

Book- 2, Dr. 12-A

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

PLAN

Survey

HELEN ST.

From North St. Paul To County Rd. D

Road Acc't. No. NI

Date Filed 11-8-29

File N-C Twp.

PROJ. 29-NI

HELEN STREET

From N. city limits of North St.
Paul to County Road "D".

NEW CANADA TWP.

29-N1

377. PUNT. Δ H Δ R.

27+43⁸⁸

16+52⁰ P.O.T.

3+95⁰ P.O.T.

0+00

T.P.
0 47 23
65 24 0 T.P.
1/4 N. LINE SEC. 1
HUB.

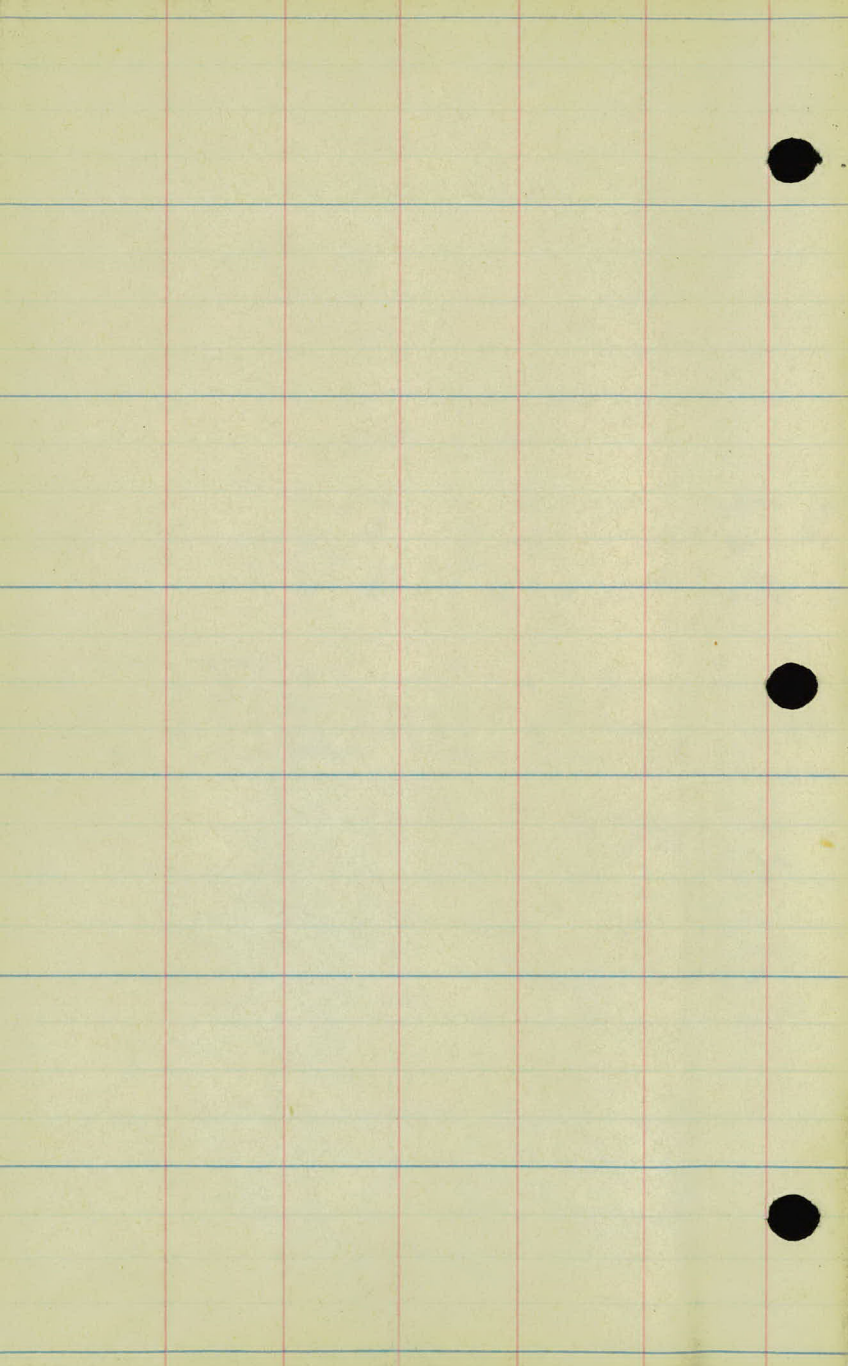
MELEN ST.
NORTH.

