

OFFICE OF COUNTY ENGINEER
RAMSEY COUNTY, MINN.

PLAN

Survey

LONG LAKE PARK

From _____ To _____

Road Acc't. No. _____

Date Filed 2-28-86

012-B45
File _____

ML
PK
SK

July 19, 84

Cloudy 80°

LONG LAKE PARK

BEACH HOUSE

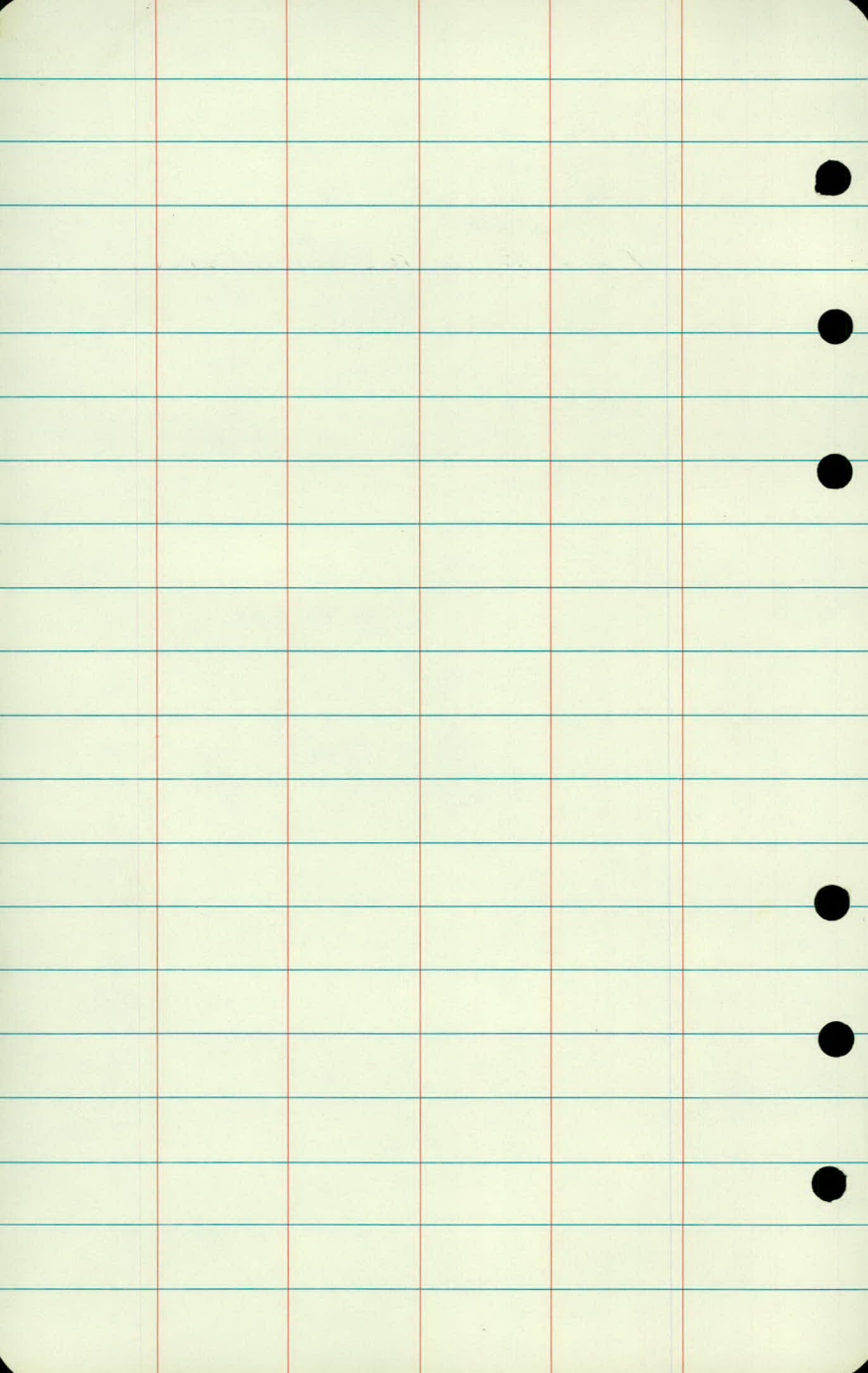
EXISTING GROUND ELEV.

	+	π	-	Ellev
Bm	4.47	888.03		883.56
			7.31	880.72
			8.07	879.96

Spike

HUB STA 64+00 E

GROUND AT CENTER POINT BEACH HOUSE



Locate Brush Area

LONG LAKE PARK

π @ P.I. SIGHTING P.O.T STA 47+00
 #13 Sta 43+76.41
 OBJECT AZM DIST VERT

E. BRUSH	225° 28'	77'
E BRUSH	205° 15'	156'
E BRUSH	242° 35'	240'
E BRUSH	257° 52'	148'
E BRUSH	261° 22'	172'
E BRUSH	245° 50'	247'

π @ PC STA 40+97.44 SIGHTING STA 38+50

E BRUSH	292° 25'	90'
E BRUSH	270° 09'	137'
E BRUSH	229° 52'	145'
E BRUSH	211° 24'	122'
E BRUSH	211° 17'	54'

4260.21
 116.20
 4376.41

ML
PK
MR
BL

May 9, 84
Choway 55°

ADDITIONAL

STADIA

LONG LAKE PARK

AZ

DIRE

DIST

T 60+50 SIGHTING P.T. 58+99.86

1	182°30'	1.15	115'
2	176°30'	1.13	113'
3	165°40'	2.58	158'
4	169°50'	1.67	167'
5	173°40'	1.62	162'
6	177°20'	1.69	169'
7	190°30'	1.82	182'
8	201°00'	1.52	152'
9	201°00'	1.30	130'
10	216°00'	1.07	107'
11	207°40'	.91	91'
12	193°30'	1.32	132'
13	188°30'	1.60	160'
14	178°50'	1.38	138'
15	209°50'	2.29	229'
16	213°15'	3.01	301'
17	230°10'	2.17	217'
18	26°50'	2.52	252'

DESCRIPTION

TAR PIT

"

"

"

"

"

"

"

"

"

"

"

"

TAR PIT

CTR 55' DIA. SLAB 6" THICK

CTR 55' DIA. SLAB 6" THICK

COR 3' HIGH DEBRIS PILE

COR 3' HIGH DEBRIS PILE

AZ Diff Dist

19	34°10'	2.55	255'
20	34°40'	2.80	280'
21	38°10'	2.78	278'
22	37°30'	2.22	222'

π @ P.I. STA 17+56.91

sighting P.T. 18+23.12

1	305°02'	1.25	125'
2	306°20'	1.82	182'
3	305°40'	2.89	289'

π @ STA 65+00 sighting
64+50

1	5°31'	1.11	111'
2	0°30'	2.14	214'
3	17°10'	2.24	224'
4	31°41'	1.30	130'

Description

Cor 3' High Debris Pile

"	"	"	"
"	"	"	"
"	"	"	"

876.00 Contour Ditch

"	"
"	"

Cor 4' High Debris Pile

"	"	"	"	"
"	"	"	"	"
"	"	"	"	"

	AZ	DIFF	DIST
X	@ 65+00	SIGHTING	64+50

1	355° 02'	0.54	54'
2	321° 38'	1.73	173'
3	300° 48'	1.00	100'
4	245° 23'	0.86	86'
5	199° 39'	1.34	134'
6	155° 26'	1.41	141'

Description

Cor 3' High Debris Pile

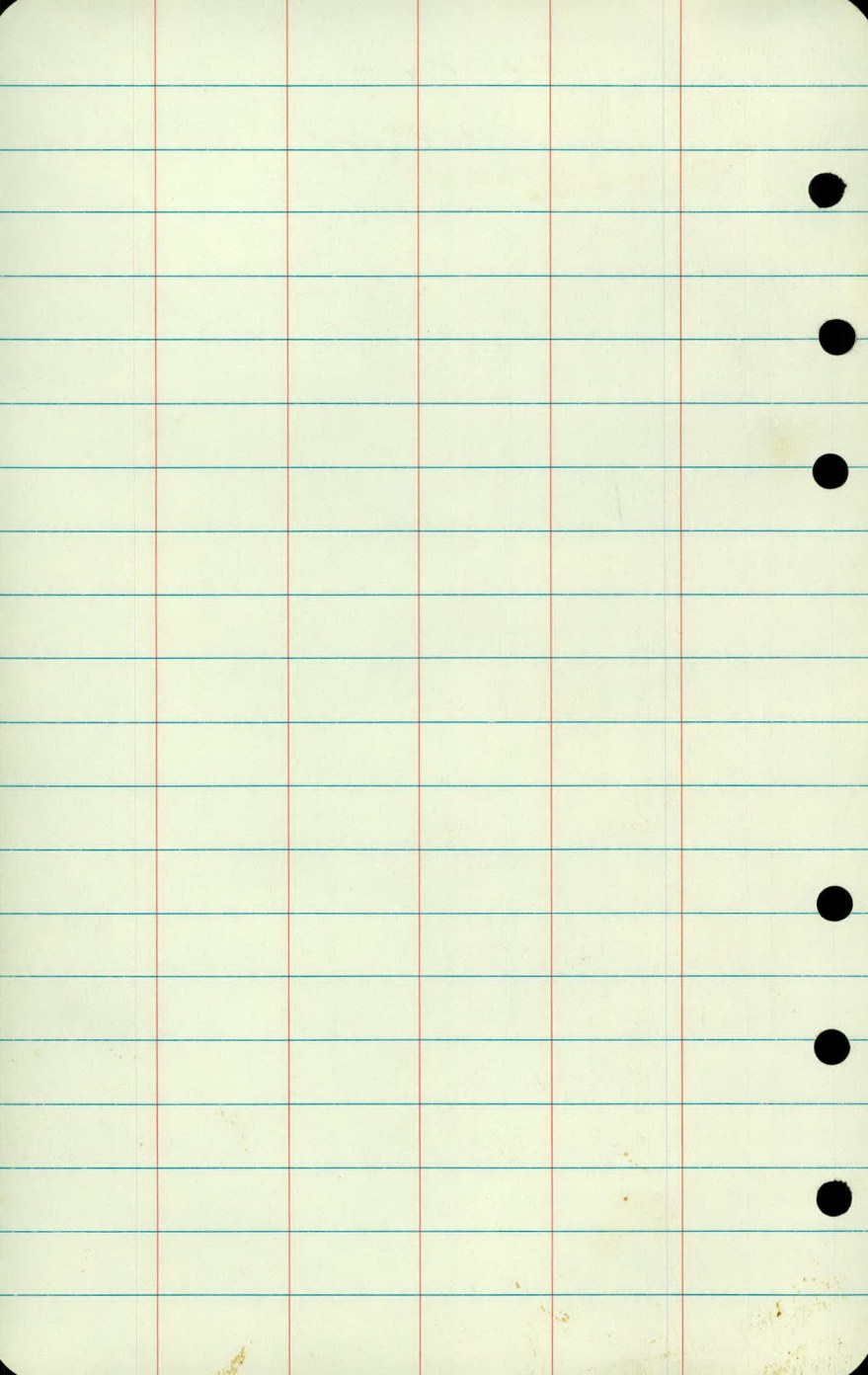
" " " "

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" " " "



Spk

$$\Delta = 50-34-22$$

$$T = 76.248$$

$$\Delta = 50-34 \quad R = 161.40$$

$$T = 76.44 \quad L = 142.46$$

#5
Re-bar

P.C.C.

$$166.2$$

Re-bar

$$\#4 \quad \Delta = 42-36$$

$$T = 90$$

$$\Delta = 42-35-30$$

$$T = 90$$

$$R = 230.887$$

$$L = 171.63$$

$$\Delta = 69-30-2$$

$$T = 184.90$$

$$R = 266.505$$

$$L = 323.30$$

Spk
#3

$$184.90$$

$$374.774$$

P.C.C.

$$189.87$$

$$225$$

$$374.774$$

$$69.89$$

#2
Spk

$$\Delta = 77-30$$

$$T = 180$$

$$\Delta = 77-31-00$$

$$T = 189.87$$

$$R = 236.50$$

$$L = 319.97$$

$$77^{\circ}-32'-00''$$

Mea

single

$$V = 89-02-09$$

$$S = 529.768$$

$$D = 529.693$$

$$\Delta = 210-53$$

Re-bar

#1

$$\Delta = 62-01-30$$

$$T = 129.19$$

$$R = 214.903$$

$$D = 261-39-40$$

$$L = 232.640$$

$$528.98$$

$$93.22-14$$

P.K. 14th d old 8

P.K. OLD HWY 8

SPK
482.04
#10
SPK
A: 52°
T: 150

376.21
126.21
376.21

#9
Δ: 15-30
T: 100
5.25

#9
29+00

1000.00
P.C.
Δ: 14-31-33
T: 100

#8-B

rebar
Δ: 63-28-48
T: 100
#8

246.95
66.95

#7
SPK
Δ: 27°-00'00"
T: 80
T: 80

407.484
407.5
207.5

Δ: 88-48-18
T: 120
88-50-#6
T: 120

50.34+22
Δ: 1°-76.25
254.44
254.44
297
58.05
Rebar

Δ: 42-35-29
T: 90
166.248

$$\Delta = 85-28$$

$$T = 116.20$$

$$13B$$

$$\Delta = 85-28$$

$$T = 116.26$$



Spk

$$201.191$$

$$spk.$$

$$12B$$

$$\Delta 40-45$$

$$T = 85$$

$$\Delta = 40-45-12$$

$$T = 85$$

$$33.62$$

$$427.2$$

$$460.82$$

$$321.222$$

$$355.85$$

$$\Delta = 61-00-03$$

$$T = 100$$

$$15A$$

$$\Delta = 61$$

$$T = 100$$

Rebar

$$319.20x$$

$$119.20$$

Rebar

$$16A$$

$$\Delta 79$$

$$T = 100$$

$$016.810$$

$$107.01$$

$$446.14$$

H 11.B

$$\Delta = 11-58-40$$

$$T = 75$$

$$\Delta = 11-59-02^{spk}$$

$$T = 75$$

$$R = 714.544$$

#16

$\Delta = 79$
 $T = 100$

$\Delta = 79-00-13$

$T = 100$

495.804

Hub

P.O.T.

36.88

136.880

rebar

#17

$\Delta = 66$
 $T = 100$

$\Delta = 65-59-45$

$T = 100$

52.62

152.625

151-28-07

$\Delta = 48$

23-50-50

730.794

ALIGNMENT

LONG LAKE PARK
ENT. ROAD

R.M.

Aug. - Sept. 1983

L.P.D.

D.S.

$$11+62.93 = \text{P.C.C.}$$

CURVE No. 2

$$\Delta = 77^\circ 31' \text{ Lt.}$$

$$\text{P.I.} =$$

$$R = 236.5$$

$$T = 189.87$$

$$8+42.96 = \text{P.C.}$$

$$6+32.43 = \text{PT.}$$

CURVE No. 1

$$\Delta = 62^\circ 01' 30'' \text{ Rt.}$$

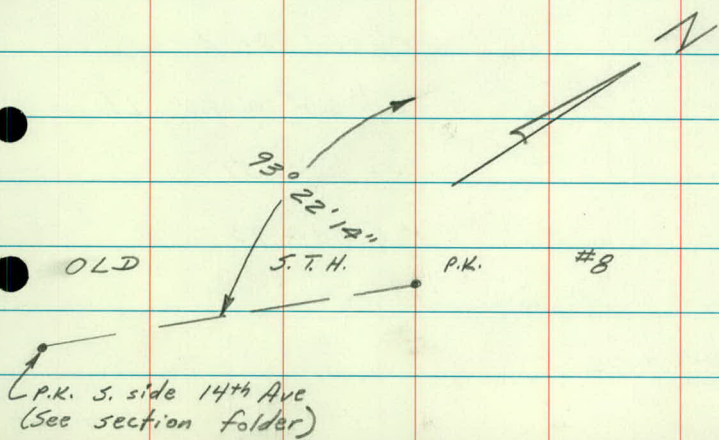
$$R = 214.9$$

$$\text{P.I.} =$$

$$T = 129.19$$

$$3+99.79 = \text{P.C.}$$

$$0+00$$



$$16 + 80.66 = P.C.C$$

P.I. =

CURVE No. 4

$$\Delta = 42^{\circ} 35' 30'' \text{ Rt.}$$

$$R = 230.89$$

$$T = 90.00$$

$$15 + 09.03 = P.C.$$

$$14 + 86.23 = P.T.$$

CURVE No. 3

$$\Delta = 69^{\circ} 30' 20'' \text{ Lt.}$$

P.I.

$$R = 266.51$$

$$T = 184.90$$

$$11 + 62.93 = P.C.C.$$

$$20+71.08 = P.T.$$

CURVE No. 6

$$\Delta = 88^{\circ} 48' 18'' \text{ Rt.}$$

$$P.I. =$$

$$R = 122.53$$

$$T = 120.00$$

$$18+81.17 = P.C.$$

$$18+23.12 = P.T.$$

CURVE No. 5

$$\Delta = 50^{\circ} 34' 22'' \text{ Rt.}$$

$$P.I. =$$

$$R = 161.40$$

$$T = 76.25$$

$$16+80.66 = P.C.C.$$

$$26 + 76.41 = P.T.$$

CURVE No. 8

$$\Delta = 64^{\circ} 28' 30'' \text{ Lt.}$$

P.I.

$$R = 139.54$$

$$T = 88.00$$

$$25 + 19.39 = P.C.$$

$$23 + 55.29 = P.T.$$

CURVE No. 7

$$\Delta = 26^{\circ} 00' 18'' \text{ Lt.}$$

P.I. =

$$R = 223.03$$

$$T = 51.50$$

$$22 + 54.06 = P.C.$$

5 of

$$29+98.78 = P.T.$$

CURVE No. 9

$$\Delta = 15^{\circ} 30' \text{ Rt.}$$

P.I.

$$R = 734.79$$

$$T = 100.00$$

$$28+00 = P.C.C.$$

$$29+68.92 = 28+00 \text{ Equation}$$

$$29+68.92 = P.C.C.$$

CURVE No. 8-B

$$\Delta = 14^{\circ} 31' 33'' \text{ Rt.}$$

P.I. =

$$R = 784.65$$

$$T = 100.00$$

$$27+70.00 = P.C.$$

$$38+10.60 = P.T.$$

CURVE No. 11-B

$$\Delta = 11^{\circ} 59' \text{ Rt.}$$

P.I.

$$R = 714.577$$

$$T = 75.00$$

$$36+61.15 = P.C.$$

$$34+04.11 = P.T.$$

CURVE No. 10

$$\Delta = 52^{\circ} \text{ Lt.}$$

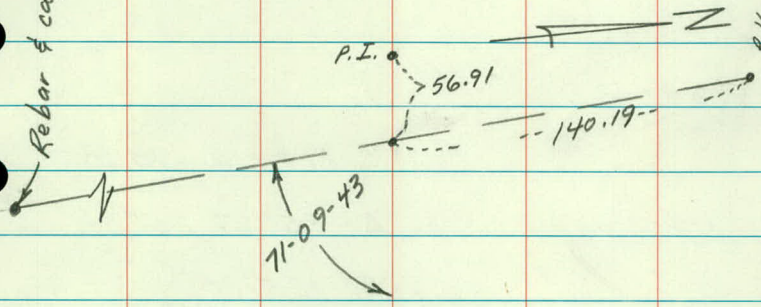
P.I.

$$R = 307.545$$

$$T = 150.00$$

$$31+24.99 = P.C.$$

Rebar & cap @ old scales



P.K. & U.S.A. tracks

$$44+81.49 = 44+72.80 \quad \text{Equation}$$

$$44+47.84 = \text{P.T.}$$

CURVE No. 13-B

$$\Delta = 85^{\circ} 27' 25''$$

P.I.

$$R = 125.80$$

$$T = 116.20$$

$$42+60.21 = \text{P.C.C.}$$

$$42+60.21 = \text{P.C.C.}$$

CURVE No. 12-B

$$\Delta = 40^{\circ} 44' 52''$$

P.I.

$$R = 228.877$$

$$T = 85.00$$

$$40+97.44 = \text{P.C.}$$

55+90[±] Spk on line

53+67.18 = P.T.

CURVE No. 16 A

$\Delta = 79^{\circ}00'12''$

P.I.

R = 121.30

T = 100.00

51+99.92 = P.C.

50+80.74 = P.T.

CURVE No. 15 A

$\Delta = 61^{\circ}00'12''$

P.I.

R = 169.755

T = 100.00

49+00 = P.C.

65+00

62+56.95 = P.T.

P.I.

CURVE No. 18

$\Delta = 51^{\circ}08'51''$

$R = 200$

$T = 95.71$

60+78.41 P.C.

59+77.24 P.T.

CURVE No. 17

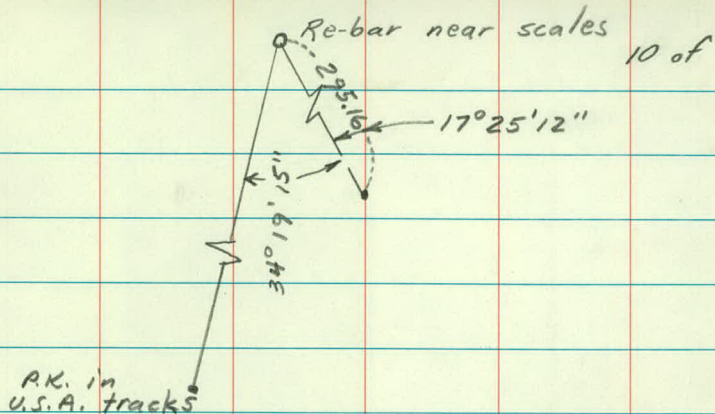
$\Delta = 65^{\circ}59'40''$

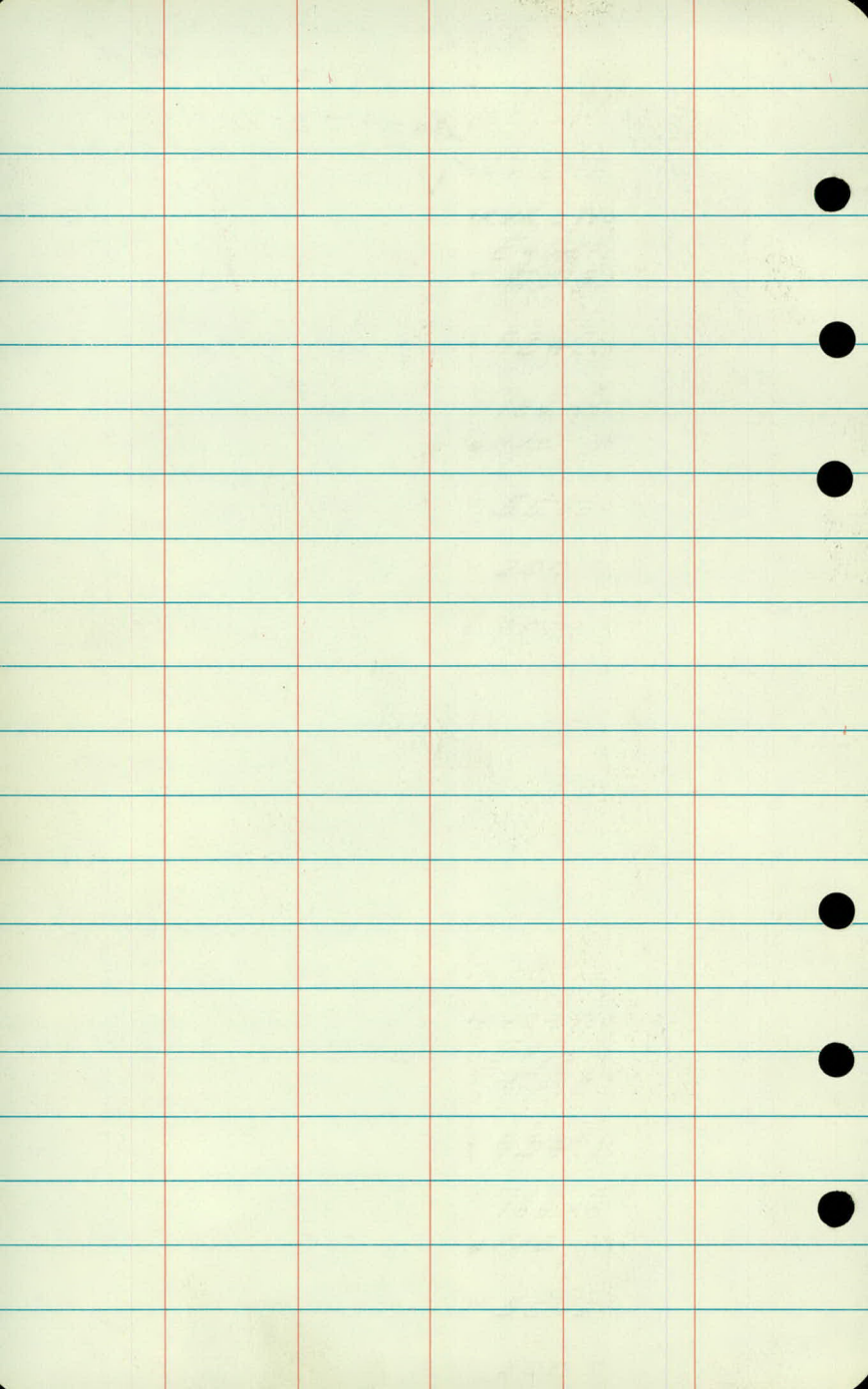
P.I.

$R = 154.00$

$T = 100.00$

57+99.86 = P.C.





LONG LAKE PARK

SIGHT DISTANCES FOR
TRACK CROSSING

R.M.

8-23-83

L.P.D.

Ken Simon

Main tracks →

U.S.A. Tracks

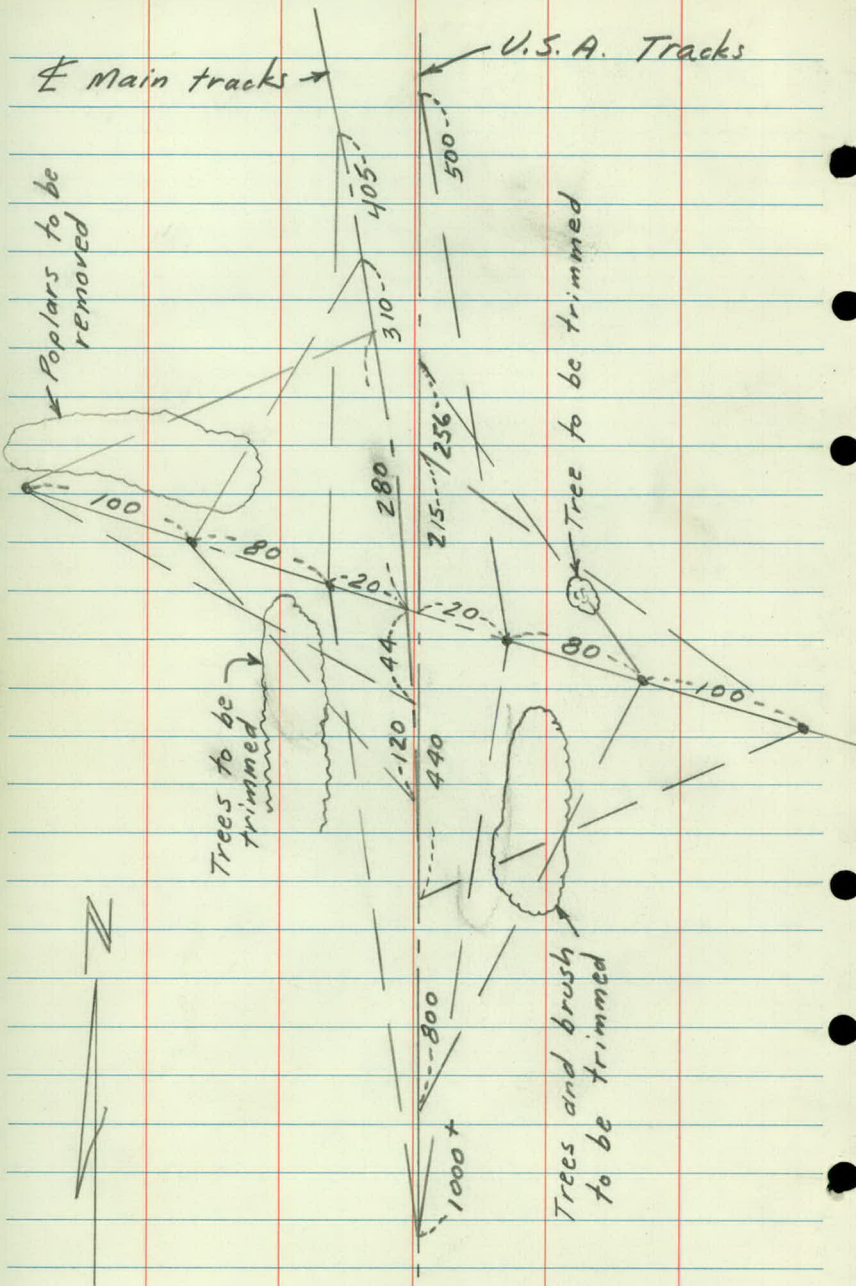
Poplars to be removed

Trees to be trimmed

Tree to be trimmed

Trees and brush to be trimmed

N



ML
DS
BW
TR
BL

LONG LAKE PARK ENTRANCE
BENCH MARKS

Sta	+	π	-	Elev
BM ₁	0.72	899.58		898.86
BM ₂	7.38	898.12	8.84	890.74
BM ₃	12.61	905.83	4.90	893.22
BM ₄	10.40	911.98	4.25	901.58
BM ₅	1.19	909.31	3.86	908.12
BM ₆	0.84	898.80	11.35	897.96
BM ₇	0.53	887.87	11.46	887.34
BM ₈	8.76	887.83	8.80	879.07
BM ₇	11.21	898.55	0.49	887.34
BM ₆	11.14	909.10	0.59	897.96
BM ₅	3.88	912.00	0.98	908.12
BM ₄	4.16	905.74	10.42	901.58
BM ₃	4.73	897.95	12.52	893.22
BM ₂	8.95	899.69	7.21	890.74
BM ₁			0.83	898.86

DESCRIPTION

Top H40 191 + 60 Rt

Top of REBAR 1+30 Rt 40'±

Top REBAR STA 5+29.19 (PI)

Top REBAR 9+00±

Spike 8" C.W. 12+57 Lt 80'

Top REBAR 13+50±

Spike Quint 18" C.W. Rt 70'

Spike Entrance Post

BM	+	Σ	-	ELL
BM ₈	1.13	880.20		879.07
BM ₉	6.35	885.98	0.57	879.63
BM ₁₀	4.43	885.12	5.29	880.69
BM ₁₁	9.22	886.69	7.65	877.47
BM ₁₂	4.21	888.72	2.18	884.51
BM ₁₃	7.39	889.42	6.69	882.03
BM ₁₄	3.57	888.64	4.35	885.07
BM ₁₃	6.97	889.01	6.60	882.04
BM ₁₂	2.36	886.88	4.49	884.52
BM ₁₁	8.01	885.50	9.39	877.49
BM ₁₀	5.33	886.04	4.79	880.71
BM ₉	0.99	880.64	6.39	879.65
BM ₈			1.54	879.10 (879.07)

DESCRIPTION

SPIKE ENT. POST

PK. IN '24" OAK 19+12 R 16'

PK IN 24" OAK 21+85 R 20'

Top IRON PT 24+19.89

Top IRON PT 29+98.79 ✓

Top IRON 33+50 ±

Top BENT SPIKE 37+35 R 16'

BM	+	-	-	HW
BM ₄	2.48	887.55		885.07
BM ₁₅	5.44	882.42	10.57	876.98
BM ₁₆	12.67	894.77	0.32	882.10
BM ₁₇	3.38	896.43	1.72	893.05
BM ₁₄			11.36	885.07

DESCRIPTION

BENT SAKK 37+35 R_T 16

IRON P.C. 43+50 ?

IRON 47+00 E

P.K. IN 24" OAK

112700 4.5 5.0 ✓

111700 4.5 5.0 ✓

109700 3.0 5.0 5.0

109100 3.0 5.0 6.5

108700 3.0 5.0 6.0 ✓

106700 3.0 5.0 6.0 ✓

105400 3.0 5.0 5.0 ✓

104400 3.0 5.0 5.0 ✓

103400 3.0 5.0 5.0

BENCH LEVELS

NEW BRIGHTON PARK

R.M.

9-7-83

P.D.

D.S.

B.M.	9.73	894.80		885.07	
T.P.	5.06	899.03	0.83	893.97	
B.M.	0.90	893.95	5.98	893.05	893.05
B.M.	8.63	896.04	6.54	887.41	
B.M.	7.25	901.81	1.48	894.56	
T.B.M.			10.30	891.51	
T.P.	8.84	902.27	8.38	893.43	
B.M.	1.40	902.09	1.58	900.69	
T.B.M.	2.65	895.41	9.33	892.76	
T.P.	4.43	891.64	8.20	887.21	
B.M.	3.39	887.06	7.97	883.67	883.56
T.P.	2.36	884.97	4.45	882.61	
T.P.	5.44	884.72	5.69	879.28	
B.M.			5.60	879.12	879.07

Bent spk Sta. 37+35 Rt 16'

Top iron (prop. cor) in road

Top P.K. in Oak tree Sta 46+48 Lt. 60'±

Top rebar P.I. #15A

Bent
Spk in 30" cottonwood Lt. Sta. 54+50

Top hub Sta. 57+00

Spk in 18" cottonwood ^{150±} Lt Sta. 58+00±

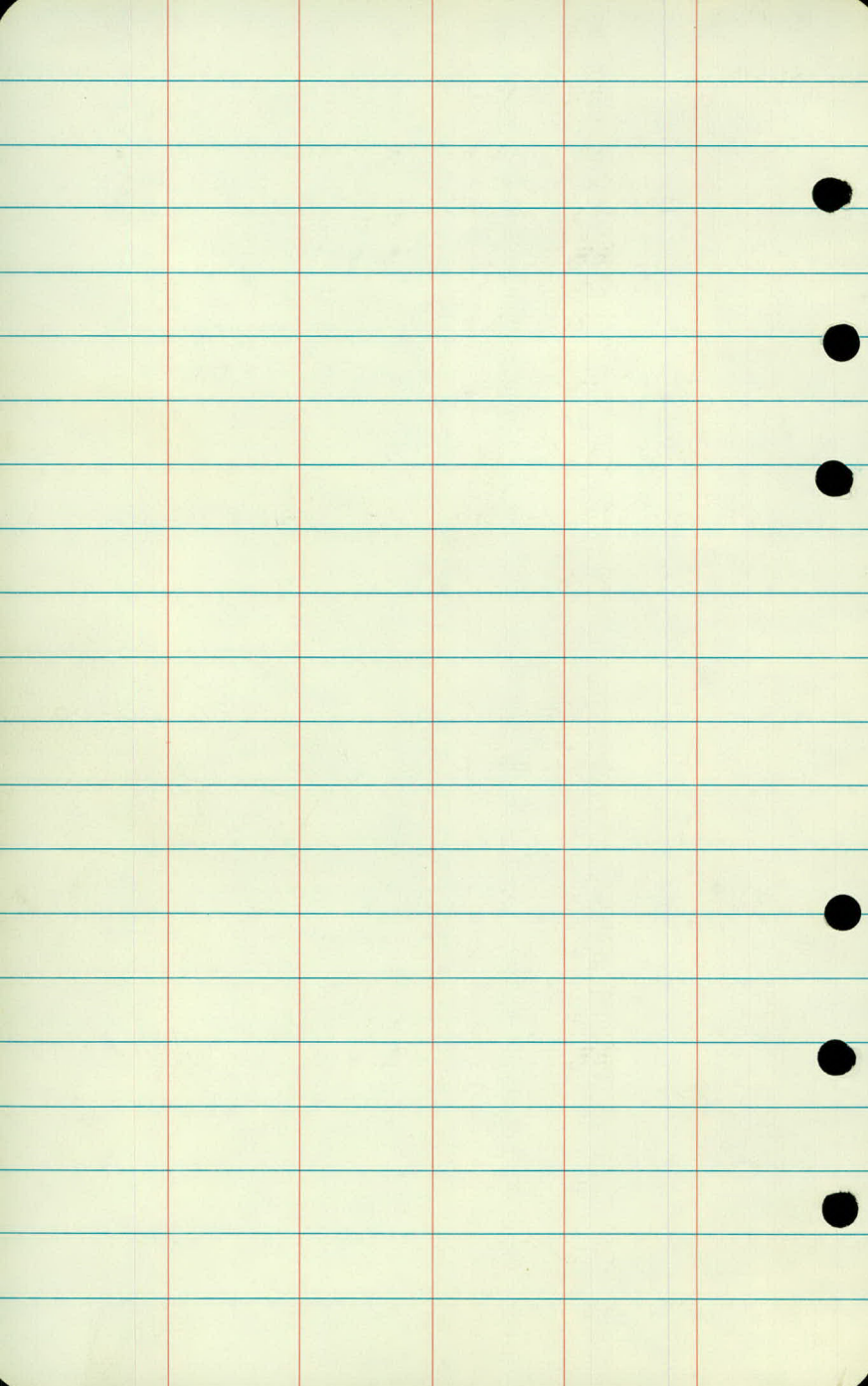
Top hub P.O.T. @ 60+00±

Top pipe (4")

Spk. in P.P. Sta 64+40 Lt. 25'

Top prop. iron next to switch

Top spk in post



L.P.U

22-AUG-83

D.S.

13 Pages

LONG LAKE PARK

HUB ELEVATIONS

STA	T	X	-	ELEV	DESIGN GRADE
B.M.	3.44	902.30		898.86	
1+00			9.21	893.09	893.32
+50			10.20	892.10	892.22
2+00			11.23	891.07	891.12
+50			12.45	889.85	890.02
3+00			13.36	888.94	888.92
+50			14.05	888.25	888.21
+79.79 P.C.			14.10	888.20	888.26
4+50			13.64	888.66	888.70
5+00			14.18	888.12	889.14
T.P.	16.57	909.80	9.07	893.23	
+50			24.99	884.81	889.67
6+00			18.24	891.56	890.38
+32.43 P.T.			14.15	895.65	890.94
+50			13.44	896.36	891.27
7+00			11.25	898.55	892.34
+50			11.68	898.12	893.50
8+00			7.79	902.01	894.66
+42.96 P.C.			13.03	896.77	895.66

L.P.D
P.S.

CUT FILL 2

Top Hyd^{STA} 191+60 RT

0.23

0.12

0.05

0.17

0.02

0.04

0.06

0.04

1.02

Top REBAR STA. 5+29.19 (RT)

4.86

1.18

4.71

5.09

6.21

4.62

7.35

1.11

STA	+	Δ	-	ELEV	DESIGN GRADE E
				909.80	
8+50			13.05	896.75	895.82
9+00			13.04	896.76	896.98
+50			9.30	900.50	898.14
TP					
10+00	5.98	911.73	4.05	905.75	899.30
+50			1.92	909.81	900.46
11+00			4.58	907.15	901.55
+50			4.47	907.26	901.69
11+62.73					
PCC			4.78	906.95	901.58
TP					
12+00	1.49	906.36	6.86	904.87	900.91
NAIL					
+50			5.80	900.56	899.16
13+00			9.06	897.30	896.56
+50			15.72	890.64	893.54
14+00			17.19	889.17	891.12
TP					
+50	2.67	890.43	18.60	887.76	888.40
86.23					
PT			3.49	886.94	886.43
15+09.03					
PC			4.00	886.43	885.19
15+50			4.43	886.00	882.96
16+00			5.96	884.47	880.24

CUT FILL 3

0.93

0.22

2.36

Top Hub ^{STA} 10+00 ± 6.45

9.35

5.60

5.57

5.37

Top Hub ^{STA} 12+00 ± 3.96

1.40

0.74

2.90

1.95

Top Hub ^{STA} 14+50 ±

0.64

0.51

1.24

3.04

4.23

					DESIGN	
STA	+	K	-	ELEV	GRADE E	
		890.43				
6+50			7.65	882.78	877.52	
6+80.66						
PCC			9.27	881.16	876.08	
B.M.	1.62	880.69	11.30	879.13	879.07	
17+00			2.34	878.35	875.40	
+50			6.40	874.29	874.48	
18+00			6.35	874.34	874.76	
23.12						
PT			6.10	874.59	875.17	
81.17						
PC			5.59	875.10	876.19	
TP						
9+00	8.50	884.14	5.05	875.64	876.52	
+50			7.15	876.99	877.40	
20+00			6.02	878.12	878.28	
+50			5.27	878.87	879.16	
+71.08						
PT			5.05	879.09	879.50	
21+00			4.51	879.63	879.90	
+50			3.49	880.65	880.36	
22+00			3.93	880.21	880.53	
+50			4.21	879.93	880.42	
+54.06						
PC	5.02	884.95	4.21	879.93	880.40	

CUT FILL 4

5.26

5.08

SPR IN ENTRANCE POST

2.95

0.19

0.42

0.58

1.09

TOP HUB ^{STA} 19+00 E

0.88

0.41

0.16

0.29

0.41

0.27

0.29

0.32

0.49

TOP HUB ^{STA} PC 7 E

0.47

STA	+	K	-	ELEV	DESIGN GRADE E
		884.95			
23+00			4.96	879.99	880.17
+50			4.53	880.42	879.92
+55.49 PT			4.48	880.47	879.89
24+00			4.64	880.31	879.67
+50			5.56	879.39	879.42
25+00			6.19	878.76	879.00
+19.39 PC			6.43	878.52	878.84
+50			6.79	878.16	878.58
TP	4.53	883.29	6.19	878.76	
BM	3.31	883.73	2.87	880.42	
BM			6.26	877.47	877.47
BM			3.04	880.69	880.69
BM	2.42	882.84		880.42	
25+50			4.68	878.16	878.58
26+00			5.19	877.65	878.16
+50 PC			9.60	873.24	877.86
27+70.0			10.30	872.54	878.06
28+00			9.13	873.71	878.32

CUT FILL 5

0.17

0.50

0.58

0.64

0.03

0.24

0.32

0.42

TOP HUB STA 25+00 &

TOP REBAR PI #8

TOP IRON PI STA 24+19.89 (OLD) ^{MARK}

PK IN 24" DIA STA 21+85 RT20 (OLD) ^{MARK}

TOP REBAR PI #8 (OLD)

0.51

4.62

5.52

4.61

STA	+	X	-	ELEV	GRADE	±
		882.84				
28+50			4.63	878.21	878.82	
29+00			1.10	881.74	879.32	
T.P	8.23	889.97	1.10	881.74		
+50			5.46	884.51	879.82	
P.C.C.			4.27	885.70	880.01	
28+50			3.03	886.94	880.51	
29+00			5.60	884.37	881.01	
+50			7.18	882.79	881.51	
98.78						
P.T.			5.85	884.12	881.84	
30+50			6.30	883.67	881.84	
31+00			7.42	882.55	881.51	
T.P.	2.59	885.14	7.42	882.55		
+24.99						
P.C.			4.23	880.91	881.26	
31+50			4.70	880.44	881.01	
32+00			2.96	882.18	880.64	
+50			3.94	881.20	880.58	
33+00			4.44	880.70	880.68	
+50			3.51	881.63	881.09	
			3.03			

CUT FILL 6

0.61

2.42

TOP HUB STA 29+00 £

4.69

5.69

6.43

3.36

1.28

2.28

1.83

1.04

TOP HUB STA 31+00 £

35

57

1.54

0.62

0.02

0.54

STA	+	T	-	ELEV	Design
					Grade ±
			742	885.14	
IRON			3.17	881.97	882.03
34+00			3.53	881.61	881.63
+50			5.42	879.72	882.17
35+00			4.09	881.05	882.71
T.P.	10.72	891.77	4.09	881.05	
+50			9.49	882.28	883.54
36+00			8.76	883.01	884.95
+50			6.66	885.11	886.55
+61.15					
P.C.			5.75	886.02	
RAIL			4.45	887.32	
RAIL			4.45	887.32	
RAIL			4.46	887.31	
RAIL			4.47	887.30	
37+00			4.78	886.99	887.53
B.M.			6.74	885.03	885.07
+50			10.04	881.73	886.75
38+00			12.23	879.54	885.42
+50			13.23	878.54	884.63

CUT FILL 7

TOP IRON STA 33+50 ± 0.06

0.02

2.45

1.66

TOP HUB STA 35+00 ±

1.26

1.94

1.44

0.54

0.04

TOP BENT SPIKE STA 37+35 RT

5.07

6.07

STA	+	X	-	ELEV
		891.77		
39+00			12.08	879.69 884.38
+50			12.10	879.67 884.67
40+00			11.70	880.07 885.23
+50			9.33	882.44 885.79
P.T.			7.40	884.37
T.P.	9.22	899.83	1.16	890.61
B.M.	6.60	899.46	6.97	892.86 893.05
T.P.	3.98	891.22	12.22	887.24
IRON	3.55	885.77	9.00	882.22
T.P.	1.74	879.86	7.65	878.12
			1.42	878.44
T.P.	9.04	883.63	5.27	874.59
B.M.			2.97	880.66 880.42
B.M.			5.93	877.70 877.47

P.I. IN 24" OAK

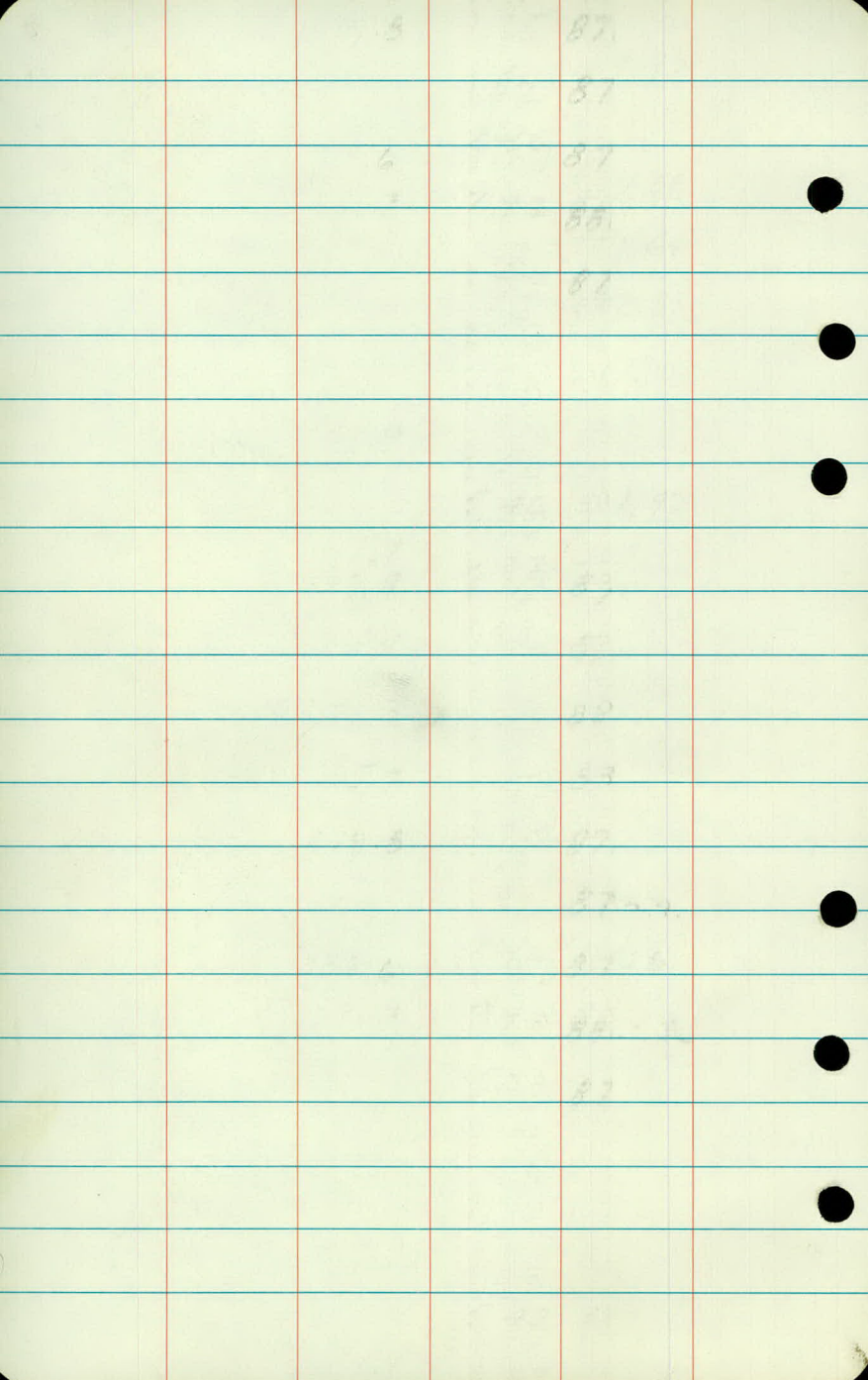
TOP HUB STA 37+00 ±

TOP IRON STA 33+50 ±

TOP HUB STA 28+50

TOP REBAR P.I. [±] 8

TOP IRON P.I. STA 24+19.89



R.M.

