

BK. 55 BK. 55 Dr. 12A

OFFICE OF COUNTY ENGINEER
RAMSEY CO. MINN.

Plan Survey

Ditch No. 16

From Edgerton St. To West

Road Acc't. No.

Date Filed 8-3-48

File

Ditch No. 16
Clearing & Grubbing

Sta 70+00 to 109+00 Inc.
3/24/48

5 Pages

+36-12" Top Will. - 8

76

+50-18" Tw. Coll. - 7'

~~+36-~~

~~+36-12" Top Will. - 8~~

75

74

8 Rotted Stumps

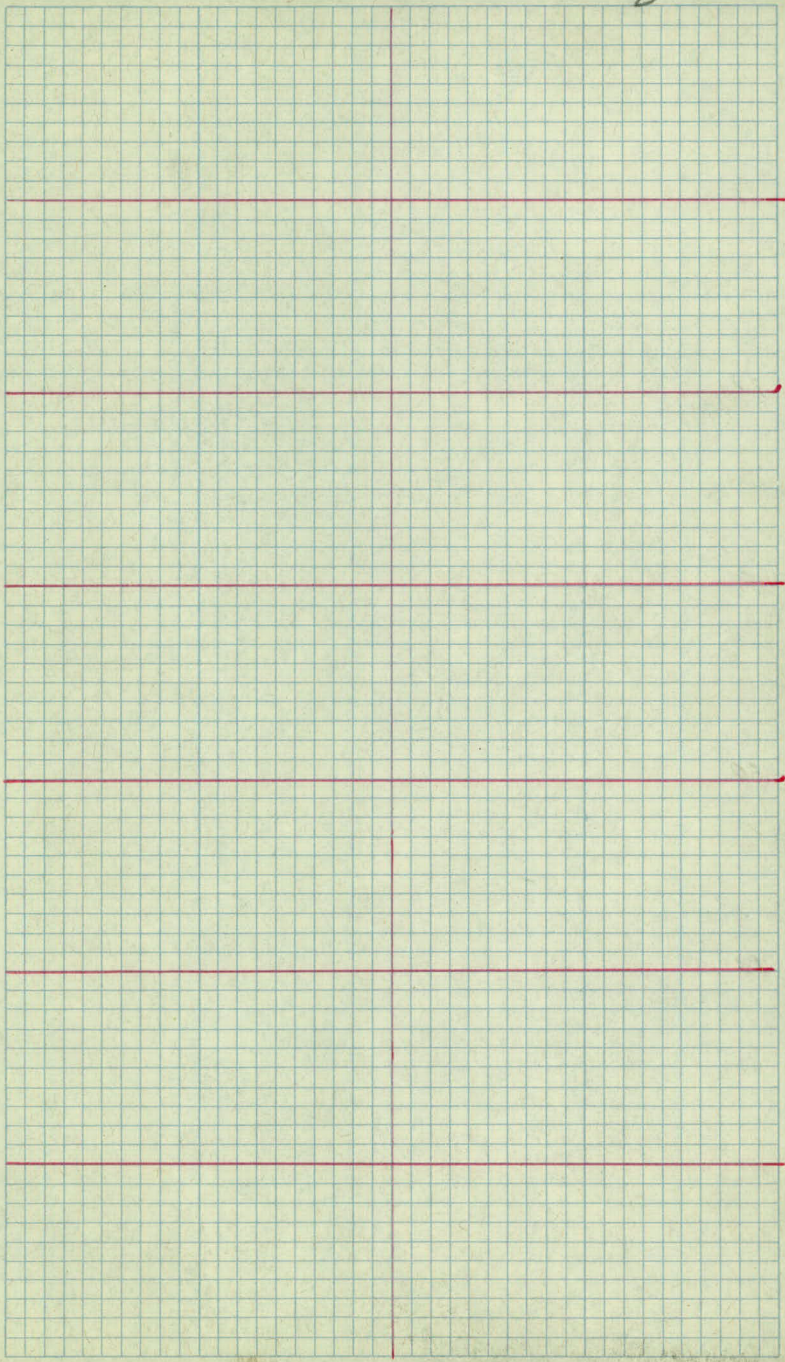
74

4 Rotted stumps

73

+69-30" Coll. & 15 ft. 12'

70



82

+08-30" Cott-5'
 +99-24" Cott-5'
 +77-18" Trip Cott-5'
 +74-12" Cott-5'
 +65-30" Cott-5'

+46-18" Willow-5'
 +29-18" Tw. Cott-5'
 +22-12" Will.-5'
 +09-30" Cott-5'

81

+89-18" Cott-5'

80

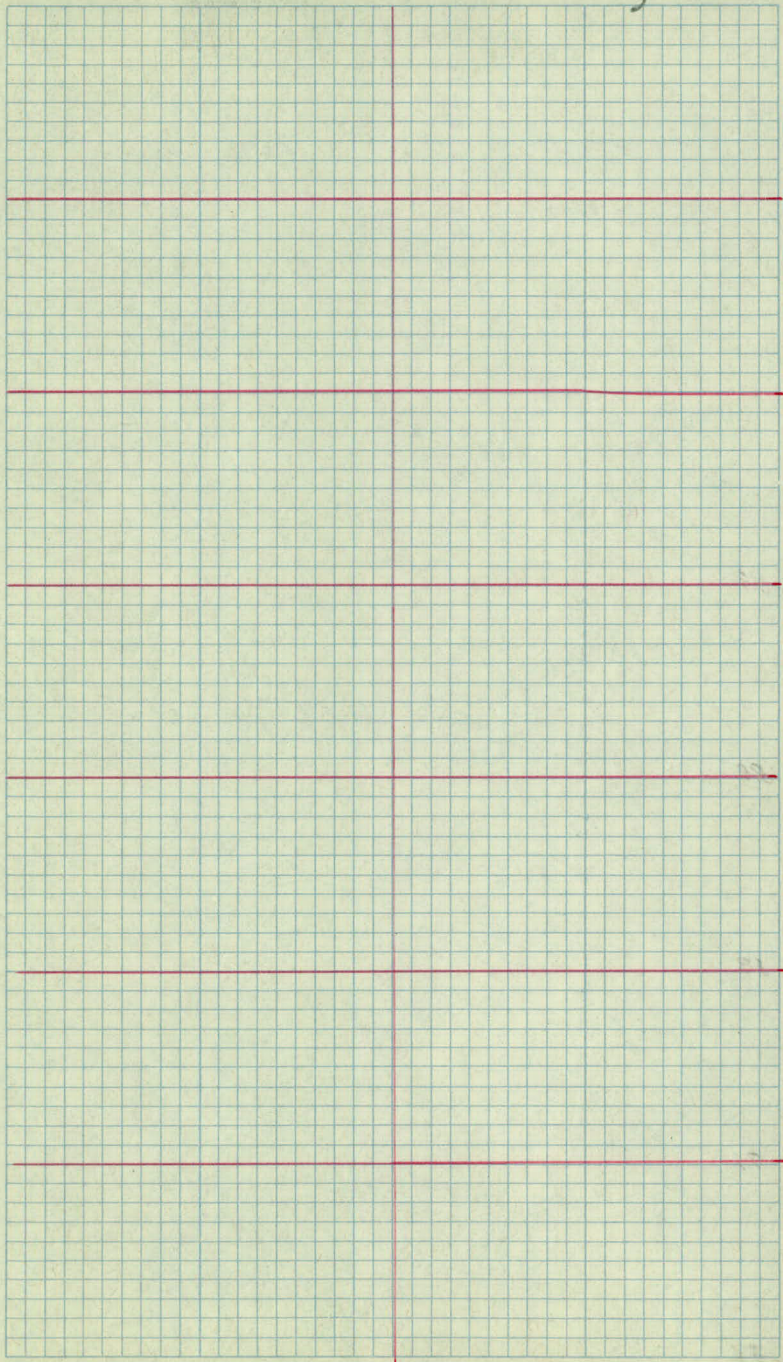
+12-30" Cott-6'

79

78

+80-5' Elm-7'

77



+25-12" Trip-Pop-8'

101

+57-36" Cott-3'

89

88 +17-Stump 3'

+60-5.5" Willows-2'

87

86 +12-Stump

+65 2 stumps

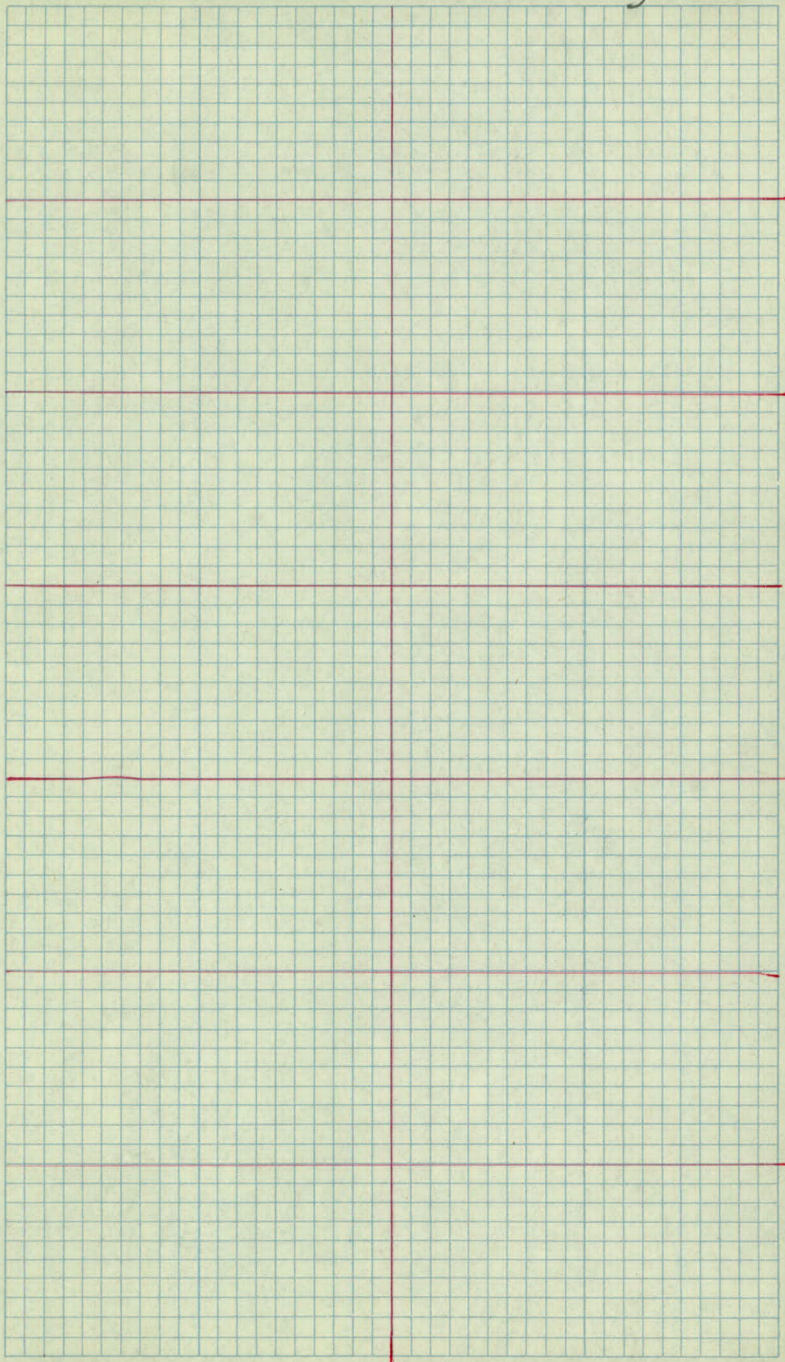
+27-Stump 0.0

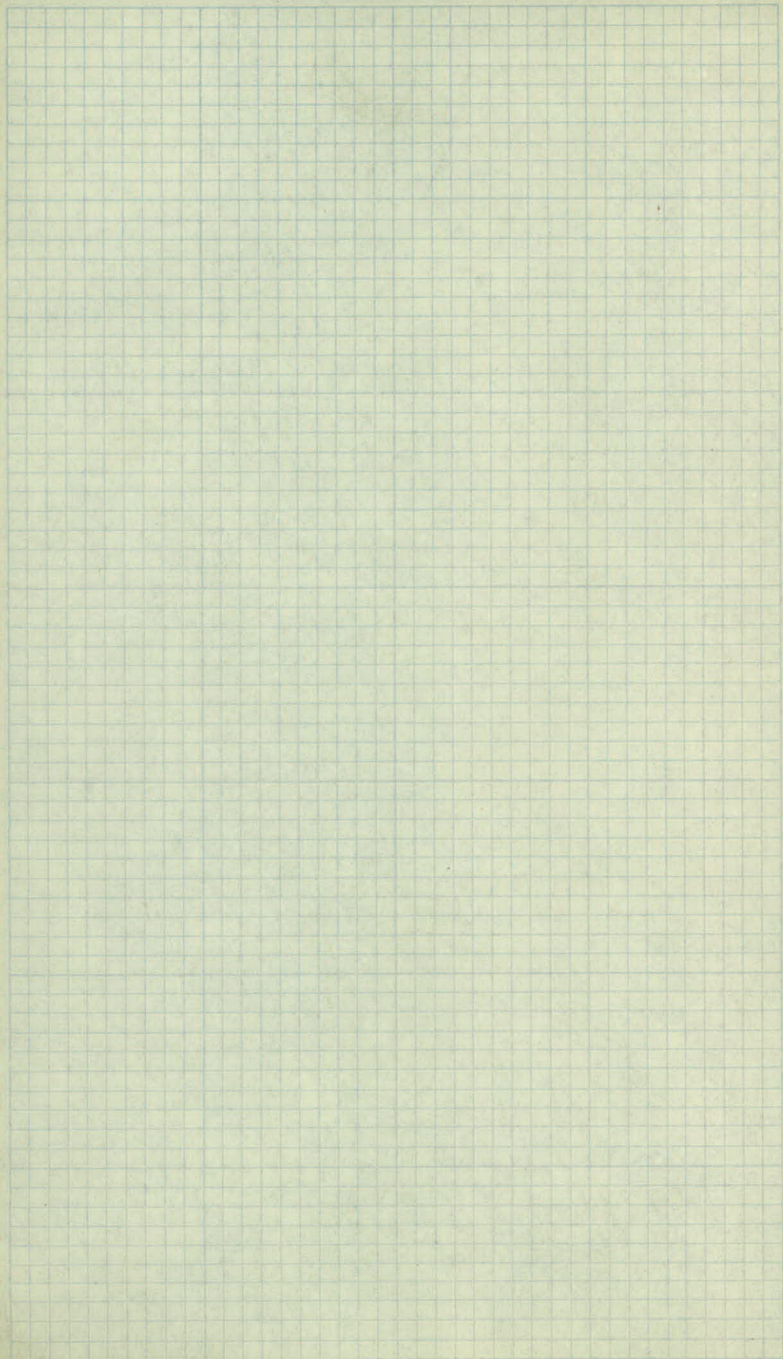
85

108 +10-12" Tree-4'

Not taken
WJB

+60-12" Trip Willow-6' Not taken
WJB





Ditch No. 1
Clearing & Grubbing

3/24/48

2-Pages

8

32-Trees

7

7-Trees

133-54° BE-4'

