1585

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)÷2 or 2 ft. added to 30.6 =32.6. For slopes of 1 on 1½ see inside of back cover.

1585

Index

Walker
Bliss
Label
7-5-40

BENCH MARKS

TALMADGE PARK

UNITS # 1, 2, 3, 4,

Mother
Bliss
Isbell
7-8-40

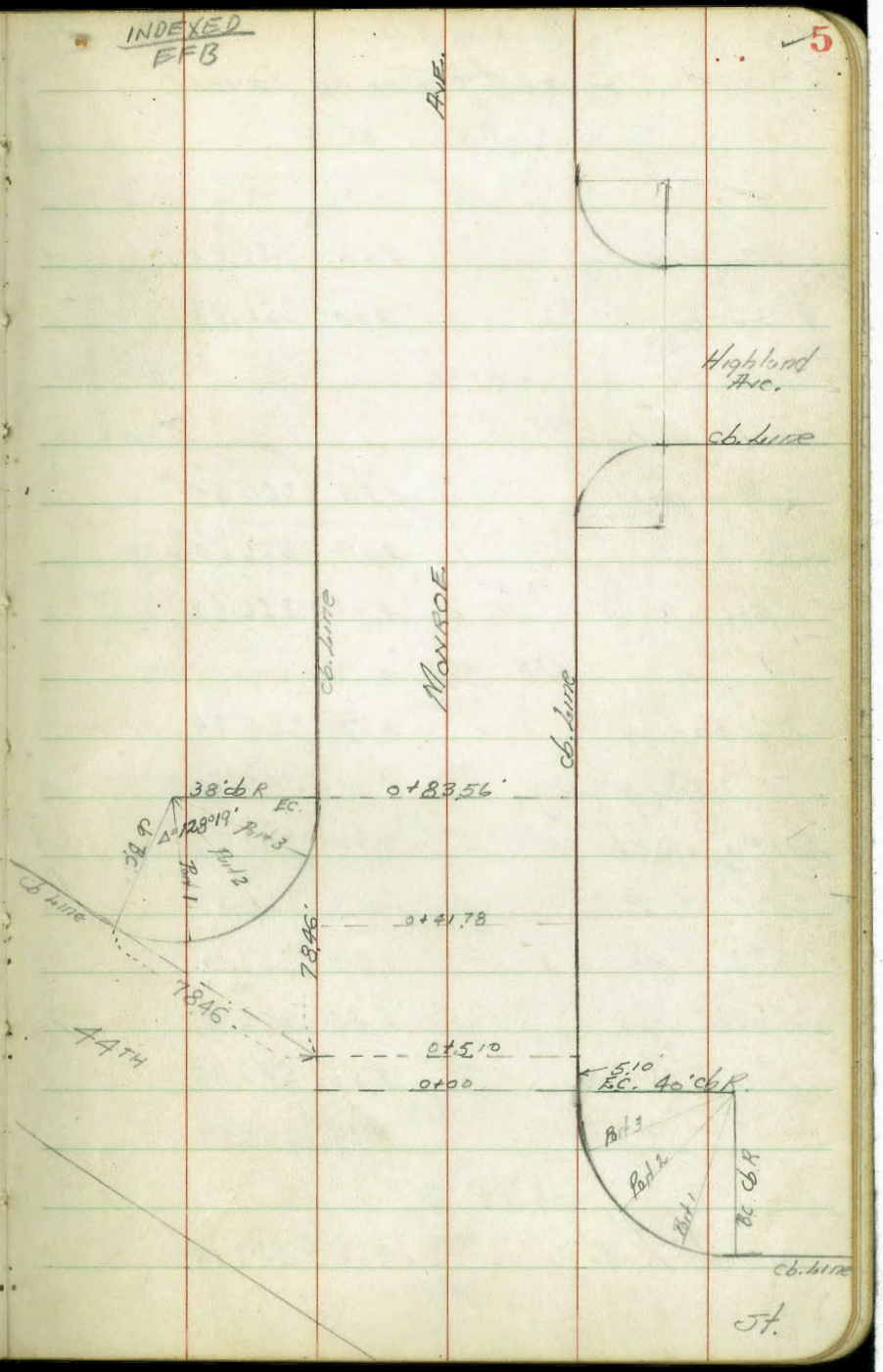
CURB, GUTTER and L LEVELS
— MONROE AVE. —

From 44TH St. to Sub. Line Unit #3.

				S.E. B.P. Monroe + 44th
4.00	360.83		356.83	
S.E.	Return	44TH and Monroe		
B.C. top cb.		4.18	356.65	
" Gut. on Par.		4.89	355.94	
Part #1 " cb.		4.15	356.68	
" " " Paving.		4.82	356.01	
" #2 " cb.		4.16	356.67	
" #2 " Paving.		4.85	355.98	
" #3 " cb.		4.09	356.74	
" " " Paving.		4.81	356.02	
	0+00			
E.C. on cb.		4.02	356.81	
" " Gut.		4.71	356.12	
L Monroe = 15' Lt.		4.43	356.40	
N cb line on par.		4.62	356.21	
	0+05.10			
N Gut. paving		4.45	356.38	
L "		4.33	356.50	

Reduced & Plotted by HMC
8-5-90

INDEXED
EFB

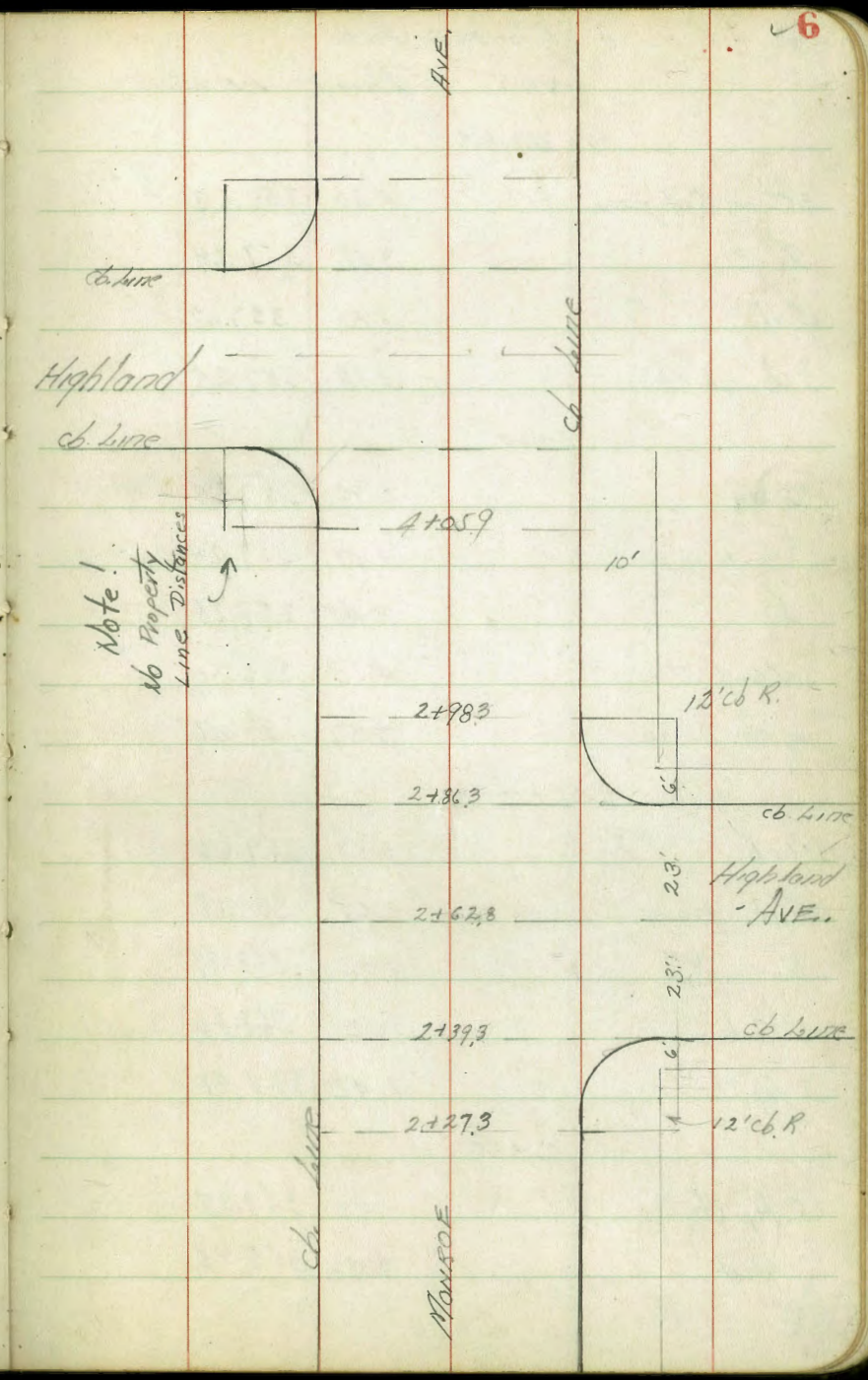


Monroe Ave –
Curb and Paving Levels

Cont. from P-5

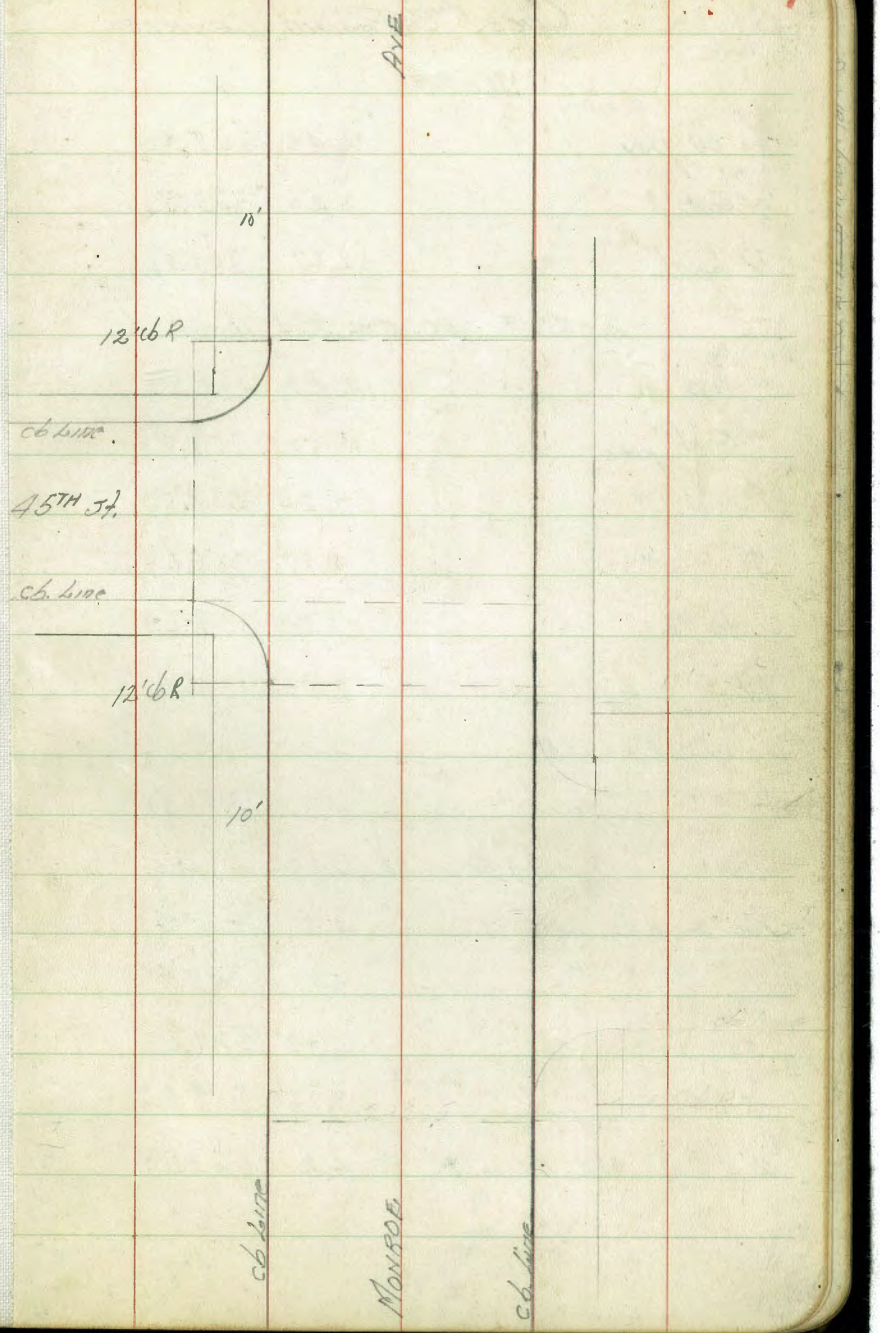
	360.83	
S-Gut. on paving.	4.68	356.15
S top cb.	4.00	356.83
	0+41.78	
S cb. in Drive		
Gut. on pav.	4.29	356.54
L " "	4.03	356.80
N Gut "	4.00	356.83
	N.E. Return Monroe + Highland	
B.C. on cb.	4.09	356.74
" " Gut paving.	4.69	356.14
Part #1 on cb.	3.93	356.90
" " " Pav.	4.53	356.30
" #2 " cb.	3.83	357.00
" #2 " Pav.	4.44	356.39
" #3 " cb	3.70	357.13
" " " Pav.	4.34	356.49
	0+83.56	
E.C. cb on cb	3.64	357.19

Cont. P-7



Monroe Ave.
Curb and Paving Levels.

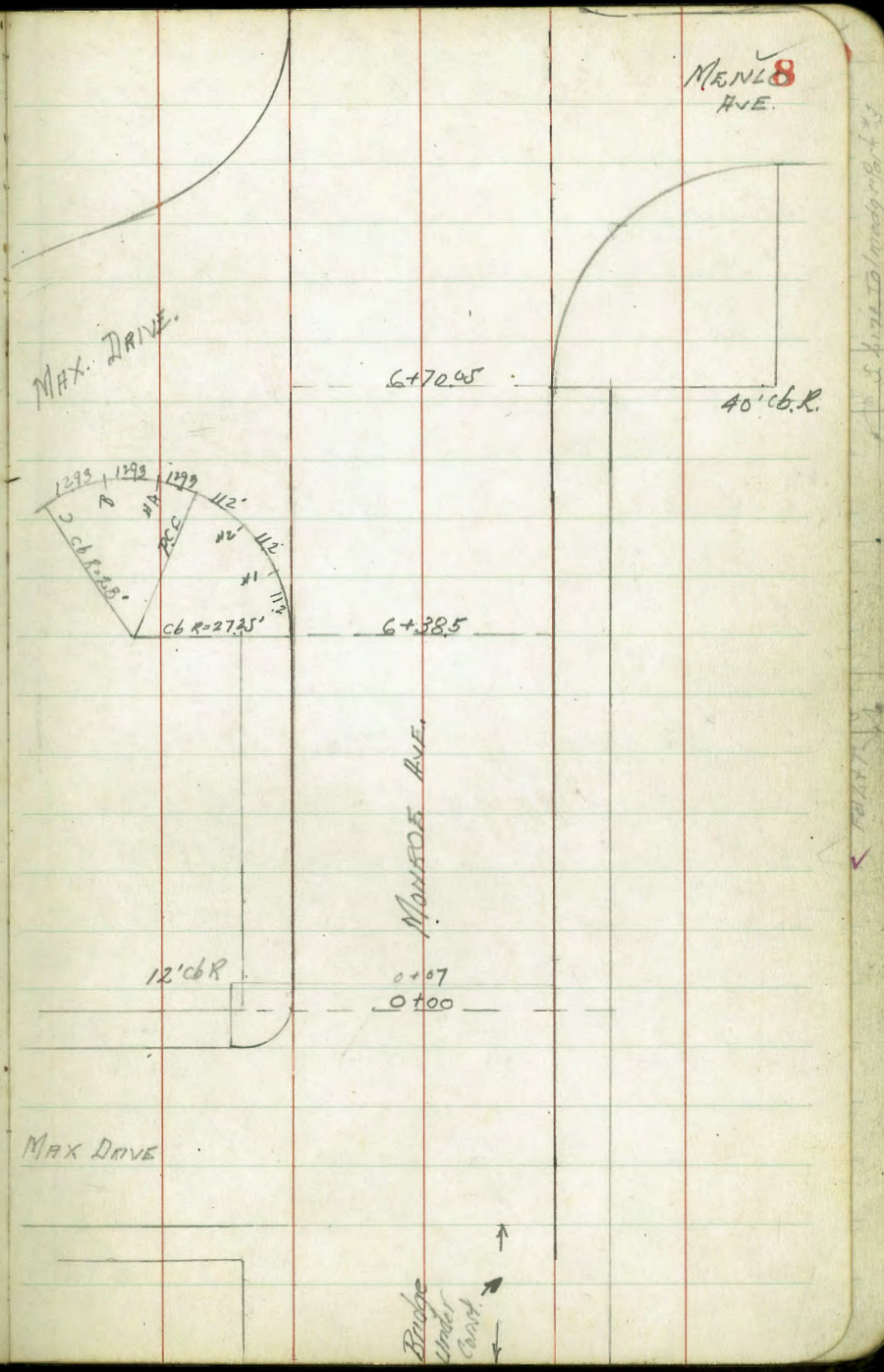
	360.83		
EC. on Gut pav.		4.20	356.63
L " "		3.59	357.24
S cb " "		3.80	357.03
S cb. on cb		3.18	357.65
	1+00		
S cb.		2.99	357.84
" Gut. on pav.		3.59	357.24
L " "		3.45	357.38
N Gut "		4.13	356.70
N cb. on cb.		3.56	357.27
	1+50		
N cb.		3.17	357.66
Gut. pav.		3.65	357.18
L "		3.02	357.81
S Gut "		3.03	357.80
S top cb.		2.42	358.41
	2+00		
S. top cb.		1.88	358.95
" Gut.		2.38	358.45



Monroe Ave
Curb and Paving Levels

360.83

2+00				
℄ on pav.			2.43	358.40
N Gutt. "			3.20	357.63
N top cb.			2.67	358.16
2+27.3 = B.C. SW. Ret. Highland				
N top cb.			2.43	358.40
" Gut. pav.			3.00	357.83
℄ "			2.24	358.59
S " "			2.17	358.66
S top cb.			1.59	359.24
TP	4.71	363.61	1.93	358.90
℄ SW. Ret. on cb.			4.25	359.36
" " " " pav.			4.80	358.81
2+39.7 = W cb. Highland on South.				
100' South S.L. on cb. - Sub. Line			4.56	359.05
" " " " pav			5.13	358.48
50' " " " cb			4.37	359.24
" " " " pav			4.98	358.63
2' " " = E.C. Ret. on cb.			4.21	359.40
" " " " " " pav			4.77	358.84



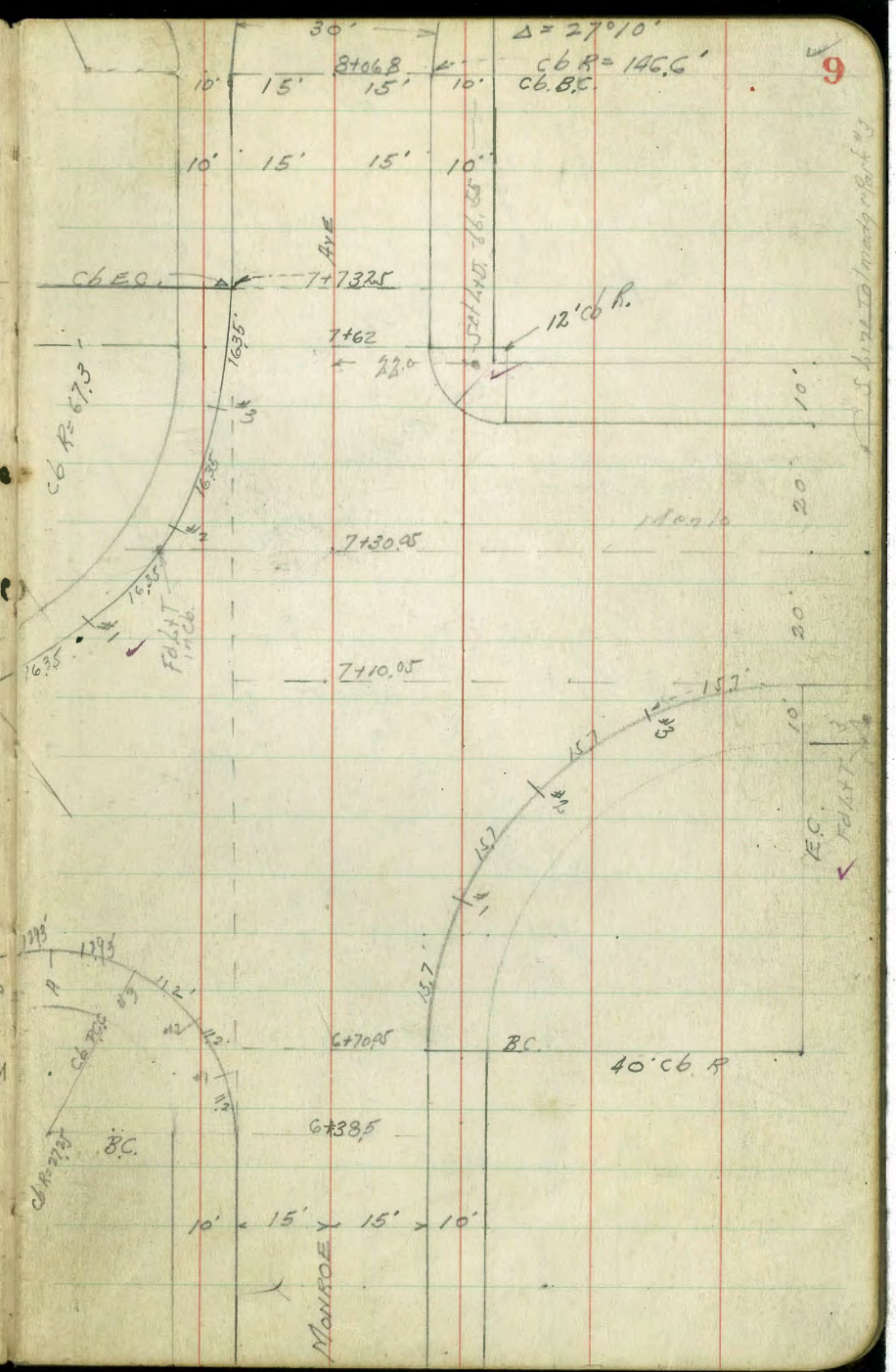
Monroe Ave.

