



MEMO

TO: City of Wichita PROJECT NO. 36-84090-177
PROJECT: Chazy Business Park
Department of Engineering CITY HALL - 455 N. MAIN Wichita, KS 67202
ATTN: Chris Breitenstein, P.E. DATE: February 29, 1984
FROM: Charles S. Brown, P.E.
REFERENCE: File

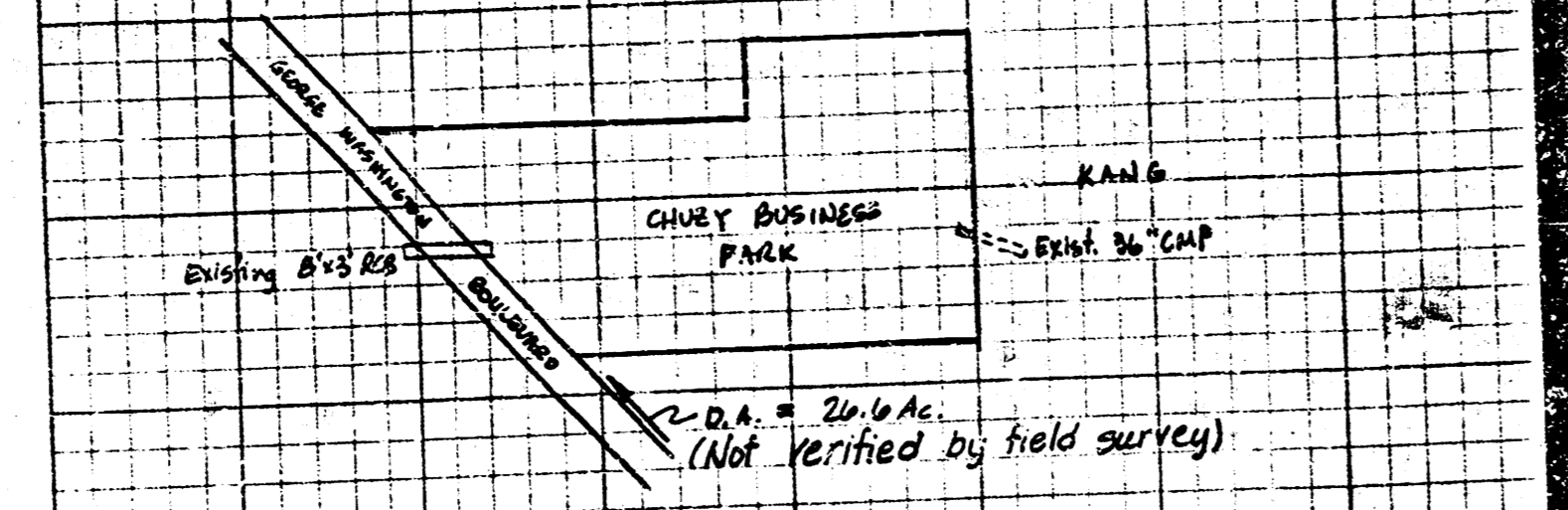
PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

Transmitted herewith are two copies of the Drainage Plan and supporting calculations for the proposed Chazy Business Park Addition to Wichita. The Preliminary Plat will be submitted to MAPD on March 2, 1984, for hearing by MAPC Subdivision Committee on March 15, 1984.

