



Sector Development Plan



Nor Este Sector Development Plan

Originally Adopted by the City Council on 05/18/87 and signed by the Mayor on 06/04/87
City Ordinance No. O-114 and City Enactment No. 23-1987

Amendments:

This Plan incorporates the City of Albuquerque amendments in the following referenced Resolutions, which are inserted at the end of the Plan and are on file with the City Clerk's Office. Resolutions adopted from December 1999 to the present date are also available (search for No.) on City Council's Legistar webpage at <https://cabq.legistar.com/Legislation.aspx> .

<i>Date</i>	<i>Council Bill No.</i>	<i>City Enactment No.</i>	<i>Plan References</i>	<i>(see Note 1)</i>	<i>Description</i>
11/16/17	R-17-213	R-2017-102		NA	Repealing Resolutions & Plans-Replaced by the IDO

Notes:

1. The amendments in the Resolutions may or may not be reflected in the Plan text: "Yes" in this column indicates they are; "No" indicates they are not.
2. This Plan may include maps showing property zoning and/or platting, which may be dated as of the Plan's adoption. Refer to the Albuquerque Geographic Information System (AGIS) for up-to-date zoning and platting information at <http://www.cabq.gov/gis> .

SD - 86 - 3
NOR ESTE
SECTOR DEVELOPMENT PLAN

I certify that this document is in accordance with the recommendations of the Environmental Planning Commission dated February 11, 1987; and with the approval granted by the City Council on May 18, 1987.

Jack Cloud
Planning Director

11/24/87
Date

David W. Harmon
Transportation Development Division, Traffic Engineer

11/24/87
Date

Thomas M. Stone
Parks and Recreation

11-24-87
Date

Jon E. Ertsgaard
Utilities Development Division, City Engineer

11-24-87
Date

Frank J. Caputo
City Engineer, AMAFCA

11-24-87
Date

CITY of ALBUQUERQUE
SEVENTH COUNCIL

COUNCIL BILL NO. 0-114 ENACTMENT NO. 23-1987

SPONSORED BY: Patrick J. Baca

ORDINANCE

ANNEXING CERTAIN TRACTS OF LAND WITHIN AN AREA GENERALLY BOUNDED BY
WYOMING BOULEVARD N.E., MODESTO AVENUE N.E., BARSTOW STREET N.E.,
AND THE NORTH DOMINGO BACA ARROYO, INCLUDING THE ADJACENT RIGHTS OF
WAY AND MORE PARTICULARLY DESCRIBED IN SECTION 1. BELOW, CONTAINING
APPROXIMATELY 176 ACRES, TO THE CITY OF ALBUQUERQUE, NEW MEXICO
ADOPTING THE NOR ESTE SECTOR DEVELOPMENT PLAN; AND AMENDING THE ZONE
MAP OF THE CITY OF ALBUQUERQUE:

WHEREAS, the owner of a majority of the area to be annexed and
herein below described in this Ordinance, which land is contiguous
to the boundaries of the City of Albuquerque, New Mexico, has
heretofore presented a petition properly signed, petitioning, the
Governing Body of the City of Albuquerque, New Mexico, to pass and
adopt an Ordinance annexing said land to the City:

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

Section 1. The following territory is hereby annexed to and
made a part of the City of Albuquerque for all purposes upon filing
a copy of this Ordinance in the office of the County Clerk of
Bernalillo County, New Mexico, and publication of this Ordinance
according to law:

A. All of Blocks 11, 12, 13, 16, 17, and Lots 8-21, Block
18, Tract 2, Unit 3, North Albuquerque Acres; filed in the office of
the County Clerk of Bernalillo County, New Mexico, on April 24, 1936;

B. The following described right-of-way:

1. Wyoming Blvd. from the north right-of-way of

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1 Alameda Blvd., to the north right-of-way of Modesto Avenue.

2 2. Modesto Ave. from the east right-of-way of Wyoming
3 Blvd., to the west right-of-way of Barstow St.

4 3. Barstow St. from the north right-of-way of
5 Modesto, to the north right-of-way of Alameda; and from the south
6 right-of-way of Wilshire, to the south right-of-way of Carmel Ave.

7 4. All of Eagle Rock, Oakland, Corona, and Anaheim
8 Avenues, between the east right-of-way of Wyoming, to the west
9 right-of-way Barstow.

10 5. All of Carmel Ave. from the west right-of-way of
11 Barstow, to the west property line of Lot 21, Block 18, Tract 2,
12 Unit 3, North Albuquerque Acres.
13 Comprising a total of approximately 176 acres.

14 Section 2. The Nor Este Sector Development Plan, which is
15 comprised of two coordinated sector development plans, Nor Este I
16 and Nor Este II, covering the area hereby annexed, is adopted as a
17 Rank Three plan. The plan documents, which are attached hereto and
18 made a part hereof, are comprised of a book, the appendices of which
19 are not adopted; seven separately bound Exhibit sheets; and a set of
20 amendments of the above, "Addendum/Nor Este Sector Development Plan."

21 Section 3. The zone map, adopted by Section 7-14-46.C., R. O.
22 1974, is hereby amended as follows:

23 A. Establishment of RO-1 zoning for Lots 28-32, Block 16
24 and Lots 15 and 16, Block 18, Tract 2, Unit 3, North Albuquerque
25 Acres.

26 B. Establishment of RD zoning for the remainder of the
27 property described in Section 1.

28 Section 4. Effective Date and Publication. This ordinance
29 shall become effective five days after publication in full. In
30 addition, the annexation specified in Section 1 hereof shall take
31 effect only after a copy of this ordinance and a plat of the
32 territory hereby annexed is filed in the office of the County Clerk.
33

1 PASSED AND ADOPTED THIS 18TH DAY OF May,

2 1987.

3 BY A VOTE OF 8 FOR AND 0 AGAINST.

4 Yes: 8
Excused: Hoover

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11 APPROVED THIS 4th DAY OF June, 1987.

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ATTEST:

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City Clerk

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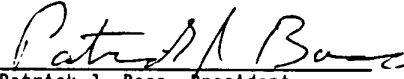
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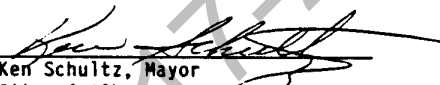
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Patrick J. Baca, President
City Council


Ken Schultz, Mayor
City of Albuquerque


City Clerk

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NOR ESTE SECTOR DEVELOPMENT PLAN

Prepared for:
**PRESLEY COMPANY
OF
NEW MEXICO**

Prepared by:
**ESPEY, HUSTON
& ASSOCIATES, INC.**

December 1986
Revised per E.P.C. Conditions 2/11/87
Revised per City Council Approval 5/18/87

**NOR ESTE
SECTOR DEVELOPMENT PLAN**

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V	Existing On-Site Drainage Conditions
VI	Drainage Management Plan
VII	Utilities Plan
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SECTION I
INTRODUCTION

REPEALED (R-17-213)

INTRODUCTION

North Albuquerque Acres is characterized by a variety of issues which have significantly altered the pattern, timing and direction of growth of metropolitan Albuquerque. The NOR ESTE SECTOR DEVELOPMENT PLAN represents the first effort consistent with City Policies to consolidate and replat parcels in North Albuquerque Acres since the Heritage Hills East Sector Development Plan (1982). The catalyst for the NOR ESTE SECTOR DEVELOPMENT PLAN has been the recent construction and opening of La Cueva High School, and the recently approved *La Cueva High School Land Use Guide* (1986), prepared through the cooperative efforts of area-wide residents, landowners, and various City and County authorities.

Much of the background information for NOR ESTE had been previously established through the approval of such documents as the *Subareas Master Plan for the Developing Urban Area of North Albuquerque Acres* and *La Cueva High School Land Use Guide*. As such, the NOR ESTE SECTOR DEVELOPMENT PLAN relies upon and references these documents throughout the following discussion.

Presley Company of New Mexico is very pleased to present the NOR ESTE SECTOR DEVELOPMENT PLAN for approval, together with concurrent requests for annexation to the Municipal Limits of Albuquerque and establishment of zoning. Presley Company has been and continues to be dedicated to quality growth in Albuquerque.



Lew Wilmot, President

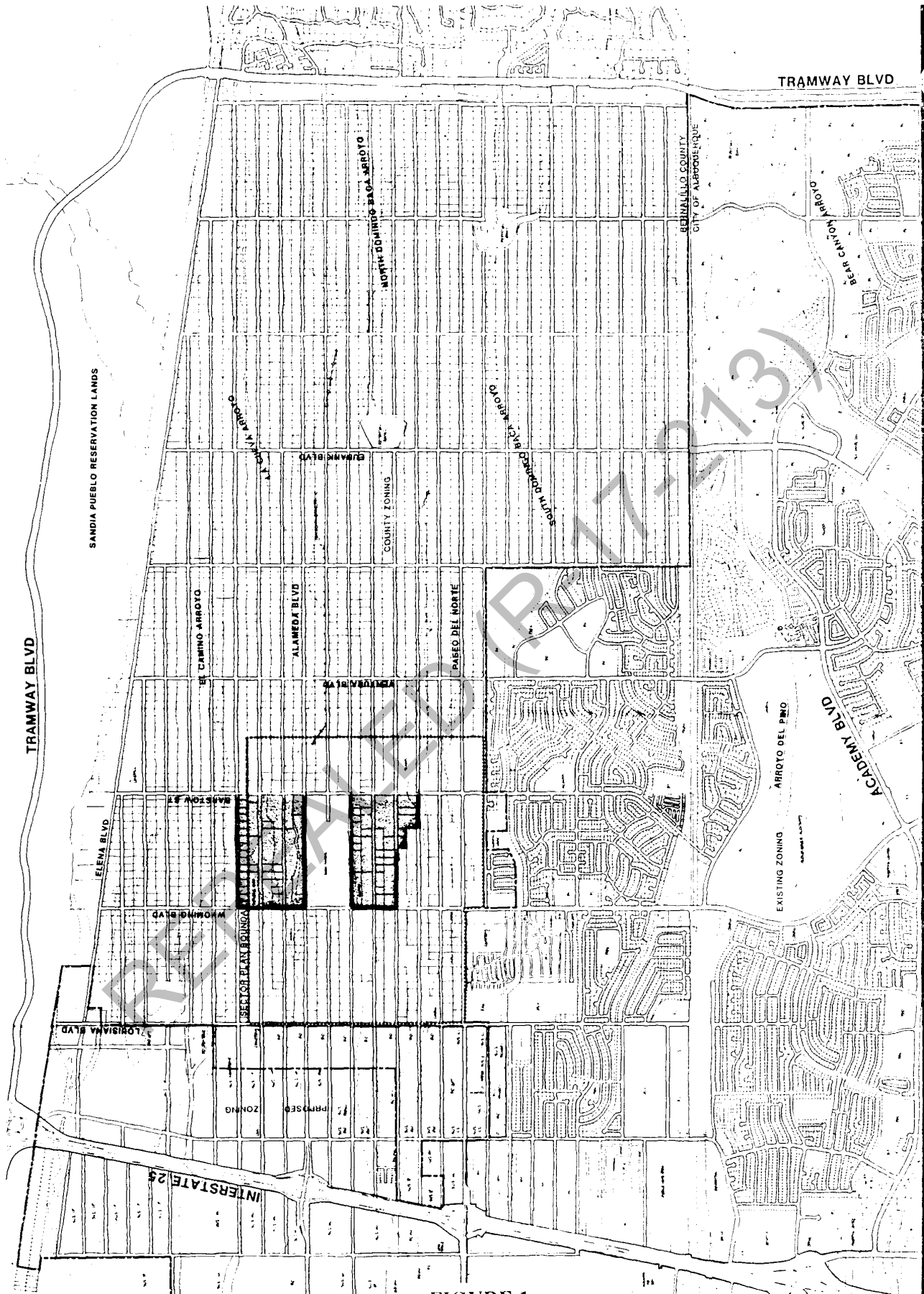
Presley Company of New Mexico

LOCATION AND SETTING

The NOR ESTE SECTOR DEVELOPMENT encompasses approximately 176 acres in the far northeast heights of metropolitan Albuquerque, and is part of the original 1930's platting of North Albuquerque Acres. The Sandia Pueblo lies approximately three-quarters of a mile north of NOR ESTE, and is considered by the Comprehensive Plan to be the northern limit of urbanization of Albuquerque. To the east lie the Sandia Mountains and lands preserved as National Forest and open space. The site affords vistas of the Sandia Mountains to the east, the Rio Grande valley bosque areas, and volcanoes to the west (Figure 1). Primary access to the far northeast heights of Albuquerque is presently provided by the major north-south arterials, Louisiana Boulevard, Wyoming Boulevard and Tramway Boulevard, and from the east and west by Paseo del Norte and Alameda Boulevard which are served by interchanges at I-25. Paseo del Norte is planned to bridge the Rio Grande and connect with the west side.

NOR ESTE consists of two parcels of land, separated by the recently constructed La Cueva High School. The north parcel, identified as "Window D" (expanded by EPC action 10/2/86), contains approximately 98 acres. The south parcel, identified as "Window F", contains approximately 78 acres. These "windows" are identified by this Sector Development Plan as NOR ESTE I and II, respectively.

NOR ESTE I is bounded north and south by Modesto and Alameda, respectively. NOR ESTE II is bounded on the north by Wilshire, and on the south by Anaheim and Carmel. Both parcels are bounded on the east and west by Barstow and Wyoming. The municipal limits of Albuquerque presently extend north from Paseo del Norte along Wyoming and encompass the La Cueva High School area between the two parcels. NOR ESTE I and II are principally accessed from the north and south by Wyoming, and from the east and west by Alameda and Paseo del Norte.



NORTH ALBUQUERQUE ACRES/HIGH SCHOOL AREA SECTOR DEVELOPMENT PLAN
 MUNICIPAL DEVELOPMENT DEPARTMENT/PLANNING DIVISION 4TH FLOOR CITY-COUNTY BUILDING (505) 788-3100

NOVEMBER 20, 1985

DATE OF PREPARATION: 11/20/85
 DRAWN BY: J. L. GARCIA
 CHECKED BY: J. L. GARCIA
 APPROVED BY: J. L. GARCIA

LEGEND

SYMBOL	DESCRIPTION
[Symbol]	SCHOOL
[Symbol]	CEMETERY
[Symbol]	1898 FLOODPLAIN
[Symbol]	EXISTING ZONING
[Symbol]	ARROYO DEL RIO
[Symbol]	PROPOSED ZONING
[Symbol]	PROPOSED DEVELOPMENT
[Symbol]	PROPOSED HIGHWAY
[Symbol]	PROPOSED RAILROAD
[Symbol]	PROPOSED AIRPORT
[Symbol]	PROPOSED PORT
[Symbol]	PROPOSED CANAL
[Symbol]	PROPOSED DRAINAGE
[Symbol]	PROPOSED UTILITIES
[Symbol]	PROPOSED FLOODPLAIN
[Symbol]	PROPOSED AIRPORT
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[Symbol]	PROPOSED DRAINAGE
[Symbol]	PROPOSED UTILITIES

BASE DATA APPROXIMATE

SYMBOL	DESCRIPTION
[Symbol]	1898 FLOODPLAIN
[Symbol]	EXISTING ZONING
[Symbol]	ARROYO DEL RIO
[Symbol]	PROPOSED ZONING
[Symbol]	PROPOSED DEVELOPMENT
[Symbol]	PROPOSED HIGHWAY
[Symbol]	PROPOSED RAILROAD
[Symbol]	PROPOSED AIRPORT
[Symbol]	PROPOSED PORT
[Symbol]	PROPOSED CANAL
[Symbol]	PROPOSED DRAINAGE
[Symbol]	PROPOSED UTILITIES

4 **FIGURE 1**

Both sites are characterized by platted rectangular blocks of land, subdivided into one-acre parcels, primarily bounded by unimproved roadways, and partially encumbered by 100-year floodplains, resulting in a monotonous and uniform grid pattern, with many undevelopable parcels. The 1930's platting of North Albuquerque Acres was not sensitive to the natural environment, slopes, or drainage constraints of the northeast mesa.

REPEALED (R-17-213)



SECTION II
DEVELOPMENT ISSUES

REPEALED (R-17-213)

PLANNING FRAMEWORK

The NOR ESTE SECTOR DEVELOPMENT PLAN is included within and governed by the following adopted plans and policies:

RANK I

Albuquerque/Bernalillo County Comprehensive Plan Elements:

1. Metropolitan Areas and Urban Centers Plan (1975)
2. Policies Plan (1975)
3. Plan for Major Open Space (1975)

RANK II

Subareas Master Plan for the Developing Urban Area of North Albuquerque Acres
(1978)

Facilities Plan for Arroyos (1986)

Long Range Major Street Plan (1986)

Master Plan of Water Supply (1982 Update)

Areawide Wastewater Treatment and Facilities Plan (1978)

OTHER

La Cueva High School Land Use Guide (1986)

* * * * *

RANK I

ALBUQUERQUE/BERNALILLO COUNTY COMPREHENSIVE PLAN

Metropolitan Areas and Urban Centers Plan:

The site is located within the Developing Urban Area of the *Albuquerque/Bernalillo County Comprehensive Plan*, which recommends moderate residential densities or cluster development of 3-6 dwelling units per acre (du/ac) (Figure 2). The Developing Urban Area is described in this plan "to include master planned and uncommitted areas without accepted and approved platting which have adequate resource capabilities for urbanization. A full range of services would be extended to this area in an orderly manner. Development in the area would be subject to the *Policies Plan* and other pertinent guidelines and requirements such as the *Comprehensive City Zoning Ordinance*. Overall densities within this area would be moderate, ranging from 3 to 6 dwelling units per acre, and should include clustered development. Mapping of *Developing Urban* areas follows the policy to encourage development on the northeast, southeast, and west mesas (Policy A.1.a). The map delineates those mesa areas considered suitable for urbanization in terms of natural resource capacities and urban service potential."

Policies Plan:

The intent of the *Policies Plan*, the first basic element of the Comprehensive Plan, "is to outline the role of local government in transforming uncontrolled growth into quality development which is socially, economically, and ecologically sound."

The *Policy Plan* "Goal and Policy" statements applicable to the NOR ESTE SECTOR DEVELOPMENT PLAN are: Policies A.1.a. and g.; A.2.d., e., f., l. and o.; A.4.a., b., c. and d.; A.5.a., e., g., k. and p.; B.1.a., b. and c.; B.2.a., b. and c.; B.3.a., b. and c.; B.5.d.; and B.6.d.

Plan for Major Open Space:

The *Plan for Major Open Space* addresses the provision of open space surrounding the City. These open areas are intended to serve the recreational needs of people as well as to psychologically and visually offset urbanization. The *Plan for Major Open Space* identifies the arroyo channels in North Albuquerque Acres, outside of the 10-year storm, as possibly appropriate for public recreation. This may include the area between the 10-year storm and 100-year storm, or adjacent areas. Suggested techniques for implementation include dedication, fee simple purchase, shared purchase with other public agencies for multiple uses, negotiation within the existing park dedication policy, or land banking.

* * * * *

RANK II

Subareas Master Plan for the Developing Urban Area of North Albuquerque Acres:

This plan recognized that obsolete platting, drainage patterns, topography and diverse land ownership were serious impediments to urban development in North Albuquerque Acres. The *Subareas Master Plan* was designed to serve as "a guideline for private development and for the location and sequence of public improvements." The plan also prescribes requirements for development, and most importantly, states that no development should occur in North Albuquerque Acres until the adoption of sector development plans for the subareas. The entire area was divided into subareas primarily based upon drainage and topographic concerns, under the assumption that the subareas would be independent development areas sequenced for development through privately initiated sector development plans.

The Facility Plan For Arroyos:

This plan addresses multiple-use of Albuquerque's arroyos and their flood-plains, and designates the La Cueva Arroyo as a major open space link. As such, the drainageway could also serve as a recreational connection between the Sandia Foothills and the Rio Grande bosque. The *Facility Plan for Arroyos* has been adopted by the Bernalillo County Commission and the Albuquerque City Council.

Long-Range Major Street Plan:

This plan identifies major and minor arterials and collector streets and defines right-of-way widths and roadway characteristics for the major streets.

Master Plan of Water Supply (1982 Update):

The 1963 *Master Plan of Water Supply*, updated in 1982, represents the results of a comprehensive study of the Albuquerque water system. Its purpose is to guide the City in logically and efficiently developing the system. The 1982 Update consists of the text and maps which embody the design methodology, ultimate network configuration, and production, storage and transmission facility requirements of the system. The *Master Plan of Water Supply* is used by the City in the planning, design and construction of lines, wells, pump stations and reservoirs throughout the Capital Improvements Program.

Albuquerque Areawide Wastewater Collection and Treatment Facilities Plan

The wastewater facilities plan represents the results of a comprehensive study of the City's wastewater collection and treatment system. The facilities plan was prepared as a prerequisite for federal wastewater grant funds, and

includes an analysis of the interceptor system, treatment needs, sludge handling, and an environmental impact statement. The plan was adopted in 1978 by the City of Albuquerque under joint powers agreements with the Villages of Corrales, Tijeras and Los Ranchos de Albuquerque, and Bernalillo County.

OTHER

La Cueva High School Land Use Guide:

This *Guide* was prepared through the cooperative efforts of area landowners, residents, and public officials in response to various development proposals and the planned construction of La Cueva High School. As noted in the *Subareas Master Plan*, urbanization of North Albuquerque Acres has been hampered by a multitude of issues, primarily diversity of ownership. The *Guide* establishes a series of "windows" through which development may occur based upon the willingness of property owners to cooperate in the formulation of a Sector Development Plan. The significance of these "windows" is that they represent a reduction in size of areas to be Sector Planned, as previously identified in the *Subareas Master Plan*. The *Guide* also established six governing concepts for development of this area.

DEVELOPMENT ISSUES ANALYSIS

While each of the plans outlined under PLANNING FRAMEWORK is, to some degree, pertinent to NOR ESTE, many of the specific objectives are more directly related to specific site plans or subdivision designs, while others refer to areawide concepts requiring more extensive development before they would apply.

However, the NOR ESTE SECTOR DEVELOPMENT PLAN is consistent with the goal and policy statements of these plans. While the full extent of this compliance will become apparent throughout the remainder of this report, major objectives applicable to this sector plan have been addressed as follows:

NOR ESTE is located within the Developing Urban Area of the Albuquerque/Bernalillo County Comprehensive Plan. As such, overall densities should be "moderate, ranging from 3 to 6 dwelling units per acre, and should include clustered development... Development in the area would be subject to the Policies Plan and other pertinent guidelines and requirements such as the Comprehensive City Zoning Ordinance."

In keeping with this, the NOR ESTE SECTOR DEVELOPMENT PLAN includes a density management plan intended to maintain densities in the 3 to 6 dwelling units per acre range, while permitting a range of housing options, including Single Family Detached, Townhouse, and Multi-Family.

The Policies Plan, which represents the second element of the Comprehensive Plan, has the following among its stated goals: To preserve the unique natural features of the metropolitan area by achieving a pattern of development and open space respecting the river lands, mesas, mountains, volcanoes, and arroyos; to achieve a quality urban environment which perpetuates the tradition of identifiable, individualistic communities within the metropolitan area; to set aside accessible and useable open spaces within each neighborhood; and to provide a balanced circulation system through

encouragement of bicycling, walking, and use of mass transit as alternatives to automobile travel, while providing sufficient roadway capacity to meet mobility and access needs.

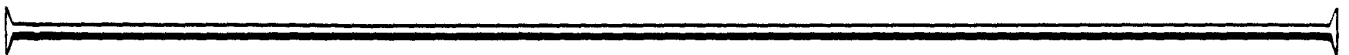
NOR ESTE has been conceived from the start as a distinctive development in keeping with these goals. As further described in the Land Use Section, NOR ESTE strives to achieve "mixed-use" inasmuch as is appropriate under subsequent adopted policies such as the La Cueva High School Land Use Guide. Residential areas have been planned to encourage site-sympathetic layout and design. And, in keeping both with these goals and the further objectives of the Plan for Major Open Space, recreation, as well as bicycle, pedestrian, and equestrian trail links, is provided by a 9-acre park incorporating the La Cueva Arroyo.

The remaining "Rank II" and "Other" plans outlined in the PLANNING FRAMEWORK are intended to reinforce the Comprehensive Plan and offer more specific means to obtain the goals outlined above. It is the methodology derived from these more specific plans and guides which comprises the remainder of this sector development plan.



SECTION III
ENVIRONMENTAL CONDITIONS

REPEALED (R-17-213)



ENVIRONMENTAL CONDITIONS

NOR ESTE is located in Albuquerque's east mesa area on soils comprised of alluvium from the west base of the Sandia Mountains. Slopes are approximately 3% from a high elevation of 5,485 feet at the east to a low of 5,390 feet along the western edge of the Plan area.

NOR ESTE I is bisected by the La Cueva Arroyo, which has been designated as a Major Open Space Link in the City of Albuquerque's *Facility Plan for Arroyos* (1985 draft). Also within the Plan area are several smaller, unnamed drainageways which are not of great significance. The North Domingo Baca Arroyo lies just south of NOR ESTE II and was not identified in the *Facility Plan for Arroyos*.

Soils in the area (Exhibit I) are from the "Tijeras-Embudo" association. These generally are deep, well drained soils formed from decomposed granite rocks on old alluvial fans. Typical profiles in the Embudo series consist of brown gravelly fine sandy loam to a depth of 4 inches, underlain by 16 inches of brown to brownish gray gravelly sandy loam, which is followed approximately 15 inches of brown sandy clay loam with accumulations of lime in the bottom portion. Soils in this association have moderate alkalinity, moderate permeability, and are suitable for construction and community development.

The plant community within the Plan area is typical of most of the east mesa area and consists mainly of grasses mixed with annuals and some shrubs, covering about 15% of the ground surface. Black Grama is the dominant grass for this soil association, with Blue Grama, San Dropseed, Three-awn, Galleta, Sideoats Grama, and Indian Ricegrass also apparent. Other plants representative of this area include Broom Snakeweed, Russian Thistle, Small Soapweed (*Yucca*), and Cholla Cactus. Apache Plume is the dominant shrub, and is found mainly in the drainageways.

This plant community exists in a rather fragile balance, and if disturbed, requires substantial time to become reestablished. Unless other means of stabilization are undertaken, such as landscaping of developed areas, erosion from both wind and water can become a problem in disturbed areas.

