off,
corp. cock.
250' W. of Tr. #4 3" air valve assembly.
Tr. #6 salt canyon 45' trestle poor,
handrail OK walk fair
50' W. Tr. #6 4" blow off
Tr. #7 2000' salvagable salvagable lumber,
poor. 130' handrail OK

Beerman 4/7/36
Hill clear & warm

11

- 600' W. of tr. #7 4" air valve assembly.
Tr. #8 2000' of salvagable lumber, fair.
120' handrail OK 3/4" globe
valve
500' W. of tr. #8 3" air valve assembly
Tr. #9 same as #8 N.B. either 3/4" corp.
cock or globe valves at all trestles
Air valve assembly #9 3"
Tr. #10 1500' lumber - poor
100' handrail OK
Air valve assembly #10 4"
Tr. #11 400' lumber fair
60' handrail OK
Tr. #12 2000' lumber, fair
120' h
Air valve #11 3" poor
" " 12 3" fair
Trestle #13 2200' lumber
125' hd. rail
Air valve #13 3"
Trestle #14 1000' lumber, poor
75' hd rail
Air valve #14 3"

(cont.)

Trestle "15 1200' lumber - fairly poor
120' hd. rail
300' tram road.

Air valve 15 3"

" " 16 3"

Trestle "16 40' hd rail
no salvage

Air valve 17 3"

Coronado Wye

1-4" gate valve

1-6" " "

1-3" " "

1-40" x 36" x 18" T reducer (cast)

400' 4" pipe

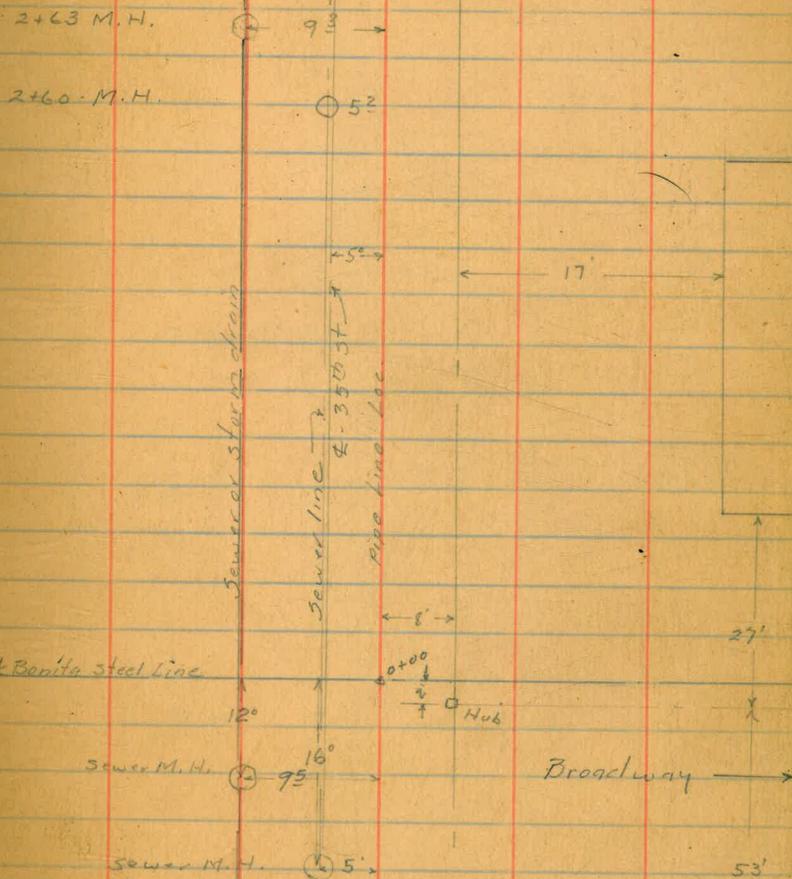
Trestle "18 120' hd rail
400' salvageable lumber poor
road within 100'

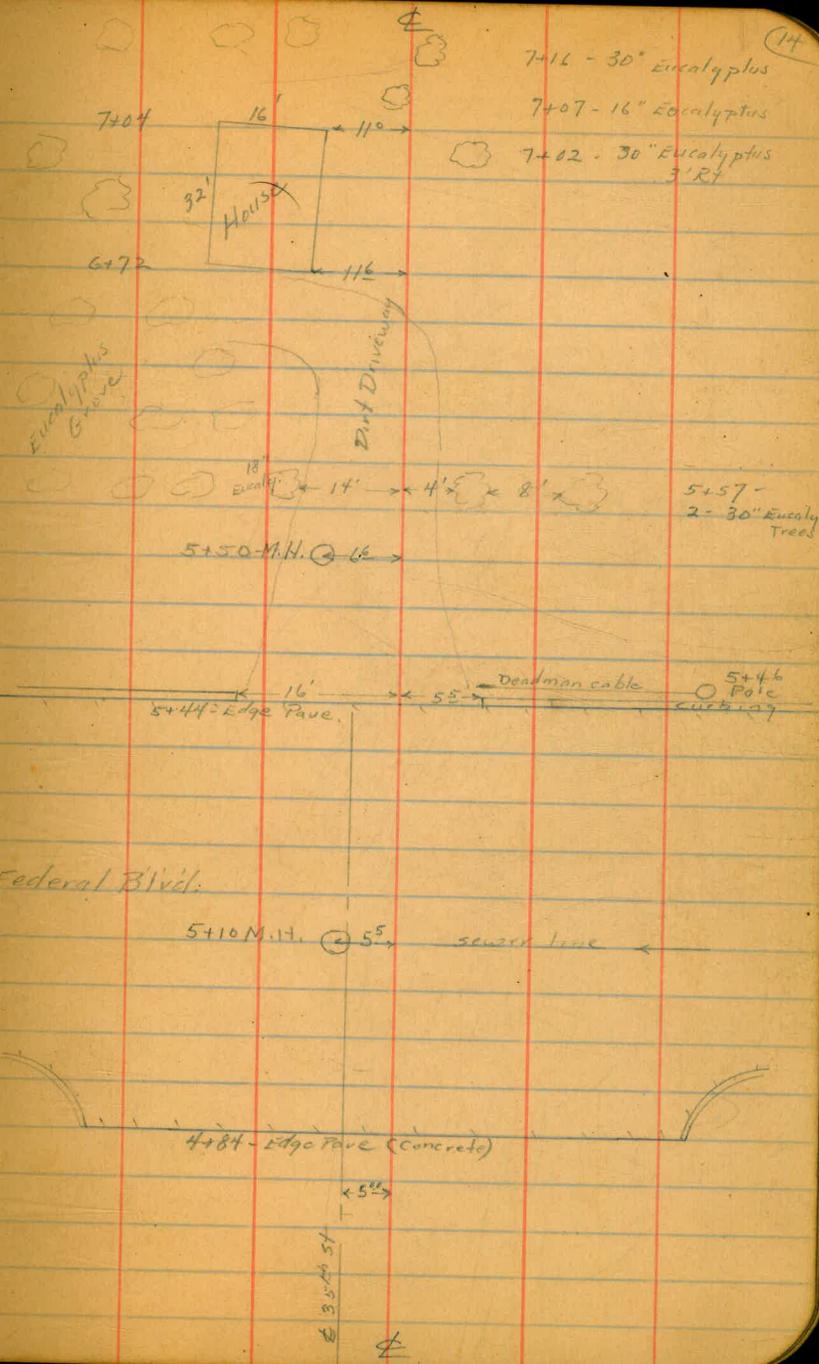
Water line location - 35th + Broadway, South
 on 35th to Rigel St, on Rigel to Main St.

2/10/41
 Hill
 Super
 Brooks
 Hodgson
 13

0+00 = 4" Bonita Steel Line

4" Bonita Steel Line





2/11/41

15

Hill
Super
Brooks
Hodgeson

⊕

11+00 edge of creek bank

← 95°

10+85 M.H. 95° RT

10+51 edge of creek bank

Creek

Sewer line

9+24.45

9+24.45 L 6028' 64

7+49 M.H. (3) 54

⊕

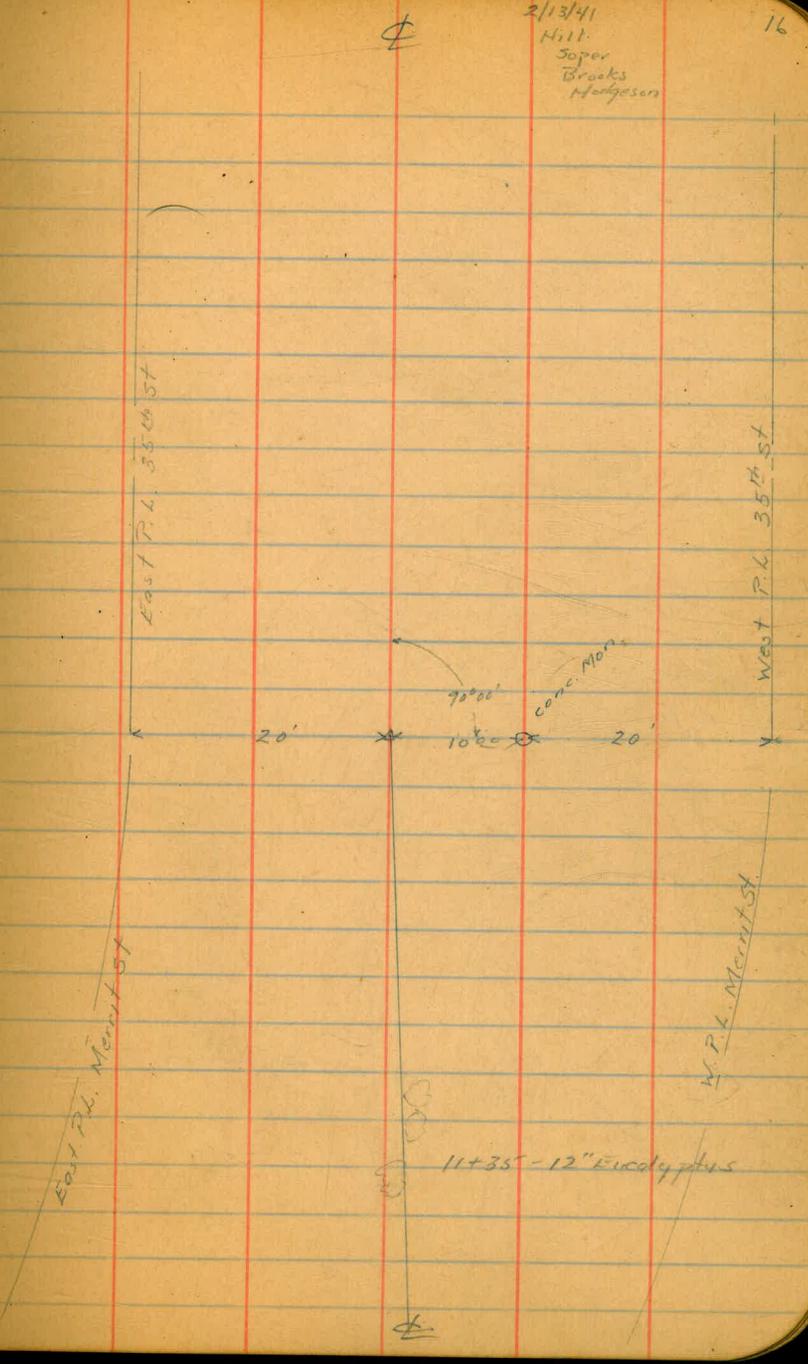
2/13/41
Hill
Super
Brooks
Hodgeson

Slope = $\frac{100}{100} @ 18.31 = 94.82$

14+16⁰⁰ P.O.T.