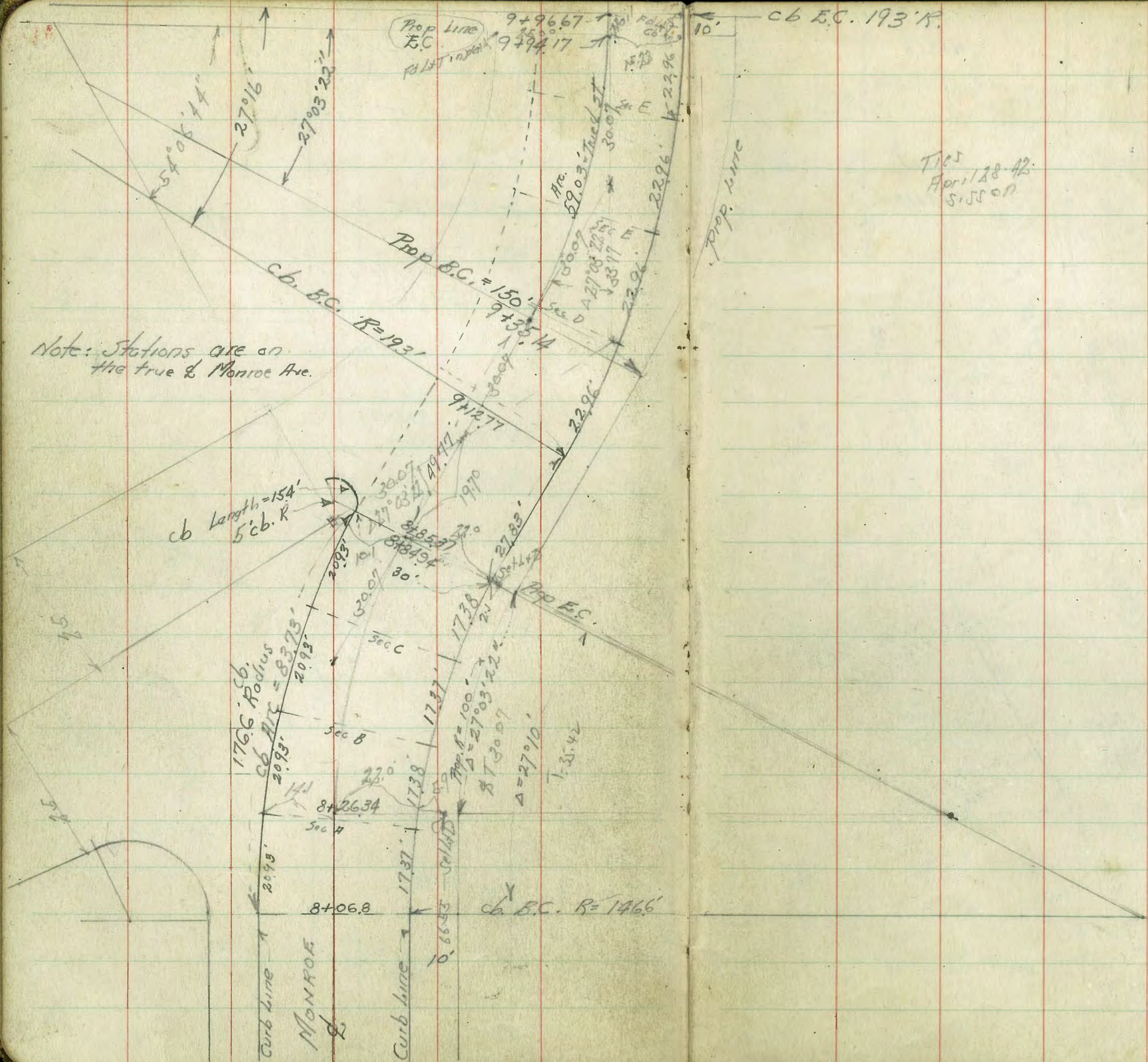
Curb and Paving Levels

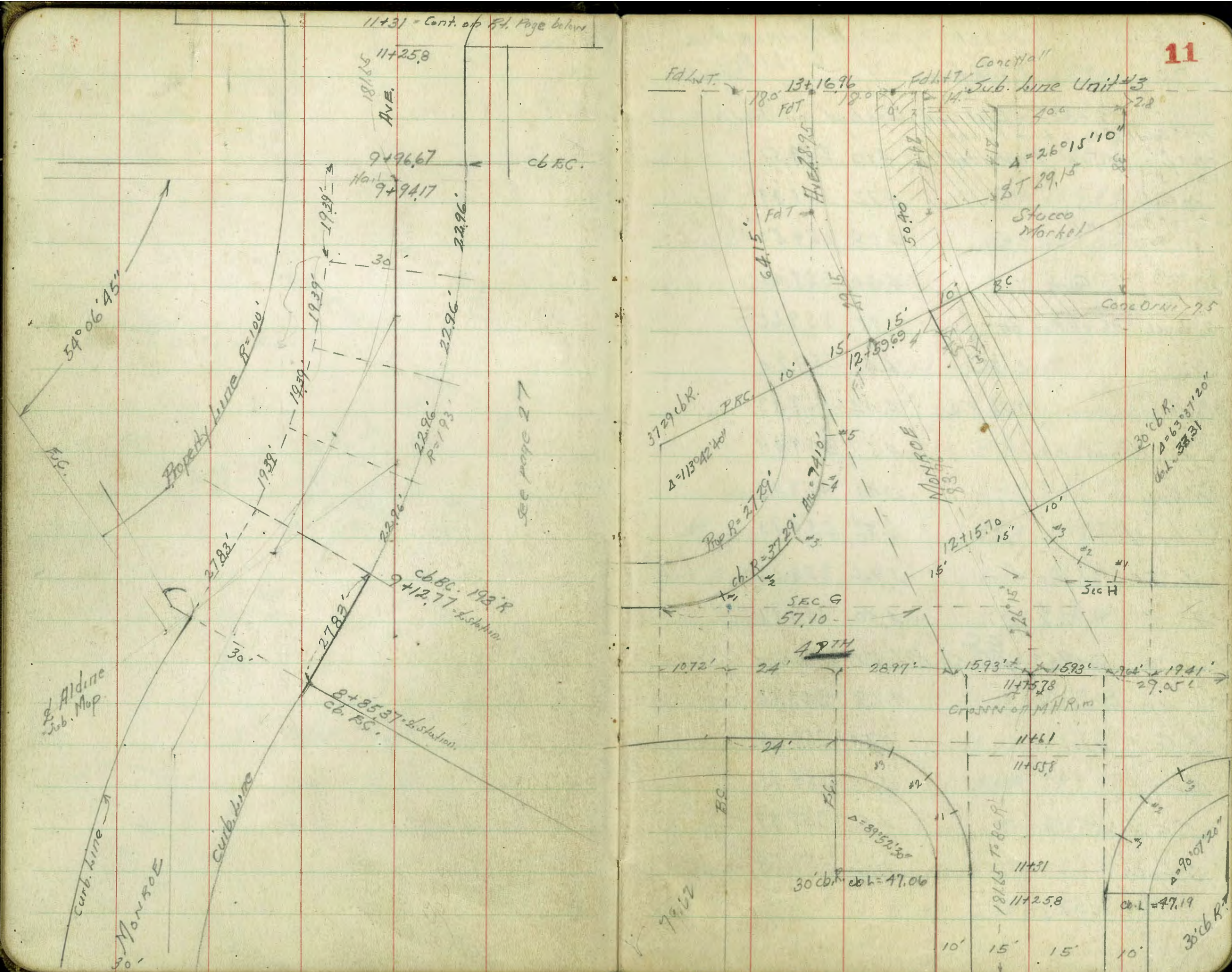
363.61

PZ. cb Lines.		
S. cb. on par.	4.69	358.92
℄ Monroe "	4.91	358.70
N Gut. " "	5.70	357.91
N top cb.	5.11	358.50
2+62.8 = ℄ Highland on South.		
N cb. Monroe on top.	4.97	358.64
" Gut. " par.	5.53	358.08
℄ " "	4.78	358.83
S Gut "	4.25	359.36
2' S.S.Line on par.	4.14	359.47
50' " " " "	4.27	359.34
100 " " " " = Sub. Line	4.28	359.33

Cont. Page 12




Prop Line E.C.
9+96.67
9+94.17
27°16'
27°03'22"
54°06'44"
Prop B.C. R=150'
cb. B.C. R=193'
9+35.14
9+12.77
Note: Stations are on the true ℄ Monroe Ave.
cb Length=154'
5' cb. R
Arc 59.03'
22.96
30.07
Sec D
Sec E
Sec C
Sec B
Sec A
8+85.27
8+84.94
27.83'
Prop E.C.
17.38
17.37
20.93'
176.6' cb. Radius
cb. Arc = 83.73'
Prop R = 100'
Δ = 27°03'22"
T 30.07
Δ = 27°10'
8+26.34
8+06.8
cb. B.C. R=146.6'
Curb Line
Monroe ℄
Curb Line
10'
cb E.C. 193' R.
Prop. Line
Ties
April 28 42
5:55 on


11+31 = Cont. on 8t. Page below
11+25.8
Ave.
9+96.67
cb EC.
9+94.17
Hail
19.39'
30'
22.96'
54°06'45"
Property Line R=100'
22.96'
R=193'
See page 27
E.C.
27.83'
cb.BC. 193'R
9+12.77
27.83'
30'
℄ Aldine Sub. Map
8+85.37
cb. BC.
Curb Line
Monroe
Curb Line
30'
Fd L.T.
13+16.96
Fd T
Fd L.T.
Sub. Line Unit #3
Conc Wall
40.0'
Δ=26°15'10"
T 29.15
Stucco Market
Fd T
50.40
64.15
BC
Conc Drive
15'
12+59.69
10'
37.29 cb R.
P.R.C.
Δ=113°42'40"
Prop R=27.29'
cb. R=37.29'
Arc=74.10'
Monroe
12+15.70
15'
30' cb R.
Δ=63°37'20"
Sec H
Sec G
57.10
49th
10.72'
24'
28.97'
15.93'
15.93'
9.64'
19.41'
29.05'
11+15.78
Crown of MH Rim
11+61
11+55.8
24'
BC
Δ=89°52'30"
30' cb R
cb L=47.06
181.65 To BC
11+31
11+25.8
Δ=90°07'20"
cb L=47.19
30' cb R
10'
15'
15'
10'

36361 — Monroe Ave Curb + Pav. Levels.

Cont. from P-9

2+86.3 = East curb Highland on South		
100' South of South Line Monroe on cb = Sub Line. Unit #3	4.10	359.51
100' S. on Gut.	4.72	358.89
50' South. on cb.	4.08	359.53
" " " Gut.	4.60	359.01
2' South = BC. cb Ret. on cb.	3.95	359.66
" " " " " " Pav.	4.41	359.20
S cb. Monroe on pav. PI. cb Ret.	4.44	359.17
℄ Monroe pav.	4.57	359.04
N Gut. on "	5.44	358.17
" top cb.	4.86	358.75
℄ S.E. Ret. top cb.	3.94	359.67
℄ " " Gut.	4.50	359.11
2+98.3 = ~~EC~~ BC. cb Ret. S.E. Highland & Monroe.		
N top cb.	4.93	358.68
" Gut. pav.	5.53	358.08
℄	4.66	358.95
S Gut. "	4.62	358.99
S top cb.	4.02	359.59
3+50		

363.61

S top cb	4.61	359.00
S Gut. pav.	5.24	358.37
℄ "	5.15	358.46
N Gut "	5.77	357.84
N top cb.	5.21	358.40
Chk. N.W. BP. Highland @ 44th	5.83	357.78
		357.77 - 8M.
		0.01 Error.

363.61 No Correction.

4+05.9 - B.C. cb. Ret. N.W. Highland & Mon.

N top cb.	5.84	357.77
" Gut on Pav.	6.36	357.25
℄ Monroe "	5.73	357.88
South Gut. pav.	5.86	357.75
South Top cb.	5.37	358.24
4+17.9 = W cb. Highland on North		
South cb.	5.49	358.12
" Gut. pav.	5.97	357.64
℄ "	5.84	357.77
N Gut	6.30	357.31
2' N. N Line Monroe on pav. EC. Ret	6.58	357.03
" " " " " cb. EC. Ret	6.05	357.56

363.61

℄ Ret: N.W. Highland cb.	5.96	357.65
℄ " " " Paving.	6.44	357.17
4+32.9		
2' N N Line on pav.	6.55	357.06
" " " " "	6.28	357.33
℄ " "	6.00	357.61
S Gut " "	6.12	357.49
Stop cb.	5.65	357.96
" 4+47.9 = E cb. Highland on ℄		
S top cb.	5.79	357.82
" Gut. on pav.	6.27	357.34
℄ " "	6.17	357.44
N Gut "	6.69	357.02
2' N N. Line on pav.	6.90	356.71
" " " " cb.	6.47	357.14
℄ N.E. Ret. on cb.	6.34	357.27
℄ " " " Gut.	6.75	356.86
4+89.9		
N cb. (Assumed E.C. Curb Ret.)	6.36	357.25
" Gut. pav.	6.78	356.83

363.61

℄ Paving.	6.30	357.31
S Gut. on pav	6.42	357.19
S top cb	5.92	357.69
5+00		
S top cb.	6.34	357.27
" Gut.	6.87	356.74
℄ on pav.	6.70	356.91
N Gut. "	7.23	356.38
N top cb.	6.70	356.91
5+50		
N top cb.	7.14	356.47
" Gut pav.	7.64	355.97
℄ "	7.25	356.36
S " "	7.39	356.22
" top cb.	6.87	356.74
6+00		
S " "	7.30	356.31
" Gut. pav.	7.84	355.77
℄ "	7.71	355.90
N " "	8.14	355.47
N top cb.	7.61	356.00

363.61 — MONROE AVE.

6+456 = B.C. NW Rel. 45TH

N top cb.	8.10	355.51
" Gut. pov.	8.57	355.04
L "	8.21	355.40
S Gut. pov	8.40	355.21
" top cb.	7.58	356.03

6+57.6 = E.C. NW Rel. 45th

S top cb.	7.83	355.78
" Gut on pov.	8.55	355.06
L " "	8.30	355.31
N " "	8.57	355.04
T.P. 4.21 359.29	8.53	355.08
N top cb.	4.10	355.19
N Gut. pov.	4.54	354.75
L N.W. Rel top cb.	3.81	355.48
L " " pov. Gut.	4.30	354.99

6+72.6 = L 45TH on N

2' N.L.	4.10	354.69
N cb. Line paving.	4.38	354.91
L "	4.14	355.15

359.29

S. Gut. on pov.	3.86	355.43
" top cb.	4.52	354.77 ?

6+87.6

S top cb.	4.26	355.01
" Gut. pov.	4.85	354.44
L "	4.57	354.72
N Gut.	4.85	354.44
2' N.N.L. Gut. on pov. B.C. Rel.	5.15	354.14
" " top cb.	4.68	354.41
L " "	4.61	354.68
" Gut.	5.09	354.20

6+99.6 = E.C. N.E. Rel. 45th on N

N top cb.	4.61	354.68
" Gut. pov.	5.22	354.07
L pov.	4.93	354.36
S Gut "	5.19	354.10
S top cb.	4.63	354.66

7+25

S top cb.	5.68	353.61
" Gut pov.	6.26	353.03
L "	5.97	353.32

359.29 — Monroe Ave.

N Gut pav		6.25	353.04
N top cb.		5.72	353.57
	7+50		
N top cb.		7.04	352.25
Gut.		7.63	351.66
℄		7.30	351.99
Gut.		7.59	351.70
S top cb.		7.00	352.29
	7+75		
S top cb		8.71	350.58
" Gut.		9.32	349.97
℄		8.94	350.35
N Gut		9.35	349.94
	8+00		
N top cb		10.53	348.76
" Gut.		11.01	348.28
℄		10.69	348.60
S Gut.		11.10	348.19
S top cb.		10.47	348.82
	8+25		
S top cb		11.62	347.67

359.29

S Gut.			12.27	347.02
℄			11.91	347.38
N Gut.			12.20	347.09
N top cb.			11.65	347.64
	8+29.5 = B.C. cb. Line on North.			
N top cb.			11.90	347.39
" Gut.			12.48	346.84
℄ on Pav.			12.06	347.23
S " "			12.43	346.86
T.P.	10.64	358.25	11.68	347.61
	10.64	358.25 = Corrected.		347.60 = BM.
	0+00 = ℄ Line Max. Drive			
S top cb.			11.19	347.06
" Gut.			11.82	346.43
℄			11.50	346.75
N Gut.			11.77	346.48
	0+07 = E.C. 12" cb Rad. on NE			
N top cb Rd. cb E.C.			11.12	347.13
" Gut " "			11.67	346.58
℄ Monroe paving.			11.40	346.85
S Gut "			11.74	346.51
S top cb.			11.08	347.17

B.M. B.P. S.E. Monroe & Max.

Monroe Ave.

358.25

0+20 = P.I.C.

Stop cb.	10.85	347.40
" Gut	11.47	346.78
℄	11.08	347.17
N Gut.	11.43	346.82
N top cb.	10.87	347.38
0+40		
N top cb	10.22	348.03
" Gut.	10.78	347.47
℄	10.52	347.73
S Gut.	10.87	347.38
" top cb.	10.29	347.96
0+60		
S " "	9.30	348.95
" Gut.	10.00	348.25
℄	9.65	348.60
N Gut.	9.95	348.30
N top cb	9.33	348.92
0+80		
N top cb.	8.36	349.89

358.25

N Gut	8.98	349.27
℄	8.69	349.56
S Gut.	8.98	349.27
S top cb.	8.38	349.87
1+00		
S " "	7.54	350.71
" Gut.	8.14	350.11
℄	7.70	350.55
N Gut in Drive Way	7.99	350.26
1+20		
N top cb.	6.63	351.62
" Gut	7.20	351.05
℄	6.93	351.32
S "	7.26	350.99
S top cb.	6.70	351.55
1+40		
" " "	6.08	352.17
" Gut	6.62	351.63
℄	6.29	351.96
N Gut.	6.60	351.65
N top cb.	6.05	352.20

35825

1+60		
N ℄	5.63	352.62
N Gut.	6.18	352.07
℄	5.90	352.35
S Gut.	6.26	351.99
" top ℄.	5.56	352.69
1+80		
" " "	5.32	352.93
" Gut.	5.92	352.33
℄	5.56	352.69
N "	5.88	352.37
N top ℄.	5.32	352.93
2+00		
N " "	5.27	352.98
" Gut.	5.77	352.48
℄	5.41	352.84
S "	5.86	352.39
" top ℄.	5.17	353.08
2+25		
" " "	5.14	353.11
" Gut.	5.81	352.44

35825

℄	5.36	352.89
N Gut.	5.69	352.56
N top ℄	5.14	353.11
2+50		
N " "	5.21	353.04
" Gut	5.81	352.44
℄	5.42	352.83
S Gut.	5.86	352.39
" top ℄.	5.24	353.01
2+75		
" " "	5.35	352.90
" Gut.	5.87	352.38
℄	5.50	352.75
N Gut.	5.90	352.35
" ℄.	5.31	352.94
3+00		
" "	5.59	352.66
" Gut.	6.05	352.20
℄	5.71	352.54
S Gut	6.10	352.15
S ℄.	5.48	352.77

358.25

3+25

S cb.		5.68	352.57
Gut		6.29	351.96
L		5.90	352.35
N Gut		6.29	351.96
N cb.		5.70	352.55
	3+50		
N cb		6.05	352.20
" Gut.		6.55	351.70
L		6.26	351.99
S Gut.		6.56	351.69
S top cb.		5.97	352.28
	3+75		
S top cb.		6.38	351.87
" Gut		6.98	351.27
L		6.61	351.64
N Gut		6.96	351.29
N cb.		6.35	351.90
	4+00		
N cb		6.77	351.48
S. Gut.		7.34	350.91

358.25

L		7.08	351.17
S Gut		7.42	350.83
" cb.		6.86	351.39
	4+50		
S cb.		7.98	350.27
" Gut		8.53	349.72
L		8.17	350.08
N Gut.		8.46	349.79
" cb.		7.88	350.37
	5+00		
N cb.		8.96	349.29
" Gut.		9.50	348.75
L		9.30	348.95
S "		9.73	348.52
" top cb.		9.08	349.17
T.P.	0.36	348.63	9.98	348.27
	5+50		
S top cb		0.64	347.99
" Gut		1.25	347.38
L		0.91	347.72
N Gut		1.03	347.60
N top cb.		0.48	348.15

348.63

6+00

N top cb.	1.67	346.96
N Gut.	2.22	346.41
℄	2.09	346.54
S Gut. in Drive Way.	2.42	346.21
Chk BM.	5.00	343.63

S.E. B.P. Monroe & Menlo

343.62 = BM
0.01 = Error.

T.P. #83 348.45 343.62 = Above B.M.

6+38.5 = B.C. cb NW. Return Monroe & Mor.

S top cb.	2.53	345.92
" Gut pav.	3.14	345.31
℄ "	2.72	345.73
N Gut "	2.88	345.57
N top cb. B.C. 27.25' cb R.	2.36	346.09
NW. Return Monroe & Mor.		
#1 on top cb.	2.56	345.89
"1 " Gut.	3.15	345.30
#2 " top cb	2.73	345.72
#2 " gut.	3.29	345.16
#3 " top cb P.C.C	2.77	345.68
#3 " Gut "	3.39	345.06

348.45

#A on cb.	2.74	345.71
" " " Gut	3.37	345.08
#B " top cb.	2.72	345.73
#B " Gut.	3.22	345.23
#C " top cb. = P.C.C cb.	2.49	345.96
#C " Gut " "	3.02	345.43

6+70.05 = P.C. 40' cb. R. S.W. Ret. Menlo

N top cb. on pav.	3.53	344.92
℄ " "	3.42	345.03
S Gut. " "	3.83	344.62
S top cb. on B.C. cb.	3.15	345.30

S.W. Return Monroe & Menlo 4 parts.

#1 on top cb.	3.34	345.11
"1 " Gut pav.	4.10	344.35
#2 " top cb.	3.30	345.15
#2 " pav.	4.00	344.45
#3 " top cb.	3.12	345.33
#3 " pav.	3.69	344.76
E.f. on cb.	2.67	345.78
" " pav.	3.26	345.19

Cont p. 20

348.45

7+10.05 = N cb. Menlo

100' South, South Line = Sub Line on cb.	0.19	348.26
" Gut. paving.	0.79	347.66
10' South S line par.	3.85	344.60
S. cb paving	4.53	343.92
℄ Monroe "	4.17	344.28
N cb. "	4.33	344.12

7+30.05 = ℄ Menlo

N. cb paving.	4.93	343.52
℄ "	4.59	343.86
S cb "	4.81	343.64
S Line "	4.41	344.04
30' S. S line on par.	3.05	345.40
100' S = Sub line on par.	0.40	348.05

7+50.05

100' S. S Line = Sub. Line on cb.	0.13	348.32
100' S on Gut par.	0.73	347.72
30' S. S. line on cb.	3.05	345.40
30' S on par.	3.89	344.86
10' S. S Line on cb.	3.95	344.50
10' S on par.	4.53	343.92

348.45

2' South S line = cb B.C. 12' R on cb.	4.27	344.18
cb B.C. par.	4.82	343.63
S cb. on par.	5.17	343.28
℄ " "	5.01	343.44
N cb " "	5.52	342.93

N.E. Return Max & Monroe

P.R.C. on cb.	4.06	344.39
" " par.	4.61	343.84
#1 " cb.	4.43	344.02
#1 " par.	4.96	343.49
#2 " cb	4.80	343.65
#2 " par.	5.33	343.12
#3 " cb.	5.23	343.22
#3 " par.	5.80	342.65
cb E.C. on cb	5.77	342.68
" " " par	6.32	342.13

7+62 = cb E.C. S.E. Ret. Menlo

N Gut on par.	5.96	342.49
℄ " "	5.29	343.16
S Gut " "	5.42	343.03
S top cb.	4.81	343.64

348.45

7+73.25 = cb E.C. N.E. Rel.

