

1836

1836

ANSWERS
LEVEL 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 1½ see inside of back cover.
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CITY ENGINEER'S OFFICE

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to page # 53

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.

INDEX

Pages

1-35 X-Sect - 39th - Quail - 40th + Raven
Market to Hilltop.

INDEXED
MAR 19 1948

Notes Reduced 3-19-48 Wherry-

149.67	133.32	53.45
0.36	0.22	1.07
150.03	133.10	49.63
6.09	12.98	74.23
143.94	146.08	3.10
9.44	1.54	171.13
153.38	144.54	
2.22	9.11	128.24
151.16	153.65	12.63
12.74	1.02	140.87
163.90	152.63	0.17
0.10	12.78	140.70
163.80	165.41	12.83
9.96	2.84	153.53
173.76	162.57	0.78
2.58	11.66	152.75
171.18	174.23	6.78

129.24	52.99	153.72
6.06	3.34	13.13
134.30	49.65	166.85
2.61	181.17	0.85
131.69	4.61	166.00
11.28	185.78	12.10
142.97	13.19	178.10
1.22	172.59	5.52
141.75		172.58
11.24		
152.99		
0.45		
152.54		
13.15		
165.69		
0.25		
165.44		
12.86		
178.30		
0.80		
177.50		
7.41		
184.11		
181.17		

Fd. pipe

Hilltop

30 30

5+60.07

W.O. 31342

X-Sect 39th

Quail - 40th - Raven

39th st
Dirt Graded

30 30

0+00 Set Hub on N.L.

F

295' (Meas):

Pipe RE 32

1

Fd. pipe

Dr.

Fd. pipe

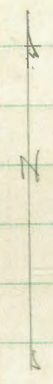
5+60.36

5+60.67

Sect. of Reg. 5' Conc Walk



40th st
Dirt Rough graded.



30 30

30 30

0+00

0+00

st

25 25

Pipe RE 32

6+40.75

See P. 3

Hub

Hilltop

30 30

Dr.

5+61.25

st

30 30

Raven

11

25 25

st 20

7 Hub

6+42.18

st

F

7 Hub

st

7'

2

6+42.18

7'

st

30' 30'

N

Raven

20'

10'

40'

5'

25'

10'

20'

5

7.5

20' Rad

5

7.5

40'

ct.

set. ct.

Market

Conc Pave

st

F

7' Hub

St

7'

6+40.75

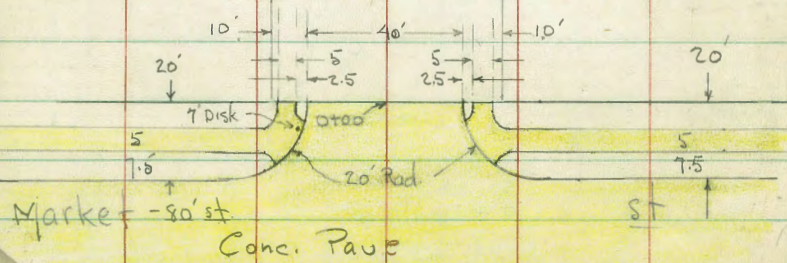
7'

St

30' 30'



Quail



F

St

3

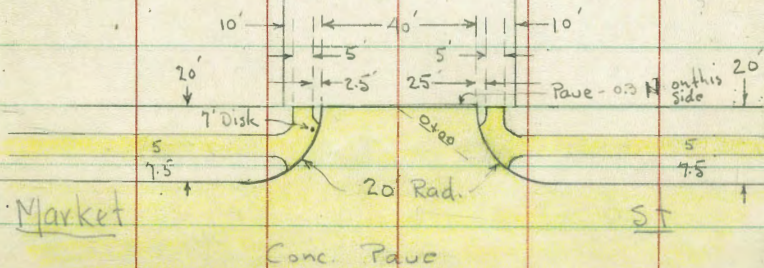
6+40.57

St

30' 30'

St

40'



X-Sect 39th - from F to Hilltop

W.O. 25001

3-11-48

Osborne
Hardin
Worrell
Rorer

INDEXED
MAR 19 1948

1+50

1+43- 32' Rt. = \pm 9' Conc. Dr. to Sing Star. ^{Floor.} Conc.

1+00

8" Conc. Ret. walls to Prop. Star.

0+95- 34.9 Lt. = \pm 10' Dr. - Dirt Bet. 2-3' High

0+50

0+00 = N.L. F

9.44 153.38 6.09 143.94

0.36 150.03

149.67

sw. spk. in pole
40th = F

See Levels on P. 8-.04
Diff. Between B.M.'s

Lt. = W. \pm

Rt. = E.

151.9	149.0	148.5	147.9	148.2	148.0	147.8	148.4
1.5	4.4	4.9	5.5	5.2	5.4	5.6	5.0
40	30	20	16		20	30	40

151.7	148.6	147.7	147.2	147.4	147.6	147.2	147.8
1.7	4.8	5.7	6.2	6.0	5.73	6.2	5.60
40	30	20	16	60	32	30	44.3
					Dr.		Floor
							147.0
							9.4
							40

148.4
5.0
Dirt in 34.9
Dr.

153.1	152.6	148.6	146.6	146.5	146.2	146.3	143.4
0.3	0.8	4.8	6.8	6.9	7.2	7.1	10.0
40	36	30	20		20	30	40

148.1	147.0	146.5	145.6	144.6	144.1	143.5
5.3	6.4	6.9	7.8	8.8	9.3	9.9
50	30	20		20	30	50

153.38

3+50

slope
3+35- 29'-Lt- Ely Toe of Conc. & Rock covered

T.P. 12.74 163.90 2.22 151.16

3+00

2+50-

2+37 - 30.5 Rt - # 3' Conc. walk

2+00

1+99 - 30.6 Rt. - # 3' Conc. walk

1+88 - 28' Lt - # 4' Conc. Steps

1+72 - 30.9 Rt. - # 2.5' Conc. walk

157.9	156.53	154.4	153.5	152.8	153.1	152.5	152.8	153.3	152.5
6.0	6.37	9.48	10.4	11.1	10.8	11.4	11.1	10.6	10.7
40	35	29	20	11		14	20	30	40
Conc slope		Toe Conc							
157.20	167.0	153.93	9.97						
	36	29							
	Top	Toe							
		Conc. 1							

155.3	155.0	151.8	151.5	151.0	151.0	150.7	150.7	151.0
+1.9	+1.6	1.6	1.9	2.4	2.4	2.7	2.7	2.4
40	35	30	20	10		20	30	40

153.38	151.2	150.5	149.8	149.6	149.4	149.4
0.0	2.2	2.9	3.6	3.8	4.0	4.0
40	30	20		20	30	40

152.8	152.5	150.3	149.5	148.9	148.8	148.7	148.7	148.69
0.6	0.9	3.1	3.9	4.5	4.6	4.7	4.7	4.69
40	35	30	20	13		20	30	40
						149.40		149.32
						3.98		4.06
						30.5		40.5
						walk		at step
								on walk

152.53	149.97	148.70	148.70
0.85	3.57	4.68	4.68
33.9	28	30.6	41.9
Top step	Bottom step	walk	walk at step
		148.41	148.34
		4.97	5.07
		30.9	40.9
		walk	walk at step

153.38

5+00

T.P. 9.96 173.76 0.10 163.80 5' to 6' Rock N. Lt.

4+50

4+24 - 21.6 Lt. = end - Ely. Toe of Conc. Slope

4+00

3+84 - 31.5 Lt. = Beg. Ely. toe. Rock + Conc. Slope

3+78 = ± Dirt Dr. to Sing. Gar - dirt floor

3+73 - 29' Lt. = end - Ely. toe of Conc. Slope

3+67 - 21.3 Rt. = ± 2.5' Conc. Walk

3+56 29' Lt. = ± 4' Conc. Steps

	163.1	167.7	164.5	163.7	163.2	163.3	163.1	162.5	163.2	163.4	162.8	158.0
	5.7	6.1	9.3	10.1	10.6	10.5	10.7	11.3	10.5	10.4	11.0	15.8
	40	35	30	20	10		10	17	20	30	40	75
												low spot
							173.76					
	164.1	163.8	161.2	160.2	159.6	159.7	159.0	159.7	159.7	158.6		
	+0.2	0.1	2.7	3.7	4.3	4.2	4.9	4.2	4.7	5.3		
	40	35	30	20	10		16	20	20	40		
	161.40	160.35										
	2.50	3.55										
	34.5	31.6										
	Top Conc.	Top Conc.										
	160.12	158.30	158.0	157.2	156.1	156.3	155.5	156.0	156.3	156.0		
	3.78	5.60	5.9	6.7	7.8	7.6	8.4	7.9	7.6	7.9		
	34.4	31.6	30	20	11	15	15	20	30	40		
	Top Conc.	Top Conc.										
	159.6	157.4										
	4.26	6.49										
	34.5	31.5										
	Top Conc.	Top Conc.										
	160.1	156.4										
	3.8	7.5										
	62	30-in Dirt Dr.										
	floor											
	Gar.											
	158.30	156.23										
	5.60	7.57										
	35	29										
	Top	Toe Conc.										
	158.00	154.23						153.93		153.84		
	5.90	9.07						9.97		10.06		
	35.8	29						31.3		44.2		
	Top Step	Bottom Step						walk		walk at step		
					163.90							

check pipe & Quai + Hilltop 2.58 171.18

5+72.07 = Prob. cb Line Hilltop
To check yardage

5+60.07 = S.L. Hilltop

5+40

Lt. Rt. 7

172.7	171.3	170.3	169.8	168.7	168.3	167.8	167.8	166.9
1.1	2.5	3.5	4.0	5.1	5.5	6.0	6.0	6.9
40	30	20	10		10	20	30	40

173.8	172.4	169.6	168.0	168.2	167.9	167.4	166.8	167.4	167.6	166.7	161.1
0.0	1.4	4.2	5.8	5.6	5.9	6.4	7.0	6.4	6.2	7.1	12.7
50	35	30	20	10		10	20	21	30	40	90

172.3	171.7	168.2	166.5	166.5	166.3	166.0	165.2	165.9	166.4	165.9	159.2
1.5	2.1	5.6	7.3	7.3	7.6	7.8	8.6	7.9	7.4	7.9	14.6
40	34	30	20	10		10	18	20	30	40	90

173.76

X-Sect. Quail St. - from Market

to Hilltop - 60' St. - 10' cbs. - Dirt

Rough graded

Rods around Returns - 20' Rad. at Market

+ Quail N.W. Ret. - 31.8 around - 5 parts - 6.3 each

133.32			
Beq. P.C. on N. cb Market	11.15	121.17	T = Top
	11.66	121.66	q = gut.
6.3 E	11.40	121.92	T
	11.98	121.34	q
"	11.67	121.65	T
	12.15	121.17	q
"	11.74	121.58	T
	12.20	121.12	q
"	11.78	121.54	T
	12.22	121.10	q
6.3 end. = N.L. Market	11.82	121.50	T
	12.35	120.97	q

Check BM. NE. 40 [±]	5.09	128.23	128.24
6.00	133.32	12.87	127.32
0.27	140.19	139.92	B.P. - 5 cb. Market at Boundary

133.32 - Below

N.E. Ret. - 31.7 around - 5' - 6.3 each

Beq. N. end. = N.L. Market.	12.17	121.15	T
	12.76	120.56	q
6.3 S	12.28	121.04	T
	12.82	120.50	q
"	12.38	120.94	T
"	12.92	120.40	q
"	12.40	120.92	T
"	13.04	120.28	q
"	12.40	120.92	T
10' F. of E.L. Quail	13.08	120.24	q
6.3 - PC = N. cb. Market.	12.42	120.90	T
	13.12	120.20	q

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133.32

1+00

126.8	126.7	126.5	126.4	126.6	125.8	125.3	126.3	126.9	126.4	9
6.5	6.6	6.8	6.9	7.7	7.5	8.0	7.0	6.4	6.9	7.3
40	30	20	12	10	11	13	20	30	40	126.10

0+60

124.9	124.7	124.4	124.3	125.4	123.7	123.4	124.5	124.9	124.7	124.3
8.4	8.6	8.9	9.0	9.9	9.6	9.9	8.8	8.4	8.6	9.0
40	30	20	13	11	9	10	12	20	30	40

0+25

120.6	122.3	122.5	122.3	121.9	122.2	122.1	122.9	122.8	123.1	123.1
12.7	11.0	10.8	11.0	11.4	11.1	11.2	10.4	10.5	10.2	10.2
40	30	20	15	14	12	14	20	30	40	

0+00 = U.L Market. = edge of Conc. Pavc

122.3	124.72	124.54	121.50	120.97	121.16	121.10	120.84	120.56	121.5	121.5	121.21	121.2
11.0	11.60	11.78	11.82	12.35	12.16	12.22	12.48	12.76	12.17	12.17	12.41	12.1
30	27.5	22.5	20	20	10	10	20	20	22.5	27.5	30	
end of walk		Top end cb.		gut		gut		Top end cb.		end of walk		

0-20 - Cont.

126.31	126.22	124.30	123.77	119.84	120.55	119.68	120.27
6.51	7.10	9.02	9.55	13.48	12.77	13.64	13.05
100	100	75	75	75	75	100	100
Top	gut	Top	gut	gut	Top	gut	Top

0-20 = N. cb

121.17	121.66	121.23	121.15	121.02	120.83	120.65	120.46	120.27	120.20	120.92
11.15	11.66	12.09	12.17	12.30	12.49	12.67	12.86	13.05	13.12	12.42
40	40	30	20	10	10	20	30	40	40	40
Top	gut							gut	Top	Top
PCI										PCI

0-40 = E Market - on Conc. Pavc

124.45	123.88	121.72	121.24	121.02	120.72	120.38	120.24	120.18	119.85	119.70
6.87	9.44	11.60	12.08	12.30	12.60	12.94	13.08	13.14	13.47	13.62
100	75	40	30	20	20	30	40	75	100	

133.32 - P. 8

3+70 - 43 Rt. = Beg. Wly 2 S Conc. walk along House

3+50

3+00

T.P. 12.98 146.08 0.22 133.10

2+50

2+35 - 51.7 Rt. = † Low House

2+00

1+50

	Lt.	#	Rt	
	135.3	135.4	135.3	135.5
	10.8	10.7	10.8	10.6
	40	30	20	11
	135.0	135.3	137.62	8.46
	10.8	11.1	10.8	43
	40	10	112	Cor. walk
	135.2	135.2	135.7	47
	12.9	12.9	10.4	at steps
	12	20	30	1360
	132.6	132.6	132.6	130.1
	12.6	12.7	12.6	12.8
	40	30	20	11
	133.0	133.1	132.6	13.0
	13.1	13.0	13.5	12.9
	10	12	15	20
	132.3	132.3	132.6	13.5
	12.6	12.8	13.1	13.8
	10	10	10	40
	133.2	133.2	132.6	132.3
	12.9	12.9	13.5	13.8
	12	20	30	40
	146.08			
	131.7	131.7	131.6	131.2
	1.6	1.6	1.7	2.1
	40	30	20	12
	130.9	131.1	130.8	131.2
	2.4	2.2	2.5	2.1
	10	11	13	20
	131.0	131.0	129.9	129.2
	2.2	2.5	2.1	2.3
	10	11	13	20
	131.2	131.0	129.9	129.2
	2.1	2.3	3.4	4.1
	11	13	20	30
	128.3	128.3	129.90	
	5.0	5.0	3.42	
	51.7	51.7	51.7	
	ground	ground	floor	
	149.8	149.8	149.8	149.8
	3.5	3.5	3.5	3.5
	40	30	20	11
	149.2	149.2	149.2	149.2
	4.1	3.9	4.2	3.7
	10	10	12	14
	141.4	141.4	141.1	141.6
	3.9	4.2	3.7	4.4
	10	12	14	20
	141.1	141.1	141.6	141.9
	4.2	3.7	4.4	4.8
	12	14	20	30
	141.6	141.9	141.5	141.1
	4.4	4.8	5.2	10.0
	14	20	30	40
	141.5	141.5	141.5	141.5
	5.2	10.0		
	141.5	141.5	141.5	141.5
	4.8	5.0	5.1	4.9
	40	30	20	12
	141.5	141.5	141.5	141.5
	5.8	5.6	6.1	5.1
	10	12	14	20
	141.5	141.5	141.5	141.5
	5.6	6.1	5.1	5.0
	10	12	14	20
	141.5	141.5	141.5	141.5
	6.1	5.1	5.0	5.7
	12	14	20	30
	141.5	141.5	141.5	141.5
	5.1	5.0	5.7	6.3
	14	20	30	40
	141.5	141.5	141.5	141.5
	5.0	5.7	6.3	
	20	30	40	
	141.5	141.5	141.5	141.5
	5.7	6.3		
	30	40		
	141.5	141.5	141.5	141.5
	6.3			
	40			
	141.5	141.5	141.5	141.5
	133.32			

T.P. 9.11 153.65 - 1.54 14454

8+40.75 - SL. F St.