9-8-83

P.D.

D.S.

			PRO.	
			ELEV	GRADE
B.m.	2.17	887.24	885.07	
37+50		5.46	881.78	886.75
38		7.67	879.57	885.42
+50		8.65	878.59	884.63
39		7.50	879.74	884.38
+50		7.52	879.72	884.67
40		7.33	879.91	885.23
+50		4.75	882.49	885.79
P.T. +97.44		2.82	884.42	886.32
T.P.	11.19	895.61	2.82	884.42
41+50		9.52	886.09	886.91
42		7.29	888.32	887.47
+50		6.43	889.18	888.03
P.C.C.		6.80	888.81	888.14
43		8.28	887.33	888.59

Cut Fill

Bent spk sta 37+35 Rt. 16

4.97

5.85

6.04

4.64

4.95

5.32

3.30

1.90

Top Hub sta 40+97.44

0.82

0.85

1.15

0.67

1.26

		895.61		ELEV	DESIGN GRADE
43+50			10.43	885.18	889.15
44			11.27	884.34	889.71
P.T.					
44+47.84			8.38	887.23	890.25
45+00			5.06	890.56	890.93
T.P.	9.25	899.80	5.06	890.55	
+50			5.83	893.97	891.49
46			4.65	895.15	892.05
+50			4.59	895.24	892.37
B.M.	6.45	899.82	6.43	893.37	
47			6.53	893.29	892.20
+50			9.35	890.47	891.55
48			11.14	888.68	890.41
+50			11.13	888.69	889.03
P.C.					
49			11.99	887.83	887.65
+50			12.90	886.92	886.27
T.P.	4.45	891.37	12.90	886.92	
50			6.10	885.27	884.89
+50			7.87	883.50	883.75

CUT FILL

3.97

5.37

3.02

0.38

Top hub sta. 45+00

2.48

3.10

2.87

P.R. in 26" Oak 60° East sta. 46+50

1.09

0.98

1.73

1.73

0.34

0.18

0.65

Top hub sta 49+50

0.38

0.25

				DESIGN
	891.37			GRADE 4
+80.74 P.T		7.90	883.47	883.27
51+00		9.06	882.31	883.07
+50 P.C		7.66	883.71	882.87
99.92		5.26	886.11	883.13
52+50		3.33	888.04	883.63
B.M.		3.97	887.40	887.41
53		4.45	886.92	884.13
+50		8.11	883.26	884.63
P.T		8.50	882.87	884.80
+67.18		9.48	881.89	885.13
54		8.46	882.91	885.63
+50		7.53	883.84	886.13
55		3.63	887.74	886.63
+50		3.63	887.74	
T.P.	15.29	903.03	887.74	
56+00		12.50	890.53	887.13
+50		12.01	891.02	887.51
57		11.55	891.48	887.66
+50		11.88	891.15	887.57
P.C		14.10	888.93	887.25

CUT FILL

0.20

0.76

0.84

2.98

4.41

Top rebar P.I. Curve #16

2.79

1.37

1.93

3.24

2.72

2.29

1.11

Top hub sta 55 +50

3.40

3.51

3.82

3.58

1.68

903.03

DESIGN
GRADE 2

58+50			15.23	887.80	886.81
59			16.24	886.79	886.37
+50			16.33	886.70	885.93
P.T.					
59+			15.30	887.73	885.69
60+00			14.60	888.43	885.49
+50			11.87	891.16	885.05
P.C.					
+78.41			12.70	890.33	884.80
P.O.T.	1.52	894.16	10.29	892.74	892.76
61+00			7.50	886.66	884.61
P.T.					
62+56.95			14.43	879.73	883.23
63			14.02	880.14	882.85
+50			13.72	880.44	882.41
64			13.47	880.69	881.97
+50			13.75	880.41	881.53
65			13.32	880.84	881.09
B.M.			10.61	883.55	883.56

CUT FILL

0.99

0.42

0.77

2.04

2.94

6.11

5.53

Top hub P.O.T @ 60+00+

2.05

3.50

2.71

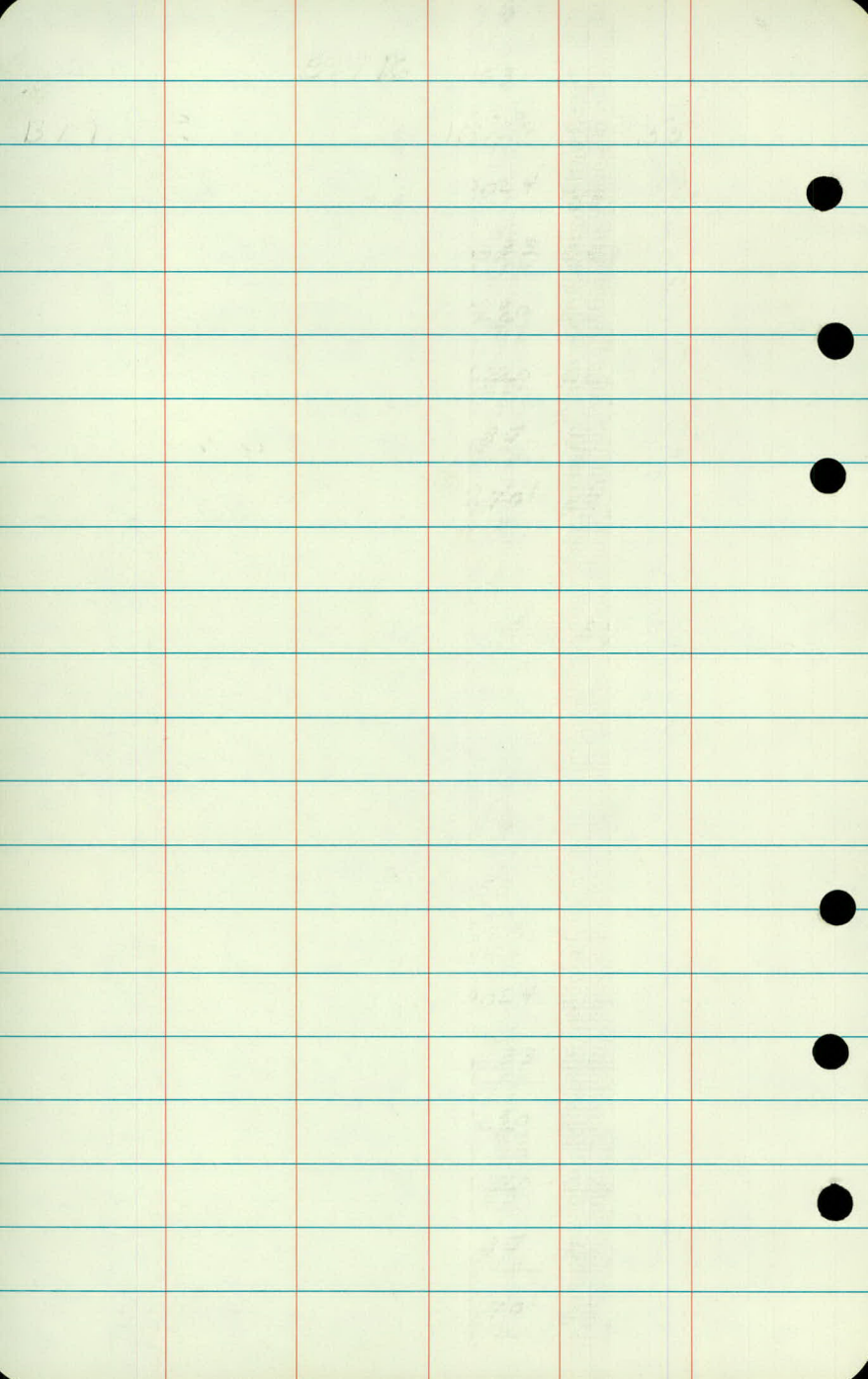
1.97

1.28

1.12

0.25

Spk in P.P. Sta 64+40 Lt 25'



L.P.D

1-SEPT.-83

D.S.

1

2 Pages

LONG LAKE PARK

BENCH

STA	+	T	-	FLV	
B.M.	5.45	882.92			877.47
T.P.	11.98	890.20	4.70	878.22	
HUB			8.45	881.75	
T.P.	2.28	884.84	7.64	882.56	
B.M.					
IRON	2.64	884.62	2.86	881.98	882.03
T.P.	10.49	891.55	3.56	881.06	
B.M.			6.50	885.05	885.07

L.P.D.
D.S.

1-SEPT-83
78°

2

TOP IRON P.I. STA 24+19.89 (OLD MARK)

HUB STA. 28+50 ±

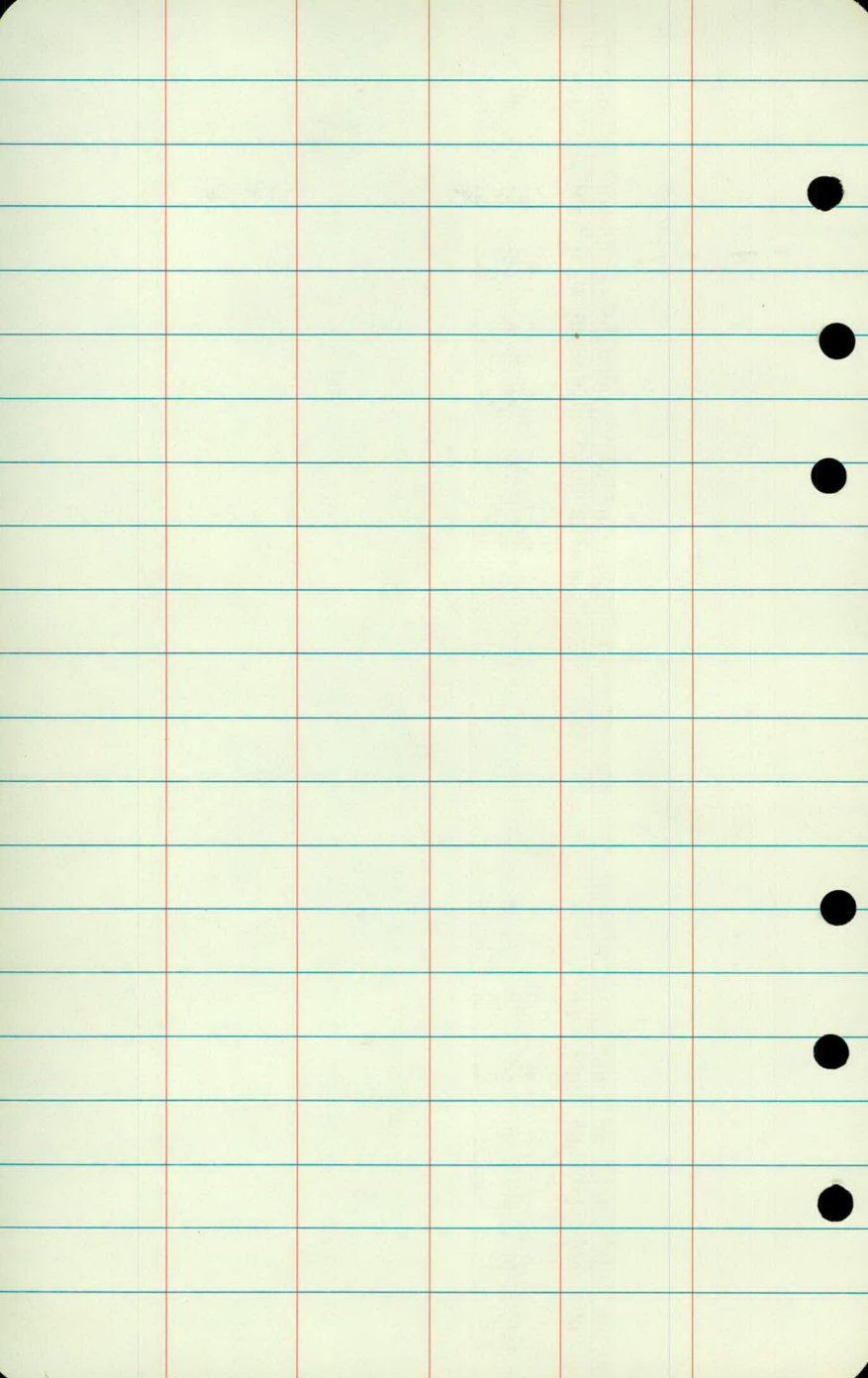
HUB STA 29+00 ±

HUB STA 31+00 ±

TOP IRON STA 33+50 RT OF ±

HUB STA 35+00 ±

TOP BENT SPIKE STA 37+35 RT



Topography

LONG LAKE PARK

R.M.

P.D.

D.S.

9-6-83

9-9-83

LT

£

RT

$$63+55 \quad \begin{array}{l} \text{Center 28' conc.} \\ \text{circular slab} \\ \hline 21 \end{array}$$

$$62+87 \quad \begin{array}{l} \text{Center 28' Conc.} \\ \text{Circular Slab} \\ \hline 28 \end{array}$$

$$3+53.5 \quad \begin{array}{l} 36'' \text{ Culv.} \\ \hline 108 \end{array}$$

$$\quad \begin{array}{l} 36'' \text{ Culv.} \\ \hline 87 \end{array}$$

15 Center
Circular

$$0+34$$

$$\begin{array}{l} \text{P.P.} \\ \hline 50 \end{array}$$

$$\begin{array}{l} \text{P.P.} \\ \hline 200 \end{array}$$

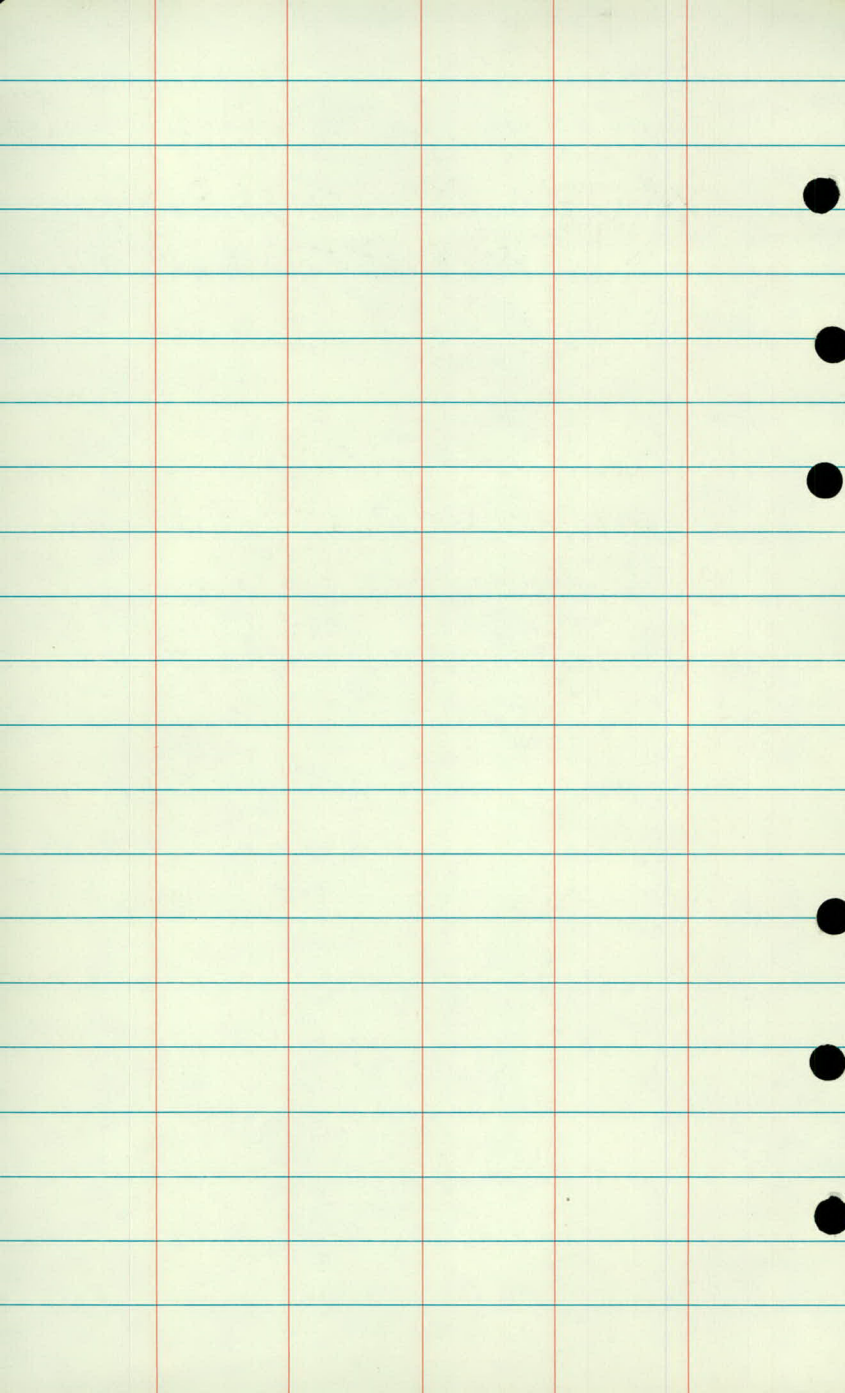
Center
87 Circular

2.16 885.72

5pk in
883.56 1.P. 64+40

6.15 879.57 Cent. S.
slab

5.96 879.76 Cent. N.
slab



NEW BRIGHTON
PARK.

PARKING LOT 1

R.M.

9-21-83

L.P.D.

D.J.

4.37 883.44 879.07

NW. Cor. 5.0 878.4

NE Cor. 2.4 881.0

SE Cor. 1.0 882.4

SW Cor. 3.9 879.5

Top spk. in gate post (curve # 5)

44.

10 83

10 87

4 88

0 89

3 90

44.

10 83

10 87

4 88

0 89

3 90

X-SECTIONS

LONG LAKE PARK ENT.
ROAD

These are the
corrections to date
7-22-34 LRF

R.M.

10/546/83

L.P.D.

D.S.

B.M.	0.65	899.51		898.86
------	------	--------	--	--------

1+00

2+00

T.P.	6.15	894.42	11.24	888.27
------	------	--------	-------	--------

3+00

P.C.
3+99.79

4+50

5+00

P.I. (B.M.)	5+29.19		1.16	893.26	893.22
-------------	---------	--	------	--------	--------

+50

T.P.	9.65	899.87	4.20	890.22
------	------	--------	------	--------

5
Lt.

£

2
Rt.

Top hyd 191+60 Rt on old Hwy 8
across from park entrance

$$\begin{array}{r} 894.21 \\ 5.3 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 894.41 \\ 5.1 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 892.51 \\ 7.0 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 892.98 \\ 6.53 \\ \hline \end{array}$$

$$\begin{array}{r} 893.31 \\ 6.2 \\ \hline 26 \end{array}$$

$$\begin{array}{r} 893.71 \\ 5.8 \\ \hline 65 \end{array}$$

$$\begin{array}{r} 894.71 \\ 4.8 \\ \hline 83 \end{array}$$

$$\begin{array}{r} 885.31 \\ 14.2 \\ \hline 69 \end{array}$$

$$\begin{array}{r} 890.11 \\ 9.4 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 890.52 \\ 8.99 \\ \hline \end{array}$$

$$\begin{array}{r} 891.01 \\ 8.5 \\ \hline 44 \end{array}$$

$$\begin{array}{r} 885.51 \\ 14.0 \\ \hline 65 \end{array}$$

Sta 3+00

$$\begin{array}{r} 884.32 \\ 10.1 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 888.22 \\ 6.2 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 887.27 \\ 6.15 \\ \hline \end{array}$$

$$\begin{array}{r} 888.42 \\ 6.0 \\ \hline 43 \end{array}$$

$$\begin{array}{r} 882.22 \\ 12.2 \\ \hline 65 \end{array}$$

$$\begin{array}{r} 881.42 \\ 13.0 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 887.22 \\ 6.7 \\ \hline 31 \end{array}$$

$$\begin{array}{r} 887.91 \\ 6.51 \\ \hline \end{array}$$

$$\begin{array}{r} 887.52 \\ 6.6 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 882.52 \\ 11.9 \\ \hline 65 \end{array}$$

$$\begin{array}{r} 881.82 \\ 12.6 \\ \hline 59 \end{array}$$

$$\begin{array}{r} 887.12 \\ 6.7 \\ \hline 35 \end{array}$$

$$\begin{array}{r} 888.40 \\ 6.02 \\ \hline \end{array}$$

$$\begin{array}{r} 887.82 \\ 6.6 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 881.42 \\ 13.0 \\ \hline 79 \end{array}$$

$$\begin{array}{r} 884.82 \\ 9.6 \\ \hline 82 \end{array}$$

$$\begin{array}{r} 890.62 \\ 3.8 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 892.92 \\ 1.5 \\ \hline 45 \end{array}$$

$$\begin{array}{r} 890.02 \\ 4.4 \\ \hline 29 \end{array}$$

$$\begin{array}{r} 888.76 \\ 5.66 \\ \hline \end{array}$$

$$\begin{array}{r} 888.62 \\ 5.8 \\ \hline 51 \end{array}$$

$$\begin{array}{r} 884.02 \\ 10.4 \\ \hline 81 \end{array}$$

$$\begin{array}{r} 894.52 \\ + 0.1 \\ \hline 66 \end{array}$$

$$\begin{array}{r} 890.82 \\ 3.6 \\ \hline 37 \end{array}$$

$$\begin{array}{r} 887.71 \\ 4.71 \\ \hline \end{array}$$

$$\begin{array}{r} 889.52 \\ 4.9 \\ \hline 58 \end{array}$$

$$\begin{array}{r} 883.92 \\ 10.5 \\ \hline 88 \end{array}$$

899.87

6+00

7+00

8+00

P.C.

T. P. 11.97 906.33 5.51 894.36

P.C.

8+50

9+00

+50

10

+50

11

W

E

E

LX

RT.

898.27

891.37

890.22

890.37

886.01

 $\frac{1.6}{73}$ $\frac{0.5}{29}$

2.65

 $\frac{9.5}{61}$ $\frac{13.8}{85}$

898.67

892.27

892.41

892.27

887.71

 $\frac{1.2}{49}$ $\frac{7.6}{20}$

7.46

 $\frac{7.6}{54}$ $\frac{12.1}{84}$

898.37

894.67

893.83

894.27

889.17

 $\frac{1.5}{46}$ $\frac{5.2}{25}$

6.04

 $\frac{5.6}{51}$ $\frac{10.7}{75}$

P.C.

904.13

895.23

894.62

894.93

889.33

 $\frac{2.2}{80}$ $\frac{11.1}{29}$

11.71

 $\frac{11.4}{44}$ $\frac{17.0}{78}$

904.33

895.93

895.92

895.83

891.13

 $\frac{2.0}{72}$ $\frac{10.4}{23}$

10.41

 $\frac{10.5}{45}$ $\frac{15.2}{79}$

905.13

903.13

898.13

896.93

893.53

 $\frac{1.2}{79}$ $\frac{3.2}{51}$ $\frac{8.2}{18}$ $\frac{9.4}{65}$ $\frac{12.8}{88}$

905.63

900.13

897.26

896.93

893.53

 $\frac{0.7}{83}$ $\frac{5.6}{24}$

6.61

 $\frac{7.0}{53}$ $\frac{7.5}{100}$

905.13

901.53

900.99

901.63

902.83

 $\frac{1.2}{86}$ $\frac{4.8}{36}$

5.34

 $\frac{4.7}{55}$ $\frac{3.5}{100}$

905.23

901.53

901.54

902.63

904.63

 $\frac{1.1}{76}$ $\frac{4.8}{26}$

4.79

 $\frac{3.7}{53}$ $\frac{1.7}{100}$

906.33

T.P.	8.39	909.93	4.79	901.54
------	------	--------	------	--------

11+50

12

+50

13

+50

14

T.P.	12.33	903.04	19.22	890.71
------	-------	--------	-------	--------

14+50

P.T. Curve No. 3

14+86.23

Lt.

E

Rt.

Top hub sta. 11+00

906.03

 $\frac{3.9}{78}$

901.43

 $\frac{8.5}{31}$

8901.45

8.48

902.43

 $\frac{7.5}{46}$

903.53

 $\frac{6.4}{82}$

902.23

 $\frac{7.7}{100}$

905.33

 $\frac{4.6}{64}$

900.93

 $\frac{9.0}{31}$

900.81

9.12

901.53

 $\frac{8.4}{31}$

901.73

 $\frac{8.2}{66}$

899.93

 $\frac{10.0}{92}$

906.03

 $\frac{3.9}{75}$

899.13

 $\frac{10.8}{28}$

899.99

9.94

899.53

 $\frac{10.4}{42}$

898.13

 $\frac{11.8}{89}$

904.73

 $\frac{5.2}{78}$

895.93

 $\frac{14.0}{28}$

896.61

13.32

896.73

 $\frac{13.2}{39}$

894.93

 $\frac{15.0}{90}$

903.23

 $\frac{6.2}{83}$

893.23

 $\frac{16.7}{29}$

893.66

16.27

893.73

 $\frac{16.2}{40}$

893.83

 $\frac{16.1}{81}$

902.83

 $\frac{7.1}{92}$

890.43

 $\frac{19.5}{32}$

890.71

19.22

890.93

 $\frac{19.0}{38}$

890.53

 $\frac{19.4}{70}$

Top hub sta 14+00

901.94

 $\frac{1.1}{90}$

887.84

 $\frac{15.2}{24}$

887.60

15.44

888.44

 $\frac{14.6}{37}$

888.94

 $\frac{14.1}{65}$

901.04

 $\frac{2.0}{100}$

896.54

 $\frac{6.5}{62}$

885.24

 $\frac{17.8}{20}$

886.93

 $\frac{16.11}{Hub}$

885.84

 $\frac{17.2}{4}$

885.74

 $\frac{17.3}{31}$

887.17

 $\frac{15.87}{62}$

903.04

15+50

T.P. 4.90 890.62 17.32 885.72

16+00

+50

17+00

B.M. 11.52 879.10 879.07

E
5
Lt.
#

996.44	891.84	982.94	885.76	882.34	883.44	884.54
$\frac{6.6}{85}$	$\frac{11.2}{56}$	$\frac{20.1}{22}$	$\frac{17.08}{4}$	$\frac{20.2}{4}$	$\frac{19.6}{32}$	$\frac{18.5}{70}$
			Hub			

Top hub P.C. Curve # 4

886.32	886.62	884.42	881.02	880.80	880.52	882.62
$\frac{4.3}{82}$	$\frac{4.0}{64}$	$\frac{6.2}{39}$	$\frac{9.6}{27}$	$\frac{9.82}{26}$	$\frac{10.1}{26}$	$\frac{8.0}{56}$
Toe hill						
883.42	883.12	881.52	878.82	878.22	878.22	880.32
$\frac{7.2}{115}$	$\frac{7.5}{87}$	$\frac{9.1}{44}$	$\frac{11.8}{26}$	$\frac{12.4}{7}$	$\frac{12.4}{7}$	$\frac{11.1}{29}$
Toe hill						
880.32	880.42	876.52	875.92	875.92	877.32	875.12
$\frac{10.3}{84}$	$\frac{10.2}{40}$	$\frac{14.1}{28}$	$\frac{14.70}{22}$	$\frac{13.3}{22}$	$\frac{15.5}{38}$	$\frac{18.8}{59}$
			Hub			

Spk in fence post

Sta 11+00 to tree on rt 130'

—

1.00

880.07

879.07

17+50

18+00

+50

T.P. 9.83 885.44 4.46 875.61

19+00

+50

20+00

T.P. 8.60 887.46 6.58 878.86

+50

21+00

Lt

Oct 20

Rt.

Spk in gate post

$$\begin{array}{r} 874.87 \\ 5.2 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 874.87 \\ 5.2 \\ \hline 38 \end{array}$$

$$\begin{array}{r} 875.15 \\ 4.9 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 873.44 \\ 6.63 \end{array}$$

$$\begin{array}{r} 873.07 \\ 7.0 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 871.37 \\ 8.7 \\ \hline 43 \end{array}$$

$$\begin{array}{r} 870.91 \\ 9.1 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 872.67 \\ 7.4 \\ \hline 72 \end{array}$$

$$\begin{array}{r} 872.77 \\ 7.3 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 874.47 \\ 5.6 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 873.30 \\ 6.77 \end{array}$$

$$\begin{array}{r} 874.67 \\ 5.4 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 873.47 \\ 6.6 \\ \hline 24 \end{array}$$

$$\begin{array}{r} \text{water} \\ 871.77 \\ 8.3 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 873.27 \\ 6.8 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 873.87 \\ 6.2 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 874.47 \\ 5.6 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 874.61 \\ 5.46 \end{array}$$

$$\begin{array}{r} 874.07 \\ 6.0 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 872.27 \\ 7.8 \\ \hline 24 \end{array}$$

$$\begin{array}{r} \text{water} \\ 871.67 \\ 8.4 \\ \hline 45 \end{array}$$

damp

Top hub sta 19+00

$$\begin{array}{r} 878.84 \\ 6.6 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 877.94 \\ 7.5 \\ \hline 45 \end{array}$$

$$\begin{array}{r} 876.34 \\ 9.1 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 875.61 \\ 9.83 \end{array}$$

$$\begin{array}{r} 875.24 \\ 10.2 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 872.34 \\ 13.1 \\ \hline 38 \end{array}$$

$$\begin{array}{r} 871.14 \\ 14.3 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 882.54 \\ 2.9 \\ \hline 63 \end{array}$$

$$\begin{array}{r} 882.84 \\ 2.6 \\ \hline 51 \end{array}$$

$$\begin{array}{r} 878.34 \\ 7.1 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 876.99 \\ 8.45 \end{array}$$

$$\begin{array}{r} 876.04 \\ 9.4 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 876.84 \\ 8.6 \\ \hline 25 \end{array}$$

$$\begin{array}{r} \text{water} \\ 871.14 \\ 14.3 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 882.94 \\ 2.5 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 879.24 \\ 6.2 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 878.08 \\ 7.36 \end{array}$$

$$\begin{array}{r} 877.24 \\ 8.2 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 878.64 \\ 6.8 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 874.74 \\ 10.7 \\ \hline 37 \end{array}$$

water

Top hub sta 20+50

$$\begin{array}{r} 884.46 \\ 3.0 \\ \hline 66 \end{array}$$

$$\begin{array}{r} 880.86 \\ 6.6 \\ \hline 34 \end{array}$$

$$\begin{array}{r} 884.36 \\ 3.1 \\ \hline 24 \end{array}$$

$$\begin{array}{r} 880.66 \\ 6.8 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 879.46 \\ 8.0 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 878.86 \\ 8.60 \end{array}$$

$$\begin{array}{r} 878.26 \\ 9.2 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 878.66 \\ 8.8 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 872.96 \\ 14.5 \\ \hline 44 \end{array}$$

water

$$\begin{array}{r} 885.86 \\ 1.9 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 882.76 \\ 4.7 \\ \hline 22 \end{array}$$

$$\begin{array}{r} 881.46 \\ 6.0 \\ \hline 17 \end{array}$$

$$\begin{array}{r} 880.16 \\ 7.3 \\ \hline 13 \end{array}$$

$$\begin{array}{r} 879.63 \\ 7.83 \end{array}$$

$$\begin{array}{r} 879.46 \\ 8.0 \\ \hline 11 \end{array}$$

$$\begin{array}{r} 875.56 \\ 11.9 \\ \hline 43 \end{array}$$

$$\begin{array}{r} 872.06 \\ 15.4 \\ \hline 75 \end{array}$$

887.46

21+50

T.P. 9.52 890.11 6.87 880.59

21+50

22+00

+50

T.P. 7.70 887.59 10.22 879.89

23+00

+50

T.P. 4.48 884.75 7.32 880.27

24+00

+50

Lt.

£

880.59	880.0	874.8	871.1
6.87	7.5	12.7	16.4
	17	58	75
			water

Top hub sta. 21+50

886.71	883.41	880.81	880.59			
3.4	6.7	9.3	9.52			
47	19	10				
888.01	883.81	880.51	880.53	879.21	876.31	869.81
2.1	6.3	9.6	10.9	13.8	20.3	
58	19	8	18	42	71	
887.01	882.71	880.41	879.89	879.31	873.91	870.01
3.1	7.4	9.7	10.22	10.8	16.2	20.1
57	17	9	17	42	63	water

Top hub sta. 22+50

885.59	882.89	880.09				
2.0	4.7	7.5	7.65	8.0	13.4	17.1
55	25	11	12	43	66	
883.19	882.99	882.29	880.39	880.59	880.99	877.99
4.4	4.6	5.3	7.2	7.0	6.8	9.6
65	37	18	11	9	12	46
			7.23			

Top hub sta. 24+00

881.55	881.25	880.25	880.27	880.26	881.05	878.85	875.95
3.2	3.5	4.5	4.48	4.5	3.7	5.9	8.8
57	14	11	9	12	43	67	
880.35	880.85	880.95	879.55	879.55	880.55	878.55	875.55
4.4	3.9	3.8	5.2	5.1	4.2	6.2	9.2
66	34	15	11	9	13	46	75
			5.20				

884.75

25+00

B.M.	7.72	885.19	7.33	877.42	877.47
------	------	--------	------	--------	--------

+50

26

+50

T.P.	15.47	888.01	12.65	872.54
------	-------	--------	-------	--------

27+70	=P.C.
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28

+50

29

Oct 21, 1983

£

Lt.						Rt.	
877.55	879.45	878.75	878.72	878.75	879.35	878.85	877.00
$\frac{7.2}{51}$	$\frac{5.3}{18}$	$\frac{6.0}{7}$	6.03	$\frac{6.0}{11}$	$\frac{5.4}{14}$	$\frac{5.9}{50}$	$\frac{7.7}{75}$

Top iron P.I. 24+19.89 (Marks Alinea

871.99	876.99	878.19	878.10	878.29	879.39	880.09	879.7
$\frac{13.2}{75}$	$\frac{8.2}{36}$	$\frac{7.0}{8}$	7.09	$\frac{6.9}{14}$	$\frac{5.8}{17}$	$\frac{5.1}{43}$	$\frac{5.4}{75}$
870.89	872.59	875.89	877.66	878.69	877.79	878.09	880.29
$\frac{14.3}{62}$	$\frac{12.6}{45}$	$\frac{9.3}{21}$	7.53	$\frac{6.5}{12}$	$\frac{7.4}{15}$	$\frac{7.1}{36}$	$\frac{4.9}{56}$
water							
870.89	873.25	875.89	877.99	875.69	877.99	875.69	875.5
$\frac{14.3}{14}$		11.94	27	59	66		$\frac{9.6}{75}$
water							£ Rt.

Top hub sta 27+70 = P.C.

871.21	872.01	872.54	872.31	871.11
$\frac{16.8}{48}$	$\frac{16.0}{26}$	15.47	$\frac{15.7}{41}$	$\frac{16.9}{68}$
872.81	873.21	873.70	873.21	872.51
$\frac{15.2}{75}$	$\frac{14.8}{46}$	14.31	$\frac{14.8}{51}$	$\frac{15.5}{75}$
876.01	877.21	878.22	876.91	875.51
$\frac{12.0}{75}$	$\frac{10.8}{49}$	9.79	$\frac{11.1}{50}$	$\frac{12.5}{75}$
877.21	881.01	881.75	880.51	878.51
$\frac{10.8}{75}$	$\frac{7.0}{34}$	6.26	$\frac{7.5}{35}$	$\frac{9.5}{75}$

29+50

B.m.

10.56

877.45

877.47

End new Attachment

LT

879.11

$\frac{8.9}{75}$

882.51

$\frac{5.5}{46}$

884.71

$\frac{3.3}{19}$

884.52

3.49

884.21

$\frac{3.8}{18}$

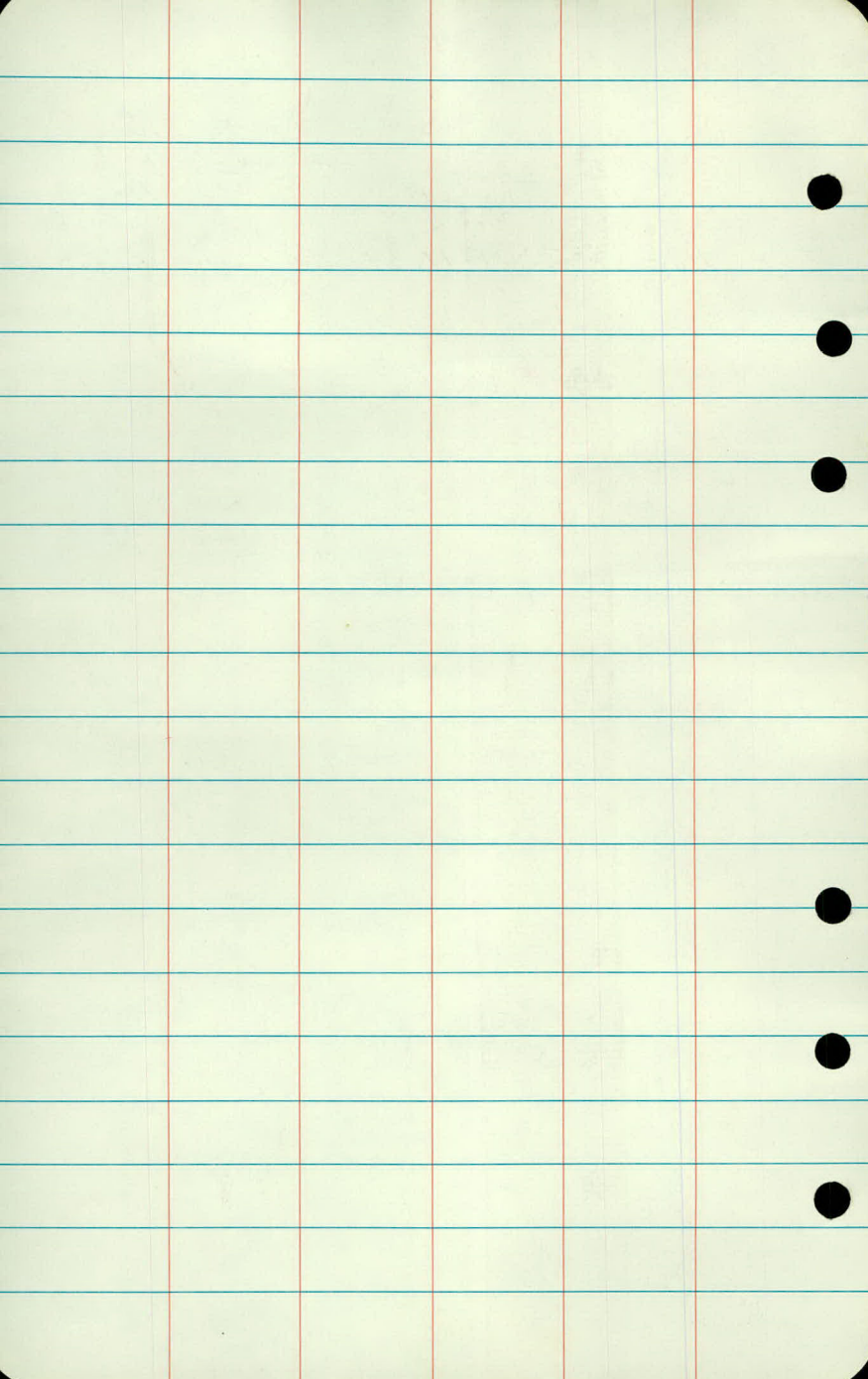
881.51

$\frac{6.5}{60}$

880.71

$\frac{7.3}{75}$

Top iron P.I. 24+19.89 (Mark's Alinement)



ML
PK
CH

June 6, 84
Cloudy 60°

STADIA ON PIPES
PROTRUDING IN TANK PIT
AREA

Min Pollution Control Agency
U.S. Pollution monitoring well
pipes

16 L R DIST DIST

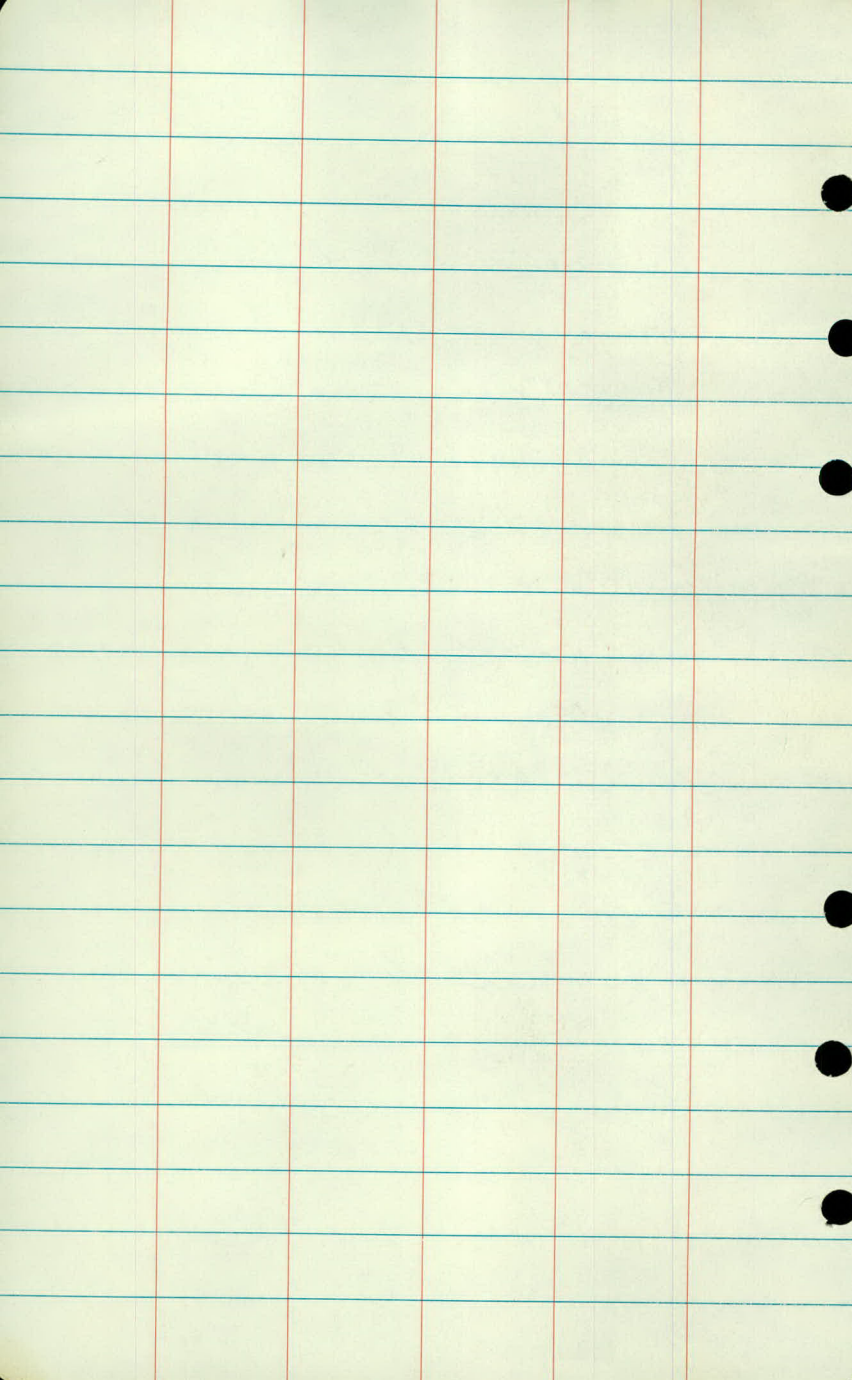
T @ 60+50 SIGHTING PT 58+99.86

1	220°19'	130	130
2	175°47'	200	200'
3	176°49'	202	202'

GALVANIZED $2\frac{1}{2}$ " PIPE

TEST WELL

TEST WELL



STADIA

LONG LAKE PARK ENT.