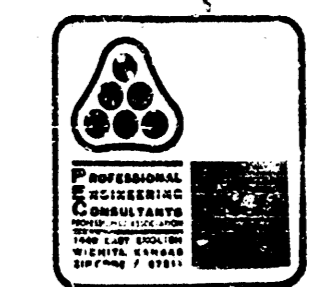
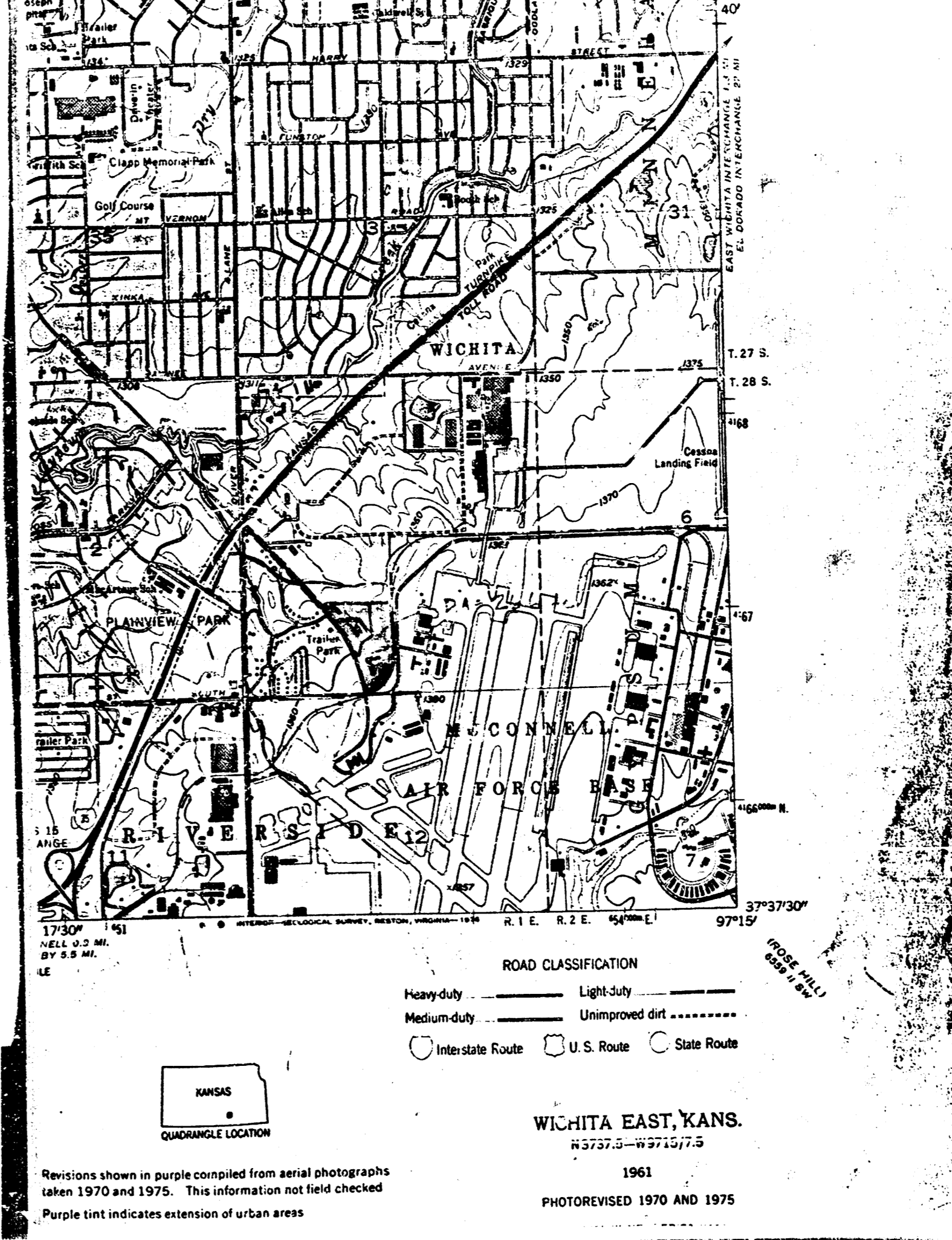
