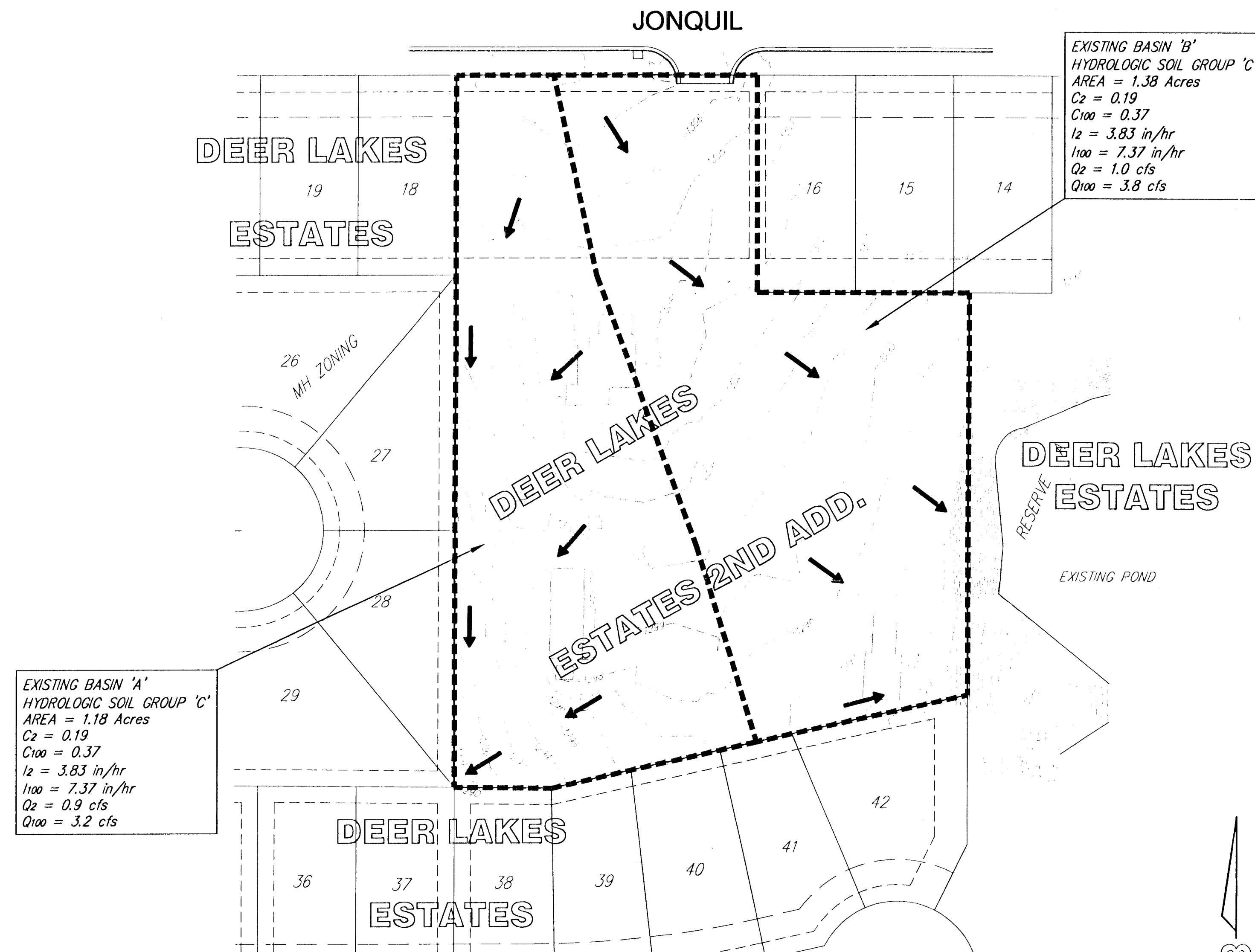


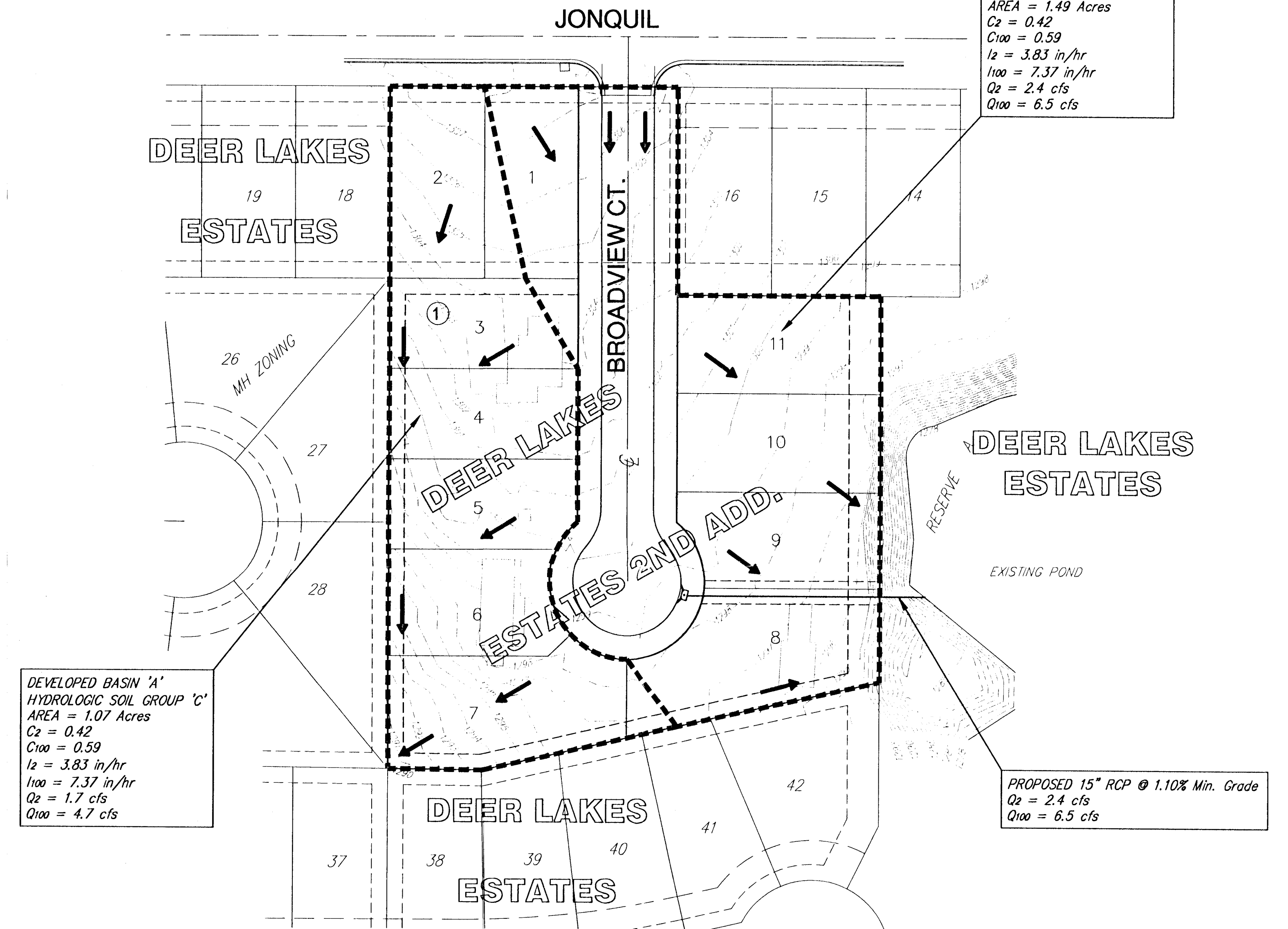
EXISTING BASINS



EXISTING BASIN 'A'
HYDROLOGIC SOIL GROUP 'C'
AREA = 1.18 Acres
C₂ = 0.19
C₁₀₀ = 0.37
I₂ = 3.83 in/hr
I₁₀₀ = 7.37 in/hr
Q₂ = 0.9 cfs
Q₁₀₀ = 3.2 cfs

EXISTING BASIN 'B'
HYDROLOGIC SOIL GROUP 'C'
AREA = 1.38 Acres
C₂ = 0.19
C₁₀₀ = 0.37
I₂ = 3.83 in/hr
I₁₀₀ = 7.37 in/hr
Q₂ = 1.0 cfs
Q₁₀₀ = 3.8 cfs

DEVELOPED BASINS



DEVELOPED BASIN 'A'
HYDROLOGIC SOIL GROUP 'C'
AREA = 1.07 Acres
C₂ = 0.42
C₁₀₀ = 0.59
I₂ = 3.83 in/hr
I₁₀₀ = 7.37 in/hr
Q₂ = 1.7 cfs
Q₁₀₀ = 4.7 cfs

DEVELOPED BASIN 'B'
HYDROLOGIC SOIL GROUP 'C'
AREA = 1.49 Acres
C₂ = 0.42
C₁₀₀ = 0.59
I₂ = 3.83 in/hr
I₁₀₀ = 7.37 in/hr
Q₂ = 2.4 cfs
Q₁₀₀ = 6.5 cfs

PROPOSED 15" RCP @ 1.10% Min. Grade
Q₂ = 2.4 cfs
Q₁₀₀ = 6.5 cfs

T_c = 15 minutes for all basins.
