HYDROLOGY K19/D74 1 PLAN

K19/D74

1 Plan

D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D

DRAINAGE AND GRADING PLAN

DRAINAGE CALCULATIONS
FOR
DTM JOB NO. 887.12

Proposed Conditions: Total Area = 6,750 sf = 0.149 Acres

Existing Conditions: 100% undeveloped, i = 4.86 in/hr, P_6 = 2.3 in.

$Q = CIA = (0.40)(4.86)(0.15) = 0.3$ cfs

$V = C(P_6)(A) = 0.40(2.3/12)(6,750) = 520$ cf

Proposed Conditions:

Roof	= 2,508	x .90	= 2,257
Paved	= 2,874	x .95	= 2,730
Landscaped	= 1,368	x .25	= 343
	6,750		5,330

Weighted 'C' = $\frac{5,330}{6,750} = 0.79$

$Q = CIA$

$= (.79)(4.86)(0.15) = 0.6$ cfs

$V = 0.79\ (\frac{2.3}{12})(6,750) = 1,020$ cf

$\Delta Q = 0.6 - 0.3 = 0.3$ cfs increase

$\Delta V = 1,020 - 520 = 500$ cf increase

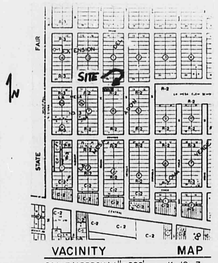
DOWNSTREAM ANALYSIS

(1) Contributing Watershed -

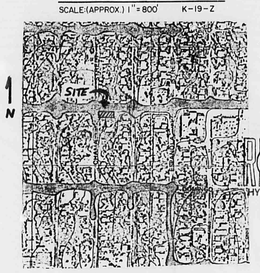
The watershed which contributes to the storm drain system that accompanies this site is approximately 17 city blocks (taken from City of Albuquerque Flood Insurance Map No. 30), 64.5 cfs flow down the street of Copper. Each Type 'B' catch basin (there are a total of 6), connected with the Fairgrounds Storm Relief System has a grate capacity of 20 cfs (DPM Plate 22.3 D-7), creating an overall capacity of 120 cfs at full gutter depth.

Therefore, free discharge is appropriate because:

1. The system has the capacity for watershed.
2. Infill site.
3. Negligible increase in flow.
4. Close proximity of the existing storm basins causes the runoff generated from this site to be received by the storm relief system before the watershed has reached peak flow.



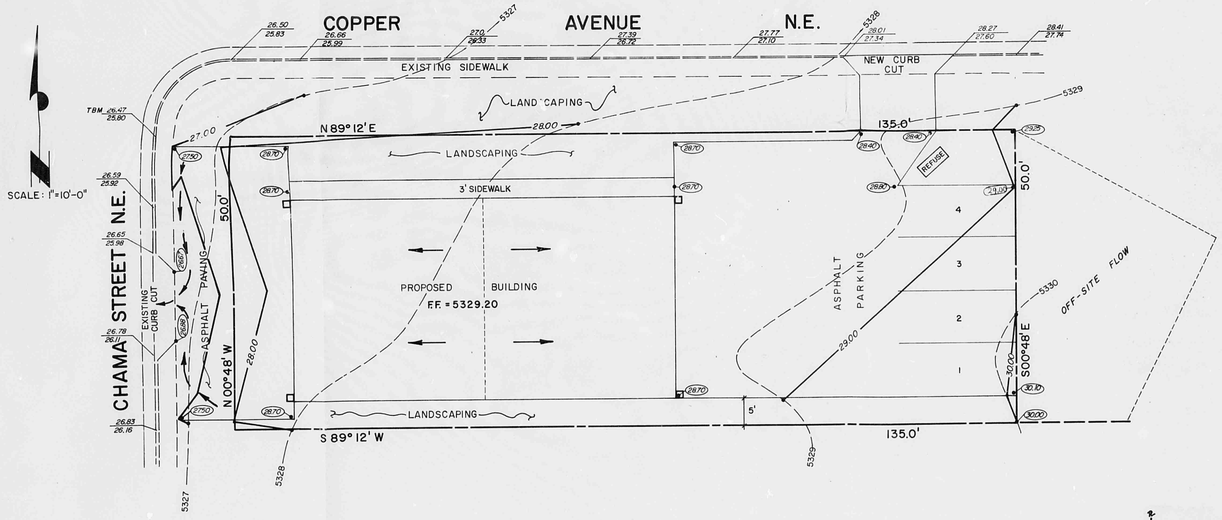
VACINITY MAP
SCALE (APPROX.) 1" = 800' K-19-Z



FLOOD ZONE MAP # 30

JUL 11 1985
HYDROLOGY SECTION

LEGAL DESCRIPTION:
LOT 13, BLOCK 6, LA MESA ADDITION



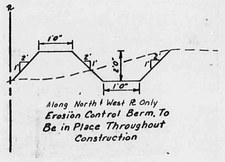
LEGEND

27.39 / 26.72 — Existing Top of Curb Elevation / Flow Line Elevation
5329 — Existing Contour
29.00 — Proposed Contour
Property Line
29.70 — Proposed Spot Elevation
Roof Drain
Flow Direction
Off-Site Flow

Q = CIA
A = 1,175 S.F. = 0.03 Acres
I = 4.86
C = 0.75 (Residential)

Q = (.75)(4.86)(0.03) = 0.1 cfs

Off Site Flows are Accepted and Routed Through Site



Along North & West R. Only
Erosion Control Berm, To Be in Place Throughout Construction

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

BENCH MARKS
BM 7-K19 ACS Brass Cap Located on the East Median at the Intersection of Louisiana and Central — Elevation = 5323.31. TBM - Top of Curb Return on SSE Corner of Chama Street NE and Copper Avenue NE as Indicated on Plans.
Elevation = 5326.47

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD ENGINEER — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

ENGINEER'S SEAL
CARY W. WILKES TIBBALS
8117
REGISTERED PROFESSIONAL ENGINEER
7/10/85

NO.	DATE	REMARKS	BY
		Roof Drains, Off-Site Flow	

REVISIONS
DESIGN
DESIGNED BY — DATE
DRAWN BY E.L.O. — DATE
CHECKED BY — DATE

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE:
J.J. JOHNSON QUADRAPLEX

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. - Design			Traffic		
A.C.E. - Hydrology			Water		

DRAWING NO. — MAP NO. K-19 — SHEET 1 OF 1

DTM & A Job No. 887.12

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT