LAVA SHADOWS

SECTOR DEVELOPMENT PLAN
SD-80-5

Submitted: July 1, 1984

Prepared for:

Lava Shadows, Ltd.
P.O. Box 26564
Albuquerque, New Mexico 87102

By: John J. Johnson, IV, Architect
80 Calle San Blas, N.E.
Albuquerque, New Mexico 87109

PH. 821-3202

SIXTH COUNCIL

COUNCIL BILL NO. R-193 ENACTMENT NO. 91-1984

SPONSORED BY: FRED BURNS

RESOLUTION

ADOPTING THE LAVA SHADOWS SECTOR DEVELOPMENT PLAN.

WHEREAS, the Council, the Governing Body of the City of Albuquerque, has the authority to adopt plans for physical development within the planning and platting jurisdiction of the City as authorized by New Mexico Statutes and by the City Charter as allowed under home rule provisions of the Constitution of New Mexico; and

WHEREAS, the Council recognizes the need for Sector Development Plans to guide City, County, and other agencies and individuals to ensure orderly development and effective utilization of resources; and

WHEREAS, the Lava Shadows Plan Area as shown on the attached maps and described in the attached text is under multiple ownership and needs a plan to assure coherent development; and

WHEREAS, the adoption of the Lava Shadows Sector Development Plan is consistent with and will lead to the implementation of the Albuquerque/Bernalillo County Comprehensive Plan and the Northwest Mesa Area Plan; and

WHEREAS, the Environmental Planning Commission in its advisory role on all matters related to planning, zoning, and environmental protection has approved and recommended the adoption of the Lava Shadows Sector Development Plan at a public hearing July 22, 1982.

BE IT RESOLVED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF ALBUQUERQUE:

Section 1. The Lava Shadows Sector Development Plan, attached hereto, is hereby adopted as a rank three plan, consistent with and leading to the implementation of both the Albuquerque/Bernalillo County Comprehensive Plan

Bracketed-Material] - Deletion

and the Northwest Mesa Area Plan.

Section 2. All development activities within the plan area, including those of the public and private sectors, shall be guided by the Sector Development Plan.

Section 3. The zoning of areas annexed concurrently with or after adoption of this plan will be guided by Map 1 attached hereto.

Section 4. In publishing the attached plan, the Mayor is authorized to reformat it and to delete redundant portions, minutes, and the September 1980 Drainage Concepts study.

PASSED AND ADOPTED THIS 15th DAY OF OCTOBER, 1984.

BY A VOTE OF 7 FOR, 0 AGAINST, AND 1 ABSTAIN.

YES: 7
EXCUSED: BURNS
ABSTAIN: BACA

Thomas W. Hoover, President
City Council

APPROVED THIS 15th DAY OF November, 1984.

Harry E. Kinney, Mayor
City of Albuquerque

ATTEST:

City Clerk

[Bracketed Material] - Deletion

/mt

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REFERENCE PAGE

LAVA SHADOWS SECTOR DEVELOPMENT PLAN, SD-80-5

Cross referenced to: AX-80-33 and Z-80-156

APPROVED:

Parks and Recreation Department_____

Water Resources Department_____

Traffic Engineer_____

City Engineer_____

Planning Department_____

SUBDIVISION DATA: SP-83-334

Case No. 07-06-0221

Zone Atlas Index No. F-10

Gross Subdivision Acres: 204.0793

Total Number of Lots Created: N/A

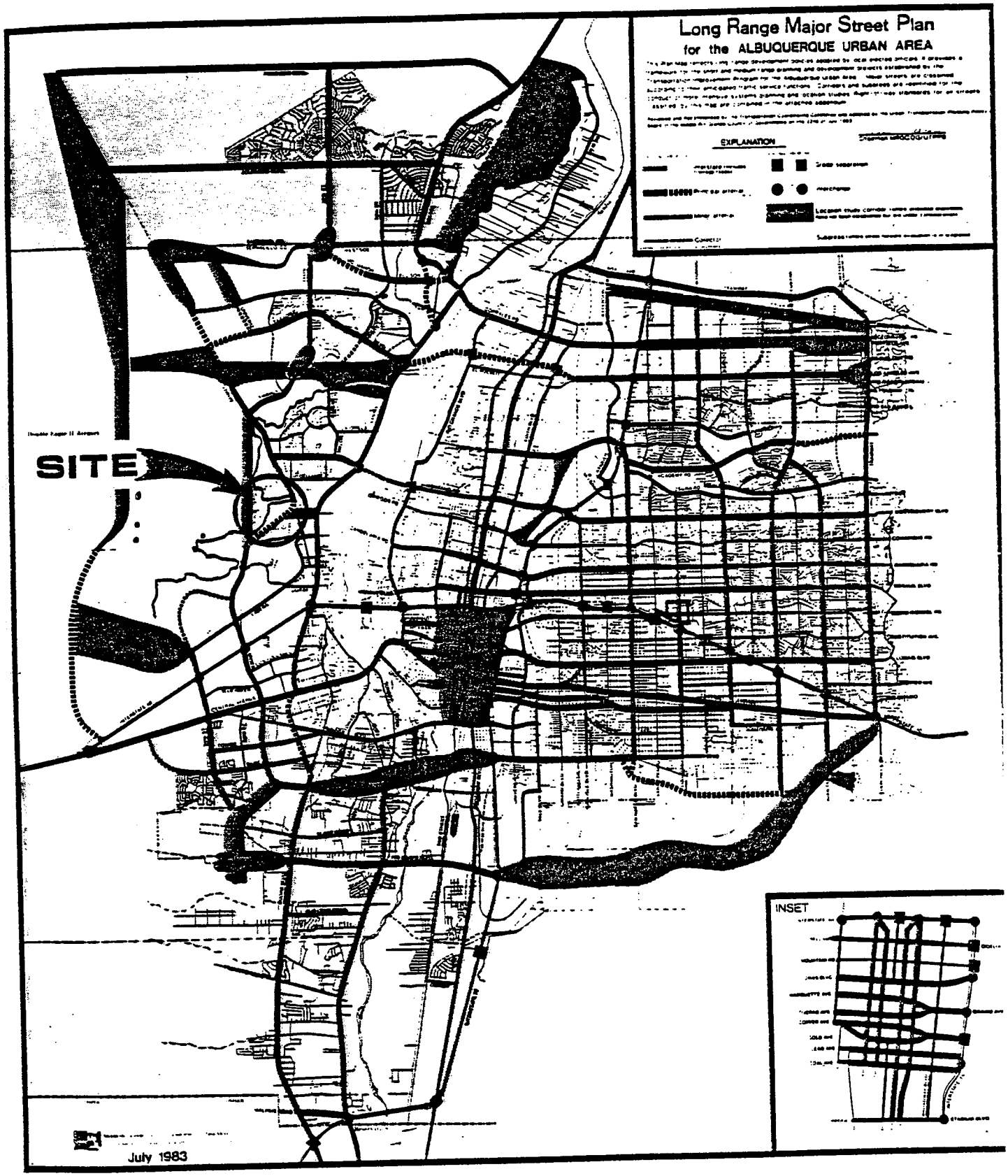
Summary Plat for Purposes of Annexation filed and recorded November 17, 1983, Vol C-22, Pg. 123. #83 79053.

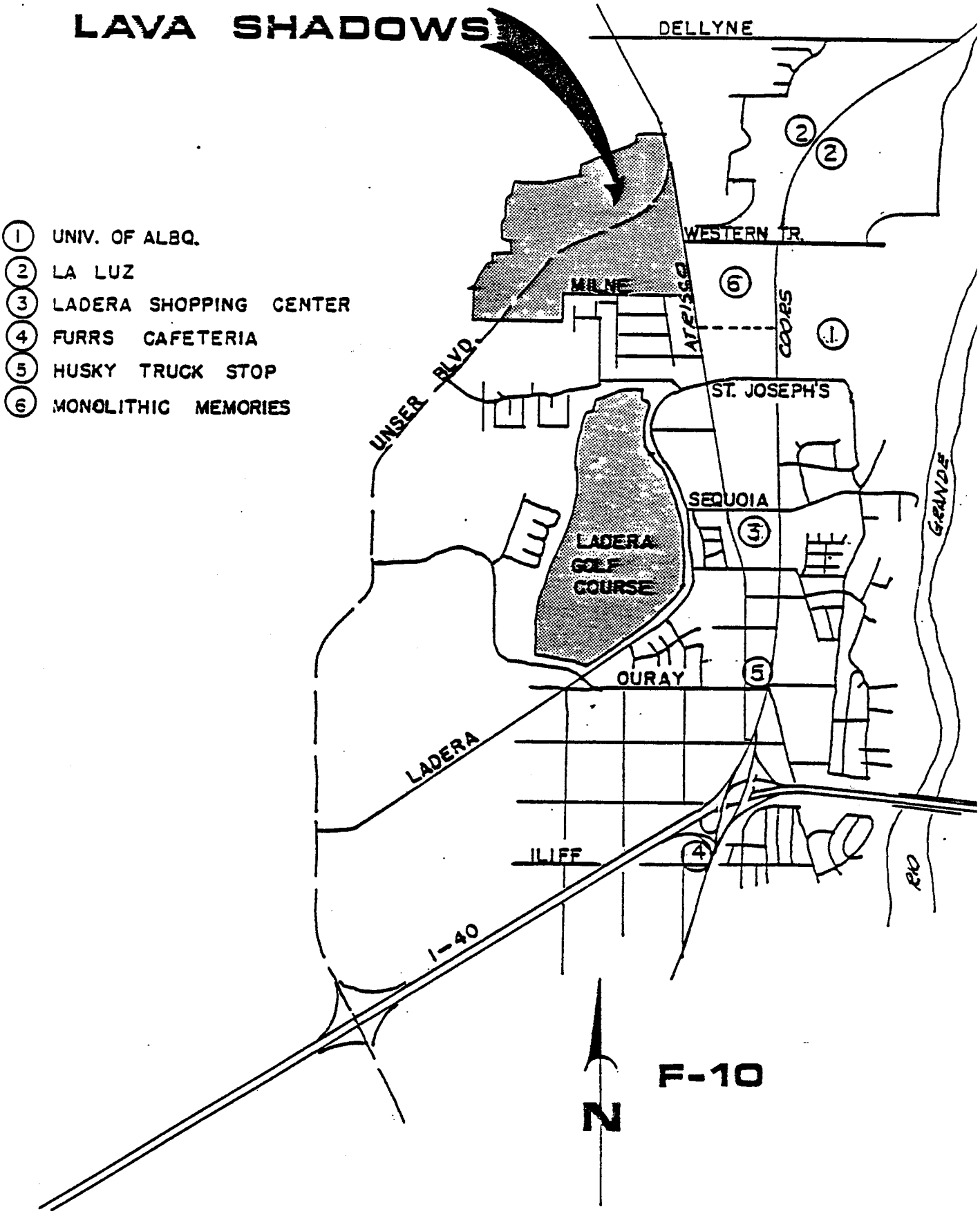
SPECIAL NOTE

The Lava Shadows Sector Development Plan encompasses an area of 204-plus acres. Within this area are 30 individual property owners. While this Sector Plan establishes and governs land use, it cannot and does not usurp individual property owners' rights.

Because of the multiple ownership pattern, the EPC will receive development plans on an individual basis. Each of these plans must individually satisfy all applicable City requirements.

Such items as dedication for open space, easements and rights-of-way are individual matters which the City will negotiate with each property owner at the appropriate time and in the appropriate manner.


Long Range Major Street Plan
for the ALBUQUERQUE URBAN AREA
EXPLANATION
SITE
INSET
July 1983


LAVA SHADOWS
1 UNIV. OF ALBQ.
2 LA LUZ
3 LADERA SHOPPING CENTER
4 FURRS CAFETERIA
5 HUSKY TRUCK STOP
6 MONOLITHIC MEMORIES
DELLYNE
WESTERN TR.
MILNE
ATRISCO
COORS
UNSER BLVD.
ST. JOSEPH'S
SEQUOIA
LADERA GOLF COURSE
GRANDE
OURAY
LADERA
ILIFF
RIO
I-40
N
F-10

I. PLANNING

A. HISTORY

March 6, 1980	Initiate SDP
March 7, 1980	Authorization to start SDP
October 31, 1980	Original submittal
November 25, 1980	AMAFCA Resolution 80-14
December 18, 1980	EPC Deferral
February 19, 1981	EPC Approval of SDP
March 27, 1981	Notification of Appeal
April 13, 1981	City Council hearing, Deferred
April 27, 1981	City Council hearing - Approval of Annexation and Zoning - SDP remanded to EPC
June 18, 1981	EPC Deferred SDP pending Unser Blvd. alignment study
May 27, 1982	EPC unanimous approval of Unser Blvd. Alternate II alignment
July 22, 1982	EPC unanimous approval of SDP incorporating Alternate II
July 25, 1982	Annexation Plat complete - start owner signature process
October 11, 1983	Revision to Plat due to APS
October 11, 1983	DRB approval subject to City Surveyor
November 11, 1983	Approval by City Surveyor
November 17, 1983	Summary Plat filed and recorded

I. PLANNING

B. PARAMETERS

1. TRANSPORTATION

Coordination with Long Range Major Street Plan and subject to Unser Blvd. Alternate II as approved.

Additional roads coordinated with Transportation Department and Traffic Engineering.

2. DRAINAGE

"Basin 16, Ladera Study Area", commissioned jointly by the City of Albuquerque and AMAFCA.

3. OWNERSHIP AND EXISTING DWELLINGS

The SDP area contains 30 individual property owners with some existing dwellings.

4. NORTHWEST MESA AREA PLAN

5. ALBUQUERQUE/BERNALILLO COUNTY COMPREHENSIVE PLAN

C. ANNEXATION

Summary Plat filed and recorded November 17, 1983.

D. LAND USE PLAN

Map 1 incorporates all Departmental comments, Alignments, Easements, Densities and Land Uses approved to date.

D. LAND USE PLAN

1. DEPARTMENTAL COMMENTS

This section contains all comments, criteria and guidelines as submitted to and approved by the Environmental Planning Commission on July 22, 1982.

The reference in parenthesis following the comment denotes the department and comment number from the EPC agenda. Only comments of a specific nature are included in this section. Those comments of a background nature may be found in the complete agenda.

1. The loop road west of Unser should have 60' right-of-way with a 40' pavement with a widened section at Unser to match Western Trail to the east (should be a major-local street). (Traffic, 2)

2. Because of the curvature on Unser, Paquin Trail probably should not be tied in to Unser. (Traffic, 4)

3. Milne Drive right-of-way should be widened to 68', with an additional 10' of right-of-way along the school property for a parking/loading bay. (Traffic, 5)

4. Atrisco Drive from Western Trail North, should not intersect Unser where Unser connects with Atrisco to the north. (Traffic, 6)

5. Unser Boulevard with a 156 foot right-of-way following Alternate II of the Unser Centerline Study. (Consideration should be given to placing the centerline on the southern edge of the north sump.). (Transportation, 1)

6. Western Trail should be identified between Unser and Atrisco. A right-of-way designation has not been assigned, minor arterial requirements are a minimum consideration. Also, a bikeway has been identified on this facility. (Transportation, 2)

7. An extension of Western Trail west of Unser (Lava Shadows Loop) should be identified as intersecting with Unser Boulevard at two locations. One at Western Trail (east of Unser), the other 1,000 feet or more south, or as per the City Traffic Engineer. Right-of-way as per the City Traffic Engineer (less than 800 dwelling units will be served between Unser Boulevard and the escarpment). (Transportation, 3)

8. Paquin Trail should be maintained as a local road (unimproved) to serve existing development, and to provide an alternate for the 50 foot trail at the base of the escarpment as per the Northwest Mesa Area Plan. Direct access of Paquin Trail to Unser should be discouraged, although a right turn-in/right turn-out movement may be

allowed at the discretion of the City Traffic Engineer. (Transportation, 4)

9. The escarpment area in the Aberle property should be identified as future open space as per the Northwest Mesa Area Plan. (Transportation, 6)

10. This location and geography of the subject Sector Development Plan make it desirable to utilize the SU-1 Special Use Zone classification due to proximity to the escarpment, Unser Boulevard, and existing developed properties. (Planning findings, 3)

11. This Sector Plan is strictly schematic and the details will be worked out at a future date. The Environmental Planning Commission will receive the specific site development plans for each parcel and will address themselves to specific concerns at that time. (Planning findings, 4)

12. This Sector Plan is strictly schematic and the details will be worked out at a future date. The Environmental Planning Commission will receive the specific site development plans for each parcel and will address themselves to specific concerns at that time. (Planning findings, 5)

13. All utilities (particularly telephone and electricity) are to be underground. (Planning findings, 6)

14. Building height is limited by applicable zoning as well as consideration for the following:

a. The buildings silhouetted against the escarpment should not extend above the escarpment.
b. The buildings silhouetted against the escarpment should enhance rather than deface the natural resources.
c. The building heights should not obstruct views to the escarpment as well as views from the escarpment.
d. The building heights should be limited to 26 feet from grade to top of parapet on the high side unless sufficient information to justify variation is produced. All other guidelines concerning heights would remain applicable.
e. The buildings should be sited away from the escarpment zone (generally defined as the area from the top of the escarpment to the base) sufficiently to provide solar access to all levels of the building adjacent to the escarpment. (Planning findings, 7)

15. The siting of buildings should reflect the following considerations:

a. The proposed locations' proximity to transit systems. (The proximity of high density residential to transit service is considered important.)
b. Minimize disruption of existing site topography. (Show existing topography as well as proposed grading.)
c. Cluster buildings to define activity nodes.