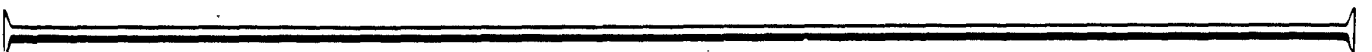
An archaeological resource survey was conducted for NOR ESTE in September 1986 by Mariah Associates, Inc. of Albuquerque (Appendix A). Aside from "abundant modern trash and hunting debris", three localities of findings were recorded within the NOR ESTE I area, and two in NOR ESTE II. One site is believed to be the deteriorating remnants of a temporary military storage facility, while two of the others were isolated occurrences which appear to be prehistoric stone tools. However, none of the occurrences were considered to be culturally significant. The probable military camp is less than 50 years old, and the two prehistoric artifacts occur as isolates without contextual integrity.

This summary of this Class III cultural resource survey states that "the project area has been utilized by prehistoric groups, but the nature of activities has left little detectable remains. The topography and soils within the project area have been formed primarily from wash erosion and deflation which involves a process not conducive for burying cultural remains. Thus, the presence of undetected, buried deposits in the project area is unlikely. No additional cultural resource evaluations are recommended before these two parcels are developed."



SECTION IV
LAND USE

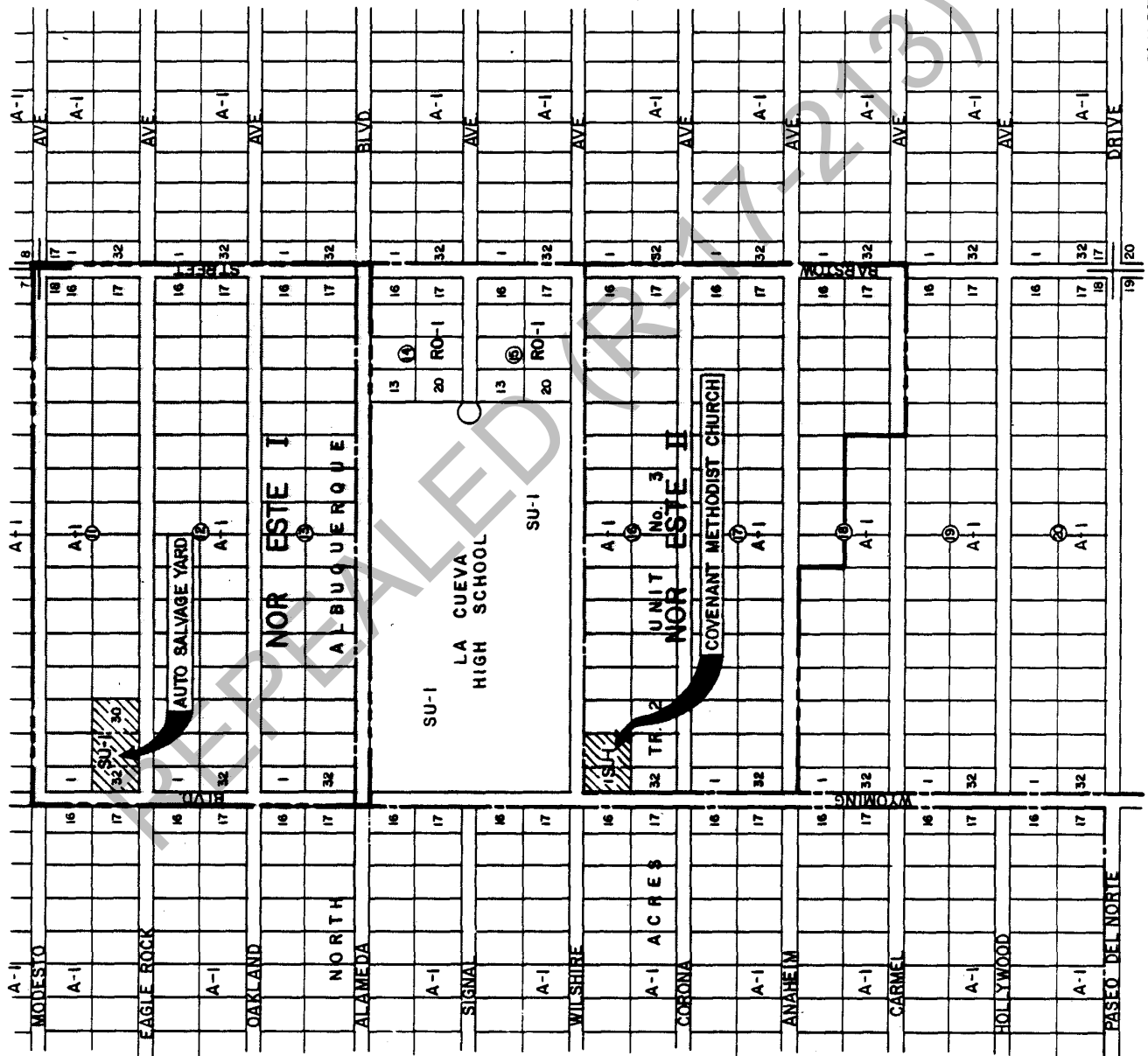
REPEALED (R-17-213)



EXISTING LAND USE/ZONING

Presently, the area encompassed by the NOR ESTE SECTOR DEVELOPMENT PLAN is largely vacant and zoned County A-1 (Figure 3). A Special Use Permit for an auto salvage yard is in effect for Lots 30-31, Block 11, Tract 2, Unit 3, North Albuquerque Acres. In preparation for the development of NOR ESTE, the salvage yard is being removed. The Covenant Methodist Church is located on Lots 1 and 2, Block 16, Tract 2, Unit 3, North Albuquerque Acres. Both the salvage yard and church sites are zoned County A-1.

The surrounding area is characterized by large lot residential development. A notable exception outside the NOR ESTE boundaries is the recently constructed La Cueva High School, which was recently annexed to the Municipal Limits of Albuquerque and zoned for Special Use. Other developments surrounding NOR ESTE include scattered single-family dwellings, churches and several small commercial enterprises, all of which are zoned County A-1 and developed either through existing County A-1 zoning, Special Use Permit or Conditional Use.



EXISTING LAND USE / ZONING

FIGURE 3

PROPOSED LAND USE AND ZONING

Through active participation by area residents and landowners, Concept Three (Figure 4) was selected as the proposed alternative. As part of the development program, the *Guide* established "Window" areas which represent a reduction in size of the "Subareas", identified in the *Subareas Master Plan for North Albuquerque Acres*, while still requiring the development and approval of Sector Development Plans. The *Guide* also proposed land uses for each "Window". NOR ESTE includes the areas identified as "Windows D (amended) and F". More specifically, "Window D" has been enlarged for sector planning purposes to include the north half of Block 11, to Modesto, while "Window F" is presented as proposed in the *Guide*.

NOR ESTE contains three categories of development: Residential (including low density 3 to 6 du/ac, 3 to 9 du/ac and low-to-medium density, 3 to 28 du/ac, all proposed to be zoned R-D); Office/Institutional (to include the Wyoming frontage between Anaheim and Corona proposed to be zoned R-D) and Church and Related Uses (to include the existing Covenant Methodist Church and land holdings proposed to be zoned R-D). The proposed land uses are in substantial compliance with "Concept Three" of the *Guide* (Exhibit III). A notable exception is the proposed land use for the north half of NOR ESTE I. The *Guide* identifies an Equestrian Center/Inn, while NOR ESTE I is proposing single-family detached housing. The proposed single-family development in lieu of an equestrian center/inn is more compatible with the development and urbanization of this portion of North Albuquerque Acres. An equestrian center/inn is better suited for a more rural atmosphere. Additionally, it is critical that a base population be established in order to support the non-residential uses identified in the *Guide*.

***RESIDENTIAL (R-D Residential and Related Uses Zone - 138 Acres)**

Three to Six Dwelling Units/Acre. These areas comprise approximately 46% of the total residential land uses. These areas include the north half of

*Reference: *DEVELOPMENT STANDARDS* subheading.

NOR ESTE I and generally the eastern third of NOR ESTE II. These areas represent the core development of NOR ESTE I and II and are intended to provide the initial base population group in which to support non-residential uses in this area of North Albuquerque Acres. Development of these sites shall be controlled through the Subdivision process and shall not require Site Development Plan approval.

Three to Nine Dwelling Units/Acre. These areas comprise approximately 45% of the total residential land uses. These areas include the south half of NOR ESTE I and generally the western two-thirds of NOR ESTE II. These uses generally represent transition zones between non-residential uses and the 3 to 6 du/ac single-family residential. Development of these sites shall be through the Subdivision process and shall not require Site Development Plan approval.

Three to Twenty-Eight Dwelling Units/Acre. These areas comprise approximately 9% of the total residential land uses. These areas are all located within NOR ESTE II, at generally the same locations identified in the "Land Use Guide—Concept Three". Development of these sites shall be through the permitting process and shall not require Site Development Plan approval if developed at less than 12 dwelling units to the acre.

OFFICE/INSTITUTIONAL (R-D Office and Institution Zone - 4.4 Acres)

These areas comprise approximately 3% of the total Sector Development Plan. These areas include the frontage along Wyoming Boulevard from south of the Church to Anaheim Avenue NE. These areas are generally located as identified in the "Land Use Guide—Concept Three".

"R-D for Office and Institutional allows permissive and conditional uses as specified in the -01 zone of the Zoning Code. Site Development Plan approval by the Planning Director is required."

CHURCH AND RELATED USES (R-D Zone - 4.0 Acres)

This area comprises approximately 2% of the total Sector Development Plan, and includes the existing Covenant Methodist Church and land holdings, located at the southeast corner of Wyoming Boulevard and Wilshire Avenue NE. Further expansion or new development on this site requires site development plan approval by the Planning Director.

REPEALED (R-17-213)

DEVELOPMENT STANDARDS

- I. A) Development of densities greater than 12 du/net ac. for Use Areas #12, #13 and all non-residential uses shall require approval, by the Planning Director, of a Site Development and Landscaping Plan, as noted in Section 18.A. of the Comprehensive City Zoning Code.

- B) Development/Design Standards for densities greater than 12 du/net ac.:

Density

- 1) A floor area ratio (FAR) of 0.5 is the maximum permitted.

Setback

- 1) There shall be a front-yard setback of not less than 10 feet except setback for a garage or carport shall be not less than 20 feet.
- 2) There shall be a side-yard setback of not less than five feet, except:
- a) There shall be 10 feet on the street side of corner lots, and

Height

- 1) ~~There shall be a rear-yard setback of not less than 15 feet.~~ Structure height up to 26 feet is permitted at any legal location. The height and width of the structure over 26 feet shall fall within 45-degree-angle planes drawn from the horizontal at the mean grade along each internal boundary of the premises and each adjacent public right-of-way centerline, or drainageway right-of-way centerline. To protect solar access, a structure over 26 feet may not exceed the northern boundary of these 45-degree planes, but may be sited in any other direction within planes drawn at a 60-degree-angle from the same boundaries or centerline.

Exceptions to the above are provided in Section 40.C and E of the Comprehensive City Zoning Code.

Off-Street Parking:

- 1) Off-street parking spaces shall be as provided in Section 40.A. of the Comprehensive City Zoning Code.

- II. A) "Regulations of Section 10.E. of the Comprehensive City Zoning Code (R-1 Zone) shall apply to single family houses; however, as an option, side-yard setbacks for lots 50 feet or greater in width may be as little as five feet on each side."

PARKS AND OPEN SPACE

It is the intent of the *Park Dedication and Development Ordinance* to provide developed park space within one-half mile of every home in Albuquerque for the purposes of recreation and visual relief. Similarly, the goal of the *Facility Plan for Arroyos* is to create a multi-purpose network of recreational trails and open space along arroyos in the metropolitan area.

NOR ESTE proposes to meet both of these goals through development of a park and open space link along the La Cueva Arroyo. Located within NOR ESTE I, the La Cueva Arroyo is designated as a Major Open Space Link in the *Facility Plan*, intended ultimately to link the Sandia Foothills with the Rio Grande bosque via bicycle, pedestrian, and equestrian trails (Figure 5). According to the *Facility Plan*, "acquisition and maintenance of the public right-of-way and/or easements associated with Major Open Space Links over and above that required for drainage purposes will be the responsibility of the City. Dedication of arroyo rights-of-way as open space or parks or the granting of recreational easements, where appropriate, are the preferred methods of acquisition."

Rather than dedicating vacant land and paying a development fee to the City, this plan proposes that a developed park be dedicated to the City. The proposed park (see Exhibit III) encompasses roughly 11 acres and serves three purposes:

1. carry developed storm runoff in the La Cueva channel;
2. provide open space linkage trails;
3. provide park space for area residents.

Of those 11 acres, 3.0 are occupied by the concrete channel itself, leaving approximately 8.0 acres of actual park space.



FIGURE 5

In addition to the access at either end of the park area afforded by the trail system, access to interior areas of the park is provided from the adjacent neighborhoods utilizing joint drainage/access easements. These easements would take the form of 15-foot wide swales (maximum one foot deep). This joint use would be both functional and attractive.

The *Park Dedication and Development Ordinance* sets dedication requirements of 170 square feet per detached housing unit and 85 square feet per multi-family housing unit. Using the greater requirement of 170 square feet per housing unit, the proposed NOR ESTE park area of 8.0 acres (348,480 square feet) would meet dedication requirements for 2,049 housing units, which greatly exceeds the proposed NOR ESTE densities. The proposed NOR ESTE park satisfies both the Park Dedication and Development fee requirement for the NOR ETE SECTOR DEVELOPMENT PLAN area.

The excess park land value of the development fee shall be owned by the Park Developer. Residential developments, other than those of the Park Developer's, located within the boundaries of the NOR ESTE SECTOR DEVELOPMENT PLAN, shall be required to purchase or otherwise obtain their Park Dedication and Development Fee requirements from the Park Developer. The City of Albuquerque shall encourage residential builders in the area bounded by Elena Boulevard, Paseo del Norte, Ventura Boulevard and Wyoming Boulevard to purchase or otherwise obtain their Park Dedication and Development Fee requirements from the Park Developer. The value of such credits shall be whatever is agreed upon by the Park Developer and the entity generating a Park Dedication and Development Fee requirement. Upon agreement between the Park Developer and the entity purchasing or otherwise obtaining the excess credits, the Park Developer shall provide an accounting of the remaining credits and notification to the Parks and Recreation Department that such credits have been purchased or otherwise obtained.

In accordance with the "preferred method of acquisition" stated in the *Facility Plan for Arroyos* as mentioned previously in this section, NOR ESTE proposes to dedicate the entire park area to the City upon completion and acceptance of the work. The City will at that time accept maintenance responsibility for the park and secure arrangements with the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) for joint use easements.

DENSITY MANAGEMENT PLAN

To create a flexible, yet administratively efficient process to monitor open space, use area densities and conformance to the Comprehensive Plan (3-6 du/ac—Developing Urban Area), the following assumptions and calculations were used:

1. What is the total number of dwelling units that can be accommodated on 176 acres using 2,400 square feet of required developing urban open space per unit?

Probable House Size	1,500 sq. ft.
Probable Garage Size	500 sq. ft.
Probable Driveway Area	450 sq. ft.
Mandatory Open Space	<u>2,400 sq. ft.</u>
	4,850 sq. ft.
Total Acreage	176 acres

Less:

Net Office/Institutional/Church	8.4 acres
Park	8.0 acres
Street R/W @ 15% Loss - Internal	23.0 acres
La Cueva Channel	3.0 acres
Adjacent Streets and Other R/W	<u>20.4 acres</u>
Dedications	
	113 acres

113 acres (4,922,280 square feet) + 4,850 square feet = 1,015 du's for Use Areas 1, 3, 4, 5, 6, 7, 9, 11, 12, and 13.

2. What is the upper limit of all residential units according to the Comprehensive Plan?

$$176 \text{ acres} \times 6 \text{ du/ac} = 1,056$$

-
3. What is the lower limit of all residential units according to the Comprehensive Plan?

$$176 \text{ acres} \times 3 \text{ du/ac} = 528$$

Please note that the allowable "range" of intensities has been projected. Also, the chart projects a "proposed" number of dwelling units per use area.

This "proposed" column is provided for the Planning Department's internal use and is not meant to be a limit on use area intensity. These figures will be used to evaluate density exchanges and requirements for other owner's concurrence (for balance of total effect).

REPEALED (R-17-213)

FIGURE 6
DWELLING UNITS

<u>Use Area No.</u>	<u>Use</u>	<u>Minimum Projected</u>	<u>Maximum Projected</u>	<u>Proposed</u>
1	Residential	124	248	165
2	Park/Flood Control	N/A	N/A	N/A
3	Residential	96	281	215
4	Residential	6	18	12
5	Residential	68	137	91
6	Residential	52	154	120
7	Church	N/A	N/A	N/A
8	Residential	9	27	18
9	Office/Institutional	N/A	N/A	N/A
10	Office/Institutional	N/A	N/A	N/A
11	Residential	19	57	44
12	Residential (M-F Allowed)	31	267	167
13	Residential (M-F Allowed)	5	42	26
Totals		410	1,231	*858

* Total Allowable: Increase above 858 du requires Sector Development Plan amendment and EPC review.

Increase in any use area can be accomplished in accordance with the following requirements:

1. To increase total allowable dwelling units requires:
 - a. Additional open space in the amount of 2,400 square feet per additional dwelling unit in excess of 858 to be reserved outside the 176-acre Sector Plan area, but in a location acceptable to the City Planner, or

-
- b. Submission of evidence that more than 2,400 square feet of open space per dwelling unit shall be reserved within the Sector Plan boundary, and
 2. The Sector Plan shall establish the minimum number of dwelling units for each use area within its boundaries. The minimum number of dwelling units shall be fixed and associated with each use area unless changed through a Sector Plan amendment approved by the EPC. In no case should the minimum be less than three dwelling units per gross acre (410).
 3. The Sector Plan shall establish the maximum number of dwelling units for each use area within its boundaries. Development of up to the maximum number of dwelling units established for any use area shall be allowed so long as an adequate number of undeveloped dwelling units is maintained to assure a proper amount—at least the minimum required dwelling units on all undeveloped or partially developed use areas without the need to increase total authorized dwelling units for the Sector Plan. The maximum number of dwelling units shall be fixed and associated with the use area unless changed through a Sector Plan amendment approved by the EPC.
 4. The City shall monitor density of development and the private sector shall make appropriate disclosure as follows:
 - a. Each use area of the Sector Plan shall show "total allowable units" in an amount less than or equal to the planned maximum for the use area, and greater than or equal to the planned minimum for the use area.

- b. All platting for the area shall carry the following language prominently on the plat as notice to the private sector that density is subject to Sector Plan management.

"NOTICE: THE TOTAL NUMBER OF DWELLING UNITS WHICH MAY BE PERMITTED IS REGULATED THROUGH SPECIAL SECTOR PLAN REQUIREMENTS. TO DETERMINE THE NUMBER OF DWELLING UNITS ASSIGNED TO ANY PARCEL, CONTACT THE CITY PLANNING DEPARTMENT."

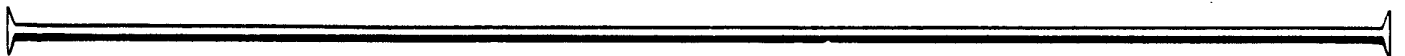
- c. The "proposed" dwelling units for all lots within the Sector Plan area shall equal the total dwelling units established as a limit for the Sector Plan. To exceed the number of dwelling units proposed on any lot shall require simultaneous off-setting reduction in the number of dwelling units proposed for other parcels within the Sector Plan area. All such changes shall be permissive so long as the total dwelling units proposed for all parcels:

- (1) Remains within the approved maximum and minimum ranges for the affected areas, and
- (2) The number of dwelling units proposed in another part of the Sector Plan area is changed in a compensating way as evidenced by a copy of a recorded written agreement among principal owners of bulk land upon which the number of proposed dwelling units has been changed.



SECTION V
TRANSPORTATION

REPEALED (R-17-213)



TRANSPORTATION

The NOR ESTE SECTOR DEVELOPMENT PLAN is governed by and located within the context of the *Long Range Major Street Plan (LRMSP)* prepared by the Middle Rio Grande Council of Governments (MRGCOG) for its governing body, which includes the City of Albuquerque and Bernalillo County (Figure 7).

NOR ESTE is principally accessed from the north and south by Wyoming and Barstow, and from the east and west by Alameda, all three of which are identified on the LRMSP. Alameda, abutting NOR ESTE I on the south, is classified by the LRMSP as a Principal Arterial (124-foot R/W), with an alignment established from Barstow west to the I-25 interchange. East of Barstow, Alameda is intended to veer south and connect with Tramway. The Alameda Corridor (alignment) east of Barstow is under study by the City of Albuquerque; however, the results of that study are not expected to affect NOR ESTE. Presently, Alameda has permanent half-width paving along the La Cueva High School frontage.

Wyoming abuts NOR ESTE on the west and is also classified by the LRMSP as a Principal Arterial (156-foot R/W). Wyoming represents a major north-south connection through the east half of Albuquerque and extends from Kirtland Air Force Base north to Elena Drive. The LRMSP indicates a desired connection to Tramway Road through the Sandia Pueblo. NOR ESTE makes no representation as to the extension of Wyoming across lands of Sandia Pueblo. Presently, Wyoming has temporary half-width asphalt paving from Paseo del Norte north to Alameda.

Barstow, abutting NOR ESTE on the east, is classified by the LRMSP as a Collector Street (80-foot R/W including bikeway). Barstow presently connects with Harper Road at the south, and is intended to connect with Elena Drive on the north.

Modesto abuts NOR ESTE I on the north and is not identified on the LRMSP. However, Modesto is platted as a 60-foot R/W (major local), and is presently unimproved. Wilshire, Anaheim and Carmel Avenues abut NOR ESTE II on the north

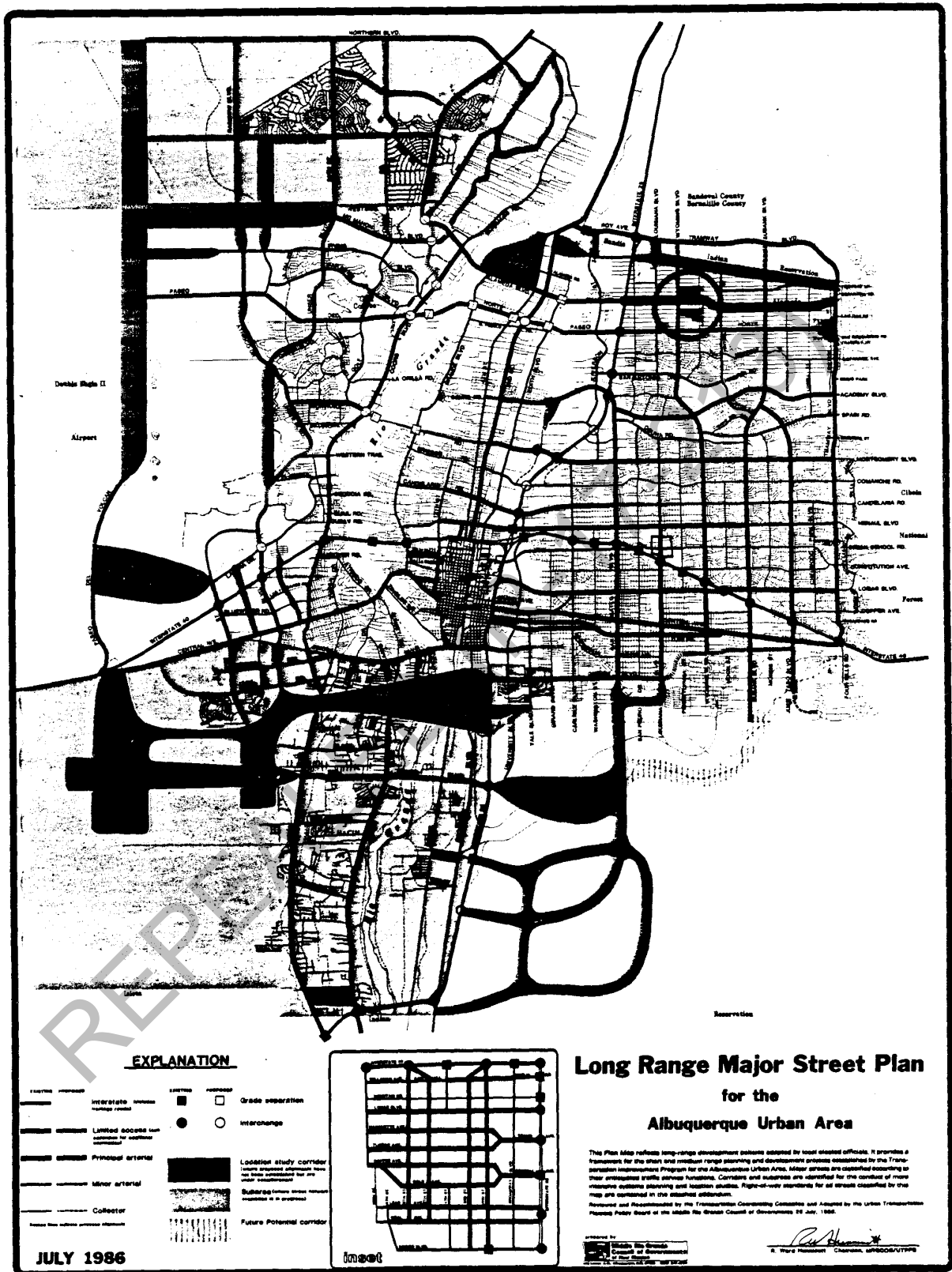


FIGURE 7

and south, respectively. These streets are also platted as 60-foot R/W. Presently, Anaheim and Carmel are unimproved, while Wilshire has permanent half-width paving for that portion along the La Cueva High School frontage. Three other roadways, Eagle Rock, Oakland, and Corona, presently bisect NOR ESTE I and II. These roadways are intended to be vacated at the time of subdivision, which will aid in breaking up the grid-type platting pattern of North Albuquerque Acres.