S top cb.	5.13	343.32
" Gut.	5.79	342.66
℄	5.71	342.74
N Gut	6.32	342.13
N top cb.	5.77	342.68

8+06.8 = Cb B.C. (Page-10-Sketch)

N top cb.	7.23	341.22
" Gut.	7.81	340.64
℄ Bet cbs. on pav.	7.33	341.12
S Gut.	7.30	341.15
S top cb.	6.82	341.63

SEC A

S top cb.	8.10	340.35
" Gut	8.61	339.84
℄ Bet cbs. on pav. (℄ Bet cbs Not true ℄ street)	8.72	339.73
N Gut	9.47	338.98
N cb.	8.75	339.70

SEC B

N top cb.	10.95	337.50
" Gut.	11.44	337.01

348.45

℄ Bet. cbs	10.38	337.07
S. Gut.	10.03	338.42
S top cb.	9.57	338.88

SEC. C

S top cb.	10.99	337.46
" Gut	11.39	337.06
℄ Bet. cbs.	12.13	336.32
N Gut.	13.48	334.97
N top cb.	13.00	335.45
T.P. 334 339.00	12.79	335.66

8+84.94 = cb E.C.

N top cb.	4.82	334.18
" Gut. on pav.	5.66	333.34
℄ Bet. cbs on pav	4.12	334.88
S Gut.	3.33	335.67
S top cb.	2.84	336.16

NW cb Rel. Aldine & Monroe 3'cb R L=154 (3-parts)

B.C. on Monroe cb.	4.82	334.18
" " " pav.	5.66	333.34
port. #1 on cb. Wall	5.10	333.90
" #1 " pav.	6.47	332.53

339.00

port #2 on cb. Wall	5.62	333.38
" #2 " por.	7.70	331.30
E.G. on Aldine on cb Wall	6.10	332.90
" " " " por.	8.57	330.43
9+12.77 = B.C. Cb Radius on South.		
S top cb. in Drive	~~5.51~~	
" Gut on por.	5.51	333.49
L Bet cbs.	6.25	332.75
N Gut. on por.	7.20	331.80
Section D		+33.74
N Gut.	8.17	330.83
L Bet cbs	7.53	331.47
S Gut.	7.33	331.67
S top cb	6.81	332.19
Section E		+34.72
S top cb	8.38	330.62
S Gut.	8.87	330.13
L Bet cbs	8.84	330.16
N Gut.	9.27	329.73
Section F		+35.69
N Gut	10.33	329.67

339.00

L Bet cbs.	9.82	329.18
S Gut	9.96	329.04
S top cb.	9.43	329.57
9+96.67 = Cb E.C. (Sketch Page 10)		
S cb	10.02	328.98
" Gut.	10.81	328.19
L Bet cbs.	10.55	328.45
N Gut	10.95	328.05
10+26.5 = Bk in cb on South		
N Gut.	9.72	329.28
L Monne on por.	9.65	329.35
S Gut.	10.29	328.71
S cb.	9.75	329.25
10+37 = B.C. Cb R on N.		
S cb.	9.26	329.74
" Gut.	9.78	329.22
L on por.	9.12	329.88
N. Gut.	9.20	329.80
N top cb.	8.72	330.28
10+50		
N top cb.	8.00	331.00
" Gut.	8.50	330.50

339 00

℄ Monroe pav.	8.55	330.45
S Gut	9.18	329.82
" top cb.	8.69	330.31
11+00		
S top cb	6.21	332.79
" Gut. pav.	6.61	332.39
℄ "	6.02	332.98
N Gut " .	6.04	332.96
N. cb.	5.58	333.42

(sketch - 11)

11+258 - BC. cb. Return S.W. 47th & Monroe

N top cb	3.90	335.10
" Gut. pav.	4.38	334.62
℄ pav	4.50	334.50
S Gut. on pav. BC. Return	5.05	333.95
S top cb. BC. Return	4.55	334.45
Chk. SS BP.	1.08	339.92

Monroe & 47th

337.94 = B.M.
0.02 = Error.

S.W. Return 47th

T.P	9.62	347.56	337.94 = B.M.
Port #1 on cb.		12.21	335.35
" #1 " Gut.		12.71	334.85

347.56

Port #2 on cb.	11.60	335.96
" " " Gut.	12.08	335.48
" 3 " cb.	11.02	336.54
" " " Gut.	11.44	336.12
E.C. on cb.	10.13	337.43
" " Gut	10.59	336.97

50' South S.L. = Sub base 11+558 = W. cb 47th

on cb.	8.07	339.49
" Gut.	8.57	338.99
S Line on pav.	11.56	336.00
cb " "	11.75	335.81
℄ " "	11.24	336.32
N cb. " "	10.87	336.69

11+31 = N.W. Ref. Monroe & 47th

BC cb Ref. on Monroe cb	12.11	335.45
" " " " " pav.	12.53	335.03
#1 on cb.	11.16	336.40
" " Gut.	11.66	335.90
#2 " cb.	10.40	337.16
" " Gut	10.88	336.68
#3 on cb.	9.66	337.90
#3 " Gut.	10.10	337.46

E.C. Ret. on 47th on cb.	9.04	338.52
" " " " " Gut.	9.44	338.12
11+61 = W cb. 47th on North		
24' N of BC. on cb = BC. Lt.	7.72	339.84
" " " Gutter	8.19	339.37
N Gut. on pav.	10.50	337.06
℄ " "	10.98	336.58
S Gut.	11.45	336.11
℄ 47th 11+75.78		
Sub. Line 50' SS Lin. on pav.	8.14	339.42
19.05' SS Line on pav. opp P.C. on W	9.76	337.80
0.57' SS Line = on pav. = opp P.C. on E	10.46	337.10
S cb. on pav.	10.76	336.80
℄ Monroe & 47th	10.17	337.39
N Gut.	9.76	337.80
29.9 N N℄ on W = on pav. = opp P.C. Ret. N.W.	8.60	338.96
53.9 N N℄ on pav. opp BC. Lt. on W	7.46	340.10
64.62 N N℄ on pav opp cb Ret on E	6.78	340.78
SEC. G		
N.E. top cb BC.	6.02	341.54
" Gut.	6.48	341.08
28.55' South of BC. on pav. E cb. on E produce	7.51	340.05
67.10' South on pav. of cb P.I.	8.39	339.17

Fr. Same on Rim MH

℄ Monroe Sec. G	9.05	338.51
S cb. Monroe projection E cb on N	10.07	337.49
NE Return		
B.C. on cb.	6.02	341.54
" " pav.	6.48	341.08
Part #1 on cb.	6.33	341.23
" " " Gut	6.82	340.74
" 2 " cb.	6.50	341.06
" " " Gut	6.94	340.62
" 3 " cb.	6.35	341.21
" " " Gut.	6.78	340.78
" 4 " cb.	5.75	341.81
" " " Gut	6.22	341.34
" 5 " cb.	5.01	342.55
" 5 " Gut	5.43	342.13
P.R.C. on cb.	3.96	343.60
" " Gut.	4.46	343.10
SEC. H		
49.49 South of cb BC. on cb. on Sub Lin.	7.65	339.91
" Gut.	8.12	339.44
19' South cb BC. on cb = Bt. in cb.	9.10	338.46
" Gut	9.48	338.08

		347.56			
B.C. on cb.			9.60	337.96	
" " Gut.			10.13	337.43	
9' North cb B.C.			10.16	337.40	
P.I. cb. Rot. on pav			10.02	337.54	
S.E. Rot					
#1 on cb.			9.63	337.93	
" " Gut.			10.10	337.46	
#2 " cb.			9.60	337.96	
" " Gut			9.98	337.58	
#3 " cb.			9.48	338.08	
#3 " Gut.			9.79	337.77	
12+15.70					
cb. E.C.			8.83	338.73	
Gut.			9.26	338.30	
℄ pav.			8.33	339.23	
N Gut. pav.			8.00	339.56	
12+59.69					
T.P.	12.19	350.13	9.62	337.94	SE B.P. 47th + Monroe
N cb			6.51	343.62	
N Gut Pav			7.03	343.10	
℄ ..			6.73	343.40	

Aug 18-40
S 55 07
Bliss
Northern
W Moore

	350.13		
S. Gut in Drive		6.71	343.42
	12+74.01		
S cb Top		4.93	345.20
S Gut on Pav		5.46	344.67
℄ " "		5.38	344.75
N Gut " "		5.70	344.43
N Cb Top		5.20	344.93
	12+88.33		
N cb Top		3.85	346.28
N Gut on Pav.		4.38	345.75
℄ " "		4.11	346.02
S Gut " "		4.16	345.97
S Cb Top		3.77	346.36
	13+02.65		
S Cb Top		2.51	347.62
S Gut on Pav		3.08	347.05
℄ " "		2.85	347.28
N Gut " "		3.04	347.09
N Cb Top		2.48	347.65

@ 50.13

13+16.96 = F.C. = Sub Line Ditch #3

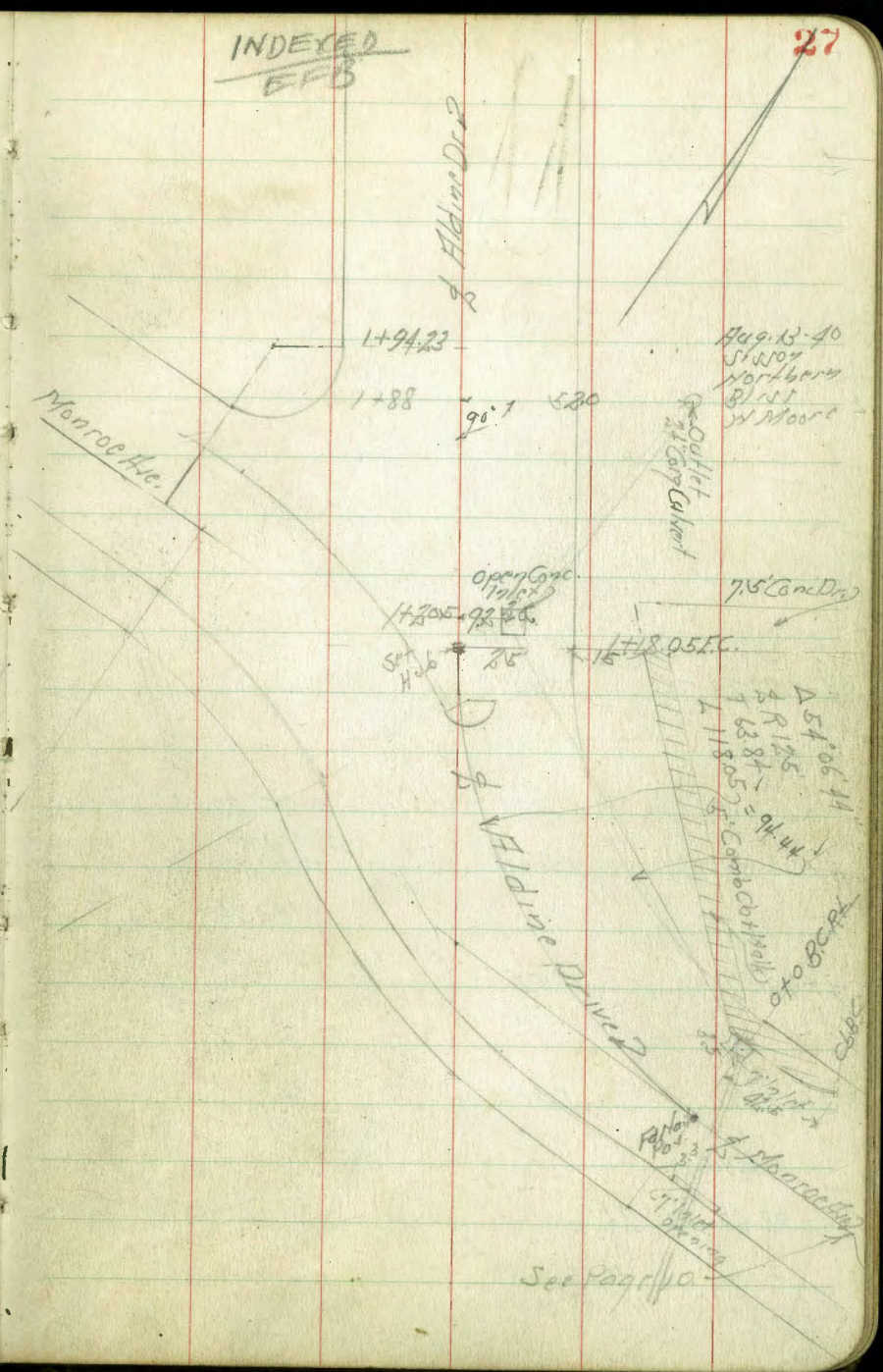
N Cb Top	1.22	348.91
N Gut on Por.	1.87	348.26
" " "	1.75	348.38
S Gut in Dr.	2.10	348.03

Alignment Aldine Drive
Monroe Ave to Fairmount Ave.

INDEXED
EFB

27

1+18.05	E.C.	27°03'22"	
			Δ 54°06'44"
0+78.70		18°02'14"	R 125'
			T 63.84'
			L 118.05
0+39.35		9°01'07"	
0+0	B.C. Rt.		



Aldine Drive Alignment

4+42.29 EC. 13°44'

4+06.33 10°18'

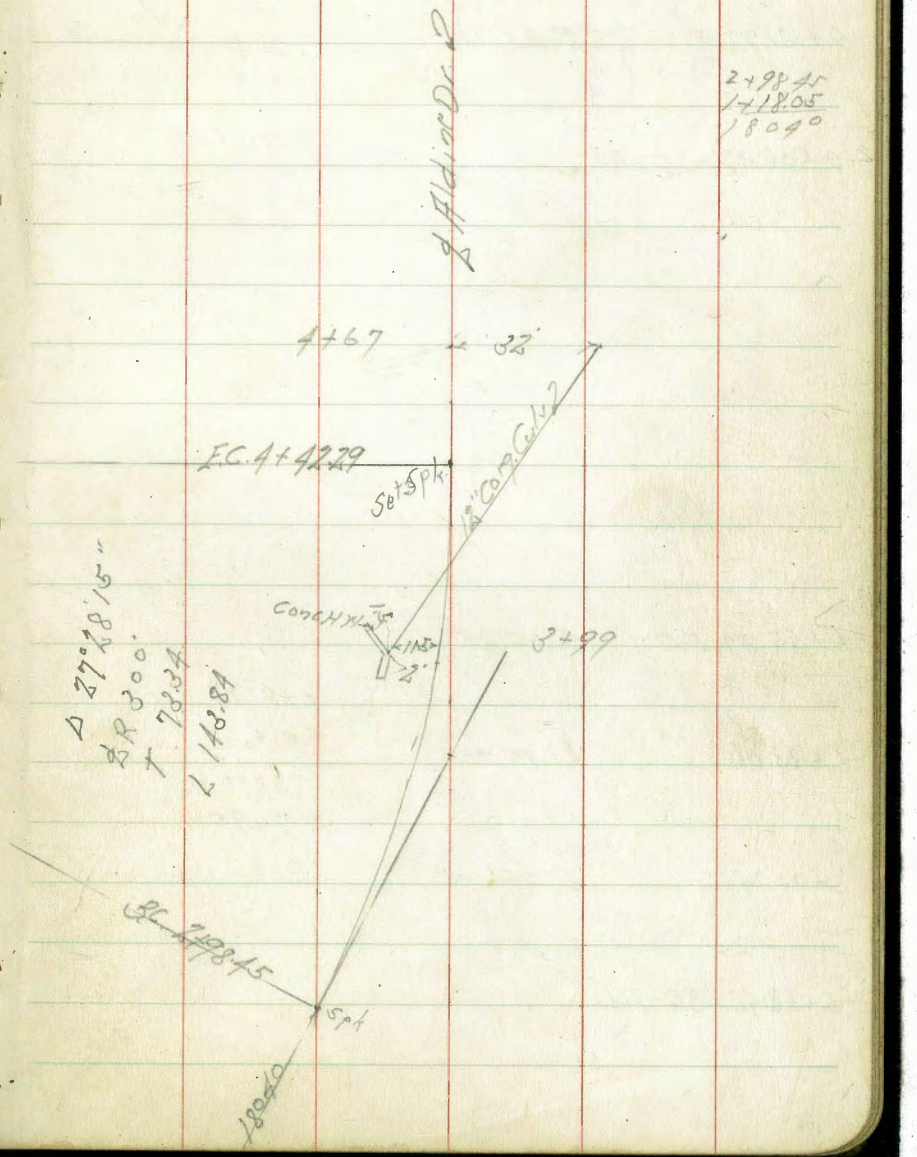
3+70.37 6°52'

3+34.41 3°26'

c 35.93'

2+98.45 B.C. Lt.

Δ 27°28'15"
R 300'
T 73.34
L 143.84
Ext. = 8.83



Alding Drive Alignment

9+57.07 P.C. 4°50'25"

Δ 9°40'50"
D 300'
T 25.40
L 50.70

9+31.72 2°25'12"

Ext. = 1.07

9+06.37 B.C. Rt.

6+65.37 P.C. 9°15'30"

Δ 18°31'
D R 300'
T 48.90
L 96.95

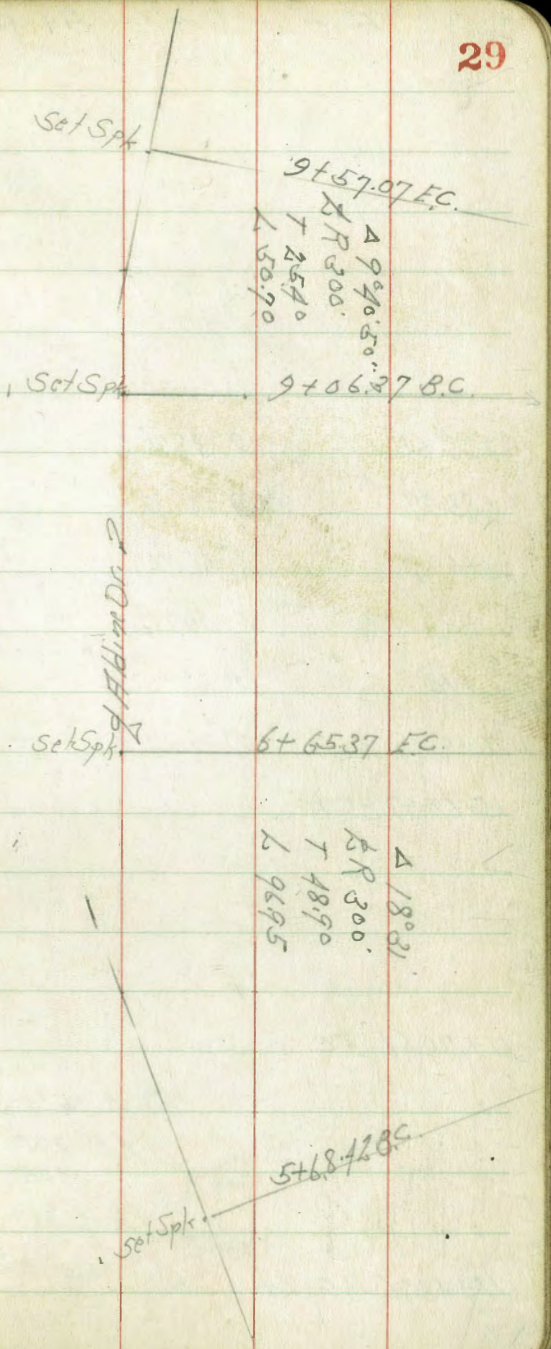
6+33.06 6°10'20"

Ext = 3.96

6+00.74 3°05'10"

c3230

5+68.42 B.C. Rt.

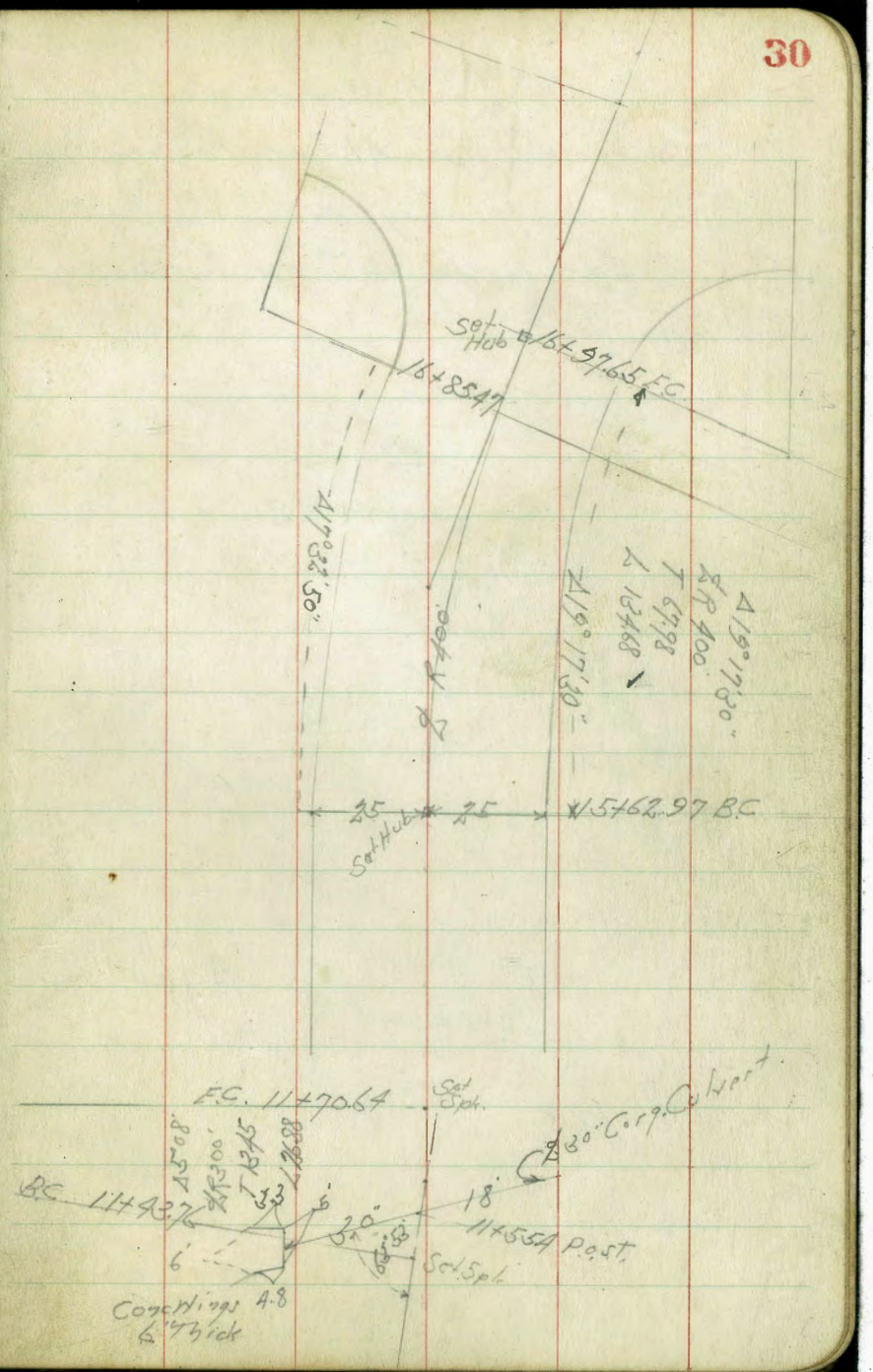


Aldine Drive Alignment

16 97.65
1 34.68
15762.97
11 70.64
392.33

16+97.65 E.C. 9°38.75'
16+85.47 8°46.38' Δ 19°17.30"
+60 6°56.94' D R 400'
+30 4°48' T 67.98
+13 3°35' L 134.68
16+0 2°39.12' 1.297
Ext. = 5.74
15762.97 B.C. Rt.

11+70.64 E.C.
Δ 5°08'
D R 300'
T 13.45
L 26.88
Ext. = 0.30
11+43.76 B.C. Lt.