R.M.
L.P.D.
D.S.

April 10-13, 1984

OBJECT	Sta	2+00	sighting	0+00
	Azm	Dist.	Vert. $\pm$	
B.M.				898.86
		239'	88-46-30	+5.11
GEN	21°-26'	81'		
TOP BANK	121°-29'	42'		
TOP BANK	137°-02'	92'		
TOP BANK	148°-07'	125'		
TOP BANK	163°-54'	131'		
TOE BREAK	160°-23'	159'		
TOE BREAK	149°-42'	175'		
BOTT SLOPE	137°-50'	153'		
BOTT SLOPE	126°-45'	132'		
INVERT				
OF OUTLET	115°-18'	115'		
TOP OF				
MANHOLE	107°-53'	103'		
BOTT SLOPE	103°-39'	90'		
BOTT SLOPE	78°-00'	79'		
BOTT SLOPE	54°-55'	80'		
SLOPE	38°-06'	95'		
TOP RIDGE	45°-05'	110'		
FENCE LINE	52°-67'	133'	?	

Rod

H.I. = 895.75 ELEV

Top byd 191+60 Rt old Hwy 8

-2.00 + 3.11

3.8	892.0
6.0	889.8
7.3	888.5
8.1	887.7
7.7	888.1
11.4	884.4
19.0	876.8
21.2	874.6
21.0	874.8
20.1	875.7
15.3	880.5
14.0	881.8
11.0	884.8
8.0	887.8
2.8	893.0
2.7	893.1
6.6	889.2

OBJECT	AZM	DIST	VERT
FENCE L	73°-53'	110'	
FENCE COR	100°-05'	111'	
FENCE L	97°-54'	144'	
EDGE BANK	107°-57'	151'	
E. SWAMP	114°-18'	156'	
E. SWAMP	123°-20'	148'	
E. SWAMP	133°-27'	170'	
TOP BANK	194°-57'	155'	
TOP BANK	220°-25'	64'	
TOP BANK	271°-57'	42'	
TOP BANK	322°-18'	79'	
TOE FILL	303°-13'	90'	
TOE FILL	281°-17'	95'	
TOE FILL	248°-22'	95'	
TOE FILL	222°-42'	128'	
TOE FILL	210°-48'	162'	
E. SWAMP	215°-16'	172'	
E. SWAMP	232°-32'	164'	
E. SWAMP	252°-38'	152'	

H.I. = 895.75

③

ROD

ELEV

11.7

884.1

14.2

881.6

14.5

881.3

15.9

879.9

23.3

872.5

23.4

872.4

24.0

871.8

7.8

888.0

6.2

889.6

4.7

891.1

2.7

893.1

11.0

884.8

17.1

878.7

19.2

876.6

20.6

875.2

20.9

874.9

24.7

871.1

25.1

870.7

25.3

870.5

OBJECT	AZM	DIST	VERT
18" WILLOW	53°-51	91	
P.I. #1			
B.M.	180°00		89.5455 + 0.48

⌵ @ P.I. Sta 5+28.98; 0°00' sighting 0+00

B.M.	1020	898.11	887.91
------	------	--------	--------

RUBBLE PILE

TOE	120°-35'	58'
-----	----------	-----

TOE	95°-45'	65'
-----	---------	-----

TOE	49°-67'	75' ?
-----	---------	-------

TOE	58°-26'	98'
-----	---------	-----

TOE	86°-16'	105'
-----	---------	------

TOE	106°-39'	130'
-----	----------	------

TOE	119°-39'	125'
-----	----------	------

TOP	133°-17'	130'
-----	----------	------

TOP	150°-51'	95'
-----	----------	-----

H.I. = 895.75

(4)

ROD

6.3

889.5

-3.00

893.23

Top P.I. Curve no. 1

APRIL 10 - 1984

H.I. = 4.85

P.C. STA 3+99.79

H.I. = 898.1

7.1

891.0

16.5

881.6

19.4

878.7

21.7

876.4

18.4

879.7

12.3

885.8

7.0

891.1

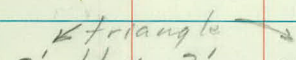
4.8

893.3

4.1

894.0

OBJECT	AZM	DIST	VERT
G.E.	133°-55'	99'	
TOP	118°-55'	120'	
TOP	106°-03'	97'	
TOP	102°-12'	83'	
TOE	95°-24'	97'	
TOP	87°-35'	100'	
TOP	59°-55'	89'	
TOP	56°-04'	77'	


 3' ht x 3' wide x 2 x 334' length

END RUBBLE AREA

TOP RIDGE	169°-55'	75'	
TOP	157°-39'	85'	
TOP	133°-06'	48'	
TOP	19°-47'	52'	2.
TOP SLOPE	193°-52'	128'	88°-33' +3.2
SLOPE	204°-48'	105'	89°-00' +1.8

H.I. = 898.1

⑤

R.O.D

ELEV

3.3

894.8

4.7

893.4

9.9

888.2

9.8

888.3

14.1

82.5

884.0

15.8

82.5

882.3

16.9

881.2

16.4

881.7

16.0

882.1

0.4

897.7

5.0

893.1

3.0

895.1

7.4

890.7

1.6

+ 1.6

899.7

1.6

+ 0.2

898.3

P.I. CURVE # 2 SIGHTING		P.I. CURVE # 1	
P.C.	10.11	904.47	894.36
TOP HUB			
STA- 8+42.96		189'	
TOP	218°-35'	48'	
TOP	173°-24'	109'	
TOE FILL	178°-16'	139'	
TOE FILL	203°-29'	105'	
TOE FILL	272°-45'	72'	
TOE FILL	315°-55'	138'	

H.I. = 898.1

⑥

ROD

ELEV

+14.36 - 2.26

890.2

20.9

- 25.8

872.3

17.7

- 21.8

876.3

13.0

- 18.3

879.8

16.2

881.9

20.5

- 24.6

873.5

21.3

- 26.3

871.8

21.9

- 25.7

872.4

5.71

892.39

H.I. = 904.47

10.11

894.36

5.1

899.4

0.9

903.6

2.4

902.1

8.5

896.0

16.0

888.5

20.3

884.2

OBJECT	AZM	DIST	VERT	
TOE FILL	332°-24'	215'		
SLOPE	324°-13'	272'	91° 19'	-6.3
SLOPE	308°-36'	198'	91° 21'	-4.7
SLOPE	278°-54'	134'		
* SLOPE	234°-35'	135'		
* TOP BREAK	203°-29'	181'		
* TOP BREAK	186°-40'	164'		
TOP BREAK	170°-23'	152'		
SLOPE	171°-10'	176'		
* SLOPE	187°-51'	176'		
* SLOPE	207°-36'	212'	91°-17'	-4.7

⌒ @ 11+62.93	sighting	P.I. #2	as 0°00'	
B.M.	4.78	906.32	901.54	
TOP BREAK	248°-38'	112'		
TOP BREAK	271°-57'	105'		
TOP BREAK	301°-41'	147'		
24" OAK	309°-16'	150'	89°-40'	+0.9
TOP BREAK	298°-25'	165'		

H.I. 904.47

⑦

R.O.D

ELEV

21.4

883.1

23.4

-29.7

874.8

23.0

-27.7

876.8

24.2

880.3

19.8

884.7

14.5

890.0

7.4

897.1

1.5

903.0

11.6

892.9

17.8

886.7

22.1

-26.8

877.7

H.I. = 5.1

H.I. = 906.3

Sta 11+00

7.7

898.6

5.3

901.0

3.9

902.4

1.7

-0.8

905.5

13.9

892.4

OBJECT	AZM	DIST	VERT	
TOP BREAK	280°-34'	132'		
TOP BREAK	254°-48'	124'		
TOP SLOPE	120°-27'	92'	88°-35'	+2.3
TOP HILL	97°-25'	139'	87°-42'	+5.6
TOP HILL	62°-00'	153'	89°-04'	+2.5
TOP HILL	120°-38'	156'	88°-49'	+3.2
TOP SLOPE	131°-48'	188'	89°-11'	+2.7
12+50		86'		

π @ POINT "A" SIGHTING P.I. CURVE #1
 258' 94°-25.55"

P.C	278°-45'	268'	93°-05.00	
11+62.93	233°-01'	411'	90°-57.00	
TOP SLOPE	260°-43'	119'		
TOP SLOPE	328°-52'	98'		
TOP SLOPE	288°-14'	133'		
TOP SLOPE	273°-52'	167'		
G. E.	253°-38'	139'		

H.I. = 906.3

⑧

ROD

ELEV

14.0

892.3

14.5

891.8

1.5

+0.8

907.1

5.7

-0.1

906.2

1.8

+0.7

907.0

3.8

-0.6

905.7

5.9

-3.2

903.1

6.35

899.95

H.I. = 4.85

H.I. = 915.18

-19.93

-2.26

915.41

893.22

-14.41

-6.35

915.12

894.36

-6.81

-7.05

915.06

901.2

9.4

905.7

11.1

904.0

9.8

905.3

9.6

905.5

7.5

907.6

OBJECT	AZM	DIST	VERT
--------	-----	------	------

TOP SLOPE	248°-58'	225'	
-----------	----------	------	--

G.E	230°-16'	220'	
-----	----------	------	--

G.E	209°-21'	247'	
-----	----------	------	--

G.E	194°-46'	225'	
-----	----------	------	--

G.E	207°-18'	182'	
-----	----------	------	--

G.E	231°-38'	152'	
-----	----------	------	--

G.E	244°-23'	92'	
-----	----------	-----	--

G.E	192°-26'	125'	
-----	----------	------	--

G.E	176°-23'	190'	
-----	----------	------	--

TOP SLOPE	144°-03'	203'	
-----------	----------	------	--

TOP SLOPE	129°-52'	198'	
-----------	----------	------	--

TOP SOIL FILE
↓

TOE	127°-15'	138'	
-----	----------	------	--

TOE	145°-15'	124'	
-----	----------	------	--

TOP	140°-50'	105'	
-----	----------	------	--

TOP	106°-50'	110'	
-----	----------	------	--

TOP	87°-30'	56'	
-----	---------	-----	--

TOP	122°-39'	43'	
-----	----------	-----	--

H.I. 915.1

⑨

ROD

ELEV

7.7

907.4

8.5

906.6

8.9

906.2

8.9

906.2

8.9

906.2

8.5

906.6

8.1

907.0

8.6

906.5

9.5

905.6

9.5

905.6

10.3

904.8

9.6

905.5

9.5

905.6

6.0

909.1

6.5

908.6

5.3

909.8

3.5

911.6

OBJECT	AZM	DIST	VERT
--------	-----	------	------

TOP	52°-49'	52'	
-----	---------	-----	--

TOE	265°-02'	55'	
-----	----------	-----	--

TOE	293°-01'	45'	
-----	----------	-----	--

TOE	355°-48'	52'	
-----	----------	-----	--

TOE	77°-45'	65'	
-----	---------	-----	--

TOE	110°-07'	162'	
-----	----------	------	--

(RUBBLE PILE

TOE	158°-17'	245'	
-----	----------	------	--

TOE	164°-41'	232'	
-----	----------	------	--

TOP	164°-41'	236'	
-----	----------	------	--

TOE	172°-55'	242'	
-----	----------	------	--

TOP	172°-55'	248'	
-----	----------	------	--

TOP SLOPE	177°-03'	256'	
-----------	----------	------	--

TOP	173°-26'	276'	
-----	----------	------	--

SLOPE	176°-15'	292'	
-------	----------	------	--

TOE	170°-19'	310'	
-----	----------	------	--

TOE	166°-33'	289'	
-----	----------	------	--

H.I. = 915.1 (10)

R.O.D

ELEV

3.3

911.8

8.7

906.4

8.6

906.5

11.0

904.1

13.6

901.5

13.6

901.5

13.1

902.0

10.7

904.4

6.4

908.7

9.3

905.8

6.1

909.0

10.4

904.7

8.4

906.7

17.3

897.8

19.6

895.5

11.6

903.5

OBJECT	AZM	DIST	VERT
--------	-----	------	------

TOP	168°-03'	281'	
-----	----------	------	--

TOP	162°-25'	246'	
-----	----------	------	--

RUBBLE PILE # 2

TOE	182°-52'	248'	
-----	----------	------	--

TOE	195°-50'	262'	
-----	----------	------	--

TOP	192°-53'	261'	
-----	----------	------	--

TOE	193°-31'	290'	
-----	----------	------	--

TOE	188°-53'	285'	
-----	----------	------	--

TOP	189°-02'	263'	
-----	----------	------	--

TOP	184°-43'	273'	
-----	----------	------	--

STOE	182°-39'	282'	
------	----------	------	--

H.I. = 915.1

(11)

ROD

ELEV

8.3

906.8

6.5

908.6

11.4

903.7

11.0

904.1

4.9

910.2

10.9

904.2

11.9

903.2

6.8

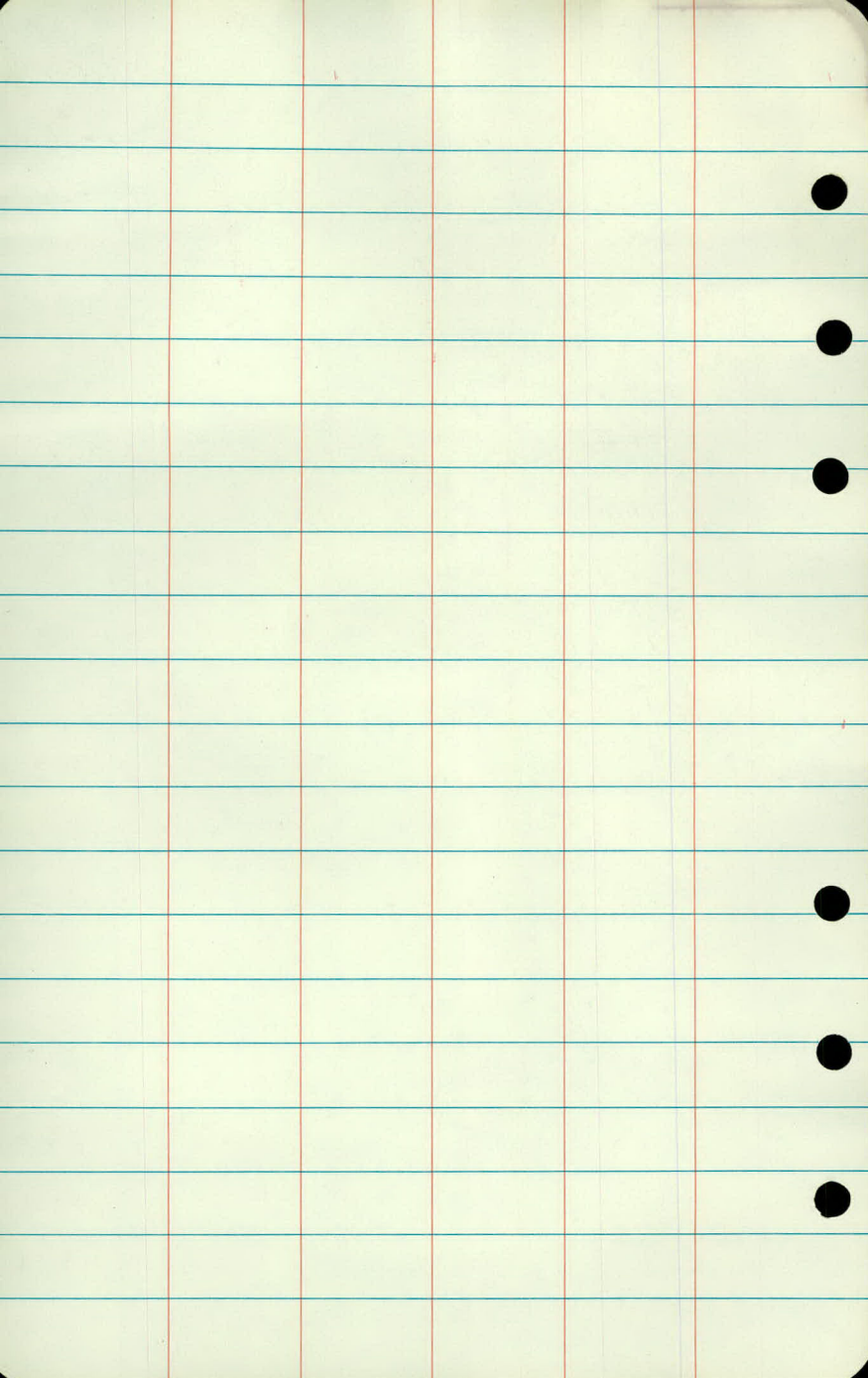
908.3

8.2

906.9

13.9

901.2



Extend X-SECTIONS
(47+00 - 49+00)

LONG LAKE PARK ENT. RD.

R.M.
L.P.D.
D.S.

April 16 & 17, 1984

	+	H.I.	-	Elev.
B.M.	20.23	913.28		893.05

47+00

+50

T.P.	12.55	924.84	0.99	912.29
------	-------	--------	------	--------

48+00

+50

T.P.	2.79	909.86	17.77	907.07
------	------	--------	-------	--------

T.P.	4.97	895.44	19.67	890.19	890.47
------	------	--------	-------	--------	--------

49+00

	8.56	886.88	886.92
--	------	--------	--------

Rt.

P.K. in 24" Oak sta. 46+48 60 Lt.

$$\frac{12.9}{80}$$

$$\frac{12.4}{100}$$

$$\frac{12.4}{136}$$

907.0

$$\frac{6.3}{80}$$

$$\frac{4.4}{100}$$

$$\frac{2.1}{132}$$

$$\frac{0.7}{144}$$

$$\frac{9.9}{177}$$

$$\frac{8.2}{200}$$

911.9

$$\frac{12.9}{80}$$

$$\frac{10.3}{100}$$

$$\frac{6.7}{133}$$

$$\frac{3.9}{178}$$

N.W. Cor. water tank

914.1

$$\frac{10.7}{80}$$

$$\frac{7.5}{100}$$

$$\frac{4.9}{129}$$

$$\frac{5.1}{165}$$

47+50

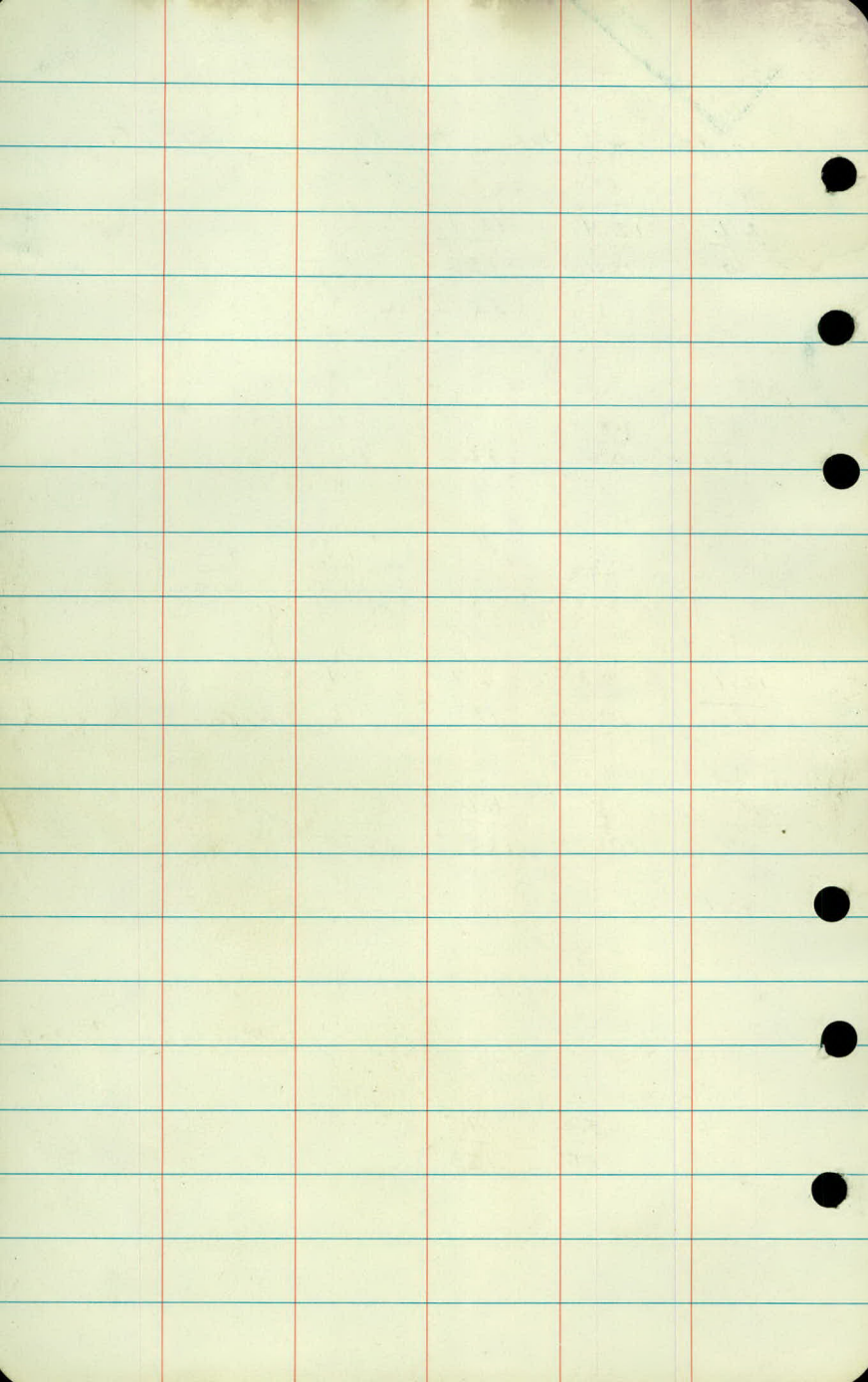
891.1

$$\frac{4.3}{80}$$

$$\frac{5.2}{100}$$

$$\frac{4.5}{153}$$

49+50



ML
MR
BL

2-1-84

Longlake Park Site
Swamp
SOUNDINGS

~~GOOD SOUNDINGS~~
~~NO. 1~~
~~NO. 2~~
~~NO. 3~~
~~NO. 4~~
~~NO. 5~~
~~NO. 6~~
~~NO. 7~~
~~NO. 8~~
~~NO. 9~~
~~NO. 10~~
~~NO. 11~~
~~NO. 12~~
~~NO. 13~~
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~~NO. 91~~
~~NO. 92~~
~~NO. 93~~
~~NO. 94~~
~~NO. 95~~
~~NO. 96~~
~~NO. 97~~
~~NO. 98~~
~~NO. 99~~
~~NO. 100~~

STA

DEPTH

SWAMP #1

17+50

8'

18+50

5'

19+00

5'

SWAMP #2

ROAD

10'

BEG 10'

MIDDLE

13'

SWAMP #3

RIGHT 40'

5'

2

GOOD MATERIAL

LEFT

GOOD MATERIAL 100 I

BENCH

4+50

5'

3+50

4'

ML
PX
CH

June 4, 84

Cloudy 65°

PROFILE GRADES

SWAMP #2 AND

SOUNDINGS

STA	+	π	-	ELL
26+00	5.96	883.61		877.65
+65			12.6	871.0
+76			13.5	870.1
27			13.6	870.0
+30			13.3	870.3
+50			12.7	870.9
BM			16.39	873.22

Depth

SOUNDINGS

(9 blows / ft)

DEPTH

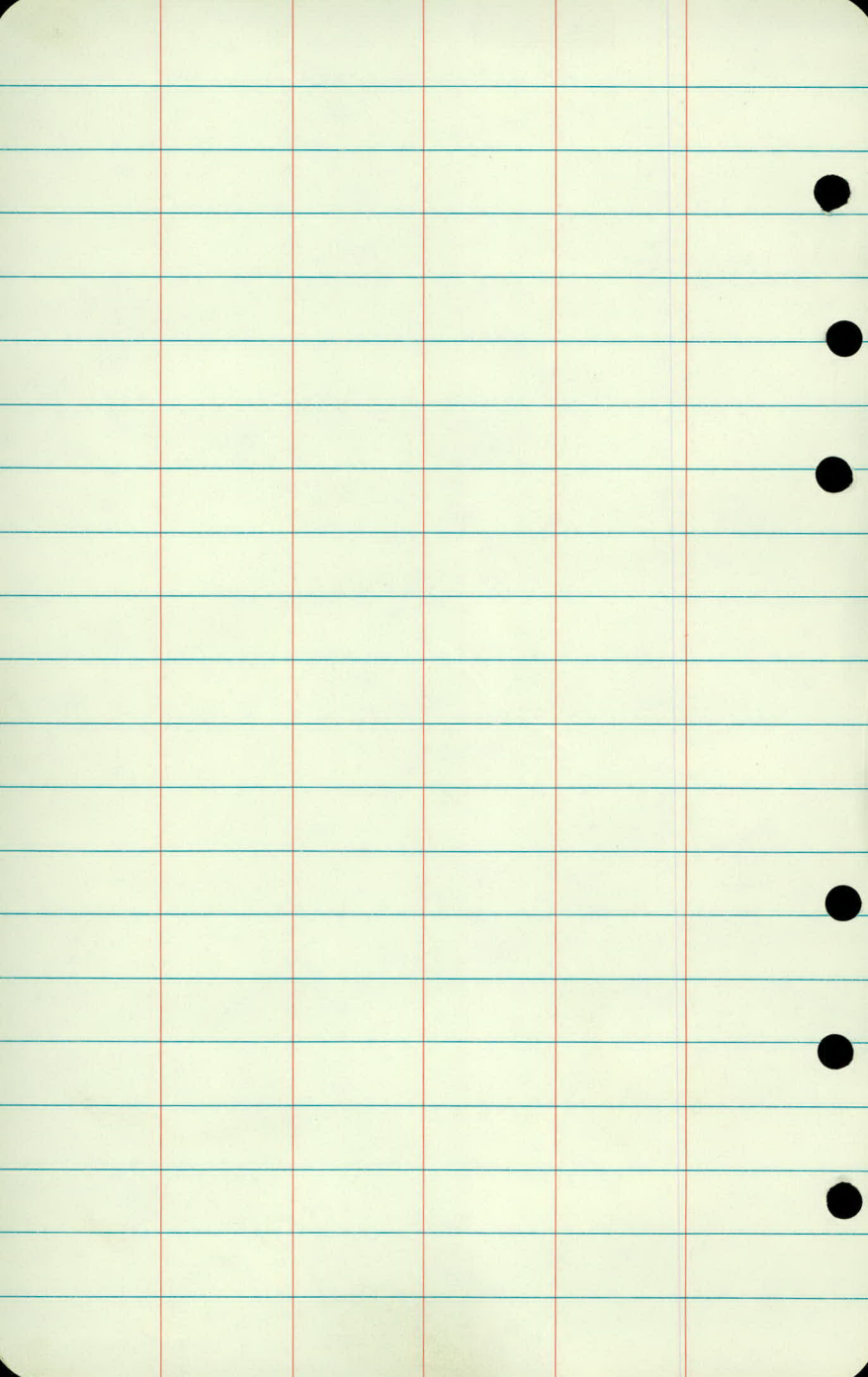
26+00	0-5
26+65	0-5
27+00	0-13
+30	0-13
27+45	0-5
+70	0

