

1577



INSTITUTION OF ENGINEERS

MEMBER'S BOOK

No. 1577

EUGENE DIETZGEN CO.

DRAWING MATERIALS, MATHEMATICAL and
SURVEYING INSTRUMENTS

Chicago New York San Francisco New Orleans Pittsburg Toronto

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

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

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

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Made in U. S. A.

Levels Postoffice Dines
Cont from P-80

50.28

0+564

E. Gut. 5.24 45 04

E. cb 4.25 46 03

+6' = Wedge Walk 4.22 46 06

E.L. = E " " 4.11 46 17

TR 2.07 58.79 0.56 49.72

chk. Starting BM. 2.24 56.55

56.55

0.00

Cross Section Buenos Ave - Hilda
 And Elevation Road
 Sta 0+0 to 29+88.24 See sketch Pages 2-3-4

INDEXED
 EFB

Lt

Rt

Rt

March 12-40
 Sisson
 Hartmann
 & Moore

5

+50

<u>43.4</u>	<u>43.3</u>	<u>42.4</u>	<u>42.61</u>	<u>43.29</u>	<u>43.60</u>	<u>44.07</u>	<u>44.8</u>
9.2	9.3	10.3	9.95	9.27	8.96	8.49	7.8
28.9	23	14	13.5 Edge Pav		18.9	18.9	28.9
					Gutter	Top 6	

+25

<u>41.1</u>	<u>41.3</u>	<u>40.6</u>	<u>40.94</u>	<u>41.50</u>	<u>41.56</u>	<u>42.14</u>	<u>42.8</u>
11.5	11.3	12.0	11.63	11.06	11.00	10.42	9.8
30	23	16	13.5 Edge Pav		19.4 Gutter	19.4 Top 6	29.4

0+0

Rt Carb Line Stations

<u>39.4</u>	<u>38.8</u>	<u>39.1</u>	<u>39.6</u>	<u>38.54</u>	<u>40.04</u>	<u>40.1</u>
13.2	13.8	13.5	13.0	13.03	13.52	13.5
30	11	10.5 Gutter		20	20	30
				Gutter	Top 6	

52.56

TP 3.96 52.56 8.28 48.60

TP 0.79 56.88 11.91 56.09

TP 0.54 68.00 11.24 67.46

BM set 0.83 77.87

N.F. B.P.
 Hilda Dorcas

BM 234 78.70 76.36

2 Hubs 7489.22
 # 1544 Page 1

Sections Reduced
 April May
 1940
 Plotted on Roll
 C.B.H.

270

<u>48.0</u>	<u>48.1</u>	<u>47.66</u>	<u>48.37</u>	<u>48.90</u>	<u>49.55</u>	<u>50.1</u>
4.6	4.5	4.90	4.19	3.86	3.01	2.5
25.5	13	10. Fogelov		15.5 Gutter	15.5 Topcb	25.5

+75

<u>47.8</u>	<u>48.0</u>	<u>47.6</u>	<u>47.58</u>	<u>48.27</u>	<u>48.84</u>	<u>49.39</u>	<u>49.9</u>
4.8	4.6	5.0	4.98	4.27	3.72	3.17	2.7
26	14	11	10-FP		16. Gut	16. Topcb	26

+50

<u>47.6</u>	<u>47.6</u>	<u>46.8</u>	<u>47.06</u>	<u>47.86</u>	<u>48.37</u>	<u>48.90</u>	<u>49.3</u>
5.0	5.0	5.8	5.50	4.70	4.19	3.66	3.3
26.6	14	12	10-FP		16.6 Gut	16.6 Topcb	26.6

+25

<u>46.6</u>	<u>46.9</u>	<u>46.1</u>	<u>46.28</u>	<u>47.14</u>	<u>47.63</u>	<u>48.24</u>	<u>48.7</u>
6.0	5.7	6.5	6.28	5.12	4.93	4.37	3.9
27.2	14	12	FP		17.2 Gutter	17.2 Topcb	27.2

+10

<u>45.4</u>	<u>45.9</u>	<u>45.3</u>	<u>45.27</u>	<u>46.19</u>	<u>46.67</u>	<u>47.17</u>	<u>48.6</u>
7.2	6.7	7.3	7.29	6.37	5.89	5.39	4.0
27.7	15	14	12 FP		17.7 Gut	17.7 Topcb	27.7

0+75

<u>44.3</u>	<u>44.5</u>	<u>43.7</u>	<u>44.01</u>	<u>44.87</u>	<u>45.36</u>	<u>45.82</u>	<u>46.9</u>
8.3	8.1	8.9	8.55	7.69	7.70	6.74	5.7
28.3	17	14	12 Fogelov		18.3 Gutter	18.3 Topcb	28.3

57.56

52.56

Lt

Z

Rt

6

+50

45.1
8.3
25

46.4 46.8 47.5 47.96 48.05 48.23 48.39 48.9
6.8 6.6 5.9 5.47 5.38 5.20 5.04 5.5
20 12 6 5-Edg+Rv 15- 15- 25
Gutter TopCb.

TP 498 5343 4.11 48.45

53.43

+25

44.8 46.8 47.6 47.90 48.21 48.52 48.1
7.8 5.8 5.00 4.6 4.35 4.04 4.5
25 17 6-EP 15- 15- 25
Gut Tcb.

3+0

44.4 46.6 47.2 47.39 47.83 48.26 48.73 48.9
8.2 6.0 5.4 5.17 4.73 4.30 3.83 4.3
25 18.0 12 6-EP 15- 15- 25
9 Tcb

+75

44.8
7.8
25

47.0 47.2 47.0 47.21 47.82 48.38 48.99 47.5
5.6 5.1 5.6 5.35 4.74 4.18 3.57 4.1
18 12 10 6-EP 15- 15- 25
9 Tcb

+50

47.2 47.4 47.39 48.04 48.52 49.19 48.9
5.4 5.2 5.17 4.52 4.00 3.37 3.7
25 15 7-EP 15- 15- 25
9 Tcb

2+16.15: F.C.

47.8 47.9 47.71 48.37 48.90 49.49 49.6
4.8 4.7 4.85 4.19 3.66 3.07 3.0
25 12 9-Edg+Rv 15- 15- 25
Gutter TopCb.

52.56

52.56

TP 5+0

<u>49.3</u>	<u>500</u>	<u>5052</u>	<u>50.64</u>	<u>50.60</u>	<u>51.11</u>	<u>51.4</u>
4.1	3.4	2.91	2.79	2.83	2.32	2.0
25	12	5-EP		15	15	25
				9	cb	

+ 75

<u>47.5</u>	<u>492</u>	<u>4925</u>	<u>49.37</u>	<u>49.35</u>	<u>49.82</u>	<u>50.0</u>
5.9	4.2	4.18	4.06	4.08	3.61	3.4
25	12	4-EP		15	15	25
				9	cb	

3+ 50

<u>46.7</u>	<u>48.3</u>	<u>48.47</u>	<u>48.68</u>	<u>48.65</u>	<u>49.05</u>	<u>48.7</u>
6.7	5.1	4.94	4.75	4.78	4.38	4.7
25	12	3-EP		15	15	25
				9	cb	

+ 4+25

<u>45.6</u>	<u>46.3</u>	<u>47.3</u>	<u>48.18</u>	<u>48.33</u>	<u>48.37</u>	<u>48.57</u>	<u>48.3</u>
7.8	7.1	6.1	5.25	5.10	5.06	4.86	5.1
25	21	12	3-EP		15	15	25
					9	cb	

+ 3+9968 = BC RL

<u>45.0</u>	<u>46.1</u>	<u>46.8</u>	<u>47.2</u>	<u>48.09</u>	<u>48.17</u>	<u>48.34</u>	<u>48.52</u>	<u>48.0</u>
8.4	7.3	6.6	6.2	5.34	5.26	5.09	4.91	5.4
25	21	12	7	4-EP		15	15	25
						9	cb	

2+ 3+75

<u>45.1</u>	<u>46.5</u>	<u>46.8</u>	<u>47.5</u>	<u>48.04</u>	<u>48.10</u>	<u>48.25</u>	<u>48.49</u>	<u>47.9</u>
8.1	6.9	6.6	5.9	5.39	5.33	5.18	4.94	5.5
25	21	12	7	5-EP		15	15	25
				Edg. Pav	58.43	Gutter	Topcb	

5343

TP 11.71 7565 0.62 6394

+25

640

+75

+50

TP 11.40 64.56 0.27 53.16

5+25

53.43

Lt

Z

Rt

9

<u>65.6</u>	<u>64.39</u>	<u>63.37</u>	<u>63.98</u>	<u>64.0</u>
+1.0	0.17	1.19	0.58	0.6
25		15	15	25
		Guitar	Topcb	

<u>62.4</u>	<u>61.6</u>	<u>61.22</u>	<u>61.00</u>	<u>60.32</u>	<u>60.91</u>	<u>61.2</u>
2.2	3.0	3.34	3.36	4.24	3.65	3.4
25	20	11-EP		15-G	15-Cb	25

<u>61.0</u>	<u>60A</u>	<u>58.3</u>	<u>57.9</u>	<u>57.3</u>	<u>57.81</u>	<u>57.75</u>	<u>57.54</u>	<u>58.17</u>	<u>58.3</u>
3.6	4.2	6.3	6.7	7.3	6.75	6.81	7.02	6.39	6.3
25	22	19	12	10	8-EP		9	15-Cb	25

<u>55.1</u>	<u>54.5</u>	<u>55.0</u>	<u>54.2</u>	<u>54.70</u>	<u>54.85</u>	<u>54.86</u>	<u>55.42</u>	<u>56.0</u>
9.5	10.1	9.6	10.4	9.86	9.71	9.73	9.14	8.6
25	22	13	10	5-EP		15-G	15-Cb	25

64.56

<u>51.9</u>	<u>51.9</u>	<u>52.1</u>	<u>52.53</u>	<u>52.53</u>	<u>52.36</u>	<u>52.86</u>	<u>53.3</u>
1.5	1.5	1.2	0.90	0.90	1.07	0.57	0.1
25	17	12	6-Edgr	18V	15-Guitar	15-Topcb	25

53.43

7+45.26 = FC

7+25

TP 1172 86.96 0.41 75.24

+9620 = PRC of Lt

+75

6+50

75.65

Lt

L

RT

10

<u>759</u>	<u>77.1</u>	<u>77.89</u>	<u>77.0</u>	<u>76.60</u>	<u>75.99</u>	<u>76.53</u>	<u>75.4</u>
11.1	9.9	9.67	10.0	10.36	10.97	10.43	11.6
25	25	15 _{Endic}	15 _{Gut.}		15 _{Gutter}	15 _{CbTop}	25

<u>756</u>	<u>75.80</u>	<u>74.9</u>	<u>74.63</u>	<u>74.00</u>	<u>74.55</u>	<u>73.4</u>
11.4	11.16	12.1	12.33	12.96	12.41	13.6
25	15 _{cb}	15 _G		15 _G	15 _{cb}	25

86.96

<u>73.6</u>	<u>74.01</u>	<u>73.18</u>	<u>72.18</u>	<u>71.32</u>	<u>71.73</u>	<u>71.2</u>
2.0	1.64	2.47	3.47	4.33	3.92	4.4
25	15 _{Cb}	15 _{Gut.}		15 _G	15 _{Cb}	25

<u>72.99</u>	<u>70.16</u>	<u>69.14</u>	<u>69.65</u>	<u>69.2</u>
2.66	5.49	6.51	6.00	6.4
25 _{on Pav}		15 _G	15 _{cb}	25

<u>69.84</u>	<u>67.415</u>	<u>66.39</u>	<u>66.90</u>	<u>66.7</u>
5.81	8.20	9.26	8.75	8.9
25 _{on Pav}		15 _{Gut RT}	15 _{Topcb}	25

75.65

TP 11.64 108.85 0.08 97.21

+75

}

+50

TP 10.84 97.24 0.56 86.40

+25.26. EG. 07.14

8+0

7+75

86.96

Lt \$ Rt

<u>96.56</u>	<u>95.21</u>	<u>94.19</u>	<u>93.29</u>	<u>93.74</u>	<u>93.5</u>	<u>90.8</u>
0.68	2.03	3.05	3.95	3.50	3.7	6.4
23' Edge	12'		15'	15'	20'	25'
Per			9	6		

<u>93.6</u>	<u>91.42</u>	<u>90.67</u>	<u>89.92</u>	<u>90.39</u>	<u>89.9</u>	<u>88.1</u>
2.6	5.82	6.57	7.32	6.85	7.3	9.1
25'	90' Per.		15'	15'-6.21'	21'	25'
			9			

97.24

<u>89.7</u>	<u>88.8</u>	<u>87.4</u>	<u>87.0</u>	<u>86.98</u>	<u>86.96</u>	<u>85.7</u>
+2.7	+1.8	+0.4	0.0	0.58	0.00	1.3
25'	23'	5-EP		15'-Gut	15'-cb	25'

<u>85.2</u>	<u>85.1</u>	<u>83.61</u>	<u>83.39</u>	<u>82.75</u>	<u>83.45</u>	<u>82.3</u>
1.8	1.9	3.35	3.57	4.21	3.51	4.7
25'	19'	8-EP		15'	15'-cb	25'

<u>81.4</u>	<u>80.02</u>	<u>80.0</u>	<u>79.39</u>	<u>80.06</u>	<u>78.9</u>
5.6	6.94	7.0	7.57	6.90	8.1
24	8-Edge		15'-Gut	15'-cb	25'
	Per.				