6 5+30 - 49' Rt. - E Doub. Gar. - Conc. floor

6 5+20 - 40.4 Rt. - end wly. Conc. walk

6 5+00 - 39.7 Rt. - Beg. Wly. 2' Conc. walk along House

5 4+50

5 4+00

4+65 - 27' Rt. - \pm 2.5 Conc. walk

4+50 - 57' Rt. - \pm Sing. Gar. - Conc. floor

4+07 - 42' Rt. - \pm 10' Conc. Dr. to Sing. Gar. - Conc. floor

4+00

144.5 Lt. 144.5 Lt. 144.7 Lt. 144.2 Rt. 144.7 Lt. 144.2 Rt. 143.7 Lt. 11

1.6 1.6 1.4 1.9 1.7 1.7 1.9 2.4
30. 20 14 13 10 20 30

143.5 2.6 142.30 2.86
30 in Dirt Dr. 3.78 48-floor
40.4 = end walk

142.7 143.3 143.7 143.3 143.9 143.9 143.8 143.0 142.61 142.63
3.4 2.8 2.4 2.4 2.8 2.2 2.2 2.3 3.1 3.47 3.45
40 30 20 14 12 10 20 30 39.7 41.7

141.3 141.8 142.1 142.1 141.8 142.5 142.2 142.9 143.3 142.5 141.6
4.8 4.3 4.0 4.0 4.3 3.6 3.9 3.2 2.8 3.6 4.5
40 30 20 13 12 10 12 20 30 40

139.6 139.9 140.2 140.8 140.4 141.0 140.9 141.9 142.1 141.9
6.5 6.2 5.9 5.3 5.7 5.1 5.2 4.2 4.0 4.2
40 30 20 12 11 11 20 30 40

140.58 5.50 140.10 5.38
138.1 138.5 138.8 139.5 138.9 139.5 139.4 140.1 140.1 140.1 140.1
8.0 7.6 7.3 6.6 7.2 6.6 6.7 6.3 6.0 6.0 6.17
40 30 20 12 11 12 20 30 40 57

137.9 137.1 137.5 137.5 137.1 137.5 137.9 138.2 140.1 140.1 140.1
9.2 9.0 8.6 8.6 9.0 8.6 8.9 8.2 7.72 7.62
40 30 20 11 10 12 20 30 42 52
dirt Dr. Dr. floor floor

136.9 137.1 137.5 137.5 137.1 137.5 137.9 138.2 138.1 138.1 138.1
9.2 9.0 8.6 8.6 9.0 8.6 8.9 8.2 7.72 7.62
40 30 20 11 10 12 20 30 42 52
146.08 8.3 8.0 7.69 42
edge walk

0+60

0+25

50' N. = U.L. F = 0+00 ahead

40' N. = U. cb.

29' N.

25' N. = ±

10' N. = S. cb. F

check B.M. - Nail in Pole 40th F

4.02 149.63 149.67

P. 4
04 High

147.8	146.1	145.4	145.1	142.9	145.1	142.8	145.8	R.L.	145.6	147.1	148.5	148.5
5.8	7.5	8.2	8.5	8.7	8.5	8.8	7.8	8.0	6.5	5.3	5.1	5.1
40	30	20	13	12		9	10	20	30	34	40	
146.9	146.6	144.0	143.3	143.9	143.2	143.5	143.6	144.3	144.3	144.8	146.9	
6.7	7.0	9.6	10.3	9.8	10.4	10.1	10.0	9.3	9.3	8.8	6.7	6.7
40	35	30	20	14	13		9	10	20	30	34	40
142.7	142.4	142.7	143.1			143.1		143.2		143.8		
10.9	11.2	10.9	10.5			10.5		10.7		9.8		
30	20	10				10		20		30		
142.3	142.7	142.9	143.2			143.3		143.3		143.4		
11.3	10.9	10.7	10.4			10.3		10.3		10.2		
30	20	10				10		20		30		
142.1	142.3	143.3	143.7			143.5		143.3		143.2		
11.5	11.3	10.3	9.9			10.1		10.3		10.4		
30	20	10				10		20		30		
144.0	144.1	144.0	143.4			144.0		143.7		144.3		
9.6	9.5	9.6	10.2			9.6		9.9		9.4		
30	20	14	13			9		11		20		
144.3	144.4	144.6	144.1			144.6		144.3		144.7		
9.3	9.2	9.0	9.5			9.0		9.3		8.9		
30	20	14	13			9		11		20		

153.65

2+00

T.P. 12.78 165.41 1.02 152.63

1+62 - 25.6 Rt. - end Wly. Hedge

1+50

1+39 - 29.2 Rt. - # 3 Conc. steps

1+08 - 26.2 - Beg. Wly. 3' Hedge - 4.8 High

1+08 - 30' Lt. end. Rock + Conc. slope - at point

1+00

0+92 - 28.7 - # 3.5 Conc. steps thru Hedge + Conc. slope along Hedge

0+73 - 29' Lt. - Beg. Ely. - Toe of Rock + Conc. slope

0+68 - 28' Lt. - # 10' Conc. Dr. - Gar. way back

153.8 153.1 Lt. 152.4 152.3 152.5 Rt. 152.1 152.9 153.7 156.0 156.2 **13**

11.6	12.3	13.0	13.1	12.9	13.3	12.5	11.7	9.4	9.2
40	30	20	10		10	20	30	36	40
165.41									

151.6	150.7	149.8	149.6	150.0	149.5	150.3	152.1	153.2	
2.0	2.9	3.8	4.0	3.6	4.1	3.3	1.5	0.4	
40	30	20	10		9	20	30	40	
							151.19	152.47	152.57
							2.46	1.18	1.08
							28.2	32.8	50
							Bottom Step	Top Step	on walk

148.55
5.10
30
end Conc.

149.7	148.65	148.04	147.0	147.0	147.3	146.9	147.7	147.8	149.2	150.1
3.9	5.00	5.61	6.6	6.6	6.3	6.7	5.9	5.8	4.4	3.5
40	30.5	29	20	10		9	10	20	30	40

149.75

3.90

524

walk at porch

148.05

5.60

31

Top

148.01

5.64

43

Brk in Dr.

149.21

147.14

5.91

28.7

Top Platform

146.83

6.82

29

Toe Conc

146.28

7.37

Dr. 28

153.65

4+50

4+00

T.P. 11.66 174.23 2.84 162.57

3+50

3+00

2+68 - 29.6 Lt. = ± 8' Conc. Dr. to Gar. way back

2+50

2+47 - 32' Lt. = Fly, 2' Acacia Tree

2+39 - 28' Lt. = end of Hedge

2+20 - 28' Lt. = Beg of 1.5' Hedge - 2' High

2+15 - 29.5 Lt. = ± 3' Conc. walk

165.0	164.9	164.4	164.4	164.9	164.8	164.4	165.4	166.4	164.5	169.9
9.2	9.3	9.8	9.8	9.3	9.4	9.8	8.8	7.8	4.7	1.3
40	30	20	10		10	17	20	30	36	40

162.7	162.6	162.0	162.1	162.6	161.9	162.3	162.5	164.5	166.7	167.3
11.5	11.6	12.2	12.1	11.6	12.3	11.9	11.7	9.7	7.5	6.9
40	30	20	10		16	18	20	30	35	40

160.2	159.8	159.4	159.1	159.5	160.1	159.5	160.1	160.0	161.5	164.4	165.0
5.2	5.6	6.0	6.3	5.9	5.3	5.9	5.3	5.4	3.9	1.0	0.4
40	30	20	17	10		15	17	20	30	34	40

158.1	157.6	156.9	157.0	157.6	157.0	157.7	157.8	158.6	162.4
7.3	7.8	8.5	8.4	7.8	8.4	7.7	7.6	6.8	3.0
40	30	20	10		14	17	20	30	40

156.13	156.01	155.82	155.7	155.0	154.7	155.5	156.2	159.5
9.28	9.40	9.59	9.59	9.59	9.59	9.59	9.59	9.59
50 on Dr.	31.8 Brk.	29.6 Dr.						
155.7	155.0	154.5	154.7	155.0	154.7	155.5	156.2	159.5
9.7	10.4	10.9	10.7	10.4	10.7	9.9	9.2	5.9
40	30	20	10		10	20	30	40

154.83	153.84
--------	--------

10.58	11.57
29.5 on walk	29.5

165.41

+ Avail
check B.M. Pipe & Hilltop
60' N. = N.L. Hilltop

3.10

171.13

171.18 - P7
Note - Nail in
Pole is .04 High
to this line

50' N. = N. cb.

30' N. = #

10' N. = S. cb.

5+60.36 = S.L. Hilltop

5+40

5+00

Lt. # Rt. 15
170.3 170.8 171.6 172.4 172.4 172.3

3.9 3.4 2.6 1.8 1.8 1.9
30 20 10 20 30

170.9 171.1 171.6 172.2 172.4

3.3 3.1 2.6 2.0 1.8
30 20 20 30

170.8 171.1 171.7 172.2 172.4

3.4 3.1 2.5 2.0 1.8
30 20 20 30

171.3 171.3 170.9 171.2 171.4 171.5 172.2 172.6

2.9 2.9 3.3 3.0 2.8 2.9 2.0 1.6
30 20 10 10 18 20 30

170.6 170.3 169.8 170.1 170.6 170.8 170.6 171.3 172.0

3.6 3.9 4.4 4.1 3.6 3.4 3.6 2.9 2.2
30 20 18 10 10 18 20 30

170.0 169.6 169.3 168.4 168.6 169.3 169.4 169.0 170.2 170.6 173.6

4.2 4.6 4.9 5.8 5.6 4.9 4.8 5.2 4.0 3.6 0.6
40 30 20 18 10 10 19 20 30 40

167.1 166.9 166.8 166.7 167.3 167.3 166.8 167.6 169.2 171.7

7.1 7.3 7.4 7.5 6.9 6.9 7.4 6.6 5.0 2.5
40 30 20 10 10 18 20 30 40

174.23

X-Sect. 40th - from Market to Hilltop

60' St. - 10' cbs. - Dirt - Rough graded

134.30

Rods around 20' Returns at 40th ↓ Market.

N.W. Ret - 31.4 around - 5 parts - 6.3 each

Req - PC on N.cb Market. 7.95 126.35 T

8.54 125.76 q

6.3 E 7.64 126.66 T

8.29 126.01 q

7.48 126.85 T

8.12 126.18 q

7.40 126.90 T

8.00 126.30 q

7.31 126.99 T

7.86 126.44 q

6.3 = end = N.L. Market. 7.21 127.09 T

7.82 126.48 q

B.M 6.06 134.30 129.24

NE. totth
+ Market

INDEXED
MAR 19 1948

134.30

16

NE. Return - 31.7 around - 5 - 6.3 each

Req - N.L. Market. 6.56 127.74 T

7.20 127.10 q

6.3 S 6.49 127.81 T

7.15 127.15 q

6.45 127.85 T

7.07 127.23 q

6.31 127.99 T

6.95 127.35 q

6.18 128.12 T

6.83 127.47 q

6.3 = P.C. = N.cb Market. 6.09 128.21 T

6.70 127.60 q

NOTES Reduced - 3-22-48

Req. Req 7-Sections 40th

0+36- 18' Rt. = € 18" Palm

0+20

0+14- 18' Rt. = € 30" Palm

0+13.5- 30.1 Rt. = € 3' Conc. walk

also curb. (walk is ok.)

on E. side only - to 0.3 N. of N.L. Rods taken on edge

0+00 - N.L. Market. - Note - edge of Conc pave

0-20 - Cont

0-20 = N. cb

0-40 = € Market.

lt = w.

Rt = E.

17

129.0	129.5	129.1	128.7	128.7	128.2	128.4	127.2	131.6	132.0
5.3	4.8	5.2	5.6	6.6	6.1	5.9	3.1	2.7	2.3
40	30	20	13	10		10	20	30	40
127.2	127.9	127.05	127.09	126.48	126.98	126.99	127.09	127.10	127.74
7.1	7.21	7.25	7.21	7.82	7.52	7.31	7.23	7.20	6.56
30	27.5	22.5	20	20	10		10	20	20
	end walk	Top	Top	put			put	Top	end walk
			end					end	0.3 N. on N.L.

129.17	129.53	129.46	129.85	129.25	129.90	129.91	129.53
11.13	11.72	9.84	10.45	6.05	5.40	5.39	4.77
100	100	75	75	75	75	100	100
Top	put	Top	put	put	Top	put	Top
126.35	125.16	126.09	126.32	126.54	126.75	126.94	127.18
7.95	8.54	8.21	7.98	7.76	7.55	7.36	7.17
40	40	30	20	10		10	20
Top	put						
PC 20							
Rad							
127.34	127.34	127.60	128.27				
6.96	6.70	6.09					
30	40	40					
	put	Top					
		PC					
		Rad					
127.44	123.70	125.30	126.25	126.63	127.00	127.36	127.57
11.86	10.60	8.50	8.05	7.77	7.30	6.94	6.73
100	75	40	30	20		20	30
							40
							75
							5.16
							100

134.30 - P. 16

2+00

1+96 - 29' Rt. = ± 2.5 Conc. walk

1+60

1+57 - 30' Rt. = ± 2.5 Conc. walk

1+37 - 31.5' Rt. = ± 18" Acacia

1+20

T.P. 11.28 142.97 2.61 131.69

1+00

0+74 - 43.8 Rt. = ± 77 Conc. Dr. to Sing Bar - Conc. floor

0+56 - 18' Rt. = ± 30" Palm

0+50

LT.

±

RT.

18

126.1	130.0	130.7	132.0	133.7	133.2	133.2	133.4	134.2	135.5	135.8
169	13.0	12.3	11.0	9.3	9.8	9.8	9.6	8.8	7.5	7.2
100	40	30	20	11	10		10	20	30	40

129.7	131.0	132.1	133.0	132.4	132.7	132.9	135.55	136.2	136.2	136.2
13.3	12.0	10.9	10.0	10.6	10.3	10.1	7.42	7.42	7.5	6.73
40	30	20	11	10		11	29-walk	29-walk	30	44.8

131.2	132.0	132.5	132.1	131.4	132.0	132.1	135.19	134.8	134.8	135.74
11.8	11.0	10.5	10.9	11.6	11.0	10.9	7.78	7.78	7.23	7.23
40	30	20	11	10		10	30-walk	30-walk	48.5	48.5

130.7	131.2	131.8	131.8	131.0	131.4	131.4	142.97	131.9	132.1	133.6	134.1
2.6	2.1	2.5	2.5	3.3	2.9	2.9	2.4	2.2	0.7	0.7	0.2
40	30	20	12	10		10	20	27	30	40	40

129.4	129.9	130.3	129.5	129.0	129.7	129.8	130.3	131.5	132.4	132.8
4.9	4.4	4.0	4.8	5.3	4.6	4.5	3.5	2.8	1.9	1.5
40	30	20	12	10		10	12	20	30	40

134.30

5+00 - Small House on Lt

	Lt.		Rt.
	142.99	142.8	143.3
	143.5	144.5	144.3
	144.5	144.7	146.2
	146.7	147.1	147.6
10.00	10.2	9.7	9.5
436	436	30	20
floor	ground	11	10
		10	10
		14	20
		30	40

4+83 - 27' Lt. Ely. 6" Conc. wall.

	Lt.		Rt.
	142.26	142.99	142.99
	10.73	0.00	
	37 on wall	27 Top-end of wall	
	140.2	141.2	142.0
	142.4	141.6	141.8
	141.8	141.8	145.5
	144.5	144.5	145.4
	145.4	145.5	145.5
12.8	11.8	11.0	10.6
40	30	20	11
		10	10
		11	11
		14	20
		30	40
			152.99

4+50

T.P. 11.24 152.99 122 141.75

4+45 - 25.5 Lt. - 18" Hedge - 3' Hedge

4+43 - 29.5 Rt. - Beg. Picket fence

4+00

	Lt.		Rt.
	132.7	137.2	138.3
	139.1	139.7	138.8
	139.0	139.1	140.9
	140.9	141.4	141.5
	141.5	141.8	141.8
10.3	5.8	4.7	3.9
60	40	30	20
		11	10
		10	10
		11	15
		20	30
		30	40

3+50

	Lt.		Rt.
	133.3	133.9	135.5
	137.0	136.5	136.6
	136.6	136.8	137.8
	137.8	139.4	139.4
	139.4	139.9	139.9
9.7	9.1	7.5	6.0
40	30	20	11
		10	10
		10	10
		20	30
		30	40

3+00 = 52.7 Rt. - Sing Gar. - Conc floor.

	Lt.		Rt.
	137.5	132.9	133.9
	134.6	135.6	135.0
	135.0	135.1	135.2
	135.2	136.3	137.2
	137.2	138.5	140.06
15.5	10.1	9.1	8.4
100	40	30	20
		11	10
		10	10
		20	30
		30	40
			Dirt Dr.
			floor

2+50

	Lt.		Rt.
	131.1	131.8	132.8
	134.5	133.9	134.1
	134.1	134.2	135.0
	135.0	136.0	136.6
	136.6	136.6	136.6
11.9	11.2	10.2	8.5
40	30	20	11
		10	10
		10	11
		20	30
		30	40
			142.97

45 N = N. db

25 N = #

18 N.

6 + 40.57 = S.L. F St.

6 + 00

5 + 65

5 + 44 - 26 Lt = end of Hedge

5 + 41 - 28.5 Rt = end fence

5 + 30

5 + 15 - 30.2 Lt = # 2 Conc. walk

149.3 Lt	149.3	150.4	150.4	150.3	20
3.7	3.2	2.6	2.6	2.7	
30	20		20	30	

149.3	149.7	150.0	150.0	149.7	149.9	150.1
3.7	3.3	3.0	3.0	3.3	3.1	2.9
30	20	10	30	10	20	30

148.8	149.1	149.8	149.7	149.5	151.8	152.7
4.2	3.9	3.2	3.3	2.5	1.2	0.8
30	20	13		11	20	30

147.4	148.6	149.7	149.1	149.2	148.8	150.1	150.6	151.8
5.6	4.4	3.3	3.9	3.8	4.2	2.9	2.4	1.2
20	20	13	11	38	11	13	20	30

141.8	145.0	145.8	146.8	147.8	147.9	147.9	150.1	150.4	150.7
11.2	8.0	7.2	6.2	5.2	5.1	5.1	2.9	2.6	2.3
100	40	30	20	11		10	20	30	40

144.0	144.9	145.9	146.7	146.8	146.9	149.2	149.4	149.3
9.0	8.1	7.1	6.3	6.2	6.1	3.8	3.6	3.7
40	30	20	13		10	20	30	40

145.6	144.2	144.8	145.6	145.7	145.6	148.5	148.4	148.1
9.4	8.8	8.2	7.4	7.3	7.4	4.5	4.6	4.9
40	30	20	10		11	20	30	40

143.19	145.76
9.80	9.23
40.2	30.2
on walk	walk

152.99

1+21.5 - 54.7 Lt. = ± 8' Conc. Dr. to Sing. Gar. - Conc. floor

1+00

0+71 - 32.7 Lt. = ± 4' Conc. walk

0+65

0+52 - 46' Rt. = ± 7' Conc. Dr. - No Gar.