Aldine Drive & Van Dyke Ave

Alignment

Continued Page 45

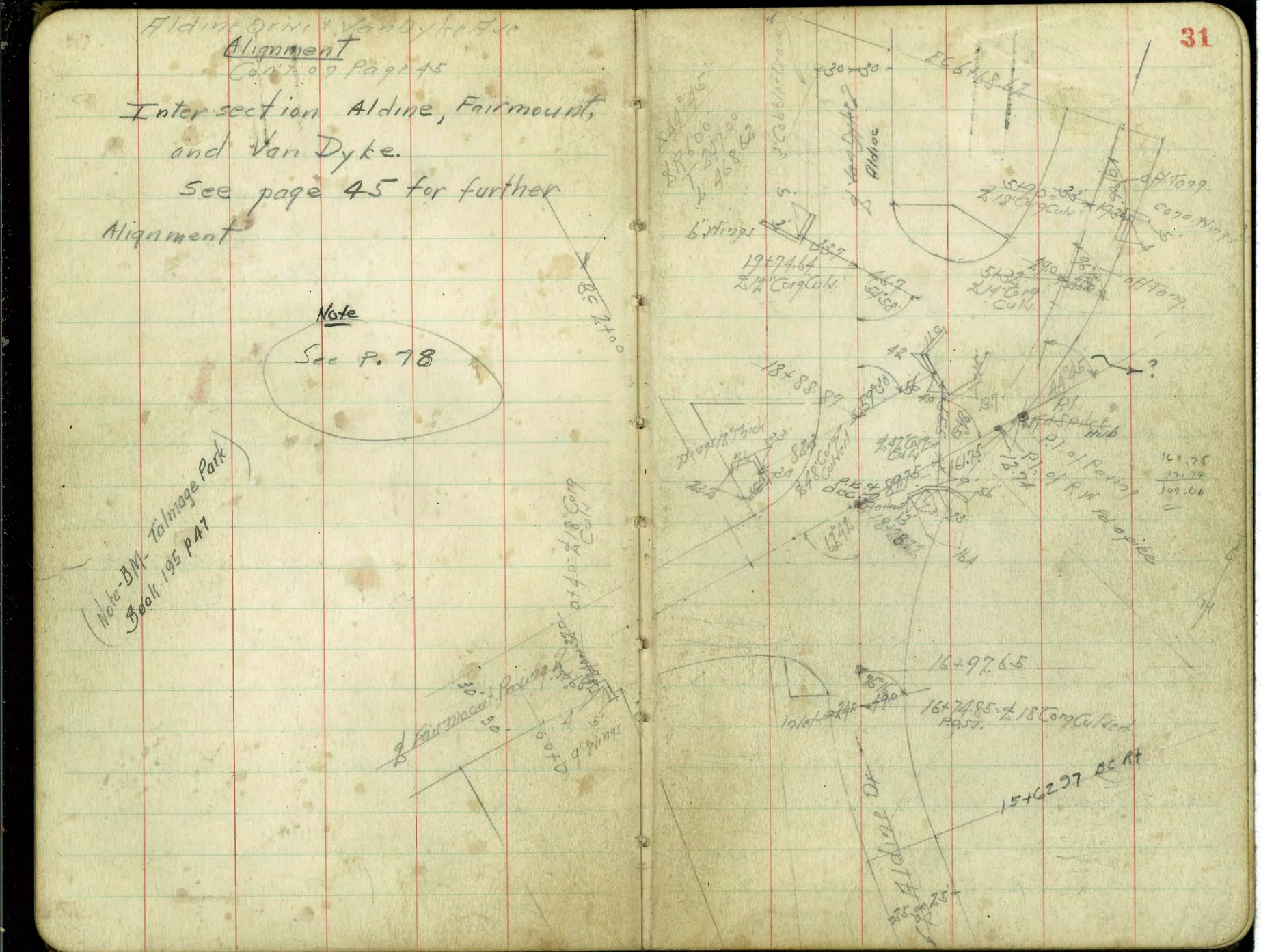
Intersection Aldine, Fairmount, and Van Dyke.

See page 45 for further Alignment

Note

See P. 78

(Note-BM- Talmage Park Book 195 p47



Cross Section Aldine Drive
Monroe Ave to Fairmount Ave.

Note:- 1+20.5 to 16+13 Existing Cobble Drains 3' wide

E.P. = Edge Paving
C.D. = Cobble Drain Approx 3' wide
B.G. = Bottom Gulch

Station									
	Lt.			℄			Rt.		
1+42	338.17 / 0.0 / 37=Pav.	336.26 / 1.91 / 18.8=Gut	336.72 / 1.45 / 18.8=Cb	336.8 / 1.4 / 11	328.3 / 9.9	327.3 / 10.9 / 3=23' C.D.	329.15 / 9.02 / 7=E.P.	328.21 / 9.96 / 27 Ed.Pav.	329.0 / 9.2 / 40
1+27	337.98 / 0.19 / 40 on Pav.	336.09 / 2.08 / 20	334.78 / 3.39 / 9.1=Gut	335.22 / 2.95 / 9.1=Cb	334.3 / 3.9	328.5 / 9.7 / 6=Cob. Drain	329.47 / 8.70 / 10=Ed.Pav.	329.36 / 8.81 / 31=E.Pav.	329.9 / 8.3 / 46

Station				
1+20.5 = 2'x3' Conc. Box Inlet	329.29 / 8.88 / 9.2 Rt ℄ = Top 2'x3' Conc. Box	11.64 / 9.2 Rt. FL.		

Station												
1+18.05 = E.C.	338.03 / 0.14 / 39.6=Cb	337.59 / 0.58 / 39.6=Gut	335.84 / 2.33 / 20	333.94 / 4.23 / 4.1=Gut	334.61 / 3.56 / 4.1=Cb.	334.4 / 3.8	330.4 / 7.8 / 9	330.24 / 7.93 / 13.7=Edge Pav.	329.76 / 8.41 / 29.7=Ed.Pav.	329.49 / 8.68 / 40=Gut.	329.84 / 8.33 / 40'=Cb E.C.	
0+78.7	333.44 / 4.73 / 21.5=Gut Dr	332.22 / 5.95	330.77 / 7.40 / 20'	329.60 / 8.57 / 34.4=Edge Pav.	329.21 / 8.96 / 43=Gut	329.82 / 8.35 / 43=Cb						
0+39.35	330.73 / 7.44 / 16.5=Cb	330.23 / 7.94 / 16.5=Gut	330.10 / 8.07	329.53 / 8.64 / 15'	328.56 / 9.61 / 36.3=Gut	329.47 / 8.70 / 36.3=Cb						
0+0 B.C. Rt (sketch-27)	329.03 / 9.14 / 15=Cb	328.33 / 9.84 / 15=Gut.	328.49 / 9.68	328.23 / 9.94 / 10	327.64 / 10.53 / 21.5 on Grad.	328.72 / 9.45 / 21.5=Cb	329.2 / 9.0 / 30					

B.M.	0.23	338.17	337.94	S.E.B.P. Monroe & 47th Page 25	338.17

TP	0.81	316.17	12.24	315.36
2+50				
2+25				
2+0				
1+88 = outlet 24" Corg. Pipe (Sketch - 27)				
1+75				
TP	1.22	327.60	11.79	326.38
		338.17		

Lt. | ℄ | Rt.

336.1	318.3	316.4	317.67	318.15	318.32	317.3	321.1	304.6	309.3
+8.5 50	9.3 20	11.2 14=ΔCD	9.93 6=FP	9.45	9.28 16=FP	10.3 35	16.5 45	23.0 61=BG	18.3 60
337.6	320.3	318.8	320.06	320.43	320.33	320.0	314.1	307.1	311.1
+10.0 50	7.3 20	8.8 13=ΔCD	7.64 7=FP	7.17	7.27 16=Edg. Pav	7.6 25	13.5 37	20.5 52=BotG	16.5 60
340.1	338.6	321.6	322.8	323.07	322.83	322.9	308.6	312.0	
+13.5 45	+1.0 25	6.0 12=ΔCD	4.80 9=Edge	4.53 on Pav.	4.77 18=Edge	4.7 25	19.0 50=Bot Gutt	15.6 60	
					305.85				
					21.75 52=FL 24" Corg Pipe				
340.9	340.6	332.3	329.3	325.50	325.61	326.6	315.2		
+13.3 50	+13.0 39	+4.7 25	3.8 7=ΔCD	2.10 =Edge	1.99 21=Edge	1.0 22	12.4 24		
					327.60				
					338.17				

Alding Drive Cross Section

Aug. 14. 40.

34

		Lt			℄			Rt				
	4+75	334.9	320.5	302.0	299.52	299.93	9.00 0.76	304.9	296.2	288.4	290.9	
		+25.5 65.	+9.1 28	9.4 17.	11.92 6-EP	11.57	10.68 13-EP	10.5 21	21.2 40	23.0 40 BG	20.5 65	
	4+67 = Outlet+12" Corg. Culv. 22.8 Rt FL 5.40	336.1	323.2	304.5	301.4	301.76	302.27	303.38	303.8	299.4	291.4	290.8	292.4	292.6
	4+42.29 F.C.	+26.7 65.	+11.8 27.	6.9 17.	10.0 11-CD	9.68 6-EP	9.17	8.06 14-EP	7.6 17.	12.0 29	20.0 33-BG	20.6 44-BG	19.0 44	18.5 65
	4+06.33	339.4	325.4	304.4	304.35	305.06	306.14	306.8	294.2	292.8	294.9	
		+28.0 50.	+14.0 25	7.0 17.	7.09 7-EP	6.38	5.30 12-EP	4.6 23.	17.4 43	18.6 50 BG	16.5 60	
	3+99 = Inlet+12" Corg. Culv. 11.6 Lt FL 8.78	341.2	330.4	307.2	307.16	307.88	308.93	309.2	303.4	296.8	297.0	295.4
	3+70.37	+29.8 52.	+19.0 27	4.2 17	4.29 7-EP	3.56	2.51 13-EP	2.2 26	8.0 36	14.6 46	14.4 60	16.0 65 BG
	TP 8.64 311.44 8.37 307.80					311.44						
	3+34.41	339.3	332.6	310.9	310.14	310.71	311.37	311.7	309.1	298.2	297.9	
		+26.1 50.	+16.4 26	5.5 19	6.03 8-EP	5.46	4.40 13-EP	4.5 28	17.8 48	18.0 60-BG	18.3 70	
	2+98.45 B.C. Lt. (Sketch-28)	339.3	329.1	316.2	312.2	312.97	313.56	314.39	314.7	309.0	301.2	302.9
		+23.1 50	+13.9 23	0.0 23	4.0 15-EP	3.20 8-EP	2.31	1.78 13-EP	1.5 24	7.7 38	15.0 44-BG Gulch	13.3 56
	316.17					316.17						

6+65.37	EC.	(Sketch -29)			
6+33.06					
6+00.74					
5+68.42	B.C. Rt				
5+35					
5+0					
TP	0.16	299.22	12.38	299.06	
		311.44			

Lt

307.5	294.8	289.8	286.7	287.54	286.95	286.62	286.0	277.8	285.5		294.7
+8.3 55	4.4 31	9.4 28	12.5 22	11.68 16-EP	12.27	12.60 4-EP	13.2 19	21.4 26	13.7 37		2.5 60
			22-CD					26-BS			
310.7	296.7	291.0	289.2	294.15	289.76	289.12	288.4	281.2	278.8	286.9	296.2
+11.5 55	7.5 27	8.7 24	10.0 19-CD	9.07 12-EP	9.46	10.10 8-EP	10.8 15	18.0 27	20.4 37	12.3 41	3.0 60
									26-BS		
314.6	302.9	293.9	291.82	298.64	292.32	291.41	291.0	283.8	280.6	288.35	299.1
+15.4 55	+3.7 24	5.8 20	7.40 16-CD	6.58 10-EP	6.90	7.81 10-EP	8.2 14	15.4 27	18.6 35	15.7 40	5.1 60
									28-BS		
320.8	308.0	297.6	294.6	294.87	294.54	293.97	293.5	289.2	283.0	285.0	283.2	289.5
+21.6 55	+8.8 26	1.6 22	4.6 19	4.35 9-EP	4.68	5.25 12-EP	5.7 17	10.0 24	16.2 27	14.7 40	16.0 60	9.7 60
									27-BS		
325.3	311.6	301.6	298.6	296.72	296.54	296.34	296.1	288.0	285.6	288.4	294.2
+26.1 55	+12.4 20	0.6 21	2.6 16	2.50 8-EP	2.68	2.88 12-EP	3.1 20	11.2 30	13.6 35	10.8 45	5.0 60
									29-BS		
330.4	315.4	300.2	298.2	298.10	298.41	298.54	298.7	294.1	288.1	289.9	
+31.2 55	+16.2 26	+10 18	1.0 14	1.18 7-EP	0.81	0.88 12-EP	0.5 21	5.1 30	11.1 40	9.3 60	

Rt

299.22

311.44

Alding Drive — Cross Section

8+0					
TP	0.40	277.17	10.83	276.77	0.2 Hail 8+0
7+75					
7+50					
7+25					
7+0					
TP	0.73	287.60 / 299.22	12.35	286.87	

Lt. | ℄ | Rt

8+0: 287.3 | 282.0 | 276.2 | 277.2 | 276.77 | 276.73 | 276.7 | 277.3 | 277.7 | 278.9 | 275.6 | 286.9
+12.1 60. | +4.8 33 | 1.0 26=CD | 0.0 20=EP | 0.40 | 0.44 1=EP | 0.5 9 | 4.9 12 | 6.5 18=BG | 5.3 23 | 1.6 34 | +9.7 50

277.17

7+75: 295.8 | 288.5 | 285.6 | 279.7 | 278.55 | 279.17 | 278.60 | 278.4 | 277.2 | 275.8 | 290.7
+8.2 60. | +0.9 40. | 2.0 35 | 7.9 31 | 9.05 27=CD | 8.43 21=EP | 9.00 EP | 9.2 10 | 16.4 16=BG | 11.8 22 | +3.1 50

7+50: 295.6 | 288.0 | 282.2 | 280.15 | 280.94 | 280.45 | 280.3 | 280.1 | 275.6 | 274.4 | 279.8 | 293.3
+8.0 60 | +0.4 36 | 5.4 35 | 7.45 28=CD | 6.46 21=EP | 7.15 2=EP | 7.3 | 7.5 4 | 12.0 10 | 13.2 14=BG | 7.8 25 | +6.7 50

7+25: 294.9 | 288.5 | 283.9 | 282.3 | 282.75 | 282.15 | 282.1 | 277.4 | 278.2 | 283.1 | 294.0
+7.3 50 | +0.9 36 | 3.7 31 | 5.3 26=CD | 4.85 21=EP | 5.45 1=EP | 5.5 | 12.2 10=BG | 9.4 20 | 4.5 26 | +6.4 50

7+0: 299.2 | 292.6 | 290.1 | 286.0 | 284.6 | 284.83 | 284.06 | 283.1 | 277.3 | 277.3 | 279.0 | 284.1 | 293.1
+11.6 50 | +5.0 36 | +2.5 34 | 1.6 31 | 3.0 26 | 2.79 19=EP | 2.54 =EP | 4.5 10 | 10.3 18=BG | 10.3 23 | 8.6 24 | 3.5 31 | +5.5 50

287.60

	Lt.				℄			Rt.		
9+57.07 E.C.	293.2	280.7	268.2	267.3	267.47	267.60	267.55	267.9	264.2	264.4	269.1
	+16.0 55	+3.5 25	9.0 17	9.9 12=CD	9.76 6=EP	9.57	9.62 15=EP	9.3 32	13.0 36=WG	12.8 46	8.1 50
9+21.72	299.4	283.7	269.9	268.2	268.89	269.05	268.92	269.6	266.4	266.6	269.4	269.6
	+22.7 55	+6.5 22	7.3 18	9.0 18=CD	8.38 6=EP	8.12	8.25 14	7.6 26	10.8 32=WG	12.6 43=EG	8.8 46	7.6 50
9+06.87 BC. Rt.	303.0	280.2	271.1	269.5	270.26	270.45	270.24	271.9	267.4	266.2	273.2	274.7
	+25.8 55	+3.0 24	6.1 20	7.7 14=CD	6.91 8=EP	6.72	6.93 12=EP	5.9 26	9.8 29=WG	11.0 42=EG	4.0 45	2.5 50
9+75	295.3	282.2	272.9	271.4	272.07	272.26	272.09	273.0	269.8	267.9	277.2	281.4
	+18.1 55	+5.0 29	4.3 24	5.8 18=CD	5.10 11=EP	4.91	5.08 9=EP	4.3 20	8.4 24=WG	9.3 30=EG	0.0 36	+4.3 50
8+50	292.4	280.7	274.5	272.9	273.10	273.72	273.60	274.4	269.9	269.2	276.9	283.2
	+15.7 55	+2.5 20	2.7 27	4.3 21=CD	2.47 15=EP	2.45	2.57 6=EP	2.8 17	7.3 20=WG	8.0 27=EG	0.3 30	+6.0 50
8+25	291.7	281.2	277.2	274.7	275.37	275.19	275.04	275.0	270.1	273.0	283.2
	+14.5 55	+4.0 32	0.0 29	2.5 24=CD	1.80 17=EP	1.98	2.13 4=EP	2.2 10	7.1 16=BG	4.5	+8.0 50

2771.7

2771.7

Aldine Dr Cross Section

11+25				
11+0				
10+75				
10+50				
10+25				
TP	0.24	265.32	12.09	265.08
10+0				
		277.17		

Lt. Rt.

11+25: 260.1 | 58.7 | 259.11 | 259.69 | 259.57 | 259.9 | 256.0 | 256.6 | 263.3 | 265.9
11+0: 263.0 | 260.1 | 259.5 | 259.96 | 260.65 | 260.52 | 260.7 | 256.1 | 257.2 | 258.1 | 267.3
10+75: 268.1 | 266.3 | 264.8 | 261.0 | 260.5 | 260.92 | 261.70 | 261.68 | 261.9 | 259.2 | 258.7 | 264.3 | 267.5
10+50: 271.3 | 267.8 | 262.8 | 261.4 | 262.05 | 262.61 | 262.75 | 262.5 | 260.2 | 260.2 | 262.0 | 264.5
10+25: 268.8 | 273.6 | 263.9 | 262.9 | 263.56 | 263.83 | 263.96 | 264.4 | 261.0 | 261.2 | 262.9 | 263.3
10+0: 290.2 | 274.2 | 263.3 | 264.2 | 265.07 | 265.12 | 265.34 | 266.4 | 262.5 | 262.1 | 265.0 | 266.6

277.17

	Lt				Rt				
12+50	262.1	258.1	254.5	253.5	254.4	254.91	254.76	254.5	250.1	250.1	255.3
	5.2 50	7.2 40	10.8 27	11.8 21=CD	19.8 8	10.41	10.56 7=EP	10.8 20	15.2 30	15.2 47	10.0 50
12+25	261.8	259.3	255.6	254.3	254.09	255.77	255.52	255.5	252.3	251.8	252.0	256.7
	4.5 50	6.0 44	9.8 32	11.0 21=CD	10.12 14=EP	9.55	9.80 7=EP	9.8 18	13.2 22	15.2 25	13.2 42	8.6 50
12+0	263.8	257.8	256.3	255.1	256.14	256.69	256.53	256.3	253.2	252.2	252.7	253.2
	5.4 50	7.5 40	9.0 30	10.7 22=CD	9.18 16=EP	8.63	8.79 5=EP	9.0 15	12.1 22	13.1 25	12.6 37	12.1 50
11+70.64 EC	260.0	257.8	257.2	256.2	257.45	257.94	257.86	256.0	254.6	253.8	254.3	258.1
	5.2 50	7.5 25	8.1 27	9.1 23=CD	7.87 16=EP	7.38	7.46 4=EP	7.3 14	10.7 18	11.5 25=MG	11.0 46	9.2 52
11+55.4 = Existing 30" Corg Culv (Sketch-30)			256.25	253.26					253.97			
			FL 9.07 Inlet 30.		6.04 30. TOP HW				11.35 18=Outlet			
11+43.78 BC	259.2		256.2	258.2	258.48	259.00	259.92	259.0	253.8	255.6	260.0	263.6
	6.1 50		9.1 27	7.1 26	6.84 17=EP	6.32	6.40 5=EP	8.3 10.	9.5 14=MG	9.7 19=EG	5.3 33	1.2 50

265.32

265.32

Aldine Dr. Cross Section

40

						Lt.								Rt.			
						26.35	25.95	25.72	24.99	24.86	24.96	24.68	24.92	24.90	24.74	24.35	24.17
14+0						+7.5 50'	+3.5 54'	+1.3 21'	6.1 17'	7.4 12'-CD	6.88 4'-EP	6.30	6.78 17'-EP	9.30	8.6 16'	11.5 50'	13.3 60'
						26.41	25.81	25.54	25.14	24.96	24.94	25.052	25.011	24.99	24.73	24.62	24.44
13+75						+8.1 60'	+2.1 43'	0.6 32'	1.6 25'	6.4 8'-CD	5.57 5'-EP	5.46	5.87 16'-EP	6.1 30'	8.7 36'	9.8 45'	11.6 50'
						26.38	25.762	25.46	25.16	25.05	25.137	25.151	25.108	25.08	24.77	24.69	
13+50						+7.8 50'	+0.3 37'	1.4 21'	1.4 23'	5.6 15'-CD	4.61 7'-EP	4.48	4.90 18'-EP	6.2 24'	8.3 34'	9.1 50'	
						26.08	25.86	25.82	25.14	25.24	25.30	25.207	25.15	24.90	24.74	25.00	
13+25						+4.8 50'	+0.8 26'	0.8 23'	1.6 17'-CD	3.73 9'-EP	3.68	3.91 11'-EP	4.6 26'	9.0 36'	8.6 44'	6.0 50'	
						26.30	25.71	25.93	25.24	25.301	25.318	25.298	25.29	24.90	24.86	25.12	25.29
13+0						+7.0 50'	+1.1 38'	2.7 25'	6.6 18'-CD	4.97 10'-EP	4.80	4.00 10'-EP	3.4	7.0 21'-BG	7.4 42'-BG	4.8 46'	3.1 50'
TP	3.15	255.98	12.49	252.83	Rock Lt in Cobble Drain 12+75								255.98				
						26.23	25.83	25.63	25.39	25.27	25.69	25.405	25.389	25.33	24.99	24.98	25.32
12+75						8.0 50'	7.0 40'	9.0 30'	11.4 35'	12.6 20'-CD	11.63 12'-EP	11.27	11.43 9'-EP	17.0 17'	15.4 24'-BG	15.5 40'-EG	18.1 45' 25.39 11.4 60'
		265.32											265.32				

+62.97

15+~~65~~ 8.C. Rt

15+25

TP 1.46 246.31 11.12 244.85

15+0

14+75

14+50

14+25

255.98

	Lt.						Rt				
	270.9	254.1	243.8	242.8	242.1	242.54	242.56	241.7	238.9	237.8	236.4	235.9
	+24.6 50.	+7.8 14.	2.5 8.	3.5 5.0	4.2 2=CP	3.47 11=EP	3.75 33=EP	4.6 38	7.4 43	8.5 54	9.9 58=WG	10.4 66
	267.8	261.3	255.1	245.4	243.5	243.9	244.31	244.08	243.3	241.5	241.1	240.9
	+21.5 50	+15.0 33	+8.8 20	0.9 10.	2.8 1:CD	2.4	2.40 7=EP	2.23 28=EP	3.0 36	4.8 41	5.2 50.	5.4 60
	271.7	261.0	253.9	246.6	244.4	243.2	245.41	245.0	244.4	242.2	242.0	241.8
	+15.7 50.	+5.0 31	2.1 18	9.4 15	11.6 4:CD	10.8	10.57 4=EP	10.98 25=EP	11.6 34	13.8 58	14.0 60.	14.2 60.
	272.2	262.	254.7	246.9	245.6	244.4	246.41	246.10	245.5	243.6	243.3	241.2
	+16.2 50.	+6.7 35	1.3 20.	9.1 14	10.4 6=CD	9.6	9.57 2=EP	9.88 23=EP	10.5 31	12.4 56	12.7 45	14.8 60
	268.4	261.8	256.7	253.7	247.6	246.5	247.41	247.16	247.1	245.1	242.2	242.0
	+12.4 50	+5.8 31.	+0.7 22	3.3 20	8.4 13	9.5 8:CD	8.57 1=EP	8.82 21=EP	8.9 31	10.9 46	13.8 60.	14.0 60.
	267.2	260.5	257.9	251.9	247.6	248.55	248.62	248.15	247.7	245.2	242.9	241.9
	+11.2 50.	+4.5 30.	+1.9 21	4.1 19.	8.4 10 CD	7.43 2=EP	7.36	7.83 19=EP	8.3 34	10.8 47	13.1 60	14.1 60.

