



Goldberg Mann & Associates

Engineers-Planners

911 Pennsylvania St. Albuquerque, New Mexico 87110

(505) 265-3521

March 8, 1979

9-01

Mr. Bruno Conegliano
Assistant City Engineer/
Hydrology
Division of Engineering
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: R.B. Furniture Drainage Report

Dear Bruno:

CITY ENGINEERS

Attached is the revised grading plan for R.B. Furniture. As per our conversation, we have: (1) provided a wall in front of the building that is 1'0" above the top of curb, (2) directed the roof drains into the ponds, (3) lowered Pond D and connected it to Pond C with an 8" pipe, (4) allowed Pond B to follow into Pond A, and (5) noted that the curb shall be built around the inlets.


I believe we have complied with all your requests. Therefore, please approve the drainage report and construction drawings.

Attached are two (2) copies of the grading plan for your files and two (2) copies for the construction drawings.

Thank you.

Yours truly,

GOLDBERG-MANN & ASSOCIATES


Thomas T. Mann, Jr., P.E.
President

TTM:jj

Enc.

cc:Dick Elliot



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
David Rusk

February 26, 1979

Mr. Tom Mann, President
Goldberg-Mann & Assoc.
911 Pennsylvania St. N.E.
Albuquerque, New Mexico 87110

Re: R. B. Furniture Drainage Report

Dear Mr. Mann:

The drainage report for the captioned development has been reviewed and my comments are as follows:

The copy of the flood hazard boundary map included in the report shows that Louisiana will receive substantial waters with the occurrence of the 100 year flood storm. The finished floor elevation for the building is only 0.4 ft. above the top of the curb at the northeast corner of the property. In the absence of a more precise evaluation of anticipated flood level in Louisiana and Uptown Boulevard, I recommend that a minimum elevation difference of one foot in respect of the top of the curb mentioned, be maintained. It is also requested that the roof drain system be indicated to avoid overflow or under use of the different ponding areas supplied to the east and to the south.

The grading plan attached to the report shows that the concrete curb will be built directly on top of the 48" pipe. It seems advisable that the mentioned curb be constructed along the property line of the pipe buried away from the curb.

Very truly yours,

Bruno Conegliano
Assist. City Engineer-Hydrology

BC/fs

cc - Dick Heller
Rich Leonard
Drainage File



Goldberg Mann & Associates

Engineers-Planners

911 Pennsylvania St. Albuquerque, New Mexico 87102

(505) 265-3521

February 2, 1979

9-01

Mr. Bruno Conegliano
Assistant City Engineer/
Hydrology
Department of Public Works
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: R. B. Furniture Drainage Report

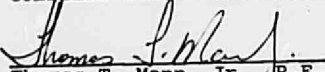
Dear Bruno:

Transmitted herewith for your approval are two (2) copies of the R. B. Furniture Decorator Showroom Drainage Report. The construction drawings have also been submitted for review.

If you have any questions, do not hesitate to call.

Yours truly,

GOLDBERG-MANN & ASSOCIATES


Thomas T. Mann, Jr., P.E.
President

TTM:jj
Enc.2

RECEIVED

FEB 12 1979

CITY ENGINEERS

**DRAINAGE
REPORT** RECEIVED
FEB 02 1979
for the CITY ENGINEERS
**RB FURNITURE
DECORATOR
SHOWROOM**



Goldberg · Mann & Associates

Engineers-Planners

911 Pennsylvania N.E.

Albuquerque, New Mexico 87110



Goldberg · Mann & Associates

Engineers · Planners

511 Pennsylvania St.

Albuquerque, New Mexico 87110

(505) 268-3821

February 2, 1979

9-01

Architekton
5105 Menaul N.E.
Albuquerque, New Mexico 87110

Re: R.B. Furniture Drainage Report

Gentlemen:


We are herewith transmitting three (3) copies of the drainage report for the R.B. Furniture Decorator Showroom.

The drainage plan is in accordance with the requirements of the City of Albuquerque 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.

Yours truly,

GOLDBERG-MANN & ASSOCIATES


Thomas T. Mann, Jr., P.E.
President

TTM:jj

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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 R.B. Furniture Decorator Showroom site is located within the corporate limits of the City of Albuquerque in the northeast quadrant. The site is located on the northwest corner of the intersection of Louisiana Boulevard N.E. and Uptown Boulevard N.E.

The parcel is approximately 1.1 acres in size and will be developed with a large one story furniture store and a parking lot to service the store. The natural topography slopes uniformly from the east to the west at approximately 2.5 percent. The vegetation is sparse and the soils are slightly granular in nature.

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 3, Intensity Duration Frequency Curves, Albuquerque Area 1961. (Note: Where a Time of Concentration $[T_c]$ is less than ten minutes, the intensity value derived from a T_c of ten (10) 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

The existing contours are shown on the Grading Plan (refer to Figure 4). The site is bounded on the south and the east by improved streets and on the north by a Jack In The Box Restaurant fronting on Louisiana Boulevard. The Jack In The Box Restaurant has a paved parking lot with storm drain improvements to cut off all flow that had historically passed over the site. To the west the natural topography slopes away from the project site; therefore, on combining the aforementioned facts, it can be stated that offsite flows are of no consideration to this drainage plan.

