

1850

W. H. WOOD

ENGINEER
FIELD BOOK
NO. 100

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.

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1850

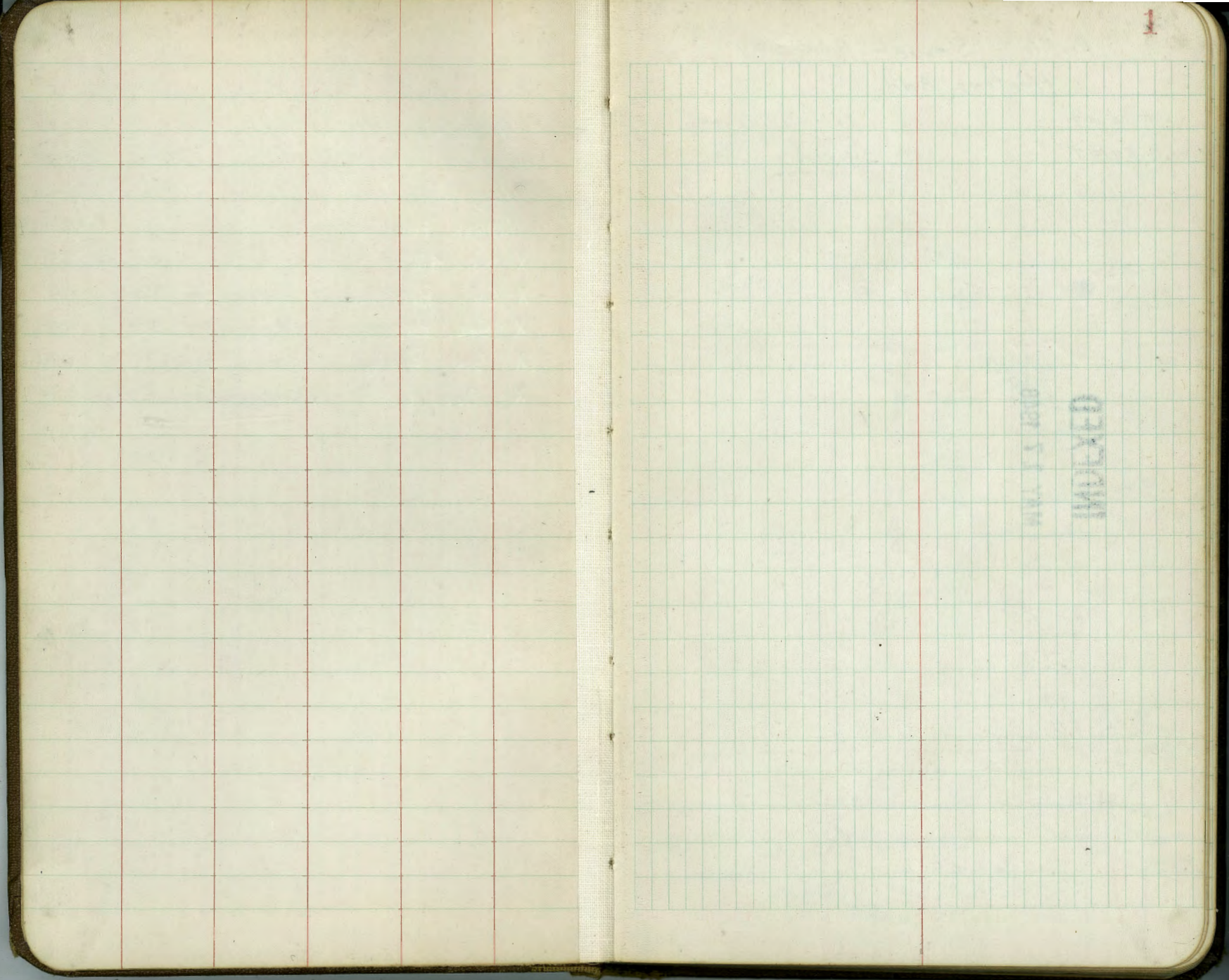
91.26
54.22
37.22

INDEXED
through page 58

This Field Book is manufactured 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.

X sec Davies, facing to Townside	P 75 6-15
Re Alignment Imperial Ave	16-21
Alignment Wabash Freeway, Wabash Ave	25-46
Wabash Freeway Location, Level, Tort Holes	47-51
Wabash Freeway - Test holes	52-54
X- Sec. 42 nd - Alpha N. Through playgrounds	55-58
X- Sec. Broadway - Evelyn to 69 th	59
X- Sec. Broadway - Madera to 69 th	60-63
X- Sec. Evelyn - Broadway to 69 th	64-66
X- Sec. 69 th - N. L. Wunderlin to Evelyn	67-71



Profile - Sewer BIK 297

Hortons Add.

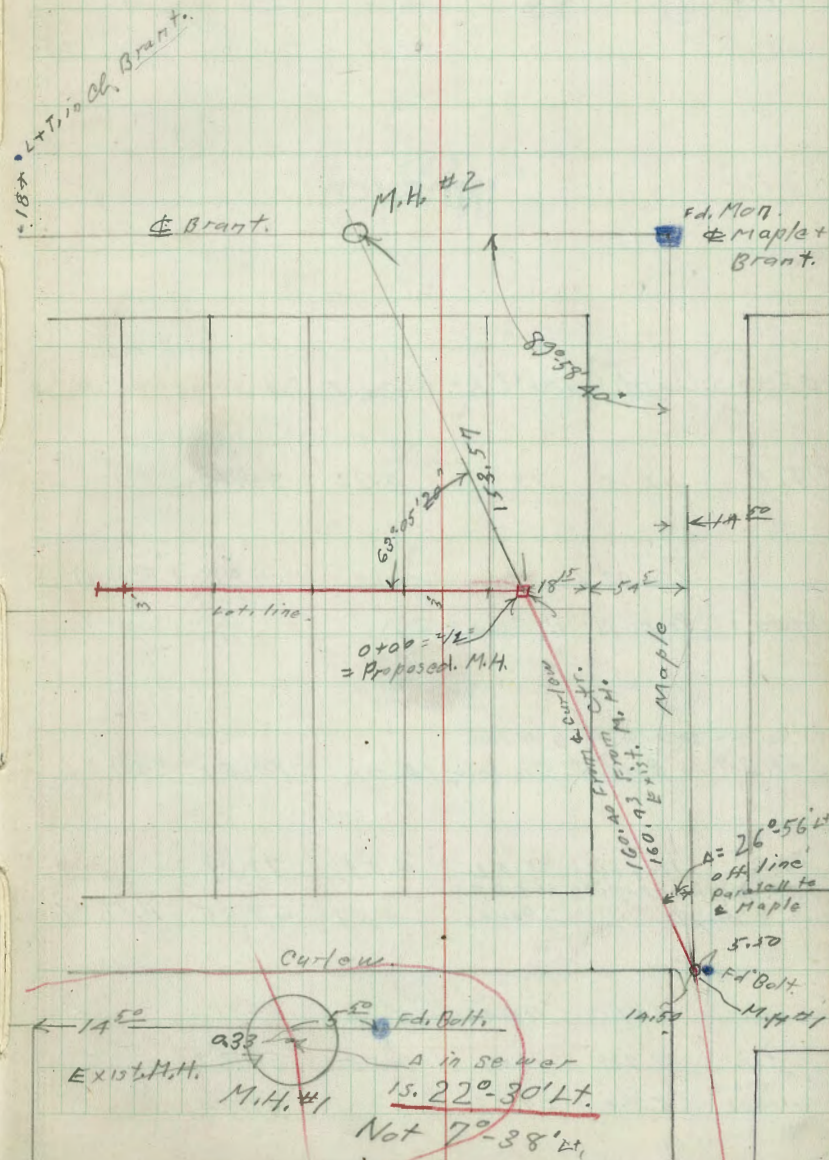
5-14-48

W.O. 80107

Sommarmeyer
McCoy &
W. Moore
Sherman.

INDEXED

MAY 17 1948



Sewer Profile
Blk. 297 - Horton's Add.

T.P. 12.05 107.28 2.08 95.23

0+40

0+05

INDEXED

0+00 Cont. 153⁵² Rt. Along Exist sewer = M.H.#2

Page 2

T.P. 12.15 97.31 0.36 85.16

160.73 Lt. Along Sewer = M.H.#1 (Page 2)

0+00 = Prop. M.H. (Page 2)

To South + 20' 50" Maple to East.

Set. B.M. on Bolt & Curlew 10.71 74.61 B.M.#2

T.P. 11.61 85.52 0.51 73.91

Set. B.M. opposite N.E.E.C.
Lt. & Maple Dove

4.57 69.85 B.M.#1

T.P. 3.61 74.42 0.28 70.81

T.P. 12.72 71.09 0.55 58.37

B.R. Reynard
Way, Mich.
100 N. Arroyo Dr.

6.98 58.92 - 51.94

±

3

	94.0	92.1	92.5	91.0
Higher	3.3	5.2	4.8	6.3
on Lt.	15		35	50
OK				

83.8
13.5

90.74	81.24
6.57	16.07
153.57	153.57
Rim	Invert

97.31

69.66	74.77	83.48
151.86	10.75	2.04
160.73	160.73	0.11
Invert	Rim	2 x 2

85.52

2+20
 T.P. 12.29 167.14 0.36 154.83

151.3	155.3	156.9	156.7	153.3
<u>15.8</u>	11.8	<u>10.2</u>	<u>10.4</u>	<u>13.8</u>
50	<u>167.12</u>	34	50	70

2+00

150.0	151.6	151.2	147.6
<u>5.2</u>	3.6	<u>4.0</u>	<u>2.6</u>
50		23	50

1+85

146.3
 8.9
155.19

T.P. 12.50 155.19 0.14 142.69

1+55

135.4	131.2	128.1
<u>2.4</u>	11.6	<u>14.7</u>
20	<u>142.83</u>	50

T.P. 12.13 142.83 0.12 130.70

1+20

120.7
10.1
 130.82

T.P. 12.01 130.82 0.41 118.81

0+85

1142	109.1	98.1
<u>50</u>	10.1	<u>2.1</u>
15		50

T.P. 12.08 119.24 0.14 107.14
 107.28

119.24

a city B.M.

B.M. is square Iron bolt. Not
different lines. Barnson + Brant
These benches evidently run on

Bolt in
N.E. Ret.
(Barnson Pl. + Brant.)

117' N. N. Line Not mag
on Brant. 3.72 186.54 (186.77)

T.P. 11.46 190.26 0.41 178.80

T.P. 12.41 179.21 0.32 166.80

2+45

167.12

152.1	157.5	160.1	158.2
151.0	155.5	8.0	8.2
50	9.6	50	70

167.12

Use Daves 80' wide
Loring to Town Machine

Name
8-99
Station
B N 05
8-27-48

WD 31533

INDEXED

Re Cross Section

Page 72

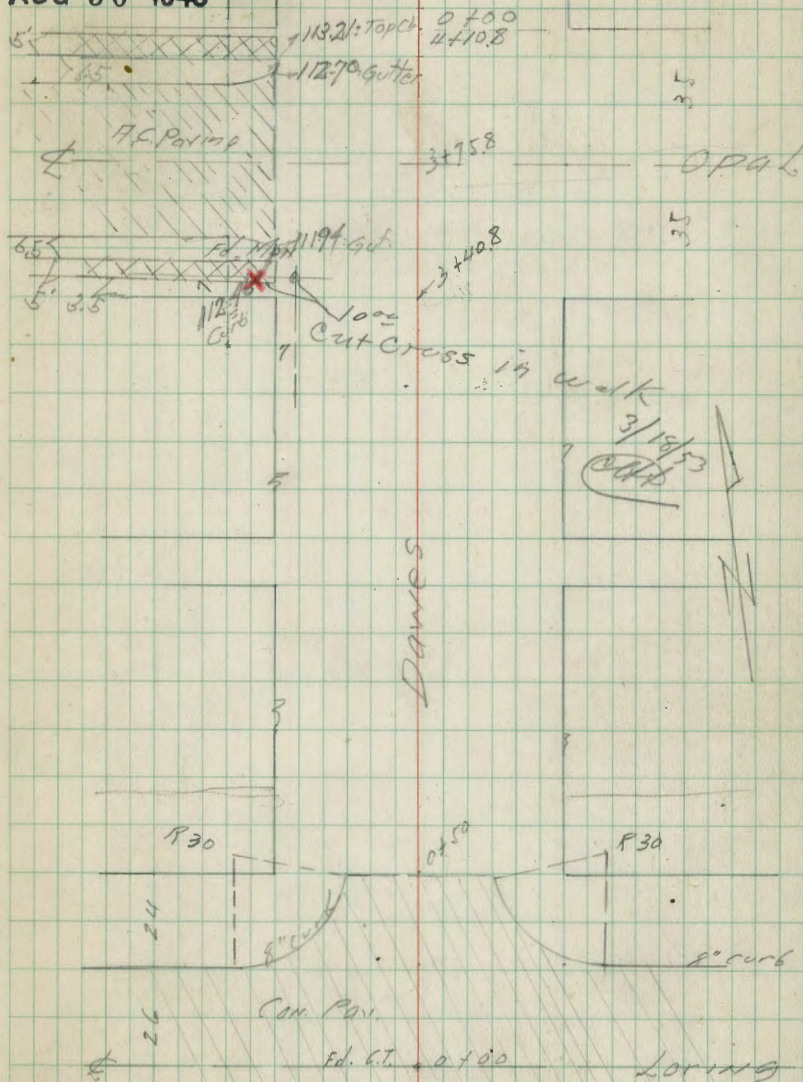
A. Sisson

Page 75 - C.H.S.

INDEXED

w.k.

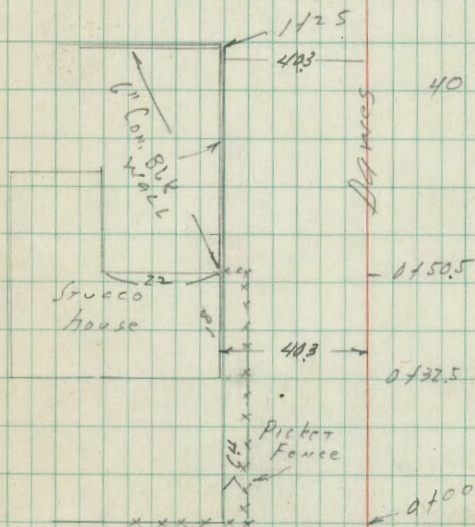
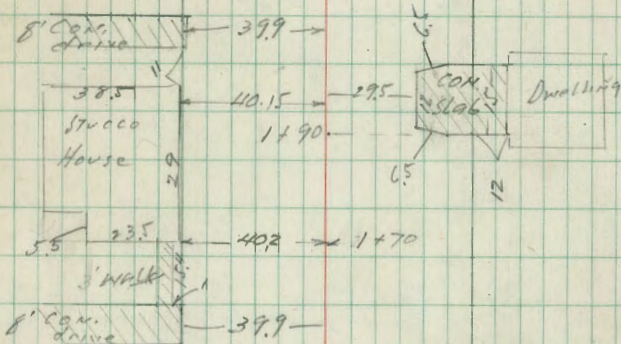
AUG 30 1948



Tourmaline

Con. Meno

$$\frac{0+00}{2+04.94}$$



opa k

61

57

3446 15.8 Lt PP 5048

3441 30.2 Rt Tol. P 99

3408 S.L. Opal St

3422 37.9 Rt end Bd. fence

3400

2785 31.8 Lt & 2' Cow walk

2777 N edge Cor. dr. & gar

2762 S edge Cor. drive & gar

2757 32.7 Lt end Bd fence

2750

119.51

6.4	5.4	6.4	5.1	5.7	5.5	4.5	4.5	4.6
<u>40</u>	<u>14</u>	<u>8</u>	<u>5</u>	<u>7</u>	<u>17</u>	<u>23</u>	<u>8</u>	<u>8</u>
113.1	114.1	113.1	113.5	113.9	113.9	113.5	115.0	115.6

7.7	6.8	7.5	7.9	6.7	6.9	7.3	7.7	6.4
<u>40</u>	<u>15</u>	<u>11</u>	<u>5</u>	<u>7</u>	<u>10</u>	<u>18</u>	<u>3</u>	<u>0</u>
112.3	112.7	112.0	112.5	112.8	112.6	112.2	113.9	114.6

7.6	7.7	7.2
<u>40</u>	<u>40</u>	<u>31.8</u>
111.89	112.04	112.27

7.93	7.88	7.75
<u>48</u>	<u>60</u>	<u>32</u>
111.53	111.65	111.76

7.98	8.10	8.15
<u>48</u>	<u>40</u>	<u>32</u>
111.53	111.41	111.36

8.9	8.7	8.0	8.7	8.7	8.1	8.8	6.9	6.5
<u>40</u>	<u>30</u>	<u>15</u>	<u>10</u>	<u>5</u>	<u>10</u>	<u>18</u>	<u>2</u>	<u>20</u>
110.6	111.3	111.5	110.8	111.3	111.6	111.4	112.6	113.0

119.51

T.P.
Set B.M.
Spike PP. 5.63 125.62 2.57 119.99

0+00
2+64.94 SL Tourmaline

+60 23.3 LT PP 5908

2+27 29.5 Pt. T-h. P #101

2+18 N edge da.