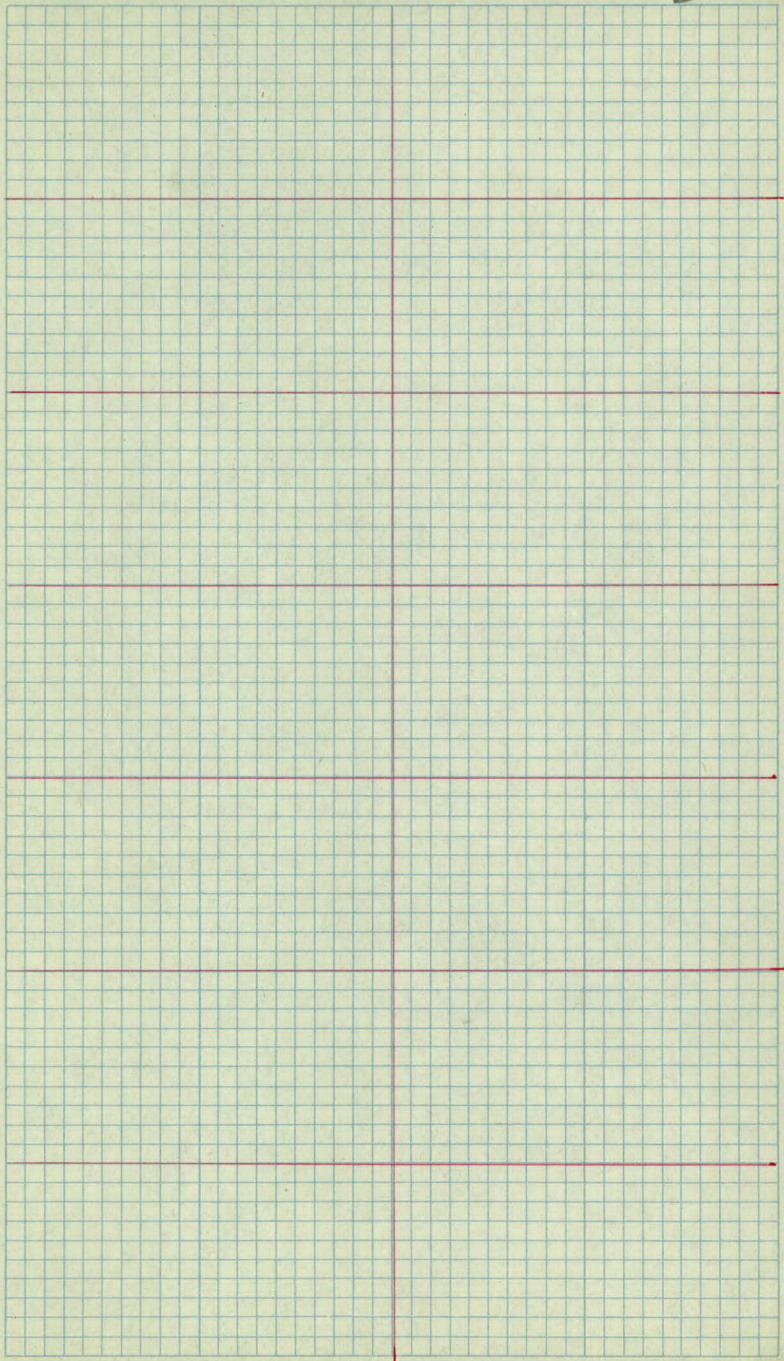
6

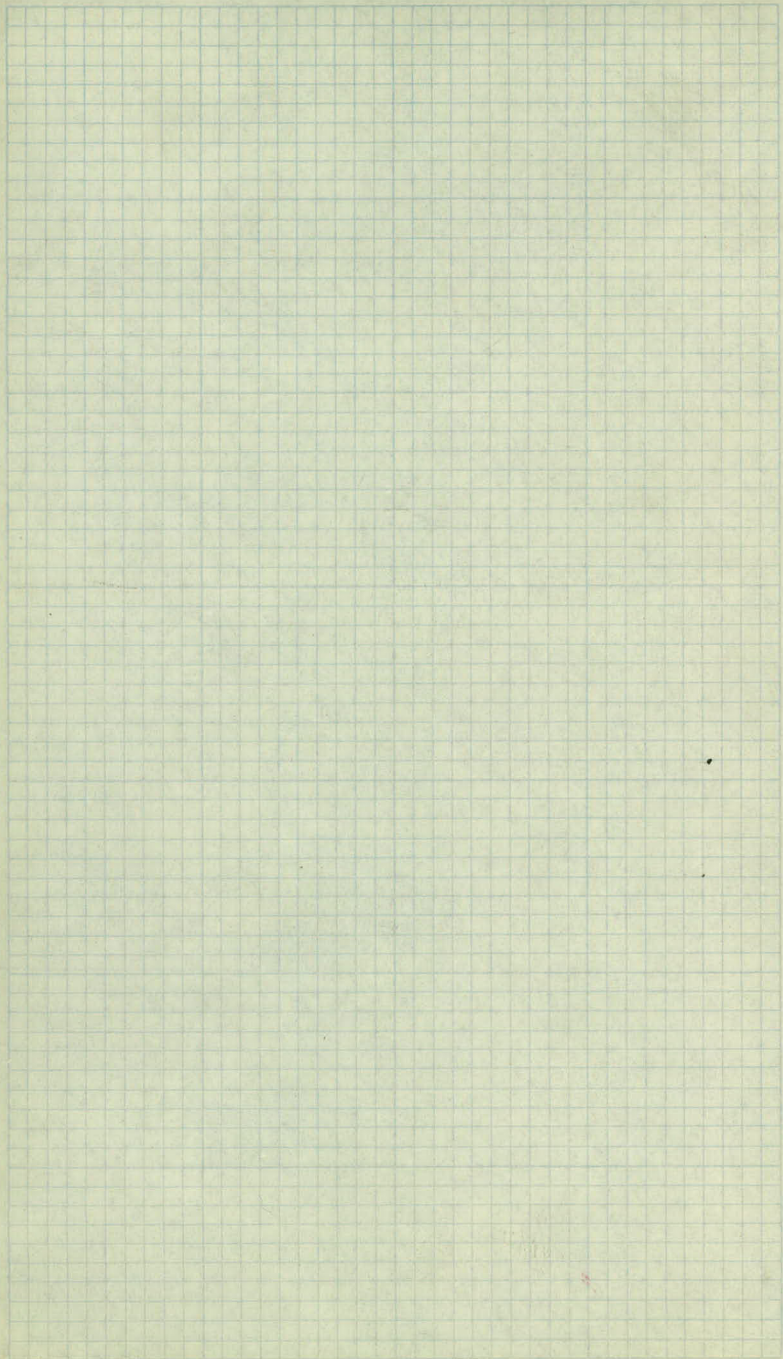
185-8° Tip. BE-7'

5

125-6.4° Willows -3'

4





Alignment

Ditch 16

1949

Sta	Point	ΔLt	ΔRt
8 +89.92	P.I.		10°19'

6 +68.35	P.I.	42°13'	
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6 +20.00	P.I.		22°34'
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0 +42.66	P.I.	31°56'	
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0 +00 = 2 Edgerton St.

18" Elm
 30.04'
 2" X 2" Hub
 75.54' 24" Willow

24" Willow
 30.56'
 2" X 2" Hub
 105'
 36" Cott.
 24" Cott.
 166.93'
 2" X 2" Hub
 10.28'
 P.P.

24" Willow
 20.51'
 2" X 2" Hub
 16.20'
 14" P.P. Pole

89°59'
 S 1/4 Cor.
 Sec. 5
 --1041.55'--
 Drill Hole

Sta	Point	ΔL	ΔR
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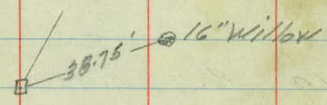
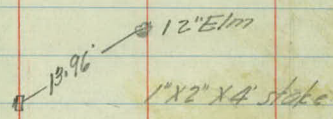
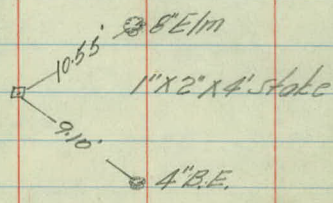
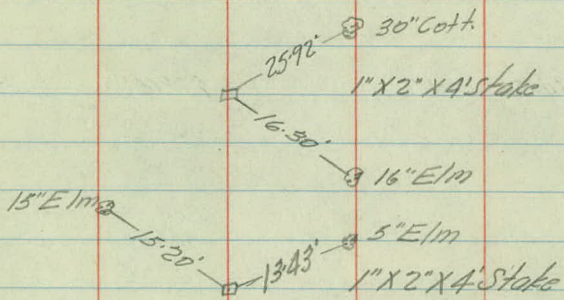
17 + 33.38	P.I.		$17^{\circ}45\frac{1}{2}'$
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16 + 62.55	P.I.		$11^{\circ}51\frac{1}{2}'$
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14 + 96.35	P.I.		$6^{\circ}43\frac{1}{2}'$
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13 + 21.77	P.I.		$0^{\circ}53\frac{1}{2}'$
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9 + 48.65	P.I.		$30^{\circ}44'$
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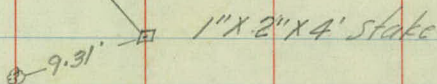
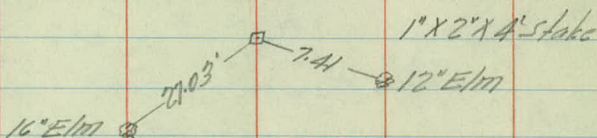
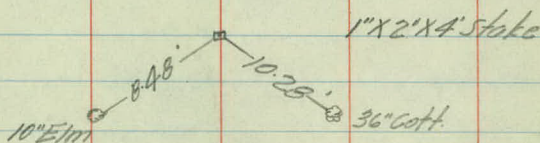
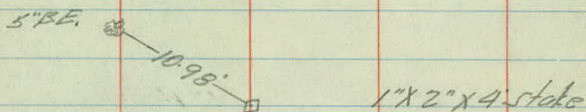
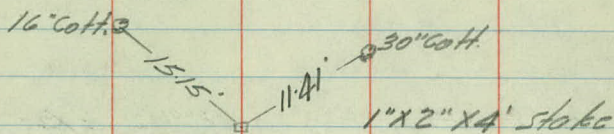
Sta.	Point	ΔL	ΔR	Magn. Bear.	N 61°00' W
21 + 80.05	P.I.		22°26'	1' Ext.	

21 + 04.10	P.I.		21°11'		
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20 + 64.75	P.I.		3°54'		
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19 + 56.80	P.I.	12°05'			
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18 + 83.60	P.I.	9°48' 1/2			
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Sta.

Point

Δ Lt

Δ Rt

N-19°00'W.

33 +71.82

Pt.

28°31'1/2

Ext. - 4'

N-47°30'W.

30 +83.57

Pt.

5°44'

N-53°+W

30 +15.94

POT

28 +80.40

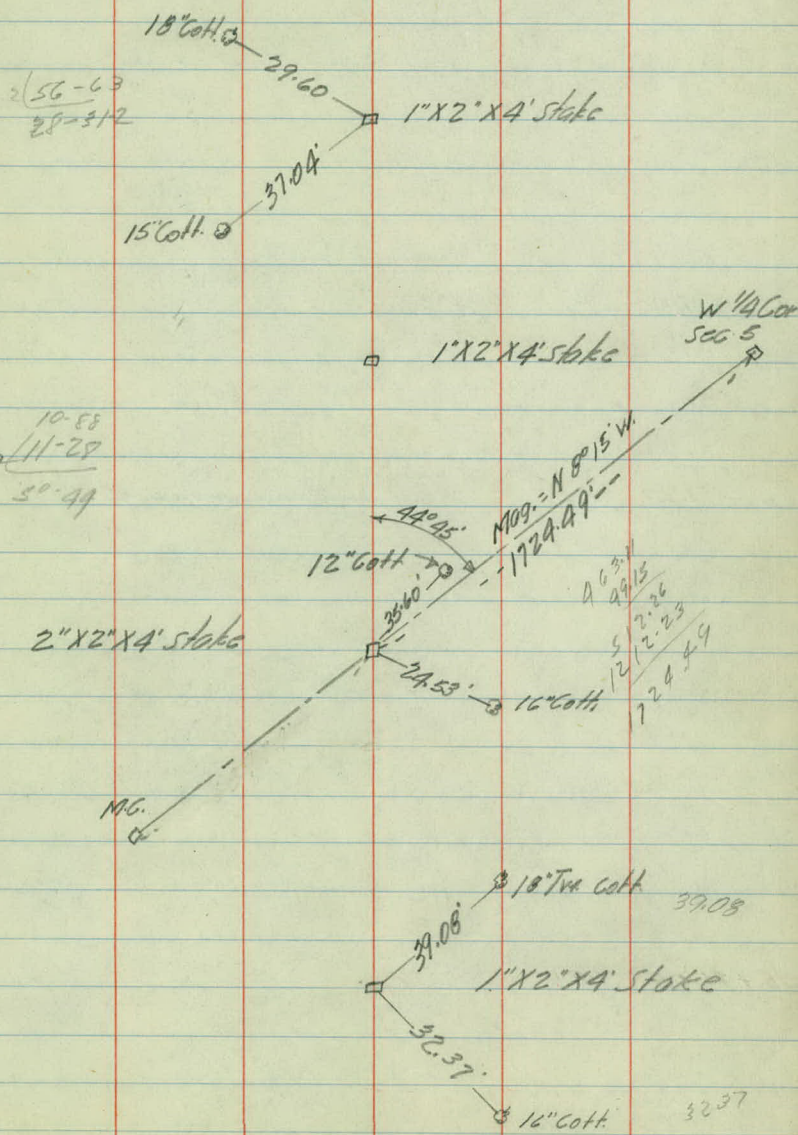
Pt.

8°13'1/2

Ext. 2.5'

Mag. Bear.

K.A. 9-25-41
 A.M.
 M.B.
 E.W.



Sta	Point	ΔL	ΔE
	P.I.		N 67° 15' W
37 + 61.00	P.I.	4° 07'	Ext = 1.0' N 64° 00' W
36 + 61.65	P.I.	35° 25'	Ext = 3.5'
			S 81° 15' W
35 + 20.08	P.I.	79° 39'	Ext = 11.5' Mag. Bear.

K.A. 92541
 A.M.
 M.B.
 C.K.

Ditch 16

6

37461

1"X2"X18" stake

3442' 1"X2"X18" stake

56.15'

Cor. H.W.

Centerville

Road

Cor. H.W.

95.07'

1"X2"X18" stake

44.23'

18" Trip. Cott.

2/158-78
 79-39
 1 28-51
 10810

Sta.	Point	ΔL	ΔR	
✓ 50+54.70	P.I.		5°13½'	N-58°15'W
✓ 48+72.67	P.I.		8°01'	Bear N-64°00'W Ext. 3.0'
✓ 42+24.34	P.O.T.			Mag. N-71°45'W
38+53.42	P.I.	4°34½'		Ext. 10' N-67°15'W

7

51458.15

36" long.

1" x 2" x 4' 5 stake

Hand-drawn diagram of a tree structure on lined paper. The diagram shows a central vertical line with several branches. Labels and measurements include:

- Top left: 24" Cott
- Top right: 43.14'
- Middle left: 1592
- Middle right: 15.92'
- Below middle left: 1" X 2" Hubs
- Bottom left: 18" Willows
- Bottom right: 49.64'
- Far right: 14.81'

1" x 2" x 4.566e

Ent. 1" x 2" x 18" stake

16" Cott. 9-37.10'
1" x 2" Hubs 15.04.58

1" x 2" x 4" stake

10°C off 20.16 8-12-22

$$1 = 4^{\circ}34'N$$

$$2 = 2(8.68^{\circ}N$$

$$4-34^{\circ}$$

Sta	Point	ΔL	ΔE	Mog. Berr.
-----	-------	------------	------------	------------

55 + 52.95	P.I.		$3^{\circ}24\frac{1}{2}'$	N $42^{\circ}15'W$
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54 + 65.95	P.I.		$4^{\circ}21'$	N $46^{\circ}30'W$
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53 + 80.10	P.I.		$3^{\circ}56'$	N $50^{\circ}45'W$
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52 + 71.83	P.I.		$4^{\circ}08\frac{1}{2}'$	N $54^{\circ}30'W$
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51 + 56.15	[✓] P.I.		$4^{\circ}05'$	N $58^{\circ}15'W$
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9-26-47

K.H.
A.M.
M.B.

8

30° Co H.

24.29

1"X2" Hubs

12.10

1"X2"X4' stake

24° Co H.

20.58
11.67

1"X2"X4' stake

7° 52

216° 112
30.56

1"X2"X4' stake

1"X2"X4' stake

36" 56.
64
Culm

21.12

1"X2"X4' stake

36" 56.
14.46
Culm

Sta.	Point	ΔL	ΔR	Mag. Bear.
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61 + 58.77	P.I.	4° 11'		N-50° W
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60 + 94.05	P.I.	4° 18'		N-46° 00' W
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59 + 18.35	P.I.	3° 21'		N-41° 45' W
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58 + 96.0	P.O.T.			N-38° 15' W
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58 + 49.50	P.I.	2° 54' 1/2		N-35° 15' W
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56 + 89.70	P.I.		3° 13'	N-30° 45' W
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K.A.
A.M.
M.B.

9-29-47

1"X2"X4' stake
1-4°10'1/2"
2-8°22'

1"X2"X4' stake
1-4°15'
2-8°35'1/2"

Cem. Sec. 6

59+18.35
75.70
60+94.05
Mont.

59+18.35
- 22.35
58+96.00

59°20'1/2"
528.5'

1"X2"X4' stake
1-2°54'1/2"
2-14°109'
2-50°42'

1"X2"X4' stake

528.50

Sta	Point	ΔL	ΔR	Mog Bear
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72+25.35	P.I.		$14^{\circ}26\frac{1}{2}$	
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71+92.20	P.I.		$31^{\circ}55\frac{1}{2}$	
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N-8°-E

70+12.95	P.I.		$12^{\circ}30'$	
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N-24°00'W

69+72.00	P.I.		$7^{\circ}51'$	
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N-36°45'-W

64+86.62	P.I.		$5^{\circ}45'$	
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N-44°15'-W

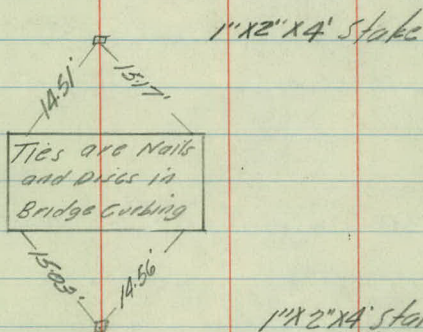
N-50°W

□ 1"X2"X4' stake
 1 = 14-26 1/2
 2 = 28-52 1/2
 14-26 1/2

□ 1"X2"X4' stake

2 = 63-31 1/2
 310 55 1/2

9-30-47
 9-29-47



1"X2"X4' stake
 1 = 7-57'
 2 = 14-114'

1"X2"Hub 11-30' 11-87' 24-20' 18" Cott
 1"X2"Hub 1"X2"Hub 1"X2"X4' stake
 1 = 50-45'
 2 = 11-30 1/2'

Sta	Point	ΔL	ΔB	
83 + 93.92	P.I.	$48^{\circ}10\frac{1}{2}$		N-38°-E
76 + 86.55	P.I.		$0^{\circ}35\frac{1}{2}$	E-28°-N
75 + 18.40	P.I.		$50^{\circ}26\frac{1}{2}$	E-05°18'-N
	P.I.			
72 + 78.15	P.I.		$8^{\circ}35'$	E-51°15'-N
				E-51°22'-N

9-30-41

11

1"X2"X4' stake

1 = 48-10 1/2

2 = 96-21'

1"X2"X4' stake

1 = 0-25 1/2

2 = 1011

Approx & Branch
Ditch

90°

1"X2"X4' stake

1 = 50-20 1/2

2 = 100-52 1/2

25.35
5.280
78.15

1"X2"X4' stake

1 = 835

2 = 17-10'

Sta.	Point	Δ Lt	Δ Rt	Mag. Box
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97 + 55.00	P.O.T = 0+00 Ditch 7			
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N-29°00'-W.

