

LOCATION MAP
ZONE ATLAS MAP NO. J-20



SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY
SHEET NOS. 31 & 32



FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY
PANEL 30

Drainage Report
St. Paul's United Methodist Church
Garage

Site Location and Description:
The site is located at 9500 Constitution Avenue NE on Lot 6, Block 19, E.M. Chapman, Jr.'s Subdivision of Blocks 19, 20, 21, 22 and 23 Mesa Village Subdivision. The site is currently undeveloped. The proposed development includes the construction of a 30' x 30' unoccupied garage.

Methodology:
The Development Process Manual, Volume 2, Design Criteria for the City of Albuquerque was followed to calculate peak runoff for the site. The method used to determine the runoff for the site basin is designated Part A in the revised Section 22.2. Using the 100-year frequency with a 4-hour rainfall volume as the design storm, the charts and formulas in Part A were followed. The site is located in Zone 3 as determined from Figure A-1, and the peak discharge was determined using Table 9.

Existing Conditions:
The site has one basin designated as Basin 100. The site, an undeveloped vacant lot covered by native grasses and weeds, is slightly compacted by human activity. The lot slopes from the western corner to the eastern corner at 3.5%. The calculations in Table 1 show the peak discharge and volume for the 100-year event. These volumes, which include minimal off-site flows from the adjacent lot, also owned by the church, currently drain off-site to the vacated portion of Altez Street NE.

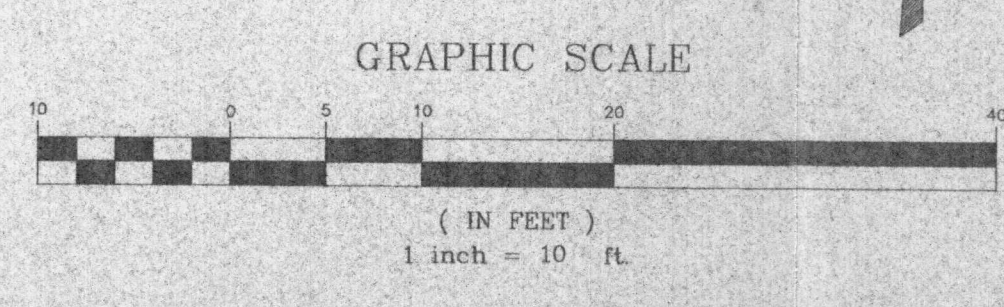
Proposed Conditions:
Proposed conditions include the construction of a 30' x 30' unoccupied garage and a 10' wide driveway of compacted crusher fine material. The proposed basin boundary does not change from existing to proposed conditions. The runoff will sheet flow across the site as is currently the case, with the exception of the flows directed around the proposed structure in shallow swales at 1-1.3% slope. The flows will discharge into Altez Street NE, just as they currently do. The calculations in Table 2 show the peak discharge and volume for the 100-year event.

TABLE 2 HYDROLOGY CALCULATIONS: PROPOSED CONDITIONS						
Basin	Land Treatment	Zone	Area (Acres)	Peak Discharge Q (cfs)	E _p (in)	V ₁₀₀ (ac-ft)
100	C D	3	0.256	0.883	1.375	0.032
			0.022	0.110		
			0.278	0.993		

Conclusion:
The on-site drainage, which historically sheet flows to the vacated portion of Altez Street NE will continue this historic pattern after construction of the garage. The increase in discharge of 0.034 cfs and an increase in volume of 0.002 Ac.-ft. will have a negligible impact on existing drainage conditions.

TABLE 1 HYDROLOGY CALCULATIONS: EXISTING CONDITIONS						
Basin	Land Treatment	Zone	Area (Acres)	Peak Discharge Q (cfs)	E (in)	V ₁₀₀ (ac-ft)
100	C	3	0.278	0.959	0.359	0.030

- LEGEND**
- 5419 EXISTING INTERMEDIATE CONTOUR
 - 5420 EXISTING INDEX CONTOUR
 - 19 PROPOSED INTERMEDIATE CONTOUR
 - 5419 PROPOSED INDEX CONTOUR
 - 5359.15 EXISTING SPOT ELEVATION
 - 19.05 PROPOSED SPOT ELEVATION
 - BASIN 100 BASIN DESIGNATION
 - BASIN BOUNDARY



LEGAL DESCRIPTION
MAY 1975 LOT 6 BLOCK 19 E.M. CHAPMAN, JR.'S, SUBDIVISION OF BLOCKS 19, 20, 21, 22, AND 23 MESA VILLAGE SUBDIVISION

BENCH MARK
A STANDARD A.C.S. BRASS TABLET STAMPED "3-J20, 1979" SET FLUSH WITH THE GROUND, LOCATED IN THE NORTHWEST QUADRANT OF THE INTERSECTION OF CONSTITUTION AVE. AND MOON ST.

WILSON & COMPANY
4775 INDIAN SCHOOL ROAD N.E.
SUITE 200
ALBUQUERQUE, NEW MEXICO 87110
(505) 254-4000

DATE
MAY 1997

FILE NO.
GO

DESIGN
KIS

DRAWN
KIS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

**ST. PAUL'S UNITED METHODIST CHURCH
GRADING AND DRAINAGE PLAN**

City Project No. **NA** Zone Map No. **J-20** Sheet **C1** Of **07**

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