13+89³⁵ Δ 6057' RT

13+10²⁴ P.O.T.



East P.L. Merritt St

W. P.L. Merritt St

11+35 - 12" Eucalyptus

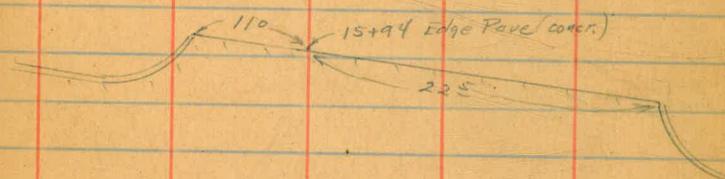
17+37²⁹ P.O.T

±

17

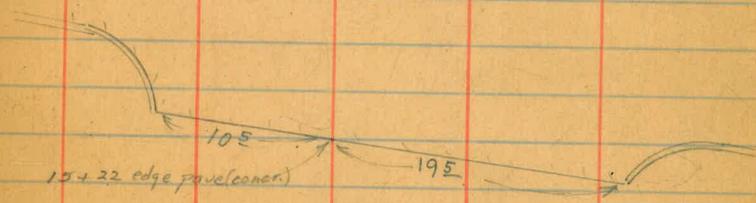
← 1000 →

17+85[±] 1" pipe



Market St.
Conc. Pave.

← 40 → 15+54[±] Sew. M.H.



±

26+48⁷⁵ L 22°08' RT.

20+62⁰⁰ P.O.T.

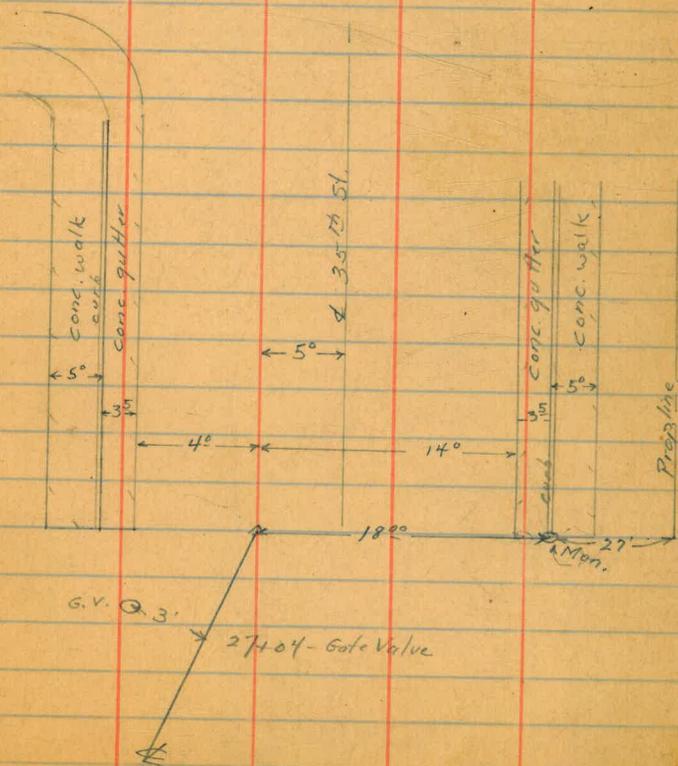
20°
Hub - S.E. Cor
Island

East Pl. 35⁰⁰

20°

19+81⁶

L St.



27+08.85 / 21+39.17

33+00 P.O.T.

34+45.3 S.D.A. R.R. tracks

Fence 33+15

Thompson St.

32+33.23

Conc. Walk

Conc. Gutter

35' 0" ST

18° 00'

5°

no sidewalk

30+69

24" Culvert (Conc)

37+24⁵ Edge Pavc.

Imperial Ave. (Conc. Pavc.)

37+03² Edge Pavc.

36+70 - Edge of oil Pavng

36+50 Edge of oil Pavng

← 5' →

35+5 St.

36+30 P.O.T.

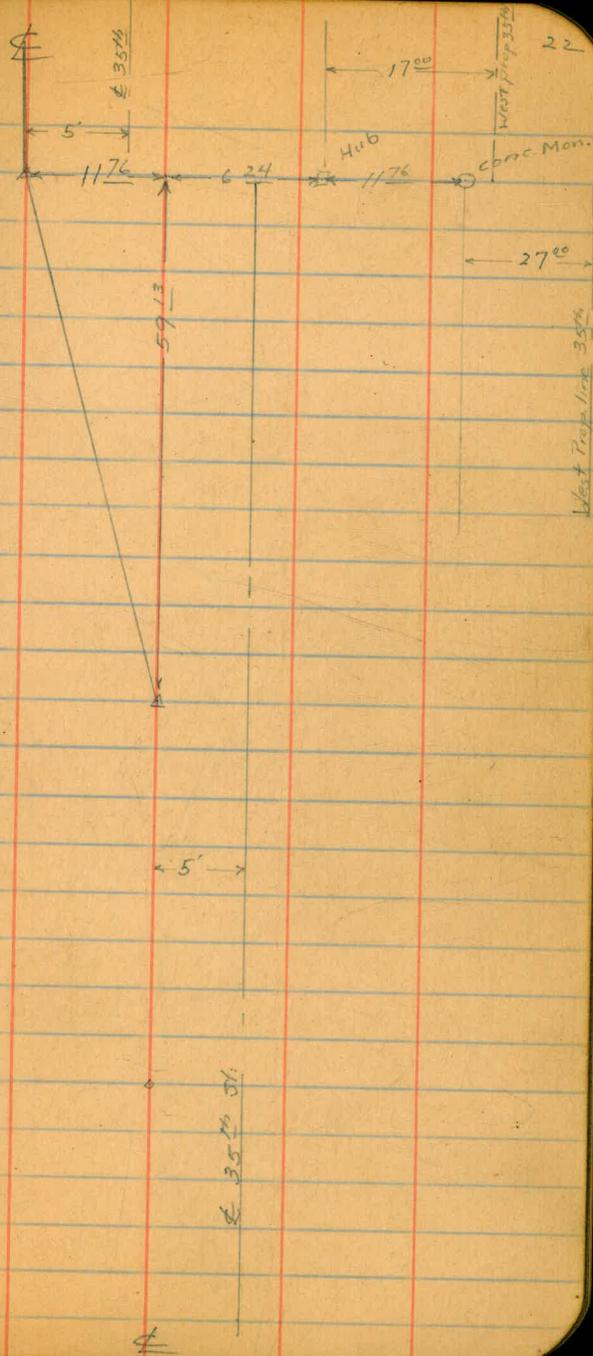
40+26¹⁹ 10°21' RT

37+65⁹⁵ 11°18' LT

37+96³⁸ P.O.T.

2/4/41
Hill
Soper
Brooks
Hodgeson

Durant St.



52400 P.O.T.

5.00

35.50

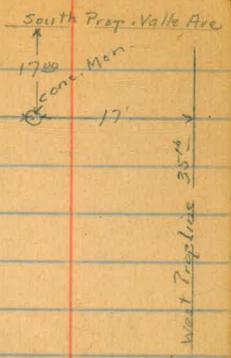
20

41+70^E
Sew. M. H.

56+8280 P.O.T.

±

24



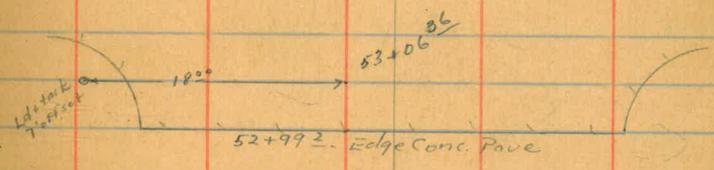
+5'

35' 2 1/2 5'

53+795 Edge Conc. Pave.

53+4524 - San Diego El. R.R. Tracks

Ocean View Blvd.



±

±

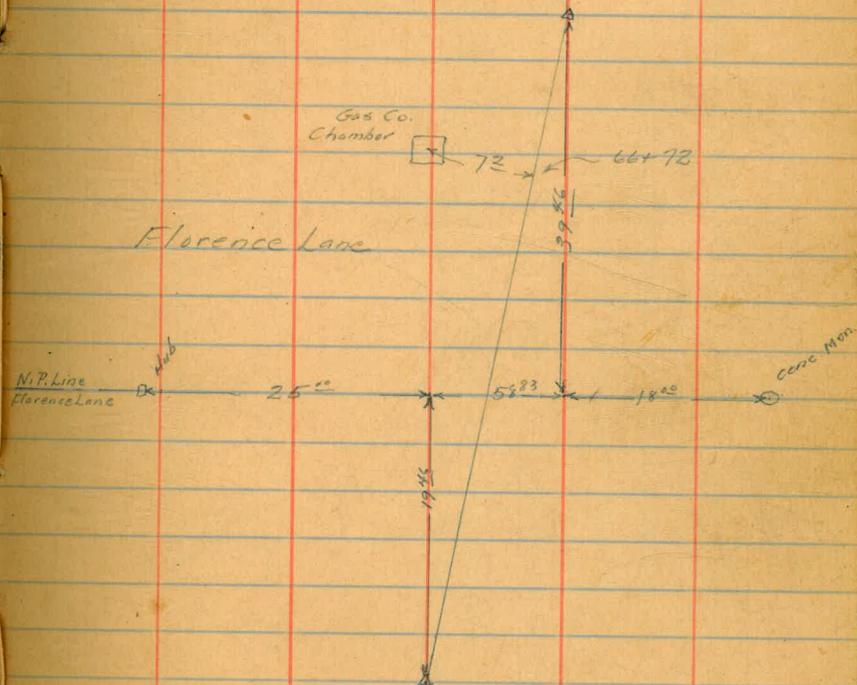
65417 Edge of oil paving

59440 P.O.T.

±

67+26.93 / 45° 03' LT

66+43.68 / 44° 57' RT



2/15/41
Hill
Soper
Brooks
Hodgson

27

flow → ← 52' ⊙ → 74+60⁶ Saw N.H.

15'

Conc. Pav.

73+10 - G. Valve
4' LT

73+09⁷ Edge Conc. Pav.

National Ave

Asphalt Pav.

72+36⁵⁵ P.O.T.

