

SE corner

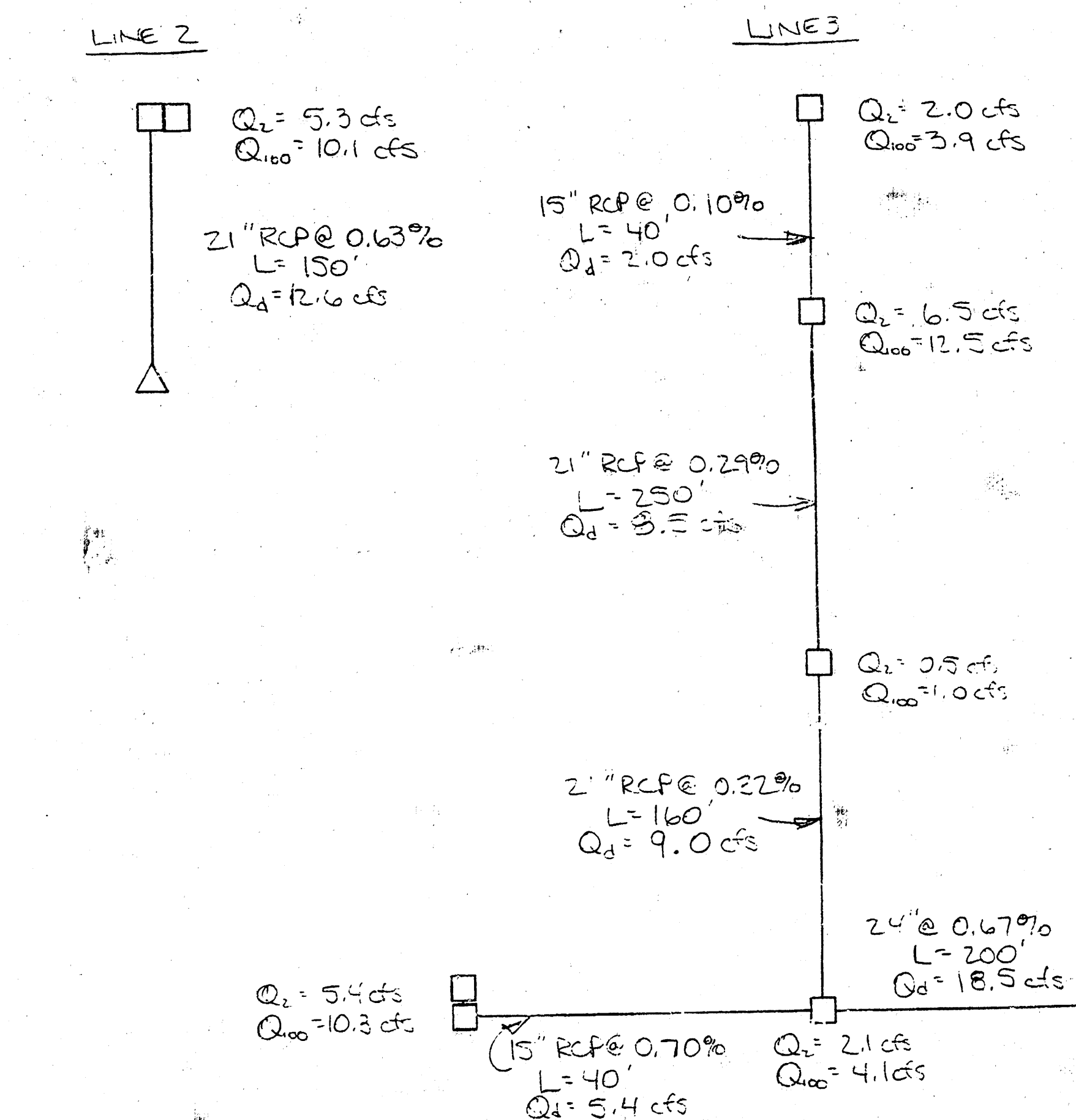
D.A. = 20.0
C = 0.38
Q₂ = 29.1 cfs
Q_{res} = 56.0 cfs

Notes:

Pre-developed flow for N.W. Corner draining through RR tracks is 151.5 cfs and post-developed @ = 160.0 cfs. Due to the size of the drainage basin becoming smaller through street drainage to the East, the pre- and post-developed flows are approximately the same.

Drainage to the North shall be controlled by the amount of flow that can pass in the drainage ditch in the 30' Drainage Easement to the North of the property.

Drainage along Lark Lane shall be in an enclosed system installed with the Street Paving to service Lark Ln. and Lark 2nd Addition along with the exception in the North east corner of the preliminary plat.