15. Continued

d. Locate buildings to provide mixed use, local community needs, and a sense of neighborhood.
e. Locate large multi-purpose facilities so that the surrounding communities can benefit from them. Time frame usage as well as access to facilities is important.
f. Varieties of setback regulations should be considered which will enhance and reinforce the unique design of specific projects. (Planning findings, 8)

16. When locating parking areas:
a. Parking areas should be properly located to provide clear, well-defined, and safe access and egress from the street, and should be well landscaped with shade trees.
b. The number and location of access and egress points into new development from local streets, collector streets, and arterials should be limited as well as carefully designed in terms of 1) minimizing additional congestion, 2) effect on existing traffic flow, 3) demands made for additional lighting, signal devices, roadway signage and, 4) pedestrian and bicyclists' safety.
c. Parking areas should be appropriately screened from the public street.
d. Parking areas should be internally shaded and segmented in order to provide relief from large expanses of parked cars and paved areas. (Planning findings, 9)

17. In building design:
a. The colors and materials of the proposed development should be attractive as well as present a sense of permanence.
b. The building colors should harmonize with the landscape and surrounding development as well as minimize visual pollution.
c. Solar panels, either by location or orientation, should not produce reflection or heat gain nuisances to eigher the inhabitants of adjacent properties, pedestrians or motorists.
d. The visual effect of mechanical units and equipment (vents, evaporative coolers, etc.) should be minimized by screening, painting or location. (Planning findings 10)

18. In signage design:
a. Limit the type of signage with a development to low key directional, numerical and identification.
b. Building identification directly applied to the facade or fascia should be appropriately designed to harmonize with the style and the image of the development.
c. Free standing signage should be limited to one (1) major sign no higher than six (6) feet. The design of the sign should reflect the image of the development and be carefully illuminated to prevent conflict with

18. Continued

the street lighting. (Planning findings, 11)

19. Residential densities and areas shown on Map 1 are maximum. No area may have a density or use increased. Any area may request a lesser use.

20. Zero lot lines, all sides in SU-1 land areas.

21. Low level lighting wherever possible unless required for safety.

22. Landscaping:
a. Detailed landscaping plans required for all areas.
b. Escarpment and mesa area suggests higher use of indigenous planting.

23. Drainage:
a. The Ladera Basin 16 Drainage Report was commissioned jointly by the City of Albuquerque and AMAFCA, and any costs for revisions and/or updates to this report should be borne jointly by the City of Albuquerque and AMAFCA.
b. The Ladera Basin 16 drainage Report by Mr. Chris Weiss of Consultants Terra Sol and AMAFCA Resolution 80-14 govern the Lava Shadows Sector Development Plan area.
c. The Unser Boulevard Centerline Study and the subsequent acceptance of the Alternate II Unser alignment necessitates some revision to the Basin 16 plan.
d. Until such time as the storm drain system recommended in the Ladera Basin 16 report is implemented, it is the responsibility of individual developers to provide interim drainage solutions satisfactory to the City Engineer.
e. Until such time as the storm drain system is implemented, the volumes of the existing playas may not be reduced.

24. Before any future plans, plats, replats, summary plats or building permits for Lava Shadows are approved, an updated drainage plan for Basin 16 must be resubmitted. The need for this resubmittal is the realignment of Unser Boulevard and the proposed change of the south sump configuration on the sector plan. It will be necessary that, at the time the roads are constructed, the storm drain outfall for both the north and south sump be constructed, or an interim solution be proposed that is acceptable to the City Engineer. Operation and maintenance of interim facilities will be the responsibility of the property owners. (EPC finding, 10)

25. No new building/buildings west of Unser Blvd. may be white or of a very light color. The natural earth tones of the area should govern so that the demarcation of natural to constructed will be more gradual than harsh.

26. High density areas, particularly those in the 18/20 DU/AC area, will be subject to extra scrutiny as to mass, hieght and density. (EPC finding, 8f)

E 1-01-3

12

DESCRIPTION

That certain parcel of land situate within Sections 34 and 35, T11N, R2E, N.M.P.M. and a portion of the Town of Albuquerque Grant, Bernalillo County, New Mexico lying west of Atrisco Drive N.W., north of Sloans Acres and Katherine-Nichole Addition and east and south of the City of Albuquerque's La Boca Negra Park and being more particularly described as follows:

Beginning at the south quarter corner (S1/4) of said Section 34, being marked by a United States Bureau of Land Management (USBLM) brass cap marked "S34-1/4-S3" (being a point on the northerly boundary of the Katherine-Nichole Addition as filed for Public Record in the Office of the Bernalillo County Clerk on April 29, 1982 in Book C-19, page 131); whence for a tie the Albuquerque City Surveyor's Monument "Falls" bears N 88° 05' 00" W, a distance of 1329.03 feet; thence,

N 89° 37' 30" W, 658.10 feet along the south line of said Section 34 to the southwest corner of the parcel herein described; thence,

N 00° 11' 16" W, 663.58 feet to a #5 rebar; thence,

N 89° 40' 59" W, 66.19 feet; thence,

N 47° 15' 09" E, 50.77 feet to a drill hole in a rock (no brass cap in place); thence,

N 25° 30' 11" E, 337.73 feet to a 1-1/2 inch brass cap marked "LS 4117 $\frac{1}{9}$" in place; thence,

N 50° 49' 08" E, 205.56 feet to a #5 rebar in place; thence,

N 01° 02' 00" E, 192.07 feet to the northerly line of the SE1/4SW1/4 of said Section 34; thence,

S 89° 51' 02" E, 383.35 feet along said northerly line to a USBLM brass cap marked "CS 1/16 Sec 34" in place; thence,

N 00° 06' 15" E, 148.28 feet along the north/south midsection line of said Section 34; thence,

N 89° 43' 45" W, 59.05 feet to a Point of Curvature (PC); thence,

Northwesternly, 69.23 feet along the arc of a curve to the right (said arc having a radius of 51.35 feet, a central angle of 77° 15' 00" and a long chord which bears N 51° 06' 15" W, a distance of 64.11 feet) to a Point of Tangency (PT); thence,

N 12° 28' 45" W, 140.45 feet to a Point of Curvature (PC); thence,

Northernly, 84.70 feet along the arc of a curve to the right (said arc having a radius of 187.01 feet, a central angle of 25° 57' 00" and a long chord which bears N 00° 29' 45" E, a distance of 83.98 feet) to a Point of Tangency (PT); thence,

N 13° 28' 15" E, 147.74 feet to a Point of Curvature (PC); thence,

Northernly, 208.82 feet along the arc of a curve to the left (said arc having a radius of 563.49 feet, a central angle of 21° 14' 00" and a long chord which bears N 02° 51' 15" E, a distance of 207.63 feet) to a Point of Tangency (PT); thence,

N 07° 45' 45" W, 135.70 feet to a Point of Curvature (PC); thence,

Northernly, 80.06 feet along the arc of a curve to the right (said arc having a radius of 140.99 feet, a central angle of 32° 32' 00" and a long chord which bears N 08° 30' 15" E, a distance of 78.98 feet) to a Point of Tangency (PT); thence,

N 24° 46' 15" E, 176.89 feet to a Point of Curvature (PC); thence,

Northeasternly, 56.92 feet along the arc of a curve to the right (said arc having a radius of 326.11 feet, a central angle of 10° 00' 00" and a chord which bears N 29° 46' 15" E, a distance of 56.84 feet) to a Point On Curve (POC) on said north/south midsection line of Section 34; thence,

N 00° 06' 15" E, 144.35 feet along said north/south midsection line to a USBLM brass cap marked "C1/4 Sec 34" in place at the center quarter corner of said Section 34; thence,

N 89° 59' 20" E, 552.00 feet along the east/west midsection line of said Section 34; thence,

(CONT.)

83 79059

N 78° 59' 53" E, 776.11 feet; thence,

S 22° 24' 54" E, 29.08 feet; thence,

N 00° 11' 49" E, 178.81 feet along the easterly line of the SW1/4NE1/4 of said Section 34, to a 1-1/2 inch brass cap marked "LS 411" 44.18C" in place; thence,

N 74° 05' 58" E, 755.45 feet; thence,

N 57° 38' 35" E, 165.24 feet; thence,

N 08° 28' 23" E, 108.37 feet to the northerly line of Lot 22 as shown and designated on said subdivision plat of Section 34; thence,

S 89° 41' 23" E, 458.03 feet along said northerly line, extended easterly into Section 35, to the westerly right-of-way line of Atrisco Drive N.W.; thence,

S 12° 06' 56" E, 2978.19 feet along said westerly right-of-way line of Atrisco Drive N.W., across said Section 35 and into the Town of Albuquerque Grant; to the northeast corner of Sloans Acres, as filed for Public Record in the Office of the Bernalillo County Clerk on May 19, 1955 in Book C-19, page 10; thence,

S 89° 58' 07" W, 2337.09 feet across the northerly boundary of said Sloans Acres and then along the northerly boundary of said Katherine-Nichole Addition to a 1-inch iron pipe in place on the westerly boundary of the Town of Albuquerque Grant; thence,

S 00° 05' 13" W, 447.74 feet along the westerly boundary of said Katherine-Nichole Addition and along said westerly boundary of the Town of Albuquerque Grant to the closing corner of the southerly line of said Section 34 with said westerly boundary of the Town of Albuquerque Grant, being marked by a USBLM brass cap marked "CC/TAG" in place; thence,

N 89° 44' 27" W, 957.82 feet along said southerly line of Section 34 to the Point of Beginning of the Parcel of Land herein described.

The above delineated parcel of land contains 204.0793 acres, more or less.

C22 123 143

SUMMARY PLAT
FOR THE PURPOSE OF ANNEXATION
LAVA SHADOWS
WITHIN SECTIONS 34 & 35 T11N, R2E
BERNALILLO COUNTY, NEW MEXICO
MARCH, 1983

APPROVED AND ACCEPTED BY :

City Surveyor — 11/16/83 (Date)

N/R
Parks & Recreation Department — (Date)

Property Management — 11/16/83 (Date)

N/R
Water Resources Department — (Date)

N/R
Traffic Engineer — (Date)

N/R
A.M.A.F.C.A. — (Date)

N/R
City Engineer — (Date)

Planning Department — 11-16-83 (Date)

SUBDIVISION DATA SP-83-334

1. Case No. 83-06-0221
2. Zone Atlas Index No. I-10
3. Gross Subdivision Acres: 204.0793
4. Total Number of Lots Created: N/A

NOTES

1. Basis of bearings: See tie on geometry sheet.
2. Distances are ground distances.
3. Recorded or unrecorded easements other than shown hereon are not covered by this map.

LEGEND

- ● Found Corner
- △ Brass Cap

SURVEYOR'S CERTIFICATION

This is to certify that this Annexation Plat was prepared under my direct supervision and is true and accurate to the best of my knowledge and belief.

10/4/83 — Fred Denney, N.M.P.L.S. No. 1967

DENNEY-GROSS & ASSOC., INC.
ENGINEERS SURVEYORS PLANNERS
2400 COMANCHE RD NE, ALBUQ., N.M. 87107
(505) 884-0696

D G A Job # 643.12

9 1-01-1

13

AA 79059

OWNER CERTIFICATES

The Annexation Plat hereon described is with the free consent and in accordance with the desires of the undersigned owner(s) and proprietor(s) thereof.

NOTE: 51 Percent of Signatures Required

c22 123 2of3

SUMMARY PLAT
FOR THE PURPOSE OF ANNEXATION
LAVA SHADOWS
WITHIN SECTIONS 34 & 35 T11N, R2E
BERNALILLO COUNTY, NEW MEXICO
MARCH, 1983

DR. SOPHIE ABERLE

ANNE SIMMS CLARK

BARBARA GROTHUS

JOHN J. JOHNSON, IV

DAVID MCCARTY

JOE F. SAAVEDRA

ALBUQUERQUE PUBLIC SCHOOLS

HAROLD A. COHEN, M.D.

WALTER GRAY

DUNCAN E. KIRK

LEOMA B. MCMILLAN

MIKE SANCHEZ

CANDELARIO TRUJILLO

PATRICK J. BACA

KEITH DE QUILA

ALBERT & GENIE GURULE

ROBERT A. HORNKOHL

ISABEL MOBLEY (EDD BROOKS)

BEN TRAUB

WILLIAM W. WEIDEMAN

TONI BACA

CHESTER A. ETTINGER

GEORGE E. LAMBERT

LAVA SHADOWS, LTD.

FILOMENO & RUFINA MONTANO

ROBERT E. CARRICO

JAMES F. GARVIN

JOHN J. & MARY A. JOHNSON, JR.

MARILYN LYMAN

MELVYN S. MONTANO

SURVEYOR'S CERTIFICATION

This is to certify that this Annexation Plat was prepared under my direct supervision and is true and accurate to the best of my knowledge and belief.