Latack
7' offset

18°

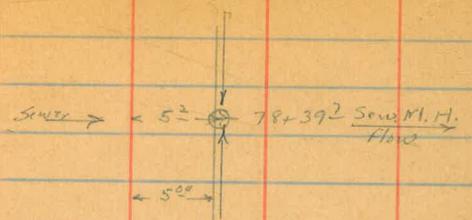
72+31⁶⁵

72+29⁸

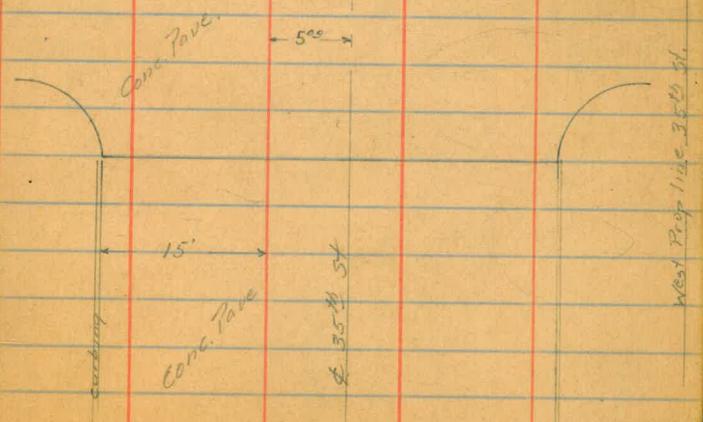
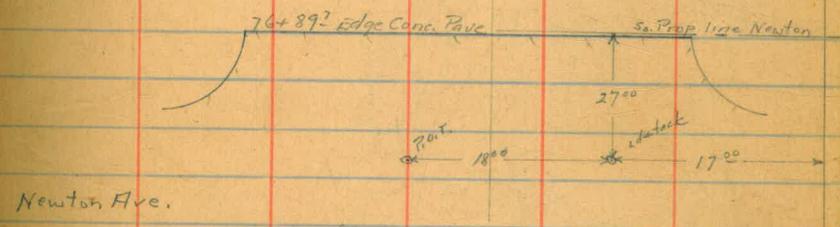
Oil Paving

5°

35' 51"



76+62.60 F.O.T.

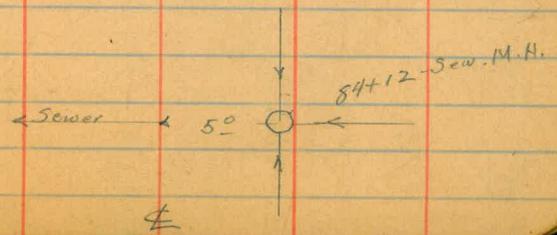


89+74⁴⁵ L. 0° 08' 30" H

82+99.25

Cottonwood St.

Rigel St.



±

500

500

±

2/17/41

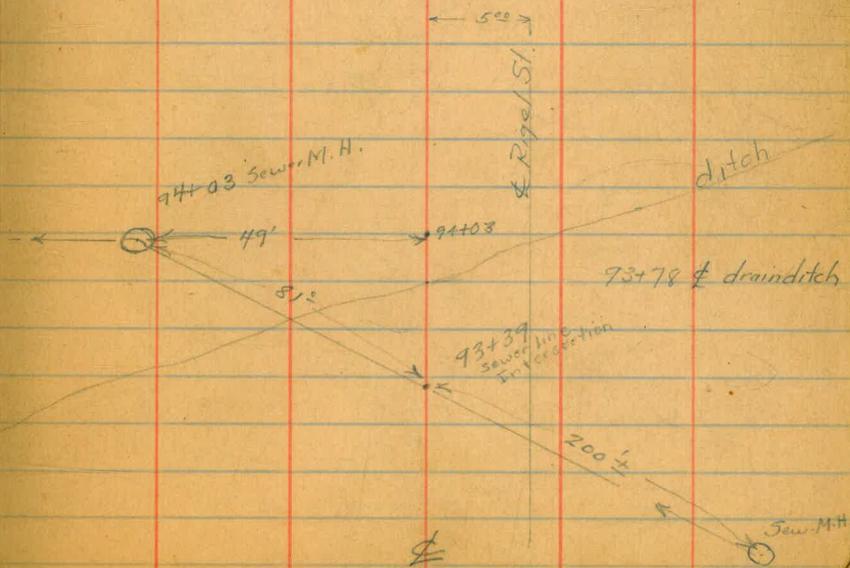
31

Hill
Soper
Brooks
Madgesen

97+83 Check loc. of exist. 12" main from water Dept.

Existing water line 97+83? 12"

± Main St 97+63±



Profile - 35th St location

B.M.	1.75	58.37	56.62
		2.3	56.1
		10.3	48.1
		2.4	56.0
		10.5	47.9
0+00		2.2	56.2
"		5.2	53.2
0+50		2.8	55.6
0+80		3.1	55.3
1+00		3.8	54.6
1+50		4.4	54.0
2+00		5.3	53.1
2+50		5.5	52.9

B.P. in Conc. Man. N.W. Cor. 35th & Broadway

Rim of Manhole 5' Lt, 0-16 (8' deep)

Fl. line

Rim of manhole 9' Lt, 0-12 (8' deep)

Fl. line

Top of 28" main

58.37

5.9 52.5

14.3 44.1

5.9 52.5

14.1 44.3

3+00

5.5 52.9

+50

6.0 52.4

4+00

6.5 51.9

+50

6.3 52.1

TP

1.52

53.69

6.20 52.17

+84

1.9 51.8

+95

2.4 51.3

1.9 51.8

13.6 40.1

14.4 39.3

5+14

1.9 51.8

Rim of manhole 5² Lt 2+60

Fl. line

Rim of manhole 7³ Lt 2+63.

Fl. line

Edge Pavement.

Rim manhole 5⁵ Lt 5+10

Fl. line. sewer (drop inlet) running East on Federal Blvd.

Fl. line main sewer

53.69

5+44		2.7	51.0
+50		2.1	51.6
		1.8	51.9
		14.5	39.2
6+00		4.2	49.5
6+50		6.0	47.7
7+00		6.1	47.6
		6.3	47.4
		16.7	37.0
7+50		6.5	47.2
HP	2.81	50.11	6.39 47.30
8+00		3.8	46.3
+50		3.8	46.3
9+00		4.1	46.0

Rim of manhole 6⁵/₄ 5+50
 Fl. line

Rim of manhole 5⁴/₄ 7+49 (10' deep)
 Fl. line. (No flow apparent in this manhole)

50.11

9+24 ⁴⁵			4.4	45.7
+50			6.5	43.6
10+00			2.1	42.0
+50			9.8	40.3
459			12.5	37.6
			9.7	40.4
			16.9	33.2
10+95			14.1	36.0
11+00			6.5	43.6
+15			1.0	49.1
TP	13.00	63.03	0.08	50.03
11+30			10.7	52.3
+50			6.5	56.5
+75			4.2	58.8
+85			0.1	62.9
+94			2.0	61.0
TP	12.34	75.28	0.09	62.94
12+00			11.7	63.6

Bottom of creek

Rim manhole 9⁵ Rt 10+85 (7² deep)

Fl. line

Bottom of creek

		75.28		
12+08			1.4	73.9
TP	12.88	88.01	0.15	75.13
TP	13.03	100.72	0.32	87.09
12+45			6.7	94.0
+76			1.6	99.1
TP	12.97	113.65	0.04	100.68
12+83			9.7	104.0
13+00			4.4	109.3
410			2.5	111.2
TP	5.70	119.02	0.33	113.32
13+50			5.4	113.6
+89 ³⁵			3.9	115.1
B.M.			4.30	114.72
14+00			3.7	115.3
+21			3.1	115.8
TP	0.28	106.61	12.69	106.33
TP	0.62	94.32	13.91	93.70
14+26			2.3	93.0
+50			7.0	87.3
15			8.7	85.6
+22			10.1	84.2
+54.6			10.3	84.0
"			10.4	83.9
+94			11.0	83.3
16			10.3	84.0

Set B.M. on tack in monument 10' Rt 13+29²

N. edge part.

Top MH 5'R - 5.8 to flow L.
S edge part.

53.9
5.8
18.1

2/18/41
Hill
Soper
Brooks
Hartgeson

37

94.32

16+50			7.9	86.4
17			2.5	92.0
+11			0.4	93.9
B.M. (set)			7.39	86.93
T.P.	12.98	106.59	0.71	93.61
T.P.	12.71	119.27	0.03	106.56
17+29			12.0	107.3
+32			3.1	116.2
+63			0.9	118.4
+85			2.1	117.2
18			3.5	115.8
+20			6.2	113.1
+50			12.2	107.1
T.P.	0.12	106.59	12.80	106.47
19			8.6	98.0
+86			10.0	96.6
+45			23.2	83.4 (Hand level)
+61			18.8	87.8 (")
+73			12.8	93.8
+79			12.3	94.3
20			4.2	102.4
T.P.	12.57	118.97	0.19	106.40
+15			9.4	109.6
+30			8.3	110.7
+50			4.7	114.3

+ Top of fire hydr. S.E. cor. 35th & Market

118.97

20+62			1.9	117.1
TP	1.64	119.97	0.64	118.33
21			0.3	119.7
+30			1.2	118.8
+50			2.8	117.2
B.M.			3.01	116.96
22			6.0	114.0
+50			9.0	111.0
23			12.5	107.5
TP	0.74	107.74	12.97	107.00
+50			3.2	104.5
24			4.8	102.9
+50			5.6	102.1
25			3.8	103.9
+50			4.5	103.2
26			5.1	102.6
+48.75			7.4	100.3
27+00			11.0	96.7
+08.85			11.6	96.1
TP	0.32	95.07	12.99	94.75
+50			3.4	91.7
28			9.5	85.6
TP	0.18	82.23	13.02	82.05
+50			1.3	80.9
+65			2.2	80.0

Set B.M. Nail in tel. pole 9 Rt 21+81

82.23

29			2.6	79.6
+ 25			3.1	79.1
+ 50			4.9	77.3
30			10.6	71.6
TP	0.19	69.65	12.77	69.46
+ 35			0.8	68.9
+ 50			1.5	68.2
+ 68			2.2	67.5
			8.4	61.3
			9.5	60.2
31+00			3.0	66.7
+ 50			4.1	65.6
32			5.4	64.3
+ 50			6.2	63.5
33			7.2	62.5
B.M.			4.61	65.04
33+30			7.4	60.3
TP	0.40	57.22	12.83	56.82
33+50			0.2	57.0
34			11.9	45.3
TP	0.14	44.28	13.08	44.14
+ 15			1.5	42.8
+ 30			2.1	42.2
+ 37			6.0	38.3
+ 43 ⁵ (rail)			5.65	38.63

Top of 24" Conc. Culvert 6⁵Lt 30+66
 " " " " " 16' Rt 30+72

Set. B.M. Top of Fire Hydrant S. E. Cor 35th & Thompson

Top of North rail

44.28			
34+60			6.8 37.5 ✓
+65			9.7 34.6 ✓
+85			12.8 31.5 ✓
35			13.1 31.2 ✓
+50			13.8 30.5 ✓
36			14.2 30.1 ✓
+15			15.3 29.0 ✓
TP	2.67	34.36 ✓	12.59 31.67 ✓
TP	4.19	32.36 ✓	6.19 28.17 ✓
			2.71 29.65 ✓
Corrected TP	3.54	35.23 ✓ 35.15	31.69 ✓ 31.61
36+20			7.4 27.8 ✓
+30			6.1 29.1 ✓
+50			5.3 29.9 ✓
+72			5.0 30.2 ✓
TP	12.67	47.85 ✓ 47.77	0.05 35.18 ✓ 35.10
+88			8.5 39.4 ✓
+93			3.9 44.0 ✓
37			2.8 45.1 ✓
+04			3.0 44.9 ✓
+24 ⁵			2.3 45.6 ✓
+31			2.0 45.9 ✓
TP	12.17	60.43 ✓ 60.35	0.09 47.76 ✓ 47.68
+50			9.9 50.5 ✓

B.P. in North rail of Bridge, Imperial Ave. near 34th Rec. El. 29.57
(+and - rods checked to here)

29.45	31.67
29.57	08
7.08	31.61 for TP.

