

CITY OF RIO RANCHO



RESOLUTION NO. 9

ENACTMENT NO. 02-007

ADOPTING THE MARIPOSA MASTER PLAN; APPROXIMATELY 6,581 UNPLATTED ACRES, LOCATED CONTIGUOUS TO THE NORTHERN BOUNDARY AND WITHIN THE CITY OF RIO RANCHO

WHEREAS, The State of New Mexico has empowered the City of Rio Rancho to enact zoning regulations for the purpose of promoting the health, safety and general welfare; and

WHEREAS, The Governing Body of the City of Rio Rancho's Comprehensive Plan has determined that the Hierarchy of Plan Development Level 4: Master Plans consider the fiscal, environmental and infrastructure impacts of the project, as well as providing general developmental guidelines for relatively large, specific geographic areas within the Comprehensive Planning Area. Master Plans are intended to provide a general overview in relation to transportation, drainage, utilities and other relevant systems; and

WHEREAS, The Governing Body of the City of Rio Rancho has determined that the Master Plan for Mariposa is in conformance with the Vision 2020 Integrated Comprehensive Plan.

THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF RIO RANCHO:

That the Governing Body does hereby approve the Master Plan, attached hereto, for the project area known as "Mariposa" consisting of approximately 6,581 acres as per the following:

Requirements/Restrictions:

Land Use: Any development shall be as per the Master Plan and as per an adopted Development Agreement.

Adopted this 13th day of February 2002

John M. Jennings
John M. Jennings, Mayor
1-18-02
Date

ATTEST:

Tina Gonzales
Tina Gonzales, City Clerk
[SEAL]



M A R I P O S A

MASTER PLAN

Prepared for:
High Desert Investment Corporation

January 31, 2002

Presented to:
The City of Rio Rancho

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Introduction

Mariposa is a planned community on 6,581 acres adjacent to the northwest boundary of the City of Rio Rancho in Sandoval County, New Mexico. It will be a model sustainable community designed to fulfill the multiple goals and objectives of the owner, the developer, the City of Rio Rancho and Sandoval County. Mariposa is a mixed-use development designed to provide housing, employment and recreational opportunities for the community. The project is planned to be developed in two phases over 30-35 years.

The Mariposa Master Plan summarizes the characteristics of the proposed development. Supporting documents for the Master Plan, in two separate volumes, provide more detailed information about these project components and the decisions that contributed to the final development of the plan.

Mariposa is located contiguous to four significant land areas: the City of Rio Rancho, the tribal lands of Santa Ana and Zia pueblos, and several large tracts of land owned by the New Mexico State Land Office, two of which are included in a Joint Development Agreement with the City of Rio Rancho. Mariposa overlooks the neighboring cities of Bernalillo, Rio Rancho, and Albuquerque. Breathtaking panoramic views of the Sandia, Jemez and Sangre de Cristo mountain ranges are available from the site. The vistas are matched by the landscape of Mariposa: soft, rolling grasslands dotted with pinon and juniper contrast with a spectacular escarpment that cuts through the center of the property.

Albuquerque Academy (the Academy) is the owner of the property. The Academy is an independent college preparatory school for grades 6-12. In June 1991, the Academy's Board of Trustees authorized the formation of High Desert Investment Corporation (High Desert), to develop the Academy's 1,000-acre High Desert property in an environmentally-sound manner. High Desert will be the developer of Mariposa, and is a wholly-owned, for-profit subsidiary of Albuquerque Academy. High Desert's approach to land development is a reflection of the Academy's commitment to the community and respect for the environment. The same principles of community, diversity, respect and stewardship that the Academy applies to the education of its student body, are applied by High Desert to development.

A Model of Sustainable Development

The vision of a sustainable community at Mariposa includes a mutually dependent mixture of uses that produce economic, social and environmental benefits. Projected economic benefits of Mariposa include short-term fiscal benefits from land, construction and building sales, and the long-term fiscal and economic benefits provided by the creation of a high-quality community with quality jobs, services and products. Social benefits will include the creation of public facilities, and a diversity of housing and employment opportunities. Environmental benefits will include land preservation, resource conservation and reuse, and wildlife and habitat restoration. Fostering this complex combination of economically, socially and environmentally beneficial conditions will create a sustainable community at Mariposa.

The Mariposa Master Plan and supporting documents provide the planning and operational framework to create a community - one that contributes to the character of Rio Rancho and the surrounding region.

Planning and Land Use

The Mariposa Master Plan has been developed to meet the standards set by the Vision 2020 Integrated Comprehensive Plan (Vision 2020 Plan), adopted by the Rio Rancho City Council in 2001, as well as other ordinances that govern the development of master planned communities. At the March 18, 2001 meeting, the Rio Rancho City Council approved the Vision 2020 Plan, which represents Mariposa as an area suitable for annexation and consideration as a potential growth node.

The Master Plan reflects the preferred growth node land use scenario of the Vision 2020 Plan. Mariposa will include approximately 6,825 dwelling units (probable maximum) and two mixed-use activity centers, with a total of approximately one million square feet of commercial uses. These activity centers are located at Mariposa to complement the existing pattern of growth nodes throughout the City. Economic development and density will be focused in these areas.

Outside of the mixed-use areas, Mariposa will be comprised of residential, open space and park land uses. The density of development will gradually decrease with distance from the activity centers, and will be further limited in some areas by Mariposa's rugged terrain. The desire to protect these fragile areas within Mariposa has resulted in identifying over half of the property as open space or park. The Mariposa Preserve, a starkly beautiful desert landscape with 2,185 acres of public open space with controlled public access, will serve as the centerpiece for the development.

Annexation

Mariposa lies within the City of Rio Rancho's extra-territorial planning jurisdiction, and Mariposa has been identified in Vision 2020 as suitable and anticipated for annexation. Per one of the objectives of the Rio Rancho Comprehensive Plan, adopted in October of 1991, Mariposa is appropriate for annexation into the City based on three (3) principles: (a) Mariposa provides a potential for increasing municipal revenue generation both through ad valorem taxes and gross receipts taxes, as shown in the Fiscal Impact Analysis summarized in this document; (b) the Academy requests the benefit of the City's land use regulation and management; and (c) it is appropriate to serve Mariposa with municipal services and facilities.

Zoning

Zoning classifications at Mariposa reflect the revisions to the Zoning Code by the City of Rio Rancho, including the addition of mixed-use activity zones and park and open space areas. The Master Plan describes proposed zoning at Mariposa, which includes the E-1, R-1, R-4, R-5, Parks, Open Space and MU-A zone districts. In order to implement the Master Plan, which protects the natural assets of the site including rugged terrain and spectacular views, and maximizes diversity in housing type, size and design, some specific design standards and concepts will be utilized which are further defined in this Master Plan. The City accepts the design standards and concepts which constitute compliance with Section 9-2-15(A), Rio Rancho Revised Ordinances, 1987, which requires that subdivision design standards conform to a master plan or policies established by the City Council. However, final approval authority is reserved to the City through the application of these design standards, while also recognizing issues of safety and general appropriateness, during the required subdivision approval process. In addition to the specific standards and concepts listed in the Master Plan, the enforcement of Mariposa's own architectural Standards and Guidelines for Sustainability by Mariposa's Sustainability Review Board will ensure that there is visual harmony among architectural elements, and between these structures and the landscape.

Natural Resources - Existing Conditions

Mariposa is intended to be a model of environmentally sound development practices. Site-specific research was prepared to structure planning, design and operations approaches to environmentally sensitive development. The Master Plan includes analysis summaries of existing site characteristics such as geology and soils, landscape character, biological resources including regional biological setting, vegetation, wildlife, special-status species, and cultural resources.

Natural Resources and Landscape Management

The Master Plan introduces potential key elements of a Natural Resources Management Plan. Open space is an essential component that enhances the quality-of-life of residents and the surrounding area. Landscape architecture, which includes both site and planting design, protects the character of the land, preserves the unique sense of place and provides for landscape maintenance of common areas by the Mariposa Residential Owners Association. Water conservation is required and may be achieved through a variety of means including implementation of water conserving techniques and the reuse of treated effluent. Habitat enhancement, including the preservation of significant landforms, contributes to the overall quality of the project, and will utilize native plant landscaping, riparian habitat creation and species-specific conservation and monitoring. Other important Natural Resources Management Plan elements include cultural resources management, grading and excavation, air quality, dark skies/lighting, noise, and environmental education, and the Standards and Guidelines for Sustainability.

Public and Community Facilities and Services

Superior on-site services and recreation opportunities are a priority at Mariposa. The Master Plan describes some of the research and methodologies used to identify the appropriate types and quantities of public facilities at Mariposa. Levels of service were based on a projected population of approximately 18,000, calculated based upon a total of 6,825 dwelling units. Subsequent evaluations of the site and local context, as well as discussions with the appropriate City officials, resulted in identification of sites and/or program descriptions for one public safety facility, waste management and recycling programs, three schools - two elementary and one middle school, day care centers, one library, five places of worship, one small cemetery, potential medical facilities, 162 acres of parks, 1,357 acres of common open space, the 2,185 acre Mariposa Preserve, 39 miles of trails, one community/senior center and one aquatic center.

Transportation and Circulation

The Mariposa Transportation Master Plan recognizes that the proposed transportation network must be sensitive to the needs of a "livable community" as well as traffic conveyance needs. The goals of the plan include: minimizing the impact of traffic in residential areas, and integrating street planning with overall community planning by providing streets that are properly scaled and designed. The plan maximizes the potential for multi-modal transportation opportunities by grouping commercial and higher density mixed land uses around neighborhood activity centers, providing an extensive network of pedestrian and bicycle trails, paths, walks, and exclusive on-street lanes, designating property for regional transit-related facilities, and creating the neighborhood structure and communication infrastructure that facilitate the provision and implementation of neighborhood-scale transit improvements such as shuttles, van pools, carpools and rideshare programs.

The plan specifies a hierarchy of streets that addresses the issues of safety, efficiency, livability, and economy. Street design standards are provided that allow alignments to follow natural contours and preserve existing drainage patterns and natural features, minimize the collection and erosion potential of stormwater runoff and the need for storm sewers, reduce street widths and paved areas to reduce construction and maintenance costs and to discourage vehicle speeds, thus reducing the potential for conflict with pedestrians and bicyclists.

Primary access to Mariposa will be provided via two new arterial street connections to Unser Boulevard, and at least one arterial street connection to Rainbow Boulevard. The principal access to Planning Area 1 will generally follow the Venada Arroyo and connect to Unser Boulevard at Osage Road. This new street, named Mariposa Boulevard, provides the City of Rio Rancho and the State Land Office with the potential for a new east-west arterial that could connect Mariposa to US 550 through the State Land Office's Loma Barbon property. The second connection to Unser Boulevard will generally follow the Barranca Arroyo and is named Avenida La Barranca. It will also provide initial access to Planning Area 2 via extension of Avenida La Barranca. Further development of Planning Area 2 will include improvements to Rainbow Boulevard to provide paved access

to the existing City/regional transportation network. Access to Rainbow Boulevard is proposed via two arterial street connections through State Trust Land.

The Long Range Roadway System Plan (LRRSP) for the Albuquerque Metropolitan Planning Area provides the context for additional components of the regional transportation network in the vicinity of Mariposa. The LRRSP provides for two controlled-access roadways that may ultimately connect US 550 in the northeast with I-40 in the southwest. These facilities are Paseo del Volcan and the Northwest Loop Road. Paseo del Volcan is contemplated within the Middle Rio Grande Council of Governments' Metropolitan Transportation Plan (MTP) for construction within the next 20 years, while the Northwest Loop Road is not anticipated to be constructed within that time frame.

An Environmental Assessment (EA) for the Northwest Loop Road alignment was prepared for the New Mexico State Highway and Transportation Department (NMSH&TD) in 1988. In accordance with the EA, a 300' wide right-of-way corridor for the future Northwest Loop Road was dedicated by deed in 1993 (by the prior property owner) to Sandoval County, bisecting Mariposa from east to west. A portion of the existing right-of-way traverses a rugged portion of the Mariposa Preserve. The Owner and Developer believe the current alignment is not appropriate because of adverse environmental impacts to the Mariposa Preserve, as well as increased public costs associated with construction of a facility in this location. Therefore, a 300' wide corridor has been identified and set aside which may be appropriate for future use as right-of-way for an alternate alignment of the Northwest Loop Road. Additionally, a 250' wide buffer has also been established between the possible 300' alternate road alignment and the Mariposa boundary in Planning Area One, which should place any actual roadway approximately 314' from the Mariposa property boundary. The 250' wide buffer will be zoned as Open Space and will provide appropriate buffering between the alternate road alignment and property owners in Rio Rancho Estates adjacent to Planning Area One. If the alternate road alignment is selected for construction of the Northwest Loop Road, the Developer will, at the time of the road construction, construct an earthen berm and install landscaping where possible and appropriate to help mitigate the impact of the Northwest Loop Road on adjacent property. If the alternate 300' road alignment is not utilized for the Northwest Loop Road, or the Developer determines that the alternate road alignment is no longer appropriate, it will be utilized for residential construction and the 250' open space buffer will provide appropriate buffering between dissimilar residential uses. The actual alignment of the future Northwest Loop Road will be determined in the future by the NMSH&TD through the process of preparing an Environmental Impact Statement (EIS), which will review the advantages and disadvantages of several alternate alignments. Development at Mariposa is not dependent upon, nor will development at Mariposa preclude the future construction of the Northwest Loop Road.

Infrastructure

The Mariposa Master Plan addresses several different infrastructure systems that are required for development of the property. These include drainage, water, wastewater, and other utilities including electric and gas distribution and communication facilities. The Mariposa Conceptual Drainage Management Plan identifies basic drainage management concepts, such as treatment of the major and minor arroyo corridors and the conceptual locations of possible drainage diversion and detention structures. The Mariposa Water and Wastewater Master Plan addresses system improvements and other requirements for provision of the water supply and wastewater treatment facilities necessary to support the development.

The primary drainage management concepts utilized within Mariposa include the reduction of developed runoff discharges to match historical peak flows by water harvesting and individual site and community stormwater detention ponds. The Plan establishes prudent erosion setback limits to protect proposed development and to allow existing arroyos to function in a largely natural state and to be maintained as open space corridors. Structural improvements, including bank protection and grade control structures, will be constructed only where necessary to mitigate effects from increases in frequency of discharge from developed areas and at locations where existing arroyos may be proximate to proposed development.

The water supply and wastewater treatment and disposal systems for Mariposa have been planned in coordination with the City Utility Department's plans, processes, and requirements and in consideration of the needs of additional development in the vicinity of Mariposa. Water conservation measures proposed for implementation at Mariposa include, but are not limited to, the installation of low water use plumbing fixtures for homes, water-conserving practices for commercial development, the requirement for xeric (water conserving and native) vegetation in exterior landscaping, as well as rainwater harvesting and the reuse of treated wastewater effluent to supplement irrigation flows. Annexation negotiations and the agreements resulting from them will refine the details for the sale and transfer of approximately 212 acre-feet per year of consumptive water rights currently owned by the Academy to the City of Rio Rancho. Wastewater Treatment facilities have been conceptually located to potentially realize the benefits of aquifer recharge and effluent reuse, as well as to allow participation in, expansion by or support of other development in the vicinity of Mariposa.

Although much conceptual utility infrastructure planning has been accomplished in coordination with the City of Rio Rancho, all public utility infrastructure, including water supply and wastewater treatment concepts and infrastructure reasonably necessary to serve the needs of Mariposa will be more fully developed in consultation with the City of Rio Rancho and all final infrastructure designs and specifications will be approved by the City of Rio Rancho.

Fiscal Impact

The Mariposa Master Plan summarizes a detailed fiscal analysis that was prepared as required by the City of Rio Rancho. This analysis clearly illustrates that Mariposa will generate significant surpluses to both the City and County. Assuming annexation, the analysis calculated the net fiscal impact of the project upon build-out of 6,825 units and 1.0 million square feet of commercial space. One-time revenues to the City are estimated at \$51.9 million, while one-time costs are estimated at \$25.9 million, indicating net one-time revenues to the City of \$26 million. Upon project build-out, annual revenues to the City are estimated to total \$8 million, while costs are estimated at \$5.2 million, indicating a net positive fiscal impact of \$2.8 million per year.

Obtainable Housing

High Desert intends to create an obtainable housing program at Mariposa. The objective is to create a practical, workable, and durable program that will provide local residents and employees, who might not otherwise be able to afford it, the opportunity to purchase a home in Mariposa. The specific terms of the obtainable housing program, from who may purchase, to how gains will be determined and collected, will be set forth in the recorded covenant running with the Land.

Governance

The Master Plan outlines a system of community governing organizations designed to create, enforce and perpetuate a model sustainable development. While the laws of the City of Rio Rancho and the State of New Mexico govern Mariposa, this framework of documents will provide structure to the community and create opportunities for community growth by setting forth the responsibilities of property owners, instituting limitations and procedures for development and operations, and identifying the structure of the entities creating the governance for Mariposa. It is important to note that Mariposa will, in all ways, be a part of the greater Rio Rancho Community and that the Mariposa governing documents and organizations will not supplant the City governing structure, or City laws, ordinances or regulations.

The primary governance structure components include the Covenant, which is similar in nature to typical community covenants, conditions and restrictions, but exceeds the parameters of traditional planned community covenants by providing specific tools and guidelines for building a sense of community and promoting environmental preservation within Mariposa. Supporting documents to the Covenant include the Standards and Guidelines for Sustainability, the Community Charter for Mariposa Residential Property, and the Charter for Mariposa Commercial Property.

The governing responsibilities within the community will be distributed among several organizations including the Mariposa Community Council, the Mariposa Community Foundation, Commercial and Residential Associations and the Sustainability Review Board. The Mariposa Community Council will play a unifying and oversight role in Mariposa, and ensure that the terms of the Covenant are carried out for the benefit of Mariposa and the community at large. The Mariposa Community Foundation will provide additional programming and activities that benefit community life such as educational, environmental and cultural events and programs. Associations will typically provide services, enforce covenant restrictions, collect assessments and maintain common open space for the benefit and enjoyment of those subject to its jurisdiction. The Sustainability Review Board will regulate community construction activity, overseeing implementation of the Natural Resources Management Plan, and maintaining, applying and updating the Standards and Guidelines for Sustainability.

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	Petition for Annexation
	Fiscal Impact Analysis
	Traffic Impact Analysis

Supporting Documents to the Mariposa Master Plan Volume Two	Water/Wastewater Master Plan
	Grading and Drainage Report

Supplemental Documents	Draft Governance Guidelines
	Draft Standards and Guidelines for Sustainability

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Earnings of the endowment subsidize nearly 50% of the cost of the Academy's educational programs, with student tuition paying the remaining portion. Additionally, substantial amounts of financial aid are available as grants to students unable to afford full tuition. The Academy's Board of Trustees has adopted a Standing Order that no deserving student be denied an opportunity to attend the Academy as a result of financial need. In the 2000/2001 school year, 34% of the students received financial aid in the amount of \$2.4 million.

High Desert Investment Corporation - Master Developer

In June 1991, the Academy's Board of Trustees authorized the formation of High Desert Investment Corporation (High Desert) to develop the Academy's 1,000-acre High Desert property in an environmentally sound manner. The property is located on the east side of Albuquerque, adjacent to the Cibola National Forest and Sandia Mountain Wilderness and possesses many significant attributes that the school has protected.

High Desert is a wholly owned, for-profit subsidiary of Albuquerque Academy, and will be responsible for the development of Mariposa. High Desert's approach to the development of land is a reflection of Albuquerque Academy's continued commitment to community and concern for the environment. High Desert intends to make a major contribution to the quality-of-life in Rio Rancho and the surrounding region by continuing to set the standard for sustainable and sound planning and development in the region.

Statement of Vision

When complete, Mariposa may be home to 18,000 or more residents. Mariposa will be, in the truest sense of the word, a community - one that contributes to the character of Rio Rancho and the surrounding region. However, it takes more than front porches to make a community work and thrive. It takes good governance and foresight about how people live, work, worship and gather together. It takes an awareness of our impact on the environment, an understanding of the importance of resource conservation and a deep concern for the natural world. It takes the provision of good schools, well-paying jobs, and quality housing that will instill pride and make people feel they belong. It takes diversity of place to welcome a diversity of people of all cultures, incomes and ages.

Project Overview

Mariposa is a planned community on a 6,581-acre site adjacent to the northwest boundary of the City of Rio Rancho in Sandoval County, New Mexico (refer to Exhibit A: Regional Context Map). It is a model sustainable community designed to fulfill the multiple goals and objectives of the owner, the developer, the City of Rio Rancho, and Sandoval County. Mariposa is a mixed-use development providing housing, office, commercial, industrial, and public facilities to serve the needs of area residents (refer to Exhibit B: Comprehensive Plan Context).

The Mariposa Master Plan summarizes the characteristics of the proposed development. Supporting documents for the Master Plan, in two separate volumes, provide more detailed information about these project components and the decisions that contributed to the development of the plan.

The Land

Overlooking the neighboring cities of Rio Rancho, Bernalillo and Albuquerque, the views from Mariposa encompass both the lights and energy of these urban centers and the natural wonders of Central New Mexico. Breathtaking panoramic views of the Sandia, Jemez, and Sangre de Cristo Mountains are available from the property. The wonder of these unspoiled vistas is matched by the dramatic landscape within the property. Soft, rolling grasslands dotted with piñon and juniper contrast with a spectacular escarpment that cuts through the center of the property, affording awe-inspiring views of the remarkable desert landscape below and beyond.

Context

Mariposa is located contiguous to four significant land areas - the City of Rio Rancho, the tribal lands of Zia Pueblo and Santa Ana Pueblo, and several large land parcels held in trust by the New Mexico State Land Office. The location of the property suggests that Mariposa might serve as a link or center for the immediate region, with appropriate connections, buffers and amenities to serve and welcome the residents of these adjacent land areas. Nearby development in Rio Rancho, Bernalillo and at Santa Ana Pueblo reinforces the notion that Mariposa is well situated for new development and economic growth.

Albuquerque Academy - Owner

Albuquerque Academy (the Academy) was founded in 1955 by William B.S. Wilburn and incorporated as a nonprofit corporation in New Mexico in 1956. The Academy was founded to answer a need for an independent college preparatory school in Albuquerque. The Academy is fully accredited by the State of New Mexico to provide education in grades 6-12. The current enrollment of the Academy consists of approximately 1,040 students, of which 440 are enrolled in the middle school (grades 6-8) and 600 in the upper school (grades 9-12).

Guiding Principles for the Development of Mariposa

The integrity of Mariposa will be a direct result of adherence to several core values, or principles. These guiding principles for development at Mariposa are the same principles that have been successfully applied to education at the Academy. They are:

Community

Community cannot be imposed. However, a physical and social framework can be created that will foster the formation of a spirit of community. At Mariposa, community will be fostered by a place:

- Where people live, work and play in a safe and attractive environment;
- Where there are opportunities to gather together in the course of their daily lives, and
- Where the center rather than the edge is clearly defined, and the edges of one neighborhood freely merge with the next.

Diversity

A diversity of people - of all cultures, incomes and ages - will be planned for, welcomed and fostered in Mariposa through:

- A variety of housing types and employment opportunities;
- Numerous and varied places to worship;
- Public and private spaces designed to respond to cultural traditions, and
- Public and civic events that celebrate the complexity of the community including heritage, cultures, religious beliefs, skills and trades.

Respect

Respect grows out of the consideration and, eventually, successful execution of these principles. Within this, respect can be thought of and fostered at three levels:

- *Environment:* Respect for the natural landscape at Mariposa, achieved through a conscious and considerate introduction and integration of development on the property, is an important premise for settlement of this land. Man has a place in the natural environment and it is essential that the two not be exclusive, but rather exist together as a sustainable whole.
- *Culture:* Respect for the many cultures and heritages that comprise the region.
- *Individual:* Respect for each individual of the community, for their right to be a contributing member of society and to fulfill their own potential, and respect for their privacy and property.

Stewardship

Careful stewardship will guide the planning, development and continued existence of Mariposa.

- *The Landowner:* Stewardship begins with the owner of the land and their vision and commitment to making the best of the land - environmentally, socially and economically.
- *The Mariposa Team:* Each expert chosen to be a part of the team will help steward the project from vision to reality.
- *The City of Rio Rancho:* Upon annexation and zoning, the City of Rio Rancho's leadership, laws, rules and regulations will govern Mariposa.
- *Master Developer/Builders/Developers:* High Desert and each individual builder/developer will become an important representative of Mariposa. As at High Desert, the Master Developer will ensure that all builders/developers will be responsible for transferring the vision of the community to the people who choose to make Mariposa their home or place of livelihood. Care and control will be exercised in choosing and managing builders/developers to ensure that the vision is achieved.
- *Residents:* Ultimately, it is the residents that must become the stewards of Mariposa. Codes, Covenants, and Restrictions (CCRs) and other forms of internal governance and controls will guide development by creating a legal structure that incorporates the essence of these principles so that they can be practiced in perpetuity.

It is the application of these guiding principles that will allow Mariposa to thrive within the larger Rio Rancho community.

Sustainable Development

"Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs."

- United Nations World Commission on Environment and Development

The vision of a sustainable community at Mariposa includes a mutually dependent mixture of uses that produce economic, social, and environmental benefits.

Economic Benefits

Land, construction and building sales at Mariposa will provide immediate economic benefits for the City of Rio Rancho, Sandoval County and the State of New Mexico. Quality jobs, new residents, services and products will provide the long-term, consistent flow of revenue to those same governmental entities. The ability to attract employment-based businesses that will set the stage for economic development at Mariposa will be in part predicated on the presence of social and environmental quality-of-life amenities.

Social Benefits

In order to attract new residents, businesses and jobs to the community, there need to be quality facilities and a variety of housing opportunities that reflect the needs and desires of the prospective homeowners and work force. Sites for many public facilities, including a community center, public safety complex, schools, and a library have been integrated into the Mariposa Master Plan. Mixed-use activity centers, located in conjunction with public amenities, have also been identified at Mariposa, enabling the creation of convenient neighborhood and regional-scale services to Mariposa residents and the community at-large.

Mariposa is also committed to making a significant contribution to the region in the form of improved housing opportunities. This commitment is reflected in the variety of housing opportunities available at Mariposa, including single and multi-family dwellings at various densities, and obtainable housing, which will be integrated into several different areas of the development. A diversity of products, densities and prices will provide quality-housing opportunities for a broad cross section of the regional population.

Tying all of these facilities and services together is a parks and open space network that celebrates the land and provides recreation, preservation and conservation opportunities for the entire community.

Environmental Benefits

The underlying difference between Mariposa and other community developments is an understanding of the importance of the land. The stark beauty of the property may be one of the greatest draws to living at Mariposa. Development at Mariposa must be respectful of the land, have an appreciation of the desert landscape and a willingness to preserve and conserve the natural resources that give the site such value. Through land preservation and restoration, green building standards, water conservation and reuse, wildlife and plant habitat enhancement, and a comprehensive system of governance to ensure the successful implementation of these components, residents of Mariposa, Rio Rancho and the surrounding region will be able to enjoy the natural wonders of Mariposa for generations.

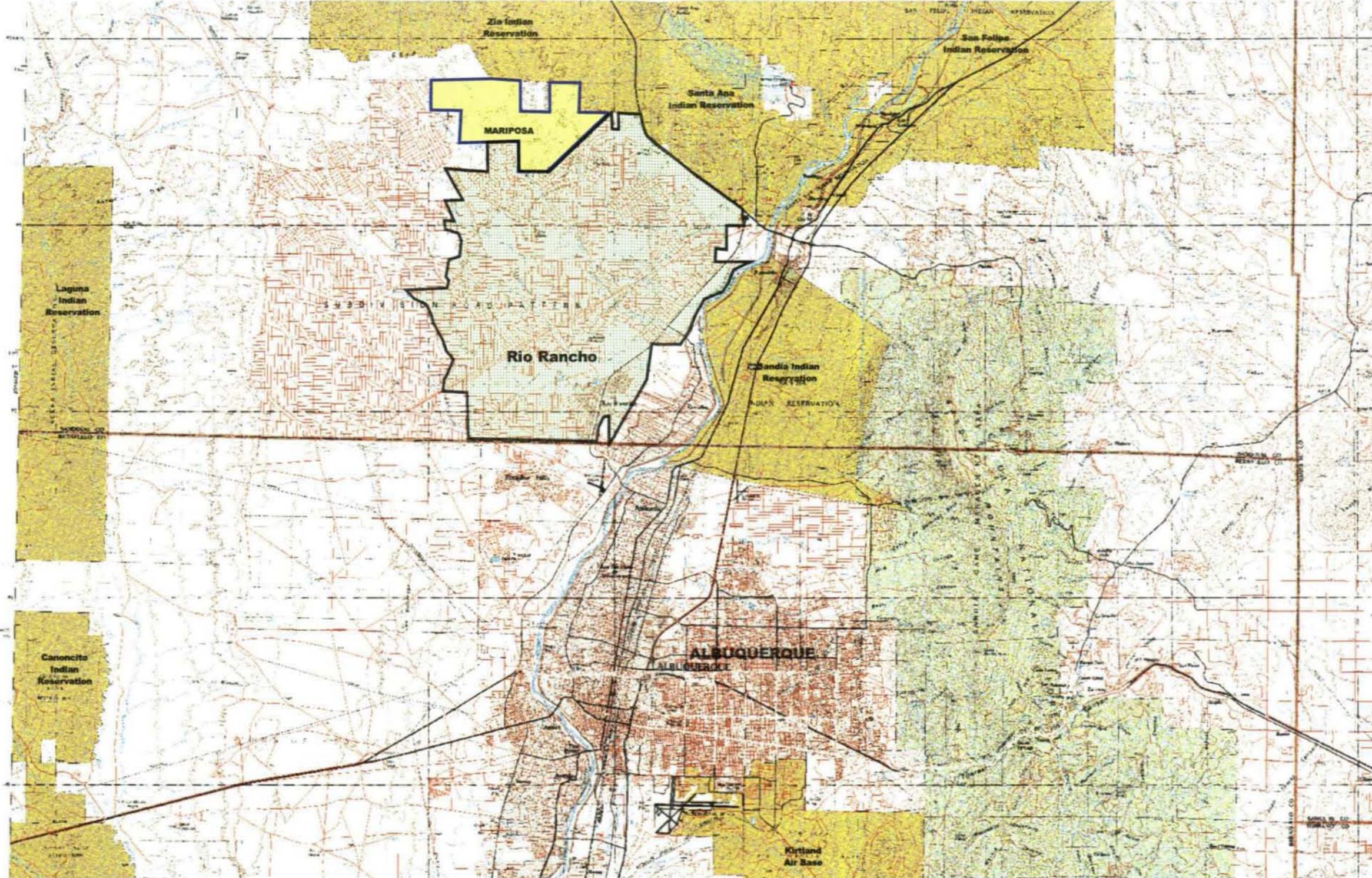
For this combination of commercial enterprises, residential developments, and public amenities to function and thrive in a uniquely New Mexico setting, the creation of a complex fabric of mutually dependent public and private interests will be required.

This is Mariposa.

Land Use Planning Goals

An appropriate master plan has developed uses that complement each other and the land. At Mariposa, the relationship of the land uses to each other, the site and the regional context have been carefully considered in order to achieve the following goals:

- Building a planned community that relates appropriately to the character of the land and land uses that surround it;
- Preserving, conserving and restoring the site's cultural and natural resources through the designation of open space areas and the preparation and implementation of a natural resources management plan;
- Accommodating a full complement of neighborhood facilities including parks, schools, places of worship and religious institutions;
- Providing an appropriate amount of land for employment and commercial activities sufficient to minimize automobile trips outside of the Mariposa area;
- Clustering services into a community or regional activity center within easy walking distance of the majority of residents to encourage multi-modal transportation opportunities;
- Creating a comprehensive open space, walkway, bikeway and trail network that links residential and commercial areas within the site and links Mariposa to the larger context of regional recreation and open space amenities;
- Creating a hierarchical road system that links residential areas and connects these residential areas to the activity centers, Rio Rancho and the surrounding region, and
- Creating opportunities for environmental education at Mariposa that utilize the natural resources of the Mariposa Preserve and connecting open space areas.



**Regional Plan Context
Exhibit A**

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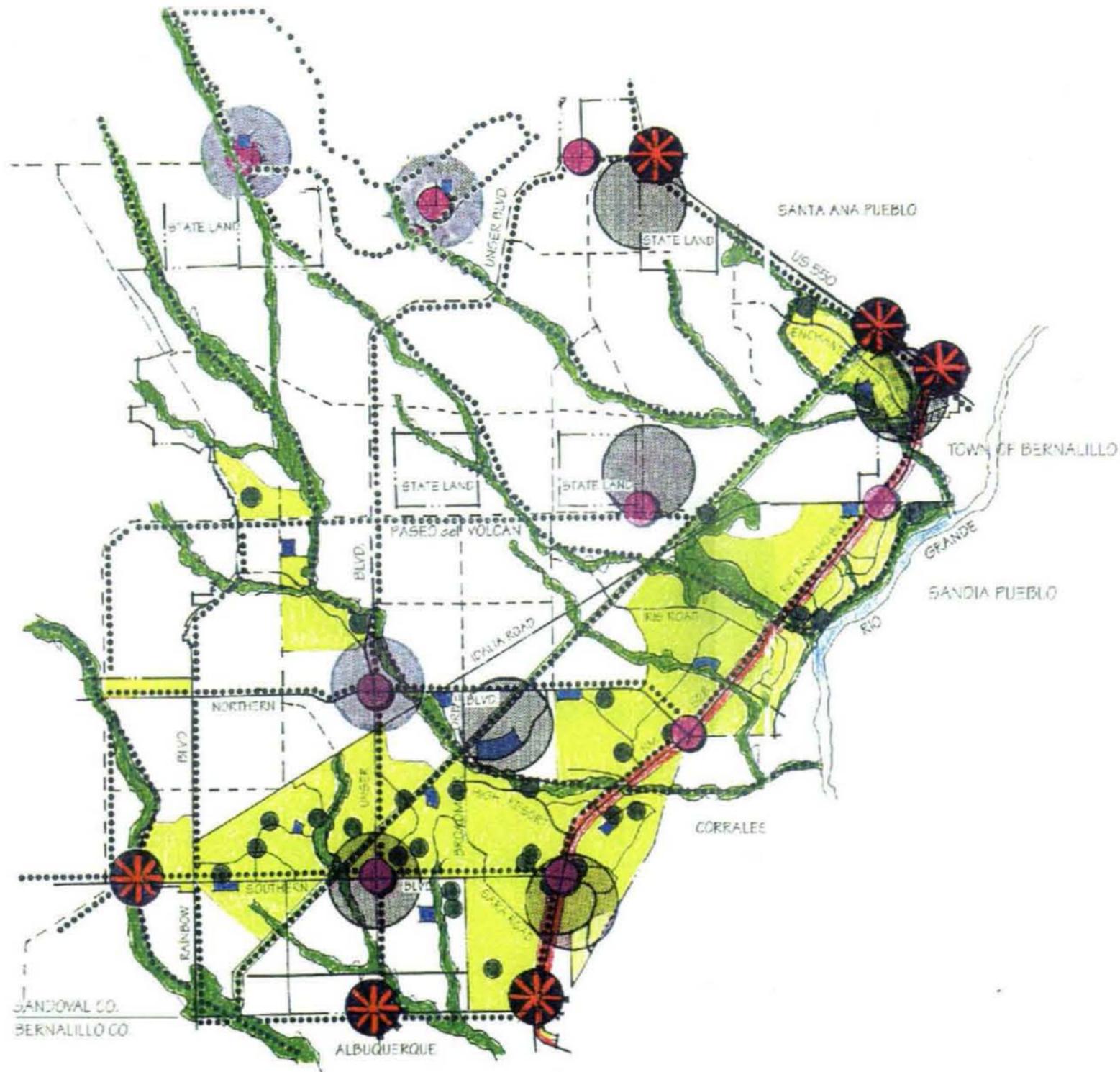
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Comprehensive Plan Context Exhibit B

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LEGEND

- | | | |
|---------------------------|-------------------------------------|-----------------|
| PROPOSED DEVELOPMENT NODE | EXISTING PARKS/COMMUNITY FACILITIES | MULTI-USE TRAIL |
| SCHOOLS | GATEWAYS | EXISTING ROADS |
| EXISTING DEVELOPMENT | KEY INTERSECTIONS | PROPOSED ROADS |
| NM 528 CORRIDOR | ARROYO/OPEN SPACE W/MULTI-USE TRAIL | |

NOTES

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SOURCE

Update of Rio Rancho Planning Graphic

2000 0 2000 Feet

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Compatibility with the City of Rio Rancho's Comprehensive Plan

The City of Rio Rancho recently finalized and approved an amendment to their 1991 Comprehensive Plan called the Vision 2020 Integrated Comprehensive Plan (Vision 2020 Plan). Mariposa became an important component of the Vision 2020 Plan following City staff review of the draft Fiscal Analysis (substantially unchanged to date) and review of the components of the preliminary Master Plan. In their March 18, 2001 session, the Rio Rancho City Council concurred with the City Administrator's recommendation and directed that the Vision 2020 Plan include and illustrate Mariposa as suitable for annexation and consideration as a potential growth node location. Mariposa's inclusion in the Vision 2020 plan indicates that the Master Plan complies with the spirit and directives set forth in both the 1991 Comprehensive Plan and the Vision 2020 Plan.