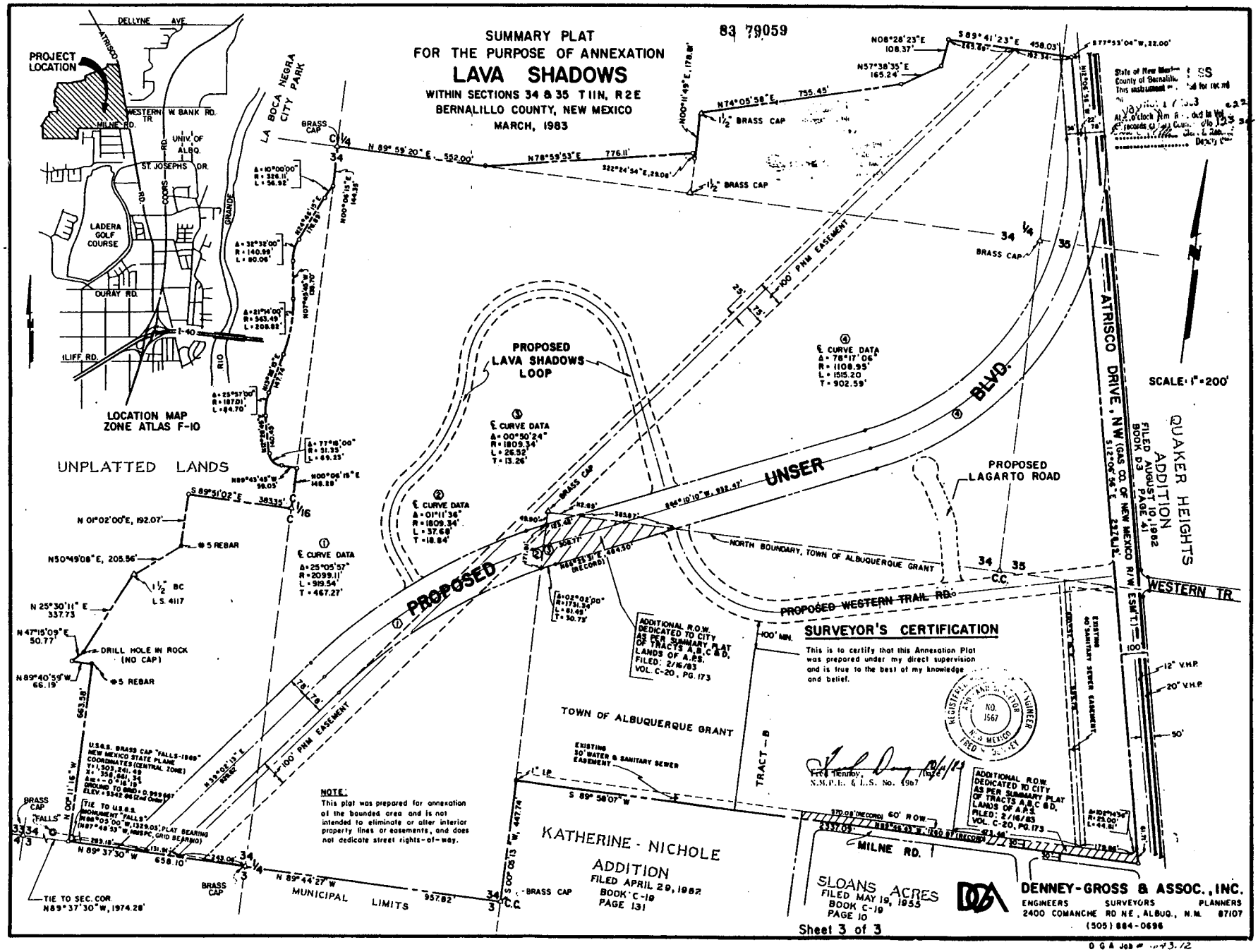
25 July 83
Date

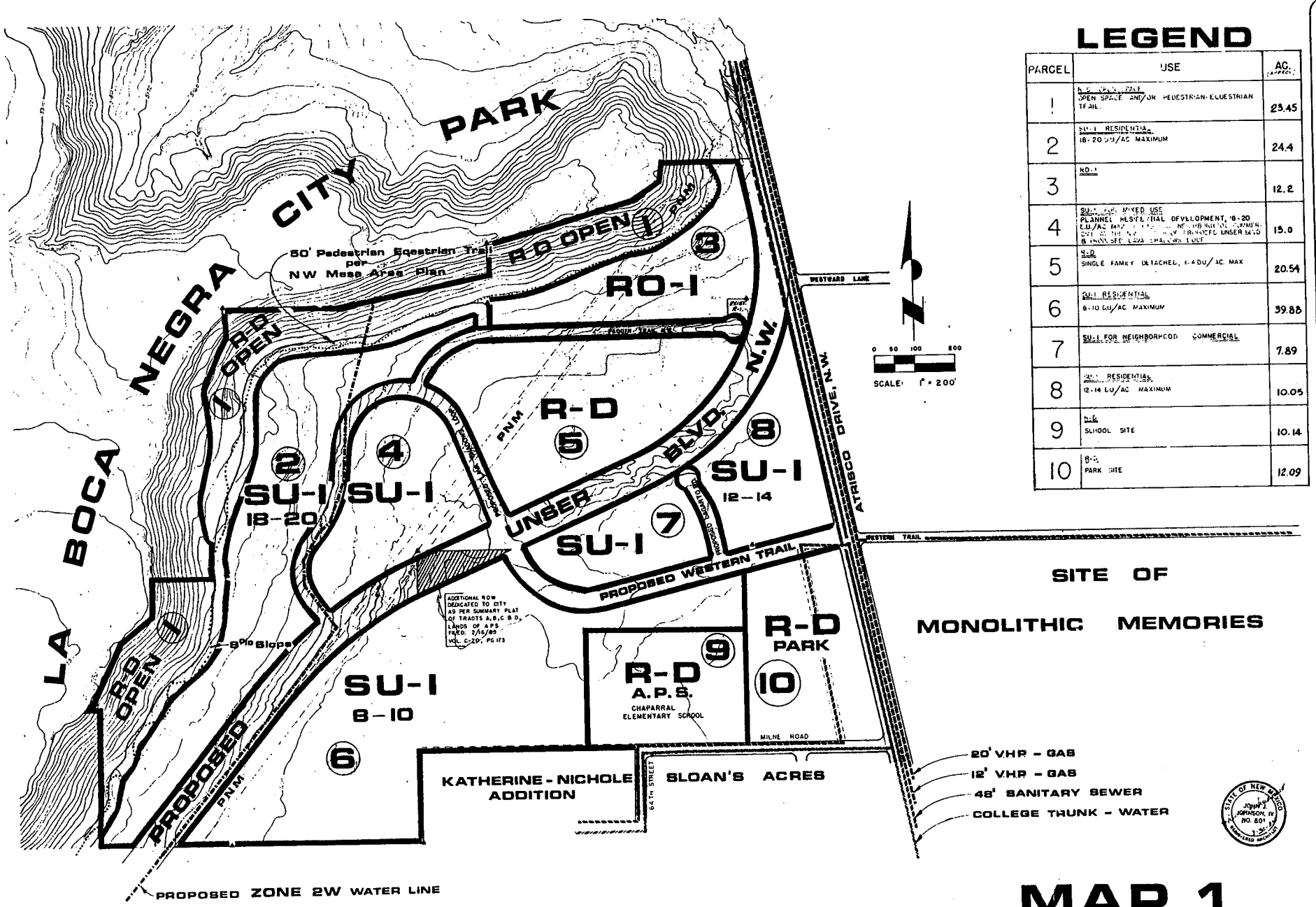
Fred Denney, N.M.P.E. & L.S. 1097

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR FRED N. DENNEY

DENNEY-GROSS & ASSOC., INC.
ENGINEERS SURVEYORS PLANNERS
2400 COMANCHE RD NE, ALBUQ., N.M. 87107
(505) 884-0696

D G A Job # 643.12


SUMMARY PLAT
FOR THE PURPOSE OF ANNEXATION
LAVA SHADOWS
WITHIN SECTIONS 34 & 35 T11N, R2E
BERNALILLO COUNTY, NEW MEXICO
MARCH, 1983
83 79059
PROJECT LOCATION
LOCATION MAP
ZONE ATLAS F-10
UNPLATTED LANDS
PROPOSED LAVA SHADOWS LOOP
PROPOSED LAGARTO ROAD
PROPOSED WESTERN TRAIL RD.
UNSER BLVD.
ATRISCO DRIVE, NW
QUAKER HEIGHTS ADDITION
FILED AUGUST 10, 1982
BOOK D3 PAGE 41
WESTERN TR
MILNE RD.
TOWN OF ALBUQUERQUE GRANT
NORTH BOUNDARY, TOWN OF ALBUQUERQUE GRANT
KATHERINE - NICHOLE ADDITION
FILED APRIL 29, 1982
BOOK C-19
PAGE 131
SLOANS ACRES
FILED MAY 19, 1955
BOOK C-19
PAGE 10
MUNICIPAL LIMITS
LA BOCA NEGRA CITY PARK
100' PNM EASEMENT
EXISTING 30' WATER & SANITARY SEWER EASEMENT
EXISTING 40' SANITARY SEWER EASEMENT
ADDITIONAL R.O.W. DEDICATED TO CITY AS PER SUMMARY PLAT OF TRACTS A,B,C & D, LANDS OF A.P.S. FILED: 2/16/83 VOL. C-20, PG. 173
TRACT B
SCALE: 1"=200'
SURVEYOR'S CERTIFICATION
This is to certify that this Annexation Plat was prepared under my direct supervision and is true to the best of my knowledge and belief.
Fred Tenney N.M.P.E. & L.S. No. 1967
NOTE: This plat was prepared for annexation of the bounded area and is not intended to eliminate or alter interior property lines or easements, and does not dedicate street rights-of-way.
Sheet 3 of 3
DENNEY-GROSS & ASSOC., INC.
ENGINEERS SURVEYORS PLANNERS
2400 COMANCHE RD NE, ALBUQ., N.M. 87107
(505) 884-0696
D G A Job # 1983.12



LEGEND

PARCEL	USE	AC.
1	R-D OPEN SPACE AND/OR PEDESTRIAN-EQUESTRIAN TRAIL	23.45
2	SU-1 RESIDENTIAL 18-20 DU/AC MAXIMUM	24.4
3	RO-1	12.2
4	SU-1 FOR MIXED USE PLANNED RESIDENTIAL DEVELOPMENT, 18-20 DU/AC MAX.	15.0
5	R-D SINGLE FAMILY DETACHED, 1-4 DU/AC. MAX	20.54
6	SU-1 RESIDENTIAL 8-10 DU/AC MAXIMUM	39.88
7	SU-1 FOR NEIGHBORHOOD COMMERCIAL	7.89
8	SU-1 RESIDENTIAL 12-14 DU/AC MAXIMUM	10.05
9	R-D SCHOOL SITE	10.14
10	R-D PARK SITE	12.09

LAVA SHADOWS

SECTOR DEVELOPMENT PLAN AUGUST 30, 1984

JOHN J. JOHNSON, IV
80 Calle San Blas, N.E.
Albuquerque, N.M. 87109

STATE OF NEW MEXICO JOHN J. JOHNSON, IV NO. 801 REGISTERED ARCHITECT

MAP 1

ENVIRONMENTAL PLANNING COMMISSION

MINUTES

JULY 22, 1982

COMMISSION MEMBERS PRESENT: Hildreth Barker, Chairman
Margaret Gregory
Terri Sanchez
Sallie Martin
James Sutton
Robert Wolfe
Fred Sanchez

COMMISSION MEMBERS ABSENT: Wiley Smith
Irv Diamond

PLANNING STAFF PRESENT: Gene Mares, Principal Planner
Jack Leaman, Principal Planner
Phil Garcia, Assistant City Planner
Yvonne T. Carmona, Recording Secretary

****

1. Call to Order.

2. SD-80-5 John J. Johnson, IV, agent for Lava Shadows, Ltd., et al requests approval of the Sector Plan for the area generall bounded by the volcanic escarpment to the North, Atrisco Driv to the east, Katherine Nichole and Sloan's Acres Subdivisions o the south, and La Boca Negra Park on the west, containin approximately 160 acres. (F-10/11) DEFERRED FROM JUNE 18, 1982

Jack Leaman, Staff Planner, gave a brief history regarding the Lava Shadow Sector Development Plan request. He explained public hearing of this secto development plan had been deferred by the Environmental Planning Commissio until the Unser Boulevard alignment question had been resolved.

Mr. Leaman described existing land uses surrounding the area in question. H stated to the west of the property was the escarpment and the Boca Negra Park to the south was an existing residential development, to the east, north an northeast was undeveloped residentially zoned properties.

Mr. Leaman explained that at the corner of Atrisco and Montano a commercia parcel exists which contains approximately 28 acres. College Park West i approximately 1 mile south of the subject area and contains some recen neighborhood commercial zoning located along the westerly side of Unser. About 1.5 miles away, just north of the Interstate 40, is C-2 commercia zoning, located where Ladera Drive will eventually intersect with Unse Boulevard. Other commercial is located basically along Coors Boulevard, plu a small commercial site located south of St. Josephs on the westerly side o Atrisco.

Mr. Leaman stated the major change in the current sector plan was th alignment of Unser Boulevard. He explained it was relocated to its ne position in order to skirt the southern edge of the northerly ponding area an then intersect with Atrisco at the northeast corner of the property.

The request in the sector plan is for the various land uses. On the far westerly edge are portions of the sector plan which are in the escarpment area and are proposed for open space. The actual time when the open space would become possible is as the property is developed. The sector plan recognizes the escarpment area above the 9% slope line.

In the northeast corner of the property, R-1 zoning is requested. This area contains some existing structures, as well as proposed development.

Mr. Leaman explained the sector plan area contains multiple ownerships. He stated the City encouraged this area to be planned as a sector plan in order to take a look at all the various ownerships that would be involved in this area.

SU-1 (8-10 dwelling units per acre) zoning for the area along the southerly portion of the sector plan is proposed. The area lies immediately north of Sloan's Acres Subdivision and is adjacent to the Chapparal Elementary School site, which has been selected by the Albuquerque Public School system. The school site is at the south edge of the property and has been selected as an elementary school site by the Albuquerque Public School system.

The east edge of the sector plan, between Western Trail extended and Unser Boulevard and adjacent to Atrisco Road, is an area proposed for SU-1 (12-14 dwelling units per acre) zoning.

The far westerly portion of the property west of Unser is to be eventually served by a proposed loop street from Unser. This area is proposed for SU-1 (18-20 dwelling units per acre) zoning.

Two small commercial areas are proposed. One, approximately 1 acre, lies in a triangular area formed by Unser Boulevard and the PNM easement on the northerly side of Unser Boulevard. The other, a larger area of approximately 5 acres lies south of Unser Boulevard, between Unser Boulevard and Western Trail.

To the east of the school site is an area of approximately 11 acres, which is currently serving as the south sump area for drainage. This area is proposed as a future park site that may be jointly shared by the school system and the City of Albuquerque.

Mr. Leaman responded to a letter submitted to the Commission on behalf of Dr. Sophie D. Aberle, a property owner in the Sector Plan area proposed for R-1 zoning. He explained to the Commission Staff's responses and/or recommendations on an item-by-item basis.

1. "The property is to be zoned R-1 in its entirety."

   Response: This is the requested and recommended zone. Depending upon the Commission's action tonight, this will probably be resolved to Mr. Kline's satisfaction. (Mr. Kline submitted the letter on behalf of Dr. Aberle.)

2. "A variance for twenty-five year non-conforming use (agricultural sales) is recommended.

   Response: This refers to an existing use of Dr. Aberle's property. She grows and sells native plant materials. Mr. Leaman stated that Staff wishes to accommodate this as a continuing use. He stated Staff's recommendation, rather than a variance procedure, would be to ask the Commission to adopt a resolution requesting that the City Council allow continuance of this use. This resolution would accompany the annexation resolution, yet to be formally adopted, so the specific use of growing and selling of native plant materials could be recognized at the time of annexation.

3. "Use of private water and sewer systems may be continued."

   Response: Mr. Leaman stated Staff saw no problems with this request.

4. "No open-space dedication is required."

   Response: Mr. Leaman replied this comment was correct, since there was no development proposed in the area at this time.

5. "The City will enter into negotiations for utility and pedestrian easements, as may be required."

   Response: This is a standard procedure, at the time of development. Mr. Leaman stated he saw no problem with this comment, at this time.

6. "The public access point to Unser Boulevard is guaranteed approximately 100' north of the existing private driveway, subject to future determination of its precise location and dedication of required rights-of-way."

   Response: Mr. Leaman stated he referred this comment to Joe David Montano, Transportation Department, who has prepared a letter in response to this. (The letter, dated July 22, 1982, and signed by Joe Martin, was submitted for review by the Commission.)

Mr. Leaman introduced a letter by Mrs. Evelyn Gilmer, representing the Gray property. He stated they were indicating their concerns regarding the drainage of the area. Mr. Leaman stated in the original staff comments, there

was a Hydrology comment indicating deferral until such time as drainage would be resolved. Mr. Leaman stated he had forwarded to the Commission an updated recommendation from the Hydrology Engineer. He stated the intent of the recommendation from Mr. Fink is to point out that, at this point, the sector plan could proceed. However, future development of this area would be subject to a revised drainage plan. Mr. Leaman explained as each of the individual property owners consider development planning, drainage concerns of the area will need to be addressed, in accordance with the drainage plan. At this point in time, the sector area is covered with an AMAFCA drainage basin item, the northern and southern ponding areas are recognized in the AMAFCA Basin Plan and the future intent for this area is that there be a storm drainage system that would carry the drainage northeasterly into the arroyo. Therefore, Mr. Leaman felt the drainage situation had been properly recognized at this point and would be resolved as development takes place, in accordance with the updated drainage memo dated July 12, 1982.

Chairman Barker asked if Mr. Leaman could give some clarification on the height limitation. In particular, the area between Unser and the escarpment, where 18-20 du's are proposed.

Mr. Leaman stated the area lies at the base of the escarpment and is proposed to be served by the loop road shown on the sector plan. He stated development would be limited to the area below the 9% escarpment topography.

Commissioner T. Sanchez asked how many acres of land, situated within the sector development plan area, the Gray's owned. Mr. Leaman replied they owned approximately 5.31 acres of land.

Commissioner Martin asked about the detached open space. She stated the sector plan provides 11 acres of open space on the escarpment face and she would like to know what kind of provisions would be placed upon this area. Mr. Leaman stated the required open space had been discussed with the applicant, so that they would be aware of the ordinance requirements in terms of future development.

Person Speaking in Favor of the Request: John Johnson, 80 Calle San Blas NE.

Mr. Johnson stated he had no objections with what Dr. Aberle wished to do with her land.