86.96

+29 = End Cb on Rt.

1070

+76.28 = PRC on Lt.

+50

+28.79 = B.C. Rt.

970

108.85

Lt

Lt

Rt.

<u>107.6</u>	<u>107.23</u>	<u>106.92</u>	<u>105.96</u>	<u>106.67</u>	<u>105.5</u>
1.3 25	1.62 15 = Edge 104	1.93	2.82 15	2.18 15 = Cb 104	3.4 25

<u>107.4</u>	<u>106.95</u>	<u>105.85</u>	<u>104.80</u>	<u>105.47</u>	<u>104.0</u>
1.4 25	1.90 16 = Edge 104	3.00	4.05 15 = Gut	5.38 15 = Cb	4.8 25

<u>106.9</u>	<u>106.3</u>	<u>104.67</u>	<u>104.41</u>	<u>103.48</u>	<u>104.09</u>	<u>103.0</u>	<u>102.0</u>
1.9 25	2.5 6	4.18 5 = F.P.	4.44	5.37 15 = G	4.76 15 = Cb	5.8 23	6.8 25

<u>102.60</u>	<u>102.38</u>	<u>101.42</u>	<u>101.89</u>	<u>101.8</u>	<u>100.0</u>
6.25 4 = EP	6.47	7.43 15 = G	6.96 15 = Cb	7.0 22	8.8 25

<u>100.53</u>	<u>100.1</u>	<u>99.33</u>	<u>99.69</u>	<u>100.3</u>	<u>97.8</u>
8.33 6 = EP	8.70	9.52 15 = G	9.16 15 = Cb	8.5 20	11.0 25

<u>97.66</u>	<u>97.19</u>	<u>96.32</u>	<u>96.65</u>	<u>97.8</u>	<u>93.4</u>
11.19 Edge 104	11.66	12.53 15 = G 104	12.20 15 = Cb	11.0 19	15.4 25

108.85

+75

<u>107.2</u>	<u>106.61</u>	<u>106.72</u>	<u>105.89</u>	<u>106.79</u>	<u>106.4</u>	<u>102.9</u>
3.5	4.11	4.00	4.83	3.93	4.3	7.8
25	14		15.5 Gul	15.06	19	25

+50

<u>108.2</u>	<u>107.34</u>	<u>107.40</u>	<u>106.51</u>	<u>107.41</u>	<u>106.8</u>	<u>103.5</u>
2.5	3.38	3.37	4.21	3.31	3.9	7.2
25	15-EP		13	15.06	19	25

+28 = Bcg. of Cb on Rt

<u>109.2</u>	<u>108.32</u>	<u>108.14</u>	<u>107.30</u>	<u>107.92</u>	<u>107.6</u>	<u>103.7</u>
1.5	2.46	2.58	3.42	2.80	3.1	7.0
25	15-EP		13 Gutter	15.06 End Cb	19	25

11+0

<u>110.0</u>	<u>109.14</u>	<u>108.82</u>	<u>107.98</u>	<u>108.5</u>	<u>108.0</u>	<u>105.3</u>
0.7	1.58	1.90	2.74	2.2	2.7	5.4
25	15-EP		15-EP	17	20	25

+75

<u>109.2</u>	<u>108.64</u>	<u>108.53</u>	<u>107.61</u>	<u>108.3</u>	<u>107.6</u>	<u>105.4</u>
1.5	2.08	2.19	3.11	2.4	3.1	5.3
25	13-EP		15-EP	17	21	25

IP 2.14 110.72 0.27 108.58

110.72

10+50

<u>108.3</u>	<u>107.74</u>	<u>107.75</u>	<u>106.92</u>	<u>106.9</u>	<u>105.8</u>
0.6	1.11	1.10	1.93	2.0	3.1
25	13-Edge Pav		15-Edge Pav	25	25

108.85

108.85

1370

<u>107.6</u>	<u>107.01</u>	<u>106.53</u>	<u>106.72</u>	<u>105.98</u>	<u>106.45</u>	<u>106.4</u>	<u>101.5</u>
7.5	8.04	8.52	8.32	9.07	8.60	8.7	13.6
25	15.06	15.9		15.9	15.06	17	25

+75

<u>107.1</u>	<u>107.1</u>	<u>106.34</u>	<u>105.67</u>	<u>105.92</u>	<u>105.54</u>	<u>105.93</u>	<u>105.8</u>	<u>101.0</u>
8.0	8.0	8.71	9.38	9.13	9.48	9.12	9.2	14.1
25	20	15.06	15.9		15.9	15.06	18	25

115.05

TP 8.39 115.05 4.06 106.66 *North Pole
20th 12+49*

+49.65 = P.A.C

<u>106.9</u>	<u>105.98</u>	<u>104.94</u>	<u>105.42</u>	<u>104.90</u>	<u>105.98</u>	<u>105.6</u>	<u>102.8</u>
3.8	4.74	5.78	5.30	5.76	4.74	5.1	7.9
25	15.06	15.9		15.9	15.06	19	25

+36.3

<u>106.4</u>	<u>105.98</u>	<u>104.94</u>	<u>105.57</u>	<u>105.09</u>	<u>106.05</u>	<u>105.6</u>	<u>102.0</u>
4.3	4.74	5.78	5.15	5.63	4.67	5.1	7.7
25	15.06	15.9		15.9	15.06	19	25

1270

<u>106.4</u>	<u>106.15</u>	<u>106.26</u>	<u>105.52</u>	<u>106.32</u>	<u>105.7</u>	<u>102.9</u>
4.3	4.57	4.46	5.20	4.40	5.0	7.8
25	13		15.9	15.06	19	25

110.72

110.72

TP 8.32 130.81 3.65 122.49

+25

TP 11.47 126.14 0.38 114.67

14+0

+75

+50

13+25

115.05

Lt

A

Rt

15

<u>116.3</u>	<u>115.77</u>	<u>115.30</u>	<u>115.76</u>	<u>115.21</u>	<u>115.74</u>	<u>115.4</u>	<u>112.1</u>
9.8	10.37	10.84	10.38	10.93	10.40	10.7	14.0
25	15	15.9		15.9	15.06	19	25
	06						

126.14

<u>114.3</u>	<u>113.24</u>	<u>112.78</u>	<u>113.49</u>	<u>112.77</u>	<u>113.26</u>	<u>112.4</u>	<u>110.8</u>
0.8	1.81	2.27	1.56	2.28	1.79	2.7	4.3
25	15.06	15.9		15.9	15.06	23	25

<u>112.1</u>	<u>111.09</u>	<u>110.61</u>	<u>111.04</u>	<u>110.53</u>	<u>111.02</u>	<u>110.4</u>
3.0	3.96	4.44	4.01	4.52	4.03	4.7
25	15.06	15.9		15.9	15.06	25

<u>110.1</u>	<u>109.33</u>	<u>108.90</u>	<u>109.30</u>	<u>108.66</u>	<u>109.16</u>	<u>109.3</u>
5.0	5.72	6.15	5.75	6.39	5.89	5.8
25	15.06	15.9		15.9	15.06	25

<u>108.6</u>	<u>107.99</u>	<u>107.53</u>	<u>107.80</u>	<u>107.18</u>	<u>107.59</u>	<u>107.7</u>	<u>103.6</u>
6.5	7.06	7.52	7.25	7.87	7.46	7.4	11.5
25	15.06	15.9		15.9	15.06	19	25

115.05

+75

<u>130.9</u>	<u>131.51</u>	<u>131.02</u>	<u>131.59</u>	<u>130.81</u>	<u>131.35</u>	<u>131.5</u>
11.6	10.96	11.15	10.88	11.66	11.12	11.0
25	15-26	15-50		15-50	15-26	25

TP 11.73 142.47 0.07 130.74

142.47

+50

<u>129.7</u>	<u>129.02</u>	<u>128.49</u>	<u>128.18</u>	<u>128.21</u>	<u>128.87</u>	<u>129.1</u>
2.1	1.79	2.32	1.63	2.60	1.94	1.7
25	15	15		15	15	25

+25

<u>126.6</u>	<u>126.48</u>	<u>125.98</u>	<u>126.55</u>	<u>125.85</u>	<u>126.31</u>	<u>126.5</u>
4.7	4.33	4.83	4.26	4.96	4.50	4.3
25	15	15		15	15	25

15+0

<u>123.9</u>	<u>123.84</u>	<u>123.39</u>	<u>123.81</u>	<u>123.26</u>	<u>123.72</u>	<u>123.0</u>
6.9	6.97	7.42	7.00	7.53	7.09	7.8
25	15	15		15	15	25

+75

<u>121.4</u>	<u>120.76</u>	<u>120.67</u>	<u>121.04</u>	<u>120.54</u>	<u>121.13</u>	<u>120.6</u>
9.4	10.05	10.14	9.77	10.27	9.68	10.7
25	15-100	15		15	15	25

14+50

<u>119.0</u>	<u>118.45</u>	<u>117.97</u>	<u>118.32</u>	<u>118.41</u>	<u>117.76</u>	<u>118.2</u>	<u>116.8</u>
11.8	12.26	12.84	12.43	11.240	13.05	12.6	14.0
25	15-26	15	9	15	15	22	25

130.81

130.81

+25

TP 11.36 153.70 0.13 142.34

177.0

+75

BM 4.37 138.10

+50

16+25

1.5+91.83=EC

142.47

SH B.P.
Elevation Ref.
Elevation
Correct
138.02

Lt. L Rt.

<u>142.72</u>	<u>142.90</u>	<u>142.36</u>	<u>142.91</u>	<u>143.1</u>
10.98	10.80	11.34	10.78	10.6
15.00 Per		15.94	15.06	
	153.70			

<u>141.37</u>	<u>141.41</u>	<u>140.76</u>	<u>141.43</u>	<u>141.4</u>
1.10	1.06	1.71	1.04	1.1
15.00 Per		15.94	15.06	2.5

<u>139.82</u>	<u>139.73</u>	<u>139.25</u>	<u>139.85</u>	<u>139.9</u>	<u>141.0</u>
2.65	2.74	3.22	2.62	2.6	1.5
15.00 Per		15.94	15.06	2.2	2.5

<u>138.00</u>	<u>138.03</u>	<u>137.44</u>	<u>138.07</u>	<u>139.0</u>
4.47	4.44	5.03	4.40	3.5
15.00 Per		15.94	15.06	2.5

<u>135.69</u>	<u>135.22</u>	<u>135.49</u>	<u>135.95</u>	<u>135.49</u>	<u>136.08</u>	<u>137.7</u>
6.78	7.25	6.98	6.52	6.98	6.37	4.8
21.00	21.94	15.00 Per		15.94	15.06	2.5

<u>132.3</u>	<u>133.00</u>	<u>132.53</u>	<u>133.05</u>	<u>132.55</u>	<u>132.62</u>	<u>133.2</u>
10.2	9.47	9.94	9.42	9.92	9.85	9.3
2.5	15.06	15.94		15.94	15.06	2.5
			142.47		10.01	

Lt

L

Pt.

+75

<u>152.3</u>	<u>152.22</u>	<u>151.74</u>	<u>152.10</u>	<u>151.51</u>	<u>152.19</u>	<u>151.5</u>
1.4	1.48	1.96	1.56	2.19	1.51	2.2
25	15-cb	15-9pt.		15-9pt.	15-cb	25

+50

<u>150.9</u>	<u>150.72</u>	<u>150.21</u>	<u>150.66</u>	<u>150.13</u>	<u>150.23</u>	<u>150.69</u>
2.8	2.98	3.49	3.04	3.57	3.47	3.01
25	15-cb	15-9		15-9	15-cb indr.	25

+25

<u>148.6</u>	<u>149.14</u>	<u>148.67</u>	<u>149.01</u>	<u>148.64</u>	<u>149.16</u>	<u>149.3</u>
5.1	4.56	5.03	4.69	5.06	4.54	4.4
25	15-cb	15-9pt.		15-9	15-cb	25

18+0

<u>147.1</u>	<u>147.56</u>	<u>147.11</u>	<u>147.48</u>	<u>147.12</u>	<u>147.18</u>	<u>147.6</u>
6.5	6.14	6.59	6.27	6.58	6.52	6.1
25	15-cb	15-9		15-9	15 indr.	25

17+66.31 = BC. on Lt

<u>145.4</u>	<u>145.04</u>	<u>144.99</u>	<u>145.41</u>	<u>145.01</u>	<u>145.50</u>	<u>146.2</u>
8.3	8.66	8.71	8.29	8.69	8.26	7.5
25	15-cb indr.	9pt.		15-9pt.	15-cb	25

17+50

<u>144.10</u>	<u>144.42</u>	<u>144.02</u>	<u>144.47</u>	<u>144.5</u>
9.69	9.28	9.68	9.23	9.2
15 on Pt.		15-9pt.	15-cb	25

153.70

153.70

2040

+75 = N End 10' Cbln/plate on Pt.

