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3 Plans

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
David Rusk

February 8, 1979

Mr. Thomas T. Mann, Jr.
President
Goldberg-Mann & Associates
911 Pennsylvania N.E.
Albuquerque, New Mexico 87110

Re: La Mesa Community Center and Park Drainage Plan

Dear Mr. Mann:

I have reviewed the drainage report for the above-mentioned Community Center and find that the report is in compliance with the requirements of the AMAFCA Resolution 72-2 and is hereby approved.

Very truly yours,

Bruno Conegliano
Assistant City Engineer-Hydrology

BC/fs

cc - Dick Heller
Drainage File

~~LA~~ MESA VERDE

COMMUNITY CENTER

DRAINAGE STUDY

Goldberg · Mann & Associates
Engineers-Planners
911 Pennsylvania N.E. Albuquerque, New Mexico 87110

July 12, 1978

Mr. Joe Long
Long & Waters, Architects
8009 Mountain Road Place N.E.
Albuquerque, New Mexico 87110

Re: La Mesa Community Center and Park Drainage Plan

We are herewith transmitting five (5) copies of the drainage plan for the La Mesa Community Center and Park.

This plan is in accordance with the requirements of the City of Albuquerque, Resolution 1972-2 and the Albuquerque Metropolitan Arroyo Flood Control Authority.

We have enjoyed working with you on this project and look forward to future opportunities to assist you.

Sincerely yours,

Thomas T. Mann, Jr.
President

TTM:pm

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PURPOSE AND SCOPE

The purpose of this drainage plan is to establish the criteria for controlling surface runoff from a particular development in a manner that is acceptable to the City of Albuquerque and to the Albuquerque Metropolitan Arroyo Flood Control Authority.

This plan will determine the runoff resulting from a 100 year frequency storm falling on the site under existing and developed conditions.

The scope of this plan is to insure that the proposed project will be protected from storm runoff and that the construction of this project will not increase the flooding potential of the adjacent properties.

LOCATION AND DESCRIPTION OF PROJECT

The La Mesa Community Center and Park is located within the corporate limits of the City of Albuquerque, in the northeast quadrant. The project will occupy an entire block that is bounded by Marquette Avenue, Tennessee Street, Grand Avenue, and Pennsylvania Street. The location of the project is shown in Figure 1.

The parcel is approximately 9 acres in size and will be developed as a park, with associated parking, community center, and athletic fields. The parcel is currently used as a drive-in theater. Approximately 80 to 90 percent of the ground surface is covered with an asphalt/chip seal type coating thereby making it relatively impermeable. There is no ponding and very little landscaping to retard runoff. All stormwater runoff exits the site at the southwest corner. The existing site slopes from northeast to southwest at approximately 1 percent.

DESIGN CRITERIA

In analyzing the storm runoff, The Rational Formula, Q = CIA is used.

Where:

Q = Runoff quantity in cubic feet/second.

A = Contributing area in acres.

I = Intensity in inches/hour for a duration equal in minutes and obtained from Figure 2, Intensity Duration Frequency Curves, Albuquerque Area 1961. (Note: Where a Time of Concentration [Tc] is less than ten minutes, the intensity value derived from a Tc of ten minutes is employed.)

C = Runoff Coefficient (no units). This coefficient represents the integrated effects of infiltration, detention storage, evaporation, retention, flow routing, and interception which all affect the time distribution and peak rate of runoff.

EXISTING DRAINAGE CONDITIONS

As noted earlier, the project will occupy an entire block. The approximate existing contours are shown in Figure 3. The site is generally above the adjacent streets. The one exception is about mid-block on Tennessee Street. The high point of a vertical curve occurs about mid-block and runoff will flow north and south from that point. Since there will be little or no flow at the high point of the vertical curve, runoff will not exceed the curb height.

At present all stormwater drains from the site at the southwest corner of the site.

PROPOSED DRAINAGE CONDITIONS

The proposed drainage plan is shown in Figure 3. The proposed development will reduce the amount of impervious surface from 80-90 percent to approximately 10 percent. Therefore, runoff from the proposed development will be considerably less than the present runoff. Runoff control measures normally required for a project will not be required.

However, the runoff from the parking lot and the impervious surfaces surrounding the community center will be diverted into a ponding area. The pond will retain approximately 50 percent of the runoff from a 100 year frequency storm.

CONCLUSIONS

1. Divert runoff from parking area and building area into a pond.
2. Ponding will not be required for the remainder of the site.