All roadways surrounding NOR ESTE are presently platted 60 feet (excepting those portions of Wyoming and Alameda along the La Cueva High School frontage) and require additional dedications, as noted below:

FIGURE 8
EXISTING AND PROPOSED
RIGHTS-OF-WAY

<u>Roadway</u>	<u>Classification</u>	<u>Existing R/W</u>	<u>Proposed R/W</u>	<u>Additional R/W*</u>
<u>NOR ESTE I</u>				
Alameda Blvd.	Principal Arterial	60'	124'	32'
Wyoming Blvd.	Principal Arterial	60'	156'	48'
Barstow St.	Collector	60'	80'	10'
Modesto Ave.	(Major) Local	60'	60'	-0-
Eagle Rock	(Major) Local	60'	To be vacated	N/A
Oakland Ave.	(Major) Local	60'	To be vacated	N/A
<u>NOR ESTE II</u>				
Wyoming Blvd.	Principal Arterial	60'	156'	48'
Barstow St.	Collector	60'	80'	10'
Wilshire Ave.	(Major) Local	60'	60'	-0-
Anaheim Ave.	(Major) Local	60'	60'	-0-
Carmel Ave.	(Major) Local	60'	60'	-0-
Corona Ave.	(Major) Local	60'	To be vacated	N/A

* Additional R/W represents half-width of required dedication abutting NOR ESTE I and II.

Bikeways

The *Bikeways Master Plan* (Figure 9) identifies bicycle trails along Alameda and Barstow. NOR ESTE proposes to relocate the bikeway planned along Alameda Boulevard between Barstow and Wyoming, placing it within the open space/park system of La Cueva Arroyo, in accordance with the intent of the *Facility Plan for Arroyos*.

Arroyos Crossings

Five all-weather arroyo crossings are ultimately required in the immediate vicinity of NOR ESTE: one at Barstow and one at Wyoming for both the La Cueva and North Domingo Baca Arroyos; and one internal crossing within NOR ESTE I. The developer shall provide the NOR ESTE I internal crossing as part of the development of NOR ESTE I. Responsibility for providing crossing structures at Wyoming and Barstow lies with the City of Albuquerque. Presently, there are no funds available for construction of these structures; therefore, NOR ESTE shall provide an interim facility at Wyoming on the North Domingo Baca Arroyo to pass the 100-year undeveloped design storm in accordance with criteria established by the City Engineer. Crossing facilities for the La Cueva shall consist of a temporary paved dip section at Wyoming, with the Barstow crossing zone to be barricaded. Criteria for crossing the North Domingo Baca at Wyoming were established by the City Hydrologist such that the depth times velocity product shall not exceed 6.5 for the 100-year/6-hour undeveloped design storm. This shall be accomplished by placing a series of culverts under Wyoming. The culverts will drain that portion of the flow required to reduce the DxV product below 6.5. Conceptual criteria for all three interim crossings have been reviewed by the City Engineer. The ultimate crossing structures on Wyoming and Barstow will be provided by the City when funds are available, in accordance with adopted policies.

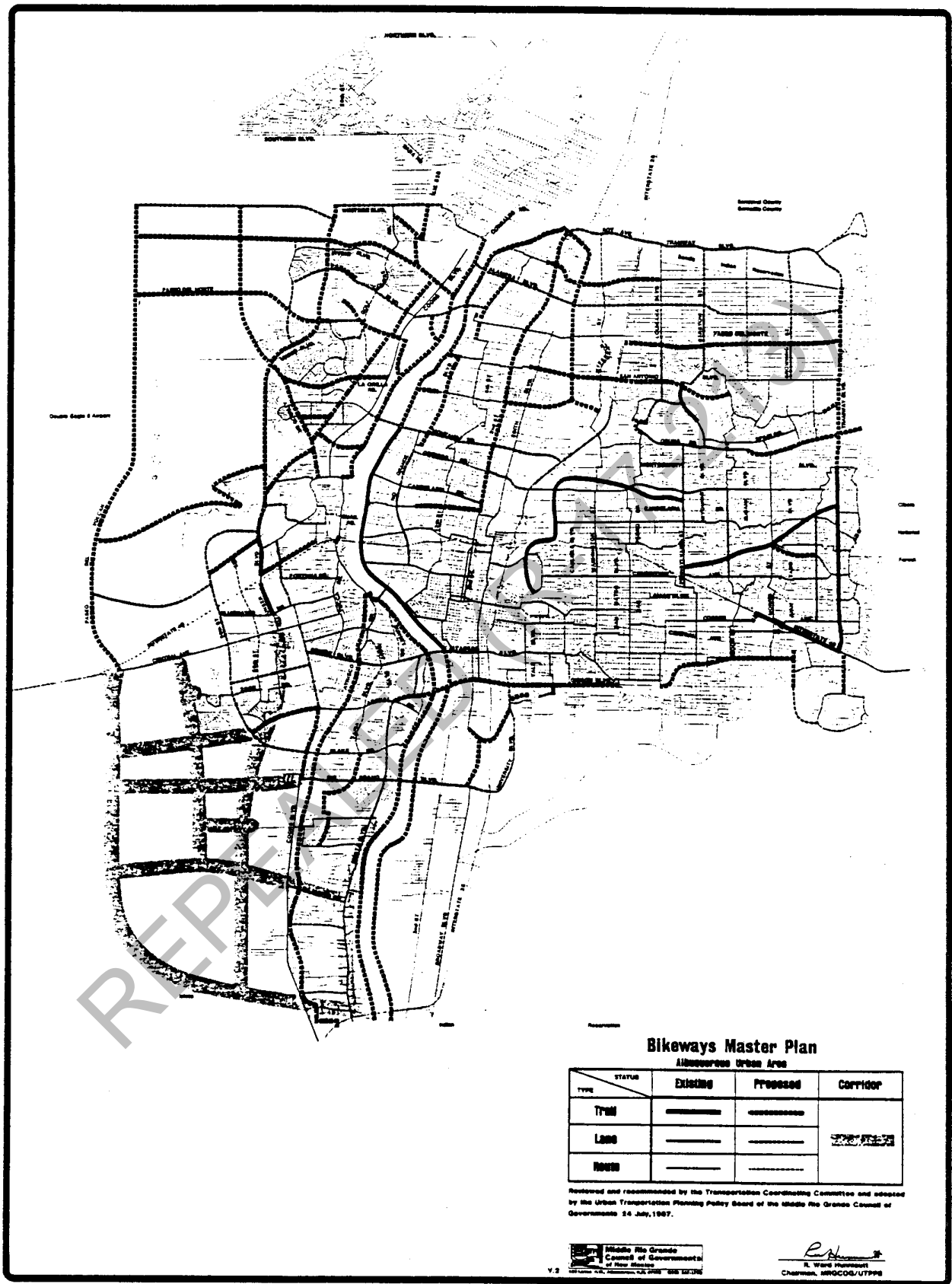


FIGURE 9

FIGURE 10
CROSSING STRUCTURES

Roadway	Arroyo	Entity of Responsibility
Wyoming Blvd.	La Cueva	City of Albuquerque
Wyoming Blvd.*	North Domingo Baca	City of Albuquerque
Barstow Street	La Cueva	City of Albuquerque
Barstow Street	North Domingo Baca	City of Albuquerque
NOR ESTE I	La Cueva	Developer

*Developer providing interim crossing. City of Albuquerque to accept maintenance of interim crossing.

Trip Generation

Trip generation information for NOR ESTE was determined utilizing "Trip Generation", a computer software program by MICRO-TRANS. This program calculates trips on the basis of Institute of Transportation Engineers "Trip Generation, An Informational Report", Third Edition, 1983. Daily trips are measured in vehicles per day and indicate the number of trips generated during a typical weekday. Peak-hour volumes represent the highest volume of traffic generated during a one-hour period between 7:00 a.m. and 9:00 a.m. for the morning peak, and between 4:00 p.m. and 6:00 p.m. for the evening peak. Trip generation is also available for an average weekday, Saturday and Sunday.

Based upon analysis utilizing "Trip Generation", the proposed development would generate approximately 12,456 new trips. NOR ESTE I and II would generate approximately 4,670 and 7,786 new trips, respectively. The estimated two-way peak-hour volumes will be 1,114 vehicles per hour in the morning and 1,421 vehicles per hour in the evening. NOR ESTE I estimated two-way peak-hour volumes will be 355 vehicles in the morning and 467 vehicles in the evening. NOR ESTE II estimated two-way peak-hour volumes will be 759 vehicles in the morning and 954 vehicles in the

evening. A summary of traffic generated by the proposed development, along with detailed traffic generation data, is provided in Appendix B. The new trips generated by NOR ESTE are based upon a total of 467 single-family units in NOR ESTE I. New trips for NOR ESTE II are based upon a total of 296 single-family units, 404 apartment units and 145,000 square feet of gross leasable area (FAR 0.5). These dwelling unit counts are slightly higher than those identified in the "proposed" column of the Density Management Plan.

Because of the sparse development presently existing in North Albuquerque Acres and the low percentage of non-residential uses proposed, no reductions in trips were included because of internal trips.

Trip Distribution

The direction by which vehicles approach or leave the proposed development has been estimated utilizing knowledge of the local roadway network (proposed by the *Long Range Major Street Plan*), journey-to-work analysis of the surrounding area based on population, distance from the site, ease of access via the future roadway network, and through the assistance of the Public Works Department/Traffic Engineer, Mr. Robert Fosnaugh.

Based on the location and type of proposed development, the proximity to other development and projected population in the vicinity of the site, the following distributions are assumed for the site-generated trips:

Northeast — 3%
Southeast — 12%
Northwest — 35%
Southwest — 50%

In summary, the directional distribution assumes that approximately 50% of the new vehicle trips will ultimately approach the site via Wyoming/ Paseo del Norte

from the southwest, 35% from the northwest via Wyoming/Alameda/Modesto, 12% from the southeast via Barstow/Paseo del Norte, while the remaining 3% approach the site from Barstow/Alameda/Modesto.

A formal Traffic Analysis was not considered necessary since NOR ESTE represents the first major development in this area, aside from La Cueva High School. However, a distribution of trips generated from NOR ESTE I and II was made in order to establish future traffic improvements. Distributions of generated trips for NOR ESTE I and II are provided in Appendix B.

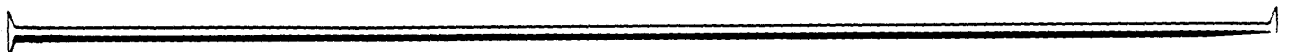
Conclusion

No overloading of the network is anticipated by the development of NOR ESTE. This is supported by the network analysis for the *La Cueva High School Land Use Guide*. The analysis performed was for all three land-use scenarios proposed by the *Guide*. The traffic impacts upon the network (LRMSP) increased with the increasing levels of intensities proposed by each scenario. Concept (scenario) Three was recommended for adoption and contained the most intensive development. In summary, the network analysis stated, in part, "All streets were individually examined for capacity deficiency and it turns out that all streets within the North Albuquerque Acres study area seem to have sufficient street capacity to handle the year 2010 traffic volumes. In addition, all major intersections were also examined for capacity deficiency and were found to have sufficient capacity. In conclusion, it can be said that the test network (LRMSP) has sufficient capacity to accommodate the increase in the projected traffic volumes. Intersections of San Pedro, Louisiana and Wyoming with Paseo del Norte may, however, be potentially capacity-deficient and should be analyzed in more detail."

In summary, the proposed development will not create any significant negative impacts on area streets. As the area develops, the traffic generation and network assignment information provided with NOR ESTE may be used to analyze the street network and particularly those intersections noted in the *Guide*.



SECTION VI
DRAINAGE AND FLOOD CONTROL



DRAINAGE AND FLOOD CONTROL

Purpose and Scope

The purpose of this Drainage Master Plan is to establish the criteria for controlling surface runoff from NOR ESTE I and II and contributing upstream areas in a manner which is acceptable to the City of Albuquerque and AMAFCA. The Plan studies the existing and developed conditions of the NOR ESTE area and analyzes conditions at both the 100-year and 10-year/6-hour duration storm events. The Plan outlines drainage management criteria for the ultimate development of NOR ESTE.

The scope of this Plan is to ensure that NOR ESTE will be protected from storm runoff and that the development of this project will not increase the flooding potential of adjacent and downstream properties.

Approval of this Drainage Master Plan shall facilitate Sector Development Plan approval. Future platting and development will require detailed drainage reports that outline specific on-site controls and construction detail.

Existing Drainage Conditions

An existing auto salvage yard is located near the northwest corner of NOR ESTE I. The salvage yard has been purchased by the developer and the previous owner is in the process of moving off the property. An existing church is located at the northwest corner of NOR ESTE II. The remainder of the plan area is undeveloped and covered with native vegetation. All existing roadways consist of graded earth or gravel roads, except Alameda, Wyoming and Wilshire, which have half-width paving along the La Cueva High School frontage.

The predominant drainage feature on NOR ESTE I is the La Cueva Arroyo, which is located at the approximate north/south midpoint of the window, in addition to several localized tributaries of the La Cueva. Recent temporary improvements to the La Cueva Arroyo have been made by AMAFCA. A trainer dike composed of riprap was constructed near the midpoint of the site to prevent pirating of flows from the La Cueva main channel south into a minor tributary. A soil cement dike was also constructed just west of Wyoming to divert the La Cueva main channel flows north and around a cluster of existing homes located west of Wyoming between Modesto and Oakland. This diversion conveys the main channel flows into the North La Cueva Alignment which outfalls at the existing triple 10-foot by 10-foot concrete box culvert located at I-25.

The predominant drainage feature in NOR ESTE II is the North Domingo Baca Arroyo, which is located along the southern boundary of the plan area. The main channel of the arroyo is actually located south of the plan area site; however, the 100-year floodplain encroaches into the southern portion of the site. The only offsite flows that impact the site are from the east. Presently, flows sheet across Barstow from the east and meander into the North Domingo Baca Arroyo. Offsite flows from the north are intercepted by the La Cueva High School improvements and released at a controlled rate into Wilshire, which is partially improved. No offsite flows enter the plan area from the west.

The La Cueva and North Domingo Baca Arroyo drainage basins originate in the Sandia Mountains. These arroyos and their tributaries meander across North Albuquerque Acres in their natural state. A triple 10-foot by 10-foot box culvert located at I-25 has excess capacity to drain anticipated developed flows from the La Cueva Arroyo under I-25. A concrete channel was constructed in conjunction with the Sperry plant which conveys flows to just west of Jefferson Street. From there, flows are conveyed by an earthen channel to the North Diversion Channel.

A detention dam was constructed on the North Domingo Baca Arroyo directly east of Hamilton Street, with a 36-inch outlet pipe which discharges approximately

160 cubic feet per second (cfs). From the dam outfall, the North Domingo Baca meanders across North Albuquerque Acres. Four 9-foot by 4-foot box culverts and eight 48-inch RCP culverts drain flows under I-25. These structures drain into improved channels west of I-25 which outfall at the North Diversion Channel.

Exhibits IV and V are provided to graphically depict the existing drainage basins affecting NOR ESTE and to locate existing and proposed drainage structures.

Summary of Existing Studies

The first major study of the La Cueva and North Domingo Baca Arroyos was the *North East Heights Drainage Management Plan* (NEHDMP) prepared by Leonard Rice Consulting Water Engineers for AMAFCA. This plan established flow rates and recommended conceptual plans for drainage improvements. The *Review and Refinement of the NEHDMP* was prepared in 1980 by Espey, Huston & Associates, Inc. to reaffirm and update the NEHDMP. The purpose of this study was to determine changes in hydrology resulting from revisions to development assumptions and design criteria.

Albuquerque Flood Insurance Study, prepared by Bohannon-Huston, Inc. and published by the Federal Emergency Management Agency, also studied the La Cueva and North Domingo Baca Arroyos. Floodplains were established utilizing hydrology presented in the NEHDMP.

Other reports prepared which include the sector plan area are: *Alternate Street Plan for Special Assessment District No. 209*, by Molzen-Corbin & Associates; *Drainage Management Analysis—La Cueva and El Camino Arroyos—Vicinity of I-25*, by Bohannon-Huston, Inc.; *Drainage Management Study of La Cueva and El Camino Arroyos*, by Bohannon-Huston, Inc.; *Conceptual Drainage Management Plan for the Coronado Airport Property*, prepared by Bohannon-Huston, Inc.; and the *North Albuquerque Acres Sector Development Plan Drainage Analysis*, prepared by

Bohannon-Huston, Inc. for the *La Cueva High School Land Use Guide*, June 1986. These studies outline the management of the La Cueva Arroyo in the vicinity of I-25 and adjacent areas.

Proposed Drainage Conditions

The proposed Drainage Management Plan (see Exhibit VI) identifies the major infrastructure improvements required to manage developed storm runoff from NOR ESTE and contributing upstream drainage areas. The Plan shows: (1) drainage basins; (2) developed peak flow rates at critical analysis points; (3) existing topography at 2-foot intervals; and (4) required street and drainage infrastructure improvements.

NOR ESTE consists of a residential and office/institutional land use. The infrastructure required by this development consists of the adjacent perimeter streets (Alameda, Wyoming, Barstow, Modesto, Wilshire, Anaheim and Carmel), future interior residential streets, extension of public water and sanitary sewer improvements, construction of the La Cueva Arroyo channel from Barstow to Wyoming and construction of an interim crossing facility on Wyoming at the North Domingo Baca Arroyo. As shown by the Drainage Management Plan, NOR ESTE I is programmed to utilize the La Cueva channel as its drainage outfall. All stormwater runoff will be routed overland via residential street networks to various release points into the channel. The La Cueva Arroyo will be improved as a concrete lined channel to confine the 100-year/6-hour design storm with required freeboard.

NOR ESTE II is programmed to utilize the North Domingo Baca Arroyo as its drainage outfall. As outlined in the adopted *La Cueva High School Land Use Guide*, the North Domingo Baca Arroyo has limited downstream capacity at I-25. Existing facilities at I-25 have a capacity of approximately 2,250 cfs. The *Review and Refinement of the NEHDMP* established a developed flowrate of 2,760 cfs at I-25. Therefore, development within the North Domingo Baca Arroyo Basin will be required to temporarily detain stormwater until downstream improvements are provided. Detention pond discharge rates are established at approximately 1.7 cfs per acre by the *La*

Cueva Land Use Guide, and will be utilized in this analysis. Centralized interim detention ponds will be utilized within NOR ESTE II where practical. However, due to multiple ownership of property, this may not be universally possible. Stormwater within NOR ESTE II will be routed overland via interior public streets and swales to interim detention facilities which will release stormwater at a controlled rate into Wyoming and the North Domingo Baca Arroyo. These ponding facilities shall be designed so that the land they encumber may be reclaimed when future downstream improvements are provided. Interim improvements will be made at the North Domingo Baca Arroyo just south of Anaheim at Wyoming in order to mitigate the effects of erosion prior to crossing Wyoming. An all-weather crossing is programmed at Wyoming.

Because NOR ESTE II only utilizes the North Domingo Baca Arroyo at the outfall point identified above, complete channel improvements are not required as part of this project. Developed storm runoff may not be discharged into the North Domingo Baca Arroyo without the provision of erosion control measures and/or interim channel improvements.

As discussed in Section V, five all-weather arroyo crossings are ultimately required: one at Barstow and one at Wyoming for both the La Cueva and North Domingo Baca Arroyos; and one internal crossing of La Cueva within NOR ESTE I. The developer shall provide the NOR ESTE I internal crossing and an interim crossing of the North Domingo Baca at Wyoming as part of that development.

In conjunction with providing paved access to NOR ESTE, street grading requirements must be established. As shown by the plan, it is recommended that flows upstream of NOR ESTE be concentrated at three points along Barstow. Analysis points 2 and 4 are locations of future crossing structures. It is recommended that a drainage facility be provided at analysis point 3 when development upstream occurs, to pass flows across Barstow to the drainage channel provided by La Cueva High School. Downstream of the plan area flows will be discharged at four points. Analysis points 5 and 8 are locations of future crossing structures. At analysis point 6, street flows from

Alameda will be collected by a storm drain system at Wyoming which outfalls at the La Cueva Channel. This storm drain will be provided by NOR ESTE I. Flows at analysis point 7 will also be released for downstream collection; however, it is recommended that a storm sewer system be provided as soon as possible that would convey flows south to the North Domingo Baca as the magnitude of storm runoff warrants immediate action. Analysis of the NOR ESTE area indicates that improvements should be provided at analysis points 3 and 7, as discussed above, in order to provide drainage protection to the study area. However, the obligation to provide funding for these improvements is not yet identified

Recommendations

It is recommended that this Drainage Management Plan be approved for Sector Development Plan purposes. Future subdivision platting and development shall require site-specific drainage plans and reports that outline and detail required infrastructure improvements. All future drainage reports shall be in compliance with this Drainage Management Plan.

Hydrology

The hydrology presented in this study has sources: (1) *Review and Refinement of the NEHDMP* and (2) Soil Conservation Service (SCS) methodology for determination of surface runoff, as outlined in the *City of Albuquerque Development Process Manual*, Volume II.

Discussions with AMAFCA and the City of Albuquerque established that the channel hydrology for the La Cueva and North Domingo Baca Arroyos, as outlined in the *Review and Refinement of the NEHDMP*, should be accepted and utilized. The 100-year discharges computed under "Hydrologic Condition VI of that study will be utilized for all channel hydrology and hydraulic calculations. "Condition VI" of the referenced report is described as:

"Maintained existing channels and fully developed master plan land use *without* AMAFCA Drainage Resolution 1972-2 and *without* proposed floodwater detention reservoirs."

The hydrology of smaller basins will be determined using the SCS method as outlined in the *Development Process Manual*, Volume II, Chapter 22.

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SECTION VII
UTILITIES

REPEALED (R-17-213)



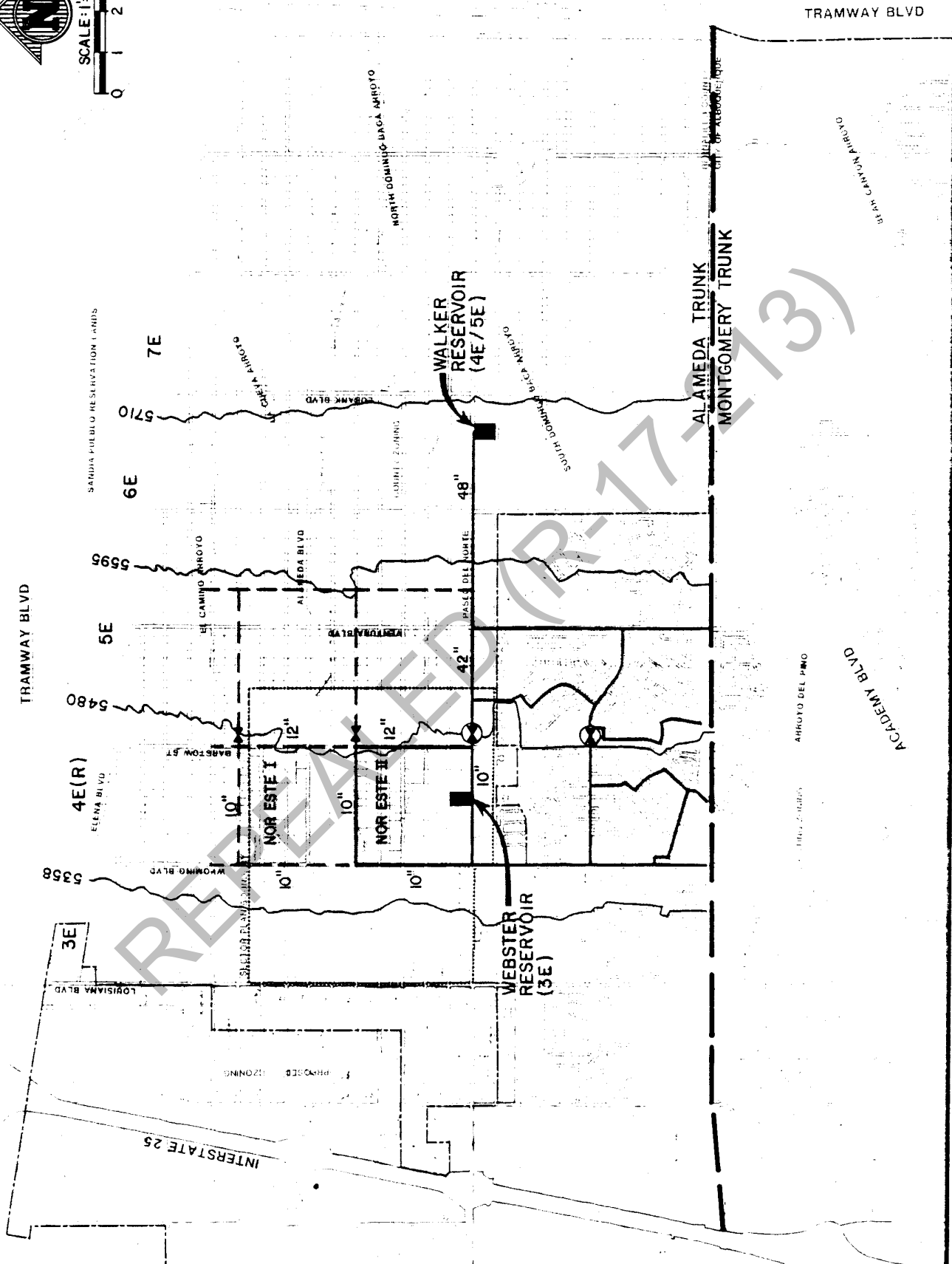
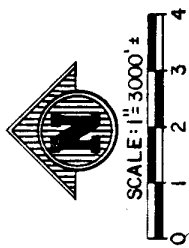
UTILITIES

The City of Albuquerque owns and operates the water and sanitary sewer lines and facilities shown on Figures 11 and 12. Annexation of development within NOR ESTE is prerequisite to provision of water and sanitary sewer service. A statement of water and sanitary sewer service availability is included in Appendix C. Electrical, gas and telephone services have been provided to La Cueva High School and are available for extension to NOR ESTE.

Water

NOR ESTE is situated within water pressure zone 4E(R) of the Alameda Trunk of the City of Albuquerque water system. Service to NOR ESTE is consistent with the *Master Plan of Water Supply, 1982 Update*. The Walker Reservoir, two wells and transmission water line comprise the existing water facilities for service to 4E(R) and 5E in the Alameda Trunk (Figure 11). Water production, storage, and conveyance capacity to NOR ESTE is available. Service has been provided to La Cueva High School by line extension from these facilities. Exhibit VII shows the existing lines which were constructed to service the high school. By statement of availability, the City has determined that water is available to NOR ESTE by extension from these lines. These specific master plan line extensions required for NOR ESTE I are as shown on Exhibit VII. The sizes and alignments of these lines are shown as indicated in the *Water Master Plan*, and their construction will provide adequate service and fire protection.

The master plan line extension requirements for NOR ESTE II are completely satisfied, having been constructed for La Cueva High School. All on-site lines will be owned and maintained by the City of Albuquerque.