Flow	Area (sq. ft.)	
120	40374	18179 = 58953
131	43690	+ 20987 = 64677
132	47142	+ 23997 = 71139
133	50733	+ 27198 = 77931
134	54472	+ 30606 = 85078
135	58388	+ 34272 = 92660
136	101055	
137	109712	
138	118471	
139	127332	
140	145359	
141	163789	
142	183749	

Spillway @ 141.5

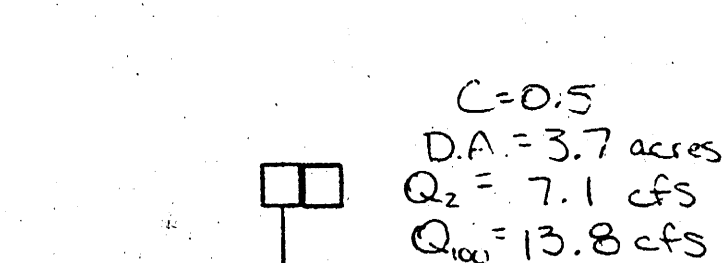
$$Q_{in} = 140 \text{ cfs}$$

$$Q_{out} = 60 \text{ cfs}$$

RR Box - 6'x2'
Rock Bottom: 7 SDES $n = 0.023$
Slope = 0.5%

$$7.4 \text{ ac ft} = \frac{322,344 \text{ cu ft}}{160,000 \text{ sq ft}} = 2.0 \text{ ft rise}$$

STATIC POOL @ 140.0
WEIR ELEV. = 141.5
MAX. STORAGE = 7.4 ac ft.
WEIR: 15' BOTTOM
4:1 SIDESLUFES
BOTTOM SLOPE @ 1.5%



TR-55 STORAGE VOLUME FOR DETENTION BASINS VERSION TEST

Project: LARK ADDITION User: JDS Date: 09-14-94
County: SEDGWICK State: KS Checked: _____ Date: _____
Subtitle: DETENTION POND DESIGN

Drainage Area: 55 Acres Rainfall Frequency: 100 years
Rainfall-Type II
24-Hour Rainfall: 7.37 inches Runoff Curve Number: 82
Peak Inflow: 140 cfs
Peak Outflow: 60 cfs
Runoff Volume: 5.3 inches
Detention Basin Storage Volume: 1.62 inches or 7.4 acre feet

Trapezoidal Channel Analysis & Design
Open Channel - Uniform flow

Worksheet Name:

Comment: WEIR FOR LARK DETENTION POND

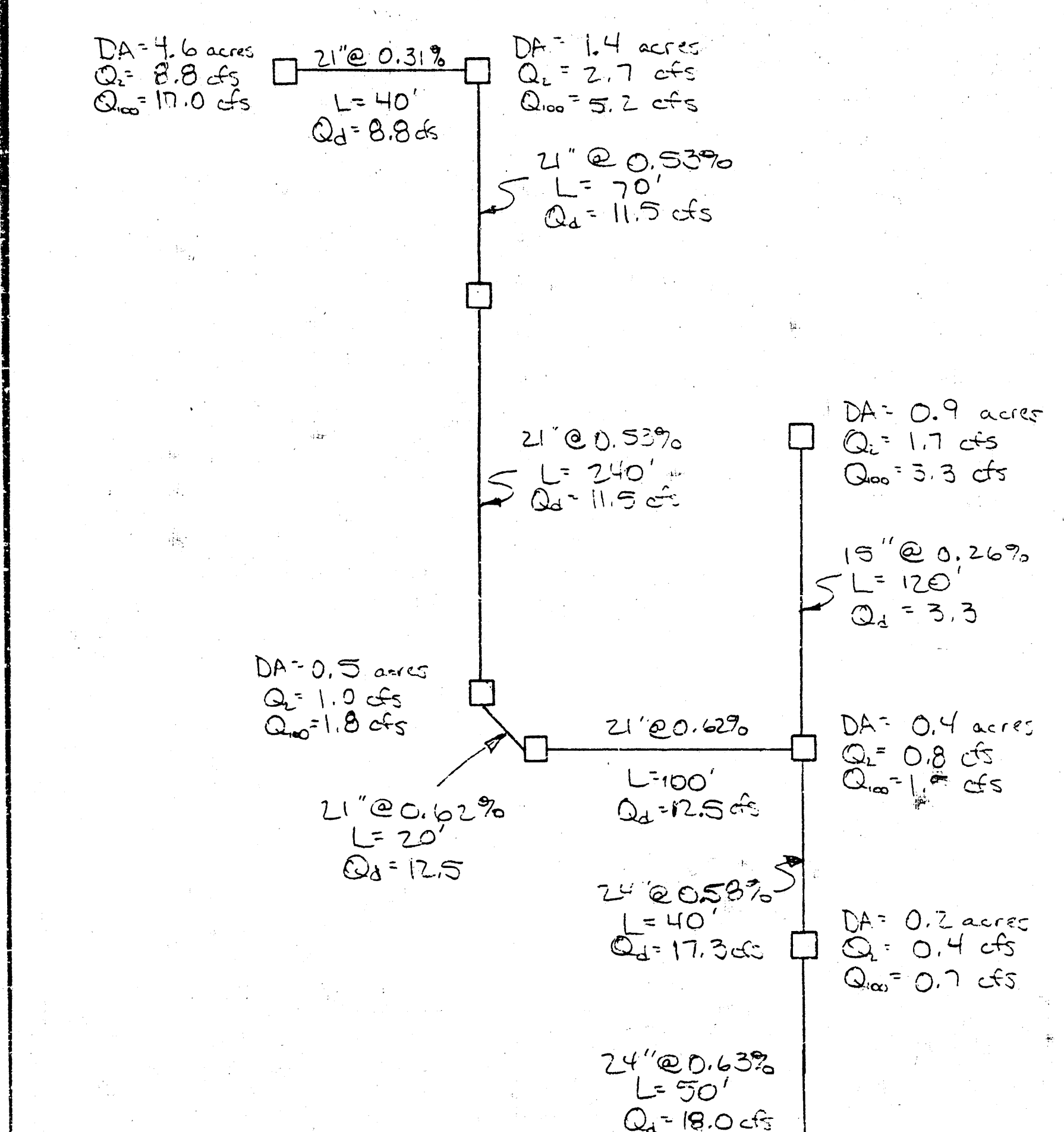