CALCULATIONS

Impervious Area

110 x 120	=	13,200
43 x 400	=	17,200
		30,400 square feet

Required Ponding Area

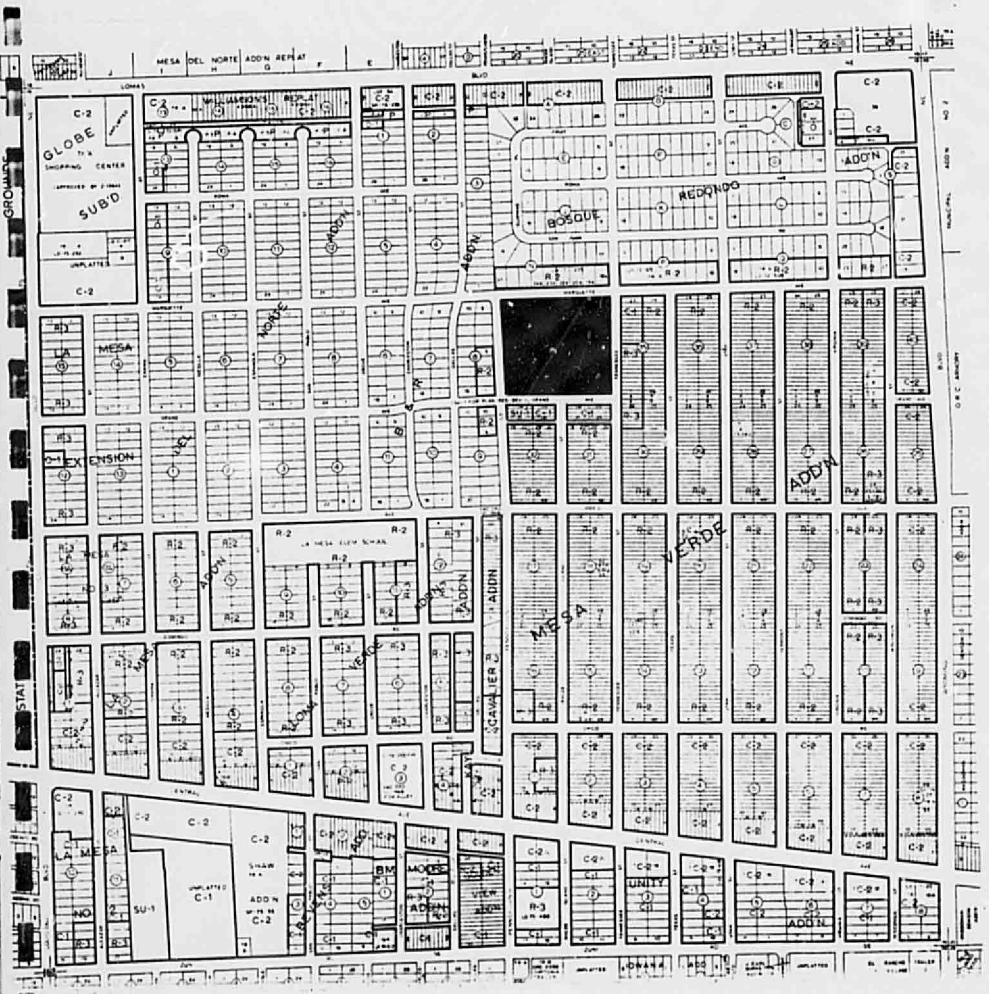
30,400 x 0.1	=	3,040 cubic feet

Pond Volume

16.2(400)1(½)	=	3,240 cubic feet

FIGURE 1.
LOCATION MAP

DATE
RECEIVED_____



APPLICANT

NAME: Long & Waters, Architects
ADDRESS: 8009 Mountain Rd. Pl. NE
Albuquerque, NM 87110
PHONE: 265-5775
SIGNATURE:_____

LOCATION OF PARCEL

LOT NO: 1-40, 1-40 BLOCK NO: 33 & 34
SUBDIVISION: Mesa Verde Addition
STREET ADDRESS: Marquette, Grand,
Penn. & Tennessee
CURRENT ZONING: SU-1