DESCRIPTION

Existing Grade

2 HUB

2 HUB 2610



STADIA BENCH

MUCK AREA

No. \ L R Diff DIST

$\pi @$ 64+00 SIGHTING P.I. 58+99.86

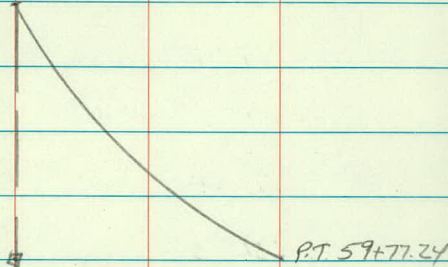
192°19' 1.70 170

190°01' 2.08 208

167°41' 1.73 173

181°33' 2.20 220

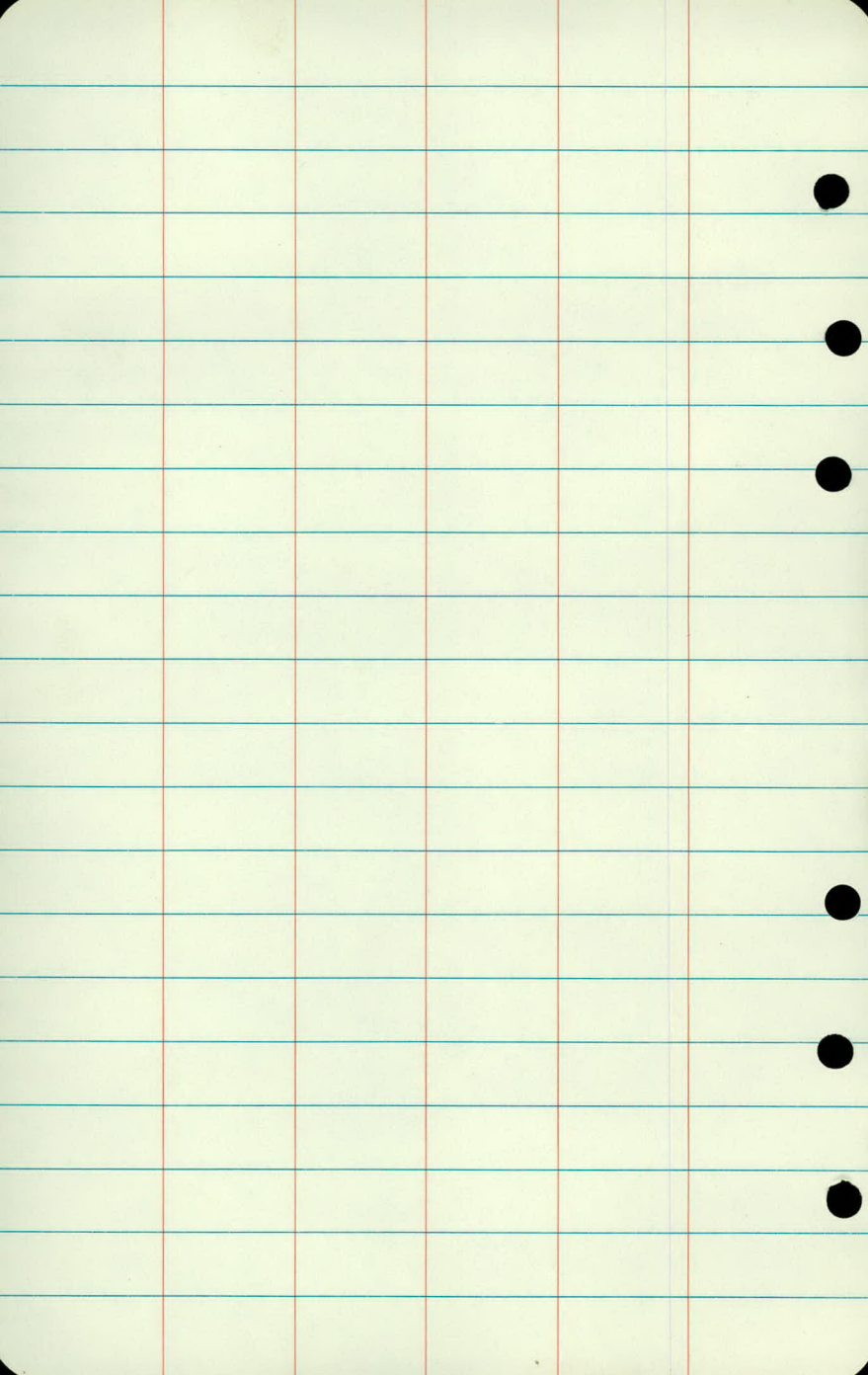
PC 57+99.86



PT 58+99.86

P.T 59+77.24

□ 64+00



ML
PK
WN

JUNE 11, 84
CLOUDY 60°

STADIA

EPR : WELLS

No	L	DIFF	DIST
----	---	------	------

PARKING LOT #1 ALIGNMENT

T @ STA	4+00	SIGHTING	3+00
---------	------	----------	------

119°22'	1.81	181'
---------	------	------

131°02'	5.15	515'
---------	------	------

131°10'	5.21	521'
---------	------	------

131°12'	5.30	530'
---------	------	------

ML
PK
WN

JUNE 13, 84

Cloudy 65°

AREA OF SAND

WASHER INTO Swamp ± 1

Bm	+	π	-	ELU
----	---	-------	---	-----

2.21		88128		879.07
------	--	-------	--	--------

			8.15	973.13
--	--	--	------	--------

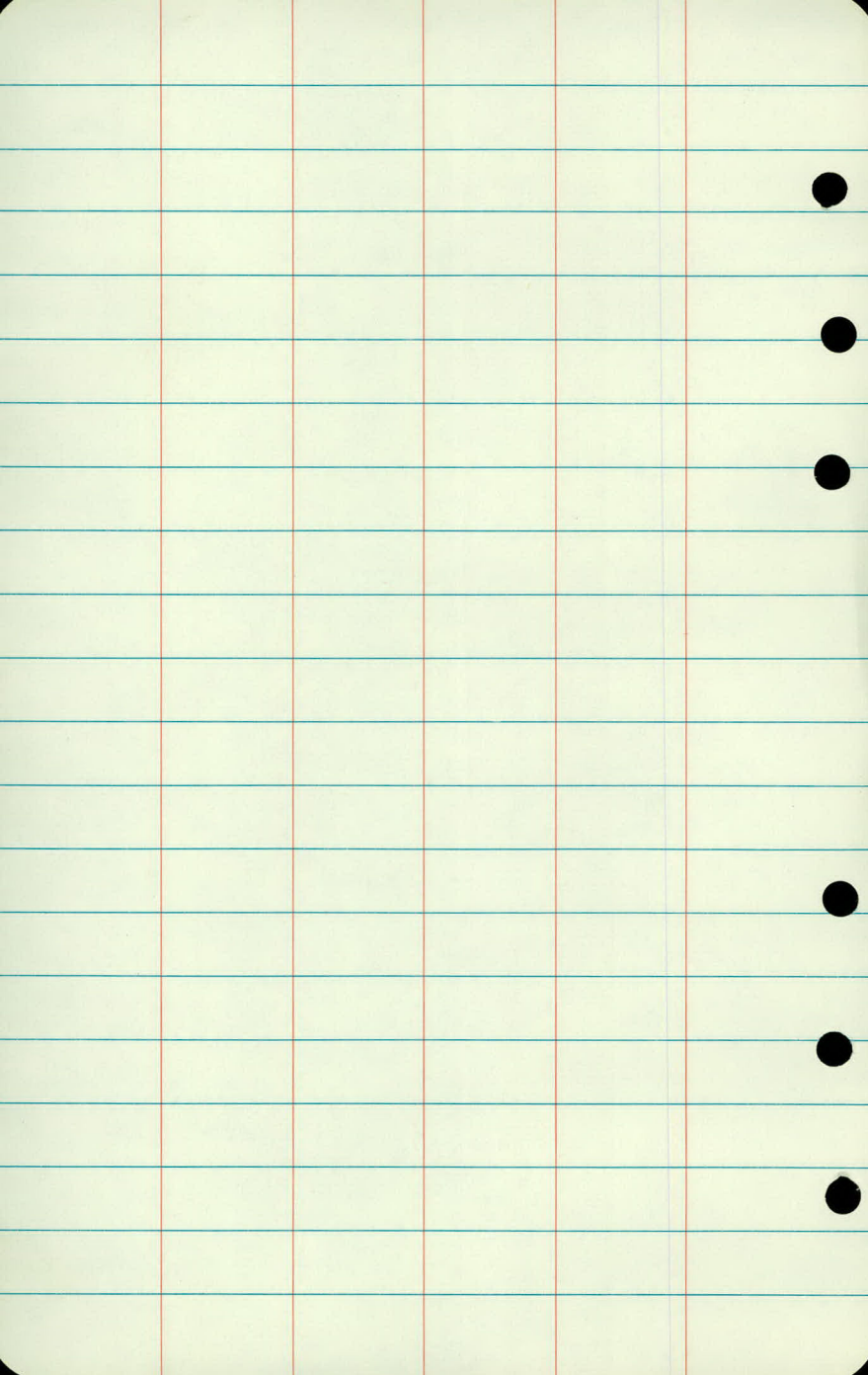
			19.7	971.6
--	--	--	------	-------

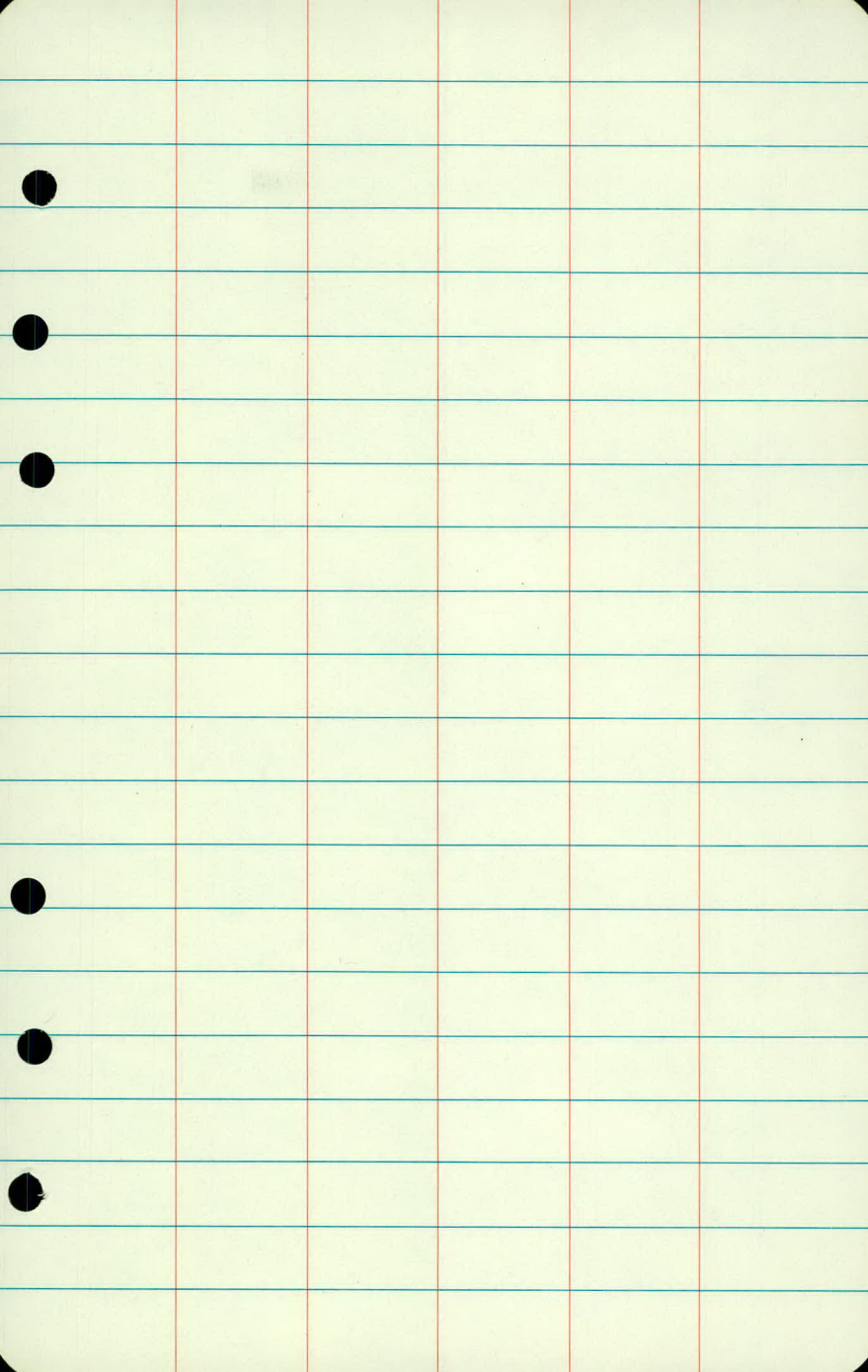
SPike ENTRANCE Post

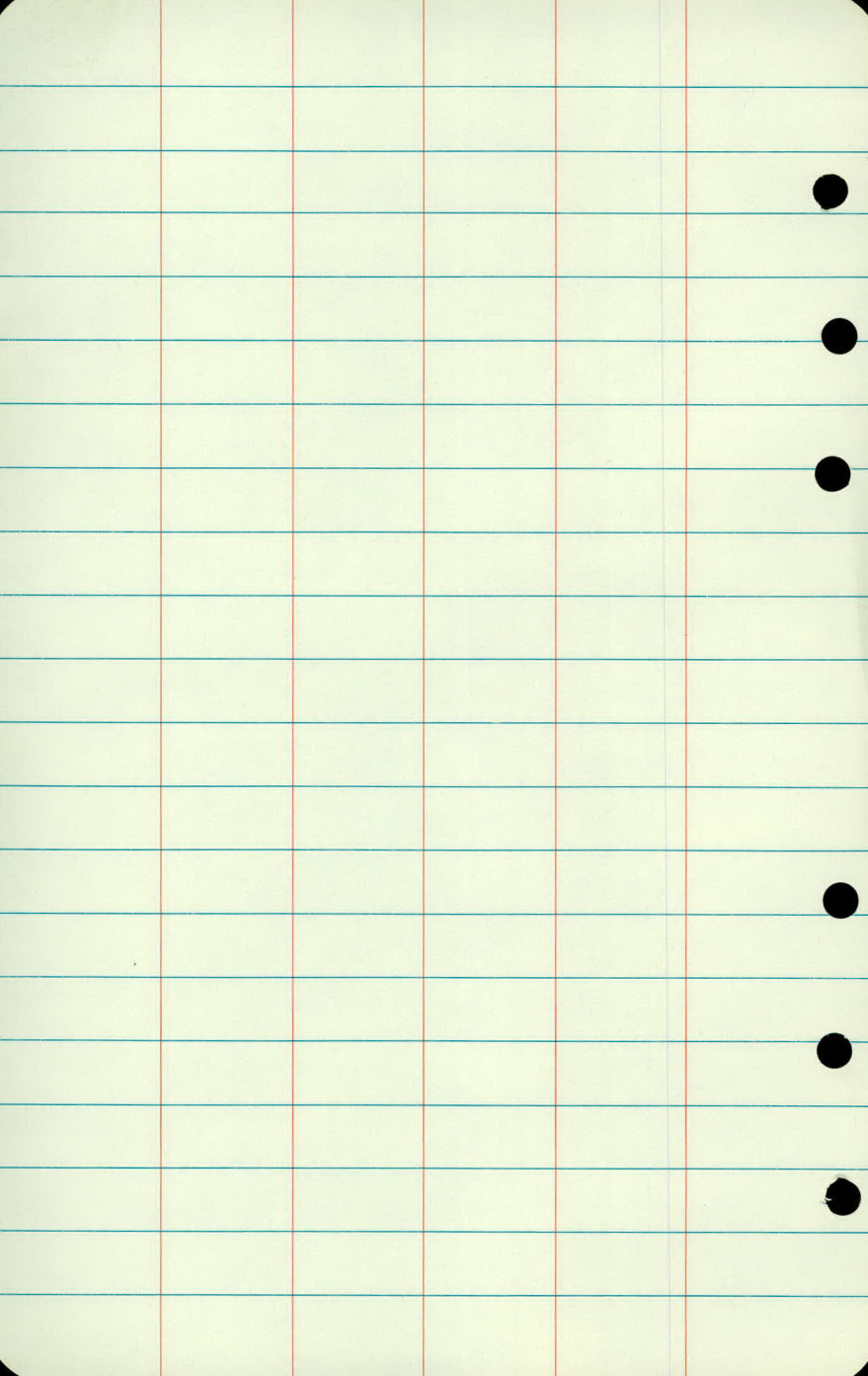
SWAMP Bottom 971.6

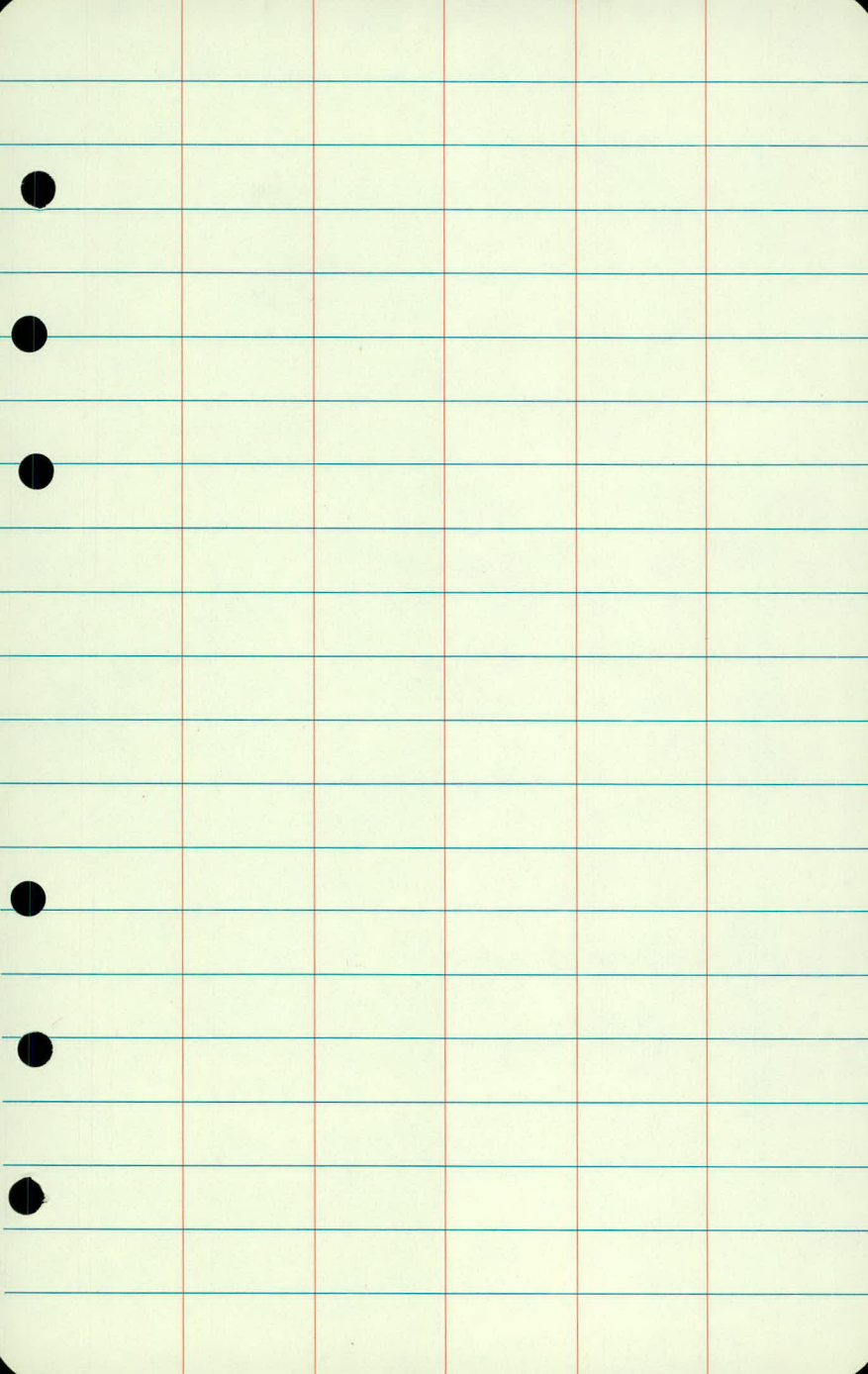
$70 \times 100 \times 1 = 7000'$

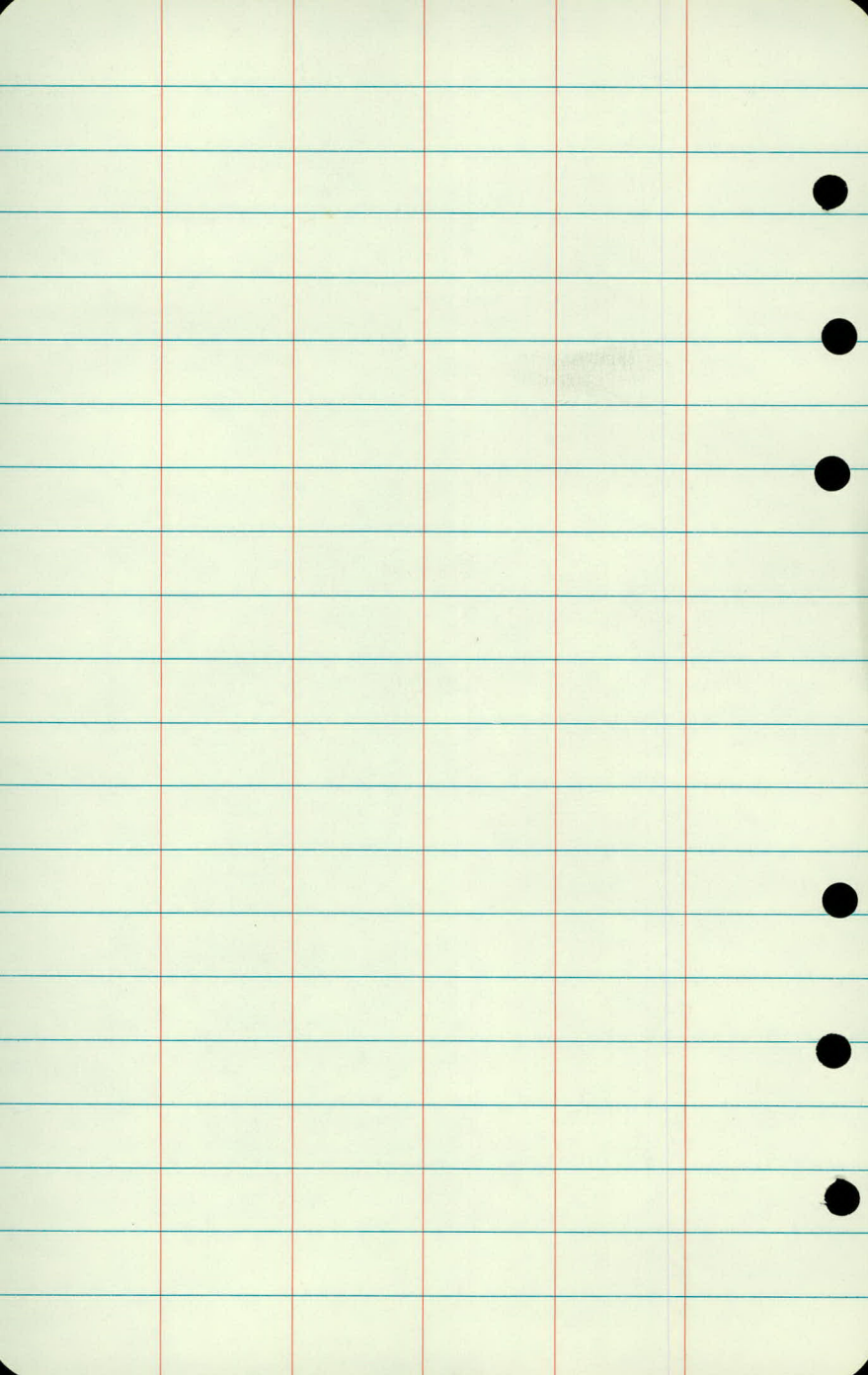
260 Cuyds

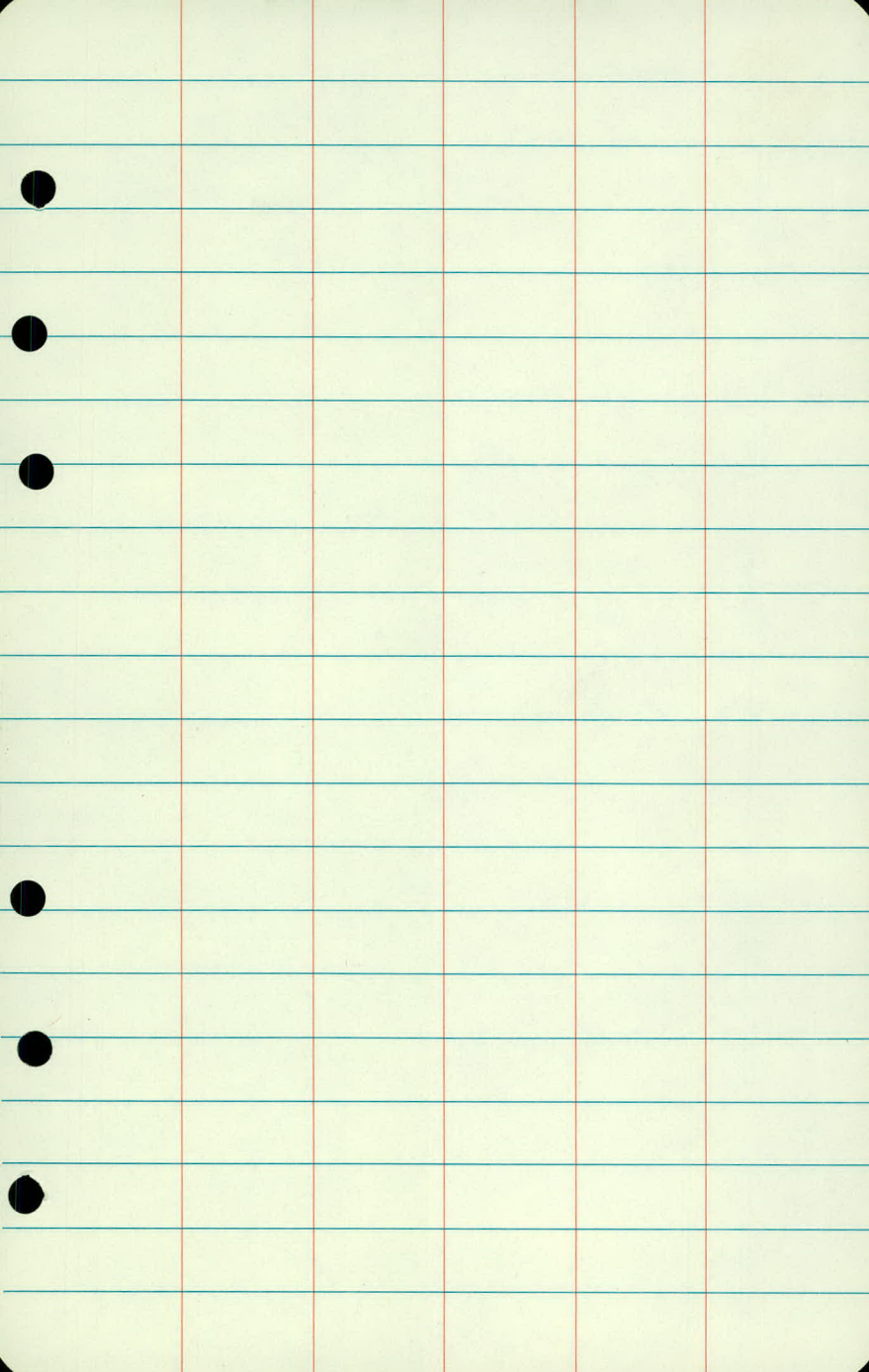


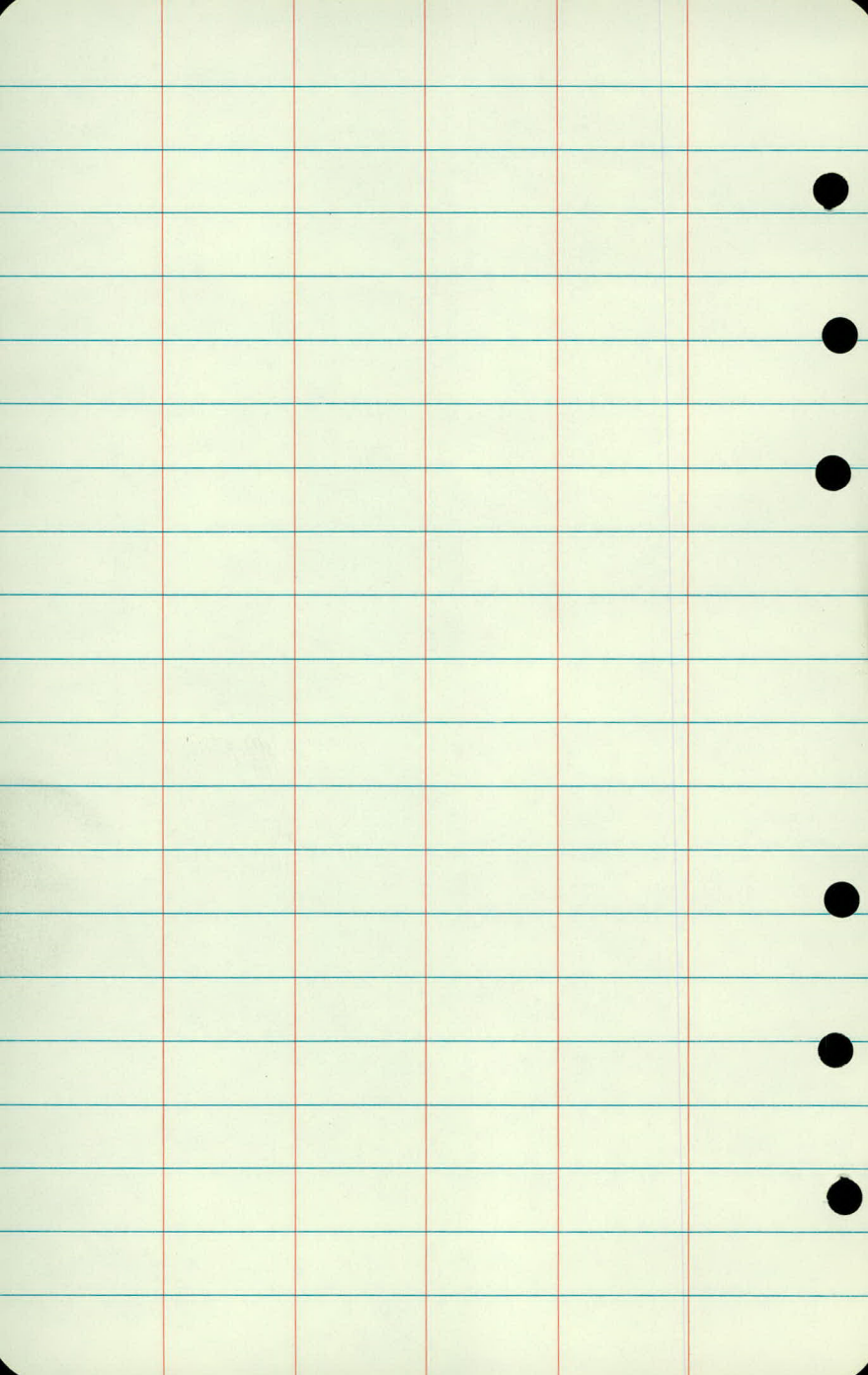


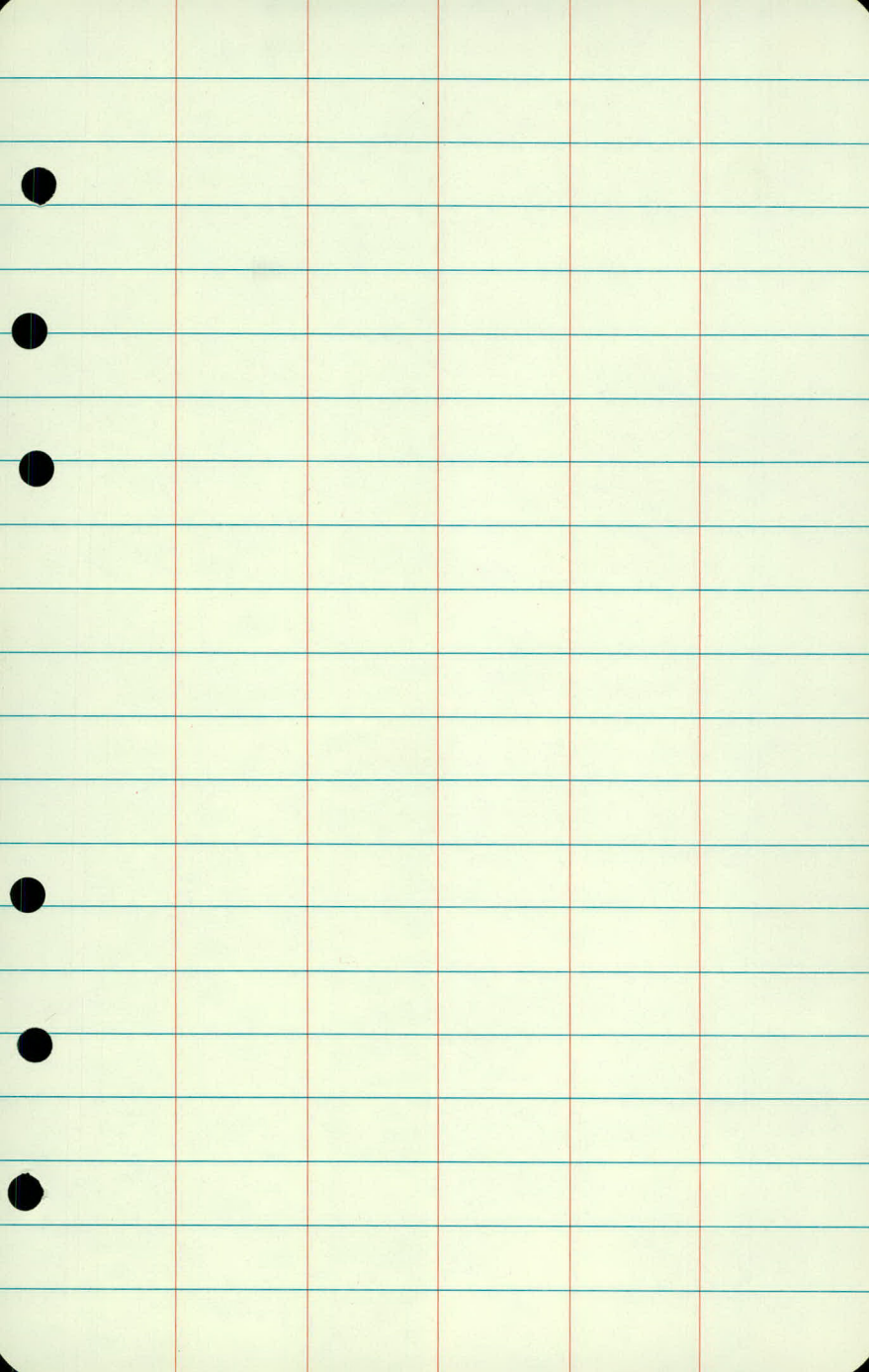


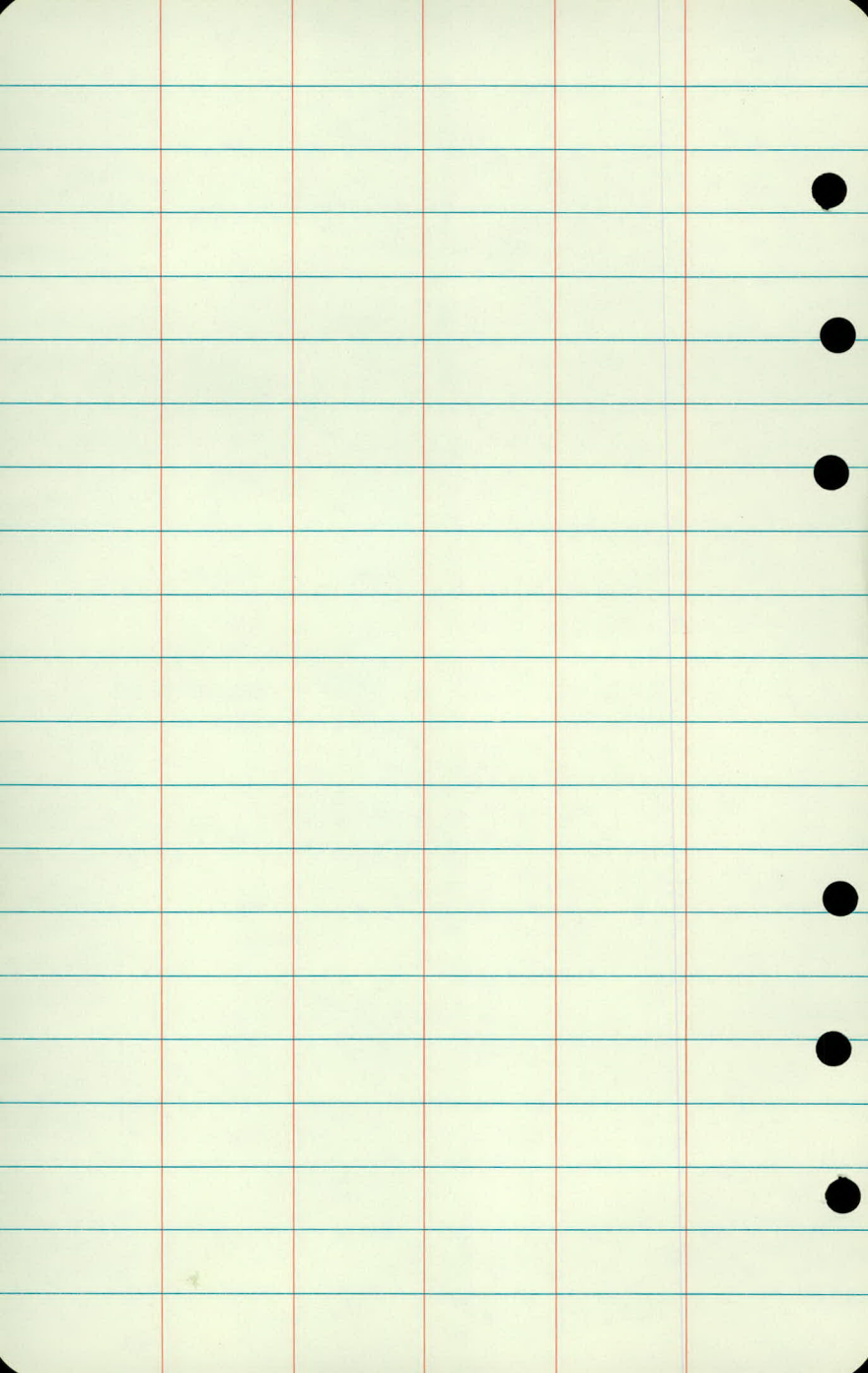


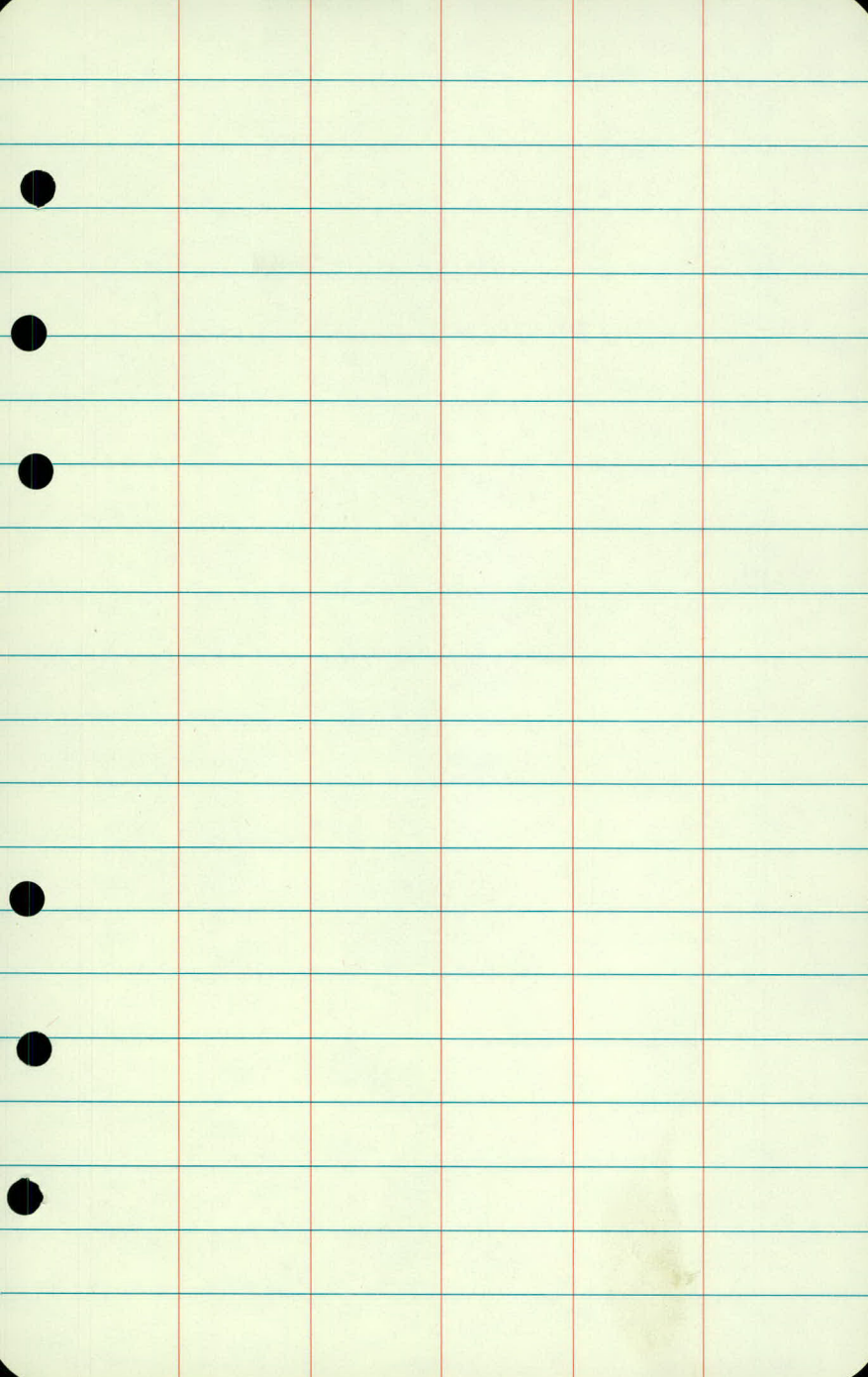


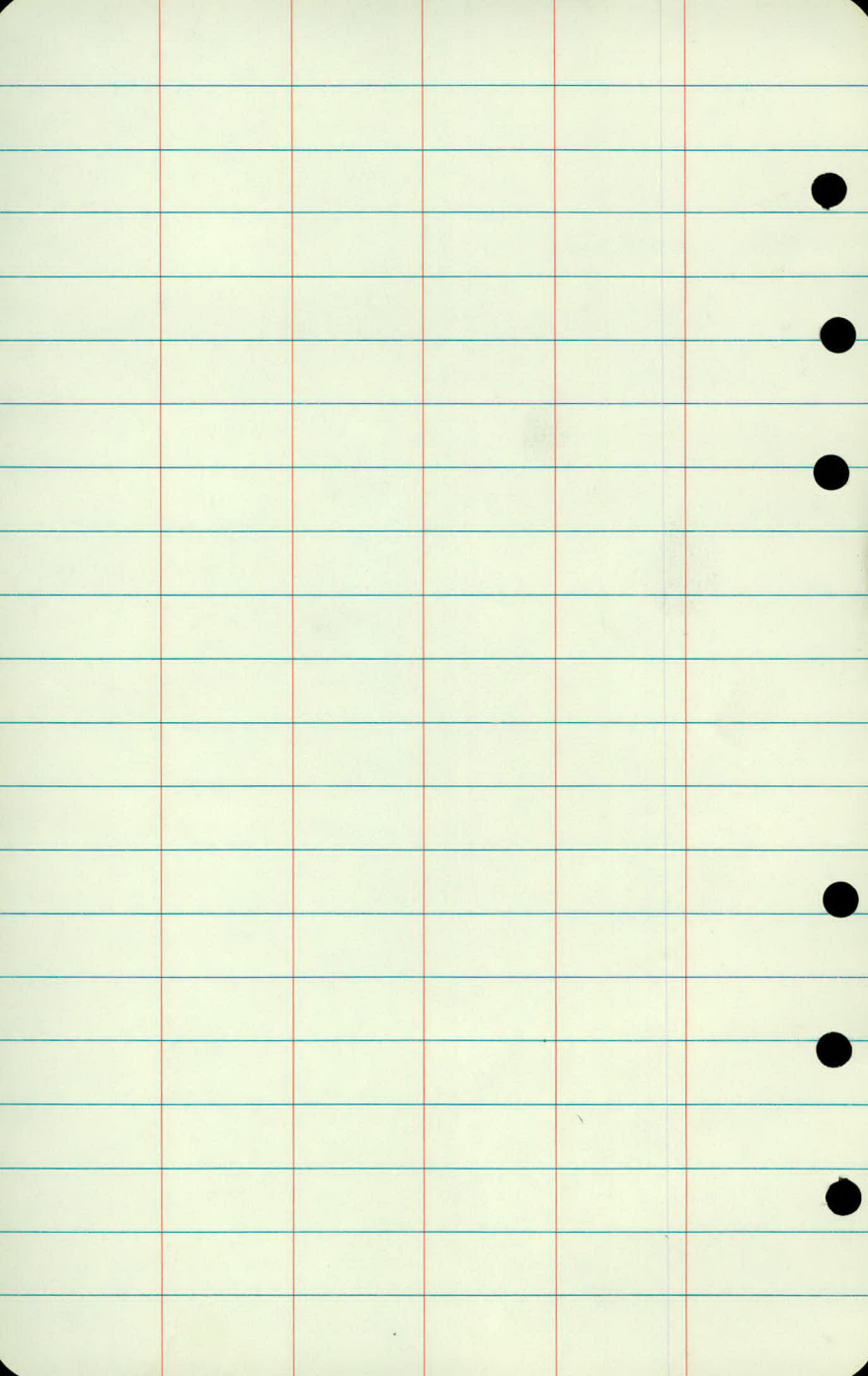












ML
DS
MR
BL

MARCH 9, 83
CLOUDY 75°

LONG LAKE BEACH
ALIGNMENT

STA

POINT

7+00

Por

63+00 = POT

3+00

0+00

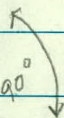
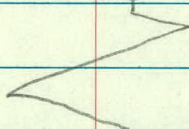
POT

N



59

59



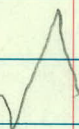
90°

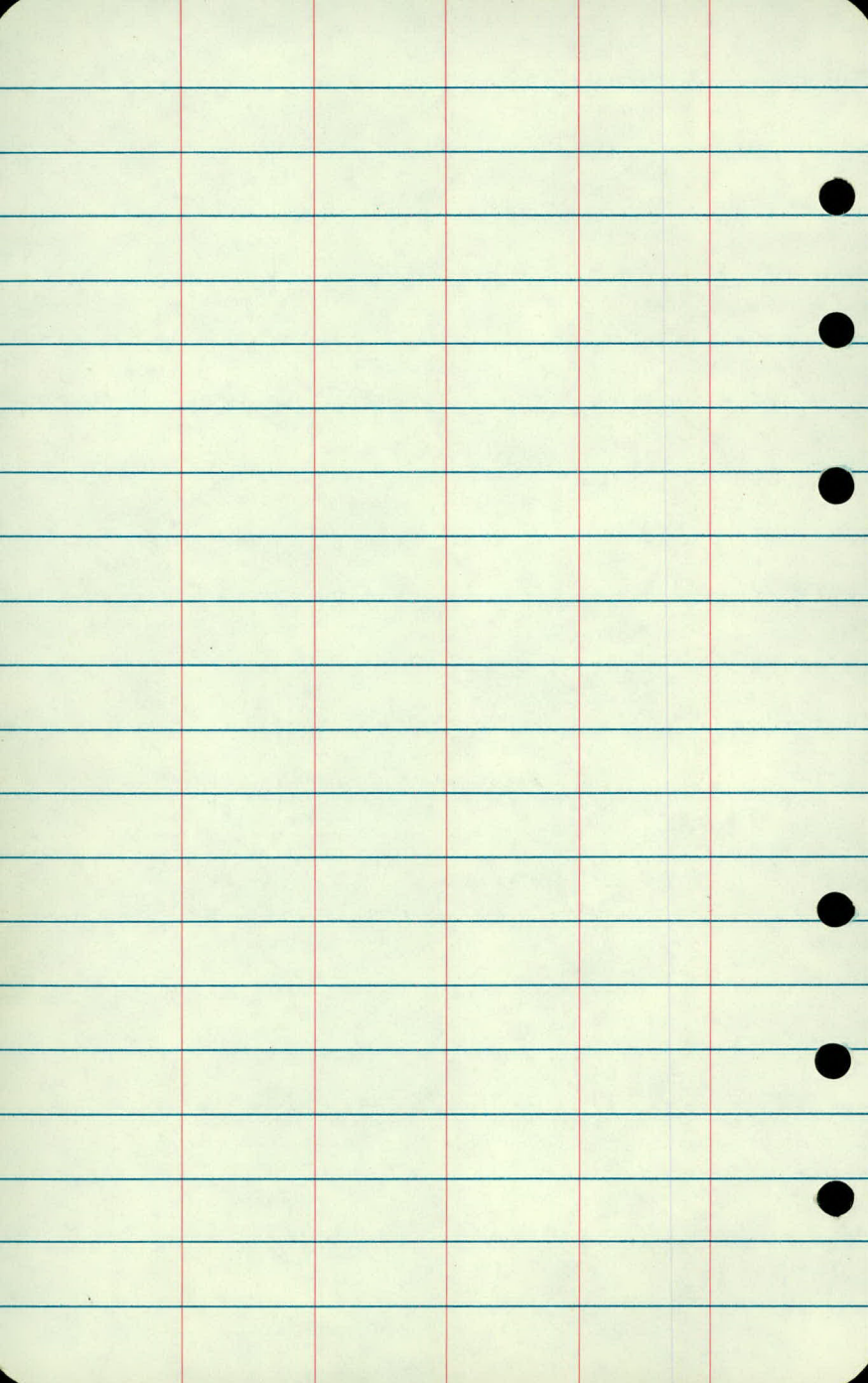
6300

3+00

0+00

7+00





ML
BW
MR
BL

X - SECTION

LONG LAKE BEACH

STA

+

X

-

ELEV

1.54

885.10

883.56

0+00

✓

1+00

✓

2+00

L E R
 SPIKE IN 64 + 40 L 25'

67.3	70.2	77.7	79.2	82.4	82.3	80.4
17.8	18.9	7.4	5.9	2.7	2.8	4.7
360	200	140	100		100	150
						100

67.3	66.0
17.8	19.15
400	409
	WATER

69.3	69.4	77.3	77.1	78.8	80.3	81.1
15.7	15.7	7.8	8.0	6.3	4.8	4.0
200	169	126	100		100	171
						100

68.2	66.05
16.9	19.05
300	368
	WATER

65.95	68.5	68.0	69.3	75.0	79.4	80.1	83.3
19.15	16.6	17.1	15.3	10.1	5.7	5.0	1.8
306	300	200	142	100		100	189
WATER							100

STA	+	π	-	ELVD
-----	---	-------	---	------

		885.00		
--	--	--------	--	--

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

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

T.P.	3.90	887.22	1.78	883.32
------	------	--------	------	--------

5+00				
------	--	--	--	--

6+00				
------	--	--	--	--

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

LT

E

RT

65.65	68.5	66.9	71.0	81.0	80.8	82.7
19.15	16.6	18.2	14.1	4.1	4.3	2.4
249	235	200	100		100	200
WATER						R0

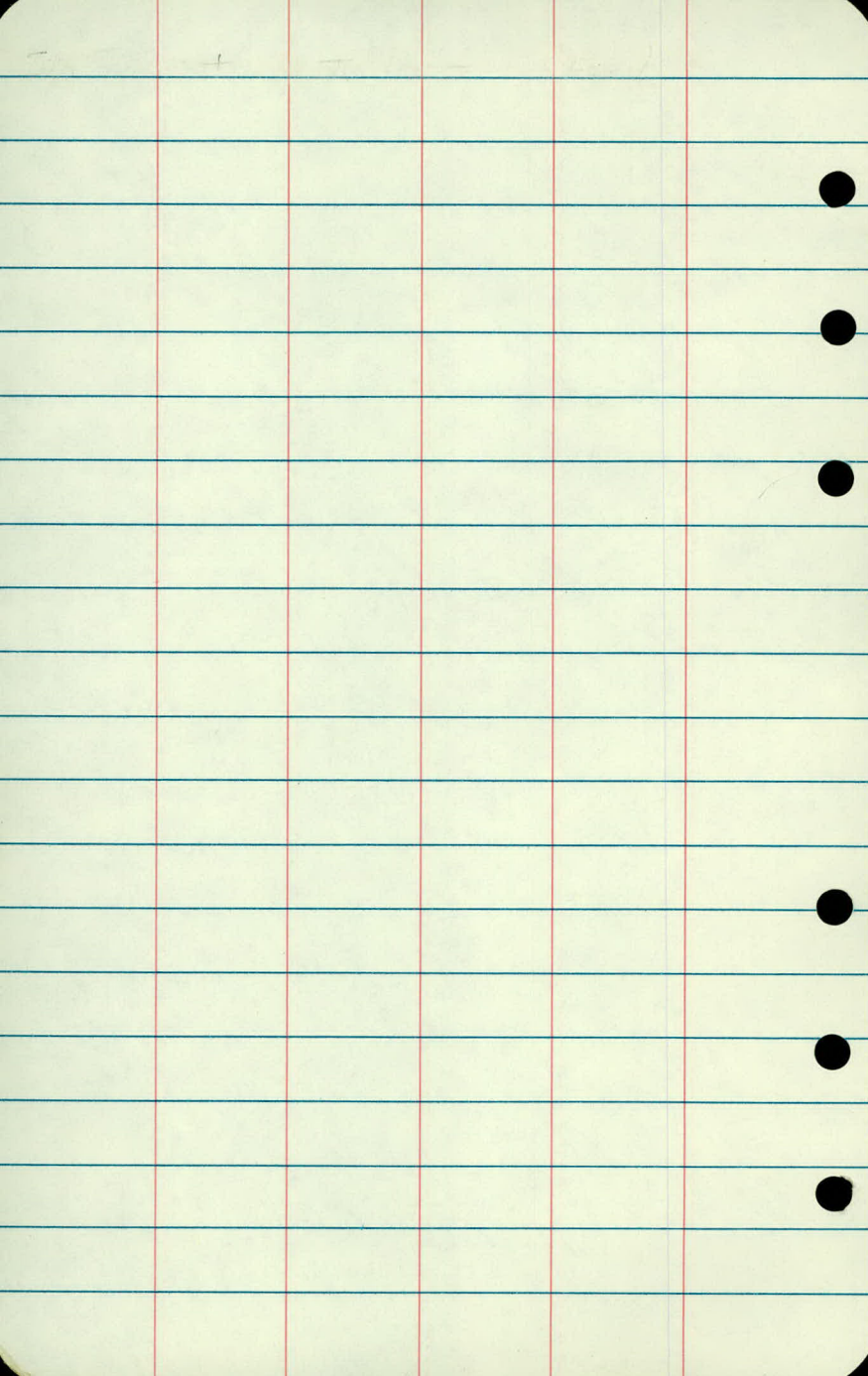
65.95	68.3	67.2	70.9	79.2	83.1	82.2	85.1
19.15	16.8	17.9	14.2	5.9	2.0	2.9	0.0
208	206	142	100		100	119	132
WATER							

4400 RT 100' Top 1348

65.88	67.1	74.0	81.1	81.8	82.9	86.9
21.34	20.1	13.2	6.1	5.4	4.3	0.3
163	100		89	100	118	130
WATER						

65.88	66.2	68.5	71.3	77.8	78.8	83.2
21.34	21.0	18.7	15.9	9.4	8.4	4.0
117	100		56	100	110	142
WATER						

65.88	67.1	71.0	75.3	73.4
21.34	20.1	16.2	11.9	13.8
80		100	138	16.2
WATER				



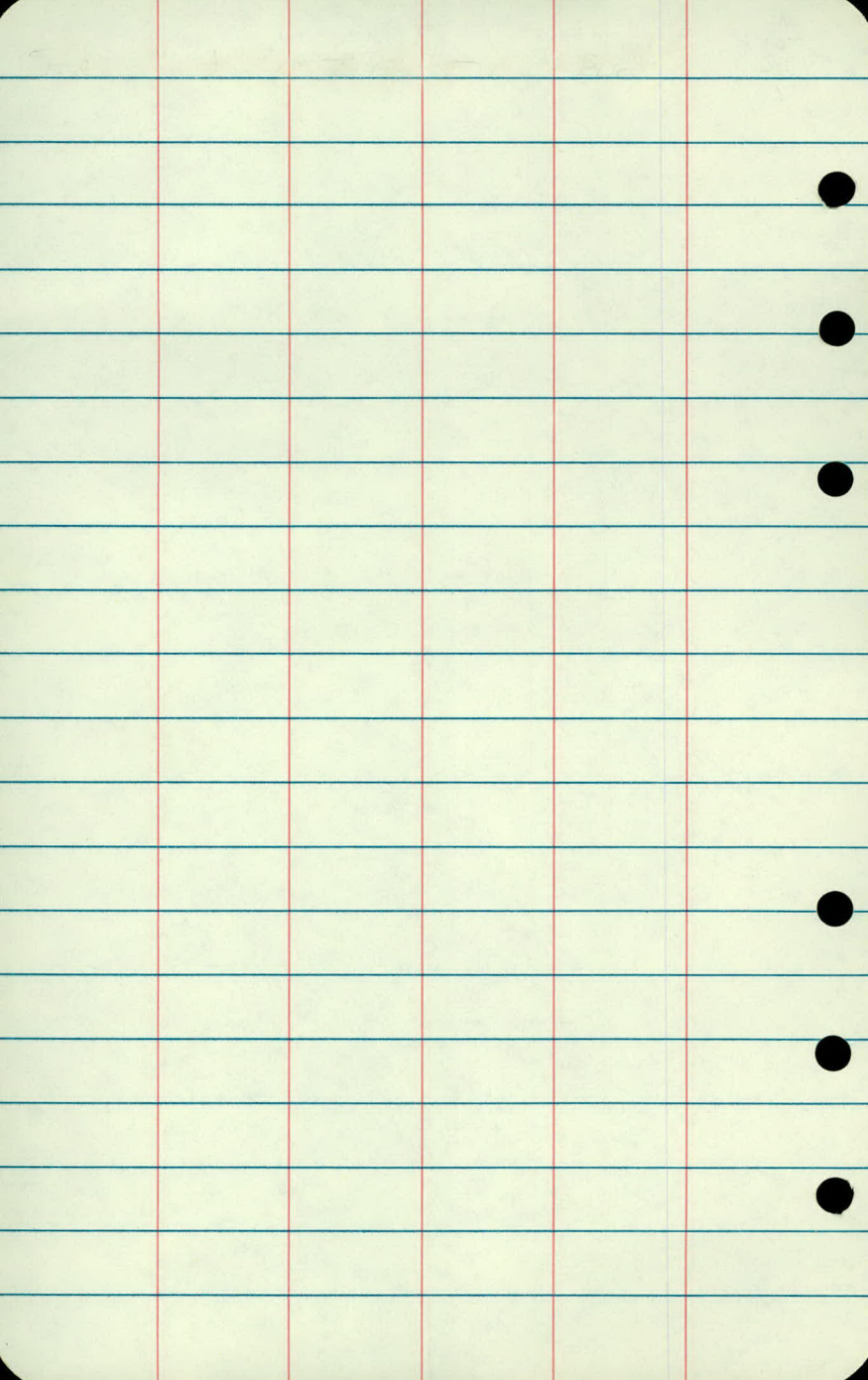
ML
BW
MR
BL

TREE LOCATION

BEACH AREA

1+00 LT 368'

5+10 LT 161'



ML
DS
BW
MR
BL

CLOUDY 35°

MARCH 1, 83

X-SECTIONS

LONG LAKE PARK ENTRANCE

STA	+	X	-	ELLV
	0.35	899.21		898.86

0+00 ϕ OLD HW 8

0+26 OLD HW 8 GUTTER LINE BLZ (LTRG)

0+68 END C+G AND MEDIAN

1+00

+50

+50

2+00

+50

LT £ RT 2

Top NYD OLD NYD B + ENT. RO

94.7	95.0	95.1	95.3	95.4	95.3	95.6
4.3	4.2	4.1	3.9	3.8	3.7	3.6
75	50	25		25	50	80

94.35	94.48	94.71	94.96	95.19
4.86	4.75	4.5	4.23	4.02
80	57		48	80
CUTTER B624	CUTTER B624		CUTTER B624	CUTTER B624

95.5	95.7	94.04	94.03	94.54	94.53	94.89	94.03	94.07	97.1	97.1
3.7	3.5	5.17	5.18	4.67	4.68	4.72	5.18	5.14	2.1	1.6
80	61	32	5	5		5	5	24	43	80
		CUTTER B624	MEO	MEO	TOP	MEO	MEO		CUTTER B624	

94.1	94.7	93.1	93.0	93.2	97.9	98.0
5.1	4.5	6.1	6.2	6.0	1.3	1.2
80	73	35		23	47	80

90.1	89.2	91.8	92.0	91.6	88.5	85.9
7.1	10.0	7.4	7.2	7.6	10.7	13.3
80	69	26		24	44	80

83.4	90.4	90.8	90.3	78.2
15.8	8.8	8.4	8.9	21.0
80	36		24	80

81.2	89.4	89.7	88.9	78.3
18.0	9.8	9.5	10.3	20.9
80	34		26	80

STA

+

π

-

Elm)

899.21

3+00

+50

4+00

+50

11.08 904.30

893.72

5+00

+50

LT

E

RT

S

81.2	88.4	88.8	88.1	76.9
18.0	10.8	10.4	11.1	22.3
80	34		26	80

79.2	83.7	87.9	88.2	87.4	74.9
20.0	15.5	11.3	11.6	11.8	24.3
80	58	31		24	80

77.7	87.8	88.2	87.8	81.6	74.4
21.5	11.4	11.0	11.4	17.6	24.8
80	32		22	52	80

78.2	87.9	88.5	87.9	75.7	75.2
21.0	11.3	10.7	11.5	23.5	24.0
80	39		15	67	80

Top REBAR STA 5 + 29.19 (PI)

88.3	92.9	90.5	88.2	82.2	76.7
16.0	11.4	13.8	16.1	22.1	27.6
80	60	20		27	80

97.9	95.9	86.9	85.8	85.1	82.2
6.4	8.4	17.4	18.5	19.2	22.1
80	55	21		32	80

STA

+

T

-

ELV

904.30

6+00

+33

7+00

T.P.

9.57

909.65

4.22

900.08

+50

8+00

+50

Lt

E

Rt

4

98.0	93.9	91.7	91.7	98.1	99.0	81.5
6.3	10.4	12.6	12.6	6.2	53	22.8
80	33		22	32	41	80

900.3	97.7	95.6	93.7	86.9
4.0	6.6	8.7	10.6	17.4
80	39		31	80

904.3	903.0	98.5	94.5	85.9
2.0	1.3	5.8	9.8	18.4
27	48		29	80

Top Rock 7+10 Lt 15'

906.5	905.2	98.1	93.9	86.4
3.2	4.5	11.6	75.8	23.3
80	52		35	80

906.7	906.1	98.8	98.3	92.9	86.8
3.0	3.6	10.9	11.4	16.8	22.9
80	60	19		41	80

906.7	902.6	98.3	93.4	87.8
3.0	7.1	11.4	16.3	21.9
80	34		40	80

STA + π - ELEV

909.65

9+00

T.P. 13.70 915.28 8.09 901.56 (901.58)

+50

10+00

+50

11+00

LT E RR 5

907.7	906.9	901.6	96.5	91.0
2.0	2.8	8.1	13.2	18.7
80	55		44	80

Top Re RR E 700

908.5	910.4	907.6	903.1	898.8
6.8	4.9	7.7	12.2	16.5
80	42		46	80

907.2	907.5	909.0	910.4	910.1	910.5
8.1	7.8	6.3	4.9	5.2	4.8
80	48	28		37	80

906.5	906.5	906.4	906.5	907.0
8.8	8.8	8.9	8.8	8.3
80	36		36	80

906.2	906.2	906.2	906.6	906.8
9.1	9.1	9.1	8.7	8.5
80	44		38	80

STA

+

X

-

ELL)

915.28

11+50

12+00

12+50

T.P.