⊥ wash

Note: Using own levels thru to Main
and Una St, checks within 0.01
on Brass Plug, See page 48

Edge of pave.

" " "

		60.43		
		60.35		
37+60			4.2	56.2 ✓
IP	12.51	72.77 ✓	2.17	60.26 ✓
		72.69		58.18
+ 79			13.1	59.7 ✓
+ 82			10.0	62.8 ✓
38			7.9	64.9 ✓
+ 14			6.4	66.4 ✓
+ 50			6.1	66.7 ✓
39			5.1	67.7 ✓
+ 50			3.1	69.7 ✓
+ 65 ⁹⁵ L			2.7	70.1 ✓
40			1.7	71.1 ✓
+ 26 ¹⁹ L			1.8	71.0 ✓
40+50			2.1	70.7 ✓
41			2.5	70.3 ✓
B.M.	5.90	76.53 ✓	2.14	70.63 ✓
		76.45		70.55
+ 50			5.9	70.6 ✓
			6.4	70.1 ✓
			15.5	61.0 ✓
42			6.0	70.5 ✓
+ 50			5.6	70.9 ✓
43			5.2	71.3 ✓
+ 50			5.1	71.4 ✓
44			4.7	71.8 ✓
+ 50			4.6	71.9 ✓
45			4.4	72.1 ✓

set B.M. Nail in pole 25' Rt 40+81

Rim sewer M.H. 26' Rt 41+70⁵ (9' deep)

Fl. line

76.53
76.45

45	50		4.5	72.0 ✓
46			4.3	72.2 ✓
+50			4.1	72.4 ✓
47			4.0	72.5 ✓
+50			3.9	72.6 ✓
48			3.7	72.8 ✓
TP	3.46	76.67 ✓ 76.59	3.32	73.21 73.13 ✓
+50			3.9	72.8 ✓
49			3.9	72.8 ✓
+50			4.0	72.7 ✓
50			3.7	73.0 ✓
+50			3.4	73.3 ✓
51			2.9	73.8 ✓
+50			2.6	74.1 ✓
52			2.8	73.9 ✓
+20			3.2	73.5 ✓
+50			5.8	70.9 ✓
52+99 ²			10.8	65.9 ✓
53+39			10.7	66.0 ✓
+79 ^E			10.8	65.9 ✓
B.M.			8.42	68.25 ✓ 68.17 ✓
54			9.3	67.4 ✓
+50			4.8	71.9 ✓
+90			2.6	74.1 ✓
55			2.6	74.1 ✓

Note: Sewer manhole, 1st alley west of 48+80[±] could not find manhole on 35th or 1st alley East.



Edge of Pav.

Edge of Pav.

Top of Fire Hyd. S.E. Cor. 35th & Ocean View Blvd.
(+ and - rods checked to here) Rec. Elev. 68.38

76.67
76.59

55+50			3.7	73.0 ✓
56			4.3	72.4 ✓
+50			5.5	71.2 ✓
57			6.8	69.9 ✓
TP	0.30	70.72 70.64	6.25	70.42 70.34 ✓
+50			2.8	67.9 ✓
58			5.1	65.6 ✓
+50			7.2	63.5 ✓
59			9.2	61.5 ✓
+40			13.2	57.5 ✓
TP	0.47	58.25 58.17	12.94	57.78 57.70 ✓
60			10.5	47.8 ✓
B.M.	0.37	45.51 45.46	13.08	45.17 45.09 ✓
+39			5.8	39.7 ✓
+44			7.9	37.6 ✓
+50			8.7	36.8 ✓
TP	0.78	33.42 33.34	12.90	32.64 32.56 ✓
61			7.8	25.6 ✓
+20			10.6	22.8 ✓
+35			11.8	21.6 ✓
+50			11.9	21.5 ✓
62			11.8	21.6 ✓
+18			11.0	22.4 ✓
+23			8.4	25.0 ✓
+50			6.4	27.0 ✓

Set B.M. Nail in pole 16' Lt 60+19

		33.42		
		33.34		
		46.33		33.30
IP	13.03	46.25	0.12	33.22
63			12.6	33.7
+11			11.3	35.0
+30			6.5	39.8
+50			2.0	44.3
+65			0.2	46.1
IP	12.56	58.62		46.12
		58.54	0.21	46.04
64			11.9	46.7
+50			9.5	49.1
65			6.9	51.7
+50			4.5	54.1
66			2.3	56.3
+17			2.0	56.6
+43 ⁶⁸ L			2.4	56.2
67			5.3	53.3
+26 ⁷³ L			6.0	52.6
+50			5.8	52.8
68			4.3	54.3
B.M.	0.59	54.75		54.16
		54.67	4.46	54.08
+50			0.7	54.1
69			1.0	53.8
+50			1.7	53.1
70			2.9	51.9
+50			4.5	50.3
71			6.4	48.4

Set B.M. Nail in power pole 26' RT 68+18

54.75
54.67

71+50			8.4	46.4 ✓
72			11.0	43.8 ✓
+298			12.6	42.2 ✓
+44			13.2	41.6 ✓
+70			12.9	41.9 ✓
B.M.	0.40	44.52 ✓ 44.44	10.63	44.12 ✓ 44.54
72+96			4.0	40.5 ✓
73+69 ²			3.4	41.1 ✓
+50			4.2	40.3 ✓
74			5.3	39.2 ✓
			6.6	37.9 ✓
			12.2	32.3 ✓
75			7.3	37.2 ✓
76			10.0	34.5 ✓
+17			10.3	34.2 ✓
+50			10.2	34.3 ✓
+89 ²			10.7	33.8 ✓
77			10.7	33.8 ✓
+50			10.1	34.4 ✓
B.M.	2.10	37.58 ✓ 37.50	9.04	35.48 ✓ 37.0
78			3.7	33.9 ✓
			4.1	33.5 ✓
			9.6	28.0 ✓
78+50			4.4	33.2 ✓
79			5.2	32.4 ✓

45

Edge Pav.

Top of Fire Hyd. S. E. Cor 35th & National. Rec Elev. 44.19
(and - rods checked to here)

Edge Pav.

Rim of Sew. M.H. 5' RT 74+60^E

Fl. line

Edge Pav.

Set B.M. Top of Fire Hyd. S.W. Cor 35th & Newton

Rim Sewer Manhole 5² RT 78+39²

Fl. line

	37.58		
	37.50		
79+50		5.8	31.8 ✓
80		6.3	31.3 ✓
+ 50		6.9	30.7 ✓
81		7.5	30.1 ✓
+ 50		8.2	29.4 ✓
82		8.9	28.7 ✓
		8.5	29.1 ✓
		13.7	23.9 ✓
		12.9	24.7 ✓
82+39 ²⁹ L.		9.2	28.4 ✓
TP	0.23	28.57 ✓	28.34 ✓
		28.49	28.26
82+50		0.5	28.1 ✓
83		2.0	26.6 ✓
+ 50		3.2	25.4 ✓
84		4.8	23.8 ✓
		4.9	23.7 ✓
		11.4	17.2 ✓
+ 50		6.8	21.8 ✓
85		8.5	20.1 ✓
+ 50		9.7	18.9 ✓
86		10.9	17.7 ✓
+ 50		10.6	18.0 ✓
B.M.	1.77	21.29 ✓	19.52 ✓
		21.21	19.44 ✓
87		9.05	18.6 ✓
		2.7	18.6 ✓
+ 50		1.4	19.9 ✓

219/41

46

 Hill
 Soper
 Brooks
 Hodgeson

Rim of sewer M.H. 5' L 82+19

Fl. line

Top of 6" (?) gas main (C.I. Cross) see Gas Co. (Sta 82+30)

Rim of sew. M.H. 5' R 84+12

Fl. line

Set B.M. Top of Fire Hyd. S.E. Cor. Rigel + Birch

21.29
21.21

88		0.9	20.4 ✓
+50		1.4	19.9 ✓
89		2.7	18.6 ✓
+50		4.6	16.7 ✓
+94 ⁴⁵ L		6.4	14.9 ✓
90 +50		9.1	12.2 ✓
91		11.8	09.5 ✓
TP	1.48	9.87 ✓ 9.79	08.39 ✓ 08.31
+50		2.9	7.0 ✓
92		5.1	4.8 ✓
+50		6.9	3.0 ✓
93		8.5	+1.4 ✓
+39			-0.3 ✓
+50		10.5	-0.6 ✓
+78		12.3	-2.4 ✓
94		14.0	-1.1 ✓
		6.2	+3.7 ✓
		16.5	-6.6 ✓
		10.2	-0.3 ✓
		5.9	+4.0 ✓
		16.2	-6.3 ✓
94+25		9.7	+0.2 ✓
+50		9.4	+0.5 ✓
95		7.0	0.9 ✓
+50		8.9	1.0 ✓
96		8.8	1.1 ✓

Rim Sew. M.H. 49' Lt 94+03 (10³ deep)
 Fl. line
 † Intersection with Sewer line - Sta. 93+39
 Rim Sew. M.H. (see sketch, transit notes)
 Fl. line

9.87
9.79

96+50 7.8 2.1 ✓

97 5.4 4.5 ✓

+23' 3.8 6.1 ✓

3.7 6.2 ✓

11.9 -2.0 ✓

97+63' 3.5 6.4 ✓

97+83' 3.9 6.0 ✓

2.43 ✓

B.M. 7.44 2.35 ✓

P 4.52 11.09 ✓ 3.30 6.57 ✓

~~11.01~~

2.91 8.18 ✓
8.10

P 3.78 10.35 ✓ 6.57 ✓

~~10.27~~

P 6.39 12.05 ✓ 4.69 5.66 ✓

~~11.92~~
~~12.97~~

P 6.56 18.41 ✓ 0.20 11.85 ✓

~~18.33~~
~~19.33~~

4.94 13.41 ✓ 13.39 ✓
14.39

Edge of Pavc.

Rim of manhole 4' Lt 97+23'

Fl. line.