Aldine Dr. Cross Section

16+74.85 = ∠ 18° Corg. Cut (sketch-31)

✓ Conc. N.W. Top SW Van Dyke & Fairmount

BM B.P.	7.85	24387	10.29	236.02	
16+88.42					
16+60					
16+30					
16+13					
16+0					
		246.31			

Lt.								Rt.				
								231.96				
234.23								11.91				
9.64								49' = out Hot				
24-10 Hot												
						24387						
256.3	254.9	237.7	236.2	236.7	236.8	238.94		238.10	237.1	235.7	236.1	229.7
+10.0	+8.6	8.6	10.1	7.6	7.6	7.37		8.71	9.7	10.6	10.6	16.6
60	47	35	28	14		5-EP		24-EP	38	42	60	70
262.4	253.1	236.2	236.7	238.8	239.7	239.68		239.06	238.2	233.4		231.5
+16.1	+6.8	10.1	9.6	7.5	6.6	6.63		7.25	8.1	12.9		14.8
50	31	22	6	6.5		8-EP		30-EP	40	62		66
261.8	259.0	250.9	238.2	237.9		240.56		240.23	239.0	234.9		233.6
+21.5	+12.7	+4.6	8.1	8.4		5.75		6.08	7.3	11.4		12.7
50	30	16	7			11-EP		33-EP	46	48		60
267.3	258.7	251.0	241.9	241.5		239.96		241.17	241.04	240.2	237.2	231.6
+21.0	+12.4	+4.7	4.4	4.8		6.35		5.14	5.77	6.1	9.1	8.7
50	33	15	5			1-HHCD		12-EP	33-EP	42	60	60
269.2	261.3	251.2	242.6	241.7	240.9	241.51		241.31	240.6	237.5		237.2
+22.9	+15.0	+4.9	3.7	4.6	5.4	4.80		5.00	5.7	8.8		9.1
50	30	13	6		4-CD	12-EP		33-EP	41	47		70
						246.31						

	Lt				Rt	
18+28.22	234.8	234.89	235.10	234.70	233.9	232.5
	9.1	8.98	8.77	9.17	10.0	11.4
	55	28=Fdp.		38=EP	66	64
18+0	236.20	236.10	234.00	235.20	234.6	233.4	233.1	229.1
	7.87	7.77	7.87	8.67	9.3	10.5	10.8	14.8
	37=EP	11=EP		28=EP	45	52	70	75-BG
		Fairmount						
17+75	237.4	236.9	236.74	236.66	235.73	235.2	235.7	233.3	229.3
	6.5	7.0	7.13	7.21	8.14	8.7	8.2	10.6	14.6
	70	45	9=EP		23=EP	42	60	71	73-BG
17+50	238.1	237.4	237.20	237.21		236.40	235.6	233.4	229.5
	5.8	6.5	6.67	6.66		7.47	8.2	10.5	14.4
	00	45	6=EP			21=EP	60	68	72-BG
17+25	238.5	238.0	237.9	237.96	237.27	236.5	234.9	234.5	229.9
	5.4	5.9	6.00	591	6.60	7.4	9.0	9.4	14.0
	55	25	3=EP		21=EP	38	50	64	68-BG
16+97.65 E.C.	243.9	238.5	236.5	238.8	238.8	238.80	238.00	235.3	229.9
	0.0	5.1	7.4	5.1	5.1	5.07	5.87	8.6	14.0
	50	11	60	23		2=EP	21=EP	60	62-BG

Δ 43.87

Δ 43.87

Alding Drive And Van Dyke

Van Dyke, Fairmount to Adams.

Cross Sections Cost Page 48

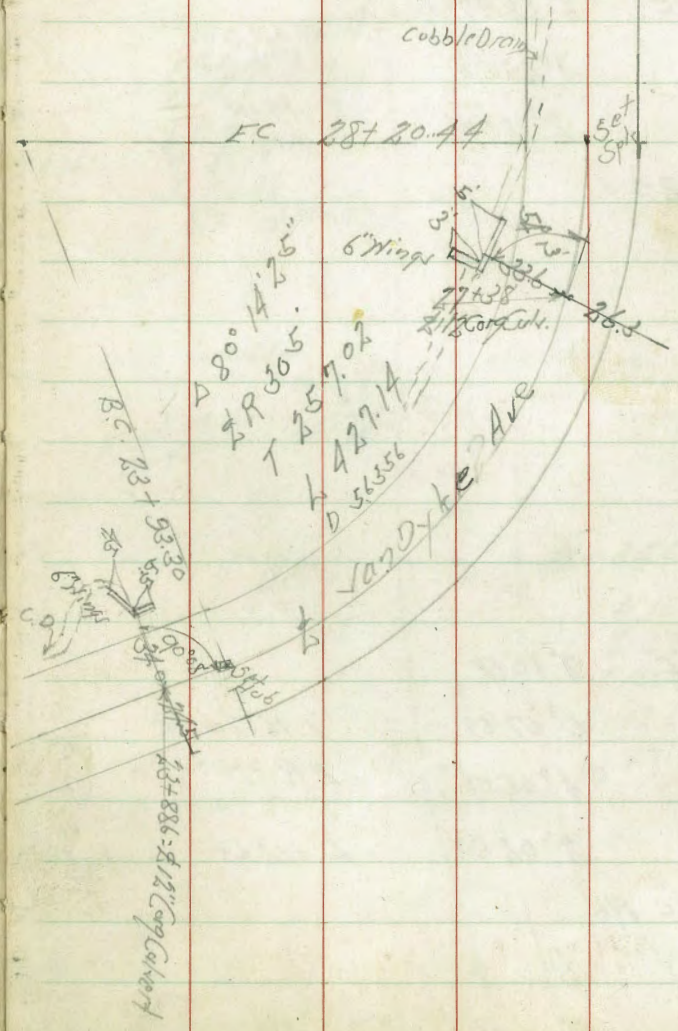
	Lt	℄	Rt.
19+50	250.3	237.0	236.74
	+6.4	6.9	7.13
	50	42	32 EP
		236.52	236.20
		7.85	7.67
			6 EP
	235.6	231.9	216.4
	8.3	14.0	27.5
	18	45	65 BG
19+25	239.7	235.9	235.87
	4.2	8.0	8.00
	50	45	30 EP
		235.42	234.65
		8.45	9.22
			15 EP
	233.8	221.4	217.9
	10.1	22.5	27.0
	32	45	55 BG
19+0		234.6	234.89
		9.3	8.98
		50	24 EP
		234.47	
		9.40	
	233.27	231.85	
	10.60	12.02	
	25 Hyd	50 EP	
18+88.87: ℄ 48" Corg. Culvert (Sketch-31)	228.29	236.02	
	15.58	7.85	
	82.3 FL	82.3 Hyd	
		232.52	217.57
		11.35	26.30
		56 Hyd	56 FL
18+75	234.6	234.36	233.92
	9.3	9.51	9.95
	55	25 EP	
		233.57	233.33
		10.30	10.54
		15	25
	232.94		
	10.93		
	50 Conc Rd		
18+50	235.1	234.5	234.39
	8.8	9.4	9.48
	50	30 EP	20
		234.87	
		9.60	
	234.07	233.3	
	9.80	10.6	
	50 EP	64	
		243.87	
	243.87		

Alignment ~~Alabama~~ Van Dyke
Lt.

Starting Van Dyke Ave Alignment
Fairmount to Adams.

28+20.44	E.C.	40° 07.41'	
28+0		38° 12.22'	
+70		35° 23.15'	
+38 = 2½" Corg Culvert		32° 22.91'	Δ 80° 14' 25"
27+0		28° 48.56'	R 3050'
+70		25° 59.49'	T 2570.2
+35	P.O.C.	22° 42.25'	L 427.14
26+0		19° 25'	
+70		16° 35.93'	
+35		13° 18.68'	
25+0		10° 01.44'	
+70		7° 13.27'	
+35		3° 55.14'	
24+0		0° 37.88'	
23+93.30	B.C. Lt		

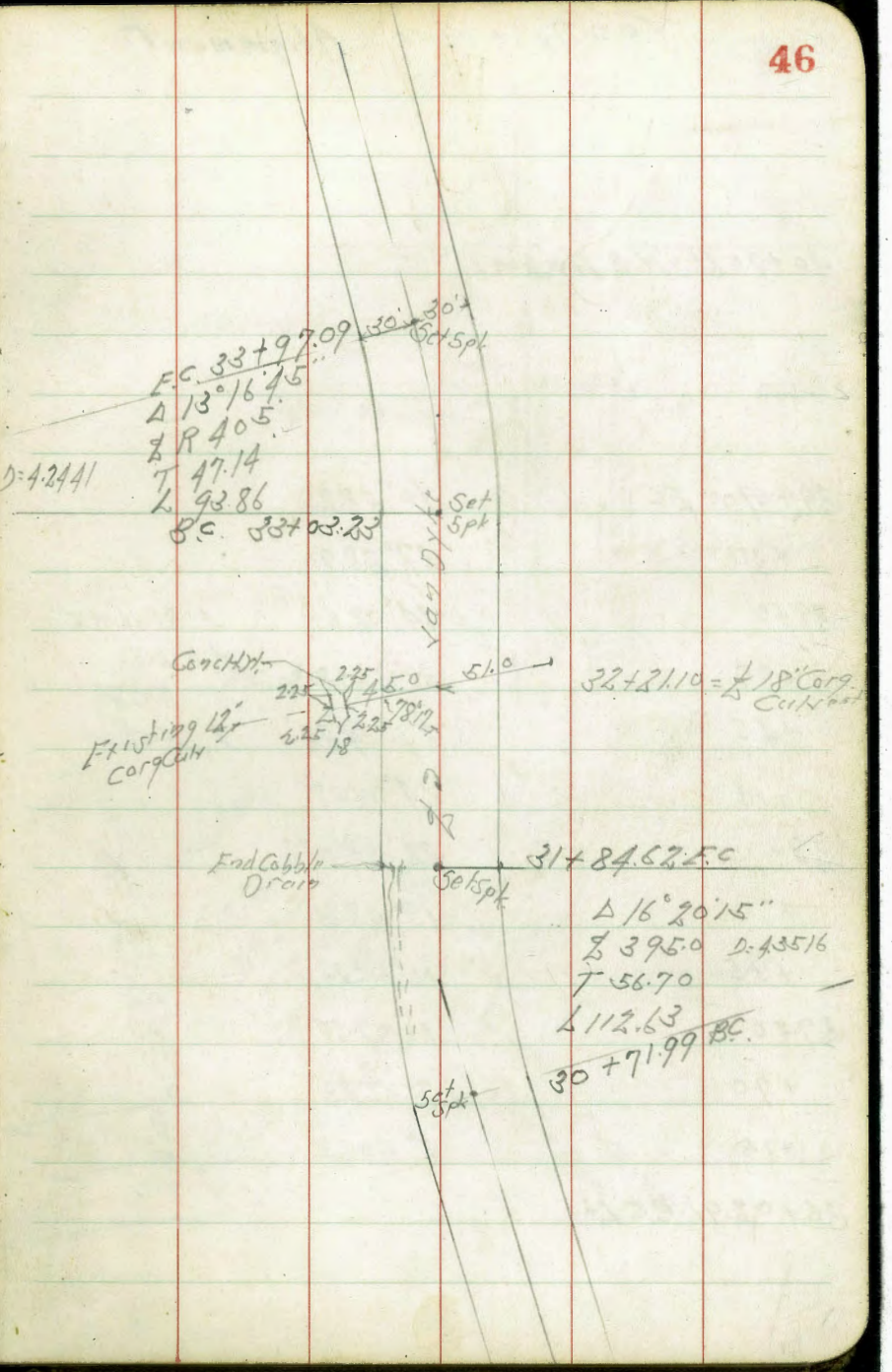
Bt. Ford Page 31



Van Dyke Ave. Alignment.

33+97.09 E.C.	6°38.37'	Δ 13°16'45"
33+65.81	4°26.58'	R 405.0
33+34.52	2°12.79'	T 47.14
33+03.23 B.C. Lt		L 93.86

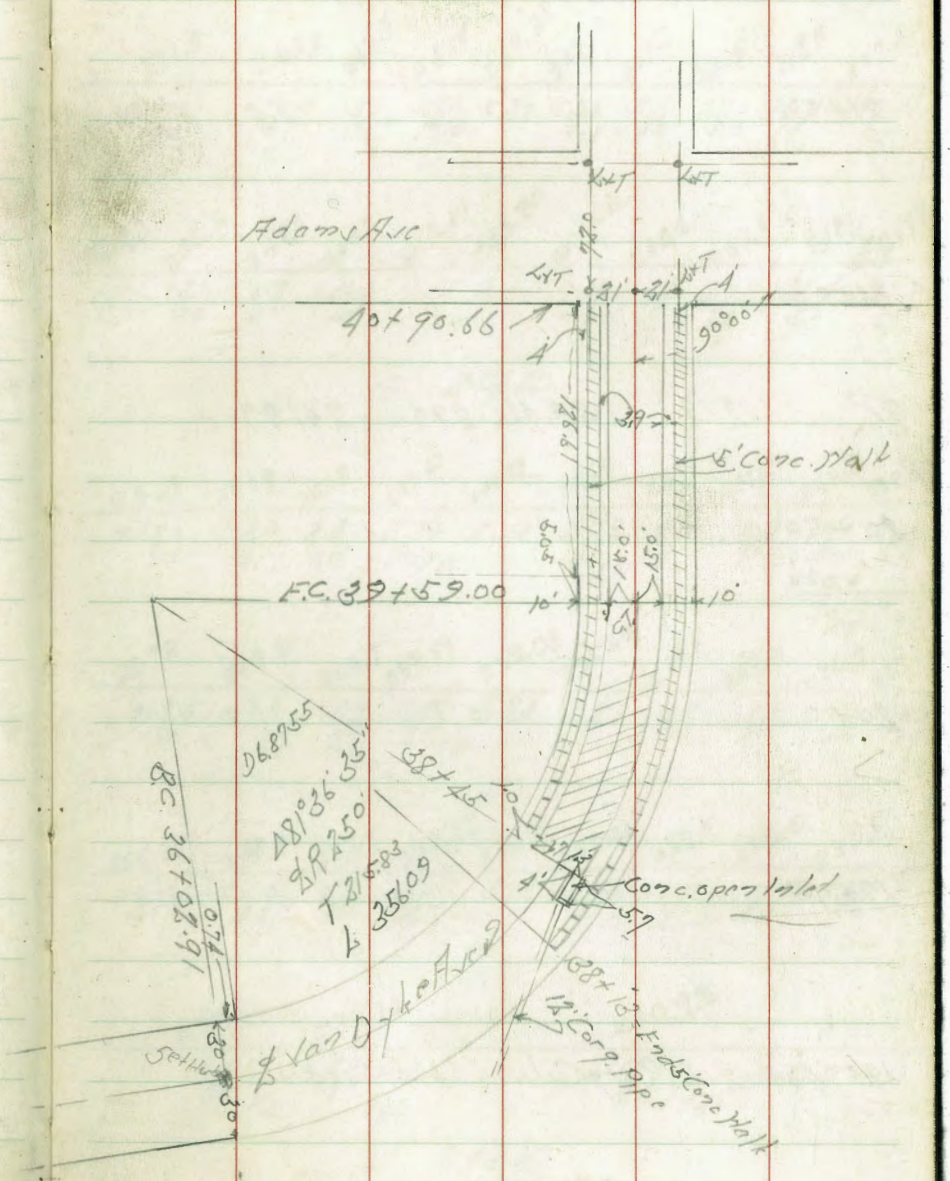
31+84.62 E.C.	8°10.12'	
31+56.46	6°07.59'	Δ 16°20'15"
31+28.31	4°05.06'	R 395.0
31+00.15	2°02.53'	T 56.70
30+71.99 B.C. Rt		L 112.63



Van Dyke Ave Alignment

40+90.66 = H.L. Adams

39+59.00	F.C.	40° 48.28'	
+30		37° 28.90'	
39+0		34° 02.64'	Δ 81°36'35"
+70		30° 36.38'	℄ R 250'
+45		27° 44.48'	T 216.83
+13		24° 04.47'	L 356.09
38+0		22° 35.09'	
+70		19° 08.83'	
+35		15° 08.18'	
37+0		11° 07.54'	
+70		7° 41.28'	
+35		3° 40.63'	
36+02.91	B.C. Lt.		



Aug 21 40

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~~Oldine Drive~~ Andrew Dyke Ave

Fairmount to Adams.

21+50				
21+0				
TP	12.69	254.46	2.10	241.77
20+50				
20+0				
19+75				
19+7464 = ℄ 12" Corg Culv. (sketch-31)				

243.87

From Page 44

	Lt					Rt.			
271.5	265.0	249.5	248.79	249.26	249.18	249.3	226.5	218.3	217.4
+17.0 50.	+10.5 37.	5.0 36.	5.67 17.0	5.20	5.28 4=EP	5.2 10.	28.0 50	36.2 68	37.1 95.
264.1	256.5	248.3	244.5	245.41	245.30	245.08	245.6	235.8	218.1	217.7
+9.6 50.	+2.0 34	6.2 30.	10.0 24	9.05 18=EP	9.16	9.38 2=EP	8.9 8	18.7 23	36.4 53	36.8 86.
				254.46						
256.9	251.9	241.5	241.67	241.77	241.64	241.9	231.6	226.8	223.3
+13.0 50.	+8.0 37.	2.4 30 CD	2.20 20 EP	2.10	2.23 4=EP	2.0 9	12.3 25	17.1 40	20.6 52
								220.4	
								235	
257.3	253.5	238.7	239.39	239.03	238.64	239.1	228.9	226.7	223.1
+13.4 50.	+9.6 37.	5.2 28 CD	4.48 20 EP	4.84	5.23 4=EP	4.8 10.	15.0 30	17.2 47	20.8 70.
255.9	253.4	238.7	238.22	237.75	237.42	235.7	233.0	230.1
+13.0 55.	+9.5 44	5.4 33.	5.65 22=EP	6.12	6.45 4=EP	8.2 21	10.9 26	13.8 50.
	237.02	239.16				230.92		
	6.85 33 FL.	4.71 33.7 HM				15.95 46.7 FL.		
				243.87				

23+70					
23+50					
TP	11.62	276.86	0.86	265.24	
23+0					
22+50					
TP	12.05	266.10	0.41	254.05	
22+0					
		254.46			

Lt Ø Rt

274.9 266.2 263.6 264.61 265.51

2.0/50 10.7/41 12.3/26-CD 12.25/18-EP 11.65

284.7 278.4 263.6 263.2 262.21 264.09 264.21 262.9 255.8 247.6 235.6

+7.8/50 +1.5/30 12.3/26 13.7/22-CD 12.65/17-EP 12.77 12.65/5-EP 14.0/21 21.1/32 29.3/60 41.5/85

276.86

288.3 281.1 274.1 260.3 255.4 259.60 260.43 260.50 258.5 248.6 230.5 223.3

+22.2/50 +15.0/36 +8.0/30 5.8/26 6.7/20 6.50/16-EP 5.67 5.60/5-EP 2.6/13 18.5/43 35.6/76 42.8/95

287.4 280.6 259.1 255.6 256.32 257.00 256.97 254.5 238.8 215.6 212.4

+21.3/50 +14.5/35 7.0/27 10.5/22 9.78/16-EP 9.10 9.13/5-EP 1.6/25 22.6/51 50.5/107 53.7/120

266.10

284.5 275.5 257.0 251.8 252.54 253.16 253.15 251.8 238.1 214.0 213.5

+30.0/50 +21.0/31 +2.5/28 2.7/21-CD 1.92/17-EP 1.30 1.31/5-EP 2.7/20 16.4/42.0 40.5/95 41.0/114.0

254.46

Van Dyke

Lt Lt Rt

	290.4	286.3	272.9	272.4	272.77	274.09	274.1	272.9	264.9	260.8	259.4	250.3	248.3
25+0	+13.5 50	+9.4 39	1.5 31	4.5 38=CD	4.09 43=EP	2.88 3=EP	2.8	4.0 11	13.0 24	16.1 26	17.5 43	26.6 66	28.6 90
	289.4	283.9	271.2	270.79	272.11	272.3	271.3	269.6	263.5	261.2	255.3	250.1	
24+70	+12.5 50	+7.0 55	5.7 32	6.07 28=EP	4.75 1=EP	4.6	5.6 8	9.3 15	13.4 17	15.7 33	21.6 49	26.8 62	
											237.9	29.0 90	
	286.9	281.9	270.0	269.1	269.31	270.86	270.9						
24+45	+10.0 50	+5.0 34	5.9 31	7.8 27=CD	7.65 22=EP	6.2° 4=EP	6.0						
	277.9	276.9	269.9	267.8	268.33	279.64	269.6	268.1	261.6	252.9	249.6	245.9	
24+27	+1.0 50	0.0 44	7.0 42	9.1 31	8.53 43=EP	7.72 4=EP	7.3	8.8 9	15.3 20	24.0 10	27.3 60	31.0 80	
		265.1	264.3	265.9	266.01	267.13	267.5	270.1	243.8	237.6	232.7		
23+93.3 BC Lt (sketch - 45)		11.8 55	12.6 40	11.0 30	10.85 20=EP	9.73 =EP	9.4 6	16.8 11.0	33.1 37	39.3 55	44.2 75		
		263.07	265.77					251.86					
23+88.6 = Lt 12" Corg. Culvert		13.79 84 FL	11.09 84=Top Pipe					25.00 24.5 FL					
276.86				276.86									

Station	B.S.	H.I.	F.S.	Elev.	Remarks
26+70					
TP	10.81	297.90	1.10	287.09	Nail Top Pile End 4' Rt. 26+55
26+35					
26+24					
26+0					
25+70					
TP	11.64	288.19	0.31	276.55	
25+35		276.86			

Lt ℄ Rt

26+70

307.7	299.9	293.1	285.4	283.7	284.70	286.30	286.3	286.1	272.9	233.4	210.4
+11.8	+12.0	4.8	12.4	14.2	13.20	11.60	11.6	11.8	25.0	64.5	87.5
52'	47	39	37	30=CD	25=EP	3=EP		12'	32	92	150 0.G.