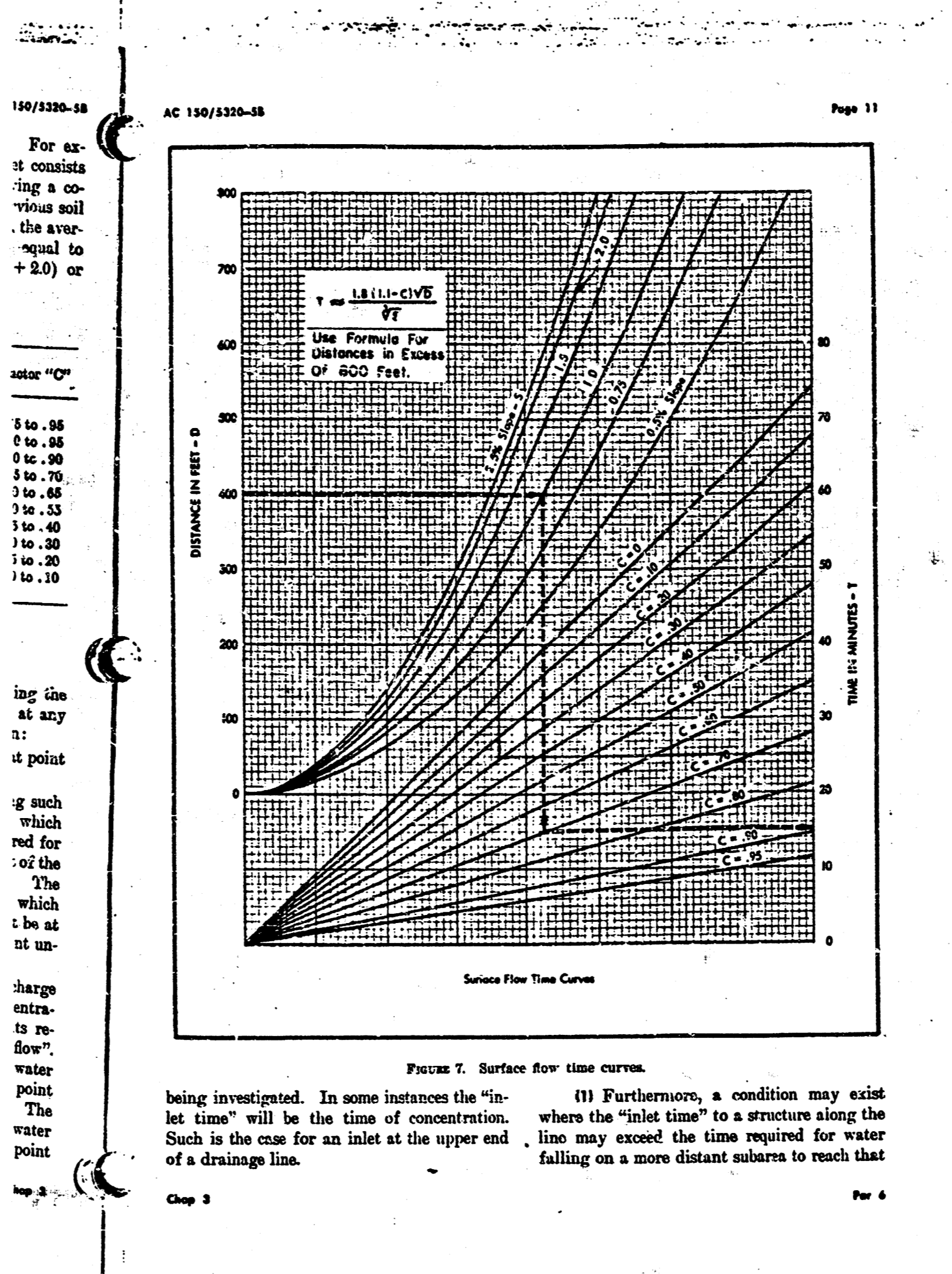


