

Book # 84-DV #8

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

DRAINAGE Survey

BELLAIRE AVE.

From Co. Rd. "F" To W. B. LAKE

Road Acc't. No.

Date Filed 1935

File

26-31

26-10

11-25

Bellaire Ave

Co. Rd. "F" to W.B. Lake

Drainage Survey

Plan Complete
June 21, 1935

Sta + π - EI

B.M. 1.85 101.85 Assumed 100.00

52+85.3 & Co. Rd. "F" 100.0

+96 Shoulder 99.9

53+04 99.7

54 98.7

55 98.0

+40 97.7

56 97.3

57 97.0

58 97.1

① 5.83 102.76 4.92 96.93

59 97.0

Lt

Rt.

101.85
 492
 96.93
 5.83
 102.76

Ctr. Mont. Cor Bellaire & Co. Rd. F.

$$\frac{2.1}{50} \quad \frac{18.5}{0} \quad \frac{1.0}{50}$$

$$\frac{2.0}{50} \quad \frac{2.0}{0} \quad \frac{1.7}{50}$$

$$\frac{4.8}{50} \quad \frac{5.4}{37} \quad \frac{3.2}{29} \quad \frac{2.2}{0} \quad \frac{2.6}{35} \quad \frac{4.6}{40} \quad \frac{5.2}{50}$$

$$\frac{7.2}{50} \quad \frac{7.8}{27} \quad \frac{6.8}{19} \quad \frac{3.9}{14} \quad 3.2 \quad \frac{4.0}{12} \quad \frac{7.0}{19} \quad \frac{7.7}{50}$$

$$\frac{6.6}{50} \quad \frac{11.1}{28} \quad \frac{10.0}{23} \quad \frac{4.7}{13} \quad 3.9 \quad \frac{4.8}{13} \quad \frac{10.1}{22} \quad \frac{10.5}{50}$$

$$\frac{12.4}{50-26} \quad \frac{10.8}{22} \quad \frac{5.0}{11} \quad 4.2 \quad \frac{4.8}{11} \quad \frac{10.1}{19} \quad \frac{13.0}{28} \quad \frac{12.8}{42}$$

$$\frac{11.5}{50} \quad \frac{11.0}{26} \quad \frac{9.7}{20} \quad \frac{5.4}{11} \quad 4.6 \quad \frac{5.4}{14} \quad \frac{9.1}{20} \quad \frac{9.4}{29} \quad \frac{8.6}{50}$$

$$\frac{6.4}{50} \quad \frac{4.4}{24} \quad \frac{4.4}{17} \quad \frac{6.0}{15} \quad \frac{5.4}{10} \quad 4.9 \quad \frac{5.4}{11} \quad \frac{5.8}{15} \quad \frac{4.0}{20} \quad \frac{3.4}{50}$$

$$\frac{3.8}{50} \quad \frac{3.0}{18} \quad \frac{5.5}{13} \quad \frac{5.2}{10} \quad 4.8 \quad \frac{5.2}{10} \quad \frac{5.7}{14} \quad \frac{3.8}{17} \quad \frac{3.6}{50}$$

$$\frac{4.3}{50} \quad \frac{4.3}{17} \quad \frac{6.6}{15} \quad \frac{6.4}{11} \quad 5.8 \quad \frac{6.1}{9} \quad \frac{6.6}{14} \quad \frac{5.1}{19} \quad \frac{4.4}{26} \quad \frac{5.0}{50}$$

Sta + π - El

102.76

60 95.9

61 94.6

① 6.18 98.78 10.16 92.60

6 +75 92.7

62 91.9

+23 91.1

+80 88.8

63 88.1

64 83.9

+25 83.0

+46 82.9

+56 83.0

LT

RT

92.60
6 18
98.78

$$\frac{6.7}{50} \quad \frac{5.9}{37} \quad \frac{5.3}{17} \quad \frac{7.5}{15} \quad \frac{7.3}{10} \quad 6.9 \quad \frac{7.2}{9} \quad \frac{7.4}{14} \quad \frac{5.4}{18-50}$$