1914365 = BC

B.M. 10.66 167.54 156.88 ^{1544 Pogr} _{97.30 TTB} 1914432 BC

B.M. 8.12 156.96 ^{307.021} ₁₉₁₄₃₆₅ 156.88

TP 11.56 165.08 0.18 153.52

1940

153.70

Lt L Rt

<u>157.15</u>	<u>157.41</u>	<u>156.8</u>	<u>157.58</u>	<u>156.8</u>
10.39	10.13	10.7	9.96	10.7
1509 Pav		15-Gut	15-cb	25

<u>155.71</u>	<u>156.48</u>	<u>155.44</u>	<u>156.46</u>	<u>156.2</u>	<u>155.5</u>
11.87	11.06	12.10	11.08	11.5	12.0
1509 Pav		15-Gut	15-cb	23	25
		Opposite lot			

<u>156.0</u>	<u>153.89</u>	<u>153.84</u>	<u>155.14</u>	<u>154.56</u>	<u>155.36</u>	<u>154.5</u>
11.5	13.65	12.70	12.40	12.98	12.18	13.0
25	15-cb to D.K.	15-Gut	15-Gut	15-Gut	15-cb	25
		167.54				

<u>153.5</u>	<u>153.44</u>	<u>152.95</u>	<u>153.35</u>	<u>152.83</u>	<u>153.37</u>	<u>152.9</u>
0.2	0.26	0.75	0.35	0.87	0.33	0.8
25	15-cb	15-Gut		15-Gut	15-cb	25

153.70

Lt

A

Rt

TP 11.9L 178.87 0.63 166.91 ^{Noil/Exajoint} 21+60

+50

<u>165.6</u>	<u>166.07</u>	<u>165.56</u>	<u>165.88</u>	<u>165.4</u>	<u>166.02</u>	<u>165.9</u>
1.9	1.47	1.98	1.66	2.1	1.52	1.6
2.5	15-cb	15-cb		15-cb	15-cb	2.5

+25

<u>164.0</u>	<u>164.34</u>	<u>163.85</u>	<u>164.23</u>	<u>163.5</u>	<u>164.35</u>	<u>164.0</u>
3.5	3.20	3.69	3.31	4.0	3.19	3.5
2.5	15-cb	15-cb		15-cb	15-cb	2.5

21+0

<u>162.58</u>	<u>162.69</u>	<u>161.99</u>	<u>162.70</u>	<u>162.3</u>
4.96	4.85	5.55	4.84	5.2
15-cb		15-cb	15-cb	2.5

+75

<u>161.34</u>	<u>161.23</u>	<u>160.6</u>	<u>161.26</u>	<u>160.9</u>
6.20	6.31	6.9	6.28	6.6
15-cb		15-cb	15-cb	2.5

+52.53 P.R.C

<u>160.14</u>	<u>159.97</u>	<u>159.3</u>	<u>160.06</u>	<u>159.4</u>
7.16	7.57	8.3	7.48	8.1
15-cb		15-cb	15-cb	2.5

20+25

<u>158.62</u>	<u>158.54</u>	<u>157.9</u>	<u>158.77</u>	<u>158.3</u>
8.92	9.00	9.6	8.77	9.2
15-cb		15-cb	15-cb	2.5

167.54

167.54

March 14-40

21

Lt

Z

Rt

<u>180.7</u>	<u>180.51</u>	<u>180.07</u>	<u>180.60</u>	<u>179.8</u>	<u>180.4</u>	<u>180.4</u>
9.4	9.54	9.98	9.95	10.3	9.7	9.7
25	15-cb	15-g		15	18	25

190.05

<u>178.4</u>	<u>178.47</u>	<u>178.05</u>	<u>178.63</u>	<u>178.1</u>	<u>178.6</u>	<u>178.8</u>
0.5	0.40	0.82	0.24	0.8	0.3	0.1
25	15-cb	15-g		15	18	25

<u>176.3</u>	<u>176.40</u>	<u>175.87</u>	<u>176.50</u>	<u>175.7</u>	<u>176.3</u>	<u>176.2</u>
2.6	2.47	3.00	2.37	3.2	2.6	2.7
25	15-cb	15-g		15	18	25

<u>174.3</u>	<u>174.36</u>	<u>173.90</u>	<u>174.31</u>	<u>173.7</u>	<u>174.0</u>
4.6	4.51	4.97	4.56	5.2	4.9
25	15-cb	15-g		15	25

<u>172.4</u>	<u>172.49</u>	<u>172.01</u>	<u>172.38</u>	<u>171.4</u>	<u>172.35</u>	<u>172.0</u>
6.5	6.38	6.86	6.49	7.5	6.52	6.9
25	15-cb	15-g		15-g	15-cb	25

<u>169.4</u>	<u>169.40</u>	<u>168.96</u>	<u>169.25</u>	<u>168.6</u>	<u>169.24</u>	<u>169.1</u>
9.5	9.47	9.91	9.62	10.3	9.63	9.8
25	15-cb	15-g		15-g	15-cb	25

178.87

178.87

S
+25

TP 11.35 190.05 0.17 178.70

23+0

+75

+50

22+26.5 - FydCb on ft.

21+90.73 - P.P.C.

Lt

Z

Rt

<u>192.1</u>	<u>1890</u>	<u>18872</u>	<u>18845</u>	<u>18898</u>	<u>18840</u>	<u>188.4</u>
+2.0	1.1	1.33	1.60	1.07	1.65	1.7
25	22	15-cb	15-g		15	25

<u>194.8</u>	<u>1879</u>	<u>187.81</u>	<u>187.40</u>	<u>18796</u>	<u>187.3</u>	<u>187.5</u>
+0.7	22	224	2.65	2.09	2.8	2.6
25	22	15-cb	15-g		15	25

<u>190.9</u>	<u>1866</u>	<u>18678</u>	<u>186.17</u>	<u>186.79</u>	<u>185.9</u>	<u>186.6</u>	<u>186.7</u>
+0.8	3.5	3.27	3.88	3.76	4.2	3.5	3.4
25	31	15-cb	15-g		15	19	25

<u>1896</u>	<u>1854</u>	<u>185.51</u>	<u>184.88</u>	<u>185.45</u>	<u>184.8</u>	<u>185.4</u>	<u>185.5</u>
0.5	5.0	4.54	5.17	4.60	5.3	4.7	4.6
25	22	15-cb	15-gut		15	19	25

<u>185.9</u>	<u>1836</u>	<u>183.99</u>	<u>183.44</u>	<u>18396</u>	<u>183.3</u>	<u>183.9</u>	<u>184.1</u>
4.2	6.5	6.06	6.61	6.09	6.8	6.2	6.0
25	22	15-cb	15-g		15	18	25

<u>182.3</u>	<u>182.40</u>	<u>181.85</u>	<u>182.35</u>	<u>181.7</u>	<u>182.4</u>	<u>182.3</u>
7.8	7.65	8.20	7.70	8.4	7.7	7.8
25	15-cb	15-gut		15	19	25

190.05

190.05

23+50

+75

24+0

+25

+50

+75

Lt.

Z

Rt

+25

26701 = B.C. on Lt

+6450 = B.C. on Rt

+2485 = E.C.

BM

10.27

190.01

2 Hds
25 + 1953
189.99

TP

1043

200.28

0.20

189.85

200.28

2570

190.05

<u>192.97</u>	<u>193.24</u>	<u>193.9</u>	<u>193.67</u>	<u>192.6</u>
7.31	7.04	7.4	6.61	7.7
15.07 Pa.		15	15.06	25

<u>193.3</u>	<u>193.50</u>	<u>191.94</u>	<u>192.26</u>	<u>191.7</u>	<u>92.77</u>	<u>191.7</u>
7.0	7.78	8.34	8.02	8.6	7.57	8.6
25	15.06	15.6		15	15.06	25

<u>191.6</u>	<u>191.28</u>	<u>190.83</u>	<u>191.04</u>	<u>190.4</u>	<u>191.42</u>	<u>190.2</u>
8.7	9.00	9.15	9.24	9.9	8.86	10.1
25	15.06	15.6		15	15.06	25

<u>193.4</u>	<u>190.2</u>	<u>190.13</u>	<u>189.75</u>	<u>190.33</u>	<u>189.91</u>
6.9	10.1	10.15	10.53	9.95	10.37
25	21	15.06	15.6		15.07 Pa.

<u>195.1</u>	<u>189.5</u>	<u>189.39</u>	<u>189.01</u>	<u>189.78</u>	<u>188.99</u>
75.0	0.6	0.66	1.04	0.27	1.06
25	20	15.06	15.6		15.07 Pa.

190.05

+75

TP 8.59 208.44 0.43 199.85

+50

+25

27+0.60 = B.C.

+75

26+50

200.28

Lt S Rt

<u>200.1</u>	<u>199.64</u>	<u>199.2</u>	<u>200.14</u>	<u>200.47</u>
8.4	8.80	9.3	8.30	7.97
25	15-cb	15-Gr		15 on Pav

208.48[?]

<u>198.8</u>	<u>198.47</u>	<u>1980</u>	<u>199.03</u>	<u>199.1</u>	<u>197.9</u>
1.5	1.81	2.3	1.35	1.2	2.4
25	15-cb	15		15	25-Gr

<u>197.4</u>	<u>197.29</u>	<u>197.1</u>	<u>197.88</u>	<u>197.9</u>	<u>196.8</u>	<u>197.36-1988-198.0</u>
2.9	2.99	3.2	2.40	2.4	3.5	2.97 1.5 2.3
25	15-Exclb	15		10	15	16-cb 19 25

<u>196.4</u>	<u>196.6</u>	<u>195.8</u>	<u>196.76</u>	<u>195.2</u>	<u>196.50</u>	<u>197.0</u>	<u>196.5</u>
3.9	3.7	4.5	3.52	4.4	3.78	3.3	3.8
25	15	10		15	15-cb	18	25

<u>195.04</u>	<u>195.53</u>	<u>194.9</u>	<u>195.45</u>	<u>195.1</u>
5.24	4.75	5.4	4.83	5.2
15 on Pav		15	15-cb	25

<u>194.39</u>	<u>194.61</u>	<u>193.8</u>	<u>194.57</u>	<u>193.8</u>
5.89	5.87	6.5	5.91	6.5
15			15-cb	25

200.28

29+8824 = B.C

150

29+13 = EndCb on Lt

163 = EndCb on Lt

13824 = BC on Pt

BM set

6.13

208.31

H.I.B.P.
Brown hill +
Elevat 1099 ft.

28+1324 = FC

208.44

Lt

Z

Pt

25

<u>205.1</u>	<u>205.9</u>	<u>206.08</u>	<u>206.6</u>	<u>206.3</u>	<u>206.53</u>	<u>206.1</u>	<u>206.41</u>	<u>206.9</u>
3.3	2.5	3.86	3.8	2.1	1.91	2.3	2.03	1.5
25	17	15-cb	15-Gut	6		15-Gut	15-cb	25

<u>204.5</u>	<u>204.35</u>	<u>204.10</u>	<u>205.48</u>	<u>204.9</u>	<u>205.31</u>	<u>205.7</u>
3.9	4.09	4.4	2.96	2.5	2.13	2.7
25	15-cb on Pt	15		15	15-cb	25

<u>203.7</u>	<u>204.21</u>	<u>203.6</u>	<u>204.63</u>	<u>203.9</u>	<u>204.34</u>	<u>204.4</u>
4.7	4.23	4.8	3.81	4.5	4.10	4.0
25	15-cb End	15		15-Gut	15-cb	25

<u>202.9</u>	<u>202.92</u>	<u>202.3</u>	<u>203.25</u>	<u>202.6</u>	<u>203.00</u>	<u>203.0</u>
5.5	5.52	6.1	5.19	5.8	5.44	5.4
25	15-cb End	15		15	15-cb	25

<u>202.2</u>	<u>202.26</u>	<u>201.5</u>	<u>202.54</u>	<u>201.6</u>	<u>202.26</u>	<u>202.6</u>
6.2	6.18	6.9	5.90	6.8	6.18	6.2
25	15-cb	15-Gut		15-Gut	15-cb	25

<u>201.8</u>	<u>201.32</u>	<u>200.7</u>	<u>201.71</u>	<u>201.52</u>
6.6	7.12	7.7	6.73	6.92
25	15-cb	15		15 on Pt

208.44

Cross Section E/W North Street
Elevation Road to Monitor

INDEXED
FFB

BM	0.66	157.54	156.88
TP	1.51	147.39	145.88
BM	9.03	147.05	138.02
BM		3.90	143.15
	0 - 7.3.5 = 1 + 26.82 on Monitor		
H		14.8	132.3
H Cb Top		14.41	132.64
Gutter on Pav		14.93	132.12
	0 - 50		
H		11.0	136.1
H Cb Top		11.49	135.56
Gutter on Pav		11.96	135.09
	0 - 25		
H		8.8	138.3
H Cb Top		9.19	137.86
Gutter		9.66	137.39
	0 + 0 = P.C.C.		
H		7.7	139.4
Cb		7.37	139.68
Gutter		7.80	139.25
Z		6.58	140.47

On Elevation
19 + 44.280
Page 19
0730776
S.W. BP
Elevation of Pav
Elevation of
138.10 Page 19
For Monitor

		147.05	
		0 + 2.5	
Z		5.62	141.43
Gutter		6.65	140.40
H Cb		6.16	140.89
H		6.3	140.8
	0 + 56 = P.R.C on F		
H		6.2	140.9
Cb Top		5.56	141.49
Gutter		6.04	141.01
Z		5.44	141.61
Gutter		5.33	141.72
F Cb		4.87	142.18
F		4.0	143.1
25' N of P.R.C = Cb Top		4.37	142.68
" Gutter		4.83	142.22
50' N of P.R.C = Cb Top		2.50	144.55
" Gutter		2.91	144.14
	1 + 0		
F		4.1	143.0
Cb Top		4.80	142.25
Gutter		5.25	141.80

147.05

L	5.10	141.95
Gutter	5.59	141.46
Cb Top	5.30	141.75
H	5.8	141.3

1+50

H	5.5	141.6
Cb Top	5.06	141.99
Gutter	5.53	141.52
L	4.86	142.19
Gutter	4.98	142.07
Cb Top	4.52	142.53
F	4.1	143.0

2+0

F	4.1	143.0
Cb Top	4.59	142.46
Gutter	5.06	141.99
L	4.96	142.09
Gutter	5.60	141.45
Cb Top	5.04	142.01
H	5.3	141.8

147.05

2+50

H	5.3	141.8
Cb Top	5.45	141.60
Gutter	5.88	141.17

L	5.20	141.75
Gutter	5.49	141.56
Cb Top	5.03	142.02
F	4.5	142.6

3+0

F	3.7	143.4
Cb Top	5.34	141.71
Gutter	5.82	141.23
L	5.80	141.25
Gutter	6.43	140.62
Cb Top	5.90	141.15
H	6.4	140.7

3+50

H	7.0	140.1
Cb Top	6.36	140.69
Gutter	6.86	140.19
L	6.25	140.80

27

Cb Top	6.20	140.75
Gutter	5.85	141.20
F	5.8	141.3

3+89 = B.C. on E

F	6.0	141.1
Cb Top	6.20	140.85
Gutter	6.67	140.38
Z	6.72	140.33
Gutter	7.37	139.68
Cb Top	6.85	140.20
H	7.2	139.9

TP	9.29	147.31	9.03	138.03
Curve on East				

8' S of BC Cb	6.54	140.77
" " Gutter	7.00	140.31
20' S of BC Cb Top	5.89	141.42
" " S Gutter	6.80	140.51
40' S of BC Cb Top	4.50	142.81
Gutter	4.99	142.32
60' S of BC Cb Top	3.13	144.18
" " " " Gutter	2.66	143.65

75' S of BC Cb Top	2.20	145.11
75' S Gutter	2.65	144.66
79' S = 17 + 66.34 on Elevation Rd.		