Mr. Johnson explained the Gray property was changed from the original proposed C-1 zoning to the currently proposed R-1 zoning because of the realignment of Unser Boulevard. He stated the way the land uses were set, he was unable to justify placement of commercial zoning within a residentially zoned parcel.

COMMISSIONER WOLFE JOINED THE MEETING AT THIS TIME.

Mr. Johnson addressed the different proposed zonings incorporated within the sector development plan.

SU-1: 8-10 DU/AC - This area covers approximately 40 acres southeasterly of Unser Boulevard and south of the proposed Western Trail extension to Unser Boulevard. This zoning is essentially compatible with existing surrounding developments and zoning and, with the proposed Western Trail extension, would have several access points into the area.

SU-1: 12-14 DU/AC - This area covers approximately 7 acres adjacent to Atrisco Road, north of the Western Trail extension to Unser Boulevard. Initially, this area was proposed for 18-20 DU/AC. However, after discussions with Mr. Leaman, it was noted that because there was a large amount of undeveloped land adjacent to this area, it would be possible for this density to spread, creating the likelihood of overwhelming the area with high density usage. Mr. Johnson stated he reviewed the area again, and decided to propose medium density for this area instead.

SU-1: 18-20 DU/AC - This area covers approximately 45 acres northwesterly of Unser Boulevard. Mr. Johnson stated this zoning was requested for several reasons. 1) This is a pocket of land; 2) It has controlled access to a major arterial, which is the most logical place to locate a high-density residential area; and 3) It allows pedestrian access to the Boca Negra Park.

Mr. Johnson stated the proposed commercial locations would serve neighborhood areas, and would provide access to both sides of Unser Boulevard. He stated the school site was selected by APS.

Mr. Johnson stated the mixed use recreation site is, essentially, the south sump. This area will contain approximately 13 acres of land and is located at the southeast corner of the sector development plan. He explained Parks and Recreation had expressed some concern with proposed drainage of the area. However, he stated this area could be treated like the Ladera Golf Course. He stated tennis courts could be elevated and, should you wish to place soccer fields within the area you could depress the land required for this use. He stated if the site, the location, the size and the access are appropriate and desirable, then the resolution of the drainage problems would come in the design of the park.

Mr. Johnson addressed the proposed open space for the sector development plan area. He explained proposed dedication of the indicated escarpment face areas are to satisfy general open space requirements for the sector development plan.

Mr. Johnson quoted from the material he had previously submitted to the Commission. "The flexibility of design requirements should not be interpreted as an avoidance of any City requirement. The intent of the sector development plan is for 'equal to or better' design, and interpretation of the flexibility is at the sole discretion of the City." Mr. Johnson stated the review process of any site development plan which comes in, would have to first come before the Development Review Board and then before the Environmental Planning Commission.

Commissioner Barker explained he felt uncomfortable with the proposed 18-20 DU/AC. He stated one part of the Comprehensive Plan would back up Mr. Johnson's proposal in having residential density located along a major

arterial. The Policies Plan, however, also contains a section which disagrees with this proposal. Also contained within the Policies Plan is a statement that there are fringes, or edges of the City which initially contain lower densities, and as development comes in, density levels are increased. Chairman Barker felt there should be a way to retroactively reduce existing density uses. He felt that in terms of pure land use, it probably would work. However, he explained he would be very sensitive towards placement of even a four-story apartment complex in this area.

Mr. Johnson addressed Chairman Barker's statement in two parts. First, regarding the escarpment area, height was limited to two stories. He stated this was done, because two stories was as much as the escarpment could aesthetically withstand. Secondly, with regard to density, he stated he did not really expect 18-20 DU/AC. He stated it would be extremely difficult to accomplish implemenation of this type of density and yet obtain a quality development. Mr. Johnson explained the 18-20 DU/AC was proposed more in terms of the overall planning purposes. He felt it would be easier for him to request maximum density approval of the Commission, than for him to request a lesser density and be forced to come back before the Development Review Board and the Environmental Planning Commission for readjustment of density figures, should he wish to increase density later on.

Commissioner Gregory asked Mr. Johnson if he was aware of the existing transportation problems in the area.

Mr. Johnson explained he was very much aware of the existence of these problems and had taken these factors into consideration when designing the sector development plan. He further explained he had also considered other factors during plan development -- for example; the Coors Corridor Study, the location of the San Antonio Arroyo, the Atrisco-Unser considerations and the Pacquin Trail.

Joe David Montano, Transportation Department, stated current Unser activities were beginning just south of I-40 and should be constructed within the year. From this point north, construction would begin around College Park West and Kathryn Nichole Subdivisions. However, he stated construction would not be completed before 1986. Also, Western Trail is in its development stage. This street is currently a dirt road which runs between Atrisco and Coors Road.

Jack Leaman addresses his next remarks to items contained within the material submitted to the Commission by Mr. Johnson.

Page 17, Item 2.d. -- Mr. Leaman explained the original staff report recommended that building against the escarpment be limited to 26' from grade to top of parapet on the high side. He explained that in Mr. Johnson's material, it was stated the developer would rather the Commission allow him design flexibility by not limiting building heights. Mr. Leaman reiterated staff's original finding (7.d.), which, he felt, would discourage defacement of the escarpment by development.

Page 18, Item 3.c. -- Mr. Leaman stated there was no real disagreement between the developer and staff regarding this item, since the staff report stated these were considerations which should be taken into account by the developer. However, these were not requirements.

COMMISSION COMMENTS AND CONCERNS:

Commissioner T. Sanchez felt the alignment of Unser Boulevard portrayed in the amended site development plan was much better than the first proposal presented to the Commission.

Commissioner Wolfe expressed concern with the proposed high density usage in such a sensitive area as the escarpment, and felt this should be more closely looked at.

Commissioner F. Sanchez was pleased with the newly proposed Unser Boulevard alignment. He felt the proposed 18-20 DU/AC would never occur.

Commissioner Sutton felt the amended plan more accurately addressed both Commission and City concerns expressed at the previous meeting. He stated he had no problems with the height limitations. Commissioner Sutton was pleased to see Dr. Aberle had agreed to bring her property into the City, and felt this property should be protected.

Commissioner Gregory expressed her concern regarding lot walls which would disrupt the community sense. She explained she knew of several communities within Albuquerque which had been developed in just such a way and, consequently, had lost their sense of community.

Commissioner Martin stated she concurred with Chairman Barker's concerns in regard to the proposed high density in the escarpment area. She felt if this density were granted, there existed the likelihood that development would follow the approved maximum of 20 DU/AC. Commissioner Martin felt height guidelines should be placed on the area, and felt major facilities should be delineated. Commissioner Martin felt this was a good mixed-use plan.

Commissioner Barker reiterated his concerns regarding the proposed 18-20 DU/AC and the height limitations within the escarpment area. He stated he did not like the idea of tying a developer's hands. However, he felt these items should be flagged when submitted to City Council for their consideration. Commissioner Barker stated he was pleased to see Dr. Aberle bring her property into the City and felt a separate resolution should be prepared which would allow her to retain its existing use. Chairman Barker explained that by forwarding a separate resolution to City Council for this property, it would allow uninterrupted Council consideration of the sector development plan.

FINDINGS:

1. The subject sector development plan is in the Developing Urban Area of the Albuquerque/Bernalillo County Comprehensive Plan, which recommends moderate densities or cluster development (3 to 6 DU/AC).

FINDINGS: (Continued)

2. The subject sector development plan is also in the Northwest Mesa Area Plan which states: "Generally, densities should be in accord with the Comprehensive Plan categories shown for the plan area (Established Urban, Developing Urban, and Rural). Depending on the site and specific location, cluster housing and multiple units with higher densities may be appropriate. Higher densities will be increasingly marketable and appropriate as the entire metropolitan area grows and energy, particularly gasoline, becomes more expensive and scarce."

3. The location and geography of the subject sector development plan makes it desirable to utilize the SU-1 Special Use zone classification, due to its proximity to the escarpment, Unser Boulevard and existing developed properties.

4. This sector plan is strictly schematic and the details will be worked out at a future date. The Environmental Planning Commission will receive the specific site development plans for each parcel and will address themselves to specific concerns at that time.

5. This Sector Development Plan is entirely consistent with the Comprehensive Master Plan which encourages the joint effort of public and private developers to work together to develop sector plans.

6. All utilities (particularly telephone and electricity) are to be underground.

7. Building height is limited by applicable zoning, as well as consideration for the following:

   a. The buildings silhouetted against the escarpment should not extend above the escarpment.

   b. The buildings silhouetted against the escarpment should enhance, rather than deface the natural resources.

   c. The building heights should not obstruct views to the escarpment, as well as views from the escarpment.

   d. The building heights should be limited to 26 feet from grade to top of parapet on the high side, unless sufficient information to justify variation is produced. All other guidelines concerning heights would remain applicable.

   e. The buildings should be sited away from the escarpment zone (generally defined as the area from the top of the escarpment to the base) sufficiently to provide solar access to all levels of the building adjacent to the escarpment.

8. The siting of buildings should reflect the following considerations:

   a. The proposed location's proximity to transit systems. (The proximity of high density residential to transit service is considered important.)

   b. Minimize disruption of existing site topography. (Show existing topography, as well as proposed grading.)

   c. Cluster buildings to define activity node.

   d. Locate buildings to provide mixed use, local community needs, and a sense of neighborhood.

   e. Locate large multi-purpose facilities so that the surrounding communities can benefit from them. The time frame of usage, as well as access to facilities is important.

   f. High density areas, particularly those in the 18-20 DU/AC area, will be subject to extra scrutiny as to mass, height and density.

9. All property owners should be aware that open space requirements must be met.

10. Before any future plans, plats, replats, summary plats or building permits for Lava Shadows are approved, an updated drainage plan for Basin 16 must be resubmitted. The need for this resubmittal is the realignment of Unser Boulevard and the proposed change of the south sump configuration on the sector plan. It will be necessary that, at the time the roads are constructed, the storm drain outfall for both the north and south sump be constructed, or an interim solution be proposed that is acceptable to the City Engineer. Operation and maintenance of interim facilities will be the responsibility of the property owners.

11. When locating parking areas:

   a. Parking areas should be properly located to provide clear, well-defined, and safe access and egress from the street, and should be well-landscaped with shade trees.

   b. The number and location of access and egress points into new development from local streets, collector streets, and arterials should be limited, as well as carefully designed in terms of 1) minimizing additional congestion, 2) effect on existing traffic flow, 3) demands made for additional lighting, signal devices, and roadways signage and, 4) pedestrian and bicyclists' safety.

   c. Parking areas should be appropriately screened from the public street.

   d. Parking areas should be internally shaded and segmented in order to provide relief from large expanses of parked cars and paved areas.

12. In building design:

a. The colors and materials of the proposed development should be attractive, as well as present a sense of permanance.

b. The building colors should harmonize with the landscape and surrounding development, as well as minimize visual pollution.

c. Solar panels, either by location or orientation, should not produce reflection or heat gaining nuisances to either the inhabitants or adjacent properties, pedestrians or motorists.

d. The visual effect of mechanical units and equipment (vents, evaporative coolers, etc.) should be minimized by screening, painting or location.

13. In signage design:

a. Limit the type of signage with a development to low key directional, numerical and identification.

b. Building identification directly applied to the facade or fascia should be appropriately designed to harmonize with the style and the image of the development.

c. Free-standing signage should be limited to one (1) major sign no higher than six (6) feet. The design of the sign should reflect the image of the development and be carefully illuminated to prevent conflict with the street lighting.

THEREFORE, BE IT RESOLVED THAT the Environmental Planning Commission recommends to the City Council adoption of SD-80-5, based on and subject to the above-mentioned Findings.

MOVED by Commissioner Sutton
SECONDED by Commissioner Gregory — Motion Carried Unanimously

Commissioner Sutton stated that in previous discussions of the Lava Shadows Plan the Gray's did not wish to be annexed to the City.

Mr. Leaman replied this was correct. He explained the annexation was appealed by the Gray's. However, the City Council did not accept the appeal and did proceed with the annexation. The annexation has technically been accomplished, and the only thing still pending is the submittal of an annexation plat and resolution to be presented to City Council.

Commissioner Sutton stated if that were the case, how then does the Commission handle the problems addressed in Mr. Kline's letter to the Commission.

Mr. Leaman stated of the 6 items, Item No. 6 has been resolved by a separate letter from the Transportation Department. He stated Planning would prepare a

letter addressing the remaining items, with the exception of Item no. 2 -- this item would be dealt with by the Commission's drafting of a resolution which would be forwarded to City Council, in which the existing use would be recommended to be allowed to continue.

BE IT RESOLVED that the Environmental Planning Commission authorize the Chairman to sign a resolution, prepared by Staff, which recommends to the City Council that Dr. Sophie D. Aberle be permitted to continue raising and selling native plants as long as she personally is able and wishes to do so. This use is to be discontinued when Dr. Aberle ceases the described use.

MOVED by Commissioner Sutton
SECONDED by Commissioner Gregory — Motion Carried Unanimously

There being no further business to come before the Commission, the meeting adjourned at 3:35 p.m.

Hildreth Barker
Chairman

Yvonne T. Carmona
Recording Secretary

II. TRANSPORTATION

All roads shown on Map 1 of the SDP are either existing, approved alignments or fully coordinated and approved by the transportation Department and Traffic Engineering.

A. Unser Boulevard, N.W.
   1. Unser Blvd. Alternate II alignment as approved.
   2. City Council Resolution R-290, January 5, 1981.

B. Western Trail, N.W.
   Coordinated with Transportation Department and Traffic Engineering and Albuquerque Public Schools Plat filed 2/16/83, Vol C-20, Pg. 173.

C. Lava Shadows Loop, N.W.
   Coordinated with Transportation Department, Traffic Engineering and Water Resources Department for Zone 2W water line alignment.

D. Lagarto Road, N.W.
   Coordinated with Transportation Department, Traffic Engineering, Ladera Basin 16 Drainage Study for proposed storm drain system and Planning Department for land use separation and access.

E. Paquin Trail, N.W.
   1. Existing private road to remain.
   2. Reference in City Council Resolution Re: Aberle.

F. Dedications
   See Map 1.

III. ENVIRONMENTAL

A. Escarpment and 9% Slope shown on Map 1. Topography is from AMAFCA Ortho-Photo maps.

B. Soils

The soil data from the detailed soil map of the Los Griegos Quadrangle as prepared by the Soil Conservation Service, U.S. Department of Agriculture in cooperation with the New Mexico Middle Rio Grande Council of Genernments is as follows:

West of PNM Easement:
Soil Symbol #33, Bluepoint-Caliza complex.
(1 to 25 percent slopes)

East of PNM Easement:
Soil Symbol #97, Madurez-Wink sandy loams.
(1 to 9 percent slopes)

C. Pedestrian/Equestrian Trail

50 foot wide pedestrian/equestrian trail as required by the Northwest Mesa Area Plan located at the base of the escarpment along the 9% slope line.

D. Open Space

Areas above the 9% slope line or above the pedestrian/equestrian trail are essentially the escarpment face and are designed as usable open space.

Open space requirements within the developable area of the SDP must be met by individual property owners in accordance with City of Albuquerque regulations.

E. Park

The area designated PARK on Map 1 is in accord with the desires of the Parks and Recreation Department and joint use policies of the City of Albuquerque and Albuquerque Public Schools.

IV. DRAINAGE AND FLOOD CONTROL

A. Drainage Study

The "Ladera Basin 16, Study Area" drainage report as commissioned jointly by the City of Albuquerque and AMAFCA, and adopted by AMAFCA in November, 1980 as Resolution 80-14 is included in its entirety.

