

Dr. 9 Bk. 19

OFFICE OF COUNTY ENGINEER
RAMSEY COUNTY, MINN.

PLAN

Survey

Mc KNIGHT ROAD

From N. ST. PAUL RD. To Co. Rd. "C"

Road Acc't. No. 68

Date Filed 12-6-60

File

1
Mc KNIGHT

No. St. Paul Road to Co Rd "C"

PLAN SURVEY

Co Rd "C"

S. T. H. # 36

Co Rd "B"

Recd. 4/20/60

$$\begin{array}{r}
 12 \\
 51 \\
 \hline
 06 \\
 16 \\
 \hline
 2 \\
 519 \\
 \hline
 581
 \end{array}$$

Alinément

Sta	Point	ΔL	ΔR
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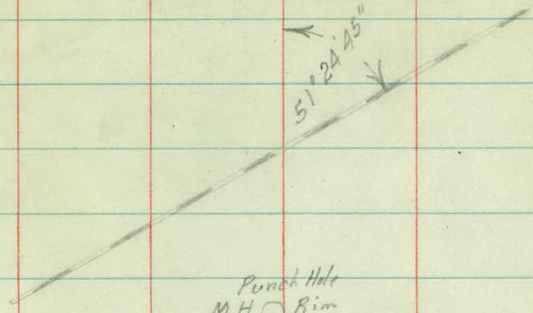
10+92.54	P.O.T.		
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4+35.36	P.I.		0°14'37½"
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0+00	E. N. St. Paul Road		
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FK
RG
JS
JH

Feb 15, 1960
Clear Cool 21°



PP

59.43

EB 11

79.68

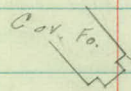
PP

CORD "B"

Spike over
Iron

41.85

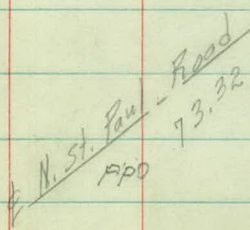
PP



51°30'15"

99.97

Iron Pin



Sta Point Δ Lt Δ Rt

57+75.90 $\pm$ Co. Rd "C"

51 Pot. Ties Page 5

40+20.87 P.O.T

31+41.07 P.I. $0^{\circ} 15\frac{1}{2}'$

31+41.32

26+25.43 P.O.T. Slope 1/2

26+05.6 $\pm$ W.B.L. S.T.H. #36

25+40.3 $\pm$ E.B.L. S.T.H. #36

24+77 $\pm$ Service Lane

FK
RG
JH

Feb 17, 1960

4

157 + 54.24

84.23 m 35.54

Arch Lt 3N
and
Power Pole



98.68

6"0
3N

80.63

18" Cott
3N

12"0
3N

68.68

139.85

+ 5.45

42.06 36" Wilson

Iron

Drill Hole
1" Conc. Core & Co

12.77

131.95

3N 16" Cott

Spike

40.85
41.35

N = 25'

Cor. Stone



Hyd.

Cor. Fo.

106.5

74.02

97.37

62.25

Cor Brick

51

FK
RG
JS
JH

April 1, 1960

5

Topography

4

Lt

$$\begin{array}{r} \cdot f \\ \text{Road} \\ 18-3 \end{array}$$

Rt

$$\begin{array}{r} +93 \cdot f \\ \text{Ent} \\ \text{Lt} \end{array}$$

$$\begin{array}{r} +53 \cdot f \\ 23 \end{array}$$

$$\begin{array}{r} +38 \cdot \text{SEC. Ho} \\ 52 \end{array}$$

$$\begin{array}{r} +40 \cdot \text{R Tie} \\ \text{Ho} \end{array}$$

$$\begin{array}{r} +36 \cdot 2 \text{ tie Walk} \\ 21 \end{array}$$

$$\begin{array}{r} +31 \cdot \text{Ent.} \\ \text{Lt} \end{array}$$

$$\begin{array}{r} +27 \cdot \text{SW Cor Ho} \\ 53 \end{array}$$

3

$$\begin{array}{r} \text{Road} \\ 13 \cdot 9 \end{array}$$

$$\begin{array}{r} +99 \cdot \text{Hyd} \\ 14 \end{array}$$

$$\begin{array}{r} +55 \cdot \text{TP} \\ 26 \end{array}$$

$$\begin{array}{r} +48 \cdot \text{MH} \\ 40 \end{array}$$

$$\begin{array}{r} +102.5 \cdot \text{MH} \\ 1 \end{array}$$

$$\begin{array}{r} +24 \cdot \text{W50} \\ 29 \end{array}$$

2

$$\begin{array}{r} \text{Road} \\ 9 \cdot 12 \end{array}$$

$$\begin{array}{r} +95 \cdot \text{SEC. Bldg} \\ 27 \end{array}$$

$$\begin{array}{r} +28 \cdot \text{Sec.} \\ \text{Ho} \end{array}$$

$$\begin{array}{r} +84 \cdot f \\ \text{Ent} \\ \text{Lt} \end{array}$$

$$\begin{array}{r} +87 \cdot \text{PP} \\ 27 \end{array}$$

$$\begin{array}{r} +65.5 \cdot \text{MH} \\ 1.5 \end{array}$$

$$\begin{array}{r} +11 \cdot 26 \text{ CoH} \\ 60 \end{array}$$

$$\begin{array}{r} +19 \cdot f \\ 87 \end{array}$$

1

$$\begin{array}{r} +100 \cdot \text{Curb} \\ 70 \end{array}$$

$$\begin{array}{r} \text{Road} \\ 4-17 \end{array}$$

$$\begin{array}{r} +35 \cdot \text{ER} \\ 2 \end{array}$$

$$\begin{array}{r} +35.5 \cdot \text{MH} \\ 1 \end{array}$$

$$\begin{array}{r} +84 \cdot 14 \text{ E} \\ 14 \end{array}$$

$$\begin{array}{r} +75 \cdot \text{Curb} \\ 39 \end{array}$$

$$\begin{array}{r} +93 \cdot \text{R Tie} \\ \text{Ho} \end{array}$$

$$\begin{array}{r} +77 \cdot \text{ER} \\ 22 \end{array}$$

$$\begin{array}{r} +46 \cdot 4 \text{ P} \\ 12 \end{array}$$

$$\begin{array}{r} +52 \cdot \text{E.Curb} \\ 9 \end{array}$$

$$\begin{array}{r} +56 \cdot \text{ECor Ho} \\ 47 \end{array}$$

$$\begin{array}{r} +60 \cdot \text{MH} \\ 12 \end{array}$$

$$\begin{array}{r} +78 \cdot \text{PP} \\ 55 \end{array}$$

$$\begin{array}{r} +108 \cdot \text{Arch Lt} \\ 44 \end{array}$$

$$\begin{array}{r} +25 \cdot \text{Pies} \\ 25 \end{array}$$

$$\begin{array}{r} +36 \cdot 3 \text{ P} \\ 13 \end{array}$$

$$\begin{array}{r} +56 \cdot \text{BR} \\ 63 \end{array}$$

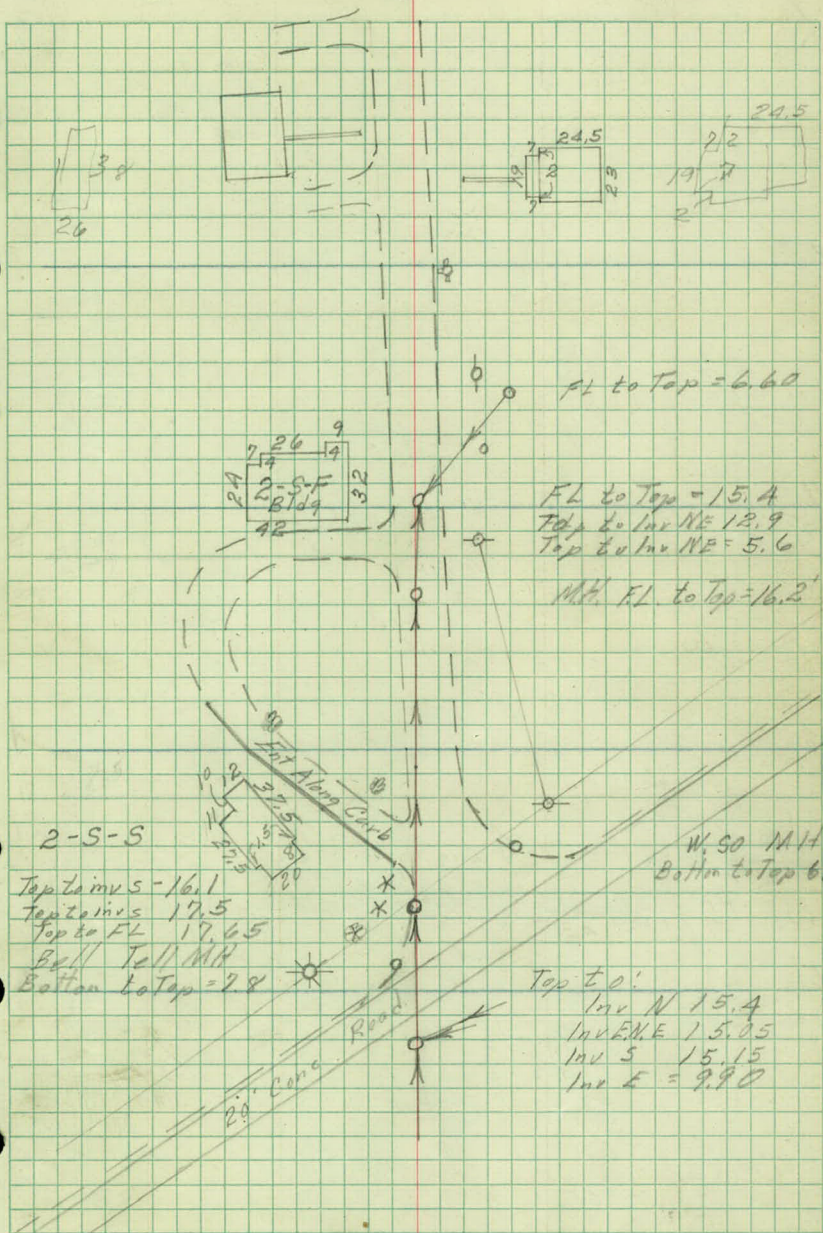
0

$$\begin{array}{r} +14 \cdot \text{BR} \\ 12 \end{array}$$

$$\begin{array}{r} +11 \cdot \text{MH} \\ 9 \end{array}$$

$$\begin{array}{r} 0-21.5 \cdot \text{MH} \\ 2 \end{array}$$

6



9

Lt

L

Rt

+30 Begin
Lowland

8

+11 $\frac{48'' BE}{58}$ +27 $\frac{SE Cor Shed}{36}$ +32 $\frac{R tie Shed}{36}$

7

+95 $\frac{SE Cor Can}{24}$ +53 $\frac{L Ent}{19}$ +77 $\frac{12'' Ap}{36}$ +32 $\frac{SE Cor Ho}{61}$ +84 $\frac{Ent}{2}$ +39 $\frac{4'' E}{34}$ +14 $\frac{24'' BE}{51}$

6

+100 $\frac{Walk}{71}$ +100 $\frac{Ent}{23}$

1

+82 $\frac{SW Cor Ho}{61}$ +26 $\frac{12'' \times 4'' CM}{69}$

1

+28 $\frac{PP}{51}$ +30 $\frac{E Hedge}{43}$ +26 $\frac{L2 Walk}{69}$ +26 $\frac{WSO}{41}$ +29 $\frac{Hsd}{41}$ +28 $\frac{PP}{23}$

5

+08 $\frac{Edge}{BT}$ +25 $\frac{MH}{1.5}$ +24 $\frac{L Ent}{21}$ +85 $\frac{ER}{48}$ +97.5 $\frac{MH}{1.5}$ +71 $\frac{M.E. Cul.}{31}$ +58 $\frac{BR}{20}$ +82 $\frac{WSO}{35}$ +61 $\frac{BR}{42}$ +86 $\frac{ER}{26}$ +18 $\frac{6'' Pop}{35}$ +59 $\frac{6'' Pop}{36}$ +64 $\frac{PP}{30}$ +21 $\frac{5'' Pop}{34}$ +31 $\frac{5'' Pop}{34}$ +39 $\frac{Pop}{34}$ +68 $\frac{MH}{9}$ +71 $\frac{E.E. Culvert}{11}$

4

+04 $\frac{2''}{33}$ +04 $\frac{3''}{38}$

L212120

FK
JS
JL
JH

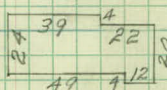
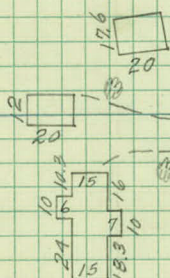
Lt

April 4, 1960

Rt

7

Low land



FL to Top = 9.3
Top to Inv E = 8.8

Top to Inv W = 9.25
" " SW = 9.25
" " S = 9.50
Top to Inv N = 9.35

Barried

W 50 MH 7.0' Deep

14

LH

L

B1

$$+98 \frac{MH}{5}$$

13

12

$$+71 \frac{IP}{33}$$

$$+55 \frac{Fe}{\cancel{L}}$$

$$+20 \frac{Lowland}{\cancel{L}}$$

$$+100 \frac{IP}{73}$$

$$+38 \frac{18 \text{ CoH}}{22}$$

$$+27 \frac{4 \text{ BE}}{5}$$

$$+22 \frac{4 \text{ FE}}{6}$$

10

$$+99 \frac{\cancel{L} \text{ A Bandon Street Railway}}{MH}$$

$$+88 \frac{6}{\cancel{L}}$$

$$+75 \frac{\text{End Lowland}}{\cancel{L}}$$

9

April 4, 1960

8

FL to Top = 3.70

Lowland to 43'R
Little Brush

FL to J.P. Lines
Parallel Tracks

Area

Low

FL to Top = 7.2

Lowland

19

Lt

Z

Rt.

18

+00 $\frac{MH}{5}$ +56 $\frac{5tp}{15}$

17

+30 $\frac{30''0}{51}$

16

+21 $\frac{24''0}{61}$

15

+18 $\frac{20''0}{67}$
+00 $\frac{18''0}{54}$ +82 Edge
Lowland

14

April 4, 1960

9

FL to Top = 4.30

n

Lowland

24	<u>15</u>	<u>18</u>
+97	Ground 140	End Garden
	8	40-70
	+99	+89
	+74	18"
	10 Plum	12
	30	
+18	140	+35
	29	80
		22
+10	SE Cor Barn	100
	139	Ditch
23	+11	SE Cor Shed
	79	
+95	Cor Garden	
	40-70	

+55 Begin Ditch At
15'

22

+98 MH
5

+50 Begin 2' Ditch
12

21

20

19

FX
JS
JL
JH

April 5, 1960

10



Cultivated

2' Bottom

2' Bottom

MH 3.94' Deep

Some water low

29

+00 Ditch Trees
19 20

+16 MH
5

+30 Cor Woods
20

+08 Notice of Abandon Sewer
2

+16 Brk. MH
4

28

+00 Ditch
20

+65 Begin Brush
20' to 7 R1

27

+00 Ditch
19

+75 Bag Lowland
R & L

+50 N.E. Apron 48" SCP
18.5

+05.6 WBL
26' Wide

26

+73 W.E. 15' CM +73 E.E. 15' CM +73 MH
26 10 18.5

+40.3 EBL
26' Wide

25

+99 E.E. 15' CM
10

+86 E. BT
2

+79 MH
6

+47 14' 0" +59 S.E. Apron 48" SCP +57 E. Ditch
75 18 17

+53 Hyd +48 30' 0" +68 B. BT +52 PP
24 60 2 28

+23 14' 0" +50 W.S.O +45 24' 0" +51 STP +40 MH
7 24 44 16 35

24

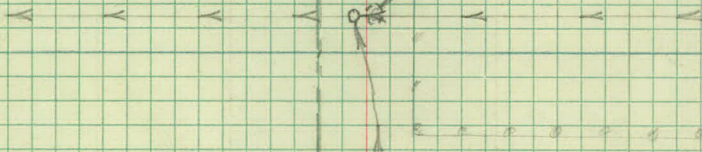
+18 24' 0"
9

April

11

3
3
3

New Pipe Through Old MH Fg.



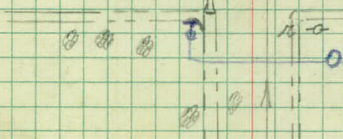
Lowland

26' W.B.L.

FL to Top = 8.05'

26' E.B.L.

Top to FL = 7.4'



Water Main MH
El. Top = 938.0
5.3' Deep

34

+69 End Trees
20 - 50

+39 Trees
7

33

+00 Ditch Trees
20 15

32

+00 Ditch Trees
19 22

+40 MH Base
6

+46 Ab. MH
2

+30 Cl. 9' MH
6

31

+00 Ditch
18

+02 8" W
19

30

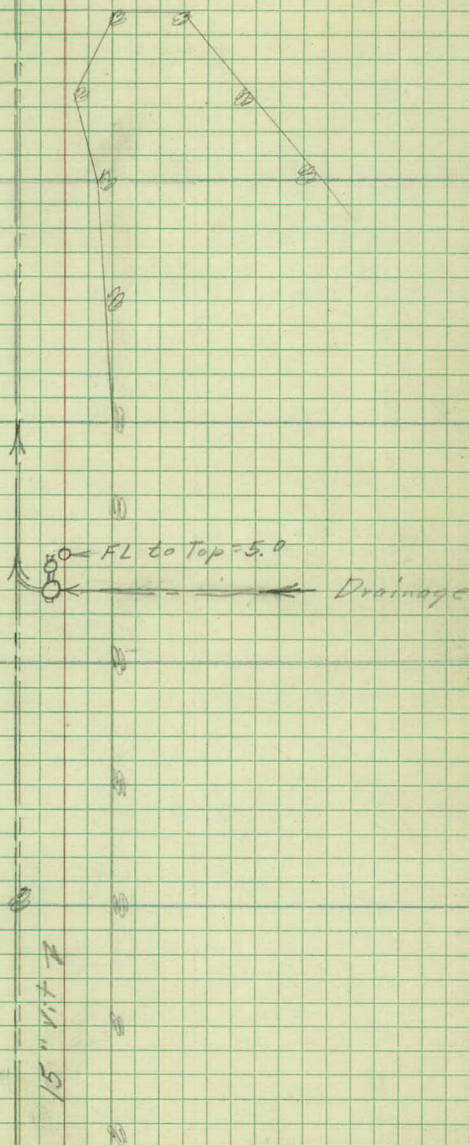
+00 Ditch Trees
20 20

Abandon Section

29

April 5, 1960

12



39 100 Sewer over Brush
 2 of Ditch 70-30
 111.5

+22 8" W
 39
 +20 Begin Brush
 30-70
 +22.5 12" x 20" CM
 1-19

38
 100 Ditch
 71
 199 Conc Sewer Casement
 53-82
 199 MH
 5
 +87 48" SCP
 61
 +73 48" SCP
 51

37 100 Ditch
 26

+28 B. 20" Vit.
 10

36 100 Ditch
 26

35 100 4.6" Ditch
 2.5
 +89 18" CH
 9
 +75 Broken MH
 2
 +70 MH Base
 7

34 102 4-15" Vit.
 4

April 5, 1960

13

Conc

RT

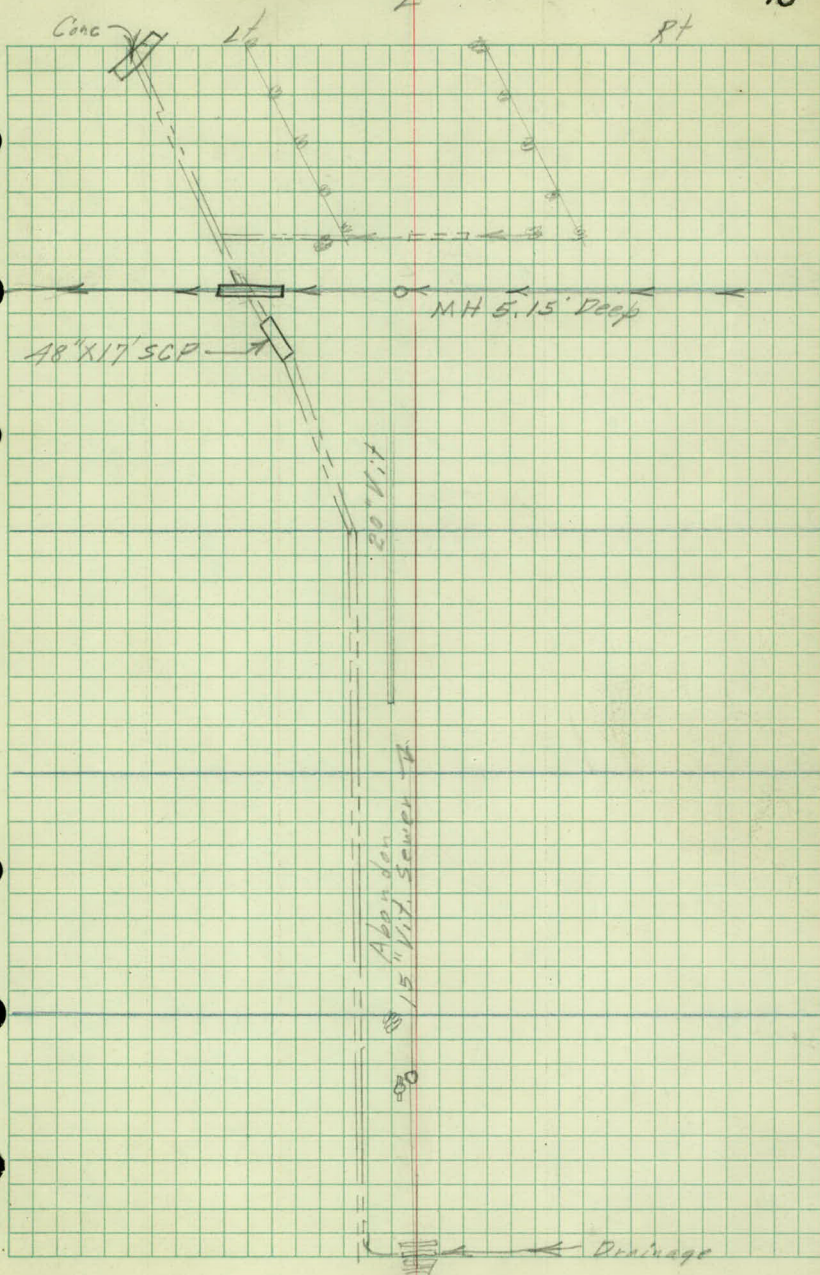
48" x 17' SGP

M.H. 5.15' Deep

20' Vit

Abandoned
15" Vit. Sewer

Drainage



44 $\frac{\cdot \text{Ditch}}{100} \frac{\cdot \text{Ditch}}{136}$

$\frac{\cdot \text{Pitch}}{150} \frac{\cdot \text{Pitch}}{97}$

43 $\frac{\cdot \text{Bush}}{120} \frac{\cdot \text{Pitch}}{100} \frac{\cdot \text{old Sewer}}{100} \frac{\cdot \text{Pitch}}{84} \frac{\cdot \text{Pitch}}{100} \frac{\cdot \text{Pitch}}{14}$

$\frac{\cdot \text{Pitch}}{156} \frac{\cdot \text{Pitch}}{89} \frac{\cdot \text{Pitch}}{156} \frac{\cdot \text{Pitch}}{53}$

$\frac{\cdot \text{Pitch}}{186} \frac{\cdot \text{Pitch}}{5}$

42 $\frac{\cdot \text{Pitch}}{100} \frac{\cdot \text{Pitch}}{25}$

$\frac{\cdot \text{Pitch}}{110} \frac{\cdot \text{Pitch}}{R+L}$

$\frac{\cdot \text{Pitch}}{166} \frac{\cdot \text{Pitch}}{2-60}$

$\frac{\cdot \text{Pitch}}{193} \frac{\cdot \text{Pitch}}{3} \frac{\cdot \text{Pitch}}{194} \frac{\cdot \text{Pitch}}{3}$

$\frac{\cdot \text{Pitch}}{136} \frac{\cdot \text{Pitch}}{26} \frac{\cdot \text{Pitch}}{128} \frac{\cdot \text{Pitch}}{7}$

41 $\frac{\cdot \text{Pitch}}{100} \frac{\cdot \text{Pitch}}{56}$

$\frac{\cdot \text{Pitch}}{150} \frac{\cdot \text{Pitch}}{100} \frac{\cdot \text{Pitch}}{160} \frac{\cdot \text{Pitch}}{2-60}$

40 $\frac{\cdot \text{Pitch}}{187} \frac{\cdot \text{Pitch}}{5} \frac{\cdot \text{Pitch}}{185} \frac{\cdot \text{Pitch}}{65}$

$\frac{\cdot \text{Pitch}}{165} \frac{\cdot \text{Pitch}}{24} \frac{\cdot \text{Pitch}}{178} \frac{\cdot \text{Pitch}}{2}$

$\frac{\cdot \text{Pitch}}{165} \frac{\cdot \text{Pitch}}{24} \frac{\cdot \text{Pitch}}{160} \frac{\cdot \text{Pitch}}{2}$

$\frac{\cdot \text{Pitch}}{144} \frac{\cdot \text{Pitch}}{28}$

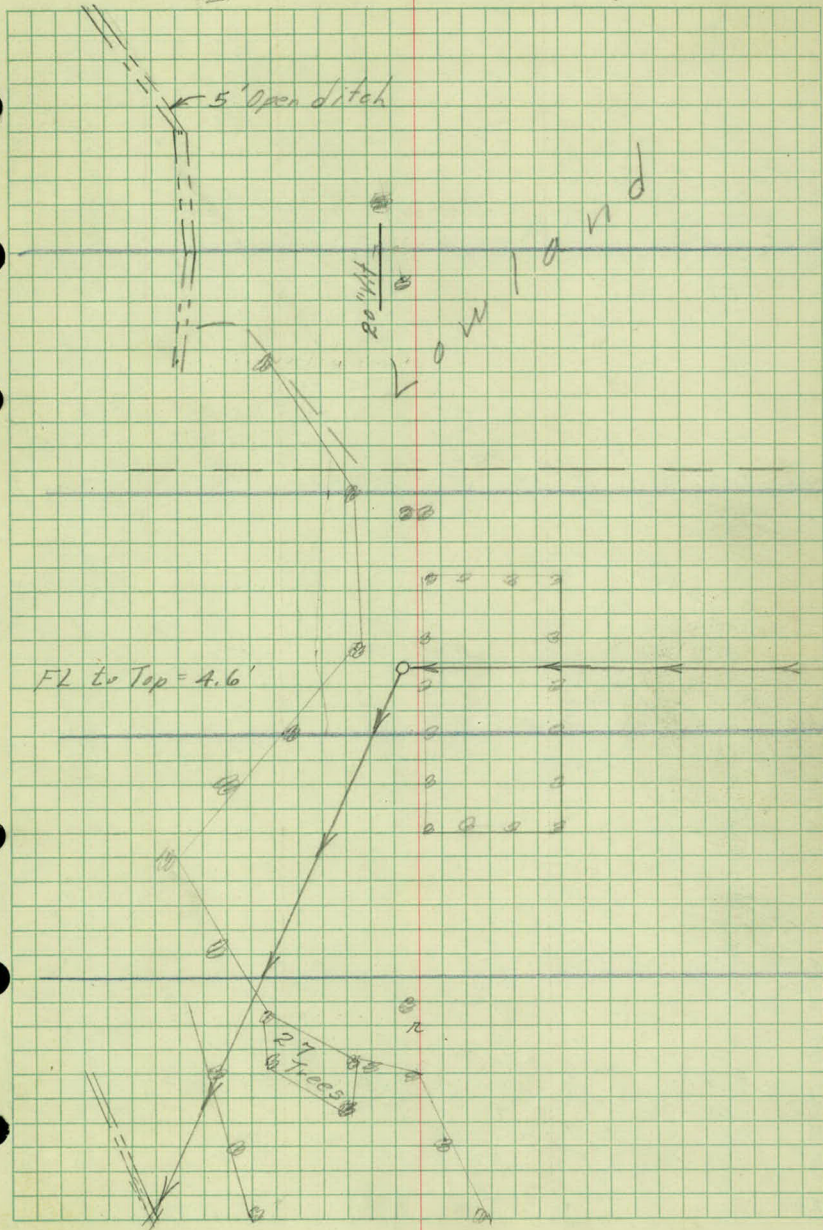
39

± April 5, 1960

14

Lt

Rt



49

Woods
26

48

100 Woods & Brush
26

+91 MH
1

+78 MH
16

47

+37 Brush
2
Woods & Brush
29 ← 9

+54 NE Co. MH
7

+44 Brush
20

+15 B. Woods
22

46

+100 B. Brush
0

+85 End Lowland
R + L

45

Pipe
10 + 16

+81 R Tie Pipe
2

+57 13^{1/2} Ave N.W.
2

+75 R Tie Pipe
2

+58 Ab. MH
14

+20 ± Ditch
172

+37 Ab. MH
9

+54 ± Pipe
91

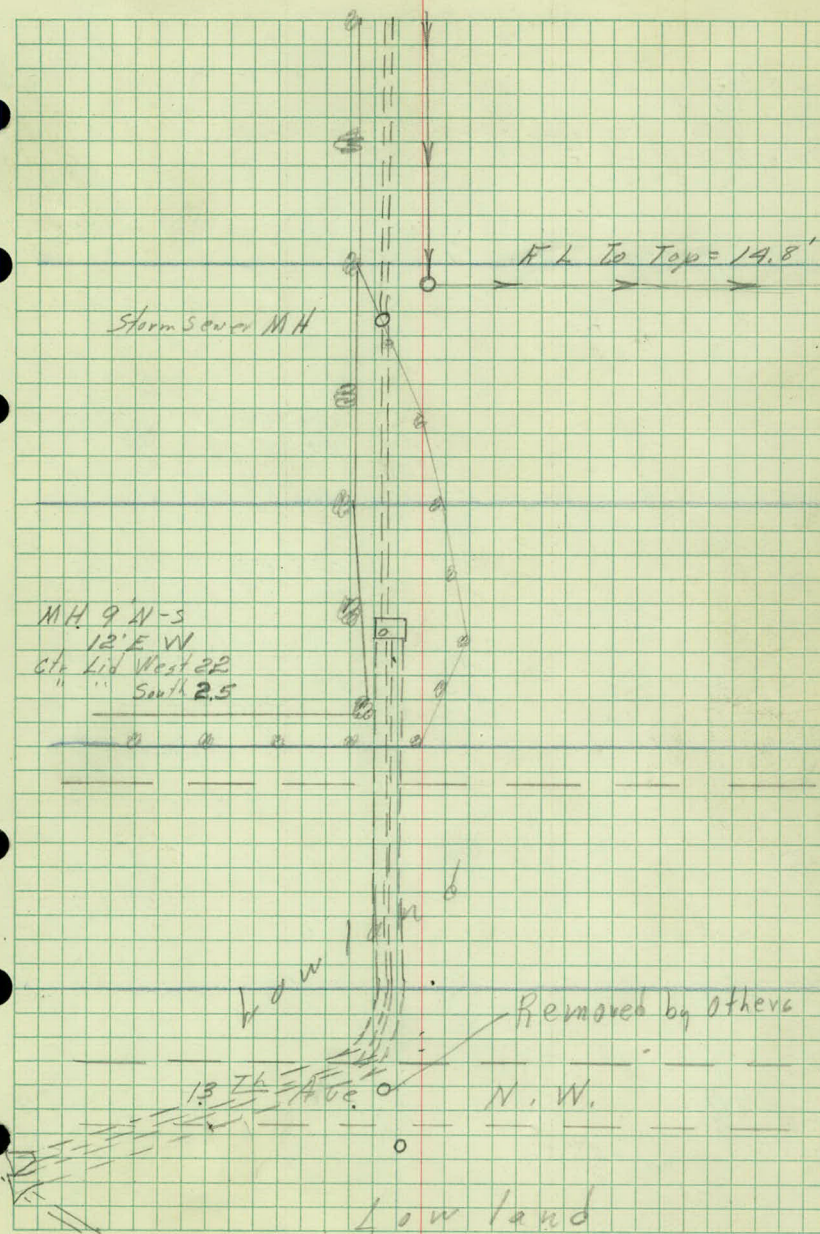
+45 ± Pipe
88

44

31 = H
49 = W

April 5, 1960

15



54

Road
12-11+96 $\frac{PP}{24}$ +98 $\frac{3^P}{49}$ +72 $\frac{6^E}{37}$ +86 $\frac{10^P}{42}$ +91 $\frac{6^E}{37}$ +36 $\frac{6^E}{37}$ +43 $\frac{10^P}{42}$ +52 $\frac{6^E}{37}$ +16 $\frac{Ent}{14}$ +34 $\frac{30^W}{42}$ +50 $\frac{SW Cor Ho}{48}$

53

Road
11 11+107 $\frac{\$21.6 Ent}{25}$ +96 $\frac{SW Cor Gar}{53}$ +95 $\frac{PP}{33}$ +94 $\frac{PP}{23}$ +54 $\frac{SW Cor Garage}{47}$ +40 $\frac{12^C Cor Ent}{33}$ +21 $\frac{3^W Walk}{21}$ +64 $\frac{\$19}{26}$

52

Road
13 11+102 $\frac{End 2^W Walk}{21}$ +54 $\frac{CB}{21}$ +35 $\frac{MH}{12}$ +65.5 $\frac{MH}{12.5}$ +54 $\frac{CB}{21}$ +93 $\frac{SE Cor Ho}{49}$ +35 $\frac{CB}{40}$ +35 $\frac{CB}{40}$ +87 $\frac{SW Cor Ho}{44}$ +42 $\frac{ER}{15}$ +08 $\frac{Edge St. H+L}{15}$ +71 $\frac{W50}{20}$ +71 $\frac{Hyd}{25}$ +29 $\frac{BR}{25}$ +21 $\frac{MH}{25}$ +50 $\frac{48^A Arc H}{24}$ +45 $\frac{ER}{16}$

51

+107 $\frac{CB}{39}$ +00 $\frac{\$Ent}{2}$ +107 $\frac{CB}{41}$ +33 $\frac{PR}{29}$ +92 $\frac{Cor Woods}{35}$ +26 $\frac{SW Cor Ho}{38}$

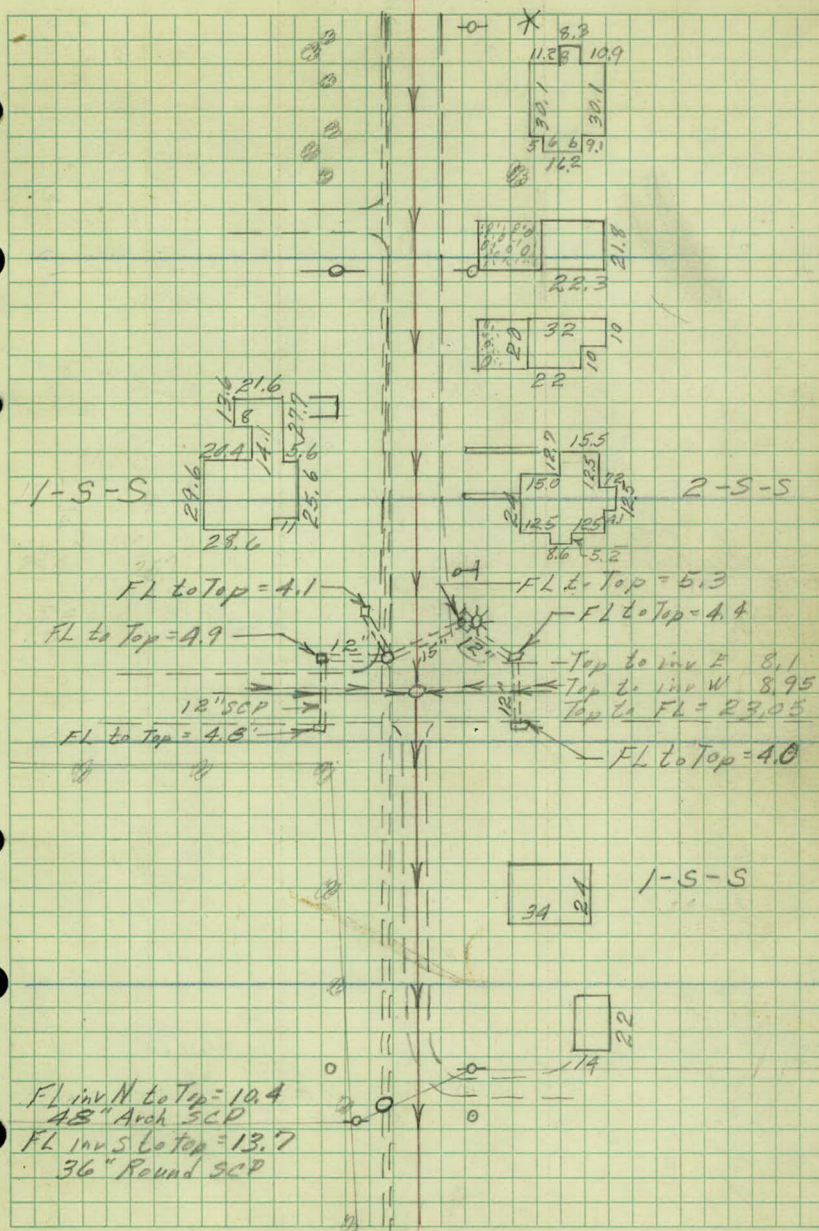
50

+00 $\frac{Woods}{30}$ +90 $\frac{\$Ent}{2}$ +66 $\frac{GP}{37}$ +66 $\frac{PP}{23}$ +73 $\frac{SW Cor Gar}{66}$ +50 $\frac{MH}{15}$ +46 $\frac{GP}{23}$ +57 $\frac{\$Ent}{23}$ +43 $\frac{PP}{25}$

49

April 5, 1960

16



59

+15 MH
11+12 CB
20+12 CB
22

58

+103 MH
31+90 MH
20+97 CB
33+59 MH
23+66 ER
32+56 MH
1+50 Arc Lt
24+66 ER
44+40 BR
13+18 MH
4+35 BR
11

57

+119 4" M
35Road
12-12+16 11" B.T. Ent
12+80 4" M
36+87 SW Cor Ho
57+56 SE Cor Ho
74+71 Rillar
36+54 10" P
49+59 STP
40+63 8" Ent
31+44 16" M
39+47 PP
21+19 SW Cor Ho
50+27 18" M
39

56

Road
12-11+103 E. Corb
24+11 14" P
38+92 SW Cor Gar
100+54 SE Cor Ho
71+49 NE Gar
112+90 Curbl
31+99 Curbl
32+35 E. Hoops
34+51 Ent
11+86 BC
22+88 1A" M
42+88 STP
58+41 PP
35+24 6" B
36+24 PP
23+49 Ent
Rt+74 18" M
64

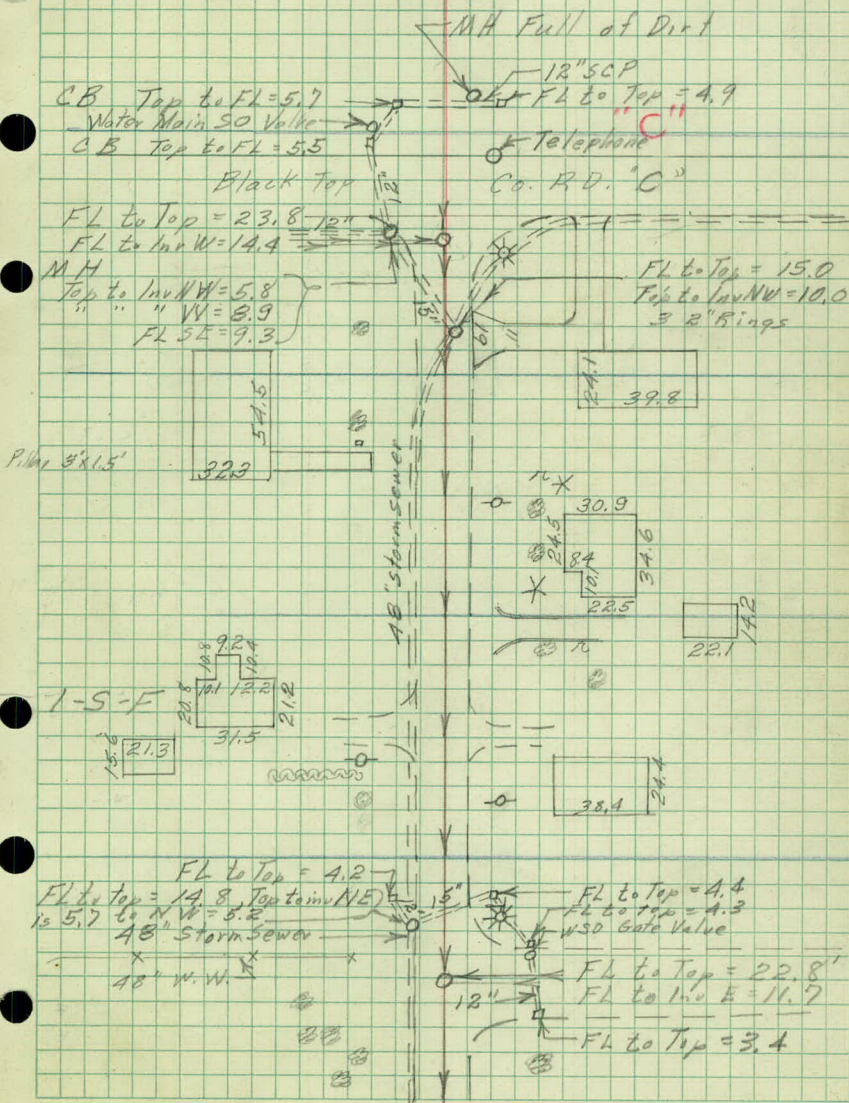
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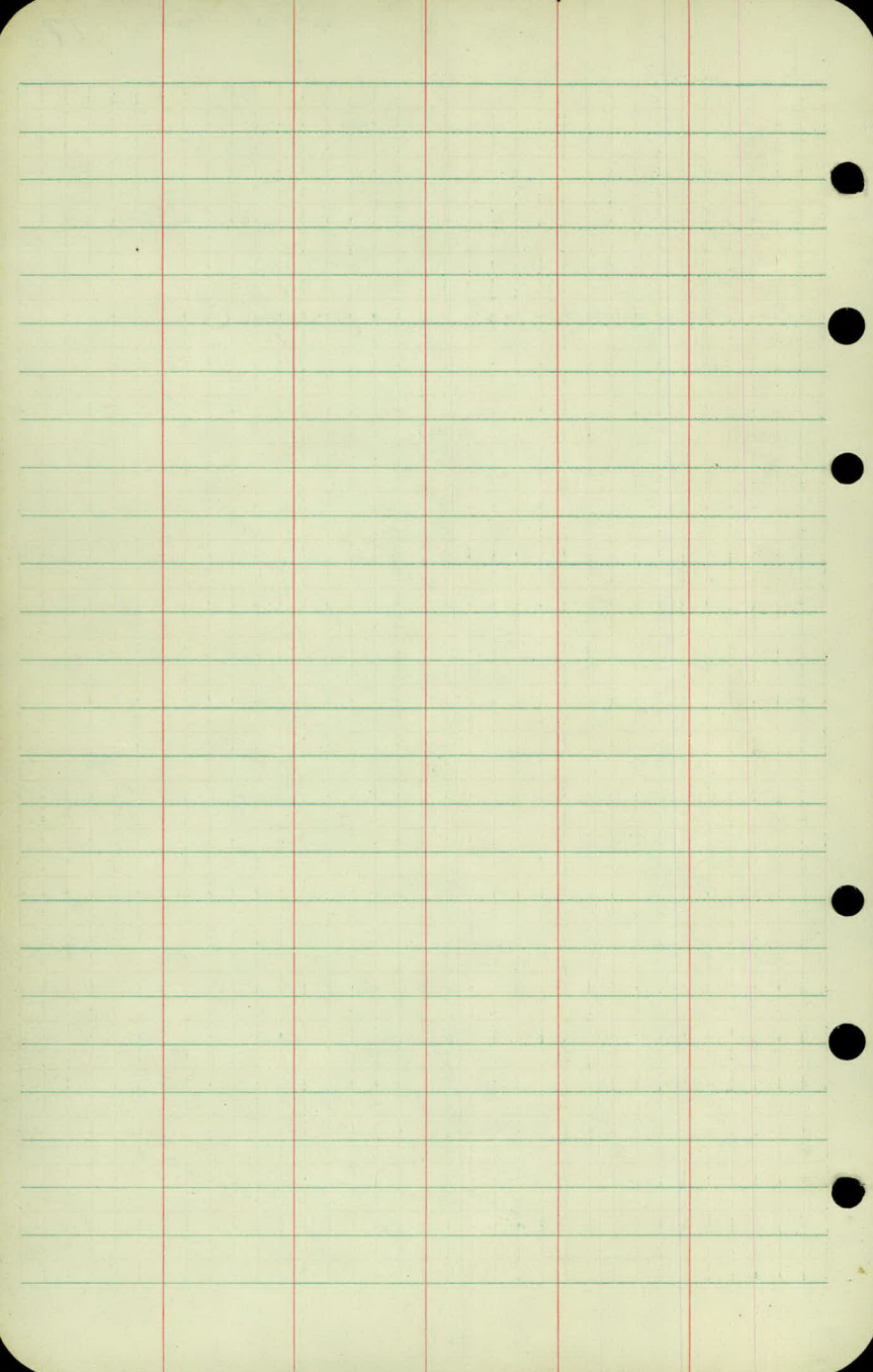
Road
12-10+18 SW Cor Ho
46+83 CB
21+71 MH
12+82 ER
10+84 CB
21+65 CB
37+41 6" E
59+57 Fe
39+59 MH
36+77 Arc Lt
24+81 Hyd
25+29 8" P
37+49 MH
E+81 21" WSO
21+63 BR
30+18 6" E
36+27 14" P
46+34 ER
37+36 CB
40

54

+109 12" P
42+18 BR
11+16 48" P
39

17





KP
UN
UL
RS
WM

16 NOV. 1960

18

MCKNIGHT RD.