4+25

H	9.3	138.0
Cb Top	7.88	139.43
Gutter	8.35	138.96
Z	7.25	140.06

4+50

H	9.2	138.1
Cb Top	8.76	138.55
Gutter	9.22	138.09
Z	7.78	139.53

4+63.21 = P.C.C.

H	8.6	138.7
Cb Top	9.32	137.99
Gutter	9.77	137.54
Z	8.17	139.14

4+80

H	8.9	138.4
Cb Top	10.17	137.14

147.31

Gutter 10.64 136.67

5+0

M 9.1 138.2

Cb Top 11.35 135.96

Gutter 11.82 135.49

5+39.8 = 15+91.82 on Elevation Rd.

Cross Section Monitor Road

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INDEXED

E/FB

on Page 126

B.M. 0.60 143.75 143.15

T.P. 0.09 132.45 11.39 132.36

0+43: End of Existing Curbs + 3' Conc. Gutters

M 12.0 120.5

+3 10.8 121.7

Cb Top 12.24 120.21

Gutter 12.71 119.74

L 12.10 120.35

Gutter 12.81 119.64

Cb Top 12.34 120.11

U 12.0 120.5

0+75

S 6.3 126.2

Cb Top 7.05 125.40

Gutter 7.56 124.89

L 6.64 125.81

Gutter 7.20 125.25

Cb Top 6.72 125.73

+1 5.3 127.2

M 4.9 127.6

132.45

1+0

H		1.1	131.4
+7		1.3	131.2
Cb Top		2.67	129.78
Gutter		3.17	129.28
L		2.83	129.62
Gutter		3.73	128.72
Cb Top		3.24	129.21
S		3.1	129.4
TP	11.60	143.96	0.09
			132.36
		1+26.82 = P.R.C. on H	
S		11.7	132.3
Cb Top		11.29	132.67
Gutter		11.81	132.15
L		10.99	132.97
Gutter		11.05	132.91
Cb Top		10.54	133.42
+4		9.5	134.5
H		9.9	134.1

14396

1+50

H		7.4	136.6
+8		7.5	136.5
Cb Top		8.22	135.74
Gutter		8.71	135.25
L		7.96	136.00
Cb Top		8.56	135.40
			1+75
S on Pav.		5.80	138.16
Cb " "		5.27	138.69
L " "		5.07	138.89
Gutter " "		6.03	137.93
Cb Top		5.58	138.38
+2		4.8	139.2
H		4.8	139.2
			2+0
H		2.2	141.8
+8		2.0	142.0
Cb Top		2.87	141.09
Gutter		3.42	140.54
L on Pav.		2.66	141.30

	143.96		
Cb Liner 07 Pav	2.57	141.39	
S " " "	2.88	141.08	
TP 11.59	154.74	0.81	143.15
	2+25		
S on Pav 179	11.35	143.39	
Cb " " "	11.08	143.66	
£ " " "	10.95	143.79	
Gutter " " "	11.55	143.19	
Cb Top	10.97	143.77	
H	10.6	144.1	
	2+58 = PRC on S		
H on Conc Drive	6.70	148.04	
Cb + Gutter 12 Drive	8.12	146.62	
£	7.79	146.95	
Gutter	8.04	146.70	
Cb Top	7.31	147.43	
S	8.0	146.7	
	2+75		
S	6.0	148.7	
Cb Top	5.61	149.13	
Gutter	6.41	148.33	

	154.74		
£	6.04	148.70	
Gutter	6.40	148.34	
Cb Top	5.80	148.94	
H	5.3	149.4	
	3+0		
H	2.7	152.0	
Cb Top	3.01	151.73	
Gutter	3.56	151.18	
£	3.31	151.53	
Gutter	3.54	151.20	
Cb Top	2.93	151.81	
S	3.4	151.3	
	2+25		
S	0.1	154.6	
Cb Top	0.29	154.45	
Gutter	0.77	153.97	
£	0.24	154.50	
Gutter	0.92	153.82	
Cb Top	0.30	154.44	
H	0.0	154.71	
TP 11.76	166.14	0.36	154.38

166.14

3+50

N	8.7	157.4
Cb Top	9.02	157.12
Gutter	9.78	156.36
⌘	9.07	157.07
Gutter	9.49	156.65
Cb Top	9.11	157.03
S	8.6	157.5

3+75

S	6.0	160.1
+8	5.7	160.4
Cb Top	6.47	159.47
Gutter	6.85	159.29
⌘	6.38	159.76
Gutter	6.99	159.15
Cb Top	6.33	159.81
N	6.0	160.1

3+96.5 = PRC to Gory?

N	3.9	162.2
Cb Top	3.96	162.18
Gutter	4.59	161.55

166.14

⌘	3.95	162.16
Gutter	4.45	161.69
B.M. Cb Top	4.12	162.02
+2	3.0	163.1
S	3.5	162.6

4+25

Sch on Pav	0.56	165.58
⌘	0.56	165.58
Gutter	1.21	164.93
Cb Top	0.47	165.67
N	0.0	166.15
TP	11.78	177.83
	0.09	166.05

4+50

N	9.4	168.4
Cb Top	9.66	168.77
Gutter	9.55	168.18
⌘	9.13	168.70
Cb	9.07	168.76
S	9.34	168.49

4+75

S	6.4	171.4
---	-----	-------

32

177.83

Cb	6.6	171.2
Z	5.86	171.97
Gutter	6.5	171.3
Cb Top	4.92	172.91
H	4.7	173.1

5+0

H	3.1	174.7
Cb Top	2.91	174.92
Gutter	3.4	174.4
Z	2.80	175.0
Cb	3.3	175.5
S	3.1	174.7

5+25

S	0.4	177.4
Cb	1.1	176.7
Z	0.48	177.35
Gutter	1.1	176.7
Cb Top	0.67	177.16
H	0.8	177.0
TP	3.48	180.90
	0.41	177.42

180.90

33

5+50

N	2.5	178.4
Cb Top	2.30	178.60
Gutter	2.7	178.2
Z	2.04	178.86
Cb	2.4	178.5
S	1.70	179.20

5+75

S	1.6	179.3
Cb	1.7	179.1
Z	1.44	179.36
Gutter	2.2	178.6
Cb Top	1.57	179.23
H	2.0	178.9

6+0

H	2.4	178.5
Cb Top	1.60	179.30
Gutter	2.4	178.4
Z	1.76	179.14
Cb	2.1	178.8
S	1.6	179.3

180.90

6+25

S	2.0	178.9
Cb	2.6	178.3
⌘	2.47	178.43
Gutter	3.1	177.8
Cb Top	2.33	178.57
H	3.0	177.9

6+50

H	4.1	176.8
Cb Top	3.11	177.79
Gutter	4.0	176.9
⌘	3.31	177.59
Cb	3.5	177.4
S	3.3	177.6

6+75

S	4.2	176.7
Cb	4.4	176.5
⌘	4.2	176.7
Gutter	4.6	176.3
Cb Top	3.87	177.03
H	6.0	174.9

180.90

7+08.79 = EC

H	8.2	172.7
+5	5.8	175.1
Cb Top	4.46	176.44
Gutter	5.2	175.7
⌘	4.9	176.0
Gutter	4.9	176.0
Cb Top = End	4.32	176.58
S	4.4	176.5

7+55 = ⌘ 25 Cb Inlet on H

S	5.3	175.6
+7	5.4	175.5
Cb Top	4.27	176.63
Gutter	4.8	176.1
⌘	4.97	175.93
Gutter = ⌘ 20 Cb Inlet on gutter	5.76	175.14
Cb Top	4.74	176.16
+2	5.0	175.9
H	7.8	173.1

7+83.79 = BC to Orsted

H	5.7	175.2
+5	4.2	176.7

34

Monitor	180.90		
Cb Top	4.43	176.47	
Gutter	5.2	175.7	
L	4.74	176.16	
Gutter	4.4	176.5	
Cb Top	3.88	177.02	
S	5.0	175.9	
TP	8+84.09 = B.C. Pt.		
S	0.0	180.9	
Cb	0.53	180.37	
Gutter	0.9	180.0	
L	0.23	180.67	
Gutter	1.1	179.8	
Cb Top	0.55	180.35	
H	0.7	180.2	
BM	3.23	177.67	B.P. Porch Cr N. X. osstadt E. 10. 11. 12. 13. 14 177.64
TP	11.85	192.43	0.32
	9+0		180.58
H	8.7	183.7	
+2	10.2	182.2	
Cb Top	11.00	181.43	
Gutter	11.5	180.9	
L	10.66	181.77	

	192.43		35
+7	10.4	182.0	
Gutter	11.6	180.8	
Cb Top	10.89	181.54	
J	10.2	182.2	
	9+25		
S	8.6	183.8	
+6	8.6	183.8	
Cb	9.15	183.28	
Gutter	9.7	183.7	
+7	8.63	183.80	
L	8.76	183.67	
Gutter	9.9	182.5	
Cb Top	9.29	183.14	
H	8.8	183.6	
	9+50		
H	7.6	184.8	
Cb Top	7.59	184.84	
Gutter	8.3	184.1	
L	7.13	185.30	
+7	6.94	185.49	
Gutter	7.9	184.5	
Cb Top	7.50	184.93	

	192.43		
S		6.7	185.7
	9+75		
S		5.3	187.1
Cb Top		5.79	186.64
Gutter		6.4	186.0
+9		5.29	187.14
£		5.56	186.87
Gutter		6.5	185.9
Cb Top		5.80	186.63
H		6.3	186.1
	10+0		
H		5.0	187.4
Cb Top		4.25	188.18
Gutter		4.9	187.5
£		4.13	188.30
+6		3.96	188.47
Gutter		5.2	187.2
Cb Top		4.25	188.18
S		3.7	188.7
	10+25		
S		2.4	190.0

	192.43		
Cb Top		2.78	189.65
Gutter		3.6	188.8
+9		2.5	189.9
£		2.70	189.73
Gutter		3.5	188.9
Cb Top		2.78	189.65
H		3.2	189.2
	10+50		
H		1.4	191.0
Cb Top		1.48	190.95
Gutter		2.0	190.4
£		1.24	191.19
+7		1.06	191.37
Gutter		2.2	190.2
Cb Top		1.34	191.09
S		1.2	191.2
TP	8.15	200.14	0.44
	10+75		
S		7.6	192.5
Cb Top		7.82	192.32
Gutter		8.5	191.6

200.14

+8	7.51	192.63
♂	7.60	192.57
Gutter	8.5	191.6
Cb Top	7.94	192.20
H	7.7	192.4
	10+96.78-FC	
H	6.8	193.3
Cb Top	7.04	193.10
Gutter	7.8	192.3
♂	6.56	193.58
+7	6.46	193.68
Gutter	7.4	192.7
Cb Top	6.86	193.28
S	6.4	193.7
	11+25	
S	5.6	194.5
Cb Top	5.71	194.43
Gutter	6.2	193.9
+9	5.26	194.88
♂	5.43	194.72
Gutter	6.4	193.7
Cb Top	5.93	194.22

37

200.14

H	5.6	194.5
	11+50	
H	5.2	194.9
Cb	5.12	195.02
Gutter	5.7	194.4
♂	4.55	195.59
+6	4.42	195.70
Gutter	5.5	194.6
Cb Top	4.84	195.30
S	4.3	195.8
	11+75	
S	3.8	196.3
Cb Top	4.07	196.07
Gutter	4.6	195.5
♂	4.00	196.14
Gutter	5.0	195.1
Cb Top	4.47	195.67
H	4.9	195.2
	12+0	
H	4.6	195.5
+8	4.4	195.7