97 + 43.50	P.I.		0°42½'	
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N-28°15'-E

93 + 36.45	P.I.	4°19'		
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N-30°45'-E

90 + 71.25	P.I.	2°42½'		
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N-29°30'-E

89 + 79.10	P.I.		2°21½'	
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N-33°-E

N-27°30'-E

at Sta 79+10

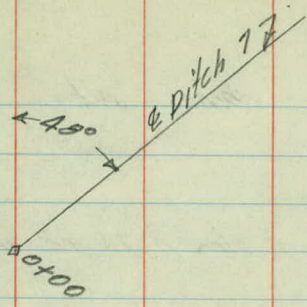
local attraction

K.H.
AM.
MB.

10-1-47

12

97+43.5
11.5
97+55.0



□

1 = 0°42' 1/2
2 = 1°25' 2

□

1 = 4°19'
2 = 8°38'

□

1" X 2" X 4" stake
1 = 2°42' 1/2
2 = 5°24' 1/2
2 = 4°2' 1/2

10-1-47
9-30-47

□

1" X 2" X 4" stake
1 = 2°42' 1/2
2 = 4°42' 1/2

Sta.	Point	ΔL	ΔR	Mog. Bent
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Allow to sta. 120± for mapping

N-26°-E
Local
Attraction
X on curve

106+26.75	P.I.	2°09'		
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104+51.72	P.O.T.			
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N-25°30'-E

103+97.72	P.I.	3°35 1/2'		
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N-29°00'-W

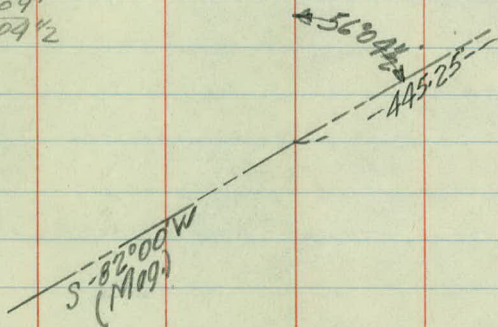
101-47

13

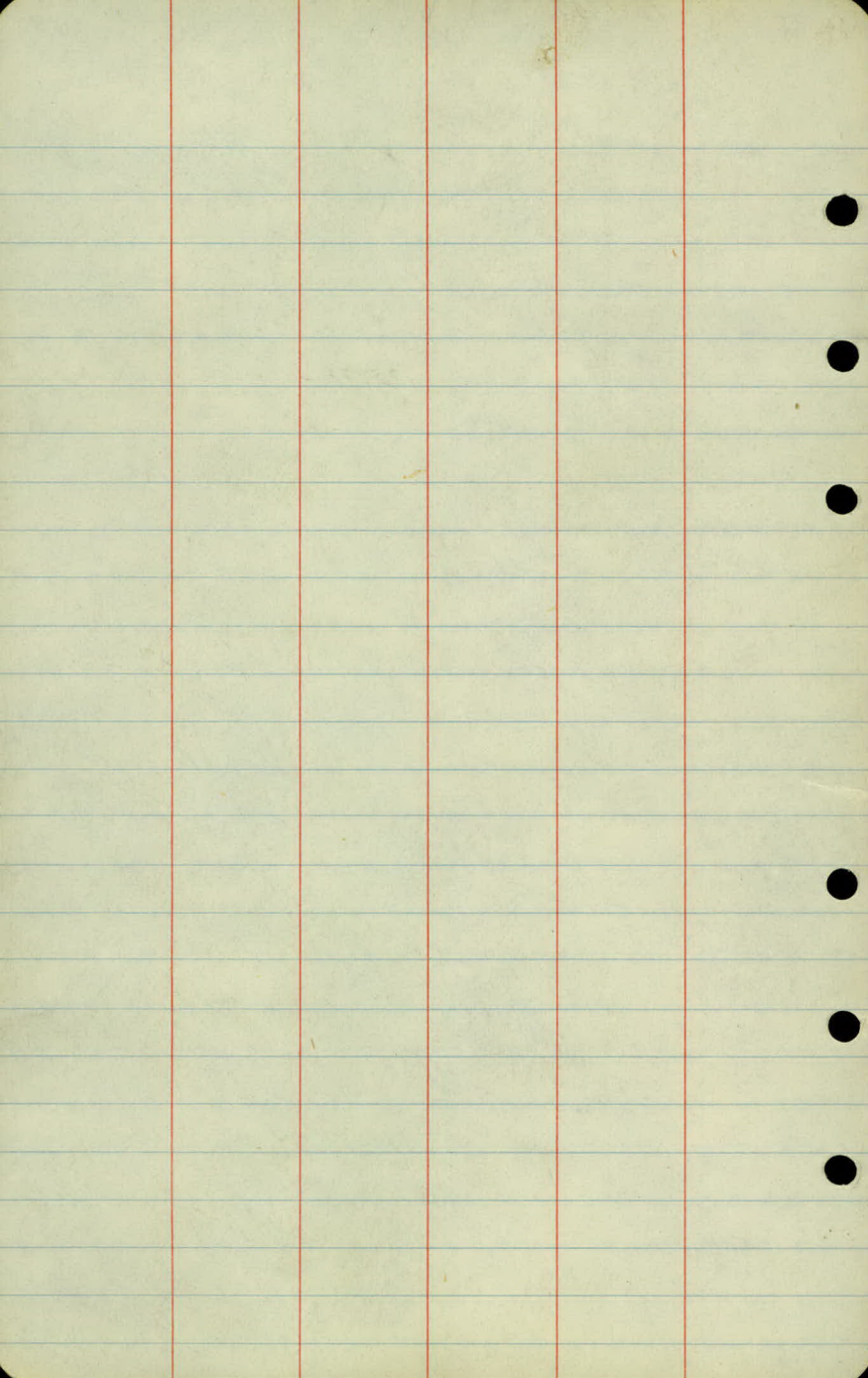
1" X 2" stake on Ent.

NE. Cor.
Sec. 6

1 = $56^{\circ}04\frac{1}{2}'$
2 = $112^{\circ}09'$
 $56^{\circ}04\frac{1}{2}'$



1 = 3-35 1/2'
2 = 7-11'



Xsections

Ditch 16

Edgerton St - West

Rec 10/15/47

Sta.	+	Σ	-	Elev.
B.M.	4.03	876.42		(872.39)

B.M.	1.39	867.65	10.16	866.26
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0	+26	at end of wing work	61.0	61.0
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	+33			61.5
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	+50			62.4
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1				62.4
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	+50			62.3
--	-----	--	--	------

2				62.4
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	+50			62.8
--	-----	--	--	------

3				62.7
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T.P.	5.51	869.18	3.98	865.67
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L

Q

R

E Par. sta 0400

Bolt in "H" T.P. at pitch 16 & Edgerton St

21	41	55	67	67	67	61	47	24	17	✓
15	5	1.7	1			1	1.5	3	8	18

41	44	54	62	65	63	59	4.9	47	✓
15	7	1.9			1	2.3	33	10	17

old
pitch

52	61	57	54	53	54	5.5	✓
15	10	7	4		5	15	

5.2	5.8	51	49	51	53	5.7	6.0	✓
30	26	24	20	14	7	9	15	

53	55	50	52	51	54	55	54	✓
37	32	29	17	9		10	15	

5.2	54	51	51
30	26	23	11

53	56	56	✓
	10	15	

48	51	48	49	48	4.9	✓
24	17	9		18	15	

48	51
18	7

50	5.2	52	✓
	10	15	

Sto.	+	π	-	Elev
		869.18		

3	+50			63.2
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4				63.0
---	--	--	--	------

	+50			63.4
--	-----	--	--	------

5				63.8
---	--	--	--	------

	+50			64.2
--	-----	--	--	------

	+76			64.4
--	-----	--	--	------

	+83			64.2
--	-----	--	--	------

6				64.1
---	--	--	--	------

L

C

R

56 56 6.0
15 10

6.1
15

✓

58 59 6.2 6.0 5.9
15 3 7 15

✓

5.4 5.8 5.8 5.4 5.4
15 9 7 15

✓

5.8 5.1 5.4 5.5 5.5
15 7 10 15

✓

5.0 5.0 5.2 5.2
15 8 15

✓

4.8 4.6 4.8 5.1
15 7 15

✓

5.0 4.8 5.1 5.6
15 8 9.7 2.8

5.0 4.6 5.3
3 15

✓

4.8 4.6 5.4 5.1 4.6 4.9 4.7
15 6.4 3 3 12 15

✓

Sta.	+	π	-	Elev.
		869.18		

6	+20.8			63.4
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	+29			63.7
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	+44			64.1
--	-----	--	--	------

	+53			63.5
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T.P.	3.58	869.66	3.10	866.08
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	+64			63.6
--	-----	--	--	------

	+75			64.3
--	-----	--	--	------

7				64.7
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T.P.	5.43	870.48	4.61	865.05
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	+50			65.0
--	-----	--	--	------

L

4

R

41 48 44 59 58 46 44
15 11 5 16 7 15

27 44 55
15 5.5 3

55 51 41 34
36 11 18

L.O. +11 00 35 48 51 56 47 15 00 +0.6 L.O.
15 11 5 4 1-3 6 9 12 17

L.O. +1.5 32 44 47 57 58 55 44 37 1.5 +0.5 L.O.
21 8 5 2 2 4 6 8 10 15

47 54 61 55 53
15 5 6 15

47 55 54 57 57
13 6 10 15

old
ditch

51 53 53 50 50 50
15 9 3 15

Top Pt. Hub

L.O. 54 61 55 55 57 58
12 9-8 4 7 15

Sta	+	π	-	Elev.
		870.48		
8				65.1
	+50			65.5
9				65.1
	+20			65.0
	+30			65.6
T.P.	432	871.63	317	867.51
	+40			65.6
B.M.			438	867.25
	+59			65.5
	+79			67.2

L

E

L

Cold
Ditch

L.O. 55 62 53 54 54 58 ✓
13 11 9 6 9 15

L.O. 50 59 52 50 49
12 9 7 5 15

41 44
15 9

54 57 50 41 ✓
2 4 6 15

+6.0 04 25 47 56 55 53 20 08 16.1 ✓
24 15 9 7 2 2 9 14 22

Top of end of Bridge

Top of end of Bridge

+6.0 23 34 36 56 49 32 22 00 16.1 ✓
24 12 9 6 45 6 12 16 22

16 43 66 60 56 35 38 ✓
18 12 5 4 12 15
Spk in 15' Willow 25' Bl. s/o. 9 175

33 40 57 61 64 59 50 ✓
15 10 3 5 10 15

35 38 44 46 64 68 62 ✓
15 8 2 7 9 15

Sta.	+	π	-	Elev
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371.63

10

66.8

+50

65.4

11

65.5

+50

65.3

12

64.9

+10

66.9

+55

67.7

+95

66.6

L

C

R

E
old
ditch41 40 48
15 1051 62 66 57 ✓
2 5 9 1554 54
15 562 63 66 60 53 60 ✓
3 5 9 1350 51 53 61 63
15 10 3 167 54 46 ✓
2 4 3 1554 53 63 65 63 61 55 47 ✓
15 10 5 2 2 7 1547 48 58 66 67
15 10 8 266 50 43 37 ✓
3 5 8 1545 50 69 65 51 47 41 38 ✓
15 7 33 3 1 7 15LQ 45 47 64 66 59 47 39 34 29 ✓
15 13 11 9 8 5 5 1543 40 44 59 51
15 7 5 4-2 150 40 30 ✓
5 15

Sta	+	π	-	Elev.
		871.63		

13				65.6
T.P.	5.79	873.25	4.17	867.46

+50				67.0
-----	--	--	--	------

14				66.4
----	--	--	--	------

+50				66.8
-----	--	--	--	------

15				67.7
----	--	--	--	------

+50				67.0
T.P.	7.84	876.70	4.39	868.86

16				67.2
----	--	--	--	------

+29				67.6
-----	--	--	--	------

L

E

R

20th
Date

44 40 50 60 60 60 55 44 42 35 25 ✓
15 7 3 2 1 1 3 5 10 15

55 54 63 73 73 57 48 33 06 5.5 ✓
15 2 1 3 5 9 11 19

52 48 53 67 69 67 57 47 32 1.7 0.8 ✓
15 6 3 1 15 2.5 7 10 17 26

49 52 67 65 64 46 48 55 ✓
15 5.5 3 25 4 13 15

47 44 53 56 64 64 50 48 53 ✓
15 5 1 1 3.5 6 12 15

38 45 46 56 63 63 63 49 43 44 ✓
15 9 5.5 4 2 1 3 8 15

Right

Left

59 66 76 94 95 94 81 78 ✓
15 8 4.5 1.5 2.5 5 15

Right

Left

87 65 55 59 77 82 90 91 89 61 42 20 ✓
26 21 16 10 6.5 4.5 3.5 2 7 13 22

Sta	+	π	-	Elev.
		876.70		

16	+40			68.1
----	-----	--	--	------

	+50			67.6
--	-----	--	--	------

	+62.55			67.5
--	--------	--	--	------

17				67.6
----	--	--	--	------

	+32.38			68.1
--	--------	--	--	------

	+60			67.1
--	-----	--	--	------

18				67.4
----	--	--	--	------

	+50			67.4
--	-----	--	--	------

T.P.	5.38	876.71	5.37	871.33
------	------	--------	------	--------

R.A.
A.M.
M.B.

108-47

21

L

E

E

Right

Left

✓ FL 18"

L.O. 81 49 56 88 86
27 16 12 45

80 60 465
6 16 17

Left

Right

10 53 20 43 87 9.1 9.1 8.5 53 70
11 13 20 95 25 3 5.5 15 19

✓

25 49 89
21 8 27

92 90 79 58 7.2 L.O.
35 7.5 12 19

✓

10 25 39 91 91 87 6.0 6.1 L.O.
29 21 10 3.5 4 9.5 14

✓

11 44 7.0 8.5 8.6 88 54 5.3
21 10 3.5 15 7 12 21

✓

25 37 58 92 96 9.1 8.2 6.3 5.5 6.6
18 12 6.5 3 2 3.5 10 17 21

✓

10 21 74 93 9.3 8.8 4.6 4.3 5.9
27 13 6 2 2.5 9 12 20

✓

07 50 64 87 93 9.3 7.4 5.2 6.3
23 11 7 2 3.5 5.5 9.5 25

✓

Nail in Tree at sta. 19+50

Sta	+	π	-	Elev.
		876.71		
19				67.6
+50				67.7
20			67.7	67.7
+50				67.8
B.M.	400	877.02	373	872.98 (873.02)
+95				66.9
21 +04.10				67.5
+17				67.7
+29 Thru end of Weir Box.				67.6

K.A.
A.M.
M.B.

10-9-47

22

L

E

R

S.S. 2.4 5.4 7.5 8.9 9.1 9.0 8.2 6.6 6.7 ✓
17 8.5 4.5 2.5 2.5 4 7.5 2.2

S.S. 0.6 5.3 8.4 9.0 8.9 7.1 6.2 6.8 L.O. ✓
17 8.5 4.6 2 4.3 6.5 16

S.S. 1.4 2.8 4.5 5.5 8.9 9.0 8.8 7.9 6.9 6.6 7.5 L.O. ✓
20 17 12 6 2.5 3.5 5.0 7.5 1.3 1.5

3.8 3.0 5.3 8.8 8.9 8.5 5.5 4.3 6.2 ✓
28 20 8 2.5 3.5 9 1.4 2.5

Top N.W. Cor Weir Box Lt. Sta.