Growth Nodes

The Vision 2020 Plan considers a range of future land use alternatives for Rio Rancho. The Growth Node scenario is the preferred land use scenario, with economic development focused in master planned activity centers surrounded by multi-family and single-family housing, with large lot development in outlying areas. Vision 2020 breaks down these growth nodes into three different sizes (called activity centers) - Village, Community, and Regional Activity Centers. The Mariposa Land Plan illustrates a Community Activity Center in the eastern portion of the property and a Regional Activity Center in the western portion of the property (Refer to Exhibit B: Comprehensive Plan Context, and Exhibit C: Comprehensive Plan Context with Land Use). The placement of these activity centers complements the suggested pattern of other growth nodes throughout the City, and the scale, density, and mixture of uses envisioned for Mariposa reflects the planning concepts outlined in the Vision 2020 Plan.

Fiscal Impact

In response to the Vision 2020 requirement for nodal development in Rio Rancho, a Fiscal Impact Analysis was completed for the Mariposa project and submitted to the City. The City Council's decision to include Mariposa in the Vision 2020 Plan was largely predicated on the staff's finding of significant positive fiscal impact. The analysis examined the viability of the development and the impact of the project on the City of Rio Rancho by outlining associated costs and revenues. The Fiscal Impact Analysis remains substantially unchanged from the February 2001 version reviewed and accepted by City staff. The complete Fiscal Impact Analysis can be found in Volume 1 of the Supporting Documents to the Mariposa Master Plan.

Urban Design

Vision 2020 establishes an aesthetic framework and guide for development within Rio Rancho. The governance documents for Mariposa, including the Mariposa Standards and Guidelines for Sustainability, will reflect the intent of the Vision 2020 Plan and create an aesthetic that complements development in Rio Rancho.

Transportation

Vision 2020 seeks to create a transportation network that serves future local and regional needs, while providing for multi-modal travel opportunities. In addition, a Traffic Impact Analysis is required for all large-scale developments to ensure that new transportation plans are sufficiently designed and coordinated with the existing transportation network.

A Traffic Impact Analysis has been prepared for Mariposa that translates the proposed land uses into a forecast of anticipated travel demand; projects the anticipated modal apportionment of that travel; predicts the direction and distribution of projected travel onto the surrounding transportation system; superimposes the anticipated traffic upon the existing traffic anticipated to be on the network; and evaluates the impact of that additional traffic on the system. The Analysis has been coordinated with the requirements and future plans of the New Mexico State Highway and Transportation Department, the City of Rio Rancho, and the Middle Rio Grande Council of Governments. In addition, a Transportation Demand Analysis has been performed by the City of Rio Rancho for the Vision 2020 Plan. The Traffic Impact Analysis for Mariposa and the Transportation Demand Analysis for the Vision 2020 Plan have been prepared in parallel. Although they utilize different methods, they have been coordinated with one another to use the same input data and network assumptions. These two studies have taken separate paths to achieve similar results.

The traffic impact analyses performed for Mariposa have been prepared using an approach that acknowledges the regional context. The level of detail provided is appropriate for the anticipated build-out period and the magnitude of the development. Additionally, more specific analyses will be provided at the appropriate time prior to actual development or subdivision of the property. A more detailed summary of the Traffic Impact Analysis and its conclusions is included in the infrastructure section of this Master Plan document, and in Volume II of the Master Plan.

Vision 2020 Compliance and Multi-Modal Transportation

The Mariposa Master Plan responds to the Vision 2020 Plan and provides for multi-modal travel opportunities by:

- Grouping commercial and higher density mixed-use properties around neighborhood activity centers to promote walking and cycling for typical neighborhood trips, and to enhance the feasibility of transit to interconnect individual separate activity centers;
- Providing an extensive network that combines trails, paths, walks, and exclusive on-street lanes to encourage pedestrian circulation and cycling;
- Identifying and setting aside property for regional transit-related facilities, including future multi-modal transfer sites, and
- Creating the neighborhood structure and communication infrastructure that facilitate the provision and implementation of neighborhood-scale transit improvements such as shuttles, van pools, carpools and rideshare programs.

Relationship to Existing Land Uses

Along the east, south, and west edges of the property, Mariposa is bordered by single-family lots of approximately one-half to one-acre in size. The majority of these lots are undeveloped, and the ownership is fractured - with no primary landowner guiding the planning and development of the properties. The other primary adjacent land use is grazing land. These grazing land properties are located to the north and southwest, and are owned by the New Mexico State Land Office, or are the tribal lands of Zia Pueblo and Santa Ana Pueblo. Changes in use on these properties are likely to occur over time.

The Master Plan for Mariposa provides appropriate and complementary land uses at its perimeter. For example, the Master Plan provides residential, open space and park uses adjacent to the residential lots of Rio Rancho Estates just outside the property boundary. The Master Plan also provides for a 300' wide corridor which may be appropriate for future possible use as right-of-way for an alternate alignment of the Northwest Loop Road. Additionally, a 250' wide buffer has also been established between the possible 300' alternate road alignment and the Mariposa boundary in Planning Area One, which should place the edge of any future roadway approximately 314' from the Mariposa property boundary. The 250' buffer will be zoned as open space and will provide appropriate buffering between the alternate road alignment and property owners in Rio Rancho Estates adjacent to Planning Area One. If the alternate road alignment is selected for construction of the Northwest Loop Road the Developer will, at the time of the road construction, construct an earthen berm and install landscaping where possible and appropriate to help mitigate the impact of the Northwest Loop Road on adjacent property. If the alternate 300' road alignment is not utilized for the Northwest Loop Road, or the Developer determines that the alternate road alignment is no longer appropriate, it will be utilized for residential development and the 250' wide open space buffer will provide appropriate buffering between dissimilar residential uses. The current alignment of the Northwest Loop Road was dedicated by the prior property owner and traverses a dramatically rugged portion of Mariposa. The Owner and Developer believe that the current alignment is not appropriate because of adverse environmental impacts upon the Mariposa Preserve as well as substantially increased public costs of construction of a roadway in this location. Therefore, they have reserved the alternate alignment described.

In the case of the grazing lands north of Mariposa, low residential densities in Mariposa transition to the lands of the Mariposa Preserve, a 2,185-acre desert open space area, located along the north central part of the property. High Desert has initiated discussions with the State Land Office to lease another parcel of land that is located north of Mariposa and keep it as open space - as an extension of the Mariposa Preserve. This land, along with the Mariposa Preserve, will provide an appropriate transition to the open and undeveloped tribal lands of the Zia and Santa Ana Pueblos. Along the southwest edge of Mariposa, the property borders another section of state land. High Desert is in discussions with the New Mexico State Land Office to insure that the development of this adjacent state land section is consistent with the growth node scenario noted in the Vision 2020 Plan, and provides the appropriate open space and transportation corridors to connect Mariposa with the region.

The Planning Process

The Planning Process for Mariposa began with a thorough environmental analysis of the natural features of the site, the market and economic conditions of Rio Rancho and the surrounding area, the existing community and regional context. The environmental analysis considered topography (Refer to Exhibit D: Slopes), soils (Refer to Exhibit E: Soils), hydrology (Refer to Exhibit F: Watersheds and Jurisdictional Waters), vegetative communities, wildlife, cultural resources, and visual resources. These factors were then combined to produce a Developable Land Summary that classified the lands of Mariposa as developable, undevelopable, or developable given mitigation measures (Refer to Exhibit G: Developable Land Summary). Lands considered too economically impractical, or environmentally or culturally valuable to develop were classified as undevelopable, and then typically placed within the community's open space system.

The market and economic analysis provided the appropriate mix of residential, office, and commercial uses on the site. These uses were then compared with an analysis of public facilities within the city and county to determine the optimum complement of parks, schools, places of worship, day care centers, libraries, medical, and transportation facilities required to balance the needs of the development. This information collectively comprises the development program for Mariposa.

The development program was fit to the site utilizing the nodal development scheme envisioned by the Vision 2020 Comprehensive Plan. This resulted in two phases of development, each with an activity center or node: a community node on the East Side of the property, and a regional node on the West Side of the property (refer to Exhibit H: Phasing Plan). High density land uses were placed within close walking distance of these mixed-use centers (refer to Exhibit I: Zoning Plan, Exhibit J: Conceptual Land Use Plan, Exhibit K: Open Space Plan, and Exhibit L: Public Facilities Plan).

The Master Plan was examined and adjusted based upon an analysis of the available and projected infrastructure needs of the community. Proposed additions to the City of Rio Rancho's Master Street Plan, Utility Plan, and Drainage Plan have been prepared to insure that Mariposa is developed in a manner consistent with the long-term needs of the community.

The draft Master Plan was tested to insure that it was viable from an economic perspective. A Fiscal Impact Analysis was completed to insure that the resulting project would be of financial benefit to the City of Rio Rancho. To insure the long-term viability of the community, three supporting documents are being prepared. The first of these is the Standards and Guidelines for Sustainability, which is designed to insure that the environmental principles of the community are maintained and that Mariposa remains a model environmental community. The second is the Obtainable Housing Program, designed to insure that Mariposa maintains a mix of housing available for the full economic spectrum of the community. Finally, a system of internal governance is being designed to support and maintain these systems.

This process has resulted in the Master Plan for Mariposa as described in this document.

Phasing

The development of Mariposa has been divided into two major phases - Planning Area One on the East Side of the property, and Planning Area Two on the West Side (Refer to Exhibit H: Phasing Plan). Due to its proximity to existing major roadway access and existing utilities, development will begin in Planning Area One. It is anticipated that the build-out of Planning Area One will take seven to ten years. The build-out of Planning Area Two on the West Side of the property is anticipated to take twenty to twenty-five years, with the entire project to be completed in approximately thirty to thirty-five years. It is anticipated that development of the residential components of Planning Area Two will not begin until Planning Area One is substantially complete.

A series of sub-phases have been considered for each planning area, though these sub-phases are approximate only. It is anticipated that multiple sub-phases may be started simultaneously to ensure that several market types are available at one time.

This phasing plan may be accelerated, modified, or delayed due to fluctuating economic conditions that exist at the time of construction. Mariposa will address the timing of the construction of each facility, as the schedule requires.

Economic Development and Employment Considerations

High Desert supports the efforts of the Rio Rancho Economic Development Corporation (RREDC). High Desert anticipates working closely with RREDC, the City of Rio Rancho and the Rio Rancho Chamber of Commerce to attract appropriate employers to Mariposa and the surrounding community in a way that is consistent with Vision 2020 and the City's overall economic development strategy.

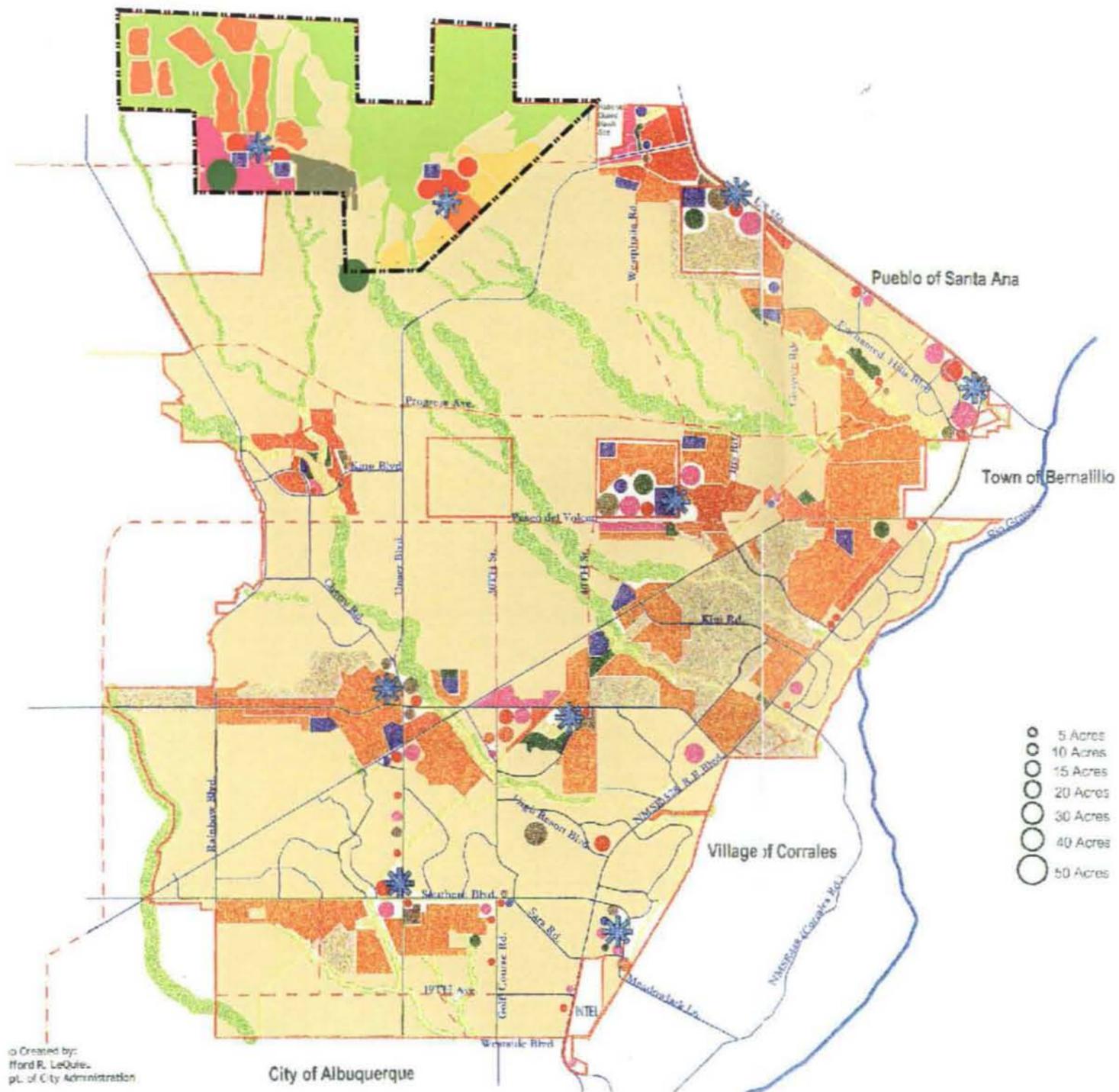
High Desert has set aside appropriately sized and located parcels for future development of commercial services and employment centers at Mariposa. The Master Plan for Mariposa makes approximately 130 acres of land available for office, commercial, and industrial development. Approximately 1.0 million square feet of employment uses are estimated for this land, based on a conservative formula for a sustainable community development that estimates a 30% capture rate for Mariposa resident jobs. Hypothetically, this amount of land and built area would accommodate the businesses necessary to employ 30% of the working population at Mariposa. This land will be zoned and provided with infrastructure for a range of employment uses.

The Academy and High Desert are committed to creating a framework of site characteristics and conditions that will attract quality jobs and employees to Mariposa and the City of Rio Rancho. For example:

- The property will be served with a state-of-the-art technology system providing for a range of high tech uses. This infrastructure will address projected trends in home office development and non-residential technology needs by providing advanced and comprehensive communication technologies throughout the site.

- Rather than relying solely on recruiting efforts to attract large anchor businesses to the site, consideration will be given to temporarily subsidizing non-residential land costs and leasing prices in order to have commercial and employment-based services available as early as possible.
- Built-in flexibility in the project phasing will help take advantage of economic development opportunities at Mariposa.

This dedication of employment base land coupled with a broad range of high-quality housing creates a master planned community that offers the opportunity for significant economic development within the City of Rio Rancho.



LEGEND

- Development/Growth Nodes
- Preferred Scenario Land Use Projections:
 - Low Density @ 0.75 d.u./s/ac
 - Suburban Density @ 2.0 d.u./s/ac
 - Medium Density @ 4.0 d.u./s/ac
 - High Density @ 8.0 d.u./s/ac
 - Commercial
 - Employment
 - Open Space / Trails
 - Developed Parks
 - Public / Schools
- Arroyo Buffers
- Mariposa Project
- City Limits - 2000

- 5 Acres
- 10 Acres
- 15 Acres
- 20 Acres
- 30 Acres
- 40 Acres
- 50 Acres



Created by:
Hford R. LeQuire,
pl. of City Administration

Comprehensive Plan Context with Land Use Exhibit C

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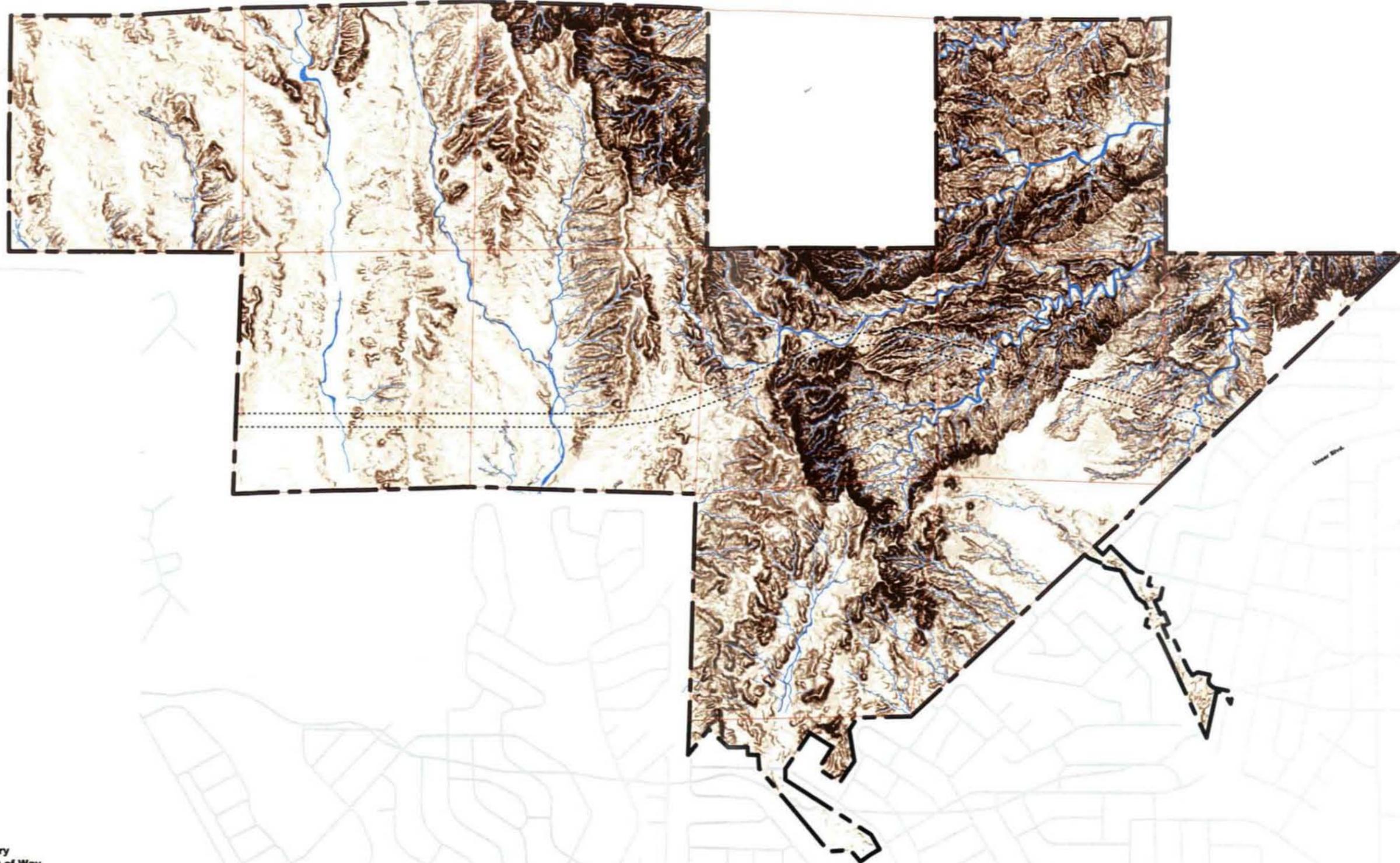
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- Property Boundary
- Easement / Right of Way
- Section Lines
- Roads

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Slope Map Exhibit D



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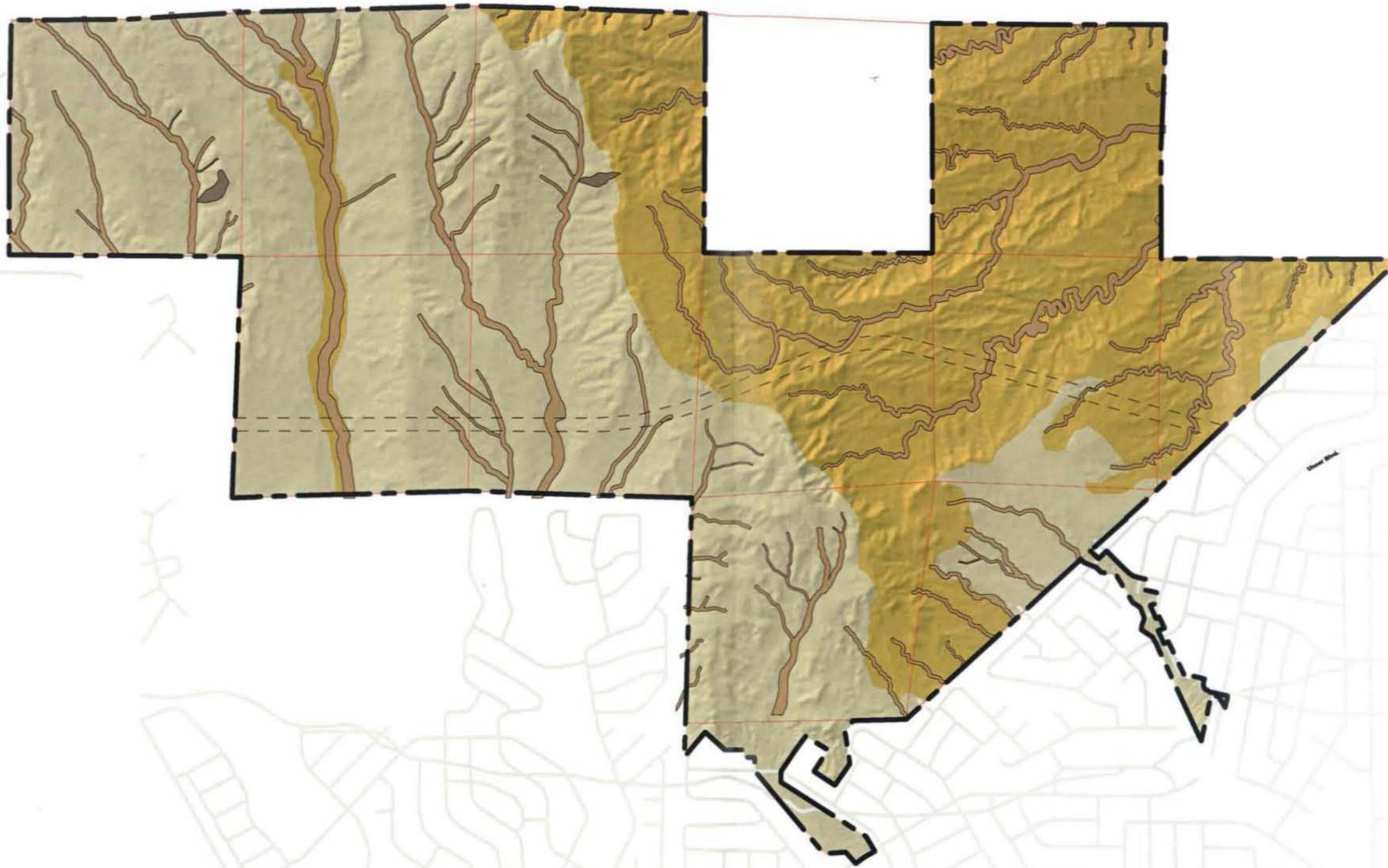
SOURCE

Slope derived from survey contour information

2000 0 2000 Feet

11/26/01





- ▬▬▬ Property Boundary
- - - - - Easement / Right of Way
- Section Lines
- Roads

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LEGEND

- Legend:**
- Wind Erosion Areas
 - Prudent Lines (Arroyo)
- Soil Series (SCS Buildability)**
- Slight Limitations
 - Severe Limitations

**Soils
Exhibit E**



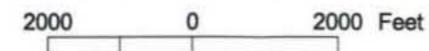
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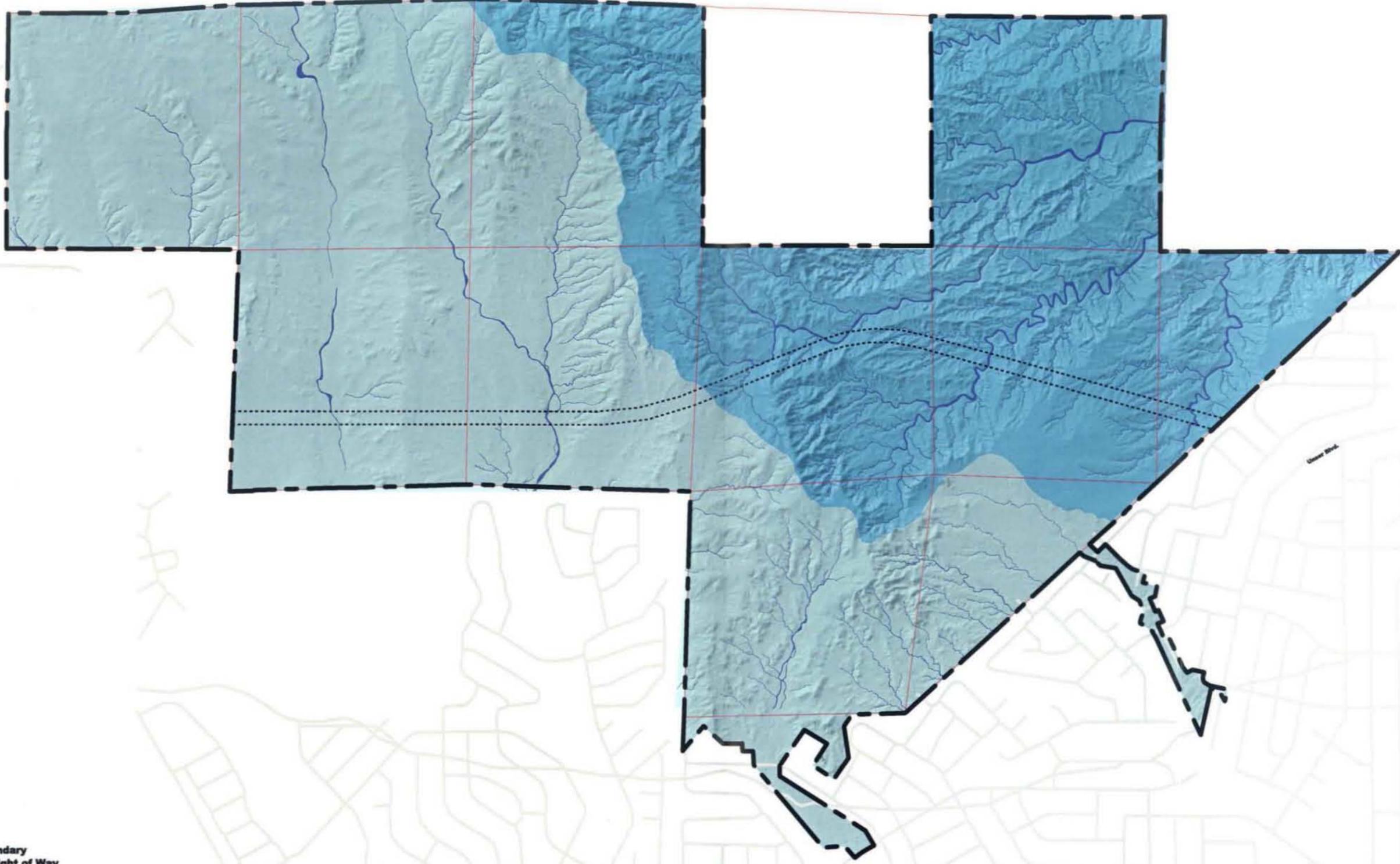
SOURCE

Natural Resource Conservation Service (NRCS) data



11/26/01





- Property Boundary
- Easement / Right of Way
- Section Lines
- Roads

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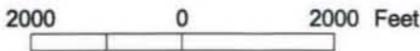
LEGEND

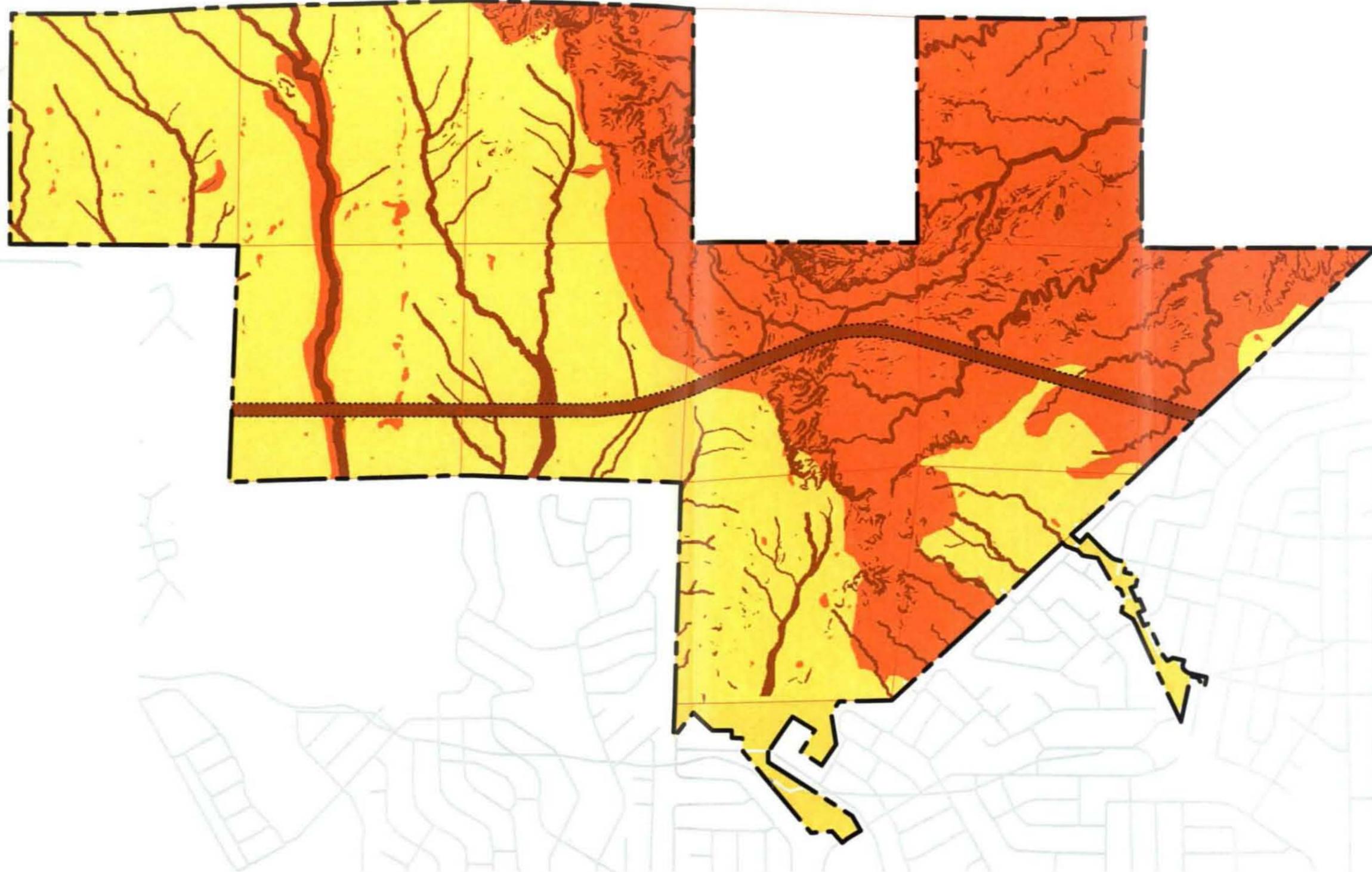
Watersheds:		Jurisdictional Waters (by watershed)	
	Jemez Watershed		66 Acres
	Rio Grande Watershed		30 Acres
			96 Acres

Watersheds and Jurisdictional Waters
Exhibit F



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NOTES	Copyright: High Desert Investment Corporation	SOURCE	Derived from Site Topography and Local Hydrology		11/26/01	
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- - - - - Property Boundary
 ······ Easement / Right of Way
 --- Section Lines
 ——— Roads

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L E G E N D

- No Constraints / Developable
- Developable with Constraints
- Undevelopable

**Developable Land Summary
Exhibit G**



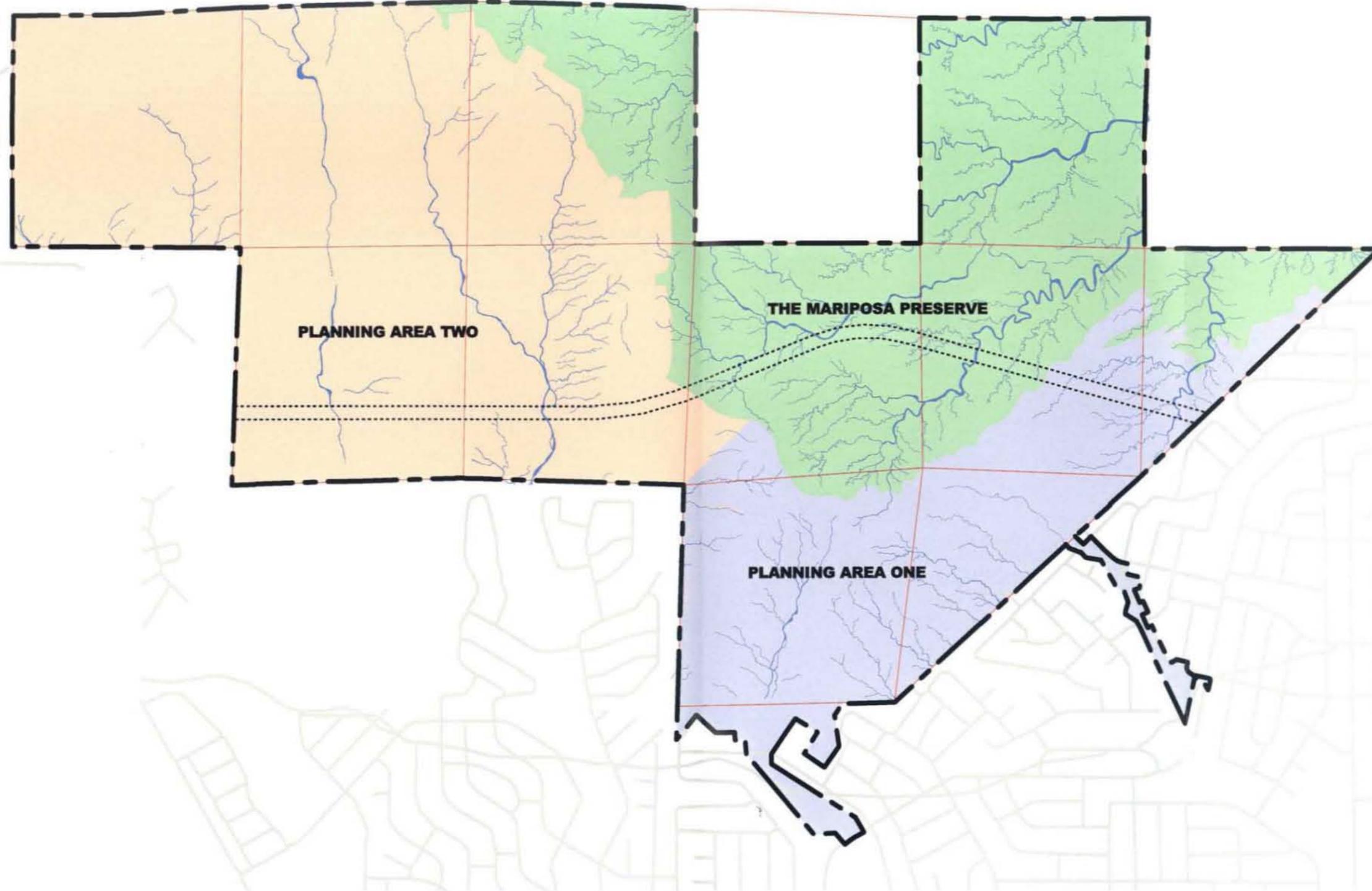
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SOURCE Developed by combining site opportunities and constraints