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Project Chazy Business Park
Item Drainage

CHECK EXTENT OF DRAINAGE AREA & RUNOFF FROM BASIN SOUTH OF CHAZY BUSINESS PARK ADDITION WHICH FLOWS IN NORTHEASTERLY DITCH OF GEO. WASHINGTON BOULEVARD.

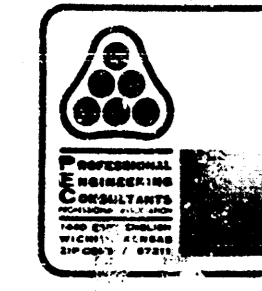


Use Rational Formula Q=CIA
C = 50% Ind./Commercial (0.9)
I = Assume 400' @ 2% grade = 8'
A = 1500' d.w. @ 1/4" = 1500'
D.A. = 24.6 ac.
Q = CIA = 0.9 x 400 x 24.6 = 892 cfs



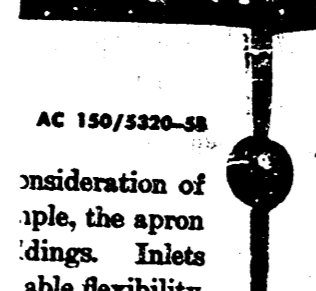
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Project Chazy Business Park
Item Drainage - Alternate No. 2

USE RATIONAL FORMULA FOR RUNOFF CALC.
Q = CIA where C = 0.9
I = 15 min. assumed due to
I = 4.06 I = 5.21 I = 6.08 I = 8.98
Inlet No. 1 D.A. = 3.1 Ac.
Q = 0.9 x 4.06 x 3.1 = 11.7 cfs
Q = 0.9 x 5.21 x 3.1 = 14.7 cfs
Q = 0.9 x 6.08 x 3.1 = 17.0 cfs
Q = 0.9 x 8.98 x 3.1 = 25.3 cfs



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Project Chazy Business Park
Item Drainage - Alternate No. 2

Inlet No. 1 D.A. = 6.6
Q = 0.9 x 4.06 x 6.6 = 24.1
Q = 0.9 x 5.21 x 6.6 = 30.9
Q = 0.9 x 6.08 x 6.6 = 36.1
Q = 0.9 x 8.98 x 6.6 = 53.3