4.66

912.78

7.15

908.13

(908.12)

13+00

+50

LT

E

RT

G

906.1	905.4	905.5	905.0	902.8
9.2	9.9	9.8	10.3	12.5
80	36		53	86

906.3	906.8	903.9	903.7	903.3	99.1	96.0
9.0	8.5	11.4	11.6	12.0	16.2	19.3
80	72	35		45	72	80

906.3	904.2	902.4	97.3	88.8
9.0	11.1	12.9	18.0	26.5
80	38		53	80

PK IN 8" CW 12+57 LT 80'

906.0	902.5	900.5	94.8	89.2
6.8	10.3	12.3	18.0	23.6
80	43		57	80

906.8	901.2	97.7	91.7	87.2
6.0	11.6	15.1	21.1	25.6
80	54		61	80

STA

+

π

-

Elev)

912.78

14+00

T.P

0.24

889.63

23.39

889.39

14+50

BM

2.29

887.34

887.34

15+00

+50

L

L

R

7

908.5	908.4	97.4	92.2	86.2	85.8
4.3	4.4	15.4	20.6	26.6	27.0
80	73	50		50	80

Top CONCRETE SLAB 14' x 15' R_T 7'

86.7	84.3	85.9	84.9	85.5	85.7
2.9	5.3	3.7	4.7	4.1	3.9
80	74	37		61	80

P/K QUANT 18" CW R_T 70'

82.7	82.7	83.7	82.9	80.4
6.9	6.9	5.9	6.7	9.2
80	53		62	80

81.1	81.7	81.3	78.4	75.0
8.5	7.9	8.3	11.2	14.6
80	50		49	80

STA

+

π

-

Elev

889.63

16+00

650

17+00

T.P.

10.55

879.08

(879.07)

BM

9.95

889.58

879.63

+50

18+00

LT

E

RT

S

77.1	76.3	76.3	75.7	74.9	72.6	72.0	71.8
12.5	13.3	13.3	13.9	14.7	17.0	17.5	17.8
80	69	45	28		39	53	80
		E				swamp	
		DIRT					
		RD					

73.0	73.0	74.7	74.9	74.7	74.2	72.1	71.6
16.6	16.6	14.9	14.7	14.9	15.4	17.5	18.0
80	17	12	E	7	16	19	80
	swamp		DIRT			swamp	
			RD				

73.0	73.1	74.8	74.9	74.5	72.7	71.6	71.6
16.6	16.5	14.8	14.7	15.1	16.9	18.0	18.0
80	20	6		10	19	47	80
	swamp				swamp		

SPICK IN POST @ ENT

SPICK IN 24" OAK 19+12 RT 16"

75.9	75.1	76.1	75.8	75.5	75.0	71.7	71.7
13.7	14.5	13.5	13.8	14.1	14.6	17.9	17.9
80	57	19	7		7	30	80

81.3	81.2	77.6	76.9	76.5	75.8	74.0	71.7	71.7
83	84	12.0	12.7	13.1	13.8	15.6	17.9	17.9
80	37	28	6		7	22	44	80

STA

+

X

-

ELEV

889.58

18+50

19+00

+50

20+00

T.P

14.90

894.87

9.61

879.97

+50

Lr

L

Rr

9

86.4	82.4	79.6	78.3	77.7	76.8	78.5	72.7	72.0	71.7
3.2	7.2	10.0	11.3	11.9	12.8	11.1	16.9	17.6	17.9
80	27	15	7		8	15	53	62	80

84.9	81.0	79.2	78.7	77.8	78.9	73.8	71.7
4.7	8.4	10.4	10.9	11.8	10.7	15.8	17.9
80	18	6		8	12	46	80

86.9	82.0	79.8	79.1	78.8	72.1	71.7
2.7	7.6	9.8	10.5	10.8	17.3	17.9
80	22	11		10	62	80

89.6	87.8	83.8	80.7	80.4	80.0	73.2	72.0
0.0	1.8	5.8	8.9	9.2	9.6	16.4	17.6
80	59	19	12		10	68	80

Spice £ 21+00

90.4	84.2	80.8	80.6	79.8	77.8	71.0
4.5	10.7	14.1	14.3	15.1	17.1	23.9
80	20	8		15	36	75

STA

+

X

-

ELL

894.87

21+00

+50

22+00

T.P.

2.66

884.20

13.33

881.54

+50

23+00

LT

L

R

10

89.9	83.0	80.4	80.0	79.5	70.9	70.9
5.0	11.9	14.5	14.9	15.4	24.0	24.0
80	18	8		13	60	80

88.9	87.9	82.6	80.2	79.9	79.5	76.2	71.1	70.9
6.0	7.0	12.3	14.7	15.0	15.4	18.7	23.8	24.0
80	70	21	12		10	29	54	80

85.7	82.7	80.5	80.2	74.6	70.6
9.2	12.2	14.4	14.7	70.3	24.3
80	26	18		45	80

Top NUB

81.9	81.5	80.5	80.6	81.1	76.4	73.0	73.0
2.3	2.7	3.7	3.6	3.1	7.8	11.2	11.2
80	22	20	1		55	66	80

80.8	81.1	80.0	79.8	79.9	81.2	77.3	73.0
3.4	3.1	4.2	4.4	4.3	30	6.9	11.2
80	16	14		6	8	60	80

STA

+

Δ

-

FLAT

884.20

23+50

24+00

+50

25+00

+50

BM

6.66 877.54 (877.47)

LT

L

R

11

78.9	80.2	79.2	79.2	80.2	77.8
5.3	4.0	5.0	5.0	4.0	6.4
80	3		20	23	80

73.9	77.7	78.3	79.1	78.5	78.2	79.3	79.9
10.3	6.5	5.9	5.1	5.7	6.0	4.9	4.3
80	31		18	21	42	40	80

71.2	71.2	72.8	76.1	78.6	77.7	77.4
13.0	13.0	11.4	8.1	5.6	6.5	6.8
80	28		28	71	73	80

71.2	71.2	71.2	76.2	78.4
13.0	13.0	13.0	8.0	5.8
80		30	60	80

71.2	71.2	71.2
13.0	13.0	13.0
80		80

Top RE BAR 24+20 PI

STA

+

π

-

ELEV

BM

4.04

888.55

884.51

26+00

+50

27+00

+50

28+00

+50

LT E RT

12

Top REBAR 29+99.4

72.9	72.6	72.3	71.4	71.4
15.7	16.0	16.3	17.2	17.2
80	40		40	80

75.0	76.1	76.0	74.8	73.1
13.6	12.5	12.6	13.8	15.5
80	40		40	80

76.2	79.8	79.4	78.3	76.6
12.4	8.8	9.2	10.3	12.0
80	31		40	80

78.2	82.7	82.7	81.2	79.0
10.4	5.9	5.9	7.4	9.6
80	34		43	80

78.1	83.5	85.7	84.2	81.3
10.5	5.1	2.9	4.4	7.3
80	40		34	80

78.0	82.2	84.2	87.0	85.2	82.5
10.6	6.4	4.4	1.6	3.4	6.1
80	80	47	40	40	80

STA

+

π

-

ELEV

888.55

29+00

+50

30+00

+50

31+00

✓

L

E

F

13

80.9	83.0	84.6	83.7	82.2
7.7	5.6	4.0	4.9	6.4
80	31		40	80

75.6	80.0	82.8	82.9	81.4
13.0	8.6	5.8	5.5	7.2
80	40		49	80

74.7	81.3	84.1	86.3	84.6	84.0	81.6	81.4
13.9	7.3	4.5	2.3	4.0	4.6	7.0	7.2
80	16		27	44	56	63	80

73.7	82.0	83.8/85.9/83.6/82.4/81.7	84.0	86.2	86.5
14.9	6.6	4.8 3.3 5.0 6.0 5.9	4.6	2.4	4.1
	7	15 35 36 56	58	20	80

73.0	78.0	82.7	83.5	82.7	81.6	81.4	82.8
15.6	10.6	5.9	5.1	5.9	7.0	7.2	5.8
80	29		5	9	11	29	31

86.1	86.7
2.5	1.9
80	48

STA

+

T

-

ELEV

888.55

31+50

T.P

4.13

885.03

7.65

880.90

32+00

+50

33+00

+50

BM

9.66

891.69

3.00

882.03

882.03

LT

2

BT

14

12.9	17.5	81.1	80.4	80.5	80.5	81.5	84.6	85.0	83.4
15.7	11.1	7.5	8.2	8.1	8.1	7.1	4.0	3.6	5.2
80	28	17	15		7	8	23	59	80

Top NUB 32+00 LT 10'

12.8	16.8	19.6	19.9	80.7	82.2	80.9	80.4
12.2	8.2	5.4	5.1	4.3	2.8	4.1	4.6
80	52	35	12	11		40	80

16.7	82.0	79.9	79.9	81.3	81.1	81.0
8.3	3.0	5.1	5.1	3.7	3.9	3.8
80	59	44	24	40		80

82.2	80.7	79.9	79.9	81.1	80.8	81.3	81.2
2.8	4.3	5.1	5.1	3.9	4.2	3.7	3.8
80	48	46	22	20		42	80

80.6	80.6	79.8	79.8	81.1	82.3	81.7	81.7
4.4	4.4	5.2	5.2	3.9	2.7	3.3	3.3
80	45	43	22	20	40		80

Top REBAR 33+50 2

STN

+

X

-

FIELD

891.69

34+00

+50

35+00

+50

36+00

+50

LT

L

RT

15

79.2 80.6 79.6 79.6 80.9
 12.5 11.1 12.1 12.1 10.8
 80 33 30 9 7

81.7 81.9 80.6
 10.0 10.2 11.1
 40 80

79.0 78.2 80.3 79.4 79.8 80.0 80.9 81.8 81.7
 12.7 13.5 11.4 12.3 11.9 11.7 10.8 9.9 10.0
 80 55 14 11 13 15 54 80

80.5 80.6 81.0 80.8 79.8 80.2 81.4 81.0
 11.2 11.1 10.7 10.9 11.9 11.5 10.3 10.7
 80 49 3 5 27 30 80

81.1 82.2 82.4 82.2 80.5 80.8 81.6 81.8
 10.6 9.5 9.3 9.5 11.2 10.9 10.1 9.9
 80 40 12 14 30 40 80

83.7 86.5 82.9 83.0 82.9 81.9 82.1 83.2 84.4 83.5
 8.0 5.2 8.8 8.7 8.8 9.8 9.6 8.5 7.3 8.2
 80 59 38 10 13 43 49 71 80

86.6 86.5 85.2 86.4 85.1 85.2 85.5 86.6 85.0
 5.1 5.2 6.5 5.3 6.6 6.5 6.2 5.1 6.7
 80 53 48 7 3 21 49 80

STA + π - ELEV

891.69

37+00

+50

38+00

+50

39+00

T.P

8.49

888.28

11.90

879.79

17 2 22 16

87.5 86.9 87.0 87.2 87.1
 4.2 4.8 4.7 4.5 4.6
 (80) (42) 43 47 80

80.8 82.7 83.2 81.8 83.2 87.0 87.3
 16.9 9.0 8.5 9.9 8.5 4.7 4.4
 80 52 18 42 66 80

76.4 77.7 79.5 79.4 78.2 76.7 76.7
 15.3 14.0 12.2 12.3 13.5 15.0 15.0
 80 38 11 22 58 80

75.9 78.2 79.2 78.5 77.3 76.7 76.7
 15.8 13.5 12.5 13.2 14.4 15.0 15.0
 80 46 15 25 49 80

75.6 78.4 79.6 79.7 76.7 76.7
 16.1 13.3 12.1 12.0 15.0 15.0
 80 35 17 44 80

Top Spike 39x 2

STA

+

π

-

FIELD

888.28

39+50

40+00

END

"

887.28

40+50

41+00

T.P

12.77

900.45

0.60

887.68

+50

LT

80.9 E

RT

17

76.7	79.1	79.8	79.6	78.3	76.8	76.6
11.6	9.2	8.5	8.7	10.0	11.5	11.7
80	38		(24)	40	52	80

78.7	79.8	80.1	80.2	81.6	80.6	81.4
9.6	8.5	8.2	8.1	6.7	7.7	6.9
80	42		28	52	72	80

81.0	81.7	82.1	84.5	86.3		73
7.3	6.6	6.2	3.8	2.0	6	
80	48		67	80		

87.0	86.3	84.1	84.3	86.3	87.3	88.3
1.3	2.0	4.2	4.0	2.0	1.0	2.0
80	55	28		40	57	66

Top Spike PE 41 + 70

96.1	92.3	87.3	87.2	88.5	89.1	96.2
4.4	8.2	13.2	13.3	12.0	11.4	4.3
80	46		17	25	33	80

STA	+	π	-	ELEV
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		900.85		
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42+00				
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+50				
-----	--	--	--	--

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

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

44+00				
-------	--	--	--	--

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

LT

Z

RD

18

95.9	96.1	92.8	89.0	88.3	90.3	93.9	95.2
4.6	7.4	7.7	11.5	12.2	11.2	6.6	3.3
80	56	28	10		15	38	80

95.6	93.7	89.2	90.3	98.9
4.9	6.8	11.3	10.2	15
80	46		18	80

95.5	93.5	86.6	86.7	88.0	93.6	97.6
5.0	7.0	13.9	13.8	12.5	6.9	2.9
80	56	13		25	58	80

93.2	85.2	84.4	85.6	89.1	92.8
7.3	15.3	16.1	14.9	11.4	7.7
80	23		49	54	80

93.8	89.5	87.7	85.1	84.5	85.5
6.7	11.0	12.8	15.4	16.0	15.0
80	41	34		48	80

94.9	92.6	90.5	88.2	84.9	84.8
5.6	7.9	10.0	12.3	15.6	15.7
80	44	37		54	80

STA

+

Δ

-

ELEV

900.45

45+00

+50

46+00

+50

T.P.

16.14

909.31

7.28

893.17

47+00

LT

Z

R

19

96.5	95.0	93.2	91.1	87.9	86.2
4.0	5.5	7.3	9.4	12.6	14.3
80	46	33		47	80

98.1	97.4	95.7	94.3	90.2	86.9
2.4	3.1	4.8	6.2	10.3	13.6
80	32	26		41	80

94.8	96.5	98.0	96.3	95.4	89.9	86.5
5.7	4.0	2.5	4.2	5.1	10.6	13.0
80	55	29	18		51	80

88.7	91.7	95.4	95.2	92.3	90.3
11.8	8.8	5.1	5.3	8.2	10.2
80	49	16		49	80

Top Spine 47+00 Z

16.4	16.4	87.4	92.7	93.2	95.8	98.6	900.5
32.9	32.9	21.9	16.6	16.1	13.5	10.7	8.8
80	65	32	8		18	49	80

STA + π - ELEV)

909.31

47+50

48+00

+50

T. P. 1.31 888.76 21.86 887.45

49+00

+50

50+00

LT

E

R

20

16.5	16.5	89.4	90.3	91.3	900.2	906.9
32.8	32.8	19.9	19.0	18.0	9.1	2.4
80	48	23		19	53	80

16.4	18.5	89.3	88.4	88.5	89.4	908.8	909.3
32.9	30.8	20.0	20.9	20.8	19.9	0.5	0.0
80	40	22	15		21	65	80

16.4	18.8	88.8	88.6	90.6	906.6	909.1
32.9	30.5	20.5	20.7	18.7	2.7	0.2
80	(43)	30		45	67	71

Top SPARE 490002

17.4	18.5	87.1	87.5	88.4	87.8
11.4	10.5	1.7	1.3	0.4	1.0
80	60	45		43	80

17.9	18.4	86.3	86.4	86.8	87.2	87.8
10.9	10.4	2.5	2.4	2.0	1.6	1.6
80	70	50	33		39	80

18.2	84.1	85.2	84.4	80.9
10.6	4.7	3.6	4.4	7.9
81	61		41	80

STA

+

π

-

Elev

888.76

50+50

51+00

+50

52+00

BM

18.21

900.31

6.69

882.07

882.10

52+50

Lr

E

Rr

Z1

78.1	84.5	83.5	80.8	79.8	78.1	76.8
10.7	4.3	5.3	8.0	7.0	10.7	12.0
85	60		34	46	71	80

77.9	83.5	84.6	84.5	81.2	81.2	81.0	80.4
10.9	5.3	4.2	4.3	7.6	7.6	7.8	8.4
80	57	27	3		24	54	80

78.1	79.5	81.6	82.2	83.4	84.2	83.3
10.7	9.3	7.2	6.6	5.4	4.6	5.5
80	46	22	5		44	80

78.9	82.2	82.4	82.9	84.3	86.1	85.9	84.4
9.9	6.6	6.4	5.9	4.5	2.7	2.9	4.4
80	73	65	38	36		51	80

Top REBAR 47+00 E

88.2	87.1	88.2	87.9	85.7	84.7	84.2
12.1	13.2	12.1	12.4	14.6	15.6	16.1
80	55	48		64	73	80

STA

+

π

-

FEET

900.31

53+00

+50

54+00

+50

BM

10.68

902.03

8.96

891.35

55+00

LT

E

R

22

87.2	87.3	86.3	86.3	86.4	84.7	83.6
13.1	13.0	14.0	14.0	13.9	15.6	16.7
80	46	34	17		46	80

90.2	85.9	84.9	84.1	82.4	81.7
10.1	14.4	15.4	16.2	17.9	18.6
80	24	21		38	80

95.6	82.5	89.2	85.0	84.3	82.3	79.2	77.8
4.7	7.8	11.1	15.3	16.0	18.0	21.1	22.5
80	61	37	29	10		38	80

94.2	93.1	89.8	86.3	85.9	83.3	77.9	77.4
6.1	7.2	10.5	14.0	14.4	17.0	22.4	22.9
80	74	46	37	18		50	80

Top REBAR 56+00 E

94.8	93.6	88.1	87.5	84.6	81.3	79.7
7.2	8.4	13.9	14.5	17.4	20.7	22.3
80	70	46	33		39	80

SIA

+

A

-

FLAD

902.03

55+50

56+00

T.R

16.90

90962

9.31

897 72

56+50

57+00

+50

L

L

R

23

96.0	95.4	90.2	89.1	88.2	85.1	84.8
6.0	6.6	11.8	12.9	13.8	16.9	17.2
80	69	31	13		34	80

99.5	98.2	94.3	90.7	90.3	90.8	89.2
2.5	3.8	7.7	11.3	11.7	11.2	12.8
80	66	46		34	44	80

Top 18" 57+00 L

904.7	95.2	91.3	89.6	89.4
4.9	14.4	18.3	20.0	20.2
80	32		46	80

905.1	95.5	91.9	89.5	89.3
4.5	14.1	17.7	20.1	20.3
80	32		42	80

903.7	95.3	90.1	89.5	89.4
5.9	14.3	17.5	20.1	20.2
80	31		40	80

Sta

+

π

-

Elev

909.62

58100

+50

59100

+50

60100

T.P.

18.24 891.38 (891.35)

LT Z RR 24

96.2	92.8	89.4	87.6	88.0	89.0
13.4	16.8	20.2	22.0	21.6	20.6
80	61		30	69	80

93.2	90.3	88.6	87.9	86.3	87.1	88.1	88.5
16.4	19.3	21.0	21.7	23.3	22.5	21.5	21.1
80	46	26		34	72	76	80

95.1	91.1	89.1	85.8	86.4	85.8	85.7
14.5	18.5	20.5	23.8	23.2	23.8	23.9
80	65	40	13		40	80

95.7	89.4	86.2	85.0	84.4
13.9	20.2	23.4	24.6	25.2
80	40		36	80

84.9	94.4	89.7	85.7	85.8
24.7	15.2	19.9	23.9	23.8
80	45		40	80

Top ReBAR 56 + 00 ft

STA	+	-	FLU
BM	14.28	905.63	891.35
	6.18	893.72	18.09 887.54

60+50

61

+50

62+05

+50

63

LT

£

RT

25

Top REBAR 56+00 £

Top EXHAUST Pipe 61+50 RT 50+

83.6	84.0	89.0	89.7	92.5	90.8	87.0
10.1	9.7	4.7	4.0	1.2	2.9	6.7
80	28	7		21	44	80

85.9	85.6	85.7	84.9	85.0	88.9	88.8
7.8	8.1	8.0	8.8	8.7	4.8	4.9
80	40	17		38	71	80

85.7	85.0	83.4	83.4	84.6	83.4	83.4	84.9	85.3
8.0	8.7	10.3	10.3	9.1	10.3	10.3	8.8	8.4
80	40	20	4		21	38	44	80

TAR RT

84.9	84.7	84.6	84.1	83.4	83.4	85.0	85.8	79.7	79.7
8.8	9.0	9.1	9.6	10.3	10.3	8.7	7.9	14.0	14.0
80	40	10		4	9	44	30	41	80

84.7	84.4	79.6	81.3	80.0	80.2	80.7
9.0	9.3	14.1	12.4	13.7	13.5	13.0
80	22	10		6	40	80

81.9	83.1	83.4	86.4	82.9	80.5	80.4
11.8	10.6	10.3	7.3	10.8	13.2	13.3
80	70	43		18	44	80

STA

+

X

-

ELL)

893.72

+50

T.R

4.88

~~888~~ 44

10.16

883.56

64

+50

65

+50

66

END

LT

K

RT

26

81.7	82.6	82.1	81.4	80.2
12.0	11.1	11.6	12.3	13.5
80	18		25	80

SPIKE PP 64 + 40 LT 25

81.7	81.2	82.1	82.4	80.5	80.3
6.7	7.2	6.3	6.0	7.9	8.1
65	59	53		53	80

81.6	81.1	81.9	82.0	82.4	81.0	80.6	81.7	82.4
6.8	7.3	6.5	6.4	6.0	7.4	7.8	6.7	6.0
75	55	46	23		11	73	85	100

81.3	81.3	82.0	81.4	80.7	81.5
7.1	7.1	6.4	7.0	7.7	6.9
80	54	35		75	100

80.9	81.4	81.0	80.3	81.9	81.9
7.5	7.0	7.4	8.1	6.5	6.5
80	55		53	92	100

80.9	80.9	81.1	79.9	83.2	81.4
7.5	7.5	7.3	8.5	5.2	7.0
80	50	25		81	100

Sta

+

T

-

Elev

888.44

T.P.

17.86

905.40

0.90

887.54

14.04

891.36

(891.36)

R

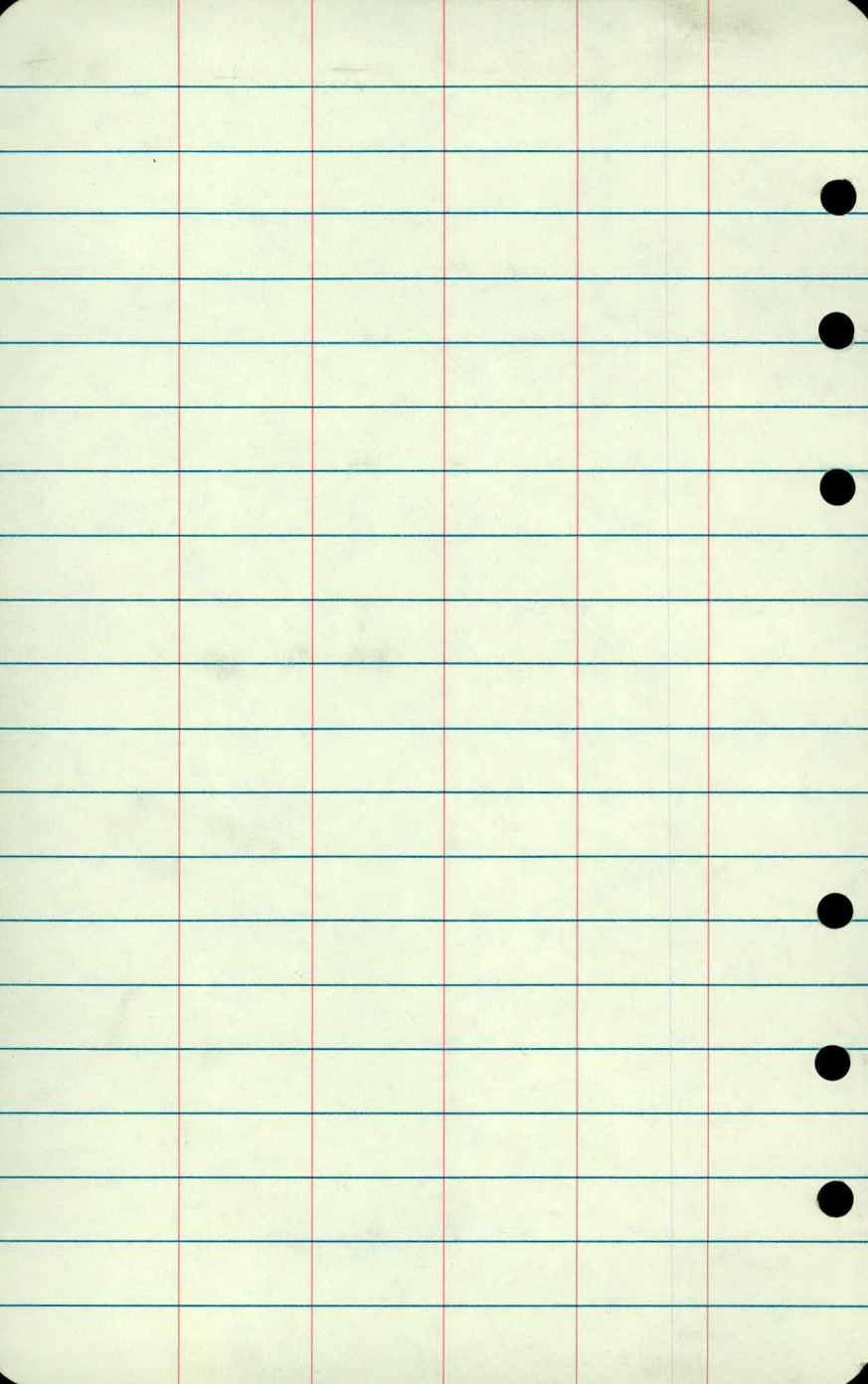
£

L

27

Top EXHAUST PIPE 61450 R 50

Top RLBAR 56200 £



ML
MR
BL
GT

SC

X-SECTIONS FOR
NEW ALIGNMENT

STA	+	Δ	-	ELEV
	5.17	906.75		901.58

8+50

9+00

+50

T.P	7.30	913.62	1.03	905.72
-----	------	--------	------	--------

10

+50

11

LT

E

Rt

Top R-R Bar 9+00

905.1	900.8	906.8	90.9	84.8
1.7	6.0	10.0	15.9	22.0
80	40		40	80

905.8	901.1	906.9	91.5	86.1
1.0	5.1	9.9	15.3	20.1
70	40		40	80

93.4	906.1	900.6	93.1	89.8
13.4	0.7	6.2	13.7	17.0
80	40		50	80

HUB 9+25 LT 35

909.1	910.7	905.7	901.0	97.1
3.3	2.3	7.3	12.0	15.9
80	42		43	80

906.3	906.8	909.9	909.4	906.2
6.7	6.2	3.1	5.6	6.8
80	45		44	80

906.7	906.4	907.2	906.6	908.5
6.3	6.6	5.8	6.0	4.5
80	45		48	80

STA

+

Δ

-

ELEV

913.02

11+50

12+00

3.78 906.31 10.19 902.53

+50

13

+50

Lr

E

Rr

906.1	907.3	907.1	904.5	909.9	908.7	
6.9	5.7	5.9	8.5	3.1	4.3	6.9
80	43		40	69	80	

905.6	906.7	904.8	901.7	900.5
7.4	6.3	8.2	11.3	12.5
80	13		24	80

Top H4B 12+20 Lr 37'

905.3	904.1	900.6	99.0	91.3
1.0	2.2	5.7	7.3	9.0
80	16		48	80

904.0	903.0	91.6	91.3	99.0	94.6
2.3	3.3	8.7	9.0	7.8	11.7
80	35	6		24	80

903.5	902.4	98.4	90.2	90.5	94.5	93.9
2.8	3.9	7.9	16.1	15.8	11.8	12.4
80	53	34	16		28	80

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

		906.31		
--	--	--------	--	--

14

+50

15

+50

T.P.	2.77	88743	21.65	884.66
------	------	-------	-------	--------

16+00

LT

L

RT

90.3	99.0	88.9	89.2	89.5	90.4
5.0	7.3	17.4	17.1	16.8	15.9
80	52	29		46	80

99.0	94.6	89.1	87.7	87.7	90.1	89.3	88.8
7.3	11.7	17.2	18.6	18.6	16.2	17.0	17.5
80	41	28		38	51	73	80

98.5	91.4	87.2	85.8	86.4	87.1	84.7
7.8	14.9	19.1	20.5	19.9	19.2	21.6
80	25	13		47	59	80

97.0	86.4	86.0	86.2	85.5	82.6
9.3	18.9	20.3	20.1	20.8	23.7
80	18		32	65	80

Top RT BAR 16x100 RT

85.5	86.3	84.8	84.4	83.6	80.0
1.9	1.1	2.6	3.0	3.8	7.4
8	63	49		51	80

STA

+

X

-

ELEV

887.43

16+50

17+00

1+50

18

BM

0.68 887.35 887.34

LT

F

RT

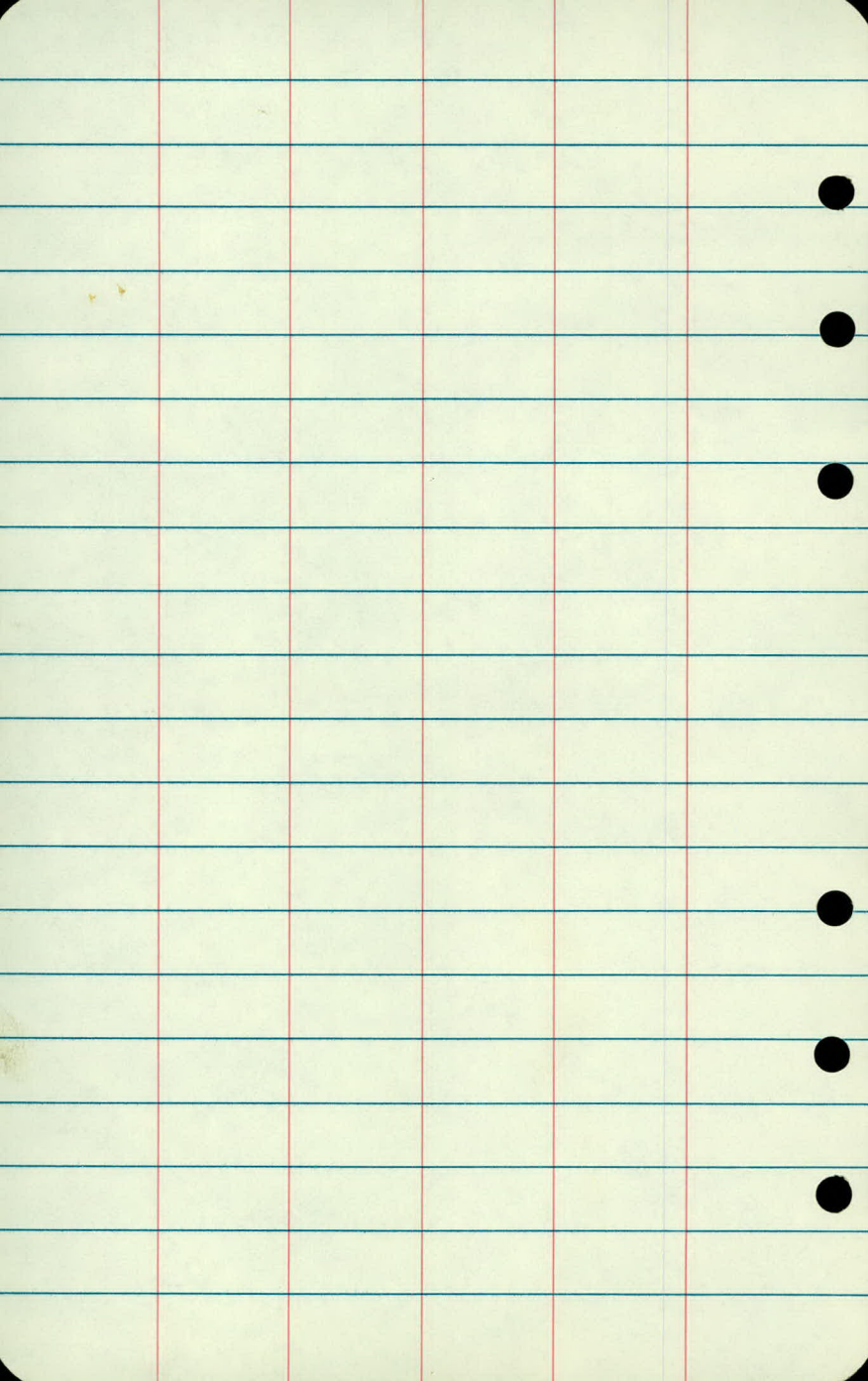
81.5	83.3	82.8	82.7	74.5
59	41	46	47	12.9
80	31		20	80

81.0	81.6	78.4	77.5	75.3	71.5
6.4	5.8	9.0	9.9	12.1	15.9
80	33		19	36	55 SWAMP

73.4	74.7	74.9	74.0	72.6	71.8
14.0	12.7	12.5	13.4	14.8	15.0
47	24	5		4	24 SWAMP

73.1	74.2	74.4	74.2	72.9	71.7
14.3	13.2	13.0	13.2	14.5	15.7
10	5		14	23	28 SWAMP
SWAMP					

SPike QUIT C.W. 15+60 RT 50'



MC
DS
MR
BL

MARCH 7 83

RAIN & SNOW 30°

LONG LAKE PARK ENTRANCE

PARKING LOT #1

STA

4+00

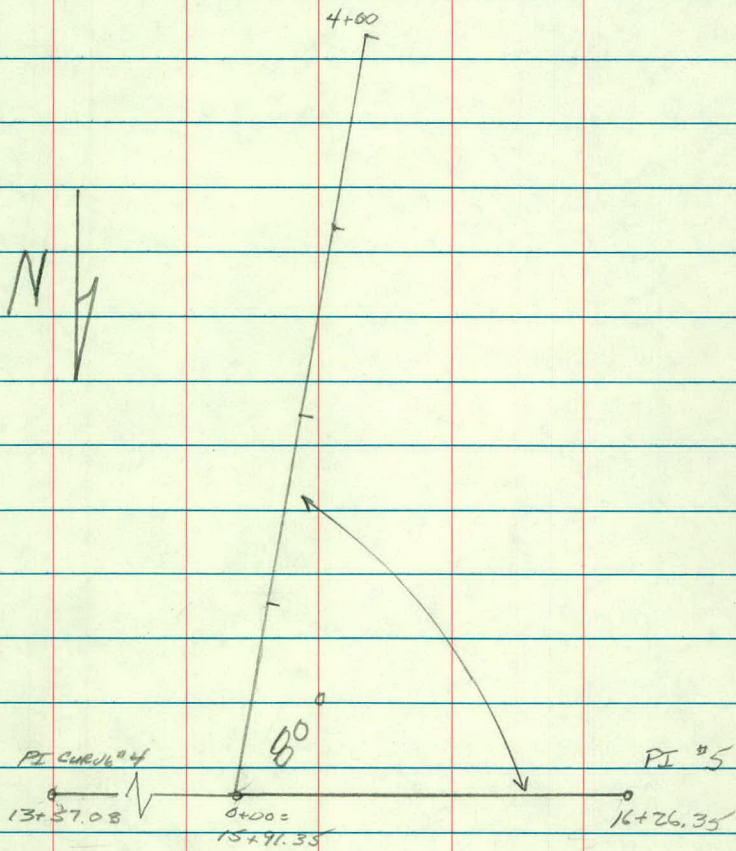
POL.

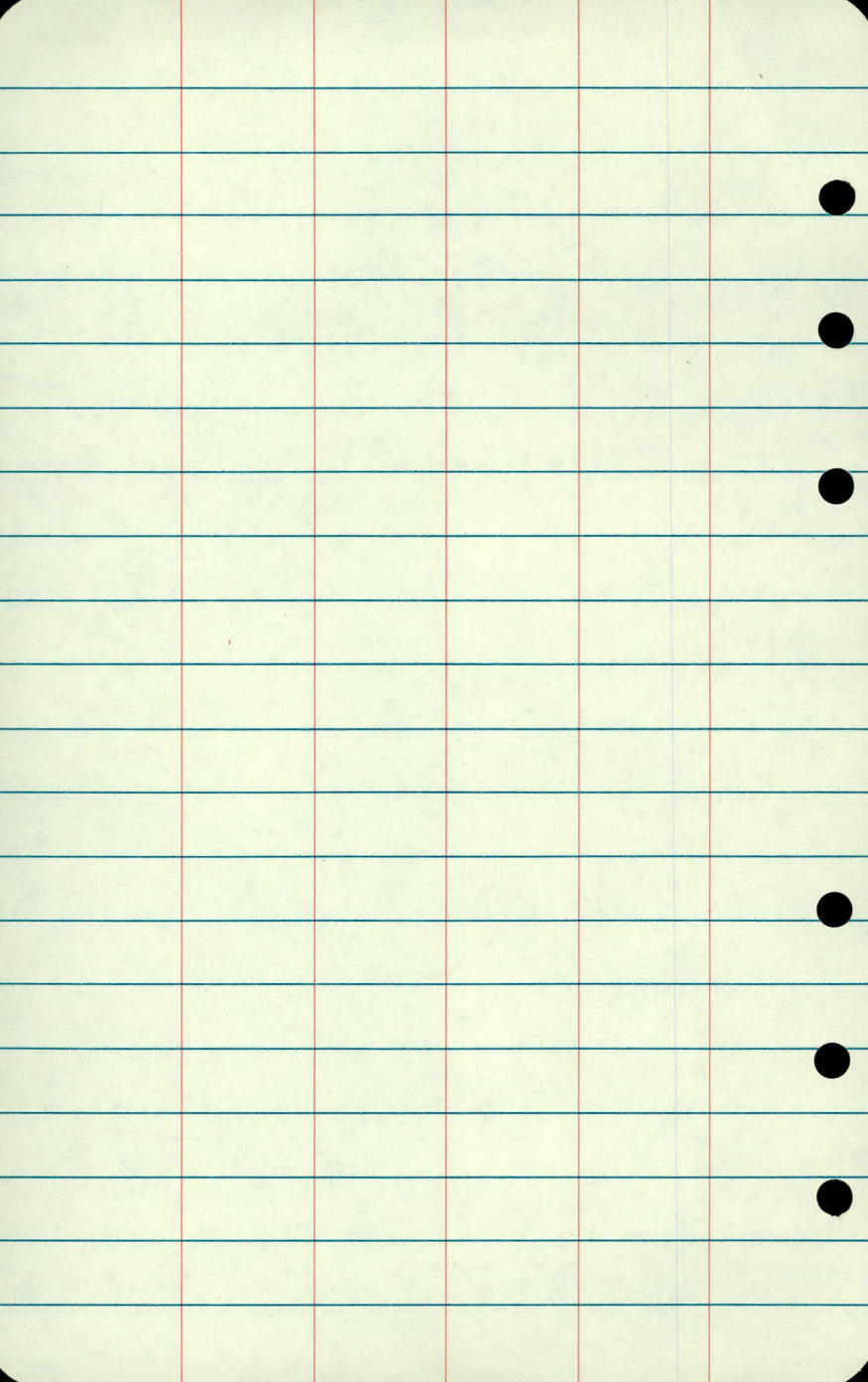
0+00 =

15+91.35

16+26.35 P.I. CURVE " 5

N





MARCH 7, 83

X-SECTIONS
PARKING LOT #1

STA

+

π

-

6.49

885.56

879.07

0+00

+50

1+00

+50

2+00

+50

LT

L

R

16.5

9.1

81.8	82.1	81.1	16.0	16.6	14.1	13.0	13.0
3.8	3.5	4.5	9.6	9.0	14.5	12.6	12.6
100	80	22		9	32	48	100

81.3	81.6	80.5	80.1	77.1	77.1	77.0	77.6	77.5	78.0
4.3	4.0	5.1	5.5	8.5	8.5	8.6	8.0	8.1	7.6
100	80	71	17	8		10	24	80	100

82.4	80.9	79.2	80.7	80.0	77.9	78.0	78.0	79.5	78.9	78.5
3.2	4.7	6.4	4.9	5.6	7.7	7.6	7.6	6.1	6.7	7.1
100	80	37	33	16	7		9	26	80	100

81.8	81.1	79.3	79.4	79.7	80.0	79.7	79.7
3.8	4.5	6.3	6.2	5.9	5.6	5.9	5.9
100	80	8		16	19	80	100

81.4	80.9	80.5	79.4	79.7	79.7	79.5	79.3
4.2	4.7	5.1	6.2	6.0	6.0	6.1	6.3
100	80	35	15		17	80	100

STA

+

X

-

RECEIVED

885.56

3+00

+50

4+00

6.49 879.07

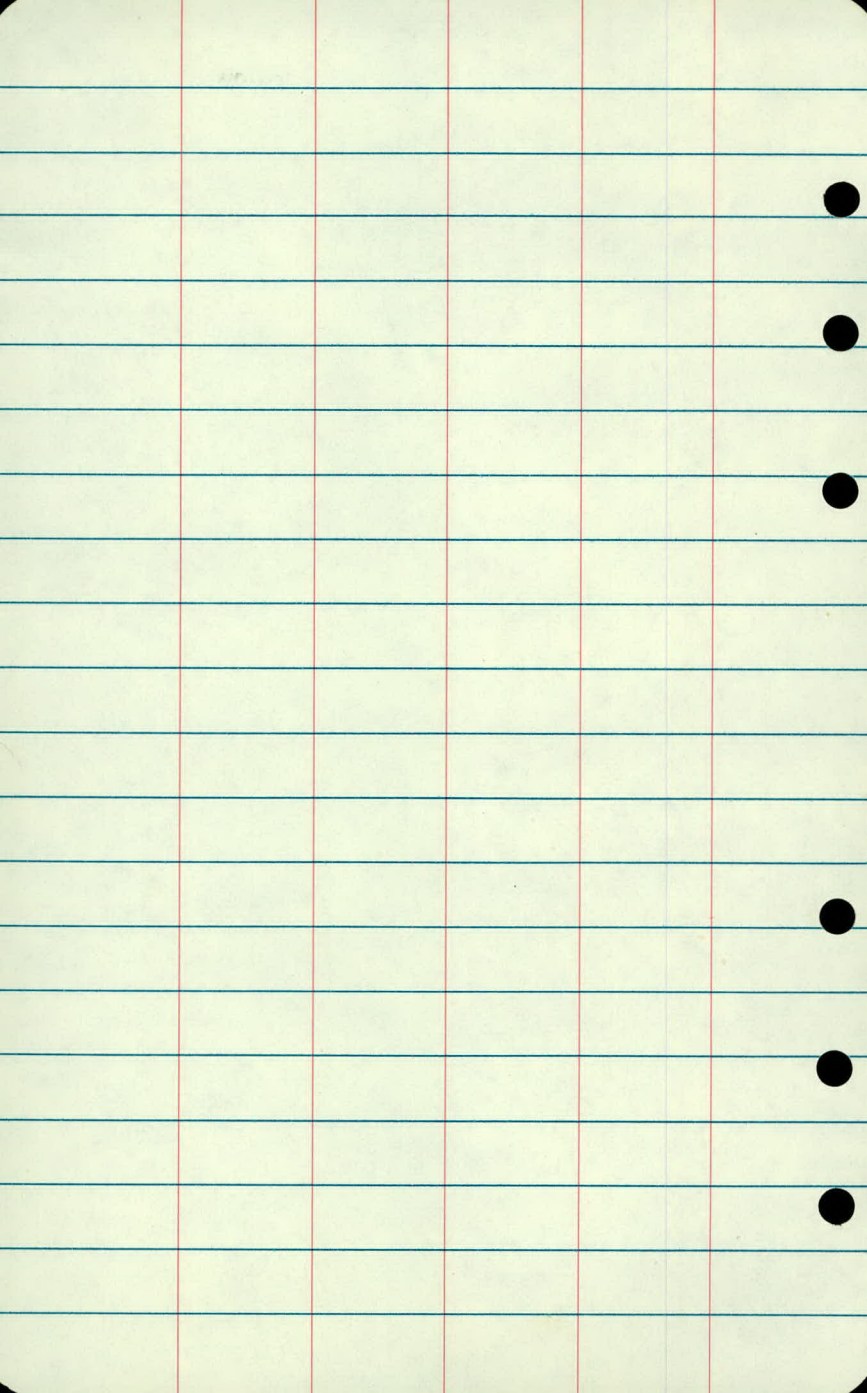
LT

RT

81.1	80.7	79.9	79.3	79.7	79.6	80.5	79.7	79.7	
4.5	4.9	5.7	6.3	5.9	6.0	5.1	5.9	5.9	✓
100	80	73	20		19	51	80	100	

80.9	80.6	80.1	80.1	80.4	79.7	79.7	
4.7	5.0	5.5	5.5	5.2	5.9	5.9	✓
100	80	15		26	80	100	

80.6	80.3	80.2	80.2	80.2	79.7	79.4	79.4
5.0	5.3	5.4	5.4	5.4	5.9	6.2	6.2
100	80	13		20	48	80	100
					RR		RR



ML
DS
M/R
BL

MARCH 8, 83

Cloudy 30°

LONG HILL PARK ENTRANCE
PARKING LOT #2

STA

POINT

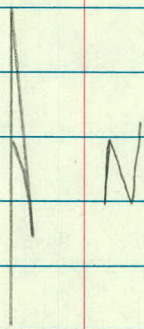
4+00

P.O.L.