CO. RDC TO N. ST. PAUL RD.

MHE'CB LOCATIONS

LT

E

RT

$$+54 \quad \frac{\text{CB CURB}}{21.8}$$

$$+54 \quad \frac{\text{CB CURB}}{22.1}$$

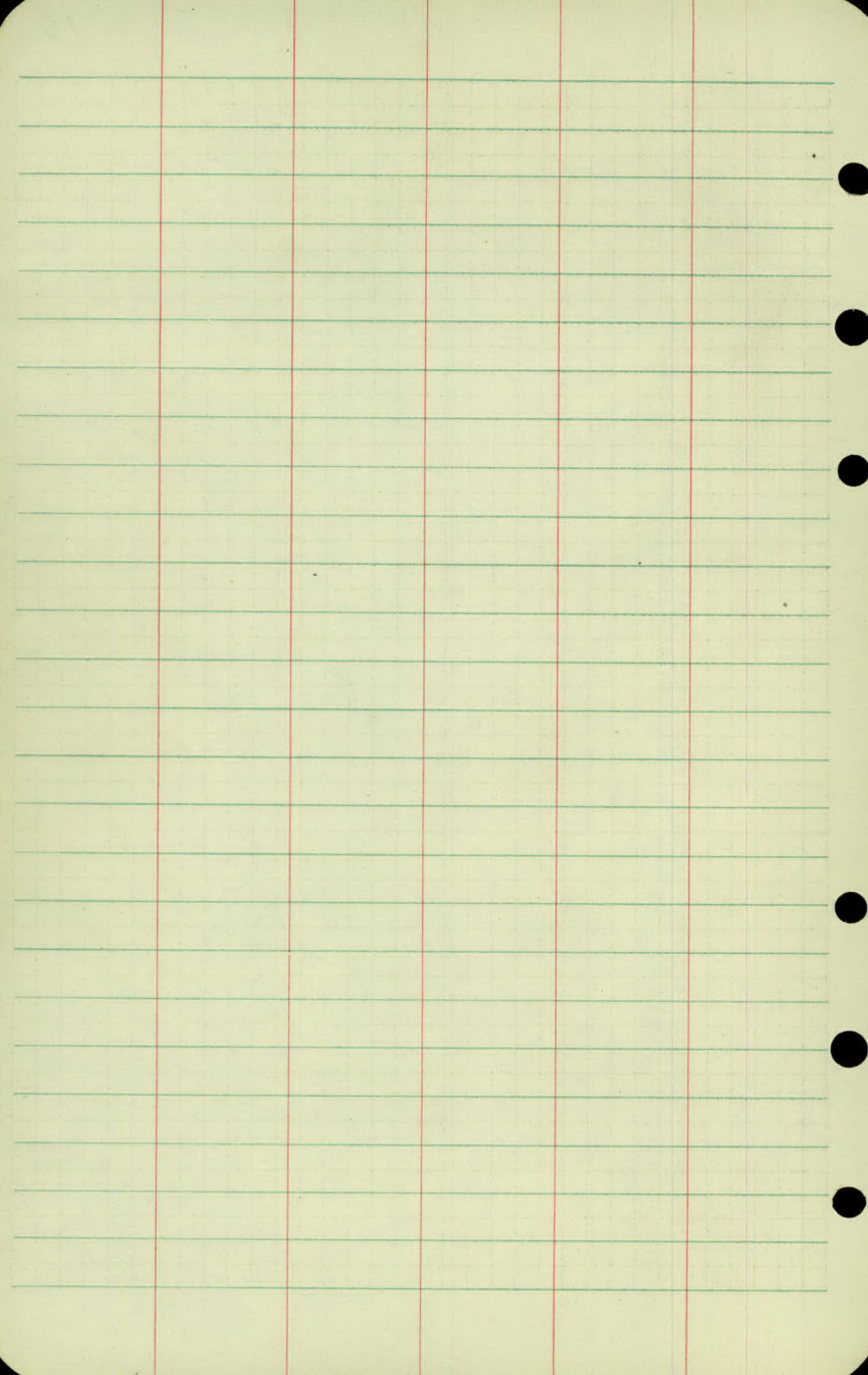
51

49+50

MH
15

m : d

FL TO GRATE RING = 13.7 =
INV N. " " = 10.4 = 48" A
INV S " " = 13.7 = 36" R



9 NOV. 1960

20

K.P

J.S.

FS

LB

RB

HOUSE LOCATION

MCKNIGHT ROAD

N. ST. PAUL RD to Co. RD C

2 PAGES

Platt

✓

LT

~~4~~

RT

25

24

+98 SE Cor No.
95

23

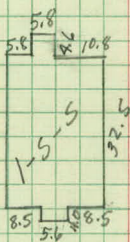
9 NOV. 1960

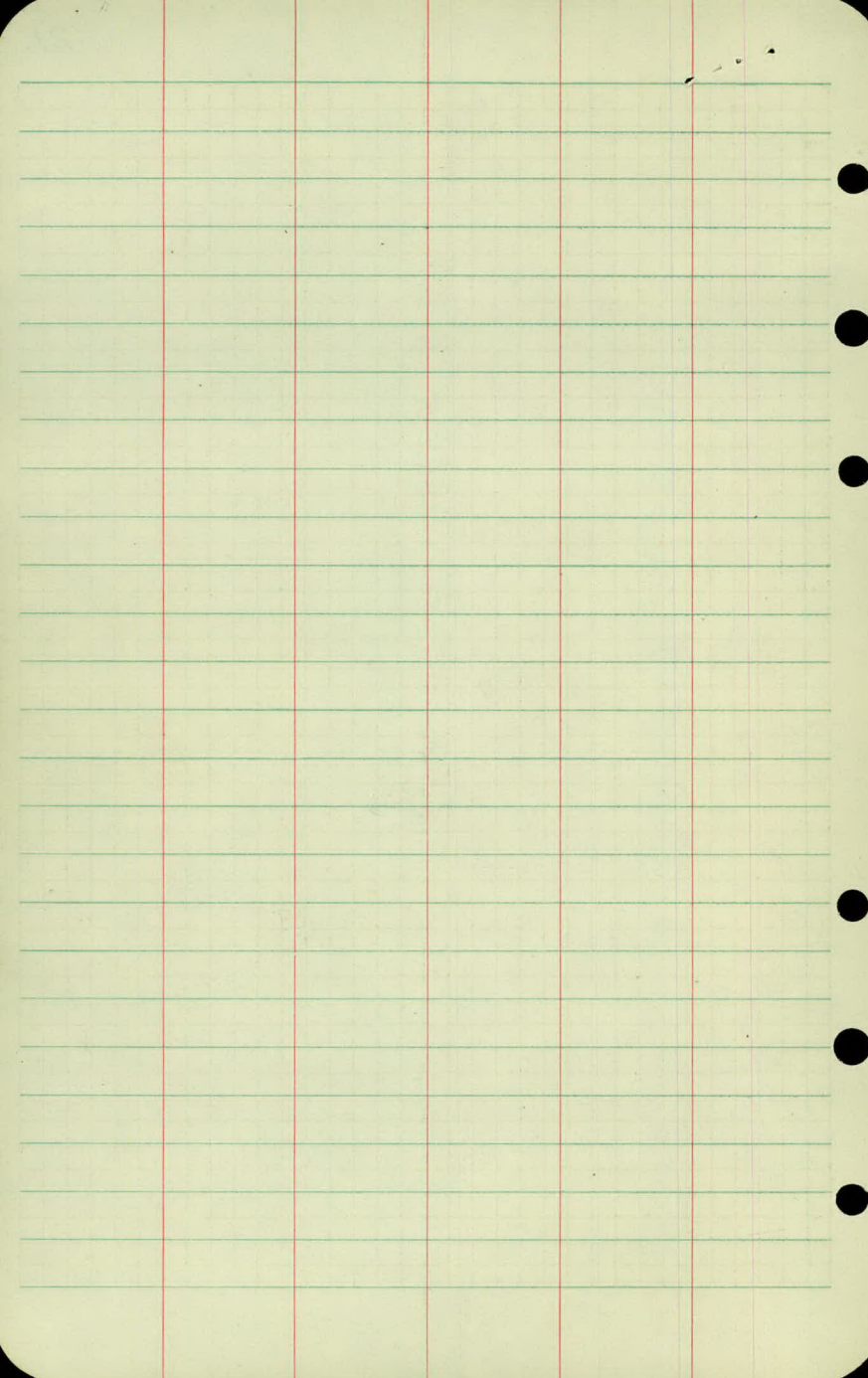
2
21

LT

~~≠~~

RT





28+14 ABANDONED MH 4' RT

31+40 " " 6' LT

31+30 " " 6' RT

31+46 MH 6.0 LT FL TO RW 5.0

38+00 MH 3.0 LT E-W FL TO RW 5.1

38+75 end Low Land RT

39+15 " " " LT

41+28 MH 8.0 LT INV E 4.54
INV SW 4.64

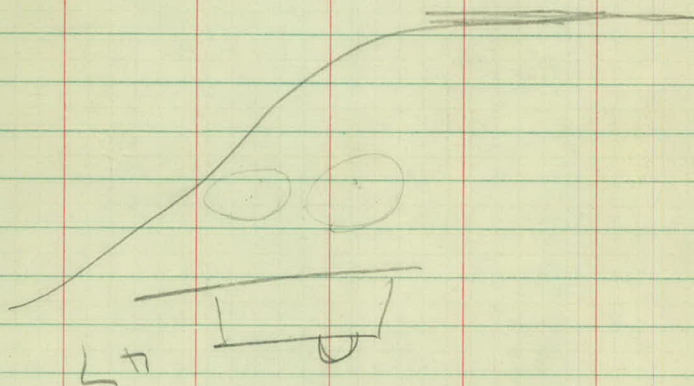
42+25 beg Low Land 15' RT

42+30 " " 15' LT

44+37 cannot Find MH

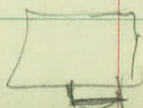
NO MH 40+25

AT 44+57 FOUND TOP LARGE
SCP 1.0 Below ROAD. STORM SEWER



05 + 6H

6H



K.P.

J.S.

J.H.

R.B.

L.B.

2 NOV. 1960

23

McKnight Road
N. St. Paul Rd to Co. Rd. C.

3 pages

LT

~~E~~

RT

52

$$+54 \frac{CB}{21}$$

$$+36 \frac{CB}{39.5}$$

$$+106 \frac{CB}{39.5}$$

$$+21 \frac{MH \text{ Sen}}{L}$$

$$+54 \frac{CB}{22}$$

$$+36 \frac{CB}{40.5}$$

$$+106 \frac{CB}{41.0}$$

51

LT

~~E~~

RT

FL TO INV SE
4.11

CB

FL TO INV SW 5.3
FL TO INV SE 5.3

CB

FL TO INV E 4.92
FL TO INV S. 4.91

CB

FL TO INV NW 4.5

CB FL TO INV N. 4.5

○ MH San.

FL TO INV N. 5.05

CB

FL TO INV N. 4.03

CB

Sta + π - ELEV.
BM 2.15 939.26 937.11

31+30

BM 2.15 937.11 937.11

2 Nov. 1960

25

LT

±

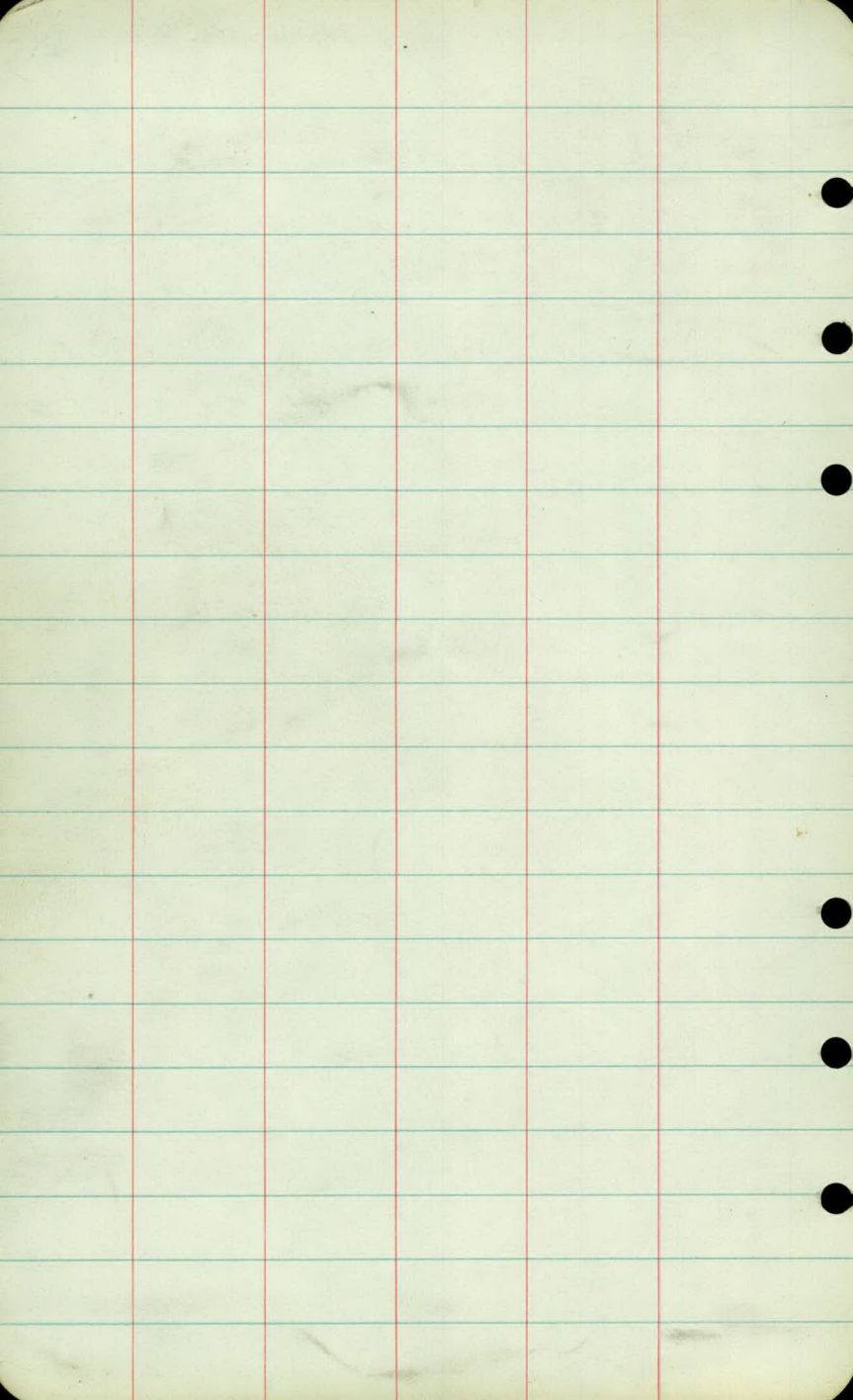
RT

S. Rim M4 ± STA 31+46

32.7	34.7	33.7	30.7	30.6	30.4	30.7	30.6	31.1	30.7
6.6	5.0	5.9	8.6	8.8	8.9	8.6	8.7	8.2	8.6
45	32	28	19	12		14	30	41	54

33.7
6.0
50

S. Rim M4E Sta 31+46



Bench Levels

McKnight Ave (4th St.)

Co. Rd "C" to No. St. Paul Rd.

2 pages

Sta	+	-	Elev	
BM	2.58	969.07	966.49	
BM			3.24	965.83
BM	4.14	969.98	3.23	965.84
BM	1.56	967.30	4.24	965.74
TP	0.59	956.43	11.46	955.84
			3.43	953.00
TP	1.77	944.67	13.53	942.90
BM	9.97	948.57	6.05	938.62 (938.61)
BM	3.37	941.99	9.97	938.62 (938.61)
TP	6.23	940.21	8.01	933.98
BM	4.30	939.79	4.72	935.49 (935.42)
BM	3.60	942.50	0.89	938.90 (938.88)
BM	7.07	947.00	2.57	939.93 ? 939.79
TP	2.16	942.89	6.27	940.73
BM	5.84	947.10	1.63	941.26 (941.24)
TP	3.82	950.29	0.63	946.47
TP	2.96	951.35	1.90	948.39
BM	8.93	957.15	3.10	948.25 (948.22)
BM			0.98	956.17 (956.17)

RG
JS
JH

Feb 10, 1960
Windy 20°

Feb 8, 1960
Windy 43°

19
27

Top Hyd by Ho # 345 Co. Rd "C" (W 19th Ave)

Painted Bolt w side of Hyd by Ho # 345

Painted Bolt Hyd N.E. Cor. 4th St & 16th Ave NW

Painted Bolt Hyd N.E. Co 4th St & 15th Ave N.W.

Nail in PP

W. Rim M.H.

Spike in ground

Spike in Oak

E. Rim M.H.

Spike in ground

Spike in 12" Cottonwood 200' E & McKnight

E. Rim M.H. 200' E & 200's. at w/4 cor Sec 12

SE Cor Conc Lift Pump Base

Stake by shoulder So. Side Service Lane South

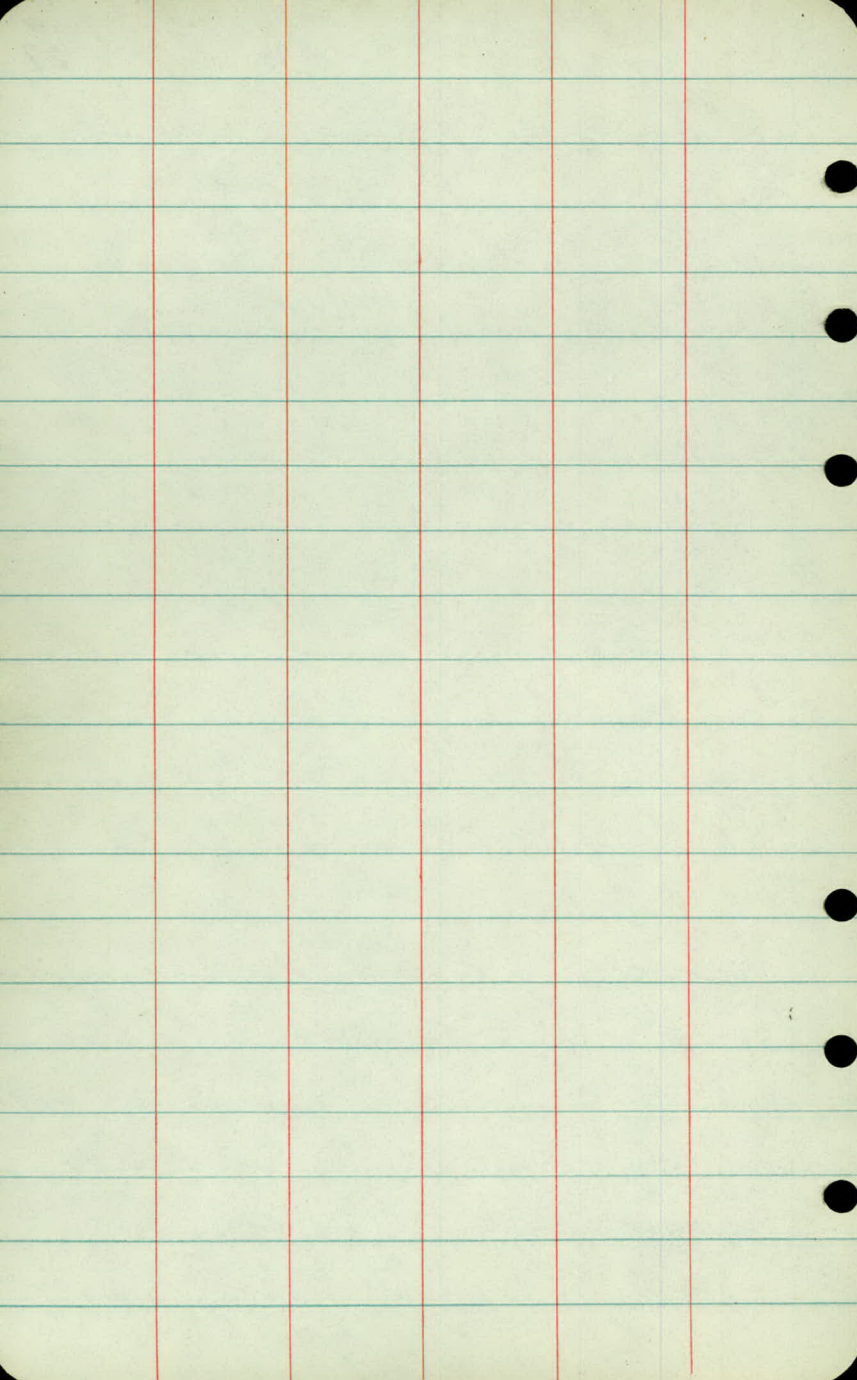
Spike in 34" Cottonwood 150' E & McKnight

^{TP}
Spike in PP by RR Tracks 100' E & McKnight

Bent nail in plank on ground

Top Hyd. N.E. Cor So. Ave & McKnight

Top Hyd East Side McKnight Between
N. St. Paul Road & "B"



x-sections

plotted By KP 5-4-60
checked By KP 5-4-60

Sta + K - Elev.

BM 4.19 960.36

(956.17)

0+00 Profile N. St. Paul Road

0+00

+11

- 21.5

1.9

58.46

- 50

2.1

58.26

- 100

2.5

57.86

- 150

2.2

58.16

FK
JS
JL
JH

April 4, 1960

21
29

Lt.

Rt

Top Hyd E. Side McKnight Between B & N. ST. P. R.

57.4	58.1	58.9	59.1	59.2
3.0	2.3	1.5	0.7	0.2
119	58		50	76

58.0	58.6	58.1	58.9	✓ 59.1	59.2	58.4
2.4	1.8	1.7	1.5	1.3	1.2	2.0
66	37	16		20	42	52

58.76
1.60
M.H.
9

58.46
1.9
Top M.H.

Sta + π - Elev

960.36

0 + 13

+ 35

+ 60

✓

1

+ 30

4 April 4, 1960

22
30

LT

RT

58.6	59.0	58.9	59.0	59.2	59.4	59.5
1.8	1.4	1.5	1.4	1.1	1.0	0.9
62	27	17		18	37	52

59.0	59.2	59.1	58.2	58.3	58.7	59.7	60.1
1.4	1.1	1.3	2.2	1.9	1.7	0.7	0.3
55	20	12	6	MH	14	33	50

59.0	59.0	58.8	58.2	57.7	58.1	58.5	59.7	59.6	59.7
1.4	1.4	1.6	2.2	2.7	2.3	1.9	1.1	0.8	0.7
22	16	16	13		14	30	MH	49	50
Curb							42		

58.8	58.8
1.6	1.6
42	40
Walk	48

56.9	56.9	56.5	56.8	56.8	56.8	57.5	58.5	58.9
3.5	3.5	3.9	3.6	3.6	3.6	2.9	1.9	1.5
50	47	25	6		11	24	40	50

56.0	56.2	56.6	56.2	56.3	56.1	57.2	58.2
4.4	4.2	3.8	4.1	4.1	4.1	3.7	3.2
50	4.4	19	5		12	19	36
							50

Sta	+	π	-	Elev
-----	---	-------	---	------

960.36

1+66

2

+02	MH	π	5.77	54.59
-----	----	-------	------	-------

+29

+48	MH	40' RT	4.42	55.94
-----	----	--------	------	-------

✓

+60

3

+	Walk RT		6.26	54.10
---	---------	--	------	-------

£ April 9, 1960

23
31

	14	17	18	21	22	23	24	25	26	27	28	29	30	31
54.9	55.5	55.1	55.2	55.65	55.5	56.2	57.7	57.5	57.9					
55	4.9	4.7	5.2	4.71	4.9	4.2	2.7	2.9	2.5					
50	27	14	11	MH	15	16	27	42	50					

	14	17	18	21	22	23	24	25	26	27	28	29	30	31
55.2	55.3	54.8	54.7	54.9	55.0	55.1	55.1	57.3						
5.2	5.1	5.6	5.7	5.5	5.4	4.7	4.7	3.1						
8/10	22	17	9		13	16	31	50						
27														

	14	17	18	21	22	23	24	25	26	27	28	29	30	31
55.3	54.8	54.3	53.8	54.2	54.1	54.9	55.4	56.0	56.9					
5.1	6.1	6.1	6.6	6.2	6.3	5.5	5.0	4.4	3.5					
27	21	14	12		10	13	21	33	50					

	14	17
54.8	54.7	
5.6	5.7	
43	50	

	14	17	18	21	22	23	24	25	26	27	28	29	30	31
53.4	52.5	52.5	52.8	53.5	52.5	54.9	55.6	56.0						
7.0	6.9	6.9	7.6	6.9	6.9	5.5	4.8	4.4						
50	37	15	12		9	20	33	50						

	14	17	18	21	22	23	24	25	26	27	28	29	30	31
51.8	52.1	52.5	51.9	52.5	52.4	54.9	55.1	55.6						
8.6	8.3	7.9	8.5	7.9	8.0	6.1	5.3	4.8						
50	35	17	15		11	20	32	50						

Sta + π - Elev

960.36

3+50

+ Walk Lt 10.14 50.22

+81

✓

✓

TP 1.21 951.43 10.14 950.22

A

+ 26

✓

♀ April 3, 1960

24
32

LT

BT

50.4	50.8	50.4	49.9	50.3	✓ 50.1	50.6	52.1	55.0	55.6
10.0	9.6	10.0	10.5	10.1	10.3	9.8	6.7	5.4	4.8
45	34	21	19		7	12	21	32	46
40									40

49.5	49.2	48.4	48.9	48.8	✓ 48.8	49.1	49.4	51.8
11.9	11.2	12.0	11.5	11.6	11.6	11.3	11.0	9.1
39	24	20	7		6	7	14	24

50.18	50.2	52.9	51.7	52.7
10.18	10.2	75	8.7	8.2
Waik	50	51	47	38
48				

47.0	47.7	47.9	48.1	47.9	✓ 47.8	48.4	50.2	49.8	50.3
4.4	3.7	3.5	3.3	3.5	3.6	3.0	1.2	1.6	1.1
50	32	20	10		7	15	33	45	50

45.7	47.0	46.8	47.0	47.1	✓ 47.1	47.2	46.9	48.0	48.7
5.7	4.4	4.6	4.4	4.3	4.3	4.1	4.5	3.4	2.7
29	23	20	10		5	6	21	37	50

45.5	45.4
59	60
44	50

Sta + π - Elev

951.43

A + 62

✓

+ 71 $\angle$ Ditch

MH Rt 5.11 46.32

✓

+ 80 Shoulder

+ 95.86 $\angle$ B

+ 97.5 MH 1.5' Rt 4.47 46.96

April 4, 1960

25
33

45.0	46.3	45.9	46.4	46.5	46.6	45.7	46.2	47.0	47.5
6.4	5.1	5.5	5.0	4.9	4.8	5.7	5.1	4.4	3.9
31	23	18	7		5	7	10	17	35

44.3	44.9	46.5	45.0	44.1	45.6	46.2	46.5	46.5	44.18	44.2	44.9	45.5
7.10				6.7	5.8	5.2	4.9	4.9	7.25	7.2	6.5	5.9
				26	23	10		6	11	11	16	37
Top								Top Culv.				
31												

43.8	46.0	46.2	46.4	46.6	46.6	47.0	47.7
7.6	5.4	5.2	5.0	4.8	4.8	4.4	3.7
50	50	34	13		14	36	50

45.8	45.9	46.3	47.0	48.2	49.9
5.6	5.5	5.1	4.4	3.2	1.5
50		50		50	100

Sta	+	π	-	Elev
-----	---	-------	---	------

951.43

5+15	Shoulder			
------	----------	--	--	--

+25	MH	1.5' R+	4.66	46.77
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+25

✓

+50

6

✓

April 4, 1960

26
34

11

51

45.6	45.8	46.4	46.4	47.0	47.5
5.8	5.6	5.0	5.0	4.4	3.9
50	36	13		26	50

41.5	42.1	42.8	43.6	42.6	44.2	46.2	46.6	45.2
9.9	9.3	8.6	7.8	7.8	6.7	5.1	4.8	6.22
50	30	10		5	FL 11.5	15	28	FL 31.5

46.1	45.8
5.3	5.6
50	39

42.0	42.1	41.9	42.2	42.6	43.0	42.7	46.2	46.0	47.4	48.1
9.4	9.3	9.5	9.1	8.8	8.4	7.7	5.2	5.4	4.0	3.3
50	42	36	32	18		10	16	33	42	50

42.6	42.0	42.4	42.1	44.1	44.4	44.9	46.4	46.1	46.2	47.0
8.8	8.4	9.0	8.3	7.3	7.0	6.5	5.0	5.3	5.2	4.4
50	44	42	33	15		10	16	24	33	35

49.2	49.0	48.0
2.2	2.4	3.4
62	50	43
40		

Sta + π - Elev

951.43

6+50

✓

7

T. P. 0.44 948.77 3.10 948.33

+50

8

+50

April 4, 1960

27
35

LT

43.2	44.2	44.6	45.4	46.0	46.7	46.8	47.1	47.3	47.4
8.2	7.2	6.8	6.0	5.4	4.7	4.6	4.3	4.1	4.0
41	37	25	14		15	25	33	45	50

43.6
7.8
51
40

44.0	44.4	45.2	45.7	46.8	47.5	47.8	47.8
7.4	7.0	6.2	5.7	4.6	3.9	3.6	3.6
50	31	25	15		19	33	50

43.9	45.3	46.1	46.9	47.5	47.2	47.8	48.1
4.9	3.5	2.7	1.9	1.3	1.6	1.0	0.7
50	27	12		18	33	41	50

43.6	43.7	44.2	44.8	45.1	45.2	44.8	45.0	45.4
5.2	5.1	4.5	4.0	3.7	3.5	4.0	3.8	3.4
50	44	29	14		11	18	33	45

41.1	41.5	41.4	41.2	41.4	41.2	42.1	42.2	43.2
2.7	2.3	2.4	2.6	2.4	2.5	5.7	5.6	5.6
50	38	25	11		14	21	35	50

Sta + π - Elev

948.77

9 + 00

+ 50

+ 75

+ 88 Top MH 6' RT 5.35 43.42

+ 91

10

2.6 46.17

10 + 07

+ 23

♀ April 4, 1960

28
36

LF

Bf

38.8	38.0	39.4	39.8	✓ 40.7	42.5	42.8
Water	10.8	9.4	9.0	8.1	6.3	6.0
	25	20		15	28	50

40.7	39.6	39.4	39.5	39.5	39.4	40.4	44.1
8.1	9.2	9.4	9.3	9.3	8.9	8.4	4.7
50	42	33	12		16	28	50

46.0	45.6	41.0	39.9	✓ 40.4	41.3	44.4	44.8
2.8	28	3.2	7.8	8.9	8.4	7.5	4.4
50	37	29	8	15	34	45	50

40.4	42.0	45.3	46.1	46.2	45.8	✓ 44.6	41.7	42.6	45.1	45.8
84	68	35	27	26	30	42	71	62	37	30
50	44	29	21	10		10	22	38	45	50

38.7	38.7	40.4	44.6	45.7	46.4	46.4	45.9	43.8	46.2
10.1	10.1	8.4	4.2	3.1	2.4	2.4	2.9	5.0	2.6
50	34	25	7		10	20	27	35	50

10.0	10.1	9.8	9.5	9.1	8.1	3.1	2.2	1.9	3.1
50	40	23	6		5	18	30	39	48
38.8	38.7	39.0	39.3	39.7	40.1	45.1	46.6	46.9	45.1

46.3

$$\begin{array}{r} 2,5 \\ \hline 50 \end{array}$$

Sta + π - Elev.

948.77

10 + 44

+ 69

✓

+ 89 Along Rail

+ 96 Along Rail

T.P. 1.48 946.02 4.23 944.54

11 + 00

✓

946.44

Apr 13, 1960

29
37

LT
42.3 40.4 38.8 36.7 38.8 39.0 39.7 41.2 45.6
6.5 8.4 10.0 10.1 10.0 9.8 9.1 7.6 3.2
50 43 32 18 12 29 38 50

44.2 44.75 44.2 42.5 38.7 38.1 38.8 39.8
4.6 4.02 4.6 6.3 10.1 10.1 10.0 9.0
38 Rail 31 18 25 40 50
33

44.7A 44.2 43.6
7.03 4.6 5.2
Rail 45 50
43

44.8
4.00
50'

44.83
3.94
4

45.15
3.62
50'

44.76
4.01
50'

44.86
3.91
4

45.11
3.66
50'

RR Spike 3' so of sta 11

38.6 38.7 40.9 42.4 43.9 44.2 44.2 42.5 40.3 38.8
7.4 7.3 5.1 2.6 2.1 1.7 1.8 2.5 5.7 7.2
48 26 12 9 9 22 27 52 63

38.4

2.6
71

Sta + π - Elev

946.02

11+19

✓

+50

12+00

+50

13+00

KG
J5
JL

April 14, 1960

30
38

LT	E	RT						
38.2	38.5	38.1	38.4	39.4	42.0	42.8	43.8	44.5
7.8	7.5	7.9	7.6	6.6	4.0	3.2	2.2	1.5
75	41	14		9	15	24	29	37

43.2 44.5
2.8 1.5
64 54

38.2	38.1	37.9	38.0	38.2	38.2	39.2	42.8
7.8	7.9	8.1	8.0	7.8	7.7	6.7	3.2
52	32	15		10	27	53	62

37.6	37.6	37.7	37.8	38.1	38.5	39.1
8.4	8.4	8.3	8.2	7.9	7.5	6.9
50	37	17		19	44	55

38.1	38.0	38.2	38.3	38.2	38.2	38.8	41.7	41.6
7.9	8.0	7.8	7.7	7.8	7.8	7.2	4.3	4.4
50	38	17		13	27	45	55	59

37.7	37.8	37.8	37.7	37.8	37.8	38.2	41.5	41.4
8.3	8.2	8.2	8.3	8.2	8.2	7.7	4.5	4.6
53	34	14		16	32	41	51	58

Sta

+

π

-

Elev

946.02

13+50

14+00

✓

+50

+86

15+00

April 14, 1960

31
39

Lt

Rt

Rt

31.5
31.6
31.7
31.6
8.5 8.4 8.3 8.4
50 36 19

31.6
31.6
31.7
40.5 40.9
8.4 8.4 8.3 5.5 5.2
16 33 44 50 59

31.3
31.1
31.2
31.3
8.7 8.9 8.8 8.7
50 34 16

39.10
31.2
31.4
31.8 39.6
6.92 8.7 8.6 8.2 6.4
6 11 31 43 47
MH EX 100

39.2
6.7
58

31.2
31.2
31.2
31.3
8.7 8.7 8.7 8.7
50 35 17

31.5
31.5
31.1
31.6 38.0
8.5 8.5 8.3 7.4 8.0
14 33 44 46 54

31.8
38.0
38.0
31.6
31.6
8.2 8.0 8.0 8.4 8.4
58 46 34 16

31.6
31.6
38.6
39.2
8.4 8.4 7.4 6.7
16 28 40 50

40.5
40.4
40.5
40.0
5.5 5.6 5.5 6.0
50 32 15

39.9
39.9
40.6
41.4
6.1 6.1 5.4 4.6
12 24 42 57

Sta	+	Δ	-	Elev
-----	---	----------	---	------

		946.02		
--	--	--------	--	--

15+25				
-------	--	--	--	--

TP	6.78	949.36	3.44	942.58
----	------	--------	------	--------

+50				
-----	--	--	--	--

16+00				
-------	--	--	--	--

+50				
-----	--	--	--	--

17+00				
-------	--	--	--	--

+50				
-----	--	--	--	--

April 14, 1960

32
40

Lt ✱ Rt

42.9	44.0	44.5	44.2	44.0	41.6	41.1	41.6	41.6
2.1	2.0	1.5	1.8	2.0	4.4	4.9	4.4	4.4
53	39	15		12	16	25	36	50

Rock

47.9	48.4	48.5	48.1	47.7	41.8	41.8	41.8
1.5	1.0	0.9	0.7	1.7	7.6	7.6	7.6
50	35	18	3	8	18	40	83

40.9	41.3	42.2	43.2	43.5	42.9	41.0	41.0
8.5	8.1	7.2	6.2	5.9	6.1	8.5	8.4
53	35	16		3	13	17	37

37.1	37.8	38.6	39.3	40.2	39.8	39.9	40.0
11.7	11.6	10.8	10.1	9.2	9.6	9.5	9.4
56	38	19		12	19	34	52

37.0	36.9	37.1	37.4	37.7	38.7	38.7	38.8
12.4	12.5	12.3	12.0	11.7	10.7	10.7	10.6
52	34	16		16	21	38	54

38.9	38.2	37.6	37.4	37.1	37.1	37.6	37.7	38.5	38.4
10.5	11.2	11.8	12.0	12.3	12.3	11.8	11.7	10.9	11.0
55	45	30	12		17	25	41	47	58

Sta + π - E/cv

949.36

18+00

+50

TP 1.60 945.36 5.60 943.76

19+00

+50

20+00

+50

April 14, 1960

33
41

Lt	£	Pl							
40.2	39.5	38.4	37.8	38.9	37.7	36.9	37.3	38.2	38.7
9.1	9.9	11.0	11.6	10.40	11.7	12.5	12.1	11.2	11.1
51	34	16		6	11	26	38	48	57
				MAH					

42.6	42.4	41.7	40.7	40.5	40.5	39.2	38.6	38.7
6.8	7.0	7.7	8.7	8.9	8.9	10.2	10.8	10.7
50	39	25	9		8	16	35	51

Spike at Sta 19+00 £

42.2	43.2	43.2	43.5	42.9	41.3	39.9	39.3	39.6	39.7
3.2	2.2	2.2	1.6	1.5	4.1	5.5	6.1	5.8	5.7
50	29	10		8	12	14	21	38	53

40.2	40.4	40.5	41.5	41.5	39.7	39.6	39.6
5.2	5.0	4.9	3.9	3.8	5.7	5.8	5.8
51	31	12		8	14	35	56

38.5	38.0	38.1	38.6	38.5	38.2	38.5
6.9	7.4	7.3	6.8	6.7	7.1	6.9
50	31	13		18	34	51

37.2	37.2	37.1	37.4	37.1	37.5	37.5	37.6
8.2	8.2	8.3	7.7	7.9	7.9	7.8	
50	29	7	13	29	44	53	

Sta + π - Elev

945.36

21+00

+50

22+00

+50

✓

23+00

✓

April 14, 1960

34
42

Lt. ~~36.8~~ 36.6 36.3 36.1 36.3
8.6 8.8 9.1 9.3 9.1
50 36 18 11

Rt ~~36.6~~ 36.8 37.2 37.4
8.8 8.6 8.1 8.0
9 23 39 52

~~37.0~~ 36.4 36.5 36.2 36.2
8.4 9.0 8.9 9.1 9.2
51 39 25 8

~~36.4~~ 35.7 36.7 37.9 37.1
9.0 9.7 8.7 7.5 8.3
9 17 31 36 54

~~37.4~~ 37.2 37.1 36.2 37.3 37.5
8.0 8.2 8.3 9.2 8.1 7.9
50 33 18 14 10

~~37.8~~ 37.4 37.1 37.3 37.0
7.52 8.0 8.3 8.1 8.4
6 11 24 36 52

MH Rim

~~37.4~~ 36.2 37.8 37.1 37.5
8.0 9.2 7.6 6.3 5.9
18 15 11 5

~~39.6~~ 38.6 38.4 38.7
6.8 6.8 7.0 6.7
9 17 35 50

~~38.8~~ 38.4 38.5
7.1 7.0 6.9
22 38 50

~~39.7~~ 39.1 39.0 39.0 39.0 39.0
5.7 7.5 9.3 9.4 6.1 4.5 4.1
22 19 17 15 7 5

~~40.9~~ 38.1 38.1 39.7 38.7
4.5 7.3 7.3 5.7 6.7
10 19 25 30 50

~~39.8~~ 39.5 39.7
5.6 5.9 5.7
29 40 50

Sta

+

π

-

413
Elev

945.36

TP

3.47

944.70

4.13

941.23

23+50

✓

✓

24+00

✓

+50

April 14, 1960

35
43

Lt.

