



February 4, 1980

Mr. Bruno Congeliano
City Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RECEIVED
FEB 07 1980
CITY ENGINEER

Re: Proposed Plans for Garcia Mobile Home Park

Dear Mr. Conegliano:

This letter is to confirm your discussion with Earl LeClaire, of Bohannan-Huston, Inc., on January 31, 1980 concerning the development and proposed grading and drainage plans for the above-referenced project.

The topics discussed and found to be acceptable solutions were as follows:

1. The proposed "internal" drainage plans and ponding concepts discussed at the meeting are satisfactory.
2. Required retaining walls are acceptable as long as footing remains within property boundary. Concrete slope paving is also acceptable as a means of slope stabilization. Areas of slope paving may be allowed to drain away from the site where this type of construction is employed.
3. If a privacy fence is built at ground level within "park" it shall be constructed in accordance with the zoning requirements.

Thank you for your assistance and help.

Sincerely,

Michial M. Emery, P.E.
Vice President

EL/mnb
Job No. 79-181

BOHANNAN HUSTON INC.



November 7, 1979

Mr. Bruno Conegliano
Assistant City Engineer
— Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Garcia Mobile Home Park Drainage Report

Dear Mr. Conegliano:

This is to confirm the results of our meeting on Friday, November 2, 1979 in Mr. Dick Heller's office, concerning the above-referenced drainage report.

First, one hundred percent (100%) retention from the site will be necessary due to limitations of the outfall from the site. Second, in accordance with your suggestion, the water running down Sunset Gardens will be routed to bar ditches for infiltration using estate type curb and gutter instead of standard city curb and gutter. Third, there is no access to Corregidor Place Drive from the mobile home site; therefore, there exists no need at this time to improve that street.

Our firm does not have a contract with the present owners of Garcia Mobile Home Park to do the street design nor resulting detailed grading plan for the site. We are proposing that the drainage report be approved in concept when the flows on Sunset Gardens are computed and transmitted to you.

If there are any questions, please contact Ron R. Bohannon or me of this office.

Sincerely yours,

Michial M. Emery, P.E.
Vice President

cc: Mr. Bill Thompson
Mr. Don Keith

RRB/js
Job No. 79-086.1



November 7, 1979

Mr. Bruno Conegliano
Assistant City Engineer
— Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

K11-013

RECEIVED
NOV 09 1979
CITY ENGINEER

Re: Garcia Mobile Home Park Drainage Report

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This is to confirm the results of our meeting on Friday, November 2, 1979 in Mr. Dick Heller's office, concerning the above-referenced drainage report.

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If there are any questions, please contact Ron R. Bohannon or me of this office.

Sincerely yours,

Michael M. Emery, P.E.
Vice President

cc: Mr. Bill Thompson
Mr. Don Keith

RRB/js
Job No. 79-086.1



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 2, 1979

Mr. Ron Bohannon
Bohannon-Huston, Inc.
1425 Carlisle Blvd., N.E.
Albuquerque, N.M. 87107

Dear Mr. Bohannon:

Re: Garcia Mobile Home Park (Z-78-31)

The City Engineering Division has forwarded me a copy of your recently submitted revised site development plan.

This revision is of such a magnitude that it must be sent to the Environmental Planning Commission for their consideration and possible approval prior to development of this plan.

Gene Mares of our staff will be happy to work with you in scheduling this hearing.

Sincerely,

Laurence J. Frishman
City Planner

LJF:bg

LF:DAP:bg

cc: Donald Keith, 7116 Edwine Court, S.E. 87110
Gene Mares, Planning Division
Bruno Conegliano, Engineering Division ✓

MUNICIPAL DEVELOPMENT DEPARTMENT

Laurence J. Frishman, A.P.A.
City Planner

PLANNING DIVISION

Telephone (505) 766-7422



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

October 19, 1979

Mr. Ron Bohannon
Bohannon-Huston, Inc.
1425 Carlisle Blvd. N.E.
Albuquerque, New Mexico 87107

Re: Garcia Mobile Home

Dear Mr. Bohannon:

The drainage report for the captioned development has been reviewed, and has been found not in compliance with the comments made by the City Engineer's Office in regard to the planning action Z-78-31.

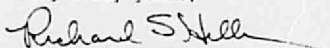
Those comments indicate that 100% retention of the runoff is required. I further find that the plan attached to the drainage report does not correspond to the plan on file with the Planning Department. More specifically, the plan attached to the drainage report indicates possible access to this property from Corregidor Place Southwest. The requirement of the Planning Commission, that Sunset Garden Rd. be paved, will have to be amended to request the paving of Corregidor Place, if access from the east is planned.