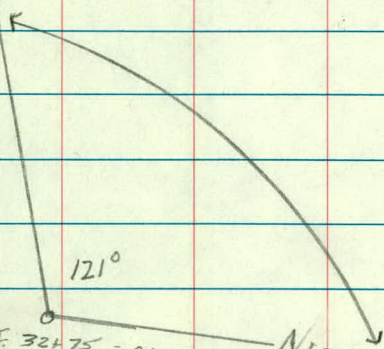
0+00 =

32+75

PI CURVE # 10



4+00

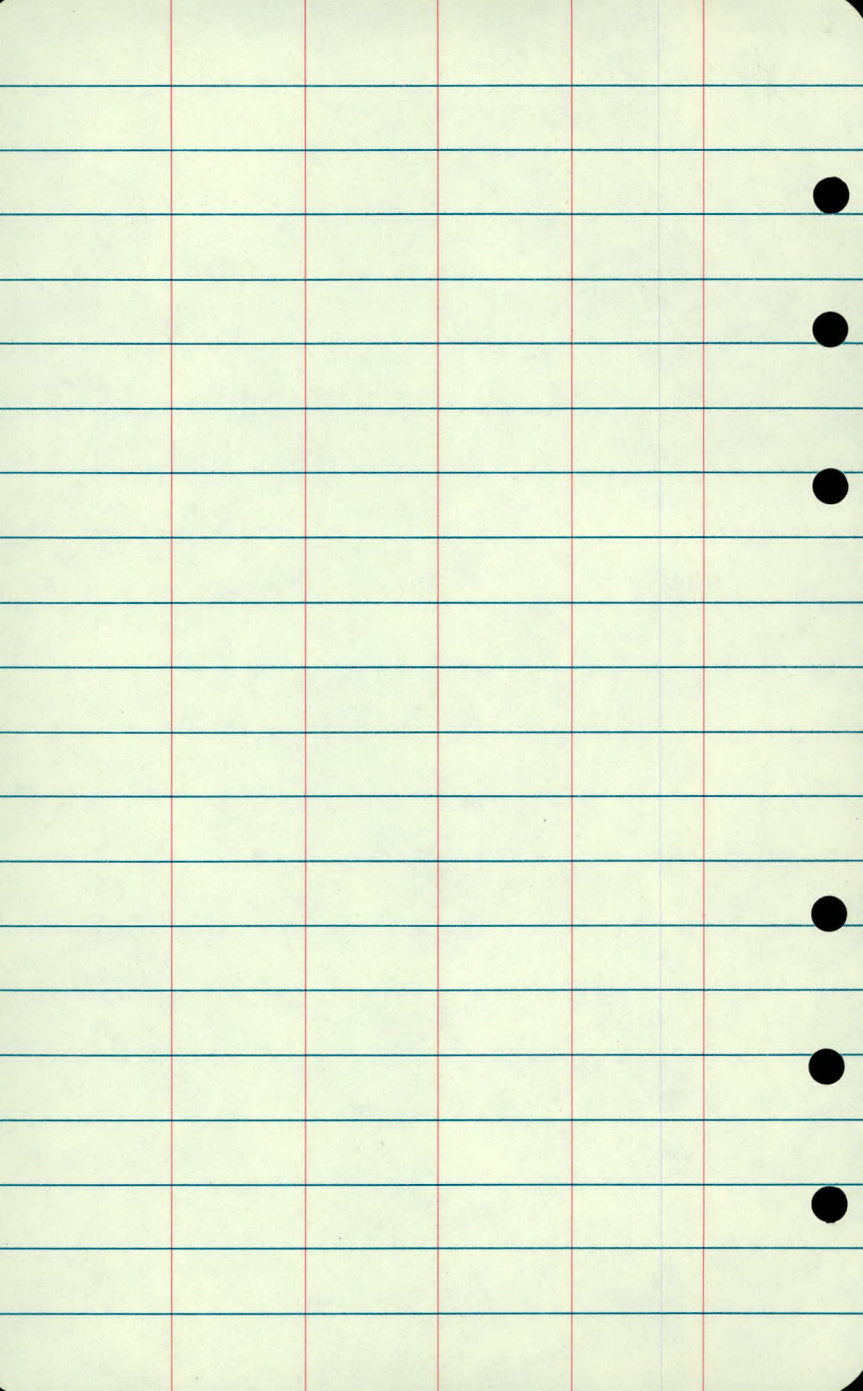


121°

PI 32+75 - 0+00
CURVE #10



PI 29+00
CURVE #9



ML
DS
MR
BL

MARCH 8, 83

CLOUDY 30°

X-SECTIONS

PARKING LOT #2

Sta

+

Δ

-

4.28

886.31

882.03

0+00

1+00

2+00

3+00

4+70

4+00

5.42 880.89 880.96

Lr

E

RT

Top Re Bar 33+50 L

81.4	81.6	81.3	81.2	80.9	80.8	81.2
4.9	4.7	5.0	5.1	5.4	5.5	5.1
100	80	40		40	80	100

81.5	82.0	81.5	81.3	80.9	80.4	80.6
4.8	4.3	4.8	5.0	5.4	5.9	5.7
100	80	40		40	80	

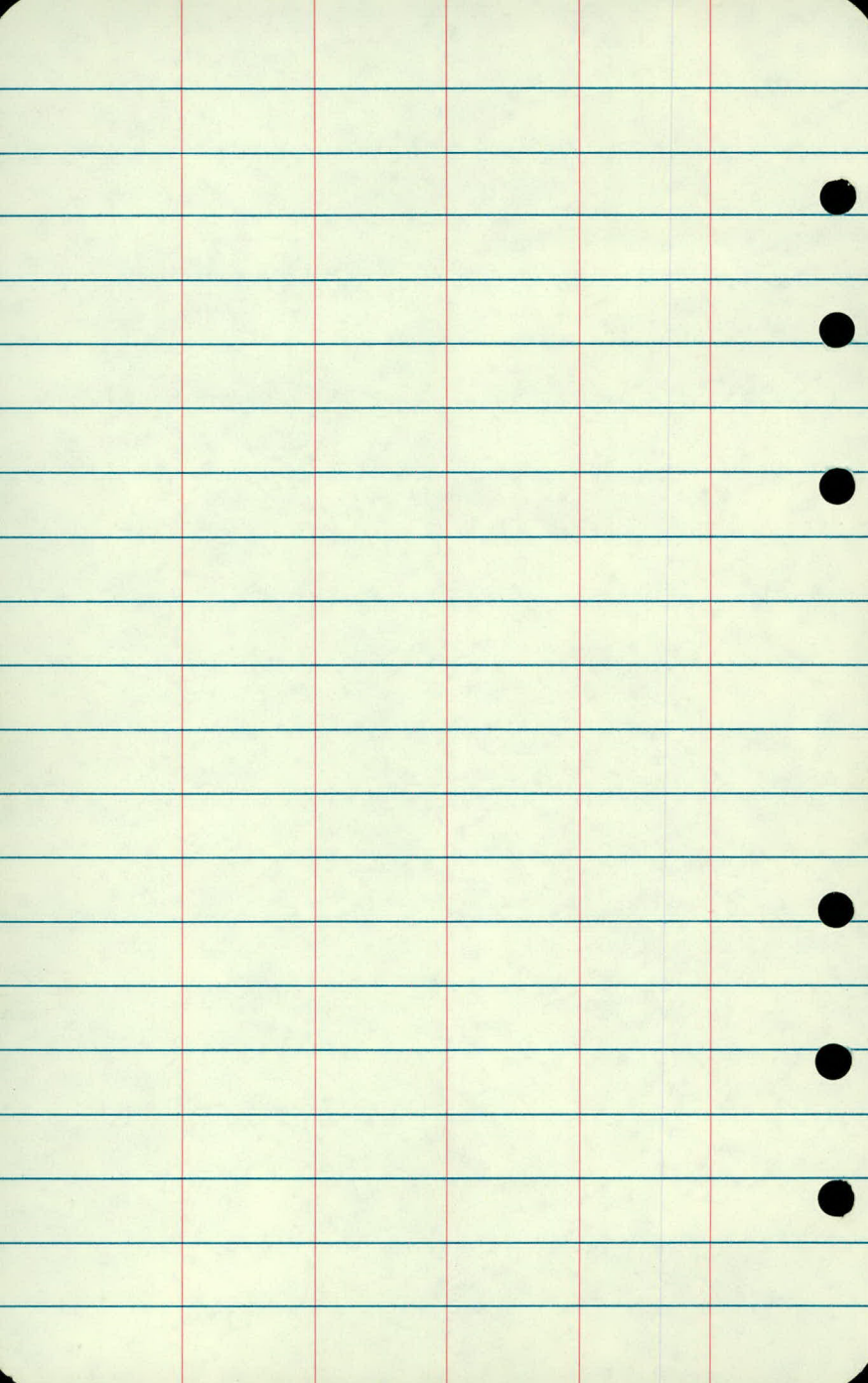
81.5	81.8	81.1	81.4	80.4	81.3	81.1
4.8	4.5	5.2	4.9	5.9	5.0	5.2
100	72	40		32	71	100

82.6	81.5	80.6	80.3	81.5	80.7	80.5
3.7	4.8	5.7	6.0	4.8	5.6	5.8
100	80	21		42	80	100

81.6	81.7	79.9	81.3	80.8	75.7	81.1	80.3
4.7	4.6	6.4	5.0	5.5	10.6	5.2	6.0
100	80	45		28	49	65	100

82.4	81.3	80.9	82.1	80.2	72.7	70.9	72.5	80.4
3.9	5.0	5.4	4.2	6.1	13.6	15.4	13.8	5.9
100	80	40	9		22	45	69	100

Top H4B 32+00 Lr 10'



ML
D5
MC
BL

MARCH 8

CLOUDY 30°

LONG LAKE PARK ENTRANCE
PARKING LOT #3

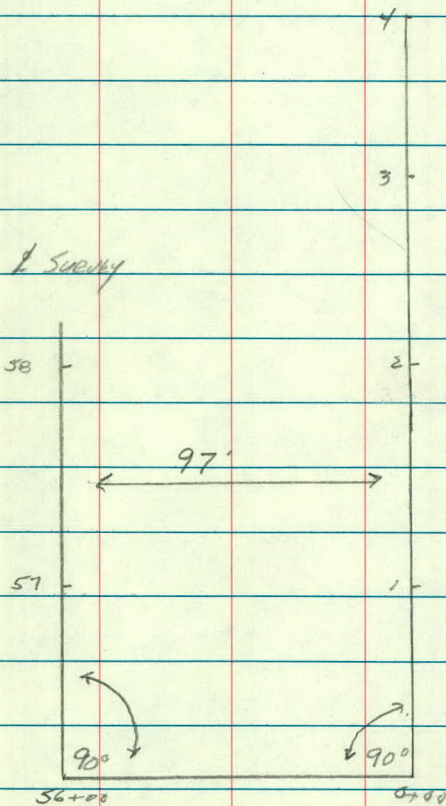
STA

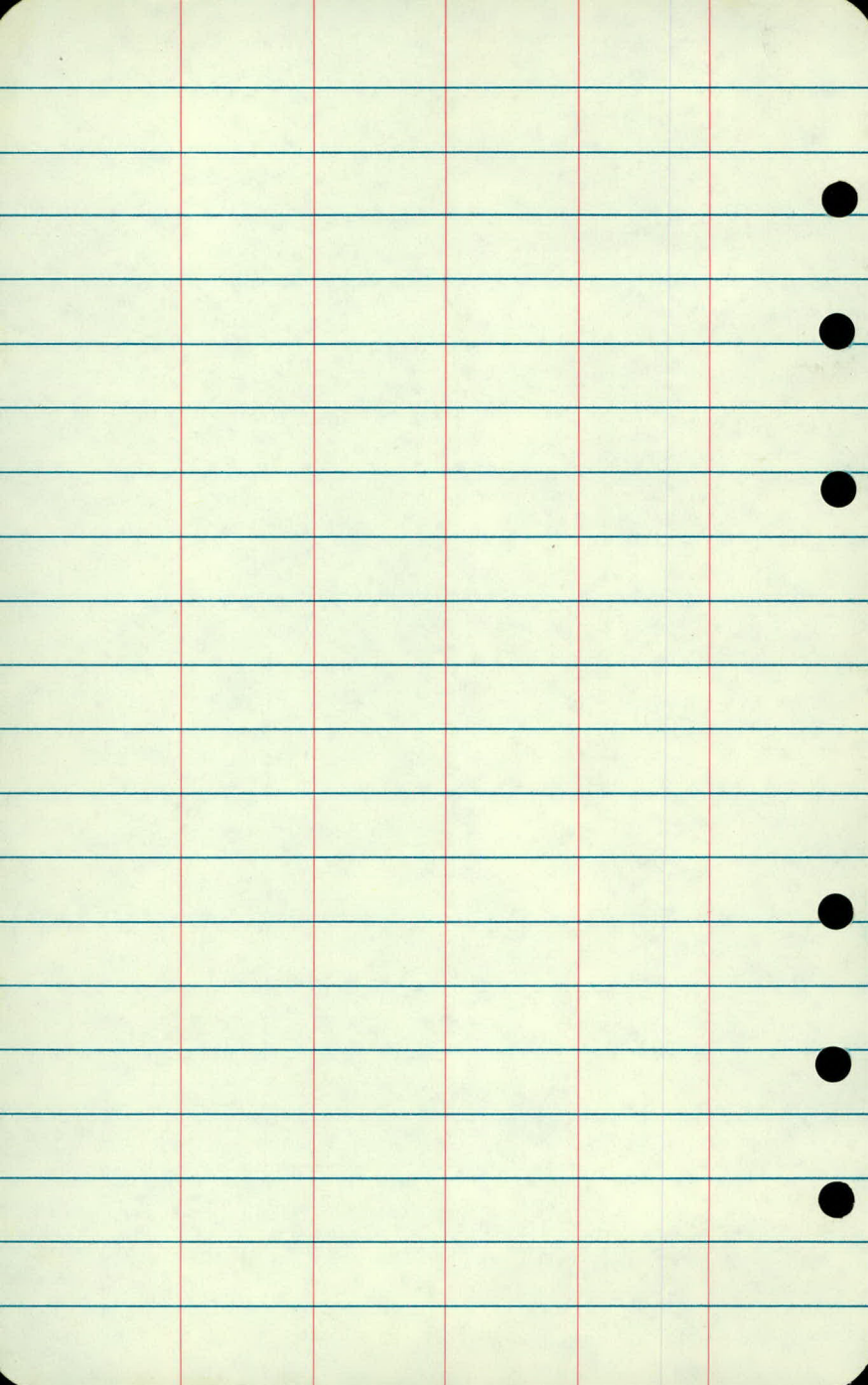
4+00

0+00 = 56+00 to 97

2 PARKING LOT

2 SURVEY





ML
DS
MR
BL

MARCH 8, 83

CLOUDY 30°

X-SECTIONS

LONG LAKE FORK ENTRANCE

STA	+	π	-	ELEV
BM	13.10	904.45		891.35
0+00				
1+00				
2+00				
2+22				
3+00				
4+50				

L

E

R

Top FEAR 50+00 E

890.2	890.4	889.1	889.5	889.7	888.9
14.3	14.1	15.4	15.0	14.8	15.6
80	48		38	62	89

890.9	889.4	889.6	892.2	893.0	893.0	891.7
13.6	15.1	14.9	12.3	11.5	11.5	12.8
80	51		31	47	73	94

889.1	887.9	888.3	888.6	890.2	892.4	892.8	893.2	894.1
15.4	16.4	16.2	15.9	14.3	12.1	11.7	11.3	10.4
80	58	28	6		30	52	71	85

887.8	887.9	888.9	899.2	899.8	900.1	894.6	892.7	892.9	900.6	900.6
16.7	16.6	15.4	5.3	4.7	4.4	9.9	11.8	11.6	3.9	3.9
80	33	24	4		11	20	37	55	68	75

885.8	886.5	888.2	889.9	898.5	896.5	891.5	891.7	893.0	894.4
18.7	18.0	16.3	14.6	6.0	8.2	13.0	12.8	11.5	10.1
80	32	32	21	6		16	37	43	65

885.5	885.7	890.1	889.7	888.8	889.8	897.3	898.7	891.2
19.0	18.8	14.4	14.8	15.7	14.7	7.2	5.8	13.3
80	28	16	2		22	34	46	72

STA

+

π

-

FEED

904.45

4100

BM

11.72 892.73

892.72

1173

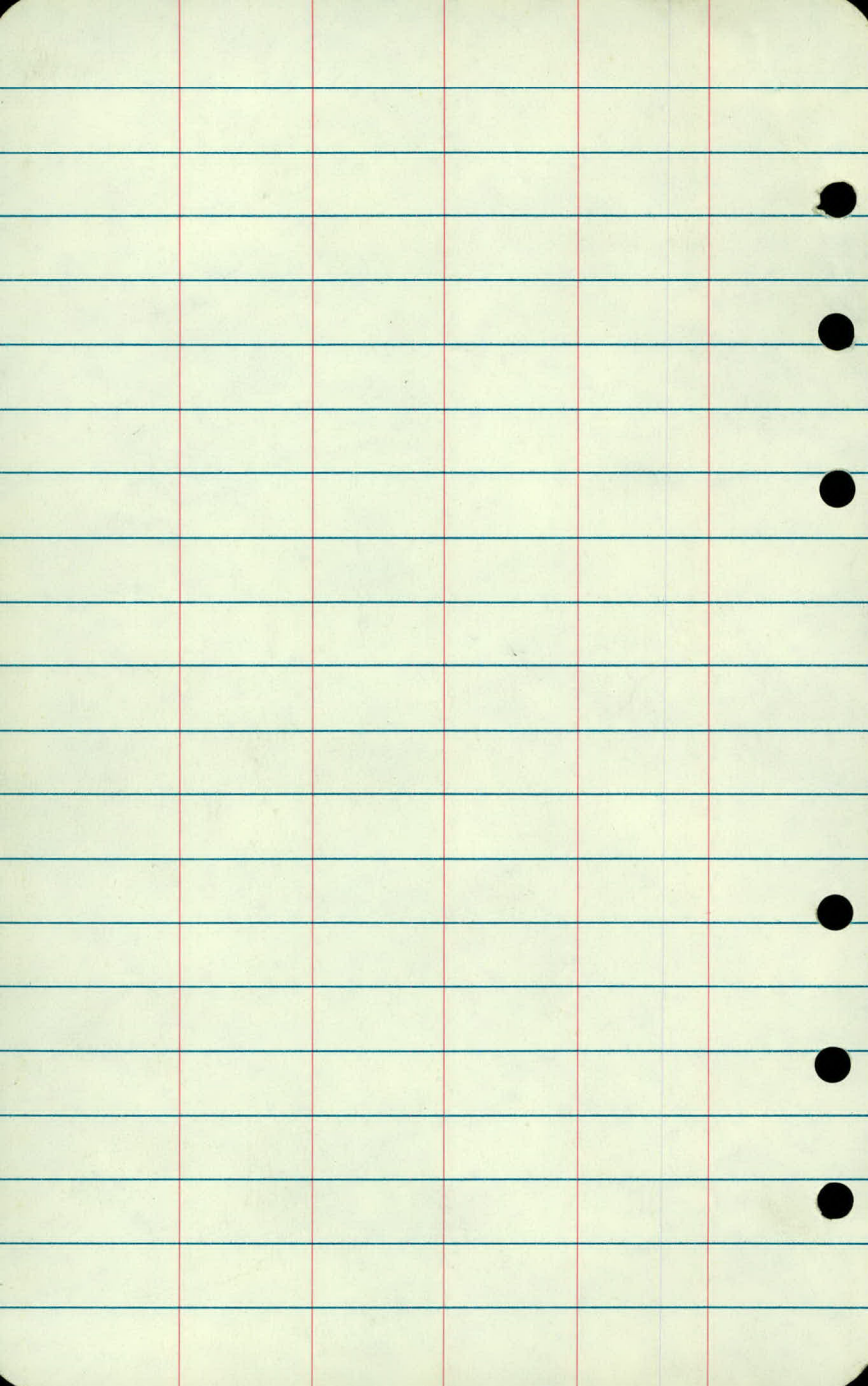
LT

E

R

884.6	883.7	884.7	885.7	887.0	887.8	886.1
199	20.8	198	18.8	17.5	16.7	18.4
80	66	16		4	61	66

Top 18" STAKE 57+00 E



MR
JH

7-26-83

SUNNY

85°

TOPO

RAIL ROAD

X-ING

LONG LAKE PARK

L+

E

R+

38

+50

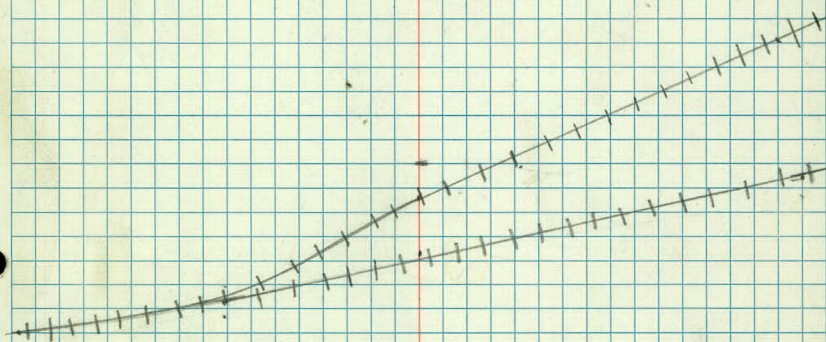
+25 $\frac{E \text{ WEST TRACK}}{70}$

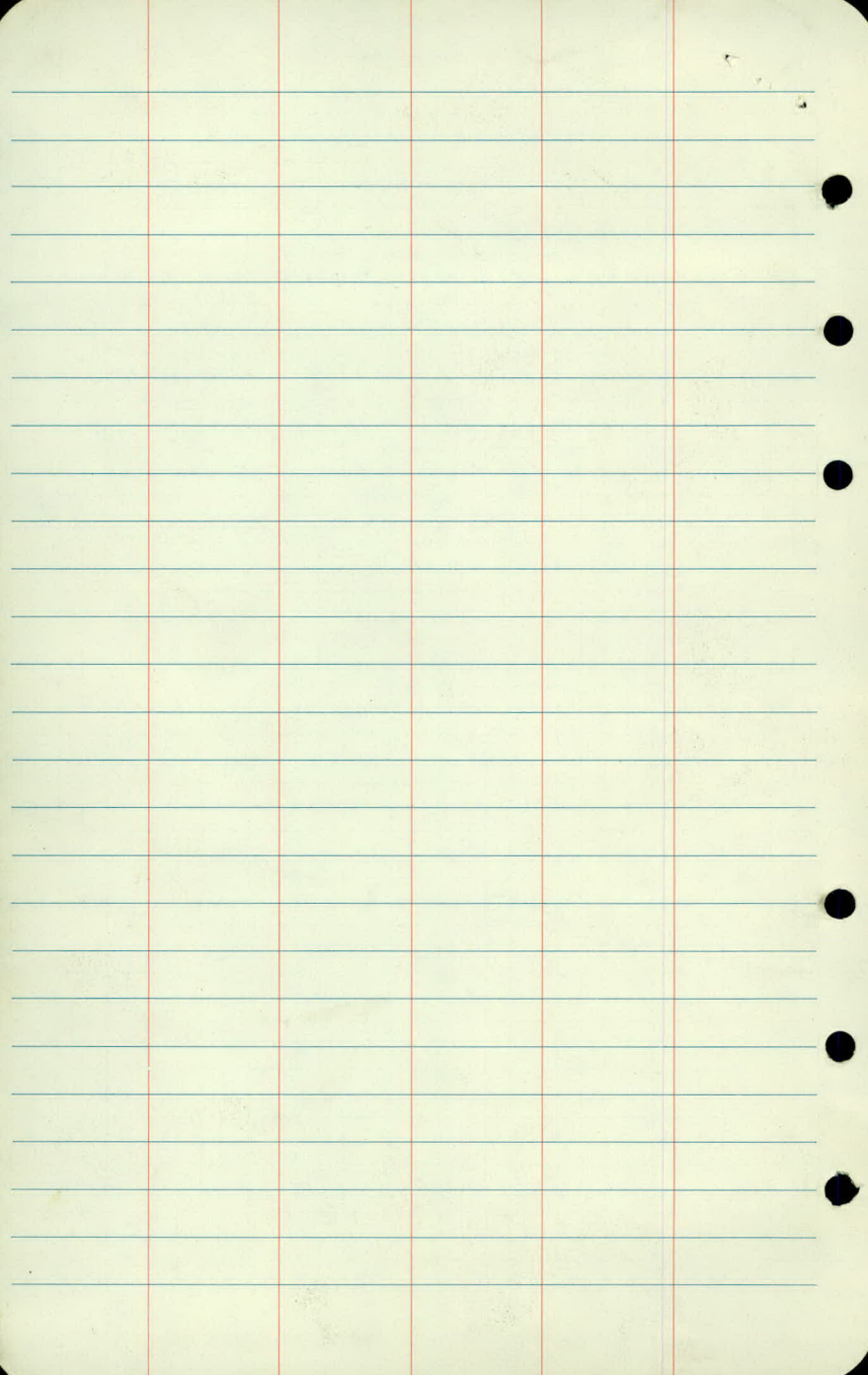
37+00

+72 $\frac{\text{JUNCTION}}{91}$ +93 $\frac{E \text{ WEST TRACK}}{0}$ +97 $\frac{E \text{ E. TRACK}}{75}$ +65 $\frac{E \text{ TRACK}}{78}$ +82 $\frac{E \text{ E. TRACK}}{0}$

+50

36+00





REVISED #2 THRU #5 CURVE

STA

PT

LRT

Curve No 6

 $\Delta 88^{\circ} 50'$ $D = 46^{\circ} 47' 02''$

+42.28

PT

 $44^{\circ} 25'$ $T = 120$ $R = 122.47$

19

 $34^{\circ} 31' 34''$ $L = 189.88$

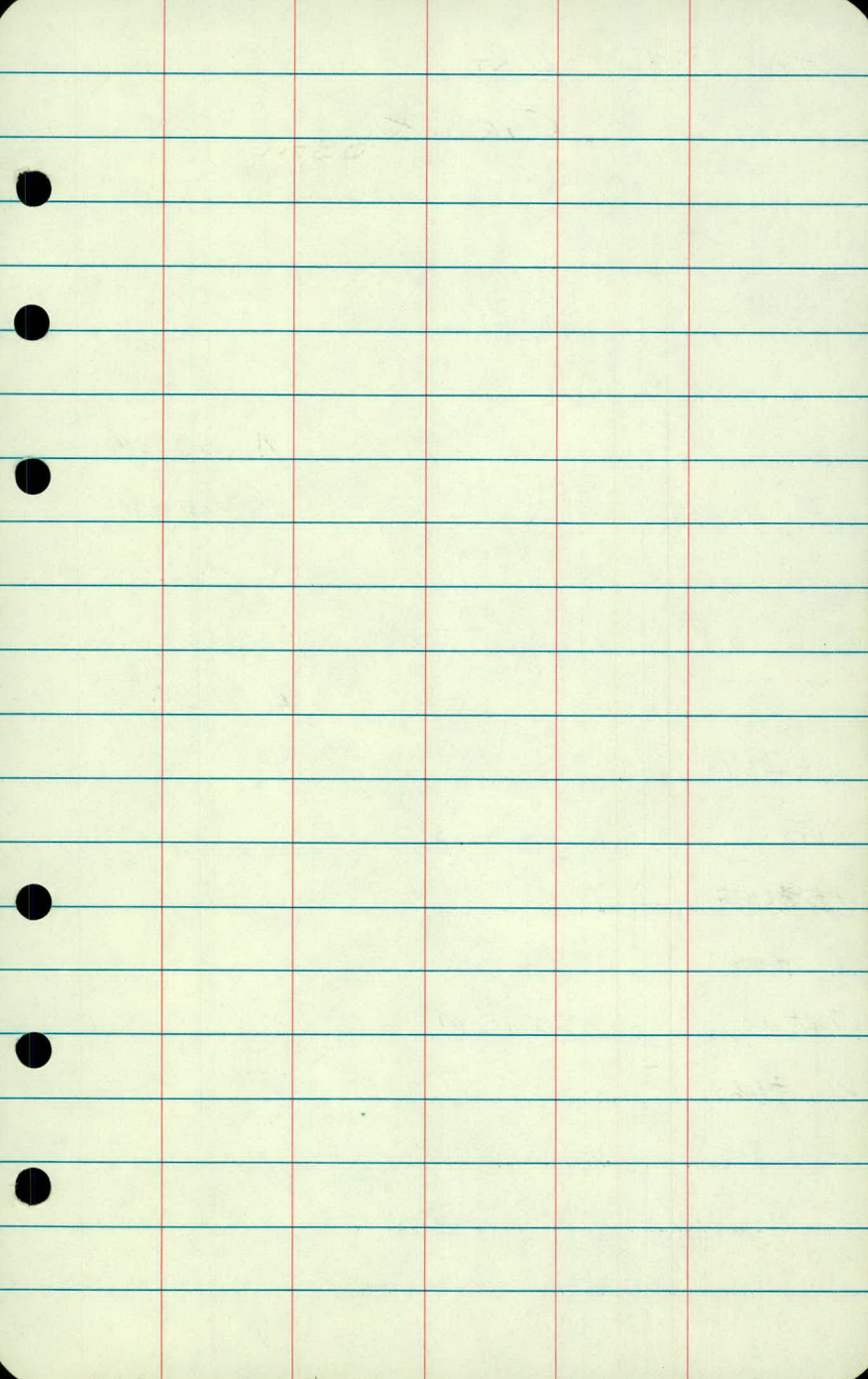
+72.40 PI

+50

 $22^{\circ} 49' 49''$

18+00

 $11^{\circ} 08' 04''$ $(18+82.46 =$ 17+52.46 PC $0^{\circ} 00' 00''$ Equation $18+82+46 = 17+52+40$ (PC Curve #5)



STA POINT L RT

CURVE SA

$\Delta 50^{\circ}34'$

$T = 76.44$

$R = 161.83$

$D 35^{\circ}24'16''$

$L = 142.83$

+24.46 PT $25^{\circ}17'$

18 $20^{\circ}57'15''$

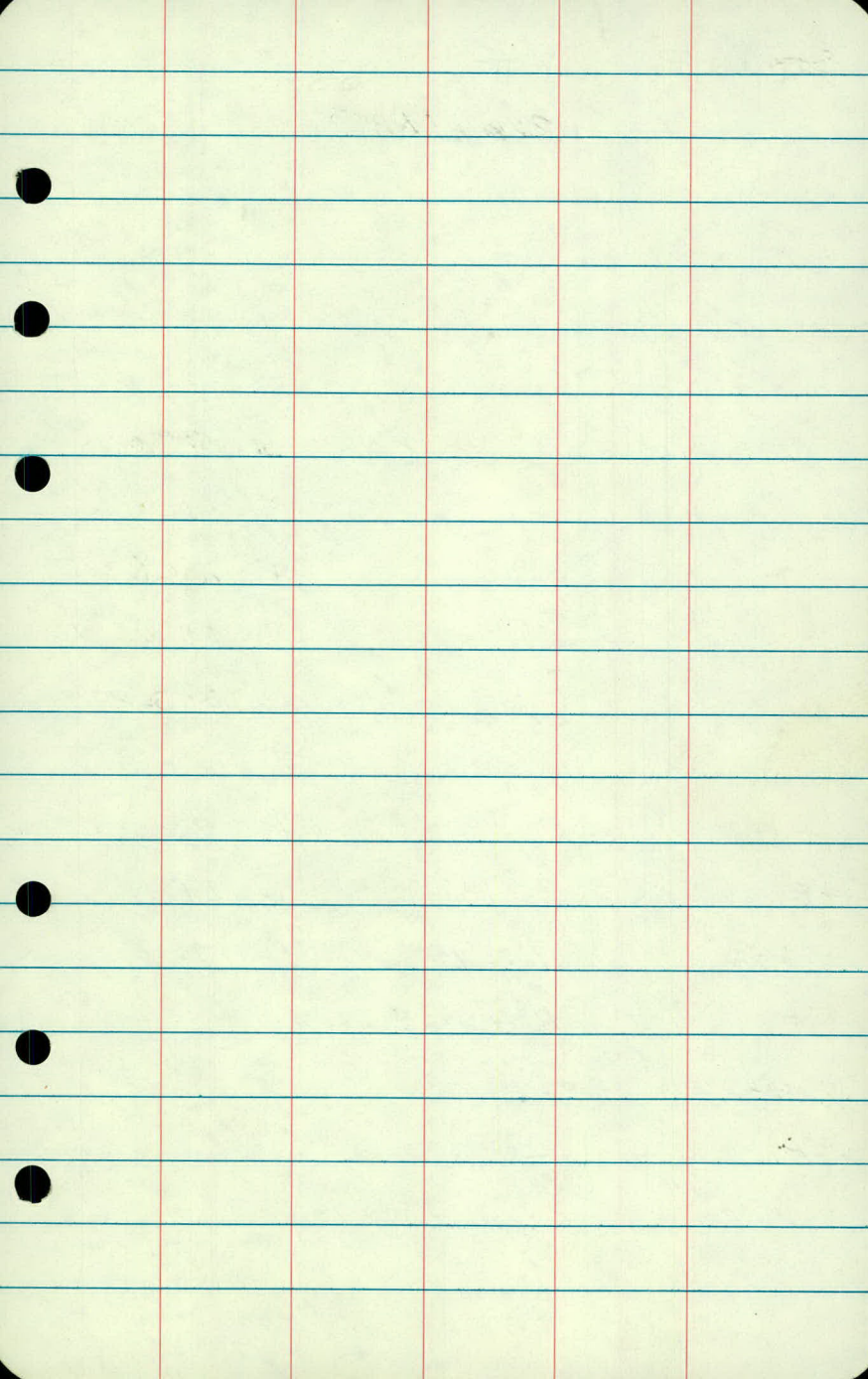
+58.07 PI

+50 $12^{\circ}06'11'' \checkmark$

17+00 $3^{\circ}15'07'' \checkmark$

16+81.63 PCC

Front Sight 15+74.46 = 16+81.63 (PCC)
(107.17)



STA POINT LRT

CURVE 4A

PC 12+11.17

A $42^{\circ} 36'$

T 90'

R = 236.84

+81.63 PCC $21^{\circ} 18'$

D = $24^{\circ} 49' 15''$

+50 $17^{\circ} 22' 21''$

L = 171.63

16+00 PT $11^{\circ} 10' 09''$ ✓

+50 $4^{\circ} 57' 51''$ ✓

15+10 PC $0^{\circ} 00' 00''$

LT

£

RT

STA POINT LLT

CURVE 3A

$\Delta 69^{\circ}30'$

$T = 185'$

+87.16

PT

$34^{\circ}45'$

$(225^{\circ}15')$

$R = 266.68$

+50

$30^{\circ}45'26''$

$(229^{\circ}14'34'')$

$D 21^{\circ}29'06''$

14

$25^{\circ}23'10''$

$(334^{\circ}36'50'')$

$L 323.49$

+50

$20^{\circ}00'54'' (339^{\circ}59'06'')$

+48.68

PI

13

$14^{\circ}38'48'' (345^{\circ}21'12'')$

+50

$9^{\circ}16'32'' (350^{\circ}43'28'')$

12500

$3^{\circ}54'06'' (355^{\circ}05'54'')$

11+63.68 PC

$0^{\circ}00'00''$

LD

Z

R+

NEW ALIGNMENT

STA

+

L+T

CURVE ZR

(321° 0' 15")

+63.68 PCC

38° 45'

A 77° 30'

(322° 54' 19")

+50

37° 05' 41"

D 24° 12' 09"

(328° 05' 21")

11

31° 02' 39"

T 190

(335° 00' 13")

+50

24° 59' 37"

R 236.74

+33.46 PT

(341° 03' 25")

L 320.22

10+00

18° 56' 35"

+50

12° 53' 33" (347° 06' 27") ✓

9+00

6° 50' 31" (353° 09' 29") ✓

8+43.46 PT

ML
BW
DS
MR
BL

FEB 2, 83

SUNNY 10°

LONG LAKE PARK ENTRANCE

ALIGNMENT

STA

L RT

CURVE NO. 1

$\Delta 62^\circ$

D $26^\circ 38' 57''$

+32.65 PT 31°

T 129.19

R 215'

6+00

$26^\circ 38' 57''$

L 232.65

+50

$19^\circ 59' 12''$

+29.19 PI

5+00

$13^\circ 19' 28''$

+50

$6^\circ 39' 44''$

4+00

PC $0^\circ 00' 00''$

REVISED CURVES # 11, 12 & 13

CURVE 11B

Δ $11^{\circ}58'40$

D $8^{\circ}01'21''$

R 714.18

T 75

L 149.45

+10.90 PT

38

+50

37

36+61.45 Pe

11° 57' 35"

CURVE No 12 ~~R~~

+68.68 PT (339° 59' 30")
20° 22' 30" A 40' 45'

+50 (340° 57' 46")
19° 02' 14" D 25° 02' 06"
T 85

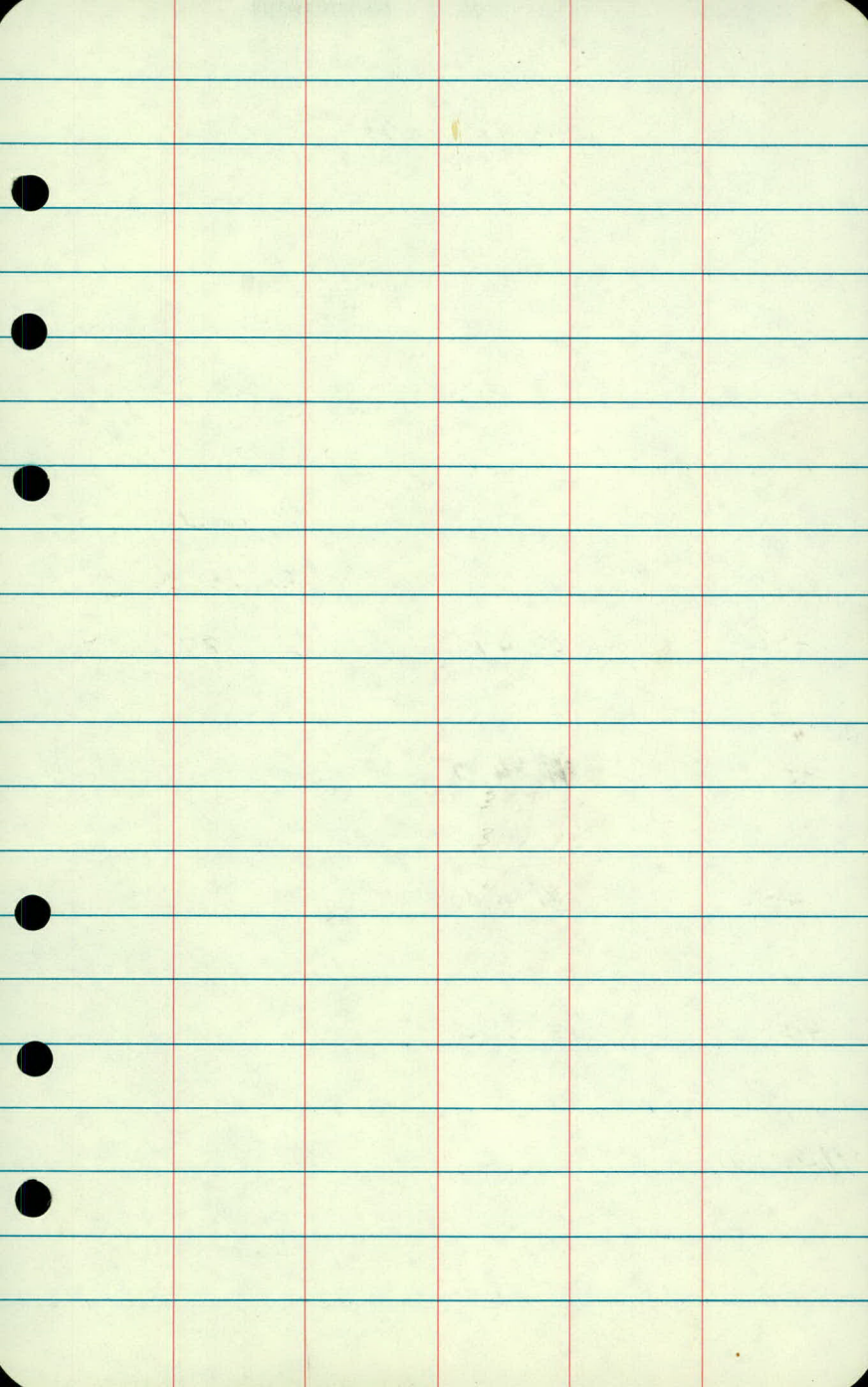
✓
42 (347° 13' 17")
12° 46' 43" R 228.86
L 162.77

+ 82.91

+50 6° 31' 12" (353° 28' 48")

41 0° 15' 41" (359° 44' 19")

40 + 92.91 PC



CURVA 13 B

44+82.02=

44+72.08 P.O.T.