2+10 S edge Con da.

122.56

Tourmaline

SW Con Dawes + Tourmaline

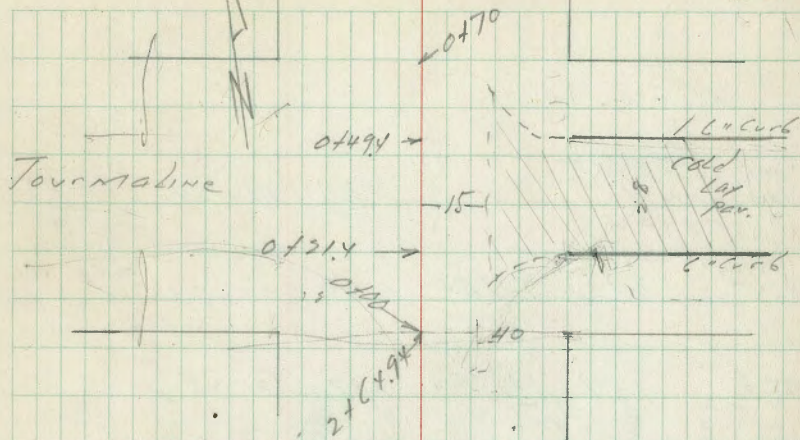
6.119.5	3.119.6	3.119.8	2.120.2	2.119.9	3.119.6	2.120.1	2.120.3
40	30	9	2	7	14	18	50

4.30	4.31	4.0	4.0	3.6	3.7	4.2	3.5	3.8
50	39.9	38	5	6	6	14	25	40

drive

4.28	4.30
50	39.9

122.56



check to SEBP
Cass and
Turquoise

701 134.84 134.85
0.01

T.P. 831 141.85 078 133.54

T.P. 957 132.82 137 124.25

O + 70 NL Turmaline

O + 494

O + 35 E Turmaline

O + 214

125.62

4.9	120.7	4.9	120.5	4.9	119.7	4.9	120.0	4.9	120.7	4.9	120.80	4.9	120.90	4.9	121.58	4.9	122.58
40		30		30		30		30		30		30		30		30	
5.7	121.4	5.7	120.6	5.7	119.9	5.7	120.0	5.7	120.7	5.7	120.80	5.7	120.90	5.7	121.70	5.7	122.58
25		15		15		15		15		15		15		15		15	
4.1	121.5	4.1	120.9	4.1	119.7	4.1	120.0	4.1	120.7	4.1	120.80	4.1	120.90	4.1	121.70	4.1	122.58
15		10		10		10		10		10		10		10		10	
4.8	120.8	4.8	120.7	4.8	120.5	4.8	120.7	4.8	120.7	4.8	120.80	4.8	120.90	4.8	121.70	4.8	122.58
9		5		5		5		5		5		5		5		5	
4.7	121.4	4.7	121.0	4.7	120.7	4.7	120.7	4.7	120.7	4.7	120.80	4.7	120.90	4.7	121.70	4.7	122.58
12		10		10		10		10		10		10		10		10	
4.9	120.7	4.9	120.4	4.9	120.22	4.9	120.0	4.9	120.7	4.9	120.80	4.9	120.90	4.9	121.70	4.9	122.58
16		15		15		15		15		15		15		15		15	
4.1	121.5	4.1	120.50	4.1	120.80	4.1	120.80	4.1	120.80	4.1	120.80	4.1	120.90	4.1	121.70	4.1	122.58
19		20		20		20		20		20		20		20		20	
4.9	122.2	4.9	120.96	4.9	122.10	4.9	122.10	4.9	122.10	4.9	122.10	4.9	122.10	4.9	122.10	4.9	122.58
30		30		30		30		30		30		30		30		30	
4.1	122.6	4.1	121.60	4.1	121.60	4.1	121.60	4.1	121.60	4.1	121.60	4.1	121.60	4.1	121.60	4.1	122.58
40		40		40		40		40		40		40		40		40	

125.62

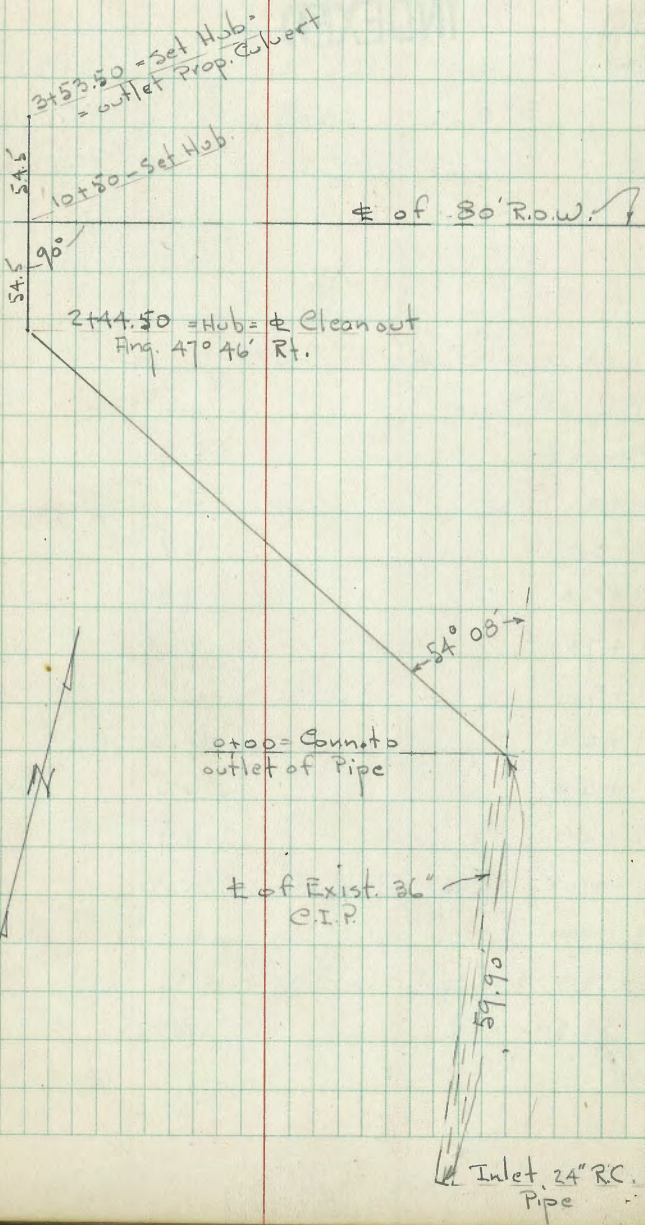
Loc of Prop. Culvert on Re-alignment
of Imperial - 7389-L - + Book 1702

W.O. 90009

12-16-48

F.O.

INDEXED
WIK
JAN 5 1949



± Profile of Prop. Culvert - sketch P. 16

INDEXED

B.M.	4.04	165.32		161.28	B.P. in bridge Merlin
	0.12	153.03	12.41	152.91	
	5.38	<u>147.81</u>	10.60	142.43	± in top of MH.

otoo = outlet of 36" CI.P.

FL. of Pipe		6.67	
Ground		5.1	
0+10		3.8	
0+30		6.8	
0+60		7.4	
0+73		9.0	
0+90		6.6	
1+00		6.3	
+50		6.5	
2+00		8.9	
2+44.50 = Ang. 47° 46' Rt.		8.22	on Stub.
2+60		10.1	
2+99 = ± Row. = 10+50		9.87	on Stub.
3+53.50 = end		5.30	on Stub.

New X-Sections over area of
Top Soil Removal - same Sta. as
in Book 1702.

INDEXED

7+00 Cont.

147.5
+2.3
475

141.7 137.8 137 133.0
3.5 7.4 8.2 12.2
400 345 295 270
Top bank

7+00

130.5 133.9
14.7 11.3
240 215
Creek Top Bank

134.1 136.0 136.5 136.8 136.9 137.7 138.7 139.8 142.0
11.1 7.2 8.7 8.4 9.3 7.5 6.5 5.4 3.2
170 115 75 40 20 20 40 75

T.P. 7.24 145.20 7.47 137.96

6+50

144.2 144.1 141.2
1.22 1.3 4.2
517 493 440
S. Rail

139.4 136.2 136.3 136.5
6.0 9.2 9.1 8.9
396 390 250 305
Top Bank

5+50

138.6
6.8
542
Toe

137.6 135.9 135.2 134.6
7.8 9.5 10.2 10.8
510 465 415 367
Top Bank

5+00 = Limit of Excavation by R.R. Track

136.6 134.0 134.7
8.8 11.4 10.7
557 475 385
Toe of RR. Fill Top Bank

- Rest of Section the Same.

T.P. 7.47 145.43 9.95 137.96

147.91

Stub at
8+00

145.43

147.81 = P. 17

9+50

	^{143x}	¹⁴³²	^{141.6}
	+5.3	+5.1	+3.5
	203	159	124

T.P. 4.35 146.78 4.98 142.43

9+00 - Cont.

9+00 - started taking sections by stadia
Plus or Minus from \pm Eleu.

T.P. 9.45 147.41 9.26 137.96

8+50

	¹⁴⁸³	^{141.9}	^{140.1}	^{136.8}	^{135x}	^{131.6}
	+2.1	5.3	7.1	10.4	11.8	15.6
	422	387	325	265	205	180
		Toe				Creek

8+00

	^{148.2}	^{143.9}	^{141.2}	^{137.7}	^{134.7}	^{132.8}
	+1.0	3.3	6.0	9.5	12.5	14.4
	437	412	365	300	235	205
		Toe				\pm Creek

T.P. 9.26 147.22 7.24 137.96

7+50

	^{146.3}	^{144.6}	^{141.0}	^{138.3}	^{134.6}	^{130.3}
	+1.09	1.6	4.2	6.9	10.6	14.4
	480	440	385	320	305	217
	S. Pit					\pm Creek

L

#

Rt

19

¹³⁵⁰	^{134.8}	^{137.5}	^{137.9}	^{132.1}	¹³⁸	^{138.1}	^{138.0}	^{136.8}	^{142.5}	^{143.1}
-3.1	-3.3	-0.6	-0.2	8.7	-0.1	0.0	-0.1	-1.3	+4.4	+5.0
110	70	40	20		20	40	85	111	158	185

	^{151.2}	^{142.2}	^{139.9}	^{139.6}	^{142.5}
	+4.3	+5.3	+3.0	+2.7	+5.6
	410	371	325	243	175
					100

146.78

¹⁴⁰	^{133.9}	^{135x}	^{135.8}	^{135.9}	^{136.9}	^{137.5}	^{137.5}	^{135.7}	^{130.0}	^{141.8}
+3.1	-3.0	-1.5	-1.1	-1.0	10.5	+0.6	+0.6	-1.2	+2.1	+4.9
178	134	81	40	20	20	20	40	60	105	143
	\pm Creek									

147.41

^{134.2}	^{134.6}	^{139.4}	^{134.9}	^{135.4}	^{135.8}	^{136.1}	^{138.0}	^{137.9}	^{141.0}	^{141.8}
13.0	12.6	7.4	12.3	11.4	11.4	11.1	9.2	9.3	6.2	5.4
170	115	82	40	20		20	40	100	103	160
										Toe

^{135.3}	^{135.6}	^{136.2}	^{137.7}	^{137.9}	^{137.9}	^{137.3}	^{137.8}	^{138.5}	^{140.9}	^{142.0}
11.9	11.6	11.0	9.5	9.3	9.3	9.4	9.4	8.7	6.3	5.2
175	125	75	40	120		20	40	75	100	151
										Toe

147.22

^{134.4}	^{134.7}	^{136.6}	^{137.4}	^{137.6}	^{137.2}	^{137.8}	^{139.7}	^{141.0}	^{142.4}
10.8	10.5	8.6	7.8	7.6	8.0	7.4	5.5	4.2	2.8
185	120	80	40	20		20	40	75	137

145.20

10+50 - Cont.

10+50 - 141' Lt. Beg. Pile of Dirt ⁸⁰⁰ 148.5

10+50 Begin Regular sections again - 7.1
241

T.P. 12.12 155.55 4.35 142.43

10+00 Cont.

603 yds. Total 144.8
10+00-276' Lt. = Beg. stock pile Dirt +7.5 146.1
264 226

9+75 Cont.

¹⁸⁰⁰ 9+75 - 195' Lt. = ± 66 yd. Pile Dirt + Brush 145.5
+10.2 146.1
180

9+50 Cont.

150.6
+12.5
40.8
S. Rail

Lt.

±

Rt

20

150.1	152.4	149.3	138.1	139.4	144.2	147.3	147.2
+0.5	3.2	6.3	17.5	16.2	11.4	11.3	8.4
350	334	285	164	177	185	193	203
							shoulder

147.1	146.3	145.6	142.0	141.2	137.9	137.6	138.1	138.8	141.1	139.1
7.9	8.8	10.0	13.6	15.4	17.7	18.0	17.5	15.8	14.5	16.5
210	133	90	40	20	20	20	40	50	105	136

155.3	149.8	145.5	155.55	143.9	144.0	146.8
+18.0	+12.5	+8.2	137.3	+6.4	+6.7	+9.5
365	340	306		165	190	207
						shoulder

145.5	144.7	141.2	138.9	139.5	137.3	137.2	138.1	137.4	137.6	137.5
+8.2	+7.4	3.9	+1.6	+1.2	9.5	-0.1	+0.8	+0.1	+0.3	+0.2
165	110	77	40	20	20	40	80	120	161	

145.8	144.4	142.4	144.2	137.3	144	146.4
+10.5	+9.1	+8.1	+8.9	+8.7	+11.1	
340	310	280	238	186	196	= shoulder

144.8	141.1	136.1	136.4	136.3	135.3	137.1	137.6	138.1	138.9	141.1
+9.5	+5.8	+0.8	+1.1	+1.0	11.5	+1.8	+2.3	+2.8	+3.6	+5.8
135	97	80	40	20	±Creek 20	40	77	115	150	

147.1	142.8	142.8	141.5	138.1	146.8
+13.6	+9.7	+4.7	+3.4	+8.7	
390	369	326	264	195	shoulder of Road.

146.78

16+23 - 116 Lt. - Φ P. pole # 70144

16+00

150.5

7.0

150

Toe

15+50 - Cont.

Sections taken Radial

15+50 -

146.3

11.2

150

14+74.24 = PC. = Sect. O.K.

T.P. 5.97 157.54 3.98 151.57

13+70

13+50

T.P. 3.98 155.55 3.28 151.57

13+00 Cont.

12+00

Rest of Sect. same

T.P. 8.28 159.85 3.98 151.57 = stake

Rt. 22

H. #

148.1	147.2	147.8	146.4	144.6	144.8	
9.4	10.3	9.7	11.1	12.9	12.7	- Rest O.K.
120	80	40	20	17		

150.6

6.9

127 = Toe of RR fill

147.3	146.5	146.1	145.8	144.3	144.3	146.1	
10.2	11.0	11.4	11.7	13.2	13.2	11.4	Rest O.K.
120	80	40	20	14		20	

157.54

Sect. O.K.

12.2

Rest O.K.

	149.2	148.4	147.2	147.6	143.0	142.5	141.9
Rest O.K.	6.4	7.2	8.4	8.0	12.6	13.1	13.7
	40	20		14	20	40	62

Rest O.K. \nearrow

155.55

143.3

16.6

195

143.6

11.3

206

143.3

11.6

220

Shoulder

1702	152.7	149.5	147.8	146.8	144.4	143.6	142.2	141.7
as P. 54	7.7	10.4	12.1	12.1	15.5	14.3	17.5	18.2
	78	40	20		20	40	90	120

159.85

155.55

check B.M. on Bridge 3.89 161.27 161.28 -
 T.P. 4.25 165.16 2.20 160.91

Rods along face of Bldg. -

Rods on Conc. work along Bldg. See Sketch B-1800

18+50 - same

18+00

17+65 - To show Toc of New fill on Lt

T.P. 7.12 164.11 0.55 156.99

17+50

17+00

16+50

151.9
 5.6 80
 40 130
 Tot

P. 17

Lt

#

Rt

23

2.97 2.29 2.98 2.25
 2' E. of Cor. = Conc apron to Doorway 3' out 2' E. of Cor. = apron 3' out = apron edge

12.00 12.4 7.50 12.1
 Top of Wall S.W. end ground Top N. end of Bldg. ground.