I understand from conversation with Mr. Conegliano, that substantial fill operations were conducted to this site which resulted in:

1. Obliteration of the natural ponding areas receiving the runoff from Sunset Garden Rd., and Corregidor Pl.;
2. Encroachment by the fill of the right-of-way of Salvador Road.

The consequences of these operations, which may have been performed without any City knowledge or approval, must be remedied. Particularly, in view of the fact that no drainage outfalls are now available to the public streets surrounding this parcel, and since the developer will be required to design and construct both Sunset Drive and Corregidor Place, the drainage report must indicate what provisions will be made for the drainage of said roadways.

Very truly yours,


Richard S. Heller
City Engineer

RSH/fs

cc - Richard Leonard, Phyllis Dow, Bruno Conegliano, Larry Frishman,
Drainage File

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

BOHANNAN-HUSTON INC.



4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 861-2000

ENGINEERS PLANS AND PHOTOGRAMMETRY

October 3, 1979

Mr. Bruno Conegliano
City Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Garcia Mobile Home Park

Dear Mr. Conegliano:

Transmitted herewith are two copies of the Drainage Report for the proposed Garcia Mobile Home Park for your review and approval.

If you should have any questions, please contact me at this office.

Sincerely,

Charles M. Easterling, P.E.
Division Manager
Water Resources

cc: Mr. Donald Keith

Enclosures

BM/rv
Job No. 79-036

RECEIVED
OCT 04 1979
CITY ENGINEER

BOHANNAN-HUSTON INC.



4125 CARLSLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

September 12, 1979

RECEIVED
SEP 24 1979
CITY ENGINEER

Mr. Bruno Conegliano
City Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Garcia Mobile Home Park

Dear Mr. Conegliano:

The drainage report for the Garcia Mobile Home Park, consisting of 10 acres within the City of Albuquerque, located on Lots 209 and 210 at the southwest corner of Sunset Gardens Road and Corregidor Drive, was submitted to the City of Albuquerque on July 17, 1979 for approval. We have made three telephone inquiries since that date as to the status of this report with no results, not even an acknowledgement that the City has received the report.

Please inform me as to the current status of this report and the date when we may expect it to be approved.

If you should have any questions concerning this matter, please contact Chuck Easterling or me at this office.

Sincerely,

Michial M. Emery, P.E.
Vice President

cc: Mr. Richard Heller

JF/rv
Job No. 79-086

BOHANNAN-HUSTON INC.



4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881 2000

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

July 17, 1979

Mr. Bruno Conegliano
City Hydrologist
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RECEIVED

JUL 18 1979

Re: Garcia Mobile Home Park

CITY ENGINEER

Dear Mr. Conegliano:

Transmitted herewith are two copies of the Drainage Report for the proposed Garcia Mobile Home Park for your review and approval.

If you should have any questions, please contact me at this office.

