DRAINAGE PLAN.

WICHITA CONCRETE PIPE, INC.

NATIVE

TOTAL AREA – 19 AC.

AREA 1 (DRAINS N. TO 37th ST) = .4 AC.

AREA 2 (DRAINS W. TO PROPERTY ON WEST SIDE. THRU EXISTING DITCH) = 14.5 AC.

A 3 (DRAINS S. TO 35th ST) = 4.1 AC.

RATIONAL FORMULA $Q = CiA$ $C = .35$ FLAT CLAY LOAM

$i = 2.69$ IN/HR (1 HOUR, 10 YR. STORM)

AREA 1 → $Q = (.35)(2.69\ IN/HR)(.4\ AC.)(1.0083) = .38$ cfs.

AREA 2 → $Q = (.35)(2.69)(14.5)(1.0083) = 13.77$ cfs.

AREA 3 → $Q = (.35)(2.69)(4.1)(1.0083) = 3.89$ cfs.

TOTAL = 18.04 cfs

IMPROVED

AREA 1 6.8 AC. $C = .65$ LIGHT INDUSTRIAL 5% IMPERVIOUS COURSE AGGREGATE SURFACING

AREA 2 8.1 AC $i = 2.69$

AREA 3 = 4.1 AC.

AREA 1 → $Q = (.65)(2.69)(6.8)(1.0083) = 11.99$ cfs

AREA 2 → $Q = (.65)(2.69)(8.1)(1.0083) = 14.28$ cfs

AREA 3 → $Q = (.65)(2.69)(4.1)(1.0083) = 7.23$ cfs

TOTAL = 33.5 cfs.