297.90

26+35

308.2	283.8	282.0	282.14	283.59	283.6	283.7	264.2	247.7
+21.0	4.4	6.2	6.05	4.60	4.6	4.5	24.0	40.5
36	34	30=CD	25=EP	3=EP		10	40	80

26+24

308.2	302.2	283.0	281.2	281.29	282.82
+20.0	+14.0	5.2	7.0	6.90	5.37
60	42	34	29 CD	25=EP	3=EP

26+0

304.2	298.2	279.7	278.4	279.32	280.89	281.0	280.2	268.7	256.2	246.4
+16.0	+10.0	8.5	9.8	8.87	7.30	7.2	8.0	19.5	32.0	41.8
57	40	35'	31=CD	25=EP	3=EP		14	62	60'	80'

25+70

299.7	294.2	277.5	276.5	277.16	278.61	278.7	278.9	276.8	268.0	261.2	247.9
+11.5	+6.0	10.7	11.7	11.03	9.58	9.5	9.3	11.4	20.2	27.0	40.3
55'	41	37'	31=CD	25=EP	4=EP		5	17'	33'	50'	80

288.19

25+35

296.9	290.2	275.8	274.1	275.09	276.30	276.5	276.7	274.2	267.5	257.4	249.9
+20.0	+12.3	1.1	2.8	1.77	0.56	0.4	0.2	2.7	9.4	19.5	27.0
60	40	35'	30 CD	24 EP	3=EP		3	8	23	55	80

276.86

Van Dyke

TP	8.97	305.29	1.58	296.32
28+0				
27+70				
27+38	= 12 Corg. Culvert (Sketch-45)			
27+35				
27+0				
		297.90		

Lt | ℄ | Rt

312.6	303.4	294.5	293.3	293.67	294.50	294.57	294.9	266.5	245.6	229.3	226.3
+14.7	+7.5	6.4	4.6	4.23	3.40	3.33	3.0	31.4	57.3	68.6	71.6
50.	26	30.	22 CD	18 EP		2 EP	7	46	88	135	165 BG
308.6	308.2	293.3	290.8	292.03	292.75	293.24	258.1	244.3	225.7		
+10.7	+4.3	4.6	7.1	5.87	5.15	5.55	29.8	53.6	72.3		
50.	42.	35	27 CD	19 EP	EP	5.	54.	80.	133 BG		
		289.29	291.45				282.3				
		8.61	6.45				15.6				
		33.6 FL	33.6 HW				26.3 Opp Lot				
309.1	303.3	291.9	289.4	289.95	290.80	290.8	290.1	271.9	255.7	234.6	222.6
+11.2	+5.4	6.0	8.5	7.95	7.10	7.1	7.8	26.0	42.2	70.3	76.3
50.	37.	33.	28 CD	21 EP	1 EP		5.	29	54	142	157 BG
284.1	286.1	287.9	280.1	286.7	287.22	288.60	288.6	288.7	286.6	271.7	241.9	218.7
+13.8	+11.8	9.0	9.8	11.2	10.68	9.30	9.3	9.7	11.3	26.2	56.0	84.3
55	47	46	35	30 CD	23 EP	3 EP	10	4	12	32	74	147 BG
					297.90							

						Lt			Rt			
TP	9.20	313.52	0.97	304.62								
					281.5	328.4	325.9	312.3	301.9	303.09	303.04	302.84	303.7	282.3	264.3	239.9
30+25					23.8	+23.1	+20.6	+6.9	3.4	2.20	2.25	2.45	1.6	23.0	41.0	65.4
					43=Bar Wall	34 Top Wall	34=Bar Wall	27	15=CD	9=EP		11=EP	14	47	84	139
					330.5	329.4	326.9	325.4	312.8	300.8	302.01	301.97	301.76	303.0	301.3	264.3	245.3	243.0
30+0					+25.8	+24.1	+21.6	+20.1	+7.5	4.5	2.38	2.32	2.53	2.3	40	41.0	60.0	64.2
					47	39 Top Wall	37 Bar	32	29	17=CD	9=EP		12=EP	17	24	88	130	155
						328.0	327.3	324.3	320.8	299.8	298.5	299.68	300.01	300.16	300.3	281.3	257.3	240.7	239.5
29+50						+22.7	+22.0	+19.0	+15.5	5.5	6.8	5.61	5.88	5.13	5.0	24.0	48.0	64.6	65.3
						52=Top Cobble Wall	39 Top C Wall	36=Bar Wall Cobble	29	22	15=CD	9=EP		11=EP	22	48	91	126	160
								326.5	316.3	298.5	297.1	297.69	298.29	298.56	299.1	278.7	264.7	231.2	
29+0								+21.2	+11.0	6.8	8.2	7.60	7.0°	6.73	6.2	26.6	40.6	74.1	
								50	30	22	16=CD	10=EP		10=EP	17	46	75	150	
								323.1	314.3	295.6	295.0	295.68	296.49	296.77	297.2	275.8	252.8	236.7	
28+50								+17.8	+9.0	9.7	10.3	9.61	8.80	8.52	8.1	29.5	52.5	68.6	
								50	24	27	19=CD	13=EP		9=EP	13	41	90	149	
								312.5	308.4	294.6	293.1	294.44	295.39	295.45	295.5	275.0	250.5	233.5	
28+20.44 E.C.								+7.2	+3.1	10.7	12.2	10.85	9.90	9.84	9.8	30.3	54.8	71.8	
								50	42	26	21=CD	15=EP		4=EP	10	40	90	135	
		30529														30529			

℄ ℄ Rt

32+21.15 = ℄ 18" Corg Culv. (sketch - 46)

307.16 309.66 278.9
12.33 9.83 40.6
45 = FL 18" 45 = HW 51 = FL

31+84.62 = E.C

319.8 312.8 310.7 308.9 309.79 309.37 308.86 309.6 292.0 270.0 251.0
+0.3 6.7 8.8 10.6 9.70 10.12 10.63 9.9 27.5 49.5 68.5
50 42 35 22 = CD 9 = EP 11 = EP 15 41 88 152

31+56.46

338.5 325.8 309.9 307.6 308.69 308.47 308.12 308.5 293.9 265.5 255.9 252.0
+19.0 +6.3 9.6 11.9 10.80 11.02 11.37 11.0 25.6 54.0 60.6 67.5
50 25 23 16 = CD 8 = EP 12 = EP 18 39 100 130 158

31+28.31

330.3 328.4 316.4 308.5 306.8 307.79 307.52 306.97 307.7 294.3 260.4 247.8
+20.8 +8.9 3.1 11.0 12.7 11.75 11.97 12.52 11.8 25.2 59.1 71.7
50 28 27 15 14 = CD 7 = EP 13 = EP 19 37 107 168

TP 9.84 319.49 3.87 309.65 on E End Concrwing of Culv

319.49

31+00.15

329.3 329.0 322.3 318.1 306.5 306.1 306.62 306.50 305.92 305.9 276.8 358.5 347.8
+15.8 +15.5 +8.8 +4.6 7.0 7.4 6.90 7.02 7.60 7.6 36.2 55.0 65.7
39 = Base Wall 31.5 = Top Wall 30 = Base C.Wall 27 17 14 = CD 7 = EP 12 = EP 18 65 111 167

30+71.99 B.C.

327.8 327.8 321.5 321.5 306.1 305.4 305.42 305.17 304.45 305.6 278.9 365.4 346.8
+14.3 +14.3 +8.0 +8.0 7.4 8.1 8.10 8.35 9.07 7.9 34.6 48.1 66.7
43 = Base Wall 35 = Top C.W. & Fence 33 Base C.W. 30 16 13 = CD 11 = EP 11 = EP 16 54 84 162

313.52

313.52

Van Dyke

23+97.09 EC.					346.7
					+19.1
					40 Top Nut
28+65.81					
TP	10.29	329.63	0.15	319.34	
28+34.52					
33+03.23 BC Lt.					
32+70					
32+25					
		319.49			

	Lt			℄			Rt.			
344.4	339.8	320.5	319.1	319.76	320.63	321.33	321.5	310.4	292.1	263.1
+14.8	+10.2	9.1	10.5	9.87	9.00	8.30	8.1	1.94	37.5	63.5
89-Basecy.	30	21	16	11=EP		11=EP	16	40	64	122
344.0	342.6	339.6	338.0	317.8	318.08	318.88	319.43	319.5	297.6	282.4	262.6
+14.4	+13.0	+10.0	+8.4	11.8	11.55	10.75	10.20	10.1	32.0	47.2	67.0
45=Hi Line Bldg	36=Top Cab Main	35=Basecy Wall		32	12=EP		9=EP	16	47	81	141
					329.63						
344.8	342.6	338.6	316.5	315.94	316.89	317.41	318.0	303.7	275.2	259.1	
+25.3	+23.1	+19.1	3.0	3.55	2.60	2.08	1.5	15.8	43.2	60.1	
50	38=Fence	28	21	13=EP		8=EP	16	42	92	138	
336.7		329.6	314.0	314.14	314.85	315.31	315.5	305.7	290.2	265.3	251.9
+17.7		+10.1	5.5	5.35	4.64	4.18	4.0	13.8	29.3	54.2	64.6
50		25	21	12=EP		8=EP	21	34	70	105	151
321.9	319.5	312.8	312.6	312.66	312.74	312.97	313.6	299.3	273.9	258.2	
+2.4	0.0	6.7	6.9	6.83	6.55	6.52	5.9	20.2	45.6	61.3	
52	46	37	25	13=EP		8=EP	16	37	89	130	
313.7	308.5	308.9	310.7	310.28	310.44	310.14	310.5	286.1	268.9	254.2	
5.8	11.0	10.6	8.8	9.21	9.05	9.35	9.0	33.4	50.6	65.3	
56	48	30	23	11=EP		8=EP	15	47	90	145	
					319.49						

						Lt							Rt			
					349.6	348.7	347.9	331.1	330.7	330.48	331.55	331.60	330.7	315.0	284.6	275.6
35+75					+13.8 50	+12.7 45	+11.9 33	4.9 26	5.3 23	5.47 19=EP	4.40	4.25 2=EP	5.3 13	2.10 26	4.94 93	6.04 132
					352.2	352.0	347.6	329.5	328.7	328.74	329.75	329.93	330.1	306.4	292.9	284.2	275.5
35+50					+16.2 50	+16.0 46	+11.6 34	6.5 26	7.5 22=CD	7.21 19=EP	6.20	6.02 6=EP	5.9 11	29.6 44	4.21 80	5.18 97	6.05 119
			347.0	345.5	344.5	344.9	333.8	327.2	326.5	326.95	327.83	328.22	328.3	304.7	287.5		275.3
35+20			+11.0 47=Bas	+9.5 39=Top Wall	+8.5 39=Bas Wall	+8.3 37	2.7 24	8.8 23	9.5 2°=CD	9.00 11=EP	8.12	7.73 7=EP	7.7 13	31.3 46	4.85 84		6.07 112
			347.5	347.0		344.0	341.2	326.4	325.2	325.99	326.62	327.02	327.3	305.7	285.5		273.9
35+0			+11.5 46=Bas Wall	+11.0 40=Top Wall		+8.0 38=B Wall	+5.2 28	9.6 23	10.8 18=CD	10.02 12=EP	9.33	8.93 9=EP	8.7 15	30.3 43	5.05 91		6.21 114
					349.5	345.3	322.9	321.8	322.60	323.54	324.25		325.5	303.9	285.5		270.0
34+50					+13.5 43	+9.3 26	1.31 20	14.2 16=CD	13.35 10=EP	12.41	11.70 1=EP		10.5 22	32.1 52	5.05 91		6.60 134
			350.4	347.5		345.9	342.2	321.6	320.6	321.17	322.05	322.93	322.8	296.4	279.5		265.2
34+25			+14.4 48=Bch	+11.5 35=Top Wall		+9.9 33=Bas Wall	+6.2 25	14.4 21	15.4 13=CD	14.78 9=EP	13.90	13.02 12=EP	13.2 21	29.6 65	5.63 96		7.08 130
TP	7.81	335.95	1.49	328.14						335.95							
		329.63															

						Lt								Rt
						342.3	340.3	339.2	340.17	341.27	341.5	322.3		320.3
						3.2	5.7	6.3	5.35	4.25	4.0	23.2		25.2
						50.	41.	25=CD	20=EP	=EP	5.	44=Lot Line		80
37+70														
					349.7	340.6	338.8	337.8	338.72	340.00	340.1	339.6	307.9	298.3
					+4.7	4.9	6.7	7.7	6.80	5.55	5.4	5.6	37.6	47.2
37+35					54.	36	29	26=CD	25=EP	3=EP	3.	61	90	
					350.9	348.8	337.1	336.0	336.92	338.65	338.7	338.6	319.1	302.5	294.3
					+5.4	+3.3	8.4	9.5	8.60	6.87	6.8	6.9	26.4	42.0	51.2
37+0					50	34	30	27	25=EP	5=EP	4	36	71	93
					350.1	349.1	335.8	334.9	335.57	337.16	337.2	337.4	319.5	302.3	285.5
					+4.6	+0.5	9.7	10.6	9.95	8.36	8.3	8.1	26.0	43.2	60.0
36+70					50	36	31	28	26=EP	5=EP	4	29	63	95
					350.2	346.0	334.7	333.9	333.59	335.37	335.6	323.9	300.8	280.9	
					+4.5	+0.5	10.8	11.6	11.66	10.15	9.9	21.6	44.7	64.6	
36+35					43	36	31	27	25=EP	6=EP		26	63	92	
										345.52					
TP	9.80	345.52	0.23	335.72											
					349.4	347.0	333.0	331.4	331.51	333.38	333.38	333.5	314.9	294.3	276.5
					+13.4	+11.0	13.0	14.6	14.44	2.57	2.57	2.5	31.1	49.7	67.5
36+02.91	BC Lt.	(sketch - 47)			50.	36	30	27	22=EP	1=EP.		5	81	78	112
		335.95								335.95					

Van Dyke

39+30					
39+0					
38+70					
38+45				346.2	345.9
TP	7.82	352.17	1.17	344.35	
38+13					
38+0	Large Palm 30' Rt.				
		345.52			

Lt

351.1 — 1.1 / 25'

350.12 — 2.05 / 15.3 = Gutter

350.65 — 1.52

Rt.

350.62 — 1.655 / 14.3 = Gutter

351.3 — 0.9 / 25'

349.1 — 3.1 / 25' = B.Wall

348.72 — 3.45 / 16.2 = Cb Top

348.08 — 4.09 / 16.2 = Cut

348.62 — 3.55

348.59 — 3.58 / 13.7 = Gut

349.21 — 4.96 / 13.7 = Cb Top

349.6 — 3.6 / 25'

348.0 — 4.2 / 28'

347.0 — 5.2 / 24'

346.57 — 5.50 / 16.8 = Cb Top

346.11 — 6.07 / 16.8 = Gut

346.58 — 5.59

346.61 — 5.56 / 13 = Gut

347.26 — 4.91 / 13 Cb Top

347.41 — 4.76 / 22.5 = B.Wall

349.2 — 3.0 / 27'

345.33 — 6.84 = Edge Walk

345.22 — 6.95 = Edge Walk

344.9 — 7.3 / 18'

344.27 — 7.90 / 17 Gut

344.72 — 7.45 / 16 = EP

345.28 — 6.89

347.07 — 7.10 / 12.8 Gut

345.61 — 6.56 / 12.8 Cb Top

347.24 — 4.93 / 22.5 = Top Concrete Wall

348.1 — 4.1 / 27'

352.17

345.5 — 0.0 / 50'

345.5 — 0.0 / 33'

342.39 — 6.23 / 21 Cb

343.02 — 2.50 / 17 = EP

343.76 — 1.76 / 5 = EP

343.92 — 1.68 / 17.6 = Edge Walk

343. — 1.655 + 0.35 / 23.4 = Base of Wall Conc.

345.87 — 2.31 = Top Wall

344.8 — 0.7 / 50'

342.7 — 2.8 / 25'

341.4 — 4.1 / 23 Cb

342.25 — 3.27 / 18 = EP

342.95 — 2.57

343.02 — 1.50 / 4 = EP

343.6 — 1.9 / 16'

338.5 — 7.0 / 34 = Fence

340.0 — 5.5 / 50'

345.52

BM			4.95	358.64 ✓	356'Lt Adams + Edgerton Rd 358.50
TP	6.96	363.59	8.57	356.63	
TP	6.67	365.30	1.14	358.53	NW 4' Lt Adams + Van Dyke
40+90.66 = N.L. Adams			(Sketch - 47)		
40+50					
40+0					
39+59.6 = EC					
TP	7.92	359.67 351.17	0.42	351.75	

Lt			Rt			
358.0	358.00	357.42	357.85	357.71	358.26	358.7
1.7 25	1.67 15-CL	2.25 15-Gut	1.82	1.96 15-Gut	1.41 15-CL	1.0 25
357.1	356.65	356.14	356.55	356.41	356.97	357.2
2.6 25	3.04 15-CL	3.53 15-Gut	3.12	3.26 15-Gut	2.70 15-CL	2.5 25
	355.1	354.37	354.83	354.72	355.30	355.5
	4.6 25	5.30 14.9-Gutter	4.84	4.95 14.9-Gut	4.37 14.9-CL	4.2 25
353.0	352.60	352.04	352.54	352.56	353.17	353.4	354.2
6.7 25	7.07 15.3 Gutter	7.63 15.3-Gut	7.13	7.11 14.8-Gut	6.50 14.8-CL	6.3 25	5.5 25
			359.67				

Cross Section Fairmount Ave
Ft. Van Dyke Ave & Aldine Dr
See Sketch Page 31

Aug. 29. 40
SWSO
Northberg
Ft. W. E. Moore

		Δ= H		Δ			
2+00	B.C. Lt	231.7	236.1	235.8	234.06	236.81	237.31	237.6
		15.7	11.3	11.6	11.30	10.55	10.05	9.8
		36°	28°	21°	15=E.P.		16=E.P.	40°
1+50		234.2	238.3	237.8	238.43	238.68	238.88	239.1
		13.2	9.1	9.6	8.93	8.68	8.48	8.3
		37°	28°	21°	15=E.P.		16=E.P.	40°
1+00		236.6	240.6	240.1	240.63	240.61	240.53	240.9
		10.8	6.8	7.1	6.73	6.75	6.83	7.4
		36°	27°	21°	15=E.P.		16=E.P.	37°
0+50		237.9	243.7	242.5	242.79	242.95	242.29	241.8
		9.5	3.7	4.9	4.57	4.41	5.07	5.6
		38°	28°	20°	14=E.P.		16=E.P.	32°
0+40 =	℄ 18" Corg Calk	(sketch - 31)			238.08		242.68	239.71
					9.28		4.68	7.65
					32=F.L.		24=H.W.	24=F.L.
0+00		239.9	245.9	244.6	244.81	244.72	243.83	242.4
		7.5	1.5	2.8	2.55	2.64	3.53	5.0
		38°	29°	25°	11=E.P.		17=E.P.	28°
B.M.	11.34	247.36		236.02	B. P. Cor. at H.W. Cor. S.W. Van Dyke & Fairmount.		247.36	

						Lt.		Ⓛ		Rt.	
						2293	230.1	228.7	229.76	230.75	231.22
						8.8	8.0	9.4	8.62	7.83	6.86
						30	23	21	14=EP		14=EP
4+50		11°56.20"									
						217.1	230.1	230.9	230.91	231.83	232.32
						21.0	8.0	8.1	7.17	6.25	5.96
4+0		9°32.96"			21.0	27.0	26	21	15=EP		13=EP
					40						
						21791	232.61				
						20.17	5.47				
3+80	⌀ 42" Corg. Culv.		(Sketch 31)			29 FL	29=HW				
							233.57	232.89	233.14	233.74	
							4.51	5.19	4.94	4.34	4.9
3+50		7°09.72"					40 on Pav	20 on Pav		15=EP	30
						234.43	234.08	234.58	235.11	235.08	
						3.65	4.00	3.50	3.97	3.00	
3+0		4°46.48"					40 on Pav	20 on Pav	on Pav	20=Pav	40
						235.2	234.6	235.08	235.43	236.19	235.67
						4.9	5.5	3.00	2.65	1.89	1.41
2+50		2°23.24"				40	35	15=EP		14=EP	40 on Pav
									238.08		
TP	2.06	238.08	11.34	236.02							
		247.36									

6+50		21°29.16'			
6+0		19°05.92'			
5+90 = ℄ 18° Corg Curv		18°37.27'			
TP	3.19	229.93	11.34	226.74	
5+50		16°42.68'			
5+32 = ℄ 14° Corg. Curv.		15°51.11'			(sketch 31)
5+0		14°19.44'			
		238.08			

	Δ		Rt
224.4	229.4	224.66	226.05	225.31	223.8
5.5	6.5	5.27	4.88	4.62	6.1
30°	Δ 27	15=E.P.		15=E.P.	30°

225.9	224.6	225.88	226.50	226.89	226.4	227.9	
4.0	5.3	4.05	3.43	3.04	3.5	2.0	
30°	Δ 25	15=E.P.		13 E.P.	19	30°	

220.00			227.58	224.08
9.93			2.35	5.86
33=F.L.			19.3=H.W.	19.3=F.L.

229.93

226.9	227.5	226.2	227.18	227.98	228.58	228.6	229.4	226.7	230.4
11.2	10.6	11.9	10.90	10.10	9.50	9.5	8.7	11.4	7.7
28°	Δ 25	Δ 22	15=E.P.		13=E.P.	18	Δ 21	28	81

222.61	225.48
15.47	12.60
29 F.L.	25 F.L.