200.14

Cb Top	3.98	196.22
Gutter	4.8	195.3
±	3.87	196.27
Gutter	4.2	195.9
Cb Top	3.58	196.56
+3	4.0	196.1
5	3.6	196.5

12+25

5	3.6	196.5
+7	4.3	195.8
Cb Top	3.23	196.91
Gutter	4.0	196.1
±	3.93	196.21
Gutter	4.4	195.7
Cb Top	3.60	196.54
+3	4.6	195.5
H	4.6	195.5

12+50

H	4.4	195.7
+8	4.2	195.9
Cb Top	3.37	196.77

200.14

Gutter	4.4	195.7
±	3.98	196.16
Gutter	4.0	196.1
Cb Top	2.89	197.25
+2	4.3	195.8
5	3.7	196.4

12+7+78 = 3C to Plain View

5	2.9	197.2
+7	3.3	196.8
Cb Top	2.55	197.59
Gutter	3.6	196.5
±	3.66	196.48
Gutter	4.1	196.0
Cb Top	3.1	197.0
H	3.9	196.2
BM	2.63	197.51

C.T. Monitor
H.C.B. Plain
View

Cross Section Evergreen Road

Jordan St to Cushman

March 18-70
J. S. Johnson
H. C. Johnson
W. Moore
B. P. Hildner

BM	6.89	84.76	77.87
	0-70.48 = 6+96.20 Gutter		
SEcb Top	10.73	74.03	
Gutter	11.52	73.24	
	0-50		
SEcb Top	10.76	74.00	
Gutter	11.56	73.20	
	0-25		
SCb Top	9.54	75.22	
Gutter	10.1	74.65	
	0+0 = Cb EC on Jordan		
J	6.9	77.9	
Cb Top	7.00	77.76	
Gutter	7.6	77.2	
L	7.49	77.27	
Cb	7.8	77.0	
H	6.7	78.1	
	0+25		
H	3.7	81.1	
Cb	5.0	79.8	
L	4.53	80.23	

INDEXED
EFG

84.76

39

Gutter		4.5	80.3
Cb		4.12	80.64
S		3.9	80.9
	0+50		
J		1.3	83.5
Cb		1.33	83.43
Gutter		1.9	82.9
L		1.74	83.04
Cb		1.9	82.9
H		0.0	84.8
TP	11.75	96.23	0.28
			84.48
	0+86.84 = BG		
H		9.3	86.9
Cb		9.7	86.5
L		9.44	86.79
Gutter		9.10	87.13
Cb Top		8.53	87.70
H		9.0	87.2
J		8.9	87.3

96.23

1725

S	5.0	91.2
+9	5.0	91.2
Cb Top	4.20	92.03
Gutter	4.9	91.3
L	5.02	91.21
H	5.8	90.4
Cb	5.1	91.1
H	5.2	91.0

1750

H	2.4	93.8
Cb	2.9	93.3
L	2.18	94.05
Gutter	2.0	94.2
Cb Top	1.42	94.81
H	1.8	94.4
S	1.8	94.4

TP	11.72	107.70	0.25	95.98
----	-------	--------	------	-------

1775

S	10.7	97.0
Cb	10.06	97.64

107.70

40

Gutter	10.6	97.1
L	10.28	97.32
Cb	10.96	96.74
H	11.6	96.1

2+11 = End Curb on S

H	6.12	101.58		
Cb	5.80	101.90		
L	5.63	102.07		
Gutter	5.7	102.0		
Cb Top End	5.44	102.26		
S	5.5	102.2		
TP	11.87	119.24	0.33	107.37

2+50

S	10.7	108.5
+8	11.1	108.1
Cb	11.5	107.7
L	10.85	108.39
Cb	11.12	108.11
H	11.2	108.0

119.24

2+75

H	5.7	112.5
Cb	6.5	112.7
L	6.23	113.01
Cb	7.1	112.1
+8	6.3	112.9
S	6.0	113.2

3+0

S	1.4	117.8
+8	1.5	117.7
Cb	1.6	117.6
L	1.13	118.11
Cb	1.59	117.65
H	2.1	117.1

TP 11.85 130.69 0.40 118.84

Return on H B.C. = 0+0

B.C. Topcb	2.77	127.92
Gutter	3.37	127.32

0+11

Cb Top	5.13	125.56
Gutter	5.68	125.01

130.69

41

0+21.97

Cb Top	7.62	123.07
Gutter	8.1	122.3

0+43.93

Cb Top	10.73	119.96
Gutter	11.5	119.2

0+65.90

Cb Top	11.32	119.37
Gutter	12.1	118.6

0+87.86 = EC on JOURNAL

Cb Top	9.65	121.04
Gutter	10.2	120.5

3+41.43 = Cb B.C. on H

H	3.1	127.6
Cb Top	2.77	127.92

Gutter	3.37	127.32
--------	------	--------

L	2.57	128.12
---	------	--------

Cb	2.7	128.0
----	-----	-------

S	1.8	128.9
---	-----	-------

TP 11.70 142.33 0.16 130.53

142.23

3+60 = End Cb on J

S	9.5	132.7
+8	9.6	132.6
Cb Top = End + Gutter	10.34	131.89
L	10.16	132.07
Gutter	10.82	131.41
Cb Top	9.97	132.26
H	10.6	131.6

3+85

H	4.8	137.4
Cb Top	5.71	136.52
Gutter	6.28	135.95
L	5.90	136.33
+12	5.8	136.4
Gutter	6.7	135.5
Cb Top	6.20	136.03
+2	5.4	136.8
S	5.0	137.2

4+10.5 = End Cb on J

S	1.8	140.4
+8	2.2	140.0

42

142.23

Cb Top	2.89	139.34
Gutter	3.23	138.9
+2	2.8	139.4
L	2.68	139.55
Gutter	3.02	139.21
Cb Top	2.26	139.92
H	1.9	140.3

4+25

H	0.5	141.7
Cb Top	0.91	141.32
Gutter	1.91	140.32
L	1.46	140.77
Cb	1.7	140.5
+3	1.0	141.2
S	0.6	141.6
TP	11.93	153.67
	0.44	141.74

4+50

S	10.9	142.8
Cb	11.3	142.4
L	11.10	142.57

15367

15367

Gutter 11.55 142.12

5+6

Cb Top 10.69 142.98

H 8.3 145.4

H 11.0 142.7

Cb Top 8.54 145.13

4+61.98 = PRC

Gutter 9.09 144.58

H 10.2 143.5

L 8.65 145.02

Cb Top 10.08 143.59

Gutter 9.4 144.3

Gutter 10.78 142.89

Cb Top 8.95 144.72

L 10.40 143.27

S 9.6 144.1

Gutter 10.8 142.9

5+25

Cb = End 10.54 143.13

S 8.9 144.8

S 10.5 143.2

Cb Top 7.76 145.91

4+75

S 10.2 143.5

Gutter 8.4 145.3

Cb Top 9.94 143.73

L 7.80 145.87

Gutter 10.2 143.4

Gutter 8.32 145.35

L 9.73 143.94

Cb Top 7.55 146.12

Gutter 10.15 143.52

H 7.4 146.3

Cb Top 9.59 144.08

5+42.7 = Cb End on S

H 9.4 144.3

H 6.9 146.8

Cb Top 6.83 146.84

Gutter 7.63 146.04

153.67

Z	7.09	146.58
Gutter	8.0	145.7
Cb Top: End	7.01	146.66
S	7.4	146.3
5+7.5		
S	6.4	147.3
Cb	6.1	147.6
Z	5.55	148.12
Gutter	5.97	147.70
Cb Top	5.18	148.49
H	5.6	148.1
5+8.9 = End Cb on S		
H	4.9	148.8
+5	4.8	148.9
Cb Top	4.29	149.38
Gutter	5.06	148.61
Z	4.80	148.87
Gutter	5.2	148.5
Cb Top: End	4.27	149.40
S	5.5	148.2

153.67

6+0

S	4.8	148.9
+6	4.4	149.3
Cb Top	3.80	150.07
Gutter	4.4	149.3
Z	4.06	149.61
Gutter	4.40	149.27
Cb Top	3.56	150.11
+4	4.1	149.6
H	4.1	149.6
6+2.5		
H	2.3	151.4
+6	2.1	151.6
Cb Top	1.58	152.09
Gutter	2.5	151.2
Z	2.09	151.58
Gutter	2.3	151.4
Cb Top	1.48	152.19
+3	2.1	151.6
S	2.5	151.2

153.67

6.439 = End Cb and S

S Cb Top 0.15 153.52

TP 11.98 165.50 0.15 153.52

6+50

S 11.8 153.7

Cb 11.9 153.6

S 11.50 154.00

Gutter 12.00 153.50

Cb Top 11.04 154.46

+4 11.8 153.7

H 11.9 153.6

6+75

H 9.1 156.4

+6 9.0 156.5

Cb Top 8.26 157.24

Gutter 9.40 156.10

S 8.62 156.88

Cb 8.3 157.2

S 8.8 156.7

45

165.50

7+0

S 5.3 160.2

Cb 5.2 160.3

S 5.20 160.30

Gutter 6.17 159.33

Cb Top 5.17 160.33

H 5.9 159.6

7+31.67 = EC.

H 0.8 164.7

Cb Top 1.11 164.39

Gutter 1.60 163.90

S 1.00 164.50

Cb 1.3 164.2

S 1.1 164.4

TP 11.75 176.22 0.43 165.07

7+50

S 10.0 166.8

Cb 10.1 166.7

S 9.95 166.87

Gutter 10.4 166.4

Cb Top 10.07 166.75

176.82

N	9.8	167.0
	7+7.5	
N	7.2	169.6
Cb Top	7.07	169.75
Gutter	7.8	169.0
L	7.18	169.64
Cb	7.23	169.59
S	7.0	169.8
	8+03.2 = End Cb on S	
Scb Top	3.25	173.57
Gutter	4.0	172.8
	8+06.67 = Cb BC	
S	2.7	174.1
Cb Top	2.84	173.98
Gutter	3.6	173.2
L	4.16	172.72
Gutter	4.4	172.4
Cb Top	3.62	173.20
+2	4.3	172.5
N	3.8	173.0

176.82

TP	11.96	187.26	1.52	175.30
BM			9.62	177.64
	9+09.07 = BC RT			
N			10.1	177.2
Cb			9.63	177.63
Gutter			9.7	177.6
L			8.78	178.48
Gutter			8.7	178.6
Cb Top			8.58	178.68
S			8.2	179.0
	9+2.5			
S			7.8	179.5
+8			7.9	179.4
Cb Top			8.27	178.89
Gutter			8.5	178.8
L			8.07	179.19
Gutter			9.0	178.3
Cb Top			8.92	178.34
N			9.5	177.8

B.P. S. Cor. Ford
Costed +
Everview
177.64

187.26

9+50

H	7.9	179.4
Cb Top	7.86	179.40
Gutter	8.0	179.3
S	7.09	180.22
Gutter	7.8	179.5
Cb Top	7.46	179.80
+2	7.0	180.3
S	6.8	180.5

9+75

S	5.8	181.5
+8	5.9	181.4
Cb Top	6.49	180.77
Gutter	6.7	180.6
S	5.98	181.28
Gutter	7.1	180.2
Cb Top	6.89	180.37
H	6.5	180.8

9+94.5 = Cb End on S

S Cb Top	5.73	181.53
Gutter	5.9	181.4

187.26

10+0

H Core Drive	6.01	181.25
Cb in Drive + Gutter	6.56	180.70
S	5.23	182.03
Cb	5.9	181.4
S	5.23	182.0

10+25

S	4.9	182.4
Cb	4.9	182.4
S	4.66	182.60
Gutter	5.8	181.5
Cb Top	5.20	181.96
H	5.6	181.7

10+44.7 = End Cb on S

S Cb Top End	4.47	182.79
Gutter	4.8	182.5

10+50

H	5.4	181.9
Cb Top	4.80	182.46
Gutter	5.2	182.1

47

187.26

S	4.30	182.96
Gutter	4.6	182.7
Cb Top	4.41	182.85
S	4.4	182.9

10+75

S	4.0	183.3
Cb Top	4.24	183.02
Gutter	4.5	182.8
S	4.05	183.21
Gutter	5.0	182.3
Cb Top	4.73	182.53
H	4.5	182.8

11+05 = End Cb by H

H	4.7	182.6
Cb Top = End	4.97	182.29
Gutter	5.4	181.9
S	4.39	182.87
Gutter	4.7	182.6
Cb Top	4.46	182.80
S	4.0	183.3

187.26

48

11+25

S	4.3	183.0
Cb Top	4.89	182.37
Gutter	5.3	182.0
S	5.20	182.06
Cb	5.8	181.5
H	5.8	181.5

11+50

H	7.2	180.1
Cb	7.0	180.3
7.5	7.2	180.1
S	6.23	181.03
Gutter	6.4	180.9
Cb Top	5.76	181.50
S	5.7	181.6

11+75

S	6.7	180.6
Cb Top	6.52	180.74
Gutter	7.4	179.9
S	7.31	179.95

187.26

+10	8.1	179.2
Cb	7.9	179.4
H	8.2	179.1
11 + 98.99 = F.C.		
H	8.5	178.8
Cb	7.9	179.4
+5	8.4	178.9
£	7.86	179.40
Gutter	8.1	179.2
Cb Top	7.03	180.23
S	7.6	179.7
12 + 25		
S	7.5	179.8
Cb Top	7.29	179.97
Gutter	8.2	179.0
£	7.94	179.32
+10	8.7	178.6
Cb	8.2	179.1
H	8.5	178.8

187.26

12 + 50		
H	8.0	179.3
Cb	8.0	179.3
+2	8.3	179.0
£	7.50	179.83
Gutter	7.6	179.7
Cb Top	7.20	180.06
S	7.1	180.2
12 + 75		
S	6.4	180.9
Cb Top	6.81	180.45
Gutter	7.1	180.2
£	6.75	180.51
Cb	7.5	179.8
H	8.1	179.2
13 + 0		
H	7.3	180.0
Cb	6.6	180.7
£	5.93	181.33
Gutter	6.3	181.0

187.26

Cb	6.10	181.16
S	5.6	181.7
1372399 = B.C. on		
S	4.4	182.9
Cb Top	4.90	182.36
Gutter	5.2	182.1
L	4.83	182.43
Gutter	5.5	181.8
Cb Top	5.05	182.21
H	5.5	181.8

1374899 = B.C.