Sincerely,

Charles M. Easterling, P.E.
Division Manager
Water Resources

cc: Mr. Donald Keith

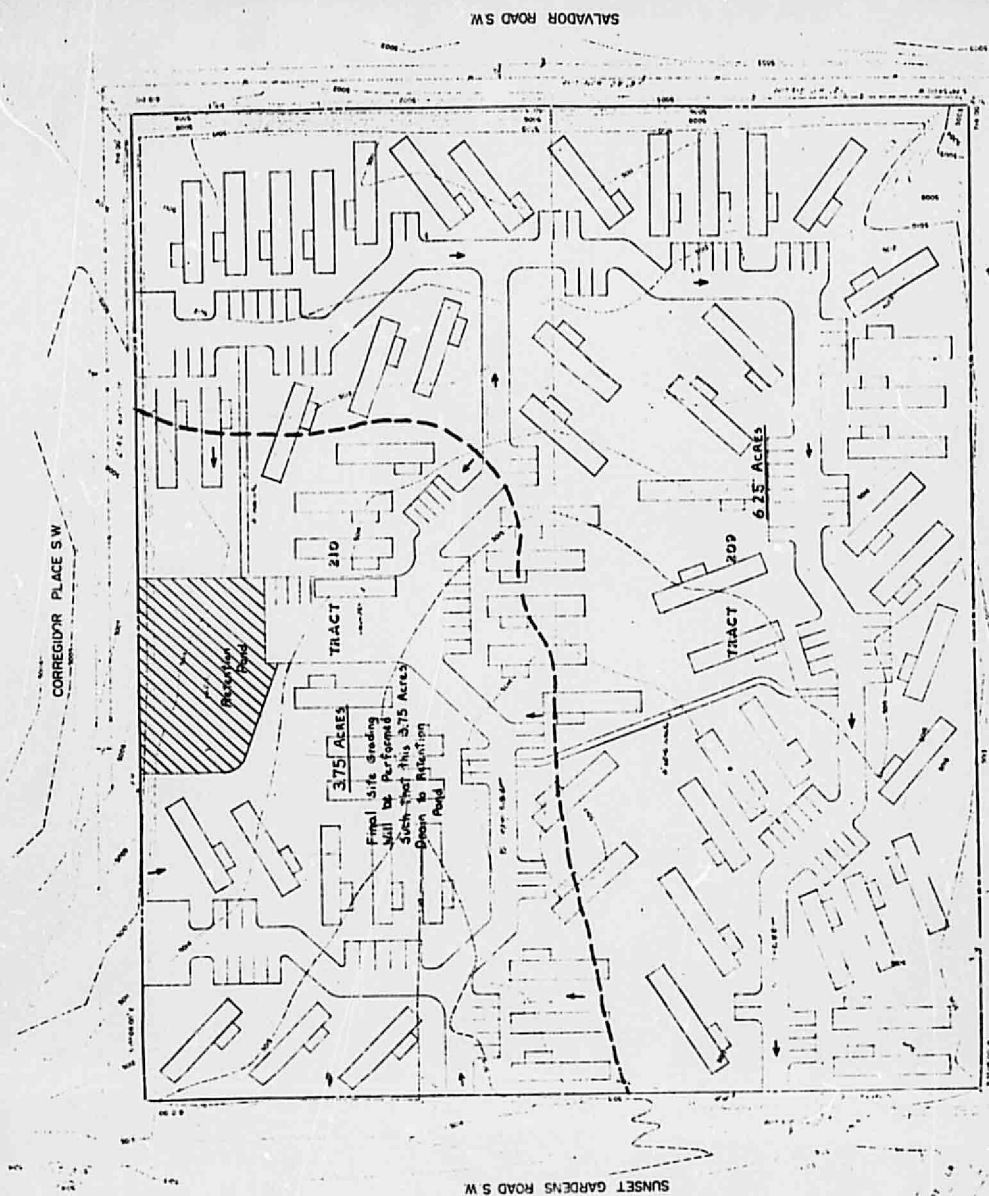
Enclosures

BM/rv
Job No. 79-086

Ph.1

about a year and a half ago we received a
complaint from the owner of lot 203 that the
owner of lot 209 & 210 was bringing in concrete
rubble & dirt on his lots into a friendly neighbor hood
In so doing he obliterated the natural ponding areas
(See attached aerial photo) and now the water from
Sunset Garden a Corridor must go down the hill
What is the ordinance or policy that is most appropriate
to this case?

SURVEY FOR MR. RAY GARCIA
SUBDIVISION MAP OF TRACTS NO. 209 AND 210
IN THE CITY OF
TRACTS ALLOTTED FROM THE TOWN OF ATRISCO GRANT
IN SANTIAGO COUNTY, NEW MEXICO
CORRECTOR PLACE SW
SUNSET GARDENS ROAD S.W.
SALVADOR ROAD S.W.



CITY VIEW
MOBILE HOME PARK

GARCIA MOBILE
HOME PARK
DRAINAGE REPORT

JUNE 1979

BOHANNAN-HUSTON

INC.

4125 CARLISLE BOULEVARD, NORTHEAST, ALBUQUERQUE, NEW MEXICO 87107 (505) 881-2000

RECEIVED

JUL 18 1979

CITY ENGINEER



**GARCIA MOBILE
HOME PARK
DRAINAGE REPORT**

JUNE 1979

Prepared for
Mr. Donald Keith
7116 Edwina Court S.E.
Albuquerque, NM 87110

Prepared by
Bohannon-Huston, Inc.
4125 Carlisle Blvd., N.E.
Albuquerque, NM 87107



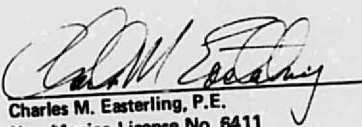

Charles M. Easterling, P.E.
New Mexico License No. 6411

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CALCULATIONS

PLATE I
PLATE II

PLATES

Location Map
Plat

DRAINAGE REPORT FOR GARCIA MOBILE HOME PARK

PURPOSE

The purpose of this report is to examine existing and future drainage conditions of the proposed Garcia Mobile Home Park for the 6-hour, 100-year storm.