228.4	228.9	227.3	228.58	229.48	229.88	229.7	227.5
9.7	9.2	10.8	9.50	8.60	8.20	8.4	10.6
30°	Δ 25	Δ 22	14=E.P.		14=E.P.	28	30°

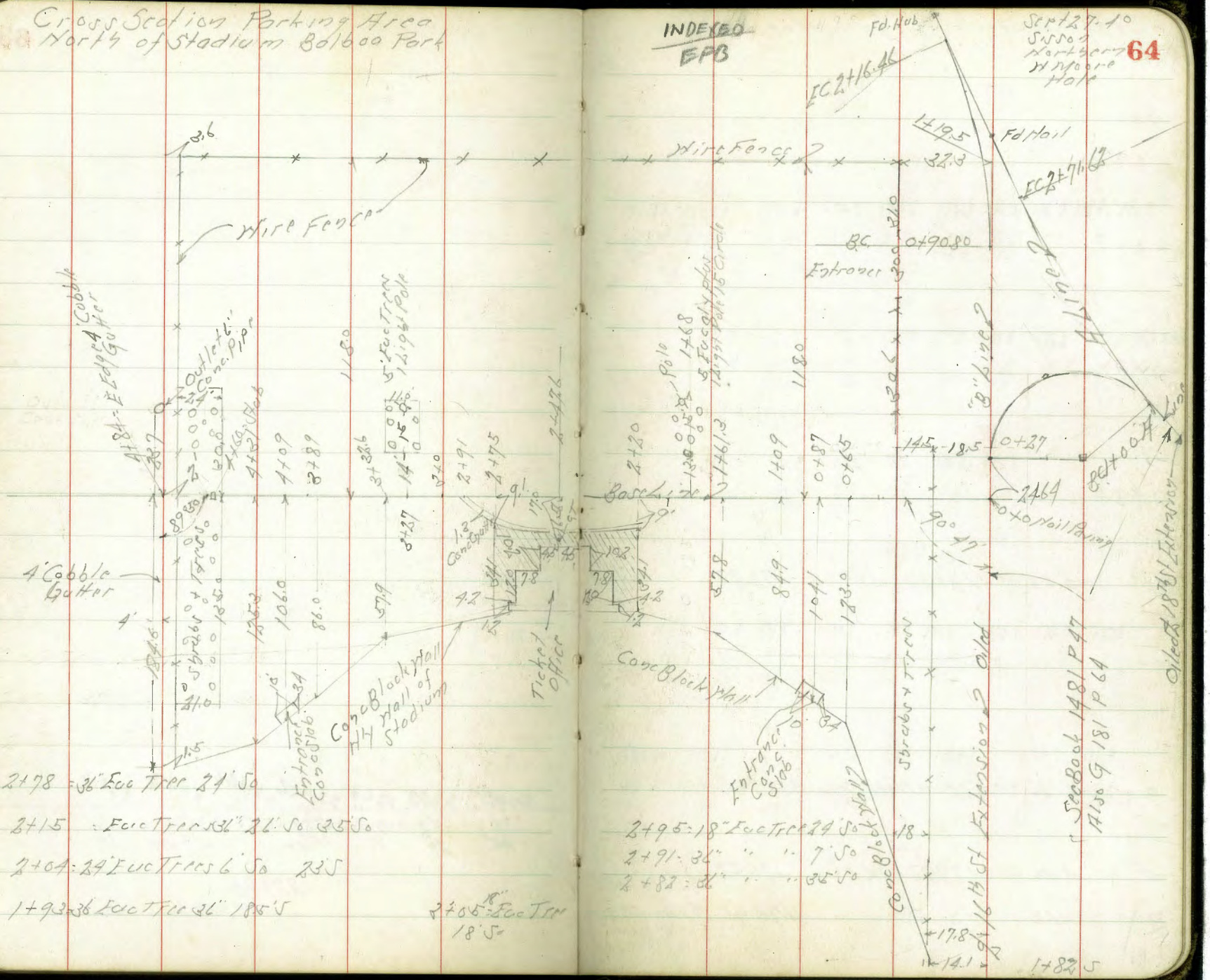
BM			2.42	236.03	B.P. H.W. on N side Van Ortr + Fairmount 236.03
TP	11.71	238.45	2.19	226.74	
6+68.47 E.C.		33°22.50'		(sketch - 31)	
		229.93			

Lt		Rt
224.3	223.7	222.9
5.4	5.3	7.0
35	38	26
224.06	224.42	224.3
5.87	5.51	5.39
15' EP		15' EP
223.3		
6.6		
30		
229.93		

Cross Section Parking Area North of Stadium Balboa Park

INDEXED EPB

Sept 27. 10 Susso 2 Northern Traverse Hole



Cross Section Parking Area
North of Stadium

1+0					
0+87					
0+37					
0+35					
TP	5.68	181.97	3.69	176.29	
0+18					
0+0 - ℄ 16th St Extension on Oil Paving					
TP	3.46	179.98	5.06	176.52	B.P. NE Cor
BM	4.68	181.58		176.90	Gym S.E. High School

Lt. 5 ℄ Rt = N

175.96
6.01
10 foot Grating
2.57 2.5

170.33	170.21	171.14	172.5	174.8	176.1	176.5	176.9	178.4	180.9	
11.64	11.76	10.83	9.5	7.2	5.9	5.5	5.1	3.6	1.1	
Gutter Ends 166	Gutter Ends 168	104	50		50	100	110	NI	118	

169.7	171.3	173.0	175.3	175.5	175.8	176.8	177.1	178.6	179.8
12.3	10.7	9.0	6.7	6.5	6.2	5.2	4.9	3.4	2.2
159	100	50		30	50	100	110	111	118

170.5	171.0	174.2	176.2	176.8	175.7
11.5	10.9	7.8	5.8	5.2	6.3
159	100	50		30	34

181.97

168.9	170.0	171.8	173.9	175.7	176.2	175.9	176.7	177.3
11.1	10.0	8.2	6.1	4.3	3.8	4.1	3.3	2.7
178	150	100	50		27	50	100	119.5

167.60	169.10	171.11	172.92	174.27	175.47	176.34	176.9
17.38	10.88	8.87	7.07	5.71	4.51	2.64	2.1
182	150	100	50		50	100	119.5

179.98

	Lt							Rt
2+47.6	175.87	175.83	175.66	176.3	177.1	177.4	177.4	178.9	181.4
	6.10	6.14	6.31	5.7	4.9	4.6	4.6	3.1	0.6
	17: Conc	14: Conc	132: Edge		50	100	110	111	118
2+20	175.78	175.78	175.57	176.0	177.1	177.4	177.4	178.9	181.6
	5.99	6.19	6.40	6.0	4.9	4.6	4.6	3.1	0.4
	43.1: Concrete Wall	9: Conc	82: Edge with		50	100	110	111	118
1+90		171.7	175.5	175.8					
		10.3	6.5	6.2					
		49: Wall	25						
1+82		171.5	172.9	175.3	176.8	177.2	177.5	178.6	181.3
		10.5	9.1	6.7	5.2	4.8	4.5	3.4	0.7
		52: Base Wall	27		50	100	110	111	118
1+68				174.9	175.6	176.7	176.6	176.1	
				7.1	6.4	5.3	5.4	5.9	
					9	13	28	32	
1+40		171.5	172.2	174.6	176.4	176.8	177.1	178.4	181.0
		10.5	9.8	7.4	5.6	5.3	4.9	3.6	1.0
		69: Base Wall	50		50	100	110	111	118

~~179.98~~
181.97

~~179.98~~
181.97

TP	6.78	179.12	9.63	172.34
4+0				
3+50				
3+29				
3+11				
2+91				
2+75				

~~179.98~~
181.97

Lt | ℄ | Rt

170.9	174.8	174.8	176.2	177.4	177.6	179.3	182.0
11.1	9.2	9.2	5.8	4.6	4.4	2.7	0.0
99'-Wall	50		50	100	110	111	118
171.2	173.1	175.0	176.5	177.4	177.6	179.3	182.0
10.8	8.9	7.0	5.5	4.6	4.4	2.7	0.0
64'-Wall	35		50	100	110	111	118
		175.2	175.9	177.2	176.9	176.3	
		6.8	6.1	4.8	5.1	5.7	
			10	14	30	33	
171.2	173.8	174.4	175.5	176.6	177.5	177.8	179.3	181.8
10.8	9.7	7.6	6.5	5.4	4.5	4.2	2.7	0.2
57'-Wall	15	25		50	100	110	111	118
	171.8	175.8	175.70				
	10.2	6.2	6.27				
	46.5'-Wall	39	-Gutter				
175.85	175.78	175.62	176.0	177.0	177.4	177.7	179.0	181.5
6.12	6.19	6.35	6.0	50	4.6	4.2	3.0	0.5
43'-Conc	9.1'-Conc.	8.5-Gut		50	100	110	111	118

~~179.98~~
181.97

BM			0.93	176.88	Starting B.P. 176.90
4+86 = ℄ 4' Cobble Gutter					
4+82					
TP	1.08	177.81	2.39	176.73	
4+60					
4+56					
4+09					
		179.12			

Lt. ℄ Rt.

4+86:
165.21 166.58 167.27 168.81 169.99 170.98 171.79 173.1 173.5 174.7 174.9
12.60 11.23 10.54 9.00 7.82 6.83 6.02 4.7 4.3 3.1 2.9
185 163 Jct. Gutters 150 100 50 23.7 = Outlet 6" Pipe F.L. 26 50 100

4+82:
165.9 167.4 169.2 171.4 173.2 174.7 175.9 175.3 176.1 176.8 177.3 177.8
11.9 10.4 8.6 6.4 4.6 3.1 1.9 2.5 1.7 1.0 0.5 0.0
184.6 = Wall 162 ℄ Cobble Gutter 150 100 50 28 33 50 71 ℄ Gate 100 110

177.81

4+60:
171.8 173.9 176.1 176.6 175.7
7.3 5.2 3.0 2.5 3.4
100 50 28 33

4+56:
169.4 168.57 169.1 170.9 172.7 175.0 175.6 176.0 177.2 177.6
9.7 10.55 10.0 8.2 6.4 4.1 3.5 3.1 1.9 1.5
163 = Wall 160 ℄ Cobble Gutter 159 100 50 28 50 100 110

4+09:
170.42 170.47 171.27
8.70 8.65 7.85
Gutter ℄ End Slab | Gutter ℄ End Slab | 166 - Conc. Slab

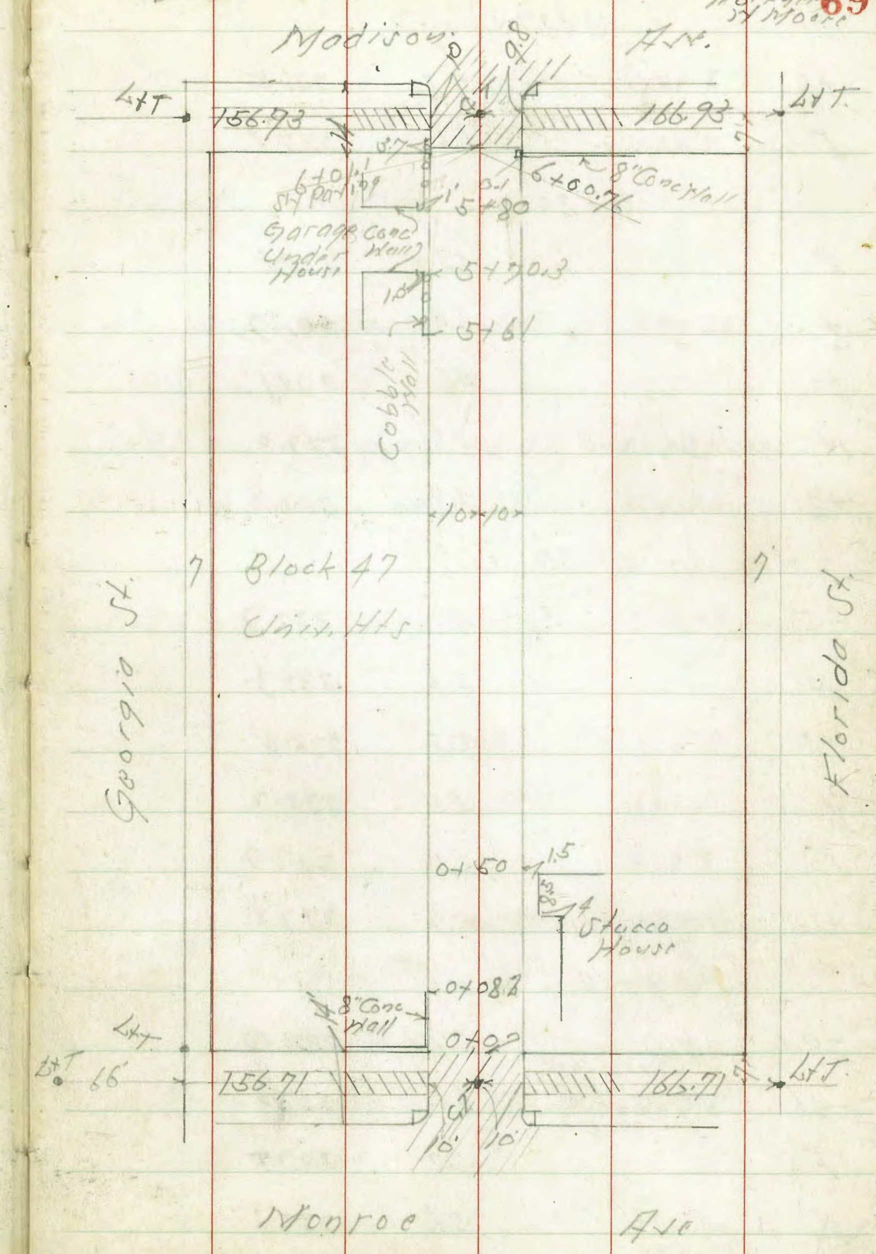
179.12

Cross Section Alley Block 47 Univ. Hts
From Monroe Av to Madison Av
Between Georgia + Florida

B.M	0.81	347.82		347.01	S.F.B.P. Monroe + Georgia
TP	8.39	343.73	12.48	335.34	
		0-14 = N Cb Monroe Av			
W on Paving			8.40	335.33	
℄			9.22	334.51	
E			10.03	333.70	
		0+0 = N.L. Monroe Av			
E Top Cb			9.15	334.58	
Gutter			9.17	334.56	
℄			8.85	334.88	
Gutter			7.94	335.79	
W Top Cb.			7.52	336.21	
W Top 8" Conc Wall			3.48	340.25	
		0+082			
W - Top 8" Conc Wall			2.90	340.83	
W			5.0	338.7	
+1.5			5.3	338.4	
+2			6.8	336.9	
℄			7.4	336.3	

INDEXED
EFB

Oct 30-40
Sisson
Hoffman
Moore



	343.73		
+8		7.2	336.5
E		6.6	337.1
	0+20		
E		6.1	337.6
℄		6.0	337.7
+6		5.6	338.1
W = Base Dry Wall		4.7	339.0
+2		2.9	340.8
	0+50		
-5		4.0	339.7
W		4.4	339.3
+5		5.2	338.5
℄		5.5	338.2
E		6.0	337.7
+1.5 = Base Conc. Found.		5.9	337.8
	0+69		
-9.1 = Sly Do. Garage Conc Floor		5.93	337.80
-4.6 = Sly Conc. Apron		6.07	337.66
E		5.9	337.8
℄		5.6	338.1

	343.73		
+5		5.1	338.6
W		4.2	339.5
+1.5 = Nly Power Pole			
	0+81		
W -3.5 = Sly Do. Garage Conc Floor		3.43	340.30
	0+92		
E -9.1 = Nly Do. Garage Conc Floor		5.78	332.95
E -4.6 = Nly Conc Apron		5.90	337.83
	0+99		
W -3.5 = Nly Do. Garage Conc Floor		3.30	340.43
	1+0		
W		3.9	339.8
+5		4.6	339.1
℄		5.0	338.7
E		5.6	338.1
+5		5.8	337.9
	1+06		
W -3.3 ⅞ Garage Dirt E		3.2	340.5
	1+08		
E -6.5 = ⅞ Garage Dirt E		5.5	338.2

	343.73		
	1+16		
E-6.5 = ℄ 8' Garage Dirt F	5.6	338.1	
	1+25		
-5'	5.5	338.2	
E	5.2	338.5	
℄	5.1	338.6	
+5	4.6	339.1	
W	4.1	339.6	
+10	3.2	340.2	
	1+50		
-10	2.8	340.9	
-1' = Sly Wire Fence			
W	3.5	340.2	
+5	4.2	339.5	
℄	4.5	339.2	
E	4.8	338.9	
+10	5.6	338.1	
	1+65		
E-3.7 ℄ Do Garage Dirt Floor	4.7	339.0	
	1+68		
W-0.6 = Nly Wire Fence = Sly Sheds			

	343.73		
	1+80		
W-0.3 = ℄ 2.7 Conc Walk	2.34	341.39	
	2+0		
-10'	4.5	338.2	9.
E	3.1	340.6	
℄	3.0	340.7	
+5	2.6	341.1	
+8.4 = Nly Power Pole			
W = Nly Sheds	2.0	341.7	
	2+18		
W-1.8 = ℄ 7' Garage Dirt Floor	1.3	342.4	
	2+25		
W	1.2	342.5	
+0.8 = Sly Board Fence			
℄	2.5	341.2	
E	2.9	340.8	
+10	4.2	339.5	
	2+43		
E-6 = ℄ Garage Wood F	3.3	340.4	
W+0.9 = Nly Board Fence			

		343.73		
		2+53		
W-3.2	= Δ 15' Do. Garage Dirt Floor		1.3	342.4
E-1.0	= Sly Conc Aprox		3.57	340.16
E-2.7	= Sly Do Garage Cond. F.		3.63	340.10
		2+60		
E			3.6	3401
Δ			2.9	340.8
+5			2.6	341.1
W			1.6	342.1
		2+72		
E-0.9'	= Nly Conc Aprox		3.99	33994
E-2.5	= Nly Do Garage Conc. F.		3.71	34402
		2+76		
E-0.6	= Sly Board Fence			
TP	5.13	345.94	2.92	340.81
		2+92		
W-3'	= Δ 8' Garage Cond Floor		3.67	342.27
		3+0		
-1.0			7.6	3383
-0.2	= Nly Board Fence			

		345.94		
E			5.2	3407
Δ	on N.H. Rim		5.00	340.94
+5			4.8	341.1
W			4.1	341.8
+5			3.6	342.3
		3+01		
W+1.7	= Nly Power Pole			
		3+25		
W+0.3	= Δ 2' Conc Walk		3.84	342.10
		3+35		
-3'	= Sly Do. Garage D.F		4.1	3465
W			4.2	3462
+5			4.7	3462
Δ			4.9	341.0
E			5.0	340.9
+1			7.0	338.9
+10			8.0	337.9
		3+44		
E-1.5	= Δ 8.2' Garage Dirt Floor		4.8	341.1

	345.94		
3+49			
E -1.4 = S ly Cobble Wall Bottom	4.8	341.1	
Top " "	2.60	343.34	
W -3' = N ly Do. Garage Dirt Floor	3.7	342.2	
3+58			
-6'	5.9	340.0	
E	4.8	341.1	
℄	4.6	341.3	
+8.2 = E ly Conc Apron	4.00	341.94	
W on " "	3.95	341.99	
+3.1 = ℄ Garage Conc Floor	3.75	342.19	
3+71			
E -18 = N ly Cobble Wall Bottom	4.7	341.2	
Top Cobble Wall	2.2	343.7	
3+77			
E -0.4 = ℄ 7.5 Garage Dirt Floor	4.8	341.1	
4+0			
-10	2.8	343.1	
W	3.5	342.4	
+1.1 = W ly Power Pole			

	345.94		
℄	4.4	341.5	
E	4.5	341.4	
+0.5 = S ly Board Fence			
+5	5.3	340.6	
4+02			
E -0.5 = ℄ 4.5 Conc Step	4.69	341.25	
E -0.7 = ℄ 3' Conc Walk	5.13	340.81	
4+12			
W -3' = ℄ Do. Garage 4' Conc Ribbons	2.81	343.13	
4+35			
-0.9 = N ly Board Fence			
E	3.7	342.2	
℄	3.6	342.3	
+5	3.3	342.6	
W	3.5	343.4	
+6	2.2	343.7	
4+41			
W +0.6 = ℄ 1.6 Conc Walk	2.11	343.83	
4+44			
E -3' = ℄ Garage Dirt Floor	3.8	342.1	

345.94

4+57

W-0.4' = Wly 24" Poppa Tree

4+70

-1.8 = ℄ 7.7' Garage Conc. 2.41 343.53

W 2.7 343.2

℄ 3.2 342.7

E 3.4 342.5

+5 4.1 341.8

4+77

W+0.4 = Wly Power Pole

TP 4.64 347.96 2.62 345.32

5+0

-5 6.0 342.0

E 5.0 343.0

℄ 4.6 343.4

+5 4.3 343.7

W 3.6 344.4

5+06

W-1' = ℄ 8.5 Garage Conc. 3.15 344.81

347.96

5+08

E-2.3 = ℄ 9' Garage Conc. Floor 4.89 343.07

E-0.3 = Wly Conc. Apron 5.14 342.82

5+20

-53' = ℄ Garage Dirt Floor 1.3 346.7

-10 2.4 345.6

W 3.2 344.8

+5 4.1 343.9

℄ 4.5 343.5

+8 4.8 343.2

E 4.9 343.1

+12 5.9 342.1

+10 6.4 341.6

5+49

-0.9 = Wly 18' Conc. Walk 4.78 343.18

E 4.5 343.5

℄ 4.1 343.9

+7 3.5 344.5

W 2.9 345.1

347.96		
5+55		
W+0.5 = ℄ 7.5 Conc Drive	2.74	345.22
W on Conc Drive	2.62	345.34
5+65		
W Base Cobble Wall	3.2	344.8
+5	4.2	343.8
℄	4.5	343.5
E	4.6	343.4
+0.9 = W ℄ 1.8 Conc Walk	4.63	343.33
5+74		
-0.9 on Walk	4.53	343.43
E	4.7	343.3
℄	4.9	343.1
+5	4.5	343.5
W	5.0	343.0
+2.4 = ℄ 9' Conc Apron	5.49	342.47
+6' on " "	5.90	342.06
+9.5 = ℄ Garage C.F	5.95	342.01
5+86		
-1' = Top Cobble Wall	1.65	346.31

347.96		
W = Base Cobble Wall	4.0	344.0
+2	4.4	343.6
+3	5.2	342.8
℄	5.8	342.2
+8	5.9	342.1
E	5.1	342.9
+0.9 = B.C. 1.8 Conc Walk	4.67	343.32
5+98		
E	6.1	341.9
+2	6.8	341.2
℄	7.0	341.0
+7	6.3	341.7
W = Base Cobble Wall	5.2	342.8
+0.5 = Top " "	2.60	345.86
6+00.76 = St Madison		
W Top Cb	6.37	341.59
Gutter on Apron	6.63	341.33
℄ " "	7.23	340.63
Gutter " "	7.73	340.23
E Top Cb	7.70	340.26
E = W ℄ 8" Conc Wall Top	5.37	342.59

		347.96			
		6+14.76 = SCL Madison			
E	on Paving		8.47	339.49	
L	" "		7.87	340.09	
W	" "		7.13	340.83	
TP	10.44	353.08	5.32	342.64	
BM			2.09	350.99	SE Top CL Madison & George Rd Out 351.02
	New Garage Elevations				℄ Garage one 5+68
BM	3.99	347.06		343.07	
		3+53			
E-5.5 =	Sly Do Garage Const. Bot. Door		Under 4.40	342.66	
		3+72			
E-5.5 =	Nly Opening Do Garage Bot Door		4.38	342.68	
		4+05			
W-2.7 =	Sly Conc Apron		4.46	342.60	
W-5.5 =	Sly Do Garage Conc Floor		4.09	342.97	
		4+22			
W-2.9 =	Nly Conc Apron		4.36	342.70	
W-5.5 =	Nly Do Garage Conc Floor		4.03	343.03	

					Jan 8-41 S. Nov
		347.06			
		4+34			
W-5.2 =	2.5 Conc Walk		3.42	343.64	
		4+56			
E-6.0 =	℄ Garage Top Conc. Foundation		4.91	342.15	
		4+66			
E-3.6 =	W Ly 7 2.4 Conc Walk 10 Long		5.07	341.99	

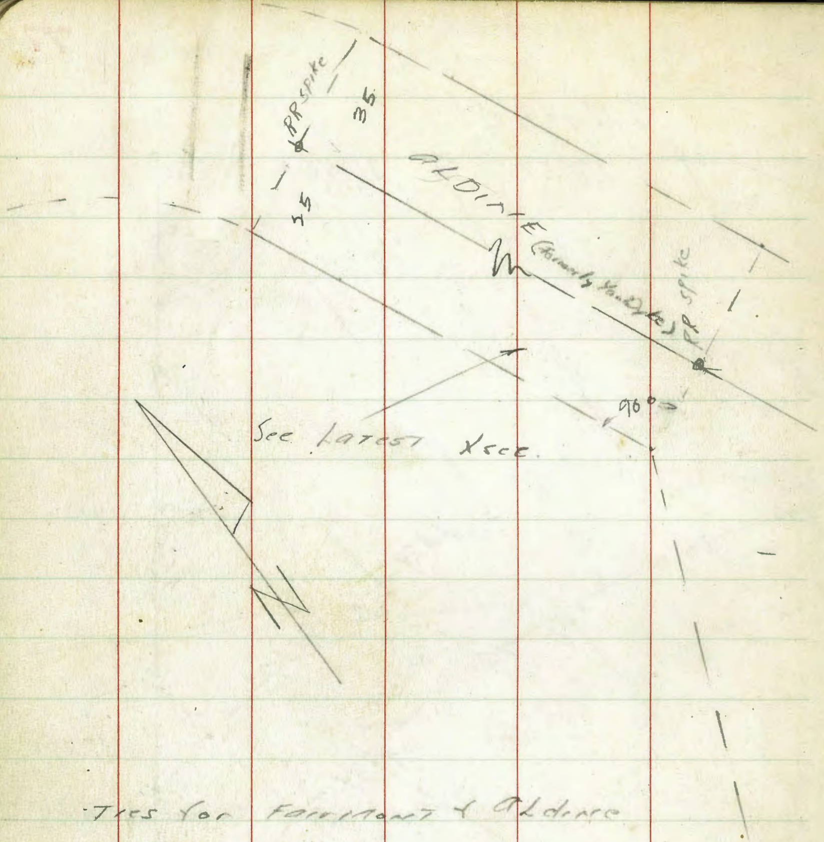
Check of Weston Highlands
Sub. of Lot 183 Moreno