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PLANNING AREA TWO

THE MARIPOSA PRESERVE

PLANNING AREA ONE

- Property Boundary
- - - Easement / Right of Way
- Section Lines
- Roads

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L E G E N D

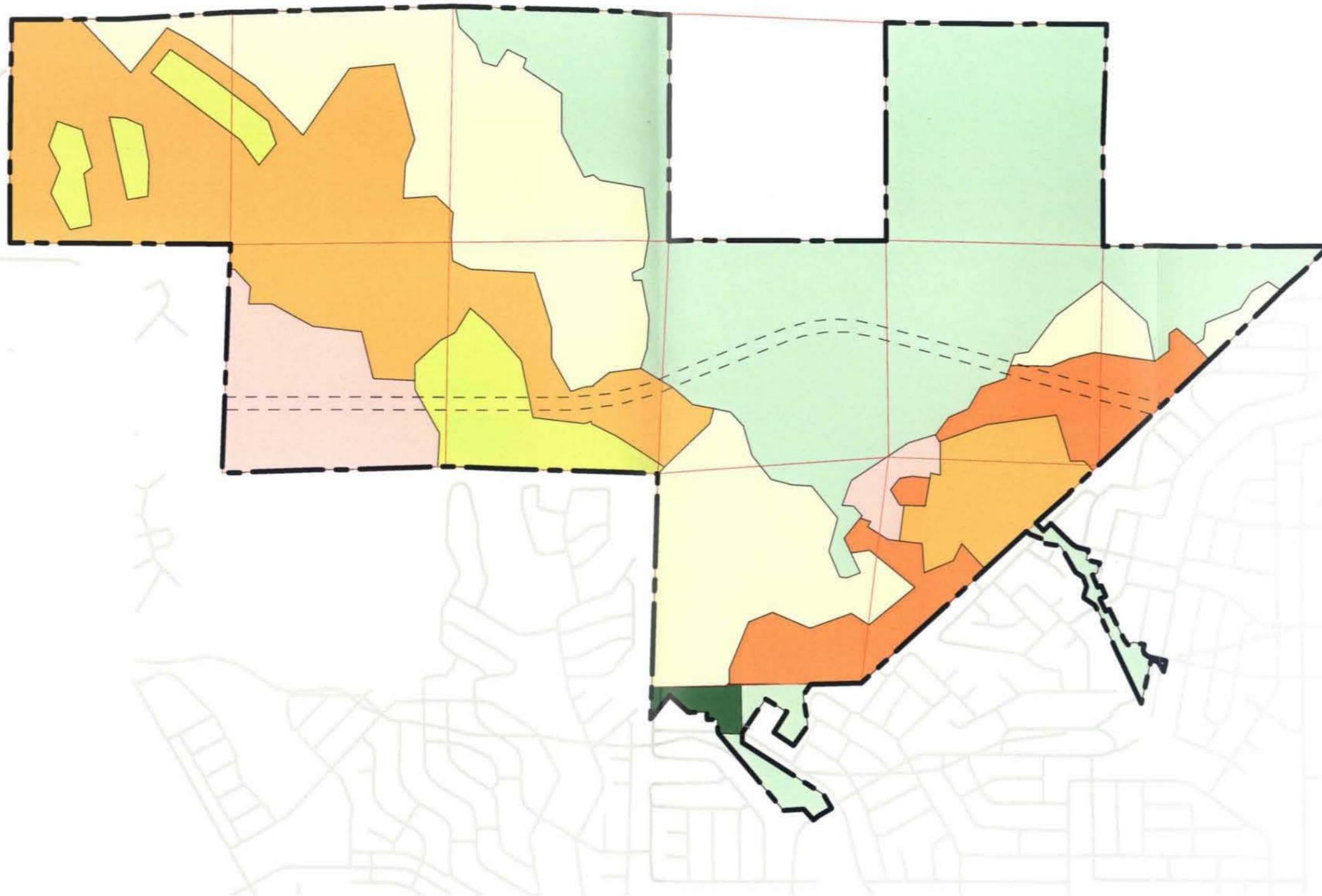
	Mariposa Preserve	2,185 Acres
	Planning Area One	1,465 Acres
	Planning Area Two	2,931 Acres
		6,581 Acres

Phasing Exhibit H



M A R I P O S A

NOTES	Copyright: High Desert Investment Corporation	SOURCE	Developed by combining site opportunities and constraints	2000 0 2000 Feet 	11/26/01	
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||==|| Property Boundary
 - - - - - Easement / Right of Way
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 ——— Roads

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LEGEND

Zoning Legend:	Total Acres	Planning Area One	Planning Area Two
P (Parks)	24	24	0
OS (Open Space)	2,310	125	0
E-1 (Estate)	1,495	608	887
R-1 (Single Family Residential)	422	422	0
R-4 (Single Family Residential)	1,532	227	1,305
R-5 (Single Family Residential)	372	0	372
MU-A (Mixed Use Activity Center)	426	59	367
	6,581	1,485	2,931

THIS MAP ILLUSTRATES PROPOSED ZONE DISTRICTS ONLY, NOT LAND USE. SEE EXHIBIT J FOR CONCEPTUAL LAND USE PLAN.

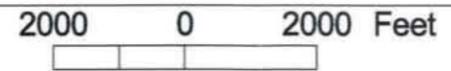
Zoning Exhibit I



M A R I P O S A

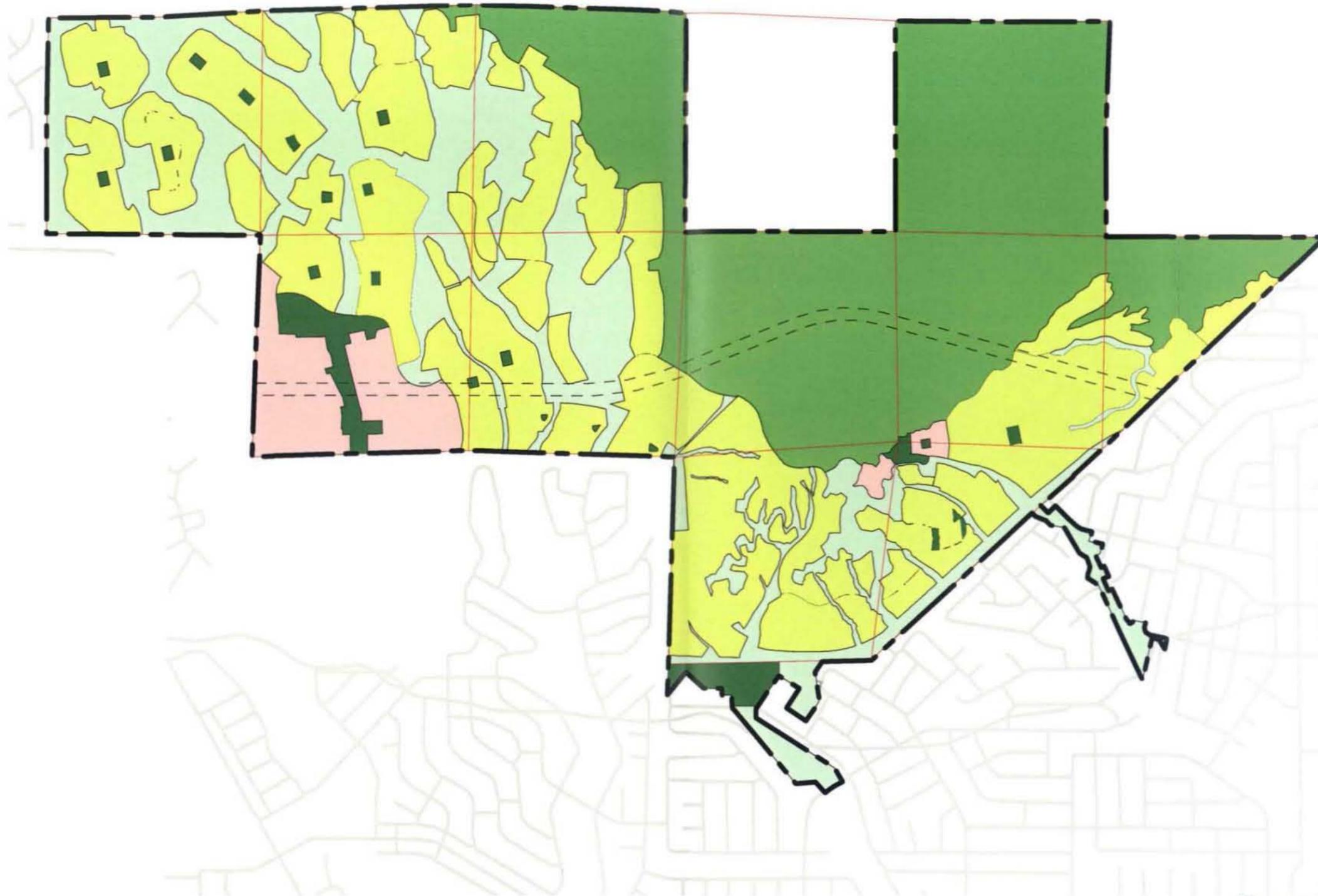
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SOURCE Created by Mariposa Design Team



11/26/01





- - - - - Property Boundary
 - - - - - Easement / Right of Way
 - - - - - Section Lines
 - - - - - Roads

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LEGEND

Land Use Type	Total Property	Planning Area One	Planning Area Two
Mariposa Preserve	2,185 Acres	0 Acres	0 Acres
Common OpenSpace	1,357 Acres	412 Acres	945 Acres
Park	162 Acres	62 Acres	100 Acres
Residential	2,567 Acres	963 Acres	1,604 Acres
Mixed Use	310 Acres	28 Acres	282 Acres
	6,581 Acres	1,465 Acres	2,931 Acres

THIS MAP ILLUSTRATES PROPOSED LAND USES ONLY - NOT ZONING. SEE EXHIBIT I FOR PROPOSED ZONING.



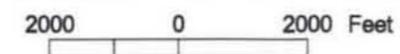
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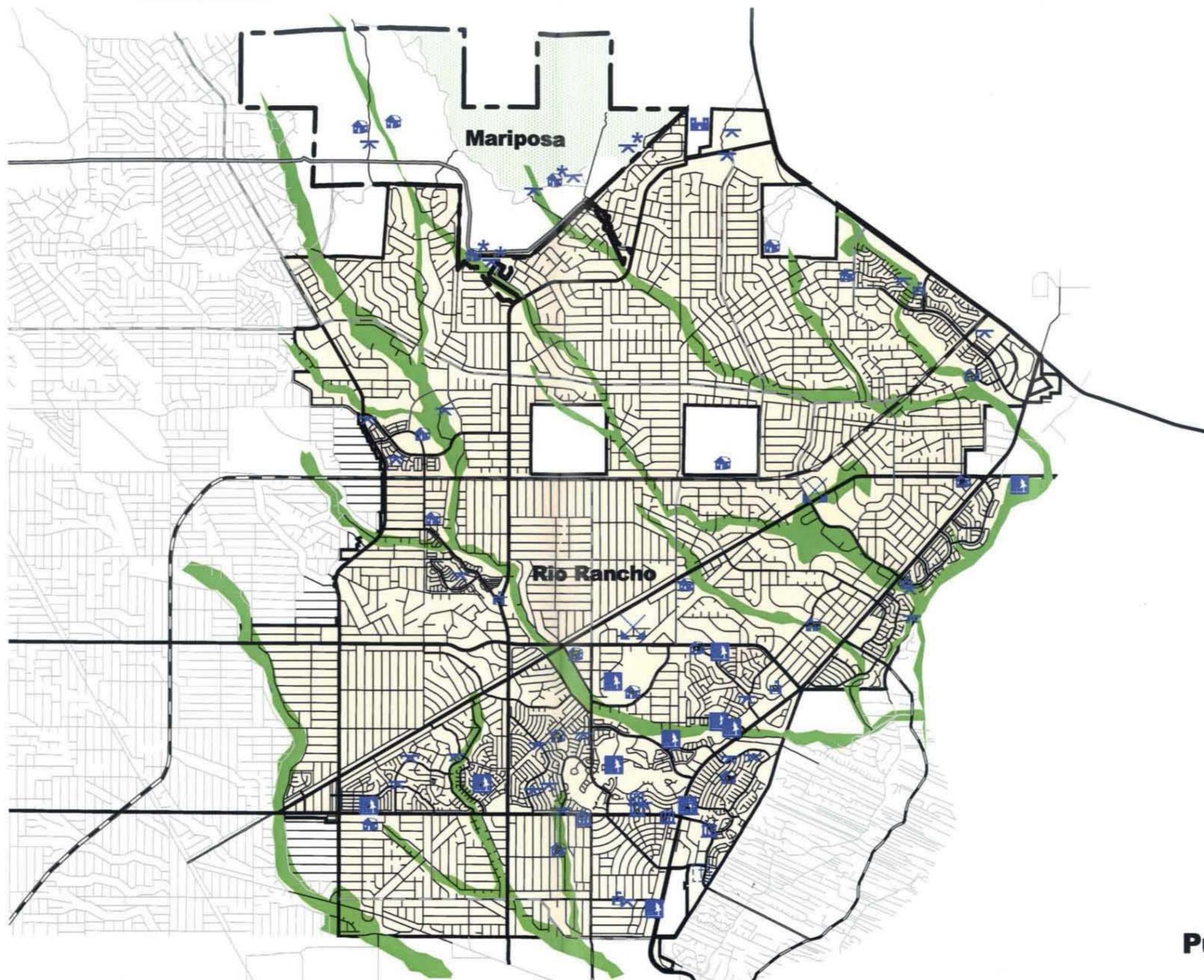
Developed by Mariposa Design Team



11/26/01



**Conceptual Land Use Plan
Exhibit J**



**Public Facilities Plan
Exhibit L**

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LEGEND

- | | | | |
|--------------------------|-----------------------|---------------------|--------------------------------------|
| Public Facilities | DPS | Park | Arroyos |
| Cemetery | Landfill | Rec Property | Rio Rancho City Limits |
| City Bldg | National Guard | School | * Potential Alternative Sites |



NOTES	Copyright: High Desert Investment Corporation	SOURCE	Public Facilities and road information provided by city of Rio Rancho	5000 0 5000 10000 Feet	11/26/01	
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Annexation

Mariposa currently lies within the jurisdiction of Sandoval County. However, Mariposa lies within the City of Rio Rancho's extra-territorial planning jurisdiction, and Mariposa has been identified in Vision 2020 as suitable and anticipated for annexation. Concurrent with submission of this Master Plan and related documents and applications, the Owner of Mariposa is petitioning for annexation into the City of Rio Rancho, pursuant to Section 3-7-17 NMSA 1978 Comp. The state annexation statute affords the owners of properties adjoining municipalities the opportunity to petition for annexation.

Mariposa's request for annexation into the City of Rio Rancho is brought pursuant to Section 3-7-17 NMSA 1978 Comp., which provides that wherever a petition seeks the annexation of territory contiguous to a municipality; is signed by the owners of a majority of the numbers of acres in the contiguous territory; is accompanied by a map which shall show the external boundary of the territory proposed to be annexed and the relationship of the territory proposed to be annexed to the existing boundary of the municipality, and is presented to the governing body, the governing body shall by ordinance express its consent or rejection to the annexation of such contiguous territory.

The City of Rio Rancho Comprehensive Plan, adopted in October of 1991, addresses annexation. Goal A of the Land Use Development Policy Statement of the 1991 Plan is to "promote and develop the City as an independent self sustaining community, which is an integral part of the metropolitan region." One of the listed objectives that provides more specific guidelines for achieving this goal is as follows:

- 4.1A3 Consider the annexation of lands to the municipal corporate limits when:
- a) there is a major potential for increasing revenue generation; or
 - b) there is an expressed or requested need for land use regulation and/or management by the municipality; or
 - c) there is an urgent necessity to provide municipal services or install municipal facilities.

Mariposa is appropriate for annexation into the City based on each of these three (3) principles. That is: (a) Mariposa provides a potential for increasing municipal revenue generation both through ad valorem taxes and gross receipts taxes, as shown in the Fiscal Impact Analysis summarized in this document; (b) the Academy requests the benefit of the City's land use regulation and management; and (c) it is appropriate to serve Mariposa with municipal services and facilities.

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Introduction

The primary technical purpose of this Master Plan is to outline and illustrate the zoning of Mariposa (refer to Exhibit I: Zoning Plan), and to describe how Mariposa fits into the context of City planning and zoning policy.

Existing Zoning

Mariposa property currently located in Sandoval County is zoned for agricultural uses. Recently acquired properties that will provide the access corridors to Mariposa are located within the City of Rio Rancho, and are zoned Transitional (T-Z).

Proposed Zoning

While the majority of Mariposa property is currently in Sandoval County, it lies within the extra-territorial planning area of the City of Rio Rancho. As noted previously, the Rio Rancho City Council has identified Mariposa as suitable for annexation consideration. This document assumes that the Rio Rancho City Council will annex Mariposa into the City of Rio Rancho concurrent with the approval of the Mariposa zoning application and the adoption of the Mariposa Master Plan.

The zone classifications that may be used at Mariposa are summarized below and illustrated in Exhibit I: Zoning Plan. The zone classifications reflect and comply with the recently adopted revisions to the Rio Rancho Zone Ordinance that was updated in response to the policies in the City of Rio Rancho's Vision 2020 Comprehensive Plan. Acreage for each classification can be found on the Zoning Plan.

Accompanying the information related to zone classifications are descriptions of the types of development that might be expected at Mariposa. The pattern of proposed land uses is illustrated in Exhibit J: Conceptual Land Use Plan. While actual land uses and distributions may vary on a parcel-by-parcel basis depending upon actual market demand, the land use pattern illustrates the desire to increase density and non-residential uses within mixed-use activity centers.

Mariposa Design Standards and Concepts

In order to take advantage of and protect the natural assets of the site, including rugged terrain and spectacular views, and maximize opportunities for providing diversity in housing type, size and design, Mariposa will utilize the following design standards and concepts that the City of Rio Rancho agrees to and accepts. However, final approval of subdivision requirements is reserved to the City via the application of these design standards and concepts, while considering issues of safety and general applicability, through the required subdivision approval process.

Building Envelopes at Mariposa

Zoning districts within the City of Rio Rancho have in the past traditionally provided for the establishment of building setbacks based upon standard dimensions from front, rear, and side property lines as prescribed in the City of Rio Rancho Planning, Zoning and Land Use Management Ordinance. While this approach creates a condition of dependability and continuity for landowners and developers, it does not adequately address preservation of the land, respect for the topography and protection of the fragile landscape at Mariposa. The reliance on setback restrictions alone is not adequate for all circumstances at Mariposa, especially for large lot residential development in the Estate and R-1 zone classifications, where taking advantage of opportunities for protection and preservation of the natural landscape may be a priority.

In order to minimize disturbance of natural landforms and limit encroachment of buildings into the natural environment, "Building Envelopes" (defined below) may be used as provided for in the newly adopted Zone Ordinance Amendment in the Estate and R-1 zones. Building Envelopes can be custom designed to respond to the specific site conditions on the lot and are often the most effective tool for responding to site topography, preserving significant existing vegetation, preserving natural drainage patterns and responding to limiting soil conditions. Building Envelope design will also take into consideration the creation and preservation of view opportunities and view corridors from individual and groups of lots.

Building Envelopes will be legally defined and recorded on the final plat for each portion of the development in the Estate zone and may be defined and recorded on final plats in certain portions of Mariposa's R-1 zones that are not mass graded, thus establishing setbacks on an individual lot basis to preserve the valuable qualities of the site and surrounding landscape.

Building Envelope Use

If a Building Envelope is included at the time of plat, appropriate placement of the Building Envelope within the setback area will be allowed. Building Envelopes will serve as the property setbacks when defined on final plats in the Estate and R-1 zone districts. Final Plats that use Building Envelopes shall be accepted, in accordance with the adopted Chapter 9 Zone Code Amendments, by the City of Rio Rancho to delineate the building setbacks for the Estate and in the larger R-1 zone classifications in Mariposa.

Building Envelope Definition

"Building Envelope" means an area prescribed on the plat of an individual lot which limits development of the lot in response to topographic, drainage, and other natural features of the site. No part of the residence (including garage, porch, attached or detached structure), wall, fence, non-native landscaping, artwork or sculpture, bench, picnic table or improved yard may be located outside the Building Envelope or encroach through a plane which extends

vertically from the Building Envelope. Building Envelopes will be located a minimum of twenty (20) feet from the front and rear property lines and ten (10) feet from the side property lines. Any disturbance outside a Building Envelope created during construction must be restored to natural or near natural condition.

The following improvements are allowed outside a Building Envelope: driveway from street (and associated culverts, guest parking, turning area, etc.), sidewalk from street, underground utility connections (water, sanitary sewer, electric, gas, telephone, cable TV, etc.), above ground utility improvements (such as meters, transformers, etc.), mailbox, landscape irrigation, native landscape material, natural material retaining walls and water harvesting/drainage improvements.

Lot Sizes, Setbacks and Water Conservation

Front yard setbacks may be reduced in some areas in Mariposa in an effort to minimize water and energy use for front yard landscaping, and to allow for densities in support of sustainable development. Setbacks at Mariposa are listed below. Please note that "BE" indicates the use of a building envelope to define the developable area of the site.

Zone	Front	Side	Back
District	Front	Side	Back
E-1	BE*	BE	BE
R-1	BE/25	BE/5	BE/20
R-4	10/25G**	5	10
R-5	10/25G	5	10

*BE indicates Building Envelope

**G indicates Garage

Orientation of Homes

The Mariposa Standards and Guidelines for Sustainability will be used to establish the highest standard of quality for the design of the buildings, as well as site planning and landscaping, and will address the issue of entry design. Exterior doorways and entryways at Mariposa will provide shade protection, depth and a strong shadow-line. They will provide a focal point at the entryway, with courtyards at or near the entry encouraged. All homes will face the address street or create a presence on the address street. Street presence can be created by including elements such as windows, site walls, gates, portals, courtyards and landscaping in the architectural design or site plan.

Street Lighting

In order to conserve energy and preserve night views and dark skies, street lights in the Estate and R-1 zone classifications in Mariposa will be limited to major intersections and the ends of cul-de-sacs. Street lighting throughout the remainder of the project will be at standard City spacing. All streetlights will be bronze shoebox style luminaires with bronze poles or similar fixtures if these specific fixtures are not available, and the light source will include shielding to direct illumination and reduce glare.

Street Design Standards

Street Width

Street widths and other design standards to be employed within Mariposa are as follows:

<u>Type of Street</u>	<u>Right-of-Way Width</u>	<u>Pavement Width (Curb Face to Curb Face)</u>
Arterial Street	92' Minimum	32': Two 12' Lanes Plus 6' Bike Lane and 2' Gutter Pan in Each Direction, Separated by Minimum 8' Median
Collector Street	68' Minimum	20': One 12' Lane Plus 6' Bike Lane and 2' Gutter Pan in Each Direction, Separated by Minimum 8' Median
Major Local Street	60'	40': One 12' Lane Plus 6' Bike Lane in Each Direction, Plus 2' Gutter Pan on Each Side
Local Street A R-4 and R-5 Zones	50'	32': One 12' Lane in Each Direction Plus One 8' Parking Lane
Cul-de-Sac A R-4 and R-5 Zones	46'	28': One 10' Lane in Each Direction Plus One 8' Parking Lane
Local Street B Estate Zones	42'	24' Asphalt Pavement: One 12' Lane in Each Direction with Flat, Estate-Type Curbs
Cul-de-Sac B R-1 and Estate Zones	40'	22' Asphalt Pavement: One 11' Lane in Each Direction with Flat, Estate-Type Curbs

The streets within Mariposa will provide for efficient traffic flow in accordance with the street hierarchy, while simultaneously minimizing the amount of paved area in order to reduce construction and maintenance costs, stormwater runoff and excessive heat buildup, and providing an aesthetic streetscape which includes landscaped medians and park strips. The widths and geometric layout of streets within Mariposa are designed to reduce vehicle speeds, which will reduce the potential for conflicts between automobiles with pedestrians and bicyclists. Where lots are large enough to comfortably provide off-street parking within private driveways, including the R-1 and Estate Zoned areas, local residential street widths need only be wide enough to allow two vehicles to pass in opposite directions. In local residential areas where smaller lots require some amount of on-street parking, including the R-4 and R-5 zones, street widths need only be wide enough for two vehicles to pass in opposite directions with parking on one side of the street.

Cul-de-Sac Length and Turnaround

Due to the hilly terrain and well-incised arroyo pattern, which dictate the layout of the street network, cul-de-sac lengths (in order to minimize disturbance to the landforms and arroyos) within Mariposa are unlimited as to length. Cul-de-sac streets shall terminate in a turnaround with a minimum radius of 40'. If a landscaped center island is provided, cul-de-sac turnarounds shall be provided with a minimum outside curb radius of 50', with a 20' wide minimum traveled way. Longer cul-de-sacs with smaller diameter turnarounds have been shown to be adequate for emergency vehicles, particularly in large and estate lot areas where standup curbs are not provided, while simultaneously minimizing "sea of asphalt" conditions that generate unnecessary heat buildup and increases in construction and maintenance costs.

Curbs and Gutters

Flat estate-type curbs 2' wide may be substituted for standup curbs with gutters in the Estate zones, where Building Envelopes are utilized, in order to maintain existing stormwater runoff patterns and allow storm runoff to be beneficially dispersed into adjacent landscape areas and not concentrated in the streets. This approach will minimize unnecessary collection, concentration and erosion potential of stormwater runoff and requirements for storm sewers.

Construction of Half Streets

Half streets will be allowed as construction phasing dictates, but only within divided arterial and collector streets. Pavement widths will be constructed within phased half-streets which provide a minimum of two 12' wide lanes: one lane in each direction. All residential streets shall be constructed in the ultimate design width.

Sidewalks, Walkways and Bike Paths

Sidewalks or asphalt paths with a minimum width of 6' shall be constructed on one side of all arterial, collector, and major local streets. Sidewalks or asphalt paths with a minimum width of 4' shall be constructed on one side of local streets within the R-4 and R-5 Zones. Sidewalks are not required on local streets and cul-de-sacs within the R-1 and Estate Zones in order to allow sheet drainage from streets into the landscape, create less disturbance and provide more opportunities for landscaping. An extensive network of off-street pathways and trails as well as on-street bicycle lanes within all arterial, collector, and major local streets are provided within Mariposa that offer significant opportunities for pedestrian and bicycle circulation.

Stormwater Detention on Individual Lots

Stormwater retention and detention facilities on individual lots, that comply with all Federal, State, and local laws, permits and regulations, will be permitted and encouraged throughout Mariposa. Stormwater harvesting ponds shall be identified on detailed lot grading and drainage plans required for individual lots in the R-1 and Estate Zones where Building Envelopes are used. Individual lot owners in Mariposa are encouraged to design and construct and will maintain stormwater harvesting facilities that capture stormwater in small quantities, store and redirect runoff to areas where it can be beneficially used to supplement landscape irrigation and thus conserve the amount of potable water otherwise required for landscape irrigation purposes.

Community Stormwater Detention Facilities

Community stormwater detention facilities shall be designed as to mimic natural landforms and shall be landscaped with indigenous vegetation. Detention ponds thus designed shall not require fencing if adequate means of ingress and egress are provided with slopes not exceeding 25%.

Lot Grading

Building pads need not be elevated a minimum of 12" above the curb elevation in adjacent streets. Detailed grading and drainage design drawings for individual lots or for subdivisions shall be provided for portions of Mariposa where it is not practical to elevate building pads a minimum of 12" above the curb elevation in adjacent streets. Such drawings shall demonstrate adequate slopes away from buildings and toward streets and other drainage courses.

Cross-Lot Drainage

In order to maintain natural topography, vegetation and drainage patterns, cross-lot drainage is permitted in the E-1 and R-1 zones at Mariposa, including the discharge of runoff from curbless streets onto and across adjacent private property. Where cross-lot drainage is anticipated, every Lot and the Common Area shall be burdened with easements for drainage of storm water runoff from other portions of the Properties; provided, however, no person shall alter the drainage on any Lot so as to materially increase the drainage of storm water onto adjacent portions of the development without the consent of the owner of the affected property. Each Lot and the Common Area shall be burdened with such easements for drainage of storm water runoff as may be shown on plats or reflected on plats relating to such Lot or Common Area, as applicable, recorded in the Offices of the County Clerk of Sandoval County, New Mexico.

These concepts and design standards will enable development at Mariposa to have the diversity of a vibrant community, and a unique and respectful relationship to the land that will benefit Rio Rancho and the surrounding area.

Zone Districts

E-1: Estate Residential District

Rio Rancho Zone Classification Characteristics

This district permits a low density of population in which the principal use is single-family dwelling units.

<i>Minimum lot size:</i>	<i>21,780 SF</i>
<i>Maximum height:</i>	<i>32 feet</i>
<i>Maximum allowable density:</i>	<i>Not specified</i>
<i>Minimum front yard setback:</i>	<i>35 feet</i>
<i>Side yard setback:</i>	<i>10 feet</i>
<i>Rear yard setback:</i>	<i>25 feet</i>
	<i>35 feet - garage</i>

E-1: Development at Mariposa

Estate residential lots at Mariposa will be primarily located at the outer edges of the development and / or directly adjacent to open space. Building envelopes will determine the placement of buildings on the lots and significant portions of each lot will be retained in their natural state.

R-1: Single-Family Residential District

Rio Rancho Zone Classification Characteristics

This district permits a low density of population in which the principal use is single-family dwelling units.

<i>Minimum lot size:</i>	<i>8,000 SF</i>
<i>Maximum height:</i>	<i>32 feet</i>
<i>Minimum lot width:</i>	<i>70 feet</i>
<i>Maximum allowable density:</i>	<i>Not specified</i>
<i>Minimum front yard setback:</i>	<i>20 feet</i>
	<i>25 feet - garage</i>
<i>Side yard setback:</i>	<i>5 feet</i>
<i>Rear yard setback:</i>	<i>20 feet</i>

R-1: Development at Mariposa

R-1 lots at Mariposa will be primarily located at the outer edges of the development and/or directly adjacent to open space. Placement of buildings on the larger lots within this zone may be determined by building envelopes, with significant portions of each lot retained in their natural state. In other areas where the lots are sufficiently small and the topography allows it, lots may be prepared using over-lot grading techniques.

R-4: Single-Family Residential District
Rio Rancho Zone Classification Characteristics

This district permits a moderate density of population in which the principal use is single-family dwelling units.

<i>Minimum lot size:</i>	<i>4,000 SF</i>
<i>Maximum height:</i>	<i>32 feet</i>
<i>Minimum lot width:</i>	<i>40 feet</i>
<i>Maximum allowable density:</i>	<i>Not specified</i>
<i>Minimum front yard setback:</i>	<i>20 feet</i>
	<i>25 feet - garage</i>
<i>Side yard setback:</i>	<i>5 feet unattached, 0 feet attached</i>
<i>Rear yard setback:</i>	<i>15 feet</i>

R-4: Development at Mariposa

R-4 lots at Mariposa will be primarily located within walking distance of the activity centers or around a neighborhood amenity like a park. Lots will be prepared using over-lot grading techniques and the site locations for these lot clusters will be limited to areas with relatively gradual elevation changes.

R-5: Single-Family Residential District
Rio Rancho Zone Classification Characteristics

This district permits a moderately high density of population in which the principal use is single-family dwelling units.

<i>Minimum lot size:</i>	<i>2,500 SF</i>
<i>Maximum height:</i>	<i>32 feet</i>
<i>Minimum lot width:</i>	<i>35 feet</i>
<i>Maximum allowable density:</i>	<i>Not Specified</i>
<i>Minimum front yard setback:</i>	<i>20 feet</i>
	<i>25 feet - garage</i>
<i>Side yard setback:</i>	<i>5 feet unattached, 0 feet attached</i>
<i>Rear yard setback:</i>	<i>15 feet</i>

R-5: Development at Mariposa

Moderate R-5 development is anticipated at Mariposa. Single-family products on lots of this size are likely to be located within walking distance of the activity centers or around a neighborhood amenity like a park.

Lots will be prepared using over-lot grading techniques and the site locations for these lot clusters will be limited to areas with relatively gradual elevation changes.

MU-A: Mixed-use Activity Center District

Rio Rancho Zone Classification Characteristics

The Mixed-use Activity Center District permits new mixed-use developments consisting of integrated blends of land uses and networks of interconnected pedestrian-oriented streets and ways.

MU-A Development at Mariposa

The intent of the MU-A classification is to:

- Encourage a greater intensity of development in order to attract the people and commerce necessary to create a vibrant and diverse urban center;
- Encourage a blending of residential, civic, commercial and office uses that will trade horizontal distance for a vertical mixture of uses;
- Encourage a mixture of service and employment uses so that residents will have the opportunity to work as well as shop and play within walking distance from their houses, and
- Encourage planning, design and detailing that reflects the needs of pedestrians, establishes multi-modal circulation opportunities, and creates memorable civic spaces.

The MU-A classification outlines the permitted and conditional uses in the three types of activity centers, as well as identifying the process for developing MU-A zoned property.

MU-A development at Mariposa will occur in the activity centers, where an integrated blend of uses is desired.

OS: Open Space/Recreation District

Rio Rancho Zone Classification Characteristics

The purpose of this district is to satisfy the visual and psychological needs of the community for light and air, and permit beneficial recreational uses that minimize disruption of the land's natural systems and are not detrimental to the natural characteristics of the land.

Permitted Uses:

1. Natural areas designated for recreation, wildlife/habitat enhancement, natural and cultural resource preservation;
2. Land undergoing restoration;
3. Regional preserves;
4. Botanical gardens, arboretums and gardens open to the public;
5. Lakes, waterways, flood water storage areas and other public facilities for handling flood water, all designed in such a way as to be considered a visual and /or physical amenity in the community;

6. Structures and facilities incidental to the above uses, provided that such incidental buildings do not cover more than five percent of the ground area;
7. Paved and unpaved walkways;
8. Roads;
9. Unpaved parking areas;
10. Underground utilities;
11. Benches;
12. Sculptures;
13. Water features such as ponds, streams and fountains;
14. Architectural lighting that conforms to dark sky criteria;
15. Sculptured or manicured landscape features, and/or
16. Fencing.

Conditional Uses:

1. None.

Open Space and Recreation at Mariposa

Approximately 56% of the land at Mariposa will be preserved as open space, with the Mariposa Preserve constituting the majority of the area. Most of the land will be left in its natural state or, where it has been degraded, restored. This land is being preserved for unique cultural or natural characteristics, handling flood water and habitat enhancement. Some of the open space land will be dedicated and designed for use as public trails. For additional information on open space at Mariposa, refer to Section 6: Natural Resource and Landscape Management.

PR: Parks and Recreation District
Rio Rancho Zone Classification Characteristics

The purpose of this district is to satisfy the visual and psychological needs of the community for light and air, and permit beneficial recreational uses that alter the natural characteristics of the land.

Permitted Uses:

1. Public plazas and parks;
2. Open-use recreation facilities;
3. Paved and unpaved trails;
4. Playgrounds;
5. Swimming pools;
6. Golf courses;
7. Riding stables;

8. Plant nurseries;
9. Botanical gardens and arboretums;
10. Roads;
11. Parking facilities, and/or
12. Underground utilities.

Conditional Uses:

1. Recreation buildings;
2. Sport shops;
3. Restaurants;
4. Park maintenance buildings;
5. Private recreation facilities, and/or
6. Stadium facilities.