B. Revision

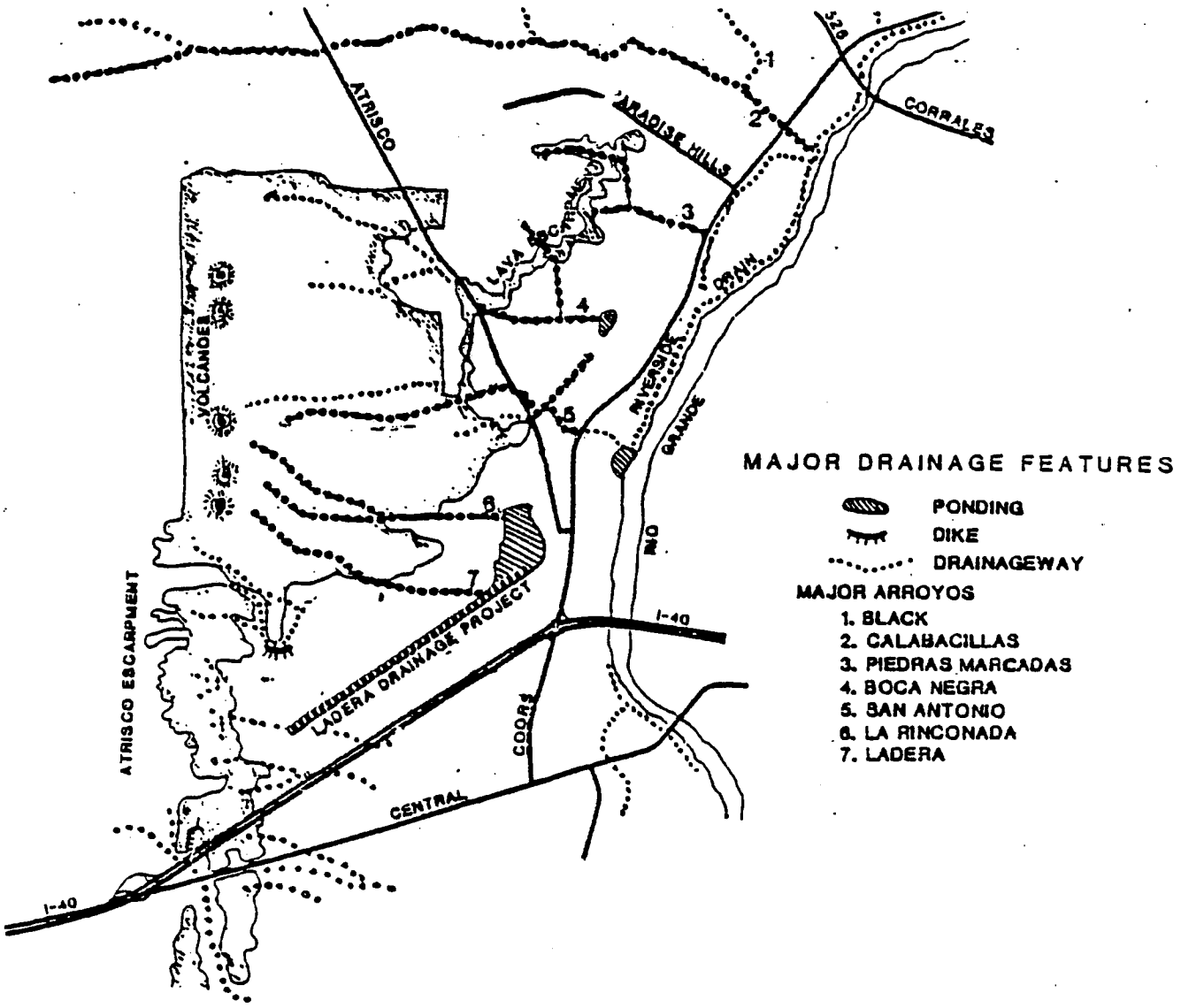
The above drainage report was prepared prior to the Unser Blvd. Alignment study. The alignment change to Unser Blvd. and other roads does not alter the substance of the drainage report.

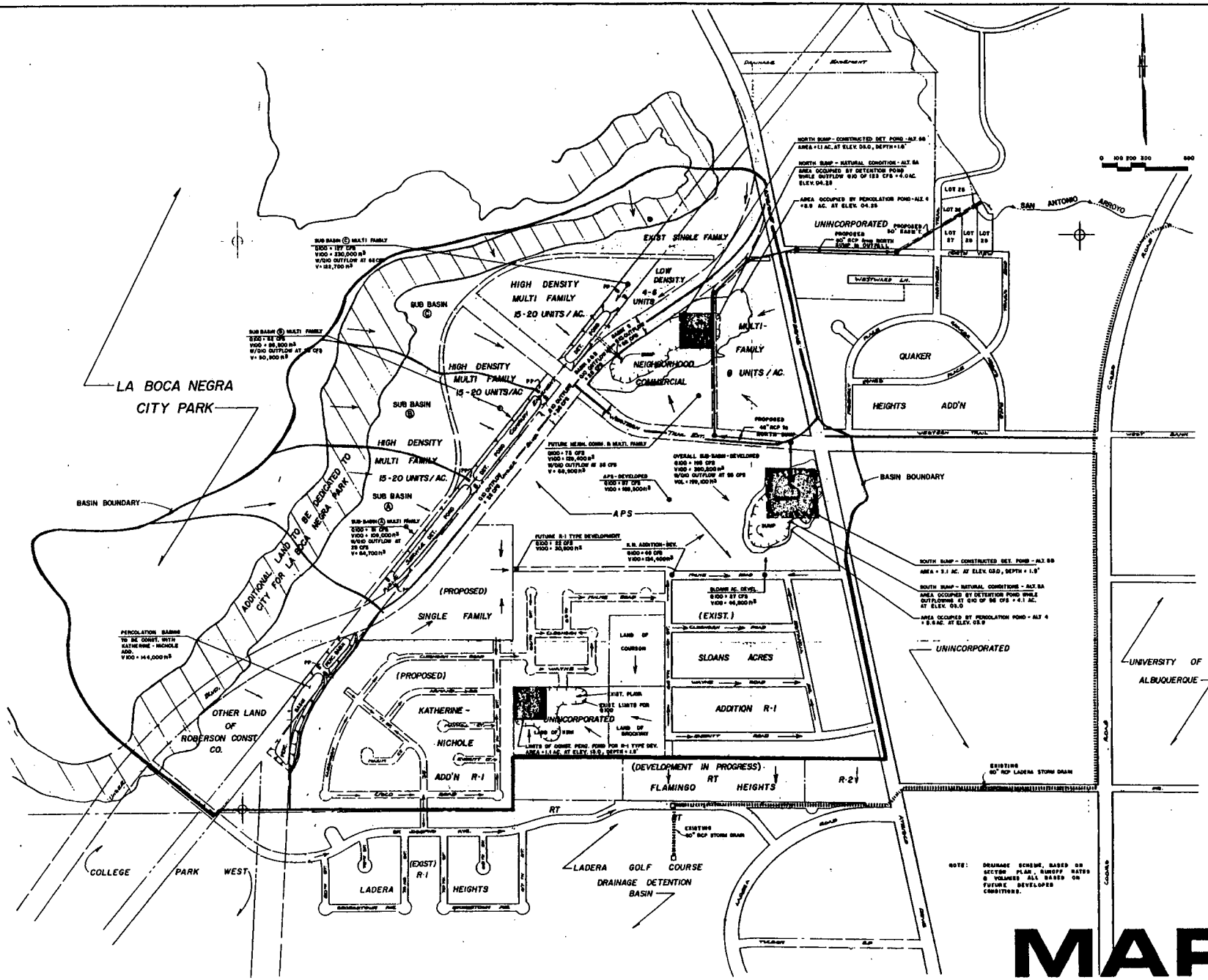
The Basin 16 map (Map 2) and report should be revised under the auspices of the City of Albuquerque and AMAFCA to reflect alignment changes.

As noted in Hydrology comments to the EPC, individual developments within the SDP area will be required to implement interim drainage solutions until such time as the storm drain system contained in Resolution 80-14 is implemented.

There are no current commitments, eigher public or private, to implement the storm drain system.

MAJOR DRAINAGE FEATURES





JOINT / CITY of ALBUQ. AMAFCA PROJECT
ALBUQUERQUE NEW MEXICO

BASIN 16
LADERA STUDY AREA

Community Technology Inc.

MAP 2

D

BASIN 16, LADERA STUDY AREA

ALTERNATE DRAINAGE CONCEPTS

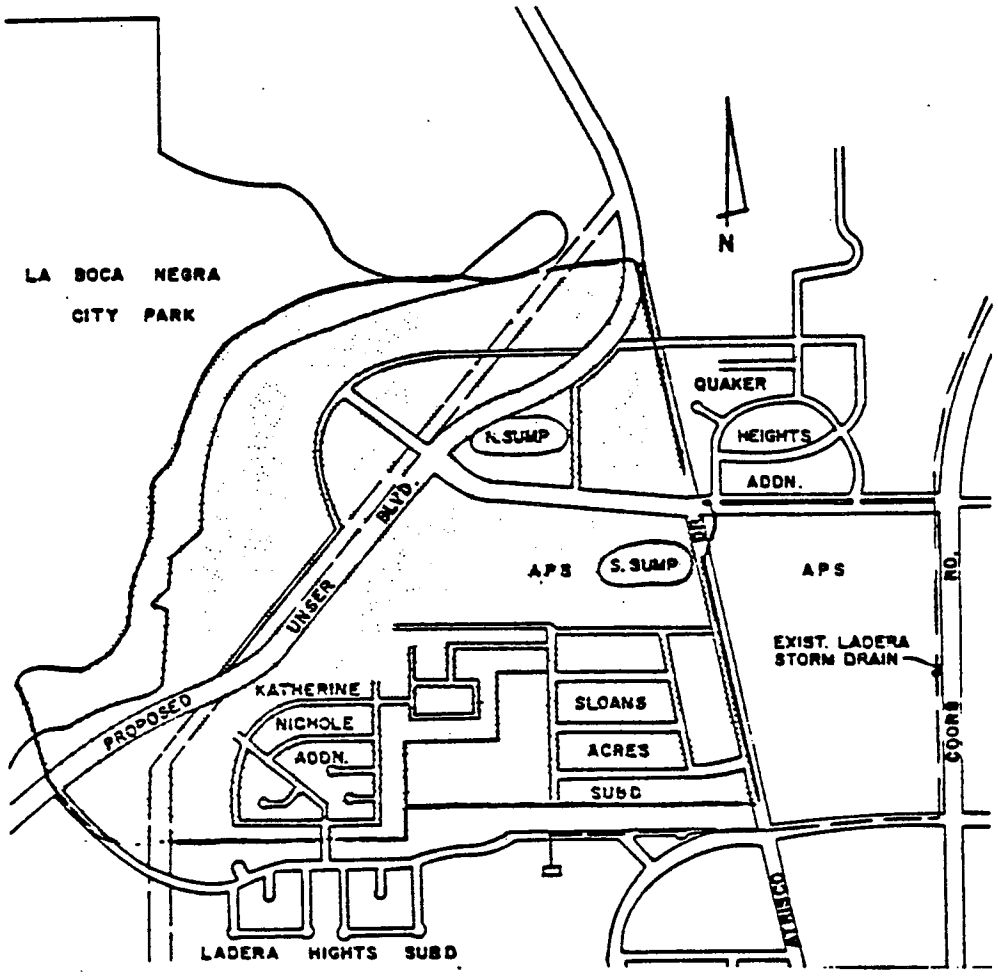
SEPTEMBER, 1980

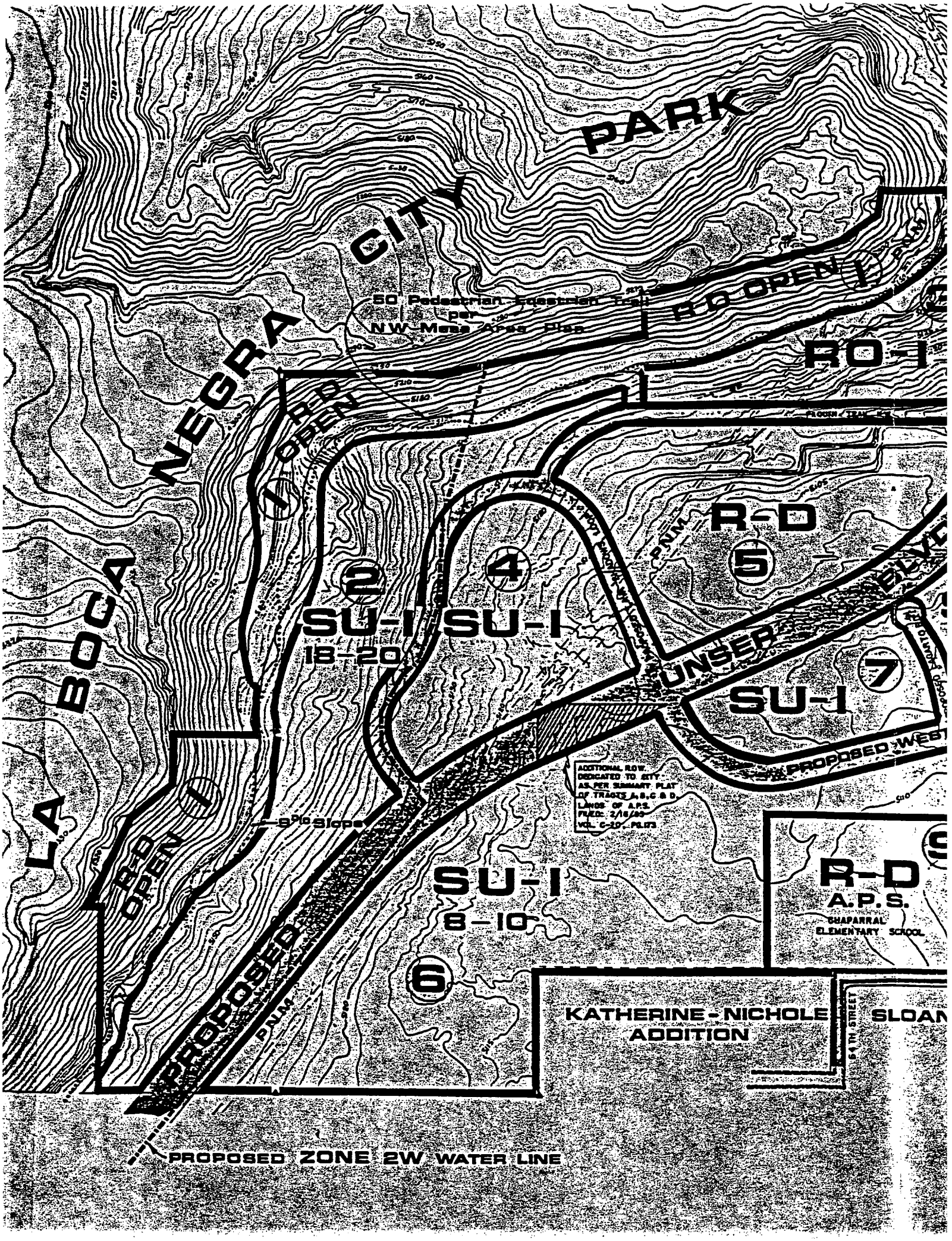
S C O P E

The purpose of this report is to evaluate alternate drainage concepts for Basin 16, Ladera Study Area. This basin lacks any natural outfall for runoff. Study variables will include on-site retention and detention in the existing north and south "sump" areas, surface and subsurface storm drainage systems, and other conceptual solutions, with approximate costs and design criteria recommended for the most viable approaches.

L O C A T I O N

The study area is bounded on the south by the Ladera Golf Course, on the east by Atrisco Drive, and is encompassed on the west and north by La Boca Negra City Park.