3.2 5.5 5.5 4.5 4.6 9.1 10.1 9.8 8.3 4.7 4.7 6.5 L.O. ✓
21 17 12 11 7 3 3.5 5.7 11 1.4 1.8

2.4 5.2 5.3 4.5 4.6 8.5 9.5 9.3 8.8 8.4 4.7 4.7 6.5 6.8 ✓
2.3 17 1.4 1.2 7 3 8.5 6 8 1.3 1.3 2.0 2.7
15

1.0 4.4 4.3 4.1 8.5 8.7 9.3 9.0 8.1 4.8 4.9 6.6 6.9
2.8 2.4 1.9 1.4 1.0 2 2.5 6.5 11 1.4 2.0 3.1 ✓

3.0 3.4 5.9 - 6.6 6.6 7.5 8.4 9.3 9.4 9.0 8.2 8.3 4.8 5.0 6.4 6.8
3.0 2.0 1.2 5 4.3 3 2 2 4 5 10 17 2.0 2.8

on Weir Box

Sta	+	π	-	Elev.
		877.02		

21	+31	Thru Wier Box		67.5
----	-----	---------------	--	------

22		Typical sec. to be shown every 200'		67.6
----	--	-------------------------------------	--	------

	+50			67.8
--	-----	--	--	------

23				67.9
----	--	--	--	------

	+50			67.8
--	-----	--	--	------

24				67.8
----	--	--	--	------

T.P.	613	877.25	5.90	871.12
------	-----	--------	------	--------

	+50			68.1
--	-----	--	--	------

25				68.2
----	--	--	--	------

L E

20 405-615 615 40 52 93 95 90 49 48 ✓
 30 (237 145) 65 2 25 85 22
 (on Wier Box)

S.S. 2.2 6.1 6.1 4.8 4.8 9.3 9.4 9.0 4.8 4.9 6.2 6.1 3.5 ✓
 22 16 13 10 65 2 3 85 12 15 18 24

4.8 4.8 9.0 9.2 8.9 4.8 4.7 ✓
 10 6 23 34 9 12

4.8 4.8 8.9 9.1 9.1 4.6 4.6 ✓
 10 6 2 2 9 12

4.6 ^{5.2} 5.5 8.9 9.2 9.1 7.6 4.3 4.2 ✓
 11 6 2 25 35 85 11

S.S. 2.5 6.3 6.3 5.3 6.5 8.9 9.2 9.0 6.2 5.0 4.8 5.9 5.7 2.0 S.S. ✓
 20 16 12 11-7 5 1.5 1.8 5.5 9 11 13 16 21

4.5 5.1 9.1
 10 7 2

9.2 9.2 5.2 4.9 ✓
 35 9 11

4.6 4.8 6.0 9.1 9.1 9.0 8.4 5.0 4.6 ✓
 11 7 5 22 1.2 3.5 8 12

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

87725

25 +50

68.2

26

68.3

+50

68.3

27

67.9

+50

68.4

28

68.4

+50

68.5

29

68.7

L

E

E

47 46 63 91
11 83 55 12

91 89 55 49 ✓
2 65 11

55, 1.9 59 67 60 47 47 91 90
23 17 15 13 11 8 2

88 49 44 62 64 30
3 7.5 10.5 14 16 23

48 50 84 90 89 44 44
11 8 4 27 8.2 115

49 49 74 92 94 89 87 47 43 ✓
11 8 3 1.5 1.5 3 7 11

47 49 75 89
12 8 3.5 2.5

89 88 43 41 ✓
15 7.5 10

55, 0.7 58 44 46 86
26 17-14 11 7 3

89 87 44 48 59 58 0.3 ✓
2 8 10.5 13 17 24

44 46 85 88 87 49 43 ✓
10 6 1.5 33 85 12

43 43 85
10 55 1.3

86 86 50 45 ✓
3 8 12

Sta.	+	π	-	Elev.
		877.25		

29	+50			68.6
----	-----	--	--	------

T.P.	7.49	878.29	645	870.80
------	------	--------	-----	--------

30				68.6
----	--	--	--	------

	+50			68.3
--	-----	--	--	------

31				68.5
----	--	--	--	------

	+50			68.6
--	-----	--	--	------

32				68.5
----	--	--	--	------

	+50			68.7
--	-----	--	--	------

33				68.7
----	--	--	--	------

L

E

E

4.3 4.3 8.5 8.7 8.5 4.6 4.5 L
 12 8.5 3.5 0.8 ~~5.5~~ 9.5
 6.5

S.S. 27 6.9 7.1 5.2 5.3 9.9 9.7 9.4 5.9 5.1 6.6 6.6 3.9 L
 25 1.8 1.6 1.2 9 3.7 0.8 4.5 9.2 1.2 1.5 2.1

5.4 5.3 9.7 10.0 9.7 5.1 4.9 L
 11.5 8.5 3 1 5.8 9.3

5.0 5.5 9.6 9.8 9.7 5.3 4.8 L
 9.5 6 0.7 3 7.5 11

4.9 5.0 9.6 9.7 9.5 5.3 5.1 L
 10 7 1.5 2.3 4.5 10

S.S. 25 6.6 5.4 5.4 9.4 9.8 9.5 5.1 4.8 6.1 6.0 0.2 S.S.
 23 17-13 11 6.6 2 2 7 9.5 12.5 17 2.5

5.0 9.5 9.6 9.3 5.2 4.9 L
 10-7.3 1.7 2.4 7 11

5.0 5.0 9.4 9.6 9.4 5.1 4.8 ✓
 10 7 2 3 8 11

Sta	+	π	-	Elev
		878.29		
33	+50			68.8
T.P	837	882.12	454	873.75
34				68.3
	+50			68.7
	+90			68.9
35	+42			68.7
	+53 at end of wing wall			68.6
	+56 Top H.W.		2.11	80.01
B.M.			2.11	880.01 (880.00)
	+57		2.1	80.0

L

E

E

47 51 93 95 93 50 ✓
 Top P.I. Stake 9 ~~44~~ 16 4 8-12
 64

55 100 103 88 90 137 138 138 130 87 89 104 101 85 77 ✓
 23 16 13 10 63 1 17 3 9 12 15 17 20 28

87 88 123 133 134 134 121 94 88 ✓
 11 8 23 15 17 25 67 11

71 100 87 92 129 132 132 133 124 94 88 87 101 66 ✓
 23 17-14 11 8 25 13 11 19 6 85 10 13 16 21

73 95 93 85 86 117 130 134
 23 19 15 12 8 40 29

130 83 82 87 86 49 ✓
 08 85 9 11 15 21

TOP
W.W.TOP
W.W.

47 52 54 79 98 133
 16 11 75 5 1.9 1.1

135 133 100 90 66 56 37 ✓
 0.9 1.8 4.4 6 11 18

TOP & E of E. Edge of E. H.W. of Cdn. under Rd. Cent. Rd.

Sta.	+	π 882.12	-	Elev.
35	+57		2.5	79.6
	+59		2.2	79.9
B.M.	1553	895.54	2.11	880.01
	+65		10.6	84.9
	+73		5.3	90.2
	+85	Approx. & Cont. Ed.	5.4	90.1
	+96		6.1	89.4
36	+05.5	Top & End of H.W.	13.7	81.8
B.M.			13.72	881.82 (881.80)
T.P.	5.43	900.85	0.12	895.42
			3.37 1/2	897.47 (897.45)

10-4-41

27

L

E

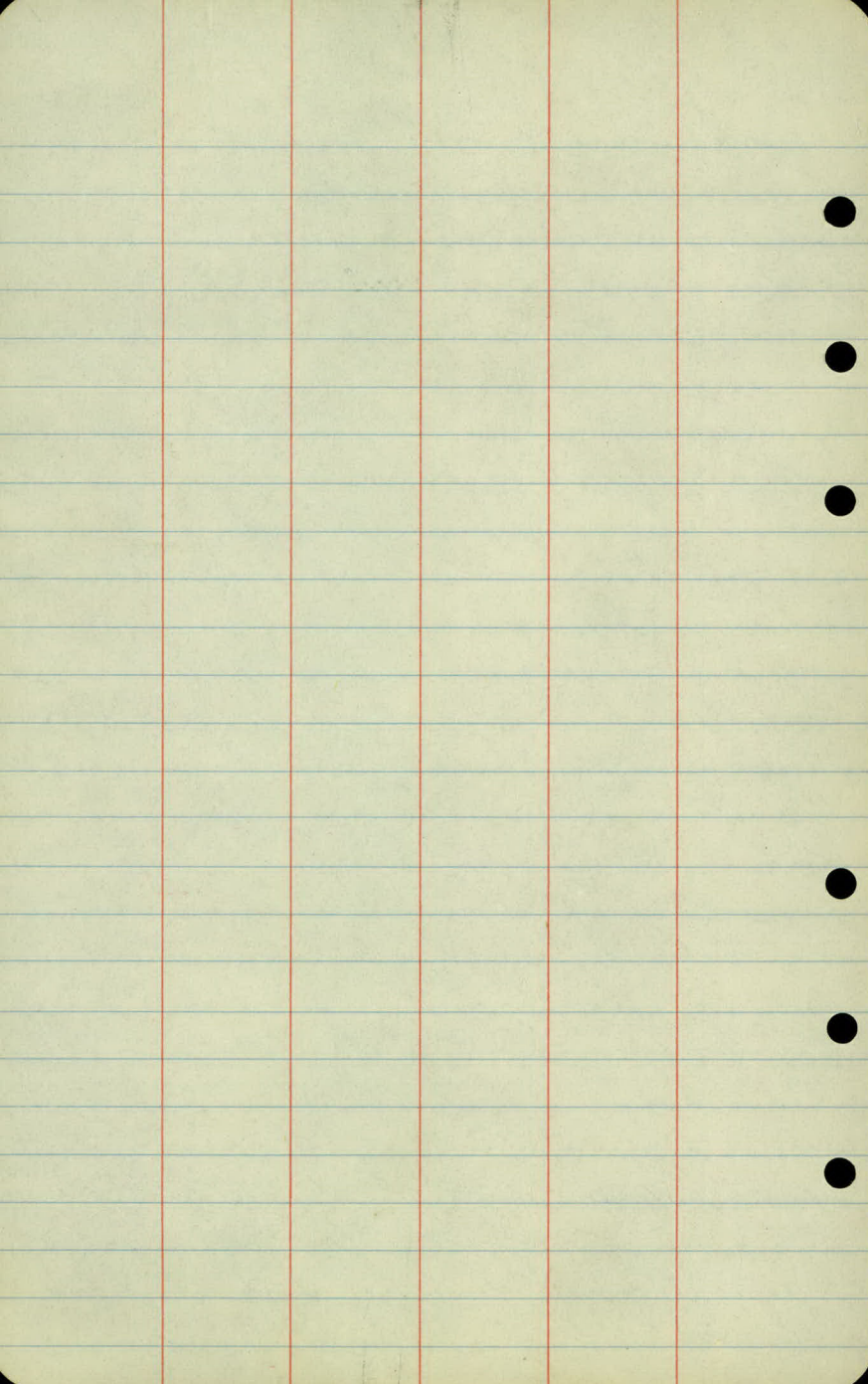
E

Top & E of W. End of W. H.W. of Culv. Under Cent. Rd.

897 45

R.R. Spt. in 42" Cott. at SW cor. Cent & Ell Rds

3.29



Xsections

Ditch 16

Sta	+	π	-	Elev
BM.	-329	878.51		881.80

36	+05.5	at end of barrel		68.8
----	-------	------------------	--	------

	+10.5	at end of ^{wing} walls		69.0
--	-------	---------------------------------	--	------

	+23			68.9
--	-----	--	--	------

	+61.65	Typical Section		71.4
--	--------	-----------------	--	------

37				68.8
----	--	--	--	------

	+50			68.8
--	-----	--	--	------

38				68.9
----	--	--	--	------

	+50			69.1
--	-----	--	--	------

Top E of W. End of W. H.W. of Col. Under Cent. Ed.

Top W.W. = +1.2 9.6 9.7 9.7 +1.2 = Top W.W.
2 1.2 1.2 2

Top W.W. Top W.W.
↓ ↓
+0.9 31 2.8 74 9.0 9.5 9.5 7.8 2.7 0.0 ✓
12 8 5-4 4.15 1 3 4-5 12 12

0.0 4.8 4.5 5.4 7.1 9.5 9.6 7.7 5.0 4.4 4.0 1.8 L.O. ✓
22 15 11 7 4 2 35 8 13 18 24

0.2 5.4 5.7 4.6 5.3 7.1 9.1 9.4 8.0 5.4 4.7 6.7 2.8 ✓
23 15 10 6 3 24 55 8 12 16 20-22 28

4.6 5.7 9.5 9.7 9.4 7.8 5.8 5.7 ✓
10 7 2 1.8 3.2 7.5 10

4.7 5.0 9.5 9.7 9.5 7.8 5.1 ✓
11 8 2 1.5 3 7-11

5.5 2.9 6.5 4.4 4.7 8.1 9.3 9.6 9.3 8.8 8.0 2.6 3.6 0.9 ✓
22 17-14 10.5 8 35 2 2 3 4 13-15 17-19 24

4.6 4.9 9.4 9.4 9.4 1.6 1.6 ✓
12 9 3 1 13 15

Sta.	+	π	-	Elev.
		878.51		

39				69.2
T.P.	13.67	883.48	870	869.81

+50				69.3
-----	--	--	--	------

40				69.2
----	--	--	--	------

+50				69.3
-----	--	--	--	------

41				69.4
----	--	--	--	------

+50				69.4
-----	--	--	--	------

42				69.7
----	--	--	--	------

+10 at end of 36" S.C.				69.4
------------------------	--	--	--	------

L

E

E

48 46 93 93 93 42 1.7 1.7
10 8 25 1.5 9 13 15 ✓

93 130 142 142 143 131 8.2 6.1 6.6 ✓
11-85 35 22 1.2 2.3 10 15 18

S.S. 71 109 92 93 134 142 143 142 130 6.9 6.7 6.7 4.3 5.5
23 17-14 12 9 35 22 1 2 12 15-19 23

91 93 125 141 142 138 131 11.0 8.1 ✓
11 9 4.2 2.8 08 1.9 6 11-15

95 98 12.9 129 140 141 140 128 100 9.8 ✓
11 8 37 27 2 2 2.5 7 11

95 100 128 140 141 140 131 110 94 9.1 ✓
10 7 2.2 1.5 2 3 6 8.5 11

S.S. 70 98 96 95 123 136 138 139 121 97 94 100 89 60
20 15 12 8 33 3 2.5 4 8 12 13-15 18 25

L.O. 45 6.0 140 141 151 140 96 88 93 56 44
16 10 1.8 FL 1.8 67 11 16 22 30

Sta	+	Δ 883.48	-	Elev.
42 +15	Ent.		4.2	79.3
+29			4.4	79.1
+30			5.3	78.2
+32			6.4	77.1
+35 at end of 36" S.C.				69.2
+60 Typical Section				69.5
43				69.6
+50				69.6

L

Q

R

20000

~~L.O. 47 52 72 100 117 143 143 149 142 86 60 50 45~~
~~17 11 10 7 3 2 FL 2 9 11.3 16 21~~

L.O. 47 52 72 100 117 143 143 149 142 86 60 50 45 ✓
 17 11 10 7 3 2 FL 2 9 11.3 16 21

74 108 96 97 102 117 132 138 140 139 130 92 95 112 85 ✓
 22 17 14 11 8 65 55 23 1 15 22 7 10 13 16 20

92 91 127 137 139 138 129 102 95 102 L
 105 7 3 17 22 33 7 10 12

90 127 137 139 137 124 96 ✓
 11-8 3 18 15 3 8-11

Sta + π - Elev.

883.48

69.5

44

+50

69.8

45

69.8

T.P.

12.80

883.30

12.98

870.50

+50

69.7

46

69.9

+50

70.0

47

69.8

+50

70.0

10-9-47.

32

L

E

R

20479

S.S. 71 11.4 111 8.6 9.0 133 138 140 13.9 121 98 97 11.0 8.2
 22 16- 13 10 6 1.5 0.8 1.8 3.5 8 11 14-17 21

91 91 128 138 137 137 130 100 96
 10 8 2 1 2.2 3 8 12

10-9-47 9.0 9.3 12.6 13.5 137 13.6 121 9.6 9.5
 10 8 2.5 1.8 1.8 3.5 8 11
 E sto. 4.6
 10-10-47

8.7 8.4 120 13.5 13.6 13.4 11.3 9.4 9.2 9.8
 11 9 3 2 2.2 4.5 8 10 14

S.S. 6.2 10.6 8.7 8.6 10.0 13.1 13.4 13.4 120 7.0 6.8 7.2 3.5 S.S.
 24 16 13 10 8 4.7 1.3 2.4 9.5 11.0 12 14-17 22

8.8 9.1 11.7 13.2 13.3 13.0 12.2 10.0 6.3 6.2
 11 8 3.9 2.7 2 3 6 11 13

8.7 11.7 13.4 13.5 13.2 12.1 4.6 4.6 5.2 2.1 TOP
 11.8 3.5 2.8 1 1.8 13 14 15-17 23

8.2 8.0 9.3 11.1 13.0 13.4 13.3 13.1 11.0 4.3 4.8 1.7 S.S.
 10 8 5.4 4 2.8 2.2 1.2 3.1 14-15 16 18 21

Sta.	+	π	-	Elev
		883.30		

48				70.2
----	--	--	--	------

	+50			70.2
T.P.	1319	884.08	1241	870.89

49				70.3
----	--	--	--	------

	+50			70.5
--	-----	--	--	------

50				70.1
----	--	--	--	------

	+50			70.0
--	-----	--	--	------

+67.6 at end 36" S.C. Culv.				69.6
-----------------------------	--	--	--	------

+69			57	78.4
-----	--	--	----	------

L

E

R

Top 4.1 103 83 114 131 131 * 130 114 33 36 0.5
 27 16-13 9-7 3 2 2 34 14-15 16-17 2.5

103 84 97 122 19 131 131 119 79 5.0 ✓
 11.4 8.5-5.5 3 1.8 3 4.5 10.5 19

93 91 129 137 138 138 126 6.8 6.9 2.9 = Top
 9.5 7.6 1.2 0.7 3.4 4.8 13-17 19 2.8

68 12.4 13.6 13.6 13.5 11.9 9.4 9.2 ✓
 13.5-11.5 2.8 2 2 3 8.5 11

5.0 11.2 9.0 9.1 12.9 14.0 14.0
 2.8 17-14 11 9 4 2.6

132 7.0 7.0 7.6 2.8 ✓
 1.5 11 12.5 14-16 2.3

48 106 9.5 13.8
 27 17-14 11.8 2

14.1 137 115 66 6.2 6.9 2.8 5.5 ✓
 34 5.6 13 14.5 16-18 2.3

L. 4.4 8.4 9.4 12.1 13.9 14.5 14.72
 19 10 7 4 1.8 FL.

14.1 5.6 4.4 4.8 0.3 ✓
 1.7 11 15 18 2.7

Top Rip Rap

~~7134~~

Sta	+	π 884.08	-	Elev
-----	---	-----------------	---	------

50	+74		3.8	80.3
----	-----	--	-----	------

51			4.1	80.0
----	--	--	-----	------

	+22		4.1	80.0
--	-----	--	-----	------

	+26		4.6	79.5
--	-----	--	-----	------

	+34		3.8	80.3
--	-----	--	-----	------

	+38		5.6	78.5
--	-----	--	-----	------

	+40		6.3	79.8
--	-----	--	-----	------

	+41.7	at end 36" S.C. cut		69.6
--	-------	---------------------	--	------

L E E

5115615
 1446
 5191.70

Top Rip Rap

45 41 93 136 145 1452 139 62 5.1 05 L
 39 12 7 1.8 F.L. 2 12 20 28

Sta.	+	π 884.08	-	Elev.
51	+56.15			70.2
52				70.2
	+40 at end 36" S.C. Colv.			69.7
	+42		6.5	77.6
	+45		54	78.7
	+52		57	78.4
	+72		57	78.4
	+74		69	77.2

L

E

R

✓
 4.5 7.2 7.4 6.6 6.8 11.3 13.7 13.9 13.7 12.4 7.0 6.9 7.4 6.5 1.1 5.5
 27 20 16 13 11 5 2 2 3.5 11.5 14 16 18 29

107 92 92 127 138 13.9 13.8 123 80 80 83 ✓
 14 11.4 9 3 1 15 3 9 12 15

L.O 48 60 58 9.8 130 140 144 146 138 125 9.1 7.6 3.1 ✓
 26 16 7 3.4 15 FL. 15 3 7 14 29

Top Rip Rap

Top Rip Rap

Sta.	+	π	-	Elev.
		884.08		

52 + 65.2 at end 36" SG. CULV

69.5

53

70.2

70.0 →

+50

B.M.