Solve For Channel Slope

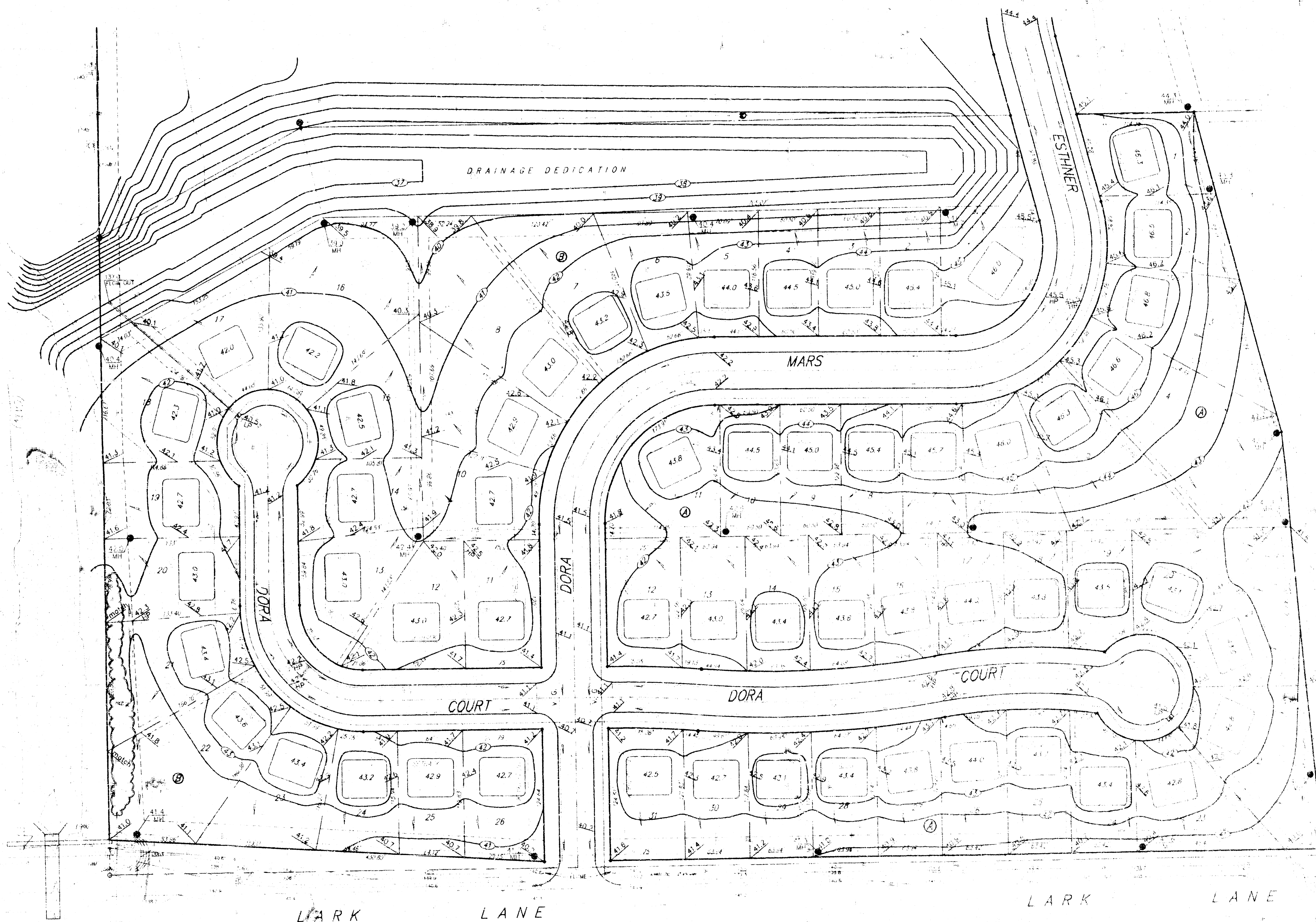
Given Input Data:

Bottom Width.....	15.00 ft
Left Side Slope..	4.00:1 (H:V)
Right Side Slope.	4.00:1 (H:V)
Manning's n.....	0.015
Depth.....	0.50 ft
Discharge.....	60.00 cfs

Computed Results:

Channel Slope....	0.0150 ft/ft
Velocity.....	7.06 fps
Flow Area.....	8.50 sf
Flow Top Width...	19.00 ft
Wetted Perimeter..	19.12 ft
Critical Depth...	0.74 ft
Critical Slope....	0.0039 ft/ft
Froude Number....	1.86 (flow is supercritical)



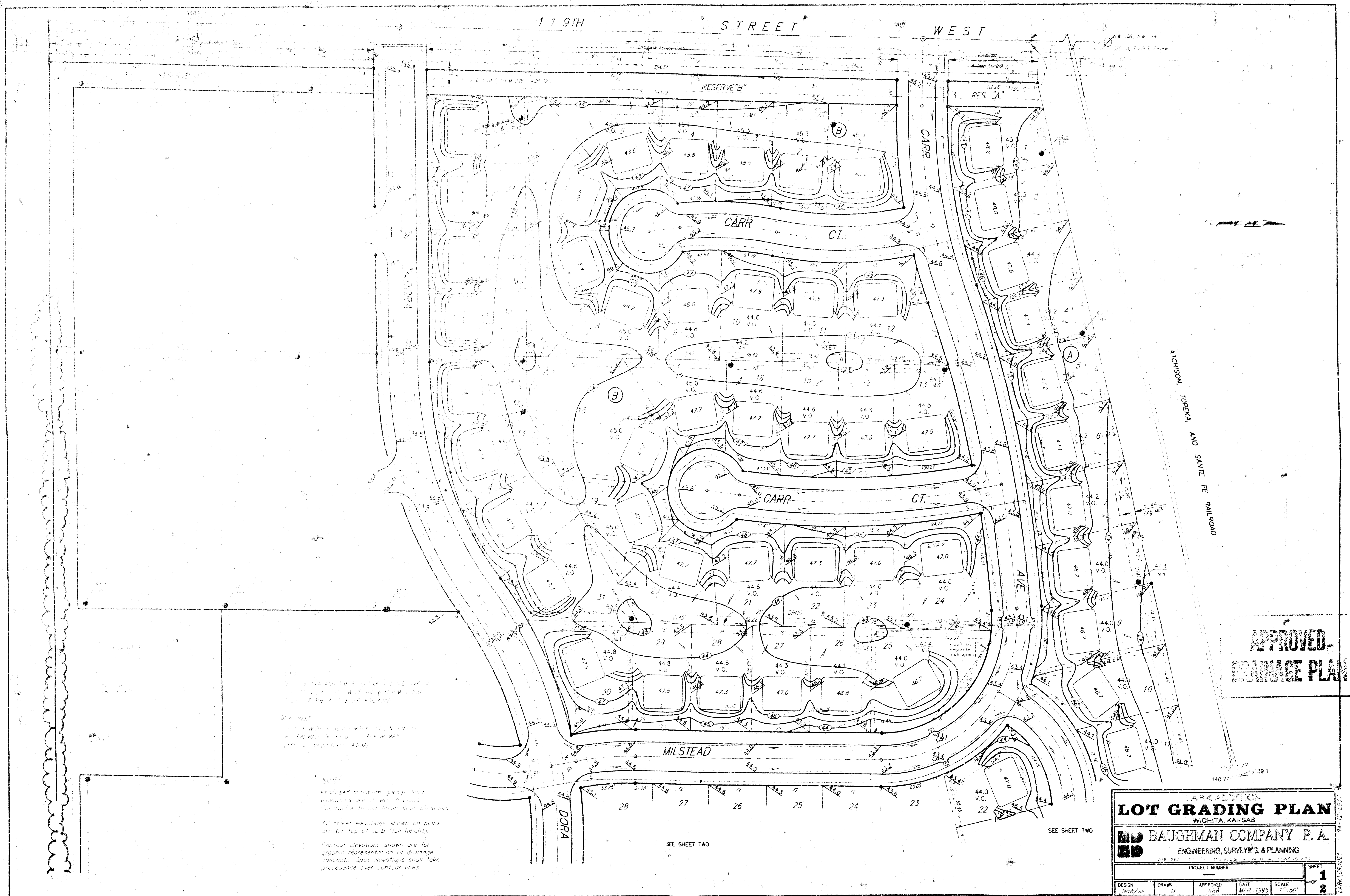


APPROVED
DRAINAGE PLAN

LOT GRADING PLAN

BAUTZMAN COMPANY, P.A.
ENGINEERING, SURVEYING & PLANNING

DATE	BY	CHECKED	APPROVED



1. ALL ELEVATIONS ARE IN FEET AND DECIMALS THEREOF.
2. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.
3. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.

NOTES:
1. ALL ELEVATIONS ARE IN FEET AND DECIMALS THEREOF.
2. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.
3. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.

1. ALL ELEVATIONS ARE IN FEET AND DECIMALS THEREOF.
2. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.
3. ELEVATIONS ARE SHOWN ON LOTS AND STREETS.

LOT GRADING PLAN
WICHITA, KANSAS

BAUGHMAN COMPANY P.A.
ENGINEERING, SURVEYING, & PLANNING

PROJECT NUMBER				
DESIGN	DRAWN	APPROVED	DATE	SCALE
10/16/95	10/16/95	10/16/95	10/16/95	1"=30'

SHEET 1 OF 2



DRAINAGE PLAN

PRELIMINARY PLAT LARK ADDITION WICHITA, SEDGWICK COUNTY, KANSAS

U.S. H.W.Y. 54

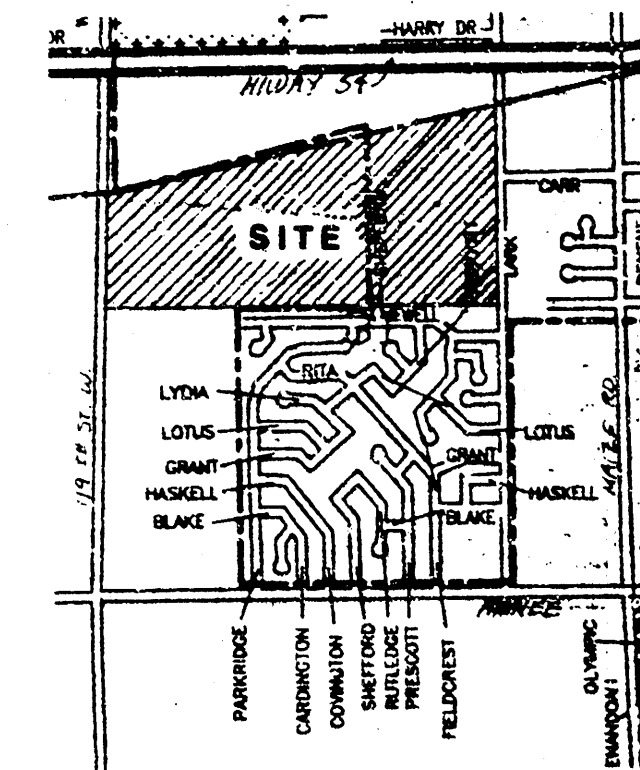


SCALE
1" = 100'
CONTOURS @ 1' INTERVALS

LEGEND

- ▲ PROPOSED DRAINAGE
- EXISTING DRAINAGE
- EXISTING MANHOLE
- EXISTING MANHOLE

OWNER:
KELSEY INVESTMENTS
ATTN: PAUL KELSEY
11515 14TH ST. S.W.
MIDWICH, K. 67214
PH. 729-5275



VICINITY MAP