$$\frac{8.6}{50} \quad \frac{7.6}{34} \quad \frac{6.6}{20} \quad \frac{8.7}{16} \quad \frac{8.5}{9} \quad 8.2 \quad \frac{8.5}{9} \quad \frac{8.6}{16} \quad \frac{6.6}{20} \quad \frac{5.8}{50}$$

$$\frac{5.5}{50} \quad \frac{3.4}{19} \quad \frac{7.0}{13} \quad \frac{6.7}{9} \quad 6.1 \quad \frac{6.1}{9} \quad \frac{6.5}{13} \quad \frac{5.4}{18} \quad \frac{3.0}{20} \quad \frac{1.8}{28} \quad \frac{1.5}{50}$$

$$\frac{7.5}{50} \quad \frac{5.5}{18} \quad \frac{7.1}{14} \quad \frac{7.6}{10} \quad 6.9 \quad \frac{7.0}{9} \quad \frac{7.4}{12} \quad \frac{6.0}{18} \quad \frac{3.5}{21} \quad \frac{2.5}{33} \quad \frac{2.0}{50}$$

$$\frac{8.1}{50} \quad \frac{8.4}{33} \quad \frac{8.5}{14} \quad \frac{8.3}{10} \quad 7.7 \quad \frac{8.1}{9} \quad \frac{8.4}{13} \quad \frac{6.8}{18} \quad \frac{5.4}{19}$$

$$\frac{7.0}{50} \quad \frac{10.0}{25} \quad \frac{10.4}{9} \quad 10.0 \quad \frac{10.2}{8} \quad \frac{10.3}{14} \quad \frac{8.0}{21} \quad \frac{9.2}{39} \quad \frac{9.9}{50}$$

$$\frac{6.0}{50} \quad \frac{8.2}{32} \quad \frac{8.8}{17} \quad \frac{7.4}{14} \quad \frac{7.2}{10} \quad 10.7 \quad \frac{10.9}{9} \quad \frac{11.1}{14} \quad \frac{8.6}{19} \quad \frac{9.0}{33} \quad \frac{9.8}{50}$$

$$\textcircled{14.9} \quad \frac{99.2}{100} \quad \frac{96.0}{75} \quad \frac{6.6}{50} \quad \frac{9.4}{23} \quad \frac{8.8}{13} \quad \frac{8.4}{9} \quad 8.0 \quad \frac{8.4}{9} \quad \frac{9.0}{13} \quad \frac{8.7}{22-37} \quad \frac{6.6}{50} \quad \frac{94.4}{75} \quad \frac{96.8}{100}$$

$$\textcircled{15.8} \quad \frac{94.5}{100} \quad \frac{93.2}{75} \quad \frac{7.5}{50} \quad \frac{8.2}{34} \quad \frac{9.4}{16} \quad \frac{9.2}{10} \quad 8.9 \quad \frac{9.2}{9} \quad \frac{9.4}{15} \quad \frac{10.0}{26} \quad \frac{0.7}{35} \quad \frac{0.0}{50} \quad \frac{99.5}{100} \quad \frac{99.2}{75} \quad \frac{99.5}{100}$$

Top CB
El 82.50
CB + 42 FL 10.95 out let
H1. 91.90
CB + 41 FL 11.15
(12" vit) 12
10" CM El. 82.55

$$\textcircled{15.9} \quad \frac{96.2}{100} \quad \frac{96.2}{75} \quad \frac{2.4}{50} \quad \frac{2.2}{33} \quad \frac{8.8}{28} \quad \frac{9.4}{16} \quad \frac{9.3}{9} \quad 9.0 \quad \frac{9.3}{9} \quad \frac{9.4}{15} \quad \textcircled{15.9} \quad \frac{0.0}{39} \quad \frac{+0.2}{50} \quad \frac{99.4}{75} \quad \frac{99.5}{100}$$

$$\textcircled{15.8} \quad \frac{96.2}{100} \quad \frac{96.7}{75} \quad \frac{2.4}{50} \quad \frac{2.2}{33} \quad \frac{9.4}{28} \quad \frac{9.3}{16} \quad \frac{9.2}{9} \quad 8.9 \quad \frac{9.3}{9} \quad \frac{9.4}{15} \quad \textcircled{15.8} \quad \frac{0.2}{40} \quad \frac{0.7}{50} \quad \frac{98.2}{75} \quad \frac{99.0}{100}$$