T.P. 13.15 165.69 0.45 152.54

s.w. 40th + F

check BM Nail in Pole

0+30

50' N. = N.L. F = 0+00 ahead.

Lt. R Rt.

158.45

158.37

7.24
68.7
floor

7.32
54.7 = Dr.

155.8

156.2

156.0

156.2

155.5

155.6

155.5

156.0

156.7

157.4

157.4

9.9

9.5

9.7

9.5

10.2

10.1

10.2

9.7

9.0

8.3

8.3

40

30

20

13

10

10

12

20

30

40

40

154.9

154.0

11.50

11.65

44.9
at steps

32.7 = walk

153.8

153.7

154.1

153.5

153.1

153.2

153.3

153.9

154.2

155.1

156.0

11.9

12.0

11.6

12.2

12.6

12.5

12.4

11.8

11.5

10.6

9.7

40

30

20

12

10

10

12

20

30

40

155.17

10.52
46
Dr.

165.69

150.8

151.2

151.3

151.4

151.7

151.8

152.0

152.1

154.2

2.2

1.8

1.7

1.6

1.3

1.2

1.0

0.9

1.2

40

30

20

10

10

20

30

40

40

144.6

144.9

150.5

150.7

150.7

150.7

150.8

3.4

3.1

2.5

2.3

2.3

2.3

2.2

30

20

10

10

20

30

152.99

3+00

2+89 - 30.8 Lt. = ± 4 Conc steps thru wall

2+86 - 30.3 Rt. = Beg 10" Conc wall - on ground.
on ground. " wall

2+62 = 30 Lt. = end Conc Brick + Beg Rock + Conc

2+62 - 30.5 Rt. = ± 3' Conc walk

2+50

Near surface of ground.

2+13 - 30.5 Lt. = Beg 8" Conc Brick wall footing

T.P. 12.86 178.30 0.25 165.44

2+05 - 29.7 Rt. = ± 2.5 Conc walk

2+00

1+50

175.3 3.0 40	175.39 2.9 30.1	173.14 5.2 30	171.8 6.5 20	171.5 6.8 10	171.4 6.9 10	171.5 6.8 10	172.7 Rt 5.4 20	173.7 5.1 30	174.35 2.8 30.1	22 175.5 40
174.24 3.46 Top wall	172.40 5.90 Bottom step						172.7 5.9 30.3 ground.		173.70 4.60 30.3 Top wall	
173.35 4.95 30	169.90 8.45 38	170.7 7.6 30						170.56 7.74 30.5 walk	170.84 7.46 40.5 walk	
170.9 7.4 40	169.59 8.8 30	168.3 10.0 20	167.2 11.1 10	171.3 11.0 10	167.4 10.9 10	167.5 10.8 20	167.2 9.0 30	169.8 8.5 40		
169.64 8.61 30.5 Top wall	166.3 12.0 30.5 ground									
178.30										
							165.56		165.53	
	165.2	165.0	164.6	163.6	163.5	163.5	0.13 29.7 walk	0.16 39.7 walk		
	0.5 40	0.7 30	1.1 20	2.1 10	2.2 10	2.2 10	164.6 11 20	165.0 0.7 30	165.5 0.2 40	
	160.6	160.7	160.4	160.1	159.2	159.4	159.2	159.9	160.6	161.2
	5.1 40	5.0 30	5.3 20	5.6 13	6.5 10	6.3 10	6.8 12	5.8 20	5.1 30	4.5 40
165.69										

+ 30' Rt - end Conc. wall
 4+00 - walk on Rt. joins 10' Conc. Dr.

3+75

T.P. 4.61 185.78 3.74 181.17 Pipe - ϵ 40th + Hilltop

T.P. 7.41 184.91 0.80 177.50

3+50

6" Conc. wall

3+35 = Beg. 5' Conc. walk on Rt. - + 30.1 Rt = Beg

Conc. floor

3+27.5 - 30.2 Rt = ϵ 8' Conc. Dr. - to Sing. Gar.

3+23.5 - 30.2 Rt = end Conc. wall

3+11 - 30' Lt. = end Rock wall + Beg. picket fence

	Lt.	ϵ	Rt.	23
	179.0	178.5	178.1	177.8
	6.4	7.3	7.7	8.0
	40	30	20	10
				178.0
				177.8
				178.2
				178.38
				178.50
				178.65
				178.8
				179.61
				7.13
				8.94
				6.16
				Dr. 30
				30
				40
				walk on
				Dr.
				Cor. on
				walk
				Dr.
				178.4
				177.1
				177.5
				177.68
				177.84
				177.9
				178.92
				8.3
				8.10
				7.94
				7.9
				6.86
				20
				22.7
				27.7
				30
				walk
				Top
				wall
				185.78

	177.3	177.1	176.4	175.8	175.9	175.7	176.6	176.62	176.82	176.7	178.08
	1.0	1.2	1.9	2.5	2.4	2.6	1.7	1.68	1.48	1.6	0.22
	40	30	20	10		10	20	22.7	27.7	30.1	30.1
											Top
											wall

	175.80	176.00	176.2	175.86
	2.50	2.30	2.1	0.74
	22.7	27.7	30.1	30.1
	end	walk	ground	Top
				wall

	175.95	177.80
	2.35	0.50
	30.2	58.2
	Dr.	floor

	175.96	174.3	175.3	175.72
	2.34	4.0	3.0	2.58
	30	30	30.2	30.4
	Top	ground.	ground	Top
	wall			wall
				178.30

5+28-29.3 Rt. = \$ 35' Conc. Steps + Walk to House

5+10-29.9 Lt. = end Picket fence

5+05.5-28.9 Rt. = \$ 9 Conc. Dr.

5+00

4+89-29.4 Rt. = \$ 3.5 Conc. steps + walk to House floor

4+74-29.8 Lt. = \$ 12' Conc. Dr. to Doub. Gear Conc.

4+50

4+42-29.8 Lt. = \$ 2.5 Conc. walk

4+21-30.4 Rt. = Wly 3' Conc. steps + walk to House

4+10 = Nly 10' Conc. Dr. on Rt.

Lt.

±

Rt.

24

181.36	121.90	192.41
4.42	3.88	3.37
29.4	30.4	45.2
Bottom Step	Top step	at Porch
180.67	182.33	182.45
2.11	48.9	Dr. Brk.
28.9	Dr.	

182.9	181.9	180.6	180.1	179.4	179.5	179.7	179.4	179.6	180.5	181.6	182.0
2.9	3.9	5.2	5.7	6.4	6.3	6.1	6.4	6.2	5.3	4.2	3.8
40	32	30	20	15	10		10	20	30	32	40

182.90	182.56	180.10	180.45	181.55	182.00
2.88	3.22	5.68	5.33	7.23	3.78
6.3	4.5	29.8	29.4	31.5	41.5
floor.	Brk. in Dr.	Dr.	Bottom	Top step	walk

181.3	180.6	179.5	178.8	178.7	178.9	178.7	178.9	179.3	180.8	181.1
4.5	5.2	6.3	7.0	7.1	6.9	7.1	6.9	6.5	5.0	4.7
40	38	30	20	10		10	20	30	32	40

181.23	179.45	179.68	180.63	180.14
4.55	6.33	6.10	5.15	4.94
38.5	29.8	30.4	32.5	42.5
Brk in walk.	walk	Bottom	Top step	walk

178.63	178.79	178.88	179.73
7.15	6.99	6.90	6.05
22.6	27.6	30	40
185.78	Cor. Dr.	Dr.	edge Dr.

For Raven check - see P. 35

T.P. 13.17 172.59

60' N. = NL Hilltop - end

50' N. = N. cb.

30' N. = E

10' N. = S cb.

5+60.67 = SL Hill top

5+40

180.5 180.6 181.1 181.1 180.7

5.3 5.2 4.7 4.7 5.1
30 20 20 30

180.9 181.2 181.3 181.4 181.2
4.9 4.6 4.5 4.4 4.6
30 20 20 30

181.3 181.5 181.6 181.3 181.1
4.5 4.3 4.2 4.5 4.7
30 20 20 30

181.9 181.5 181.2 181.2 180.8 180.6 181.4 181.8
3.9 4.3 4.6 4.6 5.0 5.2 4.4 4.0
30 20 10 10 17 20 30

181.5 181.0 180.6 180.7 180.8 180.5 180.2 180.9 181.7
4.3 4.8 5.2 5.1 5.0 5.3 5.6 4.9 4.1
30 20 15 10 10 17 20 30

180.0 181.2 180.5 180.9 180.0 180.2 180.0 180.7 180.4 180.7 182.0 182.5
2.8 4.6 5.3 5.9 5.8 5.6 5.8 6.1 5.4 5.1 3.8 3.3
40 30 20 17 10 10 17 20 29 30 40

185.78

X-Sect Raven St. - from Market to Hilltop

60' St - 10' cbs - Ditt - Rough Graded.

140.87

Rods around Returns -

N.W. Ret. 31.4' around - 5 parts - 6.3 each.

Beq - PC on N.cb. Market	6.29	134.58	T
	6.91	133.96	q
6.3' E	6.17	134.70	T
	6.82	134.05	q
"	6.18	134.69	T
	6.75	134.12	q
"	6.10	134.77	T
	6.65	134.22	q
"	5.97	134.90	T
	6.51	134.36	q
6.3' end cb - NL Market	5.88	134.99	T
	6.51	134.36	q

BM 12.63 140.87 128.24 N.E. to Hill + Market

140.97

26

N.E. Ret - 31.6 around - 5 - 6.3 each.

Beq - N. end - NL Market	5.97	134.90	T
	6.59	134.28	q
6.35	6.06	134.81	T
	6.60	134.19	q
"	6.14	134.73	T
	6.69	134.18	q
"	6.11	134.76	T
	6.76	134.11	q
"	6.22	134.65	T
	6.89	133.98	q
6.3' end - PC	6.41	134.46	T
	7.05	133.82	q

INDEXED
MAR 19 1948

Begin Reg X-Sections of Raven.

Lt.

#

Rt.

27

T.P. 12.83 153.53 0.17 140.70

140.9 140.9 141.5 141.3 139.5 153.53 137.8 137.9 137.9 137.5 138.0 137.1 136.7

20 0.0 +0.6 +0.4 14 2.1 3.0 3.0 3.4 2.9 3.8 4.2

40 30 20 17 7 4 10 7 20 30 40

0+45

139.5 139.7 138.6 138.2 135.1 135.1 135.1 134.9 136.1 135.9 135.6

1.4 12 2.3 2.7 5.8 5.8 5.8 6.0 4.8 5.0 5.3

40 30 20 10 7 10 20 21 30 40

0+05

137.1 135.05 130.98 134.99 134.86 134.47 134.55 134.45 134.28 134.90 134.91 134.91 135.3

3.8 5.82 5.89 5.88 6.5 6.40 6.32 6.42 6.59 5.97 5.96 5.96 5.6

30 27.5 22.5 20 20 10 10 20 20 22.5 27.5 30

end walk Top gut gut Top end walk

0+00 = N.L Market = edge Conc. Pavc

0-20 - Cont

133.05 132.41 133.69 133.09 132.54 133.15 131.64 132.26

7.82 8.46 7.18 7.78 8.33 7.72 9.23 8.61

100 100 75 75 75 75 100 100

Top gut Top gut gut Top gut Top

0-20 = N. cb.

132.58 132.96 134.10 134.27 134.39 134.40 134.30 134.19 134.04 133.82 134.46

6.29 6.91 6.77 6.60 6.48 6.47 6.57 6.68 6.83 7.05 6.46

40 40 30 20 10 10 10 20 30 40 40

Top gut Top Top Top Top Top Top Top Top Top

0-40 = Market on Conc Pavc

132.44 133.10 133.89 134.06 134.16 134.30 134.15 134.04 133.80 132.59 131.64

8.43 7.77 6.98 6.81 6.71 6.57 6.72 6.83 7.07 8.28 9.23

10.0 75 40 30 20 20 20 30 40 75 100

140.87

2+20

2+01 - 30' Rt. = \$ 4' Conc. walk

1+90

1+60

1+56 - 50' Rt. = \$ House (Frame)

1+48 - 30' Lt. = \$ 4' Conc. walk

1+20

1+16 - 16' Lt. = \$ 4' Conc. base for Mail box

2+90 - 39.8 Lt. = \$ 4' Conc. walk

0+80

147.5	148.0	147.9	147.0	146.7	146.5	146.4	145.4	144.8	28
6.0	5.5	5.6	6.5	6.8	7.0	7.1	8.1	8.7	
40	30	20	10		10	20	30	40	
146.9	147.3	147.6	145.8	145.2	145.0	144.5	144.4	143.98	
6.6	6.2	5.9	7.7	8.3	8.5	8.9	9.1	9.55	
40	30	20	10		10	20	30	40	50-at Porch
144.6	144.8	144.4	144.4	144.0	143.5	143.0	142.4	141.9	
8.9	8.7	9.1	9.1	9.5	10.0	10.5	11.1	11.6	
40	30	20	10		10	20	30	40	
144.56	144.56					141.0	141.38	141.38	
8.97	8.97					12.5	12.15	12.15	
40.7-at Porch	30-walk					50-ground	50-floor	50-floor	
143.6	143.6	143.0	142.2	141.8	141.4	141.1	139.9	139.3	
9.9	9.9	10.5	11.3	11.7	12.1	12.4	13.6	14.2	
40	30	20	10		10	20	30	40	
142.98	142.30								
10.23									
	6.4-top conc.								
10.65	10.83								
49.1	39.8-walk								
142.5	142.7	140.6	139.9	139.6	139.2	138.1	137.1		
11.0	11.1	11.8	12.9	13.6	13.9	14.3	15.4	16.3	
40	30	20	10		10	20	30	40	

153.53

3+70

152.0
152.1 Lt.
151.8
150.8
150.8
150.9
150.8 Rt.
150.2
149.9
29
147.4

1.5	1.4	1.7	2.7	2.7	2.6	2.7	3.3	3.7	4.1
40	30	20	10		10	16	20	30	40

3+40 = ± House on Rt.

151.8
151.8
151.5
151.4
150.3
150.4
150.6
150.6
150.1
149.2
148.5
148.33
148.81

1.7	1.7	2.0	2.3	3.2	3.1	3.0	2.9	3.4	4.3	5.0	5.20	4.72
40	30	20	14	10		10	16	20	30	40	50.5	58.5

Conc. Porch
Floor House

3+24-178 Lt. = ± 8' Conc. Dr. to Sing. Gar. - Conc. floor

152.03
151.51
150.0
42
7.8 = Dr.
floor

3+10

150.6
150.6
150.4
150.3
149.7
149.9
149.9
150.0
149.6
149.0
148.1

2.9	2.9	3.1	3.2	3.8	3.6	3.6	3.5	3.9	4.5	5.4
40	30	20	11	7	10	16	20	30	40	

3+085-30.1 Lt. = ± 3' Conc. walk

150.16
150.04
2.57
40
on walk
2.69
30.1 = walk

2+92-28.4 Rt. = ± 5' Conc. walk

150.22
149.7
149.6
149.7
148.9
148.9
148.8
148.7
147.9
147.12
147.27

3.21	3.8	3.9	3.8	4.6	4.6	4.7	4.8	5.6	6.3
36	30	20	11	7	10	20	30	40	

5.05
6.41
6.26
walk = 28.4
46.7
at Porch
Floor 50 House

2+80

Ely. 3' Conc. walk along 50' House

2+76-30' Lt. = ± 3' Conc. Walk

150.07
3.45
40
walk
3.46
30 = walk

2+50

148.1
148.5
148.5
148.2
147.9
147.9
147.7
146.9
145.9

5.4	5.0	5.0	5.3	5.6	5.6	5.8	6.6	7.6
40	30	20	10		10	20	30	40

153.53

5+70

5+56 - 29.9 Rt. = Beg. 10" Brick wall - footing about 6" Below ground

5+47 - 30' Rt = 15' Conc. Dr. to Sing Gar. - Conc. floor

5+40

5+00

4+50

T.P. 6.78 159.53 0.78 152.75

4+00

Lt.

Rt.

Rt.

30

157.4 150.9 151.4 153.2 153.3
 2.1 2.6 3.1 6.3 6.2
 40 30 20 10

153.0 152.0 151.7 153.7 151.5
 6.5 7.5 7.8 6.2 8.0
 12 20 20 30 40
 ground top
 wall

151.7 150.39
 8.3 6.14
 29.9 = ground. 29.9 = top wall

150.93 147.00
 8.60 10.53
 30 = Dr. 57.5 = floor

155.4 155.0 154.0 152.2 152.4 152.3 151.1 151.3 150.6 149.7
 4.1 4.5 5.5 7.3 7.1 7.2 7.4 8.2 8.9 9.8
 40 30 20 10 10 15 20 30 40

153.9 153.8 153.5 153.3 151.6 151.9 151.8 151.6 150.6 150.1 149.5
 5.6 5.7 6.0 6.2 7.9 7.6 7.7 7.9 8.9 9.4 10.0
 40 30 20 16 10 10 16 20 30 40

153.4 153.0 152.8 152.6 151.2 151.5 151.3 151.3 150.7 149.9 149.3
 6.1 6.5 6.7 6.9 8.3 8.0 8.2 8.2 8.8 9.6 10.2
 40 30 20 16 10 10 16 20 30 40

159.53 ✓

152.8 152.8 151.3 151.1 150.9 151.0 151.1 150.7 149.9 149.3
 0.7 0.7 1.2 2.4 2.6 2.8 2.4 2.8 3.6 4.2
 40 30 20 10 10 17 20 30 40

153.53

30' N.