The existing topography indicates that all site runoff currently passes to the land just beyond the westerly site boundary. This land is presently undeveloped with similar drainage conditions as the site in consideration.

PROPOSED DRAINAGE CONDITIONS

The proposed grading plan is shown in Figure 4. There are no offsite flows that enter the site.

There will be impervious areas created by the parking lot, sidewalks, and the building roof. These impervious areas will require the utilization of retention facilities. The roof area will drain into four (4) retention ponds located on the south and east sides of the building within the landscaped areas. The parking lot will drain into two separate retention pipes. These pipes will be corrugated metal pipes with gap-joint construction placed in gravel bedding (refer to detail, Figure 4). These retention facilities will combine to produce the necessary retention volume.

All drainage facilities will be designed in accordance with the City of Albuquerque Standards.

CONCLUSIONS

The following conclusions and recommendations are made for the development of R.B. Furniture Decorator

Showroom:

1. Construct ponds on the south and east sides of the building.
2. Drain building roof into the ponds.
3. The total pond volume shall be 1738 c.f.
4. Construct 177' - 48" corrugated metal pipe for retention purposes.
5. Drain the parking lot into the retention pipes.
6. The total pipe volume shall be 2,223 c.f.

CALCULATIONS

Impervious Areas

Parking lot	18,670 s.f.
Sidewalk	1,000 s.f.
Building roof	19,900 s.f.
	<hr/>
	39,570 s.f. = 83%

Pervious Area

Landscaping 8,245 s.f. = 17%

47,815 s.f. = 100%

Total Area

RETENTION VOLUME

Pond Volumes

	<u>Area</u>	<u>Average Depth</u>	<u>Volume</u>
Pond A - 13' x 45' =	585 s.f.	x 0.5' =	292.5 c.f.
Pond B - 14' x 45' =	630 s.f.	x 0.5' =	315.0 c.f.
Pond C - 18' x 75' =	1,350 s.f.	x 0.5' =	675.0 c.f.
Pond D - 19' x 48' =	912 s.f.	x 0.5' =	<u>456.0</u> c.f.
Total Pond Volume			1,738.5 c.f.

Pipe Volumes

	<u>Length</u>	<u>Volume</u>
Pipe #1 - 62' - 48"	12.56 c.f./f. =	778.7 c.f.
Pipe #2 - 115' - 48"	12.56 c.f./f. =	<u>1,444.4</u> c.f.
Total Pipe Volume		2,223.1 c.f.

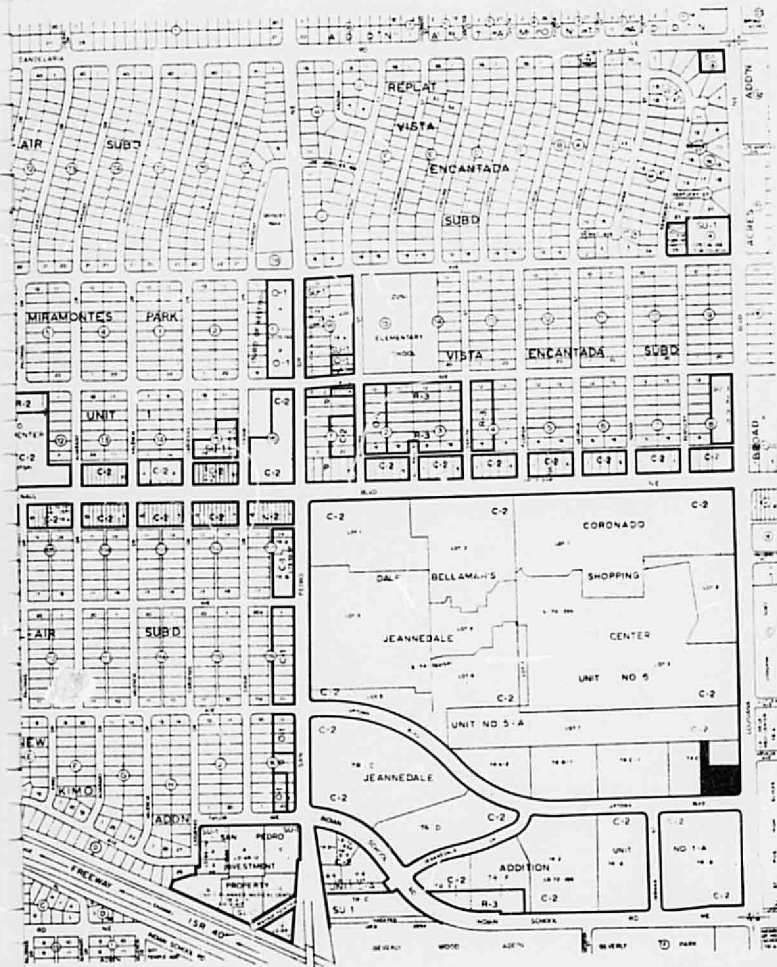
Total Retention Volume = 3,962 c.f.