2.91

881.17

881.12

K.A. 10-10-41
A.M.
M.B.

36

L

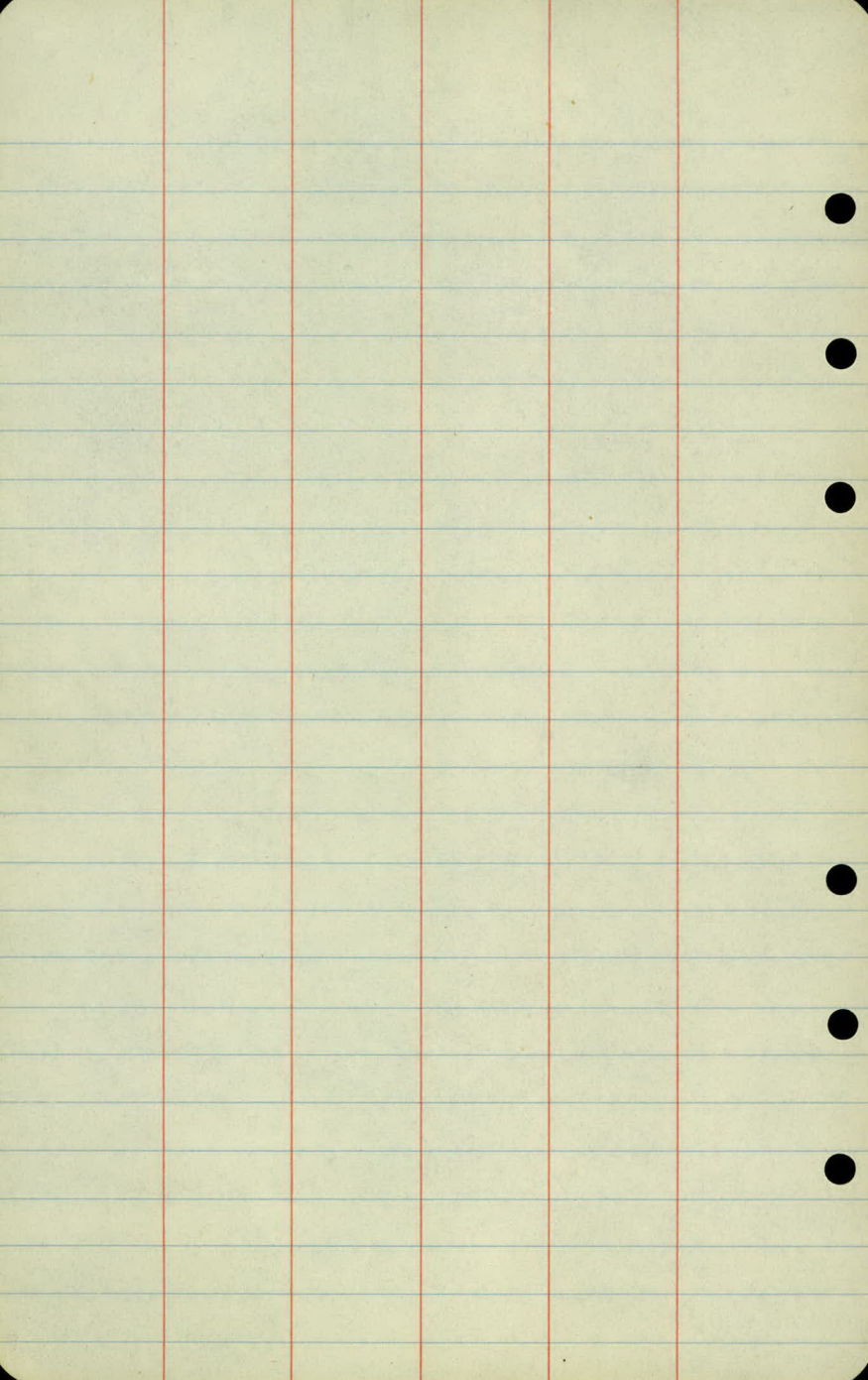
E

R

✓
5.4 7.4 11.6 14.0 14.6 14.67 14.1 11.0 9.8 7.0 5.7
15 11 4.5 1.5 FL. 1.5 5 8 14 20

✓
4.5 10.5 9.1 12.2 13.8 13.9 13.7 11.1 9.0 9.1 10.4 4.9
26 17-14 10-7.5 3 2 1 4 8 11 13-15 25

✓ 9.1 8.9 12.4 13.8 14.1 13.8 9.3 8.9 ✓
11 8 2.3 2 0.7 7 11
(Spt in 16 Tw. Willow 45 Lt. sta. 52+30)



Xsections

Ditch 16

Sta.	+	π	-	Elev
B.M.	1.72	882.84		(881.12)

54				70.1
----	--	--	--	------

+50				69.9
-----	--	--	--	------

55				70.1
----	--	--	--	------

+50				70.3
-----	--	--	--	------

56				70.4
----	--	--	--	------

+39				70.5
-----	--	--	--	------

+62				69.5
-----	--	--	--	------

57				70.3
----	--	--	--	------

K.H.
A.M.
M.B.

10-14-41

38

L

E

K

77 127
10-7 13

127 127 115 83 78
15 35 7 12

76 123 129 128 120 80
10-7 1 2.3 38 8-12

38 89 75 118 126 127 120 77 81 93 50
24 17-14 10-75 24 12 24 8-12 14-21 30

76 79 125 125 124 116 78 76
10 6.5 18 18 34 8 12

7.2 7.4 11.8 124 124 123 77
11 8 3 15 17 7.5 11

79 76 122 123
95 7 15

121 76
18 7.5-11

FL 15cm
from west

105 77 82 127
47 11 8 35

133 125 77 74
2.5 7 11

37 92 78 111 114 123 125 117 77 90 92 28
25 18-15 12-8 4 27 15 17 6-10 12 16 29

Sta.	+	π	-	Elev.
		882.84		
57	+50			70.3
T.P.	8.65	880.07	11.42	871.42
58				70.5
	+50			70.8
59				70.9
	+50			70.8
60				71.0
	+50			71.2
61				71.2

L

E

R

74 77 11.1 12.3 12.5 12.2 7.4 ✓
 10 7 3 1.3 1.3 8-11

4.5 8.0 9.0 9.6 9.3 4.8 4.4 ✓
 9.5-6.5 3 1.3 2.8 7.7 11

4.6 4.7 8.7 9.3 9.3
 10.5 7.3 2.7 1.3

8.8 5.0 4.8 ✓
 2.5 7 10.5

Top ✓
 1.1 5.9 4.8 8.9
 24 17-14 11-8 2

9.2 8.7 4.7 4.3 6.1 3.5 ✓ Top
 2.5 7 10 13-16 20

4.6 4.7 8.8 9.3 9.0 5.2 4.6 ✓
 10.5 7 1.5 2 7 10

4.7 8.7
 11.5-8 2.7

9.1 8.8 4.8 ✓
 2 7.5-10

4.6 4.9 8.7 8.9 8.7 4.9 4.7 ✓
 10 7 2.4 2 8.5 11

Top ✓
 0.8 6.3 4.5 8.5 8.9
 2.5 17-13 10-6.5 2.5

8.5 4.8 6.3 2.2
 3.5 8-11 14-17 2.4

Sta	+	π	-	Elev.
		88007		

61	+50			71.6
----	-----	--	--	------

62				71.4
T.P.	12.31	884.21	8.17	871.90

	+50			71.3
--	-----	--	--	------

63				71.5
----	--	--	--	------

	+50			71.9
--	-----	--	--	------

	+ 94.2 at end of 42" S.G. Col.			71.8
--	--------------------------------	--	--	------

	+98 Top Rip Rop	5.4		78.8
--	-----------------	-----	--	------

64	+01		1.3	80.9
----	-----	--	-----	------

L

E

R

4.5 4.9 8.5 9.1 8.6 5.1 4.6 ✓
10 7 2.5 2 7 11

4.5 8.4
11-8 2.5

8.7 8.2 4.7 ✓
2.5 7-11

8.1 8.0 12.4
11 8 2.8

12.9 12.6 8.3 8.7 9.6 9.4 6.9 = top ✓
2.8 11 13-17 22

4.8 10.2 8.4 12.4 12.7
2.5 16-14 10-7.5 2.5

12.3 8.1 8.1 8.7 8.6 5.4 = top ✓
2.5 8 10 12 17 25

8.4 12.1 12.3 12.3 8.4 7.5 4.9 4.5 ✓
10.5-8 ~~2.5~~ 3 2.5 7.5 18 25 35

4.6 5.0 7.6 11.9 12.4 13.72 12.1 7.6 3.2
2.7 1.9 7.5 2.8 FL 2.5 7.5 2.2 ✓

Sta.	+	π	-	Elev.
		88421		

64123			35	80.7
-------	--	--	----	------

+255 Top Rip Rap

51 79.1

T.P.

1366 870.55

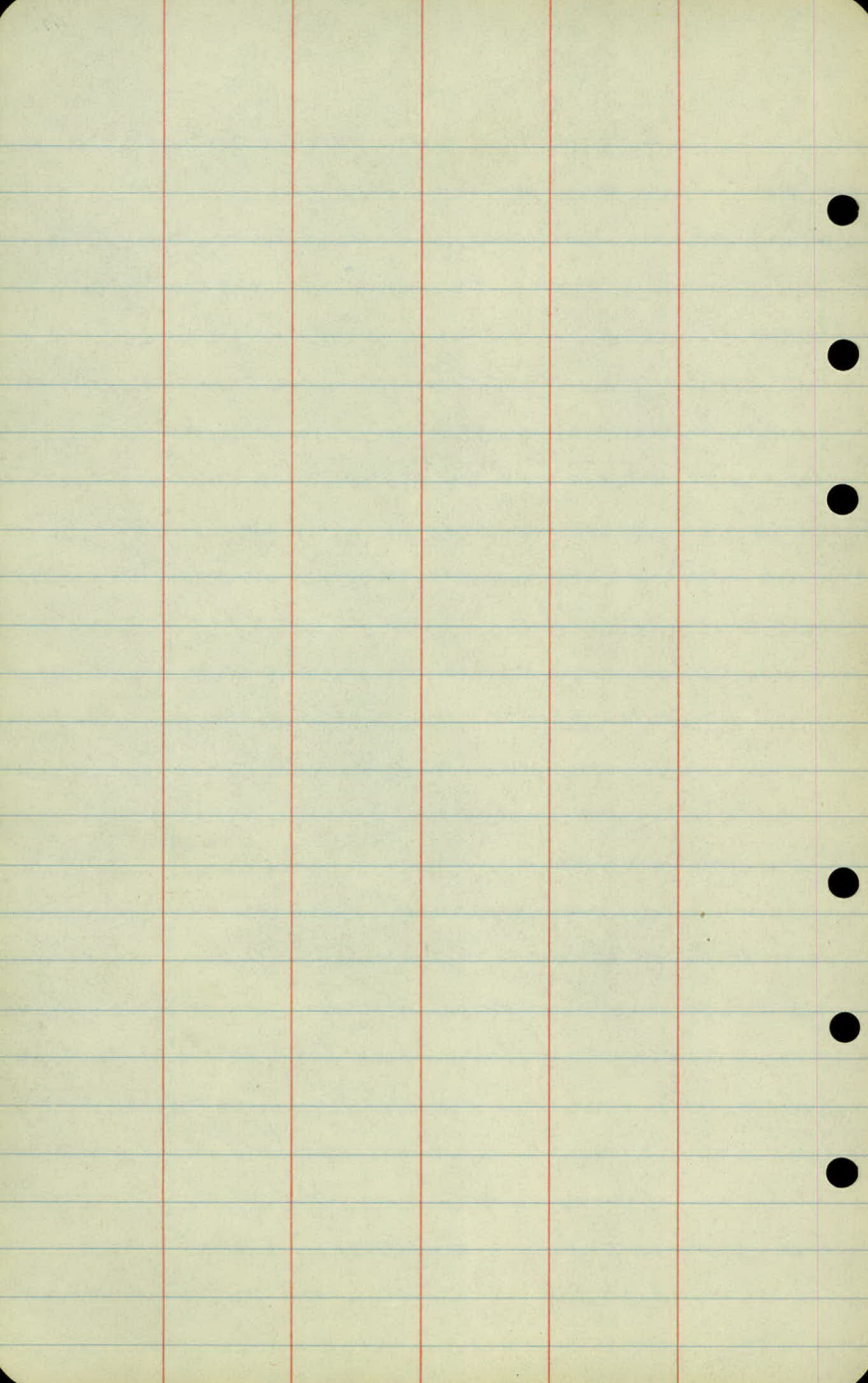
✓

L
Ent

E

R

FL. End 42" S.G. Culv. at sta. 64+



X Sections

Ditch 16

Sta.	+	-	Elev.
T.B.M.	10.27 9.77	880.80	870.53

64	+28	at end 42.5 G. G. W. K.	71.0
----	-----	-------------------------	------

	+60		71.2
--	-----	--	------

65			71.1
----	--	--	------

	+50		71.1
--	-----	--	------

66			71.0
----	--	--	------

	+50		71.4
--	-----	--	------

67			71.1
----	--	--	------

	+50		71.3
--	-----	--	------

K.H. 10-2-47
A.M.
M.B.

43

L E R
FL S.C. CULV. 91 64128

47 84 97 98 977 96 51 ✓
75 44 16 FL 16 6

54 88 94 96 92 47 ✓
9 3 16 23 7

SS. 27 6.3 5.1 90 96 97 94 54 51 67 30 55 ✓
22 17-14 12-9 3 13 17 6- 10 13-16 20

50 55 95 97 96 51 ✓
9 75 26 18 8

48 59 93 98 96 61 53 ✓
8 6 28 17 63 9

46 51 94 94 93 56 50
10 77 3 16 56 9
26 20

SS. 41 7.1 53 49 58 94 97 95 86 58 51 67 40 ✓
21 17-15 12 8 6 2 14 26 6 9 13-17 20

49 56 87 92 95 90 56 54
10 72 4 25 18 6 9
23 20

Sto	+	T	-	Elev
		88080		

68				71.9
T.P.	886	881.26	8.40	872.40

+50				71.5
-----	--	--	--	------

69				71.9
----	--	--	--	------

+50				71.9
-----	--	--	--	------

+72.00	At Last Trip Ditch Sec.			71.8
--------	-------------------------	--	--	------

+84	at end of Bridge			72.2
-----	------------------	--	--	------

70				71.9
T.B.M.	2.55	881.31	2.55	878.71 (878.76)

+12.95	P.I.			71.8
--------	------	--	--	------

L

E

R

4.8 5.5 8.8
9 6.3 2.48.9 8.9 8.2 5.7 5.1
2 3.8 6.8 10

✓

5.3 5.7 8.8 9.4 9.8 9.7 6.6 5.5 5.2
9 6.2 3.0 1.2 2.0 6 8.4 11

✓

3.8 6.4 6.6 5.0 5.4 9.2
2.0 1.7 1.5 1.0 7 2.29.4 9.2 4.9 4.9 6.4 3.3
3.5 7.8 11 1.4 1.7 2.2

✓

4.9 4.8 9.5 9.4
1.0 7.6 3.19.0 5.2 4.8
2.9 8 10

✓

2.6 6.4 5.8 5.0 5.0 9.2
2.2 1.7 1.4 1.1 1.0 7.3 2.09.5 9.2 8.8 4.3 4.3 4.9 2.2
2.6 4.6 9 1.3 1.4 1.7 2.1

✓

L.O. 2.7 4.7 7.5 8.8 9.1
11 9 5.0 2.87.4 3.8 2.7 2.8
3.5 6.7 1.0 1.6

✓

L.O. 2.9 6.5 9.3 9.4 8.8 7.4 3.8 3.1
1.0 5 1 2.6 5.0 1.0 4 1.5

✓

3.3 4.7 7.8 9.5 9.5 9.5 8.6 8.7 5.0 3.3
1.6 6.0 2.0 0.5 1.0 2.5 4.6 9.0 1.6

✓

STA	+	∇	-	ELEV
-----	---	----------	---	------

881.31

70 + 60

71.8'

71

71.6'

+50

71.6'

+92.20 P.I.