PROJECT LOCATION AND DESCRIPTION

Garcia Mobile Home Park consists of 10 acres within the City of Albuquerque. Located on lots 209 and 210 at the southwest corner of Sunset Gardens Road and Corregidor Drive. The soil is gently sloping, sandy loam with very little vegetation. The soil on the parcel is identified in the Bernalillo County Soils Report as being in the hydrologic soil group "B".

METHODS OF ANALYSIS

Drainage analyses for the 100-year peak storm runoff were computed using the rational method as described in Master Drainage Plan done by Gordan Herkenhoff & Associates (1963).

Runoff volume from the property was calculated using the SCS runoff curve number (CN) method to transform rainfall data to runoff. In this study, it was determined that the CN for undeveloped conditions = 75 and for developed conditions CN = 80. A rainfall intensity value of 2.4"/6 hour for the 100-year storm was used for the SCS method.

EXISTING DRAINAGE

With the existing drainage conditions, the 10 acre tract of land for Garcia Mobile Home Park does not have any on-site ponding. At present, all runoff goes from the property onto existing dirt streets and into vacant lots.

For the 100-year frequency storm there will be a peak flow of 16 cfs and a runoff volume of .51 AC/FT, none of which is retained.

DEVELOPED CONDITIONS

In the developed condition, the peak flow increases from 16 cfs to 26 cfs and the volume increases from .51 AC/FT to .68 AC/FT.

CONCLUSION

As a result of this parcel of land being developed, the runoff volume has increased .17 AC/FT and the peak flow rate has increased by 10 cfs.

A solution to this problem would be to make the proposed park area also into a retention pond. By limiting the drainage area to 3.75 acres which drains into the park area, the peak flow out of the Mobile Home Park will remain the same (as existing conditions of 16 cfs) and the volume of runoff will decrease .08 AC/FT to .43 AC/FT.

The park area is approximately 12,888 ft.² with a depth of 1.5 feet, side slopes of 10:1 (max) and the bottom area of the park being 2212.80 ft.², the park will retain .26 AC/FT and a peak flow of 10.0 cfs.

Appendix A

Existing Conditions

Using Rational Formular to find peak flow

$$Q = C \cdot I \cdot A$$

$$= (.30)(5.40)(10.00)$$

$$= 16.20 \text{ CFS}$$

(Use 16 CFS)

$$C = 0.3$$

$$T_c \leq 15 \text{ min} \Rightarrow i = 5.40 \text{ in/hr}$$

$$\text{Area} = 10.0 \text{ Acres}$$

Volume

Using SCS method

$$CN = 75$$

$$\text{Rainfall intensity} = 2.4''$$

$$\text{Volume} = .61''/12 \times 10 \text{ Acres}$$

$$\text{Volume} = .51 \text{ Ac/ft.}$$

Future Conditions

Peak flow

$$Q = C \cdot I \cdot A$$

$$= (.48)(5.40)(10.0)$$

$$= 25.92 \text{ CFS}$$

(Use 26 CFS)

$$T_c \leq 15 \text{ min} \Rightarrow i = 5.40 \text{ in/hr}$$

$$C = .85 \text{ for } 39\% \text{ of Area}$$

$$C = .25 \text{ for } 61\% \text{ of Area}$$

$$\text{Average } C = .48$$

Volume

$$CN = 69 \text{ for } 61\% \text{ of Area (Pervious)}$$

$$CN = 98 \text{ for } 39\% \text{ of Area (Impervious)}$$



PROJECT NAME

PROJECT NO

SUBJECT

SHEET 1

BY BM

CHE

OF 3

DATE

DATE

Average CN = 80
Rainfall Volume = 2.4"

.82 from SCS curve

$$\begin{aligned}\text{Volume} &= .82"/12 \times 10 \text{ Acres} \\ &= .68 \text{ Ac/ft}\end{aligned}$$

To maintain the same peak flow out of Mobile Home Park as existing conditions

Determine the size of Drainage Area into retention pond (using existing conditions of 16.20 CFS)
out of mobile Home Park

Peak flow to retention pond

$$Q = CIA$$

$$16.0 = (.48)(5.40)(\text{Area})$$

$$\text{Area} = 6.25 \text{ Acres (to drain out of property)}$$

$$10.0 - 6.25 = 3.75 \text{ Acres to retention pond}$$

$$Q = CIA$$

$$= (.48)(5.40)(3.75)$$

$$= 9.72 \text{ CFS to pond}$$

(Use 10 CFS)