LA BOCA NEGRA CITY PARK
50' Pedestrian-Equestrian Trail per NW Mesa Area Plan
R-D OPEN
RO-1
R-D OPEN
R-D
PNM
2
4
5
SU-1
18-20
SU-1
UNSER
SU-1
7
PROPOSED WEST
ADDITIONAL R.O.W. DEDICATED TO CITY AS PER SUMMARY PLAT OF TRACTS A, B, C & D LANDS OF A.P.S. FILED: 2/16/89 VOL. C-20, PG.173
R-D OPEN
SU-1
8-10
6
PROPOSED
PNM
R-D
A.P.S.
CHAPARRAL ELEMENTARY SCHOOL
KATHERINE-NICHOLE ADDITION
SLOAN
PROPOSED ZONE 2W WATER LINE

LEGEND

PARCEL	USE	AC. (approx.)
1	R-D "OPEN SPACE" OPEN SPACE AND/OR PEDESTRIAN-EQUESTRIAN TRAIL	23.45
2	SU-1 RESIDENTIAL 18-20 D.U./AC. MAXIMUM	24.4
3	RO-1	12.2
4	SU-1 FOR MIXED USE PLANNED RESIDENTIAL DEVELOPMENT, 18-20 D.U./AC. MAX. & 1.3978 AC. NEIGHBORHOOD COMMERCIAL AT THE N.W. CORNER OF PROPOSED UNSER BLVD. & PROPOSED LAVA SHADOWS LOOP	15.0
5	R-D SINGLE FAMILY DETACHED, 1-4 D.U./AC. MAX.	20.54
6	SU-1 RESIDENTIAL 8-10 D.U./AC. MAXIMUM	39.88
7	SU-1 FOR NEIGHBORHOOD COMMERCIAL	1.89
8	SU-1 RESIDENTIAL 12-14 D.U./AC. MAXIMUM	10.05
9	R-D SCHOOL SITE	10.14
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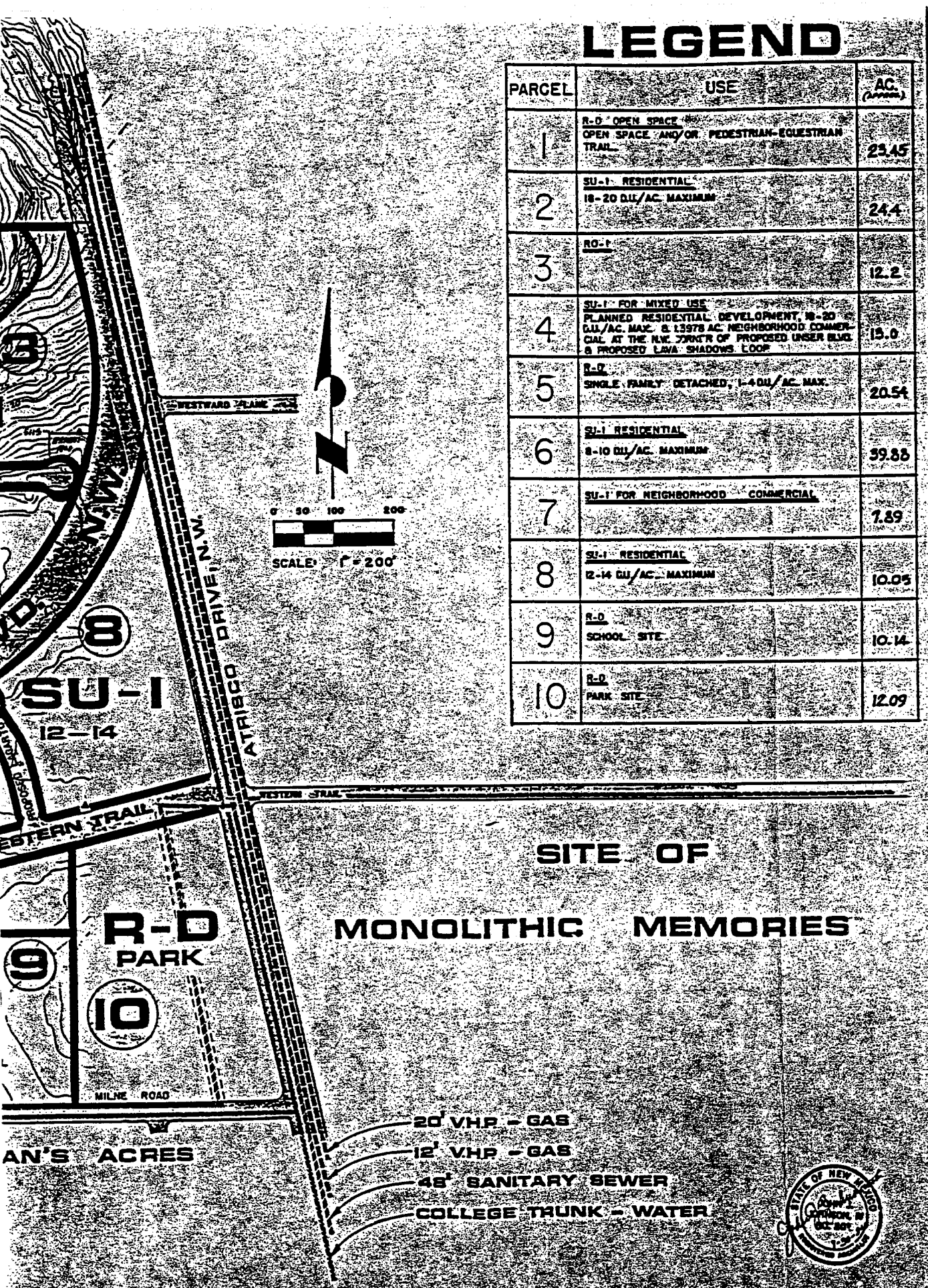
LAVA SHADOWS

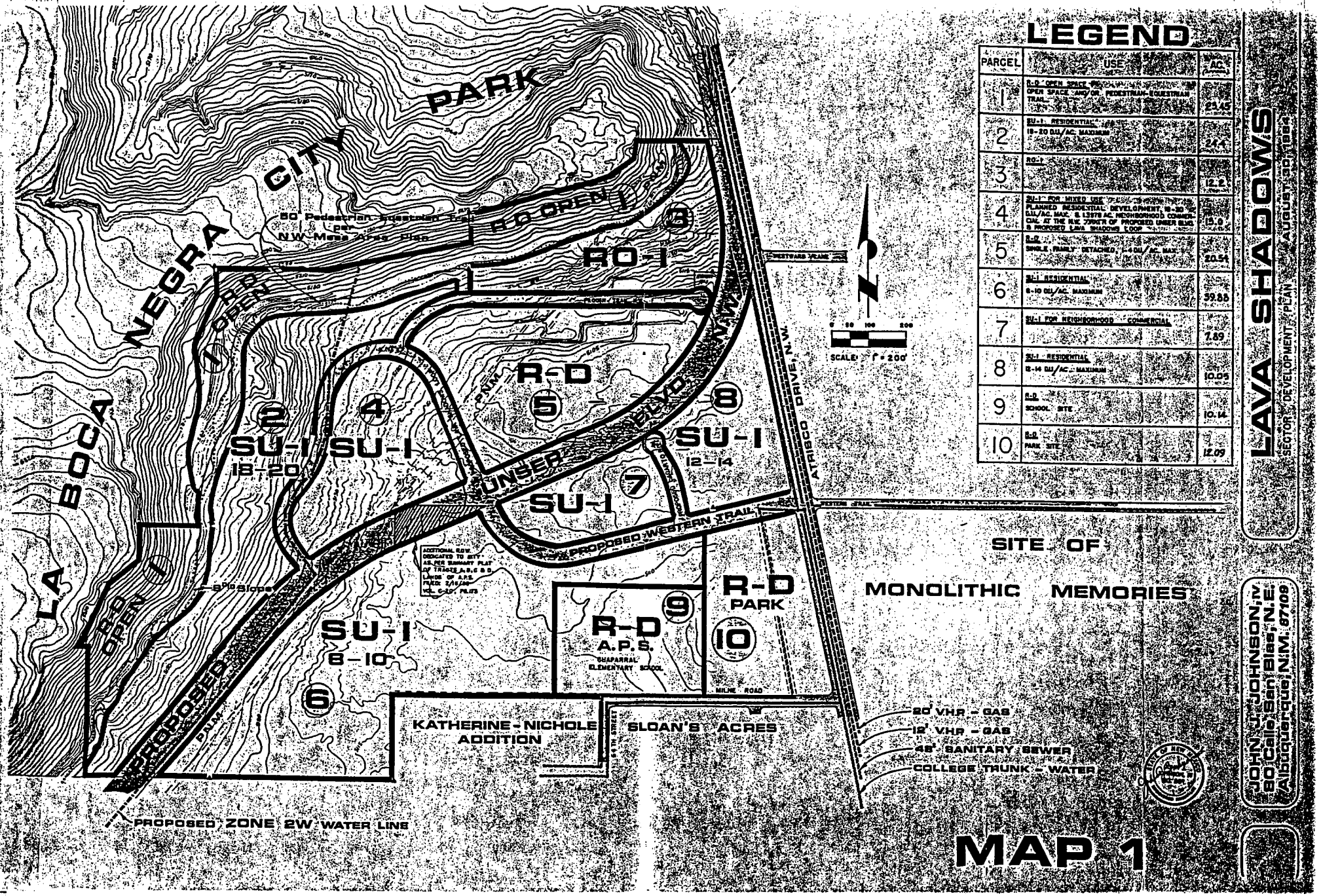
SECTOR DEVELOPMENT PLAN

AUGUST 30, 1984

JOHN J. JOHNSON, IV
80 Calle San Blas, N.E.
Albuquerque, N.M. 87109



MAP 1



LEGEND

PARCEL	USE	AREA - AC.
1	R-D OPEN SPACE AND/OR PEDESTRIAN-EQUESTRIAN TRAIL	23.45
2	SU-1 RESIDENTIAL 18-20 DU/AC. MAXIMUM	24.4
3	RO-1	12.2
4	SU-1 FOR MIXED USE PLANNED RESIDENTIAL DEVELOPMENT, 18-30 DU/AC. MAX. & 1.3978 AC. NEIGHBORHOOD COMMERCIAL AT THE N.E. TERMINUS OF PROPOSED UNSER BLVD. & PROPOSED LAVA SHADOWS LOOP	15.0
5	R-D SINGLE FAMILY DETACHED, 4-8 DU/AC. MAX.	20.54
6	SU-1 RESIDENTIAL 8-10 DU/AC. MAXIMUM	39.85
7	SU-1 FOR NEIGHBORHOOD COMMERCIAL	7.89
8	SU-1 RESIDENTIAL 12-14 DU/AC. MAXIMUM	10.09
9	R-D SCHOOL SITE	10.14
10	R-D PARK SITE	12.09

LAVA SHADOWS

SECTOR DEVELOPMENT PLAN - AUGUST 30, 1982

JOHN J. JOHNSON, IV
80 Calle San Blas, N.E.
Albuquerque, N.M. 87109

MAP 1

REGION/SITE HISTORY

Basin 16 derives its name from a Master Drainage Plan for the Ladera region completed by Boyle Engineering Company in June, 1979. The overall Ladera System is comprised of Basins 1 through 16, with Basin 16 located at the extreme north end of the study area. All basins except Basin 16 were scheduled for construction of the recommended drainage improvements following approval of the Report. Basin 16 was addressed by the Boyle Report in terms of future actions, rather than being a part of the 1979 Ladera System Improvements, which have since been completed. Basins 1 - 15 are now linked together as a series of detention ponds and connecting channels, all of which deliver storm runoff into Basin 15 for controlled release by a storm sewer which outfalls into the Arroyo de San Antonio.

Following the completion of these drainage improvements, development began around the perimeter of the Ladera System. In particular, the area bordering the south side of Basin 16 is now being developed as the Ladera Heights and Flamingo Heights subdivisions.

Basin 16 has been subject to sporadic development within the area for a number of years. In particular, Sloan Acres, located in the SE region of the study area, has continued to gradually expand its R-1 development. Additionally, isolated single family residences have occupied the NE region for years.

The most recent development proposed within Basin 16 concerns the Katherine - Nichole Addition, a future R-1 site which will occupy the majority of the SW area, adjoining the Ladera Heights Subdivision.

Perhaps the most significant factor affecting Basin 16 concerns a Sector Study being prepared by Mr. John Johnson IV. This sector study is in the final stages of the City and community approval process, and as such, has provided valuable information for formulating an overall drainage concept that the developers of Basin 16 can participate in.

PLANNING/DESIGN PARAMETERS

In any study, design parameters must be established to evaluate the various alternative schemes. A degree of computational detail for planning is required, but this requirement is much less than for design. This study will make use of a certain degree of analytical analysis to establish hydrologic parameters to insure implementation of the chosen scheme. It would be ill gain at this time to supply a final designed plan because of the many variables involved in its selection, the greatest variable being people. The final selection of any plan will depend primarily on the degree of cooperation between the participating parties, of which are included the developers, affected landowners, public institutions and agencies, such as APS and PSC, and the community governing bodies.

In order to provide direction to achieve a common goal, the following general parameters have been established:

- The final solution will be based on the proposed Sector Plan for development of Basin 16.
- The final design will be directly contingent upon the economies of flood hazard protection versus the value of the net land gained by such protection.
- The proposed Unser Blvd. and Western Trail Extension will not be used to convey adjoining area surface runoff to other points within the basin.
- Open areas already in use as the depositories of surface runoff of Basin 16 will continue to be incorporated in future drainage solutions as detention areas.
- Maximum utilization of existing power easements will be required to fulfill implementation of the diversion of storm runoff to points of disposal.
- Proposed high density areas (15 - 20 units/acre) will discharge runoff to common detention areas, rather than unit by unit ponds.
- Proposed and existing R-1 areas in gentle slope areas will comply with City/AMAFCA requirements for controlling increased runoff caused by development.

D E T E N T I O N S Y S T E M S

The guiding principle of any urban drainage facility is to reduce the liability of urban runoff. Given equal consideration with the first principle is the function of providing the most economical alternatives to interior drainage plans. The third consideration involves ways of using facilities to increase the pontential assets of urban runoff. All of these factors can be best satisfied by employing areas with open space for stormwater detention. This concept allows stormwater runoff from the tributary area to accumulate in the natural low lying areas before being discharged through an outlet structure at a controlled rate, allowing the use of small discharge facilities.

Additionally, by incorporating detention areas with proper land development design, urban property values can be enhanced by maximizing recreational and aesthetic opportunities. This commitment of valuable land to stormwater detention becomes a strong planning factor for tying the various parts of the study area together with the vast open space provided by the La Boca Negra Park to the west.

A second commitment to multi-use open space can be ideally achieved through the use of the PSC utility easements. The geographic location of the easements acts as a natural diversion line for surface runoff within the basin. Aside from hydrologic considerations this facility can provide an excellent means of linking an interior trail system with the La Boca Negra Park and the proposed internal routes and detention/open spaces. Any improvements within this easement area would have to be designed to allow its primary users, the PSC, unimpeded access to their facilities. Access to the easement area would be provided directly by service roads within the easement or by internal routes adjoining the easement. Additional design factors of drainage improvements within this area would be a maximum of 3:1 side slopes, no fencing, and proper erosion control around the power poles. Properly done, the easements could become inviting multi-use open space while performing the responsibility of carrying storm waters.

D R A I N A G E A L T E R N A T I V E S

The final selection of a favorable drainage solution is based primarily on economics, the feasibility of implementing this concept among the reviewing and affected parties, and the overall benifit derived to the surrounding areas. Of course, no analysis is truly blessed with clear-cut black and white choices. Every solution to a problem is shaded with gray areas, as is the case here. The gray areas function as secondary factors for the final design, but become the primary considerations for eliminating less acceptable designs.

Some considerations follow: What will the net effect of an economical or expedient on-site solution have on surrounding off-site areas; how are construction fees going to be imposed on an equitable basis for participating developers, in light of different schedules and degree of need of improvements; does the financial tax base of the benefited community allow for a long-term maintenance and replacement plan for the drainage improvements, or are general tax funds going to be burdened; is the entire basin required to have one system-wide drainage solution, and what happens to, and who pays for changes or additions to this system if land use projections are exceeded or not controlled; what degree of protection is required from flooding of urban drainage facilities, and is the type of drainage facility justified in light of infrequent useage.

The following alternatives are influenced by some or all of these considerations.

Alternate 1 - Connection to Ladera Storm Drain

Let's begin with the Boyle Study, which recognized the difficulty of providing an outfall for Basin 16. Their recommendations for this area centered on connecting to the Ladera storm drain, located along the south perimeter of Basin 16. This storm drain is the outlet for Basin 15, which requires about four days to drain under 100 yr. storm conditions.

This approach would appear to be difficult to implement, in that it puts the burden of drainage of Basin 16 on Basin 15. With the additional connection of Basin 16, the storm drain's capacity

to drain Basin 15 is reduced, thereby resulting in longer detention times for both areas, and possible higher storm water elevations in the Basin 15 detention pond. Here we have a situation where an economically attractive solution to Basin 16 puts a neighboring area in possible jeopardy, and that is not acceptable.

However, a scaled down version of this plan might become necessary to provide an outfall for a portion of Basin 16. This portion is referred to as three tracts called Lands of --- Courson, Kirk and Brockway. This area is presently unincorporated and is not included in the Sector Plan, so future land use is unknown.

This sub-basin does not presently drain to the south sump, and under present A-1 useage, it's unlikely that it ever will. If the area continues to be developed as County A-1, then the implementation of 100% retention and subsequent percolation of storm runoff would remain a favorable solution. But, if the area is re-zoned for a higher density, then a drainage problem becomes apparent.