71.6'

72

71.9'

+25.35 P.I.

71.2'

+70

71.7'

73

71.7'

LT ♀ RT

2.8	4.6	7.2	9.2	9.5	9.5	7.8	3.7	3.3	✓
15	9.1	3.9	2.5	-	1.0	2.8	11	15	

4.6	3.5	8.3	9.3	9.7	9.7	8.4	5.2	4.9	✓
15	8.7	3.0	2.3	-	1	3.6	9.2	15	

5.4	5.9	6.4	7.8	9.7	9.7	7.7	5.3	4.6	✓
15	9.6	6.9	4.8	1.3	-	4.3	7.8	15	

4.9	6.2	9.7	9.7	9.5	8.0	4.2	4.7	✓
15	4.7	0.7	-	1.0	3.9	9.8	15	

4.7	5.2	8.1	9.5	9.4	9.6	4.8	4.9	✓
15	8.8	4.3	3.2	1.4	1.4	6.8	15	

4.8	5.2	10.1	10.0	8.0	5.0	5.0	✓
15	6.6	-	2.0	4.4	8.4	15	

5.3	5.9	7.4	9.3	9.6	9.5	9.1	4.9	5.1	✓
15	6.3	3.6	1.5	-	1.2	2.3	7.2	15	

5.4	5.1	7.9	9.1	9.5	9.6	9.3	7.9	4.7	4.5	✓
15	7.5	3.0	2.0	0.8	-	2.4	3.6	7.7	15	

STA	+	Δ	-	ELEV
		881.31		

73+50				71.7
-------	--	--	--	------

74				71.8
----	--	--	--	------

+50				71.8
-----	--	--	--	------

75		880.15		71.7
T.P.	4.70	480.15	5.86	875.45

75+18.40 P.I.				72.0
---------------	--	--	--	------

+30				71.9
-----	--	--	--	------

B.M.	3.15		3.95	876.20
------	------	--	------	--------

+60				72.3
-----	--	--	--	------

B.M.	4.54	880.74	3.95	876.20
76				72.0

10-2-47

46

LT.

E

RT.

6.5	5.7	7.5	9.2	9.6	9.2	8.1	4.9	4.5	✓
15	5.9	3.4	1.8		2.4	3.3	10.0	15	

7.2	5.8	7.8	9.3	9.5	9.6	9.0	8.1	5.0	4.9	✓
15	7.0	3.4	1.6		1.5	3.0	4.5	8.6	15	

6.4	6.4	8.3	9.5	9.5	9.3	8.2	6.2	5.2	✓
15	7.2	3.1	1.0	—	1.5	4.4	8.4	15	

7.6	7.6	9.4	9.6	9.4	8.0	6.8	6.8	✓
15	7.1	2		1.8	6	9.0	15	

?	8.4	8.2	7.7	7.7	4.8	4.8	✓
	10		4.0	5.0	11.0	15	

5.3	4.9	6.7	8.3	8.3	8.3	6.8	4.9	5.6	✓
15	11	6.5	3.5		3.0	4.7	9.0	15	

R.R SPIKE 30" COTTONWOOD RT STA 75+50
S.E. COR Ditch 16 & Branch Ditch from North

5.9	5.7	7.9	7.9	8.1	7.1	6.7	5.2	5.8	✓
15	5.0	2.0		3.7	5.0	6.6	8.3	15	

R.R SPIKE 30" COTTONWOOD RT-STA 75+50

6.4	6.2	8.6	8.7	8.6	2.5 6.9	5.9	6.5	✓
15	6	1.5		2.5	5.5	8	15	

STA + ∇ - ELEV

880.74

76 +50

72.2

77

72.1

+50

72.1

78

72.2

+50

72.2

79

72.4

+50

72.6

80

72.5

K.A.
A.M.
M.B.

10-3-47

47

LT.

£

RT

62 59 83 85 85 70 50 50 ✓
15 74 3 16 45 66 15

55 51 71 86 86 84 64 46 50 ✓
15 84 45 2 12 ~~5~~ 8 15
47

49 51 84 86 82 71 66 39 42 ✓
15 93 22 12 3 43 58 15

50 46 82 85 83 71 66 47 43 ✓
15 88 25 11 28 40 7 15

50 44 66 83 85 84 67 64 46 41 ✓
15 9 44 13 2 4 5 8 15

51 45 68 82 83 83 70 47 49 ✓
15 8 5 16 2 4 8 15

55 55 80 81 82 42 40 ✓
15 94 22 2 9.2 15

51 44 69 83 82 80 68 33 32 ✓
15 93 45 29 12 24 10 15

Sta	+	π	-	Elev
		88074		

80	+50			72.3
----	-----	--	--	------

81				72.4
----	--	--	--	------

	+50			72.4
--	-----	--	--	------

82				72.0
----	--	--	--	------

T.P.	6.77	879.48	803	872.11
------	------	--------	-----	--------

	+50			72.4
--	-----	--	--	------

83				72.5
----	--	--	--	------

	+50			72.5
--	-----	--	--	------

	+80			72.3
--	-----	--	--	------

L E E

4.6 4.4 6.6 3.2 8.4 8.0 6.8 6.0 3.4 3.2 ✓
 15 9 4.6 2.5 1.6 3 5.7 10.4 15

4.3 3.9 6.6 8.0 8.3 8.1 7.1 6.2 2.4 2.8 ✓
 15 7.7 3.3 15 1.6 3.3 6.0 12 15

4.0 4.0 6.0 8.3 8.1 3.1 2.8 ✓
 15 7.5 2 2.5 10 15

5.1 4.9 5.4 7.9 8.6 8.7 8.2 7.0 7.7 ✓
 15 11 7.7 4 2.2 3.3 8 15

4.8 4.8 7.0 7.1 6.9 5.0 5.1 ✓
 15 6.3 1.8 2.6 7.5 15

5.3 5.1 6.9 7.0 6.9 6.0 5.4 5.3 ✓
 15 5.5 2 4 7.7 10 15

4.9 5.3 6.7 7.0 6.9 5.8 5.6 ✓
 15 8 3.8 4.2 7.7 15

5.3 5.3 6.1 7.0 7.2 7.0 5.9 5.8 ✓
 15 12.5 9.0 5.5 2.5 6 15

Sta.	+	π	-	Elev.
		879.48		

83 +93.92 P.I. = C' Ext.

84 72.2

~~84~~

+10.3 End 48" C.M.

B.M.

512

72.0

874.36

874.37

0.4' dirt on top of culv.

+30.8 End of 48" C.M.

71.9

+65

72.3

85

72.3

+30

72.6

+65

72.6

L

E

R

L.O. 51 72 72 73 70 57 6.0 ✓
 13 85 4 08 3.5 15

54 54 72 75 9.12 75 6.1 58 ✓
 15 34 2.7 FL 38 5.5 15

Top & End of 48" C.M. Culv at 84+103

54 5.0 53 7.1 76 7.4 54 53 897 = F.L. ✓
 15 5 2.7 1.7 34 4.0 15 1.7 ✓

59 5.6 6.9 72 7.0 59 5.4 ✓
 15 6 4 5 8.5 15

57 5.9 7.2 72 6.9 5.6 5.5 ✓
 15 8.5 6.5 8 11 15

54 6.0 5.7 7.0 7.3 6.9 6.7 5.5 6.7 6.5 6.1 ✓
 50 17 11 8.5 3 1 4.5 15 31 50

5.8 6.2 6.9 7.2 6.9 6.8 5.8 6.1 ✓
 22 10 7.7 4 15 3 15

Sta.	+	π	-	Elev
		879.48		
86				72.7
	+50			72.7
87				72.6
	+50			72.7
88				72.7
T.P.	7.47	880.70	6.25	873.23
	+50			72.9
89				73.0
B.M.			3.00	877.70
	+50			73.1

L

E

R

55 51 66 69 68 67 57 50 ✓
19 13 9 4 1 35 15

55 51 67 68 65 56 50 ✓
18 115 65 3 5 15

49 46 59 67 69 68 56 47 52 52 ✓
15 98 6 3 2 5 8 12 15

36 36 52 65 68 66 49 45 ✓
15 12 6 3 2.7 6 15

45 55 64 68 65 50 43 ✓
15 7 35 2 7 15

5.8 6.8 7.5 7.8 7.8 6.0 5.8 ✓
15 58 3 25 65 15

5.7 6.4 7.0 7.7 7.7 7.7 6.2 6.0 ✓
15 8 5 26 2 7 15

R.R. Spk. in 24' Tw. Cott. Lt. sta. 89+57 at Branch Ditch

6.0 6.7 7.4 7.6 7.7 6.9 6.5 5.9 ✓
15 6 28 25 5 7.5 15

Sta.	+	π	-	Elev.
		88070		

89 + 85	at end 48" C.M.			72.4
	14" C.M.			

+99	at end of 48" C.M.			72.4
-----	--------------------	--	--	------

90 + 27.5	at end 36" C.M.			73.2
40.7				

04' Dirt on culv.	407" C.M.			
+68.2	at end of 36" C.M.			72.72

91				73.5
----	--	--	--	------

+50				73.8
B.M.	2.73	88043	9.0	87770

92				73.8
----	--	--	--	------

+50				73.9
-----	--	--	--	------

L E R

57 57 60 77 83 9.0 7.7 5.9 5.5 5.7 ✓
 18 11 4 2.5 FL. 1.7 4 9 17

57 60 79 83 82 5.7 5.7
 15 3 12 25 4.3 18

885-FL.
08

8.20 5.8 6.0 7.0 6.8 7.4 7.8 7.5 6.7 6.6 5.4 4.9 4.9 - 2 Trail ✓
 1.5 15 11 9 4.9 3.7 1.5 15 5.2 8 11 19
 FL.

2 Trail = 5.2 5.1 5.6 7.8 7.9 8 7.6 6.6 6.1 5.0 4.0 ✓
 18 11 8 14 FL. 1.6 3 6.5 10

6.2 5.8 7.0
 15 9 6

7.2 7.3 5.8 5.7 ✓
 1.8 6.5 15

6.2 6.1 6.9 6.9 7.0 6.5 5.6 5.6 ✓
 16 7 4 3 4 7 16

R.R. 5 pk. in 24" Turn. Cott. Lt. Sta. 89+57 at Branch Ditch

6.1 5.8 5.2 6.1 6.5 6.6 6.6 5.8 5.2 5.4 ✓
 16 11 8 5 2.4 3.4 7 10 15

5.8 5.4 4.8 5.9 4.4 6.5 6.3 5.9 5.0 5.1 5.4 5.5 ✓
 19 12 9 5.3 3.4 2.4 4.4 6.7 8.7 11 15

Sta.	+	π	-	Elev.
		880.43		
92 + 75.5	at end	36" C.M.		73.4
No covering on culv.				
93 + 06	at end	36" C.M.		73.3
+52				74.1
94				74.3
+50				74.4
95				74.6
+50				74.7
96				74.7
T.P.	7.97	883.18	5.22	875.21

L

E

R

5.1 4.5 5.1 6.3 7.8 3.7 0.6 5.4 6.3 5.3 5.3 5.8 ✓
 16 9 6 2.2 FL. 1.8 5.4 9 12 15 19

7.7B
 0.5
 FL.

5.4 5.5 6.3 7.1 6.8 5.2 5.1 5.1 ✓
 17 6 2.3 1.1 5 11 15

L.O. 5.1 4.9 5.4 6.2 6.3 6.1 5.6 4.9 5.2 5.5 ✓
 14 10 6.5 3.7 2.5 4.2 7 10 16

5.4 4.6 5.1 5.9 6.1 6.2 5.6 4.7 4.7 5.2 ✓
 16 12 7.3 5.6 3 4.7 7 10 15

5.1 4.9 5.2 5.9
 15 9 5 2.2

6.0 6.0 5.5 4.6 4.6 5.2 ✓
 2.9 5.3 7 10 15

L.O. 5.2 4.7 4.6 5.4 6.0
 15 9 7 5 2.4

5.8 5.8 5.0 4.9 5.2 L.O. L
 2.5 4.7 10 15

L.O. 5.6 4.8 4.3 5.2 5.5
 15 9 6 3.3 2

5.7 5.7 5.2 5.0 5.1 L.O. L
 4 5 12 15

5.4 4.9 4.3 5.6 5.7 5.6 5.4 4.3 5.1 ✓
 15 8 4.3 1 2.6 4.6 8 15
 9

Sta.	+	π	-	Elev.
		883.18		
		883.14		
96	+50			74.6
97				74.6
+25				74.6
+50				74.6
+59		Approx. int with ditch 7		73.7
B.M.	0.60	883.14	0.60	882.58 (882.54)
+73				75.4
B.M.				
98				75.8
+35				75.2

L E

8.5

L.O. 7.8 6.9 8.2 ~~8.0~~ 8.3 7.5 7.4 L.O. ✓
 11 5 1.6 3.2 6 14

L.O. 7.2 6.5 6.5 8.2 8.5 8.4 6.9 6.9 ✓
 10 8 5.4 1.4 2 5.8 15

L.O. 7.6 6.4 6.3 8.1 8.5 8.0 6.3 6.9 7.4 ✓
 13 9.0 5.6 1.4 2 6 12 16

7.2 6.5 6.1 8.1 8.5 8.2 6.6 6.3 6.7 ✓
 15 10 6 2 2 5.8 10 15

7.1 6.4 9.3 9.4 9.4 8.8 ✓
 15 6 3 4.4 15 15

Top Breather Pipe 35' N.E. of High Line Tower N.E.
 Cor. Int. Ditch 78 Ditch 16

6.8 5.5 6.3 7.6 7.7 7.4 6.7 7.0 8.5 ✓
 12 8 5 1 2 7 11 15

No ditch

L.O. 7.3 ~~8.0~~ 7.3 6.6 8.2 7.0 ✓
 7 4 13 15

L.O. 6.8 7.2 7.9 7.6 7.4 7.2
 12 8 3 11 14
 15
 19

Sta	+	π	-	Elev
		883.14		
98	+65			75.4
99				75.1
	+50			74.7
100				74.0
	+50			73.9
101	at south end bridge			73.8
	+50			73.7
102				73.3

77
 L.O. 7.0 5.8 7.7 7.9 7.3 7.4 7.5 L
 11 7.4 4.3 2 4 9 15

7.3 7.6 7.0 7.9 8.0 8.1 7.3 7.4 ✓
 16 12 7.5 3.8 4 10 15

7.5 7.5 8.1 8.3 8.4 8.5 7.3 6.8 ✓
 15 7 3.3 2 4 6 15

L.O. 7.7 7.3 8.0 9.2 9.1 8.9 8.0 7.4 7.2
 12 6.5 4 2.2 1 3 5 15

7.1 7.4 8.0 9.0 9.2 8.9 8.2 7.1 6.4 ✓
 15 9 5 2.3 2 3.8 11 16

6.5 6.5 8.1 9.0 9.3 9.2 8.3 6.4 5.6 5.7 ✓
 15 8 5.8 2.6 1.7 4.6 8 16 20

7.2 7.6 8.8 9.3
 15 7 5.3 2.6

9.4 8.8 7.0 6.7 6.4 L
 5 10 15

7.5 7.7 8.8 9.4 9.8 9.4 9.0 7.4 6.4 L
 16 9 5.6 2 2.8 6 10 15

Sta	+	π	-	Elev
		883.14		

102	+50			73.6
-----	-----	--	--	------

103				73.5
-----	--	--	--	------

	+50			73.6
--	-----	--	--	------

104				73.4
-----	--	--	--	------

T.P.	8.55	883.71	7.98	875.16
------	------	--------	------	--------

	+50			73.4
--	-----	--	--	------

105				73.4
-----	--	--	--	------

	+50			73.3
--	-----	--	--	------

106				73.5
-----	--	--	--	------

L

E

R

82 89 94
15 8 33

95 93 86 72 69 ✓
54 10 13 17

83 87 95 96
18 11 44

~~86~~ 92 82 77 ✓
4 7 15

86 88 94
15 9 38

95 92 87 84 ✓
4 11 17

90 86 97 97
15 12 7

95 84 84 ✓
6 10 20

Top Pl. Hub at 103 + 92.72

10-7-47

90 91 102 103 102 87 88 ✓
20 11 6 6 11 20

91 86 102 103 101 79 88 ✓
19 13 65 55 103 30

84 84 102
18 113 58

104 103 91 84 85 ✓
37 75 10 18

68 67 82 96 103 102
25 115 10 7 35

99 95 75 20
25 4 85 18 ✓

10?

Sta	+ π 883.71	- Elev
106 +18	End of 42" C.M.	73.5
+44.6	End of 42" C.M.	73.9
107		73.7
+50		73.5
108		73.2
+50		73.3
109		72.7 ✓
+36	Approx. End Ditch	72.3

L

E

R

17.8
66.8
44.6

13.5

5.8 6.0 7.6 8.9 9.8 10.2 10.2 9.7 9.1 7.1 6.5 ✓
 2.5 1.2 1.0 5.7 2 0.3 2.0 4.3 8.5 1.5
 FL.

13.9

5.0 5.4 6.6 8.0 9.8 9.8 8.8 8.5 7.9 7.1 6.2 ✓
 2.1 1.3 8 4 0.4 1.5 2 6 8 1.8
 FL.