UTILITIES - WATER

—●— FUTURE PRV. STATION
 —○— EXISTING PRV. STATION

——— EXISTING MASTER PLAN WATERLINE
 - - - FUTURE MASTER PLAN WATERLINE

Sanitary Sewer

In 1978, the City of Albuquerque adopted the *Areawide Wastewater Treatment and Facilities Plan*. This plan included selected alternatives for wastewater treatment, sludge handling, and an analysis of the interceptor system. The *Facilities Plan* was adopted by the City and County with an accompanying Environmental Impact Statement. Sanitary sewer service to NOR ESTE is consistent with the *Facilities Plan*.

Though not formal amendments to the *Facilities Plan*, the ultimate interceptor system contemplated has been modified by necessity and timing of improvements in North Albuquerque Acres. Ultimately, nearly all the wastewater generated in North Albuquerque Acres will be directed to existing I-25 crossings at either San Diego or Paseo del Norte. As shown in Exhibit VII, sanitary sewer service was provided to La Cueva High School by extension of a 21-inch interceptor in Wyoming. By statement of sanitary sewer availability, the City has determined that service is available to NOR ESTE I by extension of the 21-inch interceptor in Wyoming from Alameda to Modesto. As North Albuquerque Acres develops and the existing interceptor at San Diego and I-25 is extended, a 15-inch interceptor in Modesto or some other nearby corridor will be required for service to NOR ESTE I, and construction by other users is to be deferred until warranted by future development. At that time, a portion of flow to be conveyed by the 21-inch line extension in Wyoming will be redirected to Modesto in order to alleviate an eventual overloading condition in the Paseo del Norte/I-25 crossing. No interceptor line extensions are required for service to NOR ESTE II.

Lines within NOR ESTE will convey flows generated by future off-site development east of Barstow. However, it is expected that these off-site flows will be minimal by extension of the Tijeras Canyon Interceptor as shown on Figure 12. All on-site lines will be owned and maintained by the City of Albuquerque.

Electricity

The Public Service Company of New Mexico (PNM) serves the area involved in the Sector Plan. PNM is willing to supply whatever power is required for the

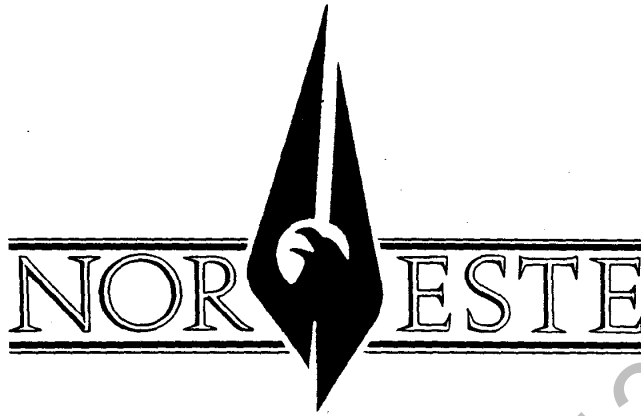
project. Presently, there is an overhead 12,470-volt three-phase power line along Wyoming which serves La Cueva High School. This line can be extended to service NOR ESTE (APPENDIX C).

Natural Gas

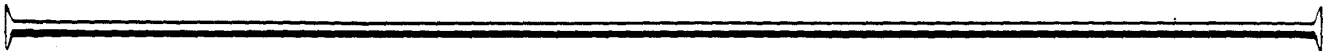
The provision of natural gas to the site is by the Gas Company of New Mexico. A six-inch high-pressure line is presently located in Wyoming, terminating at Alameda, with a four-inch high-pressure branch line in Wilshire serving La Cueva High School. Natural gas service is available to NOR ESTE (APPENDIX C).

Telephone

The Mountain Bell Telephone Company provides the design, telephone conduit, and appurtenances to provide service to NOR ESTE. No master plan is developed by Mountain Bell Telephone Company since establishment of requirements is not possible. La Cueva High School has been provided a single-cable line as a temporary arrangement. The high school will be incorporated into an overall system as development occurs in the area. Service is provided to each location in residential areas, to a specified distribution point for multi-family buildings, and to a point at the ground floor of an office building. Telephone service is available to NOR ESTE (APPENDIX C).



SECTION VIII
PROGRAM DEVELOPMENT



PROGRAM DEVELOPMENT

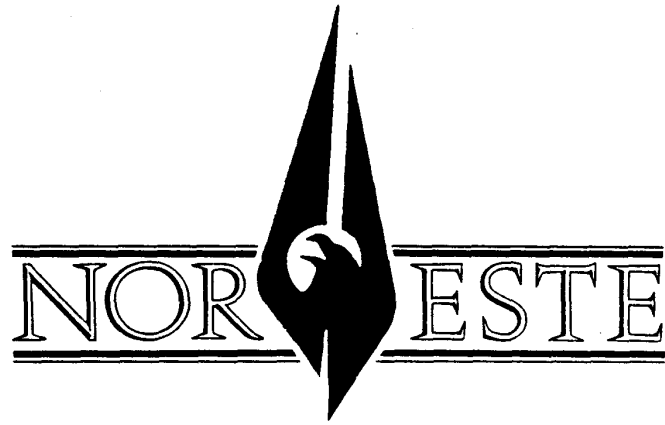
This section is intended to identify anticipated development phasing and improvements necessary for the completion of the NOR ESTE SECTION DEVELOPMENT PLAN. Assignment of improvements by subareas was not included due to continually changing ownership patterns and the uncertainty of platting and development phasing associated with property owners other than Presley Company of New Mexico.

Phasing

Presley Company of New Mexico is the major landowner within NOR ESTE. Presley Company is presently programming the sequence of development in such a manner as to develop their land holdings in NOR ESTE I as the first phase, with subsequent phasing of NOR ESTE II. As noted on the Proposed Land Use/Zoning map, eight independent landowners comprise the balance of ownership within NOR ESTE. To date, no specific schedules for development of these subareas have been identified.

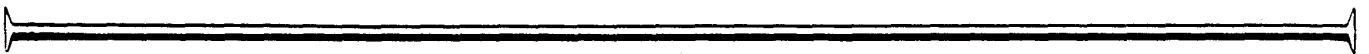
Utilities Development

Development and extension of various infrastructure improvements (water, sanitary sewer, storm drainage, paving and minor utilities) lie with each respective developer in accordance with the *Line Extension Policies, City of Albuquerque Subdivision Ordinances, Development Process Manual(s)* and policies of the respective utility companies.



APPENDIX A
ARCHAEOLOGICAL SURVEY

REPEALED (R-17-213)



AN ARCHAEOLOGICAL SURVEY OF THE
PRESLEY COMPANY SECTOR DEVELOPMENT PLAN
BERNALILLO COUNTY, NEW MEXICO

Prepared for

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September 24, 1986

ABSTRACT

This report describes the results of a Class III cultural resource survey conducted on September 22, 1986, on two parcels of land totalling 160 acres located on the Elena Gallegos Grant north of Albuquerque, New Mexico. This report is prepared for Espey, Huston and Associates, Inc., on behalf of the Presley Company of New Mexico.

The pedestrian survey noted the presence of abundant recent hunting residue, trash dumps and scatters throughout the area. Site and isolated occurrence (I.O.) designations were only assigned to prehistoric materials, early dumps, and areas of non-hunting, non-dumping activities. The survey assigned one site number (LA 56119) to one late 1940-early 1950 possible military storage facility, and isolated occurrences to a recent rock hearth (IO-1), an early historic dump (IO-2), and two isolated prehistoric tools (IO-3 and 4).

All three historic sites and isolated occurrences fail to meet the 50 year minimum eligibility requirements for the National Register of Historic Places, and the two non-temporally diagnostic stone tools were found as isolated occurrences without cultural integrity. Thus, the cultural resources of the two parcels merit no further work.

ACKNOWLEDGEMENTS

Several people aided in the development of this report. Their contributions are deeply appreciated. Dr. Don Albert, historian with Kirtland Air Force Base provided suggestions about the possible historic military supply camp located during the survey. Mr. Dan Montoya of the Albuquerque Planning Department clarified recent changes in the street names surrounding the project area: the Alameda Boulevard and Modesto Boulevard designations used in this report appear as Richfield Avenue, and Alameda Avenue on Albuquerque city maps prior to 1984.

REPEALED (R-17-213)

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INTRODUCTION

This report is submitted in fulfillment of a contractual agreement dated September 18, 1986, between Espey, Huston and Associates, Inc. and Mariah Associates, Inc. for a cultural resource evaluation of property to be developed by Presley Company of New Mexico. The project was initiated at the request of Mr. Randy Traynor, Espey Huston and Associates, Inc., and administered by Mr. John Acklen who served as Principal Investigator. A pedestrian survey was conducted on two parcels of land totalling 160 acres by Dr. Christopher Lintz and Mr. Jon Frizell of Mariah Associates, Inc. The site files at the Laboratory of Anthropology, Santa Fe, were consulted by Ms. Amy Earls. The report was produced by Ms. Joann Oliver and Ms. Brenda Pietrzak. The following report describes the project location and environment, survey methods, survey results, and an assessment of the cultural resources within the project area.

PROJECT AREA

The project area consists of two parcels of land on the Elena Gallegos Grant north of Albuquerque (Figure 1). The northern parcel is bounded by Modesto and Alameda Boulevards to the north and south, and Wyoming Boulevard and Barstow Street to the west and east, respectively. This parcel measures 1584 ft. (483 m) north-south by 2640 ft. (804 m) east-west and encompasses 96 acres.

The second parcel is located 1056 ft (322 m) to the south and is bounded by Wilshire and Anaheim Streets to the north and south, and by Wyoming Boulevard and Barstow Street to the west and east. The Universal Transverse Mercator Grid coordinates for the corners of these two parcels are provided in Table 1.

Table 1. The Universal Transverse Mercator Grid Coordinates of the Project Area.

North Parcel Location

Northwest Corner:	Zone 13, E 358060 m, N 3894870 m.
Northeast Corner:	Zone 13, E 358860 m, N 3894850 m.
Southwest Corner:	Zone 13, E 358050 m, N 3894410 m.
Southeast Corner:	Zone 13, E 358850 m, N 3894368 m.

South Parcel Location

Northwest Corner:	Zone 13, E 358042 m, N 3894095 m.
Northeast Corner:	Zone 13, E 358845 m, N 3894075 m.
Southwest Corner:	Zone 13, E 358040 m, N 3893750 m.
Southeast Corner:	Zone 13, E 358840 m, N 3893740 m.

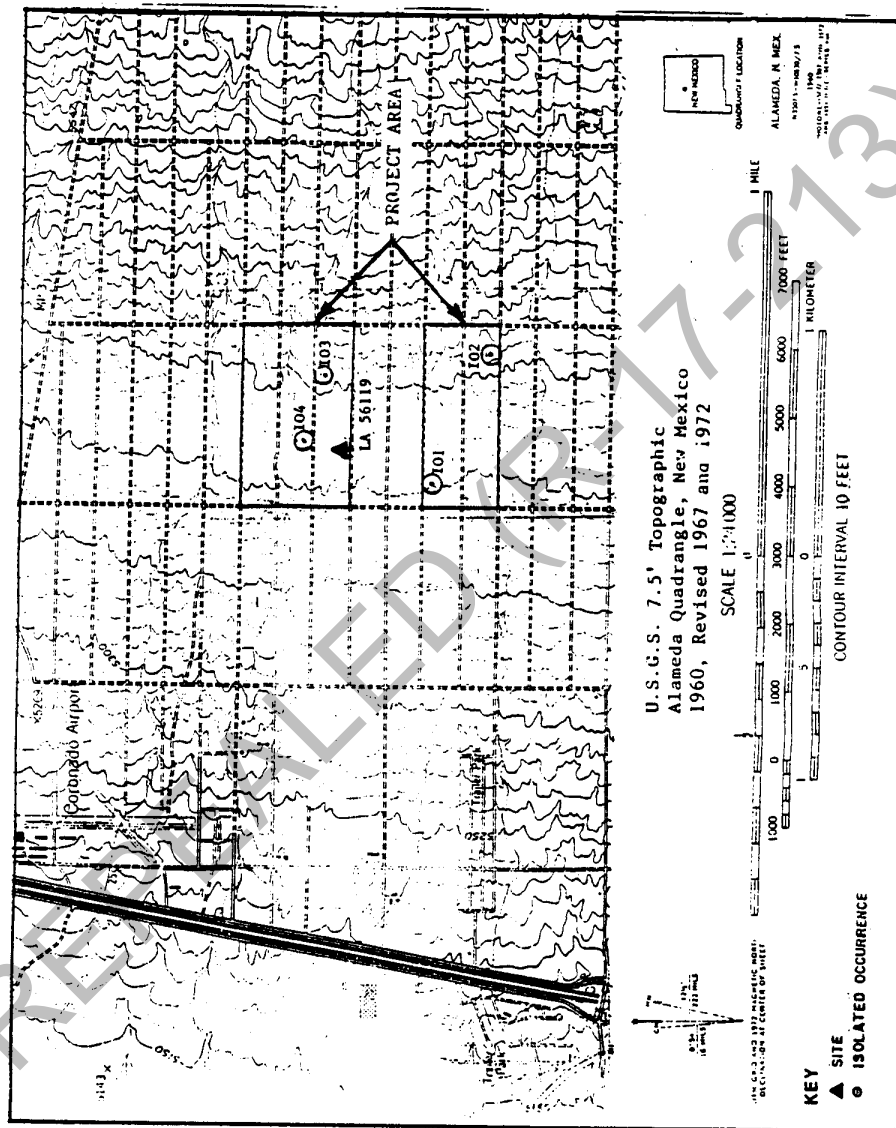


Figure 1. Project Area Map

The project is located on the west facing slope of the alluvial fans derived from the west base of the Sandia Mountains. Elevations of the project area range from 5480 to 5390 ft msl, and the ground surface generally slopes west at 3.4 percent (United States Geological Survey 1960). Throughout this area the fan has been dissected by many weakly defined intermittent washes, which only transport excessive run-off from melting snow and rains. The drainages are spaced approximately 200 ft. apart, and are separated by east-west trending ridges 15 to 20 ft. high. The washes are generally not incised into the old alluvial fan, but rather the ridge slopes gradually meet the modern alluvium at a low angle. Steep banks measuring no more than two to three feet high are only present along portions of La Cueva Arroyo in the northern parcel.

Soils of the project area are classified as belonging to the Hapargids- Camborthids- Torriorthents Associations characteristic of the light colored soils of the warm desertic region (Maker and others 1978: 30). These soils tend to be deep to moderately deep, forming in moderately coarse to fine textured alluvium. The soils tend to be light brown to brown noncalcareous fine sandy loam with a gravelly to stony surface. Within the project area, the surface is littered with decomposing coarse granitic sand. The washes are filled with poorly consolidated coarse alluvium which is subject to frequent transport during rainstorms.

Vegetation in the project area is dominated by short to mid-length grasses, forbes and rarely shrubs. Major plant species noted include Russian thistle (Salsola kali), Blue grama (Bouteloua gracilis), Black grama (Bouteloua eriopoda), Sand dropseed (Sopobolus spp.), Broom snakeweed (Gutierrezia sarothrae), and Sideoats grama (Bouteloua curtipendula). Other species occurring less often include Galleta (Hilaria jamesii), yucca (Yucca spp.), and Threeawn (Aristida spp.).

Wildlife observed during the survey included jack rabbits (Lepus californicus), cottontails (Sylvilagus floridanus), several unidentified species of mice and lizards, bull snake (Pituophis melanoleucus), quail (Callipepla spp), meadow lark (Sturnella neglecta), dove (Zenaidura macroura), raven (Corvus corax), and road runner (Geococcyx californianus). Soot of wild canids or domesticated dogs and dens of small to medium-sized mammals were also observed.

The survey area has undergone a certain amount of modification and development. Wyoming Boulevard is paved as far as La Cuerva High School located between the two survey parcels. Major improved dirt roads include Wyoming Boulevard beyond the high school, and Bristow Road. Both streets have maintained borrow ditches and are regularly graded. All of the east-west streets through and adjacent to the project area are unimproved poorly defined rutted roads, except next to the high school, which has been partially paved. Other developments include the existance of the Covent United Methodist Church in the northwest corner of the southern parcel, and the Hilltop Auto Salvage yard along the western edge of the north parcel. Finally, the south bank of La Cuerva Arroyo within the north parcel has been stabilized with pavement and concrete chunks and fill, and portions of the wash may have been cleaned to help channel the run-off.

SURVEY METHODS

The initial research design submitted called for a vehicle and pedestrian reconnaissance of the land areas to be impacted. Dirt roads were to be walked and/or driven slowly in search of cultural materials. All cut banks were to be examined for intact buried deposits and linear transects will be walked between each drainage in search of cultural materials exposed on the surface (Acklen 1986). Initially, the perimeter of the parcel was driven to obtain a general feel for the land. This brief overview revealed that cut bank and defined terraces were rarely present, which necessitated a modification of the survey methods. The modification opted for a 100% pedestrian survey coverage of the project area.

The survey was accomplished in corridor transects. The existing roadways were used as survey block 0.5 miles long (east-west) and 0.1 miles wide (north-south). Two surveyors walked zig-zag patterns within separate east-west corridor transects 30 - 40 m wide. Eight individual transects were used to cover the southern parcel and sixteen were used to examine the northern parcel. All areas except the developed portion of the church grounds and the auto salvage yard were covered. Special emphasis was placed on examining roadways, ant dens, rodent burrow piles, and cut banks as subsurface cultural materials can often be detected in such disturbances.

Considerable amounts of trash were observed throughout the project area. Much of it tended to be located near roadways-- particularly at intersections with gullies and washes. Piles of building materials (bricks, boards, milled lumber, shingles, etc.), yard materials (grass clippings, dead trees, bushes, piles of colored rocks), household furnishings (televisions, mattresses, bed springs, lawn chairs, etc.), clothing and piles of garbage are fairly ubiquitous throughout the project area and attest to the rampant illegal dumping which has occurred in conjunction with easy access following road development during the past 25 years. Other trash scatters could be attributed to wind-blown litter on upper slopes and water-transported materials in arroyo channels. Also prevalent throughout the area is abundant evidence of hunting/target practice. Three modern arrow shafts were observed as well as numerous cartridges, clay pigeon fragments, patterned arrangements of shattered bottles and cans, a few bullets and approximately a half dozen rabbit carcasses. None of this material was seriously recorded during the survey.

Survey emphasis was instead placed on identifying cultural deposits older than 50 years (the minimum age requirement for National Register nomination criteria), locating prehistoric localities and on finding areas of activities which do not relate to recent trash disposal or hunting. When such a locality was encountered, the site location was plotted on a topographic map, and standard site or isolated occurrence forms were completed. Sketches were made of the prehistoric artifacts, but no collections were made from any of the sites or isolated occurrences. Copies of site and isolated occurrence records from the project are on file at the Mariah Associates, Inc., Albuquerque office; a copy of the site form has been submitted to the Laboratory of Anthropology at Santa Fe.

CULTURAL RESOURCES AND SURVEY RESULTS

The pedestrian survey encountered and recorded five cultural resources. One locality (MA290-3) was designated a site since it contained evidence of substantial patterned activity, and four other localities were regarded as isolated occurrences because of the ephemeral nature of the cultural remains. This section discusses each of the cultural localities.

Site LA 56119

Field number: MA290-3

Location: (UTM coordinate) Zone 13, E 358310 m, N 3894420 m.

Elevation: 5420 ft. msl.

This site is a temporary military storage and packing facility located on a ridge crest in the south-central portion of the north parcel 15 to 42 m north of Alameda Boulevard, nearly due north of the flagpole in front of La Cuerva High School. Scattered remains from the site occur across an area measuring approximately 37 m (e-w) by 20 m (n-s); however, the basal portions of three pipe fence posts were found enclosing an area 14 m (e-w) by 27 m (n-s). Bulldozing associated with the borrow ditch development of Alameda Boulevard has destroyed the southern 13 m of the site, as indicated by a dislocated metal fencepost. Thus, only the northern 14 m of the site remains relatively intact.

Materials observed on the site include disintegrated remnants of olive drab insulated canvas tents, at least 22 wood frame window units, a few small wooden crate boxes, numerous bailing straps, wads of decomposed newspapers, common barbed wire, chain link fence fragments, non-military issued beer and food cans and numerous mechanical shutter openers (?) with the designation "Soldermatic, Pat Pending" and "Universal Flashlight Co./ Washington D.C." stamped on the chrome handles.

Use dates for the site are derived from identification labels on the rotted canvas: "Tent, Frame-Type, Insulated Sectional with Floor/ 16 X 16 FT., M-1948 Complete/ MIL-T 10168 (QMC) - AMEND 1, -23 Feb. 19..." and scraps of decomposed newspaper copyrighted 1947. The earlier date on the newspaper suggests that it was used as packing material surrounding some unidentified goods stored in more recent tents. The presence of insulated tents suggests that the site was occupied by personnel or that the goods had to be climatically regulated. The great number of wooden window frames indicate that several tents were once present. A check with the Kirtland Air Force base historian, Dr. Don Alberts, failed to identify the dates of usage or precise function of this site. The extreme deterioration of the canvas coupled with the newspaper dates tentatively suggests that the site was used during the late 1940-early 1950, perhaps in conjunction with personnel training or goods shipment during the Korean War (?).

Isolated Occurrence 1

Field Number: MA290-1

Location: (UTM Coordinate) Zone 13, E 358155 m, N 3894055 m.

Elevation: 5400 ft. msl.

This isolated occurrence relates to a recent historic hearth located on the undeveloped land east of the Covent Methodist Church in the northwest corner of the south parcel. The feature consists of a large stone-lined hearth with outside diameter measurements of 2.65 m (e-w) by 2.35 m (n-s). It is made from double-lined local granite rocks measuring up to 32 by 30 cm and large broken concrete slabs measuring up to 40 by 47 cm. The hearth is filled with charcoal and remnants of plywood and milled lumber scrap. A small pile of unburned milled lumber is located to the east.

This hearth feature probably relates to some church activities. It may merely represent efforts to dispose of scrap building materials derived from remodeling or other church projects. The condition of the charcoal and minimal weathering to the lumber suggests that the hearth is probably less than five years old.

Isolated Occurrence 2

Field Number: MA290-2

Location: (UTM Coordinate) Zone 13, E 358720 m, N 3893785 m.

Elevation: 5465 ft. msl.

This isolated occurrence number was assigned to a 3 by 3 m ridge crest area in the southeast corner of the southern parcel which was originally thought to represent an early dump. The scatter consisted of purple and clear glass predominantly from pressed glass (faceted) containers. Other objects include a metal case for eye glasses, a 6 d wire nail, aqua, clear and amber glass sherds to various soda bottles and canning jars. Necks of clear glass twist (but nonscrew-top) bottles, and a clear glass handle to a pitcher.

The pressed glass included a purple glass rectangular butter-dish or casserole lid with rectangular handles on the narrow ends, and a radial ribbed or "sun-burst" pattern. A clear pressed glass bowl had a large "hobnail or dew-drop" patterns on the sides (which contributed to the undulating rim), and a radial ribbed pattern with small hobnail dots on the base (Lee 1933). A third clear pressed glass container represented a lid to a small oval bowl; it had a clear oval center, and curving and overlapping looping lines extending to the rim of the lid. A fourth pressed glass bowl (?) had yellow paint over an unidentifiable ribbed pattern.

Bottles with makers' marks or company names include a fragment from a small clear "Atlas Perfect Mason" canning jar. Another is a clear quart jar base with the embossed insignia "23 ~~4~~ 45"; these marks indicate that the bottle was made by the Owens Illinois company plant 23 during 1945 (Toulouse 1971). A third jar is a clear bottle with a central number "576" enclosed by an "Owens Ring" mark, and the numbers "3R ... 5★/1".

The great number of pressed glass vessels and a few purpled glass fragments generally indicates that the dump should post-date World War I (Kendrick 1966:57). The Owens Ring mark also indicates a post-1903 manufacture date (Kendrick 1966:81). The clearest indication of dump age is derived from the Owens Illinois bottle base. This single specimen suggests that the entire dump post-dates 1945. Thus, the small area could reflect multiple dumping episodes, or represent a single dumping episode of early materials mixed with later articles after 1945.

Isolated Occurrence 3

Field Number: MA290-4

Location: (UTM Coordinate) Zone 13, E 358325 m, N 3894500 m.

Elevation: 5460 ft. msl.

This locality designates an isolated prehistoric chipped stone tool found on a ridge crest in the southwest quadrant in the northern parcel (Figure 2a). The artifact is a large rhyolite gray flake with unidirectional marginal retouch along the distal and right lateral dorsal surface. The flake platform is nonfaceted and does not have cortex on it, but cobble cortex covers approximately 50-60 percent of the dorsal flake surface. The dimensions of the tool are length: 6.1 cm; width: 4.6 cm; and thickness: 2.1 cm. The coarse marginal retouch pattern has left a denticulate-like edge, which may have served in a variety of coarse plant or animal processing activities (Tainter 1979).

The tool is temporally and culturally undiagnostic. Rhyolite cobbles were not observed in the project area, so the cobble must have been imported from a base camp elsewhere. The tool is believed to reflect some limited prehistoric plant or processing activity in the project area.

Isolated Occurrence 4

Field Number: MA290-5

Location: (UTM Coordinate) Zone 13, E 358350 m, N 3894610 m.

Elevation: 5422 ft. msl.

This number was assigned to an isolated prehistoric tool locality on a high north facing ridge slope south of La Cuerva Arroyo in the center of the north parcel. The artifact is a gray coarse quartzite cobble core which shows several flake removal scars on one end and minimal battering along natural ridges on two rounded edges (Figure 2b). The cobble core measures 8.1 cm, length; 8.5 cm, width; and 4.6 cm, thickness. This item is thought to be a stream rolled cobble carried to the project area to serve as a raw material supply for obtaining sharp flakes used in unidentifiable processing activities. The artifact is not diagnostic of any time period or cultural group.