161.1 160.8 161.4 161 161
 2.99 3.29 2.7 3.1 3.1 Rest. O.K.
 75 72 65 40 20
 Conc. floor edge of Bldg. Conc apron

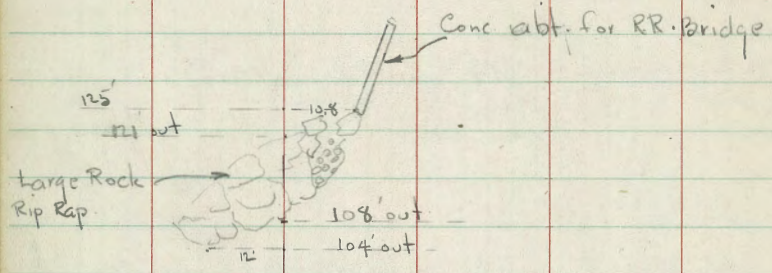
16.2 15.5 11.6 3.6
 110 80 55 27

155.2 148.2 147.3 148.3 164.11 150.5
 2.3 9.3 10.2 9.2 7.0 Top + Rest = O.K.
 121 108 100 70 46
 Top Rock Toc Rock Sec sketch P. 24 Toc

152.5 146.0 148.5 145.6
 5.0 9.5 9.0 11.9 Rest - same
 126 95 65 42
 Top creek

149.2 149.3 147.5 146.0 144.4
 8.3 8.2 10.0 11.5 12.9 Rest O.K. (1702 - P. 55)
 95 60 40 20 13

157.54



17+50
Radial

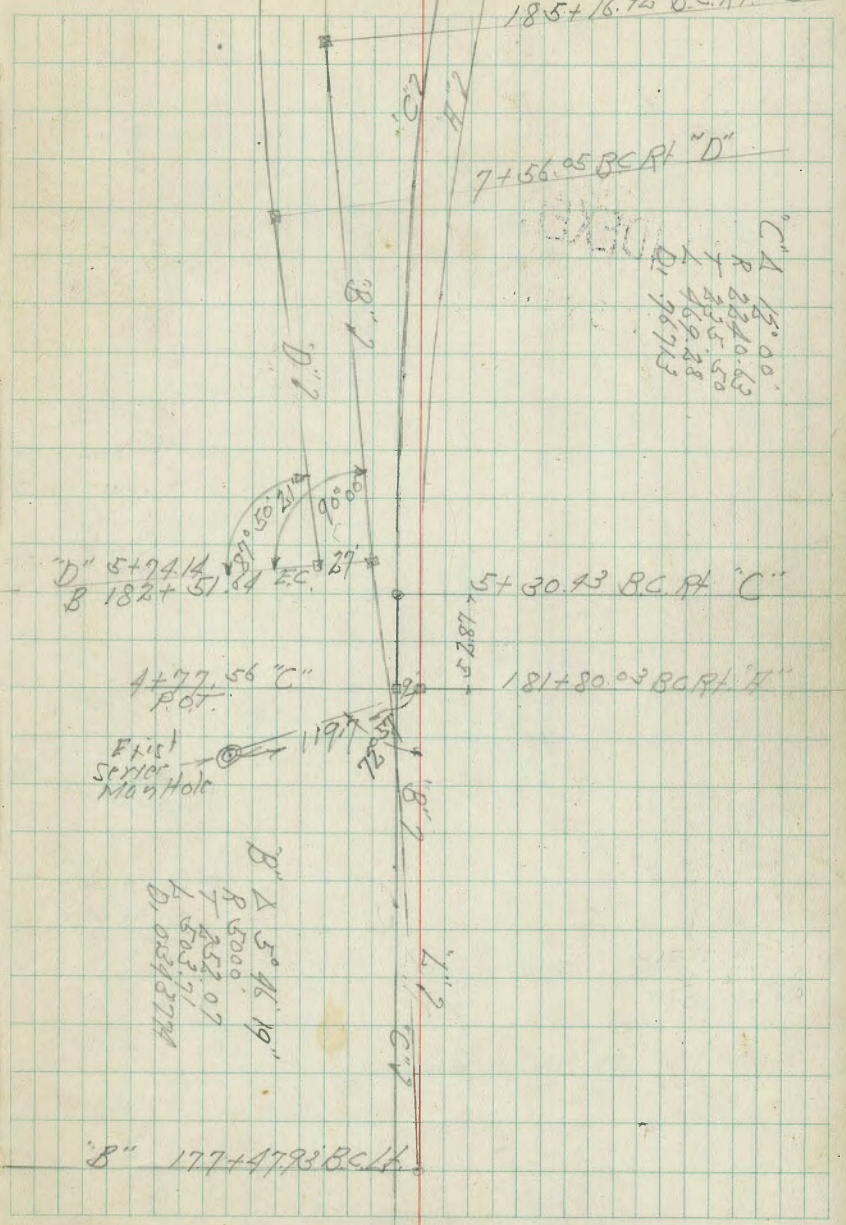
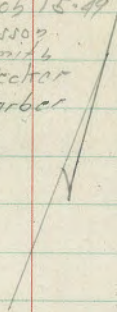
INDEXED
APR 25 1994

Mabary Freeway + Mabary Ave.
Braided Interchange

INDEXED

WK
APR 22 1949

March 15-49
A. Sisson
D. Smith
W. Becker
H. Garber



185+16.93 B.C.P. 25.8"

7+56.05 B.C.P. "D"

13.00
28.40
23.50
469.28
96.73

"D" 5+24.14
"B" 182+51.24 B.C.P. 27"

5+30.43 B.C.P. "C"

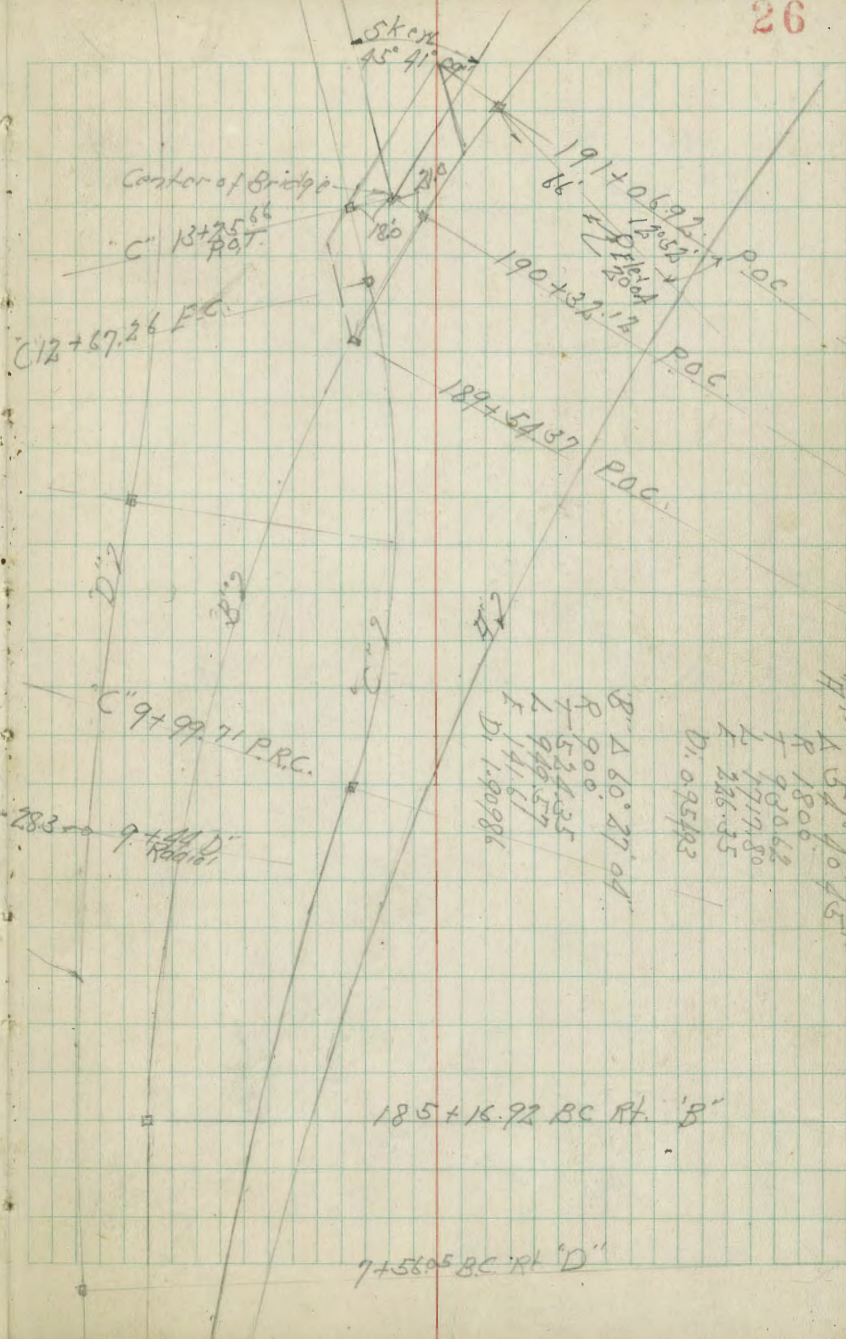
4+77.56 "C"
P.O.T.

181+80.03 B.C.P. "H"

First Senior Man Hole

"B" Δ 5° 46' 19"
R 5000'
T 522.07'
D 503.71'
D 504.3774'

"B" 177+47.93 B.C.P.



Center of Bridge

"C" 13+25.64 P.O.T.

12+67.26 E.C.

"D" 11+64 P.P.C.

"A" Δ 30° 39' 33"
 R 500'
 T 137.06
 L 267.65
 D. 343.72

"D"

"C" 9+99.71 P.P.C.

Existing
 Survey Mark
 Hole

183 9+44 D.
 Road

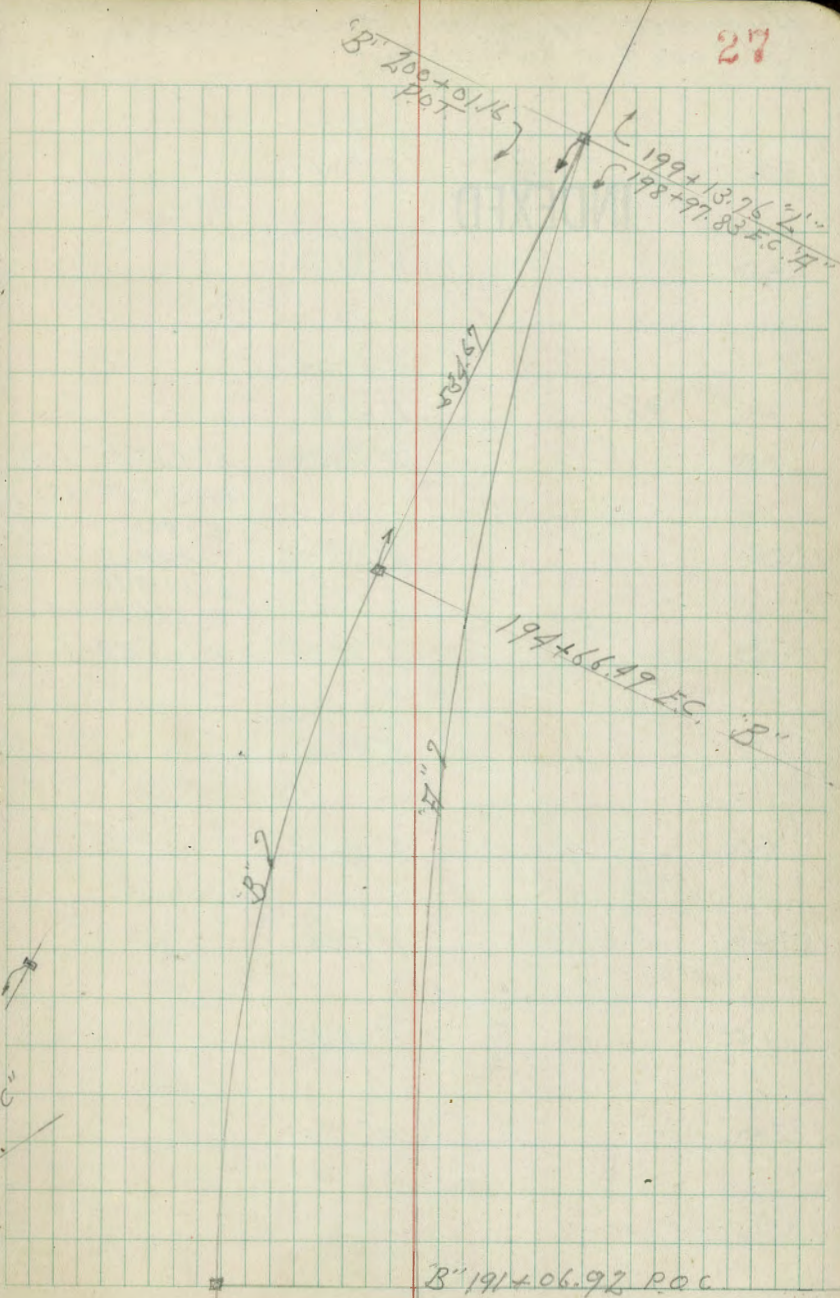
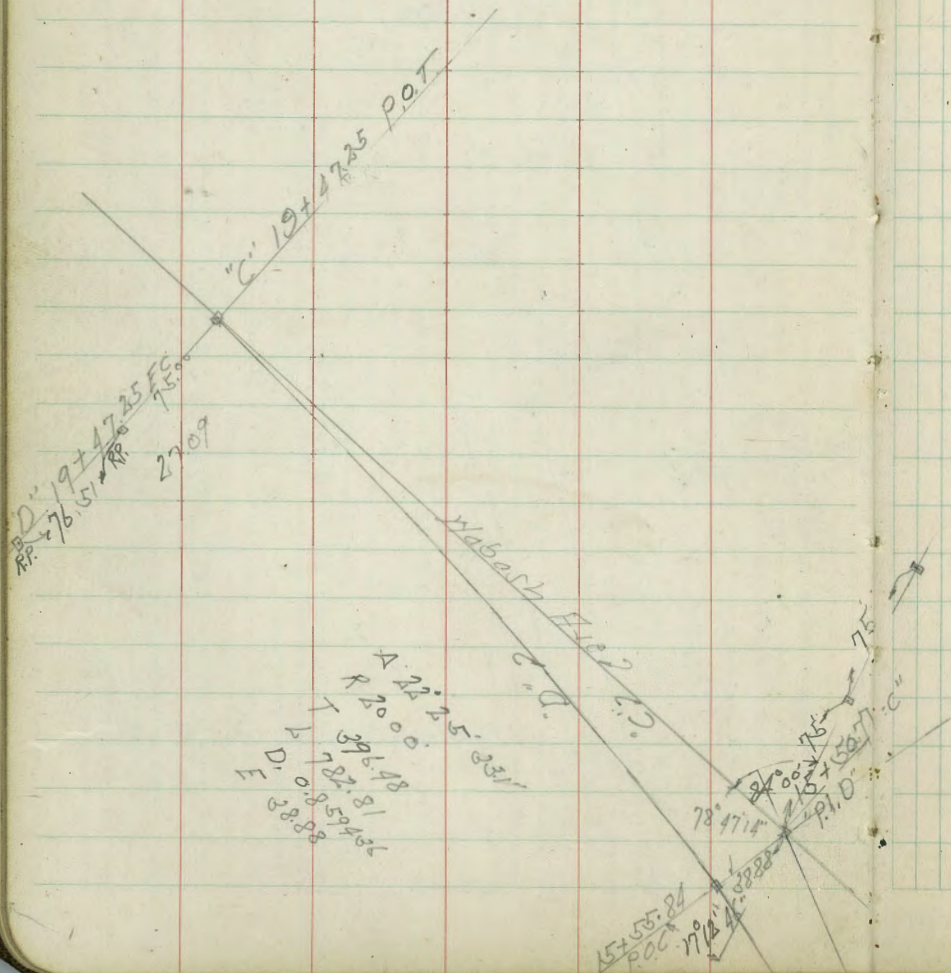
"D" Δ 11° 41' 58.5"
 R 2000'
 T 204.91
 L 408.39
 D. 859.436

"B" Δ 60° 27' 04"
 R 900'
 T 524.35
 L 929.57
 D. 1411.67

"H" Δ 57° 10' 45"
 R 1800'
 T 930.62
 L 1719.80
 L 226.35
 D. 0.95493

185+16.92 B.C. RT "B"

7+56.05 B.C. RT "D"



187+0

INDEXED

8° 16.53'

+50

7° 28.78'

186+0

6° 41.04'

+95 P.O.C.

6° 36.60'

+50

5° 53.29'

A 54° 40' 45"

B 27° 20' 225"

R 1800'

185+0

5° 05.55'

T 930.62

L 17' 7.80

E 226.35

+50

4° 17.80'

D. 0.95493

184+0

3° 30.05'

+50

2° 42.31'

183+0

1° 54.56'

+50

1° 06.82'

182+0

0° 19.07'

181+80.03 BC RT.

+50		17° 01.74 ✓
192+0	set POC. → 4-4-56 2008	16° 14' ✓
+85	POC.	15° 59.68 ✓
+50		15° 26.25'
191+0		14° 38.50'
+50		13° 50.76'
+38.93	POC. = Center	13° 40.18' ✓
190+0		13° 03'
+75	P.O.C.	12° 39.13'
+50		12° 15.26'
189+0		11° 27.51'
+60	P.O.C.	10° 49.31'
+50		10° 39.77'
188+0		9° 52.02'
187+50	set → P.O.C. Hub & Disk 4-4-56 2008	9° 04.28'

19783	EC. 18.29 0.554	27° 20.37' ✓
+50		26° 34.69' ✓
19840		25° 46.95' ✓
+50		24° 59.20' ✓
19740		24° 11.45' ✓
+50	set P.O.C. Hub 4-4-56 1954	23° 23.71' ✓
19640	P.O.C.	22° 35.96' ✓
+50		21° 48.22' ✓
19540		21° 00.47' ✓
+50		20° 12.72' ✓
19440	P.O.C.	19° 25' ✓
+50		18° 37.23' ✓
19340		17° 49.49' ✓

Alignment B Line Hobart Freeway
+ 2706055 H.C. Interchange

INDEXED

+51.64 EC.	2° 58.17'	
182+0	2° 35.42'	
+50	2° 18.23'	
181+0	2° 01.03'	Δ 5° 46' 19.5"
		$\frac{3}{4}$ Δ 2° 58' 10"
+50	1° 43.85'	R 5000'
		T 252.07
180+0	1° 26.66'	L 503.71
		D. 343774
+50	1° 09.47'	
179+0	0° 52.28'	
+50	0° 35.09'	
178+0	0° 17.90'	
177+17.93 = BC. Lt.		