25' N. = ±

10' N. = S. cb.

6 + 40.18 = S.L. F. St.

6 + 14 - 30' Rt. = ± 4' Conc. walk

6 + 10

5 + 98 - 40.2 Lt. = Sly. Cor. Porch - end of Conc. walk
shown below

5 + 90 - 29.9 Rt. = end Brick wall

5 + 79 - 12.9 Lt. = ± 3' Conc. steps + walk to House

152.5 Lt. 152.6 152.6 152.4 Rt. 152.3 151.5 157.1 31

7.0 6.9 6.9 7.1 7.2 8.0 8.4
30 20 10 0 20 30

153.0 152.5 152.4 153.0 152.8 152.6 152.4 152.1

1.5 3.0 6.1 6.5 6.7 6.9 7.1 7.4
30 20 16 10 10 20 30

150.3 157.2 156.6 154.2 153.8 153.7 151.7 152.3

1.2 2.3 2.9 5.3 5.7 5.8 6.3 7.2
30 20 14 10 10 20 30

158.3 158.1 157.7 156.4 155.0 154.4 154.2 153.6 152.8 151.7

1.2 1.4 1.8 3.1 4.5 5.1 5.3 5.9 6.7 7.8
40 30 20 15 10 10 20 30 40

158.1 157.6 157.0 155.6 155.0 154.8 154.5 151.96 151.49
1.4 1.7 2.5 3.9 4.5 4.7 5.0 7.4 7.8 8.04
40 30 20 15 10 10 20 30 40
30 = walk
52.3 at Porch

157.0 157.89 157.6 157.7 157.6 157.7 157.6 157.9

0.12 1.64
40.2 40.2
Top Porch walk

157.00 156.53 154.01 152.0 153.47
2.53 3.00 5.52 7.5 6.06
30 18.8 12.9 29.9 29.9
wall Top Top.
Bottom ground wall
step

PC. Corset to House 159.53

1+36 - 267 Lt. = 4 Conc. walk * to Conc steps + walk

1+00

0+61 - 302 Lt. - Beg Wire fence

0+50

0+23 - 20' Lt. = 5 Conc. walk to Conc. steps
± walk to House

0+10

50' N. = N.L.F. = 0+00 ahead.

40' N. = N.cb.

Lt	#	rt.
156.42	154.26	154.24
3.11	5.18	5.29
35.8	30	26.7 = walk
Top	at bottom	
step	of steps	
157.8	155.8	154.1
1.7	3.7	5.4
4.0	3.0	2.4
158.4	158.4	152.7
6.1	6.8	6.8
2.0	1.4	7.2
152.7	152.7	152.3
7.2	7.2	7.4
10	20	25
152.3	152.1	151.6
7.9	7.9	9.8
30	40	
157.1	159.4	150.1
157.1	159.4	153.6
152.8	152.0	152.0
157.8	151.8	152.5
152.1		
+0.2	0.1	3.4
45	40	30
5.9	6.7	7.5
26	20	10
7.5	7.5	7.7
10	20	30
7.4	7.4	7.4
40		
159.93	157.53	153.24
152.84		
+0.40	0.00	6.29
49.8	40.8	30.3
walk at	Top	at bottom
Porch	step	of steps
20 = walk		
159.5	159.3	153.1
159.3	157.9	152.2
151.8	151.7	151.5
151.5	151.5	151.8
0.0	0.2	6.4
40	37	30
6.6	7.3	7.7
23	20	10
7.8	7.8	8.0
10	20	30
7.7	7.7	7.7
40		
152.4	152.1	151.8
151.7	151.7	151.6
151.5	151.5	151.8
7.1	7.4	7.7
30	20	10
7.8	7.8	7.9
10	20	30
7.9	8.0	7.9
20	30	
152.4	152.1	152.1
152.0	151.7	151.3
151.7	151.3	151.2
7.1	7.4	7.4
30	20	10
7.5	7.8	8.2
10	20	30
8.3	8.3	
159.83		

3+50

159.8 159.6 156.9 156.5 Lt 156.4 156.2 # 156.1 155.5 Rt 155.4 151.2 23

7.0	7.2	9.9	10.3	10.4	10.6	10.7	10.7	11.3	11.4	15.6
40	35	30	20	15	10		10	20	30	40

3+00

156.6 155.9 155.4 155.1 155.1 154.8 154.4 154.4 148.6 143.4

10.2	10.9	11.4	11.7	11.7	12.0	12.4	12.4	18.2	23.4
40	30	20	10		10	20	30	40	100

2+96- 28' Lt = # 3' Conc. walk

2+94- 30' Lt = end-Ely. Hedge

2+50

155.6 155.3 154.6 154.2 154.2 153.9 154.0 153.7 153.7 149.1

10.20 10.86
3' walk 28' walk

11.2	11.5	12.2	12.6	12.6	12.9	12.8	13.1	13.1	17.7
40	30	20	10		10	13	20	30	40

T.P. 13.13 166.85 5.81 153.72

155.0 154.6 154.2 154.1 153.6 153.5 153.4 153.4 153.1 150.1

166.85

4.5	4.9	5.3	5.4	5.9	6.0	6.1	6.1	6.4	9.4
40	30	20	15	10		10	20	30	40

1+97- 29.4 Rt = Nly Conc. Slab

153.24 153.46 153.46 153.46 153.46 153.46 153.46 153.46 153.46 153.46

6.11 Cor. 29.4 Conc 6.07 Conc at Porch

6.29 29.7 Cor. Conc 6.07 Conc

1+77- 29.7 Rt = Sly. Conc. Slab along House 5' High

1+62- 31' Lt = end fence + 30' Lt = Beg. Ely 3' Hedge

1+62- 29' Rt = Beg. wire fence - Posts in Conc

1+50

156.3 155.7 154.3 153.5 153.1 153.1 152.8 152.7 152.6 151.6 149.9 142.8

along House

3.2	3.8	5.2	6.0	6.4	6.4	6.7	6.8	6.9	7.9	9.6	16.7
40	32	30	20	10		10	20	25	30	40	100

159.53

5+30

T.P. 12.10 178.10 0.85 166.00

4+99-27.4 Rt = ± 5.5 Conc. Steps

4+90

4+84-29.9 Lt = ± 2 Conc. Steps + walk

4+60

4+30

4+00

170.7	170.9	168.9	167.2	166.5	165.7	166.2	165.9	165.6	166.3	166.9	34.9
7.4	7.7	9.2	10.9	11.6	12.4	11.9	12.2	12.5	11.8	11.2	16.2
40	35	30	20	13	10		10	15	20	30	40

178.10

169.9	168.7	166.1	165.5	162.5	162.8	162.6	2.31	8.57	9.09
+3.1	+1.9	0.7	3.3	4.3	4.0	4.2	27.4 Top	41.7	51.7
40	34	30	20	10		10	16.2	Bottom	5.7
							11.34	5.5	15.8
							16.2	15.8	15.9
							11.34	3.3	8.2
							16.2	15.8	11.9
							16.2	3.3	8.2
							16.2	15.8	11.9

170.30	168.04	164.90
--------	--------	--------

+3.45	+1.19	1.95
45.8	35.8	29.9
walk	Topstep	Bottom step

164.4	166.8	162.5	161.5	161.0	160.4	160.6	160.2	160.9	160.8	160.9	155.1
10.6	0.0	4.3	5.3	5.8	6.4	6.2	6.6	5.9	6.0	5.9	11.7
40	37	30	20	14	10		12	14	20	30	40

165.7	164.6	160.3	159.4	158.9	158.8	158.5	158.4	158.6	153.7
1.1	2.2	6.5	7.4	7.9	8.0	8.3	8.4	8.2	13.1
40	36	30	20	10		10	20	30	40

162.6	162.2	158.9	158.1	157.8	157.6	157.4	157.0	157.3	153.3	147.3
4.2	4.6	7.9	8.7	9.0	9.2	9.4	9.8	9.5	13.5	19.5
40	36	30	20	10		10	20	30	40	100

166.85

check T.P. P. 25

5.52 172.58 172.59

60' N. - N.L. Hilltop

50' N. - N. cb.

40' N.

30' N. = E

10' N. - S. cb.

5+61.25 = SL Hilltop - 30' RT = end fence

177.1	177.0	176.6	175.9	174.2	174.4	176.4
1.0	1.1	1.5	2.2	3.9	3.7	1.7
30	20	10		6	20	30
				in Div. D.		

176.3	175.7	175.5	173.3	173.1	173.1	174.0	174.0
1.8	2.4	2.6	4.8	5.0	5.0	4.1	4.1
30	20	10		10	20	23	30

172.9	172.6	172.0	171.4	171.0
5.2	5.5	6.1	6.7	7.1
30	20		20	30

172.8	172.3	171.5	170.8	170.3
5.3	5.8	6.6	7.3	7.8
20	20		20	30

172.2	171.5	171.1	169.8	170.2	170.0	169.8	169.7
5.9	6.6	7.0	8.3	7.9	8.1	8.3	8.4
30	20	14	12		10	20	30

172.6	171.8	170.3	169.8	168.6	169.2	169.0	168.9	169.3	168.4
5.5	6.3	7.8	8.3	9.5	8.9	9.1	9.2	8.8	9.7
40	30	20	13	11		10	20	30	40

178.10

X-Section 69th from Saranac to
Mandalay Rd. - Sketch + Orig. Notes
in Book 1745 - P. 1

W.O. 31546

INDEXED
WK
DEC 8 1948

12-6-48

7.0

0+60 = 2' N. of S. side of 15' ^{Doub. Gar. - Conc. floor.} Conc. Dr. to

4574.8	4555.3	4576.2	4577.5	4586.4	4589.9	440.3	461.0	461.18	463.70
11.8	11.3	10.4	9.1	8.2	7.1	6.3	5.6	5.38	2.66
55	45.2	30	20	20	17	23	30	31.4	53
	approx. WL							edge Dr.	Floor Gar.

0+75

4574.7	4576.6	4581.1	4590.5	460.5	461.7
11.9	10.0	8.5	7.6	6.9	4.9
51.2	30	20	17	20	30
approx. WL					Prop. PC

0+00 = N.L. Saranac + 22 Lt. - \pm P. pole # P71022

4574.7	4576.6	4579.4	4594.4	460.1	462.6	464.7
11.9	10.0	8.7	7.2	6.5	6.1	1.9
69.39	40	30	20	20	30	55.01
Prop. PC						Prop. PC.

0-10 = Gutter line to E.

4574.5	4577.5	4583.3	4594.4	461.1	464.7
12.1	9.1	8.3	7.2	6.1	1.9
80	30	20	20	30	80

0-30 = \pm Saranac

4574.5	4577.5	4594.6	461.7	465.7
12.1	9.1	7.0	4.9	0.9
80	30	edge of oil pave	30	80
				(oil pave)

B.M. 5.75 466.56

460.81 = Top F.H.
B 1745-2

SE Saranac
+ 69th

466.56

Lt.

#

Pt.

36

3+13- 50' Rt. = Φ Doub. Gar - Conc. floor

J.P. 559 461.93 10.22 456.34

3+00 - Houses on Lt. arc way back +
ground slopes down to W.

2+80- 36.6' Rt. = Φ 16" Conc. Dr. to Doub. Gar.
Conc. floor - way back

2+50-

2+09- 21.7' Lt. = Φ P. pole # 71023
on Rt

2+00 = Φ 8' Conc. Dr. - to Doub. Gar. Conc. floor
way back

1+50.52 = Opp. E.C. on W.L.

1+09.2 = opp. P.C. on W.

	Lt	A	Rt
3+13- 50' Rt. = Φ Doub. Gar - Conc. floor	11.6 40	10.456.3 20	9.457.0 20
J.P. 559 461.93 10.22 456.34		461.93 10.456.3	458.22 1458.22
3+00 - Houses on Lt. arc way back + ground slopes down to W.	11.0 30	10.456.2 20	9.457.3 0
2+80- 36.6' Rt. = Φ 16" Conc. Dr. to Doub. Gar. Conc. floor - way back	11.3 40	10.456.6 20	8.458.40 36.6 Dr.
2+50-	11.1 30	10.456.5 20	8.458.65 0 Dr.
2+09- 21.7' Lt. = Φ P. pole # 71023 on Rt	11.6 40	10.456.8 20	8.458.4 0
2+00 = Φ 8' Conc. Dr. - to Doub. Gar. Conc. floor way back	10.455.8 30	9.456.9 20	8.458.33 0 Dr.
1+50.52 = Opp. E.C. on W.L.	10.455.7 30	9.457.2 20	8.459.33 0 Dr.
1+09.2 = opp. P.C. on W.	10.455.1 40	9.457.6 20	8.459.4 0 Dr.
		466.56	

5+38 - 29.8 Rt = ± 14' Conc. Dr. to Doub Gar. Conc. floor

5+00

4+65 - 30.8 Lt = Nly. + Wly of Conc wall

4+61 - 54' Rt = ± Doub Gar. - Conc. floor

4+58 - 20 Lt = Sly + Ely. of 2 wide Conc + Rock wall around Dr.

4+58 - 21 Lt = ± P.pole # P 71024

4+50

4+00

3+50

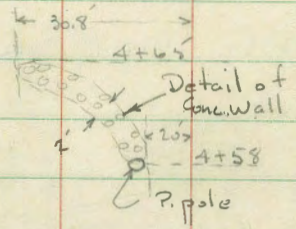
3+35 - 20.7 Lt = ± P.pole # P 278453

Lt.

Rt.

Rt.

6.2 40	5.6 30	5.7 20	5.4 20	5.4 16	4.6 20	4.575 30	4.578 40
5.22 30.8	6.4 30.8						2.97 50
4.0 0	5.6 30	5.9 20	5.8 20	5.9 16	5.9 20	4.574 30	4.576 40
8.3 100	6.5 40	5.9 20	5.8 20	6.2 16	5.1 20	4.574 30	4.574 40
6.6 40	6.4 30	5.9 20	5.8 20	6.1 16	5.2 20	4.573 30	4.577 40
461.93							



Rest of Sections in B. 1745-P. 5 are o.k.

7+50
69th + Mandalay
Set BM - S.E. Top Hyd. 0.86 461.07

7+37 38' Lt. = end of Rock wall

7+18 - 3.7' Rt. = Beg wire fence

6+95.91 = U.L. Mandalay + U.L. of Sub.

6+82 - 20.5 Lt. = E P. pole # P 71025

6+79 - 20' Lt. = Beg 12" Rock + Conc. wall + fence

6+70 = S.L. Mandalay to Rt.

6+46 - 21.2 Rt. = E F.H.

6+45 = opp Prop P.C. on Rt.

6+00

5+50

4.6 40	2.2 32.3	4.8 32.3	4.0 30	3.4 26	3.8 26	3.2 20	3.3 30	2.7 30	2.1 15
4.5 40	4.4 30	3.9 20	3.7 20	3.6 10	3.1 20	2.9 30	2.8 30	2.5 15	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	
5.1 40	5.1 30	5.0 20	4.5 20	4.5 12	4.2 20	4.0 30	3.8 30	3.4 40	

X= Sect. Manchester Road - from
Saranac to Mandalay Rd - for Paving

2827

W.O. 31546

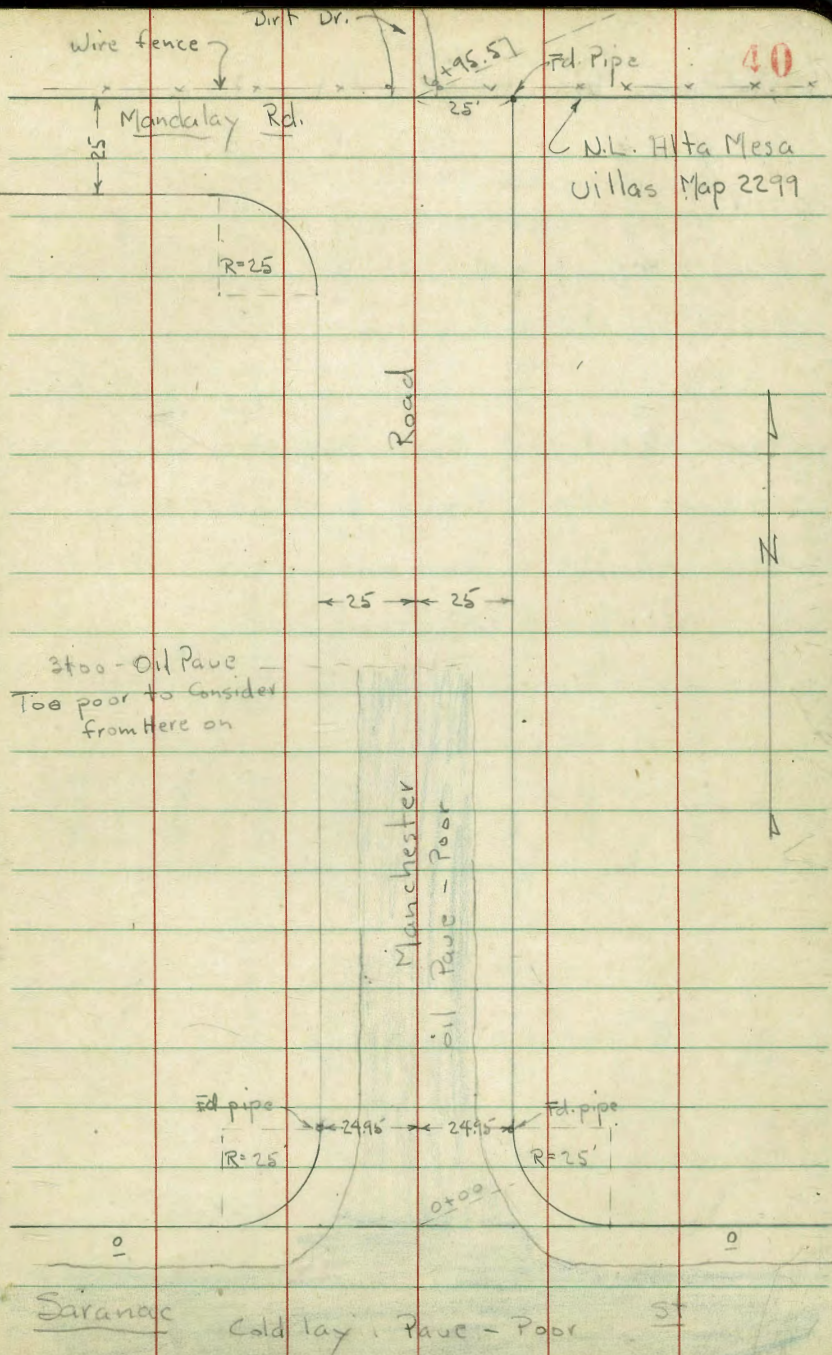
INDEXED

12-7-48

WK

7.0

DEC 8 1948



X-Set Manchester Rd.