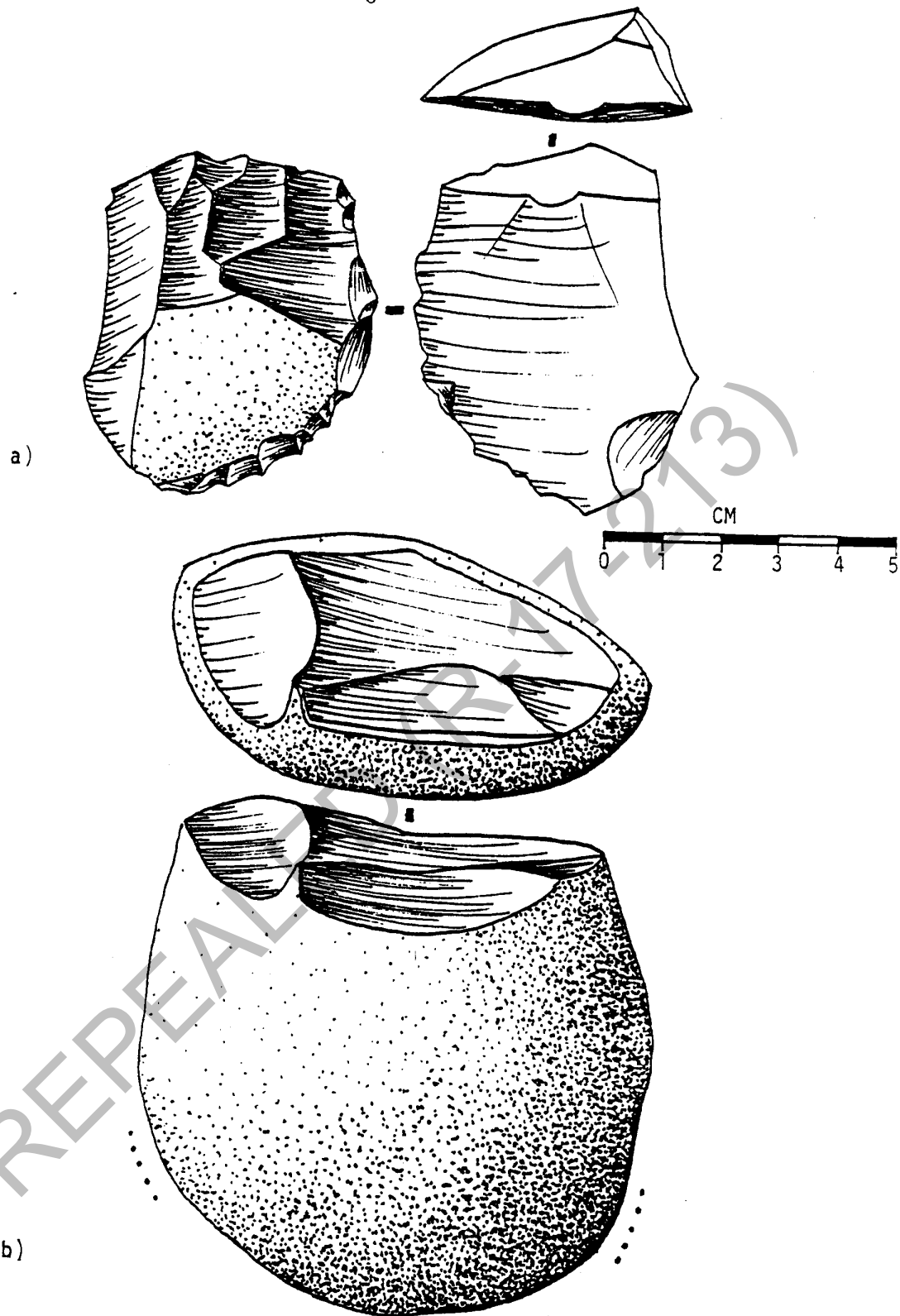


Figure 2. Prehistoric Chipped Stone Artifacts from IO-3 and IO-4

SUMMARY AND RECOMMENDATIONS

A Class III cultural resource survey was conducted by Mariah Associates personnel on two parcels of land totalling 160 acres and bounded by Wyoming and Barstow roads to the west and east, and Anaheim and Modesto to the south and north. Abundant modern trash and hunting debris litter the entire project area. Five localities were recorded. One site (LA 56119) is believed to be a deteriorating military storage facility. Isolated occurrence designations were assigned to a modern rock and concrete hearth (OI-1) located near and probably affiliated with the Covent Methodist Church, an early historic dump (OI-2) which may post-date 1945, and two prehistoric artifact isolates: a large retouched flake (OI-3) and a cobble core (OI-4). The project area has been utilized by prehistoric groups, but the nature of activities has left little detectable remains. The topography and soils within the project area are generally outwashed alluvial deposits from the Sandia Mountains. The low ridges within the project have been formed primarily from wash erosion and deflation which involves a process not conducive for burying cultural remains. Thus, the presence of undetected, buried deposits in the project area is unlikely.

None of the sites or isolated occurrences meet the eligibility requirements for the National Register of Historic Places. The probable military supply camp (LA 56119), the 1940s-50s dump, and recent stone and concrete hearth are all less than 50 years old. The two prehistoric non-diagnostic artifacts occur as isolates without contextual integrity. Thus no additional cultural resource evaluations are recommended before these two parcels are developed.

BIBLIOGRAPHY

Acklen, John

- 1986 Letter to Randy Traynor of Espey Huston and Associates Inc., dated September 12, 1986, detailing the scope of services for the Presley Company Sector Development Plan Survey.

Kendrick, Grace

- 1966 The Antique Bottle Collector. Hawthorne Books, Inc. New York.

Lee, Ruth Webb

- 1933 Early American Pressed Glass. Ferris Printing Co., New York.

Maker, H.J., H.E. Dregne, V.G. Link, and J.U. Anderson

- 1978 Soils of New Mexico. New Mexico State University, Agricultural Experimental Station, Research Report 285, Las Cruces.

Tainter, Joseph A.

- 1979 A Functional Analysis of the Croton Creek Lithic Scatter, Roger Mills County, Oklahoma. Bulletin of the Oklahoma Anthropological Society, vol. 28: 137-146.

Toulouse, Julian Harrison

- 1971 Bottle Makers and Their Marks. Thomas Nelson Inc., New York.

United States Geological Survey

- 1960 Alameda Quadrangle, New Mexico. United States Geological Survey 7.5 Minute Series Topographic Map. Denver.



APPENDIX B
TRIP GENERATION
SUMMARY/RATES/ASSIGNMENTS



NOR ESTE I

SUMMARY OF AVERAGE VEHICLE TRIP GENERATION

AVERAGE WEEKDAY DRIVEWAY VOLUMES

11-10-86

	24 HOUR TWO-WAY VOLUME	7-9 AM PK HOUR ENTER	4-6 PM PK HOUR EXIT	4-6 PM PK HOUR ENTER	EXIT

SINGLE FAMILY DWELLINGS	1860	39	102	117	69
SINGLE FAMILY DWELLINGS	1670	35	92	105	62
SINGLE FAMILY DWELLINGS	1140	24	63	72	42
TOTAL	4670	98	257	294	173

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
'TRIP GENERATION, AN INFORMATIONAL REPORT', THIRD
EDITION, 1983, INSTITUTE OF TRANSPORTATION ENGINEERS

LOCAL CONDITIONS OR SPECIFIC USES MAY CAUSE
DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

NOR ESTE II

SUMMARY OF AVERAGE VEHICLE TRIP GENERATION

AVERAGE WEEKDAY DRIVEWAY VOLUMES

11-10-86

	24 HOUR TWO-WAY VOLUME	7-9 AM PK HOUR ENTER	EXIT	4-6 PM PK HOUR ENTER	EXIT
SINGLE FAMILY DWELLINGS	1020	21	56	64	38
SINGLE FAMILY DWELLINGS	1280	27	70	81	47
SINGLE FAMILY DWELLINGS	660	14	36	42	24
APARTMENT	1739	29	114	134	66
APARTMENT	726	12	48	56	27
GENERAL OFFICE	1386	166	29	32	188
GENERAL OFFICE	975	117	20	22	133
TOTAL	7786	386	373	431	523

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

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SUMMARY OF AVERAGE VEHICLE TRIP GENERATION

SATURDAY AND SUNDAY DRIVEWAY VOLUMES

11-10-86

	SATURDAY			SUNDAY		
	24 HOUR TWO-WAY VOLUME	PEAK HOUR ENTER	PEAK HOUR EXIT	24 HOUR TWO-WAY VOLUME	PEAK HOUR ENTER	PEAK HOUR EXIT

SINGLE FAMILY DWELLINGS	1879	95	84	1618	91	84
SINGLE FAMILY DWELLINGS	1687	85	75	1453	82	75
SINGLE FAMILY DWELLINGS	1151	58	51	992	56	51
TOTAL	4717	238	210	4063	229	210

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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NOR ESTE II

SUMMARY OF AVERAGE VEHICLE TRIP GENERATION

SATURDAY AND SUNDAY DRIVEWAY VOLUMES

11-10-86

	SATURDAY			SUNDAY		
	24 HOUR TWO-WAY VOLUME	PEAK HOUR ENTER	PEAK HOUR EXIT	24 HOUR TWO-WAY VOLUME	PEAK HOUR ENTER	PEAK HOUR EXIT

SINGLE FAMILY DWELLINGS	1030	52	46	887	50	46
SINGLE FAMILY DWELLINGS	1293	65	58	1114	63	58
SINGLE FAMILY DWELLINGS	667	34	30	574	32	30
APARTMENT	1796	0	29	1596	0	29
APARTMENT	750	0	12	666	0	12
GENERAL OFFICE	188	0	0	94	0	0
GENERAL OFFICE	133	0	0	66	0	0
TOTAL	5857	151	175	4997	145	175

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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DIFFERENT RESULTS

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NOR ESTE I

SUMMARY OF TRIP GENERATION CALCULATION

FOR 186 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE
--	--------------	--------------	--------------	-------------	-------------

AVG WKDY 2-WAY VOL	1860	4073	800	308	387.0
7-9 AM PK HR ENTER	39	112	19	70	229.0
7-9 AM PK HR EXIT	102	316	37	76	235.0
7-9 AM PK HR TOTAL	141	428	56	209	257.0
4-6 PM PK HR ENTER	117	335	56	71	229.0
4-6 PM PK HR EXIT	69	223	19	76	229.0
4-6 PM PK HR TOTAL	186	558	74	233	277.0
AM GEN PK HR ENTER	39	112	19	70	229.0
AM GEN PK HR EXIT	102	316	37	76	235.0
AM GEN PK HR TOTAL	141	428	74	209	257.0
PM GEN PK HR ENTER	117	335	56	71	229.0
PM GEN PK HR EXIT	69	223	19	76	229.0
PM GEN PK HR TOTAL	186	558	74	233	277.0
SATURDAY 2-WAY VOL	1879	2734	986	78	244.0
PK HR ENTER	95	186	56	48	226.0
PK HR EXIT	84	130	56	53	226.0
PK HR TOTAL	179	316	130	64	244.0
SUNDAY 2-WAY VOL	1618	2288	93	73	245.0
PK HR ENTER	91	167	37	46	215.0
PK HR EXIT	84	223	56	51	216.0
PK HR TOTAL	175	372	112	63	236.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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NOR ESTE I

SUMMARY OF TRIP GENERATION CALCULATION

FOR 167 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE
--	--------------	--------------	--------------	-------------	-------------

AVG WKDY 2-WAY VOL	1670	3657	718	308	387.0
7-9 AM PK HR ENTER	35	100	17	70	229.0
7-9 AM PK HR EXIT	92	284	33	76	235.0
7-9 AM PK HR TOTAL	127	384	50	209	257.0
4-6 PM PK HR ENTER	105	301	50	71	229.0
4-6 PM PK HR EXIT	62	200	17	76	229.0
4-6 PM PK HR TOTAL	167	501	67	233	277.0
AM GEN PK HR ENTER	35	100	17	70	229.0
AM GEN PK HR EXIT	92	284	33	76	235.0
AM GEN PK HR TOTAL	127	384	67	209	257.0
PM GEN PK HR ENTER	105	301	50	71	229.0
PM GEN PK HR EXIT	62	200	17	76	229.0
PM GEN PK HR TOTAL	167	501	67	233	277.0
SATURDAY 2-WAY VOL	1687	2455	885	78	244.0
PK HR ENTER	85	167	50	48	226.0
PK HR EXIT	75	117	50	53	226.0
PK HR TOTAL	160	284	117	64	244.0
SUNDAY 2-WAY VOL	1453	2054	84	73	245.0
PK HR ENTER	82	150	33	46	215.0
PK HR EXIT	75	200	50	51	216.0
PK HR TOTAL	157	334	100	63	236.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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NOR ESTE I

SUMMARY OF TRIP GENERATION CALCULATION

FOR 114 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE

AVG WKDY 2-WAY VOL	1140	2497	490	308	387.0
7-9 AM PK HR ENTER	24	68	11	70	229.0
7-9 AM PK HR EXIT	63	194	23	76	235.0
7-9 AM PK HR TOTAL	87	262	34	209	257.0
4-6 PM PK HR ENTER	72	205	34	71	229.0
4-6 PM PK HR EXIT	42	137	11	76	229.0
4-6 PM PK HR TOTAL	114	342	46	233	277.0
AM GEN PK HR ENTER	24	68	11	70	229.0
AM GEN PK HR EXIT	63	194	23	76	235.0
AM GEN PK HR TOTAL	87	262	46	209	257.0
PM GEN PK HR ENTER	72	205	34	71	229.0
PM GEN PK HR EXIT	42	137	11	76	229.0
PM GEN PK HR TOTAL	114	342	46	233	277.0
SATURDAY 2-WAY VOL	1151	1676	604	78	244.0
PK HR ENTER	58	114	34	48	226.0
PK HR EXIT	51	80	34	53	226.0
PK HR TOTAL	109	194	80	64	244.0
SUNDAY 2-WAY VOL	992	1402	57	73	245.0
PK HR ENTER	56	103	23	46	215.0
PK HR EXIT	51	137	34	51	216.0
PK HR TOTAL	107	228	68	63	236.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 102 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE

AVG WKDY 2-WAY VOL	1020	2234	439	308	387.0
7-9 AM PK HR ENTER	21	61	10	70	229.0
7-9 AM PK HR EXIT	56	173	20	76	235.0
7-9 AM PK HR TOTAL	78	235	31	209	257.0
4-6 PM PK HR ENTER	64	184	31	71	229.0
4-6 PM PK HR EXIT	38	122	10	76	229.0
4-6 PM PK HR TOTAL	102	306	41	233	277.0
AM GEN PK HR ENTER	21	61	10	70	229.0
AM GEN PK HR EXIT	56	173	20	76	235.0
AM GEN PK HR TOTAL	78	235	41	209	257.0
PM GEN PK HR ENTER	64	184	31	71	229.0
PM GEN PK HR EXIT	38	122	10	76	229.0
PM GEN PK HR TOTAL	102	306	41	233	277.0
SATURDAY 2-WAY VOL	1030	1499	541	78	244.0
PK HR ENTER	52	102	31	48	226.0
PK HR EXIT	46	71	31	53	226.0
PK HR TOTAL	98	173	71	64	244.0
SUNDAY 2-WAY VOL	887	1255	51	73	245.0
PK HR ENTER	50	92	20	46	215.0
PK HR EXIT	46	122	31	51	216.0
PK HR TOTAL	96	204	61	63	236.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

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NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 128 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE
AVG WKDY 2-WAY VOL	1280	2803	550	308	387.0
7-9 AM PK HR ENTER	27	77	13	70	229.0
7-9 AM PK HR EXIT	70	218	26	76	235.0
7-9 AM PK HR TOTAL	97	294	38	209	257.0
4-6 PM PK HR ENTER	81	230	38	71	229.0
4-6 PM PK HR EXIT	47	154	13	76	229.0
4-6 PM PK HR TOTAL	128	384	51	233	277.0
AM GEN PK HR ENTER	27	77	13	70	229.0
AM GEN PK HR EXIT	70	218	26	76	235.0
AM GEN PK HR TOTAL	97	294	51	209	257.0
PM GEN PK HR ENTER	81	230	38	71	229.0
PM GEN PK HR EXIT	47	154	13	76	229.0
PM GEN PK HR TOTAL	128	384	51	233	277.0
SATURDAY 2-WAY VOL	1293	1882	678	78	244.0
PK HR ENTER	65	128	38	48	226.0
PK HR EXIT	58	90	38	53	226.0
PK HR TOTAL	123	218	90	64	244.0
SUNDAY 2-WAY VOL	1114	1574	64	73	245.0
PK HR ENTER	63	115	26	46	215.0
PK HR EXIT	58	154	38	51	216.0
PK HR TOTAL	120	256	77	63	236.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

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DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 66 DWELLING UNITS OF SINGLE FAMILY DWELLINGS

11-10-86

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*****
              AVG      MAX      MIN      NO.      AVG
              TRIPS    TRIPS    TRIPS    DATA    SIZE
*****
AVG WKDY 2-WAY VOL      660      1445      284      308      387.0
7-9 AM PK HR ENTER       14        40        7        70      229.0
7-9 AM PK HR EXIT        36       112       13       76      235.0
7-9 AM PK HR TOTAL       50       152       20      209      257.0
4-6 PM PK HR ENTER       42       119       20       71      229.0
4-6 PM PK HR EXIT        24        79        7       76      229.0
4-6 PM PK HR TOTAL       66       198       26      233      277.0
AM GEN PK HR ENTER       14        40        7       70      229.0
AM GEN PK HR EXIT        36       112       13       76      235.0
AM GEN PK HR TOTAL       50       152       26      209      257.0
PM GEN PK HR ENTER       42       119       20       71      229.0
PM GEN PK HR EXIT        24        79        7       76      229.0
PM GEN PK HR TOTAL       66       198       26      233      277.0
SATURDAY 2-WAY VOL     667      970      350       78      244.0
PK HR ENTER              34        66       20       48      226.0
PK HR EXIT               30        46       20       53      226.0
PK HR TOTAL             63       112       46       64      244.0
SUNDAY 2-WAY VOL      574      812       33       73      245.0
PK HR ENTER             32        59       13       46      215.0
PK HR EXIT              30        79       20       51      216.0
PK HR TOTAL            62       132       40       63      236.0
*****
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TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

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MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 285 DWELLING UNITS OF APARTMENT

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE
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AVG WKDY 2-WAY VOL	1739	3506	143	115	267.0
7-9 AM PK HR ENTER	29	29	0	21	246.0
7-9 AM PK HR EXIT	114	171	29	22	240.0
7-9 AM PK HR TOTAL	143	285	29	74	216.0
4-6 PM PK HR ENTER	134	228	29	24	253.0
4-6 PM PK HR EXIT	66	143	29	25	247.0
4-6 PM PK HR TOTAL	200	456	29	92	217.0
AM GEN PK HR ENTER	34	29	0	17	260.0
AM GEN PK HR EXIT	137	171	29	18	252.0
AM GEN PK HR TOTAL	171	285	29	82	215.0
PM GEN PK HR ENTER	134	228	57	20	266.0
PM GEN PK HR EXIT	66	143	29	21	259.0
PM GEN PK HR TOTAL	200	456	29	101	218.0
SATURDAY 2-WAY VOL	1796	2394	798	23	165.0
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	29	0	0	1	124.0
PK HR TOTAL	143	285	86	22	167.0
SUNDAY 2-WAY VOL	1596	2138	684	21	174.0
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	29	0	0	1	124.0
PK HR TOTAL	143	399	86	20	176.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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DIFFERENT RESULTS

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NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 119 DWELLING UNITS OF APARTMENT

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE
--	--------------	--------------	--------------	-------------	-------------

AVG WKDY 2-WAY VOL	726	1464	60	115	267.0
7-9 AM PK HR ENTER	12	12	0	21	246.0
7-9 AM PK HR EXIT	48	71	12	22	240.0
7-9 AM PK HR TOTAL	60	119	12	74	216.0
4-6 PM PK HR ENTER	56	95	12	24	253.0
4-6 PM PK HR EXIT	27	60	12	25	247.0
4-6 PM PK HR TOTAL	83	190	12	92	217.0
AM GEN PK HR ENTER	14	12	0	17	260.0
AM GEN PK HR EXIT	57	71	12	18	252.0
AM GEN PK HR TOTAL	71	119	12	82	215.0
PM GEN PK HR ENTER	56	95	24	20	266.0
PM GEN PK HR EXIT	27	60	12	21	259.0
PM GEN PK HR TOTAL	83	190	12	101	218.0
SATURDAY 2-WAY VOL	750	1000	333	23	165.0
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	12	0	0	1	124.0
PK HR TOTAL	60	119	36	22	167.0
SUNDAY 2-WAY VOL	666	893	286	21	174.0
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	12	0	0	1	124.0
PK HR TOTAL	60	167	36	20	176.0

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

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MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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LOCAL CONDITIONS OR SPECIFIC USES MAY CAUSE
DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 87 1000 GR.SQ.FT. OF GENERAL OFFICE

11-10-86

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*****
              AVG      MAX      MIN      NO.      AVG
              TRIPS    TRIPS    TRIPS    DATA    SIZE
*****
AVG WKDY 2-WAY VOL      1386      2506      766      20      50.2
7-9 AM PK HR ENTER      166       165      111       3      24.3
7-9 AM PK HR EXIT        29        70       13       3      24.3
7-9 AM PK HR TOTAL      195      330      122      15      41.9
4-6 PM PK HR ENTER       32        61        5       3      24.3
4-6 PM PK HR EXIT      188      226      64       3      24.3
4-6 PM PK HR TOTAL      220      556      70      17      45.7
AM GEN PK HR ENTER      190      288     112       5      47.0
AM GEN PK HR EXIT       39        90       14       5      47.0
AM GEN PK HR TOTAL      229      520     125      17      49.6
PM GEN PK HR ENTER       35        61       12       5      47.0
PM GEN PK HR EXIT      187      278      37       5      47.0
PM GEN PK HR TOTAL      222      556      97      18      51.4
SATURDAY 2-WAY VOL      188     1279      52     10      42.6
PK HR ENTER              0         0         0         0         0.0
PK HR EXIT               0         0         0         0         0.0
PK HR TOTAL              38        67        17         5      58.4
SUNDAY 2-WAY VOL        94     635      17     10      42.6
PK HR ENTER              0         0         0         0         0.0
PK HR EXIT               0         0         0         0         0.0
PK HR TOTAL              14        32         5         5      58.4
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TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

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MADE AT SIMILAR LAND USES AS IDENTIFIED IN
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LOCAL CONDITIONS OR SPECIFIC USES MAY CAUSE
DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

NOR ESTE II

SUMMARY OF TRIP GENERATION CALCULATION

FOR 58 1000 GR.SQ.FT. OF GENERAL OFFICE

11-10-86

	AVG TRIPS	MAX TRIPS	MIN TRIPS	NO. DATA	AVG SIZE

AVG WKDY 2-WAY VOL	975	1670	510	20	50.2
7-9 AM PK HR ENTER	117	110	74	3	24.3
7-9 AM PK HR EXIT	20	46	9	3	24.3
7-9 AM PK HR TOTAL	138	220	81	15	41.9
4-6 PM PK HR ENTER	22	41	3	3	24.3
4-6 PM PK HR EXIT	133	151	43	3	24.3
4-6 PM PK HR TOTAL	155	371	46	17	45.7
AM GEN PK HR ENTER	134	192	75	5	47.0
AM GEN PK HR EXIT	27	60	9	5	47.0
AM GEN PK HR TOTAL	161	347	84	17	49.6
PM GEN PK HR ENTER	24	41	8	5	47.0
PM GEN PK HR EXIT	132	185	24	5	47.0
PM GEN PK HR TOTAL	156	371	65	18	51.4
SATURDAY 2-WAY VOL	133	853	35	10	42.6
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	0	0	0	0	0.0
PK HR TOTAL	27	45	12	5	58.4
SUNDAY 2-WAY VOL	66	423	12	10	42.6
PK HR ENTER	0	0	0	0	0.0
PK HR EXIT	0	0	0	0	0.0
PK HR TOTAL	10	21	3	5	58.4

TRIP ADJUSTMENT FACTOR IS 1

NOTE: ZERO TRIPS RESULTS FROM NO TRIP RATE DATA

THE ABOVE RESULTS ARE REPRESENTATIVE OF MEASUREMENTS
MADE AT SIMILAR LAND USES AS IDENTIFIED IN
'TRIP GENERATION, AN INFORMATIONAL REPORT', THIRD
EDITION, 1983, INSTITUTE OF TRANSPORTATION ENGINEERS

LOCAL CONDITIONS OR SPECIFIC USES MAY CAUSE
DIFFERENT RESULTS

REFER TO 'TRIP GENERATION' FOR DATA LIMITATIONS

NOR ESTE I

SUMMARY OF TRIP GENERATION RATES

FOR SINGLE FAMILY DWELLINGS

TRIPS PER DWELLING UNITS

11-10-86

	AVG TRIP RATE	MAX TRIP RATE	MIN TRIP RATE	NO. OF DATA	AVG SIZE STUDY

AVG WKDY 2-WAY VOL	10.00	21.90	4.30	308	387.0
7-9 AM PK HR ENTER	0.21	0.60	0.10	70	229.0
7-9 AM PK HR EXIT	0.55	1.70	0.20	76	235.0
7-9 AM PK HR TOTAL	0.76	2.30	0.30	209	257.0
4-6 PM PK HR ENTER	0.63	1.80	0.30	71	229.0
4-6 PM PK HR EXIT	0.37	1.20	0.10	76	229.0
4-6 PM PK HR TOTAL	1.00	3.00	0.40	233	277.0
AM GEN PK HR ENTER	0.21	0.60	0.10	70	229.0
AM GEN PK HR EXIT	0.55	1.70	0.20	76	235.0
AM GEN PK HR TOTAL	0.76	2.30	0.40	209	257.0
PM GEN PK HR ENTER	0.63	1.80	0.30	71	229.0
PM GEN PK HR EXIT	0.37	1.20	0.10	76	229.0
PM GEN PK HR TOTAL	1.00	3.00	0.40	233	277.0
SATURDAY 2-WAY VOL	10.10	14.70	5.30	78	244.0
PK HR ENTER	0.51	1.00	0.30	48	226.0
PK HR EXIT	0.45	0.70	0.30	53	226.0
PK HR TOTAL	0.96	1.70	0.70	64	244.0
SUNDAY 2-WAY VOL	8.70	12.30	0.50	73	245.0
PK HR ENTER	0.49	0.90	0.20	46	215.0
PK HR EXIT	0.45	1.20	0.30	51	216.0
PK HR TOTAL	0.94	2.00	0.60	63	236.0

NOTE: A ZERO RATE INDICATES NO RATE DATA AVAILABLE

SOURCE: INSTITUTE OF TRANSPORTATION ENGINEERS
TRIP GENERATION, AN INFORMATIONAL REPORT
THIRD EDITION, 1983

NOR ESTE II

SUMMARY OF TRIP GENERATION RATES

FOR APARTMENT

TRIPS PER DWELLING UNITS

11-10-86

	AVG TRIP RATE	MAX TRIP RATE	MIN TRIP RATE	NO. OF DATA	AVG SIZE STUDY
AVG WKDY 2-WAY VOL	6.10	12.30	0.50	115	267.0
7-9 AM PK HR ENTER	0.10	0.10	0.00	21	246.0
7-9 AM PK HR EXIT	0.40	0.60	0.10	22	240.0
7-9 AM PK HR TOTAL	0.50	1.00	0.10	74	216.0
4-6 PM PK HR ENTER	0.47	0.80	0.10	24	253.0
4-6 PM PK HR EXIT	0.23	0.50	0.10	25	247.0
4-6 PM PK HR TOTAL	0.70	1.60	0.10	92	217.0
AM GEN PK HR ENTER	0.12	0.10	0.00	17	260.0
AM GEN PK HR EXIT	0.48	0.60	0.10	18	252.0
AM GEN PK HR TOTAL	0.60	1.00	0.10	82	215.0
PM GEN PK HR ENTER	0.47	0.80	0.20	20	266.0
PM GEN PK HR EXIT	0.23	0.50	0.10	21	259.0
PM GEN PK HR TOTAL	0.70	1.60	0.10	101	218.0
SATURDAY 2-WAY VOL	6.30	8.40	2.80	23	165.0
PK HR ENTER	0.00	0.00	0.00	0	0.0
PK HR EXIT	0.10	0.00	0.00	1	124.0
PK HR TOTAL	0.50	1.00	0.30	22	167.0
SUNDAY 2-WAY VOL	5.60	7.50	2.40	21	174.0
PK HR ENTER	0.00	0.00	0.00	0	0.0
PK HR EXIT	0.10	0.00	0.00	1	124.0
PK HR TOTAL	0.50	1.40	0.30	20	176.0

NOTE: A ZERO RATE INDICATES NO RATE DATA AVAILABLE

SOURCE: INSTITUTE OF TRANSPORTATION ENGINEERS
TRIP GENERATION, AN INFORMATIONAL REPORT
THIRD EDITION, 1983

NOR ESTE II

SUMMARY OF TRIP GENERATION RATES

FOR GENERAL OFFICE

TRIPS PER 1000 GR. SQ. FT.