+91.70 = P.O.C. = Center	15° 06.77'	
+54.37	13° 55.48'	
+50	13° 47.13'	
189+0	12° 11.63'	L 60° 27' 04"
		$\frac{1}{2}$ A 30° 13' 32"
+50	10° 36.14'	R 900'
		T 524.35' ✓
188+0	9° 00.65'	L 949.57
		E 141.61' ✓
+50	7° 25.15'	D. 1.90986
187+0	5° 49.66'	
+50	4° 14.17'	
186+0	2° 38.57'	
+50	1° 03.18'	
185+16.92 B.C.A.		

B' Line

+66.49 E.C.

30° 13.54'

+50

29° 42.05'

194+0

28° 06.56'

+50

26° 31.07'

193+0 P.O.C.

24° 55.57'

+50

23° 20.08'

192+0

21° 44.59'

+50 P.O.C.

20° 09.16'

+06.92

18° 46.82'

191+0

18° 32.66'

+50

16° 58.11'

+32.12 = 21' Lt = $\frac{1}{2}$ Bridge 16° 33.76'

190+0

15° 22.62'

B' line

34

INDEXED

Alignment "C" Line Hobash Freeway
+ Hobash Ave Interchange

35

199.71 P.R.C. 6° 00' -

+50 INDEXED 5° 21.87' ✓

9+0 4° 43.56' ✓

+50 4° 05.15' ✓

8+0 3° 26.79' ✓ Δ 12° 00'
R. 2240.63

T 235.50

+50 2° 48.43' L 469.28

D. 0.76713

7+0 2° 10.08'

+50 1° 31.72'

6+0 0° 52.37'

+50 0° 15.01'

5+30.43 B.C.P.H.

4+77.56 - 9' Max 181+80.03 B.C.P.H. "H"

19+47.25

+67.26 E.C. 15° 19.77' ✓

+50 14° 20.43' ✓

A 20° 39' 33"

P 500'

12+0 11° 28.54' ✓

T 137.06

L 267.55

+50 P.O.C. 8° 36.65' ✓

D. 213771

11+0 5° 44.77' ✓

10+50 2° 52.88' ✓

9+99.71 P.R.C. 0° 00'

Alignment "D" Line Hobart Freeway
& Hobart Ave. Interchange

+64.44 P.R.C.

5° 50.98'

+50

INDEXED

5° 38.57'

11+0

4° 55.60' ✓

+50

4° 12.63' ✓

Δ 11° 41.58.5"

R 2000'

10+0

3° 29.66' ✓

T 204.91

L 408.39

+50

2° 46.69' ✓

D. 0.859436

9+0

2° 03.71' ✓

+50

1° 20.79' ✓

8+0

0° 37.77' ✓

7+56.05 B.C. Pt.

5+74.14 = 27' West 182+51.64 E.C. 'B'

17+0		7° 40.28' ✓	
+50	P.O.C.	6° 57.31' ✓	
16+0		6° 14.34' ✓	
+55.84	P.O.C. Cont.	5° 36.38' ✓	
+50		5° 31.26' ✓	Δ 22° 25' 321"
			R 2000'
15+0	P.O.C. x	4° 48.39' ✓	T 396.48
			L 782.81
+50		4° 05.42' ✓	Di 0.859436
14+0		3° 22.95' ✓	
+50		5° 39.48' ✓	
13+0		1° 56.50' ✓	
+50		1° 13.53' ✓	
12+0		0° 20.56' ✓	
11+64.44	P.R.C.	0° 00'	

+47.25 EQ-POPE II° 12.77'

1940 10° 32.17' ✓

+50 9° 49.20' ✓

1840 9° 06.22' ✓

17450 8° 23.25' ✓

Cross Section B - Line Wabash Freeway +
 Wabash Ave. Bridged Interchange
 Alignment Page 25

INDEX

+68				
TP	7.91	192.66	13.22	184.75
+40				
183+21				
183+11				
195				
+82				
TP	2.08	197.97	8.50	194.89
182+51.64 EC				
	12.45	203.59	10.89	190.94
BM	1.80	201.83	200.53	572+0.71 P. 100 MH Set Wabash + Victoria #1833-9

+ Above 2
 - Below 2
 April 5-19
 F. S. Johnson
 Smith
 Barber 40

181.6	181.8	180.6	180.8	182.1	181.5	184.8	188.8	200.	20.25
-32	-30	-42	-40	-22	-33	79	+42	+152	+172
107	54	47	26	21	7		11	28	44
192.66									
181.6	181.5	180.3	181.0				189.6	199.9	202.0
-80	-82	-93	-86				8.4	+103	+124
103	76	55	28					17	30
182.9	183.3	182.7	183.3	184.6	183.8	186.1	185.9	191.5	194.1
-132	-122	-122	-122	-95	-22	1.9	-02	-46	-06
104	80	76	46	33	17		24	38	37
180.4	179.8	179.4	184.0	186.5	186.8			189.7	192.5
-62	-70	-74	-28	-02				422	+52
107	87	58	47	27	11.2			17	33
180.2	179.5	179.5	181.1	187.8	190.5	193.5	197.5		
-132	-140	-142	-124	-52	-32				
103	90	66	54	40	17			45	+42
								23	
197.97									
178.4	178.3	186.5	189.9	192.0	200.1	206.8			
-222	-222	-142	-102	-82					
105	98	67	50	33				2.73	+62
								07 Hub	20
203.39									

186+0

+50

+1692 BC

185+0

+50

18A+0

19266

L+

+

PT

41

1895 1885 1856 1815 1858 1853
 +42 +32 +23 +22 +05 72
 112 69 60 18 13

1853 1872 1872 186 1874
 00 +12 +12 +02 +24
 4 12 44 67 88

1868 1877 1853 1860 1845 1869
 +32 +44 +12 +22 +29 +32
 104 89 80 59 36 4

1836 1851 1859 1858 1852 1859 1847
 91 +15 +22 +22 +16 +22 +14
 7 25 40 50 60 67

1881 1842 1858 1882 1862 1865 1856 1846
 +30 -04 +12 +36 +12 +12 +12 808
 28 84 61 55 48 17 6 07406

1847 1844 1832 1833
 +01 -02 -14 -12
 25 52 65 88

186 1869 1844 1853 1870 1850 1854 1843 1826 1854 1850 1834 1826
 +12 +26 +04 +10 +22 +02 +12 18 -02 +14 +05 -02 -12
 118 95 80 58 54 35 20 14 19 37 40 60

1856 1839 1840 1830 1833
 +22 +05 +02 -03 94
 100 57 24 20 94

1822 1824 1864 1883
 -14 -02 +34 +150
 17 31 43 66

1838 1823 1828 1810 1812
 +12 -02 +03 -15 -13
 108 93 43 24 9

1825 1821 1825 1897 2027
 102 -02 00 +174 +202
 5 15 33 48

19266

175

+50

TP 11.92 203.03 1.55 191.11

188+0

+50

187+0

186+50

186+30 For Profile 4.7

186+12 7.4

19266

L

R

RT

42

191.1 194.1 194.1 194.4 193.9 191.8 191.1 192.8 193.2 192.7 194.0 194.3
 0° +3° +3° +3° +2° +0° 11.9 11.2 12.1 11.5 12.2 +3.2
 102 79 80 85 80 8 17 40 55 65 85

191.5 193.5 193.5 193.5 192.0 193.9 192.3 190.3 191.7 192.9 191.3 194.4 194.4
 -0.2 +1.2 +1.2 +1.2 -0.2 +1.2 10.7 -2.0 -0.2 +0.6 -1.2 +2.1 +2.2
 100 80 60 32 24 12 20 29 47 62 68 76

20203

191.1 193.1 192.1 192.3 190.3 191.7 191.7 190.1 192.8 193.8 192.5
 +0.3 +2.3 +1.3 +1.5 -0.5 1.9 +0.2 -0.2 -1.2 +3.0 +1.2
 102 83 63 27 20 26 37 50 52 100

190.0 190.2 192.2 190.4 191.1 188.2 189.4 190.4 190.4 188.9 192.2 191.1
 -0.4 -0.2 +1.2 0.2 +0.2 -2.2 -1.0 2.3 0.2 -1.5 +1.2 +0.2
 110 93 83 60 35 30 20 25 54 59 84

189.0 189.2 191.1 189.7 187.3 188.8 189.5 189.4 188.4 188.0 191.9 190.4
 -0.5 -0.3 +1.2 +0.2 -2.2 -0.2 -0.2 -0.1 -1.1 -1.5 +2.2 +0.2
 110 93 80 42 40 26 26 26 31 42 53 80

194.1 191 188.8 188.4 189.7 188.2 186.0 186.2 188.2 188.0 186.8 188.2 186.4 189.6 189.2
 +5.2 +2.8 +0.2 +0.2 -0.5 0.2 -2.2 -2.2 1.5 -0.2 -1.2 0.2 -1.2 +1.2 +1.2
 120 100 97 64 40 31 20 12 15 22 28 54 59 70 90

19266

"B" Line Habash Freeway + Habash Ave

191+06.93

+70

190+32.12 - 2 Bridge

+91.70

+54.87

189+0

20303

Lt.

Z

Rt.

43

1986	1978	1954	196.9	199.4	199.7	1990	1988	199.4	202.7
-0.2	-1.2	-3.5	-2.1	+0.2	+0.2	4.0	-1.2	+0.2	+3.2
117	104	85	68	47	12		20	40	70

197.9	197.3	194.6	198.1	198.6	198.7
-0.2	-1.2	-4.1	-0.2	-0.2	4.3
108	97	86	62	30	

198.4	197.1	197.9	200.3
-0.2	-1.2	-0.2	+1.2
11	17	25	74

196.7	195.3	195	195.9	196.3	197.4	197.5	197.5	196.3	197.1	197.7	201.2
-0.2	-2.2	-2.2	-0.2	-1.2	-0.2	5.5	0.2	-1.2	-0.2	+0.2	+3.2
100	91	65	61	34	12		24	32	35	60	85

198.9	196.4	196.3	192.8	195.6	195.6	195.9
1.2	+0.2	+0.2	-3.2	-0.2	-0.2	7.1
117	102	77	70	46	20	71

196.9	196.7	194.9	197.9	199.4
+1.2	+0.2	-1.2	+2.2	+3.2
16	37	43	60	84

195.9	192.8	192.3	195.8	193.4	193.3	194.8	194.5	194.2	195.4	196.4	195.5	195.3	197.7
+1.2	-1.2	+1.2	+1.2	-1.2	-1.2	+0.2	8.5	-0.2	+0.2	+1.2	+1.2	+0.2	+3.2
110	96	76	61	56	38	32		10	15	37	41	50	73

194.5	195.4	195.4	195.1	192.4	191.6	193.6
+0.2	+1.2	+1.2	+1.2	-1.2	-2.2	9.1
101	85	60	32	28	12	

193.7	192.9	195.8	194.2
-1.2	-0.2	+2.2	+0.2
18	43	80	90

20303

+50

193+0 P.O.C.

+90 For Profile 6.2

+75

+55 For Profile 9.9

+50

TP 887 210.34 1.06 201.97

192+0

191+50

208.03

Lt

Lt

Rt

44

207.1 206.7 203.4 204.5 205.9 206.1 205.9 207.3 208.2 206.7
 +1.2 -0.3 -2.5 -1.5 0.0 +0.2 4.4 +1.2 +1.2 +2.0
 94 69 60 52 34 20 4 33 52

205.6 204.8 205.3 203.5 201.4 202.2 206.0
 -0.4 -1.2 -0.2 -2.5 -4.6 -3.8 4.9
 111 82 48 23 17 12 20
 201.5
 201.5

215.6 221.3 229.7
 +9.5 +15.3 +23.2
 24 42 59

204.8 204.2 203.9 201.4
 +3.4 +2.6 +2.3 -0.3
 100 58 23 7

201.7 203.4 207.9 223.7 226
 8.6 +1.2 +1.6 +2.2 +2.4
 7 27 40 65

202.3 202.4 202.6 201.9 202.2 200.1 204.1
 -0.2 +0.2 -0.5 -2.2 -1.2 -4.0 6.2
 115 75 45 27 20 7 2

210.2 215.9 223.8 225.1
 +6.4 +11.2 +19.2 +21.0
 19 31 48 55

210.34

202.3 202.3 201.4 201.9 202.2 199.2 199.6 200.3 201.9 202.8 200.1 223.7
 +1.2 +0.4 -0.5 0.0 +0.3 -2.2 -2.3 -1.6 +1.0 +1.2 +2.1
 100 81 65 58 41 35 24 24 8 34 72

201 199.9 198.6 197.4 200.6 200.6 199.3
 +1.2 +0.5 -0.2 -1.2 +1.3 +1.3 3.7
 100 55 50 36 33 15 46

199.0 199.6 202.3 207.5 210.7
 -0.3 +0.5 +4.0 +8.3 +11.4
 14 23 28 60 70

208.03

+50

19510

+66 49 EC

+50

+25

TP 12.32 221.44 1.22 209.12

194+0

210.34

5+

+

PK

45

211.6 208.4 210.6 211.2 211.6
 -42 -72 -52 -42 -42
 14 22 22 45 24

215.8 220.1 227.8 237.8
 156 + 42 HR2 + 215
 20 42 60

212.2 210.4 208.1 210.2 209.7 209.1 214.1
 72 32 60 32 42 52 72
 108 88 20 70 32 25 72

217.7 225.6 237.3
 136 115 133
 14 28 55

209.5 206.0 209.0 208.2 209.4 208.0
 -42 -72 -42 45 42 52
 103 95 83 58 50 27

213.7 218.5 226 236.1
 766 + 42 + 122 + 222
 07 10 17 34 61

207.1 207.3 208.8 209.1 207.4 208.3 209.0 212.8
 52 55 42 32 52 42 22 86
 96 78 74 45 33 30 12

225.2 230.8 230.1
 +125 + 180 + 253
 22 45 63

209.4 207.0 205.4 206.1 207.6 207.5 206.8 210.5
 -14 -25 -52 -22 -22 -32 -22
 114 73 20 67 50 27 22

210.7 235.2
 109 + 92 + 242
 20 55

221.44

208.4 207.3 205.9 204.9 207.5 206.3 207.1
 73 102 18 22 70 02 32
 115 72 64 61 57 16

217.4 225.8 232.8
 +102 +102 +252
 22 41 56

210.34

B.M

264

218.80

L'ON HUBER
1984-10-31
21895
1995-37

197+0

214.4	2132	214.7	2154	2149	2170	217.2	2176	220.9	222.4
-22	-42	-25	-12	-22	-02	-13	+04	+32	+52
100	82	63	30	16	7	12	16	30	48

+50

213.3	214.3	212.5	213.9	217.1	219.0	222.2	224.8	227.1	235.3
-52	-42	-65	-54	-12	-1	+32	+52	+81	+162
97	72	58	40	3	13	33	47	70	

196+0

225	220	225	2135	2158
-32	-32	-32	-23	56
103	75	90	22	

220.5	241.4
+42	+252
27	69

221-44

221-44

Wabash Freeway Test Holes
Location + Levels

Elev.