A 85° 28'

D 45° 31' 47"

T 116.26

R 125.84

+4B.46

42° 44'

L 187.72

33.60

44

31° 42' 56"

45+50

20° 20' 00"

43

8° 51' 04"

47+60.68

100.00

60.68

39.32

35 2 60

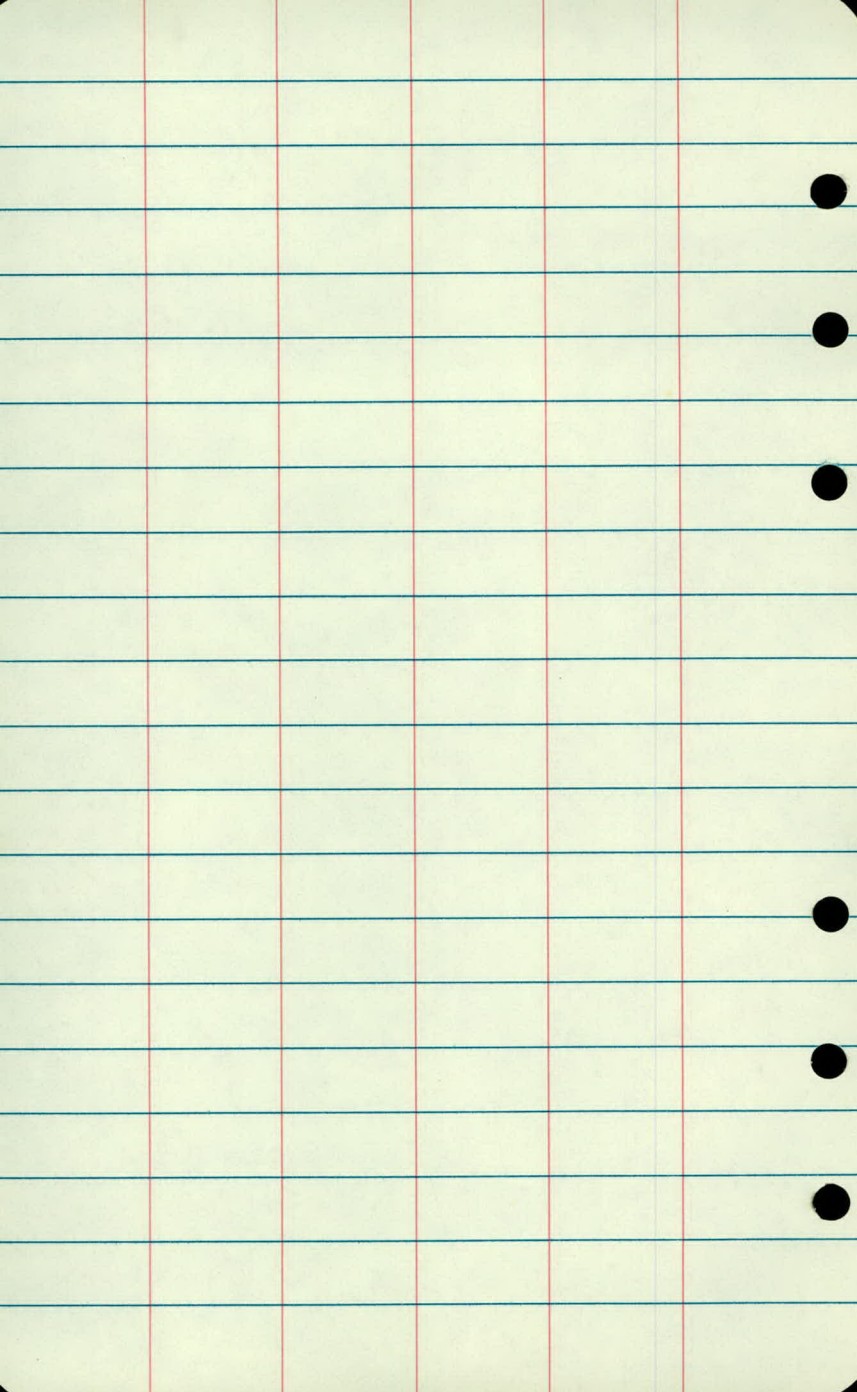
27 1 30

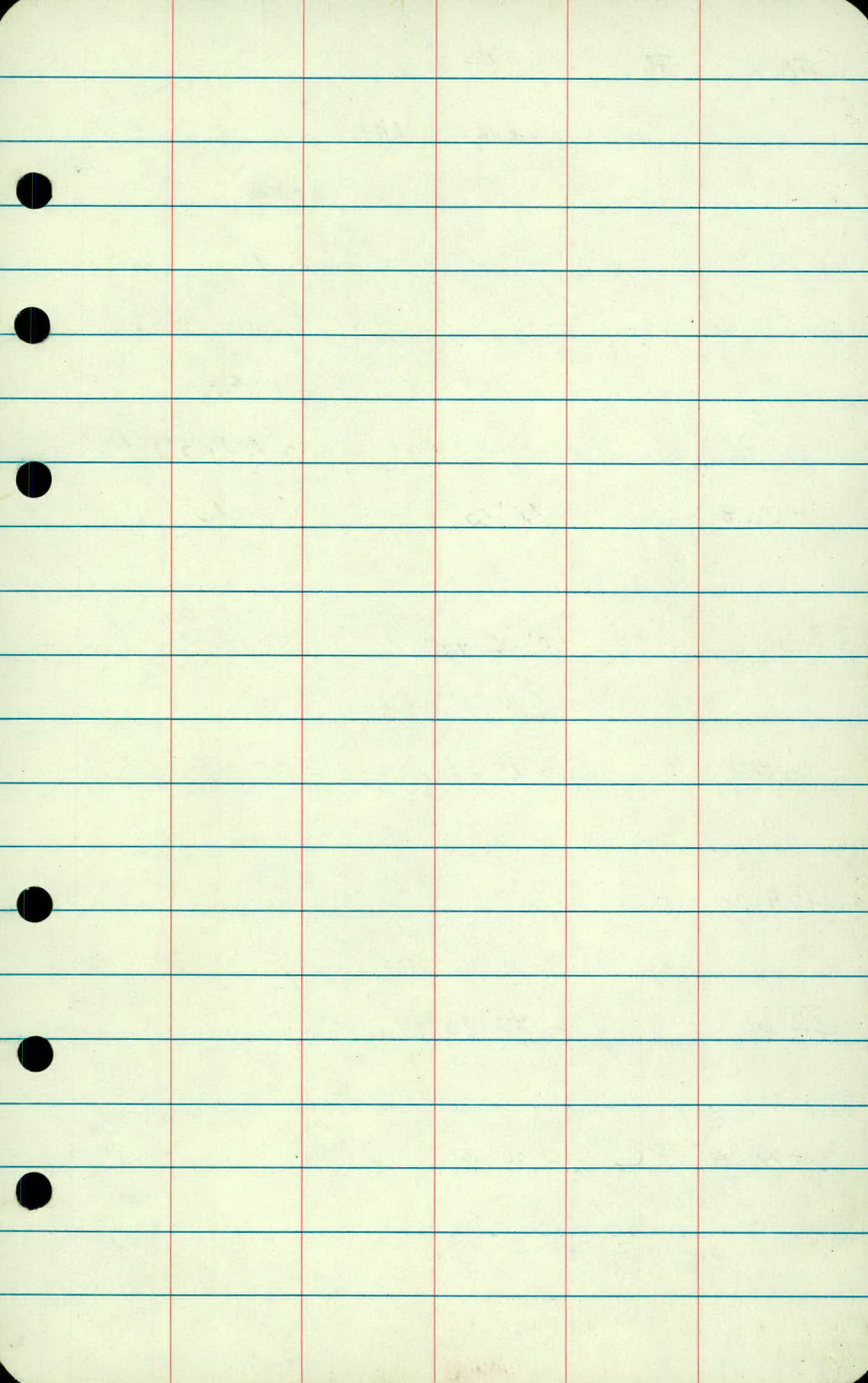
8 5 8

35 2 57 40

27 1 48 46

27 1 48 46





STA

POINT

CURVE

LIT

CURVE

No. 7

 $\Delta 41^\circ$ $D = 26^\circ 46' 39''$ $T = 86$ $R = 213.99$

+02.89

 $20^\circ 30'$ $L = 153.11$

23+00

 $20^\circ 06' 43'' (339^\circ 53' 17'')$

+50

 $13^\circ 25' 04'' (346^\circ 34' 56'')$

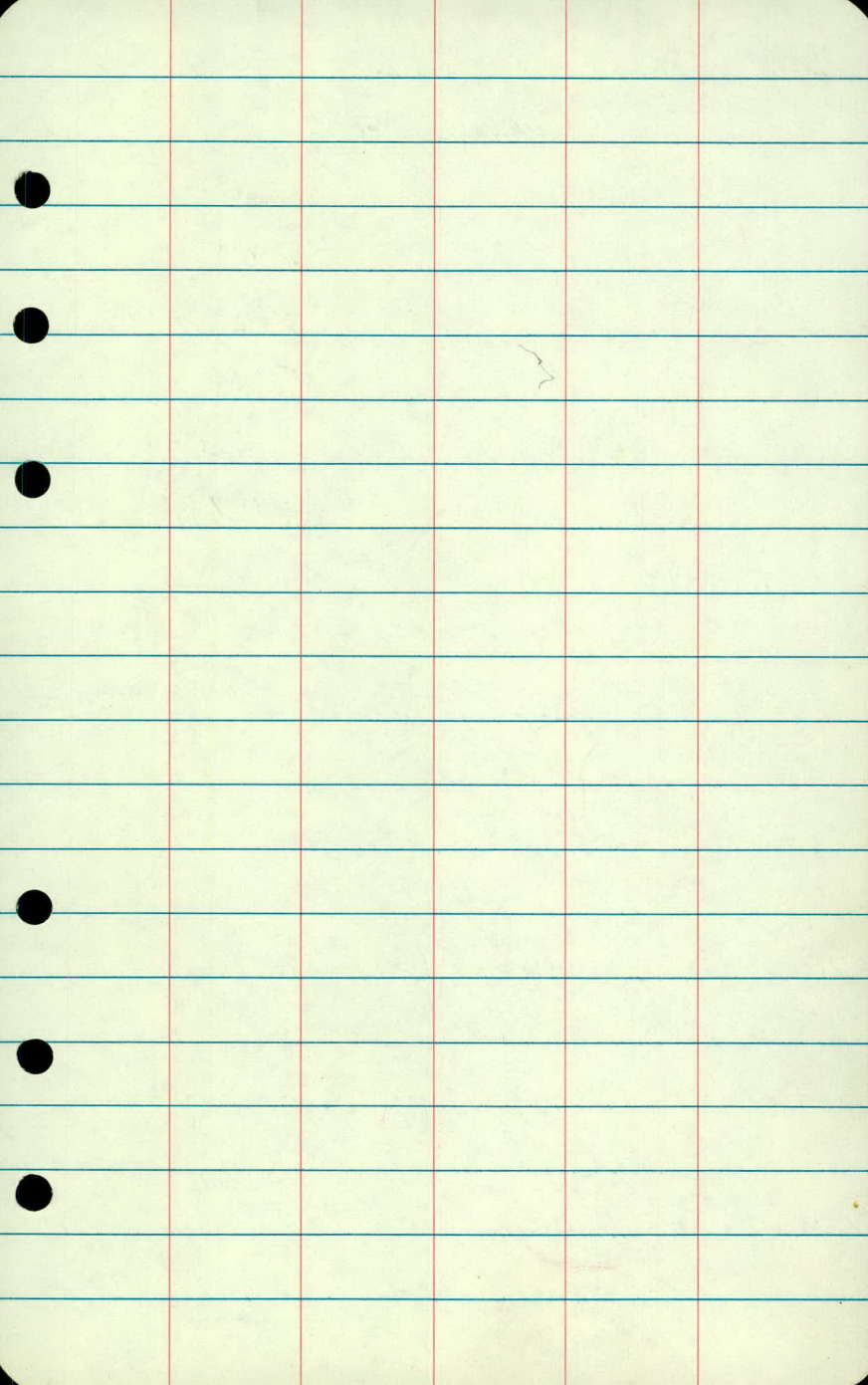
+29.78 PL

22+00

 $6^\circ 43' 25'' (353^\circ 16' 35'')$

21+49.78 PC

 $0^\circ 00' 00''$



STA

PT

LH

CURVE No 8

$\Delta 35^\circ$

$D 22^\circ 34' 54''$

$T = 80$

$R 253.73$

$L 154.99$

+94.88 PT $17^\circ 36'$

+50

$12^\circ 24' 55'' (347^\circ 35' 05'')$

+19.89 PT

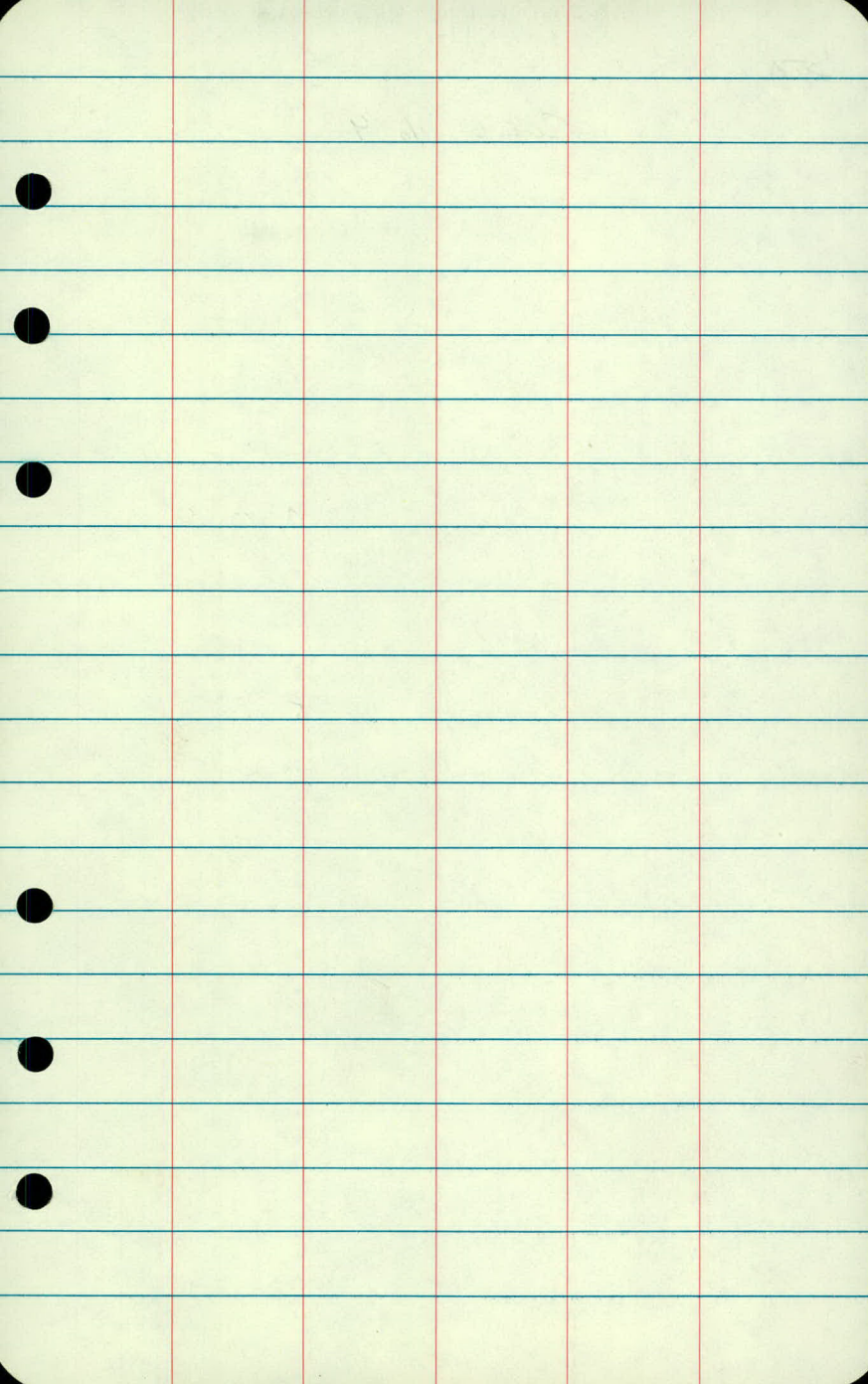
24+00

$6^\circ 46' 12'' (353^\circ 13' 48'')$

+50

$1^\circ 08' 29'' (358^\circ 51' 31'')$

23+39.89 PC $0^\circ 00' 00''$



STA

POINT

LRT

CURVE No 9

 $\Delta 15^{\circ}30'$ $D 7^{\circ}47'51''$

+98.79

 $7^{\circ}46'$ $T 100^{\circ}$ $R 734.79$

+50

 $15^{\circ}50'51''$ $L 198.79$

29+00

PI

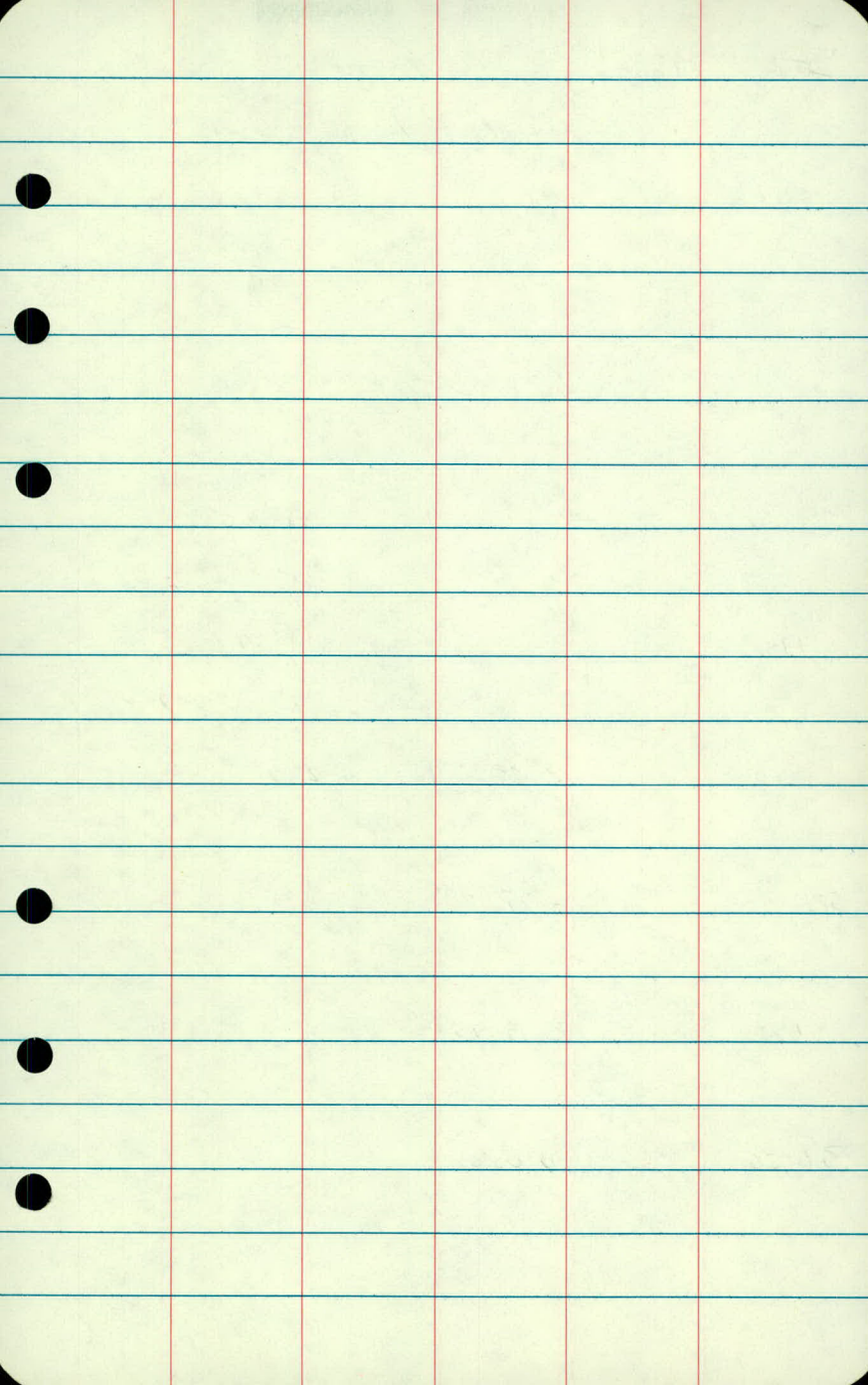
 $13^{\circ}53'54''$

+50

 $1^{\circ}56'57''$

28+00

 $0^{\circ}00'00''$



STA POINT L&T

CURVE 10

+04.12 PT 26°

34 $25^{\circ}26'58'' (334^{\circ}33'02'')$

+50 $20^{\circ}47'31'' (339^{\circ}12'29'')$

33+00 $16^{\circ}18'04'' (343^{\circ}41'56'')$

+75 PT

$\Delta 52^{\circ}$

D $18^{\circ}37'48''$

T 150

+50 $11^{\circ}38'37'' (348^{\circ}21'23'')$

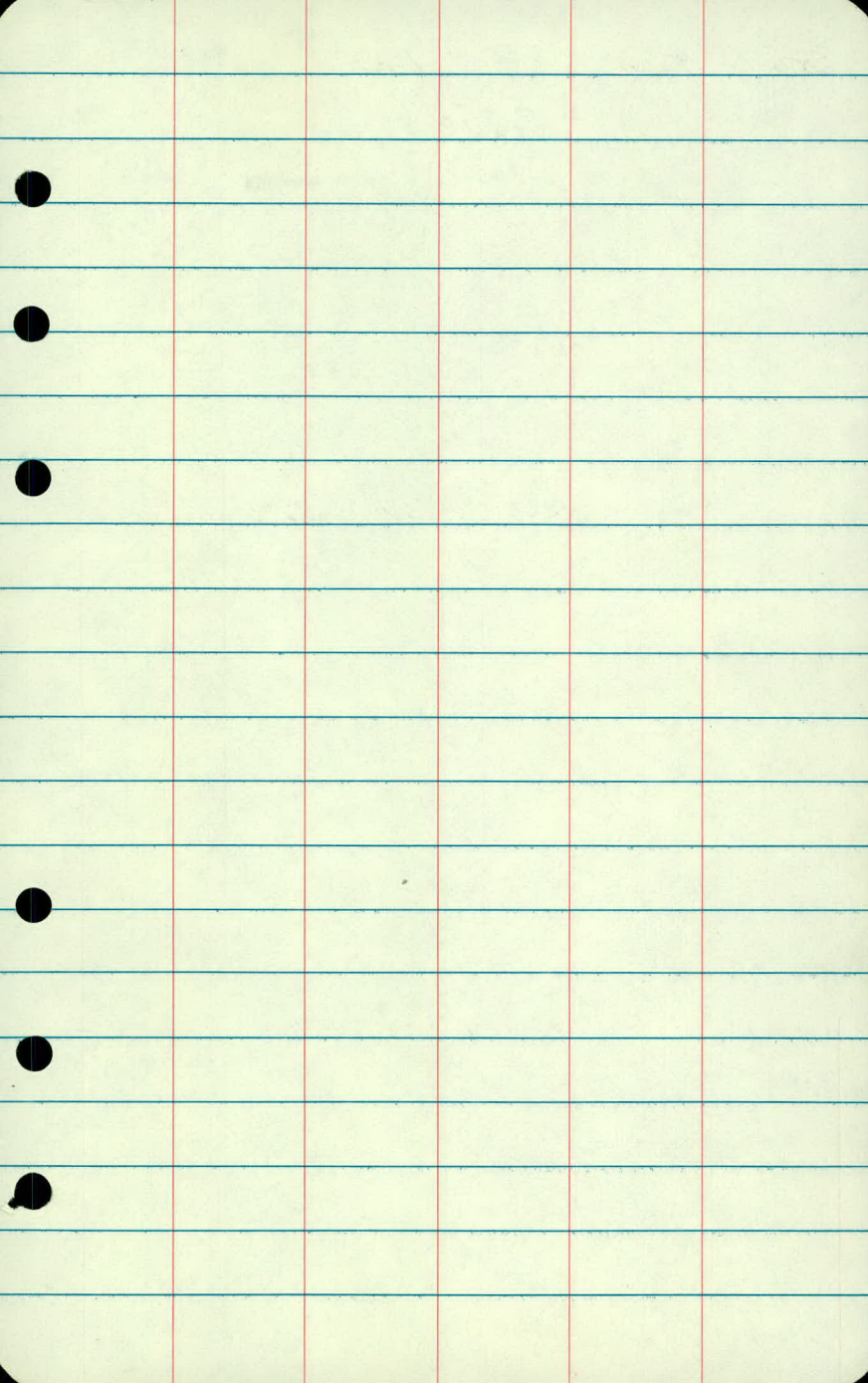
R 307.55

L 279.12

32 $6^{\circ}59'10'' (353^{\circ}00'50'')$

+50 $21^{\circ}19'43'' (357^{\circ}40'17'')$

31+25 PC $0^{\circ}00'00''$



STA POINT L R

CURVE No 11

$\Delta 7'30''$

$D 5^{\circ}00'26''$

+11.26

$3^{\circ}45'$

T 75

R 1144.28

38

$3^{\circ}28'06''$

L 149.79

+50

$2^{\circ}13'00''$

+36.45 PI

37+00

$0^{\circ}57'54''$

36+61.45 PC

$0^{\circ}00'00''$

160.00

11.26

171.74

STA

POINT

$\angle$ (L+)

RT

CURVE 12A

$\Delta 13^\circ$

D $8^\circ 42' 15''$

T 75

R 658.27

L 49.36 PT

$6^\circ 30'$

L 149.36

40+00

$4^\circ 21' 06''$

+75

FF

$\begin{array}{r} 76 \\ 6874 \\ \hline 6374 \end{array}$

+50

$2^\circ 10' 33''$

39+00

PC

$0^\circ 00' 00''$

11 58 40

100 00
88 74
11 26

SDA

Point

LIT

CURVE 13A

$\Delta 49^\circ$

$D 37^\circ 18' 66''$

$T 70$

$R 153.60$

$L 131.36$

$+31^{.36} \text{ (26) PT}$

42

$18^\circ 39' 02''$

+70

PI

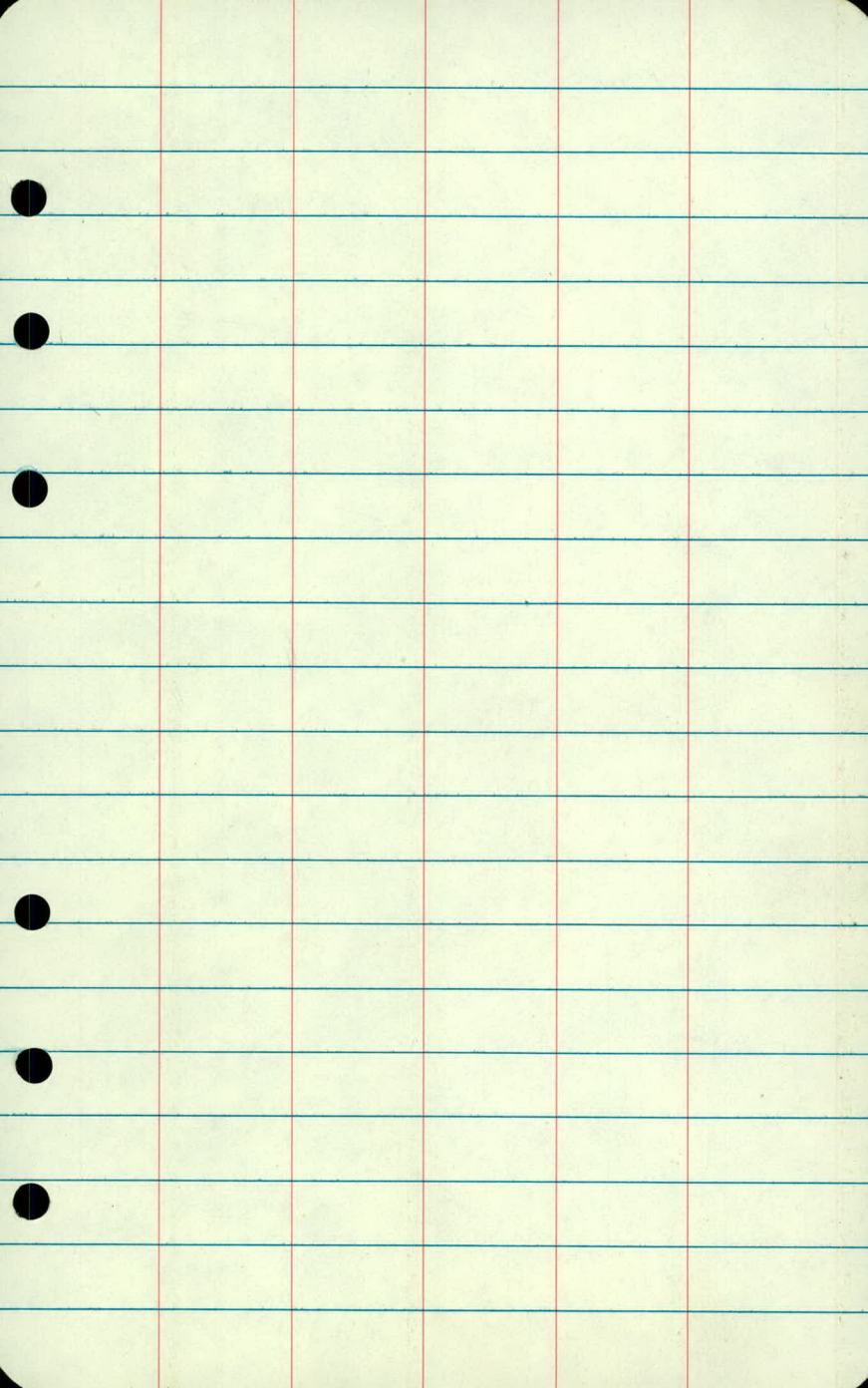
+50

$9^\circ 19' 31'' (350^\circ 40' 29'')$

41+00

PC

$0^\circ 00' (350^\circ 40' 29'')$



STA

POINTS

L(RT) LT.

CURVE 14A

A 86°

D 35°37'10"

+72.86

PT

43°20'

T 150

R 160.86

+50

39°07'00"

L 241.44

44+00

30°12'43"

+81.36

PT

30°12'

+50

21°18'26"

43+00

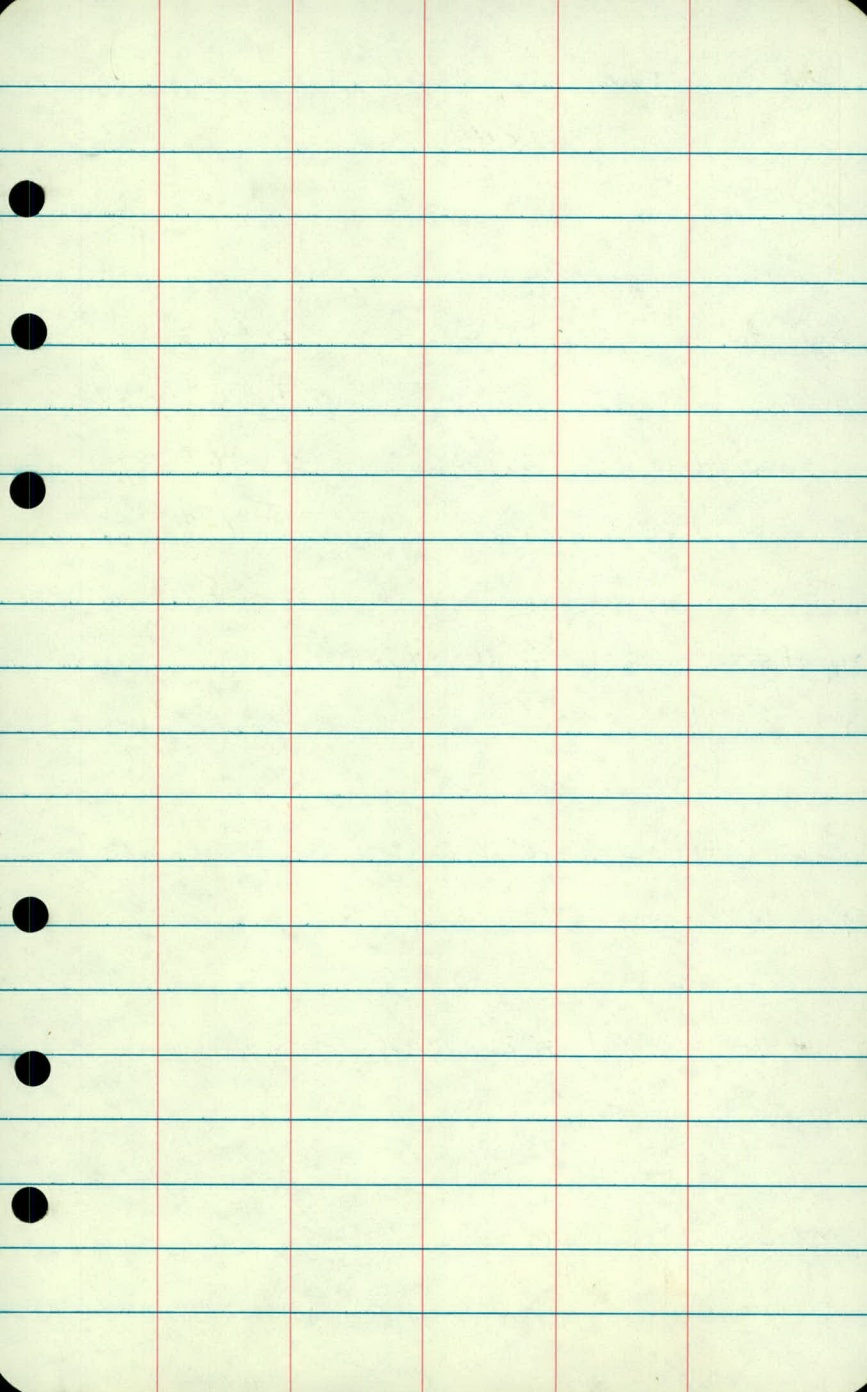
12°24'09"

+50

3°29'52"

42+31.36

PC



STA

Point

LH

CURVE 15A

 $\Delta 61^\circ$ D $33^\circ 44' 59''$ +80.74 PT $30^\circ 30'$

R 169.77

T 100

L 180.74

+50

 $25^\circ 18' 42'' (334^\circ 41' 18'')$

50+00

PI

 $16^\circ 52' 28'' (343^\circ 07' 32'')$

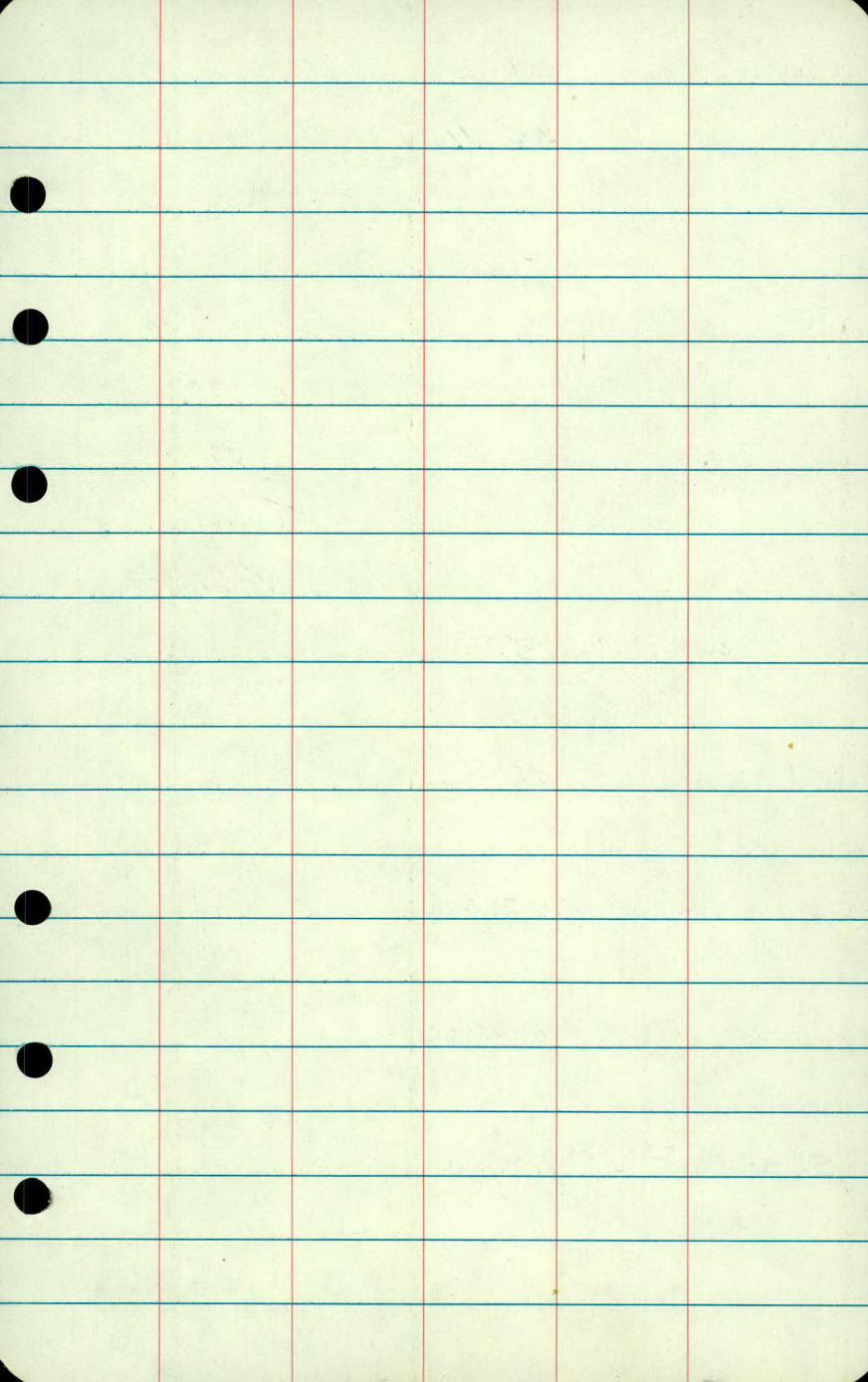
+50

 $8^\circ 26' 14'' (351^\circ 33' 46'')$

49+00

PC

 $0^\circ 00' 00''$



STA

POINT

R+L

CURVE 16 A

 $\Delta 79^\circ$ $D 47^\circ 13' 53''$ $T = 100'$ $R 121.31$ $L 167.26$

+67.26

PT

 $39^\circ 30'$

+50

 $35^\circ 25' 52''$

53+00

PI

 $23^\circ 3' 50''$

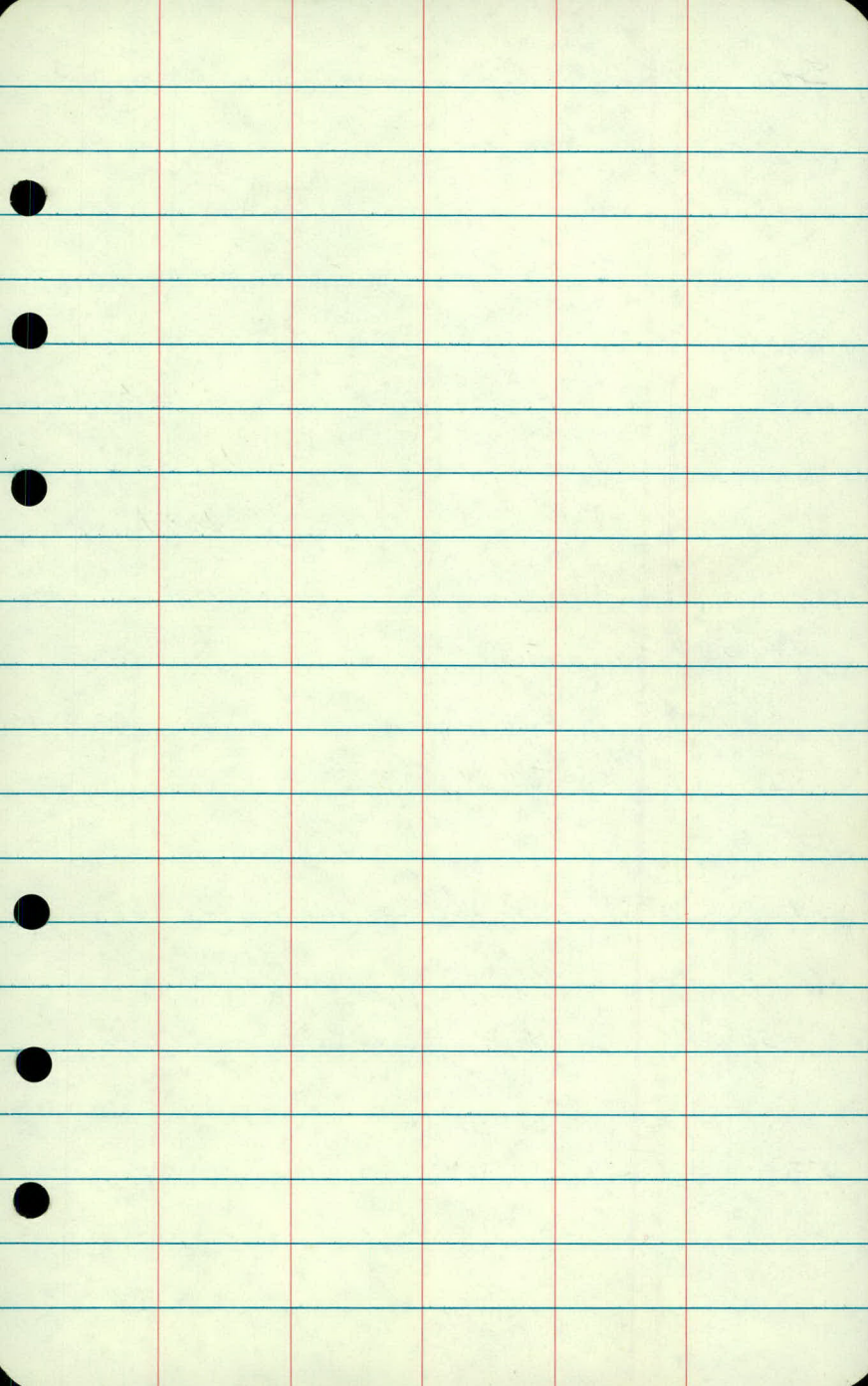
+50

 $11^\circ 48' 28''$

52+00

PC

 $0^\circ 00' 00''$



STA

Point

L LT

CURVE 17

A 66°

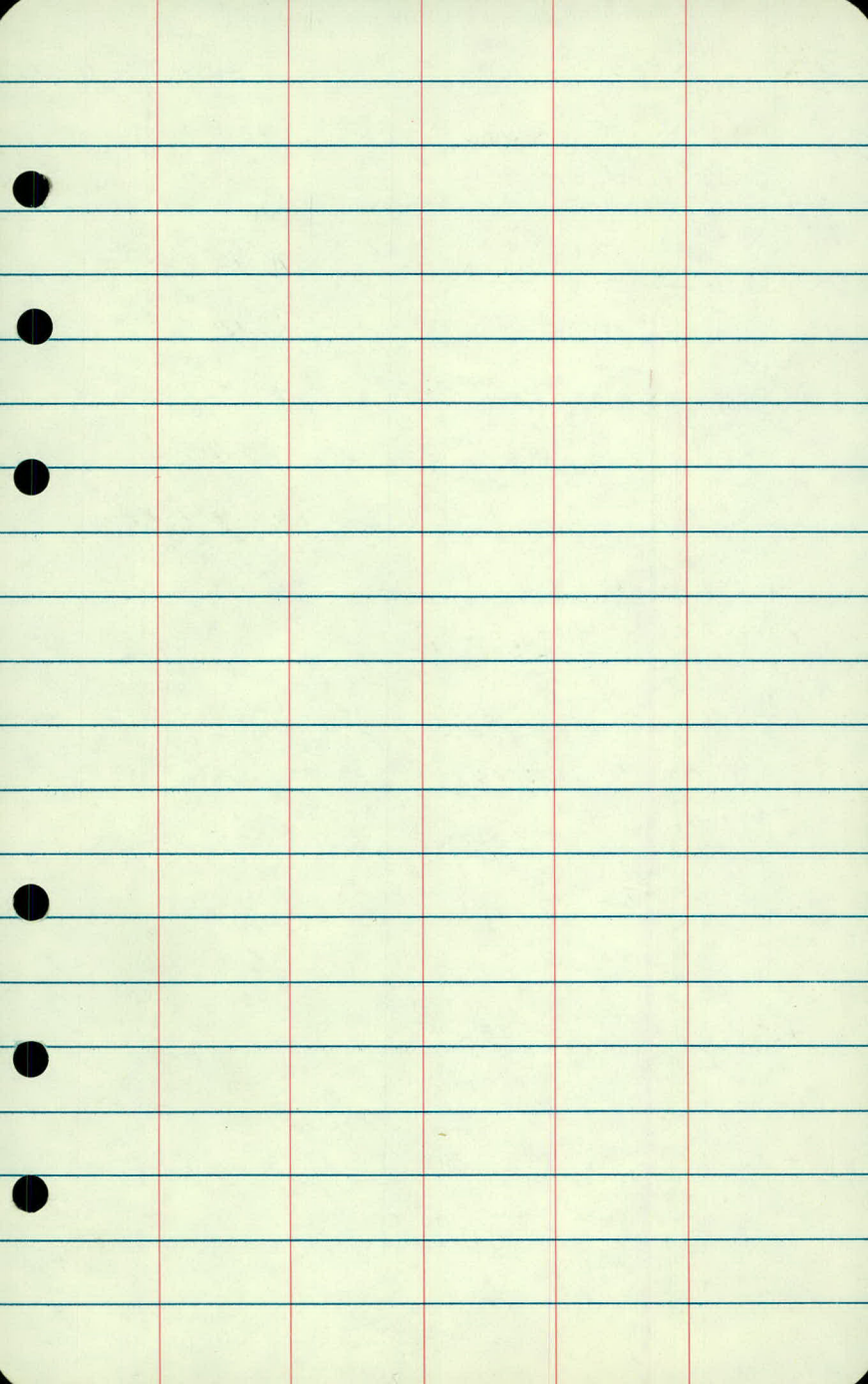
T 100'

D $37^\circ 12' 30''$

L 177.38

R = 153.99

+177.38 P 33° (321°)+50 $27^\circ 54' 21''$ (332° 05' 39'')59 PT $18^\circ 36' 14''$ (341° 23' 46'')+50 $9^\circ 18' 07''$ (350° 41' 53'')58+00 FC $0^\circ 00' 00''$



STA

POINT

L R

CURVE 18

A 48°

D 12° 45' 18"

R 449.21

T 200

L 376.33

+06.33

24° 00'

64

23° 35' 44"

+50

20° 24' 25"

63

17° 13' 06"

+50

14° 01' 47"

+30

PI

62

10° 50' 28"

+50

7° 39' 09"

61

4° 27' 50"

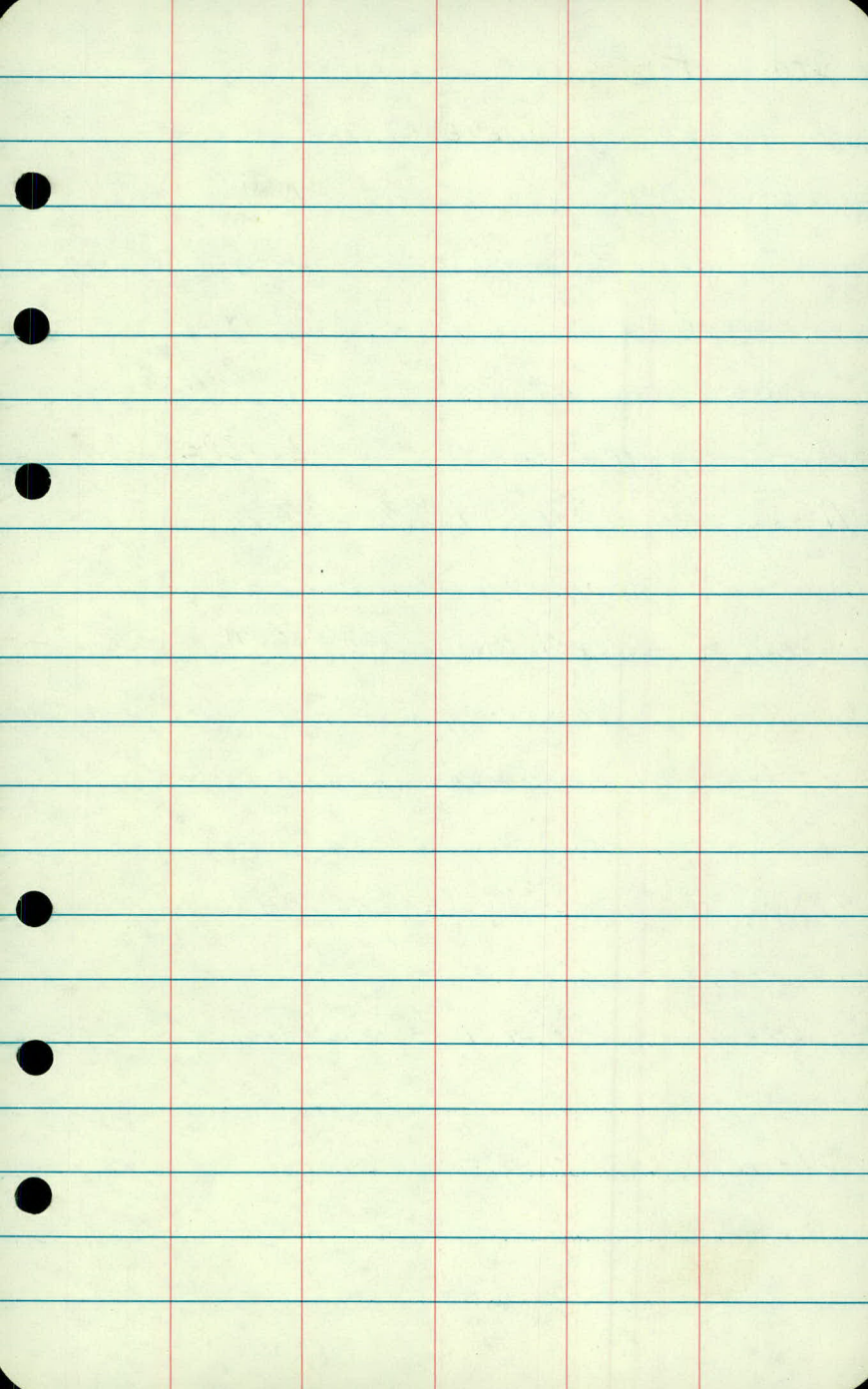
+50

1° 16' 31"

60+30

PC

0° 00' 00"