• Indicates Found Pipe
Disc + Tack

Jan. 7-41
Sisson
Northern
W Moore

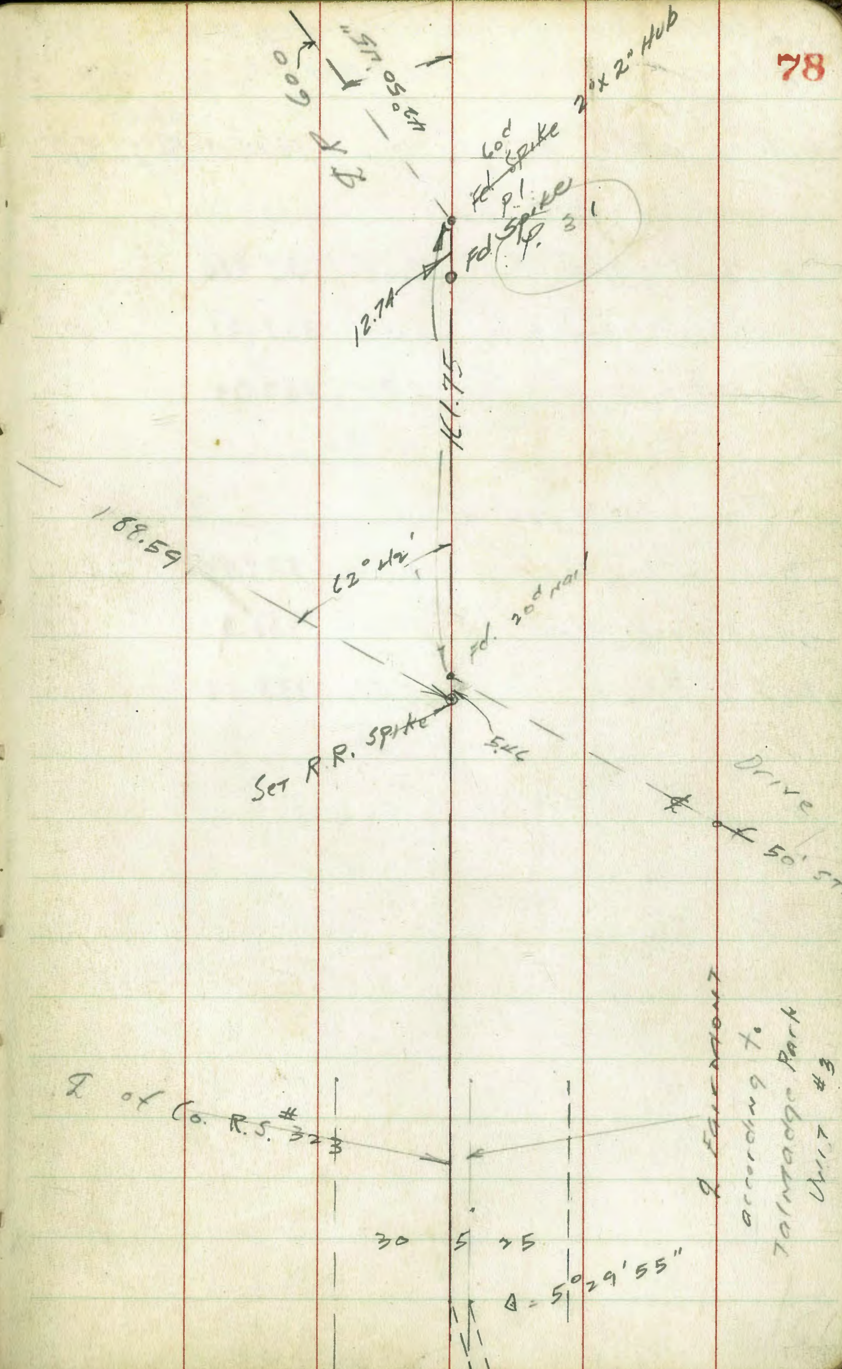
2nd Check Jan 13-41

Map shown here not checked against Filed Map by any one in this Office [illegible]



Ties for Fairmont & Aldine

11-14-41 Moore

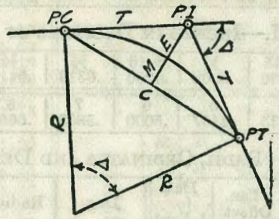


Elevation on Walks & Porch Floors
2 Houses Monroe Ave & Alden

BM	0.76	338.70		337.94	SE BP Monroe & 47th St.
		Fly House			
Top Cb & Sly Walk			9.54	329.16	
Landing Bottom Steps			6.89	331.81	
Porch Floor			4.91	333.79	
		Wly House			
Top Cb & Sly Walk			8.84	329.96	
Landing Bottom Steps			7.61	331.09	
Porch Floor			5.48	333.22	

April 29-42
Sisson
Northberg
W. Moore

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES



CURVE FORMULAS

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

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

Middle ordinate=M= R(1—cos. $\frac{\Delta}{2}$) (5) =Rvers $\frac{\Delta}{2}$ (6)

External=E=Ttan$\frac{\Delta}{4}$- (7) =R÷cos.$\frac{\Delta}{2}$–R (8)=Rexsec$\frac{\Delta}{2}$ (9)

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

EXPLANATION AND USE OF TABLES

Stations.—Given P. I.=Sta. 161+60.35 to find Sta. of P. C. and P. T. Δ=62° 10′ D=8° 20′. From Table IV for 1° curve T=3454.1 and÷8⅓=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 $(54.50\div100)^2$=2.16 ft. Also square of any distance divided by twice the radius equals (approximately) the distance from tangent to curve. Thus $(54.50)^2\div(2\times688.26)$=2.16 ft.

Deflections.—Deflection angle=½ D for 100 ft., ¼ D for 50 ft., etc. For c ft.=(in minutes) .3 x C x D° or=defl. for 1 ft. from Table III x C. For Sta. 158 of above curve=.3 x 54.5 x 8⅓=136.2′ or 2° 16.2′, or=2.50 x 54.5=136.2′ from Table III. For Sta. 159 deflection angle=2° 16.2′+8° 20′÷2=6° 26.2′, etc.

Externals.—May be found in similar manner to tangents. Thus E for curve above is 91.37. For from Table IV for 1° curve E=960.6 for 8° 20′=960.6÷8⅓=91.27 and from Table V correction=.10 or E=91.37 ft. Or suppose Δ=32° and E is measured and found to be 42 ft. What is D? From Table IV E=230.9 and÷42=5.5 or D=5° 30′.

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
31°	1589.0	216.3	**41°**	2142.2	387.4	**51°**	2732.9	618.4
10′	1598.0	218.7	10′	2151.7	390.7	10′	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	226.0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32	1643.0	230.9	**42**	2199.4	407.6	**52**	2794.5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654.3
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668.0
33	1697.2	246.1	**43**	2257.0	428.5	**53**	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34	1751.7	261.8	**44**	2314.9	450.0	**54**	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35	1806.6	278.1	**45**	2373.3	472.1	**55**	2982.7	729.9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.8	30	3014.5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36	1861.7	294.9	**46**	2432.1	494.8	**56**	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078.7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37	1917.1	312.2	**47**	2491.3	518.2	**57**	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954.3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38	1972.9	330.2	**48**	2551.0	542.2	**58**	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39	2029.0	348.6	**49**	2611.2	566.9	**59**	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40	2085.4	367.7	**50**	2671.8	592.3	**60**	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

Table IV.—Tangents and Externals to a 1° Curve.

Central Angle	Tangent	External	Central Angle	Tangent	External	Central Angle	Tangent	External
61°	3375.0	920.2	**71°**	4086.9	1308.2	**81°**	4893.6	1805.3
10′	3386.3	925.9	10′	4099.5	1315.6	10′	4908.0	1814.7
20	3397.5	931.6	20	4112.1	1322.9	20	4922.5	1824.1
30	3408.8	937.3	30	4124.8	1330.3	30	4937.0	1833.6
40	3420.1	943.1	40	4137.4	1337.7	40	4951.5	1843.1
50	3431.4	948.9	50	4150.1	1345.1	50	4966.1	1852.6
62	3442.7	954.8	**72**	4162.8	1352.6	**82**	4980.7	1862.2
10	3454.1	960.6	10	4175.6	1360.1	10	4995.4	1871.8
20	3465.4	966.5	20	4188.5	1367.6	20	5010.0	1881.5
30	3476.8	972.4	30	4201.2	1375.2	30	5024.8	1891.2
40	3488.3	978.3	40	4214.0	1382.8	40	5039.5	1900.9
50	3499.7	984.3	50	4226.8	1390.4	50	5054.3	1910.7
63	3511.1	990.2	**73**	4239.7	1398.0	**83**	5069.2	1920.5
10	3522.6	996.2	10	4252.6	1405.7	10	5084.0	1930.4
20	3534.1	1002.3	20	4265.6	1413.5	20	5099.0	1940.3
30	3545.6	1008.3	30	4278.5	1421.2	30	5113.9	1950.3
40	3557.2	1014.4	40	4291.5	1429.0	40	5128.9	1960.2
50	3568.7	1020.5	50	4304.6	1436.8	50	5143.9	1970.3
64	3580.3	1026.6	**74**	4317.6	1444.6	**84**	5159.0	1980.4
10	3591.9	1032.8	10	4330.7	1452.5	10	5174.1	1990.5
20	3603.5	1039.0	20	4343.8	1460.4	20	5189.3	2000.6
30	3615.1	1045.2	30	4356.9	1468.4	30	5204.4	2010.8
40	3626.8	1051.4	40	4370.1	1476.4	40	5219.7	2021.1
50	3638.5	1057.7	50	4383.3	1484.4	50	5234.9	2031.4
65	3650.2	1063.9	**75**	4396.5	1492.4	**85**	5250.3	2041.7
10	3661.9	1070.2	10	4409.8	1500.5	10	5265.6	2052.1
20	3673.7	1076.6	20	4423.1	1508.6	20	5281.0	2062.5
30	3685.4	1082.9	30	4436.4	1516.7	30	5296.4	2073.0
40	3697.2	1089.3	40	4449.7	1524.9	40	5311.9	2083.5
50	3709.0	1095.7	50	4463.1	1533.1	50	5327.4	2094.1
66	3720.9	1102.2	**76**	4476.5	1541.4	**86**	5343.0	2104.7
10	3732.7	1108.6	10	4489.9	1549.7	10	5358.6	2115.3
20	3744.6	1115.1	20	4503.4	1558.0	20	5374.2	2126.0
30	3756.5	1121.7	30	4516.9	1566.3	30	5389.9	2136.7
40	3768.5	1128.2	40	4530.4	1574.7	40	5405.6	2147.5
50	3780.4	1134.8	50	4544.0	1583.1	50	5421.4	2158.4
67	3792.4	1141.4	**77**	4557.6	1591.6	**87**	5437.2	2169.2
10	3804.4	1148.0	10	4571.2	1600.1	10	5453.1	2180.2
20	3816.4	1154.7	20	4584.8	1608.6	20	5469.0	2191.1
30	3828.4	1161.3	30	4598.5	1617.1	30	5484.9	2202.2
40	3840.5	1168.1	40	4612.2	1625.7	40	5500.9	2213.2
50	3852.6	1174.8	50	4626.0	1634.4	50	5517.0	2224.3
68	3864.7	1181.6	**78**	4639.8	1643.0	**88**	5533.1	2235.5
10	3876.8	1188.4	10	4653.6	1651.7	10	5549.2	2246.7
20	3889.0	1195.2	20	4667.4	1660.5	20	5565.4	2258.0
30	3901.2	1202.0	30	4681.3	1669.2	30	5581.6	2269.3
40	3913.4	1208.9	40	4695.2	1678.1	40	5597.8	2280.6
50	3925.6	1215.8	50	4709.2	1686.9	50	5614.2	2292.0
69	3937.9	1222.7	**79**	4723.2	1695.8	**89**	5630.5	2303.5
10	3950.2	1229.7	10	4737.2	1704.7	10	5646.9	2315.0
20	3962.5	1236.7	20	4751.2	1713.7	20	5663.4	2326.6
30	3974.8	1243.7	30	4765.3	1722.7	30	5679.9	2338.2
40	3987.2	1250.8	40	4779.4	1731.7	40	5696.4	2349.8
50	3999.5	1257.9	50	4793.6	1740.8	50	5713.0	2361.5
70	4011.9	1265.0	**80**	4807.7	1749.9	**90**	5729.7	2373.3
10	4024.4	1272.1	10	4822.0	1759.0	10	5746.3	2385.1
20	4036.8	1279.3	20	4836.2	1768.2	20	5763.1	2397.0
30	4049.3	1286.5	30	4850.5	1777.4	30	5779.9	2408.9
40	4061.8	1293.6	40	4864.8	1786.7	40	5796.7	2420.9
50	4074.4	1300.9	50	4879.2	1796.0	50	5813.6	2432.9

TABLE VI.—CORRECTIONS FOR SUB-CHORDS AND LONG CHORDS.

FOR SUB-CHORDS ADD										Excess of arc per 100 ft.	LONG CHORDS				
D	10	20	30	40	50	60	70	80	90		D	200	300	400	500
4°	.00	.00	.01	.01	.01	.01	.01	.01	.00	.02	1	199.99	299.97	399.92	499.85
6	.00	.01	.01	.02	.02	.02	.02	.01	01	.05	2	199.97	299.88	399.70	499.39
8	.01	.02	.02	.03	.03	.03	.03	.02	.01	.08	3	199.93	299.73	399.32	498.63
10	.01	.02	.03	.04	.05	.05	.05	.04	.02	.13	4	199.88	299.51	398.78	497.57
12	.02	.04	.05	.06	.07	.07	.07	.05	.03	.18	5	199.81	299.24	398.10	496.20
14	.02	.05	.07	.08	.09	.10	.09	.07	.04	.25	6	199.73	298.90	397.26	494.53
16	.03	.06	.09	.11	.12	.12	.12	.09	.05	.33	7	199.63	298.51	396.28	492.57
18	.04	.08	.11	.14	.15	.16	.15	.12	.07	.41	8	199.51	298.05	395.14	490.31
20	.05	.10	.14	.17	.19	.20	.18	.15	.09	.51	9	199.38	297.54	393.86	487.75
22	.06	.12	.17	.21	.23	.24	.22	.18	.10	.62	10	199.24	296.96	392.42	484.90
24	.07	.14	.20	.25	.28	.28	.26	.21	.12	.74	12	198.90	295.63	389.12	478.34
26	.09	.17	.24	.29	.32	.33	.31	.25	.15	.86	14	198.51	294.06	385.22	470.65
28	.10	.19	.27	.34	.37	.38	.36	.29	.17	1.00	16	198.05	292.25	380.76	461.86
30	.11	.22	.31	.39	.43	.44	.41	.33	.19	1.15	18	197.54	290.21	375.74	452.02
32	.13	.25	.36	.44	.49	.50	.47	.38	.22	1.31	20	196.96	287.94	370.17	441.15
34	.15	.28	.40	.50	.55	.57	.53	.43	.25	1.48	22	196.32	285.44	364.06	429.30
36	.17	.32	.45	.56	.62	.64	.59	.48	.28	1.66	24	195.63	282.71	357.43	416.53
38	.18	.36	.51	.62	.70	.71	.66	.53	.31	1.86	26	194.87	279.76	350.30	402.89
40	.21	.40	.56	.69	.77	.79	.73	.59	.35	2.06	28	194.06	276.59	342.69	388.43
42	.23	.44	.62	.76	.85	.87	.81	.65	.38	2.28	30	193.18	273.20	334.61	373.20
44	.25	.48	.68	.84	.94	.96	.89	.72	.42	2.50	32	192.25	269.61	326.08	357.28
46	.27	.52	.75	.92	1.02	1.05	.98	.78	.46	2.74	34	191.26	265.81	317.12	340.73
48	.30	.57	.81	1.00	1.12	1.14	1.06	.86	.50	2.99	36	190.21	261.80	307.77	323.61
50	.32	.62	.89	1.09	1.21	1.24	1.15	.93	.55	3.24	38	189.10	257.60	298.03	305.99
52	.35	.67	.96	1.18	1.31	1.35	1.25	1.01	.59	3.52	40	187.94	253.21	287.94	287.94
54	.38	.73	1.04	1.28	1.42	1.46	1.35	1.09	.64	3.80	42	186.72	248.63	277.51	269.54
56	.41	.78	1.12	1.38	1.53	1.57	1.46	1.17	.69	4.09	44	185.44	243.87	266.78	250.85
58	.44	.84	1.20	1.48	1.65	1.69	1.57	1.26	.74	4.40	46	184.10	239.93	255.78	231.95
60	.47	.91	1.29	1.59	1.76	1.81	1.68	1.35	.80	4.72	48	182.71	233.83	244.51	212.92

NOTE.—When a chord of less than 100 ft. is used the corrections given in the above table should be added to the nominal length of chord to get the length which should be used in order that the 100 ft. points will check with those obtained by using the standard 100 ft. chord. Thus in locating a 14° curve by 25 ft. chords measure 25'.06 for each chord. Long chords are useful in passing obstacles.

TABLE VII.—MIDDLE ORDINATES FOR RAILS IN FEET.

Deg. of Curve	LENGTH OF RAILS							Deg. of Curve	LENGTH OF RAILS.						
	32	30	28	26	24	22	20		32	30	28	26	24	22	20
1°	.022	.020	.016	.013	.011	.009	.008	16°	.356	.313	.273	.236	.200	.170	.139
2	.045	.038	.034	.029	.025	.021	.017	17	.378	.333	.290	.252	.213	.180	.148
3	.067	.058	.051	.044	.037	.031	.026	18	.400	.351	.306	.265	.225	.190	.156
4	.089	.079	.069	.060	.050	.042	.035	19	.423	.371	.324	.280	.238	.201	.165
5	.112	.099	.086	.074	.063	.053	.044	20	.445	.392	.341	.296	.250	.212	.174
6	.134	.117	.102	.088	.076	.064	.052	21	.466	.410	.357	.309	.262	.222	.182
7	.156	.137	.120	.104	.088	.074	.061	22	.487	.430	.375	.325	.275	.233	.191
8	.179	.158	.137	.119	.100	.085	.070	23	.509	.450	.390	.338	.287	.243	.199
9	.201	.175	.153	.133	.112	.095	.078	24	.531	.469	.408	.354	.299	.253	.208
10	.223	.196	.171	.148	.125	.106	.087	25	.552	.486	.424	.367	.311	.263	.216
11	.245	.216	.188	.163	.139	.117	.096	26	.573	.506	.441	.382	.323	.274	.225
12	.268	.236	.206	.179	.151	.128	.105	27	.594	.524	.457	.396	.335	.284	.233
13	.290	.254	.222	.192	.163	.138	.113	28	.618	.545	.475	.411	.348	.294	.242
14	.312	.275	.239	.207	.175	.148	.122	29	.638	.564	.491	.424	.361	.303	.250
15	.334	.295	.257	.223	.188	.159	.131	30	.660	.583	.508	.438	.374	.313	.259

SLOPE REDUCTIONS.

When distances are measured on a slope they may be reduced to the equivalent horizontal distance by the following approximate rule:—subtract from the slope distance the square of the rise divided by twice the slope distance. Thus for a slope distance of 250.3 ft. and a rise of 15 ft. correction=$15^2 \div 2 \times 250.3$=.45 (by slide rule) or horizontal distance=250.3—.45=249.85. When vertical angle=V. A. is measured horizontal distance=slope distance—slope distance (1—Cos. V. A.). Thus for slope distance of 248.7 ft. and V. A. of 4° 20′ from Table VIII Cos=.99714 and correction=1—.99714=.00286 per foot or total of .286× 2½ (near enough)=.57 and horizontal distance=248.7—.57=248.13 ft.

TRIGONOMETRICAL FORMULAS.

See fig. (a).

sin. $A=\frac{a}{c}$

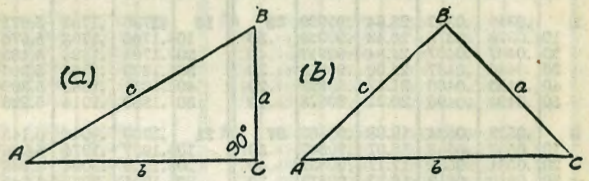
cos. $A=\frac{b}{c}$

tan. $A=\frac{a}{b}$

cot. $A=\frac{b}{a}$

sec. $A=\frac{c}{b}$

cosec. $A=\frac{c}{a}$



FORMULA FOR SOLVING TRIANGLES.

Given	Sought.	Right triangles. See fig. (a).
a, c	A, B, b	$\sin. A=\frac{a}{c}$, $\cos. B=\frac{a}{c}$, $b=\sqrt{(c+a)(c-a)}$
a, b	A, B, c	$\tan. A=\frac{a}{b}$, $\cot. B=\frac{a}{b}$, $c=\sqrt{a^2+b^2}$.
A, a	B, b, c	$B=90°-A$, $b=a \cot. A$, $c=\frac{a}{\sin. A}$.
A, b	B, a, c	$B=90°-A$, $a=b \tan. A$, $c=\frac{b}{\cos. A}$.
A, c	B, a, b	$B=90°-A$, $a=c \sin. A$, $b=c \cos. A$
Given	Sought.	Oblique triangles. See fig. (b).
A, B, a	b	$b=\frac{a \sin. B}{\sin. A}$
A, a, b	B	$\sin. B=\frac{b \sin. A}{a}$
a, b, C	$A-B$	$\tan. \frac{1}{2}(A-B)=\frac{(a-b) \tan. \frac{1}{2}(A+B)}{a+b}$
a, b, c	A	If $s=\frac{1}{2}(a+b+c)$, $\sin. \frac{1}{2}A=\sqrt{\frac{(s-b)(s-c)}{bc}}$, $\cos. \frac{1}{2}A=\sqrt{\frac{s(s-a)}{bc}}$, $\tan. \frac{1}{2}A=\sqrt{\frac{(s-b)(s-c)}{s(s-a)}}$, $\sin. A=\frac{2\sqrt{(s-a)(s-b)(s-c)s}}{bc}$
A, B, C, a	area	$\text{area}=\frac{a^2 \sin. B \sin. C}{2 \sin. A}$
A, b, c	area	$\text{area}=\frac{1}{2} b c \sin. A$
a, b, c	area	$s=\frac{1}{2}(a+b+c)$, $\text{area}=\sqrt{s(s-a)(s-b)(s-c)}$

3046 STAKT
3066

359 59 60
340 99 40
19° 15' 20"

179° 60'
62° 42'
117° 18'

93.4 93.0 93.3
0+75 4 0 4

95.8 94.0 95.0 00.2
0+47 10 3 0 5

96.5 94.8 95.5 01.0
0+39 Avg 10 0 5 10

02.0 97.2 96.1 2.5
0+20 +10 10 5 6 8 20

05.0 97.8 98.9
0+00 5 0 2 5
Pipe

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

Roadway 16 feet wide. Side Slopes 1 on 1½

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.