E

RT

Spike Sta 23+00 E

36.0	38.2	40.2	41.7	41.7	41.2	39.2	38.0	39.9
8.7	6.4	4.5	3.0	3.0	3.5	5.5	6.7	4.8
14	12	9	3		9	18	21-23	27

37.1	39.2	39.8	40.1
7.0	5.5	4.9	4.6
17	18	20	26

39.5	39.6
5.2	5.1
50	31

39.9	39.8
4.8	4.9
50	38

36.2	36.5	40.1	42.2	42.2	42.0	40.8	39.5	39.0	39.7
8.4	8.2	4.6	2.5	2.5	2.7	3.9	5.2	5.7	5.0
17	14	9	4		9	14	16	19	20

38.0	40.0	40.2	40.2
6.7	4.7	4.5	4.5
19	23	41	50

39.6	39.9	40.1
5.1	4.8	4.6
50	40	23

36.2	36.1	39.5	40.1	40.5	40.2	39.7	38.9	39.8	39.2
8.5	8.6	5.2	4.0	4.2	4.5	5.0	5.8	4.9	5.5
17	15	10	6		11	14	16-18	21	40

Sta + π - Elev

944.70

24+50

+55 $\neq$ Ditch

✓

✓

+65

TP 5.44 946.91 3.23 941.47

+78 $\neq$ Service Lane

April 14, 1960

36
44
29.4

L+

±

R+

38.1 40.0 39.9 39.8
6.6 4.7 4.8 4.9
20 23 32 56

5.3
54

36.0 37.4 39.3 40.4 40.2
8.7 7.3 5.4 4.3 4.5
15 12 10 7

40.1 38.5 37.8 37.5 37.5 37.3
8 15 25 47 69 100

36.0 36.8 37.2 37.9
8.7 7.9 7.5 6.8
17 21 29 45

37.6 37.6
7.1 7.1
100 67

40.6 40.4 40.0 39.3 40.3 40.1
4.1 4.3 4.7 5.4 4.4 4.6
100 49 27 18 6

Top Conc. Cntr.

40.0 39.8 39.8 39.8 39.5
4.7 4.9 4.9 4.9 5.2
11 33 50 70 100

Top NE cor lower stop Ho. # 416 Castle Ave

40.7 40.8 40.6 40.6 40.6 40.5 40.3 40.2
6.2 6.1 6.3 6.3 6.28 6.4 6.6 6.7
200 100 50 50 60 100 200

W Rim

Sta	+	π	-	Elev
-----	---	-------	---	------

24+88				
-------	--	--	--	--

		946.91		
--	--	--------	--	--

25+00				
-------	--	--	--	--

	Ditch			
--	-------	--	--	--

+17				
-----	--	--	--	--

	Shoulder			
--	----------	--	--	--

+41				
-----	--	--	--	--

	$\approx$ E. Bound Lane Hwy 36			
--	--------------------------------	--	--	--

+64				
-----	--	--	--	--

	Shoulder			
--	----------	--	--	--

+74				
-----	--	--	--	--

	Ditch			
--	-------	--	--	--

✓

RG
JL (Lt)
W/M (Walter Martin)
JH

April 18, 1960
Warm, P.C.
RT 37
45

40.7	40.6	40.5	40.3	40.2
6.2	6.3	6.4	6.6	6.7
100	62		51	100

39.1	39.9	39.9	39.2	39.9	38.0	38.2	38.1
7.8	7.0	7.0	7.7	8.95	8.9	8.7	8.8
100	40	20	11	11		46	100

FL Calc.
E End

42.0	42.8	42.8	42.7	42.0
4.1	4.1	4.1	4.2	3.9
100	55		54	100

42.5	42.4	42.5	42.5	42.5	42.5	42.8	42.8
3.4	3.5	3.4	3.4	3.4	3.4	3.1	3.1
300	200	100	50	50	100	200	300

42.6	42.7	42.7	42.6	42.8
4.3	4.2	4.2	4.3	4.1
100	48		50	100

40.34	41.4	42.32	41.3	40.31	40.4	40.5	40.8
6.57	5.5	4.59	5.6	6.60	6.5	6.4	6.1
27	26	19	12	11		50	100

FL Calc
W End SRIMM FL Calc
E End

40.5	40.5
6.4	6.4
57	100

Sta	+	π	-	Elev
-----	---	-------	---	------

		946.91		
--	--	--------	--	--

25+87				
-------	--	--	--	--

26+00				
-------	--	--	--	--

+25	Shoulder			
-----	----------	--	--	--

+51				
-----	--	--	--	--

✓				
---	--	--	--	--

TP	4.82	943.15	8.58	938.33
----	------	--------	------	--------

BM			3.24	939.91 (939.93)
----	--	--	------	-----------------

TP	2.36	939.66	5.85	937.30
----	------	--------	------	--------

April 18, 1960

38
46

Lt

Rt

Rt

42.0	42.0	42.9	42.0	42.1
3.9	3.9	4.0	3.9	3.8
100	50		50	100

42.6	42.6	42.4	42.4	42.4	42.4	42.4	42.6	42.4
3.3	3.3	3.5	3.5	3.5	3.5	3.5	3.3	3.5
300	200	100	50		50	100	200	300

42.4	42.5	42.5	42.5	42.4
4.5	4.4	4.4	4.4	4.5
100	50		50	100

36.2	34.3	34.3	38.33	37.0	36.6	37.0	36.7	36.8
10.6	12.6	12.6	8.58	9.9	10.3	9.9	10.2	10.1
24	21	15	17		12	21	49	78

Top N End
Conc Culv

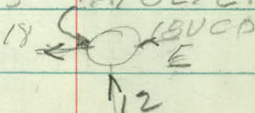
37.2
37.1

9.7 9.8 9.7
50 72 100

Top Culv 17' Lt sta 26+46

SE Cor Conc Lift Pump Base

W. Rim MH 6' Lt sta 28+15 A.932.28



Sta + π - Elev

939.66

27+00

✓

+50

35.0 34.9
4.7 4.8
100 75

28+00

34.1 34.2
5.6 5.5
100 71

+50

TP 5.00 939.64 5.02 934.64

29+00

34.5 34.0
5.1 5.6
100 75

April 18, 1960

39
47

L+

♀

L+

36.7 34.1

36.9 36.8

36.3

36.3

3.0 5.6
26 18-21

2.8 12

2.9 16

3.4 16

3.4 51

36.1

36.2

36.3

36.2

3.6 37

3.5 54

3.4 75

3.5 100

35.1

35.2

35.6

35.6

35.8

35.4

35.4

35.6

←

4.6 58

4.5 42

4.1 25

6.1 19

3.9 13

4.3 18

4.3 18

4.1 50

34.0

34.2

33.4

35.8

34.9

34.6

34.7

34.9

←

5.7 50

5.5 24

6.3 19

3.9 12

4.8 6

5.1 22

5.0 22

4.8 50

34.6

33.8

33.6

33.6

32.9

33.5

33.5

33.1

33.6

33.6

33.6

5.1 100

5.9 75

6.1 50

6.1 22

6.8 19

6.2 16

6.2 4

4.6 4

6.1 11

6.1 40

6.1 50

33.5

33.6

33.3

33.0

33.2

34.2

34.2

33.2

33.0

33.4

←

6.1 60

6.0 39

6.3 22

6.6 12

6.8 3

5.4 4

5.3 4

6.4 8

6.6 25

6.2 53

Sta	+	π	-	Elev
-----	---	-------	---	------

939.64

29+50

4.2 6.3
100 75

30+00

3.6 3.5
6.0 6.1
100 75

+50

5.8 6.3
75 75

TP 1.44 938.55 2.53 937.11

31+00

✓

+23

April 15, 1960

40
48

Lt.

♀

RT

22.2 32.9 32.7 32.8 34.3 34.3 32.1 32.7 32.1
6.3 6.7 6.9 6.8 5.3 5.3 6.5 6.9 6.5
58 33 18 3 3 7 28 29

22.2 32.0 32.8 32.9 34.7 34.4 32.0 33.0 32.0
6.3 6.6 7.4 6.6 6.7 4.9 5.2 6.4 6.6 6.6 6.6
50 24 19 14 4 5 9 18 38 50

22.2 32.2 32.2 32.2 33.4 34.5 34.1 33.2 33.2 32.2
6.4 6.3 7.4 6.4 6.2 7.1 5.1 5.5 6.4 6.4 6.4
52 23 19 16 10 5-9 5 10 33 50

So. Rim M.H. ♀ Sta 31+46

33.5 32.5 33.1 33.6 32.6 34.7 33.6 33.6 33.2 32.0
5.1 6.1 5.5 5.0 6.0 3.9 5.0 5.4 5.6
24 18-21 14 9 6 17 37 50

34.1 33.3 33.6 34.1 36.0

4.5 5.3 5.0 4.5 2.6
31 37 54 75 100

34.6 32.2 33.8 32.1 34.5 33.6 33.8 32.1
4.0 6.4 4.8 6.5 4.1 5.0 4.8 4.9
28 19 12 7 10 26 50

Sta

+

π

-

Elev

938.55

+23 (cont.)

+30

+38

✓

+70

✓

April 18, 1960

41
49

Lt.

£

Rt.

~~35.4 34.3 31.2 31.1 30.9 30.5 30.7 30.6 30.1 34.6 33.1 32.4~~
~~5.2 5.1 4.4 3.0 3.9 5.8 7.5 10.0~~

~~35.2 34.3 31.2 31.1 30.9 30.5 30.7 30.6 30.1 34.6 33.1 32.4~~
~~33 4.2 7.4 7.5 7.7 8.1 7.9 8.0 5.5 4.0 5.5 5.2~~
~~100 80 63 26 7 12 18 24 33 44 50~~

~~32.2 30.1 31.8 33.7 33.6 35.2 33.4 33.3 32.2~~
~~5.3 8.5 6.8 4.9 5.0 3.3 5.2 5.3 5.4~~
~~22 18-20 17 10 7 23 42 52~~

~~35.1 33.0 32.3~~
~~3.5 5.6 5.3 4.3 3.5~~
~~33 43 50 75 100~~

~~30.6 33.5 32.4 34.6 35.5 35.2 33.8 32.8 32.9~~
~~8.1 5.1 6.2 4.0 3.1 3.4 4.8 5.8 5.7~~
~~17-20 12 8 4 3 10 26 50~~

~~32.6 32.8 33.1 32.0~~
~~6.1 4.8 5.5 5.6~~
~~24 33 43 50~~

5.0 5.6
100 68

Sta + π - Elev

938.55

32+00

✓

+50

✓

✓

33+00

✓

April 18, 1960

42
50

Lt.

±

RT

30.4	32.7	31.9	33.7	34.4	32.1	32.7	32.1	32.7
8.2	5.9	6.7	4.9	4.2	5.5	5.9	6.5	5.9
18-21	12	8	5		4	16	35	54

32.7	34.2	32.6	32.7	32.8	32.8
5.9	4.4	6.0	5.9	5.8	5.8
24	31	43	50	71	100

32.4	32.7	31.9	33.9	34.3	33.2	32.6	32.4	32.5
6.2	5.9	6.7	4.7	4.3	5.3	6.0	6.2	6.1
15	12	8	5		3	6	20	37

30.8	31.4	32.2	34.4
8.3	7.2	6.4	4.2
18-21	22	25	32

32.7
5.9
50

32.5	32.4
6.2	6.1
100	75

32.9	32.1	31.9	32.6	33.8	32.5	32.3	32.1	32.7
5.7	6.5	6.7	5.0	4.8	6.1	6.3	6.5	5.9
13	12	10	6		4	18	30	51

32.1	30.3	32.2
6.5	8.3	6.4
17	18-25	26

Sta + π - Elev

938.55

32.0
66
100

33+00 (cont)

+50

✓

TP 6.80 939.59 5.76 932.79

34+00

✓

✓

April 18, 1960

43
51

RT

32.0

Lt.

32.0

32.2

34.2

34.2

34.2

6.6

6.6

6.3

4.3

4.3

78

54

39

35

31

30.1

31.8

32.1

34.2

32.6

32.3

32.4

32.1

32.9

8.5

6.8

6.5

4.3

5.0

6.3

6.2

5.9

5.7

19-26

18

9

4

4

18

39

50

32.2

32.0

34.0

32.4

32.2

6.3

6.6

4.6

6.2

6.3

6.4

6.5

27

29

34

41

54

77

100

Top Bell end Vit. Pipe 2' Lt Sta 34402

30.5

30.6

30.5

30.8

32.1

31.2

31.4

32.5

32.1

32.6

9.1

9.0

9.1

8.8

7.5

8.4

8.2

7.1

6.9

7.0

21

16

11

6

5

5

7

15

31

29.9

32.0

32.9

9.7

7.6

6.7

23-28

29

34

32.9

32.6

6.7

7.0

52

44

32.2

32.1

32.2

32.4

32.5

74

75

7.5

7.2

5.1

100

72

57

50

38

Sta + π - Elev

939.59

34 + 50

✓

✓

35 + 00

✓

TP 5.79 939.75 5.63 933.96

+ 50

April 18, 1960

44
52

1x

2

Rt

32.8

32.8

32.2

34.4

34.0

32.8

32.2

32.3

32.9

6.8

6.8

7.4

5.2

5.6

6.8

6.4

6.3

6.7

17

12

10

4

4

10

26

50

32.1

29.8

32.0

31.5

7.5

9.8

7.6

5.1

18

21-28

30

37

32.6

32.1

7.0

7.3

7.0

6.9

100

81

50

45

32.0

32.3

32.8

34.0

33.2

32.3

32.2

32.1

32.9

7.6

6.3

7.3

4.8

6.4

7.3

6.4

6.9

6.7

21

16

11

5

3

9

29

50

29.6

32.2

34.9

32.6

32.5

32.5

32.9

10.0

7.4

4.7

7.0

7.1

7.1

6.7

22-31

32

40

48

60

75

100

Top Vit. C. L. Section 10' Lt Sta 35+50

32.3

32.3

33.3

34.7

34.4

33.5

33.4

33.3

7.5

7.5

6.5

5.1

5.4

6.3

6.4

6.5

11

9

7

3

4

23

50

Sta + π - Elev

939.75

+50 (cont)

✓

36+00

✓

✓

+50

✓

RG
JS
JL
WM

Lt

2

April 19, 1960

Pt

45
53

32.5 32.6 31.3 29.8 30.2

6.3 7.2 8.5 10.0 9.6

13 18 20 22 20
Ditch

32.5 32.2 34.7 32.5

6.8 7.5 7.3 7.5 5.1 7.3

100 75 55 48 41 33

34.8 32.0 32 36.4 35.2 34.2 33.7 33.3 33.9 32.9

5.0 6.8 6.6 4.4 4.5 5.6 6.1 6.5 5.9 5.9

15 12 10 6 3 3 21 38 50

34.1 33.4 29.7 30.0 33.0

5.7 6.4 10.1 9.8 6.8

17 20 25 32 35

Ditch

31.3 32.1 32.5 32.5 35.5

7.5 7.7 7.3 6.3 4.3

100 72 55 50 42

30.2 29.6 34.0 36.4 36.2 34.9 34.5 34.5 34.2 34.2

9.5 10.2 5.8 3.4 3.6 4.9 5.3 5.3 5.6 5.6

30 25 19 12 5 4 21 34 50

Ditch

32.2 34.4 32.5 32.9

7.6 5.4 7.3 6.9 7.1 6.9

33 36 44 55 76 100

Sta

+

π

-

Elev

939.75

37+00

✓

✓

+50

✓

TP

6.51

941.45

4.81

934.94

38+00

April 19, 1960

46
54

32.2 35.2 37.5 37.2 36.5 35.9 36.0 35.6 36.1

7.6 4.6 2.3 2.5 3.3 3.9 3.8 4.2 3.7
21 18 11 9 3 21 31 50

29.7 30.1 31.2 32.2

10.1 9.7 8.6 7.6
26 29 31 32

Ditch

34.4 34.2 34.5 34.4 35.2

5.4 5.6 5.3 5.4 5.4 4.5
100 86 70 52 48 36

32.0 35.8 36.9 38.5 37.9 37.3 36.9 36.1 36.9

6.8 4.0 2.9 1.3 1.9 2.5 2.9 3.1 2.9
38 31 23 16 7 14 31 50

29.8 30.0 32.0 35.2 32.8

10.0 9.8 7.8 4.5 6.0 5.9 6.0 6.3
41 48 50 56 59 73 88 100

Top E End 12" Culv Sta 38+23 18' R+

36.2 36.7 36.8 36.00 36.8 36.9 36.8 36.9

5.3 4.8 4.7 5.4 5 4.7 4.6 4.7 4.6
50 25 10 4 17 35 51

Top Filled
in MH
w/no cover

Sta + π - Elev

941.45

38+16

+22

✓

+27

+70

39+00

✓

April 19, 1960

4755

$\begin{matrix} 25.6 & 25.8 & 25.6 & 25.7 & 26.1 & 26.2 & 25.9 & 26.0 & 26.1 \\ 5.9 & 5.7 & 5.9 & 5.8 & 5.4 & 5.3 & 5.6 & 5.5 & 5.4 \\ 51 & 34 & 20 & 6 & & 11 & 20 & 36 & 50 \end{matrix}$

$\begin{matrix} 27.1 & 27.8 & 27.9 & 27.80 & 27.2 & 25.6 & 26.4 & 26.2 & 27.99 & 27.1 \\ 78 & 5.7 & 5.6 & 7.65 & 6.3 & 5.9 & 5.1 & 5.3 & 7.46 & 7.4 \\ 43 & 28 & 14 & 2 & & 4 & 10 & 15 & 19 & 3 \\ & & & FL & & & & & FL & \end{matrix}$

$\begin{matrix} 22.9 \\ 7.6 \\ 50 \end{matrix}$

$\begin{matrix} 24.2 \\ 7.3 \\ 51 \end{matrix}$

$\begin{matrix} 25.0 & 25.5 & 25.8 & 26.1 & 26.1 & 26.6 & 27.4 \\ 6.5 & 6.0 & 5.7 & 5.4 & 5.2 & 4.9 & 4.1 \\ 50 & 41 & 22 & & 16 & 34 & 50 \end{matrix}$

$\begin{matrix} 24.6 & 24.4 & 24.8 & 24.6 & 24.9 & 25.7 & 26.5 & 27.5 \\ 6.9 & 7.1 & 6.7 & 6.9 & 6.6 & 5.8 & 5.0 & 4.0 \\ 52 & 33 & 27 & 13 & & 13 & 28 & 50 \end{matrix}$

$\begin{matrix} 25.5 & 26.1 & 26.8 & 26.0 & 26.2 & 26.9 & 27.7 & 28.5 & 28.3 \\ 6.0 & 5.4 & 4.7 & 5.5 & 5.3 & 4.6 & 3.8 & 3.0 & 3.2 \\ 20 & 10 & 7 & 4 & & 14 & 31 & 36 & 50 \end{matrix}$

$\begin{matrix} 25.0 \\ 6.5 \\ 30 \end{matrix}$

$\begin{matrix} 24.4 \\ 7.1 \\ 52 \end{matrix}$

Sta + π - Elev

941.45

39+50

✓

TP 8.05 948.15 1.35 940.10

40+00

✓

+25

+50

April 19, 1960

156

Lt

2

RT

38.5	38.4	39.4	38.2	39.0	39.8	40.0	40.6	41.1
3.0	3.1	2.1	3.2	2.5	1.7	1.5	0.9	0.4
18	11	8	5		12	27	41	50

38.2	37.1	36.6
3.2	4.4	4.9
31	36	50

Rock 2 39+75

42.2	42.2	42.6	43.6	43.8	42.4	43.4	44.0	44.2	44.1
6.0	5.0	5.6	4.6	4.4	4.8	4.8	4.2	3.9	3.5
25	15	8	3		5	13	28	42	50

42.0	40.9	40.6
6.2	7.3	7.6
34	43	50

42.2	42.8	43.7	44.7	44.2	45.2	45.2	45.6	45.4	45.4
6.0	5.4	4.5	3.5	3.9	3.0	3.0	2.6	2.8	2.8
50	46	34	19	7		7	30	38	50

41.8	42.1	41.5	42.0	42.8	42.5	42.8	42.6	43.2	42.1
6.4	6.1	6.7	5.2	4.4	5.2	4.4	4.6	4.9	5.1
50	48	43	38	20	7		23	39	50

Sta	+	π	-	Elev
-----	---	-------	---	------

		948.15		
--	--	--------	--	--

41+00				
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✓				
---	--	--	--	--

+14				
-----	--	--	--	--

+24				
-----	--	--	--	--

✓				
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+36				
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TP	1.69	939.96	9.88	938.27
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April 19, 1960 57
49

Lt

Z

RT

38.0	38.8	38.2	37.6	37.7	37.0	36.4	36.4	36.0
10.2	9.4	9.9	10.6	10.5	11.2	11.8	11.8	12.2
22	19	13	5		6	24	41	50

37.6 38.2

10.7 10.0
36 50

38.2	37.9	37.2	37.4	38.1	37.3	36.7	36.1	35.6	35.6
10.0	10.3	11.0	10.8	10.1	10.9	11.5	12.1	12.6	12.6
50	44	31	18	13		4	15	32	50

36.9	38.2	38.2	38.5	37.4	37.0	36.7	36.6	36.4
11.3	9.88	9.9	9.7	10.8	11.2	11.5	11.6	11.8
20	8	8	3		5	22	42	50

S.Rim MH

38.4 38.4
9.8 9.8
35 50

38.6	38.5	37.5	36.5	37.2	36.0	35.5	35.2
9.6	9.7	10.7	11.7	11.0	12.2	12.7	13.0
50	40	26	11		9	24	50

So. Rim MH 8' Lt sta 41 + 25

Sta	+	π	-	Elev.
-----	---	-------	---	-------

		939.96		
--	--	--------	--	--

41+68				
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✓				
---	--	--	--	--

42+00				
-------	--	--	--	--

+50				
-----	--	--	--	--

43+00				
-------	--	--	--	--

✓				
---	--	--	--	--

April 19, 1960

50
38

Lt.

E

Rt.

27.6	26.3	27.1	26.2	26.0	25.4	24.3	23.8	23.4
2.5	3.7	2.9	3.8	4.0	4.6	5.7	6.2	6.6
28	12	7	4		9	26	43	50

28.1
27.9

→ 1.9 2.1
41 50

26.4	26.7	25.6	25.0	25.8	24.8	24.5	23.6	23.5	22.3
3.6	3.9	4.4	5.0	4.2	5.2	5.5	6.4	6.5	6.7
50	31	17	11	7	4		12	29	50

24.0	23.5	22.9	24.4	23.3	23.0	23.1	22.2
6.0	6.5	7.1	5.6	6.7	7.0	6.9	6.8
50	32	15	8		15	37	50

22.2	22.2	22.4	24.0	23.3	22.9	22.5	22.7	22.0
6.8	6.8	7.6	6.0	6.8	7.1	7.5	7.3	7.0
32	19	14	10	4		21	39	50

22.2

→ 6.8
50

Sta	+	π	-	Elev
-----	---	-------	---	------

939.96

43+50

44+00

✓

TP	6.43	940.63	5.76	934.20
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+36 Ditch

+43

+57 $\nless 13^{th}$ Ave N.W.

April 19, 1960

5/59

RG } PM
JL } Lt.
WM }

~~32.5 32.4 32.5 32.9 32.7 32.5 32.5 32.5 32.8~~
7.5 7.4 7.5 6.1 7.3 7.5 7.5 7.5 7.2
50 30 16 9 5 19 31 50

~~32.1 32.7 32.6 32.9 32.8 32.7 32.9 32.9~~
7.9 6.3 6.4 7.3 7.2 7.3 7.1 7.1
15 12 7 5 18 33 50

32.4 32.4
7.4 7.6
36 50

Conc Rim MH 9' Lt Sta 44+37

~~32.2 32.6 32.6 33.0 32.1 33.0 33.3 32.4~~
8.4 8.0 8.0 7.6 7.5 7.6 7.3 7.2
50 39 23 4 12 25 50

~~34.0 34.2 34.3 34.2 34.3 34.4 34.9 35.6 36.6~~
6.6 6.4 6.3 6.4 6.3 6.2 5.7 5.0 4.1
100 50 25 25 50 100 150 200

~~34.3 34.3 34.3 34.4 34.6 34.7 34.9 35.0 35.5 36.4 37.3~~
6.3 6.3 6.3 6.2 5.9 5.9 5.7 5.6 5.1 4.2 3.3
200 150 100 50 12 25 50 100 150 200

E. Rim Conc
M.H.
(unused)

Sta	+	π	-	Elev
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		940.63		
--	--	--------	--	--

+75				
-----	--	--	--	--

+81	Ditch			
-----	-------	--	--	--

45+00				
-------	--	--	--	--

+50				
-----	--	--	--	--

+86				
-----	--	--	--	--

46+00				
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TP	9.64	948.63	1.64	938.99
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52
60

LT

~~27~~

45

33.4	34.2	34.2	34.6	34.5	34.7	35.3
6.8	6.4	6.4	6.0	6.0	5.9	5.3
100	50	25		25	50	100

22.2	23.0	23.2	23.3	23.2	23.5	23.8	24.4	24.7	24.6
2.4	7.6	7.4	7.3	7.4	7.1	6.8	6.2	5.9	6.0
50	46	27	9	12	25	41	43	50	

23.6	33.4	33.4	33.5	32.5	33.7	34.2	34.0
7.0	7.2	7.2	7.1	7.1	6.9	6.4	6.6
50	41	22	9		16	38	50

32.1	32.8	32.9	33.0	33.4	33.8	34.4	35.9	35.8
7.5	7.8	7.7	7.6	7.2	6.8	6.2	4.7	4.8
75	50	32	13	23	28	50	60	

34.4	34.4	34.9	34.9	35.4	35.9	36.5
6.2	6.2	5.7	5.7	5.2	4.7	4.1
50	29	12		17	36	50

36.3	36.2	36.1	36.0	35.9	35.8	35.7
4.3	4.4	4.3	4.2	4.0	4.6	4.0
50	29	14		8	25	50

Rock 9' Lt Sta 46 + 25

Sta + π - Elev

948.63

46+50

47+00

TP 10.03 956.40 2.26 946.37

47+50

TBM

953.07
3.33 945.30

48+00

+50

49+00

April 19, 1960

53
61

LT

40.6	40.9	41.6	41.5	41.7	41.9	41.4	40.2
8.0	7.7	7.0	7.1	6.9	6.7	7.2	8.4
50	27	11	6		12	26	50

44.5	45.0	46.3	45.8	45.2	43.8	43.1	42.8
4.1	3.6	2.3	2.8	3.3	4.8	5.5	5.8
50	45	23	5		18	37	50

Rock

47.7	48.1	49.7	49.4	48.0	47.5	46.7	46.8	46.4
8.7	7.7	6.7	7.0	8.4	8.9	9.7	9.6	10.0
50	28	12		16	32	37	45	50

W. Rim MH & Sta 47+90

50.8	51.5	52.2	52.3	52.6	52.2	51.7	50.8	50.0
5.6	4.9	4.1	4.1	3.8	4.2	4.7	5.6	6.4
50	41	39	28	10		21	33	50

51.0	52.2	52.0	52.2	52.9	52.6	52.2
5.4	4.2	3.4	3.2	3.5	3.8	4.1
50	29	14		16	34	50

51.5	52.8	52.9	52.4	52.1	52.4	52.6	52.9
4.9	2.6	2.5	2.0	2.3	2.0	1.8	1.5
50	33	26	11		10	25	50

Sta	+	π	-	Elev
-----	---	-------	---	------

956.40

TP	9.34	964.87	0.87	955.53
----	------	--------	------	--------

TBM			8.98	955.89 (955.84)
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49+50

50+00

+27

+45

T.P	8.48	968.61 968.51	4.74	960.13
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+92

Lt

E

April 19, 1960

Rt

51
62

Rock

Nail in PP

52.7 55.2 55.8 56.3 57.0 57.9 58.1
 12.2 9.3 9.1 8.6 7.9 7.0 6.8
 50 26 14 14 28 50

55.1 55.8 56.9 57.4 58.0 58.6 60.4 60.5
 9.8 9.1 8.0 7.5 6.9 6.3 4.5 4.4
 50 32 13 14 22 28 50

56.2 57.1 56.6 57.6 58.0 58.4 58.7 59.9 61.5 61.5
 8.7 7.8 8.3 7.3 6.9 6.5 6.2 5.0 3.4 3.4
 50 31 25 14 10 17 23 29 38
 40.

59.0 57.6 58.3 58.8 59.1 59.1 60.6 62.9 64.0
 7.7 7.3 6.6 6.1 5.8 5.8 4.3 1.0 0.9
 50 34 15 10 14 23 31 38
 40

Spike is 12" Cott 36' Lt Sta 50+78

59.1 59.4 61.5 61.6 61.8 61.8 61.4 62.8 62.1 64.2
 9.5 9.2 7.1 7.0 6.8 6.8 7.2 5.8 4.5 4.4
 50 39 29 13 7 15 24 33 50

Sta + π - Elev

968.61
968.51

51

✓

+06 Born Rt

+08 Gutter Rt

+21 $\neq$ 15th Ave N.W.

✓

FX
RG
JS
JL
WM

2 April 20, 1960

55
63

LT
62.2 62.5 62.2 62.0 62.2 62.1 61.6 62.9 62.5 64.1
6.3 6.1 6.4 6.6 6.4 6.5 7.0 5.7 5.1 4.5
50 36 21 11 7 10 18 24 37

64.14 64.2
4.47 4.4
53 50
Walk

62.6 62.6 62.4 62.6 62.4 62.6 64.0 64.0
6.0 6.0 6.2 6.0 6.2 5.9 4.6 4.6
50 32 12 11 23 38 50

62.6 62.6 62.4 62.7 62.6 63.0 63.2 63.5
6.0 6.0 6.2 5.9 6.0 5.6 5.4 5.1
50 33 12 10 24 39 50

62.8 62.6 62.2 62.8 62.26 63.2 63.5 62.9 64.4
4.8 5.0 5.4 5.8 5.35 5.4 5.1 4.7 4.2
150 100 50 23 MH 19 40 50 100

62.9
4.7
200

65.4 64.9
3.2 3.7
200 150

Sta + π - Elev

968.61
968.51

51+31 Gutter Line

+34 Burm

+52

✓

BM 2.80 968.61 968.54 2.80 965.51 965.71 (965.74)

52

✓

+20

April 20, 1960

56
64

21
63.0 62.8 62.8 63.2 63.3 63.2 63.2 63.6
5.6 5.8 5.8 5.3 5.3 5.4 5.3 5.0
50 32 16 6 13 28 50

63.4 62.6 63.6 62.9 63.2 63.3 63.2 62.9 64.3
5.2 5.0 5.0 5.7 5.3 5.3 5.4 4.7 4.3
50 36 24 16 9 22 28 50

64.2 64.0 62.9 63.1 63.2 63.2 63.2 64.2 65.1 65.4
4.4 4.6 4.7 5.5 5.4 5.4 5.3 4.3 3.5 3.2
50 34 17 13 9 16 24 42 50

65.62
2.99
Walk

Painted
Bolt Hyd NE Cor 4th St & 5th Ave NW. 59.

65.2 64.0 63.2 63.4 63.5 63.2 63.2 64.3 64.74
3.4 4.6 5.3 5.2 5.1 5.3 5.4 4.3 3.87
32 18 14 8 9 12 21 Walk
22

65.8 65.8

65.6 65.9
3.0 2.9
40 38
43

2.8 2.8
45 40
49
64.79

3.82
21 walk

Sta	+	Δ	-	Elev
-----	---	----------	---	------

		968.61 968.54		
--	--	------------------	--	--

52+40				
-------	--	--	--	--

+50				
-----	--	--	--	--

+63				
-----	--	--	--	--

T.P.	3.13	968.79 968.72	2.95	965.66 965.59
------	------	------------------	------	------------------

53				
----	--	--	--	--

+17				
-----	--	--	--	--

+18				
-----	--	--	--	--

2 April 20, 1960 57
BT 65

Lt
65.30

3.31
33
Conc Ent

65.8 65.1 63.9 63.5 63.6 63.6 63.5 63.5 64.8 65.6 66.0
28 35 4.7 5.1 5.0 5.0 5.1 5.1 3.8 3.0 2.6
50 32 16 13 8 9 14 21 36 50

65.14

3.47
Conc Ent
27

64.8 64.8 63.9 63.5 63.7 63.6 64.69 65.29 65.59
4.0 4.0 4.9 5.3 5.1 5.2 4.10 3.50 3.20
50 32 19 11 11 26 43 50

64.7 64.6 63.9 63.6 63.7 63.6 64.72 65.39 65.59
4.1 4.2 4.9 5.2 5.1 5.2 4.06 3.40 3.20
50 36 21 10 12 25 43 50

64.7 64.7 64.0 63.6 63.7 63.7 64.2 65.0 67.1 67.9
4.1 4.1 4.8 5.2 5.1 5.1 4.6 3.8 1.7 0.9
50 35 21 10 16 20 29 38 50

Sta + π - Elev.

968.79
968.72

53+60

✓

54

✓

+16

+30

April 20, 1960

58
66

11
64.1 63.8 63.8 63.5 63.8 63.7 63.5 64.0 64.8 67.5
47 50 50 5.3 50 5.1 5.3 48 40 1.3
43 28 17 12 10 13 19 28 35

63.7

5.1
50

67.9

0.9
40
49

63.0 63.6 63.5 63.7 63.8 63.7 63.4 63.6 63.8
58 52 53 5.1 50 5.1 5.4 5.2 5.0
22 15 12 6 12 15 19 26

63.4

63.5

54 5.3
36 50

67.6 67.4

1.2 1.4
50 35

63.4 63.4 63.1 63.5 63.7 63.8 63.7 63.6 63.7 67.4 67.7
54 54 5.7 5.3 5.1 5.0 5.1 5.2 5.1 1.4 1.1
50 33 28 18 6 8 20 28 36 50

62.8 63.1 63.0 63.4 63.8 63.6 63.9 63.6 63.9

6.0 5.7 5.8 5.4 5.0 5.2 4.9 5.0 4.9
50 37 23 13 16 23 38 50

Sta + π - Elev.

968.79
968.72

54+37 Gunter Line

+49 $\pm$ 16th Ave N.W.

✓

+65 Gunter Line

55

+37

2 April 20, 1960

59
67

L+

B+

~~62.7 62.7 62.4 62.6 62.8 62.8 62.6 62.6~~

~~6.1 6.1 5.4 5.2 5.0 5.0 5.2 5.2~~
~~50 28 15 8 12 30 50~~

~~62.1 62.7 62.4 62.7 62.5 62.8 62.8 62.8 62.7 62.8~~

~~6.7 6.1 5.4 5.1 5.20 5.0 5.0 5.0 5.1 5.0~~
~~40 27 17 10 MH 10 24 46 50~~

61.9

62.9 62.9 62.8

6.9
50

4.9 4.9 5.0
200 150 100

~~61.7 62.2 62.8 62.5 62.7 62.8 62.7 62.4 62.4~~

~~7.1 6.6 5.0 5.3 5.1 5.0 5.1 5.3 5.4 5.4~~
~~50 32 21 17 11 12 24 43 50~~

~~62.1 62.1 62.6 62.5 62.8 62.7 64.2 64.1 64.7~~

~~6.7 6.7 5.2 5.3 5.0 5.1 4.5 4.1 4.1~~
~~48 34 22 14 12 21 38 50~~

~~63.1 62.4 62.5 62.7 62.9 62.8 62.8 64.6 64.9 65.0~~

~~5.7 6.4 5.3 5.1 4.9 5.0 5.0 4.2 3.9 3.8~~
~~50 30 16 10 9 14 24 37 46~~
H₀

Sta + π - Elev.

968.79

968.72

55 + 52

+60

+85

+94

Profile ^{10'} Ent + RT

✓

TP

970.61

966.05

4.56

970.54

2.74

965.98

56 + 05

2 April 20, 1960

60
68

LT RT
 $\begin{matrix} 64.2 & 62.8 & 62.7 & 62.6 & 62.4 & 62.9 & 62.8 & 62.8 & 64.2 & 64.5 & 64.9 \\ 4.5 & 5.0 & 5.1 & 5.2 & 5.0 & 4.9 & 5.0 & 5.0 & 4.5 & 4.3 & 3.9 \\ 65 & 50 & 38 & 26 & 11 & 9 & 15 & 27 & 40 & 50 \end{matrix}$
 Ho

$\begin{matrix} 64.1 & 62.6 & 62.8 & 62.6 & 62.8 & 62.9 & 63.7 & 64.1 & 62.9 & 66.7 & 66.9 \\ 4.7 & 5.2 & 5.0 & 5.2 & 5.0 & 4.9 & 5.1 & 4.7 & 4.9 & 2.1 & 1.9 \\ 50 & 30 & 19 & 15 & 10 & 12 & 15 & 18 & 32 & 50 \end{matrix}$

$\begin{matrix} 64.9 & 64.2 & 64.1 & 62.9 & 64.0 & 62.9 & 64.9 & 67.9 & 68.2 & 68.4 \\ 3.9 & 4.5 & 4.7 & 4.9 & 4.8 & 4.9 & 3.9 & 0.9 & 0.5 & 0.4 \\ 50 & 33 & 19 & 12 & 13 & 22 & 34 & 41 & 50 \end{matrix}$

$\begin{matrix} 64.0 & 64.0 & 64.4 & 65.6 & 67.1 & 67.0 \\ 4.8 & 4.8 & 4.4 & 3.2 & 1.7 & 1.0 \\ 11 & 20 & 30 & 43 & 50 \end{matrix}$

$\begin{matrix} 69.6 & 68.6 \\ 10.8 & 0.2 \\ 73 & 60 \\ \text{conc} \end{matrix}$

$\begin{matrix} 64.9 & 64.7 & 64.6 & 64.2 & 64.0 & 64.1 & 64.0 & 64.7 & 66.4 & 68.8 & 69.1 \\ 5.7 & 5.9 & 6.0 & 6.3 & 6.6 & 6.5 & 6.6 & 5.9 & 4.2 & 1.8 & 1.5 \\ 50 & 40 & 28 & 19 & 12 & 13 & 18 & 25 & 34 & 41 \end{matrix}$

$\begin{matrix} 69.2 \\ 1.4 \\ 50 \end{matrix}$

Sta + π - Elev.

970.61
970.54

56 + 25

✓

+ 45

✓

+ 60

✓

April 20, 1960 6/69

11.
65.0 64.8 64.2 64.0 64.2 64.0 64.2 69.0 69.4
5.6 5.8 6.3 6.6 6.4 6.6 6.4 3.6 1.2
50 32 19 14 13 18 26 34

69.5 69.6
1.1 1.0
50 43
40

64.7 64.5 64.2 64.0 64.2 64.0 64.4 66.8 68.9 69.1
5.9 6.1 6.4 6.6 6.4 6.6 6.2 3.8 1.7 1.5
38 23 18 13 14 19 26 33 39

69.3 69.2
1.3 1.4
50 48

65.5 64.6 64.2 64.0 64.2 64.2 64.0 64.5 69.9
5.04 5.98 6.3 6.6 6.4 6.4 6.6 6.1 2.7
50 Com. Ent 26 15 8 15 20 34
31

67.8
2.8
50

Sta + π - Elev.