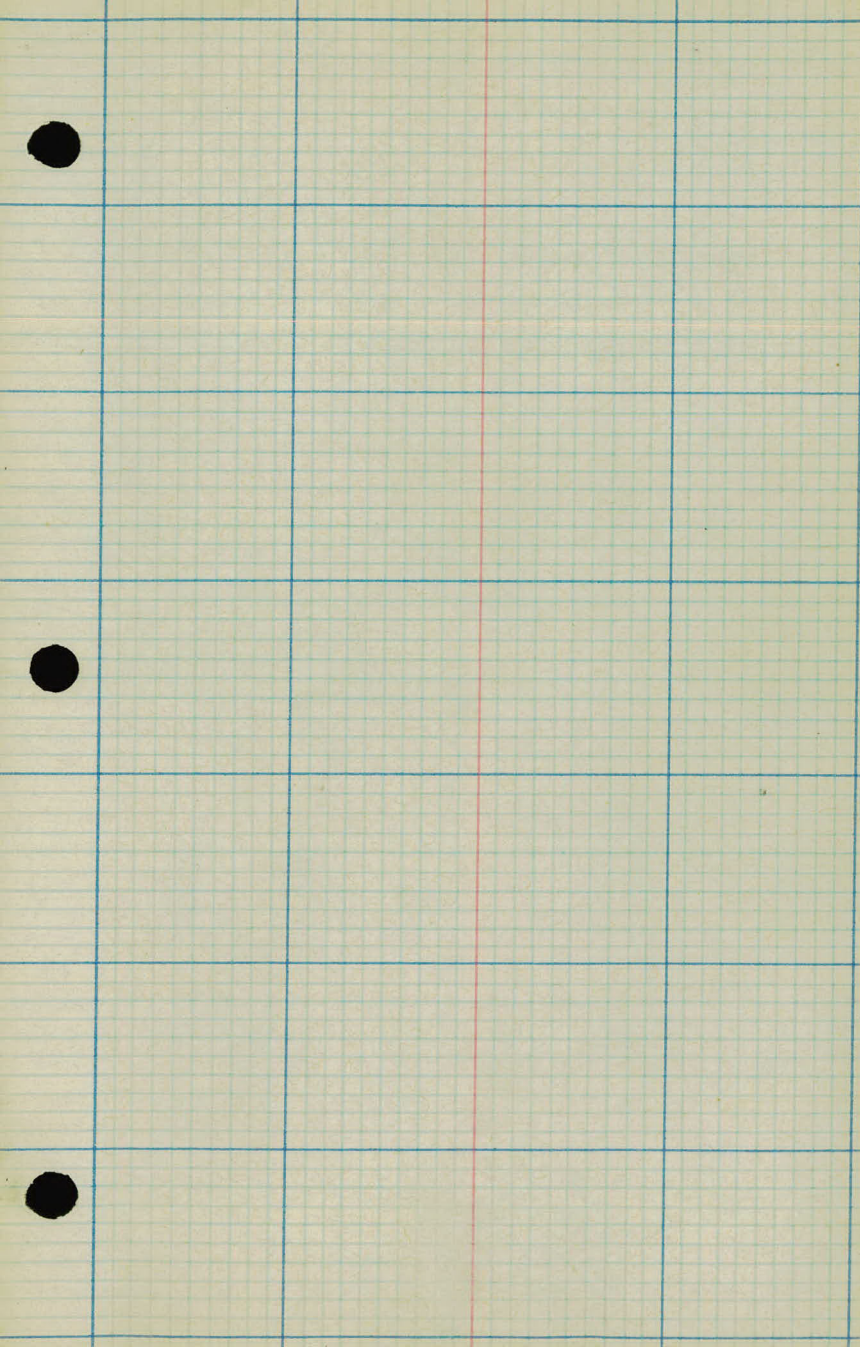
T.P.
0 24 32
HUB.
CENTER SEC. 1.
50 80

Co. ROAD "C"

STONE MT.

1/4 CON S. LINE SEC. 1





5

4

3

2

1

0 + 00

PASTURE

F. 22
Q. R. 3

195 P. COR 22
192 FIELD ENT.
Q. R. 4

172 T.P. 26

Q. R. 6

CULTIVATED

187 T.P. 24

Q. R. 2

BERRY PATCH

Q. R. 2

106 T.P. 24

1780 SIDE ROAD

CULTIVATED
Q. R. 3

11

10

9

8

7

6

5

CL ROAD 2

CULTIVATED

MEADOW

CL RD 2

700 FIELD EXT. - - - - -

CL RD 2

729 CROSS PARR.
EXTENDS R15 & R16
15" X 28' C.M.

210000

723 F. COR. 17

CL RD 2
F. 12

FARM YARD

CL RD 2
F. 17

780 FARM EXT.
780 SIDE DRAIN 12
12" X 24' C.M.

PASTURE

CL RD 4
F. 20

- - - - -
GARDEN
- - - - -

748 T.P. 26

17

16

15

14

13

12

11

Q. ROAD 2
F. 25

Q. RD. 2

Q. ROAD 2
F. 25

PASTURE

CULTIVATED

Q. ROAD 3
F. 25

448 F. COR. 25

Q. RD. 3

426 FIELD ENT
418 X. F. 10

CULTIVATED

MEADOW

Q. RD. 2

23

22

21

20

19

18

17

Q. ROAD Q.

CULTIVATED

+21 F. COR. 24

Q. ROAD Q.

+80 - Field Ent.