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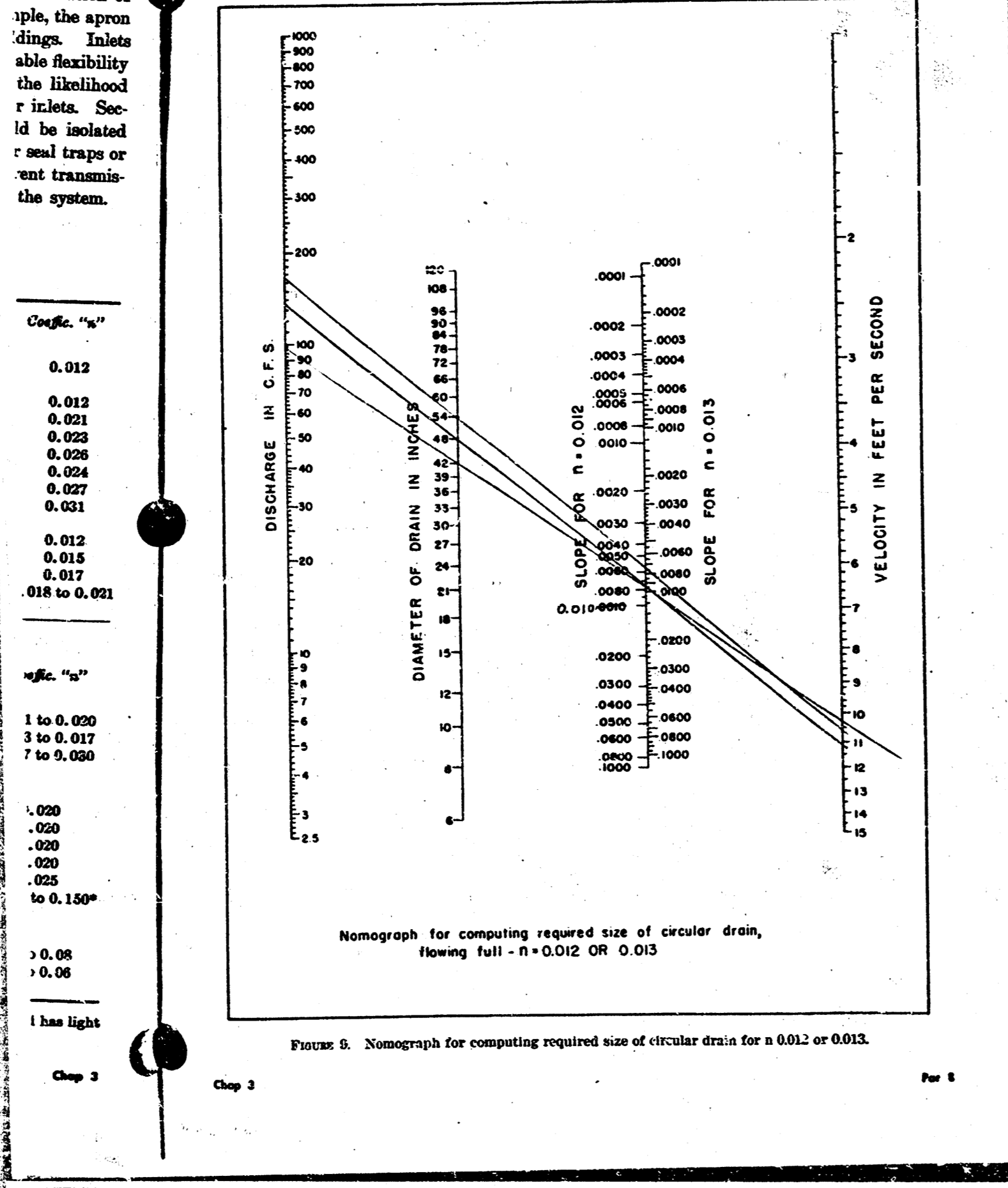


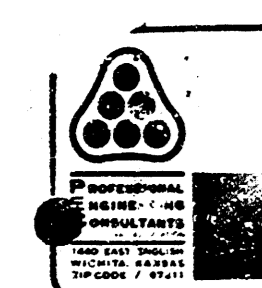
Table with columns: TRIBUTARY AREA (SUB-BASIN, C, AREA, SLOPE, LENGTH), HYDROLOGY DATA (Q, V, etc.), and HYDROLOGY SUMMARY.

Table with columns: HYDROLOGY DATA SHEET, HYDROLOGY SUMMARY, and CONDUIT DATA.