970.61
970.54

56+69

57

+43 SPL Co Rd "C"

+56

+60 Gutter Line

+76 $\pm$ Co Rd "C"

2 April 20, 1960

62
70

66.2 65.9 65.1 64.5 64.0 64.2 64.0 64.1 64.7 65.2 65.6
44 4.7 5.5 6.1 6.6 6.7 6.6 6.5 5.9 5.3 5.0
H0 50 32 19 14 13 17 24 41 50
75

65.6 65.5 64.8 64.2 64.8 64.1 64.0 64.9 65.7 66.1 66.1
50 5.1 5.8 6.4 6.8 6.5 6.6 5.7 4.9 4.5 4.4
50 46 34 18 12 13 24 40 50 57

64.5 64.5 64.1 64.0 64.1 64.2 64.0 64.2 64.7 65.1 65.1
6/6.1 6.1 6.5 6.6 6.5 6.3 6.6 6.4 5.9 5.5 5.5
50 38 19 18 15 10 12 16 27 45 50

64.52

6.09
NH

6.09

64.0 64.0 64.2 64.2 64.7 64.4 64.3 64.5 64.6
6.6 6.6 6.4 6.3 5.9 6.2 6.3 6.1 6.0
50 41 29 16 14 24 35 50

64.4 64.4 64.7 64.8 64.9 64.9 64.9 64.8 64.7
6.2 6.2 5.9 5.8 5.7 5.7 5.7 5.8 5.9
150 100 50 19 13 40 50 84

Sta	+	Δ	-	Elev
-----	---	----------	---	------

970.61
970.54

58			5.7	64.9
----	--	--	-----	------

+50			4.8	65.8
-----	--	--	-----	------

59			4.5	66.1
----	--	--	-----	------

+50			4.0	6.6
-----	--	--	-----	-----

BM

4.02 966.59 966.52 (966.49)

Castle Ave West from Φ

TP	3.93	945.40		941.47
----	------	--------	--	--------

BM			3.75	941.65
----	--	--	------	--------

0+50

Lt.

April 20, 1960

BT

63
71

Top Hyd by Ho #345 C. Rd Cⁿ

page 36

Top Hyd S.W. Cor Castle & Mc Knight

37.8	38.5	39.7	40.4	40.6	40.5	39.9	40.1	40.9
76	69	57	50	48	49	55	53	25
23	19	18	9		11	21	25	39

38.5	39.5	40.0	40.1		43.2
69	59	54	53		22
25	27	42	50		50

Sta + π - Elev

945.40

1

✓

+50

✓

2

✓

FA
RG
JL
WM

October 10, 1960

64
72

Lt

RT

39.8	39.6	40.2	40.5	40.8	40.7	40.4	39.2	40.9
5.6	7.8	5.2	4.9	4.6	4.7	5.0	6.2	4.5
28	22	14	9		10	13	21	31

41.1	41.0
→ 4.3	4.4
House	50
45	

43.2	42.8
2.2	2.6
50	40

40.0	40.0	40.0	40.3	40.9	40.7	40.1	39.4	40.6
5.4	5.4	5.4	5.1	4.5	4.7	5.3	6.0	4.8
50	30	21	12		9	14	21	29
Ent No. Culvert								

43.2	42.6
2.2	2.8
50	39

39.5	39.8	39.4	40.3	40.1	40.4	39.9	39.0	40.6
7.9	7.6	6.0	5.1	4.7	5.0	5.5	6.4	4.8
24	21	16	10		8	13	20	29

39.9	39.2	39.6	39.4
→ 7.5	6.2	5.8	6.0
27	29	42	50

43.2	42.1
2.2	2.7
50	38

47 Castle Ave East From E
Sta + π - Elev

945.40

0+50

1

✓

+50

✓

21

Oct. 10, 1960

BT

65
73

39.6	38.3	39.9	40.3	40.5	40.2	39.3	39.4	39.2
5.8	71	5.5	5.1	49	5.2	6.1	8.0	8.2
27	21	12	9		8	14	20	23

42.5	43.3
2.9	2.1
38	50

39.5	40.3	39.6	39.3	39.8
5.9	5.1	5.8	6.1	7.6
50	34	31	28	25

40.8	38.9	38.3	39.9	40.1	40.3	40.0	39.0	39.5	39.2
4.6	6.5	71	5.5	5.3	5.1	5.4	6.4	7.9	8.2
31	25	20	13	10		8	15	20	22

42.9	43.4
2.5	2.0
40	50

38.9	39.1	39.2	39.1	39.7
6.5	5.7	6.2	6.3	7.7
50	33	29	28	25

39.1	38.4	39.8	40.0	40.2	39.9	39.3	39.3	39.0
6.3	70	5.6	5.4	5.2	5.5	6.1	7.1	8.4
25	21	13	11		8	12	16	21

41.3	42.2	43.5
4.1	2.2	1.9
32	39	50

38.9	38.9	38.9	39.3
6.5	6.5	6.5	8.1
50	37	28	25

Sta + π - Elev.

945.40

2

✓

FL

7.45 937.95 37.96

BM 1.52 967.26

965.74

51+35

5.84 961.42

10.30 956.96

9.76 957.50

10.61 956.65

Lt

Oct 19, 1960

Rt

66
74

39.4	38.7	39.6	40.0	40.2	40.0	40.0	38.3	37.5
6.0	6.7	5.8	5.4	5.2	5.4	5.4	7.1	7.9
27	22	16	12		6	10	16	21

41.7	43.4	43.7
------	------	------

3.7	2.0	1.7
33	40	50

39.0	38.8	38.3	38.2
------	------	------	------

6.4	6.6	7.1	7.2
50	43	32	25

FLE. End Culvert

Painted Bolt Hyd NE Cor 4th st & 15th Ave

Tap MH 12' Lt

FL TO NE 15"

FL To NW 12"

FL TO W 12"

STA.	+	Δ	-	ELL.
------	---	----------	---	------

		967.26		
--	--	--------	--	--

51+33				
-------	--	--	--	--

			20.74	946.52
--	--	--	-------	--------

+35				
-----	--	--	--	--

			5.46	961.80
--	--	--	------	--------

+07				
-----	--	--	--	--

			5.30	961.96
--	--	--	------	--------

+07				
-----	--	--	--	--

			5.19	962.07
--	--	--	------	--------

+35				
-----	--	--	--	--

			5.01	962.25
--	--	--	------	--------

+54				
-----	--	--	--	--

			5.01	962.25
--	--	--	------	--------

+54				
-----	--	--	--	--

			5.37	961.89
--	--	--	------	--------

FK
JL
WM
JH

± Oct. 18, 1960

67
75

FL OF MH.

Top CB 40' Lt

Top CB 39' Lt

Top CB 41' Rt

Top CB 40' Rt

Top CB 21' Rt

Top CB 21' ^{1.5'} Rt

Sta	+	-	Elev
TP	8.01	942.95	934.94
37+99		403	938.92

38

✓

+02

+16

✓

Oct 18, 1960

68
76

Lt

Top E. End 12" Culv Sta 38+23 18' 8" Page 46

Top MH 5' Lt

36.6	34.6	32.5	30.2	30.3	31.0	33.9
6.5	8.5	10.5	12.8	12.7	12.0	9.1
81	79	74	71	67	67	61

35.6
7.5
100

35.1	32.8	32.9	35.4
7.84	10.24	10.1	7.61
82	75	63	53
Top	Bottom	Bottom	Top

Conc Sewer Casement

30.7	30.0	29.9	31.1	31.6	33.9
12.3	13.0	13.1	11.9	11.4	9.1
76	74	72	71	63	56

34.2 34.3
8.8 8.7
81 100

Sta. + π - Elev.

942.95

38+22

+27

✓

+70

39

+73

12.95 930.00

+87

12.64 930.31

BM

4.23 938.72 (938.61)

Lt

Oct. 18, 1960

±

69
77

29.3	29.2	29.9	30.0	32.4	34.8	33.3
8.7	8.8	13.1	13.0	10.6	8.2	9.7
100	82	77	73	67	60	55

30.0	29.7	30.2	36.5	37.1	35.6	35.6
13.0	13.3	10.8	6.5	5.9	7.4	7.4
83	80	74	68	65	60	53

33.3	34.0	34.1
9.7	9.0	8.9
87	92	100

29.3	30.1	35.2	37.0	35.9	34.8	34.3
13.7	12.9	7.8	6.0	7.1	8.2	8.7
100	96	89	85	75	69	60

± Patch

34.5	35.5	35.2	34.6	34.4	34.4
8.5	7.5	7.8	8.4	8.6	8.6
100	95	92	87	75	62

FL 48" SCP 51' Lt

FL 48" SCP 61' Lt

Top ± Rim MH

Sta + π - Elev.

BM 2.34 968.08

(965.74)

50 + 50

+87

51

+06 Gutter

✓

+22

FL
JL
WM
JH

14

± October 19, 1960
Overcast 29° Rt

70
78

Painted Bolt hyd NE Cor 15th McKnight

57.3	58.0	60.3	61.0	61.1	60.4	60.8	62.9	64.1
10.8	10.1	7.8	7.1	7.0	7.7	7.3	4.2	4.0
50	36	28	8		18	23	31	39
								40

✓

58.7	59.1	60.7	61.0	61.7	61.4	62.1	63.9	64.2	64.3
9.4	9.0	7.4	7.1	6.4	6.7	6.0	4.2	3.9	3.8
50	39	26	18		17	23	30	44	50

✓

62.2	62.2	61.9	61.6	61.9	61.9	61.9	63.9	64.1	64.4
5.9	5.9	6.2	6.5	6.2	6.2	6.2	4.2	4.0	4.0
50	40	30	20		20	24	30	38	50

✓

62.3	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0
5.8	6.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1
50	41	39	21		21	33	39	43

✓

62.7	62.9	63.2
5.4	5.2	4.9
69	84	100

63.3	63.1	62.7	62.2
4.8	5.0	5.4	5.9
100	91	69	50

63.2	62.9	62.6	62.4	62.4	62.5	62.3	62.4	62.7	62.7	63.2
4.9	5.2	5.5	5.7	5.7	5.6	5.8	5.7	5.9	5.9	4.9
82	64	50	41	22		20	32	44	50	69

✓

Sta + π - Elev

968.08

51 + 22

+37 Gutter Line

44

54

✓

+44

+54

✓

11

Oct 19, 1960
Snowing R171
79

63.4	63.7	63.9	64.3	64.6	64.7
4.7	4.4	4.2	3.8	3.6	3.4
100	90	100	122	138	150

62.4	61.9	61.9	62.3	62.8	62.3	62.1	62.2	62.2
5.7	6.2	6.2	5.8	5.3	5.8	6.0	5.9	5.9
50	40	39	22		20	33	39	42

62.9	62.1	62.2
5.2	5.0	4.9
66	84	100

63.5	63.0	62.7	62.4
4.6	5.1	5.4	5.7
100	81	66	50

63.9	64.0	64.0	62.2	62.0	62.9	62.3	62.6	64.9	65.2
4.2	4.1	4.1	5.9	6.1	5.2	5.8	5.5	3.3	2.9
50	41	28	27	22		22	29	38	50

63.9	62.7	61.4	61.9	62.0	62.3	62.2	63.6	64.5	64.8
4.2	5.4	6.2	6.2	5.1	5.8	5.9	4.5	3.6	3.3
27	26	22	21		20	22	26	26	35

63.9	64.4
4.2	3.7
39	50

65.4
2.7
50

Sta + π - Elev

968.08

52

v

BM 2.45 968.85 1.68 966.40

+50

52
51.7
13
53

+17

+22

Oct 19, 1960

LT

81 72
80

65.2	64.6	62.3	62.8	62.1	62.3	62.7	64.7	65.5
29	3.5	5.8	5.3	5.0	5.8	5.4	3.4	2.6
34	25	22	16		18	23	25	39

✓

65.8

2.3

65.6

2.5

HO

49
Top Hyd NECo 15th McKnight

43

65.8	64.7	62.1	62.5	62.7	62.9	62.3	64.7	65.5	65.8
3.1	4.2	5.8	5.4	5.2	5.5	5.6	3.5	3.4	3.1
50	27	22	13	✓	12	19	26	36	50

64.7	65.0	64.3	63.6	63.6	63.9	63.7	64.5	64.7	65.6
4.2	3.9	4.6	5.3	5.3	5.0	5.2	4.4	4.23	3.38
50	39	26	21	16	✓	16	25	26	50

conc

64.9	64.4	63.4	63.5	63.8	63.7	64.7	64.9	65.6
4.0	4.5	5.5	5.4	5.1	5.2	4.21	4.0	3.31
50	30	19	12	✓	16	26	32	50

conc

64.8	64.8	64.5	64.2	63.4	63.7	63.8	63.6	64.1	64.9	67.0	67.7
4.1	4.1	4.4	4.7	5.5	5.2	5.1	5.3	4.8	4.0	1.9	1.2
42	30	23	18	10	✓	16	19	27	38	50	

50

Sta + π - Elev.

968.85

53+60

✓

54

✓

+18

1/2

1/2

Oct 19, 1960

Lt

73
RT 61

63.8	63.9	63.7	63.1	63.4	63.5	63.2	62.8	64.1	64.4
5.1	5.0	5.2	5.8	5.5	5.4	5.7	6.1	4.8	4.5
50	35	22	20	12		12	19	21	26

✓

67.8	67.4
1.1	1.5
49	35
40	

63.4	63.3	63.2	62.8	63.0	63.1	62.8	62.6	63.5	64.3
5.5	5.6	5.7	6.1	5.9	5.8	6.1	6.3	5.4	4.6
50	43	23	20	12		14	19	23	28

✓

67.6	67.3
1.3	1.6
50	36

63.3	63.4	63.1	62.8	62.9	63.0	62.5	62.5	63.5	64.0
5.6	5.5	5.8	6.1	6.0	5.9	6.4	6.4	5.4	4.9
50	45	22	21	16		16	20	22	29

✓

67.7	67.3
1.2	1.6
50	37

Sta + π - Elev

968.85

54+31

TP 4.78 968.31 5.32 963.53

+35

✓

+50

✓

+59

5.84 962.47

+71

5.45 962.86

+66 Gutter Line

LT

Oct. 19, 1960 74
RT 82

62.7	62.9	63.1	62.7	62.9	63.0	62.7	62.0	62.0	63.8
6.2	6.0	5.8	6.2	6.0	5.9	6.2	6.9	6.9	5.15
50	44	23	22	10	✓	12	25	30	365

EB in MH L

62.1	62.3	62.5	62.1	62.3	62.9	62.7	62.1	62.0	62.0
6.2	6.0	5.8	6.2	6.0	5.4	5.6	6.2	6.3	6.364
50	44	23	22	10		13	26	32	3941

62.5	62.4	62.3	62.2
5.8	5.9	6.0	6.1
100	83	68	50

61.9	62.3	63.0	62.4	62.8	63.2	62.8	62.5	62.6	62.6
6.4	6.0	5.3	5.9	5.5	5.1	5.5	5.8	5.7	5.7
50	35	24	22	14		13	29	42	50

63.2	63.1	63.0	62.9	62.8
5.1	5.2	5.3	5.4	5.5
150	123	100	84	68

MH 36' RT

MH 12' LT

63.0	63.3	63.2	62.2	62.7	63.0	62.8	62.3	62.4	62.4
5.3	5.0	5.1	6.1	5.6	5.3	5.5	6.0	5.9	5.9
50	31	22	21	13		12	24	36	38

Sta + π - Elev.

968.31

54 + 66

+ 70

✓

+ 84

55

✓

LT

Oct 19, 1960

RT

75

83

✓ 62.4 62.4 62.4 62.5
5.9 5.9 5.9 5.8
50 62 88 100

64.0 63.4 62.0 62.6 63.0 62.8 62.3 61.9 61.9
4.3 4.9 4.1 5.7 5.3 5.5 6.0 6.4 6.4
29 22 21 14 13 23 31 34

→ 62.9 63.0
5.4 5.3
36 50

✓ 63.9 64.0 63.3
4.4 4.3 5.0
50 42 36

62.1
6.20
21
Top CB Grate

61.9
6.43
21
Top CB

64.0 63.1 62.5 62.9 63.3 63.0 62.4 63.8 64.2 64.5
4.3 5.2 5.8 5.4 5.0 5.3 5.9 4.5 4.1 3.8
27 23 21 12 11 21 22 24 35

→ 63.6 63.6 62.7
4.7 4.7 5.6
29 41 50

✓ 64.6
3.7
50

Sta + π - Elev

968.31

55+35

✓

+54

+60

✓

TP 5.38 971.33 2.36 965.95

+87

17

Oct 19, 1960

76
84

RT

62.4	63.6	62.6	63.3	63.6	63.3	62.9	64.4	64.8
5.9	4.7	5.7	5.0	4.7	5.0	5.4	3.9	3.5
30	24	21	13		11	20	23	33

62.2	62.5
6.1	5.8
39	50



65.0
3.3
45
40

63.9	63.7	62.5	62.9	63.4	63.7	63.5	62.9	64.1	64.5
4.4	4.6	5.8	5.4	4.9	4.6	4.8	5.4	4.2	3.8
50	40	29	22	15	✓ 9	18	29	39	50

63.9	63.4	62.5	62.9	63.4	63.7	63.4	62.9	63.1	64.6
4.4	4.5	5.8	5.4	4.9	4.6	4.9	5.4	5.2	3.7
50	40	30	23	15		11	19	21	23



66.7	66.6
1.6	1.7
50	33

64.7	64.2	64.0	63.1	63.5	63.8	63.5	62.3	65.0	64.5	68
6.6	7.1	7.3	8.2	7.8	7.5	7.8	8.0	6.3	3.8	3
50	37	22	21	10		13	21	24	33	43



68.4
2.9
50

Sta + π - Elev.

971.33

56105

✓

+25

✓

+45

✓

Oct 19, 1960 77
BT 85

LT

64.6	64.4	63.0	63.6	63.9	63.8	63.5	64.1	65.7
6.7	6.9	8.3	7.7	7.4	7.5	28	7.2	5.6
34	22	21	12		11	20	22	23

64.9

✓

69.0	69.0	68.1	67.6
23	23	26	3.7
50	44	34	29

64.9	64.7	64.3	63.3	63.6	64.0	63.7	63.4	65.7	69.3	69.5
6.4	6.6	7.0	8.0	7.7	7.3	7.6	7.9	5.6	2.0	1.8
50	35	23	22	13		13	22	23	34	45

✓

69.4

1.9

50
10

65.0	64.6	64.2	63.7	63.7	64.1	63.9	63.4	64.1	65.2	64.9
6.3	6.7	7.1	7.6	7.6	7.2	7.4	7.9	7.2	6.1	2.4
50	36	24	22	16		11	20	21	22	33

✓

69.3

69.0

20 2.3
50 42

Sta + π - Elev

971.33

56+61

+69

57

+18

1.98 964.35

+43 SPL Co Rd "C"

+59

2.11 964.22

+67

+57

+76 $\pm$ Co Rd C

6.55 964.78

± Oct. 19, 1960

78
86

14

BT

65.4	64.5	63.7	63.8	64.2	63.9	63.6	64.4	64.7	64.7
5.9	6.83	7.6	7.5	7.1	7.4	7.7	6.9	3.6	3.6
50	31	22	13	✓	12	19	22	33	50

Cone Ent

65.9	65.0	64.5	63.8	63.9	64.2	64.0	63.6	64.3	64.8	65.4
5.4	6.3	6.8	7.5	7.4	7.1	7.3	7.7	7.0	6.5	5.9
50	34	23	21	13	✓	12	19	23	31	50

65.6	64.8	64.3	63.8	64.0	64.4	64.2	64.0	64.7	65.4	65.0
5.7	6.5	7.0	7.5	7.3	6.9	7.1	7.3	6.6	5.9	5.31
50	35	22	22	14	✓	13	20	22	34	Walk

E Rim MH 4' BT

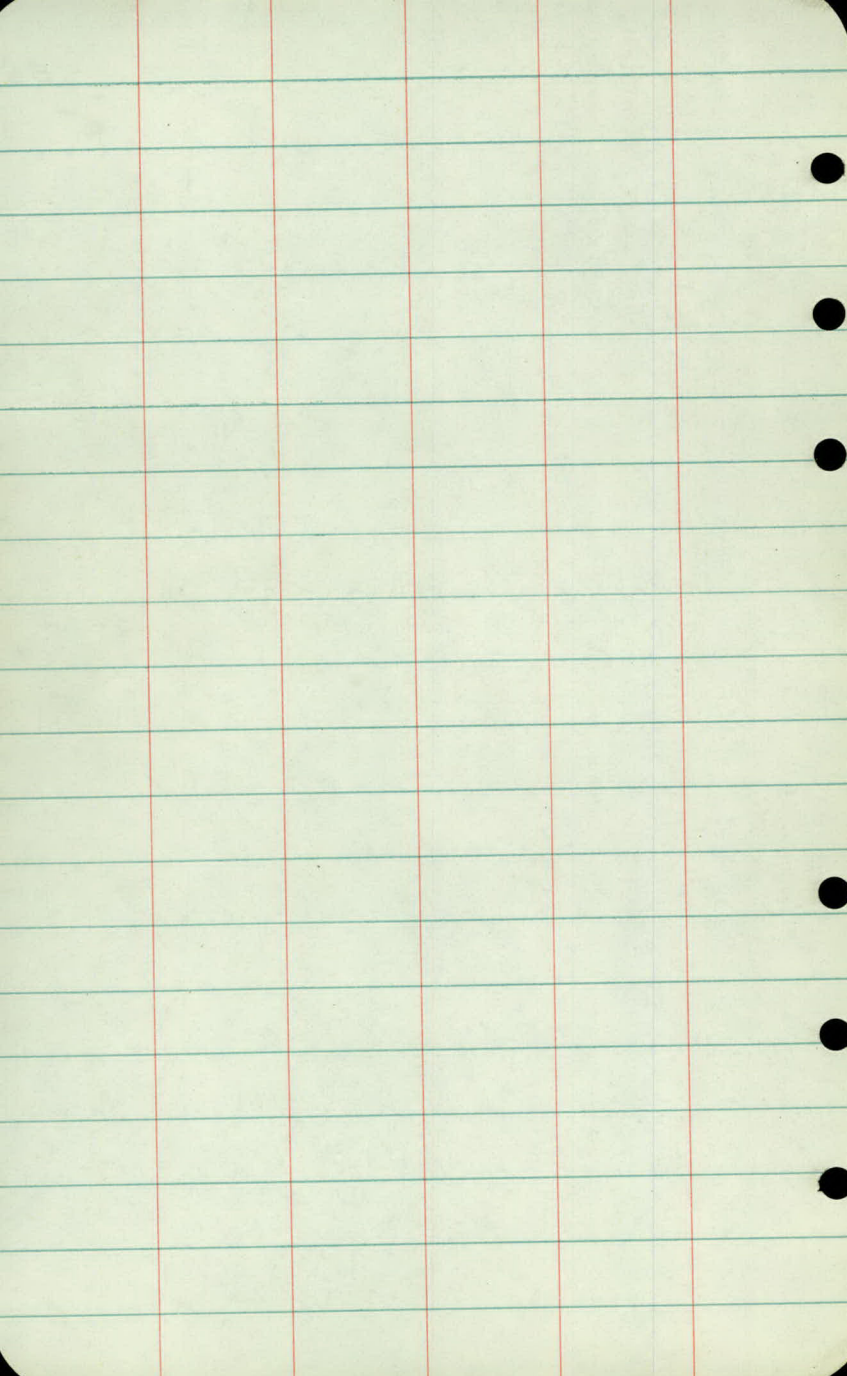
64.3	64.4	64.5	64.1	64.3	64.7	64.7	64.6	64.7	64.6
7.0	6.9	6.8	7.2	7.0	6.6	6.6	6.7	6.6	6.7
50	37	22	20	14	✓	13	19	23	27

E Rim MH 23' LT

64.9	64.9
6.4	6.4
50	42

63.7	63.8	64.1	64.3	64.3	64.5	64.8	64.8	64.8	64.6	64.3	64.1
7.6	7.5	7.2	7.0	7.0	6.8	6.5	6.5	6.5	6.7	7.0	7.2
72	66	50	35	22	14	✓	12	21	35	48	75

63.3.
8.0
100



Oct 28, 1960

87
1

R6
dL
WM
RW

Elevations of North &
South Sides of East &
West Bound Lanes
Hwy 36 & McKnight Ave

2 pages

Sta	+	π	-	Elev
BM	1.23	945.56		938.33
26119				
P+1			2.33	943.23
25192				
" 2			2.24	943.32
25153				
" 3			2.33	943.23
25127				
" 4			2.25	943.31
BM			4.09	941.47

OCT 28, 1960

88

2

Top Culvert 17' LT Sta 26+46 McKnight

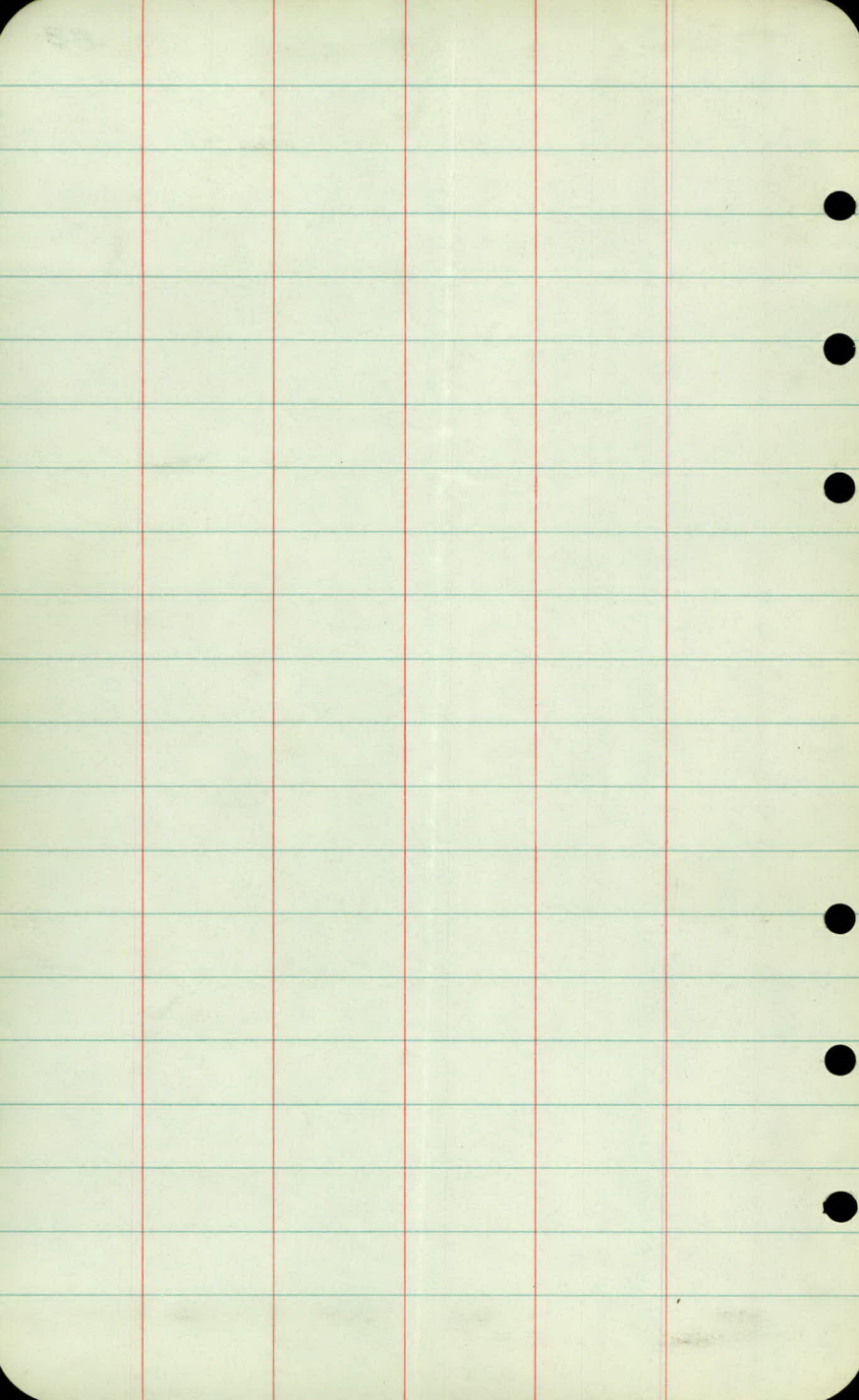
N. Side W.B.L.

S. Side W.B.L.

N. Side E.B.L.

S. Side E.B.L.

Top SE Cor lower Step Ho # 416 Service lane
Hwy 36



X-Sections

McKnight Rd No. St Paul Rd to "C"

Sta 38+82 to 50+50

RG

JL

10 pages

WM

RW

Sta	+	π	-	Elev	BM
BM	9.81	948.73			938.92

38+82

✓

39+00

✓

39+35

✓

✓

RG
JL
WM
RW

LT

LT

Oct 27, 1960
clear, 35°
RT

99

Top W. Rim MH 6' LT Sta 38+00 ±

34.3	34.6	34.9	34.6	35.0	36.0	37.3	38.6	40.1
14.4	14.1	13.8	14.1	13.7	12.7	11.4	10.1	8.6
57	44	26	10		15	41	76	100

34.3	34.5	36.5	31.6	31.6
14.4	14.2	12.2	17.1	17.1
67	85	92	100	104

Ditch

39.2	40.3	40.5	40.5	39.6
9.5	8.4	8.2	8.2	9.1
200	168	138	125	121

34.7	34.9	36.7	36.7	36.0	36.1	36.4	37.0	38.5	39.0	40.2
14.0	13.8	12.0	12.0	12.7	12.6	12.3	11.7	10.2	9.7	8.5
53	30	13	8	6		8	19	40	57	100

34.3	34.5	35.5	34.7	31.7	38.5	39.3	40.2	40.6	39.8
14.4	14.2	13.2	14.0	17.0	10.2	9.4	8.5	8.1	8.9
74	89	96	100	109	200	179	156	123	119

Ditch

35.7	37.2	37.7	38.6	37.8	37.7	38.4	39.7	38.9	39.7	40.7	41.6
13.0	11.5	11.0	10.1	10.9	11.0	10.3	9.0	9.8	9.0	8.0	7.1
48	25	11	8	5		9	15	30	45	70	100

34.6	34.9	35.7	34.7	35.8	38.9	40.2	41.8	42.2	41.6
14.1	13.8	13.0	14.0	12.9	9.8	8.5	6.9	6.5	7.1
71	90	95	100	110	200	169	141	122	113

Ditch 31.6 36.3
17.1 12.4
122 120

Sta	+	π	-	Elev
-----	---	-------	---	------

		948.73		
--	--	--------	--	--

39+70				
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✓				
---	--	--	--	--

✓				
---	--	--	--	--

40+00				
-------	--	--	--	--

✓				
---	--	--	--	--

✓				
---	--	--	--	--

OCT 27, 1960

91

LX

L

RT

37.7	38.5	40.2	39.8	39.3	39.3	40.8	40.8	41.4	42.6	43.2
11.0	102	85	89	9.4	9.4	7.9	7.9	7.3	6.1	5.5
60	40	29	8	5		3	14	37	65	100

37.5	37.0	36.3	35.6	36.3
11.2	117	12.4	13.1	12.4
70	81	100	111	119

39.7	42.3	43.2
9.0	6.4	5.5
200	155	127

30.7	30.7	33.5	37.9	35.3
18.0	18.0	15.2	10.8	13.4
165	162	160	153	142

37.0	38.1	40.3	41.7	43.2	42.6	43.7	42.8	44.2	45.0	45.2	45.5
11.7	10.6	8.9	7.0	5.5	6.1	5.0	5.9	4.5	3.7	3.5	3.2
100	77	51	30	15	8		9	20	44	68	94

36.9	36.9	35.9	35.0	36.2
11.8	11.8	12.8	13.7	12.5
111	117	119	136	148

42.6	44.2	45.4	45.7	45.6
6.1	4.5	3.3	3.0	3.1
200	171	143	121	100

30.6	31.6	38.4	38.4
18.1	17.1	10.3	10.3
172	166	152	152

Ditch

Sta

+

π

-

Elev

948.73

40+20

✓

✓

+40

✓

✓

Lt

A

R+

41.5	41.0	43.4	44.5	44.6	44.9	45.2	45.2	45.4	45.4	45.4	45.6
7.2	7.7	5.3	4.2	4.1	3.8	3.5	3.5	3.3	3.3	3.3	3.1
59	55	39	16	8	6		10	32	56	88	100

40.1	37.9	36.4	35.8	35.4	43.2	44.1	44.8	45.7
8.6	10.8	11.9	12.9	13.3	5.5	4.6	3.9	3.0
76	100	122	130	148	200	186	158	129

29.9	30.9	30.9	39.1	39.1	36.3
18.8	17.8	17.8	9.6	9.6	12.4
180	129	174	166	161	157

✓

41.4	42.3	41.5	43.7	44.6	43.7	43.4	44.8	44.6	44.5	44.5	44.4	43.9
7.3	6.4	7.2	5.0	4.2	5.0	5.3	3.9	4.1	4.2	4.2	4.3	4.8
59	50	47	34	20	11	7		6	23	49	71	100

41.4	41.1	40.0	39.2	37.2
7.3	7.6	8.7	9.5	11.5
73	88	93	100	125

41.2	42.3	41.1	42.0	43.1
7.0	6.5	7.6	6.7	5.6
200	189	168	152	128

✓

31.0	38.4	38.4	36.1	35.9
17.7	10.3	10.3	12.6	12.8
185	176	172	167	145

Sta	+	Δ	-	Elev
-----	---	----------	---	------

		948.73		
--	--	--------	--	--

T.P.	6.14	946.62	8.25	940.48
------	------	--------	------	--------

40+68

✓

✓

41+00

✓

✓

End of Hill on RT

Oct. 29, 1960

935

Lt.

E

Rt

Rock

41.0	40.6	41.5	41.6	40.0	40.5	41.7	41.3	41.2	40.8	41.2	40.2
5.6	6.0	5.1	5.0	6.6	6.1	4.9	5.3	5.4	5.8	5.4	6.4
41	35	27	19	5	1		14	29	54	77	100

39.9	39.7	39.4	39.1	37.7
6.7	6.9	7.2	7.5	8.9
57	76	100	115	133

39.4	37.4	37.7	36.3	39.6
7.2	9.2	8.9	8.3	7.0
200	193	148	141	120

X

40.0	40.0	39.0	37.8	37.2
6.6	6.6	7.6	8.8	9.9
200	193	190	179	154

38.1	37.6	38.5	38.3	37.8	37.6	37.0	36.5	36.1	35.8	35.3
8.5	9.0	8.1	8.3	8.8	9.0	9.6	10.1	10.5	10.8	11.3
47	33	19	15	9		3	14	35	64	92

38.6	38.4	38.0	37.4	37.2
8.0	8.2	8.6	9.2	9.4
68	77	100	133	151

36.0	35.5	34.9	35.0	35.3
10.6	11.1	11.7	11.6	11.3
200	180	157	126	100

X

37.2	41.2	37.3
9.4	5.4	9.3
200	192	180

Sta	+	π	-	Elev
-----	---	-------	---	------

		946.62		
--	--	--------	--	--

BM			8.30	938.32 938.27
----	--	--	------	---------------

41+28				
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✓				
---	--	--	--	--

✓				
---	--	--	--	--

TBM,	13.01	954.38	5.25	941.37
------	-------	--------	------	--------

BM			1.34	953.04 953.08
----	--	--	------	---------------

TP	2.43	943.80	13.01	941.37
----	------	--------	-------	--------

45+00				
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+50				
-----	--	--	--	--

Oct 27, 1960

27

2

RT

94

Top W. rim MH 6' RT Sta 41+28

37.5	36.9	37.4	37.4	38.2	37.9
9.1	9.7	9.2	9.2	8.4	8.7
28	19	16	12	10	

9.1 9.7 9.2 9.2 8.4 8.7

28 19 16 12 10

38.5	37.7	36.7	36.1	35.2	35.1
$\rightarrow 8.1$	8.9	9.9	10.5	11.4	11.5
56	81	100	113	130	138

↳ 8.1 8.9 9.9 10.5 11.4 11.5

56 81 100 113 130 138

33.3 37.2 39.4

13.3 9.4 7.2 ✓

155 150 146

Top W. rim M.H. 15' + Sta 46 + 48 +

Top W. rim MH 1' Rt Sta 49+91

TBM, (above) 15' Lt Sta 46+48 Top W. rim MH

33.4 [✓]	34.2 [✓]	34.7 [✓]	34.5 [✓]	34.8 [✓]	31.5 [✓]	34.0 [✓]
10.4	9.6	9.1	9.3	4.0	6.3	9.8
25	25	14		11	20	26
NG						NG

10.4 9.6 9.1 9.3 4.0 6.3 9.8

25 25 14

11 20 26

NG

NG

[illegible]

11.5 9.8 9.1 9.5 10.1 4.4 6.8 6.9 6.5 8.9

25	22	18	4
----	----	----	---

14 20 36 55 68

NB

NG

Sta + π - Elev

943.80

+86

✓

46+00

✓

+43

✓ Note x, y + z denote ^{top}₁ So. wall MH Const.

Oct 27, 1960

95

LT		RT	
34.2 [✓]	34.8 [✓]	35.0 [✓]	33.8 [✓]
36.2 [✓]	38.3 [✓]	38.4 [✓]	37.9 [✓]
31.8 [✓]	39.0 [✓]		
9.6	9.0	8.8	10.0
7.6	5.5	5.4	5.9
6.0	4.8		
22	20	13	3
6	12	18	28
49			

NG

36.1[✓] 36.3[✓] 38.8[✓]
 7.7 7.5 5.0
 76 64 56
 NG

36.1 [✓]	34.9 [✓]	35.1 [✓]	34.1 [✓]	36.1 [✓]	34.6 [✓]	38.8 [✓]	37.2 [✓]	36.3 [✓]	39.0 [✓]	39.9 [✓]	40.2 [✓]
7.7	8.9	8.7	9.7	7.7	7.2	5.0	6.6	7.5	4.8	3.9	3.6
20	19	13	4	2		9	21	28	34	46	66

NG

36.4[✓]
 7.4
 71
 NG

40.0	35.9	40.0	35.3	36.2 [✓]	40.7
3.78	7.9	3.78	8.5	7.6	3.1
15	15	9	7	4	
4		x			

34.2 [✓]	40.1	34.0	40.0
9.5	3.73	9.8	3.8
21	21	23	30
3			NG

Sta + π - Elev

943.80

+ 50

TP 9.95 951.32 2.43 941.37

+ 62

47+00

+ 45

+ 50

TBM₂

~~3.30~~

TBM₂ 12.68 960.70 3.30 948.02

48+00

Lx

±

Rt

40.8✓	40.1✓	40.1✓	40.1✓	40.7✓	43.8✓	35.7✓	43.4✓	40.8✓
3.0	3.70	3.74	3.69	3.1	0.0 +	8.1	0.0	3.0
35	19	14	8		6	21	35	44
NG	Top W. Wall MH Const							NG

Top W Rim MH 15' Lt Sta 46 + 48 ± ?