0+78- 24.1 Lt. = Beg Picket fence
Sides - Doub Grav - Conc floor

0+65 = 3' N. of S. edge of 14' Conc Drives - Bath

0+65 - 23' Lt = end Hedge

0+25 = PC of Prop Rad - Beg strip of oil Pave Poor Cond.

0+23-23.2 Lt. = \pm Pole No Number

0+09-73.1 Lt. = \pm Dead man

0+01 - 29' Rt. = \pm 24" Pepper Tree

0+00 - N.W. Saranac

0+15 - 23' Rt. - Beg \pm small Hedge

0-10 = N. gut. hedge of Pave along Saranac

0-30 = \pm Saranac = Cold lay Pave

N.W. Saranac + Manchester

Set B.M. = Nail in Pole 4.68

4.89 475.89 2.36 471.00

B.M. 12.55 473.36

460.81 Top F.H.
P. 36

Lt. - W. A

Rt. - E 41

5.60 40 Gar. floor	5.65 24 edge Dr.	6.3 15 edge	5.7	6.0 15 edge	4.6 25	4.37 20.1 edge Dr	3.42 40.3 floor Gar
470.29	470.24	469.6	470.2	469.9	471.3	471.52	472.47
5.470.4 35	5.470.7 25	5.470.4 17	6.469.9 15	5.470.7 2	5.7 16 edge oil Pave	4.471.1 19	4.471.3 25
470.7	470.3	470.3	470.6	470.9	470.7	471.3	472.1
5.470.7 35	5.470.3 2	5.470.3 25	5.470.6 5	5.470.9 0	5.470.7 15	4.471.3 26	3.8 35
5.469.8 100	5.470.3 50	5.470.6 26	5.470.8 15	4.471.0 49	4.470.94 5.470.8 25	4.471.0 58	5.470.7 100
5.470.7 100	5.470.9 50	5.470.9 80	4.471.1 48	4.471.1 30	4.471.24 50	4.471.1 100	

475.89

T.P. 423 472.28 7.84 468.05
 2+00 = end of oil Pave for any practical use 8.2
 35

2+95 = 16' Lt = Beg. 12" Rock + Conc. cb. - (sloping)

2+94 = 24.9 Lt = E P. pole - No #

2+81 = 26' Lt = E 14' Conc. Dr. - Doub. Gar. - Conc. floor

= E 3' Conc. walk on Lt. Conc. floor

2+50 = 3' N. of E of 15' Conc. Dr. on Rt. - Doub. Gar.

2+06 = 26.2' Lt = E 14' Conc. Dr. - to Doub. Gar.

2+00

1+77 = 25.8' Lt = E 3.5' Conc. walk

1+50.

1+45 = 25.5' Lt = end fence

1+44 = 24.4' Lt = E P. pole - No #

1+00

	Lt.		Rt.	
467.9	8.0	7.9	8.4	8.3
25	17.3	15.8	15	15
7.54	8.46	9.4	8.3	7.8
17 = Top	16 = Low	9.4	17	25
467.76	8.13	7.49	8.4	8.3
40 = floor	26 = Dr.	468.2	468.0	468.1
468.70	7.19	7.2	7.9	7.4
39.8	26	25	15	25
walk at porch	edge	edge	edge	edge
468.34	7.55	7.24	7.4	7.0
40 = floor	26 = Dr.	468.5	468.89	468.19
468.3	7.6	7.6	6.6	6.7
35	15	15	18	25
468.77	7.12	7.2	7.3	6.9
at porch	walk	edge	edge	edge
468.97	6.5	6.5	6.6	6.6
25.8	6.5	6.5	6.6	6.6
468.9	7.0	7.0	7.0	7.0
35	15	15	17	25
468.9	6.4	6.4	6.4	6.4
25	15	15	15	25
468.9	6.0	6.0	6.0	6.0
35	15	15	15	25
468.6	6.3	6.3	6.3	6.3
35	15	15	15	25
470.4	5.5	5.5	5.5	5.5
25	15	15	15	25
470.6	4.4	4.4	4.4	4.4
35	15	15	15	25
		475.89		

5+00

4+50

4+42 - 25'8" Lt. = \pm P. pole No #

s. edge of 14' Conc. Dr. to Doub. Gar - Conc. floor

4+27 - 23.2 Lt. = end of Ely. of 3' walk \pm 3' N. of N.+S. from N. edge of E+W walk below

4+02.8 - 22.9' Lt. = Beg Ely. of 3' Conc. walk

4+00 - 15' Lt. = Sly. of 2.8' Conc. walk to House

3+75 - 25' Rt. = \pm 7' Conc. Dr. - Gar. way back

3+50 = 1' N. of s. edge of 14' Conc. Dr. on Lt.
 Doub. Gar - Conc. floor

3+49 - 16.4 Lt. = end of Rock + Conc. cb.

3+37 - 25.1 Rt. = \pm 3.3' Conc. walk

3+26 - 17' Lt. = \pm 3' Conc. walk thru curb.

3+06 - 25' Rt. = \pm 8' Conc. Dr. - Sing. Gar - Conc. floor

447.8 4.5 35	448.1 Lt. 4.2 25	447.9 4.4 19	446.8 5.1 15	447.2 # 4.1 15	446.9 5.1 14	447.6 Rt 4.7 17	447.6 4.7 20	447.6 4.8 35
447.3 5.0 35	447.9 4.4 25	447.9 4.4 19	447.0 5.3 15	447.4 4.9 15	447.2 5.1 14	448.0 4.3 16	448.1 4.2 20	448.1 4.2 35
447.53 4.75 41 floor Gar.	447.80 4.48 27.2 edge Dr.		447.80 4.48 23.2 = Cor walk					
		447.82 4.46 22.9 = Ely. walk						
448.56 3.72 39.8 walk at Porch	447.83 4.46 25.9 Brk.	447.81 4.47 22.9 Brk in walk	447.05 5.23 15 = edge walk	447.4 4.9 15	447.1 5.2 15	447.8 4.5 17	448.27 4.1 25	448.2 4.1 25
							448.90 3.38 50 Dr.	448.7 3.5 55
447.19 5.09 39.8 floor Gar.	447.32 4.96 26 edge Dr.	447.3 5.0 25	447.5 4.8 18	447.2 5.1 15	447.5 4.8 15	447.2 5.1 15	447.9 4.4 18	447.9 4.4 25
		447.61 4.67 17.3 = top cb.	447.5 4.55 17 = walk	447.2 5.0 16.4 = top		448.20 4.98 25.1 walk	447.9 4.4 25	447.4 3.9 35
447.71 4.57 39.7 walk at porch							447.71 2.57 40 = walk	448.44 2.44 55 floor
				472.28		448.45 3.83 25 = Dr.		

6+70.57 = S.L. of Mandalay to W.

6+63 = 51' Rt. = # Doub. Gar. - will have Conc. floor

6+45.57 = opp. 25 Rad. - Prop PC on Lt

+ Walk to House

6+27 = 15.8' Lt. = Bottom of 3 Conc. steps (3 steps)

6+00

54+93 = 27' Lt. = # P. pole No #

to Sing Gar. Conc. floor

54+73 = 28.9' Lt. = # 8' Dr. = 2-2.5' Conc. strips

5+50

Lt.	#	Rt.	44
466.03			
6.25	5.6	5.1	5.9
79	50	30	25
on Prop E.C			
Conc. Dr.			
467.6	467.5	467.5	
4.7	4.8	4.8	6.0
35	25	20	16
467.6	467.5	467.5	
4.7	4.8	4.8	6.0
35	25	20	16
468.01			
4.27	4.47	5.49	
39.8	19 = Top	15.8 = Bottom	
walk at Porch	step walk	step	
467.9	467.7	466.4	466.8
4.5	4.6	5.9	5.5
35	18	14	5
467.9	467.7	466.4	466.8
4.5	4.6	5.9	5.5
35	18	14	5
467.62			
4.66	4.48		
51.5 = floor	28.9 = Dr.		
467.9	467.7	466.7	466.9
4.5	4.6	5.6	5.4
35	25	18	15
467.9	467.7	466.7	466.9
4.5	4.6	5.6	5.4
35	25	18	15
467.4	467.3	466.8	
4.9	5.0	5.1	
7	25	35	
472.28			

11/16/49
V.N.P. 31546

Sommermeier

Lt.

£

Rt.

45

Set B.P. in S.E. Cor. school porch.
N.W. Cor. Mohawk + 69th

3.47 462.25

Set B.P.

Top Hydt.

Saranac + 69th 4.91 465.72 — 460.81 Page 36

P. 39
check F.H.

7.90 461.05 461.07

0.42 468.95

Set B.M. on S.W. F.H.

3.75 468.53

6 + 99.3 = Wire fence along N.L. = end.

also ± of 12' Dirt Dr. to N.

6 + 95.57 = N.L. Mandalay to W. + N.L. of Sub.

6 + 80

Set B.M. on N.W. Cor. Conc. porch at 5177 + 69th St.
= House S.E. Cor. Mandalay + 69th.

No. cross or pl 49.
Rod on N.W. Cor. porch. 3.02 461.00 = B.M.
(porch is 5' 2" x 9' 15")

From

P 39 2.95 464.02 — 461.07

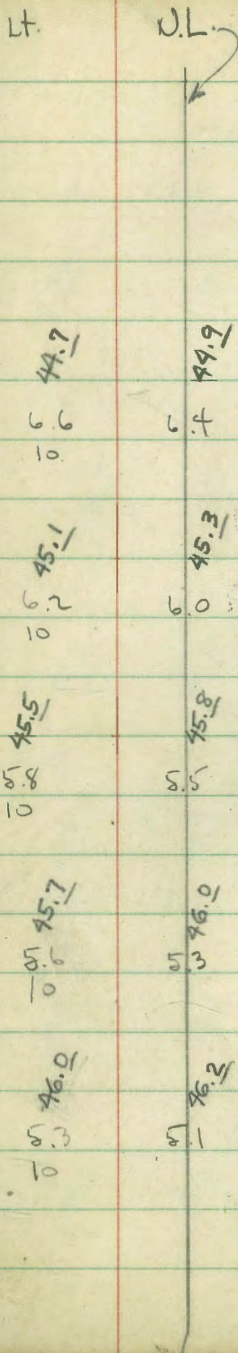
Top S.E. Hydt.
69th +
Mandalay

6.5 79	5.7 50	5.3 25	5.7 6	5.5 13	5.7 17	5.7 25	5.7 25
465.8	466.6	467.0	466.9	467.1	467.0	466.9	466.9
7.0 79	5.3 50	6.1 25	5.7 6	5.5 13	5.7 17	5.7 25	5.7 25
465.3	466.0	466.2	466.7	466.8	467.1	466.9	466.9
7.2 79	5.7 50	5.7 25	5.7 6	5.7 13	5.7 17	5.7 25	5.7 25
465.1	465.6	466.2	466.6	466.7	466.9	466.9	466.7

472.28

Gutter Sections along N. Side of
 Pac. Beach Dr. from Ingraham to
~~JEWELL ST~~^{Cal}
 Kendall - St. Has variable width
 Base line = N. line.

4-15-49 - 7.0.



2+00

44.7
 6.6
 10.6
 44.9
 6.4
 7.5
 45.8
 5.5
 7.0
 46.0
 5.3
 40.0
 45.8
 5.5
 40.0

1+50

INDEXED
 W.K.
 NOV 30 1949

45.1
 6.2
 10.2
 45.3
 6.0
 7.5
 46.1
 5.2
 7.0
 46.3
 5.0
 40.0
 46.0
 5.3
 40.0

1+00

45.5
 5.8
 10.0
 45.8
 5.5
 7.0
 46.3
 5.0
 7.0
 46.3
 5.0
 40.0
 46.2
 5.1
 40.0

0+50

45.7
 5.5
 10.0
 46.0
 5.3
 7.0
 46.2
 5.3
 7.0
 46.4
 4.9
 40.0
 46.4
 4.9
 40.0

0+29.25 = E.L. to N.

46.0
 5.3
 10.0
 46.2
 5.1
 7.0
 46.2
 5.1
 7.0
 46.1
 5.2
 40.0
 46.2
 5.1
 40.0
 46.2
 5.1
 40.0

0+00 = E.L. of Ingraham to South

B.M. 5.17 51.28 46.11 = 4 ct. 51.28

JEWELL ST
E.P.

Conc. Pavc

5+30 = W.L. Kendall to N. = end of cb. +

4+78 = 13' Conc. Dr. on Lt.

4+50

Begin lawn + shrubs - not filled over.

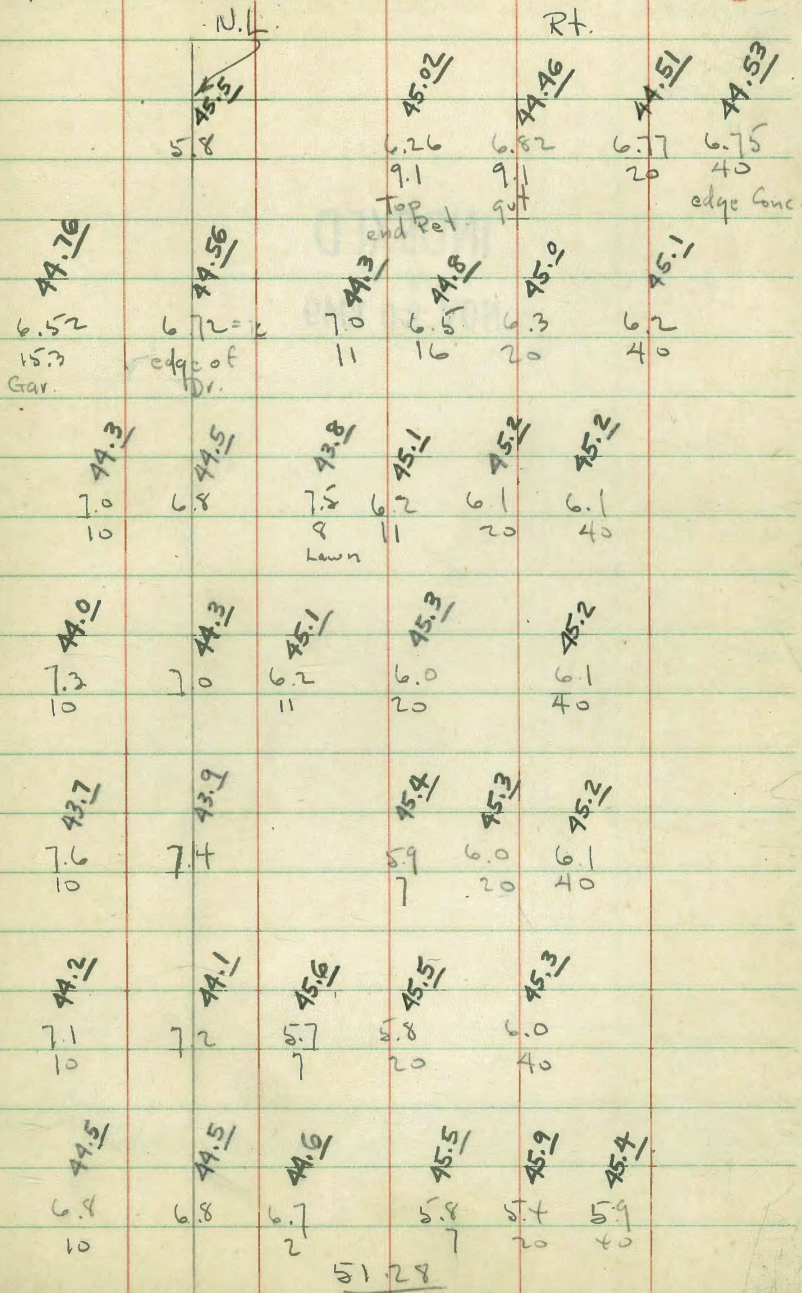
4+00

3+50

2+00

2+50

Lt.



4-23-49

X Sect. La Fleur Gardens

Hendricks
Greer
Rorer
Wd# 25001

INDEXED
N.K.
NOV 30 1949



LANE

ARBE

50'

321'

Fd. Pipes

4+26.53 18

LANE

20' 20'

5'

LANE

ROSECROFT

BOSE

Fd. Pipe

0+00

Asp. Pav. CATALINA

BLVD.

40' 40'

Fd. Sp.