6.7 6.5 9.5
 1.9 1.5 6

10.0 10.6 8.9 7.1 7.3 ✓
 2.5 6.5 11 20

8.4 8.0 9.2 10.0 10.2 9.7 8.5 8.4 ✓
 2.3 1.0 8.5 3.5 8 11 1.8

8.6 8.7 9.5 10.3
 2.0 1.1 9 4.5

10.5 10.6 8.9 8.7 ✓
 7.5 1.3 2.1

9.1 9.6 10.5 10.4 10.5 9.6 9.6 ✓
 2.0 7 5 6 10 2.2

9.9 10.3 11.0 11.0 10.9 10.9 11.0 ✓
 1.7 7 4 7 10 2.1

10.9 10.6 11.3 11.4 11.2 11.2 ✓
 2.0 6.5 4.5 8 2.1

Sta.	+	π	-	Elev.
		889.71		
109 +60				72.1
110				72.2
+50				72.3
111				72.6
B.M.				882.54
T.P.		626	877.45	

Levels cont. in stadia notes.

10-7-47

57

L

Q

R

11.4
16

11.6

11.2 ✓
22

11.6
25

11.5

11.1
25

✓

11.3
50

11.4
25

11.4

11.3
25

✓

11.2
50

11.1
25

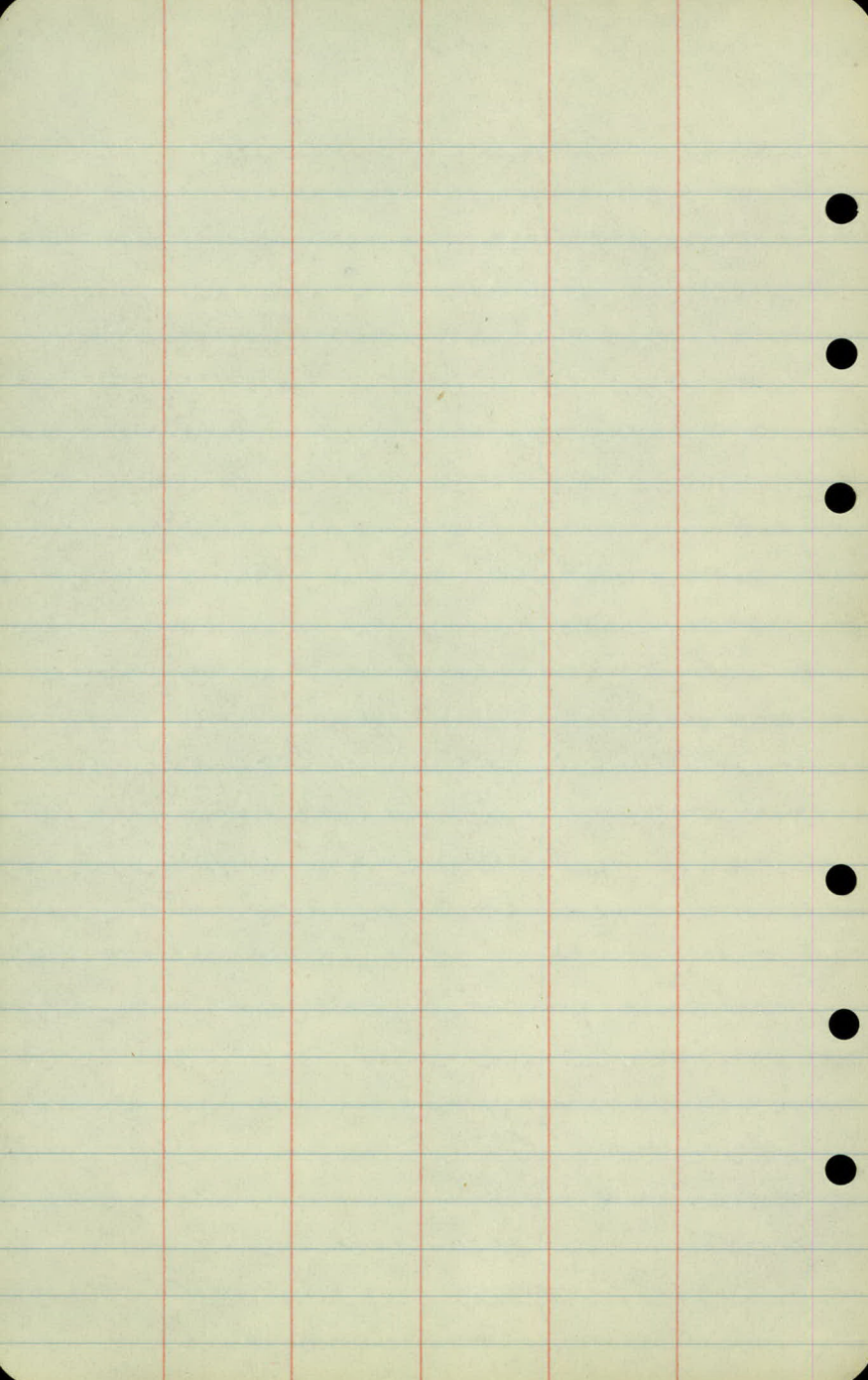
11.1

11.2 11.0
10 25

✓

~~Top of Breather Pipe 35' N.E. of High Line Tower
at N.E. Cor. of lot ditch 16 & 7~~

Top End of Culv. at 106 + 44.6



Ditch 16

Stadio Notes

	Obj.	Az.	Dist.
T.P.	5.25 882.70 = H.I.		877.45

At P.I. 106+26.75

To sta. 111 =

0°00'

& small V ditch

0°23' 510.

" " " "

0°23' 575.

G.E.

1°20' 575.

To Δ "A"

341°28' 594.

Edge of Low land

8°30' 515.

" "

110 — 433.

" "

90 — 387.

" "

100 — 311.

" "

60 — 265.

" "

354° 347.

" "

346° 392.

" "

341° 452.

" "

338°30' 523. X

T.P. 8.40 885.85 = H.I.

877.45

At Δ "A"

To P.I. sta. 106+26.75

161°28' 593

& Track approx. PT. OF CURVE.

197° — 45'

" "

333°30' 244'

K.A.
P.M.
M.B.

10-8-47

59

± Vert. Ang Rod Top Rod Diff Elev.

Top End of Culk at 106+44.6 (from X sections)

9.8	72.9 . .
9.5	73.2 . .
7.9	74.8 . .

8.4	74.3 . .
8.9	73.8 . .
9.2	73.5 . .
9.3	73.4 . .
9.8	72.9 . .
10.4	72.3 . .
9.8	72.9 . .
9.4	73.3 . .
8.4	74.3 . .

4.2	81.7 .
1.7	84.2 .

Obj	Az	Dist
H.I. = 885.85		
FL. N. END R.R. COV. (4' X 4.5') ^{0 Val}	28° 50'	247.
FL. S. " " "	38°	249.

Elev. W.S. TW. Lake.

2 V. DITCH	70°	205.
EDGE - LOW - LAND	70°	232.
" " "	55°	255.
" " "	40°	265.

2 V. DITCH	55°	233
------------	-----	-----

G. E	55°	228.
------	-----	------

2 V DITCH	43°	240
-----------	-----	-----

G. E	43°	245
------	-----	-----

~~BM.~~

(882.54)

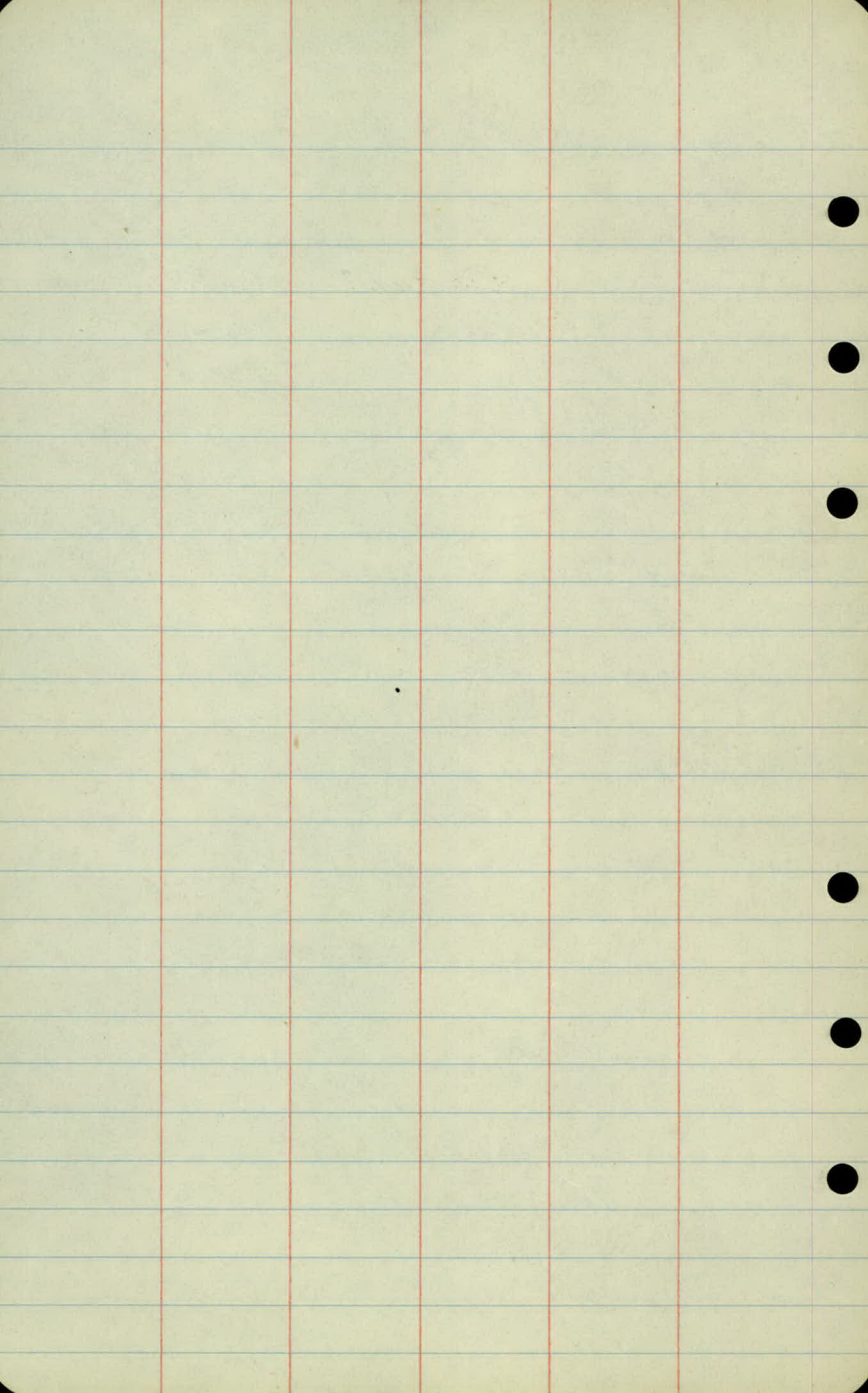
T.P	5.25	882.70	8.40	877.45
-----	------	--------	------	--------

BM.			017	882.53	(882.54)
-----	--	--	-----	--------	----------

$\pm$ Vert. Ang.	Rod Eq.	Rod	Diff	Elev
		13.65		72.20
		13.10		72.75
		14.30		71.55
		12.4		73.5
		10.8		75.1
		11.0		74.9
		11.6		74.3
		12.6		73.3
		10.9		75.0
		13.0		72.9
		11.5		74.4

Top Breather Pipe

Top of Breather Pipe



Ditch 16

stadio

st. sta 17

	Object	Az.	Dist
B.M.	464 901.97		
T.P.	00 H.I. = 878.67	23.3	878.67
At 15' L ^(P.D.) Sta	16+62.55		
To 15' L ^(P.D.) Sta	17+33.35	=	0°00'
End 18" C.M. & F.L.		6°40'	171'
" "	" 76' Long.	344°08'	191' ¹⁷⁵ +83
" "	" Pipe Separated 24' from No. End. Next 1 Bow	172° -	23'
" "	" 76' Long.	25°25'	78' ⁷¹ 74
N.E. Cor. School		306°25'	187' ¹⁸¹ 176
N.W. " "		320°53'	229' ²¹⁴ 248

School = 95° N. & S. and 61° E & W.

3-17-48
F.P.
P.M.
M.B.
E.G.

+35'

62

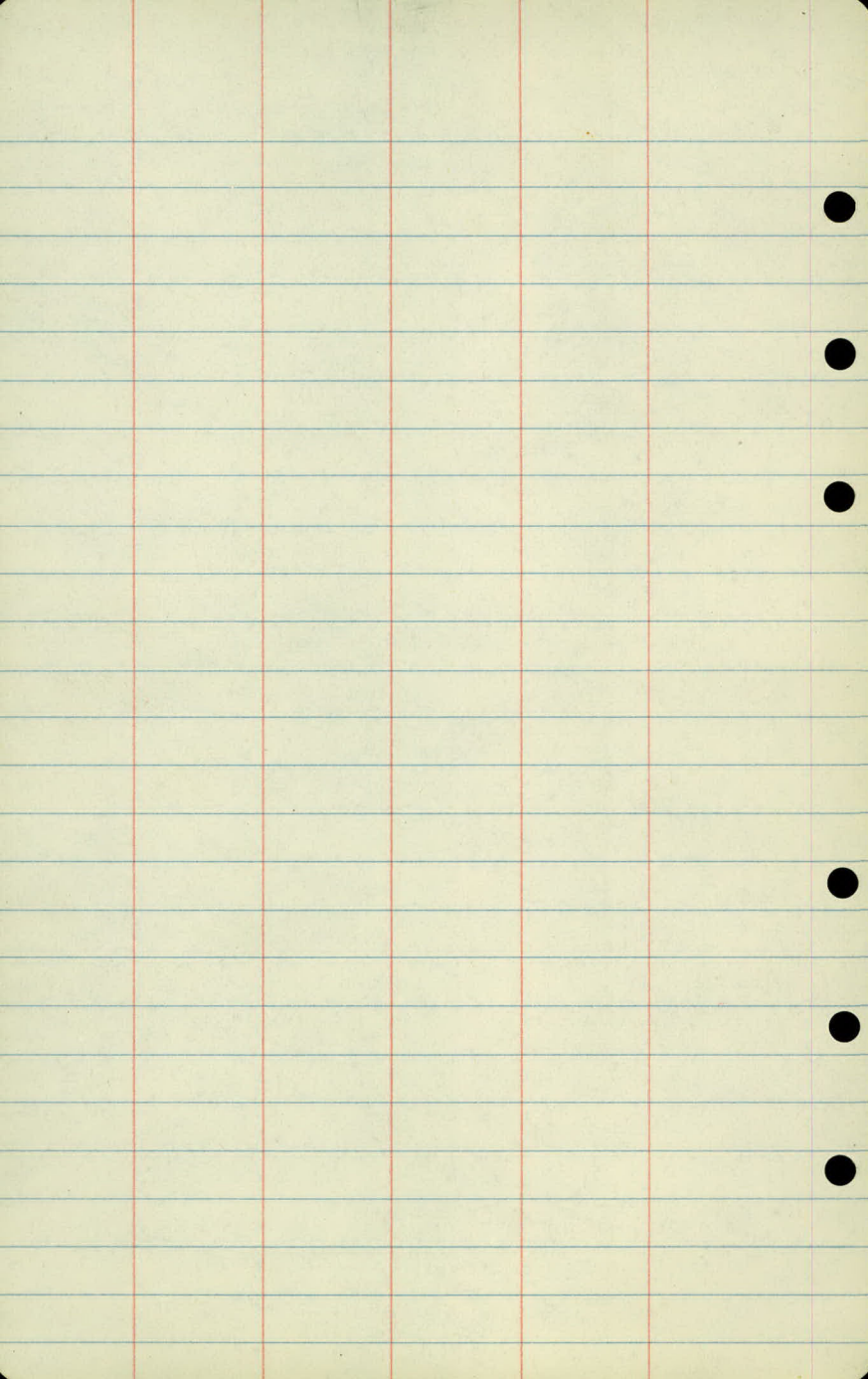
± Vert. Ang. Rod Rod Eq. Diff Elev.
Door Sill of Fire Hall 897.33

	2.6		-2.6	876.1	
+16°45'	5.0	+52.7 +55.0	+47.7 +50.0	928.7	926.4
	6.7		-6.7	872.0	
+17°50'	5.0	+22.7 +23.9	+17.7 +18.9	897.6	896.4
+14°13'		+45.9			
+11°53'		45.9			

1947
17.6

1.87

878.66 - 7.38 871.28	= (871.33 = B.M.)	19.80 17.57 2.23
Elev. check ok.		871.33



DITCH 7

Alignment

Rec.

10/21/49

Sta.	Point	ΔL	ΔR	Mag. Bear.
------	-------	------------	------------	------------

4 +97.45	P.I.		$5^{\circ}52'1/2''$	
----------	------	--	---------------------	--

S-87°30'E

4 +34.75	P.I.	$4^{\circ}53'1/2''$		
----------	------	---------------------	--	--

S82°-E

2 +23.10	P.I.		$4^{\circ}57'$	
----------	------	--	----------------	--

S-88°4'E

0 +54.45	P.I.		$14^{\circ}34'$	
----------	------	--	-----------------	--

N-78°45'E

0 +00	= Int. of Ditches 16 & 7			
-------	--------------------------	--	--	--

K.A.
A.M.
M.B.