41.9	42.3	41.7	41.8	42.1	42.9	42.3	40.7
9.4	9.0	9.6	9.5	9.2	8.4	9.0	10.6
37	27	20	13		13	32	50
NG							

45.9✓	45.4✓	45.5✓	44.4✓	44.2✓	42.2✓
5.4	5.9	5.8	6.5	7.1	9.1
22	13		17	27	48
NG					NG

49.2✓	48.2✓	5.8	6.5	7.1	9.1	42.2✓
2.1	3.1	48.9✓	48.4✓	49.3✓	51.3	45.4✓
22	12		11	27	32	44
NG						NG

Top W Rim MH 14' Rt Sta 47 + 76

52.5✓	50.9✓	50.9✓	50.8✓	51.7✓	55.2✓	58.0✓	54.7✓	51.1✓
8.2	9.8	9.8	9.9	9.0	5.5	2.7	6.0	9.6
23	21	14	3		7	13	18	29
NG								NG

Sta	+	π	-	E/ev
-----	---	-------	---	------

		960.70		
--	--	--------	--	--

+20				
-----	--	--	--	--

+50				
-----	--	--	--	--

49+00				
-------	--	--	--	--

TBM ₃	2.67	967.70	0.67	960.03
------------------	------	--------	------	--------

			12.05	55.65
--	--	--	-------	-------

+50				
-----	--	--	--	--

50+00				
-------	--	--	--	--

9.97

£

 R^+

✓ 2.5	✓ 2.9	✓ 3.1	✓ 3.3	✓ 3.7
8.2	7.8	7.6	7.4	8.0
25	13		16	41
NG				NG

53.9	57.6	56.7	60.1	59.8	57.8	57.0	57.3	54.8
6.8	3.1	4.0	0.6	0.9	2.9	3.7	3.4	5.9
26	19	14	9	5		2	22	31
NG								NG

Top SW Cor. Ent. Slab Garage Service door Rt Sta
49+88

Top W. Rim MH 15' Rt. Sta 49+50

54.1 [✓]	62.0 [✓]	61.7 [✓]	58.9 [✓]	59.3 [✓]	59.3 [✓]	57.9 [✓]
13.6	5.7	6.0	8.8	8.4	8.4	9.8
33	19	6		7	14	25
NG						NG

[illegible]

Sta	+	π	-	Elev
-----	---	-------	---	------

		967.70		
--	--	--------	--	--

+58				
-----	--	--	--	--

BM				
----	--	--	--	--

	1.26	966.44		
--	------	--------	--	--

BM				
----	--	--	--	--

	1.92	965.78	965.74	
--	------	--------	--------	--

Ed. Wyman

2nd order D = E of W B

90' E & 60' F

960.71

1/2" Lag Bolt
20 Elms

OCT 27, 1960

98
10

L+

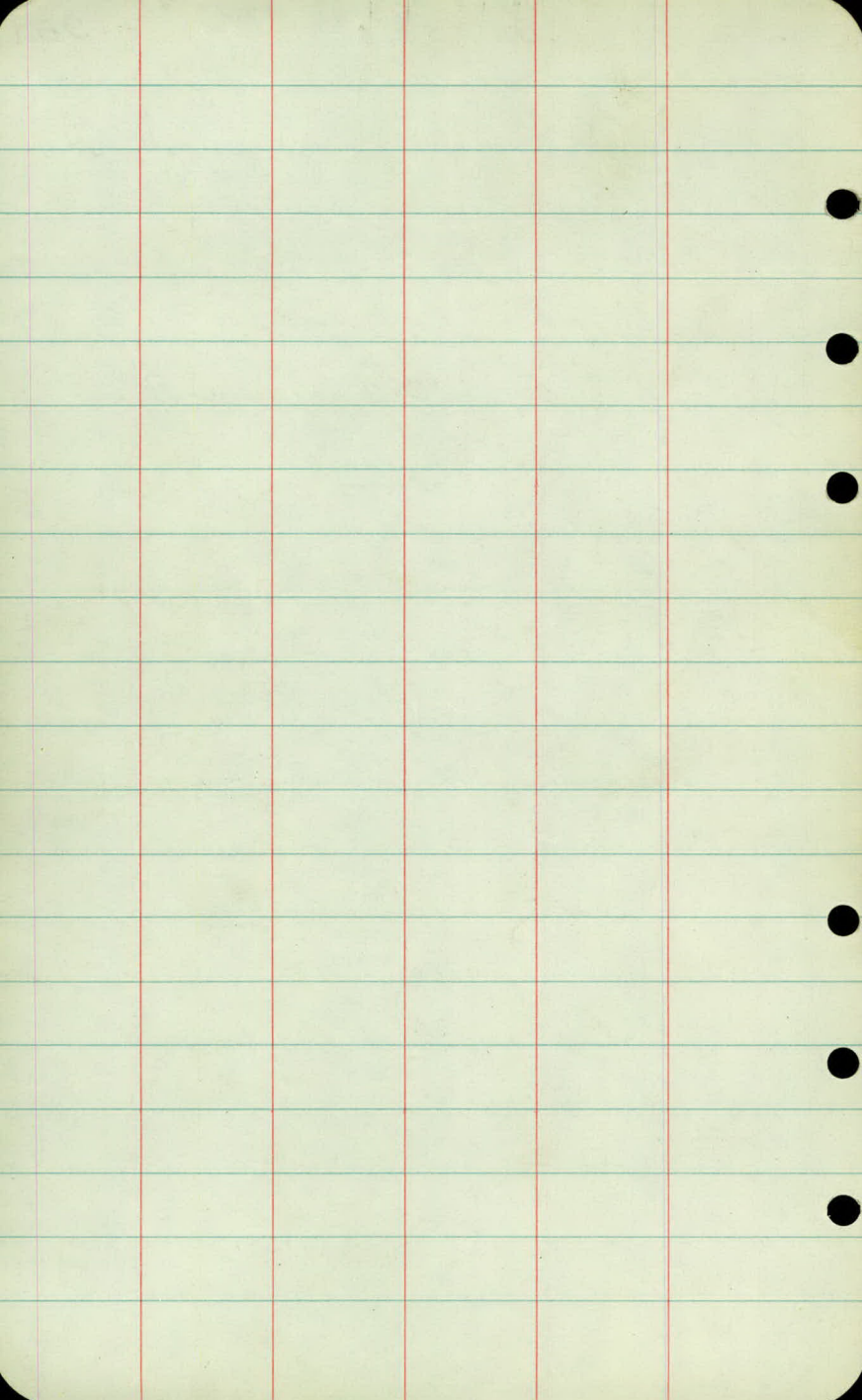
4

R+

58.0 ✓	60.4 ✓	60.7 ✓	61.1 ✓	60.7 ✓	60.5 ✓	61.0 ✓	64.0 ✓
9.7	7.3	7.0	6.6	7.0	7.2	6.7	3.7
36	25	13		12	18	24	31
NG							

Top Hyd NE Cor 4th St & 15th Ave

Bolt on Hyd NE Cor 4th St & 15th Ave.



K.P.
V.S.
E.S.
R.B.
L.B.

9 Nov. 1960 1.99
Cold 290 SNOWING

STH #36 Median

380' E & W OF ~~E~~ McKnight Rd

X-sections

~~E~~ Median S.T.H. 36 = 25 + 73.61

5 pages

Rec. 11/9/60

Sta	+	π	-	ELEV.
BM	5.82	947.29		(941.47)
			3.82	943.47 (943.5)
			9.99	937.30 (937.3)

0+00 $\neq$ STH[#]36 MEDIAN 380' WEST $\neq$ McKnight

+50

1+00

+50

2+00

9 Nov. 1960

2
100

LT

≠

RT

TOP N.E. COR Lower Step #416 CASTLE

≠ E.B.L. STH #36

W. RIM MH 6.0 LT STA 28+15

BT	43.7	43.4	41.8	40.9	40.6	40.5	42.8	BT	43.4
3.6	3.9	5.5	6.4	6.7	6.8	4.5	3.9		
20	15	8	3		3	13	20		

BT	43.6	43.1	41.0	40.7	40.5	42.0	BT	43.4
3.7	4.2	6.3	6.6	6.8	4.3	3.9		
21	15	3		3	12	19		

BT	43.5	42.9	41.0	40.6	41.1	42.8	BT	43.3
3.8	4.4	6.3	6.7	6.2	4.5	4.0		
22	13	3		3	13	20		

BT	43.6	43.0	40.8	40.5	41.0	42.8	BT	43.3
3.7	4.3	6.5	6.8	6.3	4.5	4.0		
21	14	3		3	13	20		

BT	43.5	43.1	40.8	40.5	41.0	42.8	BT	43.2
3.8	4.2	6.5	6.8	6.3	4.5	4.1		
21	14	3		3	13	20		

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

947.29				
--------	--	--	--	--

2+50				
------	--	--	--	--

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

3+16				
------	--	--	--	--

3+50				
------	--	--	--	--

3+80	=	$\pm$ McKnight		
------	---	----------------	--	--

4+00				
------	--	--	--	--

LT

 $\neq$

RT

3
101

BT	43.3	43.1	40.8	40.3	40.8	42.8	BT
4.0	4.2	6.5	7.0	6.5	4.5	4.0	
21	14	3		3	13	21	

BT	43.3	42.9	40.9	40.1	40.9	42.7	BT
4.0	4.4	6.4	7.2	6.4	4.6	4.0	
21	15	3		3	13	21	

BT	43.3	42.9	40.8	40.6	40.9	42.7	BT
4.0	4.4	6.5	6.7	6.4	4.6	4.0	
21	14	3		3	13	20	

BT	43.4	43.0	41.0	40.4	41.1	42.8	BT
3.9	4.3	6.3	6.9	6.2	4.5	4.0	
21	14	3		3	13	21	

BT	43.3	43.0	40.9	40.7	41.0	42.8	BT
4.0	4.3	6.4	6.6	6.3	4.5	4.1	
21	14	3		3	14	21	

BT	43.3	43.0	40.8	40.5	40.9	42.7	BT
4.0	4.3	6.5	6.8	6.4	4.6	4.1	
21	15	3		3	14	21	

Sta

+

π

-

ELEV

947.29

4+10

4+44

5+00

5+50

6+00

6+60

9 NOV. 1960

4.
102

LT

≠

RT

BT ^{43.3} 4.0	42.9 4.4	40.7 6.6	40.5 6.8	40.9 6.4	42.6 4.7
21	14	3		3	13

BT ^{43.7} 4.1
21

BT ^{43.4} 3.9	43.0 4.3	40.9 6.4	40.6 6.7	40.9 6.4	42.7 4.6
21	14	3		3	14

BT ^{43.2} 4.1
21

BT ^{43.5} 3.8	43.2 4.1	41.2 6.1	40.7 6.6	41.0 6.3	42.9 4.4
21	14	3		3	14

BT ^{43.1} 4.0
22

BT ^{43.6} 3.7	43.3 4.0	41.2 6.1	41.0 6.3	41.1 6.2	42.9 4.4
21	14	3		3	14

BT ^{43.5} 3.8
21

BT ^{43.7} 3.6	43.4 3.9	41.2 6.1	41.1 6.2	41.1 6.2	43.0 4.3
20	14	3		3	14

BT ^{43.6} 3.7
22

43.6 3.7	43.4 3.9	41.3 6.0	40.9 6.4	41.3 6.0	43.1 4.2
21	14	2		3	15

BT ^{43.7} 3.6
22

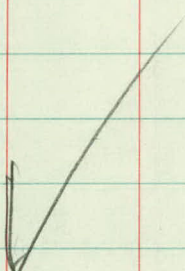
Sta	+	π	-	ELEV
-----	---	-------	---	------

		947.29		
--	--	--------	--	--

7+00				
------	--	--	--	--

7+60				
------	--	--	--	--

BM		5.82	941.47	941.47
----	--	------	--------	--------



LT

d

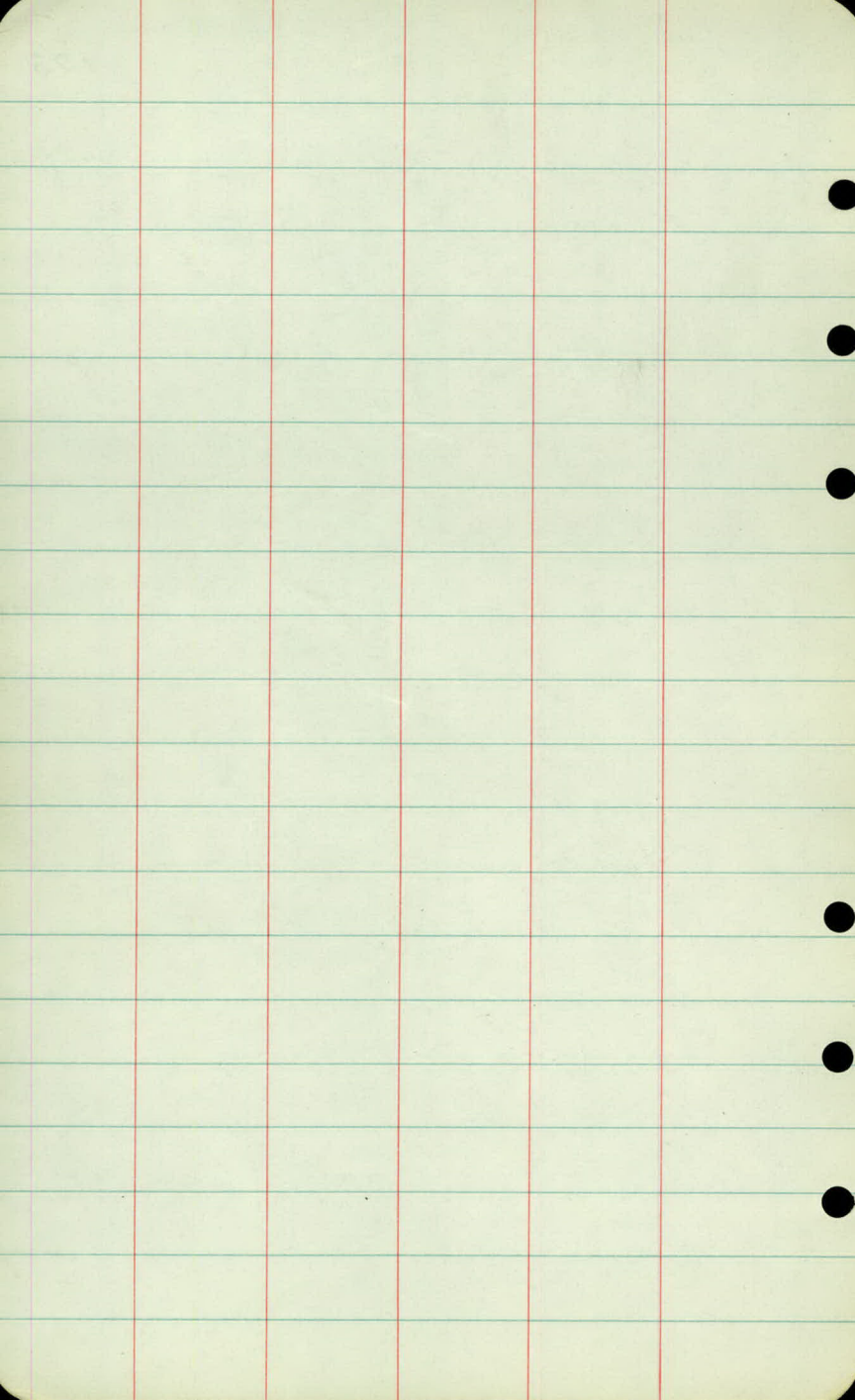
RT

5
103

BT ^{43.6}	^{43.5}	^{41.3}	^{41.1}	^{41.3}	^{42.9}	BT ^{43.6}
3.7	3.8	6.0	6.2	6.0	4.4	3.7
21	16	3		3	14	21

BT ^{43.8}	^{43.5}	^{41.5}	^{41.4}	^{43.2}	BT ^{43.6}
3.5	3.8	5.8	5.9	4.1	3.7
23	16	3		14	20

TOP N.E. COR. Lower Step No #416 CASTLE



K.P.
V.S.
F.S.
R.B.
L.B.

9 Nov. 1960
cloudy, Cold 28°

1.
104

Co RD B
W. OF MCKnight Rd.
X-sections

4 pages

✓

Rec'd 11/9/60

Sta	+	π	-	ELEV.
BM	1.41	949.63		948.22

1+50
0+00 = 150' W. of McKnight on E. Co. Rd. B.

1+25
+25

✓

1+22
+28

✓

1+00
+50

RT.
~~LT~~

9 Nov. 1960

2
£ 105

Top Hyd. N.E. COR. Co. Rd. B & McKnight Rd.

39.9	40.1	40.1	38.7	39.7	42.3	44.5	45.6	45.7
9.7	9.5	9.5	10.9	9.9	7.3	5.1	4.0	3.9
50	47	33	29	27	24	19	11	

✓

TOP HEADWALL

39.6	39.0	39.1	40.81	41.9	43.2	44.9	45.5	45.7
10.0	10.6	10.5	8.82	7.7	6.4	4.7	4.1	3.9
33	31	29	28	29	23	18	11	

✓

TOP WALL

8.55	9.0	9.6
34	44	

24" CM NEND.

TOP HEADWALL

40.8	38.8	38.61	40.89	42.5	43.4	45.0	45.5	45.8
8.8	10.8	11.02	8.74	7.1	6.2	4.6	4.1	3.8
34	30	29	29	26	22	17	11	

✓

40.5
 40.0 || 9.1 | 9.6 |
| 41 | 50 |

40.2	40.9	40.8	42.1	43.6	45.4	45.7	45.9
9.4	8.7	8.8	7.5	6.0	4.2	3.9	3.7
50	32	29	25	22	17	11	

✓

Sta	+	π	-	ELEV
		949.63		
0+75				
TBM			5.88	943.75
1+00				
✓				
1+25				
1+50				
+53			2.81	946.82
+60			3.33	946.30
+60			5.44	944.19
1+17			6.70	942.93

RT.
LT

9 NOV. 1960

3.
106

41.6	41.3	41.1	42.5	44.1	45.5	46.0	46.1
8.0	8.3	8.5	7.1	5.5	4.1	3.6	3.5
50	35	29	26	22	17	11	

SPAKE IN PR 33' LT STA 1400

41.8	41.9	41.9	41.5	42.4	43.7	44.2	45.9	46.4	46.4
7.8	7.7	7.7	8.1	7.2	6.9	5.4	3.7	3.2	3.2
50	40	34	31	29	26	22	17	11	

42.3	42.5	42.3	43.1	45.1	46.3	46.6	46.6
7.3	7.1	7.3	6.5	4.5	3.3	3.0	3.0
50	36	31	26	22	17	11	

42.9	43.1	43.1	43.0	43.8	45.6	46.6	46.9	47.0
6.7	6.5	6.5	6.6	5.8	4.0	3.0	2.7	2.6
50	36	32	28	25	22	17	11	

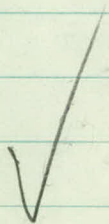
TOP MH 3.6 E. OF McKnight 29.0 LT

" 10' E OF " 28.0 RT

TOP 15" CM 26' RT E 10.0 E OF McKnight

PL. 15" CM 26' RT STA 1417

Sta	+	x	-	ELEV	
BM		949.63	1.42	948.21	948.22



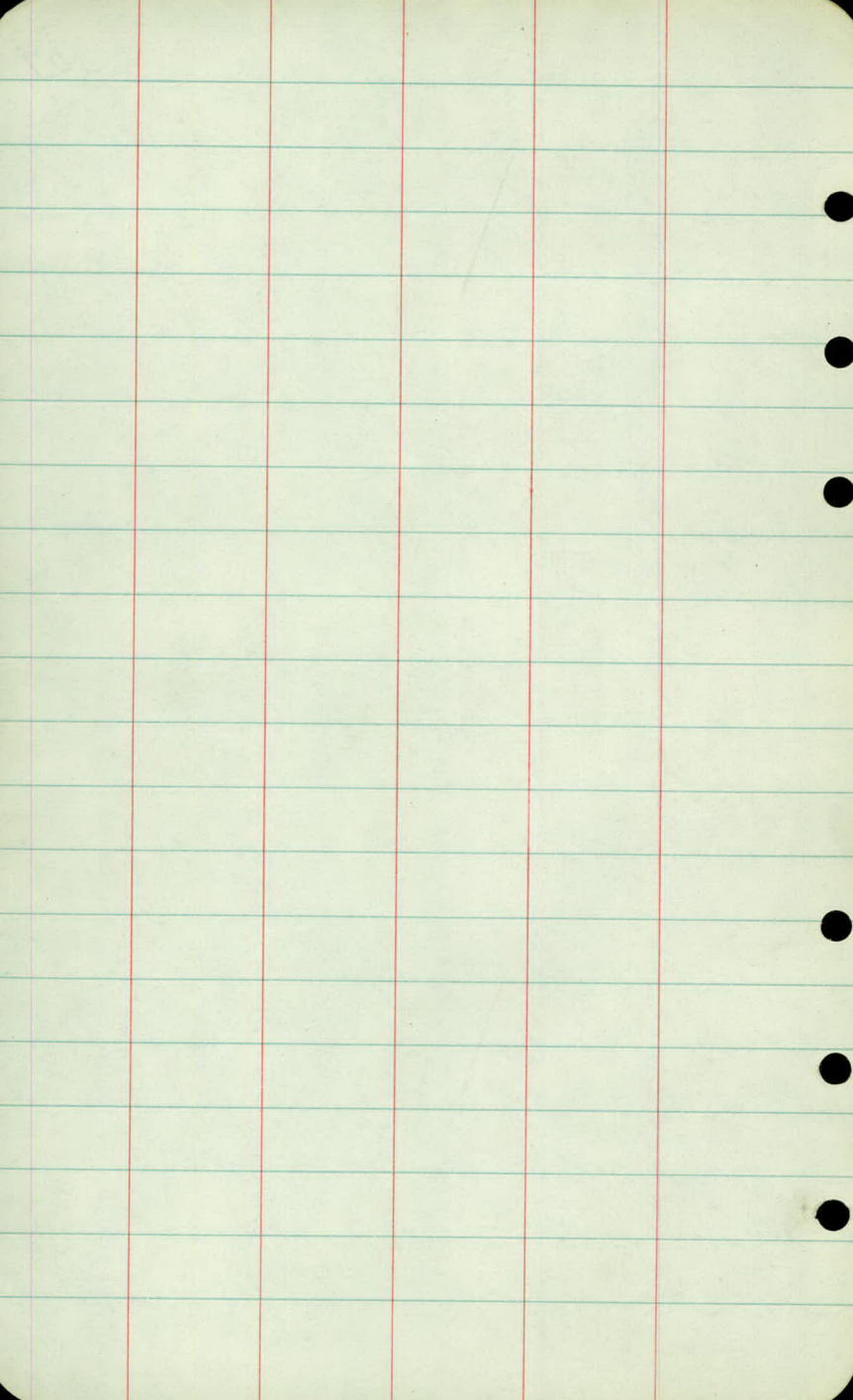
9 Nov. 1960

4.

LT

≠ 107

TOP HYD. N.E. COR. Co. RD B E McKnight



X-McKnight E & W "B"

Sta + π - Elev

BM 3.63 1951.85 3.63

948.22

0+40 (on "B" 40' E of McKnight - No. side)

✓

± B + MCK

+ 35' W.

+ 50 W

TBM

8.10

943.75

✓

+ 75 W

R6
JL
W44
JH

Lt

E

Nov. 7, 1960
clear, cold
RT

109

Top Hyd NE cor "B" + MS Knight

48.0
47.8 47.2 46.9 45.8 46.0
3.9 4.1 4.7 6.0 6.1 5.9
11 18 25 27 31

✓

48.3 48.3 47.7 46.8
3.6 3.6 4.2 5.1
100 75 55 38

45.1 46.1 South
45.0 46.0 46.6 46.6 46.6 North
46.2 42.3 42.2 41.9
6.8 6.8 6.9 5.9 5.3 5.3 5.3 5.7 9.6 9.7 10.0
50 35 22 17 11 11 17 30 46 65

✓

44.9 44.9 44.8 46.1 46.5 46.4 46.4 46.1 45.3 42.9 42.6 41.6
7.0 7.0 7.1 5.8 5.4 5.5 5.5 5.8 6.6 9.0 9.3 10.3
50 32 23 15 10 12 16 20 26 29 31

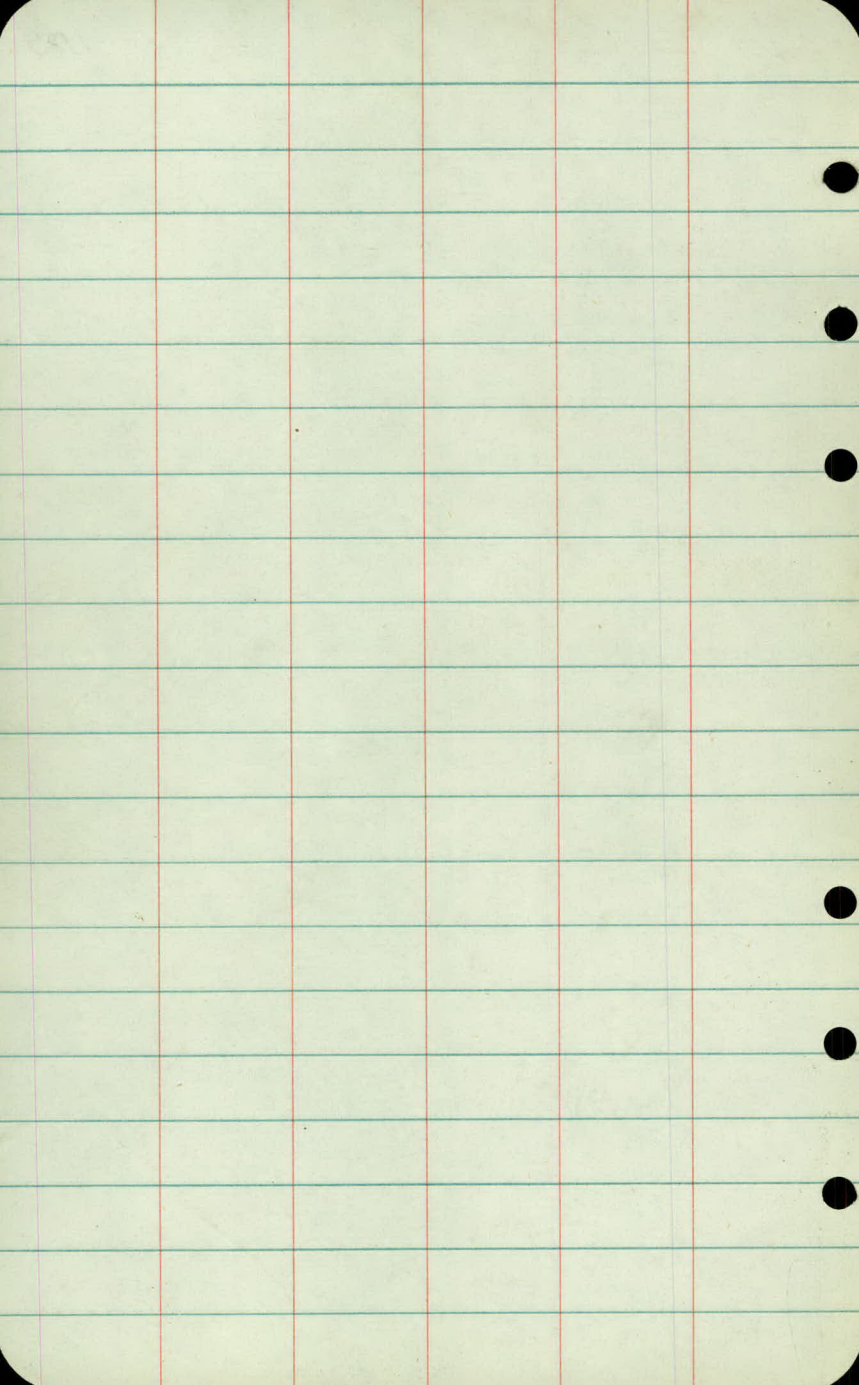
✓

Spike in PP at 50 - 32' North

42.0 41.8
9.9 10.1
50 32

44.5 44.0 44.0 42.9 45.6 46.2 46.2 46.0 45.8 41.0 41.5 41.6
7.4 7.9 7.9 8.0 6.3 5.7 5.7 5.9 6.1 10.9 10.4 10.3
50 34 26 21 16 11 12 17 30 38 50

✓



MCKNIGHT ROAD

Co Rd "B"

6th to 7th St

X-Sections

South Side

McKnight St.



524+58.50

6th St.7th St

498+48.55

Sta + π - Elev.

BM 5.96 953.72

947.76

505 Approx $\pm$ 7th St

+15

✓

+18

✓

+29

FX
JS
WM

£

April 26, 1960

RT

2
111

Spike in pp S.W. Cor 7th St

46.9	46.9	46.9	47.8	49.5	51.1	52.5	52.6
6.8	6.8	6.8	5.9	4.2	2.6	1.2	1.12
12	23	50	78	100	130	134	

46.9	46.9	46.7	46.8	47.4	47.8	48.9	50.7
6.8	6.8	7.0	6.9	6.3	5.9	4.8	3.0
11	18	28	39	54	76	100	

52.52
51.5

1.19 1.2
132 127

Rail

46.9	46.9	46.6	46.7	48.6	48.0	48.0	48.9
6.8	6.8	7.1	7.0	5.1	5.7	5.7	4.8
11	20	25	36	43	49	72	

52.54
52.2
52.1
50.7
49.7

1.18 1.5 1.6 3.0 4.0
132 130 117 100 89

Rail

46.9	46.8	46.4	42.97	44.2	44.2	45.6	48.7
6.8	6.9	7.3	9.75	9.5	9.5	8.1	5.0
12	19	25	24	26	29	34	

FL CM

Sta + π - Elev

95372

505+29

+65

✓

506

✓

+50

~~4~~ April 26, 1960
 48.1 48.9 49.2 51.0 51.4 51.7 52.48
 5.6 4.8 4.4 2.7 2.3 2.0 1.24
 45 69 83 100 118 127 132
 Rail

46.7 46.5 45.7 44.2 44.3 47.1 50.6 50.4
 7.0 7.2 8.0 9.4 9.4 6.6 3.1 3.3
 11 17 22 26 30 33 53
 52.24 51.4 50.4 51.0 49.1
 1.48 2.3 3.3 2.7 4.0
 127 122 114 100 70
 Rail

46.6 46.3 45.2 44.4 44.4 47.2 51.2 51.0
 7.1 7.4 8.4 9.3 9.3 6.5 2.5 2.7
 11 17 24 25 29 34 52
 51.97 51.2 50.0 50.9 50.2
 1.75 2.5 3.7 2.8 3.4
 124 120 115 100 81
 Rail

46.4 46.2 45.2 44.1 44.1 47.1 50.4 50.2
 7.3 7.5 8.5 9.6 9.6 6.6 3.3 3.4
 11 17 23 25 29 34 60
 51.61 50.8 49.5 51.2 51.2 50.2
 2.11 2.9 4.2 2.4 2.4 3.4
 117 111 109 102 100 77
 Rail

Sta + π - Elev

953.72

507

✓

+50

✓

508

✓

April 26, 1960

2

46.2	46.2	45.8	43.8	42.8	49.0	48.9	49.7	49.5
7.4	7.5	7.9	9.9	9.9	4.7	4.8	4.0	4.2
11	11	16	23	28	35	53	77	88

51.29
50.5
49.2
51.4

2.43 3.2 4.4 2.3
111 106 103 97
Rail

46.2	46.1	45.2	43.4	42.4	49.7	49.5	49.9
7.4	7.6	8.5	10.3	10.3	7.0	4.2	3.8
11	11	18	23	27	34	59	83

51.02
50.2
48.9
50.9
51.0

2.69 3.5 4.8 2.8 2.7
105 100 97 92 87
Rail

46.2	46.0	45.4	43.6	42.6	41.2	50.2	51.2
7.4	7.7	8.3	10.1	10.1	6.4	3.4	2.5
11	11	17	23	26	31	33	55

50.82
50.0
48.7
50.6
50.5
51.8

2.90 3.7 5.0 3.1 3.2 1.9
100 96 93 87 80 76
Rail

Sta + π - Elev

953.72

508+50

✓

T.P. 4.17 954.32 3.57 950.15

5.09

✓

+50

✓

4

April 26, 1960

5
114

46.2	45.9	45.3	43.7	43.7	47.4	50.6	51.9
7.5	7.8	8.4	10.9	10.0	6.3	3.1	1.8
11	17	22	25	30	33	54	

50.69	49.7	48.6	50.4	50.5	52.2
30.3	4.0	5.1	3.3	3.2	0.4
96	90	87	81	75	70

46.0	45.8	45.2	43.4	43.4	49.7	50.6	51.7
8.3	8.5	9.1	10.9	10.9	4.6	3.7	2.6
11	18	24	27	33	50	65	

50.39	49.4	48.2	50.7	49.7
393	4.9	60	36	4.6
91	86	82	75	69
Reil				

45.8	45.7	45.1	43.2	43.2	50.1	51.2	51.6
8.5	8.6	9.2	11.0	11.0	4.2	3.1	2.7
11	18	23	27	36	52	60	

50.12	49.1	48.1	50.2	49.2
4.20	5.2	6.2	4.1	5.0
85	80	77	69	65
Reil				

Sta + π - Elev

954.32

510

✓

+30

✓

+62

£

April 26, 1960

BT

6
115

45.7	45.5	45.1	43.7	42.7	49.4	50.2
8.6	8.8	9.2	10.6	10.6	4.9	4.1
	11	19	24	27	36	51

49.92	48.9	47.7	50.2	49.2	50.2
4.40	5.4	6.6	4.0	5.0	4.1
80	75	72	64	60	57
Rail					

45.6	45.5	45.0	43.4	42.4	45.7	47.5
8.7	8.8	9.3	10.9	10.9	8.6	6.8
	11	20	26	29	33	44

49.72	48.6	47.6	50.0	48.1
4.60	5.7	6.7	4.3	6.2
77	72	68	61	55
Rail				

45.4	45.5	45.2	42.5	42.5	46.0	47.4	49.5
8.9	8.8	9.0	10.8	10.8	8.3	6.9	4.8
	11	19	25	30	36	50	58

49.52	48.5	47.2
4.80	5.8	7.0
74	69	65
Rail		

Sta + π - Elev.

954.32

511

✓

+50

✓

512

✓

BM

9.34 944.98 (944.96)

4

April 26, 1960

716

BT

45.5	45.5	45.1	42.9	42.9	43.5	45.0	46.6
8.8	8.8	9.2	11.4	11.4	10.8	9.3	7.7
	11	19	26	32	35	42	48

49.31	48.3	47.1	49.1
-------	------	------	------

501	60	7.2	5.2
69	64	61	55

Rail

45.5	45.5	45.1	42.5	42.5	43.7	45.1	48.1
8.8	8.8	9.2	11.8	11.8	10.6	9.2	6.2
	11	19	28	33	36	43	51

49.04	48.0	46.8
528	6.3	7.5
64	59	56

10.4

45.7	45.7	45.3	42.1	42.1	45.2	46.7	46.7
8.6	8.6	9.0	11.2	11.2	9.1	7.6	7.7
	11	18	26	32	38	43	50

48.62	47.4
-------	------

5.69	6.9
58	53

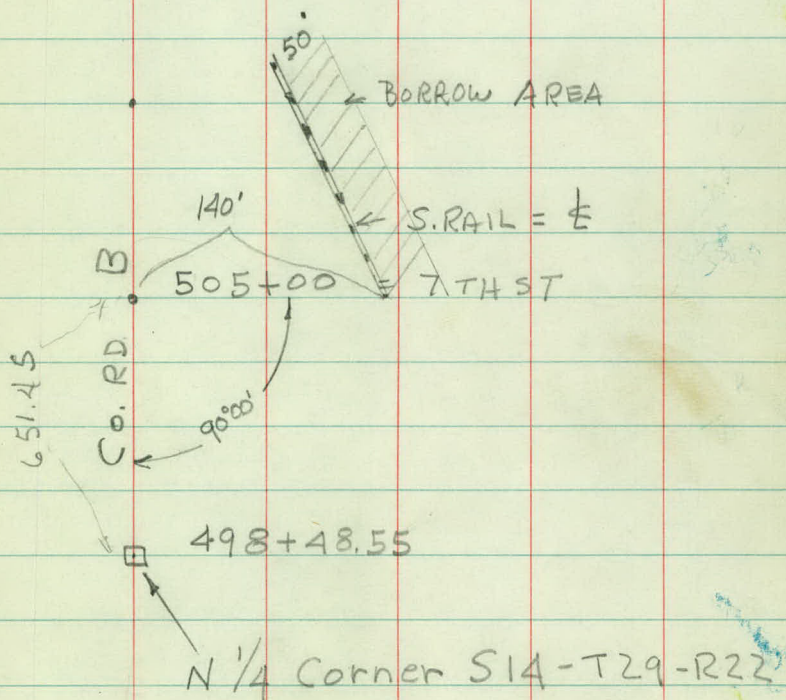
Small RR Spike S.W. Cor 6th St & Bth Rail

47x50

K.P.
J.S.
F.S.
R.B.
L.B.

10 Nov. 1960
clear, cold 15° 117

McKnight Rd.
Co. Rd. "B"
Borrow Pit



4 PAGES

Plotted
G. V

Sta + π - ELEV

BM 11.68 959.44

947.76

0+00 = 651.45' EE 140' S of N $\frac{1}{4}$ Cor. S14-T29-R2

505-13 FL W. end 18" SCP.

505+05 APPROX. $\neq$ 7TH ST.

505+15 E. GUTTER LINE 7TH ST.

505+20

505+29

10 NOV, 1960

Z

RT.

2.

118

Spike in p.p. S.W. Cor Co. Rd B & 7TH ST.

52.77
6.67
6.5

52.29

7.15

52.26

PAI1

7.18

52.5

6.9

11

52.7

6.7

22

53.0

6.4

37

53.5

5.9

50

✓

52.22

7.22

51.8

7.6

7

50.04
FL18" SCP

9.40

9

51.4

8.0

10

52.0

7.4

18

52.3

7.1

26

52.9

6.5

35

53.4

6.0

45

✓

52.19

7.25

51.9

7.5

5

51.0

8.4

9

51.8

7.6

13

52.3

7.1

20

52.0

7.4

26

52.7

6.7

32

52.8

6.6

38

54.3

5.1

44

✓

55.1

4.3

50

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

		959.44		
--	--	--------	--	--

505+650				
---------	--	--	--	--

506+00				
--------	--	--	--	--

+50				
-----	--	--	--	--

507+00				
--------	--	--	--	--

+50				
-----	--	--	--	--

508+00				
--------	--	--	--	--

R

RT

3.
119

51.95
7.49 8.3 9.1 8.5 8.5 6.6 5.5 5.4
5 10 15 19 29 39 50

51.72
7.72 8.6 9.4 7.3 6.1 5.6 6.4 7.1
5 11 24 32 40 42 50

51.38
8.06 9.1 9.4 7.9 6.7 5.5 6.9 7.4
6 10 16 26 38 42 50

51.17
8.27 9.1 9.7 5.9 6.4 6.0 5.6
6 9 17 28 38 50

50.97
8.47 9.2 10.1 7.5 5.0 3.3
6 10-11 16 23 50

50.82
8.62 9.4 10.3 3.7 2.7 2.3
6 8-9 19 36 46

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

		959.44		
--	--	--------	--	--

508+50				
--------	--	--	--	--

509+00				
--------	--	--	--	--

+50				
-----	--	--	--	--

510+00				
--------	--	--	--	--

+30				
-----	--	--	--	--

TP	3.41	952.96	9.89	949.55
----	------	--------	------	--------

BM			7.98	944.98
----	--	--	------	--------

				944.96
--	--	--	--	--------

10 NOV. 1960

RT

4.
120

50.67	49.7	48.7	55.8	55.9	56.4	56.6	Fe.
8.77	9.7	10.7	3.6	3.5	3.0	2.8	✓
	6	9-10	20	31	37	46	

50.40	49.5	48.5	55.0	54.1	54.1	Fe
9.04	9.9	10.9	4.4	5.3	5.3	✓
	6	8-9	19	28	45	

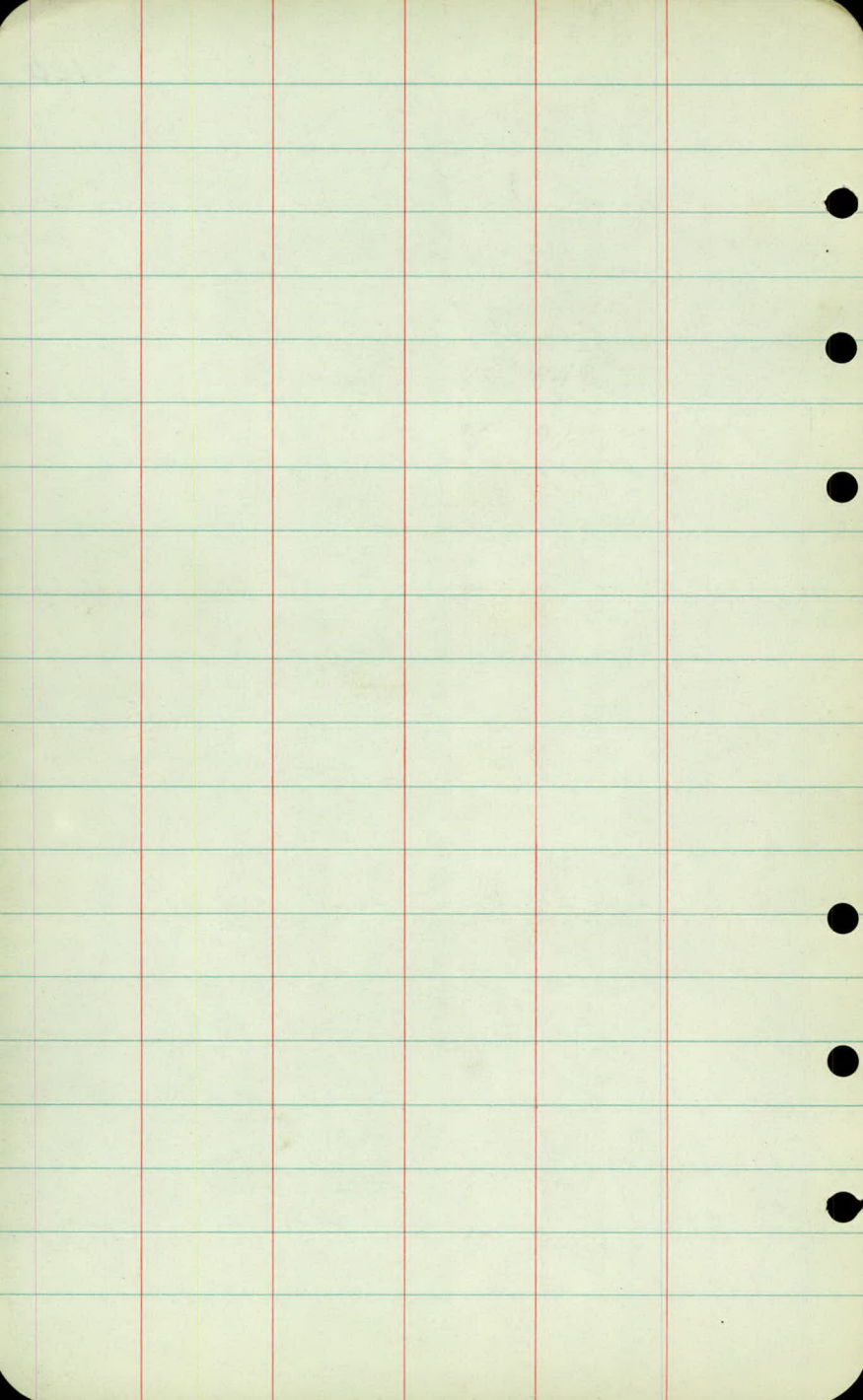
50.15	49.1	48.4	54.2	53.0	52.7	Fe
9.29	10.3	11.0	5.2	6.4	6.7	✓
	6	8-9	18	30	47	

49.81	48.8	48.1	48.5	48.7	47.9	47.0
9.53	10.4	11.3	10.9	10.7	11.5	12.4
	6	8-9	16	27	39	54

49.76	48.7	47.9	47.8	47.4	45.0
9.68	10.7	11.5	11.6	12.0	14.4
	5	8	16	34	43

inside bolt on S. track Sta 510+56

R.R. spike in P.P. S.W. Cor 6th St & Co. Rd B.

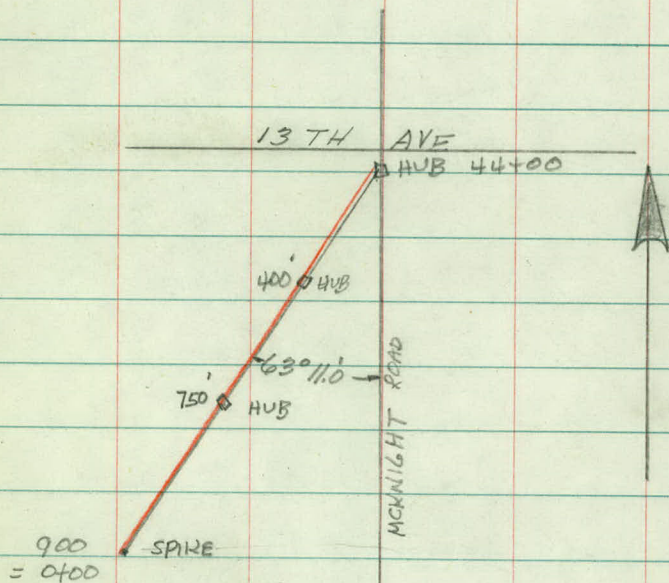


15 NOV. 1960

1.
121

K.P.
J.L.
J.H.
F.S.
W.M.