11-10-86

	AVG TRIP RATE	MAX TRIP RATE	MIN TRIP RATE	NO. OF DATA	AVG SIZE STUDY

AVG WKDY 2-WAY VOL	15.93	28.80	8.80	20	50.2
7-9 AM PK HR ENTER	1.91	1.90	1.28	3	24.3
7-9 AM PK HR EXIT	0.33	0.80	0.15	3	24.3
7-9 AM PK HR TOTAL	2.25	3.79	1.40	15	41.9
4-6 PM PK HR ENTER	0.37	0.70	0.06	3	24.3
4-6 PM PK HR EXIT	2.17	2.60	0.74	3	24.3
4-6 PM PK HR TOTAL	2.53	6.39	0.80	17	45.7
AM GEN PK HR ENTER	2.18	3.31	1.29	5	47.0
AM GEN PK HR EXIT	0.45	1.04	0.16	5	47.0
AM GEN PK HR TOTAL	2.63	5.98	1.44	17	49.6
PM GEN PK HR ENTER	0.40	0.70	0.14	5	47.0
PM GEN PK HR EXIT	2.15	3.19	0.42	5	47.0
PM GEN PK HR TOTAL	2.55	6.39	1.12	18	51.4
SATURDAY 2-WAY VOL	2.17	14.70	0.60	10	42.6
PK HR ENTER	0.00	0.00	0.00	0	0.0
PK HR EXIT	0.00	0.00	0.00	0	0.0
PK HR TOTAL	0.43	0.77	0.20	5	58.4
SUNDAY 2-WAY VOL	1.08	7.30	0.20	10	42.6
PK HR ENTER	0.00	0.00	0.00	0	0.0
PK HR EXIT	0.00	0.00	0.00	0	0.0
PK HR TOTAL	0.16	0.37	0.06	5	58.4

NOTE: A ZERO RATE INDICATES NO RATE DATA AVAILABLE

SOURCE: INSTITUTE OF TRANSPORTATION ENGINEERS
TRIP GENERATION, AN INFORMATIONAL REPORT
THIRD EDITION, 1983

CLARIFICATION OF MAXIMUM AND MINIMUM TRIP CALCULATION

THE MAXIMUM AND MINIMUM TRIP CALCULATION IS PROVIDED ONLY TO
INDICATE THE RANGE IN DATA. IT DOES NOT INDICATE THAT A
PARTICULAR LAND USE WILL HAVE THAT RANGE IN TRIP GENERATION
BECAUSE THE RANGE IN DATA IS NOT CONSISTENT WITH ALL SIZES
OF THE LAND USE.

REPEALED (R-17-213)

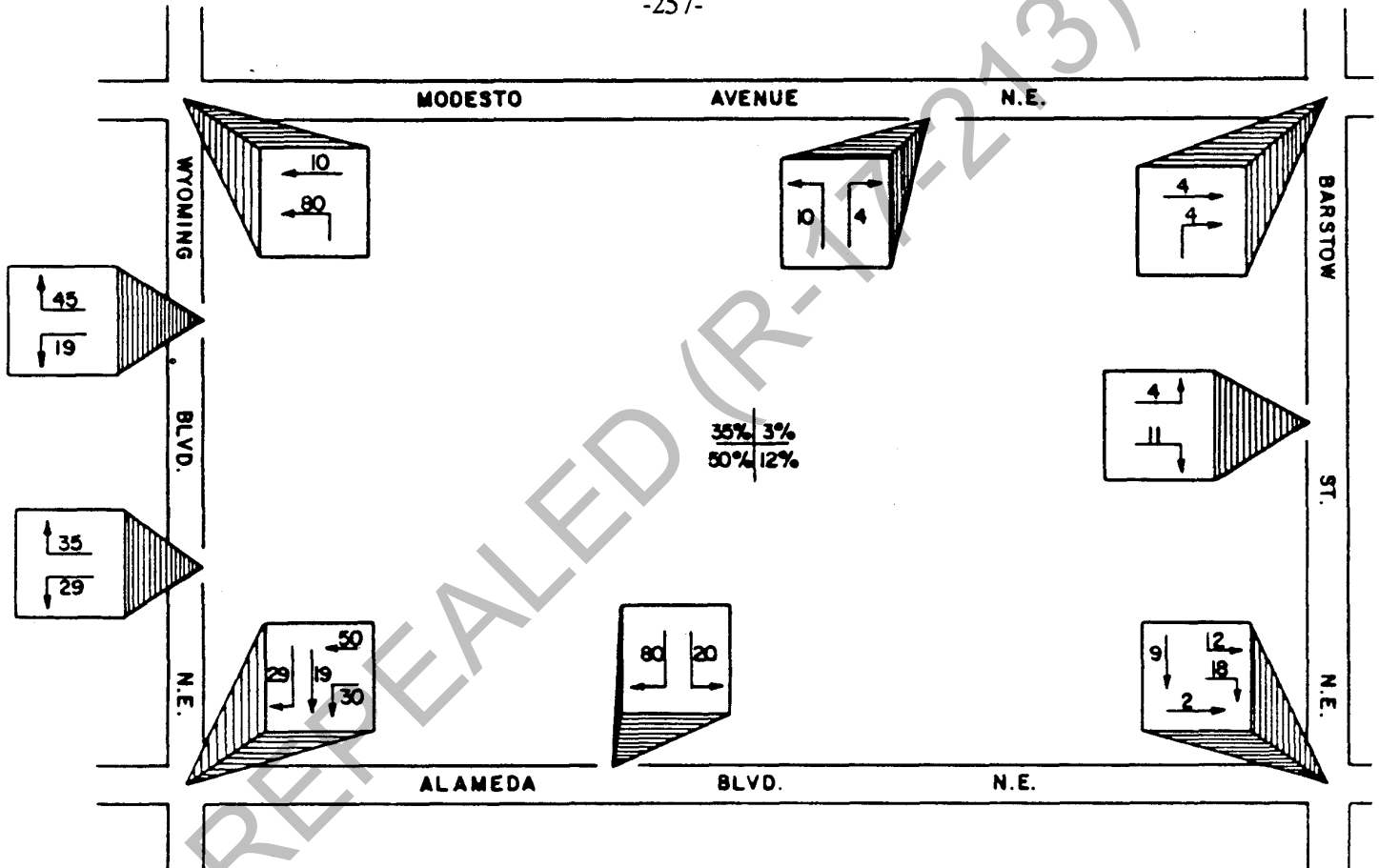
NOR ESTE I SECTOR DEVELOPMENT PLAN

WINDOW "D" (AMENDED)

A.M. PEAK HOUR TRIP DISTRIBUTION

7-9 A.M. EXIT

-257-



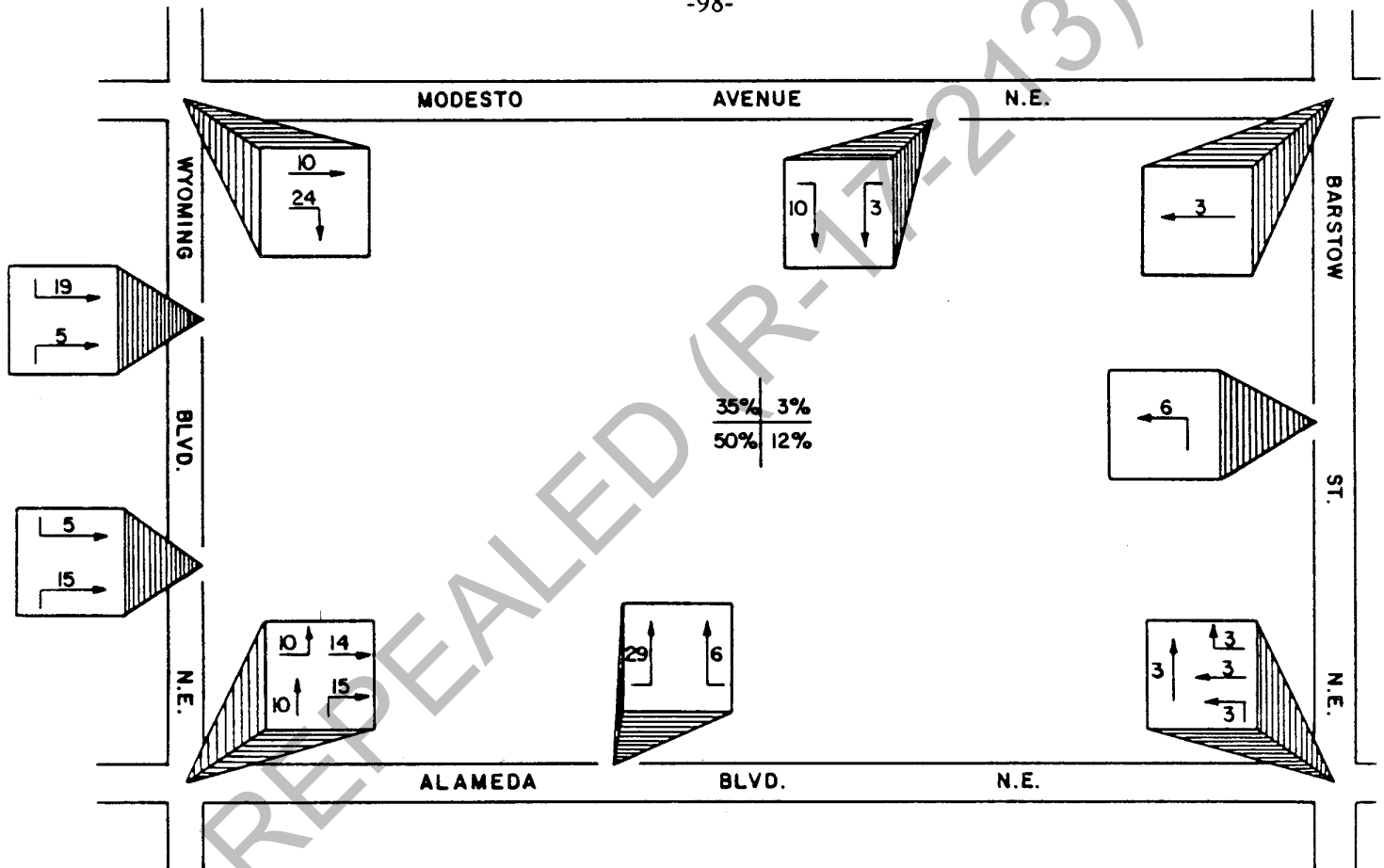
NOR ESTE I SECTOR DEVELOPMENT PLAN

WINDOW "D" (AMENDED)

A.M. PEAK HOUR TRIP DISTRIBUTION

7-9 A.M. ENTER

-98-



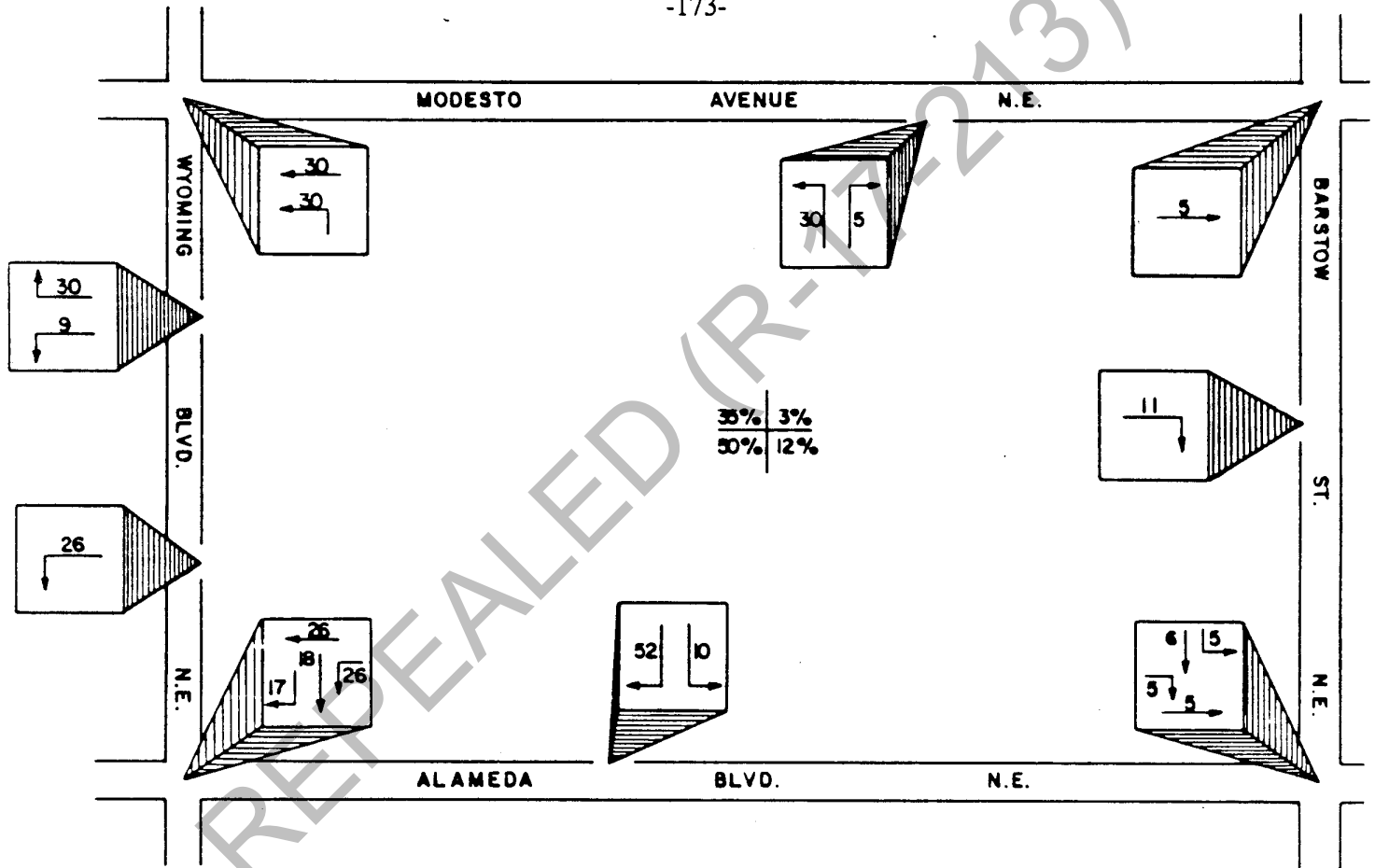
NOR ESTE I SECTOR DEVELOPMENT PLAN

WINDOW "D" (AMENDED)

P.M. PEAK HOUR TRIP DISTRIBUTION

4-6 P.M. EXIT

-173-



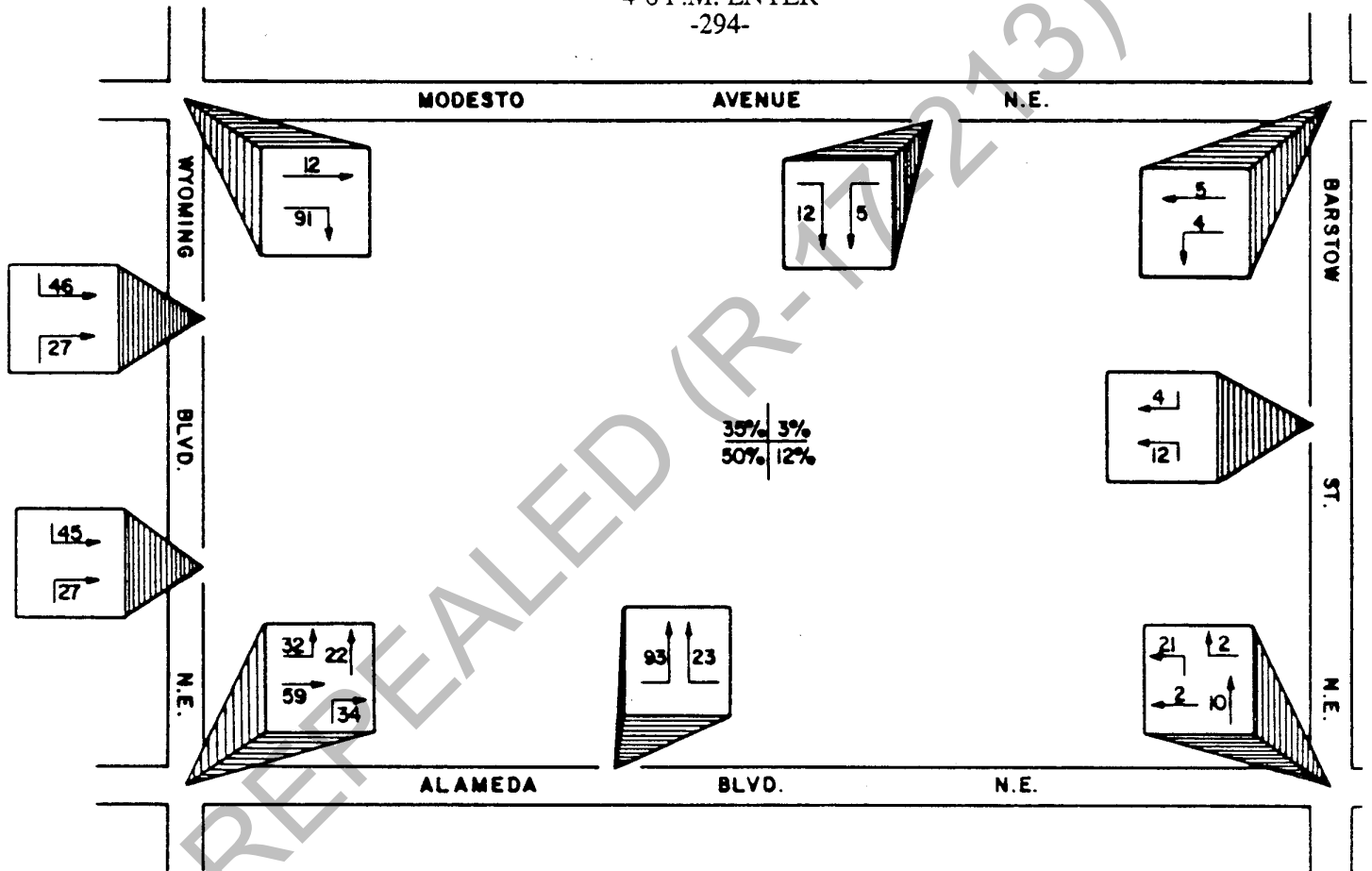
NOR ESTE I SECTOR DEVELOPMENT PLAN

WINDOW "D" (AMENDED)

P.M. PEAK HOUR TRIP DISTRIBUTION

4-6 P.M. ENTER

-294-

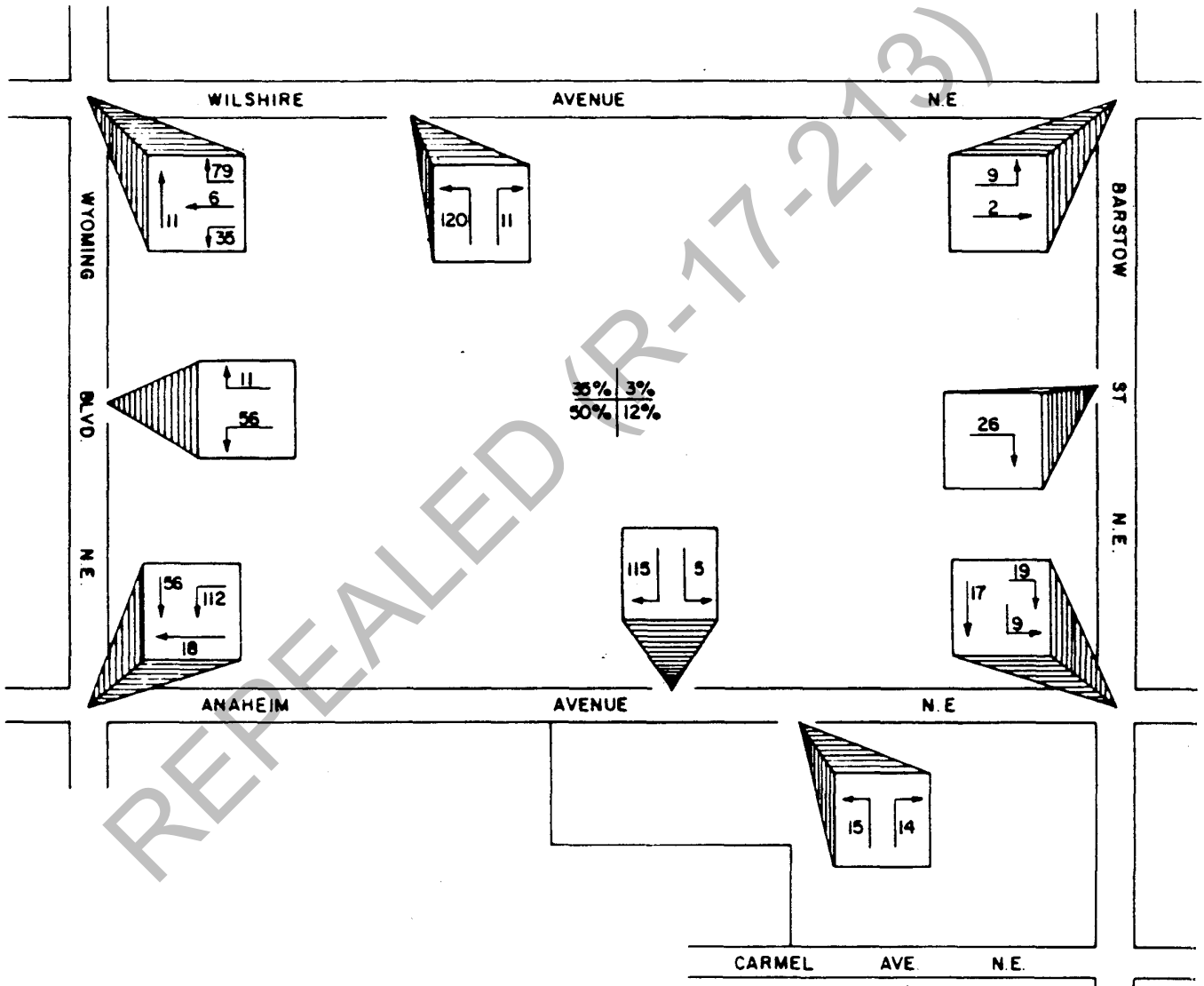


NOR ESTE II SECTOR DEVELOPMENT PLAN

"WINDOW F"