115 OVER HEAD
POWER LINE.

Q. ROAD Q.
F. 24

CULTIVATED

Q. ROAD Q.

PAVING

Q. ROAD Q.
F. 25

Q. ROAD Q.

28

27

26

25

24

23

+44 E. CORRID "D"

124 T.P. 24

124 F. COR 20

E. RD 1

F. 13

CULTIVATED

ROAD

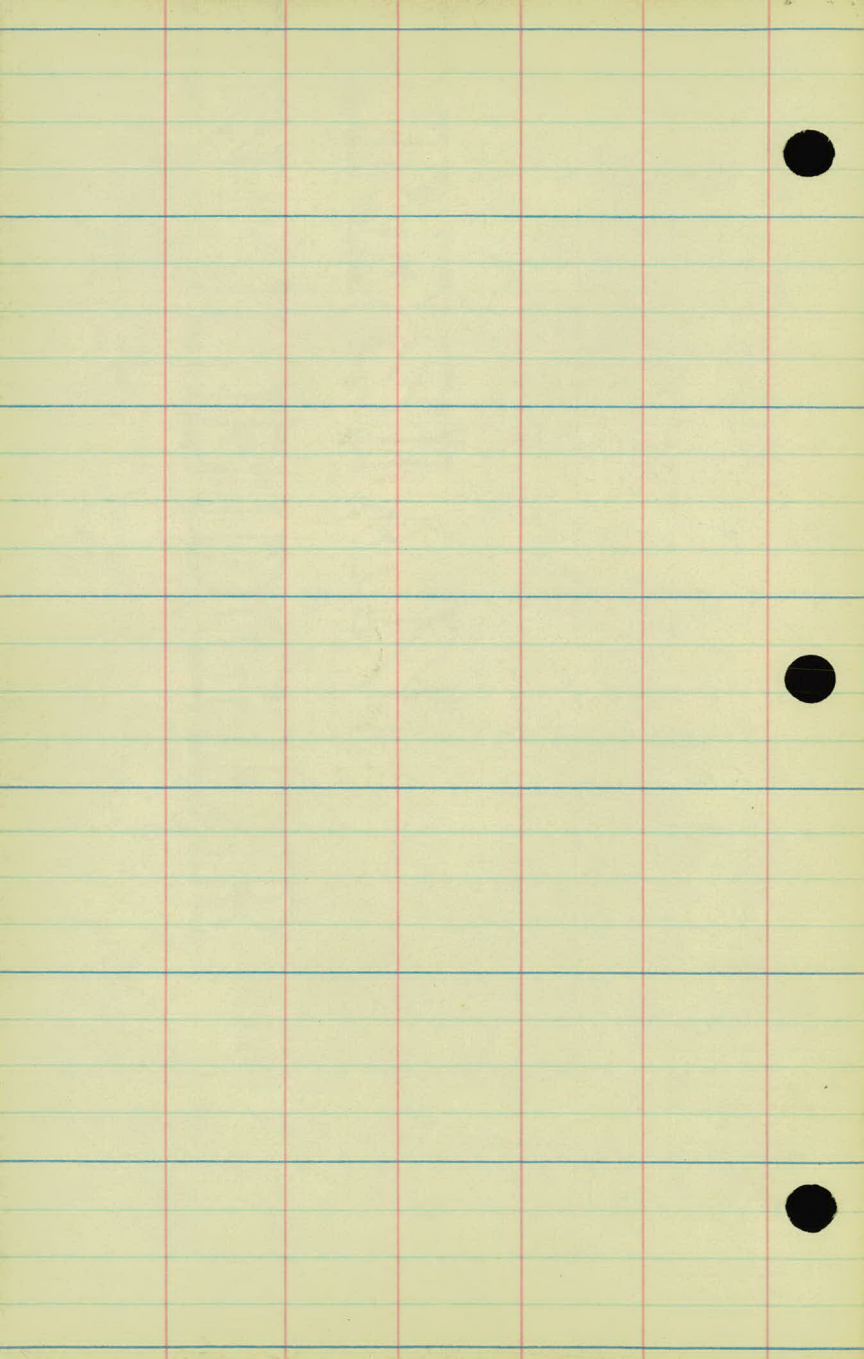
F. 14
E. RD 2

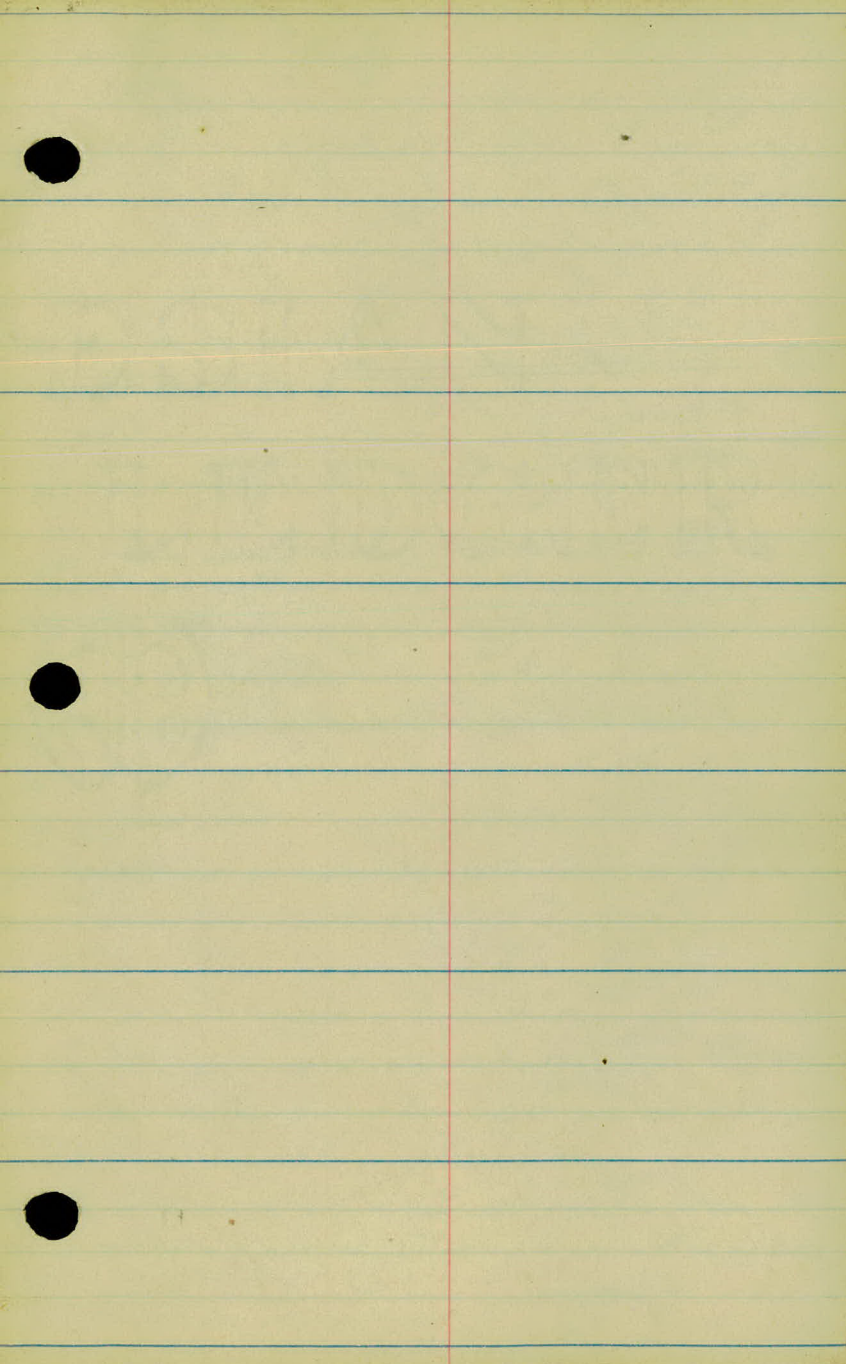
1965 STONE

E. ROAD 2

168 F. COR 17

135 FIELD ENT





B.M.	4.38	1008.71 ✓		1004.33 ✓
	0.43	998.51 ✓	10.63	998.08 ✓

B.M.	8.45	1000.66 ✓	6.30	992.21 ✓
	10.30	1010.76 ✓	0.20	1000.46 ✓
	10.75	1020.38 ✓	1.13	1009.65 ✓

B.M.			3.04	1017.34 ✓
------	--	--	------	-----------

- 1 + 00			13.8	1017.1
----------	--	--	------	--------

- 2 + 50			11.5	08.9
----------	--	--	------	------

- 2 + 00			9.8	10.6
----------	--	--	-----	------

- 1 + 50			7.9	12.5
----------	--	--	-----	------

- 1 + 00			6.8	13.6
----------	--	--	-----	------

- 0 + 50			5.1	15.3
----------	--	--	-----	------

0 + 00				17.9
--------	--	--	--	------

	10.00	1029.39 ✓	0.99	1019.39 ✓
--	-------	-----------	------	-----------

+ 50				19.4
------	--	--	--	------

1 + 00				20.5
--------	--	--	--	------

+ 50				21.1
------	--	--	--	------

2 + 00				22.2
--------	--	--	--	------

+ 50				24.0
------	--	--	--	------

3 + 00				27.1
--------	--	--	--	------

	10.61	1037.44 ✓	2.54	1026.85 ✓
--	-------	-----------	------	-----------

TOP OF HYD N.E. COR HELEN ST. & CL. ROAD "C" LOW WAT.

SPX IN T.P. LEFT IN HELEN ST 1/2 MILE N.E. CL. RD. "C."