Parks and Recreation at Mariposa

A network of public parks, plazas, trails and other recreation facilities at Mariposa will provide the social and recreational opportunities that foster strong, successful communities. For additional information on the public recreational facilities at Mariposa, refer to Section 7: Public and Community Facilities and Services.

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C O N D I T I O N S

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Introduction

Mariposa is intended to be a model of environmentally sound development practices. Efforts will be taken prior to and during development to ensure that the natural systems, intrinsic character and beauty of the land will be preserved. Mitigation measures and sustainable development methods will be integrated into all facets of the project. Some of the measures, such as green building techniques, which address reducing the environmental impact of the project, are broadly discussed in this section. More detailed information on sustainable development methods can be found in the Standards and Guidelines for Sustainability.

Geology and Soils

There is a dramatic difference in topography/geology within the property that is readily discernible on topographic maps and aerial photographs. The property can be divided into two basic units: the highly-eroded "escarpment," an area of steep ridges, deep gullies, and meandering widening ephemeral washes that occupies much of the northeastern and north central portion of the property; and the gently rolling hills and nearly level plains that make up the remainder of the property (refer to Exhibit E: Soils).

The escarpment covers approximately 2,488 acres (37.8 percent) of the Mariposa property. Escarpments are landforms that are easily eroded by water, wind and weather into a complex, rugged topography, which usually has relatively low, but varied, relief. The geologic fragility and environmental sensitivity of these landforms makes them difficult to develop, and the vast majority of the escarpment found on this property will be set aside as open space.

The gently rolling hills and nearly level plains that comprise the portion of Mariposa above the escarpment total approximately 4,093 acres (62.2 percent of the property). There are five large arroyos in this area that flow from north to south. Many small tributaries flow into these larger arroyos. The frequency of these smaller arroyos is greater in the eastern portion of this area than in the more level western portion. Many of the sandy-bottomed arroyos in this area begin as grassy swales without well-defined bed and bank. The sandy-bottomed portions often begin abruptly and are typically located at the base of a small cliff.

The eastern half of Mariposa is composed of two soil types: Pinavetes-Rock outcrop complex with 15 to 35 percent slopes and Grieta-Sheppard loamy fine sands with two to nine percent slopes. Pinavetes soils are the predominant soil type on the eastern half of the property designated as escarpment. Rock outcrops consist of exposed areas of sandstone. These areas support vegetation primarily on abbreviated ridge tops and experience rapid surface runoff during rain events. The Grieta-Sheppard soil association is found in two pockets along the southeast boundary of the property. Unlike the Pinavetes soils, these soils contain clay materials that enhance the moisture retention of the soils and add the plasticity to the soil that is readily observed on some road surfaces. These soil areas are covered with a grassland savanna.

The western portion of Mariposa is composed of three soil types: Grieta-Sheppard loamy fine to coarse sands and sandy clay loam, Zia-Clovis association with fine sandy loam and sandy clay loam, and Sheppard fine and loamy fine sand. Grieta-Sheppard soils are deep and well to excessively drained. Soils in the Zia-Clovis association are deep and well drained with moderate permeability and relatively slow runoff that increases with slope. Sheppard soils are deep and somewhat excessively drained with negligible to low runoff and rapid permeability. The region is a grassland savanna with juniper as the common dominant and piñon as a co-dominant at higher elevations along portions of the area immediately south of the escarpment. In general, the soils found throughout Mariposa are those with the ability to support shrubs and wild herbaceous plants.

Landscape Character

Mariposa is located on the northern end of Ceja Mesa. Ceja Mesa is a long, north-south trending interfluvium bordered on the west by the Rio Puerco and on the east by the Rio Grande¹; it is also known as the Llano de Albuquerque. Its northern end begins about 9 miles south of the confluence of the Rio Salado and Jemez rivers, and runs southward for about 68 miles to near Bernardo, at the confluence of the Rio Puerco and the Rio Grande.

Much of the mesa top is covered by active and stabilized aeolian sand dunes, and soils largely composed of the Santa Fe Formation including Ceja and Zia members of the Santa Fe Formation. Terrain of the mesa top in the project area is predominantly gently rolling hills, although there are steep hills and ridges near the northern scarp of the mesa. Steep and rapidly eroding escarpment drops down into the Jemez River Valley from the northern scarp of the Ceja, creating a rugged topography with knife-edged ridges and incised arroyos. Much of this erosion seems to have occurred since the late-19th century based on pedestaled axe-cut tree stumps.

The northern scarp of Ceja Mesa overlooks the Jemez River Valley, and is a prominent physical feature on that portion of the skyline. As viewed from the north, its dark, elongated, curved form sitting on the horizon may have inspired the name "Ceja," which means "eyebrow" in Spanish. Long ridges drop down to the north into the Jemez Valley, many of which provide access routes to and from the Jemez Valley and the mesa top. The western edge of the mesa is a steep escarpment incised by arroyos and ravines (the west edge is also referred to as the Ceja del Rio Puerco), while to the east it slopes gently to the Rio Grande.

In the Mariposa project area, the highest elevation on Ceja Mesa is approximately 6,200 feet (ft) and the lowest elevation is approximately 5,250 ft. Most of the project area is between approximately 5,800 and 6,100 ft. while elevations within the Mariposa property range from approximately 5,600 to 6,200 ft.

1. V.C. Kelley, *Geology of the Albuquerque Basin in New Mexico*, New Mexico Bureau of Mines and Mineral Resources, 1977

Topography

There is a dramatic difference in topography/geology within the property that is readily discernible on topographic maps and aerial photographs. The property can be divided into two basic units: the highly-eroded "escarpment," an area of steep ridges, deep gullies, and meandering widening ephemeral washes that occupies much of the eastern half of the property; and the gently rolling hills and nearly level plains that make up the remainder of the property (refer to Exhibit E: Soils).

A key element of the environmental analysis for Mariposa was an assessment of the existing topography of the site (refer to Exhibit D: Slope). New base data was collected for the site at a two-foot contour interval. From this information, the site was classified based upon degrees of slope as follows: 0-6% slopes, 6-12% slopes, 12-20% slopes, 20-30% slopes, and slopes greater than 30%. This assessment was then utilized to match proposed land uses to those sites most suitable for development. For example, highest residential densities and office and industrial uses are most suited to the flatter portions of the site.

Biological Resources

As a result of elevation differences and topographic relief, and the consequent variance in precipitation, soil composition, drainage, slope, and aspect, a wide variety of biotic communities can be found in the Albuquerque region. Rocky Mountain sub-alpine conifer forest, Rocky Mountain montane forest, Great Basin conifer woodland, Great Basin montane scrub, sub-alpine grassland, Plains and Great Basin grassland, and semidesert grassland, as well as a variety of riparian plant associations are all found within an 80-km (50-mile) radius of Albuquerque².

Regional Biological Setting

The Mariposa property occurs within a transitional area between two common and widespread biogeographic provinces, Plains and Great Basin³. It supports a plant community that is ecotonal between Great Basin Conifer Woodland, a cold-adapted evergreen woodland community dominated by juniper (*Juniperus* sp.) and piñon (*Pinus* sp.), and a transitional grassland community between Plains and Great Basin Grasslands, two continental components of the North American prairie⁴.

Vegetation

The most noticeable characteristic about vegetation within Mariposa is that the dominant plants on the property are grasses. A total of 17 species of grasses have currently been identified and several others occurring on the property have not. Grass species occurring on the property include blue, black, hairy, and sideoats grama (*Bouteloua gracilis*, *B. eriopoda*, *B. hirsuta*, and *B. curtipendula*), three different dropseed grasses (*Sporobolus* spp.), galleta (*Hilaria jamesii*), three-awn (*Aristida* sp.), Indian ricegrass (*Oryzopsis hymenoides*), fluffgrass (*Erioneuron pulchellum*), squirrel tail (*Sitanion hystrix*), little bluestem (*Schyzachrium scoparium*), vine-mesquite (*Panicum obtusum*), and ring muhly (*Muhlenbergia torryii*).

2, 3, 4: David E. Brown, *Desert Plants, Biotic Communities of the American Southwest - United States and Mexico, Volume 4 numbers 1-4*, University of Arizona for the Boyce Thompson Southwestern Arboretum, 1982.

Herbaceous plants occurring within Mariposa include prairie sage (*Artemisia ludoviciana*), wormwood (*A. caruthii*), antelope-sage (*Eriogonum jamesii*), scapose bitterweed (*Tetranneurus [=Hymenoxys] scaposa var. linearis*), dyssodia (*Thymophylla [=Dyssodia] acerosa*), silvery sophora (*Sophora stenophylla*), spectacle pod (*Dimorphocarpa wislizeni*), Fendler bladderpod (*Lesquerella fendleri*), white prairie clover (*Dalea candida*), bastard toadflax (*Comandra umbellata*), globe mallow (*Sphaeralcea coccinea*), gaura (*Gaura coccinea*), prairie evening primrose (*Oenothera albicaulis*), stemless evening primrose (*Oenothera caespitosa*), lavenderleaf sundrops (*Calylophus lavandulifolius*), carpet phlox (*Phlox hoodii*), yellow hiddenflower (*Cryptantha flava*), and bow-nut cryptantha (*C. cinerea var. jamesii*).

The property also supports a variety of cacti including New Mexican beehive cactus (*Escobaria vivipara var. neomexicana*), sclerocactus (*Sclerocactus parviflorus*), club cholla (*Opuntia clavata*), at least four different prickly pear cacti (*O. phaeacantha*, *O. tortispina*, *O. camanchica*, and *O. polyacantha var. hystricina*), claret cup cactus (*Echinocereus triglochidiatus*), and tree cholla (*O. imbricata*).

Shrubs and sub-shrubs occurring on the property include snakeweed (*Gutierrezia sarothrae*), dwarf chamisa (*Chrysothamnus depressus*), Apache-plume (*Fallugia paradoxa*), threadleaf (sand) sage (*Artemisia filifolia*), black sage (*A. nova*), wormwood (*A. caruthii*), joint-fir (*Ephedra viridis*), blackfoot daisy (*Melampodium leucanthum*), skunkbush (*Rhus trilobata*), winterfat (*Krashnikovia [= Ceratoides] lanata*), dune broom (*Paryella filifolia*), soapweed yucca (*Yucca glauca*), wild-buckwheat (*Eriogonum effusum*), mountain mahogany (*Cercocarpus montanus*), feather dalea (*Dalea formosa*), banana yucca (*Y. baccata*), and four-wing saltbush (*Atriplex canescens*). Dominant tree species on the property are one-seed juniper (*Juniperus monosperma*) and piñon (*Pinus edulis*).

Throughout the property, species composition appears to differ with respect to three factors: slope, substrate, and proximity to drainage bottoms. These three factors result in differences in species composition and vertical structure that are most often subtle, but sometimes dramatic. For example, grasses are common across the entire property but blue and black grama and ring muhly tend to dominate level areas and areas with sandy substrates. Gravelly areas and slopes tend to have a more variable suite of grasses including three-awn and an unidentified grass which is very common in these areas, but conspicuously absent on level areas and sandy soils. Vegetation is dramatically different along the larger drainages within the property as compared to upland areas. Along these washes, thread-leaf sage often overwhelmingly dominates the plant community and these areas often include two species not found on upland portions of the property; giant dropseed (*Sporobolus giganteus*) and Apache-plume. Gravelly slopes and ridges support a more diverse shrub community than the sandy flats. Typical shrubs on these slopes and ridges include black sage, feather dalea, dwarf chamisa, joint-fir, and wild-buckwheat.

Vegetation within the escarpment exhibits several notable characteristics. One-seed juniper is common throughout the escarpment, whereas piñon is common on the gravelly slopes in the western portion but rare or absent within the sandier portions. Dune broom and rough mule's ears (*Wyethia scabra*) were found only on sandy substrates within the escarpment and not within other portions of the property.

Within the western portion of the property, piñon is essentially co-dominant with juniper on the slopes and in drainage bottoms in the northern and eastern sections of this portion of the property, but is rare or absent on nearly level areas where soils are sandier. During fieldwork conducted in May, the diversity and abundance of wildflowers was less pronounced on areas with fine, sandy soils than areas with coarser soils.

The wildlife in the project area is expected to be similar to the common wildlife species found in similar habitats throughout New Mexico. Common wildlife species observed and/or expected to occur within the project area include mule deer, antelope, and smaller mammals such as cottontail rabbit, black-tailed jackrabbit, various ground squirrels, coyote, skunk, badger, and porcupine. Wintering birds include miscellaneous sparrows and juncos, red-tailed hawk, piñon jays, northern harrier, golden eagle, raven, turkey vulture, great horned owl, mountain bluebird, and scaled quail.

Wildlife

The list of species evaluated was developed based on information from the New Mexico Game & Fish Department (NMGF) Conservation Services Division, Biota Information System of New Mexico (BISON-M) January 29, 2001 and the State of New Mexico Inventory of Rare and Endangered Plants of New Mexico website. Using these sources a list of 71 species that are of special interest to state and/or federal resource management agencies for Sandoval County was developed. Many species on the list are of special interest to more than one state and/or federal agency.

Special-Status Species

Of the 71 special-interest species evaluated, two are federally listed as threatened, four are federally listed as endangered, one is a federal candidate species and 22 are listed as species of concern by the U.S. Fish & Wildlife Service (USFWS). The remaining species evaluated in this report are of concern to other federal agencies such as the U.S. Forest Service (USFS), Region 3, U.S. Bureau of Land Management (BLM), and NMGF. Table 1 lists the 71 species identified during the evaluation and provides the state and/or federal status for each.

Following is a list of Federal and State Special-Status Species known from Sandoval County, New Mexico (includes common and scientific names for each species, a list of status, and an evaluation of the potential for each species to occur at Mariposa).

STATUS DEFINITIONS

USFWS Status: **FE** = Federal Endangered, **FE(CH)** = Federal Endangered Critical Habitat, **FT** = Federal Threatened,

FC = Federal Candidate; **FSC** = Federal Species of Concern;

Other Federal Status: **FSS** = Forest Service Sensitive (Region 3), **BLMS** = Bureau of Land Management Sensitive;

New Mexico Game and Fish Status: **NME** = New Mexico Endangered, **NMT** = New Mexico Threatened, **NMSC** = New Mexico Species of Concern;

New Mexico Energy, Minerals, and Natural Resources Dept. Status: **NMS** = New Mexico Sensitive, **NMR** = New Mexico Review List

POTENTIAL TO OCCUR AT MARIPOSA:

1 = Observed during fieldwork at site;

2 = Not observed during fieldwork, but occurs in habitats similar to those at Mariposa and, therefore, may occur at site;

3 = Suitable roosting or breeding habitat not available at site, but species is volant and may occasionally fly over or forage on-site;

4 = Very localized distribution and/or occurs in habitats not available at Mariposa - unlikely to occur;

5 = Occurs in habitats similar to those at Mariposa, but not seen during fieldwork and largely extirpated from Rio Grande Valley - unlikely to occur on site.

Table 1

Common Name	Scientific Name	Status	Potential to Occur
PLANTS			
Galisteo Sand Verbena	<i>Abronia bigelovii</i>	NMS	4
Sessile-Flowered False Carrot	<i>Aletes sessiliflorus</i>	NMS	4
Santa Fe Milkvetch	<i>Astragalus feensis</i>	NMS	2
Violet Milkvetch	<i>Astragalus iodopetalus</i>	NMS	2
Knight Milkvetch	<i>Astragalus knightii</i>	FSC, NMS	4
Giant Helleborine Orchid	<i>Epipactis gigantea</i>	NMS	4
Missouri Corycactus	<i>Escobaria missouriensis</i> var, <i>missouriensis</i>	NMR	4
Sandia Alumroot	<i>Heuchera pulchella</i>	NMS	4
Wood Lily	<i>Lilium philadelphicum</i> var. <i>andinum</i>	NMS	4
Strong Prickly Pear	<i>Opuntia valida</i>	NMS	5
Gypsum Phacelia	<i>Phacelia</i> sp. <i>nov./ined.</i>	FSC	4
White Bog Orchid	<i>Platanthera dilitata</i>	NMS	4
Ellis' Primrose	<i>Primula ellisiae</i>	NMS	4
Parish's Alkali Grass	<i>Puccinellia parishii</i>	FSC, NME	4
Plank's Catchfly	<i>Silene plankii</i>	NMS	4
Gypsum Townsend's Aster	<i>Townsendia gypsophila</i>	NMS	4

Common Name	Scientific Name	Status	Potential to Occur
MAMMALS			
Gunnison's Prairie Dog	<i>Cynomys gunnisoni</i>	NMSC	5
Spotted Bat	<i>Euderma maculatum</i>	FSC, FSS, BLMS, NMT	3
American Marten	<i>Martes americana origenes</i>	FSS, NMT	4
Black-footed ferret	<i>Mustela nigripes</i>	FE	5
Western Small-footed Myotis	<i>Myotis ciliolabrum melanorhinus</i>	FSC, BLMS, NMSC	3
Long-eared Myotis	<i>Myotis evotis evotis</i>	FSC, BLMS, NMSC	3
Little Brown Myotis	<i>Myotis lucifugus carissima</i>	NMSC	3
Occult Little Brown Myotis	<i>Myotis lucifugus occultus</i>	FSC, FSS, BLMS, NMSC	3
Fringed Myotis	<i>Myotis thysanodes thysanodes</i>	FSC, BLMS, NMSC	3
Long-legged Myotis	<i>Myotis volans interior</i>	FSC, BLMS, NMSC	3
Yuma Myotis	<i>Myotis yumanensis yumanensis</i>	FSC, BLMS, NMSC	3
Big Free-tailed Bat	<i>Nyctinomops macrotis</i>	FSC, BLMS, NMSC	3
Goat Peak Pika	<i>Ochotona princeps nigrescens</i>	FSC, FSS, BLMS, NMSC	4
Townsend's Pale Big-eared Bat	<i>Plecotus townsendii pallescens</i>	FSC, FSS, BLMS, NMSC	3
New Mexican Jumping Mouse	<i>Zapus hudsonius luteus</i>	FSC, FSS, BLMS, NMT	4
BIRDS			
Northern Goshawk	<i>Accipiter gentilis</i>	FSC, FSS, BLMS, NMSC	3
Baird's Sparrow	<i>Ammodramus Bairdii</i>	FSC, FSS, BLMS, NMT	2
Burrowing Owl	<i>Athene cunicularia hypugaea</i>	FSC, BLMS	2
Zone-tailed Hawk	<i>Buteo albonotatus</i>	FSS	3
Ferruginous Hawk	<i>Buteo regalis</i>	FSC, FSS, BLMS	2
Swainson's Hawk	<i>Buteo swainsoni</i>	FSS	2
Common Black-hawk	<i>Buteogallus anthracinus anthracinus</i>	FSS, NMT	3
Belted Kingfisher	<i>Ceryle ascyon</i>	FSS	3
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	FSS	3
Mountain Plover	<i>Charadrius montanus</i>	FC, FSS, NMSC	2
Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	FSS	3
Broad-billed Hummingbird	<i>Cynanthus latirostris magicus</i>	FSS, NMT	3
Black Swift	<i>Cypseloides niger borealis</i>	NMSC	3
Gray Catbird	<i>Dumetella carolinensis ruficrissa</i>	FSS	3
Snowy Egret	<i>Egretta thula brewsteri</i>	FSS	3
Southwestern Willow Fly Catcher	<i>Empidonax traillii extimus</i>	FE(CH), FSS, NME	3

Common Name	Scientific Name	Status	Potential to Occur
BIRDS			
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	FSS, NMT	3
Whooping Crane	<i>Grus americana</i>	FE(CH), FSS, NME	3
Bald Eagle	<i>Haliaeetus leucocephalus</i>	FT, FSS, NMT	3
Mississippi Kite	<i>Ictinia mississippiensis</i>	FSS	3
Loggerhead Shrike	<i>Lanius ludovicianus</i>	FSC, BLMS	1
Flammulated Owl	<i>Otus flammeolus</i>	FSS	3
Osprey	<i>Pandion haliaetus carolinensis</i>	FSS	3
White Faced Ibis	<i>Plegadis chihi</i>	FSC, FSS, BLMS	3
Sora	<i>Porzana carolina</i>	FSS	3
American Redstart	<i>Setophaga ruticilla tricolora</i>	FSS	3
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	FT, FSS, NMSC	3
Gray Vireo	<i>Vireo vicinior</i>	FSS, NMT	2
REPTILES			
Texas Longnose Snake	<i>Rhinocheilus lecontei tessellatus</i>	FSS	2
Northern Sagebrush Lizard	<i>Sceloporus graciosus graciosus</i>	FSC	2
AMPHIBIANS			
Jemez Mountains Salamander	<i>Plethodon neomexicanus</i>	FSC, FSS, BLMS, NMT	4
Northern Leopard Frog	<i>Rana pipiens</i>	FSS	4
INVERTEBRATES			
Pearly Checkerspot Butterfly	<i>Charidryas acastus acastus</i>	FSC	2
Socorro Mountain Snail	<i>Oreohelix neomexicana</i>	NMSC	4
San Ysidro Mealbug	<i>Distichlicoccus fontanus</i>	NMS	5
Wrinkled Marsh Snail	<i>Stagnicola caperatus</i>	FSS, NME	4

Cultural Resources

Mariposa lies in a region rich in human history, with occupation stretching back nearly 10,000 years and spanning the development and arrival of numerous peoples, cultures, and technology. When the Spanish conquistadors entered the region, they recognized the sophisticated cultural developments found in the large Pueblo villages, and in their narratives commented on extensive agricultural fields and food surpluses, geographically vast trade and information networks, and complex social and religious organization. The arrival of the Spanish in the northern Rio Grande sent the region into a new trajectory of cultural development that continues today.

Regional Cultural Surveys

Cultural resource surveys conducted in the northern portion of Ceja Mesa in the general area of the Mariposa project area have overwhelmingly identified a ceramic lithic scatters. Relatively few of these sites contain temporally diagnostic artifacts, but those that do indicate that these sites date to the Archaic period. The few sites that have been excavated have yielded radiocarbon dates that fall in the range of 2,500 to 3,300 radiocarbon years B.P., as well as projectile points and ground stone artifacts diagnostic of the Late Archaic. Armijo and En Medio phase materials seem most prevalent, although some projectile point types fall into the late Bajada and San Jose phases of the Middle Archaic. Many of the a ceramic sites that have been excavated have proven to contain buried features, including storage pits, hearths, and small pit structures. Archaic period occupation of the northern Ceja Mesa area was fairly intensive by all indications.

Ancestral Puebloan use of the northern Ceja Mesa appears to have been short-term and related primarily to resource procurement and perhaps travel through the area from pueblo to pueblo on trade missions. The area would have been a source of fuel wood, piñon and juniper seeds, lithic raw materials, and hunting game. There are no indications of agricultural fields on this portion of the Ceja, and distance to most large habitation sites suggests that the area was typically on the margins of Pueblo community territories. Similarly, Historic Pueblo use of the area was brief in nature, and appears related primarily to resource procurement and short-term camps. Relatively little in the way of historic Spanish, Mexican, or Anglo materials has been documented in the greater project area, although there has been use of the area since the time of first colonization.

Local Cultural Survey

The entire Mariposa project area has been surveyed for cultural resources. Field scientists, walking transects across the entire site, conducted a full pedestrian survey of the project area in 1998/1999. Over the course of the Mariposa Survey, 213 archaeological sites and 571 non-site occurrences were recorded. The majority of the Mariposa Survey sites are a ceramic scatters much like those documented by other surveys on northern Ceja Mesa. The occurrence and distribution of these sites has been used to help guide the establishment of open space and conservation areas within the project area. High Desert will continue to work with local Native American groups and initiate further discussions with

the State Historic Preservation Office and Army Corp of Engineers to develop appropriate strategies to mitigate unavoidable impacts to cultural resources within the project area.

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Introduction

The Natural Resources Management Plan for Mariposa will be a significant component in fulfilling the developer's goals and objectives of establishing a sustainable community that is integrated with the natural environment. The Plan's primary objective is to integrate the developed community with its natural surroundings. The Natural Resources Management Plan will be an integrated guide to site development that outlines the methods that can be used to take advantage of the site's natural resources, while mitigating the impacts of development to the land. The Natural Resources Management Plan in association with the Mariposa Standards and Guidelines for Sustainability and the Community governance documents will enable the creation and continued existence of a sustainable community.

Several of the key components that are expected to be included in the Natural Resources and Management Plan are provided below:

Open Space

Open space is essential to enhancing the quality-of-life of residents at Mariposa and the public in the surrounding region. Open space can be any area within or outside of residential boundaries that provides an opportunity for preservation, relaxation and/or recreation. Although recreational opportunities within a community may be quite different than those provided by the surrounding natural areas, they are both equally important. The Mariposa philosophy includes providing its residents with both of these opportunities.

The natural landscape of Mariposa provides an opportunity to enhance the quality of the development. Mariposa's commitment to regional public open space is evident by the quality and quantity of dedicated open space (Refer to Exhibit K: Open Space Plan). Access from various areas of the site to the regional open space will be provided by a system of hiking trails, bike trails, and pathways. The open space system also accommodates linkages to potential and realized open space outside of Mariposa, including a 640 acre parcel adjacent to the Mariposa Preserve that is controlled by the New Mexico State Land Office. High Desert intends to continue discussions with the State regarding the acquisition of an open space lease on this adjacent property.

The Mariposa Preserve

By far the largest piece of contiguous open space at Mariposa, the Mariposa Preserve is approximately 2,185 acres of breathtaking high desert landscape with a rugged, multi-colored escarpment and uninterrupted views of the Jemez, Sangre De Cristo and Sandia Mountains. The character of this land will help define Mariposa. Access to parts of the Mariposa Preserve may be controlled to protect specific areas and to allow for the rehabilitation of the desert landscape. In addition to being zoned as open space, it is anticipated that the Mariposa Preserve will be managed and maintained by one of the community organizations at Mariposa.

Interconnected, Interior Open Space Network

The character of the land at Mariposa lends itself to the creation of an open space network that will provide opportunities for pedestrian connections among the various land uses on the site. The natural arroyo system will provide the framework for the open space network, and will be supplemented by the Mariposa Preserve, and other areas of the site that will not be developed due to natural or man-made conditions. Trails will be placed in some of these corridors to provide the community with natural area access and to encourage pedestrian and bicycle circulation around the property.

The Mariposa Master Plan designates approximately 3,704 acres (exclusive of the 640-acre State Land Office Parcel) for the preservation of open space and development of parks. This acreage represents approximately 56% of the site. The Master Plan accommodates the projected needs for recreational facilities, including neighborhood parks, community parks, community centers and an aquatic center. A hiking and biking trail system that is regionally accessible, will be woven through the community. This interior, off-road circulation system will also provide important connections between various areas and land uses on the site, including neighborhoods, employment centers, retail and commercial services, parks and plazas. Bicycle facilities including bike lanes, routes, and trails will further reinforce the multi-modal circulation system by being integrated into the street and trail network.

Objectives for the interior open space network at Mariposa include providing the community with regional natural area access. Areas that are environmentally sensitive are intended to have controlled access to allow for the protection and/or rehabilitation of natural and cultural resources. Management practices will link interior open space area with the community and regional activity centers. A comprehensive interior open space, walkway and trail network will be connected to both activity centers. It is also an objective of the open space management program at Mariposa to link this interior interconnected open space system to offsite recreational opportunities.

Landscape Architecture

One of the most important objectives at Mariposa is to protect the character of the land and preserve the unique sense of place. Preservation and integration of native vegetation and materials throughout the entire site will be critical to achieving this objective at Mariposa. Using native vegetation will also provide opportunities for habitat enhancement and reduce the potential water requirements for landscaping in developed areas.

Given the large scale and phased implementation of Mariposa, a detailed landscape plan indicating the location of specific plant material is not practical. However, developers must adhere to the following principles:

- Re-vegetation of disturbed areas is required;
- Building envelopes will be used on all large residential lots to minimize disturbance and maintain and preserve existing vegetation;
- Plant material choices must conform to the plant palette listed in the Standards and Guidelines for Sustainability, except for interior walled areas;
- Exotic ornamental plants are prohibited, except in predetermined areas (backyards, courtyards, etc.), due to the potentially invasive nature of some species and the environmental benefits that result from the use of native plant species as a dominant component of the developed landscape;
- Site landscape must be installed in a timely manner and be approved by the Design Review Committee of the Sustainability Review Board;
- Irrigation systems may be designed to accommodate the use of non-potable water and be temporary where feasible, and
- Detailed landscape plans will accompany each site development application to the design review committee at Mariposa.

During development at Mariposa, an effort will be made to repair and restore disturbed land as quickly as possible. Landscape design solutions will be carefully considered for their long-term water requirements balanced with the need to stabilize the blowing soils on the site. In some situations where disturbed land is at the perimeter of the development or adjacent to open space, special seed mixtures and installation methods may be required to restore the land to its natural plant densities and diversities. Where necessary, a drip irrigation system will be designed and installed to minimize evaporation and runoff while providing supplemental water to the native landscape. A more detailed discussion of the native plant palette and irrigation systems is included in the Standards and Guidelines for Sustainability.

Xeriscaping to Conserve Water and Protect the Environment

The diversity of land uses and product types at Mariposa creates a need for a variety of landscape concepts that enhance the human environment, are considerate of water conservation needs and principles, and provide for habitat opportunities. While the specific scope and scale of landscape efforts will vary between the land uses allowed within Mariposa, within all of these areas the basic principals and water conserving concepts of xeriscape landscapes will be followed.

There are seven principles associated with xeriscape landscapes:

- Planning and Design;
- Soil Improvement;
- Appropriate Plant Selection;
- Practical Turf Areas;
- Efficient Irrigation;
- Mulching Techniques, and
- Appropriate Maintenance.

Traditional xeriscape zoning concepts will be used throughout the Master Plan area consistent with the design principals of low water use landscapes and the planning goals and environmental objectives of the Mariposa Master Plan. The three principal xeriscape zones are as follows:

Zone 1 - Oasis Zone

This zone includes fully enclosed residential yards within approved building envelopes and unenclosed areas immediately adjacent to some commercial and residential structures. Landscaping within this zone shall not be restricted except for limitations imposed by the Restricted Species List provided in the Mariposa Standards and Guidelines for Sustainability. Installation of a permanent irrigation system may be required.

Zone 2 - Transition Zone

This area is transitional between the Oasis Zone and the Xeric Zone and includes highly visible locations such as residential landscapes slightly removed from the structure, driveway entrances, roadway medians, parking areas, public common areas, etc. Within the Transition Zone, plants will be utilized that may require occasional watering after establishment to maintain a healthy, aesthetically acceptable appearance. Installation of a permanent irrigation system may be required. The plant palette for this zone will be restricted. A specific list of appropriate plant species for this zone is provided in the Mariposa Standards and Guidelines for Sustainability.

Zone 3 - Xeric Zone

This zone will include the remainder of the property that is not incorporated into the Oasis and Transition zones. Landscaping efforts within this zone will generally be limited to habitat restoration efforts and the plant palette will be restricted to plant species indigenous to Mariposa. A temporary irrigation system or "dry water" system may be required.

Plant Palette

An extensive native plant palette is being developed to ensure that landscapes within the development are consistent with the aesthetic of the Master Plan, water conservation objectives, and wildlife conservation goals. While many of these plants may not be available now in the quantities and sizes necessary for Mariposa, the market will respond to the demand, as was evident with High Desert. Use of a plant palette that is dominated by native plants will establish a sense of place and belonging for the developed properties at Mariposa and will preserve and enhance the urban and suburban wildlife habitat opportunities. The plant palette will be included in the Mariposa Standards and Guidelines for Sustainability. This palette is not intended to be exclusive, and appropriate additions will be made as warranted. The palette will be presented in appropriate zones (both xeriscape and habitat based) to promote water conservation, enhancement of wildlife habitat, and to enhance the visual integrity of the community and the transition from the built to the natural environment.

Plant species that are undesirable because they are considered noxious or invasive species, or are visually incompatible with the site development principals of Mariposa, will be restricted. A list of restricted species is also incorporated into the Mariposa Standards and Guidelines for Sustainability.

Landscape Standards Implementation

Specific landscape plans will be reviewed and approved by the Mariposa Sustainability Review Board or a Mariposa review committee for each project within Mariposa. Timely installation of site landscaping will be required. In mixed-use districts, the Rio Rancho City Development Department will review the application, with approval contingent on compliance with the intent of the approved Mariposa Master Plan and an approved Mixed-use Activity Center Master Plan. Outside of the activity centers, landscape plans for Mariposa will be reviewed by the Mariposa Sustainability Review Board for compliance with Mariposa standards.

The xeriscape zones described above will be a unifying theme throughout the community. Additionally, detailed landscape plans will address the specific site conditions that occur in a mixed-use community development, and provide water-conserving and attractive solutions for climate control and landscaping in these areas. Site conditions may include:

- Building Envelopes: the delineated portion of certain developable lots that defines the maximum area of disturbance, and within which the building and associated structures must be located;
- Sun Screen Zones: the areas where tree shading may be used along the west elevations of buildings to minimize energy requirements for cooling;
- Pedestrian-ways: the areas where trees may be used to provide shade and a comfortable scale;
- Riparian Zones: the low-lying areas that offer the potential for the creation of man-made water harvesting ponds and enhanced wildlife habitat areas;
- Roadway Corridors: the areas within street right-of-ways that have been identified for special landscape enhancement, and
- Parking Zones: the areas where trees and other landscaping may be used to reduce the visual impact of cars, the creation of heat islands and the buildup of large amounts of surface runoff.

Common Area Landscape Implementation and Maintenance

Developers will be responsible for the installation of landscaping in common areas such as street medians, right-of-ways, etc., in accordance with the established Landscape Standards. The Mariposa Residential Association or a related entity will be responsible for such landscape and common area maintenance.

Water Conservation

Water conservation is an important component of the development requirements and standards at Mariposa. In keeping with the idea of sustainability, there must be environmental benefits to development occurring at Mariposa. We anticipate that one of these benefits will be a substantially lower per capita potable water use than for any other similar development in New Mexico. This will be made possible through the implementation of appropriate water conservation techniques throughout the development. The implementation of water conservation practices, and, if possible, the reuse of treated effluent, will provide the Mariposa community with an opportunity to maximize the efficient use of existing water supplies to meet its projected demand.

The City of Rio Rancho is in the process of studying the feasibility of increasing the use of treated effluent for landscape irrigation as an alternative to discharging treated effluent to the Rio Grande. If feasible, treated effluent may be used to irrigate parks, play fields, schoolyards, medians, and other common landscaped areas. The reuse of treated effluent to augment outdoor water demand will be a goal of the Natural Resources Management Plan at Mariposa. Additional information on water treatment and re-use, and water-conserving architectural components can be found in the infrastructure section of this document. The Mariposa Standards and Guidelines for Sustainability and the Natural Resources Management Plan will also address the issue of water conservation.

Habitat Enhancement

The very nature of land development alters landscape and habitat characteristics with potentially adverse impacts to wildlife. These impacts can be minimized and compensated for in a variety of ways. At Mariposa, the preservation of significant landforms and their associated habitats within the context of the Master Planned Community has been one of the primary objectives of the master planning process. The Mariposa Master Plan preserves significant portions of the property as natural open space. Protected areas include the Mariposa Preserve and the interconnected, interior open space areas within developed portions of the property. Open space preservation will be the cornerstone of the Mariposa Natural Resources Management Plan.

Open space preservation efforts at Mariposa will be augmented with targeted programs to offset the impacts of development activities and to further integrate the natural and built environments. These programs are briefly discussed below and will be discussed in greater detail in the Natural Resources Management Plan.

Landscaping with Native Vegetation

An extensive native plant palette will be used to ensure that landscapes within the development are similar in composition to adjacent undisturbed habitats and other native habitats in the region. Within the urban landscape the use of native trees and shrubs at significantly greater densities than naturally occur on the property will create a habitat that is structurally more diverse and productive for certain wildlife species.

Within numerous habitat types within the Southwest there is a strong correlation between the total amount of perennial woody vegetation and the density of native territorial breeding birds. The goal of the landscape plans developed for Mariposa will be to substantially increase the total volume of native trees and shrubs over the current condition. In keeping with the overall water conservation objectives of the project, whenever feasible, irrigation for these native trees and shrubs will utilize reclaimed water and or water captured through water harvesting techniques. Planting plans will strictly adhere to xeriscape conservation objectives.