3 nails in power pole 30' Rt 97+33

B.P. in curb East end of Bridge, South side (Main St) Rec. El. 5.00

B.P. in curb S.E. Cor. Main & Uda. Rec. El. 13.46

Soil samples, 35th St. location

Approx. Change

0410 - Adobe, sand and gravel to 1⁵ (Sta. 0400 - 11100⁺)

As per 1st sample - 1⁵ to 3⁵

As per 2nd sample - 3⁵ to 6⁰

12100 - Adobe to 1⁵ (These samples taken from angle of bank)

As per 1st sample 1⁰ to 3⁵ (Sta. 11100 - 13150⁺)

As per 2nd sample 3⁵ to 6⁰

(Approximate 35th cut Sta. 13150 - 20400)

26125 - Adobe and rock to 1⁰ (Sta. 20100 - 35100⁺)

As per 1st sample, 1⁰ to 5⁰

As per 2nd sample 5⁰ to 6⁰

42150 - Red adobe to 1⁰ (Sta. 35100 - 50100⁺)

As per 1st sample 1⁰ to 5⁰

As per 2nd sample 5⁰ to 6⁰

57400 - Red sandy adobe to 1⁵ (Sta. 50100 - 63400⁺)

As per 1st sample 1⁵ to 3⁰

As per 2nd sample 3⁰ to 6⁰

77400 - Adobe to 1⁵ (Sta. 63100 - 86400⁺)

As per 1st sample 1⁵ to 5⁵

As per 2nd sample 5⁵ to 6⁰

2/20/41

Soper
Brooks
Hodgeson

2/21/41 49

Soper
Brooks
Hodgeson

90100 - Adobe to 2⁰ (Sta. 86100 - 94100⁺)

Cemented gravel, 2⁰ to 3⁰

As per 1st sample - 3⁰ to 4⁵

As per 2nd sample - 4⁵ to 6⁰

96400 - Red adobe to 2⁰ (Sta. 94100 to 101⁺)

As per 1st sample 2⁰ to 3⁰

As per 2nd sample 3⁰ to 6⁰

Continued in

Profile - 36th St. Location Book #291 - Page 49

B.M.	1.26	57.88		56.62
TP	7.84	59.92	5.80	52.08
0+00			1.5	58.4
1+00			2.4	57.5
2+00			2.5	57.4
3+00			3.2	56.7
3+90 Δ			3.7	56.2
4+00			1.5	58.4
TP	12.57	72.05	0.44	59.48
4+06			11.6	60.5
TP	12.54	84.40	0.19	71.86
5+00			8.4	76.0
4+30 Δ			3.7	80.7
TP	12.88	97.05	0.23	84.17
6+00			6.3	90.8
TP	12.63	109.19	0.49	96.56
7+00			4.9	104.3
TP	12.73	121.78	0.14	109.05
8+00			1.2	120.6
TP	12.94	134.50	0.22	121.56
8+75 Δ			1.4	133.1
TP	12.54	146.81	0.23	134.27
9+00			10.5	136.3
TP	7.18	150.36	3.63	143.18
10+00			5.3	145.1

B.P. in conc. men. N.W. Cor 35th & Broadway

4/10/41

Soper
Brooks
Hodgeson

50

150.36

11+00			4.5	145.9
12+00			4.1	146.3
TP	1.71	150.35	1.72	148.64
13+00			4.5	145.9
14+00			12.1	138.3
TP	0.64	137.98	13.01	137.34
15+00			8.4	129.6
TP			12.34	125.64
4/11/41	1.88	127.52		
15+55			4.5	123.0
16+00			5.0	122.5
+45			4.7	122.8
+77			1.0	126.5
TP	12.44	139.65	0.51	127.01
TP	12.45	151.71	0.19	139.46
TP	9.59	161.22	0.28	151.63
17+05			7.9	153.3
+32			5.1	156.1
+72			3.8	157.4
18+00			6.7	154.5
TP	0.55	148.87	12.90	148.32
TP	0.46	136.28	13.05	135.82
19+00			2.5	133.8
+58			11.8	124.5
TP	0.38	124.21	12.45	123.83

124.21

19+61			1.5	122.7
+80			1.7	123.5
+83			2.8	121.4
20+00			4.8	119.4
21+00			10.1	117.1
TP	1.84	113.24	12.81	111.40
22+00			4.0	109.2
23+00			7.7	105.5
+66			10.1	103.1
TP	1.28	101.65	12.87	100.37
24+00			2.2	99.5
25+00			7.0	94.7
+32			4.9	96.8
+50			7.4	94.3
26+00			5.9	95.8
TP	2.23	91.01	12.87	88.78
27			0.5	84.5
+25 L 90°			8.2	82.8
+50			14.1	76.9
+60			12.8	78.2
TP	3.74	94.54	0.21	90.80
+95			2.6	91.9
28+00			2.3	92.2
28+13 L 90°			1.5	93.0
29+00			4.7	89.8

94.54

30+00			6.8	87.7
31+00			11.8	82.7
TP	0.27	82.14	12.67	81.87
32+00			5.3	76.8
33+00			10.9	71.2
TP	1.51	71.18	12.47	69.67
34+00			4.8	66.4
+77			8.5	62.7
35+00			12.1	59.1
TP			12.67	58.51
TP	3.89	70.25	4.82	66.36
ck on B.M.			5.21	65.04
TP	0.71	59.42		58.51
35+45			8.4	50.8
TP	0.41	46.92	12.71	46.51
+60			3.9	43.0
36+00			4.4	42.5
+11			8.0	38.9
+64			9.0	37.9
+72			11.8	35.1
+83			11.4	35.5
+84			8.5	38.4
37+00			8.2	38.7
38+00			5.9	41.0

TP for continuation of profile levels

TP for checking on B.M.

Top of Fire Hydrant S.E. Cor. 35th & Thompkins
Rec. Elev. 65.04

Bottom of wash

" " "

		46.92		
TP	12.96	56.37	3.51	43.41 ✓
38+30			14.1	42.3 ✓
+50			10.1	46.3 ✓
TP	12.89	69.14 ✓	0.12	56.25 ✓
39+00			8.1	61.0 ✓
TP	13.07	82.13 ✓	0.08	69.06 ✓
39+50			12.4	69.7 ✓
+95			6.8	75.3 ✓
40+00			5.0	77.1 ✓
TP	12.82	94.74 ✓	0.21	81.92 ✓
40+15			11.1	83.6 ✓
40+40 L			10.5	84.2 ✓
41+00			6.6	88.1 ✓
41+17 L			5.4	89.3 ✓
42+00			0.6	94.1 ✓
TP	7.92	102.73 ✓	0.23	94.51 ✓
43			5.9	96.5 ✓
44			5.4	97.0 ✓
45			5.4	97.0 ✓
46			5.8	96.6 ✓
+50			4.8	97.6 ✓
47			6.0	96.4 ✓
48			8.2	94.2 ✓
49			6.6	95.8 ✓
50			8.1	94.3 ✓

Nail in pole 30' RT 38+00

4/14/41
Soper
Brooks
Madgeson

54

102.43

51+00			11.4	91.0	✓
TP	0.81	90.82	✓ 12.42	90.01	✓
52			5.1	85.7	✓
53			10.8	80.0	✓
TP	0.11	77.96	✓ 12.97	77.85	✓
54+00			12.5	65.5	✓
TP	0.22	65.10	✓ 13.09	64.87	✓
54+24			3.1	62.0	✓
55+00			3.1	62.0	✓
56+00			5.6	59.5	✓
57+00			12.4	52.7	✓
TP	0.04	52.07	✓ 13.07	52.03	✓
58+00			8.3	43.8	✓
58+55			13.2	38.9	✓
59+00			14.7	37.4	✓
+30			14.5	37.6	✓
+82			9.5	42.6	✓
60+00			10.1	42.0	✓
+60			11.1	41.0	✓
61+00			7.5	44.6	✓
+15			7.0	45.1	✓
TP	9.75	48.82	✓ 13.00	39.07	✓
62+00			13.1	35.7	✓
+20			14.7	34.1	✓
63			5.0	43.8	✓

(So. Pr. line of Ocean View Blvd)

48.82

TP	11.86	60.07 ✓	0.61	48.21 ✓
64		(60.1)	7.9	52.2 ✓
65			6.7	53.4 ✓
66			4.9	55.2 ✓
67			3.9	56.2 ✓
68			4.6	55.5 ✓
TP	0.04	55.08 ✓	5.03	55.04 ✓
69		(55.1)	2.9	52.2 ✓
70			6.4	48.7 ✓
71			10.4	44.7 ✓
TP	1.55	43.70 ✓	12.93	42.15 ✓
72			3.7	40.0 ✓
73			5.4	38.3 ✓
73+50			5.8	37.9 ✓
TP	8.13	47.43 ✓	4.40	39.30 ✓
74+00			11.5	36.9 ✓
75+00			5.2	42.2 ✓
76			4.4	43.0 ✓
77			1.4	46.0 ✓
TP	3.77	50.82 ✓	0.38	47.05 ✓
78			2.2	48.6 ✓
78+80 L			1.9	48.9 ✓
79+00			2.1	48.7 ✓
80+00			2.8	48.0 ✓
80+13 L			2.9	47.9 ✓

Top of F. Hyd. S. F. Cor 36th National

50.82

81+00			6.7	49.1 ✓
82			12.3	38.5 ✓
π	0.23	38.47 ✓ (38.5)	12.58	38.24 ✓
83			1.0	37.5 ✓
84			4.2	34.3 ✓
85			6.8	31.7 ✓
86			10.2	28.3 ✓
87			12.0	26.5 ✓
π	4.74	31.27 ✓ (31.3)	11.94	26.53 ✓
87+87 L 90°+			8.1	23.2 ✓
88+00			7.3	24.0 ✓
89			6.8	24.5 ✓
89+50 L			8.7	22.6 ✓
90			10.1	21.2 ✓
π	0.69	18.89 ✓ (18.9)	13.07	18.20 ✓
91			1.7	17.2 ✓
92			4.6	14.3 ✓
92+50			7.3	11.6 ✓
93			9.3	9.6 ✓
π	4.42	10.56 ✓ (10.6)	12.75	6.14 ✓
94			5.6	5.0 ✓
95			6.2	4.4 ✓
96			6.7	3.9 ✓
97			7.3	3.3 ✓
98			6.8	3.8 ✓

10.56
(10.6)

99+00		7.0	3.6 ✓
+90		7.2	3.4 ✓
100+02		11.2	-0.6 ✓
+10		11.2	-0.6 ✓
+25		9.5	1.1 ✓
+40		3.0	7.6 ✓
+45		7.4	3.2 ✓
101+00		7.9	2.7 ✓
102		8.2	2.4 ✓
103+00		8.8	1.8 ✓
+79		8.7	1.9 ✓
+85		6.0	4.6 ✓
+92		6.0	4.6 ✓
104+32		5.7	4.9 ✓
TP	6.57	12.15 ✓	4.98 5.58 ✓
TP	7.32	18.72 ✓	0.75 11.40 ✓
B.M.		5.24	13.48 ✓

(✓ by C.H.M)
4/16/41

☞ Main St.

B.P. in curb S.E. Cor Main & Una 13.47

Alignment 36th St. Loc. See Next Page

3+90 L. Lt.

5+30 L. Lt.

8+75 L. Rt.

15+73^E & Market St.

27+25 L. 90°+ Rt. } 4' N. of So. Pr. Line K St.

28+13 L. 90°+ Lt. }

33+82± & Thompson St.

40+46 L. Lt.

41+17 L. Rt.