Volume to retention pond @ CN = 80

$$\text{Volume} = .82"/12 \times 3.75 \text{ Acres}$$

$$= .26 \text{ Acre/ft to be stored}$$



PROJECT NAME
PROJECT NO
SUBJECT

SHEET 2 OF 3
BY BM DATE
CHK'D DATE

Volume (runoff not to be retained)

$$\begin{aligned}\text{Volume} &= .82"/12 \times 6.25 \\ &= .43 \text{ Ac/ft}\end{aligned}$$

Determine Ponding Area required to retain .26 Ac/ft

Requirements - .26 Ac/ft storage = 11,325.60 ft³
1.5 ft max. depth
10:1 max. side slopes
12,888.0 ft² top area

$$V = \left(\frac{\text{top area} + \text{Bottom area}}{2} \right) \times \text{Depth}$$

$$11,325.60 = \left(\frac{12,888.0 + \text{Bottom area}}{2} \right) \times 1.5$$

$$\text{Bottom Area} = 2212.80 \text{ ft}^2$$

Check Side Slopes

$$\frac{\sqrt{12,888.0} - \sqrt{2212.80}}{2} > 15$$

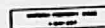
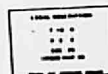
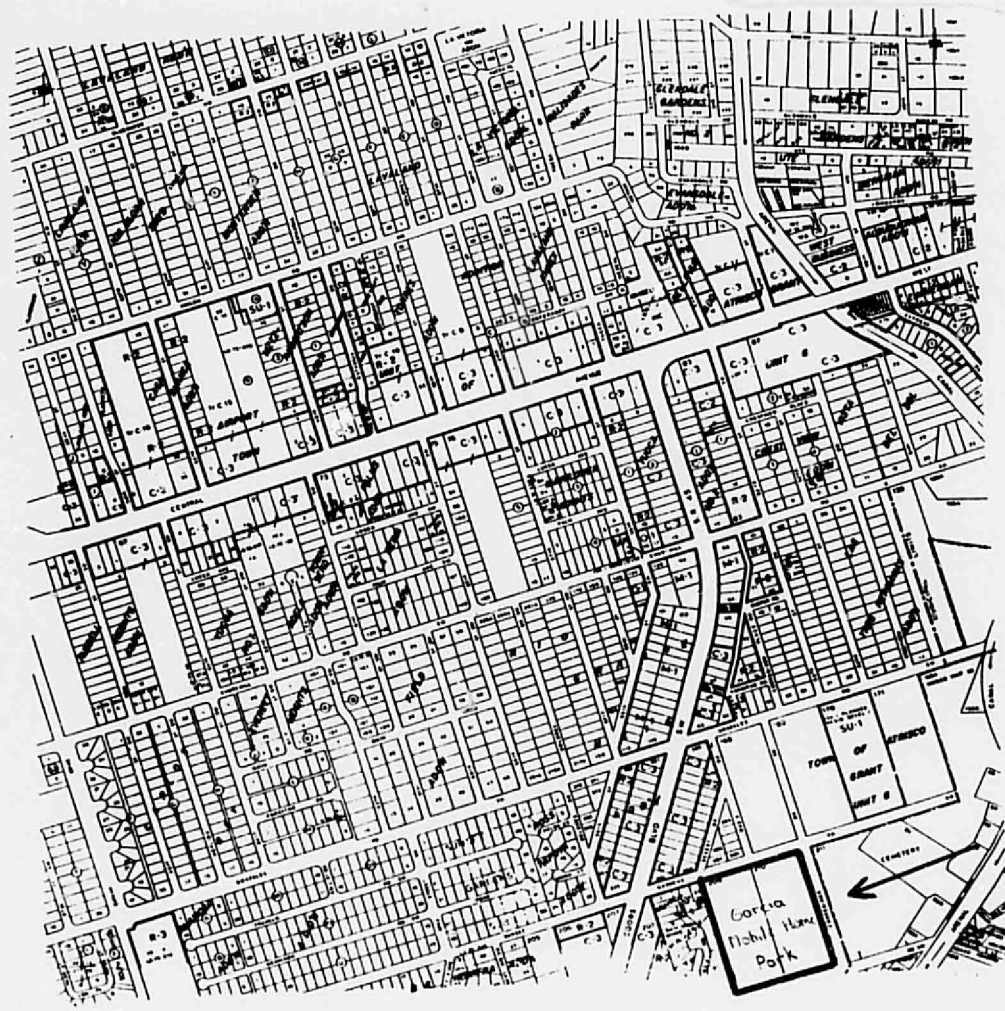
$$66.48 > 15$$

side slopes are
greater than 10:1



PROJECT NAME
PROJECT NO
SUBJECT

SHEET 3 OF 3
BY BM DATE
CHKD DATE



K-11-Z