~~DEBACKER'S FIRST ADDITION~~
(Drainage)
Kasten's

Kastens Add. Tract A & B lot 2, Blk A — 5-22-81
Runoff Calc. for [illegible] — TCK

use Q_5 for initial, Q_{100} for major storm
Assume N. 240' drains to [illegible], remainder s. to Mt. Carmel
Use minimum t_c (15 minutes) for all areas
95% impervious surface
$C_5 = 0.85$ $C_{100} = 0.91$ $I_5 = 4.56$ $I_{100} = 7.37$
Use Rational method $Q = CIA$

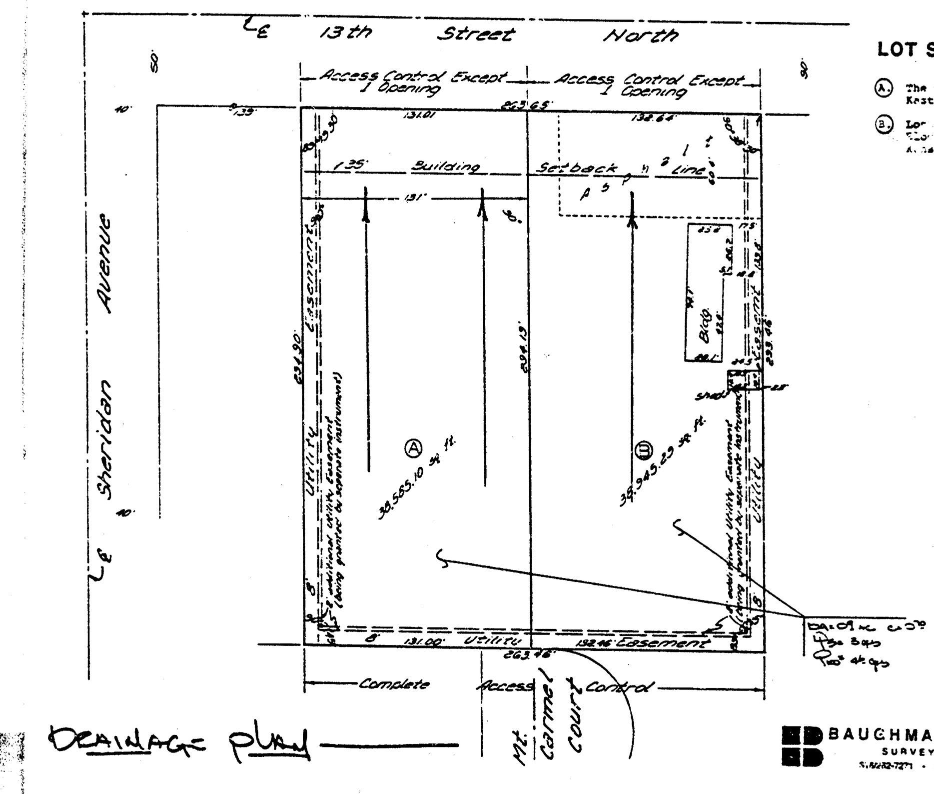
Tract A:
DA = 0.72 Ac. $Q_5 = 0.85(4.56)(0.72) = 2.8$ cfs
$Q_{100} = 0.91(7.37)(0.72) = 4.8$ cfs

Tract B: DA = 0.72 Ac. (equal to Tract A)

Pipe size (for total of Tracts A + B) with slope = 1.42%
using manning's equation, $n = 0.013$, $Q_5 = 5.6$ cfs
15" RCP @ 1.42% will flow 7.7 cfs > 5.6 cfs

for 12" RCP @ [illegible]%, Q = 2.6 cfs ≃ 2.8 = Q_5

Check inlet capacity using [illegible] formula $Q = 0.6A\sqrt{2gh}$
For 2' x 2' grate, A = 1.28 [illegible], assume h = 0.5'
Q = 0.6 [illegible] = 4.4 cfs per inlet x 3 = 13.2 cfs >> Q_5



LOT SPLIT

(A.) The west 131 feet of Lot [illegible], Block A, Kastens Addition To Wichita, Kansas.

(B.) Lot 2, except the west 131 feet thereof [illegible] Kastens Addition To Wichita, Kansas.

BAUCHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
[illegible] • 315 ELLIS • WICHITA, KANSAS 67211