41+83± So. Pr. Line Imperial Ave

55+00 So. Pr. Line Ocean View Blvd.

73+66^E± & National Ave.

59+73- & Hemlock

78+80 L. Rt.

80+13 L. Lt.

80+88± No. Pr. Line Boston Ave.

87+87 L. 90°+ Rt.

89+50 L. Lt.

104+32 & Main St.

36th St. Alignment - Broadway to Main St.

3+64³⁵ P.O.T.

Revised - page 77 - this book

0+00

5/14/41 60.
Hill
Soper
Brooks
Hodgeson

2+49²⁰ Nail in edge of Pav.

Edge of Conc. Pav.

Federal Blvd

2+21³⁵ Edge of Pav.

1+93⁴⁵ Nail in edge of Pav.

Edge of Conc. Pav.

1+13⁵⁰ 1/2" Iron pipe
(See Tie Sheet) 10.00

Preble Lot Line

89°33'

4 Bonita Steel line

Flow

£

15°

pole line
High Volt.

16+28³³ Edge of Pav.

16+22⁻
G.V. 14 to Rt

Market St. 15+84³ G.V. 95° x 22° 15+74³ G.V. Pav. 15+84³ - G.V.

Edge Conc. Pav.
15+344

P.L. # 1152

Conc. Mon. 10⁰⁰ →

R.P. 2x2 hub
35⁰⁰ mag E
154

R.P. 2x2

13194⁶⁴ L 0°02' Rt

10+3290 P.O.T.

Cont'd from Book # 295 page 52

P.L. # 1151

R.P. 2x2 hub
50⁰⁰ □ 50⁰⁰ □

R.P. 2x2

5130³⁵ P.O.T.

5130³⁵ Hub + tack 10⁰⁰ →

Rebbl Lot Line

£

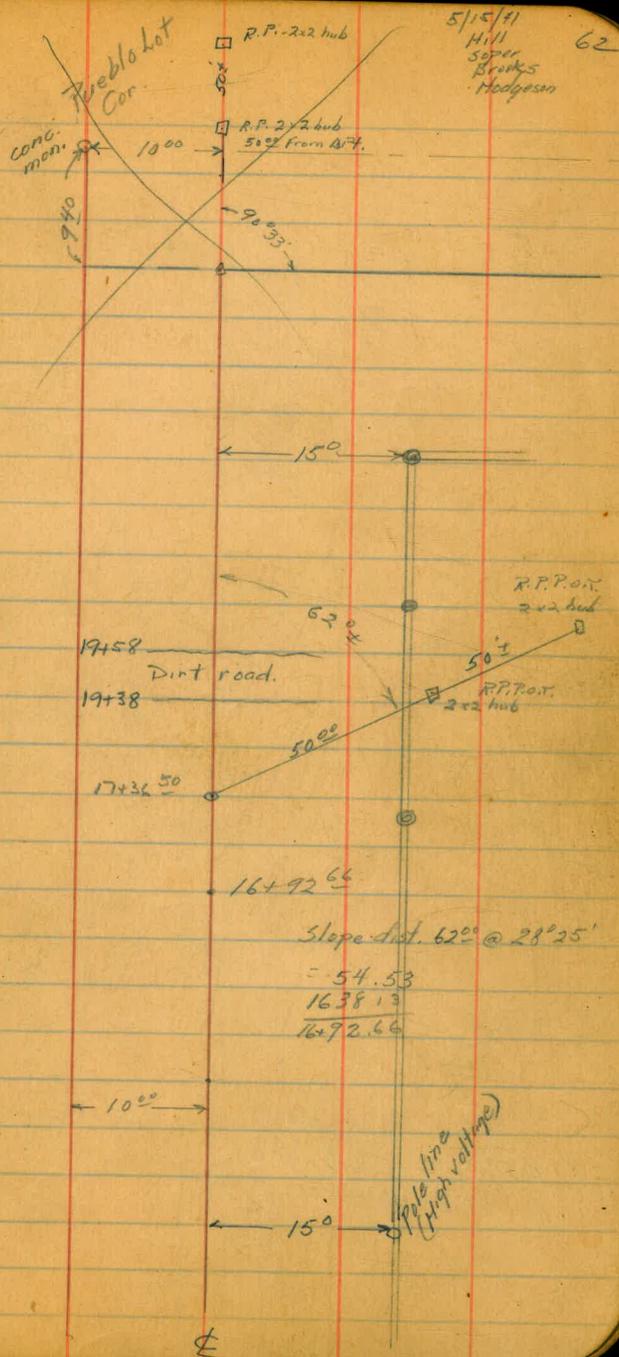
26+99⁷⁷ $\angle 90^{\circ}33'$ RT

Book 295 - 71

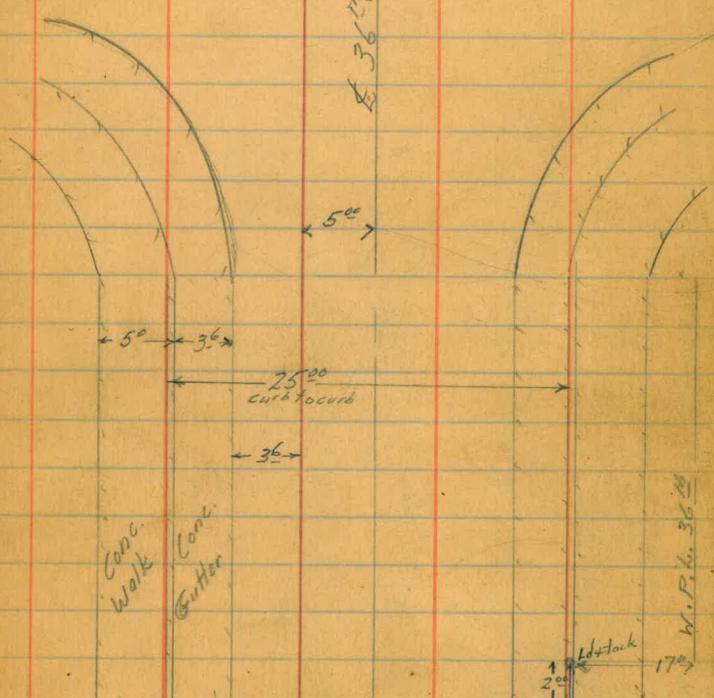
17+36⁵⁰ P.O.T.

16+92⁶⁶ P.O.T.

16+38¹³ P.O.T.



L. St.



28+13 - Beginning of graded road.

28+0388

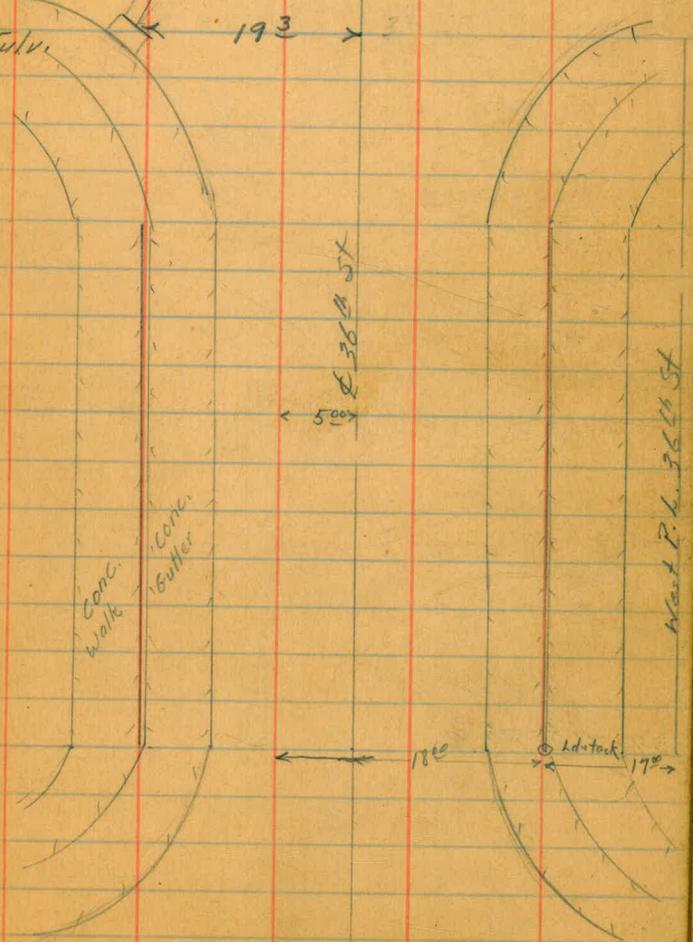
~~28+0388 90°00'H.~~

33+778 Sewer M. H. x 5° Thompson St.

< 106 x 33+712 Gas Co. G.V.

33+63
10" Conc Culv.

193



30+3734 P.O.T.

Ward P. L. 36th St

⊕

Φ
 37+58² Sewer M.H. $\xrightarrow{58^\circ}$ flow
 37+57
 37+37 oil paving

Φ
 2nd water line $\leftarrow 5^\circ \rightarrow$

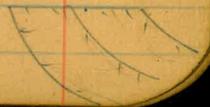
$\leftarrow 90^\circ 55'$
 35+63⁸⁹
 (South rail) S.D. & A. R.R.

$\leftarrow 5^\circ \rightarrow$

Φ 36+40

34+00 - End of graded road

34+76⁵⁵ P.O.T.



Road veiled after
alignment run.

76
40+90 edge of
asphalt pave.

Imperial Ave.

40+54 edge of
asphalt pave.

35
40+39 edge of 2"
cold lay pavement

40+35 - Beginning of graded road.