STA

POINT

L LT

CURVE No 12

 $\Delta 91^\circ$ $D 41^\circ 38' 46''$ $T 140'$

+18.51

 $45^\circ 30'$ $R 137.58$ $L = 218.51$

41

 $41^\circ 38' 44'' (318^\circ 21' 16'')$

+50

 $31^\circ 14' 03'' (328^\circ 45' 57'')$

+40

PT

40+00

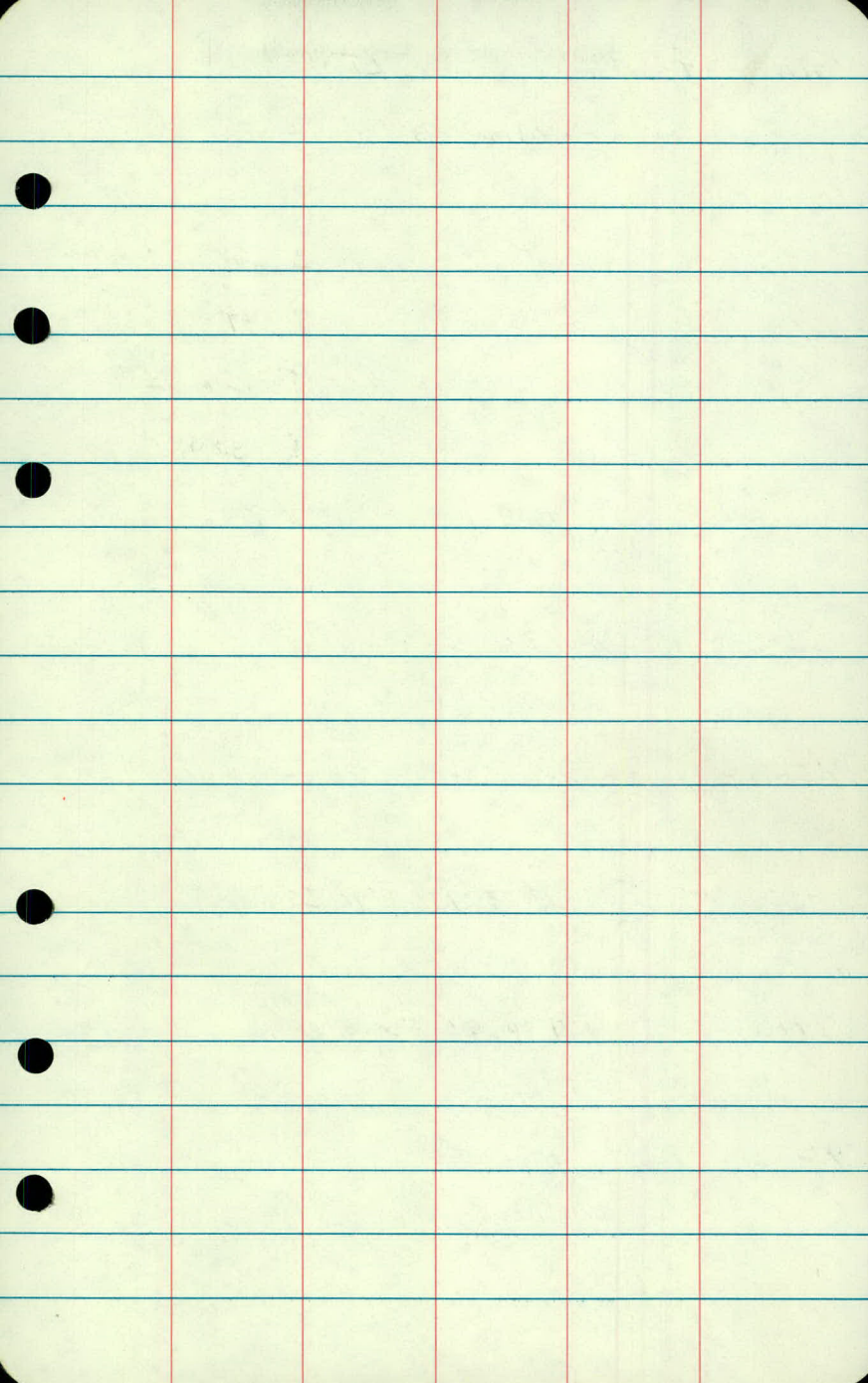
 $20^\circ 49' 22'' (339^\circ 10' 38'')$

+50

 $10^\circ 24' 41'' (349^\circ 35' 19'')$

39+00

 $0^\circ 00' 00''$



STA

Point

L LT

Curve No 13

 $\Delta 66^\circ$ D $37^\circ 12' 30''$

T 100

R 153.99

L 171.38

+27.38 PT

 33°

45+00

 $27^\circ 54' 21'' (232^\circ 05' 39'')$

+50

PI

 $18^\circ 36' 14'' (341^\circ 23' 46'')$

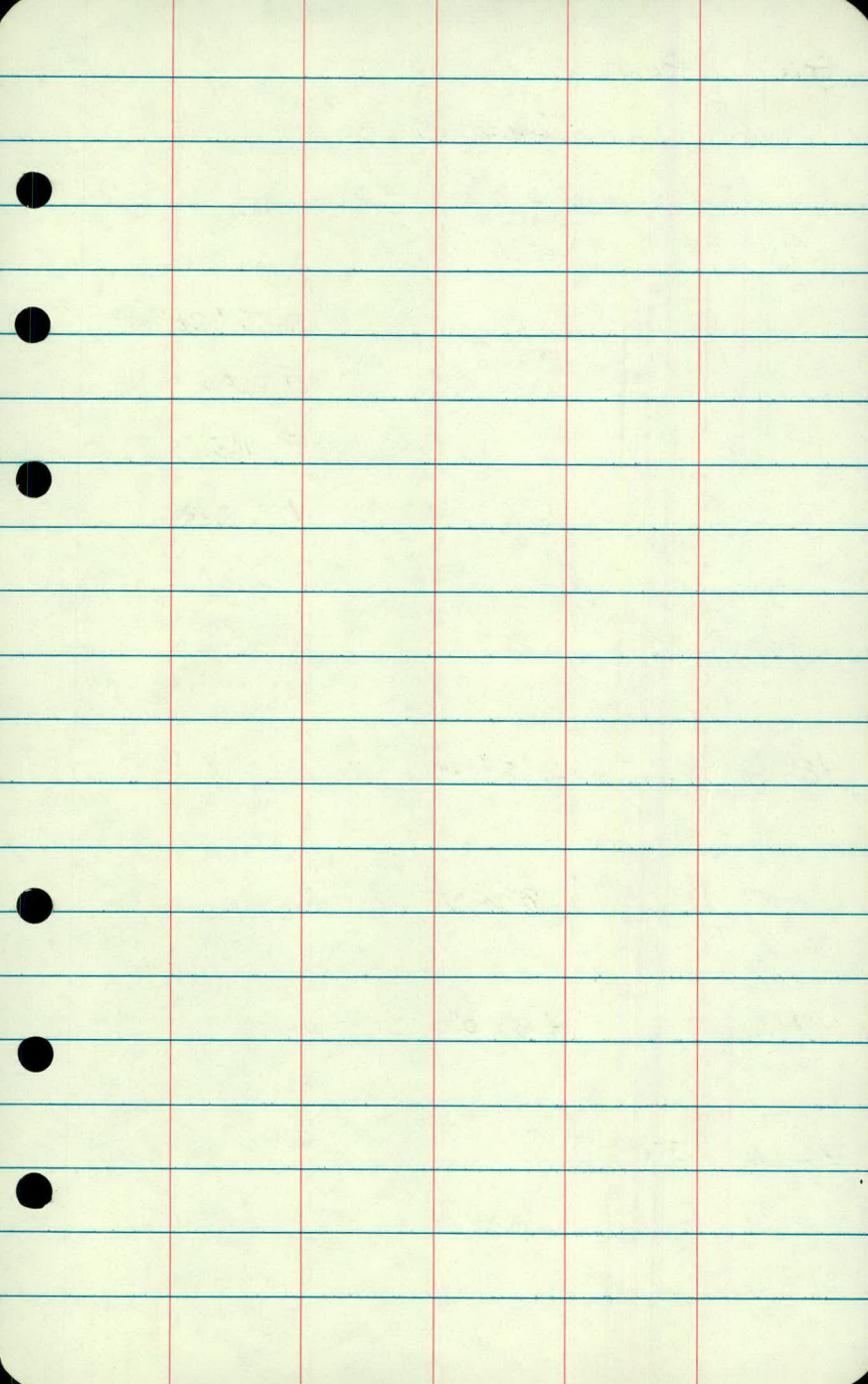
44+00

 $9^\circ 18' 07'' (350^\circ 41' 53'')$

43+50

PC

 $0^\circ 00' 00''$



STA POINT $\angle R$
CURVE No. 14

+57.62 PT $25^{\circ}40'$

+50 $25^{\circ}01'48''$

$\Delta 51^{\circ}20'$

49+00 $26^{\circ}51'30''$

D $16^{\circ}41'13''$

T = 165'

+50 $16^{\circ}41'12''$

R = 343.36

L 307.62

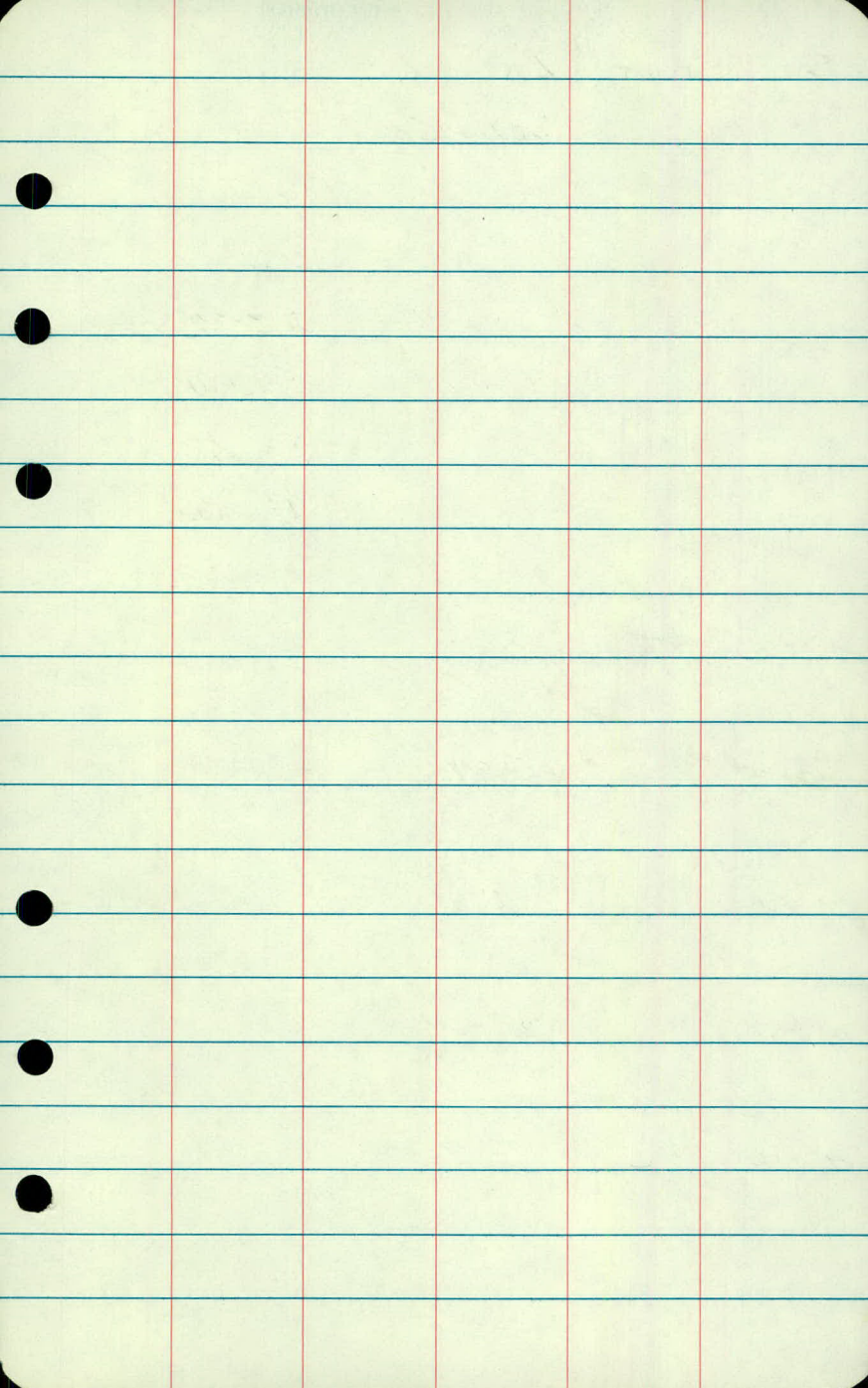
+15 PT

48+00 $12^{\circ}30'54''$

+50 $8^{\circ}20'36''$

47+00 $4^{\circ}10'18''$

46+50 PC



STA

POINT

LIT

CURVE 15

 $\Delta 62^\circ$ $D = 34^\circ 25' 36''$ $T = 100$ $R = 166.43$ $L = 180.09$

+80.09

PT

 31°

+50

 $25^\circ 49' 12'' (334^\circ 10' 48'')$

56+00

PT

 $17^\circ 12' 48'' (342^\circ 47' 12'')$

+50

 $8^\circ 36' 24'' (351^\circ 23' 36'')$

55+00

PC

 $0^\circ 00' 00''$

MH 213 66

CB

164

CB

STA POINT $\angle$ RT

Curve 16

$\Delta 31^\circ$

$D 15^\circ 53' 22''$

$T 100$

$R 360.59$

$L 195.10$

+45.10 PT $15^\circ 31'$

59 $11^\circ 55' 00''$

+50 PI $7^\circ 56' 40''$

58+00 $3^\circ 58' 20''$

57+50 PC $0^\circ 00' 00''$

LONG LAKE PARK

X-SECTIONS

FORCE MAIN

STA	+	+	-	ELEV
BM	6.05	888.40		882.35
			7.69	880.71
0+00		LIFT	Station	
+50			12.1	876.3
1+00			12.6	875.8
+50			12.1	876.3
2+00			13.2	875.2
+50			8.0	880.4
3+00			7.9	880.5
+40		82	7.0	881.4
T.P.	14.78	900.22	6.96	881.44

JA
BW
MR

5-14-85
Cldy 57°

TOP CAP CTR. 3 PIPE

2x2 Hub

2+50

877.8

77.5

16.4

16.3

19.8

Top 80.6

85.1

3.3

50

10.6

1.5

10.9

8

12.0

11

12.1

20

8.6

23

7.8

32

Split

83° 40' Bend

STA	+	Δ	-	ELEV
		90022		
3+90			14.8	885.42
4+40			14.0	886.22
4+90			14.0	886.22
5+40			13.1	887.12
5+90			13.7	886.52
6+40			13.7	886.52
7+59		43° BEND ^{13.6}		886.62
7+09			15.9	884.32
7+59			15.0	885.22

JA
BW.
MR

³
5-14-85
cidy. 47°

43° Bend

STA	+	π	-	ELEV	
		900.22			
7+93			12.4	887.82	
8+43			15.5	884.72	
8+93			16.6	883.62	
9+43			15.6	884.62	
			26.4	873.82	
9+93			17.8	882.42	
10+10			18.7	881.52	
Bm			8.45	891.77	891.58

JA
BW
MR

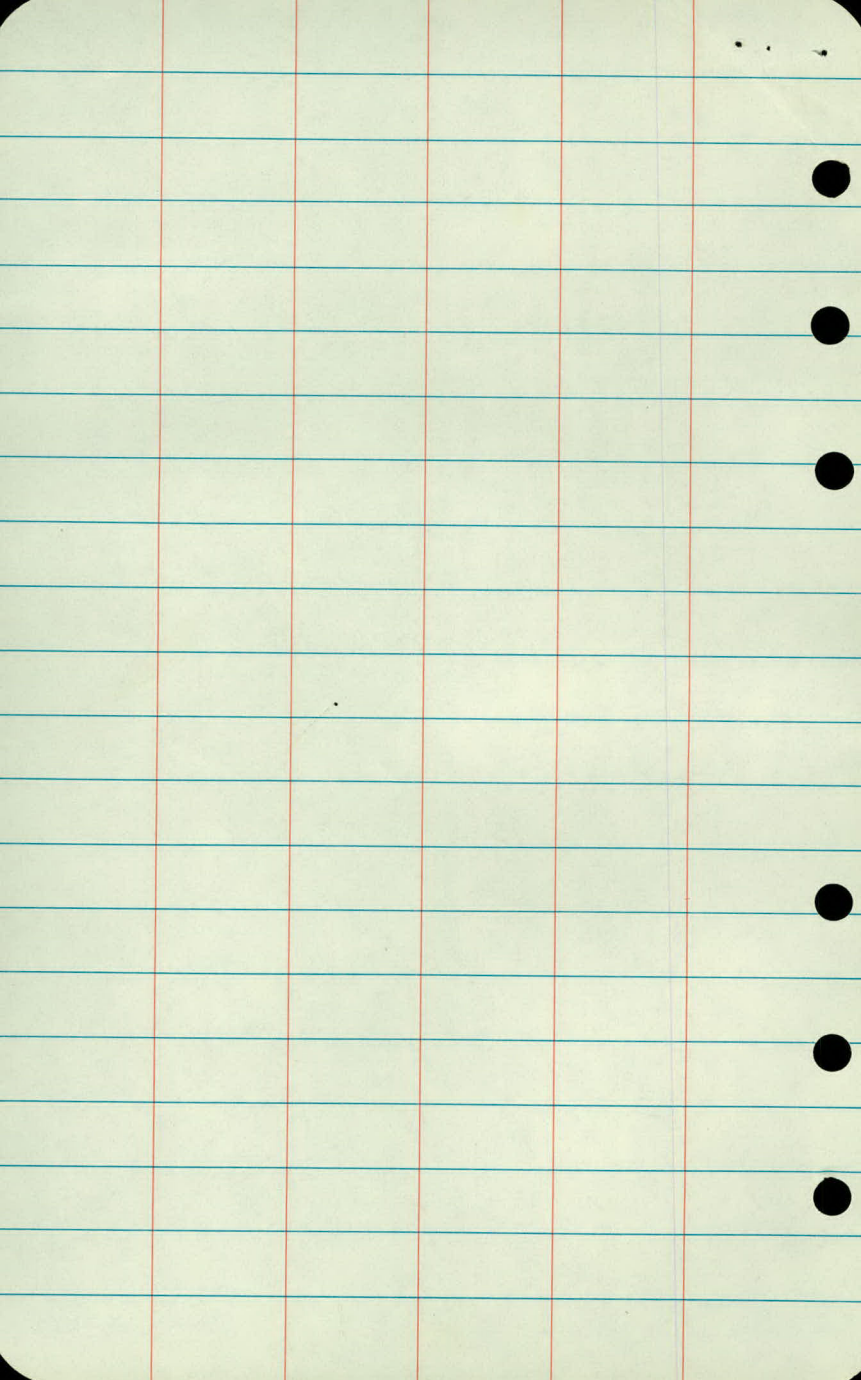
5-14-85⁴
Cldy. 47°

44° Bend

TOP RCP Apron Rt

San MH #3

TOP HUB PI CURVE #1



PIPE LINE LOCATION
&
HISTORICAL FEATURES
IN
LONG LAKE PARK

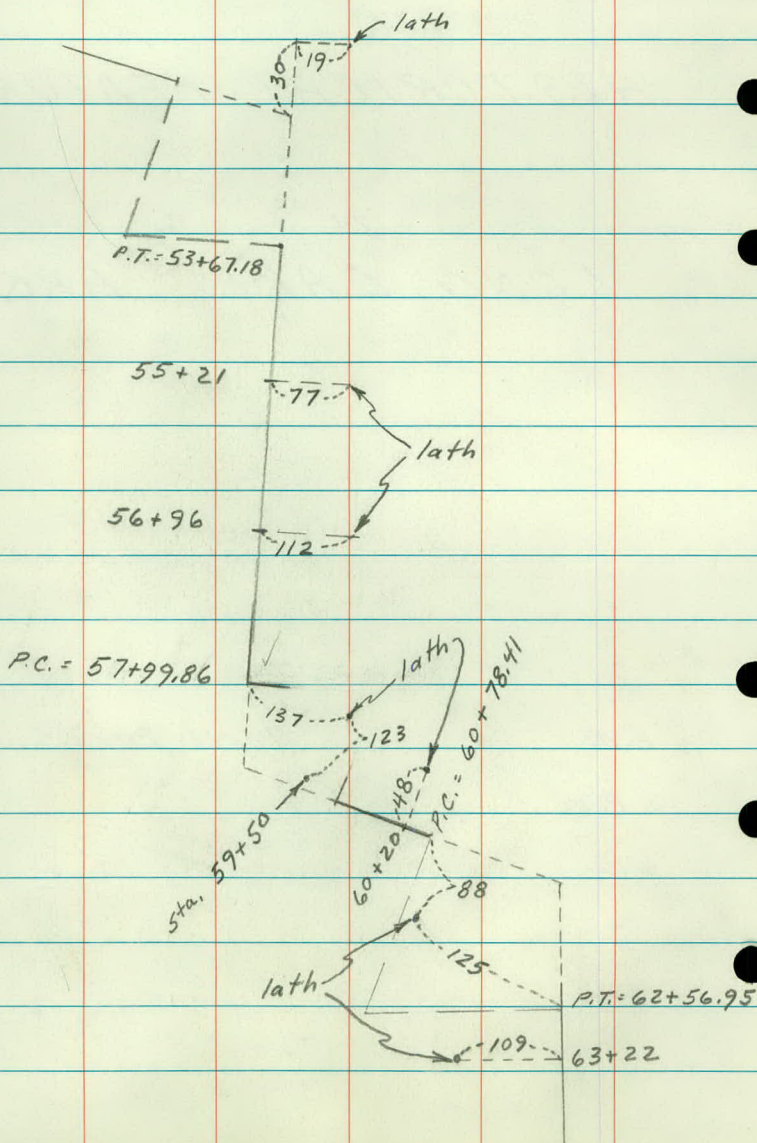
R.M.

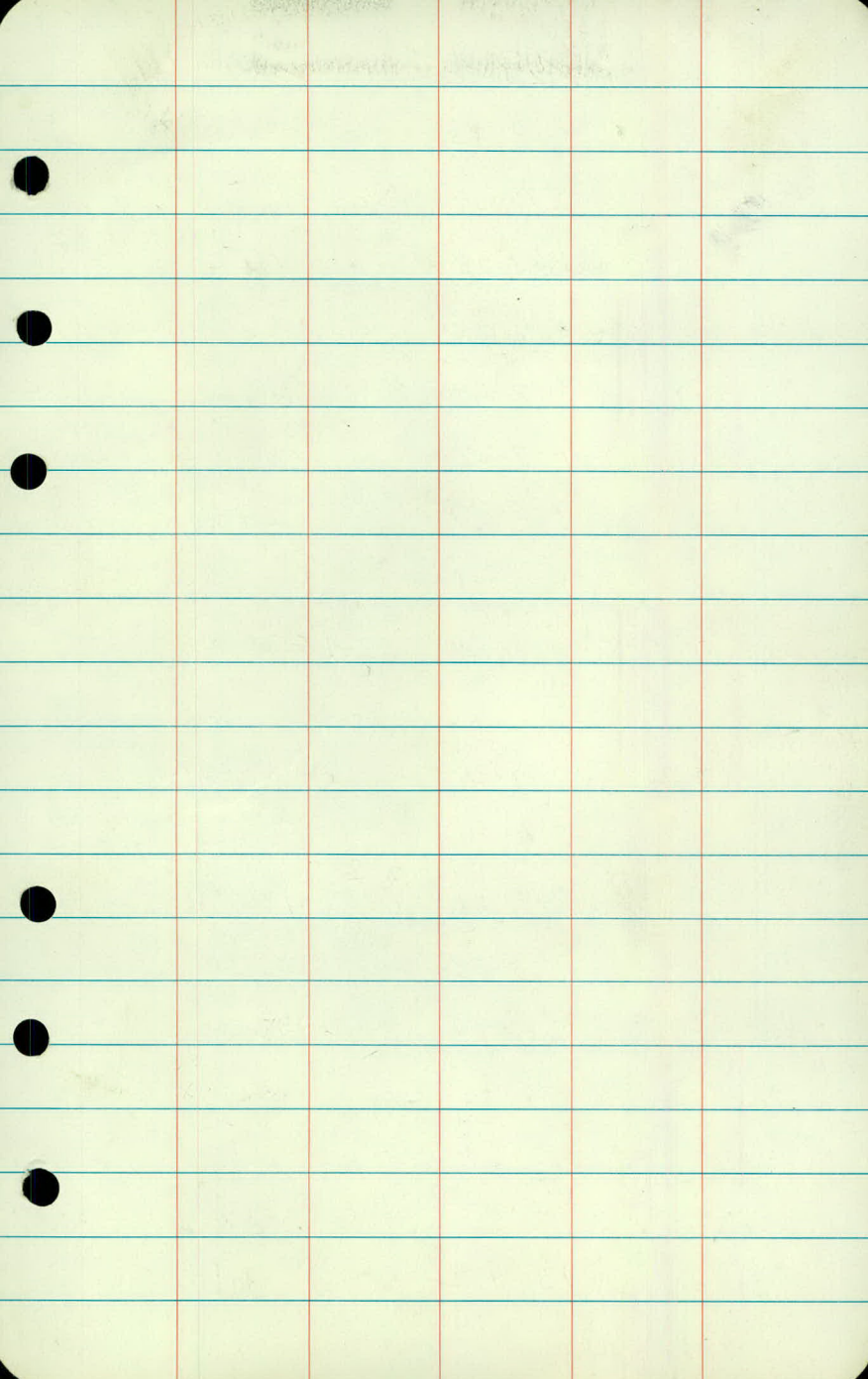
April 20-25, 1984

L.P.D.

D.S.

PIPE LINE LOCATION





T @ STA 65 SIGHTING P.T 62+56.95

Azmu

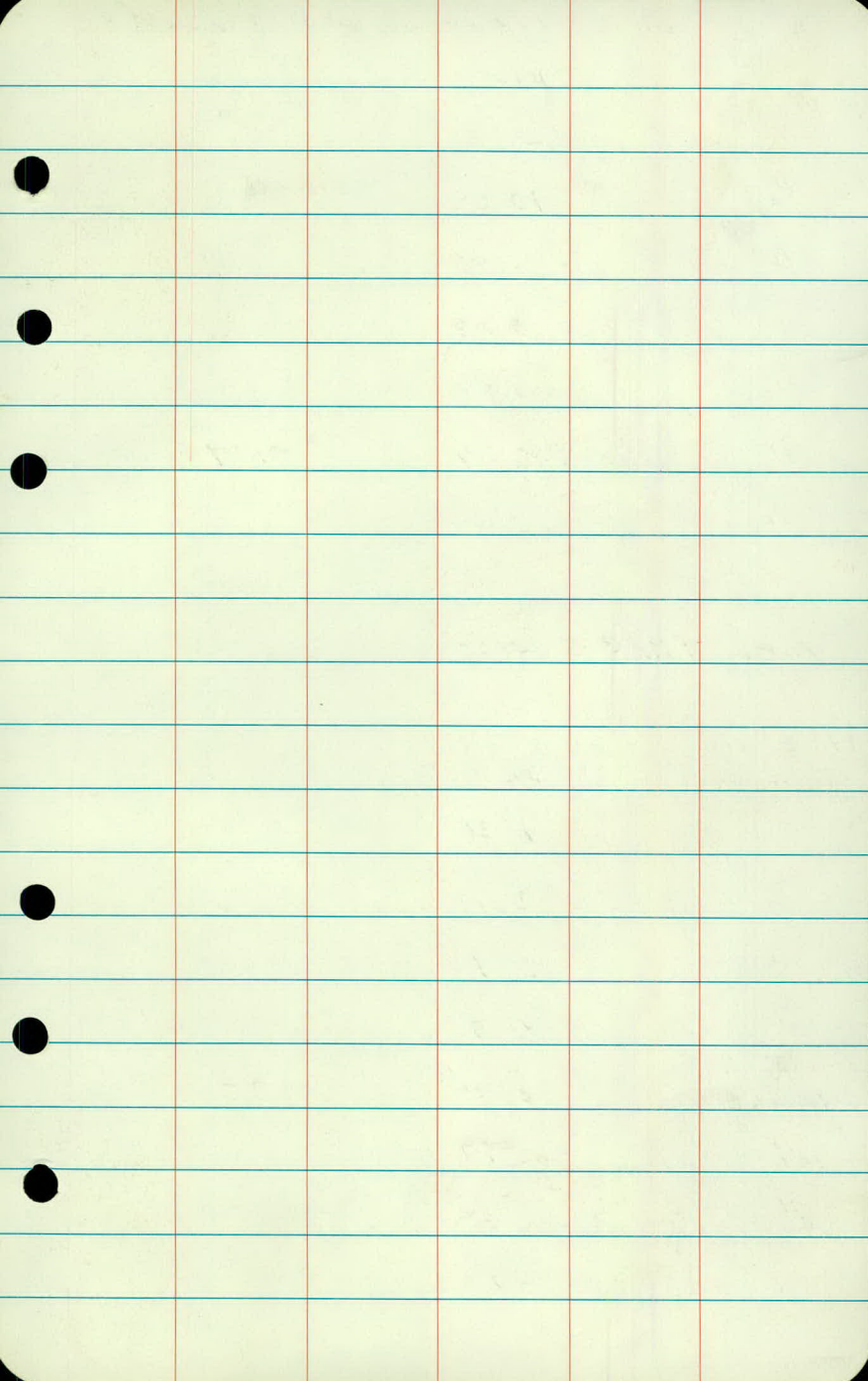
Dist.

PIPELINE STAKES	328° 43'	210'
"	297° 28'	133'
"	247° 27'	140'
"	229° 23'	163'
"	204° 25'	190'
"	187° 24'	247'
"	186° 54'	243'

near scale

T @ REBAR SIGHTING STA 65+00

PIPELINE STAKES	277° 41'	152'
"	304° 36'	7'
"	248° 21'	157'
"	223° 58'	217'
"	217° 37'	323'
N.W COR SCALE	134° 53'	25'
S.W COR SCALE	192° 29'	71'
S.E COR SCALE	182° 40'	77'
N.E COR SCALE	130° 42'	39'



T @ REBAR ON CURVE WEST R/W LINE 0'0"

OBJECT AZM DIST VERT

PIPE LINE
STAKES 355° 10' 252'

" 04° 22' 150'

" 175° 12' 36'

" 184° 26' 155'

South to

T @ TWIN POLES SIGHTING P.K. AT RR SWITCH

CENTER OF
ROUND TABLE 51° 07' 358'

PIPE LINE
STAKE 152° 38' 265'

" 127° 59' 148'

NO END
FENCE 91° 21' 123'

PIPE LINE
81° 14' 115'

PIPE LINE 30° 40' 223'

FENCE LINE 30° 52' 241'

PIPE LINE 21° 03' 317'

WATER TOWER 24° 0' 45" 324'

" 24° 32' 35" 319'

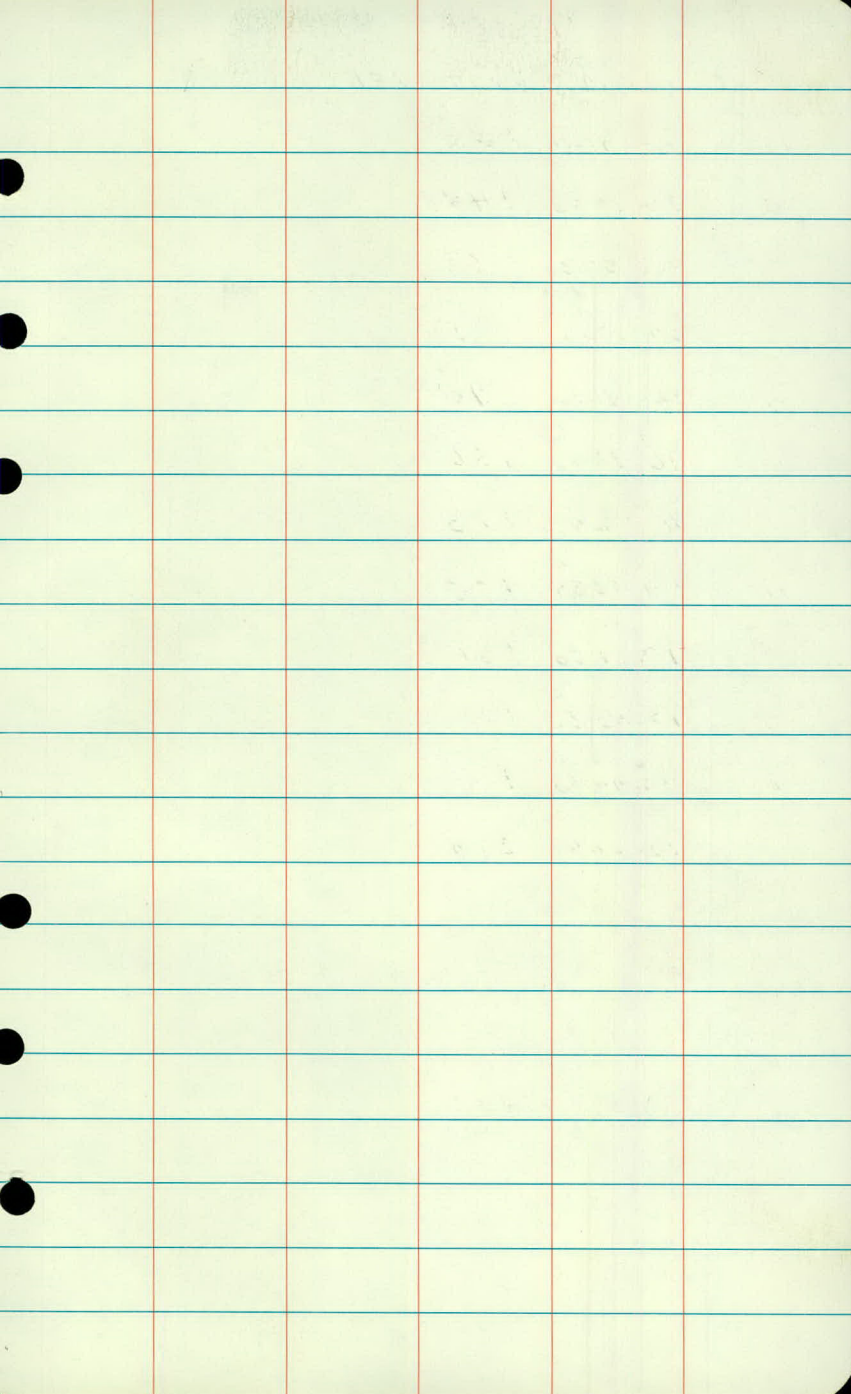
" 26° 19' 40" 323'

" 25° 44' 30" 328'

P.K. & U.S.A. TRACK

ROD

OBJECT	AZM	DIST	VERT
WATER TOWER	26°-21'-20"	340'	
"	25°-29'-06"	348'	
"	26°-36'-50"	351'	
"	27°-29'-15"	335'	P
"	29°-06'-50"	340'	
"	30°-57'-00"	346'	
"	31°-28'-00"	340'	
"	29°-44'-30"	333'	
"	29°-20'-55"	324'	
"	28°-08'-45"	320'	
"	29°-09'-50"	310'	
"	30°-20'-30"	314'	
FENCE COR	21°-07'-15"	352'	
FENCE	11°-03'-10"	520'	
PIPE LINE	12°-19'-40"	522'	
SOUTH END CONC WALL	359°-56'-35"	406'	
Edge wall	90°	3'	



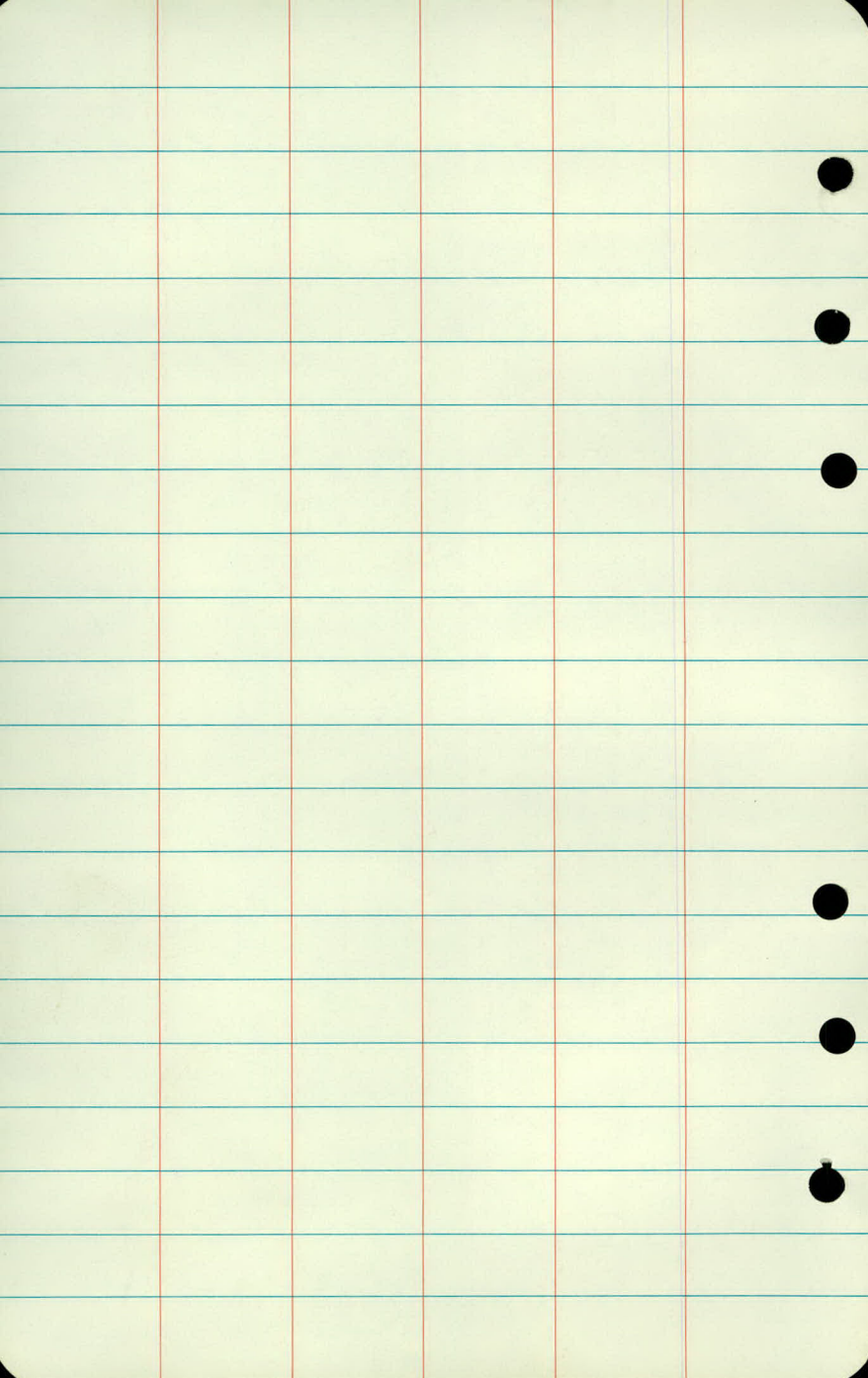
7 @ SPIKE CTR ROUND TABLE SIGHTING P.K AT

OBJECT	AZM	DIST	VERT
END OF PIT	323° 41' 10"	145'	
END OF PIT	304° 59' 35"	144'	
END OF PIT	304° 59' 35"	89'	
END OF PIT	314° 37' 00"	89'	
END OF PIT	323° 41' 10"	90'	
N.E. COR	0°		
SMALL BLDG	166° 13' 00"	156'	
S.E. COR	0°		
SMALL BLDG	166° 24'	175'	
S.W. PUMP HOUSE	161° 03' 55"	178'	
N.W. COR PUMP HOUSE	159° 51' 50"	161'	
N.E. COR	0°		
PUMP HOUSE	150° 43' 30"	170'	
S.E. COR	0°		
PUMP HOUSE	152° 40' 50"	185'	
L.R.R. TRACK	103° 04'	210'	

TWIN POLES' 8' X 3'

SMALL BLD - 8' X 3'

PUMP HOUSE - 16' X 26'



X- SECTIONS

Long Lake Park

South along property line

R.M.

April 23, 1984

P.S.

L.P.D.

B.M. 1.34 884.90 883.56

B.M. 2.62 884.96 2.56 882.34

0+00 = P.C. prop. iron (R=5849.65)
on W. side Minn. Transfer R/W

1+00

T.P. 4.37 884.41 4.92 880.04

2+00

3+00

T.P. 4.32 884.03 4.70 879.71

4+00

5+00

4.95 884.98 4.00 880.03

2.64 882.34

E.

#

W

Spk in abandoned P.P. Sta. 64+40
Lt. 25'

S.E. Cor. Scale Foundation

$\frac{5.2}{73}$	$\frac{6.0}{57}$	$\frac{15.2}{24}$	16.1	$\frac{18.4}{66}$	$\frac{18.1}{100}$	$\frac{18.6}{115}$ shore
------------------	------------------	-------------------	------	-------------------	--------------------	--------------------------

$\frac{5.5}{73}$	$\frac{7.7}{49}$	$\frac{12.0}{49}$	$\frac{15.9}{32}$	16.5	$\frac{15.5}{59}$	$\frac{17.2}{60}$ shore
------------------	------------------	-------------------	-------------------	------	-------------------	-------------------------

$\frac{5.2}{73}$	$\frac{5.9}{53}$	$\frac{14.8}{37}$	15.3	$\frac{14.9}{59}$	$\frac{16.1}{60}$	$\frac{15.8}{62}$	$\frac{18.4}{66}$
------------------	------------------	-------------------	------	-------------------	-------------------	-------------------	-------------------

$\frac{5.1}{73}$	$\frac{6.4}{48}$	$\frac{13.0}{48}$	15.1	$\frac{14.8}{59}$	$\frac{16.2}{61}$	$\frac{18.2}{74}$
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Pipe Line

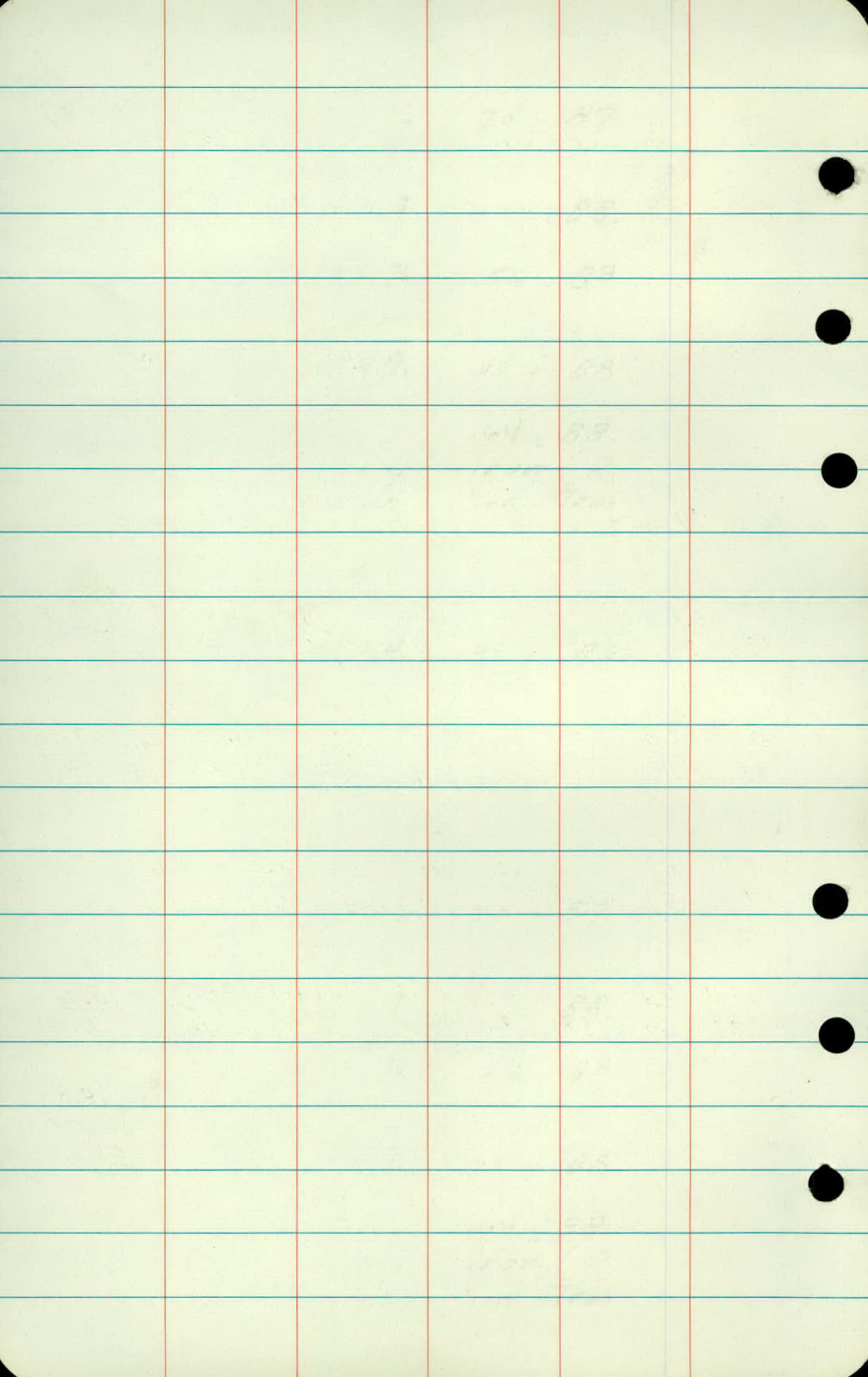
$\frac{4.7}{73}$	$\frac{4.9}{59}$	$\frac{8.1}{40}$	$\frac{12.0}{24}$	13.5	$\frac{14.7}{60}$	$\frac{17.4}{84}$
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Pipe line

$\frac{14.9}{73}$	$\frac{5.7}{60}$	$\frac{10.1}{38}$	$\frac{8}{8}$	10.9	$\frac{14.9}{55}$	$\frac{15.3}{96}$	$\frac{18.2}{116}$
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Pipe Line

18.8
Water
Elev.



11/11/11.