Total Required Retention Volume

(39,570 s.f.)(0.1) = 3,957 c.f.

FIGURE 1.
LOCATION MAP

DATE
RECEIVED _____



H-18-7
SUBDIVISION PLANNING DEPARTMENT

APPLICANT

NAME: Richard Elliott Arch
ADDRESS: 5105 Menaul Blvd. N.E.
Albuquerque, New Mexico
PHONE: 883-8485
SIGNATURE: _____

LOCATION OF PARCEL

LOT NO: C-2-A-2-3 BLOCK NO: _____
SUBDIVISION: Jeannedale
STREET ADDRESS: Louisiana and
Uptown Blvd.
CURRENT ZONING: C-2

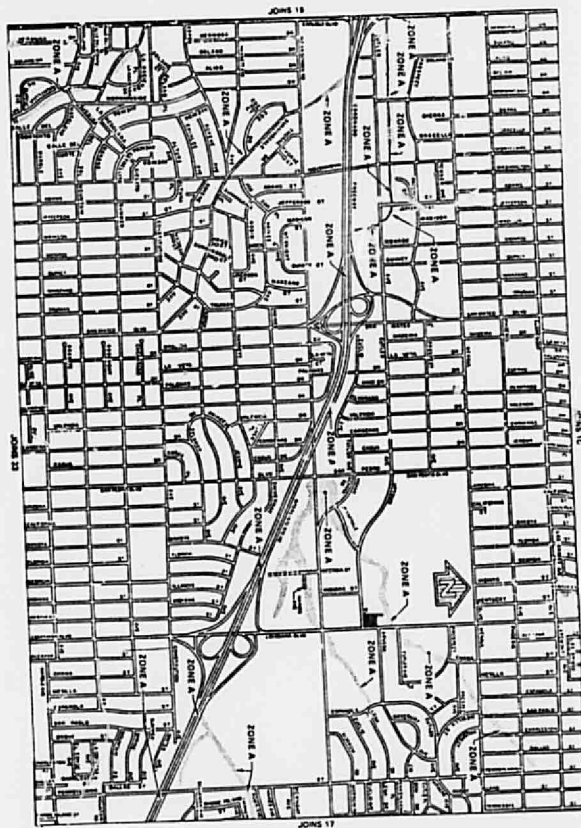


FIGURE 2

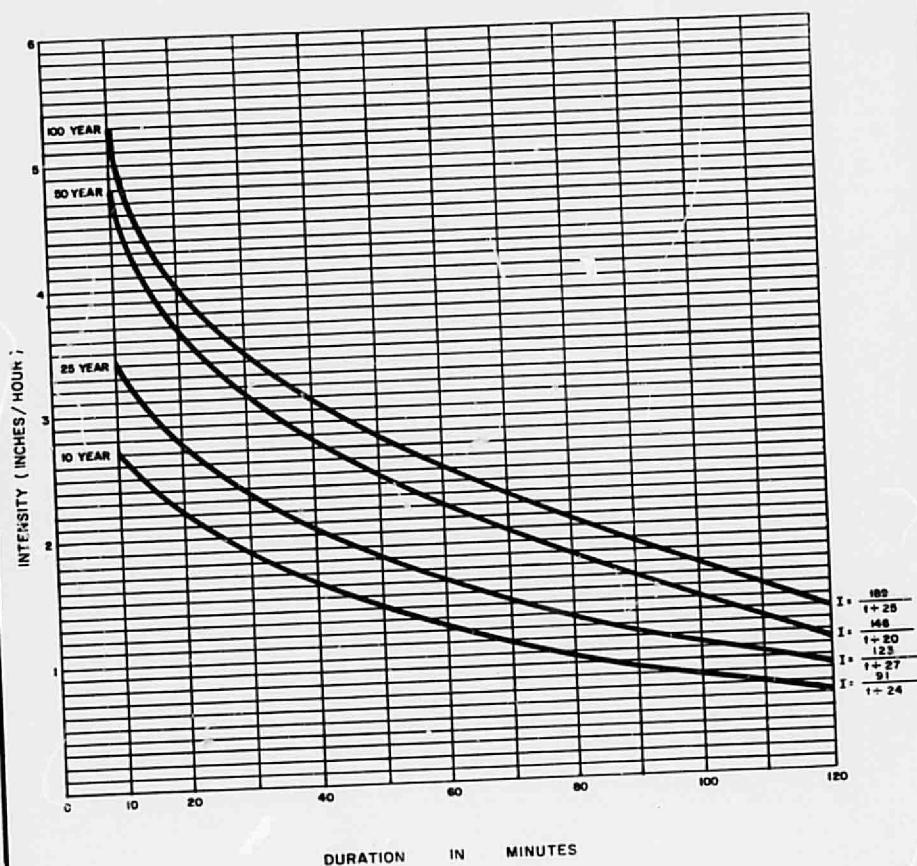


FIGURE 3

INTENSITY DURATION
FREQUENCY CURVES