Riparian/Wetland Habitat Creation

Mariposa does not currently contain mesoriparian, hydroriparian, or wetland habitat types. In conjunction with water conservation strategies that will be used in this project, beneficial land application or recharge of treated effluent may provide opportunities to create riparian and wetland habitats. These habitat types have been demonstrated time and again to support greater diversities and densities of wildlife than any other habitat type in the arid Southwest. As project planning progresses, modeling of water budgets indicate that should reuse become a viable option, reclaimed water availability will eventually exceed reuse demands for common area landscapes and park facilities. This excess reclaimed water may be used within the project area in a fashion that achieves disposal

obligations, provides for significant enhancement of on-site habitat values, and provides unique educational opportunities for the students and residents of Mariposa.

Other opportunities will exist as site development plans are refined and water harvesting/stormwater management programs are integrated to enhance xeroriparian habitat values at Mariposa. These opportunities will present themselves during the engineering design of naturalistic arroyo treatments to control runoff and reverse currently degrading channel conditions that occur in some locations on the property. Opportunities will also exist within detention/retention facilities that are constructed within developed portions of the property to limit peak stormwater discharges to the levels that currently exist on the property. Properly integrated, the stormwater management program for Mariposa will utilize the increased volumes of runoff with structural improvements that are sensitive to the landscape in order to significantly increase the productivity of xeroriparian habitats associated with the arroyo systems that traverse the project site.

Table 2
Target Species and Management Actions

Target Species or Group	Potential Management Action
Raptors	Construction of nest platforms within natural open space areas.
Bats	Integration of "bat-friendly" design elements into bridge, culvert, and other appropriate engineered facilities.
Hummingbirds & Butterflies	Construction of gardens designed to attract these species in public areas.
Medium/Large Mammal Species	<p>Construction of wildlife friendly watering features within natural open spaces areas.</p> <p>Use of appropriate wildlife friendly fencing to delineate property boundaries and control grazing access to natural open space areas.</p>

Species-Specific Conservation and Management

A key element of the Natural Resources Management Plan is to develop species specific programs to enhance habitat values within the Mariposa Master Planned Community. Targeted species and groups of species currently being evaluated for specific management action and monitoring and the types of enhancement activities being considered are listed in Table 2. We envision that through adaptive management techniques, cooperation with local wildlife officials, and documentation of lessons learned through environmental education programs, effective species-specific management programs will evolve and grow as the project develops.

Monitoring and Reporting Requirements

Education and monitoring will be key elements of the Natural Resources Management Plan for Mariposa and will help guide species specific management actions. Environmental education programs within the community will provide opportunities to track and monitor the effects of the development and mitigation measures through time, enhance the sense of community and the integration of the community into the landscape, and will help to minimize potential adverse interactions between wildlife and humans.

Vegetation and Habitat Management Plans may be required in selected instances to identify protected natural open space areas within and adjacent to each parcel being developed and the site-specific measures that will be used to protect these areas during construction activities. The Plan may also provide site specific measures of the total volume of perennial woody species (including succulents) using standardized measurement techniques and specific planting plans demonstrating how the native vegetation landscape objectives of the Master Plan will be met. The Vegetation and Habitat Management Plan will also include a list of all plant materials that will be used in landscaped areas and for revegetation purposes by xeriscape zone and each zone shall be clearly delineated on a site plan. An inventory of native plant materials that will be salvaged and utilized within the parcel may need to be included in the plan. Salvage of native plant materials for use in landscape and revegetation efforts is encouraged by the Mariposa Master Plan but is not required.

These plans will be provided to a designated Mariposa organization, such as the Sustainability Review Board, for determination of compliance with Mariposa Master Plan Standards.

Cultural Resources Management

The occurrence and distribution of prehistoric cultural sites at Mariposa has been used to help guide the establishment of open space and conservation areas. The developers of Mariposa will work closely with the State Historic Preservation Office, the Army Corps of Engineers, and local Native American groups to develop appropriate strategies to mitigate unavoidable impacts to cultural resources within the project area.

Grading and Excavation

Because grading and excavation is directly related to the environmental management of the site, the developer has committed to a number of principles that must be addressed before any earth is moved on the site:

- Existing significant vegetation will be preserved to the extent possible through the use of building envelopes on large-lot residential development in the E-1 and R-1 zones;
- Water courses and drainage patterns will be preserved in their natural state where practical and appropriate;
- Where possible, stormwater runoff will be captured in water harvesting features and redirected toward naturally vegetated areas;
- Cross-lot drainage will not be impeded by re-grading or lot line walls where practical in Estate and selected R-1 zones, and
- Where feasible, streets will be narrow and of a simple, curbless design to prevent the collection and velocity increase associated with standard street sections, and to encourage diffused and more natural flows to the arroyos.

These principles, which will be further enhanced through implementation of “Green Building” construction approaches as outlined in the Mariposa Standards and Guidelines for Sustainability, will reference standards from the U.S. Green Building Council and Building America’s Builder’s Guide, or other recognized standards. Where possible, High Desert intends to minimize grading and excavation associated with the site to prevent excess runoff, sedimentation, and channel modifications in streams and arroyos, preserve native vegetation and prevent visual scars on hillsides and other sensitive areas. However, in areas with smaller lots, over-lot grading is anticipated. In these areas and all other developed areas, Mariposa will meet the requirements for managing site runoff, water detention basins and wastewater treatment plan discharges as mandated by the City of Rio Rancho, and the respective federal and state water and emergency management agencies.

Concurrent with this document, Mariposa has prepared a conceptual drainage management report and submitted it for review by the appropriate agencies. The report details the accommodation of surface runoff, as well as a drainage management plan for the development. The Conceptual Drainage Management Report is included in Volume II of this document.

Air Quality

Mariposa will consider a variety of ways to minimize impacts on air quality:

- Limiting the number and types of wood burning fireplaces;
- Creating a pedestrian-friendly community;
- Centering mixed-use activity centers within walking distance of residential areas;
- Encouraging multi-modal transportation opportunities;
- Encouraging the development of employment opportunities within Mariposa;
- Encouraging the use of alternative fuel vehicles for property management operations, and
- Implementing construction controls on grading, excavation, and dust mitigation.

Dark Skies/Lighting

Preservation of dark skies is an important quality-of-life component of Mariposa. Implementation of dark sky criteria at Mariposa will set a high standard for exterior lighting, which will hopefully carry over to future commercial and community growth in surrounding areas. Mariposa will conform to all provisions of the New Mexico Night Sky Protection Act and work with Dark Sky advocate groups to identify additional opportunities for education and implementation of dark sky-friendly lighting techniques. Additional discussion on the architectural style, application, and integration of lighting in the development will be found in the Standards and Guidelines for Sustainability.

Noise

Mariposa will conform to all existing noise ordinances of the City of Rio Rancho. Noise control regulations for Mariposa will be contained in construction regulations located in the Mariposa Standards and Guidelines for Sustainability.

Environmental Education at Mariposa

Among other responsibilities, the Mariposa Community Foundation, Community Council, or other such entity will provide environmental education at Mariposa. This program will include new resident and property owner orientation to the Standards and Guidelines for Sustainability, guidance in the use and care of native plant materials, familiarization with water conservation and recycling measures, and education on co-existing with wildlife. Utilizing the Mariposa Preserve as a "living laboratory," it is also anticipated that the Mariposa Community Foundation, Community Council, or other such entity will provide interpretive programs for Mariposa residents, school children, and other visitors from Rio Rancho and the surrounding community.

Standards and Guidelines for Sustainability

A comprehensive set of standards and guidelines are being prepared to assist and encourage developers, designers, builders and residents at Mariposa in the sustainable design and operation of the site, landscaping, infrastructure, and buildings. These are called the Mariposa Standards and Guidelines for Sustainability. Mariposa is committed to creating a model sustainable community utilizing accepted standards. The U.S. Green Building Council's Leadership in Energy and Environment Design (LEED) program may serve as the standard for measuring the level of sustainability in the non-residential areas of the community. Standards for the design and construction of all residential buildings may be in accordance with the Building America Program, a national program of environmentally sensitive building practices that has been adopted by the Home Builder's Association of Central New Mexico or other such recognized program.

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FACILITIES
SERVICES

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Introduction

As a self-sufficient planned community providing superior on-site services, employment opportunities and recreation amenities are a priority at Mariposa. Properly planning for these components of the Master Plan required research into a variety of areas including land characteristics, regional demographics, and local market economics. To help determine the appropriate blend and qualities of various land use types, methodologies were created to determine developable land areas, project population, and estimate job generation, the need for commercial development, and public amenities.

Public facility requirements were based on the population projection for Mariposa and level of service standards adopted by the City of Rio Rancho or, in their absence, national standards. After the number of facilities and their corresponding land requirements were determined, the cost and phasing of these facilities were included in a Fiscal Impact Analysis prepared for the City of Rio Rancho. Sites for these facilities have been identified and incorporated into the Conceptual Land Use Plan for Mariposa (Refer to Exhibit J: Conceptual Land Use Plan) and are illustrated in the context of other Rio Rancho public facilities in Exhibit L: Public Facilities Map. The cost, timing and responsibility for the public facilities that are funded through impact fees are addressed in the development agreement for this project, which is located in Volume One of the Supporting Documents to the Mariposa Master Plan.

Public Safety

Interviews with the City's Public Safety Division and other City officials suggest that development at Mariposa and in the surrounding area may result in the construction of two public safety facilities. The first facility, which might be located at Unser Boulevard near the entrance to Mariposa, would serve surrounding development, including the Hawk Site and Loma Barbon, as well as Mariposa. The location of the second facility will be determined based on consideration of project phasing, availability of existing services off-site, and response time service standards. It is anticipated that this facility will be located at Mariposa in Planning Area Two.

Waste Management

Solid waste handling systems need to address the following: internal collection mechanisms for refuse, recycling, compost materials, external collection equipment, transportation, and final disposal. Two distinct waste streams consisting of residential and commercially generated wastes must be handled and disposed. A private company that has a contract with the City of Rio Rancho is the primary waste collector for the entire City. This contractor collects both private and commercial waste and will serve any new development within the City limits.

Recycling

There are a variety of existing public and private recycling programs/services in Rio Rancho. The city's waste collector is the primary contractor for recycling services. It is anticipated that Mariposa residents would utilize all of these programs, and that some of these programs could be implemented on site at Mariposa.

- Curb-side recycling: Rio Rancho's waste collection contractor provides residential curb-side recycling services for newspaper, limited plastics, aluminum and corrugated cardboard.
- Commercial cardboard recycling: The same contractor who provides residential curbside service also provides commercial recycling dumpsters and pick-ups, for cardboard only, on a contract basis.
- Office/white paper recycling: A private contractor provides recycling services on a contract basis for white paper recycling only.
- Phone book recycling: Qwest/Dex organizes a once-a-year phone book collection.
- Glass and metal recycling: There are several recycling drop-offs in Rio Rancho. The materials are sorted and recycled by private companies.
- Clothing collection: Sandoval County and various nonprofit organizations hold clothing collection events and/or will provide curbside collection on an appointment basis.
- Christmas tree recycling: PNM and the City of Rio Rancho sponsor this program that allows people to drop off their old Christmas trees and have them turned into mulch. The mulch is, in turn, available free of charge to the public.
- Construction recycling: There is no organized, city-wide construction-recycling program in Rio Rancho. At Mariposa, one of the community governing organizations, such as the Sustainability Review Board, will make independent arrangements to ensure that appropriate opportunities are available for recycling construction materials.
- Keep Rio Rancho Beautiful (KRRB): A nonprofit organization that helps educate citizens on how to recycle. KRRB coordinates the recycling efforts of various public and private entities participating in the recycling effort, including the Rio Rancho Water Conservation Program that is promoting a program that encourages citizens to replace their old toilets with water-conserving low-flow varieties.

Educational Facilities

Based on Rio Rancho School District and national standards, the population projections for Mariposa suggest that the following type and number of educational facilities may be required:

Type	Quantity	Acreage per Facility	Total Acreage
Day Care	18	.75	14
Nursery School	7	.75	5
Elementary School	2	16	32
Middle School	1	28	28
Total	28		79

The population projections suggest that the construction of two elementary schools and one middle school may be warranted. Population projections do not suggest the need for the construction of a new high school.

Currently, Mariposa is within the Jemez Valley School District. However, because Mariposa will be part of the Rio Rancho community, it may be desirable and appropriate for Mariposa to be a part of the Rio Rancho School District. High Desert will work with representatives from both school districts to come to a resolution relative to jurisdiction.

Day Care Facilities

Convenient day care and pre-school programs are essential to the long-term success of Mariposa. For this reason, day care centers and nursery schools will be located within easy walking distance of most residences. It is anticipated that these sites will be developed and operated through the private sector.

Libraries

Land for a new library has been identified at Mariposa in Planning Area Two. This facility will serve the surrounding developed areas as well as Mariposa and will be located in a cluster of complementary facilities in or near the regional activity center. The Mariposa library, which will be a branch facility, is anticipated to be approximately 30,000 square feet in size, and should be collocated with parks and other recreational facilities.

Space may also be made available for a satellite library facility in the Community Center in Planning Area One. If warranted, the City of Rio Rancho could lease space in this neighborhood center for a library facility that would serve Mariposa and surrounding communities.

Places of Worship

Land has been identified for five religious institutions at Mariposa. Each site will be approximately three acres in size and strategically located to maximize community-meeting opportunities and shared parking with adjacent uses.

Cemeteries

The Master Plan accommodates a small 3-5 acre cemetery. It is anticipated that a commercial operator would develop this site.

Medical Facilities

Population projections and national level of service standards suggest that at full build-out, Mariposa may generate the need for two urgent care centers (three acres each), one 100-bed hospital (seven acres) and one 30-bed nursing home or assisted living facility (11 acres). Although buyer demographics and medical facility development off-site might alter the Mariposa requirements, these and associated uses can be accommodated within Planning Area Two.

Recreational Facilities

Population projections and the City's Parks and Recreation Master Plan suggest that the following type and number of recreation facilities may be required at Mariposa:

Type	Quantity	Acreage per Facility (avg.)	Estimated Total Acreage
Neighborhood Park	12	7.5	90
Community Park	1	40	40
Community/Senior Centers	4	3	12
Aquatic Center	1	4	4
Total			146

Due to the natural beauty and fragile condition of much of the site, protected open space will provide the primary venue for recreation opportunities at Mariposa. An extensive trail and bikeway network will provide community-wide access to other recreational facilities at Mariposa, including parks, community/senior centers and an aquatic center.

The Mariposa Master Plan includes the following distribution of recreation facilities:

Facility Type	Acres PA1	Acres PA2	Mariposa Preserve	Total
Neighborhood Park	38	76		114
Community Park	24	24		48
Community/Senior Ctr*		3		3
Aquatic Center		4		4
Open Space	412	945	2185	3542
Total Parks/Open Space/ Centers	474	1052	2185	3711
Total Trails + Bikeways	6 miles	33 miles		39 miles

**It might be appropriate to fulfill the same level of service with several smaller centers distributed throughout the site.*

The Mariposa Preserve, Trails and Other Open Space

The quality of the Mariposa development will in large part be judged on the condition and treatment of its natural landscape. The most dominant open space feature of the Master Plan is the Mariposa Preserve. Other major open space components include all of the arroyos, significant natural areas that are considered desirable to preserve in their natural or man-made states, and an adjacent price of property that is designated as open space through a lease with the New Mexico State Land Office.

Two primary trails have been identified to provide residents and visitors recreation opportunities, as well as alternatives to car travel between neighborhoods. The Rim Trail is a scenic path located along the upper edge of the escarpment. The Mariposa Trail is a paved path located along the southern portion of the property. Trails may also be placed in many of the arroyo corridors to provide the community with access to the natural landscape and to foster pedestrian and bicycle circulation within the property and out into the surrounding community.

Open space corridors and protected areas will be defined and designated in a coordinated manner to complement the system of parks and other community facilities planned for the property and the surrounding region. Refer to Section 5: Natural Resource and Landscape Management for additional information on open space and trails at Mariposa.

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CIRCULATION

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Introduction and Guiding Concepts

The Mariposa Transportation Master Plan provides the necessary transportation concepts for the proposed community. The plan recognizes that the proposed street network must be sensitive to the needs of a "livable community" and traffic conveyance needs. A street hierarchy plan that meets these needs has been developed. Safety, efficiency, livability and economy are all issues that are addressed.

Arterial, collector and major local roads have the primary purposes of conveying traffic from residential streets to activity centers and the major streets and roads that connect Mariposa to the rest of Rio Rancho and other communities in the region. Local, residential and access streets primarily serve the abutting land. This Master Plan attempts to follow the following concepts and guidelines:

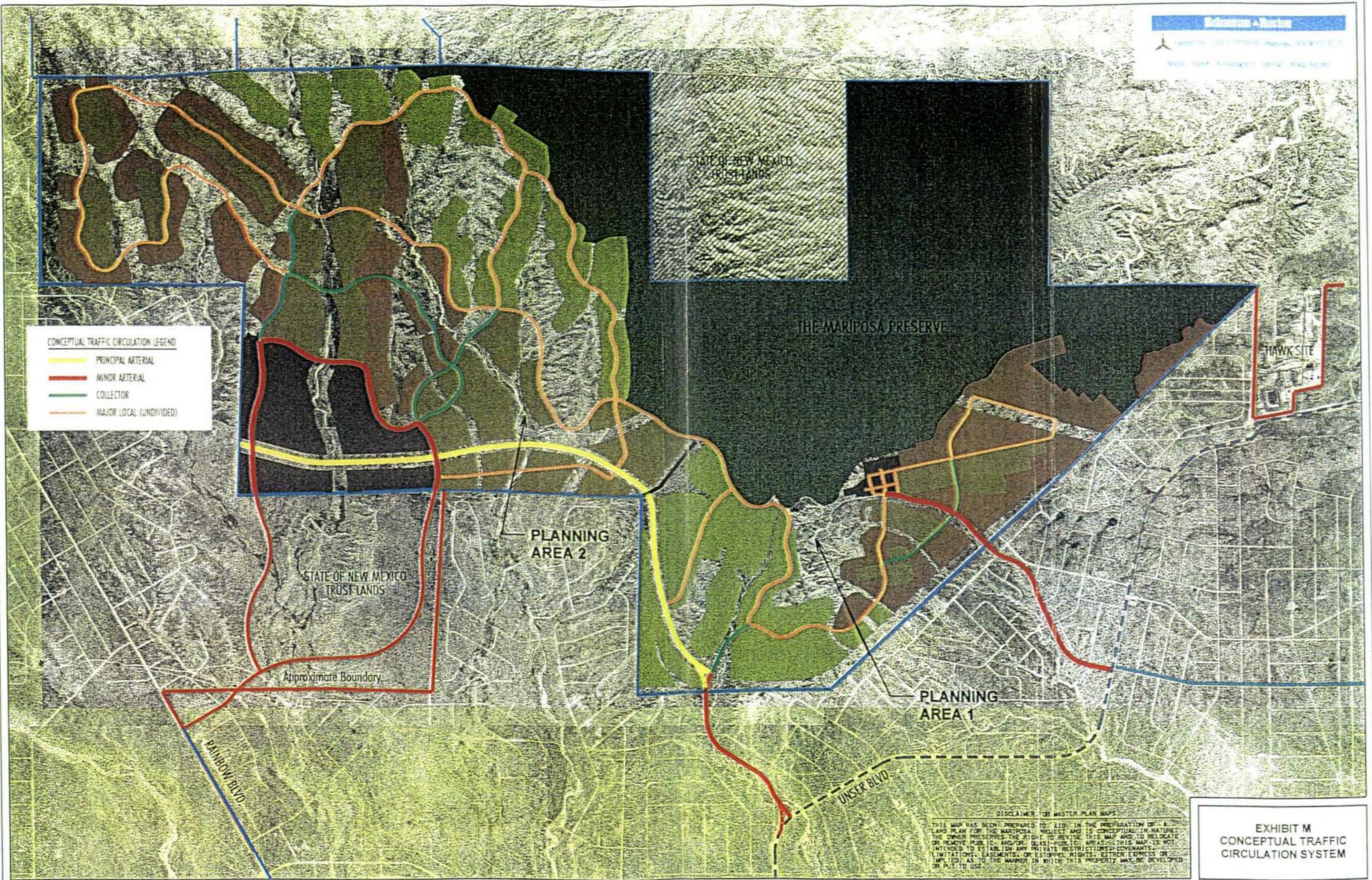
- Street planning should relate to overall community planning;
- Traffic in residential areas should be kept to a minimum to reduce noise, congestion and hazards to pedestrians. Local residential streets and, in some situations, streets within commercial activity centers, should be designed to accommodate and facilitate pedestrian activity as well as alternative modes of transportation including transit and the bicycle;
- The street is an important component of overall residential community design. Properly scaled and designed, streets can create more attractive communities and can contribute to a clearly defined sense of place;
- Street design standards should permit flexibility in community design. They should allow street alignments to follow natural contours and preserve existing drainage patterns and natural features or to respond to other design objectives such as the creation of more intimate urban- or village-scaled streetscapes;
- Wherever possible, street layouts should be planned and designed to avoid creating and collecting excessive stormwater runoff and the need for storm sewers;
- The amount of paved area should be kept to a minimum to reduce construction and maintenance costs, stormwater runoff and heat buildup;
- Streets can serve social functions such as meeting places and centers of community activity. For example, children often use low-traffic streets as play areas;
- In the interest of keeping housing affordable, street costs should be minimized;
- Over-design of streets should be avoided. Excessive widths or an undue concern with geometry more appropriate for highways encourages greater vehicle speeds and creates opportunities for conflict with and injury to pedestrians and bicyclists;
- Different streets have different functions and need to be designed accordingly. Blanket street design standards are inappropriate;
- Streets should be designed so as to be easily "read" or understood by users so that the intended function of a street segment is readily apparent, and

- Multi-modal transportation opportunities should be identified, enhanced and implemented by 1) grouping commercial and higher density residential mixed land uses around neighborhood activity centers, 2) providing an extensive network of pedestrian and bicycle trails, paths, walks, and exclusive on-street lanes, 3) identifying and setting aside property for regional transit-related facilities, including future multi-modal transfer sites, and 4) creating the neighborhood structure and communication infrastructure that facilitate the provision and implementation of neighborhood-scale transit improvements such as shuttles, van pools, carpools and rideshare programs.

TABLE 3 - PROJECT PROGRAM CHARACTERISTICS						
Description of Developed or Dedicated Use	Planning Area 1		Planning Area 2		Total	
	S.F.	Units	S.F.	Units	S.F.	Units
20-Year Horizon						
Residential Total	---	1,650*	---	2,600*		4,250*
Nonresidential/ mixed-use Total	140K	---	420K	---	146	560K
Full Build (34- Year Horizon)						
Residential Total		1,650*		5,175*		6,825*
Nonresidential/ mixed-use Total	140K	---	866K	---		1,006K
*Building unit counts represent the probable maximum number of units						

Project Program Characteristics

Mariposa will be a mixed-use development with employment, commercial developments and residential land uses. Table 3 shows the latest breakdown of each of the two proposed Planning Areas for acreage (residential and non-residential), number of dwelling units, and open space.



CONCEPTUAL TRAFFIC CIRCULATION LEGEND

- PRINCIPAL ARTERIAL
- MINOR ARTERIAL
- COLLECTOR
- MAJOR LOCAL (UNDIVIDED)

PLANNING AREA 2

PLANNING AREA 1

STATE OF NEW MEXICO TRUST LANDS

THE MARIPOSA PRESERVE

HAWK SITE

Approximate Boundary

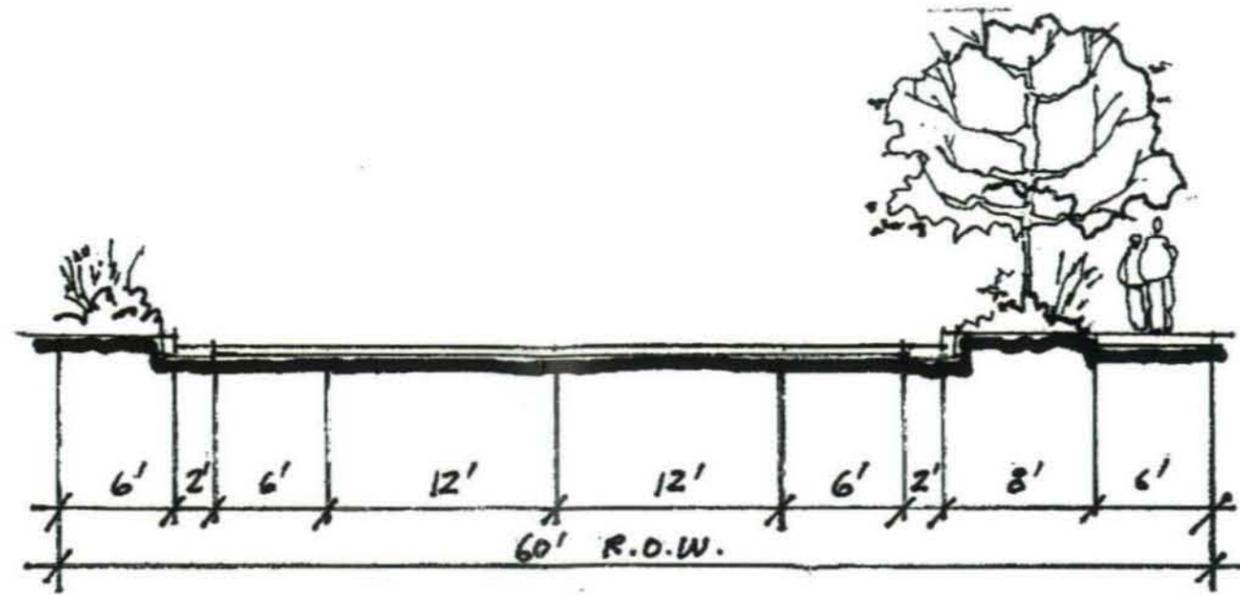
RAINBOW BLVD

UNSER BLVD

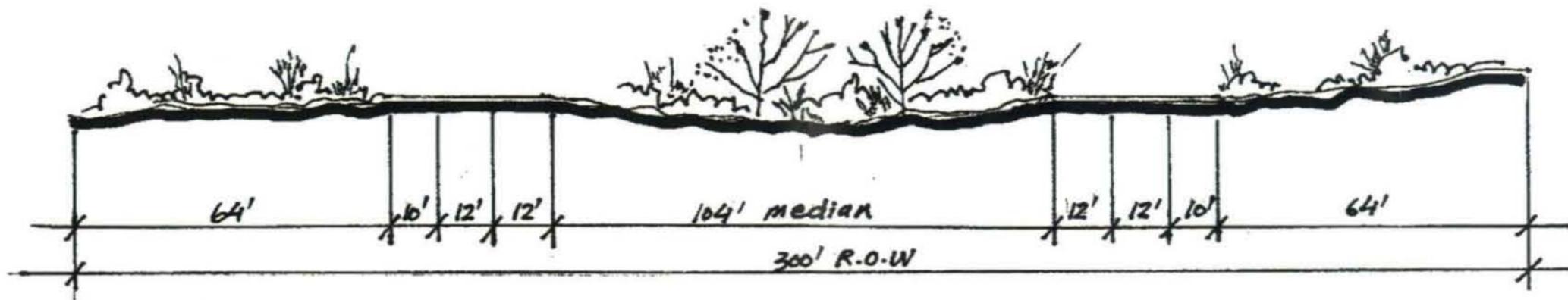
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EXHIBIT M
CONCEPTUAL TRAFFIC CIRCULATION SYSTEM



Undivided Major Local Street



Principal Arterial Street
(Mariposa Parkway)

Street Section
Exhibit N1

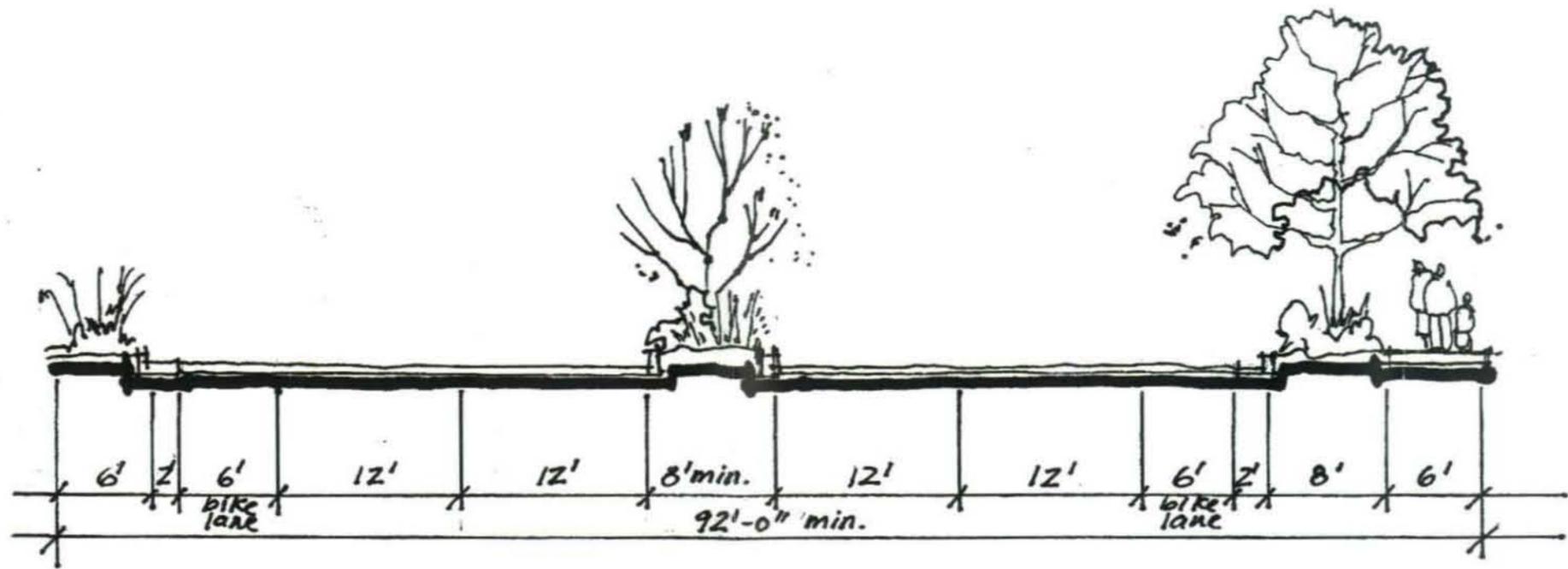
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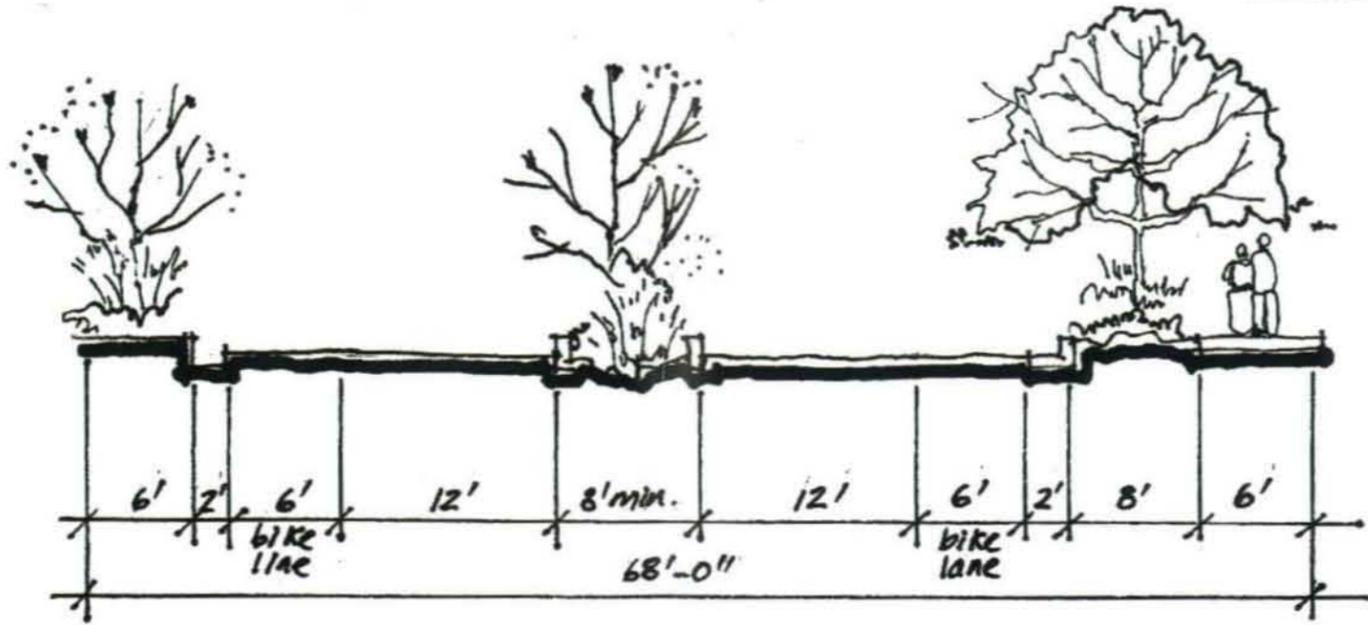


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Arterial Street



Collector Street

Street Section
Exhibit N2

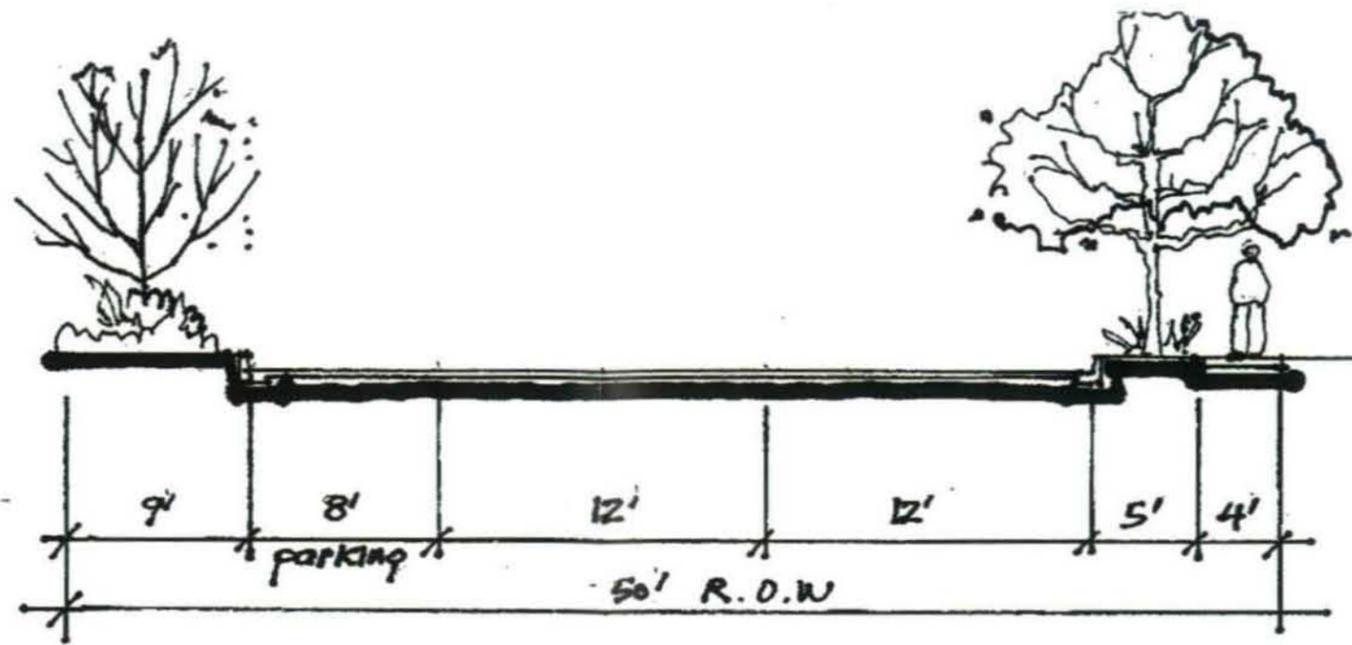
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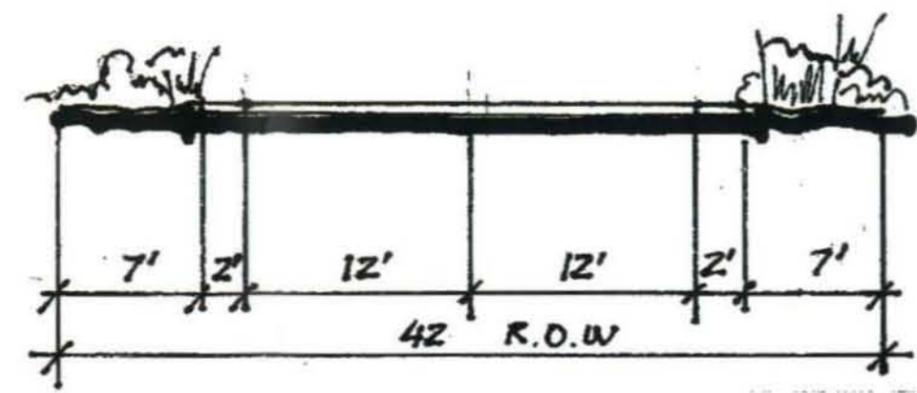


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Local Street Section – A



Local Street Section – B

**Street Section
Exhibit N3**

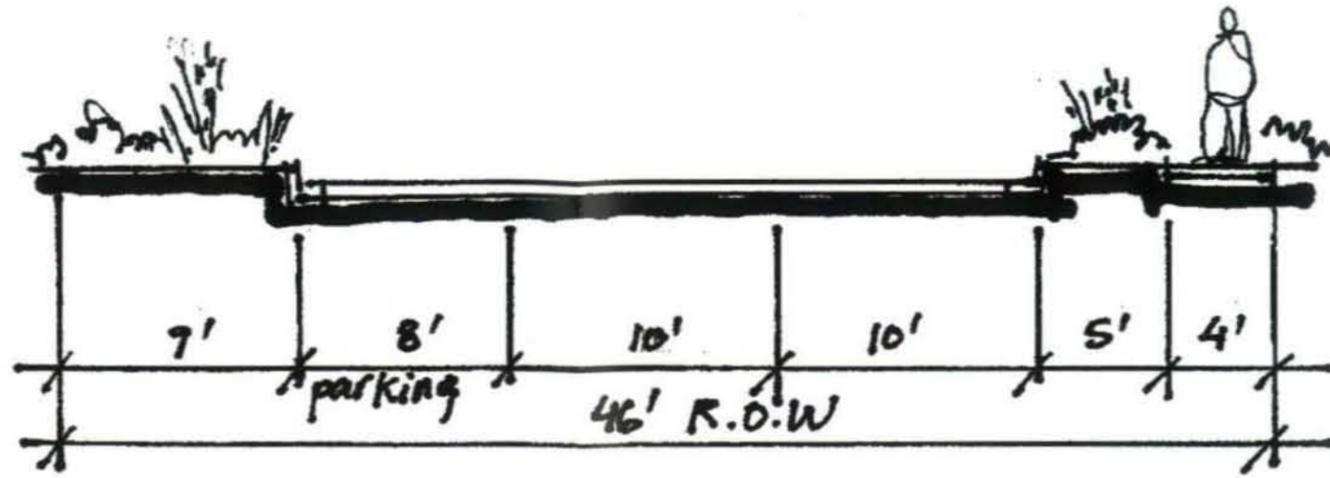
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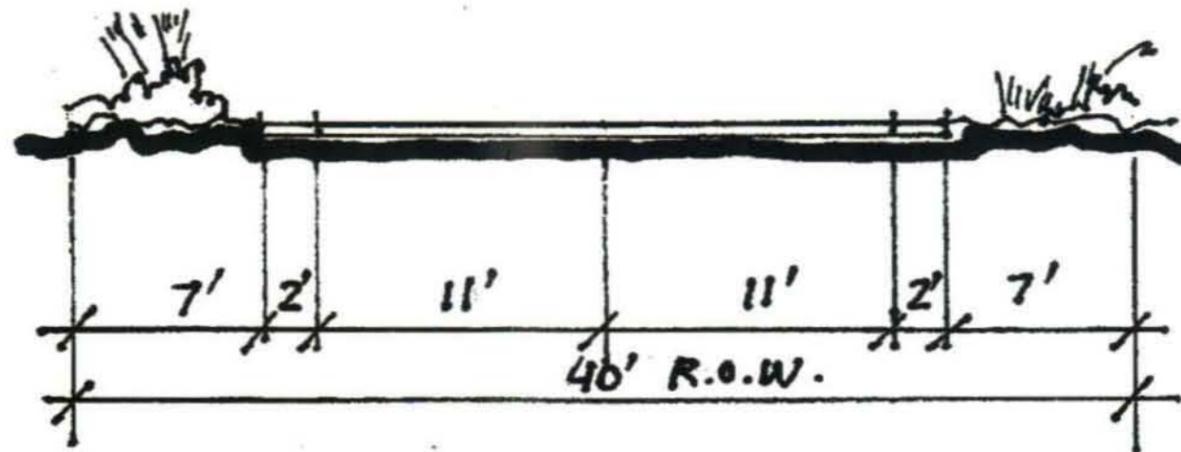


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Cul de Sac Street – A



Cul de Sac Street – B

**Street Section
Exhibit N4**

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Assuming an average of 2.78 persons per single family residence and 1.91 persons per multi-family residence, the proposed development is projected to have a population of approximately 11,350 people after 20 years and 18,220 at full build-out.