* 191+06.92 P.O.C. 'B' +1.4 200.4

INDEXED
WK
APR 22 1949

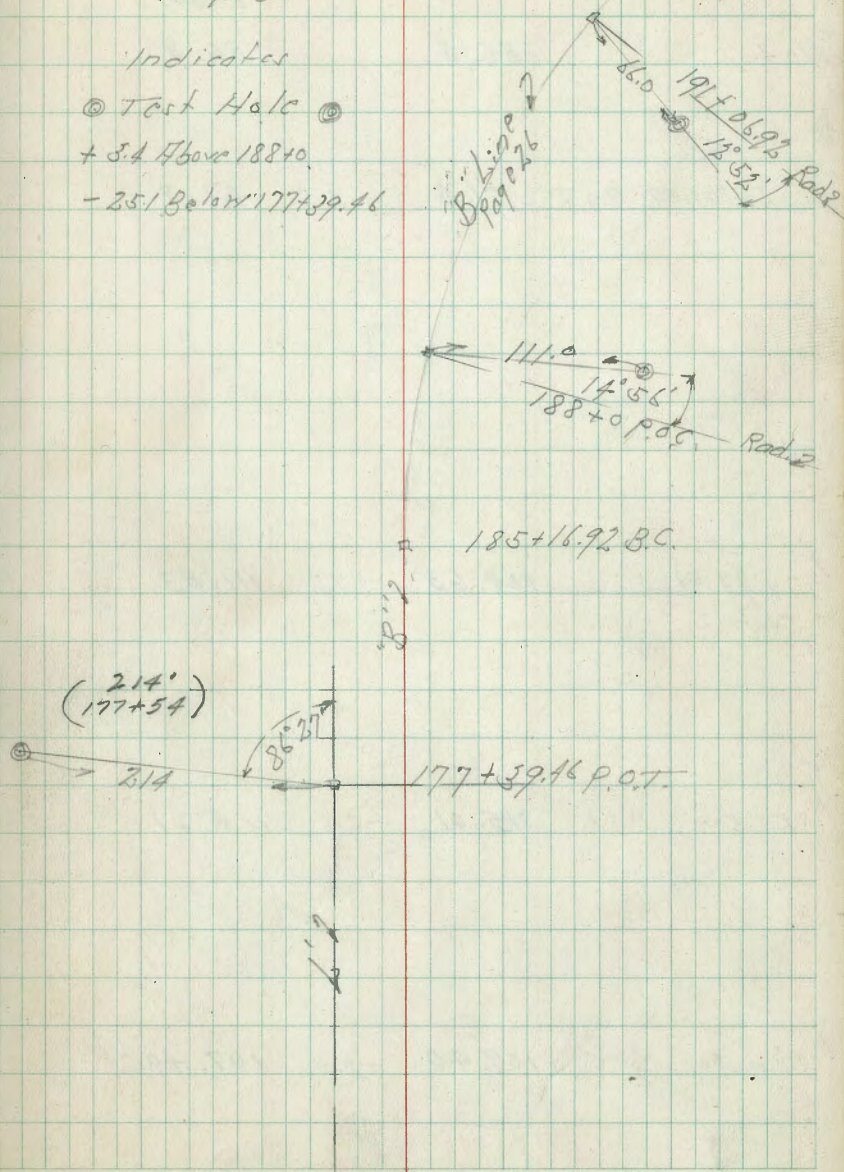
* 188+0 P.O.C. 'B' 190.72 +3.4 194.12

* 177+39.46 P.O.T. L' 197.29 - 25.1 172.19

April 6-49
H. Sisson
D. Smith
W. Garber

47

Indicates
⊙ Test Hole
+ 3.4 Above 188+0
- 25.1 Below 177+39.46



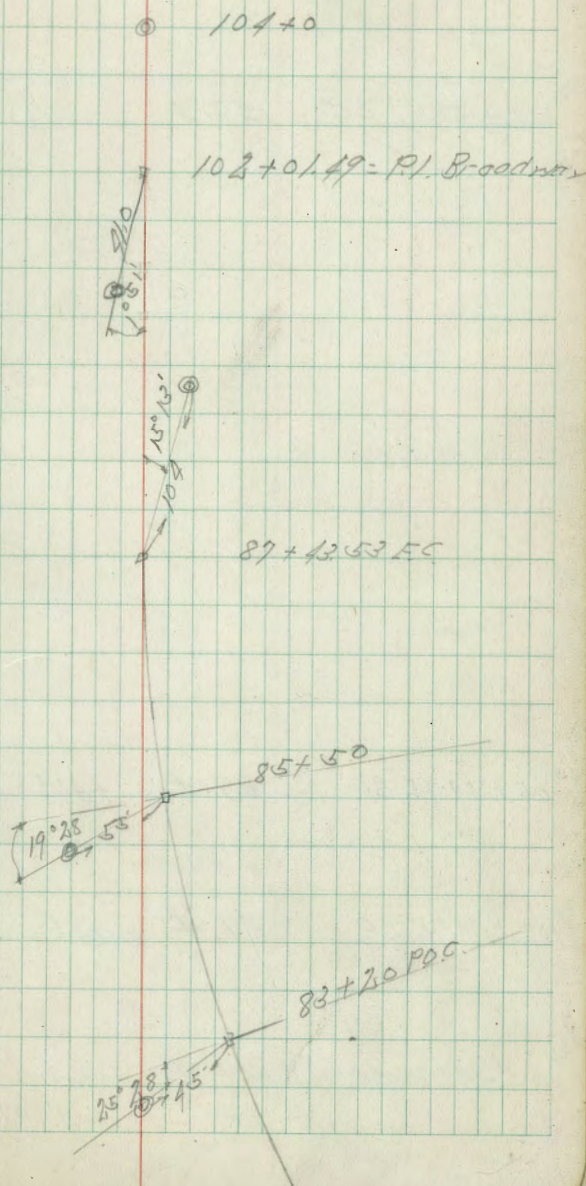
			Elev.
104+10	86.8		86.8

102+01.49 P.O.T	71.8	-4.5	67.3
-----------------	------	------	------

87+13.53 FC	104.63	+7.2	111.83
-------------	--------	------	--------

85+50 P.O.C	115.01	-0.8	114.21
-------------	--------	------	--------

83+20 P.O.C	109.40	-2.0	107.40
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Elev.

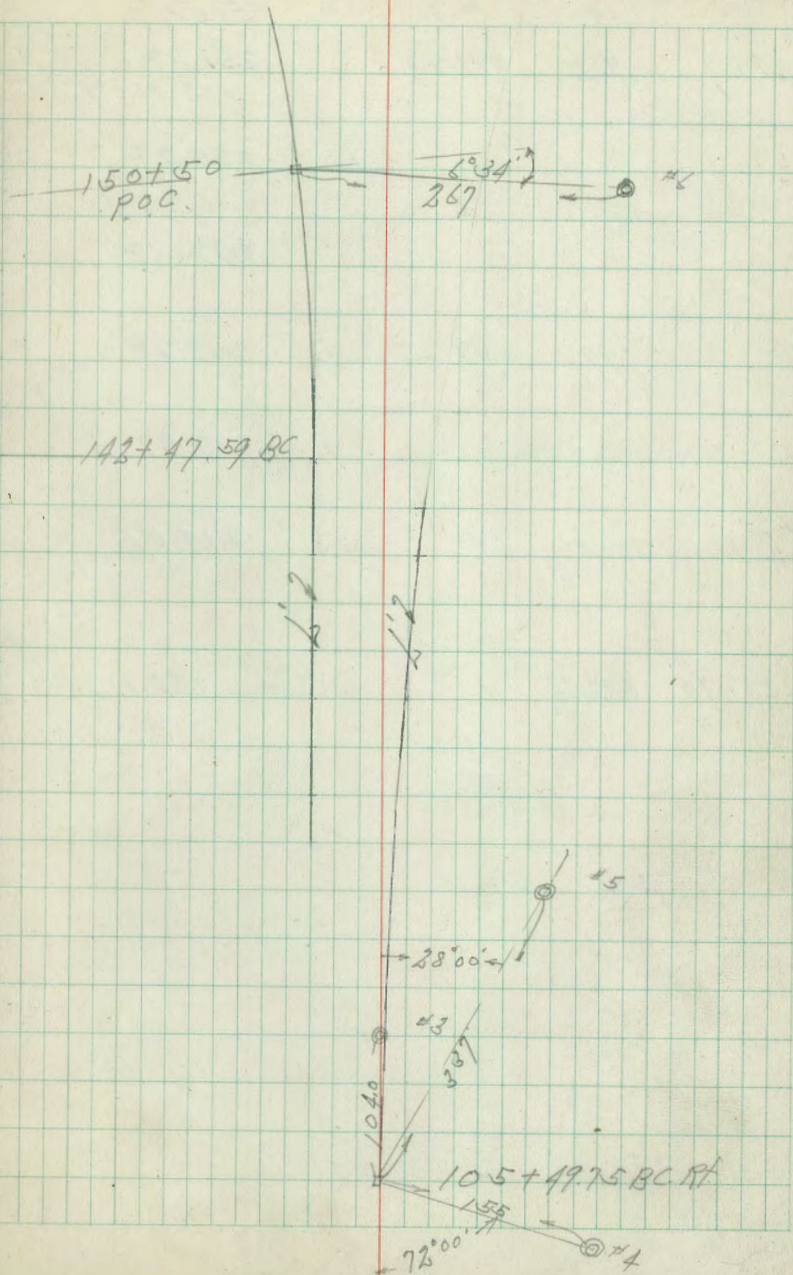
#4
150+50 POC 157.3 +57.7 215.0

#4

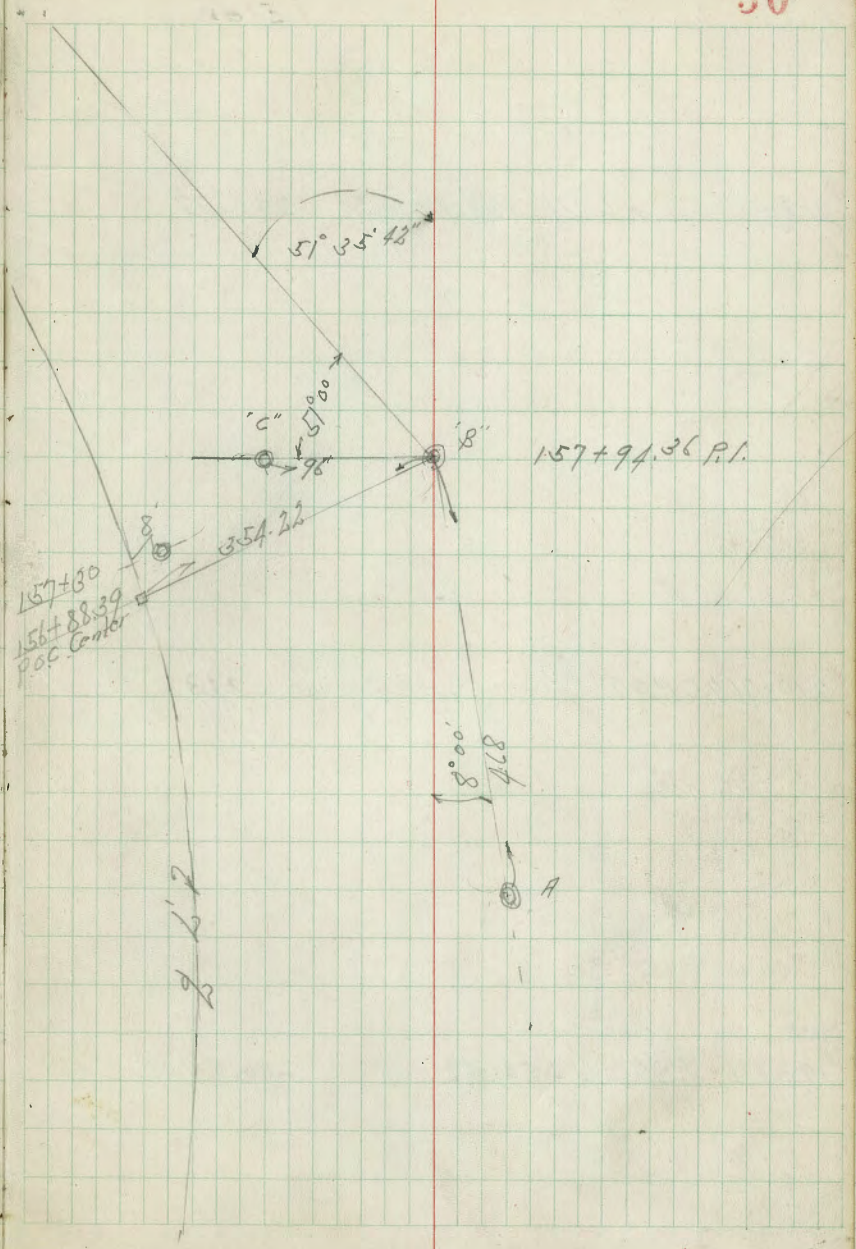
#5
#105+49.75 BC 89.4 +41.8 131.2

#2
#105+49.75 BC 89.4 +1.6 91.0

#1
#3
#105+49.75 BC 89.4 +5.0 94.4



	+	H.I.	-	Elev.	
BM	9.20	240.22		231.02	1002 "P" 1st Standard Line South 1658-41 West Topography
"B"			4.5	235.72	
"C"			8.1	232.12	
TP	0.99	229.27	11.94	228.28	
"H"			11.9	217.37	
#6 East of 150+50		215.0	14.5	214.8	
157+30 8' off			0.5	157+0	Lower
				158.7	



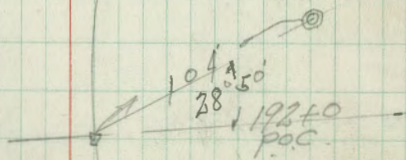
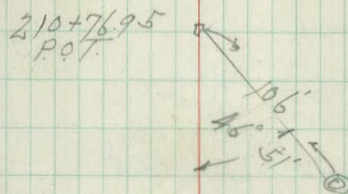
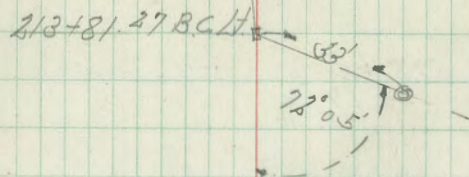
Elev.