40+14

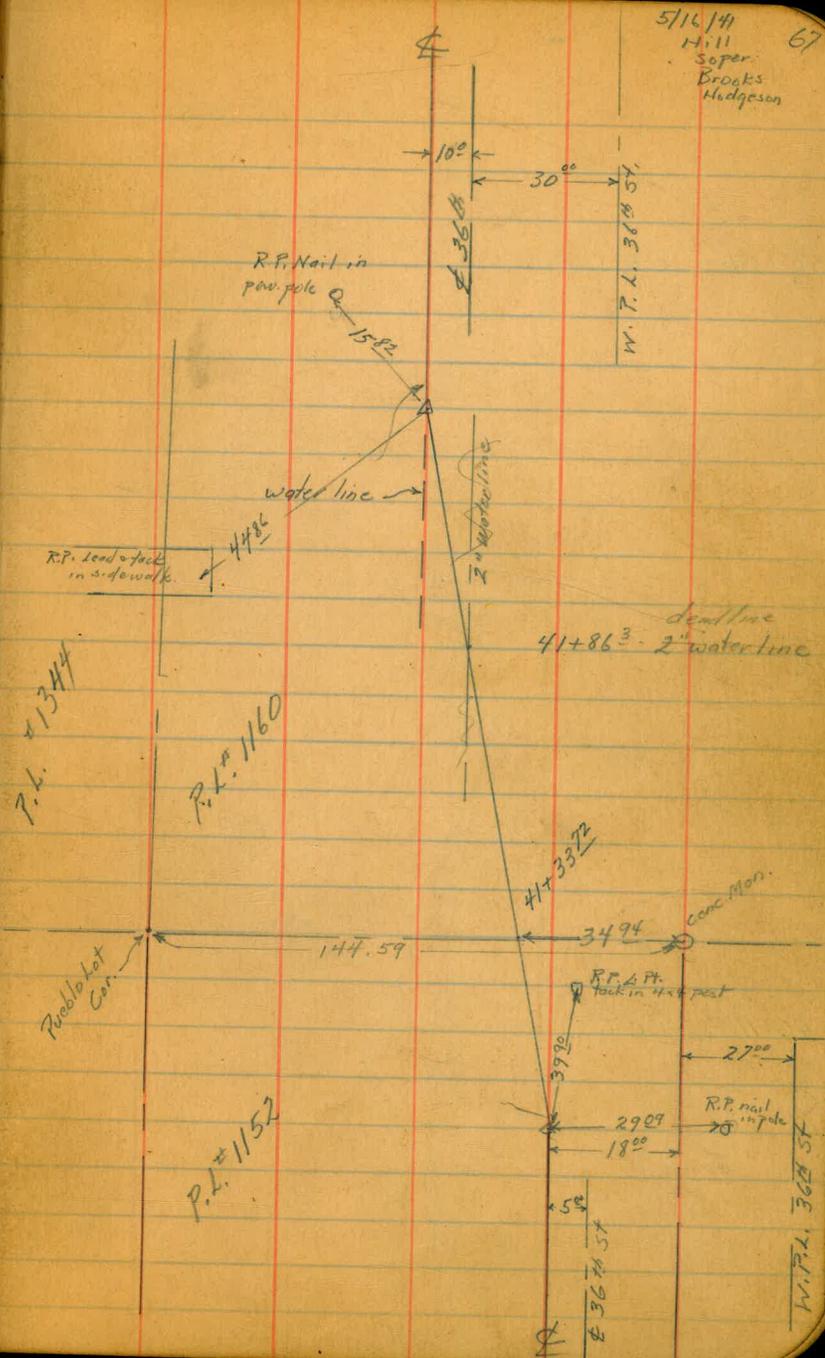
40+08

oil & rock walk

40+25⁸⁹ P.D.T.

42+08⁵⁵ L. 30°42' Rt.

41+01⁴⁰ L. 31°38' Lt



50+09⁷² P.O.T.

46+11⁶² P.O.T.

68

50+22² waterline
S.V. 2" (P)

⊕

⊗

23⁰⁰

R.P.P.T.
conc. men.

17⁰⁰

R.P.
23⁰⁰
30⁰⁰
B
H
Men.

← 10⁰⁰ →

← 36¹⁴ ST

R.P. Nail in pow. pole

12¹³

23⁰⁰

R.P.P.T.
conc. men.

17⁰⁰

W.P.L. 36¹⁴ ST.

0⁶

water line

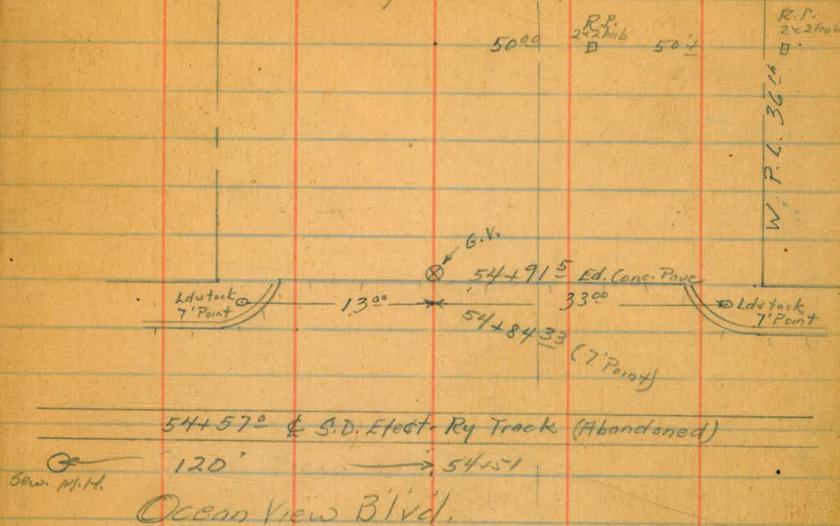
⊕

56+16.7 P.O.T

⊕

69

56+25 - End of graded road

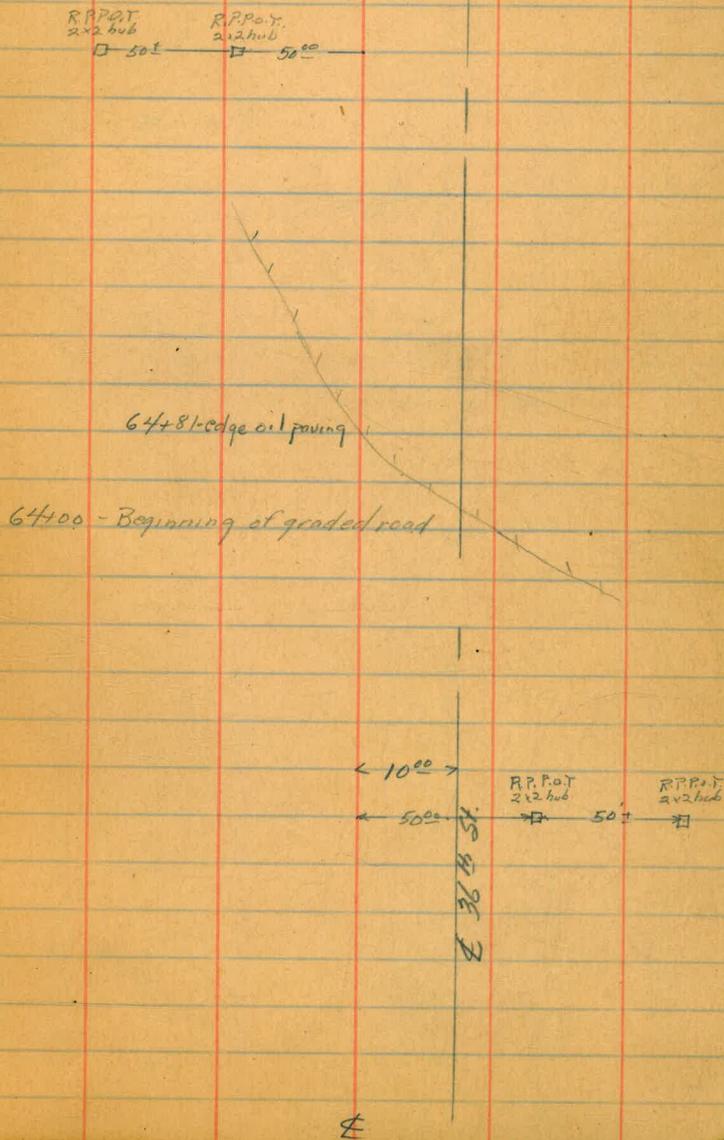


Ocean View Blvd.

⊕

66+73⁶⁰ P.O.T.

61+02⁸⁸ P.O.T.



75+40

1" $\frac{1}{2}$

1' 90s

74+40 | 16

73+96² Edge of Asphalt Pav.

73+67¹
G.V.

20⁰⁰

S.M.H.
240[±] Lt

73+56⁶⁰
Sewer M. H.

< 99
Flow

National Ave

14+40⁰⁰ of
7' Point

13⁰⁰

73+23⁶⁰ (7' Point)

33⁰⁰

20' 14+40⁰⁰ of
7' Point

73+17 - Edge of Asphalt Pav.

< 10⁰⁰

36¹⁴ 54

67+90 edge of oil paving

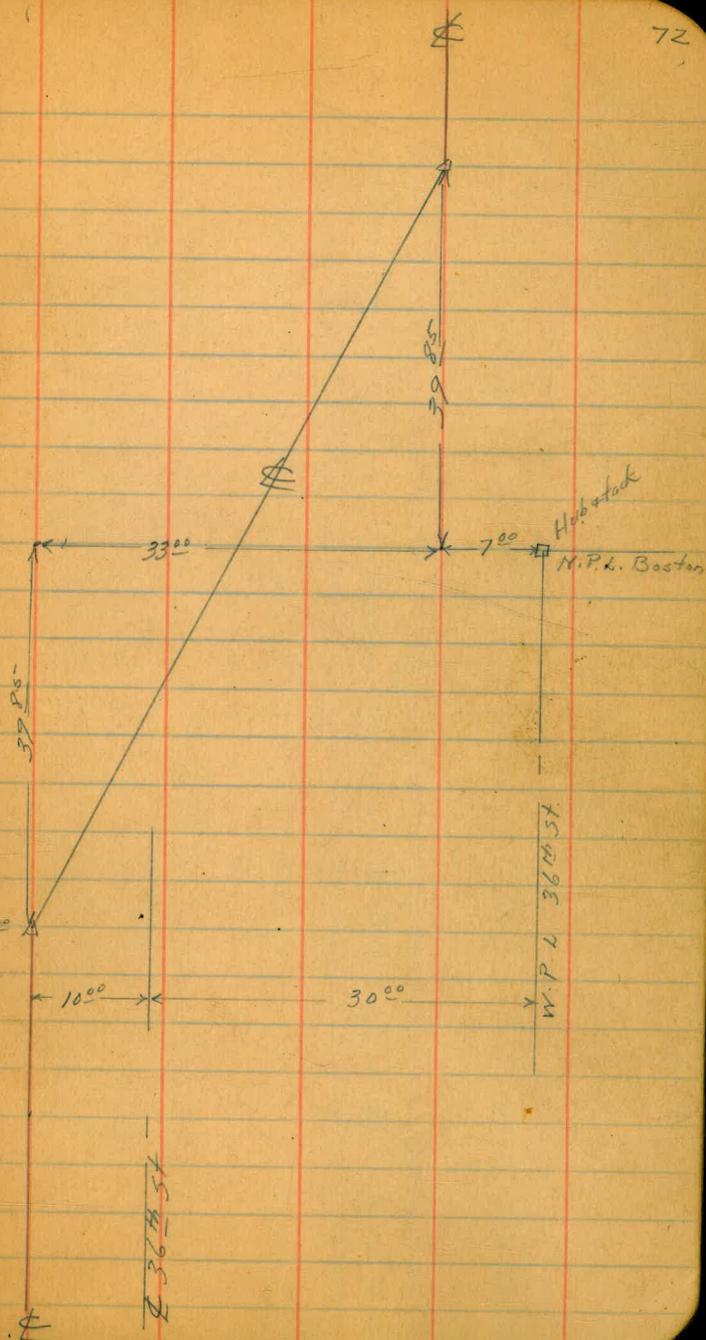
73+23⁶⁰

81+22⁹¹ 22°30' L

80+36⁶⁵ 22°31' R

79+34⁴⁰ P.O.T.

RP RP
2x2 2x2
□ 50' □ 50'



5/19/41
Hill 73
Super
Brooks
Hodgeson

85+46
Power pole

← 35°

85+16 47

↑ 27°

← 7° Conc. Mon.

← 3° 30° 85+14 G.V.

water line

83+23- G.V.