SPX IN 24" OAK 45' RT. 57M. 0+50..

1.7	2.1	2.6		2.5	3.3	2.9	3.4	✓
33	21	12	2.5	10	17	19	35	

10.0	11.1	11.1		10.1	10.5	10.2	12.2	✓
33	23	11	10.0	9	13	18	33	

8.4	8.6	8.9		9.0	9.5	10.6	11.6	✓
33	20	8	8.9	8	7	19	33	

8.0	8.3	8.4		8.3	11.0	12.1	12.8	✓
33	22	10	8.3	7	19	27	33	

7.0	7.3	7.6		7.2	10.2	10.8	12.1	✓
33	27	17	7.2	8	17	18	33	

5.0	5.7	5.4		5.3	8.6	9.1	10.2	✓
33	16	7	5.4	9	18	19	33	

	2.3	2.8	3.5	4.1	✓
2.3	11	17	19	33	

✓
1037.46
27.1

3+00

+50

29.4

3195 R.T.

4+00

30.4

+50

30.1

5+00

29.7

+50

29.0

6+00

27.3

+50

26.4

7+00

25.6

2.89

✓
102710

13.25

✓
102421

+50

24.1

8+00

22.7

CROSS DRAIN

+50

22.5

9+00

22.2

$$\begin{array}{r} 77 \ 80 \ 27 \ 10.1 \\ 33 \ 23 \ 11 \ 10 \end{array}$$

$$(10.4)$$

$$\begin{array}{r} 5.9 \ 4.7 \ 7.4 \ 8.0 \\ 33 \ 25 \ 13 \ 8 \ 8.1 \end{array}$$

$$\begin{array}{r} 3.1 \ 3.5 \ 6.5 \\ 33 \ 23 \ 11 \ 7.1 \end{array}$$

$$\begin{array}{r} 7.5 \ 7.4 \ 7.6 \\ 33 \ 21 \ 9 \ 7.4 \end{array}$$

$$\begin{array}{r} 8.6 \ 8.7 \ 8.4 \\ 33 \ 22 \ 12 \ 7.8 \end{array}$$

$$\begin{array}{r} 2.2 \ 9.0 \ 8.8 \\ 33 \ 20 \ 8 \ 8.5 \end{array}$$

$$\begin{array}{r} 11.6 \ 11.5 \\ 33 \ 12 \ 10.2 \end{array}$$

$$\begin{array}{r} 11.9 \ 11.8 \ 11.0 \\ 33 \ 14 \ 4 \ 11.1 \end{array}$$

$$\begin{array}{r} 11.2 \ 12.2 \ 12.7 \ 12.1 \\ 33 \ 16 \ 13 \ 10 \ 11.9 \end{array}$$

$$\begin{array}{r} 2.0 \ 2.8 \ 3.2 \ 2.5 \\ 33 \ 17 \ 13 \ 3 \ 3.0 \end{array}$$

$$\begin{array}{r} 5.4 \ 5.4 \ 6.1 \ 4.5 \ 4.3 \\ 33 \ 24 \ 15 \ 12 \ 6 \ 4.9 \end{array}$$

$$\begin{array}{r} 5.8 \ 6.0 \ 4.4 \ 5.2 \\ 33 \ 24 \ 14 \ 9 \ 4.6 \end{array}$$

$$\begin{array}{r} 4.7 \ 4.7 \ 5.4 \ 6.0 \ 6.1 \\ 33 \ 27 \ 24 \ 12 \ 6 \ 4.9 \end{array}$$

✓
1027.10

+50

22.3

10 +00

22.6

+50

23.3

11 +00

24.2

12.12

✓
1035.72

3.50

✓
1023.60

+50

24.9

12 +00

25.4

+50

26.4

13 +00

27.7

+50

29.3

B.M.

1.47

✓
1034.25

14 +00

31.0

+50

32.4

10.52

✓
1043.88

2.34

✓
1033.36

15 +00

33.7

+50

35.2

4-14-24

LEFT					RIGHT				
3.0	4.2	5.0	5.7	5.1	5.4	6.5	7.1	7.9	
33	24	13	12	7	4.8	6	16	20	
								33	

1.8	2.5	3.5	5.0	4.5	4.9	5.8	7.1
33	25	13	11	7	4.5	10	18
							33

2.0	2.1	2.7	4.2	4.2	3.8	4.5	5.1
33	24	13	11	3.8	8	9	22
							33

2.1	2.4	2.7	3.7	3.1	3.0	3.4	4.0	4.5
33	25	13	12	7	2.9	5	11	19
								33

TOP OF STRIKE 27.57A 11400.