213+81.27 B.C. Lt 320.47 +23 323.77

210+76.95 POT 1/2" +2.2 ^{76.0} 211+0 324.3

192+0 P.O.C. Lt 252.59 +28.3 280.89

51



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JUL 10 1951

190+70.94 375 ft of $\frac{1}{2}$ B 5.7 198.0

189+93 4.5 ft of $\frac{1}{2}$ B 8.0 195.7

B.M. 50 203.7 198.7 on slab
190+70.8
page 43

176+14 36.5 ft of $\frac{1}{2}$ 3.5

175+62 0.7 $\frac{1}{2}$ 4.9

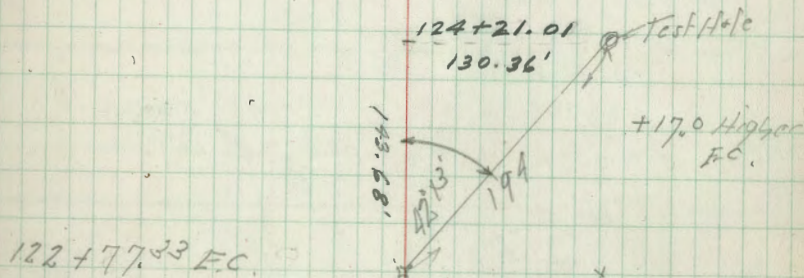
B.M. 166

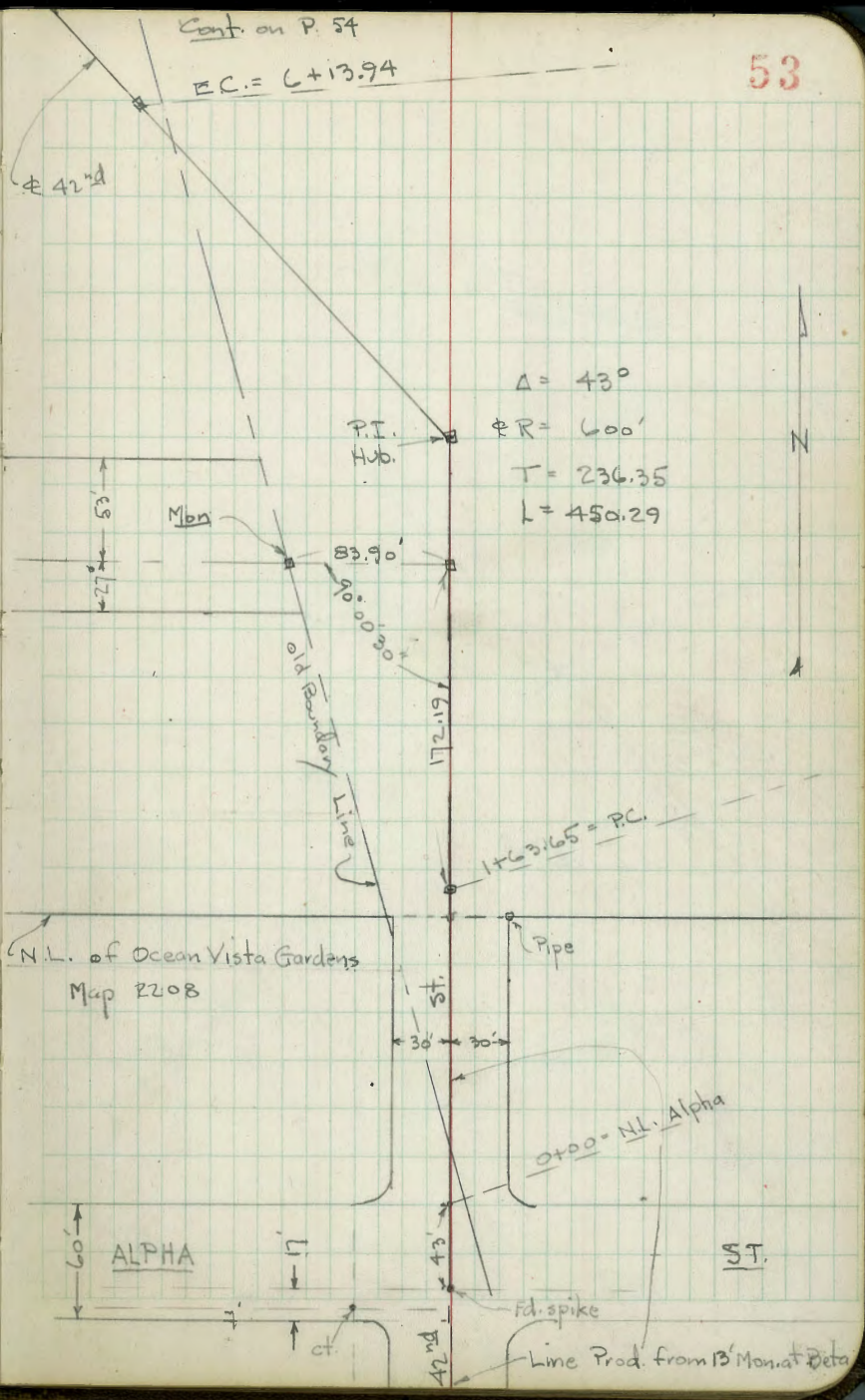
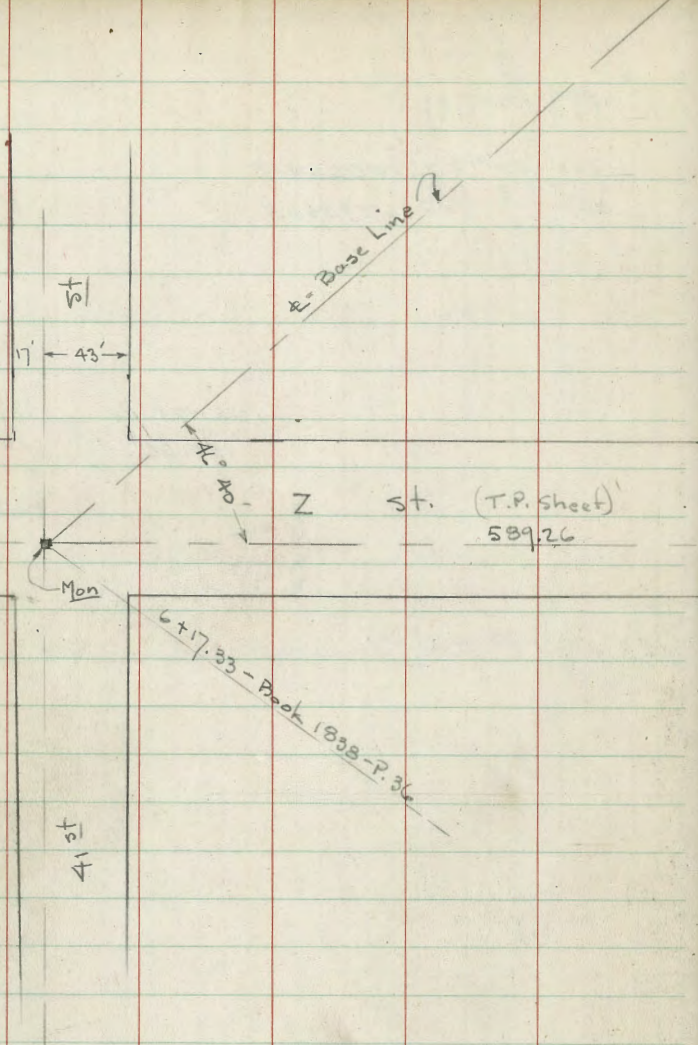
on slab
175+79.18

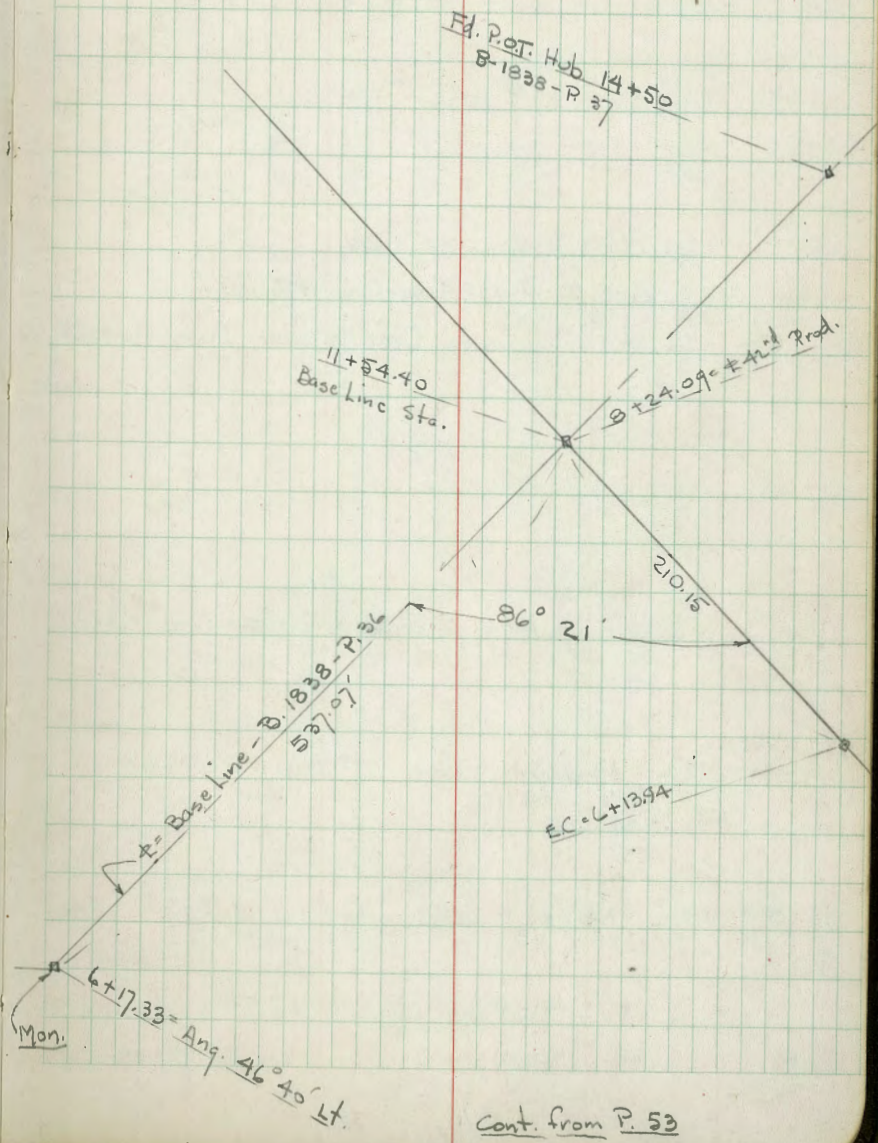
April 21-49
H. S. S. Co.
D. Smith
M. Garber

cos. $42^{\circ}13' = .74060917$

sin " " = .6793605







X-Sect. 42nd St. from Alpha - North Thru
 Play grounds. - Sketch - P. 53-54 - Prop. 60' st.
 # 5465 - See Park Drawg. E-119 + 7518-L
 W.O. 20006 4-9-51 7.0.

1+49- 26.5 Lt. = ± P. pole # P 352
 1+25

1+11- 29.1' Rt. = Beg. wire fence
 1+00 42' Rt. = ± Doub. Gar. Dirt Dr.
 0+87- 69.6 Lt. = ± Doub. Gar. - Conc. floor - Dirt Dr.

0+60

0+25 = end of Pave + cb. = E.C. Returns.

0+00 = N.L. Alpha

0-10 = N.cb. Alpha

B.M. 5.28 90.82 6.73 85.54 = Nail in Pole * -1+50 - Lt.
 5.87 92.27 86.40 = N.W.B.P. Alpha 43rd

Lt. = Rt. 55

INDETER

Apr 1

5.5	6.0	6.7	84.5	6.0	3.8	3.8	3.8
40	30	17	6.3	17	23	30	40

85.5	85.5	84.7	84.1	85.6	87.0	87.54
5.3	5.3	6.1	5.9	5.2	3.8	3.28
40	30	16		17	30	42 = floor.

5.60
 69.6
 floor

5.1	5.2	5.4	85.4	5.0	3.7	3.5
40	30	20	5.4	18	30	40

4.25	4.37	4.43	85.78	86.11	86.17	86.17
2.77	2.27	Top	5.04	4.88	4.70	4.68
end walk		Top	20	10	10	20
		got				got
						end
						(walk out)

4.48	85.71	5.11	4.89	86.23	4.55	86.22	86.94
Top	30.5	20		4.59	20	30.5	3.88
cb.	got				got	got	Top

4.88	5.58	5.19	4.96	86.10	4.72	4.58	4.50	86.37	4.45	3.81
Top	55	35	20			20	35	55	Top = P.C.	Ret.
got	got						got	got		

90.82

3+50

T.P. 6.43 71.89 13.07 65.46

3+25

3+00

2+75

T.P. 0.68 78.53 12.97 77.85

2+50

2+00

1+63.65 = P.C. - Sect. Taken Radial

1+50 = End of Sub. + grading
30.2 Rt. end fence

Lt.

±

Rt.

36

70.1	69.2	68.1	64.8	60.8	57.4	54.8
1.8	2.7	3.8	7.1	11.1	12.5	17.1
50	30	20		20	30	50

71.89

70.3	69.9	69.1	66.2	63.1	62.3	59.1
8.2	8.6	9.4	12.3	15.4	16.2	19.4
50	30	20		20	30	50

71.8	71.2	70.9	70.5	69.2	67.8	
6.7	7.3	7.6	8.0	9.3	10.7	12.6
40	30	20		20	30	50

			74.8			
4.4	4.7	4.3	3.7	3.8	7.3	8.6
40	30	20		20	30	40

70.53

	70.1	76.4	76.9	76.1	76.0	
14.7	14.7	14.4	13.7	14.6	14.8	15.7
40	30	20		20	30	40

			81.1			
10.4	10.7	10.5	9.7	9.0	8.8	8.7
40	30	20		20	30	40

83.0

7.5	7.4	7.0	8.1	7.8	7.8	7.0	6.8
40	30	23	18	7.8	7.7	30	40

	81.9	81.6	83.3	83.6	83.7	85.7	86.1	
5.8	5.9	6.2	7.5	7.2	7.1	5.1	4.7	
40	30	23	18	7.2	17	24	30	40

90.82

T.P. 029 46.60 13.28 46.31

5+50

5+25

T.P. 0.52 59.59 12.82 59.07

5+00

4+75

4+50

4+25

4+00

3+75

Lt.

±

Rt.

57

11.4	49.2	48.4	45.3	41.7	40.0	39.3	
50	10.4	11.2	14.3	17.9	19.6	20.3	18.3
	30	20		20	30	30	50
						±Creek	

0.0	0.8	2.9	50.9				
50	30	20	8.7	13.7	16.2	19.1	
				20	30	50	
						±Creek	

59.59

68.2	64.3	62.0	55.6	49.7	47.8	43.9	
3.7	7.6	9.9	16.3	22.2	24.1	28.0	29.4
50	30	20		20	30	50	60
							±Creek

0.5	3.6	6.3	60.2				
50	30	20	11.7	17.4	20.8	25.1	
				20	30	50	

1.0	2.9	5.1	62.1				
50	30	20	9.8	12.4	17.5	21.2	27.1
				11	20	30	50
							65
							±Creek

1.5	2.6	3.8	65.3				
50	30	20	6.6	7.5	12.2	18.7	25.8
				7	20	30	50

70.5	70.0	69.2	65.1	63.3	60.0	55.9	50.3	46.3
1.4	1.9	2.7	6.8	8.6	11.9	16.0	21.6	25.6
50	30	20		10	20	30	50	65
								±Creek

70.3	69.5	65.0	64.7					
1.6	2.4	3.9	7.2	60.7	59.1		53.3	
50	30	20		11.7	12.8		19.6	
				20	30		50	

71.89

check B.M. - 13' Mon. 2+41st 9.51 24.75 24.80 =

B. 1838 - P. 38

6+55 = edge of level ball field = end.

31.7
3.2 2.9 2.7 2.6 2.4 2.2 2.1
40 30 20 20 30 40

T.P. 0.23 34.26 12.57 34.03

34.26

6+45 = edge Rd.

14.3 12.7 12.5 34.6
80 Rd. 30 20 11.9 11.3 11.3 11.5
20 30 80
Rd.

6+25 = edge of Exist. Graded Road.

13.9 12.2 11.9 35.2
80 Rd. 30 20 11.4 10.9 10.7 11.3
20 Rd. 30 80
around curve

6+13.94 = E.C.

37.9 37.9 37.9 38.2 38.3
9.1 8.7 8.7 8.7 8.4 8.3 7.9
50 30 20 20 30 50

6+00

39.2 39.4 39.0 39.0 39.4
7.5 7.4 7.2 7.6 7.6 7.2 8.5
50 30 20 20 30 50 = end
Creek

5+75

41.2
3.4 4.1 4.3 5.4 7.4 8.0 8.6
50 30 20 20 20 30 50
= Creek

46.60

L

E

Rt.

58

X-Sect. Broadway - Evelyn + 69th

4285

W.O. 31187

7-9-51

7.0.

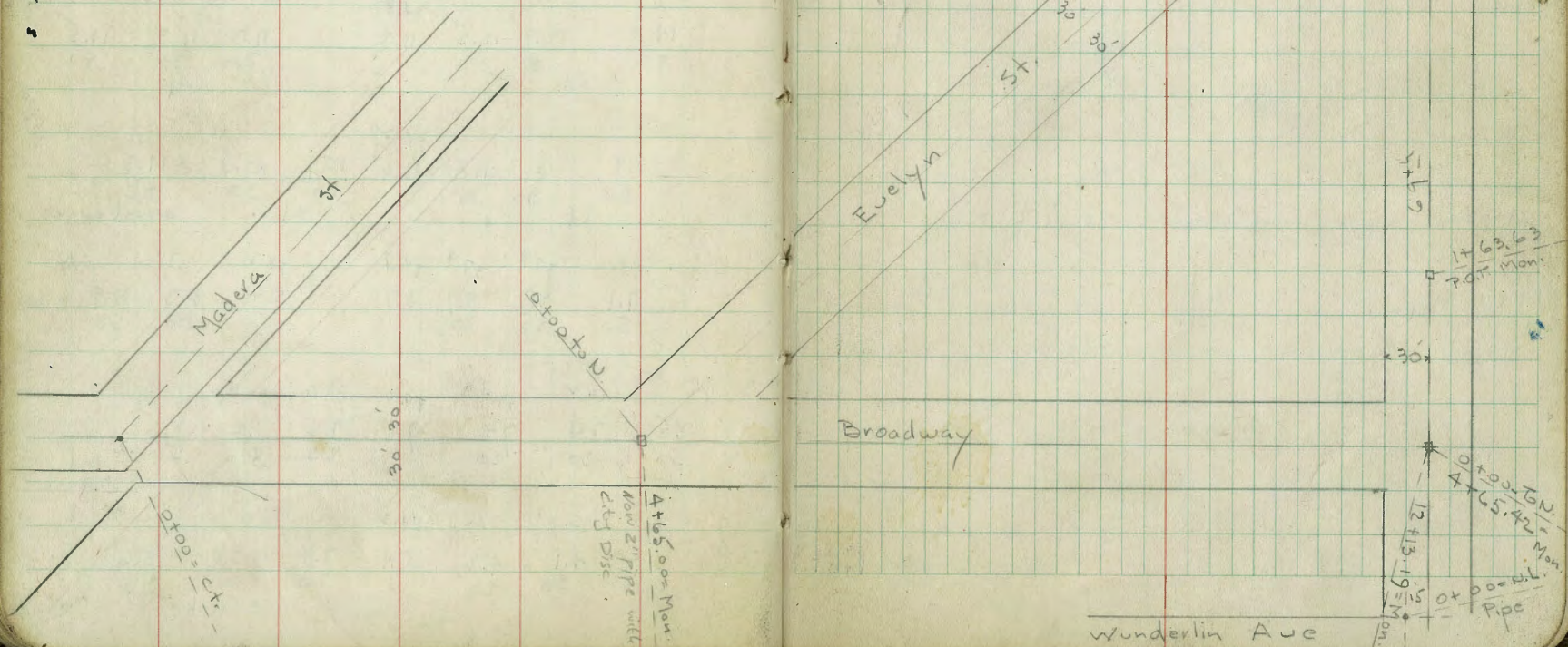
INDEXED

JUL 30 1951

59

Notes rechecked
by Cota 5/27/55
Request No. 9266.

see FB 2291 pg. 59 for
additional notes.



X-Sect. Broadway - from Madera to
 69+5 60' St. Not Graded - Small graded
 Roadway - for Grade Est. only

7-5-51 - 7.0.

w.o.

T.P. 12.72 292.58 2.40 269.86

2+00 - - Dirt Dr. on Lt.

1+50

1+00

0+64 - Sect. 90° to E

0+38.6 = approx - E.L. Madera - Sect. along E.L.

to Madera

0+25.7 = E. edge of Conc - Sect. along edge - Normal

Strip pave - Sect. Along E of Madera - See 2034-P.17

0+00 = E Madera + Broadway - on E of 40' Conc.

B.M. 2+0 272.26 269.86 = E Hd + ct.