← 43°

83+21
Power pole

← 59°

81+64
Power pole

← 22° 20'

← 7° 00'

water line

W.P.L. 36.45

98+22.6 ← 15° ⊗ Sewer Manhole

96+45.16 ← 28.00 ⊗ Conc. Man.

92+65.65 ← 28.00 ⊗ Conc. Man.

← 15° →
E 510 ST

92+50

92+37 Dirt road.

45° ⊗ 92+13 - G.Y.

89+50 End of graded road

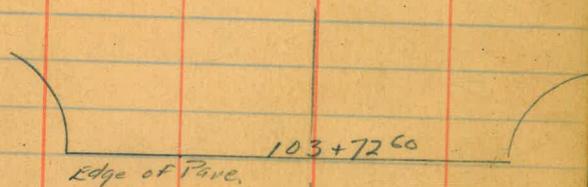
N.B. Profile notes of this loc.
in FB #291

100+19.30 P.O.T.

E

76

Existing line 104+32.6
& Main st. 104+12.6



102+23 ← 15" Sewer Manhole
102+22 ← 7" Sewer Manhole

100+50 ← 115" Sewer Manhole

100+35.56 ← 28" Cone
Mon.

← 15" E. Side

E

Alternate - 36th St at junction of Benita Steel.
Federal Blvd.

Cont'd on page 60 Cont'd in Book 295 page 51

1+841¹¹ ahead
2+0973 back L. 40°10'14" P.O.T.

0+00

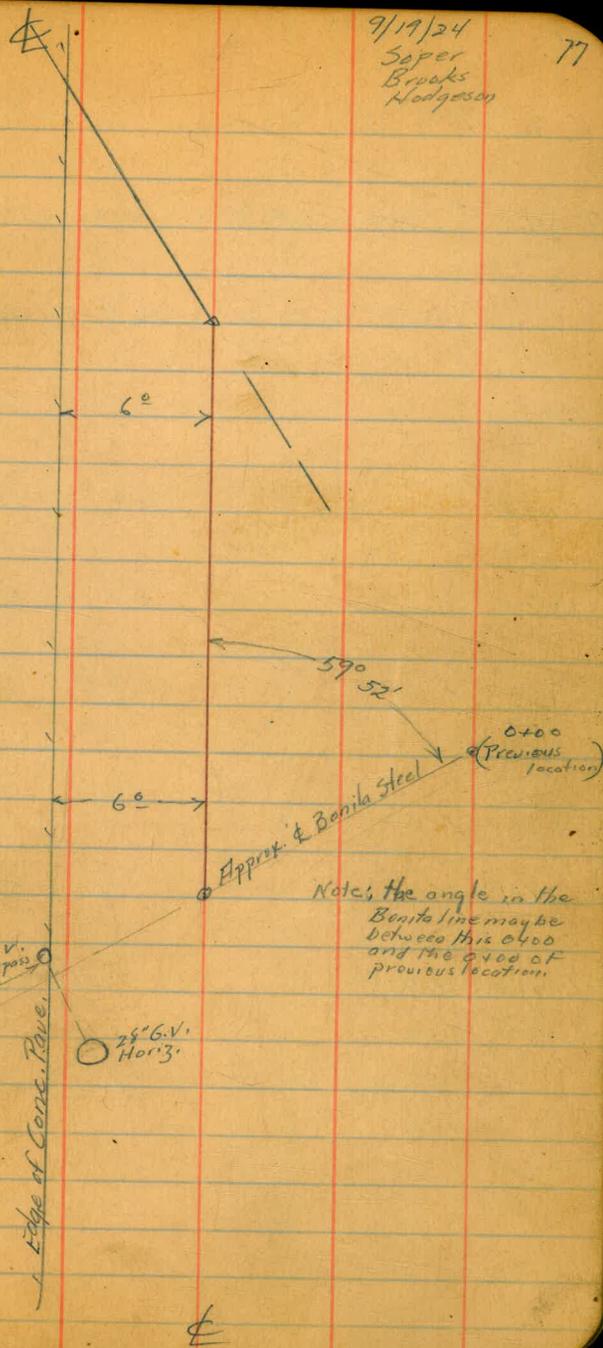
Federal Blvd.

G.V. bypass

Edge of Conc. Pave.

28° G.V. Horiz.

E



9/19/24
Saper
Brooks
Hodgeson

77

Note: the angle in the Benita line may be between this 0+00 and the 0+00 of previous location.

Profile of alternate line - 36th St.

B.M.	11.99	62.93	50.94
		10.4	52.5
0+00		4.3	58.6
0+50		4.8	58.1
1+00		5.1	57.8
1+50		5.4	57.5
2+00		5.5	57.4
409 ¹³		5.4	57.5
compare 1493 ⁴⁵		5.5	57.4 Elev. 57.4

Cont'd in Book 295 page 54

9/19/41
Super
Brooks
Hodgson

78

Top of 1/2" pipe 10'H 1+13^E (prev. loc.)

Stem of horiz. G.V. (approx φ of 28" pipe)

11/5/41
Super
Brooks
Hodgson

0+10 - Fill material (yellow D.G. + loam) 0° to 25°
on line revision Federal Blvd. As per 1st sample 25° to 38°
" " 2nd " (with river bottom gravel) 35° to 60°
Not hard for machine

7+00 Sandy loam 0° to 10°
on line revision in draw. As per 1st sample 10° to 50°
" " 2nd " 50° to 60°
Med. hard

15+00 - Adobe + rock 0° to 10°
As per 1st sample 10° to 55°
" " 2nd " 55° to 60°
Not hard

34+67 Adobe 0° to 10°
Loam + rock 10° to 25°
As per 1st sample 25° to 40°
Yellow adobe 40° to 55°
As per 2nd sample 55° to 60°
Not hard

77

84+05 - As per 1st sample ↑ 0° to 30°
" " 2nd " (soft) 30° to 60°

94+15 As per 1st sample ↑ 0° to 40°
Red adobe 40° to 55°
As per 2nd sample (soft) 55° to 60°

103+50 - As per 1st sample ↑ 0° to 50°
" " 2nd " (soft) 50° to 60°

Sweetwater - salvage steel
pipe & appurtenances
traverse bet. 3 & 4 accessible
by road

City B.M.'s on & near 35th St

B.P. in conc. Men. N. W. Cor. 35th & Broadway 56.62

Men. S. E. Cor. 34th & Imperial (insistence) 26.41

B.P. N. end of Bridge on Imperial (near 34th) 29.57

Hydrant S. E. Cor. 35th & Ocean View 68.38

Top of Hydrant S. E. Cor. 35th & National 44.19

Spike in pole S. W. Cor. Rigel & Main 0.815

B.P. in curb, East side of bridge, South side (Main St) 5.00

B.P. in curb, S. E. Cor. Una & Main 13.46

B.P. " " N. W. Cor. Vestal & Main 15.52

Note quite a discrepancy was
found in some of the above B.M.'s

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder
stake for any width roadway slope 1 to 1.
If ground is nearly level the cut or fill at side
stake is located by the height cut or fill in
left column and top row. The number in body

IMPROVED TABLES

AND

INFORMATION

TABLE No. 2.

To find Tangent and External for curve of
any other degree, divide by degree of curve and
add correction found in column of correction.
Degree of curve with a given T may be found
by dividing tangent (or external) opposite T by
given tangent (or external).
The distance from a point on the tangent to
the curve is very nearly the square of the tangent
length divided by twice the radius.

DIRECTIONS FOR USE OF TABLES

TABLE No. 1.

Distance of slope stake from side or shoulder stake for any width roadway, slope $1\frac{1}{2}$ to 1. If ground is nearly level, the cut or fill at side stake is located by the double entry method in left column and top row. The number in body of table in same row and column gives distance from side stake to slope stake. If ground is not level estimate the difference in elevation between the side stake and slope stake, lower target by this amount if cut, elevate if fill. Add this amount to cut or fill and find distance in table. Set up rod at this point, and line of sight should cut target. If it does not make the slight adjustment necessary.

TABLE No. 9.

To find Tangent and External for curve of any other degree, divide by degree of curve and add correction found in column of corrections.

Degree of curve with a given I may be found by dividing tangent, (or external), opposite I by given tangent, (or external).

The distance from a point on the tangent to the curve is very nearly the square of the tangent length divided by twice the radius.

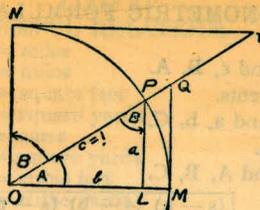


TABLE II
TRIGONOMETRIC FORMULÆ.

$$\angle A = \angle MOP \quad \angle B = \angle PON = \angle OPL$$

$$R = OB = c = 1$$

$$\sin A = \frac{a}{c} = \frac{a}{1} = a = \cos B = LP$$

$$\cos A = \frac{b}{c} = \frac{b}{1} = b = \sin B = OL$$

$$\tan A = \frac{a}{b} = \frac{MQ}{OM} = \frac{MQ}{1} = MQ = \cot B = MQ$$

$$\cot A = \frac{NT}{ON} = \frac{NT}{1} = NT = \tan B = NT$$

$$\sec A = \frac{OQ}{OM} = \frac{OQ}{1} = OQ = \csc B = OQ$$

$$\csc A = \frac{OT}{ON} = \frac{OT}{1} = OT = \sec B = OT$$

$$\text{vers } A = \frac{LM}{OP} = LM = \text{covers } B \#$$

$$\text{covers } A = \frac{OP - LP}{OP} = OP - LP = \text{vers } B$$

$$\text{exsec } A = PQ = \text{coexsec } B$$

$$\text{coexsec } A = PT = \text{exsec } B$$

$$\sin \frac{1}{2} A = \sqrt{\frac{1 - \cos A}{2}} \quad \cos \frac{1}{2} A = \sqrt{\frac{1 + \cos A}{2}}$$

$$\sin 2A = 2 \sin A \cos A \quad \cos 2A = \cos^2 A - \sin^2 A$$

$$\text{Law of Sines} \quad \frac{\sin A}{a} = \frac{\sin B}{B} = \frac{\sin C}{C}$$

$$\text{Law of Cosines} \quad c^2 = a^2 + b^2 - 2ab \cos C$$

$$\text{Law of Tangents} \quad \frac{a+b}{a-b} = \frac{\tan \frac{1}{2}(A+B)}{\tan \frac{1}{2}(A-B)}$$

$$\begin{array}{r} 26 + 99.77 \\ \underline{1} \quad 73.89 \\ 25 + 25.88 \end{array}$$
$$\begin{array}{r} 183.29 \\ \underline{9.40} \\ 173.89 \end{array}$$

25 + 25.88 Δ 90° 36 RT

26 + 28 + 07 Δ 90° 05 LT

28 + 02° 09 P.O.T. Back

=
28 + 03 88 Ahead

~~37.55~~

$$\begin{array}{r} 179.60 \\ \underline{144.22} \\ 35.38 \end{array}$$
$$\begin{array}{r} 3.8 \\ \underline{1.5} \\ 2.3 \\ 0 \end{array}$$
$$\begin{array}{r} 43.50 \\ \underline{4.71} \\ 48.21 \end{array}$$