Proposed development around the three tracts will further compound the problem of a closed basin by deleting a portion of an existing playa located on the lands of Roberson Construction Company. It is to this playa that the natural slope of the three tracts presently drain runoff. The net effect of this detention will be to raise the potential storm water level in the remaining playa located on the Lands of Kirk. This in itself does not pose a serious problem, until the affected land is developed.

If the land is developed as an R-1 area, approximately 1.1 acres would be required for a percolation basin. If the future developers desire a positive drainage outlet from this basin, the most economical route would connect to the Ladera Drain Sewer. However, the net area requirement for a collection basin will not appreciably decrease because of the lag time requirement to drain Basin 15. Thus, the cost of a storm sewer would not be offset by additional land being released from the collection area. Future action concerning a storm drainage outlet would have to be made solely on the area's use and need for a positive drain.

Alternate 2 - Drainage by Lined Channel

Dollar for dollar, a lined channel is the most viable means of transporting runoff from one point to another, where right-of-way, slope and funds to build proper crossings are available. Unfortunately, none of these conditions exist for use in Basin 16.

Further considerations which weigh against a channel design are the methods and points of collection and how the channel entrance can be incorporated into the planned development - what land use is going to be sacrificed for the channel entrance and support facilities? Additionally, with a channel design, there is no reduction in the delivery rate of runoff from the collection point to the outfall point. The Arroyo de San Antonio is presently being designed as a lined channel, but the design does not account for peak flow from the additional drainage area of Basin 16.

For these reasons, the use of a lined channel to drain Basin 16 does not present itself as a practicable, favorable solution.

Alternate 3 - Storm Drain to carry Q100, No Detention

The primary consideration which would make this choice unfavorable is the sheer cost of constructing huge collection sewers for capturing and transporting all discharges from the basin. From the standpoint of cost per use derived, the facilities would be used less than the equivalent of one-half hour a day, on the average, over the period of a typical year. Additionally, there will be extended periods during the dry seasons of weeks or months where the storm sewer won't carry any flow at all.

Secondary considerations which weigh against the "no-detention" basin concept are lack of storage capacity, other than within the sewer system itself. There is an inherent safety factor built into the design of a detention basin, which could safely handle situations created by storms of greater intensity than the design storm, or by land use densities exceeding the master plan, or a combination of factors. This flexibility is not found in a total collection system. If it is overtaxed, the consequences of flooding will range from annoying inconvenience to assessable property damage. The problems associated with an inadequate collection system in a

built-up area, and the costs of solving these problems, would be monumental.

Furthermore, the release of a Q100 storm rate on downstream facilities merits the same considerations as stated in Alternate 2.

Alternate 4 - Percolation Basins, No Outfall

Percolation basins are favorable for soils with good permeability rates and deep ground water depths, as is the case here. Aside from the cost of the land given up for the basin area, there is no up-front cost of constructing drainage facilities. Additionally, percolation basins have the added advantage of recharging ground water supplies.

On the negative side, however, percolation rates could decrease over a period of time due to fine silts being blown into the area, street oils and other pollutants, with the net result of a clogged basin.

Furthermore, because the percolation basins would be in use for storm drainage more frequently and for longer periods of time, the concept of joint use would not be compatible with other demands on the area. However, this is not say that this method of handling drainage doesn't have its place in the scheme of development of Basin 16. As previously mentioned in Alternate 1, the Lands of --- Courson, Kirk and Brockway may find the use of a percolation basin as the only viable solution, depending on the outcome of development for the three tracts. And the use of the north and south sump areas as percolation basins, as they are now, may remain an attractive solution for Basin 16 until the pressures of development for the respective basin area dictates other measures.

Alternate 5 - Storm Drain to Carry Q10, Detention Basins from North and South Sump Areas

This drainage scheme involves the use of the north and south sump areas as detention basins to serve as collection points for the majority of Basin 16. Positive outflow from the north and south sumps will be provided by a gravity drain storm sewer with its outfall into the Arroyo de San Antonio at a point north of Quaker Heights Subdivision.

This approach presents the most favorable solution for providing drainage of Basin 16. This master plan for drainage is based on the ultimate development of the area, but the principal benefit of this application is that facilities will not have to be constructed until needed. Part of the ultimate system already exists, that is, the sump areas. These areas can be used in their present configuration without creating unfavorable flooding consequences on neighboring property. When a positive drainage outlet is completed, the remaining basin requirements can be left as is, or reshaped to suit the intended land use.

Design criteria for the anticipated development dictated that a storm intensity of 10 years be used. The choice of this storm interval will keep the outlet facilities small enough to be affordable by the community and yet large enough to gain the maximum land use around each detention basin. An alternative five-year storm was also analysed. This was rejected for the major trunk line design because the reduced flow rate would create larger detention basins with very little reduction in standard pipe sizes. A typical comparison would result in approximately a 19% reduction in peak design runoff without changing the 10 yr. pipe size by more than a 3" diameter reduction.

Although the Sector Plan for Basin 16 was used to determine the general type of land use activity in each sump area, final detention pond configuration and size will depend on a more detailed analysis of the affected areas. The type of multi-use activity, type of surface requirements, the ultimate developers and their respective needs will all dictate the actual shape and specific location of each detention pond. The volume requirements, of course, will be dependent on a more finalized land use plan. In the preliminary design, the volume requirements were not reduced to allow for percolation losses, but final design may dictate some reductions after a thorough soils analysis of each basin region. Care should be taken, however, to account for long range clogging effects which would counter the volume reductions by percolation.

The south sump area, located on Lands of APS, has the multi-use

potential best suited for recreation. However, there is always the future possibility that the land use intensity for the overall tract will not ever require a multi-use of the south sump area. In that case, the south sump could be left as a percolation pond with no outfall. Whatever occurs, it would be paramount that the drain from the north sump be sized to handle flows from the south sump in case of a change of ownership from the APS or a change of land use intensity requiring multi-use. The important overall consideration here is that a connection to a positive drain can be deferred to a future decision because of the versatility of the existing facilities and projected land use of the detention pond area.

The north sump will in all cases require a positive outlet because of the planned use around the pond - neighborhood commercial. But here again, the actual construction of the drain will not have to take place until development of the affected area takes place. The north sump area has multi-use potential as parking and open space tied in with the commercial usage. The area required by this detention pond is predicated on the use of upstream detention ponds proposed within the PSC easement areas. Any change to this concept would put the brunt of the responsibility on the north sump area, and consequently change the land use of the surrounding area because of increased size requirements and extended usage of the detention basin.

A L T E R N A T I V E C O S T S

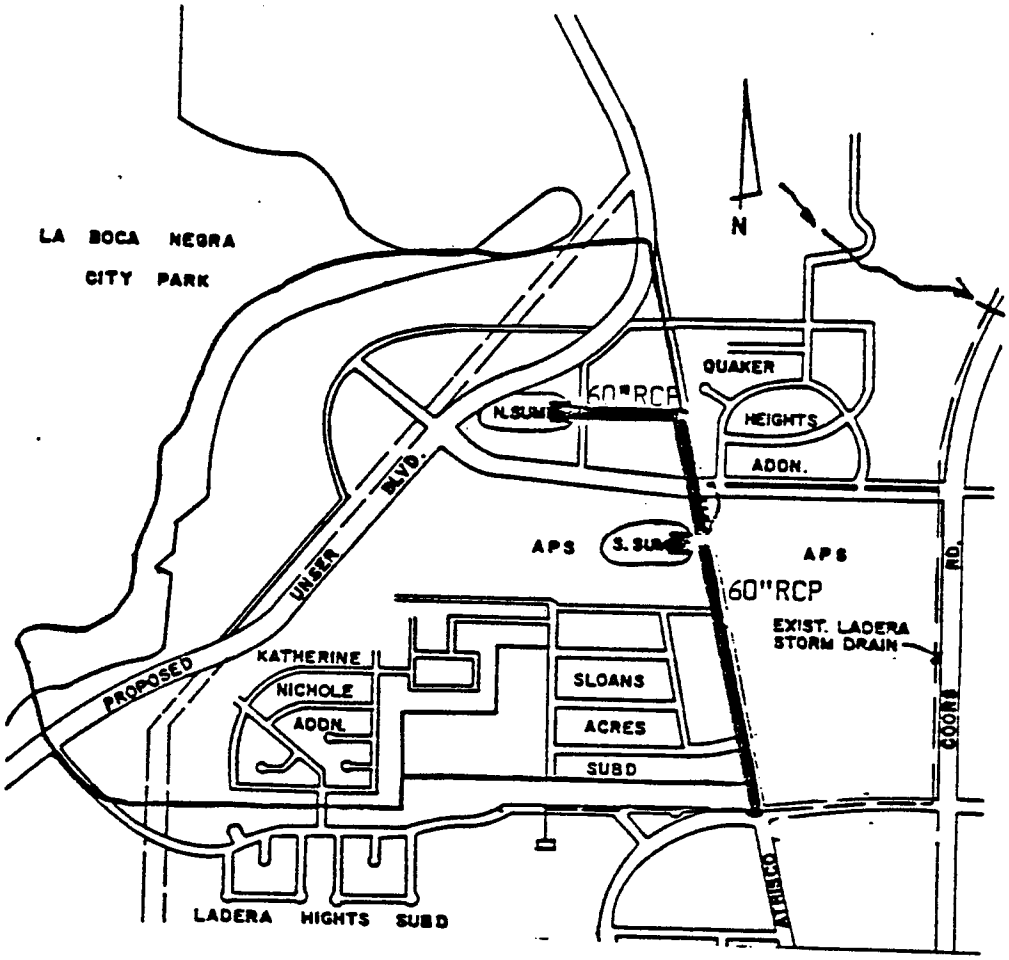
The following costs will show a direct relationship between the cost of constructing the referenced drainage facility and the cost of the land released from the sump areas by the proposed scheme. In other words, the flood hazard cost of having occupied and then protecting this area is going to be compared against the value of the land occupied. Land values in the sump areas are predicated on having Unser Blvd. and Western Trails completed through the area. The south sump, located on APS land, was valued up to $\$1.00/ft.^2$, or \$43,560/acre. The north sump, located on a neighborhood commercial tract, was valued up to $\$2.50/ft.^2$, or \$108,900/acre.

The cost of completing the series of detention ponds within the

PSC easement was not included in each alternate cost. The PSC detention pond scheme is a constant factor to be applied against all of the alternatives, and this does not influence the net gain or loss of the cost of flood protection.

Alternate 1

Concept: Connection of North and South Sump to Existing Ladera Drain System by Storm Sewer.



Const. Costs: 4600 L.F. of 60" RCP with associated MH'S, trenching, inlet boxes and connection to existing Ladera drain $640,000

Land Req'd for Ponds:

North Sump	=	8.9 Ac
South Sump	=	5.6 Ac
		14.5 Ac

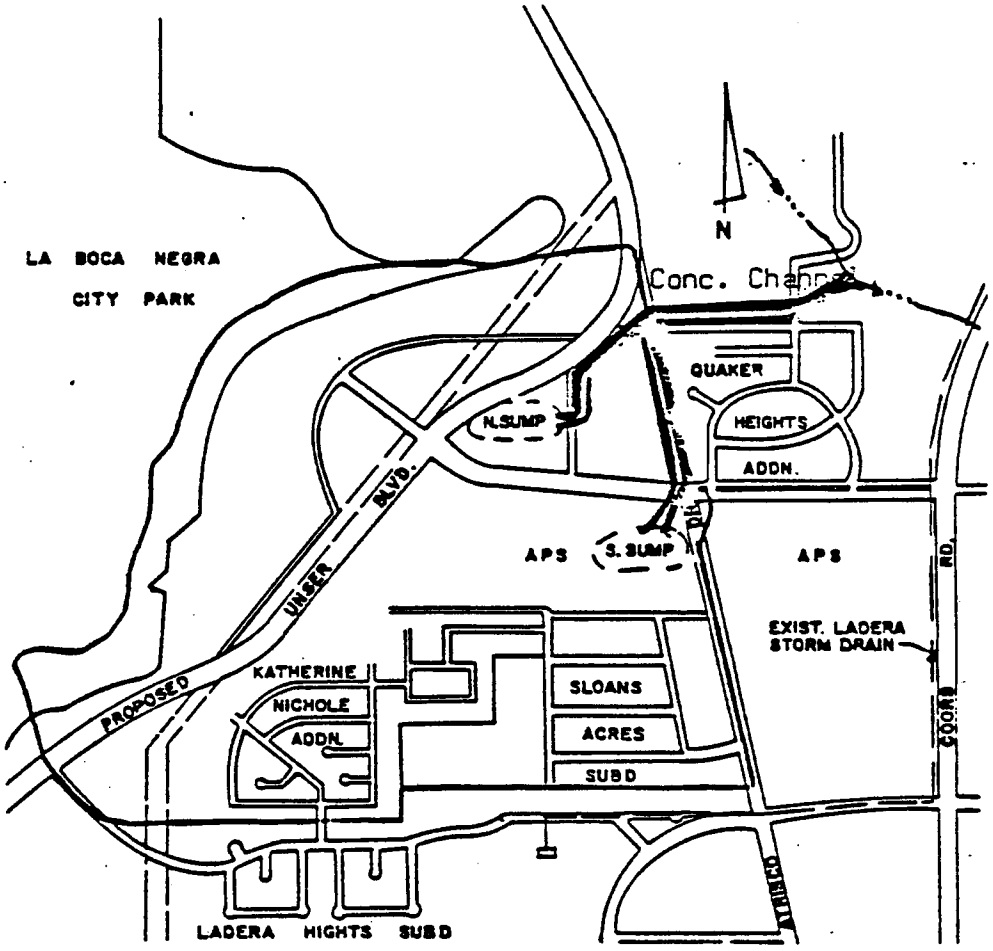
Alternate 1, cont.

Value of Land Req'd:	North Sump	=	$ 969,210
	South Sump	=	243,936
Cost of Drainage Facilities:		=	640,000
	Total		$1,853,146
Total flood plain cost/Ac of 14.5 Acres			$ 127,800/Ac

Comments: This approach is not acceptable because of the burden placed on Basin 15, which requires a four day lag time to drain, thus requiring full use of the north and south sump areas, and the high cost/Ac to provide flood protection.

Alternate 2

Concept: Drainage of north and south sumps to Arroyo de San Antonio by surface channel.



Const. Costs:	4400 L.F. of conc. channel with 100' R/W acquisition costs, one major bridge crossing and two secondary crossings		$ 960,000
Land Req'd for Pond Nucleus:	North Sump	=	8.9 Ac
	South Sump	=	5.6 Ac
			14.5 Ac
Land Gained by Outfall:	North Sump	=	7 Ac
	South Sump	=	4 Ac
			11 Ac
Value of Land Gained by Outfall		=	$ 936,500
Cost of Drainage Facilities and Req'd Land		=	1,236,600

Alternate 2, cont.