H	3.9	183.4
Cb Top = End	3.32	183.94
Gutter	3.8	183.5
L	3.35	183.91
Gutter	3.6	183.7
Cb Top	3.23	184.03
S	2.8	184.5

TP 11.84 197.76 1.34 185.92

197.76

50

13790

S	11.7	186.1
Cb Top	11.83	185.93
Gutter	12.4	185.4
L	11.73	186.03
Cb	12.2	185.6
H	12.0	185.8

13782 = End Cb on H

H Cb = End	10.54	187.22
Gutter	11.2	186.6

13790

H	10.0	187.8
Cb Top	9.89	187.87
Gutter	10.5	187.3
L	9.90	187.86
Gutter	10.4	187.4
Cb Top	10.00	187.76
L	9.6	188.2
S	9.8	188.0

197.76

14+10

S	8.2	189.5
Cb Top	8.30	189.46
Gutter	8.8	189.0
S	7.9	189.9
Gutter	8.7	189.1
Cb Top	7.92	189.84
H	7.7	190.1

14+30

H	5.8	192.0
Cb Top	6.29	191.41
Gutter	6.6	191.2
S	6.11	191.65
Gutter	7.5	190.3
Cb Top	6.85	190.91
S	7.0	190.8

14+43.24 = FC.

S/H	6.1	191.7
Cb Top	6.07	191.69
Gutter	6.7	191.1

197.76

S	5.10	192.66
Gutter	5.4	192.4
Cb Top	5.10	192.66
H/E	4.7	193.1

14+75

H/E	3.9	194.4
Cb Top	3.69	194.07
Gutter	3.9	193.9
S	3.40	194.36
Gutter	4.8	193.0
H	4.35	193.41
H/B	3.9	193.9
S/H	4.4	193.4

14+93.7 = End Cb top

F Cb Top	3.06	194.70
Gutter	3.5	194.3

15+0

S/H	3.7	194.1
Cb Top	3.33	194.43
Gutter	3.8	194.0

197.76

♂	2.56	195.20
Cb	3.0	194.8
NE	2.5	195.3

15+25

F	2.0	195.8
Cb	2.2	195.6
♂	1.95	195.81
Gutter	3.0	194.8
Cb Top	2.54	195.22
W	3.2	194.6

15+50

W	2.4	195.4
Cb Top	1.98	195.78
Gutter	2.6	195.2
♂	1.48	196.28
Cb	1.7	196.1
F	1.5	196.3

15+68.76 = 86.04 W

F	1.2	196.6
Cb	1.4	196.4

197.76

♂	1.13	196.64
Gutter	2.2	195.6
Cb Top	1.60	196.16
W	1.8	196.0

TP 9.09 206.56 0.29 197.47

SW Return on Monitor

18.33 SW BC

Cb Top	10.04	196.52
Gutter	10.8	195.8

36.66 SW

Cb Top	9.68	196.88
Gutter	10.6	196.0

54.98 SW = EC on Monitor

Cb Top	9.57	196.99
Gutter	10.6	196.0

SE Return

BC on Monitor	9.01	197.55
Gutter	10.1	196.5

18.33 NE

Cb	8.82	197.74
Gutter	9.8	196.8

52

C.T. & Monitor
E.C. & Photo

206.56

38.66 H.F.

Cb 8.55 198.01

Gutter 9.3 196.3

5498 H.F. - E.C. on Plain View = 16 + 68.76

Cb 8.28 198.28

Gutter 8.8 197.8

15 + 94 = End Cb on F

H 10.6 196.0

Cb 10.2 196.4

Z 9.47 197.09

Gutter 9.8 196.8

Cb Top = End 9.53 197.03

F 9.6 197.0

16 + 78.76 = Z Monitor

F 9.0 197.6

Cb Top 9.09 197.47

Gutter 9.5 197.1

Z 8.98 197.58

Cb 9.25 197.31

H 9.58 196.98

206.56

16 + 43.76

H 9.6 197.0

Cb 9.0 197.6

Z 8.61 197.95

Gutter 9.2 197.4

Cb Top 8.6 198.0

F 8.6 198.0

16 + 68.76 = E.C. on H

F 8.2 198.4

Cb Top 8.19 198.37

Gutter 8.8 197.8

Z 8.11 198.45

Gutter 8.8 197.8

Cb Top 8.28 198.28

H 8.1 198.5

17 + 0

H 9.6 199.0

Cb Top 7.57 198.99

Gutter 8.2 198.4

Z 7.28 199.18

March 19-70

53

206.56

Gutter	8.2	198.4
Cb Top	7.52	199.04
F	7.7	198.9
	17+25	
F	7.4	199.2
#9	7.5	199.1
Cb Top	6.85	199.71
Gutter	7.6	199.0
⌘	6.98	199.58
Gutter	7.7	198.9
Cb Top	6.86	199.70
+3	7.5	199.1
W	7.4	199.2
	17+50	
W	7.2	199.4
+8	7.0	199.6
Cb Top	6.02	200.54
Gutter	7.2	199.4
⌘	6.43	200.13
Gutter	6.9	199.7
Cb Top	5.98	200.58

206.56

54

F	6.6	200.0
	17+75	
F	6.0	200.6
+9	5.9	200.7
Cb Top	5.00	201.6
Gutter	6.1	200.5
⌘	5.64	200.92
Gutter	6.2	200.4
Cb Top	5.03	201.53
+2	6.4	200.2
W	6.3	200.3
	18+0	
W	4.9	201.7
+8	4.8	201.8
Cb Top	3.97	202.59
Gutter	5.0	201.6
⌘	4.36	202.20
Gutter	4.8	201.8
Cb Top	3.95	202.61
+1	4.6	202.0
F	4.5	202.1

206.56

18+18.67 = B.C. on W

F	3.3	203.3
Cb Top	3.13	203.43
Gutter	3.9	202.7
Z	3.00	203.56
Gutter	3.8	202.8
Cb Top	3.09	203.47
W	3.3	203.3

18+43.5 = End Cb on E

W	1.9	204.7
Cb	1.3	205.3
Z	1.13	205.43
Gutter	2.3	204.3
Cb Top = End	1.94	204.62
+Z	1.6	205.0
F	1.5	205.1

TP 10.00 215.80 0.76 205.80

SW Return Elevation Rd

1833 SW of B.C.

Cb top	11.52	204.28
Gutter	11.7	204.1

215.80

36.66 SW

Cb Top	10.90	204.90
Gutter	11.1	204.7
54.98 SW = E.C. on Elevation		
Cb Top	10.70	205.10
Gutter	11.2	204.6

SF Return

B.C. on Elevation

Cb Top	9.38	206.42
Gutter	9.6	206.2

18.33 NE

Cb Top	8.68	207.12
Gutter	9.0	206.8

36.66 NE

Cb Top	7.95	207.85
Gutter	8.0	207.8

54.98 NE = E.C. on Plain SW - 19-1867

Cb Top	7.24	207.56
Gutter	7.5	208.3

215.80

18+68.67 = ~~F~~ Elevation Rd

F	9.3	206.5
cb	9.6	206.2
L	8.72	207.08
cb	8.6	207.2
H	8.9	206.9

18+93.67

H	8.4	207.4
cb	8.2	207.6
L	8.42	207.38
cb	8.2	207.6
F	7.9	207.9

19+18.67 = E.C. 02 H

F	6.5	209.3
cb	6.7	209.1
L	6.50	209.30
Gutter	7.5	208.3
cb Top	7.24	208.56
H	7.1	208.7

215.80

19+150

H	6.9	208.9
+9	6.3	209.5
cb Top	5.97	209.83
Gutter	6.4	209.4
L	5.64	210.16
cb	6.0	209.8
F	5.6	210.2

19+75

F on Conc Dr.	4.05	211.75
+ 7' = Hly Conc Apron	4.56	211.24
cb	5.2	210.6
L	4.83	210.97
Gutter	5.7	210.1
cb Top	4.98	210.82
+1	5.6	210.2
H	5.2	210.6

20+0

H	4.4	211.4
+9	4.6	211.2

215.80

Cb Top	3.97	211.83
Gutter	4.8	211.0
♀	3.90	211.90
Cb	4.4	211.4
F	3.8	212.0

20+25

F	3.0	212.8
Cb	3.2	212.6
♀	3.02	212.78
Gutter	3.7	212.1
Cb Top	2.95	212.85
+1	3.6	212.2
H	3.3	212.5

20+44 = End Cb on F

H	2.8	213.0
+8	3.0	212.8
Cb Top	2.39	213.41
Gutter	3.0	212.8
♀	2.38	213.42
Gutter	2.8	213.0

57

215.80

Cb Top = End	2.44	213.36
F	2.4	213.4

20+75

F	2.2	213.6
Cb Top	1.89	213.91
Gutter	2.4	213.4
♀	1.92	213.88
Gutter	2.5	213.3
Cb Top	1.87	213.93
H	2.1	213.7

21+044 = End Cb on H

H	2.3	213.5
Cb Top = End	1.96	213.84
Gutter	2.7	213.1
♀	2.07	213.73
Gutter	2.6	213.2
Cb Top	1.92	213.88
+1	2.4	213.4
F	2.2	213.6

215.80

21+42 = EndCb on F

F Cb Top	2.49	213	31
Gutter	2.1	212	7
21+46.07 = BC on H			
F	3.0	212	8
Cb	3.5	212	3
L	2.80	213	00
Cb	3.5	212	3
H	3.2	212	6
BM	2.49	213	31

EndCb on F

21+42

Cross Section Oostad St
Elevation Road to Dorcas St.

INDEXED
EFO

H.F.B.P.
Brass nail
Elevation

BM	0.83	203.14	202.31
SY Return Oostad + Elevation			
B.C. on Elevation = 26+01			
Cb Top	10.67	192.47	
Gutter	11.21	191.93	
18.33 W of B.C.			
Cb Top	10.09	193.05	
Gutter	10.55	192.59	
36.66 W of B.C.			
Cb Top	9.40	193.74	
Gutter	10.10	193.04	
54.98 W of B.C. = E.C. on Oostad = 0+25			
Cb Top	9.27	193.87	
Gutter	10.08	193.06	
0+0 = H.L. Elevation Rd.			
S	10.25	192.89	
Cb	9.89	193.25	
L	9.07	194.07	
Cb	8.7	194.4	
H	8.5	194.6	

March 19, 1959

203.14

0+25 = E.C.

H	9.0	194.1	
Cb	9.8	193.3	
L	9.75	193.39	
Gutter	10.08	193.06	
Cb Top	9.26	193.88	
S	9.0	194.1	
0+50			
S	10.0	193.1	
Cb Top	10.50	192.64	
Gutter	11.16	191.98	
L	11.05	192.09	
Cb	11.2	191.9	
H	10.3	192.8	
TP	0.90	192.06	11.98 - 191.16
0+75			
H	1.3	190.8	
Cb	1.8	190.3	
L	1.98	190.08	
Gutter	2.34	189.72	

192.06

Cb Top	1.81	190.25
S	0.6	191.5
170 = End Cb on N		
S	3.6	188.5
Cb Top	4.53	187.53
Gutter	4.98	187.08
L	4.34	187.72
Gutter	4.7	187.4
Cb Top End	4.17	187.89
N	3.5	188.6

172.5

N	6.9	185.2
Cb Top	6.90	185.16
Gutter	7.4	184.7
L	7.04	185.02
Gutter	7.5	184.6
Cb Top	7.20	184.86
S	7.2	184.9

175.0

S	10.2	181.9
---	------	-------

60

192.06

Cb Top	9.91	182.15
Gutter	10.4	181.7
L	9.70	182.36
Gutter	10.0	182.1
Cb Top	9.49	182.57
N	9.4	182.7
TP	2.73	183.25
	11.54	180.52

179.5 = B.C Monitor

N	2.8	180.5
Cb Top	3.27	179.98
Gutter	3.5	179.8
L	3.24	180.01
Gutter	4.20	179.05
Cb Top	3.72	179.53
S	4.3	179.0

S E Return

18.33 S of BL 07 Onstad

Cb Top	5.13	178.12
Gutter	5.7	177.6

Qostad St.