MCKNIGHT ROAD CITY DUMP BORROW PIT



9 - PAGES

STA	+	π	-	ELEV
BM	4.32	945.79		941.47
BM	1.79	939.09	8.49	937.30
BM	1.20	938.28	2.01	937.08
TP	6.33	941.14	3.47	934.81
TP	9.44	948.27	2.31	938.83
BM	6.11	944.35	10.03	938.24
TP	9.45	950.81	2.99	941.36
TP			2.16	948.65
TP	2.71	944.07	9.45	941.36
TP	9.36	942.60	10.83	933.24
TP	12.72	954.10	1.22	941.38
TP	12.16	965.21	7.05	953.05
			6.07	948.03
TP	5.45	968.07	2.59	962.62
			1.64	966.43
			2.30	965.77
TP	2.95	969.49	1.53	966.54
			2.53	966.96
BM			2.94	966.55

(941.47)

(937.30)

(938.92)

(938.27)

(966.40)

966.49

(966.49)

KP
014
UL
FS
WM

18 NOV. 1960

2.

LT

±

RT

122

TOP N.E. COR. LOWER STEP #416 CAST

TOP MH 6.0 LT STA 28+15 N. RIM

TOP S. RIM MH ± STA 31+47

N. EDGE MH ± STA 35 ±

TOP W. RIM MH 10' LT STA 38

TOP W. RIM MH 10' LT STA 41+25

SPIKE IN 36" OAK 10' LT Borrow Pit STA 548

SPIKE IN 18" OAK ± Borrow Pit STA 1490

SPIKE IN 36" OAK 10' LT Borrow Pit STA 548

PUNCH HOLE AT center of 39' CMA (South.)

120' LT McKnight STA 44+00,

TOP W. RIM MH 10' LT STA 46 ±

TOP W. RIM MH ± STA 48+20 ±

TOP W. RIM MH 10' LT STA 48+00 ±

TOP W. RIM MH ± 15TH AVE E' McKnight

TOP HYD. N.E. COR. McKnight ± 15TH AVE

BOLT " " "

TOP HYD N.E. COR McKnight ± 16TH AVE

TOP HYD FRONT HO #425 CO RDC

" " " " # 345 " "

335

STA	+	π	-	ELEV.
-----	---	-------	---	-------

BM	4.73	953.38		948.65
----	------	--------	--	--------

TP	6.54	947.08	12.84	940.54
----	------	--------	-------	--------

0-25

0+00

✓

0+50

✓

TP	7.08	953.51	0.65	946.43
----	------	--------	------	--------

K.P.
J.S.
F.S.
R.B.
L.B.

21 NOV. 1960
45° SUNNY

3.
123

LT

±

RT

SPIKE IN 18" OAK ± BORROW PIT STA 1+90

TOP TREE STUMP 10' RT STA 0+20

15.1	13.0	11.9	11.6	12.2	12.3	12.4
40	24	20		25	54	75

12.4	12.2	10.0	6.0	10.5	11.1	13.1	14.2	15.3	15.8
64	32	26	19	10		20	30	35	53

12.8
75

15.3
75

15.7	13.2	11.5	9.4	4.3	2.0	3.5	5.3
75	40	17		9	17	27	32

12.3 13.2 5.2
75 52 41

TOP ROCK 25' RT STA 0+90

Sta

+

π

-

ELEV.

953.51

1+00

✓

✓

1+50

✓

21 NOV. 1960
45° SUNNY

LT

~~4~~

RT

4
124

21.2	19.8	16.7	12.2	7.8	4.7	4.3	6.6	5.7
75	52	27	14		10	24	41	53

15.4	13.6	10.8	8.3	4.0
119	103	86	75	58

18.2
150

17.5	15.4	10.0	3.9	2.4	2.0	4.1	6.4	11.9
69	47	32	12		17	31	44	75

17.9	20.7
75	110

16.0
106

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

		953.51		
--	--	--------	--	--

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

✓				
---	--	--	--	--

BM	0.29	948.94	4.85	948.66	948.65
----	------	--------	------	--------	--------

2+34				
------	--	--	--	--

✓				
---	--	--	--	--

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

✓				
---	--	--	--	--

21 Nov. 1960

5.

125

LT

±

RT

16.1	13.4	10.2	7.6	7.7	8.5	10.2	12.5
75	61	40	22		18	37	56

18.4	19.7
100	123

18.0	15.1
110	75

SPIKE IN 18" OAK ± STA 1490

9.6	9.1	6.7	5.3	4.8	5.1	6.0	7.9	10.5	11.9
75	70	53	34	15		20	38	58	75

12.6	13.8
100	115

14.2	12.2
120	94

13.1	8.9	4.6	2.7	3.1	4.7	7.2	11.8	13.1
75	54	34	13		20	42	64	75

15.5
110

14.1
95

Sta

+

π

-

ELEV.

948.94

3+50

✓

4+00

✓

4+28

✓

21 NOV, 1960

6.

126

Lt.

E

Pt.

14.6	13.0	7.9	3.2	2.7	2.5	3.8	5.4	11.5	12.8
75	50	36	18	11		19	40	63	75

16.3
117

14.3
110

14.9	12.8	9.1	5.9	4.3	3.5	3.9	4.9	6.5	11.3	11.8
74	45	32	22	10		19	34	47	65	75

16.5
100

14.2 13.5
107 91

13.5	12.2	8.0	5.8	4.2	3.5	4.7	8.1	11.7	13.5
52	34	25	16		20	42	60	75	95

16.2 16.2 17.0
75 90 106

14.5
115

Sta	+	π	-	ELEV.
		948.94		
TP	1.82	947.81	2.95	945.99
4+77				
✓				
5+00				
✓				
5+50				
✓				

21 NOV, 1960

LT

~~E~~

RT

7.
127

TOP HUB STA 5+00

13.2	10.8	5.1	2.7	1.4	2.3	4.9	8.5	11.4
62	41	23	13		33	51	72	90

14.4 15.7
75 100

12.3
100

13.9	12.9	11.3	6.5	3.1	1.9	2.2	4.0	7.4	9.9
75	63	42	25	11		24	45	62	75

15.0
100

13.1
110

12.5	11.3	10.6	8.0	5.4	4.4	3.3	3.4	5.8	8.2
51	42	30	21	9		18	31	55	70

13.9 14.8 15.6
63 75 100

13.0 11.9 9.9 11.0 9.5
111 100 90 87 75

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

		947.81		
--	--	--------	--	--

BM	0.60	941.96	6.43	941.38	941.36
----	------	--------	------	--------	--------

6+00

✓

6+50

✓

7+00

✓

21 Nov. 1960

LT

E

RT

8.
128

SPIKE IN 36" OAK 10' LT. STA 5+80.

9.0	8.7	7.4	7.0	5.5	4.3	2.4	1.0	0.8	2.4	2.4
61	48	37	30	6		13	31	49	69	75

9.1	9.1	8.4	8.8
75	88	97	108

5.5	5.1	3.4
122	110	90

8.8	9.6	9.9	8.9	8.1	5.4	3.1	2.9	4.0
90	75	50	22		40	66	75	100

3.9	4.5
126	117

9.0	10.5	10.6	10.1	9.1	9.6	9.4	8.6	6.2	5.7
75	67	54	30	15		19	39	65	75

3.8	4.1
116	105

Sta	+	π	-	ELEV
-----	---	-------	---	------

		941.96		
--	--	--------	--	--

BM				
----	--	--	--	--

	8.70		933.26	
--	------	--	--------	--

				933.24
--	--	--	--	--------

LT

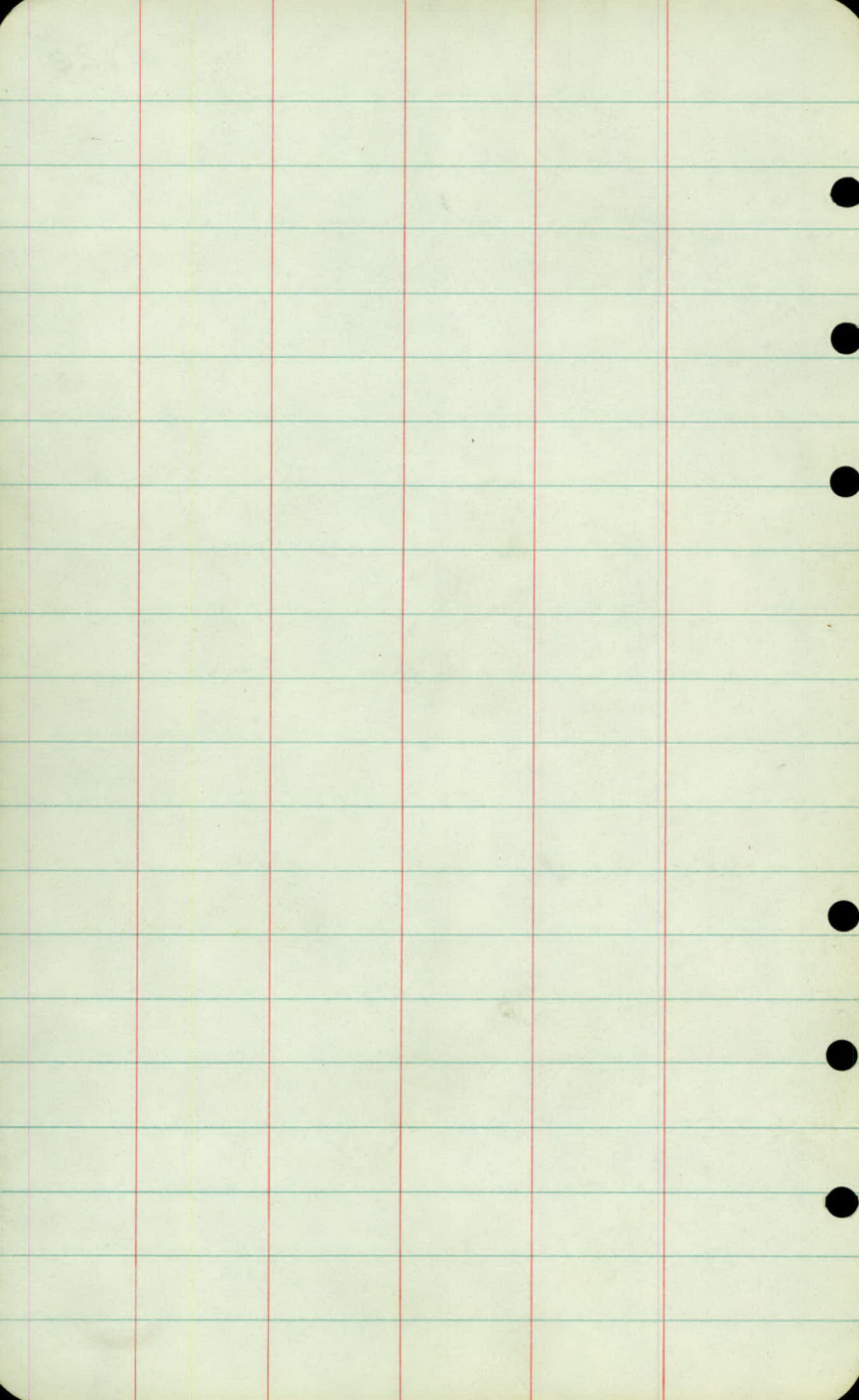
E

RT

129.

PUNCH HOLE E 39' CMA (SOUTH) 120' LT

MCKNIGHT STA 44+00



K.P.
J.L.
J.H.
F.S.
W.M

15 Nov. 1960
45° FOLLY

1.
130

McKnight Road.
N. St. Paul Rd to Co. Rd C
3rd Ave Borrow Pit

X-sections

M.E.S.T. P.E.S.S. M.R.Y.

33.0

3rd Ave.

301.0

N. ST. PAUL RD.

301.0 N 7TH ST = 040.

7 PAGES

Sta	+	π	-	ELEV.
BM	6.33	989.53		983.20
TP	1.21	988.02	2.72	986.81
BM				948.22
	0.20	982.74	5.48	982.54

0+00

✓

+50

✓

1+00

15 Nov. 1960

LT.

2.
131

S.W. Cor lower step Ho # 301 Co. Rd B.

TOP HYD. N.W. Cor 3rd Ave & 7TH ST.

TOP HYD. N.E. Cor Co. Rd B & McKnight.

SPIKE IN 15' B.E 36' LT STA 0-20'.

1 ¹	1 ⁰	1 ⁰	2 ³	4 ²	8 ⁰	8 ⁴	1 ⁸	8 ¹
5.6	4.7	3.7	2.4	1.5	2.7	2.3	2.9	2.0
126	100	75	48	34	30	18	15	

Berm gutter

1 ⁴	1 ³
6.1	8.8
143	176

1 ⁵	1 ⁶	1 ⁰	1 ⁰	1 ⁹	1 ⁴	1 ⁸	1 ⁶	1 ⁹
7.2	6.5	5.7	4.7	3.4	5.3	4.9	5.6	4.8
121	100	76	52	36	32	19	12	

Berm gutter

1 ⁸	1 ⁴	1 ³
6.9	8.5	9.0
141	168	176

1 ⁵	1 ³	1 ⁵	1 ⁶	1 ⁰	1 ⁸	1 ⁵	1 ⁵	1 ⁴	1 ⁴
9.2	9.0	7.7	6.7	5.7	4.4	7.6	7.2	7.8	7.3
139	122	100	79	58	36	32	18	15	

Berm gutter

1 ³	1 ³
9.5	9.7
158	176

Sta	+	π	-	ELEV.
-----	---	-------	---	-------

		982.74		
--	--	--------	--	--

1+50				
------	--	--	--	--

✓				
---	--	--	--	--

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

✓				
---	--	--	--	--

+50				
-----	--	--	--	--

✓				
---	--	--	--	--

TP ₁	6.46	977.74	11.46	971.28
-----------------	------	--------	-------	--------

15 NOV. 1960

LT

E

132

11.9	13.9	14.3	16.7	17.1	13.0	13.8	12.9	13.5
10.8	8.8	8.4	7.0	5.6	9.7	8.9	9.8	9.2
127	100	86	58	37	32	16	13	

Berm GUTTER

11.6	11.3
11.1	11.4
148	176

11.5	12.6	13.4	14.7	16.7	11.4	11.5	10.5	11.3
11.2	10.1	9.3	8.0	6.0	11.3	11.2	12.2	11.4
117	100	79	61	38	32	16	15	

Berm GUTTER

10.5	9.7
12.2	13.0
137	176

10.7	11.8	13.0	14.3	16.6	19.6	19.1	18.2	18.8
12.0	10.9	9.7	8.4	6.1	13.1	13.2	14.5	13.9
120	100	84	64	38	30	19	16	

Berm GUTTER

19.7	18.9
13.0	13.8
144	176

Top spike E STA 2+00

Sta

+

PC

-

ELEV.

977.74

3+00

✓

+50

✓

TP₂ 3.69 970.28 11.15 966.59

4+00

✓

15 NOV. 1960

LT

4.
133

$\begin{matrix} 10.4 & 12.0 & 13.8 & 15.4 & 16.7 & 16.7 & 15.8 & 16.6 \\ 7.3 & 5.7 & 3.9 & 2.3 & 11.0 & 11.0 & 11.9 & 11.1 \\ 100 & 77 & 55 & 36 & 28 & 17 & 15 & \end{matrix}$
 Berm GUTTER

$\begin{matrix} 9.2 & 8.2 & 7.5 \\ 6 & 6 & 6 \\ 8.5 & 9.5 & 10.2 \\ 121 & 149 & 176 \end{matrix}$

$\begin{matrix} 17.3 & 18.4 & 10.3 & 12.1 & 14.3 & 14.2 & 13.6 & 14.2 \\ 10.4 & 9.3 & 7.4 & 5.6 & 13.4 & 13.5 & 14.1 & 13.5 \\ 125 & 100 & 67 & 36 & 26 & 18 & 15 & \end{matrix}$

$\begin{matrix} 15.9 & 15.4 \\ 6 & 6 \\ 11.8 & 12.3 \\ 158 & 176 \end{matrix}$

TOP ROCK STA 3425 30' RT

$\begin{matrix} 14.6 & 15.9 & 16.2 & 17.2 & 19 & 20 & 24 & 13 & 21 \\ 57 & 4.5 & 4.1 & 3.1 & 2.4 & 8.3 & 7.9 & 9.0 & 8.2 \\ 131 & 100 & 74 & 55 & 38 & 20 & 17 & 15 & \end{matrix}$
 Berm GUTTER

$\begin{matrix} 13.1 \\ 6 \\ 6.6 \\ 176 \end{matrix}$

STA	+	π	-	ELEV
-----	---	-------	---	------

970.28:

4+50

✓

5+00

✓

5+50

✓

T.P3	1.20	960.64	10.84	959.44
------	------	--------	-------	--------

15 NOV. 1960

LT

5.
134

62.6	63.0	63.9	65.6	60.0	60.1	59.2	59.5
7.7	7.3	6.4	4.7	10.3	10.2	11.1	10.8
140	100	64	37	31	18	16	
							Berm GUTTER

62.0
8.3
176
Feline

62.0	61.9	61.9	62.6	57.9	57.4	56.9	57.5
8.3	8.4	8.4	7.7	12.4	12.9	13.4	12.8
110	100	63	37	32	19	16	
					Berm GUTTER		

61.3
60.4
59.8
9.0
9.9
10.5
133
158
176
FC

59.0	59.4	60.6	61.4	55.2	55.4	54.7	55.4
11.3	10.9	9.7	8.9	15.1	14.9	15.6	14.9
119	98	54	37	30	19	16	
					GUTTER		

58.4
56.9
11.9
13.4
146
150
TOP BANK

TOP ROCK 45' RT STA 5+25

STA

+

 π

-

ELEV,

960.64

6+00

✓

+50

✓

7+00

+20

+90.6

12.25

960.62

12.27

948.37

15 NOV. 1960

LT

6.
135

55.8	56.1	57.4		52.5	53.1	51.9	53.2
4.8	4.5	3.2	Feline	8.1	7.5	8.7	7.4
81	51	37	34	27	18	17	

Berm BUTTER

55.6	53.6	53.4	51.7	52.0	50.3
5.0	7.0	7.2	8.9	8.6	10.3
88	92	100	111	144	150

TOP BANK ditch TOP BANK

51.5	52.1	51.9	53.1	54.0	50.2	50.8	41.8	51.3
9.1	8.5	8.7	7.5	6.6	10.4	9.8	10.8	9.3
100	81	61	52	34	29	18	16	

TOP BANK TOP BANK Berm BUTTER

50.2
10.4
104

46.4	50.5	41.2	48.6	47.7	49.3
14.2	10.1	11.4	12.0	12.9	11.3
48	40	36	19	14	

TOP BANK BUTTER

	45.5	47.3	48.4
4 RR	15.1	13.3	12.2
91	17	14	

± S. RAIL

STA	+	Σ	-	ELEV.	
		960.62			
TP3	12.50	971.98	1.14	959.48	
TP2			5.37	966.61	
TP1	13.76	985.06	0.68	971.30	
TP	7.06	989.62	2.50	982.56	
TP			2.84	986.78	
BM	0.89	984.09	6.45	983.17	983.20
T.P	0.24	972.25	12.08	972.01	
TP	0.56	960.66	12.15	960.10	
BM			12.45	948.21	948.22

15 NOV. 1960

LT

±

RT

7.
136

TOP ROCK 45' RT STA 5+25

TOP ROCK 30' RT STA 3+25

± STA 2+00

NAIL IN 15" BE 36' LT STA 0-20.

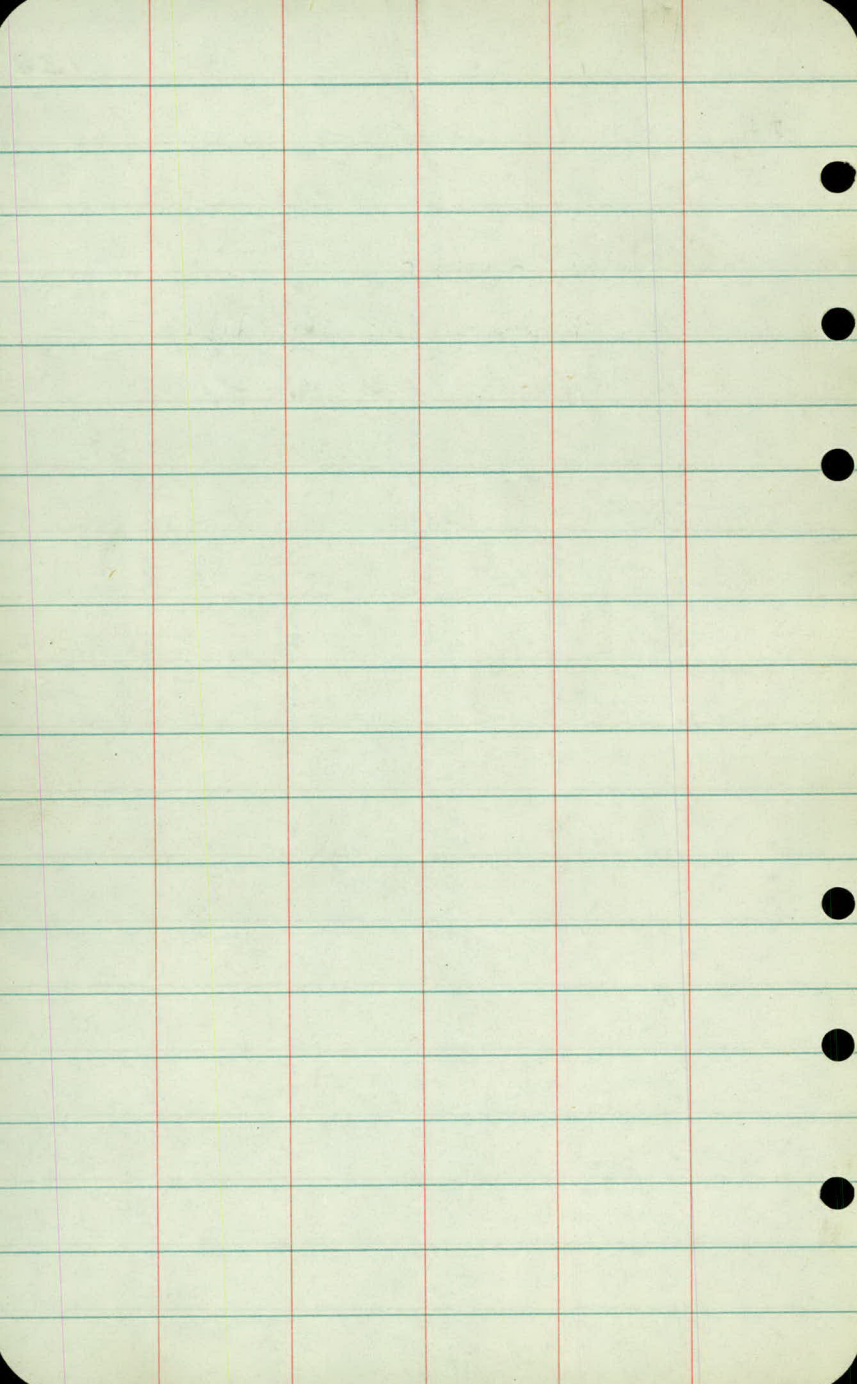
TOP HYD N.W. COR. 3RD AVE & 7TH ST.

S.W. COR. Lower STEP No[#] 301 Co. RD. B.

SPIKE IN PP 150' W 7TH ST 30' LT ± B.

TOP RIM (E) MH 30' LT ± B AT No[#] 335

TOP HYD N.E. COR. MCKNIGHT & Co. RD B.



K.P.
V.L.
V.H.
F.S.
W.M.

16 Nov. 1960 1.
cloudy, cold 30°
137

McKnight Road

3RD AVE BORROW

ADDITIONAL X SECTIONS

FROM 176' TO 430' LT $\frac{1}{2}$

4 PAGES

Sta + π - ELEV

BM 0.20 982.74

982.54

TP 5.55 975.42 12.87 969.87

0+00

0+50

✓

1+00

1+50

↓

LT

≠

2,
138

SPIKE IN 15" BE 36' LT STA 0-20

HUB IN GROUND STA 1+85 200' LT.

55.1	59.2	63.8	66.7	68.4	71.5	72.4
20.3	16.2	11.6	8.7	7.0	3.9	3.0
430	400	365	336	300	238	200

58.4	60.1	62.9	64.3	68.7	70.2	71.1	71.9
17.0	15.3	12.5	9.1	6.7	5.2	4.3	3.5
400	384	358	324	300	273	241	200

54.6
20.8
430

54.3	59.3	61.7	63.4	66.9	68.7	70.4	70.5	71.7
21.1	16.1	13.7	12.0	8.5	6.7	5.0	4.9	3.7
430	400	374	352	321	300	270	241	200

59.1	60.7	62.8	65.8	68.2	69.2	69.4	70.6	71.7
16.3	14.7	12.6	9.6	7.2	6.2	6.0	4.8	3.7
400	388	358	327	300	273	242	200	176

56.3	55.3
19.1	20.1
423	430

STA	+	π	-	ELEV
-----	---	-------	---	------

		975.42		
--	--	--------	--	--

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

✓				
---	--	--	--	--

2+50				
------	--	--	--	--

✓				
---	--	--	--	--

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

✓				
---	--	--	--	--

LT

139

59.8	60.5	62.1	64.3	65.6	66.3	66.9	67.3	68.8
15.6	14.9	13.3	11.1	9.8	9.1	8.5	8.1	6.6
400	392	343	339	322	300	274	241	200

57.5	56.2
17.9	19.2
425	434

62.0	63.7	64.2	65.1	65.4	66.0	67.1	68.9
13.4	11.7	11.2	10.3	10.0	9.4	8.3	6.5
348	318	300	278	253	214	200	176

60.3	59.5	57.9	57.0
15.1	15.9	17.5	18.4
382	400	417	430

60.6	60.4	62.1	62.7	63.1	64.9	65.6	66.5
14.8	15.0	13.3	12.7	12.3	10.5	9.8	8.9
359	328	300	281	254	216	207	200

59.9	59.5	58.0	56.7
15.5	15.9	17.4	18.7
387	400	423	430

re

STA + π - ELEV

975.42

3+50

✓

4+00

TP 1.22 966.67 9.97 965.45

4+50

4₂

TP 1.16 957.89 9.94 956.73

BM 9.66 948.23 948.37

LT

140

58.8	59.8	59.9	60.9	61.5	62.4	63.7	64.9
16.6	15.6	15.5	14.5	13.9	13.0	11.7	10.5
353	342	323	300	277	251	212	200

57.5	56.4	49.9	48.6
17.9	19.0	25.5	26.8
400	408	427	444

PP
BANK

BOTTOM
BANK

57.4	58.8	59.2	61.0	62.7	64.0
18.0	16.6	16.2	14.4	12.7	11.4
332	300	289	256	236	225

FE
line

TRC
line

TOP BANK

TOP CONC. R/W FE POST 200' W STA 4+25

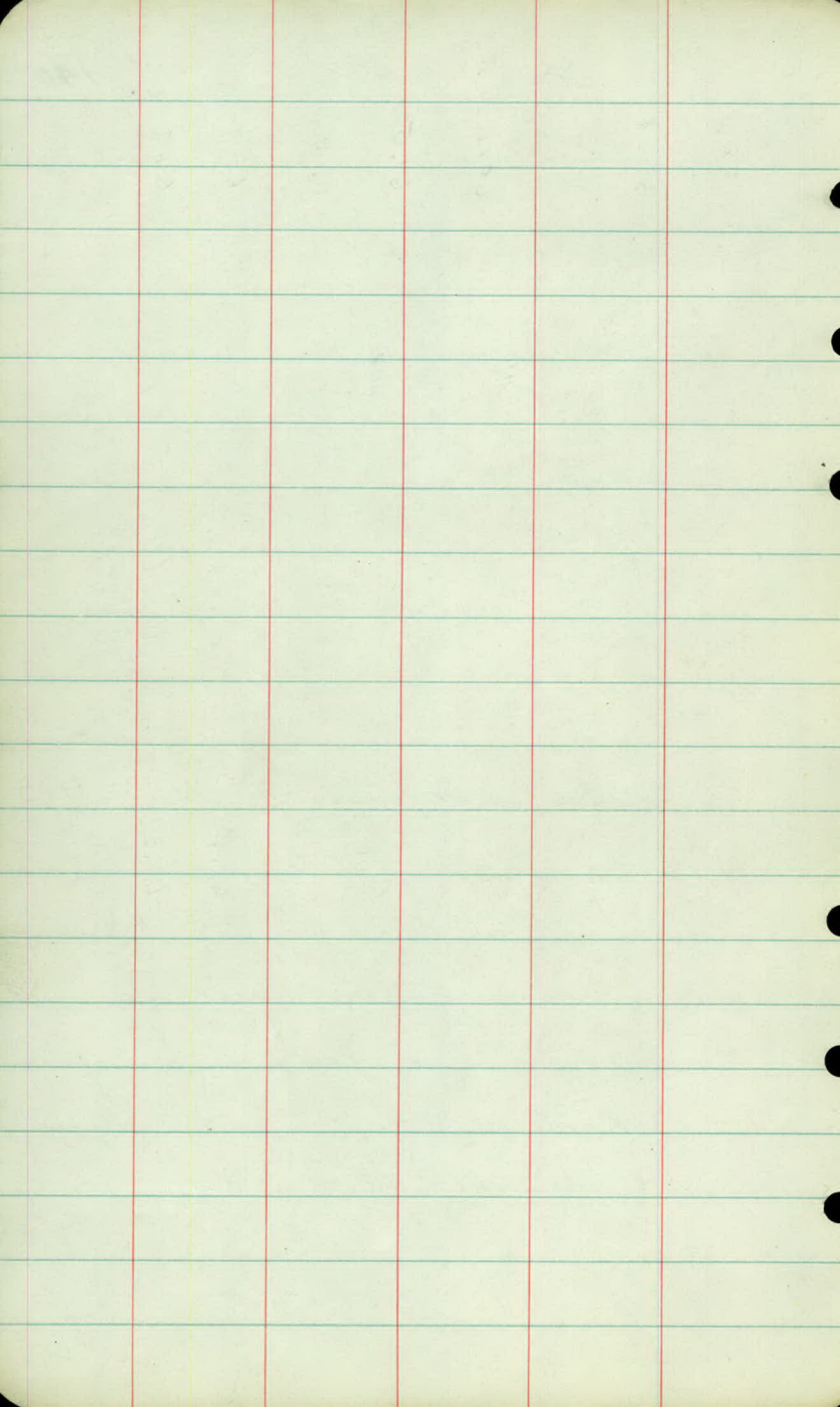
53.3	53.5	59.6	60.9	61.9	62.7	62.3
13.4	13.2	7.1	5.8	4.8	4.5	4.4
300	295	279	243	232	200	185

TOP
BANK

FE line

TOP ROCK 38' RT STA 5+30

TOP S & RAIL ME ST. P & S. S. M RY



Soundings

McKnight Rd from TH#36 North

Equipment

20# sounding hammer & rods

2" Auger

Post hole digger

Rec. 6-22-60
K.J.

Sta 27+00 ±

Depth	Blows	Material
0-3	Post hole	Top soil Blk Loam
3-4	" "	Clay Brown Mottled
4-5	7	"
5-6	5	✓ "
6-7	8	"
7-8	10	Clay (Blue Sandy)
8-9	20+	"

RG
RR
RH
MN

Sta 27400 50' Lt

Sept 6, 1960

142

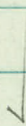
Depth	Blows	Material
0-1	↑	Topsoil Black dirt (Loam)
1-2	Push	sic (Silty Clay) Lt brown w/dark
2-3	Push	Clay brown mottled w/ traces of
3-4	↓	" " " V F Sand (no trace of Sand)
4-5		<u>To 4.5'</u> Brown Sandy clay w/ some Gravel
5-6		<u>to 5.5'</u>



Sept. 6, 1960

Sta 27100 50' Rt

Depth	Blows	Material
0-1		Topsoil (Black dirt)
1-2		" "
2-3		Blue clay fairly dry
3-4		Tan clay fairly dry
4-5		brownish clay slightly mottled
5-6		
6-7		
7-8		



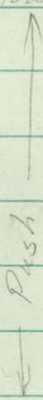
Sta 27+50 50' RT

Sept 6, 1960

143

Depth	Blows	Material
0-1	↑	topsoil - Black dirt
1-2		Clay (Brown mottled)
2-3		" "
3-4	Push	" "
4-5		" "
5-6	↓	
6-7		
7-8		

Sta 27 + 50 50' Lt Sept 6, 1960

Depth	Blows	Material
0-1		Loam topsoil
1-2		Lt. Brown clay
2-3		Brown Mottled clay
3-4		to 3.5' Brown Sic (silty clay)
4-5		" " wet
5-6		Blue silty sand w/rocks water table
6-7		Blue clay w/coarse sand + gravel

✓

Sept 7, 1960

144

Sta 28+00 50' Lt

Depth	Blows	Material
0-1	↑	Topsoil (Black)
		1-1.5' Gray clay loam
1-2		Blue-Gray Clay V.F.
2-3		Gray Clay Mottled w/Brown
3-4	↓	Brown Clay Mottled w/Gray Wet
4-5		Brown clay V.F. V. wet
5-6		Brown Clay V.F. V. wet
6-7		
7-8		
8-9		✓
9-10		

Sept 9, 1960

Sta 28+00 50' RT

Depth	Blows	Material
0-1	Push ↓	Topsoil Loam (Black)
1-2		Brown Clay Mod. stiff v. pl. Not Hcl w/ dark brown
2-3		Brownish-Gray, Sic very stiff + v. pl.
3-4		Brown clay fairly dry + v. stiff
4-5		Br. Clay " " " "
5-6		



Sept 7, 1960

Sta 29+00 50' LT.

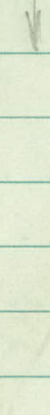
145

Depth	Blows	Material
0-1	↑	Peaty Loam
1-2		silt w/ some organic matter
2-3		Grey silt (silty clay)
3-4		Gray Clay w/ Brown streaks ^{wet 3.5'}
4-5	↓ Push	Brown silt wet
5-6		" " V. Wet
6-7		" " "
7-8		



Sept 9, 1960

Sta 29+00 50' RT

Depth	Blows	Material
0-1		Topsoil Peaty Black loam. ^{water to top}
1-2		Gray/Brown Silc Mod. Stiff V. pl. ^{pl}
2-3		Br/dk. brown / silc Very Stiff & dry. ^{pl Fairly}
3-4		Brown Silc very pl.
4-5		Gray with Br. streaks Silc V. pl.
5-6		Gray Silc
6-7		
7-8		✓
8-9		
9-10		
10-11		
11-12		

RG
JL
JH
WM

June 7, 1960
P.C.I., Warm

146
1

Sta 28+00 ±

Depth	Blows	Material
0-2	↑	Blk. Loam topsoil
2-3	↑	Brown Clay & water
3-4	Push	Brown Mottled Clay
4-5	↓ ✓	"
5-6	12	Blue Sandy Clay
6-7	21	"

Sta 29+00 8' RT

Depth	Blows	Material
0-2	water rises to within 8" of Top	organic top soil
2-3		Brown Clay
3-4	↑	Brown Mottled Clay
4-5		"
5-6		"
6-7	↑	"
7-8	↓	"
8-9	20+	Blue Sandy Clay



June 7, 1960 147
2

Sta 30+00 75' Rt

Depth	Blows	Material
0-2	↑ water 1'	Blk loam topsoil
2-3		Peaty muck
3-4		silt
4-5		silt
5-6	↓	Fibrous muck
6-7		"
7-8		"
8-9	Push	"
9-10		"
10-11		"
11-12		"
12-13.5	↓	Blue clay
13.5-14	6	
14-15	14	
15-16	20	✓

Sta 31+00 75' Lt

Depth	Blows	Material
0-1	Water rises to 2'	Topsoil
1-3	Push	Brown Mottled Clay
3-4	20+	Sand / Brown Clay
4-5		Brown Clay

Sta 32 8' Rt

0-10	Push	0-4 Muck 4-10 Blue Silty Clay
10-11	14	Brown Sand / Brown Clay
11-12	11	
12-13	11	Water rises to 1'
13-13.5	10	
13.5-14	20+	

June 7, 1960

3

148

Sta 32+00 75' Rt.