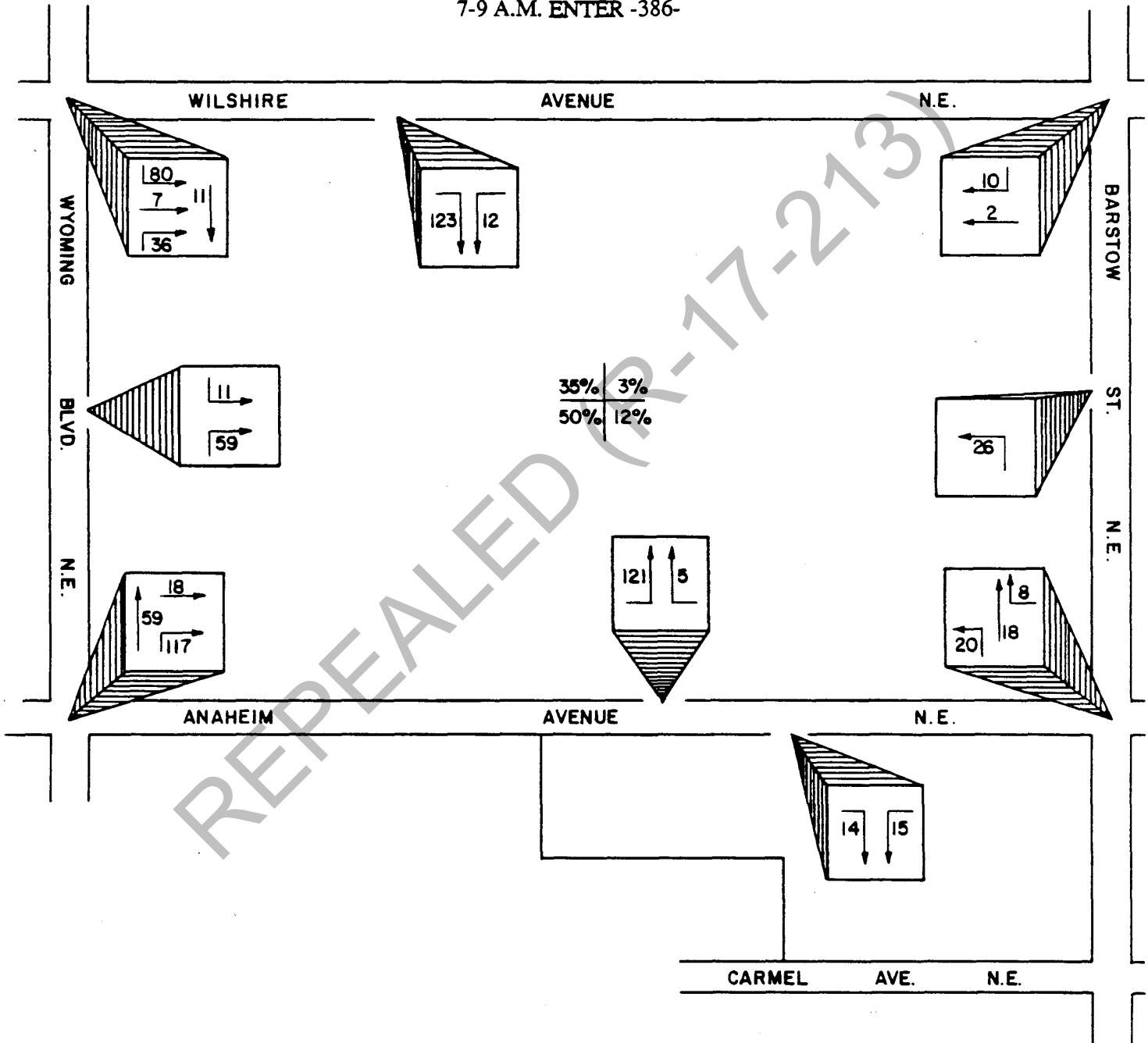
A.M. PEAK HOUR TRIP DISTRIBUTION

7-9 A.M. EXIT -373-



NOR ESTE II SECTOR DEVELOPMENT PLAN "WINDOW F"

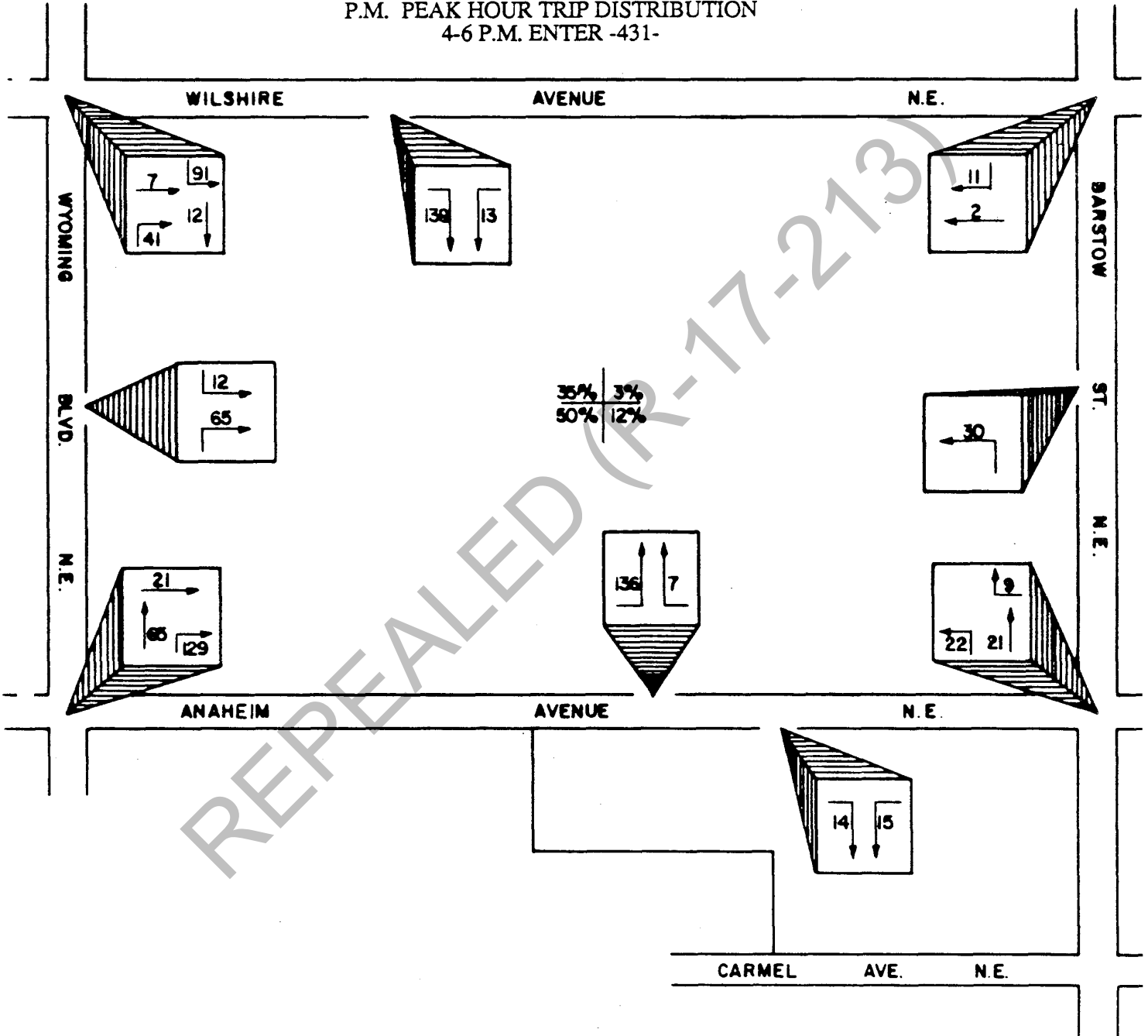
A.M. PEAK HOUR TRIP DISTRIBUTION
7-9 A.M. ENTER -386-



NOR ESTE II SECTOR DEVELOPMENT PLAN

"WINDOW F"

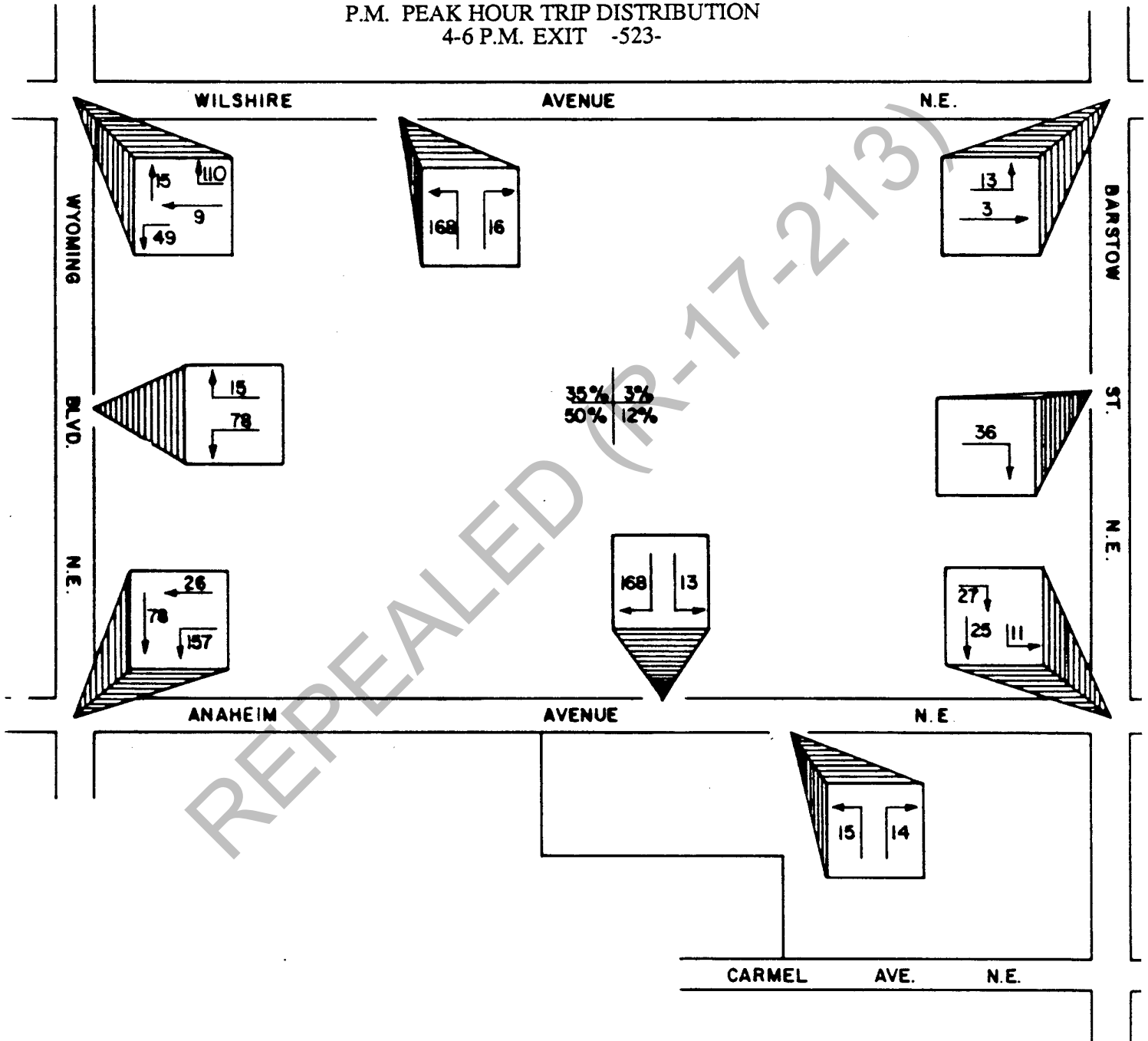
P.M. PEAK HOUR TRIP DISTRIBUTION
4-6 P.M. ENTER -431-



NOR ESTE II SECTOR DEVELOPMENT PLAN

"WINDOW F"

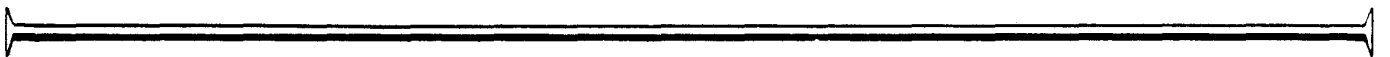
P.M. PEAK HOUR TRIP DISTRIBUTION
4-6 P.M. EXIT -523-





APPENDIX C
STATEMENTS OF UTILITY AVAILABILITY

REPEALED (R-17-213)





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
KEN SCHULTZ

CHIEF
ADMINISTRATIVE OFFICER
GENE ROMO

DEPUTY CAO
PUBLIC SERVICES
FRANK MARTINEZ

DEPUTY CAO
PLANNING/DEVELOPMENT
BILL MUELLER

May 30, 1986

Mr. Paul Brasher, P.E.
Espey-Huston and Associates, Inc.
4801 Indian School Road NE, Suite 204
Albuquerque, New Mexico 87110

RECEIVED

JUN 3 1986
ESPEY, HUSTON & ASSOC.

RE: WATER AND SANITARY SEWER AVAILABILITY (C-19)

Dear Mr. Brasher:

This statement of availability is issued in response to your inquiry of April 20, 1986. All statements made herein are contingent upon the information provided in that inquiry, and upon our subsequent meeting on May 8, 1986. Please be advised first, that City policies require that the subject property be annexed prior to obtaining City water and sanitary sewer service; and second, that development of this property will be governed by the recently adopted La Cueva Land Use Guide.

Subject Property: North Albuquerque Acres, Tract 2, Unit 3, Blocks 11, 12 & 13 (Presley Tract)

Proposed Development: Single Family Residential, Approximately 630 Lots

WATER SERVICE:

Service is available contingent upon completion of the following system improvements:

1. A 10-inch extension within Wyoming Boulevard from the existing 10-inch line at Wilshire Avenue to Modesto Avenue.
2. A 12-inch extension within Barstow Street from the existing 12-inch line at Wilshire Avenue to Modesto Avenue.
3. A 10-inch line extension in Modesto Avenue (previously Alameda Avenue) between the 10-inch line in Wyoming Boulevard and the 12-inch line in Barstow Street.
4. An 8-inch line extension in Alameda Avenue (previously Richfield Avenue) between the 10-inch line in Wyoming Boulevard and the 12-inch line in Barstow Street.
5. Construction of 8-inch and 6-inch on site waterlines as necessary for service and fire protection to the subject development. As much as possible "dead end" line extensions should be avoided.

AN EQUAL OPPORTUNITY EMPLOYER

Mr. Paul Brasher, P.E.
May 30, 1986
Page 2.

Please be advised that portions of the above-referenced 10-inch and 12-inch waterlines in Wyoming and Barstow as far north as Alameda Avenue, and the 8-inch line in Alameda Avenue, are planned for construction prior to occupancy of the new La Cueva High School.

Service connection must be coordinated through the Customer Services Office at 768-2840. Service will be subject to Utility Expansion Charges.

SANITARY SEWER SERVICE:

As you indicated in your letter of April 20, 1986, North Albuquerque Acres sanitary sewer drainage patterns need to be established to drain as much area as possible to the North Albuquerque Industrial Interceptor which currently terminates just east of I-25 at San Diego Avenue. Eventually, a portion of the subject property (approximately the north 1/2) will be required to drain north and west to this interceptor.

Given the current status of the North Albuquerque Industrial Interceptor extensions within North Albuquerque Acres, it will be acceptable to initially service the entire area of the subject property via extension of the 21-inch line in Wyoming Boulevard. The on-site sewer lines need to be planned and designed to drain as much of the site as possible (approximately the north 50 acres) to Modesto Avenue and then to the Wyoming Boulevard and Modesto Avenue intersection, where a future disconnection/reconnection will divert the flow from the Wyoming Boulevard sewer line to the above-referenced North Albuquerque Industrial Interceptor. Service, therefore, will be available contingent upon the following line extensions:

1. A line extension within Wyoming Boulevard from the existing 21-inch line at Alameda Avenue, extending north to Modesto Avenue. The size of this line should be the minimum allowed by existing grades and the arroyo crossing. Intermediate collector sewer connections to this section of the Wyoming Boulevard sewer should be avoided, if at all possible, since the intent is to abandon this section of line at a later date when the above-referenced diversion to the North Albuquerque Interceptor is accomplished.
2. A 15-inch interceptor line within Modesto Avenue from the 21-inch line in Wyoming Boulevard to Barstow Street. We have reviewed your analysis of design flows for the Modesto Avenue interceptor and agree that a 15-inch line is the correct size.
3. An 8-inch line within Alameda Avenue from the 21-inch line in Wyoming Boulevard to Barstow Street.
4. Construction of 8-inch on site collection sewers as necessary to service the subject development.

Mr. Paul Brasher
May 30, 1986
Page 3.

Service connections must be coordinated through a licensed plumber. Installation must conform to the plumbing code as adopted, and to effective City connection requirements. Service will be subject to Utility Expansion Charges.

Design and construction of the required improvements is the developer's responsibility and must be coordinated through the Design Division of the Public Works Department. City participation in the construction of the master plan line extensions is a possibility, however this would require construction under a City contract. The City/Developer cost split would be determined by the line extension policies in effect at the time of construction. If you wish to pursue this option, please let us know.

This statement of availability will remain in effect for a period of one year and applies only to the proposed development identified herein. Its validity is in part contingent on the continuing accuracy of the information supplied by the developer. Changes in the proposed development may require re-evaluation of availability and should be brought to our attention as soon as possible. Any outstanding prorata and/or standby assessments must be paid at the time service is taken. All charges assessed and/or rates collected will be based on applicable ordinances and policies in effect at the time service is actually requested and authorized.

If you have any questions and/or comments please let me know.

Sincerely,



Jon E. Ertsgaard, P.E.
Utility Engineer
Utility Development Division
Public Works Department
766-7354

JEE:wa

Attachments : Water and Sanitary Sewer Maps

xc: Roy Robinson
Walt Nickerson
Josie Gutierrez, Customer Services
f/Availability (C-19)
f/Readers (log #4/40)
f/North Albuquerque Acres, Tract 2, Unit 3, Blocks 11, 12, & 13
(Presley Tract) (C-19)



PUBLIC SERVICE COMPANY OF NEW MEXICO

ALVARADO SQUARE ALBUQUERQUE, NEW MEXICO 87158 _ _ _

September 25, 1986

RECEIVED

SEP 26 1986

ESPEY, HUSTON & ASSOC.

Mr. William F. Coleman, P.E.
Espey Huston & Associates, Inc.
4801 Indian School Rd. N.E.
Suite 204
Albuquerque, NM 87110

Dear Mr. Coleman:

Subject: North Albuquerque Acres

Thank you for contacting Public Service Company of New Mexico regarding electrical service to the proposed development.

The purpose of this letter is to answer your questions in the letter written September 23, 1986. PNM presently has 12470 volt three phase power in the area of this development. There is no Master Plan to build any new power lines in this area other than those necessary to provide service to new developments. PNM can provide an underground electrical distribution system to the residential subdivision at a cost of about \$1,000.00 per lot. This will be an up front cost to the developer. Under the present rules and regulations as approved by the Public Service Commission, PNM will refund the developer \$1,440.00 per lot for each dwelling that is built within 5 years of the initial deposit. This refund will not exceed the deposit paid by the developer. PNM construction will take about 6 to 8 weeks and can begin about 6 weeks after PNM receives a filed subdivision plat and an application for service. Also the contract deposit must be paid two weeks prior to the construction start date.

The City of Albuquerque requires a street light be installed at each intersection and at each cul-de-sac. The cost for each light is about \$1,100.00. This is a cost to the developer and is non-refundable.

As soon as you have a filed plat, please come to the PNM Service Center and fill out an application for service. At that time PNM will begin the design work.

Please call me at 761-3430 if I can be of further assistance.

Sincerely,

John Myers
Senior Division Engineer

GAS COMPANY OF NEW MEXICO

September 30, 1986

Espey, Huston & Associates, Inc.
William F. Coleman, P.E.
4801 Indian School Road NE Suite 204
Albuquerque, New Mexico 87110

RECEIVED
OCT 2 1986
ESPEY, HUSTON & ASSOC.

Re: North Albuquerque Acres NOR ESTE Sector Plan
EH&A Job No. 8030

Dear Mr. Coleman:

This is in response to your letter of September 23, 1986 and to confirm our conversation on September 24, 1986 as to the availability of natural gas service to the referenced project.

The Gas Company of New Mexico has a 4" high pressure gas main in Wilshire Avenue which can be used to serve the area south of the La Cueva High School. The area north of the high school can be served by the existing 6" high pressure gas main at Wyoming Boulevard and Alameda Avenue NE.

Both this gas mains have the capacity to service this development.

There are no plans to provide natural gas service to this area at this time. The only way we will extend gas to the area is at the request of the developer.

After recorded plat and signed mainline extension agreement is received it will take approximately 12 to 14 weeks to start construction.

A request by letter for extension of service to the Gas Company of New Mexico, c/o Leo Apodaca and also a plat showing which lots by phase you wish to be served at this time will be required before a contract can be drawn up.

The cost to extend the distribution main is approximately \$7.50 per foot. The price of yardlines (property line to meter location) is \$3.75 per foot subject to change.

Any extension of your gas line will be in accordance with Public Service Commission Section 16.

If you have any questions, please call me at 889-2540.

Sincerely,



Leo Apodaca
Engineering Technician

Albuquerque, New Mexico
September 29, 1986

Mountain Bell

William F. Coleman, P.E.
Espey, Huston & Associates, Inc.
4801 Indian School Road N.E. - Suite 204
Albuquerque, New Mexico 87110

RECEIVED

OCT 2 1986

ESPEY, HUSTON & ASSOC.

RE: NOR ESTE SECTOR PLAN (Job #8030)

Dear Bill:

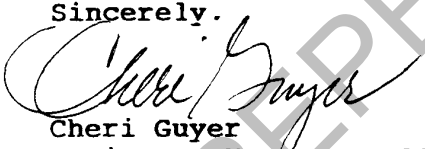
Currently there is minimal services available in the area in question. La Cueva High School has facilities, but there is nothing else in the area at the present time that requires services. There is no master plan at this time to place facilities in this area, however, once the NOR ESTE plans are finalized, Mountain Bell will work on providing facilities for whatever is required.

Mountain Bell requests a 60-90 day time frame after a pre-design meeting is held with the developer and other interested parties, to provide service. PNM is usually the coordinating utility that will call for pre-design and/or pre-construction meetings. Mountain Bell will try and utilize the PNM provided trench, but due to tariff, trench, backfill, etc., is provided by the developer.

The cost for trenching, barricading, dust control and any other applicable charges as a result of trenching for services are borne by the developer. These are usually the only costs associated with the project in regard to Mountain Bell.

If I can answer any other questions or be of further assistance, please call me at 765-8858 or George Barber at 765-8854.

Sincerely,



Cheri Guyer
Assistant Manager - DSDC
P.O. Box 1355 - Station 53
Albuquerque, New Mexico 87103

cc: George Barber

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: _____ DATE: 10/13/86
PLANNING DIVISION NOS: EPC: _____ DRB: _____
SUBJECT: NON ESTE SECTOR DEVELOPMENT PLAN (WINDOW "D")
STREET ADDRESS (IF KNOWN): _____
SUBDIVISION NAME: _____

APPROVAL REQUESTED:

_____ PRELIMINARY PLAT	_____ FINAL PLAT
_____ SITE DEVELOPMENT PLAN	_____ BUILDING PERMIT
<u>X</u> OTHER	_____ ROUGH GRADING
<u>SECTOR PLAN</u>	

WHO	REPRESENTING
ATTENDANCE: <u>Dennis Lorenz</u>	<u>Espery Huston</u>
<u>Fred J. Aguilar</u>	<u>City</u>
_____	_____

FINDINGS:

1. AN APPROVED CONCEPTUAL GRADING + DRAINAGE PLAN REQUIRED FOR SUBJECT REQUEST. THE PLAN SHOULD ADDRESS THE FOLLOWING:
 - PRELIMINARY STREET GRADERS FOR WYOMING, ALAMEDA, DANSTON + MODESTO
 - PRELIMINARY HORIZONTAL + VERTICAL ALIGNMENT FOR LA CUCUA ARROYO. PROVIDE PRELIMINARY HYDRAULIC CALCULATIONS + CROSS-SECTION WITH PLAN.
2. FOR YOUR INFORMATION A FLOODPLAIN MAP REVISION WILL BE REQUIRED TO REMOVE LAND FROM THE FLOODPLAIN. OBTAIN THE REQUIRED INFORMATION COORDINATE WITH THE CITY'S FLOODPLAIN ADMINISTRATOR ~~FOR~~ FOR SUCH REVISION.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: <u>[Signature]</u>	SIGNED: <u>[Signature]</u>
TITLE: _____	TITLE: _____
DATE: <u>10/13/86</u>	DATE: <u>10-13-86</u>

****NOTE** PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL**

CONFERENCE RECAP

APPROVAL REQUESTED:

	WHO	REPRESENTING
ATTENDANCE:	<u>Dennis Lorenz</u>	<u>Espey, Huston</u>
	<u>Fred Aguirre</u>	<u>Hydrology Section</u>
	<u></u>	<u></u>

1) An approved Conceptual Grading & Drainage Plan is required for Sector Plan approval. Major elements to be addressed in this plan are:

- Offsite flows and method of handling such flows.
- Channel stability - need to address required channel treatment or setback requirements to protect development from potential meandering of the arroyo.
- Method of discharging runoff into the arroyo to mitigate erosion problems downstream.
- Allowable discharge and ponding requirements will be based on downstream constraints.
- Preliminary street grades and required drainage improvements for Wilshire, Barstow, and Wyoming.
- Easements/R.O.W.'s required to implement development scheme.

SIGNED: [Signature] SIGNED: [Signature]
TITLE: _____ TITLE: SR ENGR
DATE: 10/22/86 DATE: 10-30-86

C-11



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

MAYOR
KEN SCHULTZ

CHIEF
ADMINISTRATIVE OFFICER

GENE ROMO

DEPUTY CAO
PUBLIC SERVICES

FRANK MARTINEZ

DEPUTY CAO
PLANNING/DEVELOPMENT

BILL MUELLER

November 21, 1986

Paul Brasher, P.E.
Espey-Huston & Associates, Inc.
J.S. Brown Mercantile Building
317 Commercial Street NE
Albuquerque, NM 87102

Re: Water and Sanitary Sewer Availability (C-19)

Dear Mr. Brasher:

This statement of availability is issued in response to your inquiry regarding water and sanitary sewer service to the subject property. All statements made herein are contingent upon the information provided in that inquiry and upon the preliminary information submitted to the Development Review Board (DRB) for the Nor Este Sector Development Plan.

While this availability statement pertains only to the subject property identified below, please be advised that the water and sanitary sewer facilities identified by this letter will generally be available to also service the remaining area of the Nor Este Sector Development Plan south of Anaheim Boulevard (Block 18, Lots 8 through 21). Future development of this property will require an availability statement at such time that development details and fire protection requirements can be better defined. Additional system improvements may be required by that future availability statement. Please also be advised that City policy requires that the subject property be annexed prior to obtaining City water and sanitary sewer service.

Subject Property: North Albuquerque Acres
Tract 2, Unit 3, Blocks 16 and 17

Proposed Development: Single Family Residential

Water Service:

The subject property is located entirely within zone 4ER of the Alameda Trunk. Existing 4ER waterlines adjacent to the site include a 10 inch line within Wyoming Boulevard, a 12 inch line within Barstow Street, and a 10 inch line within Wilshire Avenue. As such, service will be available contingent upon completion of the following system improvements:

- 1) An 8 inch line extension within Anaheim Avenue connecting to the 10 inch line in Wyoming Boulevard and the 12 inch line in Barstow Street.

- 2) Construction of 8 inch and 6 inch on site waterlines as necessary for service and fire protection to the subject development. As much as possible, dead end line extensions should be avoided.

Service connections must be coordinated through the Customer Services Office (768-2840). Service will be subject to Utility Expansion Charges.