10-17-47

2

1"X2"X4' stake

1 = 5°32'

2 = 11°05'

5°32½'

1"X2"X4' stake

1 = 4°53'

2 = 9°47' 107

4 = 5°½'

1"X2"X4' stake

1 = 4°57'

2 = 9°54½'

1"X2"X4' stake 2 = 29°07' +

Editch 16

48°00'

P.O.T. = 97+55.0

P.I. = 97+43.50

Sta.	Point	$\Delta Lt.$	$\Delta Rt.$	
				S-66°15'-E
8 +28.90	P.I.	38°25'		
				S-27°45'-E
7 +73.00	P.I.		10°06'	
				S-38°-E
7 +09.10	P.I.		40°08 $\frac{1}{2}$ '	
				S-78°15'-E
5 +56.2	P.I.		4°11 $\frac{1}{2}$ '	
				S-82°15'-E

□

□

□

$$1 = 40^{\circ}08'12''$$

$$2 = 80^{\circ}17'$$

□

$$1 = 40^{\circ}11'$$

$$2 = 80^{\circ}22'12''$$

$$40^{\circ}11'12''$$

Sta	Point	ΔL	ΔR
-----	-------	------------	------------

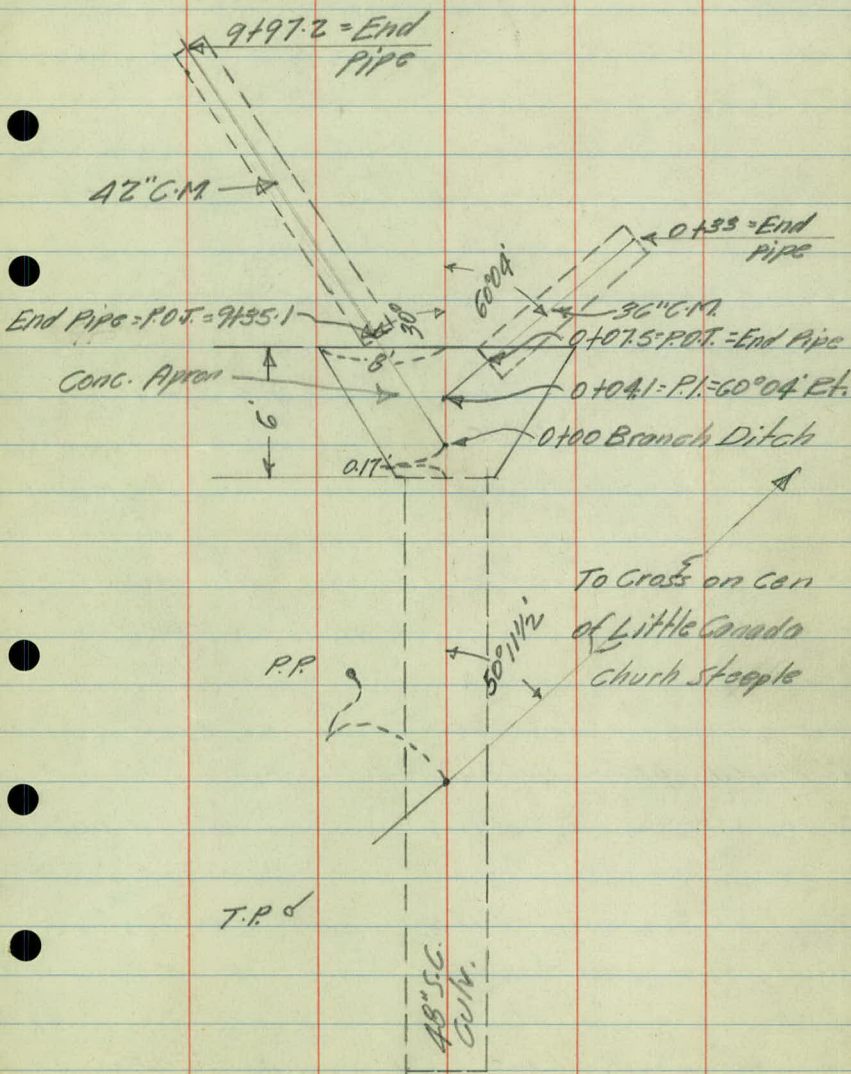
9 +27.60 69.6 97.2	P.I.	30°00'	= P.O.T. 0+00 of Branch Ditch
--------------------------	------	--------	-------------------------------

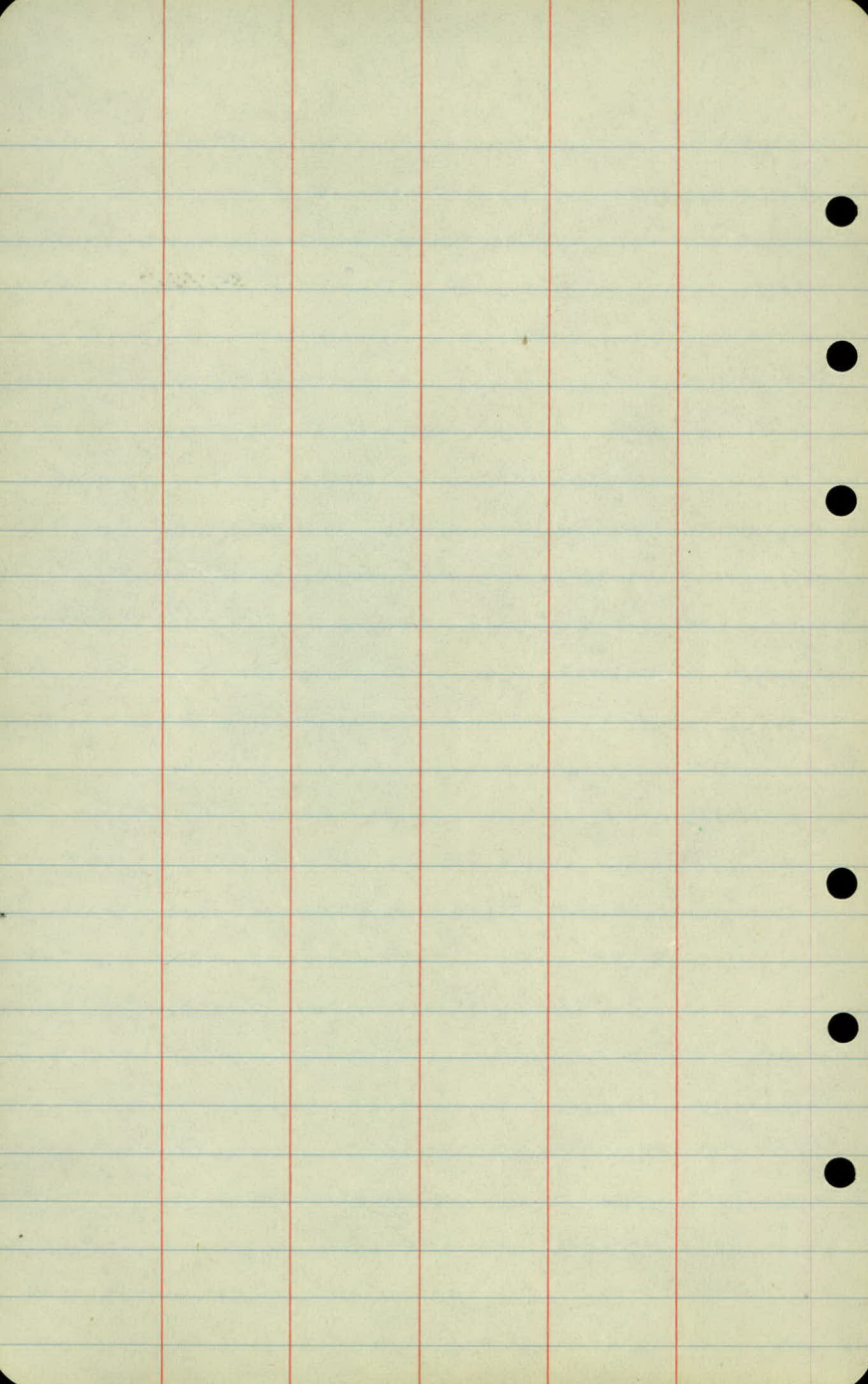
8 +96.40	P.O.T. = E Centerville Rd.		
----------	----------------------------	--	--

8 +60.60	P.O.T. = End 48" S.G. Culv.		
----------	-----------------------------	--	--

10-20-47

4





Stadia Location of Ditch

Ditch No. 7

Obj.	Az.	Dist.
------	-----	-------

At sta. 8+96.4

To sta. 9+27.60 = 0°00'

☒ Main Ditch	336° -	162'
--------------	--------	------

" "	336°	179'
-----	------	------

" "	335°	192'
-----	------	------

" "	330°	216'
-----	------	------

" "	326°	257'
-----	------	------

" "	320° -	292'
-----	--------	------

" "	314° 30'	320'
-----	----------	------

" "	307° -	383'
-----	--------	------

" "	300° -	465'
-----	--------	------

" "	296° 30'	540'
-----	----------	------

" "	294° -	637'
-----	--------	------

☒ " "	293° -	675'
-------	--------	------

End 36° C.M.

☒ Branch Ditch	42° 30'	82'
----------------	---------	-----

" "	54° -	157'
-----	-------	------

" "	58° -	240'
-----	-------	------

" "	54° 30'	338'
-----	---------	------

" "	52° 40'	408'
-----	---------	------

" "	48° 40'	465'
-----	---------	------

" Int.	48° -	473'
--------	-------	------

Int. of Ditches

" "	41° -	542'
-----	-------	------

Obj	Az	Dist.	
	33°30'		?
E Branch Ditch	333°30'	572'	Cont East.
" " "	49°30'	545'	
" " "	50°30'	652'	
E Cent. Road	88° -	190'	} 20' Black Top.
" " "	89° -	87'	
" " "	271° -	77'	
" " "	271°10'	147'	
" " "	271°40'	209'	
E Ent.	261°	87'	10' wide
" "	239°20'	123'	
E Ent.	279°20'	82'	10' wide
" "	300° -	83'	
" "	359° -	102'	Cont. on
E Ent.	111° -	33'	
" "	142° -	70'	

Breather Pipe = 882.54

Xsections

Rec ind
office

Nov 3, 1947

Sta	+	π	-	Elev
B.M.	1.65	884.19		(882.54)

0	+10			74.0
---	-----	--	--	------

	+54.5			73.6
--	-------	--	--	------

1				73.9
---	--	--	--	------

	+50			74.4
--	-----	--	--	------

2				75.2
---	--	--	--	------

	+50	75.2	75.5	
--	-----	------	------	--

3		75.1	75.8	
---	--	------	------	--

	+35	76.1	78.0	
--	-----	------	------	--

R.H.
A.M.
M.B.

10-26-47

8

L

E

R

Top Breather Pipe 35' N.E. Tower of N.E. Cor. Dike 16
7

L.O. 8.0 78 8.2 9.8 10.2 9.9 8.9 6.8 8.1 8.5 L.O.
20 13 9 6 3 7 11 15 19

L.O. 7.5 8.5 9.8 10.6 10.4 8.6 7.7 6.5 7.9 L.O.
13 4.5 5 15 6 7 13 17

L.O. 7.4 7.0 8.6 10.1 10.3 9.9 8.9 7.5 7.2 6.2 7.7 L.O.
11 8 5 2 2 5 6 8 10 15

L.O. 7.3 6.9 8.0 9.4 9.8 9.5 8.1 7.4 6.0 6.2 7.6 L.O.
9 6 5 2 2 5 8 12 14 19

5.9 6.5 6.4 8.2 8.9 9.0 8.7 7.2 5.4 7.2 L.O.
21 10 6 3.5 2 3.5 8 11-13 17

4.4 4.4 6.8 7.5 8.7 9.0 8.7 7.1 4.6 5.3
21 10 6 2 2 4.5 6.5 9 23

L.O. 5.1 3.5 4.5 8.7 9.1 8.4 6.9 6.4 6.3 4.6 4.0 5.5 L.O.
10 12 8 3 1.5 2.5 7 8 11 16 22

L.O. 4.1 4.0 6.6 6.2 7.0 8.1 7.9 4.1 4.0 4.7
19 10 6 2.5 4.5 6.5 9 14 23

Sta.	+	π	-	Elev
		884.19		
3	+70		76.2	78.4
4			76.4	77.6
T.P.	10.61	888.88	5.92	878.27
	+33			76.5 ✓
	+66		76.9	78.5
5			77.3	77.4
	+33		77.4	78.0
	+66			↓ 77.7
6			77.6	78.6

L

E

R

32 36 60 80 77 58 59 64 36 37 44 ✓
23 13 7 6 25 3 55 9 16 31

30 31 49 75 78 65 66 65 56 44 41 40 ✓
26 13 9 65 5 35 15 3 8 13 25

L.O. 68 72 101 100 121 124 121 114 103 100 87 84 ✓
24 15 85 35 1 1 1.5 5 7 7 22

58 66 94 99 120 120 104 105 110 111 85 82 80 ✓
23 12 8 55 33 1.5 15 2.5 35 7 10 22

50 59 71 97 98 116 115 112 104 78 79 76 ✓
22 11 7 45 25 1 2 45 8 11 25

41 48 90 97 107 109 115 115 90 74 80 73 ✓
23 12 6 25 15 1 25 5 8.5 14 20

36 40 43 65 85 88 111 112 110 74 78 65 ✓
30 20 14 9 6.5 3.5 2 25 7 19 30

30 39 51 95 103 110 113 103 70 68 54 ✓
35 15 12 55 2 4 7 9 15 30

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

888.88

6	+33		77.8	78.1
---	-----	--	------	------

	+66			✓ 78.1
--	-----	--	--	-----------

7				✓ 78.0
T.P.	7.50	891.15 891.13	5.23	883.65 883.63

	+33			✓ 78.2
--	-----	--	--	-----------

	+66			✓ 77.5
--	-----	--	--	-----------

8			78.1	78.8
---	--	--	------	------

	+18		78.4	78.8
--	-----	--	------	------

L

E

R

25 3.1 4.9 8.1 10.1 10.8 11.1 8.9 6.0 6.6 4.8 ✓
 33 15 10 6 3 3 35 8 13 30

L.O. 26 24
 26 14
 ok

9.7 10.8
 3

10.7 8.1 5.7 5.3 4.5 ✓
 3 5 9 16 30

L.O. 0.9 26 9.7 10.8
 22 11 4.5 8.5

10.9 10.7 8.6 7.0 4.7 4.1 ✓
 2 3.5 11 15 35

L.O. 4.1 5.3 8.9 12.5 13.0 12.6 9.9 7.4 6.6 6.6 6.3 ✓
 19 13 7.5 4 2 4 8 17 22 30

L.O. 36 5.2 6.2 7.9 12.2 12.5 13.7 12.8 12.2 7.4 6.1 5.4 4.4 ✓
 26 17 13 9 6 2 2.5 4 7 11 23 35

4.2 4.0 6.5 10.0 12.4 13.1 12.4 11.7 10.9 9.0 6.0 5.3 3.9 ✓
 30 18 12 8 7 5 2 5 7 9 12 50

3.0 5.7 6.7 7.9 10.9 11.4 12.4 12.8 5.8 4.5 (4.2) 2.7 2.1 ✓
 50 23 13 10 8.5 4.5 4 7 12 50 38 50

Hot beds

Sta	+	π 891.15 891.13	-	Elev
8	+51.3			78.1
	+151.3			78.79
	+60.6 at end 48" S.C.			79.59
	+62		5.2	86.0
	+68		3.3	87.9
T.P.	3.50	896.51 896.49	+1.86	893.01 892.99 (893.01)
	+77		4.1	92.4
	+82		26	93.9
	+85		2.2	94.3

L E R

27	43	50	74	95	118	125	131	125	108	91	03	104	✓
50	25	18	17	13	8	4	4	9	18	33	50		

match or
dup.

match or dup. ✓

1250	1236	1218
4		4
cent. open		

~~101~~
35-50

25	39	63	101	122	1173	1156
50	26	14	10	3	3	FL.

1145	109	101
4	8	33-50

Top Rubble H.W.

Nail in GE NW Cor Cent. Rd. & ditch 7

Sta.	+	T	-	Elev.
		896.51		
		896.49		

8	+96.40		21	94.4
---	--------	--	----	------

9	+05		23	94.2
---	-----	--	----	------

	+12		26	93.9
--	-----	--	----	------

	+27.43		29	86.6
--	--------	--	----	------

	+27.43		14.87	881.64 881.62
--	--------	--	-------	-----------------------------

	+351		14.54	881.97
--	------	--	-------	--------

	+82		84	88.1
--	-----	--	----	------

	+97.2		80	88.5
--	-------	--	----	------

10-31-41

12

L

E

R

F.L. 48" S.G. Culv
(2.05' fall in 48" S.G. Culv.)

11.04
+ 3.5

14.54

F.L. 42" G.M. Culv.

Top Rip Rap H.M.

Sta.	+	897.51 896.49	-	Elev
9	+97.2		13.6	82.9
10			13.8	82.7
	+50		13.6	82.9
	+90		12.4	84.1
	+94		9.8	86.7
11			9.6	86.9
	+50		9.5	88.0
12			9.5	87.0

L

E

E

F.L. 42" C.M. CULV

Sta.	+	896.49 896.51	-	Elev.
12	+50		9.2	87.3
13			8.5	88.0
	+10		8.3	88.2
14	+20		9.0	87.5
	+50		8.8	87.7
14			8.6	87.9
	+15		8.2	88.3
15			8.2	88.3

L-2

E-7

E

M-108

in Branch Ditch to South

Sta.

+

896.57
896.49

-

Elev.

0 +075

14.50 82.0

+33

14.20 82.3

+33

14.8 81.7

+50

14.0 82.5

1

13.5 83.0

+50

13.1 83.4

2

12.8 83.7

L

E

T

B

2.14.5

F.L. 36" C.M. Culv.

Ground of culv.

Sta	+		-	Elev
		896.51		
		896.49		

2	+30		12.1	84.4
---	-----	--	------	------

3			11.9	84.6
---	--	--	------	------

L

E

R