10.2	10.7	11.4	10.7	11.1	11.7	12.5	13.1
33	22	11	7	10.8	7	9	19
							33

9.8	10.3	10.6	10.2	10.4	11.1	12.0	12.4
33	20	12	11	10.3	6	10	22
							33

2.9	7.2	9.6	7.1	9.5	10.2	11.2	11.5
33	25	12	7	9.3	6	8	21
							33

7.6	7.7	8.2	7.9	8.2	9.5	9.9	9.5	9.8
33	19	13	7	8.0	4	12	17	26
								33

4.8	5.4	5.2	5.5	6.1	6.4	7.0	7.2	6.4	6.7
33	27	25	13	11	6.4	4	6	9	11
									33

SPK 14 12" MAX 75' LT 57A 13750

2.7	2.9	3.7	4.6	4.9	5.1	4.2	4.2	4.5
33	21	13	12	8	4.7	8	11	24
								33

1.6	1.7	1.9	3.5	5.1	3.6	2.8	2.6	5.0
33	27	13	11	8	3.3	7	11	16
								33

8.4	8.3	8.5	10.1	9.9	10.3	9.6	9.9	10.2
33	27	14	12	9	10.2	8	11	26
								33

5.3	5.8	6.7	8.4	7.2	8.0	8.4	8.5
33	25	13	11	8.7	8	11	25
							33

✓
104388

16+00

35.8

+52

35.4

17+00

33.7

+50

31.0

0.65

✓
1030.79

13.74

✓
1030.14

18+00

28.1

+50

25.6

19+00

23.2

+50

21.1

20+00

19.3

4.02

✓
1021.83

12.98

✓
1017.81

+50

17.7

21+00

16.4

+50

15.0

22+00

14.8

$$\begin{array}{r} 2.7 \\ 33 \end{array} \quad \begin{array}{r} 3.6 \\ 25 \end{array} \quad \begin{array}{r} 4.6 \\ 14 \end{array} \quad \begin{array}{r} 8.1 \\ 9 \end{array} \quad \begin{array}{r} 8.2 \\ 8 \end{array} \quad \begin{array}{r} 6.2 \\ 11 \end{array} \quad \begin{array}{r} 7.2 \\ 23 \end{array} \quad \begin{array}{r} 8.0 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 2.1 \\ 33 \end{array} \quad \begin{array}{r} 2.7 \\ 26 \end{array} \quad \begin{array}{r} 7.2 \\ 14 \end{array} \quad \begin{array}{r} 8.2 \\ 9 \end{array} \quad \begin{array}{r} 8.5 \\ 7 \end{array} \quad \begin{array}{r} 8.6 \\ 12 \end{array} \quad \begin{array}{r} 6.7 \\ 25 \end{array} \quad \begin{array}{r} 7.3 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 4.5 \\ 33 \end{array} \quad \begin{array}{r} 5.5 \\ 28 \end{array} \quad \begin{array}{r} 5.0 \\ 26 \end{array} \quad \begin{array}{r} 6.4 \\ 14 \end{array} \quad \begin{array}{r} 7.8 \\ 9 \end{array} \quad \begin{array}{r} 10.4 \\ 10.4 \end{array} \quad \begin{array}{r} 7.4 \\ 8 \end{array} \quad \begin{array}{r} 7.2 \\ 13 \end{array} \quad \begin{array}{r} 7.6 \\ 24 \end{array} \quad \begin{array}{r} 3.5 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 10.4 \\ 33 \end{array} \quad \begin{array}{r} 10.9 \\ 27 \end{array} \quad \begin{array}{r} 11.4 \\ 28 \end{array} \quad \begin{array}{r} 10.9 \\ 27 \end{array} \quad \begin{array}{r} 11.6 \\ 14 \end{array} \quad \begin{array}{r} 12.9 \\ 10 \end{array} \quad \begin{array}{r} 12.9 \\ 12.9 \end{array} \quad \begin{array}{r} 13.3 \\ 9 \end{array} \quad \begin{array}{r} 13.1 \\ 18 \end{array} \quad \begin{array}{r} 13.4 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 2.8 \\ 33 \end{array} \quad \begin{array}{r} 3.0 \\ 28 \end{array} \quad \begin{array}{r} 3.4 \\ 27 \end{array} \quad \begin{array}{r} 2.9 \\ 26 \end{array} \quad \begin{array}{r} 2.7 \\ 8 \end{array} \quad \begin{array}{r} 2.7 \\ 2.7 \end{array} \quad \begin{array}{r} 3.0 \\ 8 \end{array} \quad \begin{array}{r} 3.5 \\ 12 \end{array} \quad \begin{array}{r} 3.4 \\ 24 \end{array} \quad \begin{array}{r} 3.2 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 6.7 \\ 33 \end{array} \quad \begin{array}{r} 6.6 \\ 27 \end{array} \quad \begin{array}{r} 6.1 \\ 14 \end{array} \quad \begin{array}{r} 5.3 \\ 8 \end{array} \quad \begin{array}{r} 5.2 \\ 5.2 \end{array} \quad \begin{array}{r} 5.5 \\ 8 \end{array} \quad \begin{array}{r} 6.0 \\ 11 \end{array} \quad \begin{array}{r} 6.1 \\ 22 \end{array} \quad \begin{array}{r} 5.6 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 2.8 \\ 33 \end{array} \quad \begin{array}{r} 2.3 \\ 25 \end{array} \quad \begin{array}{r} 7.7 \\ 18 \end{array} \quad \begin{array}{r} 7.4 \\ 7 \end{array} \quad \begin{array}{r} 7.6 \\ 7.6 \end{array} \quad \begin{array}{r} 7.5 \\ 6 \end{array} \quad \begin{array}{r} 8.8 \\ 11 \end{array} \quad \begin{array}{r} 9.4 \\ 18 \end{array} \quad \begin{array}{r} 8.7 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 11.4 \\ 33 \end{array} \quad \begin{array}{r} 11.2 \\ 26 \end{array} \quad \begin{array}{r} 11.0 \\ 15 \end{array} \quad \begin{array}{r} 9.9 \\ 7 \end{array} \quad \begin{array}{r} 9.7 \\ 9.7 \end{array} \quad \begin{array}{r} 9.7 \\ 7 \end{array} \quad \begin{array}{r} 10.7 \\ 10 \end{array} \quad \begin{array}{r} 11.2 \\ 18 \end{array} \quad \begin{array}{r} 10.9 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 13.5 \\ 33 \end{array} \quad \begin{array}{r} 13.2 \\ 25 \end{array} \quad \begin{array}{r} 12.7 \\ 12 \end{array} \quad \begin{array}{r} 11.5 \\ 6 \end{array} \quad \begin{array}{r} 11.5 \\ 11.5 \end{array} \quad \begin{array}{r} 11.6 \\ 7 \end{array} \quad \begin{array}{r} 12.3 \\ 11 \end{array} \quad \begin{array}{r} 12.4 \\ 21 \end{array} \quad \begin{array}{r} 12.3 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 5.4 \\ 33 \end{array} \quad \begin{array}{r} 5.3 \\ 26 \end{array} \quad \begin{array}{r} 4.9 \\ 10 \end{array} \quad \begin{array}{r} 4.1 \\ 6 \end{array} \quad \begin{array}{r} 4.1 \\ 4.1 \end{array} \quad \begin{array}{r} 4.3 \\ 8 \end{array} \quad \begin{array}{r} 4.7 \\ 9 \end{array} \quad \begin{array}{r} 4.8 \\ 19 \end{array} \quad \begin{array}{r} 4.4 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 5.9 \\ 33 \end{array} \quad \begin{array}{r} 5.7 \\ 26 \end{array} \quad \begin{array}{r} 5.5 \\ 11 \end{array} \quad \begin{array}{r} 5.9 \\ 9 \end{array} \quad \begin{array}{r} 5.3 \\ 7 \end{array} \quad \begin{array}{r} 5.4 \\ 5.4 \end{array} \quad \begin{array}{r} 5.4 \\ 7 \end{array} \quad \begin{array}{r} 5.8 \\ 9 \end{array} \quad \begin{array}{r} 6.1 \\ 22 \end{array} \quad \begin{array}{r} 5.5 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 7.4 \\ 33 \end{array} \quad \begin{array}{r} 7.3 \\ 28 \end{array} \quad \begin{array}{r} 6.9 \\ 15 \end{array} \quad \begin{array}{r} 7.1 \\ 11 \end{array} \quad \begin{array}{r} 6.9 \\ 8 \end{array} \quad \begin{array}{r} 6.8 \\ 6.8 \end{array} \quad \begin{array}{r} 7.1 \\ 7 \end{array} \quad \begin{array}{r} 7.7 \\ 13 \end{array} \quad \begin{array}{r} 7.3 \\ 33 \end{array} \quad \checkmark$$

$$\begin{array}{r} 8.3 \\ 33 \end{array} \quad \begin{array}{r} 8.2 \\ 25 \end{array} \quad \begin{array}{r} 8.8 \\ 14 \end{array} \quad \begin{array}{r} 7.6 \\ 6 \end{array} \quad \begin{array}{r} 7.0 \\ 7.0 \end{array} \quad \begin{array}{r} 7.5 \\ 6 \end{array} \quad \begin{array}{r} 8.7 \\ 9 \end{array} \quad \begin{array}{r} 7.9 \\ 19 \end{array} \quad \begin{array}{r} 8.7 \\ 33 \end{array} \quad \checkmark$$

✓
102183

+50

14.2

23+00

14.3

+40

14.8

+85

14.7

24+00

14.5

+35

13.6

25+00

13.1

+50

12.9

26+00

13.5

+60

15.5

27+00

20.6

8.63

✓
102939

1.07

✓
102076

+32

24.2

+44

Co. Road "D"

✓
24.9

B.M.