183.25

36.66 S of B.C.

Cb Top 5.93 177.32

Gutter 6.5 176.8

54.98 S = E.C. on Monitor

Cb Top 6.29 176.96

Gutter 6.8 176.5

N.E. Return

18.33 N of B.C. on Oostad

Cb Top 4.37 178.88

Gutter 4.0 179.3

36.66 N of B.C.

Cb Top 4.22 179.03

Gutter 4.0 179.3

54.98 N of B.C. = E.C. on Monitor

Cb Top 2.96 180.29

Gutter 3.3 180.0

21.25 = S Monitor

S 6.50 176.75

Cb 6.10 177.15

Z 5.34 177.91

183.25

Cb 4.67 178.58

H 4.14 179.11

N.W. Return

B.C. on Monitor

Cb Top 2.97 180.28

Gutter 3.5 179.8

18.33 S

Cb Top 4.32 178.93

Gutter 4.6 178.7

36.66 S

Cb Top 5.16 178.09

Gutter 5.2 178.1

54.98 S N = E.C. = 21.75

Cb Top 5.05 178.20

Gutter 5.5 177.8

S.W. Return

B.C. = 21.75

Cb Top 5.12 178.13

Gutter 6.0 177.3

18325

18.33 S.E. of B.C.

Cb Top	5.80	177.45
Gutter	6.5	176.8

36.66 S.E. of B.C.

Cb Top	6.37	176.88
Gutter	7.0	176.3

54.98 S.E. = E.C. of Monitor

Cb Top	6.86	176.39
Gutter	7.6	175.7

2+25 = E.C.

H	4.7	178.6
Cb Top	5.05	178.20
Gutter	5.5	177.8
Z	5.36	177.89
Gutter	6.0	177.3
Cb Top	5.12	178.13
+1	5.7	177.6
S	6.5	176.8

3+0

S	6.0	177.3
+8	4.7	178.6

18325

Cb Top	4.47	178.78
Gutter	5.1	178.2
Z	4.72	178.43
Gutter	4.9	178.4
Cb Top	4.40	178.85
+1	4.8	178.5
H	4.4	178.9

3+25

H	3.9	179.4
+9	4.3	179.0
Cb Top	4.01	179.24
Gutter	4.5	178.8
Z	4.13	179.12
Gutter	4.6	178.7
Cb Top	4.19	179.06
+8	4.5	178.8
S	4.9	178.4

3+50 = End Cb out

S	4.5	178.8
Cb Top End	4.04	179.21
Gutter	4.4	178.9

183.25

L	3.73	179.52
Gutter	4.2	179.1
Cb Top	3.80	179.45
+1	4.1	179.2
H	3.6	179.7

3+75

H	3.2	180.1
Cb Top	3.71	179.54
Gutter	4.1	179.2
L	3.64	179.61
Cb	4.4	178.9
J	4.0	179.3

3+88 = End Cb

J Cb = End	4.30	178.95
Gutter	4.6	178.7

4+0

J	4.4	178.9
Cb Top	4.52	178.73
Gutter	4.8	178.5
L	3.90	179.35

183.25

Gutter	4.3	179.0
Cb Top	3.93	179.32
+1	4.2	179.1
H	3.8	179.5

4+25 = B.C. Elevation

H	4.1	179.2
79	4.6	178.7
Cb Top	4.30	178.95
Gutter	4.7	178.6
L	4.35	178.90
Gutter	5.4	177.9
Cb Top	5.26	177.99
J	5.2	178.1

JP 0.40 179.13 4.52 178.73

H.E. Return

1833 N of B.C.

Cb Top	0.45	178.68
Gutter	0.8	178.3

26.66 N of B.C.

Cb Top	0.57	178.52
Gutter	0.8	178.3

179.13

54.98 W = EC. Everview

Cb Top 0.49 178.64

Gutter 0.6 178.5

SF Return

18.33 S of BC on Onstad

Cb Top 1.92 177.21

Gutter 2.4 176.7

36.66 S of B.C.

Cb Top 3.45 175.68

Gutter 4.8 174.9

54.98 = EC Everview

Cb Top 5.30 173.93

Gutter 6.0 173.1

4 + 25 = 29 Everview

A 1.32 177.81

Cb 1.74 177.39

d 2.28 176.85

Cb 3.14 175.99

S 4.08 175.05

179.13

SJ Return

B.C. on Everview

Cb Top 5.96 173.17

Gutter 6.8 172.3

18.33 W

Cb Top 4.84 174.29

Gutter 5.3 173.8

36.66 W

Cb Top 5.05 174.08

Gutter 5.7 173.4

54.98 W = EC Everview

Cb Top 6.27 172.86

Gutter 7.0 172.1

N.W. Return

B.C. on Everview

Cb Top 1.55 177.58

Gutter 1.7 177.4

18.33 W of B.C.

Cb top 2.42 176.71

Gutter 2.9 176.2

Oxstead St.

179.13

36.66 1/4 of B.C.

Cb Top 3.90 175.23

Gutter 4.5 174.6

54.98 1/4 of B.C. > E.C. on Everyview 51.25

Cb Top 5.67 173.46

Gutter 6.3 172.8

B.M. 1.54 177.59

B.P. Cor Porch
NW Oxstead
Everyview
177.64

5+25

S 7.2 171.9

+8 6.9 172.2

Cb Top 6.27 172.94

Gutter 7.0 172.1

L 6.17 172.96

Gutter 6.3 172.8

Cb Top 5.67 173.46

H 5.3 173.8

5+50

H 7.8 171.3

Cb Top 8.10 171.03

Gutter 8.6 170.5

179.13

65

L 8.52 170.61

Gutter 9.4 169.7

Cb Top 8.58 170.55

H 9.1 170.0

S 9.6 169.5

5+75

S 12.0 167.1

+9 11.7 167.4

Cb Top 10.96 168.17

Gutter 11.8 167.3

L 11.07 168.06

Gutter 11.1 168.0

Cb Top 10.52 168.61

H 9.9 169.2

6+00.7 = End of Cb NW S

H 13.3 165.8

Cb Top 13.00 166.13

Gutter 13.7 165.4

L 13.56 165.57

Gutter 14.5 164.6

Cb Top 13.52 165.61

S 14.3 164.8

Cross Section Solar St.
Cushman to Elevation Road

INDEXED
E.F.B.

N.E.B.P.
Brown all
Elevation

BM 0.29 202.60 202.31

TP 0.71 191.64 11.67 190.93

0+4.4 Return

B.C. on Cushman

Cb Top 5.71 185.93

Gutter 6.2 185.4

18.33 W of B.C.

Cb Top 7.68 183.96

Gutter 8.3 183.3

36.66 W of B.C.

Cb 9.60 182.04

Gutter 10.5 181.1

54.98' W of B.C. = E.C. Solar 0+25

Cb 11.33 180.31

Gutter 12.2 179.4

0+0 = 1st Cushman

S 14.3 177.3

Cb 12.8 178.8

Δ 11.5 180.1

Cb 10.3 181.3

H 9.7 181.9

191.64

0+25 = E.C.

H 11.1 180.5

Cb Top 11.32 180.34

Gutter 12.1 179.5

Δ 12.5 179.1

Gutter 12.7 178.9

Cb Top 11.76 179.88

+1 12.3 179.3

S 15.3 176.3

0+50

S 17.7 173.9

Cb Top 12.94 178.70

Gutter 13.7 177.9

Δ 13.15 178.49

Gutter 13.0 178.6

Cb Top 12.46 179.18

H 12.3 179.3

0+65

H 12.4 179.2

Cb Top 12.60 179.04

Gutter 13.0 178.6

191.64

£	13.28	178.36
Gutter = £ 6' Cb hole	14.03	177.61
Cb Top	12.99	178.65
S	16.2	175.4
	0+80	
S	13.7	177.9
Cb Top	12.83	178.81
Gutter	13.6	178.0
£	13.15	178.49
Gutter	12.7	178.9
Cb Top	12.35	179.29
H	11.9	179.7
	170	
H	11.6	180.0
Cb Top	11.45	180.19
Gutter	12.2	179.4
£	12.10	179.54
Gutter	12.6	179.0
Cb Top	11.93	179.71
S	12.4	179.2

191.64

	1+23 = End Cb on S	
S	10.6	181.0
Cb Top = End	12.15	181.49
Gutter	10.8	180.8
£	10.21	181.43
Gutter	10.33	181.31
Cb Top	9.66	181.98
H	10.6	181.0
	1+56.82 = B.C. on S	
H	7.1	184.5
+9	6.8	184.8
Cb Top	6.15	185.49
Gutter	7.04	184.60
£	6.58	185.06
Cb	7.3	184.3
S	6.1	185.5
	1+82.52 = B.C. on H	
S	3.9	187.7
Cb	3.8	187.8
£	3.97	187.67
Gutter	4.38	187.26
Cb Top	3.56	188.08

191.64

H 3.9 181.7

21.25 H = of B.C. = $\frac{1}{2}$ Return

Cb 1.43 190.21

Gutter 2.23 189.41

42.5 H of B.C. = F.C. on Elevation Road
= 257.64.5CROSS SECTION Cushman Ave. Solar to Plain view 68
INDEXED EFB 191.64

0+0 = X2 Solar

Z = P.A. line 8.2 183.4

Cb 8.9 182.7

H 9.7 181.9

0+25

H 6.6 185.0

Cb 5.71 185.93

Gutter 6.2 185.4

Z = P.A. line 5.8 185.8

TP 11.58 198.66 4.56 187.08

0+65

Z 8.1 190.6

Gutter 8.8 189.9

Cb Top 8.50 190.16

H 8.7 190.0

1+0

H 5.0 193.7

Cb Top 4.76 193.90

Gutter 5.3 193.4

Z 4.3 194.4

198.66

1+40

Z = PL Line	0.5	198.2
Gutter	1.2	197.5
Cb Top	0.50	198.16
H	0.9	197.8
TP	11.54	210.12
	0.08	198.58

1+75 = BC on H to Brownell

H	9.1	201.0
Cb Top	8.60	201.52
Gutter	9.4	200.7
Z	9.0	201.1

S.W. Return

18.33 H of BC

Cb Top	7.17	202.95
Gutter	8.0	202.1

36.66 H of BC

Cb Top	5.98	204.14
Gutter	6.8	203.3

54.98 H of BC = FC on Brownell

Cb Top	5.81	204.31
Gutter	6.7	203.4

210.12

2+0

Z = PL	7.2	202.9
Cb	7.1	203.0
H	7.3	202.8

2+25 = Z Brownell

H	5.30	204.82
Cb	5.34	204.78
Z	5.7	204.4

2+50

Z	4.4	205.7
Cb	4.1	206.0
H	4.5	205.6

N.W. Return

BC on Brownell

Cb Top	5.37	204.75
Gutter	5.9	204.2

18.33' H of BC

Cb Top	4.70	205.42
Gutter	5.0	205.1

36.66' H of BC

Cb Top	3.73	206.39
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210.12

Gutter	4.1	206.0
5498' N of B.C. = E.C. on Cushman		
Cb Top	2.88	207.24
Gutter	3.2	206.9
2475 = B.C. on N		
N	3.2	206.9
Cb	2.88	207.24
Gutter	3.2	206.9
L	3.1	207.0
3+15		
L	1.2	208.9
Gutter	1.4	208.7
Cb Top	1.00	209.12
+2	1.5	208.6
N	1.5	208.6
TP	6.36	216.13
0.35 209.77		
3+50.6 = End Cb on N		
N	6.1	210.0
+9'	6.2	209.9
Cb Top: End	5.54	210.59

216.13

Gutter	6.2	209.9
L = PLhint	6.0	210.1
3+75		
L	5.3	210.8
Cb	5.3	210.8
N	5.3	210.8
1+25 = B.C. on N		
N	4.4	211.7
Cb	4.6	211.5
L	4.4	211.7
4+50 = S.L. Plainview		
L	4.0	212.1
Cb	4.05	212.08
N	4.34	211.79
BM	2.84	213.29
End Cb on Plainview 213.31		

Cross Section Brown Mt.

INDEXED

FB

N.E. BP

Brown Mt
Elevation

BM 465 206.96 202.31

0+25 = Cb B.C.H. Csb 2027

S 3.9 203.1

+ 2.6 203.4

Cb Top 2.64 204.32

Gutter 2.6 203.4

Z 2.41 204.55

Gutter 2.8 204.2

Cb Top 2.20 204.76

H 1.8 205.2

0+62.3 = End Cb on H

H 2.9 204.1

Cb Top = End 3.09 203.87

Gutter 3.8 203.2

Z 3.34 203.62

Gutter 4.4 202.6

Cb Top 3.45 203.51

+ 2 4.6 202.4

S 4.5 202.5

1+0

S 5.1 201.9

266.96

March 28-40

71

+ 8 4.9 202.1

Cb Top 4.34 202.62

Gutter 5.4 201.6

Z 4.28 202.68

Cb 4.8 202.2

+ 3 4.2 202.8

H 3.8 203.2

1+50

H 5.4 201.6

+ 7 5.5 201.5

Cb 5.9 201.1

Z 5.51 201.45

Gutter 6.5 200.5

Cb Top 5.56 201.40

+ 2 6.3 200.7

S 6.7 200.3

2+0

S 7.7 199.3

+ 8 7.3 199.7

Cb Top 6.77 200.19

Gutter 7.4 199.6

Brownell

206.96

Z	6.55	200.41
Cb	6.9	200.1
+2	6.3	200.7
H	6.2	200.8

2+13 = End Cb on H

H Cb = End	6.55	200.41
Gutter	7.1	199.9

2+32.56 = B.C. on S

H	6.3	200.7
+8	6.3	200.7
Cb Top	6.66	200.30
Gutter	7.1	199.9
Z	6.56	200.40
+6	6.9	200.1
Gutter	8.3	198.7
Cb Top	7.54	199.42
+2	7.1	199.9
S	8.1	198.9

S.E. Return

23.7' Sof B.C. on Brownell

Cb	8.12	198.83
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206.96

72

Gutter	8.9	198.1
47.4' Sof B.C.		
Cb Top	8.83	198.13
Gutter	9.3	197.7

71.1' Sof B.C.