Lt

±

Rt

60

INDEXED

JUL 10 1951

Reduced

7-11-51

G. B. Rainey

266.7	266.6	268.9	268.8	269.0	272.1	274.4	274.9
5.4	5.7	3.4	3.5	3.3	0.2	+2.1	+2.6
40	30	9	Rd1	9	14	30	40
265.4	265.7	266.0	265.8	266.2	264.6		264.4
6.9	6.6	6.3	6.5	6.1	7.7		7.9
40	30	15		12	30		40
	264.7	265.6	265.2		263.7		264.0
	7.6	6.7	7.1		8.6		8.3
	30	20			13		30
	271.2	268.4	266.4		264.7		263.8
	1.1	3.9	5.9		7.6		8.5
	30	6			15		40

270.7	271.2	270.4	270.3	270.7	270.5	262.2
1.6	1.1	1.9	2.0	1.6	1.8	10.1
50	38.6	20		20	38.6	60

270.39	270.04	270.01	269.9	269.56
1.87	2.22	2.25	2.40	2.70
100	63	38.6	19.3	25.7 = Cov. Conc.

270.98	270.20	269.9	269.85	270.5
1.30	2.06	2.40	2.41	1.8
100	38.6 = N.L.		15.3 = edge Conc.	38.6

Madera + Broadway 272.26
 Book 2034-P. 32

Bday

6+00

5+50

T.P. 13.05 321.34 0.20 308.29

5+00

4+65 = E Evelyn To N.E.

check E Mon Evelyn 8.10 300.39 300.35

Set B.M. = spike in S.E. Pole 2.13 305.36 # P. 76603

4+30

4+00

T.P. 13.29 308.49 0.25 295.21

3+50

3+00

T.P. 13.04 295.46 0.16 282.42

2+50

Lt.

=

Rt.

300.35

61

309.1 12.2 30 along shed	310.5 10.8 15	312.5 8.8	314.6 6.7 10	314.7 6.6 24	318.0 3.3 30	320.4 0.9 40
305.6 15.7 30	308.9 14.9 15	308.7 12.6	309.6 11.7 6	309.1 12.2 22	313.4 7.9 30	314.9 6.4 40
321.34						

301.5 7.0 30	303.8 4.7 15	304.2 4.3	304.0 4.5 2 Rd	303.7 4.8 16	305.8 2.7 14	307.9 0.6 30	308.8 10.3 40
--------------------	--------------------	--------------	----------------------	--------------------	--------------------	--------------------	---------------------

299.2 9.3 30	300.9 7.6 Rd	301.2 7.3 12	302.9 5.6 15	305.0 3.5 30
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B 2034

297.3 11.2 30	297.7 10.8 9	298.2 10.3 Rd	298.5 10.0 12	301.0 7.5 30
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293.9 14.6 40	294.5 14.0 30	295.7 12.8 4	295.8 12.7 Rd	296.0 12.5 12	297.7 10.8 18	298.1 10.1 30	301.2 7.3 40
---------------------	---------------------	--------------------	---------------------	---------------------	---------------------	---------------------	--------------------

308.49

290.9 4.6 40	291.5 4.0 30	291.7 3.8 20	290.5 5.0 7	290.7 4.8 Rd	290.7 4.8 11	293.9 1.6 15	295.5 0.0 30
--------------------	--------------------	--------------------	-------------------	--------------------	--------------------	--------------------	--------------------

281.3 14.2 40	283.0 12.5 30	285.8 9.7 15	283.7 11.8 8	283.4 12.1 Rd	283.4 12.1 10	288.1 7.4 13	290.2 5.3 30	290.7 4.8 40
---------------------	---------------------	--------------------	--------------------	---------------------	---------------------	--------------------	--------------------	--------------------

295.46

268.8 13.8 40	269.2 13.4 30	275.4 7.2 7	275.5 7.1 Rd	275.6 7.0 10	279.3 3.3 12	281.9 0.7 30
282.58						

Bdwy

9+75 - 25.8 Lt. - Reg. Conc. Wall
 set B.M. - spike in Pole - 9+84 - Rt. 5.77 373.14 # 373.26
 T.P. 2.17 378.91 0.53 371.74

9+50

9+00

T.P. 12.93 372.27 0.09 359.34

8+50

T.P. 13.37 359.43 0.20 346.06

8+00

T.P. 12.77 346.26 0.24 333.49

7+50

7+00

T.P. 13.03 333.73 0.64 320.70

6+50

376.1 376.02 Lt. 374.9
 2.8 2.89 4.0
 30 Top wall 25.8 Ground
 374.0 373.4 Rt. 372.3 373.62
 4.9 5.5 6.6 6.6
 8 - Rd 30 40

378.91

369.5 370.2
 2.8 2.1
 30 15
 371.4 370.6 370.3 371.0
 0.9 1.7 2.0 1.3
 13 - Rd 30 40

359.6 359.4 359.8 361.8 362.8 361.8 366.2
 12.7 12.9 12.5 10.5 9.5 10.5 6.1
 40 30 15 15 - Rd 30 40
 372.27

344.9 346.8 350.6 352.2 351.8 357.0
 14.5 12.6 8.8 7.2 7.6 2.4
 30 15 15 - Rd 39 40
 359.43

333.3 334.8 337.2 340.7 340.3 342.7 346.3
 13.0 11.5 9.1 5.6 6.0 3.6 0.0
 30 15 13 - Rd 28 30 40
 346.26

323.3 323.8 326.0 328.1 331.4 331.3 333.7
 10.4 9.9 7.7 5.6 2.3 2.4 0.0
 40 30 15 12 - Rd 27 30 40

317.2 319.4 321.8 324.8 324.9 326.3 330.3
 16.5 14.3 11.9 8.9 8.8 7.4 3.4
 30 15 13 - Rd 27 30 40
 333.73

311.3 312.4 314.2 316.6 319.1 319.5 322.3
 10.0 8.9 7.1 4.7 2.2 1.8 1.0
 40 30 15 12 - Rd 26 30
 321.34

Bdwy

B.M. = spike in SW. Pole 12 12 343.75 # 270+86
 11+83.19 = w.l. 69^{ft} - See 69^{ft} sections for Int.

T.P. 0.33 355.87 13.14 355.54

11+40

11+00

T.P. 2.88 368.68 13.11 365.80

10+62 - 41.4 Lt. = \pm Sing. Gr. - Conc. floor

10+50

10+40 - 24.4 Lt. = end wall ✓

10+34 - 23.7 Lt. = \pm 3.5' Conc. Steps + walk Thru wall ✓

10+00

Lt.

±

Rt.

63

353.2	350.7	348.5	345.6	343.5	341.9
2.7	5.2	7.4	10.3	12.4	14.0
30	15		15	30	40

355.87

362.6	360.6	357.4	354.3	351.7
6.1	8.1	11.3	14.4	17.0
30	15		15	30

370.0	369.2	366.2	364.5	361.6	359.6	357.9
+ 1.3	+ 0.5	2.5	4.2	7.1	9.1	10.8
40	30	15		15	30	40

368.68

375.84

3.07

41^{ft} floor

375.6	374.8	373.4	371.5	367.4	365.7
3.3	4.1	5.5	7.4	11.5	13.2
40	30	15		15	30

376.93	374.5
1.98	4.4
Top wall	24.4 = ground

378.04	377.00	376.96	374.57
0.87	1.91	1.5	4.34
45	30	28.5	23.7 = Bot step
Walk	Top step + walk		step

377.5	377.5	376.97	376.2	374.1	373.0	371.8	369.3
1.4	1.4	1.94	2.7	4.8	5.9	7.1	9.6
40	30	25			20	30	40
Lawn	Top wall	ground		378.91			

Evelyn

2-Sect. Evelyn St. from Broadway to 69th
60' St. - Not Graded - Graded Roadway.

T.P. 13.00 323.59 0.30 310.59

3+00

2+90 - 83 Lt. = ± Sing. Gar. Dirt floor + Dr. ✓

2+50

2+00 - 43' Lt. = ± Conc. Porch to Small Stucco House ✓

1+50

1+00

0+64 - Sect. 90° to ±

0+38.6 = approx. N.L. Broadway - Sect along N.L.

0+00 = ± Mon. Broadway + Evelyn

B.M. 5.53 310.89

305.36 = B.M. in Pole

P. 61

Lt.

±

Rt.

64

INDEXED

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	306.9	307.7	308.4	308.5	309.1	310.9	312.7	312.8
	4.0	3.2	2.5	2.4	1.8	0.0	+1.8	+2.9
304.3	6.6	3.5	4.0	3.0	1.7	1.5	3.0	4.0
83	3.0							
floor	Dr.							
	304.5	305.2	305.1	306.9	308.4	309.3		
	6.4	5.7	5.8	4.9	2.5	1.6		
	3.0	1.6	Ed. 1'		1.5	3.0		
	301.53	301.8	302.8	303.0	305.1	306.3	306.7	
	9.3	9.1	8.1	7.9	5.8	4.6	4.2	
	4.3	3.0	1.5	Rd -	1.5	3.0	4.0	
	Conc. + ground							
	300.0	300.7	301.3	301.3	303.0	304.5		
	10.9	10.2	9.6	9.6	7.9	6.4		
	4.0	3.0	1.5	Rd -	1.5	3.0		
	Dirt Dr.							
	No Grd.							
	297.5	298.5	300.1	300.2	300.6	301.7	303.9	304.1
	13.4	12.4	10.8	10.7	10.3	9.7	7.0	6.8
	4.0	3.0	1.7	2	1.5	3.0	4.0	
				Rd -				
	297.2	299.1	299.5	299.7	301.1	302.1	303.8	
	13.7	11.8	11.4	11.2	9.8	8.8	7.1	
	4.0	3.0	1.8	5	1.5	3.0		
				Rd -				
	298.9	299.0	299.6	300.5	302.2	303.8		
	12.0	11.9	11.3	10.4	8.7	7.1		
	38.6	2.6	7	19		38.6 = E.L.		
	W.L.							

310.89

T.P. 1.38 370.33 0.36 360.95 7+81.5 = splinter

7+50

7+00

6+50

Set. B.M. - Spike in Pole - Rt. 5+75 1078 350.53 # 76606

T.P. 12.83 361.31 0.49 348.48

6+00

5+50

T.P. 13.15 348.97 0.28 335.82

5+00

4+50

T.P. 12.94 336.10 0.43 323.16

4+00

3+50

65

349.8 11.5 30	353.9 7.4 20	354.4 6.9 21	359.9 1.5 7	367.5 +2.2 15	Rt. 368.3 +7.0 30		
342.8 18.5 40	347.5 13.8 30	350.9 10.4 21	351.3 10.0 9	357.3 4.0 15	361.3 0.0 30	365.5 +4.2 40	367.6 +6.3 40
343.1 18.2 30	347.3 14.0 20	347.3 14.0 8	353.3 8.0 15	357.9 3.4 15	361.3 0.0 30		
335.7 13.3 40	339.0 10.0 30	341.9 7.1 21	342.4 6.6 7	346.7 2.3 15	351.1 +2.1 30	354.7 +5.7 40	356.7 +7.7 40
330.6 18.4 40	333.9 15.1 30	336.0 13.0 21	336.0 13.0 7	340.0 9.0 15	343.9 5.1 15	346.7 2.3 30	
324.7 11.4 40	327.7 8.7 30	329.0 7.1 20	328.8 7.3 5	331.6 4.5 15	333.4 2.7 15	335.6 0.5 30	336.6 +0.5 40
319.3 16.8 40	320.8 15.3 30	322.6 13.5 19	322.1 14.0 6	325.2 10.9 15	327.6 8.5 15	329.7 6.4 30	
314.5 9.1 40	316.2 7.4 30	316.9 6.7 17	316.1 7.5 4	319.1 4.5 15	321.7 1.9 15	323.0 0.6 30	324.1 +0.5 40
311.2 12.4 30	312.3 11.3 17	312.0 11.6 3	313.3 10.3 15	315.5 8.1 15	318.0 5.6 30		

361.31

348.97

336.10

323.59

Evelyn

11+82.16 = ± 69th -

B.M. on ± Mon-69th + Evelyn 7.87 327.92

T.P. 3.74 335.79 13.23 332.05

11+40

T.P. 0.25 345.28 13.00 345.03

11+00

10+50

T.P. F.H. 0.71 358.03 13.01 357.32

Set B.M. - Top of L on Riser (2nd) 0.84

10+00

9+50 - Thru approx. Dirt Dr. on Rt. To Gar. on 69th.
Graded Rd ends in Dr.

9+00 - 85.3' Rt - House

8+50

8+00

66

LT
322.8 323.9 326.2
13.0 11.9 9.6
40 30 15

RT
327.9 330.7 332.7
7.9 5.1 3.1
15 15 30

331.8 333.9 335.79
13.5 11.4 9.0
30 15 15

349.2 349.9 342.2 345.4 348.9 351.7 353.3
8.8 8.1 15.8 12.6 9.1 6.3 4.7
40 30 15 15 30 40

347.3 349.8 354.9 358.3 362.1
10.7 8.2 3.1 10.3 14.1
30 15 15 30

350.6 353.0 356.2 358.03 363.8 367.5 369.3
19.7 17.3 14.1 9.5 6.5 2.8 1.0
40 30 15 15 30 40

356.8 360.2 365.5 369.0 370.2 374.1
13.5 10.1 4.9 1.3 0.1 13.8
30 15 15 30 60

353.2 357.9 362.7 368.9 369.7 373.9 375.3 381.4
17.1 12.4 7.6 7.4 0.6 13.6 15.0 11.1
40 30 14 Rd 15 30 40 85.3'
Ground at House

354.3 359.7 360.0 364.5 368.5 373.5
16.0 10.6 10.3 5.8 1.8 13.2
30 15 Rd 15 30

348.4 353.3 357.1 357.1 363.7 367.8 370.9 373.1
21.9 16.8 13.2 13.2 6.6 2.5 10.6 12.8
40 30 22 Rd 15 30 40

7- Sect. 69th from N.L. of Wunderlin
 To Evelyn - for Grader est. only
 ‡ = Section Line - 30' open on West. will take
 Sections for 60' st. - Graded Roadway.

T.P. 13.25 327.06 0.48 313.81

2+00

1+50

T.P. 13.31 314.29 0.42 300.98

1+00

0+50

0+00 = N.L. Wunderlin

69th Wunderlin
 Set B.M. spike in S.W. Pole 12.72 288.68 # 370484

8.84 301.40 13.01 292.56

0.55 305.57 13.17 305.02

0.28 318.19 13.15 317.91

0.51 331.06 13.33 330.55

B.M. 0.13 343.88 343.75 spike in Pole - P.63

Ltr

‡

Rt 67

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JUL 10 1951

315.3 314.3 310.2 309.5 310.2 307.4

+1.0 0.0 4.1 4.8 4.1 6.9
 40 30 18 Rd 4 30

309.5 306.7 305.2 304.6 305.0 302.7

4.8 5.6 9.1 9.7 9.3 11.6
 40 30 19 Rd 7 30 314.29

303.5 303.0 300. 299.6 300.2 298.0

+2.1 +1.6 1.2 1.8 1.2 3.4
 40 30 19 Rd 6 30

299.3 298.9 295.9 295.0 296.2 293.7

2.1 2.5 5.5 6.4 5.2 7.7
 40 30 22 Rd 5 30

293.5 292.0 291.4 291.5 289.7

7.9 9.4 10.0 9.9 11.7
 30 20 Rd 5 30

301.40

reduced
 7-16-51
 P.O. Kinney

69+5

1+00
T.P. 13.11 366.01 0.07 352.90

0+65

0+30 = N.L.

check B.M. = Nail in Pole 9.22 343.75 343.75
4+65.42 = ± = 0+00 ahead
T.P. 13.28 352.97 0.34 339.69

4+35.42 = S.L. Broadway Prod.

4+00
T.P. 13.11 340.03 0.14 326.92

3+50

3+00

2+50

Lt.

±

Rt.

68

363.8 360.8 354.8 354.3 354.5 344.5
2.2 5.2 11.2 11.7 11.5 21.5
40 30 16 3
Rd. 366.01 30

359.8 352.5 351.2 350.3 350.3 340.8
+6.8 +4.5 1.8 2.7 2.7 12.2
40 30 16 3 30

353.5 346.3 345.0 345.1 337.8
+0.5 6.7 8.0 7.9 15.2
30 16 3 30

348.5 342.0 341.1 341.1 334.2
4.5 11.0 11.9 11.9 18.8
30 16 2 30

343.5 337.6 337.1 337.1 330.6
+3.5 2.4 2.9 2.6 9.4
30 15 2 30

339.1 337.7 332.6 332.7 332.8 326.7
0.9 2.3 7.4 7.3 7.2 13.3
40 30 15 2 30
Rd. 340.03 30

333.1 331.5 326.5 326.7 321.8
+6.0 +4.4 0.8 0.4 5.3
40 30 15 30

325.9 325.0 320.7 320.3 320.7 316.3
1.2 2.1 6.9 6.8 6.4 10.8
40 30 16 2 30

320.4 319.9 315.1 314.9 315.4 311.6
6.7 7.2 12.0 12.2 11.7 15.5
40 30 19 4 30
Rd. 327.06

5+50

5+00

4+50

4+00

3+50

3+00

2+50

2+00

1+50

Lt.

E

Rt.