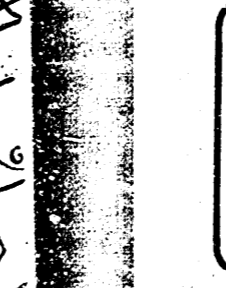
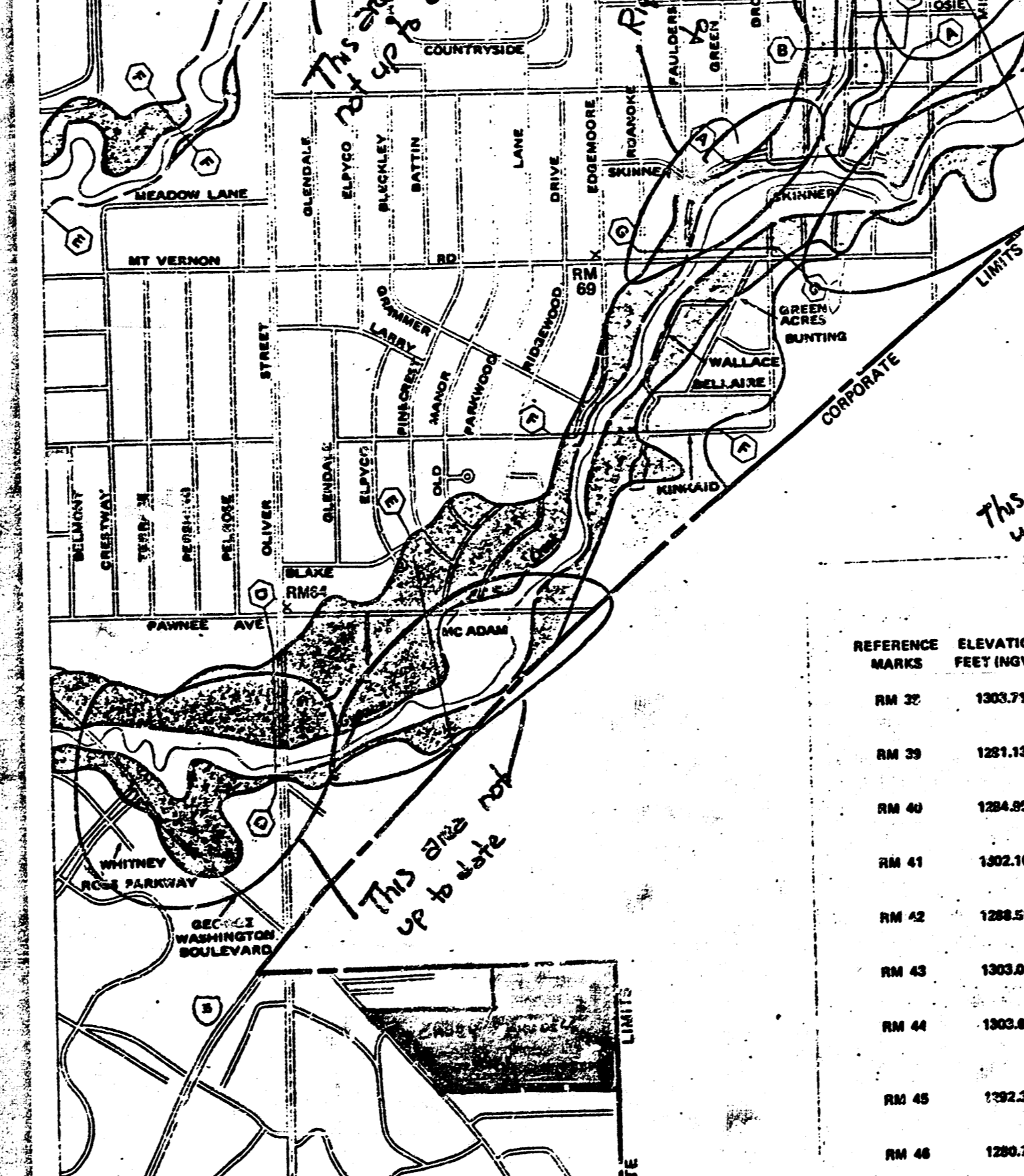
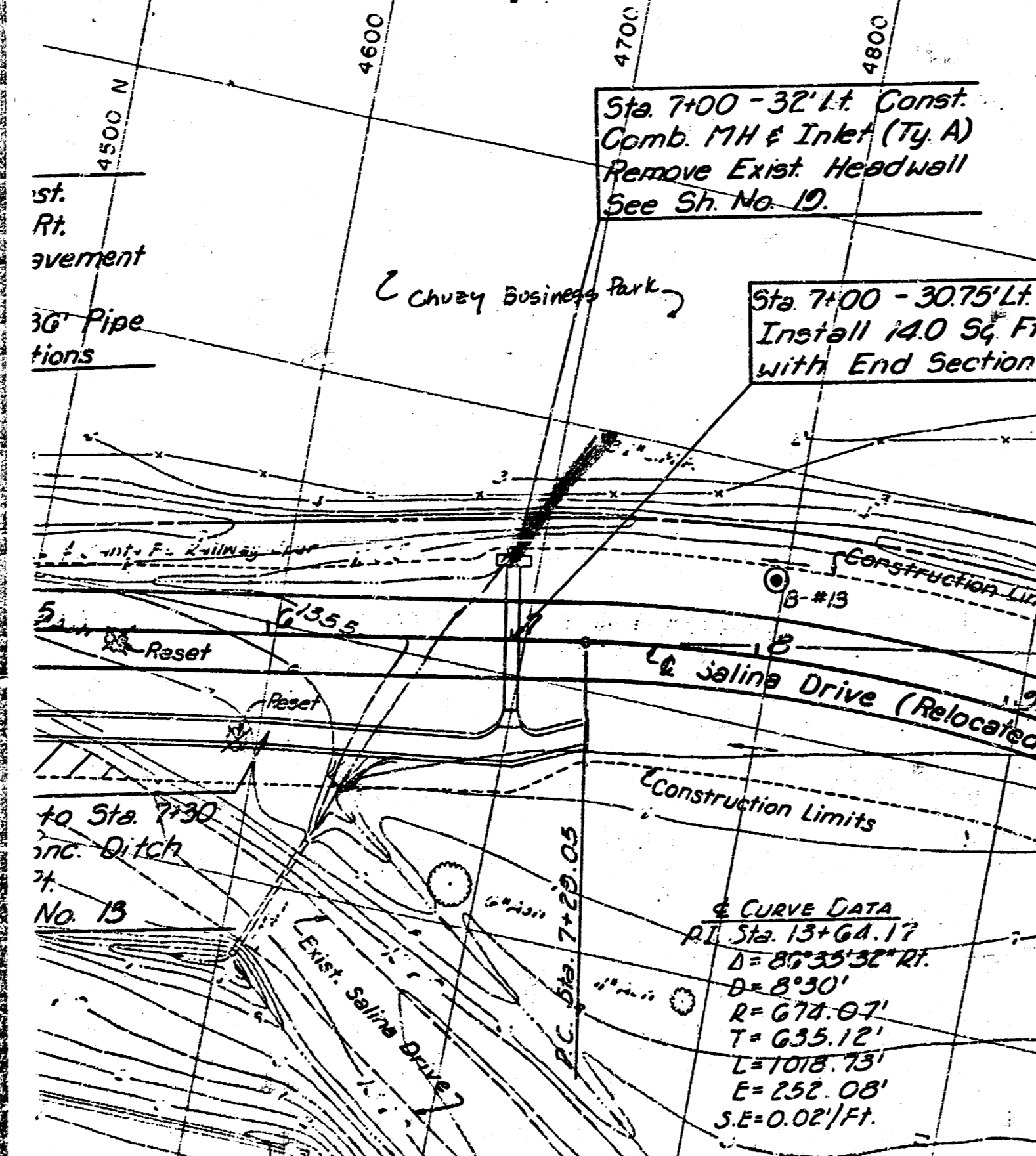
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Project KANE
Item Hydrology - Point Design Structures

Handwritten calculations for point design structures, including flow rates and pipe sizes for various inlets.



Date 12-15-83 NIP Page of
Project KANE
Item Culvert at 7400 Salina Drive

LEADS CANOE = 1357.33
E LT = 51.10
E RT = 51.50
Plans call for 140 sq ft CEP, McPherson Curve, wants to know if 60x43 (12.5 sq ft) or 68x43 (16.5 sq ft) is acceptable.



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Project Chazy Business Park
Item Drainage

Check Capacity of Existing 8'x3' RCB @ George Washington Blvd.
Height of Box (D) = 3'
Allowable HW elev. = 133.8'
K Box = 129.34
HW = 133.8 - 129.34 = 4.44' say 4.5'
HW' = 4.5/3 = 1.5