Sta	+	π	-	Elev
		98.78		
64+65				83.0
65				83.5
①	667	91.90	13.55	85.25
+50				85.2
+60				85.5
66				86.6
66				
+84				87.2
+87				87.1
67				87.1
+41				86.8
+46				86.8

Lt

Rt

$$\begin{array}{r}
 98.78 \\
 13.55 \\
 \hline
 85.23 \\
 6.67 \\
 \hline
 91.90
 \end{array}$$

H.I. 91.90

$$\begin{array}{cccccccccccc}
 (15.8) & \frac{88.5}{100} & \frac{88.2}{75} & \frac{9.8}{50} & \frac{9.2}{31} & \frac{9.4}{16} & \frac{9.3}{9} & \frac{8.9}{9} & \frac{9.3}{9} & \frac{9.4}{15} & \frac{12.2}{26} & \frac{4.8}{40} & \frac{4.5}{50}
 \end{array}$$

H.I. 91.90

$$\begin{array}{cccccccccccc}
 (15.3) & \frac{11.6}{50} & \frac{10.6}{21} & \frac{8.8}{14} & \frac{8.8}{10} & 8.4 & \frac{8.6}{9} & \frac{8.7}{16} & \frac{13.0}{20} & \frac{6.2}{30} & \frac{3.7}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{3.8}{22} & \frac{7.3}{16} & \frac{7.3}{10} & 6.7 & \frac{7.0}{9} & \frac{6.8}{15} & \frac{0.0}{26} & +1.2 & \frac{32-50}{}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{4.4}{21} & \frac{7.0}{16} & \frac{7.0}{11} & 6.4 & \frac{6.6}{9} & \frac{6.7}{14} & \frac{4.5}{20} & \frac{1.7}{25} & \frac{1.3}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{3.5}{23} & \frac{6.0}{17} & \frac{5.7}{11} & 5.3 & \frac{5.7}{8} & \frac{5.5}{14} & \frac{1.2}{27} & \frac{0.8}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{3.6}{20} & \frac{5.5}{16} & \frac{5.4}{12} & 4.7 & \frac{4.9}{8} & \frac{4.7}{19} & \frac{1.6}{28} & \frac{0.2}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{3.6}{20} & \frac{5.5}{16} & \frac{5.4}{12} & 4.8 & \frac{4.9}{8} & \frac{4.7}{19} & \frac{3.5}{28} & \frac{0.5}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.0}{50} & \frac{3.6}{20} & \frac{5.4}{17} & \frac{5.3}{12} & 4.8 & \frac{5.0}{8} & \frac{3.7}{33} & \frac{2.4}{39} & \frac{2.4}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.4}{50} & \frac{3.4}{21} & \frac{5.7}{16} & \frac{5.4}{11} & 5.1 & \frac{5.4}{9-15} & \frac{4.4}{24} & \frac{4.2}{33} & \frac{2.8}{39} & \frac{2.7}{50}
 \end{array}$$

$$\begin{array}{cccccccccc}
 \frac{4.4}{50} & \frac{3.4}{21} & \frac{5.7}{16} & \frac{5.4}{11} & 5.1 & \frac{5.5}{9-13} & \frac{4.8}{17} & \frac{3.0}{24} & \frac{2.7}{50}
 \end{array}$$

Sta + π -

91.90

0 5.83 92.03 5.70 86.20

68 86.3

69 85.8

+60 84.9

70 84.6

+40 84.6

+50 84.7

+67 E. So Shore Blvd 84.7

+83 83.4

B.M. 1026 81.77

$$\begin{array}{r} 91.90 \\ 570 \\ \hline 86.20 \\ 583 \\ \hline 9203 \end{array}$$

$$\begin{array}{r} 4.1 \\ 50 \end{array} \quad \begin{array}{r} 5.2 \\ 21 \end{array} \quad \begin{array}{r} 6.4 \\ 15 \end{array} \quad \begin{array}{r} 6.2 \\ 11 \end{array} \quad 5.7 \quad \begin{array}{r} 6.0 \\ 8 \end{array} \quad \begin{array}{r} 5.7 \\ 16 \end{array} \quad \begin{array}{r} 3.4 \\ 23 \end{array} \quad \begin{array}{r} 3.2 \\ 50 \end{array}$$