89

364.7	368.8	364.2	363.6	361.5	352.0
+3.7	+2.8	1.8	2.4	4.5	14.0
40	30	20	6		30

- Rd

369.9	367.7	362.4	361.7	359.1	350.9
+3.9	+1.7	3.6	4.3	6.9	15.1
40	30	20	6		30

- Rd

367.9	366.0	360.6	359.5	358.7	349.0
+1.9	0.8	5.4	6.5	7.6	17.0
40	30	20	6		30

- Rd

361.4	362.7	357.5	356.5	354.0	344.8
1.6	3.6	8.5	9.5	12.0	21.2
40	30	19	5		30

- Rd

365.5	363.7	357.6	356.9	356.5	347.1
0.5	2.6	8.4	9.1	9.5	18.9
40	30	18	4		30

- Rd

367.8	365.3	359.5	359.0	359.2	351.1
+1.8	0.7	6.5	7.0	6.8	14.9
40	30	16	2		30

- Rd

369.2	366.5	361.1	360.8	361.0	352.5
+3.2	+0.5	4.9	5.2	5.0	13.5
40	30	16	2		30

- Rd

367.3	361.7	361.2	361.5	352.8
+3.3	+1.3	4.3	4.8	4.5
40	30	17	2	

- Rd

368	365.8	359.4	359.1	359.2	350.5
+2.0	0.2	6.6	6.9	6.9	15.5
40	30	16	2		30

- Rd

366.01

T.P. 0.46 336.17 12.15 335.71

8+80

T.P. 0.50 348.86 13.12 348.36

8+40

T.P. 0.23 361.48 13.20 361.25

Set B.M. 7+35 - Lt. spike in pole 1.90 372.55 # 370489

8+00

7+50

7+12 - 31.1 Lt. = # old shed
Road ends

7+00

6+89 - 31' Lt. = # Sing. Grav. Dirt floor

6+50

T.P. 8.70 374.45 0.26 365.75

6+00

336.5 337.0 337.1
12.4 11.9 11.8
30 30

348.86

350.4

349.1

348.7

11.1

12.4

12.8

30

30

361.48

362.0 362.3 361.9 359.3
12.5 12.2 12.6 15.2
40 30 30

370.8 370.6 369.1 366.8
3.7 3.9 5.1 7.7
40 30 30

373.0

1.5

31.1

ground 373.3 372.7 371.4 370.3 369.4
1.2 1.8 2.1 4.2 10.1
40 30 20 - Rd 30

372.9

1.6

31

floor.

373.9 372.3 368.9 368.6 367.3 361.0
0.6 2.2 2.6 5.9 7.2 13.5
40 30 21 - Rd 5 30

374.45

372.0 370.7 366.3 365.6 363.5 355.0
+6.0 +4.7 +0.3 0.4 2.5 11.0
40 30 20 - Rd 5 30

366.01

Lt.

£

Rt.

71

10 + 50 = end.

9 + 50

check B.M. on Mon.

9 + 14.48 = £ Evelyn

8.25

327.92

327.92 = 8.66

316.2

20.0

30

319.0

17.2

322.1

14.1

30

320.0

16.2

40

320.4

15.8

30

322.2

14.0

15

323.1

13.1

324.9

11.3

30

328.5

7.7

30

327.9

8.3

329.2

7.0

30

336.17

Re-cross section Dawes
opal to Tourmaline

3-18-53

Sketch - Page 7.

w.o. 32042
C.H.S.
Boyer
Altman
Sketch

0+00 - Nly. line Opal.

1+50

T.P. 706 12A.01 3.98 116.95

1+00

0+50

0+00 = Nly. Opal.

T.B.M.#1 8.42 120.93 3.08 112.51

11.89 115.59 — 103.70

±

15

INDEXED

MAR 19 1953

117.1	117.3	116.7	116.8	117.3	117.9	118.4
5.9	6.7	7.3	7.2	5.7	6.1	5.6
40	20	15		15	18	40

12A.01
6.9
171

115.9	116.1	115.6	116.3	116.3	116.9	118.3
5.0	4.8	5.3	4.6	4.6	4.0	2.6
40	18	15		17	20	40

115.3	115.3	114.7	114.6	115.3	115.5	116.2	117.2	117.6
5.6	5.6	6.2	6.3	5.6	5.4	4.7	3.7	3.3
40	17	16	6		17	19	30	40

114.6	114.6	113.5	114.5	114.6	116.0	117.0
6.3	6.3	7.4	6.4	6.3	7.9	3.9
40	20	18		17	22	40

120.93

120.9
120.3
120.6

Chisel cross - 43' Lt of Sta. 0 - 63'

Chiseled Ctr. s.w. of Ret. Dawes
+ Loring - Page 8 - this book

opal st.

⊕

76

			11.914	103.70	(103.70)
T.B.M.#1	3.12	115.64	7.22	112.52	(112.51)
T.P.	4.27	119.74	8.54	115.47	

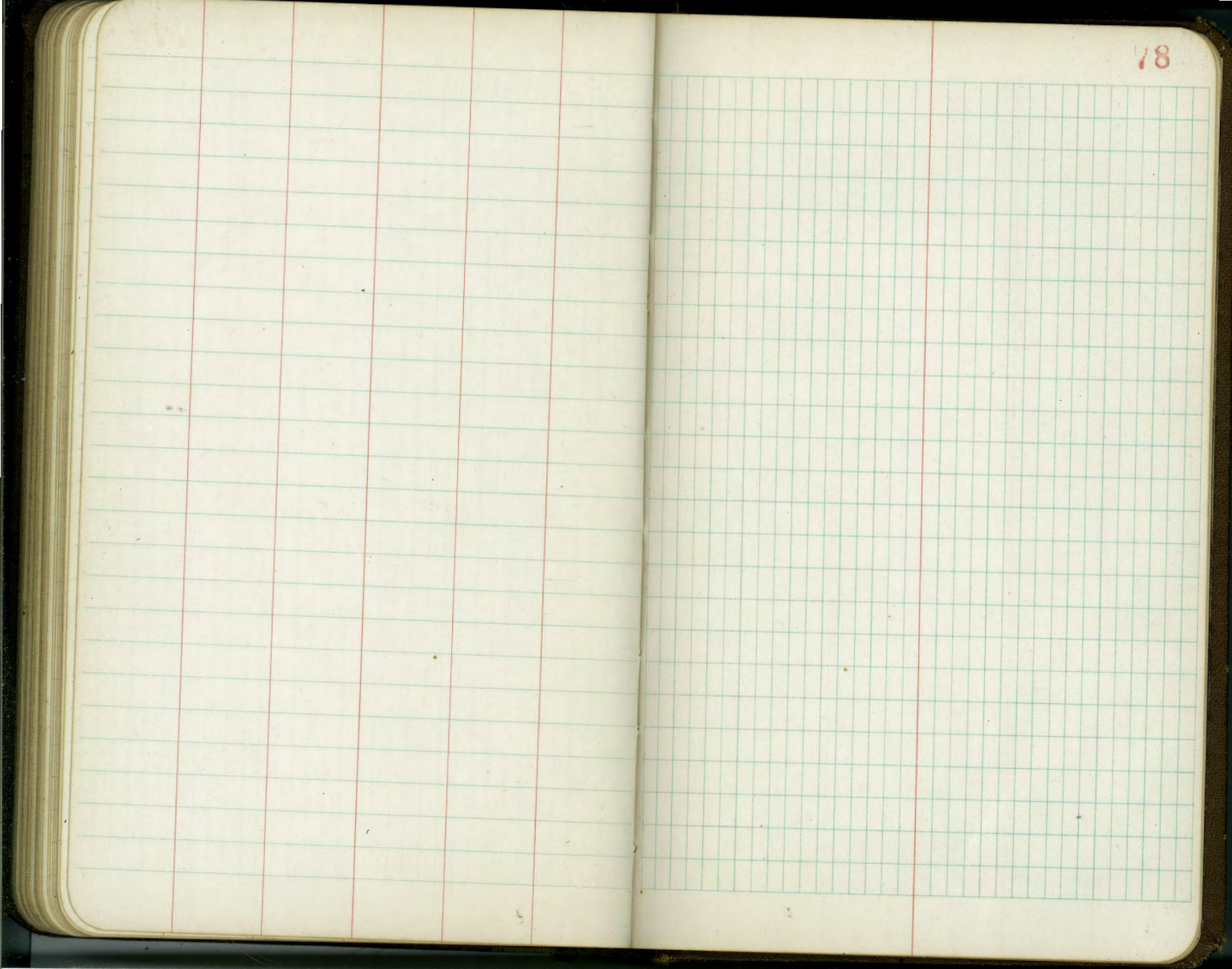
2+65± = sly line Tourmaline

2+00

Starting B.M

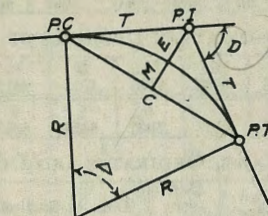
119.4	119.8	119.5	119.5	119.4	120.1	120.5
4.6	4.2	4.5	4.5	4.6	3.9	3.5
40	20	18		14	17	40
119.2	118.0	117.6	118.0	117.8	118.5	119.6
5.8	5.0	6.2	6.0	6.2	5.5	4.4
40	18	15		12	16	40

124.01



DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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CURVE FORMULAS

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

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

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

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

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

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 $\div 8\frac{1}{3}=414.49$ 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. + $L=164+91.50$.

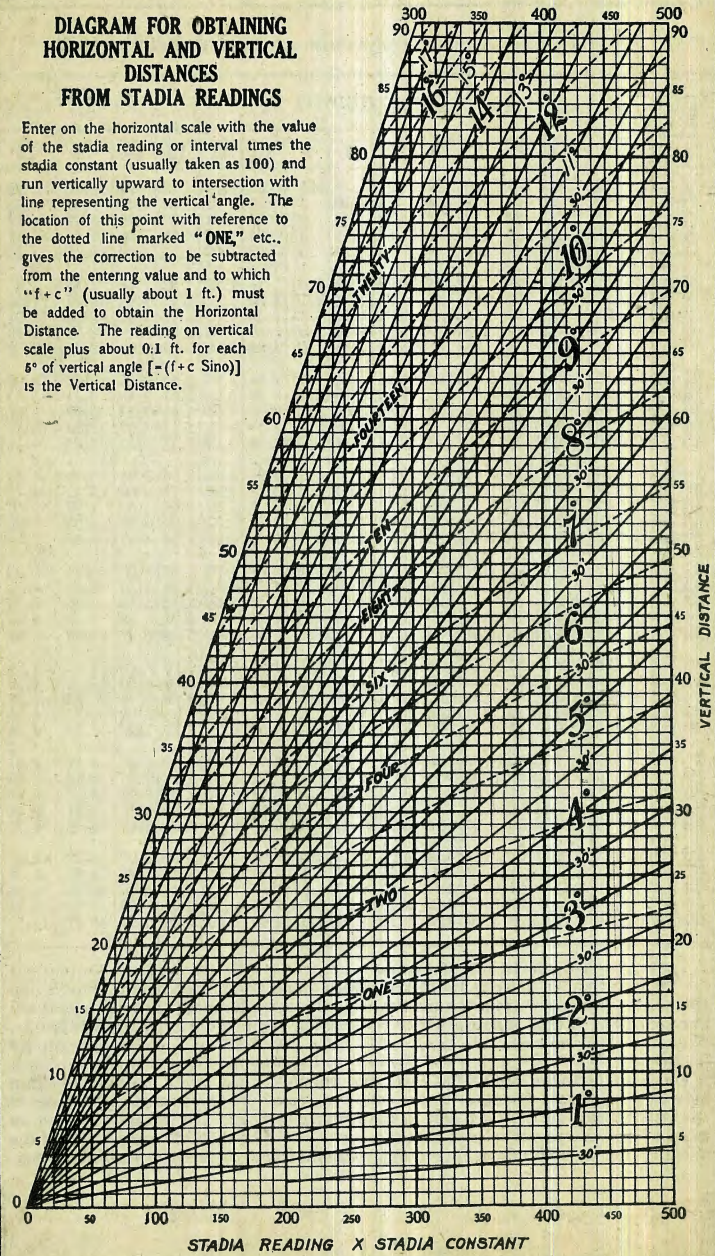
Offsets.—Tangent offsets vary (approximately) directly with D and with square of the distance. Thus tangent offset for Sta. 158 on above curve is 2.16 ft. found as follows. From Table III tangent offset for 100 ft.=7.27 ft. Distance=158—Sta. P. C.=54.50, hence offset= $7.27 (54.50 \div 100)^2=2.16$ ft. 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= $.3 \times 54.5 \times 8\frac{1}{3}=136.2'$ 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.

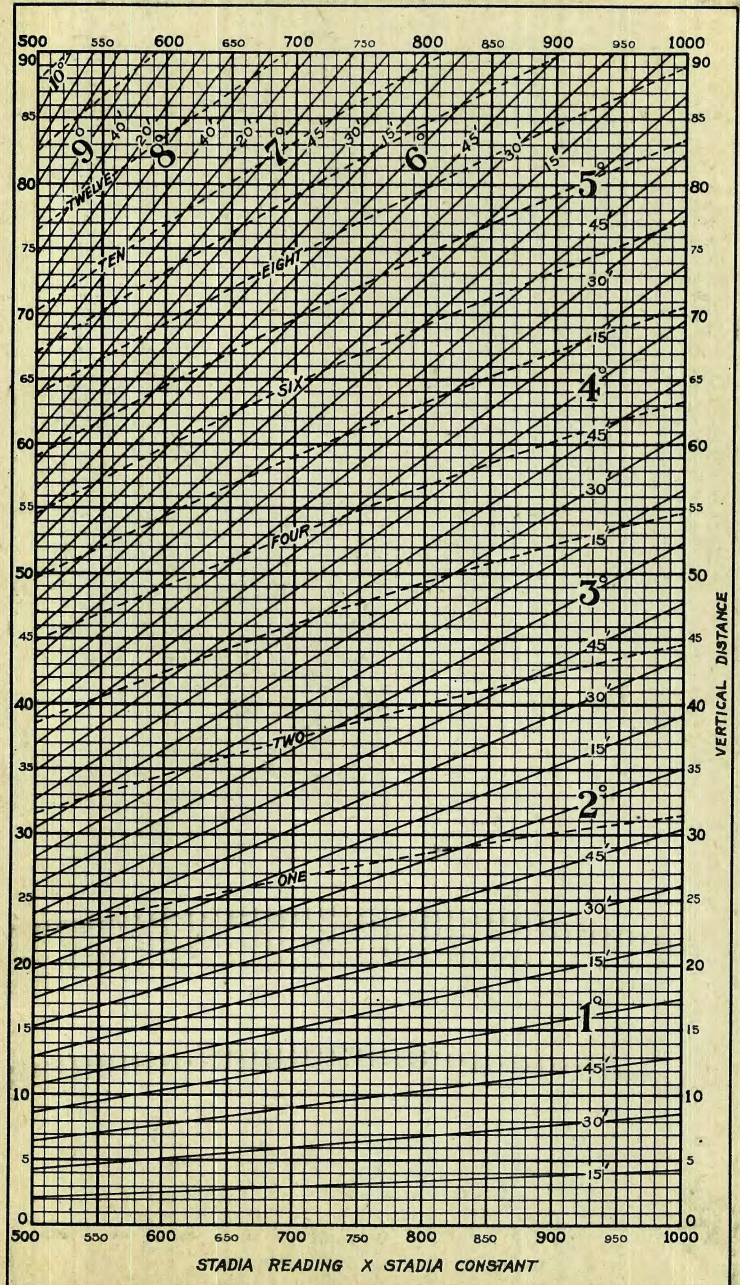
Externals.—May be found in similar manner to tangents. Thus E for curve above is 115.37. For from Table IV for 1° curve $E=960.6$ for $8^\circ 20'=960.6 \div 8\frac{1}{3}=115.27$ and from Table V correction=.10 or $E=115.37$ ft. Or suppose $\Delta=32^\circ$ and E is measured and found to be 42 ft. What is D ? From Table IV $E=230.9$ and $\div 42=5.5$ or $D=5^\circ 30'$.

**DIAGRAM FOR OBTAINING
HORIZONTAL AND VERTICAL
DISTANCES
FROM STADIA READINGS**

Enter on the horizontal scale with the value of the stadia reading or interval times the stadia constant (usually taken as 100) and run vertically upward to intersection with line representing the vertical angle. The location of this point with reference to the dotted line marked "ONE," etc., gives the correction to be subtracted from the entering value and to which "f+c" (usually about 1 ft.) must be added to obtain the Horizontal Distance. The reading on vertical scale plus about 0.1 ft. for each 5° of vertical angle [$=(f+c \text{ Sino})$] is the Vertical Distance.



1548033
2825



54.5
 109.0
 244.50
 353.50

93 + 15
 94 + 25
 94 + 65
 94 + 85
 052 Nly Mon

161.28
 4.04
 165.32
 12.41
 152.91
 0.12
 153.03
 10.60
 142.43 = BM on MH.
 5.38
 147.81
 9.85
 137.96 = TP - 8+00
 7.47
 145.43

137.96
 9.26
 147.22

137.96
 9.45
 147.41

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) + 2 or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.