Depth Blows

Material

0-3' Push

Muck

water rises to 1'

3-5'

Peat

5-10.5 Push

silt/silty blue clay

10.5-11 7

✓

Blue clay

11-12 15

"

12-13 14

13-14 16

14-15 21 +

Sta 34+00 10' RT

Depth	Blows	Material
0-3'	↑	Peaty topsoil
3-4'	Push	sand/peat
4-5.5'	Push	"
5.5-6'	9	Blue Clay sl. sandy
6-7	15 ✓	Brown Sand w/ some gravel
7-8	24+	Brown Clay w/ some gravel

FK
RG
JL
WM
JH

June 10, 1960
Damp, overcast 4
149

Sta 9+00 £

Depth	Blows	Material
0-1		clay loam
1-2		"
2-3		7.5 2.5 Peaty loam
3-4		Peaty loam
4-5		Blk. silt
5-6	Push	V.F. Sand w/F. Gravel
6-7	11	Br. Sandy Clay
7-7.5	20	

Sta 8+50 ±

Depth Blows

Material

0-1

Blk loam topsoil

1-2

" " "

2-3

Silt loam w/some S & G

3-4

Blue sandy clay

4-5

Push

" " "

5-6

10

Brown sandy clay

6-7

17

" " "

7-8

22

Sta 8+00 ±

0-1

7

Sandy loam w/some gravel

1-2

14

" " " "

2-3

11

Brown coarse sandy clay

3-4

13

" " " "

4-4.5

20+

" " " "

June 10, 1960

Sta 9+75 12' Rt

150

Depth	Blows		Material
0-1			Brown Mottled Clay
1-2			
2-3	Push		Peat
3-4	8		silt/loam
4-5	9	✓	" "
5-6	16		Blue silty Clay
6-7	20 +		^{coarse} Brown sandy Clay
7-8			" " "
8-9			

Sta 11400

25' Lt

Depth	Blows	Material
0-1		Peat
1-2		"
2-3		$\frac{102.75'}{5114 \text{ to } 3.5'}$
3-4		Brown Sandy Clay
4-5		" " "
5-6	12	" " "
6-7	20	
7-8		
8-9		
9-10		

FK
RG
JK
WM
JH

June 13, 1960
Fair 72° 151

Sta 11+50 ±

Depth

Blows

Material

0-1

Peat

water to

1-2

"

2'

2-3

Push

silty clay

3-4

Blue Gray Clay V Fine

4-5

↓

"

5-6

7

"

(sandy)

6-7

25

"

"

Sta 12+50 25' RT

Depth Blows

Material

0-1

↑

Peat

1-2

Push

"

2-3

Push

"

3-4

↓

✓

Silty peat

4-5

10

Brown Sand

5-6

15

Brown Mottled Clay

Sandy w/ F. Gravel

6-7

20

June 13, 1960

Sta 13+00 25' Lt

152

Depth	Blows	Material
0-1	↑ Push ↓	Peat
1-2		"
2-3		"
3-4	6	Brown Clay
4-5	12	✓ Brown Sandy Clay
5-6	13	Brown Clay w/ gravel
6-7	21	very stiff
7-8		

Sta 14+00

25' RT

Depth	Blows	Material
0-1	Push ↑ ↓	Peat
1-2		"
2-3		"
3-4		"
4-5	↓	to 4.5' silt
5-6	10	Blue Clay w/s + G
6-7	13	Blue Clay sl sandy
7-8	20	Blue Clay (Fine)
8-9		

June 13, 1960

Sta 14+60 25' RT

153

Depth	Blows	Material
0-1	↑	Peat
1-2		"
2-3	Push	Blk. silty sand
3-4	↓	"
4-5	5	"
5-6	7	" to 5.5' Blue Clay Fine w/Traces of organic material
6-7	20	
7-8		

Sta 14+60 25' Lt

Depth	Blows	Material
0-1	Push ↓	top soil & peat
1-2		Peat w/ some sand
2-3		silty sand
3-4	4	✓ Brown sand, very wet
4-5	3	" " "
5-6	4	Fine Blue clay
6-7	4	" " "
7-8	6	Brown Sand
8-9	12	Brown Sandy Clay
9-10	20+	Brown Clay
10-11		

June 13, 1960

Sta 15+00 ±

154

Depth	Blows	Material
0-1	3	Topsoil (Blk loam)
1-2	4	Blk silty clay w/some sand
2-3	4	Brown mottled clay w/some gravel
3-4	3	" " "
4-5	3	VF Brown Sandy Clay to 5.5'
5-6	10	Coarse Brown Sand very wet
6-6.5'	20	

Sta 17+00 ±

Depth	Blows	Material
0-1	↑	Peaty topsoil to 0.5'
1-2	↑	<u>B/K silty clay</u>
2-3	↑	<u>to 1.5'</u>
3-4	↓	VF Brown Clay / silty Brown clay
4-5	7	to 3.5
5-6	9	Brown Sand very wet
6-7	20	Fine Brown Sand
7-8		" "
		" "

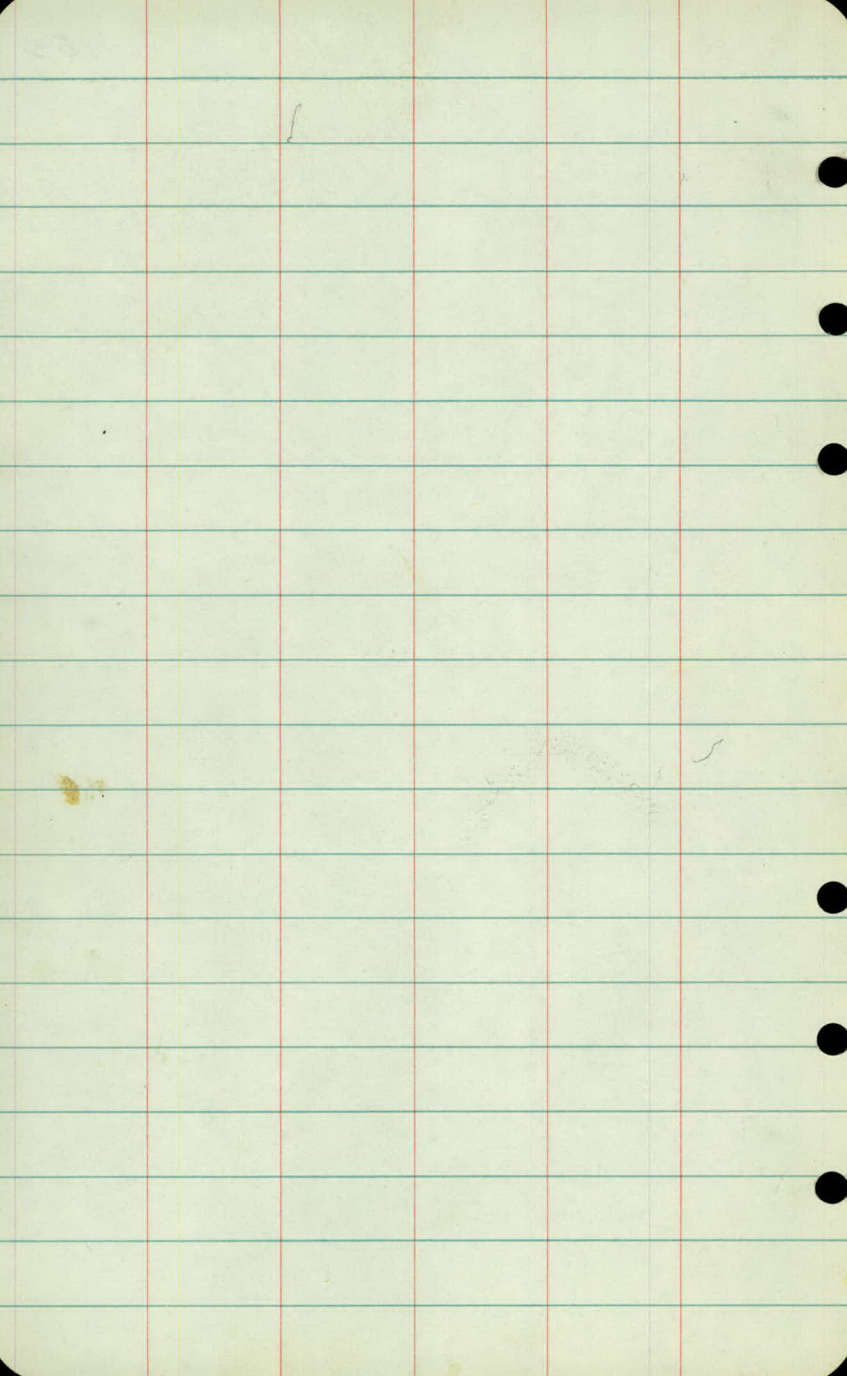
June 13, 1960

155

Sta 21+00 25' Lt

Depth	Blows	Material
0-1	Push ↑	Topsoil
1-2		Blue clay
2-3		F. Brown mottled clay
3-4		" " "
	↓ To 4.5	To 4.5'
4-5	5	Very Stiff Fine Brown sandy clay
5-6	10	
6-7	12	
7-8	12	
8-9	20	
9-10		
10-11		





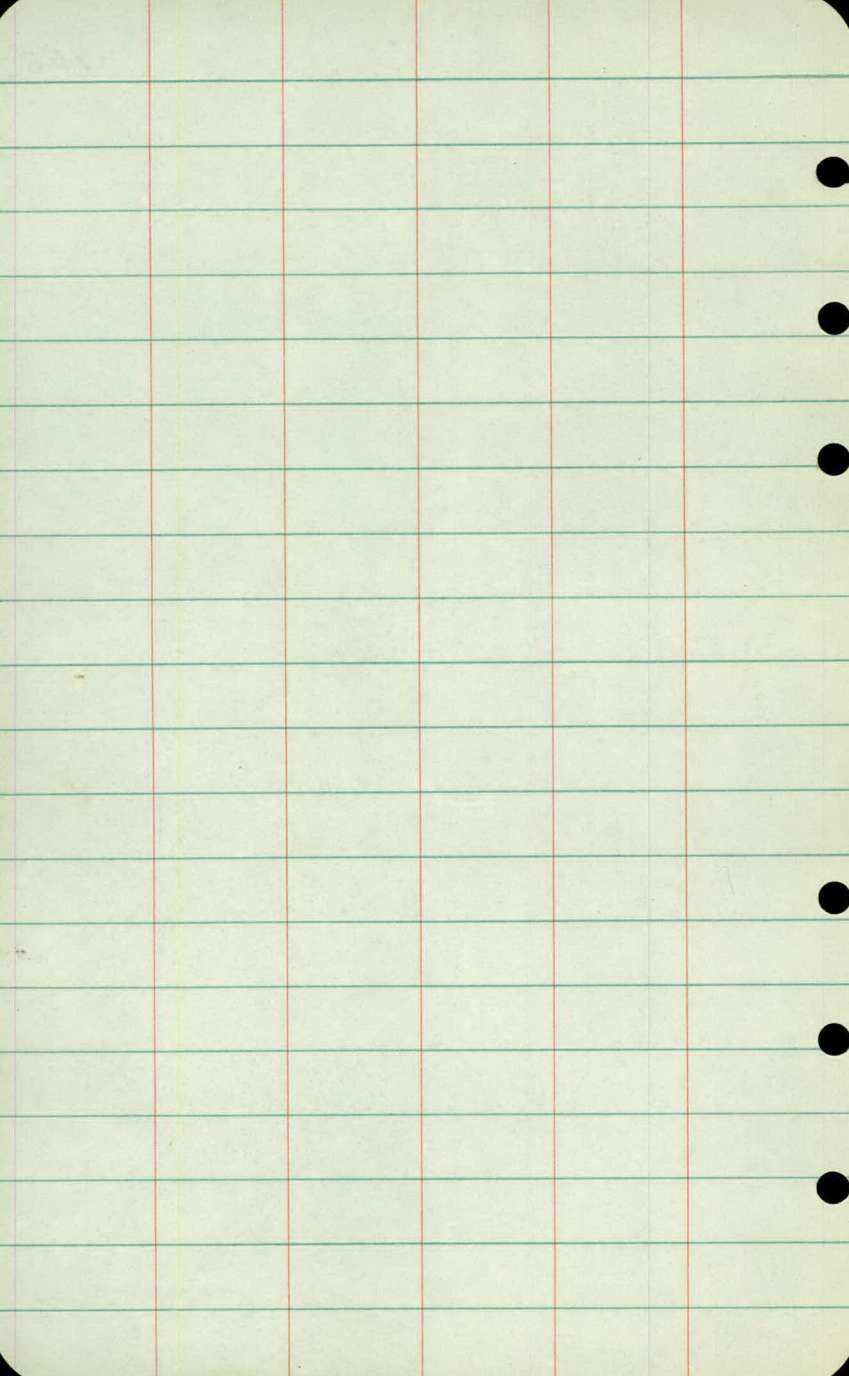
Sept 2, 1960

Sta 30+00 45' LT

156

Depth	Blows	Material	
0-1	↑	Black Loamy Peat	water 1.0'
1-2		Brown/Gray Silt	
2-3		Gray Silt	Very Wet
3-4		" "	" "
4-5	Push	" "	" "
5-6		" "	" "
6-7	↓	Blue/Gray Mottled Silt	cm
7-8		<u>To 7.75'</u>	
8-9		Blue Fine Sand w/some F. Gravel	
9-10		✓	

Silt
5.14
C. 104

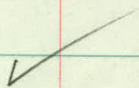


Sept 7, 1960

Sta 31+00 50' LT

157

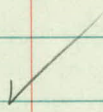
Depth	Blows	Material
0-1	↑ Push ↓	Topsoil (Black Loam)
1-2		Lt Brown Sic w/dark brown streaks
2-3		Brown Sic wet
3-4		Very Stiff Brown Clay
4-5		" " " "
5-6		to 5.5' Gray Clayey Sand Med Fine
6-7		Gray Coarse Sand w/F. Gravel
7-8		
8-9		
9-10		



Sept 7th 1960

Sta 31+00 8'RT

Depth	Blows	Material
0-1	↑ Push	Topsoil (Blk. Peaty Loom)
1-2		"
2-3		Gray/Blue Sil ^{ic} w/Traces of ^{organic} material
3-4		Gray Sil ^{ic} w/Traces Blue Clay
4-5		To 4.5' Blue clay, stiff
5-6	↓	Blue Sil ^{ic} Mod. Stiff
6-7		"
7-8		"
8-9		Blk silt v. wet w/F. sand
9-10		" " " " " "
10-11	10.5' ↓	To 10.5' Gray sil ^s (Silty Sand)
11-12		Coarse Gray Sand



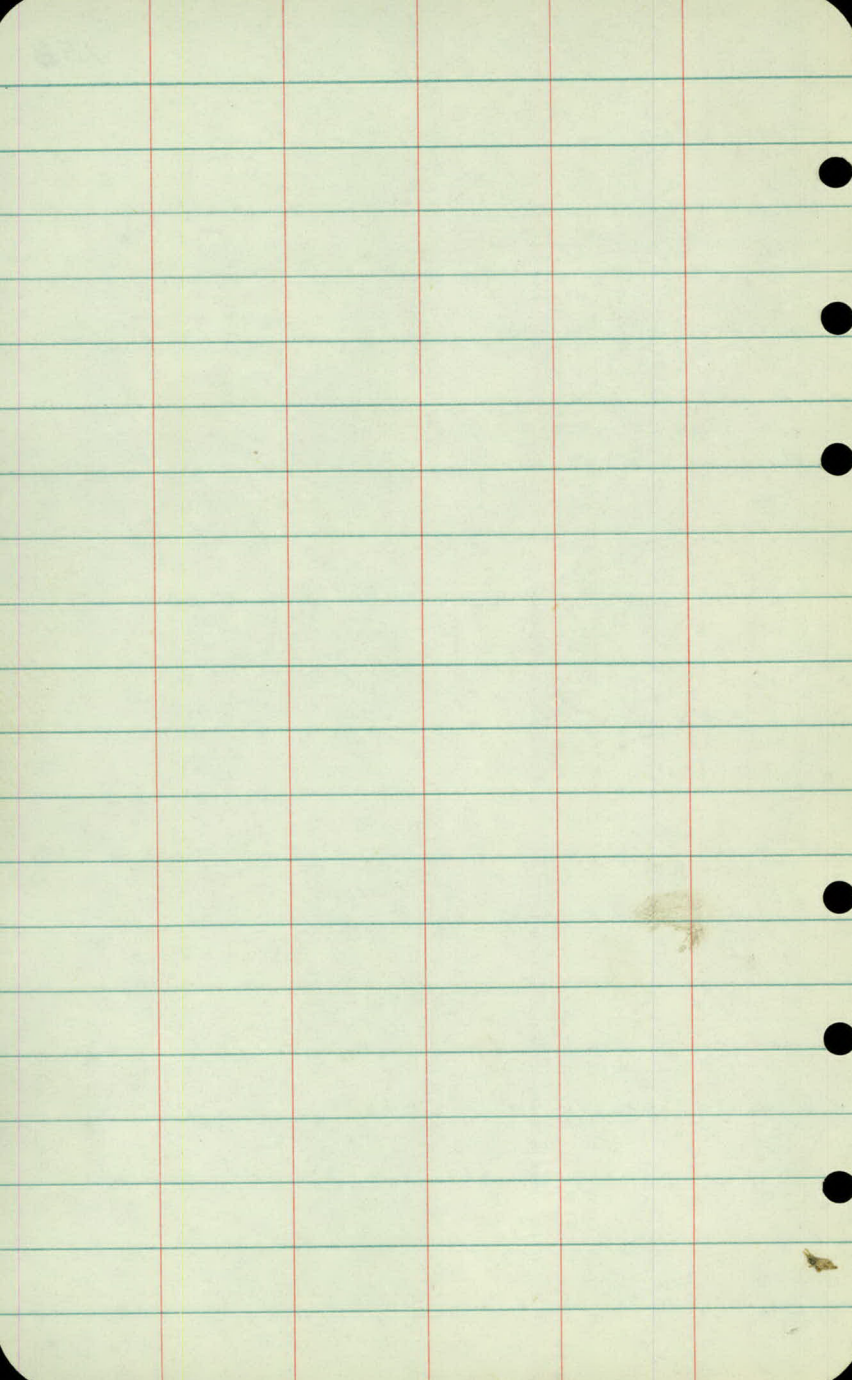
Sept 7th, 1960

158

Sta 32+00 50' Lt

Depth	Blows	Material	
0-1	↑	Topsoil	
1-2		Silty Peat	water at 1.0'
2-3		Blk. Sil	
3-4		Blk. Sil	
4-5		Gray Sil	
5-6		"	fairly dry
6-7		"	"
7-8	Push ↓	"	"
8-9		"	wet
9-10		"	"
10-11		"	"
11-12		"	very wet
12-13		Gray Sand	very wet

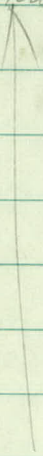
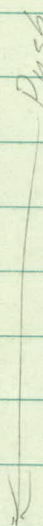




Sept 7, 1960

159

Sta 33+00 50' Lt

Depth	Blows	Material
0-1		Peaty loam
1-2		Fib. Peat (Black)
2-3		" " "
3-4		Silty Peat (dark brown)
4-5		" " (" ")
5-6		Gray SiC
6-7		" "
7-8		" " wet
8-9		" " very wet
9-10		" " " "
10-11		" " "
11-12		" " " ✓
12-13		" " "
13-14		Black SiC very wet
14-15		" "
15-16		" " w/Traces Blue/gray SiC
16-17		Gray Sand w/some silt + clay slt.
17-18		Gray Sand w/f. Gravel very wet

Sta 33+00 5' R+

Depth	Blows	Material
0-1	↑	Peat to 0.5' water to 1.0' Sandy Clay loam (SCL)
1-2		Peat
2-3		Silty Peat (Brownish Black)
3-4		" " " "
4-5		" " " "
5-6	↓	silt w/peat streaks Black
6-7		clayey silt w/Traces of peat ^{Greenish}
7-8		" " "
8-9		clayey silt se-pl
9-10		" " "
10-11	↓	silty clay plastic
11-12		" " se-pl (Very wet)
12-13		Gray Silty
13-14		" "
14-15		S/G ✓

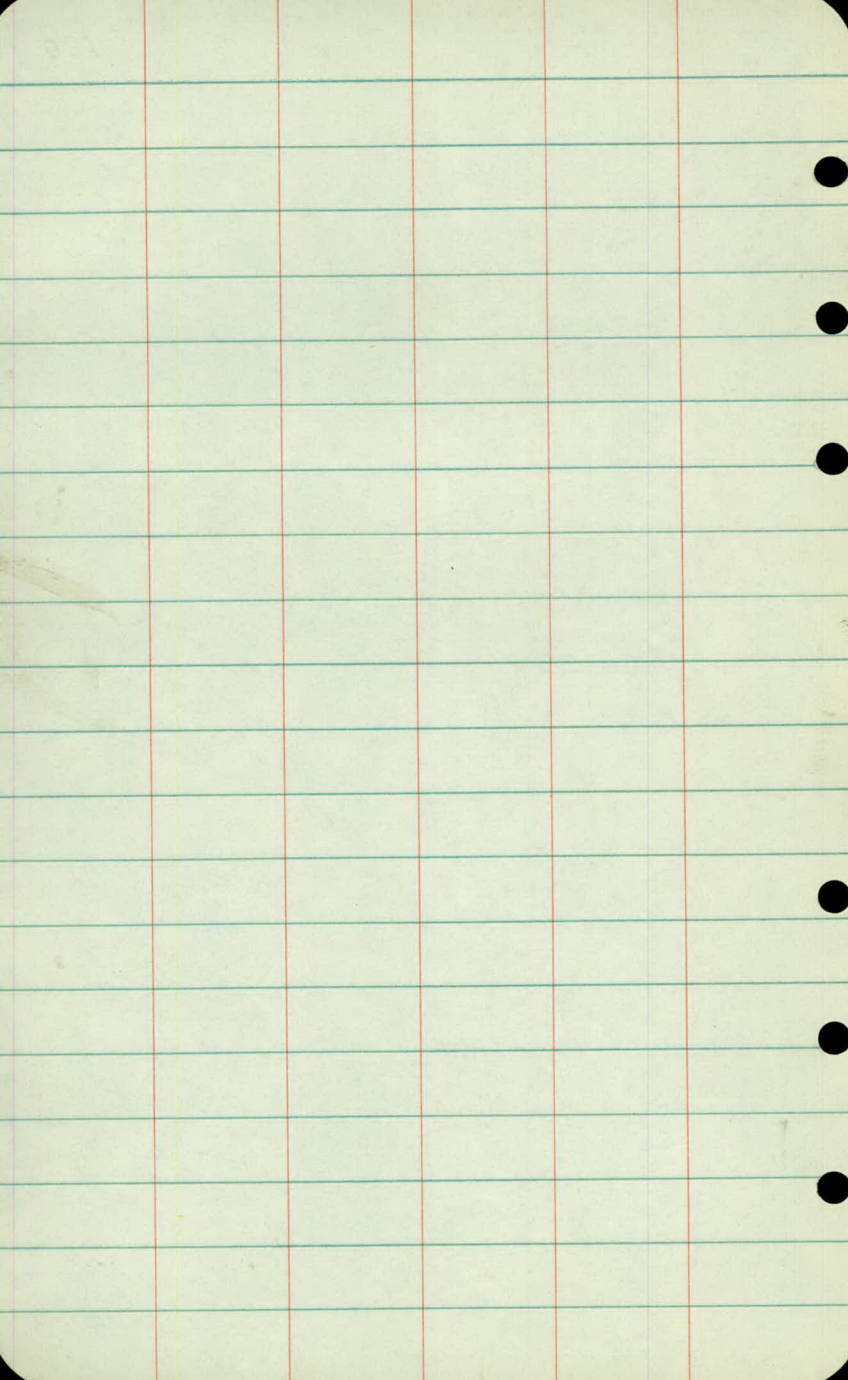
Sept 7, 1960

160

Sta 34+00 50' Lt

Depth	Blows	Material
0-1	↑	Peat Topsoil
1-2		Peat
2-3		Peaty loam
3-4		Blk. Sil
4-5		" "
5-6	Push	Gray Sil moderately stiff
6-7		" " " "
7-8		" "
8-9	8.5'	Gray Silty Sand very wet 8.0 to 8.5 Coarse Gray Sand w/F. Gravel Till
9-10		
10-11		
11-12		
12-13		
13-14		
14-15		
15-16		
16-17		
17-18		
18-19		





Sept 12, 1960

Sta 35+00 50' Lt

161

Depth	Blows	Material
0-1	Push 2-man ↓	Blk. topsoil peat water to 1.5'
1-2		" peat.
2-3		dark brown fibrous peat
3-4		silty peat semi-pl.
4-5		SiL (Blk) sl. pl.
5-6		Bluegray SiC stiff v. pl.
6-7		" " "
7-8		Blue gray Sandy Clay v. pl.
8-9		" " " "
9-10		Gray SiC stiff
10-11		Gray SiC w/ gravel v. stiff
11-12		
12-13		✓

Sept 9, 1960

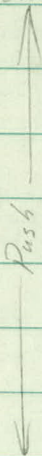
Sta 35+00 6'RT

Depth	Blows	Material
0-1	↑	Topsoil (Peat loam) Water to top of Hole
1-2		Peat
2-3		Silty Peat sl. pl.
3-4		" sl. pl.
4-5		" sl. pl.
5-6	Push ↓	SicL (Silty Clay loam) Green (semi pl.)
6-7		" To 6.75' Gray-Green Sic plastic
7-8		Gray/Green Sic "
8-9		Gray Sic moderately stiff
9-10		" " " "
10-11		✓

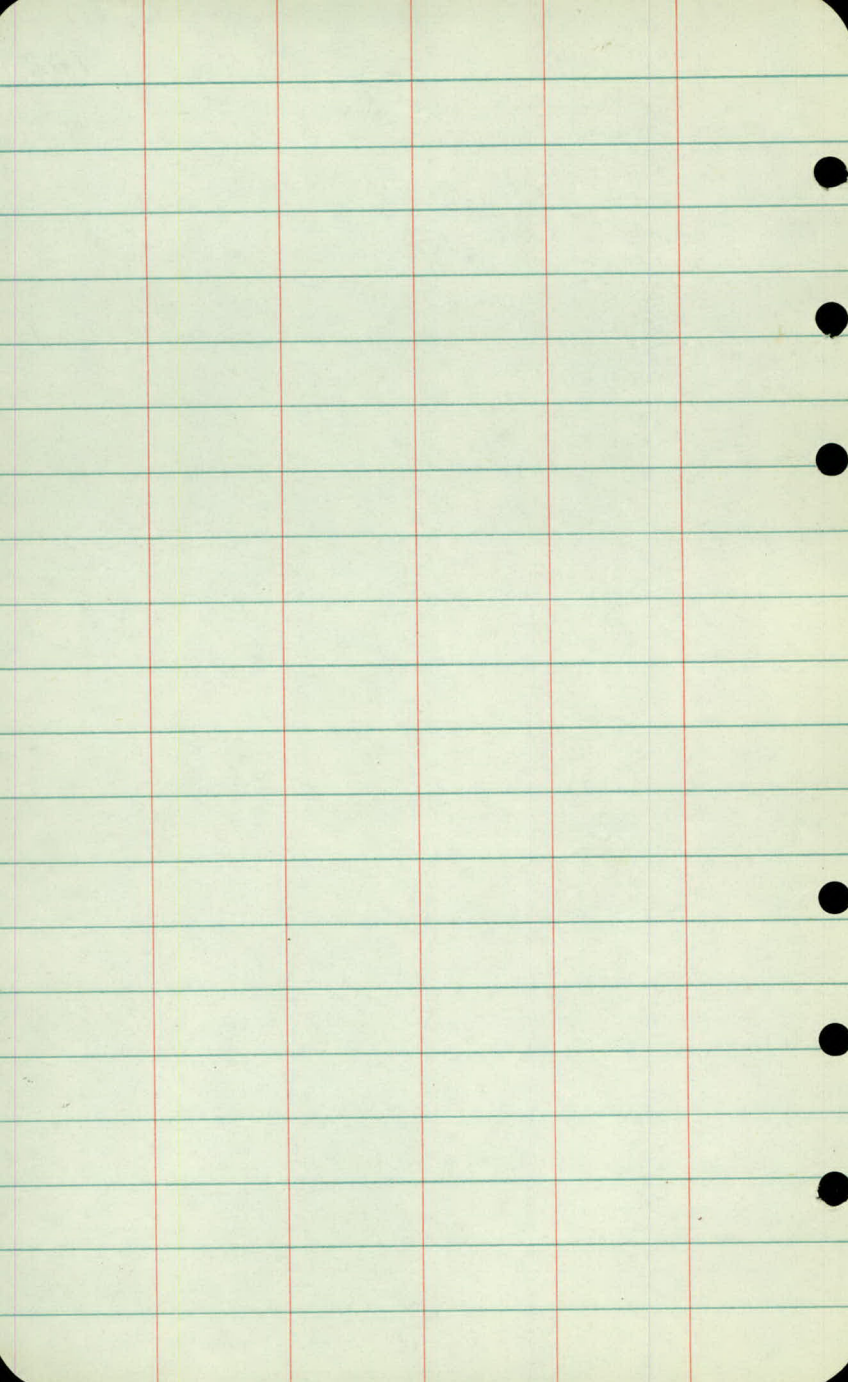
Sept 12, 1960

Sta 36+00 50' Lt

162

Depth	Blows	Material
0-1		Topsoil (Blk. Peaty loam)
1-2		" " " " water to 1.0'
2-3		Silt w/ some organic material (pl)
3-4		Gray SiC v.pl
4-5		Brown/gray mottled SiC v.pl
5-6		Gray V.F. Sand
6-7		" " " " w/ some silt
7-8		Gray Coarse sand

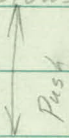




Sept 12, 1960

163

Sta 37400 50' LT

Depth	Blows	Material
0-1		Topsoil (Blk. Loam)
1-2		Clay Loam
2-3		sandy brown Clay v. pl. ^{stiff}
3-4		" " " mod st. ft. (pl.)
4-5		
5-6		✓

Sept 7, 1960

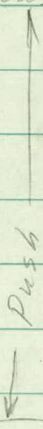
Sta 37+00 2' RT

Depth	Blows	Material
0-1		Black Loam Topsoil
1-2		" " "
2-3		Gravel ($1\frac{1}{2}$ "-2") w/cl (clay loam) ^{Semi-plastic}
3-4		
4-5		
5-6		
6-7		✓
7-8		
8-9		
9-10		

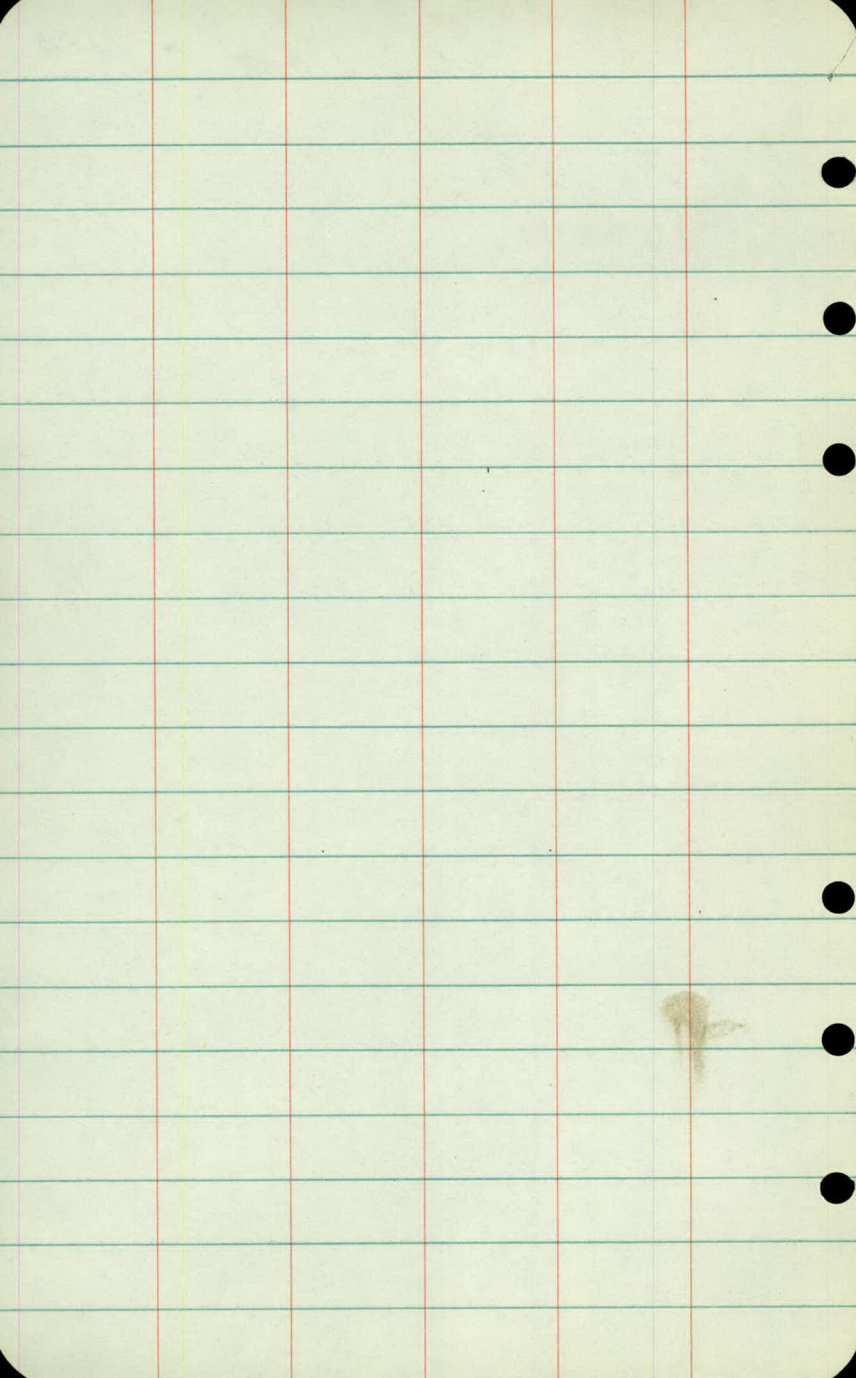
Sept 9, 1960

164

Sta 36+00 8'RT

Depth	Blows	Material
0-1	 Push	Topsoil - Peat Loam
1-2		Peat/silt
2-3		Sic (Blue)
3-4		"
4-5		"
5-6	 to 6.5'	"
6-7		gray Coarse Sand
		gray Coarse Sand





Sept 9, 1960

165

Sta 30+00 16' RT

Depth	Blows	Material
0-1	↑ Push ↓	Topsoil (Peat) N.P.
1-2		Sic (Gray) Pl. ^(wet) mod. stiff
2-3		Grayish/Brown Sic Pl (stiff)
3-4		Brown Clay very stiff (Pl)
4-5	↓	Gray Clay Mottled w/Brown Very Stiff ^(Pl)
5-6		Gray Sic Mod. stiff (Pl)
6-7		" "
7-8		" "
8-9		" " to 8.5'
	↓	8.5' silty sand (coarse)
9-10		S/G Gray ✓

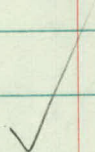
RG
RD
RL
RH

Sta 30 +00

Sept 12, 1960

50' Rt

Depth	Blows	Material
0-1		Topsoil (Blk. Peaty loam) N.P. water to top
1-2		Silty peat (Black) Sl. pl.
2-3		SiL w/ traces of fibrous material
3-4		Gray SiC stiff
4-5		Gray SiC mod. stiff
5-6		Gray SiC wet
6-7		" " "
7-8		" " "
8-9		" " "
9-10		" " "
10-11		to 10.5' Gray SiC Gray Sand (fine)
11-12		



Sept 12, 1960

Sta 31+00 50' RT

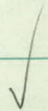
166

Depth	Blows	Material	
0-1		Topsoil (Peat loam)	Water to top N.P.
1-2		Black Silty peat	sl. pl
2-3		Black SiL w/Traces of peat	Serpl
3-4		SiL w/Traces of organic material	Se-pl.
4-5		SiL (Black) pl.	
5-6		Greenish SiC w/Traces organic material	
6-7		" "	
7-8		Blue/gray SiC	
8-9			
9-10			
10-11			
11-12			

Sept 12, 1960

Sta 32+00 50' Rt

Depth	Blows	Material
0-1	↑ Push ↓	Top soil Black peat N.P.
1-2		silty peat (Brown/Black) N.P.
2-3		" " "
3-4		" " "
4-5		" "
5-6		<u>To 5.5'</u> Greenish s/c (Dry) w/Traces of slip. organic material
6-7		Gray s/c (stiff) v. plastic.
7-8		" " " " "



Sept 12, 1960

167

Sta 33400 50' RT

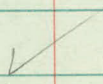
Depth	Blows	Material
0-1	↑	Topsoil Blk. peat N.P.
1-2		Dark Brown silty peat. N.P.
2-3		" " " "
3-4	Push ↓	silty peat se-pl.
4-5		" " se-pl.
5-6		silty peat sl-pl.
6-7	↓	Blue Sic pl.
7-8		" " "
8-9		
9-10		



Sept 12, 1960

Sta 34+00 50' RT

Depth	Blows	Material
0-1	↑ Push ↓	Topsoil - Blk Peat N.P.
1-2		Blk. Silty peat ND water to 1.0'
2-3		Brown " " NP
3-4		" " " NP
4-5		" " " " w/streaks ^{organic} material
5-6	↓	" " " " " " " se-pl
6-7		Gray S.C mod. stiff pl
7-8		" " stiff v. pl



Sept 12, 1960

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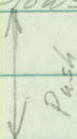
Sta 35+00

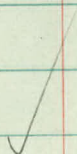
50' Rt

Depth	Blows	Material
0-1	↑	Topsoil (Blk. peat) water to 1.5'
1-2	↓	Blk. silty peat Non-plastic (NP)
2-3	Push	" " " sl. pl.
3-4	↓	To 3.75' " " <u>Gray S.C. pl.</u>
4-5		Gray S.C. stiff v. pl.
5-6		" " mod. Stiff v. pl.
6-7		
7-8		✓

Sept 12, 1960

Sta 36+00 50' RT

Depth	Blows	Material
0-1		Peaty loam (BLK)
1-2		to 1.5'
2-3		Brown Sandy Clay
3-4		Brown Sand w/ F Gravel



Sept 12, 1960

170

Sta 37+00 50' Rt.

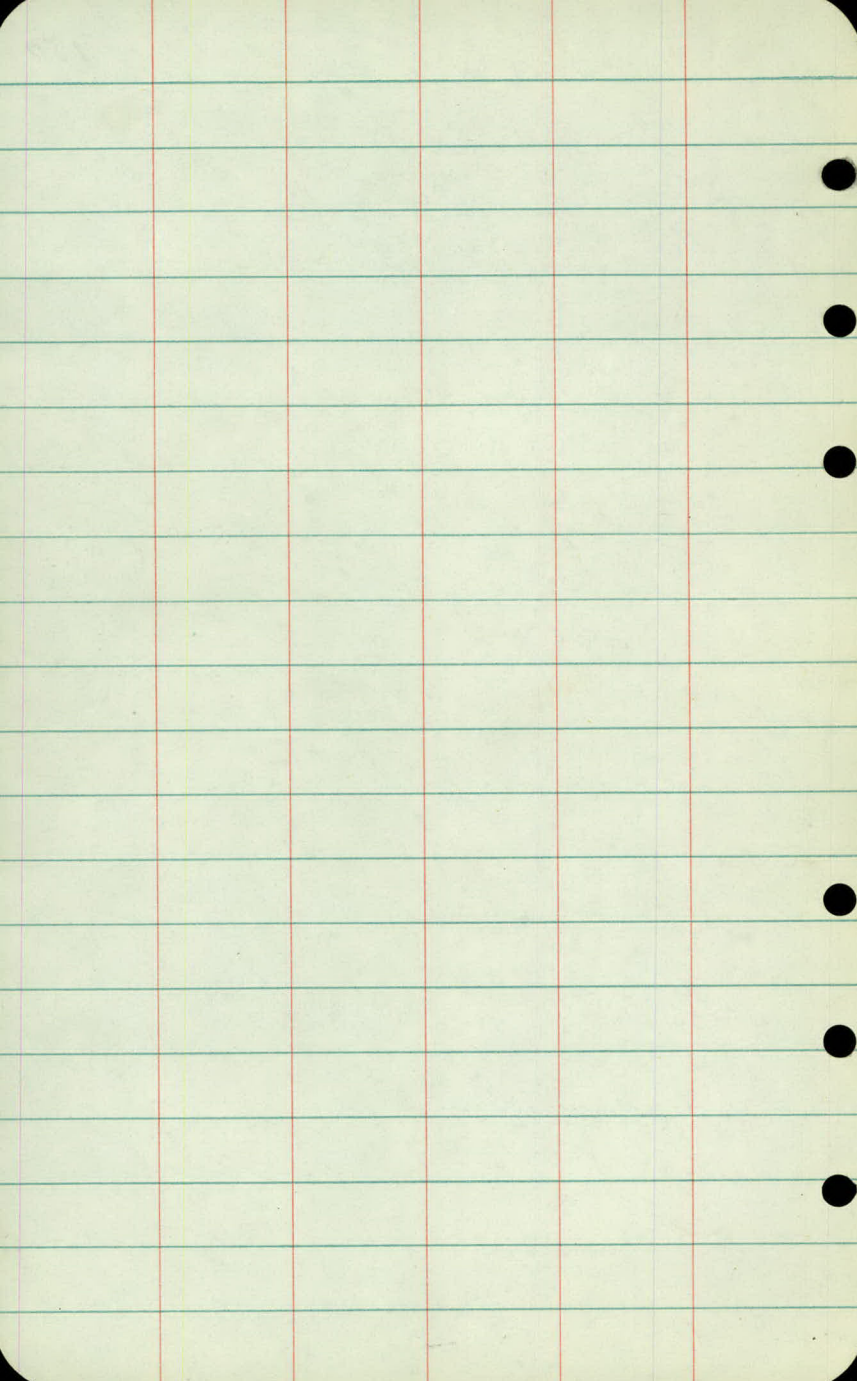
Depth	Blows	Material
0-1	Push	<u>Black Loam Topsoil</u> Gray Sandy Clay
1-2		Sand / Gravel

2-3

3-4

4-5

✓



K6
JL
WM
RW

OCT 28, 1960

Sta 42+00 $\pm$

171

Depth	Blows	Material
0-1		Topsoil (Blk Toam)
1-2		Gravelly Sandy Brown Clay pl
2-3		Sandy Brown Clay w/ F gravel pl
3-4		V. sandy clay Brown sl pl
4-4.5		clayey sand + med gravel sl pl
4.5-5		Brown clayey sand sl. pl
5-6		" " "

Oct 28, 1960

42+50 £

Depth	Blows	Material
0-1	↑	Topsoil
1-2		peaty loam
2-3		silty peat
3-3.5	Push	Blue sandy clay water to 3'
3.5-4	↓	Blue clay
4-5		Brown sandy clay

Oct 28, 1960

42 + 50

60' Rt

172

Depth	Blows	Material
0-1	↑	Topsoil
1-2		" peat fibrous
2-3		" " water
3-4	Push ↓	silty peat
4-5		Blue clay
5-6		Brown sand
6-7		Brown Sand / Gravel

Oct 28, 1960

Sta 43+00 #

Depth	Blows	Material
0-1		Fibrous peat Topsoil
1-2		Fibrous peat (water)
2-3		" "
		Brown Sandy Clay 3-3.5'
3-4	Push Y	Black. sandy Clay w/ layers of sand plastic
4-5		B/k. sandy Clay " "
5-6		Blue silty Clay (V Fine) pl.
6-7		" " " " "
7-8		" " " " "

Oct 28, 1960

Sta 44 +00 ±

173

Depth	Blows	Material
0-1		Fibrous peat Topsoil
1-2		" "
2-3		" "
3-4	Push Y	Blk. silty clay
4-5		" " "
5-6		" " "
6-7		Blue clay v. pl.
7-8		Blue silty clay pl.
8-9		" " " pl.