This transportation plan focuses on a 20-year horizon. The full build-out of Mariposa is expected to take 30-35 years.

Access and Traffic Circulation Network

The proposed internal traffic circulation system for the Mariposa Master Plan is shown in Exhibit M: Conceptual Traffic Circulation System. The Master Plan proposes three connections to the regional transportation network, two to Unser Boulevard and one to Rainbow Boulevard.

The primary connection to Planning Area 1 will generally follow the Venada Arroyo and will connect to Unser Boulevard at Osage Road. This connection will provide access to Unser Boulevard and ultimately to US 550 via the Northwest Loop Road. On US 550, motorists can go west to San Ysidro and Cuba or east to Bernalillo, NM 528 or Interstate 25. On Unser, motorists can go south into Rio Rancho and Albuquerque via Unser, Paseo del Volcan or Paseo del Norte. This new roadway connection provides the City of Rio Rancho and the New Mexico State Land Office with the potential for a new east-west street along the current alignment of Osage Road that may connect Mariposa with US 550 through the State Land Office's Loma Barbon property. It is proposed that this new connection to US 550 be named Mariposa Boulevard.

The other connection to Unser Boulevard will be near Cayenne Road along the Barranca Arroyo. This connection, named Avenida la Barranca, will also provide access from both Planning Areas 1 and 2 to Unser Boulevard, and may ultimately become the future extension of Unser Boulevard directly into Mariposa. This connection will provide access to Planning Area 2 along the future extension of Avenida la Barranca.

It is anticipated that additional access to Planning Area 2 will be from Rainbow Boulevard. During development within Planning Area 2, Rainbow Boulevard will be extended north from its current terminus near King Boulevard at the northwest corner of the Northern Meadows development, to a proposed access roadway corridor across State Land near the existing City Limit.

These connections provide access to the rest of Rio Rancho and into Albuquerque via Rainbow, Unser, Paseo del Volcan and Paseo del Norte. Both of these access roads--Mariposa Boulevard and Avenida la Barranca--will ultimately be constructed as four-lane divided streets within 106' wide rights-of-way, constructed to City of Rio Rancho arterial street standards.

Street Classification Overview

The primary east/west links from Mariposa to the rest of Rio Rancho and into Albuquerque are via Unser and Rainbow Boulevards south to Paseo del Volcan and Paseo del Norte. The other primary link for Mariposa is north to US 550 along either Mariposa Boulevard or Unser, then east to NM 528 or Interstate 25.

Based on "link volume" analysis of the major road network within Mariposa, a Traffic Circulation/Hierarchy Map was prepared to identify probable required road sections. Detailed cross-sections of the proposed road classifications are provided in Exhibits N1-N4: Street Sections, and comply substantially with those listed in Table 5: Recommended Street Classifications and Design Criteria.

The majority of the internal roads will be two-lane major local roads, either divided or undivided depending on anticipated traffic volume. The major connections to Unser and Rainbow Boulevards are anticipated to be developed as four-lane collector streets. Avenida la Barranca, between Unser and Rainbow, is a likely candidate for an ultimate four-lane, limited access, arterial street section. Interior streets near the community node in Planning Area 2 are also anticipated to require four-lane collector street sections. High Desert will continue to work with the Rio Rancho Public Works Department and other City departments to refine the detailing of each road section.

Phasing of the project may provide for construction of two initial lanes in the early stages of the project, especially on certain divided roads where four lanes may ultimately be developed in later stages.

Several proposed street classifications and sections include provisions for dedicated on-street bicycle facilities.

Future Regional Transportation Network

The Long-Range Roadway System Plan (LRRSP) for the Albuquerque Metropolitan Planning Area provides the context for the future regional transportation network in the Mariposa vicinity.

The LRRSP identifies that Paseo del Volcan is a planned access controlled roadway that will ultimately connect US 550 in the northeast with Interstate 40 in the southwest. This regional transportation improvement is contemplated within the Middle Rio Grande Council of Governments' Metropolitan Transportation Plan (MTP) for construction within the next 20 years. The Paseo del Norte extension from Golf Course Road to the west is also included on the Long Range Roadway System Plan.

Other longer-range plans anticipate the future development of an additional Northwest Loop Road that may ultimately connect I-40 with US 550. This regional transportation facility is not included in the MTP within a 20-year horizon. An Environmental Assessment (EA) for the Northwest Loop Road alignment was prepared in 1988 by Parsons Brinckerhoff for the NMSH&TD. In accordance with the EA, a 300' wide right-of-way corridor for the Northwest Loop Road within the limits of the Mariposa property was dedicated by deed by the prior landowner in

1993 to Sandoval County, bisecting the property from east to west. In addition, Sandoval County is in the process of acquiring and preserving additional right-of-way for the future Northwest Loop Road to the east and west of Mariposa.

A portion of the existing Northwest Loop Road alignment traverses a rugged portion of Mariposa that is proposed to be preserved and the Owner and Developer believe that the current alignment is not appropriate because of adverse environmental impacts to the Mariposa Preserve as well as substantially increased public costs associated with construction of a facility in this location. Therefore, a 300' wide corridor, which has been identified and set aside, may be appropriate for future use as right-of-way for an alternate Northwest Loop Road alignment. Additionally, a 250' wide buffer has also been established between the possible 300' alternate road alignment and the Mariposa boundary in Planning Area One, which should place the edge of any future roadway approximately 314' from the Mariposa property boundary. The 250' wide buffer will be zoned as Open Space and will provide appropriate buffering between the alternate road alignment and property owners in Rio Rancho Estates adjacent to Planning Area One. If the alternate road alignment is selected for construction of the Northwest Loop Road, the Developer will, at the time of the road construction, construct an earthen berm and install landscaping where possible and appropriate to help mitigate the impact of the Northwest Loop Road on adjacent property. If the alternate 300' road alignment is not utilized for the Northwest Loop Road, or the Developer determines that the alternate road alignment is no longer appropriate, it will be utilized for residential construction and the 250' wide open space will provide appropriate buffering between dissimilar residential uses. The alternate alignment is capable of providing adequate right-of-way for a facility that meets all of the access and roadway design specifications for the Northwest Loop Road, including roadway and right-of-way width, vertical and horizontal curvatures, intersection spacing and noise abatement.

TABLE 4 - RECOMMENDED STREET CLASSIFICATIONS AND DESIGN CRITERIA						
Street	ADT	Pavement Width (Face to Face)	Parking	Design Speed		
				Level	Rolling	Hilly
Principal Arterial Street	10,000+	24' F-F, * 30' median, 24 F-F*	--	45	40	35
Minor Arterial Street (4 lane divided)	5,000 - 10,000	32' F-F, 8' median min., 32' F-F	--	35	35	30
Collector Street (2 lane divided)	2,000 - 5,000	20' F-F, 8' median min., 20' F-F	--	30	30	25
Major Local Street (2 lane undivided)	1,000 - 2,000	40' F-F	--	30	25	25
Local Street	250 - 1,000	24' - 32'	OK	25	25	20
Cul de Sac Street	0 - 250	22' - 28'	OK	20	20	20

* plus shoulder

Note: Face-to Face dimension includes bike lanes. Bike lanes are typically 6' in width.

The NMSH&TD will lead the process of environmental clearance and construction of the Northwest Loop Road, which will include preparation of an Environmental Impact Statement (EIS). The EIS process will identify and evaluate several alternate alignments, including both the existing right-of-way and the suggested possible alternate, and will result in a recommendation as to the appropriate alignment to be used for the ultimate facility. Development at Mariposa is not dependent upon, nor will development at Mariposa preclude, the future construction of the Northwest Loop Road.

Summary of Results

The Mariposa Transportation Master Plan describes a framework for the orderly development of the on-site and off-site transportation infrastructure. It strives to meet the needs of traffic management, environmental sensitivity and community issues.

The initial analysis conducted for the Transportation Master Plan indicates that traffic levels on Unser Boulevard will increase substantially over that anticipated in the 2020 background traffic forecast. Currently, approximately 8,200 vehicles per day are forecasted to use Unser Boulevard south of Mariposa. With the 20-year build-out of Mariposa, Unser Boulevard is expected to carry approximately

18,600 vehicles per day in this reach. This will require the expansion of Unser Boulevard to four lanes from the existing four-lane section at Abrazo Road north through the intersection of King Boulevard. The City of Rio Rancho's Capital Improvements Plan currently calls for expansion of Unser Boulevard to four lanes from the existing four-lane section at Abrazo Road north to Cherry Road. Additional improvements will be needed to expand Unser Boulevard north of Cherry Road to King Boulevard.

The portion of Unser Boulevard and the Northwest Loop Road to the north and east to US 550, will also experience a substantial increase in traffic. The raw regional travel demand model output suggests that the 2020 background traffic of this reach of Unser will be approximately 5,500 vehicles per day. Without the Mariposa Boulevard connection to US 550, the 20-year build-out of Mariposa will increase total traffic on Unser west of US 550 to 18,400 vehicles per day. This traffic volume will require a four-lane section on Unser and the Northwest Loop between Osage and US 550. It is likely that this reach of Unser will have signalized intersections due to other development in the area.

An alternative to the widening of Unser Boulevard and the Northwest Loop Road west of US 550 is the possible future development of a new east-west arterial or collector street named Mariposa Boulevard that could connect Mariposa with US 550 through the State Land Office's Loma Barbon Property along the existing alignment of Osage. Initial discussions with the State Land Office have indicated a high level of interest in developing this future roadway corridor.

Rainbow Boulevard is anticipated to be extended from King Boulevard to Mariposa during the development of Planning Area 2. This analysis indicates that a two-lane roadway on Rainbow Boulevard will be sufficient to accommodate future Mariposa traffic at an acceptable level of service.

These results show that for the facilities evaluated (NM 528 approaching US 550, US 550 immediately east and west of the Unser Boulevard intersection (future Northwest Loop Road), and Interstate 25 north and south of the US 550 interchange), the existing or planned roadway sections will accommodate Mariposa traffic without the requirement of additional expansion.

The City of Rio Rancho is developing a Transportation and Circulation Plan to coincide with the development of the Vision 2020 Integrated Comprehensive Plan. This Transportation and Circulation Plan utilizes the regional travel demand model and includes the proposed Mariposa as outlined in this report. The City's Transportation and Circulation Plan provides a regional forecast of future travel demand for the City of Rio Rancho, including Mariposa. That analysis will be used by City Staff to verify long-range transportation improvement needs.

As the traffic demand model results are updated and evaluated by the City of Rio Rancho, additional analysis of future transportation needs may be submitted for review. As the development concepts become more finalized, and the projects request development and subdivision approvals, additional traffic impact analyses will be submitted to identify the actual required transportation system improvements at that time. Traffic impact analyses will need to be reviewed and approved by the City and the NMSH&TD.

Parking

Parking at Mariposa will generally be provided in conjunction with City of Rio Rancho standards. Within the community and regional activity centers, shared parking opportunities will be evaluated in order to insure that adequate parking is provided without consuming land with unneeded parking. Where required, all off-street parking lots will be visually screened from streets and adjacent land uses by lot walls and fences or landscaped berms, per the requirements of the Rio Rancho Zone Ordinance. Where feasible, on-street parking will be provided adjacent to non-residential land uses within neighborhood activity centers.

Maintenance

Infrastructure within Mariposa will be both publicly and privately owned and operated. Streets are generally planned to be public, constructed by the developer and dedicated to the City for maintenance upon completion.

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Drainage Management

Volume II of the Supporting Documents to the Master Plan contains the Conceptual Drainage Plan that identifies basic drainage management concepts, such as treatment of the major and minor arroyo corridors as well as the conceptual locations of possible drainage diversion structures and major detention facilities. The report has been coordinated with ongoing planning studies under contract to the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) related to the Montoyas Arroyo Watershed, within which more than half of the site lies. The report identifies all drainage basins; determines existing and developed flow rates; identifies major flood plains and prudent erosion setbacks within the property; and identifies concepts proposed for Master Plan improvements required to convey, contain, and control discharges at the property boundaries to pre-development flow rates.

The primary drainage management concepts utilized within Mariposa include the reduction of development discharges to match historical peak flows by water harvesting and individual site and community stormwater detention ponds. The Plan establishes prudent erosion setback limits to protect proposed development and to allow existing arroyos to function in a largely natural state and be maintained as open space corridors. Construction of structural improvements, including bank protection and grade control structures, will be constructed only where necessary to mitigate effects from increases in frequency of discharge from developed areas and at locations where existing arroyos may be proximate to proposed development.

Water Supply

The water supply system for Mariposa is sized to meet urban fire flow standards, in accordance with the Uniform Fire Code and Chapter 16 of the City of Rio Rancho Codified Ordinances, for both storage and supply. Mariposa anticipates obtaining water service from the City of Rio Rancho. Annexation negotiations and the development agreement for the project will refine the details for making 204 acre-feet per year of consumptive water rights available to the City of Rio Rancho. Water for domestic and non-residential uses within Mariposa has been estimated based on the anticipated implementation of effective water conservation measures.

Water conservation measures proposed for implementation at Mariposa include the installation of low water use plumbing fixtures for homes, water-conserving practices for commercial uses, and exterior landscape designs that use xeriphytic plants and native vegetation (e.g. xeriscape). Another water conservation effort that is proposed at Mariposa is the use of rainwater harvesting techniques for residential, commercial, and recreational areas. Rainwater harvesting techniques are recognized for their conservation potential by providing supplemental water for landscape purposes while reducing potable water demand. An additional water conservation measure that should be evaluated during the planning phases of Mariposa is the potential use of treated wastewater for public landscape irrigation requirements.

Infrastructure planning for water and wastewater improvements for the Mariposa project has been performed in consideration of and in coordination with the requirements of other future and potential development within the City in the vicinity of the project. Existing City of Rio Rancho water supply infrastructure does not currently extend into Mariposa. However, water can be supplied to the initial stages of development within Mariposa from existing water supply infrastructure in the vicinity.

Initial water supply for Mariposa and other growth in this portion of the City is provided by an existing well, owned and operated by the City of Rio Rancho, which is adjacent to the southeast boundary of the property. This well, designated by the State Engineer's Office (SEO) as RG-6745-S15 and named Well 15, currently pumps to the City's Reservoir 15. The capacity of the well is approximately 500 gallons per minute.

A second source of water to meet water supply needs in the area is a new well that could be drilled using permit RG-6745-S23; the closest proposed well site to Mariposa. Well permit RG-6745-S23 is one of 12 additional well sites described in the current diversion request recently approved by the SEO, which was made by the City of Rio Rancho in 1993.

A possible third source of water supply for this portion of Rio Rancho includes pumping water from Well 12 through a series of pump stations and transmission lines through Enchanted Hills. A new pump station at Reservoir 12B and transmission waterline between that reservoir and Reservoir 15 would be required. This connection would integrate all of the City's water supply facilities in the area into a single system.

Mariposa lies at a higher elevation than Reservoir 15. Therefore, water must be pumped from Reservoir 15 to the site. Mariposa Planning Area 1 contains topographic relief that will facilitate the placement of a new reservoir that will provide gravity service for the majority of the community, as well as additional future development in the vicinity through pressure reducing stations. The proposed Mariposa Reservoir 1 has been conceptually sized based upon projected water storage requirements within Mariposa of approximately 1.0 million gallons. In order to provide additional fire storage as well as additional domestic water supply for other future development in the vicinity, it may be advantageous to construct Mariposa Reservoir 1 with a total volume of approximately 1.5 million gallons. The Public Facilities exhibit shows the sizes and locations of the proposed major public water supply facilities.

Based on existing topography, Planning Area 1 is divided into three pressure zones in accordance with existing City of Rio Rancho pressure zones. The highest pressure zone will be served in the interim by a closed loop pressurized pumping system, while the lower zones will be pressurized by gravity from the proposed water storage reservoir. Future development of additional water storage within Planning Area 2 will allow this area to be served by gravity, which will allow the removal of the closed loop pumping system. The water storage reservoir is proposed to be a buried concrete facility, which will mitigate visual impacts.

Additional water supply infrastructure, including wells and reservoirs, will be required to provide water supply, storage, and distribution service to the western portion of Mariposa. Two additional reservoirs have been conceptually sited based upon topography and conceptually sized based upon the projected development program for Planning Area 2 and other possible future growth in the vicinity. One of these reservoirs is located within the north-central portion of Planning Area 2 at an overflow elevation of approximately 6195 ft. Subject to lease agreements and other conditions that may be negotiated, an additional reservoir could be located within property owned by the State Land Office north of the northwest corner of the Mariposa property. This additional reservoir could serve by gravity the remaining pressure zone in the northwest portion of Mariposa, as well as the State Lands north of Mariposa.

City Approval

Although much conceptual water supply planning has been accomplished in coordination with the City of Rio Rancho, all water supply concepts and infrastructure reasonably necessary to supply the needs of Mariposa will be more fully developed in consultation with the City of Rio Rancho and all final infrastructure designs and specifications will be approved by the City of Rio Rancho.

Wastewater

The issue of wastewater collection and treatment for Mariposa presents several challenges and opportunities due to the highly variable terrain and multiple drainage basins contained within the property. The property is divided into four distinct watersheds and numerous smaller drainage basins for the purposes of both rainfall runoff and wastewater collection. Mariposa Planning Area 2 is largely within the Montoyas Arroyo watershed, which drains to the southeast toward the central part of the City of Rio Rancho. Most of Planning Area 1 is located within the Barranca and Venada Arroyos, which drain separately to the Rio Grande. The northeastern portion of Planning Area 1 is located within a tributary of the Jemez River, which drains across the Zia and Santa Ana Pueblos to the river.

On-site Treatment and Disposal

Mariposa will not contain domestic residential wells or septic systems unless approved by the City, so long as the City provides water and wastewater treatment services to the Project. Within the drainage basins of Mariposa Planning Area 1, wastewater from individual lots is proposed to be collected via gravity collection systems where feasible, or by low pressure collection (SDPS) systems, driven by individual grinder pump lift stations on each lot, that discharge into the gravity collection system where topography and arroyo configuration precludes use of gravity systems. Maintenance of the individual grinder pump lift stations is the responsibility of the individual homeowner.

Initial discussions with the Water Utilities Department have resulted in the conceptual planning of a wastewater treatment facility to be located within a parcel of approximately 28 acres in the extreme northeast corner of the Mariposa property. This facility will be designed and constructed in such a way as not to preclude, nor add substantial additional remodeling costs to, future expansion of the plant by other developers or the City. One advantage of this location is that discharge of treated effluent from the facility may provide recharge potential for the Jemez River watershed.

Subject to approval by the City and the New Mexico Environment Department, at this time, the proposed methods for wastewater treatment at this facility consist of an activated sludge facility operating in batch mode (SBR), coupled with an aerobic sludge digestion system. Use of SBR technology will allow construction of the treatment facility in phases or modules, in response to growth within the area.

Following treatment, effluent may be discharged via a leach field during the early stages of development, followed by a combination of strategic and beneficial irrigation and land applications and recharge. Sufficient property exists at this site to provide the potential of developing recreational fields, which may be used for land application of treated effluent. The City of Rio Rancho is in the process of studying the feasibility of the reuse of treated effluent from all of its wastewater treatment facilities citywide. Subject to approval by the City of Rio Rancho and the Environment Department, treated effluent from the proposed Mariposa facility could also be reused by land application through spray and drip irrigation on parks, recreational fields, and public and common landscaping.

System Components

The irrigation system components will depend on the decisions made for the enhanced treatment of effluent supplies. Enhanced treatment will be required for above ground irrigation in populated areas. Secondary treatment of effluent for sub-surface systems may be adequate for the establishment of trees and shrubs, but should not be used for turf areas. In the case of turf irrigation, additional treatment prior to application of effluent is required. Enhanced treatment to meet these requirements can be achieved through wetland treatment, filtration or soil aquifer treatment through the use of recharge basins. Water recovery from wetlands or recharged areas can be designed to irrigate turf and other landscaped areas.

Distribution, Source and Quality

The distribution of the effluent irrigation system will be primarily for interior parks, common areas, schoolyards, and medians. Depending on the treatment and irrigation system selected for use, the source of the treated effluent may vary. For example, sub-surface irrigation systems for medians may not require more than the secondary treatment standards capable of being met by the planned wastewater treatment facility (WWTF). In this case, the WWTF would be the direct supply source. For open access irrigation systems such as those found in parks and schoolyards, additional treatment by wetlands or filtration may be desired.

Mariposa Planning Area 2 primarily lies within the Montoyas Arroyo watershed. It is anticipated that the pace of future growth, technology, management and maintenance issues within the City will provide the direction for future planning and design of the most appropriate facilities for wastewater collection and treatment. Several options currently exist for the collection, treatment, and disposal of wastewater generated within this portion of the development:

1. The wastewater collected from this area could be designed to discharge to the City of Rio Rancho's sewer system via a sanitary sewer interceptor from Mariposa to connect to existing facilities within the Northern Meadows Subdivision. Additional sewer line upgrades may be required to provide capacity to convey the additional flows downstream to the City's Sewer Plant No. 2. Further studies should be performed at the time of subdivision development to identify system capacities and required system upgrades.
2. An alternative to upgrading this plant and sewer interceptor lines would be to pump the effluent from Planning Area 2 to the proposed Mariposa treatment plant.
3. A new wastewater treatment facility could be designed and constructed within Planning Area 2 or the adjacent land owned by the State Land Office. A future plant within this area would provide a means for more efficient reuse of treated effluent within the boundaries of Mariposa.

City Approval

Although much conceptual wastewater planning has been accomplished in coordination with the City of Rio Rancho, all wastewater treatment concepts and infrastructure reasonably necessary to serve the needs of Mariposa will be more fully developed in consultation with the City of Rio Rancho and all final infrastructure designs and specifications will be approved by the City of Rio Rancho.

Utilities

Infrastructure at Mariposa will support state of the art communication services while preparing for tomorrow's advances in technology. This commitment to providing the systems infrastructure and site specific frameworks for the most advanced available technology results from the knowledge that improved communications services will enable residents and businesses to thrive at Mariposa.

Technology

Advanced communications components of development at Mariposa may include the following:

- Bundling of utility and technology services to provide connectivity inside and outside of the home.

- Inside of structures, this might include the construction of wiring systems in homes and businesses that enable the linking of various electronic equipment such as computers, printers, televisions, security systems and monitors.
- In the larger realm of systems infrastructure, this might include the bundling of services such as telephone, internet service provision, and high speed data connections. Additional services, such as cable television, electrical power, gas, digital satellite services and medical monitoring, might also be included a community technology infrastructure package.
- Creation of a Mariposa intranet site with links to facilitate services such as rideshare programs, distance learning, events calendars, newsletters, and links to related sites such as schools, health services etc.
- Installation of oversized telecommunications conduits to be able to deploy and adapt to future technological advances.

Telephone

Qwest will provide telephone service through conventional telephone lines unless a comprehensive communication and data service is provided by another company.

Existing fiber-optic telephone lines owned and operated by Qwest currently serve the National Guard Patriot Missile Battalion. Qwest is planning to extend a fiber-optic loop throughout the northwest quadrant of the state, which is anticipated to increase voice and data handling infrastructure capacity to rural areas and remote municipalities along the US 550 corridor and the Four Corners area.

Cable

Cable One will provide cable television service to Mariposa through conventional buried cable lines unless a comprehensive communication and data service is provided by another company. Cable One is the exclusive cable television service provider in Rio Rancho, and does not provide service to any other jurisdiction. They currently provide only cable television service, although they may provide digital and internet service in the near future.

Electric and Gas

Public Service Company of New Mexico (PNM) will provide electric and gas service to the site. Any discussions regarding the bundling of utility and technology services will have to include negotiations with PNM.

Initial meetings with the Public Service Company of New Mexico have revealed that three-phase electric distribution lines exist adjacent to the eastern boundary of the property. Electric service is currently provided to the National Guard Patriot Missile Battalion and to the existing City of Rio Rancho Well No. 15 near

the east boundary of the project. These existing electric distribution lines have limited excess capacity but are capable of providing electric service to the first few years of development. In addition, PNM recently completed a new substation within the Enchanted Hills Subdivision development approximately five miles east of the Mariposa property.

Long-range planning by PNM has also identified the need to install two new substations within the area bounded roughly by Progress Boulevard, US 550, and the city limits, as well as a new 115kV transmission line loop that will connect these two new substations into the existing grid. One substation site is needed in the area near the northeast corner of the Mariposa property. An additional substation and switching site is anticipated adjacent to the existing 345kV transmission lines near Progress Boulevard at either Unser Boulevard or Rainbow Boulevard. Further discussions with PNM are ongoing to assist in the identification of possible corridors for the future 115kV transmission line loop.

PNM is also actively investigating the possibility of generating wind power and including wind generated power on their grid. Using wind-generated power, which uses significantly less water and is considered a clean renewable resource, would be consistent with the principles of Mariposa. Currently, there is no way for PNM or other New Mexico Utilities to charge a premium for renewable energy or to give credit to a renewable energy generator. However, the Public Utilities Commission is currently involved in developing rules for renewable energy projects within New Mexico and hopes to have a proposal before the legislature by January 2002. High Desert will continue discussions with PNM on the opportunities for supplying approximately 10% of the community's power needs with wind-generated power.

Existing natural gas facilities have been constructed to serve the National Guard Patriot Missile Battalion. These existing facilities will be extended to serve Planning Area 1. Future service to Planning Area 2 can be provided by extending existing facilities north within Unser and Rainbow Boulevards.

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Fiscal Analysis

Sedway Group, High Desert's economic consultants, conducted a detailed Fiscal Impact Analysis of Mariposa. The purpose of the Fiscal Impact Analysis was to determine the Project's net impact on the City of Rio Rancho, by comparing the public revenues it would generate with the capital and operating costs it would impose. The requirement for such analyses is relatively new and is included as one of the requirements of the Vision 2020 Integrated Comprehensive Plan. The Fiscal Impact Analysis for Mariposa was submitted to City staff for review in February 2001.

Assuming annexation, the Analysis calculated the net fiscal impact on the City of Rio Rancho for each of the two phased Planning Areas and upon the full build-out of 6,825 residential units and approximately 1.0 million square feet of commercial space. Sedway Group's full fiscal impact report (dated February 6, 2001) is included in Volume One of the Supporting Documents to the Mariposa Master Plan. The conclusions of this study are summarized below.

Summary of Findings

The Mariposa project is anticipated to generate substantial fiscal surpluses to the City, both on an ongoing or annual revenue basis, and with regard to one-time fiscal impacts at its initial development. This positive outcome is projected for each of the two phases or Planning Areas, and consequently for the project as a whole.

Upon project build-out, annual revenues accruing to Rio Rancho funds are estimated to total \$8.0 million, while costs are estimated at \$5.2 million, indicating a net positive fiscal impact of \$2.8 million per year. In other words, upon build-out, the project would pay its way comfortably, generating a substantial annual surplus to various City of Rio Rancho funds. Approximately \$1.1 million of the annual net fiscal impact would be generated in Planning Area 1, while \$1.7 million would be generated in Planning Area 2.

One-time revenues are estimated at \$51.9 million, while one-time costs are estimated at \$25.9 million, indicating net one-time revenues to the City of \$26.0 million. Most of this revenue (\$43.4 million) would be in the form of one-time gross receipts taxes associated with the initial sale of the homes. The balance (\$8.5 million) reflects one-time impact fees associated with City parks and public safety, and assumes the City will charge the full Park and Recreation and Department of Public Safety impact fees. Assuming that High Desert deeds land to the City for its facilities, these cash fees should arguably be reduced by the value of the land donated to the City for these department's facilities. The fiscal analysis assumes that land is donated to the City for all public facilities on-site. Assuming these impact fees were waived as a result of a land donation to the City, the one-time revenues would be reduced to \$43.4 million, resulting in a one-time net impact of \$17.5 million. The project would also benefit Sandoval County, generating an estimated \$3.1 million in annual revenues and \$4.1 million in one-time revenues to various Sandoval County funds. Sedway Group did not estimate the County's cost, if any, to service the project.

Methodology

Sedway Group conducted a detailed conventional Fiscal Impact Analysis, that examined the cost to provide City services to the Project and compared these costs with the anticipated revenues generated by Mariposa. The difference between these two figures constitutes the "net" fiscal impact of the Project to the City.

The assumptions used in the Study were based on rigorous market research and analysis, as well as Sedway Group's significant experience conducting fiscal impact analyses for both public and private sector clients for a variety of land uses. Whenever there was a question or doubt about a cost or revenue assumption, Sedway Group elected to use the more conservative assumption. As a result, potential revenues may be understated, while costs may be overstated, resulting in a relatively conservative Analysis.

This Analysis calculates the costs and revenues impacting the City of Rio Rancho General Fund. The major revenue categories include property taxes, gross receipt taxes, franchise fees, license, permits, and grants, public safety, parks and recreation, and fines and forfeitures. The major cost categories for the City to provide services to the Project include public safety, parks and recreation, libraries, road maintenance, senior center, and governmental overhead.

Research for the Fiscal Analysis included contacting the City Administrator to discuss the scope of the Mariposa development and to get the City's input on appropriate revenue and expense categories impacting the General Fund. This information was forwarded to the various City departments, who in turn estimated both the service standards and the costs of providing services to the Project. Sedway Group then contacted the heads of the impacted City departments to discuss the staffing, equipment, and capital costs associated with the Project. Research for the analysis was conducted with the cooperation of and with significant input from City staff.

Revenues were estimated by Sedway Group based on substantial market research, a review of the City of Rio Rancho budget, discussions with the City's Finance Department, and a review of data in Sedway Group's library and other sources. For additional information regarding the assumptions used in this Analysis, please refer to the Exhibits contained in the full report in Volume II of the Supporting Documents to the Master Plan.

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Objective

High Desert intends to create a program that assists those employed in Rio Rancho and the surrounding region, who might not otherwise be able to afford it, to purchase a home in Mariposa.

The objective is the creation of a practical, workable, and durable program that allows for the achievement of the goal of ensuring the existence of housing for a diverse population without the creation of clusters of lower priced homes. This goal includes avoiding the negative stigma that is often attached to subsidized housing and facilitating pride in each and every owner's home within Mariposa.

Program Components

At this time, High Desert is considering a variety of structures to assure the long-term viability of a workable obtainable housing program. In order to purchase a home in the obtainable housing program, the potential purchaser must qualify under specific income and employment factors.

Purchases of homes in the program may be subsidized and at least a portion of any gains realized on the sale of a home in the program may be used to continue financing the program. The program may claim all of the gains from the sale of a home or allow the owner to share in the gains.

A nonprofit, tax exempt entity may be created that will have administration of the obtainable housing program as one of its duties. This entity might be either the Mariposa Community Council or the Mariposa Community Foundation referenced in Section 12, Governance.

The specific terms of the obtainable housing program, from who may purchase to how gains will be determined and collected, will be set forth in the recorded covenant running with the land. This covenant will bind the home and the owner to their part in the obtainable housing program and enable enforcement of its terms.

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Introduction

Mariposa promises to be a place that is a "model of community and sustainable development." But this promise raises a series of questions: How is this model to be created, enforced, and perpetuated? Who makes sure that High Desert Investment Corporation and its successors continue to follow the goals set forth in this document and in other commitments as to operation, design, programs, and the environment?

The answer lies within Mariposa's governing structure and a framework of documents that will provide structure to the community. Mariposa's governing structure encompasses several New Mexico nonprofit organizations and such key documents as the Covenant for Community for Mariposa ("Covenant") and the Community Charter for Mariposa Residential Property ("Charter"); it also may include the Charter for Mariposa Commercial Property ("Commercial Charter").