Soil is Milan Complex, Hydrologic Soil Group B
2.56 Acres Total
30% Trees, 4% Impervious Surface (Existing)
15% Trees, 40% Impervious Surface (Developed)

Existing Runoff Coefficients
C₂ = 0.10(0.76/2.56) + 0.20(1.70/2.56) + 0.80(0.10/2.56) = 0.19
C₁₀₀ = 0.21(0.76/2.56) + 0.41(1.70/2.56) + 0.93(0.10/2.56) = 0.37

Developed Runoff Coefficients
C₂ = 0.10(0.38/2.56) + 0.20(1.16/2.56) + 0.80(1.02/2.56) = 0.42
C₁₀₀ = 0.21(0.38/2.56) + 0.41(1.16/2.56) + 0.93(1.02/2.56) = 0.59

SCALE: 1" = 50'
● = IRON



DEER LAKE ESTATES 2ND ADDITION DRAINAGE PLAN WICHITA, SEDGWICK COUNTY, KANSAS					
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SAVOY, RUGGLES & BOHM, P.A. ENGINEERING & SURVEYING					
PROJECT NUMBER					
DESIGN	DRAWN	UTILITY	REVIEW	DATE	REVISED
KWL	KWL			June 10, 2001	
DWG. FILE: DEER LAKES DRAINAGE PLAN					SHEET 1 OF 1