Oct 28, 1960

Sta 44+00 50' RT

Depth	Blows	Material
0-1	↑	Fibrous peat
1-2		" "
2-3		" " water
3-4	Push ↓	" " w/some sand
4-5		black silty clay 4.5'
		4.5' to 5' Blue clay very pl
5-6		Blue sandy clay w/f gravel
6-7		Brown sandy clay very pl

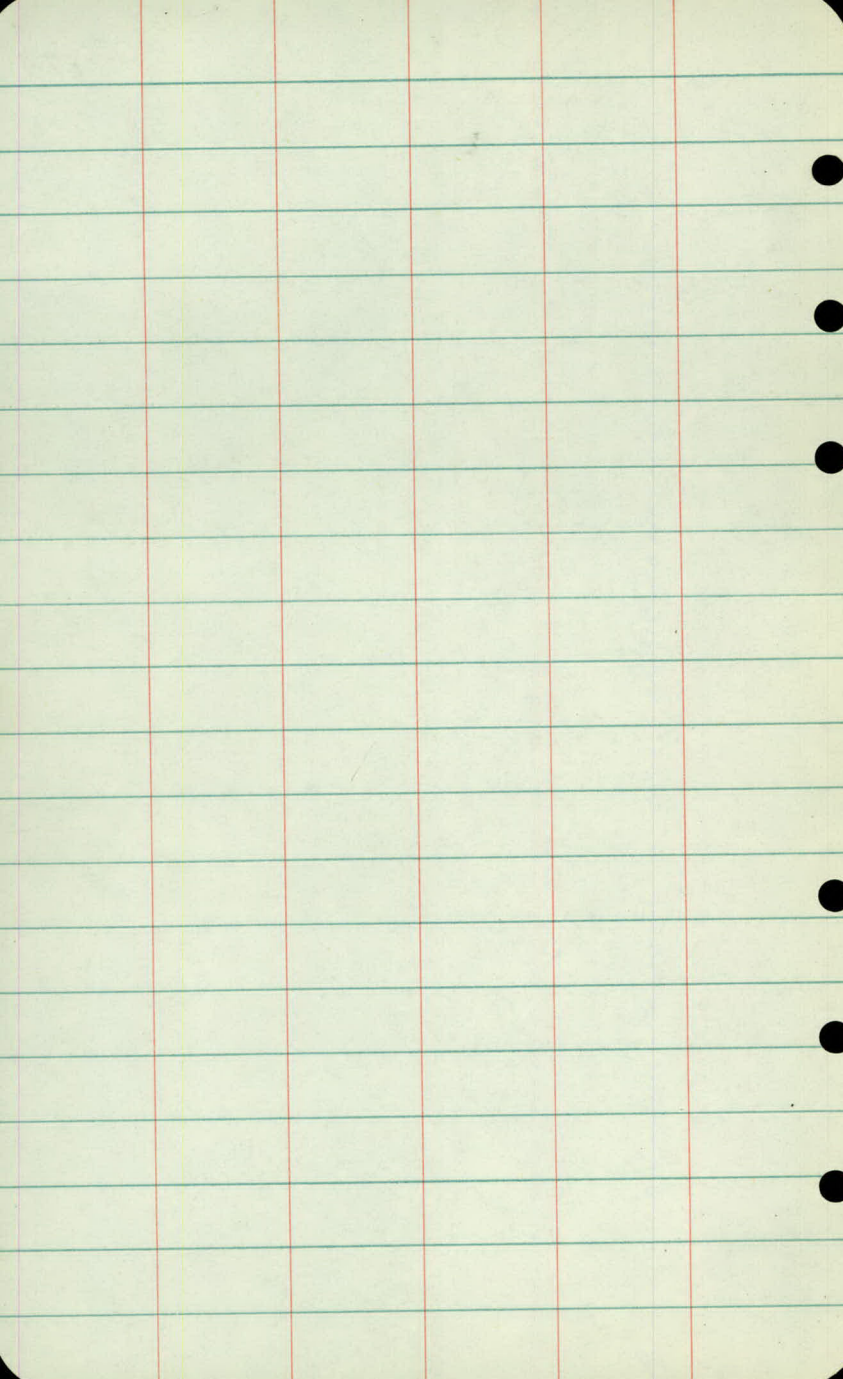
Sta 45+00

L

Oct 28, 1960

174

Depth	Blows	Material
0-1	↑	Blk. Peaty loam
1-2		" " "
2-3	PUSH ↓	Blk. sandy clay very pl.
3-4		Blue clay very pl. + stiff
4-5		Brown sand w/some clay sl. pl.
5-6		Brown sand w/fine gravel



PG
JL
WM
RW

OCT 27, 1960

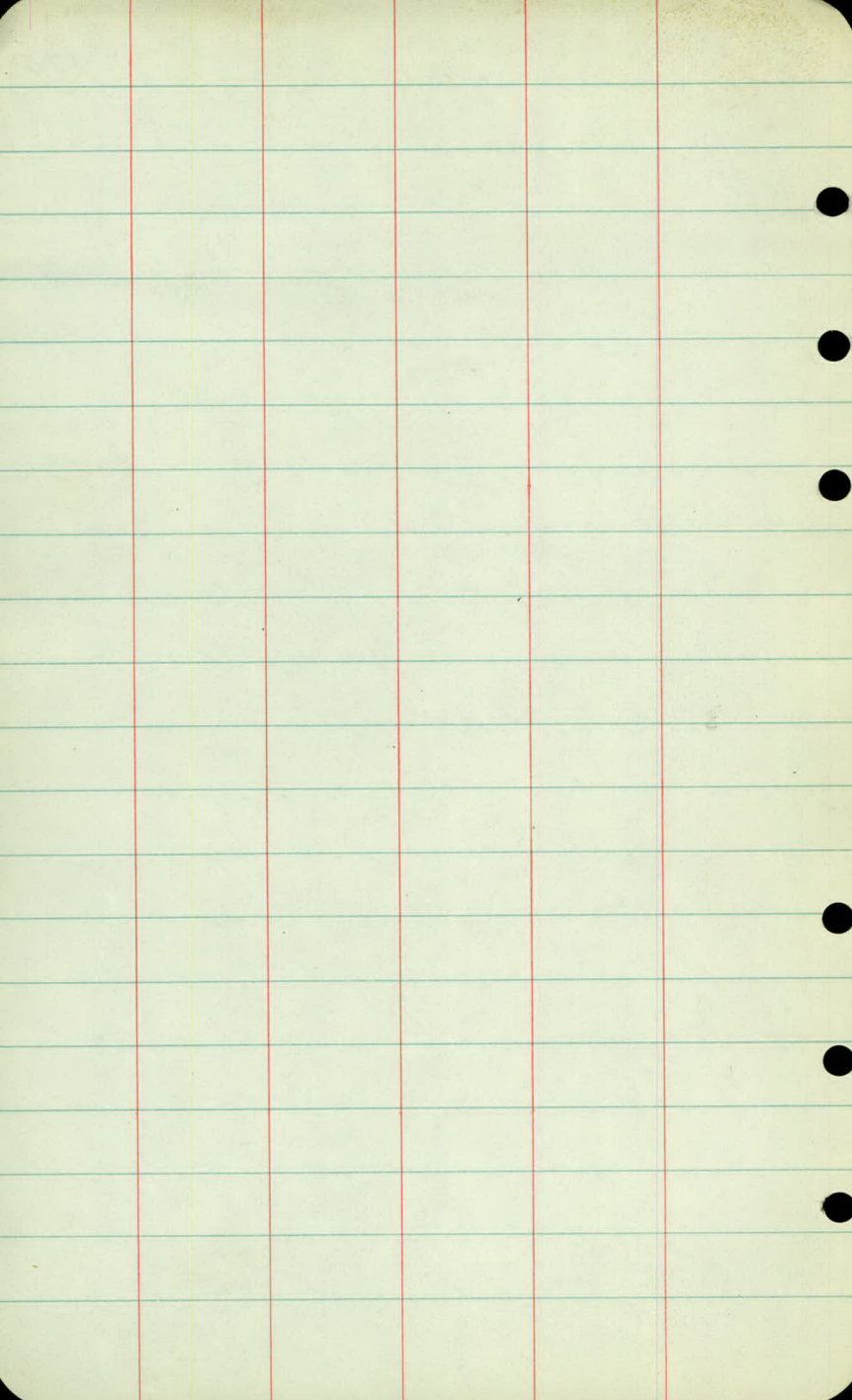
Sta 46+00

175

Depth	Blows	Material
		to 0.5' Blk. loam
0-1		Blue/Gray silty clay
1-2	Push V	Br. Clay (Mottled Brown) very stiff
2-3		
3-4		

Hole extremely difficult to bore because of density of clay. Would need power equipment.

Surrounding subcuts indicate blue/gray SiC from 0.5' to 6' or more.



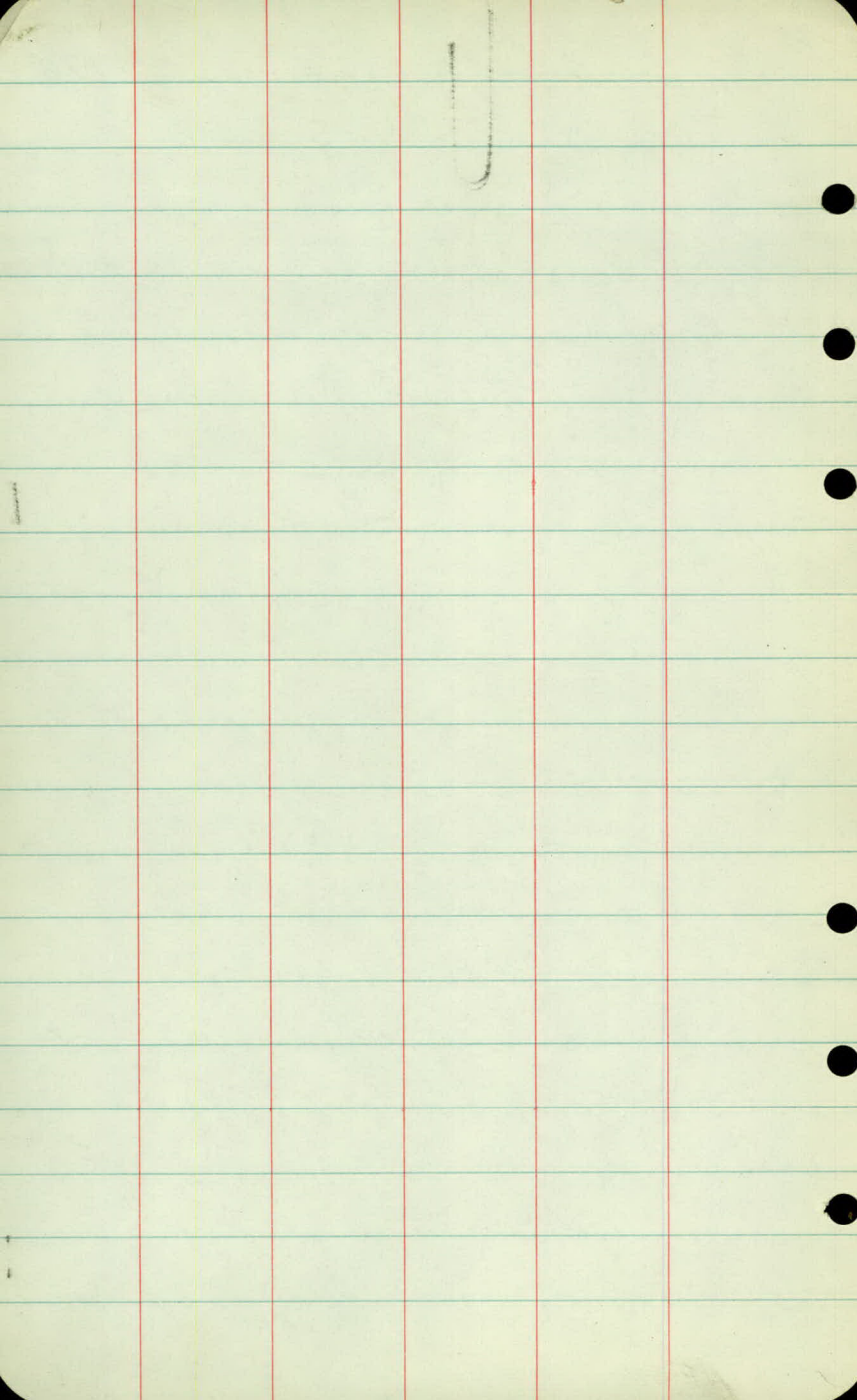
RG
JL
WM
RW

OCT 28, 1960

Sta 10+07 £

176

Depth	Blows Pushed	Material
0-1		Top soil (Blk. loam) & lge gravel Sandy clay loam (Brown) to 1.5'
1-2		Brown sandy clay
2-3		F. Brown clay (hpl)
3-3.25		Blk Fibrous peat (dry + hard)
3.25-4.5'		Blk. peat loam
4.5-5		Silty peat loam (Blk) sl. plastic
5-6		" " " " "
6-7		Black silt loam sl plastic
7-8		" " " wet
8-9		-Blue clay



100 E

8'

12'

8'

2.0

1.2'

100 W

2.1

1.6

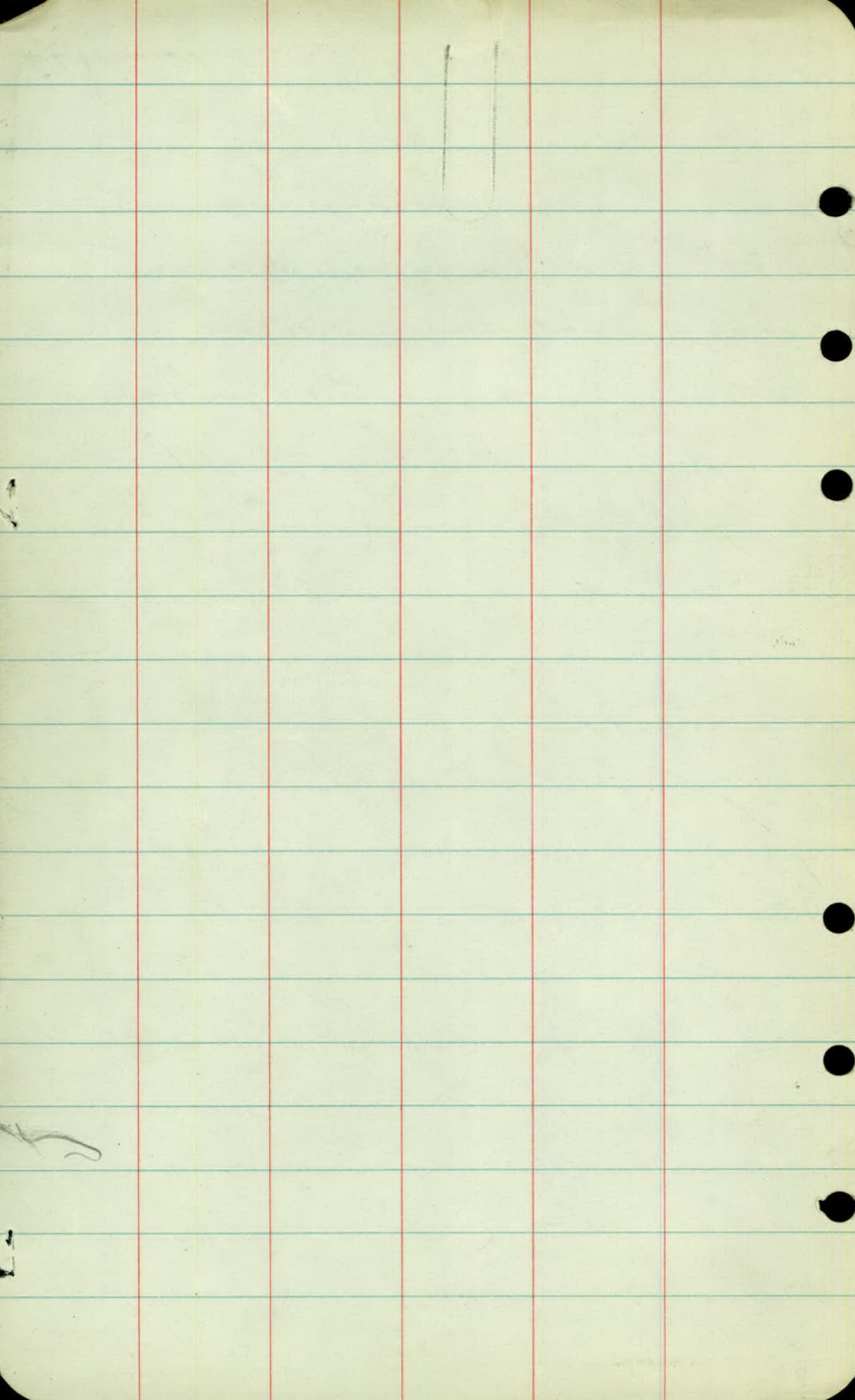
38
21
ing Sounding of Left Turn-
Lanes on S.T.H. #36
1/07

OCT 28, 1960

Sta 10444 £

177

Depth	Blows	Material
0-0.5'		Brown silt (washed in)
0.5'-1'		Sandy loam (dark brown)
1-2		loam w/ gravel
2-3		B/K, pl, loam w/ some fibers & roots
3-4		silt loam pl w/f sand
4-5		" " " " "
5-6		Blue clay



"Mc Knight Rd."

8 - 13 21" above san. sewer on E

8 - 17th Ave. 15" san. sewer on E in service ~~18"~~ 12"

N. St. Paul Rd. to "B" 2" water main 10' E. of E

14 - 17 San. sewer 8" on E & ing at 15. 8"

SAVE FOR MCKNIGHT RD.

RAMSEY COUNTY
PROJECT

PROPOSED MCKNIGHT RD.

from

No. ST. PAUL RD. to Co. Rd. "C"

SWAMP BORINGS

plotted
9-2-60
K.P.

B.F. HIMMELMAN
W.O. PLADSEN
D.R., M.H., J.H.
Aug. 1960

coprapi[®] ②

coprapi[®] ③

qjfo

qjfo

12+00 35" LT E

0-1.5 Peot

Blk

1.5-2 Peotyl sept

"



2-3 SIL

"

gray

11+10 35" LT E

0-1.5 Peot

✓ Blk.

1.5-2.5 SL

Pl

gray

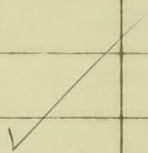
9+70 E

1-2

SL

sept

Bwh

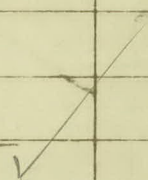
9+60 35" LT DRY

0-2

SIL

sept

gray



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8+60 35' Lt

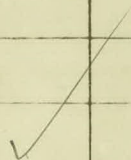
0-.5 L sept BIK

.5-1 Peat Orange

1-1.5 " BIK

1.5-3 L sept "

3-4 FSL " gray



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14+50 35' LT. &

0-2 Peat B/K

2-3.5 Peaty L Sep B/K

3.5-4.5 " B/W

✓

14+50 &

0-2.5 Peat B/K

2.5-4.5 Peaty L Sep B/K

4.5-6 Sil " gray

✓

14+00 &

0-3 Peat B/K

3-4.5 Peaty L Sep B/K

4.5-5.5 Sil " gray

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14+00 35' Lt.

0-3.5 Peat

Blk

3.5-4.5 Peaty L sc pl

Blk

4.5-5.5 Sil

gray

5.5-6 S

Blk

13+00 35' Lt. E

0-3.5 Peat

Blk

3.5-5 Sil sc pl

gray

13+00 E

0-1.5 Peat

Blk.

1.5-4 Peaty L sc pl

Blk.

4-4.5 Sil

gray

4.5-5 SL pl

Bun

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29+00 45' RT E

0-.5 Peat BIK

.5-1.5 Peaty L sc.pl BIK

1.5-2 Sil sc.pl BIK

2-2.5 Sil sc.pl TAN

2.5-6 Sil sc.pl Gray

29+00 45' LT E

0-.5 Peat BIK

.5-2 Sil Pl BIK

2-4 Sil sc.pl gray

30+00 45' RT E

0-1.5 sc.sib Peat BWN

1.5-2.5 Peaty L sc.pl BIK

2.5-3.5 Sil sc.pl BIK

3.5-5.5 Sil sc.pl gray

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30+00 45' LT E

0-.5 Peat S orange

.5-1 Peaty L sept-pl B/K

1-3 SIL sept gray

31+00 45' RT E

0-3 Peat B/K

3-4 org SIL sept B/K

4-6.5 SIL sept B/K

5.5-6.5 SIL sept gray green

6.5-7 SIL sept gray

DIETZEN NO. 384.5

31+00 45' LT E

0-1 Peat B/K

1-4 SIL sept gray

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32+00 45' RT. E

0-2.5 Peat BIK

2.5-5.5 Peaty L sl pl BIK

5.5-6 org sil sc pl gray

6-7.5 sil sc H gray

33+00 45' RT. E

0-2 Peat BIK

2-5 Peaty L sc. pl BIK

5-6.5 sil sc pl gray

6.5-7 sil cl "

33+00 45' LT. E

0-2 Peat BIK

2-6.5 Peaty L BIK

6.5-8 sil sc pl gray

8-13.5 org sil " BIK

13.5-14.5 sil sl gray Very Moist

14.5-16 FS Bwn

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⑧

34+00 45' RT ♀

0-25 Peat

Blk

2.5-6 Peaty L sepl

Blk.

6-9 Sil

11

gray

35+00 45' RT ♀

0-2 Peat

Blk

2-4 Peaty L se-pl

Blk

4-5 Sil

pl

gray

36+00 45' RT ♀

0-2 L

sepl

Blk DRY

2-3 L S

Non pl

35+50 45' RT ♀

0-1.5 L

se-pl

1.5-4 Sil

pl

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35-45 45' RT E

0-.5 L sc pl

.5-1.5 FSL sl. pl

1.5-2 SCL

36 to 45' LT 4

0-.5 Peat BIK

.5-2.5 Peaty L sc pl BIK

2.5-3.5 S. L pl gray

3.5-4 SIL sc pl Tan

4-4.5 SIL sc pl gray

4.5-5.5 FSL " "

2

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34+50 45' RT. E

0-1	Peat		B/K
1-4.5	Peaty L	sepl	B/K
4.5-6	SIL	"	gray

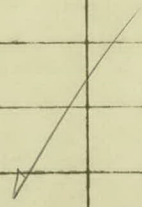


34+00 8' RT. E

0-2.5	Peat		
2.5-5.5	Peaty L	sepl	B/K
5.5-7	SIL	"	gray

35+00 8' RT. E

0-2	Peat		B/K
2-6	Peaty L	sepl	B/K
6-8	SIL	sepl	gray



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36+00 8' RT E

0-1.5 Peat BIK

1.5-2.5 Peaty L BIK

2.5-3.5 Si L sepl-p gray

33+10 10' Lt E

0-2 Peat BIK

2-6 Peaty L se pl BLK

6-13 Si L se pl gray

13-14 FS Bwn

32+00 10' Rt. E

0-3 Peat BIK

3-5.5 Peaty L se pl "

5.5-8.5 Si L " gray

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35+00 45' LT &

0-2.5 Peot

Blk

2.5-5.5 Peaty L sepl gray

5.5-6.5 Sil sepl gray



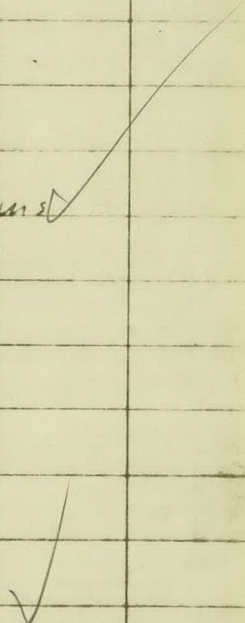
44+00 35 RT &

0-3 Semi Sil Peot Bwn

3-4 Peaty L sepl Blk

4-4.5 Sil sepl w sand & coars

4.5-5 Sil sepl gray

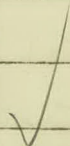


43+00 35 RT &

0-3 Peot semi fib Bwn

3-4.5 Peaty L sepl Lk

4.5-5.5 Sil " gray



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42+50 35' LT

0-2 Pcat semi fil Bwn

2-3.5 SIL sc p BIK

3.5-7 SIL sc p gray

42+50 10' LT

0-1.5 Pcat BIK

1.5-3.5 SIL sc p gray

42+50 35' LT

0-1.5 Pcat BIK

1.5-1.5 L sc p BIK

1.5-2 S I Bwn

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43+00 35' Lt

0-1.5 Peat

B/K

1.5-3 L

sepl

B/K

3-3.5 S & FG ^{some}

Bwn

3.5-

SiL

sepl

gray

44+00 35' Lt

0-2 Peat

semi.fi

Bwn

2-4.5 Peaty L

B/K

4.5-6 SiL

sepl

gray

S seam @ 5.5' Bwn

agfa

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45+00 25' Lt. ϕ

0-2 Peat ss. fib brown.

2-2.5 SIL blk.

2.5-3.0 VFS - SIL tan

45+50 ϕ

0-.5 SIL Lk.

.5-1.0 SIL tan

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3 NOV. 1960

KP -
US
UH
LB
RB

MC KNIGHT RD.
N. ST. PAUL RD TO CO. RDC.

TREE LOCATION

32

LT

TOE OF
SLOPE

RT

40

+30

44

31

38

30

37

18 Trees
1 STUMP

29

35

7 Trees
6 stumps

+30

+15 MH
6

37

+25 Tree
12

28

+75
begin Swamp

27

3 NOV. 1960

9 TREES

14 TREES

18 TREES
1 STUMP

FL = 932.28

MH

7 TREES
6 STUMPS

E. INV. = 18" VIT = 932.23 IN
W. INV. = 18" VIT = 932.28 OUT

SE. INV. = 12" = 932.62 IN
KIT

37

LT

~~E~~

RT

TOE OF
SLOPE

36

35

34

+69

+37

36

37

33

37

32

40

3 NOV. 1960

LT

~~E~~

RT

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13 TREES

16 TREES

42

LT
36

£

RT

+36

42

41

38.0

40

39

38

37

3 Nov. 1960

LT

≠

RT

14 TREES

1 TREE



47

LT
43 $\neq$

RT

+62

38

+50

36

46

33

+86

37

+50

38

45

30

44

43

+56

32

42

36

3 NOV. 1960

≠

LT

RT

7 TREES

0

3 TREES

—

52

LT.

~~E~~

RT.

51

50

33

+50

33

49

34

+30

35

+25

38

48

40

+50

36

47

43

3 NOV. 1960

LT

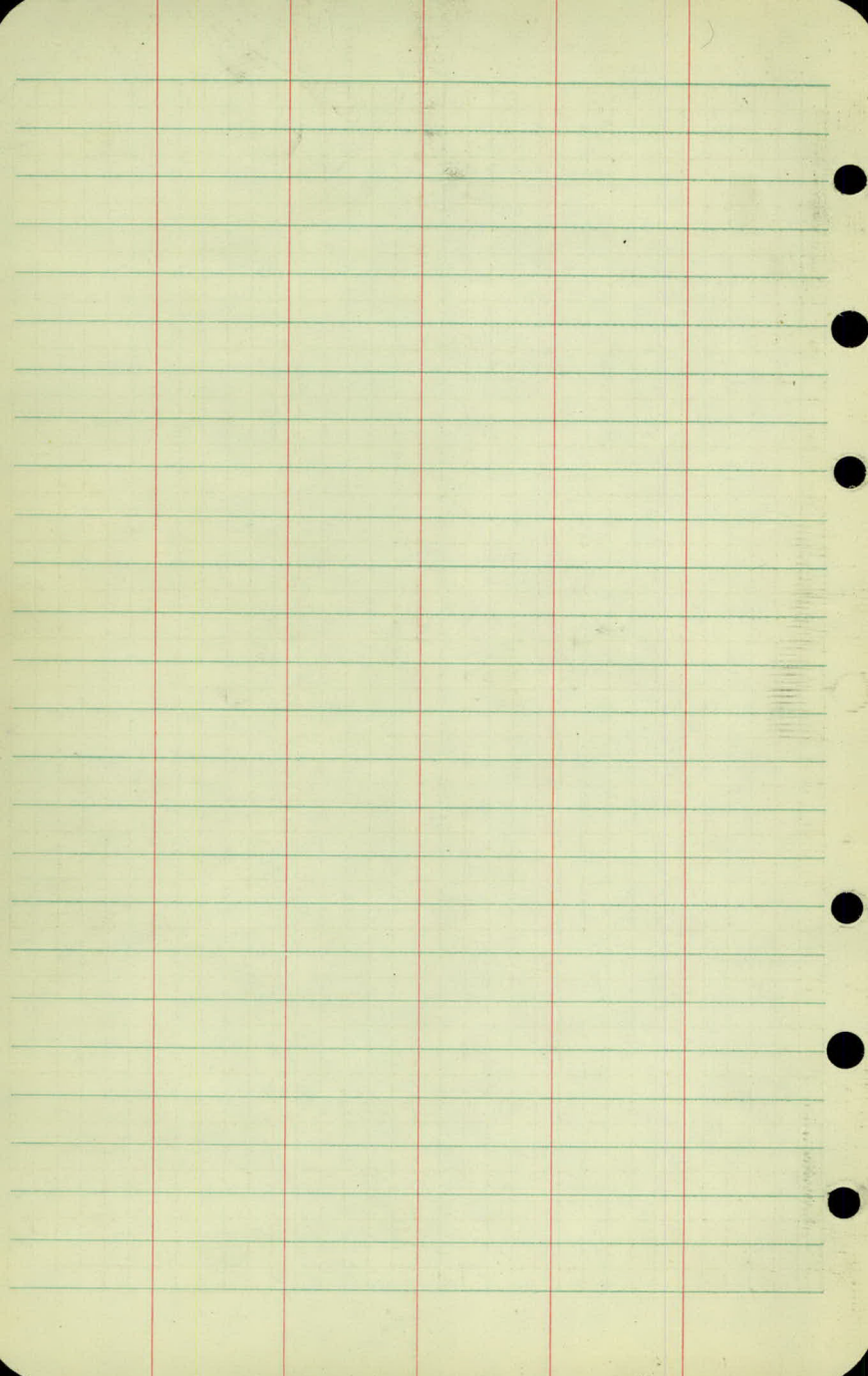
~~E~~

RT

2 TREES

0

1 TREE



1
Mc Knight

at

STH #36

B. T. Elev.

2 pages

Sta	+	Δ	-	Elev
BM	561			

25 + 27			3.76	
---------	--	--	------	--

+40			3.58	
-----	--	--	------	--

+53			3.85	
-----	--	--	------	--

+94			3.75	
-----	--	--	------	--

26 + 00			3.66	
---------	--	--	------	--

+05			3.62	
-----	--	--	------	--

+18			3.83	
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FK
JL
WM
JH

Σ July 21, 1960

2

N.W. Cor Bottom Step Ho[#] 416 Castle Ave

Edge B.T.

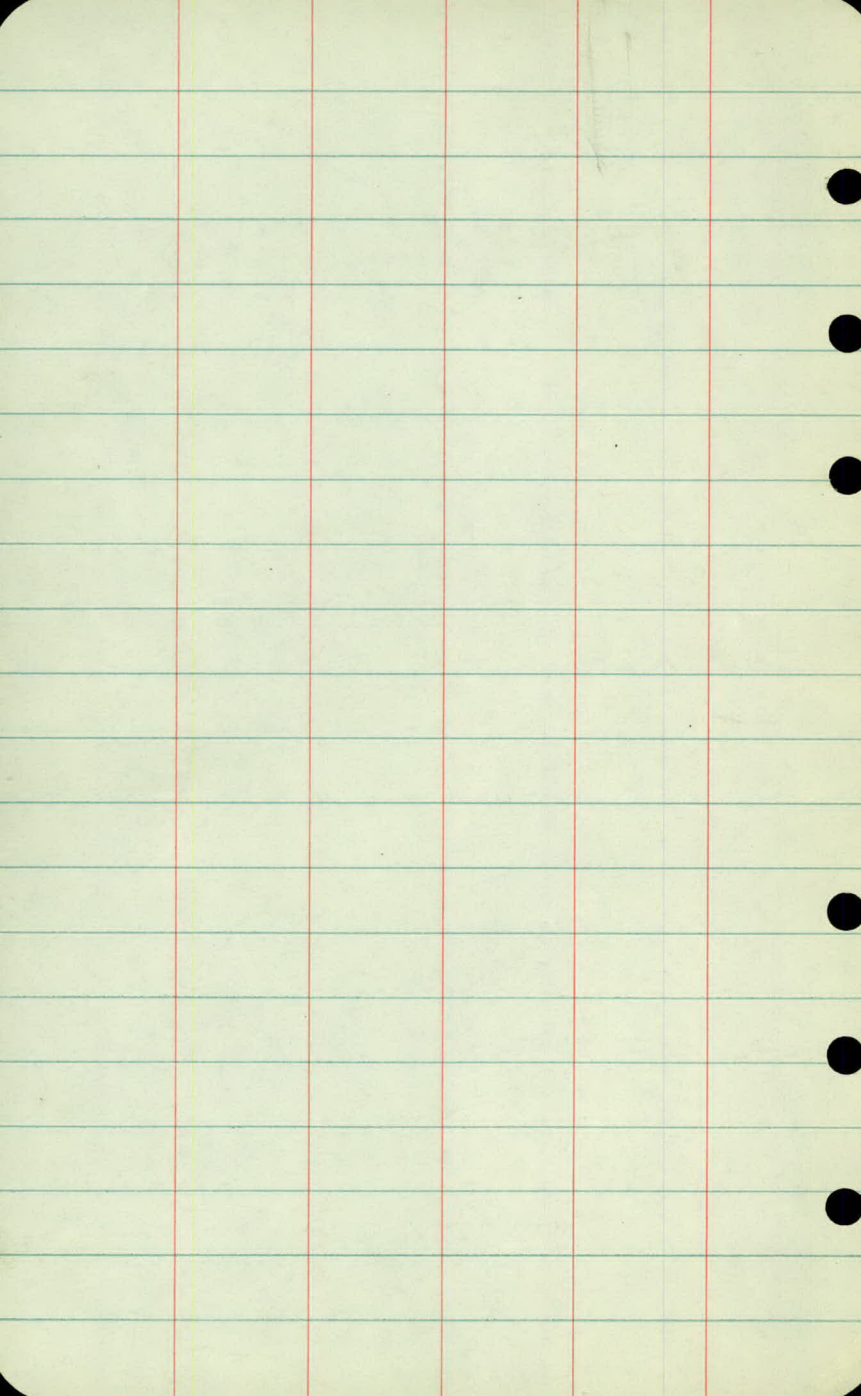
Σ East Bound Lane

Edge B.T.

Edge B.T.

Σ West Bound Lane

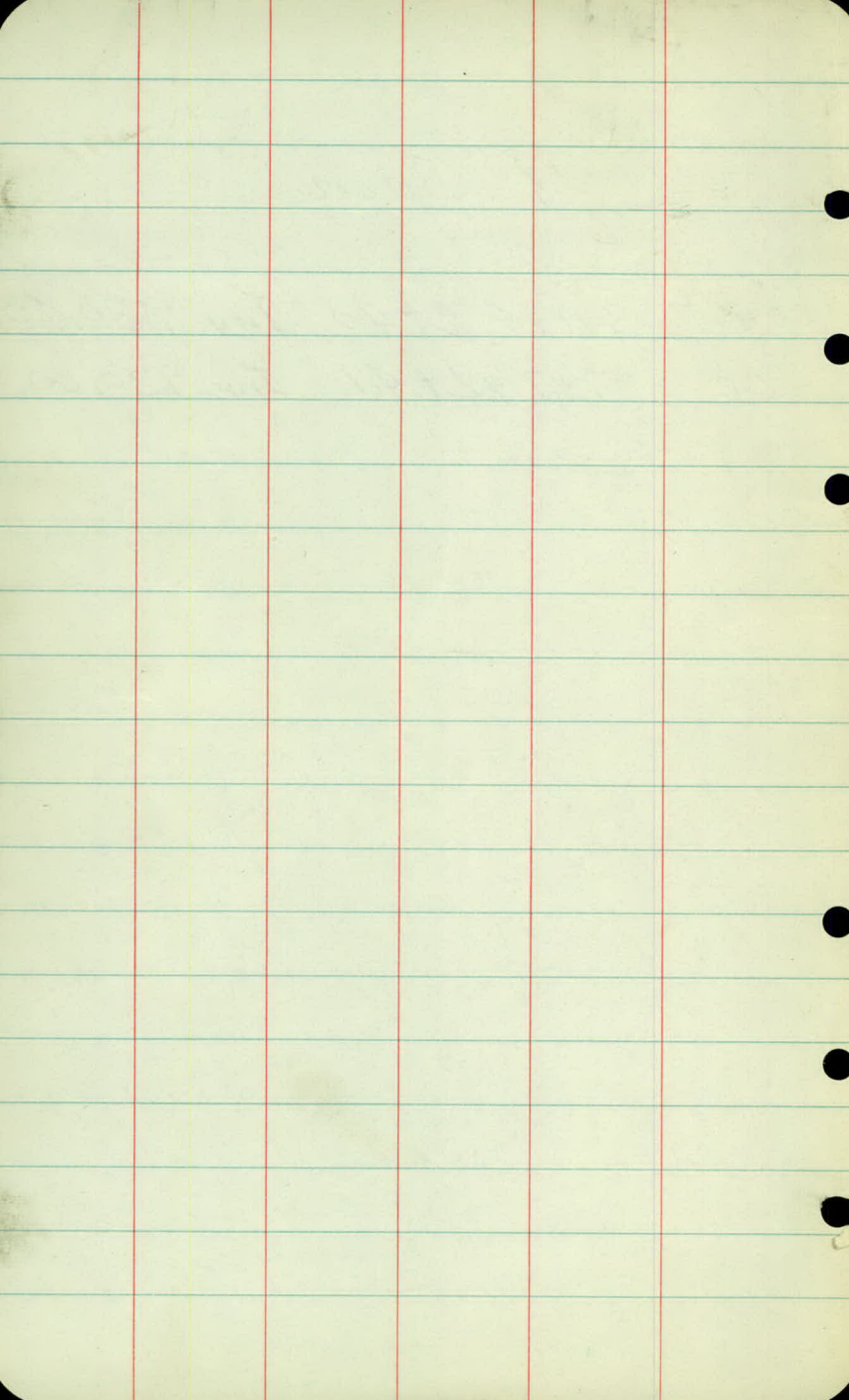
Edge B.T.



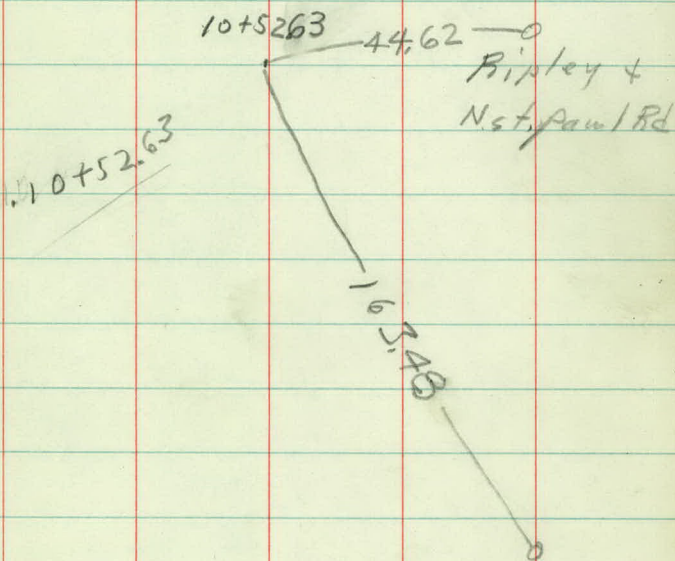
18" Span

Rt 37+44 Rt+40 Inv 930.40

Lt 37+79 Lt+41 Inv. 930.00



Staking McKnight



Sta	PG	PCR	^{1.5} ±SG	.9
S Rail	1.53	946.36		94.83
N Rail	1.50	946.36		44.86
11 ±	45.10	1.36	1.86	2.26
+50				
12	44.74	1.62	2.12	2.52
+50	43.93	2.41	2.91	3.31
13	42.90	3.46	3.96	4.36
+50	42.07	4.29	4.79	5.19
14	41.70	4.66	5.16	5.56
+50	41.34	4.82	5.32	5.72
15	41.39	4.97	5.47	5.87
TP	3.67	944.55	5.48	940.88

Nov. 13, 1961

2

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944.55

15+50 41.35 3 — 3.5 3.9

16 41.08 3.47 3.97 4.37

+50 40.93 3.62 4.12 4.52

17 40.77 3.78 4.28 4.68

+50 40.62 3.93 4.43 4.83

18 40.46 4.09 4.59 4.99

+50 40.31 4.24 4.74 5.14

19 40.15 4.40 4.90 5.30

+50 40.00 4.55 5.05 5.45

[illegible]

94455

20 39.84 4.71 5.21 5.61

+50 39.69 4.86 5.36 5.76

21 39.53 5.02 5.52

~~4.30~~ 943.32 5.53 939.02

+50 39.38 3.94 4.44

22 39.22 4.10 4.60

+50 39.10 4.22 4.72

23 39.18 4.14 4.64

+50 39.9 3.42 3.92 ✓

24 40.86 2.46 2.96

✓

✓

✓

Sta	PG	PR	SGGR	Elev	SGSGR
-----	----	----	------	------	-------

94332

24+50	41.84	1.48	1.98	✓	
-------	-------	------	------	---	--

25	42.81	.51	1.01		
----	-------	-----	------	--	--

BM			1.85	941.47	941.47
----	--	--	------	--------	--------

26+50	42.7				
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27	41.7				
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+50	40.7				
-----	------	--	--	--	--

28	39.7				
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+50	38.7				
-----	------	--	--	--	--

29	37.7				
----	------	--	--	--	--

+	36.7				
---	------	--	--	--	--

Nov 13, 1961

5

30 35.88

+50 35.45

31 35.2

+50 34.95

32 34.7

+50 34.45

33 34.20

+50 34.11

34 34.33

Sta	PG	PGR	SGGR ^{.5}	Elev
34+50	34.70			
35	35.08			
+50	35.48			
36	35.83			
+50	36.36			
37	37.20			
+50	38.01			
BM	3.40	742.01		(938.61)
38	38.45	3.56	4.06	4.46
+50	38.70	3.31	3.81	4.21
39	38.95	3.06	3.56	3.96

FK
WM
DS
RB
1

Nov 14, 1961 7

E, Rim MH 150' LI 3/4 38

Sta	PG	PGR	SGGR ^{.5}	
		942.01		
39+50	39.2	2.81	3.31	3.71
40	38.95	3.06	3.56	3.96
+50	38.70	3.31	3.81	4.21
41	38.45	3.56	4.06	4.46
+50	38.20	3.81	4.31	4.71
42	37.71	4.30	4.80	5.20
+50	37.22	4.79	5.29	5.69
43	36.73	5.28	5.78	6.18
+50	36.24	5.77	6.27	6.67
TP	8.79	944.54	6.26	935.75
				939.21

Nov 14, 1961 8

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Not in aat

944.54

44 35.25 8.79 9.29 9.69

+25 35.5 9.14 9.54 9.94

+75 35.65 8.89 9.39 9.79

45+25 37.1 7.44 7.94 8.34

+50 38.16 6.38 6.88 7.28

46 40.24 4.30 4.80 5.20

+50 42.33 2.21 2.71 3.11

47 44.41 0.13 .63 1.03

12.37 956.30 0.61 943.93

+50 46.50 ~~19.86~~ 19.30 10.70

✓

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✓

		956.30			
48	48.58	7.72	8.22		8.62
+50	50.94	5.36	5.86		6.26
49	53.38	2.92	3.42		3.82
+50	55.78	0.52	1.02		1.42
IP BM	10.71	966.30	0.71	955.59	966.40
50	58.20	8.10	8.60		9.00
+50	60.30	6.00	6.5		6.9
51	61.86	4.44	4.94		5.34
+50	63.13	3.17	3.67		4.07
52	64.29	2.01	2.51		2.91
+50	64.71	1.59	2.09		2.49

Nov. 14, 1961

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M11
Top Hqd NE Cor 15th Ave + McKnight

C1.0

Sta	PG	PGR	+5		Elev	+90	
			SGGR			SSGR	
		966.30					
53	64.39	1.91	2.91			2.81	
+50	63.96	2.34	2.84			3.24	
54	63.53	2.77	3.27			3.67	
T.P.	5.80	968.82	3.28	963.02			
+50	63.1	5.72	6.22			6.62	
55	63.4	5.42	5.92			6.32	
+50	63.7	5.12	5.62			6.02	
56	64.0	4.82	5.32			5.72	
+50	64.3	4.52	5.02			5.42	
57	64.6	4.22	4.72			5.12	
+43	64.87	3.95	4.45			4.85	
BM						966.49	

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