4-23-49 Xsects. La Fleur Gardens
 Hendricks
 Greer
 Rover
 W0# 25001

49

0+50

301 ²	300 ²	300 ²	300 ²	301 ²	302 ²	302 ²	303 ²	304 ²	305 ²
7 ¹	7 ²	7 ⁵	8 ¹	6 ⁵	5 [?]	5 ²	4 ⁵	3 ⁵	2 [?]
371	321	300	250	200	150	100	50	25	0

0+00 W. line La Fleur Sub

300 ²	299 ²	300 ⁵	300 ⁵	301 ³	302 ³	303 ²	304 ²	305 ²	305 ²
7 ⁷	8 ²	7 ⁶	7 ⁵	6 ⁸	5 [?]	4 ⁷	3 ⁸	2 [?]	2 ⁵
371	321	300	250	200	150	100	50	25	0

0-20

Notes Reduced
 4-26-49

301 ²	301 ²	301 ⁴	302 ²	302 ²	303 ²	304 ²	304 ²	305 ²	306 ²
7 ⁶	7 ⁰	6 ⁷	5 [?]	5 ⁵	4 ⁶	3 [?]	3 [?]	3 ⁰	2 ⁰
371	321	300	250	200	150	100	50	25	0

0-40 E Catalina Blvd

301 ²	301 ²	302 ²	302 ²	302 ²	303 ²	304 ²	305 ²	305 ²	306 ²
6 ^{6²}	6 ³⁰	6 ⁵	5 ⁷⁸	5 ⁵	4 ⁷⁶	3 ⁷⁷	2 ⁹⁰	2 ⁷⁹	1 ^{6²}
371	321	300	250	200	150	100	50	25	0

BM 1^{6²}

308.12

306.50

308.12
 E Spk Catalina & Rosecroft Lane

X Sect. LaFleur Gardens Contd.

50

3+00

310 ¹ 46	309 ^{1/2} 57	309 ¹ 67	308 ^{1/2} 71	307 ^{1/4} 79	306 ^{1/2} 87	307 ¹ 87	307 ⁰ 87	306 ^{1/2} 87	307 ^{1/2} 87
371	321	300	250	200	150	100	50	25	0
315.25									

TP. 8.75 315.25 1.62 306.50 306.50

5pk Rosecroft Lane & Catalina

2+50

307 ^{1/2} 109	307 ^{1/2} 07	307 ¹ 10	306 ^{1/2} 18	305 ^{1/4} 25	305 ^{1/2} 29	304 ^{1/2} 37	305 ^{1/2} 31	304 ^{1/2} 37	305 ^{1/2} 29
371	321	300	250	200	150	100	50	25	0

2+00

306 ^{1/2} 14	305 ^{1/2} 27	305 ^{1/4} 27	304 ^{1/2} 31	304 ^{1/2} 37	303 ¹ 44	303 ^{1/2} 48	304 ^{1/2} 37	304 ^{1/2} 37	305 ^{1/2} 26
371	321	300	250	200	150	100	50	25	0

1+50

304 ^{1/2} 39	303 ^{1/2} 45	303 ^{1/2} 48	302 ^{1/2} 52	302 ^{1/2} 61	301 ^{1/2} 67	303 ^{1/2} 48	304 ^{1/2} 41	305 ^{1/2} 31	305 ^{1/2} 27
371	321	300	250	200	150	100	50	25	0

1+00

302 ^{1/2} 53	302 ¹ 60	301 ^{1/2} 67	301 ^{1/2} 68	301 ^{1/2} 67	302 ^{1/2} 58	303 ^{1/2} 49	303 ^{1/2} 45	305 ^{1/2} 27	305 ^{1/2} 26
371	321	300	250	200	150	100	50	25	0

308.12

B.17 8.75 306.50 306.50

~~4126.53~~

~~4100~~

3150

315.25

Starting 19.17-

$316\frac{1}{4}$	$315\frac{1}{2}$	$314\frac{3}{4}$	$313\frac{1}{2}$	$313\frac{1}{2}$	$312\frac{1}{2}$	$312\frac{1}{2}$	$312\frac{1}{2}$	$312\frac{1}{2}$	$312\frac{1}{2}$
+1	0	0	1	2	2	2	2	2	2
371	321	300	250	200	150	100	50	25	0

$314\frac{1}{4}$	$313\frac{1}{2}$	$313\frac{1}{4}$	$312\frac{1}{4}$	$311\frac{1}{2}$	$310\frac{1}{2}$	$311\frac{1}{2}$	$311\frac{1}{2}$	$311\frac{1}{4}$	$311\frac{1}{4}$
0	1	1	2	2	4	4	4	3	4
371	321	300	250	200	150	100	50	25	0

$312\frac{1}{2}$	$311\frac{1}{4}$	$311\frac{1}{4}$	$310\frac{1}{2}$	$310\frac{1}{4}$	$309\frac{1}{2}$	$309\frac{1}{2}$	$311\frac{1}{4}$	$308\frac{1}{2}$	$308\frac{1}{2}$	$308\frac{1}{2}$	$309\frac{1}{2}$	$309\frac{1}{2}$
2	2	4	5	4	6	6	3	6	6	6	6	6
371	321	300	250	220	200	164	164	138	100	50	25	0

House

315.25

Roberts
Cota
Moore
Clark
1-15-51
W.O. 20767

Locate Storm Drain 43rd & National Ave.

TP24 page 25

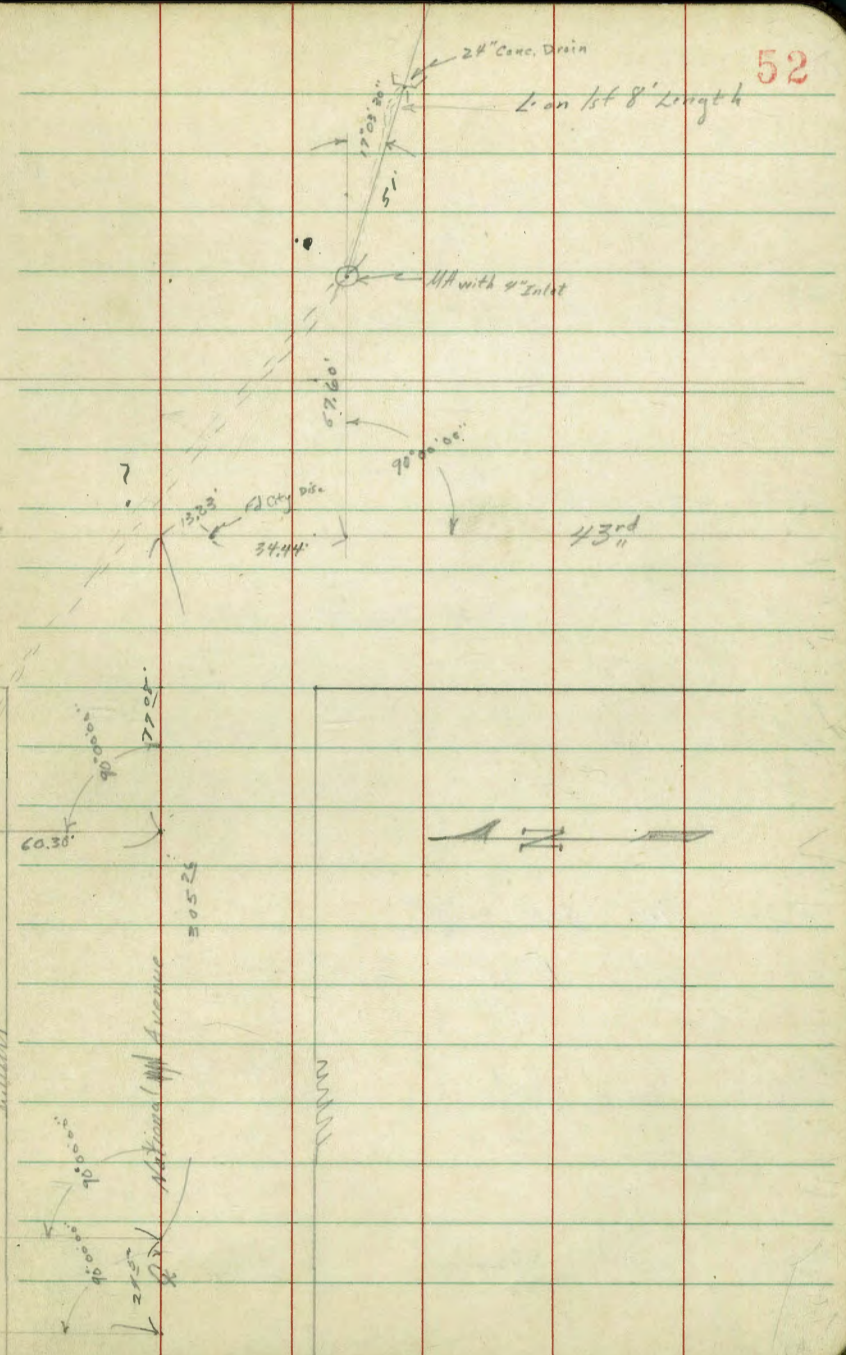
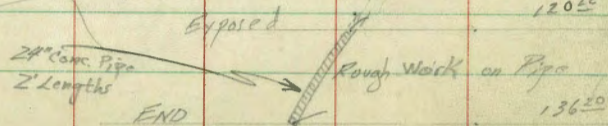
INDEXED
MK
JAN 17 1951

MR. PEARBY OR.

Lead Crews at
Richfield office can give info
as to location of storm drain
in ref. to tank.

4000 Gal. Tank
75' x 20'

Approx. 30' Pipe Exposed
Const. on curve with 1 1/2' Middle Debris



Cont'd From Page 52

check 0.60 57.24 = 57.24

T.P. 11.60 57.84 0.57 46.24

330.26 w of R 43rd END Pipe

305.26 w. of R 43rd where pipe is exposed.

T.P. 2.38 46.84 13.08 44.43 ✓

BM 0.27 57.51 ✓ 57.24 ✓

4" INLET NH East of 43rd

24" INLET East of 43rd

BM 125 58.49 ✓ 57.24 ✓ NNBP
43rd St
National

2

53

55.44

11.37
INVERT

36.00

10.81
INVERT

46.41 ✓

52.65

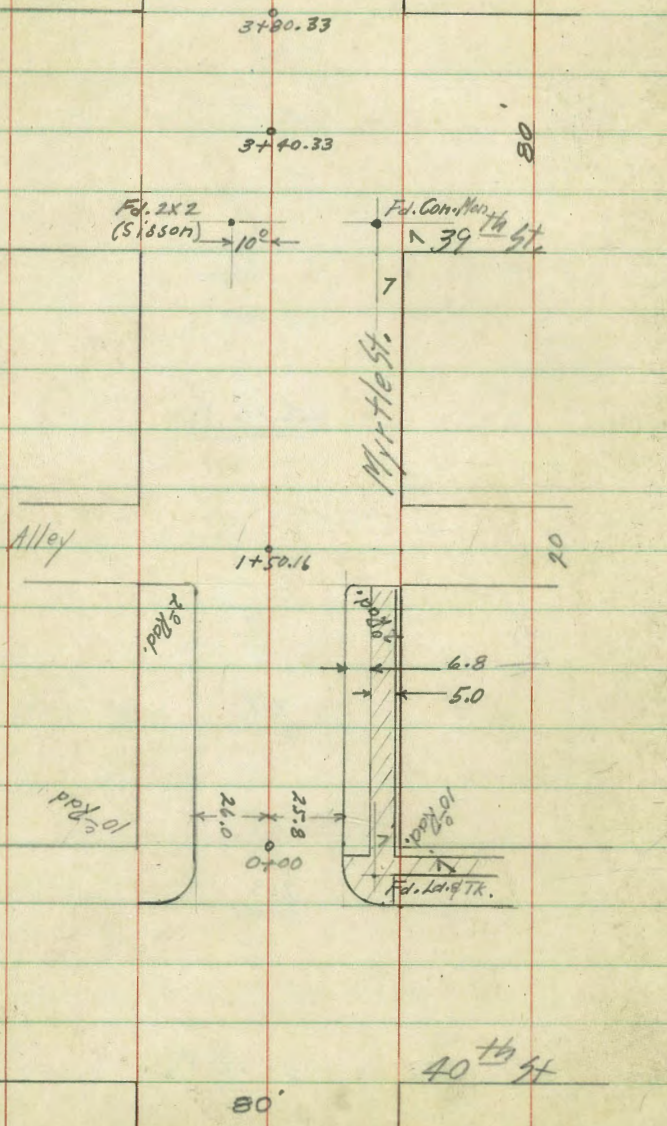
7.84
INVERT

49.24

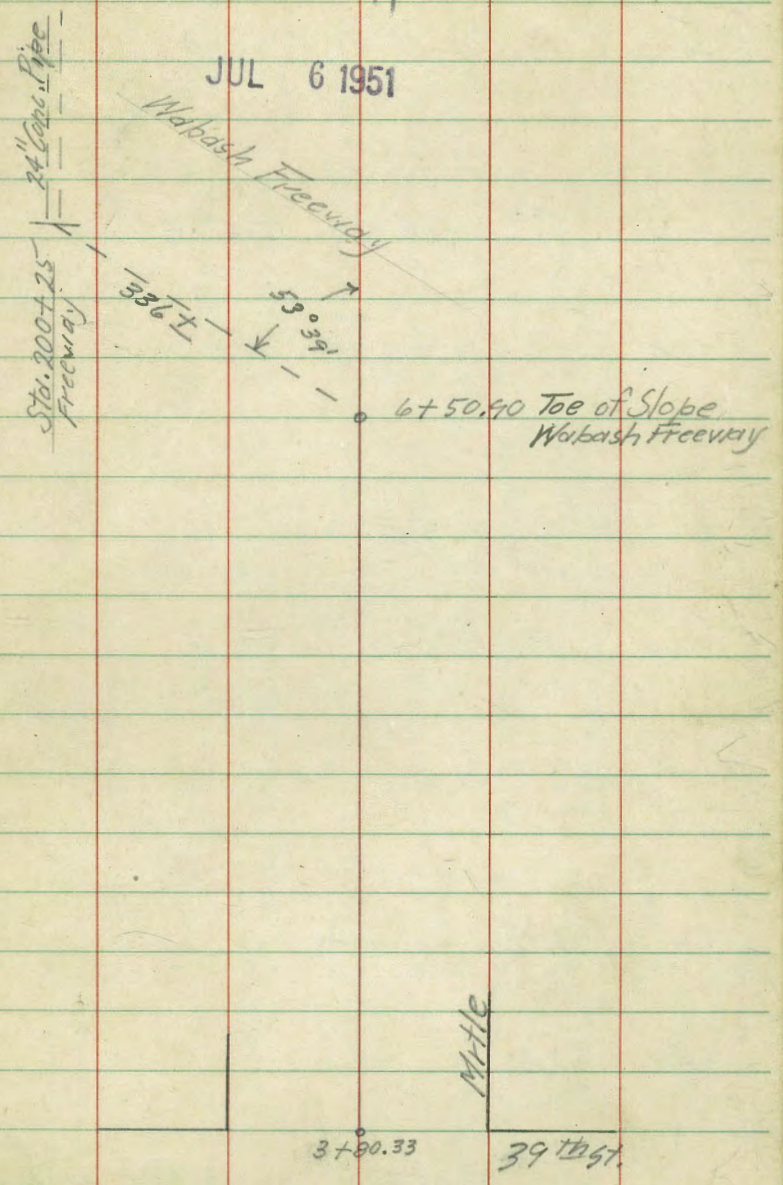
2.23
INVERT

58.49 ✓

Garber X-Sec. (for Pav. Plans) Myrtle - 39th
 Cota to 40th. Levels - Drain to Freeway
 Patten
 Bruner 7/3/51 W.O. 31597



INDIVIDUAL
 JUL 6 1951



+40.16 Ely Alley

+38.16 Cb. B.C.

+36 P.P. 5482338 27.4 Lt.

1+00

+50

+01 P.P. 28^o Lt # 3999

0+00

-14 W. Cb. Line 40th

0-40 L. 40th

4.41 322.59
N

NWBP
318.18 10th of Myrtle

322.59
N

9.74 40 Cb	9.55 40 (Burried)	9.45 28 Cb. E. L.	9.28 28	9.33 3	8.7 27.5	8.67 27.5 (Burried)	8.49 40 Cb. E. L. Cb
312.85	313.1	312.64	312.8	312.3	313.9	313.92	314.10
214.6	213.8	213.69	215.1	214.6	214.4	215.09	215.6
8.0 40	8.8 37	8.70 26	9.5 26	8.0 25.8	8.2 25.8	7.50 25.8	7.23 37.6
515.26	315.47	315.49	316.4	316.0	316.1	316.68	317.06
7.0 40	7.12 26 Cb	7.13 26 G	6.6	6.5 25.8	5.91 25.8	5.54 37.8	5.54 Walk
517.0	317.07	316.4	317.6	317.6	318.09	318.30	
5.6 40	5.57 26 Cb	6.2 26 G	5.0	5.0 25.8	4.50 25.8	4.29 37.8	
3.58 100 Cb.	4.24 100 G	4.46 36 Cb. G	4.94 36	4.69 26 Cb. L	4.73	5.6 25.8	5.9 36 Cb.
318.13	317.65	317.90	317.86	317.0	316.7	317.11	317.7
6.8 100	5.7 40	5.0 33	4.38	4.00 33	3.76 40	3.21 100	3.15 100
318.59	318.59	318.59	318.59	318.59	318.59	318.59	318.59

+36 & 3.5 Cement Walk 40.1 Rt

+15 & 8^o Conc. Dr. 40.1 Rt

2+09 & Dr. 2^o Strips 7^o Wide 41.3 Lt.

2+00

+89 & 3^o Cement Walk Rt.