When recorded in the land records for Sandoval County, these documents will become enforceable covenants running with the land under New Mexico law. These documents create opportunities for community growth and set forth the responsibilities of Mariposa property owners, they provide guidance and institute limitations and procedures for development and operation of Mariposa, and they outline the structures of the entities creating the governance for Mariposa.

This section introduces Mariposa's governing structure by explaining each governing entity's role in the community and the governing documents used to carry out such role.

Objectives

The objective is the creation of a practical, workable, and durable structure to govern the community, with the power to make Mariposa a reality for now and the future. This structure is intended to guide all owners and occupants of commercial and residential property, regardless of type or use, in the achievement of the goal of building a cohesive community and sustainable development. Mariposa and interested third parties need guidance, procedures, and mechanisms that are clear and easy to implement and to enforce.

Goals must be clear. Procedures must be logical and easy for people to understand. Responsibility for the community's different needs, such as maintaining parks and walkways, creating community programs, or enforcing design guidelines, must be allocated to entities with enough power to perform their duties. Enforcement of guidelines, rules, and restrictions intended to create parameters must be institutionalized. The goal is to provide the best possible workable and practicable assurances that community building, environmental, and operational commitments made by Mariposa's developer are carried out both short and long-term.

City of Rio Rancho

It is important to recognize that the laws of the City of Rio Rancho and the State of New Mexico govern Mariposa. The covenants set forth in Mariposa's governing documents operate independently of and in addition to the City of Rio Rancho zoning and subdivision ordinances and other related City of Rio Rancho ordinances and regulations, but will not supplant City, County or State law, ordinances or regulations. While the Mariposa governance model ensures far more restrictive controls than the City would otherwise be able to impose, and it cannot require less restrictive controls, Mariposa will, in all ways, be a part of the greater Rio Rancho community.

Governance Structure Components

The Covenant is one document which will govern all of the property within Mariposa. This document is similar in its basic nature to planned community covenants, conditions, and restrictions in that it will be recorded in the property records for Sandoval County. However, it exceeds the parameters of traditional planned community covenants because it provides specific tools and guidelines for building a sense of community and promoting environmental preservation within Mariposa. It also provides mechanisms for connecting Mariposa to the greater Rio Rancho area.

Additionally, there are subordinate but supporting documents and covenants that will play important roles. These include the Standards and Guidelines for Sustainability and the covenants as discussed below.

As defined below, the developer will organize the Mariposa Community Council to perform the duties and responsibilities discussed in the Covenant and to act as a unifying entity for all of Mariposa. In essence, this entity either carries out the directives contained in the Community Covenant or has the power and financial capability to enforce it against others who are bound by its terms. Please see below for additional discussion of the nature of the Mariposa Community Council.

A community association focused on addressing the needs of the residential properties will be created, and a commercial association may be created to address the needs of the commercial properties, as well, once those needs are identified. Each association will enforce the covenants recorded against property in its jurisdiction, in addition to complying with the provisions of the Covenant. Finally, a community foundation will be formed to benefit Mariposa and the greater Rio Rancho region by promoting charitable, educational, or environmental activities and programs.

Administering the Community

Mariposa Community Council

The Mariposa Community Council, Inc. ("Council") will be an independent, New Mexico nonprofit corporation that may file for tax-exempt status under Section 501(c)(4) of the Internal Revenue Code. The Council will play an oversight and unifying role in Mariposa to ensure that the Covenant's terms are carried out, not just for the benefit of Mariposa but also for the greater common good and benefit of the greater Rio Rancho community.

The Council's governing documents, which include the Covenant and the Articles of Incorporation and By-Laws of the Council, will authorize the Council to oversee all of Mariposa's community building initiatives within the parameters of New Mexico law and Section 501(c) of the Internal Revenue Code. It will serve as the unifying organization for everyone living and working in Mariposa, unlike other Mariposa governing entities, which will be organized to administer specific portions of Mariposa. The Council will work in cooperation with these other governing entities for the purpose of collecting assessments, implementing community-wide transportation, conservation, and community building initiatives and to implement a state-of-the-art technology system.

In addition to the above, The Council will fund the operation of various community building initiatives and activities, such as creating a community Intranet system, fostering volunteerism, and creating youth programs. It also will engage in a variety of sustainable development and living programs for Mariposa, i.e., recycling and water conservation programs. The Council also may be involved in creating an accessible housing program for qualifying individuals who work in the Rio Rancho area.

A Board of Trustees, comprised of three to seven people, will run the Council. High Desert Investment Corporation, as the founder of Mariposa will select the Trustees in accordance with the Council By-Laws and to ensure that they have an appropriate level of knowledge of community issues and the administration of a tax-exempt organization. Although space is reserved for resident and business owner representation on the Board, Trustees will also be selected for their commitment to the mission of the Council. The Council's Board of Trustees may consist of architects, sociologists, psychologists, naturalists, conservationists, and geologists or any other individual dedicated to furthering Mariposa's commitment to sustainable development, operation, and creation of a vibrant community life.

The Covenant will contain assessment and fee provisions to provide for the Council's monetary needs. The Council will also accept donations to help fund its activities. These funds will be available to further the purposes, directives, and programs as discussed above. In addition to the funding mechanisms outlined in the Covenant, the Council may collect a fee from the transferring owner of property subject to the Covenant when the title to such property is transferred to a subsequent owner.

Mariposa Community Foundation

The Mariposa Community Foundation, Inc. ("Foundation") will be an independent, nonprofit, tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code and will provide additional programming and activities to benefit such areas of community life as education, environment, culture, and any other tax-exempt purpose for the benefit of Mariposa and the greater good of the Rio Rancho community.

The Foundation also is intended to administer programs within the community that are designed to benefit the community, such as recycling programs to minimize solid waste, programs to foster the use of transportation that is not dependent on fossil fuels, and programs that focus on the cultural aspects of the Rio Rancho, New Mexico area, including backgrounds of the people that influenced its history. The Foundation may work in cooperation with the Council to further these initiatives.

A Board of Trustees, comprised of three to five people, will run the Foundation. High Desert Investment Corporation will select the Foundation's Trustees to ensure that they have an appropriate level of knowledge of community issues and the administration of tax-exempt organizations. Trustees will be selected for their commitment to the Foundation's mission and to furthering its purposes and goals.

The Charter and, if created, the Commercial Charter, will contain assessment provisions to provide for the Foundation's monetary needs. The Foundation will also accept donations to help fund its activities. In addition to the funding mechanisms outlined in these documents, the Foundation may collect a fee from the transferring owner of property subject to the residential and commercial charters when the title to such property is transferred to a subsequent owner.

The Role of Associations

Associations typically provide services, enforce covenant restrictions, collect assessments and maintain common areas for the benefit and enjoyment of those subject to its jurisdiction. The Mariposa Community Association, Inc. ("Association"), a New Mexico non-profit corporation will be formed to specifically oversee Mariposa's residential properties to provide for the eventual self-government of its members. An association may be formed to oversee Mariposa's commercial properties and to provide representation for commercial owners and residents. Each association will work in cooperation with the Council to ensure Mariposa's community-wide standard, further Mariposa's community mission statement, collect assessments and enforce certain covenants on behalf of the Council.

Residential Association

Mariposa's residential association will focus on administering the Charter and overseeing residential property. Homeowners will be assessed according to an annual budget prepared by the Association, and such assessments shall be used to maintain common area and facilities owned by the Association. The Association will be authorized to enforce covenants against owners within its jurisdiction, including filing a lien against the property of any owner who is delinquent in paying assessments. The Charter will require compliance with the Covenant.

Sustainability Review Board

The Sustainability Review Board (SRB) is responsible for regulating construction activity, overseeing implementation of the Natural Resources Management Plan, and maintaining the Standards and Guidelines for Sustainability. The SRB will maintain and modify the Standards and Guidelines for Sustainability as necessary to address new issues if and as they arise. For example, new issues might include improvements in lighting technology that better protect the night sky or addressing a new form of signage that is not exactly restricted but violates the "spirit" of the Standards and Guidelines for Sustainability.

As part of its duties under the Charter, the SRB will review plans and specifications for any new buildings or architectural modifications to existing structures. Examples of modifications include lights, signs, exterior building colors, and landscaping. The Charter will permit the SRB to charge a reasonable fee to cover any costs it incurs in reviewing the plans, which can include hiring architects and other experts to help review the plans.

The SRB will consist of three to five members, initially appointed by High Desert Investment Corporation.

Commercial Association

A commercial association also may be formed. If created, the commercial association will be organized under New Mexico nonprofit corporation laws and will fulfill the functions of a merchants association. The issues discussed in the preceding paragraphs applicable to the residential community association would apply. The commercial association would have its own covenants and easements and would be fully authorized to assess and to expend funds for the association's purposes. The Commercial Charter would require compliance with the Covenant. Commercial owners will be bound by property deed restrictions in addition to or in the absence of a Commercial Charter.

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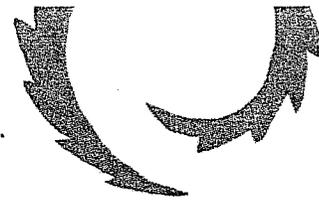
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Definitions

1. **Building Front:** The side of a building that contains the main entrance for pedestrian ingress and egress, and often faces the street or access easement.
2. **Building Height:** The vertical distance from the lowest pad elevation to the highest point on the building, or for development on unimproved or sloping lots, the vertical distance measured from the lowest natural grade adjacent to the structure to the highest point on the building.
3. **Building Envelope:** An area prescribed on the plat of an individual lot which limits development of the lot in response to topographic, drainage, and other natural features of the site and replaces the standard City of Rio Rancho building setback requirements as prescribed in the City of Rio Rancho Planning, Zoning and Land Use Management Ordinance for the Estate and R-1 classifications. No part of the residence (including garage, porch, attached or detached structure), wall, fence, non-native landscaping, artwork or sculpture, bench, picnic table or improved yard may be located outside the Building Envelope or encroach through a plane which extends vertically from the Building Envelope. Building Envelopes will be located a minimum of twenty (20) feet from the front and rear property lines and ten (10) feet from the side property lines. Any disturbance outside a Building Envelope created during construction must be restored to natural or near natural condition. The following improvements are allowed outside a Building Envelope: driveway from street (and associated culverts, guest parking, turning area, etc.), sidewalk from street, underground utility connections (water, sanitary sewer, electric, gas, telephone, cable TV, etc.), above ground utility improvements (such as meters, transformers, etc.), mailbox, landscape irrigation, native landscape material, natural material retaining walls and water harvesting/drainage improvements.
4. **Dwelling Unit:** One or more rooms, a single kitchen or cooking accommodation, and a bathroom in a single-family dwelling, apartment house, or hotel designed as a unit for occupancy by one family for living and sleeping purposes.
5. **Easement:** A space on a lot or parcel of land reserved or used for location of and/or access to utilities, drainage, or other physical operations on the land.
6. **Floor Area Ratio:** The total area of a building measured by taking the outside dimensions of the building at each floor level intended for occupancy or storage, but excluding courts, carports and garages used for the parking of motor vehicles.
7. **Grade:** The average level of the finished ground surfaces surrounding a building.

8. Gross Area: The total horizontal area within the lot lines of a lot or parcel of land before public streets, easements, or other areas to be dedicated or reserved for public use are deducted from such lot or parcel.
9. Lot Coverage: That portion of a lot or building site that is occupied by any building or structure, excepting paved areas, uncovered parking areas, driveways, walks, lanais, terraces, swimming pools, and landscaped areas.
10. Lot Depth: The average horizontal distance between the front and rear lot lines measured in the mean direction of the side lot lines.
11. Lot Line, Front: On an interior lot shall mean the property line abutting the street. On a corner lot, the front lot line is the shorter property line abutting a street, except in those cases where the subdivision or parcel maps specifies another line as the front lot line.
12. Lot Line, Interior: A lot line not abutting a street.
13. Lot Line, Rear: A lot line not abutting a street that is opposite and most distant from the front lot line.
14. Lot Line, Side: Any lot line that is not a front or rear lot line.
15. Lot Width: The horizontal distance between the side lot lines, measured at right angles to the lot depth at a point midway between the front and rear lot lines.
16. Net Area: The total horizontal area within the property lines of a lot or parcel of land excluding all vehicular access ways except those private easements which serve as primary access to no more than four individual lots or parcels.
17. Setback: The distance between the established lot line and any building.
18. Sustainability Review Board: Shall have the responsibility for the regulation of construction activity and maintenance of design guidelines. The Sustainability Review Board will maintain and modify the design guidelines as necessary to address new issues if and as they arise.
19. Community Association: Shall provide services and administer common areas for the residents' or commercial owners' benefit and enjoyment. A Community Association will be formed to provide for the owners' needs and to empower the owners to have self-government subject to the two primary sustainability covenants and the various provisions targeted for the community associations themselves.

20. Life-cycle Analysis: One method for analyzing the long-term environmental implications of a policy or decision. The analysis "...involves carrying out an inventory of the main impacts associated with the manufacture, use and disposal of a product, from the mining of the raw materials and the energy used in its production and distribution, through to its use, possible re-use or recycling, and eventual disposal." Stead, Dominic, 1995. "The Purchase Audit." A Guide to Local Environmental Auditing, edited by Hugh Barton and Noel Bruder, London: Earthscan.



MARIPOSA

New Mexico

A High Desert Community

MARIPOSA EAST

MIXED USE ACTIVITY CENTER

MASTER PLAN DESIGN AND DEVELOPMENT
GUIDELINES

INTRODUCTION TO MARIPOSA

A resource as precious as the land which comprises Mariposa demands the utmost sensitivity. Years of exacting analysis, planning, design and exhaustive review were applied to determine the feasibility of integrating an active community within this delicate desert ecosystem.

The mandate set for Mariposa is to achieve "sustainable development." Sustainable development is a concept defined by the United Nations Commission of the Environment as achieving stability for both physical and social systems by meeting the needs of current generations without compromising the ability of future generations to fulfill their needs.

At Mariposa sustainability means design and construction in ways that are intended to preserve the resources, ecosystem and natural beauty of the property. Development will respect nature. A large percentage of the land will remain untouched in order that the rich habitats for plants and animals may continue to thrive. Most arroyos will remain in their natural state with only the vegetation enhanced to increase the wildlife habitat.

Conservation systems are designed to yield improved quality of life and sustainability. Water harvesting, use of treated effluent for all common area irrigation and conservation goals will contribute to a continuing and plentiful supply of quality water. The application of design shall strive to enhance the visual and air quality at Mariposa through sensitive siting of homes and buildings, landscaping, use of lighting and construction standards. In addition, an extensive network of trails and pedestrian connections are planned to encourage fewer automobile trips within the community.

Preserving the Vision

The mixed use area will be governed by several documents, which include the Community Design Standard (“Design Standards”) and The Design and Development Guidelines for Mariposa East Activity Center District (“District Guidelines”).

The purpose of the Design Standards is to provide developers with suggestions and requirements, to help them understand the requirements, best practices and development process in Mariposa. The objective is to create a community that is livable, sustainable and preserves the vision of Mariposa. The prescription for designing and building a community, which will truly be sustainable, are set forth in the Design Standards and in these District Guidelines. These criteria are provided as a starting point for developers and High Desert Investment Corporation (“High Desert”) to collaborate in preserving the vision for this remarkable community. Our goal is to make Mariposa one of the most desirable places to live in the Southwest — a community that balances the needs of the homeowner with a concern for the future of environment.

These District Guidelines may be amended from time to time by High Desert; provided, however, any amendments to the guidelines shall be subject to and shall not be effective without, the prior approval of the City Development Director, or the Planning and Zoning Commission, should the director so determine.

Role of High Desert

High Desert is the creator of the 1000-acre, award winning sustainable community of High Desert, located the northeast side in Albuquerque, adjacent to the Cibola National Forest and Sandia Mountain Wilderness, as well as Mariposa.

High Desert's approach to the development of land reflects commitment to community and deep concern for the environment. High Desert intends to make a major contribution to the quality-of-life in Rio Rancho and the surrounding region by continuing to set the standard for sustainable and sound planning and development.

Mariposa Master Plan and Development Agreement

Upon meeting the applicable goals of the 1991 Comprehensive Plan and the Vision 2020 Plan, the Mariposa Master Plan was adopted by the City of Rio Rancho on February 13, 2002. Shortly thereafter, the Mariposa Development Agreement was executed which, among other things, clearly states that the Master Plan shall serve as a guide for the zoning and development of the entire property. The Master Plan includes a Mixed Use area in Mariposa East, which is subject to these Guidelines.

Mariposa East Mixed Use Activity Center District

The Mariposa East Mixed Use Activity Center District is comprised of approximately 59 acres located at the western end of Mariposa Parkway. It is zoned MU-A and is classified as a Community Center under Section 9-1-31-F of the Rio Rancho Zoning Ordinance. This document is the Design and Development Guidelines for the Mariposa East Activity Center District ("District Guidelines") and once approved by the City these along with the "Master Plan", as defined in the MU-A zone, will be used as the guide of development of this area. High Desert will review and approve any site development plans prior to the submittal to the City. Per the City of Rio Rancho requirements, the City Director of Development will approve the site plans.

There are several "districts" within the Mariposa East Mixed Use Activity Center District, as shown on the attached exhibit titled district map, that have different requirements as listed in these District Guidelines and they are as follows:

Town Center - approximately seven acres located at the northwest corner of Mariposa Parkway and Academy Road.

Public Park - just west of the *Town Center*

Community Center - just west of the *public park*

General Mixed Use - the remaining MU-A zoned property

The intent of the MU-A classification in Mariposa is to:

1. Encourage a greater intensity of development in order to attract the people and commerce necessary to create a vibrant and diverse urban center;
2. Encourage a blending of residential, civic, commercial and office uses that will trade horizontal distance for a vertical mixture of uses;
3. Encourage a mixture of service and employment uses so that residents will have the opportunity to work as well as shop and play within walking distance from their houses, and
4. Encourage planning, design and detailing that reflects the needs of pedestrians, establishes multi-modal circulation opportunities, and creates memorable civic spaces.

Land Uses

Under the definition of a Community Center in the Mixed Use Activity zoning the following uses are permitted.

Residential (Multifamily and Single family)

Commercial:

- Bed and Breakfast Inns

- Boarding or rooming houses

- Clubhouses or buildings for fraternal organizations and non-profit organizations

- Hotels

Retail Sales of the following goods, provided there is no outside storage or activity except for parking:

- Arts and crafts objects, supplies, plus their incidental creation

- Books, magazines, newspapers, and stationery

- Cosmetics, notions and hobbies supplies

- Drugs, medical supplies

- Flowers and plants

- Food and drink for consumption on premise or off, but not drive in restaurants

- Jewelry

Services:

- Barber and beauty

- At home day care, day-care centers and nursery schools

- Dry cleaning station (no processing) and self service laundry

- Instruction in dance, arts or crafts

- Interior Decorating

- Photography

- Repair Shops including automobiles

Undertaking Establishments

Neighborhood gasoline Stations

Stalls or merchandize stands for outdoor sale of goods at street front

Offices:

Businesses and professional offices consistent in use and scale with the purpose, goals and objectives of the Mixed Use District

Research and development excluding those that could be a nuisance or hazard to the surrounding neighborhood

Medical Complexes, professional offices associated with medical complexes

Veterinarians with overnight kenneling facilities for medical purposes only (no boarding kennels)

Civic, Religious and municipal uses

- Libraries, public parks and village squares

- Churches

- Schools

- Public Utilities, provided they are located underground

- Parking Structures

Conditional Uses:

Temporary structures and enclosures used in construction of a building and used for storage of equipment and material. Such structures must be removed after the specific construction project is completed and not to remain in the premises for more than one month after completions.

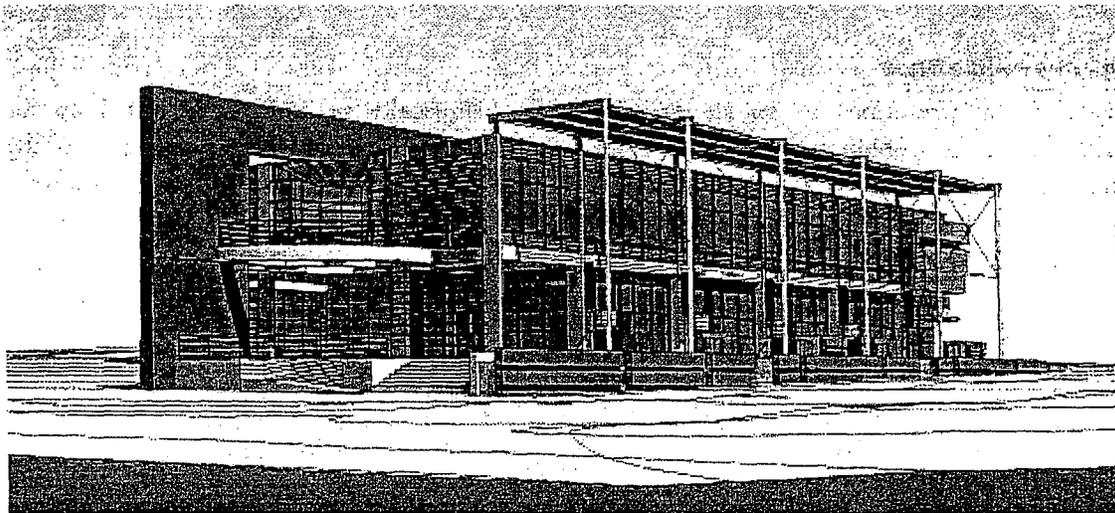
Storage, limited to self-storage units and storage of vehicles, which are behind a wall and not visible from the surrounding neighborhood.

Restaurants with a drive-in facility for take out orders.

Architecture

In many places, major buildings such as a county courthouse or church serve as focal points of the community. Because of the activities they accommodate and their importance to public life, these buildings are often of finer materials and/or receive a higher level of attention to architectural design than other buildings.

While a high level of design is encourage in all buildings, in Mariposa East the Community Center, designed by Antoine Predock and the Town Center buildings, designed by Bill Sabatini, of Dekker, Perish, Sabatini, should be considered icon buildings and are designed to set the tone for the mixed use area as well as the entire community. These building will be constructed early in the development phasing to encourage outstanding architecture throughout the community.

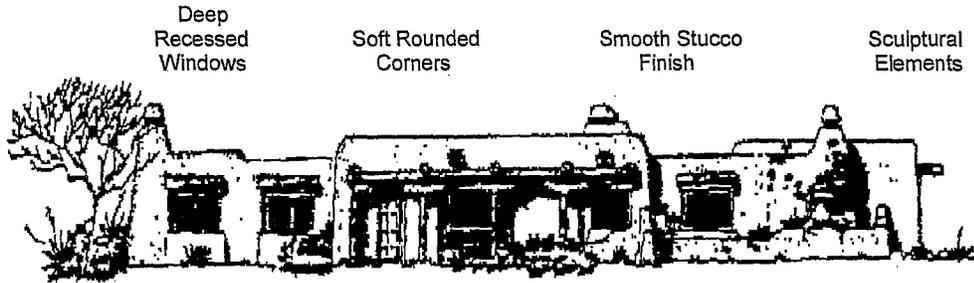


The buildings in the *Town Center* should be contemporary in nature, however, elements of architectural styles other than contemporary can be introduced with approval by High Desert and then the City of Rio Rancho.

If residential, whether single family or multifamily is developed within the mixed use center, the following is a description of the residential architectural styles which are allowed and a description of how those styles should be applied. Other architecturally relevant styles may be considered and approved by High Desert.

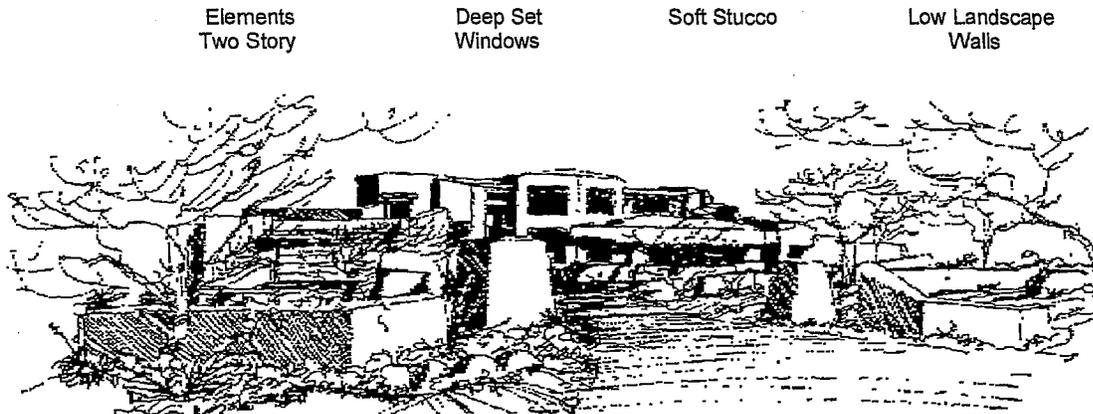
Pueblo Style

Pueblo style is walled architecture recalling the low adobe, flat roofed dwellings of the northern New Mexico Pueblo Indians. Characterized by the "Pueblo Revival" buildings of historic Santa Fe, pueblo style incorporates deep-set doors and windows, dramatically recessed portals or patios, walled entry corners and edges, radius corners and edges, and is always finished in earth tone adobe. The pueblo style uses no arches or pitched roofs and relies exclusively on post and beam or bearing wall construction. Interesting massing and soft edged smooth stucco are distinctive features of this style.



Contemporary Pueblo Style

Contemporary interpretations of pueblo style must be historically or stylistically based on the traditional pueblo or pueblo revival architecture, but with skill and sensitivity can successfully incorporate large glass areas and higher ceilings and walls, crisper lines, nontraditional geometric forms and may include combinations of stone and more contemporary materials without losing the sense of strength and mass of the thick adobe walls. This architectural style is often characterized by the absence of nonfunctional decoration and the lack of traditional pueblo decorative ornamentation or detailing.



Territorial Style

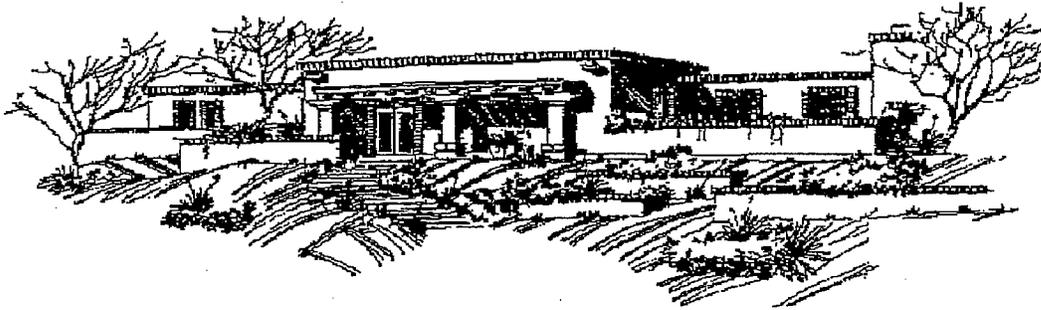
Territorial style is walled architecture, which simulates the low, flat roofed dwellings of territorial New Mexico, during a period when sawmills and brick kilns were first introduced into New Mexico. Brick copings, on the parapet caps, wood columns and decorative wood door and window casings, characterize the style. The territorial style uses no arches or pitched roofs and relies on post and beam and bearing wall construction. Stucco, brick or frame construction, means doors and windows may not be as deeply set, and the edges and corners are not as soft as in the Pueblo style.

Brick or Tile Caps
on Parapets

Flat Roofs
with Low Parapets

"Walled In "
Courtyards

Low Landscape
Walls

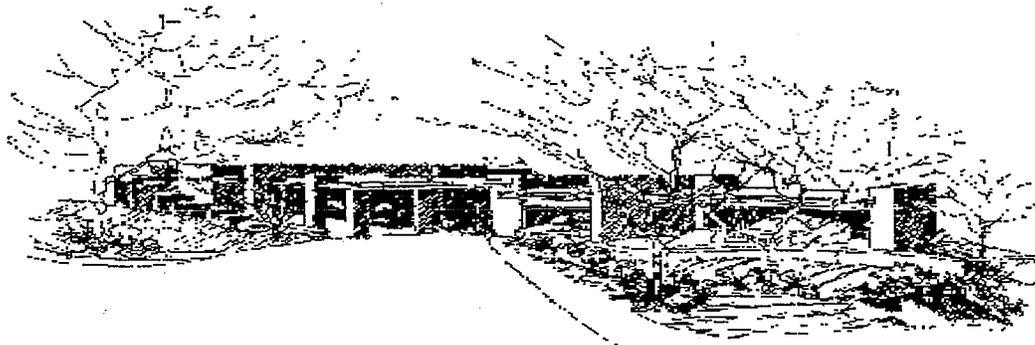


Contemporary Style

Although contemporary architecture is a somewhat ambiguous label, at Mariposa it refers to buildings created today, whose interpretive art form may or may not be historically or stylistically based. Contemporary design embraces the modernist's exploration of technology and new materials and may result in buildings of lighter weight and often unusual or non-classical geometries. To make them more compatible with the Mariposa environment, contemporary style should incorporate set backs and overhangs, interesting use of windows and window setbacks, be carefully integrated with their sites and incorporate strong horizontal lines. With care, contemporary designs can be climatically derived, sensitively and indigenously structured while exploring non-classical and non-stylistic forms, geometries and spaces, and result in highly compatible, environmentally appropriate architecture. Contemporary architecture at Mariposa should reflect the timeless qualities that are always associated with great design and not rush to embrace fleeting fads.

Smooth Plaster Walls, Split Face Block or
Stone, Colored Concrete

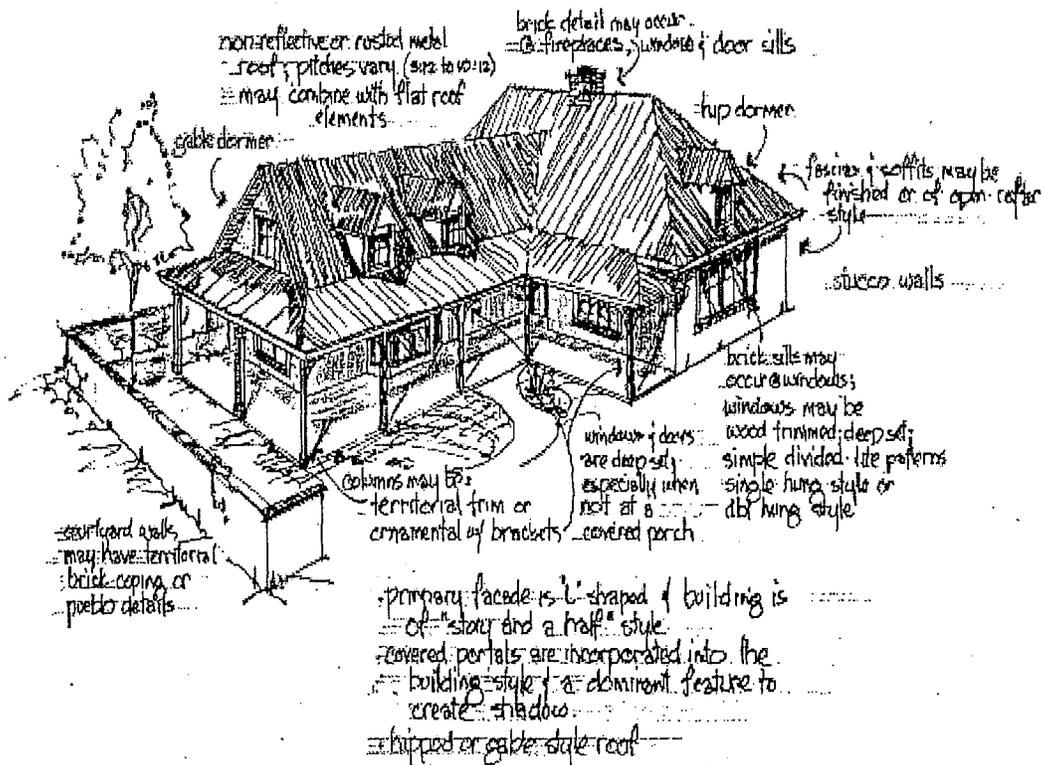
Multi-stepped Wood Fascia



Northern New Mexico Style

Northern New Mexico style, as defined for Mariposa, is most notably characterized by the metal roof. Historically, the metal roof became the preferred method of protecting the exterior stucco surfaces of adobe and territorial facades of homes in the mountainous regions of our state. It is characterized by non-reflective gray metal roofs, hipped and/or gabled, and may include traditional dormers or gable end dormers. Pitches may vary from building to porch or from one roof plane to another; are not greater than 12:12 or less than 3:12 pitch. Column details may be territorial, have ornamental brackets or even have traditional pueblo round viga posts and corbels. Window details may be territorial or pueblo, but in all cases should be recessed not less than 2" from the exterior of finished stucco exterior wall. Bay windows may occur. Overhangs may be finished with fascias and soffits, or open rafter style, are not greater than 24", or 12" at dormers. Brick details may occur at chimney caps, door and windowsills and topping courtyard walls.

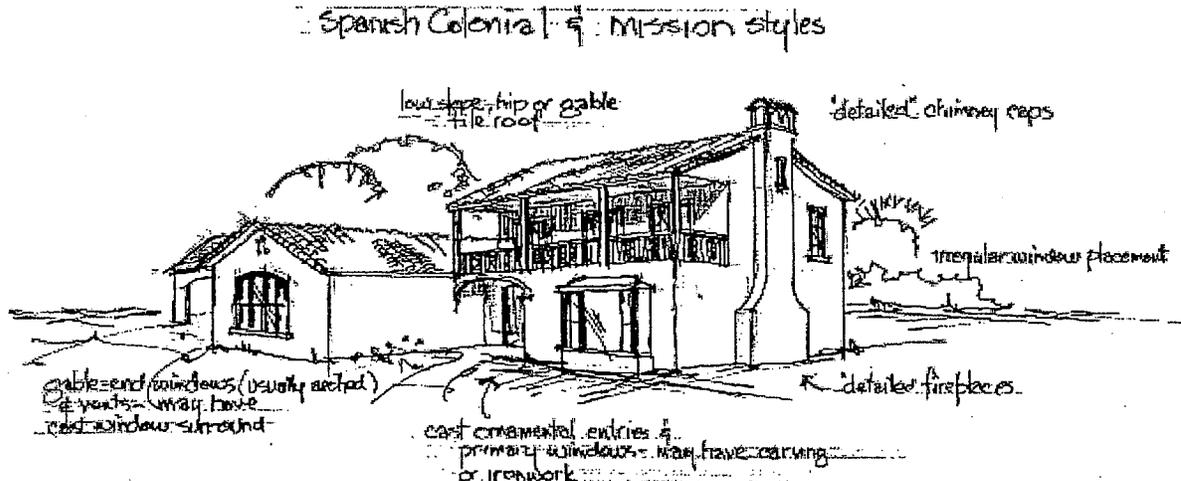
Historically, roof spans were much short than those employed today and as a result traditional northern New Mexico style homes kept very much to scale with the walls that supported them. Since spans of today's trussed roof buildings are greater and have a tendency to create a non-characteristic overstated roof, some flat roof areas with territorial brick parapets or soft rounded pueblo parapets may be used in conjunction with the metal roof. Alternatively, large spans may be broken up by varying plate heights so roofs do not overwhelm the structure.



Spanish Colonial/Spanish Mission Style

Spanish Colonial and Spanish Mission styles, while characterized as uniquely different, have often been used in New Mexico with overlapping components.

The clay tile roofs that characterize this style are most often low slope, less than 6:12 pitch, primarily gable end style. Spans of the pitched areas are usually quite short, so varying plate heights for different roof planes is strongly encouraged to keep the character of the style from being overwhelmed by an out of scale roof. Pueblo flat-roof parapets may be used in combination with the tile roof areas to minimize the scale of roofed areas. Overhangs are typically open rafter or short with stucco detail. Gable-end features may include ornamental windows or round tile attic vents. Window placements are irregular and deep set; in all cases at least 2" back from the exterior wall surface. Fireplaces vary from top to chimney and caps are detailed. Ornamental windows with iron detailing are common, as are entry doors. Second floor porch rails and columns are most often wood.



Materials and Colors

Similar building materials and colors within the *town center* should generally follow the first office building proposed for the *town center* and the *community center*.

The *General Mixed Use*, whether residential, non residential or mixed use, should have exterior surface materials that harmonize with the natural landscape and acknowledging the fact that these building are in a special mixed use area. This may include the traditional materials with additional elements or different colors added or consistent with the materials and colors used in the town and community centers.