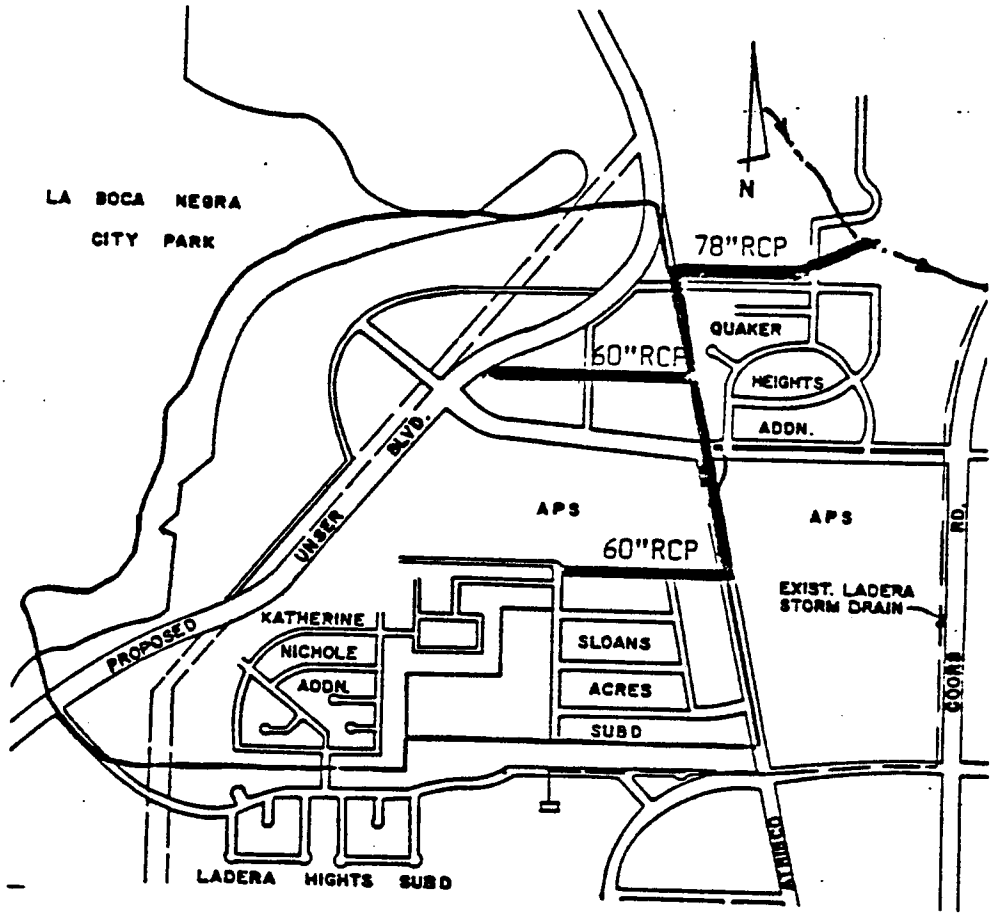
Additional Cost/Ac to Occupy Floodplain of 11 Ac = $ 27,300/Ac

Total Floodplain Cost/Ac of 14.5 Ac = 149,900/ Ac

Comments: This approach is not a practicable solution because of the difficulties in acquiring R/W for the channel, funding the crossing structures, difficulty in incorporating the channel inlets into planned land use, no reduction of peak flows into outfall structure, and the high cost/Ac to provide flood protection.

Alternate 3

Concept: Storm drain to carry Q100, to Arroyo de San Antonio, no detention ponds.



Const. Costs: 3900 L.F. of 60" RCP, 2400 L.F. of 78" RCP with associated MH's, trenching and storm sewer inlets = $1,165,000

Land Req'd for Pond Nucleus:	North Sump	=	8.9 Ac
	South Sump	=	5.6 Ac
			14.5 Ac
Land Gained by Outfall:	North Sump	=	8.7 Ac
	South Sump	=	5.3 Ac
			14.0 Ac
Value of Land Gained by Outfall		=	$1,178,300
Cost of Drainage Facilities and Req'd Land		=	1,199,850

Alternate 3, cont.

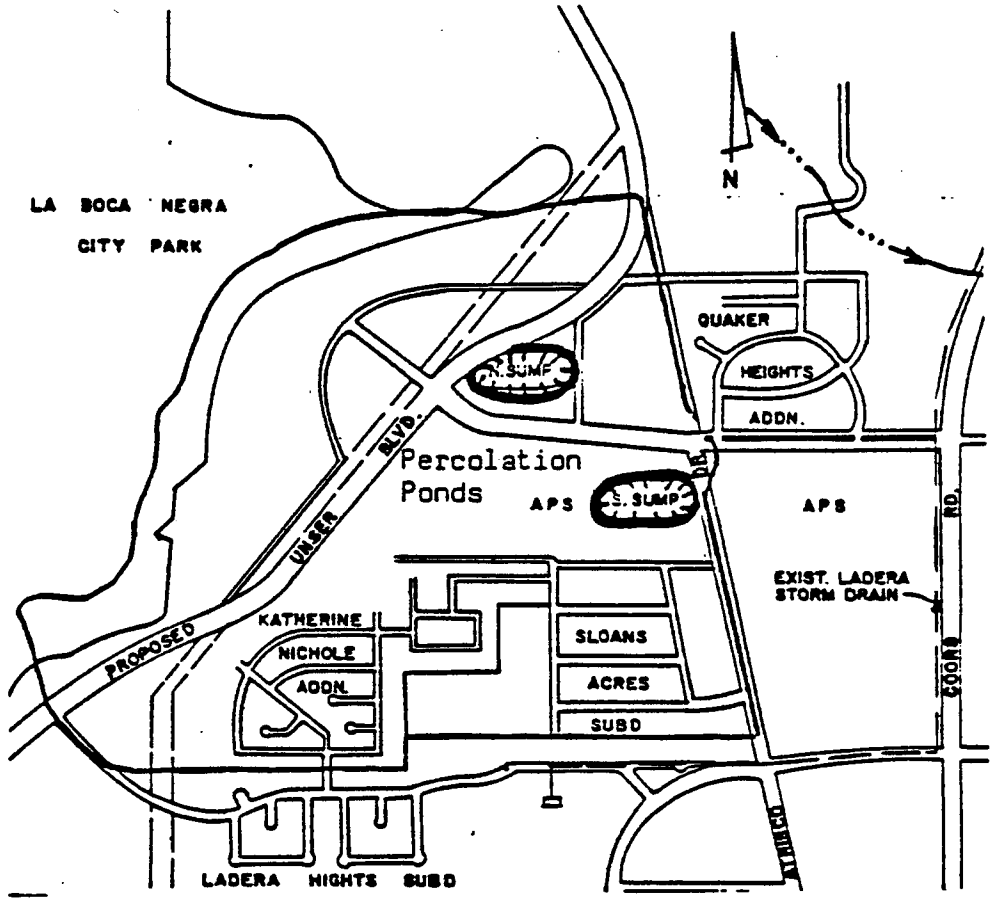
Additional Cost/Ac to occupy floodplain of 14 Ac = $ 1540/Ac

Total Floodplain Cost/Ac of 14.5Ac = 164,000/Ac

Comments: Cost of construction of storm facilities is equally offset by value of land gained, but this solution is not a favorable solution because the outfall facilities of the Arroyo de San Antonio are not designed to take this additional peak flow. Additionally, this system is vulnerable to overtaxation with no surface drainage system to absorb overflow conditions.

Alternate 4

Concept: Percolation basins, no outfall.



Const. Costs: None, other than associated land use improvements. Pond to serve overall basin would have to be purchased to prevent infringement of floodplain.

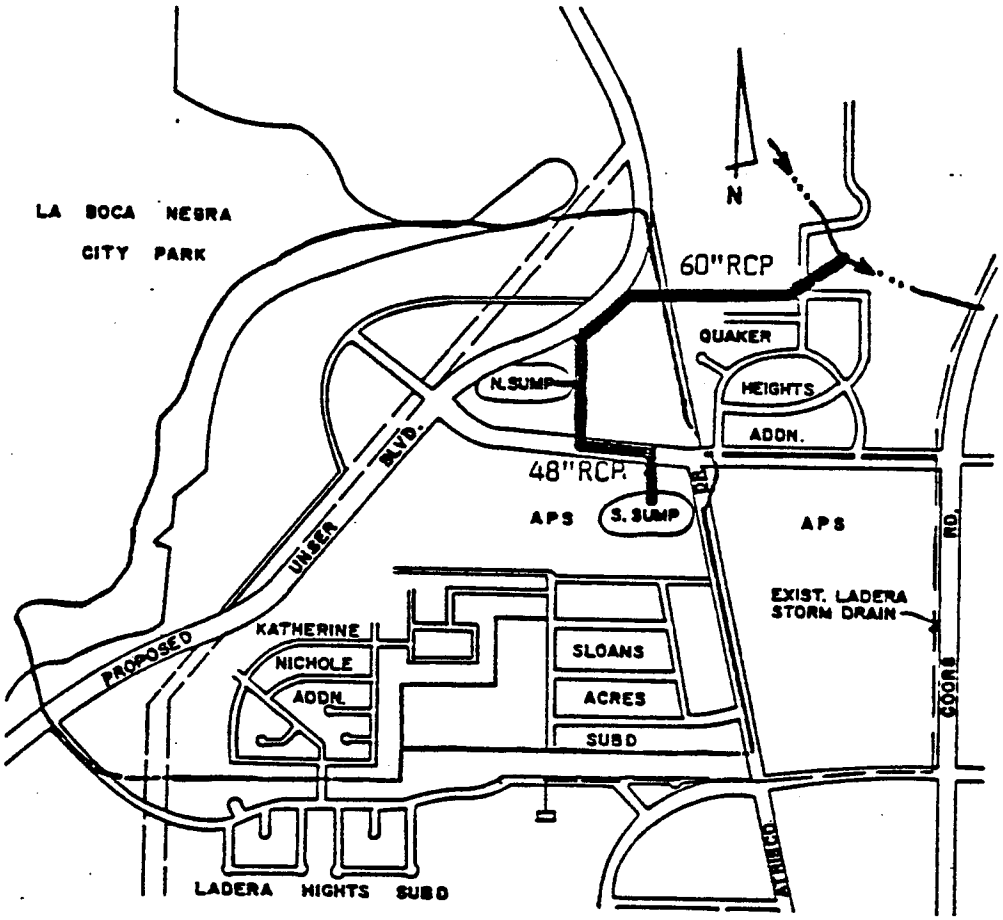
Land Req'd for Ponds:	North Sump	=	8.9 Ac
	South Sump	=	5.6 Ac
			14.5 Ac
Value of Land Req'd:	North Sump	=	$ 969,210
	South Sump	=	243,926
Cost of Land for Floodplain		=	1,213,146
Total Floodplain Cost/Ac of 14.5 Ac		=	83,700/Ac

Alternate 4, cont.

Comments: Percolation ponds have the lowest unit cost/Ac of all the alternatives for a permanent solution. But the long range use of this type of facility is unfavorable due to potential clogging. However, this concept has the favorable aspect of no cost for short term use until a drainage outlet is constructed.

Alternative 5

Concept: Detention ponds with Q10 outflow to Arroyo de San Antonio.



Const. Costs: 1650 L.F. of 48" RCP, 2700 L.F. of 60" RCP with associated MH's, trenching and inlet structures.

		=	$ 565,000
Land Req'd for Pond Nucleus:	North Sump	=	8.9 Ac
	South Sump	=	5.6 Ac
			14.5 Ac

A) Land Gained by Outfall Using Existing Contours:

North Sump	=	4.9 Ac
South Sump	=	1.5 Ac
		6.4 Ac

Alternate 5, cont.

B) Land Gained by Outfall With Constructed Detention Pond:

	North Sump	=	7.8 Ac
	South Sump	=	2.5 Ac
			10.3 Ac
Value of Land Gained by Outfall:		A)	$ 598,950
		B)	$ 958,320
Cost of Drainage Facilities and Req'd Land:		A)	$1,179,200
		B)	$ 819,800
Additional Cost/Ac to Occupy Floodplain of:	A) 6.4 Ac		$90,600/Ac
	B)10.3 Ac		-$13,500/Ac
Total Floodplain Cost/Ac for 14.5 Ac:		A)	$122,600/Ac
		B)	$122,600/Ac

Comments: Two costs of this alternate are possible in that the final detention pond area can be dictated by A) the natural contours of the sumps, or B) can be reshaped by construction to fit a defined land use plan. Note that the value of the land gained in B) is greater than the cost of the drainage facilities, creating a benefit to the land costs.

With the exception of the Alternate 4 scheme, this solution provides the best unit cost/Ac of all the alternates providing an outfall for Basin 16. Additional factors which make this solution the most favorable alternative are the multi-use aspects of the detention basins, the flexibility of the overall system to meet varying needs of development, the degree of protection provided for the cost, and the communities ability to afford and maintain the system. Finally, the outflow rate of Q10 will not place a burden on the proposed Arroyo de San Antonio channel.

SUMMARY OF ALTERNATES

Alternate	Const. Cost	Add. Cost/Ac Floodplain Gained	Total Cost/Ac Overall Floodplai
1. Storm Drain to Ladera	$ 640,000	--	$127,800
2. Surface Channel to San Antonio	960,000	27,300	149,900
3. Q100 Storm Drain to San Antonio	1,165,000	1,540	164,000
4. Percolation Pond - No Outfall	--	--	83,700
5. A) Q10 Storm Drain to San Antonio - Natural Detention Area	565,000	90,600	122,600
B) Q10 Storm Drain to San Antonio - Const. Detention Areas	565,000	- 13,500	122,600

RECOMMENDATIONS

The most favorable and practical solution to providing ultimate drainage for Basin 16 is Alternate 5, A or B. The most economical approach, 5B, in which the detention ponds are constructed to take up the least amount of area, releases a greater portion of the floodplain area for development. However, 5A has the secondary advantage of using natural pond contours, thus reducing the cost of providing fill for site grading of the surrounding areas. Either approach will be based on future considerations, with the overall solution phased to meet the demands of development.

CONCLUSION

This report does not suggest to have the final or only solution, but rather its purpose will have been met in supplying data and direction to help solve a problem and give the affected parties a focal point for their discussions in reaching the final solution.

DETENTION POND SUMMARY

Sub-Basin	Total Area	Peak Devel. Vol w/o Outfall	Natural Det. Area	Peak Vol w/Q10 Outfall	Natural Det. Area	Net Area Gained	Const. Det. Area	Net Area Gained
	(Ac)	(ft^3)	(Ac)	(ft^3)	(Ac)	(Ac)	(Ac)	(Ac)
Area Draining to South Sump	175.80	380,200	5.6	199,100	4.1	1.5	3.1	2.5
Area Draining to North Sump	155.43	564,200	8.9	68,900	4.0	4.9	1.1	7.8

STORM SEWER SUMMARY - Outfall to Arroyo de San Antonio

Sub-Basin	Q100	% Slope	Size	Length	Q10	Slope	Size	Length
South Sump	193	0.50	60"	2700	95	0.50	48"	1650
North Sump	161	0.50	60" 78"	1200 2400	123	0.50	54"	2700
					+ South Sump Flows	0.50	60"	2700

VALUES OF "C" FOR BASIN 16

Type	Range	Avg.
R-1 Single Family	0.40 - 0.70	0.60
A-1 County	0.30 - 0.50	0.45
Multi-Family	0.60 - 0.80	0.70
Neighborhood Commercial	0.50 - 0.80	0.65
School/Green Areas	0.30 - 0.50	0.40
Unimproved	0.10 - 0.70	0.30

RESOLUTION 1980-14

MODIFICATION OF DRAINAGE MANAGEMENT PLAN
WESTERN ALBUQUERQUE METROPOLITAN AREA, BASIN 16

WHEREAS, Basin 16 is that area west of the Rio Grande bounded approximately on the south by Basin 15 (Ladera Golf Course), on the east by Atrisco Drive, and on the west and north by the escarpment; and

WHEREAS, the June 1975 "Drainage Management Plan, Western Albuquerque Metropolitan Area," included much of Basin 16 in the Mirehaven Detention Area North; and

WHEREAS, the Mirehaven plan was superseded by the now completed Ladera Project; and

WHEREAS, the Ladera Project did not include Basin 16; and

WHEREAS, the June 1979 "Design Report for the Ladera Storm Drainage Diversion and Detention System," prepared by Boyle Engineering Corporation, suggested several alternatives for managing storm drainage in Basin 16; and

WHEREAS, the September 1980 Report, "Basin 16, Ladera Study Area Alternate Drainage Concepts," prepared by Consultants/Terra-Sol, Inc. recommends utilizing existing playas for stormwater detention with future modification of the playas and installation of a storm drain as conditions warrant; and

WHEREAS, the above mentioned September 1980 Report has been coordinated with, and is being incorporated into the Lava Shadows, Inc. Sector Development Plan for the same general area; and

WHEREAS, the above mentioned Sector Development Plan is scheduled for public hearing by the City of Albuquerque Environmental Planning Commission in December, 1980.

NOW, THEREFORE, BE IT RESOLVED:

1. That portion of the June 1975 "Drainage Management Plan Western Albuquerque Metropolitan Area" pertaining to Basin 16 is hereby modified by the adoption by the Authority of the drainage management concept outlined as Alternate 5 of the September 1980 Report prepared by Consultants/ Terra-Sol, Inc.

2. Future plans, plats, replats, summary plats, and building permits for property within Basin 16 shall conform to the drainage concept outlined as Alternate 5 of the September 1980 Report prepared by Consultants/Terra-Sol, Inc.

3. The capacity of existing playas to accommodate runoff from the 100-year storm shall be preserved until installation of a storm drain system reduces the need for that capacity.

4. The Authority makes no commitment for building storm drain improvements in Basin 16.

PASSED, ADOPTED, AND SIGNED THIS 25th day of November, 1980.

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Chairman, Board of Directors

(SEAL)

Attest:

_____
Secretary