$$\begin{array}{r} 4.1 \\ 50 \end{array} \quad \begin{array}{r} 3.7 \\ 19 \end{array} \quad \begin{array}{r} 6.7 \\ 15 \end{array} \quad \begin{array}{r} 6.5 \\ 11 \end{array} \quad 6.2 \quad \begin{array}{r} 6.8 \\ 9-13 \end{array} \quad \begin{array}{r} 3.8 \\ 19 \end{array} \quad \begin{array}{r} 4.1 \\ 50 \end{array}$$

$$\begin{array}{r} 3.3 \\ 50 \end{array} \quad \begin{array}{r} 4.8 \\ 19 \end{array} \quad \begin{array}{r} 7.4 \\ 16 \end{array} \quad \begin{array}{r} 7.2 \\ 10 \end{array} \quad 7.1 \quad \begin{array}{r} 7.4 \\ 9 \end{array} \quad \begin{array}{r} 7.4 \\ 13 \end{array} \quad \begin{array}{r} 6.9 \\ 16 \end{array} \quad \begin{array}{r} 7.2 \\ 29 \end{array} \quad \begin{array}{r} 7.0 \\ 50 \end{array}$$

$$\begin{array}{r} 5.2 \\ 50 \end{array} \quad \begin{array}{r} 7.8 \\ 19 \end{array} \quad \begin{array}{r} 7.5 \\ 11 \end{array} \quad 7.4 \quad \begin{array}{r} 7.8 \\ 9 \end{array} \quad \begin{array}{r} 8.0 \\ 18 \end{array} \quad \begin{array}{r} 11.5 \\ 50 \end{array}$$

$$\begin{array}{r} 5.4 \\ 50 \end{array} \quad \begin{array}{r} 5.2 \\ 22 \end{array} \quad \begin{array}{r} 7.8 \\ 19-12 \end{array} \quad 7.4 \quad \begin{array}{r} 7.8 \\ 9 \end{array} \quad \begin{array}{r} 8.2 \\ 14 \end{array} \quad \begin{array}{r} 6.4 \\ 18 \end{array} \quad \begin{array}{r} 7.2 \\ 50 \end{array}$$

+40 } 12" C.M. 10.35 in C.B. F.L.
15 } 8.00 Top C.B.

$$\begin{array}{r} 5.4 \\ 50 \end{array} \quad \begin{array}{r} 5.2 \\ 22 \end{array} \quad \begin{array}{r} 7.8 \\ 19-12 \end{array} \quad 7.4 \quad \begin{array}{r} 7.8 \\ 9 \end{array} \quad \begin{array}{r} 8.2 \\ 14 \end{array} \quad \begin{array}{r} 6.4 \\ 18 \end{array} \quad \begin{array}{r} 7.2 \\ 50 \end{array}$$

+47 } 12" vit. 11.65 FL.
12 } 12" CM 11.00 FL. Inl.
Top C.B. 8.30

$$\begin{array}{r} 7.2 \\ 50 \end{array} \quad \begin{array}{r} 7.8 \\ 23 \end{array} \quad \begin{array}{r} 7.5 \\ 12 \end{array} \quad 7.3 \quad \begin{array}{r} 7.7 \\ 10 \end{array} \quad \begin{array}{r} 8.3 \\ 14 \end{array} \quad \begin{array}{r} 8.4 \\ 36 \end{array} \quad \begin{array}{r} 8.4 \\ 50 \end{array}$$

$$\begin{array}{r} 6.8 \\ 50 \end{array} \quad 7.3 \quad \begin{array}{r} 7.4 \\ 50 \end{array}$$

$$\begin{array}{r} 8.2 \\ 50 \end{array} \quad \begin{array}{r} 8.7 \\ 25 \end{array} \quad 8.6 \quad \begin{array}{r} 9.1 \\ 18 \end{array} \quad \begin{array}{r} 8.1 \\ 24 \end{array} \quad \begin{array}{r} 8.1 \\ 50 \end{array}$$

SW Cor H.W. 12' Rt Sta. 71+12