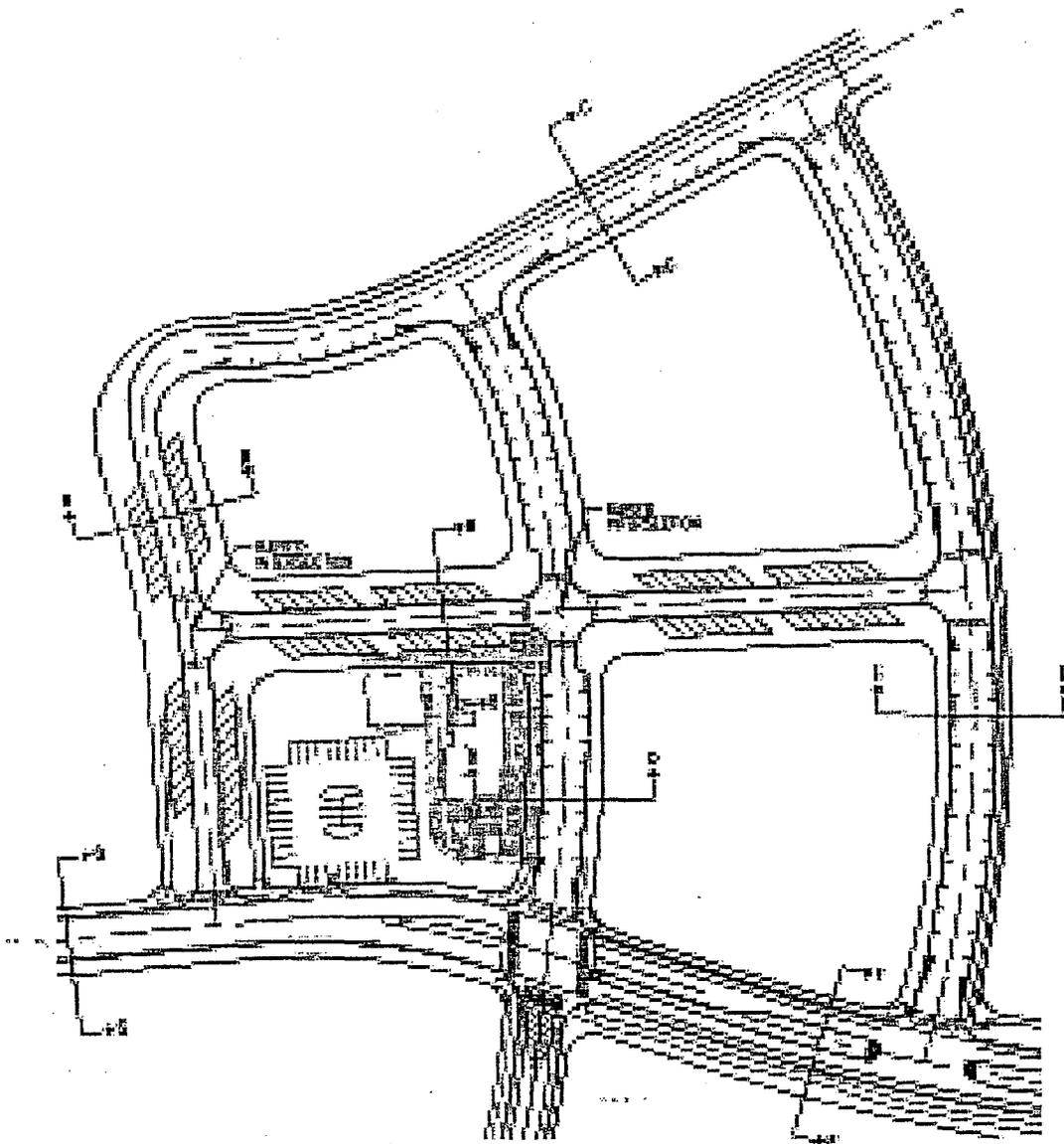
The *Public Park* will incorporate structures that use similar colors and materials as the community center and/or the town center.

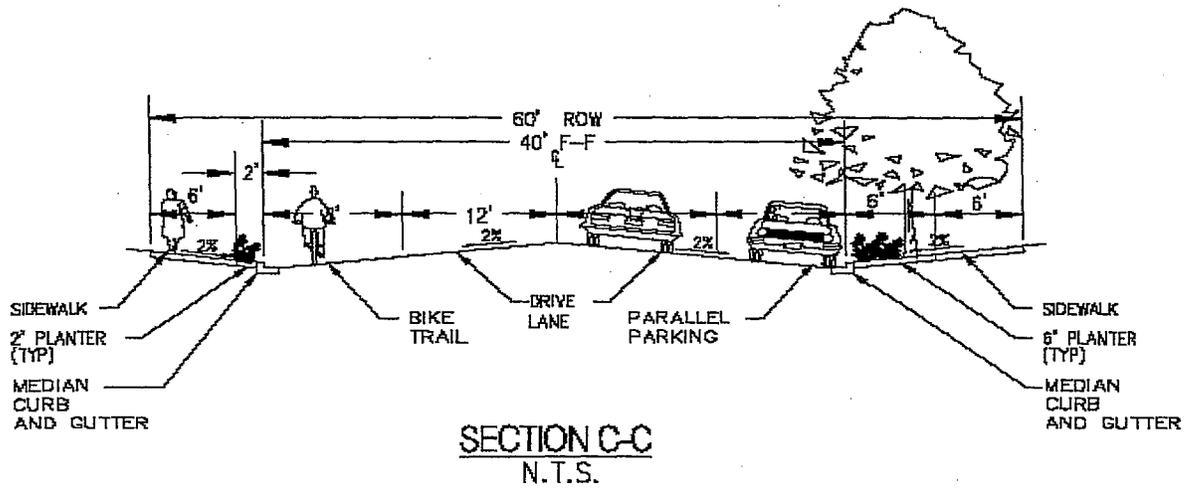
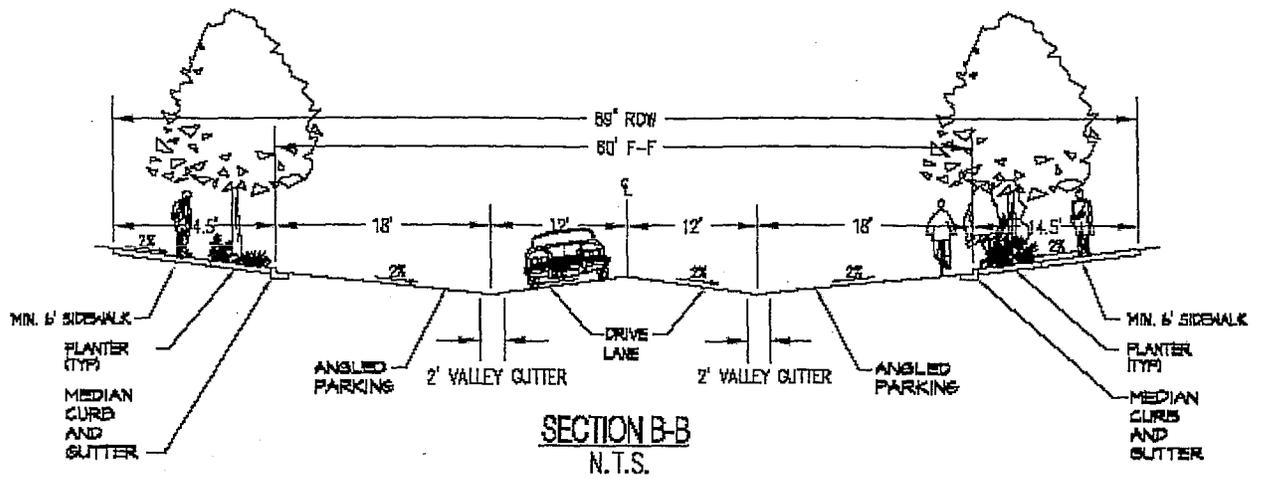
Site Planning

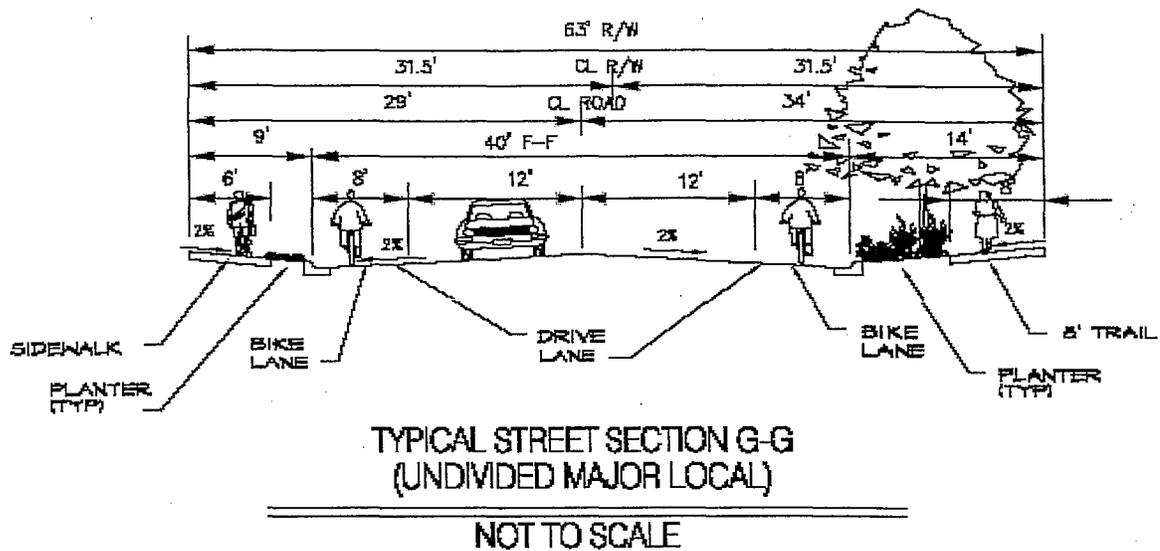
Site Planning at Mariposa is the melding of a number of design and land planning principles, which will allow the vision for this exceptional community to become a reality. Commitment to conservation, preservation and the enhancement of the natural environment is balanced with sensitivity to the economy and efficiency of contemporary building and construction.

Each individual site plans will address the specific requirements of the City of Rio Rancho MU-A check list for individual site plans.

Transportation







Any other streets will adhere to the approved street sections in the adopted master plan.

Parking

The design objective of the parking areas, whether residential, non-residential, or mixed use, is to provide adequate parking while minimizing the overall impact of the parking areas.

Within the entire mixed use district, the minimum number of parking spaces is based on the use as listed under the MU-A zoning district of the City of Rio Rancho Zoning Ordinance. Since the exact uses are not known, the required number of parking spaces can not be calculated in advance. The calculations will be submitted with the individual site plans. This will include spaces for bicycle and handicapped parking.

Like many new and old town centers on street parking is an important element in creating the town center streetscape and interaction. The *Town Center* will provide both on site and on street parking. Although there are four tracts that make up the *Town Center*, the design of the parking, pedestrian circulation and building siting is created to give the feel and dynamics of one town center. The main focal point of the *Town Center* is the main intersection of the four tracts. The radius distance from that point to anywhere within the *Town Center* is not more than 450 feet, easily within walking distance. All the required parking for the *Town Center* will fall within that distance. Shared and on street parking is encouraged and shared parking agreements will be executed as individual development takes place.

Building Heights

The maximum building height allowed is 48 feet.

The building height is measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or highest level of a flat roof. The height of the parapet walls may vary depending on the need to screen mechanical equipment. Building height to the ridge of a pitched roof structure may vary depending on the roof pitch.

Building Footprint

The maximum allowed building footprint is 15,000 sf for ground floor unless a conditional use is granted which would allow buildings with larger footprints up to 50,000 sf.

Landscaping

Landscape Concept

The intent of the landscape program at Mariposa is to blend the built environment with the landscape by extending the high desert plant communities and ecosystems in to all areas of the landscape. The understanding of the diversity local ecosystems and use of native plants is a critical element in the landscape program. Refer to the Guidelines for Sustainability for a listing of approved plants for use in the landscape as well as installation techniques for plant material and water harvesting structures.

Landscape Zones

A general rule of thumb is to group plantings by similar water needs by concentrating new vegetation in deliberate and strategic locations. This will promote the health of plant communities by ensuring that plants are receiving the appropriate amount of water and reducing potential stress on plants. By selecting native and low-water-use plants, maintenance and water use costs are reduced. Exotic species generally require more water, nitrogen-based fertilizer and pesticides—thereby reducing the overall health of the ecosystem.

1. Urban (Parks, Plazas, Village Core Streetscapes) -- Parks and plazas should have sufficient open areas for play and gathering. Native grasses such as blue grama will be used in place of blue grasses requiring more water except for sport areas that require the installation of such non-native grasses.)
2. Formal -- These areas will install the drought tolerant, predominantly native plant material in a more formal manner to create a theme. These areas are along streets, entries to neighborhoods, parks and some of the front yard areas of the higher density neighborhoods. These areas are commonly found in the neighborhood production homes sites and the mixed-use areas.
3. Oasis -- An Oasis is defined as the home landscape for private areas enclosed by walls or in courtyards created by the building or wall. Homeowners can select from native and some non-native plants from which they can personalize their own oasis. Water harvesting is required of each homeowner in order to take advantage of surface water flow during large rain events, as well as the capture of any runoff from the roof and hardscape.
4. Native/Natural Areas -- Areas where the natural state is the permanent feature of the landscape. Restoration of landscape is required in the event that damage is caused as a result of construction. Supplemental plantings of native plants to these areas is allowed as long as it is presented in a random natural grouping and not a formal, linear form.

Common Area Landscaping Concepts

High Desert will install and the Association will maintain all landscaping in common open space areas, common areas, parks, right-of-ways and entries, unless a different agreement is reached between the parties. A conceptual landscape plan must be submitted to and approved by High Desert utilizing drought tolerant, predominantly native plants.

Street Landscape Zones

The street landscape zones that will be installed by High Desert are conceptually depicted in the diagram below and consist of:

1. Formal Village Core Streetscape – Street trees in sidewalk cutouts, in formal orientation.
2. Neighborhood Entry – All entries will feature similar formal layout.
3. Formal Road Streetscape – Occurs on streets such as Academy Road bound by walls on both sides of the street, formal planting of large masses of monoculture shrubs and street trees.
4. Native Streetscape – The native pallet of landscaping generally occurs along streets that run parallel to arroyos, where streets cross arroyo systems and in the Estate areas of Mariposa. This landscape is designed to reinforce the natural landscape of these areas.
5. Formal and Native Streetscape Interface – Blends landscaping of formal and native plantings.
6. Native Wildflower Zone – Periodic wildflower planting in mass swaths of color, especially at key intersections.
7. Existing Native Landscaping – Existing native landscaping along Mariposa Parkway and other arroyos systems will remain undisturbed.

Common Area Irrigation Systems

The Irrigation System for the Common Areas of the Mariposa Community is a single interconnected and centrally controlled system installed by High Desert and maintained by the Association. As new common areas are developed, either by High Desert or other developers, it is important that all irrigation systems be compatible and connected to the Master Irrigation System infrastructure. The system is designed to operate with either potable water or reuse treated effluent. However, as soon as sufficient treated effluent is available all systems shall use reuse water for common area irrigation. The master irrigation system is centrally controlled and designed to minimize water use, detect leaks, adjust to weather conditions and problems and will be managed by the association.

Irrigation Systems Installed By Others

All irrigation plans must be submitted and approved by High Desert prior to installation. Water use for each system added must be identified on each system design plan. All irrigation systems must use irrigation parts that are compatible to the centrally controlled master irrigation system design for common areas within Mariposa and installed by High Desert. All irrigation plans must be developed electronically for compatibility and a digital file must be submitted upon approval.

Master Irrigation System GIS File

High Desert has developed a digital and graphic Irrigation Master Plan and maintains this information in a Geographic Information System (GIS) file showing location and other pertinent irrigation system information in both mapping and database formats. This GIS database will include all projects associated with common area landscapes including those submitted by other developers.

The Mariposa master irrigation system GIS file is generated in ESRI ArcMap (version 9.0 or later). All final irrigation system data must be submitted in both hardcopy and digital format (either CAD or GIS)

so that it can be directly integrated (or easily converted) into the existing electronic Irrigation Master Plan. The acceptable data formats are AutoCAD 2000 (or most recent version) and ESRI ArcMap shapefiles (version 8.3 or later).

Digital files for all final irrigation plans submitted by other developers must contain the Mariposa survey benchmarks, which will be provided by High Desert in an irrigation system template. This will allow the Mariposa irrigation system GIS to be easily updated as new common areas are developed.

Lighting

Night Sky Protection

Preservation of dark skies is an important quality-of-life component of Mariposa. Implementation of dark sky criteria at Mariposa will set a high standard for exterior lighting and will be required in the mixed-use area.

Lighting Types And Function

1. Site Lighting -- Accent lighting used on the ground, mounted in trees or walls to highlight landscape features at parcel entries only. It can be used for safety or decorative purposes.
2. Architectural Lighting -- Mounted lighting for the purpose of providing general, area, security or decorative illumination at parcel entries or on buildings in the town center.
3. Pedestrian Lighting -- Used especially in the village center and along major sidewalks, fixtures should be placed 20' O.C.; 12 to 18 feet in height. Combine lighting poles with other utilitarian features along sidewalk to reduce visual and physical clutter (i.e. parking meters, banner poles, bike racks, transit stop signage)
4. Street Lighting -- The approved Mariposa street light is an anodized bronze fixture, shoebox shielding, with cut-off lenses, to minimize light pollution. Spacing of street lighting will generally be at intersections and end of streets. A different style fixture may be installed, with approval by High Desert, which would better meet the lighting and design needs of a specific area such as the *Town Center*.

The recommendations and requirements that shall be used are as follows:

1. Lighting should be directed downward.
2. No lighting in the Preserve or common open space areas.
3. Shielding and filtering is required to limit the amount of light emitting from the fixtures.
4. Should consider installation of the most energy efficient light sources, ie fluorescent or solar.
5. High Desert must approve all fixtures.
6. Coordinate landscaping and lighting elements to minimize potential for shadows by using a mixture of street and pedestrian lights and minimizing shadows caused by the conflict between a street light and a street tree.

Prohibited Lighting at Mariposa include:

1. Metal halide
2. Mercury Vapor
3. Quartz

4. Laser light or similar high intensity for advertisement or entertainment
5. Searchlights

Signage

The objective of a signage program is to create one that is unobtrusive and as integral to the environment and architecture as possible. All signs must be approved by High Desert before submittal for a permit by the City, if required. All signs at Mariposa will conform to a unified standard and will comply with City sign codes.

Requirements and Recommendations:

1. No sign or sign structure shall be placed or erected in any place or manner that will obstruct safe visibility for vehicles and pedestrian traffic.
2. Only text and graphics for signs may be internally illuminated; the sign face must remain opaque and be sealed at the seams to eliminate light leaks.
3. Externally illuminated building mounted or entrance signs are allowed as long as the light source is not visible from adjacent properties or public rights of way.
4. Kiosks are allowed and will be reviewed and approved by High Desert.

Prohibited Signage include:

1. Attached cloth or metal canopies with lettering
2. Banners with lettering
3. Painted lettering/symbols on windows
4. Building Mounted signs that exceed the height of the building parapet
5. Backlit box or reader board signs with lettering
6. Murals

Resource Conservation

The entire community of Mariposa is based on the principles of conservation that will yield an improved quality of life and sustainability. Mariposa embraces the concept of sustainable design and development, which includes resource conservation.

Water Conservation

Water is the most precious natural resource in New Mexico and the American Southwest. The economic and environmental health of the state and region is dependent upon the responsible use of our water resources. It is the goal of Mariposa to provide a model of community development, which utilizes the most progressive techniques in water conservation practices. Careful planning and thoughtful design can demonstrate that water conservation is possible without sacrificing lifestyle choices.

Water conserving appliances and fixtures are now commonly available in New Mexico and must be specified for installation. Designers should strongly consider dual plumbing systems to integrate both potable and gray water lines.

1. Specify plumbing fixtures that require less water and exceed fixture requirements of the Energy Policy Act of 1992 (in gallons per minute or gallons per flush). The following flow rates indicate a 20% reduction in the fixture requirements as stated in the Act:
 - a) Lavatory and Kitchen Faucets 2.2 GPM @ 80 PSIG
 - b) Showerheads 2.0 GPM @ 80 PSIG
 - c) Gravity Type Tank Toilets 1.6 GPF
2. No individual wells are allowed at Mariposa.
3. Irrigation systems must be designed so that peak summertime watering can be completed between the hours of 10pm and 6am.
4. Must install water conserving fixtures and appliances i.e. Energy Star* pursuant to the state of the art Green Building Standards per the adopted Master Plan.
5. There is much debate about the water efficiency of refrigerated ac units and evaporative coolers. While the evaporative cooler uses more water than an ac unit, it does take 4 times the amount of electricity to run an ac unit which causes the electric plants to use more water to generate this additional electricity. The most important issue no matter which cooling system is installed is the design of the system itself. This involves more than using the rule of thumb of a unit for x square feet of area to be cooled. It means using a recognized resource such as the Manual J, to help determine the number, location and size of the units. In this case efficiency in design is the most important factor.
6. Mariposa's water budget (balance) assuming reuse to augment outdoor landscaping demand, has the potential to minimize overall reliance on potable water supplies. The water conservation model performed for Mariposa summarizes this, based on the implementation of water conservation and reuse techniques.
7. Use of quality pipes, fittings and valves for leak resistance. Also recommend testing, such as Zero-Read, for leaks.

Drainage and Surface Water Management

Natural Rainfall is a precious resource and should be managed to help sustain the community and the surrounding region. Surface water management is the opportunity to manage the rainfall runoff for beneficial purposes including reduction of construction costs, improved ecosystems and habitats, sustainability of natural drainage patterns and arroyos after development and a return of water to the aquifer; while at the same time managing storm-water flows and drainage in a safe manner approved by the necessary governmental authorities.

Rainwater Collection and Harvesting

Rainwater catchment systems provide a source of soft, high quality water, reduce reliance on other water sources, and in New Mexico, are cost-effective. It is strongly recommended that roofs and hardened surfaces be designed to capture rainwater during storm events and transport it to cisterns or other storage devices for later irrigation use.

Rainwater Harvesting Components:

1. Roof designed as a rainwater catchment area.
2. Downspouts connect to underground cistern.
3. Underground cistern.
4. Irrigation line from cistern to irrigation areas.
5. Hardened surfaces, such as driveways designed to transport flow to surface catchment system.

Energy Efficiency

Mariposa recognizes energy efficiency as one of the most critical aspects of sustainability. The Founder makes a commitment to using renewable sources of energy as well as high standards for energy efficient buildings. The use of natural ventilation, cooling and heating to a practical extent is encouraged.

Indoor lighting and air quality are also special components of this efficiency equation. Tighter roofs, walls and foundations will require Mariposa to address occupancy loads in many of the buildings for air quality requirements and apply the appropriate systems to address these needs. Lighting will be accomplished utilizing day lighting techniques in combination with energy efficient electric lighting.

Building Envelope

The single most important component of an energy efficient building is the performance of the building's envelope. Proper detailing, adequate insulation and appropriate specification will result in buildings that are energy efficiency while also lower operating costs and increasing user comfort. In order to meet the Mariposa commitments for energy efficiency, the following minimum requirements for building R-values should be followed. (This does not insure compliance and should be considered a starting point only.)

Walls – R Value of 20 for exterior wall insulation

Roof - R Value of 38 for Sloped Roofs and R Value of 30 for Flat Roofs

Windows- R Value of 2.63

Windows And Glazing

One of the most misunderstood components of the building envelope is the windows and glazed areas. This is unfortunate, because often windows can be the single most important envelope component because their impact on heating, cooling, lighting and ventilation. Glazing should be selected based on several criteria among them energy performance, daylight contribution, architectural integration, occupant comfort and cost.

Natural and Renewable Resources

Normal home building practices can consume and even waste large quantities of natural resources such as wood, cardboard, plastic and water if not managed carefully. At Mariposa the issue of water conservation, re-use surface water management and water harvesting are discussed in this and other sections of these Guidelines. The main subject of this section deals with the efficient and environmentally conscious use of natural resources such as; wood, cardboard, metal and plastic, both during the design phase of your home as well as during construction.

Building Materials

Material selection is a complex process involving many variables, and considering green building materials can add time and money but more materials are being made available which, when used enough, will reduce the price. It is a fairly new science but one that is a growing and dynamic. Selection of green materials typically involves a review of the product's life cycle impact on the environment, which includes the raw materials used, production process, the transportation, and the disposal, recycling or reuse properties.

When selecting materials to use in the construction of an energy efficient home, the following attributes should be considered.

Renewability

Materials that are rapidly renewable (growth period) and are derived from biological resources such as trees and agricultural products. Examples include bamboo, cork, natural linoleum and some types of wood and engineered wood products.

Recycled Content

Materials with recycled content are available for many types of building products and this technology constantly improving. Examples include Rialtra, types of insulation, recycled plastic lumber and carpet made from recycled materials.

Reusability/Recyclables

Is how easily a product may be reused or recycled once it is no longer needed. Products that can be separated from other materials for reuse or recycling. Examples include metal roofing, lumber and windows and doors.

Durability

This describes the expected maintenance and service life of a product. A low maintenance product with a long service life is preferred.

Embodied Energy

This is the energy required to remove, process, package, transport, and install, dispose (recycle) of materials used in the construction of a home. Up to 70% of the total energy invested in a building's construction is embodied

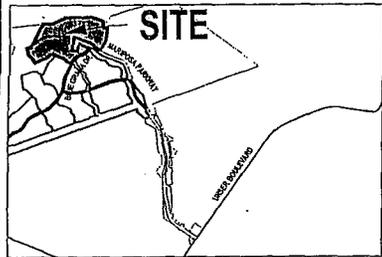
Environmental Impact

Refers to a products or materials effect on the outdoor environment. Select materials that minimize negative impacts on the ozone and add to global warming thru chemical release as well as minimizing release of toxic waste.

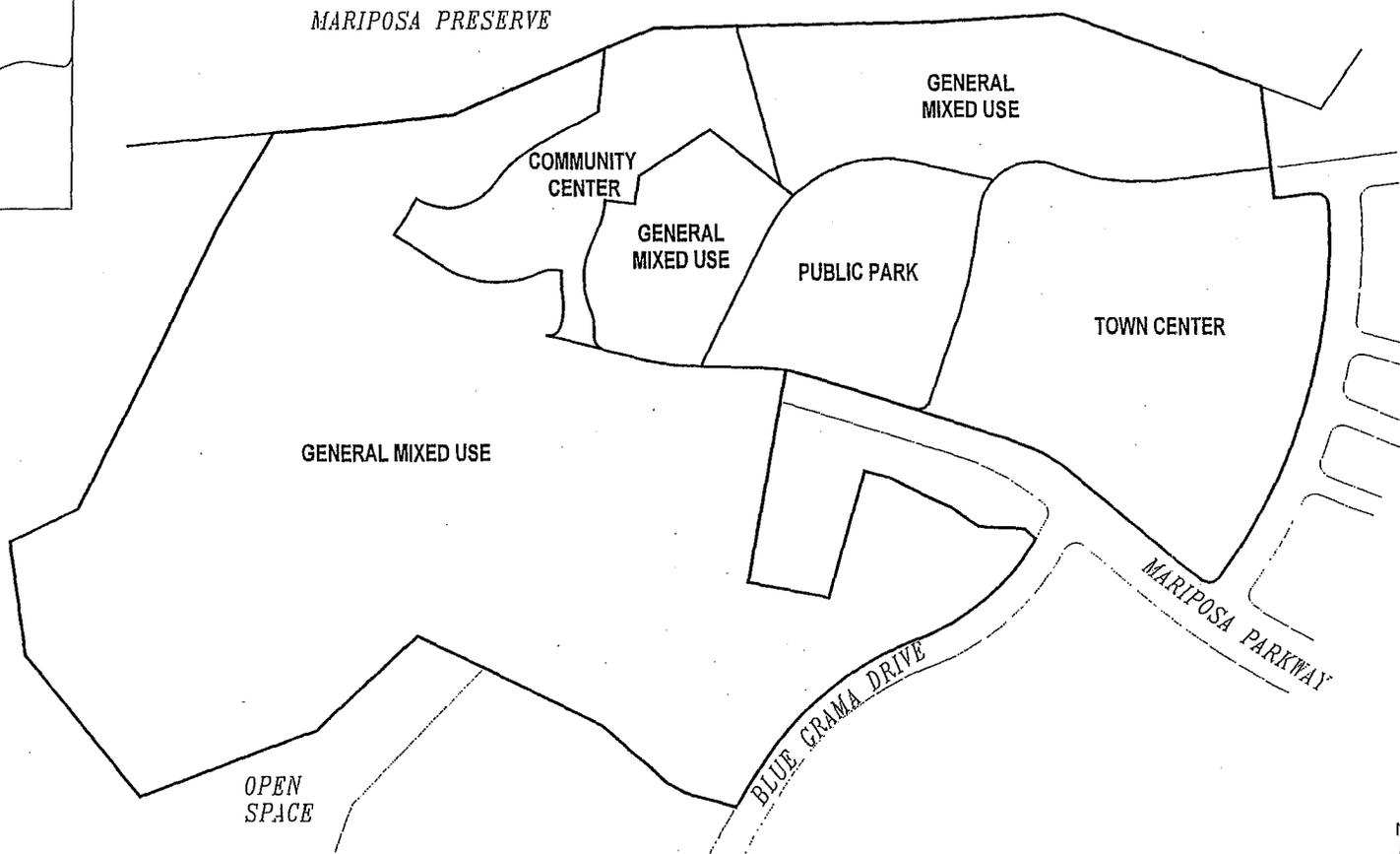
Land

The site planning philosophy of Mariposa is careful integration of the built environment to their natural surroundings so as to limit the intrusion and impact on the natural environment. With the Mixed Use Area there will be areas such as the town center (7 acres), which will be an entire built environment while there will areas designated as open space where there will be no buildings. Within the General Mixed Use , a large portion will be left undeveloped with "islands" of development.





VICINITY MAP
N.T.S.



N.T.S.

MARIPOSA EAST
 MIXED USE ACTIVITY CENTER
 DISTRICT MAP
 NOVEMBER, 2005





**CITY OF RIO RANCHO
RESOLUTION**

RESOLUTION NO. 104

ENACTMENT NO. 07-103

A RESOLUTION APPROVING AN AMENDMENT TO THE MARIPOSA MASTER PLAN.

WHEREAS: The State of New Mexico has granted the City of Rio Rancho the power, authority, jurisdiction and duty to enforce and carry out the provisions of law relating to planning, platting and zoning pursuant to Section 3-19-1 et. seq. NMSA 1978, as amended; and,

WHEREAS: The Governing Body of the City of Rio Rancho has adopted a Comprehensive Plan that determines the Hierarchy of Plan Development. A Level 5--Specific Area Plan considers a smaller geographic area of the City (minimum of 20 acres, consistent with community-scaled development) and usually addresses specific issues such as architectural control and design guidelines or buffering or transportation access elements. These plans generally detail principles, policies and actions identified within the *Vision 2020-Integrated Comprehensive Plan*; but specific to a small area within the City; and,

WHEREAS: The Governing Body of the City of Rio Rancho recognizes the need for long range, integrated comprehensive planning to direct future growth and development of the City; and,

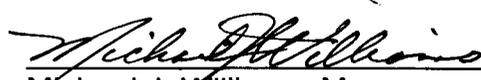
WHEREAS: *The Vision 2020-Integrated Comprehensive Plan* is intended to be used as a living, breathing document and may be amended from time to time to reflect changing conditions and/or the desires and directions of the Governing Body; and

WHEREAS: The Governing Body of the City of Rio Rancho has determined that the amendment to the *Mariposa Master Plan* is in conformance with the *Vision 2020-Integrated Comprehensive Plan*.

NOW THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF RIO RANCHO:

That the Governing Body hereby approves the amendment to the *Mariposa Master Plan* as attached hereto as Exhibit A.

ADOPTED THIS 12TH DAY OF DECEMBER, 2007.



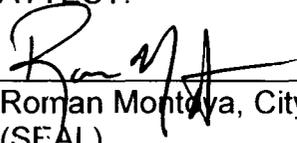
Michael J. Williams, Mayor

12/14/07

Date

1
2
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5
6

ATTEST:



Roman Montoya, City Clerk
(SEAL)

Lot Sizes, Setbacks and Water Conservation

Building setbacks may be reduced in some cases in Mariposa in an effort to minimize water and energy use for landscaping, create more useable space, allow for more diversified streetscapes, enhance walkability, and to allow densities in support of sustainable development. Setbacks at Mariposa are listed below. All measurements are in feet.

Zone District	Front	Side	Rear
E-1	BE ¹	BE	BE
R-1	BE/10 ² /25G ³	BE/5	BE/15/5G ⁴
R-4	10 ² /25G ³	5	10
R-5	10 ² /25G ³	5	10

¹BE indicates Building Envelope

²Also applies to garage with door that is perpendicular to the front property line/street or that is rear-facing. Garage must incorporate architectural elements (e.g. windows) that are similar to those applied to the primary dwelling unit.

³Applies to garage with door that faces the front property line/street.

⁴Applies to garage set back from rear property line, provided that:

1. Except for structures permitted to project into the required setbacks of the R-1, Single Family Residential, District as noted in the *Code of Ordinances*, only private garages, as defined by the *Code of Ordinances*, are permitted within the rear garage area (defined as the area bounded by the 5-foot side setbacks, 15-foot rear setback and 5-foot rear garage setback);
2. The sum of all private garage area within the rear garage area shall not exceed 50 percent of the rear garage area;
3. All alley-loaded private garages with doors that face the rear property line/alley shall abide by the 15-foot rear setback. Alley-loaded private garages with doors that are perpendicular to the rear property line/alley or that are front-facing are permitted within the rear garage area.



CITY OF RIO RANCHO
ORDINANCE

ORDINANCE NO. 92

ENACTMENT NO. 07-90

1 AN ORDINANCE AMENDING THE ZONING DESIGNATION OF THE PROPERTY
2 ZONED BY ORDINANCE NO. 6, ENACTMENT NO. 02-05, ALSO KNOWN AS
3 MARIPOSA, BY ADOPTING AN OVERLAY ZONE THAT SPECIFIES ADDITIONAL
4 ZONING AND DEVELOPMENT STANDARDS AS NOTED IN THE MARIPOSA MASTER
5 PLAN.
6

7 NOW THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF
8 RIO RANCHO:
9

10 **Section 1. Purpose:** To amend the zoning designation of the property zoned by
11 ordinance No. 6, Enactment No. 02-05, also known as Mariposa, by adopting an
12 overlay zone that specifies additional zoning and development standards as noted in
13 the *Mariposa Master Plan* adopted by Resolution No. 9, Enactment 02-07 and
14 amended by Resolution No. 104, Enactment 07-103.
15

16 **Section 2. Land Use and Development:**

- 17 A. Permitted and conditional uses shall be per the underlying zoning districts.
18 B. Development shall occur per the *Mariposa Master Plan*. All zoning and
19 development standards within *Mariposa Master Plan* shall prevail if a conflict
20 exists between said standards and the City's *Code of Ordinances*; provided,
21 however, that the property may be developed in accordance to the *Code of*
22 *Ordinances*.
23

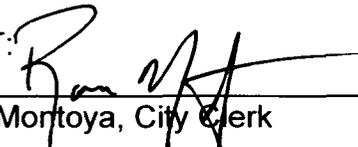
24 **Section 3. Severability Clause.** If any section, paragraph, clause, or provision of
25 this Ordinance, or any section, paragraph, clause, or provision of any regulation
26 promulgated hereunder shall for any reason be held to be invalid, unlawful, or
27 enforceable, the invalidity, illegality, or unenforceability of such section, paragraph,
28 clause, or provision shall not affect the validity of the remaining portions of this
29 Ordinance or the regulation so challenged.
30

31 **Section 4. Effective Date.** This Ordinance shall become effective ten days after
32 adoption.
33

34 ADOPTED THIS 12TH DAY OF DECEMBER, 2007.
35

36
37 
38 Michael J. Williams, Mayor
39

40
41 12/14/07
42 Date
43

41 ATTEST: 
42 _____
43 Roman Montoya, City Clerk
44 (SEAL)