Cb Top	9.69	197.27
Gutter	10.0	197.00

94.8' Sof B.C. = E.C. on Elevation

Cb Top	10.51	196.45
Gutter	11.1	195.9

2+50.62 = B.C. on H

S	8.0	199.0
+5	7.9	199.6
Cb	8.5	198.5
+7	6.7	200.3
Z	6.33	200.63
Gutter + Cb Top	6.98	200.48
H	6.1	200.9

N.E. Return

18.33' H of B.C.

Cb	6.02	200.94
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Cross Section Crossn St
Monitor to Elevation Road

INDEXED
EFS

73

Gutter	6.3	2007
	36.66	N of B.C.
Cb Top	5.40	20156
Gutter	5.7	2013
	54.98	N of B.C. = E.C. on Elevation
Cb Top	4.76	20220
Gutter	5.2	201.8

B.M.	11.88	168.71	156.88	C.T. in Drive 19+44.22 1544
		0-26 = 1/2 Curve		
Cb Top		4.32	164.39	
Gutter		4.76	163.95	
		0+10 = P.C.C. of Monitor		
X		4.0	164.7	
+5		3.2	165.5	
Cb Top		2.91	165.80	
Gutter		3.35	165.36	
1/2		1.74	166.97	
Cb		1.2	167.5	
+5		1.2	167.5	
F		0.2	168.5	
		0+25		
F		1.4	167.3	
+8		1.7	167.0	
Cb		2.2	166.5	
1/2		2.50	166.21	
Gutter		3.150	165.21	
Cb Top		3.03	165.68	
X		3.8	164.9	

168.71

0+50

H on Conc Drive	3.88	164 83
Cb + Gutter in Drive	4.20	164 51
L	3.12	165 59
Cb	2.9	165 8
F	2.2	166 5

0+75

F	3.2	165 5
Cb	4.0	164 7
L	3.65	165 06
Gutter	4.60	164 11
Cb Top	4.28	164 43
H	4.6	164 1

1+0

H	4.8	163 9
Cb Top	4.94	163 77
Gutter	5.45	163 26
L	4.32	164 39
Cb	4.7	164 0
F	4.0	164 7

168.71

1+25

F	4.6	164.1
Cb	5.3	163 4
L	5.05	163 66
Gutter	6.06	162 65
Cb Top	5.62	163 09
H	5.5	163 2

1+50

H	6.3	162 4
Cb Top	6.27	162, 44
Gutter	6.63	162 08
L	5.74	162 97
Cb	5.9	162 8
F	5.2	163 5

1+77 = BC. on F-

F	6.0	162 7.
Cb Top + End	6.44	162 27
Gutter	6.87	161 84
L	6.46	162. 25
Gutter	7.23	161 48

168.71

Cb Top	7.02	161.69
H	7.1	161.6

1111 Return

169' N of B.C.

Cb Top	6.58	162.13
Gutter	7.08	161.63

338' N of B.C.

Cb Top	6.32	162.39
Gutter	6.77	161.94

50.7' N of B.C.

Cb Top	5.49	163.27
Gutter	5.91	162.80

676' N of B.C. = P.R.C. on Elevation

Cb Top	4.37	164.34
Gutter	4.86	163.85

2+0

H	7.6	161.1
Cb Top	7.99	160.72
Gutter	8.50	160.21
L	7.82	160.89

168.71

Cb	7.10	161.61
F	6.67	162.04

2+2.5

F	7.49	161.22
Cb	7.91	160.80

L	8.37	160.34
Gutter	9.58	159.13

Cb Top	9.08	159.63
H	8.1	160.6

2+50

H	9.5	159.2
Cb Top	10.14	158.57

Gutter	10.66	158.05
L	9.64	159.07

2+67.82 - P.C.S

L	10.40	158.31
Gutter	11.39	157.32

Cb Top	10.88	157.83
H	10.3	158.4

2+97.5

Wcb	12.02	156.69
Gutter	12.80	155.91

Cross Section Knox St.

INDEXED
EPI

18402

76

B.P.S. Cor. Parcel
025000
Everview

BM 6.38 18402 177.64

0+25 = E.C. on E

NE Return

W 6.5 177.5

BC on Everview

cb 6.1 177.9

cb top 1.82 182.20

+3 5.6 178.4

Gutter 2.3 181.7

5 5.62 178.40

18.33 N of BC

Gutter 5.3 178.7

cb top 3.00 181.02

cb top 4.83 179.19

Gutter 3.4 180.6

F 4.6 179.4

36.66 N of BC

0+45

cb top 4.02 180.00

F 4.8 179.2

Gutter 4.4 179.6

cb top 5.68 178.34

54.98 N = E.C. on Knox = 0+25

Gutter 6.1 177.9

cb top 4.83 179.19

5 6.14 177.88

Gutter 5.3 178.7

cb 7.3 176.7

0+0 = N of Everview

W 7.3 176.7

F 4.0 180.0

0+65

cb 4.3 179.7

W 9.1 174.9

5 4.8 179.2

cb 8.9 175.1

cb 5.3 178.7

5 7.4 176.6

W 4.8 179.2

Gutter 7.2 176.8

Knox

184.02

Cb Top	6.82	177 20
+2	6.0	178 0
F	5.3	178 7

0+85

F	7.2	176 8
+7	8.0	176 0
Cb Top	8.70	175 32
Gutter	9.2	174 8
g	9.3	174 7
Cb	10.8	173 2
H	11.0	173 0

1+11

H	14.5	169 5
Cb	13.6	170 4
g	12.1	171 9
Gutter	12.1	171 9
Cb Top: End	11.51	172 51
F	10.5	173 5

Reduced
See plotted
Roll #

77

Levels on Ex. curb
Nly side BUENOS

Moose
2-21-41.

E 2x2 1.25 77.61 76.36 7+69.22

15.3 RP. hd + C.T. 5 curb 1.10 76.51 "

T.P. 0.20 65.14 12.67 64.94

R=110 Curve in 8
0+0 = CTR. Curve on Ely Dorcas eq. PTS. of 21.6

0+00 7.27 57.87

#1 9.63 55.57

#2 11.87 53.27

T.P. 1.68 53.93 12.89 52.25

#3 2.29 56.64

#4 3.58 50.35

#5 4.24 49.49

#6 5.03 48.90

#7 5.32 48.59

#8 = P.C. = 1+72.79 5.36 48.52

2+00 5.22 48.51

+25 5.51 48.42

+50 5.37 48.56

+75 5.12 48.81

53.93

78

3+00 4.88 48.05

+25 4.68 48.25

3+56.34 = P.C. Curve R=140 4.43 49.50

+75 4.37 49.56

T.P. 1.88 50.23 5.58 49.35

4+00 0.84 49.39

+25 1.36 48.77

+50 2.03 48.20

+75 3.14 42.09

5 4.54 45.69

+25 6.27 43.96

+50 8.23 42.00

5+72.47 EC end Curve 10.10 40.13 E. side Buenos

Top N. Cor. Lower Conc. STOP on PATH 1.26 48.97

T.P. 8.62 56.96 1.89 48.34

T.P. 12.47 69.36 0.07 56.89

T.P. 10.00 78.79 0.57 68.79

15.3 RP (T. S. cb. 2.28 76.51 76.51

NE BP Dorcas + Hilda 0.92 77.87 77.97

Walker
Kordis
1/2 sec
6-6-42

Levels for Proposed Drives, U.S. Postoffice
8th St. at F-st. and 9th St. at F-st.

9th St. Levels.		N.W. BR E-st + 9th St.
0.51	57.06	56.55
0+00 = N.L. - F-street		
W. Gut.	7.43	49.63
" Top cb.	7.01	50.05
+5' E. edge Walk	6.95	50.11
W.L. on W " "	6.86	50.20
0+05		
W. Gut.	7.39	49.67
cb.	6.92	50.14
+5' E. edge Walk	6.87	50.19
W.L. on W " "	6.80	50.26
0+21		
W. Gut.	7.11	49.95
W. Top cb.	6.68	50.38
+5' E. edge Walk	6.61	50.45
W.L. on W " "	6.52	50.54
0+43.9		
W. Gut.	6.73	50.33
cb.	6.25	50.81
+5' E. edge Walk	6.18	50.88
W.L. on W " "	6.11	50.95

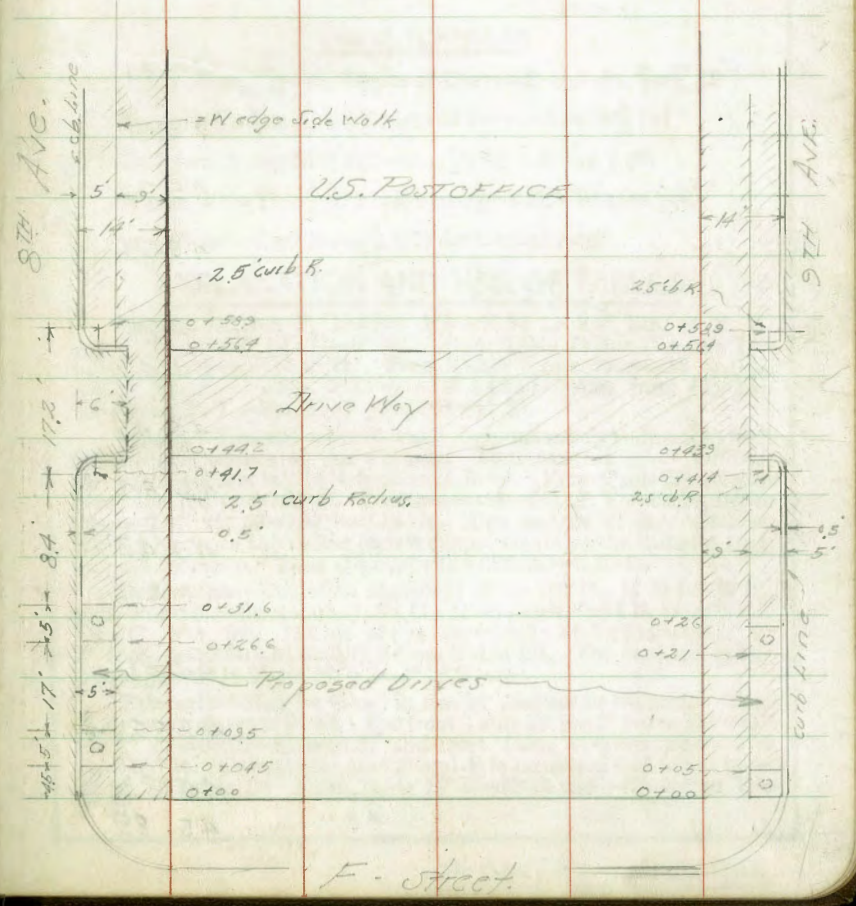
Notes Reduced & Plotted 6-8-42 C.B.H.

Indexed
c.s.K.

57.06
9th St. Levels cont.

79

	0+56.4			
W. Gut.	6.48			50 58
" Top cb.	5.83			51 23
+5' E. edge Walk	5.85			51 21
W.L. on W " "	5.71			51 35
TP	0.20	50.28	6.98	50.08
cont. P-80				



F-street

0+00 = N.L. F. St.

50.28-7-479

E. Gut 6.12 44.16

cb 5.27 45.01

+5' - Wedge Walk 5.19 45.09

E.L. = E " " 5.09 45.19

0+095

E. Gut 5.97 44.31

" cb 5.10 45.18

+5' - Wedge Walk 5.04 45.24

E.L. = E " " 4.22 45.36

0+26.6

E. Gut 5.66 44.62

E. Top cb 4.81 45.47

+5' - Wedge Walk 4.74 45.54

E.L. = E " " 4.65 45.63

0+44.2

E. Gut 5.47 44.81

cb 4.52 45.76

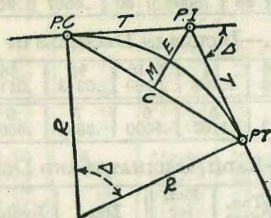
+6' - Wedge Walk 4.45 45.83

E.L. = E " " 4.39 45.89

Cont. P. 1

DIETZGEN'S RAILROAD CURVE AND REDUCTION TABLES

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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 = $M = R(1 - \cos \frac{\Delta}{2}) = R \text{vers} \frac{\Delta}{2}$ (5) (6)External = $E = T \tan \frac{\Delta}{4} = R \div \cos \frac{\Delta}{2} - R = R \text{exsec} \frac{\Delta}{2}$ (7) (8) (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. $\Delta = 62^\circ 10'$ $D = 8^\circ 20'$. From Table IV for 1° curve $T = 3454.1$ and $\div 8\frac{1}{2} = 414.49$ ft. From Table V correction = .36 or $T = 414.85$ ft. P. C. = Sta. P. I. - $T = 157 + 45.50$. Also from (4) $L = 746.00$ and P. T. = Sta. P. C. + $L = 164 + 91.50$.

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

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

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

953
0.117

56
14.2
12.2
19.2

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 $41.9 + (20 - 16) \div 2$ or 2 ft. added to 41.9 = 43.9. For slopes of 1 on 1 see inside of front cover.

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