Sanitary Sewer Service:

Existing sanitary sewerlines adjacent to the site include a 21 inch interceptor line within Wyoming Boulevard and an 8 inch collector line extension from this interceptor within Wilshire Avenue. The 8 inch line in Wilshire Avenue was constructed as far as the east boundary of the La Cueva High School site (approximately 2200 feet east of Wyoming Boulevard). Service to the subject property and development will be available contingent completion of the following line extensions:

- 1) A continuing 8 inch line within Wilshire Avenue from the above referenced existing 8 inch line to Barstow Street.
- 2) An 8 inch line extension within Anaheim Avenue from the 21 inch interceptor in Wyoming Boulevard to Barstow Street.
- 3) Construction of 8 inch on site collection sewerlines as necessary to service the subject development

The lines within Wilshire Boulevard and Anaheim Avenue to Barstow Street will have to be planned and designed to accept future off-site flows from properties to the east of Barstow Street.

Service connections must be coordinated through a licensed plumber. Service installations must conform to the plumbing code as adopted and to effective City connection requirements. Service will be subject to Utility Expansion Charges.

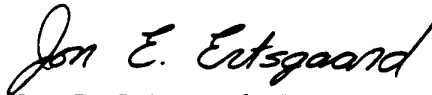
Design and construction of the required water and sanitary sewer improvements is the developer's responsibility and must be coordinated through the Design Division of the Public Works Department.

This statement of availability will remain in effect for a period of one year and applies only to the proposed development identified herein. Its validity is in part contingent on the continuing accuracy of the information supplied by the developer. Changes in the proposed development may require re-evaluation of availability and should be brought to our attention as soon as possible. Any outstanding prorata/standby assessments must be paid at the time service is taken. All charges assessed/rates collected will be based on applicable ordinances and policies in effect at the time service is actually requested and authorized.

Water and Sanitary Sewer Availability (C-19)
November 21, 1986
Page 3

If you have any questions/comments, please let me know.

Sincerely,



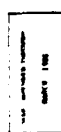
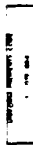
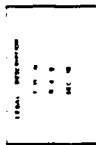
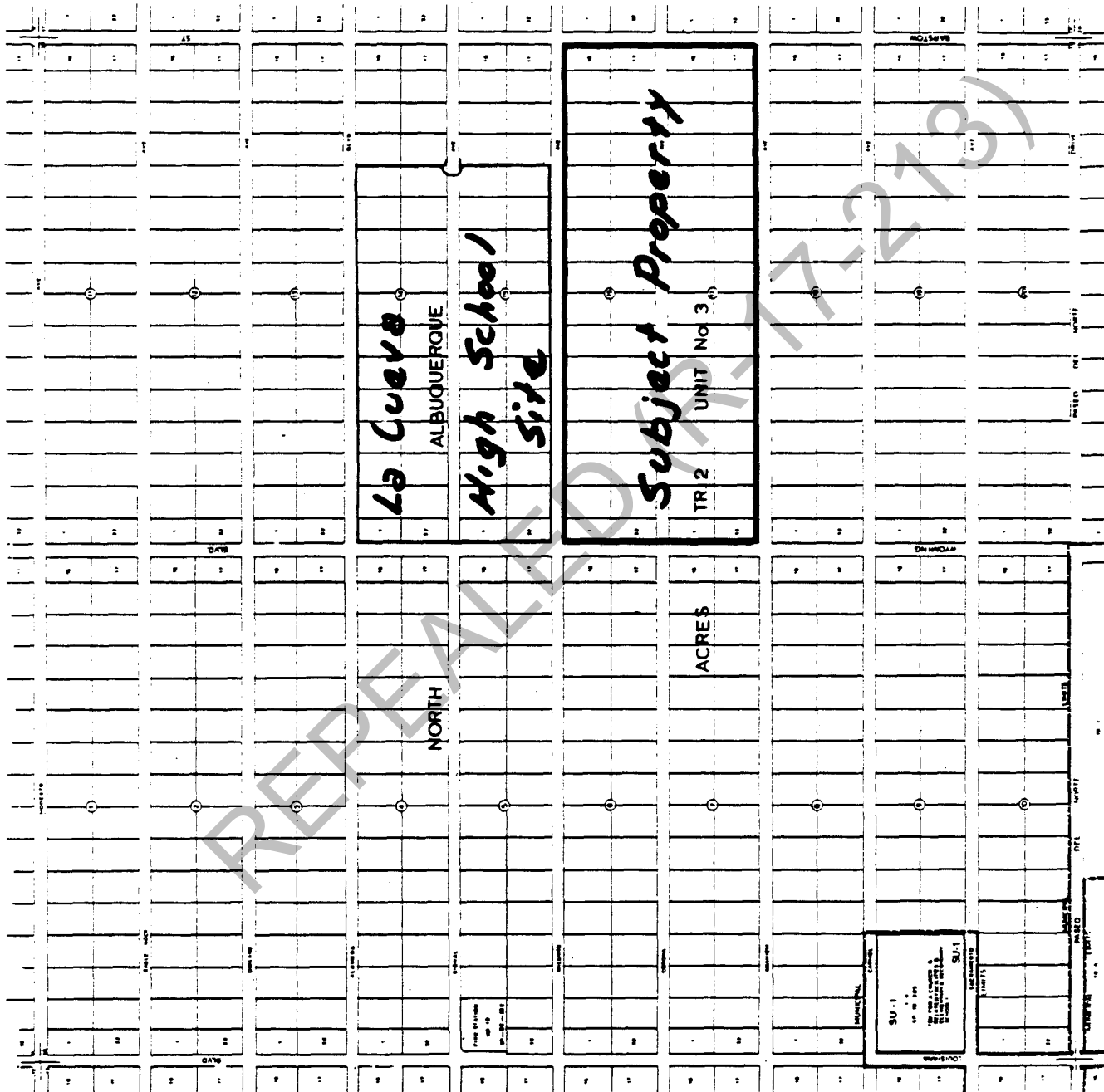
Jon E. Ertsgaard, P.E.
Systems Engineer
Utility Development Division
Public Works Department
766-7354

JEE:ds

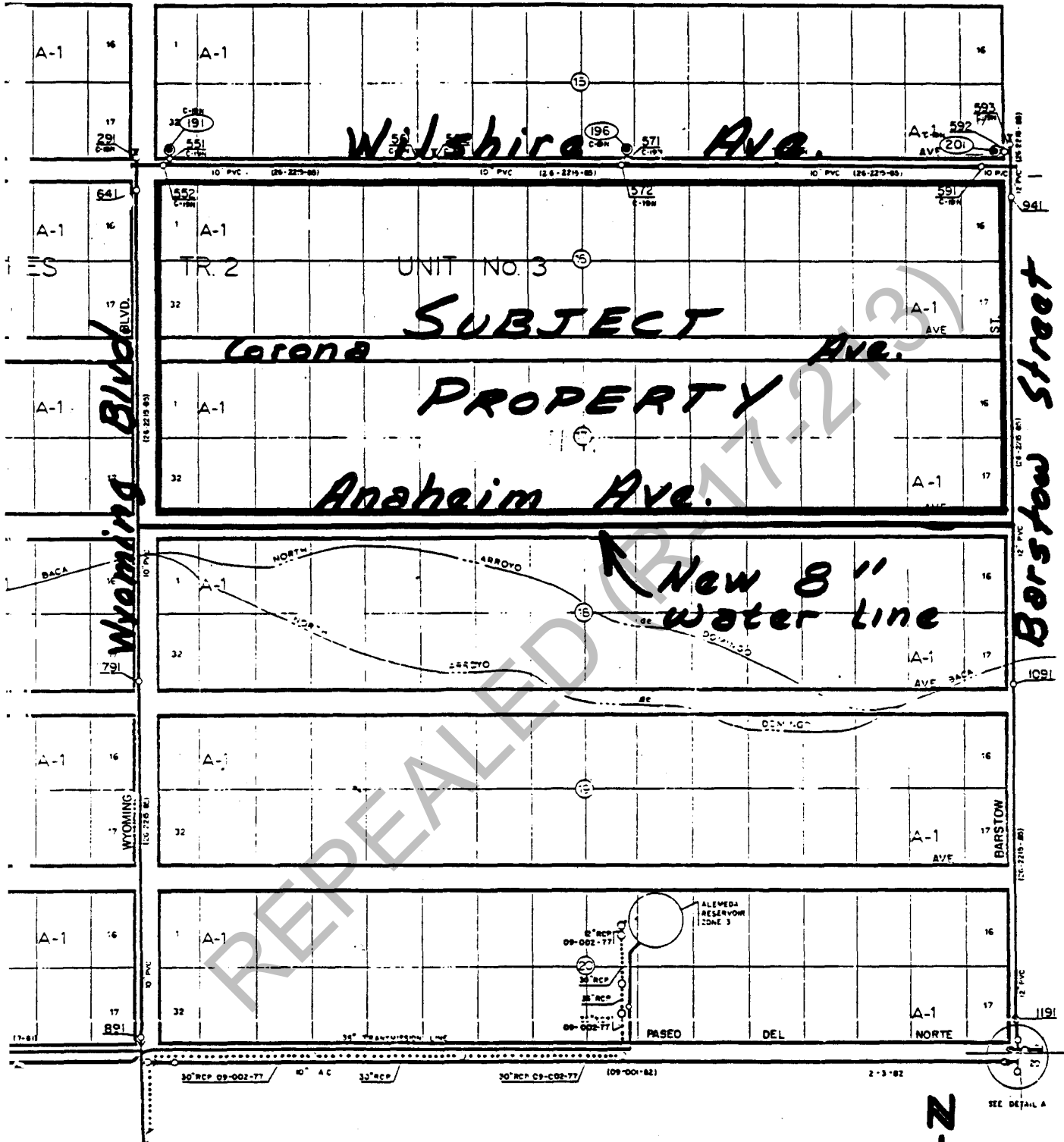
Attachments: Water and Sanitary Sewer Maps

xc: Walt Nickerson, City Engineer, Engineering Group
Roy Robinson, Principal Engineer, Planning Group
Josie Gutierrez, Administrative Aide II, Customer Services Division
f/Availability (C-19)
f/Readers (86-9-28)
f/North Albuquerque Acres, Tract 2, Unit 3, Blocks 16 and 17 (C-19)

Doc. 1239F, Arc. 0109F



C-19-Z

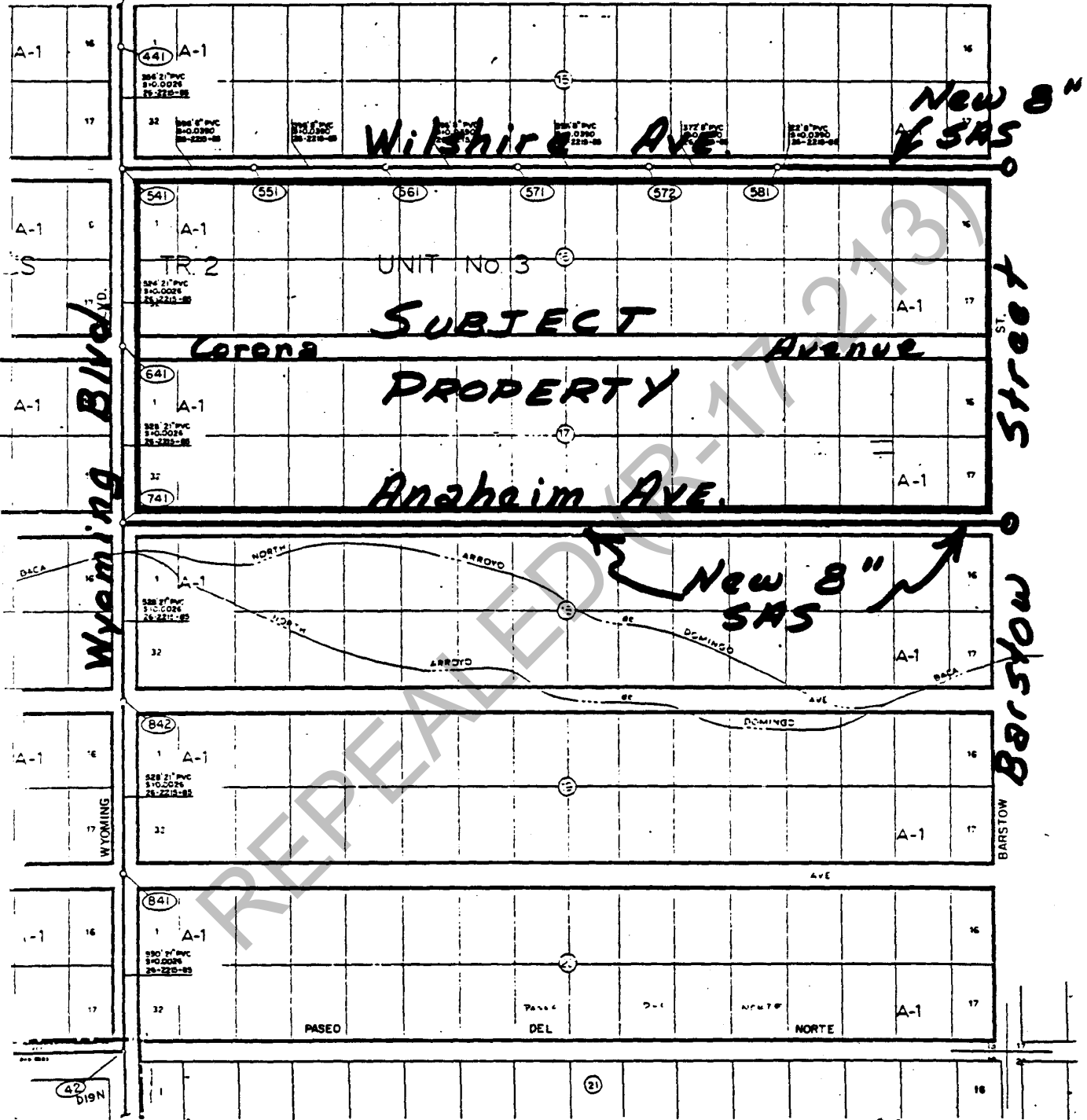


WATER MAP C-19

C-16

200 100 0 200 400

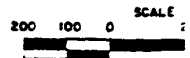
LEGEND	REVISIONS



SANITARY SEWER MAP C-19

C-17

LEGEND



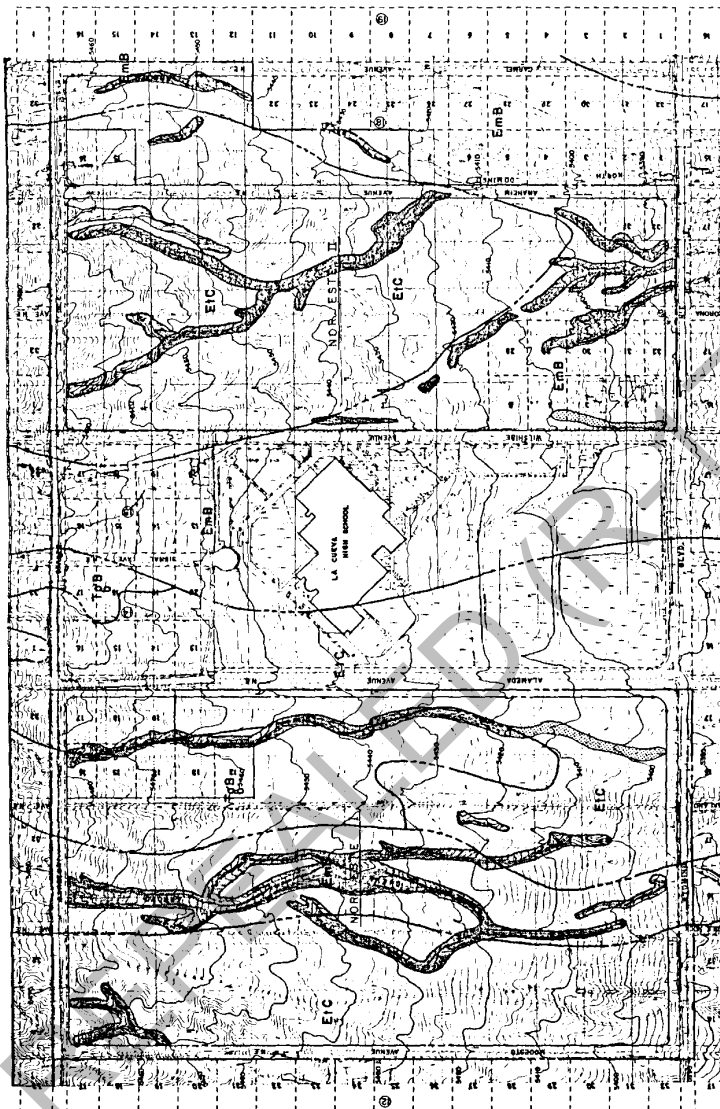
SANITARY SEWER



EXHIBITS

REPEALED (R-17-213)





SOILS

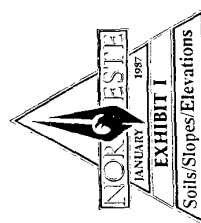
EmB Embudo Soil
 EIC Embudo-Tijeras
 Complex Soil
 TgB Tijeras Soil
 --- Soil Classification
 --- Boundary

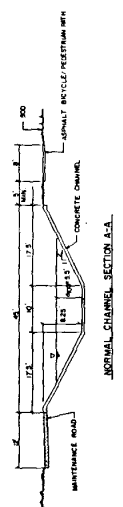
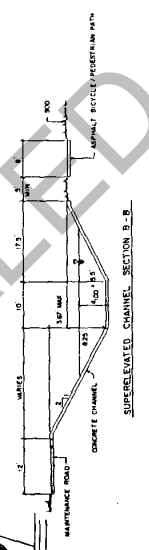
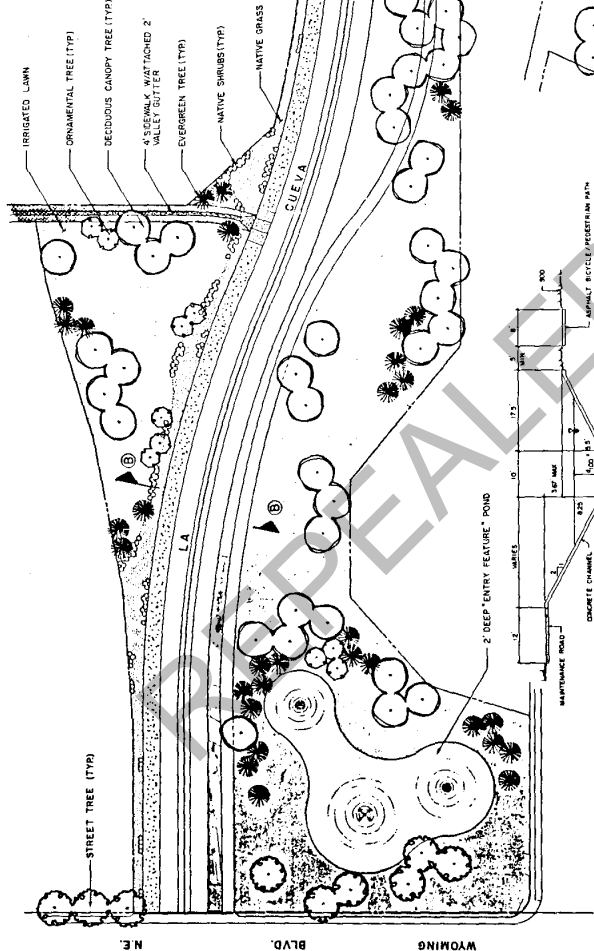
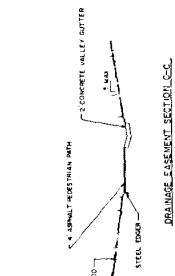
SLOPES

0 to 5%
 5 to 10%
 10 to 15%
 Over 15%

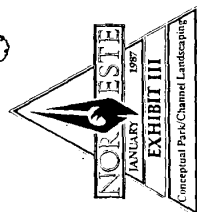
ELEVATION

10' Contour
 Elevation





BARSTOW STREET



INTERNAL STREET CROSSING

CHANNEL

CONCRETE CHANNEL

BICYCLE / PEDESTRIAN TRAIL

DRAINAGE EASEMENT

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

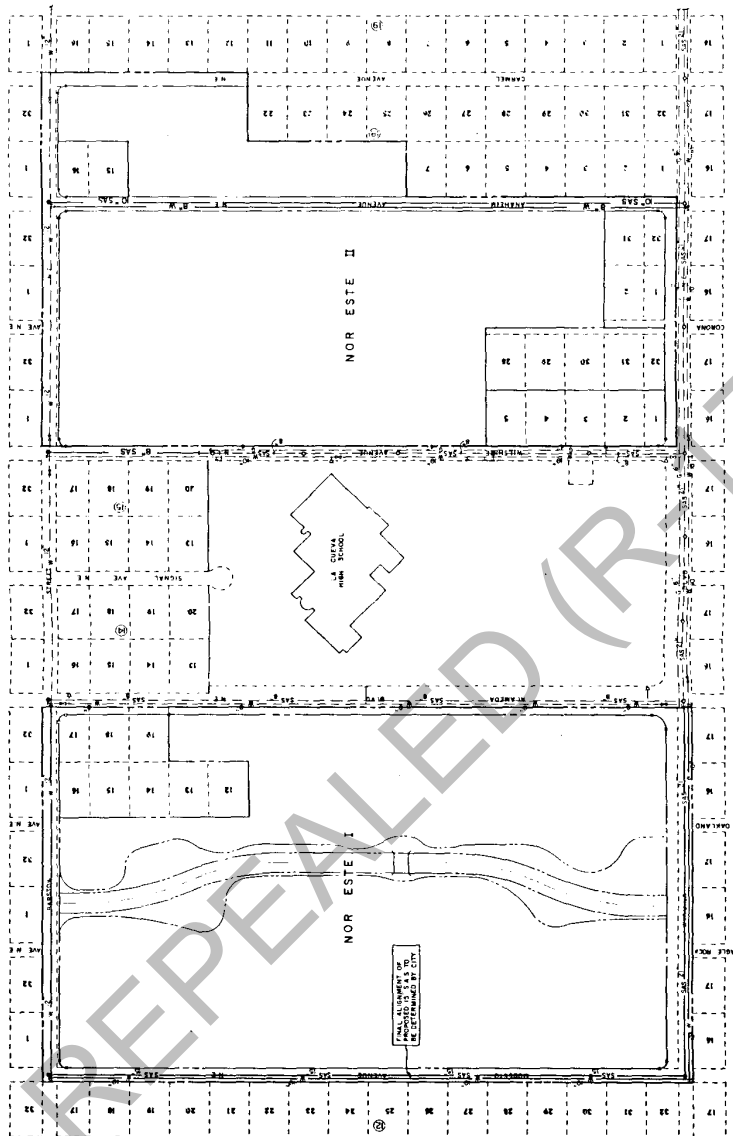
MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER

CONCRETE CHANNEL

MAINTENANCE ROAD

4' SIDEWALK W/ATTACHED 2' VALLEY DUTTER



- LEGEND**
- SECTOR PLAN BOUNDARY
 - EXISTING WATERLINE
 - EXISTING GAS LINE
 - EXISTING SANITARY SEWER LINE
 - PROPOSED WATERLINE
 - PROPOSED SANITARY SEWER LINE

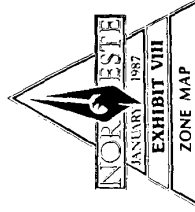
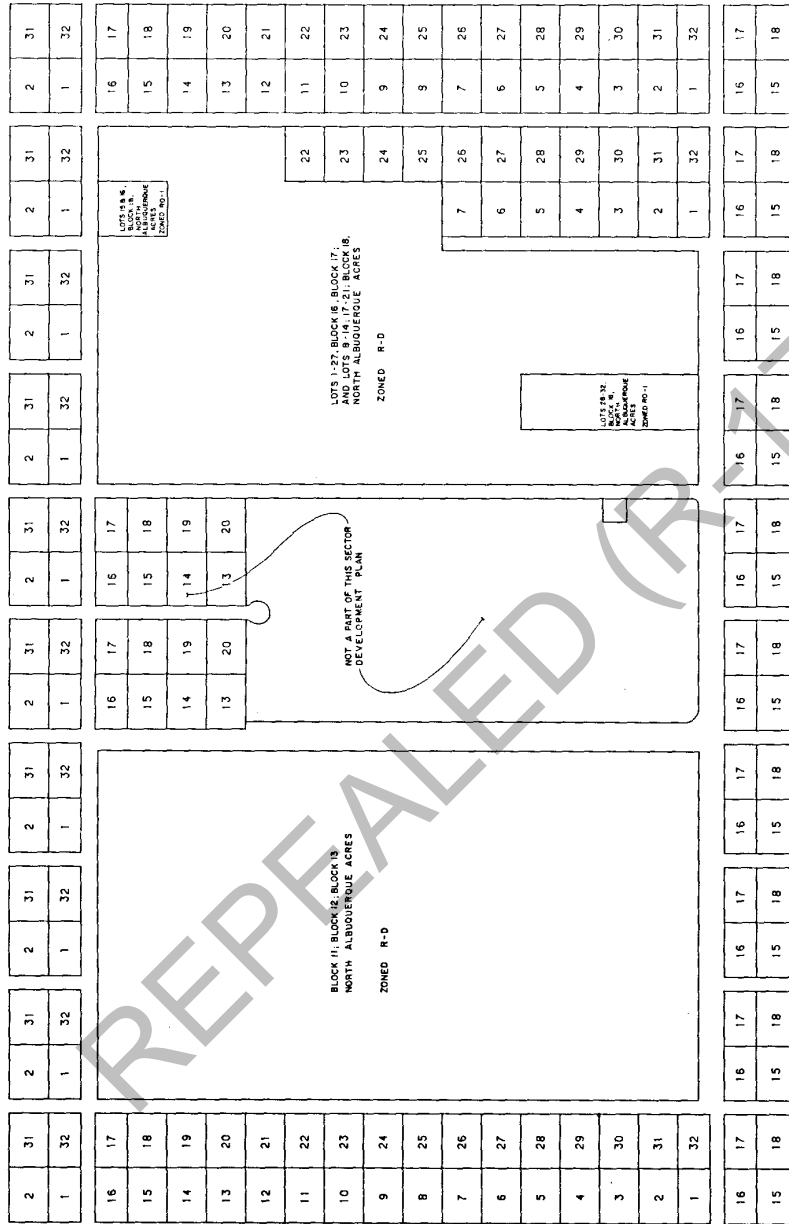


NOR ESTE
JANUARY 1997

EXHIBIT VII
Utilities Plan

ALL UTILITIES TO BE DETERMINED BY CITY

SCALE 1"=50'



NOTE:
FOR MORE SPECIFIC USE DESIGNATIONS
SEE EXHIBIT VI, NORTH ESTE SECTOR DEVELOPMENT PLAN