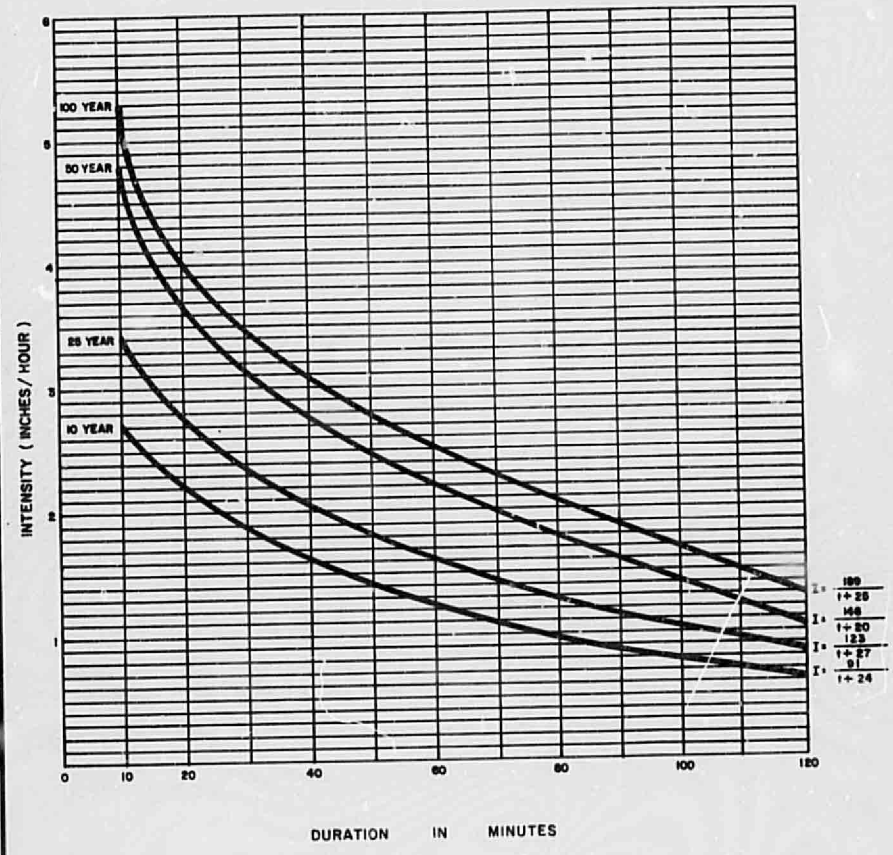
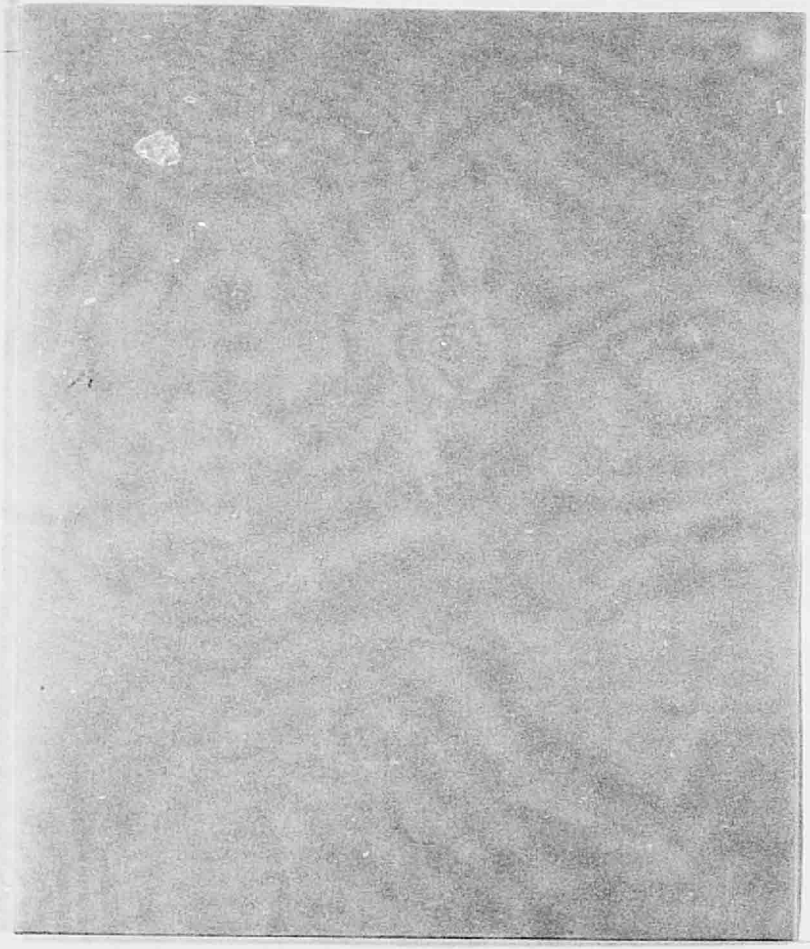


FIGURE 2

INTENSITY DURATION FREQUENCY CURVES