+70 & 8^o Conc. Dr. 40.2 Rt.

+64 P.P. JP 3949 27.7 Lt

+60.16 Wly Alley

+59 2-Water Meter 41.5 Rt & 43.3 Rt

1+50.16 & Alley

0.91 319.09

318.18

NWBD
40th of Myrtle

Lt.

&

Rt.

56

312.85

312.44

6.64
50

6.65
41.3

6.9
27

7.1
23

5.6
23

5.5
23

4.8
26

4.6
37

4.0
40

3.8
40

3.8
50

3.8
50

3.6
40.2

2.1
63.6

2.1
63.6

5.6
40

5.7
27.5

6.6
26

5.7
23

5.0
23

4.5
27

3.8
40

4.40
41.5
Valve

4.33
43.3
Valve

314.38
4.71
40.1

314.63
4.46
40.1

314.80
4.29
50

314.2
4.8

314.5
4.6

315.09
4.0

315.09
4.01

315.27
4.0

315.27
3.8

316.44
3.6

315.09
2.1

315.27
63.6

319.09
x

Lt. ♀ Rt.

+66.33

6.1	5.2	4.7	4.4	3.9	3.3	1.8	1.9	1.8	1.8
60	40	26	21	9	23	26	40	60	

312.54

3.28 312.54 9.83 309.26

+40.33

♀ 39th

12.7	10.8	10.4	9.9	9.1	8.1	7.8	7.6	5.7
100	40	24	18	9	26	40	50	100

+14.33

10.0	9.7	9.5	9.8	8.6	7.6	7.2	6.7
50	40	26	21	26	40	50	

3+00.33

Ely 39th St.

9.3	9.2	8.8	9.4	8.2	7.5	6.7	6.5	5.8
50	40	26	21	25	29	38	50	

+97

P.P. # P3901

27.8 Lt

+59

Center 18" Eucalyptus 40^o Rt.

+55

♀ 3^o Brick Walk

39.8 Rt.

2+50

7.2	7.4	8.0	6.6	6.3	5.6	5.5	4.8
40	28	22	24	27	38	40	

319.09

319.09

Lt.

Rt.

Rt.

58

12.54 275.41

+60

10.8 276.2
40 15.2 26 3.0
13.0 275.0

+55

8.4 276.6
40 9.0 26 278.1
26 9.2 278.2

+50

6.2 278.8
40 6.7 26 278.1
26 6.3 278.9

+49

P.P. # P3849 27.7 Lt

0.35 287.95

5+00

294.7
5.3 294.7 287.95 T
40 5.3 26 3.7
300.03 T

0.29 300.03 12.43 287.60

+50

10.2 302.3
40 10.0 26 302.5
9.6 307.0 27.9

4+00

6.8 305.7
40 6.0 26 306.5
5.5 307.0 27.9

+85

P.P. # P3899 28° Lt

305.9
6.6 306.7
60 40 5.8 26 5.5 4.5 3.8 2.1 2.1 2.4 1.9
307.0 308.0 308.7 310.4 310.4 310.1 310.6
7 23 26 40 60+80.33 Wly Line 39^H St.

312.54 12.80 299.7+

312.54
T

		7.45	234.96	Rec.
	1.34	242.39	9.41	241.05
+50.9				
+40				
	0.01	250.46		
		12.69	250.45	
+25				
6+00				
	0.42	263.14	12.96	262.72
+90				
	0.27	275.68		

B.M. Inlet Lt.
Wabash Freeway
Sta. 200+25

13.7	8.9	9.7	240.5
50 Along Slope	40	26	240.5
	246.7	244.7	6.243.7
3.8	5.8		6.8
40	26	250.46	T

	15	7.3	
	5.8	8.4	154.7
	40	26	8.3
2.26%			
2.1	0.8	3.8	
40	26		

	7.8	5.8	263.14
	13.7	5.8	263.14
	6.3	7.6	10.0
40	26	22	13

275.68
T

Check Elev. at Top of 24" Water pipe
N. of Mandalay on 69th - Tied to Φ of
69th prod. from the South - Used same
sta. as shown on P. 39.

3-14-52- 70

9+22- 19' Lt. = Φ pipe

8+10- 14.5' Lt. = Top of pipe -

7+7 $\frac{1}{2}$ - 15' Lt. = Top pipe

7+14- 14' Lt. = Top of 24" Water pipe

6+95.91 = N.L. of Sub. - P. 39

Lt. = W. Φ

Rt. = E

60

Indexed

448.27

19 = Top

452.78 = Top

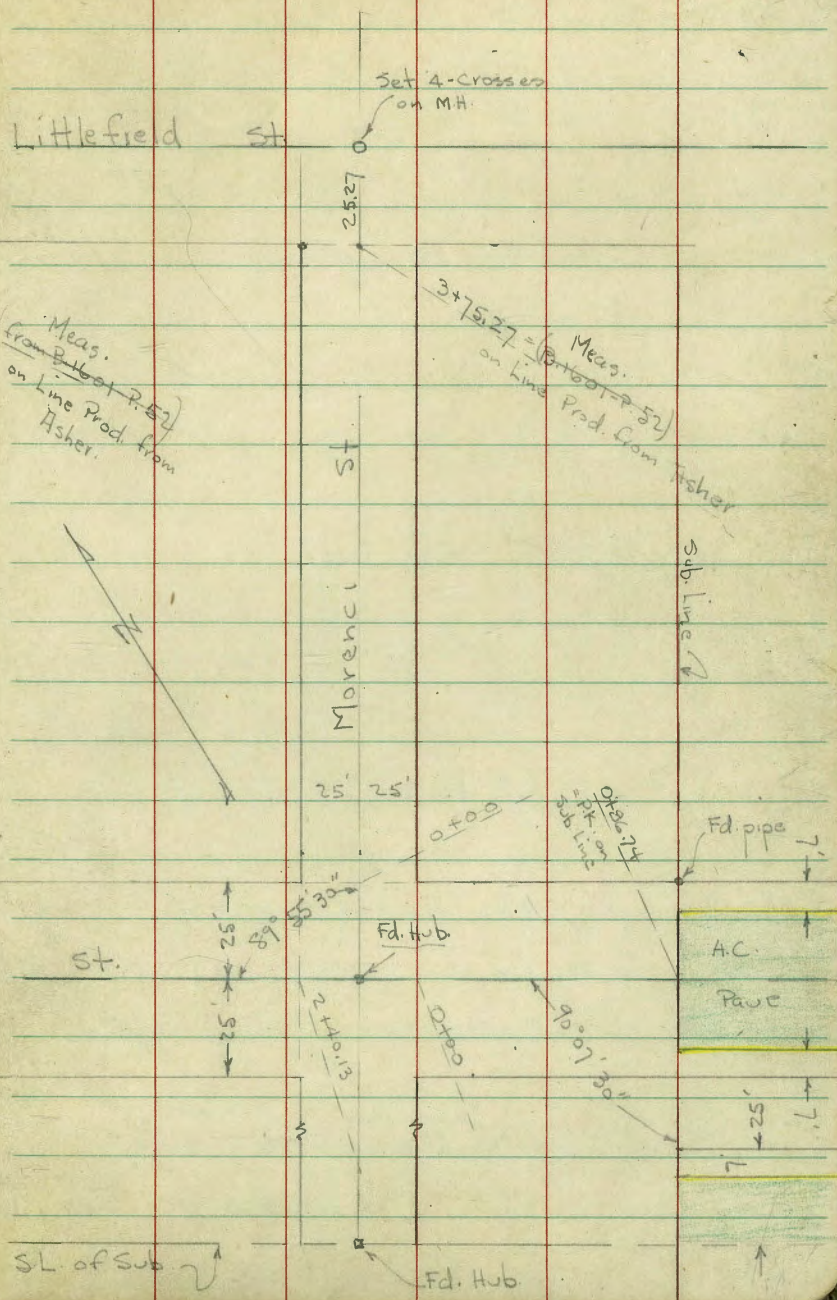
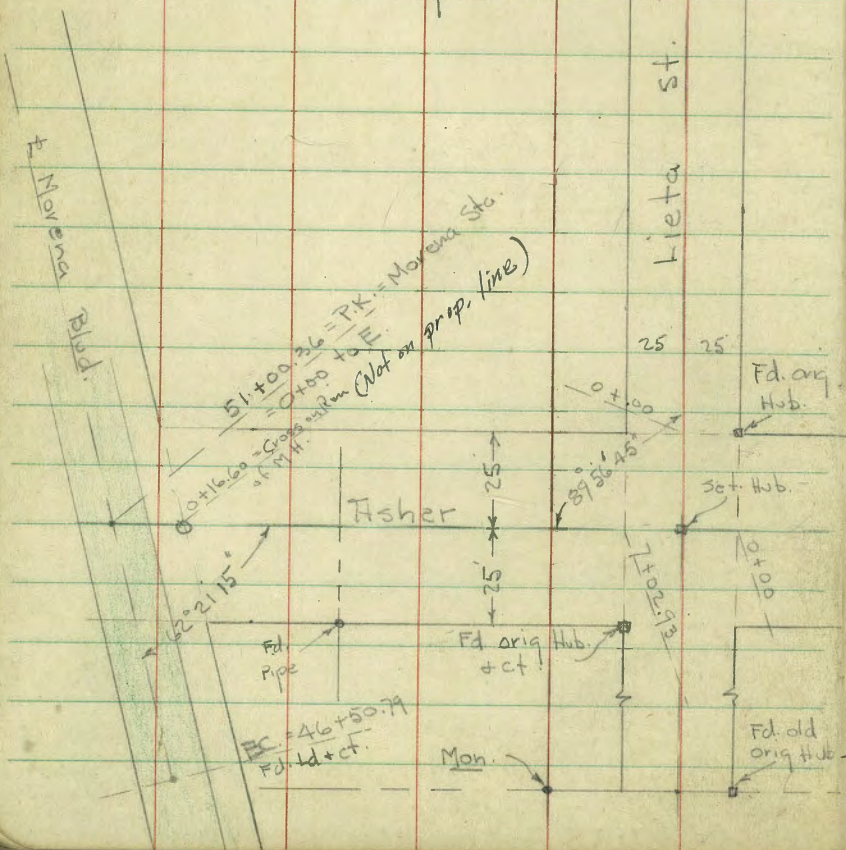
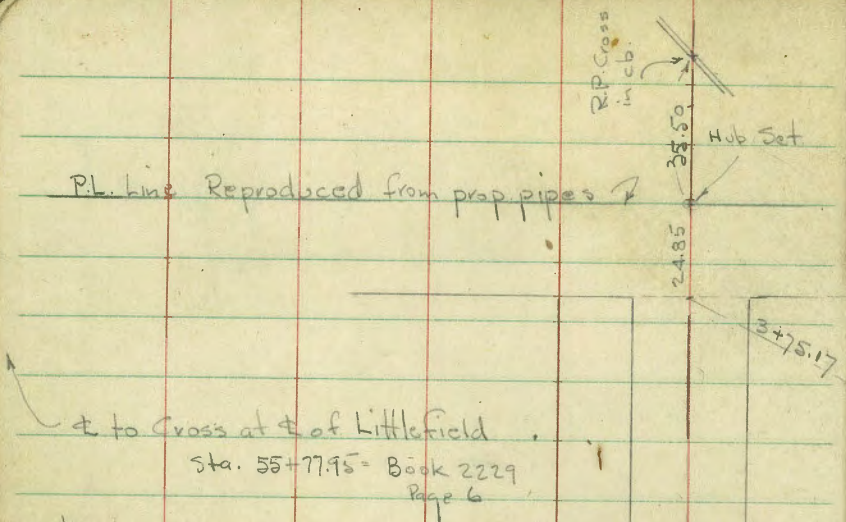
16.7

452.39 = Top

15

452.92

14 = Top



X-Sect. Asher St. from Morena Blvd to

W.L. of Hazard Sub. - sketch - P. 61

6349

W.O. 32175

6-25-52

F.O.

Harden x

1+87- 14.7 Rt. = end fence

1+73- 14.7 Rt. = Beg. = Cor. of wire fence

1+71- 26.1 Rt. = end ct.

1+50

1+23- 25.7 Rt. = Beg. Court Bldg.

1+00

0+50 - Sect. 90° to E

0+28.2 = approx. E.L. = outs along E.L.

0+16.60 = Cross on Rim of Sewer M.H. 14.73 8.33 = I.E.

0+11 = edge of A.C. strip pave - outs along edge

0+00 = E of Morena Blvd pave - Sect B. 2229
Sect. along E of Morena

B.M. = Nail in SW Pole
Coldfield + Littlefield.

25.87

4

E

Rt.

02

INDEXED
JUN 27 1952

22.6
26.1 =
at Cor.

20.8 20.8 20.9 20.5 21.0 20.5 21.3 21.7
35 25 15 12 13 15 26

20.5
25.7 = at Cor.

19.3 19.3 19.7 18.1 19.0 18.2 19.0 19.2 19.2
35 25 15 12 13 15 25 35

16.7 16.9 16.9 15.9 16.6 16.0 17.2 17.4 17.1
35 25 20 12 13 15 25 35

15.5 16.1 16.1 14.5 15.4 15.4 16.5 14.8 16.3
50 28.2 20 14 16 20 28.2 50

14.34 14.44 14.66 14.92 15.26
50 28.2 28.2 50

14.70 14.73 14.88 15.19 15.52
50 28.2 on P.K. 28.2 50

Actual Elev. Shown.

Asher

6+50

6+00

5+50

5+00

4+50

4+00

3+50

3+48- Tip. on Rt. - Nail in top of 2x4 post. 28.03

3+00

2+50

2+06= approx. opp Prop. pipe - 25' Rt.

2+00

Lt.

#

Rt.

63

39.0
2538.2
12

38.7

38.1
1338.6
2536.9
2536.0
12

36.6

36.0
1536.5
2534.7
2533.8
12

34.4

34.0
1434.7
1835.1
2532.7
3532.3
2532.5
1531.8
12

32.3

31.8
1432.4
1832.7
2533.0
3530.9
2530.7
1530.1
12

30.7

30.2
1430.7
2529.6
2529.2
1628.7
12

29.1

28.5
1428.9
2528.2
2527.9
1627.1
12

27.7

27.2
1527.6
2527.5
3527.5
2526.9
2025.3
12

25.9

25.4
1426.5
2526.8
3526.0
2525.0
1523.9
12

24.5

23.7
1324.6
1524.8
2524.1
2522.2
12

22.9

22.3
1323.3
1523.4
25

Asher

50' E. = E.L. = 0+00 ahead

Check B.M. on \pm Hub.

50.03

25' E. = \pm

2+40.13 = w.l. Morenci st.

2+00

1+50

1+00

0+50

50' F. = E.L. = 0+00 ahead.

see 1601 for profile to S.

25' E. = \pm

7+02.93 = w.l. of Hieta st.

L.

 \pm

Rt.

64

51.75	50.6	50.9	50.3	51.1	50.7	50.1
25	15		15	18	25	50
on pipe						

50.9	50.3	50.2	49.6	49.4	49.0
25	15		15	25	50

50.4	49.5	49.7	49.0	49.6	49.3	47.8
25	12		15	18	25	50

50.5	49.8	48.4	48.9	48.0	48.7	47.9	47.3
35	25	12		14	18	25	35

48.5	47.0	47.5	46.7	47.7	47.6
25	13		14	18	25

48.1	47.9	45.6	46.1	45.3	46.2	46.3	45.4
35	25	13		14	18	25	35

45.8	44.1	44.4	43.6	44.8	44.9
25	12		13	17	25

43.6	43.1	42.2	42.6	42.0	43.1	43.0	41.9
25	16	12		13	16	25	50

42.5	42.4	41.2	41.7	41.1	41.7	41.5
25	16	12		13	25	50

41.5	41.4	40.3	40.9	40.3	41.0	41.0	40.4
25	16	12		13	15	25	50

Asher

Lt.

#

Rt.

65

Sub. Line
Set B.M. = spike in Sly. Pole at

51.71 # 4257

1+60 = end.

51.14	50.77	50.51	49.85	50.15
Top	18.1 gut.		18 gut.	Top

1+20 - for profile of improvements

51.54	51.15	51.03	52.57	50.89
Top	18.2 gut.		18 gut.	Top

cb. on Rt. = ends 0.9' w. of line + edge of pave

Note: cb. on Lt. ends 0.2' E. of line - Rods on end.

0+86.74 = W.L. of Sub. + edge of pave + curbs.

52.1	51.57	51.20	51.30	51.38	51.25	50.91	51.26	51.6
25	Top	18.2 gut.	9		9	18 gut.	Top.	25

0+45

52.5	52.1	51.7	51.4	50.8	51.9	52.2
25	19	17		17	19	25

γ-Sect Lieta - from Asher to Littlefield.

sketch - P. 61

3+00

2+65

2+35

2+00

1+75

1+40 = Low Sect. for Drainage

1+00

0+80

0+50

0+00 = N.L. of Asher.

Lt.

±

Rt.

66

47.6
25

48.2

48.9
25

45.9
35

46.7
25

47.8

48.1
25

47.9
35

43.6
35

44.1
25

45.8

46.5
25

46.0
35

40.6
35

41.0
25

42.1

43.0
25

43.1
35

38.6
50

39.5
25

40.5

42.1
25

43.4
50

37.5
50
in Nursery

38.8
25

40.2

41.9
25

44.1
50

39.0
35

39.7
25

42.3

43.7
25

42.2
25

44.0

45.6
25

41.9
35

42.8
25

43.8

45.2
25

45.6
35

41.6
25

42.5

43.6
25

Lieta

Lt E Rt 67

4+00.02 = VPL Line

45.9
50 46.5
25 47.2 47.8
25 48.6
50

3+90 = graded gutter

46.0
50 46.7
25 47.3 47.9
25 48.5
50

3+85

47.3
50 48.1
25 48.4 48.8
25 49.6
50

Lieta + Littlefield
check BM = NE. BP

46.72 46.74

B.1601

3+75.17 = S.L. of Littlefield

47.5
50 47.7
25 48.0 49.0
25 48.9
50

3+40

47.8
25 48.5 48.9
25

X-Sect Morenci St. - from Asher to Littlefield
 sketch - P. 61

2+67- 253' Rt. = ± 8' Conc. Dr.

2+50

2+00

1+84- 25.5 Rt = ± of 8' Conc. Dr.

1+50

1+10 See page 70

1+00

0+60 0+60 Also see page 70

0+32 - see page 70

0+25

0+00 = NL. Asher

B.M. = NE. prop. pipe
 P. 64

51.75

Lt.

±

Rt.

00

59.80
 25.3 = Dr. 61.00
 49.5 = floor
 gar.

54.9 55.4 57.5 56.7 57.4 58.2 59.1 59.7
 35 25 18 14 15 25 35

53.9 54.9 55.7 56.2 56.5 57.7 58.3
 35 25 12 15 25 35

57.24 58.57
 25.5 Dr. 40

55.3 55.3 55.6 55.6 56.9 57.8
 25 15 15 25 35

54.1 54.5 54.6 54.8 55.1 56.4 56.9
 35 25 15 16 25 35

53.4 53.6 54.1 53.7
 25 15 25

52.4 52.3 52.6 52.8 53.3
 25 15 15 25

50.4 50.4 50.9 51.2 51.7
 25 13 18 25

Morenci

Eire + Littlefield
Check B.M. = \square in N.W. Ret.

59.00

4+00 .54 = P.L. Line

3+75.27 = S.L. of Little field

3+65 - 25.7 ft. \pm of 8' Conc. Dr.

3+40

3+16 - 25.3 ft. \pm 8' Conc. Dr.

3+00

Lt.

\pm

Rt.

89

57.8
50

59.3
25

60.81
5. Cross on
Rim of M.H.

62.1
25

63.1
50

57.6
50

59.5
25

60.0
15

60.7

61.6
15

62.5
25

65.8
50

62.95
25.7 = Dr.

65.76
48

58.4
35

59.7
25

59.7
15

60.5

61.3
15

62.2
25

61.76
25.3 = Dr.

63.74
45.5 = floor
gar.

58.1
35

58.8
25

58.8
15

59.1

60.1
15

61.0
25

62.3
35

Morenci St.

Additional notes to P 68

±

70

N.E. Pipe from P 68 = EL. 51.75

C.H.S.

9-22-52

1+10 29' Lx ± 8' wide Conc. drive

54.56 54.59

44
Gar Floor drive

0+60 25' Lx ± 8' wide Conc. drive

53.11 53.51

40
Gar. Drive
Floor

0+32 25'± Lx ± 3' wide Conc. walk

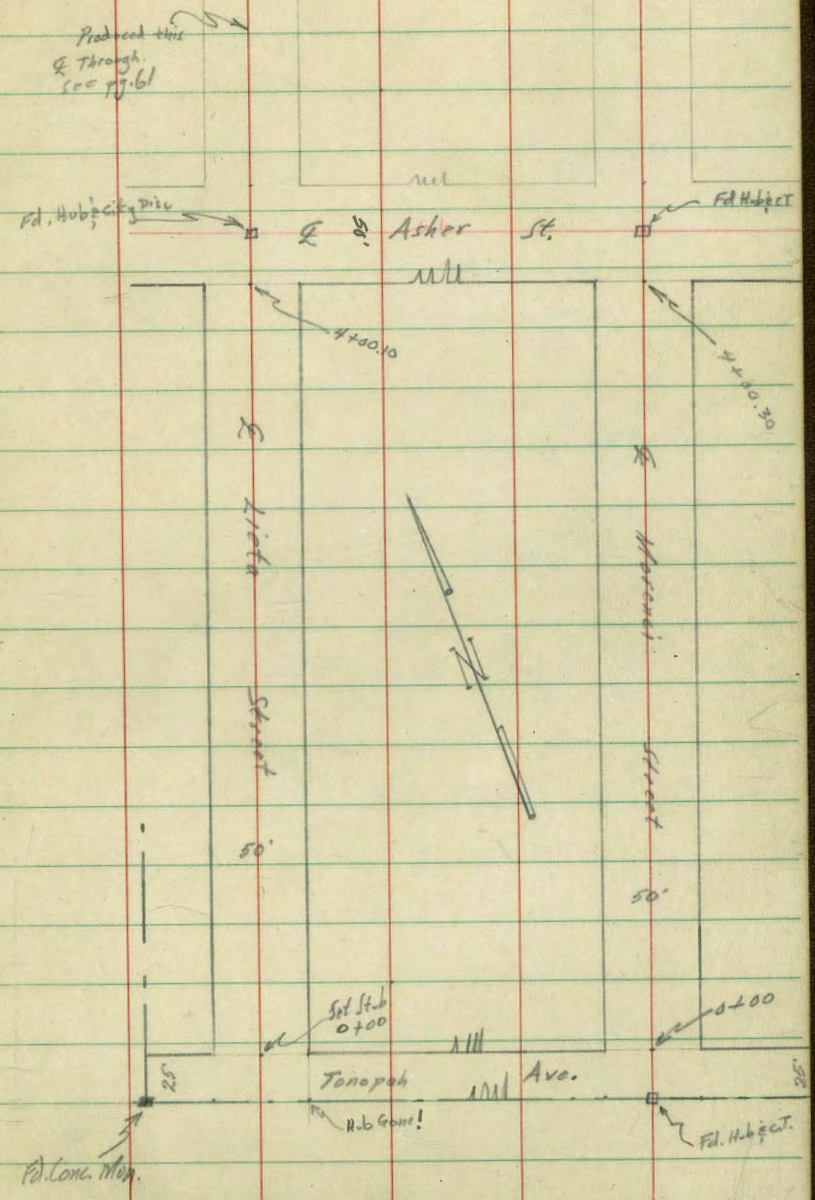
53.4 53.93 54.05

25
Onl. 25'± 35'±
on walk

Roberts
Cota
More
Fulton
11-6-52
W.D. 32175

X-Section Lieta & Morenci Streets
Tonopah to Asher
See page 61 this F.B.
Map 11656

INDEXED
Law
DEC 27 1952



Cont'd From Page 71
X- Sect. Lita

1+50

1+00

0+91 25' Rt & 8¹/₂' Conc. Drive

0+50

0+41 25¹/₂' Rt & 8¹/₂' Conc. Drive

0+00 Nly Line Tonopah

Southly Line Tonopah = Subd. Line

0-35 IN borrow pit

T.P. 339 49.34¹/₂ 1.94 45.95¹/₂

T.P. 519 47.89¹/₂ 9.98 42.30¹/₂

BM 354 52.29¹/₂ 46.74 NEBP

Lita $\frac{2}{3}$ Littlefield

Lt

E

Rt

12

42.24
7.1
40

42.94
6.4
25

43.49
5.9
14

43.04
6.3
13

43.54
5.8
12

43.14
6.2
13

43.64
5.7
25

43.99
5.4
40

44.14
5.2
40

43.34
6.0
40

43.84
5.5
25

43.94
5.4
15

43.64
5.7
14

44.34
5.0
11

44.14
5.2
13

44.94
4.4
25

45.54
3.8
40

45.14
4.2
40

45.84
3.51
25
conc

46.91
2.93
24
Floor

42.94
6.4
40

43.74
5.6
25

44.54
4.8
16

44.24
5.1
14

44.84
4.5
11

44.74
4.6
11

45.34
4.0
13

44.94
4.8
25

46.34
3.0
40

46.72
2.62
25
conc

47.54
2.15
40
Floor

43.34
6.0
40

44.14
5.2
25

45.14
4.2
11

45.84
3.8
11

45.94
3.4
12

46.24
2.8
25

46.94
2.4
40

44.24
5.1
40

44.84
4.5
25

45.94
3.4
25

46.54
2.8
25

47.24
2.1
40

20.94
20.14

47.34¹/₂

4+12

4+10

4+00.10 Sly Line Asher

3+50

3+00

TP 4.10 47.21^v 6.23 43.11^v

2+50

2+41 25' R & 8' Conc Walk

2+20 24' R & 3.5' Conc. Walk

2+00

49.34^h

39.81 40.41 40.61 41.11 41.71 42.01 42.61
 7.4 6.8 6.6 6.1 5.5 5.2 4.6
 40 25 13 13 16 25 40

40.31 40.91 41.11 41.01 41.41 41.71 42.31 42.81 43.11
 6.9 6.3 6.1 6.2 5.8 5.5 4.9 4.4 4.1
 40 25 12 13 13 16 18 25 40

40.81 41.01 40.91 41.61 41.51 42.31 42.91 43.51
 6.4 6.2 6.3 5.6 5.7 4.9 4.3 3.7
 40 25 14 14 12 14 25 40

40.21 40.51 40.71 41.91 41.21 41.71 42.01
 7.0 6.7 6.5 5.8 6.0 5.5 5.2
 40 25 15 15 15 25 40

40.21 40.31 40.61 41.51 40.91 41.71 41.51
 7.0 6.9 6.6 5.7 6.3 5.5 5.7
 50 25 13 15 15 25 40

47.21^h

41.04 41.54 41.84 41.54 42.14 41.84 42.14 42.04 42.04
 8.3 7.8 7.5 7.8 7.2 7.5 7.2 6.4 6.4
 40 25 14 13 12 11 13 25 40

43.20 43.02
 6.4 5.92
 25 40
 Conc Floor

43.99 43.76
 5.85 5.58
 24.9 39.2
 Conc

42.04 42.54 42.74 42.34 42.74 42.04 43.04 43.04 43.04 42.84
 7.2 6.8 6.6 7.0 6.6 6.9 6.3 6.3 6.5
 40 25 17 13 13 13 14 25 40

49.34^h

Cont'd From Page 73

T.P. 4.71 51.38[✓] 6.46 46.67[✓]

T.P. 6.19 53.13[✓] 0.27 46.94[✓] Nail in Pole
A4155

Q Asher Street

47.21[✓]

4

£

RE

14

4021
7.0
40

40.81
64
25

4171
1.5

42161
1.6
25

4321
1.0
40

47.21[✓]

Cont'd From Page 74
X-sect. Morenci

1+00

0+60 - 25.1 Lt = ± 8.6' Conc. Dr.

0+59.5 - 40.3 Rt = Nly. Cor. New. Conc. Floor. (Not poured yet)

0+50

0+25

Under construction
40' Rt to floor foundation in House (Believe garage will be same)

0+06 - 40.2 Rt = Beg. Conc. Slab

0+00

Nly Line Tonopah

Sly. Line Tonopah = Subd. Line

Seep. 78 - for Est Sections

0-32

0-54

On Ground in Trailer Court

51.38

Lt

Rt

Rt

75

46.82

44.2
gar. floor
Same as
House

46.78
5.0
40

45.78
5.6
25

45.48
5.9

45.26
6.0
25

45.58
5.8
40

46.08
5.3
40

45.98
5.4
25

45.88
5.5

46.18
5.2
25

46.28
40.3
Top of
form

46.48
55.5
E. Cor.

47.08
4.3
40

46.98
4.5
25

47.08
4.3

46.28
4.8
25

45.88
5.5
40

46.68
4.5
40

46.88
4.5
25

46.48
4.7

46.38
5.0
25

46.08
5.3
40

34.78
16.6

18.78
33.0

51.38

Cont'd From Page 75.

4+00.30 Sly. Asher

3+50

3+00

2+59-239 Lt = ± 9.5' Conc. Dr. to Sing. Gar. in house
2+50

T.P. 8.11 53.97x 5.52 4586

2+09-254 Lt = ± 8.5' Conc. Dr.

2+00

1+50

5138x

Lt E R 76

42.87 49.27 49.27 49.37 50.57 50.57 51.27
5.1 4.7 4.7 4.6 3.4 3.4 2.7
40 25 15 19 25 40

46.87 47.37 48.27 48.37 49.47 49.67 50.47
7.3 6.6 5.7 5.6 4.5 4.3 3.5
40 25 15 18 25 40

45.67 46.27 47.57 47.47 48.37 48.67
8.3 7.7 6.4 6.5 5.6 5.3
40 25 15 25 40

46.50 44.57 44.67 46.57 46.25 46.47 46.17 46.17
44 floor 7.4 9.3 7.4 7.5 7.8 7.8
40 Great. 40 25 15 23.9 25 25 40

5377x

45.57 44.78 45.30 45.48 44.98 45.28
40.1 floor 6.6 25.4 6.5 5.9 6.4 6.1
40 gar 40 25 25 25 40

45.48 45.22 44.98 45.18 45.78
5.9 6.1 6.4 6.2 5.6
40 25 25 40

5138x

Contd From Page 76

ft

£

ft

17

NEW K&F Tilling Dumpy Level

check

8.19 46.74 = 46.74 ✓

T.P.

2.54

54.93 ✓

1.58

52.39 ✓

£

Asher Street

4.5
40 49.47

4.3
25 49.67

3.8
25 50.17

3.2
25 50.77

2.7
40 51.07

4+12

3.2
40 49.77

3.0
25 49.97

4.6
15 49.37

4.3
15 49.67

3.8
15 50.17

3.6
25 50.37

4.0
40 50.37

4+10

4.7
40 49.27

4.4
25 49.57

4.4
20 49.57

4.6
15 49.37

4.3
15 49.67

3.8
15 50.17

3.1
20 50.37

3.0
25 50.97

2.9
40 51.07

53.97X

53.97X

Add. Notes along \pm of Morenci - at
Tonopah - Showing curb + Pavc on Sub.

0+04.3 = Sly. of Conc. slab.

46.27 45.0
8.92 = Gr. Dirt
Top Conc.

0-07 = N. cb Line - 111.8' Rt = end of Curb + AC. pave

44.8 40.98 40.69 37.82 37.41
70 111.8 gut. 150 gut.
Top cb. Top cb.

0-25 = sub. Line - See P. 75 for \pm Sec

44.9 41.05 37.75
70 111.8 150 = edge i'u.
End.
AC = 2 N. of Line

Actual Elev. Shown.

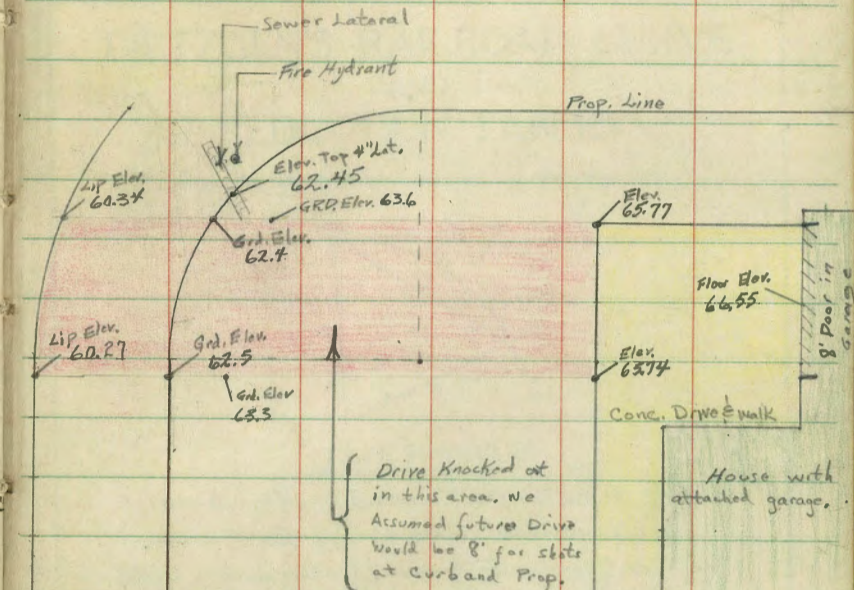
Roberts
Moore
Morris
12-28-53
MO #2006

Locations & Elevation at S.E. Corner
Morris & Littlefield

INDEXED
DEC 31 1953

Littlefield

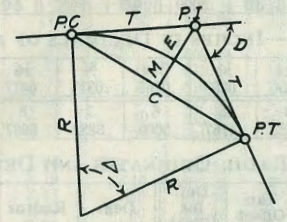
79



Scale: 1" = 10'

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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



CURVE FORMULAS

- Radius= $R = \frac{50}{\sin \frac{D}{2}}$ (1) Degree of Curve= D and $\sin \frac{D}{2} = \frac{50}{R}$ (2)
- Tangent= $T = R \tan \frac{\Delta}{2}$ (3) Length of Curve= $L = 100 \frac{\Delta}{D}$ (4)
- Middle ordinate= $M = R(1 - \cos \frac{\Delta}{2})$ (5) $= R \text{vers} \frac{\Delta}{2}$ (6)
- External= $E = T \tan \frac{\Delta}{4}$ (7) $= R \div \cos \frac{\Delta}{2} - R$ (8) $= R \text{exsec} \frac{\Delta}{2}$ (9)
- Long Chord= $C = 2 R \sin \frac{\Delta}{2}$ (10) $\Delta =$ Central Angle

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{3} = 414.49$ 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 $D = 5^\circ 30'$.

$$\begin{array}{r} 11.4 \\ 4.2 \\ \hline 15.6 \end{array}$$

$$\begin{array}{r} 12.4 \\ 5.8 \\ \hline 18.2 \end{array}$$

$$\begin{array}{r} 9.5 \\ 4.0 \\ \hline 13.5 \\ 9.5 \end{array}$$

69+4

Van Dyke

Fergus

33+4

296

12
13

30

14.73
6.40
8.33

30.81

30.59

14

31.52

30.67

8.3

31.52

8.3

24.85
75.17
100.02

59.00 = 0

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.

MADE IN U.S.A.