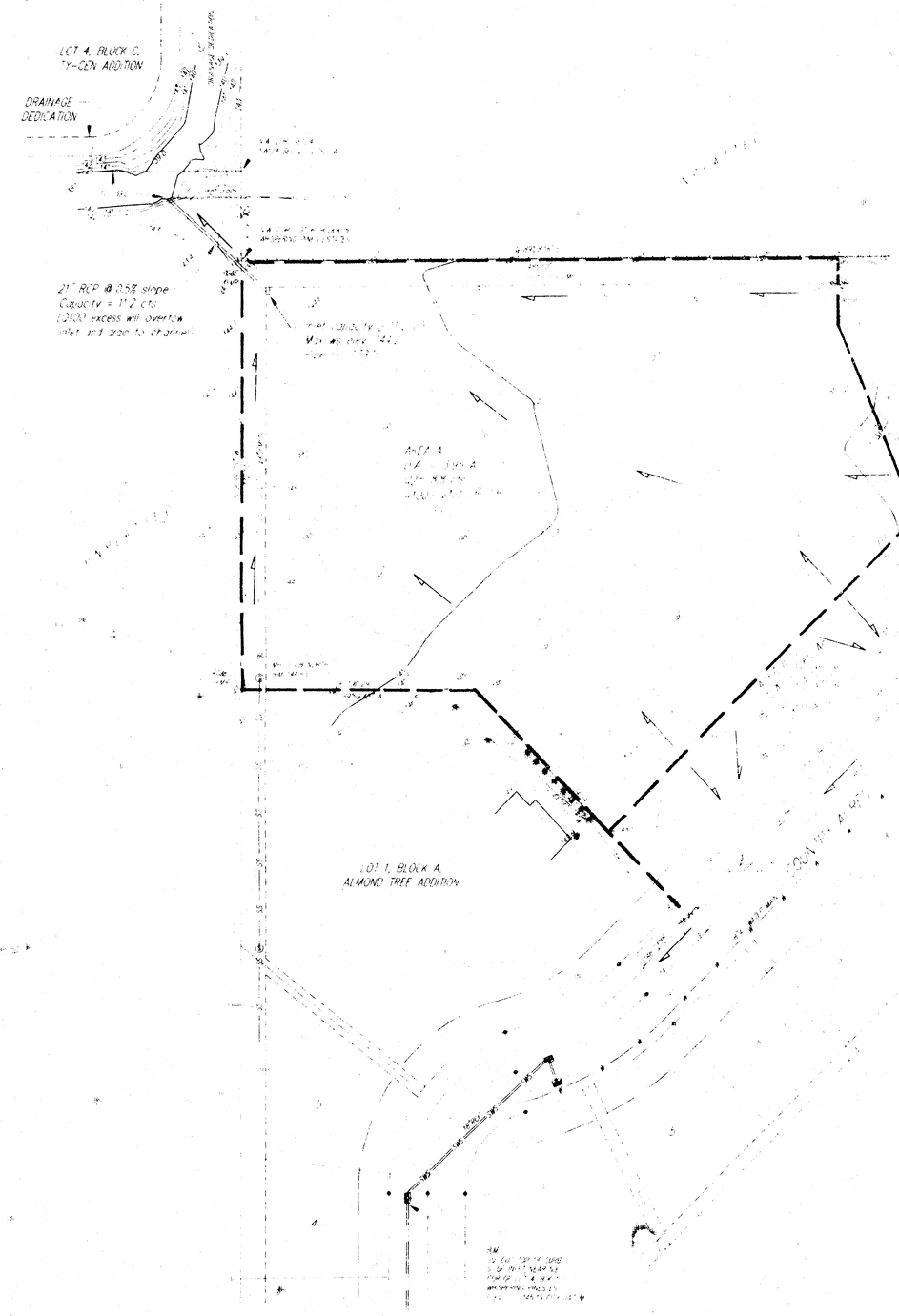

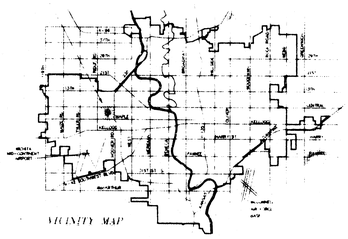

1" = 50'
ELEV = CITY DATUM

DRAINAGE PLAN
KENSINGTON PLACE

WICHITA, SEDGWICK COUNTY, KANSAS

Part of Lot 6, Block 1, Whispering Pines Estates to Wichita, Kansas, Sedgwick County, Kansas, except that part described as beginning at the S.E. Corner of said Lot 6, said point being on a curve to the left having a radius of 303.63 feet; thence southwesterly, along said curve to the left and through a central angle of 21°24'37", a distance of 113.46 feet to the P.T. of said curve; thence southwesterly, along the southerly line of said Lot 6, a distance of 79.41 feet; thence northwesterly at an included angle of 90° a distance of 63.82 feet; thence northwesterly at an included angle of 158°35'18", a distance of 180 feet, thence north at an included angle of 157°21'02", a distance of 50 feet to a point in the north line of said Lot 6; thence east at an included angle of 90°, a distance of 204.60 feet to the N.E. Corner of said Lot 6; thence southeasterly, 156.82 feet to the point of beginning and except that part of said Lot 6, platted as Lot 1, Block A, Almond Tree Addition to Wichita, Sedgwick County, Kansas.

DRAINAGE CALCULATIONS

Using Rational Formula, Q=CIA.

Undeveloped Condition (grass)
4.6 Ac. draining to channel
(none to street) slopes 1%-2%
grass cover, Soil group B (Ro)
C_2=0.20 C_{100}=0.41
For overland flow v use 0.4 fps
L=650' T_T=27 min. T_C = 27 min.
I_2=2.84in/hr I_{100}=5.69in/hr
Q_2=2.6 cfs Q_{100}=10.7 cfs (to channel)

Developed Condition (multifamily)
AREA A
3.95 Ac. to channel (0.65 Ac. to street)
C_2=0.58 C_{100}=0.72
For Tc assume overland flow length=100'
@ V=0.4 fps; sheet flow on pvmt length=500' @ 1%
V=1.5 fps; T_T=9.72 min. Assume T_C=15 min.
I_2= 3.85in/hr I_{100}=7.37in/hr
Q_2=8.8 cfs Q_{100}=21.0 cfs (to channel)
AREA B
0.65 Ac. to street (same runoff characteristics)
Q_2=1.4 cfs Q_{100}=3.5 cfs (through drives)

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ENGINEERING & SURVEYING

5-20-95