1.35

✓
102939

1.35

✓
102804

$\frac{7.8}{33}$ $\frac{10.0}{25}$ $\frac{10.1}{15}$ $\frac{7.2}{10}$ $\frac{7.7}{6}$ $\frac{7.6}{16}$ $\frac{8.0}{8}$ $\frac{9.8}{12}$ $\frac{9.6}{16}$ $\frac{9.6}{33}$ ✓

$\frac{8.9}{33}$ $\frac{9.5}{23}$ $\frac{9.6}{11}$ $\frac{7.9}{6}$ $\frac{7.5}{15}$ $\frac{7.9}{9}$ $\frac{8.4}{14}$ $\frac{9.9}{16}$ $\frac{9.8}{33}$ ✓

$\frac{7.4}{33}$ $\frac{7.5}{21}$ $\frac{7.8}{10}$ $\frac{7.2}{5}$ $\frac{7.0}{10}$ $\frac{7.2}{8}$ $\frac{7.9}{14}$ $\frac{6.7}{19}$ $\frac{6.9}{33}$ ✓

$\frac{8.9}{33}$ $\frac{9.5}{15}$ $\frac{8.0}{12}$ $\frac{8.1}{9}$ $\frac{7.6}{5}$ $\frac{7.1}{10}$ $\frac{7.3}{8}$ $\frac{7.9}{12}$ $\frac{6.5}{18}$ $\frac{1.2}{23}$ $\frac{0.8}{33}$ ✓

$\frac{9.4}{33}$ $\frac{8.6}{22}$ $\frac{8.2}{14}$ $\frac{8.5}{13}$ $\frac{7.6}{4}$ $\frac{7.3}{13}$ $\frac{7.6}{8}$ $\frac{7.9}{12}$ $\frac{9.0}{16}$ $\frac{2.9}{21}$ $\frac{1.6}{33}$ ✓

$\frac{11.1}{33}$ $\frac{10.6}{17}$ $\frac{10.9}{13}$ $\frac{8.6}{7}$ $\frac{8.2}{82}$ $\frac{8.1}{8}$ $\frac{7.2}{15}$ $\frac{8.5}{33}$ ✓

$\frac{10.5}{33}$ $\frac{11.1}{22}$ $\frac{11.6}{15}$ $\frac{11.0}{11}$ $\frac{8.0}{6}$ $\frac{8.7}{8.7}$ $\frac{7.1}{9}$ $\frac{12.0}{15}$ $\frac{12.8}{19}$ $\frac{12.8}{33}$ ✓

$\frac{10.7}{33}$ $\frac{11.5}{29}$ $\frac{11.8}{12}$ $\frac{8.4}{7}$ $\frac{8.9}{8.9}$ $\frac{7.4}{8}$ $\frac{12.3}{14}$ $\frac{12.6}{16}$ $\frac{12.6}{33}$ ✓

$\frac{11.8}{33}$ $\frac{11.8}{19}$ $\frac{11.6}{16}$ $\frac{8.7}{9}$ $\frac{8.3}{8.3}$ $\frac{8.4}{5}$ $\frac{11.8}{12}$ $\frac{13.0}{17}$ $\frac{13.0}{33}$ ✓

$\frac{12.2}{33}$ $\frac{12.1}{25}$ $\frac{11.3}{16}$ $\frac{6.8}{9}$ $\frac{6.3}{6.3}$ $\frac{6.3}{6}$ $\frac{11.5}{14}$ $\frac{12.0}{17}$ $\frac{12.4}{33}$ ✓

$\frac{8.6}{33}$ $\frac{7.7}{20}$ $\frac{1.6}{8}$ $\frac{1.2}{1.2}$ $\frac{1.0}{9}$ $\frac{7.7}{21}$ $\frac{8.7}{33}$ ✓

$\frac{5.7}{33}$ $\frac{5.4}{19}$ $\frac{5.2}{5.2}$ $\frac{5.0}{18}$ $\frac{4.3}{33}$ ✓

$\frac{6.1}{100}$ $\frac{5.1}{50}$ $\frac{5.0}{33}$ $\frac{4.5}{4.5}$ $\frac{3.7}{33}$ $\frac{3.3}{50}$ $\frac{2.1}{100}$ ✓

SPK IN PP RT STM. 77+70.

+

-

1029.39

T.P.

7.98

1025.44

11.93

1017.46

13.15

1017.73

0.86

1024.58

1.44

1035.57

3.60

1034.13

13.M.

1.32

1034.25

1034.25

7.54

1031.14

11.97

1023.00

T.P.

0.79

1026.98

5.95

1025.19

T.P.

5.66

1021.93

9.71

1016.27

B.M.

4.59

1017.34

1017.34

T.P.

2.00

1011.63

12.30

1009.63

T.P.

0.60

779.41

12.82

778.81

B.M.

9.47

1001.68

7.20

772.21

10.71

1008.78

3.61

778.07

B.M.

4.46

1004.32

1004.33

SPK IN 12" OAK 75 LT. STA. 13+50

SPK IN T.P. LT.

TOP. HYD.

